Remote M&C Specification
for
Vision Series Satellite Modems

Issue 8.0.13, 1 July 2009

PARADISE
DATACOM

Paradise Datacom Ltd.
1 Wheaton Road
Witham, Essex, CM8 3UJ, England.
Tel: +44(0)1376 515636
Fax: +44(0)1376 533764

Paradise Datacom LLC
328 Innovation Blvd.
State College, PA 16803, U.S.A.
Tel: +1 814 238 3450
Fax: +1 814 238 3829

http://www.paradisedata.com

Drawing Number 207674 RA 5753

Table of Contents

Chapter 1 Introduction

This document specifies the remote control protocol for Vision Series satellite modems. It specifies the protocols used for IF, L-band and Redundancy Switch modems.

For this modem series, Paradise Datacom have introduced a new protocol called Paradise Universal Protocol (PUP). This protocol is designed to provide a human-readable, command-response method of controlling equipment that is independent of the underlying physical communications medium. As a result, PUP can be used over serial, Ethernet and other interfaces.

The primary objective of PUP is to provide a simple universal protocol for controlling Paradise equipment. A secondary objective is to allow third parties to replace any Paradise user interface with their own user interface, by providing the same level of control externally that is used internally on the equipment.

The modem also has the ability to function as a Simple Network Management Protocol (SNMP) agent. The agent responds to requests from SNMP network managers and also sends SNMP traps notifications to them. This document specifies an SNMP Management Information Base (MIB) that defines a set of manageable attribute Object Identifiers (OID) that can be used for monitor and control purposes. The modem actually requires two MIBs – one that is common to all Paradise equipment that specifies top-level OIDs and one that provides the modem OIDs; both MIBs can be downloaded from the modem via the 'Download MIB files' hyperlink at the foot of the web *Edit/Unit/M&C/SNMP* page.

1.1 Scope

This document defines the PUP protocol in terms of a command/response message format, the actual commands, error messages and examples.

1.2 Related Documents

1. Vision Series Installation and Operation Handbook

1.3 Definitions

M&C	Monitor and Control
MCP	Modem Configurable Property
MIB	Management Information Base
OID	Object Identifier
PCB	Printed Circuit Board
PUP	Paradise Universal Protocol
SAF	Software Activated Feature
SNMP	Simple Network Management System

Chapter 2 Remote Control

2.1 Serial and Ethernet Interfaces

The modem supports the following remote control interfaces:

- A built-in remote web user interface that provides web pages from the modem (using a web server) to a web browser. This is accessed by entering the IP address of the M&C Ethernet port of the modem into a web browser address bar (the web server being on well-known port 80).
- A serial interface (selectable between RS232 and RS485) that can be used to send and receive Paradise Universal Protocol (PUP) messages. This interface can be driven either through a generic user-entry application such as HyperTerminal (in the case of RS232) or through an application that uses a driver developed specifically to implement the PUP protocol. In the case of RS485, a message wrapper (defined in Section 2.3.3) is used to encapsulate PUP commands and responses, which are incorporated into the message payload.
- An Ethernet interface that can be used to send and receive PUP messages or Simple Network Management Protocol (SNMP) messages. This interface can be used in several ways.

  Firstly, a generic user-entry application such as Telnet can be used to automatically send or manually enter PUP commands.

  Secondly, PUP messages can be encapsulated directly into TCP packets. These must be sent to a specific TCP port that the modem listens on for PUP commands. Typically this will result in much faster communications than when using Telnet. This method is referred to as ‘direct encapsulation’ elsewhere in this document to differentiate it from the Telnet type of communications.

  Thirdly, SNMP v1, v2c or v3 can be used to communicate between an SNMP network manager and the SNMP agent on the modem.

2.2 Committing Changes

When PUP *set* commands are sent to the modem to change its operation, they are implemented immediately unless a *nocommit* parameter is appended to the end of the command. If commands are not implemented immediately, then they remain ‘pending’ until a PUP *commit* command is sent. Not committing changes until they have all been sent can significantly reduce the time taken to configure a modem.

2.3 RS485 Protocol

The Paradise RS485 protocol is compatible with all previous Paradise equipment in the sense that different equipment may coexist on the same M&C bus. The message format described below is identical to that used in previous equipment. However, this is used

purely to wrapper PUP commands that are specific to Vision Series satellite modems. RS485 messages that are not understood by other Paradise equipment will be ignored.

The Paradise RS485 protocol is a master/slave, command/response protocol. The Master device initiates all communications and Slave devices only ever send a message in response to a request from the master.

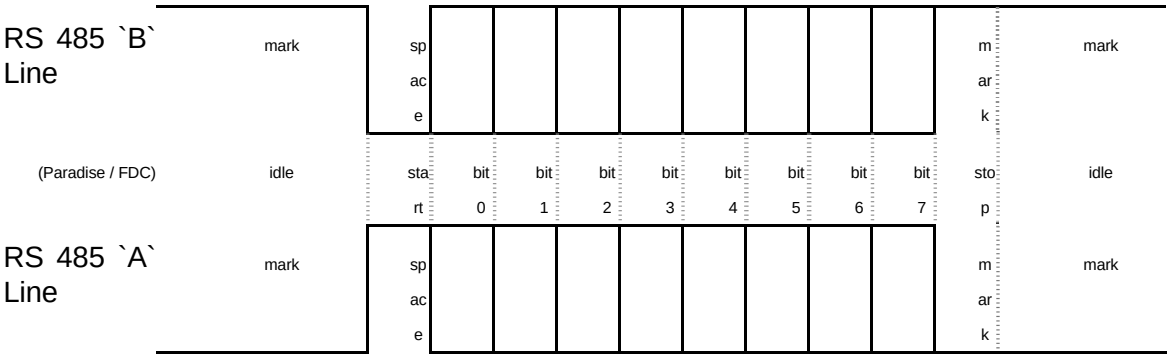
2.3.1 Character Format/Baud Rate

The character format and Baud rate are as follows: 8 bits, no parity, 1 stop bit, selectable from 300 to 19200 Baud.

2.3.2 Electrical Interface

The protocol requires a 4 wire plus ground interconnection between equipment. Signals are at RS485 levels (effectively a tri-statable RS422) with Tx & Rx data being transmitted as a series of async characters over a differential pair (labelled `A` and `B`). Lines referred to as Tx-A and Tx-B are outputs, and Rx-A and Rx-B are inputs. The Paradise convention (as specified by RS422) is that the `B` lines represent true data (i.e. the inactive state is `mark`, which is high), and the `A` lines inverse data (ie the inactive state is `space`, which is low).

An async character then appears as:



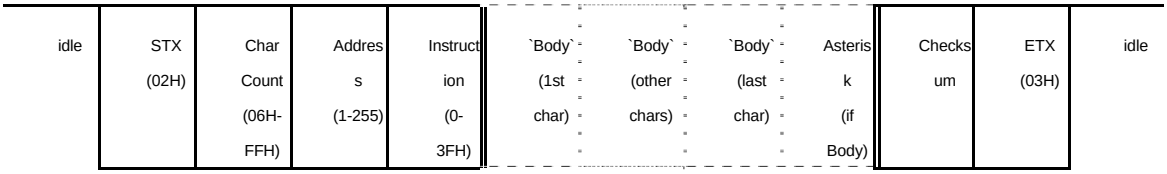
The differential pair from Master to Slaves is typically driven all the time by the Master device (i.e. never goes high impedance). The return pair (from Slaves to Master) is driven by a Slave device when sending a message. All devices hold their output drivers at a high impedance unless actually transmitting a message, to allow other Slave devices on the bus access to the `return pair`.

It is possible to operate a link to a single device using an RS232 interface instead of RS485. However as RS232 cannot go high impedance, only one Slave device can be on the bus otherwise there is permanent bus contention. Note that on RS232 systems, a `mark` (high) is defined as ` negative voltage and a space (low) is defined as a positive voltage. This means that a RS232 character will appear as the **RS485 `A` line** shown previously, except it will transition from <-3V to >+3V as opposed to 0V & 5V.

2.3.3 Message Structure

All messages are transmitted in a defined message format. The format is as follows:

The same format is used for message from Master to Slaves, and Slaves to Master. Messages from Master to Slaves carry the address of the destination Slave device, return messages from Slave to Master also carry the address of the Slave (i.e. the source of the message NOT the destination on the return, as all returned message are for the Master device).



STX: The fixed character 02H.

Char Count: The message length including STX and ETX characters (06H for zero `Body` length).

Address: Slave address, range 1-255. Zero is reserved for the `Global` address to which all devices respond.

Instruction: Range 0-3FH. Add 40H (64_{10}) to request a standard `ACK`, add 80H (128_{10}) to request an `extended ACK` to this message.

Body: From 0 to 248 characters (resulting in a maximum message length of 255 characters). The body always contains a PUP command as specified in Chapter 4.

Asterisk: An ASCII `*` character if there is a body (i.e. if the length of the body of the message <>0).

Checksum: The Modulo 256 sum of all the characters inclusive from the `Address` to the end of the `Body`, up to and including the asterisk.

ETX: The fixed character 03H.

The following instruction codes are supported with respect to Vision Series modems:

Message Name	Instruction Code	Description
Ping	63 (3FH)	This results in the command being echoed back by the addressed modem (assuming an ACK or extended ACK has been requested and it is not a broadcast command).
Write	15 (FH)	This is used to send any PUP command (typically a get or set command) as the message body. Any response must be retrieved using the Query command.
Query	14 (EH)	This returns a response (with Instruction Code 14) that is dependent on the last Write command. The body of the message will typically contain the response to the last PUP command. If the reponse exceeds 255 bytes, it will be split into multiple packets, each a maximum of 255 bytes.
Write & Query	9	This combines the Write & Query messages, so that a Write message is sent to the modem, which then responds with a Query response. Both messages have instruction code of 9.

Chapter 3 PUP Message Format

3.1 Command

A PUP command is any of the commands defined in Chapter 4. The command is passed from the initiating equipment to the target equipment.

Since the protocol is based on the concept of a 'terminal mode' where commands can, in the simplest scenario, be entered manually a line at a time, all commands must be terminated with carriage return/line feed (typically '\r\n' in most computer languages).

As an example, the following sets the Tx service to IDR (note that carriage return and line feed characters are not explicitly shown):

set TBBTxService IDR

When using Ethernet, RS485-formatted PUP commands can be sent directly to port 6701. Alternatively, PUP commands can be manually entered via a Telnet session using the user name *pup* with default password *TEST.* It is strongly recommended that the password is changed.

When using RS485, PUP commands should be encapsulated in RS485 Write commands and responses should be retrieved using RS485 Query commands (see Section 2.3.3 for more details).

3.2 Response

Every command elicits a response from the communicating equipment. This response consists of a command-specific value (as detailed in Chapter 3) and a termination character.

A response always terminates in a '$' character, unless using the 'direct encapsulation' method referred to in Section 2.1, which always terminates in a carriage return. If the command failed, the response is a '!' character followed by the error message and then the '$'.

In all cases, the terminating '$' tells the initiator that the modem is ready for the next command.

The target equipment issues a '$' when the initiating equipment first makes a connection, thereby indicating that it is ready to receive its first command.

3.3 Addressing Local and Remote Modems

CPUSerialMode, which controls the mode of operation of the M&C serial interface, has several addressing options including *Local, Remote* and *Forward*.

When in *Local* mode, the modem takes serial messages input locally and converts these to IP and sends them over the ESC channel.

Forward takes any IP M&C message addressed to port 6703 and forwards it over the ESC channel to the remote modem. Messages received over the ESC channel addressed to port 6703 from the remote modem are forwarded onto the IP M&C port.

Remote strips the payload out of IP messages that arrive over the ESC channel addressed to port 6703 and sends the data to the local serial M&C port with no changes (and must therefore be correctly formatted for RS485). Incoming M&C serial messages are returned in a similar way.

It is also possible to prefix any PUP command with *esc* in order to force the command to go over the ESC channel to the remote modem.

3.4 Optimising Command Bandwidth

Several features are available that help to minimize the bandwidth requirements for M&C.

Each Modem Configurable Property (MCP) has both a name and a number. The numbers can be used to replace the longer textual names with various PUP commands such as *set, get, getisrelevant, getrelevantoptions,* etc. For example, *get TBBTxTerrDataRate* can be replaced with *get 4.* Numbers are assigned to MCPs starting from 0 and in accordance with the order of MCP names returned by the *enumerate* command.

The *commit count* command returns a count of the number of times the modem configuration has changed. If this number is different to the last time it was fetched, then it indicates the configuration has changed and can be used to minimize the rate at which the modem is polled for configuration data. Volatile data (such as Eb/No) is not flagged via *commit count* command since they are potentially changing all the time and therefore these continue to need to be polled for on a regular basis.

Chapter 4 PUP Commands

4.1 Nomenclature

In the descriptions below, text shown between angle brackets (< >) should be substituted with the actual required values.

Section headers identify the actual name of each command. Commands and responses are shown in italics for clarity.

4.2 Command Overview

Two of the commands defined in this chapter, namely, the *get* and *set* commands will typically be used much more extensively than the rest. These operate on specific named M&C controls as defined in Chapter 5.

4.3 alarm

Description

This command is used to show status information on system alarms.

The command takes several parameters as follows:

Parameter 1	Parameter 2	Parameter 3	Action
show	*active*	*tx* *rx* *unit*	Returns list of all current active alarms of selected type
show	*all*		Returns status of all alarms
show	<*AlarmName*>		Returns the status of the selected alarm
suppress	<*AlarmName*>		Shows suppression state of selected alarm
suppress	<*AlarmName*>	*on* *off*	Sets selected alarm to suppressed state
path	*tx, rx*		Returns the time for which the selected path has been clear of alarms
clear	<*AlarmName*>		Sets alarm to inactive state

Response

The response format varies with the command options that are selected. Some examples are given below.

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!Unknown option	The modem did not recognise a parameter name.

Examples

Command:
alarm show active rx

Response:
RxDemodUnlockedAlarm – true, true, false, false, false, Fault

(where:
RxDemodUnlockedAlarm is the alarm name
true, true, false, false, false, Fault represents, respectively, the current state of the alarm, its persistence, user suppressed status, 'other' suppressed status, system suppressed status and severity. The persistence status is set to 1 when an alarm has occurred and it will stay set in a latched state even after the alarm has cleared until reset by using the *alarm clear all|name* command, when it will be reported as 0. Suppression refers to the ability of the user or system to suppress particular alarms when an alarm indication is not required. With the current Paradise local and remote user interfaces there is no way for the user to suppress alarms therefore the user suppression status can be ignored if using either of these interfaces. Severity indicates whether the alarm is a fault (1) or a warning (0). Note that this response format is used in several of the other command option responses.)

Command:
alarm path tx

Response:
OK for 20.9mins

4.4 board

Description

This command is used to read basic PCB information from the modem, including the build standard.

The command takes several parameters as follows:

Parameter 1	Parameter 2	Action
		Returns list of all currently fitted board types
<BoardTypeName>		Returns list of all attributes for selected board
<BoardTypeName>	*<AttributeName>*	Returns selected attribute value for given board
all		Returns the entire contents of the non-volatile storage. This includes board information as above and calibration data. The information is in XML format.

Response

The response format varies with the command options that are selected. Some examples are given below.

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
<BoardTypeName> not found	The modem did not recognise the board type or attribute name.

Examples

Command:
board

Response:
[ControlZone] [LVDS] [RIF] [TIF]

(where the names of fitted assemblies are shown in square brackets.)

Command:
board ControlZone

Response:
[ManufacturerID] [SerialNumber] [MotherboardSerialNumber] [PersistSAF] [MIH]

(where the names of manufacturing attributes are shown in square brackets.)

Command:
board ControlZone SerialNumber

Response:
10500445

Command:
board all

Response:

```
<P3000>
  <ControlZone>
    <ManufacturerID>Paradise Datacom</ManufacturerID>
    <SerialNumber>10500006</SerialNumber>
    <MotherboardSerialNumber>132AB034667</MotherboardSerialNumber>
    <ModelNumber>P3120</ModelNumber>
    <MacAddressMAndC>00:11:29:ff:ff:0a</MacAddressMAndC>
    <MacAddressTraffic>00:11:29:ff:ff:0b</MacAddressTraffic>
    <PersistSAF>165561827277229835983046236555365 3</PersistSAF>
    <LoStabCal>197</LoStabCal>
  </ControlZone>
  <dummy/>
  <LVDS/>
  <TIF>
    <TX_CAL_3000>F=70000000 P1=-20.00 A1=1677 P2=0.00 A2=2783</TX_CAL_3000>
    <MOD_CAL_2C00>F=70000000 S=1000000 I_DC=-10 Q_DC=-16 I_GAIN=0
Q_GAIN=0</MOD_CAL_2C00>
    <MOD_CAL_2C00>F=70000000 S=10000000 I_DC=-10 Q_DC=-15 I_GAIN=0
Q_GAIN=0</MOD_CAL_2C00>
    <MOD_CAL_2C00>F=140000000 S=1000000 I_DC=-10 Q_DC=-14 I_GAIN=0
Q_GAIN=0</MOD_CAL_2C00>
    <MOD_CAL_2C00>F=140000000 S=10000000 I_DC=-11 Q_DC=-13 I_GAIN=-1
Q_GAIN=0</MOD_CAL_2C00>
  </TIF>
  <RIF>
    <DEM_CAL_5C00>G=14.54</DEM_CAL_5C00>
  </RIF>
</P3000>
```


Note: Formatting has been added to the above for clarity.

4.5 commit

Description

This command is used to reconfigure the modem. It commits all pending MCP changes (i.e. those MCPs that have been modified using the *set* command) to the modem hardware. Use of the *set* command by itself has no impact on the modem. The command can also be used to find out how many times the modem configuration has been changed.

The command takes one parameter as follows:

Parameter	Action
count	This causes the modem to return the number of times the modem configuration has been changed. This can be used to minimize the rate at which the modem is polled for configuration information by detecting when the configuration has changed.

Response

None.

Error Messages

Intentionally blank.

4.6 default

Description

This command is used to set one or all MCPs back to their factory default settings.

The command takes one of two forms:

default all

(which sets all MCPs back to their factory default settings.)

default <MCPName>

(which sets the named MCP back to its factory default setting.)

Response

None.

Error Messages

Intentionally blank.

4.7 demod

Description

This command is used to fetch the data used to create the spectral and constellation web browser graphs.

The command takes one parameter as follows:

Parameter	Action
sym	Returns 512 pairs of data values. The first value is the offset from the current centre frequency and the second value in the signal level in dBm. All values are comma separated.
spect	Returns 1024 pairs of data values. These values represent the x and y co-ordinates of the constellation points. All values are comma separated.

Response

Intentionally blank.

Error Messages

Intentionally blank.

Example

Command:
demod spect

Response:
-1550293,-78,-1544189,-74,-1538086,-73,-1531982,-72, ……

Command:
demod sym

Response:
-59,58,-68,-60,59,-64,-62,-63,58,-63,-63,-62,64,-63,67,65,-65,67,-72,……..

4.8 enumerate

Description

This command is used to get the name of every MCP property supported by the modem software.

The command does not take any parameters.

Response

TBBTxService
TBBTxServiceStrict
TBBTxFlexFrmIDR
etc.

Error Messages

Intentionally blank.

4.9 esc

Description

This command can be used to prefix any other PUP command documented here. If a command is prefixed with esc then it is passed over the ESC channel and executed on the remote modem. Any response is transmitted back to the initiating modem. The ESC channel must be setup and functioning correctly. As the data rate of the ESC channel is considerably less than the main channel PUP commands executed remotely may take a noticeable time to respond. Also these commands will be affected by the round-trip delay over the satellite link.

If a command is issued that breaks the ESC link (i.e. changes the configuration of the link) no response will be forthcoming and no further esc commands can be issued.

To check the status of the link the parameter *linkstatus* can be used, the command will then return either *OK* if the ESC is operational or *Failed* if it is not.

Response

The response is the same as if the command had been executed locally.

Error Messages

Error Message	Description
!Unable to connect	The modem ESC channel is not established

Example

Command:
esc get GwyTxCarrier

Response:
On

4.10 framer

Description
This command calculates and displays the current percentage of the signal bandwidth that is occupied by the overhead channel.

The command takes one parameter as follows:

Parameter	Action
txoverhead	Returns the percentage of the Tx signal bandwidth that is occupied by the overhead channel
rxoverhead	Returns the percentage of the Rx signal bandwidth that is occupied by the overhead channel

Response

See the example below.

Error Messages

Intentionally blank.

Example

Command:
framer txoverhead

Response:
7%

4.11 get

Description

This command fetches the current value of an MCP. The MCPs supported by the modem are defined in Chapter 5.

The command takes one or more parameters separated by a space as follows:

Parameter	Action
<MCPName> [<MCPName>]	Returns the current values of the selected MCPs

Response

See the example below.

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!Unknown variable name. Please correct & resubmit.	The modem did not recognise the MCP name.
!Syntax Error.	The modem received a message it does not understand.

Example

Command:
get GwyTxCarrier

Response:
On

Command:
get GwyTxCarrier TIFTxIFFreq

Response:
On,81

4.12 getattrib

Description

This command allows the initiating equipment to request the minimum value, maximum value, units and step size associated with a particular MCP.

The command takes several parameters as follows:

Parameter 1	Parameter 2	Action
min	*<MCPName>*	Returns the minimum valid value for the selected MCP
max	*<MCPName>*	Returns the maximum valid value for the selected MCP
units	*<MCPName>*	Returns the units for the selected MCP
step	*<MCPName>*	Returns the smallest increment in size that the selected MCP can be changed by

Response

See the examples below.

Error Messages

Intentionally blank.

Examples

Command:
getattrib min RRSRxRSN

Response:
58

Command:
getattrib max RRSRxRSN

Response:
255

Command:
getattrib units RRSRxRSN

Response:
symbols

Command:
getattrib step RRSRxRSN

Response:
1

4.13 getcurrent

Description
This command returns a snapshot of the current configuration of the modem. It is similar to the *getcurrentconfig* command but does not compress the data and it returns only the actual current configuration (without alarm information). In addition, to make the data smaller, the name of each MCP is replaced by a number that uniquely identifies each MCP. The number abbreviations are explained in Section xx.

Note that the command returns only the differences from the factory default settings. The factory default setting is listed for each MCP in Section 5.

The command does not take any parameters.

Response

The command responds with a text string listing all MCPs that have changed from their factory default settings and gives their current values. MCP names are replaced with unique numbers to minimize the size of the response.

Error Messages

Intentionally blank.

Example

Command:
getcurrent

Response:
230=PEP
232=Off
238=TakeAway
245=193.25.15.1
247=193.251.150.116
246=255.255.255.0
257=Ignore
235=193.251.150.115
236=255.255.255.0
255=Ignore
90=On
201=0
172=K32x2
217=Turbo
92=Closed
96=10000000
204=QAM16
209=TPC
210=R14280_16320
219=144

518=0.95
87=Turbo
0=Closed
4=10000000
79=TPC
80=R14280_16320
88=144
89=-25
517=0.95
76=QAM16
222=IP
298=
299=
$

4.14 getcurrentconfig

Description
This command returns a snapshot of the current configuration of the modem plus alarm information in a compressed form.

The command does not take any parameters.

