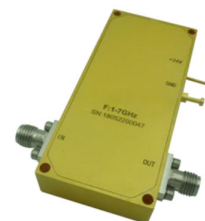




1W Front Over Drive Protected LNA Wide Band Low Noise Amplifier 1GHz~7GHz

Features

- Gain: 42dB Typical
- Noise Figure: 1.2dB Typical
- P1dB Output Power: +20dBm Typical
- Supply Voltage: +24V @ 200mA
- 50 Ohm Matched Input / Output
- Size: 1.18x 2.6" x 0.47"



Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	1		2	2		7	GHz
Gain	29	42	49	36	42	49	dB
Gain Flatness		± 6.0			± 3.5	± 4.5	dB
Gain Variation Over Temperature (-40°C~+85°C)		± 2.0			± 2.0		dB
Noise Figure		1.5	3.3		1.2	2.0	dB
Input VSWR		5			1.5	2.5	: 1
Output VSWR		5			1.4	2.0	: 1
Output 1dB Compression Point (P1dB)	16	20		19	22		dBm
Saturated Output Power (Psat)		22			25		dBm
Output Third Order Intercept (OIP3)		28			33		dBm
Supply Current (Vcc=+24V)		200	300		200	300	mA
Isolation S12		-65			-65		dB

Weight	1.8 ounces(Max.)	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Gold plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)



Absolute Maximum Ratings

Operating Voltage	+28V
RF Input Power@(50Ω)	+30dBm

Biassing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +24V biasing

Power OFF Procedure

Step 1	Turn off +24V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

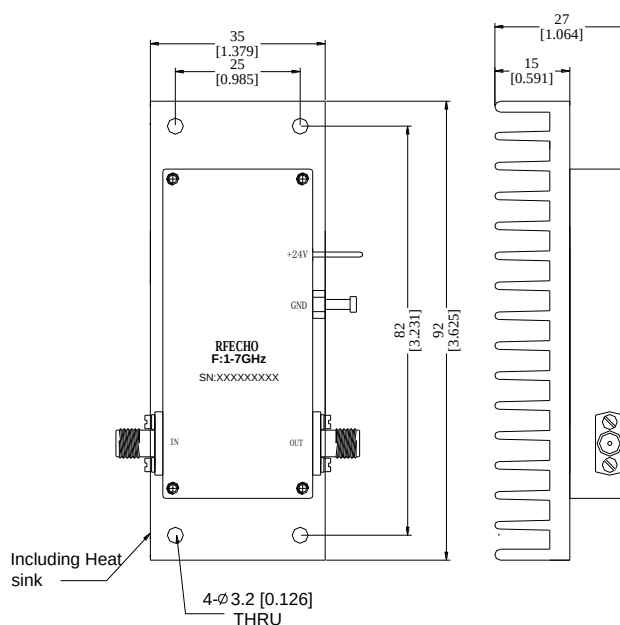
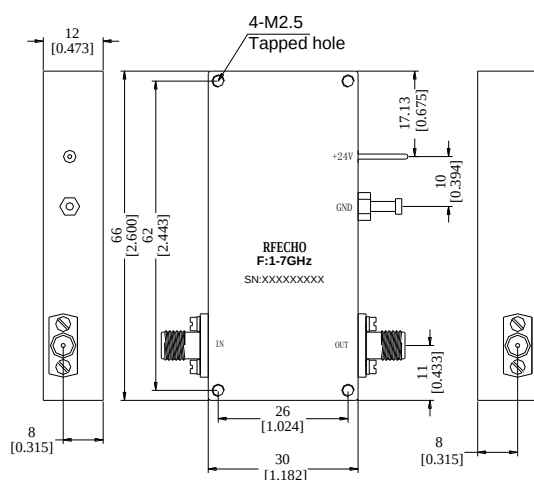
Environmental Specifications

Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

Outline Drawing:

