Reference Manual for EL470 IP Satellite Modem

version 3.1

SHAPING THE FUTURE OF SATELLITE COMMUNICATIONS

Newtec

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ABOUT THIS MANUAL

This manual provides a detailed overview of the commands used in this device. Here you can find a description of the function of the command, the possible values and structures of the commands and the information you need to be able to enter commands using RMCP or SNMP.

Cautions and symbols

The following symbols appear in this manual:

A hint message indicates information for the proper operation of your equipment, including helpful hints, short cuts or important reminders.

A reference message is used to direct to an internal reference within the document, a related document or a web-link.

Version history and applicability

Document version	Date	Subject	Comment
Version 1.2	May 14th 2008	EL470	Initial release
Version 1.3	July 22nd 2008	EL470	Feedback Implementation
Version 1.4	November 6th 2008	EL470	GbE R6
Version 1.5	December 8th 2008	EL470	Remove ASI alarms
Version 2.0	February 26th 2010	EL470	Release 7
Version 3.0	September 30th 2010	EL470	Release 8 AES, GSE, DC BUC Power
Version 3,1	September, 2011	EL470	L-band Transmit: always enabled Tx supression on demod unlock

Related documentation

- EL470 User Manual: this manual gives a general description of the device, its technology and its features. It also explains a number of use cases with step-by-step configuration instructions.
- RMCP and SNMP manual.

Request a RMCP and SNMP manual via the Newtec Service Desk tool:
> Browse to http://customersupport.newtec.eu
> Fill in your Username and Password
> Create a ticket
As response of your request you will receive the manual from our support team.
In case you don't have a Username and Password yet for the Newtec Service Desk tool request a login to customersupport@newtec.eu

Applicability

Product range

Elevation

Software ID

M&C ntc6279

Software versions

Release 8.1

Feedback

Newtec Cy N.V. encourages your comments concerning this document. We are committed to providing documentation that meets your needs.

Please send any comments by contacting us at **documentation@newtec.eu.**

Please include document and any comment, error found or suggestion for improvement you have regarding this document.

TABLE OF CONTENTS

1 INTRODUCTION

Contents of the Document

This manual is the reference guide of the EL470. It provides a detailed description of the parameters:

- Chapter 2 gives an overview of the menu structure.
- Chapter 3 describes the User menu parameters.
- Chapter 4 describes the Unit setup, control, monitor and architecture parameters.
- Chapter 5 describes the IP Satellite Modem specific parameters.
- Chapter 6 describes the Alarms.
- Appendix A describes how to configure Action Keys.
- Appendix B describes a brief guide on Troubleshooting.
- Appendix C gives a list of Abbreviations.
- Appendix D gives a list of all Commands in this manual.

Searching parameters in this Manual

The parameters you find in the Menu Structure section on page 8 of this manual are organised in the same order as the menu tree of your IP Satellite Modem. Depending on hardware installed and on software capabilities, you may not have access to some of the menu items described in this manual.

The menu structure of any Newtec Cy N.V. device is built dynamically depending on its configuration.

The list of parameters is rather extensive. You can choose between three types of navigation:

1. A classic contents list, list of figures and abbreviations list as described in the table of contents.
2. A tree structure of variables in the IP Satellite Modem. The tree structure of the variables visualised on the next pages provides, in a very compact way, the menu structure of the IP Satellite Modem.
3. A search in the list of commands: Appendix D on page 262 contains the alphabetical list of mnemonics which directs to the page where the mnemonic-variable is used.

Parameter Table

Introduction

There are specific tables for three types of commands:

- Command
- Structured Command
- Special Command

These types of commands are described in detail in the following paragraphs.

Request a RMCP and SNMP manual via the Newtec Service Desk tool:
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As response of your request you will receive the manual from our support team.
In case you don't have a Username and Password yet for the Newtec Service Desk tool request a login to techsupport@newtec.eu

'Normal' Command

Description

The 'normal' command is a command that sets or gets the value of a variable in the device.

You can use a 'normal' command:

1. As stand alone.
2. As stand alone and used in a structured or special command. In this case a link towards the command is added in the structured or special command.
3. As part of a structured or special command only. In this case the location in the command description is NA (Not Applicable). In the command description there is a link to both the structured and special command in which this 'normal' command is used.

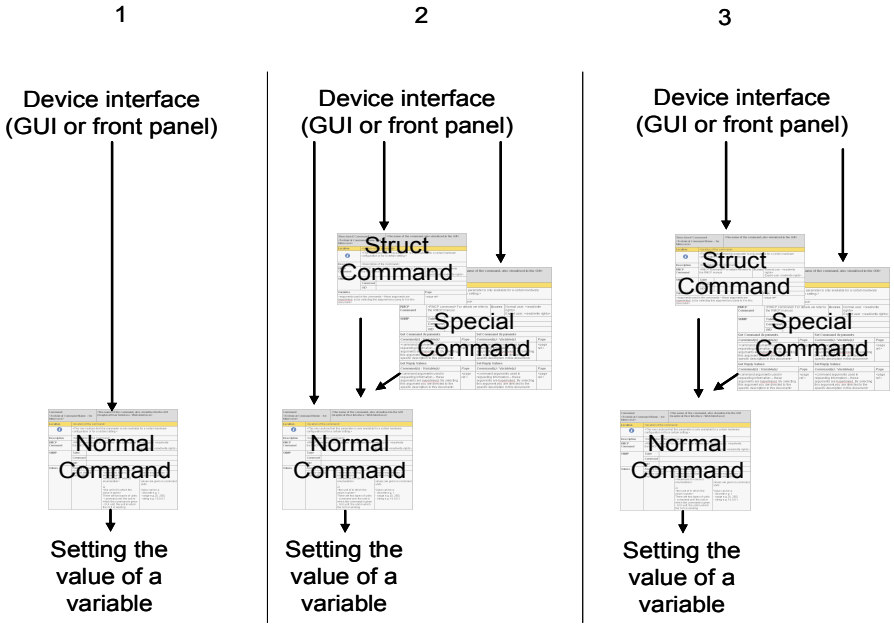

Figure 1: Usage of a Normal Command

The table of description of a 'normal' command is presented below.

Command **<Technical Command Name – for future use>**		**<The name of the command, also visualised in the GUI (Graphical User Interface / Web Interface)>**	
Location	<location of the command>		
	<This row cautions that this parameter is only available for a certain hardware configuration or for a certain setting.>		
Description	<Description of the Command>		
RMCP Command	<RMCP command> For details we refer to the RMCP manual.	**Access**	Normal user: <read/write rights> Expert user: <read/write rights>
SNMP	***Table***		
	Command		
	OID		
Values	***Factory Default***	***Enumeration* or *Unit***	***Value***
	<factory default: enumeration>	<mnemonic for first enumeration> <mnemonic for second enumeration> ... or <the unit of in which the value is given> There are two types of units: - command unit: the unit in which the command is given - GUI unit: the unit in	<value enumeration 1> <value enumeration 2> ... values are given in command units Value can be a: - discrete e.g. 1 - range e.g. [0..255] - string e.g. 10.0.0.1

Command **<Technical Command Name – for future use>**	**<The name of the command, also visualised in the GUI (Graphical User Interface / Web Interface)>**		
		which the GUI is working	

The displayed range of parameter values may differ depending on the configuration of the device. The values given in this manual are applicable for the device in full option configuration.

Example

- Table of description of the 'Device serial number' command.

Command **SyDev Sn**		**Device serial number**	
Location	/Unit/Architecture		
Description	This number should be the same as the serial number on the backpanel label (for rack mounted units).		
RMCP Command	SLs	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevSn	
	OID	1.3.6.1.4.1.5835.3.1.1.1.31.0.1	
Values	***Factory Default***	***String Description***	
	03051439	length : 8 (fixed) format : Hexadecimal chars	

Structured Command

Description

A structured command can have more than one argument that are separated by commas ','. These are especially useful to get or set parameters that are closely related.

You can read and/or set this structure in the EL470 through one single command. In some cases, structured variables are designed for efficiency, for example to communicate less data. In other cases, structured variables are designed so you can set or read closely related variables immediately.

In this way, you can avoid invalid intermediate states, which could occur if you were to set the components one by one.

The structured commands have an identical list of set and reply arguments.

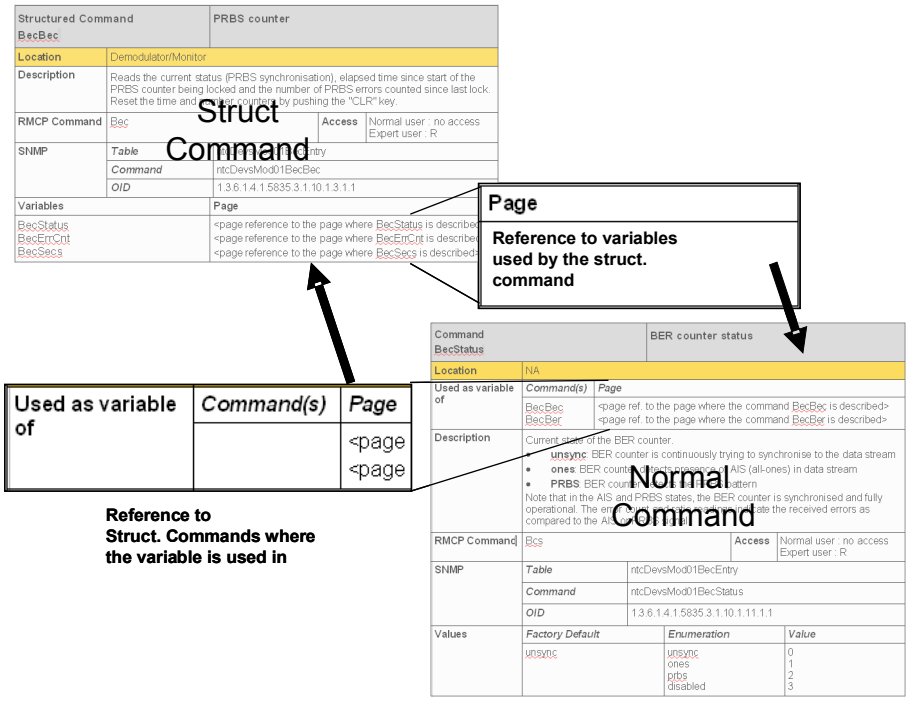

Figure 2: Usage of a Structured Command

A description table of a structured command is presented below.

Structured Command <Technical Command Name – for future use>	**<The name of the command, also visualised in the GUI>**		
Location	<location of the command>		
	<This row cautions that this parameter is only available for a certain hardware configuration or for a certain setting.>		
Description	<Description of the Command>		
RMCP Command	<RMCP command> For details we refer to the RMCP manual.	**Access**	Normal user: <read/write rights> Expert user: read/write rights>
SNMP	***Table***		
	Command		
	OID		
Variables		**Page**	
<arguments used in the commands – these arguments are hyperlinked, so by selecting this argument you jump to it in this document>		<page ref>	

Example

The table of description for the 'PRBS counter' Structured Command.

Structured Command BecBec			**PRBS counter**
Location	Demodulator/Monitor		
Description	Reads the current status (PRBS synchronisation), elapsed time since start of the PRBS counter being locked and the number of PRBS errors counted since last lock. Reset the time and number counters by pushing the "CLR" key.		
RMCP Command	Bec	**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01BecEntry	
	Command	ntcDevsMod01BecBec	
	OID	1.3.6.1.4.1.5835.3.1.10.1.3.1.1	
Variables		**Page**	
BecStatus BecErrCnt BecSecs		<page reference to the page where BecStatus is described> <page reference to the page where BecErrCnt is described> <page reference to the page where BecSecs is described>	

The Page column refers to the pages dscribing the variables in detail.

e.g. description table of the variable BecStatus:

Command BecStatus			**BER counter status**
Location	NA		
Used as variable of	***Command(s)***	***Page***	
	BecBec BecBer	<page ref. to the page where the command BecBec is described> <page ref. to the page where the command BecBer is described>	
Description	Current state of the BER counter. • **unsync**: BER counter is continuously trying to synchronise to the data stream • **ones**: BER counter detects presence of AIS (all-ones) in data stream • **PRBS**: BER counter detects the PRBS pattern Note that in the AIS and PRBS states, the BER counter is synchronised and fully operational. The error count and ratio readings indicate the received errors as compared to the AIS or PRBS signal.		
RMCP Command	Bcs	**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01BecEntry	
	Command	ntcDevsMod01BecStatus	
	OID	1.3.6.1.4.1.5835.3.1.10.1.11.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	unsync	unsync ones prbs disabled	0 1 2 3

Special Command

Special commands can have different receive and reply arguments. These commands exist in 'set' and 'get' versions. Keep in mind that the command/reply argument lists can differ between the get and the set version.

Page references in the table refer to the pages where the commands/variables are detailed.

All complex commands fall into this category.

Special Command <Technical Command Name – for future use>	**<The name of the command, also visualised in the GUI>**		
Location	<location of the command>		
	<This row cautions that this parameter is only available for a certain hardware configuration or for a certain setting.>		
Description	<Description of the Command>		
RMCP Command	<RMCP command> For details we refer to the RMCP manual.	**Access**	Normal user: <read/write rights> Expert user: <read/write rights>
SNMP	***Table***		
	Command		
	OID		

Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
<command arguments used in requesting information – these arguments are hyperlinked. By selecting this argument you are directed to the specific description in this document>	<page ref.>	<command arguments used in requesting information – these arguments are hyperlinked. By selecting this argument you are directed to the specific description in this document>	<page ref.>
Get Reply Values		**Set Reply Values**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
<command arguments used in requesting information – these arguments are hyperlinked. By selecting this argument you are directed to the specific description in this document>	<page ref.>	<command arguments used in requesting information – these arguments are hyperlinked. By selecting this argument you are directed to the specific description in this document>	<page ref.>

Array Command

An array command is used when a variable is used over a number of identical instances. In the RMCP command overview array commands have the “array range” indicated, as explained in the General RMCP Manual.

2 OPERATION

Overview

In this overview you see the menu structure of variables in the EL470. This is also the menu of the Graphical User Interface (GUI). The main categories in the EL470 device are shown in Table 1 .

EL470		**Page**
	User	11
	Unit	12
	IP Satellite Modem	44
	Alarm	246
	Config	166

Table 1 - High level structure of device parameters

The following tables show the structure details of the EL470 menu.

For a list of all the commands and their page reference, refer to the list of Commands at the end of this document.

	EL470 IP Satellite Modem			**Page**
Unit				12
	Setup			12
		Serial port settings		14
		Ethernet settings		15
		Display settings		17
		SNMP settings		18
		Web Interface		19
	Control			20
		AES		29
	Monitor			31
	Architecture			34
	Diagnostics			43

	EL470 IP Satellite Modem			Page
		Demodulation		244
Config				166
Structured elements with Individual Access				168
Variables only Used via other Commands				194

Table 2 : Structure of the 'IP Satellite Modem' sub-menu operating in normal mode

3 USER MENU

You can configure the user menu for your own use. In this way, you can create a quick access to those control and monitoring parameters that you need to change or monitor regularly. In addition, you can also change the order in which the menu items are presented to meet your specific demands. This is very useful in, for example, the DSNG applications. Here you can pre-configure the general parameters and store them in the default boot-configuration. Here you can pre-configure the general parameters and store them in the default boot-configuration. The relevant parameters needing a quick change (during link setup) are made available as a group in the user menu.

```
EL470>> User
:go to/unit/setup to define
```

Description: enter this menu to access the commands you have grouped.

Go to **.../Unit/Setup/User** menu to add or remove commands from the user defined menu.

4 UNIT MENU

In this section of the menu you can control and monitor the operational parameters of the device. The parameters to use the device as test generator or bit error monitor are also explained. When you are logged in as administrator or in expert mode, additional (non-frequently used) parameters become available. When you are logged in as operator or in normal mode, only relevant operational parameters are shown.

/Unit

/Unit/Setup

Special Command SyDevMode			**Device mode**	**Device mode**
Location	/Unit/Setup			
Description	Configuration of the device operation mode. The following device operating modes are defined: • Normal mode: This is the standard operating mode which enables the default set of parameters that are most frequently used. • Expert mode: This mode gives an expert operator access to an additional set of more advanced parameters.A password is required to switch to expert mode. This password is the model number of the device.			
RMCP Command	SMm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevMode		
	OID	1.3.6.1.4.1.5835.3.1.1.1.18.0.1		

Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
none	none	SyDevModeState SyDevModePass	188 228
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
SyDevModeState	188	SyDevModeReply SyDevModeState	229 188

Command SyDevRmcpVer		**RMCP version**	**RMCP version**
Location	/Unit/Setup		
Description	Readout of the current RMCP version. It allows controlling devices to distinguish between RMCP versions and adapt their functionality accordingly. • RMCP version 2.0 is the enhanced protocol that can be used when designing new management systems. Contact Newtec to obtain a copy of the separate RMCP user manual.		
RMCP Command	CRV	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevRmcpVer	
	OID	1.3.6.1.4.1.5835.3.1.1.1.26.0.1	
Values	***Factory Default***	***Enumeration***	***Value***
	rmcp2	V2.0	2

Command SyDevRtc		**System time**	**System time**
Location	/Unit/Setup		
Description	Configuration command to read or modify the real time clock. The format is hh:mm:ss dd/mm/yyyy.		
RMCP Command	RTc	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevRtc	
	OID	1.3.6.1.4.1.5835.3.1.1.1.59.0.1	
Values	***Factory Default***	***String Description***	
	16:24:53 14/05/2003	length : 0 .. 19 format : \d{2}:\d{2}:\d{2} \d{2}/\d{2}/\d{4}	

Command SyDevUptime		**System uptime**	**System uptime**
Location	/Unit/Setup		
Description	Readout of the time passed since last device boot. The data is displayed in days, hours, minutes and seconds. Remark: This data is the uptime of the operating system, not the uptime of the application.		
RMCP Command	Upt	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevUptime	
	OID	1.3.6.1.4.1.5835.3.1.1.1.84.1.1	

Command SyDevUptime	**System uptime**	**System uptime**
Values	***Factory Default***	***String Description***
		length : 0 .. 128 format : any chars

/Unit/Setup/Serial port settings

Command SyDevSerIfType	**Serial M&C interface type**	**Serial interf. type**
Location	/Unit/Setup/Serial port settings	
Description	Configuration of the monitoring and control serial port interface type: RS485 (default) or RS232. RS232 is used for monitoring and control of a single device. RS485 is typically used for multiple devices on a single bus.	
RMCP Command	SIT	**Access** Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry
	Command	ntcDevsMod01SyDevSerIfType
	OID	1.3.6.1.4.1.5835.3.1.1.1.29.0.1

Values	***Factory Default***	***Enumeration***	***Value***
	rs485	RS485 RS232	0 1

Command SyDevRs485Addr	**Device address for serial interface**	**Device RMCP address**
Location	/Unit/Setup/Serial port settings	
Description	Configuration of the device address for the serial interface. The device address, used in the messages for remote serial management and control, is a single byte with a value in the range 49 (31 hex - ASCII "1") up to 110 (6E hex - ASCII "n"). It identifies the device that has to handle the message from the remote control unit. When the multi-user RS485 bus is used, each device on the bus must have a different address, unique in the system. Address 111 (6F hex - ASCII "o") is the "broadcast" address. This can be used when only one device is connected to a COM-port of a PC to address the device without knowing its exact address.	
RMCP Command	Adr	**Access** Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry
	Command	ntcDevsMod01SyDevRs485Addr
	OID	1.3.6.1.4.1.5835.3.1.1.1.27.0.1

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	50	49 .. 110

/Unit/Setup/Ethernet settings

Command SyDevIPAddr			**Device IP address**	**Device IP address**
Location	/Unit/Setup/Ethernet settings			
Description	Configuration of the device IP address.			
RMCP Command	DIP		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevIPAddr		
	OID	1.3.6.1.4.1.5835.3.1.1.1.14.0.1		
Values	***Factory Default***		***String Description***	
	10.0.0.1		length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command SyDevIPMask			**Device IP mask**	**Device IP mask**
Location	/Unit/Setup/Ethernet settings			
Description	Configuration of the device IP netmask.			
RMCP Command	DIM		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevIPMask		
	OID	1.3.6.1.4.1.5835.3.1.1.1.16.0.1		
Values	***Factory Default***		***String Description***	
	255.255.255.0		length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command SyDevIPGateWay			**Default gateway IP address**	**Default gateway**
Location	/Unit/Setup/Ethernet settings			
Description	Configuration of the IP address of the default gateway.			
RMCP Command	DGW		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevIPGateWay		
	OID	1.3.6.1.4.1.5835.3.1.1.1.15.0.1		
Values	***Factory Default***		***String Description***	
	0.0.0.0		length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command SyEthTransType		**Ethernet M&C transport protocol**		**Transport protocol**
Location	/Unit/Setup/Ethernet settings			
Description	Configuration of the Ethernet interface transport layer. TCP (default) uses acknowledgements to confirm reception of messages while UDP does not. UDP has the advantage of being faster since it does not require the wait for acknowledge. Furthermore RMCP over Ethernet already has protection on the RMCP layer by means of the CRC. So there is no need for the extra protection provided by the TCP-transport layer.			
RMCP Command	Ett		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyEthTransType		
	OID	1.3.6.1.4.1.5835.3.1.1.1.37.0.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	tcp	TCP UDP	0 1	

Command SyDevMacAddr		**Device MAC address**		**Device MAC address**
Location	/Unit/Setup/Ethernet settings			
Description	Readout of the device MAC address.			
RMCP Command	DMA		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevMacAddr		
	OID	1.3.6.1.4.1.5835.3.1.1.1.17.0.1		
Values	***Factory Default***	***String Description***		
	00:06:39:00:10:5D	length : 17 (fixed) format : ^([\da-fA-F]{2}:){5}[\da-fA-F]{2}$		

/Unit/Setup/Display settings

Command SyDevDispContrast		**Display contrast**		**Display contrast**
Location	/Unit/Setup/Display settings			
Description	Configuration command to adjust the display contrast. Use the +/- keys on the front panel to adjust the display contrast..			
RMCP Command	dpc	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevDispContrast		
	OID	1.3.6.1.4.1.5835.3.1.1.1.10.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	units	units	50	0 .. 100

Command SyScreenSaveDly		**Screensaver delay**		**Screensaver delay**
Location	/Unit/Setup/Display settings			
Description	Configuration of the screensaver delay. The screensaver delay is the number of minutes of inactivity that is needed before the screensaver is displayed. The screensaver is disabled if this time is set to 0.			
RMCP Command	SSt	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyScreenSaveDly		
	OID	1.3.6.1.4.1.5835.3.1.1.1.55.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	min	min	10	0 .. 1440

Command SyScreenSaveMsg		**Screensaver message**		**Screensaver message**
Location	/Unit/Setup/Display settings			
Description	Configuration of the screensaver message. The screensaver message is the text to be displayed when the screensaver is active. Typically a device or channel identification is used (e.g. MOD_1, BBC1, HB_9, CH1,...). The maximum length of this text is 20 characters. When the screensaver is activated the display will show this text together with the last configuration that has been loaded.			
RMCP Command	SSm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyScreenSaveMsg		
	OID	1.3.6.1.4.1.5835.3.1.1.1.56.0.1		

Command SyScreenSaveMsg		**Screensaver message**	**Screensaver message**
Values	***Factory Default***	***String Description***	
	Screensaver	length : 0 .. 20 format : any chars	

/Unit/Setup/SNMP settings

Command SyROCommunity			**SNMP read only community**	**Read community**
Location	/Unit/Setup/SNMP settings			
Description	Configuration command for the SNMP community name with read-only access.			
RMCP Command	SRo		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyROCommunity		
	OID	1.3.6.1.4.1.5835.3.1.1.1.70.1.1		
Values	***Factory Default***	***String Description***		
	public	length : 0 .. 40 format : any chars		

Command SyRWCommunity			**SNMP read-write community**	**Read-write community**
Location	/Unit/Setup/SNMP settings			
Description	Configuration command for the SNMP community name with read-write access.			
RMCP Command	SRw		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyRWCommunity		
	OID	1.3.6.1.4.1.5835.3.1.1.1.71.1.1		
Values	***Factory Default***	***String Description***		
	public	length : 0 .. 40 format : any chars		

Command SyTrapIPAddr		**SNMP trap IP address**	**Trap IP address**
Location	/Unit/Setup/SNMP settings		
Description	Configuration of the IP address of the host that is allowed to receive SNMP traps.		
RMCP Command	TIP array : [1 .. 2]	**Access**	Normal user : RW Expert user : RW

Command SyTrapIPAddr		**SNMP trap IP address**	**Trap IP address**
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyTrapIPAddr	
	OID	1.3.6.1.4.1.5835.3.1.1.1.69.0.1.[1 .. 2]	
Values	***Factory Default***	***String Description***	
	000.000.000.000	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command SyTrapCommunity		**Trap community**	**Trap community**
Location	/Unit/Setup/SNMP settings		
Description	Configuration of the community name to be able to receive SNMP traps.		
RMCP Command	TCO array : [1 .. 2]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemExtEntry	
	Command	ntcDevsMod01SyTrapCommunity	
	OID	1.3.6.1.4.1.5835.3.1.1000.1.5.1.1.[1 .. 2]	
Values	***Factory Default***	***String Description***	
	public	length : 0 .. 40 format : any chars	

/Unit/Setup/Web Interface

The WI user is not displayed in the tree view of the Graphical user interface (GUI). This function is located in the Function controls window of the GUI under the tab User List.
We refer to the explanation of the GUI in the user manual of this device.

Special Command WIUsers	**WI user**	**WI user**
	FTP is used to put new files on the device. FTP file-transfer to the device is only possible via the credentials (user and logon) from the 4th webinterface user as defined in the device.	
Location	/Unit/Setup/wi	
Description	Configuration command used to define the login and password for web interface (WI) users. By default the login and password is root and root. A total of four web interface users can be defined. The following fields have to be filled in: • Web interface user login name: This is the login definition for the user. • Web interface user login access: This is the type of access attributed to that user. • Web interface old password: This is the current password of the user. • Web interface login password: This is the new password the user	

Special Command WIUsers	**WI user**	**WI user**
	has to use.Remark: The following access rights are possible: • Minimum or read-only access. • Operator or limited access. • Administrator or full access.	

RMCP Command	WIu array : [1 .. 4]	**Access**	Normal user : no access Expert user : W
SNMP	***Table***	ntcDevsMod01SystemExtEntry	
	Command	ntcDevsMod01WIUsers	
	OID	1.3.6.1.4.1.5835.3.1.1000.1.6.1.1.[1 .. 4]	

Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
NA	NA	WILogInUser WILogInUserAccess WILogInOldPass WILogInPass	194 194 194 195
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
NA	NA	WILogInReply	195

/Unit/Control

Command SyDevSleepMode	**Device sleep mode**	**Device sleep mode**
	This command is only available using the front panel.	

Location	/Unit/Control		
Description	Configuration of the device sleep mode. The sleep mode control allows the user to power-down the device without actually removing the power or using a power switch. • Operational: The device is fully operational and responds to input from keyboard and RMCP commands. • Sleep mode: The device is put in a low power-consumption (power down) state and ignores all monitoring and control from RMCP. It can be awakened by pressing a front panel key after which it will perform a boot-cycle.		
RMCP Command	DSM	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevSleepMode	
	OID	1.3.6.1.4.1.5835.3.1.1.1.30.0.1	

Values	***Factory Default***	***Enumeration***	***Value***
	operational	Operational Sleep	0 1

The device reset is not displayed in the tree view of the Graphical user interface (GUI). This function is located in the Function controls window of the GUI under the tab Reset Device.
We refer to the explanation of the GUI in the user manual of this device.

Command SyDevRst			**Device reset**	**Device reset**
Location	/Unit/Control			
Description	Command to initiate a device reset. • A ***soft*** reset will send the reset command to all boards. • A ***config r***eset will clear all operational control settings and place them back on default value. • A ***hard*** reset will power-cycle the device. After a reset, the device initially starts up the boot loader code, waits for 2 seconds and then activates the application code. Consequently, the unit performs a number of initialisation routines, loads its default configuration from permanent memory and performs a self test. • The selection ***upgrade*** is used whenever an upgrade through bucket-files is performed; refer to the appendices for details on the upgrade procedure. • A ***factory*** reset clears all device settings (including Ethernet settings) and place them back on default value. You can only reach this reset option from the device front panel. • The selection reset ***upgrade logs*** is used to delete a bucket upgrade log. When an upgrade fails, the failure will be written in the upgrade_log.html report which will be used by the unit to generate a general device alarm. When this happens the unit should be upgraded again to reset this flag, although it could be desired to reset this flag without doing any upgrade. Therefore this selection will only clear the upgrade_log.html file.			
RMCP Command	SRr		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevRst		
	OID	1.3.6.1.4.1.5835.3.1.1.1.28.0.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	none	None Soft Configs Hard Upgrade Factory Upgrade logs	0 1 2 4 6 7 8	

Command SyDevGenerate	**Generate selected output file**	**Generate output file**

Location	/Unit/Control			
Description	With this command certain output files can be generated by selecting the required output type. The generated output file can be retrieved from the \FTP\out directory. In case of errors, the error output log can found in the \FTP\log directory. The generated files have by default the unit name as file name. The file name can be changed, but it is not allowed to be change the extension! The following selections are available: • ***Unit configuration*** file with extension cfg: This file stores all global settings and all the user configurations. The file can be used for archiving configuration, but it can also be uploaded to another device by using the command ***SyDevActivate***. The source unit (creation of the configuration file) and the destination unit (activation of the configuration file) do not explicitly need the same software version. The settings not known by the destination unit will be deleted and new settings not known by the source unit will derive the factory default. Some differences in the configuration (capability differences) between source and destination unit can result in deleting the complete user configuration. • ***Linear pre-distortion*** file with extension lp: All data relevant for linear pre-distortion will be stored in one output file. • ***Non-linear pre-distortion*** file with extension nlp: All data relevant for non-linear pre-distortion will be stored in one output file.			
RMCP Command	GOf		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevGenerate		
	OID	1.3.6.1.4.1.5835.3.1.1.1.83.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	none	None Unit Configuration Linear Predistortion Non Linear Predistortion	0 1 2 3

Command SyDevActivate	**Activate system file**	**Activate system file**

Location	/Unit/Control		
Description	Configuration command to process the selected output file. With this command, all files found in the input directory (\FTP\In) will be processed if the enumeration ***All*** is selected. The file name can be anything; only the extension of the file will be used to identify the type of action. In case of errors, the error output log can found in the \FTP\log directory. The following types of input files are available: • Unit configuration file with extension cfg. • Linear pre-distortion file with extension lp. • Non-linear pre-distortion file with extension nlp. • RMCP command file (such as used for RMCP loader).Remark: RMCP is the default behaviour if former extensions are not found.		
RMCP Command	AIf	**Access**	Normal user : no access Expert user : RW

Command SyDevActivate	**Activate system file**	**Activate system file**

SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevActivate	
	OID	1.3.6.1.4.1.5835.3.1.1.1.82.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	none	None All	0 1

Command SyIntAlarmMaskMode	**Interface alarm masking mode**	**Interface alarm mask**

Location	/Unit/Control			
Description	Configuration of the interface alarm masking mode. When the unit is controlled via a universal switching system, the interface alarm relais contact is used to determine the switch over. The interface alarm is a group of alarms, thus each of these alarms can trigger the universal switching system switch over. Due to the hardware set-up, it could be desired to change the behaviour of the interface alarm relais contact by masking some of the alarms. With this command some alarms in the interface alarm group could be masked.			
RMCP Command	IAm		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyIntAlarmMaskMode		
	OID	1.3.6.1.4.1.5835.3.1.1.1.94.1.1		
Values	***Factory Default***	***Enumeration***		***Value***
	off	Off Mod Input Demod Lock Demod Lock + Mod Input		0 1 2 3

Command SyInputAlEscallation	**Input alarm escallation**	**Input alarm escallat**

Location	/Unit/Control			
Description	This field is used to select if the input alarm needs to be escallated to an interface alarm or not. An interface alarm can thus be used as a trigger for redundancy switchover.			
RMCP Command	iae		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyInputAlEscallation		
	OID	1.3.6.1.4.1.5835.3.1.1.1.108.1.1		

Command SyInputAlEscallation		**Input alarm escallation**	**Input alarm escallat**
Values	***Factory Default***	***Enumeration***	***Value***
	off	Off Interface alarm	0 1

Command SyRefClock		**Reference clock selection**	**Reference clock sel.**
Location	/Unit/Control		
	Only applicable for modems equipped with a 10 MHz Reference Board.		
Description	Configuration of the reference clock selection. The 10 MHz reference clock can be either internally generated (default) or taken from an external source for enhanced stability and/or synchronisation.		
RMCP Command	RCS	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyRefClock	
	OID	1.3.6.1.4.1.5835.3.1.1.1.46.0.1	
Values	***Factory Default***	***Enumeration***	***Value***
	internal	Internal External	0 1

Command SyRef10MTuning		**10 MHz operator frequency adjust**	**10 MHz oper. adjust**
Location	/Unit/Control		
	Only applicable for modems equipped with a 10 MHz Reference Board.		
Description	Configuration command to adjust the 10 MHz frequency. The internal 10MHz operator adjustment value controls the frequency of the internal 10 MHz reference oscillator and can be used, by the operator, to re-calibrate the internal 10 MHz. If this calibration value needs to be used, ***SyRef10MCtrl*** must be set to ***by operator***. Otherwise when set to ***by factory***, the default tuning value of the in-factory calibration will be used. The tuning range is normalized to a range from -50 to +50. Remark: The actual range (ppm or Hz) depends on the type of oscillator used.		
RMCP Command	RFt	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyRef10MTuning	
	OID	1.3.6.1.4.1.5835.3.1.1.1.45.0.1	
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***

Command SyRef10MTuning		**10 MHz operator frequency adjust**		**10 MHz oper. adjust**
	units	units	0	-50 .. 50

Command SyRef10MCalib			**10 MHz ref. factory default**	**10 MHz factory defau**
Location	/Unit/Control			
	Only applicable for modems equipped with a 10 MHz Reference Board.			
Description	Readout of the internal 10MHz reference frequency calibration factory default. This is the factory-calibrated tuning value for the internal 10 MHz reference oscillator. This value is determined during factory calibration and is hard-coded into the reference board. It can not be changed by the operator. This value will be used when ***SyRef10MCtrl*** is set to ***by factory***. Otherwise when set to ***by operator***, the value entered in ***SyRef10MTuning*** will be used to adjust the 10 MHz internal reference frequency.			
RMCP Command	RFc	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyRef10MCalib		
	OID	1.3.6.1.4.1.5835.3.1.1.1.42.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	units	units	0	-50 .. 50

Command SyRef10MCtrl			**10 MHz reference calibration control**	**10 MHz cal. control**
Location	/Unit/Control			
	Only applicable for modems equipped with a 10 MHz Reference Board.			
Description	Configuration of the internal 10MHz reference calibration control. The internal 10MHz reference frequency can be controlled by either the factory-calibrated value or the operator-controlled tuning value.			
RMCP Command	RFC		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyRef10MCtrl		
	OID	1.3.6.1.4.1.5835.3.1.1.1.43.0.1		
Values	***Factory Default***		***Enumeration***	***Value***
	factory		By factory By operator	0 1

Command CvLNBPow		**LNB power supply**		**LNB power supply**
Location	/Unit/Control			
Description	Configuration of the power supply of an external LNB. If the power supply is turned on, +13 or +18 volt DC and/or 22 kHz tone can be provided on the input connector. Use the command ***ODCtrl*** to control the actual voltage and tone. Remark: If the power is enabled, devices that do not tolerate a DC-voltage at their input can be damaged (e.g. non-Newtec outdoor units, spectrum analysers). The use of a blocking capacitor is mandatory in this case.			
RMCP Command	XVp array : [1 .. 2]		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ConverterExtEntry		
	Command	ntcDevsMod01CvLNBPow		
	OID	1.3.6.1.4.1.5835.3.1.7000.1.5.1.1.[1 .. 2]		
Values	***Factory Default***	***Enumeration***	***Value***	
	disabled	Disabled Enabled	0 1	

Command MoOLevelOffset		**Level offset**		**Level offset**
Location	/Unit/Control			
Description	Configuration of the modulator level offset. The level offset can be used to enter a gain or attenuation in the transmit path (cables, splitters, combiners, high power amplifier). This will give the operator the opportunity to set a level on the modulator that will correspond to a level at a certain point in the transmit chain. The factory default level is the attenuation of the cable between the output of the modulator board or installed converter and the connector on the chassis. Typical applications would be to take into account losses of cross-site cabling and/or the gain of the high power amplifier and antenna. The level offset can also be used to realign (calibrate) the modulator output level. Remark: This parameter makes it easier for the operator to readout the correct transmitted RF-power. However, this parameter has no effect on the transmitted output power!			
RMCP Command	OLo	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoOLevelOffset		
	OID	1.3.6.1.4.1.5835.3.1.3.1.42.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dB	dB	0	-999.9 .. 999.9

Command ExtLOFreq		**Ext LO Freq. out**		**Ext LO Freq. out**
Location	/Unit/Control			
Description	Configuration of the local oscillator frequency for a non-Newtec external up- or down-converter. This allows the operator to enter the RF frequency directly without having to re-calculate the frequency to L-band or IF. Use the external spectral inversion menu to indicate if local oscillator frequency is above or below the RF frequency.			
RMCP Command	LOF	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01ExtLOFreq		
	OID	1.3.6.1.4.1.5835.3.1.3.1.26.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	MHz	Hz	12450	0 .. 99000000000

Command DmExtLOFreq		**LO IFL in**		**LO IFL in**
Location	/Unit/Control			
Description	Configuration of the local oscillator frequency of a converter in case a non-Newtec external up- or down-converter is used. This allows the operator to enter the radio frequency directly without having to recalculate the frequency to L-band or IF-band. Use the external spectral inversion menu to indicate if the local oscillator frequency is above or below the radio frequency.			
RMCP Command	LOf array : [1 .. 2]	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmExtLOFreq		
	OID	1.3.6.1.4.1.5835.3.1.13.1.43.1.1.[1 .. 2]		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	MHz	Hz	12450	0 .. 99000000000

Command DmExtLOPolVal		**Spectrum inv. IFL in**		**Spect. inv. IFL i**
Location	/Unit/Control			
Description	Configuration of the external converter spectrum polarity: • When the spectrum is direct, the formula is: f(RF) = f(LO) + f(L-band). • When the spectrum is inverted, the formula is: f(RF) = f(LO) ? f(L-band).Remark: Use inverted spectrum whenever the local oscillator frequency is above the radio frequency.			
RMCP Command	LOp array : [1 .. 2]		**Access**	Normal user : no access Expert user : RW

Command DmExtLOPolVal		**Spectrum inv. IFL in**	**Spect. inv. IFL i**
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmExtLOPolVal	
	OID	1.3.6.1.4.1.5835.3.1.13.1.44.1.1.[1 .. 2]	
Values	***Factory Default***	***Enumeration***	***Value***
	directSpectrum	Direct spectrum Inverted spectrum	1 2

Command ExtLOPolVal		**Ext. spectrum inv.**	**Ext. spectrum inv.**
Location	/Unit/Control		
Description	Configuration of the external converter spectrum polarity: • When the spectrum is direct, the formula is: f(RF) = f(LO) + f(L-band). • When the spectrum is inverted, the formula is: f(RF) = f(LO) ? f(L-band).Remark: Use inverted spectrum whenever the local oscillator frequency is above the radio frequency.		
RMCP Command	LOS	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01ExtLOPolVal	
	OID	1.3.6.1.4.1.5835.3.1.3.1.39.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	directSpectrum	Direct spectrum Inverted spectrum	1 2

/Unit/Control/ODU

Command ODPow		**Outdoor power supply**	**Outdoor power supply**
Location	/Unit/Control/ODU		
Description	Configuration command to enable or disable the outdoor power supply as delivered by the outdoor unity and LNB controller unit.		
RMCP Command	ODp	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ODUEntry	
	Command	ntcDevsMod01ODPow	
	OID	1.3.6.1.4.1.5835.3.1.14.1.14.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	disabled	Disabled Enabled	0 1

Command ODCurLimits		**Outdoor current limit**		**Outdoor cur. limit %**
Location	/Unit/Control			
Description	Configuration of the current limitation for the outdoor unit. If the current to the outdoor unit exceeds the limitation an alarm is generated.			
RMCP Command	Ocl array : [1 .. 2]	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ODUExtEntry		
	Command	ntcDevsMod01ODCurLimits		
	OID	1.3.6.1.4.1.5835.3.1.14000.1.5.1.1.[1 .. 2]		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	mA	mA	0	0 .. 4000

Command MoODU100		**ODU 100 MHz reference**		**ODU 100 MHz referenc**
Location	/Unit/Control			
Description	Configuration command to control the 100 MHz outdoor unit reference signal when an outdoor unit conditioning module is used. This 100 MHz reference signal is needed whenever a Newtec outdoor unit is used and is used as a reference for the local oscillator of the up-converter.			
RMCP Command	XOm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ODUEntry		
	Command	ntcDevsMod01MoODU100		
	OID	1.3.6.1.4.1.5835.3.1.14.1.12.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	disabled		Disabled Enabled	0 1

/Unit/Control/AES

Command AESGroupKey		**Group Key**		**Group Key**
Location	/Unit/Control/AES			
Description	This key is used for AES decryption of encrypted keys entered by the user.The length of the key can be 64bits or 128bits long depending on AES key length The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)			
RMCP Command	AGk		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		

Command AESGroupKey		**Group Key**	**Group Key**
	Command	ntcDevsMod01AESGroupKey	
	OID	1.3.6.1.4.1.5835.3.1.1.1.122.1.1	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars	

Command AESKeyLength		**Key Length**	**Key Length**
Location	/Unit/Control/AES		
Description	This variable describes the length of the AES encryption keys. • 64 : 64bit key length - (0) • 128 : 128bit key length - (1)		
RMCP Command	AKI	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01AESKeyLength	
	OID	1.3.6.1.4.1.5835.3.1.1.1.123.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	64	64 128	0 1

Command AESEraseAllKey		**Erase All Keys**	**Erase All Keys**
Location	/Unit/Control/AES		
Description	This variable erases all encryption keys to there default value. The value is autmatically reset after operation is completed. • No : Do not Erase All AES Keys • erase : Erase All AES Keys		
RMCP Command	AAE	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01AESEraseAllKey	
	OID	1.3.6.1.4.1.5835.3.1.1.1.121.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	no	No Erase	0 1

/Unit/Monitor

Command SyIntTemp		**Device internal temperature**		**Device temperature**
Location	/Unit/Monitor			
Description	Readout of the internal temperature of the device. The internal temperature must be within +10 and +70° C. Typically, this temperature should be around 40°C (± 10°C).			
RMCP Command	Sst	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyIntTemp		
	OID	1.3.6.1.4.1.5835.3.1.1.1.39.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	C	C	40	0 .. 100

Command SyDevPowP3V3		**Device +3V3 power supply**		**+3V3 power supply**
Location	/Unit/Monitor			
Description	Readout of the +3.3 volt power supply monitor. A power supply alarm is triggered when this voltage is outside the range of +2.5 volt and +4.1 volt.			
RMCP Command	P33	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevPowP3V3		
	OID	1.3.6.1.4.1.5835.3.1.1.1.23.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	V	V	3.3	0 .. 10

Command SyDevPowP5V		**Device +5V power supply**		**+5V power supply**
Location	/Unit/Monitor			
Description	Readout of the +5 volt power supply monitor. A power supply alarm is triggered when this voltage is outside the range of +4.0 volt and +5.9 volt.			
RMCP Command	P50	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevPowP5V		
	OID	1.3.6.1.4.1.5835.3.1.1.1.24.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	V	V	5	0 .. 10

Command SyDevPowP12V		**Device +12V power supply**		**+12V power supply**
Location	/Unit/Monitor			
Description	Readout of the +12volt power supply monitor. A power supply alarm is triggered when this voltage is outside the range of +10.0 volt and +14.0 volt.			
RMCP Command	P12	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevPowP12V		
	OID	1.3.6.1.4.1.5835.3.1.1.1.22.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	V	V	12	0 .. 50

Command SyDevPowM12V		**Device -12V power supply**		**-12V power supply**
Location	/Unit/Monitor			
Description	Readout of the -12 volt power supply monitor. A power supply alarm is triggered when this voltage is outside the range of -10.0 volt and -14.0 volt.			
RMCP Command	M12	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevPowM12V		
	OID	1.3.6.1.4.1.5835.3.1.1.1.21.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	V	V	-12	-50 .. 0

Command SyRef10MLevel		**10 MHz reference input level measurement**		**10 MHz input level**
Location	/Unit/Monitor			
	Only applicable for modems equipped with a 10 MHz Reference Board.			
Description	Readout of the 10 MHz reference input level estimation as derived from the monitored AGC level. For optimal operation (conform to the specifications), the level should be within the range of 2.4 and 3.7 volt. A level lower than 1 volt (lower than - 5 dBm) will trigger the reference clock alarm. Following table shows the measured voltage and the corresponding level in dBm: a. 2.4 ± 0.5 volt => - 3 dBm. b. 3.0 ± 0.5 volt => - 0 dBm. c. 3.4 ± 0.5 volt => + 3 dBm. d. 3.7 ± 0.5 volt => + 7 dBm. e. 4.0 ± 0.5 volt => +10 dBm.			
RMCP Command	ril	**Access**		Normal user : no access

Command SyRef10MLevel		**10 MHz reference input level measurement**		**10 MHz input level**
				Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyRef10MLevel		
	OID	1.3.6.1.4.1.5835.3.1.1.1.44.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	mV	V	2950	5000 .. 0

Command SyRFCalcForm		**Modulation RF frequency formula**		**Mod RF freq. formula**
Location	/Unit/Monitor			
Description	Readout of the frequency conversion formula. This parameter shows the operator how to calculate the different frequencies in the system.			
RMCP Command	FFc		**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyRFCalcForm		
	OID	1.3.6.1.4.1.5835.3.1.1.1.57.1.1		
Values	***Factory Default***	***String Description***		
	RF Freq = LO freq [+-] L-band freq	length : 0 .. 40 format : any chars		

/Unit/Architecture

Retrieving Architectural Information

The architecture parameters are a special case in commands. In this section you can find all the commands to retrieve architecture information from the device. First, there is the architecture information on device level. They can be retrieved via the menu tree:EL470 >> Unit >> Architecture >> General. On device level, the SNMP commands can be used, or RMCP using the command and the address 111.

