Low Noise Amplifier 0.1GHz~6GHz

Features

- Gain: 30dB Typical
- Noise Figure: 3.0dB Typical
- Output P1dB : +26dBm
- Supply Voltage: +12V
- 50 Ohm Matched

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	0.1		3	3		6	GHz
Gain	33	37		33	36		dB
Gain Flatness		±1.0			±1.0		dB
Gain Variation Over Temperature (-40ºC~+85ºC)		±0.8			±0.8		dB
Noise Figure		4.5			2.0	3.5	dB
Input VSWR		2.0			1.8		:1
Output VSWR		1.3			1.5		:1
Output 1dB Compression Point (P1dB)	25	26		23	24		dBm
Saturated Output Power (Psat)		28			27		dBm
Output Third Order Intercept (OIP3)		36			34		dBm
Supply Current (Vcc=+12V)		290	350		290	350	mA
Isolation S12		-60			-55		dB

Weight	2.47 ounces	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Nickel Plated	Package Seal	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)

Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power (RFIN)	+2dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing

Power OFF Procedure

Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

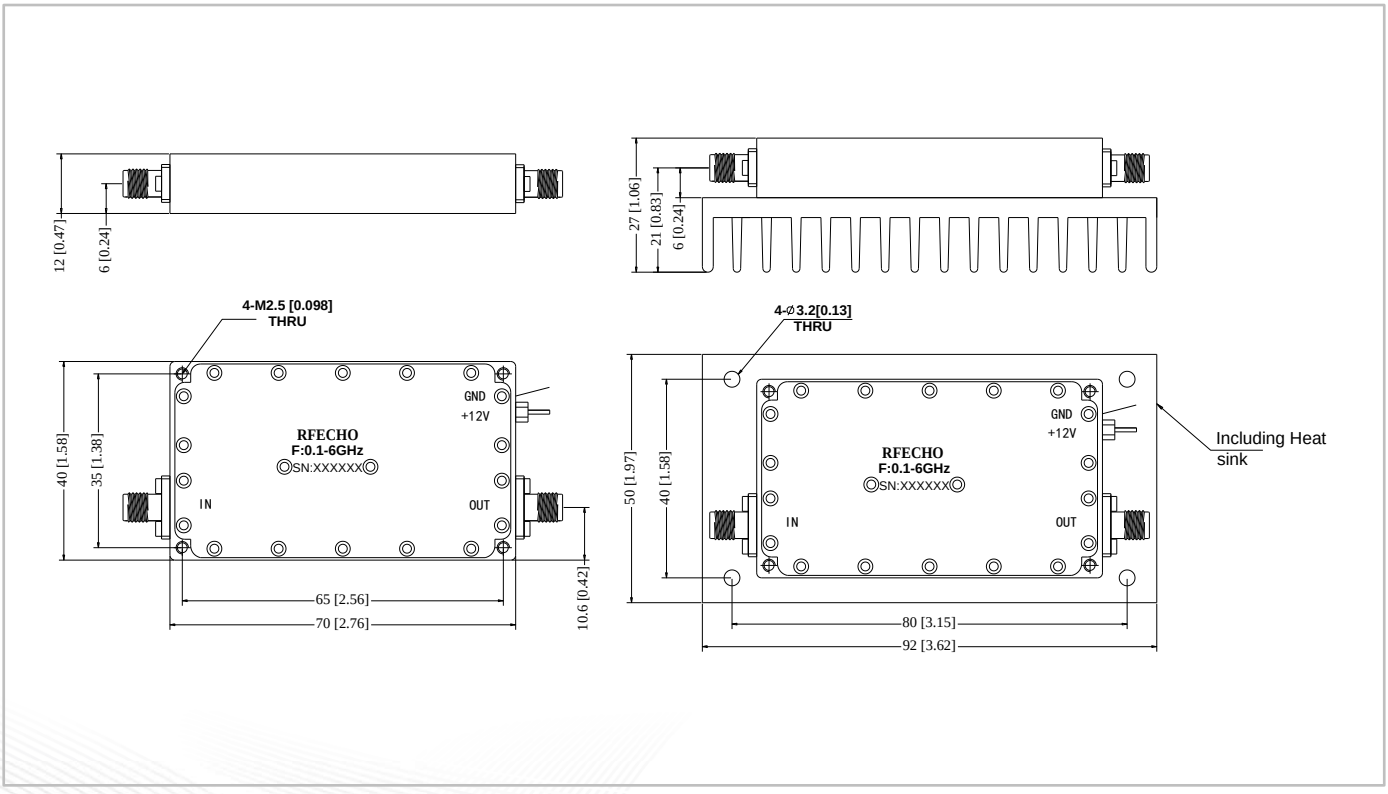
Environmental Specifications

Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
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 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