Response

The command responds with a uuencoded, gzip'd tar archive containing 4 files:

default.conf - Configuration memory containing the modems current configuration
tmp/alarmrx.conf - Active or latched Rx alarms as returned by the alarm command
tmp/alarmtx.conf - Active or latched Tx alarms as returned by the alarm command
tmp/alarmunit.conf - Active or latched Unit alarms as returned by the alarm command

Error Messages

Intentionally blank.

Example

Command:
getcurrentconfig

Response:

```
begin 644 conf.tar.gz
M'XL(``````"`^V2W6J#,!A`O>Y3B`]@$XT5H2NH^T&VL6+M`P2-16;,FL;6
M[NEGM]664==UK+)"SHV2G"\$3@1]Z>,<<UH6F=!C5J3*GP,@``.$%/#!U^_[
M/P0((<N`P+!KWS2`I:A`Z8!R(3!7584S)K[SCNU?*&+;GU=GJO^;_L;`LF7_
M3ON+_]5_`&7_+DA(BLM<G*W]#_I#8)O;_@"9:-,?6+)_)PPI2PC=U,]F:H$I
MN=+VGX0VZJDUPP41G[O^>!I.@S%G@L4LU]0ESLMZ.<+/Q%WAM:;V#XX0ZK,B
M&+M)PIL9"'2H0\?1';MMK'*#B9M3-Q;-5#`K&">M`S?SJ&K<IZ+%BTXZ^&ZU
MCBH?<YX1?N3LT//"RBO3E/!)]DH:&[3*P77HEDG&'NL0C7YO&I71.C(A?)G%
M.]O/V8(DA_3(\Z)3](=:]Z;^+2?SW=5UQWJ7A_V]QS+J*1*)1"*Y7-X`1+\J
```

```
%E``0````
`
end
```

4.15 gethelptext

Description
This command allows the initiating equipment to request the 'tooltip' Help text associated with a particular MCP.

The command takes one parameter as follows:

Parameter	Action
<MCPName>	Returns the Help text associated with the selected MCP

Response

See the example below.

Error Messages

Intentionally blank.

Example

Command:
gethelptext TBBTxService

Response:
Framing mode for the Tx path.

4.16 getisrelevant

Description

This command allows the initiating equipment to request the 'relevance' of a particular MCP.

Relevance is typically used to decide whether to 'gray out' or hide options that are not currently available to the user. An MCP may be irrelevant due to the hardware/software build standard of the modem not supporting the feature, or, because the modem is in a mode of operation where the MCP is not used (for example, all transmit properties are irrelevant when the transmit service is switched off).

The command takes one parameter as follows:

Parameter	Action
<MCPName>	Returns *true* if the selected MCP is relevant and *false* otherwise

Response

true or *false*

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!No such variable	The modem did not recognise the MCP name.

Example

Command:
getisrelevant TBBTxService

Response:
true

4.17 getisvalid

Description

This command allows the initiating equipment to request the 'validity' of a particular MCP.

An MCP is valid if its current value is within the range of values that allow correct system operation. This may be a subset of the overall set of values that an MCP can take, with the subset being determined by other operational settings. For example, a FEC rate of 0.667 is valid if the FEC mode is TCM but not when Viterbi is selected. Validity is typically used to identify configuration errors. Note that it differs from MCP relevance in that an MCP may be relevant but invalid and vice versa.

The command takes one parameter as follows:

Parameter	Action
<MCPName>	Returns *true* if the selected MCP is relevant and *false* otherwise

Response

true or *false*

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!Variable does not exist	The modem did not recognise the MCP name.

Example

Command:
getisvalid TBBTxService

Response:
true

4.18 getlabel

Description

This command allows the initiating equipment to request the predefined display label associated with a particular MCP.

This returns the display label that is shown alongside the current value of a particular MCP that is used to identify it to the user. It is typically used when building a user interface. The text that is returned is that which is used on the web user interface rather than the abbreviated form of this text that is used on the local user interface.

The command takes one parameter as follows:

Parameter	Action
<MCPName>	Returns the display label associated with the selected MCP

Response

See the example below.

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!Unknown variable name. Please correct & resubmit.	The modem did not recognise the MCP name.

Example

Command:
getlabel RBBRxClkMode

Response:
Rx-path clock source

4.19 getoptions

Description

This command allows the initiating equipment to request the options associated with a particular MCP (such as the list of FEC rates or modulation schemes supported by the modem).

This returns both the internal value of each option and the display text shown to the user. The internal values are those that are used with the *set* command to change system operation. This command is typically used when building a user interface. The text that is returned is that which is used on the web user interface rather than the abbreviated form of this text that is used on the local user interface.

The command takes one parameter as follows:

Parameter	Action
<MCPName>	Returns a list of option values and associated display labels for the selected MCP

Response

Returns a list of <*option value*> <*label string*> pairs. The first space character terminates the option value. The label string may contain spaces and is terminated by <cr><lf> (carriage return/line feed).

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!Variable name does not exist	The modem did not recognise the MCP name.

Example

Command:
getoptions RBBRxService

Response:
Off Off

Closed Closed network
MinOH Closed network plus ESC
IBSSMS IBS/SMS
IDRIDR
OM73 OM-73

(where the first word in each line is the option name and the remainder of each line is the display text, for example, *MinOH* is the value that *RBBRxService* must be set to in order to enable the Closed network plus ESC service.)

4.20 getreadonly

Description

This command allows the initiating equipment to determine if a particular MCP can be written. Some MCP's are designated read-only as they contain values that can dynamically change (such as RxEbNo) or are not directly set by the user (such as RxSymRate).

The command takes one parameter as follows:

Parameter	Action
<MCPName>	Returns *true* if the selected MCP is read-only and *false* otherwise

Response

true or *false*

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
Unknown variable name. Please correct & resubmit.	The modem did not recognise the MCP name.

Example

Command:
getreadonly TBBTxService

Response:
false

4.21 getrelevantoptions (abbreviation: gro)

Description

This command allows the initiating equipment to request only those options associated with a particular MCP that are currently relevant to system operation.

This returns a subset of the option information returned by the *getoptions* command. It is typically used when building a user interface to present only those options to a user that are currently relevant (i.e. selectable).

The command takes one parameter as follows:

Parameter	Action
<MCPName>	Returns a list of relevant option values and associated display labels for the selected MCP

Response

Returns a list of *<option value> <label string>* pairs. The first space character terminates the option value. The label string may contain spaces and is terminated by <cr><lf> (carriage return/line feed).

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!Variable name does not exist	The modem did not recognise the MCP name.

Example

Command:
getoptions RBBRxClkMode

Response:
Sat Satellite
Tx Tx Clock In
Int Internal
RxRef Receive reference

(where the first word in each line is the option name and the remainder of each line is the display text – in this example, no option information is returned for station clock because it is irrelevant, typically due to no clock source for station clock having been selected.)

4.22 gettype

Description

This command allows the initiating equipment to request the type associated with a particular MCP.

The returned value can be used to determine how to present the MCP to a user when building a user interface, for example, whether to display a drop-down box with a list of options or to display an edit box that takes a numeric value.

The command takes one parameter as follows:

Parameter	Action
<MCPName>	Returns the type of the selected MCP

Response

Returns a single value indicating the type of the MCP variable. This will be one of the following:

- *Range*
- *Group*
- *Text*
- *Float*
- *Bool*
- *DottedDecimal*
- *Alarm*

where:

- *Range* indicates the MCP is a numeric integer value (e.g. TBBTxTerrDataRate)
- *Group* indicates the MCP takes one of a set of specific values (e.g. TBBTxService)
- *Text* indicates the MCP is a text string (e.g. CPURUIPassword)
- *Float* indicates the MCP is a floating point value (e.g. RxFinalBER)
- *Bool* indicates the MCP is a Boolean variable (e.g. TFECTxSpectInv)
- *DottedDecimal* indicates the MCP is a IP address or subnet mask (e.g. CPURemConIPAddr)
- *Alarm* indicates the variable is a read-only text string representing an alarm description.

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!Unknown variable type	The modem did not recognise the MCP name.

Example

Command:
gettype RBBRxClkMode

Response:
Group

4.23 help

Description

This command returns a list of most but not all PUP commands.

Some commands function at an access control level (rather than command handler level) and will not appear on the list returned by the *help* command – use this manual as a definitive guide to what is supported. Other commands that are listed by the *help* command are **not** listed in this manual – this is because they are reserved for internal use by Paradise Datacom (note that use of these reserved commands may result in unpredictable system behaviour).

The command can optionally take one parameter as follows:

Parameter	Action
<PUPCommandName>	Returns usage information associated with the selected command (returns information on all commands if no parameter is supplied)

Response

See example below.

Error Messages

Intentionally blank.

Example

Command:
help gettype

Response:
gettype variable name
Returns the type of the given variable

Description

This command returns a list of all PUP commands.

The command can optionally take one parameter as follows:

Parameter	Action
<PUPCommandName>	Returns usage information associated with the selected command (returns information on all commands if no parameter is supplied)

Response

See example below.

Error Messages

Intentionally blank.

Example

Command:
help gettype

Response:
gettype variable name
Returns the type of the given variable

4.24 incontrol

Description

This command is a query that can be used to indicate whether the initiating equipment has control of the target equipment. Control refers to the ability to be able to change the modem configuration. Only one user can be in control of the modem at any one time. The rules governing modem control are specified by the MCP *CPURUIProtocol*.

This command does not take any parameters.

Response

true or *false.*

Error Messages

Intentionally blank.

Example

Command:
incontrol

Response:
false

4.25 lang

Description

This command is used to select the language used by the user interfaces. Note that all users and user interfaces are affected by any change in the language. Once changed, the new language will persist even after a power cycle. Note also, that this command should not be issued while the modem is on traffic, as it causes the software to reboot. Contact Customer Technical Support for an up-to-date list of the languages that are supported.

This command takes one parameter as follows:

Parameter	Action
en	Changes the modem user-interface language to English.
fr	Changes the modem user-interface language to French.
de	Changes the modem user-interface language to German.
es	Changes the modem user-interface language to Spanish.

Response

None, as the modem software has to restart for the change in language to be effective. This means that the current control session will be terminated.

Error Messages

None.

Example

Command:
lang fr

4.26 load

Description

This command is used to load a configuration memory into the modem's operational settings.

Configuration memories are used to store specific sets of operational settings for quick recall. The *load* command is used to recall previously stored configuration memories.

The command takes one parameter as follows:

Parameter	Action
<*ConfigurationMemoryName*>	Fetches the selected configuration memory and applies it to the modem hardware, replacing the current operational settings

Response

None.

Error Messages

Intentionally blank.

Example

Command:
load QPSKVitRate12

Response:
Intentionally blank.

4.27 log

Description

This command is used to display and clear the system log.

Parameter	Action
show	Lists all the entries currently in the log
clear	Deletes all the entries currently in the log
auto	Reserved for future use

Response

None.

Error Messages

Intentionally blank.

Example

Command:
log show

Response:
Apr 11 08:44:10 (none) user.info P300[123]: mcp.xml loaded OK
Apr 11 08:44:15 (none) user.info P300[123]: RxDemodUnlockedAlarm Raised
Apr 11 08:44:18 (none) user.info P300[123]: Not starting SNMP as variable RunSNMP is not set
Apr 11 08:45:32 (none) user.debug P300[118]: starting up pupclient server

---

4.28 login

Description

This command is used to log in to the modem software application. A brief description of the concepts involved is given below.

User Names and Passwords

There are two fixed user names, namely, *admin* and *user*. The *admin* user can view and change the modem configuration, while *user* can only view the modem settings. Only *admin* can change the two passwords associated with these two user names.

Only one *admin* user can be logged in to the modem at any time but multiple users can be logged in as *user* at the same time. With remote control users, there is always an explicit login process. With the local user interface, the login is implicit (when a key is pressed). The local user interface logs in as *admin* when in Giveaway mode and there is no remote *admin* user currently logged in, otherwise the local user interface logs in as *user*.

Giveaway Mode

In Giveaway mode, switching between local and remote control is controlled by an M&C control. The user at the local user interface sets this to *remote* when remote control is required. A user-settable timeout controls for how long any user is logged in for without any user entry activity – when user entry is detected then the user session is extended by the length of the timeout period.

When remote control is selected, control is passed to the first *admin* user that logs in. If an attempt is made to log in as *admin* when there is already an *admin* user logged in, then the login attempt will fail, thereby ensuring there can never be two users in control of the modem at the same time.

In order to allow a switch back to local control, when there is no *admin* user logged in, the local user interface can gain control at any time simply by issuing a command from the user interface (thereby causing an implicit logout as *user* and an implicit login as *admin*). The user can then change the M&C setting back to local control, thereby locking out remote *admin* users. The local user interface never times out when local

control is set and control can be ceded to a remote interface only by changing the M&C setting to select the remote control option. During the period between an *admin* user logging out and the local user interface issuing a command to gain control, no user is in control, giving the option of another *admin* login occurring on a remote interface.

Takeaway Mode

In Takeaway mode, the user at the local user interface or any *admin* user can control the modem at any time. Although technically only one interface is in control at any time, there is no concept of a control timeout and therefore different control requests are simply interleaved with each other. Because of this, Takeaway mode is best used in circumstances where there are clear operational procedures in place to avoid conflicts arising in relation to modem control.

The command takes a single parameter, namely, a password. (There is no concept of specific users within the P3000.) In the case of the P3000, the password is unencrypted (at least at the point at which it is transferred to the target equipment).

If unsuccessful, the initiating equipment may still successfully issue commands that do not change the target equipment configuration.

This command takes one parameter as follows:

Parameter 2	Action
<*Password*>	Attempts to log the user in to the modem software application as the given user with the given password

Please note that the need to provide a user name applies to the web user interface only – the underlying PUP protocol requires a login only for the admin user in order to take control of the modem, i.e. any PUP session has view-only permission by default.

Response

None.

Error Messages

Error messages that can be returned are listed below.

Error Message	Description
!You must enter a password to login.	An attempt was made to log in without providing a password.
!User is not logged in. Please re-enter password.	An attempt was made to log in using an invalid password.

Example

Command:
login admin myPassword

Response:
Intentionally blank.

4.29 logout

This command logs the user out of the modem software application.

Response

None.

Error Messages

Intentionally blank.

Example

Command:
logout

Response:
Intentionally blank.

4.30 monitor

Description

This command allows up to one month of time-based performance data to be fetched from the modem. Data is automatically stored from power up for each of the modem's performance web graphs (such as Eb/No, Rx power level, modem temperature, etc.). It is also possible to customize the list of parameters for which data is dynamically monitored by adding to or subtracting from the list (although this does not change the web graph pages themselves).

The command takes up to three parameter as follows:

Parameter 1	Parameter 2	Parameter 3	Action
list			Returns a list of the modem parameters that performance data is currently being measured and stored for
add	*<MCPName>*		Adds the given modem

			parameter to a list that the modem automatically monitors on a regular basis and stores measured values for for up to 31 days
remove	*<MCPName>*		Removes the given modem parameter from the list of monitored parameters
get	*minute* *hour* *day* *month*	*<MCPName>*	Retrieve the data of the specified duration for the given modem parameter

Response

See below.

Error Messages

Error messages that can be returned are as follows.

Error Message	Description
Cannot monitor variable <MCPName>	The modem did not recognise the name of the parameter to be monitored or the parameter is not of a type that changes value dynamically.
Cannot remove variable <MCPName>	The modem did not recognise the name of the parameter to be removed from the dynamic monitor function.
Time period must either be minute,hour,day or month	The time period entered with the *monitor get* command was not recognized.

Example

Command:
monitor get day RxPwrLevel

Response:
-27.596 -28.6227 -26.9937
-27.5996 -28.4998 -27.0093
-27.6045 -28.6392 -26.9914
-27.5997 -28.5098 -27.1
-27.6013 -28.5996 -26.7649
-27.6041 -28.6298 -26.8727
-27.5943 -28.5696 -26.8005

-27.6007 -28.7035 -26.8965
-27.594 -28.5687 -26.8033
-27.6003 -28.5827 -27.0089
-27.5922 -28.5728 -26.9884
-27.5947 -28.6123 -26.8969
-27.5968 -28.7311 -26.977
-27.5888 -28.5658 -27.0065
-27.5946 -28.6625 -26.9111
-27.595 -28.5545 -26.9189
-27.5879 -28.5847 -26.9439
-27.5941 -28.5487 -26.9593
-27.5882 -28.5759 -26.9423
-27.5889 -28.5484 -26.8109
-27.603 -28.5149 -26.9706
-27.5985 -28.1791 -27.1802
-27.6001 -28.4018 -27.1105
-27.596 -28.1443 -27.0443
$

4.31 oneforone

This command is used to control the modem when it is being used in a one-for-one redundancy configuration. Note that this command cannot be used to switch a modem from standby to on-traffic.

Parameter	Action
switch	Switches the modem from on-traffic (*main*) to being the standby (*standby*) modem in a 1-for-1 redundancy pair
status	Returns the current status of the modem

Response

See the example below.

Error Messages

Intentionally blank.

Example

Command:
oneforone status

Response:
main

4.32 ping

Description

This command is used to send an ICMP *ping* command from the modem to a given IP address.

This command takes one parameter as follows:

Parameter	Action
<IPAddress>	Issues an ICMP *ping* command from the modem to the given IP address and returns the result

Response

See the example below.

Error Messages

Error messages will be those generated by the standard ICMP *ping* command.

Example

Command:
ping 10.0.20.12

Response:
PING 10.0.20.12 (10.0.20.12) : 56 data bytes
--- 10.0.20.12 ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max/mdev = 0.216/0.231/0.240/0.018 ms

4.33 prbs

Description

This command is used to control the built-in PRBS Bit Error Rate generator and fetch the results.

Parameter	Action
reset	Clears the bit error count and sets the elapsed test time to zero
inject	Injects one bit error into the transmitted stream
sync	Returns the current sync

	status (i.e. *OK* or *NO SYNC* - indicating whether synchronisation with the test pattern is being maintained)
ber	Returns the bit error rate (this equals the result of dividing the number of errors by the number of bits received – see the next two parameters)
errors	Returns the number of errors since the test started
bits	Returns the number of bits received since the last synchronisation with the test pattern occurred
loss	Returns the number of times the sync has been lost since the test started
time	Returns the elapsed time since the start of the test

Response

Intentionally blank.

Error Messages

Intentionally blank.

Example

Command:
prbs sync

Response:
NO SYNC

Command:
prbs ber

Response:
<3.1E-08

Command:
prbs time

Response:
29.4mins

4.34 reconfig

Description

This command is used to query the IP settings of the modem. Its primary use is when the modem is configured to obtain its IP address using DHCP.

Parameter	Action
addr	Returns the modems currently assigned IP address
mask	Returns the modems currently assigned netmask
gway	Returns the modems currently assigned default gateway address

Response

Each of the above parameters will return an IP address in the form a.b.c.d.

Error Messages

If the modem does not currently have an assigned address the command will respond with an empty string.

If the modem has an assigned address but no assigned default gateway the *gway* option will respond with 0.0.0.0.

Example

Command:
reconfig addr

Response:
10.0.70.1

4.35 reset

Description

This command is used to reboot the modem.

This command does not take any parameters.

Response

There is no response since the target equipment will close down the software and restart.

Error Messages

Intentionally blank.

Example

Command:
reset

Response:
Intentionally blank.

4.36 save

Description

This command is used to save the current operational modem settings to a named configuration memory.

This command takes one parameter as follows:

Parameter	Action
<*ConfigurationMemoryName*>	Stores the current operational settings into the selected configuration memory

Response

The message '*File saved OK.'* will be displayed if the save was successful.

Error Messages

Intentionally blank.

Example

Command:
save memory1

Response:
Intentionally blank.

4.37 sessionid

Description

This command is a query that returns the unique session identifier associated with the current user login session. It is typically used in conjunction with the *sessions* command.

This command does not take any parameters.

Response

The unique login session identifier for the user issuing this command. These are random numbers that are generated by the modem software to associate different requests from a single user over time in order to provide user login session control.

Error Messages

Intentionally blank.

Example

Command:
sessionid

Response:
274079072

4.38 sessions

Description

This command is a query that identifies which users are currently logged on.

This command does not take any parameters.

Response

A list of all the users that are currently logged on. Each user session is identified by a unique number as shown in the example. The local user interface is identified as *LUI*.

Error Messages

Intentionally blank.

Example

Command:
sessions

Response:

ID	*Logged In*	*Expires*
*LUI**	*yes*	*13:11:22 - 24/4/2004*
274079072	*yes*	*13:13:50 - 24/4/2004*

There are 2 current sessions in total

4.39 set

Description

The set command is used to set a configurable property on the target equipment. The new setting is applied immediately to the target equipment unless the optional parameter *nocommit* is appended. The new setting will then remain 'pending' until a *commit* command is issued that applies the pending changes to the modem hardware.

Chapter 5 defines the modem configurable properties.

This command takes two parameters as follows:

Parameter 1	Parameter 2	Parameter 3	Action
<MCPName>	*<Value>*	nocommit	Sets the current value of the selected MCP to the given value

Response

None.

Error Messages

Intentionally blank.

Example

Command:
set TBBTxService Closed

Response:
Intentionally blank.

Command:
set TBBTxTerrDataRate 2048000 nocommit

Response:
Intentionally blank.

4.40 snmp

Description

This command is used to enable the SNMP agent in the modem. Note that there are various SNMP configuration properties (listed in Chapter 5) that can be controlled using the *set* command. Note that the configuration property *RunSNMP* must be set to *true* before attempting to start SNMP.

This command takes one parameter as follows:

Parameter	Action
start	Starts the SNMP agent in the modem
stop	Reserved for future use
reconfig	Reserved for future use

Response

None.

Error Messages

Intentionally blank.

Example

Command:
snmp start

Response:
Intentionally blank.

4.41 switch

This command is used to get the status of, and control, a one-for-n redundancy switch. A one-for-n system can contain up to 16 modems. The value of n in the following commands is an integer between 1 and 16.

Parameter 1	Parameter 2	Action
status	*<n>*	Returns the status of traffic modem n
status	*All*	Returns the status of all the modems
backup	*<n>*	Forces modem n to be backed-up by placing it into standby
mask	*<n>*	Masks the status of traffic modem n to allow it to be taken offline without causing a changeover
poll		Forces the switch to poll all traffic modems for their current configurations, which are stored by the switch and used in the event of having to back up one of the modems (note that configurations are polled in the background at all times anyway, no less than once per hour)
unmask	*<n>*	Removes the mask set up above
reset		Sets the switch to standby mode

Response

The response can be any of the following:

Response	Meaning
Masked – BackingUp	The modem is being backed up and is also masked (meaning it can be removed for maintenance without reporting its status as *CommsFailure*)
Masked	The modem is masked and cannot cause a switchover to occur
NotFitted	No modem is fitted to channel n on the switch
BackingUp – Standby	The modem is being backed up due to being placed into the standby state
BackingUp – Failed	The modem is being backed up due to a fault occurring in the modem
Failed	The modem has failed but is not being backed up by the switch
Standby	The modem is in a standby state and is not passing traffic
CommsFailure	No response was received by the switch from modem n when it was polled
OK	The modem is not indicating any fault

Error Messages

Intentionally blank.

