

HD27036

1.5GHz–2.0GHz, 1W RF Amplifier

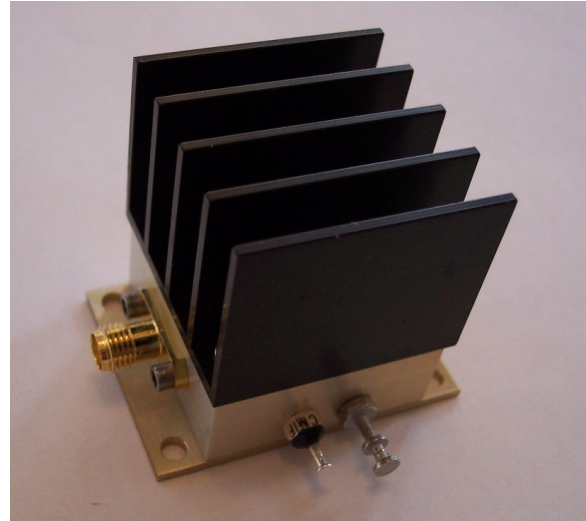
Features

- Frequency Range: 1.5 – 2.0GHz
- Gain: 25dB
- P_{out}: +30dBm
- IP3: +39dBm
- Noise Figure: 7.3dB
- Input VSWR: 1.4:1
- DC Power: 5V
- SMA Connector

Performance Tested @ 1.75GHz

Description

HD27036 is +30dBm (1W) output RF Amplifier operates with frequency range from 1.5GHz to 2.0GHz.



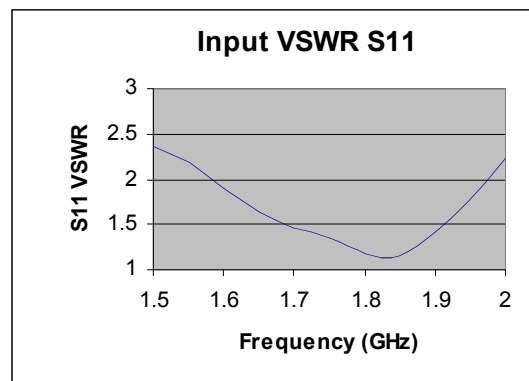
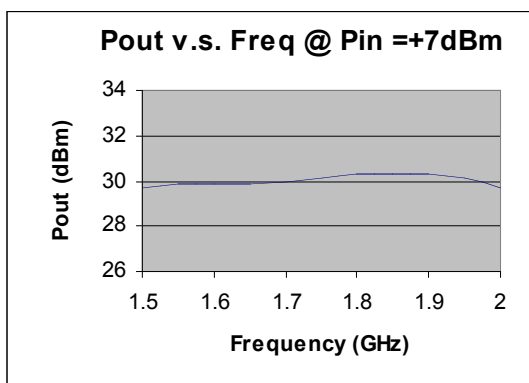
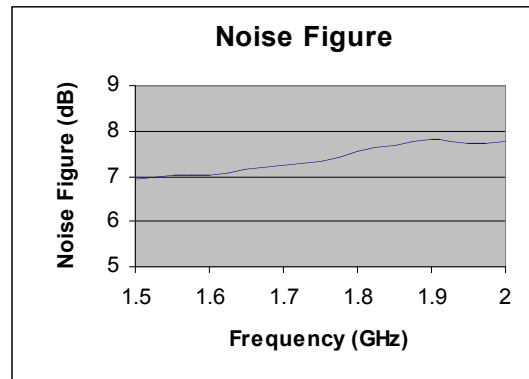
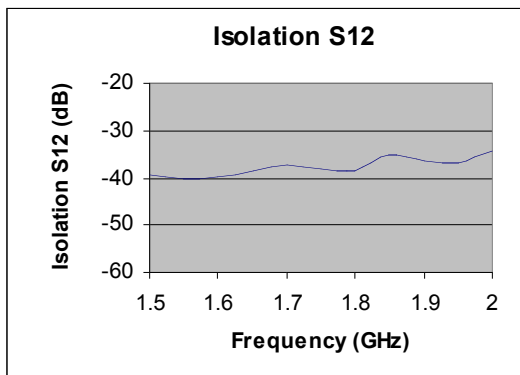
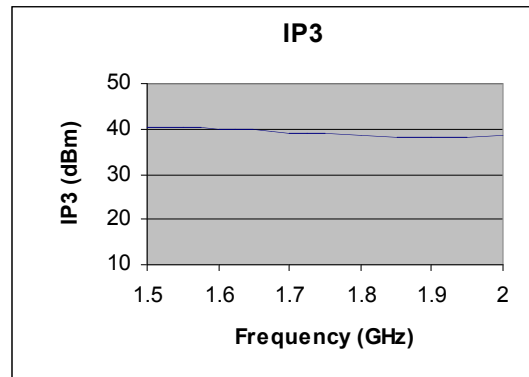
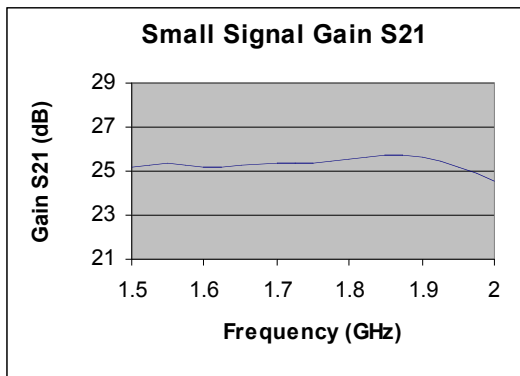
Electrical Specifications @ +25 °C, Z_s = Z_L = 50 Ω, V_{cc}=+5V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	1.5		2.0
Small Signal Gain	f = 1.50GHz		25.2	
	f = 1.65GHz		25.2	
	f = 1.75Hz		25.3	
	f = 1.90GHz		25.5	
	f = 2.00GHz		24.5	
Gain Flatness	dB		± 1.0	
P _{out} @ P _{in} = +7dBm	dBm		+30	
OIP3	dBm		+39	
Noise Figure at 1.75GHz	dB		7.3	
Reverse Isolation	dB		-38	
VSWR Input			1.4:1	
DC Power Supply	V	4.5	5.0	5.5
Supply Current Quiescent (no RF)	mA		460	
@ P _{out} = +30dBm	mA		530	

