



MP-6000TX

20 GHz RF/Fiber Optic Transmitter

Applications

- Ultra-Wideband RF Transmission**
- Antenna Remoting**
- Delay Lines**
- C & X Band SATCOM**
- RADAR, EW & ECM**

Features

- Ultra-Wide Bandwidth, 500 MHz to 20 GHz**
- High Dynamic Range**
- Low Noise**
- Status Monitoring: RS-232 (opt)**
- 1 Year Full, 2 Year Limited Warranty**

The MP-6000TX is a RF/ Fiber optic Transmitter designed for antenna remoting and broadband RF transmission applications using singlemode fiber optic cable.

The transmitter uses a high efficiency Distributed Feedback (DFB) laser diode with an operating wavelength of 1310 or 1550 nm that provides low noise and high dynamic range performance. The transmitter's temperature stability is controlled with the use of a temperature compensation network. The transmitter provides status monitoring through the use of an onboard processor that communicates with a host computer over an RS-232 I/O interface. The I/O parameters include laser bias current, temperature and alarm status.

When the MP-6000TX RF/Fiber Optic Transmitter is linked with the MP-6000RX 20 GHz RF/Fiber Optic Receiver, the combination provides an excellent choice for your ultra-wideband RF to Fiber Optic conversion applications.

Specifications

Optical		General	
Operating Wavelength	1310 & 1550 nm \pm 5.0 nm	Power Supply	+12 to +15.0 VDC, 1.75 A max.
Optical Output Level (min)	+5.0 dBm		
E/O Diff. Eff. (min)	0.1 W/A		
Line Width (3 dB)	10 MHz		
Side Mode Supression (typ)	45.0 dB		
		Optical Output Receptacle	Pigtail, FC/APC, SC/APC or AVIM APC
		RF Input Connector	SMA(f), 50 ohm
		DC Connector	DB-9
		Operating Temperature	-40°C to +70°C
		Storage Temperature	-55°C to +85°C
		Local Alarm	LED: Optical Power Failure
		Optical Power Monitor	1 V/mW \pm 10%
		Remote Alarms	Open Collector and RS-232 Interface
		Standard Conformity	CE
		Dimensions	5(l)" x 3(w)" x 1(h)"
RF Channel			
Modulation Bandwidth	500 MHz to 20 GHz		
Flatness (max)	\pm 1.0 dB in any 500 MHz Bandwidth		
VSWR (max)	2.0:1		
1 dB Comp. Level (min)	15.0 dBm ⁽¹⁾		
Input IP-3 (min)	23.0 dBm ⁽¹⁾ @ 2GHz / 15.0 dBm @ 20GHz		
Input Damage Level	18.0 dBm ⁽¹⁾		
RF Link Gain (min)	-20.0 dB ⁽¹⁾ @ 2 GHz / -25 dB @ 20 GHz		
Noise Figure (max)	36.0 dB ⁽¹⁾ @ 2 GHz / 48.0 dB @ 20GHz		

Note (1): Overall link performance as measured from RF Input/Output when linked with the MP-6000RX (with 1dB Optic Loss)

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