

## ENA Series

## 1 – 750MHz Low Noise Amplifier

### Features

- Frequency Range: 1-750MHz
- Gain: 70dB
- P<sub>1dB</sub>: +21dBm
- OIP3: +34dBm
- Noise Figure: 2.2dB (typ.)
- DC Power: 12V to 15V @ 190mA
- SMA-female

### Photo



### Description

ENA-250T is a high performance Low Noise (& Driver) Amplifier, with standard frequency range of 1 to 750MHz.

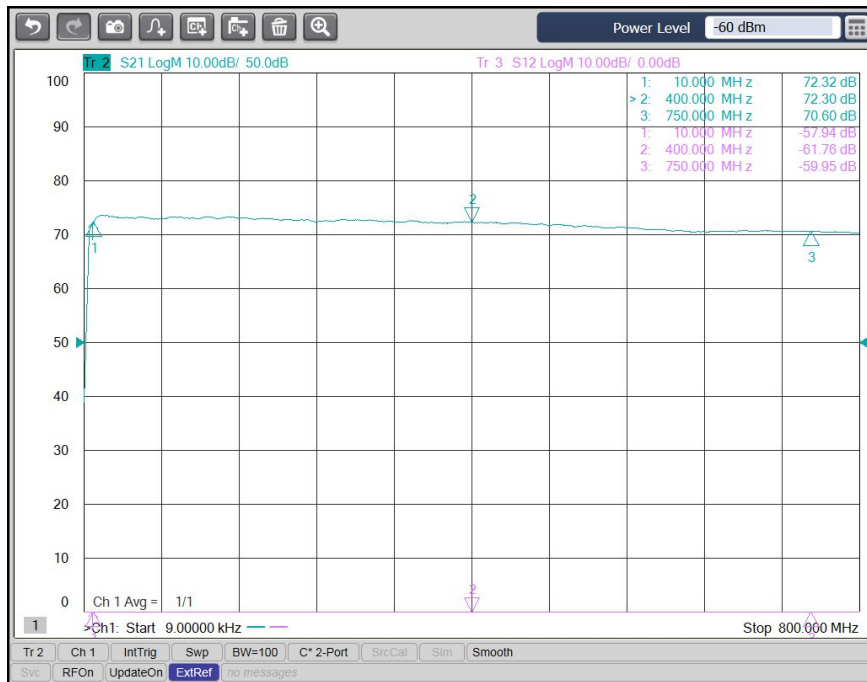
### Electrical Specifications @+25 °C, Z<sub>in</sub>=Z<sub>out</sub>=50 Ω, DC Supply = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	1		750
Gain S <sub>21</sub>	f = 1MHz	dB	65	67
	f = 10MHz	dB	70	73
	f = 400MHz	dB	70	72
	f = 750MHz	dB	68	70
Gain Flatness	f = 10 - 750MHz	dB	±0.9	±1.5
Output Power P <sub>1dB</sub>	f = 400MHz	dBm	+19	+21
Output Third Order Intercept IP3	f = 400MHz	dBm	+32	+34
Noise Figure	f = 400MHz	dB	2.2	2.5
Reverse Isolation S <sub>12</sub>	f = 400MHz	dB	-55	-60
Input VSWR S <sub>11</sub>	f = 400MHz		1.5:1	1.8:1
Output VSWR S <sub>22</sub>	f = 400MHz		1.7:1	2.0:1
DC Power Supply - voltage	V	11	12	15
DC Power Supply - current	mA		190	220
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		

