HD30087 1700 - 2100 MHz Low Noise Amplifier

Features

- Frequency Range:1700–2100MHz
- Gain: 15dB
- P_{1dB}: +22dBm
- IP3: +33dBm
- Noise Figure: 0.8dB (typ.)
- DC Power: 12V @ 50mA
- SMA-female connectorized

Description

HD30087 is a high performance Microwave Low Noise (& Driver) Amplifier, with standard frequency range of 1700MHz to 2100MHz.

Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50$ Ohm, Vsupply = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	1700		2100
Gain (S21) f = 1700MHz f = 1900MHz f = 2100MHz	dB dB dB		16.0 15.3 14.6	
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P_{1dB}	dBm	+20	+22	
Saturated Output Power P_{Sat}	dBm		+23	
Output Third Order Intercept IP3	dBm	+30	+33	
Noise Figure @1900MHz	dB		0.8	1.0
Reverse Isolation (S12) @1900MHz	dB		-22	
VSWR-Input (S11) VSWR-Output (S22)	ratio:1 (unitless)	1.7@1700MHz 1.6@1700MHz	1.8@1900MHz 1.6@1900MHz	1.8@2100MHz 1.6@2100MHz
DC Power Supply - voltage	V	9	12	15
DC Power Supply - current	mA		50	95
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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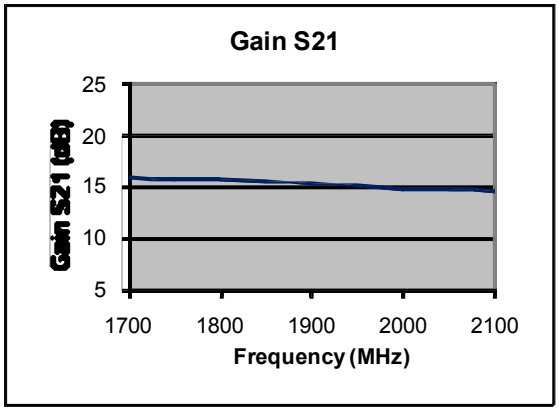
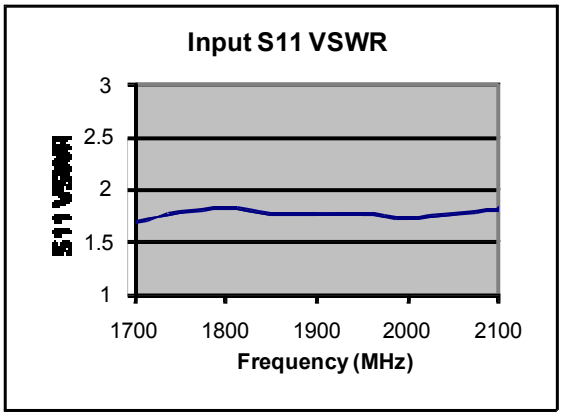
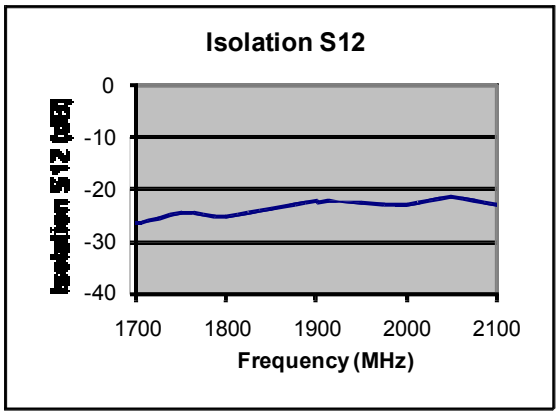
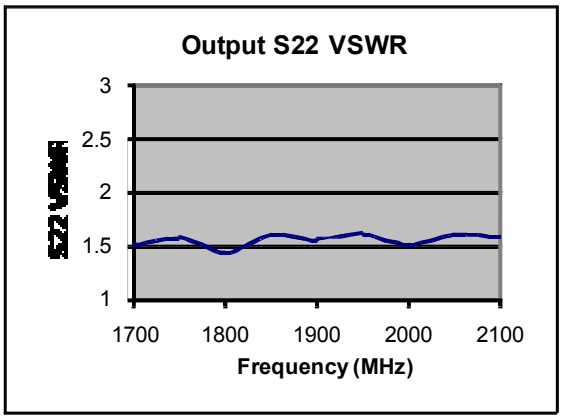
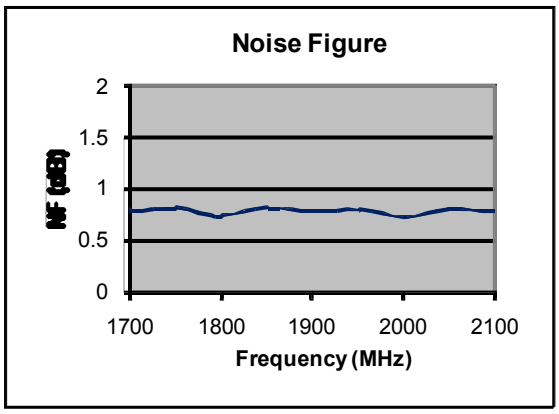
Typical Performance @+25 °C

