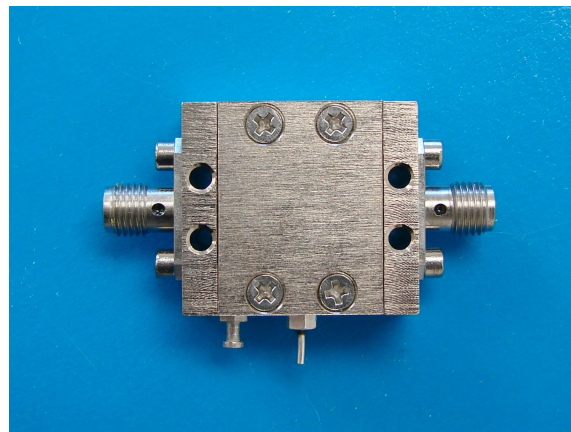


WNA Series
2 – 20GHz Low Noise Amplifier
Features

- Frequency Range: 2-20GHz
- Gain: 25dB
- P_{1dB}: +21dBm
- IP3: +33dBm
- Noise Figure: 2.4dB @ 11GHz
- DC Power: +12V @ 240mA
- Internally Voltage Regulated
- RF Connector: SMA-Female

Photo

Description

WNA-550 is a high performance Microwave Low Noise Amplifier, with standard frequency range of 2GHz to 20GHz.

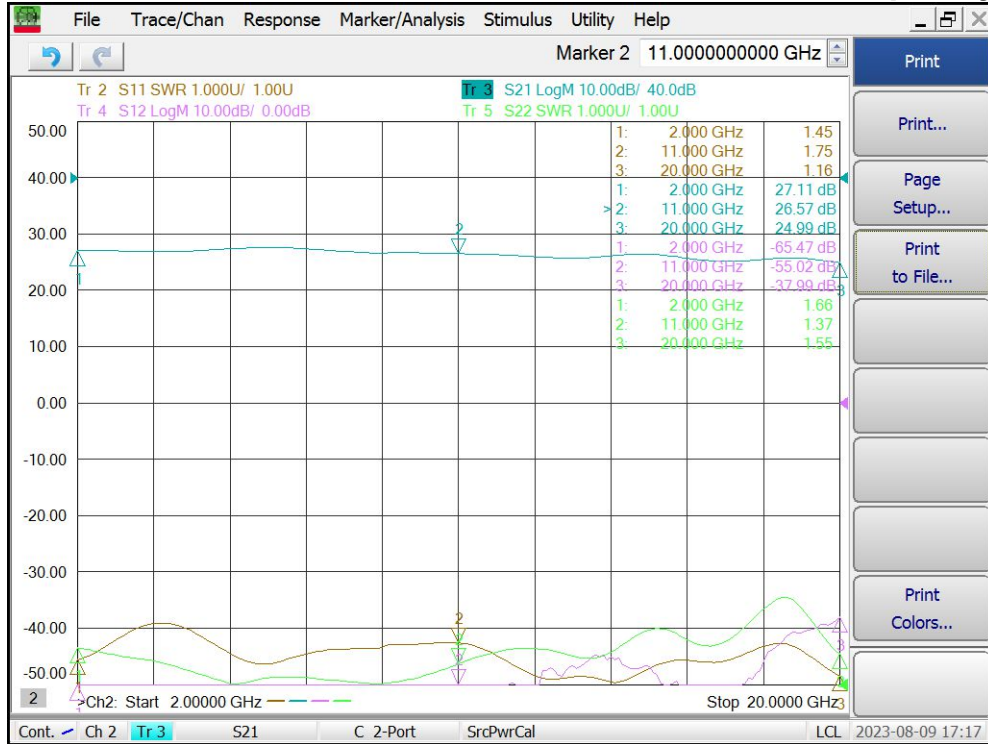
Electrical Specifications @+25°C, Z_{in}=Z_{out}= 50 Ω, V_{supply} = +12VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	2		20
Gain (S ₂₁)	f = 2GHz		27.0	
	f = 11GHz	25.0	26.5	
	f = 20GHz		25.0	
Gain Flatness	dB		± 1.0	± 2.0
Output Power P _{1dB}	f = 11GHz	+19	+21	
Output IP3	f = 11GHz	+31	+33	
Noise Figure	f = 11GHz		2.4	3.0
Reverse Isolation (S ₁₂)	f = 11GHz	-40	-55	
VSWR-Input (S ₁₁)	f = 11GHz		1.7:1	2.2:1
VSWR-Output (S ₂₂)	f = 11GHz		1.4:1	2.0:1
DC Power Supply - voltage	V	11	12	15
DC Power Supply - current	mA		240	260
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch	1.00 (L) x 0.90 (W) x 0.45 (H)		
Weight	Oz	0.6 (17 grams)		

