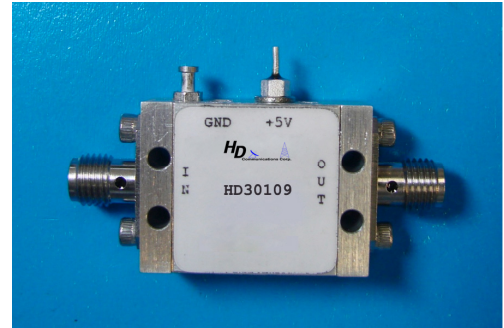


HD30109

6 – 12 GHz Low Noise Amplifier

Features

- Frequency Range: 6-12GHz
- Gain: 26dB
- P_{1dB}: +11dBm
- IP3: +25dBm
- Noise Figure: 2dB (typ.)
- DC Power: 5V @ 65mA
- SMA-female connectorized



Description

HD30109 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 6GHz to 12GHz.

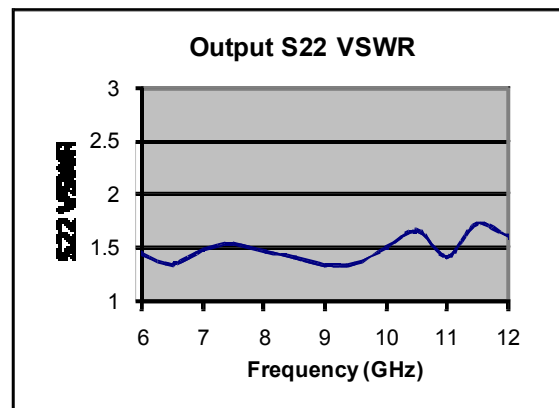
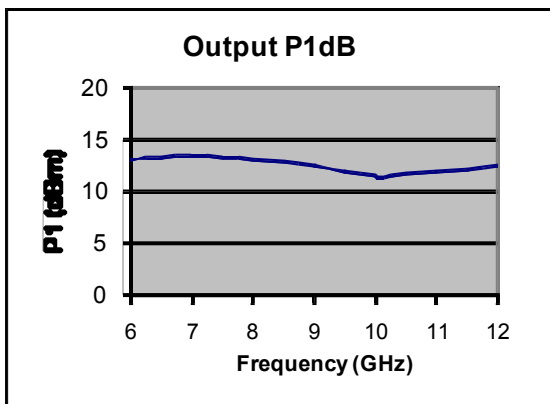
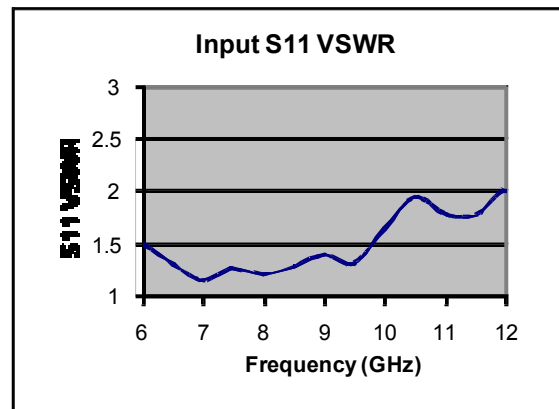
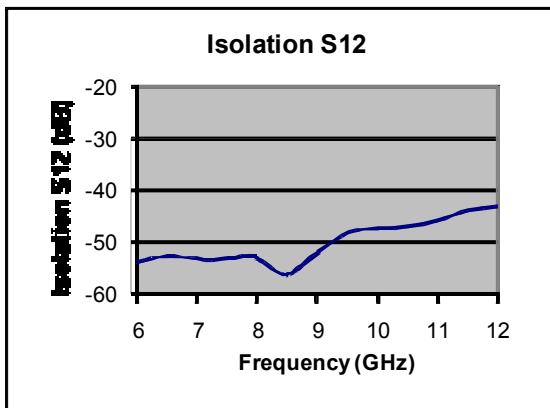
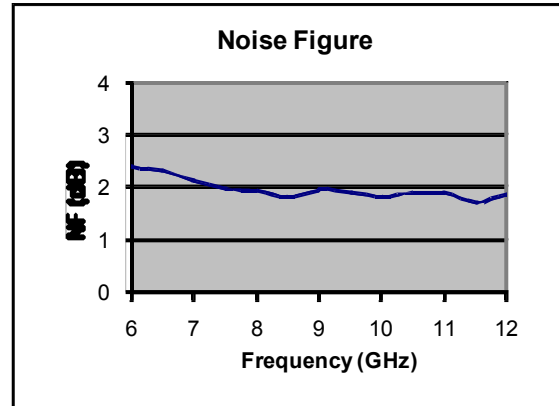
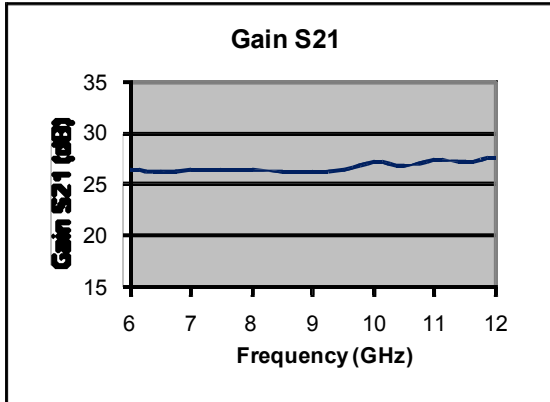
Electrical Specifications @+25 °C, Z_{in}=Z_{out}=50 Ohm, V_{supply} = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	6		12
Gain (S21) f = 6GHz	dB		26.0	
f = 9GHz	dB		26.0	
f = 12GHz	dB		27.0	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P _{1dB}	dBm	+11	+12	
Saturated Output Power P _{Sat}	dBm		+13	
Output Third Order Intercept IP3	dBm		+25	
Noise Figure @9GHz	dB		2.0	2.2
Reverse Isolation (S12) @9GHz	dB		-51	
VSWR-Input (S11)	ratio:1	1.5 @6GHz	1.4 @9GHz	2.0 @12GHz
VSWR-Output (S22)	(unitless)	1.5 @6GHz	1.4 @9GHz	1.6 @12GHz
DC Power Supply - voltage	V	4.5	5.0	5.5
DC Power Supply - current	mA		65	75
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch	1.00 (L) x 0.75 (W) x 0.45 (H)		
Weight	Oz	0.6 (17 grams)		

