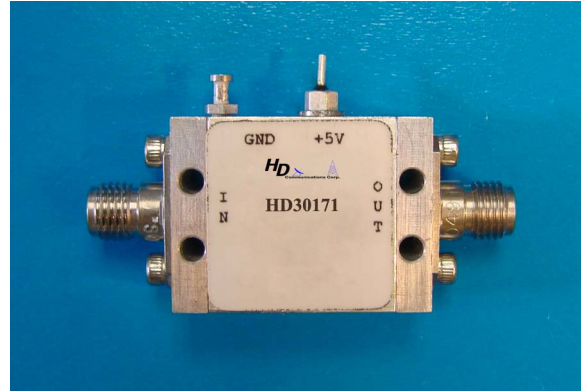


HD30171

24 – 36 GHz Low Noise Amplifier

Features

- Frequency Range: 24-36GHz
- Gain: 22dB
- P_{1dB}: +11dBm
- IP3: +21dBm
- Noise Figure: 3dB (typ.)
- DC Power: 5V @ 80mA
- 2.92mm K-female connectorized



Description

HD30171 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 24GHz to 36GHz.

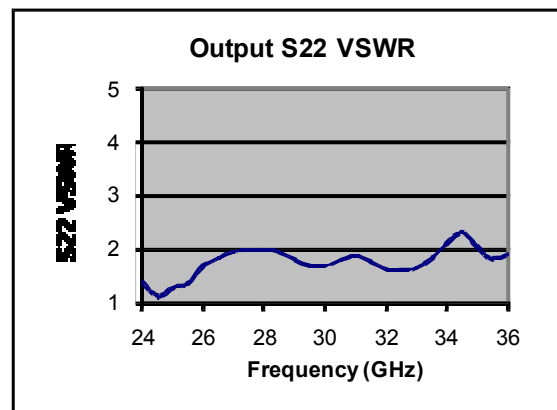
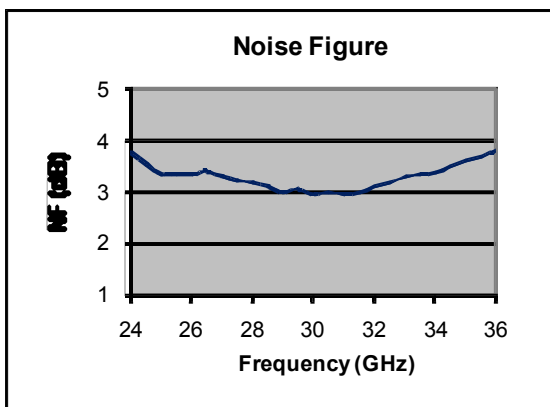
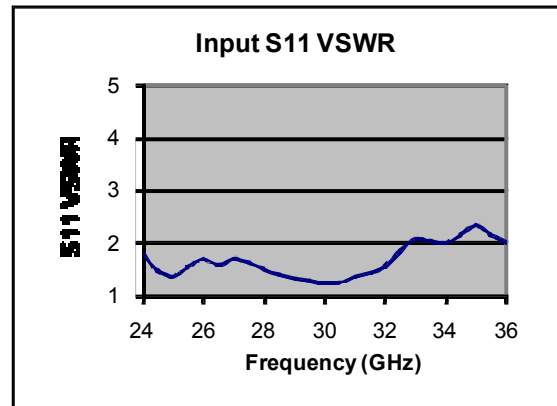
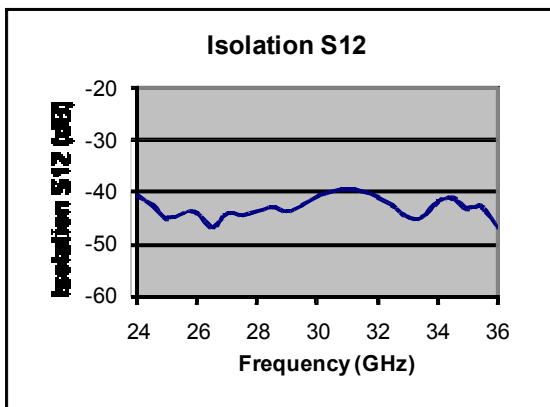
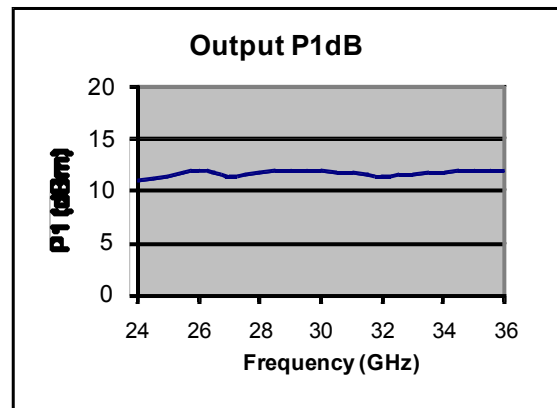
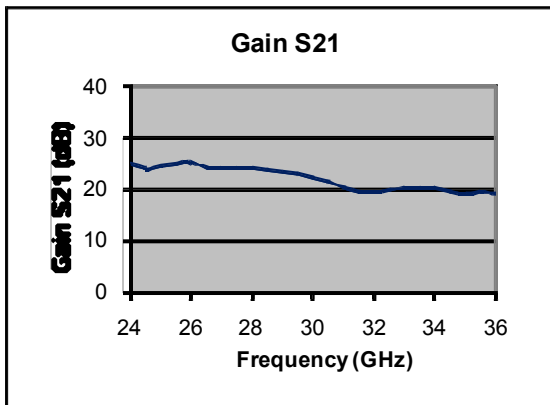
Electrical Specifications @ +25 °C, Z_{in}=Z_{out}=50 Ohm, V_{supply} = +5VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	24		36
Gain (S ₂₁) f = 24GHz	dB		25.0	
f = 30GHz	dB		22.0	
f = 36GHz	dB		19.0	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P _{1dB}	dBm	+10	+11	
Saturated Output Power P _{Sat}	dBm		+13	
Output Third Order Intercept IP3	dBm	+20	+21	
Noise Figure @30GHz	dB		3.0	3.5
Reverse Isolation (S ₁₂) @30GHz	dB		-40	
VSWR-Input (S ₁₁)	ratio:1	1.8 @ 24GHz	1.3 @ 30GHz	2.0 @ 36GHz
VSWR-Output (S ₂₂)	(unitless)	1.4 @ 24GHz	1.7 @ 30GHz	2.0 @ 36GHz
DC Power Supply - voltage	V	4.5	5.0	5.5
DC Power Supply - current	mA		80	90
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)		

HD30171

24 – 36 GHz Low Noise Amplifier

Typical Performance @+25 °C



HD30171

24 – 36 GHz Low Noise Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+5dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline

