

## EPA Series

## 10MHz – 20GHz RF Amplifier

### Features

- Frequency Range: 0.01-20GHz
- Gain: 17dB
- $P_{1dB}$ : +22.5dBm
- OIP3: +32dBm
- Noise Figure: 3.6dB (typ.)
- DC Power: 12V or 15V @ 230mA
- Internally Voltage Regulated
- SMA-female

### Photo



### Description

EPA-200T is a wideband RF/Microwave Amplifier, with frequency range of 10MHz to 20GHz.

### Electrical Specifications @+25 °C, $Z_{in}=Z_{out}=50 \Omega$ , DC Supply = +12VDC

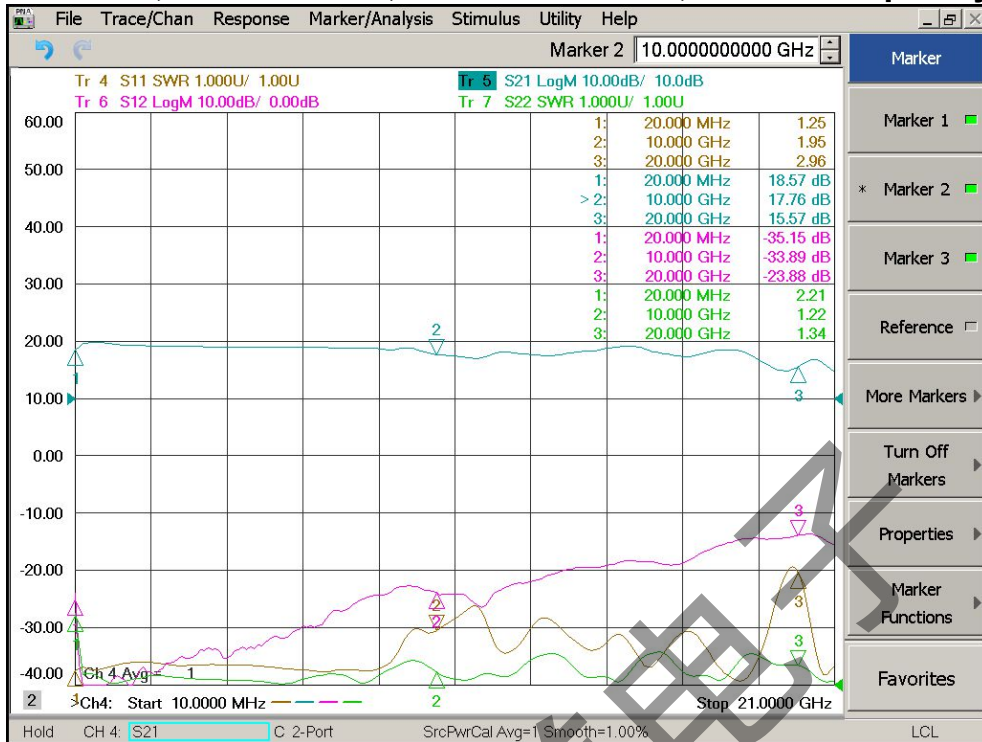
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	0.01		20
Gain S21	f = 10MHz	dB	17.0	18.5
	f = 10GHz	dB	16.0	17.5
	f = 20GHz	dB	14.0	15.5
Gain Flatness	dB		±1.5	±2.0
Output Power $P_{1dB}$	f = 10GHz	dBm	+21	+22.5
Saturated Output Power $P_{Sat}$	f = 10GHz	dBm	+22	+23.5
Output Third Order Intercept IP3	f = 10GHz	dBm	+30	+32
Noise Figure	f = 10GHz	dB	3.6	5.0
Reverse Isolation S12	f = 10GHz	dB	-28	-33
Input VSWR S11	f = 10GHz		2.0:1	2.5:1
Output VSWR S22	f = 10GHz		1.5:1	2.0:1
DC Power Supply - voltage	V	11	12	15
DC Power Supply - current	mA		230	270

**WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C**

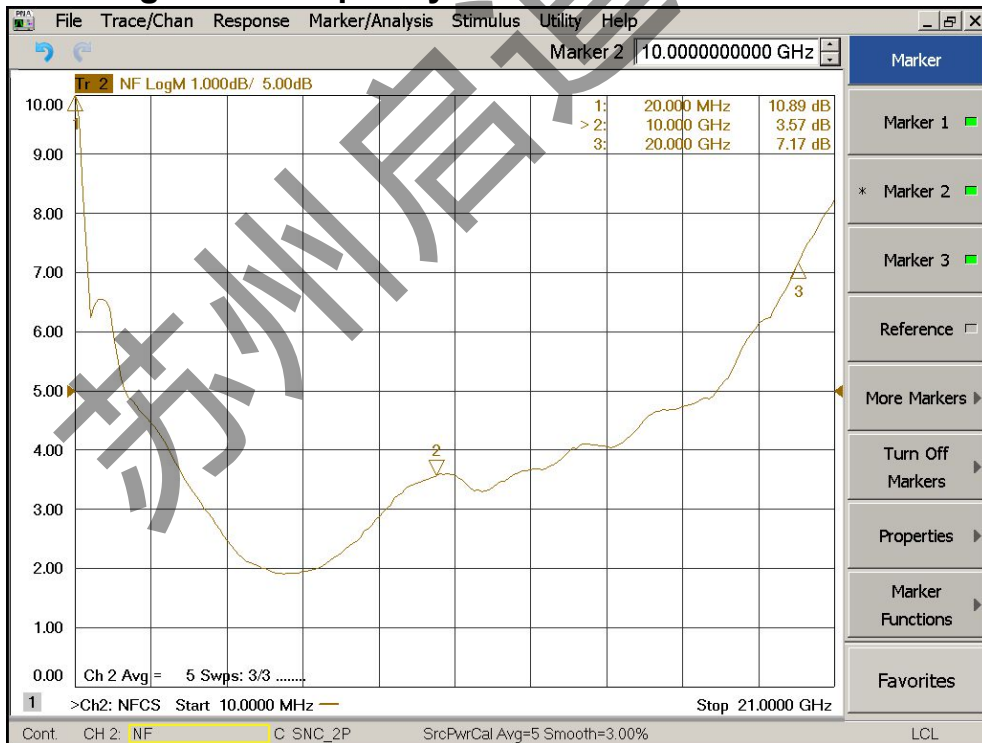
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**Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency**



