

HD29161

1.75 GHz – 1.95 GHz 1W RF Amplifier

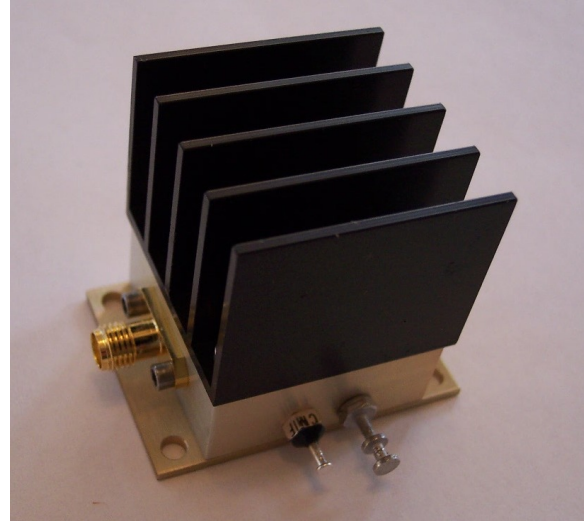
Features

- Frequency Range: 1.75–1.95GHz
- Gain: 12dB
- P_{1dB}: +30dBm
- IP3: +47dBm
- Noise Figure: 5.5dB
- Input/Output VSWR: 1.7:1/1.6:1
- DC Power: 5V
- SMA Connector

Performance Tested @ 1.85GHz

Description

HD29161 is +30dBm (1W) output RF Amplifier operates with frequency range from 1.75GHz to 1.95GHz.



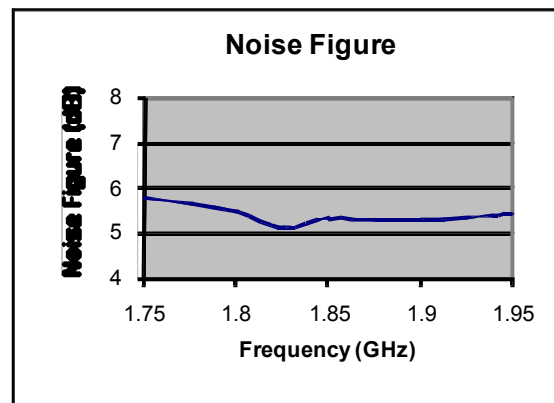
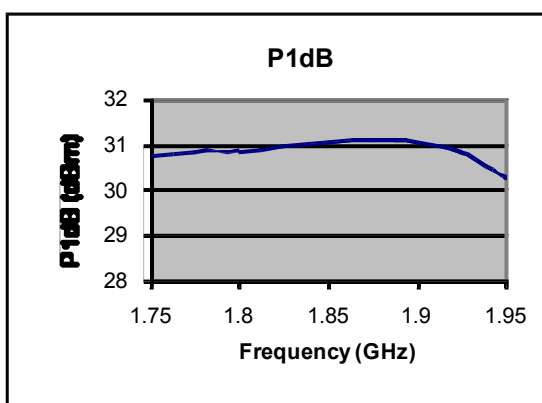
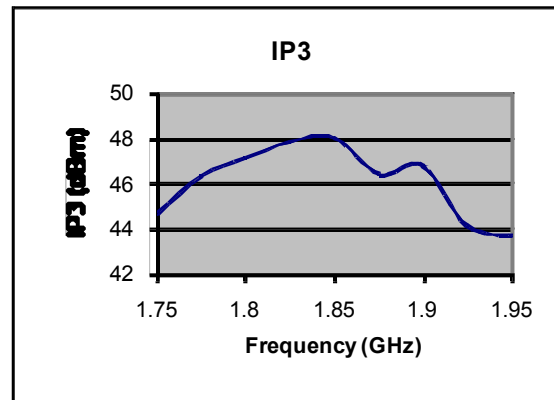
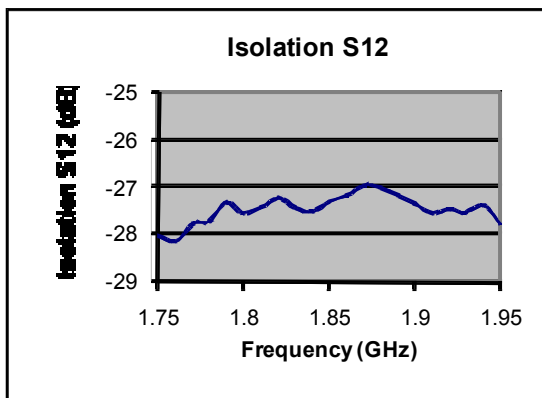
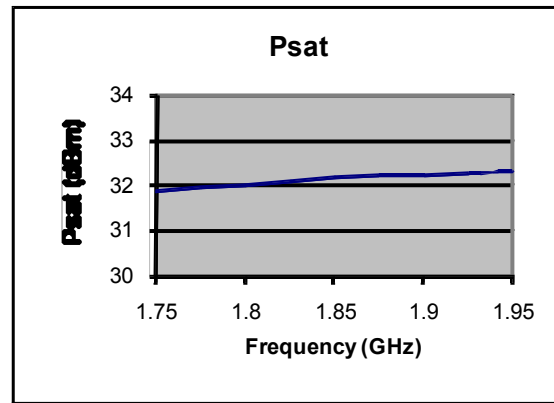
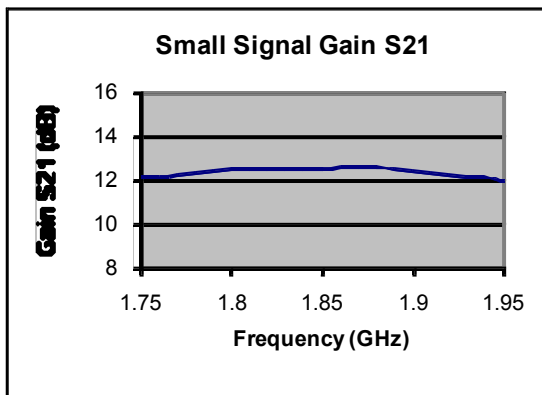
Electrical Specifications @ +25 °C, Z_s = Z_L = 50 Ω, V_{cc}=+5V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	1.75		1.95
Small Signal Gain	f = 1.75GHz		12.0	
	f = 1.85GHz		12.5	
	f = 1.95GHz		12.0	
Gain Flatness	dB		± 0.5	
P _{1dB}	dBm		+30	
OIP3	dBm		+47	
Noise Figure at 1.85GHz	dB		5.5	
Reverse Isolation	dB		-27	
VSWR	f = 1.85GHz		1.7:1	
	Input			
	Output		1.6:1	
DC Power Supply	V	4.5	5.0	5.5
Supply Current	Quiescent (no RF)	mA	450	
	@ P _{out} = +30dBm	mA	750	

