

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



## MP-6000RX

### 20 GHz RF/Fiber Optic Receiver

#### 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-6000RX is a RF/Fiber Optic Receiver designed for antenna remoting and ultra-broadband RF transmission applications using singlemode fiber optic cable.

The receiver utilizes a high-speed, low distortion PIN photodiode detector that provides Optical to RF conversion out to 20 GHz. 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 received optical power, temperature and alarm status.

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

#### Specifications

Optical/Electrical		General	
Bandwidth	500 MHz to 20 GHz	Power Supply	+8.0 Vdc to +24.0 Vdc, 350 mA max.
Operating Wavelength	800 nm to 1650 nm	Optical Input	Pigtail, FC/APC, SC/APC or AVIM APC
Input Level (max)	+5.0 dBm	RF Output Connector	SMA(f), 50 ohm
Responsivity (min)	0.70 A/W @ 1310 nm, 0.75 A/W @ 1550 nm	DC Connector	DB-15
Ripple (Flatness)	-0.5 dB to 1.5 dB	Storage Temperature	-55°C to +85°C
Group Delay (500 MHz to 3dB)	± 7.0 ps	Operating Temperature	-40°C to +71°C
3 dB Bandwidth	20 GHz (min), 22 GHz (typ)	Local Alarm -	LED: Optical Power Failure
Power Dissipation (= Vbd * Ibd)	150 mW	Optical Power Monitor	1 V/mW +/- 10%
Dark Current @ 25°C, 5V	10 nA (typ), 100 nA (max)	Remote Alarms	Open Collector & RS-232 Interface
Optical Return Loss	-30.0 dB (min) -35.0 dB (typ)	Dimensions	6(l)" x 3.4(w)" x 1(h)"
Wavelength Response Range	800 nm (min), 1650 nm (max)		
Bias Voltage @ +13dBm	+6V (typ)		
CSO @ +4dBm	-70.0 dBc		
CTO @ +4dBm	-75.0 dBc		
Input Backreflection	-35.0 dB		
Optical PDL @ 1550nm	0.06 dB (typ), 0.12 dB (max)		
Optical Fault Threshold	Factory preset to -12.0 dBm		



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