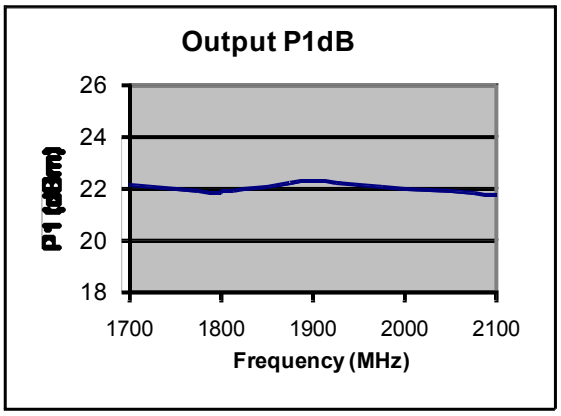












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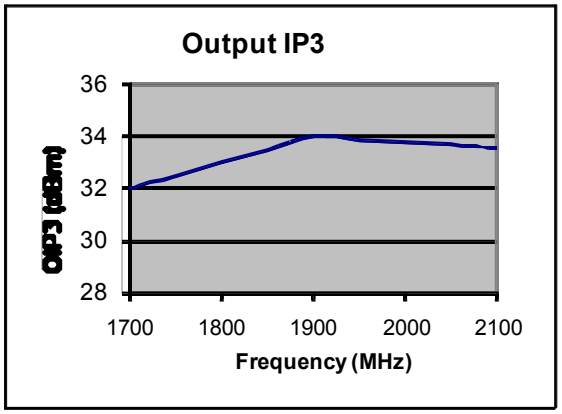

