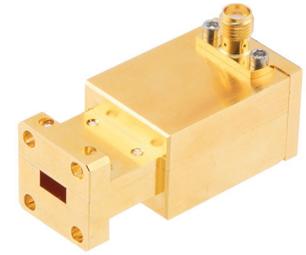


## WR-28 Waveguide Power Detector, Ka Band, 26.5 GHz to 40 GHz, Positive Output Voltage Polarity, UG-599/U Flange

The FMMT3007 is a WR-28 Waveguide Power Detector, operating across the Ka Band from 26.5 GHz to 40 GHz. This 50 Ohm design features Positive Output Voltage Polarity. Impressive typical performance includes Video Sensitivity of 1500 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-599/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-28 Waveguide Power Detector
- 26.5 GHz to 40 GHz
- Ka Band
- Positive Output Voltage Polarity
- Voltage Sensitivity 1500 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

### Electrical Specifications

Description	Min	Typ	Max	Unit
Frequency Range	26.5		40	GHz
Voltage Sensitivity		1,500		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

<b>Temperature</b>	
Operating Range	0 to +50 deg C
<b>Size</b>	
Length	1.894 in [48.11 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-28
Flange Destination	UG-599/U
Flange Type	Square Cover
DC Connector	SMA Female
Material and Plating	Brass, Gold

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

### Plotted and Other Data

Notes:

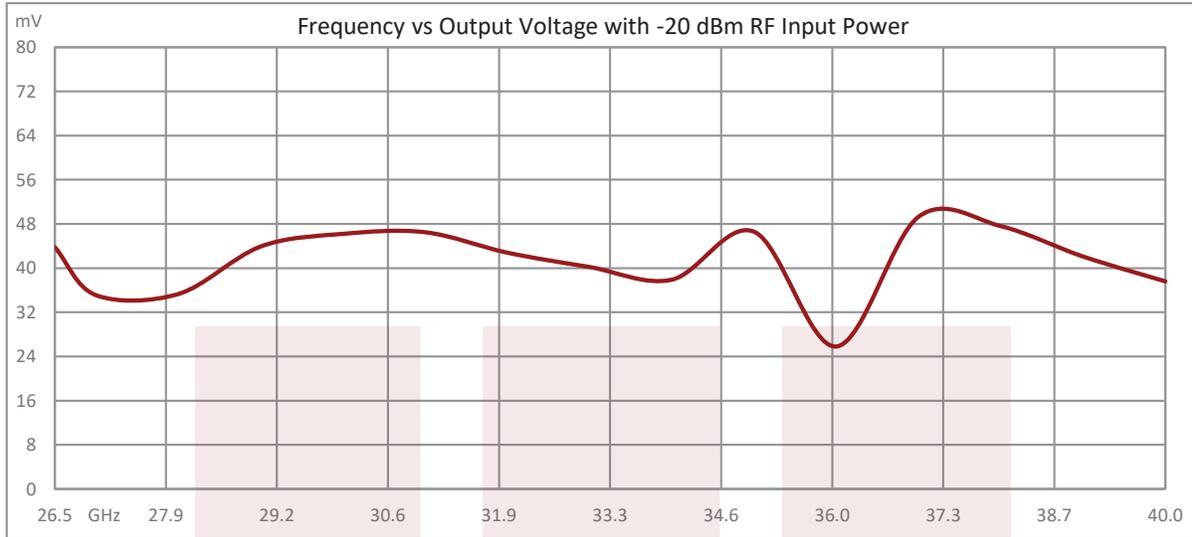
- Values at 25 °C, sea level

### Applications:

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

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[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Typical Performance Data**



