CiM-25/9000

IP-Enabled M&C
Installation and Operation Manual
Part Number CD/CIM259000.IOM
Rev. 1

Errata A

Comtech EF Data Documentation Update

Subject:	Changes to list of equipment supported by CiM-25s.
Date:	March 3, 2004
Document:	CiM-25/9000 IP Enabled M&C Installation and Operation Manual, Part Number CD/CIM259000.IOM, Rev. 1, dated Nov. 27, 2002
Part Number:	CD/CIM259000.EA1
Collating Instructions:	Attach this page to page 2

Comments:

The following change provides updated information for the list of equipment supported by CiM-25s. This information will be incorporated into the next revision.

Change Specifics:

On page 2, remove the following:

- Solid State High Power Amplifiers
  - All C-Band SSPA models*
  - All Ku-Band SSPA models*

Errata B

Comtech EF Data Documentation Update

Subject:	Changes to list of equipment supported by CiM-25s.
Date:	March 3, 2004
Document:	CiM-25/9000 IP Enabled M&C Installation and Operation Manual, Part Number CD/CIM259000.IOM, Rev. 1, dated Nov. 27, 2002
Part Number:	CD/CIM259000.EB1
Collating Instructions:	Attach this page to page 34

Comments:

The following change provides updated information for the list of equipment supported by CiM-25s. This information will be incorporated into the next revision.

Change Specifics:

Change step 5 to read as follows:

5. Enter the following command:

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

   Response: **>0/RST'=**

Errata C

Comtech EF Data Documentation Update

Subject: Revise Paragraph 2.3.1 Powering the CiM-25

Date: July 9, 2004
Part Number: CD/CIM259000.EC1
Related Document: CiM-25/9000,IP-Enabled M&C,Installation and Operation Manual,Part Number CD/CIM259000.IOM,Rev. 1
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-25/9000

IP Enabled M&C
Installation and Operation Manual

Part Number CD/CIM259000.IOM
REV. 1
March 3, 2004

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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:

cimservice@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.

Table of Contents

ABOUT THIS MANUAL

This manual provides installation and operation information for the Comtech EF Data CiM-25/9000 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-25/9000 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.

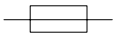
This equipment meets the Safety of Information Technology Equipment specification as defined in EN60950.

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*

- Solid State High Power Amplifiers

  All C-Band SSPA models*
  All Ku-Band SSPA models*

*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-25/9000 that is loaded to interface a SDM-9000 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-25/9000 with SDM-9000 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 C*i*M-25/9000.

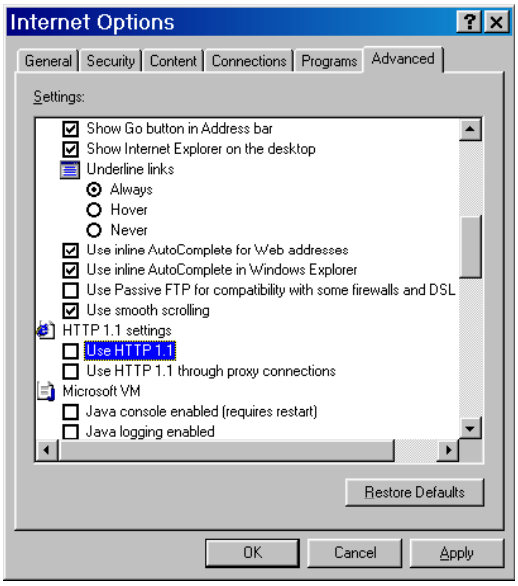
3.3.1 LOCAL LAN CONFIGURATION

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

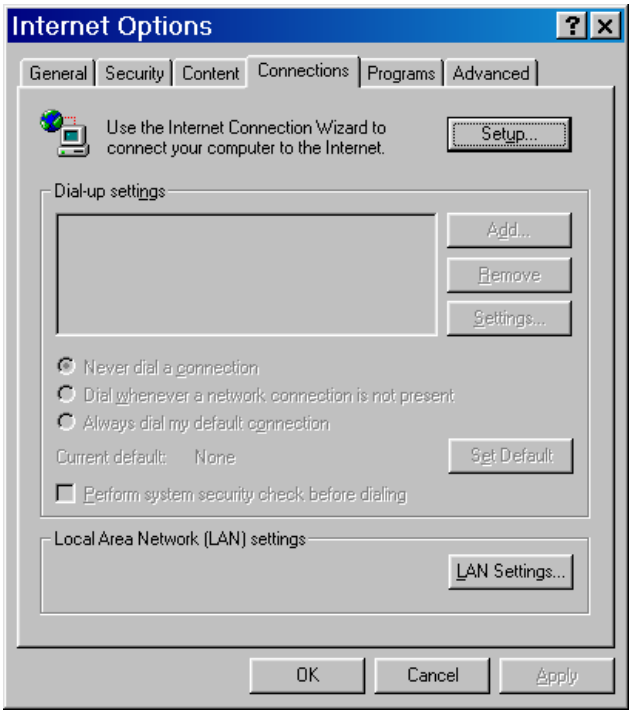
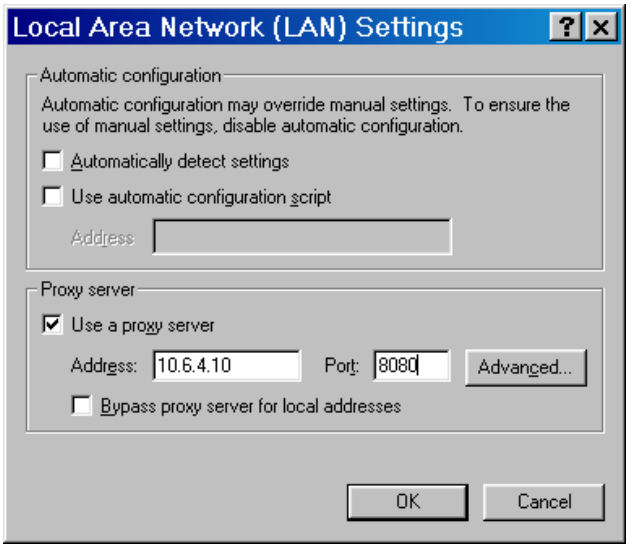
For best performance, HTTP 1.1 should be disabled. It can be changed as follows:

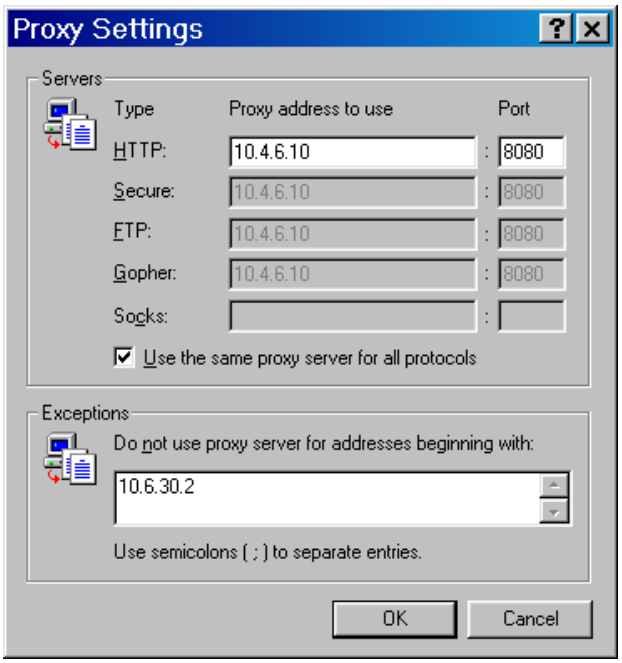
Step	Procedure	Example
1.	Click **Start**, **Settings**, then **Control Panel**.	
2.	Double-click the **Internet Options** icon in the Control Panel.	
3.	Under the **Advanced** tab, scroll down to **HTTP 1.1 settings**.	
4.	Uncheck the **Use HTTP 1.1** box and click **OK**.	

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:

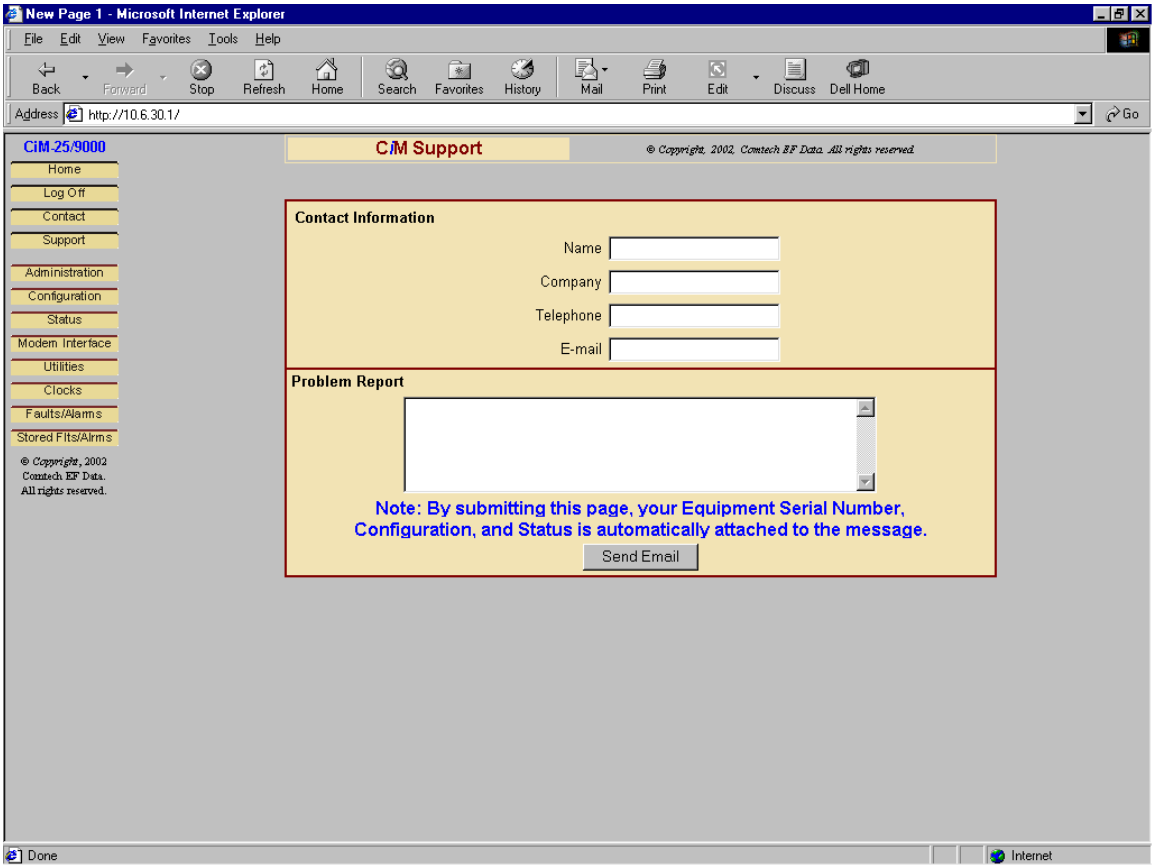
Step	Procedure	Example
1.	Click **Start**, **Settings**, then **Control Panel**.	
2.	Double-click the **Internet Options** icon in the Control Panel.	
3.	Under the **Connections** tab, click the **LAN Settings** button.	
4.	At this point you must do one of the following: a. Uncheck the **Use a proxy 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 CiM-25/9000 Support Page (Common)

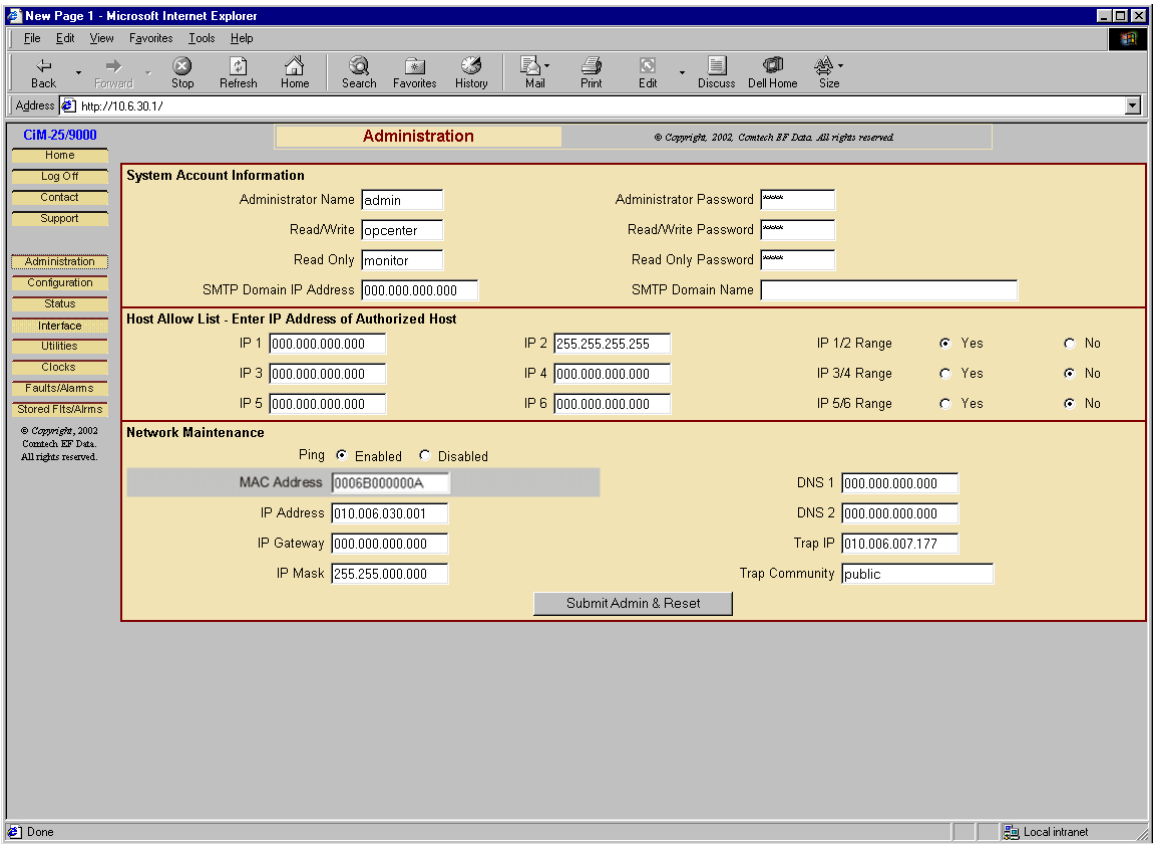
IMPORTANT

In order to use the Support functions, the user must first assign SMTP a domain name and IP address. Refer to 3.3.2.10, 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, Firmware Number and Revision, and the Equipment Configuration) to the E-mail message. This will allow Comtech EF Data Customer Support personal to provide faster and more accurate responses to customer needs.

