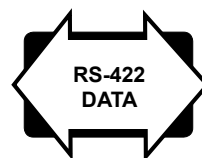


**Digitally Encoded Full Duplex
RS-422 Data Channel****FEATURES:**

- Real Time RS-422 Data Transmission
- Low Power Consumption
- High Efficiency, Isolated Power Supply
- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators
- Laser Based Systems for both Multimode and Singlemode modules
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- Local LED Status Indicators to Monitor Critical System Parameters
- ST, FC Optical Connector
- Laser Back - Biased Photo Detector Circuitry for Stable Optical Output Over Full Temperature Range
- Meets EIA RS-170, RS-343A Formats
- Screw Terminal Connector for Data

DESCRIPTION:

This NXA/NXB-1F/1F-x module incorporates an all-digital encoding technology that transmits one Full Duplex RS-422 Data channel.

Module belongs to new **DigiCool™** family of products which features very Low Power Consumption and Isolated High Efficiency Power Supply. Standard 5-pin terminal blocks are used for easy connection of the data channel interface. These single fiber, laser based systems are available in both, Multimode and Singlemode modules.

Note: See the FXA/FXB-1F/1F-x data sheet for the complementary rack mount card version of this module.

CONFIGURATIONS:

The NXA/NXB-1F/1F-x products are available in small stand-alone modules for easy mounting on walls, shelves and other convenient flat surfaces.

MARKETS:

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

SPECIFICATIONS:

Data

Formats RS-422 Manchester or Bi-Phase
Data Rate DC to 250 Kb/s
Bit Error Rate 10^{-9}

Optical

Fiber Data Rate 270 Mb/s

Connectors

Optical ST, FC
Power (module) 2-pin Screw Terminal
or 5VDC Power Jack
Data 5-pin Screw Terminal

Quality

MTBF >170,000 hours @ Ground Fix
35°C per MIL217F

Power **

Input Power (default) 12-24VAC / DC - 2.8 W
WP-24 wall adapter (not included)
Input Power (optional) 5VDC - 2.5 W
WP-5 wall adapter (included)

* measured @ max. optical budget

** Due to variations of drivers and diagnostic options,
power shown @ max. value

*** Add 30mm to include mounting flanges

Indicators (LEDs)

1 - Green Power On
1 - Bi-color TX Carrier/ Laser Over Current
1 - Bi-color RX Carrier - Present / Error
1 - Green Tx Data Present
1 - Green Rx Data Present

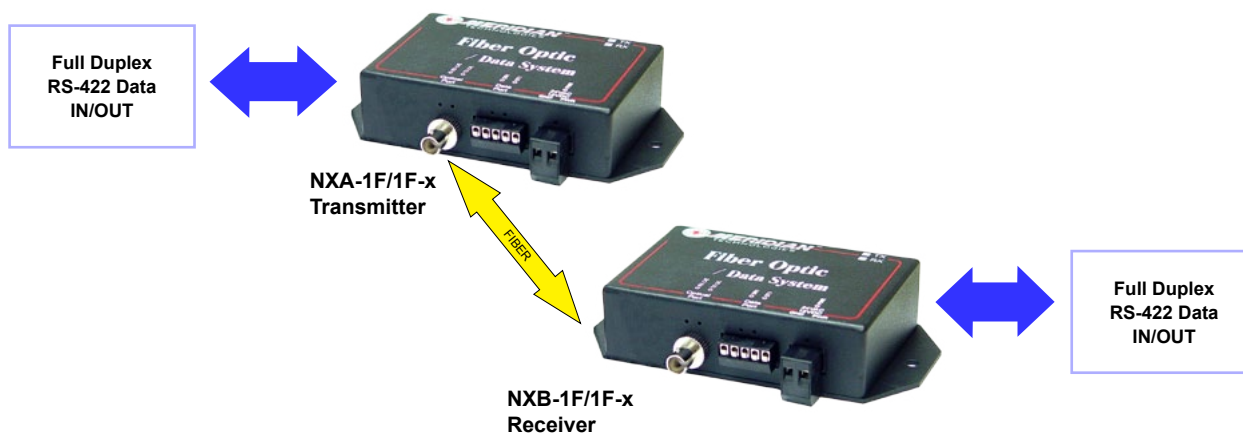
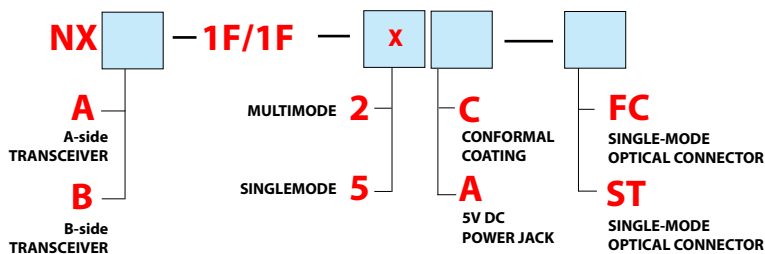
Physical

Dimensions (Module) 117 mm (4.60") L, 81 mm (3.18") W
26 mm (1.012") D
Weight (Module) 100 gms (3.52 Oz)

Environmental

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

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)
2	Multimode (Laser) 62.5 / 125	-5	-28	23	850/1300	FC, ST	28	3.5
5	Singlemode (FP Laser) 9 / 125	-5	-28	23	1310/1550	FC, ST	28	60