

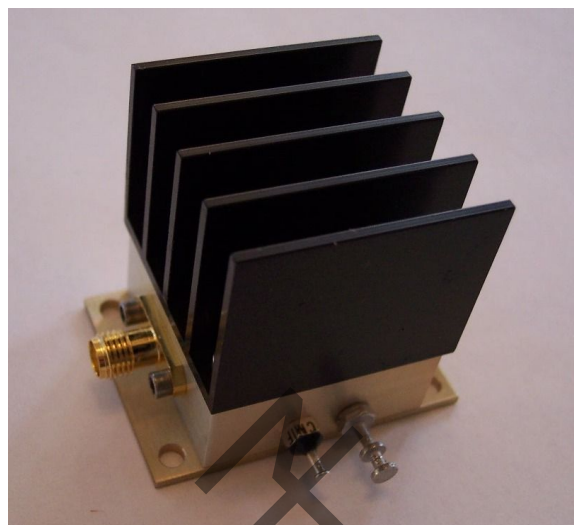
MGA Series

10 – 1000MHz RF Amplifier

Features

- Frequency Range: 10 - 1000MHz
- Gain: 27dB
- P_{1dB}: +26dBm
- IP3: +40dBm
- Noise Figure: 4.0dB
- DC Power: +12V
- Internal Voltage Regulated
- Reverse DC Protection
- SMA Connector

Picture



Description

MGA-500 is a 27dB gain RF Power Amplifier operates with frequency range from 10MHz to 1000MHz.

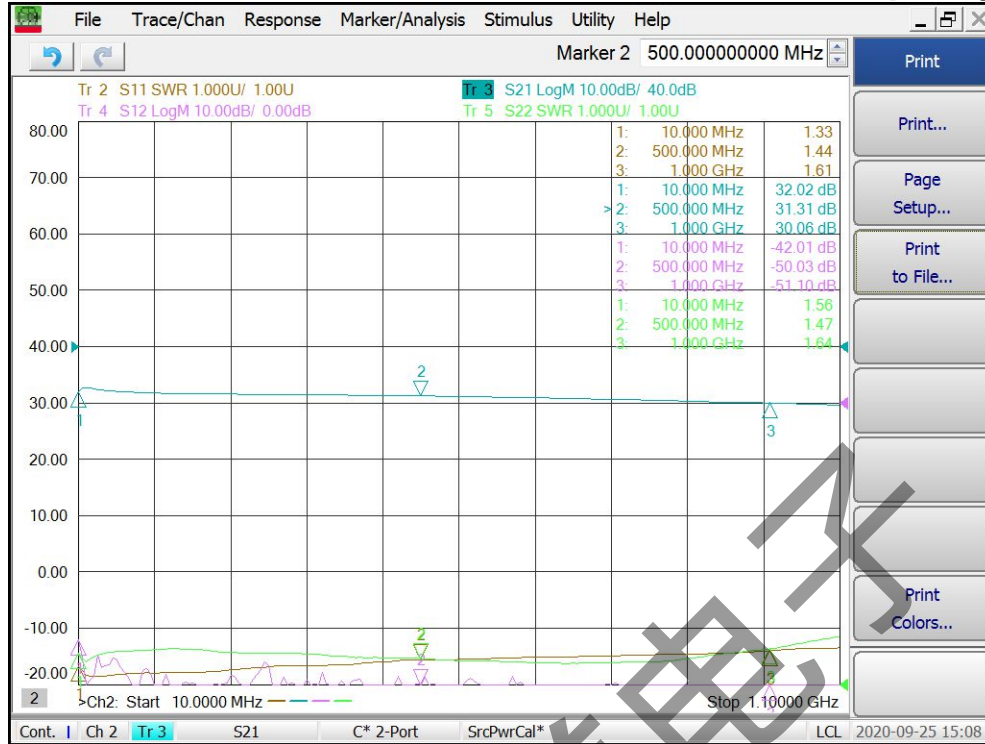
Electrical Specifications @ +25 °C, Z_{IN} = Z_{OUT} = 50 Ω, V_{SUPPLY} = +12V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	10		1000
Gain S ₂₁ f = 10MHz	dB		32.0	
f = 500MHz	dB	27.0	31.0	
f = 1000MHz	dB		30.0	
Gain Flatness	dB		±1.0	±1.5
Output P _{1dB}	dBm	+26	+27	
Output P _{SAT}	dBm	+26.5	+27.5	
Output IP3	dBm	+38.0	+40.0	
Noise Figure	dB		4.0	5.0
Reverse Isolation S ₁₂	dB	-40	-50	
VSWR Input VSWR S ₁₁			1.5:1	2.0:1
Output VSWR S ₂₂			1.5:1	2.0:1
DC Power Supply	V	+11	+12	+15
Supply Current:	mA		350	450

