

## EPA Series

## 4.5-9.0GHz 1W Power Amplifier

### Features

- Frequency Range: 4.5 – 9.0GHz
- Gain: 27dB
- P<sub>1dB</sub>: +30dBm
- IP3: +39dBm
- Noise Figure: 4.5dB
- DC Voltage: +9V @ 850mA
- RF Connector: SMA-F

### Photo



### Description

EPA-4590 is a 1W high performance RF Power Amplifier, with standard frequency range of 4.5 to 9.0GHz.

### Electrical Specifications @+25°C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, V<sub>supply</sub> = +9VDC

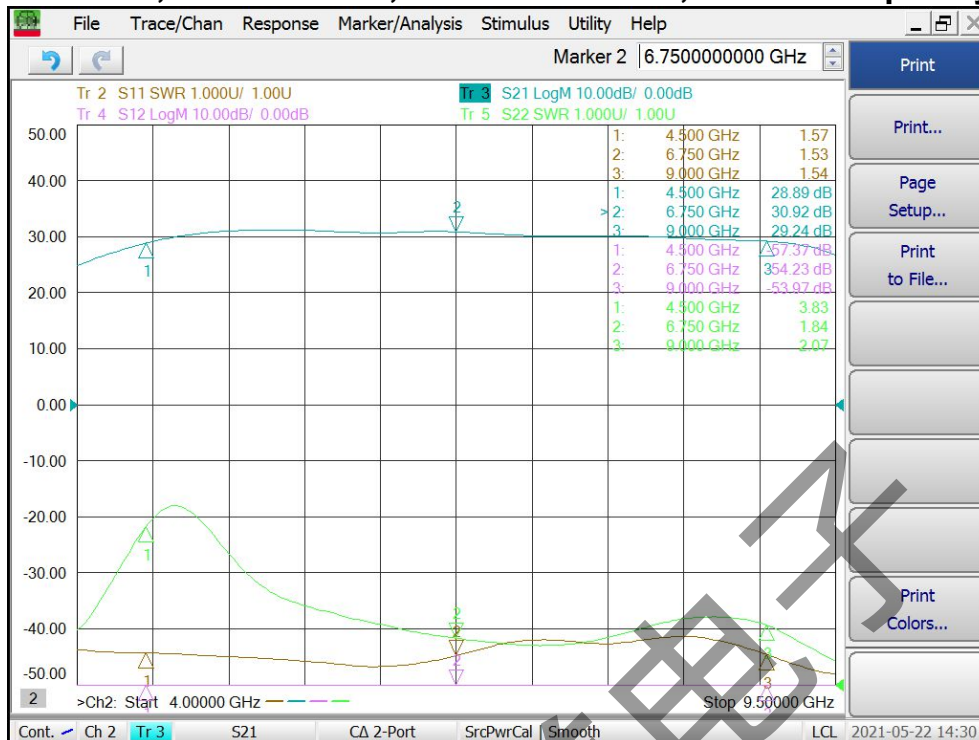
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	4.5		9.0
Gain (S21)	dB	27	29	
Gain Flatness	dB		±1.0	±1.5
Output Power P <sub>1dB</sub>	dBm	+29	+30	
Output Third Order Intercept IP3	dBm	+38	+39	
Noise Figure	dB		4.5	5.5
Isolation S12	dB	-45	-55	
VSWR-Input (S11)			1.5:1	2.0:1
DC Power Supply - voltage	V	+8.5	+9.0	+9.5
DC Power Supply - current	mA		850	950
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch/mm	1.79x1.10x0.45/45.47x27.94x11.43(LxWxH)		
Weight	Oz	2.0 (56.7 grams)		

**WARNING: MUST USE HEAT SINK**

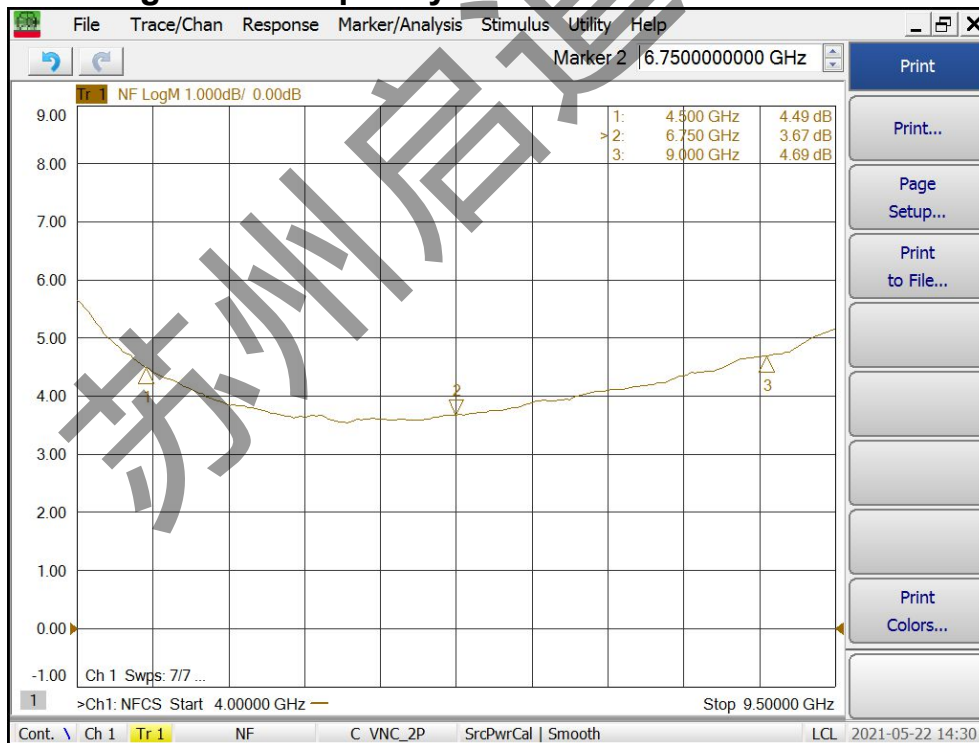
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