Example

Command:
switch status 1

Response:
OK

4.42 terr

Description

This command is used to perform real-time control the modems terrestrial interface.

This command can take one parameter as follows:

Parameter	Action
centre	Manually recentre the receive path Doppler buffer

Response

None.

Error Messages

Intentionally blank.

Example

Command:
terr centre

Response:
Intentionally blank

4.43 time

Description

This command is used to retrieve or set the time and date on the modem.

This command takes two parameters as follows:

Parameter 1 (Time)	Parameter 2 (Date)	Action
<HH:MM:SS>	*<DD/MM/YYYY>*	When parameters are provided, sets the modem time and date to the given values, otherwise returns the current time and date in the modem

Response

Returns the current time and date of the modem in the format *HH:MM:SS DD/MM/YYYY*.

Error Messages

It should be noted that changing the modem time may cause a *Giveaway* timeout, resulting in the current control session being terminated.

Example

Command:
time

Response:
11:03:10 25/11/2004

Command:
time 10:00:00 26/02/2005

Response:
10:00:00 26/02/2005

Chapter 5 Modem Configurable Properties

This chapter describes the modem configurable properties (MCPs). These have been collated into sections that approximate to the modem menu structure.

The **name** of each MCP appears in the section heading, e.g. TBBTxTerrDataRate. This is the named that is used when accessing the MCP in a PUP command, for example, 'set TBBTxTerrDataRate 10000000'.

The **display label** is the text that appears on the web user interface alongside the MCP's current value (an abbreviated version of this text string may be displayed on the local user interface, in which case this alternative text is also defined in this document).

Option values indicate the actual values that the MCP can be set to, in cases where the MCP can be set to one of a number of distinct values. The option descriptions are the text strings used to describe these options as displayed on the web user interface.

The **default value** represents the factory default setting for each MCP.

The **description** field is the text that is displayed as part of the built-in Help feature for both the web and local user interfaces and provides a fuller description of each MCP.

Where an MCP can take a value within a numeric range, then the **minimum** and **maximum** values are defined, along with **units** and a **step size** that defines the smallest increment that can be made to the value.

If there are no options and no numeric range defined for an MCP then it represents a property that is set by the modem rather than the user and therefore can only be read.

Note that the PUP commands defined in Chapter 3 allow all of the above information to be retrieved dynamically from the modem.

Finally, **display rules** are defined that describe under what conditions the MCP should be displayed to the user. When the stated condition is true then the MCP (or MCP option) is relevant and when false then the MCP (or MCP option) should be grayed out or hidden.

5.1 Edit-Tx-Baseband

5.1.1 TBBTxTerrDataRate

Display label: 'Data rate'
Default: 1000000
Units: bps
Minimum value: 50000
Maximum value: 98000000
Step size: 1

Description: Terrestrial bit rate for single stream case. For multiple streams this is not used as each physical data interface port has its own data rate control.

5.1.2 TxSymRate

Display label: 'Symbol rate'
Default: 100000
Units: sps
Minimum value: 100000
Maximum value: 45000000
Step size: 1

Description: Transmit data rate in symbols.

5.1.3 TxTransportMode

Display label: 'Transport mode'

Options:	**Value**	**Description**
	GenPack	Generic Packetised
	GenCon	Generic Continuous
	Transport	Transport

Default: Transport

Description: This selects the stream type within DVB-S2. Currently only *Transport* mode is supported.

5.1.4 TxBBISIMode

Display label: 'Multiple streams'
Default:

Description:

5.1.5 TxBBISI

Display label: 'Stream ident.'
Default: 0
Units:
Minimum value: 0
Maximum value: 255
Step size: 1

Description:

5.1.6 TBBTxScr

Display label: 'Scrambler'

Options:	**Value**	**Description**
	On	On
	Off	Off

Default: On

Description: Controls whether scrambling is applied. This is non-optional in DVB-S2.

5.1.7 TxChanMode

Display label: 'Maintain rate'

Options:	**Value**	**Description**
	Data	Data rate
	Symbol	Symbol rate

Default: Data rate

Description: This option allows either the modulated symbol rate or terrestrial data rate to be kept constant when modifying modulation and coding parameters.

5.2 Edit-Tx-Modulation

5.2.1 TModTxMod

Display label: 'Modulation'

Options:	**Value**	**Description**
	PSK4	QPSK
	PSK8	8PSK
	APSK16	16APSK
	APSK32	32APSK
	QAM16	16QAM

Default: QPSK

Description: Trade-off between bandwidth efficiency (most efficient is 16APSK) and resilience to noise (most resilient is QPSK). 32APSK is reserved for future use.

5.2.2 TxDVBMode

Display label: 'DVB mode'

Options:	**Value**	**Description**
	DVBS	DVB-S/DSNG
	DVBS2	DVB-S2
	Off	Off

Default: DVB-S/DSNG

Description: Controls DVB mode selection.

5.2.3 TxPLPilot

Display label: 'Pilot tones'

Default: Off

Description: Pilot tones are an optional part of DVB-S2. They provide an unmodulated tone at regular intervals in the transmitted data that can help receivers to lock and stay in lock particularly when using higher order modulation schemes in noisy environments. They add an overhead of around 2.5% to the transmitted data.

5.2.4 TxPLSSig

Display label: 'Scrambler seed'
Default: 0
Units:
Minimum value: 0
Maximum value: 262141
Step size: 1

Description: This sets the DVB-S2 Physical Layer scrambler signature. This is used in scrambling the contents of the physical layer frames (other than the header) for improved energy dispersal, reducing interference between different signals. Scrambling sequences are constructed by combining the output of two generator polynomials into a complex sequence known as a ‘Gold’ code. Setting this to 0 avoids both having to set a value at the receiver and any unwanted synchronization delay.

5.2.5 TxDVBS2Mode

Display label: 'DVB-S2 mode'

Options:	**Value**	**Description**
	CCM	CCM
	VCM	VCM

Default: CCM

Description: Controls DVB-S2 mode selection.

5.3 Edit-Tx-FEC

5.3.1 TxFECFrmSize

Display label: 'FEC frame size'

Options:	**Value**	**Description**
	Short	Short
	Long	Normal

Default: Short

Description: Controls the DVB-S2 FEC frame size.

5.3.2 TFECTxFECRate

Display label: 'FEC code rate'

Options:	**Value**	**Description**
	R1_4	1/4
	R1_3	1/3
	R2_5	2/5
	R1_2	1/2
	R3_5	3/5
	R2_3	2/3
	R3_4	3/4
	R4_5	4/5
	R5_6	5/6
	R7_8	7/8
	R8_9	8/9
	R9_10	9/10

Default: 1/2

Description: Sets the FEC code rate i.e. the number of bits input to the Forward Error Correction encoder relative to the number output.

5.4 Edit-Tx-Carrier

5.4.1 TIFTxIFFreq

Display label: 'IF carrier frequency'
(On front panel: 'IF carrier freq')
Default: 70.0000
Units: MHz
Minimum value: 50.0000
Maximum value: 180.0000
Step size: 0.0001

Description: Tx IF frequency used to transmit to satellite.

5.4.2 TIFTxIFPwr

Display label: 'IF output power'
Default: -20.0
Units: dBm
Minimum value: -25.0
Maximum value: 0
Step size: 0.1

Description: Tx IF output power level.

5.4.3 GwyTxCarrier

Display label: 'Carrier mode'

Options:	**Value**	**Description**
	Off	Off
	On	On
	MuteOnBreak	On (mute if power break)
	Rx	Rx enabled

Default: Off

Description: Tx carrier control. Mute on power break requires confirmation of transmission following a power outage. When Rx enabled, then the carrier will be switched off whenever an Rx traffic fault is present in the

modem.

5.4.4 TFECTxSpectInv

Display label: 'Spectral inversion'
Default: Off

Description: Controls whether the I and Q channel outputs are swapped. This is sometimes required for correct interoperation with other manufacturer's equipment.

5.4.5 TModTxRollOff

Display label: 'Filter roll-off'

Options:	**Value**	**Description**
	20	20%
	25	25%
	35	35%

Default: 35%

Description: Controls the gradient on the sloping shoulders of the transmit spectral mask and therefore can be used to control occupied bandwidth and channel spacing.

5.5 Edit-Rx-Baseband

5.5.1 RBBRxTerrDataRate

Display label: 'Data rate'
Default: 1000000
Units: bps
Minimum value: 50000
Maximum value: 98000000
Step size: 1

Description: Terrestrial bit rate for single stream case. For multiple streams this is not used as each physical data interface port has its own data rate control.

5.5.2 RxSymRate

Display label: 'Symbol rate'
Default: 100000
Units: sps
Minimum value: 100000
Maximum value: 40000000
Step size: 1

Description: Receive data rate in symbols.

5.5.3 RxTransportMode

Display label: 'Transport mode'

Options:	**Value**	**Description**
	GenPack	Generic Packetised
	GenCon	Generic Continuous
	Transport	Transport

Default: Transport

Description: This selects the stream type within DVB-S2. Currently only Transport mode is supported.

5.5.4 RxBBISIMode

Display label: 'Multiple streams'
Default:

Description:

5.5.5 RxBBISI

Display label: 'Stream ident.'
Default: 0
Units:
Minimum value: 0
Maximum value: 255
Step size: 1

Description:

5.5.6 RxChanMode

Display label: 'Maintain rate'

Options:	**Value**	**Description**
	Data	Data rate
	Symbol	Symbol rate

Default: Data Rate

Description: This option allows either the modulated symbol rate or terrestrial data rate to be kept constant when modifying modulation and coding parameters.

5.5.7 RxMPEGFilter

Display label: 'MPEG PID filtering'
Default:

Description: Allows filtering of PIDs.

5.5.8 RxMPEGPID

Display label: 'PID 1'

Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.5.9 RBBRxScr

Display label: 'Scrambler'

Options:	**Value**	**Description**
	On	On
	Off	Off

Default: On

Description: Controls whether scrambling is applied. This is non-optional in DVB-S2.

5.5.10 RxMPEGPID1

Display label: 'PID 2'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.5.11 RxMPEGPID2

Display label: 'PID 3'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.5.12 RxMPEGPID3

Display label: 'PID 4'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.6 Edit-Rx-Demodulation

5.6.1 RDemRxMod

Display label: 'Modulation'

Options:	**Value**	**Description**
	PSK4	QPSK
	PSK8	8PSK
	APSK16	16APSK
	APSK32	32APSK
	QAM16	16QAM

Default: QPSK

Description: Trade-off between bandwidth efficiency (most efficient is 16APSK) and resilience to noise (most resilient is QPSK). 32APSK is reserved for future use.

5.6.2 RxDVBMode

Display label: 'DVB mode'

Options:	**Value**	**Description**
	DVBS	DVB-S/DSNG
	DVBS2	DVB-S2
	Off	Off

Default: DVB-S/DSNG

Description: Controls DVB mode selection.

5.6.3 RxPLPilot

Display label: 'Pilot tones'

Default: Off

Description: Pilot tones are an optional part of DVB-S2. They provide an unmodulated tone at regular intervals in the transmitted data that can help receivers to lock and stay in lock particularly when using higher order modulation schemes in noisy environments. They add an overhead of around 2.5% to the transmitted data.

5.6.4 RxPLSSig

Display label: 'Scrambler seed'
Default: 0
Units:
Minimum value: 0
Maximum value: 262141
Step size: 1

Description: This sets the DVB-S2 Physical Layer scrambler signature. This is used in scrambling the contents of the physical layer frames (other than the header) for improved energy dispersal, reducing interference between different signals. Scrambling sequences are constructed by combining the output of two generator polynomials into a complex sequence known as a ‘Gold’ code. Setting this to 0 avoids both having to set a value at the receiver and any unwanted synchronization delay.

5.6.5 RDemRxSweep

Display label: 'Sweep mode'

Options:	**Value**	**Description**
	Normal	Normal (+/-32kHz)
	Other	Other

Default: Normal (+/-32kHz)

Description: Controls the Rx signal sweep configuration.

5.6.6 RDemRxSweepWidth

Display label: 'Sweep width(+/-)'
Default: 32
Units: kHz
Minimum value: 1
Maximum value: 250
Step size: 1

Description: Controls the Rx signal sweep width - this is a +/- setting i.e. the total width is twice the value that is entered.

5.6.7 RxDVBS2Mode

Display label: 'DVB-S2 mode'

Options:	**Value**	**Description**
	CCM	CCM
	VCM	VCM

Default: CCM

Description: Controls DVB-S2 mode selection.

5.7 Edit-Rx-FEC

5.7.1 RxFECFrmSize

Display label: 'FEC frame size'

Options:	**Value**	**Description**
	Short	Short
	Long	Normal

Default: Short

Description: Controls the FEC frame size.

5.7.2 RFECRxFECRate

Display label: 'FEC code rate'

Options:	**Value**	**Description**
	R1_4	1/4
	R1_3	1/3
	R2_5	2/5
	R1_2	1/2
	R3_5	3/5
	R2_3	2/3
	R3_4	3/4
	R4_5	4/5
	R5_6	5/6
	R7_8	7/8
	R8_9	8/9
	R9_10	9/10

Default: 1/2

Description: Sets the FEC code rate i.e. the number of bits input to the Forward Error Correction encoder relative to the number output.

5.8 Edit-Rx-Carrier

5.8.1 RFECRxSpectInv

Display label: 'Spectral inversion'
Default: Off

Description: Controls whether the I and Q channel outputs are swapped. This is sometimes required for correct interoperation with other manufacturer's equipment.

5.8.2 RIFRxIFFreq

Display label: 'IF carrier frequency'
(On front panel: 'IF carrier freq')
Default: 70.0000
Units: MHz
Minimum value: 50.0000
Maximum value: 180.0000
Step size: 0.0001

Description: Rx IF frequency used to receive from satellite.

5.8.3 RDemRxRollOff

Display label: 'Filter roll-off'

Options:	**Value**	**Description**
	20	20%
	25	25%
	35	35%

Default: 35%

Description: Controls the gradient on the sloping shoulders of the expected receive spectral mask and therefore can be used to control occupied bandwidth and channel spacing.

5.9 Edit-Rx-RxEqTx

5.9.1 CPURxEqTx

Display label: 'Rx values track Tx'
Default: Off

Description: Controls whether specific Rx configuration parameters mirror the equivalent Tx parameters.

5.10 Edit-Unit-Identity

5.10.1 CPUModemID

Display label: 'Modem identifier'
Default: Paradise Vision modem

Description: User-assigned field typically the unique modem name, number or location.

5.11 Edit-Unit-Interface

5.11.1 CPUBxIFImpedance

Display label: 'IF port impedance'

Options:	**Value**	**Description**
	50	50 Ohms
	75	75 Ohms
Default:	50 Ohms	

Description: Sets the IF port impedance.

5.11.2 BridgeMode

Display label: 'Ethernet traffic mode'

Options:	**Value**	**Description**
	Bridge	Bridge mode for point-to-point IP
	Broute	Brouting mode for point-to-multipoint IP
	PEP	TCP acceleration mode
	Hub	Hub
	Leaf	Remote
	HC	Header Compression
	Mesh	Mesh
	PEP_HC	TCP acceleration + Header Compression
Default:	Bridge mode for point-to-point IP	

Description: Select Bridge for ordinary ethernet over satellite bridging, i.e. point-to-point systems. Select Brouting for all point-to-multipoint or unidirectional IP systems. Select TCP acceleration for bridging of non-TCP packets and acceleration of TCP packets.

5.11.3 BridgeFiltering

Display label: 'Bridge filtering'
Default: Off

Description: Controls whether the Ethernet bridge filters out all traffic other than for the local subnet.

5.11.4 BridgeRemCon

Display label: 'Bridge M&C'
Default: On

Description: Include M&C IP interface in bridge. Deselect to keep M&C & Traffic seperate.

5.11.5 CPUTrafficIPAddr

Display label: 'Traffic port Ethernet IP address'
(On front panel: 'Traffic port IP address')
Default: 0.0.0.0

Description: Sets the IP address for the traffic interface.

5.11.6 CPUTrafficIPNetmask

Display label: 'Traffic port IP subnet mask'
(On front panel: 'Traffic port IP netmask')
Default: 255.255.255.255

Description: Sets the traffic port IP subnet mask.

5.11.7 CPUTrafficIPGateway

Display label: 'Traffic port Ethernet IP gateway'
(On front panel: 'Traffic port IP gateway')
Default: 0.0.0.0

Description: Sets the IP gateway for the traffic interface.

5.11.8 TxIntfcType

Display label: 'Terrestrial interface'
Options: Value Description

	ASI	ASI
	IP	IP

Default: ASI

Description: Selects the terrestrial interface for the transmit path.

5.11.9 ASIP1Mode

Display label: 'Port 1 mode'

Options:	**Value**	**Description**
	Off	Off
	Tx	In
	Rx	Out

Default: Off

Description: Sets the particular Quad ASI port to input or output.

5.11.10 ASIP2Mode

Display label: 'Port 2 mode'

Options:	**Value**	**Description**
	Off	Off
	Tx	In
	Rx	Out

Default: Off

Description: Sets the particular Quad ASI port to input or output.

5.11.11 ASIP3Mode

Display label: 'Port 3 mode'

Options:	**Value**	**Description**
	Off	Off
	Tx	In
	Rx	Out

Default: Off

Description: Sets the particular Quad ASI port to input or output.

5.11.12 ASIP4Mode

Display label: 'Port 4 mode'

Options:	**Value**	**Description**
	Off	Off
	Tx	In
	Rx	Out

Default: Off

Description: Sets the particular Quad ASI port to input or output.

5.11.13 ASIP1BitRate

Display label: 'Port 1 data rate'
Default: 0
Units: bps
Minimum value: 0
Maximum value: 98000000
Step size: 1

Description: Sets the particular Quad ASI port data rate. Used in multistreaming modes only.

5.11.14 ASIP2BitRate

Display label: 'Port 2 data rate'
Default: 0
Units: bps
Minimum value: 0
Maximum value: 98000000
Step size: 1

Description: Sets the particular Quad ASI port data rate. Used in multistreaming modes only.

5.11.15 ASIP3BitRate

Display label: 'Port 3 data rate'
Default: 0
Units: bps

Minimum value: 0
Maximum value: 98000000
Step size: 1

Description: Sets the particular Quad ASI port data rate. Used in multistreaming modes only.

5.11.16 ASIP4BitRate

Display label: 'Port 4 data rate'
Default: 0
Units: bps
Minimum value: 0
Maximum value: 98000000
Step size: 1

Description: Sets the particular Quad ASI port data rate. Used in multistreaming modes only.

5.11.17 RxIntfcType

Display label: 'Terrestrial interface'

Options:	**Value**	**Description**
	ASI	ASI
	IP	IP

Default: ASI

Description: Selects the terrestrial interface for the receive path.

5.11.18 CPUQoSScheme

Display label: 'Weighted QoS'
Default: Off

Description: Selects Fair Weighted Queueing QoS. When this is switched off then strict priority queueing is used.

5.11.19 CPUEnableVLAN

Display label: 'Enable VLAN filtering'

(On front panel: 'VLAN filtering')
Default: Off

Description: Enables VLAN filtering.

5.11.20 CPUVLANID

Display label: 'VLAN ID'
Default: 0
Units:
Minimum value: 0
Maximum value: 4094
Step size: 1

Description: Select ID to be used with VLAN filtering.

5.11.21 CPUWebProxy

Display label: 'Web acceleration'
Default: Off

Description: Enables acceleration of HTTP requests.

5.11.22 CPUDNSAddr

Display label: 'DNS IP addr'
Default: 0.0.0.0

Description: Sets the IP address of the DNS server.

5.11.23 EncapsulationType

Display label: 'IP encapsulation type'

Options:	**Value**	**Description**
	ULE	ULE
	MPE	MPE
	PXE	PXE
	TSIP	MPEG over IP

Default: ULE

Description: Sets the protocol used to encapsulate/decapsulate IP packets/Ethernet frames into/from 188-byte MPEG2 transport stream packets. PXE is a Paradise proprietary scheme with lower overheads. MPEG over IP is used when MPEG2 packets are provided to the modem encapsulated inside IP packets - in this case the IP packet wrapper is discarded for more efficient transmission.

5.11.24 TranscodeDestAddr

Display label: 'Destination address'
Default: 0.0.0.0

Description: Destination address for MPEG2 packets when encapsulated into new IP packet. Used on Rx only.

5.11.25 TranscodeDestPort

Display label: 'Destination port'
Default: 0
Units:
Minimum value: 0
Maximum value: 65535
Step size: 1

Description: Destination port for MPEG2 packets when encapsulated into new IP packet. Used on Rx only.

5.11.26 TranscodeLocalAddr

Display label: 'Local multicast address'
Default: 0.0.0.0

Description: Local multicast address to listen on for IP packets to be sent over satellite. Not used on Rx side.

5.11.27 TranscodeLocalPort

Display label: 'Local port'
Default: 0
Units:

Minimum value: 0
Maximum value: 65535
Step size: 1

Description: Local multicast port number to listen on for IP packets to be sent over satellite. Not used on Rx side.

5.11.28 TranscodeType

Display label: 'MPEG over IP type'

Options:	**Value**	**Description**
	UDP	UDP/TS
	RTP	UDP/RTP/TS

Default: UDP/TS

Description: Indicates whether IP packets will contain just UDP packets with Transport Stream packets, or, UDP, RTP and Transport Stream packets.

5.11.29 IPMode

Display label: 'IP traffic mode'
(On front panel: 'IP mode')

Options:	**Value**	**Description**
	Bridge	Bridge mode
	Routing	Routing mode

Default: Bridge mode

Description: Indicates how, and at what level, IP traffic is forwarded.

5.11.30 HeaderCompression

Display label: 'Header compression'

Options:	**Value**	**Description**
	On	Header compression
	Off	No header compression

Default: No header compression

Description: Enables Robust Header Compression (RFC 3095).

5.11.31 CPUSatIPAddr

Display label: 'Satellite port IP address'
Default: 0.0.0.0

Description: Sets the IP traffic address for the satellite interface when the modem is in routing mode.

5.11.32 CPUSatIPNetmask

Display label: 'Satellite port IP netmask'
Default: 255.255.255.255

Description: Sets the IP traffic subnet mask for the satellite interface when the modem is in routing mode.

5.11.33 CPUSatIPGateway

Display label: 'Satellite port IP gateway'
Default: 0.0.0.0

Description: Sets the IP traffic gateway for the satellite interface when the modem is in routing mode.

5.11.34 UseRIPEnDefCfg

Display label: 'Enable default RIP configuration'

Options:	**Value**	**Description**
	No	Disabled RIP
	Yes	Use RIP enabled default

Default: Disabled RIP

Description: In routing mode, enables the RIP dynamic routing protocol.

5.11.35 UseOSPFEnDefCfg

Display label: 'Enable default OSPF configuration'

Options:	**Value**	**Description**
	No	Disable OSPF
	Yes	Use OSPF enabled default

Default: Disable OSPF

Description: In routing mode, enables the OSPF dynamic routing protocol.

5.11.36 TCPAcceleration

Display label: 'TCP acceleration mode'
Default: Off

Description: This mode provides routing of non-TCP packets combined with acceleration of TCP packets using a Performance Enhancing Proxy (PEP) that overcomes performance problems associated with using standard TCP over satellite.