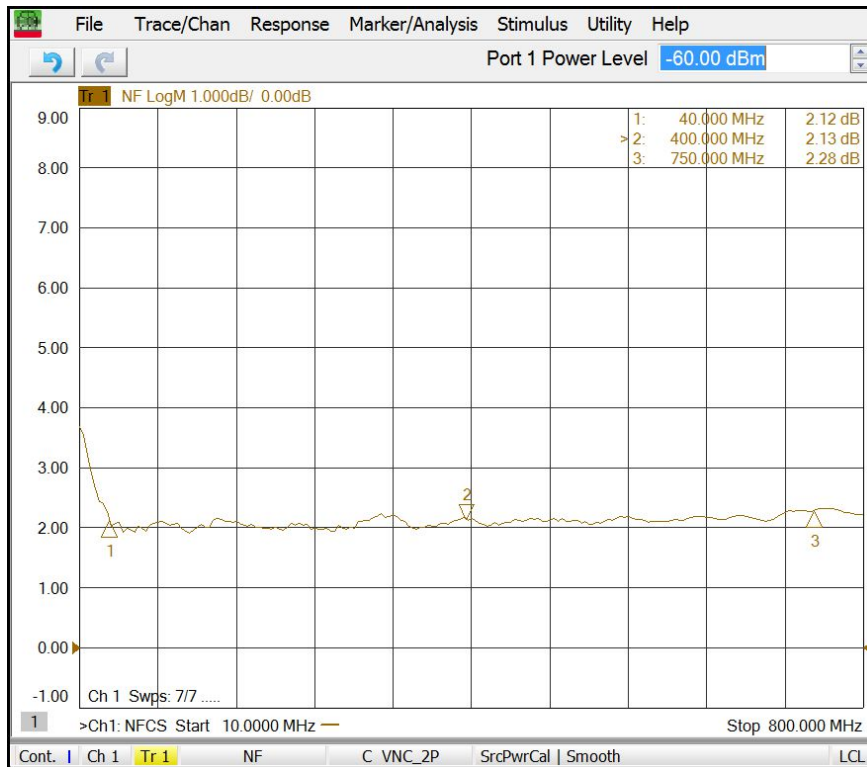
**ENA Series**

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**Gain S21, Isolation S12 vs Frequency**



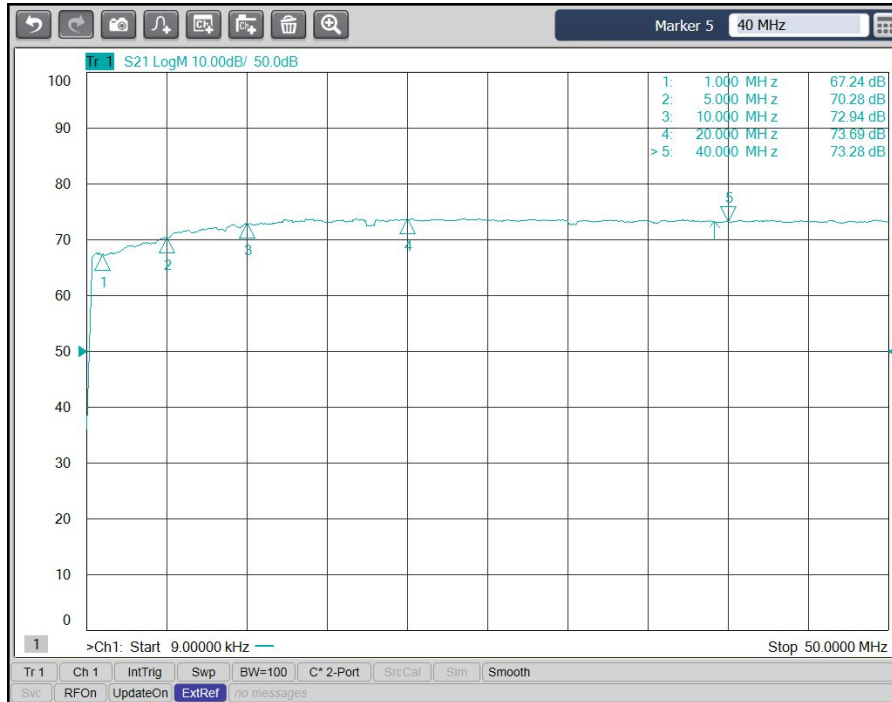
**Noise Figure vs Frequency**



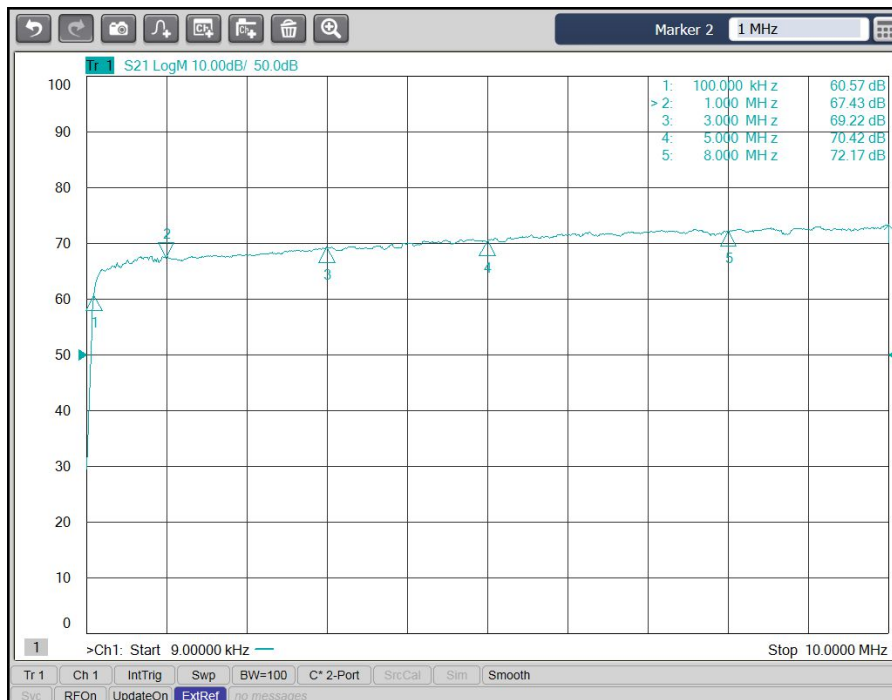
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**Gain S21 vs Frequency at Low Frequency**



