

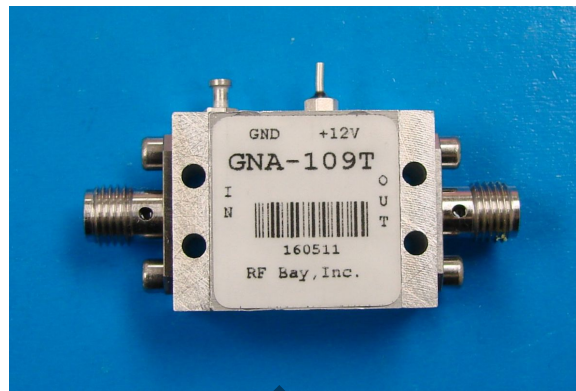
GNA Series

700-2700MHz Low Noise Amplifier

Features

- Frequency Range: 700-2700MHz
- Gain: 21dB
- P_{1dB} : +18dBm
- IP3: +35dBm
- Noise Figure: 0.7dB
- DC Power: +9V to +15V @ 65mA
- Internally Voltage Regulated
- Reverse Voltage Protected
- RF Connector: SMA-Female

Photo



Description

GNA-109T is a high performance Microwave Low Noise Amplifier, with standard frequency range of 700MHz to 2700MHz.

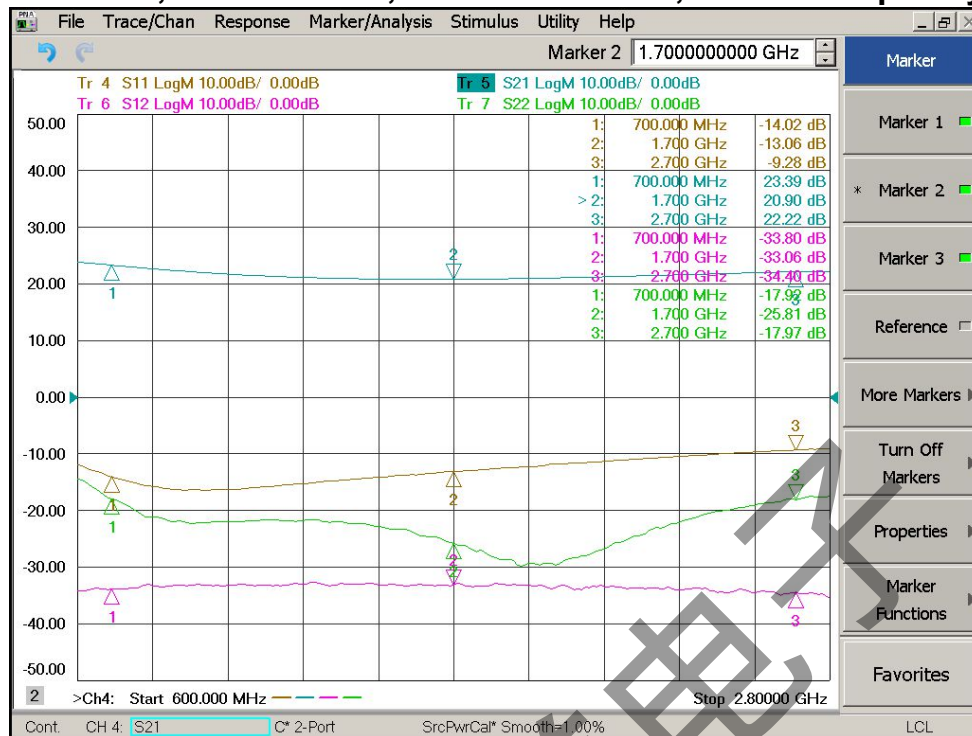
Electrical Specifications @+25°C, $Z_{in}=Z_{out}=50\ \Omega$, DC Supply = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	700		2700
Gain S ₂₁ f = 700MHz	dB	21.0	23.0	
f = 1700MHz	dB	19.0	21.0	
f = 2700MHz	dB	20.0	22.0	
Gain Flatness	dB		±1.0	±1.5
Gain Variation Over Temperature	dB/°C		0.014	0.025
Output Power P_{1dB} f = 1700MHz	dBm	+16	+18	
Saturated Output Power P_{Sat} f = 1700MHz	dBm	+19	+21	
Output Third Order Intercept IP3 f = 1700MHz	dBm	+33	+35	
Noise Figure f = 1700MHz	dB		0.7	0.9
Reverse Isolation S ₁₂ f = 1700MHz	dB	-30	-33	
Input VSWR S ₁₁ f = 1700MHz			1.4:1	2.0:1
Output VSWR S ₂₂ f = 1700MHz			1.2:1	2.0:1
DC Power Supply - voltage	V	9	12	15
DC Power Supply - current	mA		65	75