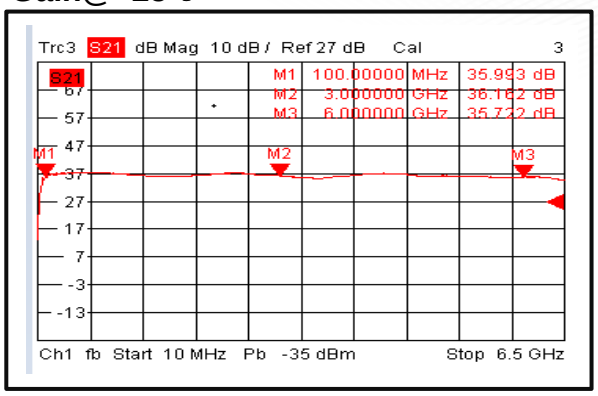
Outline Drawing:

All Dimensions in mm (inches)

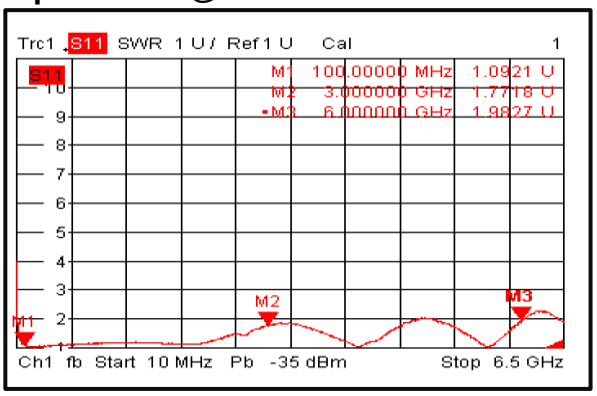
Heat Sink required during operation(Sold Separately)



