



DESCRIPTION

The IFS D2300CPS data transceiver is designed for full compatibility with a Cerberus Pyrotronics MXL network and CXL modem link. The module is UL listed for use in signal system control unit and burglar alarms unit subassemblies. The transceivers provide "drop & repeat" data transmission of EIA RS-485 data signals over two optical fibers. The module is powered by the 24VDC power supply within the Siemens Cerberus Pyrotronics panel. 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 stand-alone version only.

APPLICATION EXAMPLES

- Siemens Cerberus Pyrotronics
- MXL Network (RS-485)
- CXL Modem Link (FSK)

FEATURES

- MXL Network (RS-485)
- CXL Modem Link (FSK)
- Data Re-clocking
- Drop and Repeat Network Architecture
- Automatic Resettable Solid-State Current Limiters
- 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.
- No In-field Electrical or Optical Adjustments Required
- Power, Transmit and Receive Data Status LED Indicators
- Data rates up to 200 kbps
- Distances up to 25 Miles (40 km)
- Comprehensive Lifetime Warranty



Available at: www.ifs.com

- A & E Specifications, (CSI)
- AutoCAD Drawings
- Operation Manuals
- Technical Bulletins

ORDERING INFORMATION

	PART NUMBER	DESCRIPTION	FIBERS REQUIRED	OPTICAL PWR BUDGET	MAX. DISTANCE*
MULTIMODE 62.5/125µm**	D2300CPS	RS-485, 2 Wire Repeater (850 nm)	2 In/2 Out	10 dB	1.9 miles (3 km)
	D2320CPS	RS-485, 2 Wire Repeater (1310 nm)	2 In/2 Out	10 dB	6 miles (10 km)
SINGLEMODE 9/125µm	D2325CPS	RS-485, 2 Wire Repeater (1310 nm)	2 In/2 Out	11 dB	25 miles (40 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.

SPECIFICATIONS
DATA

MXL Network	
Data Interface:	RS-485 (CSMA/CD)
Data Rate:	19.2 kbps
CXL Modem Link	
Total Network	
Pulse Distortion:	<1 μ s

WAVELENGTH

850 nm, Multimode
1310 nm, Multimode or Singlemode

NUMBER OF FIBERS

2 In/2 Out

CONNECTORS

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

ELECTRICAL & MECHANICAL

Power:	24 VDC @ 50 mA
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.
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


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	TRANSCIVER			OPTICAL PWR BUDGET	MAX. DISTANCE*
		MODEL	OUTPUT PWR	SENSITIVITY		
Multimode 62.5/125 μ m**	850 nm	D2300CPS	20 μ w (-17 dBm)	1 μ w (-30 dBm)	10 dB	1.9 miles (3 km)
	1310 nm	D2320CPS				6 miles (10 km)
Singlemode 9/125 μ m			D2325CPS	25 μ w (-16 dBm)	11 dB	25 miles (40 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
