

HD30058

5 – 10 GHz Low Noise Amplifier

Features

- Frequency Range: 5-10GHz
- Gain: 19dB
- P_{1dB} : +16dBm
- IP3: +28dBm
- Noise Figure: 2dB (typ.)
- DC Power: 5V @ 78mA
- SMA-female connectorized

range of 5GHz to 10GHz.



Description

HD30058 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency

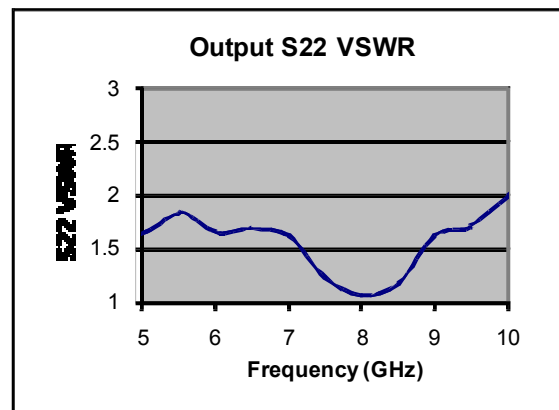
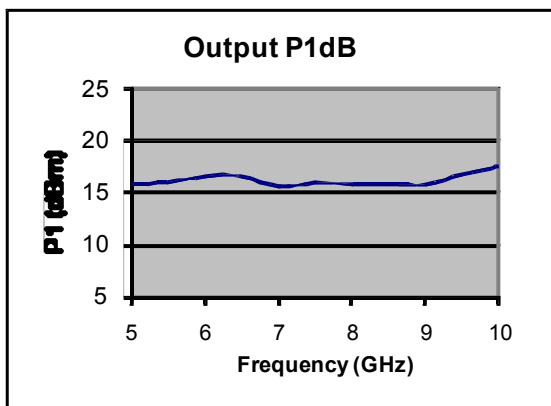
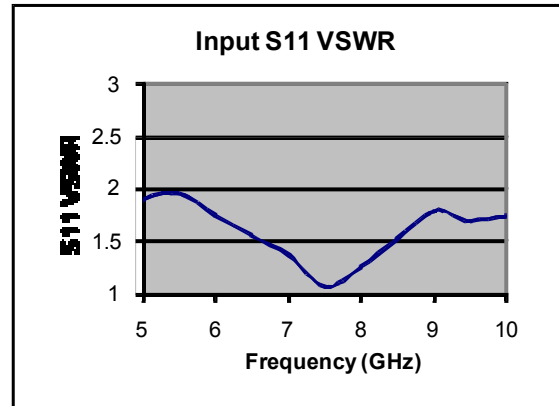
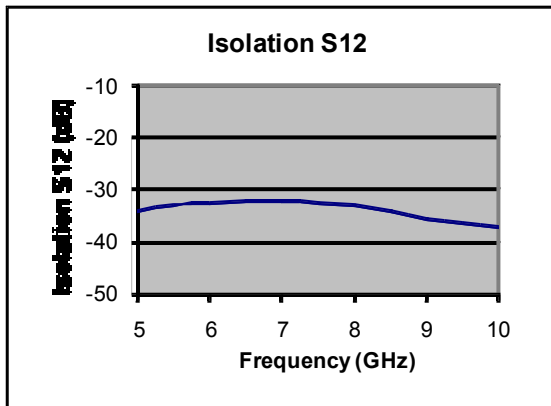
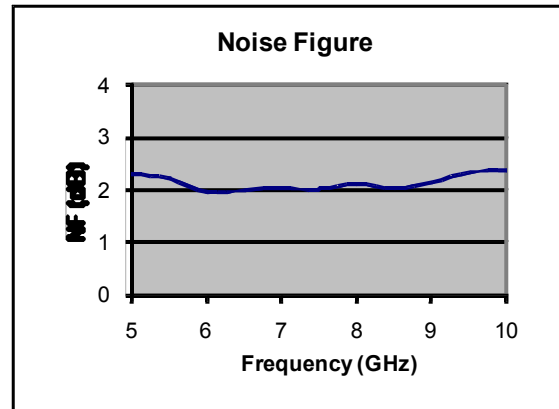
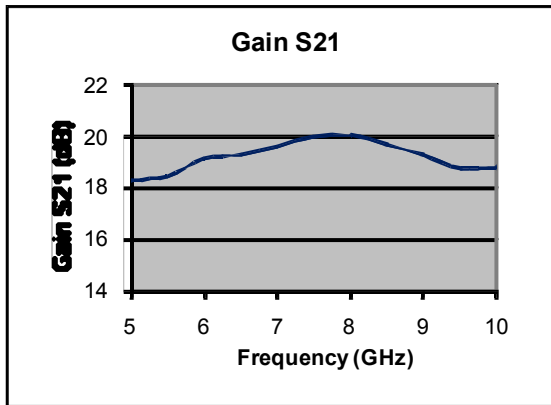
Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50$ Ohm, $V_{supply} = +5VDC$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	5		10
Gain (S21) f = 5.0GHz	dB		17.5	
f = 7.5GHz	dB		19.5	
f = 10.0GHz	dB		18.0	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P_{1dB}	dBm	+15	+16	
Saturated Output Power P_{Sat}	dBm		+18	
Output Third Order Intercept IP3	dBm		+28	
Noise Figure @7.5GHz	dB		2.0	2.2
Reverse Isolation (S12) @7.5GHz	dB		-32	
VSWR-Input (S11)	ratio:1	1.9 @5GHz	1.1 @7.5GHz	1.7 @10GHz
VSWR-Output (S22)	(unitless)	1.7 @5GHz	1.3 @7.5GHz	2.0 @10GHz
DC Power Supply - voltage	V	4.5	5.0	5.5
DC Power Supply - current	mA		78	110
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)		

