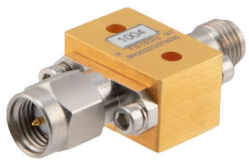
Fairview Microwave
an INFINITE brand

FMPT1004
DATA SHEET

6 GHz to 18 GHz Power Detector, Positive Output Slope, +23 dBm Max Pin, SMA



The FMPT1004 is a coaxial packaged Power Detector that operates across a broadband frequency from 6 GHz to 18 GHz. The 50 Ohm design provides a positive output voltage that's porportional to the RF input signal level. Impressive performance includes high voltage sensitivity of 0.5 mV/uW typ, tangential signal sensitivity (TSS) of -25 dBm min, and low VSWR of 1.4:1 typ. The unit does not require a DC bias voltage, and has maximum RF input power handling of +23 dBm. The low profile pin package is aluminum with Gold plating and supports field replaceable SMA connectors, with a Male RF connector on the input port and a Female RF connector on the output port. With the connectors removed, the package can be drop mounted onto a PWB. The module has an operational temperature range from -40°c to +85°C and is guaranteed to meet a series of environmental test conditions for Altitude, Vibration, Humidity, and Shock.

Electrical Specifications (@ +25°C)

Description	Min	Typ	Max	Unit
Frequency Range	6		18	GHz
VSWR		1.4:1	1.5:1	
Voltage Sensitivity		0.5		mV/uW
Input Power			23	dBm
Tangential Signal Sensitivity (TSS)	-25			dBm
Operating Temperature Range	-40		85	deg C
Output Polarity		Positive		

Features:

- Power Detector with Positive Output Slope
- 6 GHz to 18 GHz
- High Voltage Sensitivity 0.5 mV/uW typ
- Tangential Signal Sensitivity (TSS) -25 dBm min
- VSWR 1.4:1 typ
- Maximum RF Input Power Handling +23 dBm
- No DC Bias Required
- 50 Ohm Design
- Field Replaceable SMA Connectors, Male input and Female output
- Operational Temperature Range -40°c to +85°C
- Rugged and Compact Aluminum Gold Plated Package Design
- Guaranteed Environmental Test Conditions Altitude, Vibration, Humidity, Shock

Applications:

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

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Mechanical Specifications

Size	
Length	0.4 in [10.16 mm]
Width	0.37 in [9.4 mm]
Height	0.62 in [15.75 mm]
Weight	0.01 lbs [4.54 g]
Connector 1	Field Replaceable SMA Male
Connector 2	Field Replaceable SMA Female

Environmental Specifications

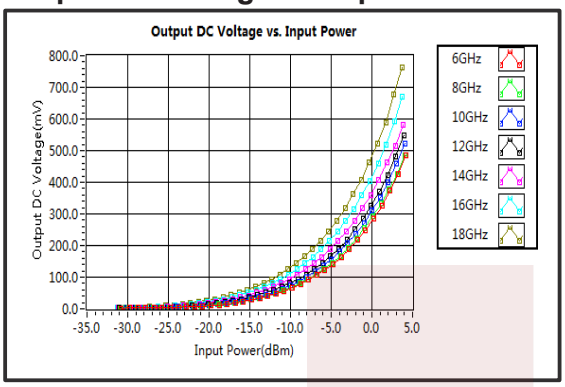
Temperature	
Operating Range	-40 to +85 deg C
Storage Range	-50 to +105 deg C
Humidity	100% RH at 35 degrees C, 95% RH at 40 degrees C
Shock	20G for 11ms Half Sine Wave, 3 Axis Both Directions
Vibration	25g RMS (15 degrees 2KHz) Endurance, 1 Hour Per Axis
Altitude	30,000 ft (Epoxy Sealed Controlled Environment)

Compliance Certifications (see product page for current document)