HD30109

6 – 12 GHz Low Noise Amplifier

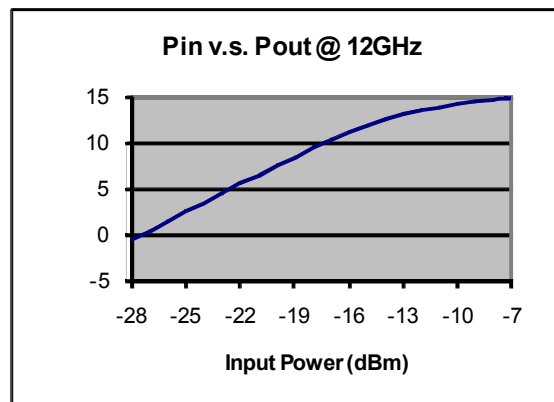
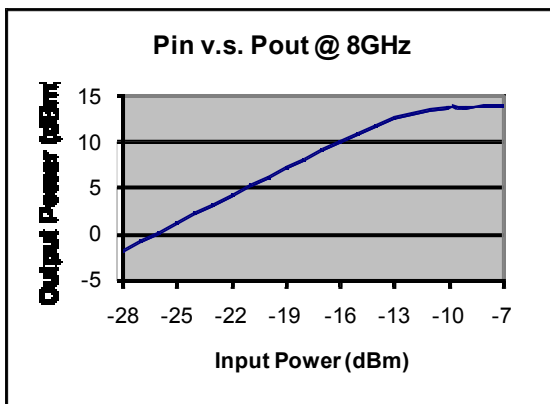
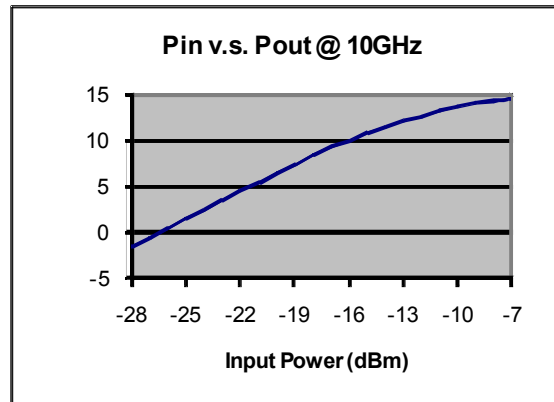
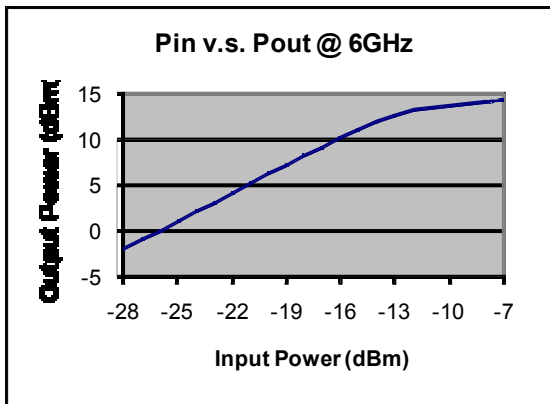
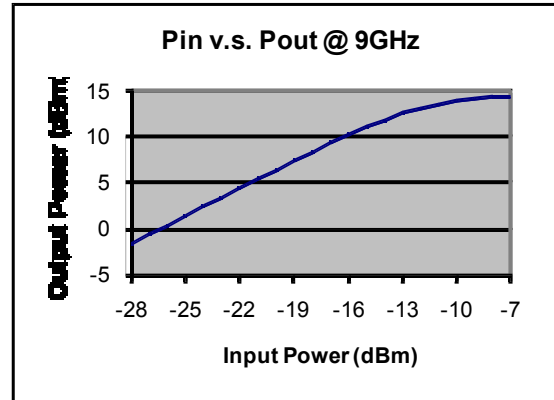
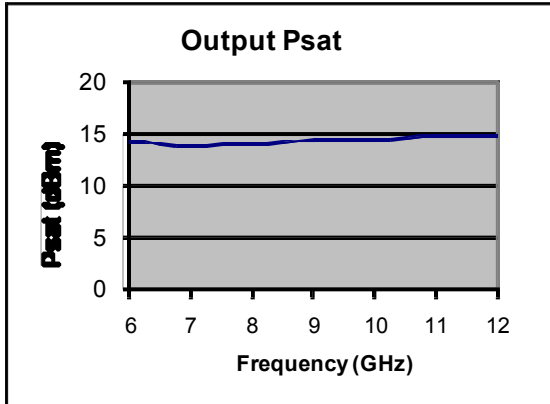
Typical Performance @+25 °C



HD30109

6 – 12 GHz Low Noise Amplifier

Typical Performance @+25 °C



HD30109

6 – 12 GHz Low Noise Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline

