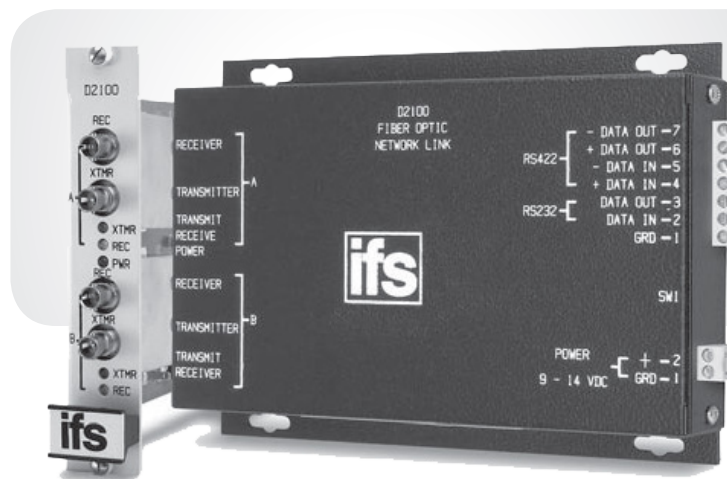# D2100 Series

IFS RS-232/422 Drop and Repeat Data Transceivers
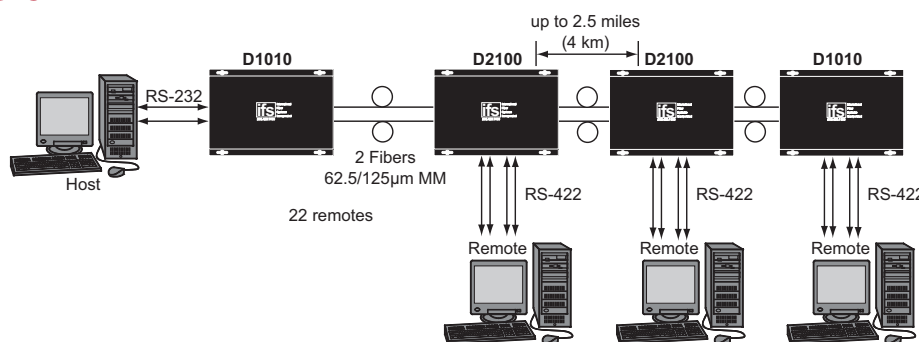

OVERVIEW

The IFS D2100 Series data transceivers provide drop and repeat transmission of simplex or duplex EIA RS232/RS-422 data signals over one or two optical fibers. The transceivers feature optical "drop & repeat" capability that allows the user to easily configure the network operation. The transceivers are transparent to data protocol. The transceivers are also compatible with the IFS D1010 Series data transceivers. Models within this series are available for use with multimode or single mode optical fiber. Plug and Play design ensures ease of installation requiring no electrical or optical adjustments. Each transceiver incorporates power and transmit/ receive data status indicating LED's for monitoring proper system operation. The modules are available in either stand-alone or rack mount versions.

APPLICATION EXAMPLES

- Access Control Systems
- Building Automation and Environmental Control Systems
- Computer/Data Equipment
- Fire & Alarm Systems
- Traffic Signal Control Equipment

STANDARD FEATURES

- Meets EIA RS-232/422 Specifications (Simplex or Duplex)
- Drop and Repeat Network Architecture
- Transparent to Data Encoding/Compatible with Major Data Protocols
- Data Rates up to 100 Kbps
- No In-field Electrical or Optical Adjustments Required
- Power, Transmit and Receive Data Status LED Indicators
- NTCIP Compatible
- Tested and Certified by an Independent Testing Laboratory for Full Compliance with the Environmental Requirements (Ambient Operating Temperature, Mechanical Shock, Vibration, Humidity with Condensation, High-Line/Low-Line Voltage Conditions and Transient Voltage Protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- Integrated WDM for Greater Product Reliability
- Automatic Resettable Solid-State Current Limiters
- Hot-Swappable Rack Modules
- Distances up to 26 Miles (42 km)
- Comprehensive Lifetime Warranty

SYSTEM DESIGN

interlogix.com

D2100 Series
IFS RS-232/422 Drop and Repeat Data Transceivers

Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	D2100	Repeater (850 nm)	2 In/2 Out	14 dB	2.5 miles (4 km)
	D2100WDM	Repeater (850/1310 nm)	1 In/1 Out	14 dB	2.5 miles (4 km)
Single Mode 9/125µm	D2125	Repeater (1310 nm)	2 In/ 2 Out	14 dB	26 miles (42 km)
Accessories ♦	PS12VDC1.5A-U	12VDC, 1.5A Plug-in Power supply (110/220VAC) with Universal power plug adapter kit (Included)			
Options	Add '-R3' to Model Number for R3 Rack Mount - No Charge (Requires R3 Rack purchased separately)				

*Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.
Distance can also be limited by fiber bandwidth. **For 50/125 Fiber, subtract 4 dB from Optical Power Budget.

♦ All accessories are third party manufactured.

Specifications

Data

Data Interface:	RS-232 (data lines only), or RS-422 (see note)
Data Rate:	DC - 100 Kbps
Operating Mode:	Asynchronous Simplex or Full-Duplex
Bit Error Rate:	<1 in 10°

Wavelength

D2100:	850 nm, MM
D2120:	1310 nm, MM
D2125:	1310 nm, SM
D2100WDM:	850/1310 nm, MM

Number Of Fibers

D2100WDM:	1 In/1 Out
All Others:	2 In/2 Out

Connectors

Optical	ST
Data and Power:	Terminal Block with Screw Clamps

Electrical & Mechanical

Power:	
Surface Mount:	12 VDC @ 250 mA
Rack:	From Rack
Number of Rack Slots:	1
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm.) (LxWxH)	
Surface Mount:	4.2 x 4.0 x 1.0 in., 10.7 x 8.9 x 2.5 cm
Rack Mount:	7.0 x 5.0 x 1.0 in., 17.8 x 12.7 x 2.5 cm.
Shipping Weight:	< 2 lbs./0.9 kg

Environmental

MTBF:	> 100,000 hours
Operating Temp:	-40° C to +74° C*
Storage Temp:	-40° C to +85° C*
Relative Humidity:	0% to 95% (non-condensing)

NOTE: The D2100 Series may be compatible with some RS-485 (4-wire) systems.

Agency Compliance

Complies with FDA Performance
Standard for Laser Products, Title 21,
Code of Federal Regulations, Subchapter J

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