



APRR530

amplified microwave photo receiver

HIGH SPEED InGaAs PIN PHOTODIODE

HIGH GAIN, LOW NOISE BROADBAND POST-AMP

>30 GHZ MICROWAVE BANDWIDTH

COMPACT LIGHTWEIGHT DESIGN

HIGH RESPONSIVITY

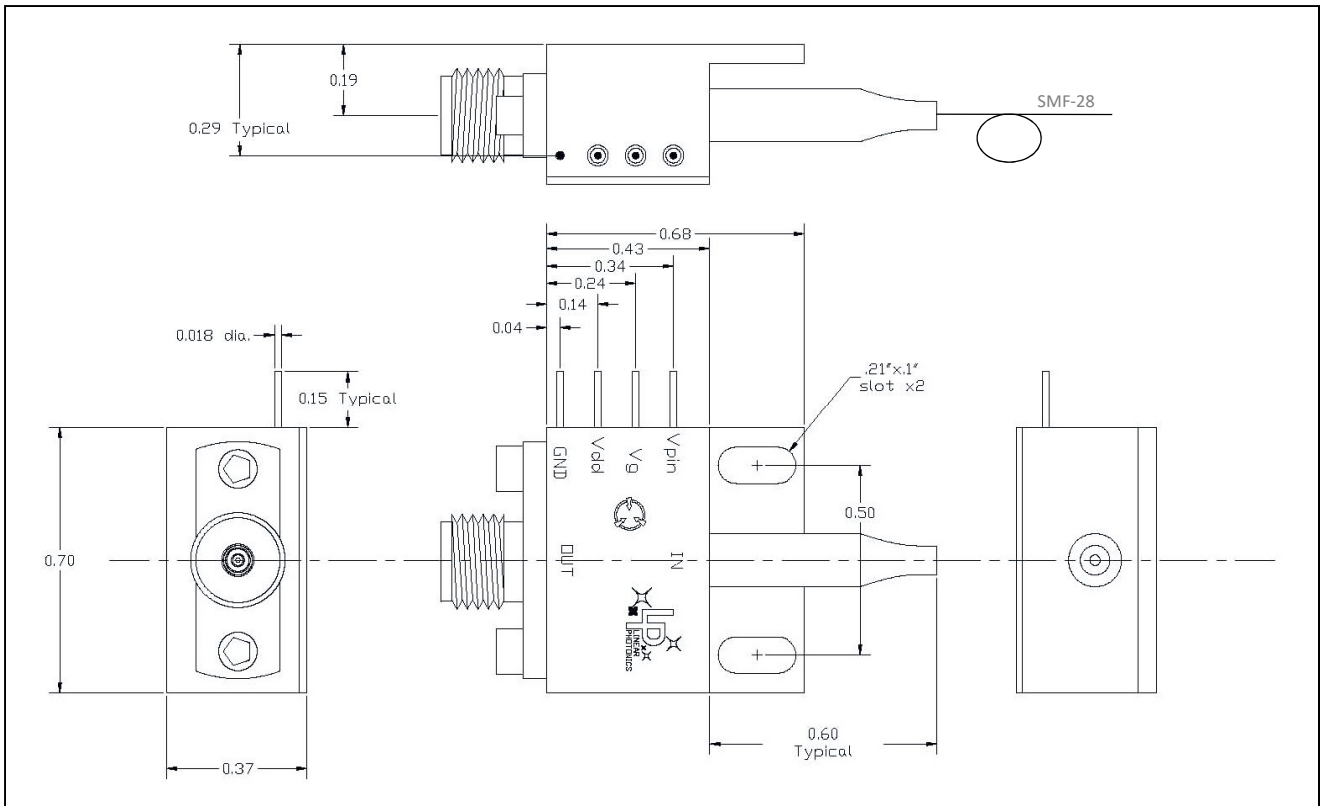
The APRR530 consists of a broadband microwave InGaAs PIN photodiode internally matched to a low noise post amplifier, providing 14 dB gain from 0.5 to 30 GHz. The amplifier is matched directly to the diode output, improving system ripple response and noise figure. The detector response covers 1300 to 1600 nm. It is pigtailed with SMF-28 jacketed fiber and can be terminated in a variety of optical connectors (FC/APC standard). The entire unit is contained in a sealed housing with DC bias feedthrus for quick solder-connection to your circuit assembly.

Applications include signal and antenna remoting, communications, radar and information processing.