There is also the architecture information on board level within the device. WARNING: SNMP can not be used to retrieve architecture information on board level. The RMCP commands that are used to retrieve board level information are the same as the commands used on device level. On board level, the used addresses used is 100, and the subaddress depends on the board: These are the subadresses for the several boards:

- M&C module: 48 (in RMCPLoader -1:1:0 is used)
- Interface: 100 (in RMCPLoader -1:1:d is used)
- Modulation: 116 (in RMCPLoader -1:1:t) is used

The applicability of the commands are shown in following table:

Unit/Architecture/general

Nr	Command Name	Page
1	Device Serial Number	37
2	Device Type	41
3	Product Number	42
4	Bucket version	37
5	OS version	38
6	RAM Disk version	38
7	PPC boot version	38
8	SNMP Daemon version	39

Unit/Architecture/Common/M&C module

Nr	Command Name	Page
1	Device Serial Number	37
2	Device type	41
3	HW ID	36
4	HW version	39
5	HW capability	39
6	SW ID	40
7	SW version	40
8	Device capability	41
9	Product ID	37

Unit/Architecture/Modem/Interfaces

Nr	Command Name	Page
1	Device Serial Number	37
2	Device type	41
3	HW ID	36
4	HW version	39
5	HW capability	39
5	SW ID	40
6	SW version	40
7	Device capability	41
8	Product Id	37

Unit/Architecture/Modem/Modulation

Nr	Command Name	Page
1	Device Serial Number	37
2	Device Type	41
3	HW ID	36
4	HW version	39
4	HW capability	39
5	SW ID	40
6	SW version	40

Nr	Command Name	Page
7	Device capability	41
8	Product Id	37

Unit/Architecture/Modem/Demodulation

Nr	Command Name	Page
1	Device Serial Number	37
2	Device Type	41
3	HW ID	36
4	HW version	39
4	HW capability	39
5	SW ID	40
6	SW version	40
7	Device capability	41
8	Product Id	37

Architecture Commands

Command SyDevHwId1			**Device hardware identification**	**Hardware Id**
Location	/Unit/Architecture			
Description	Readout of the device hardware identification. The hardware identification displays the device type, the sub-type (alphanumeric suffix) together with a short description identifying the hardware.			
RMCP Command	HId		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevHwId		
	OID	1.3.6.1.4.1.5835.3.1.1.1.12.0.1		
Values	***Factory Default***	***String Description***		
	NA	length : 0 .. 40 format : any chars		

Command SyDevProdId1	**Product identification number**	**Product Id**

Location	/Unit/Architecture			
Description	Readout of the product identification number. The product identification displays the device type, the sub-type (alphanumeric suffix) together with a short description identifying the product.			
RMCP Command	PId		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevProdId		
	OID	1.3.6.1.4.1.5835.3.1.1.1.25.0.1		
Values	***Factory Default***	***String Description***		
	NA	length : 0 .. 40 format : any chars		

Command SyDevSn11	**Device serial number**	**Device serial number**

Location	/Unit/Architecture			
Description	Readout of the device serial number. Each device has a label at the side panel that contains the serial number. This number is the same as the serial number on the label.			
RMCP Command	SLs		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevSn		
	OID	1.3.6.1.4.1.5835.3.1.1.1.31.0.1		
Values	***Factory Default***	***String Description***		
	03051439	length : 8 (fixed) format : Hexadecimal chars		

Command SyBucketVersion1	**Bucket version**	**Bucket version**

Location	/Unit/Architecture			
Description	Readout of the bucket version. A bucket, used for upgrades, is a subset of firmwares. The bucket version is a unique value which represents the group of firmware versions which are present in the bucket. The bucket version gives a correct idea about the installed firmware versions of all the boards which can be upgraded by the bucket upgrade tool. Each time a new upgrade is done, the bucket version will be updated to identify the new upgrade.			
RMCP Command	Buv		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyBucketVersion		
	OID	1.3.6.1.4.1.5835.3.1.1.1.87.1.1		

Command SyBucketVersion1		**Bucket version**	**Bucket version**
Values	***Factory Default***	***String Description***	
	Vx.xx	length : 0 .. 20 format : any chars	

Command SyOSVer1			**Operating system version**	**OS version**
Location	/Unit/Architecture			
Description	Readout of the operating system version and release date.			
RMCP Command	Ove		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyOSVer		
	OID	1.3.6.1.4.1.5835.3.1.1.1.63.0.1		
Values	***Factory Default***	***String Description***		
	NA	length : 0 .. 25 format : any chars		

Command SyRamDiskVer1			**RAM disk version**	**RAM disk version**
Location	/Unit/Architecture			
Description	Readout of the RAM disk version and release date.			
RMCP Command	RDv		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyRamDiskVer		
	OID	1.3.6.1.4.1.5835.3.1.1.1.64.0.1		
Values	***Factory Default***	***String Description***		
	NA	length : 0 .. 25 format : any chars		

Command SyPPCVer1			**PPC boot version**	**PPC boot version**
Location	/Unit/Architecture			
Description	Readout of the PPC boot version and release date.			
RMCP Command	Pve		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyPPCVer		
	OID	1.3.6.1.4.1.5835.3.1.1.1.67.0.1		
Values	***Factory Default***	***String Description***		
	NA	length : 0 .. 25		

Command SyPPCVer1		**PPC boot version**	**PPC boot version**
		format : any chars	

Command SySnmpVer1			**SNMP daemon version**	**SNMP daemon version**
Location	/Unit/Architecture			
Description	Readout of the SNMP daemon version and release date.			
RMCP Command	SDv		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SySnmpVer		
	OID	1.3.6.1.4.1.5835.3.1.1.1.68.0.1		
Values	***Factory Default***	***String Description***		
	NA	length : 0 .. 25 format : any chars		

Command SyDevHwVer1			**Device hardware version**	**Hardware version**
Location	/Unit/Architecture			
Description	Readout of the device hardware version.			
RMCP Command	Hve		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevHwVer		
	OID	1.3.6.1.4.1.5835.3.1.1.1.13.0.1		
Values	***Factory Default***	***String Description***		
	<press OK>	length : 0 .. 5 format : any chars		

Command SyDevHwCapab1			**Device hardware capability**	**Hardware capability**
Location	/Unit/Architecture			
Description	Readout of the hardware configuration of the device. It can only be changed by installing or removing hardware modules. Capability = 0 corresponds to full device definition. Capability = 255 corresponds to an illegal capability (="blocked" mode).			
RMCP Command	HWC	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevHwCapab		
	OID	1.3.6.1.4.1.5835.3.1.1.1.11.0.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***

Command SyDevHwCapab1	**Device hardware capability**		**Hardware capability**
	NA	NA	Device specific	0 .. 255

Command SyDevSwCapab	**Device software capability**		**Software capability**
Location	/Unit/Architecture		
Used as variable of	***Command(s)***		***Page***
	SyDevCapab		41
Description	Readout of the active device software capability number to indicate software variants of the device. In order to increase device functionality (= changing software capability), a device-specific software key can be obtained from Newtec.		
RMCP Command	SWC	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevSwCapab	
	OID	1.3.6.1.4.1.5835.3.1.1.1.32.0.1	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	<press OK>	0 .. 255

Command SyDevSwId1	**Device software identification**		**Software Id**
Location	/Unit/Architecture		
Description	Readout of the device software identification. This identification contains the device type and a short description.		
RMCP Command	SId	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevSwId	
	OID	1.3.6.1.4.1.5835.3.1.1.1.33.0.1	

Values	***Factory Default***	***String Description***
	<press OK>	length : 0 .. 22 format : any chars

Command SyDevSwVer11	**Device software version**		**Software version**
Location	/Unit/Architecture		
Description	Readout of the device software version and release date.		
RMCP Command	Sve	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevSwVer	

Command SyDevSwVer11		**Device software version**	**Software version**
	OID	1.3.6.1.4.1.5835.3.1.1.1.34.0.1	
Values	***Factory Default***	***String Description***	
	<press OK>	length : 0 .. 40 format : any chars	

Special Command SyDevCapab1		**Device capability**	**Device capability**
Location	/Unit/Architecture		
Description	Configuration command for the device software capability. A get request returns the software capabilities that are enabled on the device. A set command requires a software license key specific to the device.		
RMCP Command	SDC array : [1 .. 6]	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevCapab	
	OID	1.3.6.1.4.1.5835.3.1.1.1.8.0.1.[1 .. 6]	

Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
none	none	SyDevCapPass	229
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
SyDevSwCapab	40	SyDevCapReply SyDevSwCapab	229 40

Command SyDevType111		**Device type**	**Device type**
Location	/Unit/Architecture		
Description	Readout of the type of device. Currently two types are identified: • NTC: Newtec device. • OEM: Original equipment manufacturer device.		
RMCP Command	SDT	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevType	
	OID	1.3.6.1.4.1.5835.3.1.1.1.80.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	ntc	Ntc Oem	0 1

Command SyDevProdNbr11		**Product number**	**Product number**
Location	/Unit/Architecture		
Description	Readout of the product number of the device.		
RMCP Command	PNr	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevProdNbr	
	OID	1.3.6.1.4.1.5835.3.1.1.1.88.1.1	
Values	***Factory Default***	***String Description***	
	<press OK>	length : 0 .. 20 format : any chars	

Command SyDevIPCoreSwId		**IPCore software identification**	**IPCore Sw Id**
Location	/Unit/Architecture		
Description	Readout of the identification of software running on an IP Core component in an FPGA (e.g. extra micro-processor core).		
RMCP Command	IId	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevIPCoreSwId	
	OID	1.3.6.1.4.1.5835.3.1.1.1.76.1.1	
Values	***Factory Default***	***String Description***	
		length : 0 .. 40 format : any chars	

Command SyDevIPCoreSwVer111		**IP Core software version**	**IP Core Sw Ver.**
Location	/Unit/Architecture		
Description	Readout of the version of the software running on an IP Core component in a FPGA (e.g. extra micro-processor).		
RMCP Command	Ive	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyDevIPCoreSwVer	
	OID	1.3.6.1.4.1.5835.3.1.1.1.77.1.1	
Values	***Factory Default***	***String Description***	
	v00.00	length : 0 .. 12 format : any chars	

Unit/Diagnostics

Diagnostics is not displayed in the tree view of the Graphical user interface (GUI). This function is located in the Function controls window of the GUI under the tab Reset Device.
We refer to the explanation of the GUI in the user manual of this device.

Command SyTSRapport		**Generate diagnostics report**		**Diagnostics report**
Location	/Unit/Diagnostics			
Description	Command to generate a diagnostics report. This command is also triggered when a diagnostics report is requested through the web interface. There are two possible reports: • A ***basic*** diagnostics report: To be used by customers to request all configuration settings and alarms. • A ***full*** diagnostics report: To be used by Newtec engineering as a debugging tool to investigate specific problems detected by the basic diagnostics report.			
RMCP Command	GTS		**Access**	Normal user : no access Expert user : W
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyTSRapport		
	OID	1.3.6.1.4.1.5835.3.1.1.1.65.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	basic	Basic Full	0 1

Special Command AlSelfTestBrd		**Board selftest result**		**Board selftest resul**
Location	/Unit/Diagnostics			
Description	Readout of the the concatenated string of the board self test results.			
RMCP Command	DSt array : [1 .. 16]		**Access**	Normal user : no access Expert user : RW

Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
none	none	none	none
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
AlSelfTestString	193	AlSelfTestString	193

5 MODEM

/Modem/Control

/Modem/Control/Common

Command MdModStand			Modulation standard	Modulation standard
Location	/Modem/Control/Common			
Description	Configuration of the modulation standard that defines the major operating mode of the device. • ***DVB-S2***: Compatible with EN302307. • ***DVB-S***: Compatible with EN300421 for QPSK and EN301210 for 8PSK and 16QAM.			
RMCP Command	DDc		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModemEntry		
	Command	ntcDevsMod01MdModStand		
	OID	1.3.6.1.4.1.5835.3.1.18.1.4.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	modDVB		DVB-S DVB-S2	3 5

Command MdProcMode		Processing mode	Processing mode
Location	/Modem/Control/Common		
Description	Configuration of the processing mode: Configuration of the Ethernet interface (IP-data) for modulator, demodulator or modem. It offers an Ethernet interface for a modulator, demodulator or modem to transmit or receive IP packets (or Ethernet frames) over satellite. The different options are: • Eth(IP) <-> Air(TS), applicable for DVB-S and DVB-S2: : dataflow from an ethernet input to the modulator board. Ethernet input is encapsulated in TS packets, then put in Baseband Frames and forwarded towards the modulator board and received from the demodulator board. • Eth(IP) <-> Air(XPE), applicable for DVB-S2.2. dataflow from an ethernet input to the modulator board. DVB-S2 Baseband Frames are generated towards the modulator board and received from the demodulator board. • Eth(IP) ↔ Air(GSE) applicable for DVB-S2. IP data is encapsulated in GSE and carried directly in DVB-S2 Base Band Frames. GSE encapsulation/decapsulation is performed in the modulator/demodulator.		

Command MdProcMode			**Processing mode**	**Processing mode**
	• Eth(ntS2BBF) -> Air(S2BBF), applicable for DVB-S2. Transparent DVB-S2 Baseband frames received from a Newtec encapsulator forwarded from an Ethernet input to the modulator board and from demodulator back to Ethernet output.			
RMCP Command	DPm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModemEntry		
	Command	ntcDevsMod01MdProcMode		
	OID	1.3.6.1.4.1.5835.3.1.18.1.7.1.1		
Values	***Factory Default***	***Enumeration***		***Value***
	tsmode	Eth(IP)<->Air(TS) Eth(IP)<->Air(XPE) Eth(TSoIP)<->Air(TS) Eth(S2BBF)<->Air(S2BBF) Eth(ntS2BBF)->Air(S2BBF)		0 1 4 8 10

/Modem/Control/Interfaces

/Modem/Control/Interfaces/Ethernet

Command IfEthMtu			**Ethernet MTU**	**Ethernet MTU**
Location	/Modem/Control/Interfaces/Ethernet			
Description	Configuration of the Ethernet payload size. This number defines the maximum Ethernet payload size which is usually 1500 bytes. It does not include the Ethernet header, the Ethernet frame check sequence (=CRC32) or the VLAN extension of 4 bytes.			
RMCP Command	mtu	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthMtu		
	OID	1.3.6.1.4.1.5835.3.1.4.1.244.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	1500	1500 .. 1600

/Modem/Control/Interfaces/Ethernet/Link/Interface

Only valid for Eth(IP), Eth(TSoIP), Eth(S2BBF) or Eth(ntS2BBF) processing modes.

/Modem/Control/Interfaces/Ethernet/Link/Interface A

Command IfEthAutoNegEn			**Auto-Negotiation**	**Auto-Negotiation**
Location	/Modem/Control/Interfaces/Ethernet/Link/Interface A			
Description	Configuration of auto-negotiation of the Ethernet physical interface. When auto-negotiation is disabled the correct speed must be configured via command ***IfEthForceSpeed***. If auto-negotiation is enabled, the auto-negotiation sequence will be restarted. Remark: For 1000 BASE-T, auto-negotiation must always be enabled.			
RMCP Command	EAe array : [1 .. 2]		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthAutoNegEn		
	OID	1.3.6.1.4.1.5835.3.1.4.1.81.1.1.[1 .. 2]		
Values	***Factory Default***		***Enumeration***	***Value***
	enabled		Disabled Enabled	0 1

Command IfEthAutoNegRestart			**Restart Auto-Negotiation**	**Restart Auto-Negotia**
Location	/Modem/Control/Interfaces/Ethernet/Link/Interface A			
Description	Configuration command to restart the auto-negotiation sequence of the Ethernet physical interface.			
RMCP Command	EAr array : [1 .. 2]		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthAutoNegRestart		
	OID	1.3.6.1.4.1.5835.3.1.4.1.82.1.1.[1 .. 2]		
Values	***Factory Default***		***Enumeration***	***Value***
	idle		Restart Idle	0 1

Command IfEthForceSpeed2		**Speed advertisement**	**Speed advertisement**
Location	/Modem/Control/Interfaces/Ethernet/Link/Interface A		
Description	Configuration command to force the speed of the Ethernet physical interface to a given bitrate by changing the advertised speeds in the auto-		

Command IfEthForceSpeed2		**Speed advertisement**		**Speed advertisement**
	negotiation process.			
RMCP Command	efs array : [1 .. 2]		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthForceSpeed2		
	OID	1.3.6.1.4.1.5835.3.1.4.1.232.1.1.[1 .. 2]		
Values	***Factory Default***	***Enumeration***		***Value***
	autonegotiated	autonegotiated 10 BASE-T Half Duplex 10 BASE-T Full Duplex 100 BASE-T Half Duplex 100 BASE-T Full Duplex 1000 BASE-T Full Duplex		0 1 2 3 4 5

/Modem/Control/Interfaces/Ethernet/Link/Interface B

Command IfEthAutoNegEn		**Auto-Negotiation**		**Auto-Negotiation**
Location	/Modem/Control/Interfaces/Ethernet/Link/Interface B			
Description	Configuration of auto-negotiation of the Ethernet physical interface. When auto-negotiation is disabled the correct speed must be configured via command ***IfEthForceSpeed***. If auto-negotiation is enabled, the auto-negotiation sequence will be restarted. Remark: For 1000 BASE-T, auto-negotiation must always be enabled.			
RMCP Command	EAe array : [1 .. 2]		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthAutoNegEn		
	OID	1.3.6.1.4.1.5835.3.1.4.1.81.1.1.[1 .. 2]		
Values	***Factory Default***	***Enumeration***		***Value***
	enabled	Disabled Enabled		0 1

Command IfEthAutoNegRestart		**Restart Auto-Negotiation**		**Restart Auto-Negotia**
Location	/Modem/Control/Interfaces/Ethernet/Link/Interface B			
Description	Configuration command to restart the auto-negotiation sequence of the Ethernet physical interface.			
RMCP Command	EAr array : [1 .. 2]		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthAutoNegRestart		

Command IfEthAutoNegRestart		**Restart Auto-Negotiation**		**Restart Auto-Negotia**
	OID	1.3.6.1.4.1.5835.3.1.4.1.82.1.1.[1 .. 2]		
Values	***Factory Default***		***Enumeration***	***Value***
	idle		Restart Idle	0 1

Command IfEthForceSpeed2		**Speed advertisement**		**Speed advertisement**
Location	/Modem/Control/Interfaces/Ethernet/Link/Interface B			
Description	Configuration command to force the speed of the Ethernet physical interface to a given bitrate by changing the advertised speeds in the auto-negotiation process.			
RMCP Command	efs array : [1 .. 2]		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthForceSpeed2		
	OID	1.3.6.1.4.1.5835.3.1.4.1.232.1.1.[1 .. 2]		
Values	***Factory Default***		***Enumeration***	***Value***
	autonegotiated		autonegotiated 10 BASE-T Half Duplex 10 BASE-T Full Duplex 100 BASE-T Half Duplex 100 BASE-T Full Duplex 1000 BASE-T Full Duplex	0 1 2 3 4 5

/Modem/Control/Interfaces/Ethernet/Itf redundancy

Command IfEthIfRedunEnable		**Eth itf redundancy**		**Eth itf redundancy**
Location	/Modem/Control/Interfaces/Ethernet/Itf redundancy			
Description	Configuration command to enable or disable Ethernet interface redundancy. When Ethernet interface redundancy is enabled, Ethernet interface A and B will behave as one virtual interface. Only one of the physical interfaces will be active at a time. The configuration will move from one interface to the other, as one takes over operation from the other.			
RMCP Command	eir		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthIfRedunEnable		
	OID	1.3.6.1.4.1.5835.3.1.4.1.241.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	disabled		Disabled Enabled	0 1

Command IfEthIfRedunEnable		**Eth itf redundancy**	**Eth itf redundancy**
		Enabled: prioritize A Enabled: prioritize B	2 3

Command IfEthIfRedunFollowGw	**Itf follows gateway**	**Itf follows gateway**

Location	/Modem/Control/Interfaces/Ethernet/Itf redundancy			
Description	Configuration for the interface link selection to choose the active link where the gateway IP address(es) can be reached. When one of the configured IP gateways is not reachable on one of the interfaces, it will make the other interface active. Gateway detection is only performed on the active link. After switching to the redundant link, the system will not try to switch back to the original link unless if there is a problem on the new active link.			
RMCP Command	irf		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthIfRedunFollowGw		
	OID	1.3.6.1.4.1.5835.3.1.4.1.242.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	disabled		Disabled Enabled	0 1

/Modem/Control/Interfaces/Ethernet/Unit redundancy

Command IfEthUnitRedunState	**Unit redundancy state**	**Unit redundancy stat**

Location	/Modem/Control/Interfaces/Ethernet/Unit redundancy			
Description	This command allows to configure the unit as active or standby. The Ethernet interfaces of a standby unit will not carry operational traffic.			
RMCP Command	eus		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthUnitRedunState		
	OID	1.3.6.1.4.1.5835.3.1.4.1.246.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	active		Standby Active	0 1

Command IfEthUnitRedunVmac	**Unit redun virtual MAC**	**Unit redun virtual M**

Location	/Modem/Control/Interfaces/Ethernet/Unit redundancy			
Description	Configuration command to enable virtual MAC addresses on the Ethernet traffic ports. Units that backup each other should have the same IP addresses and virtual MAC addresses when one goes down. Before enabling virtual MAC addressing, you should configure the virtual reality identifier that determines the virtual MAC address to be used (according to the virtual router redundancy protocol standard). Ethernet interfaces that backup each other should be assigned the same VR-ID or virtual reality identifier.			
RMCP Command	euv		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthUnitRedunVmac		
	OID	1.3.6.1.4.1.5835.3.1.4.1.247.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	disabled		Disabled Enabled	0 1

Command IfEthUnitRedunVrrp	**VRRP enable**	**VRRP enable**

Location	/Modem/Control/Interfaces/Ethernet/Unit redundancy			
Description	This value is used to enable or disable the use of the VRRP protocol to check the presence of a redundant unit. It is used to avoid that 2 devices would be enabled at the same time.			
RMCP Command	urv		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthUnitRedunVrrp		
	OID	1.3.6.1.4.1.5835.3.1.4.1.255.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	enabled		Disabled Enabled	0 1

Command IfEthUnitRedunVridA	**VR-ID Eth A**	**VR-ID Eth A**

Location	/Modem/Control/Interfaces/Ethernet/Unit redundancy		
Description	Configuration of the VR-ID or virtual reality identifier for Ethernet interface A. Ethernet interfaces that backup each other should have the same VR-ID. The VR-ID is a value between 1 and 255. It uniquely identifies a set of redundant Ethernet interfaces on a LAN.		
RMCP Command	vra	**Access**	Normal user : RW Expert user : RW

Command IfEthUnitRedunVridA		**VR-ID Eth A**		**VR-ID Eth A**
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthUnitRedunVridA		
	OID	1.3.6.1.4.1.5835.3.1.4.1.248.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	1	1 .. 255

Command IfEthUnitRedunVridB		**VR-ID Eth B**		**VR-ID Eth B**
Location	/Modem/Control/Interfaces/Ethernet/Unit redundancy			
Description	Configuration of the VR-ID or virtual reality identifier for Ethernet interface B. Ethernet interfaces that backup each other should have the same VR-ID. The VR-ID is a value between 1 and 255. It uniquely identifies a set of redundant Ethernet interfaces on a LAN.			
RMCP Command	vrb	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthUnitRedunVridB		
	OID	1.3.6.1.4.1.5835.3.1.4.1.249.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	2	1 .. 255

Command IfEthUnitRedunFollowGw		**Unit follows gateway**		**Unit follows gateway**
Location	/Modem/Control/Interfaces/Ethernet/Unit redundancy			
Description	Configuration for unit redundancy to choose the active unit where the gateway IP address(es) can be reached. When one of the configured IP gateways is not reachable on one of the units, it can make the other unit active. Gateway detection is only performed on the active link. After switching to the redundant unit, the system will not try to switch back to the original unit unless if there is a problem on the new active unit.			
RMCP Command	urf		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthUnitRedunFollowGw		
	OID	1.3.6.1.4.1.5835.3.1.4.1.245.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	disabled		Disabled Enabled	0 1

/Modem/Control/Interfaces/Ethernet/IP encap-decap

Only valid for Eth (IP) processing modes.

Command IfEthInputConf	**Enable Ethernet itf**	**Enable Ethernet itf**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap	
Description	Configuration of the interface to be used on the Ethernet board. When Ethernet interface redundancy is enabled, interface A points to the virtual interface on top of interface A and B. If you want to know which of both interfaces is currently active on a redundant setup, you can look at the monitoring page.	
RMCP Command	IIc	**Access** Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry
	Command	ntcDevsMod01IfEthInputConf
	OID	1.3.6.1.4.1.5835.3.1.4.1.84.1.1

Values	***Factory Default***	***Enumeration***	***Value***
	noinput	None Interface A Interface B	0 1 2

Command IfVLANSupport	**VLAN Support**	**VLAN Support**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap	
Description	Configuration of VLAN support. • With VLAN support ***enabled*** (default), Ethernet filtering and processing is based on VLAN tags. • With VLAN support ***disabled*** (= native VLAN support in 801.1Q), all traffic coming from the input interface is processed without looking at any VLAN information. e.g. the Ethernet RX filters which have different VLAN identifier and different destination MAC behave as if they had the same VLAN identifier and that this imaginary VLAN matched the Ethernet input interface.	
RMCP Command	IVS	**Access** Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry
	Command	ntcDevsMod01IfVLANSupport
	OID	1.3.6.1.4.1.5835.3.1.4.1.114.1.1

Values	***Factory Default***	***Enumeration***	***Value***
	disabled	Disabled Enabled	0 1

Command IfEthRxFixedFilter Protocols	**Encapsulation protocol**	**Encapsulation protoc**

Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap			
Description	Configuration of the encapsulation protocol to use.			
RMCP Command	Efp		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthRxFixedFilterProtocols		
	OID	1.3.6.1.4.1.5835.3.1.4.1.85.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	ule	None ULE Datapiping XPE MPE GSE	0 1 2 3 4 5

Command IfBridgeType	**Bridge type**	**Bridge type**

Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap			
Description	Configuration of the bridge type. The following selections are possible: • ***Layer 2*** Ethernet Bridge: Raw Ethernet packet forwarding. • ***Layer 3*** IP Bridging: Raw IP packet forwarding with proxy ARP support for remote IP addresses in the same subnet. • ***Layer 3*** IP Routing: Raw IP packet forwarding. The modulator acts as a router.			
RMCP Command	Ibt		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBridgeType		
	OID	1.3.6.1.4.1.5835.3.1.4.1.190.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	ethbridge	L2 Ethernet Bridge L3 IP Bridge L3 IP Router	0 1 2

Command IfEnableL2routing	**L2 routing**	**L2 routing**

Location	/Modem/Control/Interfaces/Ethernet/P encap-decap			
Description	Configuration command to enable or disable layer 2 routing in a layer 3 forwarding device. When you enable layer 2 routing, you can route IP packets on the destination MAC address.			
RMCP Command	elr		**Access**	Normal user : no access Expert user : RW

Command IfEnableL2routing	**L2 routing**	**L2 routing**

SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfEnableL2routing	
	OID	1.3.6.1.4.1.5835.3.1.4.1.230.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	enabled	Disabled Enabled	0 1

Command IfPromiscFlag	**promiscuous mode**	**promiscuous mode**

Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap			
Description	Readout of the promiscuous flag that indicates if the Ethernet interface is receiving packets for all MAC addresses (= ***promiscuous***) or only for its own MAC address (= ***non-promiscuous***).			
RMCP Command	prm		**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPromiscFlag		
	OID	1.3.6.1.4.1.5835.3.1.4.1.197.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	nonPromiscuous	Non-promiscuous Promiscuous	0 1	

Command IfForcePromiscuous	**Force promiscuous**	**Force promiscuous**

Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap			
Description	Configuration to force packet reception from the Ethernet interface in promiscuous mode which means accepting all MAC addresses from the Ethernet physical interface. Normally, the system will decide automatically whether the Ethernet physical interface should be in promiscuous mode or not. Forcing the physical interface into promiscuous mode is useful for troubleshooting, because it allows you to capture all packets that are received on the wire.			
RMCP Command	fpr		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfForcePromiscuous		
	OID	1.3.6.1.4.1.5835.3.1.4.1.192.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	automatic	Automatic Force promiscuous	0 1	

Command IfPacketInsStreamId		**Inband mngt encap stream id**		**Inband mngt encap st**
Location	/Modem/Control/Interfaces/Ethernet//P encap-decap			
Description	Inband management encapsulation stream id.			
RMCP Command	Pis	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPacketInsStreamId		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	1	1 .. 5

Command IfPacketInsStreamId		**Inband mngt encap stream id**		**Inband mngt encap st**
Location	/Modem/Control/Interfaces/Ethernet//P encap-decap			
Description	Inband management encapsulation stream id.			
RMCP Command	Pis	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPacketInsStreamId		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	1	01/05/10

Command IfVLANForwarding		**VLAN forwarding**	**VLAN forwarding**
Location	/Modem/Control/Interfaces/Ethernet/ipencap		
Description	Select how VLANs are mapped to the satellite payload: • add-drop: VLAN is dropped, and replaced by PID/ISI/AirMAC addressing • keep: VLAN is kept, in addition to the PID/ISI/AirMAC addressing		
RMCP Command	vfw	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfVLANForwarding	
	OID	1.3.6.1.4.1.5835.3.1.4.1.280.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	adddrop	Add-drop Keep	0 1

Command IfVLANTypeId			**VLAN type id**	**VLAN type id**
Location	/Modem/Control/Interfaces/Ethernet/ipencap			
Description	This field defines the VLAN type identifier. It can be used to filter on the outer VLAN tag in a QinQ frame (standardized as 0x9100). This device filters on maximum 1 VLAN tag.			
RMCP Command	vtp		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfVLANTypeId		
	OID	1.3.6.1.4.1.5835.3.1.4.1.281.1.1		
Values	***Factory Default***	***String Description***		
	8100	length : 4 (fixed) format : Hexadecimal chars		

/Modem/Control/Interfaces/Ethernet/IP encap-decap/IP interface table

Structured Command IfBrIlfEntry			**IP interface table**	**IP interface table**
Location	/Modem/Control/Interfaces/Ethernet/encap-decap/IP interface table			
Description	Configuration of the IP interface entry that contains the configuration parameters of an IP subnet that is bridged or routed over the satellite link.			
RMCP Command	Bte array : [1 .. 32]		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBrIlfEntry		
	OID	1.3.6.1.4.1.5835.3.1.4.1.183.1.1.[1 .. 32]		

Variables	**Page**
IfBrIlfEnable	190
IfBrIlfLocalVlan	191
IfBrIlfLocalIp	191
IfBrIlfLocalIpMask	192
IfBrIlfLocalGateway	192
IfBrIlfRemoteIp	192
IfBrIlfRemoteIpMask	193

/Modem/Control/Interfaces/Ethernet/IP encap-decap/Ethernet Rx routes

Structured Command IfChConfigEthRx		**Ethernet receive routes**	**Ethernet Rx routes**
Location	/Modem/Control/Interfaces/Ethernet/ipencap/Ethernet Rx routes		
Description	Configuration of the routes from the Ethernet interface towards the satellite interface. Packets are captured from the specified VLAN and filtered by the Ethernet MAC address and/or IP address. The matching packets are encapsulated by the specified protocol engine using the specified PID and air-MAC address (if needed by protocol settings). Remark1: Ethernet MAC address = 00:00:00:00:00:00 matches all addresses. Remark2: IP address = 0.0.0.0 matches all addresses.		
RMCP Command	ICR array : [1 .. 255]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfChConfigEthRx	
	OID	1.3.6.1.4.1.5835.3.1.4.1.59.1.1.[1 .. 255]	

Variables	**Page**
IfChConfigEthRxEnable	175
IfChConfigEthRxVlanId	176
IfChConfigEthRxMac	176
IfChConfigEthRxIp	176
IfChConfigEthRxIpMask	177
IfChConfigEthRxStreamId	177
IfChConfigEthRxPID	178
IfChConfigEthRxAirMac	178
IfChConfigEthRxPackingDelay	178

/Modem/Control/Interfaces/Ethernet/IP encap-decap/Demod Rx routes

Structured Command IfChConfigEthTx		**Demod Rx routes**	**Demod Rx routes**
Location	/Modem/Control/Interfaces/Ethernet/ipencap/Demod Rx routes		
Description	Configuration of the routing from the demodulator interface towards the Ethernet network. MPEG transport stream packets with the specified PID are decoded by the protocol engine. If the protocol requires an Air-MAC address, the specified Air-MAC address is used and the resulting Ethernet packet is sent to the specified VLAN. If an Ethernet MAC address is specified (00:00:00:00:00:00 means "not set"), the destination MAC address of the Ethernet frame is set accordingly. If the Ethernet MAC address is not specified, the destination MAC address for the next HOP will be found by using ARP.		
RMCP Command	ICT array : [1 .. 32]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfChConfigEthTx	
	OID	1.3.6.1.4.1.5835.3.1.4.1.67.1.1.[1 .. 32]	

Variables	**Page**

Structured Command IfChConfigEthTx	**Demod Rx routes**	**Demod Rx routes**
IfChConfigEthTxEnable IfChConfigEthTxISI IfChConfigEthTxPID IfChConfigEthTxAirMac IfChConfigEthTxVlanId IfChConfigEthTxMac		179 180 180 180 181 181

/Modem/Control/Interfaces/Ethernet/IP encap-decap/Protocols

Only valid for Eth (IP) processing modes.

Structured Command IfUleSettings		**ULE Settings**	**ULE Settings**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap/Protocols		
Description	Configuration of the ULE encapsulator or decapsulator. • Air-Mac mode: Enables or disables the insertion of an Air-MAC address. Enabling Air-MAC address insertion gives 6 bytes extra overhead for each Ethernet packet. Air-MAC addresses provide the user with an extra level of filtering at the demodulator side. The easiest way of filtering is on PID but if this is not enough or not possible, Air-MAC addresses are available. • CRC: CRCs are used to protect the encapsulated data. When enabled, it calculates the CRC-32 over the encapsulated data and checks this checksum again at the demodulator side. When disabled, no CRC-32 value is inserted and may increase the encapsulation performance slightly. The last option might be useful if a slight performance boost is required by the user.		
RMCP Command	IUS	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfUleSettings	
	OID	1.3.6.1.4.1.5835.3.1.4.1.107.1.1	

Variables	**Page**
IfUleSettingsDestMac IfUleSettingsCRC	179 182

Structured Command IfGBSSettings		**XPE Settings**	**XPE Settings**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap/Protocols		
	Only valid for modes Air (XPE).		
Description	Configuration of XPE encapsulator or decapsulator.		
RMCP Command	IGS	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	

Structured Command IfGBSSettings		**XPE Settings**	**XPE Settings**
	Command	ntcDevsMod01IfGBSSettings	
	OID	1.3.6.1.4.1.5835.3.1.4.1.91.1.1	
Variables			**Page**
IfGBSSettingsDestMac IfGBSSettingsCRC			182 183

Structured Command IfGSESettings			**GSE Settings**	**GSE Settings**
Location	/Modem/Control/Interfaces/Ethernet/ipencap/Protocols			
Description	Configuration of GSE encapsulator/decapsulator. To change the values, press the change button. For each variable, a drop down box will appear. Select your choices, and press the APPLY button.			
RMCP Command	gss		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfGSESettings		
	OID	1.3.6.1.4.1.5835.3.1.4.1.274.1.1		
Variables				**Page**
IfGSESettingsDestMac				183

/Modem/Control/Interfaces/Ethernet/IP encap-decap/QOS

Command IfEnableQosClassif			**Eth RX QOS**	**Eth RX QOS**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap/QOS			
Description	Configuration command to enable or disable Ethernet quality of service classification or QOS classification.			
RMCP Command	eqc		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEnableQosClassif		
	OID	1.3.6.1.4.1.5835.3.1.4.1.231.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	enabled		Disabled Enabled	0 1

Command IfQosOnCpuload	**QOS on cpuload**	**QOS on cpuload**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap/QOS	
Description	Configuration command to specify if the quality of service mechanism need to be applied when the CPU is highly loaded. Enabling this will lower the maximum throughput.	
RMCP Command	qoc	**Access** Normal user : no access Expert user : RW
SNMP	***Table*** ntcDevsMod01InterfaceEntry	
	Command ntcDevsMod01IfQosOnCpuload	
	OID 1.3.6.1.4.1.5835.3.1.4.1.250.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	disabled	Disabled Enabled	0 1

Structured Command IfQosQueueEntry	**Eth RX QOS queue table**	**Eth RX QOS queue tab**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap/QOS	
Description	Configuration of a quality of service queue entry that contains the dimensioning parameters for a quality of service queue.	
RMCP Command	qqe array : [1 .. 4]	**Access** Normal user : no access Expert user : RW
SNMP	***Table*** ntcDevsMod01InterfaceExtEntry	
	Command ntcDevsMod01IfQosQueueEntry	
	OID 1.3.6.1.4.1.5835.3.1.4000.1.17.1.1.[1 .. 4]	

Variables	**Page**
IfQosQueuePriority	195
IfQosQueueGuarPerFlow	195
IfQosQueueMaxPerQos	196

Structured Command IfEthQosRuleEntry	**Eth RX QOS rule table**	**Eth RX QOS rule tabl**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap/QOS	
Description	Configuration of a quality of service rule entry to define which packets are directed to which quality of service queue.	
RMCP Command	qre array : [1 .. 8]	**Access** Normal user : no access Expert user : RW
SNMP	***Table*** ntcDevsMod01InterfaceExtEntry	
	Command ntcDevsMod01IfEthQosRuleEntry	
	OID 1.3.6.1.4.1.5835.3.1.4000.1.16.1.1.[1 .. 8]	

Variables	**Page**
IfEthQosRuleEnable	196

Structured Command IfEthQosRuleEntry	**Eth RX QOS rule table**	**Eth RX QOS rule tabl**
IfEthQosRuleClassif IfEthQosRulePrio		196 197

/Modem/Control/Interfaces/Ethernet/IP encap-decap/Signalling

Command SySigIp	**Signalling IP**	**Signalling IP**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap/Signalling	
Description	Configuration of the signalling IP address. The signalling IP address is used for various control functions such as ACM messaging.	
RMCP Command	sip	**Access** Normal user : no access Expert user : RW
SNMP	***Table*** ntcDevsMod01SystemEntry	
	Command ntcDevsMod01SySigIp	
	OID 1.3.6.1.4.1.5835.3.1.1.1.95.1.1	
Values	***Factory Default***	***String Description***
	239.1.0.1	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}

Command IfEnableModDemodSig	**mod-demod signalling**	**mod-demod signalling**
Location	/Modem/Control/Interfaces/Ethernet/IP encap-decap/Signalling	
Description	Configuration command to enable or disable modulator to demodulator signalling. This signalling traffic can be used to lock a DVB-S2 demodulator or for information sharing between modulator and demodulator.	
RMCP Command	Mds	**Access** Normal user : no access Expert user : RW
SNMP	***Table*** ntcDevsMod01InterfaceEntry	
	Command ntcDevsMod01IfEnableModDemodSig	
	OID 1.3.6.1.4.1.5835.3.1.4.1.239.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	enabled	Disabled Enabled	0 1

/Modem/Control/Interfaces/Ethernet/IP termination/Network

Only valid for the following processing modes:
- Eth (TSoIP)
- Eth (S2BBFoE)
- Eth (ntS2BBFoE)

Command BuDecOwnIpaddrA			**Own IP address A**	**Own IP address A**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/Network			
Description	Configuration of the IP address of Ethernet interface A.			
RMCP Command	Oaa		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01BurstDemodEntry		
	Command	ntcDevsMod01BuDecOwnIpaddrA		
	OID	1.3.6.1.4.1.5835.3.1.15.1.3.1.1		
Values	***Factory Default***	***String Description***		
	192.168.254.2	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}		

Command BuDecOwnNetMaskA			**Own netmask A**	**Own netmask A**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/Network			
Description	Configuration of the network mask of Ethernet interface A.			
RMCP Command	Ana		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01BurstDemodEntry		
	Command	ntcDevsMod01BuDecOwnNetMaskA		
	OID	1.3.6.1.4.1.5835.3.1.15.1.5.1.1		
Values	***Factory Default***	***String Description***		
	255.255.255.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}		

Command BuDecOwnIpaddrB			**Own IP Address B**	**Own IP Address B**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/Network			
Description	Configuration of the IP address of Ethernet interface B.			
RMCP Command	Oab		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01BurstDemodEntry		
	Command	ntcDevsMod01BuDecOwnIpaddrB		
	OID	1.3.6.1.4.1.5835.3.1.15.1.4.1.1		
Values	***Factory Default***	***String Description***		

Command BuDecOwnIpaddrB	**Own IP Address B**	**Own IP Address B**
	192.168.254.3	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}

Command BuDecOwnNetMaskB		**Own netmask B**	**Own netmask B**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/Network		
Description	Configuration of the network mask of Ethernet interface B.		
RMCP Command	Anb	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01BurstDemodEntry	
	Command	ntcDevsMod01BuDecOwnNetMaskB	
	OID	1.3.6.1.4.1.5835.3.1.15.1.6.1.1	
Values	***Factory Default***	***String Description***	
	255.255.255.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command SyBuDecIPGateWay		**Default Gateway Address**	**Itf gateway address**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/Network		
Description	Configuration command of the IP address of the default gateway.		
RMCP Command	DGw	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry	
	Command	ntcDevsMod01SyBuDecIPGateWay	
	OID	1.3.6.1.4.1.5835.3.1.1.1.75.1.1	
Values	***Factory Default***	***String Description***	
	192.168.254.206	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command IfEthMcastIf		**Multicast interface**	**Multicast interface**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/Network		
	Only valid for Eth (TSoIP) processing mode.		
Description	Configuration command to select the interface that must carry the incoming or outgoing multicast IP traffic.		
RMCP Command	Mif	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfEthMcastIf	

Command IfEthMcastIf		**Multicast interface**	**Multicast interface**
	OID	1.3.6.1.4.1.5835.3.1.4.1.191.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	none	None Interface A Interface B	0 1 2

/Modem/Control/Interfaces/Ethernet/IP termination/MPEG over IP

Only valid for Eth (TSoIP) processing mode.

