PASTERNACK
an INFINITE brand

Power Detector, SMA, Postive Output Slope, 50 MHz to 3 GHz

Detectors Technical Data Sheet PE80P1002

The PE80P1002 is a broadband Power Detector module that covers a frequency band from 50 MHz to 3000 MHz. Desireable performance features include a positive output slope with an output voltage response from 0.1 to 2.5 volts, 60 dB of dynamic range, and a fast pulse respone of 0.3 µsec typical. The 50 ohm detector design requires a single +5 volt power supply, can handle up to +10 dBm RF input power, and supports Female SMA conectors. The rugged compact package assembly operates over a -40°C to +85°C temperaure range and is designed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude.

Features

- Frequency Range: 50 to 3000 MHz
- Dynamic Range: 60 dB
- Output Voltage Response: 0.1 to 2.5V
- Positive Output Slope
- Input VSWR: 1.3:1 typ
- Max RF Input Power: +10 dBm
- Pulse Reponse: 0.3 µsec
- DC Power: +5V
- SMA Female Connectors
- Operating Temperature: -40°C to +85°C
- Guaranteed to meet MIL-STD-202 Environmental Conditions

Applications

- Transmit/Receive Power Measurement
- Input Protection
- Return Loss Measurement
- RF Pulse Detection
- Radar
- Electronic Warfare
- Test and Measurement
- Wireless Signal Testing & Optimization
- Power Amplifier Linearization
- CW & Modulated Waveform Measurements

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	50		3	GHz
VSWR		1.3:1	2:1	
Video Output Resistance		32		Ohms
Dynamic Range	55	60		dB
Output Voltage (RMS Response)				
Pin = 0 dBm @ 1000 MHz	2	2.1		V
Pin = -60 dBm @1000 MHz	0.05	0.12		V
Logarithmic Slope	36	41		mV/dB
Deviation @25°C			±0.5	dB
Deviation over OTR			±1.5	dB
Response Time			300	ns
Small Signal Envelope Bandwidth	25	30		MHz
Output Current Sink	7	10		mA

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: Power Detector, SMA, Postive Output Slope, 50 MHz to 3 GHz PE80P1002

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
Sales@Pasternack.com • Techsupport@Pasternack.com

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Supply Quiescent Current		12	20	mA
Operating Temperature Range	-40		+85	deg C

Absolute Maximum Rating

Parameter	Rating	Units
RF Input Power	+10	dBm
Supply Voltage	+5.5	V
Operating Temperature	-40 to +85	°C
Storage Temperature	-55 to +125	°C

ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Mechanical Specifications

Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C
Humidity	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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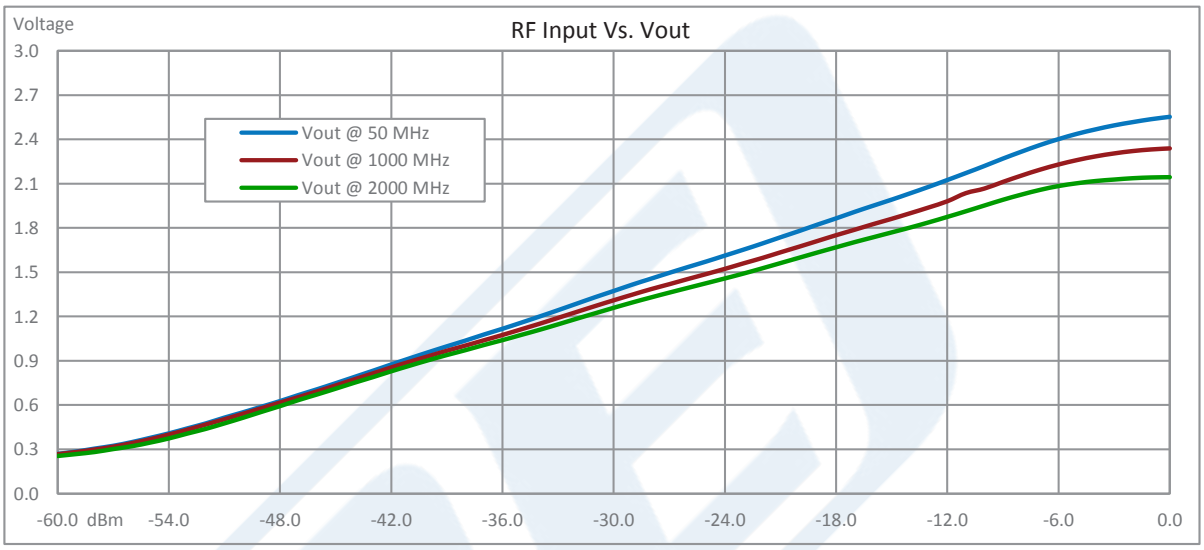
Typical Performance Data



Power Detector, SMA, Postive Output Slope, 50 MHz to 3 GHz 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.

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URL: https://www.pasternack.com/power-detector-sma-50-mhz-3-ghz-pe80p1002-p.aspx

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