### Overview

The IFS D1200 series data transceivers provide point-to-point transmission of simplex or duplex T1, E1 (CCITT) data signals over two optical fibers. 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, carrier detect 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**

- E1/T1 Multiplexed Telephony Systems
- Emergency Phone Stations
- Computer/Data Equipment
- ITS Traffic Signalization Networks

### Standard Features

- Supports T1, E1 (CCITT) Data
- Transparent to AMI and Zero Code Suppression Encoding Schemes
- Data Rates up to 2.048 Mbps
- No In-field Electrical or Optical Adjustments Required
- Power, Carrier Detect, Transmit and Receive Data Status LED Indicators
- 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.
- Point-to-Point Network Architecture
- Automatic Resettable Solid-State Current Limiters
- Hot-Swappable Rack Modules
- Distances up to 43 Miles (69 km)
- Comprehensive Lifetime Warranty

# T1, E1 (CCITT) Transceiver

Provides point-to-point transmission of simplex or duplex T1, E1 (CCITT) data signals over two optical fibers.





# GE Security

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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

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# **Specifications**

T1, E1 (CCITT)

Data Interface: Data Rate: DC to 2.048 Mbps, Transparent to zero suppression code

Impedance (T1): 100 ohms (twisted pair) Impedance (E1): 120 ohms (twisted pair)

Wavelength D1210: 850 nm, MM D1220: 1310 nm, MM D1225, D1230: 1310 nm, SM

Number Of Fibers 2

Connectors

Optical:

Data and Power: Terminal Block with Screw Clamps

**Electrical & Mechanical** 

Power:

Surface Mount: 24 VAC CT @ 250 mA

From Rack

Number of Rack Slots:

**Current Protection:** Automatic Resettable Solid-State Current Limiters Circuit Board:

Meets IPC Standard

Size (in./cm.) (LxWxH) Surface Mount: 7.0 x 4.8 x 1.0 in., 17.8 x 12.2 x 2.5 cm Rack Mount: 7.0 x 4.9 x 2.0 in., 17.8 x 12.5 x 5.0 cm

Shipping Weight: < 2 lbs./0.9 kg

Environmental

MTBF: > 100,000 hours Operating Temp: Storage Temp: Relative Humidity: -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.

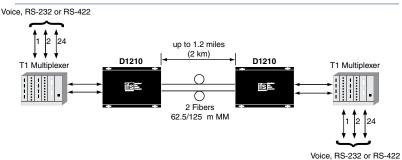
### Agency compliance



### Made in the USA

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

# System Design



# Ordering Information

	Part Number	Description	Fibers Required	Opt. Pwr. Budget	Max. Distance*
Multimode 62.5/125µm**	D1210 D1220	T1/E1 Compatible Data Link, LED (850 nm) T1/E1 Compatible Data Link, LED (1310 nm)	2	13 dB	1.2 miles (2 km) 8 miles (13 km)
Single Mode 9/125µm	D1225 D1230	T1/E1 Compatible Data Link, LED (1310 nm) T1/E1 Compatible Data Link, Laser (1310 nm)	2	14 dB 23 dB	25 miles (40 km) 43 miles (69 km)
Accessories♦	PS-24ACCT 24 VAC C.T. Transformer Included				
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)				

\*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. v WDMA must mate with a WDMB