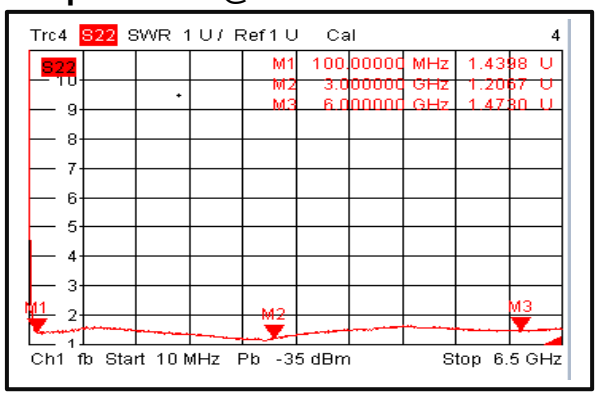
Gain@+25℃



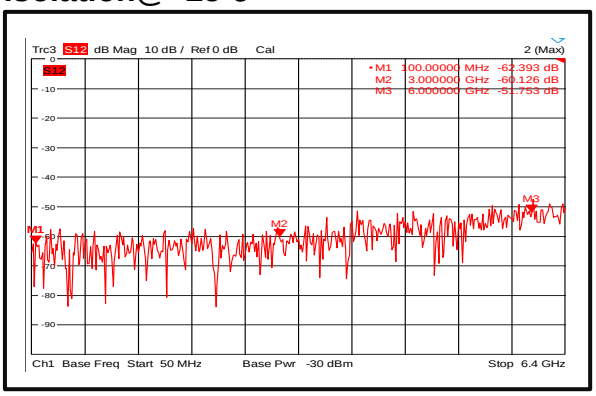
Input VSWR@+25℃



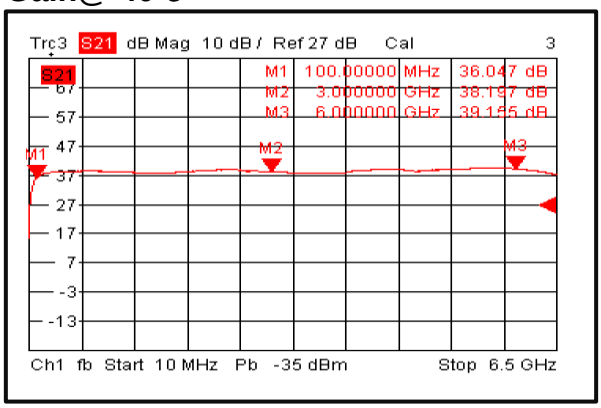
Output VSWR@+25℃



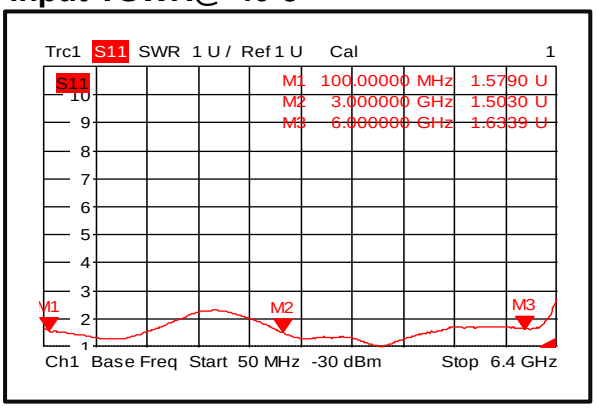
Isolation@+25℃



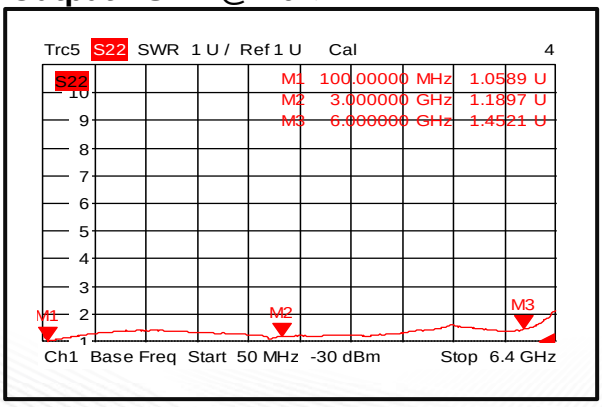
Gain@-40℃



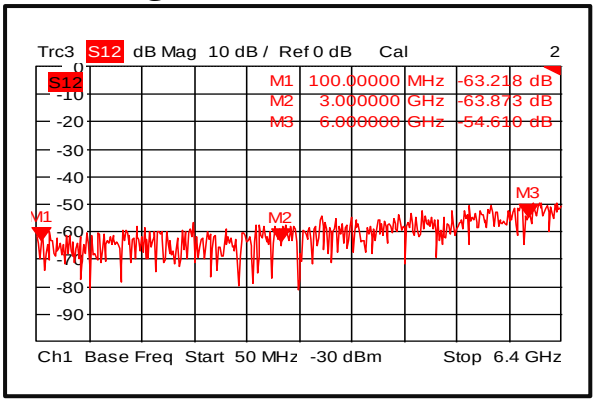
Input VSWR@-40℃



