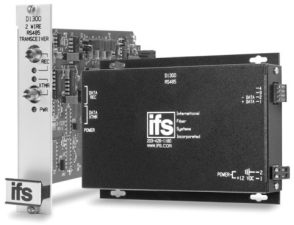


interlogix D1300 Series IFS RS-485 Point to Point Data Transceiver Owner's Manual

imagination at work

D1300 Series
IFS RS-485 (2-wire)
Point-to-Point Data Transceivers

Security

Contents

1 Overview
2 Application Examples
3 Standard Features
4 Specifications
5 System Design
6 Ordering Information
7 Documents / Resources
7.1 References
8 Related Posts

Overview

The IFS D1300 series data transceivers provide point-topoint 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

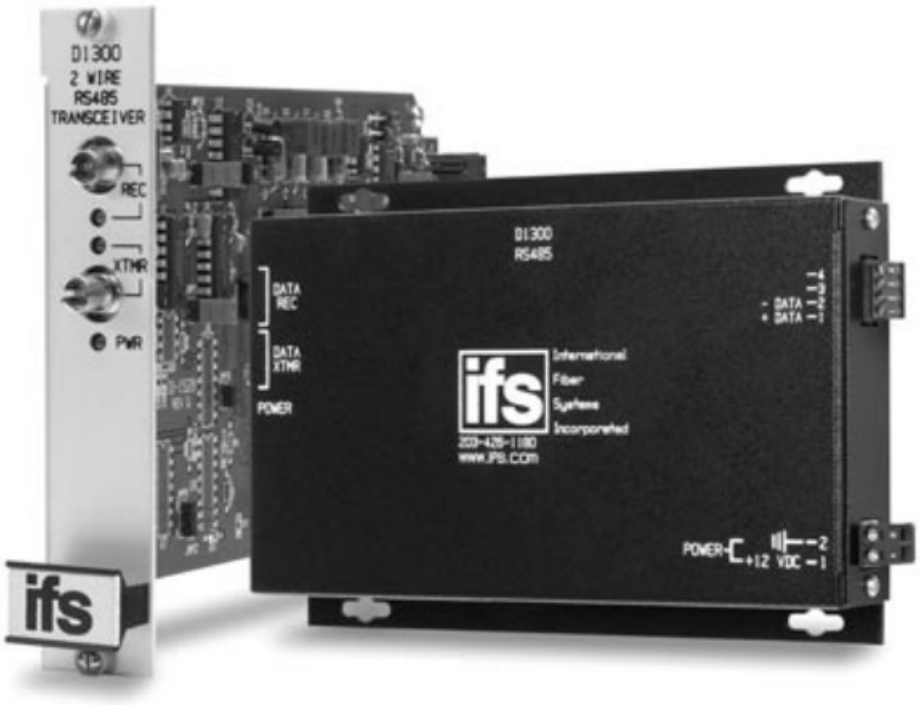
- Access Control Systems
- Building Automation and Environmental Control Systems
- Computer/Data Equipment
- Fire & Alarm Systems
- ITS Traffic Signalization Networks

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

For implementing point-to-point transmission of half-duplex (2-wire) EIA RS-485 tri-state data signals over one or two optical fibers.

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 400 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

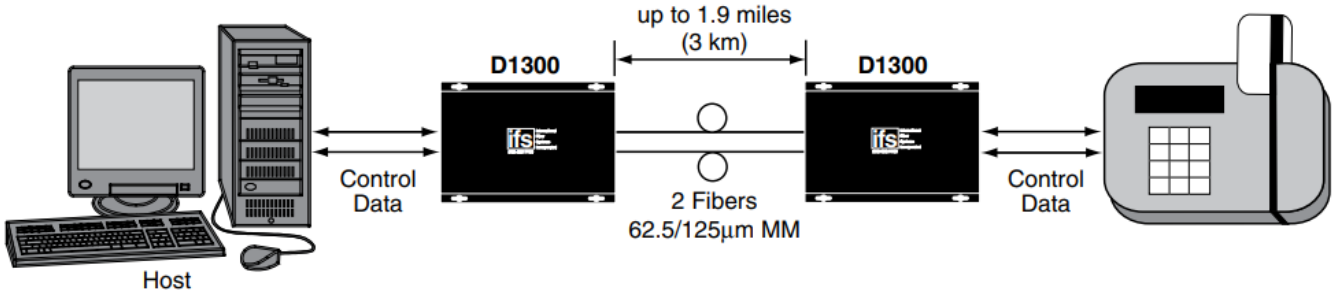


Specifications

Data Data Interface: Data Rate: Total Network Pulse Distortion:*-HS Option Data Rate: Wavelength	RS-485 (2-wire) DC – 150 Kbps* <1µs DC – 400 Kbps D1300 and D1300WDMB: 850 nm, Multimode All others: 1310 nm, Multimode or Single Mode
Number Of Fibers	2
Electrical & Mechanical Power: Surface Mount: Rack: Number of Rack Slots: Current Protection: Circuit Board: Size (in./cm.) (LxWxH) Surface Mount: Rack Mount: Shipping Weight:	 12 VDC @ 200 mA to 24 VDC @ 100 mA From Rack 1 Automatic Resettable Solid-State Current Limiters Meets IPC Standard 7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm 7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm < 2 lbs./0.9 kg
Environmental MTBF: Operating Temp: Storage Temp: Relative Humidity:	 > 100,000 hours -40° C to +74° C -40° C to +85° C 0% to 95% (non-condensing)†

†May be extended to condensation conditions by adding suffix ‘–C’ to model number for conformal coating.

System Design



Ordering Information

	Part Number	Description	Fibers Required	Opt. Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	D1300 D1300WDMA D1300WDMB D1320	RS-485 Data Transceiver (850 nm) RS-485 Data Transceiver (850 nm) RS-485 Data Transceiver (1310 nm) RS-485 Data Transceiver (1310 nm)	2 1 1 2	11 dB 11 dB 11 dB 10 dB	1.9 miles (3 km) 1.9 miles (3 km) 1.9 miles (3 km) 6 miles (10 km)
Single Mode 9/125µm	D1325	Data Transceiver (1310 nm)	1	11 dB	20 miles (33 km)
Accessories♦	PS-12VDC 12 Volt DC Plug-in Power Supply (Included) PS-12VDC-230 12 Volt DC Plug-in Power Supply, 230 VAC Input (Included if specified at time of order)				
Options	Add '-24' for 24 VDC Power (Extra charge, consult factory) Add '-R3' to Model Number for R3 Rack Mount – No Charge (Requires R3 Rack purchased separately) Add '-C' for Conformally Coated Printed Circuit Boards (Extra charge, consult factory) Add '-HS' for High Speed Data Rates up to 400 Kbps (Extra charge, consult factory)				

*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.

North America
T 888-GE-SECURITY
888-437-3287
F 503-691-7566
E sales@ifs.com
Asia
T 852-2907-8108
F 852-2142-5063
Australia and New Zealand
T 613-9239-1200
F 613-9239-1299

Europe
T 44-113-238-1668
F 44-113-253-8121
Latin America
T 305-593-4301
F 305-593-4300
gesecurity.com/ifs
Specifications subject to change without notice

Agency compliance

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

imagination at work

Documents / Resources

	interlogix D1300 Series IFS RS-485 Point to Point Data Transceiver [pdf] Owner's Manual D1300 Series IFS RS-485 Point to Point Data Transceiver, D1300 Series, IFS RS-485 Point to Point Data Transceiver, Point to Point Data Transceiver, Data Transceiver, Transceiver

References

- Fire Alarm Resources | Download fire alarm documents