

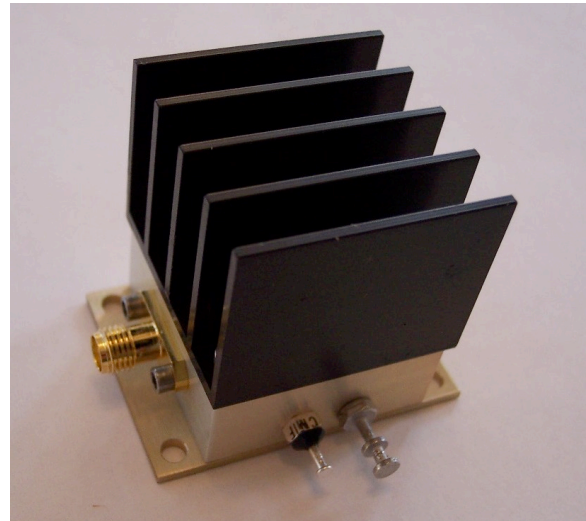
## HD27084

## 0.9GHz–2.0GHz, 0.5W RF Amplifier

### Features

- Frequency Range: 0.9 – 2.0GHz
- Gain: 27dB
- P<sub>out</sub>: +27dBm
- IP3: +46dBm
- Noise Figure: 5.0dB
- Input VSWR: 1.3:1
- DC Power: 5V
- SMA Connector

Performance Tested @ 1.5GHz



### Description

HD27084 is +27dBm (0.5W) output RF Amplifier operates with frequency range from 0.9GHz to 2.0GHz.

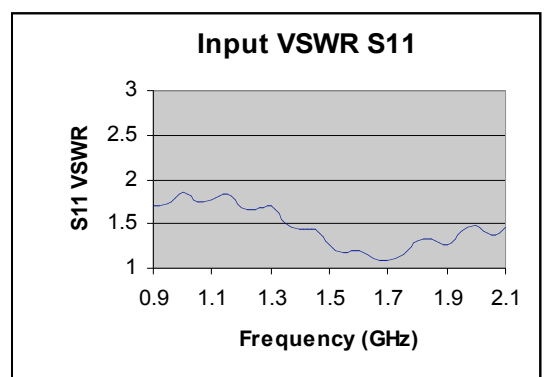
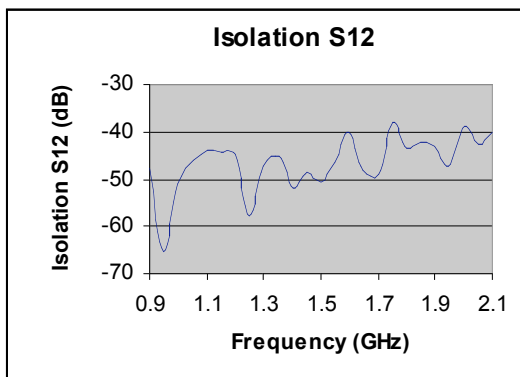
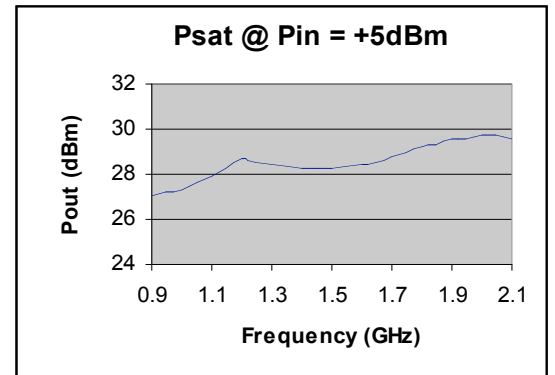
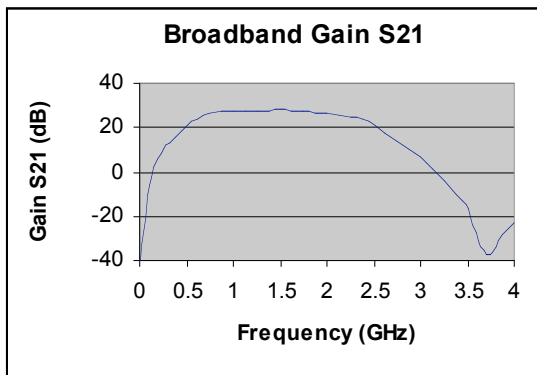
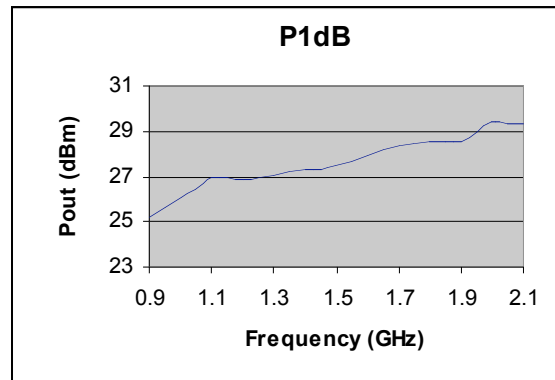