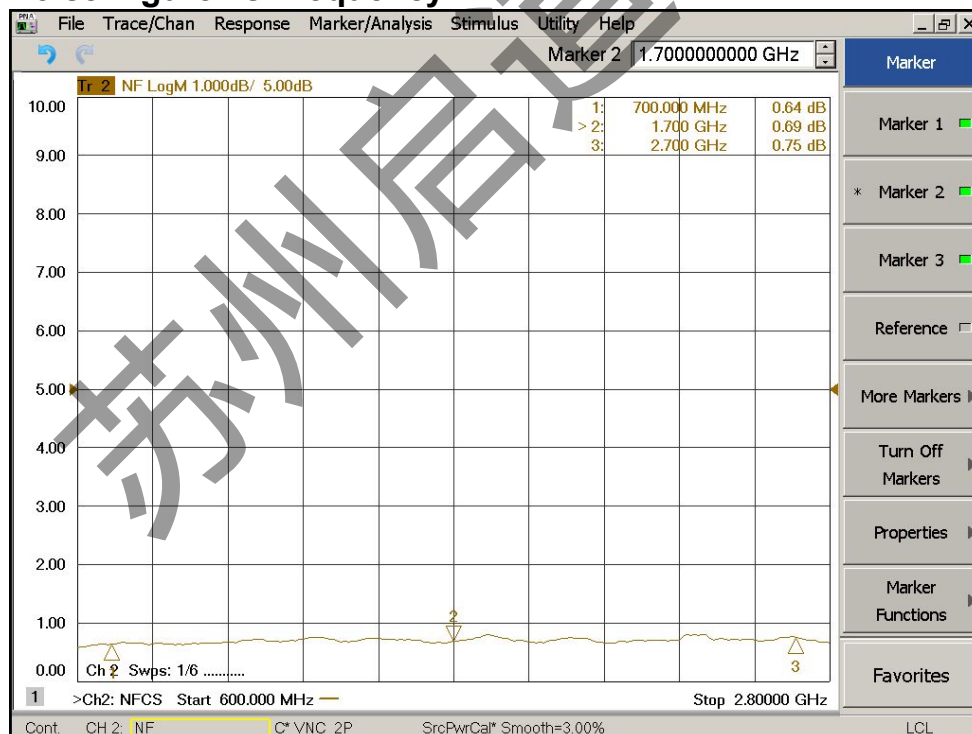
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Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



