

ENA Series

20 – 1000MHz Low Noise Amplifier

Features

- Frequency Range: 20-1000MHz
- Gain: 30dB
- P_{1dB}: +19dBm
- OIP3: +34dBm
- Noise Figure: 1.3dB (typ.)
- DC Power: +9V to +15V@140mA
- SMA Connector

Photo



Description

ENA-130T is a high performance Low Noise (& Driver) Amplifier, with standard frequency range of 20 to 1000MHz.

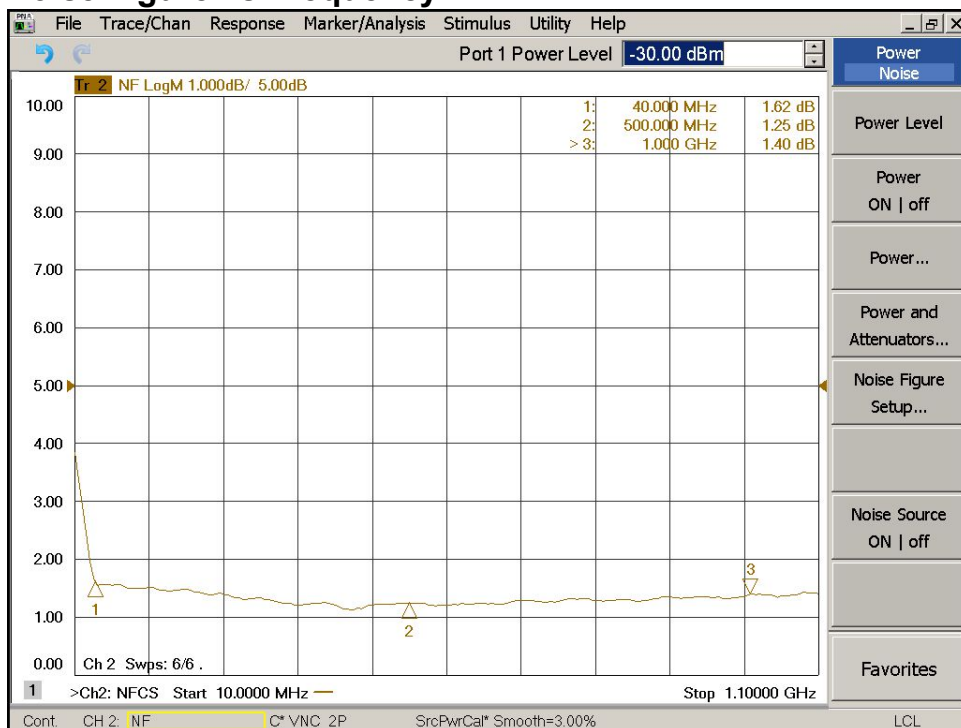
Electrical Specifications @+25 °C, Z_{in}=Z_{out}=50 Ω, DC Supply = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	20		1000
Gain S ₂₁ f = 20MHz	dB	29.0	30.0	
f = 500MHz	dB	29.5	30.5	
f = 1000MHz	dB	28.5	29.5	
Gain Flatness	dB		±0.8	±1.2
Gain Variation Over Temperature	dB/°C		0.02	0.03
Output Power P _{1dB} f = 500MHz	dBm	+17	+19	
Saturated Output Power P _{Sat} f = 500MHz	dBm	+18	+20	
Output Third Order Intercept IP ₃ f = 500MHz	dBm	+31	+34	
Noise Figure f = 500MHz	dB		1.3	1.5
Reverse Isolation S ₁₂ f = 500MHz	dB	-50	-60	
Input VSWR S ₁₁ f = 500MHz			1.4:1	2.0:1
Output VSWR S ₂₂ f = 500MHz			1.2:1	2.0:1
DC Power Supply - voltage	V	9	12	15
DC Power Supply - current	mA		140	160
Operating Temperature	°C	-40		+85
Size (RF/DC feedthrough excluded)	Inch	1.79 (L) x 1.10 (W) x 0.45 (H)		
Weight	Oz	1.4		

