

## LNA Series

## 10 – 800MHz Low Noise Amplifier

### Features

- Frequency Range: 10-800MHz
- Gain: 40dB
- P<sub>1dB</sub>: +17dBm
- IP3: +30dBm
- Noise Figure: 2.0dB
- Internally Voltage Regulated
- Reverse Voltage Protected
- DC Power: 12V/100mA
- SMA Connector

### Picture



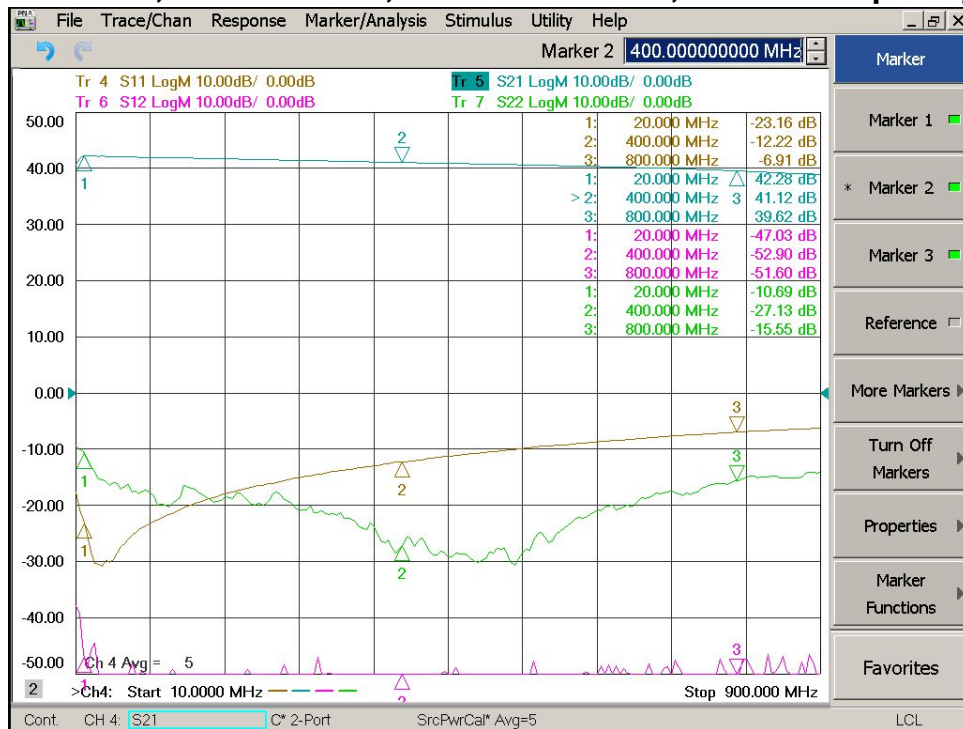
### Description

LNA-840 is a 40dB gain wideband high dynamic range Low Noise Amplifier operates with frequency range from 10 to 800MHz.