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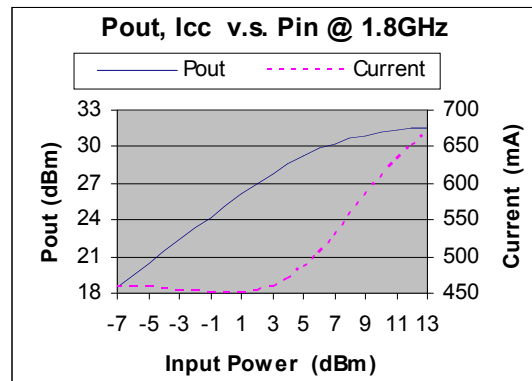
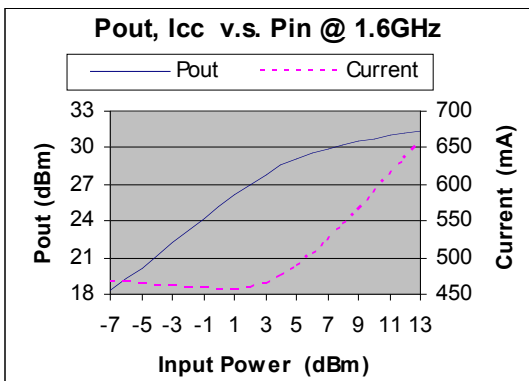
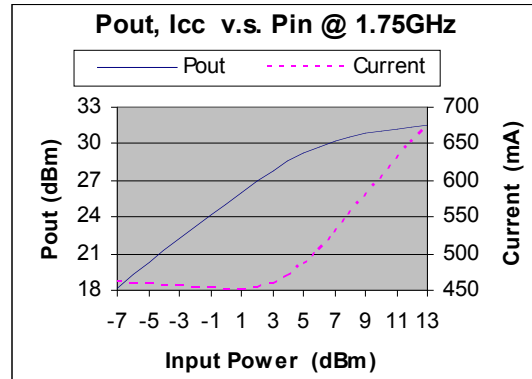
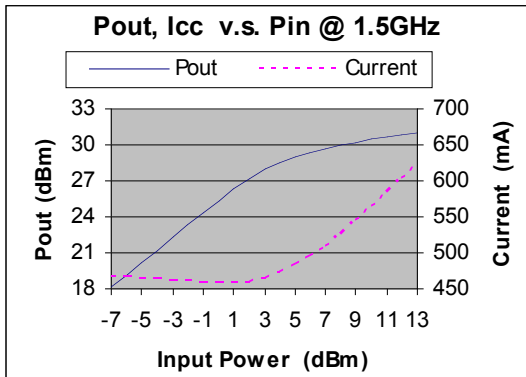
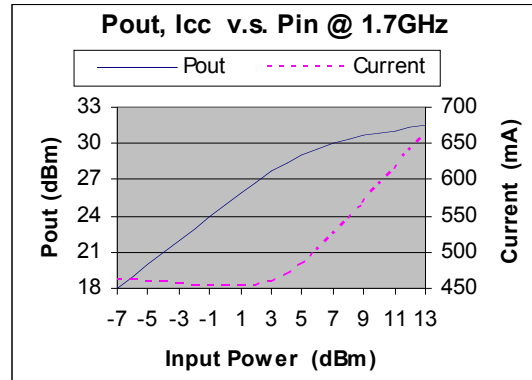
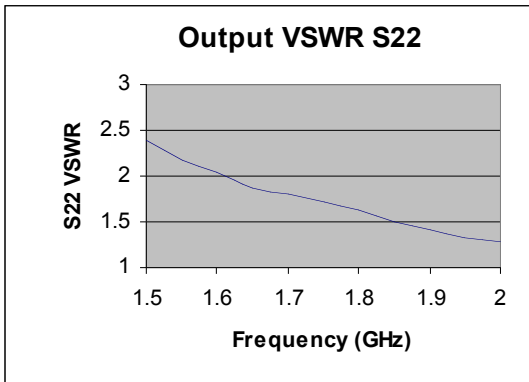
Typical Performance @ +25 °C