Command IfMPEGoUDPRXSettings Format			**RX Format**	**RX Format**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/MPEG over IP			
Description	Configuration of the type of protocol stack that the transport stream packets are encapsulated on. This setting applies to the reception format of UDP packets. • ***UDP***: User datagram protocol. • ***RTP***: Real time transmission protocol. • ***TS***: MPEG transport stream.			
RMCP Command	VRf		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfMPEGoUDPRXSettingsFormat		
	OID	1.3.6.1.4.1.5835.3.1.4.1.146.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	UDPTS	UDP/TS UDP/RTP/TS	0 1	

Command IfMPEGoUDPRXSettings Type			**RX IP type**	**RX IP type**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/MPEG over IP			
Description	Configuration of what type of network transmission is used. The type of IP addressing can be unicast or multicast. Remark: This setting applies to the reception of UDP packets.;			
RMCP Command	VRt		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfMPEGoUDPRXSettingsType		

Command IfMPEGoUDPRXSettings Type		**RX IP type**	**RX IP type**
	OID	1.3.6.1.4.1.5835.3.1.4.1.149.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	multicast	Multicast Unicast	0 1

Command IfMPEGoUDPRXSettings Profile		**RX Profile**	**RX Profile**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/MPEG over IP		
Description	Configuration of the profile of the transport stream over IP traffic. • ***CBR***: Constant bitrate. • ***VBR***: Variable bitrate. CBR can be used if the Ethernet rate is constant over time. Ethernet packets are received at regular moments in time. VBR needs to be configured if the Ethernet rate is bursty in nature. Sometimes lots of data is received, sometimes nothing is received. CBR can be used to slave the baud rate of the modulator onto the received Ethernet rate. In VBR mode, no slaving is possible. If the Ethernet rate is too low null packet stuffing is done.		
RMCP Command	VRP	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfMPEGoUDPRXSettingsProfile	
	OID	1.3.6.1.4.1.5835.3.1.4.1.148.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	cbr	CBR VBR	0 1

Command IfMPEGoUDPRXSettingsIP		**RX Multicast IP**	**RX Multicast IP**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/MPEG over IP		
Description	Configuration of the multicast IP address for the incoming UDP stream. Remark: This setting is not applicable when the type of the incoming stream is unicast.		
RMCP Command	VRi	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfMPEGoUDPRXSettingsIP	
	OID	1.3.6.1.4.1.5835.3.1.4.1.147.1.1	
Values	***Factory Default***	***String Description***	
	224.0.0.1	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command IfMPEGoUDPRXSettings UDPPort			**RX UDP port**		**RX UDP port**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/MPEG over IP				
Description	Configuration of the UDP port number for MPEG over UDP decapsulation. Remark: This setting applies to the reception of UDP packets.				
RMCP Command	VRp	**Access**			Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfMPEGoUDPRXSettingsUDPPort			
	OID	1.3.6.1.4.1.5835.3.1.4.1.150.1.1			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***		***Expert Range (CU)***
	NA	NA	9035		0 .. 65535

/Modem/Control/Interfaces/Ethernet/IP termination/S2BBF over IP

Only valid for Eth (S2BBFoE) processing mode.

Command IfDvbs2BboeRxUdpPort			**S2BBFoE rx UDP port**		**S2BBFoE rx UDP port**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/S2BBF over IP				
Description	This field defines the UDP port used for receiving DVB-S2 baseband frames over Ethernet from an external encapsulator (e.g.: EL860)				
RMCP Command	brU	**Access**			Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfDvbs2BboeRxUdpPort			
	OID	1.3.6.1.4.1.5835.3.1.4.1.134.1.1			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***		***Expert Range (CU)***
	NA	NA	12345		0 .. 65535

Command IfDvbs2BboeTxIp			**S2BBFoE tx IP address**		**S2BBFoE tx IP addres**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/S2BBF over IP				
Description	Configuration of the IP address to which DVB-S2 baseband frames will be transmitted over the Ethernet interface. This address can be a unicast or multicast IP address.				
RMCP Command	btI		**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfDvbs2BboeTxIp			
	OID	1.3.6.1.4.1.5835.3.1.4.1.228.1.1			
Values	***Factory Default***	***String Description***			

Command IfDvbs2BboeTxIp	**S2BBFoE tx IP address**	**S2BBFoE tx IP addres**
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}

Command IfDvbs2BboeTxUdpPort		**S2BBFoE tx UDP port**		**S2BBFoE tx UDP port**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/S2BBF over IP			
Description	Configuration of the UDP port number to which DVB-S2 baseband frames will be transmitted over the Ethernet interface.			
RMCP Command	btU	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboeTxUdpPort		
	OID	1.3.6.1.4.1.5835.3.1.4.1.229.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	12345	0 .. 65535

/Modem/Control/Interfaces/Ethernet/IP termination/S2BBF over IP/S2BBF oE instances

Structured Command IfDvbs2BboeRxInstances		**S2BBFoE instances**		**S2BBFoE instances**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/S2BBF over IP/S2BBF oE instances			
Description	This command allows to configure the configuration data for the DVB-S2 baseband receivers in *a single-encapsulator environment.*			
RMCP Command	Bri array : [1 .. 4]		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboeRxInstances		
	OID	1.3.6.1.4.1.5835.3.1.4.1.132.1.1.[1 .. 4]		

Variables	**Page**
IfDvbs2BboeRxEnable	234
IfDvbs2BboeRxMcastIpAddress	234

/Modem/Control/Interfaces/Ethernet/IP termination/ntS2BBF over IP

Only valid for Eth (ntS2BBFoE) processing mode.

Command lfDvbs2BbRxUdpPort			**ntS2BBFoE UDP port**		**ntS2BBFoE UDP port**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/ntS2BBF over IP				
Description	This field defines the UDP port used for receiving DVB-S2 baseband frames over Ethernet from an external encapsulator (e.g.: AZ810)				
RMCP Command	bru		**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01lfDvbs2BbRxUdpPort			
	OID	1.3.6.1.4.1.5835.3.1.4.1.130.1.1			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***	
	NA	NA	12345	0 .. 65535	

Command lfDvbs2BboeTxIp			**S2BBFoE tx IP address**	**S2BBFoE tx IP addres**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/ntS2BBF over IP			
Description	Configuration of the IP address to which DVB-S2 baseband frames will be transmitted over the Ethernet interface. This address can be a unicast or multicast IP address.			
RMCP Command	btl		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01lfDvbs2BboeTxIp		
	OID	1.3.6.1.4.1.5835.3.1.4.1.228.1.1		
Values	***Factory Default***	***String Description***		
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}		

Command IfDvbs2BboeTxUdpPort		**S2BBFoE tx UDP port**		**S2BBFoE tx UDP port**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/ntS2BBF over IP			
Description	Configuration of the UDP port number to which DVB-S2 baseband frames will be transmitted over the Ethernet interface.			
RMCP Command	btU	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboeTxUdpPort		
	OID	1.3.6.1.4.1.5835.3.1.4.1.229.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	12345	0 .. 65535

Command IfDvbs2BbRxEncaps Timetick		**Encapsulation timetick**		**Encapsulation timeti**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/ntS2BBF over IP			
Description	This timetick defines the periodic interval for the encapsulation of baseband frames.			
RMCP Command	brt	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BbRxEncapsTimetick		
	OID	1.3.6.1.4.1.5835.3.1.4.1.124.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ms	ms	30	5 .. 999

Command IfDvbs2BbRxBuff HeadroomMs		**Buffer headroom**		**Buffer headroom**
Location	/Modem/Control/Interfaces/Ethernet/IP termination/ntS2BBF over IP			
Description	The ntS2BBF receiver sends periodically volume requests to an external encapsulator. To avoid that the modulator buffer would be empty, we try to make sure that we always have a given headroom of bytes in this buffer. This modulator buffer headroom can be configured in milliseconds.			
RMCP Command	brh	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BbRxBuffHeadroomMs		
	OID	1.3.6.1.4.1.5835.3.1.4.1.203.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ms	ms	10	0 .. 5000

Command IfDvbs2BbRxAvgCoding ComprWin		**Avg coding comp window**		**Avg coding comp wind**	
Location	/Modem/Control/Interfaces/Ethernet/IP termination/ntS2BBF over IP				
Description	This is the number of encapsulation periods over which we calculate the average coding compression. See also IfDvbs2BbRxAvgCodingCompr.				
RMCP Command	acw	**Access**		Normal user : no access Expert user : RW	
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfDvbs2BbRxAvgCodingComprWin			
	OID	1.3.6.1.4.1.5835.3.1.4.1.202.1.1			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***	
	periods	periods	5	1 .. 64	

/Modem/Control/Modulation

/Modem/Control/Modulation/Main

Command MoACMMode		**DVB-S2 Coding and Modulation mode**		**DVB-S2 mode**	
Location	/Modem/Control/Modulation/Main				
	Only valid for DVB-S2 modes except for Air(XPE).				
Description	Configuration of the DVB-S2 coding and modulation mode. • ***CCM*** : Constant coding and modulation. • ***VCM*** : Variable coding and modulation. • : Adaptive coding and modulation. When the DVB-S2 baseband frames input format is selected, the modulator is operating in ACM mode or in VCM mode in case the input is coming from a single baseband source. In ACM mode, the transmitted frames can consist of different baseband sources (different input stream identifiers) and every frame can be transmitted with different parameters (modcod, pilots and frame type).For non-baseband frame input format, the modulator is operating in CCM mode.				
RMCP Command	ACM		**Access**	Normal user : RW Expert user : RW	
SNMP	***Table***	ntcDevsMod01ModulatorEntry			
	Command	ntcDevsMod01MoACMMode			
	OID	1.3.6.1.4.1.5835.3.1.3.1.55.1.1			
Values	***Factory Default***		***Enumeration***	***Value***	
	ccm		CCM VCM ACM	0 1 2	

Command MoFecMod2	**FEC-rate and modulation**	**FEC-rate and mod.**

Location	/Modem/Control/Modulation/Main		
Used as variable of	***Command(s)***		***Page***
	IfStrConfig		79
	Only for DVB-S2 mode except for Air(XPE) processing modes.		
Description	Configuration of the FEC-rate and modulation. The selection of the FEC-rate and modulation are coupled and depend on the present modulation standard and capability of the device. Because the selection of a new FEC-rate and/or modulation type changes the symbol rate and thus the bandwidth of the signal, transmit is disabled. After verification of the occupied bandwidth, the operator has to re-enable transmit to go back on air. In DVB-S2 mode which supports dynamic changes of FEC-rate and/or modulation, transmit is only disabled when the symbol rate changes i.e. when the rate priority command is set to "interface rate". Remark: The selection of a FEC-rate and/or modulation type for which the present symbol rate is outside the allowed limits, will be indicated by an incompatibility alarm. Only those selections possible with the current device capability will be listed.		
RMCP Command	TMx	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoFecMod2	
	OID	1.3.6.1.4.1.5835.3.1.3.1.11.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	qPSKModulationRate34	QPSK no FEC (SKYPLEX) QPSK-1/2 QPSK-2/3 QPSK-3/4 QPSK-5/6 QPSK-6/7 QPSK-7/8 QPSK-1/4 QPSK-1/3 QPSK-2/5 QPSK-3/5 QPSK-4/5 QPSK-8/9 QPSK-9/10 16APSK-2/3 16APSK-3/4 16APSK-4/5 16APSK-5/6 16APSK-8/9 16APSK-9/10 32APSK-3/4 32APSK-4/5 32APSK-5/6 32APSK-8/9 32APSK-9/10 16QAM-3/4 16QAM-7/8	10 11 12 13 15 16 17 21 22 23 24 25 26 27 42 43 44 45 48 49 53 54 55 58 59 63 67

Command MoFecMod2	**FEC-rate and modulation**	**FEC-rate and mod.**
	8PSK-3/5	81
	8PSK-2/3	82
	8PSK-3/4	83
	8PSK-5/6	85
	8PSK-8/9	88
	8PSK-9/10	89

Command MoPilots	**Physical Layer Pilot insertion**	**Pilot insertion**
Location	/Modem/Control/Modulation/Main	
Used as variable of	***Command(s)***	***Page***
	IfStrConfig	79
	Only valid for DVB-S2 modes and XPE modes.	
Description	Configuration command to enable or disable the insertion of DVB-S2 physical layer pilots. When enabled, every 16 slots (of 90 symbols) the modulator will insert 36 non-modulated symbols to aid in receiver synchronisation. This parameter is the same parameter as the one that can be entered in the DVB-S2 stream table. Remark: This is a CCM command.	
RMCP Command	ACP	**Access** Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry
	Command	ntcDevsMod01MoPilots
	OID	1.3.6.1.4.1.5835.3.1.3.1.81.1.1
Values	***Factory Default***	***Enumeration*** / ***Value***
	off	Off = 0 On = 1

Command MoFrameType		**DVB-S2 FEC-Frame type**		**FEC-Frame type**
Location	/Modem/Control/Modulation/Main			
Used as variable of	***Command(s)***			***Page***
	IfStrConfig			79
	Only valid for DVB-S2 modes and XPE modes.			
Description	Configuration of the DVB-S2 FEC-frame type. Two FEC-frame types are defined: • ***Normal*** FEC-frames of 64800 bits or 8100 bytes. • ***Short*** FEC-frames of 16200 bits or 2025 bytes.This command configures if short or normal length frames need to be created by the encapsulator.Remark: Short frames introduce more overhead but give a shorter encapsulation delay. Short frames are 4 times shorter then normal frames.			
RMCP Command	ACF		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoFrameType		
	OID	1.3.6.1.4.1.5835.3.1.3.1.69.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	short		Short Normal	0 1

Command MoInpRate		**Interface bitrate**		**Interface bitrate**
Location	/Modem/Control/Modulation/Main			
	Not applicable for Air (TS) (multistream) processing mode.			
Description	Configuration of the interface bitrate. This command configures the (de)modulator input bitrate at the baseband interface. The actual range depends on the installed hardware and software capability of the device.			
RMCP Command	TRr	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoInpRate		
	OID	1.3.6.1.4.1.5835.3.1.3.1.14.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Mbps	bps	8.294.118	55000 .. 110000000

Command MoSymRate		**Symbol rate**		**Symbol rate**
Location	/Modem/Control/Modulation/Main			
Description	Configuration of the symbol rate. The actual range depends on installed hardware and software capability.			
RMCP Command	TRs	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoSymRate		
	OID	1.3.6.1.4.1.5835.3.1.3.1.32.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Mbaud	baud	6.000.000	50000 .. 68000000

Command MoOpOutputFreq		**Operational output frequency**		**Output frequency**
Location	/Modem/Control/Modulation/Main			
Description	Configuration of the operational output frequency in case of an active L-band output.			
RMCP Command	OOF	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoOpOutputFreq		
	OID	1.3.6.1.4.1.5835.3.1.3.1.38.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	MHz	Hz	1.450.000.000	-1e+38 .. 1e+38

Command MoOutputLevel		**Output level**		**Output level**
Location	/Modem/Control/Modulation/Main			
Description	Read out of the output level in dBm. The actual range is determined by the gain of the converter (which depends on operating frequency) and the gain of an optional amplifier. Remark: The displayed level can be affected by introducing a level offset (see ***MoOLevelOffset***).			
RMCP Command	OOL array : [1 .. 2]	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoOutputLevel		
	OID	1.3.6.1.4.1.5835.3.1.3.1.29.1.1.[1 .. 2]		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dBm	dBm	-15	-35 to +5

Command MoGainCtrlMode	**Gain control mode**	**Gain control mode**

Location	/Modem/Control/Modulation/Main			
Description	Configuration of the output level gain control mode. The modulator output level accuracy can be controlled statically in the fixed manual gain control mode or by using an automatic gain feedback control loop. In some communication systems with multiple overall automatic gain control, it might be necessary to set the output level of the modulator to manual gain control. The automatic gain control mode is used to keep level changes in output level caused by gain drift of the amplifier stages of the modulator (due to temperature changes or ageing) small.			
RMCP Command	Gcm		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoGainCtrlMode		
	OID	1.3.6.1.4.1.5835.3.1.3.1.12.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	agc	MGC AGC	0 1	

Command MoOutLevelPlan	**Output Level Plan**	**Output Level Plan**

Location	/Modem/Control/Modulation/Main			
Description	Configuration of the output level plan. The modulator features two output level plans: • ***Constant power***: In this plan is the output power kept equal for the different modcods. This is the default mode of operation. • ***Constant rim***: In this plan, the outer ring of the symbol constellation is kept equal for the different modcods. As a consequence different modcods will be transmitted with different output power.The constant rim mode is used for VCM/ACM demodulator operation with a saturated transponder. It avoids excessive input back-off for QPSK, 8PSK and 16APSK modcods during VCM/ACM operation. Due to the dynamic level changes, this mode is only possible with manual gain control. Since the highest outer ring level occurs for a modcod of 32APSK-3/4, this modcod is used as the reference for the output power level setting. The other modcods will be transmitted with higher power:			
RMCP Command	olp		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoOutLevelPlan		
	OID	1.3.6.1.4.1.5835.3.1.3.1.99.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	const_Power	Const. Pwr Const. Rim	0 1	

Command MoSuppressionByDemodUnlock		**TX suppression on demod unlock**		**TX suppression on de**
Location	/UnitFunction/Control/Modulation/Main			
Description	Use this command to decide if the transmission must continue during demod unlock or if it must be suppressed. **Disabled**: The modem keeps transmitting during a demod unlock. This option is used when the remote station is attended. **Enabled:** The modem stops transmitting during demod unlock. This option is used for example in a maritime network)			
RMCP Command	tsd		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoSuppressionByDemodUnlock		
	OID	1.3.6.1.4.1.5835.3.1.3.1.177.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	disabled	Disabled Enabled	0 1	

Command MoOutputEnable	**Modulator board Tx**	**Modulator board Tx**
Location	/Modem/Control/Modulation/Main	
	Only applicable for L-band modulators.	
Description	Configuration command to enable or disable the modulator output signal. The transmission is switched-off upon detection of a general device alarm of the modulator board. The general device alarm is the result of a OR-function of the incompatibility, external 10 MHz reference, external 10 MHz reference PLL and synthesizer lock alarm. When the general device alarm is resolved, transmission is switched back on. The following commands which modify the transmitted signal and its spectrum disable the transmission: • interface rate, • symbol rate, • Roll-off Factor, • modulation standard • output frequency. After such a change, the operator has to inspect the generated signal and then re-enable the transmit to go on-air. The operator requested transmit control state can be saved in the default boot configuration stored in memory slot 0 so that after (accidental) reboot the saved transmitter state is activated. **Always Enable**: • This parameter is used to keep transmitting when changes are made to the commands mentioned above. • This command should only be used by a qualified operator who is fully capable and responsible for preventing unwanted transmissions.	

RMCP Command	TTm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoOutputEnable		
	OID	1.3.6.1.4.1.5835.3.1.3.1.28.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	disable	Disabled Enabled Always Enabled	0 1 2	

Command MoCaMod	**Carrier modulation**	**Carrier modulation**
Location	/Modem/Control/Modulation/Main	
Description	Configuration command to control carrier modulation: • ***Pure carrier***: Non-modulated output signal. • ***Modulation on***: Operational modulated carrier signal. • ***Test modulation*** CLK/n: Carrier modulated by a rotating vector with a period of baudrate/n, results in a single spectral line at +CLK/n offset from carrier. This mode is used for calibration and verification	

Command MoCaMod		**Carrier modulation**	**Carrier modulation**
	of spectrum polarity.		
RMCP Command	TMm	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoCaMod	
	OID	1.3.6.1.4.1.5835.3.1.3.1.7.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	caModulationOn	Pure carrier On Clock/8 Clock/4 Clock/16	0 1 2 4 5

/Modem/Control/Modulation/DVB-S2 Streams

/Modem/Control/Modulation/DVB-S2 Streams/DVB-S2 Streams/

Structured Command IfStrConfig		**DVB-S2 Streams**	**DVB-S2 Streams**
Location	/Modem/Control/Modulation/DVB-S2 Streams		
Description	Configuration of the DVB-S2 streams used for Ethernet traffic. The command ***IfStrConfigStreamId*** must be used in the filter configuration and is equal to the array index. Several filters can belong to the same stream. A stream defines the DVB-S2 baseband frame parameters like: FEC-rate and modulation, ISI number, use of pilots and frame type. These settings are only applicable in DVB-S2 mode of the interface card (e.g. when using XPE encapsulation).		
RMCP Command	ISR array : [1 .. 35]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceExtEntry	
	Command	ntcDevsMod01IfStrConfig	
	OID	1.3.6.1.4.1.5835.3.1.4000.1.7.1.1.[1 .. 35]	

Variables	**Page**
IfStrConfigStreamId	183
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MoFecMod2	72
MoISI	82
MoPilots	73
MoFrameType	74

/Modem/Control/Modulation/BasebandFraming

Only valid for DVB-S2 and single stream modes.

Command MoDFLMode			**DVB-S2 DFL encapsulation mode**		**DFL mode**
Location	/Modem/Control/Modulation/BasebandFraming				
Description	Configuration of the data field length mode. When operating with non-baseband frame input formats (i.e. a MPEG transport stream input or generic input streams) the raw input stream is encapsulated into DVB-S2 baseband frames. The payload size of these frames is referred to as data field length and the maximum possible data field length is determined by the selected frame type and modcod. Two data field length encapsulation modes are defined: • ***Automatic***: Upon selection of frame type and/or modcod, the data field length size is automatically set to the corresponding maximum payload size and the sync distance is set to 0. • ***Manual*** : Upon selection of frame type and/or modcod, the data field length size remains at the previous value of the baseband data field length (***MoDFL***) variable as long as this value is supported by the new frame type and modcod. In case the baseband data field length (***MoDFL***) variable exceeds the maximum payload size, the data field length value will be clipped to the maximum. Also the sync distance value will be kept or clipped.				
RMCP Command	DFM array : [1 .. 2]			**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry			
	Command	ntcDevsMod01MoDFLMode			
	OID	1.3.6.1.4.1.5835.3.1.3.1.64.1.1.[1 .. 2]			
Values	***Factory Default***		***Enumeration***		***Value***
	auto		Auto Man		0 1

Command MoDFL		**Rx Baseband DFL**		**Rx Baseband DFL**
Location	/Modem/Control/Modulation/BasebandFraming			
Description	Configuration of the data field length. This variable specifies the baseband data field length size (in bytes) for encapsulation of user data into DVB-S2 baseband frames. When a modulator is operating with non-baseband frame input formats (i.e. a MPEG transport stream input or generic input streams), the raw input stream is encapsulated into DVB-S2 baseband frames. The payload size of these frames is referred to as data field length and the maximum possible data field length is determined by the selected frame type and modcod. Remark: This variable is only applicable for non-baseband frame input formats. In case of a demodulator, the data field length value is read-only and is determined via baseband header info.			
RMCP Command	DFL array : [1 .. 2]	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoDFL		
	OID	1.3.6.1.4.1.5835.3.1.3.1.63.1.1.[1 .. 2]		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bytes	bytes	376	0 .. 8191

Command MoSYNCD		**Baseband Sync distance**		**Sync distance**
Location	/Modem/Control/Modulation/BasebandFraming			
Description	Configuration of the baseband sync distance (in bytes) which specifies the initial position within the baseband frame of the sync marker. In case the data field length is an integer multiple of the user packet length, this position will be maintained over all baseband frames. Remark: This command is only applicable for non-baseband frame input stream formats.			
RMCP Command	SCD	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoSYNCD		
	OID	1.3.6.1.4.1.5835.3.1.3.1.82.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bytes	bytes	0	0 .. 8191

Command MoISI		**Input Stream Identifier**	**ISI**
Location	/Modem/Control/Modulation/BasebandFraming		
Used as variable of	***Command(s)***		***Page***
	IfStrConfig		79
Description	Configuration of the DVB-S2 input stream identifier or ISI which is present in the second byte position of the MATYPE field in the baseband header of a DVB-S2 baseband frame. It is a single byte identifying the encapsulated stream in case of multiple input streams. When the modulator input format consists of baseband frames, this value is used for filtering the matching stream for dedicated processing like network clock reference insertion or monitoring. In all other cases (e.g. a MPEG transport stream or generic stream inputs), this input stream identifier value is filled-in in the MATYPE field of the generated baseband frames. Remark: On a demodulator interface the input stream identifier values are used for filtering the matching stream and determining the output interface.		
RMCP Command	ISI array : [1 .. 2]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoISI	
	OID	1.3.6.1.4.1.5835.3.1.3.1.70.1.1.[1 .. 2]	
Values	***Factory Default***	***String Description***	
	AB	length : 2 (fixed) format : Hexadecimal chars	

/Modem/Control/Modulation/ACM control

Command MoAcmCtrlEnable		**ACM Ctrl**	**ACM Ctrl**
Location	/Modem/Control/Modulation/ACM control		
Description	Configuration command to enable or disable the ACM controller.		
RMCP Command	ace	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoAcmCtrlEnable	
	OID	1.3.6.1.4.1.5835.3.1.3.1.120.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	disabled	Disabled Enabled	0 1

Command MoAcmCtrlMinModcod		**MIN Modcod**	**MIN Modcod**
Location	/Modem/Control/Modulation/ACM control		
Description	Configuration of the lowest modcod that can be used by the ACM controller. This field is used to avoid the use of some modcods that may not be supported by the attached demodulators.		
RMCP Command	ami	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoAcmCtrlMinModcod	
	OID	1.3.6.1.4.1.5835.3.1.3.1.122.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	qPSKModulationRate14	QPSK no FEC (SKYPLEX) QPSK-1/2 QPSK-2/3 QPSK-3/4 QPSK-5/6 QPSK-6/7 QPSK-7/8 QPSK-1/4 QPSK-1/3 QPSK-2/5 QPSK-3/5 QPSK-4/5 QPSK-8/9 QPSK-9/10 16APSK-2/3 16APSK-3/4 16APSK-4/5 16APSK-5/6 16APSK-8/9 16APSK-9/10 32APSK-3/4 32APSK-4/5 32APSK-5/6 32APSK-8/9 32APSK-9/10 16QAM-3/4 16QAM-7/8 8PSK-3/5 8PSK-2/3 8PSK-3/4 8PSK-5/6 8PSK-8/9 8PSK-9/10	10 11 12 13 15 16 17 21 22 23 24 25 26 27 42 43 44 45 48 49 53 54 55 58 59 63 67 81 82 83 85 88 89

Command MoAcmCtrlMaxModcod		**MAX Modcod**	**MAX Modcod**
Location	/Modem/Control/Modulation/ACM control		
Description	Configuration of the maximum modcod that can be used by the ACM controller. This field is used to avoid the use of some modcods that may not be supported by the attached demodulators.		
RMCP Command	amm	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoAcmCtrlMaxModcod	
	OID	1.3.6.1.4.1.5835.3.1.3.1.121.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	x32APSKModulationRate910	QPSK no FEC (SKYPLEX) QPSK-1/2 QPSK-2/3 QPSK-3/4 QPSK-5/6 QPSK-6/7 QPSK-7/8 QPSK-1/4 QPSK-1/3 QPSK-2/5 QPSK-3/5 QPSK-4/5 QPSK-8/9 QPSK-9/10 16APSK-2/3 16APSK-3/4 16APSK-4/5 16APSK-5/6 16APSK-8/9 16APSK-9/10 32APSK-3/4 32APSK-4/5 32APSK-5/6 32APSK-8/9 32APSK-9/10 16QAM-3/4 16QAM-7/8 8PSK-3/5 8PSK-2/3 8PSK-3/4 8PSK-5/6 8PSK-8/9 8PSK-9/10	10 11 12 13 15 16 17 21 22 23 24 25 26 27 42 43 44 45 48 49 53 54 55 58 59 63 67 81 82 83 85 88 89

Command MoAcmCtrlCommFail Modcod	**Comm failure Modcod**	**Comm failure Modcod**

Location	/Modem/Control/Modulation/ACM control			
Description	Configuration of the modcod that needs to be selected when the communication with the demodulator fails.			
RMCP Command	cfm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmCtrlCommFailModcod		
	OID	1.3.6.1.4.1.5835.3.1.3.1.119.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	lowestModcod	lowestModcod QPSK no FEC (SKYPLEX) QPSK-1/2 QPSK-2/3 QPSK-3/4 QPSK-5/6 QPSK-6/7 QPSK-7/8 QPSK-1/4 QPSK-1/3 QPSK-2/5 QPSK-3/5 QPSK-4/5 QPSK-8/9 QPSK-9/10 16APSK-2/3 16APSK-3/4 16APSK-4/5 16APSK-5/6 16APSK-8/9 16APSK-9/10 32APSK-3/4 32APSK-4/5 32APSK-5/6 32APSK-8/9 32APSK-9/10 16QAM-3/4 16QAM-7/8 8PSK-3/5 8PSK-2/3 8PSK-3/4 8PSK-5/6 8PSK-8/9 8PSK-9/10	0 10 11 12 13 15 16 17 21 22 23 24 25 26 27 42 43 44 45 48 49 53 54 55 58 59 63 67 81 82 83 85 88 89

Command MoAcmCtrlMinMargSpec			**Min margin**	**Min margin**
Location	/Modem/Control/Modulation/ACM control			
Description	Configuration of the margin specification for the ACM controller before going to a lower modcod. Different margin specifications for different modcods can be specified in the following way: 1-10:0.50 11-28:1.0 which means that for modcods 1 to 10 a difference of 0.5 dB is needed between the theoretical Es/No for a given modcod and the measured Es/No before changing the current modcod, for modcods 11 to 28 a difference of 1 dB is necessary.			
RMCP Command	mms		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmCtrlMinMargSpec		
	OID	1.3.6.1.4.1.5835.3.1.3.1.136.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 30 format : any chars		

Command MoAcmCtrlTgtMargSpec			**Tgt margin**	**Tgt margin**
Location	/Modem/Control/Modulation/ACM control			
Description	Configuration of the margin specification for the ACM controller before going to a higher modcod. Different margin specifications for different modcods can be specified in the following way: 1-10:0.50 11-28:1.0 which means that for modcods 1 to 10 a difference of 0.5 dB is needed between the theoretical Es/No for a given modcod and the measured Es/No before changing the current modcod, for modcods 11 to 28 a difference of 1 dB is necessary.			
RMCP Command	tms		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmCtrlTgtMargSpec		
	OID	1.3.6.1.4.1.5835.3.1.3.1.137.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 30 format : any chars		

Command MoAcmCtrlDistortSpec			**Distortion**	**Distortion**
Location	/Modem/Control/Modulation/ACM control			
Description	Configuration of the distortion specification for the ACM controller.			
RMCP Command	Dst		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmCtrlDistortSpec		

Command MoAcmCtrlDistortSpec		**Distortion**	**Distortion**
	OID	1.3.6.1.4.1.5835.3.1.3.1.135.1.1	
Values	***Factory Default***	***String Description***	
		length : 0 .. 30 format : any chars	

Command MoAcmCtrlMonitorOnly		**ACM monitoring only**		**ACM monitoring only**
Location	/Modem/Control/Modulation/ACM control			
Description	Configuration command to enable a special ACM monitoring mode. When this field is enabled, the ACM controller will only monitor the system and not actually change the modcod. This is useful to simulate the real behaviour.			
RMCP Command	amo		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmCtrlMonitorOnly		
	OID	1.3.6.1.4.1.5835.3.1.3.1.123.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	disabled	Disabled Enabled	0 1	

Command MoAcmFwSigPlane		**ACM fw sig plane**		**ACM fw sig plane**
Location	/Modem/Control/Modulation/ACM control			
Description	Select control plane for ACM controller forward signalling: • MonCon management IP network • Inband RF channel			
RMCP Command	afp		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmFwSigPlane		
	OID	1.3.6.1.4.1.5835.3.1.3.1.157.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	moncon_ip	Moncon IP mngt LAN Inband RF	0 1	

/Modem/Control/Modulation/ACM control/Demod table

Structured Command MoAcmDmSupvEntry		ACM demodulator supervision table		Demod table
Location	/Modem/Control/Modulation/ACM control/Demod table			
Description	Configuration of the demodulator supervision parameters for the ACM controller. The demodulator supervision parameters provides the mapping between modulator and demodulator based on the demodulator IP address and the DVB-S2 stream identifier.			
RMCP Command	dse array : [1 .. 32]		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmDmSupvEntry		
	OID	1.3.6.1.4.1.5835.3.1.3.1.131.1.1.[1 .. 32]		

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MoAcmDmSupvIp	197
MoAcmDmSupvStrid	197

/Modem/Control/Modulation/PHY

Only valid for DVB-S2.

Command MoPLSSignature		Physical Layer Scrambler signature		PLS signature
Location	/Modem/Control/Modulation/PHY			
Description	Configuration of the physical layer scrambler that scrambles all of the physical layer frames except for their header parts. The sequence is reset at the start of the frame body. The physical layer scrambler signature assumes values in the range 0 and 262141. In case of broadcasting services, the default PLS signature (value = 0) shall be used to avoid manual receiver setting or synchronisation delays.			
RMCP Command	PSS	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoPLSSignature		
	OID	1.3.6.1.4.1.5835.3.1.3.1.77.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 262141

Command MoSpectInv	**Tx spectrum inversion**	**Tx spectrum inversio**

Location	/Modem/Control/Modulation/PHY			
Description	Configuration command to enable or disable spectrum inversion. The spectrum at IFL and at RF is coupled by the installed up-converter module and can be deduced from the frequency conversion formula. If the L-band frequency is subtracted from the local oscillator frequency, the spectrum is inverted in the converter module. If in this case the direct spectrum is required, the spectrum must also be inverted at IFL. Remark: The direct spectrum is conform with NTELSAT specification IESS-308 (Rev.8 - pages 18 & 69) and with the DVB standard ETS 300 421 (December 1994).			
RMCP Command	TMi array : [1 .. 2]		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoSpectInv		
	OID	1.3.6.1.4.1.5835.3.1.3.1.40.1.1.[1 .. 2]		
Values	***Factory Default***		***Enumeration***	***Value***
	directSpectrum		Direct Inverted	1 2

Command MoLinPredMode	**Linear predistortion**	**Linear predistortion**

Location	/Modem/Control/Modulation/PHY			
	This predistortion feature is optional and password upgradeable.			
Description	Configuration command that ***enables*** or ***disables*** the linear pre-distortion filter. The purpose of linear pre-distortion is to compensate for transponder amplitude and group-delay distortions. This becomes especially important when operating at high baudrates and higher order modulation formats. The pre-distortion filter coefficients must be calculated off-line and require transponder amplitude and group-delay characteristics as input. The resulting coefficient data can be uploaded via the ***MoWafFirCoef*** command.			
RMCP Command	LPm		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoLinPredMode		
	OID	1.3.6.1.4.1.5835.3.1.3.1.98.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	disable		Disabled Enabled	0 1

Command MoNonLinPredMode	**Nonlinear predistortion**	**Nonlinear pred**

Location	/Modem/Control/Modulation/PHY			
	This predistortion feature is optional and password upgradeable.			
Description	Configuration command to enable or disable the non-linear pre-distortion function. Non-linear pre-distortion can substantially improve the overall performance of the satellite link. The pre-distortion function compensates for the am/am and am/pm effects caused by driving the satellite transponder close to saturation. Hence it is clear that the pre-distortion itself depends on the actual transponder being used and the operating point (= nominal transmit level). The pre-distortion data must be calculated off-line and requires transponder m/am and am/pm characteristics and operating level as input. Remark: Pre-distortion data also depends on the modulation format (QPSK,8PSK,16APSK,32APSK) and on the actual constellation; i.e. different APSK modcods having different amplitude ring-ratios. Therefore, for handling ACM operation with dynamically varying modcods, the off-line calculation tool will calculate a set of data-tables which can be uploaded to the modulator and stored in internal flash.For each symbol to be transmitted, the modulator performs an amplitude and phase correction on the symbol.The value "L" specifies the length of the symbol history (number of symbols) taken into account for correcting each transmit symbol : • L = 1: Static pre-distortion, uses only the current symbol. • L = 3: Dynamic pre-distortion using the current, previous and next symbols. • L = 5: Dynamic pre-distortion using the current, two previous and two next symbols.The Modulator implementation can handle CCM/VCM/ACM modes with the following L-values : • L = 5 for QPSK and 8PSK modulation formats. • L = 3 for 16APSK and 32APSK modulation formats.			
RMCP Command	NPm		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoNonLinPredMode		
	OID	1.3.6.1.4.1.5835.3.1.3.1.102.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	disable	Disabled Enabled	0 1

Command MoAmplEq		**Amplitude slope equaliser**		**Slope equaliser**
Location	/Modem/Control/Modulation/PHY			
Description	Configuration of the amplitude slope equaliser. An amplitude slope in the up-converter or in the high power amplifier can be compensated by using this equaliser which has a maximum range of ± 2 dB/50 MHz. This is done by changing the corresponding control parameter in steps of one unit in the range of ± 7 units.			
RMCP Command	TLe	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAmplEq		
	OID	1.3.6.1.4.1.5835.3.1.3.1.3.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	units	units	0	-7 .. 7

Command MoExcBw		**Roll-off factor**	**Roll-off factor**
Location	/Modem/Control/Modulation/PHY		
Description	Configuration of the roll-off factor. The excess bandwidth defines the root cosine roll-off factor for the matched filter at the modulator output. Remark: A change of the excess bandwidth disables transmit.		
RMCP Command	TFr	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoExcBw	
	OID	1.3.6.1.4.1.5835.3.1.3.1.9.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	x25RCRO	35% 25% 20%	1 2 3

Command MoMonOutputMode		**Monitoring output mode**	**Monitor output mode**
Location	/Modem/Control/Modulation/PHY		
Description	Configuration of the monitoring output functional mode. • ***Always*** on: The monitor output signal is continuously active irrespective of the operational output status. • ***Follow*** Tx: The monitor output status follows the operational output status. When transmit is off, the monitor output will also be disabled.		
RMCP Command	MOM	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	

Command MoMonOutputMode		**Monitoring output mode**		**Monitor output mode**
	Command	ntcDevsMod01MoMonOutputMode		
	OID	1.3.6.1.4.1.5835.3.1.3.1.52.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	always_on		Always on Follow Tx	0 1

Command MoOccBw		**Occupied bandwidth**		**Occupied bandwidth**
Location	/Modem/Control/Modulation/PHY			
Description	Readout of the occupied bandwidth or readout of the -26 dB bandwidth of the signal. This is calculated as the symbol rate multiplied with (1 + a) with a = the selected roll-off factor.			
RMCP Command	Tfb	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoOccBw		
	OID	1.3.6.1.4.1.5835.3.1.3.1.25.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	MHz	Hz	8.100.000	1000 .. 999999999

Modem/Control/ODU

Command ODPow		**Outdoor power supply**		**Outdoor power supply**
Location	/Unit/Control/ODU			
Description	Configuration command to enable or disable the outdoor power supply as delivered by the outdoor unity and LNB controller unit.			
RMCP Command	ODp		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ODUEntry		
	Command	ntcDevsMod01ODPow		
	OID	1.3.6.1.4.1.5835.3.1.14.1.14.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	disabled		Disabled Enabled	0 1

/Modem/Control/Modulation/AES

Command MoAESEncryptionCtrl			**Global Encryption**	**Global Encryption**
Location	/Modem/Control/Modulation/AES			
Description	Used to select if the Global Encryption key is used for all ISI or ISI specific encryption settings are used. • global: AES encryption enabled with global key (one key for all streams) • isi : AES encryption enabled with individual keys for each stream ISI			
RMCP Command	mMc		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAESEncryptionCtrl		
	OID	1.3.6.1.4.1.5835.3.1.3.1.164.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	global		Global Isi	0 1

Command MoAESEnableEncGlobal			**Encryption Global**	**Encryption Global**
Location	/Modem/Control/Modulation/AES/Global			
Description	This method is used to enable/disable Global AES encryption/decryption. If encryption is disabled, then the Global key is disabled (ignored) If encryption is enabled, then the encryption is via the global settings.			
RMCP Command	mMg		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAESEnableEncGlobal		
	OID	1.3.6.1.4.1.5835.3.1.3.1.161.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	off		Off On	0 1

Command MoAESKeyParityGlob		**Global Key Parity**	**Global Key Parity**
Location	/Modem/Control/Modulation/AES/Global		
Description	This variable is used for the Global key parity selection (odd/even) for each ISI • odd: use Odd key • even: use Even key		
RMCP Command	mGp	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoAESKeyParityGlob	
	OID	1.3.6.1.4.1.5835.3.1.3.1.166.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	odd	Odd Even	0 1

Command MoAESEncEvenGlobalKey		**Global Encypted Even Key**	**Global Encypted Even**
Location	/Modem/Control/Modulation/AES/Global		
Description	This is the Global EVEN encrypted key entered by the user and decrypted with the group key. The key can be either 64bits or 128bits long, depending on the key length setting.If 64bit length is selected then the key has to be encrypted using DES. If 128bit length is selected then the key has to be encrypted using AES. The key is a hexadecimal key. • 64bits - 8 bytes (16 bytes text string) • 128bits - 16 bytes (32 bytes text string)		
RMCP Command	mGe	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoAESEncEvenGlobalKey	
	OID	1.3.6.1.4.1.5835.3.1.3.1.162.1.1	

Values	***Factory Default***	***String Description***
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars

Command MoAESEncOddGlobalKey	**Global Encypted Odd Key**	**Global Encypted Odd**

Location	/Modem/Control/Modulation/AES/Global			
Description	This is the Global ODD encrypted key entered by the user and decrypted with the group key. The key can be either 64bits or 128bits long, depending on the key length setting.If 64bit length is selected then the key has to be encrypted using DES. If 128bit length is selected then the key has to be encrypted using AES. The key is a hexadecimal key. • 64bits - 8 bytes (16 bytes text string) • 128bits - 16 bytes (32 bytes text string)			
RMCP Command	mGo		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAESEncOddGlobalKey		
	OID	1.3.6.1.4.1.5835.3.1.3.1.163.1.1		
Values	***Factory Default***	***String Description***		
	FFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars		

Command MoAESEvenGlobalKey	**Global Even Key**	**Global Even Key**

Location	/Modem/Control/Modulation/AES/Global			
Description	This is the AES Global EVEN key (non-encrypted) entered by the user. This can be either 64bits or 128bits long, depending on the key length setting.The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)			
RMCP Command	mGE		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAESEvenGlobalKey		
	OID	1.3.6.1.4.1.5835.3.1.3.1.165.1.1		
Values	***Factory Default***	***String Description***		
	FFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars		

Command MoAESOddGlobalKey	**Global Odd Key**	**Global Odd Key**
Location	/Modem/Control/Modulation/AES/Global	
Description	This is the AES Global ODD key (non-encrypted) entered by the user. This can be either 64bits or 128bits long, depending on the key length setting.The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)	
RMCP Command	mGO	**Access** Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry
	Command	ntcDevsMod01MoAESOddGlobalKey
	OID	1.3.6.1.4.1.5835.3.1.3.1.167.1.1
Values	***Factory Default***	***String Description***
	FFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars

Command MoAESEnableEncISI	**Encryption Id**	**Encryption Id**
Location	/Modem/Control/Modulation/AES/Keys 1-4	
Description	This method is used to enable/disable AES encryption per KeyId/ISI 0 - Encryption on ISI is disable. 1 - Encryption on ISI is enabled.	
RMCP Command	mEi array : [1 .. 4]	**Access** Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorExtEntry
	Command	ntcDevsMod01MoAESEnableEncISI
	OID	1.3.6.1.4.1.5835.3.1.3000.1.11.1.1.[1 .. 4]

Values	***Factory Default***	***Enumeration***	***Value***
	off	Off On	0 1

Command MoAESKeyISI	**ISI for Key Id**	**ISI for Key Id**
Location	/Modem/Control/Modulation/AES/Keys 1-4	
Description	This method is used to set/map the ISI to a encryption/decryption key. Duplication of ISI to another key is invalid. Range of value is: 0 to 255. Default: 255	
RMCP Command	mei array : [1 .. 4]	**Access** Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorExtEntry
	Command	ntcDevsMod01MoAESKeyISI
	OID	1.3.6.1.4.1.5835.3.1.3000.1.15.1.1.[1 .. 4]

Command MoAESKeyISI	**ISI for Key Id**	**ISI for Key Id**
Values	***Factory Default***	***String Description***
	FF	length : 0 .. 2 format : Hexadecimal chars

Command MoAESKeyParityISI	**Key Parity Id**	**Key Parity Id**
Location	/Modem/Control/Modulation/AES/Keys 1-4	
Description	This variable is used for the key parity selection (odd/even) for each ISI • odd: use Odd key • even: use Even key	
RMCP Command	mKp array : [1 .. 4]	**Access** Normal user : RW Expert user : RW
SNMP	***Table*** ntcDevsMod01ModulatorExtEntry	
	Command ntcDevsMod01MoAESKeyParityISI	
	OID 1.3.6.1.4.1.5835.3.1.3000.1.16.1.1.[1 .. 4]	

Values	***Factory Default***	***Enumeration***	***Value***
	odd	Odd Even	0 1

Command MoAESEncEvenKeyISI	**Encrypted Even Key**	**Encrypted Even Key %**
Location	/Modem/Control/Modulation/AES/Keys 1-4	
Description	This is the EVEN encrypted key entered by the user and decrypted with the group key. The key can be either 64bits or 128bits long, depending on the key length setting.If 64bit length is selected then the key has to be encrypted using DES. If 128bit length is selected then the key has to be encrypted using AES.The key is a hexadecimal key. • 64bits - 8 bytes (16 bytes text string) • 128bits - 16 bytes (32 bytes text string)	
RMCP Command	mek array : [1 .. 4]	**Access** Normal user : RW Expert user : RW
SNMP	***Table*** ntcDevsMod01ModulatorExtEntry	
	Command ntcDevsMod01MoAESEncEvenKeyISI	
	OID 1.3.6.1.4.1.5835.3.1.3000.1.12.1.1.[1 .. 4]	

Values	***Factory Default***	***String Description***
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars

Command MoAESEncOddKeyISI		**Encrypted Odd Key**	**Encrypted Odd Key**
Location	/Modem/Control/Modulation/AES/Keys 1-4		
Description	This is the ODD encrypted key entered by the user and decrypted with the group key. The key can be either 64bits or 128bits long, depending on the key length setting.If 64bit length is selected then the key has to be encrypted using DES. If 128bit length is selected then the key has to be encrypted using AES.The key is a hexadecimal key. • 64bits - 8 bytes (16 bytes text string) • 128bits - 16 bytes (32 bytes text string)		
RMCP Command	mok array : [1 .. 4]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorExtEntry	
	Command	ntcDevsMod01MoAESEncOddKeyISI	
	OID	1.3.6.1.4.1.5835.3.1.3000.1.13.1.1.[1 .. 4]	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars	

Command MoAESEvenKeyISI		**Even Key**	**Even Key**
Location	/Modem/Control/Modulation/AES/Keys 1-4		
Description	This is the AES EVEN key (non-encrypted) entered by the user. This can be either 64bits or 128bits long, depending on the key length setting.The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)		
RMCP Command	mEk array : [1 .. 4]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorExtEntry	
	Command	ntcDevsMod01MoAESEvenKeyISI	
	OID	1.3.6.1.4.1.5835.3.1.3000.1.14.1.1.[1 .. 4]	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars	

Command MoAESOddKeyISI		**Odd Key**	**Odd Key**
Location	/Modem/Control/Modulation/AES/Keys 1-4		
Description	This is the AES ODD key (non-encrypted) entered by the user. This can be either 64bits or 128bits long, depending on the key length setting.The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)		
RMCP Command	mOk array : [1 .. 4]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorExtEntry	
	Command	ntcDevsMod01MoAESOddKeyISI	
	OID	1.3.6.1.4.1.5835.3.1.3000.1.17.1.1.[1 .. 4]	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars	

/Modem/Control/Demodulation

Command DmACMMode		**DVB-S2 Coding and Modulation mode**	**DVB-S2 mode**
Location	/Modem/Control/Demodulation		
Description	Configuration of the DVB-S2 coding and modulation mode. The DVB-S2 standard defines adaptive coding and modulation (ACM) and constant coding and modulation (CCM). The modulation parameters in ACM and CCM mode are: • Modcod: Definition which coding and modulation is used. • Pilot insertion: Presence or not of pilots in the physical layer frame. • Frame type: Short frames (2025 bytes) or normal frames (8100 bytes).Explanation of the different modes: • Definition ***CCM***: Constant coding and modulation parameters are fixed for all input streams (components). The user can change the settings of these parameters. • Definition ***auto-CCM***: CCM mode with auto detection of the parameters. The adaptable parameters are part of the received physical layer frame that way the user can not change any of these parameters. Best practise is to set the demodulator in auto-CCM mode. In this mode, the demodulator will extract the demodulation parameters (modcod, pilots and frame type) from the incoming stream. The demodulator board will look at the physical layer header of the first received DVB-S2 baseband frame to extract the demodulation parameters. It will use those parameters for all other received DVB-S2 baseband frames. In CCM mode, the user has to tell the demodulator manually what demodulation parameters to use. • Definition ***ACM***: Adaptive coding and modulation parameters can vary on a frame by frame basis (even for a single component). The adaptable parameters are part of the received physical layer frame. This way the user can not change any of these parameters. ACM is needed to handle the discontinuous data stream. The modulator board receives DVB-S2 baseband frames from the gigabit Ethernet		

Command DmACMMode		**DVB-S2 Coding and Modulation mode**		**DVB-S2 mode**
	interface board. If the encapsulator does not generate enough DVB-S2 baseband frames, the modulator board will stuff the stream with dummy physical layer frames.			
RMCP Command	ACm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmACMMode		
	OID	1.3.6.1.4.1.5835.3.1.13.1.40.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	ccm	CCM Auto-CCM ACM	0 1 2	

Command DmInput		**Input selection**		**Input selection**
Location	/Modem/Control/Demodulation			
Description	Configuration of the demodulator input. It specifies which input signal, IFL 1 ,IFL 2 or IF is passed to the demodulator.			
RMCP Command	XBs		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmInput		
	OID	1.3.6.1.4.1.5835.3.1.13.1.13.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	ifl1in	IFL 1 in IFL 2 in IF in	1 2 3	

Command CvRxRfFreq		**Receive frequency**		**Receive frequency**
Location	/Modem/Control/Demodulation			
Description	Configuration of the RF input frequency of the converter between 950 and 2150 MHz.			
RMCP Command	RFf	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ConverterEntry		
	Command	ntcDevsMod01CvRxRfFreq		
	OID	1.3.6.1.4.1.5835.3.1.7.1.12.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	MHz	Hz	1.170000	950000000 .. 2150000000

Command DmIntRate		**Interface rate**		**Interface rate**
Location	/Modem/Control/Demodulation			
Description	Configuration of the nominal interface rate. When automatic detection (ACM or auto-CCM) of FEC and modulation mode is enabled, the operator can only enter a specific symbol rate while the interface rate will indicate auto. In DVB-DSNG mode, this parameter is always manually adaptable.			
RMCP Command	RRr	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmIntRate		
	OID	1.3.6.1.4.1.5835.3.1.13.1.14.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Mbps	bps	33.000000	1290000 .. 110000000

Command DmSynRate		**Symbol rate**		**Symbol rate**
Location	/Modem/Control/Demodulation			
Description	Configuration of the nominal symbol rate. The actual possible range depends on the hardware installed and can be limited by a software capability key.			
RMCP Command	RRs	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmSynRate		
	OID	1.3.6.1.4.1.5835.3.1.13.1.25.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Mbaud	baud	27.500000	-1e+38 .. 1e+38

Command DmAcqRan		**Acquisition range (ptp)**		**Acquisition range (p**
Location	/Modem/Control/Demodulation			
Description	Configuration of the range for the carrier acquisition sweep (peak-to-peak). A larger acquisition range will allow locking more easily on an unstable frequency but will also increase demodulator synchronisation time.			
RMCP Command	RDr	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmAcqRan		
	OID	1.3.6.1.4.1.5835.3.1.13.1.3.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	KHz	Hz	1.000.000	50000 ,,,,,, 7500000

Command DmFECDemod2		**FEC-rate and modulation**		**FEC-rate and mod.**
Location	/Modem/Control/Demodulation			
Description	Configuration of the forward error correction coding & modulation. This variable is only visible in constant coding and modulation mode.			
RMCP Command	RMx		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmFECDemod2		
	OID	1.3.6.1.4.1.5835.3.1.13.1.11.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	qPSKModulationRate34	Dummy PLFRAMES	0
		QPSK no FEC (SKYPLEX)	10
		QPSK-1/2	11
		QPSK-2/3	12
		QPSK-3/4	13
		QPSK-5/6	15
		QPSK-6/7	16
		QPSK-7/8	17
		QPSK-auto	19
		QPSK-1/4	21
		QPSK-1/3	22
		QPSK-2/5	23
		QPSK-3/5	24
		QPSK-4/5	25
		QPSK-8/9	26
		QPSK-9/10	27
		16APSK-2/3	42
		16APSK-3/4	43
		16APSK-4/5	44
		16APSK-5/6	45
		16APSK-8/9	48
		16APSK-9/10	49
		32APSK-3/4	53
		32APSK-4/5	54
		32APSK-5/6	55
		32APSK-8/9	58
		32APSK-9/10	59
		16QAM-3/4	63
		16QAM-7/8	67
		16QAM-auto	69
		8PSK-3/5	81
		8PSK-2/3	82
		8PSK-3/4	83
		8PSK-auto	84
		8PSK-5/6	85
		8PSK-8/9	88
		8PSK-9/10	89
		Auto	99

Command DmExcBWStat		**Actual roll-off factor**		**Actual roll-off fact**
Location	/Modem/Monitor/Demodulation			
Description	Readout of the actual used roll-off factor in cases when the automatic roll-off detection is used.			
RMCP Command	Rfr		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmExcBWStat		
	OID	1.3.6.1.4.1.5835.3.1.13.1.9.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	x25RCRO	35% 25% 20%	1 2 3	

Command DmAftDecBER		**Bit error ratio after RS**		**Bit err. ratio after**
Location	/Modem/Monitor/Demodulation			
Description	Readout of the estimated bit error rate of the output data. This figure is calculated from the pre-Reed-Solomon decoder byte error rate.			
RMCP Command	Rub	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmAftDecBER		
	OID	1.3.6.1.4.1.5835.3.1.13.1.4.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA		0 .. 1

Command DmPilots		**DVB-S2 Physical Layer Pilots**		**Pilots**
Location	/Modem/Control/Demodulation			
Description	Configuration of the DVB-S2 physical layer pilot detection. The following options are possible: • ***Auto*** : Auto detection of the presence of pilots. • ***On*** : Pilots are present in the received signal. • ***Off*** : Pilots are not present in the received signal.Remark: This is a constant coding and modulation command.			
RMCP Command	ACp		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmPilots		
	OID	1.3.6.1.4.1.5835.3.1.13.1.52.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	

Command DmPilots	**DVB-S2 Physical Layer Pilots**	**Pilots**
off	Off	0
	On	1

Command DmFrameType	**DVB-S2 FEC-Frame type**	**FEC-Frame type**

Location	/Modem/Control/Demodulation			
Description	This variable is only visible in CCM mode and allows to configure the DVB-S2 forward error correction (FEC) frame type : • ***Normal***: FEC-frames of 64800 bits or 8100 bytes. • ***Short***: FEC-frames of 16200 bits or 2025 bytes.			
RMCP Command	ACf		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmFrameType		
	OID	1.3.6.1.4.1.5835.3.1.13.1.54.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	short		Short Normal	0 1

Command DmISIControl	**ISI Control**	**ISI Control**

Location	/Modem/Control/Demodulation			
Description	Configuration command to control of the input stream identifier (ISI) filter: • ***Enabled***: ISI filtering is active. • ***Disabled***: No ISI filtering.			
RMCP Command	ISc		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmISIControl		
	OID	1.3.6.1.4.1.5835.3.1.13.1.46.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	disabled		Enabled Disabled	0 1

Command DmSpecInv	**Rx spectrum inversion**	**Rx spectrum inversion**
Location	/Modem/Control/Demodulation	
Description	Configuration command for the received spectrum. The selection of the auto mode allows the device to solve the spectrum ambiguity when the status of the received spectrum is unknown. When the status of the received spectrum is known (spectrum inversion on or off), do not use the auto mode since it will increase the acquisition time. In a converter, the auto mode is not available and spectral inversion has to be set manually.	
RMCP Command	RMi	**Access** Normal user : no access Expert user : RW

SNMP	***Table***	ntcDevsMod01DemodulatorEntry
	Command	ntcDevsMod01DmSpecInv
	OID	1.3.6.1.4.1.5835.3.1.13.1.23.1.1

Values	***Factory Default***	***Enumeration***	***Value***
	invertedSpectrum	Auto Direct Inverted	0 1 2

Command DmPLSSignature	**Physical Layer Scrambler signature**	**PLS signature**
Location	/Modem/Control/Demodulation	
Description	Configuration of the physical layer scrambler (PLSCRAMBLER) signature. The physical layer scrambler scrambles all of the physical layer frames except for their header parts. The sequence is reset at the start of the frame body. The physical layer scrambler signature assumes values in the range between 0 and 262141.It indicates the spreading sequence number. The use of different physical layer scrambling sequences allows a reduction of interference correlation between different services. For the same purpose, it is possible to reuse a shifted version of the same sequence in different satellite beams. Furthermore the spreading sequence number can be unequivocally associated to each satellite operator or satellite or transponder, thus permitting identification of an interfering signal via the physical layer scrambling signature detection. There is no explicit signaling method to convey the spreading sequence number to the receiver. In case of broadcasting services, the default physical layer scrambler signature (value = 0) shall be used, to avoid manual receiver setting or synchronisation delays.	
RMCP Command	Pss	**Access** Normal user : no access Expert user : RW

SNMP	***Table***	ntcDevsMod01DemodulatorEntry
	Command	ntcDevsMod01DmPLSSignature
	OID	1.3.6.1.4.1.5835.3.1.13.1.73.1.1

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 262141

Command IfOutputClock		**Output clock selection**	**Output clock sel.**
Location	/Modem/Control/Demodulation		
Description	Configuration of the clock for the data output at the interface. This is also the output clock for the de-framer buffer. Selections: • The ***satellite*** received clock. • An ***externally*** provided clock at interface rate. • An ***internally*** generated clock.Remark: If the satellite or the external clock is not valid or present when selected then the controller falls automatically back to the internal clock. On the remote side, normal operation mode is to select the satellite receive clock. Then the interface clock is adjusted via a clock recovery loop to match the satellite clock. When the internal clock is selected as interface clock, then the fixed fall back clock is used for data output.		
RMCP Command	RIc	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfOutputClock	
	OID	1.3.6.1.4.1.5835.3.1.4.1.38.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	satellite	Internal Satellite External External G703 1 External G703 2 External HSSI G703 155 Mbit/s MMF SMF	3 4 6 7 8 9 10 11 12

Command DmExcBW		**Roll-off factor**	**Roll-off factor**
Location	/Modem/Control/Demodulation		
Description	Configuration of the matched filter excess bandwidth. In auto mode, 35% is selected for DVB-QPSK modes and 25% for 8PSK and 16QAM according to the DVB standard. Selecting 25% manually in QPSK will result in some bandwidth saving and will not result in any significant BER performance degradation (0.1 - 0.2 dB).		
RMCP Command	RFr	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmExcBW	
	OID	1.3.6.1.4.1.5835.3.1.13.1.8.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	x25RCRO	Auto 35% 25%	0 1 2

Command DmExcBW	**Roll-off factor**	**Roll-off factor**
	20%	3

Command DmPidFilteringControl		**PID filtering**		**PID filtering**
Location	/Modem/Control/Demodulation			
Description	Enable or disable PID filtering.			
RMCP Command	dpf		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmPidFilteringControl		
	OID	1.3.6.1.4.1.5835.3.1.13.1.149.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	enabled		Disabled Enabled	0 1

/Modem/Control/Demodulation/Backup carrier

Command DmBuRxRfFreq		**Backup receive frequency**		**Backup receive frequ**
Location	/Modem/Control/Demodulation/Backup carrier			
Description	Controls the RF input frequency for the backup carrier configuration.			
RMCP Command	BRF array : [1 .. 2]	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry		
	Command	ntcDevsMod01DmBuRxRfFreq		
	OID	1.3.6.1.4.1.5835.3.1.13000.1.17.1.1.[1 .. 2]		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	MHz	Hz	1.170000	950000000 .. 2150000000

Command DmBuSynRate		**Backup symbol rate**		**Backup symbol rate %**
Location	/Modem/Control/Demodulation/Backup carrier			
Description	Backup nominal symbol rate, used when we fail to lock on the primary demodulator parameters.			
RMCP Command	BSR array : [1 .. 2]	**Access**		Normal user : RW Expert user : RW

Command DmBuSynRate		**Backup symbol rate**		**Backup symbol rate %**
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry		
	Command	ntcDevsMod01DmBuSynRate		
	OID	1.3.6.1.4.1.5835.3.1.13000.1.18.1.1.[1 .. 2]		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Mbaud	baud	27.500000	-1e+38 .. 1e+38

Command DmBuSwitchTimeout		**Carrier switch delay**		**Carrier switch delay**
Location	/Modem/Control/Demodulation/Backup carrier			
Description	Mininum time interval (in seconds) between consecutive demodulator carrier switch operations.			
RMCP Command	DST	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmBuSwitchTimeout		
	OID	1.3.6.1.4.1.5835.3.1.13.1.148.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	sec	sec	60	2 .. 1000

Command DmBuEnable		**Carrier switching enable**		**Carrier switching en**
Location	/Modem/Control/Demodulation/Backup carrier			
Description	This configuration variable is used to enable switching between demodulation carriers.			
RMCP Command	BDM		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmBuEnable		
	OID	1.3.6.1.4.1.5835.3.1.13.1.146.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	disabled	Disabled Enabled	0 1	

Command DmBuSwitchCnt		**Carrier switch count**		**Carrier switch count**
Location	/Modem/Control/Demodulation/Backup carrier			
Description	The number of times we have dynamically switched to another carrier (with or without success).			
RMCP Command	csc	**Access**		Normal user : R Expert user : R

Command DmBuSwitchCnt		**Carrier switch count**		**Carrier switch count**
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmBuSwitchCnt		
	OID	1.3.6.1.4.1.5835.3.1.13.1.147.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	events	events	0	0 .. 4294967295

/Modem/Control/Demodulation/ACM client

Command MoAcmRtSigPlane		**ACM rt sig plane**		**ACM rt sig plane**
Location	/Modem/Control/Demodulation/ACM client			
Description	Select control plane for ACM controller return signalling: • ***MonCon management IP network*** • ***Inband RF channel***			
RMCP Command	arp		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmRtSigPlane		
	OID	1.3.6.1.4.1.5835.3.1.3.1.158.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	moncon_ip	Moncon IP mngt LAN Inband RF	0 1	

/Modem/Control/Demodulation/AES

Command DmAESEncryptionCtrl		**Global Encryption**		**Global Encryption**
Location	/Modem/Control/Demodulation/AES			
Description	Used to select if the Global Encryption key is used for all ISI or ISI specific encryption settings are used. • Global : AES encryption enabled with global key (one key for all streams) • isi : AES encryption enabled with individual keys for each stream ISI			
RMCP Command	dMc		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmAESEncryptionCtrl		
	OID	1.3.6.1.4.1.5835.3.1.13.1.133.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	global	Global	0	

Command DmAESEncryptionCtrl	**Global Encryption**	**Global Encryption**
	Isi	1

Command DmAESEnableEncGlobal		**Encryption Global**	**Encryption Global**
Location	/Modem/Control/Demodulation/AES/Global		
Description	This method is used to enable/disable Global AES encryption/decryption. If encryption is disabled, then the Global key is disabled (ignored) If encryption is enabled, then the encryption is via the global settings.		
RMCP Command	dMg	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmAESEnableEncGlobal	
	OID	1.3.6.1.4.1.5835.3.1.13.1.130.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	off	Off On	0 1

Command DmAESKeyParityGlob		**Global Key Parity**	**Global Key Parity**
Location	/Modem/Control/Demodulation/AES/Global		
Description	This variable is used for the Global key parity selection (odd/even) for each ISI • odd : use Odd key • even : use Even key		
RMCP Command	dGp	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmAESKeyParityGlob	
	OID	1.3.6.1.4.1.5835.3.1.13.1.135.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	odd	Odd Even Unencrypted Undetermined	0 1 2 3

Command DmAESEncEvenGlobalKey	**Global Encypted Even Key**	**Global Encypted Even**

Location	/Modem /Control/Demodulation/AES/Global		
Description	This is the Global EVEN encrypted key entered by the user and decrypted with the group key. The key can be either 64bits or 128bits long, depending on the key length setting.If 64bit length is selected then the key has to be encrypted using DES. If 128bit length is selected then the key has to be encrypted using AES.The key is a hexadecimal key. • 64bits - 8 bytes (16 bytes text string) • 128bits - 16 bytes (32 bytes text string)		
RMCP Command	dGe	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmAESEncEvenGlobalKey	
	OID	1.3.6.1.4.1.5835.3.1.13.1.131.1.1	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 32 (fixed) format : Hexadecimal chars	

Command DmAESEncOddGlobalKey	**Global Encypted Odd Key**	**Global Encypted Odd**

Location	/Modem/Control/Demodulation/AES/Global		
Description	This is the Global ODD encrypted key entered by the user and decrypted with the group key. The key can be either 64bits or 128bits long, depending on the key length setting.If 64bit length is selected then the key has to be encrypted using DES. If 128bit length is selected then the key has to be encrypted using AES.The key is a hexadecimal key. • 64bits - 8 bytes (16 bytes text string) • 128bits - 16 bytes (32 bytes text string)		
RMCP Command	dGo	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmAESEncOddGlobalKey	
	OID	1.3.6.1.4.1.5835.3.1.13.1.132.1.1	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 32 (fixed) format : Hexadecimal chars	

Command DmAESEvenGlobalKey	**Global Even Key**	**Global Even Key**
Location	/Modem/Control/Demodulation/AES/Global	
Description	This is the AES Global EVEN key (non-encrypted) entered by the user. This can be either 64bits or 128bits long, depending on the key length setting.The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)	
RMCP Command	dGE	**Access** Normal user : RW Expert user : RW
SNMP	***Table*** ntcDevsMod01DemodulatorEntry	
	Command ntcDevsMod01DmAESEvenGlobalKey	
	OID 1.3.6.1.4.1.5835.3.1.13.1.134.1.1	
Values	***Factory Default***	***String Description***
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars

Command DmAESOddGlobalKey	**Global Odd Key**	**Global Odd Key**
Location	/Modem/Control/Demodulation/AES/Global	
Description	This is the AES Global ODD key (non-encrypted) entered by the user. This can be either 64bits or 128bits long, depending on the key length setting.The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)	
RMCP Command	dGO	**Access** Normal user : RW Expert user : RW
SNMP	***Table*** ntcDevsMod01DemodulatorEntry	
	Command ntcDevsMod01DmAESOddGlobalKey	
	OID 1.3.6.1.4.1.5835.3.1.13.1.136.1.1	
Values	***Factory Default***	***String Description***
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars

Command DmAESEnableEncISI	**Encryption Id**	**Encryption Id**
Location	/Modem/Control/Demodulation/AES/Keys 1-4	
Description	This method is used to enable/disable AES encryption per KeyId/ISI 0 - Encryption on ISI is disable. 1 - Encryption on ISI is enabled.	
RMCP Command	dEi array : [1 .. 4]	**Access** Normal user : RW Expert user : RW
SNMP	***Table*** ntcDevsMod01DemodulatorExtEntry	

Command DmAESEnableEncISI		**Encryption Id**	**Encryption Id**
	Command	ntcDevsMod01DmAESEnableEncISI	
	OID	1.3.6.1.4.1.5835.3.1.13000.1.8.1.1.[1 .. 4]	
Values	***Factory Default***	***Enumeration***	***Value***
	off	Off On	0 1

Command DmAESKeyISI			**ISI for Key Id**	**ISI for Key Id**
Location	/Modem/Control/Demodulation/AES/Keys 1-4			
Description	This method is used to set/map the ISI to a encryption/decryption key. Duplication of ISI to another key is invalid. Range of value is: 0 to 255. Default: 255			
RMCP Command	dei array : [1 .. 4]		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry		
	Command	ntcDevsMod01DmAESKeyISI		
	OID	1.3.6.1.4.1.5835.3.1.13000.1.12.1.1.[1 .. 4]		
Values	***Factory Default***	***String Description***		
	FF	length : 0 .. 2 format : Hexadecimal chars		

Command DmAESKeyParityISI			**Key Parity Id**	**Key Parity Id**
Location	/Modem/Control/Demodulation/AES/Keys 1-4			
Description	This variable is used for the key parity selection (odd/even) for each ISI • odd : use Odd key • even : use Even key			
RMCP Command	dKp array : [1 .. 4]		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry		
	Command	ntcDevsMod01DmAESKeyParityISI		
	OID	1.3.6.1.4.1.5835.3.1.13000.1.13.1.1.[1 .. 4]		
Values	***Factory Default***	***Enumeration***	***Value***	
	odd	Odd Even Unencrypted Undetermined	0 1 2 3	

Command DmAESEncEvenKeyISI		**Encrypted Even Key**	**Encrypted Even Key %**
Location	/Modem/Control/Demodulation/AES/Keys 1-4		
Description	This is the EVEN encrypted key entered by the user and decrypted with the group key. The key can be either 64bits or 128bits long, depending on the key length setting.If 64bit length is selected then the key has to be encrypted using DES. If 128bit length is selected then the key has to be encrypted using AES.The key is a hexadecimal key. • 64bits - 8 bytes (16 bytes text string) • 128bits - 16 bytes (32 bytes text string)		
RMCP Command	dek array : [1 .. 4]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry	
	Command	ntcDevsMod01DmAESEncEvenKeyISI	
	OID	1.3.6.1.4.1.5835.3.1.13000.1.9.1.1.[1 .. 4]	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 32 (fixed) format : Hexadecimal chars	

Command DmAESEncOddKeyISI		**Encrypted Odd Key**	**Encrypted Odd Key**
Location	/Modem/Control/Demodulation/AES/Keys 1-4		
Description	This is the ODD encrypted key entered by the user and decrypted with the group key. The key can be either 64bits or 128bits long, depending on the key length setting.If 64bit length is selected then the key has to be encrypted using DES. If 128bit length is selected then the key has to be encrypted using AES.The key is a hexadecimal key. • 64bits - 8 bytes (16 bytes text string) • 128bits - 16 bytes (32 bytes text string)		
RMCP Command	dok array : [1 .. 4]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry	
	Command	ntcDevsMod01DmAESEncOddKeyISI	
	OID	1.3.6.1.4.1.5835.3.1.13000.1.10.1.1.[1 .. 4]	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 32 (fixed) format : Hexadecimal chars	

Command DmAESEvenKeyISI		**Even Key**	**Even Key**
Location	/Modem/Control/Demodulation/AES/Keys 1-4		
Description	This is the AES EVEN key (non-encrypted) entered by the user. This can be either 64bits or 128bits long, depending on the key length setting.The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)		
RMCP Command	dEk array : [1 .. 4]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry	
	Command	ntcDevsMod01DmAESEvenKeyISI	
	OID	1.3.6.1.4.1.5835.3.1.13000.1.11.1.1.[1 .. 4]	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars	

Command DmAESOddKeyISI		**Odd Key**	**Odd Key**
Location	/Modem/Control/Demodulation/AES/Keys 1-4		
Description	This is the AES ODD key (non-encrypted) entered by the user. This can be either 64bits or 128bits long, depending on the key length setting.The value is entered as a hexadecimal value: • 64 bits - 8 bytes (16 text bytes) • 128 bits - 16 bytes (32 text bytes)		
RMCP Command	dOk array : [1 .. 4]	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry	
	Command	ntcDevsMod01DmAESOddKeyISI	
	OID	1.3.6.1.4.1.5835.3.1.13000.1.14.1.1.[1 .. 4]	
Values	***Factory Default***	***String Description***	
	FFFFFFFFFFFFFFFFFFFFFFFFFFFF	length : 0 .. 32 format : Hexadecimal chars	

/Modem/Monitor

/Modem/Monitor/Interfaces

/Modem/Monitor/Interfaces/Ethernet

Only valid for the following modes:
- Eth(IP)
- Eth(S2BBFoE)
- Eth(ntS2BBFoE)

Command SyUnitRedunOperState			**Unit redundancy state**	**Unit redundancy stat**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	This variable indicates whether the unit is active or standby in a redundant configuration.			
RMCP Command	uro		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyUnitRedunOperState		
	OID	1.3.6.1.4.1.5835.3.1.1.1.106.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	active	Standby Active	0 1	

Command IfDevMacAddrA			**MAC address A**	**MAC address A**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the Ethernet physical MAC address of the interface A.			
RMCP Command	EmA		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDevMacAddrA		
	OID	1.3.6.1.4.1.5835.3.1.4.1.79.1.1		
Values	***Factory Default***	***String Description***		
	00:06:39:00:10:5D	length : 17 (fixed) format : ^([\da-fA-F]{2}:){5}[\da-fA-F]{2}$		

Command IfItfaStatus			**Phy Status A**	**Phy Status A**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Human readable status of Ethernet physical status of interface A.			
RMCP Command	Ipa		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfItfaStatus		
	OID	1.3.6.1.4.1.5835.3.1.4.1.97.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 40 format : any chars		

Command IfDevMacAddrB			**MAC address B**	**MAC address B**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the Ethernet physical MAC address of the interface B.			
RMCP Command	EmB		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDevMacAddrB		
	OID	1.3.6.1.4.1.5835.3.1.4.1.80.1.1		
Values	***Factory Default***	***String Description***		
	00:06:39:00:10:5E	length : 17 (fixed) format : ^([\da-fA-F]{2}:){5}[\da-fA-F]{2}$		

Command IfItfbStatus			**Phy Status B**	**Phy Status B**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Human readable status of Ethernet physical status of interface B.			
RMCP Command	Ipb		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfItfbStatus		
	OID	1.3.6.1.4.1.5835.3.1.4.1.98.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 40 format : any chars		

Command IfEthStatsRXPackets		**#Eth RX**		**#Eth RX**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the number of Ethernet packets that are received at the input.			
RMCP Command	IEP	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthStatsRXPackets		
	OID	1.3.6.1.4.1.5835.3.1.4.1.87.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Command IfEthStatsRXNoMatch		**#Eth RX Ignored**		**#Eth RX Ignored**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the number of Ethernet packets that were ignored because no filter matched.			
RMCP Command	IEI	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthStatsRXNoMatch		
	OID	1.3.6.1.4.1.5835.3.1.4.1.86.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Command IfEthStatsRXCongDropped		**#Eth RX Congested**		**#Eth RX Congested**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the number of Ethernet packets that were dropped because of congestion.			
RMCP Command	IEC	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthStatsRXCongDropped		
	OID	1.3.6.1.4.1.5835.3.1.4.1.209.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Command IfProxyARPRespCount		**#Proxy ARP Resp**		**#Proxy ARP Resp**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the number of ARP requests that has been answered by the proxy ARP agent.			
RMCP Command	pac	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfProxyARPRespCount		
	OID	1.3.6.1.4.1.5835.3.1.4.1.199.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Command IfProxyARPIgnoredCount		**#Proxy ARP ignored**		**#Proxy ARP ignored**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the number of ARP requests that has been ignored by the proxy ARP agent because the IP address does not belong in any remote subnet.			
RMCP Command	pai	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfProxyARPIgnoredCount		
	OID	1.3.6.1.4.1.5835.3.1.4.1.198.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Command IfEthStatsReset		**Reset Ethernet Counters**		**Reset Ethernet Count**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Configuration when the Ethernet statistics counters (which are updated during processing) are reset internally. • ***Once***: The counters are reset when this command is processed and returns to the never state. • ***Never***: The counters continue to run freely. • Reset ***each period***: the counters are set to zero when a statistics period (5 s) is reached.			
RMCP Command	IEr		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfEthStatsReset		
	OID	1.3.6.1.4.1.5835.3.1.4.1.88.1.1		

Command IfEthStatsReset	**Reset Ethernet Counters**	**Reset Ethernet Count**

Values	***Factory Default***	***Enumeration***	***Value***
	never	Each period (5 s) Never Once	0 1 2

Command IfGbeConfigError	**Last config error**	**Last config error**

Location	/Modem/Monitor/Interfaces/Ethernet		
	Applicable for the whole unit and not only for the Ethernet interface.		
Description	Readout of the error string describing the last configuration error.		
RMCP Command	GCE	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfGbeConfigError	
	OID	1.3.6.1.4.1.5835.3.1.4.1.193.1.1	

Values	***Factory Default***	***String Description***
		length : 0 .. 120 format : any chars

Command IfGbeSwError	**Last software error**	**Last software error**

Location	/Modem/Monitor/Interfaces/Ethernet		
	Applicable for the whole unit and not only for the Ethernet interface.		
Description	Readout of the most recent software error message (if any). A fatal error message survives a soft reset. This message is fully cleared after a hard reset.		
RMCP Command	sem	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfGbeSwError	
	OID	1.3.6.1.4.1.5835.3.1.4.1.214.1.1	

Values	***Factory Default***	***String Description***
		length : 0 .. 130 format : any chars

Command IfGbeSwErrCount		**#Software errors**		**#Software errors**
Location	/Modem/Monitor/Interfaces/Ethernet			
	Applicable for the whole unit and not only for the Ethernet interface.			
Description	Readout of the number of software errors encountered on this system. A fatal error inside the counter survives a soft reset. The counter is fully cleared when a hard reset occurs.			
RMCP Command	sec	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfGbeSwErrCount		
	OID	1.3.6.1.4.1.5835.3.1.4.1.213.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	errors	errors	0	0 .. 4294967295

Structured Command IfBBCounters		**Baseband Counters**		**Baseband Counters**
Location	/Modem/Monitor/Interfaces/Ethernet			
	Only valid for DVB-S2 modes.			
Description	Readout of the baseband counters: transmit counters, receive counters and drop counters.			
RMCP Command	IBc		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBBCounters		
	OID	1.3.6.1.4.1.5835.3.1.4.1.57.1.1		

Variables	**Page**
IfBBTXCounter	198
IfBBTXBBFCounter	198
IfBBRXCounter	198
IfBBRXBBFCounter	198
IfBBRXDropCounter	199
IfBBRXTSCrcErr	199
IfBBRXBBFCrcErr	199

Structured Command IfBbTxEthqStats		**BB TX Eth queue status**	**BB TX Eth queue stat**
Location	/Modem/Monitor/Interfaces/Ethernet		
	Only valid for DVB-S2 modes.		
Description	Readout of the baseband TX Ethernet queue status. This queue contains the frames that travel from the Ethernet interface to the baseband interface.		
RMCP Command	bte	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfBbTxEthqStats	
	OID	1.3.6.1.4.1.5835.3.1.4.1.206.1.1	

Variables	**Page**
IfBbTxEthqCurFilling	199
IfBbTxEthqMaxFilling	200

Command IfBBCntRst		**Baseband counters reset**	**Baseband counters re**
Location	/Modem/Monitor/Interfaces/Ethernet		
	Only valid for DVB-S2 modes.		
Description	This command resets the following baseband counters : ***IfBBTxCounter***, ***IfBBRxCounter*** and ***IfBBRxDropCounter***.		
RMCP Command	BCr	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfBBCntRst	
	OID	1.3.6.1.4.1.5835.3.1.4.1.55.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	never	Each second Never Once	0 1 2

Command IfBBTXInfRate		**BB TX Interface rate**		**BB TX Interface rate**
Location	/Modem/Monitor/Interfaces/Ethernet			
	Only valid for DVB-S2 modes.			
Description	Readout of the actual interface rate on the interface towards the modulator.			
RMCP Command	bir	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBBTXInfRate		
	OID	1.3.6.1.4.1.5835.3.1.4.1.177.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Command IfBBTXNPStuffingRate		**BB TX NP stuffing rate**		**BB TX NP stuffing ra**
Location	/Modem/Monitor/Interfaces/Ethernet			
	Only valid for DVB-S2 modes.			
Description	Readout of the null packet stuffing rate towards the modulator.			
RMCP Command	bts	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBBTXNPStuffingRate		
	OID	1.3.6.1.4.1.5835.3.1.4.1.178.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Command IfBBTXEstimOutpRate		**BB TX Estim output rate**		**BB TX Estim output r**
Location	/Modem/Monitor/Interfaces/Ethernet			
	Only valid for DVB-S2 modes.			
Description	Readout of the estimated output rate towards the modulator.			
RMCP Command	btr	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBBTXEstimOutpRate		
	OID	1.3.6.1.4.1.5835.3.1.4.1.176.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***

Command IfBBTXEstimOutpRate		**BB TX Estim output rate**		**BB TX Estim output r**
	bps	bps	0	0 .. 4294967295

Command IfBBTXDvbs2FillingLevel		**BB TX DVB-S2 filling level**		**BB TX DVB-S2 filling**
Location	/Modem/Monitor/Interfaces/Ethernet			
	Only valid for DVB-S2 modes.			
Description	This is the average percentage of valid data that is present in the DVB-S2 baseband frames. The remaining bytes are padded.			
RMCP Command	bfl	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBBTXDvbs2FillingLevel		
	OID	1.3.6.1.4.1.5835.3.1.4.1.175.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	%	%	0	-1e+38 .. 1e+38

Command IfBBRXEstimBitRate		**BB RX Estim raw bitrate**		**BB RX Estim raw bitr**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the estimated bitrate received from the demodulator.			
RMCP Command	Brb	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBBRXEstimBitRate		
	OID	1.3.6.1.4.1.5835.3.1.4.1.173.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Command IfBBRXEstimFrameRate		**BB RX Estim raw framerate**		**BB RX Estim raw fram**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the estimated framerate received from the demodulator.			
RMCP Command	Brf	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBBRXEstimFrameRate		
	OID	1.3.6.1.4.1.5835.3.1.4.1.174.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	fps	fps	0	0 .. 4294967295

Command IfBBRXChannelDrop		**BB RX Channel Dropped**		**BB RX Channel Dro**
Location	/Modem/Monitor/Interfaces/Ethernet			
Description	Readout of the number of frames dropped during reception from a channel queue inside FPGA. Frames are dropped when the reception buffer risks overflow. This prevents the traffic streams from interfering with each other. This counter accounts for either DVB-S2 baseband frames or DVB-S transport stream frames dependant on the ***MdProcMode*** setting and queue type. The index identifies the queue. Index 1 = Ethernet Rx traffic (baseband frames or transport stream). Index 2 = ASI 1 Tx traffic (transport stream). Index 3 = ASI 2 Tx traffic (transport stream). Index 4 = ASI 3 Tx traffic (transport stream).			
RMCP Command	chd array : [1 .. 5]	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceExtEntry		
	Command	ntcDevsMod01IfBBRXChannelDrop		
	OID	1.3.6.1.4.1.5835.3.1.4000.1.6.1.1.[1 .. 5]		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

/Modem/Monitor/Interfaces/Ethernet/Packet Mon

Only valid for DVB-S2 modes.

Command IfPacketLogAction		**Action**		**Action**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Mon			
Description	Packet log action: configure the action taken when a packet is logged. These are the options: • ***Log binary***. • ***Log decoded***: In a more readable format, showing IP addresses etc... • ***Counting***: Packet counter + bitrate. • ***Rx to packet monitor***: This option extracts the traffic to the packet monitor.			
RMCP Command	pla		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPacketLogAction		
	OID	1.3.6.1.4.1.5835.3.1.4.1.219.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	logBinary	Log binary Log decoded	0 1	

Command IfPacketLogAction		**Action**	**Action**
		Count Rx to packet mon	2 3

Command IfPacketLogFiltPat			**Filter**	**Filter**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Mon			
Description	Configuration of the packet log filter. Only packets that match this filter are logged. This filter exists of a sequence of criteria that are combined as a logical AND. Possible criteria are: • eth.dst==00:11:22:33:44:55 (hex) • eth.src==00:11:22:33:44:55 (hex) • ip.src==1.2.3.4 • ip.dst==1.2.3.4 • udp.dst==5001 (or 0x1389) • raw[12]==ab (hex)Remark: To remove the packet filter, you can enter a dummy string of 1 character (e.g. "-").			
RMCP Command	pfi		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPacketLogFiltPat		
	OID	1.3.6.1.4.1.5835.3.1.4.1.220.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 128 format : any chars		

Command IfPacketLogFilter			**Probe**	**Probe**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Mon			
Description	Configuration of the packet log probe to define which packets can be logged to the packet log buffer.			
RMCP Command	plf		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPacketLogFilter		
	OID	1.3.6.1.4.1.5835.3.1.4.1.196.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	allErrors	All errors No logging All Eth packets All EthRx packets All EthTx packets All EthRx errors All EthTx errors ARP Rx packets ARP Tx packets	0 1 2 3 4 5 6 7 8	

Command IfGbePacketLogReason			**Reason**	**Reason**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Mon			
Description	Readout of the string that stores the reason for which the packet in the log buffer was logged. The can for instance display the error cause for which the packet has been logged.			
RMCP Command	Plr		**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfGbePacketLogReason		
	OID	1.3.6.1.4.1.5835.3.1.4.1.195.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 50 format : any chars		

Command IfGbePacketLog			**Packet**	**Packet**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Mon			
Description	Readout of the packet log buffer in which the head of the first discarded packet is stored. As long as the buffer is not read, the content of the buffer stays the same (= the first dropped packet). When the buffer is read, the next discarded packet will overwrite the buffer.			
RMCP Command	Plb		**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfGbePacketLog		
	OID	1.3.6.1.4.1.5835.3.1.4.1.194.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 200 format : any chars		

/Modem/Monitor/Interfaces/Ethernet/Packet Gen

Only valid for DVB-S2 modes.

