

# microwave photonic systems

MP-6000RX

## 20 GHz RF/Fiber Optic Receiver



### Designed for antenna remoting and ultra-broadband RF transmission applications using singlemode fiber optic cable

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.

**Information:** Call us toll-free at 888-868-8967 or email [info@b2bphotonics.com](mailto:info@b2bphotonics.com)

### Applications

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

### 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

Microwave Photonic Systems, Inc.

1155 Phoenixville Pike, Unit 106, West Chester, PA 19380, Toll-Free: 888-868-8967

Phone: 610-344-7676, Fax: 610-344-7110, E-mail: [info@b2bphotonics.com](mailto:info@b2bphotonics.com), Internet: [b2bphotonics.com](http://b2bphotonics.com)

100204 CAGE 1A9M1

MP-6000RX

## 20 GHz RF/Fiber Optic Receiver

### Specifications

#### Optical/Electrical

Bandwidth:	0.1 MHz to 20 GHz
Operating Wavelength:	800 nm to 1650 nm
Input Level (max):	+5.0 dBm
Responsivity (min):	0.70 A/W @ 1310 nm, or 0.75 A/W @ 1550 nm
Ripple (flatness):	-0.5 dB to 1.5 dB
Group Delay (500 MHz to 3 dB):	±7.0 ps
3 dB Bandwidth:	20 GHz (min), 22 GHz (typ)
Power Dissipation (= V <sub>bd</sub> * I <sub>bd</sub> ):	150 mW
Dark Current @ 25° C, 5V:	10 nA (typ), 100 nA (max)
Optical Return Loss:	-30.0 dB (min), -35.0 dB (typ)
Wavelength Response Range:	800 nm (min), 1650 nm (max)
Bias Voltage @ +13dBm:	+6V (typ)
CSO @ +4dBm:	-70.0 dBc
CTO @ +4 dBm:	-75.0 dBc
Input Back-Reflection:	-35.0 dB
Optical PDL @ 1550 nm:	0.06 dB (typ), 0.12 dB (max)
Optical Fault Threshold:	Factory preset to -12.0 dBm

#### General

Power Supply:	+12.0 or +15.0 Vdc, 350 mA max
Optical Input:	Pigtail, FC/APC, SC/APC or AVIM APC
RF Output Connector:	SMA(f), 50 ohm
DC Connector:	DB-9
Storage Temperature:	-55° C to +85° C
Operating Temperature:	-40° C to +71° C
Local Alarm:	LED - Optical Power Failure
Optical Power Monitor:	1 V/mW ± 10%
Remote Alarms:	Open Collector and RS-232 Interface
Dimensions:	5(l)" x 3(w)" x 1(h)"

Microwave Photonic Systems, Inc.

1155 Phoenixville Pike, Unit 106, West Chester, PA 19380, Toll-Free: 888-868-8967

Phone: 610-344-7676, Fax: 610-344-7110, E-mail: info@b2bphotonics.com, Internet: b2bphotonics.com

100204 CAGE 1A9M1