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Typical Performance @+25 °C



HD Communications Corp.

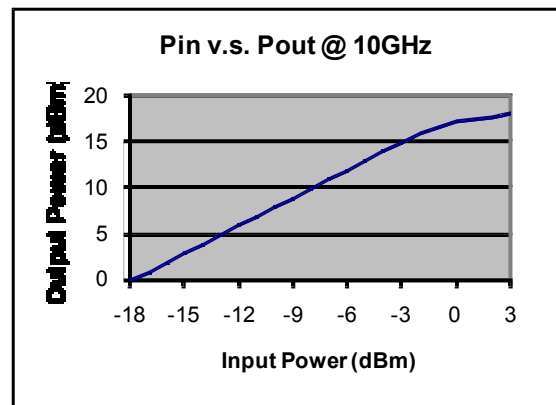
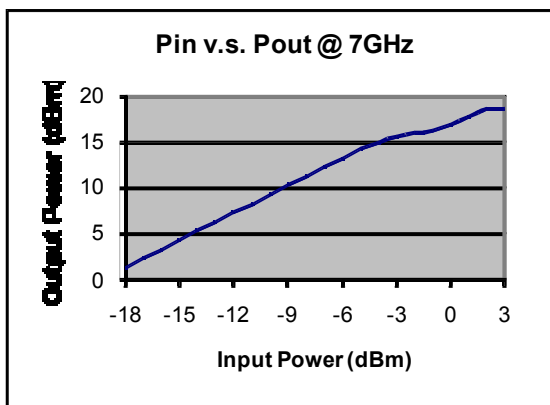
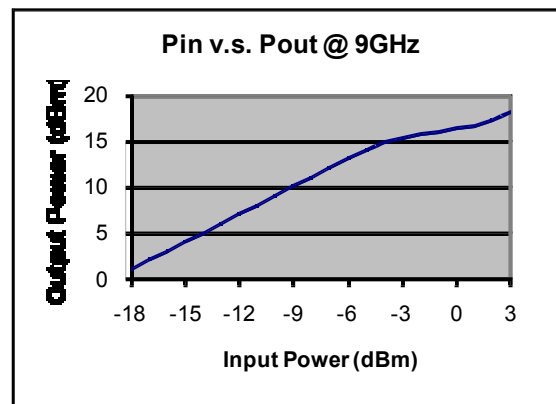
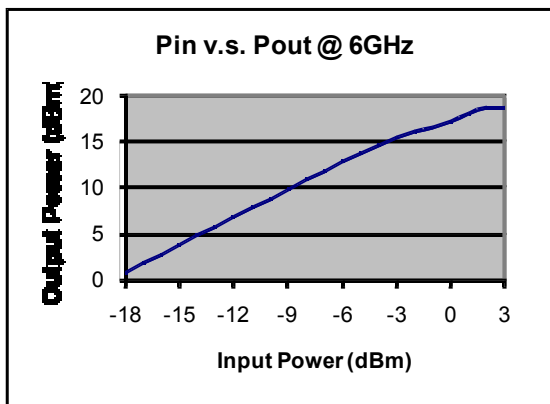
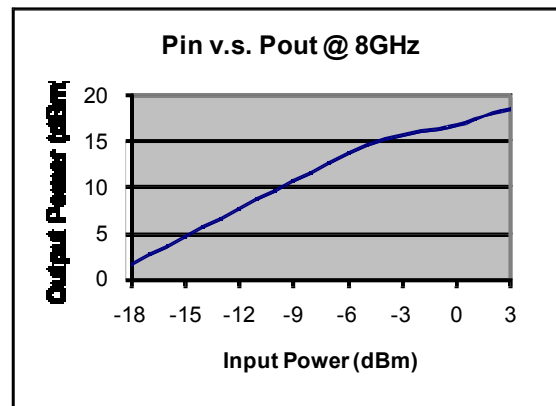
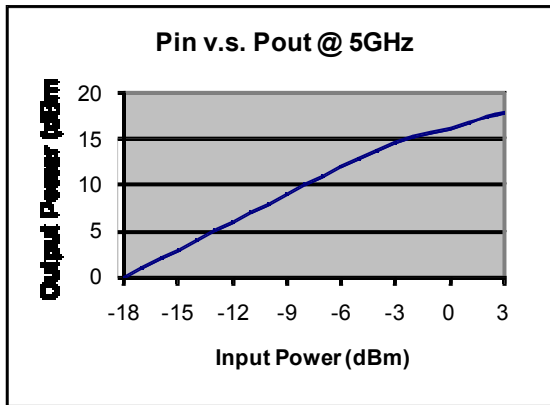
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Typical Performance @+25 °C