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



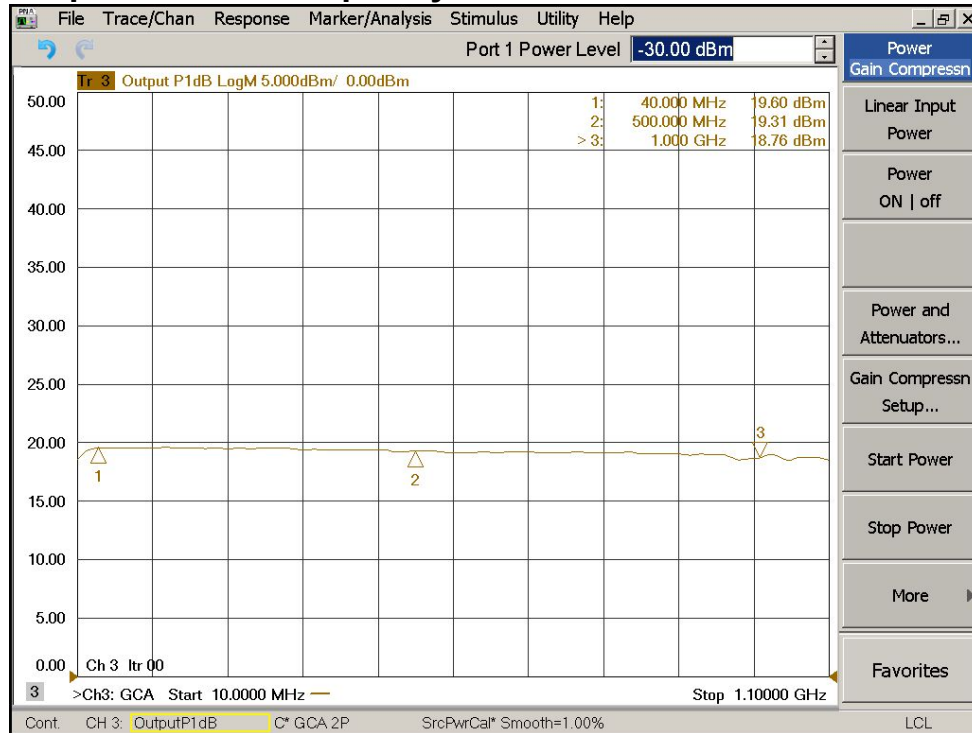
Noise Figure vs Frequency



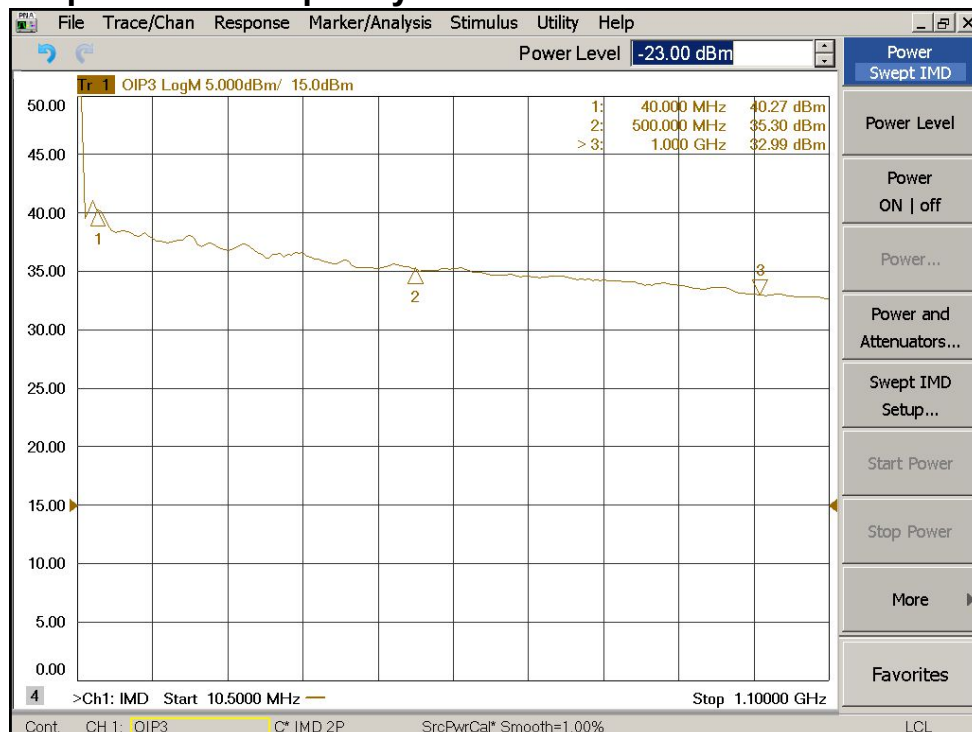
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Output P1dB vs Frequency



Output IP3 vs Frequency



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Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+20V
RF Input Power	+15dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline

