Frame E1 to fiber converter   HPO-FE1

Spot-light:

The **FE1 to fiber converter** family are standalone and rack mountable fiber 1 x E1 G.704 framed modems / converters available in a number of different models, with AC or DC power supplies built in.

Description:

FE1 to fiber converter is advanced version of unframed E1 G.703 fiber model converter. As it is widely known, G.703 is typically transported over balanced 120 ohm twisted pair cables terminated in RJ48C jacks. However, some telephone companies use unbalanced (dual 75 ohm coaxial cables) wires, also allowed by G.703. Distance in this cases does not exceeds 100 m, and that is serious drawback. One way is use the GSHDSL modems, what can help extend the distance for several kilometers, but this usually are not stable, copper pairs due to high copper cost got stolen, and this way is not stable against interference.

FE1 to fiber converter is a fiber media transport for 1 x G.703 E1 framed/fractional transmission. The BNC model provides unbalanced 75 Ohm coaxial connections while the RJ-45 model provides balanced 120 Ohm connections over twisted pair wiring.

Features:

- Conforms to all relevant ITU series standards(ITU-T G.703 G.704 G.823),
- Transfer 1 E1 over fiber, framed and unframed E1 optional
- Capable to be communicated with V.35 fiber modem
- Both 75 Ohm and 120 Ohm in the same unit
- LED indicate local status and remote status, easy to understand easy to use
- Based on self -copyright IC.
- DIP switch management
- Provide 2 clock types: E1 internal clock, E1 external clock.
- Provide both local loopback and remote loopback.
- Support pseudo-random code test function, providing convenience for the test of optic fiber line status. E1 can support rate N*64k (N=1 to 32)
- Provide 2 impedances: 75 Ohm unbalance and 120 Ohm balance.

Specifications

E1 interface:

Channel capacity: 1 Channels

Interface Rate: n x 64Kbps (n=1~ 32)

Bit Rate: 2.048 Mb/s ±50 ppm

Line Code: HDB3

Line Impedance: 120 Ohm and 75 Ohm

Connector: BNC and RJ 48

Pulse Shape: ITU T G.703; G.704

Jitter Performance: ITU T G.823

Clock mode: internal clock, external clock

Optical interface:

Line mode type: CMI

Optical wavelength: 850/1310nm for multi mode fiber, 1310/1550nm for single mode fiber.

Optical interface: SC/FC (Optional)

Transceiver module: > 8dBm (for 1310/1550nm single mode 40km optical module)

Optical receiver sensitivity: < 36(BER<10) (for 1310/1550nm single mode 40km optical module)

Transmission distance: multi mode 2 Km, single mode 20/40 /60/ 80 /120 Km, **WDM** available for different distances

Mechanical:

Dimension: 140mm(D)*42mm(H)*210mm(W)

Power supply:

DC: -48V (-36 to -72V);

AC: 85 to 264 VAC ; 47 ~ 63Hz

Power Interface: DC power terminal/AC socket

Power Consumption: ≤ 3 W

Environmental:

Operation temperature:0℃～50℃

Storage temperature:-20℃～80℃

Humidity: 0～90%(no condensation)