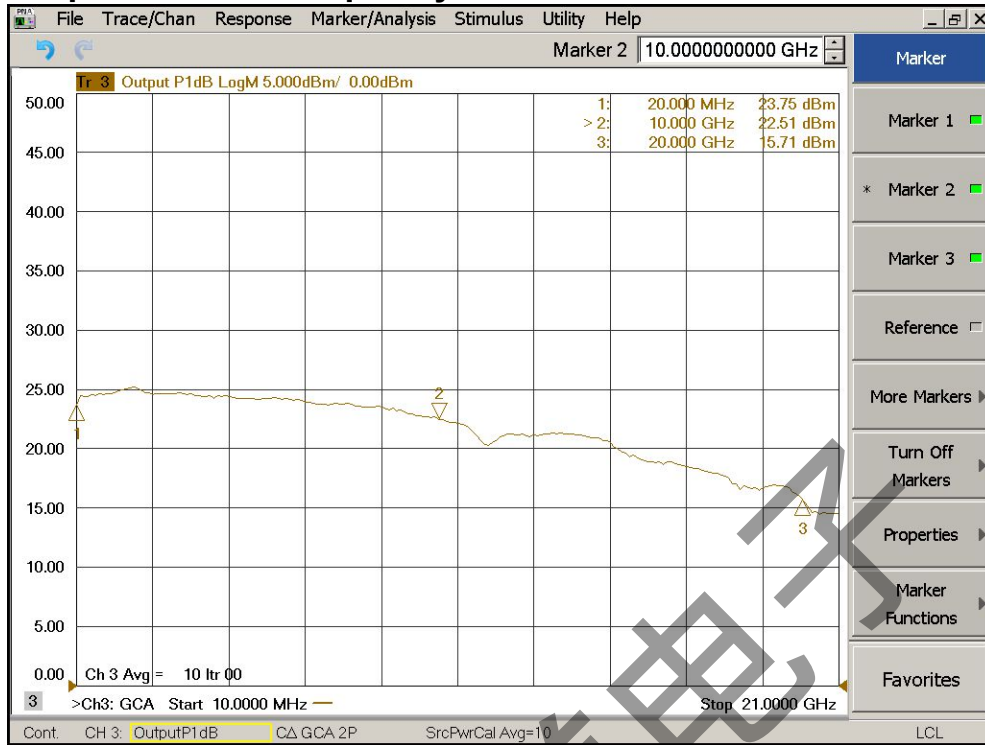
**Noise Figure vs Frequency**



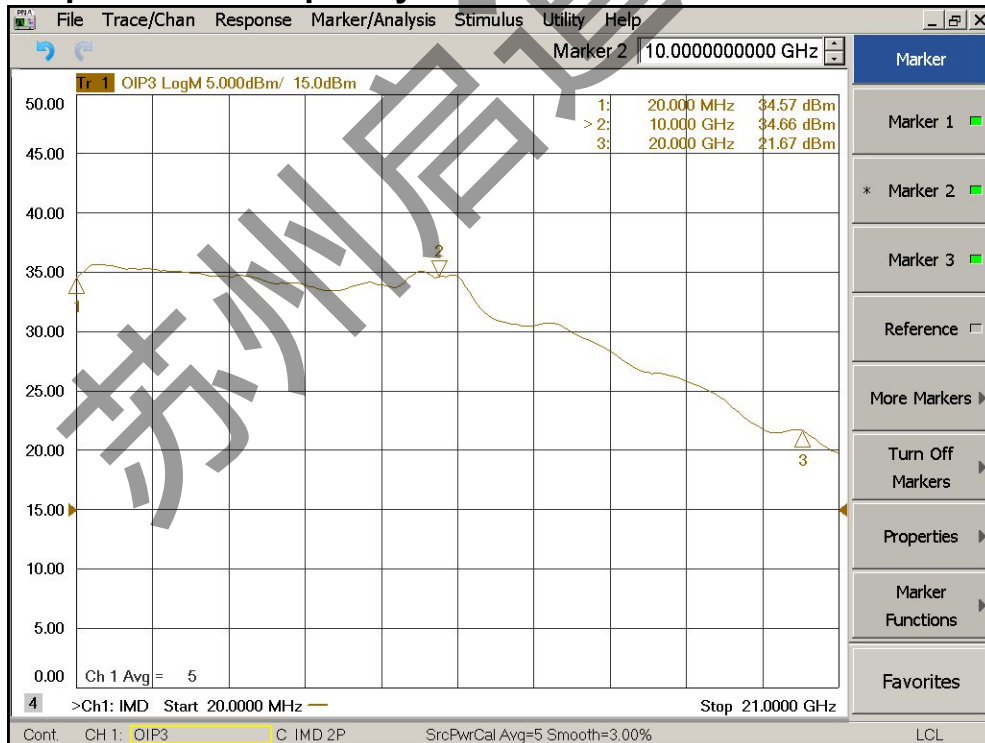
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**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



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### Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+20V
RF Input Power	+23dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### ESD Sensitive Material



### Outline

