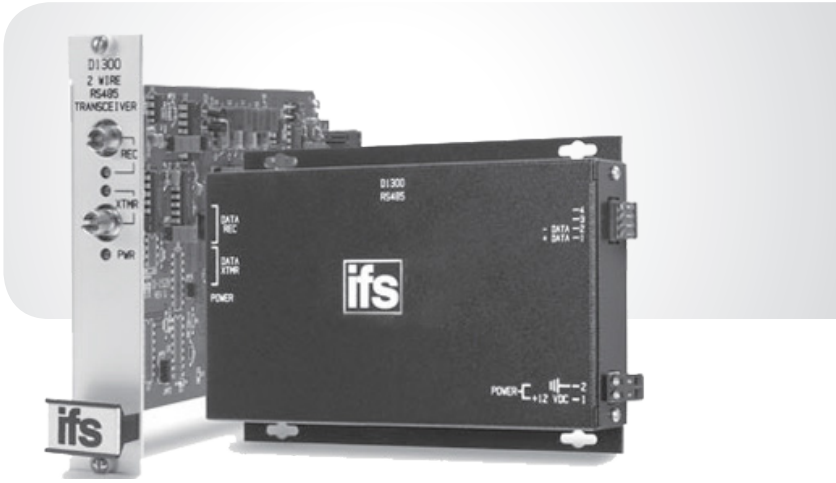
D1300 Series

IFS RS-485 (2-wire) Point-to-Point Data Transceivers



OVERVIEW

The IFS D1300 Series data transceivers provide point-to-point transmission of half-duplex (2-wire) EIA RS-485 tri-state data signals over one or two optical fibers. The transceivers are transparent to data encoding allowing for broad-range compatibility. When used as a line-terminating device, these modules are also compatible with the IFS D2300 Series drop and repeat 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.

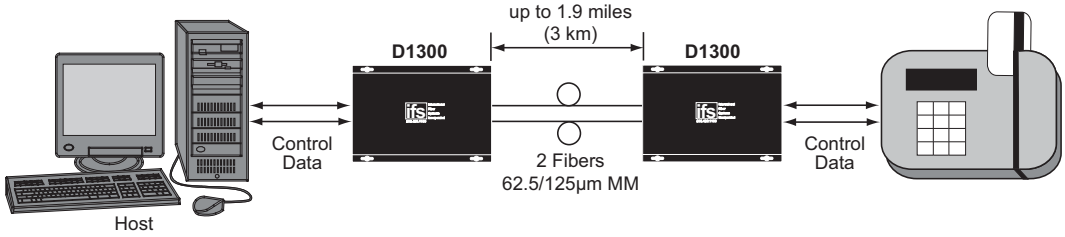
APPLICATION EXAMPLES

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

STANDARD FEATURES

- Meets EIA RS-485 Specifications
- 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.
- Automatic Resettable Solid-State Current Limiters
- Power, Transmit and Receive Data Status LED Indicators
- No In-field Electrical or Optical Adjustments Required
- Data rates up to 150 kbps NRZ
- Data Re-clocking
- Transparent to Data Encoding / Compatible with Major Data Protocols
- Point-to-Point Network Architecture
- 2-Wire (Half-Duplex)
- True Tri-State Output
- Hot-Swappable Rack Modules
- Distances up to 20 Miles (33 km)
- Comprehensive Lifetime Warranty

SYSTEM DESIGN



D1300 Series

IFS RS-485 (2-wire) Point-to-Point Data Transceivers

North America
T 855-286-8889

Latin America
T 561-998-6114

Ordering Information

	Part Number	Description	Fibers Required	Optical Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	D1300	RS-485 Data Transceiver (850 nm)	2	11 dB	1.9 miles (3 km)
	D1300WDMA	RS-485 Data Transceiver (850 nm)	1	11 dB	1.9 miles (3 km)
	D1300WDMB	RS-485 Data Transceiver (1310 nm)	1	11 dB	1.9 miles (3 km)
	D1320	RS-485 Data Transceiver (1310 nm)	2	10 dB	6 miles (10 km)
Single Mode 9/125µm	D1325	RS-485 Data Transceiver (1310 nm)	2	11 dB	20 miles (33 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. ✧WDMA must mate with a WDMB

Specifications

Data	
Data Interface:	RS-485 (2-wire)
Data Rate:	DC - 150 Kbps*
Total Network Pulse Distortion:	<1µs
Wavelength	
	D1300 and D1300WDMB: 850 nm, Multimode
	All others: 1310 nm, Multimode or Single Mode
Number Of Fibers	
	1 or 2
Connectors	
Date and Power:	Terminal Block with Screw Clamps
Optical:	ST
Electrical & Mechanical	
Power:	
Surface Mount:	12 VDC @ 200 mA to 24 VAC @ 100 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:	7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm
Rack Mount:	7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 5.0 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)

Agency Compliance

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

FCC PART 15 COMPLIANT CE cULus

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United Technologies

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Specifications subject to change without notice.