

OFW-3478

## GPS/Inmarsat Fiber Optic Antenna Link



### Designed to perform E/O and O/E conversion of RF satellite downlink signals over a range of 1.0 GHz to 2.0 GHz

The OFW-3478 GPS/Inmarsat Photonic Antenna Link is designed to perform E/O and O/E conversion of RF satellite downlink signals over a range of 1.0 GHz to 2.0 GHz. Specifically, the link can accept simultaneous RF inputs from both a GPS antenna and an Inmarsat antenna. The RF/optical signals can then be transported between the antenna headend and the radio-processing center over an optical fiber cable up to distances of 50 km. An optional long-haul DFB laser can be specified that increases the link range to 80 km. The system's optical conversion process is functionally independent of the RF carrier's data modulation format. In addition, an optional integrated Bias-T for GPS and Inmarsat LNA powering may be specified. The system can be tailored for a variety of custom L-Band SATCOM applications.

The OFW-3478 system provides end-to-end status monitoring of its head-end and radio processing center units through the use of an imbedded software controlled onboard processor that can communicate with a M & C host computer over a RS-232 I/O interface. The I/O parameters include GPS and Inmarsat LNA current, GPS and Inmarsat laser bias current, GPS and Inmarsat optical receive power, internal temperature and alarm monitoring. The OFW-3478 provides a high-performance, cost-effective solution for transporting L-Band signals over single mode fiber.

**Information:** Call us toll-free at 888-868-8967 or email [info@b2bphotonics.com](mailto:info@b2bphotonics.com)

#### Applications

- Satellite Signal Generator Distribution
- Antenna Remoting
- L-Band SATCOM
- Telemetry
- Time & Freq. Reference Distribution

#### Features

- CWDM Compatible
- GPS L1/L2 Dual Frequency Capability
- High Link Dynamic Range
- Status Monitoring of Key System Comp. over RS-232
- Imbedded Software Control
- LNA Powering (opt)
- Custom Configurations are Available
- 1 Year Full, 2 Year Limited Warranty

DFW-3478

## GPS/Inmarsat Fiber Optic Antenna Link

### Specifications

GPS	General
RF Gain: -20.0 dB to 38.0 dB, adjus table range	Power Supply, AC Autoranging: 85 VAC -264 VAC, 47 Hz to 440 Hz, Single Phase
RF Noise: 3.0 dB to 40.0 dB, adjus table range	Power Supply, DC Autoranging (opt): -48 VCD to +48 VCD
VSWR In/Out: 2:0:1 (max)	AC Recepticle: IEC 320
P1dB: >-20.0 dBm	Optical Input: FC/APC, SC/APC, AVIM APC or User Specified
SFDR: >100.0 dB Hz <sup>2</sup> /3	RF Output Connector: SMA(f), 50 ohm or F(f), 75 ohm
Optical Loss Budget: >15.0 dBm	Operating Temperature: -40° C to +71° C
Optical Wavelength: 1310 nm, 1550 nm or CWDM	Storage Temperature: -40° C to +85° C
<b>Inmarsat</b>	Local Alarm: LED - Optical Power Failure LED - Line Power On
RF Gain: -20.0 dB to 38.0 dB, adjus table range	Optical Power Monitor: 1 V/m W ± 10%
RF Noise: 3.0 dB to 40.0 dB, adjus table range	Remote Alarms: Open Collector and RS-232 or RS-485 Interface
VSWR In/Out: 2:0:1 (max)	Dimensions: 19"(w) x 14"(l) x 1.75"(h)
P1dB: >-20.0 dBm	
SFDR: >100.0 dB Hz <sup>2</sup> /3	
Optical Loss Budget: >15.0 dBm	
Optical Wavelength: 1310 nm, 1550 nm or CWDM	

Microwave Photonic Systems, Inc.

1155 Phoenixville Pike, Unit 106, West Chester, PA 19380, Toll-Free: 888-868-8967

Phone: 610-344-7676, Fax: 610-344-7110, E-mail: info@b2bphotonics.com, Internet: b2bphotonics.com

100204 CAGE 1A9M1

