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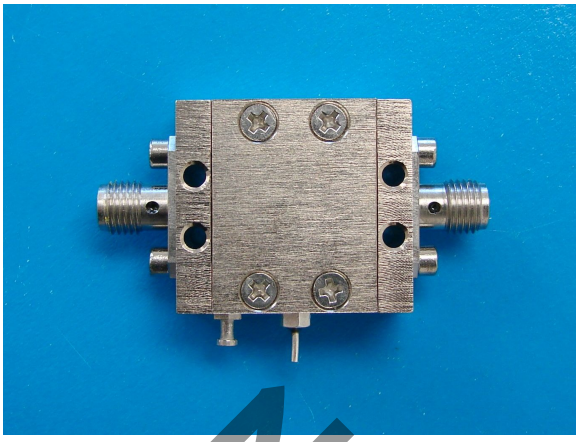
WNA-500

WNA Series — 2 – 20GHz Low Noise Amplifier

Features

- Frequency Range: 2-20GHz
- Gain: 20dB
- P_{1dB}: +16dBm
- IP3: +25dBm
- Noise Figure: 2.2dB @ 11GHz
- DC Power: +12V @ 120mA
- Internally Voltage Regulated
- RF Connector: SMA-Female

Photo



Description

WNA-500 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, Vsupply = +12VDC

Parameter		Unit	Minimum	Typical	Maximum
Frequency Range		GHz	2		20
Gain (S21)	f = 2GHz	dB		19.5	
	f = 11GHz	dB	20.0	22.0	
	f = 20GHz	dB		24.0	
Gain Flatness		dB		± 2.5	± 3.5
Output Power P_{1dB}	f = 11GHz	dBm	+14	+16	
Output IP3	f = 11GHz	dBm	+23	+25	
Noise Figure	f = 11GHz	dB		2.2	3.0
Reverse Isolation (S12)	f = 11GHz	dB	-25	-35	
VSWR-Input (S11)	f = 11GHz			1.7:1	2.2:1
VSWR-Output (S22)	f = 11GHz			1.4:1	2.0:1
DC Power Supply - voltage		V	5	12	15
DC Power Supply - current		mA		120	140
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)		