3.3.2.1 CiM-25/9000 Administration Page (Common)



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

3.3.2.2 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.

3.3.2.3 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.

3.3.2.4 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.

3.3.2.5 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.

3.3.2.6 PING ENABLE / DISABLE

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

3.3.2.7 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.

3.3.2.8 MAC ADDRESS

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

3.3.2.9 DNS SERVERS

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

3.3.2.10 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.

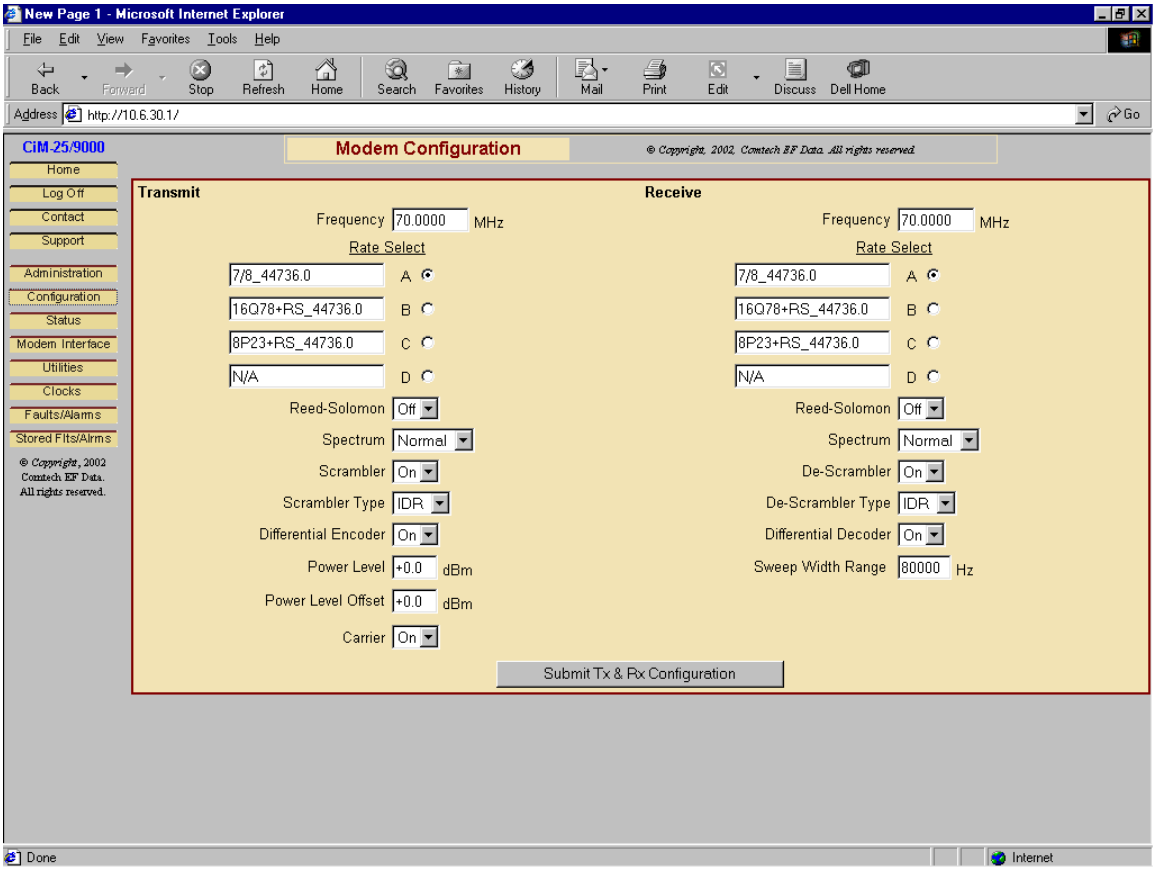
3.3.2.11 SNMP TRAP IP ADDRESS

The Administrator can assign a SNMP Trap IP address.

3.3.2.12 SNMP TRAP COMMUNITY

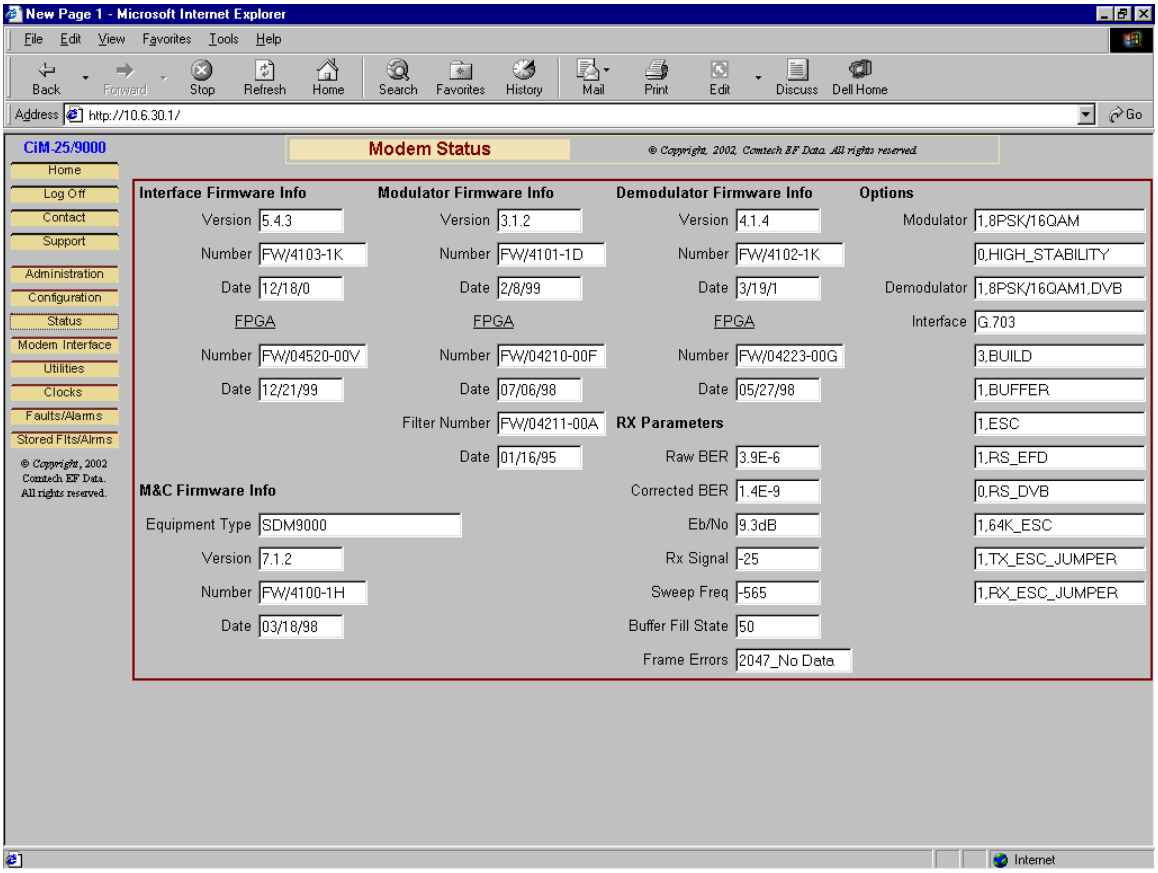
The Administrator can assign a SNMP Trap Community. The factory default for this parameter is public. The SNMP Trap Community field can be any combination of characters and a length of 0 - 20 characters.

3.3.3 SDM-9000 MODEM CONFIGURATION PAGE (RX/TX)



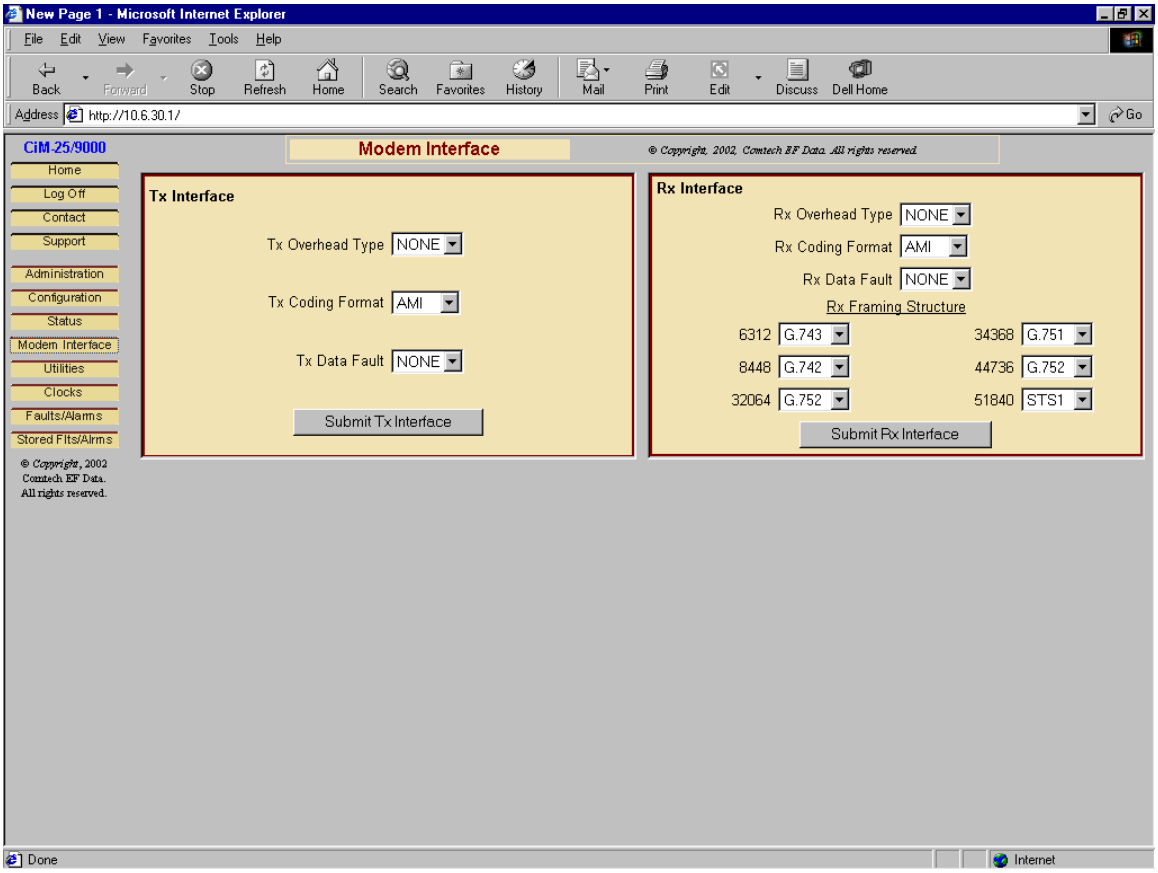
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the primary Transmit and Receive Parameters of a SDM-9000 Modem.

