

T1 Access Series TRM01

Fractional T1 Concentrator



The TRM01 series is a rack type T1 DSU/CSU for Fractional T1 Digital Access which is nested in a hub to provide solution for central office installations. There are 13 slots available for G.703 T1 cards for installation into the TRM01 RACK. An optional SNMP card can be installed into the last slot for configuration and management, leaving 12 slots available for line cards. The SNMP card provides both local control via an RS-232 console port and remote management using industry standard SNMP protocol via an Ethernet 10BASE-T connection.

Each T1 card may be linked to a remote TTU01 standalone T1 Access Unit for various LAN, Video Conference, or Hosts over T1 network services. The TRM01 accommodates a redundant power supply as optional equipment, which may derive power from AC (90-250) or DC (-48V) power sources. On the rear panel, RJ-45 and Terminal Blocks are utilized for T1 Line interface connectors. Adapter cables are used to convert the DB-26F DCE data ports to V.35, RS-530, X.21, or 10/100Base-T Ethernet bridge operation.

Features

- All Interface and connectors are on the Rear Panel
- Digital Cross Connect Solution in a Standard 19" Rack
- High density & compact design in a 4U high rack
- Hot Swapping of cards and redundant power supplies supported
- LED Line status display on each card
- Optional Power Source, AC or DC for power supplies
- Standard console port allows terminal to setup and monitor operation locally
- Up to 13 cards can be installed

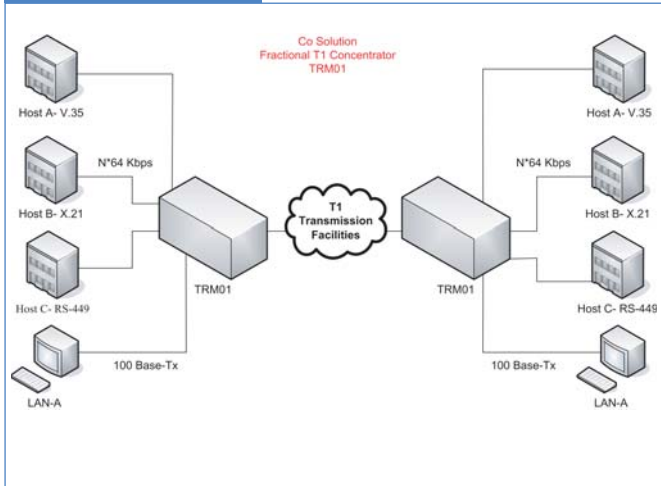
Specifications

T1 & Sub-T1 Link Specification		
Framing	Unframed/ Framed/ SF (D4)/ ESF	
Bit rate	1.544Mbps	
Line code	AMI/ B8ZS	
Line impedance	100 Ohms (balanced)	
Relative receive level	0 to -36dB	
Jitter performance	According to ITU-T G.824	
Transmit level	Pulse amplitude	Nominal 3.0V ±20%
	Zero amplitude	±0.1V
Connectors	5 Pin Wire Connector & Shielded RJ-45 (balanced)	
Transmit frequency tracking	Internal timing	±30 ppm
	Loopback timing	±50 ppm
	External timing	±100 ppm
Return loss	12dB for 51 — 102KHz	
	18dB for 102 — 2048KHz	
	14dB for 2048 — 3072KHz	
Compliance	ANSI T1.403, AT&T TR-62411, ITU G.703, G.704, G.706, G.733	

General Specification		
Craft port	RS-232, DB9F: 19200, 8, N, 1	
Power	AC	90 — 250VAC
	DC	-42 — -55VDC
Environment	Temperature	0 — 60°C (Operating); 0 — 70°C (Storage)
	Humidity	0 — 90% non condensing
Power Consumption	10W	
LEDs	Syns Loss, Signal Loss, Alarm (AIS, MRAI, RAI), TD, RD, Error, Test	
Dimensions(WxDxH)	285mm x 438mm x 180mm	
Weight	6.6Kg (Chassis +1 power card)	
	250g (Per line card)	

User Data Channel Specification		
Interface types	RS-530/RS-449/RS-232	
	X.21/V.35	
	10/100Base-T Ethernet Bridge	
	10/100Base-T Ethernet Router	
Connector	High density DB26 Female	
Line code	NRZ (except bridge)	
Data Rate	N x 56Kbps or N x 64Kbps, Where N equal 1 to 24	
Time slot allocation	User defined	
Control signals	CTS constantly ON	
	DSR constantly ON, except during test loops	
	DCD constantly ON or follows RTS, except during signal loss	
Alarm LED	Sync Loss, Signal Loss, Alarm (AIS, MRAI, RAI), TD, RD, Error, Test.	
Loopback	Local analog loopback; Payload loopback; Digital loopback; Remote loopback	
Clock modes	Clock mode 0 (DCE1)	Rx & Tx clocks (recovered) to the sync. DTE
	Clock mode 1 (DCE2)	Rx & Tx clocks (internal oscillator) to the sync. DTE
	Clock mode 2 (DTE1)	Rx clock to the sync. Device, Tx clock from the sync. Device
	Clock mode 3 (DTE2)	Rx & Tx clocks from the sync. DCE (from ETC and ERC pin)
	Clock mode 4 (DTE3)	Rx & Tx clocks from the sync. DCE (all from ETC pin)

Application



Ordering Info



TRM01-SNMP

Optional Networking Management Module

TRM01-SNMP	SNMP plug-in card with both interface: RS-232 and 10Base-T
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TRM01-ET100R

Optional Card for ERM01 (Without optional adapter cables)

TRM01-V35	LTU card: T1 to V.35 card
TRM01-ET100	LTU card: T1 to 10/100Base-T Bridge
TRM01-Serial	LTU card: FT1 to RS-530, X.21, RS-449
TRM01-ET100	LTU card: FT1 to 10/100 Base-TX Router

Master Unit: Rack Mount ERM01 Chassis

TRM01/AC-CH	19 inch, 4U rack mount chassis for AC power
TRM01/DC-CH	19 inch, 4U rack mount chassis for DC power

Power Module for ERM01

RM01/AC	AC power plug-in module
RM01/DC	DC 48V power plug-in module

Cable (Non-included item)

CAB-HD26MB34M-V35	V.35 adapter cable	HD26 male to MB34 male, 2 meter
CAB-HD26MB34F-V35	V.35 adapter cable	HD26 male to MB34 female, 2 meter
CAB-HD26RJ45F-ET10	Ethernet adapter	HD26 male to RJ-45 female
CAB-HD26DB15M-X21	X.21 adapter cable	HD26 male to DB15 male, 2 meter
CAB-HD26DB15F-X21	X.21 adapter cable	HD26 male to DB15 female, 2 meter
CAB-HD26DB37M-449	RS-449 adapter cable	HD26 male to DB37 male, 2 meter
CAB-HD26DB37F-449	RS-449 adapter cable	HD26 male to DB37 female, 2 meter
CAB-HD26DB25M-530	RS-530 adapter cable	HD26 male to DB25 male, 2 meter
CAB-HD26DB25F-530	RS-530 adapter cable	HD26 male to DB25 female, 2 meter