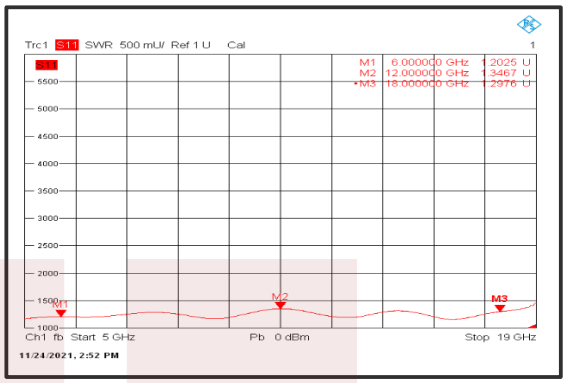
Plotted and Other Data

Notes:

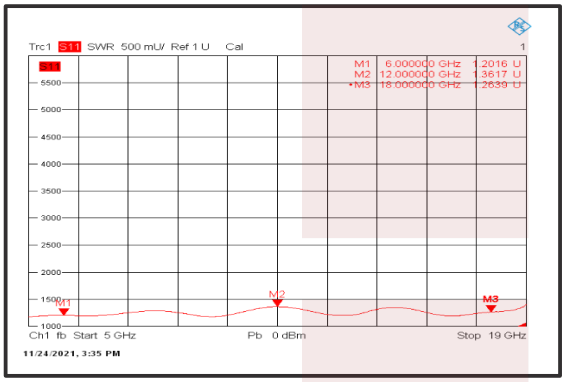
Output DC Voltage vs. Input Power



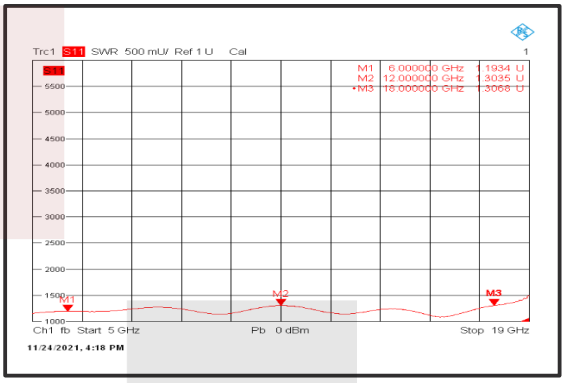
VSWR @+25℃



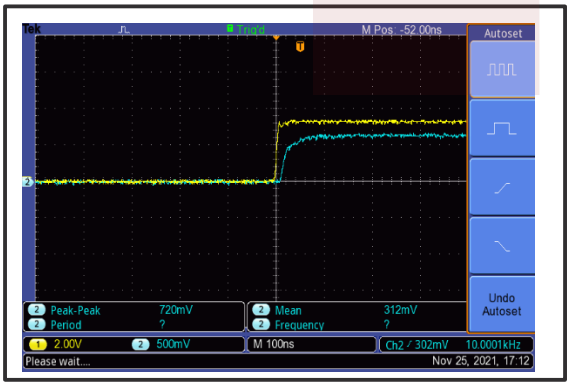
VSWR @-40℃



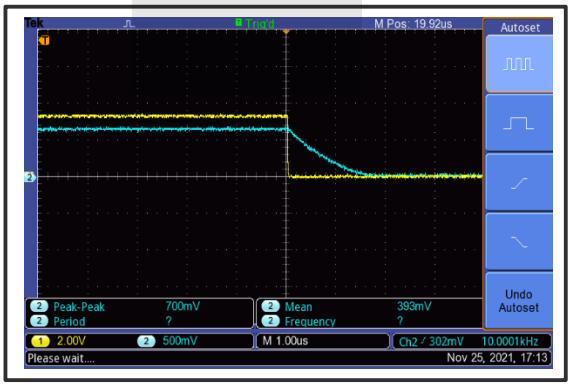
VSWR @+85℃



Rise Time



Fall Time



6 GHz to 18 GHz Power Detector, Positive Output Slope, +23 dBm Max Pin, SMA 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: 6 GHz to 18 GHz Power Detector, Positive Output Slope, +23 dBm Max Pin, SMA FMPT1004

URL: https://www.fairviewmicrowave.com/power-detector-sma-male-6-18-ghz-fmpt1004-p.aspx