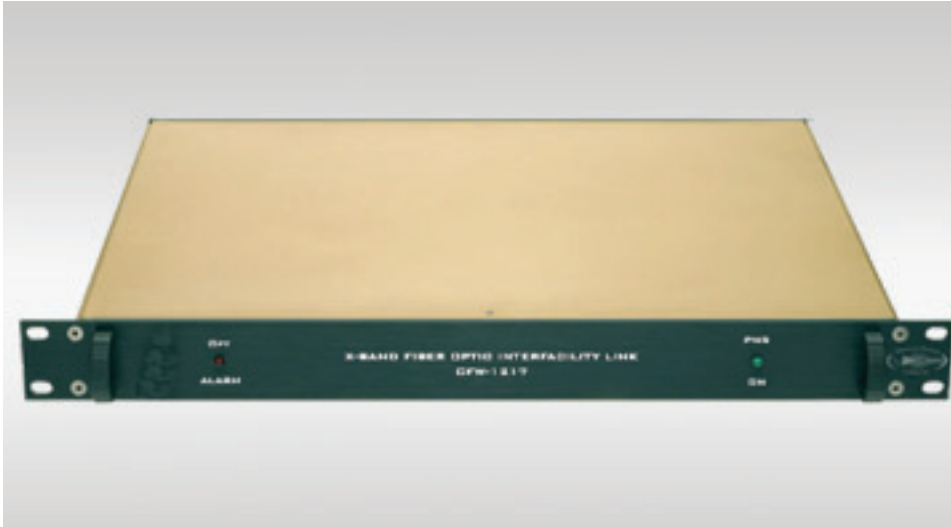


microwave photonic systems

OFW-1217

Fiber Optic Antenna Link (FOAL)



Designed to simultaneously transport up to four separate X-Band SATCOM uplink and downlink signals between an earth station facility and a remotely located antenna site

The OFW-1217L Inter Facility Link (IFL) is an analog fiber optic modem designed to simultaneously transport up to four separate X-Band SATCOM uplink and downlink signals between an earth station facility and a remotely located antenna site via a multi strand optical cable. The IFL is packaged in two, 19" rack mountable equipment chassis' that serve as the interface units between the uplink and downlink segments of the XBand SATCOM system. The IFL uplink channel accepts X-Band input signals (7.9 to 8.4 GHz) from the earth station facility equipment while the downlink channel accepts X-Band input signals (7.25 to 7.75 GHz) from the antenna site equipment. The IFL data link operates over a primary and an auxiliary data channel at a data rate of 38.4 Kbps. The IFL rack unit provides an RS-485 data expansion port for additional IFL rack units to be cascaded to the primary unit without degradation to any of the IFL System functions. The IFL optical transmitter and receiver plug-in modules are capable of supporting future applications of WDM technology and are configurable to support Ku-Band satellite operations by exchanging the X-Band optical receiver plug-in module, Model # 10350A, with the Ku-Band optical receiver plugin module, Model # 10350B. The IFL can also support mixed mode satellite operations; that is, simultaneous X-Band and Ku-Band operations. The IFL is delivered with a Windows based RS-485, Monitor and Control System (MCS), capable of digital or analog signal monitoring, performing manual or automatic control sequences, and initiating alarms. The IFL System has capability of automatic, emergency, and manual switch over, as well as the ability to exercise all IFL System sub-component modules. These prognostic features allow the system operator to maintain auxiliary subcomponent module operational readiness by identifying faults in modules before they are requested as an essential back up thereby increasing system availability.

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

Features

- X-Band Uplink and Downlink
- Low Noise
- High Link Dynamic Range
- Imbedded Software Control
- 1U Rack Mountable Formfactor
- Custom Configurations are Available
- 1 Year Full, 2 Year Limited Warranty

Microwave Photonic Systems, Inc.

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Specifications

Optical Parameters

Wavelength Range:	1550 nm \pm 6 nm
Output Opt Power:	>7.0 dBm
Rel Intensity Noise:	<-1550 dBm/Hz
Conn type:	FC/APC
Fiber:	Single mode (9/125) micron
Operating Temperature:	Antenna Unit: -28°C to +65°C Receiver Unit: 0°C to +50°C,
Storage Temperature:	-40°C to +71°C, Antenna & Receiver Unit
Vibration:	Mil-STD-167
Shock:	Mil-S-901D

RF Parameters

Frequency Range:	0.1 to 18.0 GHz
Amplitude Flatness:	\pm 1.0 dB (max.) @ 7.0 to 9.0 GHz
Input/Output Impedance:	50 ohms
Input/Output VSWR:	1.35:1 (max.) @ 7.0 to 9.0 GHz
Input 1 dB Comp.:	>+13.0 dBm @ 7.0 to 9.0 GHz
Max. RF Input Power:	>24.0 dBm @ 7.0 to 9.0 GHz
Input Third Order (IP3):	>+27.0 dBm @ 7.0 to 9.0 GHz
Eq. Input Noise (EIN):	<-126.0 dBm/Hz @ 7.0 to 9.0 GHz
Noise Figure (NF)*:	<48.0 dB @ 7.0 to 9.0 GHz
Spur Free Dynamic Range:	>+102.0 dB-Hz(2/3) @ 7.0 to 9.0 GHz
SNR @ 1 dB Comp.:	>+141.0 dB @ 7.0 to 9.0 GHz, 1Hz BW

(NF)* Note = +174 dBm/Hz + EIN dBm/Hz

