

## HPA Series

## 1800-2000MHz 10W RF Power Amplifier

### Features

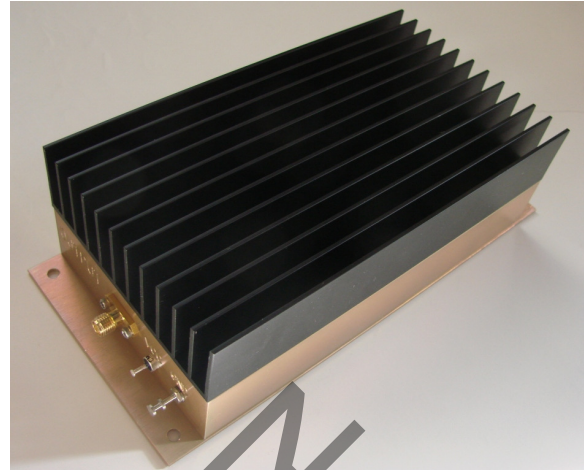
- Frequency Range: 1.8 – 2.0GHz
- Gain: 30dB
- $P_{1dB}$ : +40dBm (10W)
- $P_{sat}$ : +42.3dBm (17W)
- IP3: +48dBm
- DC Power: +28V
- SMA Connector

Performance measured @ 1.9GHz

### Description

HPA-1820 is a 10Watt (+40dBm) output RF Power Amplifier operating from single 28V DC power supply with frequency range in 1.8 – 2.0GHz.

