

The Verilink 1051-2 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.

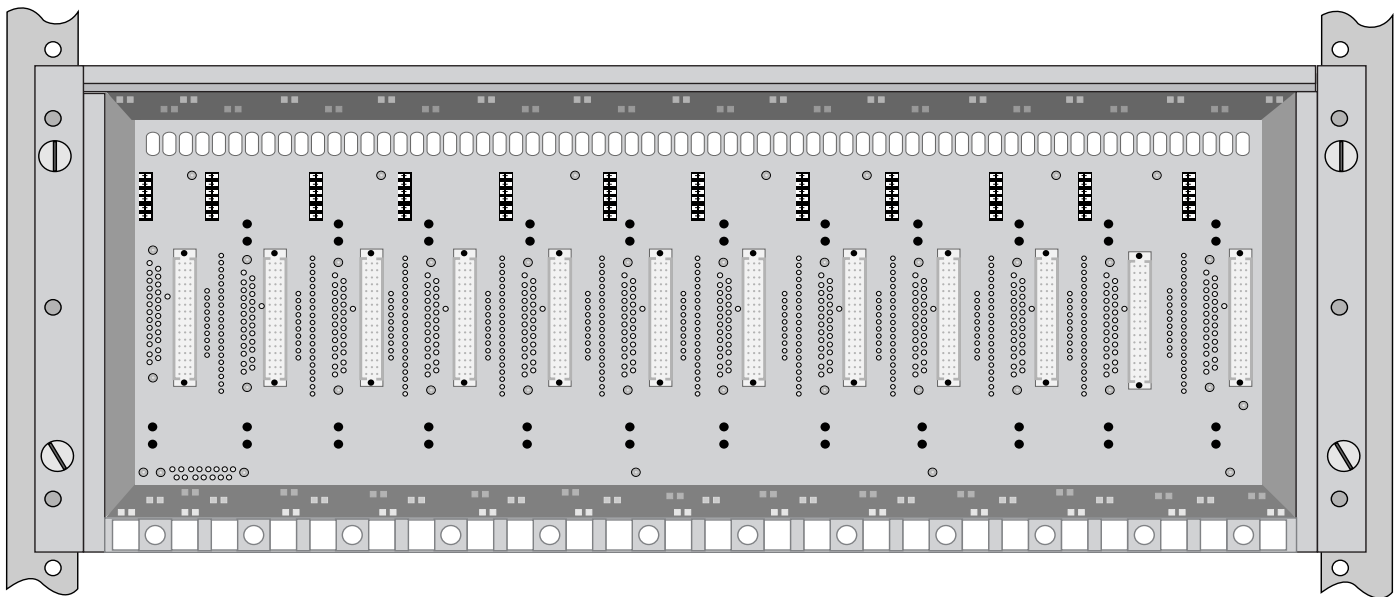
## Specifications

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.

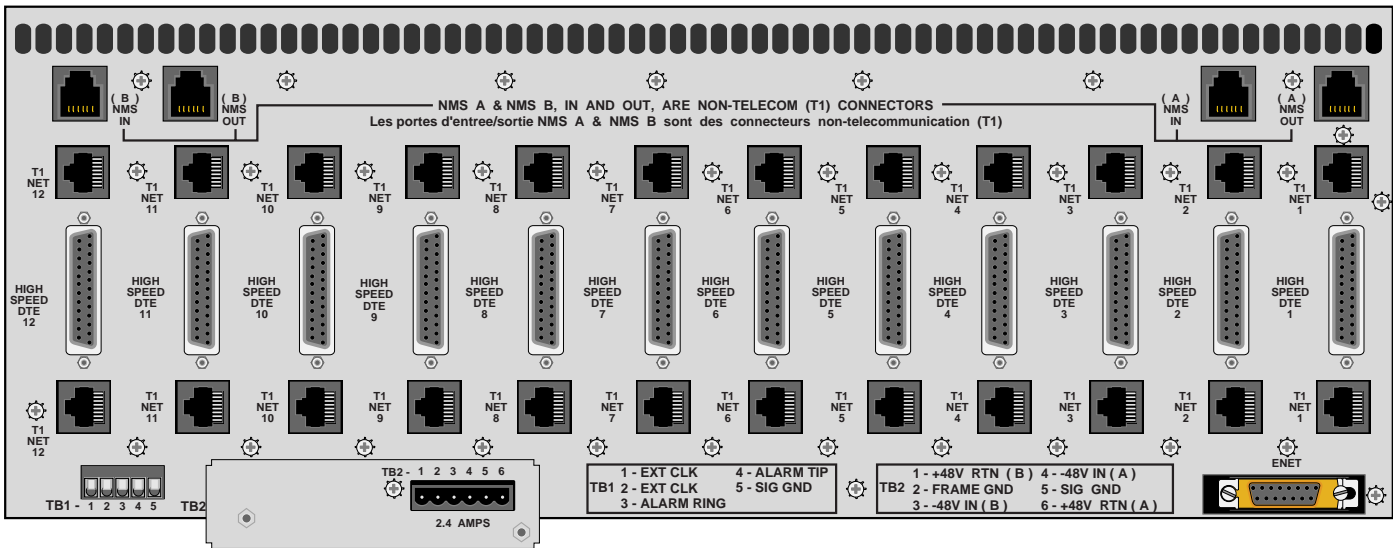
Pin	T1 DTE	T1 NET
1	Data Out	Data In
2	Data Out	Data In
3	Not Used	Not Used
4	Data In	Data Out
5	Data In	Data Out
6	Not Used	Not Used
7, 8	Signal Gnd	Signal Gnd

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



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