CiM-25/2020M

IP Enabled M&C Interface
Installation and Operation Manual

Part Number CD/CIM252020M.OM
Rev. 1

Errata A

Comtech EF Data Documentation Update

Subject: Revise Paragraph 2.3.1 Powering the CiM-25

Date: July 9, 2004
Part Number: CD/CIM252020M.OM
Related Document: CiM-25/2020M,IP-Enabled M&C, Installation and Operation Manual,Part Number CD/CIM252020M.OM,Rev. 3
Collating Instructions: Attach to Page 4

Comments:

This information will be incorporated into the next revision.

Change Specifics:

2.3.1 Powering the CiM-25

An AC/DC adapter is supplied to provide the CiM-26F power via the power-jack connector. There is no ON/OFF switch for the CiM-25.

CiM-25/2020M

IP Enabled M&C Interface
Installation and Operation Manual

Part Number CD/CIM252020M.OM

REV. 1

August 5, 2003

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Registered Company.

Comtech EF Data, 2114 West 7th Street, Tempe, Arizona 85281 USA, (480) 333-2200, FAX: (480) 333-2161.

CUSTOMER SUPPORT

Contact the Comtech EF Data Customer Support Department for:

- Product support or training
- Information on upgrading or returning a product
- Reporting comments or suggestions concerning manuals

A Customer Support representative may be reached at:

Comtech EF Data
Attention: Customer Support Department
2114 West 7th Street
Tempe, Arizona 85281 USA

480.333.2200 (Main Comtech EF Data Number)
480.333.4357 (Customer Support Desk)
480.333.2161 FAX

or, E-Mail can be sent to the Customer Support Department at:

cimfss@comtechEF Data.com

Contact us via the web at www.comtechEF Data.com.

1. To return a Comtech EF Data product (in-warranty and out-of-warranty) for repair or replacement:

2. Request a Return Material Authorization (RMA) number from the Comtech EF Data Customer Support Department.

3. Be prepared to supply the Customer Support representative with the model number, serial number, and a description of the problem.

4. To ensure that the product is not damaged during shipping, pack the product in its original shipping carton/packaging.

5. Ship the product back to Comtech EF Data. (Shipping charges should be prepaid.)

For more information regarding the warranty policies, see Warranty Policy, p. xi.

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ABOUT THIS MANUAL

This manual provides installation and operation information for the Comtech EF Data CiM-25/2020M IP Enabled M&C. This is a technical document intended for earth station engineers, technicians, and operators responsible for the operation and maintenance of the CiM-25/2020M IP Enabled M&C.

CONVENTIONS AND REFERENCES

CAUTIONS AND WARNINGS

Indicates information critical for proper equipment function.

Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury. CAUTION may also be used to indicate other unsafe practices or risks of property damage.

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

METRIC CONVERSION

Metric conversion information is located on the inside back cover of this manual. This information is provided to assist the operator in cross-referencing English to Metric conversions.

RECOMMENDED STANDARD DESIGNATIONS

Recommended Standard (RS) Designations have been superseded by the new designation of the Electronic Industries Association (EIA). References to the old designations are shown only when depicting actual text displayed on the screen of the unit (RS-232, RS-485, etc.). All other references in the manual will be shown with the EIA designations (EIA-232, EIA-485, etc.) only.

TRADEMARKS

All product names mentioned in this manual may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

REPORTING COMMENTS OR SUGGESTIONS CONCERNING THIS MANUAL

Comments and suggestions regarding the content and design of this manual will be appreciated. To submit comments, please contact the Comtech EF Data Customer Support Department.

EMC COMPLIANCE

This is a Class A product. In a domestic environment, it may cause radio interference that requires the user to take adequate protection measures.

EN55022 COMPLIANCE

This equipment meets the radio disturbance characteristic specifications for information technology equipment as defined in EN55022.

EN50082-1 COMPLIANCE

This equipment meets the electromagnetic compatibility/generic immunity standard as defined in EN50082-1.

FEDERAL COMMUNICATIONS COMMISSION (FCC)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference; in which case, users are required to correct the interference at their own expense.

Note: To ensure compliance, properly shielded cables for DATA I/O shall be used. More specifically, these cables shall be shielded from end to end, ensuring a continuous shield.

SAFETY COMPLIANCE

EN 60950

Applicable testing is routinely performed as a condition of manufacturing on all units to ensure compliance with safety requirements of EN60950.

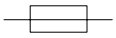
This equipment meets the Safety of Information Technology Equipment specification as defined in EN60950.

LOW VOLTAGE DIRECTIVE (LVD)

The following information is applicable for the European Low Voltage Directive (EN60950):

<HAR>	Type of power cord required for use in the European Community.
	CAUTION: Double-pole/Neutral Fusing. ACHTUNG: Zweipolige bzw. Neutralleiter-Sicherung.

International Symbols:

Symbol	Definition
	Alternating Current.
	Fuse.

Symbol	Definition
	Protective Earth.
	Chassis Ground.

Note: For additional symbols, refer to “Cautions” listed earlier in this preface.

WARRANTY POLICY

This Comtech EF Data product is warranted against defects in material and workmanship for a period of two years from the date of shipment. During the warranty period, Comtech EF Data will, at its option, repair or replace products that prove to be defective.

For equipment under warranty, the customer is responsible for freight to Comtech EF Data and all related custom, taxes, tariffs, insurance, etc. Comtech EF Data is responsible for the freight charges **only** for return of the equipment from the factory to the customer. Comtech EF Data will return the equipment by the same method (i.e., Air, Express, Surface) as the equipment was sent to Comtech EF Data.

LIMITATIONS OF WARRANTY

The foregoing warranty shall not apply to defects resulting from improper installation or maintenance, abuse, unauthorized modification, or operation outside of environmental specifications for the product, or, for damages that occur due to improper repackaging of equipment for return to Comtech EF Data.

No other warranty is expressed or implied. Comtech EF Data specifically disclaims the implied warranties of merchantability and fitness for particular purpose.

EXCLUSIVE REMEDIES

The remedies provided herein are the buyer's sole and exclusive remedies. Comtech EF Data shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.

DISCLAIMER

Comtech EF Data has reviewed this manual thoroughly in order that it will be an easy-to-use guide to your equipment. All statements, technical information, and recommendations in this manual and in any guides or related documents are believed reliable, but the accuracy and completeness thereof are not guaranteed or warranted, and they are not intended to be, nor should they be understood to be, representations or warranties concerning the products described. Further, Comtech EF Data reserves the right to make changes in the specifications of the products described in this manual at any time without notice and without obligation to notify any person of such changes.

If you have any questions regarding the equipment or the information in this manual, please contact the Comtech EF Data Customer Support Department.

NOTES:

Chapter 1. INTRODUCTION

CiM-25
IP-Enabled
M&C Interface

1.1 INTRODUCTION

The CiM-25 is a low-cost solution for providing an Internet Protocol (IP) Monitor and Control (M&C) interface for existing Comtech EF Data satellite modems, RF frequency converters and solid-state power amplifiers. The CiM-25 provides a custom proxy interface between the IP world and the equipment's existing serial remote control interface.

The CiM-25 provides powerful equipment management tools via the uses of HTTP protocol, SNMP v2c Protocol, and Telnet Protocol. Wrapped around these industry standard protocols is a system of account access and IP security control features to safeguard equipment from unwanted intrusions. The CiM-25 brings customer support to a new level by providing SMTP Protocol to facilitate automated, direct E-mail to Comtech EF Data's Customer Support Center.

The CiM-25 is packaged in a very compact 4.3" x 1.7" x 0.8". The unit can be powered directly by the attached equipment or via an external AC/DC adapter. The CiM-25 requires less than 1 of watt power.

The CiM-25 uses flash technology providing support for a wide variety of products from a single hardware platform. The CiM-25 either currently or will in the near future support the following Comtech EF Data equipment:

- Modems

  SDM-300L1* SDM-300A/SLM-3650*
  SDM-300L2* CDM-550T
  SDM-300L3 CDM-600*
  SDM-2020M* SDM-2020D*
  SDM-8000* SDM-9000*

- Frequency Converter

  UT4500 series 1 kHz and 125 kHz step size Up Converters*
  DT4500 series 1 kHz and 125 kHz step size Down Converters*

*Requires an external 5 Vdc Power Supply (universal AC input). See section 2.3.1, Powering the CiM-25.

1.2 SPECIFICATIONS

SYSTEM SPECIFICATIONS	
Ethernet Interface	10base T (RJ-45)
Equipment Interface	DB9 Female on CiM-25F
	DB9 Male on CiM-25M
ENVIRONMENTAL AND PHYSICAL	
Temperature	Operating: 0 to 50º C
	Storage: -25 to 70º C
Power Supply	4.75 to 5.25 Vdc
Power Consumption	0.9 W typical, 1.5 W maximum
Physical Dimensions	L=110, W=43, H=20 (mm)
	L=4.3, W=1.7, H=0.8 (inches)
Weight	< 1 lbs
CE Approvals	EN55022 Class B (Emissions)
	EN50082-1 Part 1 (Immunity)
	EN60950 (Safety)
FCC Approval	FCC Part 15 Class B

Chapter 2. Installation

2.1 UNPACKING AND INSPECTION

Inspect shipping containers for damage. If shipping containers are damaged, keep them until the contents of the shipment have been carefully inspected and checked for normal operation.

Remove the packing list from the outside of the shipping carton. Open the carton and remove the contents, checking the contents against the packing list. Verify completeness of the shipment and that the unit functions correctly. If damage is evident, contact the carrier and Comtech EF Data immediately and submit a damage report. Keep all shipping materials for the carrier's inspection.

If the unit needs to be returned to Comtech EF Data, please use the original shipping container.

2.2 CONFIGURATION

There are no internal jumpers to configure, no interface cards to install, and no other options to install. All configuration is carried out entirely in software. The unit should first be configured locally, using the RJ-45 Ethernet interface. The unit will ship with a default IP address of 10.6.30.1, Gateway 0.0.0.0, and Mask 255.255.0.0. The default Administrator Name and Password are **admin** and **1234** respectively. See the operations section for details regarding configuring and administrating the CiM-25.

2.3 CONNECTING CiM-25 TO EQUIPMENT

The CiM-25 is designed to connect directly (no cabling) to supported Comtech EF Data Modems, Frequency Converters, or Solid State Power Amplifiers using the equipment's 9-pin remote control interface port. The CiM-25 interfaces to this equipment via a RS-232 interface at a baud rate of 19200 bps and a data format of 8-N-1. Therefore, it is necessary to first select the RS-232 interface type on the interfacing equipment prior to connecting the CiM-25 to said equipment. Some equipment automatically selects a unit address of **0** when RS232 is chosen while other equipment require the user to configure the unit remote control address to **1**. In addition, on equipment that supports multiple data formats the user must select **8-N-1** format.

2.3.1 POWERING THE CiM-25

The CiM-25F can accept power either on pin 4 of the DB9 interface to the equipment or via the power jack located next to the RJ-45 connector. An optional AC/DC adapter can be purchased to provide the CiM-25F power via the power-jack connector.

The CiM-25M accepts power via the power jack located next to the RJ-45 connector. An AC/DC adapter must be purchased to provide power to the CiM-25M.

All CDM-550 and CDM-600 modems shipped from the factory after June 1, 2001 have been modified to supply the 5 Vdc signal on pin 4. All units shipped from the factory prior to this date DO NOT provide the 5 Vdc on pin 4. A field modification kit is available and can be purchased for CDM-550 and CDM-600 modems shipped prior to this date

There is no ON/OFF switch for the CiM-25.

2.3.2 CiM-25 CONNECTORS

There are three connectors located on each CiM-25. Each is defined below:

- RJ-45 - 10base T Ethernet interface.
- DB9 – RS-232 equipment interface (either male or female)
- 1.3mm – DC Power Jack

The pinout details for these connectors are provided below.

RJ-45 Pin Out

Pin	Function
1	Tx+
2	Tx-
3	Rx+
4	No Connection
5	No Connection
6	Rx-
7	No Connection
8	No Connection

DB(Female (CiM-25F)

Pin	Function
1	Ground
2	**CiM-25 Rx**
3	**CiM-25 Tx**
4	+5 Vdc Input
5	Ground
6	No Connection
7	No Connection
8	No Connection
9	No Connection

DB9 Male (CiM-25M)

Pin	Function
1	Ground
2	**CiM-25 Rx**
3	**CiM-25 Tx**
4	No Connection
5	Ground
6	+5 Vdc Input
7	No Connection
8	No Connection
9	No Connection

1.3mm – DC Power Jack

Pin	Function
Center Conductor	+5 Vdc Input
Outer Conductor	Ground

NOTES

Chapter 3. OPERATION

3.1 OVERVIEW

Each CiM-25 unit is programmed in the factory to provide a custom proxy interface to one of Comtech EF Data's previously defined equipments. This means that a CiM-25/2020M that is loaded to interface a SDM-2020M to the IP world will not operate with any other piece of Comtech EF Data equipment, unless the personality is changed via a flash upload. However every C*i*M-25, independent of personality, shares a large number of common features. For instance, all CiM-25 units provide the same degree of security features, network protocols, and administration features. The following sections will provide a detailed description of all the features available for a specific C*i*M-25 (i.e. CiM-25/2020M with SDM-2020M modem). Those areas that are common to all CiM-25 units will be expounded upon and delineated. The areas that are specific to the individual personality (i.e. equipment parameter control) will only be briefly covered since these are already covered in detail in the individual equipment operator manuals.

3.2 ADMINISTRATION AND SECURITY

The CiM-25 has been designed to provide a high degree of administrative flexibility to insure that each customer can configure the device (or network of devices) in a manner that meets his/her security needs. The primary tools provided are the Host Allow List, PING enable/disable, and three (3) level user login. Used as a group, these three tools provide the CiM-25 with a very high degree of security. Each of these tools is described in more detail below:

3.2.1 SECURITY TOOLS

3.2.1.1 USER LOGIN

For the HTTP interfaces the CiM-25 provides three (3) levels of user login. The Telnet interface, provides the first two (2) of the following levels. The highest level is the **Administrator** login. This level allows 100% complete access to all controllable CiM-25 and equipment parameters. The next level of user login is the **Read/Write** level. This level allows access to all controllable equipment parameters but does not allow access to the administration parameters of the CiM-25 itself. The lowest level of login is the **Read Only** login. As the name implies, this level allows the user to view, but not change, the equipment parameters. Like the **Read/Write** level, this level does not allow access to the administration parameters of the CiM-25.

The Name and Password factory defaults for the three level defined above are:

- Administrator Level:
  - Name: **admin**
  - Password: **1234**
- Read/Write Level:
  - Name: **opcenter**
  - Password: **1234**
- Read Only Level:
  - Name: **monitor**
  - Password: **1234**

The SNMP interface uses all three (3) levels of user login utilizing the SNMP v2c (community string) method of security. The community string is the concatenation of the name and password, i.e. **admin1234**, default admin community string.

3.2.1.2 HOST ALLOW LIST

The CiM-25 provides a high degree of security by allowing the Administrator to define a list of IP addresses to which the CiM-25 will accept/respond to IP datagrams. The Administrator can select up to six (6) individual allowable IP addresses or up to three (3) allowable IP address ranges or any combination of individual and ranges that can be defined by six fields (see HTTP interface below for further details). The host allow list is applied to all three CiM-25 interfaces (HTTP, SNMP, and Telnet).

3.2.1.3 PING ENABLE/DISABLE

The final piece to the CiM-25 security design is the PING Enable/Disable feature. This feature allows the Administrator to disable PING on an individual C*i*M-25. This in effect conceals the CiM-25 from most hackers.

3.2.2 NETWORK ADMINISTRATION

In addition to the three items described above under Security, the CiM-25 provides the following network administration facilities:

- Configure IP Address, IP Gateway, and IP Mask.
- Select Primary and Secondary DNS server IP addresses.
- Select SMTP domain Name and IP address.
- Select SNMP Trap IP address and SNMP Trap Community.

3.3 HTTP INTERFACE

This section of this document will explain the HTTP (Web Server) interface provided by the CiM-25/2020M.

3.3.1 LOCAL LAN CONFIGURATION

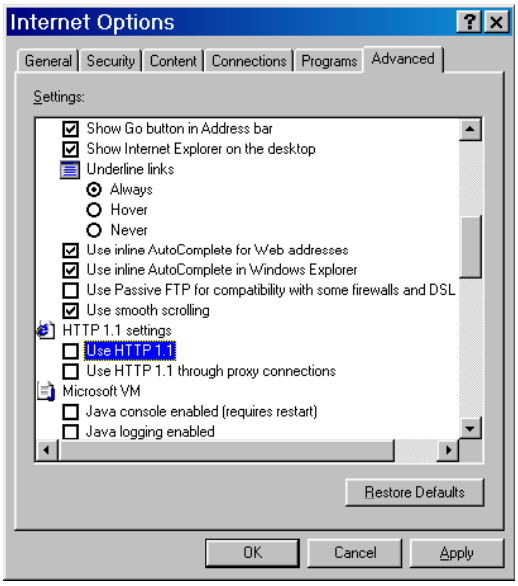
The web page interface is best viewed at 1152 x 864 resolution using Internet Explorer 5.5 or higher and a 17" or larger monitor.

3.3.1.1 HTTP 1.1

IMPORTANT

For best performance, HTTP 1.1 should be disabled. It can be changed as follows:

Step	Procedure	Example
1.	Click **Start**, **Settings**, then **Control Panel**.	
2.	Double-click the **Internet Options** icon in the Control Panel.	
3.	Under the **Advanced** tab, scroll down to **HTTP 1.1 settings**.	
4.	Uncheck the **Use HTTP 1.1** box and click **OK**.	

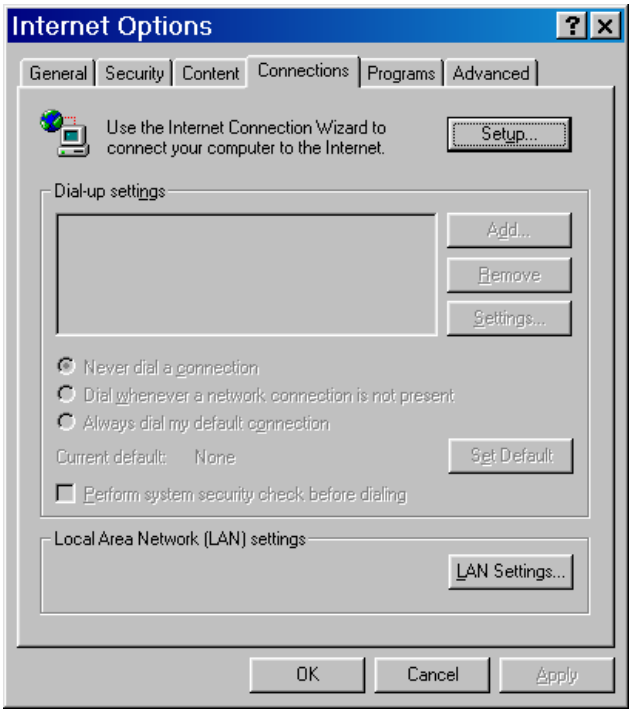


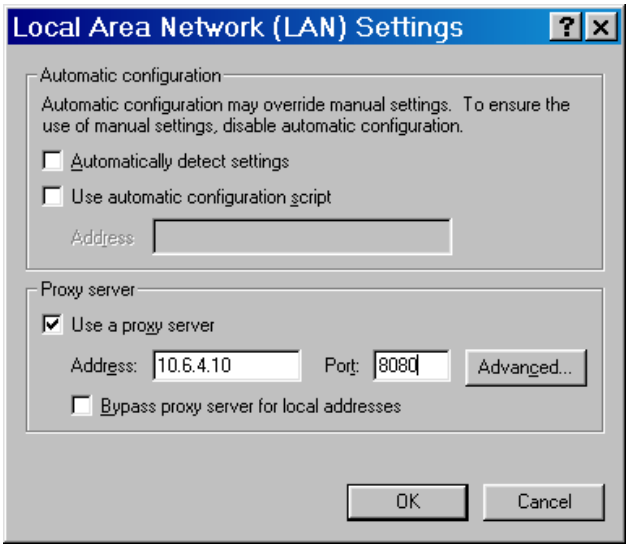
3.3.1.2 PROXY SERVER

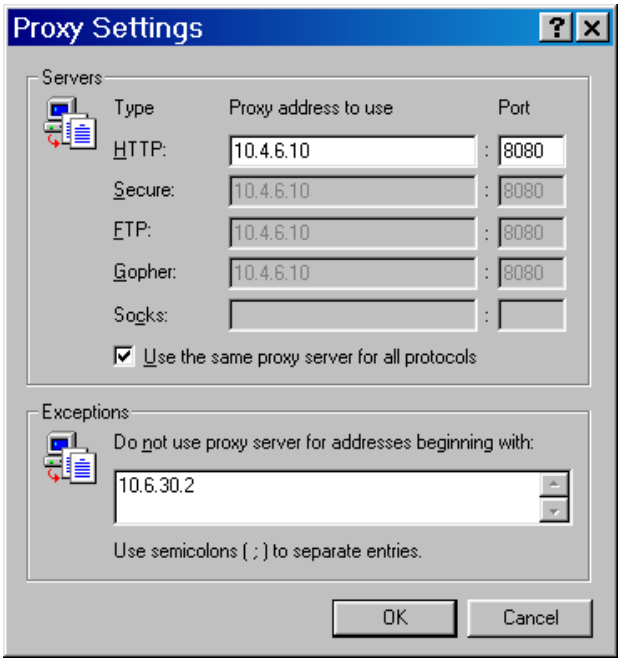
IMPORTANT

If your network uses a proxy server, it may be necessary to disable the use of it for the browser to work. It can be changed as follows:

