

Full Duplex RS-485**FEATURES:**

- Meets EIA RS-485 (two and four wire)
- Data Rates to 100 Kbs
- Terminal Block Data Connector
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- Hot Swappable Cards
- Laser Based Back-biased Photo Detection Circuitry for Stable Output Over Full Temperature Range (Singlemode)
- ST™, FC Optical Connector
- Input Voltage Range: 12VDC-35VDC, 9VAC-24VAC (Modules)
- SpectraSmart Compatible
- Meets NEMA TS1/TS2 and Caltrans Specifications
- Utilizes Internal Switching Power Supply
- LED Status Indicators Provide Rapid Indication of Critical Operating Parameters
- Automatically Resettable Solid-State Current Limiters on All Power Lines: Provides Equipment Protection
- Wide Optical Dynamic Range: Optical Attenuators are Never Required

DESCRIPTION:

The Series 1800 and 1800i are RS-485 (two wire and four wire) compatible fiber optic data modems that operate for distances of 6.0Km (multimode) and 100Km (singlemode) on one or two fibers. These units support full duplex operation at data rates of up to 100 Kbs. The Series 1800's capabilities are enhanced by its compatibility with Meridian's PC based SpectraSmart™ Network Management and Diagnostic software system. SpectraSmart™ supervises the operating parameters of the transmission system(s) such as status on video levels, sync, FM carrier detect, voltage, temperature and optical levels, etc., and cameras, monitors that are attached to the Meridian equipment. See the SpectraSmart™ brochure for more details.

CONFIGURATIONS:

The 1800 product family is available in rack mount cards that can be installed in all of Meridian's card chassis, desk chassis and 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. This product requires no user adjustments & features superior quality and performance.

APPLICATIONS:

Security and Surveillance
Intelligent Transportation Systems (ITS)
Access Control
Industrial Process Control

SPECIFICATIONS:

Data

Formats RS-485 2w/4w
Data Rate DC to 300 Kbs
Bit Error Rate. 10⁻⁹ *

Connectors

Data. DE-15 Female or
. 3 Pin Terminal Block
Optical ST™, FC
Power 2 Pin Terminal Block

Power **

Card 3.25 W
Module 135 mA @ 24 VAC

Indicators (LEDs)

Red Power On

Physical

Dimensions:
Module (w/SR-500) 182 mm (7.16”) L, 132 mm (5.21”)W
. 29 mm (1.15”) H
Card 160 mm (6.3”) L, (0.8”) W
. 10 mm (4”) H
Weight:
Module (w/SR-500) 900 g (32 oz.)
Card 450 g (16 oz.)
Number of Rack Slots One

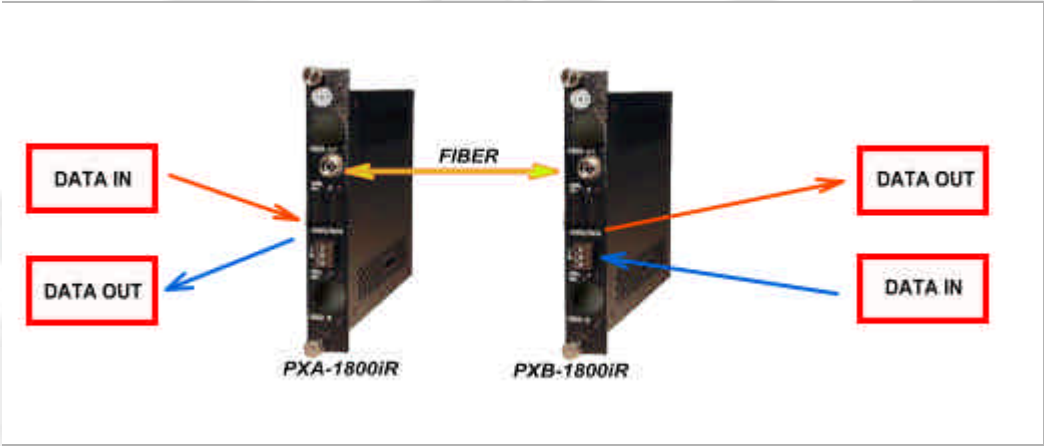
Enviromental

Operating Temperature. . . . -40°C to +74°C
Storage Temperature. -55°C to +85°C
Relative Humidity. 0 to 95% Non-condensing

Quality

MTBF. >210,000 hours @ Ground Fix
. 35°C per MIL217F

* Measured @ 1Km (multimode), @ 10Km (singlemode)
** Due to variations of drivers and diagnostic options power shown at maximum measurements



OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Reciever Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode*(SLED)						
62.5/125	-13	-36	23**	850	ST	39
62.5/125	-16	-36	20**	1300	ST	39
62.5/125	-15/-18	-34/-34	16**	850/1300	ST	39
Singlemode (Laser)						
9/125	-7***	-40	33	1310	ST, FC	41
9/125	-10***	-40	30	1550	ST, FC	41
9/125	-10/-10	-38	28	1310/1550	ST, FC	41

* Distance is limited to fiber loss, splices and fiber bandwidth
** For 50/125mm fiber, subtract 3dB
*** Higher output lasers available