

**One Unidirectional TTL
Data Channel**



FEATURES:

- One Unidirectional High Speed TTL Data Channel
- Very Low Jitter and Latency
- Suitable for IRIG-B and 1PPS
- DC to 10 Mb/s Data Rate
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- Local LED Status Indicators to monitor Tx/Rx Data
- ST, FC Optical Connector
- SpectraSmart™ Network Management Compatible
- Meets NEMA TS1 / TS2 & CALTRANS Specifications
- Wide Optical Dynamic Range: Optical Attenuators are Never Needed
- Hot Swappable Rack Cards
- Automatically Resettable Solid-State Current Limiters on All Power Lines: Provides Equipment Protection
- DE-15 Type Connector for Data

DESCRIPTION:

The PT/PR-1L-x systems are fiber optic cards that will transmit and receive One Unidirectional TTL data signal with a maximum data rate of 10Mb/s.

Both, multimode or single-mode versions are available (See "Part Numbers" section).

With its wide operating conditions and high performance, this module is also ideally suited to other data/control applications.

One of the advantages of this product is optical fault feature. If optical signal is lost due to a failed fiber or transmitter power failure, the receiver output will go to a 'low' level without any transients.

This product is compatible with Meridian's SpectraSmart network management and diagnostic PC based system. See the SpectraSmart™ brochure for additional details. Optional conformal coating is also available for high humidity/condensation installations.

Note: For module version of this product please see BXA/BXB-1L/1L-x data sheet.

MARKETS:

- √ ROV applications
- √ Security and surveillance
- √ Intelligent transportation systems (ITS)
- √ SCADA
- √ Access control systems

SPECIFICATIONS:

Data

Formats	LVTTL Data (5V tolerant)
Rate	DC to 10Mb/s
Bit Error Rate	10 ⁻⁹ *
Jitter/PWD	10ns
TX/RX Latency	50ns

Optical

Fiber Data Rate	10 Mb/s
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Connectors

Data	DE-15 Female with Jack Screw Standoffs (0.232" H)
Optical	ST - MM(default), FC, ST - SM

Environmental

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

* measured @ max. optical budget

Power

Power Consumption	2 W
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Indicators (LEDs)

1 - Green	Power On
1 - Green	Tx Data Present
1 - Green	Rx Data Present

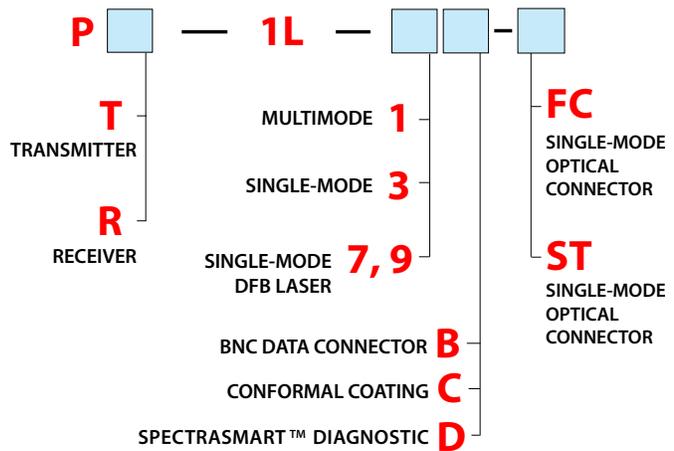
Physical

Dimensions (Card)	160 mm (6.3") L, 20mm (0.8") W 100 mm (4") H
Weight (Card)	450 gms (16 Oz)
No. of Slots	1
Module	See SR-500 Brochure

Quality

MTBF	>200,000 hours, @ 35°C Ground Fix as per MIL 217F
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Part Numbers



OPTICAL:

Meridian Optical Code	Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
1	Multimode (Laser) 62.5 / 125	-6	-22	16	1300	ST	22	6
3	Single-mode (FP Laser) 9 / 125	-6	-22	16	1310	ST, FC	22	50
7, 9	Single-mode (DFB Laser) 9 / 125	0	-22	22	1310, 1550	ST, FC	22	60

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