

EPA Series

4.6-4.9GHz 1W Power Amplifier

Features

- Frequency Range: 4.6 – 4.9GHz
- Gain: 27dB
- P_{1dB}: +30dBm
- OIP3: +41dBm
- Noise Figure: 7.5dB
- DC Voltage: +9V @ 850mA
- RF Connector: SMA-F

Photo



Description

EPA-4649B is a 1W high performance RF Power Amplifier, with standard frequency range of 4.6 to 4.9GHz.

Electrical Specifications @+25°C, Z_{in}=Z_{out}=50 Ω, V_{supply} = +9VDC

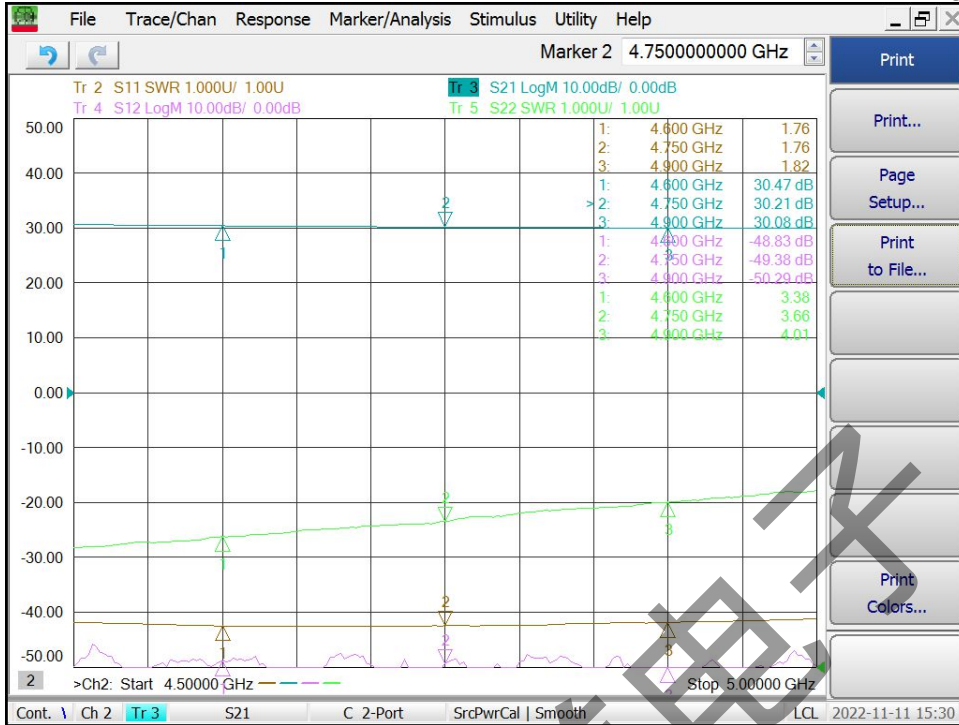
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	4.6		4.9
Gain (S21)	dB	27	30	
Gain Flatness	dB		±0.3	±0.5
Output Power P _{1dB}	dBm	+30	+31	
Output Third Order Intercept IP3	dBm	+41	+42	
Noise Figure	dB		7.5	8.5
Isolation S12	dB	-40	-50	
VSWR-Input (S11)			1.8:1	2.2:1
DC Power Supply - voltage	V	+8.5	+9.0	+9.5
DC Power Supply - current				
No RF Input	mA		750	850
P _{OUT} =+30dBm	mA		850	1050
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

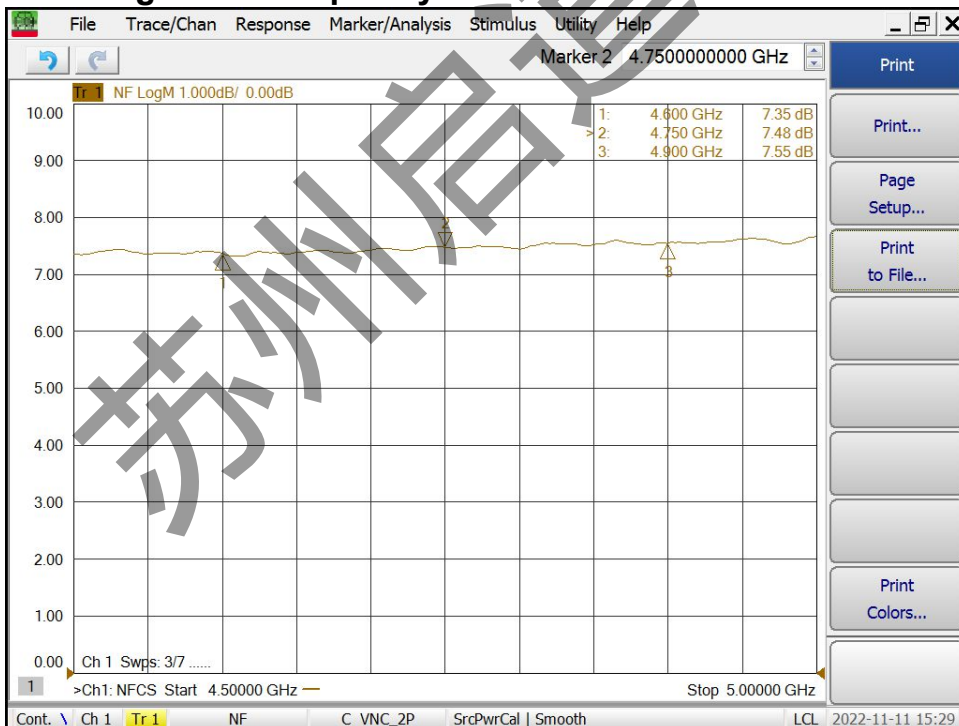
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