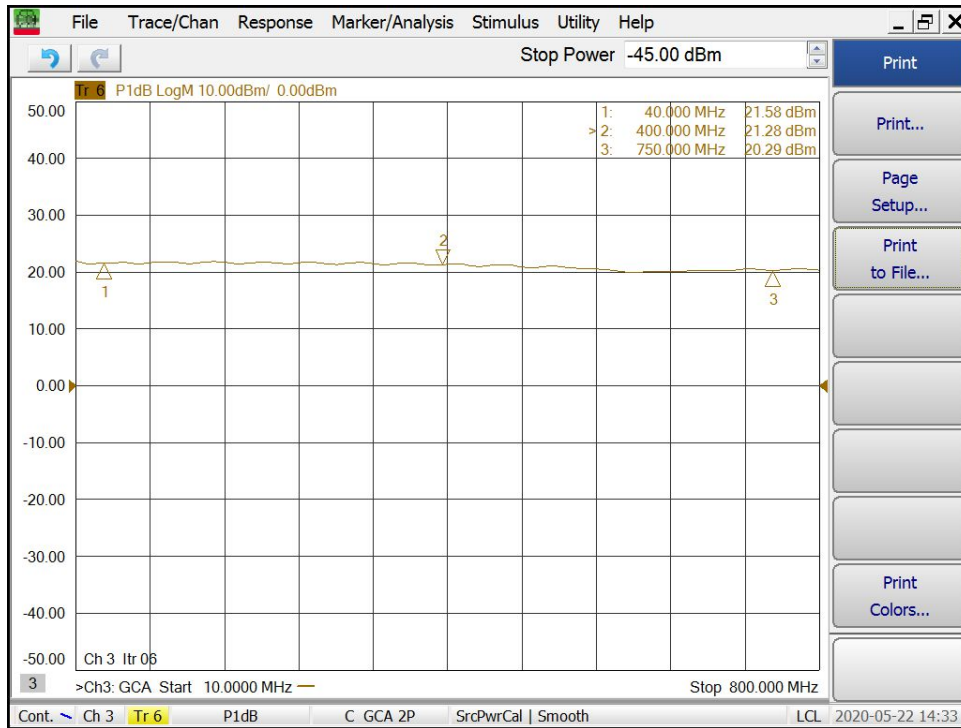
**Gain S21 vs Frequency at Low Frequency**