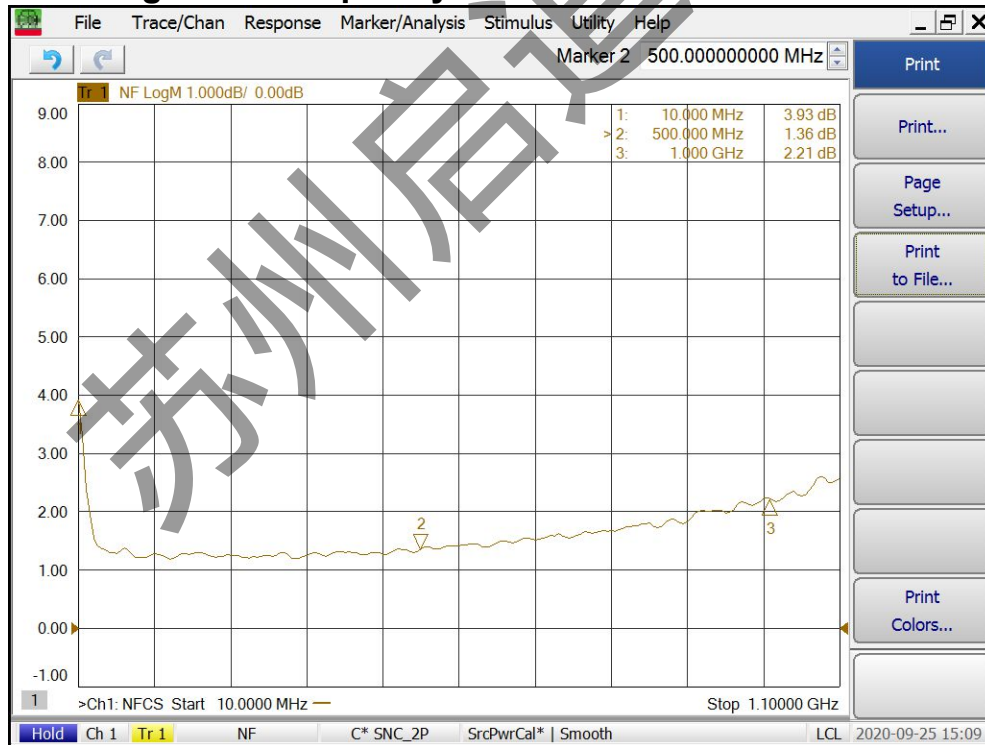
MGA Series

10 – 1000MHz RF Amplifier

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



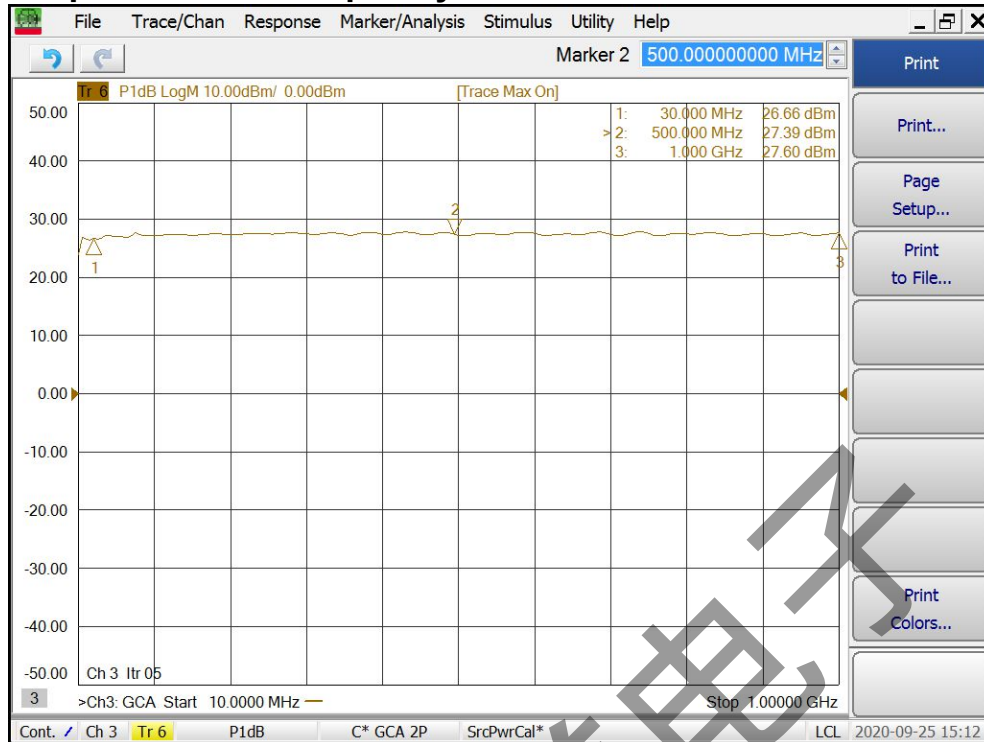
Noise Figure vs Frequency



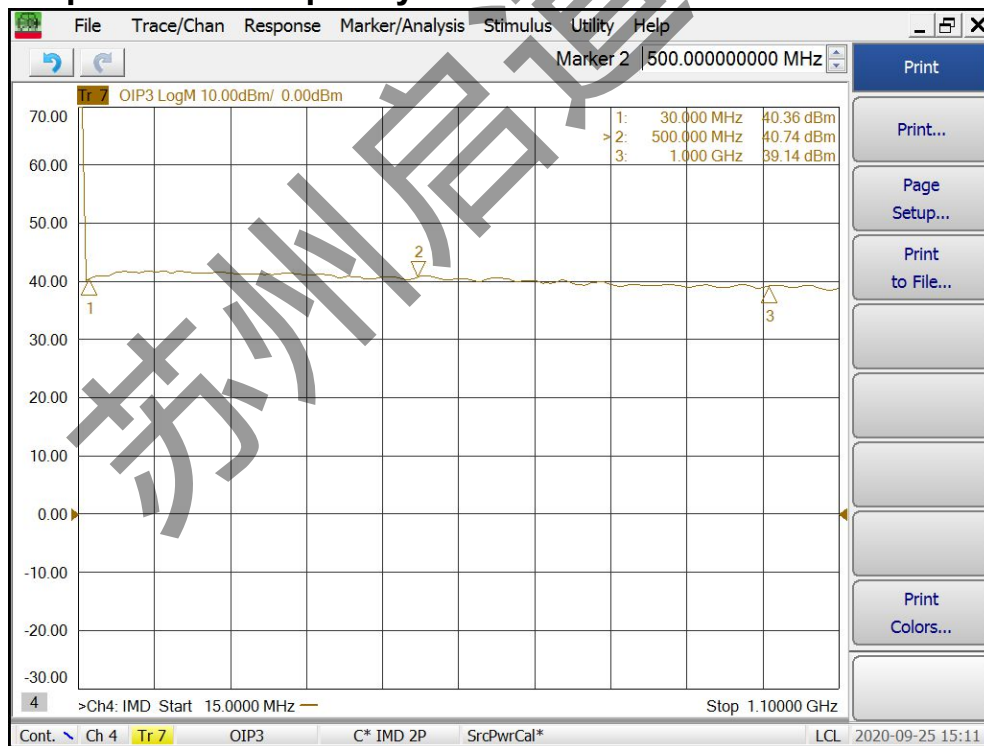
MGA Series

10 – 1000MHz RF Amplifier

Output P1dB vs Frequency



Output IP3 vs Frequency



MGA Series

10 – 1000MHz RF Amplifier