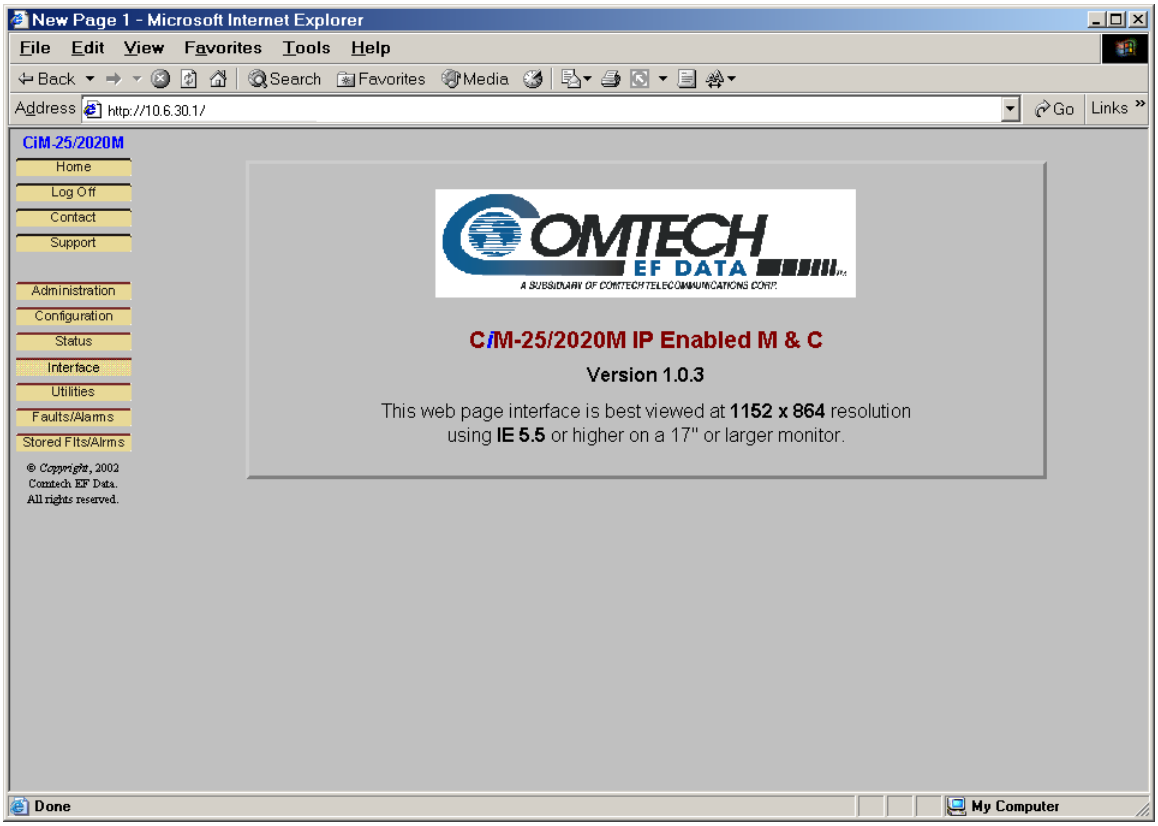
Step	Procedure	Example
1.	Click **Start**, **Settings**, then **Control Panel**.	
2.	Double-click the **Internet Options** icon in the Control Panel.	
3.	Under the **Connections** tab, click the **LAN Settings** button.	
4.	At this point you must do one of the following: a. Uncheck the **Use a proxy server** box and click **OK**. *or* b. Click the **Advanced** button and go to the next step.	





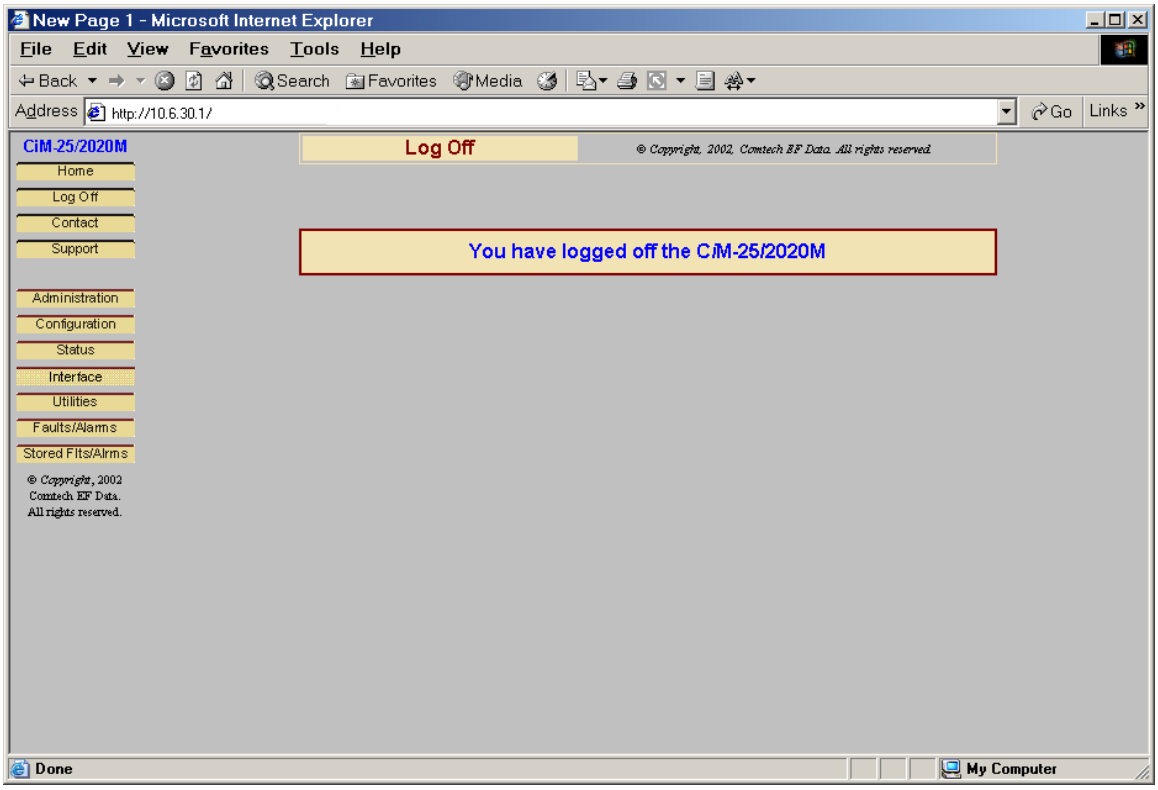
Step	Procedure	Example
5.	In the **Exceptions** box, enter the IP address of the CiM module and click **OK**.	

3.3.2 HOME PAGE



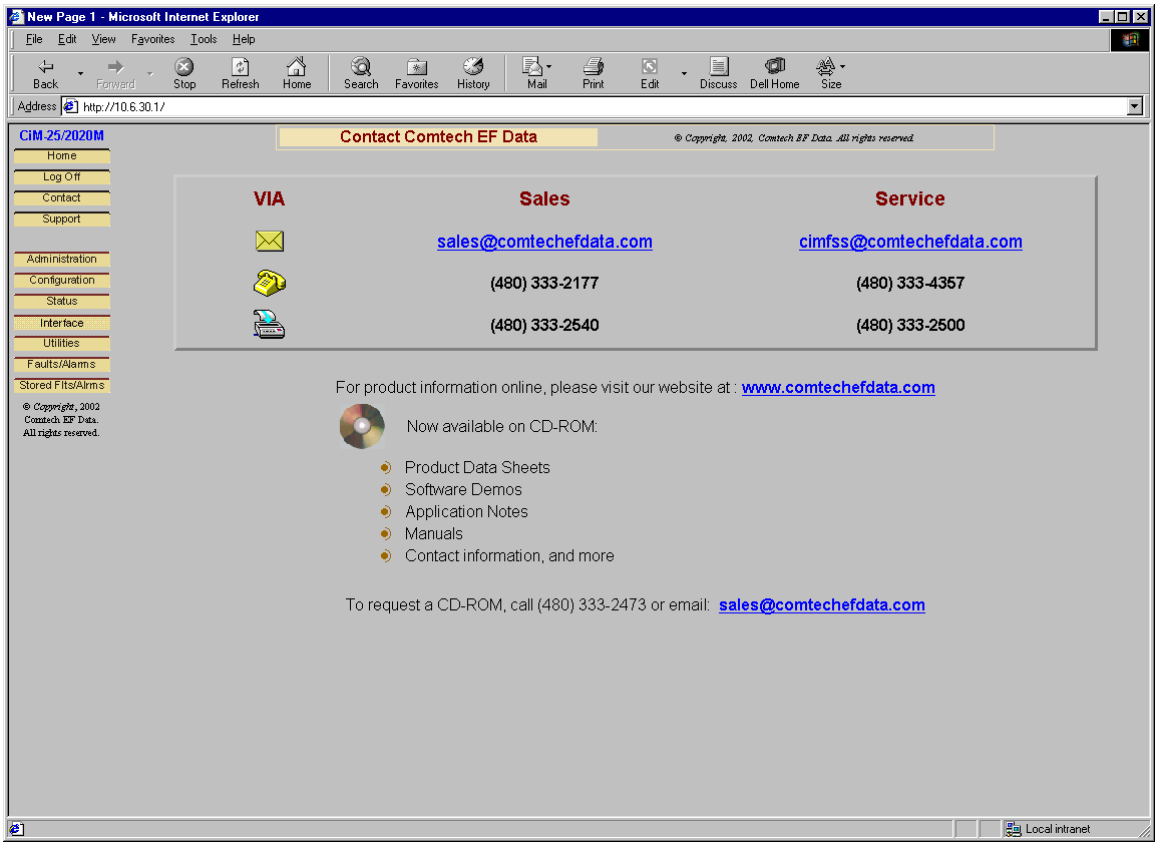
Welcome to the CiM-25/2020M Web Interface. The following sections will give you a brief introduction to each web page available.

3.3.3 LOGOFF PAGE



The CiM-25 allows multiple connections to the Web Interface. The Web Interface and Telnet Interface cannot be used at the same time.You must logoff the Web Interface in order to log into the Telnet Interface and vice versa.

3.3.4 CONTACT

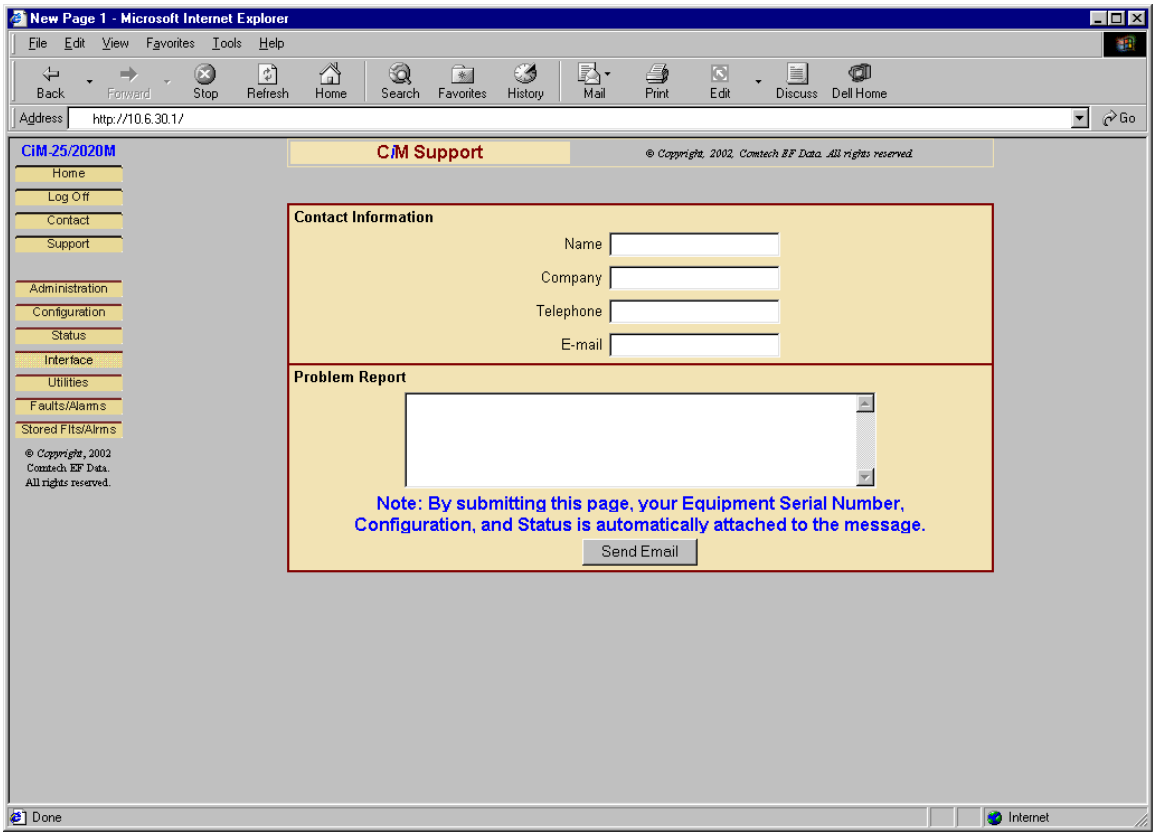


This page provides basic contact information to reach ComTech EF Data Sales and Customer Service via phone or automated e-mail links.

3.3.5 SUPPORT PAGE (COMMON)

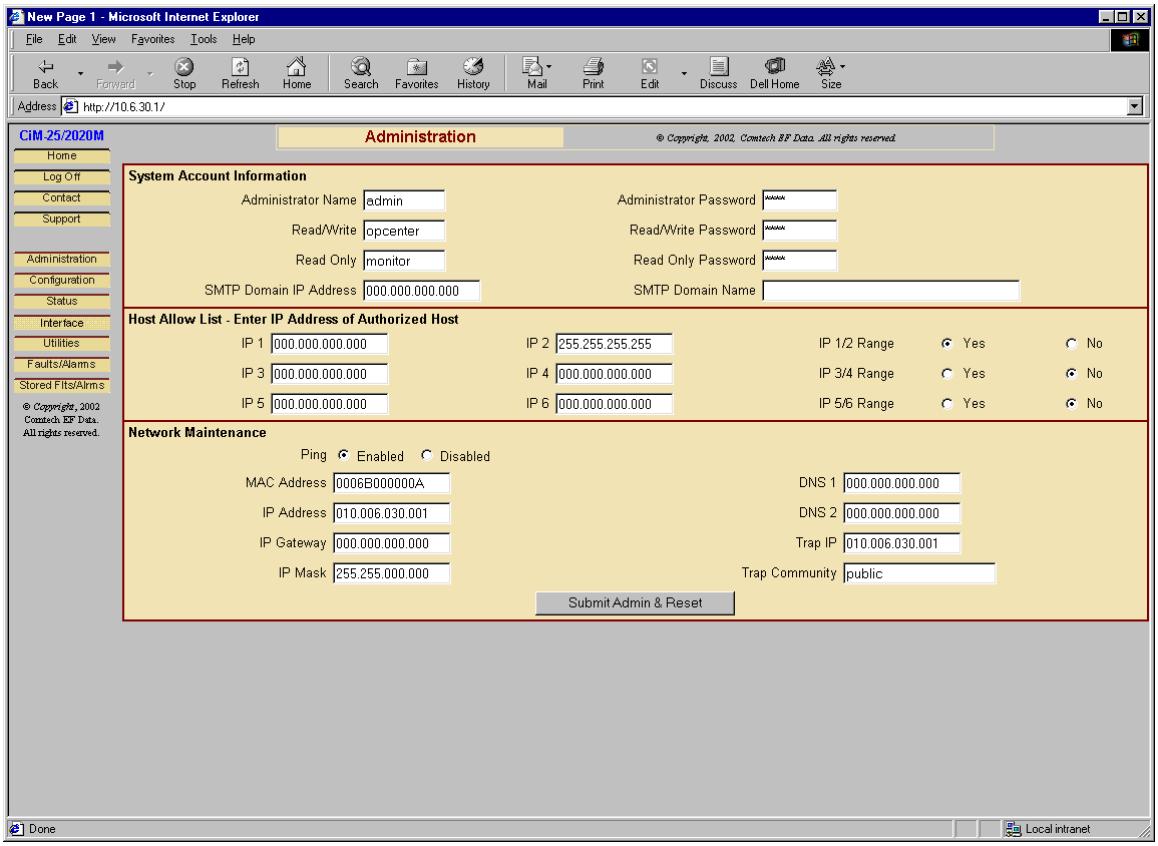
IMPORTANT

In order to use the Support functions, the user must first assign SMTP a domain name and IP address. Refer to 3.3.6.9, SMTP Domain Name and IP Address.



The Support page is accessible by ALL logged in users. This page allows the user to automatically E-mail Comtech EF Data's Customer Support center. The user MUST fill in the **Name**, **Company**, **E-mail Address**, and **Telephone** information boxes. In addition, the user must enter some description of the problem or question into the **Problem Report** field. The CiM-25 will automatically retrieve and attach pertinent information about the equipment (such as Equipment ID, Serial Number, Equipment Configuration, and Equipment Faults) to the E-mail message. This will allow Comtech EF Data Customer Support personal to provide faster and more accurate responses to customer needs.

3.3.6 ADMINISTRATION PAGE (COMMON)



The Administration Page is only available to users who have logged in using the Administrator Name and Password.

3.3.6.1 ADMINISTRATOR NAME AND PASSWORD

The factory defaults for these parameters are **admin** and **1234** respectively. The Name field can be any alpha-numeric combination with a minimum length of 4 characters and a maximum length of 10 characters. The Password field can be any alpha-numeric combination with a minimum length of 4 characters and a maximum length of 10 characters.

3.3.6.2 READ/WRITE NAME AND PASSWORD

The factory defaults for these parameters are **opcenter** and **1234** respectively. The Name field can be any alpha-numeric combination with a minimum length of 4 characters and a maximum length of 10 characters. The Password field can be any alpha-numeric combination with a minimum length of 4 characters and a maximum length of 10 characters.

3.3.6.3 READ ONLY NAME AND PASSWORD

The factory defaults for these parameters are **monitor** and **1234** respectively. The Name field can be any alpha-numeric combination with a minimum length of 4 characters and a maximum length of 10 characters. The Password field can be any alpha-numeric combination with a minimum length of 4 characters and a maximum length of 10 characters.

3.3.6.4 HOST ALLOW LIST

The Host Allow List can be configured as any of the following combinations:

- 1 to 6 individual IP addresses.
- 1 to 3 ranges of IP addresses.
- A combination of individual and range addresses.

The Administrator simply checks the **Range Yes** radio button next to the group of two IP addresses that constitute the beginning and ending of the range.

3.3.6.5 PING ENABLE / DISABLE

The factory defaults for this parameter is **Enabled**. The radio buttons allow the Administrator to choose between **Enabled** and **Disabled**.

3.3.6.6 CIM-25 IP ADDRESS, GATEWAY AND MASK

The factory defaults for these parameters are **10.6.30.1**, **0.0.0.0**, and **255.255.0.0** respectively. The Administrator can change these as required.

3.3.6.7 MAC ADDRESS

This is a READ ONLY parameter and can not be changed.

3.3.6.8 DNS SERVERS

The Administrator can assign both a primary and secondary DNS server IP address.

3.3.6.9 SMTP DOMAIN NAME AND IP ADDRESS

The Administrator can assign the SMTP Domain Name and Domain IP Address. This is required if the E-mail feature of the Support Page is to be used.

