



WR-10 Waveguide Power Detector, W Band, 75 GHz to 110 GHz, Positive Output Voltage Polarity, UG-387/U-M Flange

TECHNICAL DATA SHEET

PE80T3012

The PE80T3012 is a WR-10 Waveguide Power Detector, operating across the W Band from 75 GHz to 110 GHz. This 50 Ohm design features Positive Output Voltage Polarity. Impressive typical performance includes Video Sensitivity of 800 mV/mW with +/- 2dB flatness, Input Dynamic Range of -55 dBm to +10 dBm, and Detection Speed Rise Time of 5 nsec. Maximum input power handling is +17 dBm. The rugged and small size Brass package design is gold plated and supports a UG-387/U-M waveguide flange pattern at RF input and output ports. The DC output port uses an SMA Female connector. The module operates across a temperature range from 0°C to +50°C.

Features

- WR-10 Waveguide Power Detector
- 75 GHz to 110 GHz
- W Band
- Positive Output Voltage Polarity
- Voltage Sensitivity 800 mV/mW
- Sensitivity Flatness +/- 2dB typ
- Input Dynamic Range -55 dBm to +10 dBm
- Detection Speed Rise Time 5 nsec typ
- Max RF Input Power +17 dBm
- 50 Ohm Design
- RF Input and Output Waveguide Flange UG-387/U-M
- SMA Female DC Output Port
- Operational Temperature Range -0°C to +50°C
- Rugged and Compact Brass Gold Plated Package Design

Applications

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

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	75		110	GHz
Voltage Sensitivity		800		mV/mW
RF Input Power			+17	dBm
Tangential Sensitivity		-50		dBm
Sensitivity Flatness		±2		dB
Dynamic Range	-55		+10	dBm
Output Voltage Polarity		Positive		
RF Input Power for Square Law Region			-20	dBm
Detection Speed, Rise Time		5		ns

Mechanical Specifications

Temperature

Operating Range 0 to +50 deg C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-10 Waveguide Power Detector, W Band, 75 GHz to 110 GHz, Positive Output Voltage Polarity, UG-387/U-M Flange PE80T3012](#)



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Size

Length	1.104 in [28.04 mm]
Width	0.89 in [22.61 mm]
Height	1.114 in [28.3 mm]
Weight	0.05 lbs [22.68 g]

Waveguide Size	WR-10
Flange Destination	UG-387/U-M
Flange Type	Round Cover
DC Connector	SMA Female
Material and Plating	Brass, Gold

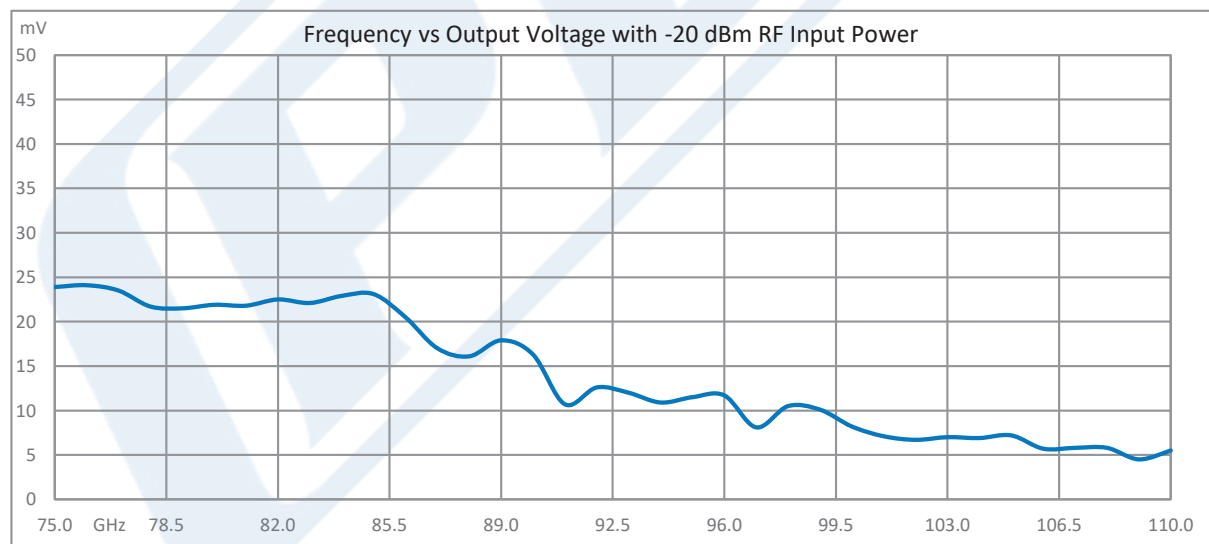
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at +25 °C, sea level

Typical Performance Data



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WR-10 Waveguide Power Detector, W Band, 75 GHz to 110 GHz, Positive Output Voltage Polarity, UG-387/U-M Flange 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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