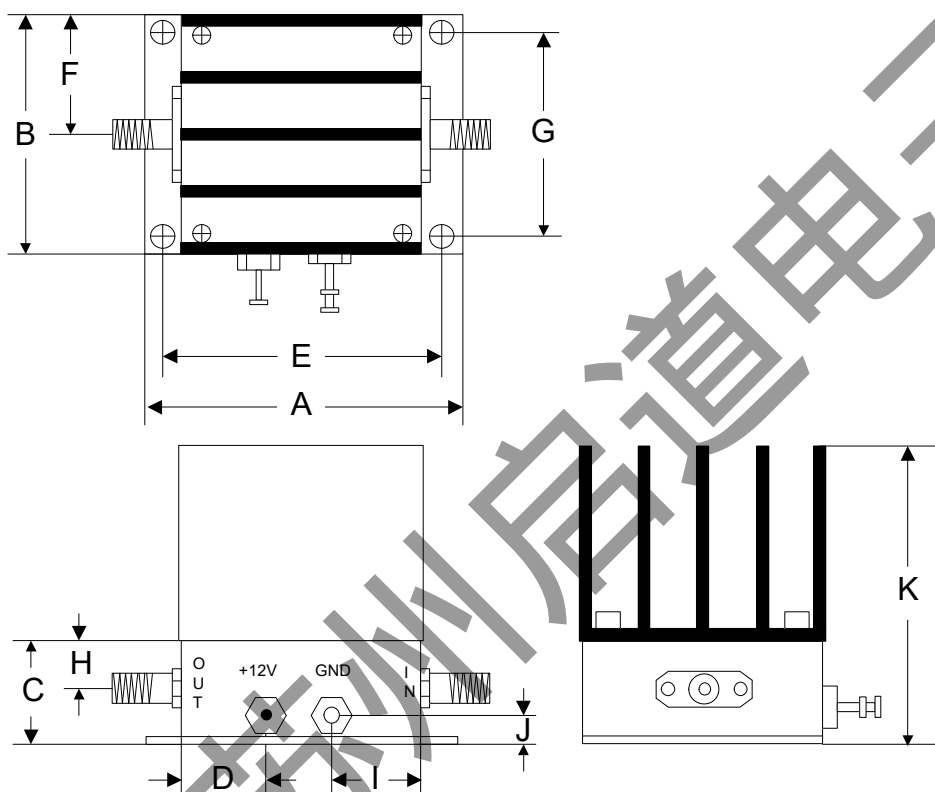
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+16V
RF Input Power	+17dBm
Operating Temperature	-45 °C to +85 °C
Storage Temperature	-65 °C to +150 °C

ESD Sensitive Material



Outline



	A	B	C	D	E	F	G	H	I	J	K
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187	1.563
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76	39.70