5.11.37 TxNullPktMode

Display label: 'Null packet insertion'

Options:	**Value**	**Description**
	Off	Off
	On	On
	Adapt	Strip & Insert

Default: On

Description: Controls the insertion of null packets into the data stream.

5.12 Edit-Unit-M&C

5.12.1 CPURUIProtocol

Display label: 'Modem control'

Options:	**Value**	**Description**
	Local	Local
	GiveAway	Giveaway
	TakeAway	Takeaway

Default: Local

Description: Controls modem ownership. In Local mode, the local user interface controls the modem. In Giveaway mode, a remote admin user may log in and control the modem until an automatic (following a timeout) or manual log out occurs. In Takeaway mode, the modem accepts commands from any interface at any time (relying on clear operational procedures to prevent conflicting requests).

5.12.2 CPURUIPassword

Display label: 'Remote admin password'

Default: pdQazziRz/wA.

Description: Modem password for remote admin user login (login name is 'admin'). The admin user can both view and control the modem. Only one admin user can be logged in at a time.

5.12.3 CPURUIViewOnlyPassword

Display label: 'Remote view-only user password'

Default: pdQazziRz/wA.

Description: Modem password for remote view-only user login (login name is 'user'). Multiple view-only users can be logged in at the same time.

5.12.4 CPUGiveAwayTimeout

Display label: 'User auto-logout period'
(On front panel: 'Auto-logout period')

Default: 5
Units: mins
Minimum value: 1
Maximum value: 720
Step size: 1

Description: Specifies the period of time without any user input activity after which a user is logged out. This is true even for the local user interface (this has an implicit login when the operator first presses a key). In Giveaway mode, logging out causes ownership of the modem to be lost.

5.12.5 CPUSerialMode

Display label: 'Remote M&C interface'

Options:	**Value**	**Description**
	RS232	RS232
	RS485	RS485

Default: RS232

Description: Specifies the remote control serial interface mode.

5.12.6 CPUSerialBaud

Display label: 'Baud rate'

Options:	**Value**	**Description**
	50	50 baud
	75	75 baud
	110	110 baud
	150	150 baud
	300	300 baud
	600	600 baud
	1200	1200 baud
	2400	2400 baud
	4800	4800 baud
	9600	9600 baud
	19200	19200 baud
	38400	38400 baud
	57600	57600 baud
	115200	115200 baud

Default: 9600 baud

Description: Specifies the remote control serial interface baud rate.

5.12.7 CPURS485Addr

Display label: 'RS485 address'
Default: 1
Units:
Minimum value: 0
Maximum value: 255
Step size: 1

Description: Specifies the unit's RS485 address.

5.12.8 CPURemConIPAddr

Display label: 'Remote control port Ethernet IP address' (On front panel: 'Remote control port IP address')
Default: 10.0.70.1

Description: Sets the IP address for the remote control interface.

5.12.9 CPURemConIPNetmask

Display label: 'Remote control port IP subnet mask' (On front panel: 'Remote control port IP netmask')
Default: 255.255.0.0

Description: Sets the remote control port IP subnet mask.

5.12.10 CPURemConIPGateway

Display label: 'Remote control port Ethernet IP gateway' (On front panel: 'Remote control port IP gateway')
Default: 0.0.0.0

Description: Sets the IP gateway for the remote control interface.

5.13 Edit-Unit-Clocks

5.13.1 GwyStatClkSrc

Display label: 'Station clock source'

Options:	**Value**	**Description**
	None	None
	BNC	BNC
	RS422	RS422

Default: None

Description: Controls the station clock source to be used in place of the internal 10MHz reference.

5.13.2 GwyStatClkType

Display label: 'Station clock use'

Options:	**Value**	**Description**
	Int10MHz	Replace internal 10MHz reference clock
	RxRefClk	Replace only Rx reference clock
Default:	Replace internal 10MHz reference clock	

Description: Controls the function of the station clock i.e. whether replaces the internal 10MHz reference or is used as a Rx-only reference clock.

5.13.3 GwyStatClkFreq

Display label:	'Station clock frequency' (On front panel: 'Station clock freq')
Default:	10000
Units:	kHz
Minimum value:	1000
Maximum value:	10000
Step size:	1

Description: Indicates the frequency of the station clock reference signal.

5.14 Edit-Unit-Advanced

5.14.1 CPUSafCode

Display label: 'Enter new SAF code'
Default:

Description: Encrypted code for enabling Software Activated Features.

5.14.2 CPURxOneForOne

Display label: 'Receive Fail Switchover'
Default: On

Description: This option enables a receive failure to cause a 1:1 switchover.

5.14.3 CPUBxBERMax

Display label: 'Deferred alarm BER threshold'
(On front panel: 'BER threshold')
Default: 1.0E-4
Units:
Minimum value: 9.9E-15
Maximum value: 1.0E-2
Step size: 0.1E-15

Description: Sets the error-rate threshold above which a deferred alarm will be generated.

5.14.4 CPURxEbNoMin

Display label: 'Rx Eb/No deferred alarm threshold'
(On front panel: 'EbNo threshold')
Default: 3.0
Units: dB
Minimum value: 0.0
Maximum value: 99.0
Step size: 0.1

Description: Sets the Eb/No threshold below which a deferred alarm will be generated.

5.14.5 CPUBxBERAlmActive

Display label: 'BER threshold alarm'
Default: Off

Description: Controls whether the BER threshold alarm is enabled.

5.14.6 CPUTxOneForOne

Display label: 'Transmit Fail Switchover'
Default: On

Description: This option enables a transmit failure to cause a 1:1 switchover.

5.15 Edit-Unit-SNMP

5.15.1 CPUSNMPSysLocation

Display label: 'System location'
Default: Modem location

Description: The location of the system.

5.15.2 CPUSNMPAdminContact

Display label: 'Administrator contact information'
Default:

Description: The contact information for the administrator.

5.15.3 CPUSNMPROCommunity

Display label: 'Read-only access community name'
Default: public

Description: SNMP V1/V2c read-only access community name.

5.15.4 CPUSNMPROManagerIP

Display label: 'Read-only source identifier'
Default: default

Description: Source token. Can be a hostname, a subnet, or the word 'default'. A subnet can be specified as IP/MASK or IP/BITS.

5.15.5 CPUSNMPRWCommunity

Display label: 'Read-write access community name'
Default: private

Description: SNMP V1/V2c read-write access community name.

5.15.6 CPUSNMPRWManagerIP

Display label: 'Read-write source identifier'
Default: default

Description: Source token. Can be a hostname, a subnet, or the word 'default'. A subnet can be specified as IP/MASK or IP/BITS.

5.15.7 CPUSNMPv1TrapRcv

Display label: 'V1 trap receiver'
Default:

Description: An SNMP V1 trap receiver.

5.15.8 CPUSNMPv1TrapCommunity

Display label: 'V1 trap community'
Default: public

Description: Define the hosts to receive traps.

5.15.9 CPUSNMPv2TrapRcv

Display label: 'V2c trap receiver'
Default:

Description: Use to send SNMP V2 traps.

5.15.10 CPUSNMPv2TrapCommunity

Display label: 'V2 trap community'
Default: public

Description: Define the hosts to receive traps.

5.15.11 CPUSNMPTrapSinkCommunity

Display label: 'Default trap sink community'
Default: public

Description: This defines the default community string to be used when sending traps.

5.15.12 RunSNMP

Display label: 'SNMP agent run control'
Default: Off

Description: This switches SNMP on or off.

5.16 Edit-Unit-SMTP

5.16.1 CPUSMTPUserName

Display label: 'Account name'
(On front panel: 'User name')
Default:

Description: User's account name if authentication is required by the SMTP mail server.

5.16.2 CPUSMTPUserPassword

Display label: 'Password'
Default:

Description: Password if authentication is required by the SMTP mail server.

5.16.3 CPUSMTPHost

Display label: 'Outgoing mail server'
Default:

Description: Outgoing mail server name or IP address of the SMTP mail server.

5.16.4 CPUSMTPAuthRequired

Display label: 'Authentication required'
Default:

Description: Authentication required by the SMTP mail server.

5.16.5 CPUSMTPRxEbNo

Display label: 'Rx EbNo'
Default:

Description: Include up to 4 weeks of logged data for Eb/No.

5.16.6 CPUSMTPDistantEbNo

Display label: 'Distant EbNo'
Default:

Description: Include up to 4 weeks of logged data for distant Eb/No.

5.16.7 CPUSMTPRxPwrLevel

Display label: 'Rx power level'
Default:

Description: Include up to 4 weeks of logged data for receive power level.

5.16.8 CPUSMTPBer

Display label: 'Final BER'
Default: Off

Description: Include up to 4 weeks of logged data for final BER

5.16.9 CPUSMTPAUPCPwrOffset

Display label: 'AUPC power offset'
Default:

Description: Include up to 4 weeks of logged data for Eb/No.

5.16.10 CPUSMTPCurrTemp

Display label: 'Modem temperature'
(On front panel: 'Modem temperature')
Default:

Description: Include up to 4 weeks of logged data for Eb/No modem temperature.

5.16.11 CPUSMTPLog

Display label: 'Event log'
(On front panel: 'Log')

Default:

Description: Select to include the current event log in the email report.

5.16.12 CPUSMTPSysAlarms

Display label: 'Current alarms'
(On front panel: 'Alarms')

Default:

Description: Select to include the current alarms in the Email report.

5.16.13 CPUSMTPConfigMems

Display label: 'Configuration memories'
(On front panel: 'Memories')

Default:

Description: Select to include all of the configuration memories in the email report.Each configuration is sent as a separate attachment.

5.16.14 CPUSMTPSpectData

Display label: 'Spectral data'
(On front panel: 'Spectral data')

Default:

Description: Select to include spectrum data in the email report. A snapshot of the current values is sent as an attachment.

5.16.15 CPUSMTPConstData

Display label: 'Constellation data'
(On front panel: 'Constellation data')

Default:

Description: Select to include constellation data in the email report. A snapshot of the current values is sent as an attachment.

5.16.16 CPUSMTPPRBSBER

Display label: 'PRBS BER'
Default:

Description: Include up to 4 weeks of logged data for Eb/No.

5.16.17 CPUSMTPMode

Display label: 'Email report interval'

Options:	**Value**	**Description**
	disabled	Disabled
	minute	Every minute
	tenmins	Every 10 minuntes
	thirtymins	Half hourly
	hour	Every hour
	day	Daily
	week	Week
	month	Every Month
Default:	Disabled	

Description: Set how often an automatic email report is generated.

5.16.18 CPUSMTPUserInterval

Display label: ''
Default: 20
Units: mins
Minimum value: 1
Maximum value: 120960
Step size: 1

Description:

5.16.19 CPUSMTPRecipient

Display label: 'Recipient's email'
Default:

Description: The email address to which the reports are sent.

5.16.20 CPUSMTPAltFrom

Display label: 'Bounce address'
(On front panel: 'Reply to')
Default:

Description: Alternative email address that will receive any error messages if email fails to be delivered.

5.16.21 CPUSMTPSubject

Display label: 'Subject'
Default: Paradise modem - auto status report

Description: Text to be used as the emails subject line.

5.16.22 CPUSMTPAlarmEvent

Display label: 'Unit faults'
Default:

Description: When selected units faults are emailed immediately.

5.16.23 CPUSMTPRxFreqOffset

Display label: 'Rx Frequency Offset'
Default:

Description: Include up to 4 weeks of logged data for receive frequency offset.

5.17 Edit-Unit-Routes

5.17.1 route0, route1, … route63

Display label: 'Static route'
Default:

Description: Static route.

5.17.2 hcroute0, hcroute1, … route15

Display Label ‘Header Compressed Route’
Default

Description Header Compressed Route

5.18 View-Unit

5.18.1 ManufacturerID

Display label: 'Manufacturer ID'
(On front panel: 'Manf. ID')
Default: Paradise Datacom

Description: Manufacturer identity number.

5.18.2 ModelNumber

Display label: 'Model number'
(On front panel: 'Model')
Default: P3120

Description: Modem model number.

5.18.3 SerialNumber

Display label: 'Modem serial number'
(On front panel: 'S/N')
Default: (Unique to each unit)

Description: Indicates the internal modem serial number.

5.18.4 SoftwareVersion

Display label: 'Software version'
(On front panel: 'S/w ver')
Default: (Unique to each version)

Description: Version number for the modem software.

5.18.5 FirmwareVersion

Display label: 'Firmware version'
(On front panel: 'F/w ver')
Default: (Unique to each version)

Description: Version number for the modem firmware.

5.18.6 BxBoardConfig

Display label: 'Modem configuration'
Default: Unknown

Description: Identifies the modem physical configuration.

5.19 View-Unit-SAF

5.19.1 CPUSafFeaturesEnabled

Display label: 'SAF features enabled'
Default: (Unique to each modem)

Description: Indicates which Software Activated Features are currently switched on.

5.19.2 CPUSafFeaturesNotEnabled

Display label: 'SAF features not enabled'
Default: (Unique to each modem)

Description: Indicates which Software Activated Features are currently switched off.

5.19.3 CPUDemoTimeRemaining

Display label: 'SAF time remaining'
Default: 0.0
Units: hours

Description: Indicates the time for which temporarily-enabled Software Activated Features will remain switched on.

5.19.4 CPUDemoShotsRemaining

Display label: 'Demo test shots remaining'
(On front panel: 'SAF test shots remaining')
Default: 3.0
Units:

Description: Indicates the number of times Software Activated Features can be enabled temporarily for free.

5.20 View-Unit-Monitor

5.20.1 BxCurrTemp

Display label: 'Modem temperature'
(On front panel: 'Modem temp')
Default: 0.0
Units: Degrees(C)

Description: Current modem internal operating temperature.

5.20.2 BxPSULevels

Display label: 'PSU levels'
Default: 0

Description: Current PSU power level.

5.21 Test

5.21.1 CPULoopback

Display label: 'Loopback'

Options:	**Value**	**Description**
	Off	Off
	IF	IF (local)
	Int	Interface

Default: Off

Description: Loopback selection.

5.21.2 TFECTxModCW

Display label: 'Modulator CW'
Default: Off

Description: Test mode.
Display rule: TFECTxModAlt10 is False

5.21.3 TFECTxModAlt10

Display label: 'Modulator alternate 1,0'
Default: Off

Description: Test mode.
Display rule: TFECTxModCW is False

5.22 Miscellaneous-Lband

5.22.1 TLBTxRFFreq

Display label: 'L-band carrier frequency'
(On front panel: 'Lband carrier freq')
Default: 950.0000
Units: MHz
Minimum value: 950.0000
Maximum value: 2050.0000 *(1950.0000 as standard)*
Step size: 0.0001

Description: Tx L-band frequency used to transmit to satellite.

5.22.2 TLBTxRFPwr

Display label: 'L-band output power'
(On front panel: 'RF output power')
Default: -30.0
Units: dBm
Minimum value: -30.0
Maximum value: -5.0
Step size: 0.1

Description: RF transmitted power level.

5.22.3 RLBRxRFFreq

Display label: 'L-band carrier frequency'
(On front panel: 'Lband carrier freq')
Default: 950.0000
Units: MHz
Minimum value: 950.0000
Maximum value: 2050.0000 *(1950.0000 as standard)*
Step size: 0.0001

Description: Rx L-band frequency used to receive from satellite.

5.22.4 RLBRxDCVoltage

Display label: 'DC voltage'

Options:	**Value**	**Description**
	Off	Off
	V15	15V
	V24	24V
	V24Multiswitch	Multiswitch

Default: Off

Description: Controls the source of DC supplies to the Rx IF module. Note that the Multiswitch option selects the Global Communications LNB Multiswitch, allowing selection of a high-band/low-band LO and horizontal/vertical polarization.

5.22.5 RLBRx10MHzRef

Display label: 'Rx 10MHz reference'
(On front panel: 'Rx 10MHz ref')

Default: Off

Description: Controls the source of 10MHz reference to the Rx IF module.

5.22.6 CPURxLNBDCAlmAct

Display label: 'DC alarm enable'

Options:	**Value**	**Description**
	Ignore	Ignore
	Alarm	Display fault when active

Default: Display fault when active

Description: Indicates whether the combined over/under-current, over-temperature alarm for the Rx DC switch is considered a fault or not.

5.22.7 CPURxSHFFreqOffset

Display label: 'Frequency offset'
Default: 0.000
Units: GHz
Minimum value: -99.999
Maximum value: 99.999

Step size: 0.0000001

Description: Down-converter conversion frequency, allowing Tx IF frequency to be displayed/edited in direct SHF frequencies.

5.22.8 CPUTxBUCDCCurrentMin

Display label: 'DC current minimum'
(On front panel: 'DC current min')
Default: 0.1
Units: A
Minimum value: 0.1
Maximum value: 6.0
Step size: 0.01

Description: Trip threshold at which a fault is declared when the current drawn by the Tx ODU is outside the limit.

5.22.9 CPUTxBUCDCCurrentMax

Display label: 'DC current maximum'
(On front panel: 'DC current max')
Default: 0.1
Units: A
Minimum value: 0.1
Maximum value: 6.0
Step size: 0.01

Description: Trip threshold at which a fault is declared when the current drawn by the Tx ODU is outside the limit.

5.22.10 CPUTxSHFPwrOffset

Display label: 'Tx power offset'
Default: 0.0
Units: dB
Minimum value: -99.9
Maximum value: 99.9
Step size: 0.1

Description: Defines a transmit power offset, used when displaying and editing

transmit power.

5.22.11 CPUTxSHFFreqOffset

Display label: 'SHF freq offset'
Default: 0.000
Units: GHz
Minimum value: -99.999
Maximum value: 99.999
Step size: 0.0000001

Description: Up-converter conversion frequency, allowing Tx IF frequency to be displayed/edited in direct SHF frequencies.

5.22.12 CPUTxSHFPwrUnits

Display label: 'Tx power units'

Options:	**Value**	**Description**
	dBm	dBm
	dBW	dBW

Default: dBm

Description: Specifies the Tx SHF power units as dBm or dBW.

5.22.13 CPUTxSHFPwrRadiated

Display label: 'Tx power type'

Options:	**Value**	**Description**
	TxPwr	Tx power
	EIRP	EIRP

Default: Tx power

Description: Specifies the TX SHF Power Radiated display. This is a display feature only and does not adjust the actual power.

5.22.14 TLBTxDCVoltage

Display label: 'DC supply voltage'
Default: Off

Description: Controls the source of DC supplies to the Tx IF module.

5.22.15 TLBTxBUCVoltage

Display label: 'BUC PSU'
Default: ?

Description: The supply voltage of the BUC PSU

5.22.16 TLBTx10MHzRef

Display label: '10MHz reference'
Default: Off

Description: Controls the 10MHz reference to the Tx IF module.

5.22.17 TLBTxBUCCarrier

Display label: 'BUC carrier'
Default: Off

Description: Controls whether the BUC carrier is switched on.

5.22.18 TLBTxBUCAtten

Display label: 'BUC attenuation'
Default: -30
Units: dB
Minimum value: -30
Maximum value: 0
Step size: 1

Description: Controls the level of attentuation applied from the modem output to the BUC.

5.22.19 CPUTxBUCDCAlmAct

Display label: 'DC alarm enable'
Options: **Value** **Description**

	Ignore	Ignore
	Alarm	Display fault when active
Default:	Display fault when active	

Description: Indicates whether the combined over/under-current, over-temperature alarm for the Tx DC switch is considered a fault or not.

5.22.20 TLBTxBUCType

Display Label 'BUC type'

Options

Value	Label Description
F4900	C 5.8 - 6.425GHz (VSAT)
F5475	PALAPA 6.425 - 6.725GHz (VSAT)
F5775	INSAT 6.725 - 7.025GHz (VSAT)
F13050	Ku 14.0 - 14.5GHz (VSAT)
F12800	Offset Ku 13.75 - 14.25GHz (VSAT)
None	None
Other	Other
D-15450	RFT5000 Ku
F0	User
C4900	C 5.85 - 6.725GHz (CODU)
C13050	Ku 14 - 14.5GHz (CODU)
C12800	Extended Ku 13.75 - 14.5GHz (CODU)
D4900	RFT5000 C
F13050.0	Terrasat Standard Ku
F12800.0	Terrasat Extended Ku
D	User
D6950	X 7.9 - 8.4GHz
F6950	X 7.9 - 8.4GHz (FSK)

Default None

Description Indicates type of BUC fitted.

5.22.21 RLBRxLNBType

Display label: 'LNB Type'

Options:	**Value**	**Description**
	F-5150	C 3.6 - 4.2GHz

F10000	Ku 10.9 - 11.7GHz
F10250	Ku 11.2 - 11.7GHz
F10750	Ku 11.7 - 12.2GHz
F11300	Ku 12.2 - 12.7GHz
None	None
Other	Other
F9750	Universal 10.7 - 12.75GHz Lo
F10600	Universal 10.7 - 12.75GHz Hi

Default: None

Description: Indicates type of LNB fitted.

5.22.22 TLBTxBUCFreq

Display label: 'BUC carrier frequency'
(On front panel: 'BUC carrier freq')
Default: 0.0
Units: GHz
Minimum value: 0.0
Maximum value: 99.999
Step size: 0.0000001

Description: BUC frequency used to transmit to satellite.

5.22.23 RLBRxLNBFreq

Display label: 'LNB carrier frequency'
(On front panel: 'LNB carrier freq')
Default: 0.0
Units: GHz
Minimum value: 0.0
Maximum value: 99.999
Step size: 0.0000001

Description: LNB frequency used to receive from satellite.

5.22.24 TLBTxBUCPwr

Display label: 'BUC output power'
Default: 0.0
Units:
Minimum value: -99.9
Maximum value: 99.9
Step size: 0.1

Description: BUC transmitted power level.

5.22.25 BLBBxServices

Display label: ‘Mute Services In Standby'
Default: Off

Description This options controls whether the modem mutes the services (DC & 10MHz) when in 1:1 standby. Select this option when you want the services to switch on 1: changeover.

5.23 Miscellaneous-Build

5.23.1 CPURIFFitted

Display label: 'Rx IF card fitted'
Default: Off

Description: Indicates whether Rx IF card is fitted.

5.23.2 CPUTIFFitted

Display label: 'Tx IF card fitted'
Default: Off

Description: Indicates whether Tx IF card is fitted.

5.23.3 CPURLBFitted

Display label: 'Rx L-band card fitted'
Default: Off

Description: Indicates whether Rx L-band card is fitted.

5.23.4 CPUTLBFitted

Display label: 'Tx L-band card fitted'
Default: Off

Description: Indicates whether Tx L-band card is fitted.

5.23.5 MotherboardSerialNumber

Display label: 'Motherboard serial number'
(On front panel: 'S/N')
Default: 0

Description: Indicates the motherboard serial number.

5.23.6 CPUASIFitted

Display label: 'ASI card fitted'
Default: Off

Description: Indicates if a ASI terrestrial card is fitted.

5.23.7 CPUIPTrafficFitted

Display label: 'IP Traffic card fitted'
Default: Off

Description: Indicates if a IP traffic card is fitted.

5.23.8 CPUOFNFitted

Display label: '1:N hardware fitted'
Default: Off

Description: Indicates whether 1:N is fitted.

