

2 – 20GHz Low Noise Amplifier

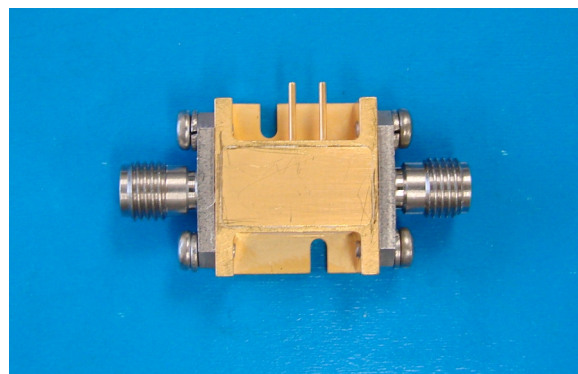
Features

- Frequency Range: 2 - 20GHz
- Gain: 18dB min.
- P_{1dB} : +20dBm min.
- IP3: +30dBm
- Noise Figure: 3.6dB max.
- DC Power: 15V @ 330mA
- Field Replaceable SMA-F

Description

HD31959 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 2GHz to 20GHz.

Photo



Electrical Specifications @+23°C, $Z_{in}=Z_{out}=50\ \Omega$, $V_{supply} = +15VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	2		20
Gain (S21)	dB	18		
Gain Flatness	dB		± 2.0	± 2.5
Output Power P_{1dB}	dBm	+20		
Output Third Order Intercept IP3	dBm		+30	
Noise Figure	dB			3.6
Isolation (S12)	dB	-45		
VSWR-Input (S11)	ratio:1			2.5:1
VSWR-Output (S22)	(unitless)			2.5:1
DC Power Supply - voltage	V	12	15	
DC Power Supply - current	mA		330	360
Operating Temperature	°C	-54		+85
Size (RF/DC feedthru's excluded)	Inch/mm	0.650 x 0.646 x 0.223/16.5 x 16.4 x 5.7 (LxWxH)		
Weight	Oz	0.35 (10 grams)		



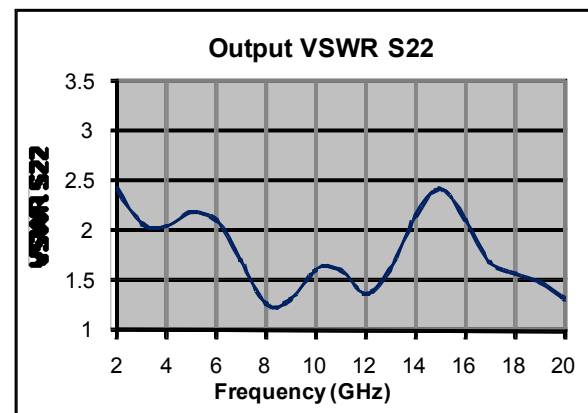
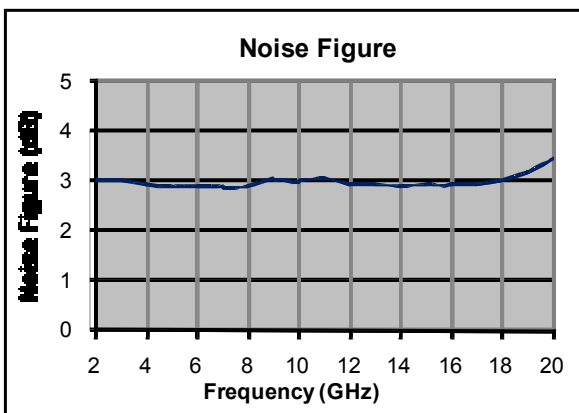
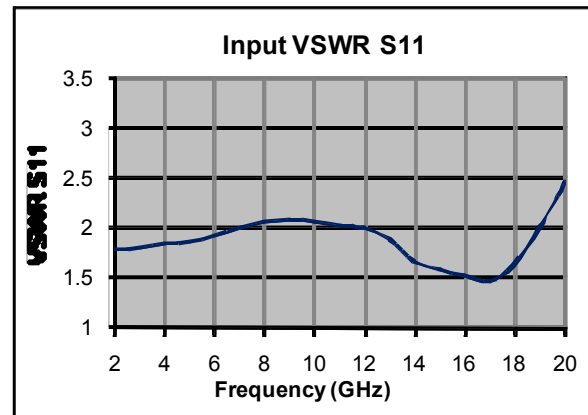
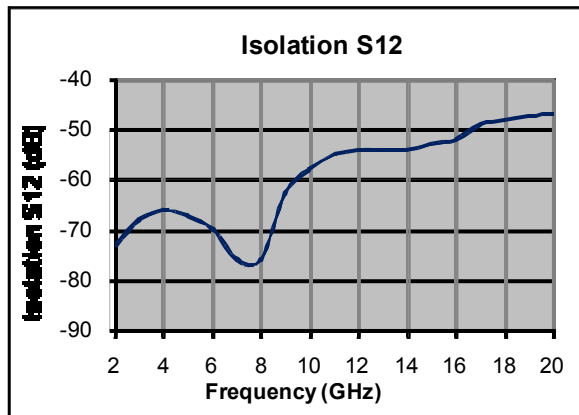
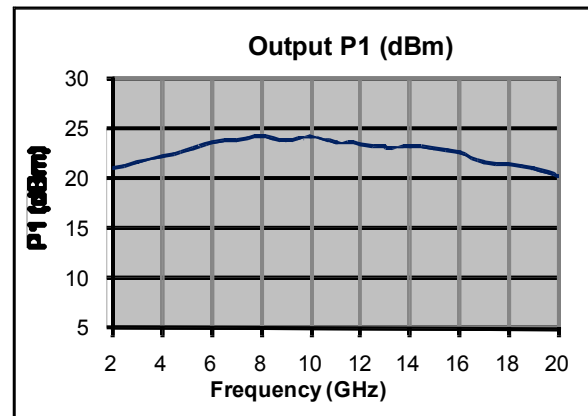
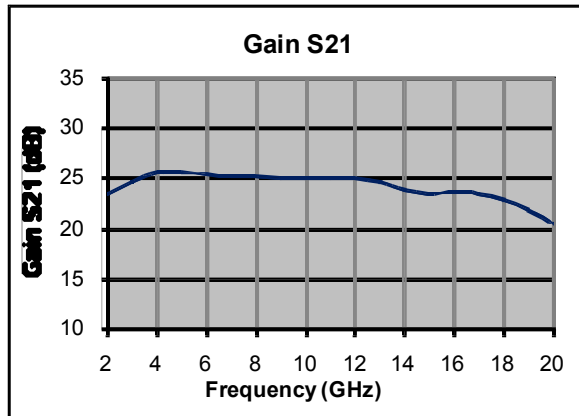
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WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C

