

ENA Series

300 – 1200MHz Low Noise Amplifier

Features

- Frequency Range: 300-1200MHz
- Gain: 40dB
- P_{1dB}: +26dBm
- OIP3: +41dBm
- Noise Figure: 1.1dB (typ.)
- DC Power: 12V or 15V @ 260mA
- Internally Voltage Regulated
- SMA-female

Photo



Description

ENA-170T is a high dynamic range Low Noise Amplifier, with frequency range of 300 to 1200MHz.

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

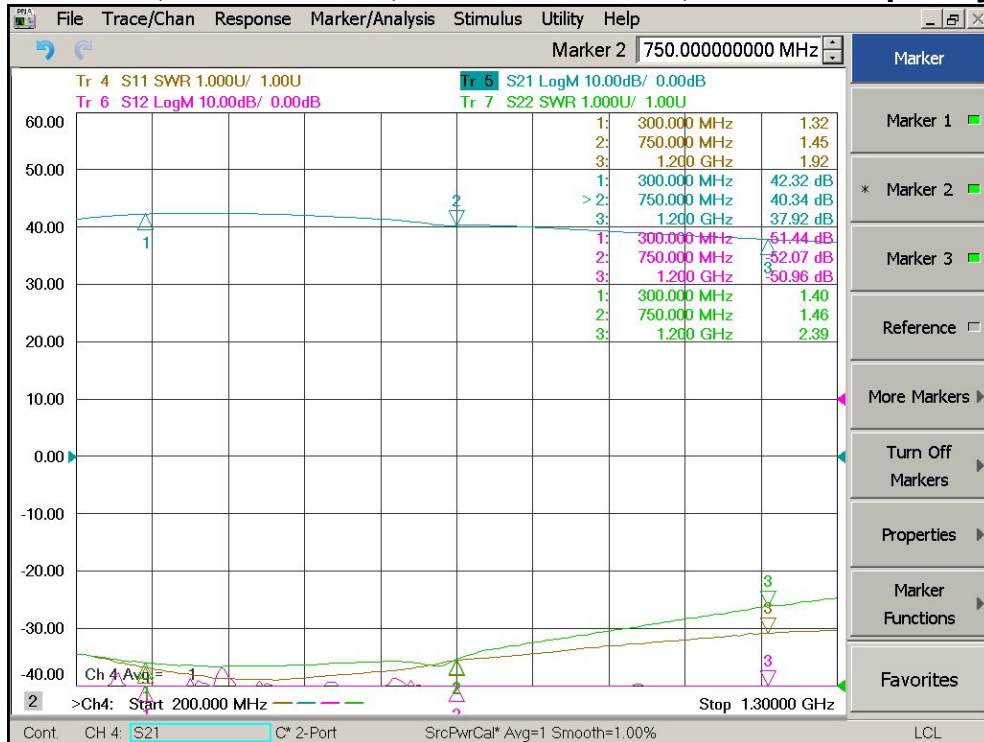
Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	300		1200
Gain S ₂₁	f = 300MHz	40.5	42.0	
	f = 750MHz	38.5	40.0	
	f = 1200MHz	36.5	38.0	
Gain Flatness	dB		±2.2	±2.7
Output Power P _{1dB}	f = 750MHz	+25	+26	
Saturated Output Power P _{Sat}	f = 750MHz	+28	+29	
Output Third Order Intercept IP3	f = 750MHz	+39	+41	
Noise Figure	f = 750MHz		1.1	1.5
Reverse Isolation S ₁₂	f = 750MHz	-45	-50	
Input VSWR S ₁₁	f = 750MHz		1.5:1	2.0:1
Output VSWR S ₂₂	f = 750MHz		1.5:1	2.0:1
DC Power Supply - voltage	V	11	12	15
DC Power Supply - current	mA		260	300

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

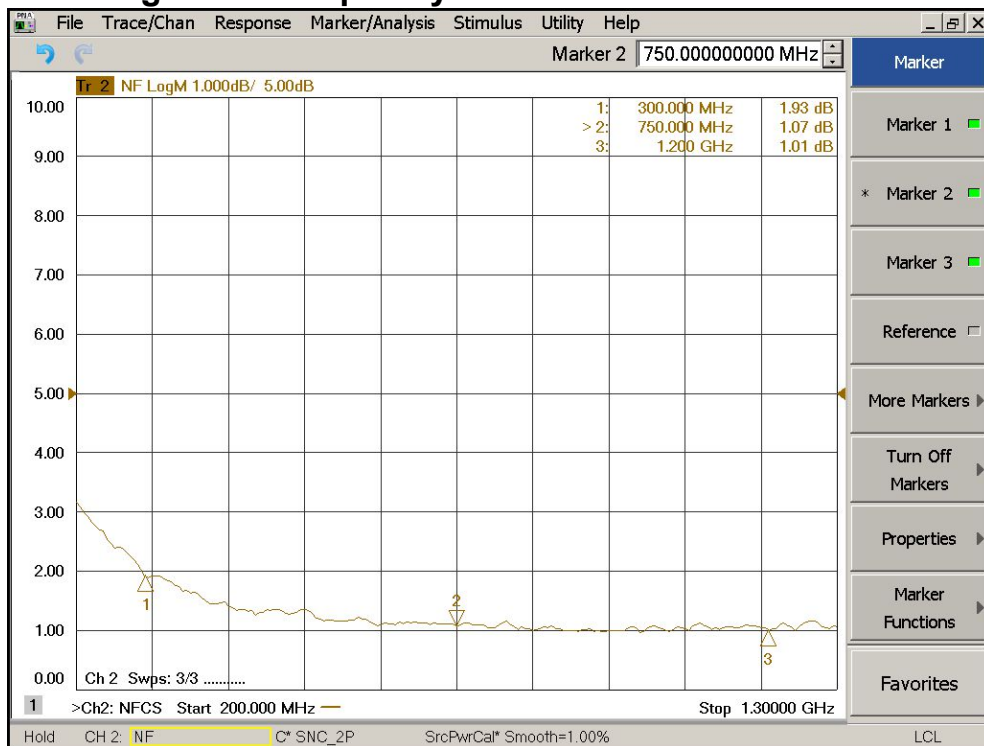
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