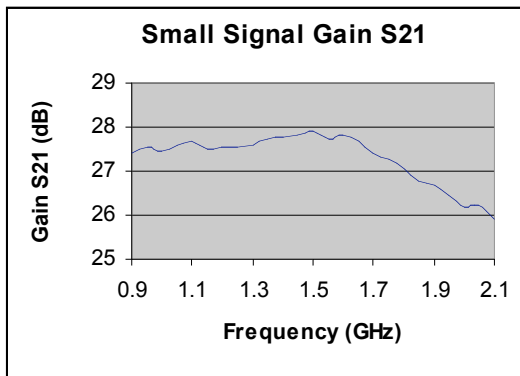
### Electrical Specifications @ +25 °C, Z<sub>s</sub> = Z<sub>L</sub> = 50 Ω, V<sub>cc</sub>=+5V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	0.9		2.0
Small Signal Gain	f = 0.9GHz	dB	27.4	
	f = 1.2GHz	dB	27.5	
	f = 1.5GHz	dB	27.9	
	f = 1.8GHz	dB	27.0	
	f = 2.0GHz	dB	26.2	
Gain Flatness	dB		± 1.0	
P <sub>1dB</sub>	dBm		+27	
OIP3	dBm		+46	
Noise Figure at 1.5GHz	dB		5.0	
Reverse Isolation	dB		-40	
VSWR Input			1.3:1	
DC Power Supply	V	4.5	5.0	5.5
Supply Current	Quiescent (no RF)	mA	560	
	@ P <sub>out</sub> = +27dBm	mA	480	