5.24 Miscellaneous-Status

5.24.1 BxMaxTemp

Display label: 'Max operating temperature'
Default: 70.0
Units: Degrees

Description: Maximum operating temperature of the modem, above which a fault is generated.

5.24.2 BxMinTemp

Display label: 'Min operating temperature'
Default: 0.0
Units: Degrees

Description: Minimum operating temperature of the modem.

5.24.3 BxMaxTempWarn

Display label: 'Operating temperature warning threshold'
(On front panel: 'Temperature warning threshold')
Default: 60.0
Units: Degrees

Description: Threshold that indicates that the modem is approaching its maximum operating temperature.

5.24.4 GwyTxCarrierStatus

Display label: 'Tx carrier status'
Default: Normal

Description: Tx carrier status.

5.24.5 UnitSetupComplete

Display label: 'Unit set-up complete'
Default: On

Description: Indicates when the modem has completed re-configuration following a change.

5.24.6 RxEbNo

Display label: 'Rx Eb/No'
(On front panel: 'Eb/No')
Default: 0.0
Units: dB

Description: Demodulator Energy per bit/Noise power density ratio, calculated from the Es/No measured by the demodulator.

5.24.7 RxEsNo

Display label: 'Demodulator Es/No'
(On front panel: 'Es/No')
Default: 0.0
Units: dB

Description: Received Energy per Symbol/Noise power density ratio as measured by the demodulator.

5.24.8 RxFreqOffset

Display label: 'Rx frequency offset'
(On front panel: 'Rx freq offset')
Default: 0.0
Units: Hz

Description: When the demodulator is locked this is the carrier offset frequency, measured as an offset from the programmed Rx carrier frequency.

5.24.9 RxPwrLevel

Display label: 'Rx power level'
Default: 0
Units: dBm

Description: Estimate of the Rx input requested power level (i.e. the power level of the channel selected by the user).

5.24.10 DemodLocked

Display label: 'Demodulator status'
Default: On

Description: Current status of the demodulator, indicating whether it is currently locked to the carrier.

5.24.11 RxFinalBER

Display label: 'Final BER'
Default: 0.0
Units:

Description: Final BER at the output of the modem.

5.24.12 RelayStatus

Display label: 'Relay status'
Default: Off

Description: Relay status.

5.24.13 CPUKbdLock

Display label: 'Keyboard locked'
Default: Off

Description: Sets the state of the keyboard (can be locked to prevent inadvertent use).

5.24.14 CPUSwitchModeStatus

Display label: 'Status of the Switch'
Default: Off

Description: Status of the Switch.

5.25 Miscellaneous-SAF

5.25.1 CPUSAFTx

Display label: 'Tx path SAF'
Default: On

Description: Software-activated feature.

5.25.2 CPUSAFRx

Display label: 'Rx path SAF'
Default: Off

Description: Software-activated feature.

5.25.3 CPUSAFDataRate0

Display label: '0 to 2Mbps data rate SAF'
Default: On

Description: Software-activated feature.

5.25.4 CPUSAFDataRate1

Display label: '2 to 8.448Mbps data rate SAF'
Default: Off

Description: Software-activated feature.

5.25.5 CPUSAFDataRate2

Display label: '8.448 to 16.896Mbps data rate SAF'
Default: Off

Description: Software-activated feature.

5.25.6 CPUSAFDataRate3

Display label: '16.896 to 25Mbps data rate SAF'
Default: On

Description: Software-activated feature.

5.25.7 CPUSAFDataRate4

Display label: '25 to 45Mbps data rate SAF'
Default: On

Description: Software-activated feature.

5.25.8 CPUSAFDataRate5

Display label: '45 to 80Mbps data rate SAF'
Default: On

Description: Software-activated feature.

5.25.9 CPUSAFWideIF

Display label: 'Wideband IF frequencies SAF (above 88MHz)'
(On front panel: 'Wideband IF frequencies SAF')
Default: On

Description: Software-activated feature.

5.25.10 CPUSAFTCP

Display label: 'TCP acceleration SAF'
Default: Off

Description: Software-activated feature.

5.25.11 CPUSAFHCP

Display label: 'IP header compression SAF'
Default: Off

Description: Software-activated feature.

5.25.12 CPUSAFBrouting

Display label: 'Ethernet brouting mode SAF'
(On front panel: 'Higher rate TCP acceleration SAF')
Default: Off

Description: Software-activated feature.

5.25.13 CPUSAFTCP25

Display label: 'Higher rate TCP acceleration SAF'
Default: Off

Description: Software-activated feature.

5.25.14 CPUSAFDataRate1L

Display label: '2 to 5Mbps data rate SAF'
Default: Off

Description: Software-activated feature.

5.25.15 CPUSAFDataRate1H

Display label: '5 to 8.448Mbps data rate SAF'
Default: Off

Description: Software-activated feature.

5.25.16 CPUSAFTCP16

Display label: 'Higher rate TCP acceleration SAF'

Default: Off

Description: Software-activated feature.

5.25.17 CPUSAFTCP55

Display label: 'Higher rate TCP acceleration SAF'
Default: Off

Description: Software-activated feature.

5.25.18 CPUSAFWEB

Display label: 'Web Proxy SAF'
Default:

Description: Software-activated feature.

5.25.19 CPUSAFFSK

Display label: 'FSK SAF'
(On front panel: 'FSK control SAF')
Default: Off

Description: Software-activated feature.

5.25.20 CPUSAFTXDVBS

Display label: 'DVB-S Tx SAF'
Default:

Description: Software-activated feature.

5.25.21 CPUSAFCCM

Display label: 'CCM SAF'
Default:

Description: Software-activated feature.

5.25.22 CPUSAFVCM

Display label: 'VCM SAF'
Default:

Description: Software-activated feature.

5.25.23 CPUSAFWRF

Display label: 'Wide RF SAF'
Default:

Description: Software-activated feature.

5.25.24 CPUSAFTXDVBS2

Display label: 'DVB-S2 Tx SAF'
Default: Off

Description: Software-activated feature.

5.25.25 CPUSAFTXDVBDSNG

Display label: 'DVB-DSNG Tx SAF'
Default:

Description: Software-activated feature.

5.25.26 CPUSAFRXDVBS

Display label: 'DVB-S Rx SAF'
Default:

Description: Software-activated feature.

5.25.27 CPUSAFRXDVBS2

Display label: 'DVB-S2 Rx SAF'
Default: Off

Description: Software-activated feature.

5.25.28 CPUSAFRXDVBDSNG

Display label: 'DVB-DSNG Rx SAF'
Default:

Description: Software-activated feature.

5.25.29 CPUSAFCCMM

Display label: 'CCM Multi-Stream SAF'
Default:

Description: Software-activated feature.

5.25.30 CPUSAFDVBIP

Display label: 'DVB IP Encapsulation SAF'
Default:

Description: Software-activated feature.

5.25.31 CPUSAFRouting

Display label: 'Routing mode SAF'
Default:

Description: Software-activated feature.

5.26 Miscellaneous-Switch

5.26.1 CPUSwitchAddress

Display label: '1:N Address'
Default: 1
Units:
Minimum value: 1
Maximum value: 16
Step size: 1

Description: Sets the RS485 address when used with 1:N switch.

5.26.2 CPUModemPriority1, CPUModemPriority2, … CPUModemPriority16

Display label: 'Modem Priority'

Options:	**Value**	**Description**
	P1	Low
	P2	Medium
	P3	High

Default: Low

Description: Sets the priority of the specified modem when used with 1:N switch.

5.27 Miscellaneous-NewMCPs

5.27.1 CPUSAFShaping

Display label: 'Shaping SAF'
Default: Off

Description: Software-activated feature.

5.27.2 QoSScheme

Display label: 'Quality of service scheme' (On front panel: 'QoS scheme')

Options:	**Value**	**Description**
	Diffserv_DSCP	Diffserv DSCP
	IEEE_802_1p	IEEE 802.1q
	MPLS_EXP	MPLS EXP
	IP_Address	IP Address

Default: Diffserv DSCP

Description: Determines which classification scheme is used with IP traffic shaping. The classification sheme is used to identify individual data streams within the overall IP stream. It is then possible to apply different quality levels to each stream including setting a guaranteed bandwidth, a maximum bandwidth (if excess is available) and a priority. Classification schemes can be based on IP address, the three-bit MPLS header ‘EXP’ field, the three-bit IEEE 802.1p priority tag field within the IEEE 802.1q header and the top three bits of the six-bit Diffserv DSCP field within the IP header.

5.27.3 IPAddrClass

Display label: 'QoS IP address class'

Options:	**Value**	**Description**
	Source_address_only	Source address only
	Destination_address_only	Destination address only
	Source_address_port	Source address + port
	Destination_address_port	Destination address + port

Default: Source address only

Description: This refines the IP traffic shaping classification scheme when IP addressing is used as the means of identifying individual data streams within the overall IP stream.

5.27.4 EnableShaping

Display label: 'Enable shaping'
Default:

Description: Switches IP traffic shaping off and on.

5.27.5 TxCIR00, TxCIR01,… TxCIR15

Display label: 'Shaping Committed Information Rate Class'
(On front panel: 'CIR')
Default: 0
Units: bps
Minimum value: 0
Maximum value: 55000000
Step size: 1

Description: Shaping Committed Information Rate Class

5.27.6 TxBIR00, TxBIR01,… TxBIR15

Display label: 'Shaping Burst Information Rate'
(On front panel: 'BIR')
Default: 0
Units: bps
Minimum value: 0
Maximum value: 55000000
Step size: 1

Description: Shaping Burst Information Rate

5.27.7 ShapIPAddr00, ShapIPAddr01,… ShapIPAddr15

Display label: 'Shaping Address'
Default: 0.0.0.0

Description:

5.27.8 ShapIPMask00, ShapIPMask01,… ShapIPMask15

Display label: 'Shaping IP Mask'
Default: 255.255.255.255

Description:

5.27.9 ShapPort00, ShapPort01,… ShapPort15

Display label: 'Shaping port'
Default: 0
Units: port
Minimum value: 0
Maximum value: 65535
Step size: 1

Description:

5.27.10 CPUTxAUPCMode

Display label: 'AUPC operational mode'
(On front panel: 'AUPC mode')

Options:

Value	Description
Off	Off
Monitor	Monitor
Maintain	Maintain remote Eb/No

Default: Off

Description: Setting to Maintain means the modem will attempt to maintain the remote Eb/No at the target level. Setting to Monitor will allow the remote modem to be monitored without making any changes to the Tx power level.

5.27.11 CPUTxTargetDistantEbNo

Display label: 'Target distant Eb/No'
(On front panel: 'Target remote EbNo')

Default: 10.0
Units: dB
Minimum value: 0.1
Maximum value: 14.9
Step size: 0.1

Description: This is the distant Eb/No that AUPC tries to maintain by adjusting the Tx power level.

5.27.12 CPUTxPositivePwrOffset

Display label: 'Maximum AUPC power offset'
(On front panel: 'Max power offset')
Default: 1
Units: dBm
Minimum value: 0
Maximum value: 25.0
Step size: 0.1

Description: This is the maximum increase in Tx power level that AUPC can make to maintain distant Eb/No.

5.27.13 AUPCPwrOffset

Display label: 'Current AUPC Tx power level offset'
(On front panel: 'AUPC Tx offset')
Default: 0.0
Units: dB

Description: Current offset applied to Tx power level to maintain target Eb/No.

5.27.14 RxRemoteEbNo

Display label: 'Remote Eb/No'
Default: 0.0
Units: dB

Description: The Eb/No measured by the remote modem when AUPC is enabled.

5.27.15 CPUTxNegativePwrOffset

Display label: 'Maximum negative AUPC power offset'
(On front panel: 'Max neg. power offset')
Default: 1
Units: dBm
Minimum value: 0
Maximum value: 25.0
Step size: 0.1

Description: This is the maximum decrease in Tx power level that AUPC can make to maintain distant Eb/No.

5.27.16 CPURxCarrierLossAction

Display label: 'Carrier loss action'

Options:	**Value**	**Description**
	Freeze	Freeze at current value
	Nominal	Set to nominal
	Max	Set to max

Default: Set to nominal

Description: Action when communications to remote is lost.

5.27.17 CPUSAFAUPC

Display label: 'AUPC SAF'
Default:

Description: Software-activated feature.

5.27.18 CPUSNMPv3User

Display label: 'V3 username'
Default:

Description: SNMP v3 username.

5.27.19 CPUSNMPv3Password

Display label: 'V3 password'
Default:

Description: SNMP v3 password.

5.27.20 CPUSNMPv3Encryption

Display label: 'Enable V3 encryption'
Default:

Description: Enable SNMP v3 DES encryption.

5.27.21 CPUSNMPv3Authentication

Display label: 'V3 authentication'

Options:	**Value**	**Description**
	MD5	MD5
	SHA	SHA

Default: MD5

Description: SNMP v3 authentication algorithm.

5.27.22 RxASIP1MPEGFilter

Display label: 'ASI Port 1 MPEG PID filtering'
Default:

Description: Enable MPEG filtering on this ASI port.

5.27.23 RxASIP2MPEGFilter

Display label: 'ASI Port 2 MPEG PID filtering'
Default:

Description: Enable MPEG filtering on this ASI port.

5.27.24 RxASIP3MPEGFilter

Display label: 'ASI Port 3 MPEG PID filtering'
Default:

Description: Enable MPEG filtering on this ASI port.

5.27.25 RxASIP4MPEGFilter

Display label: 'ASI Port 4 MPEG PID filtering'
Default:

Description: Enable MPEG filtering on this ASI port.

5.27.26 RxASIP1MPEGPID1

Display label: 'PID 1'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.27 RxASIP1MPEGPID2

Display label: 'PID 2'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.28 RxASIP1MPEGPID3

Display label: 'PID 3'

Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.29 RxASIP1MPEGPID4

Display label: 'PID 4'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.30 RxASIP2MPEGPID1

Display label: 'PID 1'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.31 RxASIP2MPEGPID2

Display label: 'PID 2'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.32 RxASIP2MPEGPID3

Display label: 'PID 3'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.33 RxASIP2MPEGPID4

Display label: 'PID 4'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.34 RxASIP3MPEGPID1

Display label: 'PID 1'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.35 RxASIP3MPEGPID2

Display label: 'PID 2'
Default: 0

Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.36 RxASIP3MPEGPID3

Display label: 'PID 3'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.37 RxASIP3MPEGPID4

Display label: 'PID 4'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.38 RxASIP4MPEGPID1

Display label: 'PID 1'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.39 RxASIP4MPEGPID2

Display label: 'PID 2'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.40 RxASIP4MPEGPID3

Display label: 'PID 3'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.41 RxASIP4MPEGPID4

Display label: 'PID 4'
Default: 0
Units:
Minimum value: 0
Maximum value: 16383
Step size: 1

Description:

5.27.42 RLBRxLNBControl

Display label: 'LNB control'

Options:	**Value**	**Description**
	Off	Disabled

0	13V/0Hhz
1	13V/22KHz
2	18V/0Hz
3	18V/22KHz
4	0V/0Hz

Default: Disabled

Description: Control external LNB services switch.

5.27.43 RLBRxLNBPolarization

Display label: 'LNB polarization'

Options:	**Value**	**Description**
	Vertical	Vertical
	Horizontal	Horizontal

Default: Vertical

Description:

5.27.44 CPUSatMACAddr

Display label: 'Satellite port MAC address'

Default: 00:00:00:00:00:00

Description: Used for filtering on the Rx side when using MPE. Only MPE packets that have a matching MAC address will be processed.

5.27.45 TxBUCIntfc

Display label: 'BUC interface'

Options:	**Value**	**Description**
	RS485	RS485
	FSK	FSK

Default: RS485

Description: Selects the interface used to connect to the BUC.

5.27.46 TLBTxPolarisation

Display label: 'Tx polarisation'

Options:	**Value**	**Description**
	A	A
	B	B

Default: A

Description: Ensures that on a switchover, the backup modem RF path is switched to use the same transponder polarisation as the failed modem. The switch itself is agnostic as to the actual underlying A and B settings as to whether these represent transponder linear (vertical, horizontal) or circular (clockwise, counterclockwise) polarization.

5.27.47 RLBRxPolarisation

Display label: 'Rx polarisation'

Options:	**Value**	**Description**
	A	A
	B	B

Default: A

Description: Ensures that on a switchover, the backup modem RF path is switched to use the same transponder polarisation as the failed modem. The switch itself is agnostic as to the actual underlying A and B settings as to whether these represent transponder linear (vertical, horizontal) or circular (clockwise, counterclockwise) polarization.

5.27.48 PCMACanceller

Display label: 'PCMA enable'

Default:

Description: Enables Paired Carrier operation.

5.27.49 PCMASatLongitude

Display label: 'Satellite longitude'
(On front panel: 'Satellite lon')

Default: 0.0

Units: Degs

Minimum value: -180
Maximum value: 180
Step size: 0.01

Description: Latitude of satellite.

5.27.50 PCMAEarthLongitude

Display label: 'Earth station longitude'
(On front panel: 'Earth station lon')
Default: 0.0
Units: Degs
Minimum value: -180
Maximum value: 180
Step size: 0.01

Description: Longitude of earth station (modem).

5.27.51 PCMAEarthLatitude

Display label: 'Earth station latitude'
(On front panel: 'Earth station lat')
Default: 0.0
Units: Degs
Minimum value: -90
Maximum value: 90
Step size: 0.01

Description: Latitude of earth station (modem).

5.27.52 CPUSAFPCMA

Display label: 'Paired Carrier SAF'
Default: Off

Description: Software-activated feature.

5.27.53 PCMAMinDelay

Display label: 'Min round trip delay'
(On front panel: 'Min delay')
Default: 0.0
Units: ms
Minimum value: 0.0
Maximum value: 300.0
Step size: 0.01

Description: Minimum round trip delay to satellite.

5.27.54 PCMAMaxDelay

Display label: 'Max round trip delay'
(On front panel: 'Max delay')
Default: 0.0
Units: ms
Minimum value: 0.0
Maximum value: 300.0
Step size: 0.01

Description: Maximum round trip delay to satellite.

5.27.55 CPUSwitchPollDelay

Display label: 'Switch poll rate'
Default: 60
Units: mins
Minimum value: 1
Maximum value: 999999
Step size: 1

Description: Rate at which the Switch (re)learns the configuration of the on-line modems.

Chapter 6 Modem Alarms

This section lists of all the alarms that can occur in the modem.

Alarm Name	Description
TxClockFailureAlarm	Tx fault: External Tx clock selected, but no clock from interface.
TxDataMarginalAlarm	Tx warning: Data clock inverted, data changing state on wrong edge.
TxDPLLLostLockAlarm	Tx fault: Modulator DPLL has lost lock.
IFTxSynthLostLockAlarm	Unit fault: Tx Synth has lost lock.
RxDeinterleaverSyncLostAlarm	Rx fault: RS de-interleaver unable to sync to decoded data. Check RS settings.
RxDemodUnlockedAlarm	Rx fault: Demodulator unlocked. Check modem settings.
RxClockFailureAlarm	Rx warning: Selected Rx output clock has failed.
RxDemodFIFOOverflowAlarm	Rx warning: Demodulator FIFO overflowed.
IFRxSynthLostLockAlarm	Unit fault: Rx Synth has lost lock.
RxConfigAlarm	Rx warning: Maximum multiframe period too small. Deframer failed to find a frame length to support TS ID maintenance. Try reducing ESC baud rate or increasing maximum multiframe period.
BUCCommunicationsFailureAlarm	Unit fault: Communications with the BUC have failed. Check connections.
BUCPLLAlarm	Unit fault: BUC PLL failure.
BUCTemperatureAlarm	Unit fault: BUC over-temperature failure.
InternalFaultAlarm	An internal fault has occurred. Please consult factory.
MuteOnBreakAlarm	Unit warning: Carrier muted due to power outage. Acknowledge power-up to enable.
PowerSupplyAlarm	Unit fault: One or more PSU rails are out of range.
StationClockFailureAlarm	Unit warning: Station clock has failed. Check clock source.
TemperatureAlarm	Unit warning: Operating temperature exceeded.
RxSymRateAlarm	Rx warning: Rx symbol rate outside range..
TxSymRateAlarm	Tx warning: Tx symbol rate outside range.
TxDataRateAlarm	Tx warning: Tx data rate outside interface range.
RxDataRateAlarm	Rx warning: Rx data rate outside interface range.
RxBERAboveThresholdAlarm	Rx warning: The final BER is worse than the user threshold set for the defered alarm.
RxEbNoBelowThresholdAlarm	Rx warning: The receive Eb/No is worse than the user threshold set for the defered alarm.
FanFailureAlarm	Unit warning: One or more of the cooling fans have failed.
TxBUCPSUAlarm	Tx warning: BUC PSU outside limits.
PowerSupplyAlarmOFN	Unit warning: One or more PSU rails are out of range.
RxFECSyncAlarm	Rx fault: FEC Decoder synchronisation lost.
TxIFFreqAlarm	Tx carrier frequency out of range for current symbol rate.
TxBUCPowerAlarm	Tx warning: Cannot hold/reach power set at BUC.
TxChannelDPLLAlarm	Tx warning: Tx Channel DPLL Unlocked.
TxTerrestrialDPLLAlarm	Tx warning: Tx Terrestrial DPLL Unlocked.
BackupRxClockFailureAlarm	Unit fault: Rx backup clock has failed.

Alarm Name	Description
TxLineCodeViolationAlarm	Tx warning: Line Code Violation detected.
RxBERAlarm	Rx fault: Final BER > 1E-3.
RxTerrestrialDPLLAlarm	Rx Terrestrial DPLL Unlocked.
RxPLSyncAlarm	Rx warning: Physical Layer sync lost
RxTrafficAlarm	Rx warning: No Transport traffic
TxASICarrierAlarm	Tx warning: Carrier lost on ASI ports.
TxASIMPEGSyncAlarm	Tx warning: Sync loss on ASI ports.
TxASIClockAlarm	Tx warning: Clock error on ASI ports.
TxASIDecoderAlarm	Tx warning: Decode error on ASI ports.
TxConfigAlarm	Tx warning: Invalid MODCOD.
TxModOutputAlarm	Tx warning: Data failure to modulator.
TxModTSBufferAlarm	Tx warning: TS buffer overflow.
TxModMPEGSyncAlarm	Tx warning: TS sync not found.
TxModMPEGSyncLostAlarm	Tx warning: TS sync lost.
TxModEncSyncAlarm	Tx warning: Encoder fault.
TxModFrameSyncAlarm	Tx warning: Framer sync lost.
TxModFrameBufferAlarm	Tx warning: Framer buffer error.
TxModFIFOUnderflowAlarm	Tx warning: FIFO underflow.
TxModFIFOOverflowAlarm	Tx warning: FIFO overflow.
TxModRSSyncAlarm	Tx warning: RS sync lost.
TxModP2PSyncAlarm	Tx warning: P2P sync lost.
TxModCFIFOSyncAlarm	Tx warning: CFIFO sync alarm.
RxASIOverFlowAlarm	Rx warning: FIFO overflow on ASI ports.
RxASIEncoderAlar	Rx warning: Encode error on ASI ports.
RxASIUnderFlowAlarm	Rx warning: FIFO underflow on ASI ports.
RxPLSyncAlarm	Rx warning: Physical Layer sync lost.
RxTrafficAlarm	Rx warning: No Transport traffic.
RxBBSyncAlarm	Rx warning: Baseband sync lost.
RxBBCRCAlarm	Rx warning: Baseband CRC error.
RxMPGCRCAlarm	Rx warning: MPEG CRC error.
RxMPGSyncAlarm	Rx warning: MPEG sync lost.
RxConfigAlarm	Rx warning: Invalid MODCOD.
ASIConfigAlarm	Unit warning: Both ASI ports set to Tx or Rx.
RxPCMAUnlockedAlarm	Rx:warning: PCMA unlocked.