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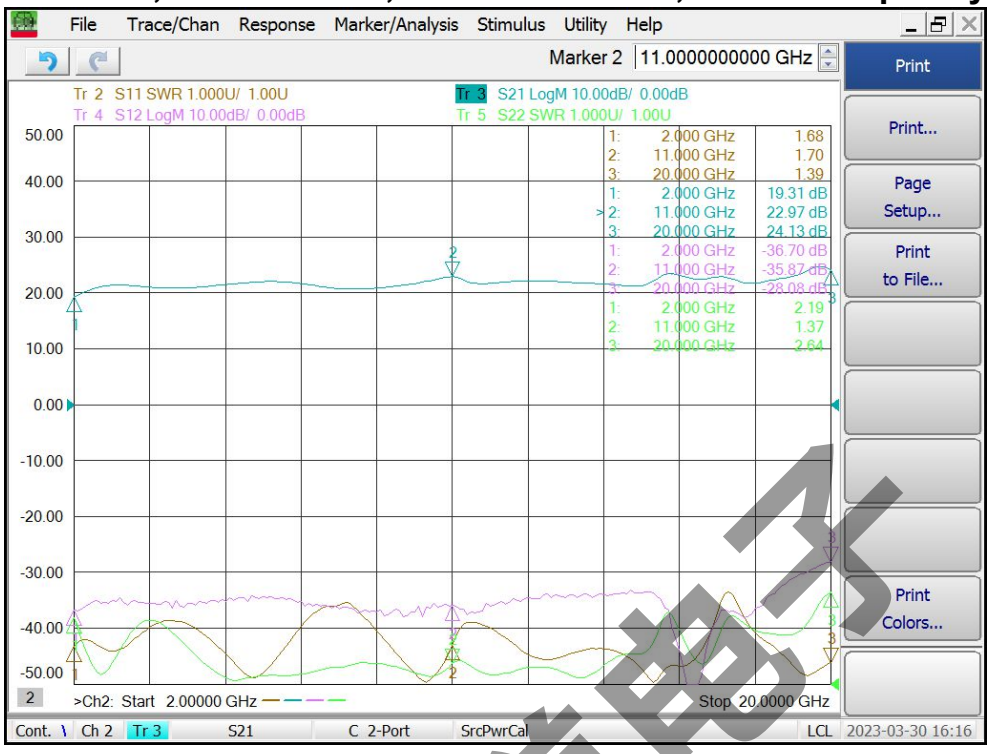
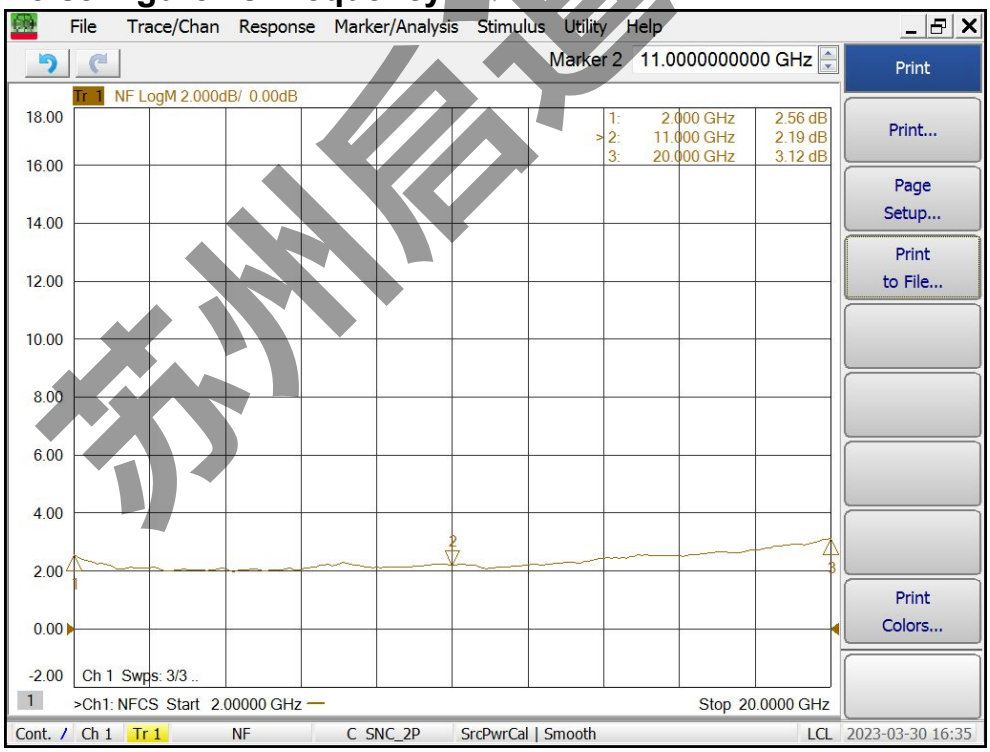