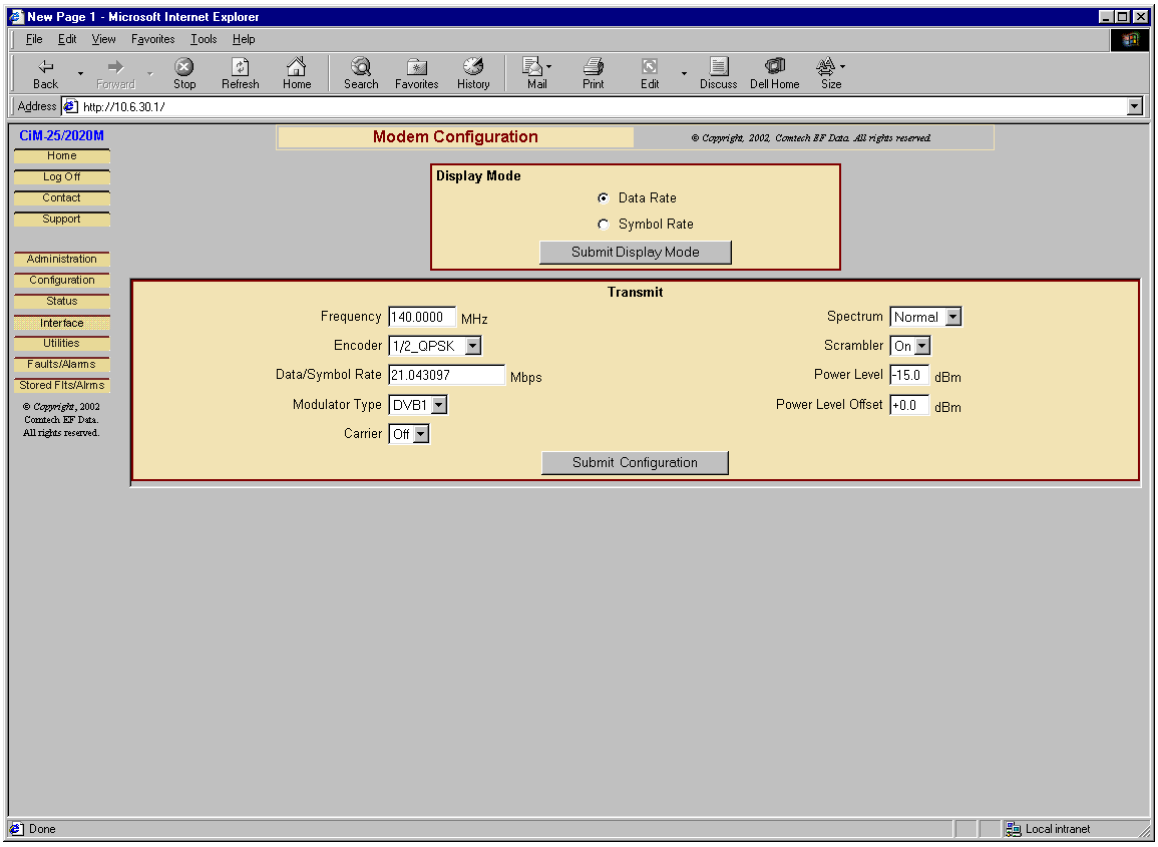
3.3.6.10 SNMP TRAP IP ADDRESS

The Administrator can assign a SNMP Trap IP address.

3.3.6.11 SNMP TRAP COMMUNITY

The Administrator can assign a SNMP Trap Community. The factory default for this parameter is public. The SNMP Trap Community field can be any combination of characters and a length of 0 - 20 characters.

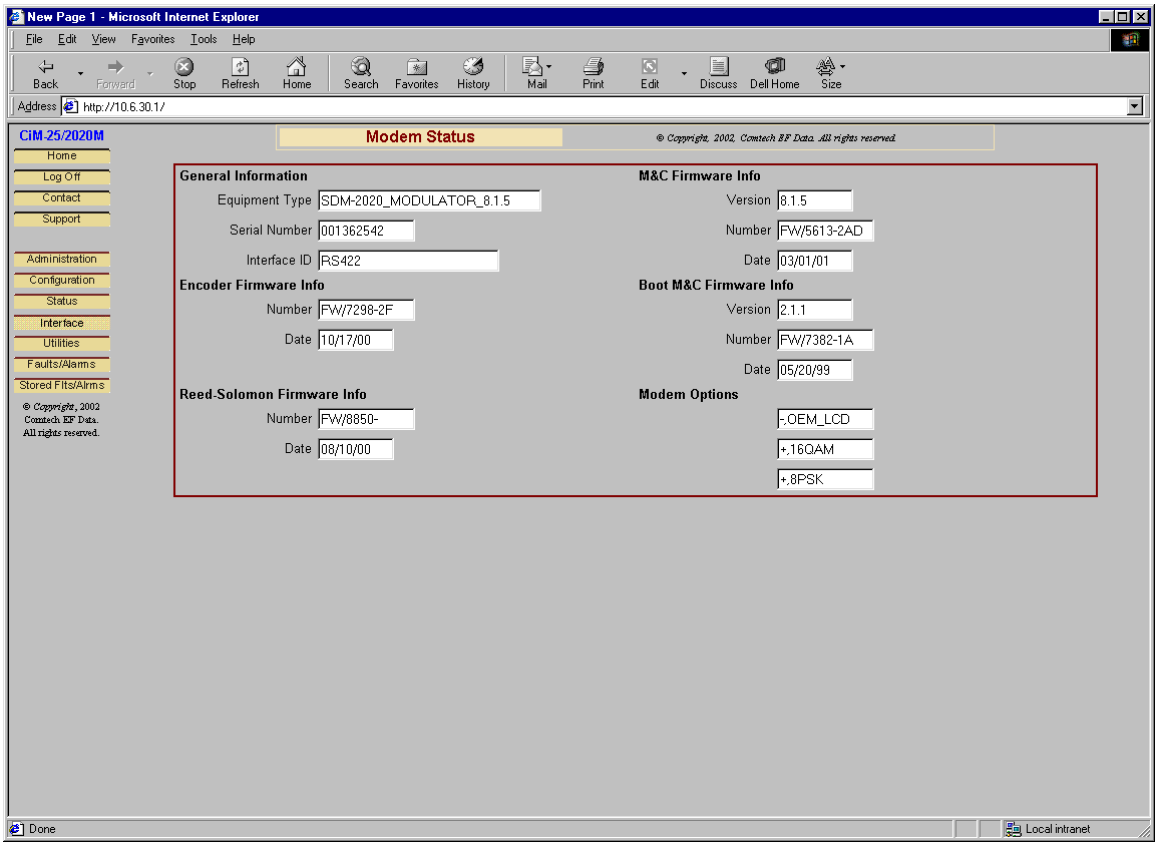
3.3.7 MODEM CONFIGURATION PAGE (TX)



This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the primary Transmit Parameters of a SDM-2020M Modem.

Note: The Data Rate and Encoder/Decoder fields may display incorrectly until the Variable Rate Selection is chosen on the modem front panel or the Configuration page is submitted.

3.3.8 STATUS PAGE



This page can be viewed by all three levels of user login. This is a Read Only Page and has no submit button. This page provides various status information for a SDM-2020M Modem.

3.3.9 INTERFACE PARAMETERS PAGE (TX)

This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit Interface Parameters of a SDM-2020M.

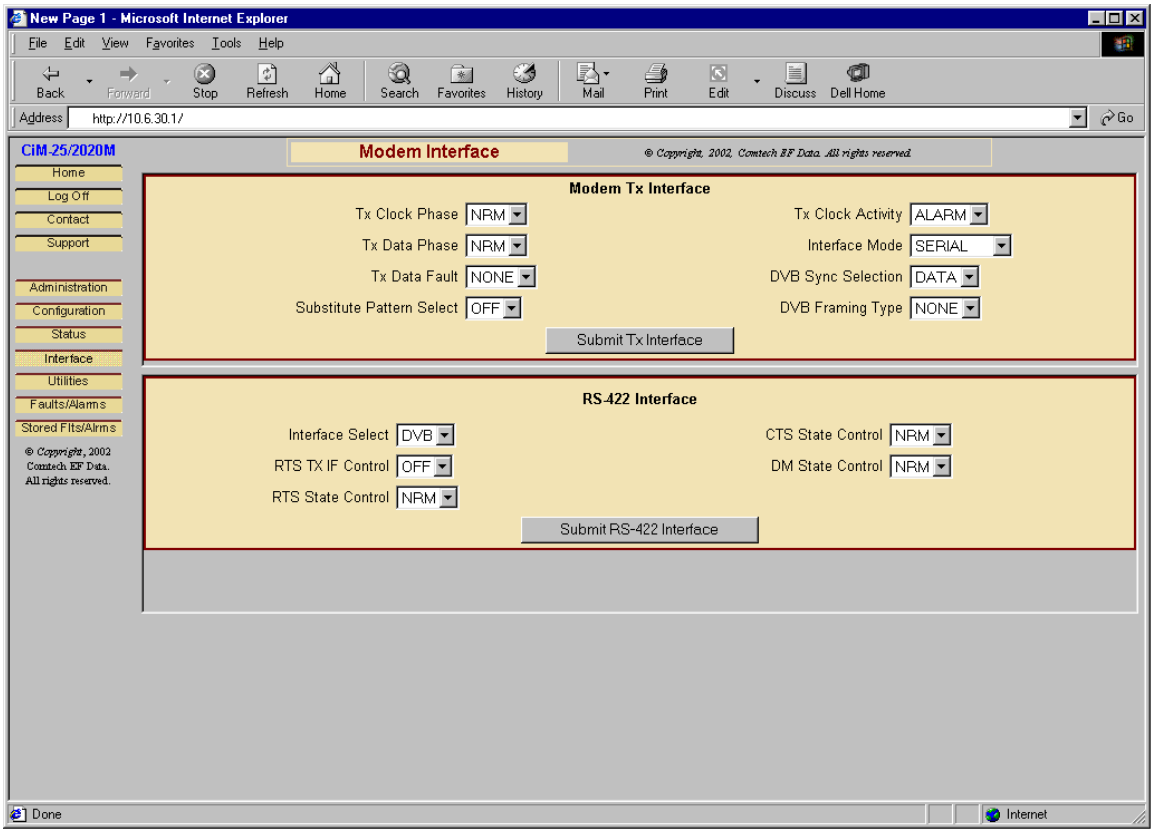
The screen displayed varies depending on the demodulator interface type.

The following is a list of the interface types:

- RS-422
- ASI/RS-422
- ECL/HSSI
- G.703
- SMPTE310M
- ASI/LVDS
- No Interface Available

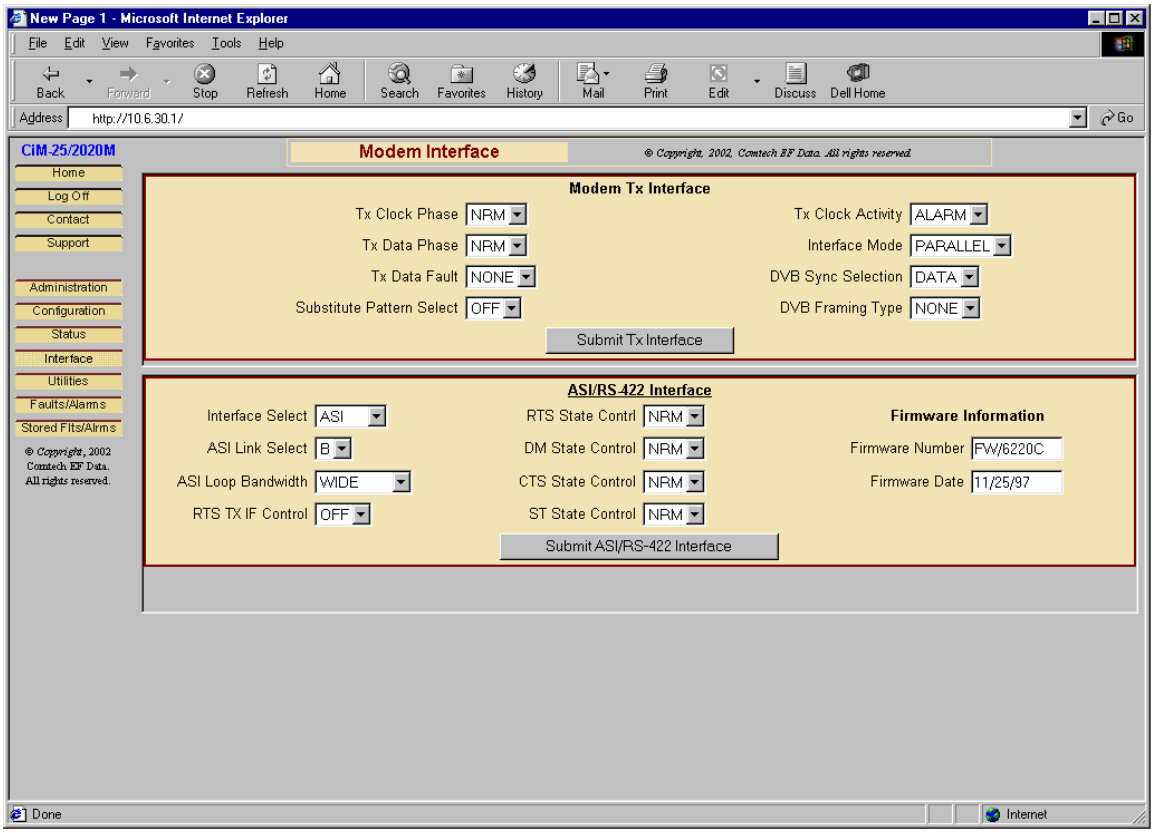
A sample of each interface display is shown in the following paragraphs.

3.3.9.1 RS-422 INTERFACE PARAMETERS PAGE



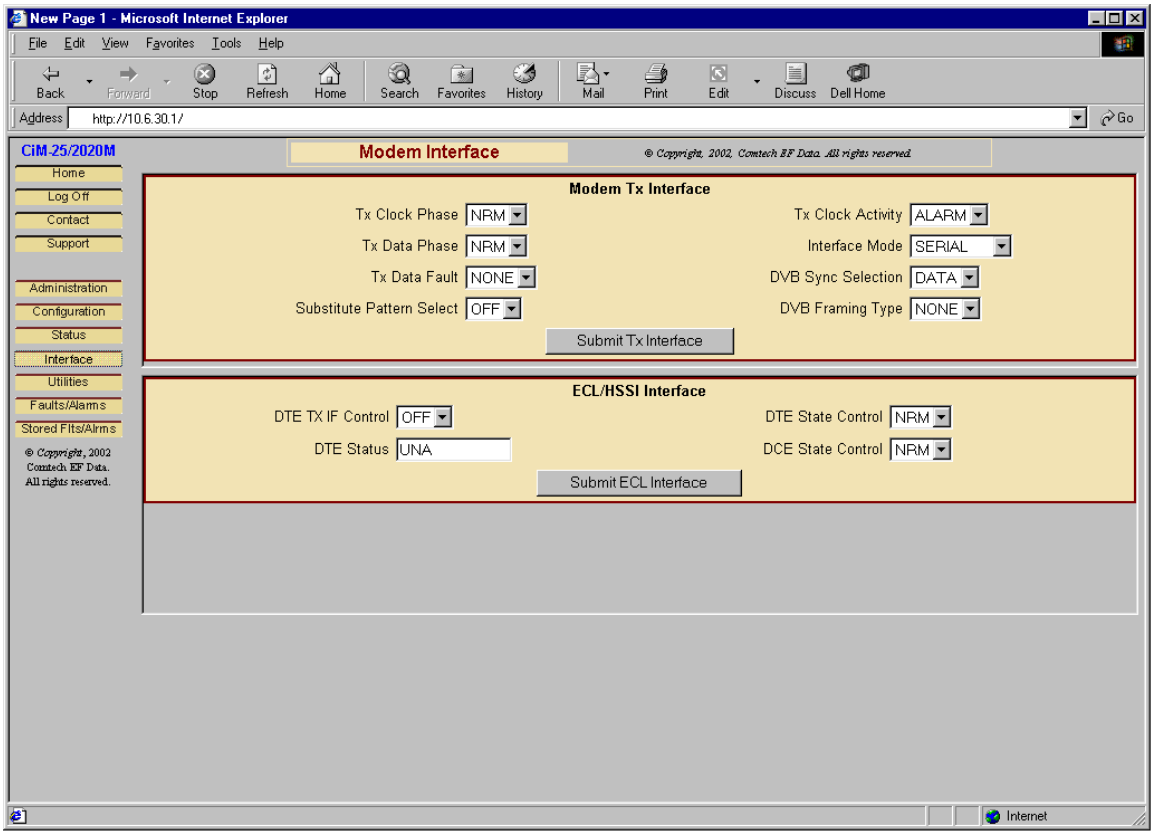
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit Interface Parameters of a SDM-2020M.

3.3.9.2 ASI/RS-422 INTERFACE PARAMETERS PAGE



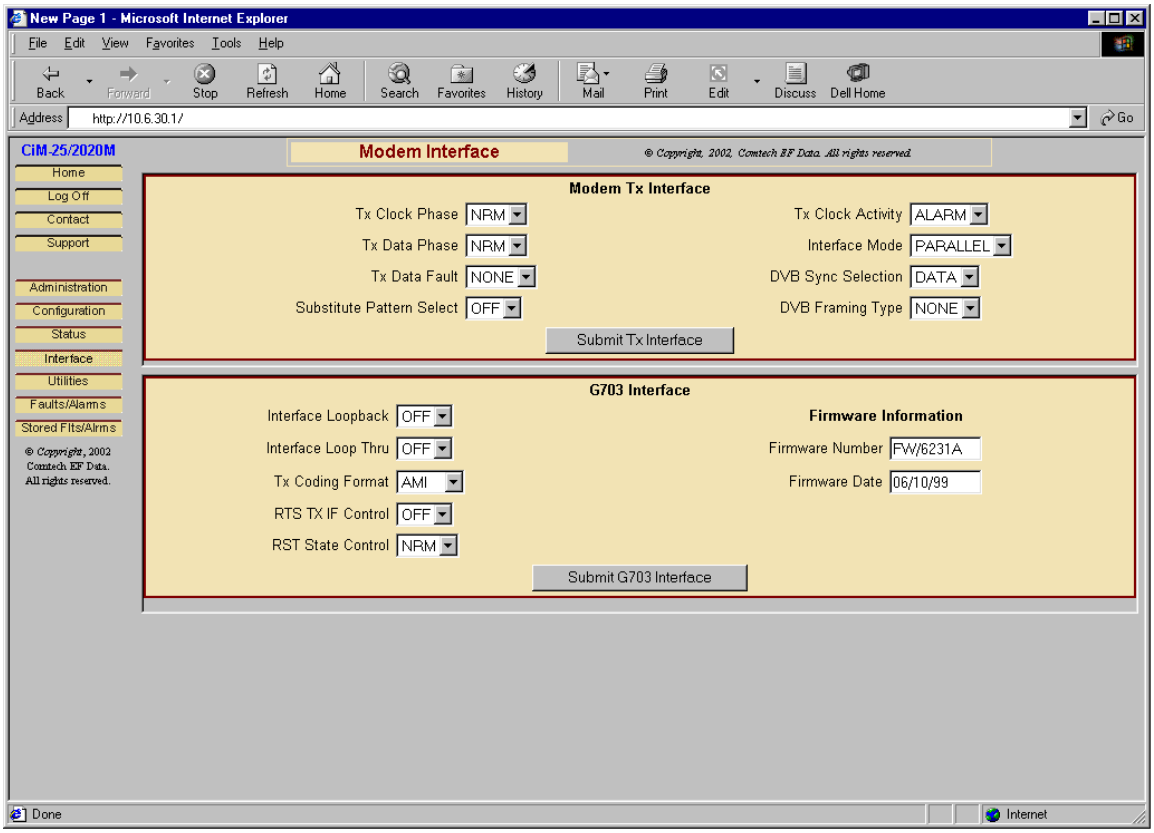
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit Interface Parameters of a SDM-2020M.

3.3.9.3 ECL/HSSI INTERFACE PARAMETERS PAGE



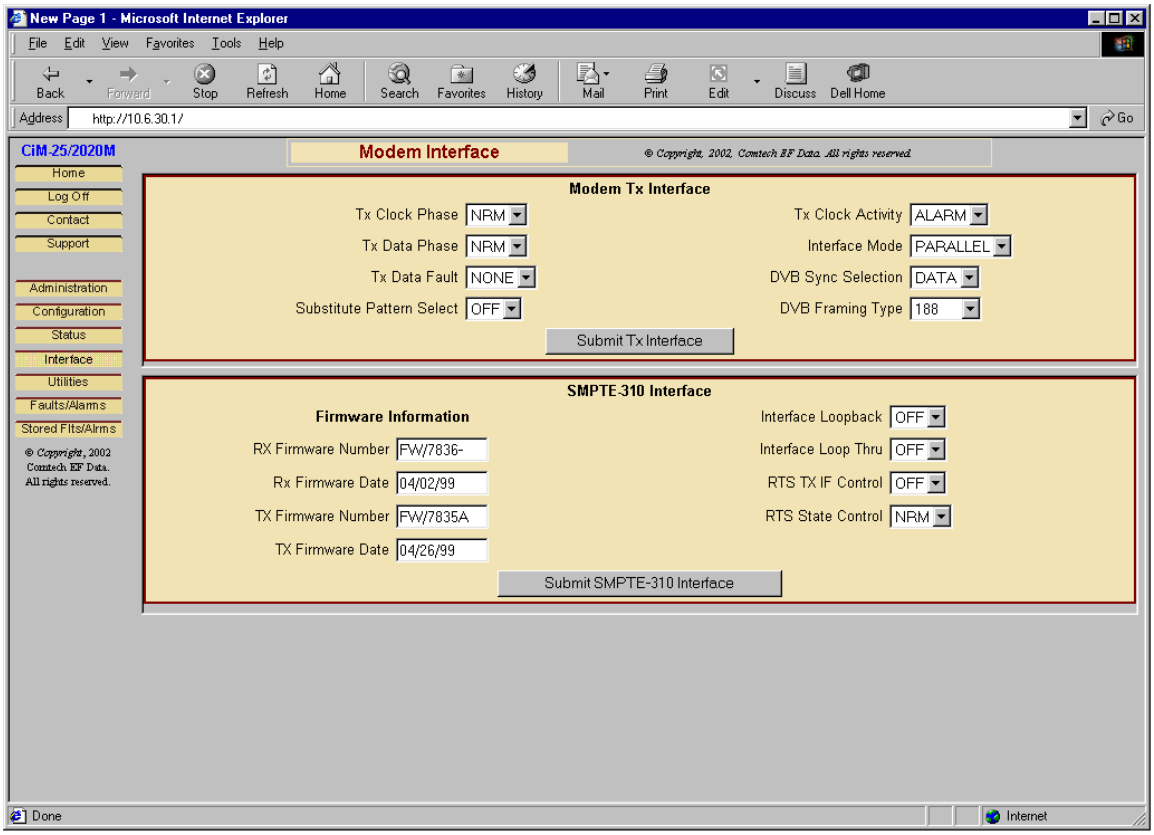
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit Interface Parameters of a SDM-2020M.

3.3.9.4 G.703 INTERFACE PARAMETERS PAGE



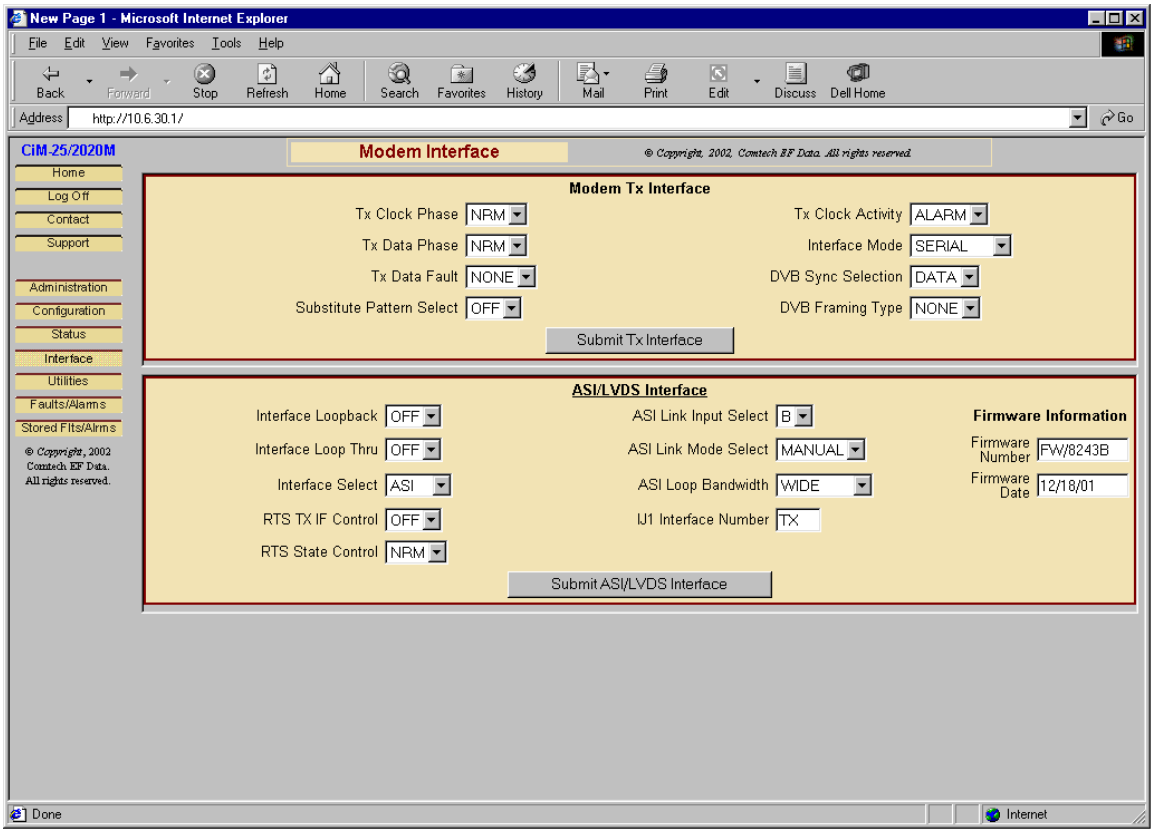
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit Interface Parameters of a SDM-2020M.

3.3.9.5 SMPTE310M INTERFACE PARAMETERS PAGE



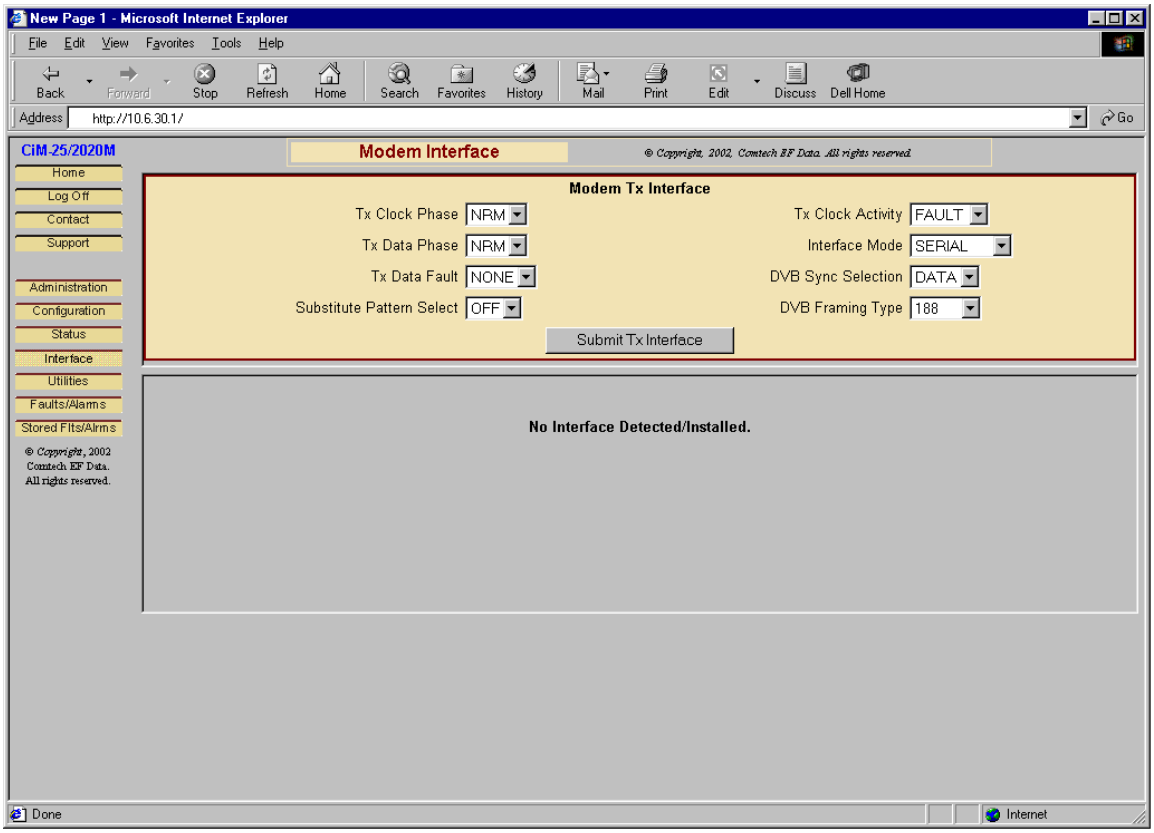
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit Interface Parameters of a SDM-2020M.

3.3.9.6 ASI/LVDS INTERFACE PARAMETERS PAGE



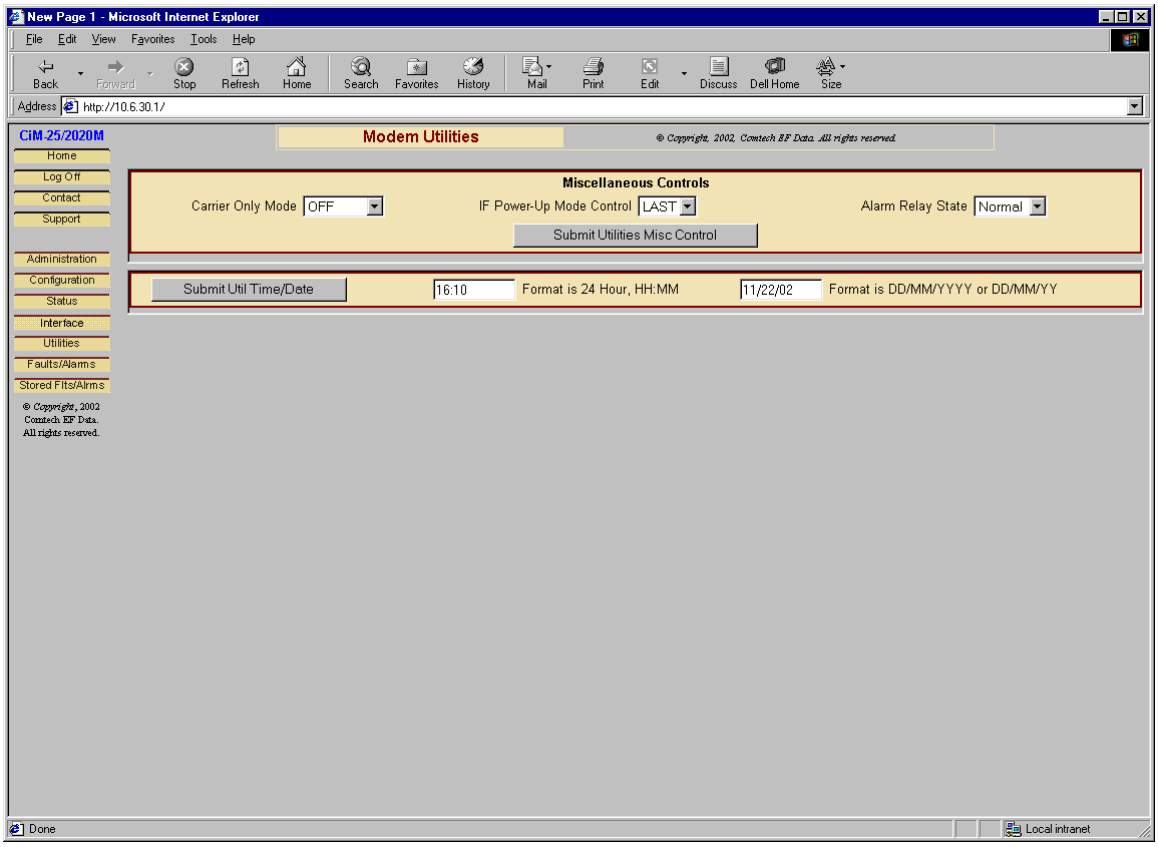
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit Interface Parameters of a SDM-2020M.

3.3.9.7 NO INTERFACE AVAILABLE PAGE



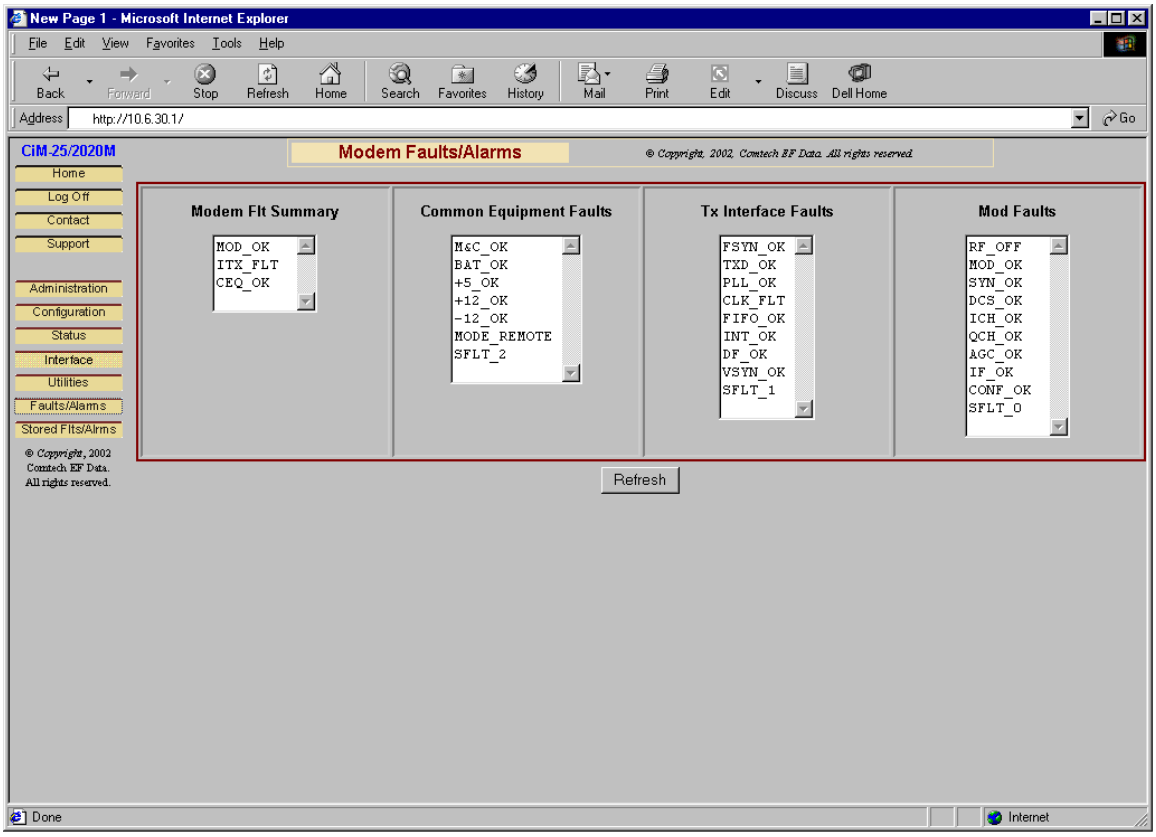
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit Interface Parameters of a SDM-2020M.

3.3.10 UTILITIES PAGE



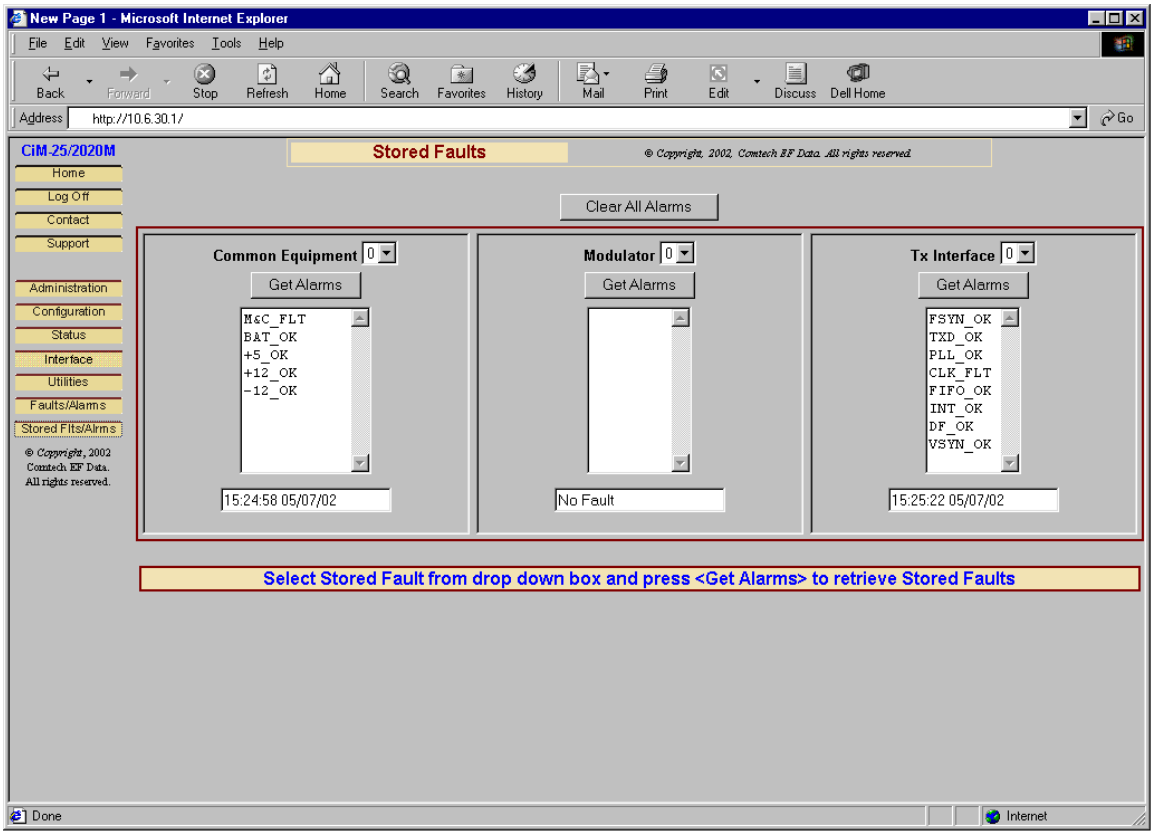
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure various utility functions on a SDM-2020M Modem.

3.3.11 FAULTS/ALARMS



This page can be viewed by all three levels of user login. This is a read-only page and only has a refresh button for convenience. This page allows the user to view the current Faults and Alarms of the SDM-2020M.

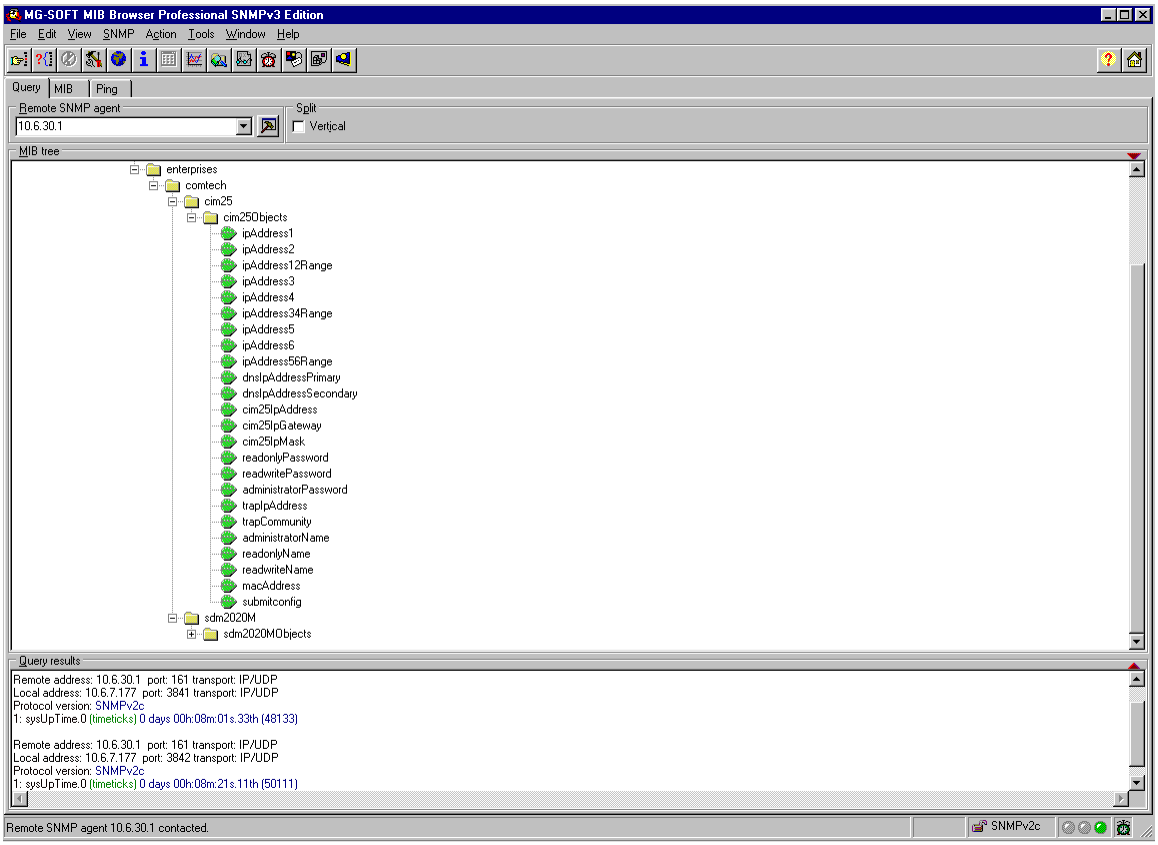
3.3.12 STORED FAULTS/ALARMS



This page can be viewed by all three levels of user login. This is a read-only page. This page allows the user to view various Stored Faults and Alarms of the SDM-2020M modem. Select the desired Stored Alarm and click the **Get Alarm** button to retrieve it.

