

Biased Detector With SMA Male to SMA Female and Negative Video Out Operating From 500 MHz to 1,000 MHz

The FMMT1001 is a biased Schottky detector that displays an extremely flat frequency response over a broad frequency range from 0.5 GHz to 1 GHz. The model features Negative video output polarity, with no external DC bias source is required. Additional features include 50 ohm matched inputs, high voltage sensitivity for very small signal detection of 1800 mV/mW typical, and can withstand maximum input power levels up to +23 dBm CW. Operating temperature range is -55°C to +125°C. The compact and rugged cylindrical package supports an SMA male input connector and SMA female output connector and is ideal for use with precision test and measurement, instrumentation, and subsystem assemblies.

Electrical Specifications

Description	Min	Typ	Max	Unit
Frequency Range	500 MHz		1000 MHz	
Flatness		±0.25		dB
Input Power			+23	dBm
Operating Temperature Range	-55		+125	deg C

Electrical Specification Notes:
 @ +25 deg C, 100uA Bias, and -20 dBm Pin
 Voltage Sensitivity is that of an open circuit
 TSS is measured with a 2 MHz video bandwidth and a 2 dB NF Amplifier



Features:

- Biased Schottky Diode Detector
- 0.5 GHz to 1 GHz Frequency Range
- Extremely Flat Frequency Response
- Maximum Input Power +23 dBm
- Negative Video Output Polarity

Applications:

- Electronic Warfare
- Test & Measurement
- System Monitoring
- AM Noise Measurements
- Military & Space
- Radar
- Pulsed RF Measurements in Ultra Broadband Applications
- Leveling Pulse Signal Sources
- Military Communications Systems

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Mechanical Specifications

Size

Length	1.21 in [30.73 mm]
Width	0.312 in [7.92 mm]
Weight	0.019 lbs [8.62 g]

Environmental Specifications

Temperature

Operating Range	-55 to +125 deg C
Storage Range	-65 to +150 deg C

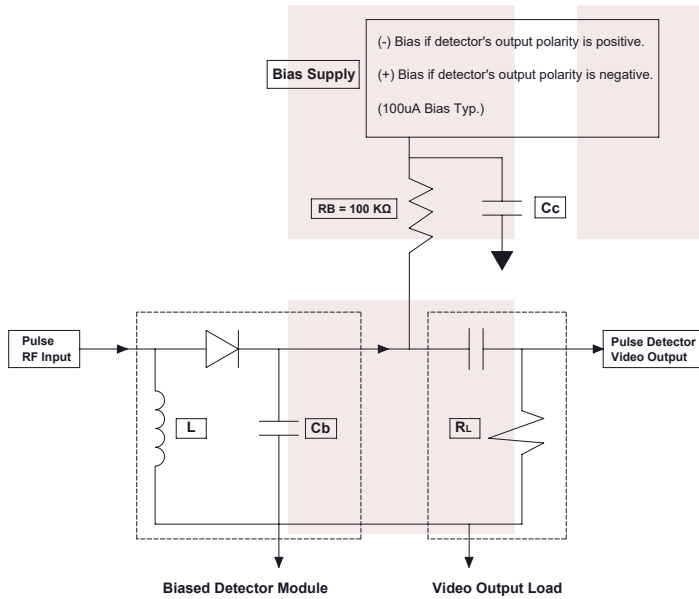
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

