



# Ultra Wide Band Low Noise Amplifier 0.8GHz~2.5GHz

## Features

- Gain: 60dB Typical
- Noise Figure: 0.8dB Typical
- P1dB Output Power: +19dBm Typical
- Supply Voltage: +15V
- 50 Ohm Matched Input / Output



## Typical Applications

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

RF Microwave & VSAT  
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.8		2.5	GHz
Gain	58	60		dB
Gain Flatness		±1.5	±2.5	dB
Gain Variation Over Temperature (-40°C~+85°C)		±1.0		dB
Noise Figure		0.8	1.0	dB
Input VSWR		1.4		: 1
Output VSWR		1.8	2.5	: 1
Output Power for 1 dB Compression (P1dB)	16	19		dBm
Saturated Output Power (Psat)		21		dBm
Output Third Order Intercept (OIP3)		30		dBm
Supply Current (Idd) (Vcc=+15V)		210	250	mA
Isolation S12		-70		dB

Weight	14.81	Impedance	50ohms
Input /Output Connectors	SMA-Female	Material	Aluminum
Finish	Black Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed(Option with extra charge)



### Absolute Maximum Ratings

Operating Voltage	+15V ± 10%
RF Input Power (RFIN)	-40dBm

### Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +15V biasing

### Power OFF Procedure

Step 1	Turn off +15V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

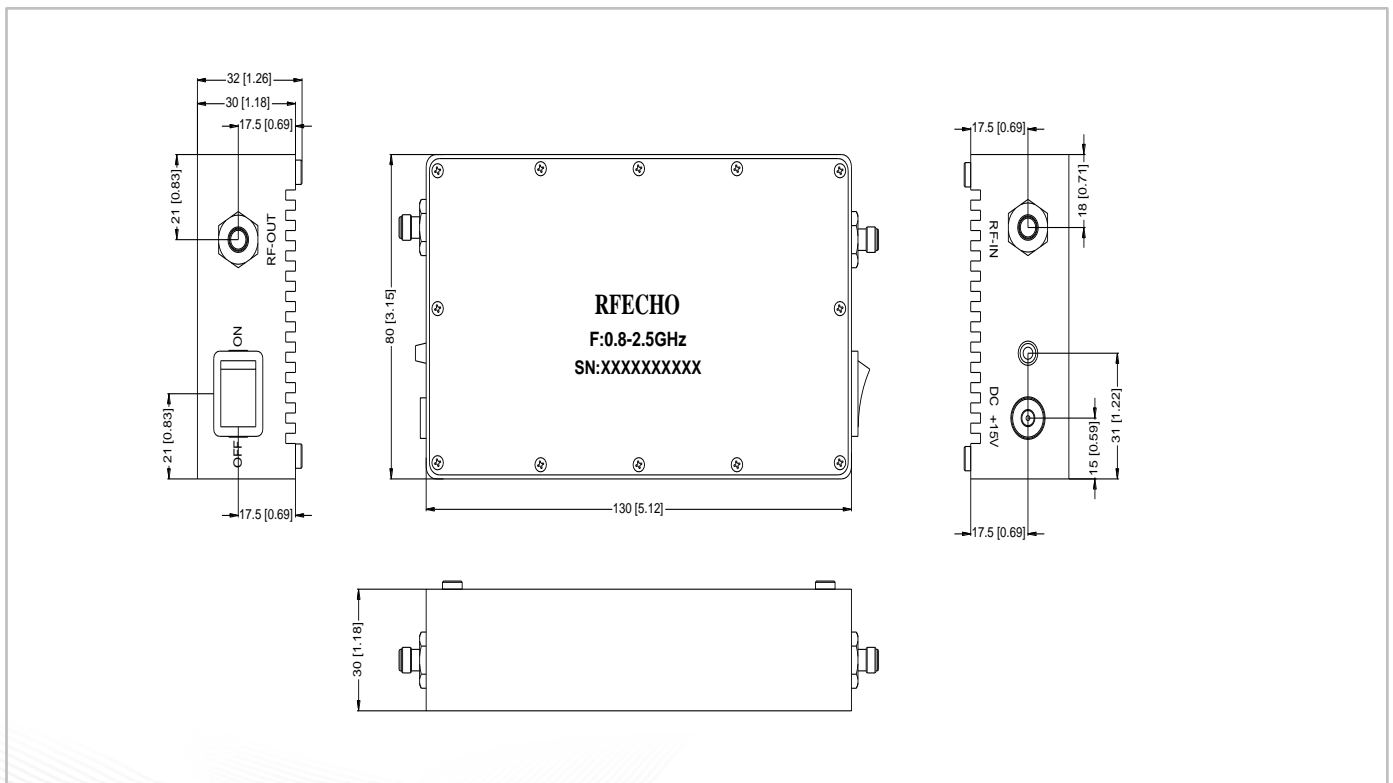
### Environmental Specifications

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:

