

Front Panel Description

1	SD	Green	Illuminates when the Send Data lead is a mark and is <i>Off</i> when the lead is a space. The LED varies from full intensity to <i>Off</i> depending on the relative number of marks and spaces.
2	RD	Green	Illuminates when the Receive Data lead is a mark and is <i>Off</i> when the lead is a space. The LED varies from full intensity to <i>Off</i> depending on the relative number of marks and spaces.
3	IN SYNC	Green	Illuminates when the unit is in frame synchronization with the E1 line.
4	ERROR	Red	Illuminates when the internal alarm circuitry detects any of the following conditions from the incoming E1 signal: BPVs, FBES, CRCs, loss of signal/loss of sync, or more than 175 zeros.
5	REMOTE	Red	Illuminates when the internal alarm circuitry detects a remote alarm signal from the far end terminal equipment. This occurs when the far end terminal is out of sync with the E1 signal from the network.
6	TEST	Amber	Illuminates when the unit is in test mode by either a manual loop switch or a test command received from the facility. When illuminated, circuit 142 (TM), pin K at the digital interface is active (<i>On</i>).
7	RL		Initiates an automated V.54 remote loop and BERT sequence of assigned data channels. The TEST LED turns green if the test is successful (the far end unit loops and returns the data error free with the V.54 code) and red if errors are detected in the test.
	NORM		Switching from LL to NORM takes the unit out of test mode. Switching from RL to NORM transmits the V.54 deactivate code.
	LL		Places the unit in a local loop mode. Data from the DTE is looped back to the DTE and is also transmitted to the network (data from the network is open).

Specifications

Network Interface

Line Rate:	2.048 Mbps (± 50 ppm)
Line Framing:	CCS or CRC4
Line Code:	AMI or HDB3
Line Impedance:	Balanced 120 Ω ($\pm 5\%$) Unbalanced 75 Ω (available)
Input Signal:	+6 to -43 dB
Output Signal:	3.0 V ($\pm 15\%$) base-peak into 120 Ω
Line Protection:	Per ITU-T K.15, K.21, K.32
Jitter Control:	ITU G.703
Pulse Density:	ITU G.703

V.35 Interface

Data Rate:	Synchronous, Nx56 or Nx64 kbps
Clocking:	Internal or external

Industry Standards

FCC Compliance:	Part 15 Subpart B Class A
FCC Part 68 Reg:	Not Applicable
CAN/CSA:	C22.2 No. 950-95
IC/CSO3:	Not Applicable

UL:	1950 Third Edition
G.703	July 1995
G.704	September 1989
G.706	April 1991
G.732	1988
G.823	1993

Power

DC Power:	External
Connection:	5-pin DIN

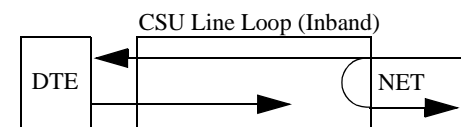
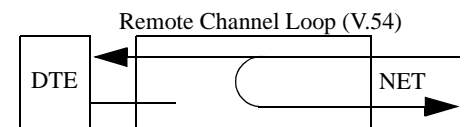
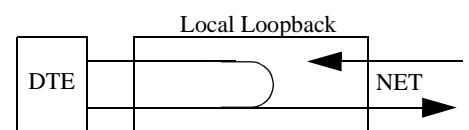
Mechanical

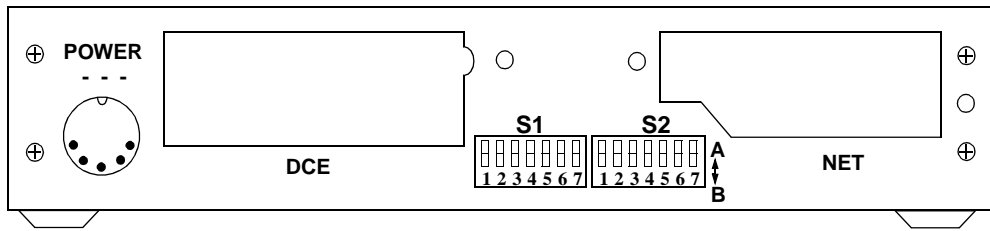
Mounting:	Desktop, wall, or vertical rack
Dimensions:	1.75 inches (4.44 cm) High 6.8 inches (17.27 cm) Wide 10.5 inches (26.67 cm) Deep
Weight:	2 pounds (0.907 kg)

Environmental

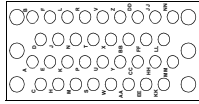
Operating Temp:	32° to 122°F (0° to 50°C)
Storage Temp:	-4° to 185°F (-20° to 85°C)
Humidity:	95% maximum (non-condensing)

Loops

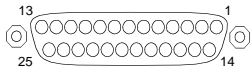




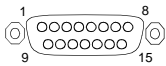
DCE Connector Options



V.35



EIA-530



X.21

Network Connectors and Pinout Assignments

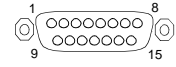
	RJ-45	DB-15	Twin-ax	Coax
Ground Shield	Pins 3, 6, 7, 8	Pins 2, 4	Body	Body
Data Input	Pins 1, 2	Pins 3, 11	Right Terminal	Right Terminal
Data Output	Pins 4, 5	Pins 1, 9	Left Terminal	Left Terminal
Impedance	120 Ω Balanced	120 Ω Balanced	120 Ω Balanced	75 Ω Unbalanced