3.3.4 SDM-9000 STATUS PAGE



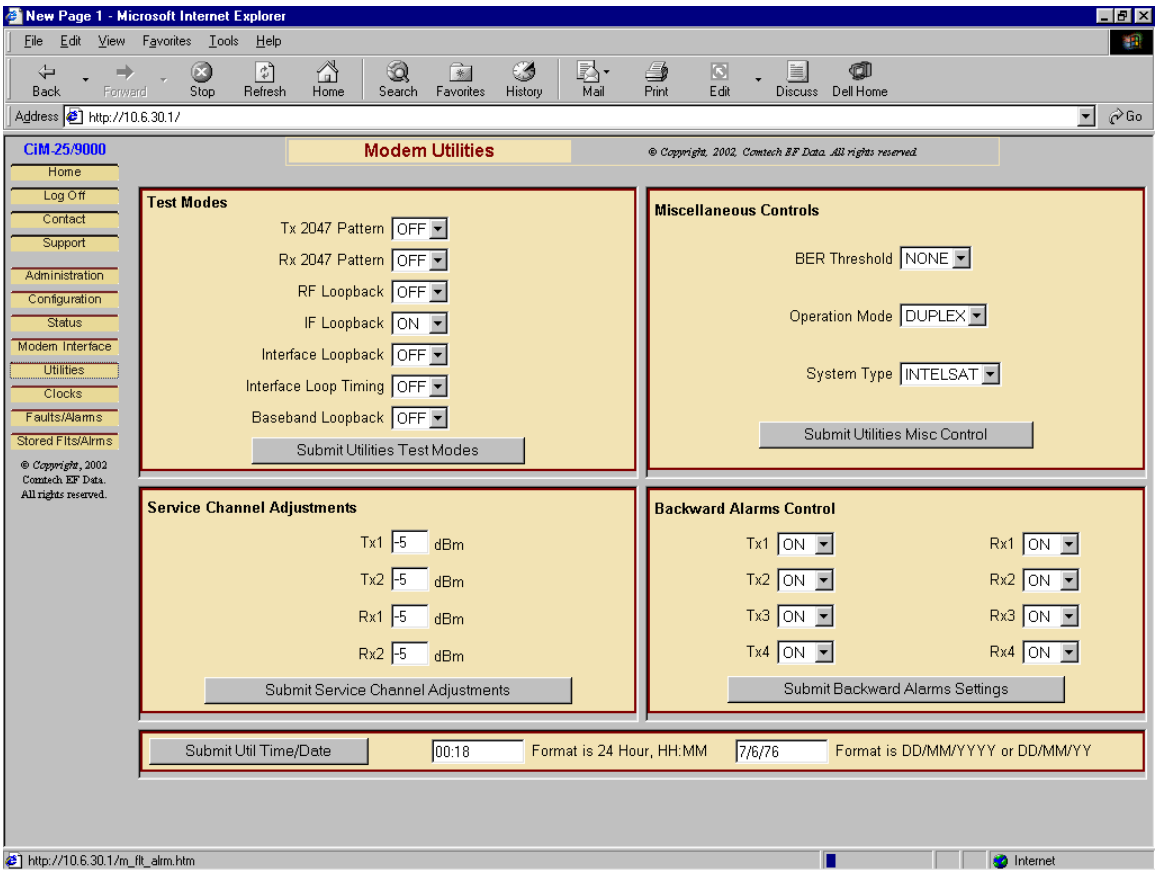
This page can be viewed by all three levels of user login. This is a Read Only Page and has no submit button. This page provides various status information for a SDM-9000 Modem.

3.3.5 SDM-9000 INTERFACE PARAMETERS PAGE (TX/RX)



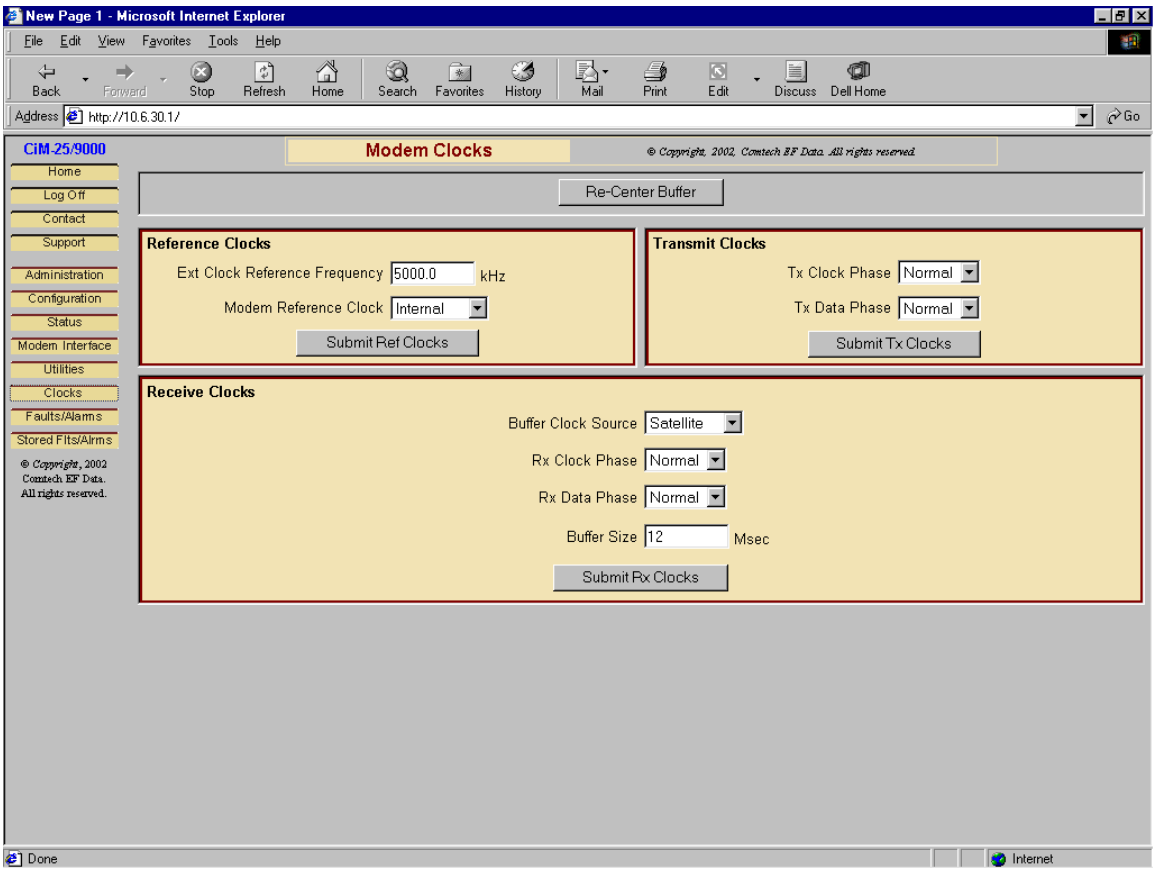
This page can be viewed by all three levels of user login. . However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure the Transmit and Receive Interface Parameters of a SDM-9000 Modem.

3.3.6 SDM-9000 UTILITIES PAGE



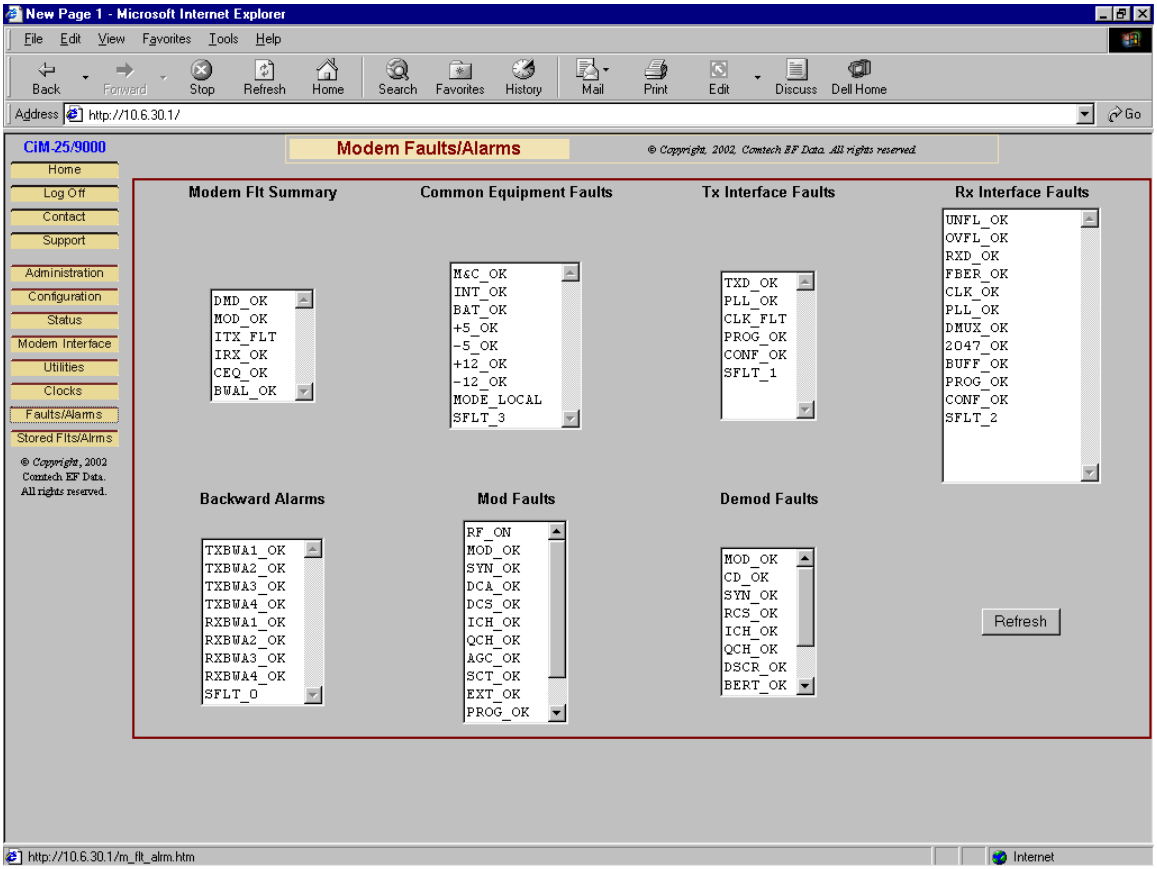
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure various utility functions on a SDM-9000 Modem.

3.3.7 MODEM CLOCKS



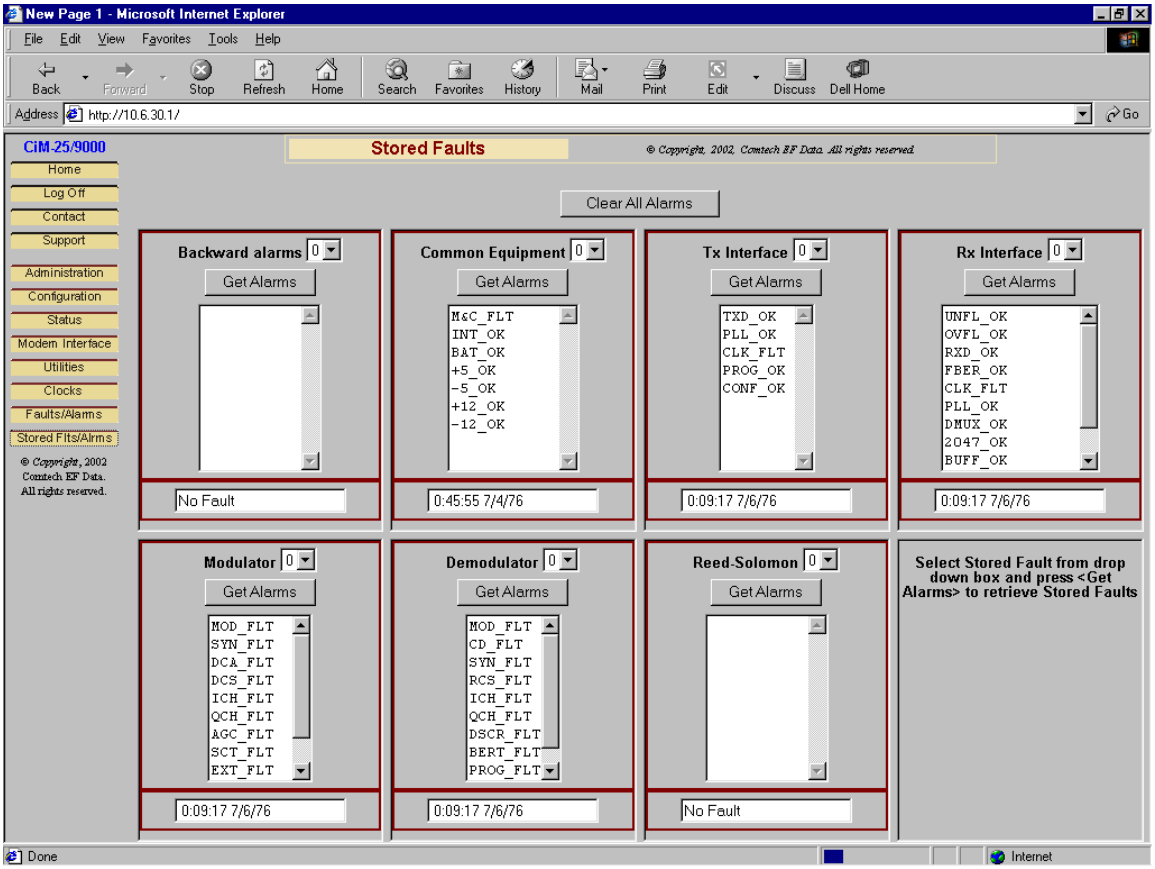
This page can be viewed by all three levels of user login. However, only user with Administrative or Read/Write privileges can submit changes to this page. This page allows the user to configure various clock functions on a SDM-9000 Modem.