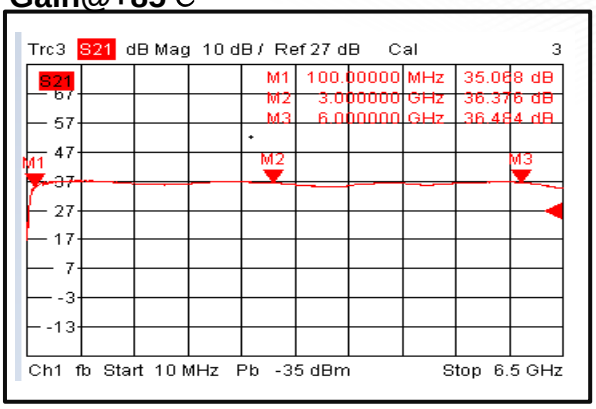
Output VSWR@-40℃



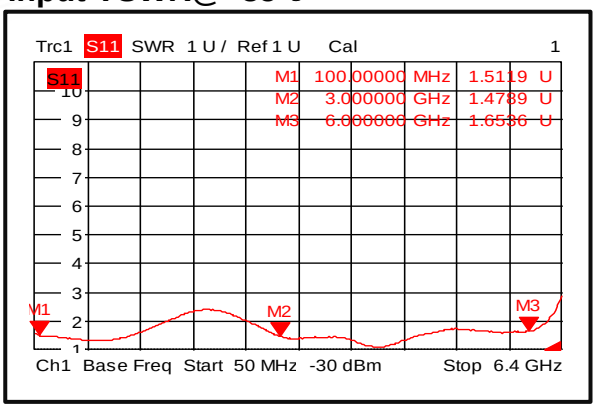
Isolation@-40℃



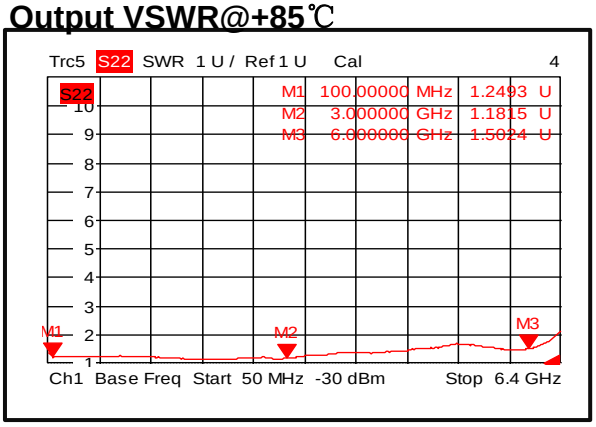
Gain@+85℃



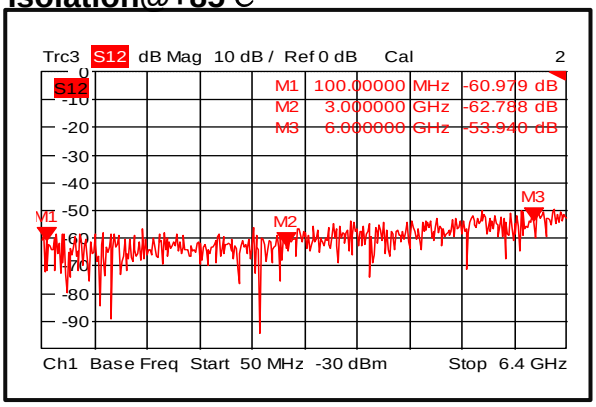
Input VSWR@+85℃



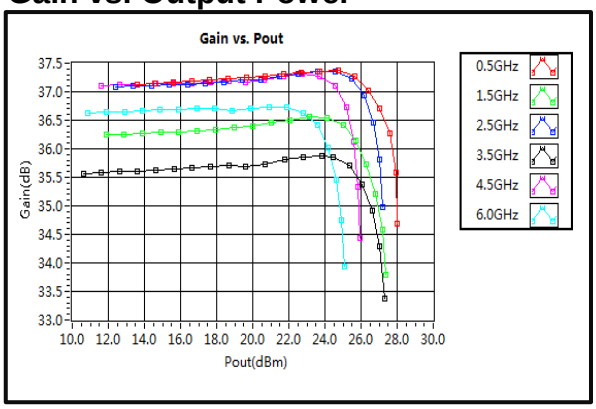
Output VSWR@+85℃



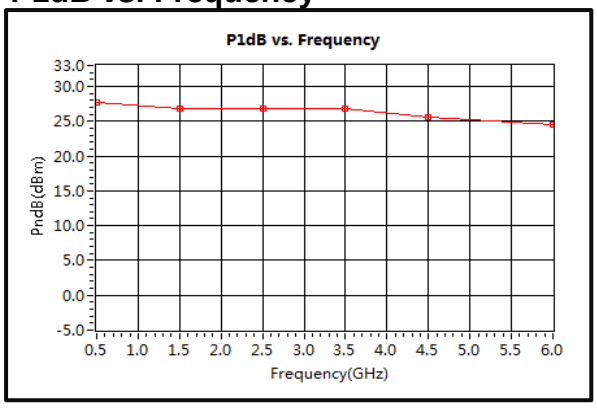
Isolation@+85℃



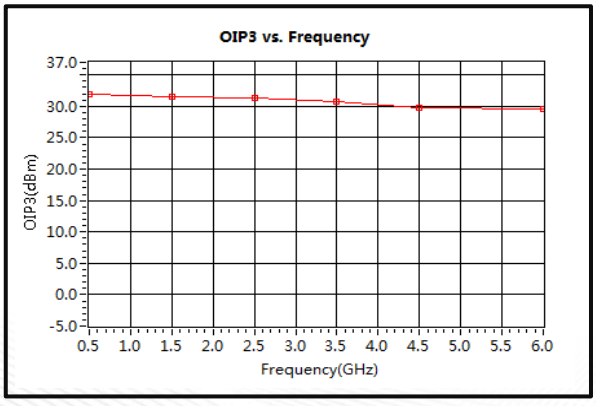
