

ENA Series

50 – 1000MHz Low Noise Amplifier

Features

- Frequency Range: 50-1000MHz
- Gain: 44dB
- P_{1dB}: +26dBm
- OIP3: +40dBm
- Noise Figure: 0.7dB (typ.)
- DC Power: 12V or 15V @ 300mA
- Internally Voltage Regulated
- SMA-female

Photo



Description

ENA-140T is a high dynamic range Low Noise Amplifier, with frequency range of 50 to 1000MHz.

Electrical Specifications @+25 °C, Z_{in}=Z_{out}=50 Ω, DC Supply = +12VDC

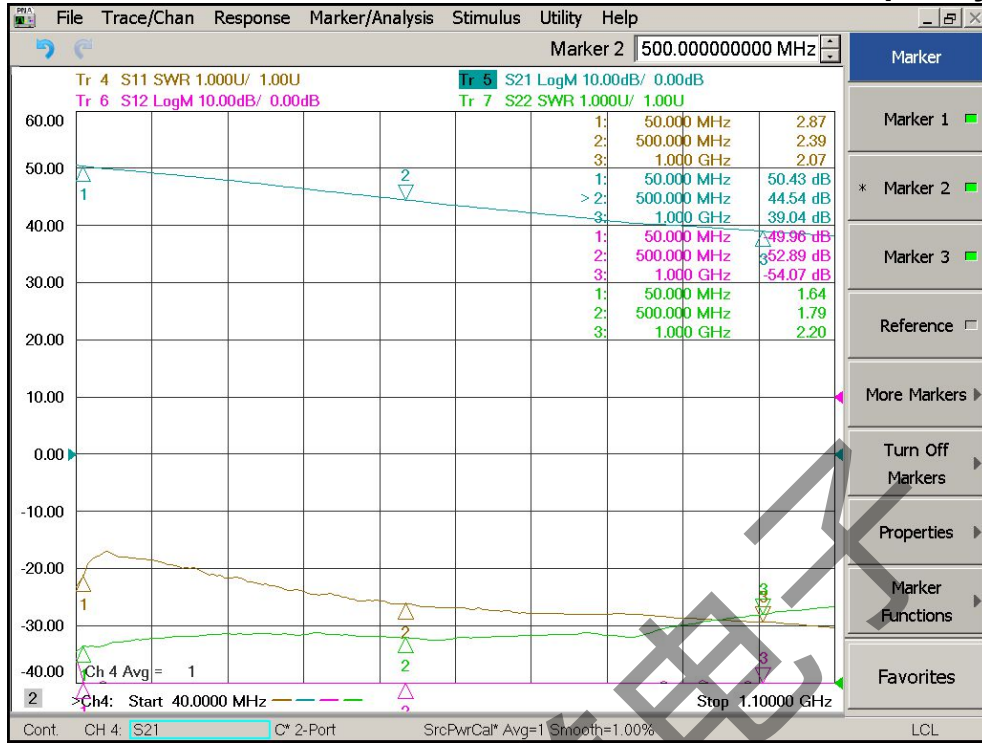
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	50		1000
Gain S ₂₁	f = 50MHz	48.5	50.0	
	f = 500MHz	43.0	44.5	
	f = 1000MHz	37.5	39.0	
Gain Flatness	dB		±5.5	±6.0
Output Power P _{1dB}	f = 500MHz	+25	+26	
Saturated Output Power P _{Sat}	f = 500MHz	+28	+29	
Output Third Order Intercept IP ₃	f = 500MHz	+38	+40	
Noise Figure	f = 500MHz		0.7	0.9
Reverse Isolation S ₁₂	f = 500MHz	-45	-50	
Input VSWR S ₁₁	f = 500MHz		2.5:1	3.0:1
Output VSWR S ₂₂	f = 500MHz		1.8:1	2.3:1
DC Power Supply - voltage	V	11	12	15
DC Power Supply - current	mA		300	350

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

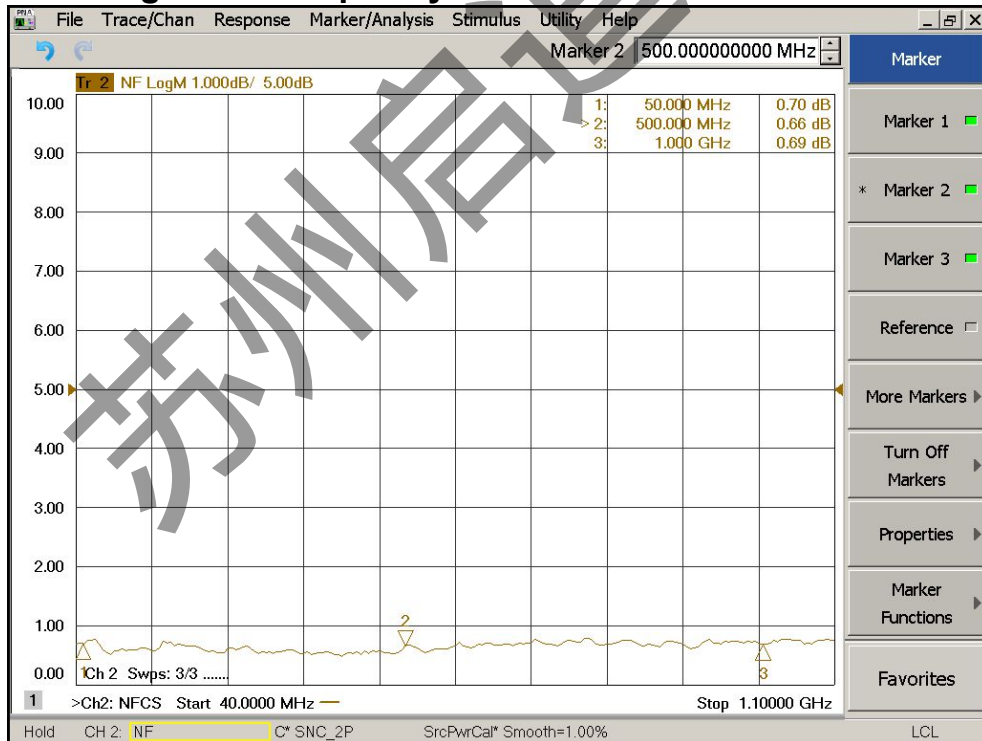
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



