



## INSTALLATION INSTRUCTIONS

1. Remove the power from the unit.
2. Slide the option module into the option slot until the module is firmly seated against the front of the chassis.
3. Secure the pins at both edges of the module.
4. Connect the cables to the associated device(s).
5. Complete installation of the Base Unit.
6. Restore power to the unit.

## WAN-T1 NETWORK (RJ-48C) CONNECTION PINOUT

Pin	Name	Description
1	R1	Receive data from the network
2	T1	Receive data from the network
3	—	UNUSED
4	R	Transmit data toward the network
5	T	Transmit data toward the network
6-8	—	UNUSED

## DSX-1 (RJ-48C) CONNECTION PINOUT

Pin	Name	Description
1	R	Transmit data toward the DTE
2	T	Transmit data toward the DTE
3	—	UNUSED
4	R1	Receive data from the DTE
5	T1	Receive data from the DTE
6-8	—	UNUSED

## DBU (RJ-48C) CONNECTION PINOUT

Pin	Name	Description
1-3	—	UNUSED
4	T	Network-Tip
5	R	Network-Ring
6-8	—	UNUSED

**NOTE**

An optional Dial Backup Interface Module (DIM) is required for dial backup applications.

**SPECIFICATIONS**

**T1/FT1 Interface**

Line Rate: 1.544 Mbps/s +/- 75 bps  
 Line Code: AMI or B8ZS  
 Framing: D4 (SF) or ESF  
 FT1 Line Rate: DS0 Channelized (multiples of 56/64 kbps)  
 Input Signal: 0 to -36 dB (DS-1)  
 Line Build-Out: 0, 7.5, 15, 22.5 dB  
 Connector: RJ-48C  
 DS0 Assignment: Programmable

**DSX-1 Interface**

Line Interface: DSX-1 per ANSI T1.102  
 DSX Receiver Input Range: -10 dBdsx to +6 dBdsx  
 Line Rate: 1.544 Mbps  
 Capacity: 1 to 24 DS0s  
 Line Codes: AMI, B8ZS  
 DSX-1 interface to PBX  
 Framing: D4 (SF) or ESF  
 Line Length: 0 to 655 ft and -7.5 dB  
 Connector: RJ-48C

**Clock Source**

Network, Internal, and DSX-1

**Diagnostics**

Test pattern generation and detection: QRSS, 511  
 Network loopbacks (local & remote). Responds to both INBAND and FDL loop codes. (T1 interface only)  
 Alarm generation and detection  
 Network and user sets of performance data (15 min & 24 hr)

\* Indicates default values

**T1/FT1 + DSX-1 NIM COMMANDS**

**description** <text>

Comment line to provide an identifier for this interface (for example, circuit ID, contact information, etc.)

**coding** <AMI, B8ZS>

Configures the line coding for the T1 interface  
 <AMI> Alternate Mark Inversion  
 <B8ZS>\* Bipolar Eight Zero Substitution

**framing** <D4, ESF>

Configures the framing format of the T1 interface  
 <D4> Super Frame T1 framing  
 <ESF>\* Extended Super Frame T1 framing

**shutdown**

Turns off the interface. The **no** version of this command turns the interface on and allows it to pass data.

**line-length** <distance in feet (0 - 6100)>

Defines the cable length between the DSX-1 port and the attached equipment in feet

**local loopback** <LINE, PAYLOAD>

Initiates a loopback on the interface  
 <LINE> Initiates a physical loopback of the T1 circuit  
 <PAYLOAD> Initiates a loopback of the data only

**remote-loopback** <LINE, PAYLOAD>

Send a loopback code to the remote unit to initiate a loopback (see **local loopback** for a description of the loopback options)

**test pattern** <511, QRSS, ONES, ZEROS>

Initiates test pattern generation from the unit  
 <511> Repeating pattern of ones and zeros  
 <QRSS> Random pattern of ones and zeros

**test-pattern insert**

Inserts and error into currently active test pattern

**test-pattern clear**

Clears the test pattern error count

**signaling mode** <MESSAGE-ORIENTED, NONE, ROBBED-BIT\*>

Configures the signaling mode for the DS0s mapped to the DSX-1 port  
 <MESSAGE-ORIENTED> Clear channel signaling on Channel 24 only  
 <NONE> Clear channel signaling on all DS0s  
 <ROBBED-BIT> Robbed bit signaling on all DS0s