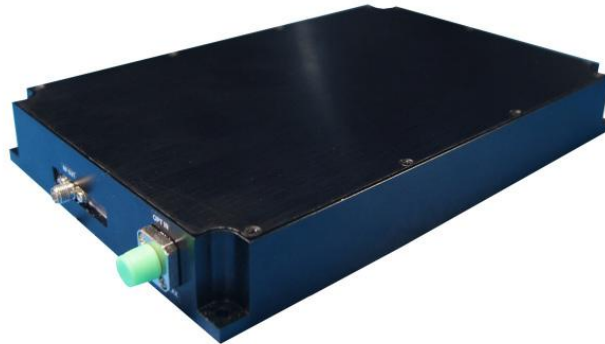


10 GHz High Gain Avalanche PhotoReceiver Module



SK-APR-10-M

The Optilab APR-10-M is a 10 GHz bandwidth receiver module designed for RF over fiber, antenna remoting, and broadband RF over Fiber applications. It features a high gain transimpedance (Z_t) value of 20,000 Ω . The APR-10-M can accept input power as low as -26 dBm. This compact, cost-effective receiver module can provide users with status monitoring through a USB interface. When the APR-10-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 ultra-wideband RF to fiber conversion applications.

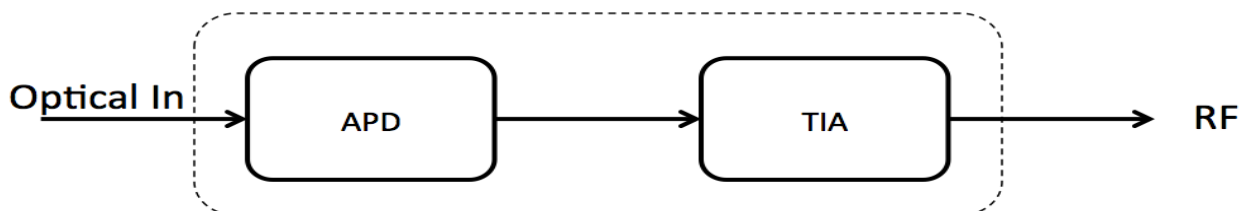
Features

- Typical transimpedance (Z_t) value of 20,000 Ω
- Useful O/E bandwidth up to 10 GHz
- High sensitivity: -26.5dBm
- Status monitoring: RS-232 (standard)
- DC-coupled output
- Single 12V power supply

Applications

- Wideband RF Transmission over Fiber
- Analog link operating up to 10 GHz.
- Broadband delay-line and signal processing
- Phased and interferometric array antenna
- High speed LIDAR Receiver
- High gain O/E converter

Functional Diagram



General Specifications	
Photodiode Wavelength Range	1300 nm to 1610 nm
Operational Bandwidth	10 GHz
AC Transimpedance	1200 ohm @ 750 MHz, Single - end
Small Signal Diff. Conversion Gain	Over 20000 V/W @ 1550 nm
Gain Ripple	±1.5 dB
Responsivity	0.85 A/w @ 1310 nm typ. 0.90 A/w @ 1550 nm typ. 0.80 A/w @ 1610 nm typ.
Minimum Optical Input	- 26 dBm
S21 3 dB Bandwidth	7.5 GHz typ.
S22 Characteristics	12dB from 130 MHz to 6 GHz; 7dB from 130 MHz to 8 GHz
Optical Return Loss	27 dB Min.
Output Coupling	DC Coupled
Maximum Overload	-5 dBm Typ.
Group Delay Deviation	50 ps
Mechanical Specifications	
Operating Temperature	-5° C to +75° C
Storage Temperature	-40° C to +85° C
Power Supply Requirements	+12 V DC
Optical Connector	FC/ APC
RF Output Connector	SMA Connector Female, 50 Ω
Local Alarm LED	Optional Input Power
Remote Alarms	RS-232 Interface (Standard)
Dimensions	210 mm x 135 mm x 28 mm
Accessories Included	110 V - 240 V AC Adaptor & Cable
Housing Precision Mach.	Anodized Aluminum