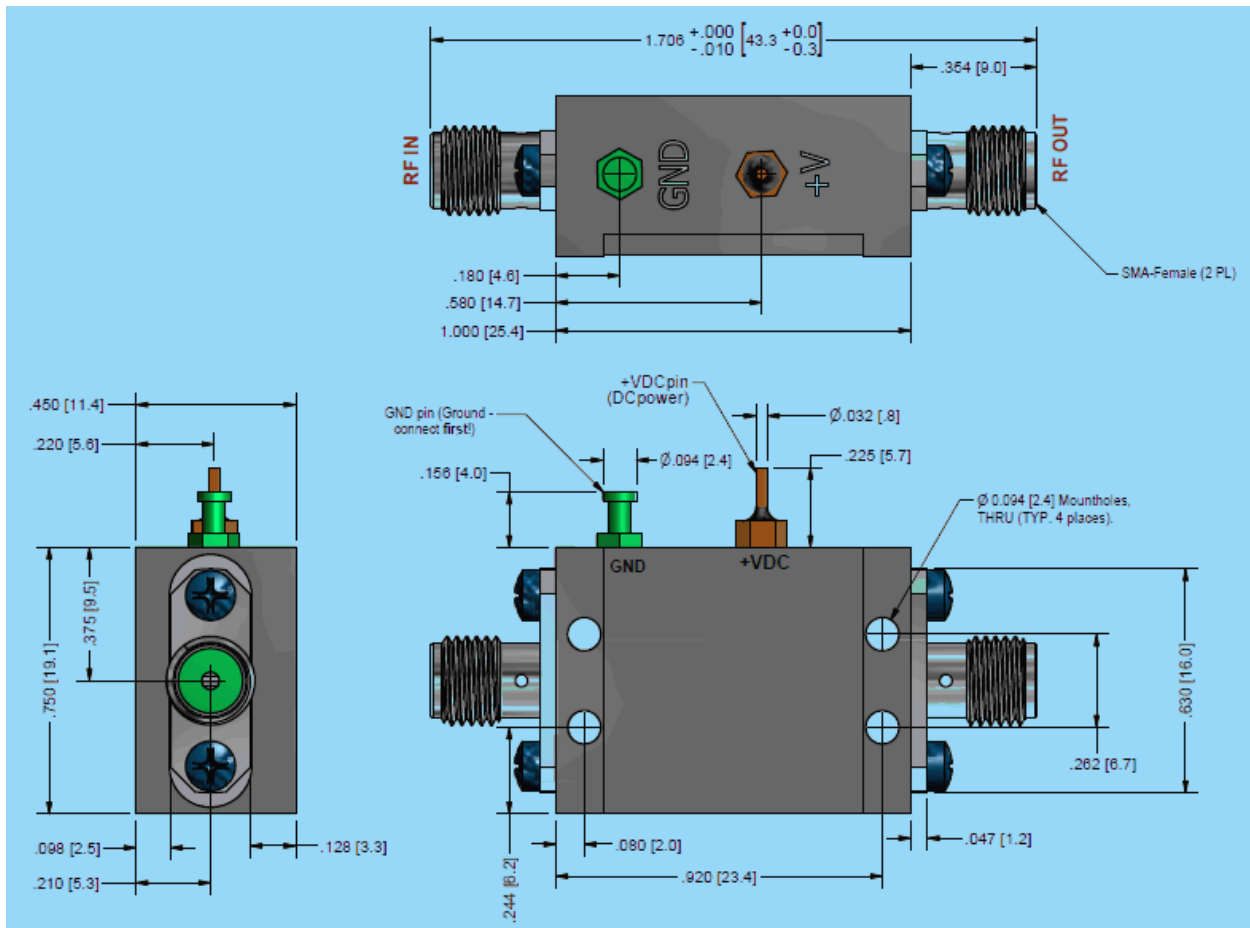
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+10dBm
Supply Voltage (Survival)	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline



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