



# Low Noise Amplifier 1.55GHz~1.6GHz

## Features

- Gain: 36dB Typical
- Noise Figure: 1.2dB Typical
- P1dB Output Power: +20dB m Typical
- Supply Voltage: +12V @ 160mA
- 50 Ohm Matched Input / Output
- Size: 0.99" x 1.10" x 0.39"



## 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	1.55		1.58	1.58		1.6	GHz
Gain	37	38		37	38		dB
Gain Flatness		±0.5	±0.8		±0.5	±0.8	dB
Gain Variation Over Temperature (-40 ~ +85)		±1.0			±1.0		dB
Noise Figure		1.2	1.6		1.2	1.6	dB
Input VSWR		1.3	1.6		1.3	1.6	: 1
Output VSWR		1.3	1.6		1.3	1.6	: 1
Output Power for 1 dB Compression (P1dB)	19	21		19	21		dBm
Saturated Output Power (Psat)		22			22		dBm
Output Third Order Intercept (OIP3)		36			36		dBm
Isolation S12		-55			-55		dB
Supply Current (Idd) (Vcc=+12V)		160	200		160	200	mA
Input Max Power(no damage)		+10			+10		dBm

Weight	0.71ounces	Impedance	50 ohms
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	+13V
RF Input Power (RFIN)	+20dBm

### 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

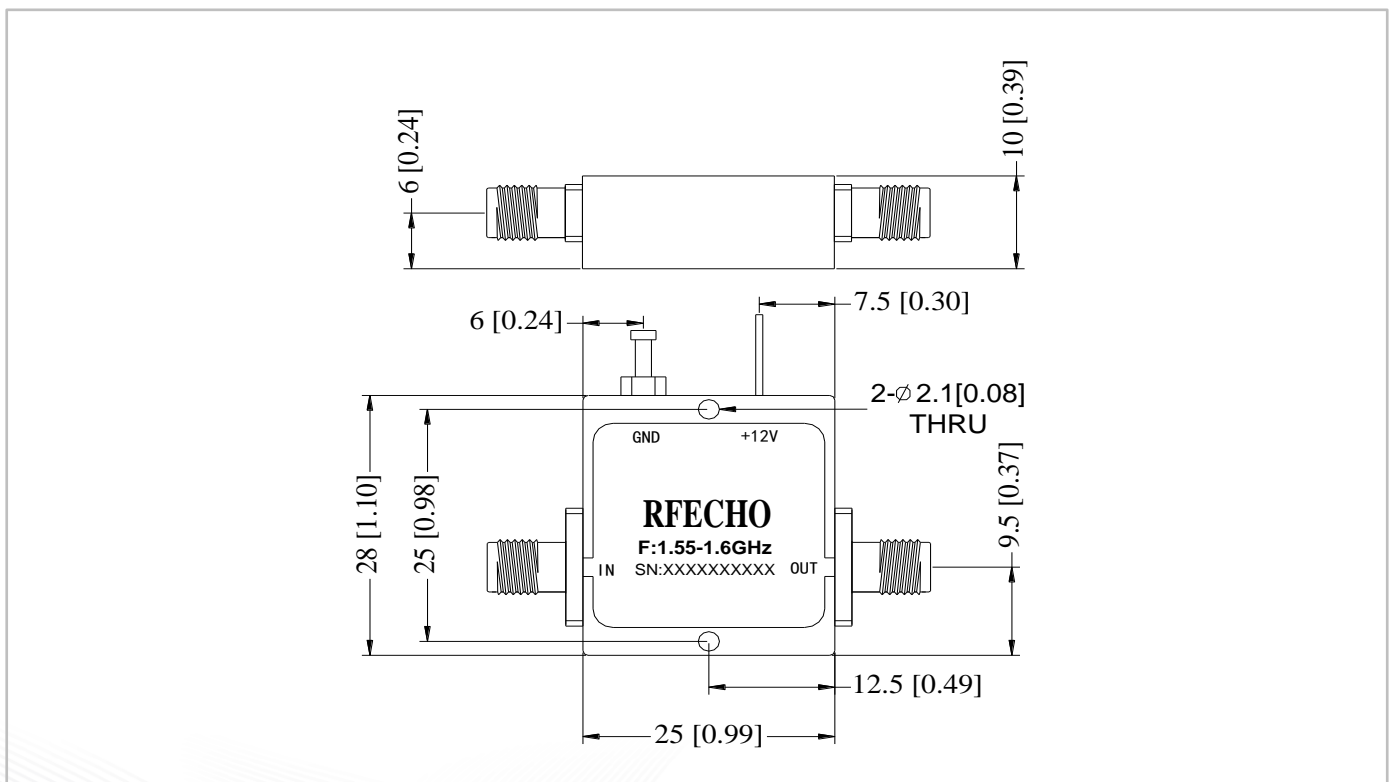
### Environmental Specifications

Operational Temperature	-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:

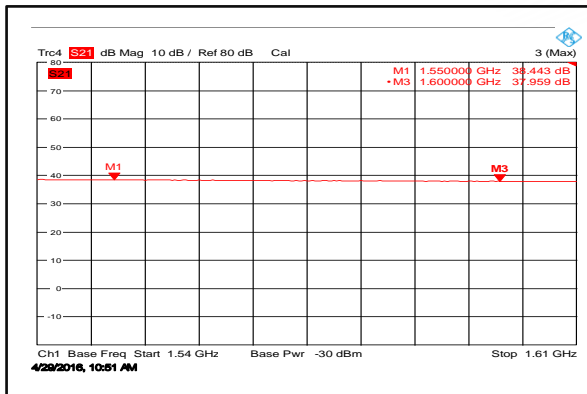
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

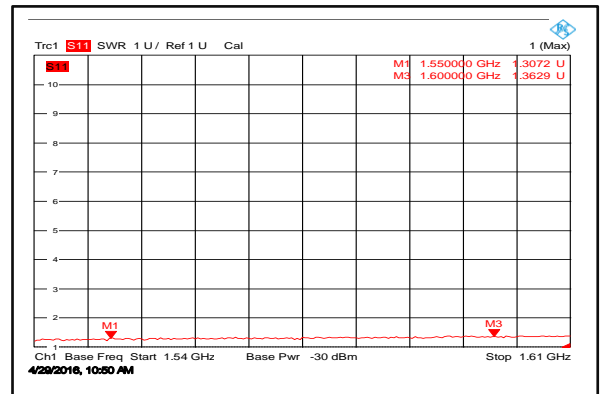




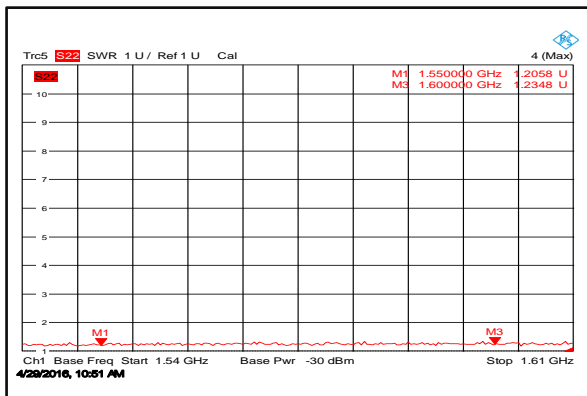
### Gain



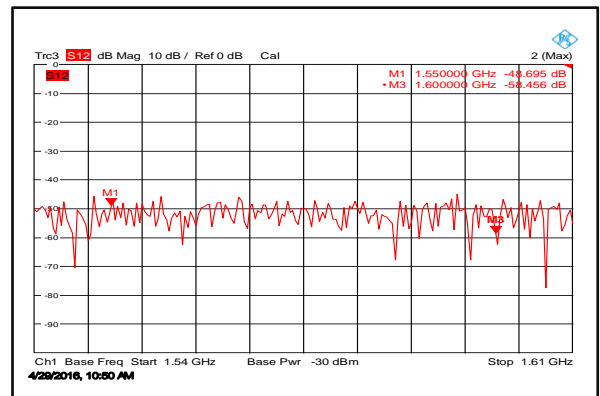
### Input VSWR



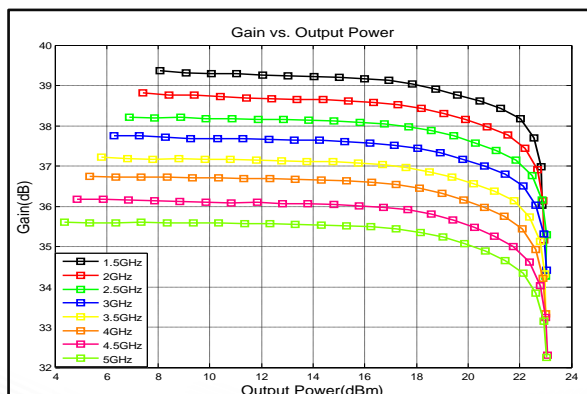
### Output VSWR



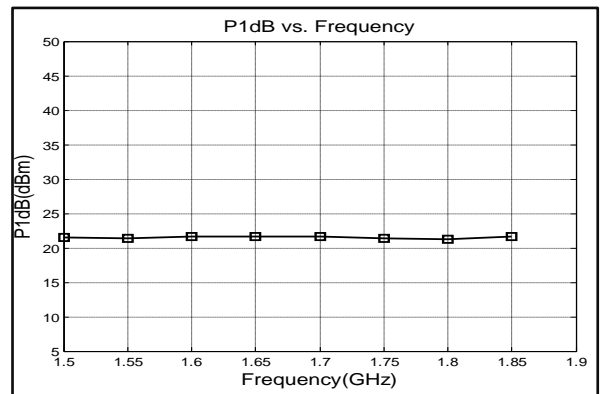