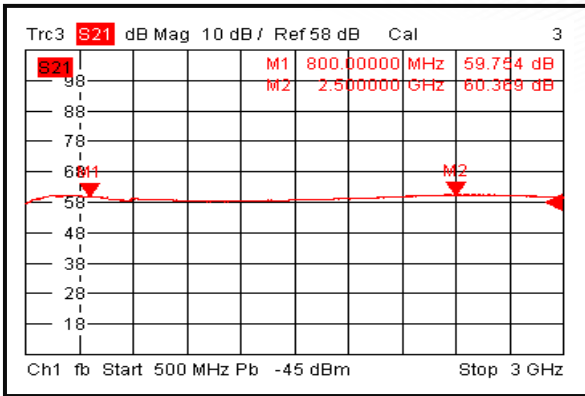
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

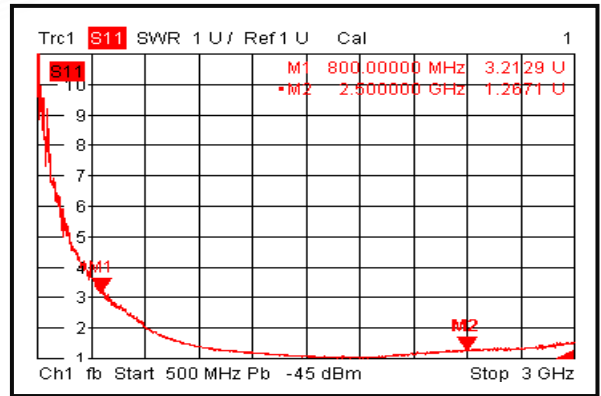




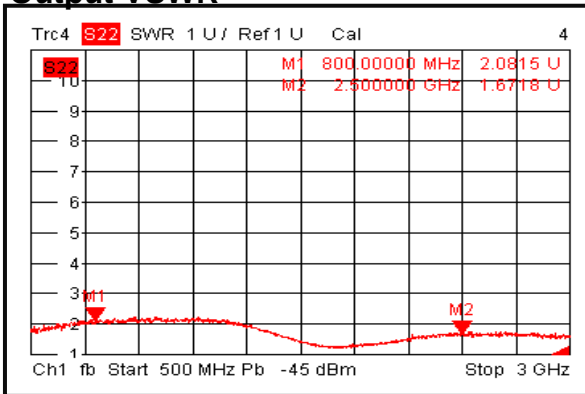
### Gain



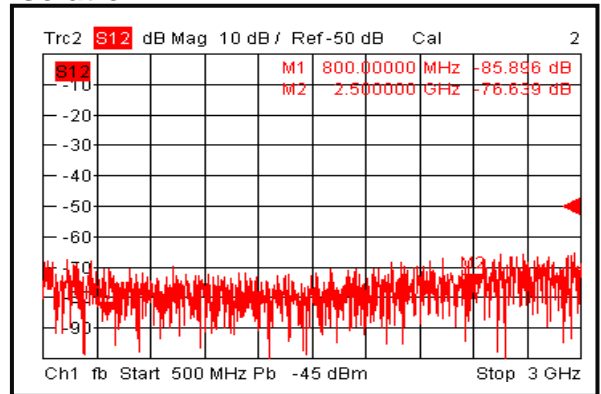
### Input VSWR



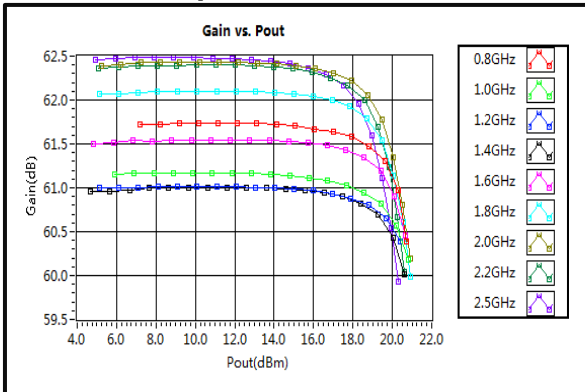
### Output VSWR



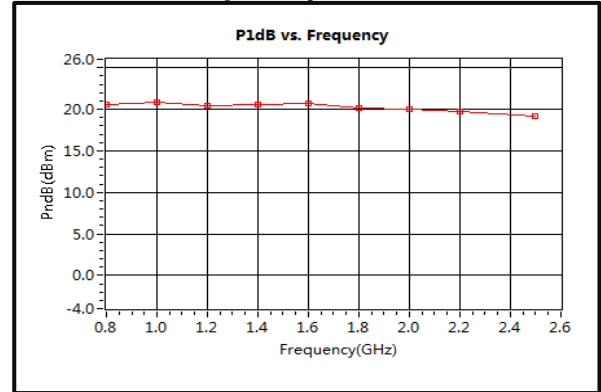
### Isolation



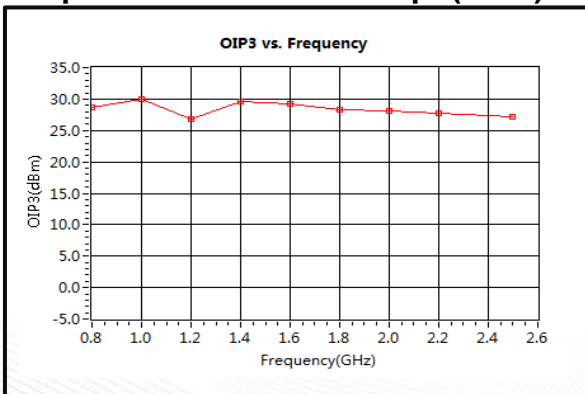
### Gain vs. Output Power



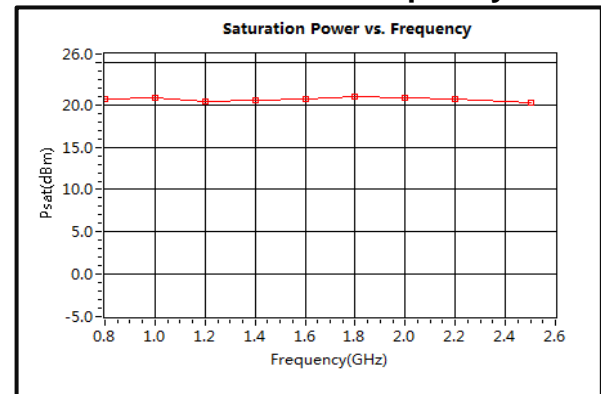
### P1dB vs. Frequency



### Output Third Order Intercept (OIP3)

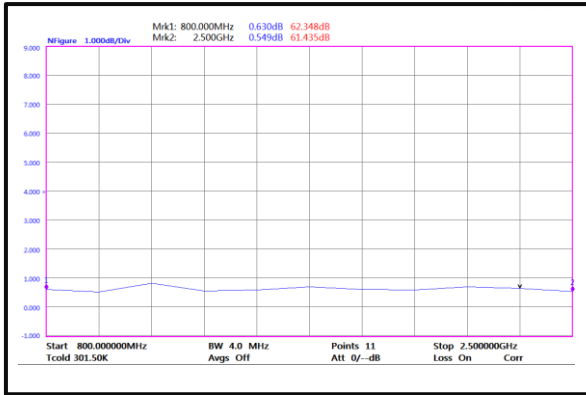


### Saturation Power vs. Frequency

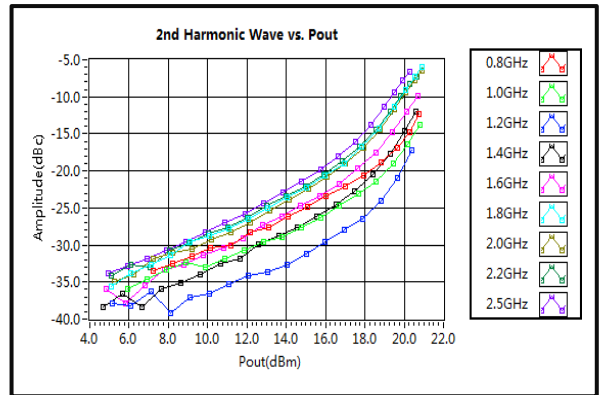




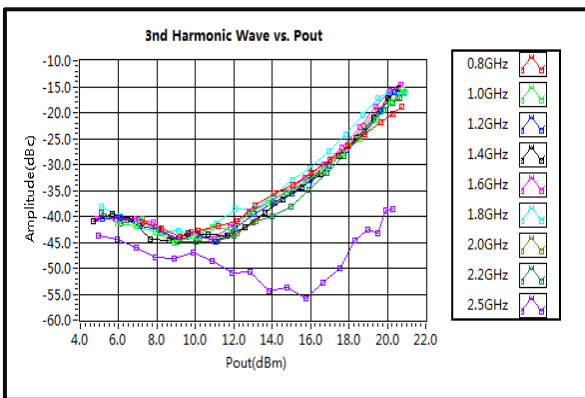
### Noise Figure



### 2nd Harmonic Wave Output Power



### 3rd Harmonic Wave Output Power



### 4th Harmonic Wave Output Power

