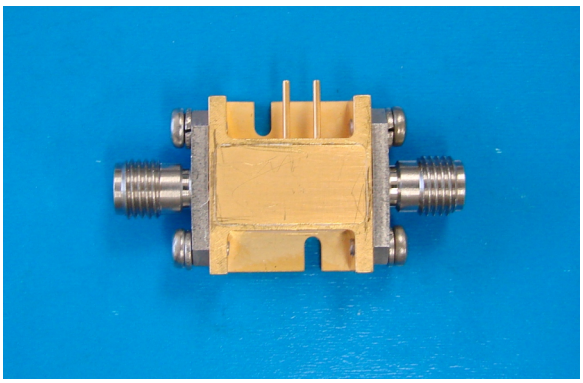
HD31956

0.1 – 10GHz Low Noise Amplifier

Features

- Frequency Range: 0.1 - 10GHz
- Gain: 28dB min.
- P_{1dB}: +10dBm min.
- IP3: +20dBm typ.
- Noise Figure: 2.0dB typ.
- DC Power: 15V @ 150mA
- Field Replaceable SMA-F

Photo



Description

HD31956 is a high performance Microwave Low Noise Amplifier, with standard frequency range of 100MHz to 10GHz.

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

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	0.1		10
Gain (S21)	dB	28	33	
Gain Flatness	dB		±0.8	±1.5
Output Power P_{1dB}	dBm	+10	+12	
Output Third Order Intercept IP3	dBm		+20	
Noise Figure *	dB		2.0	2.5
Isolation S12	dB		-60	
VSWR-Input (S11) VSWR-Output (S22)	ratio (unitless)		2.0:1 1.5:1	2.2:1 2.2:1
DC Power Supply - voltage	V	12	15	
DC Power Supply - current	mA		130	150
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)		

*Noise Figure spec for over 500MHz. Below 500MHz, Noise Figure will increase due to 1/f noise

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

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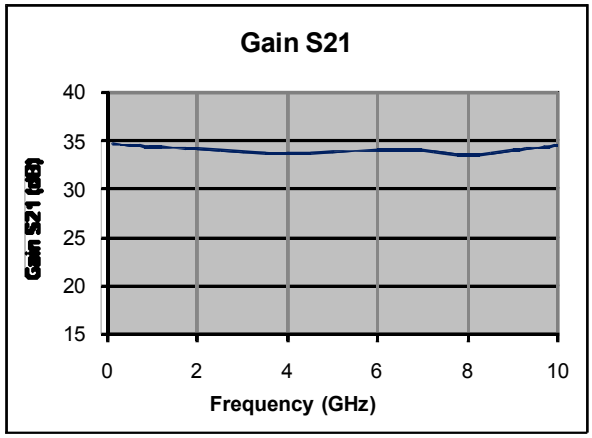
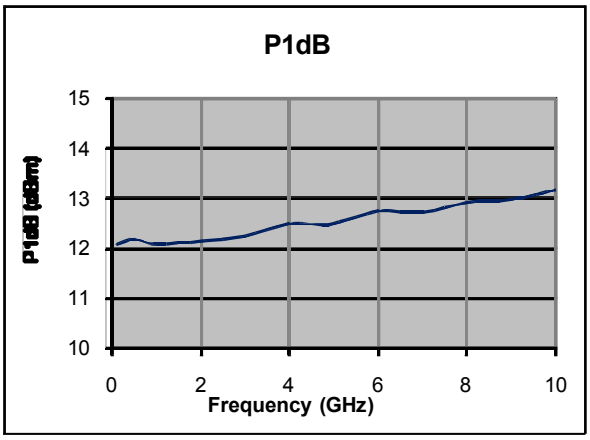
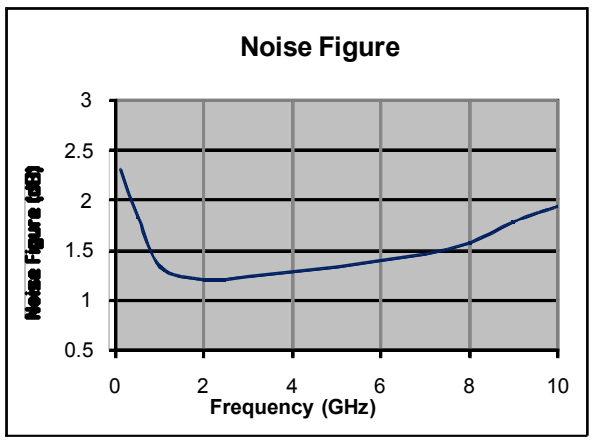
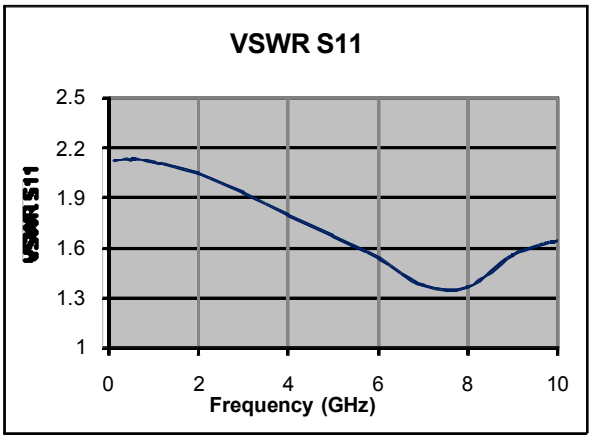
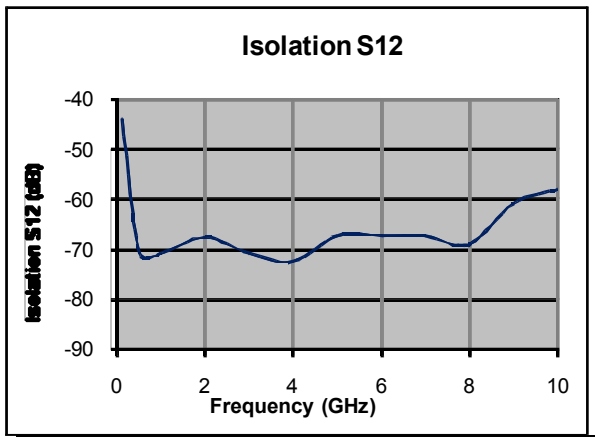
Typical Performance @ +25 °C

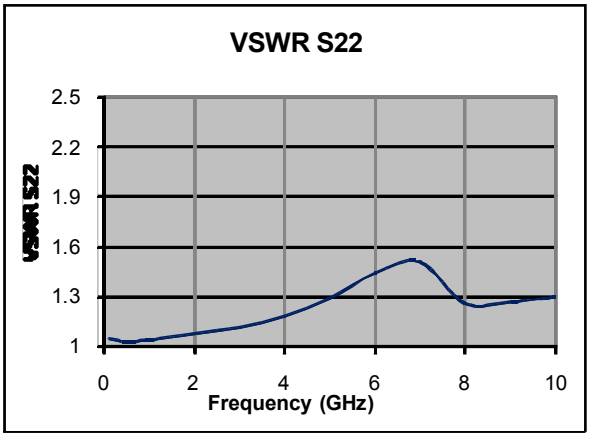












Absolute Maximum Ratings

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