Full Duplex RS-232

DATA

FEATURES:

- Surface Mount Technology (SMT) for High Reliability and Repeatability

- Hot Swappable Cards

- Laser Based Back-Biased Photo Detection Circuitry for Stable Optical Output Over Full Temperature Range (Singlemode)

- ST™, FC Optical Connector

- Data Rates to 125Kb/s (w/o handshakes)

- Meets EIA RS-232 (w/o Handshakes)

- Frequency Modulated (FM) Transmission

- SpectraSmart™ Compatible

- Meets NEMA TS1/TS2 and Caltrans Specifications

- Utilizes Internal Switching Power Supplies

- Automatically Resettable Solid-State Current Limiters on All Power Lines: Provides Equipment Protection

- Wide Optical Dynamic Range: Optical Attenuators are Never Required

- 3 Pin Terminal Block Data Connectors

DESCRIPTION:

The Series 1300 and 1300i are RS-232 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 125 Kb/s and models with full handshakes are available.. The Series 1300'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 FM carrier detect, voltage, temperature, optical levels, etc., and external equipment which are attached to the Meridian equipment. See the SpectraSmart™ brochure for more details.

CONFIGURATIONS:

The 1300 product family is available as 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:

Intelligent Transportation Systems (ITS)
Access Controls
Data Communications
Industrial Process Controls
SCADA

Data

Formats. RS-232D
Rate. . . . . DC to 125 Kb/s
Bit Error Rate. . . . . 10^{-9} *

Connectors

Data. . . . . 3 Pin Terminal Block
Optical . . . . ST™ , FC
Power . . . . 2 Pin Terminal Block

Power**

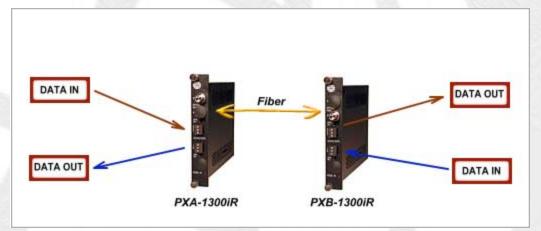Card . . . . 2.5 W
Module . . . . 100 mA @ 24 VAC
Adapter for SR-500/S. . . . . . Model WP-24

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

Quality

MTBF. . . . . >175,000 hours @ Ground Fix
. . . . 35ºC per MIL217F

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

PXA-1300iR   PXB-1300iR

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	-34	21**	850	ST	39
62.5/125	-16	-34	18**	1300	ST	39
62.5/125	-15/-18	-33/-33	15**	850/1300	ST	39
Singlemode (Laser)						
9/125	-7***	-36	29	1310	ST, FC	41
9/125	-10***	-36	26	1550	ST, FC	41
9/125	-10/-10	-34	24	1310/1550	ST, FC	41

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