

HD27037

3.0GHz–4.0GHz, 0.5W RF Amplifier

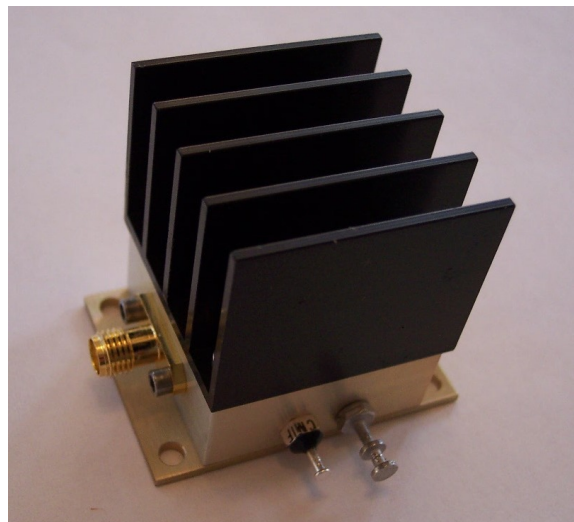
Features

- Frequency Range: 3.0 – 4.0GHz
- Gain: 20dB
- P_{out} : +27dBm
- IP3: +39dBm
- Noise Figure: 5dB
- Input VSWR: 1.2:1
- DC Power: 5V
- SMA Connector

Performance Tested @ 3.5GHz

Description

HD27037 is +27dBm (0.5W) output RF Amplifier operates with frequency range from 3.0GHz to 4.0GHz.



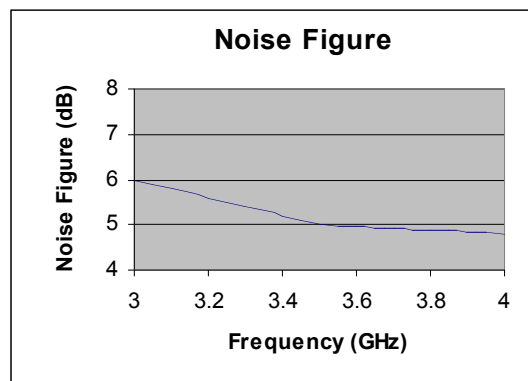
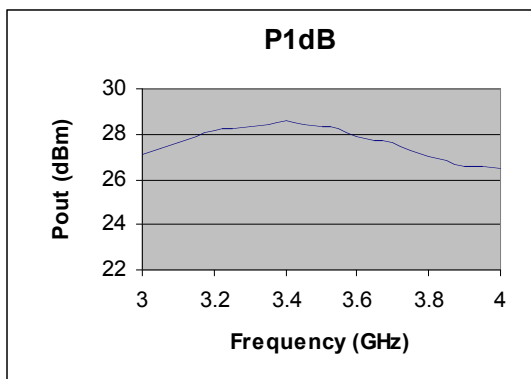
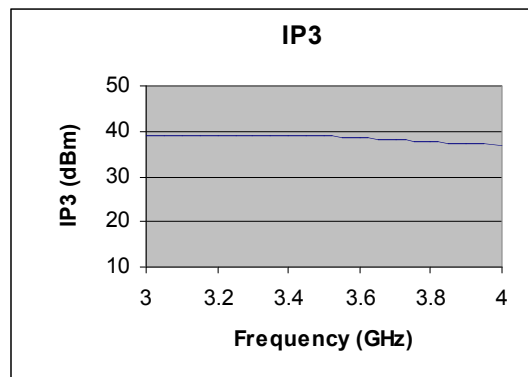
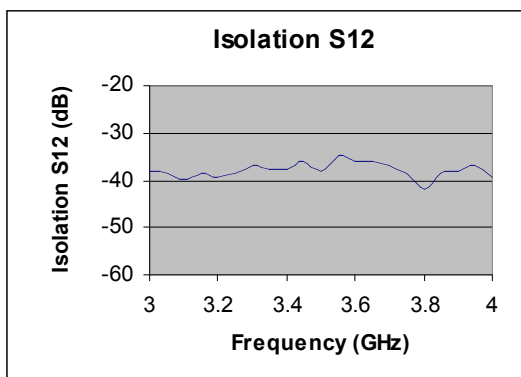
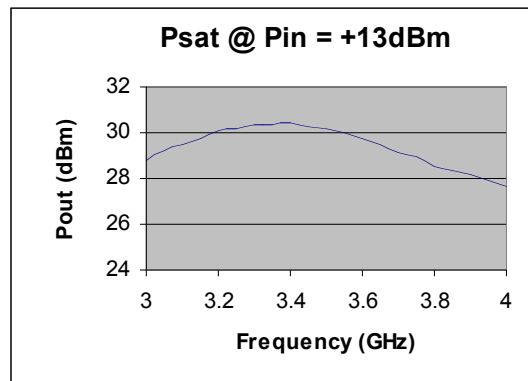
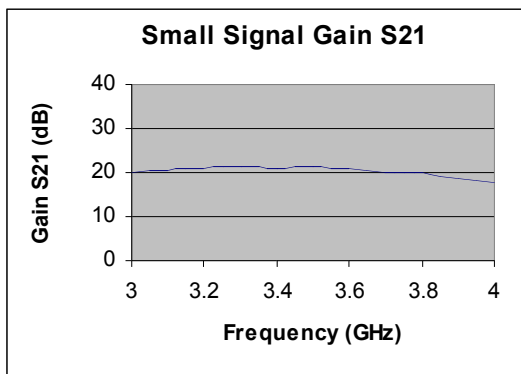
Electrical Specifications @ +25 °C, $Z_s = Z_L = 50 \Omega$, $V_{cc}=+5V$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	3.0		4.0
Small Signal Gain $f = 3.0\text{GHz}$	dB		20.0	
$f = 3.5\text{GHz}$	dB		21.0	
$f = 3.8\text{GHz}$	dB		20.0	
$f = 4.0\text{GHz}$	dB		17.5	
P_{1dB}	dB		+27	
P_{sat} @ $P_{in} = +13\text{dBm}$	dBm		+30	
OIP3	dBm		+39	
Noise Figure at 3.5GHz	dB		5.0	
Reverse Isolation	dB		-38	
VSWR Input			1.2:1	
Output			2.2:1	
DC Power Supply	V	4.5	5.0	5.5
Supply Current Quiescent (no RF)	mA		330	
@ $P_{sat} = +30\text{dBm}$	mA		430	

