

HD27031

50MHz–3000MHz RF Amplifier

Features

- Frequency Range: 50-3000MHz
- Gain: 21dB
- P_{1dB}: +8dBm
- IP3: +18dBm
- Noise Figure: 6.5dB
- DC Power: 3V/28mA
- SMA Connector

Performance Test @ 1500MHz

Description

HD27031 is a wideband low voltage RF Amplifier operates with frequency range from 50MHz to 3000MHz.



Electrical Specifications @ +25 °C, Z_S = Z_L = 50 Ω, V_{cc}= +3V

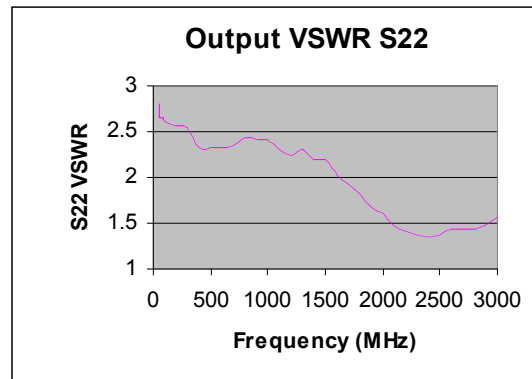
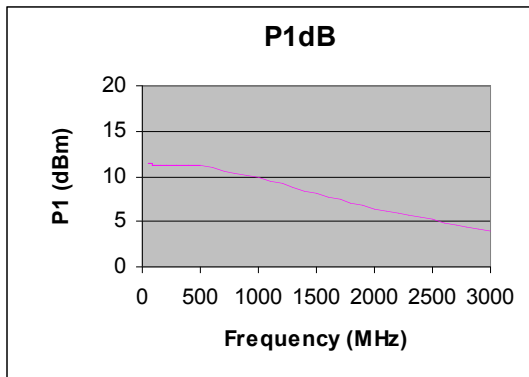
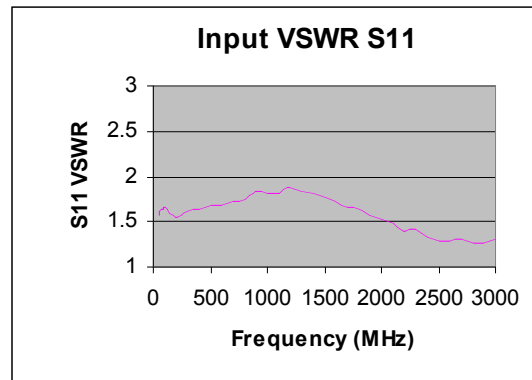
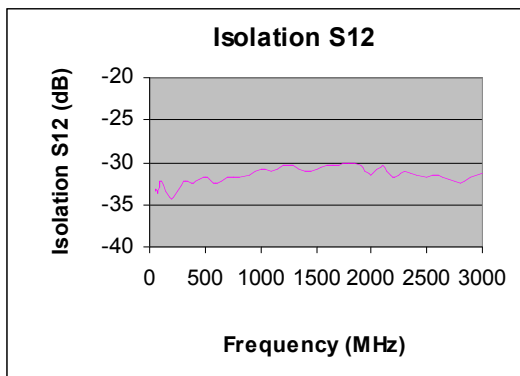
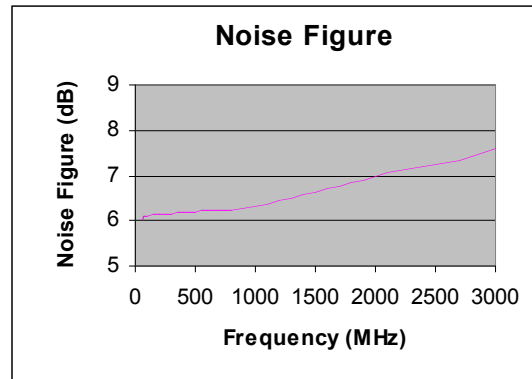
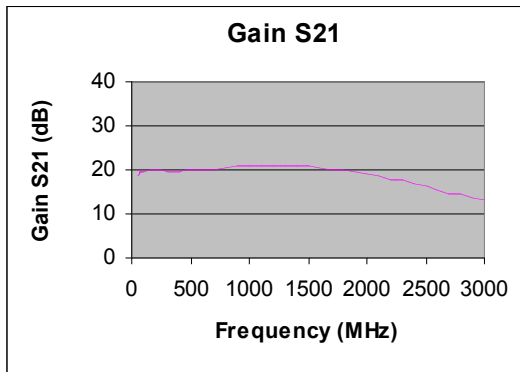
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	50		3000
Gain	f = 50 MHz		18.5	
	f = 500 MHz		20.0	
	f = 1000 MHz		21.0	
	f = 1500MHz		21.0	
	f = 2000 MHz		19.0	
	f = 2500 MHz		16.5	
	f = 3000MHz		13.0	
P _{1dB} at 1500MHz	dBm		+8	
P _{SAT} at 1500MHz	dBm		+10	
IP3 at 1500MHz	dBm		+18	
Noise Figure at 1500MHz	dB		6.5	8.0
Reverse Isolation	dB		-30	
VSWR	Input VSWR		1.8:1	

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Output VSWR			2.2:1	
DC Power Supply	V	2.7	3.0	3.3
Supply Current	mA		28	