Network Connector Options

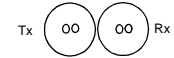
RJ-45



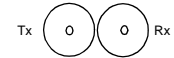
DB-15



TWIN-AX



COAX



Switch S1

SW*	Function	Position A	Position B
S1-1	TS Assigned	N=1	N=0
S1-2	TS Assigned	N=2	N=0
S1-3	TS Assigned	N=4	N=0
S1-4	TS Assigned	N=8	N=0
S1-5	TS Assigned	N=16	N=0
S1-6	Rate Multiplier	56 kbps	64 kbps
S1-7	CCITT PCM	PCM 30	PCM 31

*Refer to the Bit Rate Tables for S1-1 through S1-5.

DCE Interfaces and Pinout Assignments

DCE	Circuit Name	V.35		EIA-530		X.21		
		Pin	Circuit Number	25-Pin	Symbol	Circuit Name	15-Pin	Symbol
Ground	Frame Ground	A	101	1	AA	Protect Ground	1	G
Ground	Signal Ground	B	102	7	AB	Signal Ground	8	G _a
Input	Transmit Data	P/S	103	2/14	BA	Transmit Data	2/9	T
Output	Receive Data	R/T	104	3/16	BB	Receive Data	4/11	R
Input	Request To Send	C	105	4/19	CA	Control	3/10	C
Output	Clear To Send	D	106	5/13	CB	Indicator	5/12	I
Output	Data Set Ready	E	107	20/23	CC	---	---	---
Output	Data Carrier Detect	F	109	8/10	CF	---	---	---
Input	Ext. Transmit Clock	U/W	113	24/11	DA	---	---	---
Output	Transmit Clock	Y/AA	114	15/12	DB	---	---	---
Output	Receive Clock	V/X	115	17/9	DD	Signal Element Timing	6/13	S
Output	Test Mode	K	142	25	TM	---	---	---
Output	---	---	---	---	---	Byte Timing	7/14	B*

*Byte timing is not supplied on the X.21 interface.

Switch S2

SW	Function	Position A	Position B
S2-1	Network Line Code	AMI	HDB3
S2-2	Network Framing	CCITT CRC4	CCITT CCS
S2-3	Network Clock Source	Internal Clock	Loop Timed Network RXD
S2-4	Internal Clock Source	DSU EXTC Clock Input	Crystal Oscillator
S2-5	CTS, DCD, and DSR Control	Control On	Control Normal
S2-6	Data Polarity	Data Normal	Data Inverted
S2-7	T1 Network Loop Function	Loop Enabled	Loop Inhibited

Bit Rate Table

TS	S1	S2	S3	S4	S5	S6=A	S6=B
1	B	B	B	B	B	56 kbps	64 kbps
1	A	B	B	B	B	56 kbps	64 kbps
2	B	A	B	B	B	112 kbps	128 kbps
3	A	A	B	B	B	168 kbps	192 kbps
4	B	B	A	B	B	224 kbps	256 kbps
5	A	B	A	B	B	280 kbps	320 kbps
6	B	A	A	B	B	336 kbps	384 kbps
7	A	A	A	B	B	392 kbps	448 kbps
8	B	B	B	A	B	448 kbps	512 kbps
9	A	B	B	A	B	504 kbps	576 kbps
10	B	A	B	A	B	560 kbps	640 kbps
11	A	A	B	A	B	616 kbps	704 kbps
12	B	B	A	A	B	672 kbps	768 kbps
13	A	B	A	A	B	728 kbps	832 kbps
14	B	A	A	A	B	784 kbps	896 kbps
15	A	A	A	A	B	840 kbps	960 kbps

Bit Rate Table

TS	S1	S2	S3	S4	S5	S6=A	S6=B
16	B	B	B	B	A	896 kbps	1.024 Mbps
17	A	B	B	B	A	952 kbps	1.088 Mbps
18	B	A	B	B	A	1.008 Mbps	1.152 Mbps
19	A	A	B	B	A	1.064 Mbps	1.216 Mbps
20	B	B	A	B	A	1.120 Mbps	1.280 Mbps
21	A	B	A	B	A	1.176 Mbps	1.344 Mbps
22	B	A	A	B	A	1.232 Mbps	1.408 Mbps
23	A	A	A	B	A	1.288 Mbps	1.472 Mbps
24	B	B	B	A	A	1.344 Mbps	1.536 Mbps
25	A	B	B	A	A	1.400 Mbps	1.600 Mbps
26	B	A	B	A	A	1.456 Mbps	1.664 Mbps
27	A	A	B	A	A	1.512 Mbps	1.728 Mbps
28	B	B	A	A	A	1.568 Mbps	1.792 Mbps
29	A	B	A	A	A	1.624 Mbps	1.856 Mbps
30	B	A	A	A	A	1.680 Mbps	1.920 Mbps
31	A	A	A	A	A	1.736 Mbps	1.984 Mbps



127 Jetplex Circle
Madison, Alabama 35758

Customer Service
888-4TxPORT, ext. 2227
800-926-0085, ext. 2227

Technical Support
(8 a.m. to 5 p.m. Central)
888-4TxPORT
800-285-2755
205-772-3770

Emergency After Hours
800-285-2755