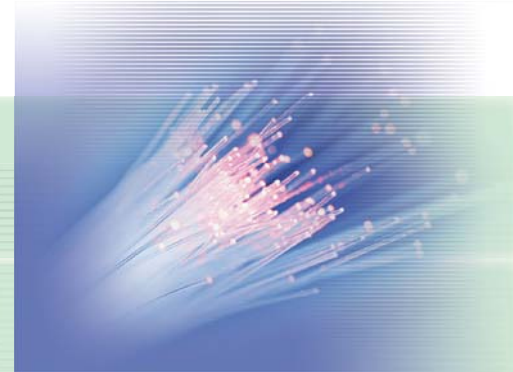


# Fiber Managable Platform E1/T1 to Fiber Converter Family

## FIB1-E1R/E1B/T1B



FIB1-E1R  
FIB1-E1B

The FIB1 Family is the standalone fiber media converter available in a number of different models that also act as line cards for placement in the FRM301 Platform Media Converter Chassis. The FIB1-E1 is a fiber media transport for G.703 E1 transmission. The BNC model provides unbalanced 75 Ohm coaxial connections while the RJ-45 model provides balanced 120 Ohm connections over twisted pair wiring. The FIB1-T1 is a fiber media transport for G.703 T1 transmission and features an RJ-45 connector for connection to 100 Ohm twisted pair wiring. All media converters are available with either multi-mode or single-mode optical transceivers and with connectors for SC, ST, or FC. In single mode, WDM (Wave Division Multiplexing with SC connector) is also available in 20 or 40KM reach which will provide the ability to transmit and receive data using only a single optical fiber.

When the FIB1-E1 or T1 card is placed in the FRM301 rack with SNMP management, the card status, type, version, fiber link status, E1 or T1 link status and alarms can all be displayed. Configuration is also available to enable or disable the port, reset the port, do far end fault setting, and initiate local or far end loopback tests.

### Features

- T1/E1 RJ45/RJ48 or Coax to Fiber converter
- Supports multimode, single-mode, and single fiber with ST, SC, or FC connectors
- User selectable line code setting, Far End Fault (FEF) setting, Loop back test
- LED indicators - Power, Fiber Link, Line (E1 or T1) Link, Test mode
- Network Management via Terminal or SNMP card (when installed in or connected to FRM301 rack)
- Supports AMI or B8ZS/HDB3 line codes

### Technical Specifications

#### E1 Technical Specifications

- Ports 1 port
- Standards ITU-T G.703, G.704, G.706, G.732, G.823
- Framing Unframed (transparent clear channel)
- Data rate 2.048 Mbps
- Line Code HDB3/AMI
- Receive Level Long haul - 43dB
- Line impedance 75 ohms for FIB2-E1B  
120 ohms for FIB2-E1R
- Connector BNC for 75 ohms  
RJ-45 for 120 ohms

### General Specifications

#### Power Supply

- AC Power Adapter Input: 110 VAC +/- 10% ; Frequency: 57~63 Hz  
Output: DC 9V, 1A
- Power consumption <4W
- EMI FCC Class A, CE (EN55022), (EN60950)

#### Physical

- Dimension: 122.6 x 85.6 x 20 mm (H x W x D)
- Weight 11 Oz (340g)
- Temperature 0 - 50°C (Operating) ; 0 - 70°C (Storage)
- Humidity 20 - 80 % non-condensing (Operating)  
10 - 90 % (Storage)

#### T1 Technical Specifications

- Ports 1 port
- Standards ITU-T G.703, G.704, AT&T TR-62411, ANSI T1.403
- Framing Unframed (transparent clear channel)
- Data rate 1.544 Mbps
- Line Code B8ZS/AMI
- Receive Level Long haul - 36dB
- Line impedance 100 ohms for FIB2-T1R
- Connector RJ-45 for 100 ohms

# Fiber Managable Platform E1/T1 to Fiber Converter Family

## FIB1-E1R/E1B/T1B

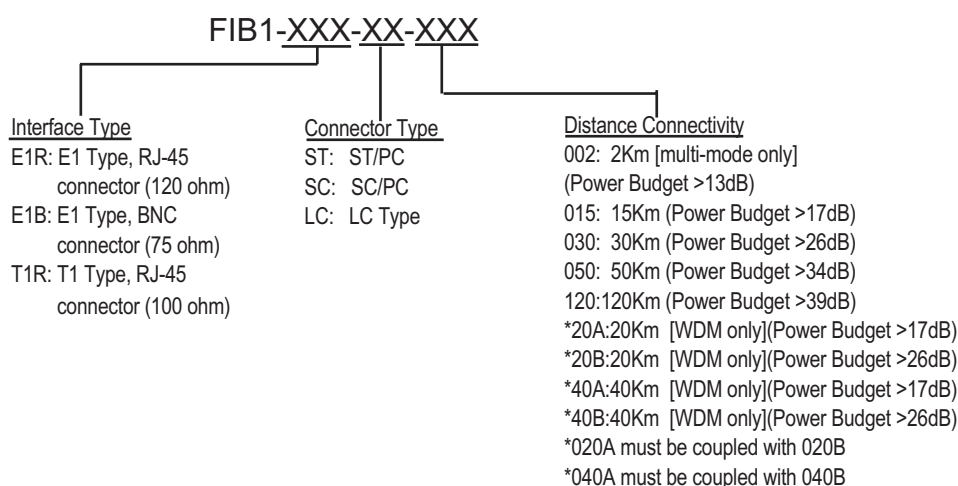


### Optical Specifications

Type	Standard Types					WDM Types*			
	M-M	S-M	S-M	S-M	S-M	S-M	S-M	S-M	S-M
Distance (Km)	2	15	30	50	120	20(A)*	20(B)*	40(A)*	40(B)*
Wavelength (nm)	1310	1310	1310	1310	1550	Tx:1310	Tx:1550	Tx:1310	Tx:1550
						Rx:1550	Rx:1310	Rx:1550	Rx:1310
BER	<10 <sup>-10</sup>	<10 <sup>-10</sup>	<10 <sup>-10</sup>	<10 <sup>-10</sup>	<10 <sup>-10</sup>	<10 <sup>-10</sup>	<10 <sup>-10</sup>	<10 <sup>-10</sup>	<10 <sup>-10</sup>
Sensitivity	-31dBm	-32dBm	-35dBm	-36dBm	-35dBm	-32dBm	-32dBm	-32dBm	-32dBm
Output Power	-20dBm	-20dBm	-15dBm	-8dBm	0 dBm	-18dBm	-15dBm	-10dBm	-7dBm
Power Margin	11dB	12dB	20dB	28dB	35dB	14dB	17dB	22dB	25dB
Return Loss	-12dBm	-12dBm	-12dBm	-12dBm	-12dBm	-14dBm	-14dBm	-14dBm	-14dBm
Conn. Types	ST	v	v	v	v				
	SC	v	v	v	v	v	v	v	v
	LC	v	v	v	v				
	MT-RJ	v	v	v	v				
	FC	v	v	v	v				

M-M: multi-mode S-M: single-mode  
 \* WDM types must match (A) with (B) in pairs

### Ordering Information



**Example:**

FIB1-E1R-SC-120      FIB1 unit, with E1 RJ-45 connectors, one single mode 120 Km, SC type connector optical interface

FIB1-E1B-SC-40A      FIB1 unit with E1 BNC connectors, one WDM 40 Km, SC type connector optical interface (Must be coupled with FIB1-E1B-SC-40B)

*\*Special note for WDM : Because WDM utilizes different wave lengths on the same physical fiber cable, the WDM units must be matched in pairs (which we designate as A and B). Failure to match in pairs (A unit to B unit) will not allow any transmission on the fiber link as the transmit wavelength of one unit in the pair must match the receive wavelength of the other unit in the pair.*