

The Verilink 1051-3 chassis holds up to twelve of the following modules:

2000 ESF CSU	3021 E1 NTU
2010 ESF CSU	4001 DDS CSU/DSU
2048 PMU/NTU	4010 DDS CSU/DSU
2100 CSU	4051 DDS CSU/DSU
3001 CSU/DSU	8100A Site Controller

Each module attaches to the chassis back-plane board through two connectors. With these connectors, each module receives -48 VDC power and exchanges control and input/output signals. The chassis contains no active components.

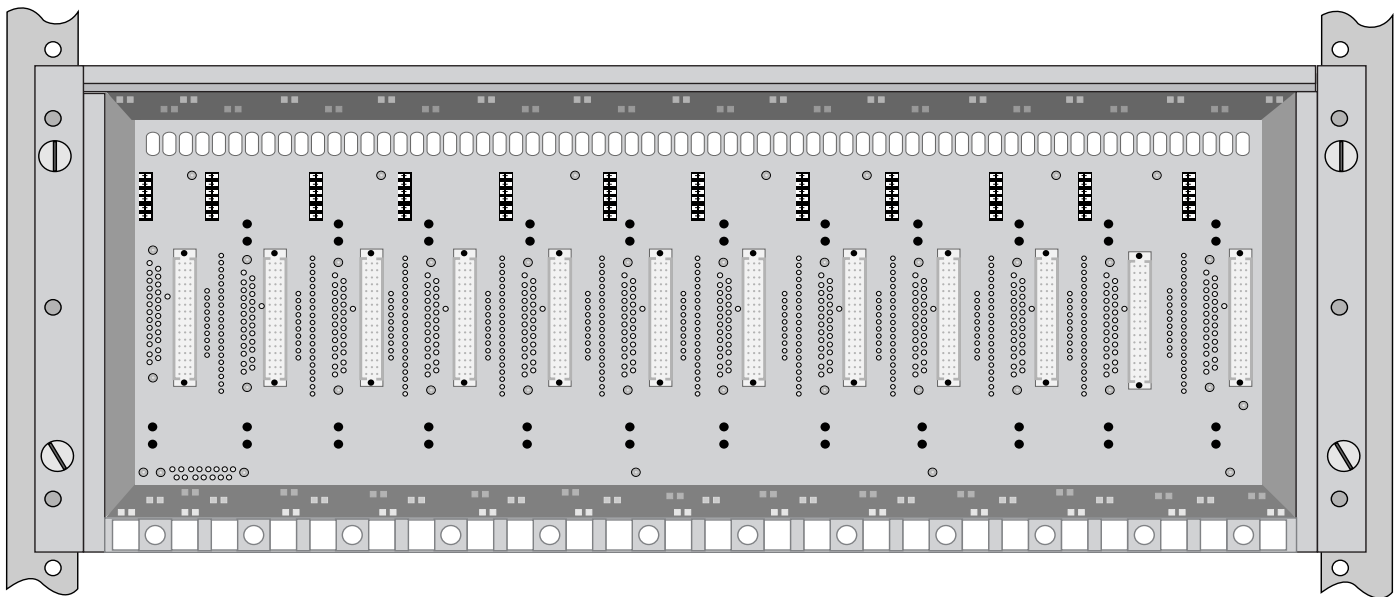
Specifications

Width:	17.2 inches (43.69 cm)
Height:	7 inches (17.78 cm)
Depth:	10.5 inches (26.67 cm)
Weight:	9.5 pounds (4.31 kg)
Operating:	32° to 122°F (0° to 50°C)
Storage:	-4° to 185°F (-20° to 85°C)
Humidity:	95% max (non-condensing)
Mounting:	Reversible ears for 19-inch or 23-inch racks

ENET Connection

The Ethernet interface is a female 15-pin D-shell connector with slide latch located on the lower right rear corner of the chassis.