Command IfPacketGenProbe			**Probe**	**Probe**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Gen			
Description	Configuration at which point the packet generator should insert packets.			
RMCP Command	pgp		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPacketGenProbe		

Command IfPacketGenProbe		**Probe**	**Probe**
	OID	1.3.6.1.4.1.5835.3.1.4.1.218.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	ethRxIf	Eth RX interface	0

Command IfPacketGenFormat		**Packet format**	**Packet format**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Gen		
Description	Configuration of the packet generator format. The packet generator is a UDP packet generator that is compatible with iPerf software in UDP mode. Typical use cases for the traffic generator and traffic monitor: • Generate traffic on a modulator and monitor this traffic on a demodulator. • Generate traffic from an iPerf client on a PC and monitor this traffic on a modulator or demodulator (via a modulator). • Generate traffic on a modulator and monitor this traffic on an iPerf server on a PC (via a demodulator).The generator format can be defined by space-separated sequence of the following criteria: • vlan==5 • eth.dst==00:11:22:33:44:55 (hex) • eth.src==00:11:22:33:44:55 (hex) • ip.src==1.2.3.4 • ip.dst==1.2.3.4 • ip.len==1200 • udp.dst==5001 (or 0x1389) • raw[12]==ab (hex)The destination UDP port defaults to 5001 (just like in iPerf). In most situations, it is sufficient to configure a destination IP address and a VLAN, if VLANs are used.Example for setting up a traffic generator on a modulator that sends data to a traffic monitor on a demodulator:1) Configure the packet monitor on the demodulator: - Action = rx to packet monitor - Filter = ip.dst==2.2.2.2 - Probe = All EthTx packets2) Configure the packet generator on the modulator: - Probe = Eth RX interface - Packet format = vlan==5 ip.dst==2.2.2.2 - Bitrate = 1000000 - Bytes to transmit = 1000000The packet monitor will stop itself, when the last packet of a session has been received. This last packet is detected by a negative sequence id in an iperf-proprietary part of the packet.		
RMCP Command	pgf	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfPacketGenFormat	
	OID	1.3.6.1.4.1.5835.3.1.4.1.217.1.1	
Values	***Factory Default***	***String Description***	
		length : 0 .. 128 format : any chars	

Command IfPacketGenBitRate		**Bitrate**		**Bitrate**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Gen			
Description	Configuration of the bitrate for the packet generator.			
RMCP Command	pgb	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPacketGenBitRate		
	OID	1.3.6.1.4.1.5835.3.1.4.1.215.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	10000	0 .. 4294967295

Command IfPacketGenBytesToTx		**Bytes to transmit**		**Bytes to transmit**
Location	/Modem/Monitor/Interfaces/Ethernet/Packet Gen			
Description	Configuration of the number of bytes to be transmitted by the traffic generator. When you enter a value higher than 134217727, the traffic generator will transmit packets forever (until you change this value to 0).			
RMCP Command	pgn	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfPacketGenBytesToTx		
	OID	1.3.6.1.4.1.5835.3.1.4.1.216.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bytes	bytes	0	0 .. 4294967295

/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics

Only valid for mode Eth (TSoIP).

Command IfMPEGoUDPStatsReset			**Statistics Counters Mode**		**Statistics Counters**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics				
Description	Configuration command to specify when the MPEG over UDP statistics counters are reset internally. • ***Reset each period***: The counters are set to zero when a statistics period (5 seconds) is reached. • ***Never***: The counters continue top run freely. • ***Reset on get***: Reset each time the values are readout.				
RMCP Command	IVr		**Access**	Normal user : RW Expert user : RW	
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfMPEGoUDPStatsReset			
	OID	1.3.6.1.4.1.5835.3.1.4.1.152.1.1			
Values	***Factory Default***		***Enumeration***		***Value***
	never		Reset each period (5 s) Never Reset on Get		0 1 2

Structured Command IfMPEGoUDPStats			**MPEG over UDP Stats**		**MPEG over UDP Stats**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics				
Description	Readout of the MPEG over UDP statistics. The statistics are updated periodically (5 seconds).				
RMCP Command	VsE		**Access**	Normal user : R Expert user : R	
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfMPEGoUDPStats			
	OID	1.3.6.1.4.1.5835.3.1.4.1.151.1.1			

Variables	**Page**
IfMPEGoUDPStatsRXMtuPackets	200
IfMPEGoUDPStatsRXMtuBytes	200
IfMPEGoUDPStatsRXMtuRate	200
IfMPEGoUDPStatsRXMtuDrop	201
IfMPEGoUDPStatsRXPopTimeouts	201
IfMPEGoUDPStatsRXMpegPackets	201
IfMPEGoUDPStatsRXPushTimeouts	201
IfMPEGoUDPStatsTXMpegPackets	202

Structured Command IfMPEGoUDPStats	**MPEG over UDP Stats**	**MPEG over UDP Stats**
IfMPEGoUDPStatsTXMpegDrop IfMPEGoUDPStatsTXPopTimeouts IfMPEGoUDPStatsTXMtuPackets IfMPEGoUDPStatsTXMtuBytes IfMPEGoUDPStatsTXMtuRate IfMPEGoUDPStatsTXPushTimeouts		202 202 202 203 203 203

Command IfRTPStatsRXSyncSrc	**RX RTP Sync Src**	**RX RTP Sync Src**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics	
Description	Readout of the synchronisation source identifier of the last real time protocol packet received.	
RMCP Command	IRS	**Access** Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry
	Command	ntcDevsMod01IfRTPStatsRXSyncSrc
	OID	1.3.6.1.4.1.5835.3.1.4.1.168.1.1

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4294967295

Command IfRTPStatsRXSeq	**RX RTP Sequence**	**RX RTP Sequence**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics	
Description	Readout of the next expected real time protocol sequence number in the real time protocol header of received packets.	
RMCP Command	IRs	**Access** Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry
	Command	ntcDevsMod01IfRTPStatsRXSeq
	OID	1.3.6.1.4.1.5835.3.1.4.1.167.1.1

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4294967295

Command IfRTPStatsRXDrop		**RX RTP Dropped**		**RX RTP Dropped**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics			
Description	Readout of the number of transport stream frames dropped during packet reordering. This is possible if a transport stream frame is received out of the reordering window.			
RMCP Command	IRd	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfRTPStatsRXDrop		
	OID	1.3.6.1.4.1.5835.3.1.4.1.164.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Command IfRTPStatsRXResync		**RX RTP Resync**		**RX RTP Resync**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics			
Description	Readout of the number of times that transport stream reordering failed and resynchronization on a new sequence number took place.			
RMCP Command	IRr	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfRTPStatsRXResync		
	OID	1.3.6.1.4.1.5835.3.1.4.1.166.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Times	Times	0	0 .. 4294967295

Command IfRTPStatsRXTimeouts		**RX RTP Timeouts**		**RX RTP Timeouts**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics			
Description	Readout of the number of times a transport stream frame is not received in time. This is possible if a transport stream frame is missing in the stream.			
RMCP Command	IRt	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfRTPStatsRXTimeouts		
	OID	1.3.6.1.4.1.5835.3.1.4.1.169.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Times	Times	0	0 .. 4294967295

Command IfRTPStatsRXMaxTSCount	**RX RTP TS tracking**	**RX RTP TS tracking**

Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics			
Description	Readout of the last tracking number that is internally assigned to a transport stream packet to perform reordering of transport stream packets in a real time protocol stream.			
RMCP Command	IRc	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfRTPStatsRXMaxTSCount		
	OID	1.3.6.1.4.1.5835.3.1.4.1.165.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4294967295

Command IfMPEGoUDPStatsTX LastTSNbr	**BB TX Last TS Number**	**BB TX Last TS Number**

Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/MPEG over IP Statistics			
Description	Readout of the MPEG transport stream last sequence number. In a processing mode that supports MPEG over IP, each MPEG transport stream packet is marked with a sequence number. This number is e.g. used as input for the rate tracking control loop from Ethernet towards the modulator.			
RMCP Command	Vst	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfMPEGoUDPStatsTXLastTSNbr		
	OID	1.3.6.1.4.1.5835.3.1.4.1.153.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4294967295

Command IfDvbs2BbRxAvgCoding Compr	**Avg coding compression**	**Avg coding compressi**

Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/ntS2BBFoE Rx Statistics		
Description	This is the number of encapsulation periods over which we calculate the average coding compression. See also IfDvbs2BbRxAvgCodingCompr.		
RMCP Command	acc	**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	

Command IfDvbs2BbRxAvgCoding Compr		**Avg coding compression**		**Avg coding compressi**
	Command	ntcDevsMod01IfDvbs2BbRxAvgCodingCompr		
	OID	1.3.6.1.4.1.5835.3.1.4.1.201.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bytes/sym	bytes/sym	1	-1e+38 .. 1e+38

Structured Command IfVolreqStats		**IP volume req stats**	**IP volume req stats**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/ntS2BBFoE Rx Statistics		
Description	Readout of the IP volume request statistics.		
RMCP Command	vst	**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfVolreqStats	
	OID	1.3.6.1.4.1.5835.3.1.4.1.221.1.1	

Variables	**Page**
IfVolreqStatsMovAvgVol	203
IfVolreqStatsMovMaxVol	204
IfVolreqStatsMovMinVol	204

Structured Command IfDvbs2BboerxErrors		**ntS2BBFoE Rx error counters**	**ntS2BBFoE Rx error c**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/ntS2BBFoE Rx Statistics		
Description	Error counters for all ntS2BBFoE receivers in total		
RMCP Command	brR	**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfDvbs2BboerxErrors	
	OID	1.3.6.1.4.1.5835.3.1.4.1.141.1.1	

Variables	**Page**
IfDvbs2BboerxFrames	184
IfDvbs2BboerxErrEncapId	185
IfDvbs2BboerxErrEncapDisabled	185
IfDvbs2BboerxErrSequence	185
IfDvbs2BboerxErrIpVol0	186

Structured Command IfDvbs2BboerxCurStats		**ntS2BBFoE current statistics**		**current statistics**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/ntS2BBFoE Rx Statistics			
Description	Statistics (current interval) for the ntS2BBFoE receiver instances			
RMCP Command	brs array : [1 .. 4]		**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceExtEntry		
	Command	ntcDevsMod01IfDvbs2BboerxCurStats		
	OID	1.3.6.1.4.1.5835.3.1.4000.1.14.1.1.[1 .. 4]		

Variables	**Page**
IfDvbs2BboerxCurIpVolume	186
IfDvbs2BboerxCurPaddingVolume	186
IfDvbs2BboerxCurSymbolVolume	187

Structured Command IfDvbs2BboerxIntervalStats		**ntS2BBFoE interval statistics**		**Interval statistics**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/ntS2BBFoE Rx Statistics			
Description	Statistics (previous interval) for the ntS2BBFoE receiver instances			
RMCP Command	brS array : [1 .. 4]		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceExtEntry		
	Command	ntcDevsMod01IfDvbs2BboerxIntervalStats		
	OID	1.3.6.1.4.1.5835.3.1.4000.1.15.1.1.[1 .. 4]		

Variables	**Page**
IfDvbs2BboerxIntervalIpVolume	187
IfDvbs2BboerxIntervalPadVolume	188
IfDvbs2BboerxIntervalSymVolume	188

/Modem/Monitor/Interfaces/Ethernet/IP termination/S2BBFoE Rx Statistics

Only valid for mode Eth (ntS2BBFoE).

Structured Command IfS2BBFoERxCounters	**S2BBFoE RX counters**	**S2BBFoE RX counters**
Location	/Modem/Monitor/Interfaces/Ethernet/IP termination/S2BBFoE Rx Statistics	
	Only valid for DVB-S2 modes.	
Description	Readout of the DVB-S2 baseband frames over Ethernet RX counters. The following counters are read out: ***IfS2BBFoERxFramesRxed***, ***IfS2BBFoERxTranspHdrErrors***, ***IfS2BBFoERxDflErrors*** and ***IfS2BBFoERxAcmErrors***.	
RMCP Command	s2e	**Access** Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry
	Command	ntcDevsMod01IfS2BBFoERxCounters
	OID	1.3.6.1.4.1.5835.3.1.4.1.171.1.1

Variables	**Page**
IfS2BBFoERxFramesRxed	204
IfS2BBFoERxTranspHdrErrors	204
IfS2BBFoERxDflErrors	205
IfS2BBFoERxAcmErrors	205

/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/ULE Statistics

Only valid for the following modes:
- Eth(IP)
- Air(TS)

Command IfUleStatsReset	**Statistics Counters Mode**	**Statistics Counters**
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/ULE Statistics	
Description	Configuration command to specify when the ULE statistics counters are reset internally. • Reset each period: The counters are set to zero when a statistics period (5 s) is reached. • Never: The counters continue to run freely. • Reset on get: The counter is reset each time the values are gotten.	
RMCP Command	IUr	**Access** Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry
	Command	ntcDevsMod01IfUleStatsReset
	OID	1.3.6.1.4.1.5835.3.1.4.1.112.1.1

Command IfUleStatsReset	**Statistics Counters Mode**	**Statistics Counters**

Values	***Factory Default***	***Enumeration***	***Value***
	never	Reset each period (5 s) Never Reset on Get	0 1 2

Structured Command IfUleStats	**ULE Stats**	**ULE Stats**

Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/ULE Statistics		
Description	Readout of the ULE encapsulation statistics. The statistics are updated periodically (5s). • Statistics Counter Mode: The type of reset for all statistics counter in this web page ***Never*** does not reset all counters and they are incrementing continuously. Reset each period (5s)resets all counters every 5 seconds. The counters show the measured values over the last 5 seconds. • Encap IN Ethernet: Readout of the number of Ethernet packets received on the Ethernet input. • Encap IN Ethernet: Readout of the number of Ethernet bytes received on the Ethernet input. • Encap IN Bitrate: Readout of the average input bitrate. • Encap OUT TS: Readout of the number of transport stream packets generated by encapsulator. • Decap OUT Ethernet: Readout of the number of Ethernet packets transmitted on the Ethernet output. • Decap OUT Ethernet: Readout of the number of Ethernet bytes transmitted on the Ethernet output. • Decap OUT Bitrate: Readout of the average output bitrate. • Decap IN TS: Readout of the number of transport stream packets processed by the decapsulator.		
RMCP Command	UsE	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfUleStats	
	OID	1.3.6.1.4.1.5835.3.1.4.1.111.1.1	

Variables	**Page**
IfUleStatsTXMtuPackets	205
IfUleStatsTXMtuBytes	205
IfUleStatsTXMtuRate	206
IfUleStatsTXMpegPackets	206
IfUleStatsTXPopTimeouts	206
IfUleStatsTXPushTimeouts	206
IfUleStatsTXIdle	207
IfUleStatsRXMtuPackets	207
IfUleStatsRXMtuBytes	207
IfUleStatsRXMtuRate	207
IfUleStatsRXMpegPackets	208
IfUleStatsRXPopTimeouts	208
IfUleStatsRXPushTimeouts	208
IfUleStatsRXCRCErrors	208
IfUleStatsRXIdle	208

/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/MPE Statistics

Only valid for the following modes:
- Eth(IP)
- Air(TS)

Command IfMpeStatsReset			**Statistics Counters Mode**		**Statistics Counters**
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/MPE Statistics				
Description	Configuration command to specify when the MPE statistics counters are reset internally. • ***Reset each period***: The counters are set to zero when a statistics period (5 seconds) is reached. • ***Never***: The counters continue to run freely. • ***Reset on get***: Reset each time the values are readout.				
RMCP Command	IMr		**Access**	Normal user : RW Expert user : RW	
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfMpeStatsReset			
	OID	1.3.6.1.4.1.5835.3.1.4.1.163.1.1			
Values	***Factory Default***		***Enumeration***		***Value***
	never		Reset each period (5 s) Never Reset on Get		0 1 2

Structured Command IfMpeStats			**Mpe Stats**		**Mpe Stats**
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/MPE Statistics				
Description	Readout of the MPE encapsulation statistics. The statistics are updated periodically (5 seconds).				
RMCP Command	MsE		**Access**	Normal user : R Expert user : R	
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfMpeStats			
	OID	1.3.6.1.4.1.5835.3.1.4.1.162.1.1			

Variables	**Page**
IfMpeStatsTXMtuPackets	209
IfMpeStatsTXMtuBytes	209
IfMpeStatsTXMtuRate	209
IfMpeStatsTXMpegPackets	209
IfMpeStatsRXMtuPackets	210
IfMpeStatsRXMtuBytes	210
IfMpeStatsRXMtuRate	210
IfMpeStatsRXMpegPackets	210
IfMpeStatsRXCRCErrors	211

/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/Datapiping Statistics

Only valid for the following modes:
- Eth(IP)
- Air(TS)

Command IfDPStatsReset	**Statistics Counters Mode**	**Statistics Counters**

Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/Datapiping Statistics			
Description	Command to configure when the datapiping statistics counters are reset internally. • ***Reset each period***: The counters are set to zero when a statistics period (5 seconds) is reached. • ***Never***: The counters continue to run freely. • ***Reset on get***: Each time the counters are gotten, the counter is reset.			
RMCP Command	IDr		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDPStatsReset		
	OID	1.3.6.1.4.1.5835.3.1.4.1.78.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	never	Reset each period (5 s) Never Reset on Get	0 1 2

Structured Command IfDPStats	**Datapiping Stats**	**Datapiping Stats**

Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/Datapiping Statistics			
Description	Readout of the datapiping encapsulation/decapsulation statistics.			
RMCP Command	DsE		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDPStats		
	OID	1.3.6.1.4.1.5835.3.1.4.1.77.1.1		

Variables	**Page**
IfDPStatsTXMtuPackets	211
IfDPStatsTXMtuBytes	211
IfDPStatsTXMtuRate	211
IfDPStatsTXMpegPackets	212
IfDPStatsTXPopTimeouts	212
IfDPStatsTXPushTimeouts	212
IfDPStatsTXIdle	212
IfDPStatsRXMtuPackets	213

Structured Command IfDPStats	**Datapiping Stats**	**Datapiping Stats**
Variables		**Page**
IfDPStatsRXMtuBytes		213
IfDPStatsRXMtuRate		213
IfDPStatsRXMpegPackets		213
IfDPStatsRXPopTimeouts		214
IfDPStatsRXPushTimeouts		214
IfDPStatsRXIdle		214

/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/XPE Statistics

Command IfGBSStatsReset	**Statistics Counters Mode**	**Statistics Counters**
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/XPE Statistics	
Description	Configuration command to specify when the XPE statistics counters are reset internally: • ***Reset each period***: The counters are set to zero when a statistics period (5 seconds) is reached. • ***Never***: The counters continue top run freely. • ***Reset on get***: Reset each time the values are readout.	
RMCP Command	IGr	**Access** Normal user : RW Expert user : RW
SNMP	***Table*** ntcDevsMod01InterfaceEntry	
	Command ntcDevsMod01IfGBSStatsReset	
	OID 1.3.6.1.4.1.5835.3.1.4.1.96.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	never	Reset each period (5s) Never Reset on Get	0 1 2

Structured Command IfGBSStats	**XPE Stats**	**XPE Stats**
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/XPE Statistics	
Description	Readout of the XPE encapsulation statistics.	
RMCP Command	GsE	**Access** Normal user : R Expert user : R
SNMP	***Table*** ntcDevsMod01InterfaceEntry	
	Command ntcDevsMod01IfGBSStats	
	OID 1.3.6.1.4.1.5835.3.1.4.1.95.1.1	

Variables	**Page**
IfGBSStatsTXEthPackets	215
IfGBSStatsTXEthBytes	215
IfGBSStatsTXEthRate	215
IfGBSStatsTXPopTimeouts	215
IfGBSStatsTXBBFrames	216
IfGBSStatsTXBBBytes	216

Structured Command IfGBSStats	XPE Stats	XPE Stats
IfGBSStatsTXPushTimeouts		216
IfGBSStatsRXBBFrames		216
IfGBSStatsRXBBBytes		217
IfGBSStatsRXPopTimeouts		217
IfGBSStatsRXCRCErrors		217
IfGBSStatsRXDropped		217
IfGBSStatsRXEthPackets		218
IfGBSStatsRXEthBytes		218
IfGBSStatsRXEthRate		218
IfGBSStatsRXPushTimeouts		218

/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/GSE Statistics

Command IfGSEStatsReset	Statistics Counters Mode	Statistics Counters

Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/GSE Statistics		
Description	Determine when the GSE statistics counters are reset internally. • Reset each period: the counters are set to zero when a statistics period (5 s) is reached. • Never: the counters continue top run freely. • Reset on Get: reset each time the values are gotten		
RMCP Command	gsr	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfGSEStatsReset	
	OID	1.3.6.1.4.1.5835.3.1.4.1.277.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	never	Reset each period (5s) Never Reset on Get	0 1 2

Structured Command IfGSEStats	GSE Stats	GSE Stats

Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/GSE Statistics		
Description	GSE encapsulation statistics. The statistics are updated periodically (5s).		
RMCP Command	gsE	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfGSEStats	
	OID	1.3.6.1.4.1.5835.3.1.4.1.276.1.1	

Variables	Page
IfGSEStatsTXEthPackets	219
IfGSEStatsTXEthBytes	222

Structured Command IfGSEStats	GSE Stats	GSE Stats
IfGSEStatsTXEthRate		219
IfGSEStatsTXPopTimeouts		219
IfGSEStatsTXBBFrames		220
IfGSEStatsTXBBBytes		220
IfGSEStatsTXPushTimeouts		220
IfGSEStatsTXFragmented		220
IfGSEStatsRXBBFrames		221
IfGSEStatsRXBBBytes		221
IfGSEStatsRXPopTimeouts		221
IfGSEStatsRXCRCErrors		221
IfGSEStatsRXDropped		221
IfGSEStatsRXEthPackets		222
IfGSEStatsRXEthBytes		222
IfGSEStatsRXEthRate		222
IfGSEStatsRXPushTimeouts		222
IfGSEStatsRXFragmented		223

Command DmDecapModcodStatGSE		Decapsulated MODCOD		Decapsulated MODCOD
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Protocols/GSE Statistics			
Description	Returns the highest modcod of the baseband frames decapsulated during the last second			
RMCP Command	gsD		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmDecapModcodStatGSE		
	OID	1.3.6.1.4.1.5835.3.1.13.1.137.1.1		

Values	*Factory Default*	*Enumeration*	*Value*
	nothingReceived	Nothing received	0
		QPSK-1/2	11
		QPSK-2/3	12
		QPSK-3/4	13
		QPSK-5/6	15
		QPSK-6/7	16
		QPSK-7/8	17
		QPSK-1/4	21
		QPSK-1/3	22
		QPSK-2/5	23
		QPSK-3/5	24
		QPSK-4/5	25
		QPSK-8/9	26
		QPSK-9/10	27
		16APSK-2/3	42
		16APSK-3/4	43
		16APSK-4/5	44
		16APSK-5/6	45
		16APSK-8/9	48
		16APSK-9/10	49
		32APSK-3/4	53

Command DmDecapModcodStatGSE		Decapsulated MODCOD	Decapsulated MODCOD
		32APSK-4/5	54
		32APSK-5/6	55
		32APSK-8/9	58
		32APSK-9/10	59
		8PSK-3/5	81
		8PSK-2/3	82
		8PSK-3/4	83
		8PSK-5/6	85
		8PSK-6/7	86
		8PSK-7/8	87
		8PSK-8/9	88
		8PSK-9/10	89

/Modem/Monitor/Interfaces/Ethernet/ipencap/VLAN Statistics

Structured Command IfVLANStats		Ethernet kernel statistics	Ethernet kernel stat
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/VLAN Statistics		
Description	Readout of the Ethernet kernel statistics per VLAN per Interface.		
RMCP Command	IVs array : [1 .. 33]	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfVLANStats	
	OID	1.3.6.1.4.1.5835.3.1.4.1.113.1.1.[1 .. 33]	

Variables	Page
IfVLANStatsActive	223
IfVLANStatsName	223
IfVLANStatsTxPackets	223
IfVLANStatsTxBytes	224
IfVLANStatsRxPackets	224
IfVLANStatsRxBytes	224

Command IfQosStatsReset		QOS stats reset	QOS stats reset
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/QOS Statistics		
Description	This command allows to reset the quality of service statistics.		
RMCP Command	qsr	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfQosStatsReset	
	OID	1.3.6.1.4.1.5835.3.1.4.1.234.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	none	None Now	0 1

Structured Command IfQosStatsEntry	**Eth RX QOS statistics**	**Eth RX QOS statistic**

Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/QOS Statistics			
Description	Readout of the Ethernet RX quality of service statistics per quality of service class.			
RMCP Command	eqs array : [1 .. 4]		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceExtEntry		
	Command	ntcDevsMod01IfQosStatsEntry		
	OID	1.3.6.1.4.1.5835.3.1.4000.1.18.1.1.[1 .. 4]		

Variables	**Page**
IfQosStatsPriority	224
IfQosStatsBytesDropped	224

Command IfAcmFwSigRxed	**ACM fw sig rxed**	**ACM fw sig rxed**

Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Signalling			
Description	Number of ACM forward signalling packets received.			
RMCP Command	asf	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfAcmFwSigRxed		
	OID	1.3.6.1.4.1.5835.3.1.4.1.266.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	packets	packets	0	0 .. 4294967295

Command IfAcmFwSigFetched	**ACM fw sig fetched**	**ACM fw sig fetched**

Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Signalling			
Description	Nbr of ACM fw signalling packets fetched.			
RMCP Command	asF	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfAcmFwSigFetched		
	OID	1.3.6.1.4.1.5835.3.1.4.1.265.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	packets	packets	0	0 .. 4294967295

Command IfAcmRtSigRxed		**ACM rt sig rxed**		**ACM rt sig rxed**
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Signalling			
Description	Number of ACM return signalling packets received.			
RMCP Command	arr	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfAcmRtSigRxed		
	OID	1.3.6.1.4.1.5835.3.1.4.1.268.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	packets	packets	0	0 .. 4294967295

Command IfAcmRtSigFetched		**ACM rt sig fetched**		**ACM rt sig fetched**
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Signalling			
Description	Number of ACM return signalling packets fetched.			
RMCP Command	arf	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfAcmRtSigFetched		
	OID	1.3.6.1.4.1.5835.3.1.4.1.267.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	packets	packets	0	0 .. 4294967295

Command IfIbSigTxed		**Inband sig txed**		**Inband sig txed**
Location	/Modem/Monitor/Interfaces/Ethernet/ipencap/Signalling			
Description	Number of in-band signalling packets transmitted.			
RMCP Command	ist	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfIbSigTxed		
	OID	1.3.6.1.4.1.5835.3.1.4.1.269.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	packets	packets	0	0 .. 4294967295

/Modem/Monitor/Modulation

Command MoMonOutputFreq		**Monitor output frequency**		**Monitor output freq.**
Location	/Modem/Monitor/Modulation			
Description	Readout of the modulator L-band monitoring output frequency.			
RMCP Command	MOF	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoMonOutputFreq		
	OID	1.3.6.1.4.1.5835.3.1.3.1.18.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	MHz	Hz	1.450.000.000	0 .. 99000000000

Command MoMonSpectInv		**Monitor out spec. inv.**	**Monitor out spec. in**
Location	/Modem/Monitor/Modulation		
Description	Readout of the output spectrum polarity.		
RMCP Command	MOS	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoMonSpectInv	
	OID	1.3.6.1.4.1.5835.3.1.3.1.19.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	directSpectrum	Direct spectrum Inverted spectrum	1 2

Command ODMeasPow		**OD power supply**		**OD power supply**
Location	/Modem/Monitor/Modulation			
Description	Monitored value of the power supply to power the outdoor unit. If the measured voltage is below +6V, the control command to enable/disable the outdoor unit power supply will be suppressed.			
RMCP Command	opm	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ODUEntry		
	Command	ntcDevsMod01ODMeasPow		
	OID	1.3.6.1.4.1.5835.3.1.14.1.15.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Volt	Volt	0	0 .. 26

Command InpRateEstim		**Estimated input bitrate**		**Estim input bitrate**
Location	/Modem/Monitor/Modulation			
Description	Readout of the estimated input bitrate. The concentrator provides an estimate of the input bitrate on every input channel in order to help the operator in determining a suitable output bitrate. Remark: Only applicable when an auxiliary ASI board is installed.			
RMCP Command	DIR	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01InpRateEstim		
	OID	1.3.6.1.4.1.5835.3.1.3.1.51.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Mbps	bps	0	0 .. 4294967295

Command MoBufCont		**Buffer contents**		**Buffer contents**
Location	/Modem/Monitor/Modulation			
Description	Readout of the content of the FIFO buffer between the interface and the modulator part. The buffer content is expressed in % of the physical buffer size. • In DVB-S operation :The buffer is re-centred in case of underflow or overflow. When the device operates with external transmit clock, then a PLL loop maintains the buffer contents at the nominal set point. For the lower bit-rates, the nominal set point is reduced in order to minimize overall delay.The nominal buffer set-points are:a) Set-point = 50% when 1 Mbit/s <= interface rate.b) Set-point = 25% when 200 kbit/s <= interface rate < 1 Mbit/s.c) Set-point = 12.5% when 50 kbit/s <= interface rate < 200 kbit/s. The actual buffer contents varies as function of the timing format of the baseband input transport stream (for a detailed explanation see timing format).In byte mode, the actual average buffer contents will be close to the nominal set-point. In packet mode, the actual average buffer contents will be about half a DVB packet (188/2 = 94 bytes) above the nominal set-point due to the bursty nature of this format. • In DVB-S2 operation :In DVB-S2 mode, data buffering occurs both in the input FIFO buffer and in the baseband processing circuits. The large input FIFO is mainly present for the asynchronous (internal transmit clock or stuffing mode) operation, but can cause excessive processing delays in the synchronous slaved mode (external transmit clock) with short-frames. Therefore the nominal buffer set-point is no longer fixed but user-programmable via the ***MoBufSetp*** and ***MoBufFramSetp*** commands.Remark: In addition, a minimum-delay mode is included (see ***MoDlyMode***) which initializes the baseband circuits for minimum delay operation. In this case the input buffer will remain empty.			
RMCP Command	Tip	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBufCont		
	OID	1.3.6.1.4.1.5835.3.1.3.1.5.1.1		

Command MoBufCont		**Buffer contents**		**Buffer contents**
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	%	%	49	0 .. 100

Command MoBufSize		**Input buffer size**		**Input buffer size**
Location	/Modem/Monitor/Modulation			
Description	Readout of the physical size of the FIFO buffer between the interface and the modulator part.			
RMCP Command	ibs	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBufSize		
	OID	1.3.6.1.4.1.5835.3.1.3.1.6.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bytes	bytes	2048	0 .. 16384

Command MoOutLevelDet		**Modulator output level measurement**		**Output level msmt.**
Location	/Modem/Monitor/Modulation			
Description	Readout of the modulator measured output level which is expressed in dBm and measured with a resolution of 0.1 dBm.			
RMCP Command	old	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoOutLevelDet		
	OID	1.3.6.1.4.1.5835.3.1.3.1.75.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dBm	dBm	-15	-50 .. -10

Command MoTxOffs		**Transmit clock offset**		**Tx clock offset**
Location	/Modem/Monitor/Modulation			
Description	Readout of the transmit clock offset. This is the offset (in ppm) between the configured symbol rate and the actual symbol rate when the device operates with external transmit clock. This offset indication is not applicable if the internal transmit clock is selected or if the transmit clock is not synchronised to the interface clock.			
RMCP Command	Trd	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		

Command MoTxOffs		**Transmit clock offset**		**Tx clock offset**
	Command	ntcDevsMod01MoTxOffs		
	OID	1.3.6.1.4.1.5835.3.1.3.1.36.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ppm	ppm	0	-500 .. 500

Command MoPhaseErrDev		**Modulator clock phase error deviation**		**Phase error deviation**
Location	/Modem/Monitor/Modulation			
Description	Readout of the modulator clock phase error deviation expressed in nanosecond. The clock phase error deviation is the average value of rectified phase error.			
RMCP Command	ped	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoPhaseErrDev		
	OID	1.3.6.1.4.1.5835.3.1.3.1.80.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ns	ns	0	0 .. 4294967295

Command MoDelaySetp		**Delay setpoint**		**Delay setpoint**
Location	/Modem/Monitor/Modulation			
	Only valid for mode ASI (TS) <-> Air (TS) (fixed delay).			
Description	Readout of the active delay set-point expressed in nanoseconds. When the modulator is operating with external transmit clock, the transmit clock is slaved to the incoming data frames via a PLL circuit. This variable presents the current operating point (set-point) of the PLL.			
RMCP Command	mds	**Access**		Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoDelaySetp		
	OID	1.3.6.1.4.1.5835.3.1.3.1.65.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ns	ns	0	0 .. 4294967295

Command MoClkLoopState	**clock loop state**	**clock loop state**
Location	/Modem/Monitor/Modulation	
Description	Readout of the state of the clock tracking loop on the modulator board.	
RMCP Command	Cls	**Access** Normal user : no access Expert user : R
SNMP	***Table*** ntcDevsMod01ModulatorEntry	
	Command ntcDevsMod01MoClkLoopState	
	OID 1.3.6.1.4.1.5835.3.1.3.1.61.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	dump	Dump Acq Lock Hold	0 1 2 3

Command MoMainState	**main acquisition state**	**main acquisition state**
Location	/Modem/Monitor/Modulation	
Description	Readout of the modulator current main acquisition state.	
RMCP Command	mas	**Access** Normal user : no access Expert user : R
SNMP	***Table*** ntcDevsMod01ModulatorEntry	
	Command ntcDevsMod01MoMainState	
	OID 1.3.6.1.4.1.5835.3.1.3.1.74.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	setup	Setup Unsync FramSync TbSync FullSync InputSync BbSync PlSync	0 1 2 3 4 5 6 7

Command MoGainCtrlState	**Gain control state**	**Gain control state**
Location	/Modem/Monitor/Modulation	
Description	Readout of the modulator output level (gain) control state. When gain control is set to automatic gain control and the gain loop is settling, the display will indicate settling. In this short time the output level will approach the requested level.	
RMCP Command	GcS	**Access** Normal user : no access Expert user : R
SNMP	***Table*** ntcDevsMod01ModulatorEntry	

Command MoGainCtrlState		**Gain control state**	**Gain control state**
	Command	ntcDevsMod01MoGainCtrlState	
	OID	1.3.6.1.4.1.5835.3.1.3.1.13.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	AGC	MGC Settling AGC	0 1 2

Command MoTxStatus		**Tx On**	**Tx On**
Location	/Modem/Monitor/Modulation		
Description	Readout of the current transmit status. In case of a modulator, this status indication is used to drive the ***Tx On*** LED.		
RMCP Command	txs	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoTxStatus	
	OID	1.3.6.1.4.1.5835.3.1.3.1.37.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	tx_off	OFF ON	0 1

/Modem/Monitor/Modulation/Packets

Only valid for DVB-S2 modes.

Command MoInpPacketCnt		**Input Packet count**	**Input Packet count**
Location	/Modem/Monitor/Modulation/Packets		
Description	Input packet count. Readout of the total number of packets received by the modulator board on the interface of the gigabit Ethernet interface board since the last reset of the counters.		
RMCP Command	ipc	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoInpPacketCnt	
	OID	1.3.6.1.4.1.5835.3.1.3.1.71.1.1	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4294967295

Command MoInpPacketRate		**Input packetrate**		**Input packetrate**
Location	/Modem/Monitor/Modulation/Packets			
Description	Readout of the estimated input packet rate expressed in packets per second.			
RMCP Command	ipr	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoInpPacketRate		
	OID	1.3.6.1.4.1.5835.3.1.3.1.72.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	pps	pps	0	-1e+38 .. 1e+38

Command MoPacketRate		**Estimated packetrate**		**Estimated packetrate**
Location	/Modem/Monitor/Modulation/Packets			
Description	Readout of the estimated packet rate in packets per second.			
RMCP Command	mpr	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoPacketRate		
	OID	1.3.6.1.4.1.5835.3.1.3.1.79.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	pps	pps	0	-1e+38 .. 1e+38

Command MoPacketCnt		**Packet count**		**Packet count**
Location	/Modem/Monitor/Modulation/Packets			
Description	Readout of the monitored packet count. All baseband packets on the modulator are counted.			
RMCP Command	mpc	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoPacketCnt		
	OID	1.3.6.1.4.1.5835.3.1.3.1.78.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4294967295

Command MoCntRst		**Packet counters reset**		**Packet counters rst**
Location	/Modem/Monitor/Modulation/Packets			
Description	Command to reset the packet counters. Click on "all" to reset the statistics counter described in the tables.			
RMCP Command	mcr		**Access**	Normal user : no access Expert user : W
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoCntRst		
	OID	1.3.6.1.4.1.5835.3.1.3.1.62.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
		All	0	

/Modem/Monitor/Modulation/Frames

Only valid for DVB-S2 modes.

Command MoDummyPLRate		**Dummy Physical Layer frame-rate**		**Dummy PL rate**
Location	/Modem/Monitor/Modulation/Frames			
Description	Readout of the dummy physical layer frames per second.			
RMCP Command	dfr	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoDummyPLRate		
	OID	1.3.6.1.4.1.5835.3.1.3.1.68.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	fps	fps	0	-1e+38 .. 1e+38

Command MoDummyPLCnt		**Dummy Physical Layer frame-count**		**Dummy PL count**
Location	/Modem/Monitor/Modulation/Frames			
Description	Readout of the total number of inserted dummy physical layer frames since the last reset of the counters.			
RMCP Command	dfc	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoDummyPLCnt		
	OID	1.3.6.1.4.1.5835.3.1.3.1.67.1.1		

Command MoDummyPLCnt		**Dummy Physical Layer frame-count**		**Dummy PL count**
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4294967295

Command MoPLEfficiency		**Physical layer efficiency**		**PL efficiency**
Location	/Modem/Monitor/Modulation/Frames			
Description	Readout of the physical layer efficiency of the DVB-S2 modulator. The physical layer efficiency is expressed in % and is calculated as the ratio between dummy physical layer frame symbol rate and available symbol rate. It is 100 % when no dummy physical layer frames are inserted.			
RMCP Command	ple	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoPLEfficiency		
	OID	1.3.6.1.4.1.5835.3.1.3.1.76.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	%	%	0	0 .. 100

Command MoBBLEfficiency		**Baseband layer efficiency**		**BBL efficiency**
Location	/Modem/Monitor/Modulation/Frames			
Description	Readout of the baseband layer efficiency of the DVB-S2 modulator. The baseband layer efficiency is expressed in % and is calculated as the ratio between used payload bytes and available payload bytes within the baseband frames. In other words, it represents the filling level of the DVB-S2 baseband frames.			
RMCP Command	ble	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBBLEfficiency		
	OID	1.3.6.1.4.1.5835.3.1.3.1.56.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	%	%	0	0 .. 100

Command MoBBShortFrameRatio		**Short frames**		**Short frames**
Location	/Modem/Monitor/Modulation/Frames			
Description	Readout of the ratio of short-frames in the DVB-S2 modulator. It is expressed in % and is calculated as the ratio of short-frames over the total (optionally filtered) baseband frames.			
RMCP Command	sfr	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		

Command MoBBShortFrameRatio		**Short frames**		**Short frames**
	Command	ntcDevsMod01MoBBShortFrameRatio		
	OID	1.3.6.1.4.1.5835.3.1.3.1.57.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	%	%	0	0 .. 100

/Modem/Monitor/Modulation/ACM control

Command MoAcmDiagLog		**ACM status**	**ACM status**
Location	/Modem/Monitor/Modulation/ACM control		
Description	Readout of the ACM controller diagnostics.		
RMCP Command	amb	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoAcmDiagLog	
	OID	1.3.6.1.4.1.5835.3.1.3.1.130.1.1	
Values	***Factory Default***	***String Description***	
		length : 0 .. 60 format : any chars	

Command MoAcmDemodLog		**ACM current log**	**ACM current log**
Location	/Modem/Monitor/Modulation/ACM control		
Description	Readout of the current ACM controller log.		
RMCP Command	amd	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoAcmDemodLog	
	OID	1.3.6.1.4.1.5835.3.1.3.1.127.1.1	
Values	***Factory Default***	***String Description***	
		length : 0 .. 60 format : any chars	

Structured Command MoMonAcmDmSupvEntry		**ACM demodulator monitoring table**	**Demod table**
Location	/Modem/Monitor/Modulation/ACM control		
Description	Monitoring parameters for ACM enabled demodulators.		
RMCP Command	adm array : [1 .. 10]	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry	

Structured Command MoMonAcmDmSupvEntry		**ACM demodulator monitoring table**	**Demod table**
	Command	ntcDevsMod01MoMonAcmDmSupvEntry	
	OID	1.3.6.1.4.1.5835.3.1.3.1.159.1.1.[1 .. 10]	

Variables	**Page**
MoMonAcmDmSupvIp	226
MoMonAcmDmSupvStrid	226
MoMonAcmDmSupvEsno	227
MoMonAcmDmSupvModcod	227
MoMonAcmDmSupvNumRx	228
MoMonAcmDmSupvNumTo	228
MoMonAcmDmSupvNumCto	228

Structured Command MoMonAcmStreamEntry			**ACM stream monitoring table**	**Stream table**
Location	/Modem/Monitor/Modulation/ACM control			
Description	ACM stream monitoring entry.			
RMCP Command	asm array : [1 .. 35]		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoMonAcmStreamEntry		
	OID	1.3.6.1.4.1.5835.3.1.3.1.160.1.1.[1 .. 35]		

Variables	**Page**
MoMonAcmStreamStrid	225
MoMonAcmStreamFrameType	225
MoMonAcmStreamNChanges	225
MoMonAcmStreamModcod	225

Command MoAcmDemodLogToday			**ACM history logs today**	**ACM history logs tod**
Location	/Modem/Monitor/Modulation/ACM control			
Description	Readout of the history ACM controller logs of today.			
RMCP Command	amt		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmDemodLogToday		
	OID	1.3.6.1.4.1.5835.3.1.3.1.128.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 200 format : any chars		

Command MoAcmDemodLogYestrd		ACM history logs yesterday		ACM history logs yes
Location	/Modem/Monitor/Modulation/ACM control			
Description	Readout of the history ACM controller logs of yesterday.			
RMCP Command	amy		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoAcmDemodLogYestrd		
	OID	1.3.6.1.4.1.5835.3.1.3.1.129.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 200 format : any chars		

/Modem/Monitor/Demodulation

Structured Command DmMeasAGCStruct		Receive level		Receive level
Location	/Modem/Monitor/Demodulation			
Description	Readout of the receive level as derived from the automatic gain control (AGC) circuits of the front-end or in other words, the RF input level measured on the demodulator board.			
RMCP Command	RSl		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasAGCStruct		
	OID	1.3.6.1.4.1.5835.3.1.13.1.36.1.1		

Variables	Page
DmMeasAGCSat	174
DmMeasAGC	174

Structured Command DmMeasAGCCoStruct		Input level		Input level
Location	/Modem//Monitor/Demodulation			
Description	Readout of the power spectral density measured on the demodulator board. This is calculated from the received level minus 10xlog (symbol rate).			
RMCP Command	RSc		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasAGCCoStruct		
	OID	1.3.6.1.4.1.5835.3.1.13.1.34.1.1		

Structured Command DmMeasAGCCoStruct	**Input level**	**Input level**

Variables	**Page**
DmMeasAGCCoSat DmMeasAGCCo	174 175

Structured Command DmMeasEbNoStruct	**Eb/No estimation**	**Eb/No estimation**

Location	/Modem/Monitor/Demodulation			
Description	Readout of the DVB-S demodulator channel Eb/No estimation. This Eb/No estimation is based on a symbol noise estimation. This estimation is calculated on all symbols, but is not very accurate (+/- 1dB). This variable is the concatenation of ***DmMeasEbNoSat*** and ***DmMeasEbNo***.			
RMCP Command	RSe		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasEbNoStruct		
	OID	1.3.6.1.4.1.5835.3.1.13.1.38.1.1		

Variables	**Page**
DmMeasEbNoSat DmMeasEbNo	168 168

Command DmMPegCrcErrs	**MPEG CRC errors**	**MPEG CRC errors**

Location	/Modem/Monitor/Demodulation			
Description	Readout of the total counted MPEG errors. These accumulated counter can be reset by using the command for resetting counters.			
RMCP Command	McE	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMPegCrcErrs		
	OID	1.3.6.1.4.1.5835.3.1.13.1.47.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
			0	0 .. 4294967295

