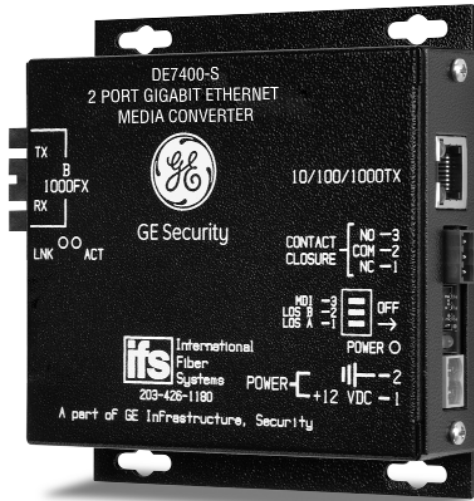


## ifs PRODUCT SPECIFICATION DE7400 SERIES 10/100/1000 Mbps GIGABIT ETHERNET 2-PORT TRANSCEIVER



### DESCRIPTION

The IFS DE7400 Series Gigabit Ethernet 2-port transceiver is designed to transmit and receive 1000 Mbps data over fiber or 10/100/1000 Mbps data over CAT5e electrical cable. It is available in any combination of electrical or optical ports. The DE7400 is environmentally hardened to operate in extreme temperatures. Loss of optical link contact closure for remote alarm sensing. Status indicating LEDs for power and data activity 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

- 10/100/1000 Mbps Ethernet
- High Speed Computer Links

### FEATURES

- 10/100/1000 Mbps Ethernet
  - 10/100/1000 BASE-T Electrical Port
  - 1000 BASE-FX Optical Port
  - Full Duplex or Half Duplex Data
  - Auto MDI/MDI-X
- 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.
- No In-field Optical Adjustments Required
- Power, Transmit and Receive Data Status LED Indicators
- Loss of Optical Link Contact Closure
- Distances up to 28 km (17 miles)
- SC Optical Connectors Standard
- IEEE 802.3 Compliant
- Comprehensive Lifetime Warranty



Available at: [www.ifs.com](http://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**	DE7400-MM	1000 Mbps Ethernet (850 nm)	4	8 dB	0.3 miles (500 m)
	DE7400-M		2		
MULTIMODE SINGLEMODE	DE7400-MS	1000 Mbps Ethernet (850/1310 nm)	4	8 dB	0.3 miles (500 m) 17 miles (28 km)
SINGLEMODE 9/125µm	DE7400-SS	1000 Mbps Ethernet (1310 nm)	4	10 dB	17 miles (28 km)
	DE7400-S		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

Europe, Middle East, Africa TEL +44 113 238 1668 ■ Asia Pacific TEL +65 6235 2661 ■ Latin America TEL (512) 477-8787

#### SPECIFICATIONS

##### DATA

Data Interface: Ethernet  
 Data Rate: 10/100/1000 Mbps  
 IEEE 802.3 Compliant  
 Full Duplex or Half Duplex

##### WAVELENGTH

DE7400-MM, M 850 nm, Multimode  
 DE7400-MS 850 nm, Multimode/1310 nm, Singlemode  
 DE7400-SS, S 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 @ 600 mA  
 Surface Mount: Solid-state; independent on each board  
 Voltage Regulation: Automatic Resettable Solid-State Current Limiters  
 Current Protection: Meets IPC Standard  
 Circuit Board: 4.0 x 3.5 x 1.0 in., 10.2 x 8.9 x 2.5 cm.  
 Size (in./ cm.) (LxWxH):  
 Surface Mount: < 2 lbs./0.9 kg  
 Shipping Weight:

##### 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 conformance coating.

##### AGENCY COMPLIANCE

FCC PART 15 COMPLIANT CE UL 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*
Multimode 62.5/125µm**	850 nm	DE7400-M DE7400-ME	8 dB	0.3 miles (500 m)
Multimode Singlemode	850/1310 nm	DE7400-MS	8 dB	0.3 miles (500 m) 17 miles (28 km)
Singlemode 9/125µm	1310 nm	DE7400-SS DE7400-S	10 dB	17 miles (28 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

