

## Specifications

### Network Interface

Service Type:	DDS I and DDS II clear channel conforming to TR62310
Operating Modes:	Full duplex, point-to-point, multi-point
Line Rates:	56 kbps (DDS I) and 72 kbps (DDS II)
Loop Range:	Up to a 45-dB loss
Line Connection:	RJ-48S jack, 8-pin mod.
Timing Sources:	Network, DTE, and Internal

### Equipment Interface

Sync Data Rates:	56 kbps (DDS I) and 64 kbps (DDS II)
Anti-stream Timer:	Off, 10, 30, or 60 seconds
DTE Clocking:	Internal or External
DTE Connections:	34-pin V.35 (ITU) or 25-pin RS-232D
Clocking:	Internal or external

### Diagnostics

Loopbacks:	CSU, V.54 (receive and send)
BERT:	511 pattern

### Management Interfaces

Supv Connection:	8-pin modular (RS-232)
Data Rates:	1.2, 2.4, 9.6, and 19.2 kbps

### Power

48 VDC:	chassis supplied; 65 mA, 3.12 W, 10.6 BTU max.
24 VDC:	chassis supplied; 140 mA, 3.36 W, 11.5 BTU max.
Connection:	5-pin DIN

### Mechanical

Housing:	Verilink 1051 chassis
Mounting:	Rack mount
Dimensions (nom.):	9.38 (23.8 cm) long 6.63 inches (16.8 cm) high 1.38 inches (3.49 cm) wide
Weight:	1 pound (0.442 kg)

### Environmental

Operating Temp:	32° to 122°F (0° to 50°C)
Storage Temp:	-4° to 185°F (-20° to 85°C)
Humidity:	95% max. (non-condensing)

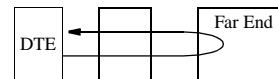
### Compatibility

TR62310	
TR41450	
Internet Standards:	RFC 1157 (SNMP) RFC 1155 (SMI) RFC 1213 (MIB-II) RFC 1055 (SLIP)
MIB-II:	Device identification and interface performance data. All applicable objects and reporting are maintained by the 8100A Site Controller.

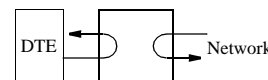
Industry Listings	
FCC Compliance:	Part 15 Class A, Subpart B, and Part 68
U.S. Safety:	UL 1950, 3rd edition
Canadian Safety:	CSA C22.2 No. 950-95
Industry Canada:	CS-03, Issue 8

## Front Panel Description

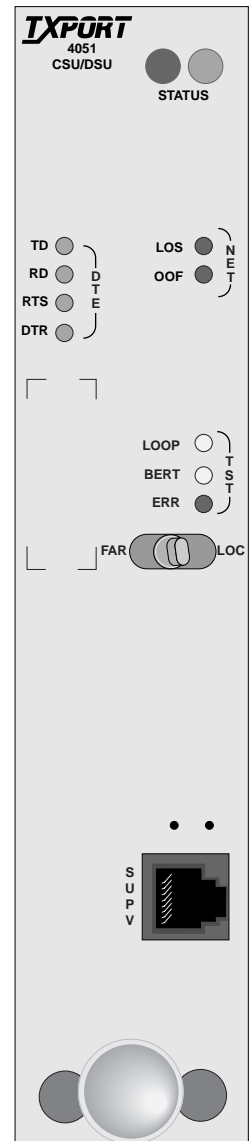
STATUS	When the green indicator is On, the unit is powered and may be operating normally. When the red indicator is On, there is a fault that exceeds alarm thresholds or another type of unit failure.
TD	This green indicator is On during a mark condition on the high-speed transmit-data line.
RD	This green indicator is On during a mark condition on the high-speed receive-data line.
RTS	This green indicator is On when the request to send signal is active.
DTR	This green indicator is On when the data terminal ready signal is active.
FAR/LOC	In the FAR position, the 4051 sends five seconds of the V.54 loop pattern then switches to the 511 pattern.



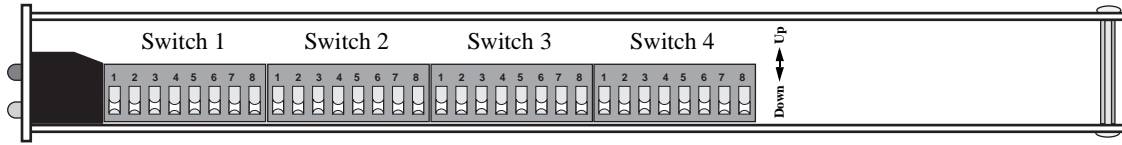
In the middle position, the 4051 sends five seconds of V.54 loopdown code then returns to its normal operating mode. In the LOC position, the 4051 performs a network latching loopback.



Activity Indicators	These two, small recessed indicators are just above the supervisory connector and show supervisory and network manager port activity.
SUPV	The supervisory port provides direct terminal access to control and monitor the 4051.
NET LOS	This red indicator is On during a loss of signal from the DDS network.
NET OOF	This amber indicator is On when the unit detects and out of frame condition or receives OOF codes.
TST LOOP	This amber indicator is On when the network interface is in any loop.
TST BERT	This indicator is On when a 511-bit BERT is in progress.
TST ERR	This indicator is On when BERT pattern errors are detected.