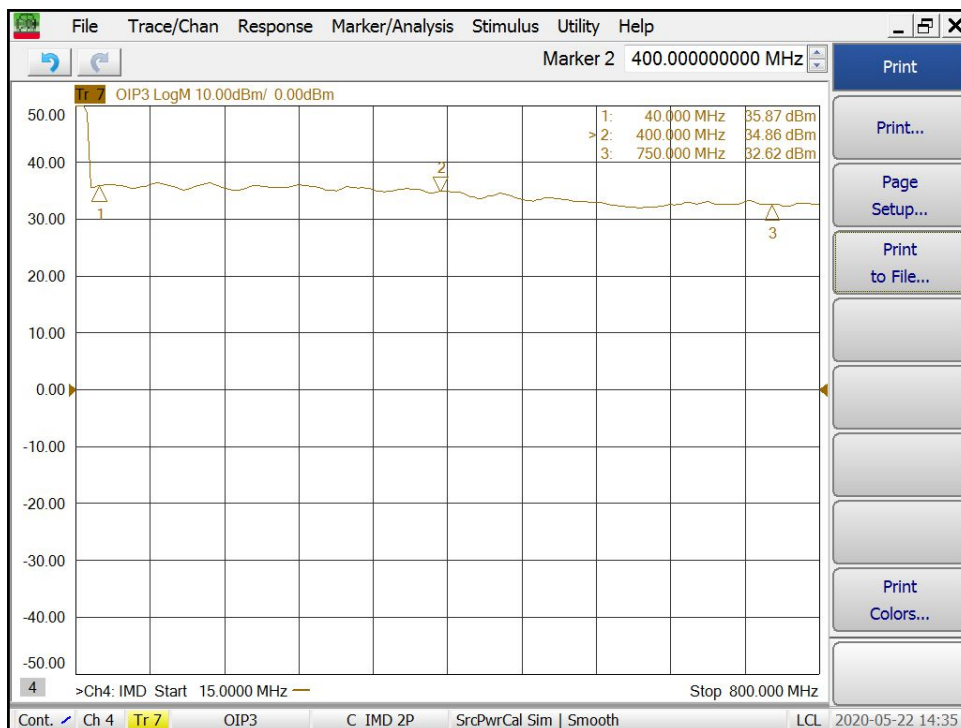
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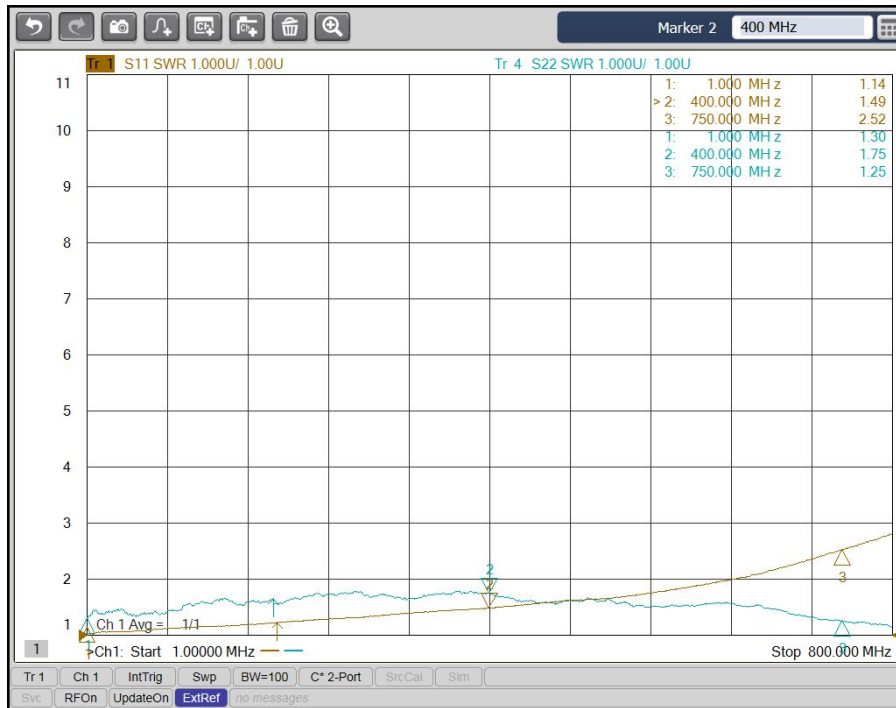
**Output P1dB vs Frequency**



