

# Optical Receiver Module

## High speed, high sensitivity optical detector

### Applications

- ✓ High-speed Optical Communication
- ✓ Through the Air, Line-of-Sight

### Features

- ✓ High Speed, < 250 pS rise time
- ✓ Large 12 mm active input diameter
- ✓ Low power, high voltage supply
- ✓ Flexible, modular configuration



Description	
Photocathode Type Wavelength of Max Response Multiplier structure	K Cs Sb 500 nm Circular cage
Physical Characteristics	
Spectral Response	300 to 600 nm
Wavelength of Maximum Response	500 nm
Active Area	12 mm diameter on axis
Dynode number	5 stage Sb
Output connector	SMA male
Electrical Characteristics	
Supply voltage	+5 volts +/- 0.5 volts
Supply current	50 mA maximum
Gain	25000 nominal
Rise time	< 250 pS
Full width at half max	< 470 pS
Maximum Ratings	
Operating Temperature	+5 to +50° C
Storage Temperature	-20 to +50° C

### PHOTONIS' Optical Receiver Features:

#### Fast Optical Signals

PHOTONIS' new Optical Receiver is a high speed optical detector that is suitable for fast optical signals in the green to ultra-violet spectral range.

#### High Data Rate

The number of gain stages is set to provide output levels suitable for communication signals at very high data rates.

#### Low Power Module

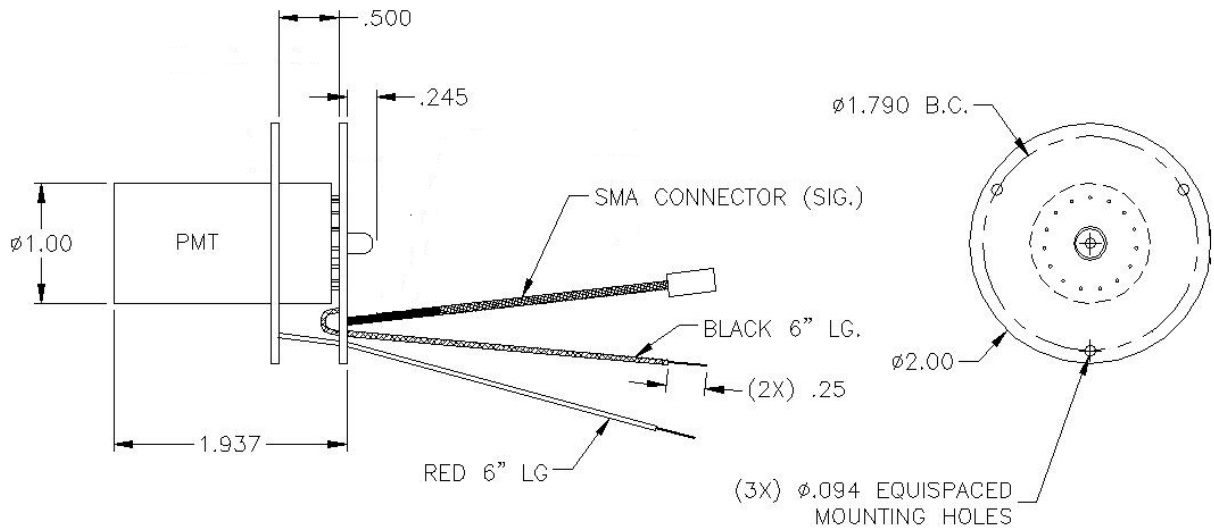
The inclusion of a high voltage power supply allows operation by application of only 5 volts input. High speed signal output is supplied by 50 ohm cable with an SMA connector.

#### Prism Award Winner

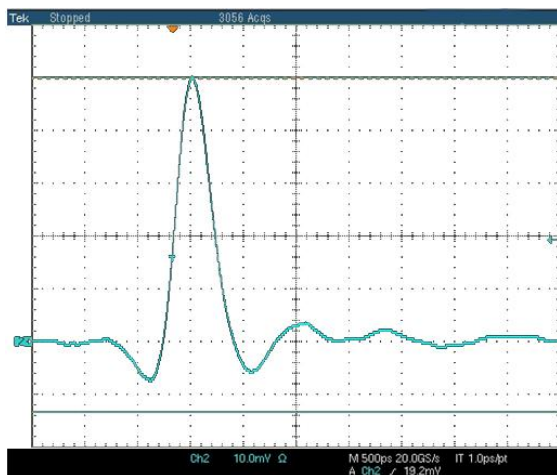
PHOTONIS' Optical Receiver won the 2010 Prism Award for Photonic Innovation in the Communications and Information category.

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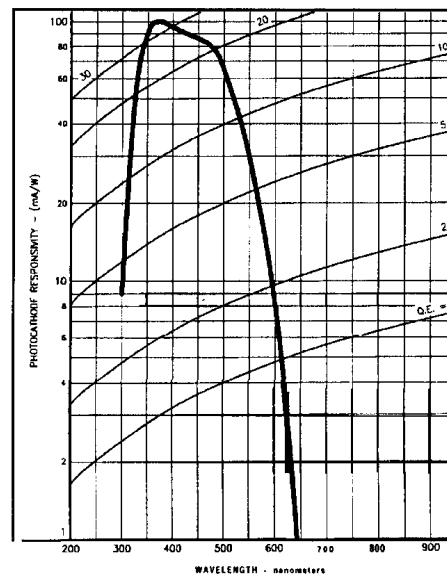
Outline (dimensions in inches)



High Speed Detector Wiring	
+5 volts input	Red
Power Ground	Black
Signal	RG174U coax cable (50 ohm)



Time response 250 pS rise time, 470 pS FWHM with 2.5 GHz scope



Spectral graph shows peak response 330-550 nm.

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