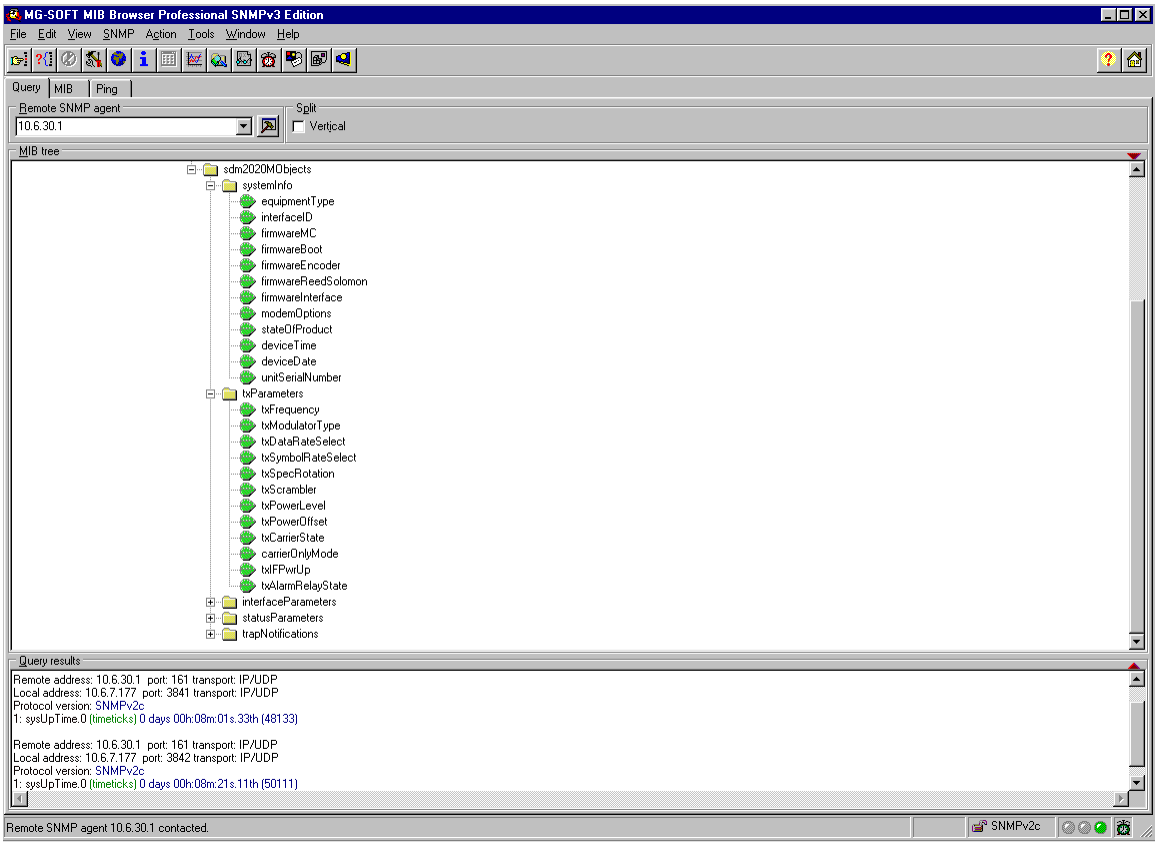
3.4 SNMP INTERFACE

The CiM-25 supports v2c version of the industry standard SNMP (Simple Network Management Protocol). The CiM-25 supports a complete private MIB for the attached equipment as well as a private MIB for the CiM-25 itself. The SNMP interface supports standard **Get** and **Set** as well as **Branch Walking**.



The image above is a screen dump of the top end of the CiM-25/2020M MIB structure using a common MIB Browser. The important point here is that all administrative parameters of the CiM-25 are available in its private MIB.

The image below is a screen dump of the SDM-2020M MIB using a common MIB Browser. The important point here is that all SDM-2020M Controllable Parameters, Status Parameters, and Events and Statistics Logs are available via the CiM-25 and its private SDM-2020M MIB.

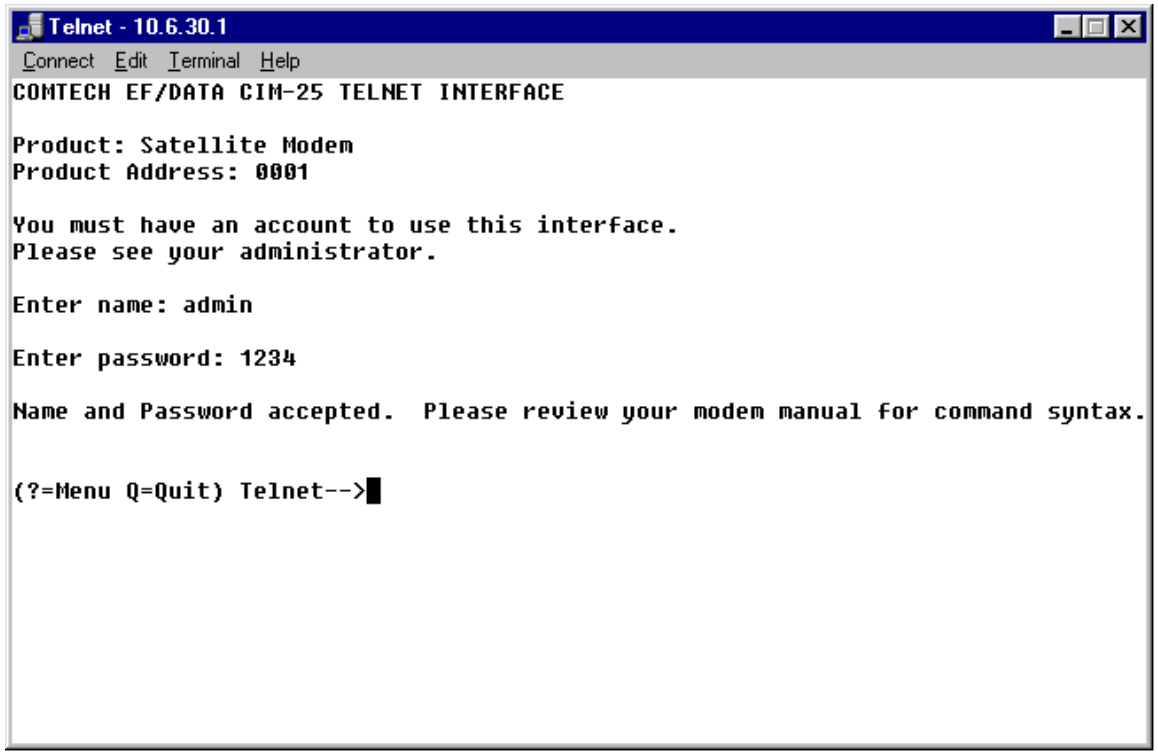


3.5 TELNET INTERFACE

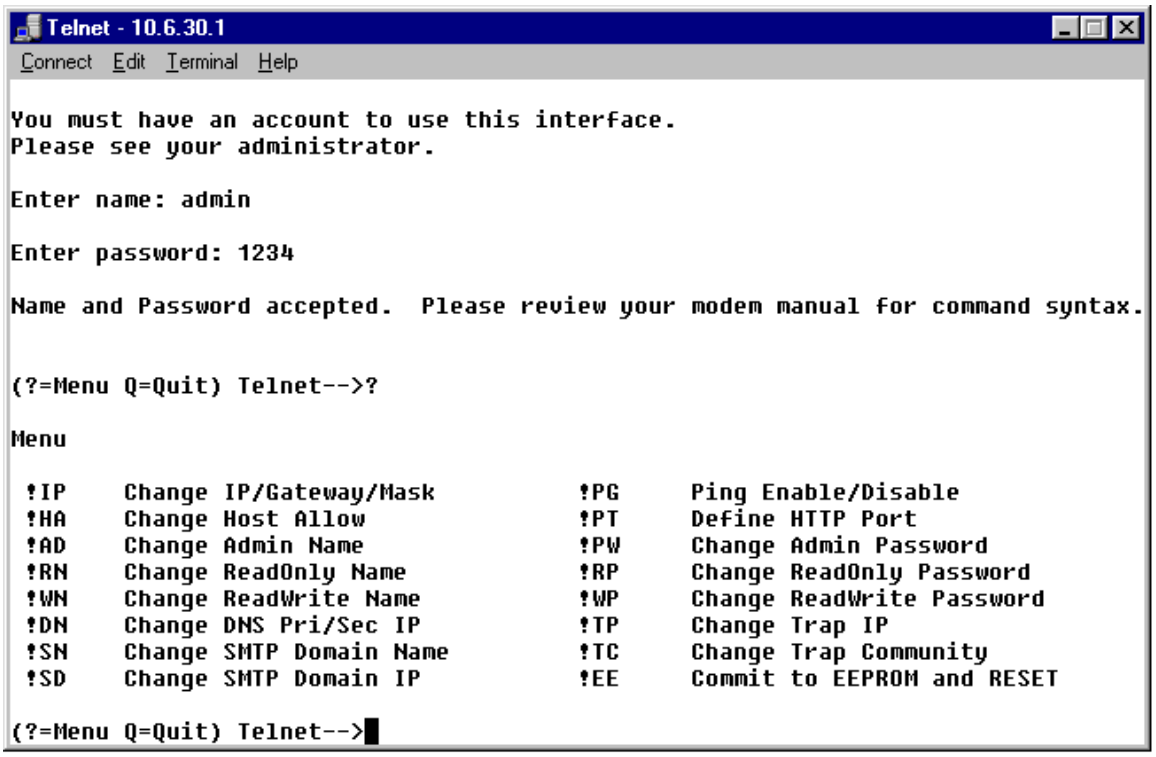
The CiM-25 provides a Telnet interface for three primary functions:

- System Administration.
- Equipment M&C via the standard equipment Remote Control protocol.
- Equipment M&C via Comtech EF Data PC based Monitor and Control applications.

The Telnet interface uses two (2) levels of user login, **Administrator** and **Read/Write**. The screen dump below shows the login process.



Once logged into the C*i*M-25 Telnet interface as the Administrator the user can use the built in menu function by typing a **?** (question mark). This menu is only available to the Administrator. The screen dump below shows the functions available via this menu system. Entering any command without any data parameters will cause the CiM-25 to respond with a message that provides the proper formatting requirements for the individual command. Entering any command with a **?** (question mark) as the parameter will cause the CiM-25 to respond with the current **Set** value. Each command will be explained in the following section.



3.5.1 TELNET ADMINISTRATIVE FUNCTIONS

3.5.1.1 CHANGE IP ADDRESS, GATEWAY AND MASK

Using the **!IP** command, the Administrator can change the IP Address, IP Gateway, and IP Mask. The command protocol for this command is as follows:

Format: **!IP <ip> <gateway> <mask>**

Example: **!IP 10.6.30.2 10.6.30.255 255.255.0.0**

Query Format: **!IP ?**
Response: **!IP 10.6.30.2 10.6.30.255 255.255.0.0**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the C*i*M-25.

3.5.1.2 CHANGE HOST ALLOW LIST

Using the **!HA** command, the Administrator can modify the Host Allow List. The command protocol for this command is as follows:

Format: **!HA <address index> <ip_address> <ranged>**
Where: address index is 1 to 6, ranged is 0 if No and 1 if yes

Example: **!HA 5 10.50.91.200 0**
This sets IP address #5 to 10.50.91.200 and indicates addresses #5 & #6 are NOT ranged.

Query Format: **!HA ?**
Response:

IP 1: 000.000.000.000	**IP 2: 255.255.255.255**	**Range = yes**
IP 3: 000.000.000.000	**IP 4: 000.000.000.000**	**Range = no**
IP 5: 000.000.000.000	**IP 6: 000.000.000.000**	**Range = no**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the C*i*M-25.

3.5.1.3 CHANGE ADMINISTRATOR NAME

Using the **!AD** command, the Administrator can change the Administrator login Name. The command protocol for this command is as follows:

Format: **!AD <string>**
Where: <string> can be any alphanumeric string of length 4 to 10 characters

Query Format: **!AD ?**
Response: **!AD <string>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.4 CHANGE ADMINISTRATOR PASSWORD

Using the **!PW** command, the Administrator can change the Administrator login Password. The command protocol for this command is as follows:

Format: **!PW <string>**
Where: <string> can be any alphanumeric string of length 4 to 10 characters

Query Format: **!PW ?**
Response: **!PW <string>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.5 CHANGE READ/WRITE NAME

Using the **!WN** command, the Administrator can change the Read/Write login Name. The command protocol for this command is as follows:

Format: **!WN <string>**
Where: <string> can be any alphanumeric string of length 4 to 10 characters

Query Format: **!WN ?**
Response: **!WN <string>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.6 CHANGE READ/WRITE PASSWORD

Using the **!WP** command, the Administrator can change the Read/Write login Password. The command protocol for this command is as follows:

Format: **!WP <string>**
Where: <string> can be any alphanumeric string of length 4 to 10 characters

Query Format: **!WP ?**
Response: **!WP <string>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.7 CHANGE READ ONLY NAME

Using the **!RN** command, the Administrator can change the Read Only login Name. The command protocol for this command is as follows:

Format: **!RN <string>**
Where: <string> can be any alphanumeric string of length 4 to 10 characters

Query Format: **!RN ?**
Response: **!RN <string>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.8 CHANGE READ ONLY PASSWORD

Using the **!RP** command, the Administrator can change the Read/Only login Password. The command protocol for this command is as follows:

Format: **!RP <string>**
Where: <string> can be any alphanumeric string of length 4 to 10 characters

Query Format: **!RP ?**
Response: **!RP <string>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.9 ENABLE OR DISABLE PING

Using the **!PG** command, the Administrator can either enable or disable PING. The command protocol for this command is as follows:

Format: **!PG <state>**
Where: 0 = Disabled, 1 = Enabled

Query Format: **!PG ?**
Response: **!PG <state>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.10 COMMIT CHANGES TO EEPROM

Using the **!EE** command, the Administrator can commit any previously commanded changes to EEPROM. This will store the new operating parameters and automatically do a warm reboot of the C*i*M-25. The command protocol for this command is as follows:

Format: **!EE**

3.5.1.11 CHANGE PRIMARY/SECONDARY DNS IP ADDRESSES

Using the **!DN** command, the Administrator can set the primary and secondary DNS IP Addresses. The command protocol for this command is as follows:

Format: **!DN <primary DNS IP Address> <secondary DNS IP Address>**
Response: Command Successful

Query Format: **!DN ?**
Response: **!DN <primary DNS IP Address> <secondary DNS IP Address>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.12 CHANGE SMTP DOMAIN NAME

Using the **!SN** command, the Administrator can set the SMTP domain name. The command protocol for this command is as follows:

Format: **!SN <string>**
Response: **Command Successful**
Where: <string> can be any alphanumeric string with a length of 1 to 100 characters.

Note: **disabled** in the <string> field disables SMTP.

Query Format: **!SN ?**
Response: **!SN <string>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.13 CHANGE SMTP DOMAIN IP ADDRESS

Using the **!SD** command, the Administrator can set the SMTP Domain IP Address. The command protocol for this command is as follows:

Format: **!SD <ip_address>**
Response: **Command Successful**

Note: An IP Address of **0.0.0.0** disables SMTP.

Query Format: **!SD ?**
Response: **!SD <ip_address>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.14 CHANGE HTTP PORT

Using the **!PT** command, the Administrator can set the HTTP Port. The command protocol for this command is as follows:

Format: **!PT <value>**
Response: **Command Successful**
Where <value> can be any number in the range of 0 to 65535

Query Format: **!PT ?**
Response: **!PT <value>**

Notes:
1. The default port is set to 80.
2. Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.15 CHANGE SNMP TRAPIP ADDRESS

Using the **!TP** command, the Administrator can set the SNMP Trap IP Address. The command protocol for this command is as follows:

Format: **!TP <ip_address>**
Response: **Command Successful**

Note: An IP Address of **0.0.0.0** disables the trap

Query Format: **!TP ?**
Response: **!TP <ip_address>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.1.16 CHANGE SNMP TRAP COMMUNITY

Using the **!TC** command, the Administrator can set the SNMP Trap Community. The command protocol for this command is as follows:

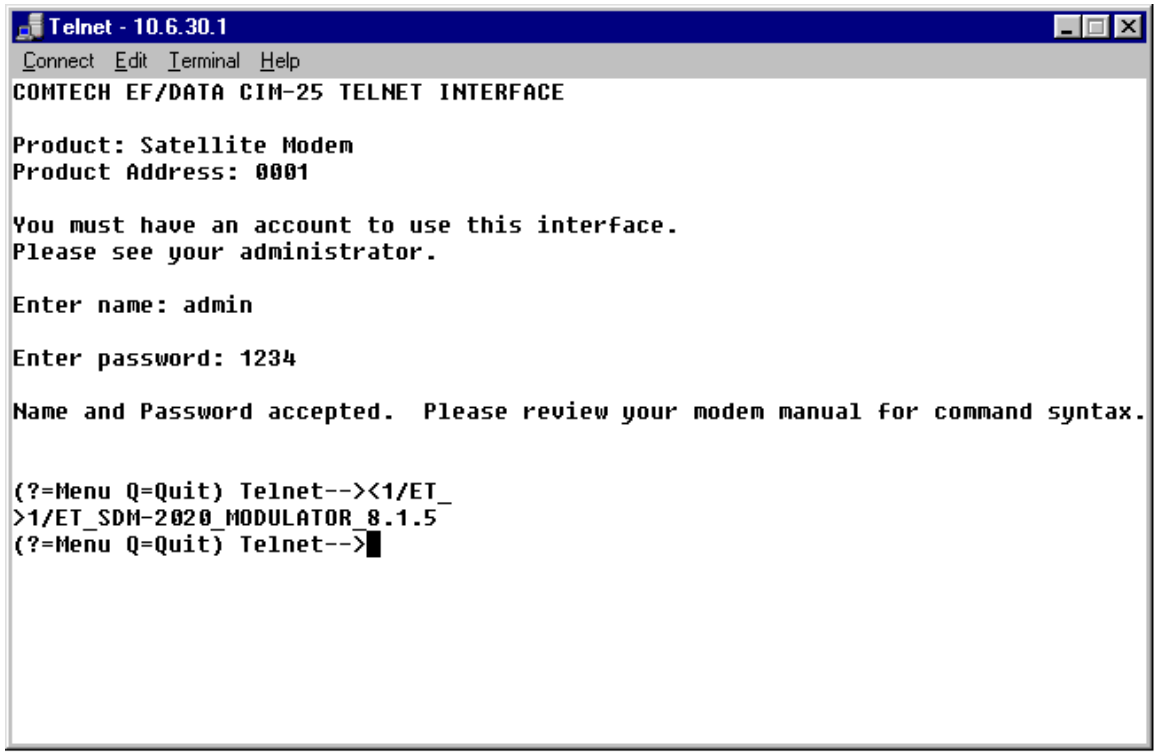
Format: **!TC <string>**
Response: **Command Successful**
where <string> can be 0 - 20 characters

Query Format: **!TC ?**
Response: **!TC <string>**

Note: Changes made via this command do not become active until the user has sent a **!EE** command to commit the changes to EEPROM of the CiM-25.

3.5.2 USING TELNET WITH EQUIPMENT REMOTE CONTROL PROTOCOL

The CiM-25/2020M Telnet interface will accept any command defined in the particular interfacing equipments Remote Control Specification. See the equipments Operation Manual for details regarding the available commands and the message protocol. The screen dump below show an example of how to directly use the equipments Remote Control Protocol to communicate to the equipment via the Telnet interface.



3.6 MAINTENANCE INTERFACE

The default network configuration settings are:

- IP: **10.6.30.1**
- Admin Name: **admin**
- Admin Password: **1234**

The CiM-25 has been designed to support a means of allowing a customer to reset the unit back to the factory default settings, change the IP Address, and verify the software version. Use the following procedure to prepare for for making these changes.

