

HD30107

6 - 12 GHz High Power RF Amplifier

Features

- Frequency Range: 6-12GHz
- Gain: 19dB
- P_{1dB}: +19dBm
- OIP3: +26dBm
- Noise Figure: 5.5dB (typ.)
- DC Power: 9V to 15V @ 105mA
- SMA-female connectorized



Description

HD30107 is a high performance Microwave RF Amplifier, with standard frequency range of 6 to 12GHz.

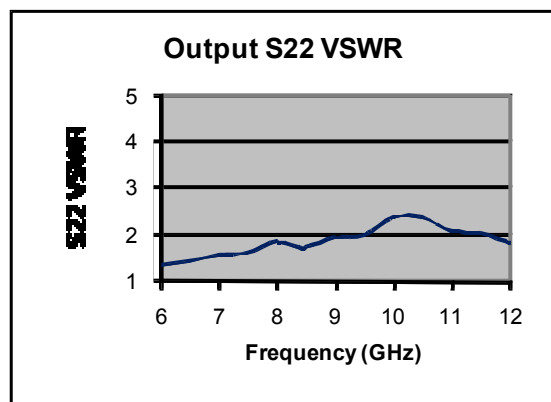
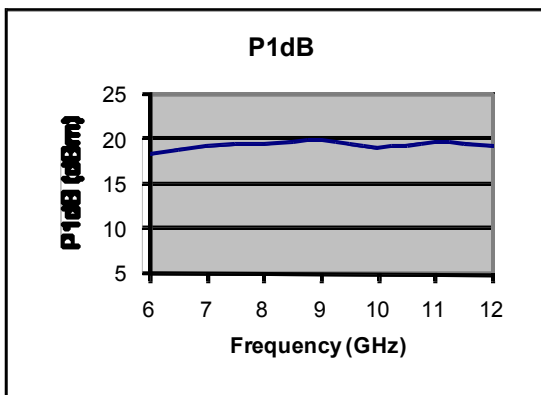
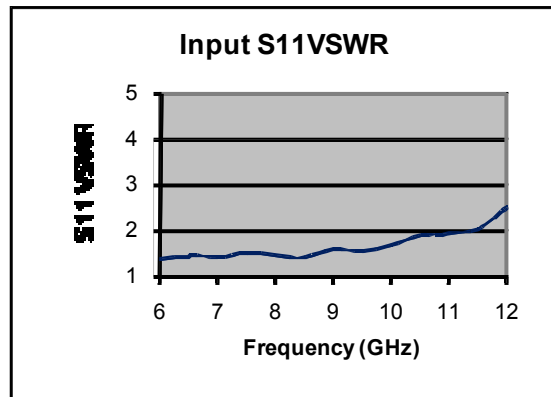
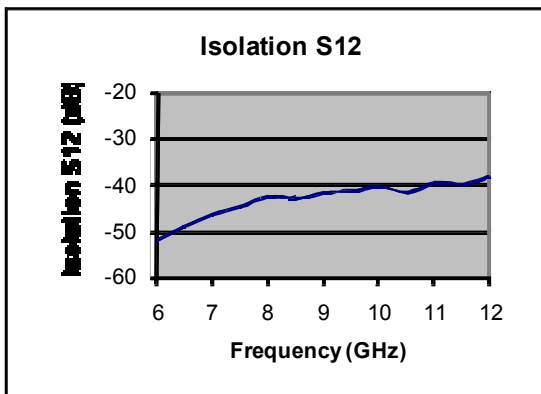
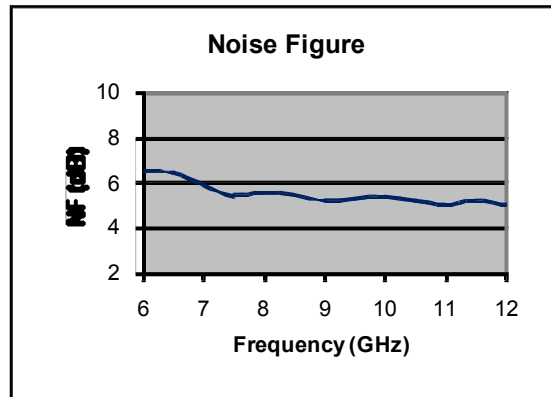
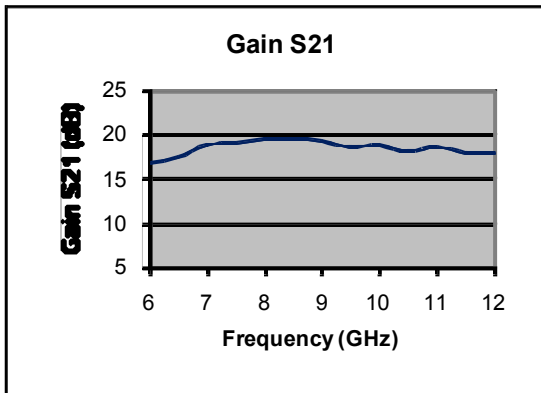
Electrical Specifications @+25 °C, Z_{in}=Z_{out}=50 Ω, V_{supply} = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	6		12
Gain (S ₂₁) f = 6GHz	dB		16.8	
f = 9GHz	dB		19.0	
f = 12GHz	dB		18.0	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P _{1dB}	dBm	16.5	+19	
Saturated Output Power P _{Sat}	dBm		+20	
Output Third Order Intercept IP3	dBm		+26	
Noise Figure	dB		5.5	6.5
Reverse Isolation (S ₁₂) @9GHz	dB		-40	
VSWR-Input (S ₁₁)	ratio:1	1.4 @6GHz	1.6 @9GHz	2.5 @12GHz
VSWR-Output (S ₂₂)	(unitless)	1.4 @6GHz	1.9 @9GHz	1.9 @12GHz
DC Power Supply - voltage	V	9	12	15
DC Power Supply - current	mA		105	125
Operating Temperature	°C	-40		+85
Size (RF/DC feedthrough excluded)	Inch	1.79 (L) x 1.10 (W) x 0.45 (H)		
Weight	Oz	1.4		

