microwave photonic systems

MP-2350TX

3.5 GHz Linear Photonics Transmitter



Designed for antenna remoting and RF transmission applications using single mode fiber optic cable

The MP-2350TX is a comprehensive family of RF/Fiber Optic Transmitters that are designed to provide electrical-to-optical (E/O) conversion of broadband RF signals over a frequency range of 1.0 MHz to 3500 MHz. The MP 2350TX has an internal low noise, variable gain Pre-Amp that facilitates the adjustment of the overall link system RF Noise Figure. This feature permits the optimization of system dynamic range relative to the optical loss budget. The MP 2350TX can be specified to operate over four a unique frequency range as indicated by the part number generator.

The utilization of the MP 2350TX in conjunction with the MP-2350RX, RF/Fiber Optic Receiver, forms a broadband linear photonics link capable of supporting the transmission of RF signals over singlemode optical fiber for use in a wide array of communication applications. Applications include GPS Antenna Remoting, Time & Frequency Reference Distribution, RF Delay Lines, LTE / PCS Wireless, Telemetry Tracking, and Point-to-Point RF transmission.

The MP 2350TX utilizes an ultra linear, low noise Distributed Feedback (DFB) laser with intergrated stability control. The transmitter operates over link distances up to 80 km. The transmitter provides status monitoring & control through an embedded processor that communicates to the User's M&C computer via a serial interface. Available parameters include Laser Pre-Amp Gain Control, Bias Current, Temperature and Alarm Status.

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

Applications

- GPS Signal Distribution
- Antenna Remoting
- Satellite Radio, XM, Sirius
- L Band SATCOM
- Wireless / PCS

Features

- Widebandwidth 1.0 MHz to 3500 MHz
- Integrated Bias-T
- Integrated LNA
- WDM & CWDM Compatible
- High Dynamic Range
- 1RU, 3RU and Flange Mount Configurable
- Status Monitoring: RS-232 or RS-485
- 1 Year Full, 2 Year Limited Warranty

Microwave Photonic Systems, Inc.

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Specifications

Optical		General	
Operating Wavelength:	1310 or 1550 nm \pm 2.0 nm , CWDM	Power Supply:	8.0 to +24.0 VDC, 350 mA max
Optical Output Level (min): +3.0 dBm ± 0.5 dBm	Optical Input Receptacle:	Pigtail, FC/APC, SC/APC or AVIM APC
E/O Diff. Eff. (min):	0.8 W/A	RF Output Connector:	SMA(f), 50 ohm
Allowed Backrefelction (m	ax): 35 dB @ full specification	DC Connector:	DB-15
Laser Diode Classification:	Class 3A	Operating Temperature:	-40° C to +85° C
		Storage Temperature:	-55° C to +85° C
		Local Alarm:	LED - Optical Power Failure (Plug-in Only)
 RE Channel		Optical Power Monitor:	1 V/m W ± 10%
		Remote Alarms:	Open Collector and RS-232 or RS-485
Modulation Bandwidth	1.0 MHz to 3.5 GHz (see p/n generator)	Standard Conformity:	CE
Flatness (max):	\pm 1.0 dB (over each frequency window)	Dimensions:	Flange Mount / Plug-In (see p/n generator)
VSWR (max):	2.0:1		
1 dB Comp. Level (min):	+1.0 dBm*		
Input IP-3 (min):	+13.0 dBm*	* Note: Overall link performance as measured from RF Input/Output	
Input Damage Level:	+15.0 dBm*	when linked with the MP-2350RX	
RF Link Gain (typ):	0.0 dB @ 2.0 dB optical loss	* Note: Overall link performance when MP-2350TX internal	
Noise Figure (max):	20 to 40 dB (adjustable) @ 2.0 dB optic loss	Pre-Amp set for a link NF = 22 dB	
Part Number Generator			



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