Perform the following steps:

1 Disconnect the CiM-25 from both the interfacing equipment and the Ethernet Network.

2 Connect the CiM-25 to the serial port of a PC using a cable defined below (null cable):

CiM-25 pin 2 to PC pin 3
CiM-25 pin 3 to PC pin 2
CiM-25 pin 5 to PC pin 5

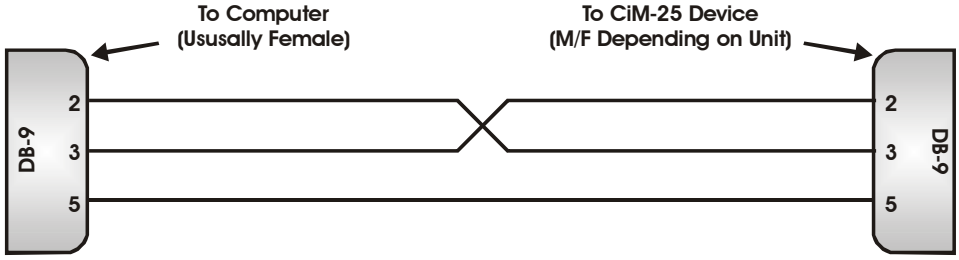


Figure 1. Null Cable Diagram

3 Power the CiM-25 using the Power Jack connector and a external 5 Vdc power supply.

4 Using a Serial Communication application such as Terminal, ProComm, etc., configure the PC's serial port to:

Baud: **19200**
Data rate: **8-N-1**

Use the procedures in following sections to:

- Reset to factory network defaults.
- Change network IP Address
- Verify software version.
- Change MAC Address
- Change Serial Number

3.6.1 RESETTING TO FACTORY DEFAULTS

Perform the following:

1 Enter the following command:

Command: **<0/RST='cr'**

Response: **>0/RST=**

3.6.2 CHANGING NETWORK IP ADDRESS

Perform the following:

1 Enter the following command:

Command: **<0/IPA=xxx.xxx.xxx.xxx/yy'cr'**

Where x is the IP Address and y is the subnet mask.

Response: **>0/IPA=**

Example: **<0/IPA=192.168.001.002/16'cr'**

16 would be a subnet mask of 255.255.0.0

2 To query the IP address enter: **<0/IPA?'cr'**

3.6.3 VERIFYING SOFTWARE VERSION

Perform the following:

1 Enter the following command:

Command: **<0/SWR?'cr'**

Response: **>0/SWR= 1.0.1'cr'**

3.6.4 CHANGING MAC ADDRESS

Perform the following:

1 Enter the following command:

Command: **<0/MAC=xxxxxxxxx'cr'**

Where x is the MAC Address as shown on the label of the CiM-25.

Response: **>0/MAC=**

Example: **>0/MAC=006B0000000A'cr'**

2 To query the MAC Address enter: **>0/MAC?'cr'**

1. **The MAC Address is unique to this unit. Change only under the factory direction or if it does not match the label.**
2. **Changing the MAC Address to anything other than the factory default, may result in erratic operation.**

3.6.5 CHANGING SERIAL NUMBER ADDRESS

Perform the following:

1 Enter the following command:

Command: **<0/SNM=xxxxxxxxx'cr'**

Where x is the Serial Number as shown on the label of the CiM-25.

Response: **>0/SNM=**

Example: **>0/SNM=022080125A'cr'**

2 To query the Serial Number enter: **>0/SNM?'cr'**

IMPORTANT

The Serial Number is unique to this unit. Change only under the factory direction or if it does not match the label.

NOTES

Appendix A.
CiM-25/2020M SNMP Interface

A.1 SNMP INTERFACE

The *Simple Network Management Protocol* (SNMP) is an application-layer protocol designed to facilitate the exchange of management information between network devices. The CiM-25/2020M SNMP agent supports SNMPv2c.

A.2 MIB-II

The CiM-25/2020M agent implements RFC 1213, Management Information Base for Network Management of TCP/IP-based Internets. This is known as “MIB-II support”. Please refer to RFC 1213 for this definition.

A.3 PRIVATE MIB IMPLEMENTATIONS

The agent also implements two private MIBs for the CiM-25/2020M. The CiM IP Controller MIB (CiM-25) holds all the security, feature selection, and IP related parameters and the SDM-2020M modem MIB which contains all the modem specific parameters.

A.4 CiM-25 MIB TREE

1 - 1 --- iso

2 - 1.3 --- org

3 - 1.3.6 --- dod

4 - 1.3.6.1 --- internet

5 - 1.3.6.1.4 --- private

6 - 1.3.6.1.4.1 --- enterprises

7 - 1.3.6.1.4.1.6247 --- comtech

8 - 1.3.6.1.4.1.6247.3 --- cim25

9 - 1.3.6.1.4.1.6247.3.1 --- cim25Objects

10 - 1.3.6.1.4.1.6247.3.1.1 --- ipAddress1 (IpAddress)

11 - 1.3.6.1.4.1.6247.3.1.2 --- ipAddress2 (IpAddress)

12 - 1.3.6.1.4.1.6247.3.1.3 --- ipAddress12Range (INTEGER)

13 - 1.3.6.1.4.1.6247.3.1.4 --- ipAddress3 (IpAddress)

14 - 1.3.6.1.4.1.6247.3.1.5 --- ipAddress4 (IpAddress)

15 - 1.3.6.1.4.1.6247.3.1.6 --- ipAddress34Range (INTEGER)

16 - 1.3.6.1.4.1.6247.3.1.7 --- ipAddress5 (IpAddress)

17 - 1.3.6.1.4.1.6247.3.1.8 --- ipAddress6 (IpAddress)

18 - 1.3.6.1.4.1.6247.3.1.9 --- ipAddress56Range (INTEGER)

19 - 1.3.6.1.4.1.6247.3.1.10 --- dnsIpAddressPrimary (IpAddress)

20 - 1.3.6.1.4.1.6247.3.1.11 --- dnsIpAddressSecondary (IpAddress)

21 - 1.3.6.1.4.1.6247.3.1.12 --- cim25IpAddress (IpAddress)

22 - 1.3.6.1.4.1.6247.3.1.13 --- cim25IpGateway (IpAddress)

23 - 1.3.6.1.4.1.6247.3.1.14 --- cim25IpMask (IpAddress)

24 - 1.3.6.1.4.1.6247.3.1.15 --- readonlyPassword (OCTET STRING)

25 - 1.3.6.1.4.1.6247.3.1.16 --- readwritePassword (OCTET STRING)

26 - 1.3.6.1.4.1.6247.3.1.17 --- administratorPassword (OCTET STRING)

27 - 1.3.6.1.4.1.6247.3.1.18 --- trapIpAddress (IpAddress)

28 - 1.3.6.1.4.1.6247.3.1.19 --- trapCommunity (OCTET STRING)

29 - 1.3.6.1.4.1.6247.3.1.20 --- administratorName (OCTET STRING)

30 - 1.3.6.1.4.1.6247.3.1.21 --- readonlyName (OCTET STRING)

31 - 1.3.6.1.4.1.6247.3.1.22 --- readwriteName (OCTET STRING)

32 - 1.3.6.1.4.1.6247.3.1.23 --- macAddress (OCTET STRING)

33 - 1.3.6.1.4.1.6247.3.1.24 --- submitconfig (INTEGER)

A.5 CiM-25 MIB

A.5.1 ISO

Name	iso
OID	1
Full path	iso(1)
Module	SNMPv2-SMI
Child	org
Type	OBJECT-IDENTIFIER

A.5.2 ORG

Name	org
OID	1.3
Full path	iso(1).org(3)
Module	SNMPv2-SMI
Parent	iso
Child	dod
Type	OBJECT-IDENTIFIER

A.5.3 DOD

Name	dod
OID	1.3.6
Full path	iso(1).org(3).dod(6)
Module	SNMPv2-SMI
Parent	org
Child	internet
Type	OBJECT-IDENTIFIER

A.5.4 INTERNET

Name	internet
OID	1.3.6.1
Full path	iso(1).org(3).dod(6).internet(1)
Module	SNMPv2-SMI
Parent	dod
Child	private
Type	OBJECT-IDENTIFIER

A.5.5 PRIVATE

Name	private
OID	1.3.6.1.4
Full path	iso(1).org(3).dod(6).internet(1).private(4)
Module	CIM25
Parent	internet
Child	enterprises
Type	OBJECT-IDENTIFIER

A.5.6 ENTERPRISES

Name	enterprises
OID	1.3.6.1.4.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1)
Module	CIM25
Parent	private
Child	comtech
Type	OBJECT-IDENTIFIER

A.5.7 COMTECH

Name	comtech
OID	1.3.6.1.4.1.6247
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247)
Module	CIM25
Parent	enterprises
Child	cim25
Type	OBJECT-IDENTIFIER

A.5.8 CIM25

Name	cim25
OID	1.3.6.1.4.1.6247.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3)
Module	CIM25
Parent	comtech
Child	cim25Objects
Type	OBJECT-IDENTIFIER

A.5.9 CIM25OBJECTS

Name	cim25Objects
OID	1.3.6.1.4.1.6247.3.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1)
Module	CIM25
Parent	cim25
Child	ipAddress1
Type	OBJECT-IDENTIFIER

A.5.10 IPADDRESS1

Name	ipAddress1
OID	1.3.6.1.4.1.6247.3.1.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress1(1)
Module	CIM25
Parent	cim25Objects
Next sibling	ipAddress2
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	IP Address 1 or IP Address 1 Start Range.

A.5.11 IPADDRESS2

Name	ipAddress2
OID	1.3.6.1.4.1.6247.3.1.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress2(2)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress1
Next sibling	ipAddress12Range
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	IP Address 2 or IP Address 1 End Range.

A.5.12 IPADDRESS12RANGE

Name	ipAddress12Range
OID	1.3.6.1.4.1.6247.3.1.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress12Range(3)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress2
Next sibling	ipAddress3
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	no(0)
2	yes(1)
Description	Range or Individual for IP Address 1 and 2.

A.5.13 IPADDRESS3

Name	ipAddress3
OID	1.3.6.1.4.1.6247.3.1.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress3(4)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress12Range
Next sibling	ipAddress4
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	IP Address 3 or IP Address 2 Start Range.

A.5.14 IPADDRESS4

Name	ipAddress4
OID	1.3.6.1.4.1.6247.3.1.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress4(5)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress3
Next sibling	ipAddress34Range
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	IP Address 4 or IP Address 2 End Range.

A.5.15 IPADDRESS34RANGE

Name	ipAddress34Range
OID	1.3.6.1.4.1.6247.3.1.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress34Range(6)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress4
Next sibling	ipAddress5
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	no(0)
2	yes(1)
Description	Range or Individual for IP Address 3 and 4.

A.5.16 IPADDRESS5

Name	ipAddress5
OID	1.3.6.1.4.1.6247.3.1.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress5(7)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress34Range
Next sibling	ipAddress6
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	IP Address 5 or IP Address 3 Start Range.

A.5.17 IPADDRESS6

Name	ipAddress6
OID	1.3.6.1.4.1.6247.3.1.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress6(8)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress5
Next sibling	ipAddress56Range
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	IP Address 6 or IP Address 3 End Range.

A.5.18 IPADDRESS56RANGE

Name	ipAddress56Range
OID	1.3.6.1.4.1.6247.3.1.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).ipAddress56Range(9)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress6
Next sibling	dnsIpAddressPrimary
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	no(0)
2	yes(1)
Description	Range or Individual for IP Address 5 and 6.

A.5.19 DNSIPADDRESSPRIMARY

Name	dnsIpAddressPrimary
OID	1.3.6.1.4.1.6247.3.1.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).dnsIpAddressPrimary(10)
Module	CIM25
Parent	cim25Objects
Prev sibling	ipAddress56Range
Next sibling	dnsIpAddressSecondary
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	Primary DNS IP Address.

A.5.20 DNSIPADDRESSSECONDARY

Name	dnsIpAddressSecondary
OID	1.3.6.1.4.1.6247.3.1.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).dnsIpAddressSecondary(11)
Module	CIM25
Parent	cim25Objects
Prev sibling	dnsIpAddressPrimary
Next sibling	cim25IpAddress
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	Secondary DNS IP Address.

A.5.21 CIM25IPADDRESS

Name	cim25IpAddress
OID	1.3.6.1.4.1.6247.3.1.12
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).cim25IpAddress(12)
Module	CIM25
Parent	cim25Objects
Prev sibling	dnsIpAddressSecondary
Next sibling	cim25IpGateway
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	CiM 25 IP Address.

A.5.22 CIM25IPGATEWAY

Name	cim25IpGateway
OID	1.3.6.1.4.1.6247.3.1.13
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).cim25IpGateway(13)
Module	CIM25
Parent	cim25Objects
Prev sibling	cim25IpAddress
Next sibling	cim25IpMask
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	CiM 25 IP Gateway

A.5.23 CIM25IPMASK

Name	cim25IpMask
OID	1.3.6.1.4.1.6247.3.1.14
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).cim25IpMask(14)
Module	CIM25
Parent	cim25Objects
Prev sibling	cim25IpGateway
Next sibling	readonlyPassword
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	CiM25 IP Mask.

A.5.24 READONLYPASSWORD

Name	readonlyPassword
OID	1.3.6.1.4.1.6247.3.1.15
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).readonlyPassword(15)
Module	CIM25
Parent	cim25Objects
Prev sibling	cim25IpMask
Next sibling	readwritePassword
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	4..10
Description	Read-Only Password.

A.5.25 READWRITEPASSWORD

Name	readwritePassword
OID	1.3.6.1.4.1.6247.3.1.16
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).readwritePassword(16)
Module	CIM25
Parent	cim25Objects
Prev sibling	readonlyPassword
Next sibling	administratorPassword
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	4..10
Description	Read-Write Password.

A.5.26 ADMINISTRATORPASSWORD

Name	administratorPassword
OID	1.3.6.1.4.1.6247.3.1.17
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).administratorPassword(17)
Module	CIM25
Parent	cim25Objects
Prev sibling	readwritePassword
Next sibling	trapIpAddress
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	4..10
Description	Administrator Password.

A.5.27 TRAPIPADDRESS

Name	trapIpAddress
OID	1.3.6.1.4.1.6247.3.1.18
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).trapIpAddress(18)
Module	CIM25
Parent	cim25Objects
Prev sibling	administratorPassword
Next sibling	trapCommunity
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_IPADDR
Base syntax	IpAddress
Composed syntax	IpAddress
Status	current
Max-access	read-write
Description	Trap IP Address.

A.5.28 TRAPCOMMUNITY

Name	trapCommunity
OID	1.3.6.1.4.1.6247.3.1.19
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).trapCommunity(19)
Module	CIM25
Parent	cim25Objects
Prev sibling	trapIpAddress
Next sibling	administratorName
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	0..20
Description	Trap Community.

A.5.29 ADMINISTRATORNAME

Name	administratorName
OID	1.3.6.1.4.1.6247.3.1.20
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).administratorName(20)
Module	CIM25
Parent	cim25Objects
Prev sibling	trapCommunity
Next sibling	readonlyName
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	5..10
Description	Administrator User Name.

A.5.30 READONLYNAME

Name	readonlyName
OID	1.3.6.1.4.1.6247.3.1.21
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).readonlyName(21)
Module	CIM25
Parent	cim25Objects
Prev sibling	administratorName
Next sibling	readwriteName
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	5..10
Description	Read-Only User Name.

A.5.31 READWRITENAME

Name	readwriteName
OID	1.3.6.1.4.1.6247.3.1.22
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).readwriteName(22)
Module	CIM25
Parent	cim25Objects
Prev sibling	readonlyName
Next sibling	macAddress
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	5..10
Description	Read-Write User Name.

A.5.32 MACADDRESS

Name	macAddress
OID	1.3.6.1.4.1.6247.3.1.23
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).macAddress(23)
Module	CIM25
Parent	cim25Objects
Prev sibling	readwriteName
Next sibling	submitconfig
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	12
Description	MAC Address.

A.5.33 SUBMITCONFIG

Name	submitconfig
OID	1.3.6.1.4.1.6247.3.1.24
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .cim25(3).cim25Objects(1).submitconfig(24)
Module	CIM25
Parent	cim25Objects
Prev sibling	macAddress
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	submit(1)
Description	Submit changes in CiM 25 Configuration

A.6 SDM-2020M MIB TREE

1 - 1 --- iso

2 - 1.3 --- org

3 - 1.3.6 --- dod

4 - 1.3.6.1 --- internet

5 - 1.3.6.1.4 --- private

6 - 1.3.6.1.4.1 --- enterprises

7 - 1.3.6.1.4.1.6247 --- comtech

8 - 1.3.6.1.4.1.6247.14 --- sdm2020M

9 - 1.3.6.1.4.1.6247.14.1 --- sdm2020MObjects

10 - 1.3.6.1.4.1.6247.14.1.1 --- systemInfo

11 - 1.3.6.1.4.1.6247.14.1.1.1 --- equipmentType (OCTET STRING)

12 - 1.3.6.1.4.1.6247.14.1.1.2 --- interfaceID (INTEGER)

13 - 1.3.6.1.4.1.6247.14.1.1.3 --- firmwareMC (OCTET STRING)

14 - 1.3.6.1.4.1.6247.14.1.1.4 --- firmwareBoot (OCTET STRING)

15 - 1.3.6.1.4.1.6247.14.1.1.5 --- firmwareEncoder (OCTET STRING)

16 - 1.3.6.1.4.1.6247.14.1.1.6 --- firmwareReedSolomon (OCTET STRING)

17 - 1.3.6.1.4.1.6247.14.1.1.7 --- firmwareInterface (OCTET STRING)

18 - 1.3.6.1.4.1.6247.14.1.1.8 --- modemOptions (OCTET STRING)

19 - 1.3.6.1.4.1.6247.14.1.1.9 --- stateOfProduct (OCTET STRING)

20 - 1.3.6.1.4.1.6247.14.1.1.10 --- deviceTime (OCTET STRING)

21 - 1.3.6.1.4.1.6247.14.1.1.11 --- deviceDate (OCTET STRING)

22 - 1.3.6.1.4.1.6247.14.1.1.12 --- unitSerialNumber (OCTET STRING)

23 - 1.3.6.1.4.1.6247.14.1.2 --- txParameters

24 - 1.3.6.1.4.1.6247.14.1.2.1 --- txFrequency (INTEGER)

25 - 1.3.6.1.4.1.6247.14.1.2.2 --- txModulatorType (INTEGER)

26 - 1.3.6.1.4.1.6247.14.1.2.3 --- txDataRateSelect (OCTET STRING)

27 - 1.3.6.1.4.1.6247.14.1.2.4 --- txSymbolRateSelect (OCTET STRING)

28 - 1.3.6.1.4.1.6247.14.1.2.5 --- txSpecRotation (INTEGER)

29 - 1.3.6.1.4.1.6247.14.1.2.6 --- txScrambler (INTEGER)

30 - 1.3.6.1.4.1.6247.14.1.2.7 --- txPowerLevel (INTEGER)

31 - 1.3.6.1.4.1.6247.14.1.2.8 --- txPowerOffset (INTEGER)

32 - 1.3.6.1.4.1.6247.14.1.2.9 --- txCarrierState (INTEGER)

33 - 1.3.6.1.4.1.6247.14.1.2.10 --- carrierOnlyMode (INTEGER)

34 - 1.3.6.1.4.1.6247.14.1.2.11 --- txIFPwrUp (INTEGER)

35 - 1.3.6.1.4.1.6247.14.1.2.12 --- txAlarmRelayState (INTEGER)

36 - 1.3.6.1.4.1.6247.14.1.3 --- interfaceParameters

37 - 1.3.6.1.4.1.6247.14.1.3.1 --- txClockPhase (INTEGER)

38 - 1.3.6.1.4.1.6247.14.1.3.2 --- txDataPhase (INTEGER)

39 - 1.3.6.1.4.1.6247.14.1.3.3 --- txDataFault (INTEGER)

40 - 1.3.6.1.4.1.6247.14.1.3.4 --- substitutePattern (INTEGER)

41 - 1.3.6.1.4.1.6247.14.1.3.5 --- interfaceMode (INTEGER)

42 - 1.3.6.1.4.1.6247.14.1.3.6 --- txClockActivity (INTEGER)

43 - 1.3.6.1.4.1.6247.14.1.3.7 --- dvbSyncSelection (INTEGER)

44 - 1.3.6.1.4.1.6247.14.1.3.8 --- dvbFramingType (INTEGER)

45 - 1.3.6.1.4.1.6247.14.1.3.9 --- rs422Interface

46 - 1.3.6.1.4.1.6247.14.1.3.9.1 --- rs422InterfaceSelect (INTEGER)