Gain vs. Output Power



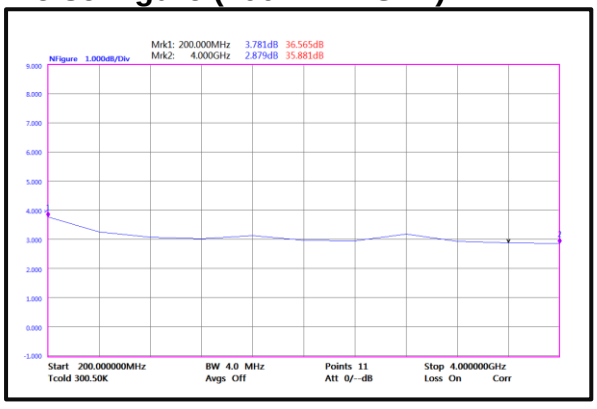
P1dB vs. Frequency



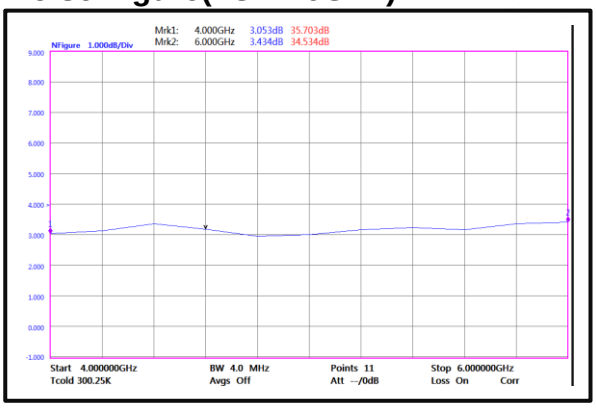
Output Third Order Intercept (OIP3)



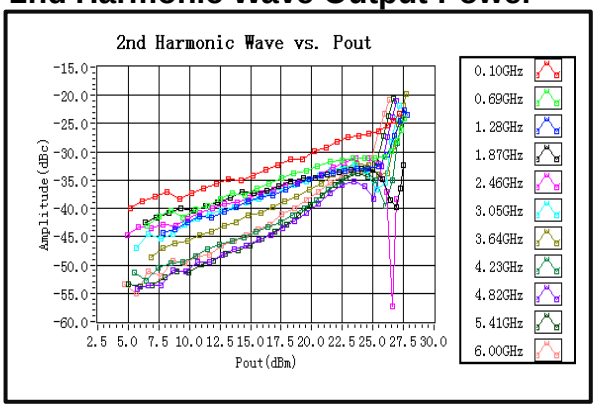
Noise Figure (200MHz-4GHz)



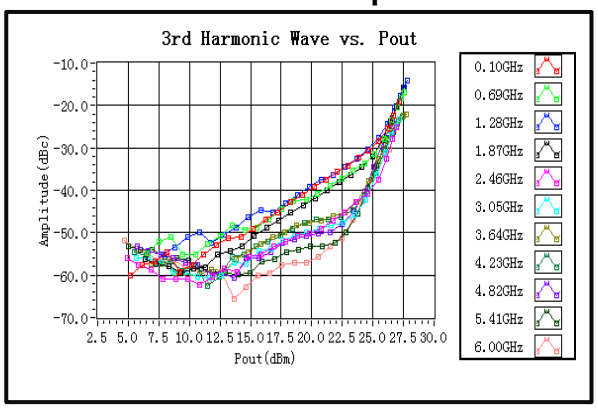
Noise Figure(4GHz-6GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power