Command DmMeasCarOff	**Carrier frequency offset**	**Carrier freq. offset**

Location	/Modem/Monitor/Demodulation		
Description	Readout of the measured carrier frequency offset in Hz of the received carrier frequency against the selected receive frequency.		
RMCP Command	Rfd	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	

Command DmMeasCarOff		**Carrier frequency offset**		**Carrier freq. offset**
	Command	ntcDevsMod01DmMeasCarOff		
	OID	1.3.6.1.4.1.5835.3.1.13.1.17.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Hz	Hz	13.200	-1e+38 .. 1e+38

Command DmMeasClk		**Symbol rate offset**		**Symbol rate offset**
Location	/Modem/Monitor/Demodulation			
Description	Readout of the measured offset in baud between the received symbol rate and the selected symbol rate.			
RMCP Command	Rrd	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasClk		
	OID	1.3.6.1.4.1.5835.3.1.13.1.18.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	baud	baud	132	-1e+38 .. 1e+38

Command DmMeasClkPpm		**Symbol rate offset**		**Symbol rate offset**
Location	/Modem/Monitor/Demodulation			
Description	Readout of the measured offset in parts per million (ppm) between the received symbol rate and the selected symbol rate.			
RMCP Command	Rrp	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasClkPpm		
	OID	1.3.6.1.4.1.5835.3.1.13.1.39.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ppm	ppm	132	-1e+38 .. 1e+38

Structured Command DmMeasEsNoStruct	**Header Es/No estimation**	**Header Es/No estimat**

Location	/Modem/Monitor/Demodulation			
Description	This command reads out the concatenation of ***DmMeasEsNoSat*** and ***DmMeasEsNo***. All DVB-S2 demodulators have an integrated Es/No estimator. Their Es/No estimation is made on the physical layer header symbols. Because it is done on known BPSK symbols, it is more accurate (+/- 0.3dB typically in a linear channel) than the DVB-S Eb/No estimation. But this header estimation has some consequences: • It does not take into account some distortions on higher modulations, especially on 16APSK and 32APSK, due to saturation in amplifiers working with minimal output back off. BPSK signals are much less influenced by these non-linear effects of saturation. • There are only 90 header symbols/baseband frame of minimum 2K and maximum 32K symbols. Averaging the noise on many headers is required to have some stable reading. The header Es/No estimation is rather slow at lower symbol rates. • All non compensated disturbances are measured on the demodulated header symbols. Saturation and group delay distortion can cause a large difference compared to the Es/No measured with a spectrum analyser. This is typically the case with a high group delay distortion and high Es/No. • With the equalizer function enabled, group delay distortions are better compensated on the NTC/7044 than on the NTC/7062 board and Es/No indication is more accurate.Remark: The Es/No indication ranges from -2 dB to + 24 dB.			
RMCP Command	REs		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasEsNoStruct		
	OID	1.3.6.1.4.1.5835.3.1.13.1.50.1.1		

Variables	**Page**
DmMeasEsNoSat DmMeasEsNo	189 189

Structured Command DmEstLinMarStruct	**Link Margin Estimate**	**Link Margin Estimate**

Location	/Modem/Monitor/Demodulation			
Description	Readout of the indication of the receive margin before reaching the threshold point of a quasi error free operation (QEF) operation. In DVB-S, the Eb/No for quasi error free operation is taken from the DVB standards EN300421 and EN301210. Basically it is the margin in dB that subtracting the modcod dependenta signal can decrease in Eb/No before errors will have noticeable effects on the output transport stream. In DVB-S2, the link margin is derived from the true C/N value, including both linear and non-linear distortion.			
RMCP Command	Lms		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmEstLinMarStruct		

Structured Command DmEstLinMarStruct		**Link Margin Estimate**	**Link Margin Estimate**
	OID	1.3.6.1.4.1.5835.3.1.13.1.75.1.1	
Variables			**Page**
DmEstLinMarSat DmEstLinMar			190 190

Command DmFrameTypeStat		**FEC-frame type detect**	**Frame type**
Location	/Modem/Monitor/Demodulation		
Description	Reads out of the detected DVB-S2 FEC-frame type. DVB-S2 defines two FEC-frame types : • ***Normal***: FEC-frames of 64800 bits or 8100 bytes. • ***Short***: FEC-frames of 16200 bits or 2025 bytes.		
RMCP Command	Acf	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmFrameTypeStat	
	OID	1.3.6.1.4.1.5835.3.1.13.1.56.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	short	Short Normal	0 1

Command DmFECDemodStat		**Actual FEC-rate and modulation**	**Actual FEC-rate and**
Location	/Modem/Monitor/Demodulation		
Description	Readout of the actual value of the forward error correction coding & modulation.		
RMCP Command	Rmx	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmFECDemodStat	
	OID	1.3.6.1.4.1.5835.3.1.13.1.12.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	QPSK-3/4	Dummy PLFRAMES QPSK modulation -- no FEC (Skyplex only) QPSK modulation -- rate 1/2 * 188/204 QPSK modulation -- rate 2/3 * 188/204 QPSK modulation -- rate 3/4 * 188/204 QPSK modulation -- rate 5/6 * 188/204 QPSK modulation -- rate 6/7 * 188/204 QPSK modulation -- rate 7/8 * 188/204 QPSK-1/4 QPSK-1/3 QPSK-2/5	0 10 11 12 13 15 16 17 21 22 23

Command DmFECDemodStat		Actual FEC-rate and modulation	Actual FEC-rate and
		QPSK-3/5	24
		QPSK-4/5	25
		QPSK-8/9	26
		QPSK-9/10	27
		16APSK-2/3	42
		16APSK-3/4	43
		16APSK-4/5	44
		16APSK-5/6	45
		16APSK-8/9	48
		16APSK-9/10	49
		32APSK-3/4	53
		32APSK-4/5	54
		32APSK-5/6	55
		32APSK-8/9	58
		32APSK-9/10	59
		16QAM modulation -- no FEC (Skyplex only)	60
		16 QAM modulation -- rate 1/2 * 188/204	61
		16 QAM modulation -- rate 2/3 * 188/204	62
		16 QAM modulation -- rate 3/4 * 188/204	63
		16 QAM modulation -- rate 5/6 * 188/204	65
		16 QAM modulation -- rate 6/7 * 188/204	66
		16 QAM modulation -- rate 7/8 * 188/204	67
		16 QAM modulation -- rate 8/9 * 188/204	68
		8PSK modulation -- no FEC (Skyplex only)	80
		8PSK modulation -- rate 3/5 * 188/204	81
		8PSK modulation -- rate 2/3 * 188/204	82
		8PSK modulation -- rate 3/4 * 188/204	83
		8PSK modulation -- rate 5/6 * 188/204	85
		8PSK modulation -- rate 6/7 * 188/204	86
		8PSK modulation -- rate 7/8 * 188/204	87
		8PSK modulation -- rate 8/9 * 188/204	88
		8PSK-9/10	89

/Modem/Monitor/Demodulation/ModCodStats

/Modem/Monitor/Demodulation/ModCodStats/Demodulator S2 statistics

Structured Command DmModCodStatStruct			Demodulator S2 statistics	Demodulator S2 stati
Location	/Modem/Monitor/Demodulation/ModCodStats/Demodulator S2 statistics			
Description	Readout of the modulation and coding statistics table.			
RMCP Command	Mss array : [1 .. 16]		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorExtEntry		
	Command	ntcDevsMod01DmModCodStatStruct		
	OID	1.3.6.1.4.1.5835.3.1.13000.1.4.1.1.[1 .. 16]		

Variables	Page
DmModCodStatModCod	168
DmModCodStatFrameType	170

Structured Command DmModCodStatStruct	Demodulator S2 statistics	Demodulator S2 stati
DmModCodStatPilots		170
DmModCodStatFrameCnt		170
DmModCodStatUncorCnt		171
DmModCodStatSat		171
DmModCodStatChQEst		172
DmModCodStatChCDSat		172
DmModCodStatChCD		172
DmModCodStatChDistQEFSat		173
DmModCodStatChDistQEF		173

/Modem/Monitor/Demodulation/ACM client

Command DmAcmClientPoll	ACM poll	ACM poll
Location	/Modem/Monitor/Demodulation/ACM client	
Description	Readout of the latest ACM client poll message, that was received via the signalling channel.	
RMCP Command	acp	**Access** Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry
	Command	ntcDevsMod01DmAcmClientPoll
	OID	1.3.6.1.4.1.5835.3.1.13.1.101.1.1
Values	***Factory Default***	***String Description***
		length : 0 .. 200 format : any chars

Command DmAcmClientEsnoVariation	Fading prediction	Fading prediction
Location	/Demodulator/Monitor/Demodulation/ACM client	
Description	Fading prediction value.	
RMCP Command	hev	**Access** Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry
	Command	ntcDevsMod01DmAcmClientEsnoVariation
	OID	1.3.6.1.4.1.5835.3.1.13.1.128.1.1

Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
			0	-5 .. 50

Command DmAcmClientFeedback			**ACM feedback**	**ACM feedback**
Location	/Modem/Monitor/Demodulation/ACM client			
Description	Readout of the latest ACM client feedback string sent to the ACM controller.			
RMCP Command	acF		**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmAcmClientFeedback		
	OID	1.3.6.1.4.1.5835.3.1.13.1.97.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 200 format : any chars		

Command DmAcmClientLog			**ACM log**	**ACM log**
Location	/Modem/Monitor/Demodulation/ACM client			
Description	Readout of the ACM client log-file. The ACM client log keeps track of the following items: time stamp, Es/No, link margin referenced, requested modcod. The ACM client log-file has .csv as file-type. Remark: • Link margin referenced: This is a fixed value for a given coding and modulation. • (s) = Short frames. • (n) = Normal frames.			
RMCP Command	acl		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmAcmClientLog		
	OID	1.3.6.1.4.1.5835.3.1.13.1.98.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 60 format : any chars		

Command DmAcmClientLogToday			**ACM logs today**	**ACM logs today**
Location	/Modem/Monitor/Demodulation/ACM client			
Description	Readout of the ACM client log-file of today.			
RMCP Command	act		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmAcmClientLogToday		
	OID	1.3.6.1.4.1.5835.3.1.13.1.99.1.1		
Values	***Factory Default***	***String Description***		

Command DmAcmClientLogToday		**ACM logs today**	**ACM logs today**
		length : 0 .. 120 format : any chars	

Command DmAcmClientLogYesterday			**ACM logs yesterday**	**ACM logs yesterday**
Location	/Modem/Monitor/Demodulation/ACM client			
Description	Readout of the ACM client log-file of yesterday.			
RMCP Command	acy		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmAcmClientLogYesterday		
	OID	1.3.6.1.4.1.5835.3.1.13.1.100.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 .. 120 format : any chars		

Config

In the configuration menu you can save and load up to 48 different operational configurations in permanent memory. You can define a configuration as the group of all device configuration parameters that can be set in the IP Satellite Modem. Only global system parameters are not saved in a configuration since they are written in permanent memory at the moment that they are set/changed. They are parameters that are common to all configurations such as: Device mode, RMCP version, Display contrast. Serial interface type, Device RMCP address, Serial baudrate, Device IP address, Device IP mask, Default gateway and Ethernet interface Alarm mode (normal, masked and forced). All other parameters are configuration parameters that can differ in the different stored configurations.

The config tab is not displayed in the tree view of the Graphical user interface (GUI). This function is located in the Function controls window of the GUI under the tab config.
We refer to the explanation of the GUI in the user manual of this device.

Special Command SyConfigLoadFlash			**Load**		**Load**
Location	/Config				
Description	Command used to load a configuration from permanent memory. Up to 48 different configurations can be loaded, however only valid configurations that have been previously saved by the operator can be loaded. The default boot configuration must always be stored in configuration 0 since this is the one that is loaded when the device (re)-boots. The top row on the LCD display indicates the last loaded configuration by the name given by the operator to the configuration number. Remark specific to modulators: Only the default boot configuration can store the status of L-band (IF) transmit since it is required that transmission resumes if there was an (accidental) power outage. Remember that in that case the default configuration 0 is loaded. The other configurations will save the transmit status as disabled and the operator will have to verify all parameters before enabling transmit to go on-air.				
RMCP Command	LCF			**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry			
	Command	ntcDevsMod01SyConfigLoadFlash			
	OID	1.3.6.1.4.1.5835.3.1.1.1.3.1.1			
Get Command Arguments			**Set Command Arguments**		
Command(s) / Variable(s)	***Page***		***Command(s) / Variable(s)***	***Page***	
none	none		SyConfigNum	230	
Get Reply Values			***Set Reply Values***		
Command(s) / Variable(s)	***Page***		***Command(s) / Variable(s)***	***Page***	
SyLoadConfNum	231		SyConfigStatus	230	

Special Command SyConfigSaveFlash		**Save**		**Save**
Location	/Config			
Description	Configuration command to save a configuration to permanent memory. Up to 48 different configurations can be saved. Remember that the default boot configuration has to be saved in configuration 0 since this is the one that is loaded when the device (re)-boots.			
RMCP Command	SCF		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyConfigSaveFlash		
	OID	1.3.6.1.4.1.5835.3.1.1.1.4.1.1		

Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
none	none	SyConfigNum	230
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
SySaveConfNum	231	SyConfigStatus	230

Special Command SyCfgName		**Name**		**Name**
Location	/Config			
Description	Configuration command for the configuration's name. The configuration name will be displayed on the front panel in order to allow easier identification of a certain saved configuration.			
RMCP Command	SCn		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyCfgName		
	OID	1.3.6.1.4.1.5835.3.1.1.1.58.1.1		

Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
SyConfigNum	230	SyConfigNum SyConfigName	230 231
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
SyConfigNum SyConfigName	230 231	SyConfigStatus	230

Structured Elements with Individual Access

Command DmMeasEbNoSat	Eb/No level clipping info	Eb/No lvl clipping

Used as variable of	***Command(s)***			***Page***
	DmMeasEbNoStruct			158
Description	Readout of the Eb/No level clipping information. When reading saturated values for the Eb/No estimation, the clipping information will identify the direction of saturation or return equal if the value is within range.			
RMCP Command	Rse		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasEbNoSat		
	OID	1.3.6.1.4.1.5835.3.1.13.1.37.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	equal	 > <	0 1 2

Command DmMeasEbNo	Eb/No estimation	Eb/No estimation

Used as variable of	***Command(s)***			***Page***
	DmMeasEbNoStruct			158
Description	Readout of the Eb/No estimation in dB of the received signal.			
RMCP Command	Rle	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasEbNo		
	OID	1.3.6.1.4.1.5835.3.1.13.1.19.1.1		

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dB	dB	9.83	0 .. 25

Command DmModCodStatModCod	FEC-rate and modulation	FEC-rate and mod.

Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout of the actual value of the forward error correction coding and modulation.			
RMCP Command	Msx		**Access**	Normal user : R Expert user : R

Command DmModCodStatModCod		FEC-rate and modulation	FEC-rate and mod.
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmModCodStatModCod	
	OID	1.3.6.1.4.1.5835.3.1.13.1.69.1.1	

Values	*Factory Default*	*Enumeration*	*Value*
	QPSK-3/4	Dummy PLFRAMES	0
		QPSK modulation -- no FEC (Skyplex only)	10
		QPSK modulation -- rate 1/2 * 188/204	11
		QPSK modulation -- rate 2/3 * 188/204	12
		QPSK modulation -- rate 3/4 * 188/204	13
		QPSK modulation -- rate 5/6 * 188/204	15
		QPSK modulation -- rate 6/7 * 188/204	16
		QPSK modulation -- rate 7/8 * 188/204	17
		QPSK-1/4	21
		QPSK-1/3	22
		QPSK-2/5	23
		QPSK-3/5	24
		QPSK-4/5	25
		QPSK-8/9	26
		QPSK-9/10	27
		16APSK-2/3	42
		16APSK-3/4	43
		16APSK-4/5	44
		16APSK-5/6	45
		16APSK-8/9	48
		16APSK-9/10	49
		32APSK-3/4	53
		32APSK-4/5	54
		32APSK-5/6	55
		32APSK-8/9	58
		32APSK-9/10	59
		16QAM modulation -- no FEC (Skyplex only)	60
		16 QAM modulation -- rate 1/2 * 188/204	61
		16 QAM modulation -- rate 2/3 * 188/204	62
		16 QAM modulation -- rate 3/4 * 188/204	63
		16 QAM modulation -- rate 5/6 * 188/204	65
		16 QAM modulation -- rate 6/7 * 188/204	66
		16 QAM modulation -- rate 7/8 * 188/204	67
		16 QAM modulation -- rate 8/9 * 188/204	68
		8PSK modulation -- no FEC (Skyplex only)	80
		8PSK modulation -- rate 3/5 * 188/204	81
		8PSK modulation -- rate 2/3 * 188/204	82
		8PSK modulation -- rate 3/4 * 188/204	83
		8PSK modulation -- rate 5/6 * 188/204	85
		8PSK modulation -- rate 6/7 * 188/204	86
		8PSK modulation -- rate 7/8 * 188/204	87
		8PSK modulation -- rate 8/9 * 188/204	88
		8PSK-9/10	89

Command DmModCodStatFrameType	**Frame type**	**Frame type**

Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout of the DVB-S2 forward error correction (FEC) frame type detected after reception: • ***Normal***: FEC-frames of 64800 bits or 8100 bytes. • ***Short***: FEC-frames of 16200 bits or 2025 bytes.			
RMCP Command	Msl		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmModCodStatFrameType		
	OID	1.3.6.1.4.1.5835.3.1.13.1.68.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	short		Short Normal	0 1

Command DmModCodStatPilots	**Pilots**	**Pilots**

Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout of the actual value of the DVB-S2 physical layer pilot detection.			
RMCP Command	Msp		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmModCodStatPilots		
	OID	1.3.6.1.4.1.5835.3.1.13.1.70.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	off		Off On	0 1

Command DmModCodStatFrameCnt	**BB frame count**	**BB frame count**

Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout of the number of decoded baseband frames.			
RMCP Command	Msf	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmModCodStatFrameCnt		
	OID	1.3.6.1.4.1.5835.3.1.13.1.67.1.1		

Command DmModCodStatFrameCnt		**BB frame count**		**BB frame count**
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	frames	frames	0	0 .. 65535

Command DmModCodStatUncorCnt			**Uncorrectable frame count**	**Uncor frame count**
Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout of the number of uncorrectable baseband frames.			
RMCP Command	Msu	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmModCodStatUncorCnt		
	OID	1.3.6.1.4.1.5835.3.1.13.1.72.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	frames	frames	0	0 .. 65535

Command DmModCodStatSat			**Channel Es/No clipping info**	**Ch Es/No clipping**
Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout the channel quality estimation information of saturated values. The clipping info will identify the direction of saturation or return equal if the value is within range.			
RMCP Command	Mqs		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmModCodStatSat		
	OID	1.3.6.1.4.1.5835.3.1.13.1.71.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	equal		> < *	0 1 2 3

Command DmModCodStatChQEst		**Channel quality est**		**Channel quality est**
Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout of the channel quality estimate. The channel quality estimation shows the Es/No minus the link margin estimation and is a measure for the Es/No including the effects of distortion whereas the Es/No only sees the C/N (as observed on a spectrum analyser) but without being able to take into account the effects of in-band distortion.			
RMCP Command	Msq	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmModCodStatChQEst		
	OID	1.3.6.1.4.1.5835.3.1.13.1.66.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dB	dB	0	-999.9 .. 999.9

Command DmModCodStatChCDSat		**C/D clipping**	**C/D clipping**
Used as variable of	***Command(s)***		***Page***
	DmModCodStatStruct		162
Description	Readout of the saturation indication of the C/D (carrier to distortion) value. An asterisk will be shown when the C/D values saturates. This is the result of a saturated channel quality estimate value.		
RMCP Command	MsS	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmModCodStatChCDSat	
	OID	1.3.6.1.4.1.5835.3.1.13.1.78.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	equal	*	0 1

Command DmModCodStatChCD		**C/D est**	**C/D est**
Used as variable of	***Command(s)***		***Page***
	DmModCodStatStruct		162
Description	Readout of the signal to (non-linear) distortion ratio estimate.		
RMCP Command	Mse	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmModCodStatChCD	

Command DmModCodStatChCD		**C/D est**		**C/D est**
	OID	1.3.6.1.4.1.5835.3.1.13.1.76.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dB	dB	0	-999.9 .. 999.9

Command DmModCodStatChDist QEFSat		**Link margin clipping info**		**Link margin clipping**
Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout of the link margin clipping information. It gives an indication of a clipped link margin when the channel quality value saturates to a maximum.			
RMCP Command	MqS		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmModCodStatChDistQEFSat		
	OID	1.3.6.1.4.1.5835.3.1.13.1.79.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	equal	 * <	0 1 2	

Command DmModCodStatChDistQEF		**Link margin est**		**Link margin est**
Used as variable of	***Command(s)***			***Page***
	DmModCodStatStruct			162
Description	Readout of the link margin estimator. It gives an indication of the receive margin before reaching the threshold point of quasi error free operation. It is derived from the true C/N (carrier to noise) value, including both linear and non-linear distortion. This values is an estimate.			
RMCP Command	Msd	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmModCodStatChDistQEF		
	OID	1.3.6.1.4.1.5835.3.1.13.1.65.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	frames	frames	0	-999.9 .. 999.9

Command DmMeasAGCSat		**AGC level clipping info**		**AGC lvl clipping**
Used as variable of	***Command(s)***			***Page***
	DmMeasAGCStruct			157
Description	Readout of the automatic gain control (AGC) level clipping information. When reading saturated values for the receive level, the clipping info will identify the direction of saturation or return equal if the receive level is within range.			
RMCP Command	Rsl		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasAGCSat		
	OID	1.3.6.1.4.1.5835.3.1.13.1.35.1.1		
Values	***Factory Default***	***Enumeration***		***Value***
	equal	 > <		0 1 2

Command DmMeasAGC		**Receive level**		**Receive level**
Used as variable of	***Command(s)***			***Page***
	DmMeasAGCStruct			157
Description	Readout of the receive level expressed in dBm.			
RMCP Command	Rll	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasAGC		
	OID	1.3.6.1.4.1.5835.3.1.13.1.15.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dBm	dBm	- 36.2	-70 .. -20

Command DmMeasAGCCoSat		**AGCCo level clipping info**		**AGCCo lvl clipping**
Used as variable of	***Command(s)***			***Page***
	DmMeasAGCCoStruct			157
Description	Readout of the power spectral density level clipping information. When reading saturated values for the power spectral density, the clipping information will identify the direction of saturation or return equal if the power spectral density is within range.			
RMCP Command	Rcs		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		

Command DmMeasAGCCoSat		**AGCCo level clipping info**	**AGCCo lvl clipping**
	Command	ntcDevsMod01DmMeasAGCCoSat	
	OID	1.3.6.1.4.1.5835.3.1.13.1.33.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	equal	 > <	0 1 2

Command DmMeasAGCCo		**Power spectral density**	**Power spectral densi**
Used as variable of	***Command(s)***		***Page***
	DmMeasAGCCoStruct		157
Description	Readout of the power spectral density expressed in dBm/Hz.		
RMCP Command	Rlc	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmMeasAGCCo	
	OID	1.3.6.1.4.1.5835.3.1.13.1.16.1.1	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dBm/Hz	dBm/Hz	- 125.6	-140 .. -80

Command IfChConfigEthRxEnable		**Active**	**Active**
Used as variable of	***Command(s)***		***Page***
	IfChConfigEthRx		58
Description	Configuration command to enable or disable the Ethernet Rx configuration entry.		
RMCP Command	IRe	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfChConfigEthRxEnable	
	OID	1.3.6.1.4.1.5835.3.1.4.1.61.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	disabled	Disabled Enabled	0 1

Command IfChConfigEthRxVlanId		**VLAN ID**		**VLAN ID**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthRx			58
Description	Configuration of the VLAN identifier for filtering received Ethernet packets in a channel configuration.			
RMCP Command	IRV	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthRxVlanId		
	OID	1.3.6.1.4.1.5835.3.1.4.1.66.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4095

Command IfChConfigEthRxMac		**Dest MAC address**		**Dest MAC address**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthRx			58
Description	Configuration of the Ethernet MAC address in the filter channel configuration for received Ethernet packets. Remark: 00:00:00:00:00:00 indicates no filtering on MAC addresses.			
RMCP Command	IRM		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthRxMac		
	OID	1.3.6.1.4.1.5835.3.1.4.1.62.1.1		
Values	***Factory Default***	***String Description***		
	00:00:00:00:00:00	length : 17 (fixed) format : ^([\da-fA-F]{2}:){5}[\da-fA-F]{2}$		

Command IfChConfigEthRxIp		**Dest IP address**		**Dest IP address**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthRx			58
Description	Configuration of the IP address in the filter channel configuration for received Ethernet packets. Remark: 0.0.0.0 indicates no filtering on IP addresses.			
RMCP Command	irl		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthRxIp		
	OID	1.3.6.1.4.1.5835.3.1.4.1.117.1.1		

Command IfChConfigEthRxIp		**Dest IP address**	**Dest IP address**
Values	***Factory Default***	***String Description***	
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command IfChConfigEthRxIpMask			**IP netmask**	**IP netmask**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthRx			58
Description	Configuration of the IP netmask in the filter channel configuration for received Ethernet packets. Remark: 0.0.0.0 indicates no filtering on IP addresses.			
RMCP Command	irM		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthRxIpMask		
	OID	1.3.6.1.4.1.5835.3.1.4.1.118.1.1		
Values	***Factory Default***	***String Description***		
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}		

Command IfChConfigEthRxStreamId			**OUT Stream Id**	**OUT Stream Id**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthRx			58
Description	Configuration of the stream index for DVB-S2 stream configurations. This is not the input stream identifier (ISI), but the array index number used for reference in the filter configurations.			
RMCP Command	IRi	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthRxStreamId		
	OID	1.3.6.1.4.1.5835.3.1.4.1.65.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	1	1 .. 35

Command IfChConfigEthRxPID			**OUT PID**		**OUT PID**
Used as variable of	***Command(s)***				***Page***
	IfChConfigEthRx				58
Description	Configuration of the PID of the outgoing MPEG transport stream on which the incoming Ethernet packets in a channel configuration are transmitted.				
RMCP Command	IRP	**Access**			Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfChConfigEthRxPID			
	OID	1.3.6.1.4.1.5835.3.1.4.1.63.1.1			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***		***Expert Range (CU)***
	NA	NA	0		0 .. 8192

Command IfChConfigEthRxAirMac			**OUT Air-MAC address**	**OUT Air-MAC address**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthRx			58
Description	Configuration of the air-MAC address if the encapsulator has enabled air MAC destination addressing.			
RMCP Command	IRA		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthRxAirMac		
	OID	1.3.6.1.4.1.5835.3.1.4.1.60.1.1		
Values	***Factory Default***		***String Description***	
	00:00:00:00:00:00		length : 17 (fixed) format : ^([\da-fA-F]{2}:){5}[\da-fA-F]{2}$	

Command IfChConfigEthRxPacking Delay			**Packing delay**	**Packing delay**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthRx			58
Description	Configuration of the maximum delay allowed during the packing process of a DVB-S2 baseband frame or a transport stream cell.			
RMCP Command	bsd	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthRxPackingDelay		
	OID	1.3.6.1.4.1.5835.3.1.4.1.119.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***

Command IfChConfigEthRxPacking Delay		**Packing delay**		**Packing delay**
	ms	ms	10	0 .. 1000

Command IfUleSettingsDestMac			**Air-MAC mode**		**Air-MAC mode**
Used as variable of	***Command(s)***				***Page***
	IfUleSettings				59
Description	Variable that contains the destination Air-MAC addressing method used during ULE encapsulation or decapsulation. • Air-MAC mode is ***disabled***: No Air-MAC addressing is used. • Air-MAC mode is ***enabled***: Air-MAC addressing is used.				
RMCP Command	IUm			**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfUleSettingsDestMac			
	OID	1.3.6.1.4.1.5835.3.1.4.1.109.1.1			
Values	***Factory Default***		***Enumeration***		***Value***
	disabled		Disabled Enabled		0 1

Command IfChConfigEthTxEnable			**Active**		**Active**
Used as variable of	***Command(s)***				***Page***
	IfChConfigEthTx				58
Description	Configuration command to enable or disable the demodulator routes table entry.				
RMCP Command	ITe			**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry			
	Command	ntcDevsMod01IfChConfigEthTxEnable			
	OID	1.3.6.1.4.1.5835.3.1.4.1.69.1.1			
Values	***Factory Default***		***Enumeration***		***Value***
	disabled		Disabled Enabled		0 1

Command IfChConfigEthTxISI	**IN ISI**	**IN ISI**

Used as variable of	***Command(s)***			***Page***
	IfChConfigEthTx			58
Description	Configuration of the DVB-S2 input stream identifier. The DVB-S2 input stream identifier or ISI is present in the second byte position of the MATYPE field in the baseband header of a DVB-S2 baseband frame. It is a single byte identifying the encapsulated stream in case of multiple input streams. When the modulator input format consists of baseband frames, this value is used for filtering the matching stream for dedicated processing like network clock reference insertion or monitoring. In all other cases (e.g. a MPEG transport stream or generic stream inputs), this input stream identifier value is filled-in in the MATYPE field of the generated baseband frames.			
RMCP Command	ITi		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthTxISI		
	OID	1.3.6.1.4.1.5835.3.1.4.1.70.1.1		

Values	***Factory Default***	***String Description***
	00	length : 0 .. 2 format : Hexadecimal chars

Command IfChConfigEthTxPID	**IN PID**	**IN PID**

Used as variable of	***Command(s)***			***Page***
	IfChConfigEthTx			58
Description	Configuration of the PID of the incoming MPEG transport stream from which the Ethernet packets in a channel configuration are extracted.			
RMCP Command	ITP	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthTxPID		
	OID	1.3.6.1.4.1.5835.3.1.4.1.72.1.1		

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 8192

Command IfChConfigEthTxAirMac	**IN Air-MAC address**	**IN Air-MAC address**

Used as variable of	***Command(s)***			***Page***
	IfChConfigEthTx			58
Description	Configuration of the Air-MAC address if the decapsulator has enabled the Air-MAC destination addressing.			
RMCP Command	ITA		**Access**	Normal user : RW Expert user : RW

Command IfChConfigEthTxAirMac		**IN Air-MAC address**	**IN Air-MAC address**
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfChConfigEthTxAirMac	
	OID	1.3.6.1.4.1.5835.3.1.4.1.68.1.1	
Values	***Factory Default***	***String Description***	
	00:00:00:00:00:00	length : 17 (fixed) format : ^([\da-fA-F]{2}:){5}[\da-fA-F]{2}$	

Command IfChConfigEthTxVlanId		**OUT VLAN ID**		**OUT VLAN ID**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthTx			58
Description	Configuration of the VLAN identifier to transmit the output Ethernet packets in a channel configuration.			
RMCP Command	ITV	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthTxVlanId		
	OID	1.3.6.1.4.1.5835.3.1.4.1.74.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4095

Command IfChConfigEthTxMac		**OUT MAC address**		**OUT MAC address**
Used as variable of	***Command(s)***			***Page***
	IfChConfigEthTx			58
Description	Configuration of the Ethernet MAC address in the channel configuration for the transmission of Ethernet packets. Remark: 00:00:00:00:00:00 indicates no MAC address translation.			
RMCP Command	ITM		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfChConfigEthTxMac		
	OID	1.3.6.1.4.1.5835.3.1.4.1.71.1.1		
Values	***Factory Default***	***String Description***		
	00:00:00:00:00:00	length : 17 (fixed) format : ^([\da-fA-F]{2}:){5}[\da-fA-F]{2}$		

Command IfUleSettingsCRC		**CRC**		**CRC**
Used as variable of	***Command(s)***			***Page***
	IfUleSettings			59
Description	Variable that contains the CRC method used during ULE encapsulation or decapuslation. • CRC ***enabled***: CRC calculation. • CRC ***disabled***: No calculation, no check. • CRC ***fixed value***: The CRC field has a fixed value 0x00007015, decapsulation checks the fixed value.			
RMCP Command	IUc		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfUleSettingsCRC		
	OID	1.3.6.1.4.1.5835.3.1.4.1.108.1.1		
Values	***Factory Default***	***Enumeration***		***Value***
	enabled	Enabled Disabled Fixed Value		0 1 2

Command IfGBSSettingsDestMac		**Air-MAC mode**		**Air-MAC mode**
Used as variable of	***Command(s)***			***Page***
	IfGBSSettings			59
Description	Configuration for destination Air-MAC addressing in case of XPE encapsulation: • Air-MAC addressing is ***enabled***. • Air-MAC addressing is ***disabled***.			
RMCP Command	IGm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfGBSSettingsDestMac		
	OID	1.3.6.1.4.1.5835.3.1.4.1.93.1.1		
Values	***Factory Default***	***Enumeration***		***Value***
	disabled	Disabled Enabled		0 1

Command IfGBSSettingsCRC	CRC	CRC

Used as variable of	***Command(s)***			***Page***
	IfGBSSettings			59
Description	Configuration of the CRC calculation in case of XPE encapsulation or decapsulation: • ***Enabled***: CRC calculation is used. • ***Disabled***: No CRC calculation is used.Remark: When CRC calculation is disabled, the CRC is not send over the link.			
RMCP Command	IGc		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfGBSSettingsCRC		
	OID	1.3.6.1.4.1.5835.3.1.4.1.92.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	disabled	Enabled Disabled	0 1	

Command IfGSESettingsDestMac	Air-MAC (6 byte label) mode	Air-MAC (6 byte labe

Used as variable of	***Command(s)***			***Page***
	IfGSESettings			60
Description	GSE encapsulation label type mode: • Air-MAC (6 byte label) enabled • Air-MAC (6 byte label) disabled			
RMCP Command	gsl		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfGSESettingsDestMac		
	OID	1.3.6.1.4.1.5835.3.1.4.1.275.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	disabled	Disabled Enabled	0 1	

Command IfStrConfigStreamId	Stream Id	Stream Id

Used as variable of	***Command(s)***			***Page***
	IfStrConfig			79
Description	Configuration of the stream index for DVB-S2 stream configurations. This is not the input stream identifier but the array index number used for reference in the filter configurations.			
RMCP Command	ISi	**Access**		Normal user : RW Expert user : RW

Command IfStrConfigStreamId		**Stream Id**		**Stream Id**
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfStrConfigStreamId		
	OID	1.3.6.1.4.1.5835.3.1.4.1.106.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	1	1 .. 35

Command IfStrConfigEnable		**Active**		**Active**
Used as variable of	***Command(s)***			***Page***
	IfStrConfig			79
Description	Configuration command to specify if the configuration entry is enabled or not.			
RMCP Command	ISe		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfStrConfigEnable		
	OID	1.3.6.1.4.1.5835.3.1.4.1.105.1.1		
Values	***Factory Default***	***Enumeration***		***Value***
	disabled	Disabled Enabled		0 1

Command IfDvbs2BboerxFrames		**RX frames**		**RX frames**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxErrors			134
Description	Readout of the ntS2BBFoE RX frame counter			
RMCP Command	brf	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxFrames		
	OID	1.3.6.1.4.1.5835.3.1.4.1.142.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Command IfDvbs2BboerxErrEncapId		**Encap ID error**		**Encap ID error**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxErrors			134
Description	Readout of the ntS2BBFoE RX error counter. The counter increases in case of a wrong encapsulator identifier.			
RMCP Command	bee	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxErrEncapId		
	OID	1.3.6.1.4.1.5835.3.1.4.1.139.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Command IfDvbs2BboerxErrEncap Disabled		**Encap disabled**		**Encap disabled**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxErrors			134
Description	ntS2BBFoE RX error counter: encapsulator disabled			
RMCP Command	bed	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxErrEncapDisabled		
	OID	1.3.6.1.4.1.5835.3.1.4.1.138.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Command IfDvbs2BboerxErr Sequence		**Seq nbr error**		**Seq nbr error**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxErrors			134
Description	Readout of the ntS2BBFoE RX error counter. The counter increases in case of a sequence number error (frame is not dropped).			
RMCP Command	bes	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxErrSequence		
	OID	1.3.6.1.4.1.5835.3.1.4.1.204.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***

Command IfDvbs2BboerxErr Sequence		**Seq nbr error**		**Seq nbr error**
	Frames	Frames	0	0 .. 4294967295

Command IfDvbs2BboerxErrIpVol0				**IP volume = 0**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxErrors			134
Description	Readout of the ntS2BBFoE RX error counter. This counter increases when there is a volume request mismatch between encapsulator and modulator.			
RMCP Command	bev	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxErrIpVol0		
	OID	1.3.6.1.4.1.5835.3.1.4.1.140.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Command IfDvbs2BboerxCurIp Volume				**IP volume**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxCurStats			135
Description	Readout of the IP volume of an ntS2BBFoE receiver, counted in the current measuring interval.			
RMCP Command	bci	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxCurIpVolume		
	OID	1.3.6.1.4.1.5835.3.1.4.1.135.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Command IfDvbs2BboerxCurPadding Volume				**Padding volume**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxCurStats			135
Description	Readout of the padding volume of an ntS2BBFoE receiver, counted in the current measuring interval.			

Command IfDvbs2BboerxCurPadding Volume		**Padding volume**		**Padding volume**
RMCP Command	bcp	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxCurPaddingVolume		
	OID	1.3.6.1.4.1.5835.3.1.4.1.136.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Command IfDvbs2BboerxCurSymbol Volume		**Symbol volume**		**Symbol volume**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxCurStats			135
Description	Readout of the symbol volume of a ntS2BBFoE receiver, counted in the current measuring interval.			
RMCP Command	bcs	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxCurSymbolVolume		
	OID	1.3.6.1.4.1.5835.3.1.4.1.137.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Symbols	Symbols	0	0 .. 4294967295

Command IfDvbs2BboerxIntervalIp Volume		**IP volume**		**IP volume**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxIntervalStats			135
Description	Readout of the IP volume of an ntS2BBFoE receiver, counted in the previous measuring interval.			
RMCP Command	bii	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxIntervalIpVolume		
	OID	1.3.6.1.4.1.5835.3.1.4.1.143.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Command IfDvbs2BboerxIntervalPadVolume		**Padding volume**		**Padding volume**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxIntervalStats			135
Description	Readout of the padding volume of an ntS2BBFoE receiver, counted in the previous measuring interval.			
RMCP Command	bip	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxIntervalPadVolume		
	OID	1.3.6.1.4.1.5835.3.1.4.1.144.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Command IfDvbs2BboerxIntervalSymVolume		**Symbol volume**		**Symbol volume**
Used as variable of	***Command(s)***			***Page***
	IfDvbs2BboerxIntervalStats			135
Description	Readout of the symbol volume of an ntS2BBFoE receiver, counted in the previous measuring interval.			
RMCP Command	bis	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfDvbs2BboerxIntervalSymVolume		
	OID	1.3.6.1.4.1.5835.3.1.4.1.145.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Symbols	Symbols	0	0 .. 4294967295

Command SyDevModeState		**Current device operating mode**		**Operating mode**
Used as variable of	***Command(s)***			***Page***
	SyDevMode			12
Description	Readout of the current device operating mode: normal mode or expert mode. Remark: Use ***SyDevMode*** to change the device operating mode.			
RMCP Command	SMM		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyDevModeState		
	OID	1.3.6.1.4.1.5835.3.1.1.1.19.0.1		

Command SyDevModeState		**Current device operating mode**	**Operating mode**
Values	***Factory Default***	***Enumeration***	***Value***
	normal	Normal Expert	1 2

Command DmMeasEsNoSat			**Es/No level clipping info**
Used as variable of	***Command(s)***		***Page***
	DmMeasEsNoStruct		160
Description	Readout of the Es/No level clipping information. When reading saturated values for the Es/No estimation, the clipping info will identify the direction of saturation or return equal if the value is within range. Remark: An asterisk indicates that the readout of the Es/No value is about to saturate and may be not very accurate.		
RMCP Command	Res	**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry	
	Command	ntcDevsMod01DmMeasEsNoSat	
	OID	1.3.6.1.4.1.5835.3.1.13.1.49.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	equal	 > < *	0 1 2 3

Command DmMeasEsNo 1				**Es/No estimation**
Used as variable of	***Command(s)***			***Page***
	DmMeasEsNoStruct			160
Description	Readout of the Es/No estimation in dB of the received signal.			
RMCP Command	Ren	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmMeasEsNo		
	OID	1.3.6.1.4.1.5835.3.1.13.1.48.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dB	dB	9.83	-5 .. 25

Command DmEstLinMarSat	**Link margin clipping info**	**Link margin clipping**

Used as variable of	***Command(s)***			***Page***
	DmEstLinMarStruct			160
Description	This variable gives an indication of a clipped link margin. This happens when the channel Es/No (decoder) saturates to a maximum.			
RMCP Command	Lss		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmEstLinMarSat		
	OID	1.3.6.1.4.1.5835.3.1.13.1.74.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	equal	* <	0 1 2

Command DmEstLinMar	**Estimated Link margin**	**Estimated Link margi**

Used as variable of	***Command(s)***			***Page***
	DmEstLinMarStruct			160
Description	Readout of the link margin. The link margin is calculated by subtracting the modcod dependent margin from the estimated Eb/No in DVB-S or Es/No in DVB-S2. It indicates the receive margin before reaching the threshold point of quasi error free operation (QEF) operation. The Eb/No for quasi error free operation is taken from the DVB standards EN300421 and EN301210. Basically it is the margin in dB that a signal can decrease in Eb/No before errors will have noticeable effects on the output transport stream.			
RMCP Command	Rld	**Access**		Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmEstLinMar		
	OID	1.3.6.1.4.1.5835.3.1.13.1.32.1.1		

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dB	dB	4,02	-5 .. 25

Command IfBrIfEnable	**Active**	**Active**

Used as variable of	***Command(s)***			***Page***
	IfBrIfEntry			57
Description	Configuration command to enable or disable the IP interface table entry.			
RMCP Command	BTe		**Access**	Normal user : RW Expert user : RW

Command IfBrIlfEnable		**Active**	**Active**
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfBrIlfEnable	
	OID	1.3.6.1.4.1.5835.3.1.4.1.182.1.1	
Values	***Factory Default***	***Enumeration***	***Value***
	disabled	Disabled Enabled	0 1

Command IfBrIlfLocalVlan		**Local VLAN**	**Local VLAN**
Used as variable of	***Command(s)***		***Page***
	IfBrIlfEntry		57
Description	Configuration of the local VLAN of this IP interface.		
RMCP Command	BLv	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfBrIlfLocalVlan	
	OID	1.3.6.1.4.1.5835.3.1.4.1.187.1.1	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4095

Command IfBrIlfLocalIp		**Local IP address**	**Local IP address**
Used as variable of	***Command(s)***		***Page***
	IfBrIlfEntry		57
Description	Configuration of the IP address assigned to the local IP interface. When the host part is zero (= the part of the IP address that is not masked by the netmask of this interface), it means that there is no IP address assigned to this interface.		
RMCP Command	BLi	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry	
	Command	ntcDevsMod01IfBrIlfLocalIp	
	OID	1.3.6.1.4.1.5835.3.1.4.1.185.1.1	

Values	***Factory Default***	***String Description***
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}

Command IfBrIlfLocalIpMask		Local IP Netmask		Local IP Netmask
Used as variable of	***Command(s)***			***Page***
	IfBrIlfEntry			57
Description	Configuration of the netmask that identifies the local subnet on the IP interface.			
RMCP Command	BLm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBrIlfLocalIpMask		
	OID	1.3.6.1.4.1.5835.3.1.4.1.186.1.1		
Values	***Factory Default***	***String Description***		
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}		

Command IfBrIlfLocalGateway1		Local IP gateway		Local IP gateway
Used as variable of	***Command(s)***			***Page***
	IfBrIlfEntry			57
Description	Configuration of the local IP gateway (= default route) for this IP interface. This is the IP router/host to whom the IP packets are sent that do not belong within the local subnet.			
RMCP Command	BLg		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBrIlfLocalGateway		
	OID	1.3.6.1.4.1.5835.3.1.4.1.184.1.1		
Values	***Factory Default***	***String Description***		
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}		

Command IfBrIlfRemoteIp1		Remote IP address		Remote IP address
Used as variable of	***Command(s)***			***Page***
	IfBrIlfEntry			57
Description	Configuration of the remote IP address that identifies (together with the netmask) the remote IP subnet. The remote IP subnet is the part of the satellite subnet that is located at the remote side of the satellite link. Remark: The host part of this IP address should remain zero.			
RMCP Command	BRi		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBrIlfRemoteIp		

Command IfBrIlfRemoteIp1		**Remote IP address**	**Remote IP address**
	OID	1.3.6.1.4.1.5835.3.1.4.1.188.1.1	
Values	***Factory Default***	***String Description***	
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}	

Command IfBrIlfRemoteIpMask1			**Remote IP netmask**	**Remote IP netmask**
Used as variable of	***Command(s)***			***Page***
	IfBrIlfEntry			57
Description	Configuration of the netmask that identifies (together with the remote IP address) the remote IP subnet. The remote IP subnet is the part of the satellite subnet that is located at the remote side of the satellite link.			
RMCP Command	BRm		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfBrIlfRemoteIpMask		
	OID	1.3.6.1.4.1.5835.3.1.4.1.189.1.1		
Values	***Factory Default***	***String Description***		
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}		

Command AlSelfTestString			**SelfTest String**	**SelfTest String**
Used as variable of	***Command(s)***			***Page***
	AlSelfTestBrd			43
Description	Readout of the concatenated string of individual self test results.			
RMCP Command	STS		**Access**	Normal user : R Expert user : R
SNMP	***Table***	ntcDevsMod01AlarmEntry		
	Command	ntcDevsMod01AlSelfTestString		
	OID	1.3.6.1.4.1.5835.3.1.2.1.13.1.1		
Values	***Factory Default***	***String Description***		
		length : 0 (fixed) format : any chars		

Variables only Used via other Commands

Variable WILogInUser	**WI user login name**	**WI user login name**
Used as variable of	***Command(s)***	***Page***
	WIUsers	19
Description	Variable that holds the user name for the web interface user.	
Values	***Factory Default***	***String Description***
		length : 0 .. 12 format : any chars

Variable WILogInUserAccess	**WI user login access**	**WI user login access**
Used as variable of	***Command(s)***	***Page***
	WIUsers	19
Description	Variable that holds the web interface user level of login access.	

