

# Microwave Photonic Systems, Inc. 888-868-8967



## MPS-2300TX

### 2.5 GHz RF Analog Fiber Optic Transmitter

#### 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

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 intergrated 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.

#### 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)
RF Channel		Optical Power Monitor	1 V/mW $\pm$ 10%
Modulation Bandwidth	1.0 MHz to 2.2 GHz	Remote Alarms	Open Collector and RS-232 or RS-45 Interface
Flatness (max)	$\pm$ 2.0 dB	Standard Conformity	CE
VSWR (max)	2.0:1		
1 dB Comp. Level (min)	20.0 dBm <sup>(1)</sup>		
Input IP-3 Min @ 2x+3 dBm	27.0 dBm <sup>(1)</sup>		
Input Damage Level	+20.0 dBm <sup>(1)</sup>		
RF Link Gain (typ)	+0.0 dB @ 1.0 dB Optical Loss <sup>(1)</sup>		
Noise Figure (max)	45 dB @ 1.0 dB Optical Loss <sup>(1)</sup>		

Note (1): Overall link performance as measured from RF Input/Output when linked with the MP-2320RX



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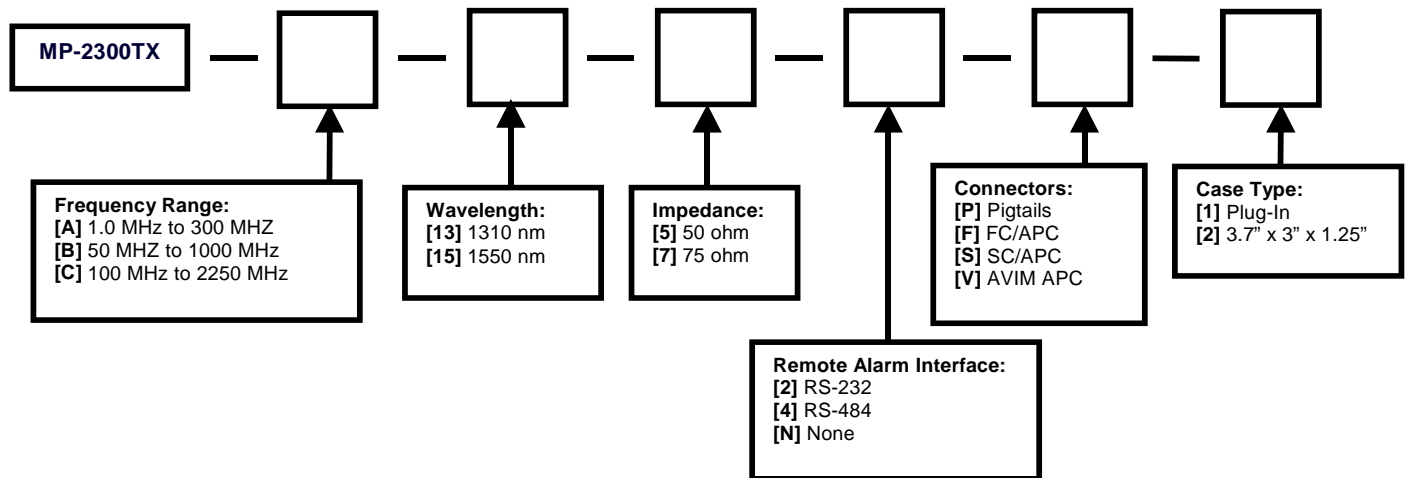
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Part Number Generator



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