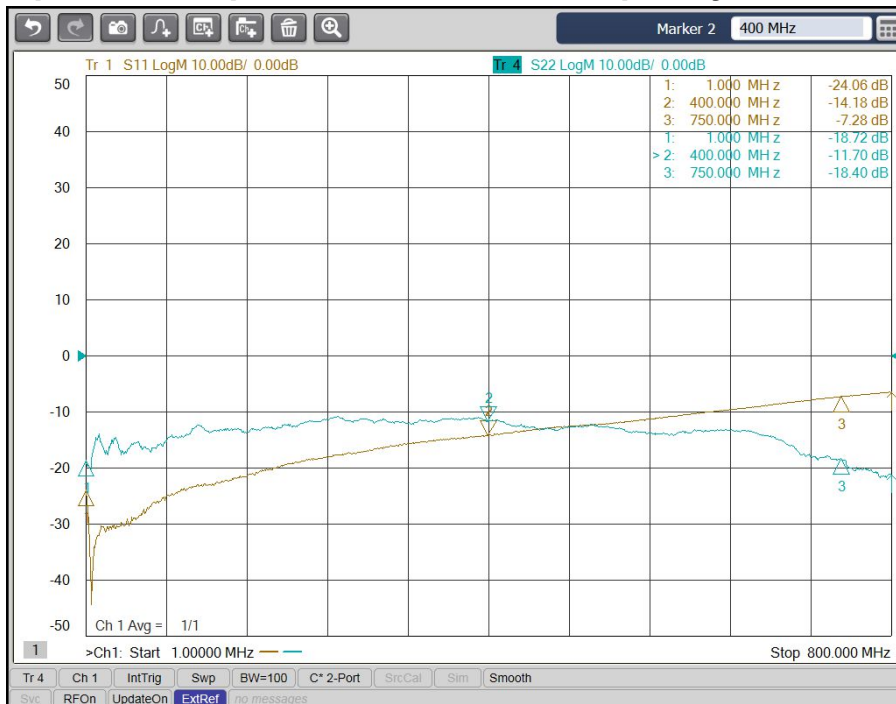
**Output IP3 vs Frequency**



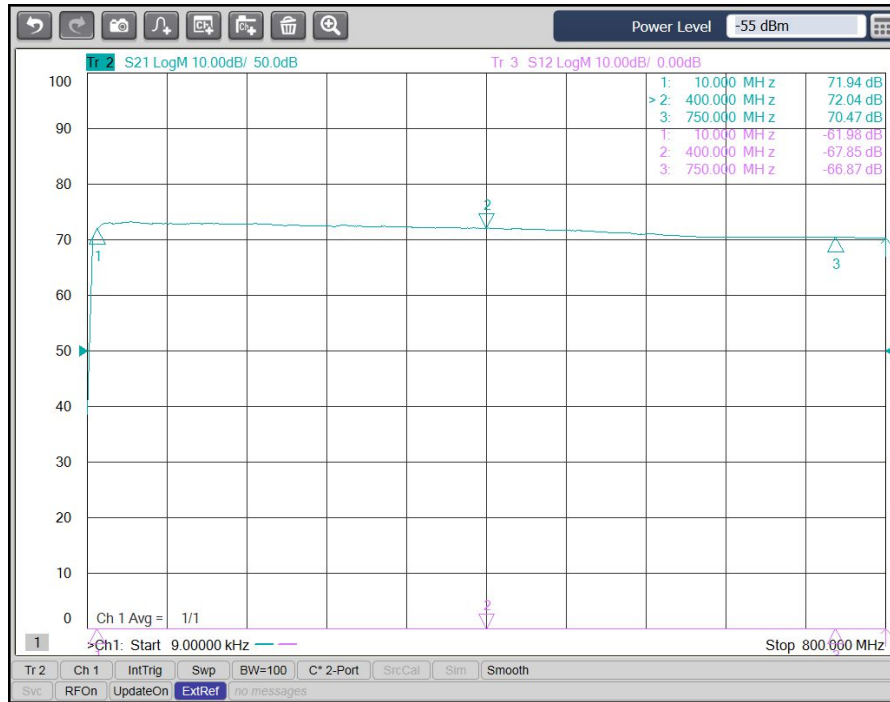
**VSWR S11 and S22 vs Frequency**



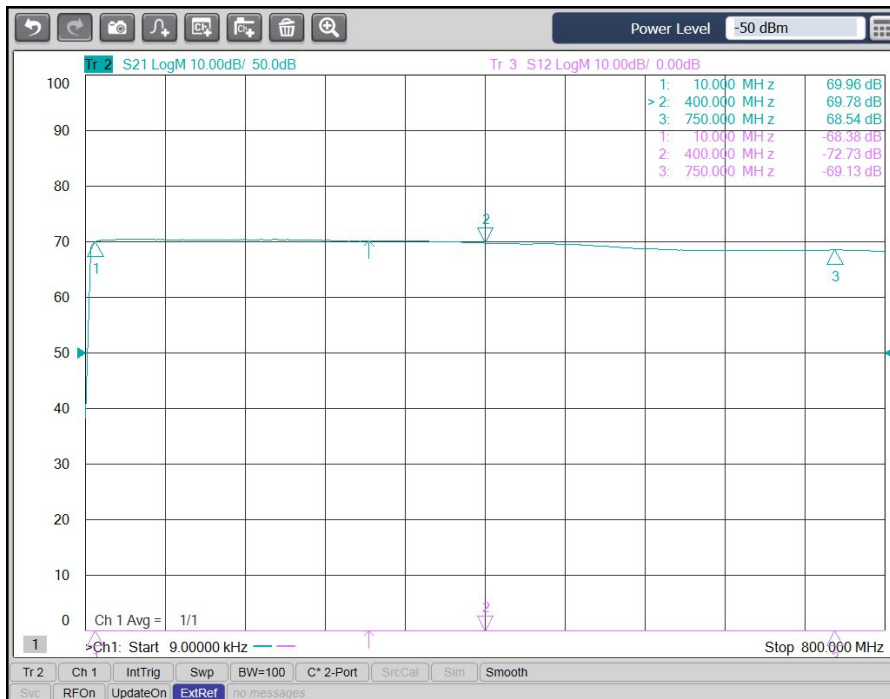
**Input and Output Return Loss vs Frequency**