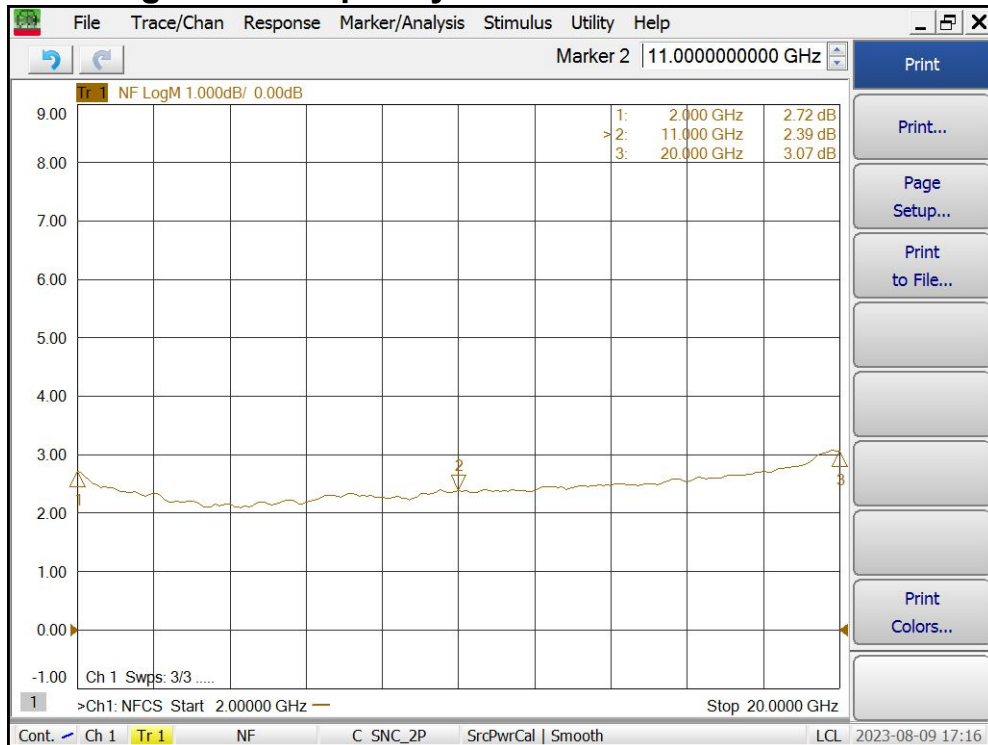
WNA Series

2 – 20GHz Low Noise Amplifier

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



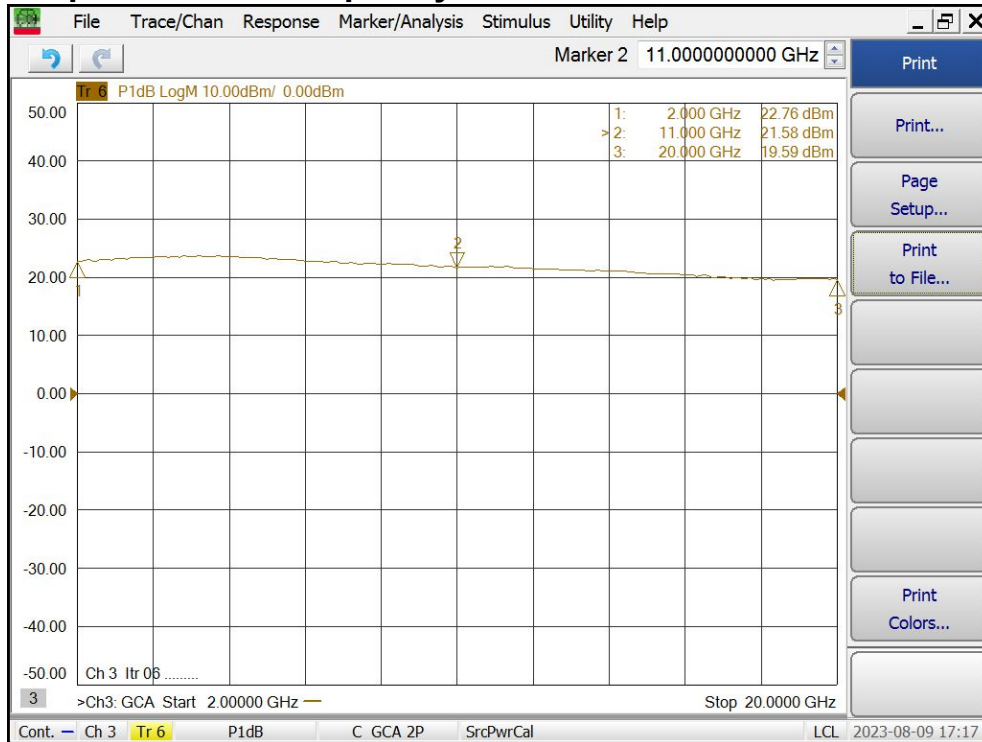
Noise Figure vs Frequency