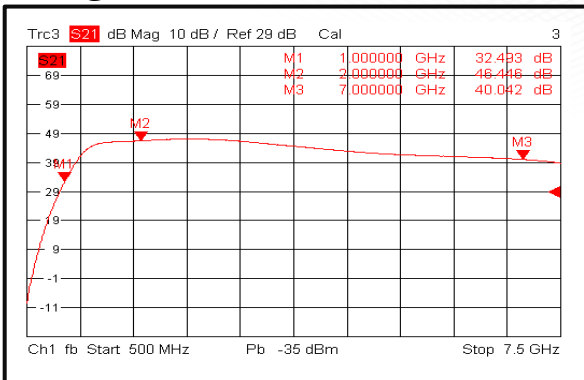
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

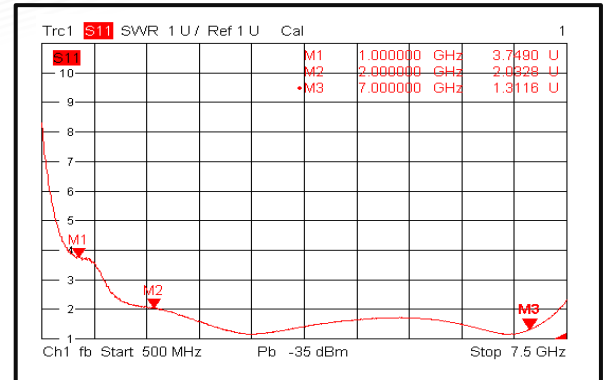




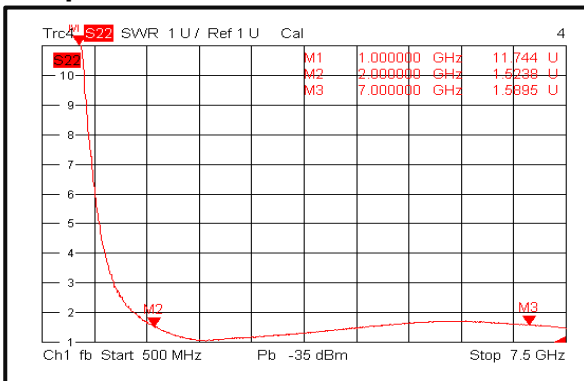
Gain@+25°C



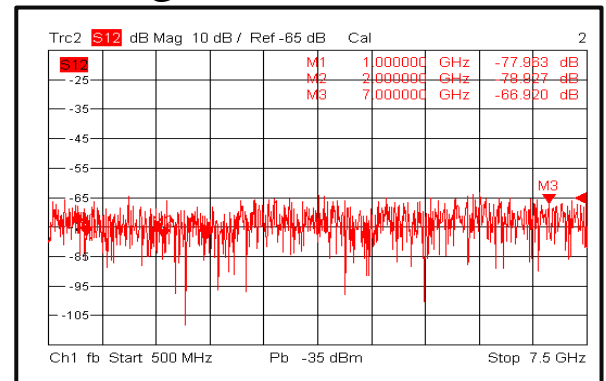
Input VSWR@+25°C



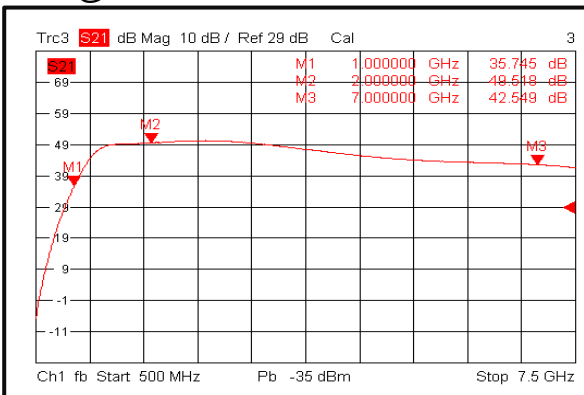
Output VSWR@+25°C



