

RSA Series

10MHz – 50GHz System Amplifier

Features

- Frequency Range: 10MHz-50GHz
- Gain: 28dB to 26GHz
- P_{1dB} : +24.3dBm @ 40GHz
- P_{sat} : +26dBm @ 40GHz
- Noise Figure: 10dB
- DC Power: +12V @ 2.2A
- Internally Voltage Regulated
- RF Connector: 2.4mm-F

Photo



Description

RSA-50G is a high performance ultra wideband System Amplifier, with usable frequency range from 10MHz to 50GHz.

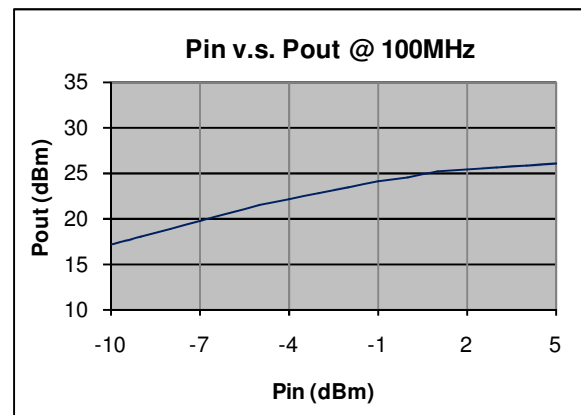
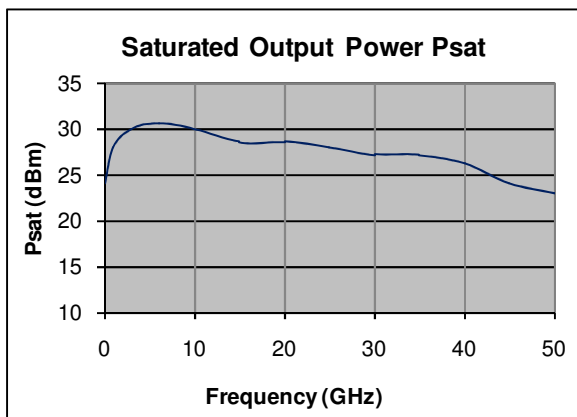
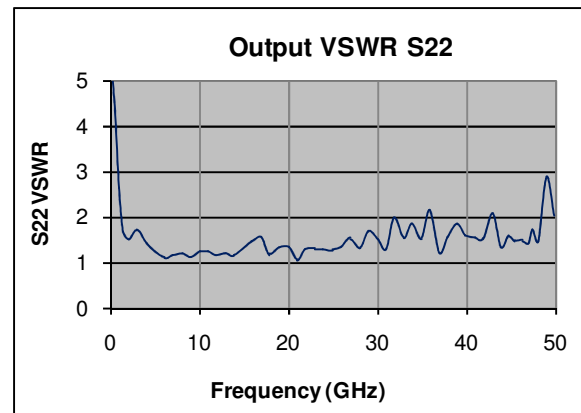
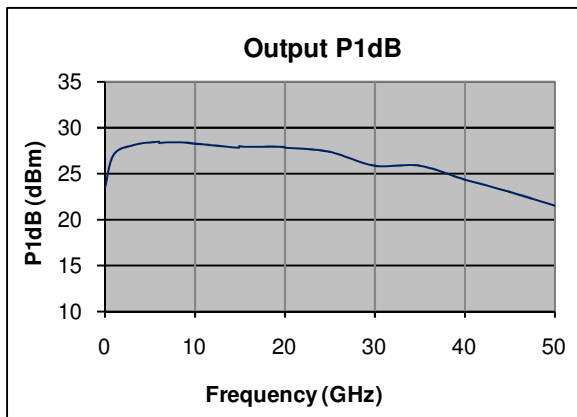
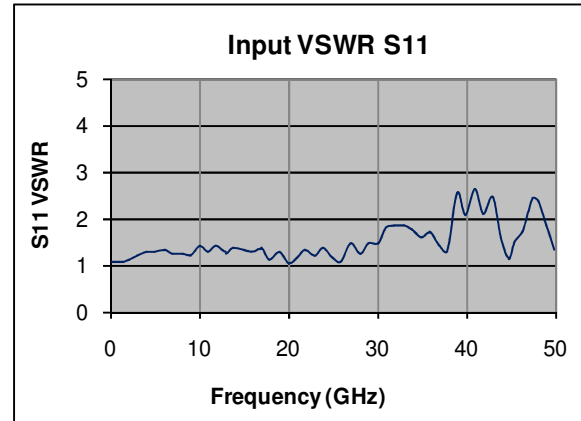
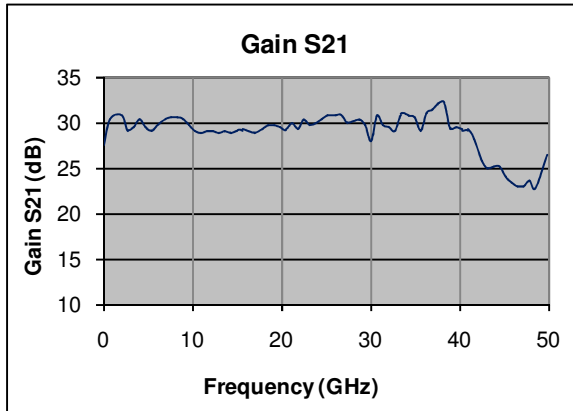
Electrical Specifications @+25°C, $Z_{in}=Z_{out}=50\ \Omega$, $V_{supply} = +12VDC$

