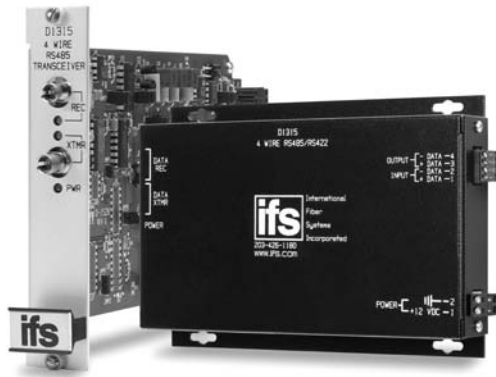




PRODUCT SPECIFICATION

RS-485 POINT-TO-POINT DATA TRANSCEIVER (4-WIRE)

D1315 SERIES



DESCRIPTION

The IFS D1315 series data transceivers provide point-to-point transmission of full-duplex (4-wire) EIA RS-485 tri-state data signals over 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 D2315 series drop and repeat data transceivers. Models within this series are available for use with multimode or singlemode 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

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.
- Transparent to Data Encoding / Compatible with Major Data Protocols
- No In-field Electrical or Optical Adjustments Required
- Automatic Resettable Solid-State Current Limiters
- Data rates up to 200 kbps NRZ (400 kbps for -HS option)
- Point-to-Point Network Architecture
- Power, Transmit and Receive Data Status LED Indicators
- Hot-Swappable Rack Modules
- 4-Wire (Full-Duplex)
- True Tri-State Output
- Data Re-clocking
- Distances up to 20 Miles (33 km)
- Comprehensive Lifetime Warranty
- A & E Specifications, (CSI)
- AutoCAD Drawings
- Operation Manuals
- Technical Bulletins

Available at:
www.ifs.com

ORDERING INFORMATION

	PART NUMBER	DESCRIPTION	FIBERS REQUIRED	OPTICAL PWR BUDGET	MAX. DISTANCE*
MULTIMODE 62.5/125µm**	D1315	RS-485 Transceiver (850 nm)	2	11 dB	1.9 miles (3 km)
	D1315-1300	RS-485 Transceiver (1310 nm)	2	10 dB	6 miles (10 km)
	D1315WDMA	RS-485 Transceiver (850 nm)	1	11 dB	1.9 miles (3 km)
	D1315WDMB	RS-485 Transceiver (1310 nm)	1	11 dB	1.9 miles (3 km)
SINGLEMODE 9/125µm	D1315-SM	RS-485 Transceiver (1310 nm)	2	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 (Requires R3 Rack purchased separately) Add '-C' for Conformally Coated Printed Circuit Boards (Extra charge, consult factory) Add '-HS' for high speed data DC - 400 kbps				

* 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.

International Fiber Systems, Incorporated ■ DESIGN CENTER (888) 999-9IFS or (203) 426-1180
FAX (203) 426-3326 ■ sales@ifs.com ■ For an office near you go to: www.ifs.com
With Offices in Asia Pacific ■ Australia ■ Europe ■ Latin America



TECHNICAL SPECIFICATION

RS-485 POINT-TO-POINT DATA TRANSCEIVER (4-WIRE)

D1315 SERIES

SPECIFICATIONS

DATA

Data Interface:	RS-485 (4 wire)
Data Rate:	DC - 200 kbps DC - 400 kbps w/-HS option
Total Network	
Pulse Distortion:	<1μs

WAVELENGTH

D1315:	850 nm, Multimode
All Others:	1310 nm, Multimode or Singlemode

NUMBER OF FIBERS 1 or 2

CONNECTORS

Optical:	ST
Data and Power:	Terminal Plug with screw clamps

ELECTRICAL & MECHANICAL

Power:	
Surface Mount:	12 VDC @200mA to 24 VDC @100mA
Rack:	From Rack
Number of Rack Slots:	1
Voltage Regulation:	Solid-state; independent on each board
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 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)†

† May be extended to condensation conditions by adding suffix '-C' to model number for conformal coating.

AGENCY COMPLIANCE

FCC PART 15 COMPLIANT **UL** US **MADE IN THE USA**



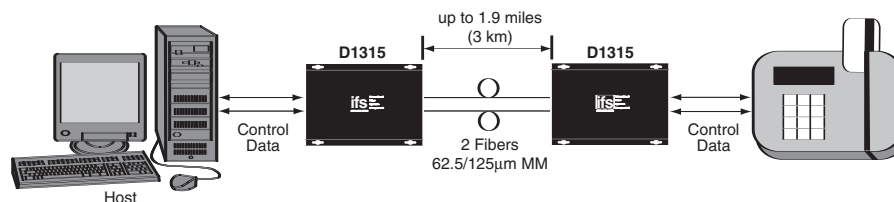
Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

OPTICAL POWER BUDGET

FIBER	WAVELENGTH	TRANSCEIVER			OPTICAL PWR BUDGET	MAX. DISTANCE*
		MODEL	OUTPUT PWR	SENSITIVITY		
Multimode 62.5/125μm**	850 nm	D1315	25 μw (-16 dBm)	1 μw (-30 dBm)	11 dB	1.9 miles (3 km)
		D1315WDMA	20 μw (-17 dBm)		10 dB	60 miles (10 km)
	1310 nm	D1315-1300				
		D1315WDMB			11 dB	1.9 miles (3 km)
Singlemode 9/125μm	D1315-SM	25 μw (-16 dBm)	20 miles (33 km)			

* 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.

SYSTEM DESIGN



TEL (203)426-1180 ■ FAX (203)426-3326 ■ www.ifs.com ■ sales@ifs.com
16 Commerce Road ■ Newtown, CT 06470

Due to our continued effort to advance technology, product specifications are subject to change without notice.

08/27/07