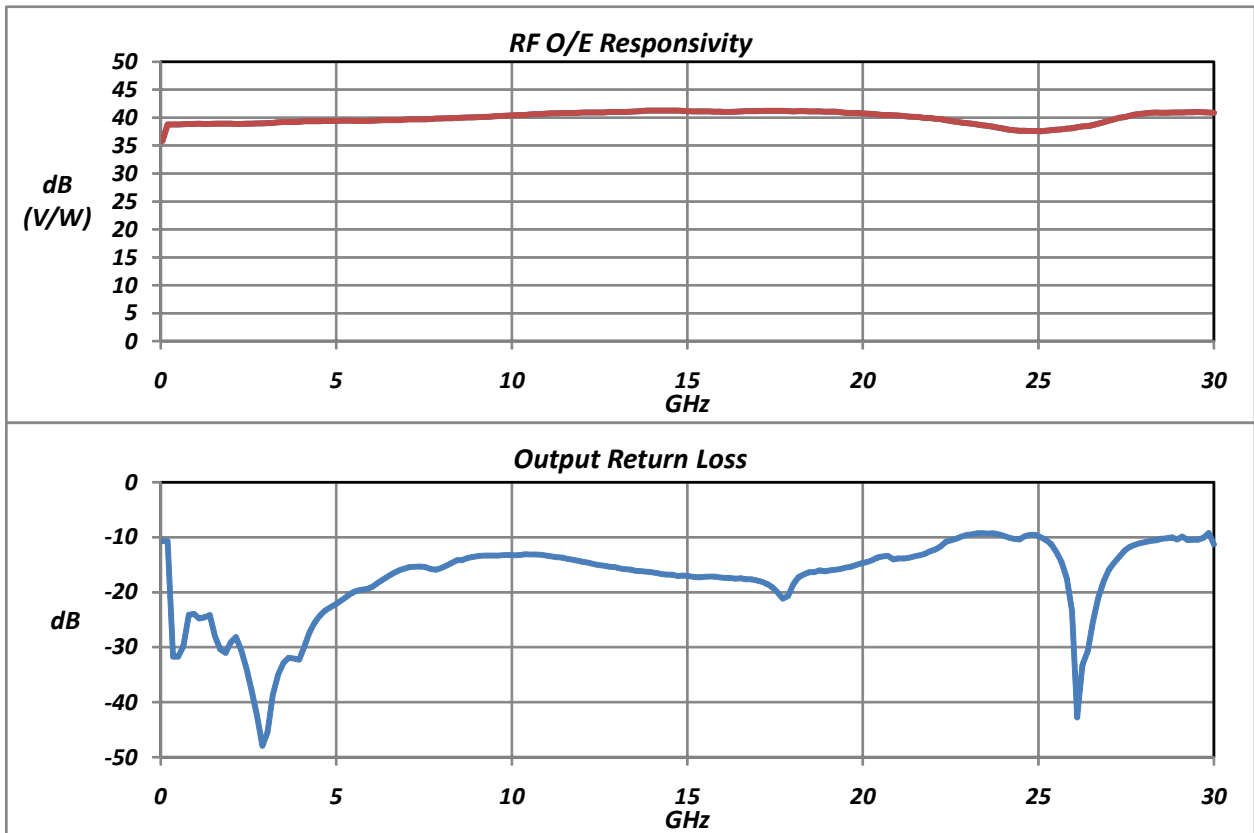
■ APRR530 AMPLIFIED PHOTORECEIVER SPECIFICATION

	MIN	TYPICAL	MAX	UNITS
RF / OPTICAL				
RF Bandwidth	0.5 to 30	0.25 to 32		GHz
Output Impedance		50		Ω
Output Return Loss	8	12		dB
Optical Wavelength	1300		1600	nm
Conversion Responsivity at 1550 nm / 25°C	35	40		dB (V/W)
Optical Input Power			7	mW
Optical Return Loss	30			dB
BIAS AND OPERATION				
PIN Diode Bias, V _{pin}	5		15	V
Amplifier Drain Bias, V _{dd}	4.75	5	5.25	V
Drain Current, I _{dd} (note 1)	130	180	200	mA
Amplifier Gate Bias, V _g	-5.25	-5	-4.75	V
MECHANICAL / ENVIRONMENTAL				
Operating Temperature Range	-40		85	C
Storage Temperature Range	-40		95	C
RF Connector	3.5mm "K" Female Field Replaceable			
Fiber Pigtail	SMF-28, 900 μ m Tight Buffer			
Pigtail Length	1 meter typical			
Fiber Connector	FC/APC Standard, other options available			
Bias Connectors	0.018" diameter Au plated kovar pins			

■ **APRR530 MECHANICAL OUTLINE (INCH)**



■ **APRR530 TYPICAL O/E RESPONSE AND OUTPUT RETURN LOSS**



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