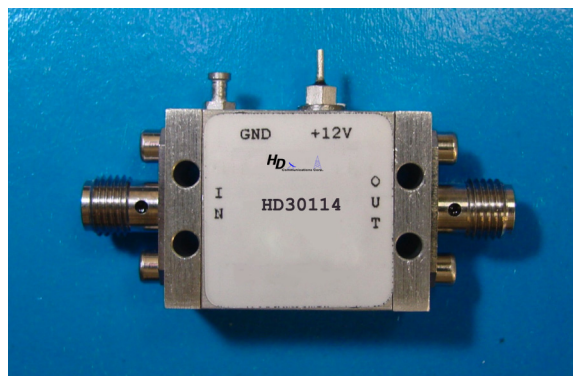


HD30114

5 – 12 GHz RF Amplifier

Features

- Frequency Range: 5-12GHz
- Gain: 11dB
- P_{1dB} : +17dBm
- IP3: +25dBm
- Noise Figure: 6.5dB (typ.)
- DC Power: 5V @ 130mA
- SMA-female connectorized



Description

HD30114 is a high performance RF Microwave Driver Amplifier, with standard frequency range of 5GHz to 12GHz.

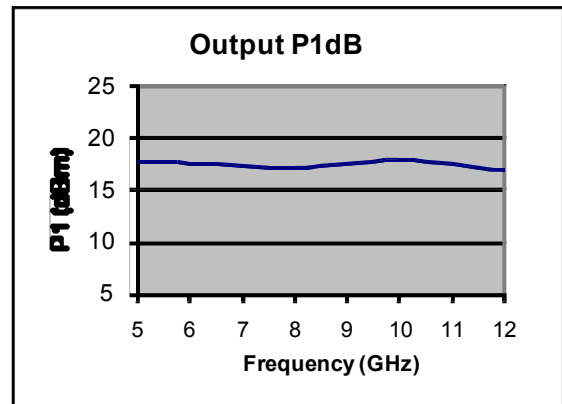
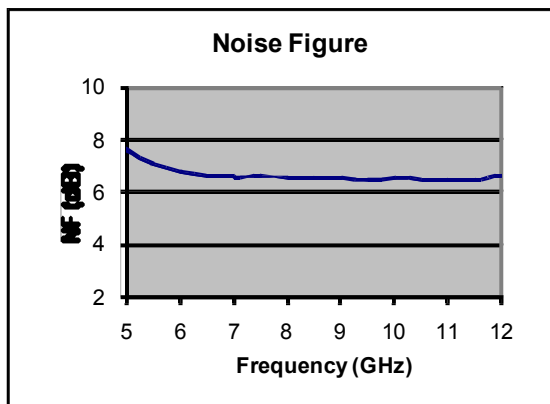
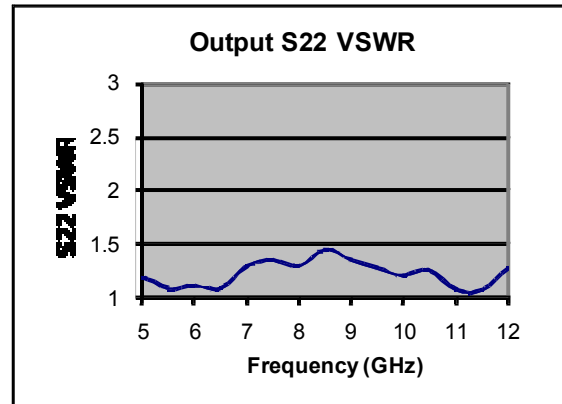
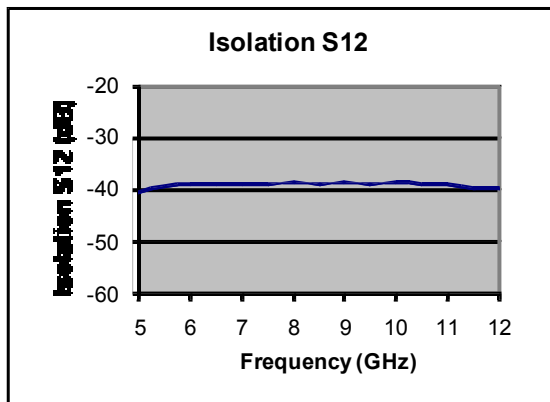
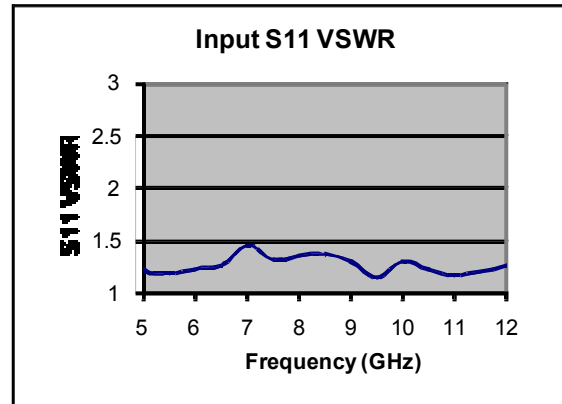
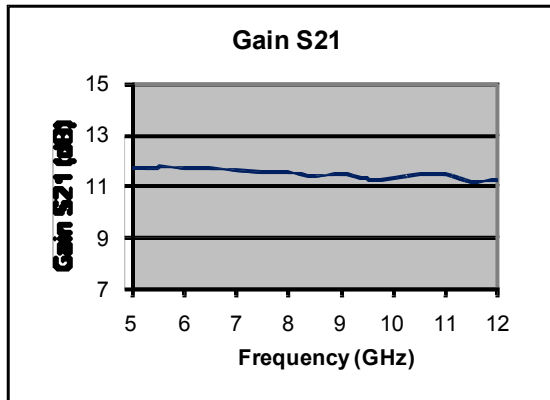
Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50\text{ Ohm}$, $V_{supply} = +5VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	5		12
Gain (S21) f = 5GHz	dB		11.5	
f = 9GHz	dB		11.0	
f = 12GHz	dB		10.7	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P_{1dB}	dBm		+17	
Saturated Output Power P_{Sat}	dBm		+19	
Output Third Order Intercept IP3	dBm		+25	
Noise Figure @9GHz	dB		6.5	7.5
Reverse Isolation (S12) @9GHz	dB		-39	
VSWR-Input (S11)	ratio:1	1.6 @5GHz	1.3 @9GHz	1.3 @12GHz
VSWR-Output (S22)	(unitless)	1.1 @5GHz	1.4 @9GHz	1.3 @12GHz
DC Power Supply - voltage	V		5.0	9.0
DC Power Supply - current	mA		130	145
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)		

