

microwave photonic systems

OFW-6700TX / OFW-6700RX

Dual L / X Band Fiber Optic Transmission System



Provides Dynamic Configurability of the Uplink or Downlink Transmission Path for use with MIL SATCOM L-Band or X-Band Terminals.

The OFW-6700 is a high performance RF/ Fiber Optic Transmission system designed for L-Band and X-Band SATCOM Uplink & Downlink RF transmission applications. The OFW-6700 functions as Dual Band Fiber Optic Interfacility Link when the OFW-6700TX is paired with the OFW-6700RX and interconnected using single mode fiber optic cable.

The OFW-6700TX and OFW-6700RX have been designed to provide maximum flexibility for the systems operator. The OFW-6700TX and OFW-6700RX are both configured with integrated digital attenuators. The L-Band transmission path is configured with variable gain adjustment capability on the receiver, while the X-Band transmission path is configured with variable gain adjustment elements on both the transmit and receive stages. The benefit of this variable configuration is that it allows the OFW-6700 to meet both the operational requirements of an Uplink (UL) or Downlink (DL) transmission path within MIL-SATCOM terminals.

The integrated microprocessor provides monitor and control of the system performance parameters allowing the operator to dynamically execute signal path adjustments. Adjustments are achieved through the use of front panel input keys or via the RS-485 communications port and the local host computer.

The integrated 19" x 1RU chassis design provides front panel VFD display for immediate presentation of operational status and critical parameters such as gain stage values, internal temperature, received optical power, power supply voltages and system alarm status.

Information: Toll-free at 888-868-8967 or email info@b2bphotonics.com

Applications

- Antenna Remoting
- X Band SATCOM Transmission
- L Band SATCOM Transmission

Features

- L-Band Uplink or Downlink
- X-Band Uplink or Downlink
- High Spur Free Dynamic Range
- Dynamic Gain Adjustment
- VFD Panel Display
- Front Panel Adjustment Keys
- Status Monitoring: RS-485

Microwave Photonic Systems, Inc.

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OFW-6700TX / OFW-6700RX

Dual Band Fiber Optic IFL Transmission System

L-Band; 950 MHz to 2 GHz

X-Band; 7 to 9 GHz

Specifications

Optical:

Operating Wavelength	1310 nm
Optical Output Level (min)	+5.0 dBm
E/O Diff. Eff. (min)	0.1 W/A
Line Width (3 dB)	10 MHz
Side Mode Suppression (typ)	45.0 dB

Uplink Channel:

Frequency	950 MHz to 2.0 GHz	7.9 GHz to 8.4 GHz
Flatness (typ.)	± 0.75 dB over any 500 MHz Bandwidth	± 0.75 dB over any 500 MHz Bandwidth
VSWR Input/Output (max)	1.5:1	1.8:1
1 dB Comp. Level (min)	20.0 dBm(1) (Input)	15.0 dBm(1) (Output)
Output IP-3 (min)	30.0 dBm(1)	27.0 dBm(1)
RF Link Gain (min)	-10.0 dB +/- 1.0 dB(1)	0.0 dB +/- 1.0 dB(1)
Noise Figure (max)	58.0 dB (1)	46.0 dB (1)
RF Input Power (max)	+ 10 dBm	+ 12 dBm

Downlink Channel:

Frequency	950 MHz to 2.0 GHz	7.25 GHz to 7.75 GHz
Flatness (typ.)	± 0.75 dB over any 500 MHz Bandwidth	± 0.75 dB over any 500 MHz Bandwidth
VSWR Input/Output (max)	1.5:1	1.8:1
1 dB Output Comp. Level (min)	20.0 dBm(1) (Input)	0.0 dBm(1) (Output)
Output IP-3 (min)	30.0 dBm(1)	12.0 dBm(1)
RF Link Gain (min)	-10.0 dB +/- 1.0 dB(1)	0.0 dB +/- 1.0 dB(1)
Noise Figure (max)	58.0 dB (1)	32.0 dB (1)
RF Input Power (max)	+18 dBm	-3.0 dBm

General

Power Supply	120 VAC, Dual External AC/DC Converters
Optical / RF Connector	FC/APC & SMA (f), 50 ohm
Operating/Storage Temp.	0.0°C to +50°C & -20°C to +70°C
Local Alarm	LED: Bit Fault & Optical Power Failure
Remote Alarms	RS-485 Interface
Dimensions	19" x 1RU Rack Chassis

(1): Link performance measured when configured as an IFL with 2 dBo.