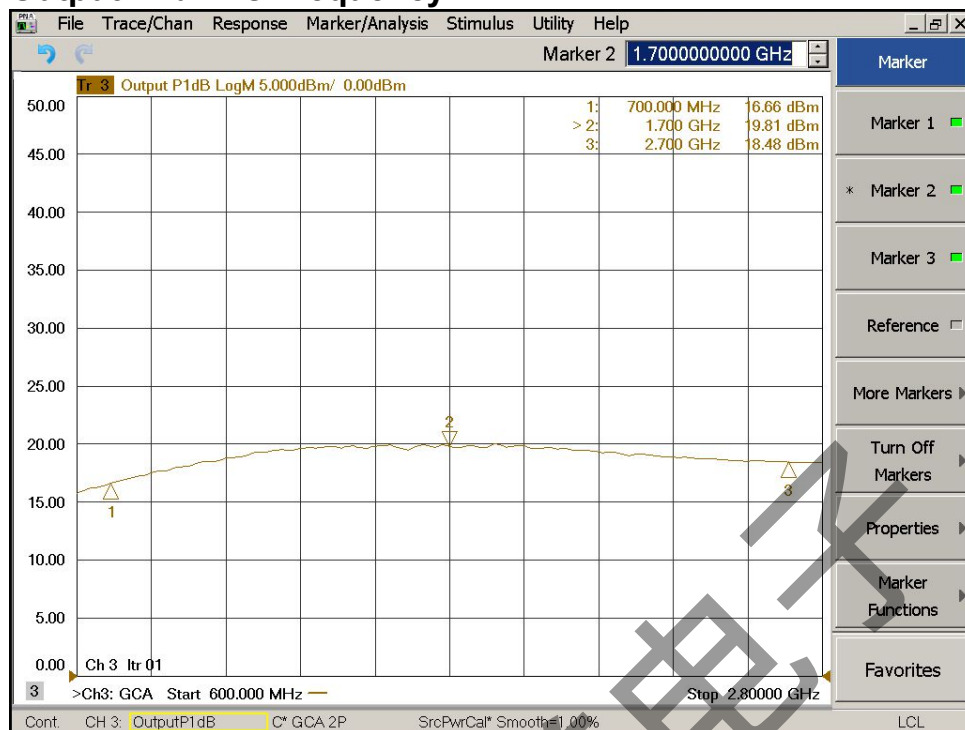
Noise Figure vs Frequency



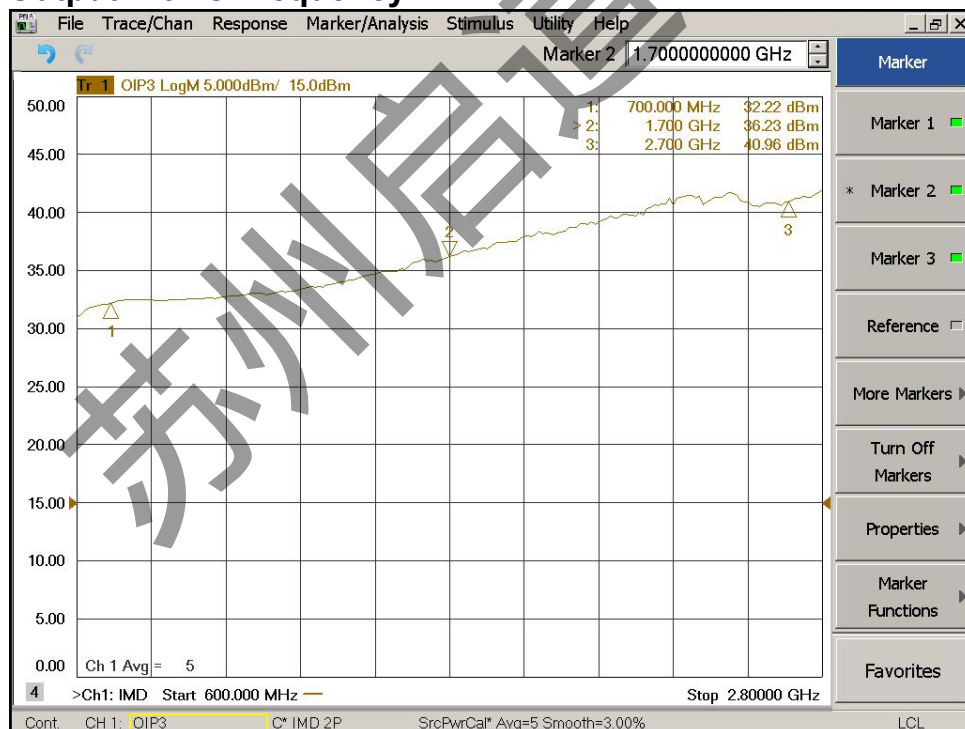
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Output P1dB vs Frequency



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