47 - 1.3.6.1.4.1.6247.14.1.3.9.2 --- rs422RTSControlTXIF (INTEGER)

48 - 1.3.6.1.4.1.6247.14.1.3.9.3 --- rs422RTSStateControl (INTEGER)

49 - 1.3.6.1.4.1.6247.14.1.3.9.4 --- rs422CTSState (INTEGER)

50 - 1.3.6.1.4.1.6247.14.1.3.9.5 --- rs422DMState (INTEGER)

51 - 1.3.6.1.4.1.6247.14.1.3.10 --- asiRS422Interface

52 - 1.3.6.1.4.1.6247.14.1.3.10.1 --- asiRS422InterfaceSelect (INTEGER)

53 - 1.3.6.1.4.1.6247.14.1.3.10.2 --- asiRS422asiLinkSelect (INTEGER)

54 - 1.3.6.1.4.1.6247.14.1.3.10.3 --- asiRS422asiLoopBandwidth (INTEGER)

55 - 1.3.6.1.4.1.6247.14.1.3.10.4 --- asiRS422RTSControlTXIF (INTEGER)

56 - 1.3.6.1.4.1.6247.14.1.3.10.5 --- asiRS422RTSStateControl (INTEGER)

57 - 1.3.6.1.4.1.6247.14.1.3.10.6 --- asiRS422CTSState (INTEGER)

58 - 1.3.6.1.4.1.6247.14.1.3.10.7 --- asiRS422DMState (INTEGER)

59 - 1.3.6.1.4.1.6247.14.1.3.10.8 --- asiRS422STState (INTEGER)

60 - 1.3.6.1.4.1.6247.14.1.3.11 --- eclHSSIInterface

61 - 1.3.6.1.4.1.6247.14.1.3.11.1 --- eclDTETXIFControl (INTEGER)

62 - 1.3.6.1.4.1.6247.14.1.3.11.2 --- eclDTEStatus (INTEGER)

63 - 1.3.6.1.4.1.6247.14.1.3.11.3 --- eclDTEStateControl (INTEGER)

64 - 1.3.6.1.4.1.6247.14.1.3.11.4 --- eclDCEStateControl (INTEGER)

65 - 1.3.6.1.4.1.6247.14.1.3.12 --- g703Interface

66 - 1.3.6.1.4.1.6247.14.1.3.12.1 --- g703interfaceLoopBack (INTEGER)

67 - 1.3.6.1.4.1.6247.14.1.3.12.2 --- g703interfaceLoopThru (INTEGER)

68 - 1.3.6.1.4.1.6247.14.1.3.12.3 --- g703TXCodingFormat (INTEGER)

69 - 1.3.6.1.4.1.6247.14.1.3.12.4 --- g703RTSControlTXIF (INTEGER)

70 - 1.3.6.1.4.1.6247.14.1.3.12.5 --- g703RTSStateControl (INTEGER)

71 - 1.3.6.1.4.1.6247.14.1.3.13 --- smpte310MInterface

72 - 1.3.6.1.4.1.6247.14.1.3.13.1 --- smpteInterfaceLoopBack (INTEGER)

73 - 1.3.6.1.4.1.6247.14.1.3.13.2 --- smpteInterfaceLoopThru (INTEGER)

74 - 1.3.6.1.4.1.6247.14.1.3.13.3 --- smpteRTSControlTXIF (INTEGER)

75 - 1.3.6.1.4.1.6247.14.1.3.13.4 --- smpteRTSStateControl (INTEGER)

76 - 1.3.6.1.4.1.6247.14.1.3.14 --- asiLVDSInterface

77 - 1.3.6.1.4.1.6247.14.1.3.14.1 --- lvdsInterfaceLoopBack (INTEGER)

78 - 1.3.6.1.4.1.6247.14.1.3.14.2 --- lvdsInterfaceLoopThru (INTEGER)

79 - 1.3.6.1.4.1.6247.14.1.3.14.3 --- lvdsInterfaceSelect (INTEGER)

80 - 1.3.6.1.4.1.6247.14.1.3.14.4 --- lvdsASILinkSelect (INTEGER)

81 - 1.3.6.1.4.1.6247.14.1.3.14.5 --- lvdsASILinkModeSelect (INTEGER)

82 - 1.3.6.1.4.1.6247.14.1.3.14.6 --- lvdsASILoopBandwidth (INTEGER)

83 - 1.3.6.1.4.1.6247.14.1.3.14.7 --- lvdsRTSControlTXIF (INTEGER)

84 - 1.3.6.1.4.1.6247.14.1.3.14.8 --- lvdsRTSStateControl (INTEGER)

85 - 1.3.6.1.4.1.6247.14.1.3.14.9 --- lvdsIJ1InterfaceJumper (INTEGER)

86 - 1.3.6.1.4.1.6247.14.1.4 --- statusParameters

87 - 1.3.6.1.4.1.6247.14.1.4.1 --- modemFaultStatus (INTEGER)

88 - 1.3.6.1.4.1.6247.14.1.4.2 --- modulatorStatus (INTEGER)

89 - 1.3.6.1.4.1.6247.14.1.4.3 --- txInterfaceStatus (INTEGER)

90 - 1.3.6.1.4.1.6247.14.1.4.4 --- commonEquipStatus (INTEGER)

91 - 1.3.6.1.4.1.6247.14.1.5 --- trapNotifications

92 - 1.3.6.1.4.1.6247.14.1.5.0 --- trapNotificationsPrefix

93 - 1.3.6.1.4.1.6247.14.1.5.0.1 --- unitFaultTraps

A.7 SDM-2020M MIB

A.7.1 ISO

Name	iso
OID	1
Full path	iso(1)
Module	SNMPv2-SMI
Child	org
Type	OBJECT-IDENTIFIER

A.7.2 ORG

Name	org
OID	1.3
Full path	iso(1).org(3)
Module	SNMPv2-SMI
Parent	iso
Child	dod
Type	OBJECT-IDENTIFIER

A.7.3 DOD

Name	dod
OID	1.3.6
Full path	iso(1).org(3).dod(6)
Module	SNMPv2-SMI
Parent	org
Child	internet
Type	OBJECT-IDENTIFIER

A.7.4 INTERNET

Name	internet
OID	1.3.6.1
Full path	iso(1).org(3).dod(6).internet(1)
Module	SNMPv2-SMI
Parent	dod
Child	private
Type	OBJECT-IDENTIFIER

A.7.5 PRIVATE

Name	private
OID	1.3.6.1.4
Full path	iso(1).org(3).dod(6).internet(1).private(4)
Module	SDM2020M
Parent	internet
Child	enterprises
Type	OBJECT-IDENTIFIER

A.7.6 ENTERPRISES

Name	enterprises
OID	1.3.6.1.4.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1)
Module	SDM2020M
Parent	private
Child	comtech
Type	OBJECT-IDENTIFIER

A.7.7 COMTECH

Name	comtech
OID	1.3.6.1.4.1.6247
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247)
Module	SDM2020M
Parent	enterprises
Child	sdm2020M
Type	OBJECT-IDENTIFIER

A.7.8 SDM2020M

Name	sdm2020M
OID	1.3.6.1.4.1.6247.14
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14)
Module	SDM2020M
Parent	comtech
Child	sdm2020MObjects
Type	OBJECT-IDENTIFIER

A.7.9 SDM2020MOBJECTS

Name	sdm2020MObjects
OID	1.3.6.1.4.1.6247.14.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1)
Module	SDM2020M
Parent	sdm2020M
Child	systemInfo
Type	OBJECT-IDENTIFIER

A.7.10 SYSTEMINFO

Name	systemInfo
OID	1.3.6.1.4.1.6247.14.1.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1)
Module	SDM2020M
Parent	sdm2020MObjects
Next sibling	txParameters
Child	equipmentType
Type	OBJECT-IDENTIFIER

A.7.11 EQUIPMENTTYPE

Name	equipmentType
OID	1.3.6.1.4.1.6247.14.1.1.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).equipmentType(1)
Module	SDM2020M
Parent	systemInfo
Next sibling	interfaceID
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	0..23
Description	Equipment Type. (ET_)

A.7.12 INTERFACEID

Name	interfaceID
OID	1.3.6.1.4.1.6247.14.1.1.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).interfaceID(2)
Module	SDM2020M
Parent	systemInfo
Prev sibling	equipmentType
Next sibling	firmwareMC
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Value list	
1	none(0)
2	rs422(1)
3	asi_rs422(2)
4	ecl_tx(3)
5	g703(4)
6	smpte310M(5)
7	asi_lvds(6)
8	lvds(7)
9	unknown(8)
Description	Interface ID. (INID_)

A.7.13 FIRMWAREMC

Name	firmwareMC
OID	1.3.6.1.4.1.6247.14.1.1.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).firmwareMC(3)
Module	SDM2020M
Parent	systemInfo
Prev sibling	interfaceID
Next sibling	firmwareBoot
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	41
Description	M&C Firmware Number. (MCFI_)

A.7.14 FIRMWAREBOOT

Name	firmwareBoot
OID	1.3.6.1.4.1.6247.14.1.1.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).firmwareBoot(4)
Module	SDM2020M
Parent	systemInfo
Prev sibling	firmwareMC
Next sibling	firmwareEncoder
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	41
Description	Boot Firmware Number. (BFI_)

A.7.15 FIRMWAREENCODER

Name	firmwareEncoder
OID	1.3.6.1.4.1.6247.14.1.1.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).firmwareEncoder(5)
Module	SDM2020M
Parent	systemInfo
Prev sibling	firmwareBoot
Next sibling	firmwareReedSolomon
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	25
Description	Encoder Firmware. (EFI_)

A.7.16 FIRMWAREREEDSOLOMON

Name	firmwareReedSolomon
OID	1.3.6.1.4.1.6247.14.1.1.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).firmwareReedSolomon(6)
Module	SDM2020M
Parent	systemInfo
Prev sibling	firmwareEncoder
Next sibling	firmwareInterface
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	25
Description	Reed-Solomon Firmware. (RSFI_)

A.7.17 FIRMWAREINTERFACE

Name	firmwareInterface
OID	1.3.6.1.4.1.6247.14.1.1.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).firmwareInterface(7)
Module	SDM2020M
Parent	systemInfo
Prev sibling	firmwareReedSolomon
Next sibling	modemOptions
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	25..50
Description	Interface Firmware. (IFI_)

A.7.18 MODEMOPTIONS

Name	modemOptions
OID	1.3.6.1.4.1.6247.14.1.1.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).modemOptions(8)
Module	SDM2020M
Parent	systemInfo
Prev sibling	firmwareInterface
Next sibling	stateOfProduct
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	135
Description	Modem Options. (MOI_)

A.7.19 STATEOFPRODUCT

Name	stateOfProduct
OID	1.3.6.1.4.1.6247.14.1.1.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).stateOfProduct(9)
Module	SDM2020M
Parent	systemInfo
Prev sibling	modemOptions
Next sibling	deviceTime
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	51..64
Description	State Of Product. (SOP_)

A.7.20 DEVICETIME

Name	deviceTime
OID	1.3.6.1.4.1.6247.14.1.1.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).deviceTime(10)
Module	SDM2020M
Parent	systemInfo
Prev sibling	stateOfProduct
Next sibling	deviceDate
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	7
Description	Unit Time. (TIME_)

A.7.21 DEVICEDATE

Name	deviceDate
OID	1.3.6.1.4.1.6247.14.1.1.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).deviceDate(11)
Module	SDM2020M
Parent	systemInfo
Prev sibling	deviceTime
Next sibling	unitSerialNumber
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	10..12
Description	Unit Date. (DATE_)

A.7.22 UNITSERIALNUMBER

Name	unitSerialNumber
OID	1.3.6.1.4.1.6247.14.1.1.12
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).systemInfo(1).unitSerialNumber(12)
Module	SDM2020M
Parent	systemInfo
Prev sibling	deviceDate
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-only
Size list	
1	9
Description	Unit Serial Number. (SNUM_)

A.7.23 TXPARAMETERS

Name	txParameters
OID	1.3.6.1.4.1.6247.14.1.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2)
Module	SDM2020M
Parent	sdm2020MObjects
Prev sibling	systemInfo
Next sibling	interfaceParameters
Child	txFrequency
Type	OBJECT-IDENTIFIER

A.7.24 TXFREQUENCY

Name	txFrequency
OID	1.3.6.1.4.1.6247.14.1.2.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txFrequency(1)
Module	SDM2020M
Parent	txParameters
Next sibling	txModulatorType
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	500000..900000
2	1000000..1800000
Description	TX Frequency. Value Multiplied by 10000. (MF_)

A.7.25 TXMODULATORTYPE

Name	txModulatorType
OID	1.3.6.1.4.1.6247.14.1.2.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txModulatorType(2)
Module	SDM2020M
Parent	txParameters
Prev sibling	txFrequency
Next sibling	txDataRateSelect
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	dvb1(0)
2	dvb2(1)
Description	TX Modulator Type. (MT_)

A.7.26 TXDATARATESELECT

Name	txDataRateSelect
OID	1.3.6.1.4.1.6247.14.1.2.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txDataRateSelect(3)
Module	SDM2020M
Parent	txParameters
Prev sibling	txModulatorType
Next sibling	txSymbolRateSelect
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	0..13
Description	TX Data Rate Select. (AMRV_)

A.7.27 TXSYMBOLRATESELECT

Name	txSymbolRateSelect
OID	1.3.6.1.4.1.6247.14.1.2.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txSymbolRateSelect(4)
Module	SDM2020M
Parent	txParameters
Prev sibling	txDataRateSelect
Next sibling	txSpecRotation
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Size list	
1	0..13
Description	TX Symbol Rate Select. (ASR_)

A.7.28 TXSPECROTATION

Name	txSpecRotation
OID	1.3.6.1.4.1.6247.14.1.2.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txSpecRotation(5)
Module	SDM2020M
Parent	txParameters
Prev sibling	txSymbolRateSelect
Next sibling	txScrambler
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	normal(0)
2	inverted(1)
Description	TX Spectrum Rotation. (MSR_)

A.7.29 TXSCRAMBLER

Name	txScrambler
OID	1.3.6.1.4.1.6247.14.1.2.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txScrambler(6)
Module	SDM2020M
Parent	txParameters
Prev sibling	txSpecRotation
Next sibling	txPowerLevel
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	TX Scrambler. (SE_)

A.7.30 TXPOWERLEVEL

Name	txPowerLevel
OID	1.3.6.1.4.1.6247.14.1.2.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txPowerLevel(7)
Module	SDM2020M
Parent	txParameters
Prev sibling	txScrambler
Next sibling	txPowerOffset
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	-200..50
Description	TX Power Level. Value Multiplied by 10. (MOP_)

A.7.31 TXPOWEROFFSET

Name	txPowerOffset
OID	1.3.6.1.4.1.6247.14.1.2.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txPowerOffset(8)
Module	SDM2020M
Parent	txParameters
Prev sibling	txPowerLevel
Next sibling	txCarrierState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	-400..400
Description	TX Power Offest. Value Multiplied by 10. (MPO_)

A.7.32 TXCARRIERSTATE

Name	txCarrierState
OID	1.3.6.1.4.1.6247.14.1.2.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txCarrierState(9)
Module	SDM2020M
Parent	txParameters
Prev sibling	txPowerOffset
Next sibling	carrierOnlyMode
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	TX Carrier State. (RF_)

A.7.33 CARRIERONLYMODE

Name	carrierOnlyMode
OID	1.3.6.1.4.1.6247.14.1.2.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).carrierOnlyMode(10)
Module	SDM2020M
Parent	txParameters
Prev sibling	txCarrierState
Next sibling	txIFPwrUp
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	dual(1)
3	offset(2)
4	center(3)
Description	Carrier Only Mode. (COM_)

A.7.34 TXIFPWRUP

Name	txIFPwrUp
OID	1.3.6.1.4.1.6247.14.1.2.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txIFPwrUp(11)
Module	SDM2020M
Parent	txParameters
Prev sibling	carrierOnlyMode
Next sibling	txAlarmRelayState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	last(1)
Description	TX IF Power Up State. (TXPU_)

A.7.35 TXALARMRELAYSTATE

Name	txAlarmRelayState
OID	1.3.6.1.4.1.6247.14.1.2.12
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).txParameters(2).txAlarmRelayState(12)
Module	SDM2020M
Parent	txParameters
Prev sibling	txIFPwrUp
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	TX Alarm Relay State. (ARLY_)

A.7.36 INTERFACEPARAMETERS

Name	interfaceParameters
OID	1.3.6.1.4.1.6247.14.1.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3)
Module	SDM2020M
Parent	sdm2020MObjects
Prev sibling	txParameters
Next sibling	statusParameters
Child	txClockPhase
Type	OBJECT-IDENTIFIER

A.7.37 TXCLOCKPHASE

Name	txClockPhase
OID	1.3.6.1.4.1.6247.14.1.3.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).txClockPhase(1)
Module	SDM2020M
Parent	interfaceParameters
Next sibling	txDataPhase
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
3	auto(2)
Description	TX Clock Phase. (TCP_)

A.7.38 TXDATAPHASE

Name	txDataPhase
OID	1.3.6.1.4.1.6247.14.1.3.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).txDataPhase(2)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	txClockPhase
Next sibling	txDataFault
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	TX Data Phase. (TDP_)

A.7.39 TXDATAFAULT

Name	txDataFault
OID	1.3.6.1.4.1.6247.14.1.3.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).txDataFault(3)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	txDataPhase
Next sibling	substitutePattern
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	none(0)
2	data(1)
3	ais(2)
Description	TX Data Fault. (TDF_)

A.7.40 SUBSTITUTEPATTERN

Name	substitutePattern
OID	1.3.6.1.4.1.6247.14.1.3.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).substitutePattern(4)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	txDataFault
Next sibling	interfaceMode
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	Substitute Pattern. (ISP_)

A.7.41 INTERFACEMODE

Name	interfaceMode
OID	1.3.6.1.4.1.6247.14.1.3.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).interfaceMode(5)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	substitutePattern
Next sibling	txClockActivity
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	serial(0)
2	parallel(1)
Description	Interface Mode. (ICLK_)

A.7.42 TXCLOCKACTIVITY

Name	txClockActivity
OID	1.3.6.1.4.1.6247.14.1.3.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).txClockActivity(6)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	interfaceMode
Next sibling	dvbSyncSelection
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	alarm(0)
2	fault(1)
Description	TX Clock Activity. (TCAA_)

A.7.43 DVBSYNCSELECTION

Name	dvbSyncSelection
OID	1.3.6.1.4.1.6247.14.1.3.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).dvbSyncSelection(7)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	txClockActivity
Next sibling	dvbFramingType
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	ext(0)
2	data(1)
3	auto(2)
Description	DVB Sync Selection. (SYNC_)

A.7.44 DVBFRAMINGTYPE

Name	dvbFramingType
OID	1.3.6.1.4.1.6247.14.1.3.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).dvbFramingType(8)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	dvbSyncSelection
Next sibling	rs422Interface
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	dvb188(1)
2	none(2)
3	dvb204(3)
Description	DVB Framing Type. (TDVB_)

A.7.45 RS422INTERFACE

Name	rs422Interface
OID	1.3.6.1.4.1.6247.14.1.3.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).rs422Interface(9)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	dvbFramingType
Next sibling	asiRS422Interface
Child	rs422InterfaceSelect
Type	OBJECT-IDENTIFIER

A.7.46 RS422INTERFACESELECT

Name	rs422InterfaceSelect
OID	1.3.6.1.4.1.6247.14.1.3.9.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).rs422Interface(9).rs422InterfaceSelect(1)
Module	SDM2020M
Parent	rs422Interface
Next sibling	rs422RTSControlTXIF
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	interface_dvb(0)
2	interface_503(1)
Description	RS422 Interface Select. (ISEL_)

A.7.47 RS422RTSCONTROLTXIF

Name	rs422RTSControlTXIF
OID	1.3.6.1.4.1.6247.14.1.3.9.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).rs422Interface(9).rs422RTSControlTXIF(2)
Module	SDM2020M
Parent	rs422Interface
Prev sibling	rs422InterfaceSelect
Next sibling	rs422RTSStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	RS422 RTS TX IF Control. (RTSM_)

A.7.48 RS422RTSSTATECONTROL

Name	rs422RTSStateControl
OID	1.3.6.1.4.1.6247.14.1.3.9.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).rs422Interface(9).rs422RTSStateControl(3)
Module	SDM2020M
Parent	rs422Interface
Prev sibling	rs422RTSControlTXIF
Next sibling	rs422CTSState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	RS422 RTS State Control. (RTSS_)

A.7.49 RS422CTSSTATE

Name	rs422CTSState
OID	1.3.6.1.4.1.6247.14.1.3.9.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).rs422Interface(9).rs422CTSState(4)
Module	SDM2020M
Parent	rs422Interface
Prev sibling	rs422RTSStateControl
Next sibling	rs422DMState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	RS422 CTS State. (CTSS_)