Values	***Factory Default***	***Enumeration***	***Value***
	minimum	Minimum Operator Administrator	0 1 2

Variable WILogInOldPass	**WI old user login password**	**WI old password**
Used as variable of	***Command(s)***	***Page***
	WIUsers	19
Description	Variable that holds the old password for the web interface user and will be used for validation of the new password.	
Values	***Factory Default***	***String Description***
		length : 0 .. 8 format : any chars

Variable WILogInPass	**WI user login password**	**WI login password**

Used as variable of	***Command(s)***	***Page***
	WIUsers	19
Description	Variable that holds the password for the web interface user.	
Values	***Factory Default***	***String Description***
		length : 0 .. 8 format : any chars

Variable WILogInReply	**WI login status reply**	**WI login status repl**

Used as variable of	***Command(s)***		***Page***
	WIUsers		19
Description	Variable that holds the status reply for the web interface login command.		
Values	***Factory Default***	***Enumeration***	***Value***
		Success Failed	0 1

Variable IfQosQueuePriority	**Priority**	**Priority**

Used as variable of	***Command(s)***	***Page***
	IfQosQueueEntry	61
Description	Variable that contains the quality of service queue priority. This is a read-only name of a quality of service queue.	
Values	***Factory Default***	***String Description***
	init	length : 0 .. 15 format : any chars

Variable IfQosQueueGuarPerFlow	**Guaranteed size (in mS) per flow**	**Guaranteed size (in**

Used as variable of	***Command(s)***	***Page***
	IfQosQueueEntry	61
Description	Variable that contains the guaranteed queue size per flow for each of the quality of service classes. A quality of service flow is for instance a DVB-S2 stream or a MPEG PID flow. The guaranteed queue size is respected, even when the maximum configured queue size for a quality of service class has been reached. The queue size is expressed in milliseconds: for each packet inside the quality of service queue, the time needed to transmit it via the satellite is calculated taking into account the baudrate, the modulation and coding. High priority traffic (real-time traffic for instance) gets usually a larger queue size than the low priority traffic (non real-time traffic).	

Variable IfQosQueueGuarPerFlow	Guaranteed size (in mS) per flow	Guaranteed size (in

Values	GUI Unit	Cmd Unit	Factory Default (CU)	Expert Range (CU)
	NA	NA	10	1 .. 10000

Variable IfQosQueueMaxPerQos	Max size (in mS) per QOS	Max size (in mS) per

Used as variable of	Command(s)	Page
	IfQosQueueEntry	61

Description	Variable that contains the maximum queue size per quality of service class for all flows together. When a given flow has occupied its guaranteed buffering space in the quality of service queue, it may occupy more non-guaranteed buffering space as long as the maximum for the quality of service flow has not been reached. The queue size is expressed in milliseconds: for each packet inside the quality of service queue, the time needed to transmit it via the satellite is calculated taking into account the baudrate, the modulation and coding. High priority traffic (real-time traffic for instance) gets usually a larger queue size than the low priority traffic (non real-time traffic).

Values	GUI Unit	Cmd Unit	Factory Default (CU)	Expert Range (CU)
	NA	NA	10000	1 .. 20000

Variable IfEthQosRuleEnable	Active	Active

Used as variable of	Command(s)	Page
	IfEthQosRuleEntry	61

Description	This variable allows to enable or disable the quality of service rule table entry.

Values	Factory Default	Enumeration	Value
	disabled	Disabled Enabled	0 1

Variable IfEthQosRuleClassif	classifier	classifier

Used as variable of	Command(s)	Page
	IfEthQosRuleEntry	61

Description	Different QOS rules can be defined. Each rule defines a pattern to match incoming Ethernet packets. When a packet is matched by a rule, this packet gets the priority that is associated to this rule. Qos rules are matched in sequence (first to last rule). There is one special rule, being the first rule in the table: this rule gets the default classifier. The default rule is selected if no other rule matches. Examples: ip.proto==udp ip.proto==17 eth.type==lacp ip.tos==4-255

Variable IfEthQosRuleClassif	classifier	classifier
	ip.tos==8,16 ip.dscp==8-16 ip.dscp==8,16 ip.src==1.2.3.4 ip.dst==1.2.3.4	
Values	***Factory Default***	***String Description***
		length : 0 .. 30 format : any chars

Variable IfEthQosRulePrio	Priority	Priority
Used as variable of	***Command(s)***	***Page***
	IfEthQosRuleEntry	61
Description	Variable that contains the quality of service priority that is associated to a quality of service rule. Packets that are matched by a quality of service rule gets this priority in the system. The priority is used for admission control decisions and as scheduling priority. It is not used for re-tagging the priority values inside a packet.	

Values	***Factory Default***	***Enumeration***	***Value***
	lowest	Lowest Low High Highest	0 1 2 3

Variable MoAcmDmSupvIp	Demodulator IP	Demodulator IP
Used as variable of	***Command(s)***	***Page***
	MoAcmDmSupvEntry	88
Description	Variable that contains the IP address of the demodulator device that is supervised by the ACM controller.	
Values	***Factory Default***	***String Description***
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}

Variable MoAcmDmSupvStrid	DVB-S2 Stream Id	DVB-S2 Stream Id
Used as variable of	***Command(s)***	***Page***
	MoAcmDmSupvEntry	88
Description	Variable that contains the DVB-S2 stream identifier. The DVB-S2 stream identifier should be modified depending on the receive conditions of the modulator. This field is only applicable in multi-stream modulation mode.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	1	0 .. 35

Variable IfBBTXCounter		BB TX TS Counter		BB TX TS Counter
Used as variable of	*Command(s)*			*Page*
	IfBBCounters			121
Description	Variable that contains the number of transport stream frames transmitted to baseband interface. Remark: Usually a modulator card is attached to this baseband interface.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfBBTXBBFCounter		BB TX BBF Counter		BB TX BBF Counter
Used as variable of	*Command(s)*			*Page*
	IfBBCounters			121
Description	Readout of the number of baseband frames transmitted to baseband interface. Remark: Usually a modulator card is attached to this interface.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfBBRXCounter		BB RX TS Counter		BB RX TS Counter
Used as variable of	*Command(s)*			*Page*
	IfBBCounters			121
Description	Readout of the number of transport stream frames received from the baseband interface. Remark: Usually a demodulator card is attached to this interface.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfBBRXBBFCounter		BB RX BBF Counter		BB RX BBF Counter
Used as variable of	*Command(s)*			*Page*
	IfBBCounters			121
Description	Readout of the number of baseband frames received from the baseband interface. Remark: Usually a demodulator card is attached to this interface.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfBBRXDropCounter	**BB RX Dropped**	**BB RX Dropped**

Used as variable of	***Command(s)***	***Page***
	IfBBCounters	121
Description	Readout of the number of frames dropped at the baseband interface because the baseband buffer is full or because the frame has an invalid or unknown format. This counter accounts for either DVBS-2 baseband frames or DVB-S transport stream frames dependant on the ***MdProcMode*** setting. Remark: Usually a demodulator card is attached to this interface.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Variable IfBBRXTSCrcErr	**TS CRC-8**	**TS CRC-8**

Used as variable of	***Command(s)***	***Page***
	IfBBCounters	121
Description	Readout of the number of times that a CRC-8 error was detected during processing of the DVB-S frames that contain transport stream payload.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Errors	Errors	0	0 .. 4294967295

Variable IfBBRXBBFCrcErr	**BBF CRC-8**	**BBF CRC-8**

Used as variable of	***Command(s)***	***Page***
	IfBBCounters	121
Description	Readout of the number of times that a CRC-8 error was detected in the headers of the received DVB-S2 baseband frames.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Errors	Errors	0	0 .. 4294967295

Variable IfBbTxEthqCurFilling	**BB TX Eth queue cur filling**	**BB TX Eth queue cur**

Used as variable of	***Command(s)***	***Page***
	IfBbTxEthqStats	122
Description	Variable that contains the current filling level of the baseband TX Ethernet queue. This queue contains the frames that travel from the Ethernet interface to the baseband interface. The filling level is expressed in milliseconds.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ms	ms	0	0 .. 4294967295

Variable IfBbTxEthqMaxFilling		**BB TX Eth queue max filling**		**BB TX Eth queue max**
Used as variable of	***Command(s)***			***Page***
	IfBbTxEthqStats			122
Description	Variable that contains the maximum filling level of the baseband TX Ethernet queue. This queue contains the frames that travel from the Ethernet interface to the baseband interface. The filling level is expressed in milliseconds.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ms	ms	0	0 .. 4294967295

Variable IfMPEGoUDPStatsRX MtuPackets		**Ethernet IN IP**		**Ethernet IN IP**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the number of IP frames received from the Ethernet interface.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMPEGoUDPStatsRXMtu Bytes		**Ethernet IN IP bytes**		**Ethernet IN IP bytes**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the number of bytes received from the Ethernet interface (counted at the transport layer).			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfMPEGoUDPStatsRXMtu Rate		**Ethernet IN Bitrate**		**Ethernet IN Bitrate**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the bitrate received from the Ethernet interface (counted at the transport layer).			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfMPEGoUDPStatsRXMtu Drop	**Ethernet IN Dropped**	**Ethernet IN Dropped**

Used as variable of	***Command(s)***	***Page***
	IfMPEGoUDPStats	130
Description	Variable that contains the number if IP frames dropped by MPEG over IP receiver.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMPEGoUDPStatsRXPop Timeouts	**Ethernet IN Pop**	**Ethernet IN Pop**

Used as variable of	***Command(s)***	***Page***
	IfMPEGoUDPStats	130
Description	Variable that contains the number of times that an input queue was empty (timed out) during decapsulation over the last period.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfMPEGoUDPStatsRXMpeg Packets	**Ethernet IN TS**	**Ethernet IN TS**

Used as variable of	***Command(s)***	***Page***
	IfMPEGoUDPStats	130
Description	Variable that contains the number of MPEG transport stream packets received from the Ethernet interface.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMPEGoUDPStatsRXPush Timeouts	**Ethernet IN Congestion**	**Ethernet IN Congesti**

Used as variable of	***Command(s)***	***Page***
	IfMPEGoUDPStats	130
Description	Variable that contains the number of times that an output queue was full (timed out) over the last period.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfMPEGoUDPStatsTXMpeg Packets		**Ethernet OUT TS**		**Ethernet OUT TS**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the number of MPEG transport stream packets transmitted to the Ethernet interface.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMPEGoUDPStatsTXMpeg Drop		**Ethernet OUT TS Drop**		**Ethernet OUT TS Drop**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the number of MPEG transport stream packets dropped before encapsulation in IP.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMPEGoUDPStatsTXPop Timeouts		**Ethernet OUT Pop**		**Ethernet OUT Pop**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the number of times that an input queue was empty (timed out) over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfMPEGoUDPStatsTXMtu Packets		**Ethernet OUT IP**		**Ethernet OUT IP**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the number of IP frames transmitted to the Ethernet interface.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMPEGoUDPStatsTXMtu Bytes		**Ethernet OUT IP bytes**		**Ethernet OUT IP byte**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the number of bytes sent to the Ethernet interface (counted at transport layer).			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfMPEGoUDPStatsTXMtu Rate		**Ethernet OUT Bitrate**		**Ethernet OUT Bitrate**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the bitrate of IP frames generated by the MPEG over IP processor.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfMPEGoUDPStatsTXPush Timeouts		**Ethernet OUT Congestion**		**Ethernet OUT Congest**
Used as variable of	***Command(s)***			***Page***
	IfMPEGoUDPStats			130
Description	Variable that contains the number of times that an output queue was full (timed out) over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfVolreqStatsMovAvgVol		**AVG IP volume requested**		**AVG IP volume reques**
Used as variable of	***Command(s)***			***Page***
	IfVolreqStats			134
Description	Variable that contains the moving average of the last 32 IP volume requests converted to bits per second.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfVolreqStatsMovMaxVol		MAX IP volume requested		MAX IP volume reques
Used as variable of	*Command(s)*			*Page*
	IfVolreqStats			134
Description	Variable that contains the moving maximum of the last 32 IP volume requests converted to bits per second.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	bps	bps	0	0 .. 4294967295

Variable IfVolreqStatsMovMinVol		MIN IP volume requested		MIN IP volume reques
Used as variable of	*Command(s)*			*Page*
	IfVolreqStats			134
Description	Variable that contains the moving minimum of the last 32 IP volume requests converted to bits per second.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	bps	bps	0	0 .. 4294967295

Variable IfS2BBFoERxFramesRxed		RX frames		RX frames
Used as variable of	*Command(s)*			*Page*
	IfS2BBFoERxCounters			136
Description	Variable that contains the DVB-S2 baseband frames over Ethernet RX frame counter.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfS2BBFoERxTranspHdr Errors		RX transp.hdr errors		RX transp.hdr errors
Used as variable of	*Command(s)*			*Page*
	IfS2BBFoERxCounters			136
Description	Variable that contains the DVB-S2 baseband frames over Ethernet RX transport header errors.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfS2BBFoERxDflErrors	RX DFL errors			RX DFL errors
Used as variable of	*Command(s)*			*Page*
	IfS2BBFoERxCounters			136
Description	Variable that contains the DVB-S2 baseband frames over Ethernet RX data field length errors.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfS2BBFoERxAcmErrors	RX ACM errors			RX ACM errors
Used as variable of	*Command(s)*			*Page*
	IfS2BBFoERxCounters			136
Description	Variable that contains the error counter that counts the DVB-S2 baseband frames that have been received from the Ethernet interface with an invalid adaptive code modulation byte.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfUleStatsTXMtuPackets	Encap IN Ethernet			Encap IN Ethernet
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of Ethernet packets received over the last period that were encapsulated.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Packets	Packets	0	0 .. 4294967295

Variable IfUleStatsTXMtuBytes	Encap IN Ethernet			Encap IN Ethernet
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of bytes of the Ethernet packets transmitted over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Bytes	Bytes	0	0 .. 4294967295

Variable IfUleStatsTXMtuRate		Encap IN Bitrate		Encap IN Bitrate
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the bitrate of the Ethernet frames encoded by the ULE processor.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	bps	bps	0	0 .. 4294967295

Variable IfUleStatsTXMpegPackets		Encap OUT TS		Encap OUT TS
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of MPEG transport stream packets created over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Packets	Packets	0	0 .. 4294967295

Variable IfUleStatsTXPopTimeouts		Encap IN Pop		Encap IN Pop
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of times that an input queue was empty (timed out) over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Retries	Retries	0	0 .. 4294967295

Variable IfUleStatsTXPushTimeouts		Encap OUT Congestion		Encap OUT Congestion
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of times that an output queue was full (timed out) over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Retries	Retries	0	0 .. 4294967295

Variable IfUleStatsTXIdle	**Encap OUT Idle**	**Encap OUT Idle**

Used as variable of	***Command(s)***	***Page***
	IfUleStats	137
Description	Variable that contains the number of times that a packet is padded with idle bytes (0xFF) during encapsulation.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfUleStatsRXMtuPackets	**Decap OUT Ethernet**	**Decap OUT Ethernet**

Used as variable of	***Command(s)***	***Page***
	IfUleStats	137
Description	Variable that contains the number of Ethernet packets received during decapsulation over the last period	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfUleStatsRXMtuBytes	**Decap OUT Ethernet**	**Decap OUT Ethernet**

Used as variable of	***Command(s)***	***Page***
	IfUleStats	137
Description	Variable that contains the number of bytes sent over Ethernet during decapsulation over the last period.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfUleStatsRXMtuRate	**Decap OUT Bitrate**	**Decap OUT Bitrate**

Used as variable of	***Command(s)***	***Page***
	IfUleStats	137
Description	Variable that contains the bitrate of the Ethernet frames decoded by the ULE processor.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfUleStatsRXMpegPackets	Decap IN TS			Decap IN TS
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of MPEG transport stream packets processed during decapsulation over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Packets	Packets	0	0 .. 4294967295

Variable IfUleStatsRXPopTimeouts	Decap IN Pop			Decap IN Pop
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of times that an input queue was empty (timed out) during decapsulation over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Retries	Retries	0	0 .. 4294967295

Variable IfUleStatsRXPushTimeouts	Decap OUT Congestion			Decap OUT Congestion
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of times that an output queue was full (timed out) during decapsulation over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Retries	Retries	0	0 .. 4294967295

Variable IfUleStatsRXCRCErrors	Decap IN CRC			Decap IN CRC
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of times that a CRC error was detected during processing.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Errors	Errors	0	0 .. 4294967295

Variable IfUleStatsRXIdle	Decap IN Idle			Decap IN Idle
Used as variable of	*Command(s)*			*Page*
	IfUleStats			137
Description	Variable that contains the number of times that a packet was idle.			

Variable IfUleStatsRXIdle		**Decap IN Idle**		**Decap IN Idle**
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMpeStatsTXMtuPackets		**Encap IN Ethernet**		**Encap IN Ethernet**
Used as variable of	***Command(s)***			***Page***
	IfMpeStats			138
Description	Variable that contains the number of Ethernet packets received over the last period that were encapsulated.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMpeStatsTXMtuBytes		**Encap IN Ethernet**		**Encap IN Ethernet**
Used as variable of	***Command(s)***			***Page***
	IfMpeStats			138
Description	Variable that contains the number of bytes of the Ethernet packets transmitted over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfMpeStatsTXMtuRate		**Encap IN Bitrate**		**Encap IN Bitrate**
Used as variable of	***Command(s)***			***Page***
	IfMpeStats			138
Description	Variable that contains the bitrate of the Ethernet frames encoded by the MPE processor.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfMpeStatsTXMpegPackets		**Encap OUT TS**		**Encap OUT TS**
Used as variable of	***Command(s)***			***Page***
	IfMpeStats			138
Description	Variable that contains the number of MPEG transport stream packets created over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMpeStatsRXMtuPackets	Decap OUT Ethernet		Decap OUT Ethernet
Used as variable of	***Command(s)***		***Page***
	IfMpeStats		138
Description	Variable that contains the number of Ethernet packets received during decapsulation over the last period.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMpeStatsRXMtuBytes	Decap OUT Ethernet		Decap OUT Ethernet
Used as variable of	***Command(s)***		***Page***
	IfMpeStats		138
Description	Variable that contains the number of bytes sent over Ethernet during decapsulation over the last period.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfMpeStatsRXMtuRate	Decap OUT Bitrate		Decap OUT Bitrate
Used as variable of	***Command(s)***		***Page***
	IfMpeStats		138
Description	Variable that contains the bitrate of the Ethernet frames decoded by the MPE processor.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfMpeStatsRXMpegPackets	Decap IN TS		Decap IN TS
Used as variable of	***Command(s)***		***Page***
	IfMpeStats		138
Description	Variable that contains the number of MPEG transport stream packets processed during decapsulation over the last period.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfMpeStatsRXCRCErrors	**Decap IN CRC**		**Decap IN CRC**
Used as variable of	***Command(s)***		***Page***
	IfMpeStats		138
Description	Variable that contains the number of times that a CRC error was detected during processing.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Errors	Errors	0	0 .. 4294967295

Variable IfDPStatsTXMtuPackets	**Encap IN Ethernet**		**Encap IN Ethernet**
Used as variable of	***Command(s)***		***Page***
	IfDPStats		139
Description	Variable that contains the number of Ethernet packets received over the last period that were encoded. Remark: The measurement can be reset with the command ***IfDPStatsReset***.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfDPStatsTXMtuBytes	**Encap IN Ethernet**		**Encap IN Ethernet**
Used as variable of	***Command(s)***		***Page***
	IfDPStats		139
Description	Variable that contains the total number of bytes of the Ethernet packets encoded over the last measuring period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfDPStatsTXMtuRate	**Encap IN Ethernet**		**Encap IN Ethernet**
Used as variable of	***Command(s)***		***Page***
	IfDPStats		139
Description	Variable that contains the bitrate of the incoming Ethernet frames encoded by the datapiping processor.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfDPStatsTXMpegPackets	**Encap OUT TS**			**Encap OUT TS**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of MPEG-2 transport stream packets encoded over the last measuring period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfDPStatsTXPopTimeouts	**Encap IN Pop**			**Encap IN Pop**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of times during encapsulation that an attempt was made to get Ethernet packets from an input queue but failed because it was empty over the last period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfDPStatsTXPushTimeouts	**Encap OUT Congestion**			**Encap OUT Congestion**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of times during encapsulation that an attempt was made to add MPEG packets to the FPGA output queue but failed because queue was full over the last period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfDPStatsTXIdle	**Encap OUT Idle**			**Encap OUT Idle**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of times that an outgoing MPEG-2 transport stream packet was padded with idle bytes (0xFF) during encapsulation over the last measuring period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.			

Variable IfDPStatsTXIdle		**Encap OUT Idle**		**Encap OUT Idle**
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfDPStatsRXMtuPackets			**Decap OUT Ethernet**	**Decap OUT Ethernet**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of Ethernet packets sent during decapsulation over the last measuring period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfDPStatsRXMtuBytes			**Decap OUT Ethernet**	**Decap OUT Ethernet**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the total number of bytes of the Ethernet packets sent during decapsulation over the last measuring period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfDPStatsRXMtuRate			**Decap OUT Ethernet**	**Decap OUT Ethernet**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the bitrate (expressed in bit/s) of outgoing Ethernet frames decoded by the datapiping processor.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfDPStatsRXMpegPackets			**Decap IN TS**	**Decap IN TS**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of MPEG-2 transport stream packets decoded over the last measuring period. Remark: The measurement can be reset with the command			

Variable IfDPStatsRXMpegPackets		**Decap IN TS**		**Decap IN TS**
	IfDPStatsReset.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfDPStatsRXPopTimeouts		**Decap IN Pop**		**Decap IN Pop**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of times that the input queue was empty (timed out) during decapsulation over the last measuring period. Remark: The measurement can be reset with the command ***IfDPStatsReset.***			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfDPStatsRXPushTimeouts		**Decap OUT Congestion**		**Decap OUT Congestion**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of times that the output queue was full (timed out) during decapsulation over the last measuring period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfDPStatsRXIdle		**Decap IN Idle**		**Decap IN Idle**
Used as variable of	***Command(s)***			***Page***
	IfDPStats			139
Description	Variable that contains the number of times that an incoming MPEG-2 transport stream packet contained padding bytes (0xFF) over the last measuring period. Remark: The measurement can be reset with the command ***IfDPStatsReset***.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfGBSStatsTXEthPackets	Encap IN Ethernet		Encap IN Ethernet
Used as variable of	***Command(s)***		***Page***
	IfGBSStats		140
Description	Variable that contains the number of Ethernet packets received over the last period that were encapsulated.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfGBSStatsTXEthBytes	Encap IN Ethernet		Encap IN Ethernet
Used as variable of	***Command(s)***		***Page***
	IfGBSStats		140
Description	Variable that contains the number of bytes of the Ethernet packets transmitted over the last period.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfGBSStatsTXEthRate	Encap IN Bitrate		Encap IN Bitrate
Used as variable of	***Command(s)***		***Page***
	IfGBSStats		140
Description	Variable that contains the bitrate of Ethernet frames encoded by the XPE processor.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfGBSStatsTXPopTimeouts	Encap IN Pop		Encap IN Pop
Used as variable of	***Command(s)***		***Page***
	IfGBSStats		140
Description	Variable that contains the number of times that an input queue was empty (timed out) over the last period.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfGBSStatsTXBBFrames	Encap OUT BB Fram	Encap OUT BB Fram

Used as variable of	*Command(s)*			*Page*
	IfGBSStats			140
Description	Variable that contains the number of DVB-S2 baseband frames encoded by the interface card over the last statistics period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfGBSStatsTXBBBytes	Encap OUT BB Fram	Encap OUT BB Fram

Used as variable of	*Command(s)*			*Page*
	IfGBSStats			140
Description	Variable that contains the number of bytes of the DVB-S2 Baseband frames created by the interface card that are transmitted over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Bytes	Bytes	0	0 .. 4294967295

Variable IfGBSStatsTXPushTimeouts	Encap OUT Congestion	Encap OUT Congestion

Used as variable of	*Command(s)*			*Page*
	IfGBSStats			140
Description	Variable that contains the number of times that an output queue was full (timed out) over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Retries	Retries	0	0 .. 4294967295

Variable IfGBSStatsRXBBFrames	Decap IN BB Fram	Decap IN BB Fram

Used as variable of	*Command(s)*			*Page*
	IfGBSStats			140
Description	Variable that contains the number of DVB-S2 baseband frames processed during decapsulation over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfGBSStatsRXBBBytes	Decap IN BB Fram			Decap IN BB Fram
Used as variable of	***Command(s)***			***Page***
	IfGBSStats			140
Description	Variable that contains the number of bytes from the DVB-S2 baseband frames processed during decapsulation over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfGBSStatsRXPop Timeouts	Decap IN Pop			Decap IN Pop
Used as variable of	***Command(s)***			***Page***
	IfGBSStats			140
Description	Variable that contains the number of times that an input queue was empty (timed out) during decapsulation over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfGBSStatsRXCRCErrors	Decap IN CRC			Decap IN CRC
Used as variable of	***Command(s)***			***Page***
	IfGBSStats			140
Description	Variable that contains the number of times that a CRC error was detected during processing.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Errors	Errors	0	0 .. 4294967295

Variable IfGBSStatsRXDropped	Decaps IN Dropped			Decaps IN Dropped
Used as variable of	***Command(s)***			***Page***
	IfGBSStats			140
Description	Variable that contains the number of times that a DVB-S2 baseband frame was dropped (bad data field length, CRC-8 error, no ISI, etc.) during decapsulation over the last period. Well-behaved systems should have zero drops.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Variable IfGBSStatsRXEthPackets	Decap OUT Ethernet			Decap OUT Ethernet
Used as variable of	*Command(s)*			*Page*
	IfGBSStats			140
Description	Variable that contains the number of Ethernet packets that are output during decapsulation over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Packets	Packets	0	0 .. 4294967295

Variable IfGBSStatsRXEthBytes	Decap OUT Ethernet			Decap OUT Ethernet
Used as variable of	*Command(s)*			*Page*
	IfGBSStats			140
Description	Variable that contains the number of bytes sent over Ethernet during decapsulation over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Bytes	Bytes	0	0 .. 4294967295

Variable IfGBSStatsRXEthRate	Decap OUT Bitrate			Decap OUT Bitrate
Used as variable of	*Command(s)*			*Page*
	IfGBSStats			140
Description	Variable that contains the bitrate of Ethernet frames decoded by XPE processor.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	bps	bps	0	0 .. 4294967295

Variable IfGBSStatsRXPush Timeouts	Decap OUT Congestion			Decap OUT Congestion
Used as variable of	*Command(s)*			*Page*
	IfGBSStats			140
Description	Variable that contains the number of times that an output queue was full (timed out) during decapsulation over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Retries	Retries	0	0 .. 4294967295

Variable IfGSEStatsTXEthPackets	**Encap IN Ethernet**		**Encap IN Ethernet**
Used as variable of	***Command(s)***		***Page***
	IfGSEStats		141
Description	Number of ethernet packets received over the last period that were encapsulated		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfGSEStatsTXEthBytes	**Encap IN Ethernet**		**Encap IN Ethernet**
Used as variable of	***Command(s)***		***Page***
	IfGSEStats		141
Description	Number of bytes of the ethernet packets transmitted over the last period.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfGSEStatsTXEthRate	**Encap IN Bitrate**		**Encap IN Bitrate**
Used as variable of	***Command(s)***		***Page***
	IfGSEStats		141
Description	Bitrate of ethernet frames encoded by XPE processor. (bps)		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfGSEStatsTXPopTimeouts	**Encap IN Pop**		**Encap IN Pop**
Used as variable of	***Command(s)***		***Page***
	IfGSEStats		141
Description	Number of times that an input queue was empty (timed out) over the last period.		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfGSEStatsTXBBFrames		**Encap OUT BB Fram**		**Encap OUT BB Fram**
Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Number of DVB-S2 Baseband Frames encoded by the interface card over the last statistics period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Variable IfGSEStatsTXBBBytes		**Encap OUT BB Fram**		**Encap OUT BB Fram**
Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Number of bytes of the DVB-S2 Baseband frames created by the interface card that are transmitted over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfGSEStatsTXPushTimeouts		**Encap OUT Congestion**		**Encap OUT Congestion**
Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Number of times that an output queue was full (timed out) over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfGSEStatsTXFragmented		**Encap OUT Fragmented**		**Encap OUT Fragmented**
Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Number of times that a GSE frame was fragmented during encapsulation over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Variable IfGSEStatsRXBBFrames	Decap IN BB Fram			Decap IN BB Fram
Used as variable of	*Command(s)*			*Page*
	IfGSEStats			141
Description	Number of DVB-S2 Baseband frames processed during decapsulation over the last period			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Frames	Frames	0	0 .. 4294967295

Variable IfGSEStatsRXBBBytes	Decap IN BB Fram			Decap IN BB Fram
Used as variable of	*Command(s)*			*Page*
	IfGSEStats			141
Description	Number of bytes of the DVB-S2 Baseband frames processed during decapsulation over the last period			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Bytes	Bytes	0	0 .. 4294967295

Variable IfGSEStatsRXPopTimeouts	Decap IN Pop			Decap IN Pop
Used as variable of	*Command(s)*			*Page*
	IfGSEStats			141
Description	Number of times that an input queue was empty (timed out) during decapsulation over the last period.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Retries	Retries	0	0 .. 4294967295

Variable IfGSEStatsRXCRCErrors	Decap IN CRC			Decap IN CRC
Used as variable of	*Command(s)*			*Page*
	IfGSEStats			141
Description	Number of times that a CRC error was detected during processing.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Errors	Errors	0	0 .. 4294967295

Variable IfGSEStatsRXDropped	Decaps IN Dropped			Decaps IN Dropped
Used as variable of	*Command(s)*			*Page*
	IfGSEStats			141
Description	Number of times that a DVB-S2 baseband frame was dropped (bad DFL, CRC8 error, no ISI ...) during decapsulation over the last period. Well-			

Variable IfGSEStatsRXDropped		**Decaps IN Dropped**		**Decaps IN Dropped**
	behaved systems should have 0 drops			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Variable IfGSEStatsRXEthPackets		**Decap OUT Ethernet**		**Decap OUT Ethernet**
Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Number of ethernet packets that are output during decapsulation over the last period			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Packets	Packets	0	0 .. 4294967295

Variable IfGSEStatsRXEthBytes		**Decap OUT Ethernet**		**Decap OUT Ethernet**
Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Number of bytes sent over ethernet during decapsulation over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Bytes	Bytes	0	0 .. 4294967295

Variable IfGSEStatsRXEthRate		**Decap OUT Bitrate**		**Decap OUT Bitrate**
Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Bitrate of ethernet frames decoded by GBS processor. (bps)			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	bps	bps	0	0 .. 4294967295

Variable IfGSEStatsRXPushTimeouts		**Decap OUT Congestion**		**Decap OUT Congestion**
Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Number of times that an output queue was full (timed out) during decapsulation over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Retries	Retries	0	0 .. 4294967295

Variable IfGSEStatsRXFragmented	**Decaps IN Fragmented**	**Decaps IN Fragmented**

Used as variable of	***Command(s)***			***Page***
	IfGSEStats			141
Description	Number of times that a GSE frame was fragmented during decapsulation over the last period.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Frames	Frames	0	0 .. 4294967295

Variable IfVLANStatsActive	**Active**	**Active**

Used as variable of	***Command(s)***		***Page***
	IfVLANStats		143
Description	Variable that contains the indication that the VLAN statistics entry is valid. When this setting is active, the rest of the VLAN statistics members have valid information.		
Values	***Factory Default***	***Enumeration***	***Value***
	notactive	Not Active Active	0 1

Variable IfVLANStatsName	**Name**	**Name**

Used as variable of	***Command(s)***	***Page***
	IfVLANStats	143
Description	Variable that contains a human readable name for the VLAN and its interface. The format is <Interface> VLAN <VLAN ID>. • Interface is either interface A or B. • VLAN ID is the identifier of the VLAN.	
Values	***Factory Default***	***String Description***
		length : 0 .. 20 format : any chars

Variable IfVLANStatsTxPackets	**TX Packets**	**TX Packets**

Used as variable of	***Command(s)***			***Page***
	IfVLANStats			143
Description	Variable that contains the number of Ethernet packets transmitted over VLAN (kernel counter).			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4294967295

Variable IfVLANStatsTxBytes	TX Bytes			TX Bytes
Used as variable of	*Command(s)*			*Page*
	IfVLANStats			143
Description	Variable that contains the number of bytes transmitted over VLAN (kernel counter).			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	NA	NA	0	0 .. 4294967295

Variable IfVLANStatsRxPackets	RX Packets			RX Packets
Used as variable of	*Command(s)*			*Page*
	IfVLANStats			143
Description	Variable that contains the number of Ethernet packets received over VLAN (kernel counter).			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	NA	NA	0	0 .. 4294967295

Variable IfVLANStatsRxBytes	RX Bytes			RX Bytes
Used as variable of	*Command(s)*			*Page*
	IfVLANStats			143
Description	Variable that contains the number of bytes received over VLAN (kernel counter).			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	NA	NA	0	0 .. 4294967295

Variable IfQosStatsPriority	Priority		Priority
Used as variable of	*Command(s)*		*Page*
	IfQosStatsEntry		144
Description	Variable that contains the name for the quality of service queue.		
Values	*Factory Default*	*String Description*	
	init	length : 0 .. 15 format : any chars	

Variable IfQosStatsBytesDropped	Bytes dropped		Bytes dropped
Used as variable of	*Command(s)*		*Page*
	IfQosStatsEntry		144
Description	Variable that contains the number of bytes dropped for this quality of		

Variable IfQosStatsBytesDropped	Bytes dropped			Bytes dropped
	service class.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	Bytes	Bytes	0	0 .. 4294967295

Variable MoMonAcmStreamStrid	DVB-S2 Stream Id			DVB-S2 Stream Id
Used as variable of	*Command(s)*			*Page*
	MoMonAcmStreamEntry			156
Description	ACM stream id.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	NA	NA	1	1 .. 35

Variable MoMonAcmStreamFrameType	FEC-Frame type		FEC-Frame type
Used as variable of	*Command(s)*		*Page*
	MoMonAcmStreamEntry		156
Description	Frame type of the monitored stream.		
Values	*Factory Default*	*Enumeration*	*Value*
	short	Short Normal	0 1

Variable MoMonAcmStreamNChanges	#changes			#changes
Used as variable of	*Command(s)*			*Page*
	MoMonAcmStreamEntry			156
Description	Number of changes requested for this stream by ACM.			
Values	*GUI Unit*	*Cmd Unit*	*Factory Default (CU)*	*Expert Range (CU)*
	changes	changes	0	0 .. 4294967295

Variable MoMonAcmStreamModcod	MODCOD		MODCOD
Used as variable of	*Command(s)*		*Page*
	MoMonAcmStreamEntry		156
Description	Latest modcod requested via ACM.		
Values	*Factory Default*	*Enumeration*	*Value*
	noRequest	No request QPSK-1/2 QPSK-2/3 QPSK-3/4	0 11 12 13

Variable MoMonAcmStreamModcod		**MODCOD**	**MODCOD**
		QPSK-5/6	15
		QPSK-6/7	16
		QPSK-7/8	17
		QPSK-1/4	21
		QPSK-1/3	22
		QPSK-2/5	23
		QPSK-3/5	24
		QPSK-4/5	25
		QPSK-8/9	26
		QPSK-9/10	27
		16APSK-2/3	42
		16APSK-3/4	43
		16APSK-4/5	44
		16APSK-5/6	45
		16APSK-8/9	48
		16APSK-9/10	49
		32APSK-3/4	53
		32APSK-4/5	54
		32APSK-5/6	55
		32APSK-8/9	58
		32APSK-9/10	59
		8PSK-3/5	81
		8PSK-2/3	82
		8PSK-3/4	83
		8PSK-5/6	85
		8PSK-6/7	86
		8PSK-7/8	87
		8PSK-8/9	88
		8PSK-9/10	89

Variable MoMonAcmDmSupvIp	**Demodulator IP**	**Demodulator IP**
Used as variable of	***Command(s)***	***Page***
	MoMonAcmDmSupvEntry	155
Description	The IP address of the demodulator device that is supervised by the ACM controller.	
Values	***Factory Default***	***String Description***
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}

Variable MoMonAcmDmSupvStrid	**DVB-S2 Stream Id**	**DVB-S2 Stream Id**
Used as variable of	***Command(s)***	***Page***
	MoMonAcmDmSupvEntry	155
Description	DVB-S2 stream id that is modified under control of this ACM enabled demodulator.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***

Variable MoMonAcmDmSupvStrid	**DVB-S2 Stream Id**	**DVB-S2 Stream Id**

	NA	NA	1	1 .. 35

Variable MoMonAcmDmSupvEsno	**EsNo**	**EsNo**

Used as variable of	***Command(s)***			***Page***
	MoMonAcmDmSupvEntry			155
Description	EsNo of ACM enabled demodulator.			
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dB	dB	0	-5 .. 50

Variable MoMonAcmDmSupvModcod	**MODCOD**	**MODCOD**

Used as variable of	***Command(s)***		***Page***
	MoMonAcmDmSupvEntry		155
Description	MODCOD requested by ACM enabled demod.		
Values	***Factory Default***	***Enumeration***	***Value***
	noRequest	No request QPSK-1/2 QPSK-2/3 QPSK-3/4 QPSK-5/6 QPSK-6/7 QPSK-7/8 QPSK-1/4 QPSK-1/3 QPSK-2/5 QPSK-3/5 QPSK-4/5 QPSK-8/9 QPSK-9/10 16APSK-2/3 16APSK-3/4 16APSK-4/5 16APSK-5/6 16APSK-8/9 16APSK-9/10 32APSK-3/4 32APSK-4/5 32APSK-5/6 32APSK-8/9 32APSK-9/10 8PSK-3/5 8PSK-2/3 8PSK-3/4 8PSK-5/6 8PSK-6/7 8PSK-7/8	0 11 12 13 15 16 17 21 22 23 24 25 26 27 42 43 44 45 48 49 53 54 55 58 59 81 82 83 85 86 87

Variable MoMonAcmDmSupvModcod		MODCOD	MODCOD
		8PSK-8/9 8PSK-9/10	88 89

Variable MoMonAcmDmSupvNumRx				#rxed	#rxed
Used as variable of	***Command(s)***				***Page***
	MoMonAcmDmSupvEntry				155
Description	Number of received ACM messages				
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***		***Expert Range (CU)***
	errors	errors	0		0 .. 4294967295

Variable MoMonAcmDmSupvNumTo				#timeouts	#timeouts
Used as variable of	***Command(s)***				***Page***
	MoMonAcmDmSupvEntry				155
Description	Number of ACM timeouts of a demod.				
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***		***Expert Range (CU)***
	errors	errors	0		0 .. 4294967295

Variable MoMonAcmDmSupvNumCto				#contiguous timeouts	#contiguous timeouts
Used as variable of	***Command(s)***				***Page***
	MoMonAcmDmSupvEntry				155
Description	Number of contiguous timeouts of an ACM enabled demodulator.				
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***		***Expert Range (CU)***
	errors	errors	0		0 .. 4294967295

Variable SyDevModePass		Device mode password	Device mode password
Used as variable of	***Command(s)***		***Page***
	SyDevMode		12
Description	This variable holds the password for activating a new device mode. It serves as temporary variable argument to the device mode set command.		
Values	***Factory Default***	***String Description***	
		length : 0 .. 24 format : Hexadecimal chars	

Variable SyDevModeReply	Device mode status reply	Device mode status r

Used as variable of	Command(s)	Page
	SyDevMode	12
Description	Status reply for the device mode command.	

Values	Factory Default	Enumeration	Value
		Success Failed	0 1

Variable SyDevCapPass	Software license key	Software license key

Used as variable of	Command(s)	Page
	SyDevCapab	41
Description	Variable that contains the password (software license key) for activating device capability.	

Values	Factory Default	String Description
	0123456789abcdef	length : 16 (fixed) format : Hexadecimal chars

Variable SyDevCapReply	Capability status reply	Capability status re

Used as variable of	Command(s)	Page
	SyDevCapab	41
Description	Variable that contains the status reply for the capability command.	

Values	Factory Default	Enumeration	Value
		Success Failed	0 1

Variable SyActionKeyId	ActionKey number	ActionKey number

Used as variable of	Command(s)	Page
	SyActKeyActivate	254
Description	The action-key identifier variable identifies a key on the numeric keypad of the front panel.	

Values	GUI Unit	Cmd Unit	Factory Default (CU)	Expert Range (CU)
	NA	NA		0 .. 9

Variable SyActionKeyReply	ActionKey command status	ActionKey command st

Used as variable of	Command(s)	Page
	SyActKeyActivate	254
Description	Variable that contains the return code after action-key related commands	

Variable SyActionKeyReply	**ActionKey command status**	**ActionKey command st**
	are executed.	

Values	***Factory Default***	***Enumeration***	***Value***
		Success Failed	0 1

Variable ODUInfold	**Engineering string index**	**Index**

Used as variable of	***Command(s)***	***Page***
	ODUInfoReq	238
Description	Temporary variable containing the outdoor unit engineering string index.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA		0 .. 255

Variable ODUInfoVal	**Outdoor unit engineering string data**	**ODU eng. string data**

Used as variable of	***Command(s)***	***Page***
	ODUInfoReq	238
Description	Variable that contains contents of the addressed part of the outdoor unit engineering string. This is a temporary variable, used by the special commands for accessing the outdoor unit engineering string data.	