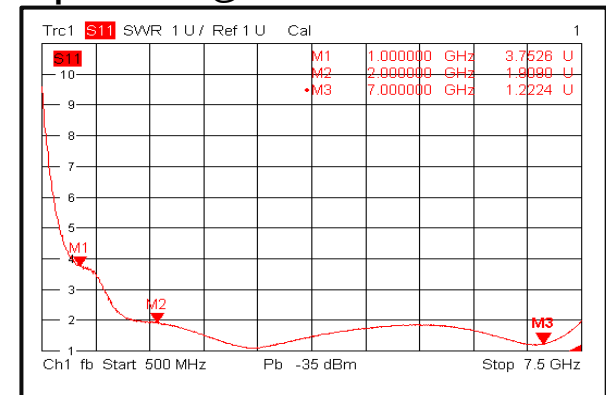
Isolation@+25°C



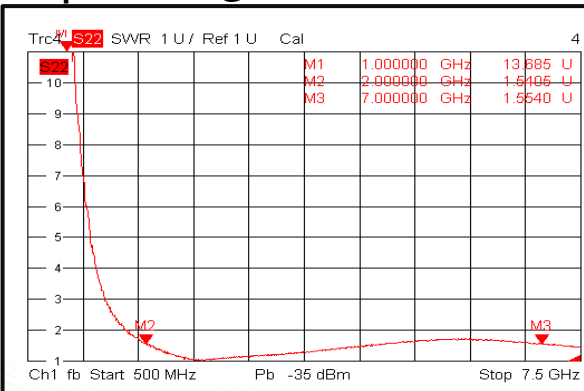
Gain@-40°C



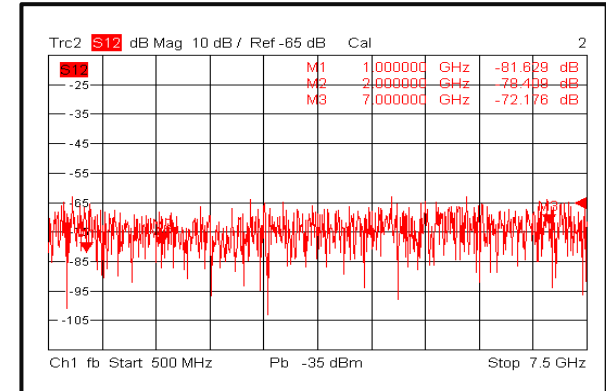
Input VSWR@-40°C



Output VSWR@-40°C

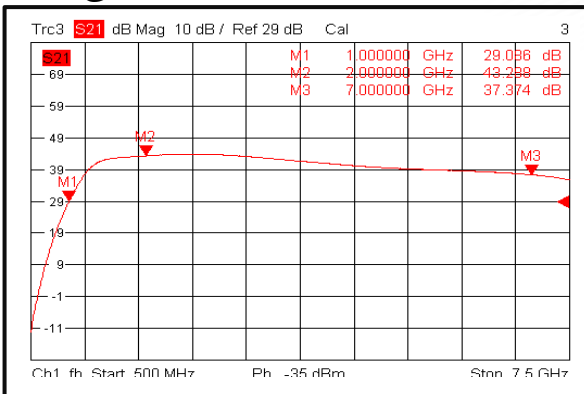


Isolation@-40°C

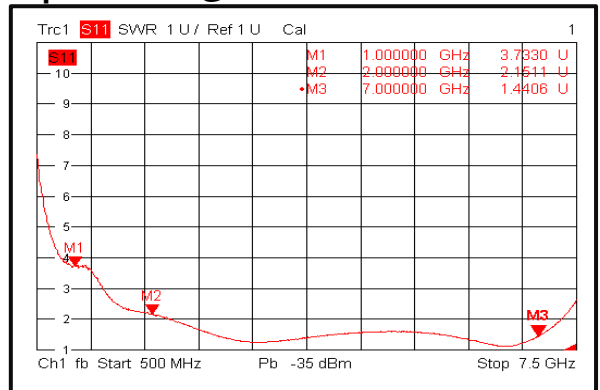




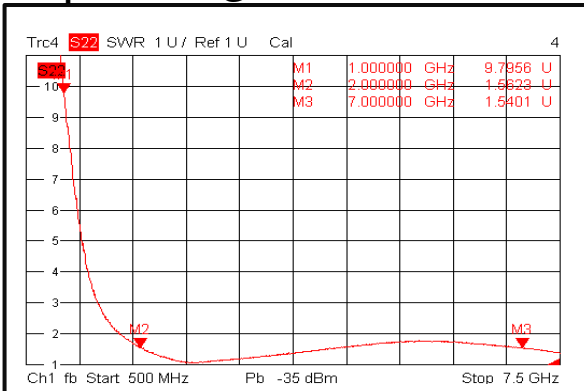
