

Power Detector, 50 MHz to 3 GHz, SMA, Postive Output Slope

The FMPT1002 is a broadband Power Detector module that covers a frequency band from 50 MHz to 3000 MHz. Desirable performance features include a positive output slope with an output voltage response from 0.1 to 2.5 volts, 60 dB of dynamic range, and a fast pulse response of 0.3 μ sec typical. The 50 ohm detector design requires a single +5 volt power supply, can handle up to +10 dBm RF input power, and supports Female SMA connectors. The rugged compact package assembly operates over a -40°C to +85°C temperature range and is designed to meet MIL-STD-202 environmental test conditions for Humidity, Shock, Vibration, and Altitude.

Electrical Specifications

Description	Min	Typ	Max	Unit
Frequency Range	50		3	GHz
VSWR		1.3:1	2:1	
Dynamic Range	55	60		dB
Output Voltage (RMS Response)				
Pin = 0 dBm @ 1000 MHz	2	2.1		V
Pin = -60 dBm @1000 MHz	0.05	0.12		V
Logarithmic Slope	36	41		mV/dB
Deviation @25°C			± 0.5	dB
Deviation over OTR			± 1.5	dB
Response Time			300	ns
Small Signal Envelope Bandwidth	25	30		MHz
Output Current Sink	7	10		mA
Supply Quiescent Current		12	20	mA
Operating Temperature Range	-40		+85	deg C



Features:

- Frequency Range: 50 to 3000 MHz
- Dynamic Range: 60 dB
- Output Voltage Response: 0.1 to 2.5V
- Positive Output Slope
- Input VSWR: 1.3:1 typ
- Max RF Input Power: +10 dBm
- Pulse Reponse: 0.3 μ sec
- DC Power: +5V
- SMA Female Connectors
- Operating Temperature: -40°C to +85°C
- Guaranteed to meet MIL-STD-202 Environmental Conditions

Applications:

- Transmit/Receive Power Measurement
- Input Protection
- Return Loss Measurement
- RF Pulse Detection
- Radar
- Electronic Warfare
- Test and Measurement
- Wireless Signal Testing & Optimization
- Power Amplifier Linearization
- CW & Modulated Waveform Measurements

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Mechanical Specifications

Weight	0.087 lbs [39.46 g]
Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +125 deg C

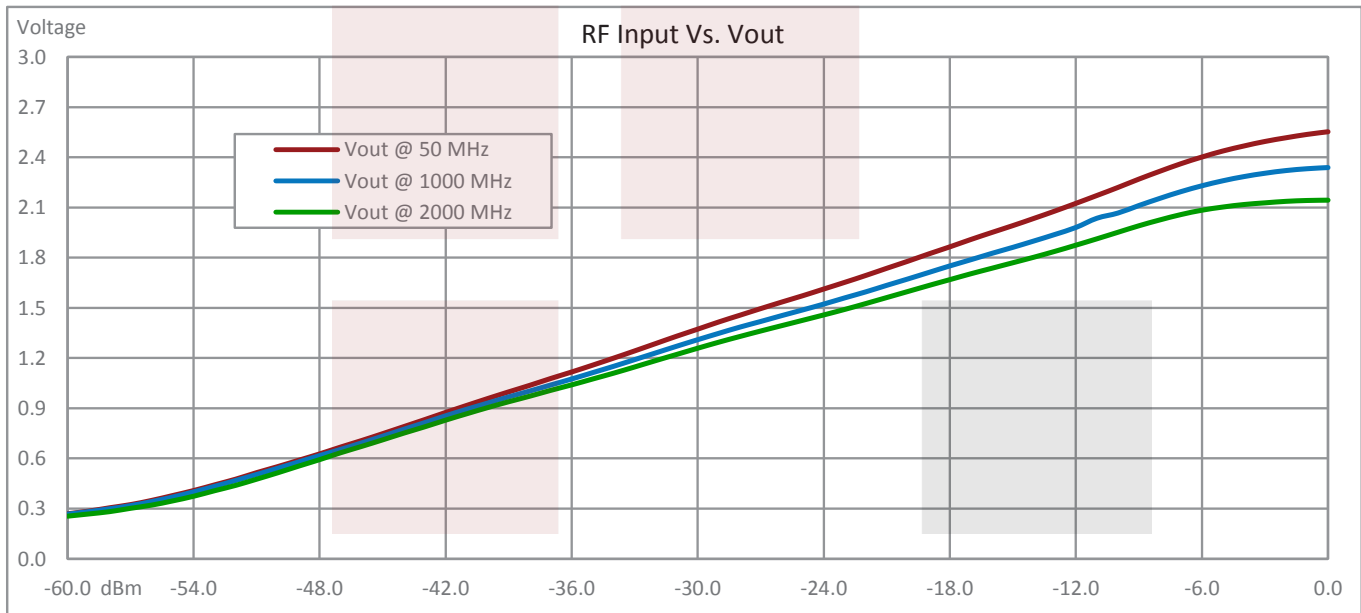
Humidity	MIL-STD-202F, Method 103B, Condition B
Shock	MIL-STD-202F, Method 213B, Condition B
Vibration	MIL-STD-202F, Method 204D, Condition B
Altitude	MIL-STD-202F, Method 105C, Condition B