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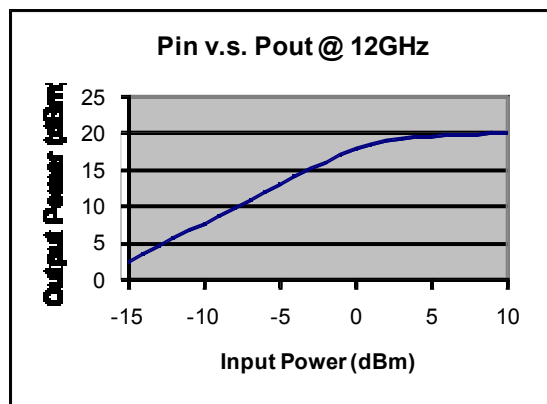
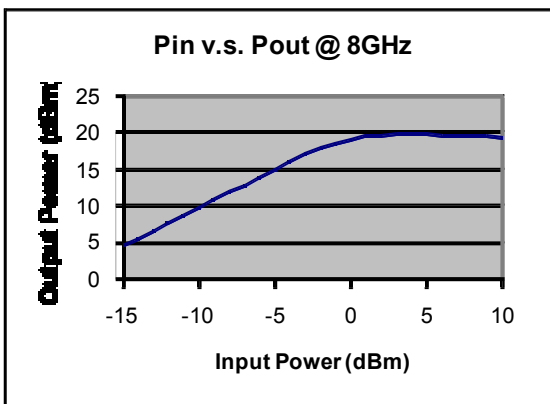
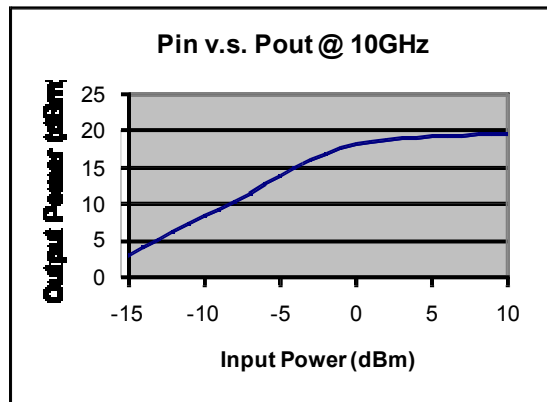
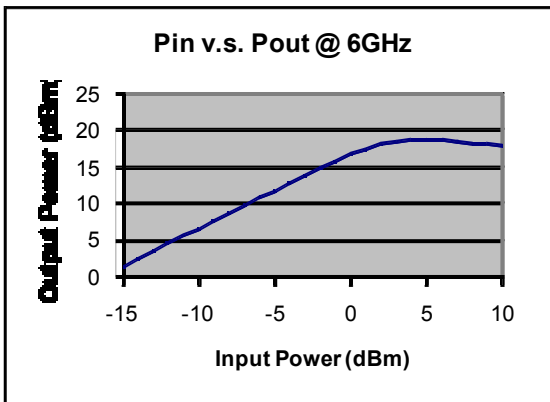
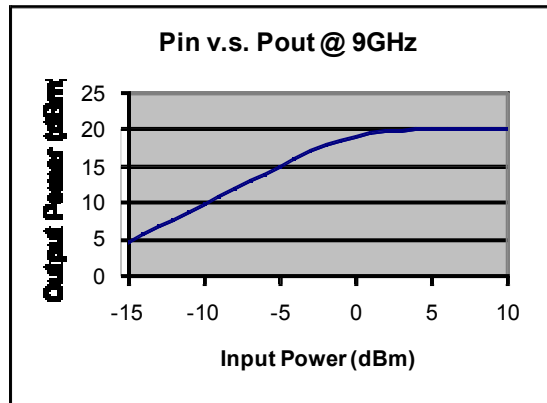
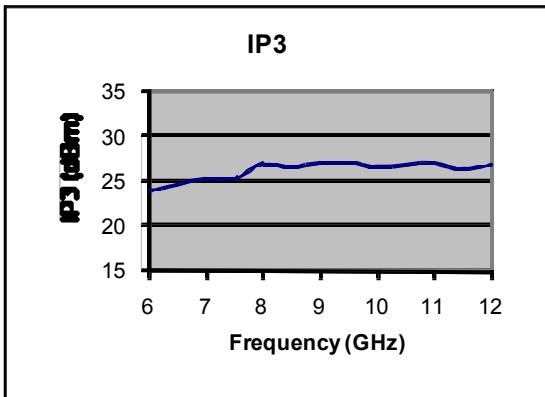
Typical Performance @+25 °C



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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+23dBm
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline

