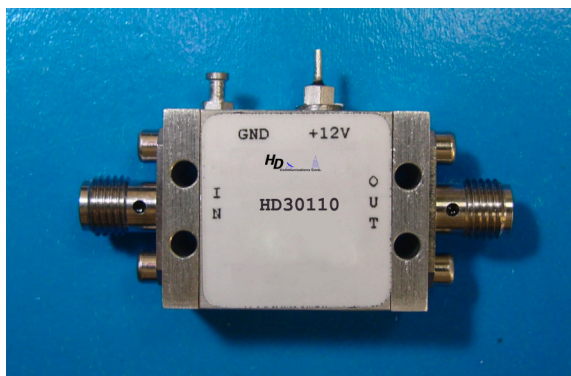


HD30110

4 – 12 GHz RF Amplifier

Features

- Frequency Range: 4-12GHz
- Gain: 18dB
- P_{1dB} : +16dBm
- IP3: +27dBm
- Noise Figure: 5dB (typ.)
- DC Power: 12V @ 45mA
- SMA-female connectorized



Description

HD30110 is a high performance RF Microwave Driver Amplifier, with standard frequency range of 4GHz to 12GHz.

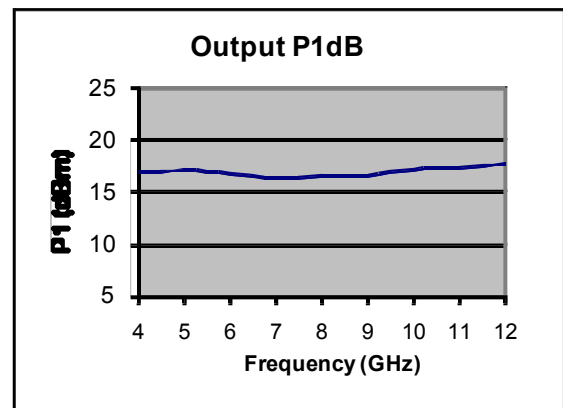
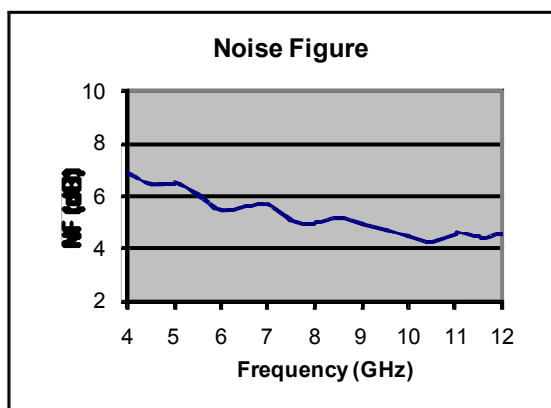
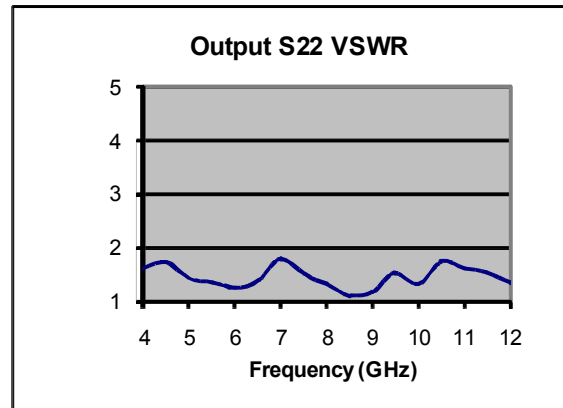
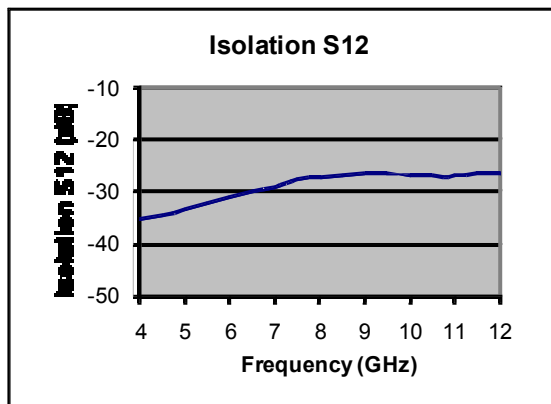
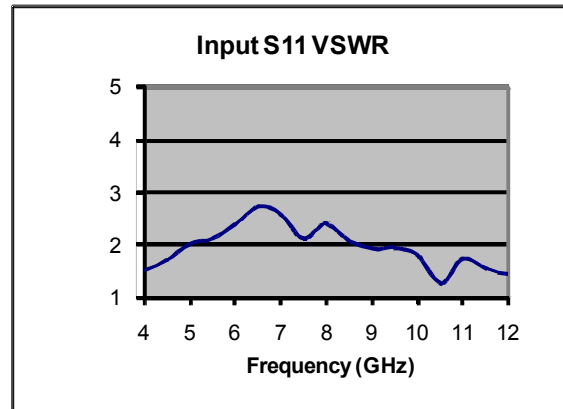
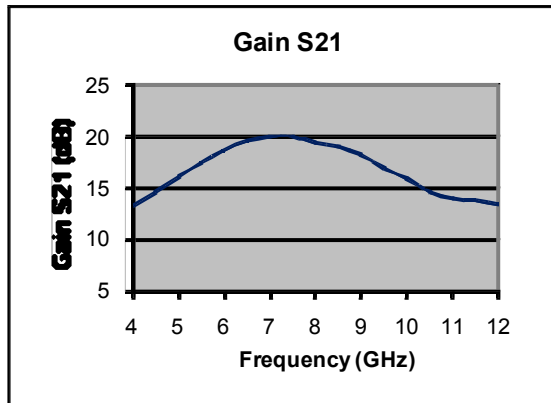
Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50\text{ Ohm}$, $V_{supply} = +12\text{VDC}$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	4		12
Gain (S21) $f = 4\text{GHz}$	dB		13.0	
$f = 8\text{GHz}$	dB	18.0	19.0	
$f = 12\text{GHz}$	dB		13.0	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P_{1dB}	dBm		+16	
Saturated Output Power P_{Sat}	dBm		+17.5	
Output Third Order Intercept IP3	dBm		+27	
Noise Figure @8GHz	dB		5.0	6.0
Reverse Isolation (S12) @8GHz	dB		-27	
VSWR-Input (S11)	ratio:1	1.6 @4GHz	2.4 @8GHz	1.5 @12GHz
VSWR-Output (S22)	(unitless)	1.7 @4GHz	1.4 @8GHz	1.4 @12GHz
DC Power Supply - voltage	V	11	12 or 15	18
DC Power Supply - current	mA		45	55
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)		