3.3.8 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-9000.

3.3.9 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-9000 modem. Select the desired Stored Alarm and click the **Get Alarm** button to retrieve it.

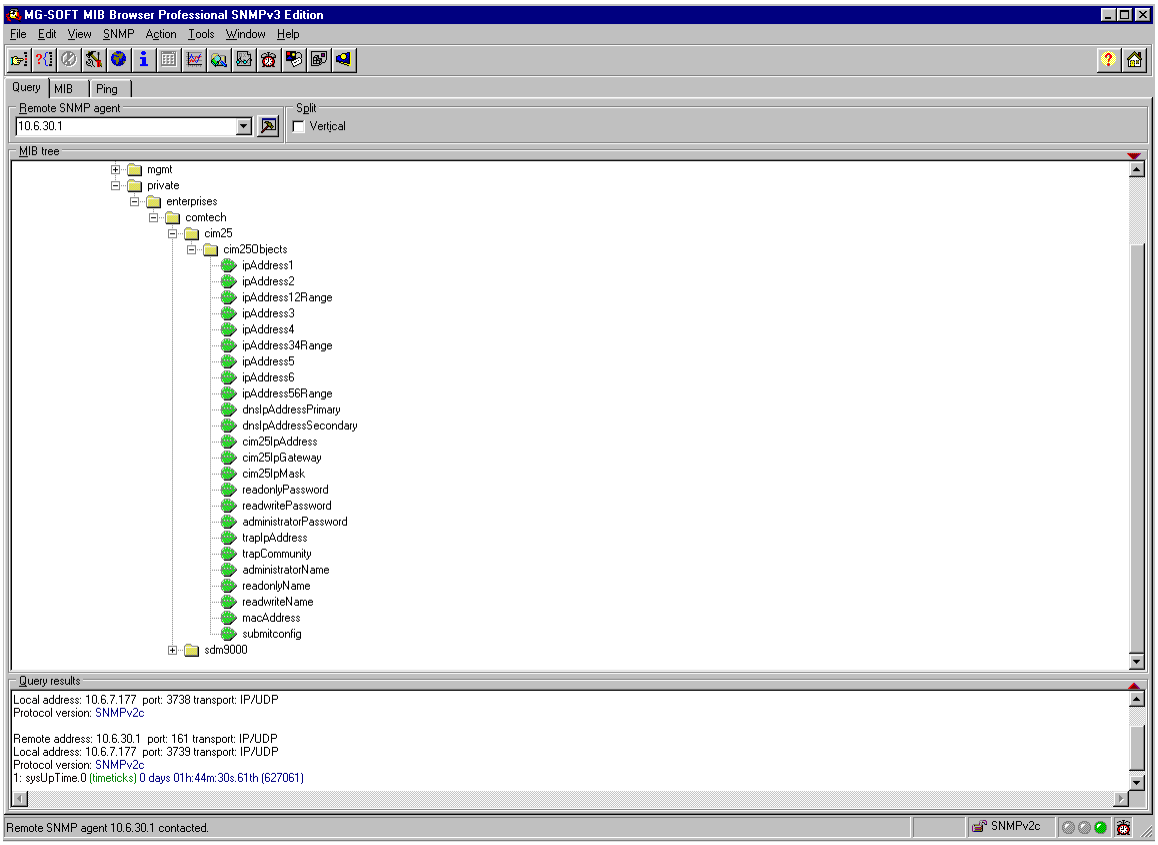
3.4 SNMP INTERFACE

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**.

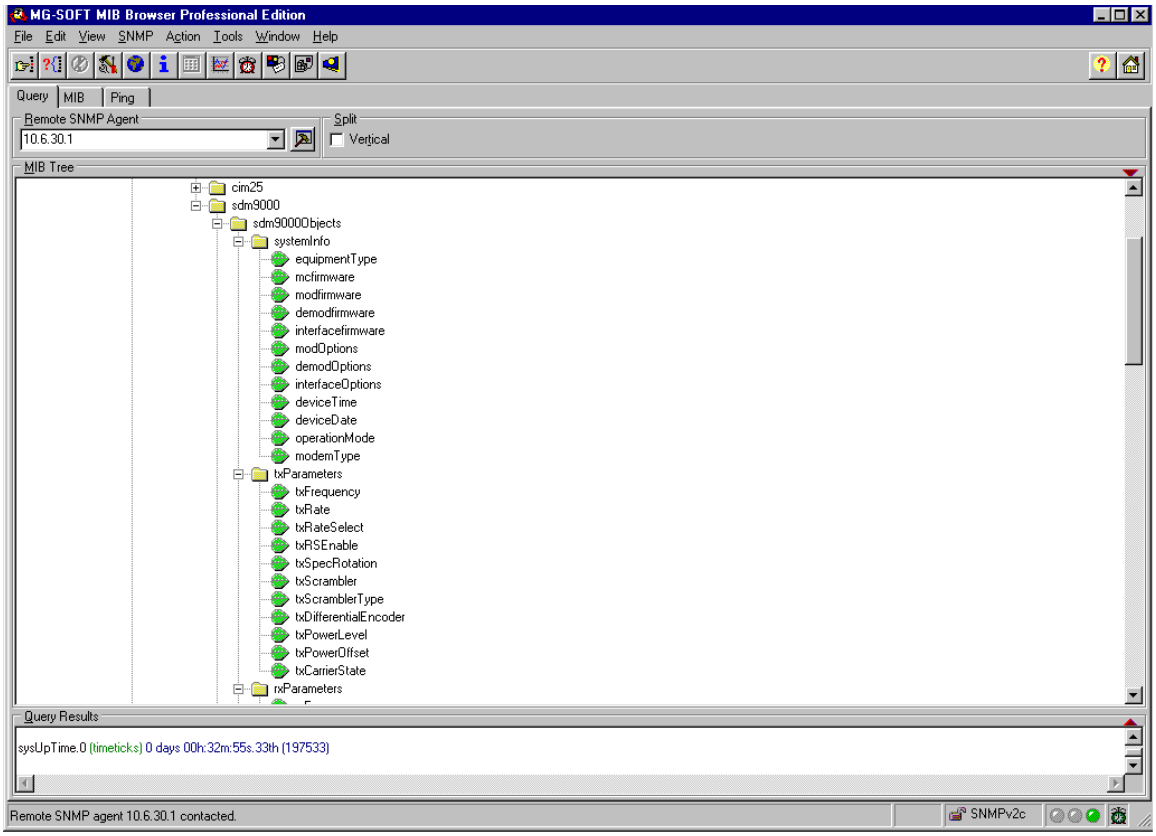
IMPORTANT

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.

The image below is a screen dump of the top end of the CiM-25/9000 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-9000 MIB using a common MIB Browser. The important point here is that all SDM-9000 Controllable Parameters, Status Parameters, and Events and Statistics Logs are available via the CiM-25 and its private SDM-9000 MIB.

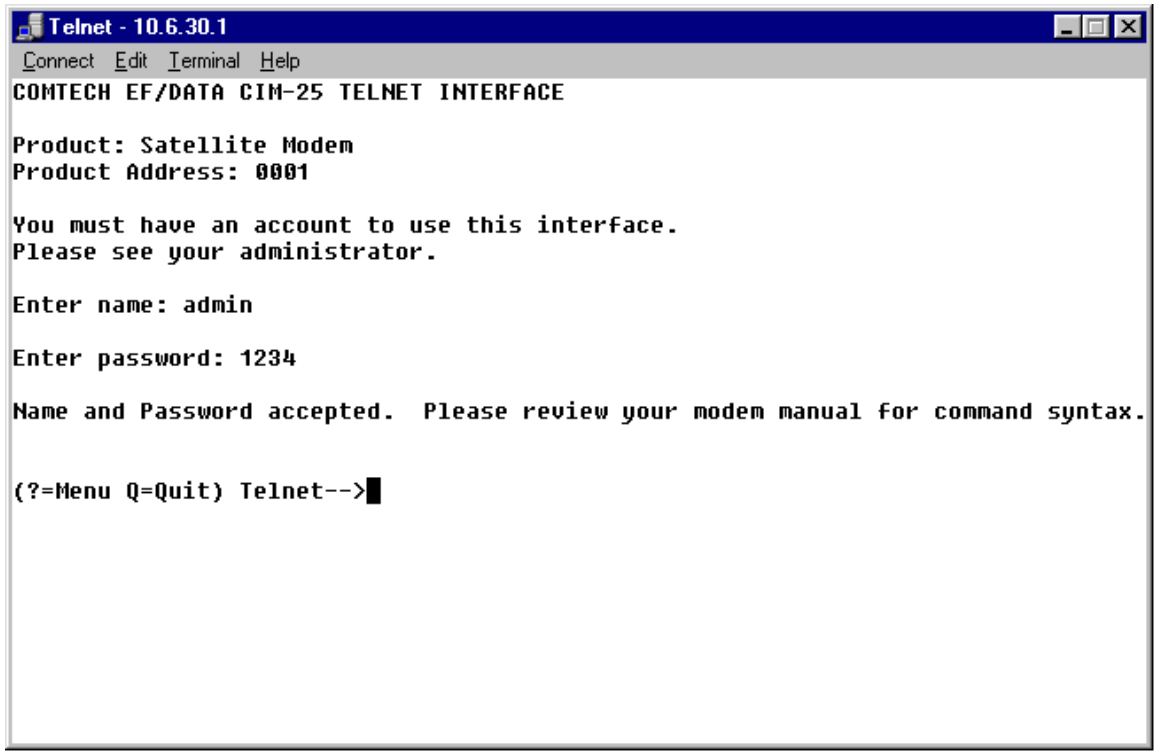


3.5 TELNET INTERFACE

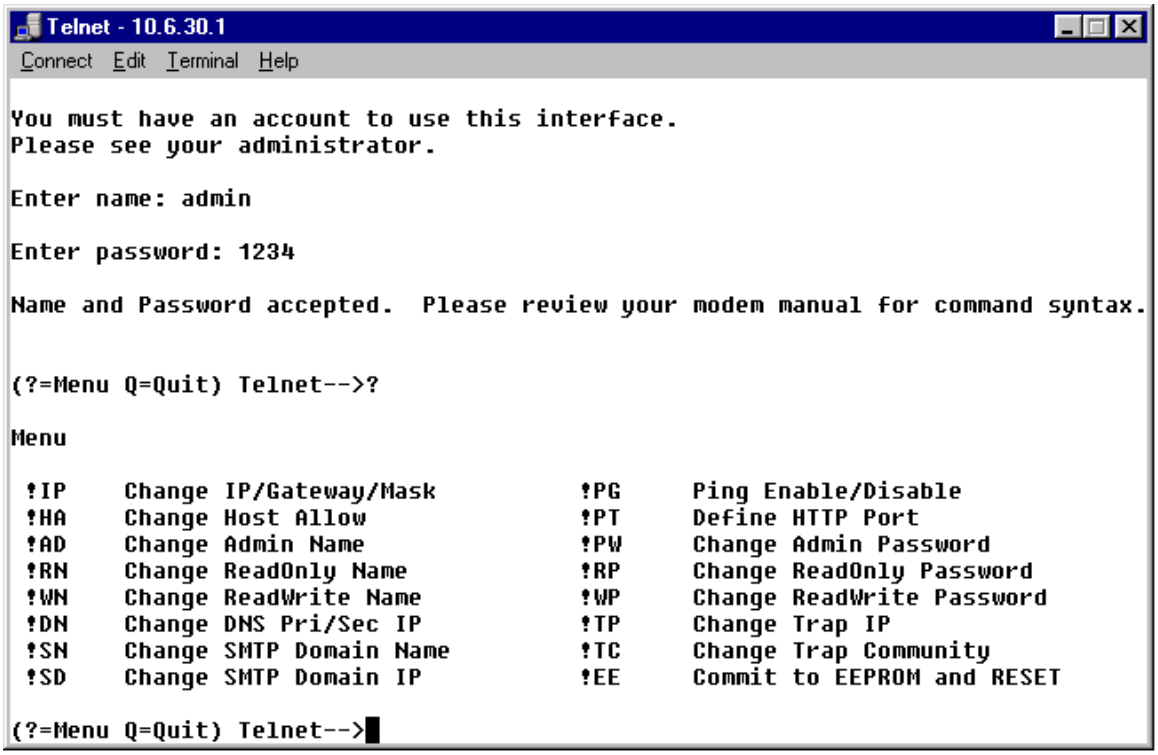
The CiM-25 provides a Telnet interface for three primary functions:

- 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-25/9000. 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 TRAP ADDRESS

Using the **!TP** command, the Administrator can set the SNMP Trap 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:

