Ultra Wide Band AC-Low Noise Amplifier 0.03GHz~3GHz

Features

- High Output Power > 20dBm.
- High peak to average handling capability.
- High linearity and low noise figure.
- Convenient AC Power Input. (AC 110V ~ 220V)
- Integrated Heat Sink and Fan.

Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.03		1	1		3	GHz
Gain	32	35	38	32	35	37	dB
Gain Flatness		±1.0	±1.5		±1.0	±1.5	dB
Gain Variation Over Temperature (-40ºC~+85ºC)		±1.0			±1.0		dB
Noise Figure		2.5	3.5		2.5	4.0	dB
Input VSWR		2	2.5		1.6	2.5	: 1
Output VSWR		1.8	2.5		1.8	2.5	: 1
Output 1dB Compression Point (P1dB)	19	21		19	21		dBm
Saturated Output Power (Psat)		23			23		dBm
Output Third Order Intercept (OIP3)		36			37		dBm
Isolation S12		-65			-65		dB
Supply Current (Idd) (AC=220V)	65 Max.						mA

Weight	41 ounces Max.	Impedance	50ohms
Input /Output Connectors	N-Female	Material	Aluminum
Finish	Gray Painted		

Absolute Maximum Ratings

Supply Voltage	AC110~220V
RF Input Power(RFIN)	+30dBm

Biasing Up Procedure

Step 1	Connect input and output with 50 Ohm source and load with in band return loss better than 10dB.
Step 2	Connect AC Plug
Step 3	Flip switch to “ON” position

Power OFF Procedure

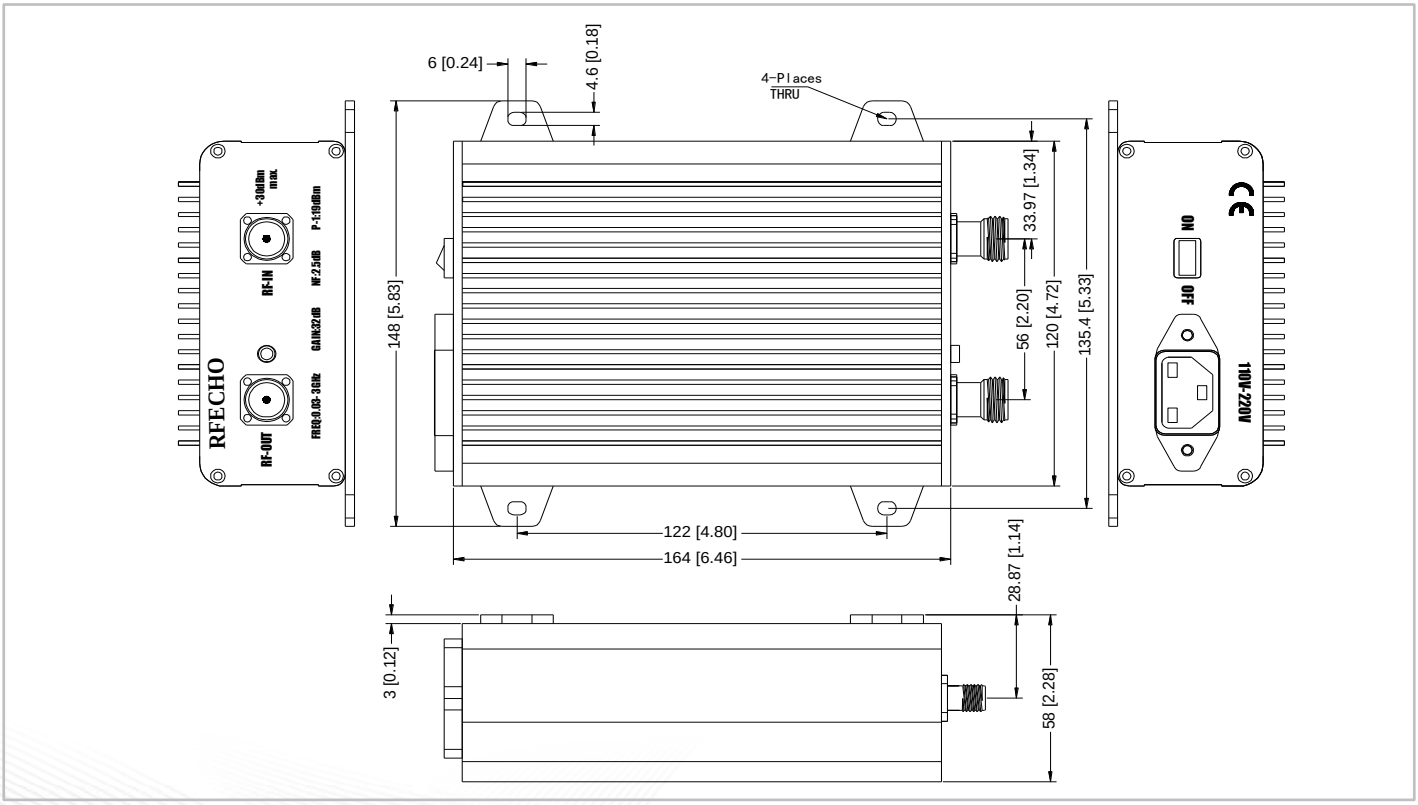
Step 1	Flip switch to “OFF” position
Step 2	Remove AC Plug
Step 3	Remove RF Connection