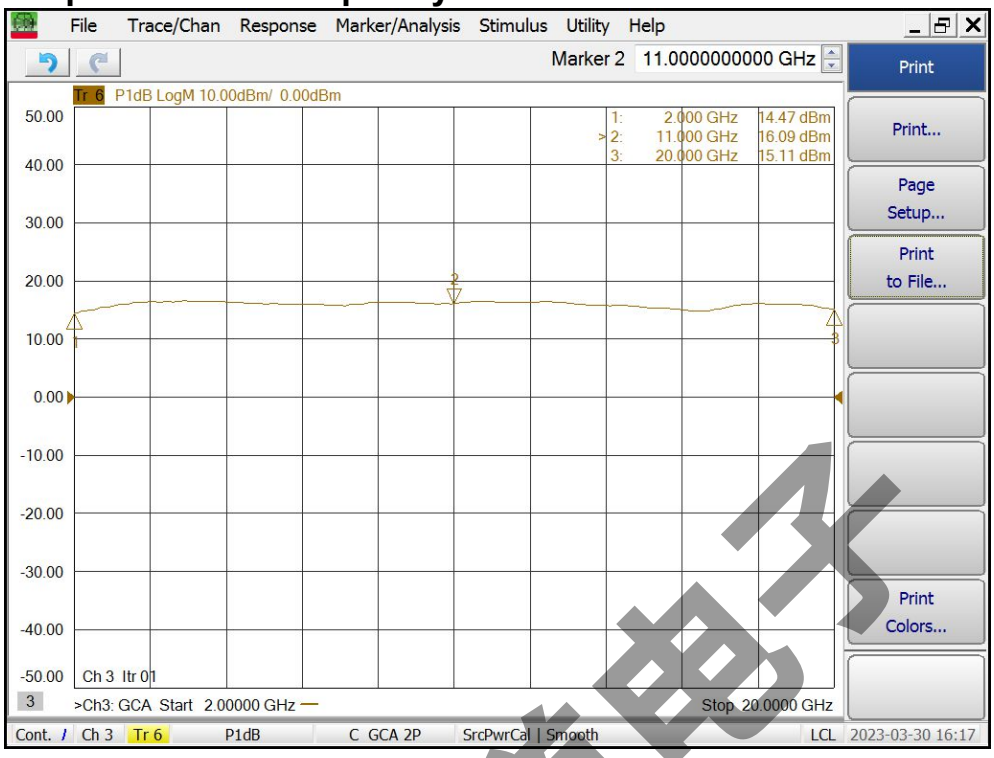
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