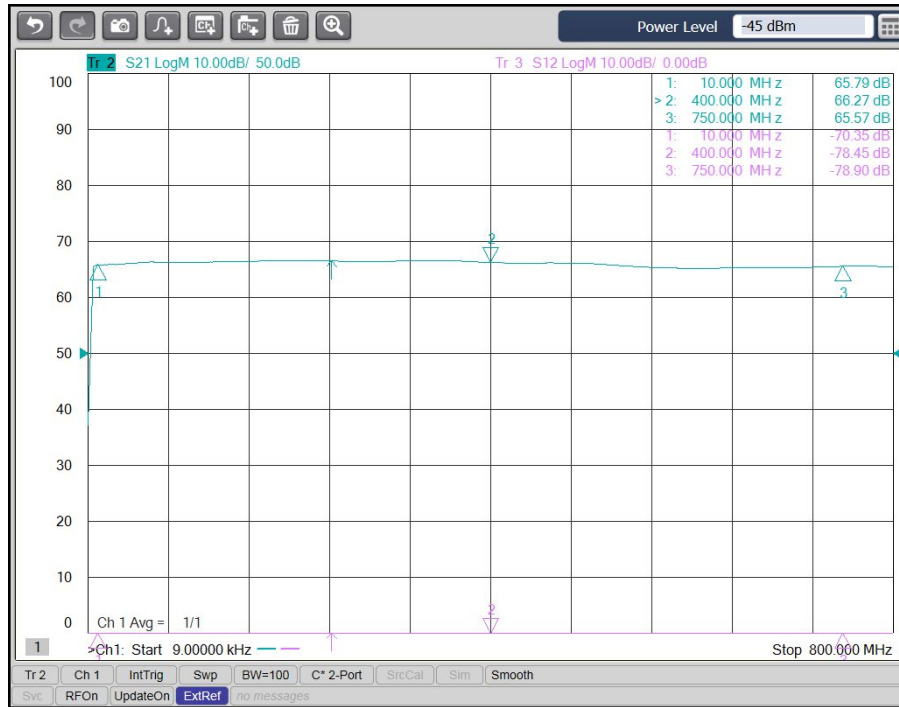
**Gain Compression vs Frequency at Pin=-55dBm**



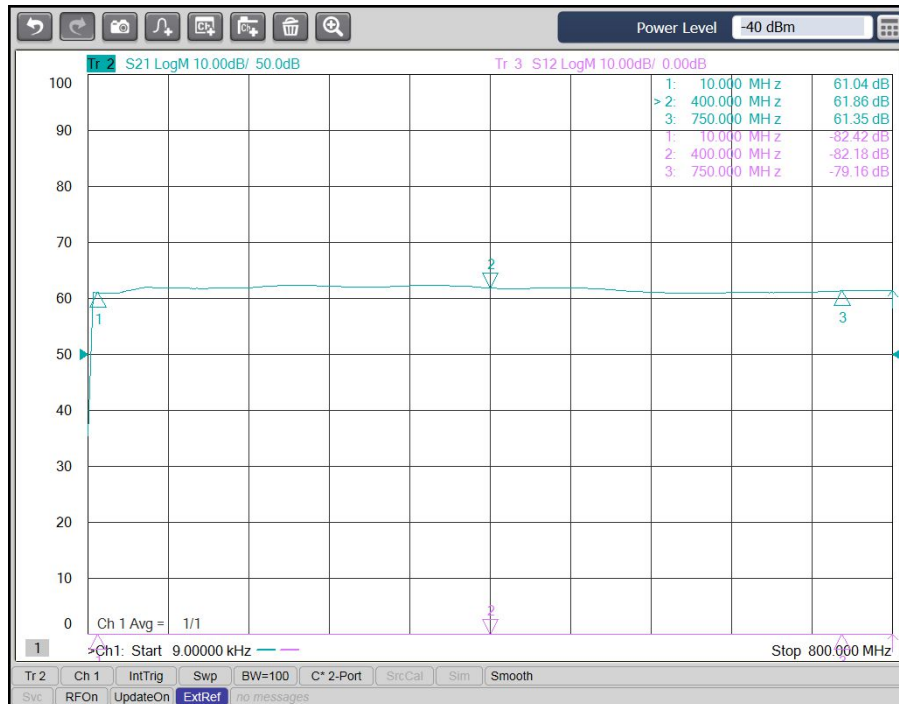
**Gain Compression vs Frequency at Pin=-50dBm**



