

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 Ω, DC Supply = +12VDC

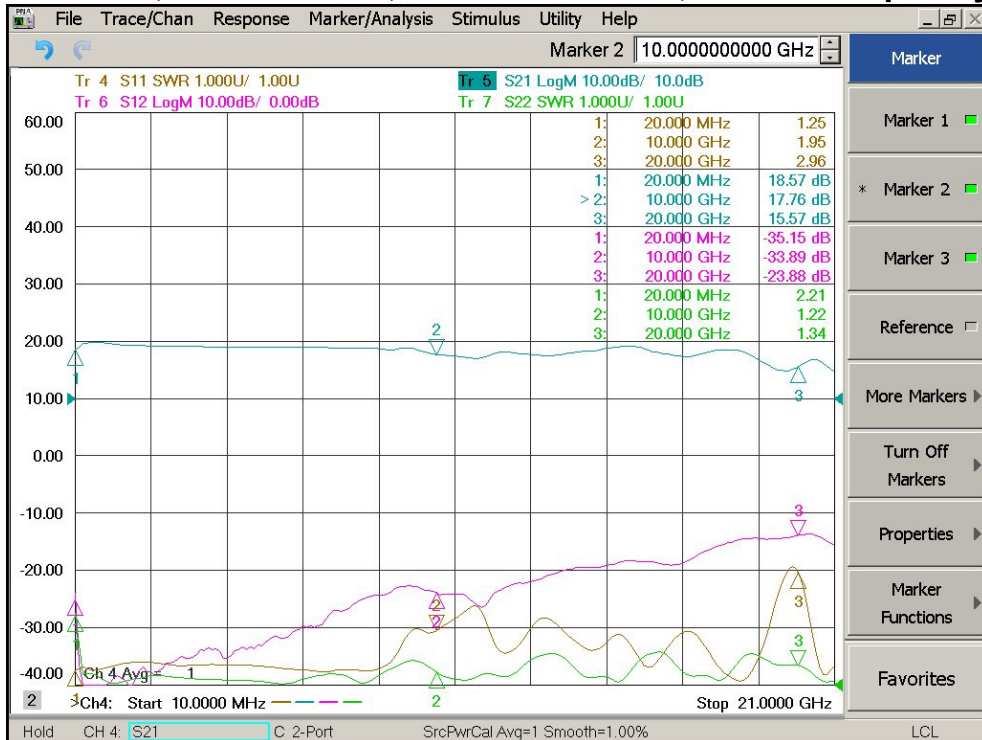
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	0.01		20
Gain S ₂₁	f = 10MHz	17.0	18.5	
	f = 10GHz	16.0	17.5	
	f = 20GHz	14.0	15.5	
Gain Flatness	dB		±1.5	±2.0
Output Power P _{1dB}	f = 10GHz	+21	+22.5	
Saturated Output Power P _{Sat}	f = 10GHz	+22	+23.5	
Output Third Order Intercept IP ₃	f = 10GHz	+30	+32	
Noise Figure	f = 10GHz		3.6	5.0
Reverse Isolation S ₁₂	f = 10GHz	-28	-33	
Input VSWR S ₁₁	f = 10GHz		2.0:1	2.5:1
Output VSWR S ₂₂	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

