

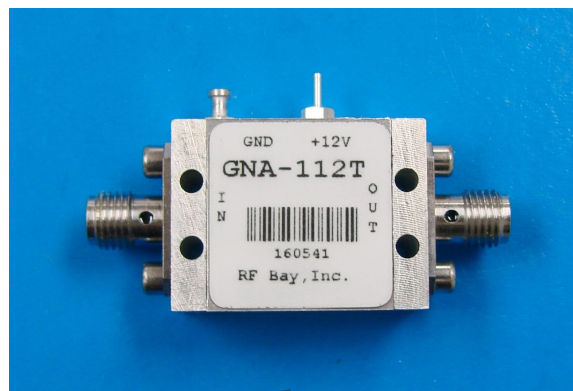
GNA Series

500-4000MHz Low Noise Amplifier

Features

- Frequency Range: 500-4000MHz
- Gain: 19dB
- P_{1dB} : +17dBm
- IP3: +34dBm
- Noise Figure: 0.7dB
- DC Power: +9V to +15V @ 65mA
- Internally Voltage Regulated
- Reverse Voltage Protected
- RF Connector: SMA-Female

Photo



Description

GNA-112T is a high performance Microwave Low Noise Amplifier, with standard frequency range of 500MHz to 4000MHz.

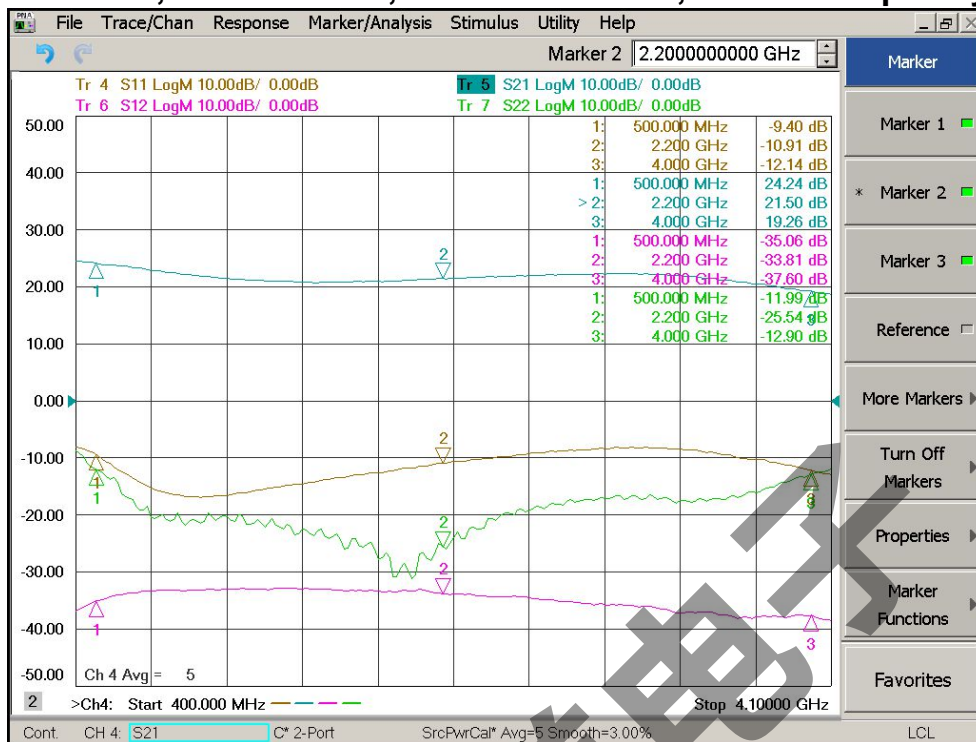
Electrical Specifications @+25°C, $Z_{in}=Z_{out}=50\Omega$, DC Voltage = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	500		4000
Gain S ₂₁ f = 500MHz	dB	22.0	24.0	
f = 2200MHz	dB	20.0	22.0	
f = 4000MHz	dB	17.0	19.0	
Gain Flatness	dB		±2.5	±3.0
Gain Variation Over Temperature	dB/°C		0.014	0.025
Output Power P_{1dB} f = 2200MHz	dBm	+15	+17	
Saturated Output Power P_{Sat} f = 2200MHz	dBm	+18	+20	
Output Third Order Intercept IP3 f = 2200MHz	dBm	+32	+34	
Noise Figure f = 2200MHz	dB		0.7	0.9
Reverse Isolation S ₁₂ f = 2200MHz	dB	-30	-33	
Input VSWR S ₁₁ f = 2200MHz			1.8:1	2.5:1
Output VSWR S ₂₂ f = 2200MHz			1.2:1	2.0:1
DC Power Supply - voltage	V	9	12	15
DC Power Supply - current	mA		65	75