### Picture



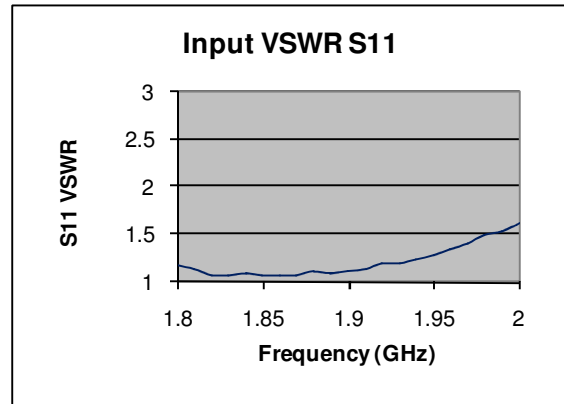
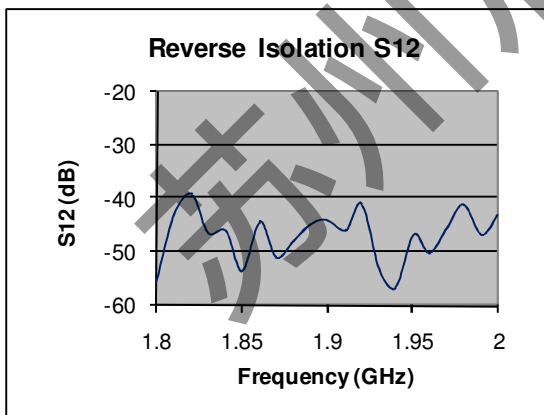
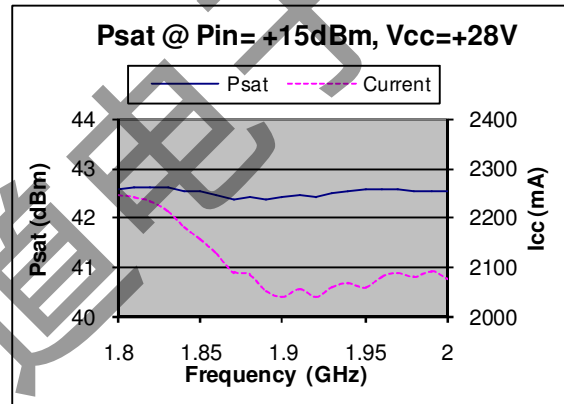
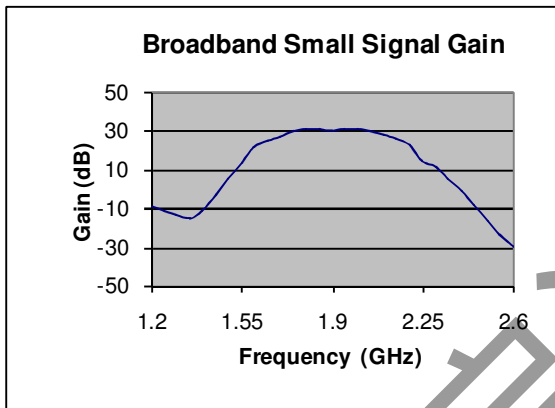
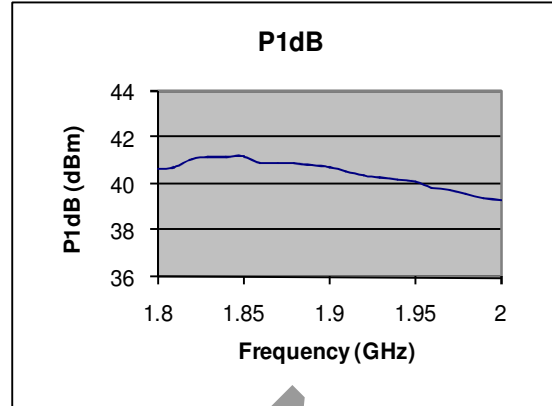
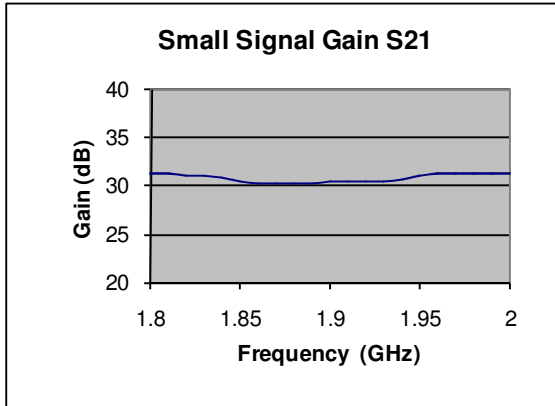
### Electrical Specifications @ +25 °C, $Z_S = Z_L = 50 \Omega$ , $V_{CC} = +28V$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	1.8		2.0
Small Signal Gain	dB		30	
Output Power $P_{1dB}$	dBm		+40	
Saturated Power $P_{sat}$ @ $P_{in} = +15dBm$	dBm		+42.3	
IP3	dBm		+48	
Reverse Isolation	dB		-43	
Efficiency at $P_{1dB} = +40dBm$	%		24	
VSWR Input @ 1.9GHz			1.2:1	
VSWR Output @ 1.9GHz			1.4:1	
DC Power Supply	V	+24	+28	
Supply Current Quiescent (no RF)	mA		570	
@ $P_{1dB} = +40dBm$	mA		1550	
Size (Excluding SMA Connector)	inch	7.000" x 3.250" x 2.000"		
Weight	Oz.	24 (680g)		

