

FIB1-1000

Gigabit Fiber Converters

NEW!

The **FIB1-1000** is a standalone optical fiber media converter for 1000Base Ethernet to fiber that also provides NMS functions for Link-Loss-Forwarding, Remote-Monitoring-Status, and Loop-Back-Test. These optional features are especially useful when the standalone units are linked to one of our rack type units with SNMP management. When auto-negotiation is selected, these units will automatically tailor themselves to convert both half-duplex and full-duplex signals, depending on your specific network needs. Another unique feature of the **FIB1-1000** converter is the use of a common PCB card which may either be placed in the rack (FRM301 series line card) or used as a standalone converter (FIB1 series). When installed in an FRM301 rack with SNMP, network administrators are able to manage any converter module from anywhere on the network, detect any loss and maintain each loop.



Features

- Complies with IEEE 802.3ab, 1000Base-TX, IEEE 802.3z, 1000Base-SX/LX Gigabit Ethernet Standards.
- Provides one 1000Base-TX port, one 1000Base-SX/LX port, voltage 3.3V {SX-Multi-mode, LX-Single-mode}
- Three versions supports fixed SC or LC connector types, GBIC socket with SC, or SFP with LC. Sockets allow easy replacement of the snap-out transceiver modules.
- Supports Full-duplex and Half-duplex mode for the Fiber and LAN ports.
- Automatic MDI/MDX crossover function.
- 6 diagnostic LEDs for Power, TX link/transmit, FX link/transmit, Full/Half Duplex mode, CPE, LLF and LBT.
- Advanced Features:
 - 1) Supports Link-Loss-Forwarding function via front panel DIP switch.
 - 2) Support for the Loop-Back test via front panel DIP switch.
 - 3) Supports remote monitor status via front panel DIP switch.

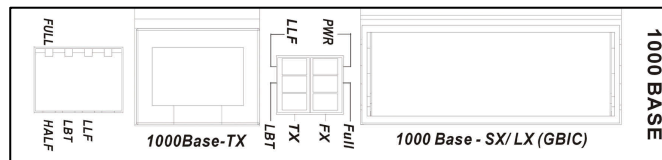
Specifications

Environment

Temperature	0 - 50°C (Operating); 0 - 70°C (Storage)
Humidity	20-80% non condensing (Operating) 10-90% (Storage)
Dimensions	122.6mm x 85.6mm x 20mm (LxWxH)
Weight	0.663lbs (300g)

Power Module Specification

AC Power Module Input :	Universal 90 ~ 264 VAC;
	Frequency : 47~63 Hz
	Output : DC 12V, 8.5A
EMI :	FCC Class A, CE (EN55022) (EN60950)
Power Consumption :	< 4W



Ordering Information

FIB1-1000- X / XX XXX F

Fiber Type

S: Single Mode
M: Multi-Mode

Connector Type

SC: SC/PC
GB: GBIC-SC
LC: LC
SL: SPF-LC






Distance Connectivity

055: 550m [multi-mode only]
(Power Budget >13dB)
010: 10Km (Power Margin >10.5dB)
030: 30Km (Power Margin >18dB)
050: 50Km (Power Margin >19dB)

Example:

FIB1-1000S/SC030F	Single Mode, SC Type Connector, 30 Km with Advanced Features
FIB1-1000M/GB055F	Multi-mode, GBIC Type Connector, 550 m with Advanced Features
FIB1-1000S/SL80F	Single Mode, SPF-LC Type Connector, 80 Km with Advanced Features

Media Converter Module Specification Comparison

Model No.	FIB1-100		FIB1-10/100		FIB1-10/100WA		FIB1-10/100WB		FIB1-1000	
										
Available Connectors	ST	√	ST	√	ST		ST			
	SC	√	SC	√	SC	√	SC	√	SC	√
	LC	√	LC	√	LC		LC		LC	√
	MT-RJ	√	MT-RJ	√	MT-RJ		MT-RJ		GBIC-SC	√
	FC	√	FC	√	FC		FC		SFP-LC	√
Fiber	Multi/Single -mode		Multi/Single-mode		Single Fiber (Bi-directional)		Single Fiber (Bi-directional)		Multi/Single -mode	
Transmission distance	MM	2Km	MM	2Km	SM	20 Km	SM	20 Km	MM	550m
	SM	15Km	SM	15Km					SM	10Km
	SM	30Km	SM	30Km	SM	40 Km	SM	40 Km	SM	30Km
	SM	50Km	SM	50Km					SM	50Km
	SM	120Km	SM	120Km					SM	80Km
Wavelength (nm)	MM-2Km	1310	MM-2Km	1310	SM-20Km	TX: 1310 RX: 1550	SM-20Km	TX: 1550 RX: 1310	MM-550m	850
	SM-15Km	1310	SM-15Km	1310					SM-10Km	1310
	SM-30Km	1310	SM-30Km	1310	SM-40Km	TX: 1310 RX: 1550	SM-40Km	TX: 1550 RX: 1310	SM-30Km	1310
	SM-50Km	1310	SM-50Km	1310					SM-50Km	1310
	SM-120Km	1550	SM-120Km	1550					SM-80Km	1550
Protocol	IEEE802.3u		IEEE802.3/802.3u		IEEE802.3/802.3u		IEEE802.3/802.3u		IEEE802.3z	
Diagnostic LEDs	PWR, FX DPLX, FX LNK, TP LNK TP DPLX		PWR, FX DPLX, FX LNK, TP LNK TP DPLX, TP Speed		PWR, FX DPLX, FX LNK, TP LNK TP DPLX, TP Speed		PWR, FX DPLX, FX LNK, TP LNK TP DPLX, TP Speed		PWR, DPLX, FX LNK, TP LNK LBT, LLF LNK	
Duplex mode	Full or Half duplex		Full or Half duplex		Full or Half duplex		Full or Half duplex		Full or Half duplex	
Frame Per Second (Min-1536 B/F)	8033fps		803/8033fps		803/8033fps		803/8033fps		80330fps	
Frame Per Second (Max-64 B/F)	148810fps		14881/148810fps		14881/148810fps		14881/148810fps		1488100fps	
MTBF(hour)	60949		60949		60949		60949		60949	
Bit Error Ratio (BER)	Better than10e-10		Better than10e-10		Better than10e-10		Better than10e-10		Better than10e-10	
Buffer memory	NA		128KB		128KB		128KB		NA	
MDI / MDX	switchable		switchable		switch able		switchable		automatic	
Sensitivity	M02	-31 dBm	M02	-31dBm	SM (20Km)	-32dBm	SM (20Km)	-32dBm	M0.55	-18dBm
	S15	-32dBm	S15	-32dBm					S10	-20dBm
	S30	-35dBm	S30	-35dBm	SM (40Km)	-32dBm	SM (40Km)	-32dBm	S30	-20dBm
	S50	-36dBm	S50	-36dBm					S50	-23dBm
	S120	-35dBm	S120	-35dBm					S80	-23dBm
Output Optical Power	M02	-14dBm	M02	-14dBm	SM-20Km	≥7dBm	SM-20Km	≥-18dBm	M0.55	-9.5dBm
	S15	-7dBm	S15	-7dBm					S10	-9.5dBm
	S30	-7dBm	S30	-7dBm	SM-40Km	≥-3dBm	SM-40Km	≥0dBm	S30	-4dBm
	S50	+2dBm	S50	+2dBm					S50	-4dBm
	S120	0dBm	S120	0dBm					S80	0dBm
Power Margin	M02	11dB	M02	11dB	SM-20Km	17dBm	SM-20Km	14dBm	M0.55	8.5dB
	S15	12dB	S15	12dB					S10	10.5dB
	S30	20dB	S30	20dB	SM-40Km	25dBm	SM-40Km	22dBm	S30	18dB
	S50	28dB	S50	28dB					S50	19dB
	S120	28dB	S120	28dB					S80	23dB
Return Loss	-12dBm		-12dBm		-14dBm		-14dBm			
Dimensions (mm)	122.6 x 85.6 x 20 (LxW xH)		122.6 x 85.6 x 20 (LxW xH)		122.6 x 85.6 x 20 (LxW xH)		122.6 x 85.6 x 20 (LxW xH)		122.6 x 85.6 x 20 (LxW xH)	
Weight	155g		155g		155g		155g		300g	
Ambient Temperature	0~70° C		0~70° C		0~70° C		0~70° C		0~50° C	
Humidity	10%~90%		10%~90%		10%~90%		10%~90%		10%~90%	
Power	+9V / 1A		+9V / 1A		+9V / 1A		+9V / 1A		+12V / 1A	
Power Consumption	<2W		<2W		<2W		<2W		<4W	
EMI	FCC Class A/CE		FCC Class A/CE		FCC Class A/CE		FCC Class A/CE		FCC Class A/CE	

MM: Multi-Mode ; SM: Single-Mode W: WDM (A type must be coupled with B type)