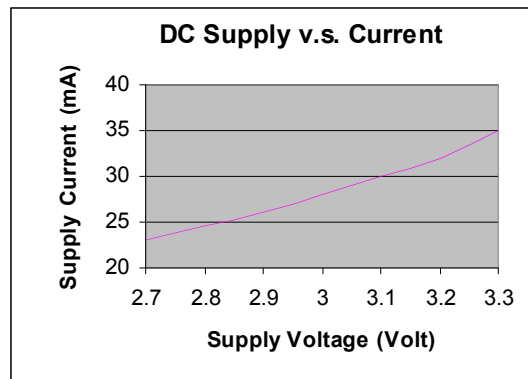
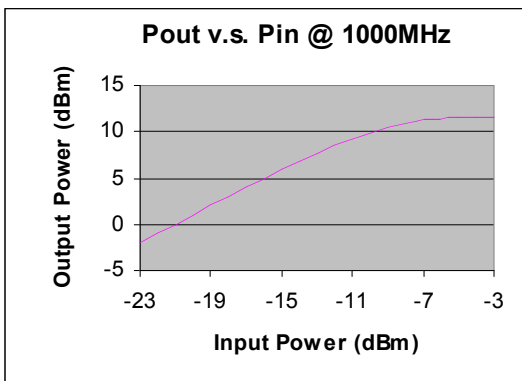
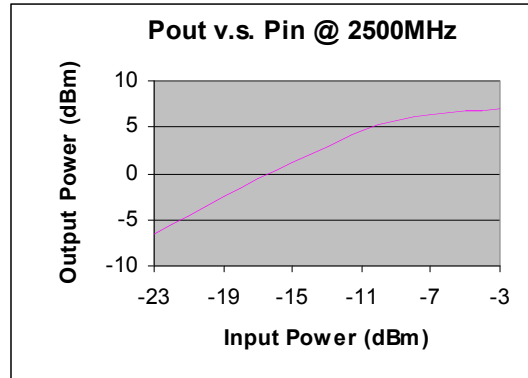
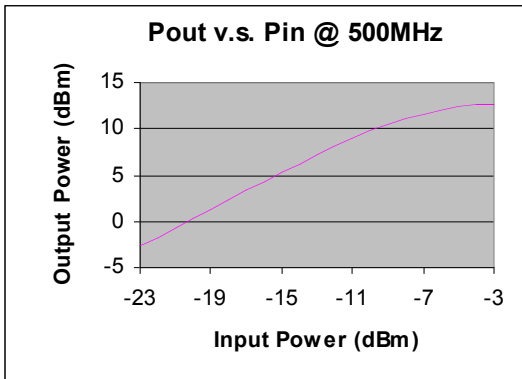
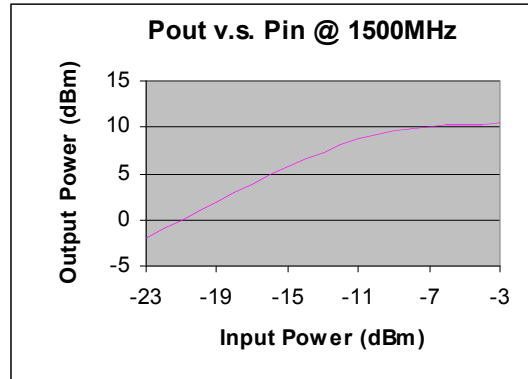
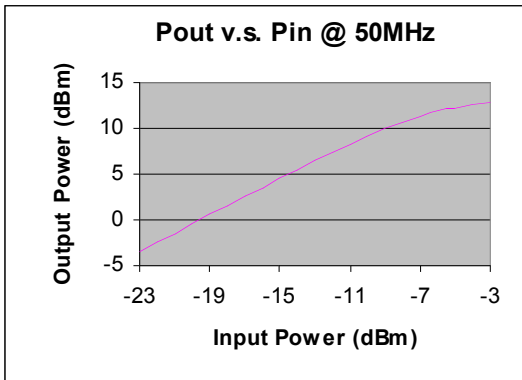
Typical Performance @ +25 °C



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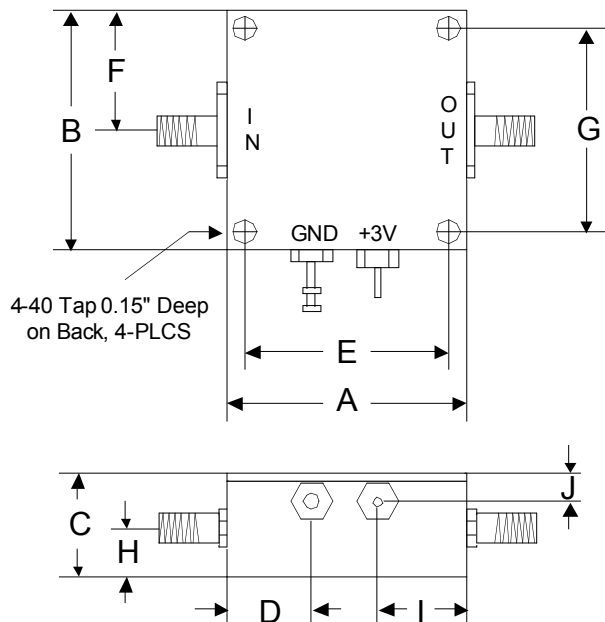
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+10dBm
Supply Voltage	+3.6V
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
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76