

## SPA Series

## 750-950MHz 10W RF Power Amplifier

### Features

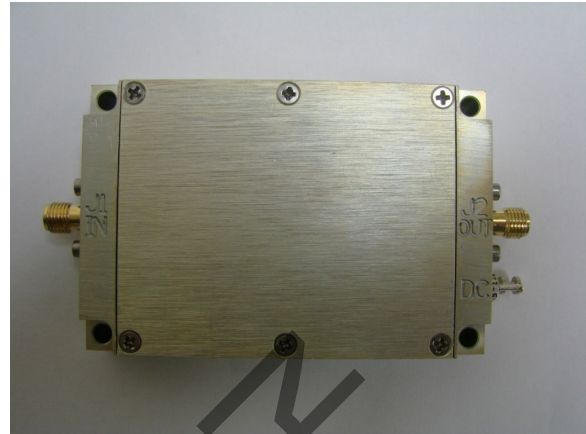
- Frequency Range: 750-950MHz
- Gain: 43dB
- P<sub>out</sub>: +40dBm
- P<sub>sat</sub>: +41.5dBm
- IP3: +49dBm
- DC Power: 12V
- SMA Connector

Performance measured @ 850MHz

### Description

SPA-850 is a 10Watt (+40dBm) output RF Power Amplifier operating from single 12V DC power supply with frequency range in 750-950MHz.

### Picture



### Electrical Specifications @ +25 °C, Z<sub>S</sub> = Z<sub>L</sub> = 50 Ω, V<sub>CC</sub> = +12V

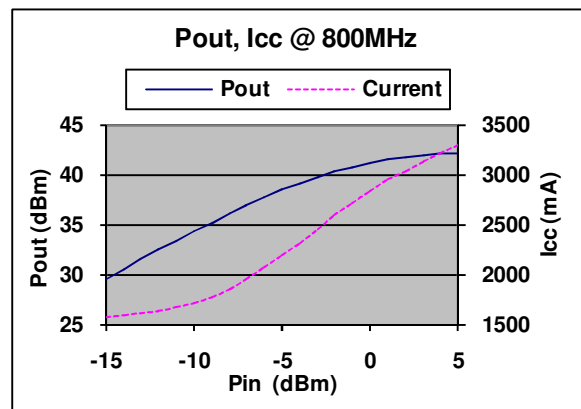
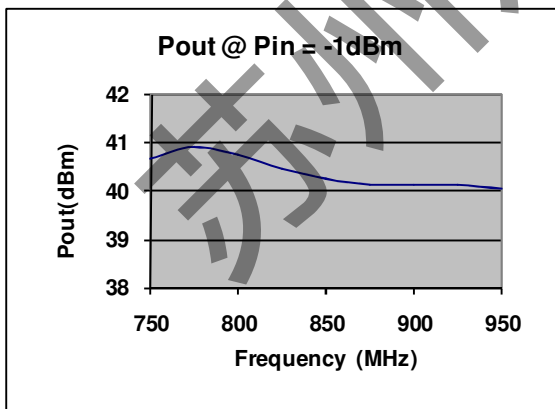
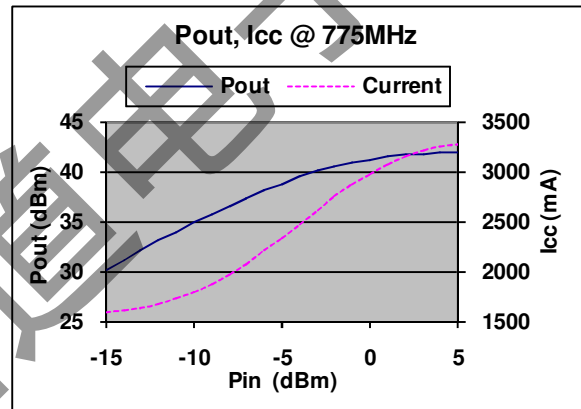
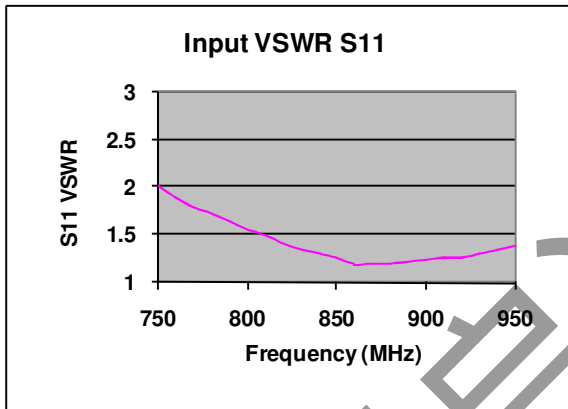
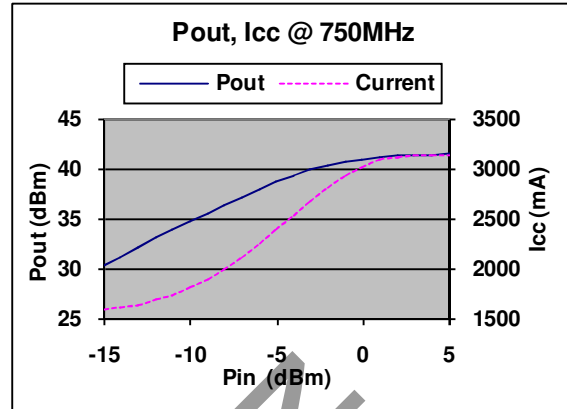
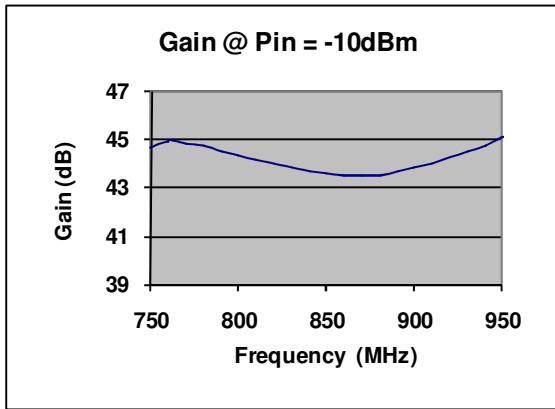
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	750		950
Small Signal Gain	dB		43	
Output Power P <sub>out</sub> @ P <sub>in</sub> = -1dBm	dBm		+40	
Saturated Power P <sub>sat</sub> @ P <sub>in</sub> = +3dBm	dBm		+41.5	
IP3	dBm		+49	
Reverse Isolation	dB		-55	
Efficiency at P <sub>out</sub> = +40dBm	%		33	
VSWR Input			1.3:1	
DC Power Supply	V		+12	
Supply Current	mA		2500	
Size (Excluding SMA Connector)	inch	3.000" x 2.000" x 0.625"		
Weight	Oz.	4.8 (135g)		

**Warning: adequate heatsink required for continuous operation, keep amplifier base plate temperature under +65 °C.**

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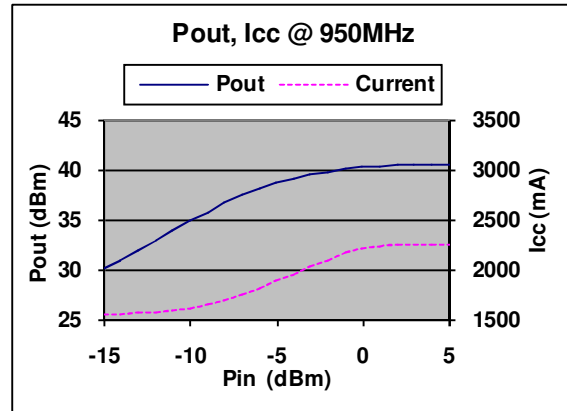
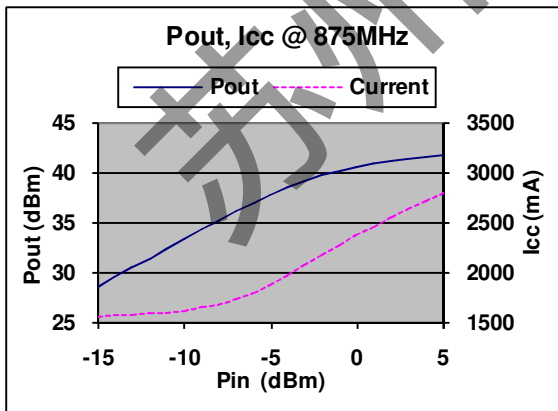
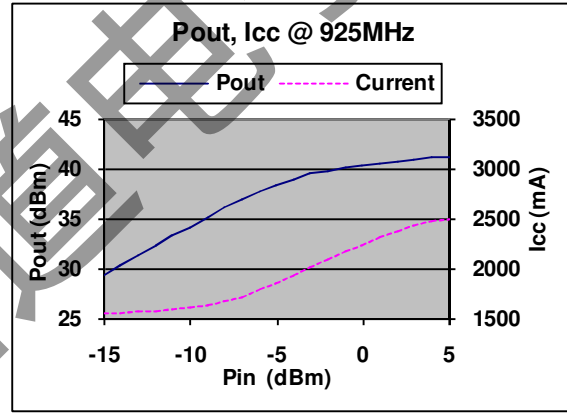
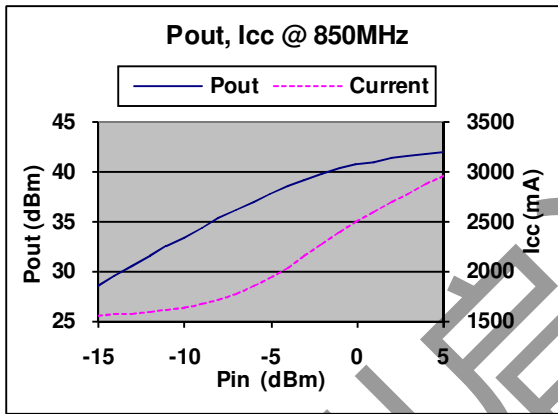
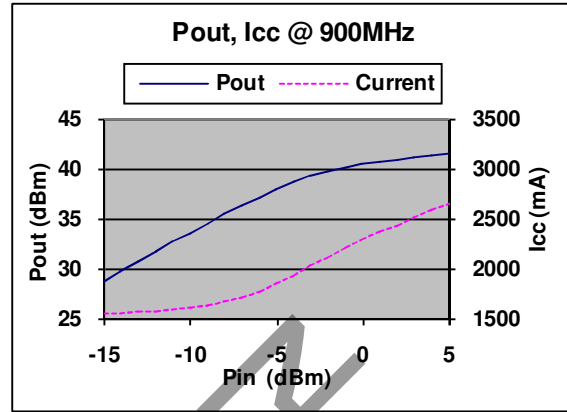
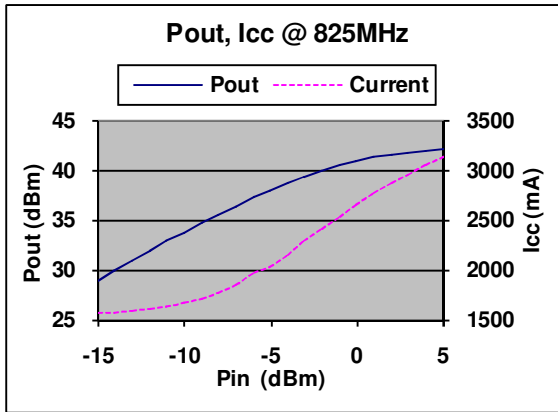
**Typical Performance @ +25 °C**