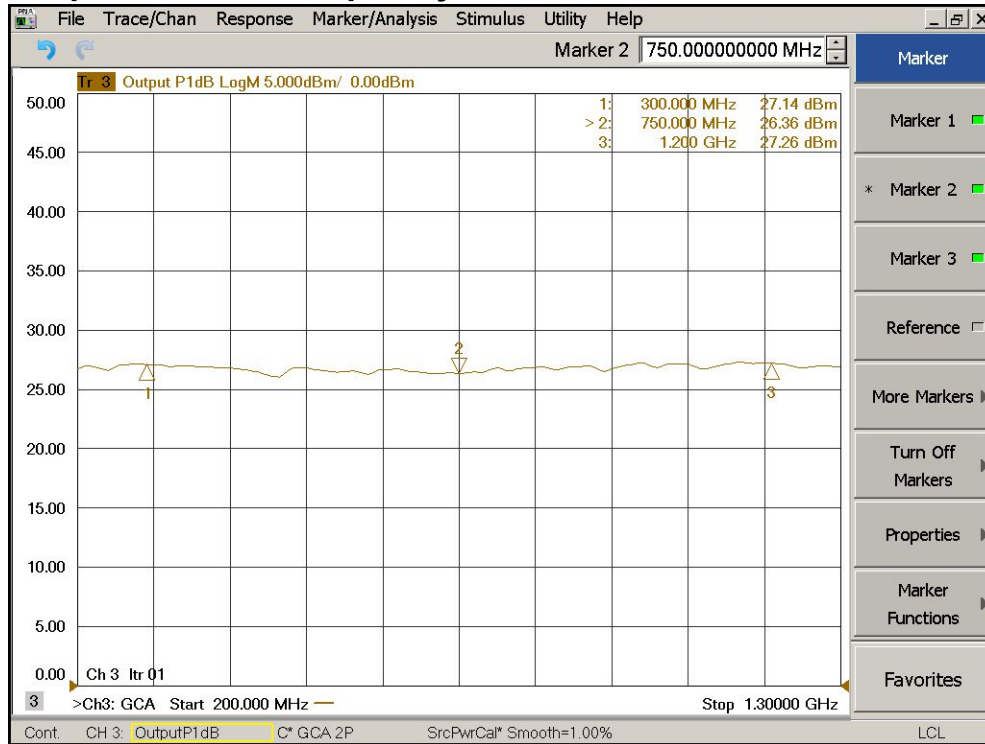
Noise Figure vs Frequency



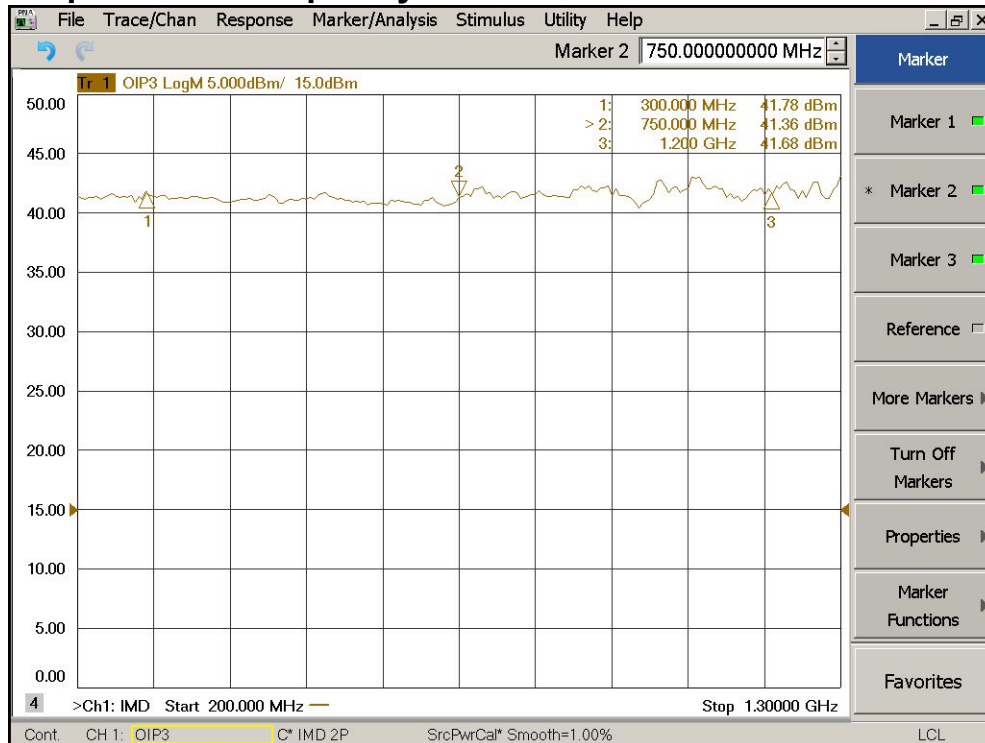
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Output P1dB vs Frequency



Output IP3 vs Frequency



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Absolute Maximum Ratings

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

ESD Sensitive Material



Outline