Parameter	Unit	0.01-2GHz	2-10GHz	10-26GHz	26-40GHz	40-50GHz
Gain S ₂₁	dB	25	29	28	25	24
Output Power P _{1dB}	dBm	+22	+28	+27	+25	+21
Saturated Power P _{Sat}	dBm	+24	+30	+29	+27	+23
Reverse Isolation S ₁₂	dBm	-60	-60	-60	-50	-50
Noise Figure	dB	9	9	10	11	14
Group Delay	ps	900	700	720	740	780
2 nd Harmonic @ P _{1dB}	dBc	-40	-40	-40	-35	-30
3 rd Harmonic @ P _{1dB}	dBc	-20	-20	-20	-	-
VSWR-Input (S ₁₁)		1.43	1.43	1.43	1.93	2.32
VSWR-Output (S ₂₂)		3.0	1.43	1.93	2.32	3.0
DC Power - Voltage	V	12				
DC Power - Current	A	2.2				
RF Connector		Input: 2.4mm Female; Output: 2.4mm Female				
Detector Output	V	0 to 2 (Monotonic Positive Slope)				
Operating Temp	°C	0 to +50				
Size (LxWxH)	Inch	7.50 x 3.40 x 2.10 (190.7 x 79.5 x 61.3 mm)				
Weight	LB	1.68 (760 grams)				

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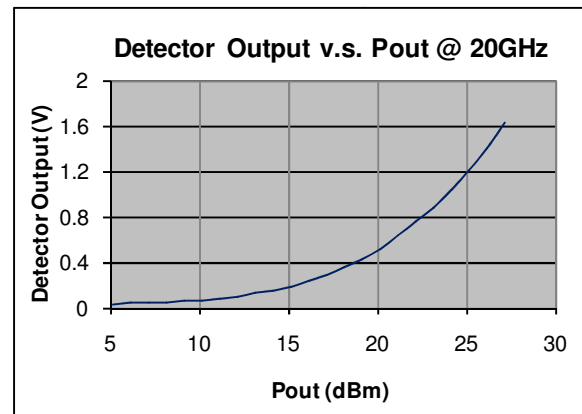
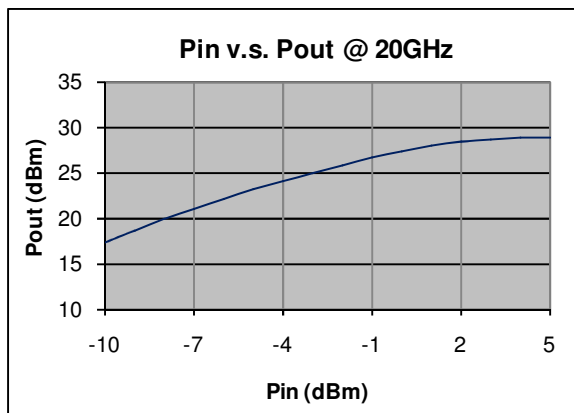
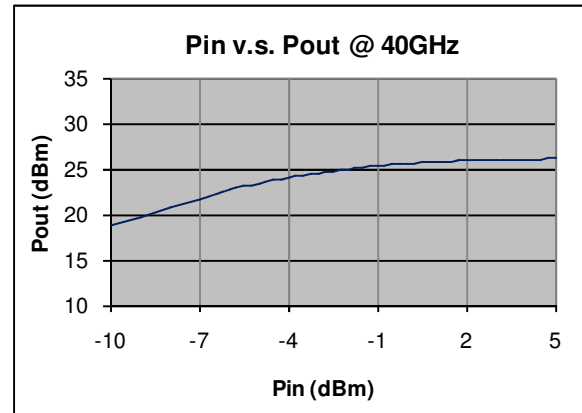
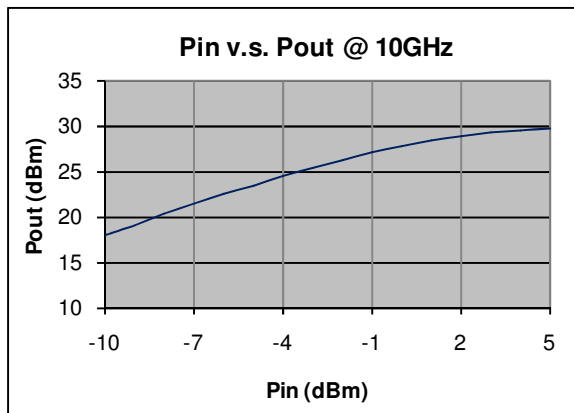
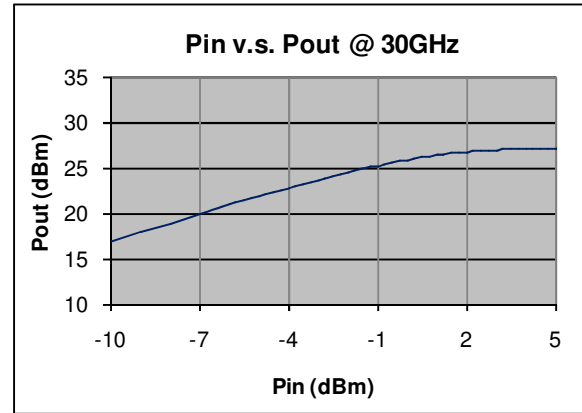
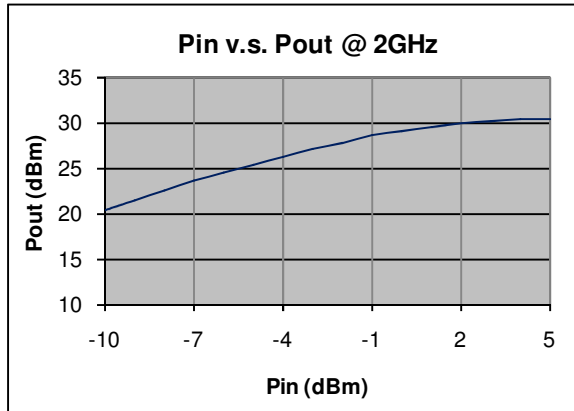
Typical Performance @+25 °C