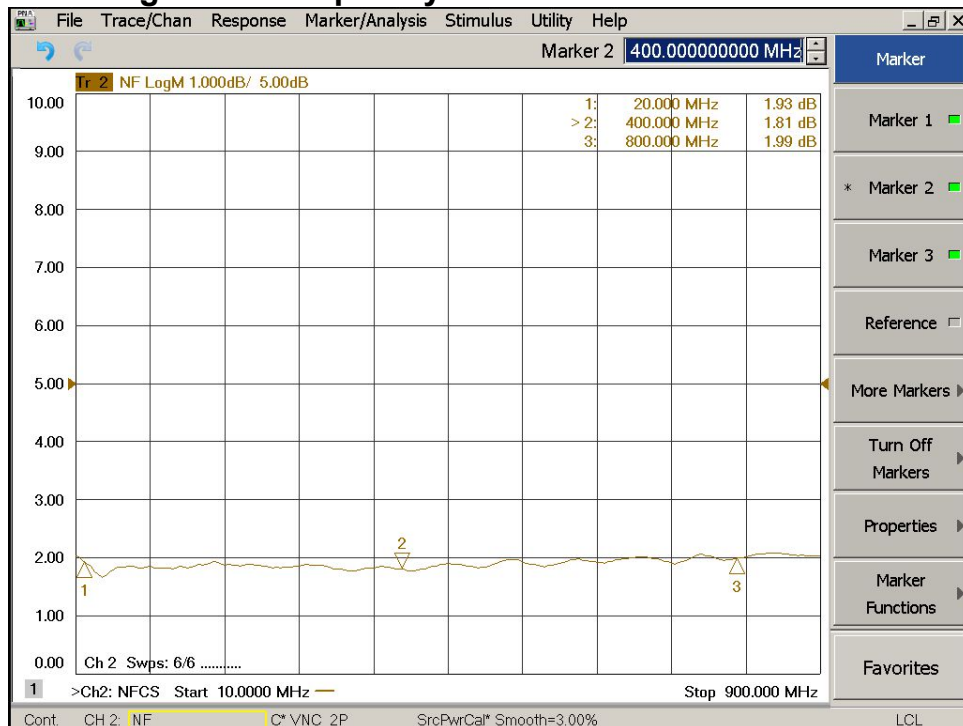
### Electrical Specifications @ +25 °C, Z<sub>in</sub> = Z<sub>out</sub> = 50 Ω, DC Voltage = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	10		800
Gain S <sub>21</sub> f = 10MHz	dB	40.0	42.0	
f = 400MHz	dB	39.0	41.0	
f = 800MHz	dB	37.5	39.5	
Gain Flatness	dB		±0.7	±1.5
P <sub>1dB</sub> f = 400MHz	dBm	+15	+17	
IP3 f = 400MHz	dBm	+28	+30	
Noise Figure f = 400MHz	dB		2.0	2.5
Reverse Isolation S <sub>12</sub> f = 400MHz	dB	-45	-50	
Input VSWR S <sub>11</sub> f = 400MHz			1.7:1	2.0:1
Output VSWR S <sub>22</sub> f = 400MHz			1.2:1	1.5:1
DC Power Supply	V	10	12	15
Supply Current	mA		100	120