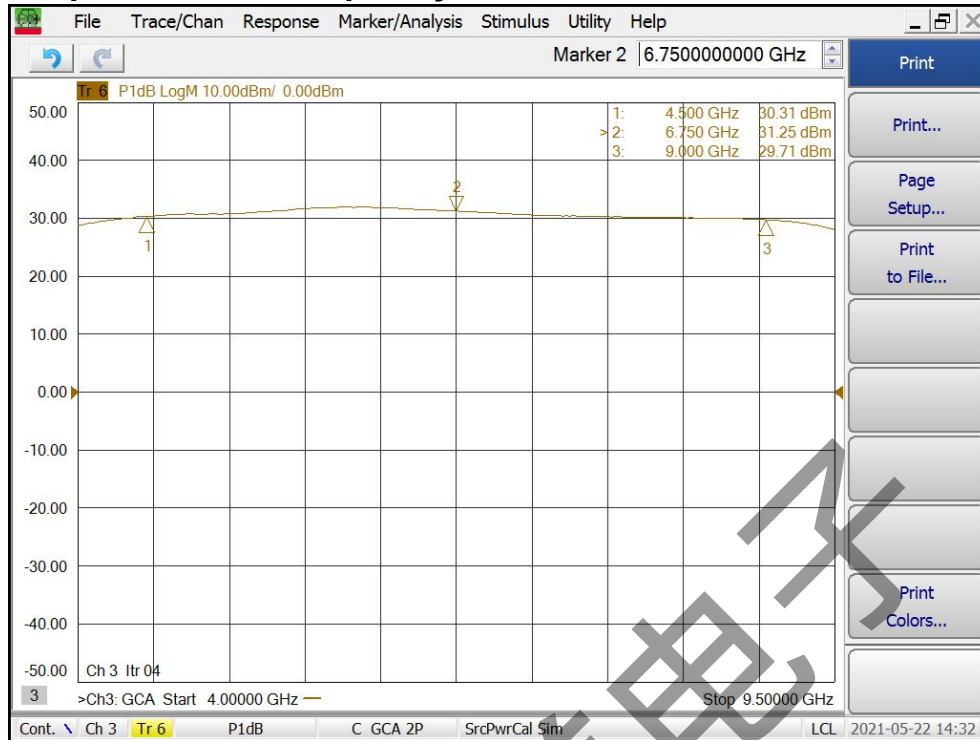
Noise Figure vs Frequency



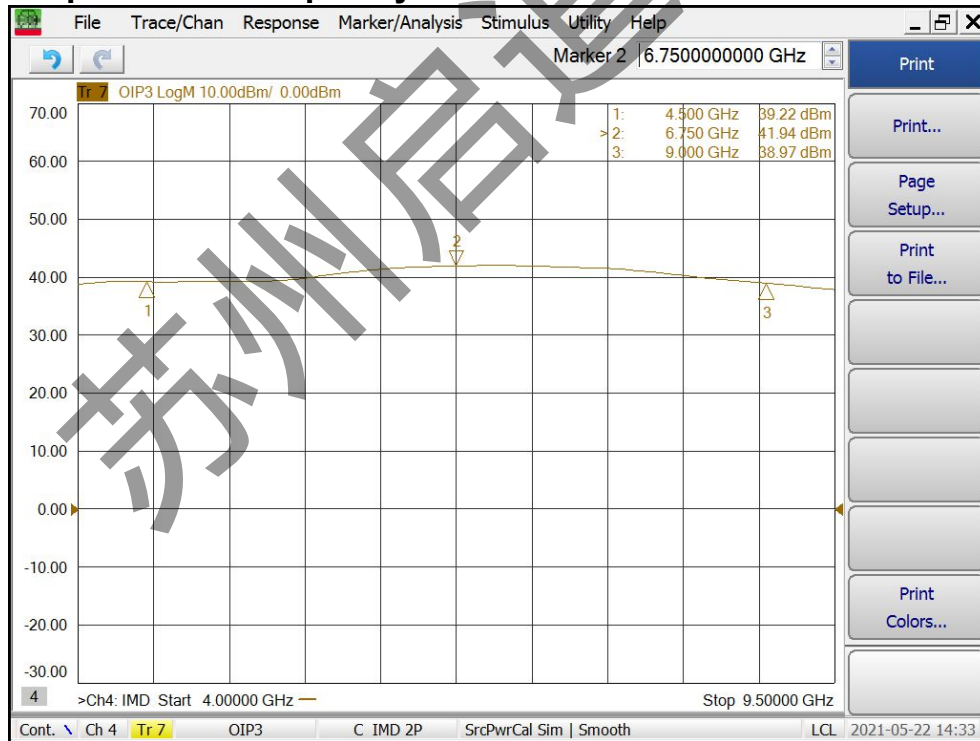
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**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



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**Absolute Maximum Ratings**

Parameter	Absolute Maximum
RF Input Power	+27dBm
DC Supply Voltage	+12V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

**ESD Sensitive Material**



**Outline**