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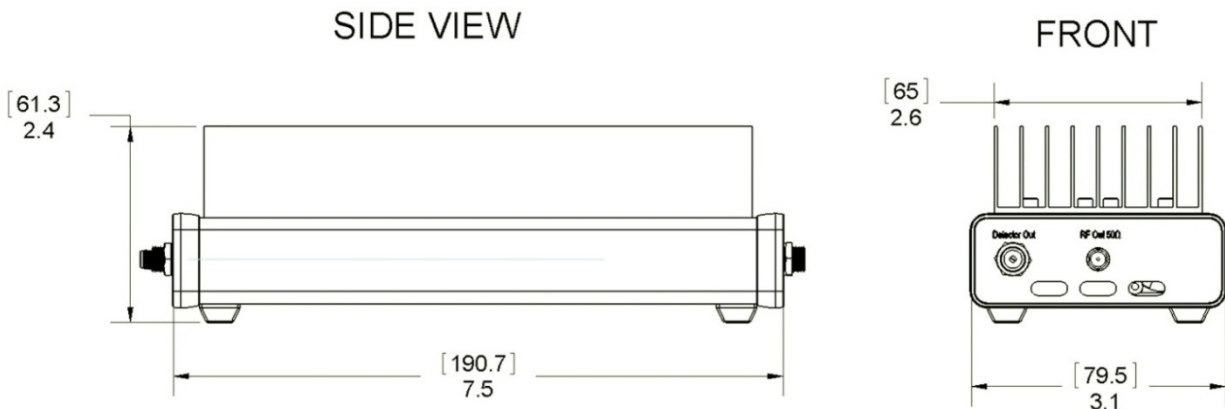
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20dBm
Supply Voltage	+13V
Operating Temperature	0 °C to +50 °C
Storage Temperature	-10 °C to +60 °C

Outline

[mm]
 inches



Important Operational Notes

- 1) Use AC/DC 12V power supply model come with the RSA-50G only
- 2) It must follow the sequence to power on RSA-50G:
 - Step 1 – unplug 12V DC plug from RSA-50G
 - Step 2 – plug 12V AC/DC adapter to 120V/240VAC wall socket
 - Step 3 – wait for few seconds for 12V power adapter comes up working, then plug 12V into RSA-50G.
 - Step 4 – to power off RSA-50G, just unplug 12V from RSA-50G
- 3) Make sure, never start to plug in AC/DC adapter to wall socket while 12V plug is plugged into RSA-50G.