



PR-40G-M



DEVICE

40 Gb/s Photoreceiver Module

OVERVIEW

The Optilab PR-40G-M is a high speed photo receiver module. Featuring 30 GHz bandwidth and 3000 V/W differential conversion gain, this module can be used in digital application as high as 40 Gbps. Thanks to its linear response, it is well suited for pulse amplitude modulation (PAM) detection such as QAM-16. As a turn key solution, this module simply requires powering up from a single USB port. Remote control can be realized through the same USB port. Moreover, this module supports MGC/AGC function as well as bandwidth adjustment up to 35 GHz.

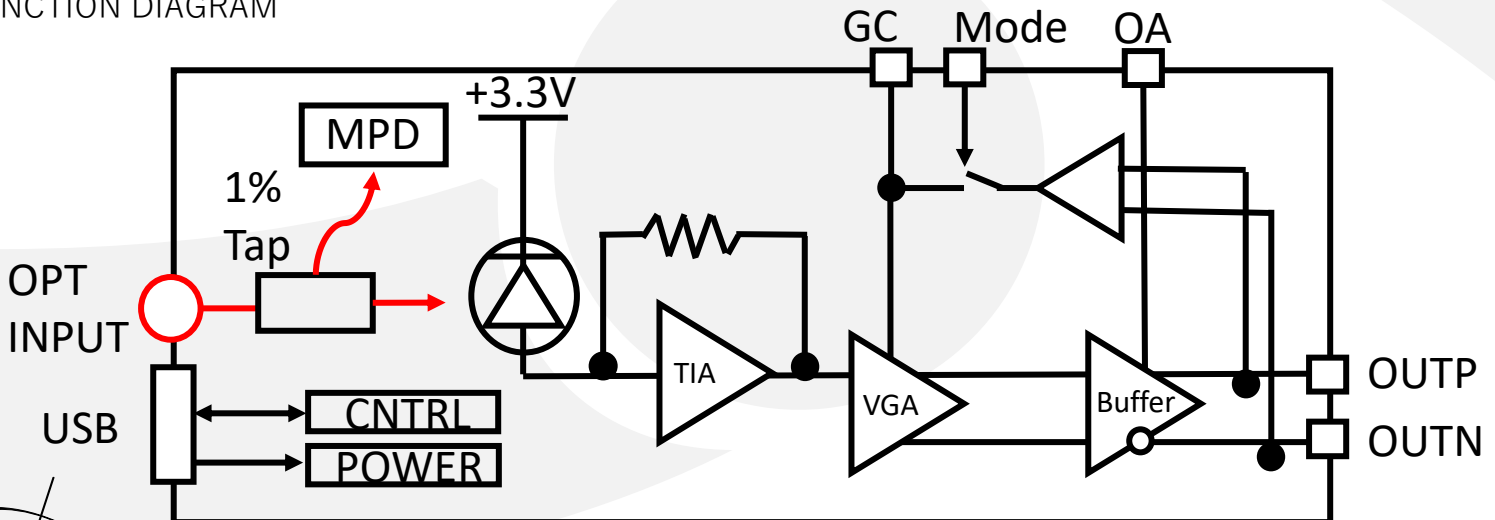
FEATURES

- Up to 32 GHz Bandwidth
- MGC or AGC Mode
- USB Powered
- Remote Control via Command Set
- Bandwidth Adjustment

USE IN

- 40 Gbps DPSK
- PAM-4/QAM-16
- 30 GHz RF over fiber link

FUNCTION DIAGRAM





PR-40G-M

SPECIFICATIONS

Optimized Operating Wavelength	1250 nm to 1650 nm
Optical Input Level	+7 dBm max.
S21 3 dB Bandwidth	30 GHz typ.
Differential Conversion Gain	3000 V/W typ.
Optical Return Loss	30 dB typ.
Optical PDL @ 1550 nm	0.25 dB max.
Output Return Loss	<-10 dB up to 25 GHz
Differential Output Voltage	Up to 1800 mVpp
Impedance	50 Ω
Output Coupling	DC (external AC coupling required)
Equivalent Input Noise Density	32 pA/√Hz max.
Noise Equivalent Power (NEP)	17 pW/√Hz @ 1GHz

GENERAL

Operating Temperature	0°C to +50 °C
Storage Temperature	-55 °C to +85 °C
Power Supply Requirements	+5 VDC through USB
Optical Connector	FC/APC
Electrical Output Connector	2.92 mm, Female (K/SMA Compatible)
Local Alarm	LED: Optional Input Power
Remote Alarms	RS-232 Interface (optional)
Dimensions	150mm x 115mm x 30mm
Housing	Precision Mach. Anodized Aluminum

