

3 GHz PhotoReceiver, Module



SK-PR-3-M

The Optilab SK-PR-3-M is a 3 GHz photodiode module designed for RF over Fiber, antenna remoting, and other RF transmission applications over optical fiber. The SK-PR-3-M utilizes a linear PIN photodiode and low distortion TIA (Transimpedance Amplifier), providing optical to RF conversion beyond 3 GHz. This compact, cost-effective receiver module can provide users with status monitoring via a USB 2.0 port. When the SK-PR-3-M RF over fiber receiver module is linked with the LT series of RF over fiber transmitter modules, the combination provides an excellent solution for wideband RF to fiber conversion applications, go to optilab.com for more details.

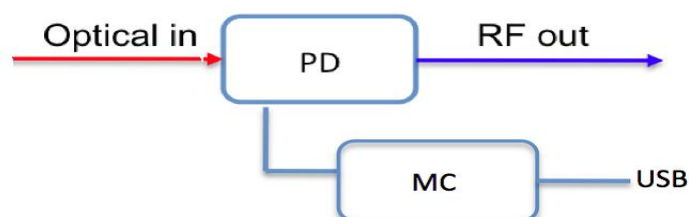
Features

- RF Bandwidth up to 3 GHz
- High Dynamic Range
- Highly Linear for Analog Signals Transmission
- Integrated TIA
- Status Monitoring: RS-485 (Standard)
- Remote Monitoring via [USB Port](#)

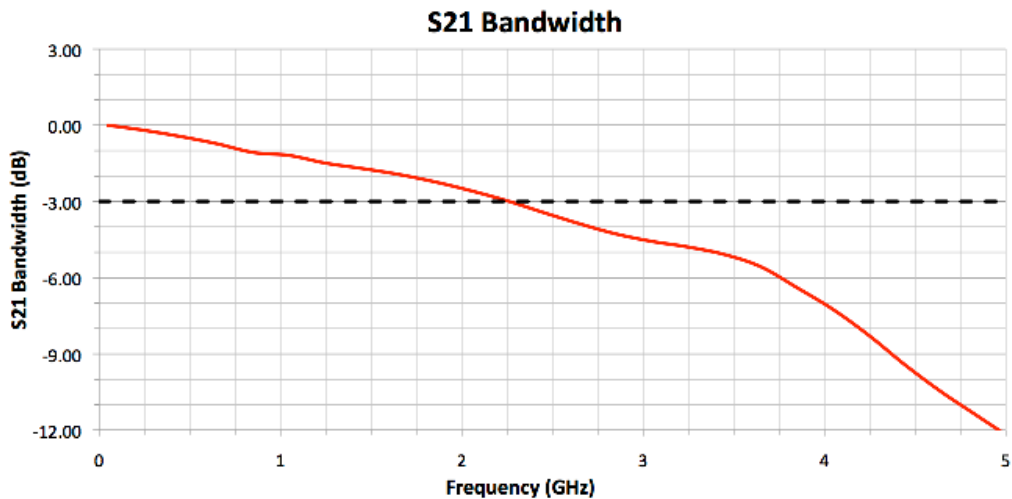
Applications

- RF Transmission over Fiber
- RF/IF Signal Distribution
- Broadband Delay-line
- LIDAR Receivers
- Phase Array Antenna