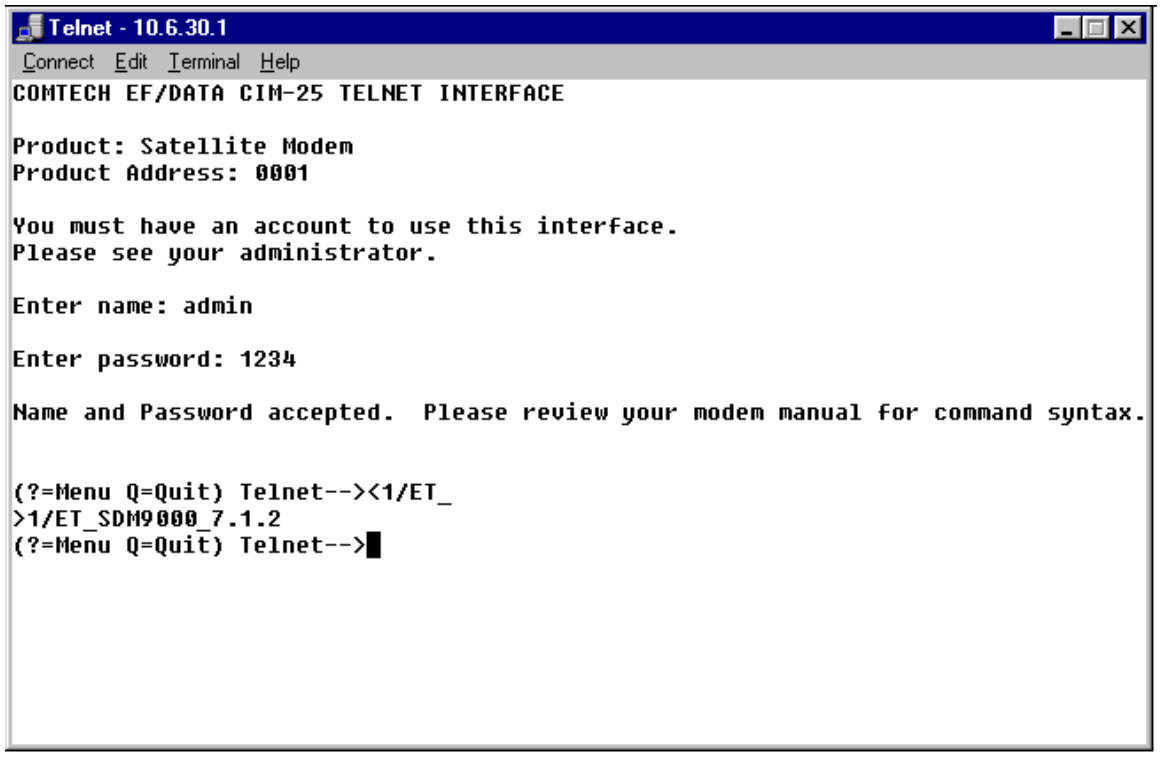
Format: **!TC <string>**
Response: **Command Successful**
where <string> can be 0 - 20 characters

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-25/9000 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 CiM-25 has been designed to support a means of allowing a customer to reset the unit back to the factory default settings via the RS-232 interface. To accomplish this the user must do the following:

1. Disconnect the CiM-25 form 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):
   a. CiM-25 pin 2 to PC pin 3.
   b. CiM-25 pin 3 to PC pin 2.
   c. CiM-25 pin 5 to PC pin 5.
3. Power the CiM-25/9000 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 19200 baud, 8-N-1
5. Enter the following command:

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

Appendix A.
CiM-25/9000 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-25/9000 SNMP agent supports SNMPv2c.

A.2 MIB-II

The CiM-25/9000 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-25/9000. The CiM IP Controller MIB (CiM-25) holds all the security, feature selection, and IP related parameters and the SDM-9000 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-9000 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 - 1.3.6.1.4.1.6247.16 --- sdm9000

9 - 1.3.6.1.4.1.6247.16.1 --- sdm9000Objects

10 - 1.3.6.1.4.1.6247.16.1.1 --- systemInfo

11 - 1.3.6.1.4.1.6247.16.1.1.1 --- equipmentType (OCTET STRING)

12 - 1.3.6.1.4.1.6247.16.1.1.2 --- mcfirmware (OCTET STRING)

13 - 1.3.6.1.4.1.6247.16.1.1.3 --- modfirmware (OCTET STRING)

14 - 1.3.6.1.4.1.6247.16.1.1.4 --- demodfirmware (OCTET STRING)

15 - 1.3.6.1.4.1.6247.16.1.1.5 --- interfacefirmware (OCTET STRING)

16 - 1.3.6.1.4.1.6247.16.1.1.6 --- modOptions (OCTET STRING)

17 - 1.3.6.1.4.1.6247.16.1.1.7 --- demodOptions (OCTET STRING)

18 - 1.3.6.1.4.1.6247.16.1.1.8 --- interfaceOptions (OCTET STRING)

19 - 1.3.6.1.4.1.6247.16.1.1.9 --- deviceTime (OCTET STRING)

20 - 1.3.6.1.4.1.6247.16.1.1.10 --- deviceDate (OCTET STRING)

21 - 1.3.6.1.4.1.6247.16.1.1.11 --- operationMode (INTEGER)

22 - 1.3.6.1.4.1.6247.16.1.1.12 --- modemType (INTEGER)

23 - 1.3.6.1.4.1.6247.16.1.2 --- txParameters

24 - 1.3.6.1.4.1.6247.16.1.2.1 --- txFrequency (INTEGER)

25 - 1.3.6.1.4.1.6247.16.1.2.2 --- txRate (OCTET STRING)

26 - 1.3.6.1.4.1.6247.16.1.2.3 --- txRateSelect (INTEGER)

27 - 1.3.6.1.4.1.6247.16.1.2.4 --- txRSEnable (INTEGER)

28 - 1.3.6.1.4.1.6247.16.1.2.5 --- txSpecRotation (INTEGER)

29 - 1.3.6.1.4.1.6247.16.1.2.6 --- txScrambler (INTEGER)

30 - 1.3.6.1.4.1.6247.16.1.2.7 --- txScramblerType (INTEGER)

31 - 1.3.6.1.4.1.6247.16.1.2.8 --- txDifferentialEncoder (INTEGER)

32 - 1.3.6.1.4.1.6247.16.1.2.9 --- txPowerLevel (INTEGER)

33 - 1.3.6.1.4.1.6247.16.1.2.10 --- txPowerOffset (INTEGER)

34 - 1.3.6.1.4.1.6247.16.1.2.11 --- txCarrierState (INTEGER)

35 - 1.3.6.1.4.1.6247.16.1.3 --- rxParameters

36 - 1.3.6.1.4.1.6247.16.1.3.1 --- rxFrequency (INTEGER)

37 - 1.3.6.1.4.1.6247.16.1.3.2 --- rxRate (OCTET STRING)

38 - 1.3.6.1.4.1.6247.16.1.3.3 --- rxRateSelect (INTEGER)

39 - 1.3.6.1.4.1.6247.16.1.3.4 --- rxRSEnable (INTEGER)

40 - 1.3.6.1.4.1.6247.16.1.3.5 --- rxSpecRotation (INTEGER)

41 - 1.3.6.1.4.1.6247.16.1.3.6 --- rxDescrambler (INTEGER)

42 - 1.3.6.1.4.1.6247.16.1.3.7 --- rxDescramblerType (INTEGER)

43 - 1.3.6.1.4.1.6247.16.1.3.8 --- rxDifferentialDecoder (INTEGER)

44 - 1.3.6.1.4.1.6247.16.1.3.9 --- rxSweepRange (INTEGER)

45 - 1.3.6.1.4.1.6247.16.1.4 --- interfaceParameters

46 - 1.3.6.1.4.1.6247.16.1.4.1 --- modemReference (INTEGER)

47 - 1.3.6.1.4.1.6247.16.1.4.2 --- txOverheadType (INTEGER)

48 - 1.3.6.1.4.1.6247.16.1.4.3 --- rxOverheadType (INTEGER)

49 - 1.3.6.1.4.1.6247.16.1.4.4 --- txDataFault (INTEGER)

50 - 1.3.6.1.4.1.6247.16.1.4.5 --- rxDataFault (INTEGER)

51 - 1.3.6.1.4.1.6247.16.1.4.6 --- txDataPhase (INTEGER)

52 - 1.3.6.1.4.1.6247.16.1.4.7 --- rxDataPhase (INTEGER)

53 - 1.3.6.1.4.1.6247.16.1.4.8 --- rxBufferClockSource (INTEGER)

54 - 1.3.6.1.4.1.6247.16.1.4.9 --- extClkRefFrequency (INTEGER)

55 - 1.3.6.1.4.1.6247.16.1.4.10 --- txClockPhase (INTEGER)

56 - 1.3.6.1.4.1.6247.16.1.4.11 --- rxClockPhase (INTEGER)

57 - 1.3.6.1.4.1.6247.16.1.4.12 --- rxBufferSize (INTEGER)

58 - 1.3.6.1.4.1.6247.16.1.4.13 --- rx6312FramingStructure (INTEGER)

59 - 1.3.6.1.4.1.6247.16.1.4.14 --- rx8448FramingStructure (INTEGER)

60 - 1.3.6.1.4.1.6247.16.1.4.15 --- rx32064FramingStructure (INTEGER)

61 - 1.3.6.1.4.1.6247.16.1.4.16 --- rx34368FramingStructure (INTEGER)

62 - 1.3.6.1.4.1.6247.16.1.4.17 --- rx44736FramingStructure (INTEGER)

63 - 1.3.6.1.4.1.6247.16.1.4.18 --- rx51840FramingStructure (INTEGER)

64 - 1.3.6.1.4.1.6247.16.1.4.19 --- txCodingFormat (INTEGER)

65 - 1.3.6.1.4.1.6247.16.1.4.20 --- rxCodingFormat (INTEGER)

66 - 1.3.6.1.4.1.6247.16.1.4.21 --- rxBufferCenter (OCTET STRING)

67 - 1.3.6.1.4.1.6247.16.1.5 --- utilityParameters

68 - 1.3.6.1.4.1.6247.16.1.5.1 --- serviceChannelLevelTX1 (INTEGER)

69 - 1.3.6.1.4.1.6247.16.1.5.2 --- serviceChannelLevelTX2 (INTEGER)

70 - 1.3.6.1.4.1.6247.16.1.5.3 --- serviceChannelLevelRX1 (INTEGER)

71 - 1.3.6.1.4.1.6247.16.1.5.4 --- serviceChannelLevelRX2 (INTEGER)

72 - 1.3.6.1.4.1.6247.16.1.5.5 --- idrBackwardAlarmEnableTX1 (INTEGER)

73 - 1.3.6.1.4.1.6247.16.1.5.6 --- idrBackwardAlarmEnableTX2 (INTEGER)

74 - 1.3.6.1.4.1.6247.16.1.5.7 --- idrBackwardAlarmEnableTX3 (INTEGER)

75 - 1.3.6.1.4.1.6247.16.1.5.8 --- idrBackwardAlarmEnableTX4 (INTEGER)

76 - 1.3.6.1.4.1.6247.16.1.5.9 --- idrBackwardAlarmEnableRX1 (INTEGER)

77 - 1.3.6.1.4.1.6247.16.1.5.10 --- idrBackwardAlarmEnableRX2 (INTEGER)

78 - 1.3.6.1.4.1.6247.16.1.5.11 --- idrBackwardAlarmEnableRX3 (INTEGER)

79 - 1.3.6.1.4.1.6247.16.1.5.12 --- idrBackwardAlarmEnableRX4 (INTEGER)

80 - 1.3.6.1.4.1.6247.16.1.5.13 --- ifLoopBack (INTEGER)

81 - 1.3.6.1.4.1.6247.16.1.5.14 --- rfLoopBack (INTEGER)

82 - 1.3.6.1.4.1.6247.16.1.5.15 --- basebandLoopBack (INTEGER)

83 - 1.3.6.1.4.1.6247.16.1.5.16 --- interfaceLoopBack (INTEGER)

84 - 1.3.6.1.4.1.6247.16.1.5.17 --- interfaceLoopTiming (INTEGER)

85 - 1.3.6.1.4.1.6247.16.1.5.18 --- substitutePattern (INTEGER)

86 - 1.3.6.1.4.1.6247.16.1.5.19 --- readErrorSelect (INTEGER)

87 - 1.3.6.1.4.1.6247.16.1.5.20 --- rxBERThreshold (INTEGER)

88 - 1.3.6.1.4.1.6247.16.1.6 --- statusParameters

89 - 1.3.6.1.4.1.6247.16.1.6.1 --- rxRawBER (Unsigned32)

90 - 1.3.6.1.4.1.6247.16.1.6.2 --- rxCorrectedBER (Unsigned32)

91 - 1.3.6.1.4.1.6247.16.1.6.3 --- rxEbno (INTEGER)

92 - 1.3.6.1.4.1.6247.16.1.6.4 --- rxSignalLevel (INTEGER)

93 - 1.3.6.1.4.1.6247.16.1.6.5 --- rxSweepValue (INTEGER)

94 - 1.3.6.1.4.1.6247.16.1.6.6 --- rxbufferFillState (INTEGER)

95 - 1.3.6.1.4.1.6247.16.1.6.7 --- rxReadError (OCTET STRING)

96 - 1.3.6.1.4.1.6247.16.1.6.8 --- modemFaultStatus (INTEGER)