Pin	Interface
3	Data Out (A)
10	Data Out (B)
11	Data Out (Shield)
5	Data In (A)
12	Data In (B)
4	Data In (Shield)
2	Control In (A)
9	Control In (B)
1	Control In (Shield)
6	Voltage Common
13	Voltage Plus
14	Voltage Shield
Shell	Protective Ground



Power Connections

The chassis is designed with two power buses connected to TB2. The A bus feeds the odd slots (1, 3, 5, 7, 9, and 11). The B bus feeds the even slots (2, 4, 6, 8, 10, and 12). Connect a Frame Ground lead (18- to 20-gauge) to pin 2 before applying power to the unit. Connect the other end of this lead to an appropriate frame ground.

Redundant Power Source: A power board is factory installed on TB2 allowing the connection of two independent -48 VDC supplies operating in a redundant mode. All slots are powered from the combined input of the A and B power supplies. If one supply fails, the other powers the entire chassis.

To operate in the redundant mode, connect pins 3 and 4 (-48 V IN) on the redundant power board to the negative (-) terminal of the power supply. Connect pins 1 and 6 (+48 V RTN) to the positive (+) terminal of the power supply.

Single Power Source: When using a single power source, connect the A bus terminals (pins 4 and 6) on the redundant power board to the corresponding terminals of the power supply.

If the redundant power board is not used, the A bus and B bus must be connected together with a jumper (pin 3 to pin 4 and pin 1 to pin 6).

Dual Power Source: When using dual independent 48 VDC power supplies, one source feeds the A bus while another source feeds the B bus. First, remove the redundant power board. Connect the A bus (pins 4 and 6) to the corresponding terminals of power supply A (to power the odd numbered slots). Connect the B bus (pins 1 and 3) to the corresponding terminals of power supply B (to power the even numbered slots).

The maximum current draw of a fully loaded chassis is two amperes. The Verilink 1040 and 1041 power shelves can supply a maximum of two amps. Ensure that the proper fuse size is used.

NMS Connections

The NMS ports are used to connect the chassis into the 8100A Site Controller. Within the chassis, each unit is physically connected to the next unit in a daisy chain. Two 6-pin modular connectors are provided for both the A and B sides.

All units in the chain must use the same NMS bit rate, however, each unit in the NMS chain must have a unique address.

Pin	NMS In	NMS Out
1	Not Used	Not Used
2	Signal Gnd	Signal Gnd
3	Data Out	Data Out
4	Data In	Not Used
5	Signal Gnd	Signal Gnd
6	Not Used	Not Used

Network and DTE Connections

The T1 DTE and T1 NET ports are 8-pin modular jacks. The maximum suggested cable lengths for chassis connection to the network are listed in the following table. These distances are based on a temperature of 70°F, 0.083 μF/mile capacitance, a 27 dB loss, and a 100 Ω, non-loaded, twisted pair cable.