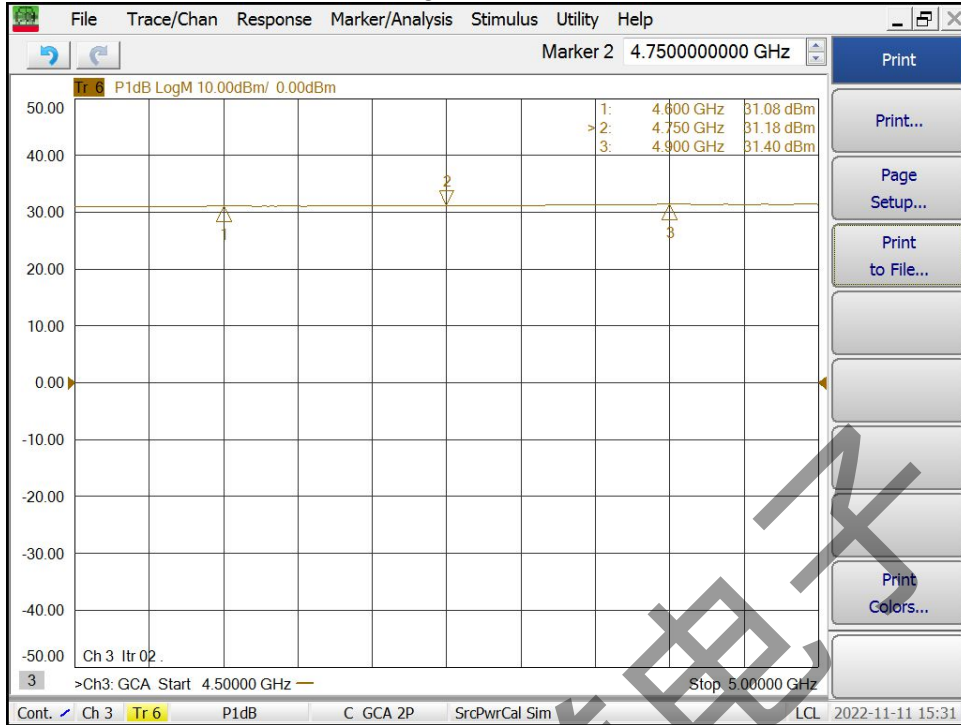
Noise Figure vs Frequency



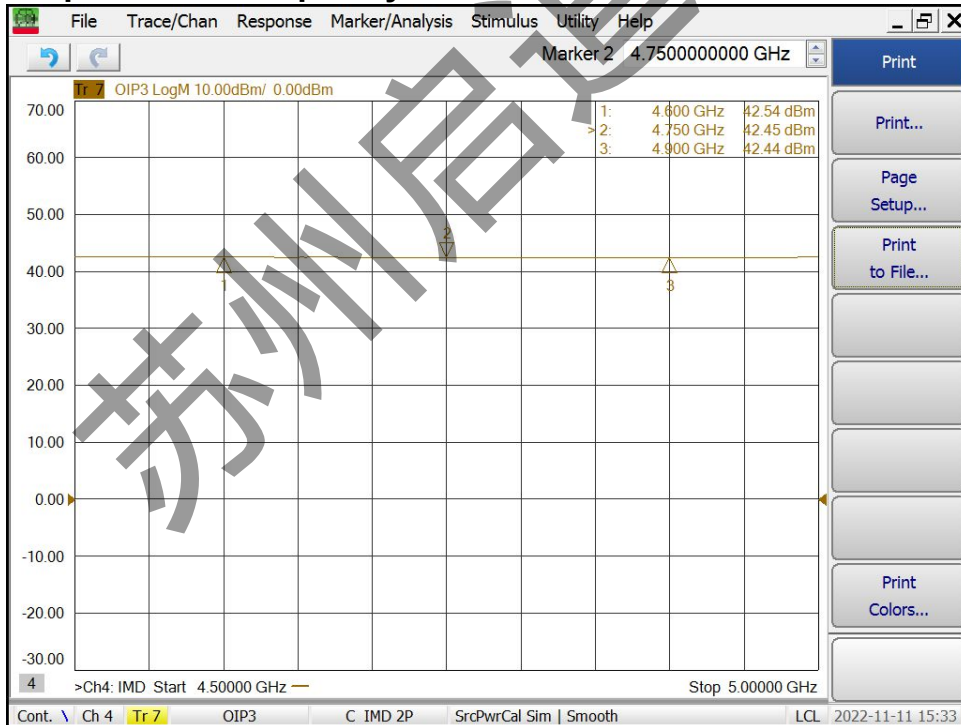
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Output P1dB vs Frequency



Output IP3 vs Frequency



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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+10dBm
DC Supply Voltage	+12V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline