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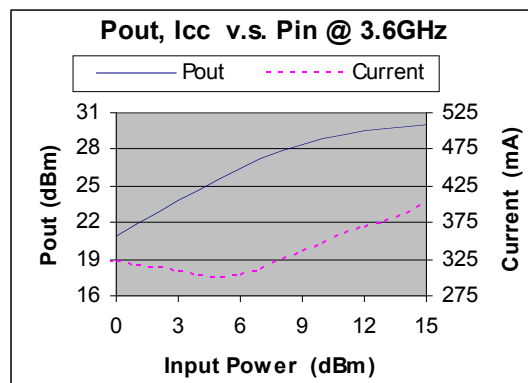
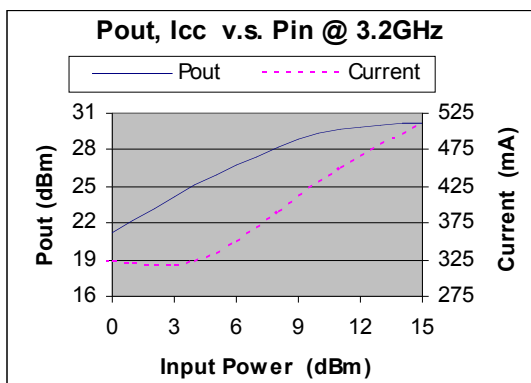
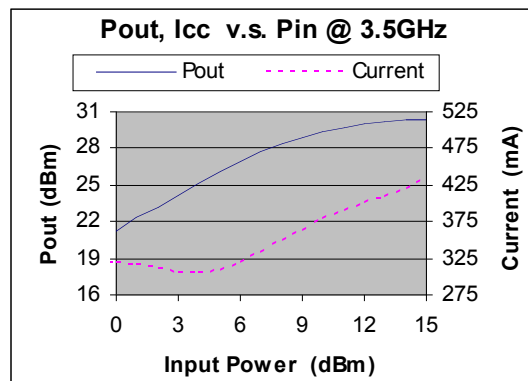
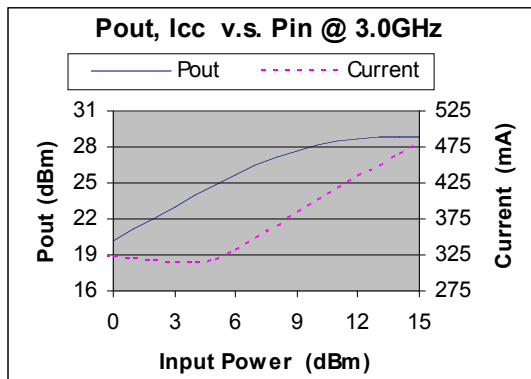
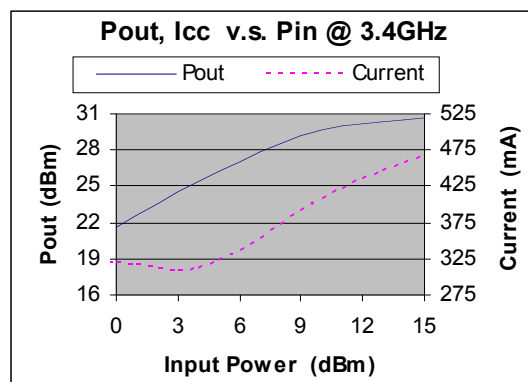
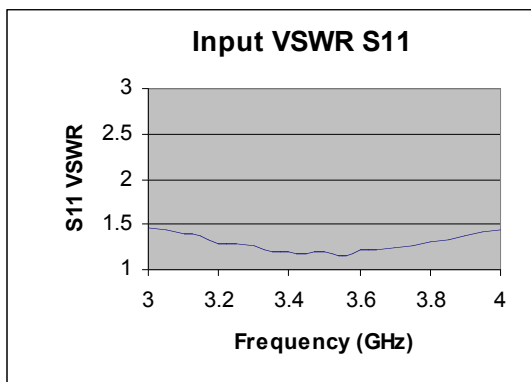
Typical Performance @ +25 °C