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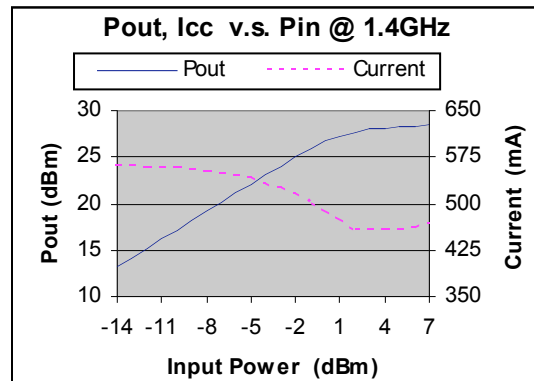
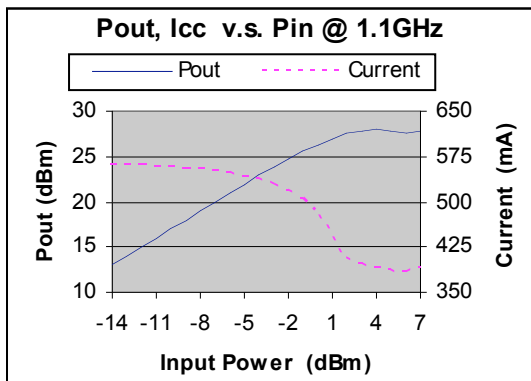
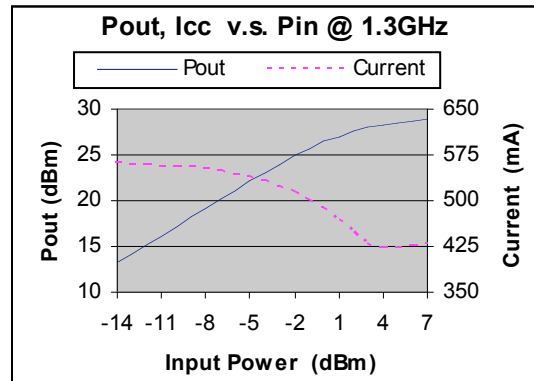
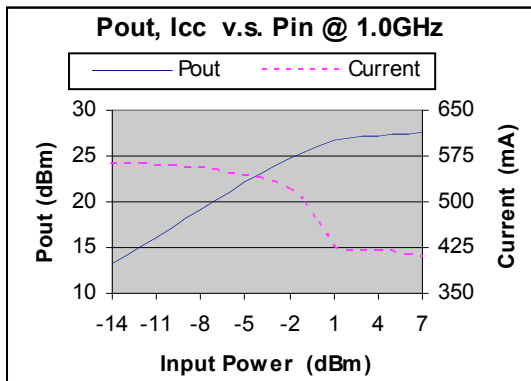
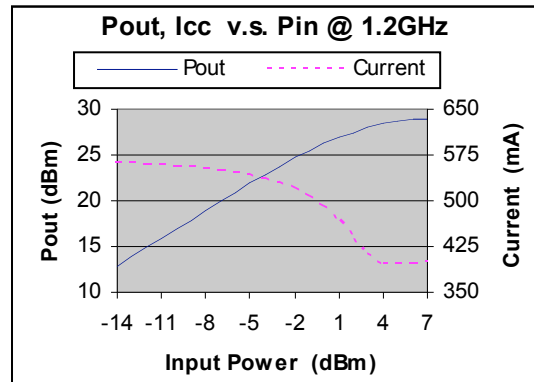
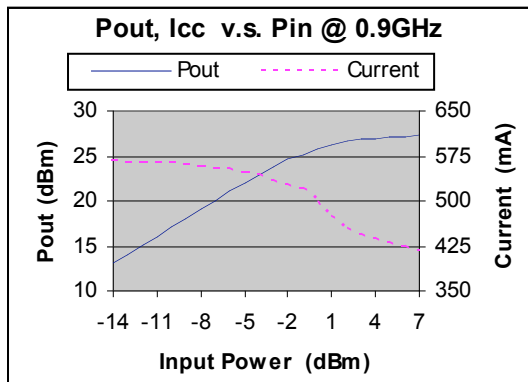
**Typical Performance @ +25 °C**