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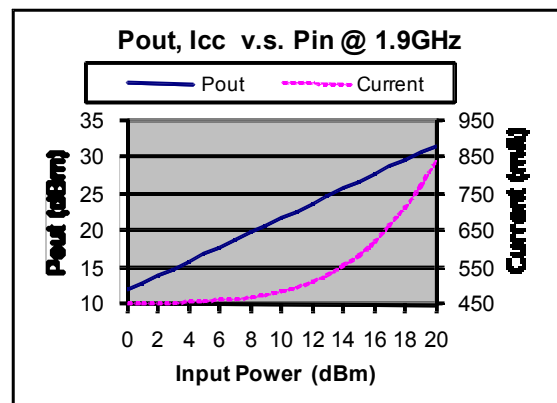
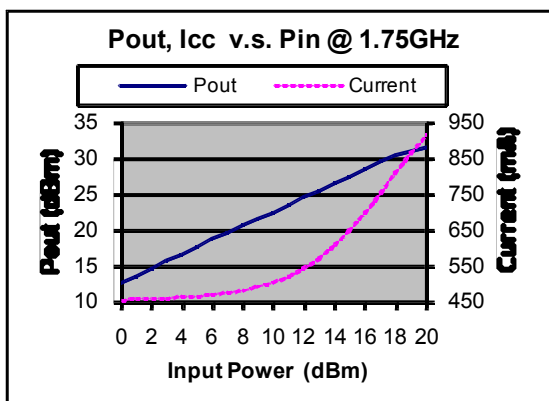
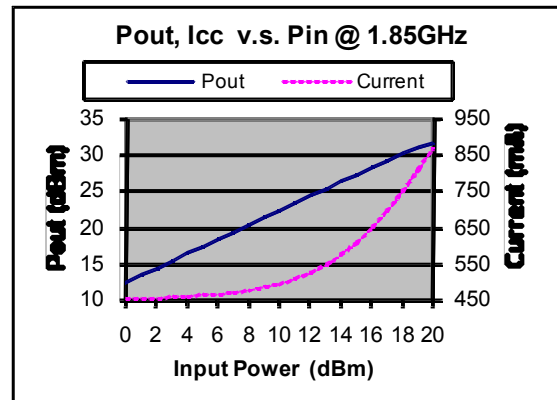
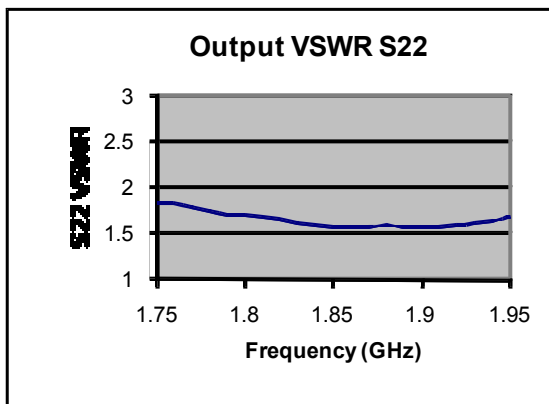
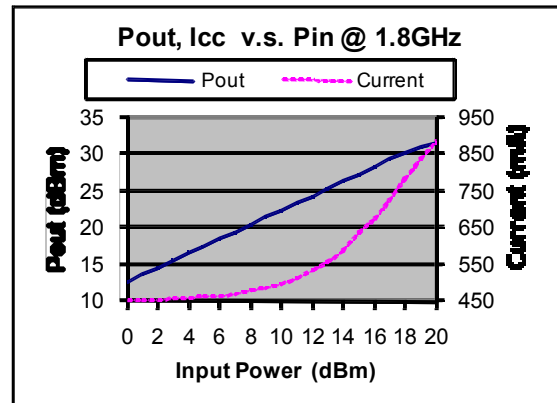
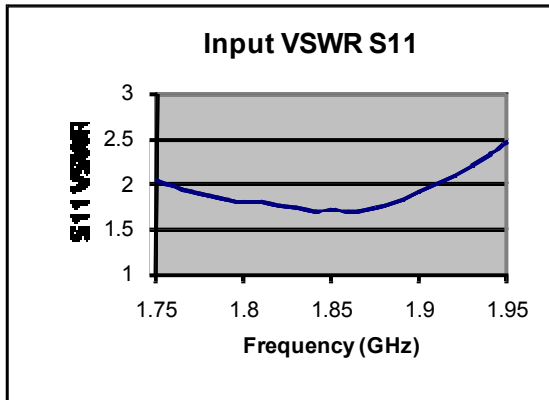
Typical Performance @ +25 °C



