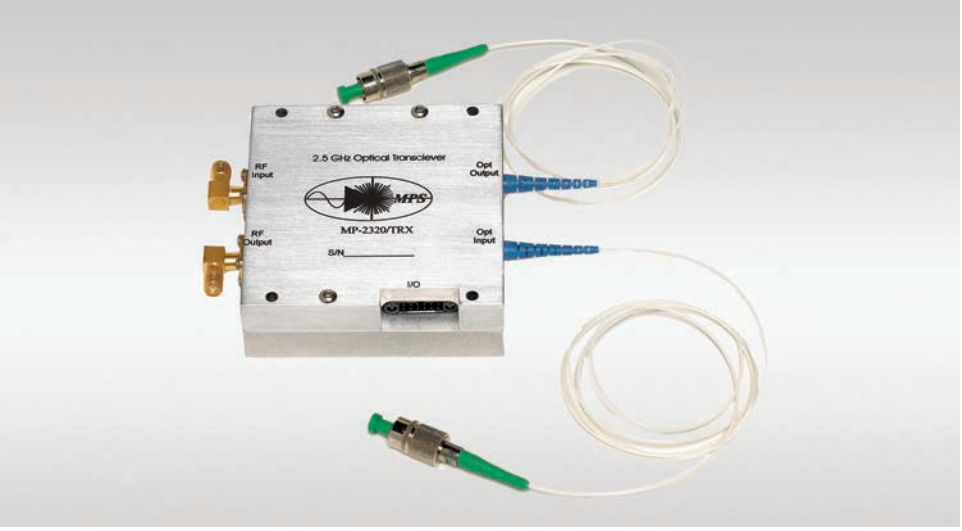
MP-2320TRX

RF Fiber Optic Transceiver 100 MHz - 2500 MHz



Designed to provide full duplex signal transmission between an antenna head-end and radio base station complex interconnected with as much as 50 km of optical cabling

The OFW-2320TRX RF Fiber Optic Transceiver is the principle hardware for long-haul transmission of RF signals in the frequency range of 100 MHz to 2500 MHz over singlemode fiber optic cable. The OFW-2320TRX is designed to provide full duplex signal transmission between an antenna head-end and radio base station complex interconnected with as much as 50 km of optical cabling. The OFW-2320TRX is compatible with various radio transceivers and can replace the conventional RF Coax Cables that interconnect the transceivers to their respective antennas. The system function is independent of the RF 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 or RS-485 I/O interface.

A typical antenna installation configuration would resemble an architecture where the OFW-2320TRX remote unit is installed such that it is interconnected to the Antenna via an uplink/downlink duplexer. Specifically, the uplink optical channel connects to the Power Amplifier (PA), the downlink optical channel connects to the Low Noise Amplifier (LNA). Similarly, the base station installation configuration would resemble an architecture where the OFW-2320TRX uplink and downlink optical channels are mated to the radio transceivers. With the addition of an optional WDM module will enable the system to have bi-directional uplink/downlink transmission over a single fiber optic cable.

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

Applications

- Interfacility Link Remoting
- SATCOM Uplink & Downlink Remoting
- UHF Distribution
- PCS / Wireless / Wi-Fi

Features

- CWDM Compatible
- High Dynamic Range
- Low Noise RF Front-end
- LNA Powering (opt)
- 80 km Extended Range (opt)
- RS-232 or RS-485 Data Port (opt)
- 1 Year Full, 2 Year Limited Warranty

Microwave Photonic Systems, Inc.
1155 Phoenixville Pike, Unit 106, West Chester, PA 19380, Toll-Free: 888-868-8967
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100204 CAGE 1A9M1

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Specifications

Optical

Operating Wavelength:	1310 nm ± 2 nm or CWDM Bands or 1550 nm ± 2 nm
Laser Diode:	Class 3A
Output Power:	+3 dBm ± 0.5 dBm
Allowed Backreflection (max):	36 dB @ full specs
E/O Diff. Eff. (min):	0.06 W/A

RF Channel

Modulation Bandwidth:	100 MHz to 2500 MHz
Flatness (max):	± 2.0 dB
VSWR (max):	2.0:1
1 dB Comp. Level (min):	15.0 dBm*
Input IP-3 Min @ 2x+3 dBm:	26.0 dBm*
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*

General

Power Supply, DC:	+8 VCD to +24 Vdc @ 500 mA
Optical Connector:	FC/APC, SC/APC, AVIM APC or User Specified
RF Connector:	SMA(f), 50 ohm or F(f), 75 ohm
DC Connector:	DB-15
Operating Temperature:	-40° C to +71° C
Storage Temperature:	-55° C to +85° C
Local Alarm:	LED - Optical Power Failure LED - Line Power On
Optical Power Monitor:	1 V/m W ± 10%
Remote Alarms:	Open Collector and RS-232 or RS-485 Interface
Dimensions:	5.6" x 6.0" x 1.35"

* Note: Overall link performance as measured RF input to RF output.

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