



WR-15 Waveguide Power Detector, V Band, 50 GHz to 75 GHz, Positive Output Voltage Polarity, UG-385/U Flange

TECHNICAL DATA SHEET

PE80T3010

The PE80T3010 is a WR-15 Waveguide Power Detector, operating across the V Band from 50 GHz to 75 GHz. This 50 Ohm design features Positive Output Voltage Polarity. Impressive typical performance includes Video Sensitivity of 1000 mV/mW with +/- 2dB flatness, Tangential Sensitivity of -50 dBm, 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-385/U 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-15 Waveguide Power Detector
- 50 GHz to 75 GHz
- V Band
- Positive Output Voltage Polarity
- Voltage Sensitivity 1000 mV/mW
- Sensitivity Flatness +/- 2dB typ
- Tangential Sensitivity -50 dBm 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-599/U
- 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	50		75	GHz
Voltage Sensitivity		1,000		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
Video Bandwidth		>1		GHz
RF Input Power applied for testing		-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: [V Band WR-15 Waveguide Power Detector, V Band, 50 GHz to 75 GHz, Positive Output Voltage Polarity, UG-385/U Flange PE80T3010](#)



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Size

Length	1.3 in [33.02 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-15
Flange Destination	UG-385/U
Flange Type	Round Cover
DC Connector	SMA Female
Material and Plating	Brass, Gold

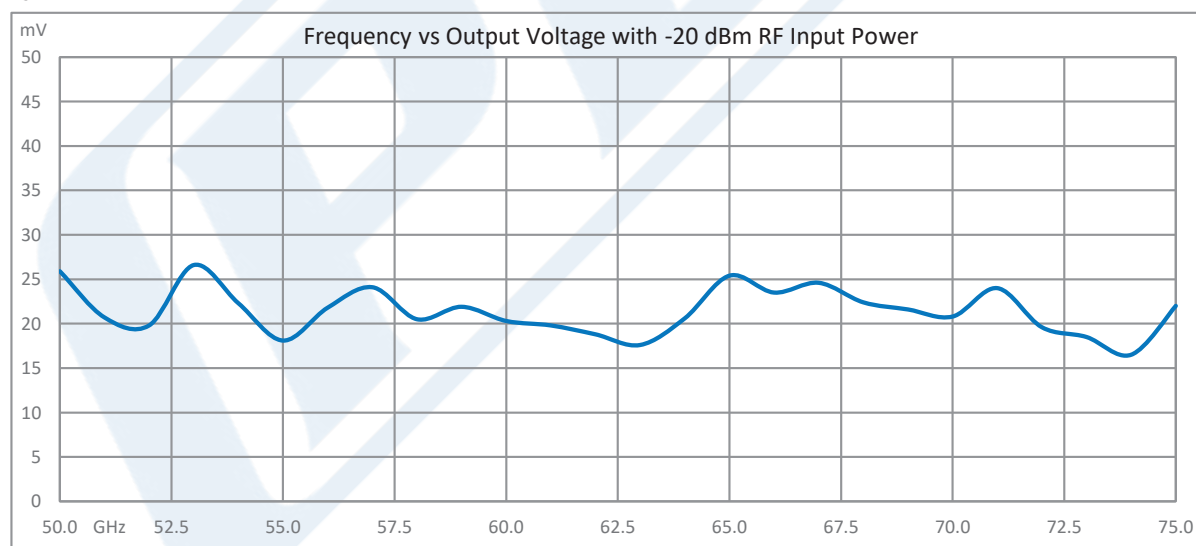
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at +25 °C, sea level

Typical Performance Data



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WR-15 Waveguide Power Detector, V Band, 50 GHz to 75 GHz, Positive Output Voltage Polarity, UG-385/U 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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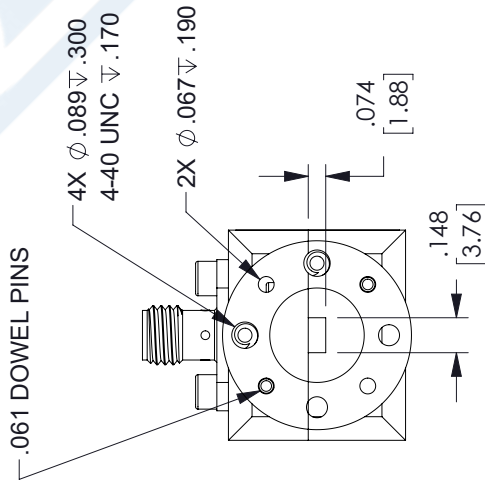
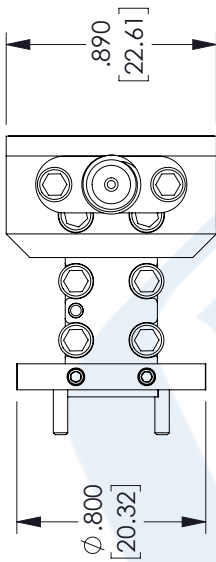
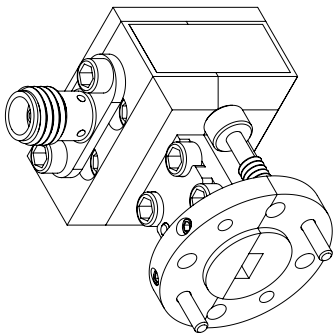
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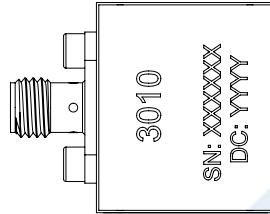
PE80T3010 CAD Drawing

WR-15 Waveguide Power Detector, V Band, 50 GHz to 75 GHz,
Positive Output Voltage Polarity, UG-385/U Flange

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	8/16/2022	TGALLA



SMA



LABEL PER ILS-100-03
(SEE NOTE #2)

SEE NOTE #3

UG-385/U

NOTES:

1. MATERIAL: 1/2 HARD BRASS
2. LABEL PER ILS-100-03. FOR INTERNAL REFERENCE ONLY.
3. LABEL LOCATION FOR REFERENCE ONLY.
3. SERIAL NUMBER AND DATE CODE EX: SN: VWZYBK, DC: 2232

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS			
TOLERANCES:			
.X = ± .2	[.08]	FRACTIONS	
.XX = ± .02	[.51]		± 1/32
.XXX = ± .005	[.13]	ANGLES ± 1°	
CABLE LENGTH (L) TOLERANCES:			
L ≤ 12 [305] = +1 [25] / -0			
12 [305] < L ≤ 60 [1524] = +2 [51] / -0			
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0			
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0			
300 [7620] < L = +5%L / -0			
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.			



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SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	DMAY	PE80T3010

REV	REV
A	A

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SHEET 1	OF 1
SCALE	N/A