

CLR-PDH-FMx Series

4/8/16 * E1 + Eth to Fiber Optik Converter SM SC 20km



Overview

CLR-PDH-FMx series E1+Eth Fiber Modem is a high-performance E1 fiber optic modem developed by using a dedicated integrated circuit. It is to modulate unframed E1 data and ethernet signals directly into single or multi-mode optic fiber for a transmission over fiber optic line. At the other end of the optic cable, optical signal is demodulated into unframed E1 data signal and ethernet. This is achieved in reaching a longer distance without a repeaters and superior performance compared to copper media. The outer design use the standard 19 inches rack.

The 2Mbps (E1 or PRI) interfaces can connect with the exchange, PBX, light loop device and multi-diplexer directly. The Ethernet interface can be operated in 10M/100M, half duplex or full duplex mode by either auto-negotiation or manual setting. It is stable and easy to do maintenance and installation, and small in size.

It is compliant to international standards, so that it can communicate with other manufacturers' products which adopt same standards.

Features

- E1 characteristic conforms to ITU-T G.703, G.823 and G.742
- Unframed E1 mode
- Balanced 120Ω interfaces
- Provides 4/8/16 x E1 G.703 transparent transmission over the fiber.
- 1+0 or 1+1 optical protection optional.
- Provide 4 x 100 Mbit/s Ethernet channels, Ethernet **speed** can be set for each port.
- Speed of optical port is 155Mbps, transmission range can reach 25Km
- E1 interface code is HDB3
- Ethernet port supports full/half duplex, 10M/100M auto-adaptable
- Ethernet port supports dot1Q VLAN
- Simultaneous 4 E1 & 100 Mbit/s full duplex operation
- LED indicators for alarm function and can monitor remote device status
- DIP switch settings
- Supports E1 local and remote loopback for installation

Specifications

Optical interface

Line mode type	CMI
Optical wavelength	850/1310nm for multi-mode fiber, 1310/1550nm for single-mode fiber
Optic fiber connector	SC/FC (optional)
Transceiver Module	> -8dBm (for 1310nm single mode 20km optical module)
Optical receiver sensitivity	<-36(BER<10) (for 1310nm single mode 20km optical module)
Transmission distance	multi-mode 2Km, single-mode 20Km

E1 interface

Channel capacity	4/8/16 Channels
Bit Rate	2.048 Mb/s ±50 ppm
Line Code	HDB3
Impedance	120 Ohm / 75 Ohm optional
Connector	RJ45 / BNC optional
Pulse Shape	ITU-T G.703
Jitter Performance	ITU-T G.823
Clock mode	internal-clock, external-clock

Ethernet interface

Interface Speed	10/100Base-TX
Duplex mode	half / full duplex
Standards	IEEE802.3U, IEEE802.3x, IEEE802.1Q
Connector	RJ45

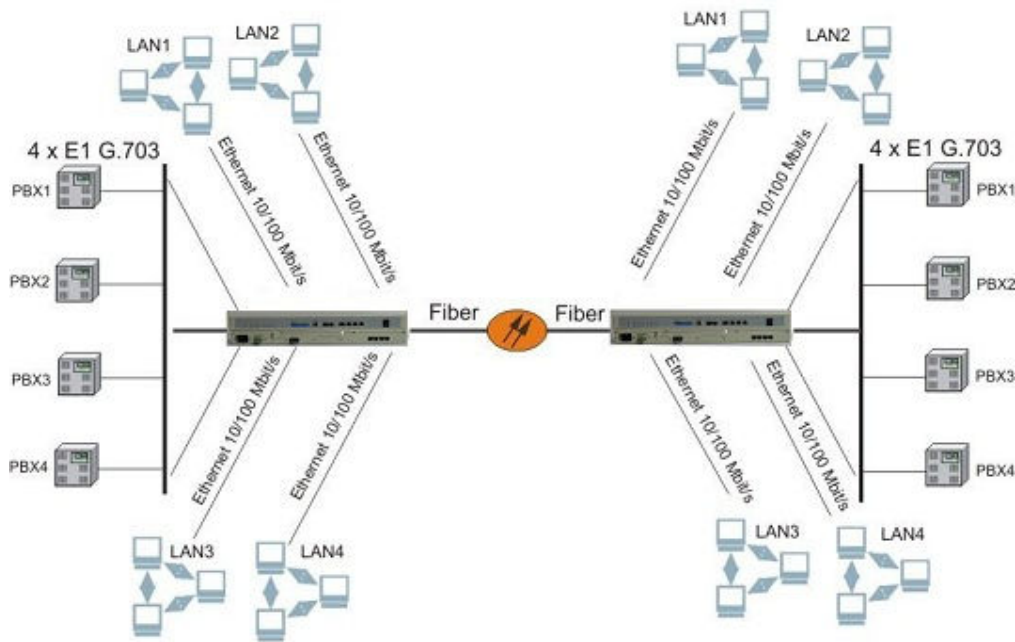
Architecture

Mounting	19", 1U, rack mountable
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Power supply

DC	-48V (-36 to -72V)
AC	-85 to 264 VAC ; 47 ~ 63Hz)
Power consumption	≤ 10 W
Power connection	DC power terminal / AC socket
Operating temperature	0°C ~ 50°C
Storage temperature	-20°C ~ 80°C
Humidity	5% ~ 90% (free of condensate)

Application Diagram



Ordering Information

CLR-PDH-FM100	1 * E1 RJ45 to Fiber Optic Converter SM SC 20km
CLR-PDH-FM400	4 * E1 RJ45 to Fiber Optic Multiplexer SM SC 20km
CLR-PDH-FM404	4 * E1 RJ45 + 4 Ethernet to Fiber Optic Multiplexer SM SC 20km
CLR-PDH-FM800	8 * E1 RJ45 + Ethernet to Fiber Optic Multiplexer SM SC 20km
CLR-PDH-FM804	8 * E1 + 4*10/100 Ethernet to Fiber / Optik Multiplexer SM SC
CLR-PDH-FM160	16 * E1 RJ45 to Fiber Optic Multiplexer SM SC 20km
CLR-PDH-FM164	16 * E1 + 4*10/100 to Fiber / Optik Multiplexer SM SC 20km