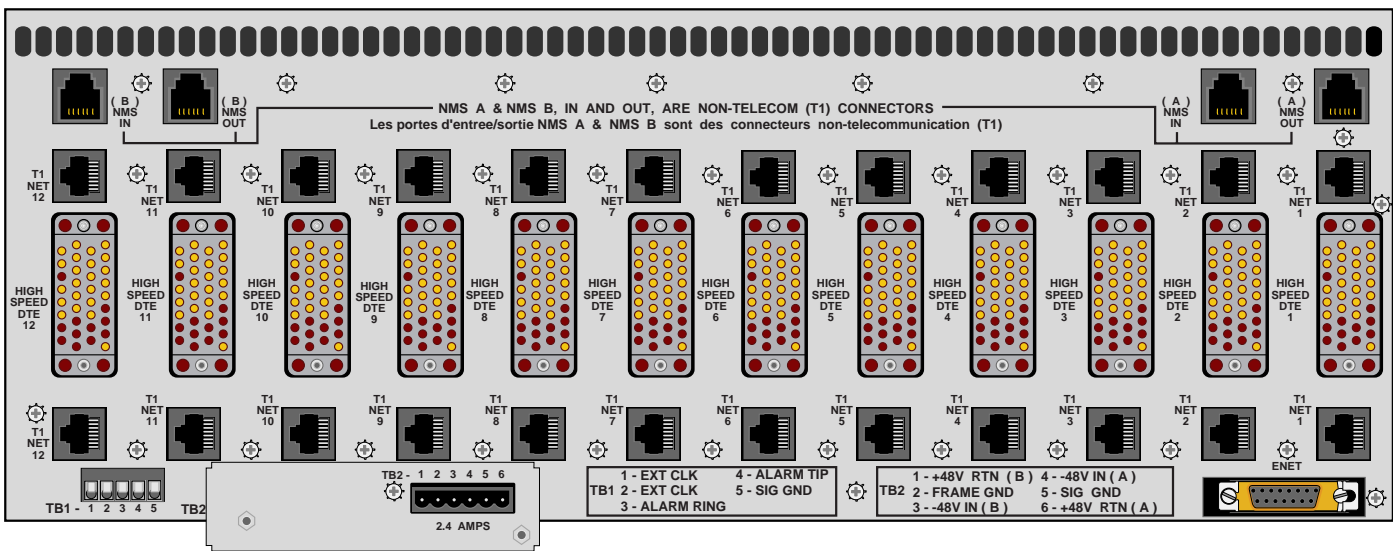
Pin	T1 DTE	T1 NET
1	Data Out	Data In
2	Data Out	Data In
3	Not Used	Not Used
4	Data In	Data Out
5	Data In	Data Out
6	Not Used	Not Used
7, 8	Signal Gnd	Signal Gnd

Cable Type	Loss per 1000'	Max Length
26-gauge	6.8 dB	3,900 ft
24-gauge	5.4 dB	5,000 ft
22-gauge	4.2 dB	6,400 ft
19-gauge	3.0 dB	9,000 ft

Alarm Connections

Alarm conditions from all modules in the chassis are bused together in parallel and are presented on a single set of alarm relay contacts (TB1, pins 3 and 4) allowing connection to a remote indicating device. All modules in a common chassis must operate in the normally open (NO) mode.

Connections to the contacts should use 20-gauge stranded wire (or similar). The contacts are rated at 120 mA (AC or DC).



External Clock Connections

TB1 provides the contacts allowing connection to an external timing source (pins 1 and 2).

High-Speed DTE Connections

The high-speed port connections use a female 25-pin subminiature DB-25 connector. The pin interface comparisons are detailed in the table on the right.

If the unit is connected to an EIA-530 DTE type device, only a one-to-one DB-25 cable is required.

If the unit is connected to an RS-449 compatible interface, an adapter cable must be used to match the 37-pin RS-449 standard.

The V.35 option also requires an appropriate adapter cable to connect to devices that use the standard 34-pin V.35 interface.

Common Name	DB-25	EIA-530	RS-449	V.35
Frame Ground	1	1	1	A
Signal Ground	7	7	19	B
Transmit Data (A)	2	2	4	P
Transmit Data (B)	14	14	22	S
Receive Data (A)	3	3	6	R
Receive Data (B)	16	16	24	T
Request to Send (A)	4	4	7	C
Request to Send (B)	19	19	25	
Clear to Send (A)	5	5	9	D
Clear to Send (B)	13	13	27	
Data Set Ready (A)	6	6	11	E
Data Set Ready (B)	22	22	29	
Data Term Ready (A)	20	20	12	H
Data Term Ready (B)	23	23	30	
Data Carrier Detect (A)	8	8	13	F
Data Carrier Detect (B)	10	10	31	
Transmit Clock (A)	15	15	5	Y
Transmit Clock (B)	12	12	23	AA
Receive Clock (A)	17	17	8	V
Receive Clock (B)	9	9	26	X
Terminal Timing (A)	24	24	17	U
Terminal Timing (B)	11	11	35	W



145 Baytech Drive
San Jose, California 95134

127 Jetplex Circle
Madison, Alabama 35758

(800) 837-4546

www.verilink.com

FAX-On-Demand
(800) 957-5465

Technical Assistance Center