# Top-Edge View of the PRISM 4051



## Configuration

Factory default settings are underlined.

### Switch 1

<b>Boot from</b>	<b>S1-1</b>
<b>DIP switches</b>	<u>Down</u>
Saved Configuration	Up
<b>DDS Mode</b>	<b>S1-2</b>
DDS II (64 kbps)	<u>Down</u>
DDS I (56 kbps)	Up

### Timing Source S1-3 S1-4

<b>Network</b>	<u>Down</u>	<u>Down</u>
Internal	Down	Up
DTE	Up	Down

### RTS/CTS Delay S1-5

Normal	56 kbps	0.4±0.02 ms	<u>Down</u>
	64 kbps	0.3±0.015 ms	
Long	56 kbps	0.8±0.04 ms	Up
	64 kbps	0.6±0.03 ms	

### RTS, CTS, and DCD Handshake S1-6

<u>Force True</u>	<u>Down</u>
Normal	Up

### LL and RL S1-7

<u>Disable</u>	<u>Down</u>
Enable	Up

### DTE Alarm S1-8

<u>Disable</u>	<u>Down</u>
Enable	Up

### Switch 2

<b>Antistream Timer S2-1</b>	
<u>Off</u>	<u>Down</u>
30 seconds	Up

### V.54 Loop Detection S2-2

<u>Enable</u>	<u>Down</u>
Disable	Up

### Circuit Assurance S2-3

Enable	Up
<u>Disable</u>	<u>Down</u>

### Loop Mode S2-4

<u>Bidirectional</u>	<u>Down</u>
Unidirectional	Up

### SUPV Port Rate S2-5 S2-6

19.2 kbps	<u>Down</u>	<u>Down</u>
1.2 kbps	Down	Up
2.4 kbps	Up	Down
9.6 kbps	Up	Up

### NMS Port Rate S2-7 S2-8

19.2 kbps	<u>Down</u>	<u>Down</u>
1.2 kbps	Down	Up
2.4 kbps	Up	Down
9.6 kbps	Up	Up

### Switch 3\*

#### Force Download Mode S3-8

<u>Normal Operation</u>	<u>Down</u>
Begin Flash Download	Up

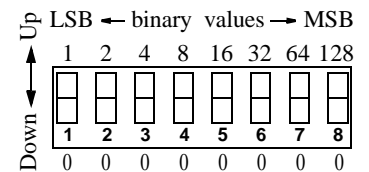
\* Switches S3-1 through S3-7 are not used.

### Switch 4

Switch S4 sets the unit address. When using the 4051 with an

8100A Site Controller, each element in a group must have a unique unit address. As many as 50 units (with addresses from 1 to 50) can exist in a group. If the unit is not connected to a site controller, the NMS unit address should be left at the factory default setting of 1 where Position 1 is Up and all other positions are Down.

Switch S4 has eight positions used to create an 8-bit binary code for an address in the range of 1 to 50. Switch position S4-1 is the least significant bit (LSB) and S4-8 is the most significant bit (MSB). If a switch is down, its value is 0. If up, its value is that of the upper location. The values are additive. For example, to set a unit address to 5, position S4-3 (binary value is 4) and position S4-1 (binary value is 1) would be set Up for a unit address of 5 (4+1). All other positions would be set Down.

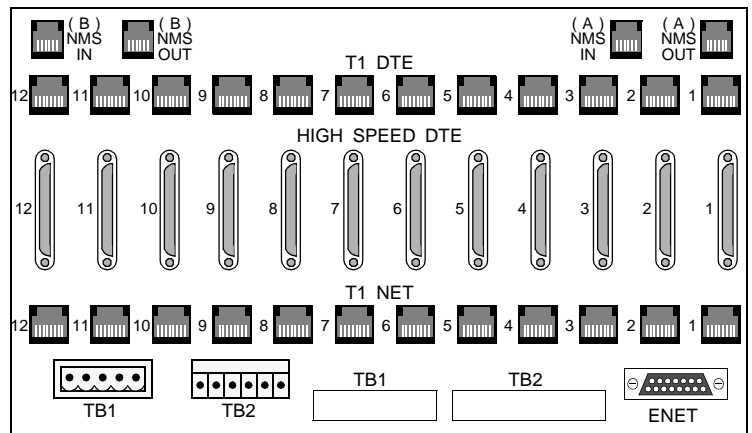


## Connections

### 1051-2 Rear Panel Pinouts

Pin	T1 NET	DDS NET*	TB1 Network/Clock	TB2 Alarm/Power
1	Data In	Data Out	Network In	48-V Return
2	Data In	Data Out	Network In	Signal Ground
3	Not Used	Not Used	Network Out	-48 VDC
4	Data Out	Not Used	Network Out	Frame Ground
5	Data Out	Not Used	Station Clock	Alarm Contact
6	Not Used	Not Used	Station Clock	Common
7	Not Used	Data In	N/A	N/A
8	Not Used	Data In	N/A	N/A

\* T1 NET connector converts to DDS NET using a supplied DDS adapter cable (part number 9-1001-075-1).



Rear Panel of the Verilink 1051-2 Chassis



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