

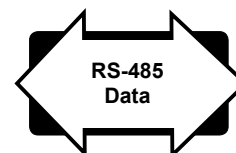
## Full Duplex RS-485 Data 2-wire or 4-wire



Series 1800i  
RS-485 Data (2-wire)  
shown



Series 1801  
RS-485 Data (4-wire)  
shown



### FEATURES

- Meets EIA RS-485 (two and four wire)
- Data Rates to 300 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
- 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 1800/1800i (RS-485 Data over 2 wire) and Series 1801/1801i (RS-485 Data over 4 wire) are fiber optic data modems that operate over distances of up to 6.0 Km (multimode) and up to 100 Km (singlemode) on one or two fibers. These units support full duplex operation at data rates of up to 300 Kb/s. The Series 1800's and 1801's capabilities are enhanced by it's 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's and 1801's series products are available in rack mount cards that can be installed in all of Meridian's card chassis, desk chassis and 19" racking frames. These systems can be configured in either star (module to rack) or trunking (rack to rack) configurations. These products require no user adjustments & feature superior quality and performance.

### MARKETS

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

## SPECIFICATIONS:

### Data

Formats	RS-485 (2-wire) - Series 1800i RS-485 (4-wire) - Series 1801i
Data Rate	DC to 300 Kb/s
Bit Error Rate	10 <sup>-9</sup> *

### Connectors

Data	3 Pin Terminal Block
Optical	ST - MM(default), FC - SM(default)
Power	2 Pin Terminal Block

### Power \*\*

Card	3.25 W
Module	135 mA @ 24 VAC

### Indicators (LEDs)

Red	Power On
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### 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

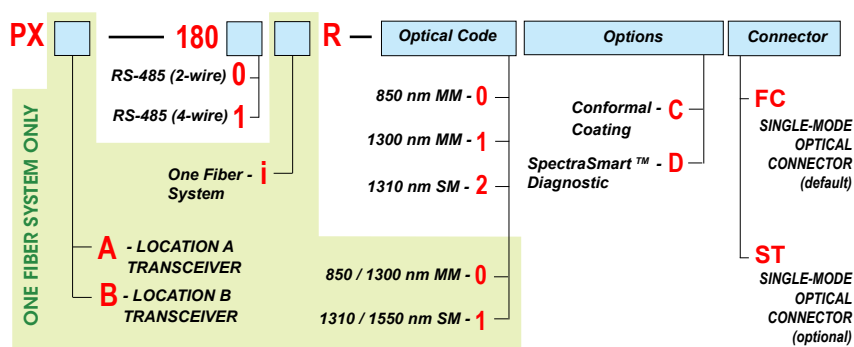
### Environmental

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
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### Part Numbers:



\* Measured @ 1Km (multimode), @ 10Km (singlmode)

\*\* Due to variations of drivers and diagnostic options power shown at maximum measurements



## OPTICAL:

Number of Fibers	Fiber Type/Size (um)	Meridian optical code	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max distance(km)
Two	Multimode (SLED) 62.5 / 125	0	-13	-36	23**	850	ST	39	5
Two	Multimode (SLED) 62.5 / 125	1	-16	-36	20**	1300	ST	39	6
Two	Singlemode (FP Laser) 9 / 125	2	-7***	-40	33	1310	ST, FC	41	100
One	Multimode (SLED) 62.5 / 125	0	-15/-18	-34/-34	16**	850/1300	ST	39	5
One	Singlemode (FP Laser) 9 / 125	1	-10/-10	-38	28	1310/1550	ST, FC	41	80

\* Distance is limited to fiber loss, splices and fiber bandwidth

\*\* For 50/125mm fiber, subtract 3dB

\*\*\* Higher output lasers available

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