Chapter 7 Management Information Base

The modem uses two Management Information Bases (MIBs). The Paradise MIB is common to all Paradise Datacom equipment and defines the top-level object identifiers for each piece of equipment (such as modems, SSPAs, etc.). The modem MIB defines the object identifiers that are specific to the modem M&C controls. Both are defined below and are available in electronic form on the CD provided with the modem. Updates are available from the Paradise Datacom web site (http://www.paradisedata.com) or alternatively by contacting Technical Customer Support.

7.1 Paradise MIB

```
IPOS-MIB DEFINITIONS ::= BEGIN

IMPORTS
   enterprises, OBJECT-TYPE, IpAddress, Counter, Gauge, TimeTicks FROM RFC1155-SMI;


paradiseDatacom OBJECT IDENTIFIER ::= { enterprises 20712 }

deviceInfo OBJECT IDENTIFIER ::= { paradiseDatacom 1 }
deviceID OBJECT-TYPE
   SYNTAX OCTET STRING (SIZE (0..20))
   ACCESS read-only
   STATUS mandatory
   DESCRIPTION
        "Device ID string"
   ::= { deviceInfo 1 }

deviceLocation OBJECT-TYPE
   SYNTAX OCTET STRING (SIZE (0..20))
   ACCESS read-write
   STATUS mandatory
   DESCRIPTION
        "Device Location Info"
   ::= { deviceInfo 2 }

deviceFirmwareRev OBJECT-TYPE
   SYNTAX OCTET STRING (SIZE (0..20))
   ACCESS read-only
   STATUS mandatory
   DESCRIPTION
        "Device firmware rev info"
   ::= { deviceInfo 3 }

deviceMAC OBJECT-TYPE
   SYNTAX OCTET STRING (SIZE (0..6))
   ACCESS read-only
   STATUS mandatory
   DESCRIPTION
        "Device MAC address"
   ::= { deviceInfo 4 }

-- Paradise Dataqcom specific MIBs.

devices OBJECT IDENTIFIER ::= { paradiseDatacom 2 }

-- The Devices group.

rmSSPA OBJECT IDENTIFIER ::= { devices 1 }
coSSPA OBJECT IDENTIFIER ::= { devices 2 }
rcp OBJECT IDENTIFIER ::= { devices 3 }
buc OBJECT IDENTIFIER ::= { devices 4 }
modem OBJECT IDENTIFIER ::= { devices 5 }
```

```
--RM SSPA Settings tree
rmsspaSettings OBJECT IDENTIFIER ::= { rmSSPA 1 }

rmSettingsOpMode OBJECT-TYPE
   SYNTAX INTEGER {
                        standAlone(1),
                        redundancy11(2),
                        redundancy12(3)
            }
   ACCESS read-write
   STATUS mandatory
   DESCRIPTION
         "SSPA operation mode.
               @GET_FUNC=get_opMode
               @SET_FUNC=set_opMode"
   ::= { rmsspaSettings 1 }

rmSettingsSwMode OBJECT-TYPE
   SYNTAX INTEGER {
                        manual(1),
                        auto(2)
            }
   ACCESS read-write
   STATUS mandatory
   DESCRIPTION
         "Type of redundand system switchover.
               @GET_FUNC=get_swMode
               @SET_FUNC=set_swMode"
   ::= { rmsspaSettings 2 }

rmSettingsCtrlMode OBJECT-TYPE
   SYNTAX INTEGER {
                        localOn(1),
                        localOff(2)
            }
   ACCESS read-write
   STATUS mandatory
   DESCRIPTION
         "Type of SSPA control.
               @GET-FUNC=get_ctrlMode
               @SET-FUNC=set_ctrlMode"
   ::= { rmsspaSettings 3}

rmSettingsLCDLight OBJECT-TYPE
   SYNTAX INTEGER {
                        off(1),
                        low(2),
                        medium(3),
                        high(4)
            }
   ACCESS read-write
   STATUS mandatory
   DESCRIPTION
         "LCD backlight intensity.
               @GET-FUNC=get_LCDlite
               @SET-FUNC=set_LCDlite"
   ::= { rmsspaSettings 4 }

rmSettingsMute OBJECT-TYPE
   SYNTAX INTEGER {
                        off(1),
                        on(2)
            }
   ACCESS read-write
   STATUS mandatory
   DESCRIPTION
         "SSPA Mute state control.
               @GET_FUNC=get_Mute
               @SET_FUNC=set_Mute"
   ::= { rmsspaSettings 5 }

rmSettingsSerialProtocol OBJECT-TYPE
```

```
    SYNTAX INTEGER {
                        normal(1),
                        terminal(2),
                        locus(3)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
            "SSPA serial interface protocol selection
                    @GET_FUNC=get_Protocol
                    @SET_FUNC=set_Protocol"
    ::= { rmsspaSettings 6 }

rmSettingsSerialBaud OBJECT-TYPE
    SYNTAX INTEGER {
                        baud9600(1),
                        baud2400(2),
                        baud4800(3),
                        baud19200(4),
                        baud38400(5)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
            "SSPA serial interface baud rate.
                    @GET_FUNC=get_Baud
                    @SET_FUNC=set_Baud"
    ::= { rmsspaSettings 7 }

rmSettingsNetAddress OBJECT-TYPE
    SYNTAX INTEGER  (0..255)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
            "SSPA serial network address.
                    @GET_FUNC=get_Address
                    @SET_FUNC=set_Address"
    ::= { rmsspaSettings 8 }

rmSettingsRemoteInterface OBJECT-TYPE
    SYNTAX INTEGER {
                        serialRS232(1),
                        serialRS485(2),
                        ethernetUDP(3),
                        ethernetSNMP(4),
                        ethernetHTTP(5)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
            "SSPA remote control interface.
                    @GET_FUNC=get_Interface
                    @SET_FUNC=set_Interface"
    ::= { rmsspaSettings 9 }

rmSettingsAuxFaultHandle OBJECT-TYPE
    SYNTAX INTEGER {
                        disabled(1),
                        major(2),
                        minor(3),
                        majorMute(4)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
            "Auxiliary fault handling setup.
                    @GET_FUNC=get_Aux_Handle
                    @SET_FUNC=set_Aux_Handle"
    ::= { rmsspaSettings 10 }


rmSettingsAuxFaultLogic OBJECT-TYPE
```

```
    SYNTAX INTEGER {
                        faultOnHigh(1),
                        faultOnLow(2)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Auxiliary fault logic setup.
                @GET_FUNC=get_Aux_Logic
                @SET_FUNC=set_Aux_Logic"
    ::= { rmsspaSettings 11 }

rmSettingsRFSWFaultHandle OBJECT-TYPE
    SYNTAX INTEGER {
                        disabled(1),
                        major(2),
                        minor(3)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "RF Switch fault handling setup.
                @GET_FUNC=get_RFSW_Handle
                @SET_FUNC=set_RFSW_Handle"
    ::= { rmsspaSettings 12 }

rmSettingsFaultLatch OBJECT-TYPE
    SYNTAX INTEGER {
                        off(1),
                        on(2)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Fault latch.
                @GET_FUNC=get_Fault_Latch
                @SET_FUNC=set_Fault_Latch"
    ::= { rmsspaSettings 13 }

rmSettingsBUCFaultHandle OBJECT-TYPE
    SYNTAX INTEGER {
                        disabled(1),
                        major(2),
                        minor(3),
                        majorMute(4)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "BUC Fault Handling setup.
                @GET_FUNC=get_BUC_Handle
                @SET_FUNC=set_BUC_Handle"
    ::= { rmsspaSettings 14 }

rmSettingsBUCFaultLogic OBJECT-TYPE
    SYNTAX INTEGER {
                        faultOnHigh(1),
                        faultOnLow(2)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "BUC fault logic setup.
                @GET_FUNC=get_BUC_Logic
                @SET_FUNC=set_BUC_Logic"
    ::= { rmsspaSettings 15 }

rmSettingslclPassword OBJECT-TYPE
    SYNTAX INTEGER  (0..255)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
```

```
        "Front panel menu password.
                @GET_FUNC=get_password
                @SET_FUNC=set_password"
    ::= { rmsspaSettings 16 }

rmSettingsStandbySelect OBJECT-TYPE
    SYNTAX INTEGER {
                        online(1),
                        standby(2)
            }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "SSPA standby select.
                @GET_FUNC=get_stby_select
                @SET_FUNC=set_stby_select"
    ::= { rmsspaSettings 17 }

rmSettingsBuzzer OBJECT-TYPE
    SYNTAX INTEGER {
                        on(1),
                        off(2)
            }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "SSPA alarm buzzer setup.
                @GET_FUNC=get_buzzer
                @SET_FUNC=set_buzzer"
    ::= { rmsspaSettings 18 }

rmSettingsPasswordEnable OBJECT-TYPE
    SYNTAX INTEGER {
                        off(1),
                        on(2)
            }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Menu password setup.
                @GET_FUNC=get_password_enbl
                @SET_FUNC=set_password_enbl"
    ::= { rmsspaSettings 19}

rmSettingsStbyMode OBJECT-TYPE
    SYNTAX INTEGER {
                        stbyHot(1),
                        stbyCold(2)
            }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Standby mode select.
                @GET_FUNC=get_stby_mode
                @SET_FUNC=set_stby_mode"
    ::= { rmsspaSettings 21}

rmSettingsHPAStatus OBJECT-TYPE
    SYNTAX INTEGER {
                        hpa1(1),
                        hpa2(2)
            }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Redundancy topological factor.
                @GET_FUNC=get_HPA_status
                @SET_FUNC=set_HPA_status"
    ::= { rmsspaSettings 22 }


rmSettingsLowRFFaultHandling OBJECT-TYPE
```

```
    SYNTAX INTEGER {
                        disabled(1),
                        major(2),
                        minor(3)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Low RF Fault Handling setup.
            @GET_FUNC=get_LowRF_Handle
            @SET_FUNC=set_LowRF_Handle"
    ::= { rmsspaSettings 24 }

rmSettingsHighVSWRFaultHandling OBJECT-TYPE
    SYNTAX INTEGER {
                        disabled(1),
                        major(2),
                        minor(3)
                }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "High VSWR Fault Handling setup.
            @GET_FUNC=get_VSWR_Handle
            @SET_FUNC=set_VSwr_Handle"
    ::= { rmsspaSettings 25 }


rmSettingsAttenuation OBJECT-TYPE
    SYNTAX INTEGER (0..200)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "SSPA Attenuation setup.
            @GET_FUNC=get_attenuation
            @SET_FUNC=set_attenuation"
    ::= { rmsspaSettings 26 }

rmSettingsFrwrdRFThreshold OBJECT-TYPE
    SYNTAX INTEGER (0..80)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Low forward RF fault threshold in dBm.
            @GET_FUNC=get_lowRF_threshold
            @SET_FUNC=set_lowRF_threshold"
    ::= { rmsspaSettings 27 }

rmSettingsRefRFThreshold OBJECT-TYPE
    SYNTAX INTEGER (0..80)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "High Reflected RF fault threshold in dBm.
            @GET_FUNC=get_VSWR_threshold
            @SET_FUNC=set_VSWR_threshold"
    ::= { rmsspaSettings 28 }

rmSettingsIPAddress OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "SSPA IP address
        @GET_FUNC=get_IP_address
              @SET_FUNC=set_IP_address"
    ::= { rmsspaSettings 29 }

rmSettingsIPGateway OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
```

```
    DESCRIPTION
          "SSPA IP Gateway address
          @GET_FUNC=get_Gateway_address
                @SET_FUNC=set_Gateway_address"
    ::= { rmsspaSettings 30 }

rmSettingsSubnetMask OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
          "SSPA IP subnet mask
          @GET_FUNC=get_Subnet_mask
                @SET_FUNC=set_Subnet_mask"
    ::= { rmsspaSettings 31 }

rmSettingsIPLock OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
          "SSPA IP lock address
          @GET_FUNC=get_IPLock
                @SET_FUNC=set_IPLock"
    ::= { rmsspaSettings 32 }

--RM SSPA Thresholds tree
rmsspaThresholds OBJECT IDENTIFIER ::= { rmSSPA 3 }

--Forward RF power construct
rmsspaFrwrdRF OBJECT IDENTIFIER ::= { rmsspaThresholds 1 }

rmsspaForwardRFValue OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
          "Value of SSPA current level of Forward RF power in dBm x 10 (0.1dBm per 1 value).
                @GET_FUNC=get_Frwrd_RF"
             ::= { rmsspaFrwrdRF 1}

--Reflected RF power construct
rmsspaForwardRFValidation OBJECT-TYPE
    SYNTAX INTEGER {
                          true(1),
                          false(2)
             }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
          "Value indicates if true value of parameter indicated
          or parameter currently invalid
                @GET_FUNC=get_Frwrd_RF_validate"
    ::= { rmsspaFrwrdRF 2}

rmsspaReflectedRF OBJECT IDENTIFIER ::= { rmsspaThresholds 2 }

rmsspaReflectedRFValue OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
          "Value of SSPA current level of Reflected RF power in dBm x 10 (0.1dBm per 1 value).
                @GET_FUNC=get_VSWR_RF"
    ::= { rmsspaReflectedRF 1}

rmsspaReflectedRFValidation OBJECT-TYPE
    SYNTAX INTEGER {
                          true(1),
                          false(2)
             }
    ACCESS read-only
```

```
    STATUS mandatory
    DESCRIPTION
          "Value indicates if true value of parameter indicated
          or parameter currently invalid
                @GET_FUNC=get_VSWR_RF_validate"
    ::= { rmsspaReflectedRF 2}

--DC current construct
rmsspaDCCurrent OBJECT IDENTIFIER ::= { rmsspaThresholds 3 }

rmsspaDCCurrentValue OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
          "Value of SSPA DC Current in mA.
                @GET_FUNC=get_DC_Current"
    ::= { rmsspaDCCurrent 1}

rmsspaDCCurrentValidation OBJECT-TYPE
    SYNTAX INTEGER {
                          true(1),
                          false(2)
              }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
          "Value indicates if true value of parameter indicated
          or parameter currently invalid
                @GET_FUNC=get_DC_Current_validate"
    ::= { rmsspaDCCurrent 2}

--PS1 voltage construct
rmsspaPS1Voltage OBJECT IDENTIFIER ::= { rmsspaThresholds 4 }

rmsspaPS1VoltageValue OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
          "Value of SSPA PS1 voltage in mV.
                @GET_FUNC=get_PS1_value"
    ::= {rmsspaPS1Voltage 1}

rmsspaPS1VoltageValidation OBJECT-TYPE
    SYNTAX INTEGER {
                          true(1),
                          false(2)
              }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
          "Value indicates if true value of parameter indicated
          or parameter currently invalid
                @GET_FUNC=get_PS1_validate"
    ::= { rmsspaPS1Voltage 2}

--PS2 voltage construct
rmsspaPS2Voltage OBJECT IDENTIFIER ::= { rmsspaThresholds 5 }

rmsspaPS2VoltageValue OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
          "Value of SSPA PS2 voltage in mV.
                @GET_FUNC=get_PS2_voltage"
    ::= {rmsspaPS2Voltage 1}

rmsspaPS2VoltageValidation OBJECT-TYPE
    SYNTAX INTEGER {
                          true(1),
```

```
                    false(2)
            }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Value indicates if true value of parameter indicated
        or parameter currently invalid
            @GET_FUNC=get_PS2_validate"
    ::= { rmsspaPS2Voltage 2}

--Booster1 voltage construct
rmsspaBooster1Voltage OBJECT IDENTIFIER ::= { rmsspaThresholds 6 }

rmsspaBooster1VoltageValue OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Value of SSPA Booster1 voltage in mV.
            @GET_FUNC=get_Booster1_value"
    ::= {rmsspaBooster1Voltage 1}

rmsspaBooster1VoltageValidation OBJECT-TYPE
    SYNTAX INTEGER {
                    true(1),
                    false(2)
            }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Value indicates if true value of parameter indicated
        or parameter currently invalid
            @GET_FUNC=get_Booster1_validate"
    ::= { rmsspaBooster1Voltage 2}

--Booster2 voltage construct
rmsspaBooster2Voltage OBJECT IDENTIFIER ::= { rmsspaThresholds 7 }

rmsspaBooster2VoltageValue OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Value of SSPA Booster2 voltage in mV.
            @GET_FUNC=get_Booster2_value"
    ::= {rmsspaBooster2Voltage 1}

rmsspaBooster2VoltageValidation OBJECT-TYPE
    SYNTAX INTEGER {
                    true(1),
                    false(2)
            }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Value indicates if true value of parameter indicated
        or parameter currently invalid
            @GET_FUNC=get_Booster2_validate"
    ::= { rmsspaBooster2Voltage 2}

--SSPA Core temperature construct
rmsspaCoreTemperature OBJECT IDENTIFIER ::= { rmsspaThresholds 8 }

rmsspaCoreTemperatureValue OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Value of SSPA core temparture in C
            @GET_FUNC=get_Temp_value"
    ::= {rmsspaCoreTemperature 1}
```

```
rmsspaCoreTemperatureValidation OBJECT-TYPE
   SYNTAX INTEGER {
                        true(1),
                        false(2)
            }
   ACCESS read-only
   STATUS mandatory
   DESCRIPTION
        "Value indicates if true value of parameter indicated
        or parameter currently invalid
             @GET_FUNC=get_Temp_validate"
   ::= { rmsspaCoreTemperature 2}

--RM SSPA Conditions tree
rmsspaConditions OBJECT IDENTIFIER ::= { rmSSPA 4 }

--Summary Fault construct
rmsspaSummaryFault OBJECT IDENTIFIER ::= { rmsspaConditions 1 }

rmsspaSummaryFaultValue OBJECT-TYPE
   SYNTAX INTEGER {
                        normal(1),
                        fault(2)
   }
   ACCESS read-only
   STATUS mandatory
   DESCRIPTION
        "Current state of SSPA summary fault
             @GET_FUNC=get_Summary_Fault"
          ::= { rmsspaSummaryFault 1}


rmsspaSummaryFaultCounter OBJECT-TYPE
   SYNTAX Counter
   ACCESS read-only
   STATUS mandatory
   DESCRIPTION
        "Amount of summary fault transitions from normal to
        fault state since last device reset
             @GET_FUNC=get_Summary_Fault_count"
   ::= { rmsspaSummaryFault 2}

END
```