HD30110

4 – 12 GHz RF Amplifier

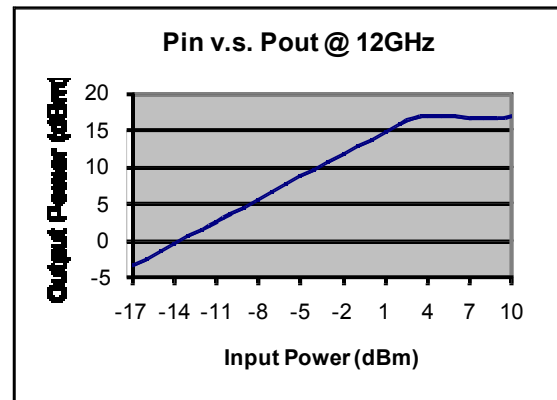
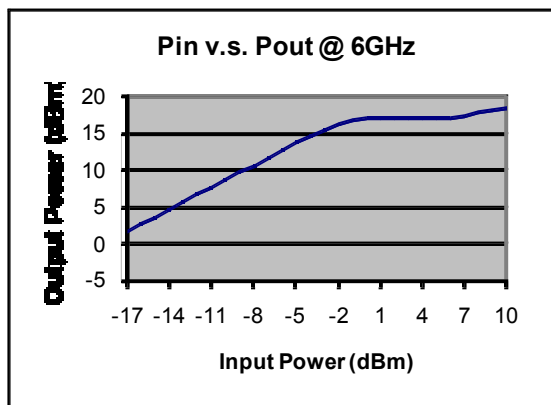
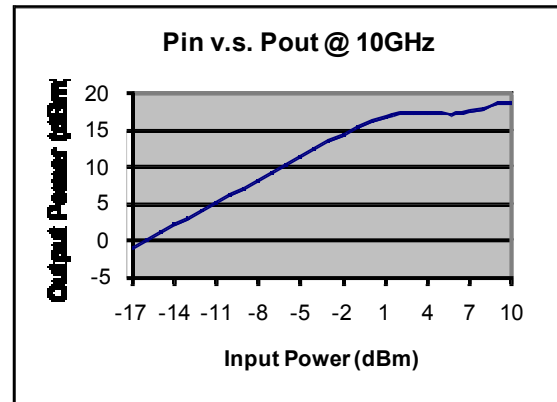
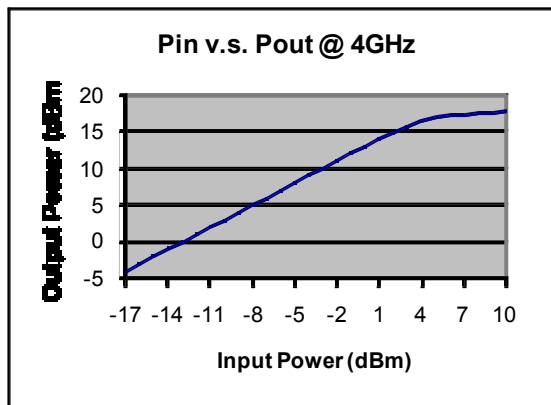
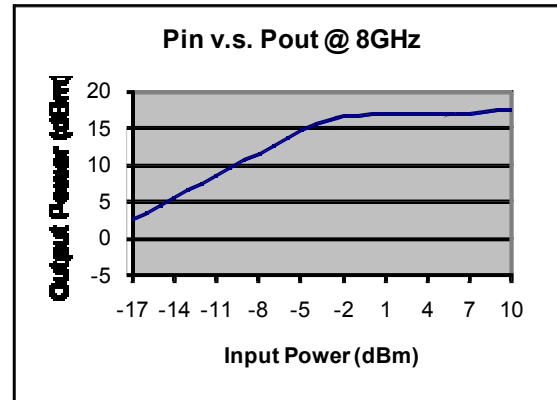
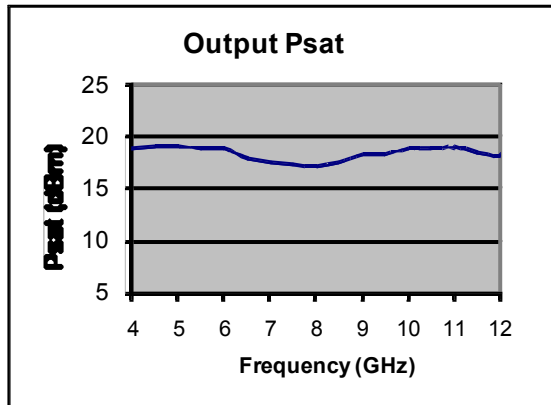
Typical Performance @+25 °C



HD30110

4 – 12 GHz RF Amplifier

Typical Performance @+25 °C



HD30110

4 – 12 GHz RF Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+23dBm
Supply Voltage (Survival)	+25V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline

