



DESCRIPTION

The IFS DE7300 Series Gigabit Ethernet 3-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 DE7300 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 30 km (18 miles)
- SC Optical Connectors Standard
- 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	DE7300-EE	10/100/1000 Mbps Ethernet	N/A	N/A	10/100 Mbps 328 ft. (100 m) 1000 Mbps 33 ft. (10 m)
MULTIMODE 62.5/125µm**	DE7300-MM DE7300-ME DE7300-M3	1000 Mbps Ethernet (850 nm)	4 2 6	8 dB	0.3 miles (500 m)
MULTIMODE SINGLEMODE	DE7300-MS	1000 Mbps Ethernet (850/1310 nm)	4	8 dB	0.3 miles (500 m) 15 miles (24 km)
SINGLEMODE 9/125µm	DE7300-SS DE7300-SE DE7300-S3	1000 Mbps Ethernet (1310 nm)	4 2 6	10 dB	18 miles (30 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 '-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.

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With Offices in Asia Pacific ■ Australia ■ Europe ■ Latin America



TECHNICAL SPECIFICATION

DE7300 SERIES

10/100/1000 Mbps GIGABIT ETHERNET 3-PORT SWITCH

SPECIFICATIONS

DATA

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

WAVELENGTH

DE7300-MM, ME, M3 850 nm, Multimode
DE7300-MS 850 nm, Multimode/1310 nm, Singlemode
DE7300-SS, SE, S3 1310 nm, Singlemode

NUMBER OF FIBERS 2, 4, 6

CONNECTORS

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

ELECTRICAL & MECHANICAL

Power: 12 VDC @600 mA, 24 VDC @300 mA
Surface Mount:
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: 4.0 x 3.5 x 1.0 in., 10.2 x 8.9 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



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	DE7300-EE	N/A	10/100 Mbps 328 ft. (100 m) 1000 Mbps 33 ft. (10 m)
Multimode 62.5/125µm**	850 nm	DE7300-MM DE7300-ME DE7300-M3	8 dB	0.3 miles (500 m)
Multimode Singlemode	850/1310 nm	DE7300-MS	8 dB	0.3 miles (500 m) 15 miles (24 km)
Singlemode 9/125µm	1310 nm	DE7300-SS DE7300-SE DE7300-S3	10 dB	18 miles (30 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