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Typical Performance @ +25 °C

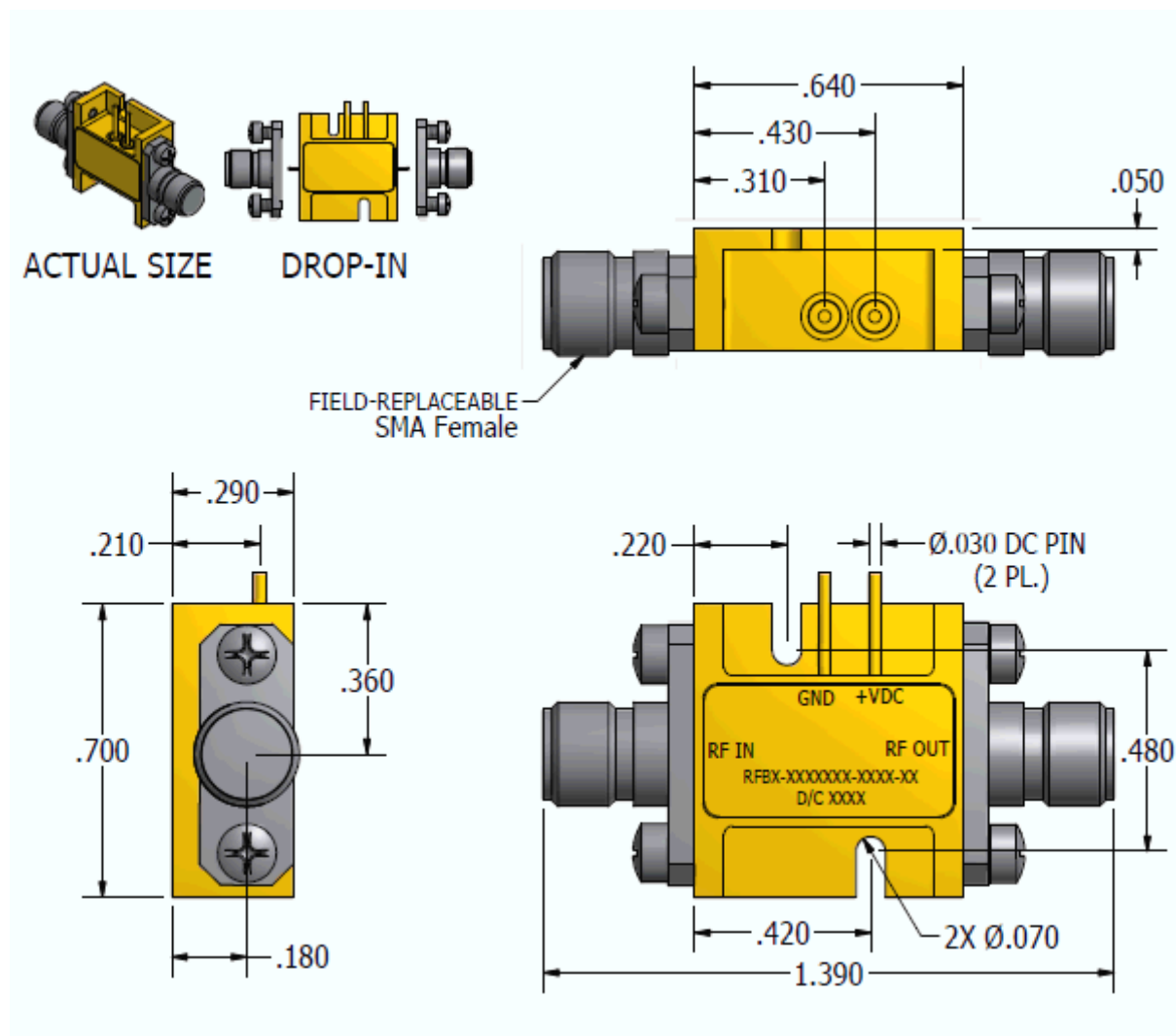


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Absolute Maximum Ratings

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





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