



T1 and E1 Fiber Modem

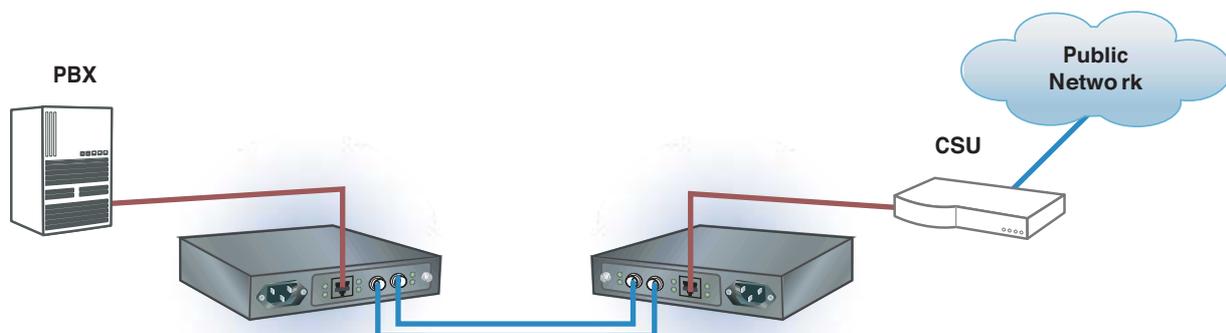


Overview

The EM316T1 and the EM316E1 modules of the Fiber Driver™ family are designed to extend the distance and transmission reliability of T1 (1.544Mbps) or E1 (2.048Mbps) traffic. These units convert the electrical signals to optical signals and transmit them over distances of up to 10 km on Multimode fiber, or distances of up to 100 km on Singlemode fiber. The EM316T1 and EM316E1 are transparent to the framing format, and support AMI or B8ZS (T1) and HDB3 (E1) line codes, respectively. They include an internal elastic buffer to remove jitter from the transmitted data. Six LED indicators aid in monitoring and trouble-shooting this module. A management agent is incorporated on the module to enable management in conjunction with the Fiber Driver EM316NM management card. As part of the Fiber Driver family, the EM316T1 and EM316E1 modules fit in all Fiber Driver chassis types, support local and remote loopback tests, and can be used to interconnect between any T1 or E1 devices. Among the types of T1/E1 devices that can be connected by these modules are PBXs, multiplexers, video CODECS, routers, network servers, and ATM/frame relay switches. Benefits include extended distances, improved quality of transmission, better security, remote management capability, and high density.

Features

- Provide fiber link for T1 (ANSI T1.403) or E1 (G.703) applications
- Built-in elastic buffer to remove jitter
- 6 LED indicators to help troubleshooting
- Support AMI/B8ZS/HDB3 line codes
- Up to 100 km transmission on Singlemode or 10 km on Multimode fiber
- Some models support Single Fiber Singlemode
- Local & remote loopback test
- Hot swappable
- SNMP managed
- Fits in all Fiber Driver chassis



Datasheet

Physical Specifications: T1 /E1 Fiber Modems

Operating Temperature Range:	0°C to 50°C (32°F to 122°F)
Storage Temperature:	-10°C to 60°C (-14°F to 140°F)
Relative Humidity:	85% maximum, non-condensing
Physical Dimensions:	25 mm x 75 mm x 175 mm deep (1" x 3" x 7" deep)
Weight:	120 - 240 g (4.2 - 8.5 oz) depending on configuration
Emission Compliance:	FCC - PART 15, SUBPART B, 1999, CLASS A; CE MARK - EN 50081-1:1992; EN 50082:1997; EN 55024:1998; EN 55022:1998; AS/NZS 3548:1995

T1 Electric Interface		E1 Electric Interface	
Transmission Rate:	1.544Mbps	Transmission Rate:	2.048Mbps
Line Code:	Supports both AMI and B8ZS	Line Code:	HDB3
Line Impedance:	100 Ohm	Line Impedance:	Default setting: 75 Ohm Unbalanced coax (Selectable to 120 Ohm Balanced)
DS-1 Signal:	Conforms to ANSI T1.403	E1 Signal:	Conforms to ITU-T G.703
Connector:	RJ48	Connector:	Coax
		LEDs:	Power, Transmit, Receive, Fiber Signal Detect, Loss of Copper Signal, Alarm

Ordering Info	Part Number	Function	Protocol	Port Connectors*	Link Connector*	Wavelength (nm)	Minimum Loss Budget (dB)	Range** (km)
	EM316T1/M	T1 copper to MM fiber	T1	RJ-48/RJ-45	ST	820	N/A	0 - 2
	EM316T1/MX	T1 copper to Extended MM fiber	T1	RJ-48/RJ-45	ST	1310	N/A	4 - 10
	EM316T1/S1	T1 copper to SM fiber	T1	RJ-48/RJ-45	ST	1310	15	5 - 30
	EM316T1/S2	T1 copper to SM fiber	T1	RJ-48/RJ-45	ST	1310	25	25 - 50
	EM316T1/S3	T1 copper to SM fiber	T1	RJ-48/RJ-45	ST	1550	25	50 - 100
	EM316T1SF/S2	T1 copper to Single Fiber SM	T1	RJ-48/RJ-45	SC-APC	1310	19	10 - 40
	EM316T1SF/S3	T1 copper to Single Fiber SM	T1	RJ-48/RJ-45	SC-APC	1550	22	30 - 90
	EM316E1/M	E1 copper to MM fiber	E1	Coax - BNC	ST	820	N/A	0 - 2
	EM316E1/MX	E1 copper to Extended MM fiber	E1	Coax - BNC	ST	1310	N/A	4 - 10
	EM316E1/S1	E1 copper to SM fiber	E1	Coax - BNC	ST	1310	15	5 - 30
	EM316E1/S2	E1 copper to SM fiber	E1	Coax - BNC	ST	1310	25	25 - 50
	EM316E1/S3	E1 copper to SM fiber	E1	Coax - BNC	ST	1550	25	50 - 100
	EM316E1SF/S2	E1 copper to Single Fiber SM	E1	Coax - BNC	SC-APC	1310	19	10 - 40
	EM316E1SF/S3	E1 copper to Single Fiber SM	E1	Coax - BNC	SC-APC	1550	22	30 - 90

*Default connectors are listed, other connectors are optional. **Distances are approximate and assume 9µ SM and 62.5µ MM.
DL= Dispersion Limited

For additional information including pricing and availability, contact your MRV Communications sales representative today.

MRV has more than 50 offices throughout the world. Addresses, phone numbers, and fax numbers are listed at www.mrv.com. Please e-mail us at sales@mrv.com or call us for assistance.

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