

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

The FMMT3012 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.

### Electrical Specifications

Description	Min	Typ	Max	Unit
Frequency Range	75		110	GHz
Voltage Sensitivity		800		mV/mW
RF Input Power			+17	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

#### Size

Length 1.104 in [28.04 mm]

Width 0.89 in [22.61 mm]

Height 1.114 in [28.3 mm]

Weight 0.15 lbs [68.04 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



### Features:

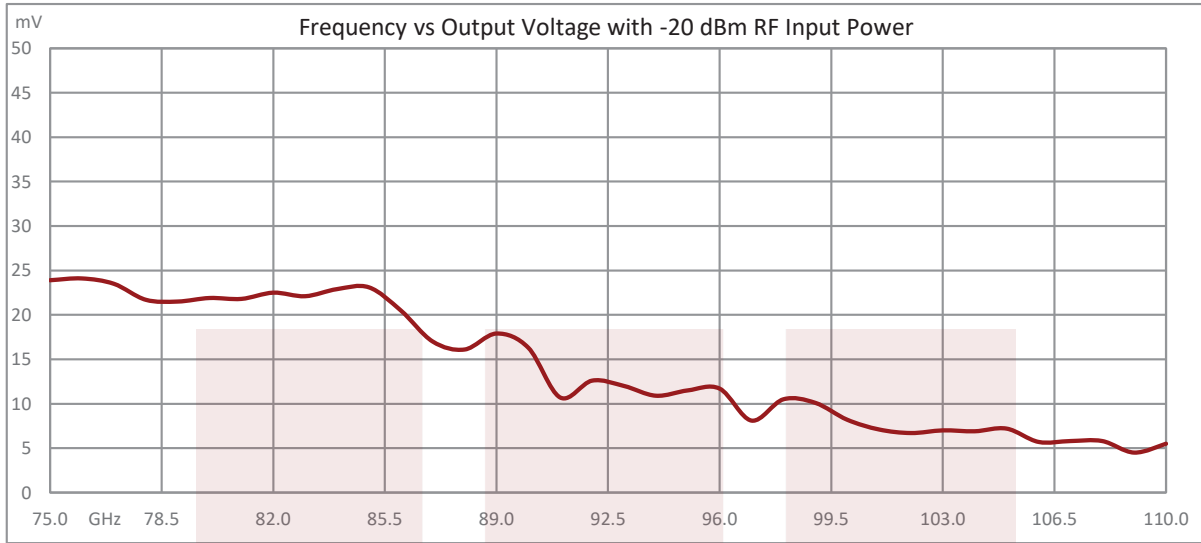
- WR-10 Waveguide Power Detector
- 75 GHz to 110 GHz
- W Band
- Positive Output Voltage Polarity
- Voltage Sensitivity 800 mV/mW
- Sensitivity Flatness +/- 2dB typ
- Input Dynamic Range -55 dBm to +10 dBm
- Detection Speed Rise Time 5 nsec typ
- Max RF Input Power +17 dBm
- 50 Ohm Design
- RF Input and 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

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**Typical Performance Data**



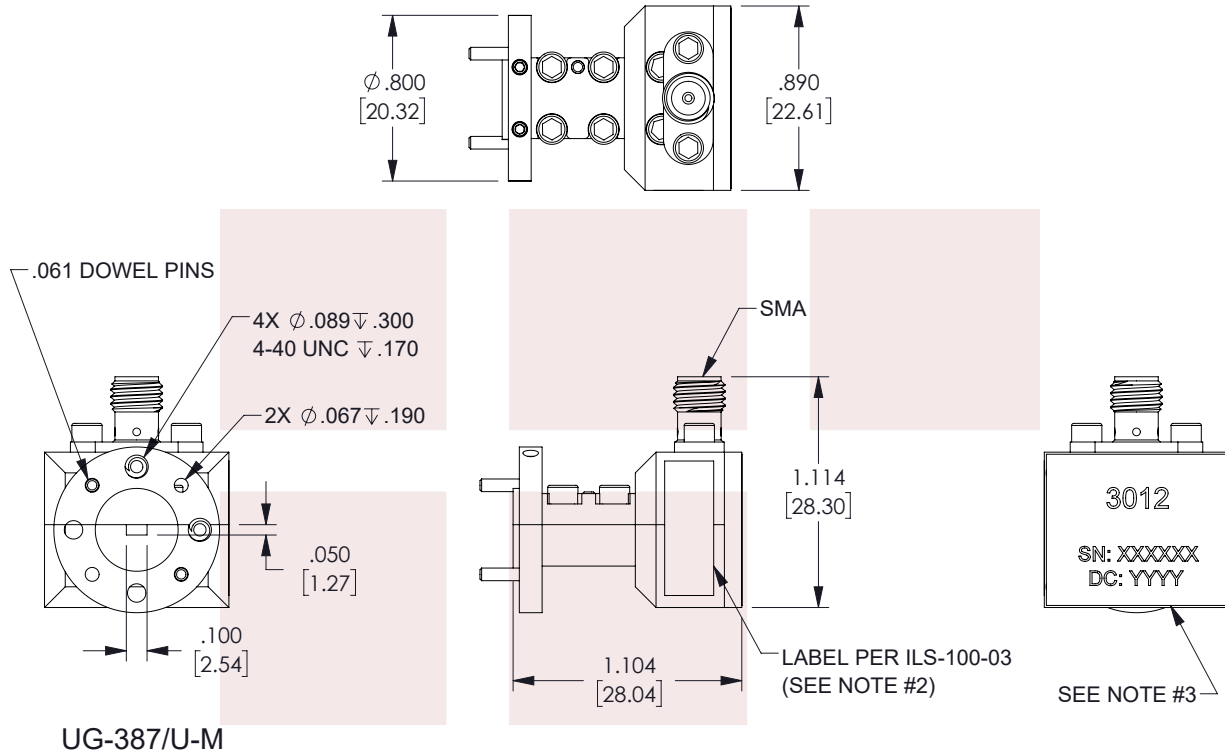
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For additional information on this product, please click the following link: [WR-10 Waveguide Power Detector, W Band, 75 GHz to 110 GHz, Positive Output Voltage Polarity, UG-387/U-M Flange FMMT3012](https://www.fairviewmicrowave.com/power-waveguide-detector-wr10-sma-female-positive-75-110-ghz-fmmt3012-p.aspx)

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



**NOTES:**

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

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