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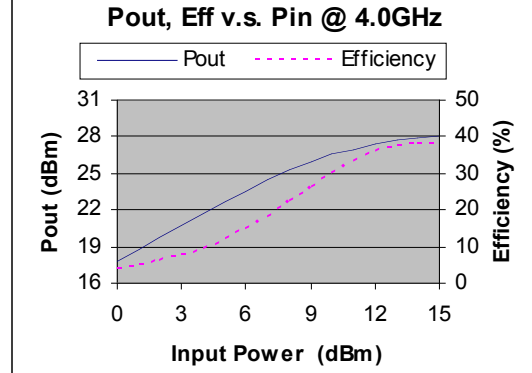
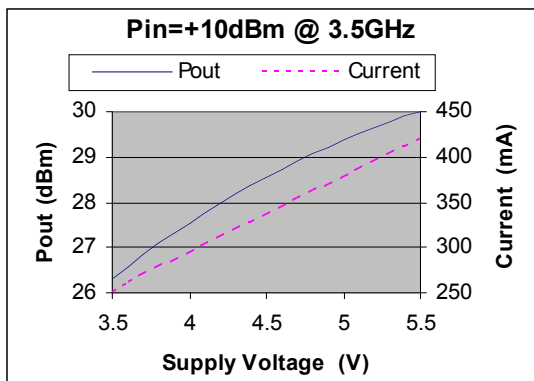
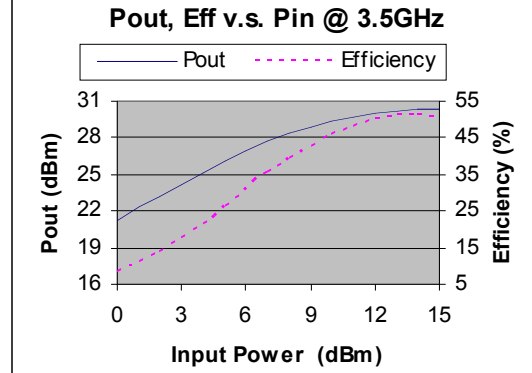
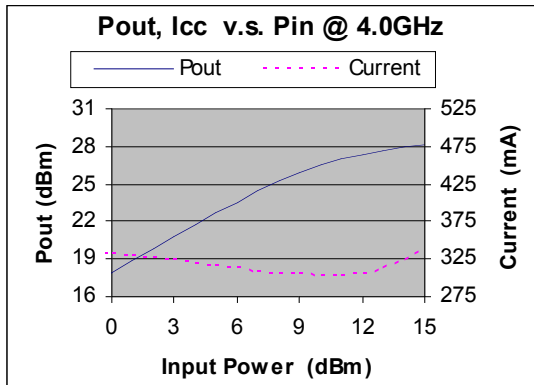
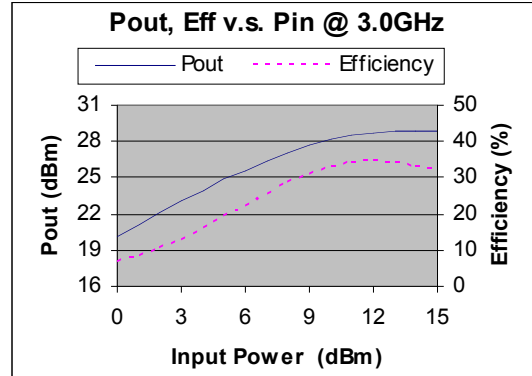
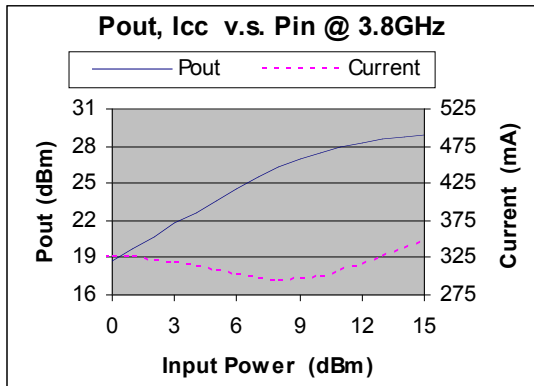