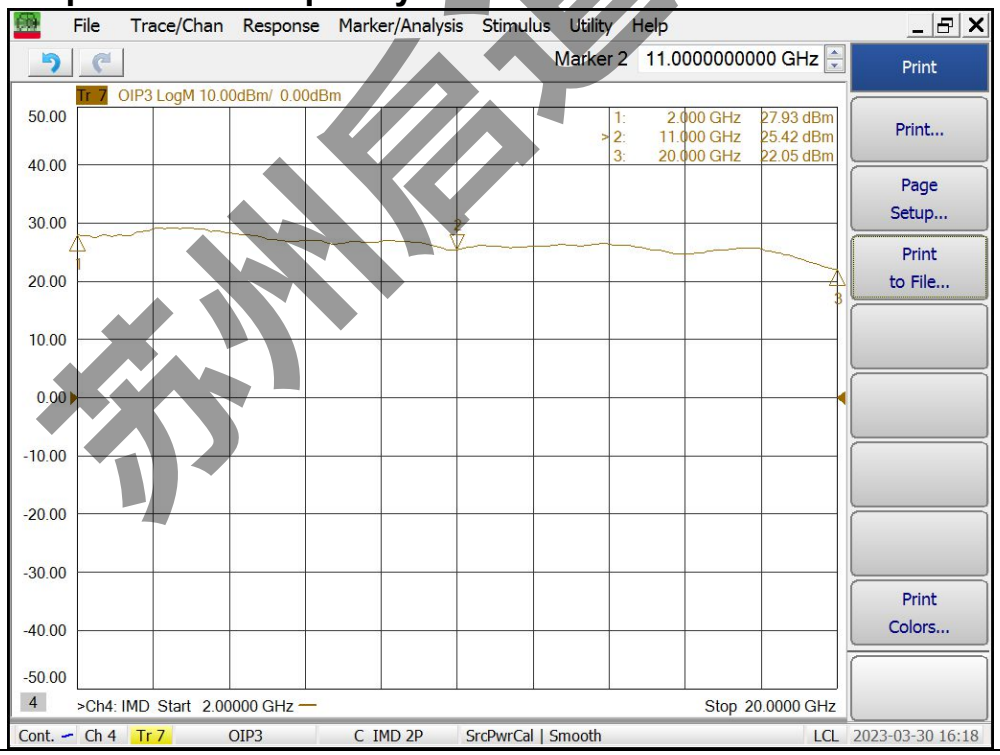
Noise Figure vs Frequency



Output P1dB vs Frequency



Output IP3 vs Frequency



Absolute

WNA Series

2 – 20GHz Low Noise Amplifier

Maximum Ratings

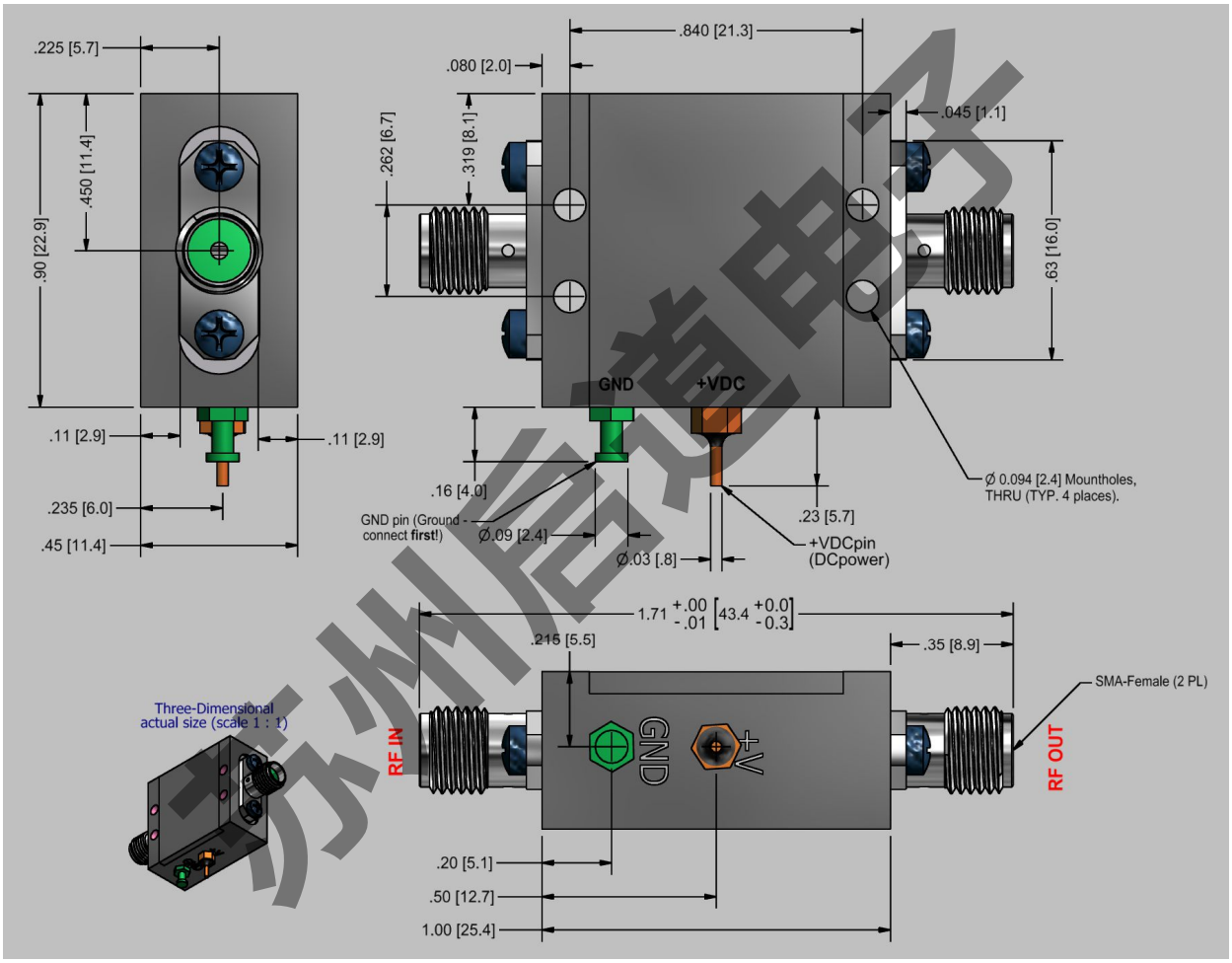
Parameter	Absolute Maximum
Supply Voltage (Survival)	+16V
RF Input Power	+20dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material

RoHS (EU)/2015/863 COMPLIANT

CE

Outline



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