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

Plotted and Other Data

Notes:

Typical Performance Data



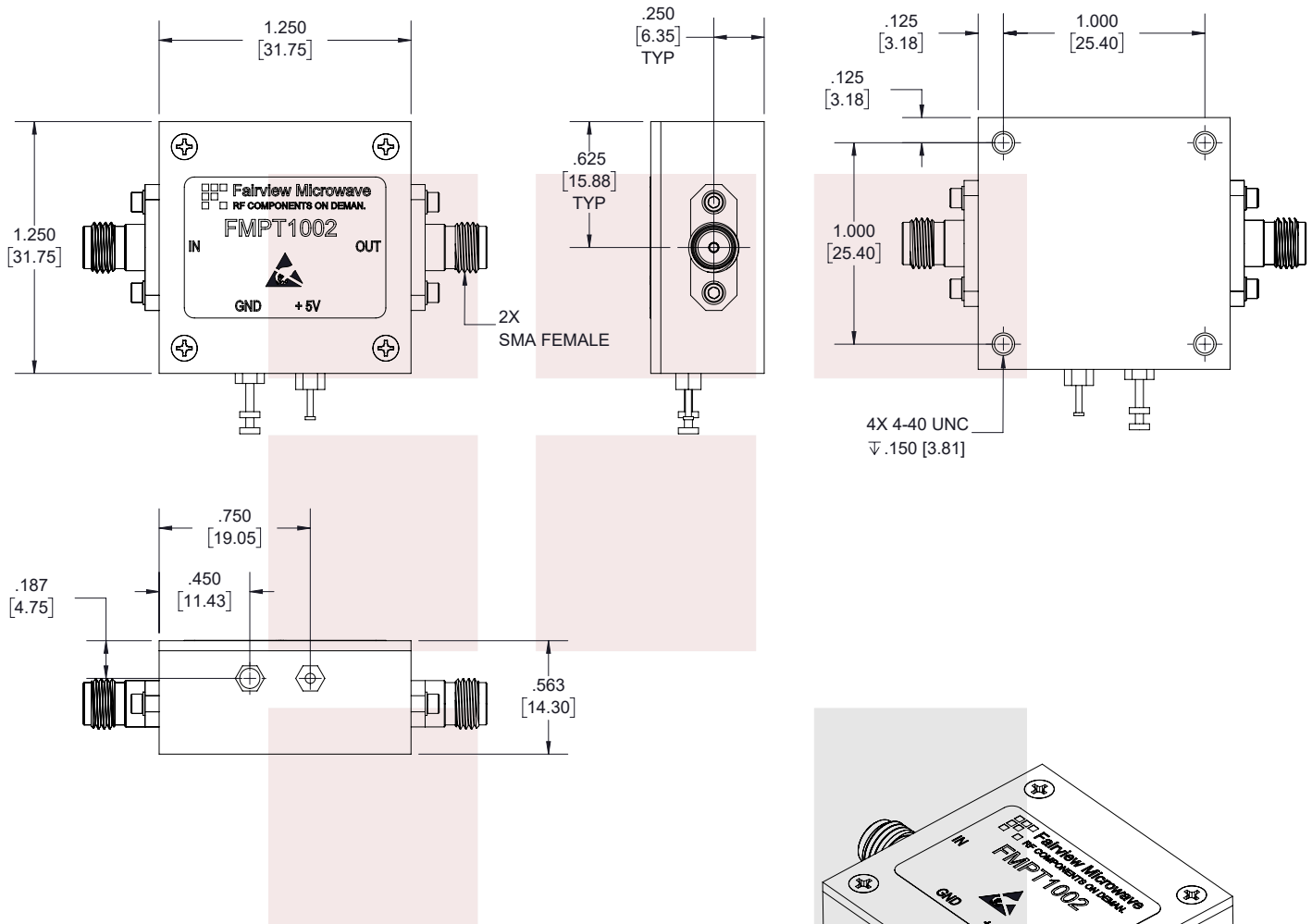
Power Detector, 50 MHz to 3 GHz, SMA, Postive Output Slope from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Power Detector, 50 MHz to 3 GHz, SMA, Postive Output Slope FMPT1002](#)

URL: <https://www.fairviewmicrowave.com/power-detector-sma-female-50-mhz-3-ghz-fmpt1002-p.aspx>

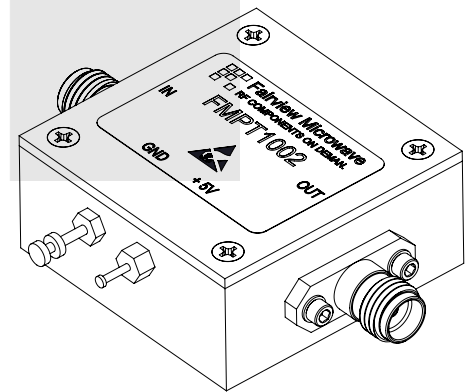
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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].		
TITLE Power Detector, 50 MHz to 3 GHz, SMA, Postive Output Slope		DWG NO FMPT1002	CAGE CODE 3FKR5	
CAD FILE 04/23/18	SHEET 1 OF 1	SCALE N/A	SIZE A	7361