

FMX-230 Series

Features

- ◆ Supports RS-232, RS-422, and RS-485 Interfaces
- ◆ Asynchronous Data Speeds up to 112 Kbps
- ◆ Master/Sub-Master/Slave
- ◆ Singlemode Transmission Distances up to 50 Km
- ◆ Dual Optics w/ AGC receivers
- ◆ NMS w/ GUI
TCP/IP Network Software
SNMP Software Option

Applications

- ◆ SCADA
- ◆ Traffic Control Networks
- ◆ Railway Networks
- ◆ Electrical Utility Networks



Fiber Optic Fault Tolerant Add & Drop Transceiver Plus+ NMS

Overview

The FMX230 is an extremely flexible and low cost solution for connecting multiple devices together in a **fault tolerant drop and insert network**. Unlike most modems, there are no limitations on the number of nodes present in the network. Using packet data transmission technology, the FMX230 can transmit and receive data at speeds up to 112 Kbps throughout the network. Each unit is capable of receiving data from either an uplink or downlink and then re-transmitting the data to the respective uplink or downlink direction. With an embedded micro-controller in the unit, all configurations and equipment settings can be easily managed through the **Network Monitoring System (NMS)**. Control signals which are used to control data path are **user programmable**, featuring: **master, sub-master and slave node** settings, anti-streaming logic (even though there is no data bubbling in the FMX230 network), poll and respond data transmission timing, data rate, data terminating and other unique functions. The **Graphics User Interface (GUI)** of the FMX230 Network Monitoring System provides an user-friendly menu on a **standard PC** generally located at a control center. The network engineer may also utilize Multidyne's TCP/IP Network Software Module option for monitoring multiple FMX230 networks. There is also available a SNMP software package. The FMX230 is designed with **Automatic Gain Controls (AGC)** technique, a unique modulation scheme and state of the art circuit design. Specific optics provides the flexibility to meet any system requirement. The FMX230 also provides a female DB25 for data connections, a female RJ11 for NMS PC connections, and a two-terminal block for power connection.

Specifications

System:

Error Rate 1 in 10⁹ or Better
 Indicators PWR, TX1, TX2, RX1, RX2
 Power 9 VAC
 Network NMS-PC w/ GUI
 Interface RS-232
 Connector RJ12

Optical:

Transmitter LASER, LED
 Out-put Power -16 dBm 850nm MM
 -3 dBm 1300nm SM (Min)
 Receiver PIN
 Receiver Sensitivity -32 dBm 850nm MM
 -32 dBm 1300nm SM
 Bit Error Rate 1 in 10⁹ or Better

Environment:

Operating -34°C to 74°C
 Storage -40°C to 95°C
 Humidity 95% Non-Condensing

Speed:

Data Rate DC to 112 Kbps

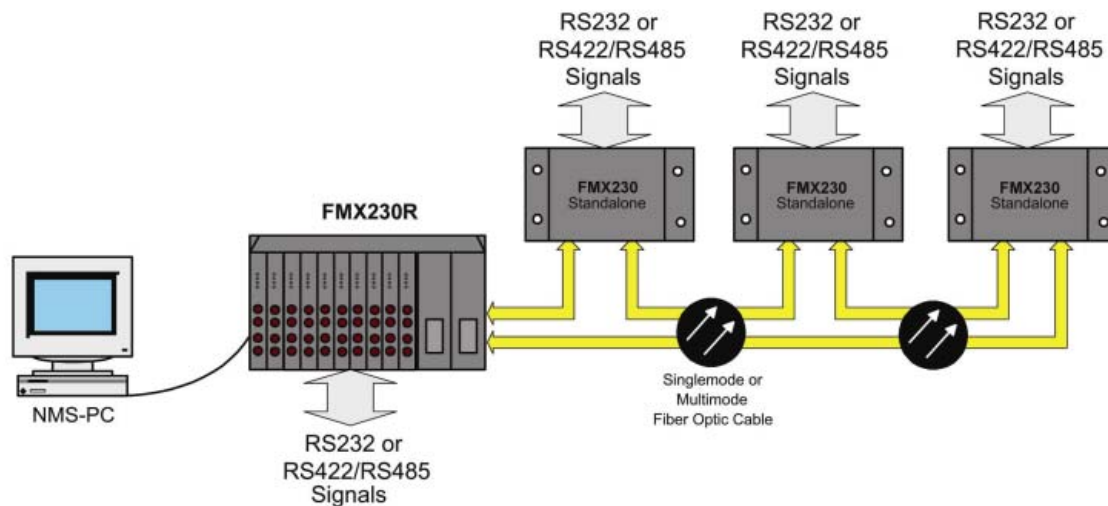
Electrical:

Interface EIA RS-232, RS-422, RS-485
 Connector Female DB-25

Physical:

Dimensions 1.25" x 6" x 4"
 Weight 1 lb.

Example Applications



Ordering Information:

Model	Description
FMX230-ST-01	Fiber Optic Fault Tolerant Drop and Insert Transceiver, 850nm MM, ST.
FMX230-ST-02	Fiber Optic Fault Tolerant Drop and Insert Transceiver, 1310nm MM, ST.
FMX230-ST-03	Fiber Optic Fault Tolerant Drop and Insert Transceiver, 1310nm SM, ST.
FMX230-ST-05	Fiber Optic Fault Tolerant Drop and Insert Transceiver, 1550nm SM, ST.

* Replace ST with FC or SC on the above model numbers for the appropriate optical connector type.
 Add "422" or "485" on the above model numbers for RS-422 or RS-485 interface type
 ** Two pairs of fiber required for the Transceiver.



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