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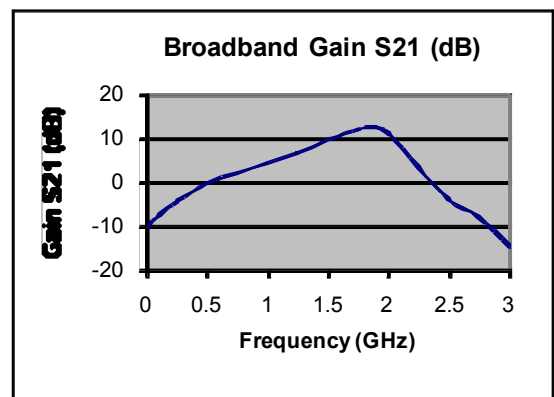
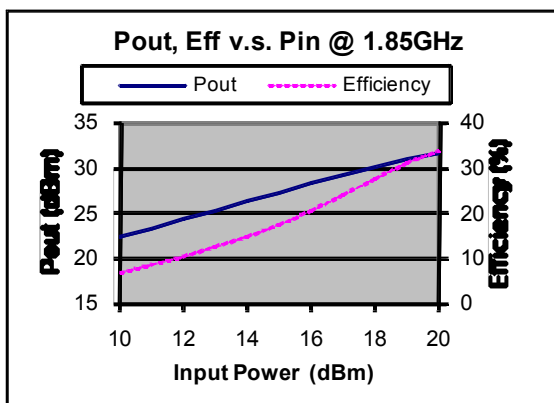
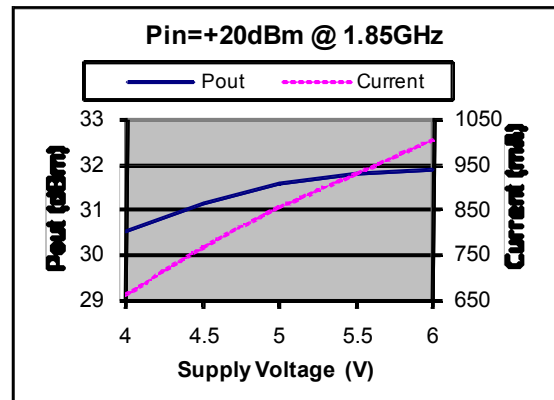
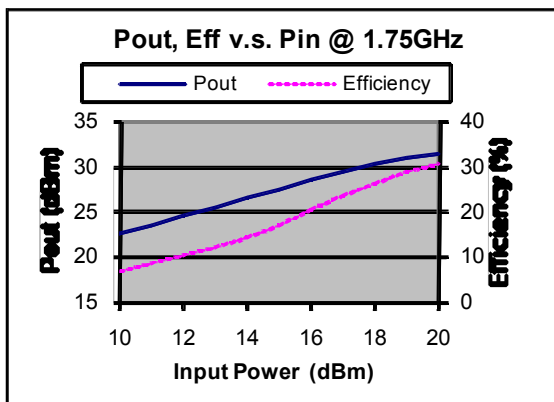
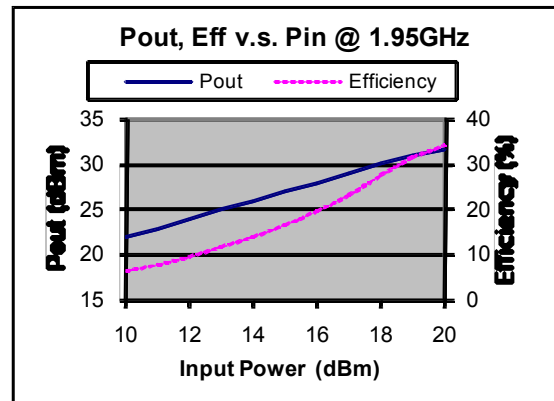