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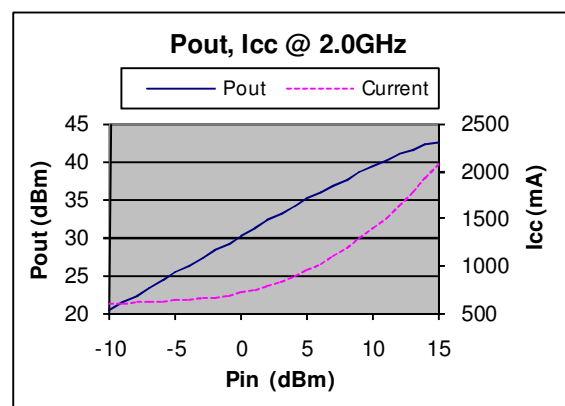
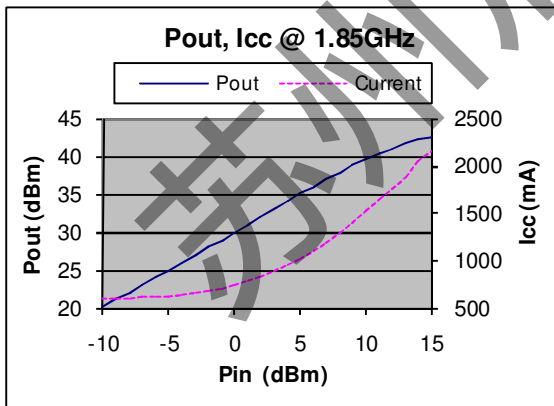
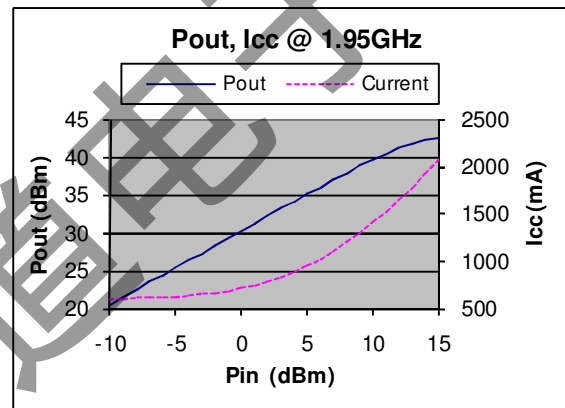
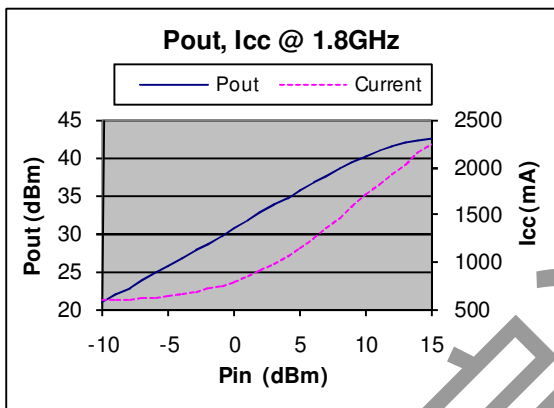
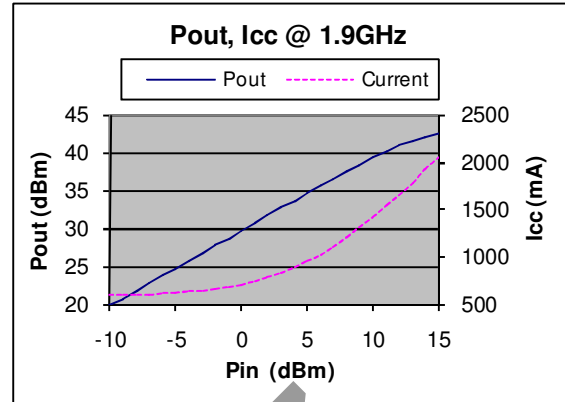
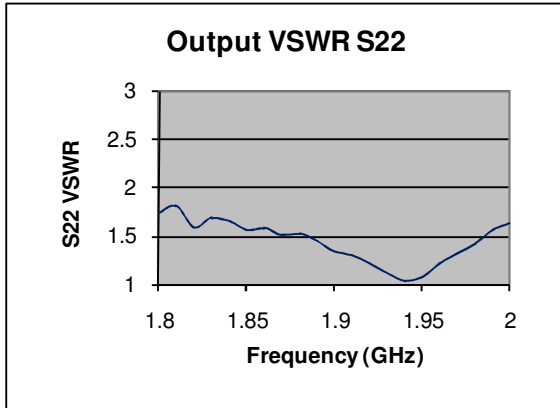
### Typical Performance @ +25 °C