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**Typical Performance @ +25 °C**



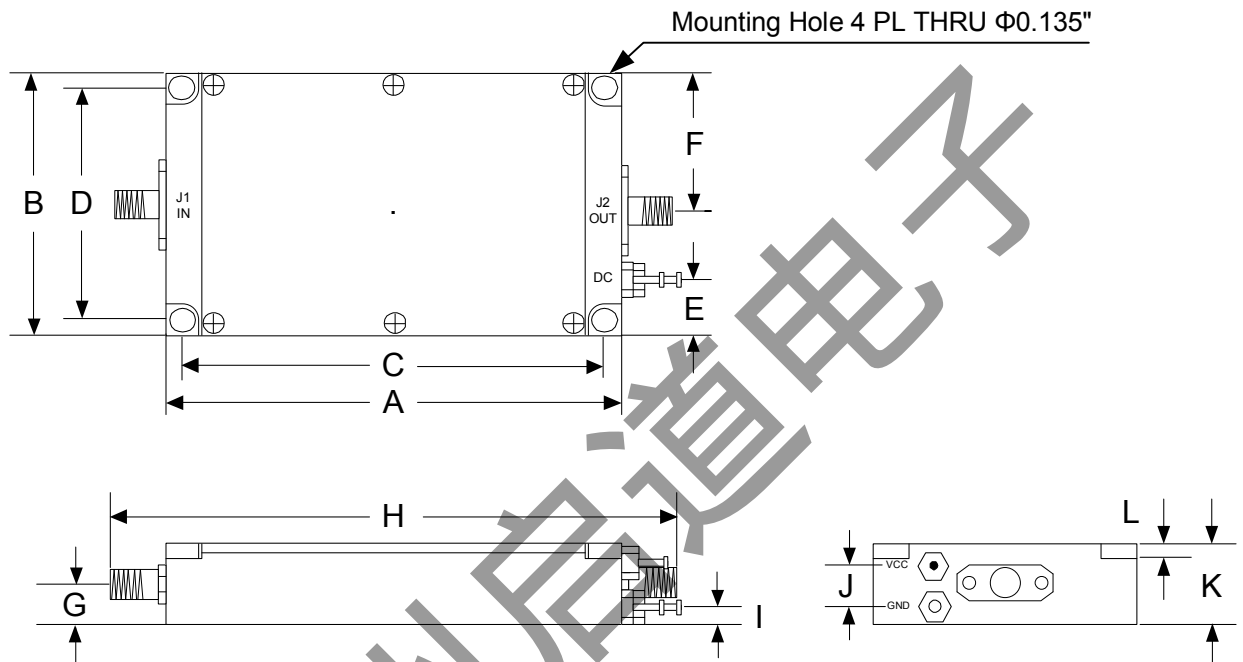
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### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage	+16V
Operating Temperature	-30 °C to +65 °C
Storage Temperature	-55 °C to +100 °C

### Outline



	A	B	C	D	E	F	G	H	I
Inch	3.000	2.000	2.750	1.750	0.500	1.000	0.300	3.750	0.125
mm	76.20	50.80	69.85	44.45	12.70	25.40	7.62	95.25	3.18
	J	K	L						
Inch	0.300	0.625	0.150						
mm	7.62	15.88	3.81						