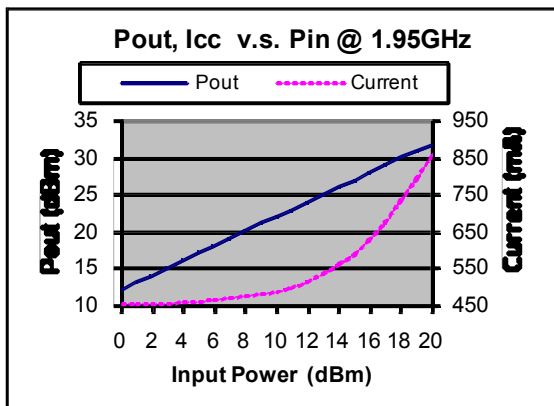
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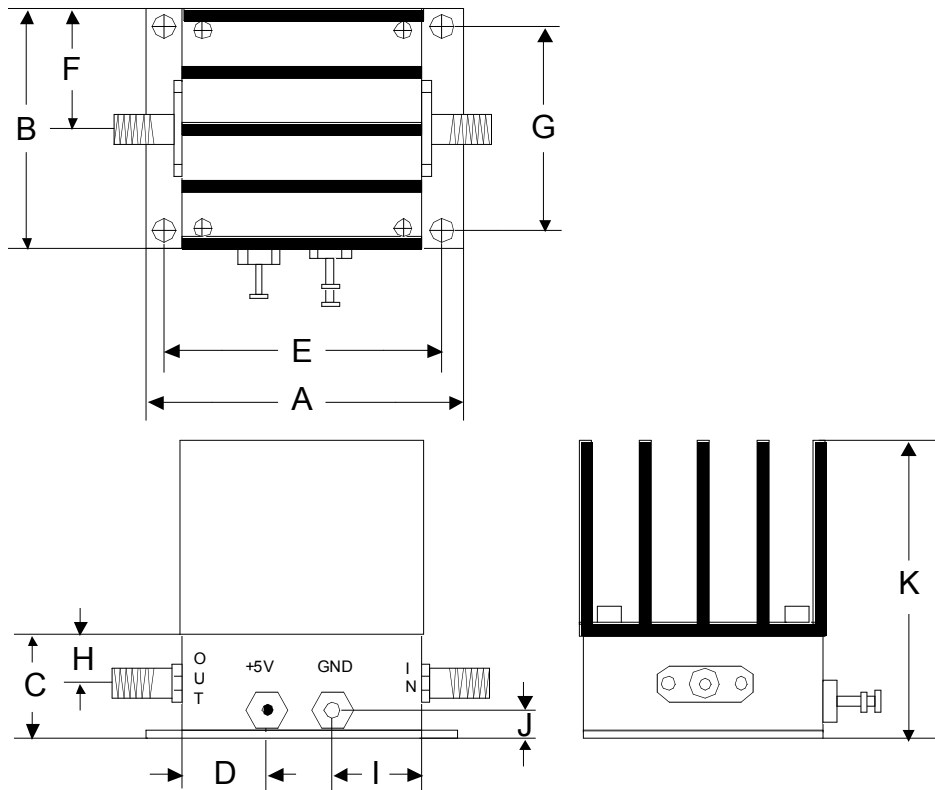
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+25dBm
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