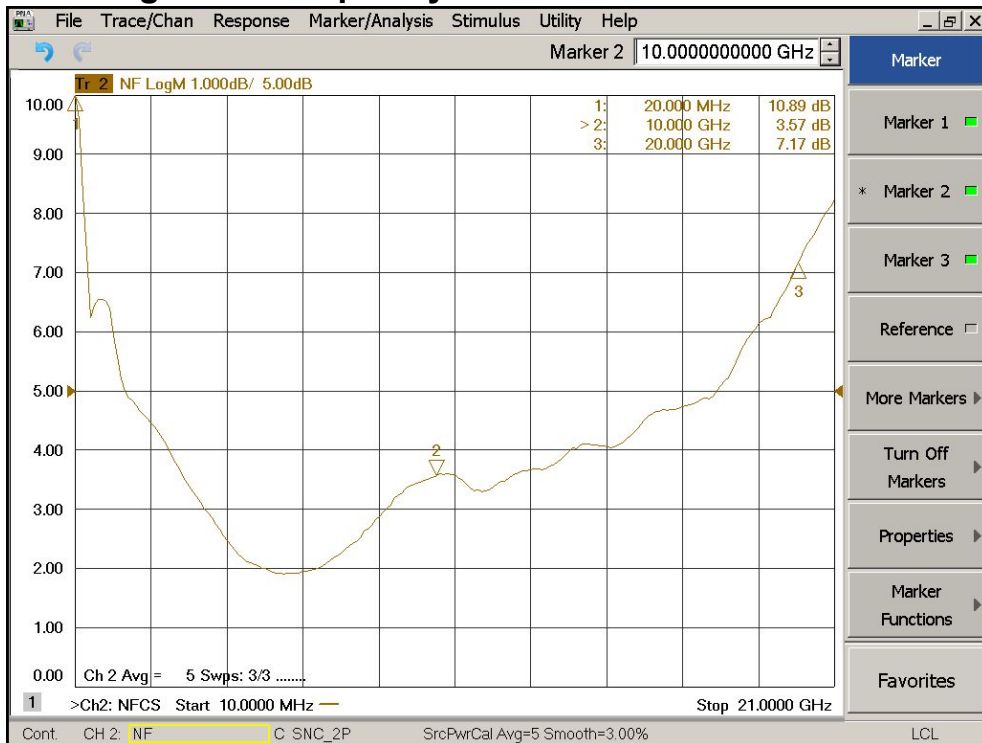
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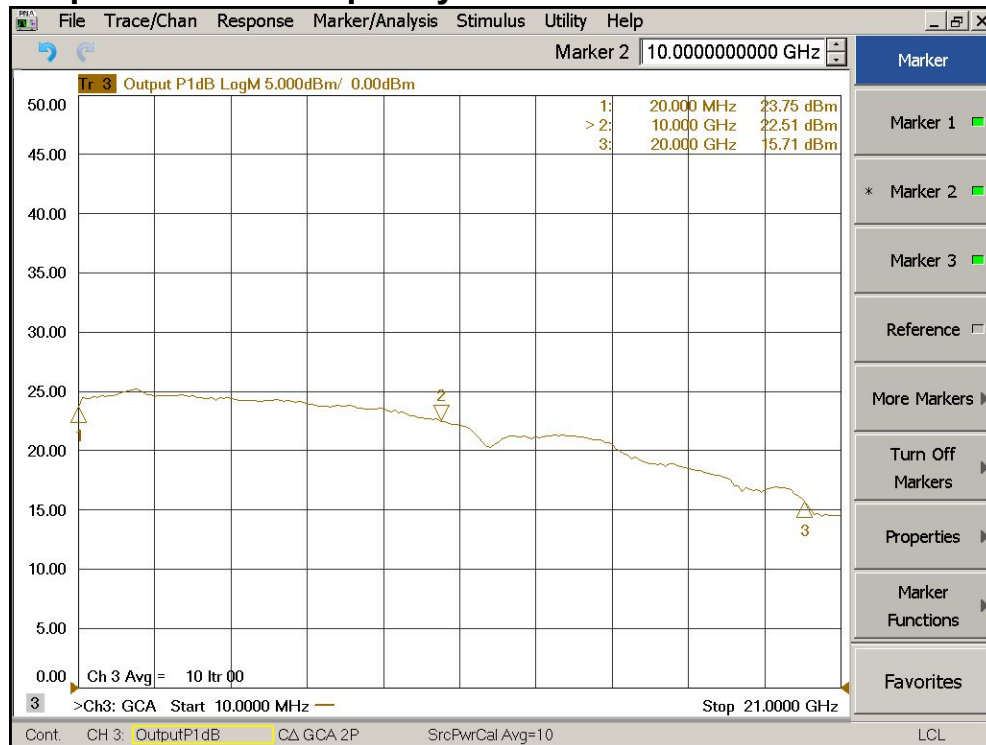
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



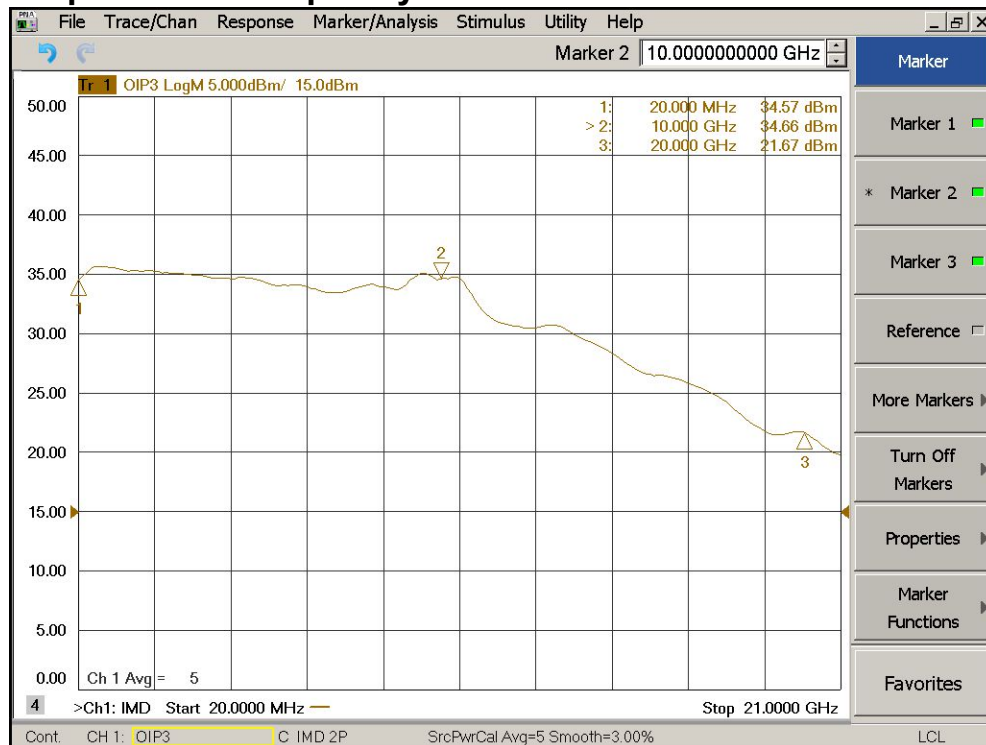
Noise Figure vs Frequency



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