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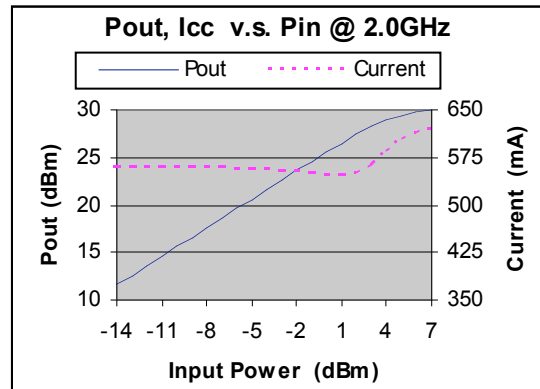
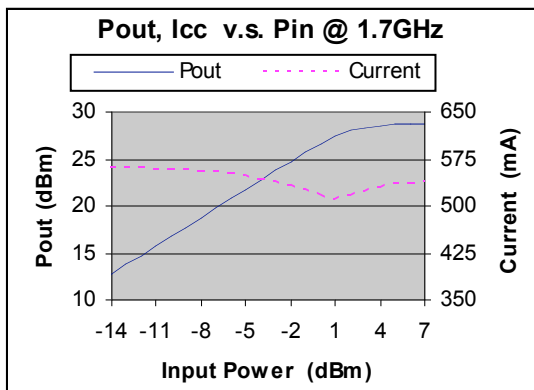
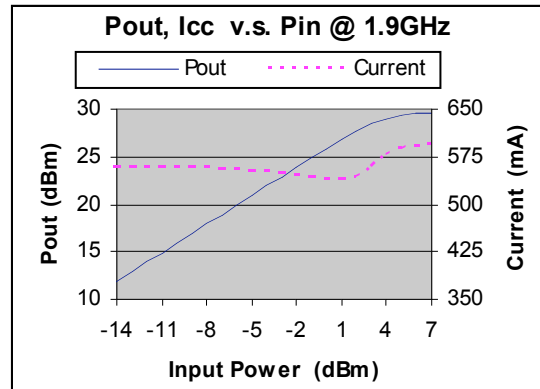
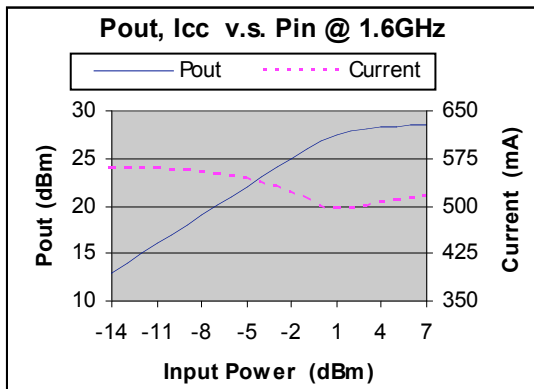
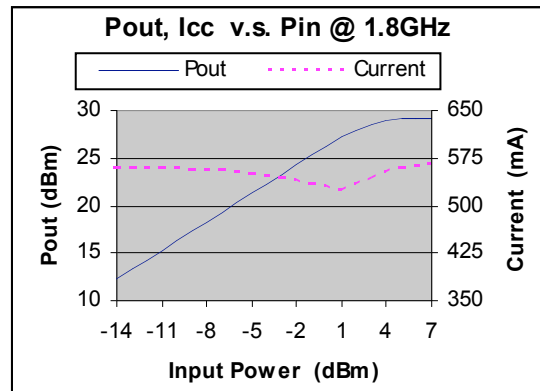
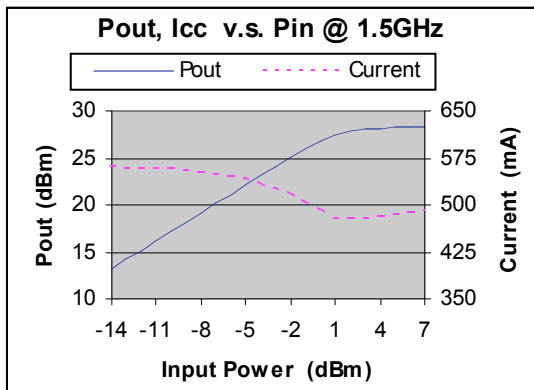
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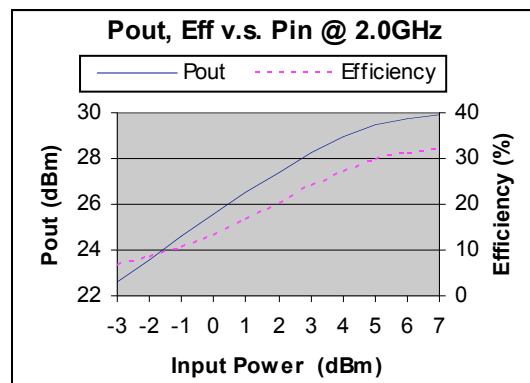
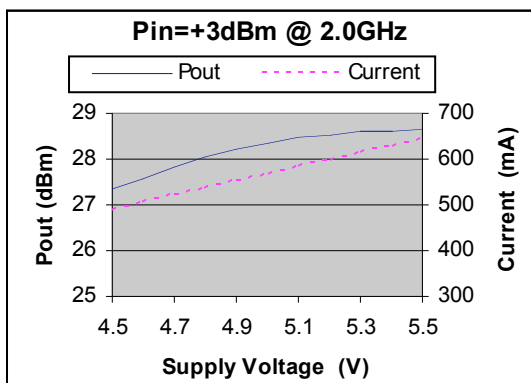
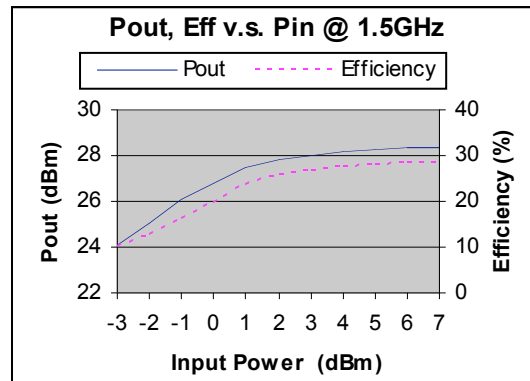
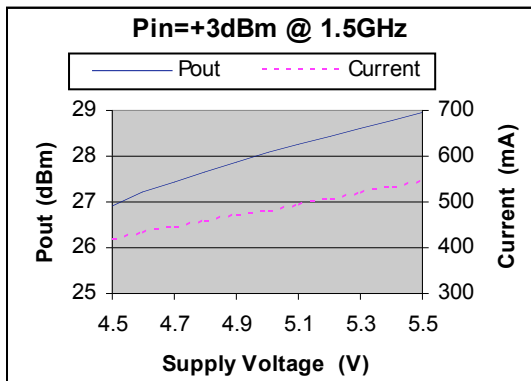
