

ENA Series

30 – 250MHz Low Noise Amplifier

Features

- Frequency Range: 30-250MHz
- Gain: 47dB
- P_{1dB}: +20dBm
- OIP3: +36dBm
- Noise Figure: 0.4dB (typ.)
- DC Power: 12V @ 160mA
- Internally Voltage Regulated
- SMA-female

Photo



Description

ENA-30T is a high gain Low Noise Amplifier, with frequency range of 30 to 250MHz.

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

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	30		250
Gain S ₂₁	f = 30MHz		51	
	f = 140MHz	47	50	
	f = 250MHz		48	
Gain Flatness	dB		±1.5	±2.0
Output Power P _{1dB}	f = 140MHz	+18	+20	
Output Third Order Intercept IP ₃	f = 140MHz	+33	+36	
Noise Figure	f = 140MHz		0.4	0.6
Reverse Isolation S ₁₂	f = 140MHz	-40	-50	
Input VSWR S ₁₁	f = 140MHz		3.3:1	3.8:1
Output VSWR S ₂₂	f = 140MHz		2.1:1	2.7:1
DC Power Supply - Voltage	V	9	12	15
DC Power Supply - Current	mA		160	180

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

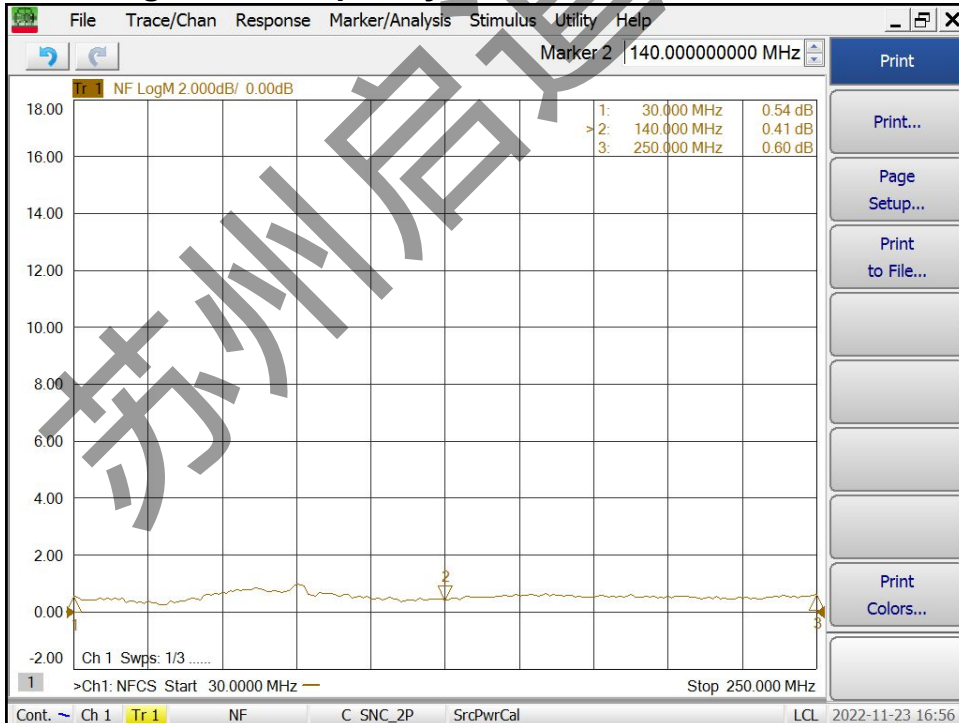
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