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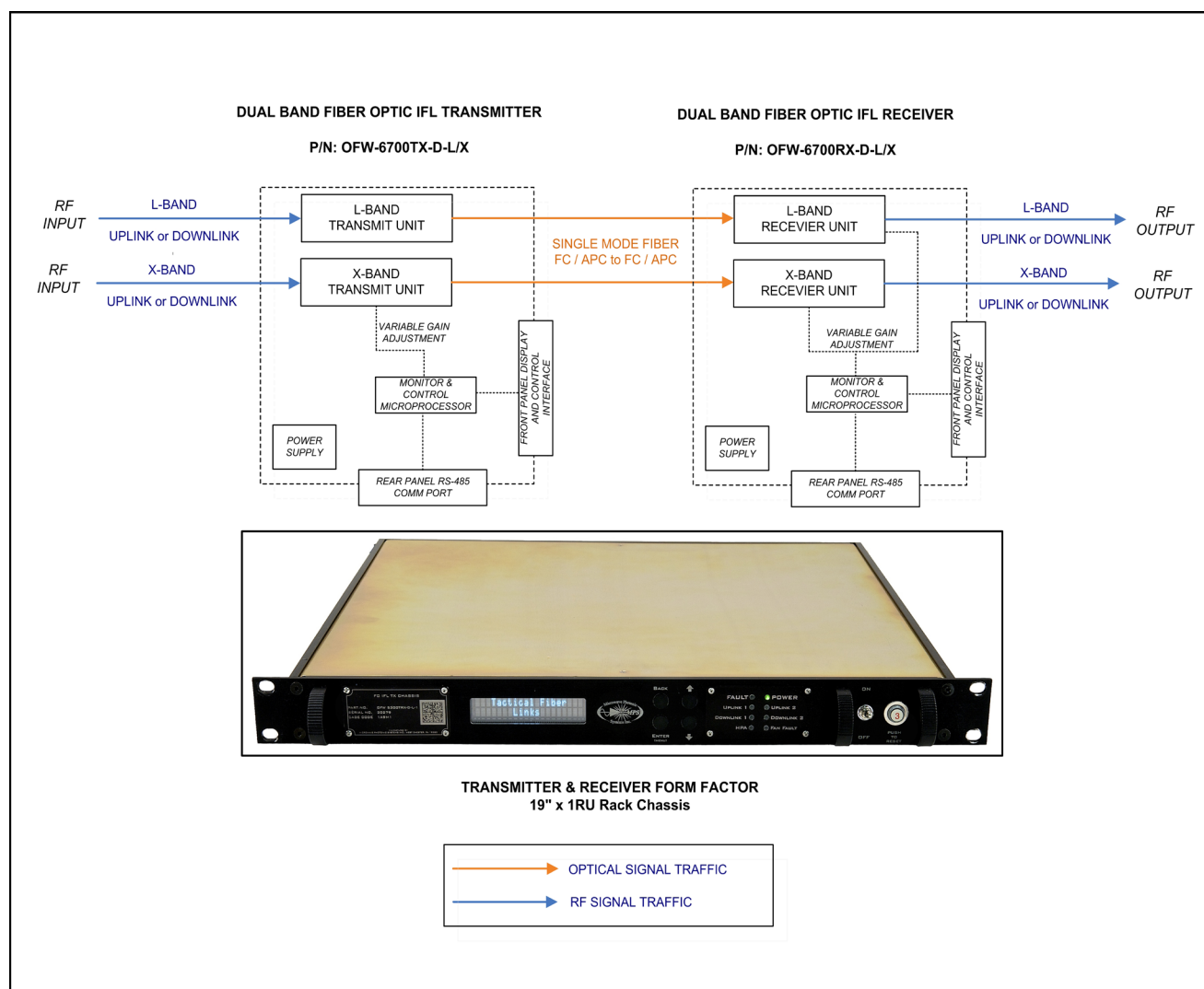
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Functional Block Diagram:



Expand Your RF Horizon ©

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