Functional Diagram

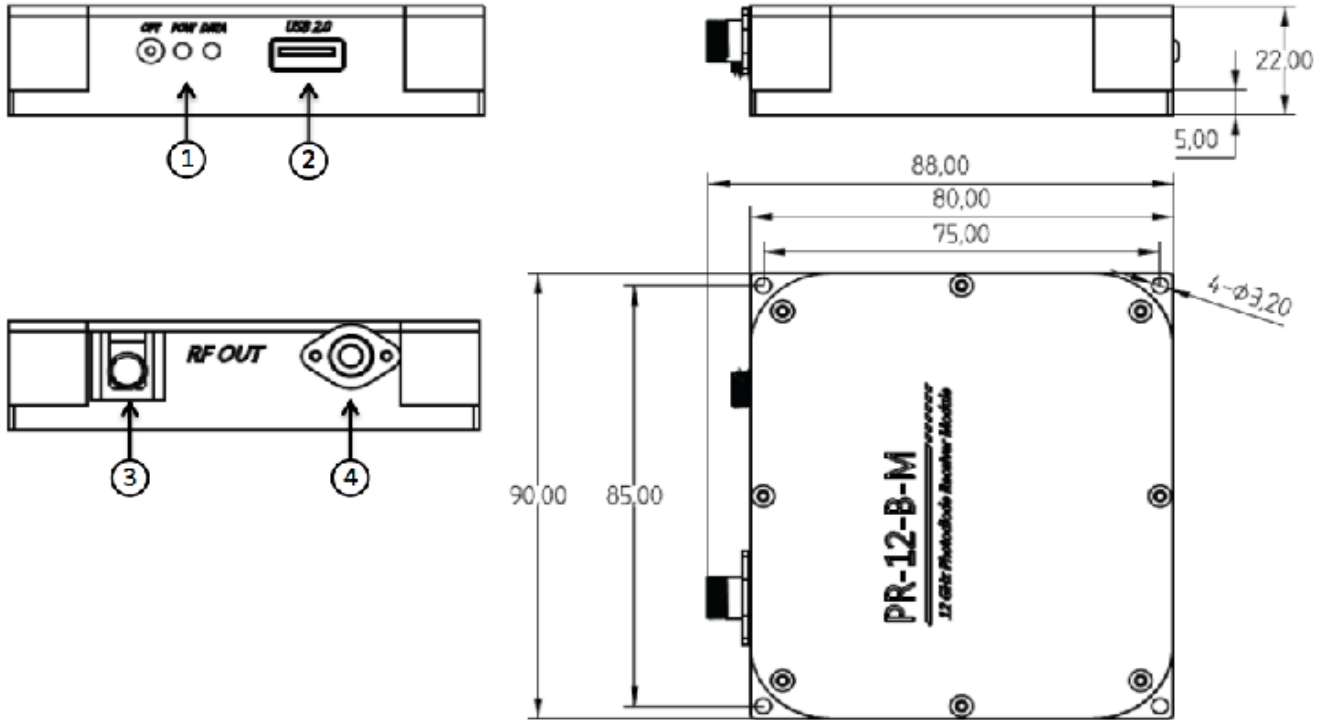


General Specifications	
Photodiode Wavelength Range	1260 nm to 1600 nm
Operational Bandwidth	60 KHz to 3.5 GHz
Optical Input Level	1 mW max.
Repsonsitivity	0.85 A/W @ 1550 nm typ. 0.80 A/W @ 1310 nm typ.
S21 3 dB Bandwidth	2 GHz typ.
S22 Characteristics	< -10 dB @ 2 GHz
Optical Return Loss	-30.0 dB typ.
2nd Harmonics Distortion	-60.0 dBc max.
3rd Harmonics Distortion	-65.0 dBc max.
Optical PDL @ 1550 nm	0.05 dB max.
Output Coupling	AC Coupled
RF Impedence	50 Ω
Ripple over Bandwidth	\pm 1.0 dB max.
Mechanical Specifications	
Operating Temperature	-10° C to +50° C
Storage Temperature	-20° C to +80° C
Power Supply Requirements	+5 V DC, 500 mA max.
Optical Connector	FC/APC, SC/APC Optional
RF Input Connector	SMA Connector Female, 50 Ω
Local Alarm	LED: Optical Input Power
Remote Alarms	RS-485 Interface (Standard) via USB
Dimensions	90 mm x 80 mm x 22 mm
Accessories Included	USB Adaptor & Cable
Housing	Precision Mach. Anodized Aluminum



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Mechanical Drawing



Port Function Description

1	Status LED
2	USB 2.0
3	RF Output
4	Optical Input

Remote Labview Interface

Optilab offers remote interface via Labview software, for parameter adjustment and status monitoring,

contact Optilab for more details