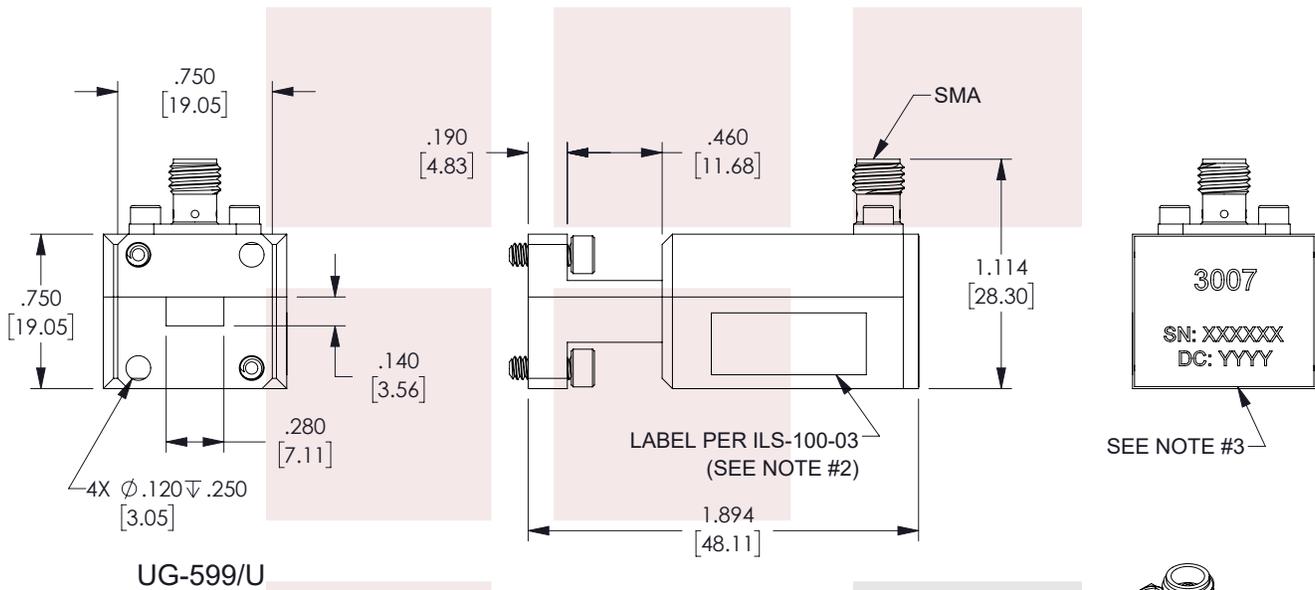
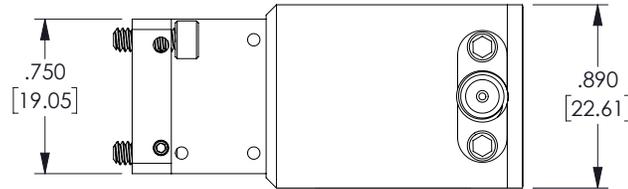
WR-28 Waveguide Power Detector, Ka Band, 26.5 GHz to 40 GHz, Positive Output Voltage Polarity, UG-599/U Flange from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Ka Band Waveguide Amplitude Detector, WR-28, Positive Output Voltage Polarity, UG-599/U Flange FMMT3007](#)

URL:

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. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.

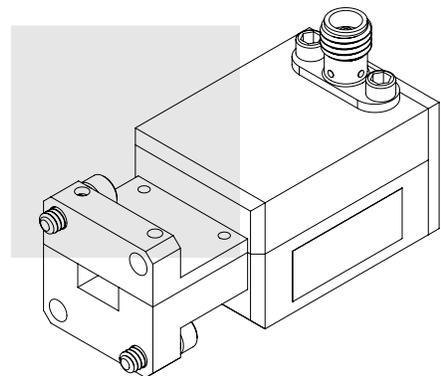
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	8/16/2022	TGALLA



UG-599/U

**NOTES:**

1. MATERIAL: 6061 T6 ALUMINUM.
2. LABEL PER ILS-100-03 (FOR INTERNAL REFERENCE ONLY)  
LABEL LOCATION FOR REFERENCE ONLY.
3. SERIAL NUMBER AND DATE CODE EX: SN: 0WZYQD, DC: 2232



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TITLE

WR-28 Waveguide Power Detector, Ka Band, 26.5 GHz to 40 GHz, Positive Output Voltage Polarity, UG-599/U Flange

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

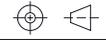
TOLERANCES:

.X = ±.2 [5.08] FRACTIONS ± 1/32  
.XX = ±.02 [.51] ANGLES ± 1°  
.XXX = ±.005 [.13]

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

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY DMAY	ITEM NO. FMMT3007	REV A
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T-Rev.D