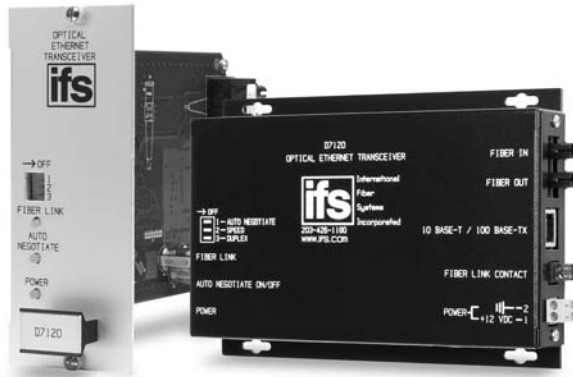




PRODUCT SPECIFICATION

D7100 SERIES

10/100 Mbps ETHERNET OPTICAL TRANSCEIVER



DESCRIPTION

The IFS D7100 Series ethernet transceiver is designed to transmit and receive 10 or 100 Mbps data over multimode or singlemode fiber. The IFS D7100 Series will function as a 10 Mbps Ethernet link, or as a 100 Mbps Ethernet link without any adjustments. The D7100 Series is environmentally hardened to operate in extreme temperatures. Status indicating LED's for power and data type are present at the RJ-45 connector and at the fiber optic transceiver end. Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments. The modules are available in either stand-alone or rack mount versions.

APPLICATION EXAMPLES

- 10/100 Mbps Ethernet
- High Speed Computer Links

FEATURES

- 10/100 Mbps Ethernet
 - Auto-Negotiating
 - 10/100 Selectable
 - Full Duplex or Half Duplex Data
- Auto Network Detection MDI/MDI-X
- Distances up to 45 km (28 miles)
- NTCIP Compatible
- 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.



- Multimode and Singlemode Versions Available
- ST Optical Connectors Standard
- No In-field Electrical or Optical Adjustments Required
- Power, Transmit and Receive Data Status LED Indicators

- Hot-Swappable Rack Modules

Available at: **www.ifs.com**

- IEEE 802.3 Compliant

- Comprehensive Lifetime Warranty

- 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**	D7120	10/100 Mbps Ethernet (1310 nm)	2	10 dB	1.2 miles (2 km)
	D7120WDMA*	10/100 Mbps Ethernet (1310/1550 nm)	1	10 dB	3 miles (5 km)
	D7120WDMB	10/100 Mbps Ethernet (1550/1310 nm)			
SINGLEMODE 9/125µm	D7130WDMA*	10/100 Mbps Ethernet (1310/1550 nm)	1	15 dB	28 miles (45 km)
	D7130WDMB	10/100 Mbps Ethernet (1550/1310 nm)			
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 ‘-R3’ to Model Number for R3 Rack Mount (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. ♦ WDMA must mate with a WDMB.

♦ All accessories are third party manufactured.



TECHNICAL SPECIFICATION

D7100 SERIES

10/100 Mbps ETHERNET OPTICAL TRANSCEIVER

SPECIFICATIONS

DATA

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

WAVELENGTH

D7120	1310 nm, Multimode
D7120WDM	1310/1550 nm, Multimode
D7130WDM	1310/1550 nm, Singlemode

NUMBER OF FIBERS

1 or 2

CONNECTORS

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

ELECTRICAL & MECHANICAL

Power:	
Surface Mount:	12 VDC @200 mA
Rack:	From Rack
Number of Rack Slots:	2
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:	7.0 x 4.9 x 1.0 in., 17.8 x 12.5 x 2.5 cm.
Rack Mount:	7.7 x 5.0 x 2.0 in., 19.6 x 12.7 x 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

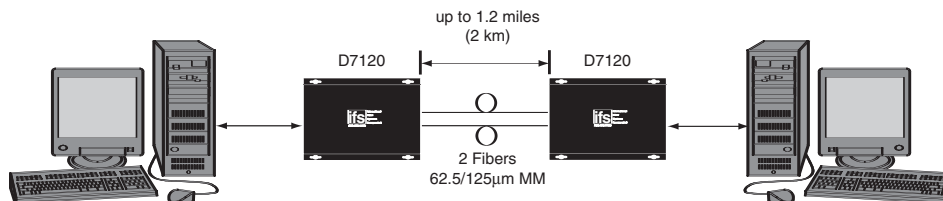
Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J

OPTICAL POWER BUDGET

FIBER	WAVELENGTH	TRANSCEIVER MODEL	OPTICAL PWR BUDGET	MAX. DISTANCE*
Multimode 62.5/125µm**	1310 nm	D7120	10 dB	1.2 miles (2 km)
	1310/1550 nm	D7120WDM (1310/1550 nm) D7120WDMB (1550/1300 nm)	10 dB	3 miles (5 km)
Singlemode 9/125µm	1310/1550 nm	D7130WDM (1310/1550 nm) D7130WDMB (1550/1310 nm)	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



TEL (203)426-1180 ■ FAX (203)426-3326 ■ www.ifs.com ■ sales@ifs.com
16 Commerce Road ■ Newtown, CT 06470

Due to our continued effort to advance technology, product specifications are subject to change without notice.

09/19/07