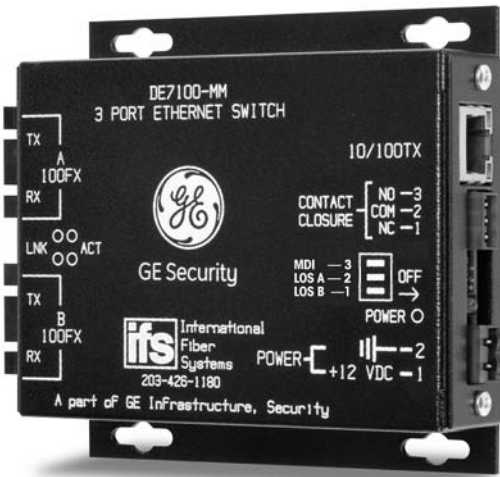


ifs PRODUCT SPECIFICATION DE7100 SERIES 10/100 Mbps ETHERNET 3 PORT TRANSCEIVER



DESCRIPTION

The IFS DE7100 Series Ethernet 3 port transceiver is designed to transmit and receive 10/100 Mbps data over multimode, singlemode optical fiber, or electrical. The DE7100 provides one port 10/100TX and two ports of either 10/100TX or 100FX depending on the model ordered. The IFS DE7100 Series will function as a 10 Mbps Ethernet link, or as a 100 Mbps Ethernet link without any adjustments. The DE7100 Series is environmentally hardened to operate in extreme temperatures. Loss of optical link contact closure for remote alarm sensing. Status indicating LED's for power and data rate are present at the RJ-45 connector. At the fiber optic transceiver end, link and data LEDs provide operational status. Plug-and-play design ensures ease of installation requiring no optical adjustments. The modules are available in stand-alone only.

APPLICATION EXAMPLES

- 10/100 Mbps Ethernet
- High Speed Computer Links

FEATURES

- 10/100 Mbps Ethernet
 - 10/100 TX Electrical Port
 - 100 FX Optical Port
 - Full Duplex or Half Duplex Data
- Distances up to 45 km (28 miles)
- Designed to Meet 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.
- Multimode and Singlemode Versions Available
- SC Optical Connectors Standard
- No In-field Optical Adjustments Required
- Power, Transmit and Receive Data Status LED Indicators
- Loss of Optical Link Contact Closure
- IEEE 802.3 Compliant
- 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*
ELECTRICAL	DE7100-EE	10/100 Mbps Ethernet	N/A	N/A	328 ft. (100 m)
MULTIMODE 62.5/125µm**	DE7100-MM	10/100 Mbps Ethernet (1310 nm)	4	10 dB	1.2 miles (2 km)
	DE7100-ME		2		
MM/SM	DE7100-MS	10/100 Mbps Ethernet (1310 nm)	4	10 dB/15dB	1.2 miles (2 km) MM 28 miles (45 km) SM
SINGLEMODE 9/125µm	DE7100-SS	10/100 Mbps Ethernet (1310 nm)	4	15 dB	28 miles (45 km)
	DE7100-SE		2		
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 '-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.

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

SPECIFICATIONS

DATA

Data Interface: Ethernet
 Data Rate: 10/100 Mbps
 IEEE 802.3 Compliant
 Full Duplex or Half Duplex

WAVELENGTH

DE7100-MM, EM, MS 1310 nm, Multimode
 DE7100-SS, ES, MS 1310 nm, Singlemode

NUMBER OF FIBERS 2, 4

CONNECTORS

Optical: SC
 Power: Terminal Plug with screw clamps
 Data: RJ-45

ELECTRICAL & MECHANICAL

Power: 12 VDC @200 mA
 Surface Mount: 12 VDC @200 mA
 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): 4.0 x 3.0 x 1.0 in., 10.2 x 7.6 x 2.5 cm.
 Surface Mount:
 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 CE c UL US GSA
 Federal Supply Schedule
 Contract No. GS-07F-0049M

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 MODEL	OPTICAL PWR BUDGET	MAX. DISTANCE*
N/A	N/A	DE7100-EE	N/A	328 ft. (100 m)
Multimode 62.5/125µm**	1310 nm	DE7100-MM DE7100-ME	10 dB	1.2 miles (2 km)
MM/SM	1310 nm	DE7100-MS	10 dB/15dB	1.2 miles (2 km) MM 28 miles (45 km) SM
Singlemode 9/125µm	1310 nm	DE7100-SS DE7100-SE	15 dB	28 miles (45 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

