

10GHz High-Gain PhotoReceiver

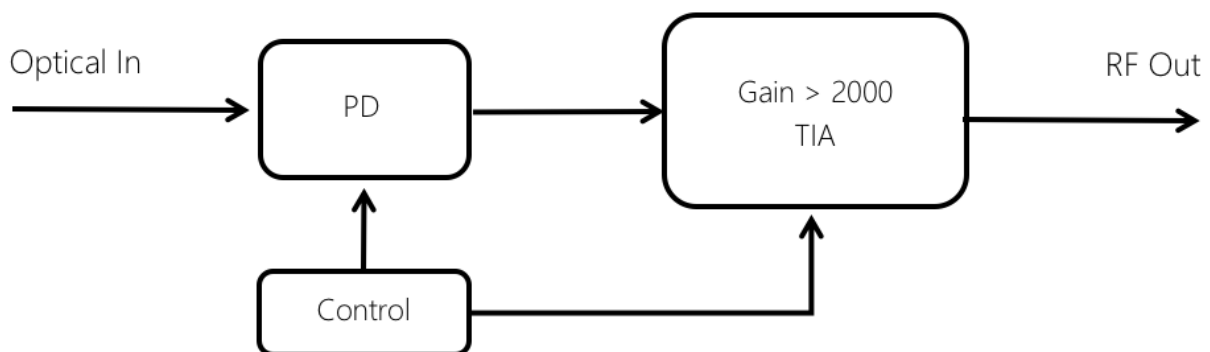


SK-PR-10-B-M

The Optilab SK-PR-10-B-M is a 10 GHz bandwidth high PIN photodiode receiver module designed for RF over Fiber, antenna remoting, and broadband RF signal transmission applications using single mode optical fiber. The SK-PR-10-B-M utilizes a wide bandwidth PIN photodiode optical to RF conversion to the frequency range beyond 10GHz. The SK-PR-10-B-M is a highly linear O/E converter that can be used for both analog and digital signal, with Remote status monitoring through an RS-232 I/O interface. When the SK-PR-10-B-M receiver module is linked with the LT-15-M lightwave transmitter module, the combination provides an excellent solution for ultra-wideband RF to Fiber conversion applications.

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| FEATURES | • RFoF to 10 GHz | • High TIA Gain of 2000 Ω |
| | • High RF Output Power | • RS-232 Monitor Interface |
| | • Highly Linear for Analog Transmission | • Housing Shields RF & Thermal Interference |

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| USE IN | • Wideband Transmission Over Fiber | • EW Systems |
| | • RF / IF Signal Distribution | • Broadband Delay-Line & Signal Processing |
| | • Satcom Microwave Antenna Signal Distribution | • Radar System Calibration |
| | | • Phased & Interferometric Array Antenna |



SK-PR-10-B-M

TECHNICAL SPECIFICATIONS

Photodiode Wavelength Range	1250 nm to 1650 nm
Operational Bandwidth	100 KHz to 10 GHz
Optical Input Level	+3 dBm Maximum
Responsivity	0.85 A / W @ 1550 nm Typical
Trans-Impedance Gain	2000 Ω Typical
Bandwidth	8 GHz Typical
S22 Characteristics	< -10 dB to 10 GHz Typical
Optical Return Loss	-30.0 dB Typical
2 nd Harmonic Distortion	-60.0 dBc Maximum
3 rd Harmonic Distortion	-70.0 dBc Maximum
Optical PDL @ 1550 nm	0.05 dB Typical, 0.1 dB Maximum
Output Coupling	AC Coupled
RF Impedance	50 Ω
Ripple Over Bandwidth	\pm 1.0 dB

MECHANICAL SPECIFICATIONS

Operating Temperature	-15°C to +70°C
Storage Temperature	-55°C to +85°C
Power Supply Requirements	+12 V DC, 500 mA Maximum
Optical Connector	FC / APC
RF Input Connector	K Connector Female, 50 Ω
DC Connector	DB-9
Local Alarm	LED; Optional Input Power
Remote Alarms	RS-232 Interface (Optional)
Dimensions	130 mm x 70 mm x 35 mm
Included Accessories	110 V - 240 V AC Adaptor & Cable
Housing	Precision Mach. Anodized Aluminum