97 - 1.3.6.1.4.1.6247.16.1.6.9 --- modulatorStatus (INTEGER)

98 - 1.3.6.1.4.1.6247.16.1.6.10 --- demodulatorStatus (INTEGER)

99 - 1.3.6.1.4.1.6247.16.1.6.11 --- txInterfaceStatus (INTEGER)

100 - 1.3.6.1.4.1.6247.16.1.6.12 --- rxInterfaceStatus (INTEGER)

101 - 1.3.6.1.4.1.6247.16.1.6.13 --- commonEquipStatus (INTEGER)

102 - 1.3.6.1.4.1.6247.16.1.6.14 --- backwardAlarmStatus (INTEGER)

103 - 1.3.6.1.4.1.6247.16.1.7 --- trapNotifications

104 - 1.3.6.1.4.1.6247.16.1.7.0 --- trapNotificationsPrefix

105 - 1.3.6.1.4.1.6247.16.1.7.0.1 --- unitFaultTraps

A.7 SDM-9000 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	SDM9000
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	SDM9000
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	SDM9000
Parent	enterprises
Child	sdm9000
Type	OBJECT-IDENTIFIER

A.7.8 SDM9000

Name	sdm9000
OID	1.3.6.1.4.1.6247.16
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16)
Module	SDM9000
Parent	comtech
Child	sdm9000Objects
Type	OBJECT-IDENTIFIER

A.7.9 SDM9000OBJECTS

Name	sdm9000Objects
OID	1.3.6.1.4.1.6247.16.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1)
Module	SDM9000
Parent	sdm9000
Child	systemInfo
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.10 SYSTEMINFO

Name	systemInfo
OID	1.3.6.1.4.1.6247.16.1.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1)
Module	SDM9000
Parent	sdm9000Objects
Next sibling	txParameters
Child	equipmentType
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.11 EQUIPMENTTYPE

Name	equipmentType
OID	1.3.6.1.4.1.6247.16.1.1.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).equipmentType(1)
Module	SDM9000
Parent	systemInfo
Next sibling	mcfirmware
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 MCFIRMWARE

Name	mcfirmware
OID	1.3.6.1.4.1.6247.16.1.1.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).mcfirmware(2)
Module	SDM9000
Parent	systemInfo
Prev sibling	equipmentType
Next sibling	modfirmware
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	39
Description	M&C Firmware Number (MCFI_)

A.7.13 MODFIRMWARE

Name	modfirmware
OID	1.3.6.1.4.1.6247.16.1.1.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).modfirmware(3)
Module	SDM9000
Parent	systemInfo
Prev sibling	mcfirmware
Next sibling	demodfirmware
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	109
Description	Modulator Firmware Number (MFI_)

A.7.14 DEMODFIRMWARE

Name	demodfirmware
OID	1.3.6.1.4.1.6247.16.1.1.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .sdm9000(16).sdm9000Objects(1).systemInfo(1).demodfirmware(4)
Module	SDM9000
Parent	systemInfo
Prev sibling	modfirmware
Next sibling	interfacefirmware
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	73
Description	Demodulator Firmware Number (DFI_)

A.7.15 INTERFACEFIRMWARE

Name	interfacefirmware
OID	1.3.6.1.4.1.6247.16.1.1.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .sdm9000(16).sdm9000Objects(1).systemInfo(1).interfacefirmware(5)
Module	SDM9000
Parent	systemInfo
Prev sibling	demodfirmware
Next sibling	modOptions
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	73
Description	Interface Firmware Number (IFI_)

A.7.16 MODOPTIONS

Name	modOptions
OID	1.3.6.1.4.1.6247.16.1.1.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).modOptions(6)
Module	SDM9000
Parent	systemInfo
Prev sibling	interfacefirmware
Next sibling	demodOptions
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	30
Description	Modulator Options (MOI_)

A.7.17 DEMODOPTIONS

Name	demodOptions
OID	1.3.6.1.4.1.6247.16.1.1.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).demodOptions(7)
Module	SDM9000
Parent	systemInfo
Prev sibling	modOptions
Next sibling	interfaceOptions
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	13..20
Description	Demodulator Options (DOI_)

A.7.18 INTERFACEOPTIONS

Name	interfaceOptions
OID	1.3.6.1.4.1.6247.16.1.1.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).interfaceOptions(8)
Module	SDM9000
Parent	systemInfo
Prev sibling	demodOptions
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	90
Description	Interface Options (IOI_)

A.7.19 DEVICETIME

Name	deviceTime
OID	1.3.6.1.4.1.6247.16.1.1.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).deviceTime(9)
Module	SDM9000
Parent	systemInfo
Prev sibling	interfaceOptions
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.7.20 DEVICEDATE

Name	deviceDate
OID	1.3.6.1.4.1.6247.16.1.1.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).deviceDate(10)
Module	SDM9000
Parent	systemInfo
Prev sibling	deviceTime
Next sibling	operationMode
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.7.21 OPERATIONMODE

Name	operationMode
OID	1.3.6.1.4.1.6247.16.1.1.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).operationMode(11)
Module	SDM9000
Parent	systemInfo
Prev sibling	deviceDate
Next sibling	modemType
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	txonly(0)
2	rxonly(1)
3	duplex(2)
Description	Modem Operation Mode (MOM_)

A.7.22 MODEMTYPE

Name	modemType
OID	1.3.6.1.4.1.6247.16.1.1.12
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).systemInfo(1).modemType(12)
Module	SDM9000
Parent	systemInfo
Prev sibling	operationMode
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	intelsat(0)
2	dbs(1)
3	n5500(2)
Description	Modem Type. (SMT_)

A.7.23 TXPARAMETERS

Name	txParameters
OID	1.3.6.1.4.1.6247.16.1.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2)
Module	SDM9000
Parent	sdm9000Objects
Prev sibling	systemInfo
Next sibling	rxParameters
Child	txFrequency
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.24 TXFREQUENCY

Name	txFrequency
OID	1.3.6.1.4.1.6247.16.1.2.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txFrequency(1)
Module	SDM9000
Parent	txParameters
Next sibling	txRate
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	50000000..180000000
Description	TX Frequency. Value Multiplied by 1000000. (MF_)

A.7.25 TXRATE

Name	txRate
OID	1.3.6.1.4.1.6247.16.1.2.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txRate(2)
Module	SDM9000
Parent	txParameters
Prev sibling	txFrequency
Next sibling	txRateSelect
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	5..15
Description	TX Data Rate. (MR_)

A.7.26 TXRATESELECT

Name	txRateSelect
OID	1.3.6.1.4.1.6247.16.1.2.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txRateSelect(3)
Module	SDM9000
Parent	txParameters
Prev sibling	txRate
Next sibling	txRSEnable
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	a(1)
2	b(2)
3	c(3)
4	d(4)
Description	TX Data Rate Preselect. (SMRx_)

A.7.27 TXRSENABLE

Name	txRSEnable
OID	1.3.6.1.4.1.6247.16.1.2.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txRSEnable(4)
Module	SDM9000
Parent	txParameters
Prev sibling	txRateSelect
Next sibling	txSpecRotation
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 Reed-Solomon Enable (RSEN_)

A.7.28 TXSPECROTATION

Name	txSpecRotation
OID	1.3.6.1.4.1.6247.16.1.2.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txSpecRotation(5)
Module	SDM9000
Parent	txParameters
Prev sibling	txRSEnable
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 Sectrum Rotation. (MSR_)

A.7.29 TXSCRAMBLER

Name	txScrambler
OID	1.3.6.1.4.1.6247.16.1.2.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txScrambler(6)
Module	SDM9000
Parent	txParameters
Prev sibling	txSpecRotation
Next sibling	txScramblerType
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 TXSCRAMBLERTYPE

Name	txScramblerType
OID	1.3.6.1.4.1.6247.16.1.2.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txScramblerType(7)
Module	SDM9000
Parent	txParameters
Prev sibling	txScrambler
Next sibling	txDifferentialEncoder
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	v35(0)
2	efd(1)
3	idr(2)
Description	TX Scrambler Type. (SCRT_)

A.7.31 TXDIFFERENTIALENCODER

Name	txDifferentialEncoder
OID	1.3.6.1.4.1.6247.16.1.2.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txDifferentialEncoder(8)
Module	SDM9000
Parent	txParameters
Prev sibling	txScramblerType
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 Differential Encoder. (DENC_)

A.7.32 TXPOWERLEVEL

Name	txPowerLevel
OID	1.3.6.1.4.1.6247.16.1.2.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .sdm9000(16).sdm9000Objects(1).txParameters(2).txPowerLevel(9)
Module	SDM9000
Parent	txParameters
Prev sibling	txDifferentialEncoder
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.7.33 TXPOWEROFFSET

Name	txPowerOffset
OID	1.3.6.1.4.1.6247.16.1.2.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .sdm9000(16).sdm9000Objects(1).txParameters(2).txPowerOffset(10)
Module	SDM9000
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.7.34 TXCARRIERSTATE

Name	txCarrierState
OID	1.3.6.1.4.1.6247.16.1.2.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).txParameters(2).txCarrierState(11)
Module	SDM9000
Parent	txParameters
Prev sibling	txPowerOffset
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.7.35 RXPARAMETERS

Name	rxParameters
OID	1.3.6.1.4.1.6247.16.1.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).rxParameters(3)
Module	SDM9000
Parent	sdm9000Objects
Prev sibling	txParameters
Next sibling	interfaceParameters
Child	rxFrequency
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.36 RXFREQUENCY

Name	rxFrequency
OID	1.3.6.1.4.1.6247.16.1.3.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).rxParameters(3).rxFrequency(1)
Module	SDM9000
Parent	rxParameters
Next sibling	rxRate
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	50000000..180000000
Description	RX Frequency. Value Multiplied by 1000000. (DF_)

A.7.37 RXRATE

Name	rxRate
OID	1.3.6.1.4.1.6247.16.1.3.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).rxParameters(3).rxRate(2)
Module	SDM9000
Parent	rxParameters
Prev sibling	rxFrequency
Next sibling	rxRateSelect
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	5..15
Description	RX Data Rate. (DR_)

A.7.38 RXRATESELECT

Name	rxRateSelect
OID	1.3.6.1.4.1.6247.16.1.3.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).rxParameters(3).rxRateSelect(3)
Module	SDM9000
Parent	rxParameters
Prev sibling	rxRate
Next sibling	rxRSEnable
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	a(1)
2	b(2)
3	c(3)
4	d(4)
Description	RX Data Rate Preselect. (SDRx_)

A.7.39 RXRSENABLE

Name	rxRSEnable
OID	1.3.6.1.4.1.6247.16.1.3.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).rxParameters(3).rxRSEnable(4)
Module	SDM9000
Parent	rxParameters
Prev sibling	rxRateSelect
Next sibling	rxSpecRotation
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	RX Reed-Solomon Enable (RSDE_)

A.7.40 RXSPECROTATION

Name	rxSpecRotation
OID	1.3.6.1.4.1.6247.16.1.3.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .sdm9000(16).sdm9000Objects(1).rxParameters(3).rxSpecRotation(5)
Module	SDM9000
Parent	rxParameters
Prev sibling	rxRSEnable
Next sibling	rxDescrambler
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	RX Sectrum Rotation. (DSR_)

A.7.41 RXDESCRAMBLER

Name	rxDescrambler
OID	1.3.6.1.4.1.6247.16.1.3.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247) .sdm9000(16).sdm9000Objects(1).rxParameters(3).rxDescrambler(6)
Module	SDM9000
Parent	rxParameters
Prev sibling	rxSpecRotation
Next sibling	rxDescramblerType
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	RX Descrambler (DE_)

A.7.42 RXDESCRAMBLERTYPE

Name	rxDescramblerType
OID	1.3.6.1.4.1.6247.16.1.3.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).rxParameters(3).rxDescramblerType(7)
Module	SDM9000
Parent	rxParameters
Prev sibling	rxDescrambler
Next sibling	rxDifferentialDecoder
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	v35(0)
2	efd(1)
3	idr(2)
Description	RX Descrambler Type. (DSCT_)

A.7.43 RXDIFFERENTIALDECODER

Name	rxDifferentialDecoder
OID	1.3.6.1.4.1.6247.16.1.3.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).rxParameters(3).rxDifferentialDecoder(8)
Module	SDM9000
Parent	rxParameters
Prev sibling	rxDescramblerType
Next sibling	rxSweepRange
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	RX Differential Decoder. (DDEC_)

A.7.44 RXSWEEPRANGE

Name	rxSweepRange
OID	1.3.6.1.4.1.6247.16.1.3.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).rxParameters(3).rxSweepRange(9)
Module	SDM9000
Parent	rxParameters
Prev sibling	rxDifferentialDecoder
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	0..120000
Description	RX Sweep Range. Value in Hertz. (SWR_)

A.7.45 INTERFACEPARAMETERS

Name	interfaceParameters
OID	1.3.6.1.4.1.6247.16.1.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4)
Module	SDM9000
Parent	sdm9000Objects
Prev sibling	rxParameters
Next sibling	utilityParameters
Child	modemReference
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.46 MODEMREFERENCE