Environmental Specifications

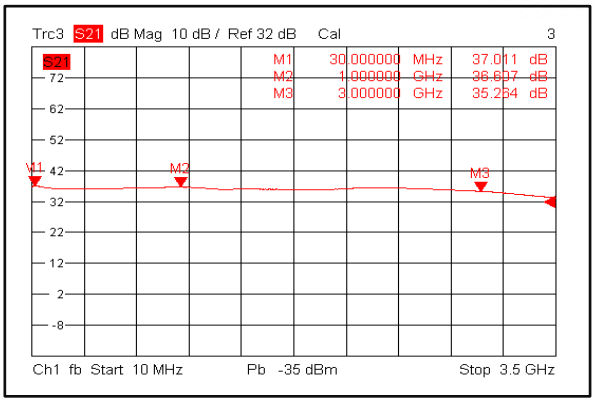
Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH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

Outline Drawing:

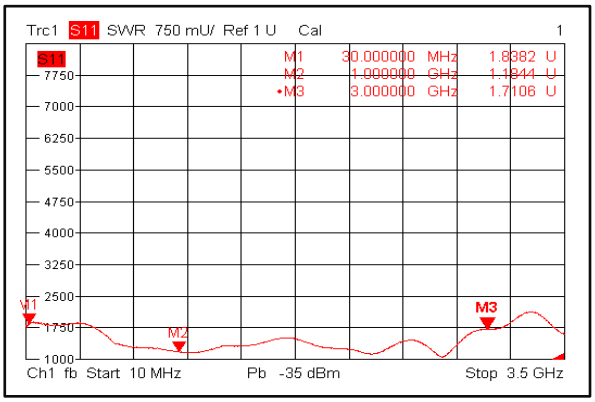
All Dimensions in mm (inches)