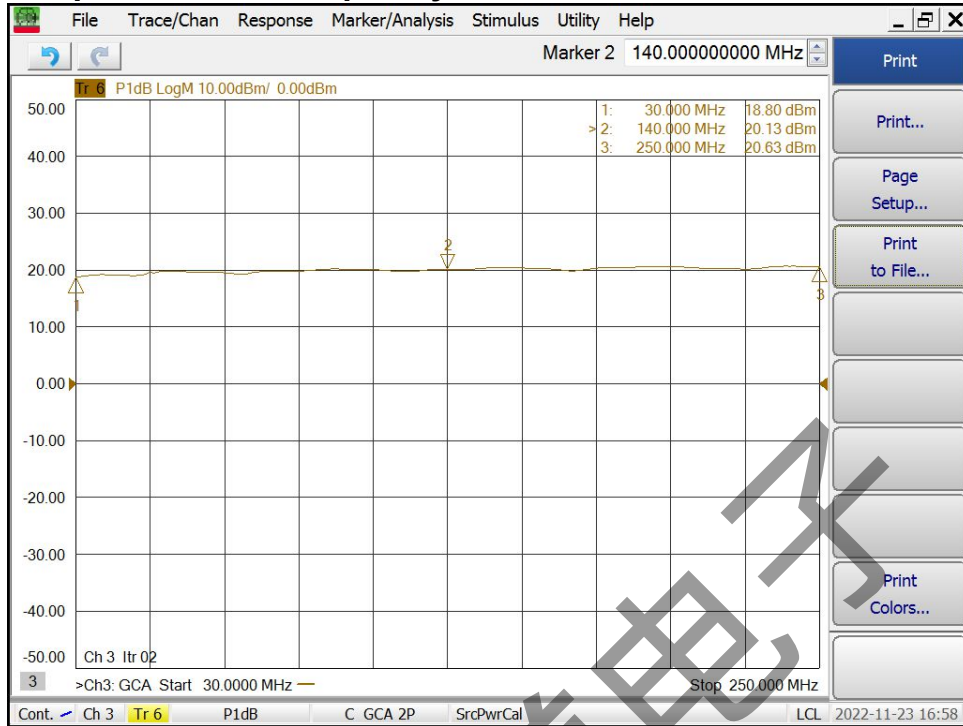
Noise Figure vs Frequency



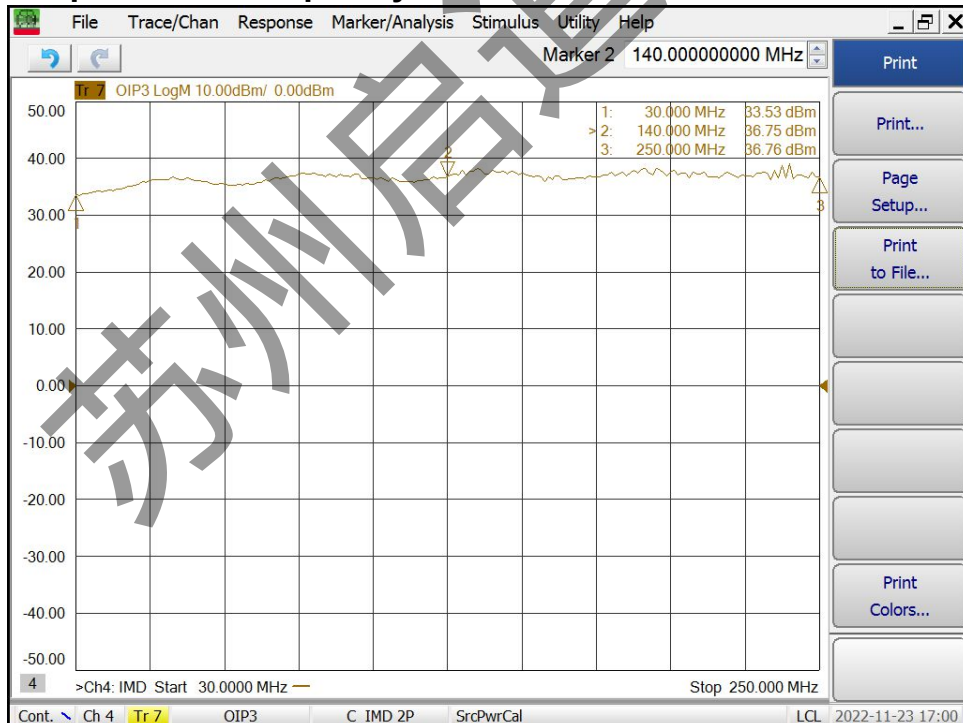
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Output P1dB vs Frequency



Output IP3 vs Frequency



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Absolute Maximum Ratings

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

ESD Sensitive Material



Outline

Unit: Inch [mm]

