

E1 Access Series ERM01



E1 and Fractional E1 Concentrator

The ERM01 series is a rack type E1 DSU/CSU for unframed E1 and Fractional E1 Digital Access which is nested in a hub to provide solution for central office installations. There are 13 slots available for G.703 E1 cards for installation into the ERM01 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 Craft port and remote management using industry standard SNMP protocol via an Ethernet 10/100BASE-TX connection. A window(r) based GUI software is available to aid in configuring the chassis in a graphical environment.

Each E1 card may be linked to a remote E1/FE1 standalone Access Unit for various LAN, Video Conference, or Hosts over E1 network services. The ERM01 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, BNC, RJ-45 and Terminal Blocks are utilized for E1 Line interface connectors. Adapter cables are used to convert the DB26F DCE data ports to V.35, RS-530, X.21 or 10/100 Base Ethernet.

Features

- Terminates E1/ Fractional E1 service
- Hot swappable line cards
- Both unframed and Fractional E1 types
- Datacom, Ethernet Bridge or Router
- All connection on rear panel
- SNMP enabled device
- Supported by CTC's EMS

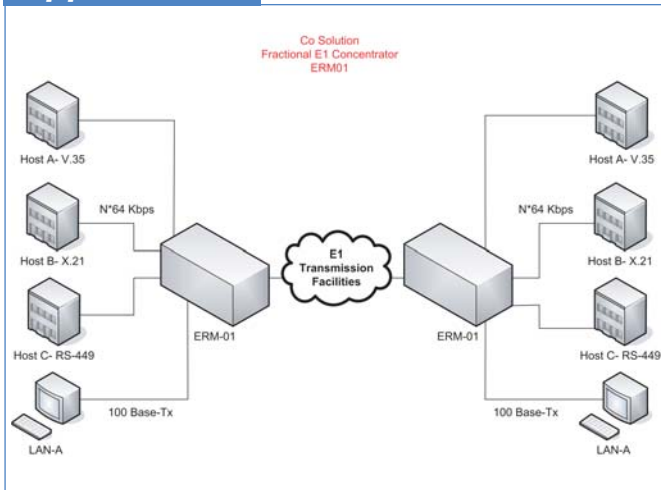
Specifications

E1 & Sub-E1 Link	
Frame format	Unframed/ Framed CCS(PCM31)/ CAS(PCM30)/ CRC4 on/off
Bit rate	2.048Mbps ±50 ppm
Line Code	AMI/ HDB3
Receiving level	0 to -43dB
Line Impedance	75 ohm(BNC)/ 120 ohm(Molex, RJ-45)
Jitter Performance	According to ITU-T G.823
Pulse amplitude	Nominal 2.37V ±10% for 75ohm Nominal 3.00V ±10% for 120ohm
zero amplitude	±0.1V
Connector	BNC for unbalanced 5 Pin Wire and RJ-45 for 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	ITU-T G.703, G.704, G.706 and G.732 and ETSI ETS 300 420

User Data Channel Specification									
Interface types	RS-530/ RS-449/ RS-232 X.21/ V.35 10/100Base-TX Ethernet Bridge 10/100Base-TX Ethernet Router								
Connector	High density DB26 Female								
Line code	NRZ (except bridge and router)								
Data Rate	N x 56Kbps or N x 64Kbps, Where N equals 1 to 32								
Time slot allocation	User defined; E1-U is unframed only								
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; Digital loopback; remote loopback								
Clock modes	<table border="1"> <tr> <td>Clock mode 0 (DCE1)</td> <td>Rx & Tx clocks (recovered) to the sync. DTE</td> </tr> <tr> <td>Clock mode 1 (DCE2)</td> <td>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</td> </tr> <tr> <td>Clock mode 3 (DTE2)</td> <td>Rx & Tx clocks from the sync. DCE (from ETC and ERC pin)</td> </tr> <tr> <td>Clock mode 4 (DTE3)</td> <td>Rx & Tx clocks from the sync. DCE (all from ETC pin)</td> </tr> </table>	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)
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General Specification	
Console port	RS-232, DB9F: 19200, 8, N, 1
Power	AC 90 — 250VAC
	DC -42 — -55VDC, 50 — 60Hz
Environment	Temperature 0 — 60°C (Operating); 0 — 70°C (Storage)
	Humidity 0 — 90% non condensing
Power Consumption	80W
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)

Application



Ordering Info



ERM01-SNMP

Optional Networking Management Module

ERM01-SNMP	SNMP plug-in card with both interfaces: RS-232 and 10/100 Base-TX, windows GUI software, proprietary MIB-II file
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ERM01-ET100R

ERM01-SERIAL

Card for ERM01 (without optical adapter cables)

ERM01-V35	LTU card: FE1 to V.35
ERM01-ET100	LTU card: FE1 to 10/100 Base-TX Bridge
ERM01-ET100R	LTU card: FE1 to 10/100 Base-TX Router
ERM01-SERIAL	LTU card: FE1 to Serial: RS-530/ RS-499/ X.21
ERM01-V35-U	LTU card: Unframed E1 to V.35
ERM01-ET100-U	LTU card: Unframed 10/100 Base-TX Bridge
ERM01-ET10R-U	LTU card: Unframed E1 to 10/100 Base-TX Router
ERM01-SERIAL-U	LTU card: Unframed E1 to Serial: RS-530/ RS-499/ X.21 (with selected cable)

Master Unit: Rack Mount ERM01 Chassis

ERM01/AC-CH	19 inch, 4U rack mount chassis for AC
ERM01/DC-CH	19 inch, 4U rack mount chassis for DC

Power Module for ERM01

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

Cable (Not-included items)

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