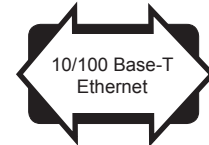


Bi-directional 10Base-T Ethernet / 100Base-T Fast Ethernet Data over One Multimode or Singlemode fiber



FEATURES:

- 10/100 Base-T Ethernet Auto-negotiation
- Full Duplex or Half-duplex Supported
- IEEE 802.3 Compliant
- User Selectable MDI/MDI-X
- Environmentally Hardened for Wide Temperature Applications
- NTCIP Compatible
- Far End Fault Function
- Link Fault Pass-through Function
- Laser Based Systems for Multimode & Singlemode
- Laser Back-Biased Photo Detector Circuitry for Stable
- Optical Output Over Full Temp. Range
- FC,ST Optical Connectors Standard, SC Optional
- Distances Up To 50km
- Hot Swappable Rack Cards
- Remote & Local Loop-back Supported with SpectraSmart™ Option
- Wide Optical Dynamic Range
- Supports Single Fiber Communications
- 12VDC & 24VAC Operation
- Spectrasmart™ Optional PC Based Network Management

DESCRIPTION:

The SXA/SXB-1R (single-slot rack card) and MXA/MXB-1R (stand-alone module) are Ethernet transceivers designed for bi-directional transmission of 10Base-T Ethernet / 100Base-T Fast Ethernet data over one multimode or singlemode fiber. Since the data rate is auto-negotiated, no internal adjustments or setting are necessary. Distances of 50km can be obtained using singlemode fiber. The SXA/SXB-1R and MXA/MXB-1R are environmentally hardened and will operate over the standard NEMA TS-2 temperature range - suitable for outdoor installations. LEDs on both the module and rack card indicate power, link speed, activity, laser current and optical signal. Standard shielded RJ-45 connectors are provided for Cat. 5 compliance. Optical connector options include ST, FC and SC. These units are available in either module or rack mount types. The SXA/SXB-1R card is compatible with Meridian's SpectraSmart™ Network management and diagnostic PC based system. See the SpectraSmart™ brochure for additional details.

CONFIGURATIONS:

The SXA/SXB-1R product is available as rack mount cards and modules that can be installed in either Meridian's desk chassis or in 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. These systems can be made a standalone system by using the SR-500, SR-1000, 1 or 2 slot desk/wall mount chassis (87 VAC- 264VAC)

MARKETS:

- ✓ Intelligent transportation systems (ITS)
- ✓ Datacom
- ✓ Security and surveillance
- ✓ Access control

SPECIFICATIONS:

Data

Formats	IEEE 802.3 CSMA/CD IEEE 802.3i 10Base-T IEEE 802.3u 100Base-T
Data Rate	10/100 Mb/s
Bit Error Rate	Better than 10 ⁻⁹

Optical

Fiber Data Rate	125 Mb/s
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Connectors

Ethernet	RJ45 (shielded)
Optical	ST, FC, SC
Power (module)	2 Pin Screw Block

Indicators (LEDs)

1 - Green	Power On
1 - Bi-color	TX Laser Current / Over Current
1 - Bi-color	TX Link / Speed
1 - Green	TX Activity
1 - Bi-Color	RX Link / Speed
1 - Green	RX Activity
1 - Bi-Color	RX Optical Signal Present / Absent

Power **

Card	4 Watts
Module	12-24VAC or 12VDC

Physical

Dimensions:	
Card	160 mm (6.3") L, 127 mm (5") W 20mm (0.80") W
Module ***	90 mm (3.5") L***, 60mm (2.3") W 25 mm (1") H
Weight:	
Card	450 gms (16 Oz)
Module	858 g (30 oz.)
No. of Slots	1

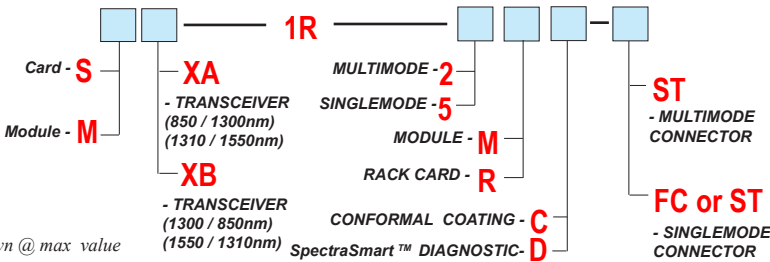
Enviromental

Operating Temperature	-34°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

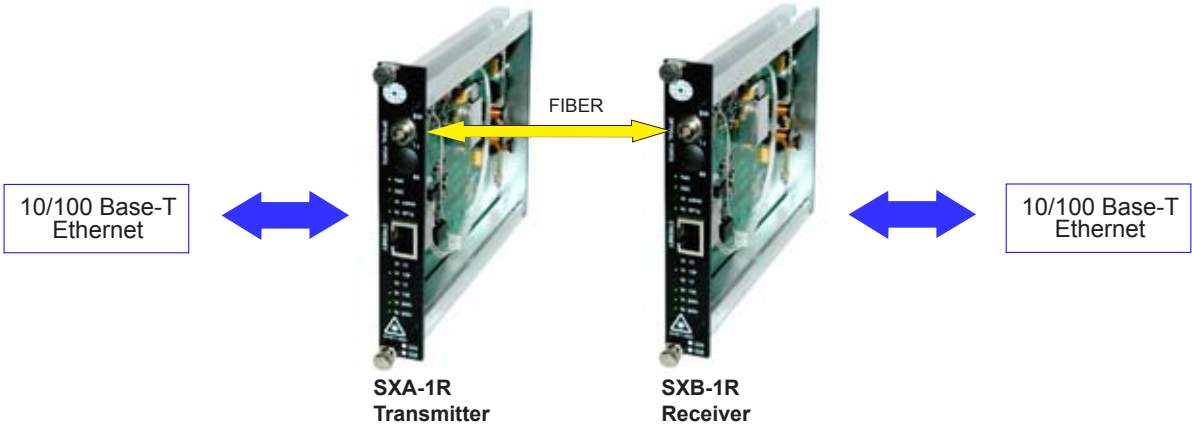
Quality

MTBF	>125,000 hours @ Ground Fix 35°C per MIL217F
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Part Numbers:



* measured @ max. optical budget
** Due to variations of drivers and diagnostic options, power shown @ max value
*** Add 30mm to include mounting flanges



OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode (FP Laser) 62.5 / 125	-6	-27	21	1300 / 850	ST	24
Singlemode (FP Laser) 9 / 125	-6	-27	21	1310 / 1550	ST, FC	24