A.7.50 RS422DMSTATE

Name	rs422DMState
OID	1.3.6.1.4.1.6247.14.1.3.9.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).rs422Interface(9).rs422DMState(5)
Module	SDM2020M
Parent	rs422Interface
Prev sibling	rs422CTSState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	RS422 DM State. (DMS_)

A.7.51 ASIRS422INTERFACE

Name	asiRS422Interface
OID	1.3.6.1.4.1.6247.14.1.3.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	rs422Interface
Next sibling	eclHSSIInterface
Child	asiRS422InterfaceSelect
Type	OBJECT-IDENTIFIER

A.7.52 ASIRS422INTERFACESELECT

Name	asiRS422InterfaceSelect
OID	1.3.6.1.4.1.6247.14.1.3.10.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10).asiRS422InterfaceSelect(1)
Module	SDM2020M
Parent	asiRS422Interface
Next sibling	asiRS422asiLinkSelect
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	interface_asi(0)
2	interface_rs422(1)
Description	ASI RS422 Interface Select. (ISEL_)

A.7.53 asiRS422asiLinkSelect

Name	asiRS422asiLinkSelect
OID	1.3.6.1.4.1.6247.14.1.3.10.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10).asiRS422asiLinkSelect(2)
Module	SDM2020M
Parent	asiRS422Interface
Prev sibling	asiRS422InterfaceSelect
Next sibling	asiRS422asiLoopBandwidth
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	a(0)
2	b(1)
Description	ASI RS422 ASI Link Select. (ASI_)

A.7.54 asiRS422asiLoopBandwidth

Name	asiRS422asiLoopBandwidth
OID	1.3.6.1.4.1.6247.14.1.3.10.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10).asiRS422asiLoopBandwidth(3)
Module	SDM2020M
Parent	asiRS422Interface
Prev sibling	asiRS422asiLinkSelect
Next sibling	asiRS422RTSControlTXIF
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	narrow(0)
2	wide(1)
Description	ASI RS422 ASI Loob Bandwidth. (ASLB_)

A.7.55 ASIRS422RTSCONTROLTXIF

Name	asiRS422RTSControlTXIF
OID	1.3.6.1.4.1.6247.14.1.3.10.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10).asiRS422RTSControlTXIF(4)
Module	SDM2020M
Parent	asiRS422Interface
Prev sibling	asiRS422asiLoopBandwidth
Next sibling	asiRS422RTSStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	ASI RS422 RTS TX IF Control. (RTSM_)

A.7.56 ASIRS422RTSSTATECONTROL

Name	asiRS422RTSStateControl
OID	1.3.6.1.4.1.6247.14.1.3.10.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10).asiRS422RTSStateControl(5)
Module	SDM2020M
Parent	asiRS422Interface
Prev sibling	asiRS422RTSControlTXIF
Next sibling	asiRS422CTSState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	ASI RS422 RTS State Control. (RTSS_)

A.7.57 ASIRS422CTSSTATE

Name	asiRS422CTSState
OID	1.3.6.1.4.1.6247.14.1.3.10.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10).asiRS422CTSState(6)
Module	SDM2020M
Parent	asiRS422Interface
Prev sibling	asiRS422RTSStateControl
Next sibling	asiRS422DMState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	ASI RS422 CTS State. (RTSS_)

A.7.58 ASIRS422DMSTATE

Name	asiRS422DMState
OID	1.3.6.1.4.1.6247.14.1.3.10.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10).asiRS422DMState(7)
Module	SDM2020M
Parent	asiRS422Interface
Prev sibling	asiRS422CTSState
Next sibling	asiRS422STState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	ASI RS422 DM State. (DMS_)

A.7.59 ASIRS422STSTATE

Name	asiRS422STState
OID	1.3.6.1.4.1.6247.14.1.3.10.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiRS422Interface(10).asiRS422STState(8)
Module	SDM2020M
Parent	asiRS422Interface
Prev sibling	asiRS422DMState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	ASI RS422 ST State. (ST_)

A.7.60 ECLHSSIINTERFACE

Name	eclHSSIInterface
OID	1.3.6.1.4.1.6247.14.1.3.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).eclHSSIInterface(11)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	asiRS422Interface
Next sibling	g703Interface
Child	eclDTETXIFControl
Type	OBJECT-IDENTIFIER

A.7.61 ECLDTETXIFCONTROL

Name	eclDTETXIFControl
OID	1.3.6.1.4.1.6247.14.1.3.11.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).eclHSSIInterface(11).eclDTETXIFControl(1)
Module	SDM2020M
Parent	eclHSSIInterface
Next sibling	eclDTEStatus
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	ECL DTE TX IF Control. (DTEM_)

A.7.62 ECLDTESTATUS

Name	eclDTEStatus
OID	1.3.6.1.4.1.6247.14.1.3.11.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).eclHSSIInterface(11).eclDTEStatus(2)
Module	SDM2020M
Parent	eclHSSIInterface
Prev sibling	eclDTETXIFControl
Next sibling	eclDTEStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Value list	
1	unavailable(0)
2	available(1)
Description	ECL DTE Status. (EDTE_)

A.7.63 eclDTEStateControl

Name	eclDTEStateControl
OID	1.3.6.1.4.1.6247.14.1.3.11.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).eclHSSIInterface(11).eclDTEStateControl(3)
Module	SDM2020M
Parent	eclHSSIInterface
Prev sibling	eclDTEStatus
Next sibling	eclDCEStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	ECL DTE State Control. (DTES_)

A.7.64 eclDCEStateControl

Name	eclDCEStateControl
OID	1.3.6.1.4.1.6247.14.1.3.11.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).eclHSSIInterface(11).eclDCEStateControl(4)
Module	SDM2020M
Parent	eclHSSIInterface
Prev sibling	eclDTEStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	ECL DCE State Control. (DCES_)

A.7.65 G703INTERFACE

Name	g703Interface
OID	1.3.6.1.4.1.6247.14.1.3.12
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).g703Interface(12)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	eclHSSIInterface
Next sibling	smpte310MInterface
Child	g703interfaceLoopBack
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.66 G703INTERFACELOOPBACK

Name	g703interfaceLoopBack
OID	1.3.6.1.4.1.6247.14.1.3.12.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).g703Interface(12).g703interfaceLoopBack(1)
Module	SDM2020M
Parent	g703Interface
Next sibling	g703interfaceLoopThru
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	G703 Interface Loop Back. (ILB_)

A.7.67 G703INTERFACELOOPTHRU

Name	g703interfaceLoopThru
OID	1.3.6.1.4.1.6247.14.1.3.12.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).g703Interface(12).g703interfaceLoopThru(2)
Module	SDM2020M
Parent	g703Interface
Prev sibling	g703interfaceLoopBack
Next sibling	g703TXCodingFormat
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	G703 Interface Loop Thru. (ILM_)

A.7.68 G703TXCODINGFORMAT

Name	g703TXCodingFormat
OID	1.3.6.1.4.1.6247.14.1.3.12.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).g703Interface(12).g703TXCodingFormat(3)
Module	SDM2020M
Parent	g703Interface
Prev sibling	g703interfaceLoopThru
Next sibling	g703RTSControlTXIF
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	ami(0)
2	hdb3(1)
3	b8zs(2)
4	b3zs(3)
Description	G703 TX Coding Format. (ICFT_)

A.7.69 G703RTSCONTROLTXIF

Name	g703RTSControlTXIF
OID	1.3.6.1.4.1.6247.14.1.3.12.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).g703Interface(12).g703RTSControlTXIF(4)
Module	SDM2020M
Parent	g703Interface
Prev sibling	g703TXCodingFormat
Next sibling	g703RTSStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	G703 RTS TX IF Control. (RTSM_)

A.7.70 G703RTSSTATECONTROL

Name	g703RTSStateControl
OID	1.3.6.1.4.1.6247.14.1.3.12.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).g703Interface(12).g703RTSStateControl(5)
Module	SDM2020M
Parent	g703Interface
Prev sibling	g703RTSControlTXIF
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	G703 RTS State Control. (RTSS_)

A.7.71 SMPTE310MINTERFACE

Name	smpte310MInterface
OID	1.3.6.1.4.1.6247.14.1.3.13
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).smpte310MInterface(13)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	g703Interface
Next sibling	asiLVDSInterface
Child	smpteInterfaceLoopBack
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.72 SMPTEINTERFACELOOPBACK

Name	smpteInterfaceLoopBack
OID	1.3.6.1.4.1.6247.14.1.3.13.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).smpte310MInterface(13).smpteInterfaceLoopBack(1)
Module	SDM2020M
Parent	smpte310MInterface
Next sibling	smpteInterfaceLoopThru
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	SMPTE310 Interface Loopback. (ILB_)

A.7.73 SMPTEINTERFACELOOPTHRU

Name	smpteInterfaceLoopThru
OID	1.3.6.1.4.1.6247.14.1.3.13.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).smpte310MInterface(13).smpteInterfaceLoopThru(2)
Module	SDM2020M
Parent	smpte310MInterface
Prev sibling	smpteInterfaceLoopBack
Next sibling	smpteRTSControlTXIF
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	SMPTE310 Interface Loop Thru. (ILM_)

A.7.74 SMPTERTSCONTROLTXIF

Name	smpteRTSControlTXIF
OID	1.3.6.1.4.1.6247.14.1.3.13.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).smpte310MInterface(13).smpteRTSControlTXIF(3)
Module	SDM2020M
Parent	smpte310MInterface
Prev sibling	smpteInterfaceLoopThru
Next sibling	smpteRTSStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	SMPTE RTS TX IF Control. (RTSM_)

A.7.75 SMPTERTSSTATECONTROL

Name	smpteRTSStateControl
OID	1.3.6.1.4.1.6247.14.1.3.13.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).smpte310MInterface(13).smpteRTSStateControl(4)
Module	SDM2020M
Parent	smpte310MInterface
Prev sibling	smpteRTSControlTXIF
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	SMPTE310 RTS State Control. (RTSS_)

A.7.76 ASILVDSINTERFACE

Name	asiLVDSInterface
OID	1.3.6.1.4.1.6247.14.1.3.14
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14)
Module	SDM2020M
Parent	interfaceParameters
Prev sibling	smpte310MInterface
Child	lvdsInterfaceLoopBack
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.77 LVDSINTERFACELOOPBACK

Name	lvdsInterfaceLoopBack
OID	1.3.6.1.4.1.6247.14.1.3.14.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsInterfaceLoopBack(1)
Module	SDM2020M
Parent	asiLVDSInterface
Next sibling	lvdsInterfaceLoopThru
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	ASI LVDS Interface Loob Back. (ILB_)

A.7.78 LVDSINTERFACELOOPTHRU

Name	lvdsInterfaceLoopThru
OID	1.3.6.1.4.1.6247.14.1.3.14.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsInterfaceLoopThru(2)
Module	SDM2020M
Parent	asiLVDSInterface
Prev sibling	lvdsInterfaceLoopBack
Next sibling	lvdsInterfaceSelect
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	ASI LVDS Interface Loop Thru. (ILM_)

A.7.79 LVDSINTERFACESELECT

Name	lvdsInterfaceSelect
OID	1.3.6.1.4.1.6247.14.1.3.14.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsInterfaceSelect(3)
Module	SDM2020M
Parent	asiLVDSInterface
Prev sibling	lvdsInterfaceLoopThru
Next sibling	lvdsASILinkSelect
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	interface_ASI(0)
2	interface_LVDS(1)
Description	ASI LVDS Interface Select. (ISEL_)

A.7.80 LVDSASILINKSELECT

Name	lvdsASILinkSelect
OID	1.3.6.1.4.1.6247.14.1.3.14.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsASILinkSelect(4)
Module	SDM2020M
Parent	asiLVDSInterface
Prev sibling	lvdsInterfaceSelect
Next sibling	lvdsASILinkModeSelect
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	a(0)
2	b(1)
Description	ASI LVDS Link Input Select. (ASI_)

A.7.81 LVDSASILINKMODESELECT

Name	lvdsASILinkModeSelect
OID	1.3.6.1.4.1.6247.14.1.3.14.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsASILinkModeSelect(5)
Module	SDM2020M
Parent	asiLVDSInterface
Prev sibling	lvdsASILinkSelect
Next sibling	lvdsASILoopBandwidth
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	manual(0)
2	auto(1)
Description	ASI LVDS Link Mode Select. (ASIA_)

A.7.82 LVDSASILOOPBANDWIDTH

Name	lvdsASILoopBandwidth
OID	1.3.6.1.4.1.6247.14.1.3.14.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsASILoopBandwidth(6)
Module	SDM2020M
Parent	asiLVDSInterface
Prev sibling	lvdsASILinkModeSelect
Next sibling	lvdsRTSControlTXIF
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	narrow(0)
2	wide(1)
Description	ASI LVDS Loop Bandwidth. (ASLB_)

A.7.83 LVDSRTSCONTROLTXIF

Name	lvdsRTSControlTXIF
OID	1.3.6.1.4.1.6247.14.1.3.14.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsRTSControlTXIF(7)
Module	SDM2020M
Parent	asiLVDSInterface
Prev sibling	lvdsASILoopBandwidth
Next sibling	lvdsRTSStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	off(0)
2	on(1)
Description	ASI LVDS RTS TX IF Control. (RTSM_)

A.7.84 LVDSRTSSTATECONTROL

Name	lvdsRTSStateControl
OID	1.3.6.1.4.1.6247.14.1.3.14.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsRTSStateControl(8)
Module	SDM2020M
Parent	asiLVDSInterface
Prev sibling	lvdsRTSControlTXIF
Next sibling	lvdsIJ1InterfaceJumper
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	nrm(0)
2	inv(1)
Description	ASI LVDS RTS State Control. (RTSS_)

A.7.85 LVDSIJ1INTERFACEJUMPER

Name	lvdsIJ1InterfaceJumper
OID	1.3.6.1.4.1.6247.14.1.3.14.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).interfaceParameters(3).asiLVDSInterface(14).lvdsIJ1InterfaceJumper(9)
Module	SDM2020M
Parent	asiLVDSInterface
Prev sibling	lvdsRTSStateControl
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Value list	
1	rx(0)
2	tx(1)
Description	ASI LVDS Interface Jumper state. (IJ1_)

A.7.86 STATUSPARAMETERS

Name	statusParameters
OID	1.3.6.1.4.1.6247.14.1.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).statusParameters(4)
Module	SDM2020M
Parent	sdm2020MObjects
Prev sibling	interfaceParameters
Next sibling	trapNotifications
Child	modemFaultStatus
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.87 MODEMFAULTSTATUS

Name	modemFaultStatus
OID	1.3.6.1.4.1.6247.14.1.4.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).statusParameters(4).modemFaultStatus(1)
Module	SDM2020M
Parent	statusParameters
Next sibling	modulatorStatus
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	0..7
Description	Modem Fault Status. (MFS_)
	Bit 0 = Modulator (0=OK, 1=FLT)
	Bit 1 = TX Interface (0=OK, 1=FLT)
	Bit 2 = Common Equipment (0=OK, 1=FLT)

A.7.88 MODULATORSTATUS

Name	modulatorStatus
OID	1.3.6.1.4.1.6247.14.1.4.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).statusParameters(4).modulatorStatus(2)
Module	SDM2020M
Parent	statusParameters
Prev sibling	modemFaultStatus
Next sibling	txInterfaceStatus
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	0..255
Description	Modulator Fault Status. (MS_)
	Bit 0 = Module (0=OK, 1=FLT)
	Bit 1 = IF Synthesizer (0=OK, 1=FLT)
	Bit 2 = Data Clock Synthesizer (0=OK, 1=FLT)
	Bit 3 = I Channel (0=OK, 1=FLT)
	Bit 4 = Q Channel (0=OK, 1=FLT)
	Bit 5 = AGC Level (0=OK, 1=FLT)
	Bit 6 = IF Module (0=OK, 1=FLT)
	Bit 7 = Configuration (0=OK, 1=FLT)

A.7.89 TXINTERFACESTATUS

Name	txInterfaceStatus
OID	1.3.6.1.4.1.6247.14.1.4.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).statusParameters(4).txInterfaceStatus(3)
Module	SDM2020M
Parent	statusParameters
Prev sibling	modulatorStatus
Next sibling	commonEquipStatus
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	0..255
Description	TX Interface Fault Status. (ITXS_)
	Bit 0 = Frame Sync Lock (0=OK, 1=FLT)
	Bit 1 = TX Data (0=OK, 1=FLT)
	Bit 2 = TX Synthesizer PLL Lock (0=OK, 1=FLT)
	Bit 3 = TX Clock Activity (0=OK, 1=FLT)
	Bit 4 = TX FIFO (0=OK, 1=FLT)
	Bit 5 = Interface Module (0=OK, 1=FLT)
	Bit 6 = Data Format (0=OK, 1=FLT)
	Bit 7 = Video Frame Sync. (0=OK, 1=FLT)

A.7.90 COMMONEQUIPSTATUS

Name	commonEquipStatus
OID	1.3.6.1.4.1.6247.14.1.4.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).statusParameters(4).commonEquipStatus(4)
Module	SDM2020M
Parent	statusParameters
Prev sibling	txInterfaceStatus
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	0..31
Description	Common Equipment Fault Status. (CES_)
	Bit 0 = M&C Module (0=OK, 1=FLT)
	Bit 1 = Battery / Clock (0=OK, 1=FLT)
	Bit 2 = +5V Power Supply (0=OK, 1=FLT)
	Bit 3 = +12V Power Supply (0=OK, 1=FLT)
	Bit 4 = -12V Power Supply (0=OK, 1=FLT)

A.7.91 TRAPNOTIFICATIONS

Name	trapNotifications
OID	1.3.6.1.4.1.6247.14.1.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).trapNotifications(5)
Module	SDM2020M
Parent	sdm2020MObjects
Prev sibling	statusParameters
Child	trapNotificationsPrefix
Type	OBJECT-IDENTIFIER

A.7.92 TRAPNOTIFICATIONSPREFIX

Name	trapNotificationsPrefix
OID	1.3.6.1.4.1.6247.14.1.5.0
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).trapNotifications(5).trapNotificationsPrefix(0)
Module	SDM2020M
Parent	trapNotifications
Child	unitFaultTraps
Type	OBJECT-IDENTIFIER

A.7.93 UNITFAULTTRAPS

Name	unitFaultTraps
OID	1.3.6.1.4.1.6247.14.1.5.0.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm2020M(14).sdm2020MObjects(1).trapNotifications(5).trapNotificationsPrefix(0).unitFaultTraps(1)
Module	SDM2020M
Parent	trapNotificationsPrefix
Type	NOTIFICATION-TYPE
Composed syntax	
Status	current
Objects	
1	modemFaultStatus
Description	Unit Fault Trap using Modem Fault Status. (MFS_)
	Bit 0 = Modulator (0=OK, 1=FLT)
	Bit 1 = TX Interface (0=OK, 1=FLT)
	Bit 2 = Common Equipment (0=OK, 1=FLT)

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METRIC CONVERSIONS

Units of Length

Unit	Centimeter	Inch	Foot	Yard	Mile	Meter	Kilometer	Millimeter
1 centimeter	—	0.3937	0.03281	0.01094	6.214×10^{-6}	0.01	—	—
1 inch	2.540	—	0.08333	0.2778	1.578×10^{-5}	0.254	—	25.4
1 foot	30.480	12.0	—	0.3333	1.893×10^{-4}	0.3048	—	—
1 yard	91.44	36.0	3.0	—	5.679×10^{-4}	0.9144	—	—
1 meter	100.0	39.37	3.281	1.094	6.214×10^{-4}	—	—	—
1 mile	1.609×10^{5}	6.336×10^{4}	5.280×10^{3}	1.760×10^{3}	—	1.609×10^{3}	1.609	—
1 mm	—	0.03937	—	—	—	—	—	—
1 kilometer	—	—	—	—	0.621	—	—	—

Temperature Conversions

Unit	° Fahrenheit	° Centigrade
32° Fahrenheit	—	0 (water freezes)
212° Fahrenheit	—	100 (water boils)
-459.6° Fahrenheit	—	273.1 (absolute 0)

Formulas
C = (F - 32) * 0.555
F = (C * 1.8) + 32

Units of Weight

Unit	Gram	Ounce Avoirdupois	Ounce Troy	Pound Avoir.	Pound Troy	Kilogram
1 gram	—	0.03527	0.03215	0.002205	0.002679	0.001
1 oz. avoir.	28.35	—	0.9115	0.0625	0.07595	0.02835
1 oz. troy	31.10	1.097	—	0.06857	0.08333	0.03110
1 lb. avoir.	453.6	16.0	14.58	—	1.215	0.4536
1 lb. Troy	373.2	13.17	12.0	0.8229	—	0.3732
1 kilogram	1.0×10^{3}	35.27	32.15	2.205	2.679	—

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