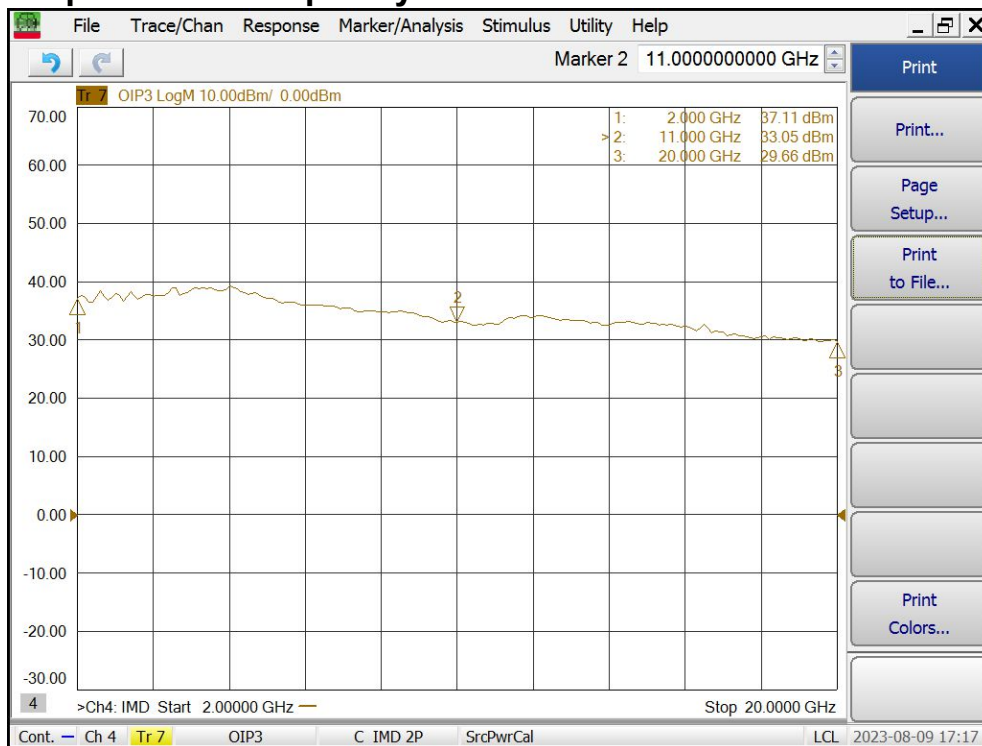
WNA Series

2 – 20GHz Low Noise Amplifier

Output P1dB vs Frequency



Output IP3 vs Frequency



WNA Series

2 – 20GHz Low Noise Amplifier

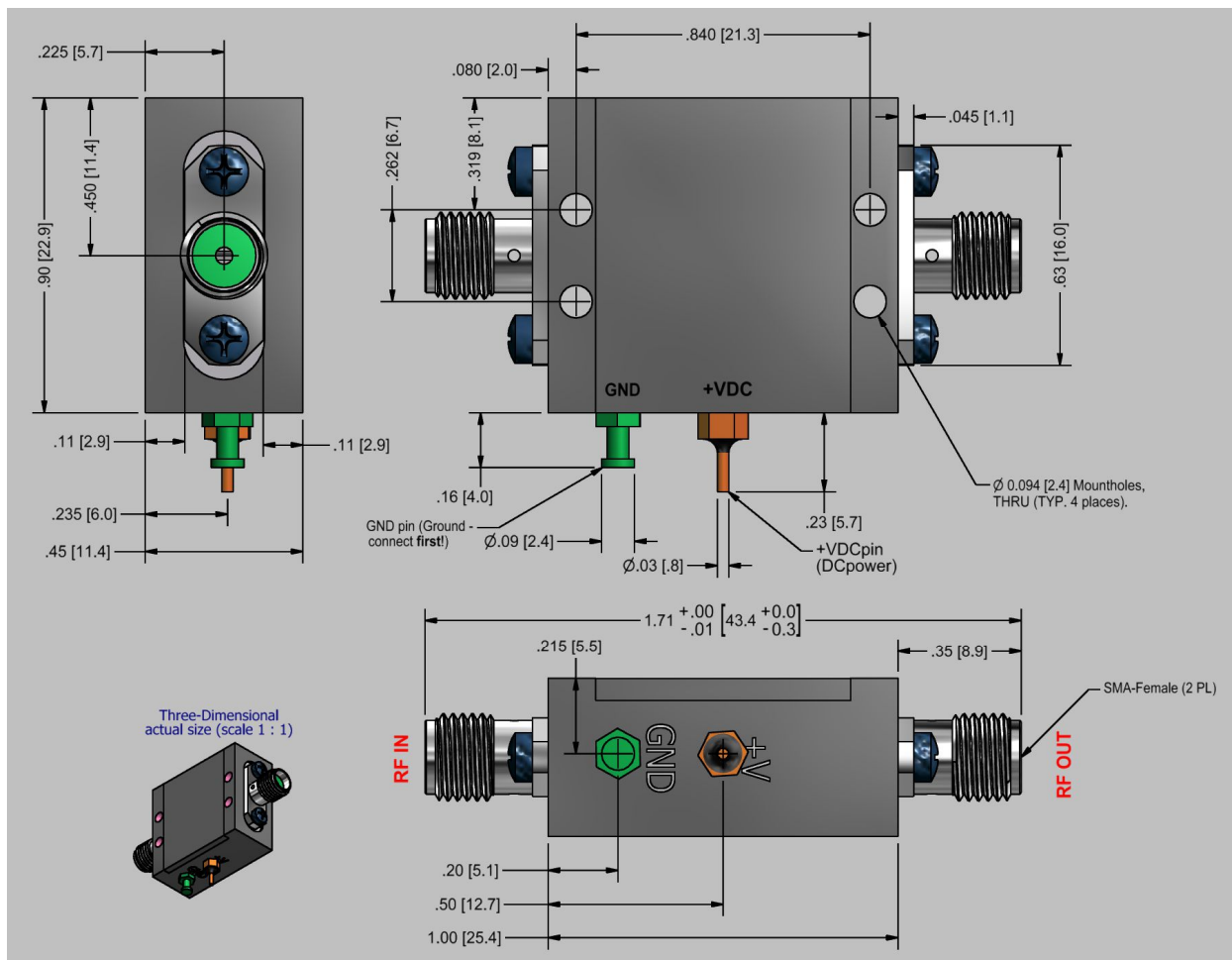
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage (Survival)	+16V
RF Input Power	+20dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material



Outline



WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C