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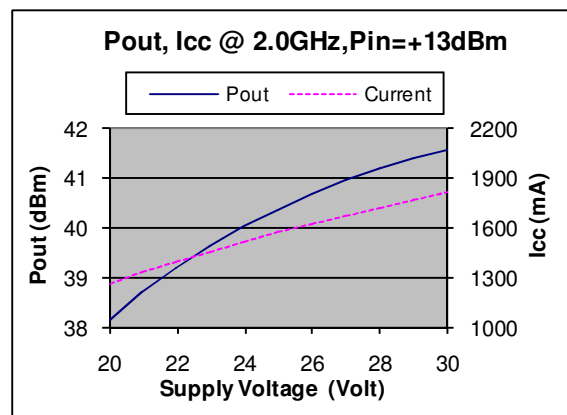
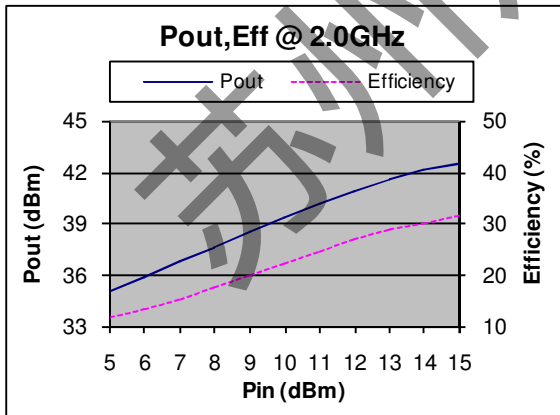
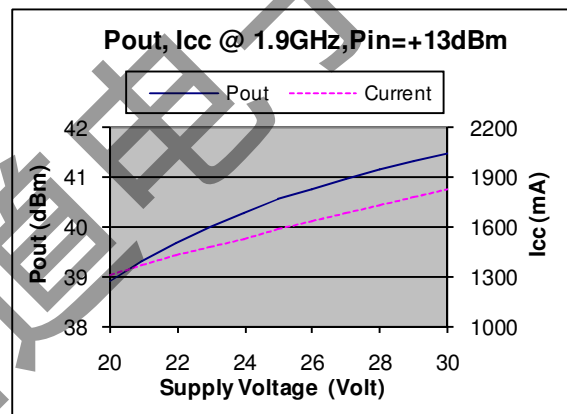
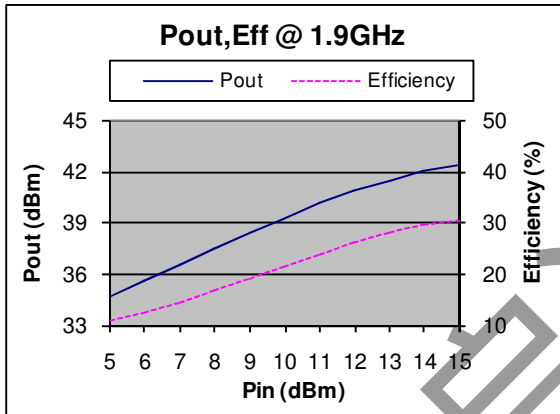
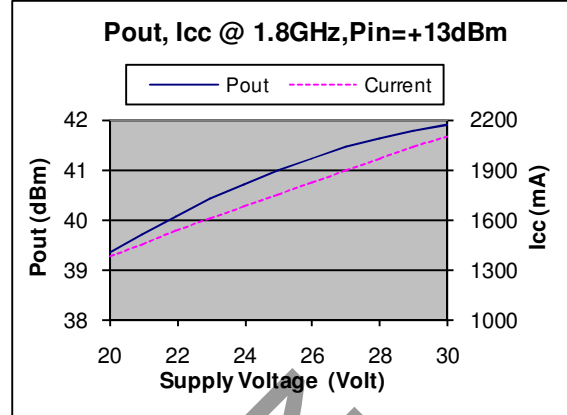
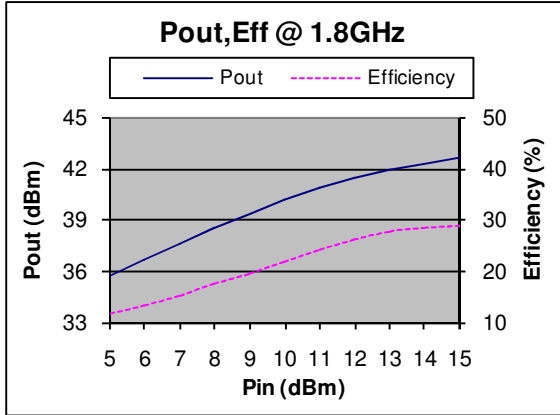
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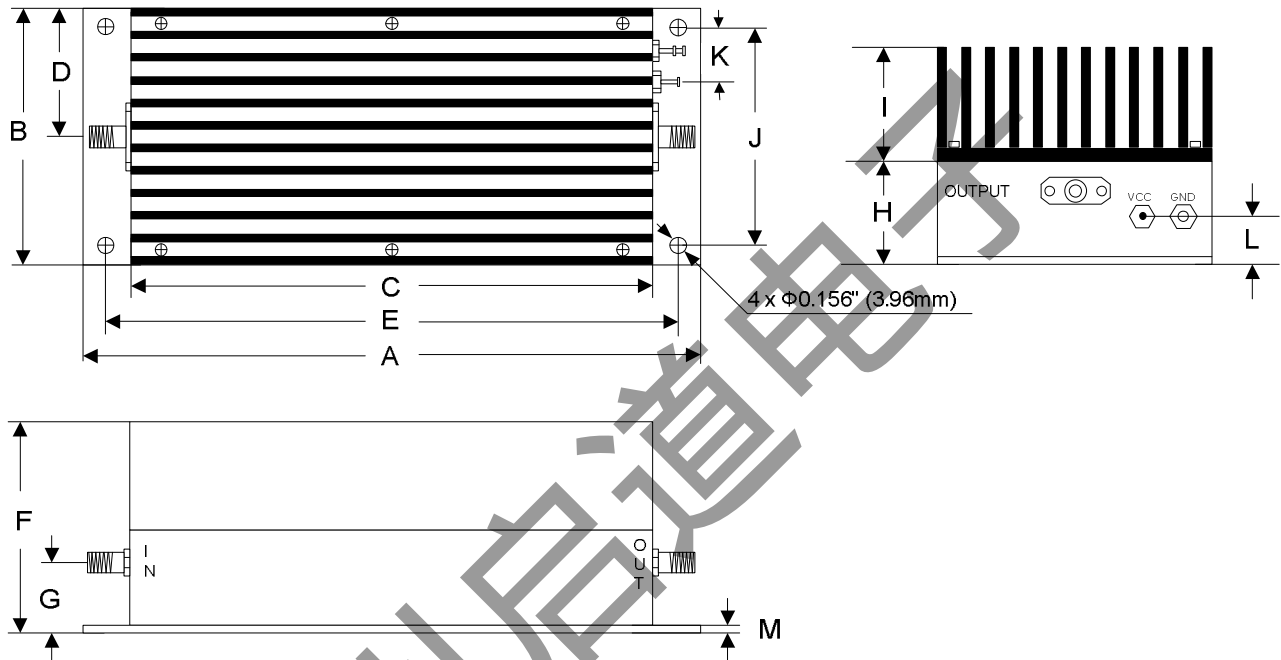
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### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage	+30V
Operating Temperature	-30 °C to +65 °C
Storage Temperature	-55 °C to +100 °C

### Outline



	A	B	C	D	E	F	G	H	I
<b>Inch</b>	7.000	3.250	6.000	1.625	6.500	2.000	0.650	1.000	1.000
<b>mm</b>	177.80	82.55	152.40	41.28	165.10	50.80	16.51	25.40	25.40
	J	K	L	M					
<b>Inch</b>	2.750	0.625	0.450	0.090					
<b>mm</b>	69.85	15.88	11.43	2.29					