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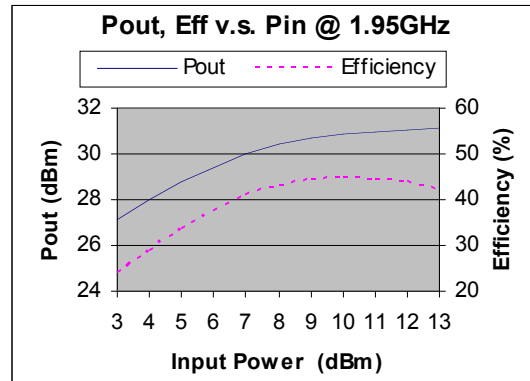
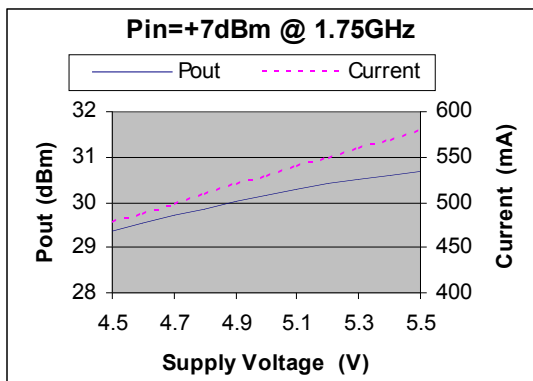
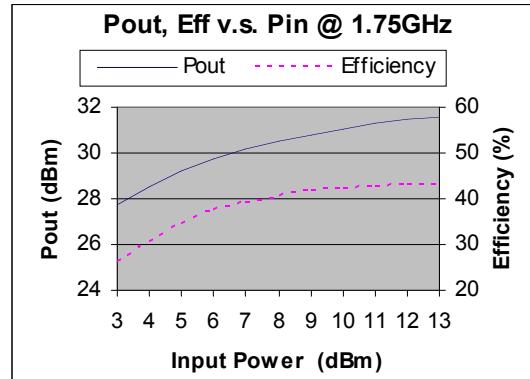
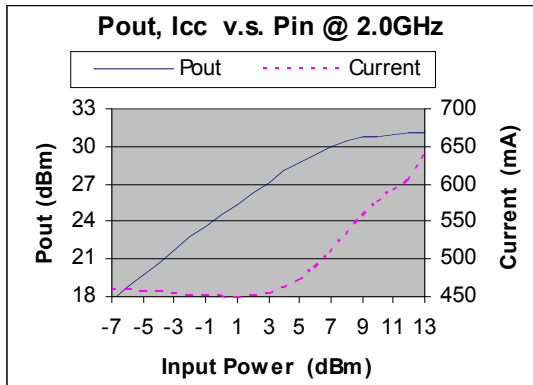
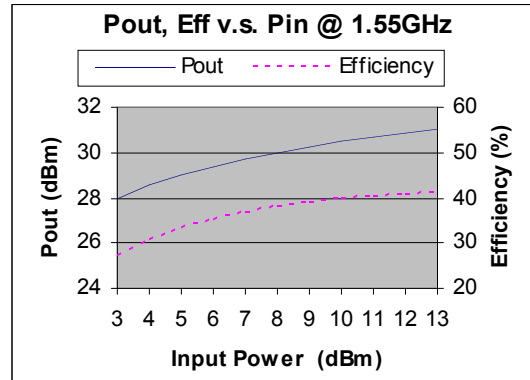