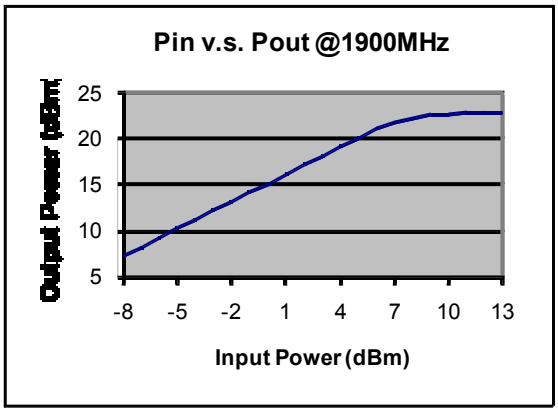

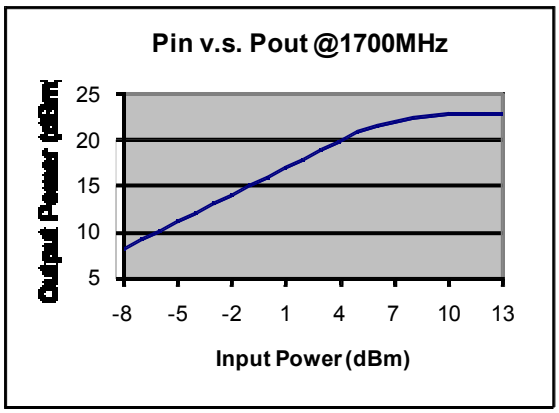

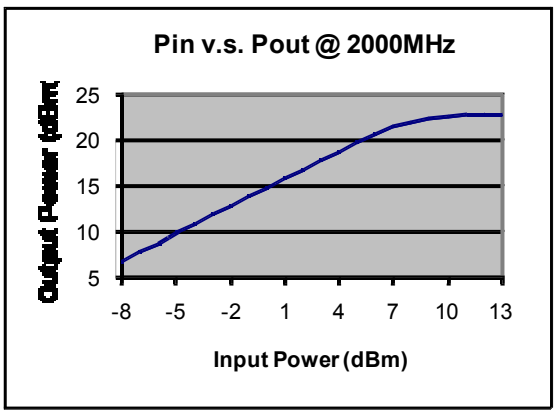

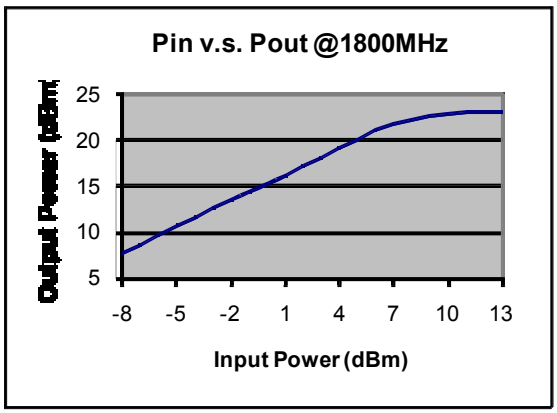

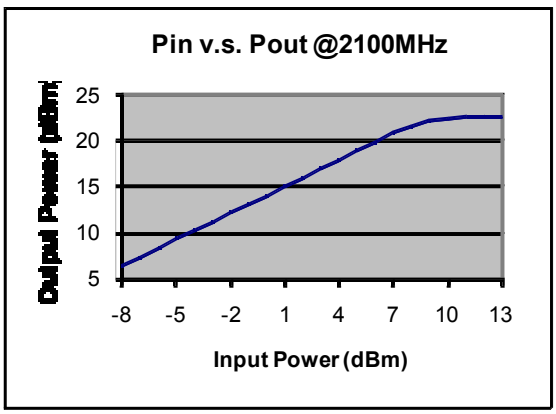

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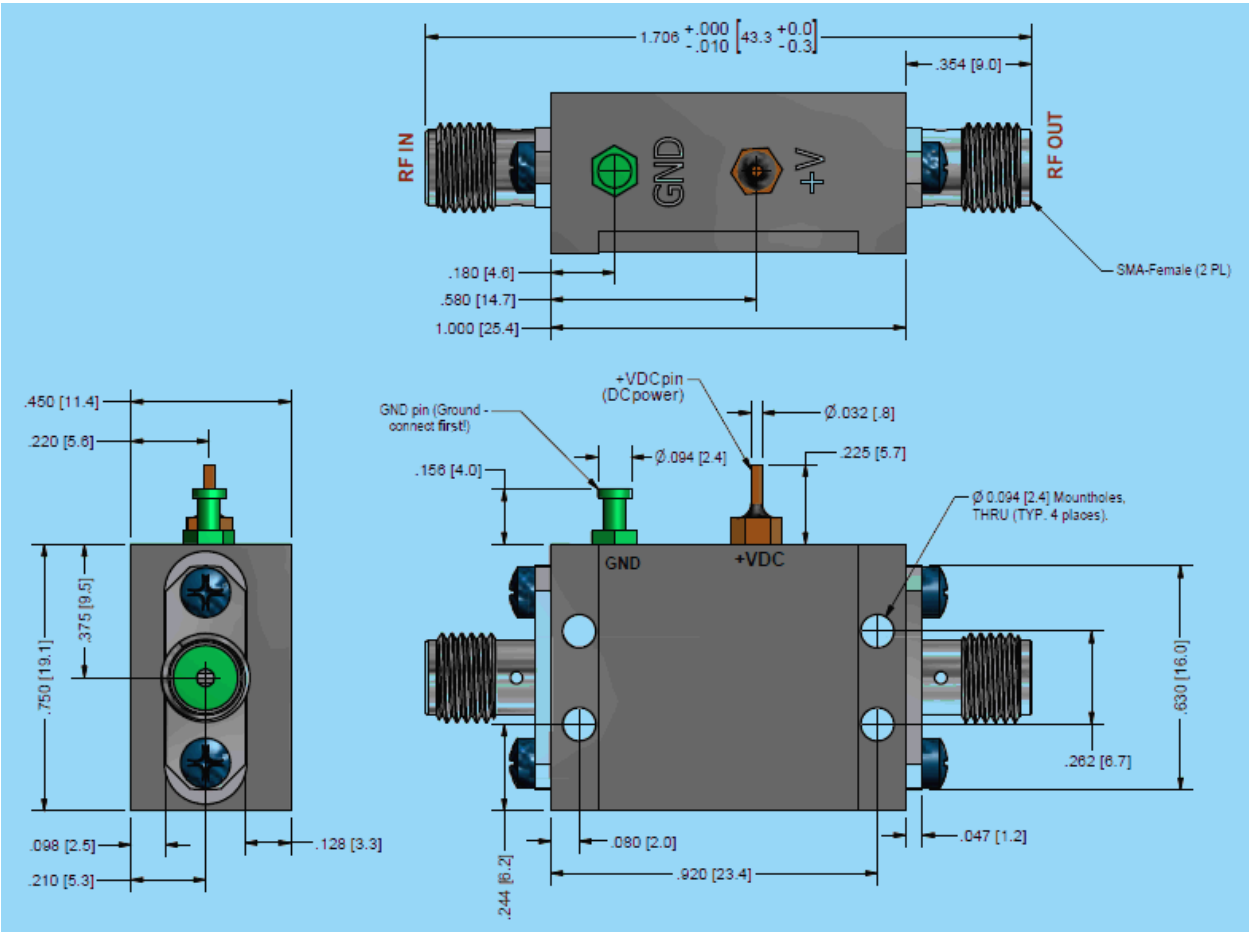
Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+20dBm
Supply Voltage (Survival)	+24V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline



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