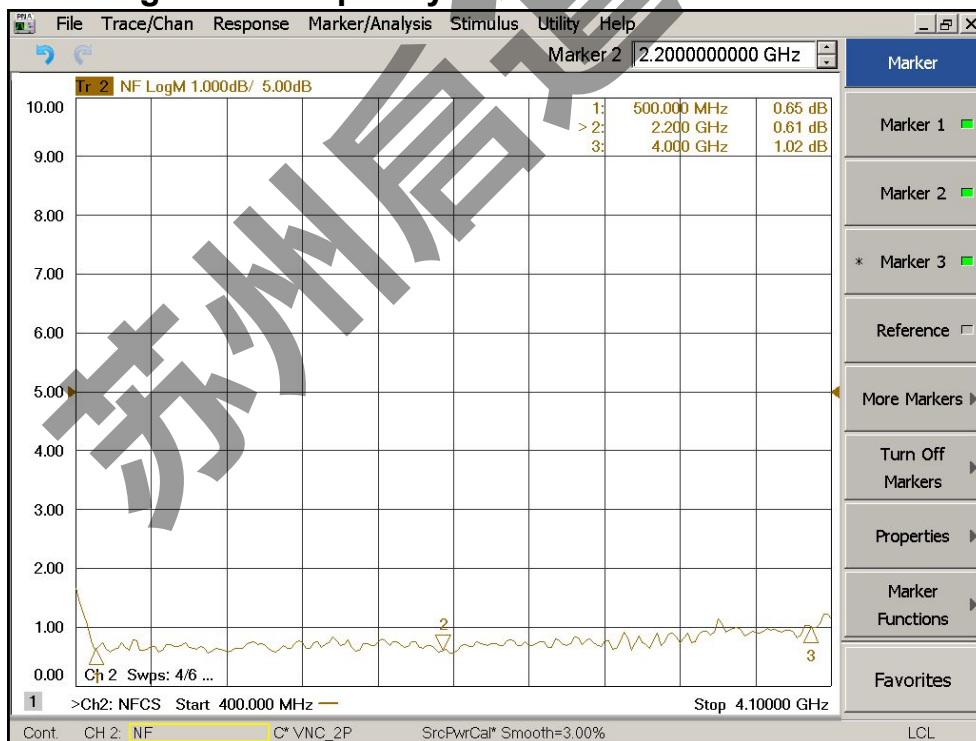
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