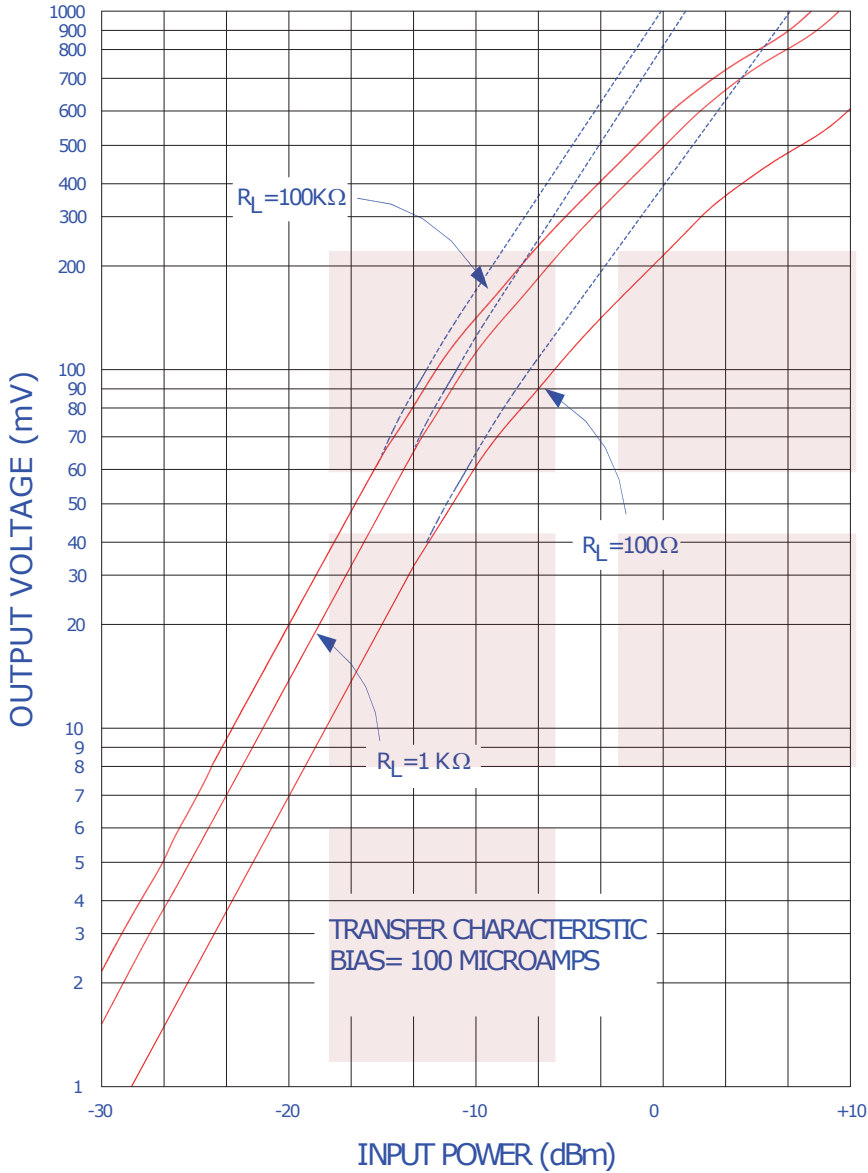
Functional Block Diagram

Biased Schottky Detector Application Circuit

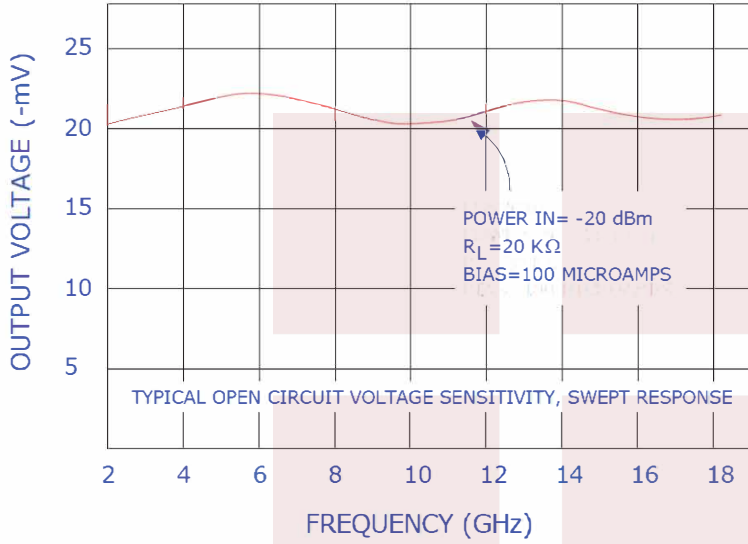


Typical Performance Data

TRANSFER CHARACTERISTIC



Voltage Output Vs. Frequency

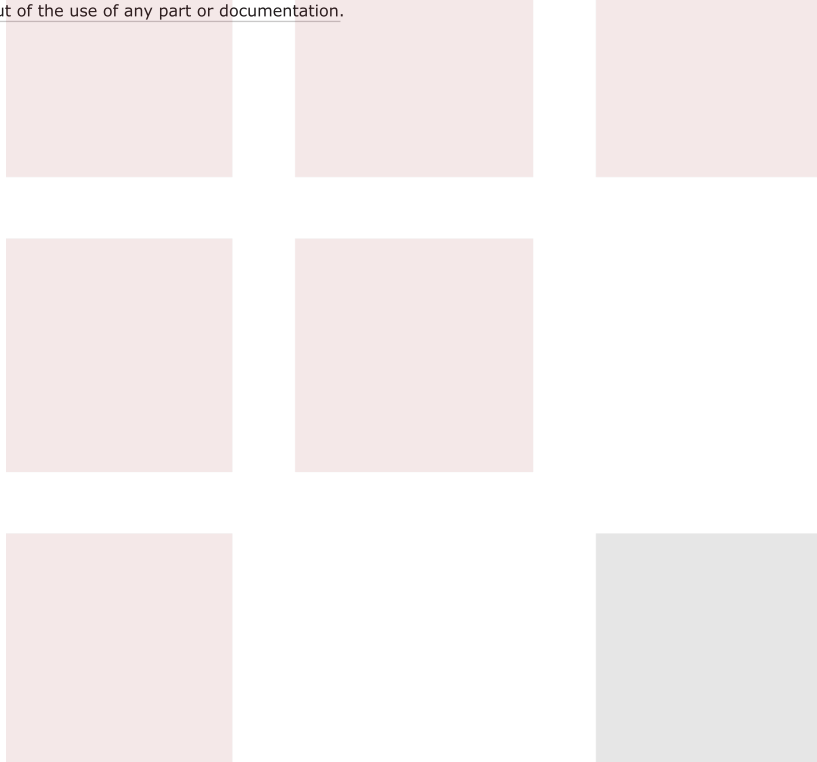


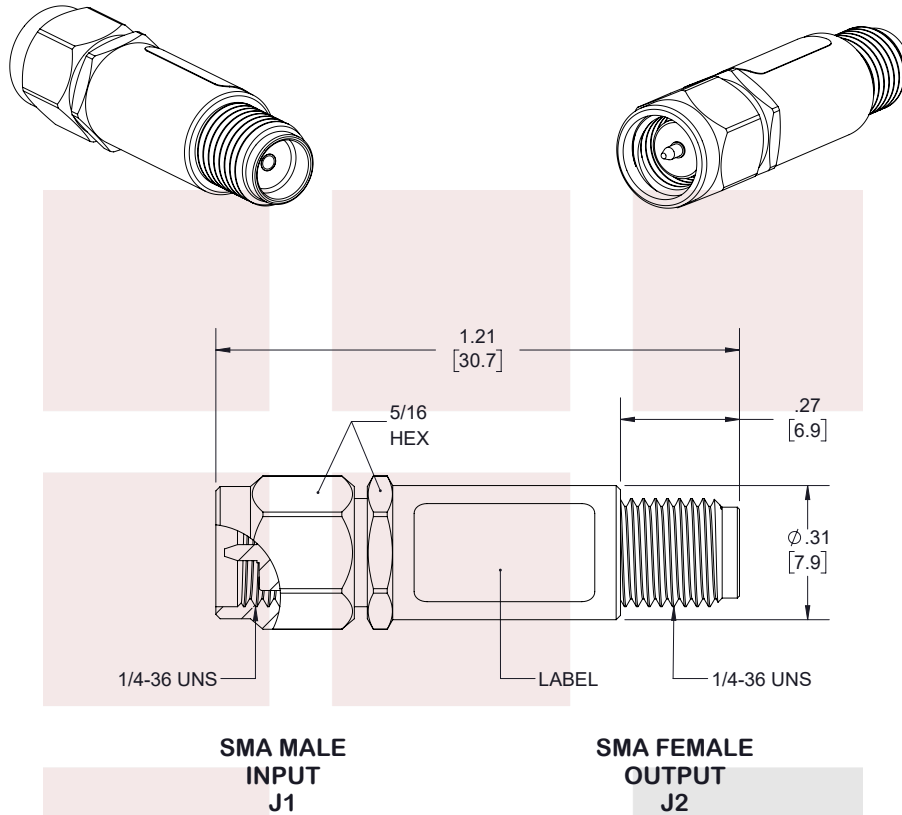
Biased Detector With SMA Male to SMA Female and Negative Video Out Operating From 500 MHz to 1,000 MHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Biased Detector With SMA Male to SMA Female and Negative Video Out Operating From 500 MHz to 1,000 MHz FMMT1001](#)

URL: <https://www.fairviewmicrowave.com/biased-detector-sma-male-500-1000-mhz-fmmt1001-p.aspx>

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.





LABEL:

FAIRVIEW MICROWAVE
 FMMT1001
 DATE CODE: XXXX

STANDARD TOLERANCES

.X ±0.2
 .XX ±0.01
 .XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE Biased Detector With SMA Male to SMA Female and Negative Video Out Operating From 500 MHz to 1,000 MHz		DWG NO FMMT1001		CAGE CODE 3FKR5	
CAD FILE	110117	SHEET	1 OF 1	SCALE	N/A
		SIZE	A		7361