

10 MHz to 26.5 GHz Power Detector, Negative Output Slope, +23 dBm Max Pin, SMA

Detectors Technical Data Sheet

PE80P1005

Features

- Power Detector with Negative Output Slope
- 10 MHz to 26.5 GHz
- High Voltage Sensitivity 0.5 mV/uW typ
- Tangential Signal Sensitivity (TSS) -25 dBm min
- VSWR 1.5:1 typ
- Maximum RF Input Power Handling +23 dBm
- No DC Bias Required
- 50 Ohm Design
- Field Replaceable SMA Connectors, Male input and Female output
- Operational Temperature Range -40°C to +85°C
- Rugged and Compact Aluminum Gold Plated Package Design
- Guaranteed Environmental Test Conditions Altitude, Vibration, Humidity, Shock

Applications

- Test & Measurement
- Military and Commercial Communications
- Military Electronic Systems
- Research & Development

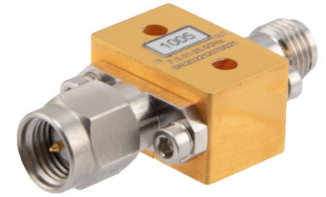
Description

The PE80P1005 is a coaxial packaged Power Detector that operates across an ultra broadband frequency from 10 MHz to 26.5 GHz. The 50 Ohm design provides a negative output voltage that's proportional to the RF input signal level. Impressive performance includes high voltage sensitivity of 0.5 mV/uW typ, tangential signal sensitivity (TSS) of -25 dBm min, and low VSWR of 1.5:1 typ. The unit does not require a DC bias voltage, and has maximum RF input power handling of +23 dBm. The low profile pin package is aluminum with Gold plating and supports field replaceable SMA connectors, with a Male RF connector on the input port and a Female RF connector on the output port. With the connectors removed, the package can be drop mounted onto a PWB. The module has an operational temperature range from -40°C to +85°C and is guaranteed to meet a series of environmental test conditions for Altitude, Vibration, Humidity, and Shock.

Electrical Specifications (@ +25°C)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.01		26.5	GHz
VSWR		1.5:1	1.8:1	
Voltage Sensitivity		0.5		mV/uW
Input Power			23	dBm
Tangential Signal Sensitivity (TSS)	-25			dBm
Operating Temperature Range	-40		85	deg C
Output Polarity		Negative		

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10 MHz to 26.5 GHz Power Detector, Negative Output Slope, +23 dBm Max Pin, SMA PE80P1005](#)



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Mechanical Specifications

Size

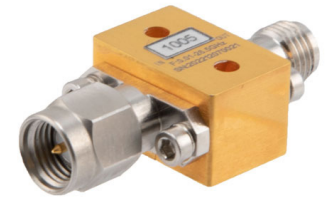
Length	0.63 in [16 mm]
Width	0.37 in [9.4 mm]
Height	0.41 in [10.41 mm]
Weight	0.01 lbs [4.54 g]
Connector 1	Field Replaceable SMA Male
Connector 2	Field Replaceable SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-50 to +105 deg C
Humidity	100% RH at 35 degrees C, 95% RH at 40 degrees C
Shock	20G for 11ms Half Sine Wave, 3 Axis Both Directions
Vibration	25g RMS (15 degrees 2KHz) Endurance, 1 Hour Per Axis
Altitude	30,000 ft (Epoxy Sealed Controlled Environment)

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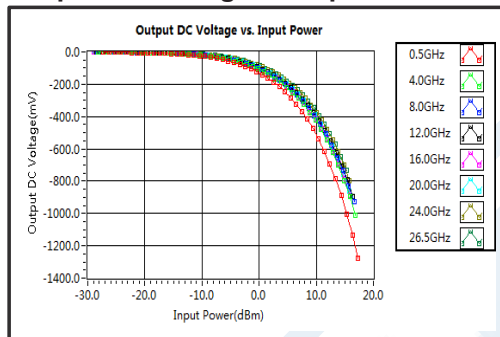
PE80P1005

Compliance Certifications (see [product page](#) for current document)

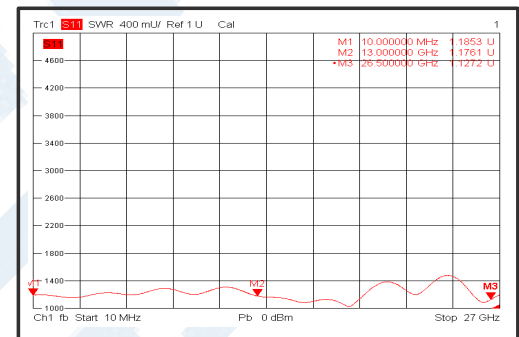
Plotted and Other Data

Notes:

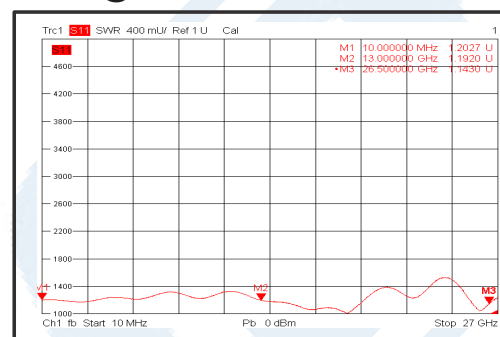
Output DC Voltage vs. Input Power



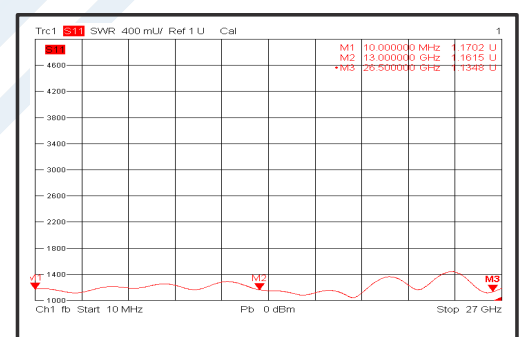
VSWR @+25°C



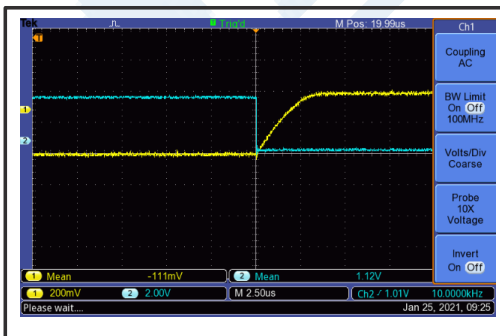
VSWR @-40°C



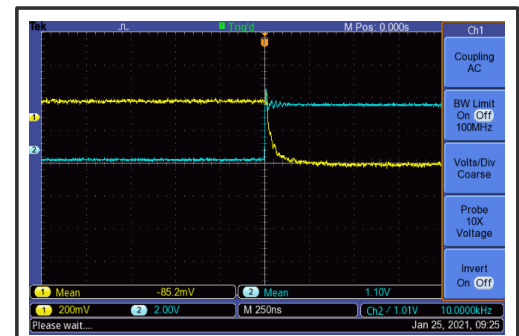
VSWR @+85°C



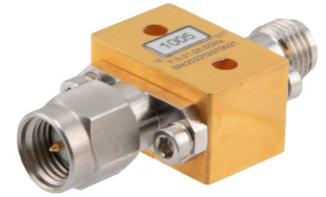
Rise Time



Fall Time



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10 MHz to 26.5 GHz Power Detector, Negative Output Slope, +23 dBm Max Pin, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