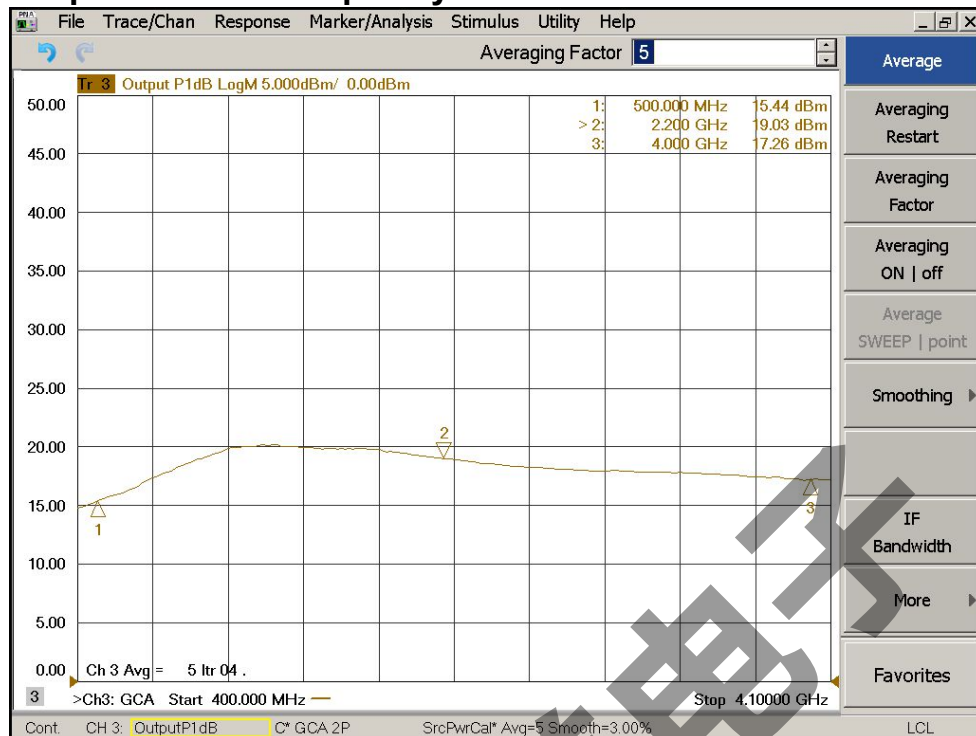
Noise Figure vs Frequency



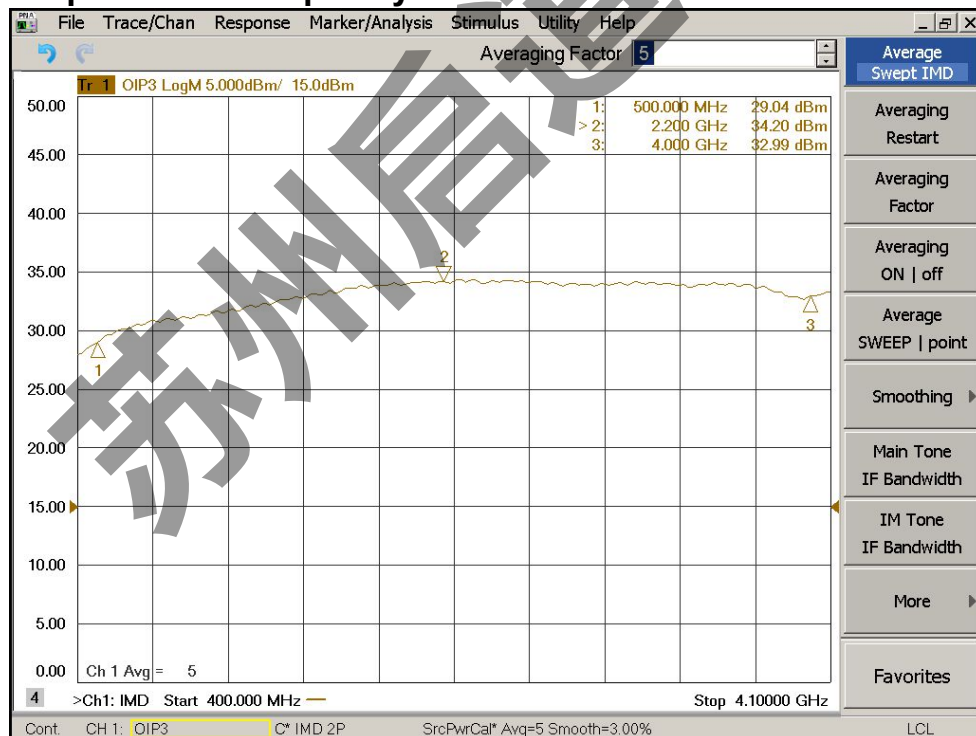
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Output P1dB vs Frequency



Output IP3 vs Frequency



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Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+16V
RF Input Power	+27dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline