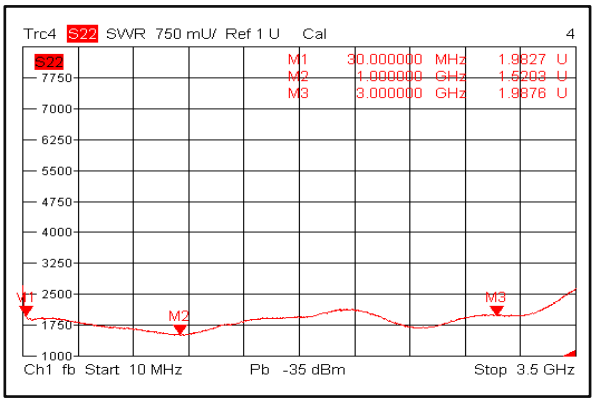
Gain



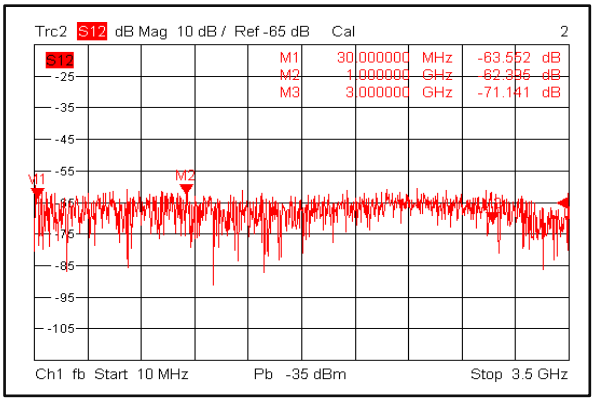
Input VSWR



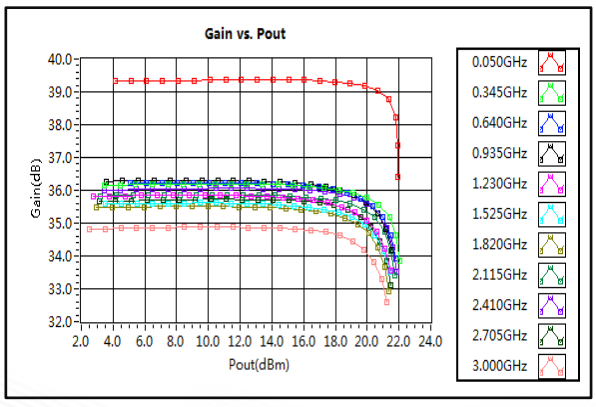
Output VSWR



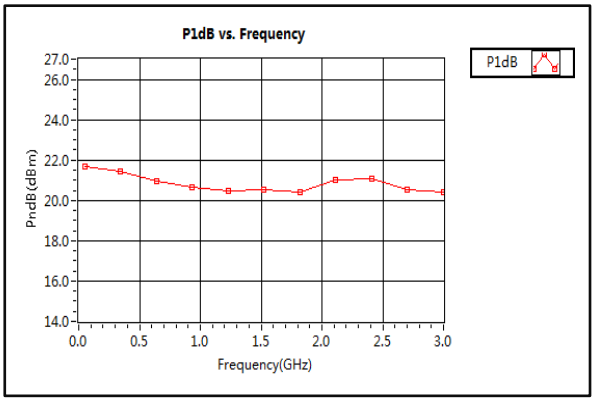
Isolation



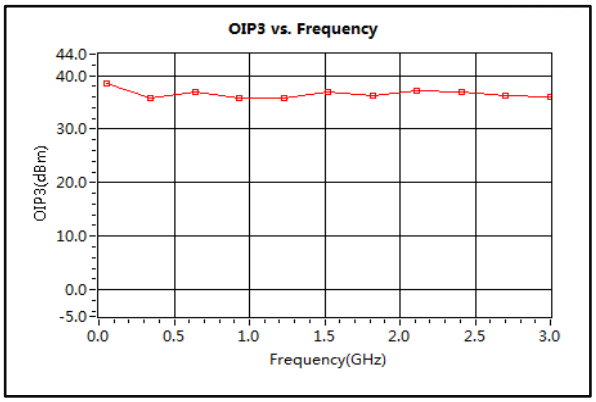
Gain vs. Output Power



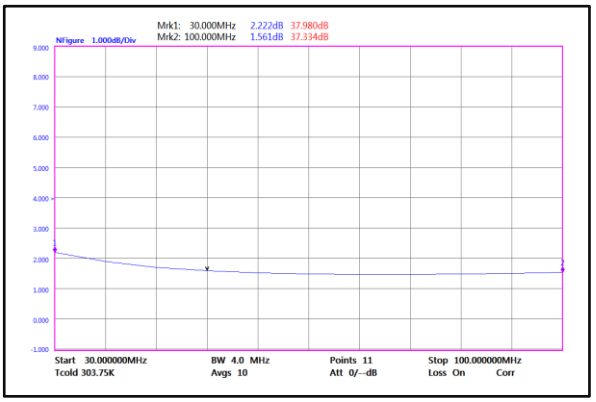
P1dB vs. Frequency



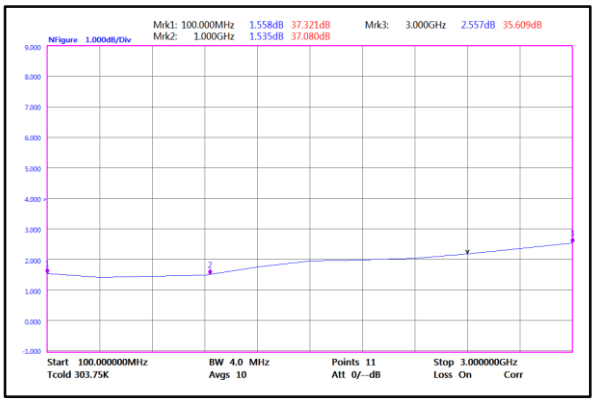
Output Third Order Intercept (OIP3)



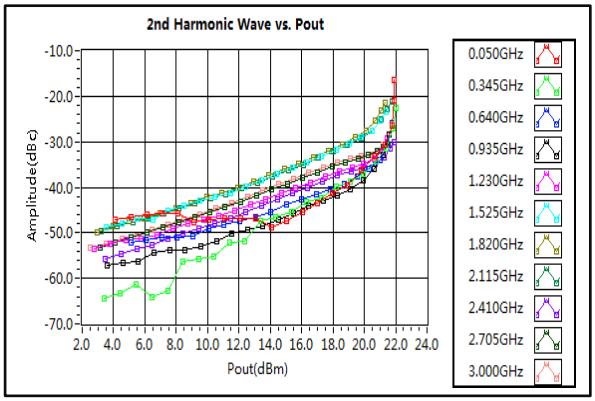
Noise Figure(30-100MHz)



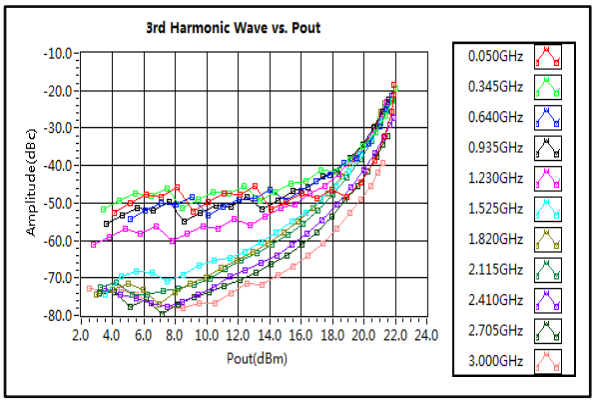
Noise Figure(0.1-3GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power