Gain@+85°C



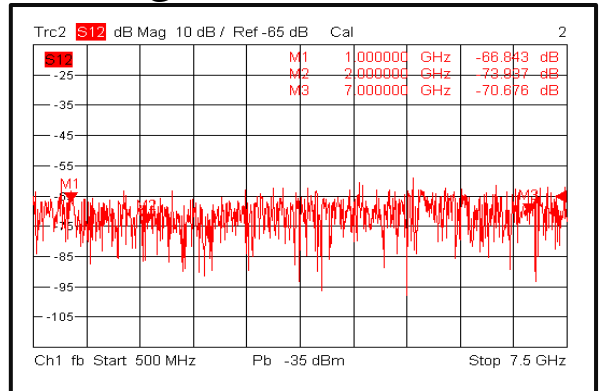
Input VSWR@+85°C



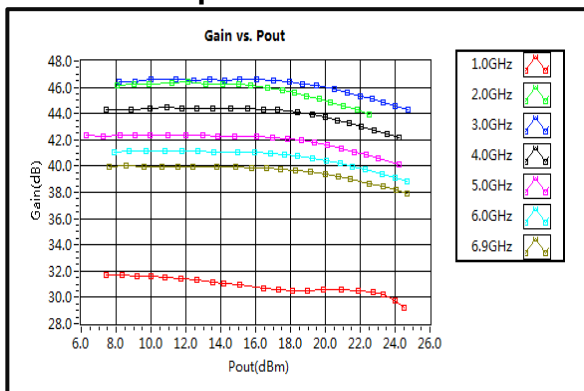
Output VSWR@+85°C



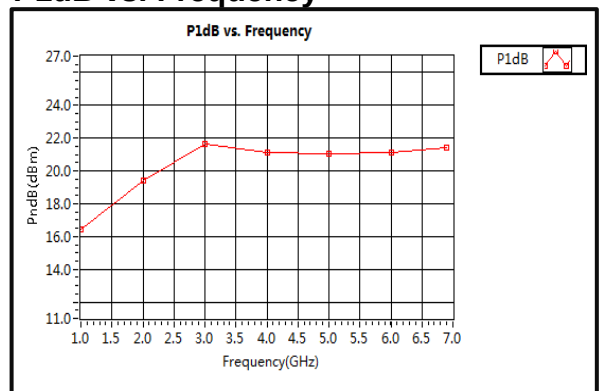
Isolation@+85°C



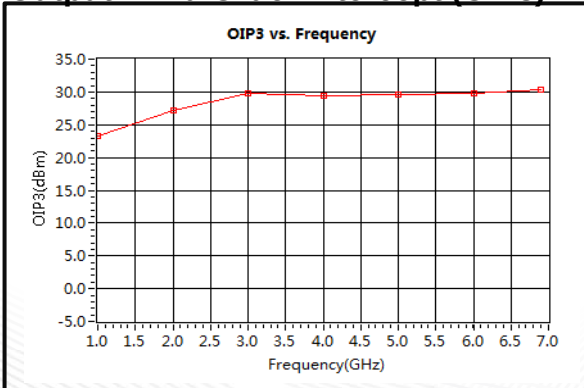
Gain vs. Output Power



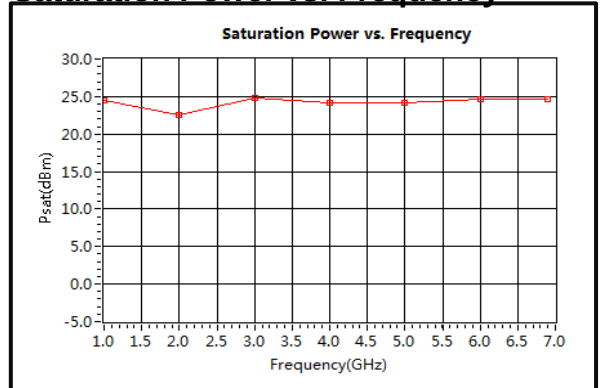
P1dB vs. Frequency



Output Third Order Intercept (OIP3)

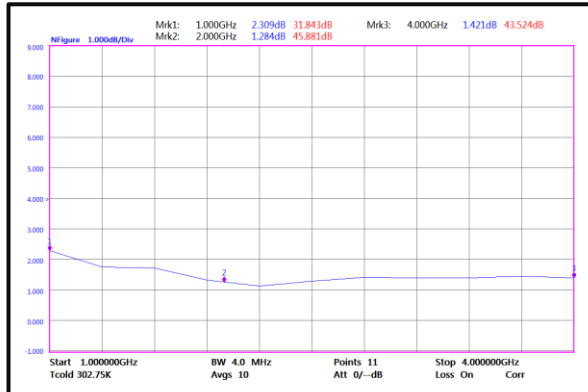


Saturation Power vs. Frequency

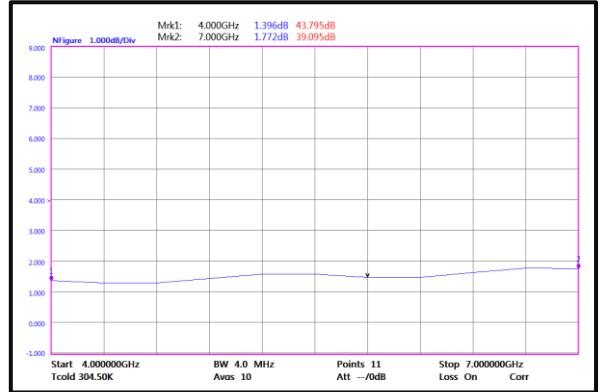




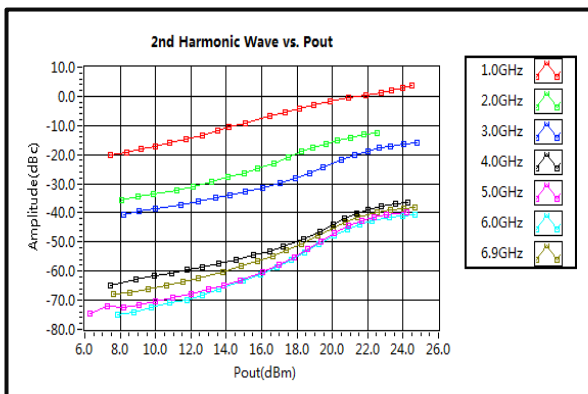
Noise Figure(1GHz-4GHz)



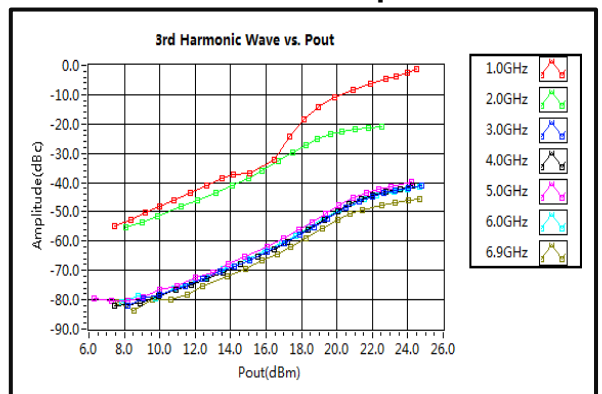
Noise Figure(4GHz-7GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

