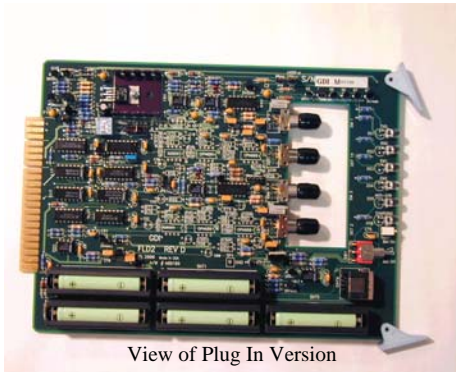




FLD2 Series Fiber Optic Line Transceivers



View of Plug In Version

Description

The FLD2 series of Fiber Optic Line Drivers can transmit any asynchronous data rate up to 1 Mbps. It can be used for point to point applications or multi-drop daisy chain configurations. The FLD2 has a range of up to 5 km in the 850 nm Multi-mode version and up to 30 km in the 1310 nm single-mode Laser version. The FLD2 is available in a plug-in version (Model 400 form factor) and in a stand-alone version (SA) for NEMA or computer applications. The Stand-Alone version has an EIA compatible RS-232 or RS-485 interface..

A NiMH battery powers the unit for up to 12 hours during power failures. A 9V Lithium battery is optional and reduces power requirements. The Plug-in unit is hot-swappable to make field changes much easier.

The FLD2 Fiber Optic Line Driver has two Emitters and two Detectors for uplink and downlink communications. Master or Remote operation can be selected with a switch. A typical system has one Master located at the host Computer which sends polling data downstream to Local or "Remote" units, responses are then sent back upstream.

FEATURES

- * Rack Mount type for 170 controllers
- * Standalone version for NEMA applications, Type 2070
- * 850 nm MM and/or 1300 nm SM
- * Rechargeable Battery Backup
- * Anti-streaming times selectable
- * Meets 170 and NEMA temperature Specs
- * Hot swappable (rack Mount)
- * Master or Remote operation

In the Master mode, Transmit Data is sent downstream over both Emitters. The Receive Data comes in on the two Detectors and is ORed together and presented to the serial interface.

In the Local Mode, Downstream Data coming in on Detector 1 is sent to the local serial port (attached controller) and also to Emitter 2 for regeneration and continued down stream transmission.

Data coming upstream on Detector 2 is regenerated and sent out Emitter 1. This Data is not seen by the serial port. Local data is transmitted upstream over Emitter 1.



Front View of Stand Alone

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FLD-2 Series Fiber Optic Line Transceivers

SPECIFICATIONS

INTERFACES

Electrical

Plug-in Unit.....	Standard 400 pin out
Standalone.....	RS-232 or RS485 DB-9 female RJ-45 is used for unit to unit communications.
Data Rate.....	Up to 1 Mbps (Asynchronous)
Bit Error Rate	Better than 1×10^{-9} @ 15db DR
MTBF	In excess of 100,000Hrs @ 50°C
Control Lines	RTS,CTS

Optical

Connectors	ST (Multimode) ST, FCPC (Singlemode)
Dynamic Range	15db @ 850nm MM. LED
(Minimum)	15db @ 1300nm MM. ELED. 12db @ 1310nm. SM. ELED 21db @ 1310nm SM. Laser

USER ADJUSTABLE OPTIONS.

Front Switches

Battery	On/Off
Anti-Streaming	Clear (push button)

Rear Switches

RMTE - MAST	Remote/Master
A-STR	Anti - Streaming On/Off
ENA-CTS	CTS enable/disable
AC Power	On/Off

Jumper Selections (Internal)

Anti-streaming times (Standard.)..... 2, 4, 8, 16 and 32 seconds, other time periods can be requested.

Note: The anti-streaming feature clears automatically when a normal condition returns but the ERROR indicator stays on until cleared manually with the front panel push button.

Power control for ELED Emitters.. 60 or 100 ma

RS232 or RS485 selection

CTS time out selection

INDICATORS

Front Panel

TXD	Transmit RS232 Data
RXD	Received RS232 Data
EM1	Transmit Optical Data 1
D1	Receive Optical Data 1
EM2	Transmit Optical Data 2
D2	Receive Optical Data 2
BAT	Battery
A-STR	Anti-Streaming
PWR	AC Power

Back Panel

RS232	Selected
RS485	Selected

FORM FACTOR

Plug-in Model...	Type 400
Stand Alone...	1.54" H x 5.75" W x 8.4" D Aluminum case

POWER REQUIREMENTS

Plug-in unit.....	200 ma Pk at $\pm 12V$ (100ma with 9V Battery)
Stand Alone.....	90-135 VAC @ 3 W Or 180- 270 VAC (internal 12V supply)
Battery Back-up	NiMH 12 hours Alkaline Battery Optional on FLD2

ENVIRONMENTAL

Temperature....	-37 to +74° C
Humidity.....	95% non-condensing

VERSIONS (Stand Alone (SA) & Plug In)

FLD2 & SA	-1 850nm MM
	-2 1300nm SM, -2M MM
	-3 1310nm SM

Hybrid Version any combination of above.



Rear view of Stand Alone

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