HD30114

5 – 12 GHz RF Amplifier

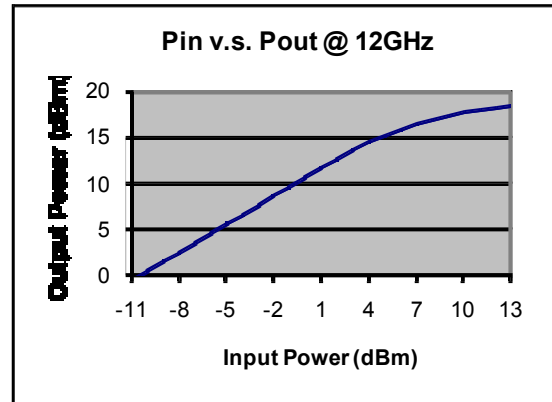
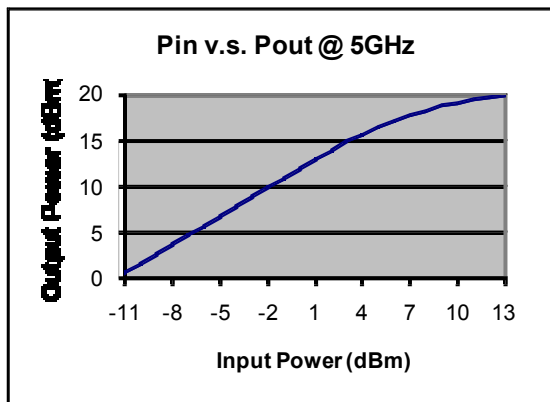
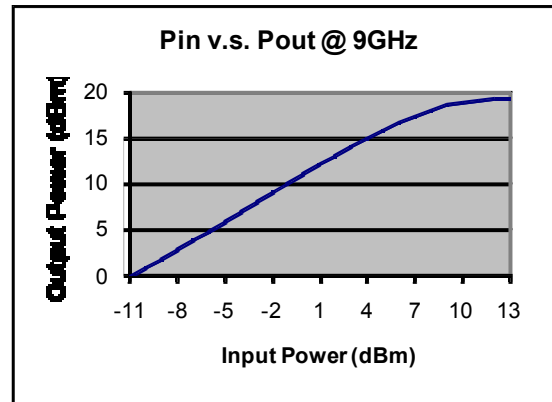
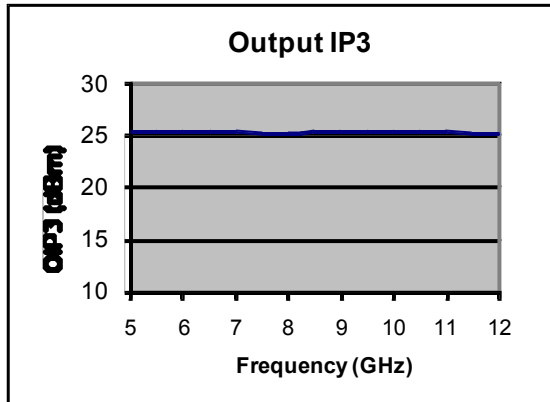
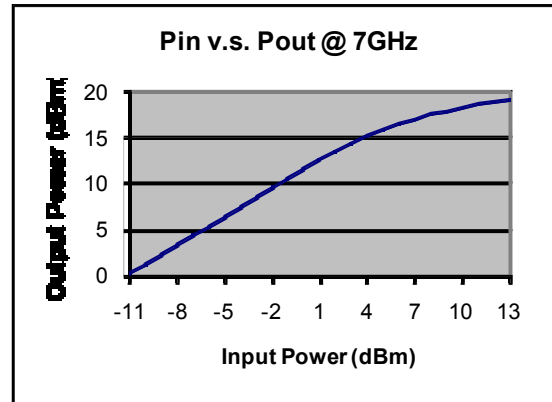
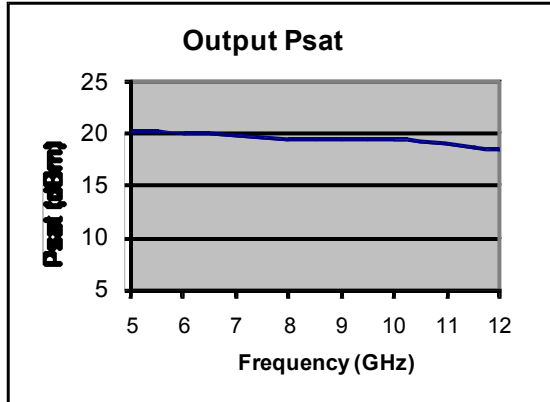
Typical Performance @+25 °C



HD30114

5 – 12 GHz RF Amplifier

Typical Performance @+25 °C



HD30114

5 – 12 GHz RF 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