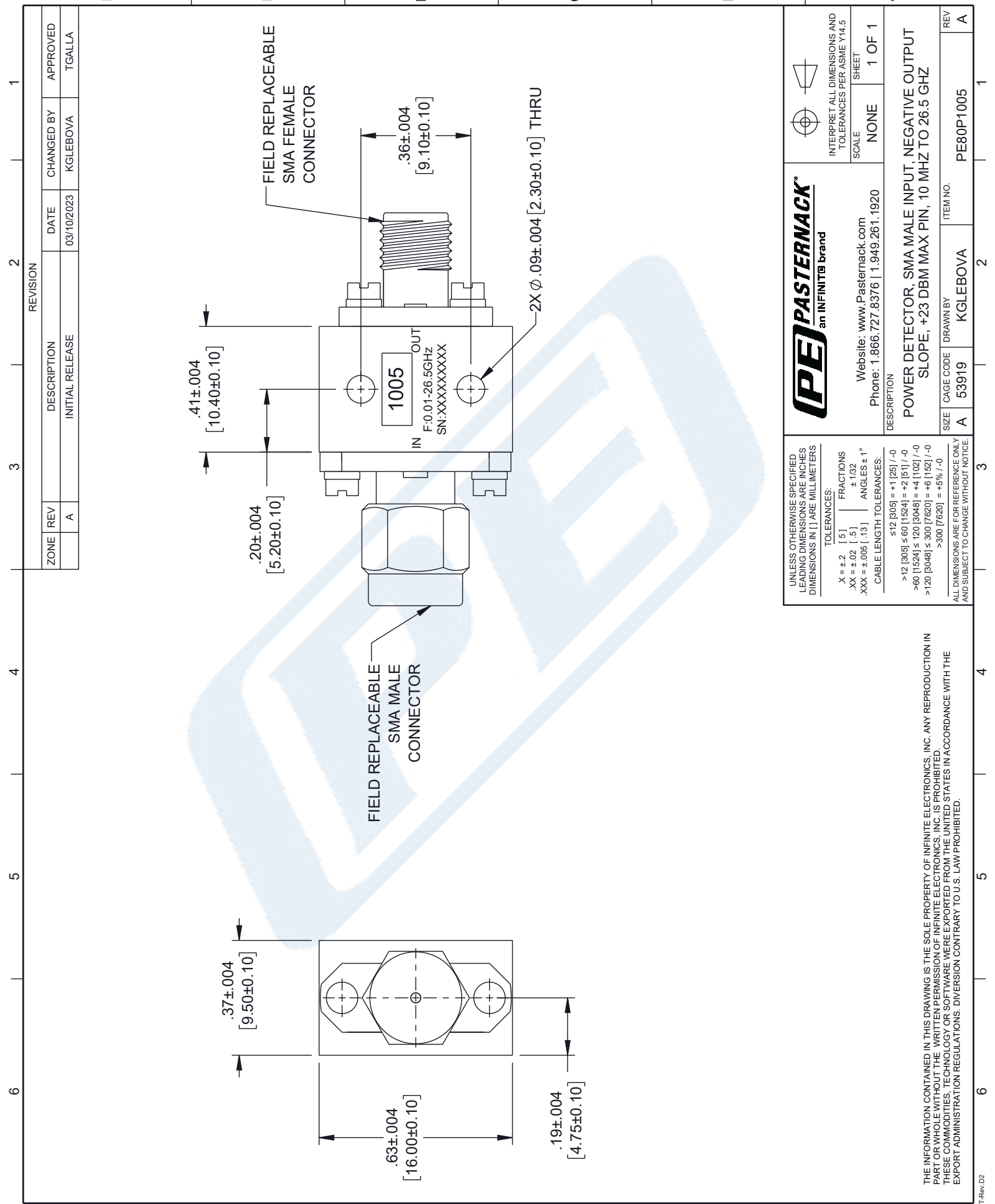
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [10 MHz to 26.5 GHz Power Detector, Negative Output Slope, +23 dBm Max Pin, SMA PE80P1005](https://www.pasternack.com/power-detector-sma-negative-10-mhz-26.5-ghz-pe80p1005-p.aspx)

URL: <https://www.pasternack.com/power-detector-sma-negative-10-mhz-26.5-ghz-pe80p1005-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE80P1005 CAD Drawing

10 MHz to 26.5 GHz Power Detector, Negative Output Slope, +23 dBm Max Pin, SMA



REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV	DESCRIPTION		
	A	INITIAL RELEASE	KGLEBOVA	TGALLA

<p>PE PASTERNAK an INFINITIB brand</p>	<p>Website: www.Pasternack.com</p> <p>Phone: 1.866.727.8376 1.949.261.1920</p>	<p>SCALE: NONE</p> <p>SHEET: 1 OF 1</p>
	<p>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</p>	
<p>DESCRIPTION: POWER DETECTOR, SMA MALE INPUT, NEGATIVE OUTPUT SLOPE, +23 DBM MAX PIN, 10 MHZ TO 26.5 GHZ</p>		
<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>X = ±.2 [.5] FRACTIONS ± 1/32</p> <p>.XX = ±.02 [.5] ANGLES ± 1°</p> <p>.XXX = ±.005 [.13]</p> <p>CABLE LENGTH TOLERANCES:</p> <p>≤12 [305] = +1 [25] / -0</p> <p>>12 [305] ≤ 60 [1524] = +2 [51] / -0</p> <p>>60 [1524] ≤ 120 [3048] = +4 [102] / -0</p> <p>>120 [3048] ≤ 300 [7620] = +6 [152] / -0</p> <p>>300 [7620] = +5% / -0</p> <p>ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE</p>	<p>ITEM NO. PE80P1005</p> <p>REV A</p>	<p>SIZE A</p> <p>CAGE CODE 53919</p> <p>DRAWN BY KGLEBOVA</p>

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