



### SPECIFICATIONS

<b>T1/FT1 Interface</b>	Line Rate: 1.544 Mbps +/- 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 (DS1) Line Build-Out: 0, 7.5, 15, 22.5 dB Connector: RJ-48C DS0 Assignment: Programmable
<b>Clock Source</b>	Network, Internal
<b>Diagnostics</b>	Test pattern generation and detection: 511 Network loopbacks (local and remote) Responds to both inband and FDL loop codes Alarm generation and detection Network and user sets of performance data (15 minutes and 24 hours)

### INSTALLATION INSTRUCTIONS

1. Remove power from the unit.
2. Slide the Network Interface Module (NIM) into the option slot until the NIM is firmly seated against the front of the chassis.
3. Secure the pins at both edges of the NIM.
4. Connect the cables to the associated device(s).
5. Complete the 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

### DBU (RJ-48C) CONNECTION PINOUT

Pin	Name	Description
1-2	—	Unused
3	R1	Network-Ring 1
4	R	Network-Ring
5	T	Network-Tip
6	T1	Network-Tip 1
7-8	—	Unused



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

## T1/FT1 NIM COMMANDS

### clock source {*line* | *internal* | *through*}

Configures the source timing used for the interface.

<b>line*</b>	Recovers clock from the primary circuit
<b>internal</b>	Provides clocking using the internal oscillator.
<b>through</b>	Recovers clock from the circuit connected to the DSX-1 interface.

### coding {*ami* | *b8zs*}

Configures the line coding for the T1 physical interface. The settings must match the line coding supplied on the circuit by the service provider.

<b>ami</b>	Alternate Mark Inversion
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### description <*text*>

Configures the format of the facility data link channel on the T1 circuit. FDL channels are only available on point-to-point circuits.

<b>ansi<sup>i</sup></b>	Configures the FDL for ANSI T1.403 standard.
<b>att</b>	Configures the FDL for ATT TR54016 standard.
<b>none</b>	No FDL available on this circuit.

### framing {*d4* | *esf*}

Configures the framing format of the T1 interface. This setting must match the framing format supplied by the service provider.

<b>d4</b>	Superframe T1 framing
<b>esf<sup>r</sup></b>	Extended superframe T1 framing

### lbo {*0<sup>s</sup>* | *-7.5* | *-15* | *-22.5*}

Sets the line build out (in dB) for the T1 Interface.

### loopback network {*line* | *payload*}

Initiates a loopback on the interface toward the network. Deactivate using the **no loopback network** command.

<b>line</b>	Initiates a metallic loopback of the physical T1 network interface.
<b>payload</b>	Initiates a loopback of the T1 framer (CSU portion) of the T1 network interface.

### loopback remote line {*fdl* | *inband*}

Sends a loopback code to the remote unit to initiate a line loopback. Deactivate using the **no loopback remote line** command.

<b>fdl</b>	Uses the facility data link (FDL) to initiate a full 1.544 Mbps loopback of the signal received by the remote unit from the network.
<b>inband</b>	Uses the inband channel to initiate a full 1.544 Mbps physical loopback (metallic loopback) of the signal received from the network.

### loopback remote payload

Sends a loopback code to the remote unit to initiate a payload loopback. Deactivate using the **no loopback remote payload** command.

### remote-loopback

Configures the interface to respond to loopbacks initiated by a remote unit (or service provider).

The **no** version of this command configures the interface to ignore T1 loop commands.

### show p511

Displays current status of T1 tests, including information regarding loopbacks and test patterns.

### shutdown

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

### snmp trap {*line-status* | *link-status*}

Enables the interface to send SNMP traps when there is an interface status change.

### tdm-group <*group#*> timeslots <*1-24*> speed [*56* | *64*]

Creates a group of contiguous DS0s on this interface to be used during the **cross-connect** process.

< <i>group#</i> >	Number label to identify this TDM group
< <i>DS0 range</i> >	DS0s in this group in the form: < <i>starting DS0</i> - <i>ending DS0</i> >

### test-pattern {*ones* | *zeros* | *p511*}

Initiates sending the specified test pattern.

<b>ones</b>	Generates continuous ones.
<b>zeros</b>	Generates continuous zeros.
<b>p511</b>	Generates repeating pattern of ones and zeros.

### test-pattern clear

Clears the test pattern error count.

### test-pattern insert

Inserts an error into currently active test pattern.

\* Indicates default values.