MECHANICAL

Input Optical Power	10 mW
ESD, Input and Output Pins	1000 V min.
ESD, All Other Pins	2000 V min.
Latch Up	JESD78 Class 2
Humidity	95%

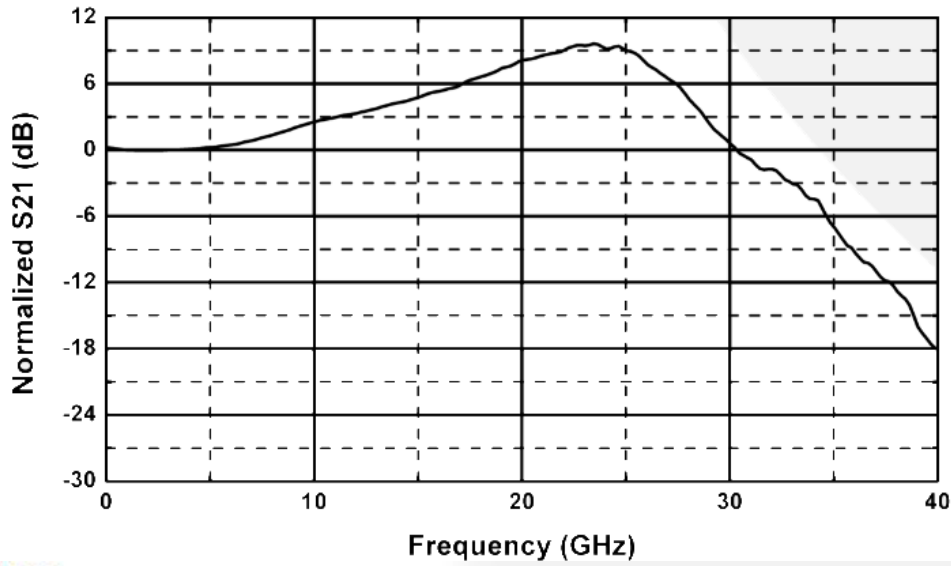
ABSOLUTE MAXIMUM RATINGS



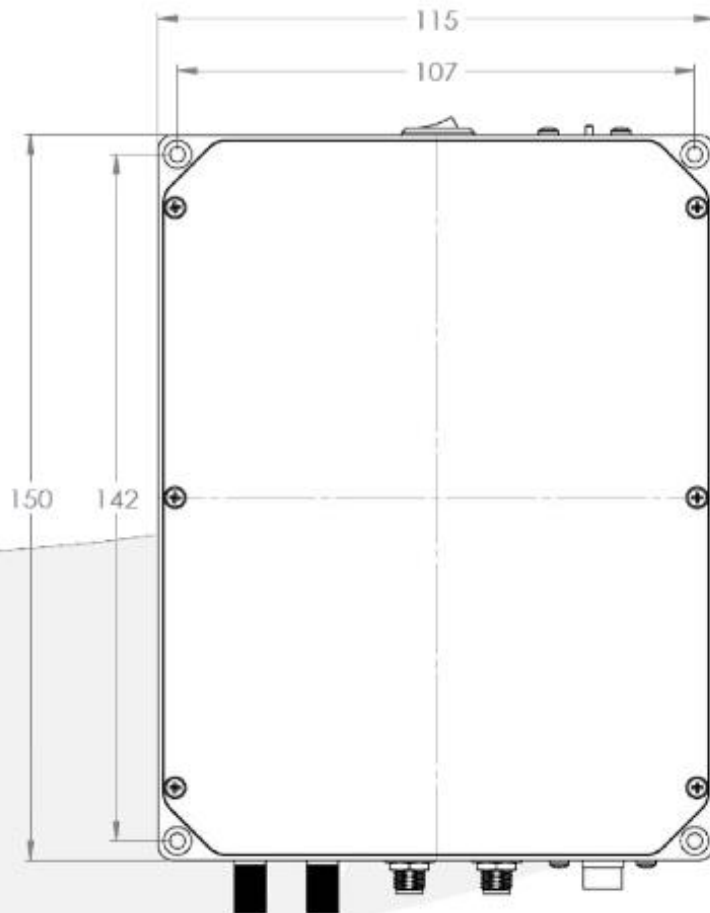


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S21 Graph



Mechanical Drawing



Units mm

