

RPD Series

30 – 4000MHz RF Power Detector

Features

- Frequency Range: 30 - 4000MHz
- Dynamic Range: 80dB
- Output Range: 0.5 – 2V
- Output Slope: Positive
- Pulse Response: 0.2 μ s
- DC Power: 5V/30mA
- SMA Connector

Picture



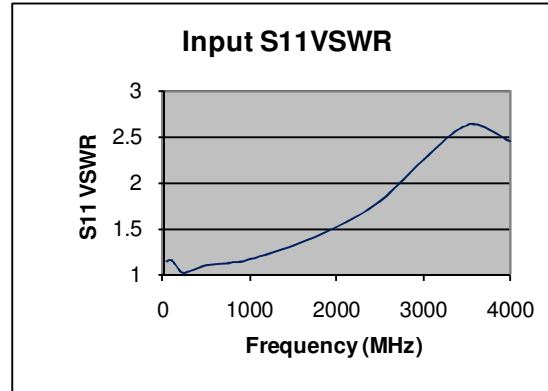
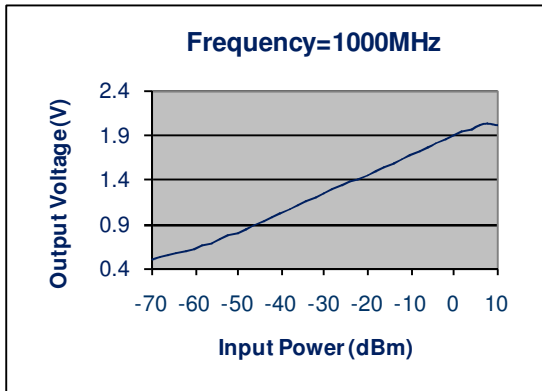
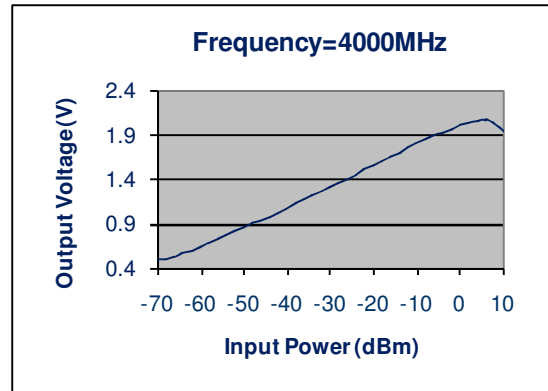
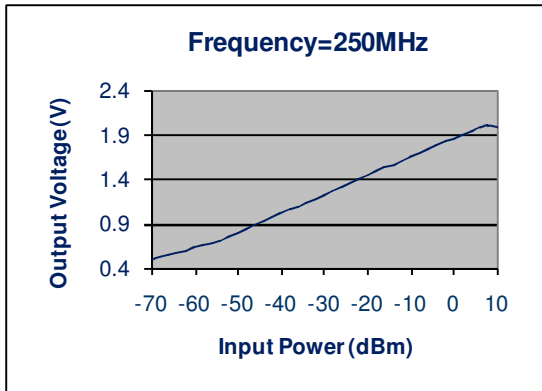
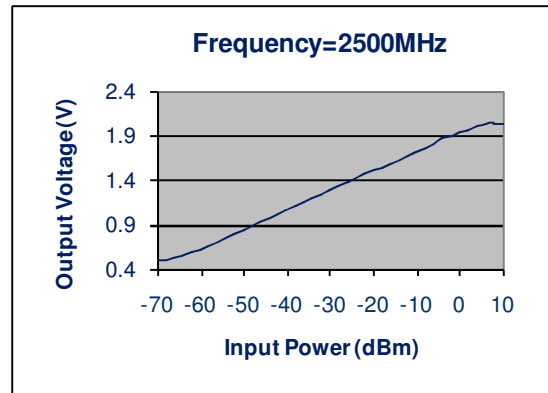
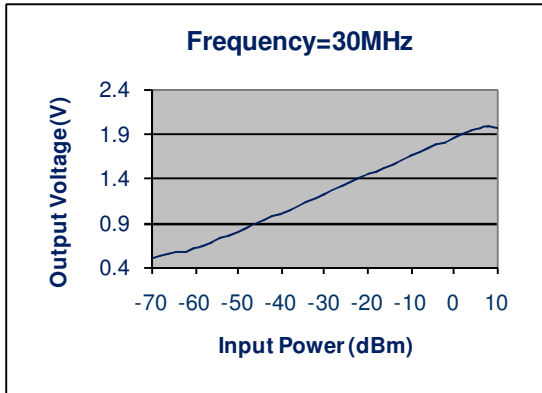
Description

RPD-5513 is an 80dB Dynamic Range Logarithmic RF Power Detector operates in wideband with frequency range from 30MHz to 4000MHz.

Electrical Specifications @ +25 °C, $Z_{in} = 50 \Omega$, $V_{supply} = 5V$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	30		4000
Dynamic Range	dB		80	
Output Voltage				
Pin= 0dBm @ 1000MHz	V		1.89	
Pin=-60dBm @ 1000MHz	V		0.62	
Logarithmic Slope	mV/dB	19	21	23
Deviation at +25 °C	dB			+/-0.5
Deviation v.s Temperature -40 °C to +85 °C	dB			+/-1.0
Pulse Response Time	μ s		0.2	
Input VSWR @ 2000MHz			1.5:1	
Small Signal Envelope Bandwidth	MHz		10	
Output Current Sink	mA		55	
Capacitive Load Drive	pF		50	
DC Power Supply	V	4.5	5	5.5
Supply Quiescent Current	mA		30	

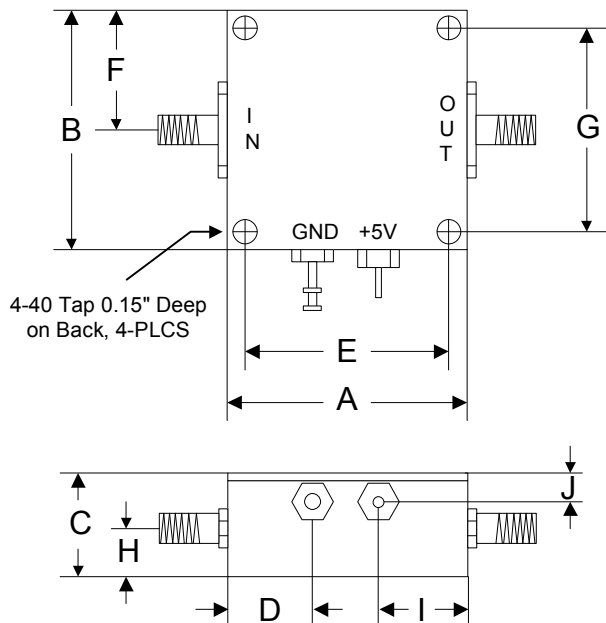
Typical Performance @ +25 °C



Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20dBm
Supply Voltage	+5.5V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline



	A	B	C	D	E	F	G	H	I	J
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76