

MP-2300TX

2.5 GHz RF Analog Fiber Optic Transmitter



Designed to provide electrical-to-optical (E/O) conversion of broadband RF signals over a frequency range of 2 MHz to 2500 MHz

The MP-2300TX 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 2 MHz to 2500 MHz. The transmitter family is comprised of three model variants that each operate over a unique frequency range. Refer to the part number generator tool on page two for details.

The utilization of the MP-2300TX, in conjunction with the appropriate MP-2320RX RF/Fiber Optic Receiver, forms a broadband link capable of supporting the transmission of RF signals over singlemode optical fiber for use in a wide array of communication applications. The link applications include antenna remoting, time and frequency reference distribution, RF delay lines, telemetry tracking, and point-to-point RF transmission.

The transmitter utilizes a low noise, high dynamic range Fabry-Perot (FP) laser with integrated temperature stability control. The transmitter operates over link distances up to 40 km. For distances up to 80 km, refer to the MP-2320TX transmitter series. The unit provides the user with status monitoring through the use of an onboard processor that communicates to a host computer over an RS-232 I/O interface. The I/O parameters include laser bias current, temperature and alarm status.

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

Applications

- Wideband RF Transmission
- Antenna Remoting
- Satellite Radio: XM, Sirius
- L - Band SATCOM
- GPS
- Wireless / PCS

Features

- WDM Compatible
- Wide Bandwidth, 2 MHz to 2500 MHz
- High Dynamic Range
- Low Noise Laser Diode
- RS-232 or RS-485 Data Port (opt)
- 1 Year Full, 2 Year Limited Warranty

MP-2300TX

2.5 GHz RF Analog Fiber Optic Transmitter

Specifications

Optical	General
Operating Wavelength: 1310 nm \pm 2 nm or 1550 nm \pm 2 nm	Power Supply: +8.0 to +24 Vdc, 350 mA max
Laser Diode: Class 3A	Optical Input Receptacle: Pigtail, FC/APC, SC/APC or AVIM APC
Output Power: +3 dBm \pm 0.5 dBm	RF Output Connector: SMA(f), 50 ohm or F(f), 75 ohm
Allowed Backreflection (max): 36 dB @ full specs	DC Connector: DB-15
E/O Diff. Eff. (min): 0.06 W/A	Operating Temperature: -40° C to +70° C
	Storage Temperature: -40° C to +85° C
	Local Alarm: LED - Optical Power Failure (Plug-in only)
	Optical Power Monitor: 1 V/m W \pm 10%
	Remote Alarms: Open Collector and RS-232 or RS-485 Interface
	Standard Conformity: CE
RF Channel	
Modulation Bandwidth: 1.0 MHz to 2.2 GHz	
Flatness (max): \pm 2.0 dB	
VSWR (max): 2.0:1	
1 dB Comp. Level (min): 20.0 dBm*	
Input IP-3 Min @ 2x+3 dBm: 27.0 dBm*	
Input Damage Level: +20.0 dBm*	
RF Link Gain (typ): +0.0 dB @ 1.0 dB Optical Loss*	
Noise Figure (max): 45 dB @ 1.0 dB Optical Loss*	
	* Note: Overall link performance as measured from RF Input/Output when linked with the MP-2320RX.

Part Number Generator

MP2300TX	—	□	—	□	—	□	—	□	—	□	—	□
		Frequency Range		Wavelengths		Impedance		Remote Alarm Interface		Connectors		Case Type
		A = 1.0 MHz to 300 MHz		13 = 1310 nm		5 = 50 ohm		2 = RS-232		P = Pigtail		1 = Plug-In
		B = 50 MHz to 1000 MHz		15 = 1550 nm		7 = 75 ohm		4 = RS-485		F = FC/APC		2 = 3.7" x 3" x 1.25"
		C = 100 MHz to 2250 MHz						N = None		S = SC/APC		
										V = AVIM APC		