Values	***Factory Default***	***String Description***
		length : 0 .. 100 format : any chars

Variable SyConfigNum	**Configuration number**	**Configuration number**

Used as variable of	***Command(s)***	***Page***
	SyConfigLoadFlash SyConfigSaveFlash SyCfgName	166 167 167
Description	Variable that contains the configuration number for load and save configuration operations in internal flash.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	0	0 .. 4

Variable SyConfigStatus	**Configuration status**	**Configuration status**

Used as variable of	***Command(s)***	***Page***
	SyConfigLoadFlash SyConfigSaveFlash	166 167

Variable SyConfigStatus	**Configuration status**	**Configuration status**
	SyCfgName	167
Description	Variable that replies the status after load and save configuration operations.	

Values	***Factory Default***	***Enumeration***	***Value***
		Success Failed	0 1

Variable SyLoadConfNum	**Last loaded config number**	**Loadd conf. num.**
Used as variable of	***Command(s)***	***Page***
	SyConfigLoadFlash	166
Description	The last loaded configuration number variable contains the specifier for last loaded configuration in internal flash.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	-1	-1 .. 4

Variable SySaveConfNum	**Last saved config number**	**Saved conf. num.**
Used as variable of	***Command(s)***	***Page***
	SyConfigSaveFlash	167
Description	The last saved configuration number variable specifies the last saved configuration in internal flash.	

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	NA	NA	-1	-1 .. 4

Variable SyConfigName	**Configuration name**	**Configuration name**
Used as variable of	***Command(s)***	***Page***
	SyCfgName	167
Description	Variable that contains the configuration name. This name will be visible in the top-row of the display when browsing through the different stored configurations.	

Values	***Factory Default***	***String Description***
	def	length : 0 .. 20 format : any chars

Variable AlAlarmString	**Alarm string**	**Alarm string**
Used as variable of	***Command(s)***	***Page***
	AlAlarmsCur AlAlarmsMem	246 247

Variable AlAlarmString	**Alarm string**	**Alarm string**
	AlAlarmsMode	247
Description	This variable contains the concatenated string of individual replies for alarm requests.	
Values	***Factory Default***	***String Description***
	11111111111111111111111111111111111111111111111111111111111111111111111111111	length : 71 (fixed) format : any chars

Variable AlAlarmId	**Device alarm identification**	**Alarm Id**
Used as variable of	***Command(s)***	***Page***
	AlAlarmCur AlAlarmMem	248 247
Description	This variable identifies an alarm of the device. It is used by the individual alarm commands.	

Values	***Factory Default***	***Enumeration***	***Value***
		Reset flag	0
		Self test	1
		Inc.	2
		General device	3
		Interface	4
		Ref. clk.	5
		Device temperature	6
		Power supply voltage	7
		NCR inserter GPS 1pps	8
		Ethernet IfA Link	9
		Ethernet IfB Link	10
		Ethernet IfA half duplex	11
		Ethernet IfB half duplex	12
		IP gateway unreachable	13
		Ethernet interface switchover	14
		Rx 1 Alarm	15
		Rx 2 Alarm	16
		Rx 5 Alarm	17
		ASI interface switchover	18
		AuxInt. ASI opt. sig. det.	19
		AuxInt. LVDS signal detect	20
		Superframe sync	21
		Decon Tmd	22
		AuxInt. Input framing	23
		Demod RX Decoder Bad Packet	24
		Demod Rx Buffer Overflow	25
		BB sync	37
		Tx 1 overflow	38
		Tx 2 overflow	39
		Tx 3 overflow	40
		Tx 4 overflow	41
		Tx 1 signal	42

Variable AlAlarmId	**Device alarm identification**	**Alarm Id**
	Tx 2 signal	43
	Tx 3 signal	44
	Tx 4 signal	45
	Clock PLL	46
	Synthesiser	47
	Out of lock LO1	48
	Out of lock LO2	49
	RF phase lock DRO	50
	ODU communication	51
	Demod lock	52
	Demod Tuner Lock	53
	Demod PL sync	54
	Demod BB sync	55
	ODU architecture	56
	ODU summary	57
	BISS	58
	M&C module	59
	Interf. module	60
	Deconcentrator module	61
	Aux. interf. module	62
	Mod. alarm	63
	Demod. module	64
	Upconverter	65
	IF To L-band module	66
	IFL converter	67
	Architecture	68
	Internal communication	69
	NCR sync status	70

Variable AlAlarmStatus	**Alarm status reply**	**Alarm status reply**
Used as variable of	***Command(s)***	***Page***
	AlAlarmCur	248
Description	This variable contains the status reply for alarms. • ***0***: Status is OK. • ***1***: Alarm.	
Values	***Factory Default***	***Enumeration*** / ***Value***
		Status OK: 0 Alarm: 1

Variable AlAlarmCounter	**Alarm events**	**Alarm events**
Used as variable of	***Command(s)***	***Page***
	AlAlarmMem	247
Description	Readout of the number of alarm events since last reset of the alarm event counter.	
Values	***GUI Unit*** / ***Cmd Unit*** / ***Factory Default (CU)*** / ***Expert Range (CU)***	

Variable AlAlarmCounter	**Alarm events**	**Alarm events**
	events	events		0 .. 255

Command IfDvbs2BboeRxEnable	**Active**	**Active**
Used as variable of	***Command(s)***	***Page***
	IfDvbs2BboeRxInstances	68
Description	Selection if the configuration entry is enabled or not. • ***Enabled*** • ***Disabled***	
RMCP Command	BrE	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry
	Command	ntcDevsMod01IfDvbs2BboeRxEnable
	OID	1.3.6.1.4.1.5835.3.1.4.1.131.1.1
Values	***Factory Default***	***Enumeration***	***Value***
	disabled	Disabled Enabled	0 1

Command IfDvbs2BboeRxMcastIpAddress	**Baseband receive IP address**	**IP address**
Used as variable of	***Command(s)***	***Page***
	IfDvbs2BboeRxInstances	68
Description	This field contains the IP address used for receiving DVB-S2 baseband frames from the encapsulator.	
RMCP Command	BrI	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry
	Command	ntcDevsMod01IfDvbs2BboeRxMcastIpAddress
	OID	1.3.6.1.4.1.5835.3.1.4.1.133.1.1
Values	***Factory Default***	***String Description***
	0.0.0.0	length : 0 .. 15 format : \d{1,3}\.\d{1,3}\.\d{1,3}\.\d{1,3}

Test

EL470 >> Test

In this section of the menu you can start some tests with the unit.

/Modem/Test/Interfaces

Command GbeTestRst		**GBE Test Reset**		**GBE Test Reset**
Location	/Modem/Test/Interfaces			
Description	This command performs a reset of the gigabit Ethernet board for test purposes.			
RMCP Command	GTR		**Access**	Normal user : no access Expert user : W
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01GbeTestRst		
	OID	1.3.6.1.4.1.5835.3.1.4.1.181.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
		Disable configuration	1	

Command MoBufTimeLimit		**Max Eth-to-mod buffering delay**		**Max Eth-to-mod buffe**
Location	/Modem/Test/Interfaces			
Description	Configuration of the maximum buffering delay for Ethernet packets that travel from the Ethernet interface to the modulator. This value is especially important when traffic goes from a variable rate network (e.g. Ethernet) to a network with a lower bitrate (the satellite link).			
RMCP Command	Mbd	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBufTimeLimit		
	OID	1.3.6.1.4.1.5835.3.1.3.1.100.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	ms	ms	750	0 .. 30000

Command MoBufNonQosTimeLim		**qos unaware eth-to-mod queue size**		**qos unaware eth-to-m**
Location	/Modem/Test/Interfaces			
Description	Configuration of the queue length in milliseconds for Ethernet packets that travel from the Ethernet interface board to the modulator board. This small queue is not quality of service aware. It should be small enough, to avoid non-quality of service aware queuing. It should be large enough, to avoid buffer underflow: buffer underflow would reduce the throughput of the system.			
RMCP Command	qub	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBufNonQosTimeLim		
	OID	1.3.6.1.4.1.5835.3.1.3.1.105.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	mS	mS	5	0 .. 30000

/Modem/Test/Modulation

Command IfBbbTxSig		**Internal Baseband Output to Modulator**		**Internal BB Output**
Location	/Modem/Test/Modulation			
Description	Configuration of the output signal to the internal modulator baseband board connector. Typically four possibilities exist: • By default the active external interface input signal is selected. • When an additional processing function is present (e.g. rate adaptation), the output of the processing block can be selected. • For testing purposes a test generator signal can be routed to the modulator. • The selection off, disables the output signal.			
RMCP Command	BTS		**Access**	Normal user : no access Expert user : RW
Values	***Factory Default***	***Enumeration***		***Value***
	off	OFF Rx Sig TG Proc Signal AIS Buffer		0 1 2 3 4 5

Command IfComTxSig		**Interface output signal selection**		**Output signal**
Location	/Modem/Test/Modulation			
Description	Configuration of the output signal placed on all outputs of the interface board. By default the active external interface input signal is brought back out. When an additional processing function is present (e.g. the rate adapter) the output of the processing block can be selected. For testing purposes, a test generator signal can be routed to the output (local loopback). The selection ***off*** disables the output signal. Remark: The output signal selection is independent of the input interface type selection.			
RMCP Command	COS		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01InterfaceEntry		
	Command	ntcDevsMod01IfComTxSig		
	OID	1.3.6.1.4.1.5835.3.1.4.1.44.1.1		
Values	***Factory Default***	***Enumeration***	***Value***	
	rxsignal	Off Rx sig. TG Proc. sig. AIS Buffer	0 1 2 3 4 5	

Command ODUSSPAARfAlTrippoint		**HPA RF power alarm level setpoint**		**HPA power alarm setp**
Location	/Modem/Test/Modulation			
Description	Configuration of the high power amplifier RF alarm level set-point.			
RMCP Command	THt	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ODUEntry		
	Command	ntcDevsMod01ODUSSPAARfAlTrippoint		
	OID	1.3.6.1.4.1.5835.3.1.14.1.6.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	W	W	0	0 .. 9999

Command ODUSSPAAttenuation		**HPA attenuation**		**HPA attenuation**
Location	/Modem/Test/Modulation			
Description	Configuration of the high power amplifier attenuation.			
RMCP Command	THg	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ODUEntry		
	Command	ntcDevsMod01ODUSSPAAttenuation		
	OID	1.3.6.1.4.1.5835.3.1.14.1.7.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	dB	dB	0	0 .. 99.9

Special Command ODUInfoReq		**Engineering string request**		**Eng. string**
Location	/Modem/Test/Modulation			
Description	Readout of the engineering string data from the outdoor unit. The engineering string is additional information about the outdoor unit that is not needed on an operational basis but can be accessed for troubleshooting purposes.			
RMCP Command	Eng		**Access**	Normal user : no access Expert user : R
SNMP	***Table***	ntcDevsMod01ODUEntry		
	Command	ntcDevsMod01ODUInfoReq		
	OID	1.3.6.1.4.1.5835.3.1.14.1.5.1.1		
Get Command Arguments			**Set Command Arguments**	
Command(s) / Variable(s)	***Page***		***Command(s) / Variable(s)***	***Page***
ODUInfoId	230		NA	NA
Get Reply Values			***Set Reply Values***	
Command(s) / Variable(s)	***Page***		***Command(s) / Variable(s)***	***Page***
ODUInfoVal	230		NA	NA

Command MoTxData		**Transmit data**	**Transmit data**
Location	/Modem/Test/Modulation		
Description	Configuration which source will transmit data. Select between external data input as source to transmit data (default) and internally generated PRBS. For testing, installation and link evaluation, the internal data generator on the modulator can be used as a transmit data source. This data source generates a PRBS (pseudo random binary sequence) data stream of 2^23-1 as specified in CCITT Rec. 0.151. In conjunction with a Newtec demodulator that is standard equipped with an automatic PRBS detector, the possibility exists to determine the actual BER performance of a satellite link.		
RMCP Command	TDi	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoTxData	
	OID	1.3.6.1.4.1.5835.3.1.3.1.35.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	external	External Int testgenerator	0 5

Command MoTgFrameType		**DVB-S2 Testgenerator FEC-Frame type**	**Testgen Frame type**
Location	/Modem/Test/Modulation		
Description	Configuration of the DVB-S2 FEC-frame type parameter on the test generator when ***MoTgFrameFormat*** is set to baseband frames. DVB-S2 defines two FEC-frame types: • Normal FEC-frames of 64800 bits or 8100 bytes. • Short FEC-frames of 16200 bits or 2025 bytes.		
RMCP Command	TCF	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoTgFrameType	
	OID	1.3.6.1.4.1.5835.3.1.3.1.108.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	short	Short Normal	0 1

Command MoTgFecMod2	**Testgen FEC-rate and modulation**	**Testgen FEC-rate and**

Location	/Modem/Test/Modulation			
Description	Configuration of the DVB-S2 FEC-rate and modulation parameters on the test generator when ***MoTgFrameFormat*** is set to baseband frames. The selection of the FEC-rate and modulation are coupled and depend on the present modulation standard and capability of the device. Because the selection of a new FEC-rate and/or modulation type changes the symbol rate and thus the bandwidth of the signal, transmit is disabled. After verification of the occupied bandwidth the operator has to re-enable transmit to go back on air.Remark: Only those selections possible with the current device capability will be listed.			
RMCP Command	tMx		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoTgFecMod2		
	OID	1.3.6.1.4.1.5835.3.1.3.1.107.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	qPSKModulationRate34	Dummy PLFRAMES	0
		QPSK no FEC (SKYPLEX)	10
		QPSK-1/2	11
		QPSK-2/3	12
		QPSK-3/4	13
		QPSK-5/6	15
		QPSK-6/7	16
		QPSK-7/8	17
		QPSK-1/4	21
		QPSK-1/3	22
		QPSK-2/5	23
		QPSK-3/5	24
		QPSK-4/5	25
		QPSK-8/9	26
		QPSK-9/10	27
		16APSK-2/3	42
		16APSK-3/4	43
		16APSK-4/5	44
		16APSK-5/6	45
		16APSK-8/9	48
		16APSK-9/10	49
		32APSK-3/4	53
		32APSK-4/5	54
		32APSK-5/6	55
		32APSK-8/9	58
		32APSK-9/10	59
		16QAM-3/4	63
		16QAM-7/8	67
		8PSK-3/5	81
		8PSK-2/3	82
		8PSK-3/4	83
		8PSK-5/6	85
		8PSK-8/9	88
		8PSK-9/10	89

Command MoTgPilots		**Testgen Pilot insertion**	**Testgen Pilots**
Location	/Modem/Test/Modulation		
Description	Configuration command that enables or disables the physical layer pilot insertion for the test generator. When enabled, every 16 slots (of 90 symbols) the modulator will insert 36 non-modulated symbols to aid in receiver synchronisation. • ***Off***: Pilot insertion disabled. • ***On***: Pilot insertion enabled.		
RMCP Command	TCP	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoTgPilots	
	OID	1.3.6.1.4.1.5835.3.1.3.1.109.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	off	Off On	0 1

Command MoDlyMode		**Modulator delay mode**	**Modulator delay mode**
Location	/Modem/Test/Modulation		
	Only valid for DVB-S2 modes.		
Description	Configuration of the modulator delay mode. When the modulator is operating with external transmit clock, the transmit clock is slaved to the incoming data frames via a PLL circuit. This command selects the operating point (set-point) of the PLL : • ***Minimum***: The PLL tracks the input signal with minimum delay through the modulator. • ***Programmed***: The PLL tracks the input signal to a programmed delay set-point. The set-point itself is programmable via one of the commands MoBufSetp (expressed in % of the input buffer) and MoBufFramSetp (expressed in frames). • ***Automatic***: The system will determine the optimal settings.Remark: For low baudrate operation (lower than 100K), the programmed delay mode can result in very long settling times for the target delay.		
RMCP Command	Mdm	**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry	
	Command	ntcDevsMod01MoDlyMode	
	OID	1.3.6.1.4.1.5835.3.1.3.1.66.1.1	

Values	***Factory Default***	***Enumeration***	***Value***
	automatic	Minimum Programmed Automatic	0 1 2

Command MoBufSetp		**Buffer setpoint**		**Buffer setpoint**
Location	/Modem/Test/Modulation			
	Only valid for DVB-S2 modes.			
Description	Configuration of the input FIFO buffer set-point for the clock loop when transmit clock is configured for external operation. External operation means that the clock is slaved to the input signal. The buffer content set-point is expressed in % of the physical buffer size.			
RMCP Command	Bsp	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBufSetp		
	OID	1.3.6.1.4.1.5835.3.1.3.1.60.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	%	%	50	0 .. 100

Command MoBufFramSetp		**Buffer setpoint**		**Buffer setpoint**
Location	/Modem/Test/Modulation			
	Only valid for DVB-S2 modes.			
Description	Configuration of the input FIFO buffer set-point for the clock loop when the transmit clock is configured for external operation. External operation means that the clock is slaved to the input signal. The buffer delay set-point is expressed in frame size units. The frame size for the data in the buffer depends on the selected input format, the frame type and data field length: • If input format = DVB-S2 baseband frames:a) Short frame type: Frame size = 16200 bits or 2025 bytes.b) Normal frame type: Frame size = 64800 bits or 8100 bytes. • Other input formats (TS, GS): The frame size = data field length bits.The set-point equals the nominal number of frames (with size as described above) that will be stored in the FIFO input buffer when the transmit clock is operating in slaved mode (PLL).Remark:The associated MoBufSetp variable indicates the corresponding percentage of buffer contents.			
RMCP Command	mfs	**Access**		Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBufFramSetp		
	OID	1.3.6.1.4.1.5835.3.1.3.1.59.1.1		
Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	frames	frames	1	0 .. 1000

Command MoBbNcoMode	**Baseband NCO programming mode**	**BB NCO mode**

Location	/Modem/Test/Modulation			
Description	Configuration of the baseband network clock oscillator programming mode. The test generator on the modulator board is clocked by an independent baseband network clock oscillator. The output rate of this network clock oscillator is directly programmable via this command. Although total independent programming of the rate is required for factory testing, from a standard operator viewpoint it is more desirable that the test generator baseband network clock oscillator rate is automatically programmed to a value that is compatible to other modulator settings. This mode command selects the desired behaviour: • ***Automatic***: Upon selection of frame type, modcod, symbol rate and test generator timing mode, the baseband network clock oscillator is automatically programmed to a compatible value for proper operation. Remark: In case that MoTgTimMode is set to free running mode, the network clock oscillator is programmed to the calculated interface rate. In case that MoTgTimMode is set to throttled mode, the network clock oscillator is running at the maximum rate. • ***Manual:*** In this mode, the baseband network clock oscillator rate is only affected by the MoBbNcoRate command and it is the responsibility of the operator to select a compatible value.			
RMCP Command	BNM		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBbNcoMode		
	OID	1.3.6.1.4.1.5835.3.1.3.1.85.1.1		

Values	***Factory Default***	***Enumeration***	***Value***
	auto	Auto Man	0 1

Command MoBbNcoRate	**Testgenerator output bitrate**	**Testgen output rate**

Location	/Modem/Test/Modulation			
	Only valid for DVB-S2 modes.			
Description	Configuration of the test generator output bitrate when the input clock selection is set to internal. The internal test generator clock is generated by a 32-bit network clock oscillator clocked at the 120 MHz master clock. Remark: When the input clock selection is set to external, the test generator is clocked with the interface clock.			
RMCP Command	tgr	**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoBbNcoRate		
	OID	1.3.6.1.4.1.5835.3.1.3.1.58.1.1		

Values	***GUI Unit***	***Cmd Unit***	***Factory Default (CU)***	***Expert Range (CU)***
	Mbps	bps	100	55000 .. 110000000

Command MoTgTimMode		**Testgenerator output timing mode**		**Testgen timing mode**
Location	/Modem/Test/Modulation			
	Only valid for DVB-S2 modes.			
Description	Configuration of the output timing mode on the test generator. The internal test generator can operate in two timing modes: • ***Free running***: The output rate is solely controlled by the programmed test generator bitrate. • ***Throttled***: The output rate is also throttled using data request pulses from the modulator.			
RMCP Command	tTm		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01ModulatorEntry		
	Command	ntcDevsMod01MoTgTimMode		
	OID	1.3.6.1.4.1.5835.3.1.3.1.84.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	free_running		Free running Throttled	0 1

/Modem/Test/Demodulation

Command SyTestRst		**Test Reset**		**Test Reset**
Location	/Modem/Test/Demodulation			
Description	This command can initiate different reset functions, but this command is ONLY used for test purposes.			
RMCP Command	STR array : [1 .. 2]		**Access**	Normal user : no access Expert user : W
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyTestRst		
	OID	1.3.6.1.4.1.5835.3.1.1.1.78.1.1.[1 .. 2]		
Values	***Factory Default***		***Enumeration***	***Value***
			DemodReset InitForAcq TunerInit GlobalReConfig FpgaReset	1 2 3 4 5

Command DmEquCtrl		**Adaptive equalising filter**		**Adaptive equalising**
Location	/Modem/Test/Demodulation			
Description	Configuration of the adaptive equalising filter on the demodulator. The different settings are: • ***On***: The equaliser is enabled. • ***Off***: The equaliser is disabled.			
RMCP Command	EQc		**Access**	Normal user : no access Expert user : RW
SNMP	***Table***	ntcDevsMod01DemodulatorEntry		
	Command	ntcDevsMod01DmEquCtrl		
	OID	1.3.6.1.4.1.5835.3.1.13.1.64.1.1		
Values	***Factory Default***		***Enumeration***	***Value***
	on		Off On	0 1

6 ALARMS

Alarm Types

- **Active alarm**: alarm that is present at the time when you read the alarm.
- **Memorised alarm**: alarm that has happened in the past but has been resolved before you read the alarm (in case of intermittent alarms or a setting that has been corrected since). The purpose of this type of alarm is to warn you that there has been an alarm in the past but that the alarm condition is currently not present.
- **Alarm counter**: the number of times an alarm occurred. This counter can record up to a maximum of 255 events.

Alarm Commands

Special Command AlAlarmsCur			**Current alarm status string**		**Alarm status string**
Location	/Config				
Description	Readout of the concatenated string of all individual alarm status replies of the device. A get request returns the current alarm buffer contents. The buffer is not reset. A set command returns the current alarm buffer contents and resets the buffer.				
RMCP Command	CAs		**Access**		Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01AlarmEntry			
	Command	ntcDevsMod01AlAlarmsCur			
	OID	1.3.6.1.4.1.5835.3.1.2.1.9.0.1			
Get Command Arguments			**Set Command Arguments**		
Command(s) / Variable(s)		***Page***	***Command(s) / Variable(s)***		***Page***
none		none	none		none
Get Reply Values			***Set Reply Values***		
Command(s) / Variable(s)		***Page***	***Command(s) / Variable(s)***		***Page***
AlAlarmString		231	AlAlarmString		231

Special Command AlAlarmsMem		**Memorised alarm string**	**Mem. al. string**
Location	/Config		
Description	Readout of the concatenated string describing the state of all individual memorised alarm counters. • 0: Indicates that the respective counter did not count any alarm events since last reset. • 1: Indicates that the respective counter did count alarm events since last reset.A get request returns the memorised alarm counter status. The counters are not reset. A set command returns the memorised alarm counter status and resets the counters.Remark: The number of events can be retrieved with the individual counter reading command ***AlAlarmMem***.		
RMCP Command	MAs	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01AlarmEntry	
	Command	ntcDevsMod01AlAlarmsMem	
	OID	1.3.6.1.4.1.5835.3.1.2.1.10.0.1	

Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
none	none	none	none
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
AlAlarmString	231	AlAlarmString	231

Special Command AlAlarmsMode		**Alarm mode string**	**Alarm mode string**
Location	/Config		
Description	Configuration of the current alarm modes for all device alarms. The alarm mode provides more detailed information about the current alarm status. It indicates if the alarm is operational, masked by the operator or suppressed by system state, priority or capability limitations. The command returns the concatenated string of all individual alarm mode replies. The different options are : • Normal : Selects "normal" operational behaviour. • Masked : A masked alarm is continuously kept in the no alarm (0) status. • Forced : A forced alarm is continuously kept in the alarm (1) status.The command argument consists of the concatenated string of all individual control action words hence allowing individual control of all alarms with this single command. The command always replies with the concatenated string consisting of all individual current control status words.Remark: The current and memorised alarms are immediately cleared when an alarm is masked by the user.		
RMCP Command	CAm	**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01AlarmEntry	
	Command	ntcDevsMod01AlAlarmsMode	

Special Command AlAlarmsMode		**Alarm mode string**	**Alarm mode string**
	OID	1.3.6.1.4.1.5835.3.1.2.1.11.0.1	
Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
none	none	AlAlarmString	231
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
AlAlarmString	231	AlAlarmString	231

Special Command AlAlarmCur			**Current alarm status**	**Current alarm status**
Location	/Config			
Description	Readout of the current alarm status for the specified alarm from the alarm buffer. • 0 = Currently, no alarm is present. • 1 = Currently, the alarm is active. A get request returns the current alarm buffer contents without resetting the buffer.A set command returns the current alarm buffer contents and resets the buffer.			
RMCP Command	Cas		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01AlarmEntry		
	Command	ntcDevsMod01AlAlarmCur		
	OID	1.3.6.1.4.1.5835.3.1.2.1.4.0.1		
Get Command Arguments			**Set Command Arguments**	
Command(s) / Variable(s)		***Page***	***Command(s) / Variable(s)***	***Page***
AlAlarmId		232	AlAlarmId	232
Get Reply Values			***Set Reply Values***	
Command(s) / Variable(s)		***Page***	***Command(s) / Variable(s)***	***Page***
AlAlarmStatus		233	AlAlarmStatus	233

Special Command AlAlarmMem			**Memorised alarm counter**	**Alarm counter**
Location	/Config			
Description	Readout of the memorised alarm counter for the specified alarm. • 0 = No alarm events occurred since last alarm reset. • n = n alarm events occurred since last alarm reset with n an integer number.A get request returns the memorised alarm counter contents, the counter is not reset.A set command returns the memorised alarm counter contents and resets the counter.			
RMCP Command	Mas		**Access**	Normal user : RW Expert user : RW
SNMP	***Table***	ntcDevsMod01AlarmEntry		
	Command	ntcDevsMod01AlAlarmMem		
	OID	1.3.6.1.4.1.5835.3.1.2.1.6.0.1		

Special Command AlAlarmMem		**Memorised alarm counter**	**Alarm counter**
Get Command Arguments		**Set Command Arguments**	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
AlAlarmId	232	AlAlarmId	232
Get Reply Values		***Set Reply Values***	
Command(s) / Variable(s)	***Page***	***Command(s) / Variable(s)***	***Page***
AlAlarmCounter	233	AlAlarmCounter	233

Alarm Front Panel Operation

The alarm menu is built dynamically. Only alarms that are present (both actual and memorised) are indicated.

Example:

➢ Click **CLR** to clear all memorised alarms and to obtain a list of the actual alarms only.

1. Memorised alarm

```
EL470/Alarm
Buffer overflow: Mem. Alarm Cnt.: 3
```

If the monitored parameters have had an alarm state and this state has been resolved at the time you read the alarm, the display indicates a memorised alarm and the number of times the alarm has occurred since the last reset.

➢ Click **CLR** to clear this counter.

2. Active alarm

```
EL470/Alarm
```

If the monitored parameters have had an alarm state at the time you read the alarm, the display indicates an actual alarm and indicates the number of times the alarm has occurred since the last reset.

3. Alarm modes

In expert mode all the available alarms are displayed. When neither an active nor a memorised alarm is present it shows the alarm status OK.

```
EL470/Alarm
Device temperature: OK
```

➢ Click **OK** when an alarm type is displayed. This allows you to change the alarm mode from normal to masked or forced.

- **Masked alarm**: Under specific circumstances you are allowed to mask alarms. However, be careful because the alarm will be ignored when it occurs and all subsequent actions (like disabling of RF transmit) will not be taken. This could be dangerous. Therefore you should only consider to mask alarms after you have consulted Newtec technical support. You can only mask alarms in expert mode. When you return to the normal device operating mode the alarms remain masked.
- **Forced alarm**: while performing test and installation procedures it might be useful to simulate an alarm, e.g. by triggering a simulated redundancy switch over. You can only force an alarm in expert mode. As soon as you return to the normal device operating mode, the forced alarms are reset to normal. The alarm relay contacts – more thoroughly explained in the User Manual – only close when a general device alarm and the interface alarm occur. When you force, for example, the external 10 MHz reference alarm, only this alarm is raised and not the general device alarm. To test the redundancy switching systems, force either the general device alarm or the interface alarm.
- Alarm times

The start and stop time of an alarm are logged.

➢ Press "**?**" to show these times. When the alarm is not present (memorised or active) the time indication is empty. When an alarm is present and active the start time is displayed and the stop time mentions "still active". When an alarm is memorised, both the start and stop time are displayed.

```
Start: Tue Dec 9 10:11:53
Stop: still active
```

Alarm List

EL470 >> Alarm

The following list contains all possible alarms.

Alarm Label	Name	Description
Device has been reset	AlResFlag	Reports that the main-controller has had a reset. This can indicate that all the parameters in the device are changed.
Self test	AlSelfTest	After power-on or reset, the device performs an internal self test. If this self test fails it will trigger this alarm.
Incompatibility	AlIncompat	The device asserts the incompatibility alarm if a new control setting was attempted that would result in a conflict with one or more of the other present settings. The new control setting is accepted but not activated (the device remains operational in the last state). By changing one or more of the conflicting parameters, the incompatibility condition can be removed. Only when this occurs, the new "compatible" state is activated and the incompatibility alarm is de-asserted. Under RMCP, details on the type of incompatibility that occurred can be obtained using the "Incompatibility Identification" command.
General device	AlGenDev	An alarm is indicated if at least one of the alarms is active (logical-OR of the alarm indications).
Interface	AlInterface	The interface alarm is a combined alarm indicating a missing or invalid input signal at the selected interface. (this alarm does not include further signal processing related alarms).
Reference clock	AlRefClock	Selected 10 MHz reference clock absent or level too low.
Device temperature	AlDevTemp	A device temperature alarm indicates that the device internal temperature exceeds the +10° C and +70° C limits.
Power supply voltage	AlPowSup	Summarises the four power supply alarms, an alarm is

Alarm Label	Name	Description
		generated if at least one of the monitored power supply voltages is out of range.
Ethernet IfA Link	AlItfaLink	This interface alarm is triggered on a missing or invalid input signal (Link Down) at the ethernet interface A. (this alarm does not include further signal processing related alarms).
Ethernet IfB Link	AlItfbLink	This interface alarm is triggered on a missing or invalid input signal (Link Down) at the ethernet interface B. (this alarm does not include further signal processing related alarms).
IP gateway unreachable	AlIfGwUnreachable	This interface alarm is triggered when at least one of the configured IP gateways in the traffic path is unreachable.
Ethernet interface switchover	AlEthSwo	This alarm indicates that an Ethernet interface switchover has happened, with Ethernet interface redundancy enabled.
Demod RX Decoder Bad Packet	AlIfRxBadPacket	The decoder on the interface card has received unrecognizable packets from its baseband interface, which is usually attached to a demodulator. Plausible cause : user configures reception of a specific datastream, but the real data has not been not encoded with the expected (or unrecognizable) protocol.
Demod Rx Buffer Overflow	AlIfBBRXOverflow	The frames were dropped at the baseband interface.
Baseband frame sync	AlMoBbSync	A Baseband framing sync alarm indicates loss of synchronisation between the baseband framing and the input signal.
Clock PLL	AlMoClkPll	The clock PLL alarm is generated when the transmit clock is not synchronised to the interface clock, if the device operates with external transmit clock. The alarm is asserted when the buffer contents exits the centre zone [40% - 60%]. For the lower bitrates, the nominal buffer set-point(=contents) is reduced in order to minimize overall delay. Therefore the lower limit for the PLL alarm is reduced as well : 1 Mbps <= interface rate : [40% - 60%] nominal 50% 200 Kbps <= interface rate < 1 Mbps : [10% - 60%] nominal

Alarm Label	Name	Description
		25% 50 Kbps <= interface rate < 200 Kbps : [5% - 60%] nominal 12.5% This alarm is not applicable if the internal transmit clock (free running) is selected.
Synthesiser	AlMoSynth	The synthesiser alarm indicates a malfunction of the hardware which generates the carrier frequency. The presence of this alarm suppresses transmit of the L-band/Rf output (internal L-band).
Demod lock	AlReceiverOk	This alarm is asserted when the receiver is not sychronised.
Demod Tuner Lock	AlDmTunerLock	Alarm indicates whether the Tuner Synthesizer is phase locked.
Demod Physical layer sync	AlDmPlSync	Alarm indicates Loss of Physical Layer frame synchronisation.
Demod Baseband frame sync	AlDmBbSync	A Baseband framing sync alarm indicates loss of synchronisation between the baseband framing and physical layer framing.
Internal M&C module	AlMcModule	Indicates an alarm internal to the M&C board. For detailed information the alarms of the M&C module should be consulted.
Internal interface module	AlIntfModule	Indicates an alarm internal to the interface function/module. For detailed information the alarms of the interface module should be consulted.
Internal modulator	AlModModule	Indicates an alarm internal to the modulator board.
Demodulator module	AlDmModule	Indicates an alarm internal to the demodulator board. For detailed information the alarms of the M&C module should be consulted.
Device architecture	AlArchitecture	The architecture alarm indicates that the detected device architecture (modules/interconnect) does not match the expected architecture.
Internal communication	AlIntComm	An internal communication alarm indicates that there is a communication error between different boards in the system.
Input alarm	AlInput	The input alarm is a combined alarm indicating a missing or invalid input signal to the device.

APPENDIX A: ACTION KEYS

The idea behind Action Keys is that you as system integrator can define a group of frequently executed operations to configure the device. Use the numerical keypad as a selection panel. When you press a certain number, a string appears that clearly describes the commands that will be executed. You can then press **OK** to execute the command(s).

Contrary to loading complete device configurations by using the load and save configurations option, you can define group of commands (1-20) that have to be executed when you execute a specific Action Key.

The action keys are not displayed in the tree view of the Graphical user interface (GUI). This function is in the Function controls window of the GUI under the tab Macro.
We refer to the explanation of the GUI in the user manual of this device.

Definition of the Action Keys

EL470>> Actionkeys

Special Command SyActKeyActivate			**Action keys**	
Location	Modulator/Actionkeys			
Description	This command represents a key-press when in the ActionKey menu. An expert user can program the actions taken when such a key is pressed.			
RMCP Command	AKa filesdaf		**Access**	Normal user : W Expert user : W
SNMP	***Table***	ntcDevsMod01SystemEntry		
	Command	ntcDevsMod01SyActKeyActivate		
	OID	1.3.6.1.4.1.5835.3.1.1.1.47.1.1		
Get Command Arguments			**Set Command Arguments**	
Command(s) / Variable(s)		***Page***	***Command(s) / Variable(s)***	***Page***
NA		NA	SyActionKeyId	229
Get Reply Values			***Set Reply Values***	
Command(s) / Variable(s)		***Page***	***Command(s) / Variable(s)***	***Page***
NA		NA	SyActionKeyReply	229

Parameter	Define	
Description	With this command you can set which key on the keyboard executes a certain sequence of commands. When you navigate to the Actionkey menu, press 0-9 to display the user-defined Actionkey name. Click OK to execute the RMCP command(s) that are associated with this Actionkey. Examples: • **AKd!0,BBC1,OOF!140000000;TTm!1** Displays the string "BBC1" when you press **0** and sets the output frequency of 140 MHz and enables L-band transmit when you click **OK**. • **AKd!1,Reduced CW,TLa!1;TMm!0** Displays the string "Reduced CW" when you press **1** and reduces the current output with 15 dB and selects pure carrier modulation when you click **OK**.	
RMCP	AKd ActionKey Number, Label, Command 1;Command 2; … Command n	
SNMP	***Table***	ntcDevsMod01SystemEntry
	Command	ntcDevsMod01SyActKeyDef
	OID	.1.3.6.1.4.1.5835.3.1.1.1.48.1.1
Values	• **ActionKey Number**: identifies a key on the numerical keypad of the front panel. • **Label**: can be any text that should appear on the display to describe the set of commands behind the Actionkey (maximum length 20 characters, only the semicolon "," character cannot be used). • **Commands**: This string is used to define the commands of an ActionKey, it has the following format: CMD1; CMD2... CMDn; CMD# is a complete RMCP command.	

Example

To download the RMCP Loader, go to www.newtec.eu and choose **Support > FAQ > What is RMCP loader and How to get it > RMCP LOADER download now.**. Click **Grouped Commands** to send the following commands in a .txt file to the IP Satellite Modem.

- AKd!0,Pure carrier;TMm!0
- AKd!5,Modulated;TMm!1
- AKd!1,Reduced;TLa!1
- AKd!6,Nominal;TLa!0
- AKd!2,Low rate QPSK3/4;TRr!8448000;TMx!13
- AKd!7,High rate 8PSK 5/6;TRr!21503000;TMx!85
- AKd!3,IF transmit off;TTm!0
- AKd!8,IF transmit on;TTm!1

When entering the Action Keys menu, press **2** to display:

```
Action keys: <0-9> or <OK> to execute
2: Low rate QPSK ¾
```

When you press **OK** the interface rate is set to 8.448 Mbit/s (TRr!8448000) and QPSK modulation with FEC 3/4 is selected (TMx!13).

After a reset to factory defaults the Action Keys are all reset to off (default value).

Action Key definition via the Web interface:

- Navigate to the Action Key menu.
- Click **Define** to enter the label of the Action Key and the associated RMCP commands that need to be executed by this macro. To find the RMCP command that is used to set or get a parameter, refer to the manual.
- Click **Manual** in the top-navigation bar or select the parameter name in a parameter entry page to open the manual at the position where that parameter is described, including the RMCP commands.

Request a RMCP manual via the Newtec Service Desk tool:
> Browse to http://customersupport.newtec.eu
> Fill in your Username and Password
> Create a ticket
As response of your request you will receive the manual from our support team.
In case you don't have a Username and Password yet for the Newtec Service Desk tool request a login to techsupport@newtec.eu

Once you have defined the Action Keys, click **Execute** to execute the macro. You can only define or change Action Keys when you are logged in as Administrator. In other modes you can only view the definition, not change it.

APPENDIX B: TROUBLESHOOTING

Consult the Reference Manual

When an alarm occurs, an alarm message appears on the display of your device and in the alarm menu on your device. You can retrieve information on the alarm in the alarm list in this manual. In most cases you will find a short description about what caused the alarm and what you can do to solve this problem.

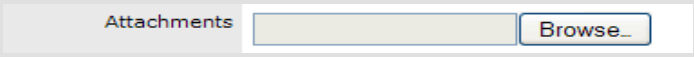
Contact support

Do not hesitate to contact our support engineers if you need help. Our "follow-the-sun" policy ensures that you can get help at any time. Generate a diagnostics support to enable our support engineers to help you.

Generate a Diagnostics report

- In the GUI, click **Diagnostics report**.
- Click **Generate Basic Diagnostics Report**.
  After a few seconds the diagnostics file appears in html format.
- Send the diagnostics report.

Attach a diagnostics report via the Newtec Service Desk tool:
> Browse to http://customersupport.newtec.eu
> Fill in your Username and Password
> Create a ticket
> Attach your diagnostics report to your service request in the service desk tool via the brows button at the bottom of your service request



As response of your request you will receive the manual from our support team.
In case you don't have a Username and Password yet for the Newtec Service Desk tool request a login to techsupport@newtec.eu

Support case logging

At Newtec Cy N.V. we use a case tracking database to log and track all our support cases. Each case has a unique identifier that can be used to quickly refer to that case. Automatic escalation assures that every case receives the attention it requires.

Appendix C: ABBREVIATIONS

Acronym	Definition
ACF	AutoCorrelation Function
ACM	Adaptive Coding Modulation
AGC	Automatic Gain Control
APSK	Amplitude and Phase Shift Keying
ARP	Address Resolution Protocol (TCP/IP)
ASCII	American Standard Code for Information Interchange
ASI	Asynchronous Serial Interface
BB	Base Band
BBF	Base Band Frame
BER	Bit Error Rate/Ratio
BISS	Basic Interoperable Scrambling System
BPSK	Binary Phase Shift Keying
C/N	Carrier to Noise Ratio
CBR	Constant Bit Rate
CCITT	Comité Consultatif International Télégraphique et Téléphonique (known today as the ITU-T)
CCM	Constant Coding and Modulation
CMD1	Command 1
CPU	Central Processing Unit
CRC	Cyclic Redundancy Check
CW	Continuous Wave (Radio signal without modulation)
DC	Direct Current
DFL	Data Field Length
DFM	Digital Frequency Meter
DRO	Dielectric Resonator Oscillator
DSNG	Digital Satellite News Gathering
DVB	Digital Video Broadcasting

Acronym	Definition
DVB-S	Digital Video Broadcasting-Satellite
FAQ	Frequently Asked Question
FEC	Forward Error Correction (in data transmission systems)
FIFO	First in First Out
FPGA	Field Programmable Gate Array
FTP	File Transfer Protocol (computer networks & systems)
GBE	Gigabit Ethernet
GSE	Generic Stream Encapsulation
GPS	Global Positioning System
GTS	Global Telecommunications Society
GUI	Graphical User Interface
HPA	High Power Amplifier (used in SNG terminals)
HSSI	High Speed Serial Interface
HW	Hardware
ID	Identifier
IF	Intermediate Frequency
IFL	Inter Facility Link
IP	Internet Protocol
IRS	Information Receiving Station
ISI	Input Stream Identifier
L3	Level 3
LAN	Local Area Network
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LNB	Low noise block down converter
LO	Local Oscillator
LOF	Local Oscillator Frequency
LVDS	Low Voltage Digital Signalling
M&C	Monitoring and Control
MAC	Medium Access Control

Acronym	Definition
MGC	Manual Gain Control
MIN	Mobile Identification Number
MPE	Multi Protocol Encapsulation Maximum Permissible Exposure (EMR or RF level)
MPEG	Motion Picture Experts Group
NCO	Network Clock Oscillator
NCR	(DVB-RCS) Network Clock Reference
NTC	Newtec Company
ODU	Outdoor Unit
OEM	Original Equipment Manufacturer
OID	Object Identifier
PC	Personal Computer
PCR	Program Clock Reference
PHY	Physical Layer
PID	Packet Identifier
PLL	Phase Locked Loop
PLS	Physical Layer Scrambler
PRBS	Pseudo Random Binary Sequence
PSK	Phase Shift Keying
QAM	Quadrature Amplitude Modulation
QEF	Quasi Error Free
QOS	Quality Of Service
QPSK	Quadrature Phase Shift Keying
RAM	Random Access Memory (in computer systems)
RCS	Return Channel by Satellite
RF	Radio Frequency
RMCP	Remote Monitor and Control Protocol
RS	Reed Solomon
RTP	Real-time Transmission Protocol
RX	Receive

Acronym	Definition
S2BBF	S2 Base Band Frame
SCA	Subsidiary Communications Authority
SIT	Satellite Interactive Terminal
SNMP	Simple Network Management Protocol
SW	Software
TCO	Tx Clock Offset
TCP	Transmission Control Protocol
TS	Transport Stream
TX	Transmit
UDP	User Datagram Protocol
VBR	Variable Bit Rate
VCM	Variable Coding and Modulation
VLAN	Virtual Local Area Network
VRRP	Virtual Router Redundancy Protocol
WI	Web Interface

APPENDIX D: LIST OF COMMANDS

List of Commands