7.2 Modem MIB

The definitions in the following MIB (available in electronic form from Paradise) are valid for all Vision series modems.

```
VISION-MIB DEFINITIONS ::= BEGIN

IMPORTS
   MODULE-IDENTITY, OBJECT-TYPE, NOTIFICATION-TYPE,
   Integer32, Unsigned32, mib-2
      FROM SNMPv2-SMI

   RowStatus, TimeInterval, DateAndTime, StorageType, DisplayString, TruthValue
      FROM SNMPv2-TC

         Float
                  FROM NET-SNMP-TC

   MODULE-COMPLIANCE, OBJECT-GROUP, NOTIFICATION-GROUP
      FROM SNMPv2-CONF

   OBJECT-TYPE, IpAddress, Counter, Gauge, TimeTicks
                  FROM RFC1155-SMI

         InetAddress, InetAddressType
                  FROM INET-ADDRESS-MIB

   paradiseDatacom,modem
                  FROM IPOS-MIB;


p3000  OBJECT IDENTIFIER ::= { modem 2 }


mcp OBJECT IDENTIFIER ::= {  p3000 1 }


mcp-Edit OBJECT IDENTIFIER ::= { mcp 1  }

Edit-Tx OBJECT IDENTIFIER ::= { mcp-Edit 1  }

Tx-Baseband OBJECT IDENTIFIER ::= { Edit-Tx 1  }

TBBTxTerrDataRate OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Terrestrial bit rate. This is used in Continuous mode but is automatically set in other baseband modes."
 ::= { Tx-Baseband 1}


TxSymRate OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Transmit data rate in symbols."
 ::= { Tx-Baseband 2}


TxTransportMode OBJECT-TYPE
SYNTAX INTEGER {
GenPack(1)
GenCon(2)
Transport(3)
}
```

```
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Tx-Baseband 3}


TxBBISIMode OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Tx-Baseband 4}


TxBBISI OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Tx-Baseband 5}


TBBTxScr OBJECT-TYPE
SYNTAX INTEGER {
On(1)
Off(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Tx-Baseband 6}


TxChanMode OBJECT-TYPE
SYNTAX INTEGER {
Data(1)
Symbol(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Tx-Baseband 7}


Tx-Modulation OBJECT IDENTIFIER ::= { Edit-Tx 2  }

TModTxMod OBJECT-TYPE
SYNTAX INTEGER {
PSK4(1)
PSK8(2)
APSK16(3)
APSK32(4)
QAM16(5)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Trade-off between bandwidth efficiency (most efficient is 32APSK) and resilience to noise (most resilient is
QPSK)."
 ::= { Tx-Modulation 8}


TxDVBMode OBJECT-TYPE
SYNTAX INTEGER {
DVBS(1)
DVBS2(2)
Off(3)
}

ACCESS read-write
```

```
STATUS mandatory
DESCRIPTION ""
 ::= { Tx-Modulation 9}


TxPLPilot OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sends small bursts of BPSK modulated symbols to help Rx to lock onto signal."
 ::= { Tx-Modulation 10}


TxPLSSig OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Tx-Modulation 11}


TxDVBS2Mode OBJECT-TYPE
SYNTAX INTEGER {
CCM(1)
VCM(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Tx-Modulation 12}


Tx-FEC OBJECT IDENTIFIER ::= { Edit-Tx 3  }

TxFECFrmSize OBJECT-TYPE
SYNTAX INTEGER {
Short(1)
Long(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the FEC frame size"
 ::= { Tx-FEC 13}


TFECTxFECRate OBJECT-TYPE
SYNTAX INTEGER {
R1-4(1)
R1-3(2)
R2-5(3)
R1-2(4)
R3-5(5)
R2-3(6)
R3-4(7)
R4-5(8)
R5-6(9)
R7-8(10)
R8-9(11)
R9-10(12)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the FEC code rate i.e. the number of bits input to the Forward Error Correction encoder relative to the
number output."
 ::= { Tx-FEC 14}


Tx-Carrier OBJECT IDENTIFIER ::= { Edit-Tx 4  }
```

```
TIFTxIFFreq OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Tx IF frequency used to transmit to satellite."
 ::= { Tx-Carrier 15}


TIFTxIFPwr OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Tx IF output power level."
 ::= { Tx-Carrier 16}


GwyTxCarrier OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
On(2)
MuteOnBreak(3)
Rx(4)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Tx carrier control.  Mute on power break requires confirmation of transmission following a power outage.
When RTS is enabled then the carrier is controlled by the interface RTS line."
 ::= { Tx-Carrier 17}


TFECTxSpectInv OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls whether the I and Q channel outputs are swapped."
 ::= { Tx-Carrier 18}


TModTxRollOff OBJECT-TYPE
SYNTAX INTEGER {
20(1)
25(2)
35(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Select filter roll-off."
 ::= { Tx-Carrier 19}


Edit-Rx OBJECT IDENTIFIER ::= { mcp-Edit 2  }

Rx-Baseband OBJECT IDENTIFIER ::= { Edit-Rx 1  }

RBBRxTerrDataRate OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Terrestrial bit rate. This is used in Continuous mode but is automatically set in other baseband modes."
 ::= { Rx-Baseband 20}


RxSymRate OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Receive data rate in symbols."
 ::= { Rx-Baseband 21}
```

```
RxTransportMode OBJECT-TYPE
SYNTAX INTEGER {
GenPack(1)
GenCon(2)
Transport(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 22}


RxBBISIMode OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 23}


RxBBISI OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 24}


RxChanMode OBJECT-TYPE
SYNTAX INTEGER {
Data(1)
Symbol(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 25}


RxMPEGFilter OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 26}


RxMPEGPID OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 27}


RBBRxScr OBJECT-TYPE
SYNTAX INTEGER {
On(1)
Off(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 28}


RxMPEGPID1 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
```

```
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 29}


RxMPEGPID2 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 30}


RxMPEGPID3 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Baseband 31}


Rx-Demodulation OBJECT IDENTIFIER ::= { Edit-Rx 2  }

RDemRxMod OBJECT-TYPE
SYNTAX INTEGER {
PSK4(1)
PSK8(2)
APSK16(3)
APSK32(4)
QAM16(5)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Trade-off between bandwidth efficiency (most efficient is 32APSK) and resilience to noise (most resilient is
QPSK)."
 ::= { Rx-Demodulation 32}


RxDVBMode OBJECT-TYPE
SYNTAX INTEGER {
DVBS(1)
DVBS2(2)
Off(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Demodulation 33}


RxPLPilot OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Demodulation 34}


RxPLSSig OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Demodulation 35}


RDemRxSweep OBJECT-TYPE
SYNTAX INTEGER {
Normal(1)
Other(2)
```

```
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the Rx signal sweep configuration."
 ::= { Rx-Demodulation 36}


RDemRxSweepWidth OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the Rx signal sweep width - this is a +/- setting i.e. the total width is twice the value that is entered."
 ::= { Rx-Demodulation 37}


RxDVBS2Mode OBJECT-TYPE
SYNTAX INTEGER {
CCM(1)
VCM(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Rx-Demodulation 38}


Rx-FEC OBJECT IDENTIFIER ::= { Edit-Rx 3  }

RxFECFrmSize OBJECT-TYPE
SYNTAX INTEGER {
Short(1)
Long(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the inner FEC mode."
 ::= { Rx-FEC 39}


RFECRxFECRate OBJECT-TYPE
SYNTAX INTEGER {
R1-4(1)
R1-3(2)
R2-5(3)
R1-2(4)
R3-5(5)
R2-3(6)
R3-4(7)
R4-5(8)
R5-6(9)
R7-8(10)
R8-9(11)
R9-10(12)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the FEC code rate i.e. the number of bits input to the Forward Error Correction encoder relative to the
number output."
 ::= { Rx-FEC 40}


Rx-Carrier OBJECT IDENTIFIER ::= { Edit-Rx 4  }

RFECRxSpectInv OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls whether the I and Q channel outputs are swapped."
```

```
 ::= { Rx-Carrier 41}


RIFRxIFFreq OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Rx IF frequency used to receive from satellite."
 ::= { Rx-Carrier 42}


RDemRxRollOff OBJECT-TYPE
SYNTAX INTEGER {
20(1)
25(2)
35(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Select filter roll-off."
 ::= { Rx-Carrier 43}


Rx-RxEqTx OBJECT IDENTIFIER ::= { Edit-Rx 5  }

CPURxEqTx OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls whether specific Rx configuration parameters mirror the equivalent Tx parameters."
 ::= { Rx-RxEqTx 44}


Edit-Unit OBJECT IDENTIFIER ::= { mcp-Edit 3  }

Unit-Identity OBJECT IDENTIFIER ::= { Edit-Unit 1  }

CPUModemID OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "User-assigned field typically the unique modem name, number or location."
 ::= { Unit-Identity 45}


Unit-Interface OBJECT IDENTIFIER ::= { Edit-Unit 2  }

CPUBxIFImpedance OBJECT-TYPE
SYNTAX INTEGER {
50(1)
75(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the IF port impedance."
 ::= { Unit-Interface 46}


BridgeMode OBJECT-TYPE
SYNTAX INTEGER {
Bridge(1)
Broute(2)
PEP(3)
Hub(4)
Leaf(5)
HC(6)
Mesh(7)
PEP-HC(8)
}
```

ACCESS read-write
STATUS mandatory
DESCRIPTION "Select Bridge for ordinary ethernet over satellite bridging, i.e. point-to-point systems. Select Brouting for all point-to-multipoint or unidirectional IP systems. Select TCP acceleration for bridging of non-TCP packets and acceleration of TCP packets."
::= { Unit-Interface 47}

BridgeFiltering OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls whether the Ethernet bridge filters out all traffic other than for the local subnet."
::= { Unit-Interface 48}

BridgeRemCon OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include M&C IP interface in bridge. Deselect to keep M&C & Traffic seperate.
"
::= { Unit-Interface 49}

CPUTrafficIPAddr OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the IP address for the traffic interface."
::= { Unit-Interface 50}

CPUTrafficIPNetmask OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the traffic port IP subnet mask."
::= { Unit-Interface 51}

CPUTrafficIPGateway OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the IP gateway for the traffic interface."
::= { Unit-Interface 52}

TxIntfcType OBJECT-TYPE
SYNTAX INTEGER {
ASI(1)
IP(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { Unit-Interface 53}

ASIP1Mode OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
Tx(2)
Rx(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { Unit-Interface 54}

```
ASIP2Mode OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
Tx(2)
Rx(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 55}


ASIP3Mode OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
Tx(2)
Rx(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 56}


ASIP4Mode OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
Tx(2)
Rx(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 57}


ASIP1BitRate OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 58}


ASIP2BitRate OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 59}


ASIP3BitRate OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 60}


ASIP4BitRate OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 61}
```

```
RxIntfcType OBJECT-TYPE
SYNTAX INTEGER {
ASI(1)
IP(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 62}


CPUQoSScheme OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Selects Fair Weighted Queueing Qos"
 ::= { Unit-Interface 63}


CPUEnableVLAN OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Enables VLAN filtering."
 ::= { Unit-Interface 64}


CPUVLANID OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Select ID to be used with VLAN filtering."
 ::= { Unit-Interface 65}


CPUWebProxy OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Enables acceleration of HTTP requests."
 ::= { Unit-Interface 66}


CPUDNSAddr OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the IP address of the DNS server."
 ::= { Unit-Interface 67}


EncapsulationType OBJECT-TYPE
SYNTAX INTEGER {
ULE(1)
MPE(2)
PXE(3)
TSIP(4)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 68}


TranscodeDestAddr OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
```

::= { Unit-Interface 69}

TranscodeDestPort OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { Unit-Interface 70}

TranscodeLocalAddr OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { Unit-Interface 71}

TranscodeLocalPort OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { Unit-Interface 72}

TranscodeType OBJECT-TYPE
SYNTAX INTEGER {
UDP(1)
RTP(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { Unit-Interface 73}

IPMode OBJECT-TYPE
SYNTAX INTEGER {
Bridge(1)
Routing(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Indicates how, and at what level, IP traffic is forwarded."
::= { Unit-Interface 74}

HeaderCompression OBJECT-TYPE
SYNTAX INTEGER {
On(1)
Off(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { Unit-Interface 75}

CPUSatIPAddr OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { Unit-Interface 76}

CPUSatIPNetmask OBJECT-TYPE

SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 77}

CPUSatIPGateway OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 78}

UseRIPEnDefCfg OBJECT-TYPE
SYNTAX INTEGER {
No(1)
Yes(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 79}

UseOSPFEnDefCfg OBJECT-TYPE
SYNTAX INTEGER {
No(1)
Yes(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 80}

TCPAcceleration OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 81}

TxNullPktMode OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
On(2)
Adapt(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-Interface 82}

Unit-MandC OBJECT IDENTIFIER ::= { Edit-Unit 3 }

CPURUIProtocol OBJECT-TYPE
SYNTAX INTEGER {
Local(1)
GiveAway(2)
TakeAway(3)
}

ACCESS read-write
STATUS mandatory

DESCRIPTION "Controls modem ownership. In Local mode, the local user interface controls the modem. In Giveaway mode, a remote admin user may log in and control the modem until an automatic (following a timeout) or manual log out occurs. In Takeaway mode, the modem accepts commands from any interface at any time (relying on clear operational procedures to prevent conflicting requests)."
::= { Unit-MandC 83}

CPURUIPassword OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Modem password for remote admin user login (login name is 'admin'). The admin user can both view and control the modem. Only one admin user can be logged in at a time."
::= { Unit-MandC 84}

CPURUIViewOnlyPassword OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Modem password for remote view-only user login (login name is 'user'). Multiple view-only users can be logged in at the same time."
::= { Unit-MandC 85}

CPUGiveAwayTimeout OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Specifies the period of time without any user input activity after which a user is logged out. This is true even for the local user interface (this has an implicit login when the operator first presses a key). In Giveaway mode, logging out causes ownership of the modem to be lost."
::= { Unit-MandC 86}

CPUSerialMode OBJECT-TYPE
SYNTAX INTEGER {
RS232(1)
RS485(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Specifies the remote control serial interface mode."
::= { Unit-MandC 87}

CPUSerialBaud OBJECT-TYPE
SYNTAX INTEGER {
50(1)
75(2)
110(3)
150(4)
300(5)
600(6)
1200(7)
2400(8)
4800(9)
9600(10)
19200(11)
38400(12)
57600(13)
115200(14)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Specifies the remote control serial interface baud rate."
::= { Unit-MandC 88}

CPURS485Addr OBJECT-TYPE

```
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Specifies the unit's RS485 address."
 ::= { Unit-MandC 89}


CPURemConIPAddr OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the IP address for the remote control interface."
 ::= { Unit-MandC 90}


CPURemConIPNetmask OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the remote control port IP subnet mask."
 ::= { Unit-MandC 91}


CPURemConIPGateway OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the IP gateway for the remote control interface."
 ::= { Unit-MandC 92}


Unit-Clocks OBJECT IDENTIFIER ::= { Edit-Unit 4  }

GwyStatClkSrc OBJECT-TYPE
SYNTAX INTEGER {
None(1)
BNC(2)
RS422(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the station clock source to be used in place of the internal 10MHz reference."
 ::= { Unit-Clocks 93}


GwyStatClkType OBJECT-TYPE
SYNTAX INTEGER {
Int10MHz(1)
RxRefClk(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the function of the station clock i.e. whether replaces the internal 10MHz reference or is used as a
Rx-only reference clock."
 ::= { Unit-Clocks 94}


GwyStatClkFreq OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Indicates the frequency of the station clock reference signal."
 ::= { Unit-Clocks 95}


Unit-Advanced OBJECT IDENTIFIER ::= { Edit-Unit 5  }

CPUSafCode OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
```

```
STATUS mandatory
DESCRIPTION "Encrypted code for enabling Software Activated Features."
 ::= { Unit-Advanced 96}


CPURxOneForOne OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "This option enables a receive failure to cause a 1:1 switchover.
"
 ::= { Unit-Advanced 97}


CPUBxBERMax OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the error-rate threshold above which a deferred alarm will be generated."
 ::= { Unit-Advanced 98}


CPURxEbNoMin OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the Eb/No threshold below which a deferred alarm will be generated."
 ::= { Unit-Advanced 99}


CPUBxBERAlmActive OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls whether the BER threshold alarm is enabled."
 ::= { Unit-Advanced 100}


CPUTxOneForOne OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "This option enables a transmit failure to cause a 1:1 switchover.
"
 ::= { Unit-Advanced 101}


Unit-SNMP OBJECT IDENTIFIER ::= { Edit-Unit 6  }

CPUSNMPSysLocation OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "The location of the system."
 ::= { Unit-SNMP 102}


CPUSNMPAdminContact OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "The contact information for the administrator."
 ::= { Unit-SNMP 103}


CPUSNMPROCommunity OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "SNMP V1/V2c read-only access community name."
 ::= { Unit-SNMP 104}
```

```
CPUSNMPROManagerIP OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Source token. Can be a hostname, a subnet, or the word 'default'. A subnet can be specified as IP/MASK or
IP/BITS."
 ::= { Unit-SNMP 105}


CPUSNMPRWCommunity OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "SNMP V1/V2c read-write access community name."
 ::= { Unit-SNMP 106}


CPUSNMPRWManagerIP OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Source token. Can be a hostname, a subnet, or the word 'default'. A subnet can be specified as IP/MASK or
IP/BITS.
"
 ::= { Unit-SNMP 107}


CPUSNMPv1TrapRcv OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Defines trap receiver host name or IP address."
 ::= { Unit-SNMP 108}


CPUSNMPv1TrapCommunity OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Define the community to be used when sending traps."
 ::= { Unit-SNMP 109}


CPUSNMPv2TrapRcv OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Defines trap receiver host name or IP address."
 ::= { Unit-SNMP 110}


CPUSNMPv2TrapCommunity OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Define the community to be used when sending traps."
 ::= { Unit-SNMP 111}


CPUSNMPTrapSinkCommunity OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "This defines the default community string to be used when sending traps."
 ::= { Unit-SNMP 112}


RunSNMP OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
```

```
DESCRIPTION "SNMP agent run control"
 ::= { Unit-SNMP 113}


Unit-SMTP OBJECT IDENTIFIER ::= { Edit-Unit 7  }

CPUSMTPUserName OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "User's account name if authentication is required by the SMTP mail server."
 ::= { Unit-SMTP 114}


CPUSMTPUserPassword OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Password if authentication is required by the SMTP mail server."
 ::= { Unit-SMTP 115}


CPUSMTPHost OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Outgoing mail server name or IP address of the SMTP mail server."
 ::= { Unit-SMTP 116}


CPUSMTPAuthRequired OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Authentication required by the SMTP mail server."
 ::= { Unit-SMTP 117}


CPUSMTPRxEbNo OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include up to 4 weeks of logged data for Eb/No."
 ::= { Unit-SMTP 118}


CPUSMTPDistantEbNo OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include up to 4 weeks of logged data for distant Eb/No."
 ::= { Unit-SMTP 119}


CPUSMTPRxPwrLevel OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include up to 4 weeks of logged data for receive power level."
 ::= { Unit-SMTP 120}


CPUSMTPBer OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include up to 4 weeks of logged data for final BER

"
 ::= { Unit-SMTP 121}
```

CPUSMTPAUPCPwrOffset OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include up to 4 weeks of logged data for Eb/No."
::= { Unit-SMTP 122}

CPUSMTPCurrTemp OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include up to 4 weeks of logged data for Eb/No modem temperature."
::= { Unit-SMTP 123}

CPUSMTPLog OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Select to include the current event log in the email report."
::= { Unit-SMTP 124}

CPUSMTPSysAlarms OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Select to include the current alarms in the email report."
::= { Unit-SMTP 125}

CPUSMTPConfigMems OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Select to include all of the configuration memories in the email report.Each configuration is sent as a separate attachment."
::= { Unit-SMTP 126}

CPUSMTPSpectData OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Select to include spectrum data in the email report. A snapshot of the current values is sent as an attachment.
"
::= { Unit-SMTP 127}

CPUSMTPConstData OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Select to include constellation data in the email report. A snapshot of the current values is sent as an attachment.
"
::= { Unit-SMTP 128}

CPUSMTPPRBSBER OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include up to 4 weeks of logged data for Eb/No."
::= { Unit-SMTP 129}

CPUSMTPMode OBJECT-TYPE
SYNTAX INTEGER {
disabled(1)

```
minute(2)
tenmins(3)
thirtymins(4)
hour(5)
day(6)
week(7)
month(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Set how often an automatic email report is generated."
 ::= { Unit-SMTP 130}


CPUSMTPUserInterval OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { Unit-SMTP 131}


CPUSMTPRecipient OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "The email address to which the reports are sent.
"
 ::= { Unit-SMTP 132}


CPUSMTPAltFrom OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Alternative email address that will receive any error messages if email fails to be delivered."
 ::= { Unit-SMTP 133}


CPUSMTPSubject OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Text to be used as the emails subject line."
 ::= { Unit-SMTP 134}


CPUSMTPAlarmEvent OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "When selected units faults are emailed immediately."
 ::= { Unit-SMTP 135}


CPUSMTPRxFreqOffset OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Include up to 4 weeks of logged data for receive frequency offset."
 ::= { Unit-SMTP 136}


Unit-Routes OBJECT IDENTIFIER ::= { Edit-Unit 8  }

route0 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 137}
```

```
route1 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 138}


route2 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 139}


route3 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 140}


route4 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 141}


route5 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 142}


route6 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 143}


route7 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 144}


route8 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 145}


route9 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 146}
```

```
route10 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 147}


route11 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 148}


route12 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 149}


route13 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 150}


route14 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 151}


route15 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 152}


route16 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 153}


route17 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 154}


route18 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 155}
```

```
route19 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 156}

route20 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 157}

route21 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 158}

route22 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 159}

route23 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 160}

route24 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 161}

route25 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 162}

route26 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 163}

route27 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 164}
```

```
route28 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 165}

route29 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 166}

route30 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 167}

route31 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 168}

route32 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 169}

route33 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 170}

route34 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 171}

route35 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 172}

route36 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 173}
```

```
route37 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 174}


route38 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 175}


route39 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 176}


route40 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 177}


route41 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 178}


route42 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 179}


route43 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 180}


route44 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 181}


route45 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 182}
```

```
route46 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 183}


route47 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 184}


route48 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 185}


route49 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 186}


route50 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 187}


route51 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 188}


route52 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 189}


route53 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 190}


route54 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 191}
```

```
route55 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 192}


route56 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 193}


route57 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 194}


route58 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 195}


route59 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 196}


route60 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 197}


route61 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 198}


route62 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 199}


route63 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Static route."
 ::= { Unit-Routes 200}
```

```
hcroute0 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 201}


hcroute1 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 202}


hcroute2 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 203}


hcroute3 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 204}


hcroute4 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 205}


hcroute5 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 206}


hcroute6 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 207}


hcroute7 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 208}


hcroute8 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 209}
```

```
hcroute9 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 210}


hcroute10 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 211}


hcroute11 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 212}


hcroute12 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 213}


hcroute13 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 214}


hcroute14 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 215}


hcroute15 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Header compressed route"
 ::= { Unit-Routes 216}


mcp-View OBJECT IDENTIFIER ::= { mcp 2  }

View-Unit OBJECT IDENTIFIER ::= { mcp-View 1  }

ManufacturerID OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Manufacturer identity number."
 ::= { View-Unit 217}


ModelNumber OBJECT-TYPE
SYNTAX DisplayString
```

```
ACCESS read-only
STATUS mandatory
DESCRIPTION "Modem model number."
 ::= { View-Unit 218}


SerialNumber OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates the internal modem serial number."
 ::= { View-Unit 219}


SoftwareVersion OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Version number for the modem software."
 ::= { View-Unit 220}


FirmwareVersion OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Version number for the modem firmware."
 ::= { View-Unit 221}


BxBoardConfig OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Identifies the modem physical configuration."
 ::= { View-Unit 222}


View-SAF OBJECT IDENTIFIER ::= { mcp-View 2  }

CPUSafFeaturesEnabled OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates which Software Activated Features are currently switched on."
 ::= { View-SAF 223}


CPUSafFeaturesNotEnabled OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates which Software Activated Features are currently switched off."
 ::= { View-SAF 224}


CPUDemoTimeRemaining OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates the time for which temporarily-enabled Software Activated Features will remain switched on."
 ::= { View-SAF 225}


CPUDemoShotsRemaining OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates the number of times Software Activated Features can be enabled temporarily for free."
 ::= { View-SAF 226}
```

```
View-Monitor OBJECT IDENTIFIER ::= { mcp-View 3  }

BxCurrTemp OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Current modem internal operating temperature."
 ::= { View-Monitor 227}


BxPSULevels OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Current PSU power level."
 ::= { View-Monitor 228}


View-Alarms OBJECT IDENTIFIER ::= { mcp-View 4  }

TxClockFailureAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 229}


TxClockFailureAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2229}


TxDataMarginalAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 230}


TxDataMarginalAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2230}


TxDPLLLostLockAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 231}


TxDPLLLostLockAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2231}


IFTxSynthLostLockAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 232}


IFTxSynthLostLockAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2232}


RxDemodUnlockedAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 233}
```

```
RxDemodUnlockedAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2233}


RxClockFailureAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 234}


RxClockFailureAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2234}


RxDemodFIFOOverflowAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 235}


RxDemodFIFOOverflowAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2235}


IFRxSynthLostLockAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 236}


IFRxSynthLostLockAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2236}


BUCCommunicationsFailureAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 237}


BUCCommunicationsFailureAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2237}


BUCPLLAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 238}


BUCPLLAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2238}


BUCTemperatureAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 239}
```

```
BUCTemperatureAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2239}


InternalFaultAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 240}


InternalFaultAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2240}


MuteOnBreakAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 241}


MuteOnBreakAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2241}


PowerSupplyAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 242}


PowerSupplyAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2242}


PowerSupplyAlarmOFN NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 243}


PowerSupplyAlarmOFNCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2243}


StationClockFailureAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 244}


StationClockFailureAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2244}


TemperatureAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 245}
```

```
TemperatureAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2245}


RxSymRateAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 246}


RxSymRateAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2246}


TxSymRateAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 247}


TxSymRateAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2247}


TxDataRateAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 248}


TxDataRateAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2248}


RxDataRateAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 249}


RxDataRateAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2249}


FanFailureAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 250}


FanFailureAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2250}


TxBUCPSUAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 251}
```

TxBUCPSUAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2251}

RxFECSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 252}

RxFECSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2252}

TxIFFreqAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION "Tx carrier frequency out of range for current symbol rate"
::= { View-Alarms 253}

TxIFFreqAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION "Tx carrier frequency out of range for current symbol rate"
::= { View-Alarms 2253}

TxBUCPowerAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 254}

TxBUCPowerAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2254}

TxChannelDPLLAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 255}

TxChannelDPLLAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2255}

TxTerrestrialDPLLAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 256}

TxTerrestrialDPLLAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2256}

BackupRxClockFailureAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 257}

```
BackupRxClockFailureAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2257}


RxTerrestrialDPLLAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 258}


RxTerrestrialDPLLAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2258}


RxEbNoBelowThresholdAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 259}


RxEbNoBelowThresholdAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2259}


RxPLSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 260}


RxPLSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2260}


RxTrafficAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 261}


RxTrafficAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2261}


TxASICarrierAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 262}


TxASICarrierAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2262}


TxASIAISAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 263}
```

TxASIAISAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2263}

TxASIK285Alarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 264}

TxASIK285AlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2264}

TxASIDispAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 265}

TxASIDispAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2265}

TxASIDecoderAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 266}

TxASIDecoderAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2266}

TxASIMPEGSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 267}

TxASIMPEGSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2267}

TxASIUnderFlowAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 268}

TxASIUnderFlowAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2268}

TxASIOverFlowAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 269}

TxASIOverFlowAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2269}

TxASIClockAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 270}

TxASIClockAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2270}

RxASIMPEGSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 271}

RxASIMPEGSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2271}

RxASIClockAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 272}

RxASIClockAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2272}

RxASIUnderFlowAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 273}

RxASIUnderFlowAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2273}

RxASIOverFlowAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 274}

RxASIOverFlowAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2274}

RxASIEncoderAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 275}

RxASIEncoderAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2275}

RxBBSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 276}

RxBBSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2276}

RxBBCRCAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 277}

RxBBCRCAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2277}

RxMPGSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 278}

RxMPGSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2278}

RxMPGCRCAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 279}

RxMPGCRCAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2279}

TxConfigAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 280}

TxConfigAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2280}

RxConfigAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 281}

RxConfigAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2281}

TxModOutputAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 282}

TxModOutputAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2282}

TxModTSBufferAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 283}

TxModTSBufferAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2283}

TxModMPEGSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 284}

TxModMPEGSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2284}

TxModMPEGSyncLostAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 285}

TxModMPEGSyncLostAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2285}

TxModEncSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 286}

TxModEncSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2286}

TxModFrameSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 287}

TxModFrameSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2287}

TxModFrameBufferAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 288}

TxModFrameBufferAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2288}

TxModFIFOUnderflowAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 289}

TxModFIFOUnderflowAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2289}

TxModFIFOOverflowAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 290}

TxModFIFOOverflowAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2290}

TxModRSSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 291}

TxModRSSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2291}

TxModP2PSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 292}

TxModP2PSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 2292}

TxModCFIFOSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
::= { View-Alarms 293}

```
TxModCFIFOSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2293}


ASIConfigAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 294}


ASIConfigAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2294}


RxRSSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 295}


RxRSSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2295}


RxMPEGSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 296}


RxMPEGSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2296}


RxDeinterleaverAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 297}


RxDeinterleaverAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2297}


RxViterbiSyncAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 298}


RxViterbiSyncAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2298}


RxChannelDPLLAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 299}
```

```
RxChannelDPLLAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { View-Alarms 2299}


mcp-Test OBJECT IDENTIFIER ::= { mcp 3  }

CPULoopback OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
IF(2)
Int(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Loopback selection."
 ::= { mcp-Test 300}


TFECTxModCW OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Test mode."
 ::= { mcp-Test 301}


TFECTxModAlt10 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Test mode."
 ::= { mcp-Test 302}


mcp-Miscellaneous OBJECT IDENTIFIER ::= { mcp 4  }

Miscellaneous-Lband OBJECT IDENTIFIER ::= { mcp-Miscellaneous 1  }

TLBTxRFFreq OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Tx L-band frequency used to transmit to satellite."
 ::= { Miscellaneous-Lband 303}


TLBTxRFPwr OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "RF transmitted power level."
 ::= { Miscellaneous-Lband 304}


RLBRxRFFreq OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Rx L-band frequency used to receive from satellite."
 ::= { Miscellaneous-Lband 305}


RLBRxDCVoltage OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
V15(2)
V24(3)
```

```
V24-Multiswitch(4)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the source of DC supplies to the Rx IF module."
 ::= { Miscellaneous-Lband 306}


RLBRx10MHzRef OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the source of 10MHz reference to the Rx IF module."
 ::= { Miscellaneous-Lband 307}


CPURxLNBDCAlmAct OBJECT-TYPE
SYNTAX INTEGER {
Ignore(1)
Alarm(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Indicates whether the combined over/under-current, over-temperature alarm for the Rx DC switch is
considered a fault or not."
 ::= { Miscellaneous-Lband 308}


CPURxSHFFreqOffset OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Down-converter conversion frequency, allowing Tx IF frequency to be displayed/edited in direct SHF
frequencies."
 ::= { Miscellaneous-Lband 309}


CPUTxBUCDCCurrentMin OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Trip threshold at which a fault is declared when the current drawn by the Tx ODU is outside the limit."
 ::= { Miscellaneous-Lband 310}


CPUTxBUCDCCurrentMax OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Trip threshold at which a fault is declared when the current drawn by the Tx ODU is outside the limit."
 ::= { Miscellaneous-Lband 311}


CPUTxSHFPwrOffset OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Defines a transmit power offset, used when displaying and editing transmit power."
 ::= { Miscellaneous-Lband 312}


CPUTxSHFFreqOffset OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Up-converter conversion frequency, allowing Tx IF frequency to be displayed/edited in direct SHF
frequencies."
 ::= { Miscellaneous-Lband 313}
```

```
CPUTxSHFPwrUnits OBJECT-TYPE
SYNTAX INTEGER {
dBm(1)
dBW(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Specifies the Tx SHF power units as dBm or dBW."
 ::= { Miscellaneous-Lband 314}


CPUTxSHFPwrRadiated OBJECT-TYPE
SYNTAX INTEGER {
TxPwr(1)
EIRP(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Specifies the TX SHF Power Radiated display. This is a display feature only and does not adjust the actual
power."
 ::= { Miscellaneous-Lband 315}


TLBTxDCVoltage OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the source of DC supplies to the Tx IF module."
 ::= { Miscellaneous-Lband 316}


TLBTxBUCVoltage OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "The supply voltage of the BUC PSU"
 ::= { Miscellaneous-Lband 317}


TLBTx10MHzRef OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the 10MHz reference to the Tx IF module."
 ::= { Miscellaneous-Lband 318}


TLBTxBUCCarrier OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls whether the BUC carrier is switched on."
 ::= { Miscellaneous-Lband 319}


TLBTxBUCAtten OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Controls the level of attentuation applied from the modem output to the BUC."
 ::= { Miscellaneous-Lband 320}


CPUTxBUCDCAlmAct OBJECT-TYPE
SYNTAX INTEGER {
Ignore(1)
Alarm(2)
}

ACCESS read-write
```

```
STATUS mandatory
DESCRIPTION "Controls whether the combined over/under-current, over-temperature alarm for the Tx DC switch is
considered a fault or not."
 ::= { Miscellaneous-Lband 321}


TLBTxBUCType OBJECT-TYPE
SYNTAX INTEGER {
F4900(1)
F5475(2)
F5775(3)
F13050(4)
F12800(5)
None(6)
Other(7)
D-15450(8)
F0(9)
C4900(10)
C13050(11)
C12800(12)
D4900(13)
F13050-0(14)
F12800-0(15)
D0(16)
D6950(17)
F6950(18)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Indicates type of BUC fitted."
 ::= { Miscellaneous-Lband 322}


RLBRxLNBType OBJECT-TYPE
SYNTAX INTEGER {
F-5150(1)
F10000(2)
F10250(3)
F10750(4)
F11300(5)
None(6)
Other(7)
F9750(8)
F10600(9)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Indicates type of LNB fitted."
 ::= { Miscellaneous-Lband 323}


TLBTxBUCFreq OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "BUC frequency used to transmit to satellite."
 ::= { Miscellaneous-Lband 324}


RLBRxLNBFreq OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "LNB frequency used to receive from satellite."
 ::= { Miscellaneous-Lband 325}


TLBTxBUCPwr OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
```

```
STATUS mandatory
DESCRIPTION "BUC transmitted power level."
 ::= { Miscellaneous-Lband 326}


TLBTxBUCControlMode OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Enable terminal mode control of BUC, modem automatically compensates for cross site cable losses."
 ::= { Miscellaneous-Lband 327}


BLBBxServices OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "This options controls whether the modem mutes the services (DC & 10MHz) when in 1:1 standby. Select
this option when you want the services to switch on 1: changeover."
 ::= { Miscellaneous-Lband 328}


TLBTxPowerClass OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Selects Power Class when greater than 170W."
 ::= { Miscellaneous-Lband 329}


RLBRxServices OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "This options controls whether the modem mutes the services (DC & 10MHz) when in 1:1 standby. Select
this option when you want the services to switch on 1: changeover."
 ::= { Miscellaneous-Lband 330}


Miscellaneous-Build OBJECT IDENTIFIER ::= { mcp-Miscellaneous 2  }

CPURIFFitted OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates whether Rx IF card is fitted."
 ::= { Miscellaneous-Build 331}


CPUTIFFitted OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates whether Tx IF card is fitted."
 ::= { Miscellaneous-Build 332}


CPURLBFitted OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates whether Rx L-band card is fitted."
 ::= { Miscellaneous-Build 333}


CPUTLBFitted OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates whether Tx L-band card is fitted."
 ::= { Miscellaneous-Build 334}
```

```
MotherboardSerialNumber OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates the motherboard serial number."
 ::= { Miscellaneous-Build 335}


CPUASIFitted OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates if a ASI terrestrial card is fitted."
 ::= { Miscellaneous-Build 336}


CPUIPTrafficFitted OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates if a IP traffic card is fitted."
 ::= { Miscellaneous-Build 337}


CPUOFNFitted OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates whether 1:N is fitted."
 ::= { Miscellaneous-Build 338}


Miscellaneous-Status OBJECT IDENTIFIER ::= { mcp-Miscellaneous 3  }

BxMaxTemp OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Maximum operating temperature of the modem, above which a fault is generated."
 ::= { Miscellaneous-Status 339}


BxMinTemp OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Minimum operating temperature of the modem."
 ::= { Miscellaneous-Status 340}


BxMaxTempWarn OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Threshold that indicates that the modem is approaching its maximum operating temperature."
 ::= { Miscellaneous-Status 341}


GwyTxCarrierStatus OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Tx carrier status."
 ::= { Miscellaneous-Status 342}


UnitSetupComplete OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Indicates when the modem has completed re-configuration following a change."
```

::= { Miscellaneous-Status 343}

RxEbNo OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Demodulator Energy per bit/Noise power density ratio, calculated from the Es/No measured by the demodulator."
::= { Miscellaneous-Status 344}

RxEsNo OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Received Energy per Symbol/Noise power density ratio as measured by the demodulator."
::= { Miscellaneous-Status 345}

RxFreqOffset OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "When the demodulator is locked this is the carrier offset frequency, measured as an offset from the programmed Rx carrier frequency."
::= { Miscellaneous-Status 346}

RxPwrLevel OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Estimate of the Rx input requested power level (i.e. the power level of the channel selected by the user)."
::= { Miscellaneous-Status 347}

DemodLocked OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Current status of the demodulator, indicating whether it is currently locked to the carrier."
::= { Miscellaneous-Status 348}

RxFinalBER OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Final BER at the output of the modem."
::= { Miscellaneous-Status 349}

RelayStatus OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Relay status."
::= { Miscellaneous-Status 350}

CPUKbdLock OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the state of the keyboard (can be locked to prevent inadvertent use)."
::= { Miscellaneous-Status 351}

CPUSwitchModeStatus OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only

```
STATUS mandatory
DESCRIPTION "Status of the Switch."
 ::= { Miscellaneous-Status 352}


Miscellaneous-SAF OBJECT IDENTIFIER ::= { mcp-Miscellaneous 4  }

CPUSAFTx OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 353}


CPUSAFRx OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 354}


CPUSAFDataRate0 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 355}


CPUSAFDataRate1 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 356}


CPUSAFDataRate2 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 357}


CPUSAFDataRate3 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 358}


CPUSAFDataRate4 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 359}


CPUSAFDataRate5 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 360}


CPUSAFWideIF OBJECT-TYPE
```

```
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 361}


CPUSAFTCP OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 362}


CPUSAFHCP OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 363}


CPUSAFBrouting OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 364}


CPUSAFTCP25 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 365}


CPUSAFDataRate1L OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 366}


CPUSAFDataRate1H OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 367}


CPUSAFTCP16 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 368}


CPUSAFTCP55 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 369}


CPUSAFWEB OBJECT-TYPE
```

SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 370}

CPUSAFFSK OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 371}

CPUSAFTXDVBS OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 372}

CPUSAFCCM OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 373}

CPUSAFVCM OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 374}

CPUSAFWRF OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 375}

CPUSAFTXDVBS2 OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 376}

CPUSAFTXDVBDSNG OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 377}

CPUSAFRXDVBS OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 378}

CPUSAFRXDVBS2 OBJECT-TYPE

```
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 379}


CPUSAFRXDVBDSNG OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 380}


CPUSAFCCMM OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 381}


CPUSAFDVBIP OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 382}


CPUSAFRouting OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { Miscellaneous-SAF 383}


Miscellaneous-Switch OBJECT IDENTIFIER ::= { mcp-Miscellaneous 5  }

CPUSwitchAddress OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the RS485 address when used with 1:N switch."
 ::= { Miscellaneous-Switch 384}


CPUModemPriority1 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 385}


CPUModemPriority2 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
```

```
 ::= { Miscellaneous-Switch 386}


CPUModemPriority3 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 387}


CPUModemPriority4 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 388}


CPUModemPriority5 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 389}


CPUModemPriority6 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 390}


CPUModemPriority7 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 391}


CPUModemPriority8 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
```

```
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 392}


CPUModemPriority9 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 393}


CPUModemPriority10 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 394}


CPUModemPriority11 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 395}


CPUModemPriority12 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 396}


CPUModemPriority13 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 397}
```

```
CPUModemPriority14 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 398}


CPUModemPriority15 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 399}


CPUModemPriority16 OBJECT-TYPE
SYNTAX INTEGER {
P1(1)
P2(2)
P3(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Sets the priority of the specified modem when used with 1:N switch."
 ::= { Miscellaneous-Switch 400}


mcp-NewMCPs OBJECT IDENTIFIER ::= { mcp 5  }

CPUSAFShaping OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { mcp-NewMCPs 401}


QoSScheme OBJECT-TYPE
SYNTAX INTEGER {
Diffserv-DSCP(1)
IEEE-802-1p(2)
MPLS-EXP(3)
IP-Address(4)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 402}


IPAddrClass OBJECT-TYPE
SYNTAX INTEGER {
Source-address-only(1)
Destination-address-only(2)
Source-address-port(3)
Destination-address-port(4)
}
```

```
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 403}


EnableShaping OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 404}


TxCIR00 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 405}


TxCIR01 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 406}


TxCIR02 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 407}


TxCIR03 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 408}


TxCIR04 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 409}


TxCIR05 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 410}


TxCIR06 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 411}


TxCIR07 OBJECT-TYPE
```

```
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 412}

TxCIR08 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 413}

TxCIR09 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 414}

TxCIR10 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 415}

TxCIR11 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 416}

TxCIR12 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 417}

TxCIR13 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 418}

TxCIR14 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 419}

TxCIR15 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class"
 ::= { mcp-NewMCPs 420}

TxBIR00 OBJECT-TYPE
```

```
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 421}


TxBIR01 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 422}


TxBIR02 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 423}


TxBIR03 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 424}


TxBIR04 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 425}


TxBIR05 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 426}


TxBIR06 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 427}


TxBIR07 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 428}


TxBIR08 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 429}


TxBIR09 OBJECT-TYPE
```

SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 430}

TxBIR10 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 431}

TxBIR11 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 432}

TxBIR12 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 433}

TxBIR13 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 434}

TxBIR14 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 435}

TxBIR15 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Burst Information Rate Class"
 ::= { mcp-NewMCPs 436}

TxCIRTot OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "Shaping Committed Information Rate Class Total"
 ::= { mcp-NewMCPs 437}

PrioCl00 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)

```
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 438}


PrioCl01 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 439}


PrioCl02 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 440}


PrioCl03 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 441}


PrioCl04 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
```

```
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 442}


PrioCl05 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 443}


PrioCl06 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 444}


PrioCl07 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 445}


PrioCl08 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
```

```
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 446}


PrioCl09 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 447}


PrioCl10 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 448}


PrioCl11 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 449}


PrioCl12 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
```

```
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 450}


PrioCl13 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 451}


PrioCl14 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 452}


PrioCl15 OBJECT-TYPE
SYNTAX INTEGER {
0(1)
1(2)
2(3)
3(4)
4(5)
5(6)
6(7)
7(8)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 453}


ShapIPAddr00 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 454}


ShapIPAddr01 OBJECT-TYPE
```

SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 455}

ShapIPAddr02 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 456}

ShapIPAddr03 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 457}

ShapIPAddr04 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 458}

ShapIPAddr05 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 459}

ShapIPAddr06 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 460}

ShapIPAddr07 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 461}

ShapIPAddr08 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 462}

ShapIPAddr09 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 463}

ShapIPAddr10 OBJECT-TYPE

SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 464}

ShapIPAddr11 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 465}

ShapIPAddr12 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 466}

ShapIPAddr13 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 467}

ShapIPAddr14 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 468}

ShapIPAddr15 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 469}

ShapIPMask00 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 470}

ShapIPMask01 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 471}

ShapIPMask02 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 472}

ShapIPMask03 OBJECT-TYPE

SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 473}

ShapIPMask04 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 474}

ShapIPMask05 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 475}

ShapIPMask06 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 476}

ShapIPMask07 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 477}

ShapIPMask08 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 478}

ShapIPMask09 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 479}

ShapIPMask10 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 480}

ShapIPMask11 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 481}

ShapIPMask12 OBJECT-TYPE

SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 482}

ShapIPMask13 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 483}

ShapIPMask14 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 484}

ShapIPMask15 OBJECT-TYPE
SYNTAX InetAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 485}

ShapPort00 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 486}

ShapPort01 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 487}

ShapPort02 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 488}

ShapPort03 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 489}

ShapPort04 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 490}

ShapPort05 OBJECT-TYPE

SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 491}

ShapPort06 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 492}

ShapPort07 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 493}

ShapPort08 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 494}

ShapPort09 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 495}

ShapPort10 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 496}

ShapPort11 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 497}

ShapPort12 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 498}

ShapPort13 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 499}

ShapPort14 OBJECT-TYPE

SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 500}

ShapPort15 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
::= { mcp-NewMCPs 501}

CPUTxAUPCMode OBJECT-TYPE
SYNTAX INTEGER {
Off(1)
Monitor(2)
Maintain(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Setting to Maintain means the modem will attempt to maintain the remote Eb/No at the target level. Setting to Monitor will allow the remote modem to be monitored without making any changes to the Tx power level."
::= { mcp-NewMCPs 502}

CPUTxTargetDistantEbNo OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "This is the distant Eb/No that AUPC tries to maintain by adjusting the Tx power level."
::= { mcp-NewMCPs 503}

CPUTxPositivePwrOffset OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "This is the maximum increase in Tx power level that AUPC can make to maintain distant Eb/No."
::= { mcp-NewMCPs 504}

AUPCPwrOffset OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Current offset applied to Tx power level to maintain target Eb/No."
::= { mcp-NewMCPs 505}

RxRemoteEbNo OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "The Eb/No measured by the remote modem when AUPC is enabled."
::= { mcp-NewMCPs 506}

CPUTxNegativePwrOffset OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "This is the maximum decrease in Tx power level that AUPC can make to maintain distant Eb/No."
::= { mcp-NewMCPs 507}

CPURxCarrierLossAction OBJECT-TYPE
SYNTAX INTEGER {
Freeze(1)

```
Nominal(2)
Max(3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Action when communications to remote is lost."
 ::= { mcp-NewMCPs 508}


CPUSAFAUPC OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { mcp-NewMCPs 509}


CPUSNMPv3User OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "SNMP v3 Username"
 ::= { mcp-NewMCPs 510}


CPUSNMPv3Password OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION "SNMP v3 Password"
 ::= { mcp-NewMCPs 511}


CPUSNMPv3Encryption OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Enable SNMP v3 DES Encryption"
 ::= { mcp-NewMCPs 512}


CPUSNMPv3Authentication OBJECT-TYPE
SYNTAX INTEGER {
MD5(1)
SHA(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "SNMP v3 Authentication Algorithm"
 ::= { mcp-NewMCPs 513}


RxASIP1MPEGFilter OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Enable MPEG filtering on this ASI port."
 ::= { mcp-NewMCPs 514}


RxASIP2MPEGFilter OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Enable MPEG filtering on this ASI port."
 ::= { mcp-NewMCPs 515}


RxASIP3MPEGFilter OBJECT-TYPE
SYNTAX TruthValue
```

```
ACCESS read-write
STATUS mandatory
DESCRIPTION "Enable MPEG filtering on this ASI port."
 ::= { mcp-NewMCPs 516}


RxASIP4MPEGFilter OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-write
STATUS mandatory
DESCRIPTION "Enable MPEG filtering on this ASI port."
 ::= { mcp-NewMCPs 517}


RxASIP1MPEGPID1 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 518}


RxASIP1MPEGPID2 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 519}


RxASIP1MPEGPID3 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 520}


RxASIP1MPEGPID4 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 521}


RxASIP2MPEGPID1 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 522}


RxASIP2MPEGPID2 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 523}


RxASIP2MPEGPID3 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 524}


RxASIP2MPEGPID4 OBJECT-TYPE
SYNTAX DisplayString
```

```
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 525}


RxASIP3MPEGPID1 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 526}


RxASIP3MPEGPID2 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 527}


RxASIP3MPEGPID3 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 528}


RxASIP3MPEGPID4 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 529}


RxASIP4MPEGPID1 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 530}


RxASIP4MPEGPID2 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 531}


RxASIP4MPEGPID3 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 532}


RxASIP4MPEGPID4 OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 533}


RLBRxLNBControl OBJECT-TYPE
SYNTAX INTEGER {
```

```
Off(1)
0(2)
1(3)
2(4)
3(5)
4(6)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Control external LNB services switch"
 ::= { mcp-NewMCPs 534}


RLBRxLNBPolarization OBJECT-TYPE
SYNTAX INTEGER {
Vertical(1)
Horizontal(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 535}


CPUSatMACAddr OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 536}


TxBUCIntfc OBJECT-TYPE
SYNTAX INTEGER {
RS485(1)
FSK(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION "Selects the interface used to connect to the BUC."
 ::= { mcp-NewMCPs 537}


TLBTxPolarisation OBJECT-TYPE
SYNTAX INTEGER {
A(1)
B(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 538}


RLBRxPolarisation OBJECT-TYPE
SYNTAX INTEGER {
A(1)
B(2)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 539}


PCMACanceller OBJECT-TYPE
SYNTAX TruthValue
```

```
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 540}


PCMASatLongitude OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 541}


PCMAEarthLongitude OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 542}


PCMAEarthLatitude OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 543}


CPUSAFPCMA OBJECT-TYPE
SYNTAX TruthValue
ACCESS read-only
STATUS mandatory
DESCRIPTION "Software-activated feature."
 ::= { mcp-NewMCPs 544}


PCMAMinDelay OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 545}


PCMAMaxDelay OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 546}


RxPCMAUnlockedAlarm NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { mcp-NewMCPs 547}


RxPCMAUnlockedAlarmCleared NOTIFICATION-TYPE
STATUS current
DESCRIPTION ""
 ::= { mcp-NewMCPs 2547}


CPUSwitchPollDelay OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION ""
 ::= { mcp-NewMCPs 548}
```

END