### Isolation



### Gain vs. Output Power

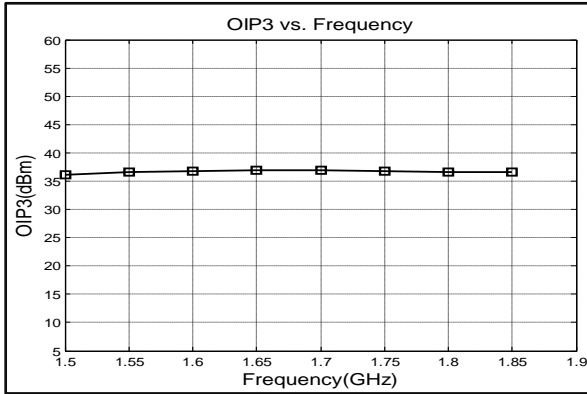


### P1dB vs. Frequency

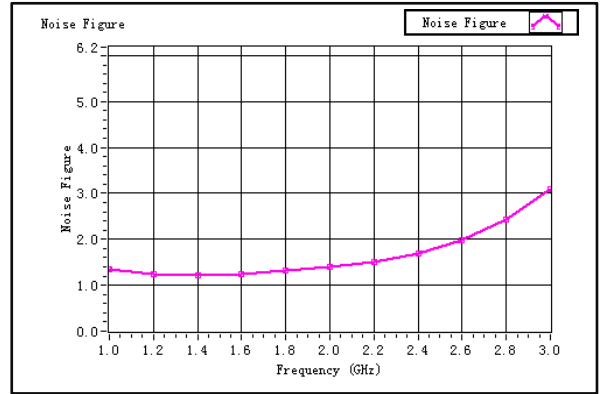




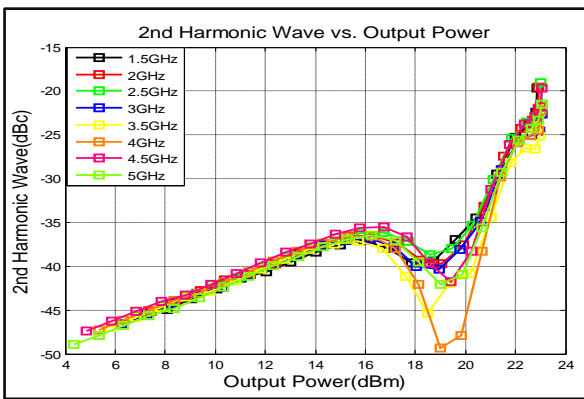
### Output Third Order Intercept (OIP3)



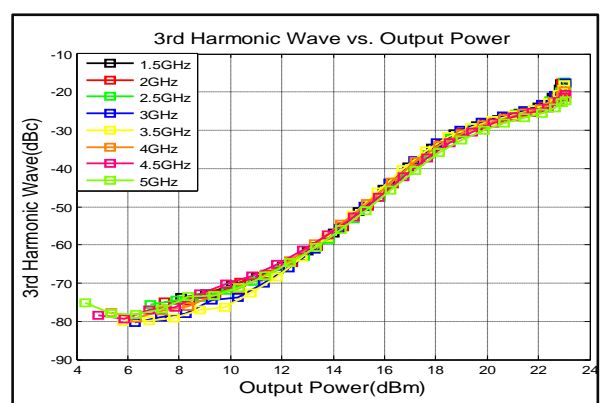
### Noise Figure



### 2nd Harmonic Wave Output Power



### 3rd Harmonic Wave Output Power



### 4th Harmonic Wave Output Power