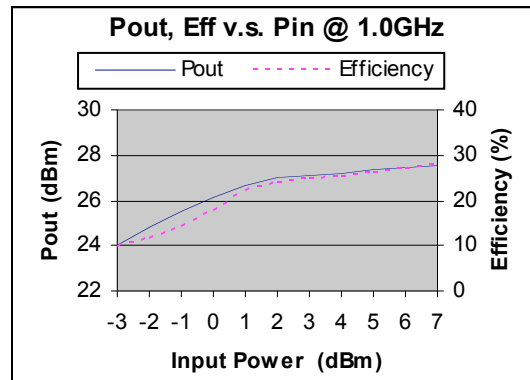
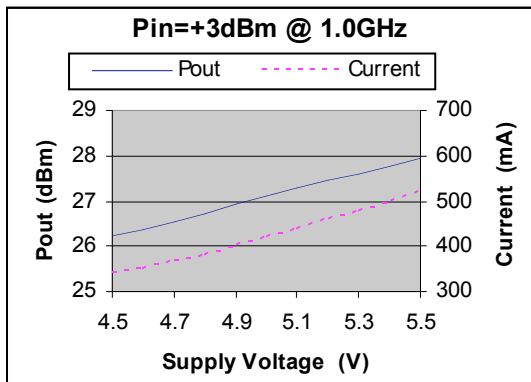
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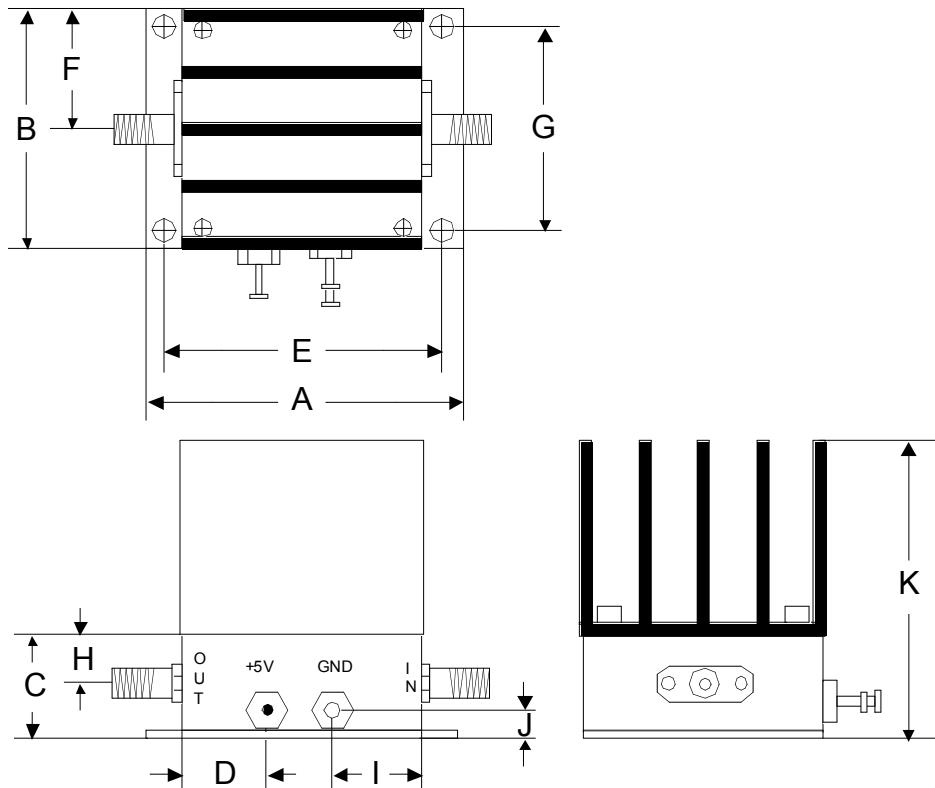
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### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+12dBm
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
<b>Inch</b>	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187	1.563
<b>mm</b>	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76	39.70