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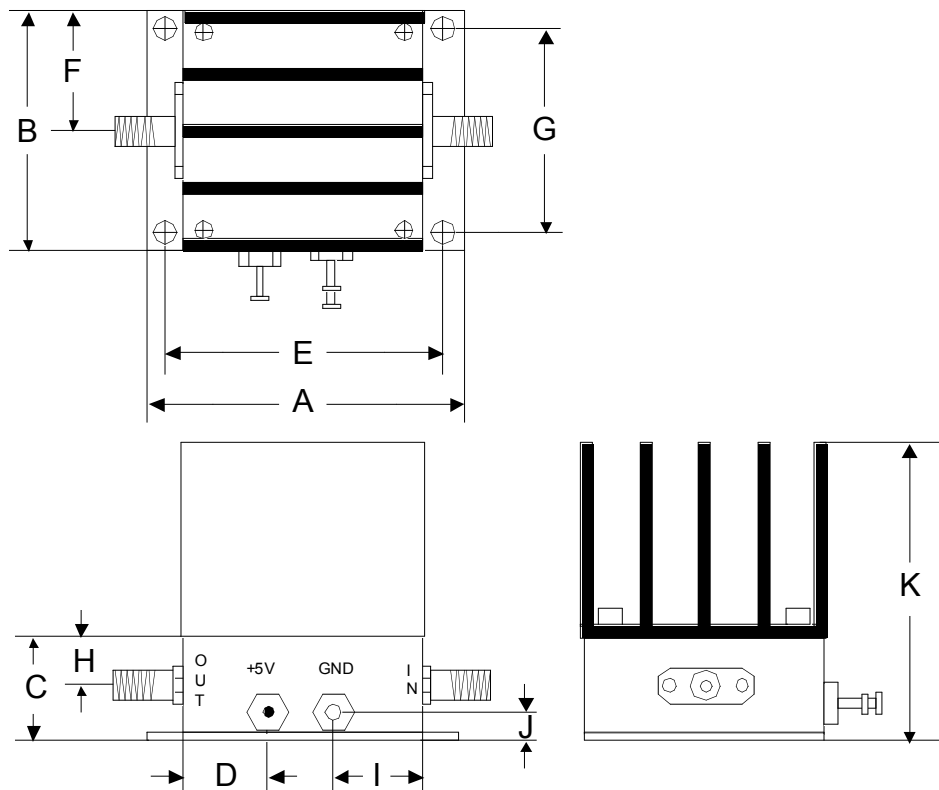
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+16dBm
Supply Voltage	+6V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °C

Outline



	A	B	C	D	E	F	G	H	I	J	K
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187	1.563
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76	39.70