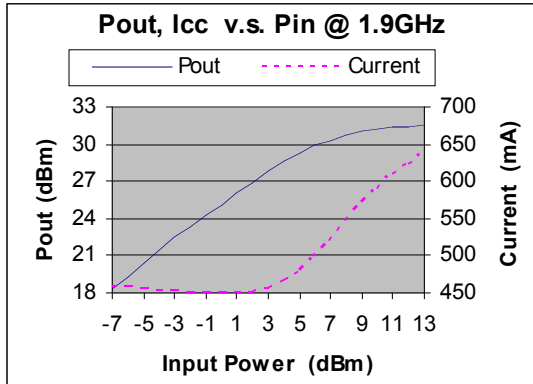
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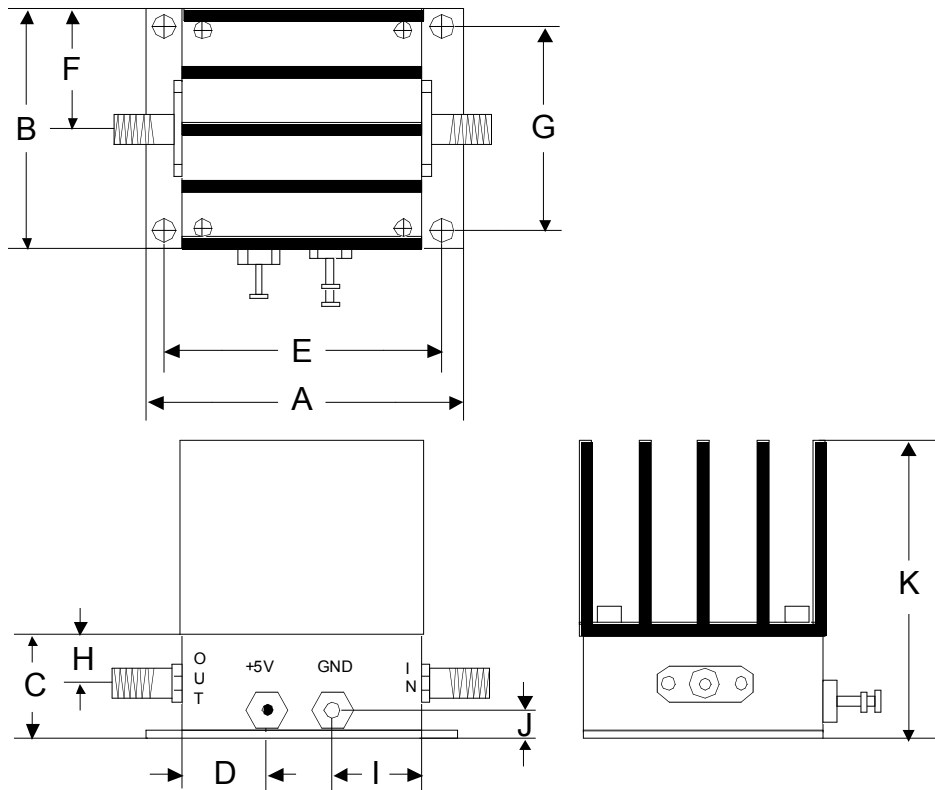
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Absolute Maximum Ratings

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