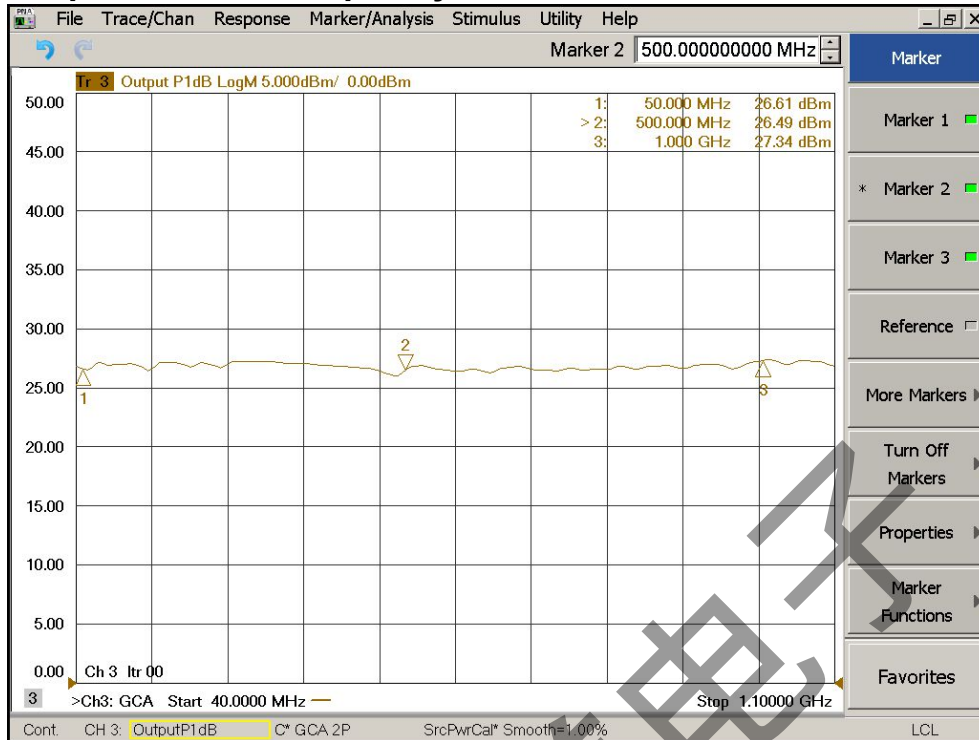
Noise Figure vs Frequency



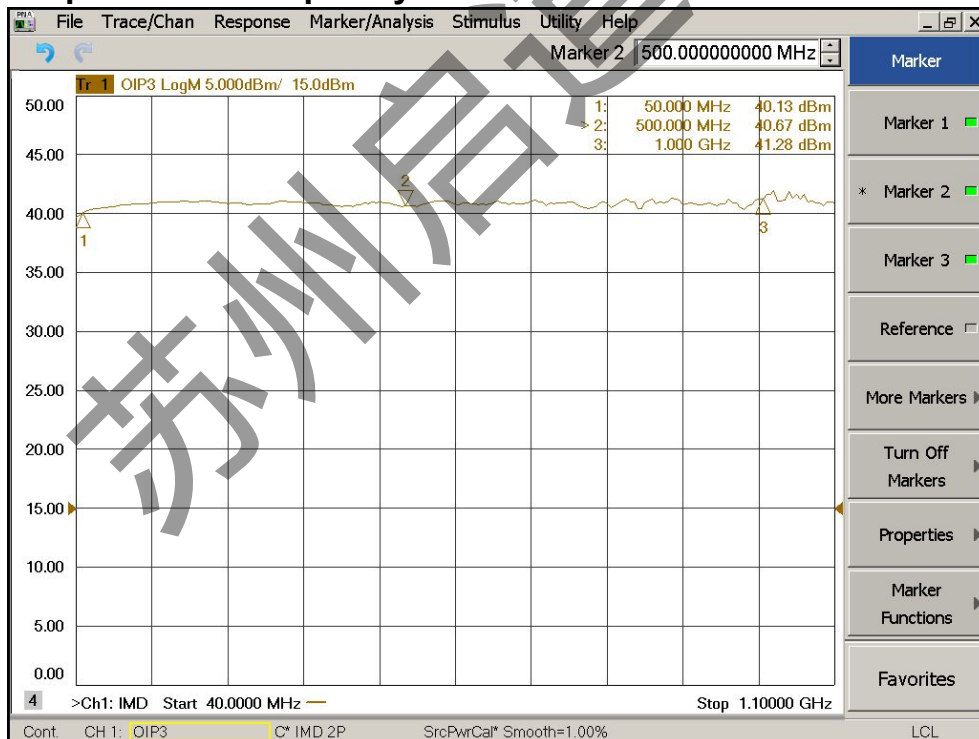
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Output P1dB vs Frequency



Output IP3 vs Frequency



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Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+20V
RF Input Power	+22dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline

