

OFW-400

Intermediate Frequency (IF) Fiber Optic Interfacility Link (IFL) System



The principle hardware for long-haul transmission of IF signals in the frequency range of 5 MHz to 300 MHz over singlemode fiber optic cable

The OFW-400 Intermediate Frequency (IF) Fiber Optic Interfacility Link (IFL) System is the principle hardware for long-haul transmission of IF signals in the frequency range of 5 MHz to 300 MHz over singlemode fiber optic cable. The standard transmitter and receiver configuration provides transmission distances up to 50 km. An optional extended-range configuration can be specified that increases the link range to 80 km. The system's optical conversion process is functionally independent of the IF carrier's data modulation format. The links have low noise and high dynamic range characteristics, a wide operating temperature range and provide turnkey installation.

The system provides status monitoring through the use of an onboard processor that communicates with a host computer over a RS-232 I/O interface. The I/O parameters include laser bias current, optical receive power, internal temperature and alarm monitoring. In addition, an optional Low Noise Amplifier (LNA) or integrated Bias-T for remote LNA powering may be specified. Also, the system may be specified with an extended frequency range of 5 MHz to 500 MHz. Finally, the OFW-400 when specified with the 75 ohm input/output impedance option provides a highperformance, cost-effective solution for CATV Return Path signal distribution in Hybrid Fiber/Coax Networks.

Information: Call us toll-free at 888-868-8967 or email info@b2bphotonics.com

Applications

- CATV Return Path Link
- Interfacility Link Remoting
- Frequency Reference Distribution
- SATCOM Uplink & Downlink Remoting
- IF Distribution, 70 MHz/140 MHz
- HF & VHF Signal Transmission

Features

- CWDM Compatible
- Wide Bandwidth, 5 MHz to 500 MHz
- High Dynamic Range
- Low Noise RF Front-end (opt)
- LNB Powering (opt)
- 80 km Extended Range (opt)
- RS-232 or RS-485 Data Port (opt)
- 1 Year Full, 2 Year Limited Warranty

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Specifications

Optical		General	
Operating Wavelength:	1310 nm \pm 2 nm or CWDM Bands or 1550 nm \pm 2 nm	Power Supply, AC Autoranging:	85 VAC -264 VAC, 47 Hz to 440 Hz, Single Phase
Laser Diode:	Class 3A	Power Supply, DC Autoranging (opt):	-48 VCD to +48 VCD
Output Power:	+3 dBm \pm 0.5 dBm	AC Receptacle:	IEC 320
Allowed Backreflection (max):	36 dB @ full specs	Optical Input:	FC/APC, SC/APC, AVIM APC or User Specified
E/O Diff. Eff. (min):	0.06 W/A	RF Output Connector:	SMA(f), 50 ohm or F(f), 75 ohm
RF Channel		Operating Temperature:	-40° C to +71° C
Modulation Bandwidth:	5.0 MHz to 300.0 MHz or 5.0 MHz to 500.0 MHz (opt)	Storage Temperature:	-40° C to +85° C
Flatness (max):	\pm 1.0 dB	Local Alarm:	LED - Optical Power Failure LED - Line Power On
VSWR (max):	2.0:1	Optical Power Monitor:	1 V/m W \pm 10%
1 dB Comp. Level (min):	20.0 dBm*	Remote Alarms:	Open Collector and RS-232 or RS-485 Interface
Input IP-3 (min) @ 2x+3 dBm:	34.0 dBm*	* Note: Overall link performance as measured from transmitter IF input to receiver IF output.	
Input Damage Level:	+27.0 dBm*		
RF Link Gain (typ):	+0.0 dB @ 1.0 dB Optical Loss*		
Noise Figure (max):	35 dB @ 1.0 dB Optical Loss*		