**Gain Compression vs Frequency at Pin=-45dBm**



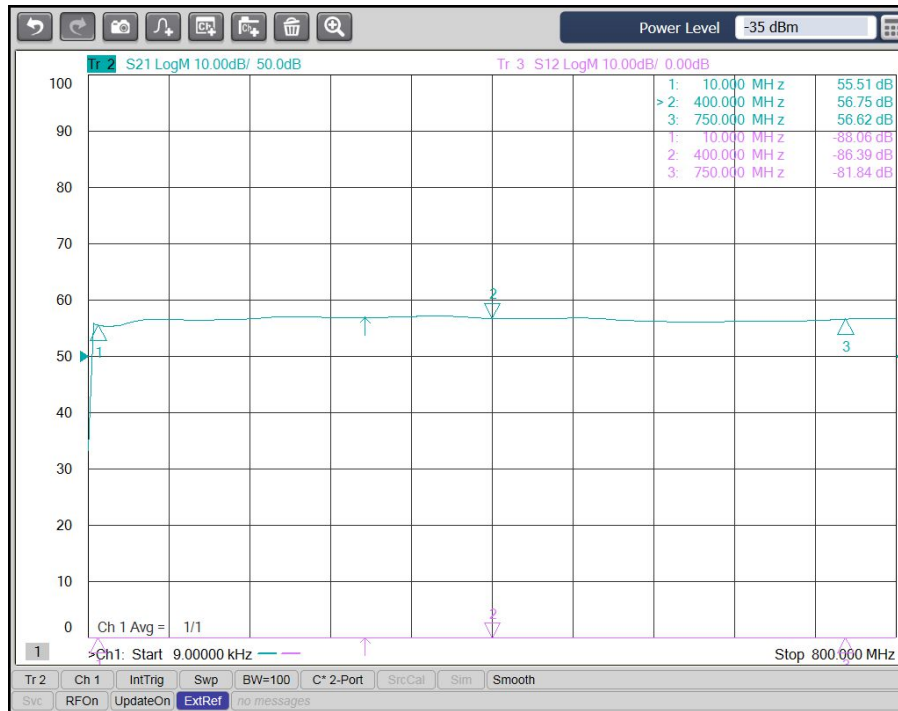
**Gain Compression vs Frequency at Pin=-40dBm**



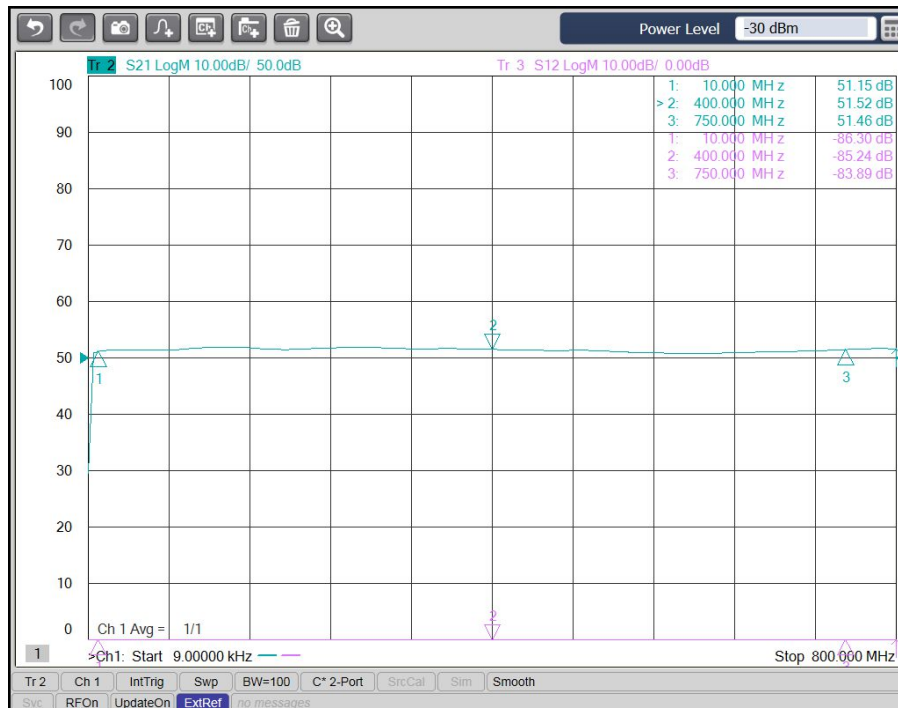
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**Gain Compression vs Frequency at Pin=-35dBm**



**Gain Compression vs Frequency at Pin=-30dBm**

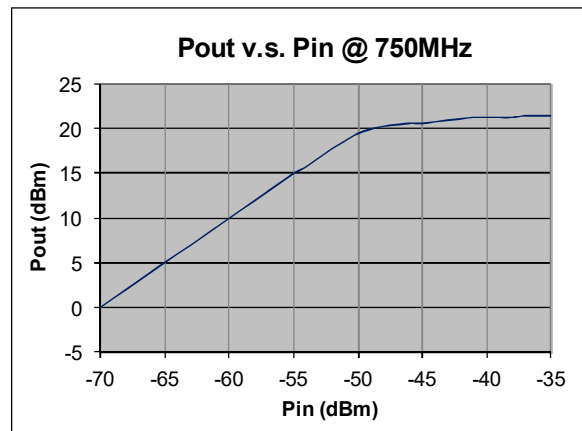
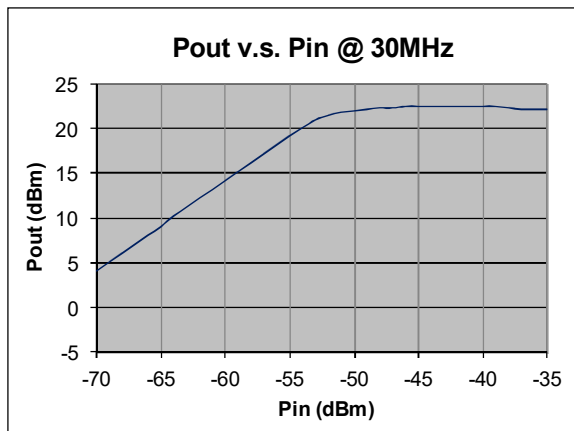
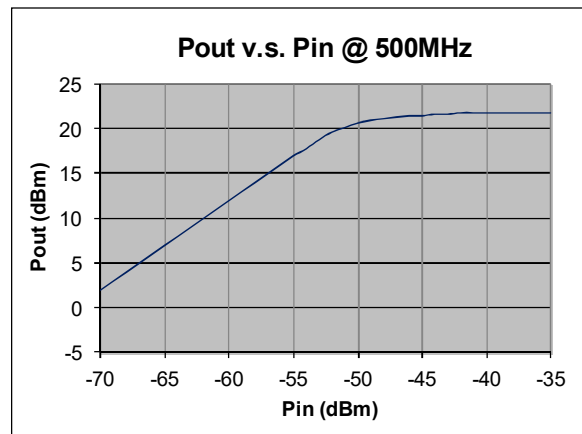
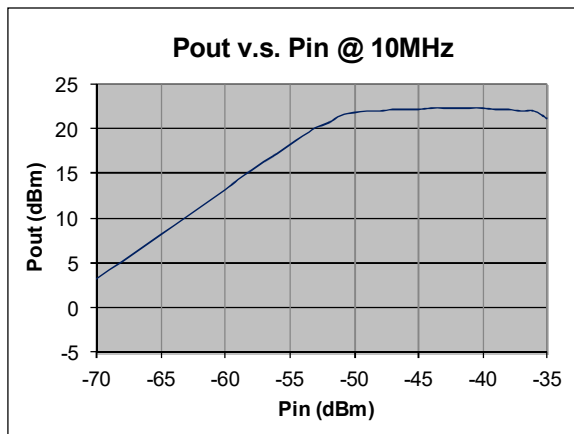
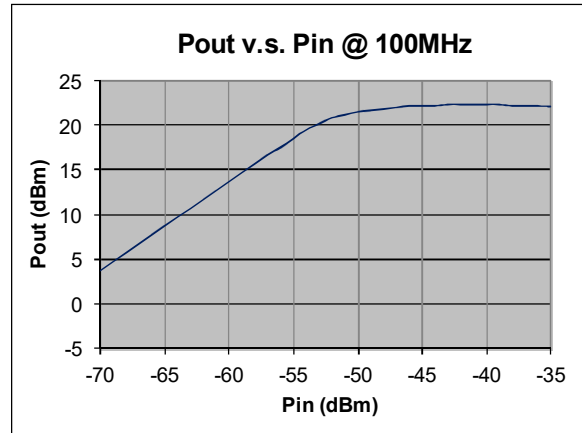
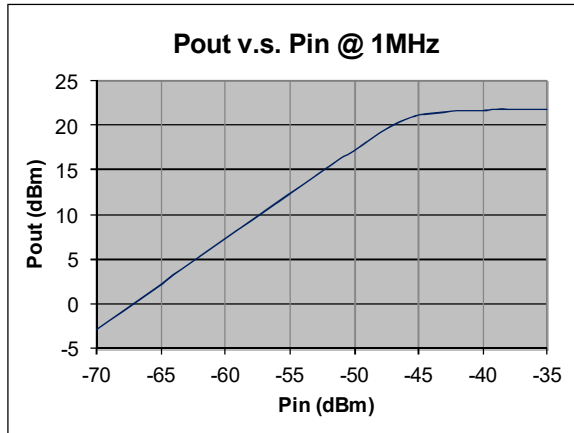




**ENA Series**

**1 – 750MHz Low Noise Amplifier**

**Typical Performance at +25°C**



## ENA Series

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### Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+20V
RF Input Power	+13dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### ESD Sensitive Material



### Outline