Name	modemReference
OID	1.3.6.1.4.1.6247.16.1.4.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).modemReference(1)
Module	SDM9000
Parent	interfaceParameters
Next sibling	txOverheadType
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	int(0)
2	ext5(1)
3	ext10(2)
4	ext20(3)
Description	Modem Reference Source. (MRC_)

A.7.47 TXOVERHEADTYPE

Name	txOverheadType
OID	1.3.6.1.4.1.6247.16.1.4.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).txOverheadType(2)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	modemReference
Next sibling	rxOverheadType
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	idr(1)
Description	TX Overhead Type. (ITOT_)

A.7.48 RXOVERHEADTYPE

Name	rxOverheadType
OID	1.3.6.1.4.1.6247.16.1.4.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rxOverheadType(3)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	txOverheadType
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	none(0)
2	idr(1)
Description	RX Overhead Type. (IROT_)

A.7.49 TXDATAFAULT

Name	txDataFault
OID	1.3.6.1.4.1.6247.16.1.4.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).txDataFault(4)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rxOverheadType
Next sibling	rxDataFault
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.7.50 RXDATAFAULT

Name	rxDataFault
OID	1.3.6.1.4.1.6247.16.1.4.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rxDataFault(5)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	txDataFault
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	none(0)
2	data(1)
3	ais(2)
Description	RX Data Fault. (RDF_)

A.7.51 TXDATAPHASE

Name	txDataPhase
OID	1.3.6.1.4.1.6247.16.1.4.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).txDataPhase(6)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rxDataFault
Next sibling	rxDataPhase
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.7.52 RXDATAPHASE

Name	rxDataPhase
OID	1.3.6.1.4.1.6247.16.1.4.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rxDataPhase(7)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	txDataPhase
Next sibling	rxBufferClockSource
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	RX Data Phase. (RDP_)

A.7.53 RXBUFFERCLOCKSOURCE

Name	rxBufferClockSource
OID	1.3.6.1.4.1.6247.16.1.4.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rxBufferClockSource(8)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rxDataPhase
Next sibling	extClkRefFrequency
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Value list	
1	int(0)
2	ext(1)
3	sat(2)
4	ref(3)
Description	RX Buffer Clock Source. (BC_)

A.7.54 EXTCLKREFFREQUENCY

Name	extClkRefFrequency
OID	1.3.6.1.4.1.6247.16.1.4.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).extClkRefFrequency(9)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rxBufferClockSource
Next sibling	txClockPhase
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	15440000..51840000
Description	External Clock Reference Frequency. Value in Hertz. (ERF_)

A.7.55 TXCLOCKPHASE

Name	txClockPhase
OID	1.3.6.1.4.1.6247.16.1.4.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).txClockPhase(10)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	extClkRefFrequency
Next sibling	rxClockPhase
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 Clock Phase. (TCP_)

A.7.56 RXCLOCKPHASE

Name	rxClockPhase
OID	1.3.6.1.4.1.6247.16.1.4.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rxClockPhase(11)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	txClockPhase
Next sibling	rxBufferSize
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	RX Clock Phase. (RCP_)

A.7.57 RXBUFFERSIZE

Name	rxBufferSize
OID	1.3.6.1.4.1.6247.16.1.4.12
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rxBufferSize(12)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rxClockPhase
Next sibling	rx6312FramingStructure
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	0..32
Description	RX Buffer Size. (IBS_)

A.7.58 RX6312FRAMINGSTRUCTURE

Name	rx6312FramingStructure
OID	1.3.6.1.4.1.6247.16.1.4.13
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rx6312FramingStructure(13)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rxBufferSize
Next sibling	rx8448FramingStructure
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	g704(1)
3	g743(2)
4	g747(3)
Description	RX 6312 Framing Structure. (IRFS_6312)

A.7.59 RX8448FRAMINGSTRUCTURE

Name	rx8448FramingStructure
OID	1.3.6.1.4.1.6247.16.1.4.14
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rx8448FramingStructure(14)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rx6312FramingStructure
Next sibling	rx32064FramingStructure
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	g704(1)
3	g742(2)
4	g745(3)
Description	RX 8448 Framing Structure. (IRFS_8448)

A.7.60 RX32064FRAMINGSTRUCTURE

Name	rx32064FramingStructure
OID	1.3.6.1.4.1.6247.16.1.4.15
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rx32064FramingStructure(15)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rx8448FramingStructure
Next sibling	rx34368FramingStructure
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	g752(1)
Description	RX 32064 Framing Structure. (IRFS_32064)

A.7.61 RX34368FRAMINGSTRUCTURE

Name	rx34368FramingStructure
OID	1.3.6.1.4.1.6247.16.1.4.16
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rx34368FramingStructure(16)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rx32064FramingStructure
Next sibling	rx44736FramingStructure
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	g751(1)
3	g753(2)
Description	RX 34368 Framing Structure. (IRFS_34368)

A.7.62 RX44736FRAMINGSTRUCTURE

Name	rx44736FramingStructure
OID	1.3.6.1.4.1.6247.16.1.4.17
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rx44736FramingStructure(17)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rx34368FramingStructure
Next sibling	rx51840FramingStructure
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	g752(1)
Description	RX 44736 Framing Structure. (IRFS_44736)

A.7.63 RX51840FRAMINGSTRUCTURE

Name	rx51840FramingStructure
OID	1.3.6.1.4.1.6247.16.1.4.18
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rx51840FramingStructure(18)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rx44736FramingStructure
Next sibling	txCodingFormat
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	sts1(1)
Description	RX 51840 Framing Structure. (IRFS_51840)

A.7.64 TXCODINGFORMAT

Name	txCodingFormat
OID	1.3.6.1.4.1.6247.16.1.4.19
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).txCodingFormat(19)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rx51840FramingStructure
Next sibling	rxCodingFormat
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	b3zs(1)
3	hdb3(2)
Description	TX Coding Format. (ICFT_)

A.7.65 RXCODINGFORMAT

Name	rxCodingFormat
OID	1.3.6.1.4.1.6247.16.1.4.20
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rxCodingFormat(20)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	txCodingFormat
Next sibling	rxBufferCenter
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	b3zs(1)
3	hdb3(2)
Description	RX Coding Format. (ICFR_)

A.7.66 RXBUFFERCENTER

Name	rxBufferCenter
OID	1.3.6.1.4.1.6247.16.1.4.21
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).interfaceParameters(4).rxBufferCenter(21)
Module	SDM9000
Parent	interfaceParameters
Prev sibling	rxCodingFormat
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_OCTETS
Base syntax	OCTET STRING
Composed syntax	OCTET STRING
Status	current
Max-access	read-write
Description	RX Buffer Center. (IBC_)

A.7.67 UTILITYPARAMETERS

Name	utilityParameters
OID	1.3.6.1.4.1.6247.16.1.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5)
Module	SDM9000
Parent	sdm9000Objects
Prev sibling	interfaceParameters
Next sibling	statusParameters
Child	serviceChannelLevelTX1
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.68 SERVICECHANNELLEVELTX1

Name	serviceChannelLevelTX1
OID	1.3.6.1.4.1.6247.16.1.5.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).serviceChannelLevelTX1(1)
Module	SDM9000
Parent	utilityParameters
Next sibling	serviceChannelLevelTX2
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	-20..10
Description	TX1 Service Channel Level. (ISCL_TX1)

A.7.69 SERVICECHANNELLEVELTX2

Name	serviceChannelLevelTX2
OID	1.3.6.1.4.1.6247.16.1.5.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).serviceChannelLevelTX2(2)
Module	SDM9000
Parent	utilityParameters
Prev sibling	serviceChannelLevelTX1
Next sibling	serviceChannelLevelRX1
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	-20..10
Description	TX2 Service Channel Level. (ISCL_TX2)

A.7.70 SERVICECHANNELLEVELRX1

Name	serviceChannelLevelRX1
OID	1.3.6.1.4.1.6247.16.1.5.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).serviceChannelLevelRX1(3)
Module	SDM9000
Parent	utilityParameters
Prev sibling	serviceChannelLevelTX2
Next sibling	serviceChannelLevelRX2
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	-20..10
Description	RX1 Service Channel Level. (ISCL_RX1)

A.7.71 SERVICECHANNELLEVELRX2

Name	serviceChannelLevelRX2
OID	1.3.6.1.4.1.6247.16.1.5.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).serviceChannelLevelRX2(4)
Module	SDM9000
Parent	utilityParameters
Prev sibling	serviceChannelLevelRX1
Next sibling	idrBackwardAlarmEnableTX1
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-write
Size list	
1	-20..10
Description	RX2 Service Channel Level. (ISCL_RX2)

A.7.72 IDRBACKWARDALARMENABLETX1

Name	idrBackwardAlarmEnableTX1
OID	1.3.6.1.4.1.6247.16.1.5.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).idrBackwardAlarmEnableTX1(5)
Module	SDM9000
Parent	utilityParameters
Prev sibling	serviceChannelLevelRX2
Next sibling	idrBackwardAlarmEnableTX2
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	TX1 IDR Backward Alarm Enable. (BW_TX1)

A.7.73 IDRBACKWARDALARMENABLETX2

Name	idrBackwardAlarmEnableTX2
OID	1.3.6.1.4.1.6247.16.1.5.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).idrBackwardAlarmEnableTX2(6)
Module	SDM9000
Parent	utilityParameters
Prev sibling	idrBackwardAlarmEnableTX1
Next sibling	idrBackwardAlarmEnableTX3
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	TX2 IDR Backward Alarm Enable. (BW_TX2)

A.7.74 IDRBACKWARDALARMENABLETX3

Name	idrBackwardAlarmEnableTX3
OID	1.3.6.1.4.1.6247.16.1.5.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).idrBackwardAlarmEnableTX3(7)
Module	SDM9000
Parent	utilityParameters
Prev sibling	idrBackwardAlarmEnableTX2
Next sibling	idrBackwardAlarmEnableTX4
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	TX3 IDR Backward Alarm Enable. (BW_TX3)

A.7.75 IDRBACKWARDALARMENABLETX4

Name	idrBackwardAlarmEnableTX4
OID	1.3.6.1.4.1.6247.16.1.5.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).idrBackwardAlarmEnableTX4(8)
Module	SDM9000
Parent	utilityParameters
Prev sibling	idrBackwardAlarmEnableTX3
Next sibling	idrBackwardAlarmEnableRX1
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	TX4 IDR Backward Alarm Enable. (BW_TX4)

A.7.76 IDRBACKWARDALARMENABLERX1

Name	idrBackwardAlarmEnableRX1
OID	1.3.6.1.4.1.6247.16.1.5.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).idrBackwardAlarmEnableRX1(9)
Module	SDM9000
Parent	utilityParameters
Prev sibling	idrBackwardAlarmEnableTX4
Next sibling	idrBackwardAlarmEnableRX2
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	RX1 IDR Backward Alarm Enable. (BW_RX1)

A.7.77 IDRBACKWARDALARMENABLERX2

Name	idrBackwardAlarmEnableRX2
OID	1.3.6.1.4.1.6247.16.1.5.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).idrBackwardAlarmEnableRX2(10)
Module	SDM9000
Parent	utilityParameters
Prev sibling	idrBackwardAlarmEnableRX1
Next sibling	idrBackwardAlarmEnableRX3
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	RX2 IDR Backward Alarm Enable. (BW_RX2)

A.7.78 IDRBACKWARDALARMENABLERX3

Name	idrBackwardAlarmEnableRX3
OID	1.3.6.1.4.1.6247.16.1.5.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).idrBackwardAlarmEnableRX3(11)
Module	SDM9000
Parent	utilityParameters
Prev sibling	idrBackwardAlarmEnableRX2
Next sibling	idrBackwardAlarmEnableRX4
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	RX3 IDR Backward Alarm Enable. (BW_RX3)

A.7.79 IDRBACKWARDALARMENABLERX4

Name	idrBackwardAlarmEnableRX4
OID	1.3.6.1.4.1.6247.16.1.5.12
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).idrBackwardAlarmEnableRX4(12)
Module	SDM9000
Parent	utilityParameters
Prev sibling	idrBackwardAlarmEnableRX3
Next sibling	ifLoopBack
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	RX4 IDR Backward Alarm Enable. (BW_RX4)

A.7.80 IFLOOPBACK

Name	ifLoopBack
OID	1.3.6.1.4.1.6247.16.1.5.13
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).ifLoopBack(13)
Module	SDM9000
Parent	utilityParameters
Prev sibling	idrBackwardAlarmEnableRX4
Next sibling	rfLoopBack
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	IF Loopback. (IFL_)

A.7.81 RFLOOPBACK

Name	rfLoopBack
OID	1.3.6.1.4.1.6247.16.1.5.14
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).rfLoopBack(14)
Module	SDM9000
Parent	utilityParameters
Prev sibling	ifLoopBack
Next sibling	basebandLoopBack
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	RF Loopback. (RFL_)

A.7.82 BASEBANDLOOPBACK

Name	basebandLoopBack
OID	1.3.6.1.4.1.6247.16.1.5.15
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).basebandLoopBack(15)
Module	SDM9000
Parent	utilityParameters
Prev sibling	rfLoopBack
Next sibling	interfaceLoopBack
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	Baseband Loop Back. (BBL_)

A.7.83 INTERFACELOOPBACK

Name	interfaceLoopBack
OID	1.3.6.1.4.1.6247.16.1.5.16
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).interfaceLoopBack(16)
Module	SDM9000
Parent	utilityParameters
Prev sibling	basebandLoopBack
Next sibling	interfaceLoopTiming
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	Interface Loopback. (ILB_)

A.7.84 INTERFACELOOPTIMING

Name	interfaceLoopTiming
OID	1.3.6.1.4.1.6247.16.1.5.17
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).interfaceLoopTiming(17)
Module	SDM9000
Parent	utilityParameters
Prev sibling	interfaceLoopBack
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	off(0)
2	on(1)
Description	Interface Loop Timing. (ILT_)

A.7.85 SUBSTITUTEPATTERN

Name	substitutePattern
OID	1.3.6.1.4.1.6247.16.1.5.18
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).substitutePattern(18)
Module	SDM9000
Parent	utilityParameters
Prev sibling	interfaceLoopTiming
Next sibling	readErrorSelect
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.7.86 READERRORSELECT

Name	readErrorSelect
OID	1.3.6.1.4.1.6247.16.1.5.19
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).readErrorSelect(19)
Module	SDM9000
Parent	utilityParameters
Prev sibling	substitutePattern
Next sibling	rxBERThreshold
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	Read Error Select. (IRE_)

A.7.87 RXBERTHRESHOLD

Name	rxBERThreshold
OID	1.3.6.1.4.1.6247.16.1.5.20
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).utilityParameters(5).rxBERThreshold(20)
Module	SDM9000
Parent	utilityParameters
Prev sibling	readErrorSelect
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	e-3(3)
3	e-4(4)
4	e-5(5)
5	e-6(6)
6	e-7(7)
7	e-8(8)
Description	RX BER Threshold. BERT_)

A.7.88 STATUSPARAMETERS

Name	statusParameters
OID	1.3.6.1.4.1.6247.16.1.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6)
Module	SDM9000
Parent	sdm9000Objects
Prev sibling	utilityParameters
Next sibling	trapNotifications
Child	rxRawBER
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.89 RXRAWBER

Name	rxRawBER
OID	1.3.6.1.4.1.6247.16.1.6.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).rxRawBER(1)
Module	SDM9000
Parent	statusParameters
Next sibling	rxCorrectedBER
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_GAUGE32
Base syntax	Unsigned32
Composed syntax	Unsigned32
Status	current
Max-access	read-only
Size list	
1	0..2147483647
Description	RX Raw BER. Value Multiplied by 10E-10. (RBER_)

A.7.90 RXCORRECTEDBER

Name	rxCorrectedBER
OID	1.3.6.1.4.1.6247.16.1.6.2
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).rxCorrectedBER(2)
Module	SDM9000
Parent	statusParameters
Prev sibling	rxRawBER
Next sibling	rxEbno
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_GAUGE32
Base syntax	Unsigned32
Composed syntax	Unsigned32
Status	current
Max-access	read-only
Size list	
1	0..2147483647
Description	RX Corrected BER. Value Multiplied by 10E-10. (CBER_)

A.7.91 RXEBNO

Name	rxEbno
OID	1.3.6.1.4.1.6247.16.1.6.3
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).rxEbno(3)
Module	SDM9000
Parent	statusParameters
Prev sibling	rxCorrectedBER
Next sibling	rxSignalLevel
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	10..999
Description	RX EBN0. Value Multiplied by 10. (EBN0_)

A.7.92 RXSIGNALLEVEL

Name	rxSignalLevel
OID	1.3.6.1.4.1.6247.16.1.6.4
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).rxSignalLevel(4)
Module	SDM9000
Parent	statusParameters
Prev sibling	rxEbno
Next sibling	rxSweepValue
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	0..99
Description	RX Signal Level. (RSL_)

A.7.93 RXSWEEPVALUE

Name	rxSweepValue
OID	1.3.6.1.4.1.6247.16.1.6.5
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).rxSweepValue(5)
Module	SDM9000
Parent	statusParameters
Prev sibling	rxSignalLevel
Next sibling	rxbufferFillState
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	-60000..60000
Description	RX Sweep Value. Value in Hertz. (CSV_)

A.7.94 RXBUFFERFILLSTATE

Name	rxbufferFillState
OID	1.3.6.1.4.1.6247.16.1.6.6
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).rxbufferFillState(6)
Module	SDM9000
Parent	statusParameters
Prev sibling	rxSweepValue
Next sibling	rxReadError
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	1..99
Description	RX Buffer Fill State % full. (IBFS_)

A.7.95 RXREADERROR

Name	rxReadError
OID	1.3.6.1.4.1.6247.16.1.6.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).rxReadError(7)
Module	SDM9000
Parent	statusParameters
Prev sibling	rxbufferFillState
Next sibling	modemFaultStatus
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..14
Description	RX Read Error. (IRES_)

A.7.96 MODEMFAULTSTATUS

Name	modemFaultStatus
OID	1.3.6.1.4.1.6247.16.1.6.8
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).modemFaultStatus(8)
Module	SDM9000
Parent	statusParameters
Prev sibling	rxReadError
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..63
Description	Modem Fault Status. (MFS_)
	Bit 0 = Demodulator (0=OK, 1=FLT)
	Bit 1 = Modulator (0=OK, 1=FLT)
	Bit 2 = TX Interface (0=OK, 1=FLT)
	Bit 3 = RX Interface (0=OK, 1=FLT)
	Bit 4 = Common Equipment (0=OK, 1=FLT)
	Bit 5 = Backward Alarms (0=OK, 1=FLT)

A.7.97 MODULATORSTATUS

Name	modulatorStatus
OID	1.3.6.1.4.1.6247.16.1.6.9
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).modulatorStatus(9)
Module	SDM9000
Parent	statusParameters
Prev sibling	modemFaultStatus
Next sibling	demodulatorStatus
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	0..2047
Description	Modulator Fault Status. (MS_)
	Bit 0 = Module (0=OK, 1=FLT)
	Bit 1 = IF Synthesizer (0=OK, 1=FLT)
	Bit 2 = Data Clock Activity (0=OK, 1=FLT)
	Bit 3 = Data Clock Synthesizer (0=OK, 1=FLT)
	Bit 4 = I Channel (0=OK, 1=FLT)
	Bit 5 = Q Channel (0=OK, 1=FLT)
	Bit 6 = AGC Level (0=OK, 1=FLT)
	Bit 7 = Internal SCT Synthesizer (0=OK, 1=FLT)
	Bit 8 = External Ref Activity (0=OK, 1=FLT)
	Bit 9 = Programming (0=OK, 1=FLT)
	Bit 10 = Configuration (0=OK, 1=FLT)

A.7.98 DEMODULATORSTATUS

Name	demodulatorStatus
OID	1.3.6.1.4.1.6247.16.1.6.10
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).demodulatorStatus(10)
Module	SDM9000
Parent	statusParameters
Prev sibling	modulatorStatus
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..1023
Description	Demodulator Fault Status. (DS_)
	Bit 0 = Module (0=OK, 1=FLT)
	Bit 1 = Carrier Detect (0=OK, 1=FLT)
	Bit 2 = IF Synthesizer (0=OK, 1=FLT)
	Bit 3 = RX Clock Synthesizer (0=OK, 1=FLT)
	Bit 4 = I Channel (0=OK, 1=FLT)
	Bit 5 = Q Channel (0=OK, 1=FLT)
	Bit 6 = Descrambler (0=OK, 1=FLT)
	Bit 7 = BER Threshold (0=OK, 1=FLT)
	Bit 8 = Programming (0=OK, 1=FLT)
	Bit 9 = Configuration (0=OK, 1=FLT)

A.7.99 TXINTERFACESTATUS

Name	txInterfaceStatus
OID	1.3.6.1.4.1.6247.16.1.6.11
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).txInterfaceStatus(11)
Module	SDM9000
Parent	statusParameters
Prev sibling	demodulatorStatus
Next sibling	rxInterfaceStatus
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	TX Interface Fault Status. (ITXS_)
	Bit 0 = TX Data / AIS (0=OK, 1=FLT)
	Bit 1 = TX Synthesizer PLL Lock (0=OK, 1=FLT)
	Bit 2 = Selected TX Clock Activity (0=OK, 1=FLT)
	Bit 3 = Programming (0=OK, 1=FLT)
	Bit 4 = Configuration (0=OK, 1=FLT)

A.7.100 RXINTERFACESTATUS

Name	rxInterfaceStatus
OID	1.3.6.1.4.1.6247.16.1.6.12
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).rxInterfaceStatus(12)
Module	SDM9000
Parent	statusParameters
Prev sibling	txInterfaceStatus
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..4095
Description	RX Interface Fault Status. (IRXS_)
	Bit 0 = Buffer Underflow (0=OK, 1=FLT)
	Bit 1 = Buffer Overflow (0=OK, 1=FLT)
	Bit 2 = RX Data Loss (0=OK, 1=FLT)
	Bit 3 = Frame BER (0=OK, 1=FLT)
	Bit 4 = RX Backward Alarm (0=OK, 1=FLT)
	Bit 5 = Selected Buffer Clock Activity (0=OK, 1=FLT)
	Bit 6 = Buffer Clock PLL Lock (0=OK, 1=FLT)
	Bit 7 = Demux Lock (0=OK, 1=FLT)
	Bit 8 = 2047 Pattern Lock Detect (0=OK, 1=FLT)
	Bit 9 = Buffer Full (0=OK, 1=FLT)
	Bit 10 = Programming (0=OK, 1=FLT)
	Bit 11 = Configuration (0=OK, 1=FLT)

A.7.101 COMMONEQUIPSTATUS

Name	commonEquipStatus
OID	1.3.6.1.4.1.6247.16.1.6.13
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).commonEquipStatus(13)
Module	SDM9000
Parent	statusParameters
Prev sibling	rxInterfaceStatus
Next sibling	backwardAlarmStatus
Type	OBJECT-TYPE
Numerical syntax	SNMP_SYNTAX_INT
Base syntax	INTEGER
Composed syntax	INTEGER
Status	current
Max-access	read-only
Size list	
1	0..127
Description	Common Equipment Fault Status. (CES_)
	Bit 0 = M&C Module (0=OK, 1=FLT)
	Bit 1 = Data Interface Module (0=OK, 1=FLT)
	Bit 2 = Battery / Clock (0=OK, 1=FLT)
	Bit 3 = +5V Power Supply (0=OK, 1=FLT)
	Bit 4 = -5V Power Supply (0=OK, 1=FLT)
	Bit 5 = +12V Power Supply (0=OK, 1=FLT)
	Bit 6 = -12V Power Supply (0=OK, 1=FLT)

A.7.102 BACKWARDALARMSTATUS

Name	backwardAlarmStatus
OID	1.3.6.1.4.1.6247.16.1.6.14
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).statusParameters(6).backwardAlarmStatus(14)
Module	SDM9000
Parent	statusParameters
Prev 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	Backward Alarm Fault Status. (IAS_)
	Bit 0 = TX Backward Alarm #1 (0=OK, 1=FLT)
	Bit 1 = TX Backward Alarm #2 (0=OK, 1=FLT)
	Bit 2 = TX Backward Alarm #3 (0=OK, 1=FLT)
	Bit 3 = TX Backward Alarm #4 (0=OK, 1=FLT)
	Bit 4 = RX Backward Alarm #1 (0=OK, 1=FLT)
	Bit 5 = RX Backward Alarm #2 (0=OK, 1=FLT)
	Bit 6 = RX Backward Alarm #3 (0=OK, 1=FLT)
	Bit 7 = RX Backward Alarm #4 (0=OK, 1=FLT)

A.7.103 TRAPNOTIFICATIONS

Name	trapNotifications
OID	1.3.6.1.4.1.6247.16.1.7
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).trapNotifications(7)
Module	SDM9000
Parent	sdm9000Objects
Prev sibling	statusParameters
Child	trapNotificationsPrefix
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.104 TRAPNOTIFICATIONSPREFIX

Name	trapNotificationsPrefix
OID	1.3.6.1.4.1.6247.16.1.7.0
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).trapNotifications(7).trapNotificationsPrefix(0)
Module	SDM9000
Parent	trapNotifications
Child	unitFaultTraps
Type	OBJECT-IDENTIFIER
Composed syntax	

A.7.105 UNITFAULTTRAPS

Name	unitFaultTraps
OID	1.3.6.1.4.1.6247.16.1.7.0.1
Full path	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).comtech(6247).sdm9000(16).sdm9000Objects(1).trapNotifications(7).trapNotificationsPrefix(0).unitFaultTraps(1)
Module	SDM9000
Parent	trapNotificationsPrefix
Type	NOTIFICATION-TYPE
Composed syntax	
Status	current
Objects	
1	modemFaultStatus
Description	Modem Fault Status. (MFS_)
	Bit 0 = Demodulator (0=OK, 1=FLT)
	Bit 1 = Modulator (0=OK, 1=FLT)
	Bit 2 = TX Interface (0=OK, 1=FLT)
	Bit 3 = RX Interface (0=OK, 1=FLT)
	Bit 4 = Common Equipment (0=OK, 1=FLT)
	Bit 5 = Backward Alarms (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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