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



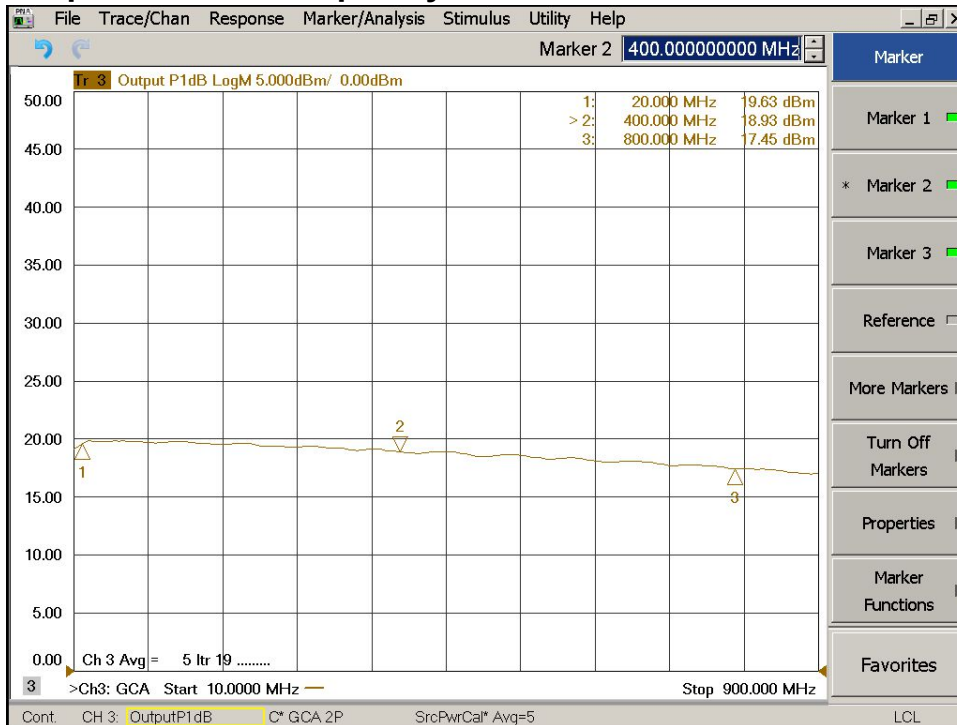
**Noise Figure vs Frequency**



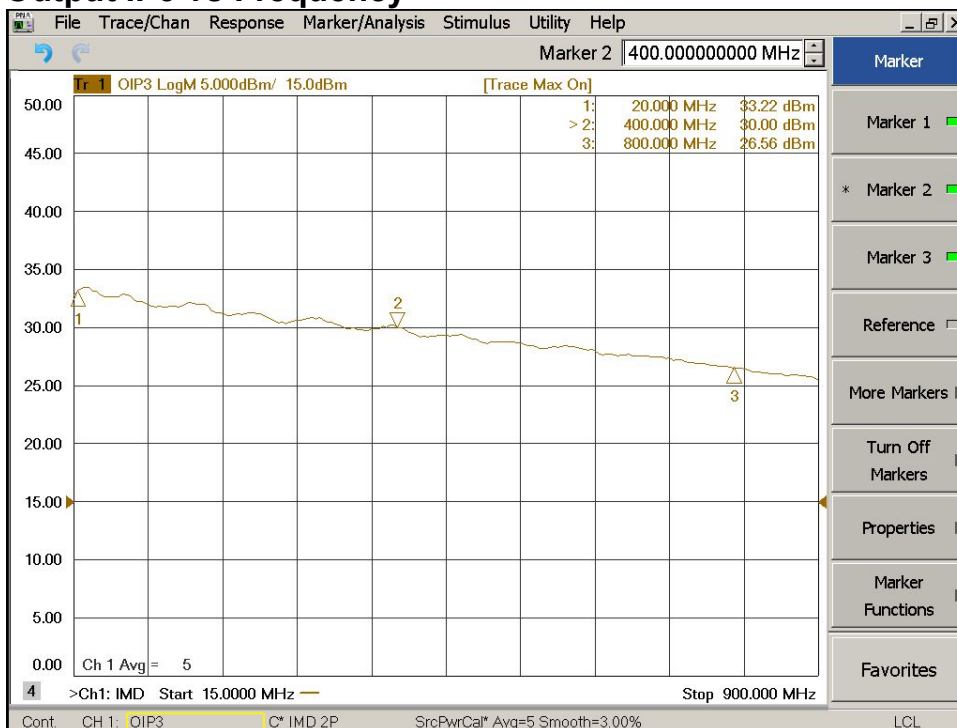
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**Output P1dB vs Frequency**



**Output IP3 vs Frequency**



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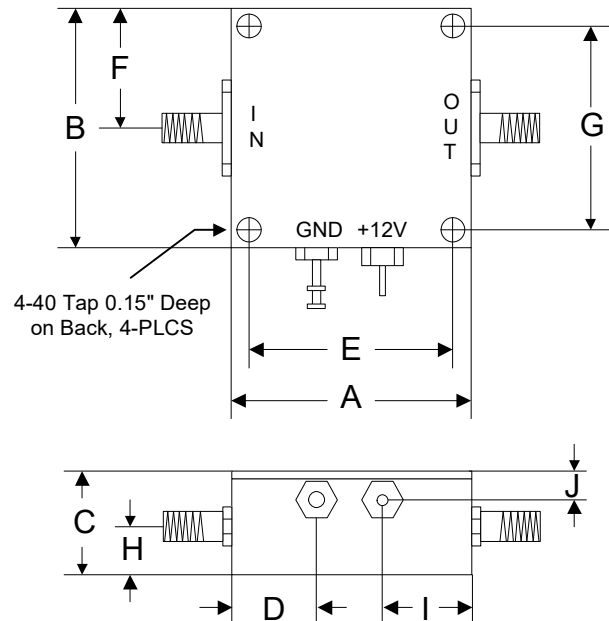
### Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+16V
RF Input Power	+13dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### ESD Sensitive Material



### Outline



	A	B	C	D	E	F	G	H	I	J
<b>Inch</b>	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
<b>mm</b>	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76