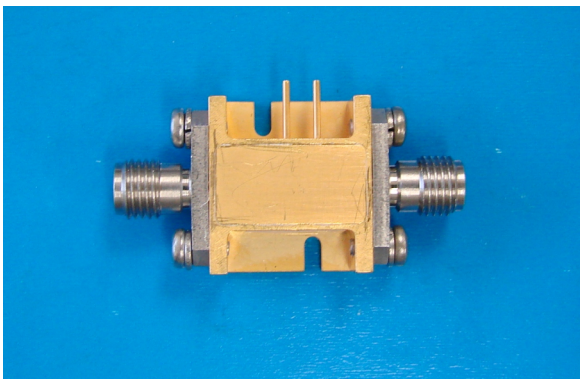
HD31662

8 – 12GHz Low Noise Amplifier

Features

- Frequency Range: 8 - 12GHz
- Gain: 33dB min.
- P_{1dB}: +10dBm min.
- IP3: +26dBm typ.
- Noise Figure: 0.9dB max.
- DC Power: 15V @ 150mA
- Field Replaceable SMA-F

Photo



Description

HD31662 is a high performance Microwave Low Noise Amplifier, with standard frequency range of 8 to 12GHz.

Electrical Specifications @+25°C, Z_{in}=Z_{out}=50 Ω, Vsupply = +15VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	8		12
Gain (S21)	dB	33	40	
Gain Flatness	dB		±0.7	±1.0
Output Power P_{1dB}	dBm	+10	+15	
Output Third Order Intercept IP3	dBm		+26	
Noise Figure	dB		0.8	0.9
Isolation S12	dB		-70	
VSWR-Input (S11) VSWR-Output (S22)	ratio (unitless)		1.8:1 1.2:1	2.0:1 2.0:1
DC Power Supply - voltage	V	12	15	
DC Power Supply - current	mA		150	165
Operating Temperature	°C	-54		+85
Size (RF/DC feedthru's excluded)	Inch/mm	0.64 x 0.70 x 0.29/16.25 x 17.78 x 7.37 (LxWxH)		
Weight	Oz	0.35 (10 grams)		

WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C

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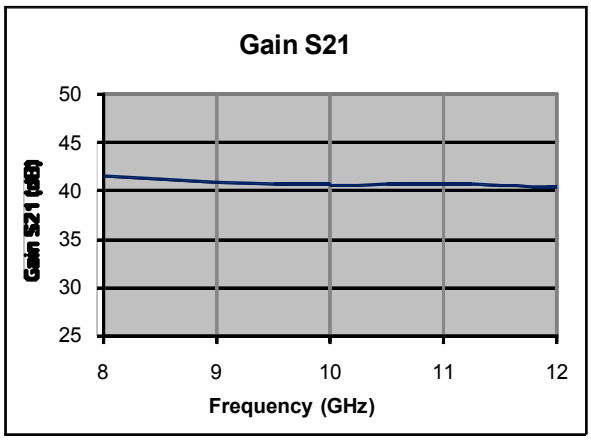
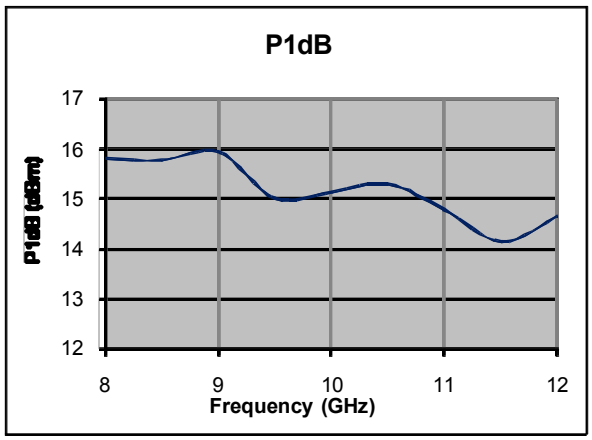
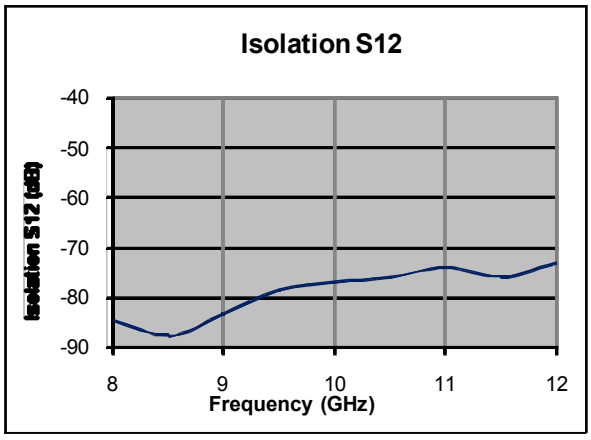
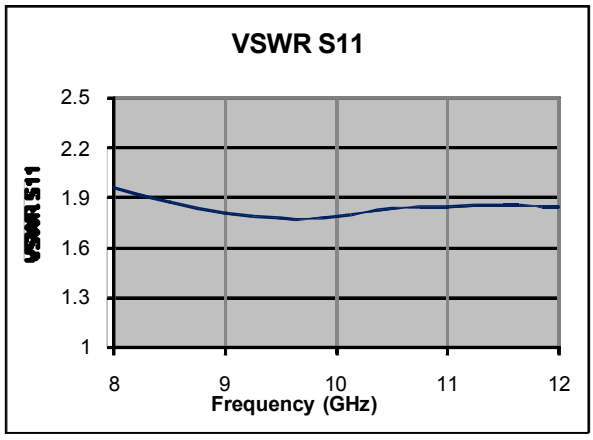
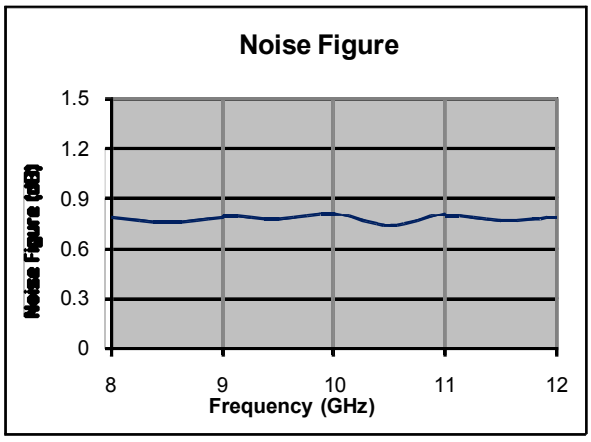
Typical Performance @ +25 °C

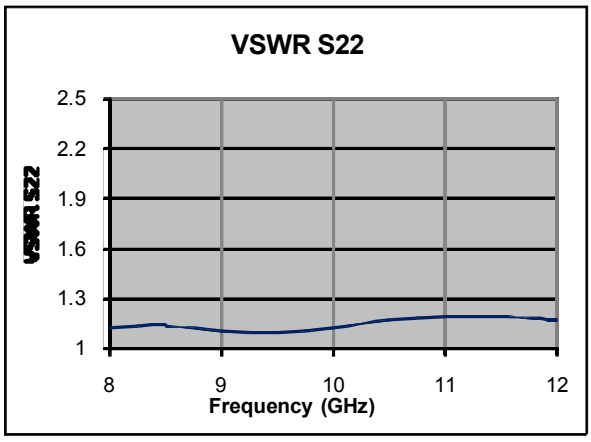












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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-54 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline