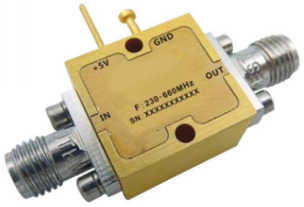
RFecho
A Gateway to RFWorld

Wide Band Low Noise Amplifier 230MHz ~ 660MHz

Features

- Gain: 26dB Typical
- Noise Figure: 0.6dB Typical
- P1dB Output Power: +23dBm
- Supply Voltage: +5V



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	230		660	MHz
Gain	23	26		dB
Gain Flatness		±1.0	±2.0	dB
Gain Variation Over Temperature (-40ºC~+85ºC)		±0.8	±1.0	dB
Noise Figure		0.6	0.8	dB
Input VSWR		1.6		: 1
Output VSWR		1.8		: 1
Output Power for 1 dB Compression (P1dB)	20	23		dBm
Saturated Output Power (Psat)		25		dBm
Output Third Order Intercept (OIP3)		37		dBm
Supply Current (Vcc=+5V)		115	150	mA
Isolation S12		-32		dB

Weight	0.35 ounces	Impedance	50ohms
Input / Output Connectors	SMA-Female	Material	Aluminum
Finish	Gold Plated	Package Seal	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)

Absolute Maximum Ratings

Operating Voltage	+6V
RF Input Power (RFIN)	+18 dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +5V biasing

Power OFF Procedure

Step 1	Turn off +5V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

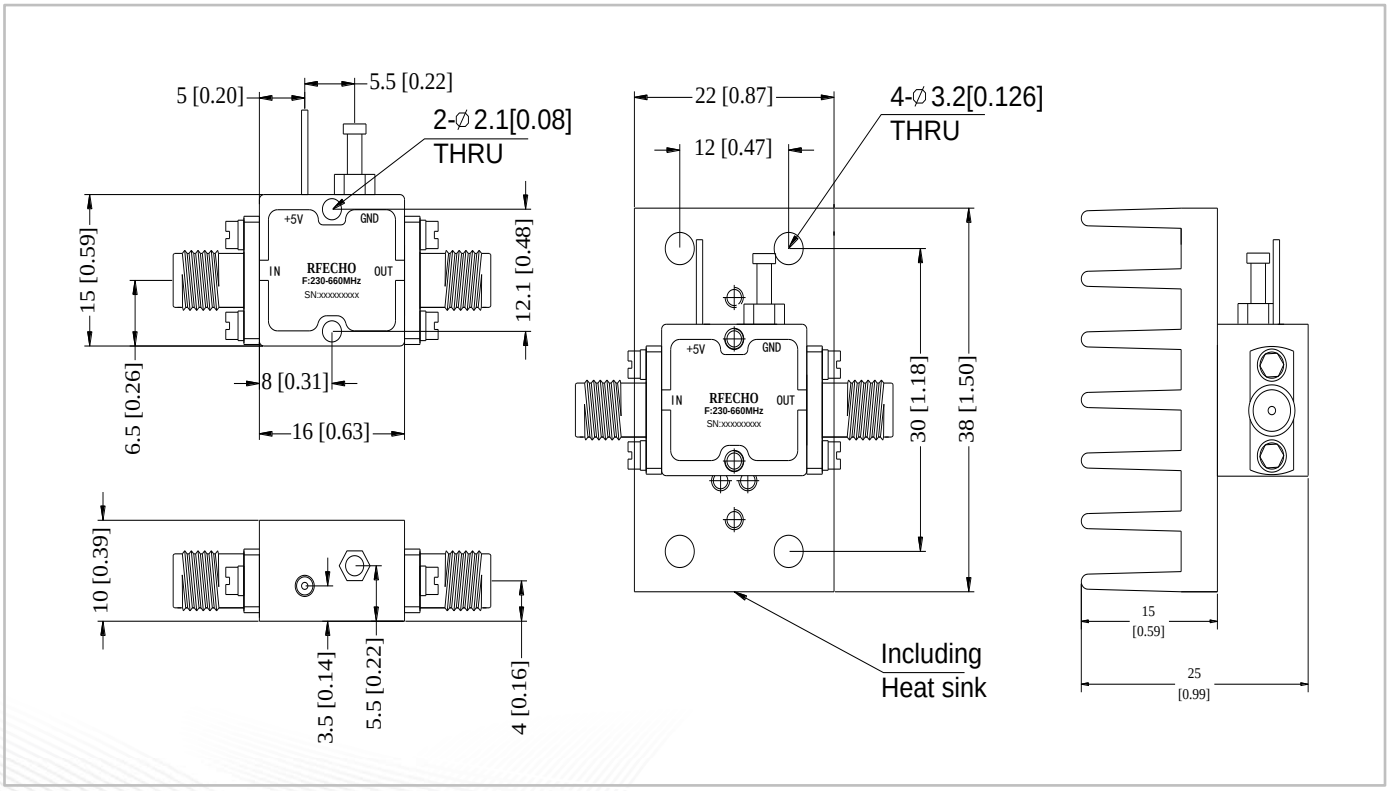
Environmental Specifications

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

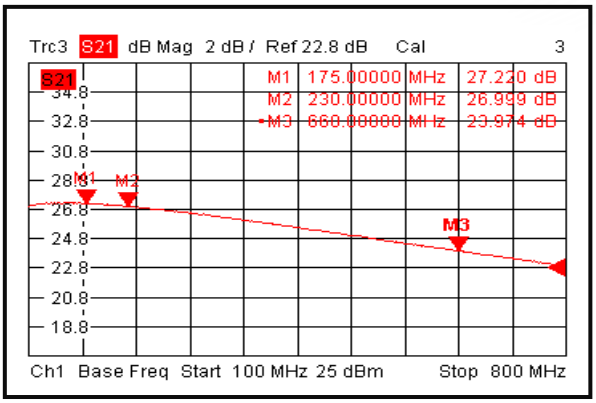
Outline Drawing:

All Dimensions in mm (inches)

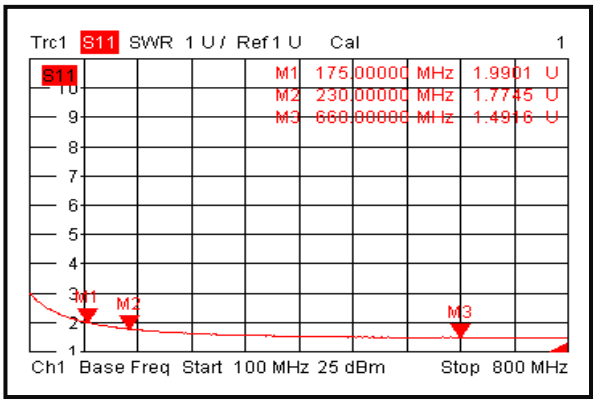
Heat Sink required during operation(Sold Separately)



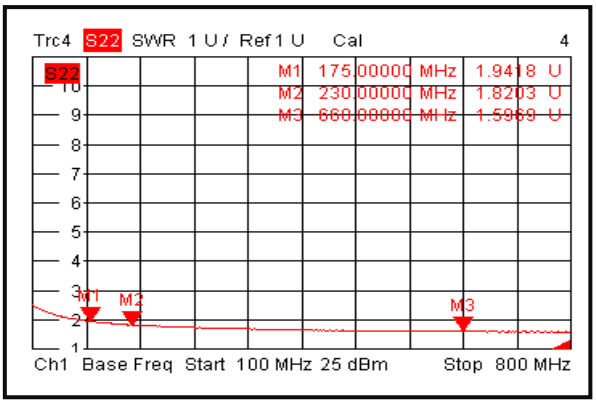
Gain @+25℃



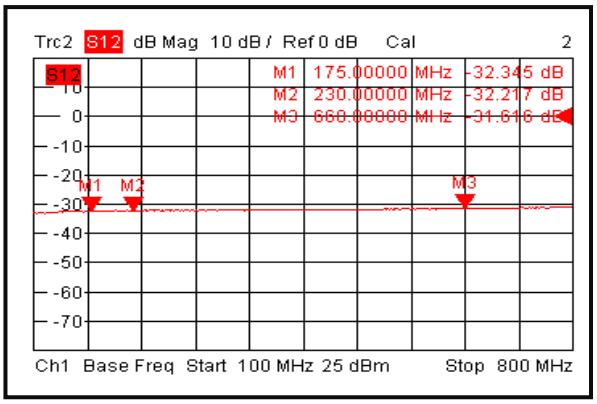
Input VSWR @+25℃



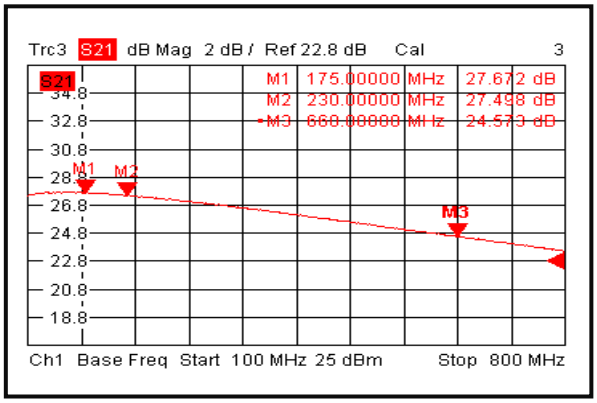
Output VSWR @+25℃



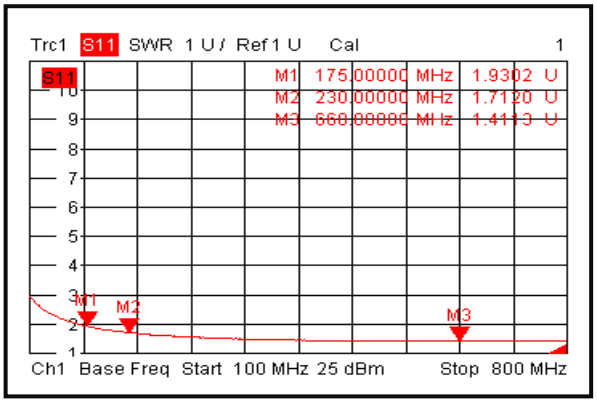
Isolation @+25℃



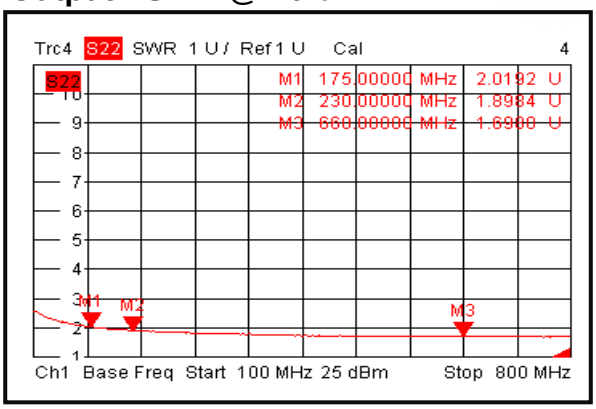
Gain @-40℃



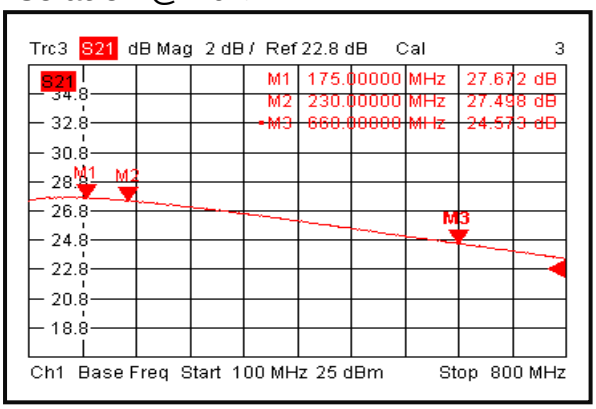
Input VSWR @-40℃



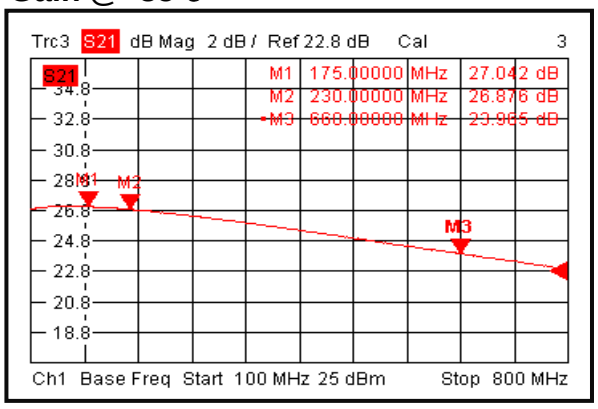
Output VSWR @-40℃



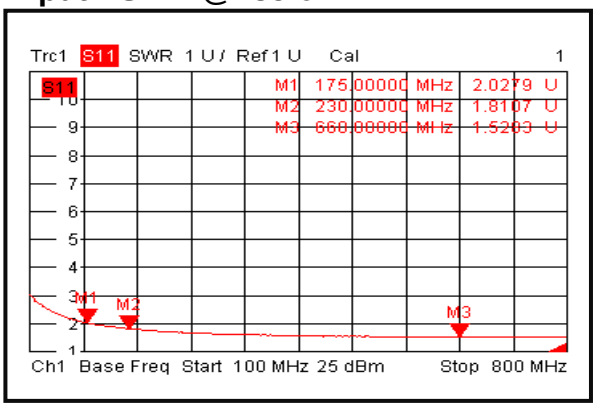
Isolation @-40℃



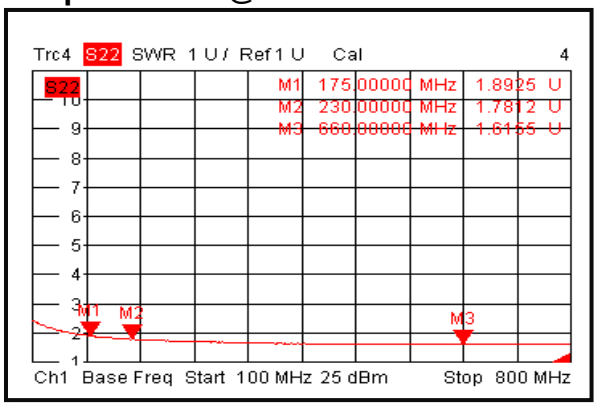
Gain @+85℃



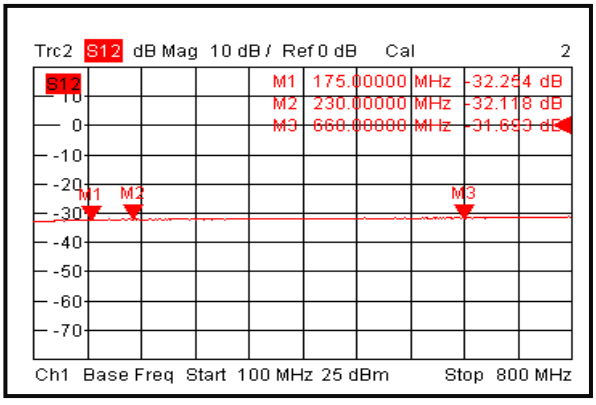
Input VSWR @+85℃



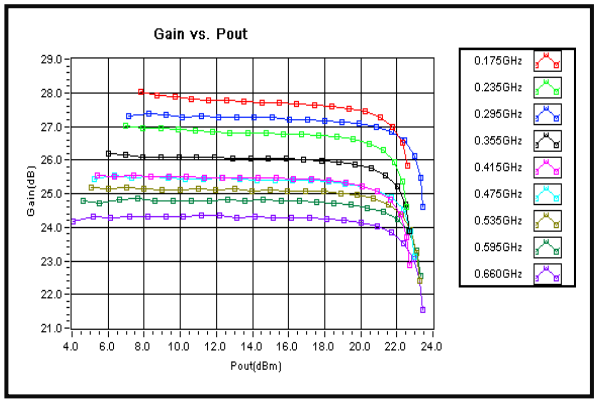
Output VSWR @+85℃



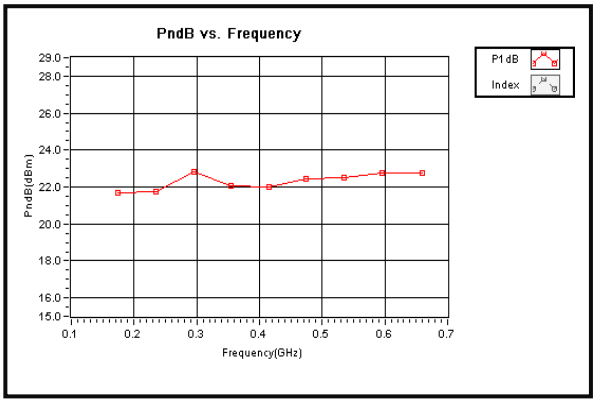
Isolation @+85℃



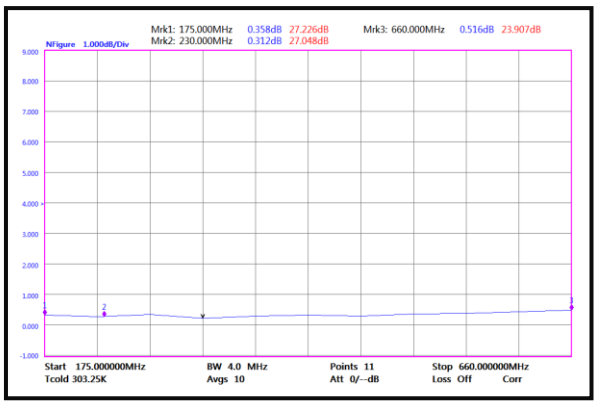
Gain vs. Output Power



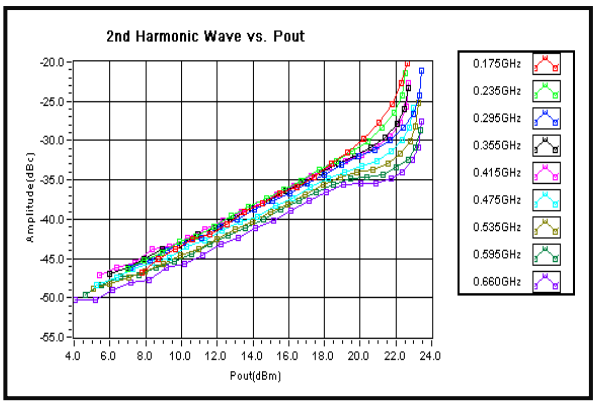
P1dB vs. Frequency



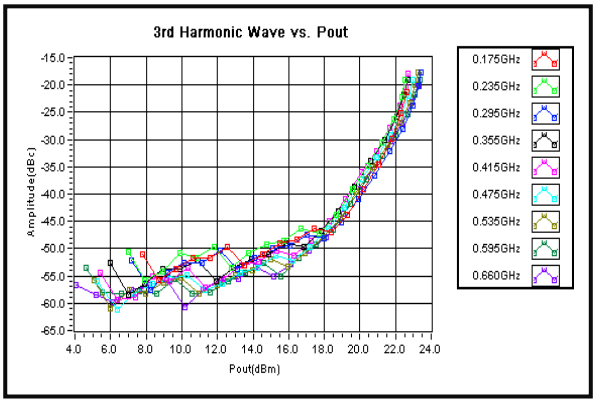
Noise Figure



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power