Ultra Wide Band AC–Low Noise Amplifier 0.01GHz~18GHz

Features

- High Output Power 23dBm typical.
- 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

- Microwave Radio and VSAT.
- Telecom Infrastructure.

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.01		10	10		18	GHz
Gain	26	31	33	26	30	33	dB
Gain Flatness		±1.0	±2.5		±1.0	±1.5	dB
Gain Variation Over Temperature (-40ºC~+85ºC)		±1.0			±1.0		dB
Noise Figure		3.8	5.5		3.2	4.5	dB
Input VSWR		1.5			1.6		: 1
Output VSWR		1.4			1.6		: 1
Output 1dB Compression Point (P1dB)	23	26		20	23		dBm
Saturated Output Power (Psat)		28			24		dBm
Output Third Order Intercept (OIP3)		35			30		dBm
Isolation S12		-65			-60		dB
Supply Current (AC=110~220V)		70			70		mA

Weight	39(Max). ounces	Impedance	50Ohms
Input /Output Connectors	SMA-Female	Material	Aluminum
Finish	Gray Painted		

Absolute Maximum Ratings

Operating Voltage	AC110~240V
RF Input Power (RFIN)	+0dB m

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

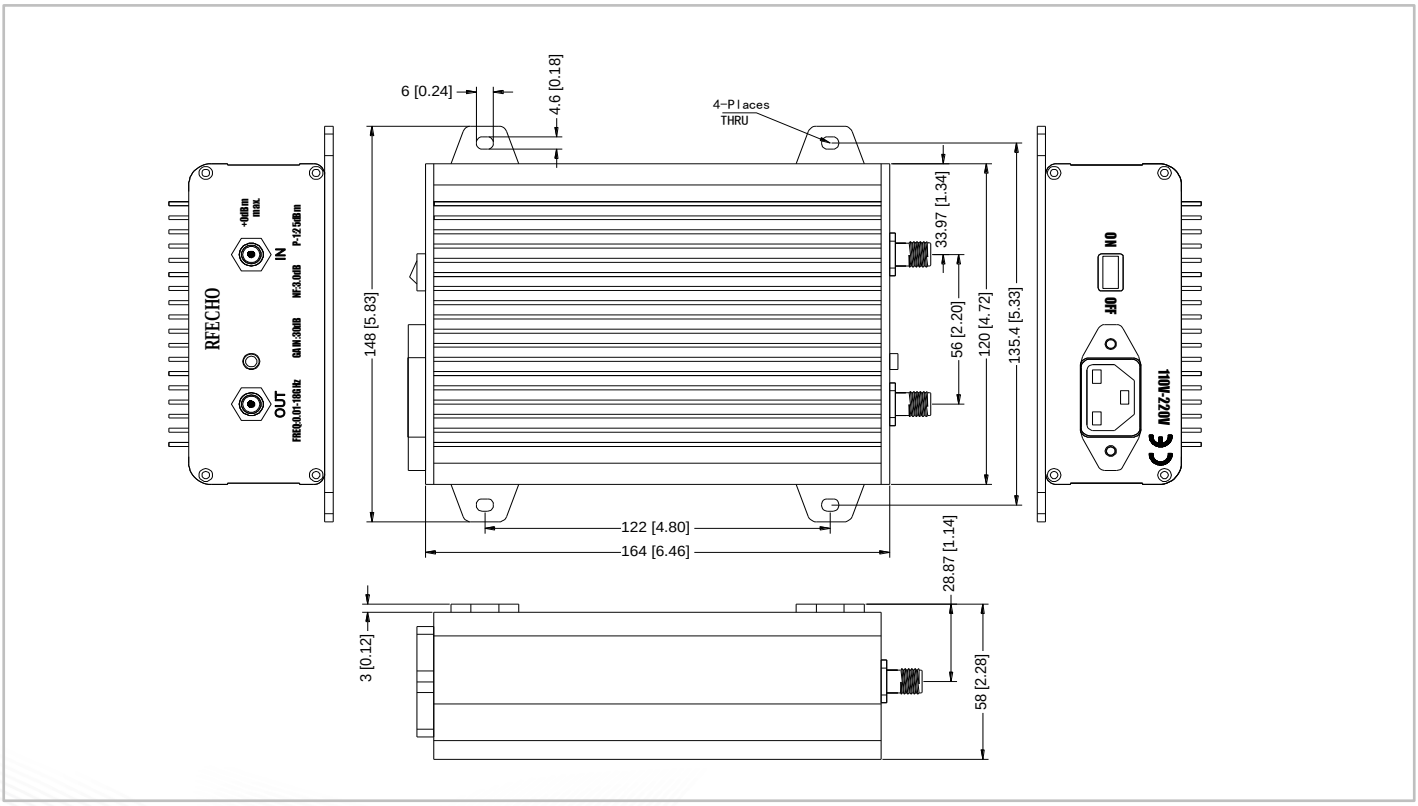
Step 1	Flip switch to “OFF” position
Step 2	Remove AC Plug
Step 3	Remove RF Connection

Environmental Specifications

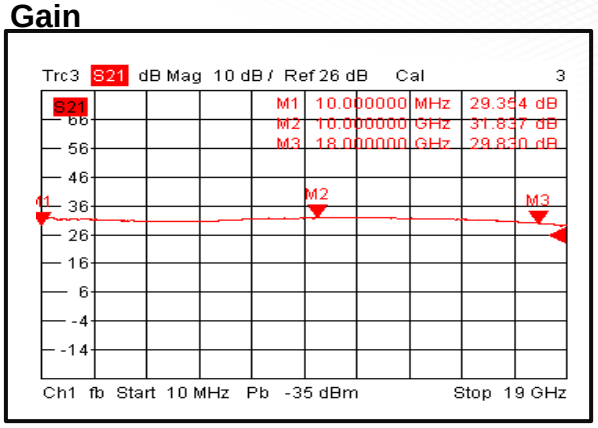
Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH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

Outline Drawing:

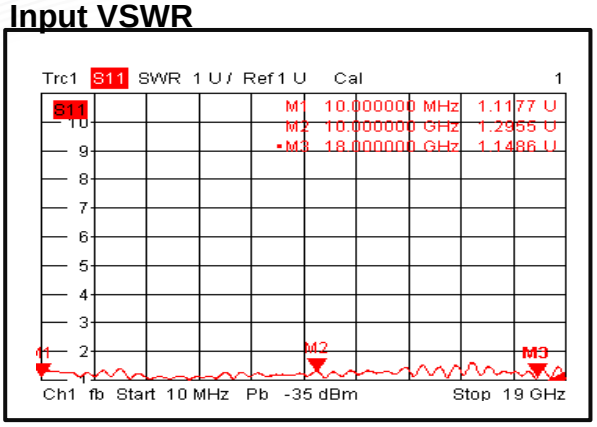
All Dimensions in mm (inches)



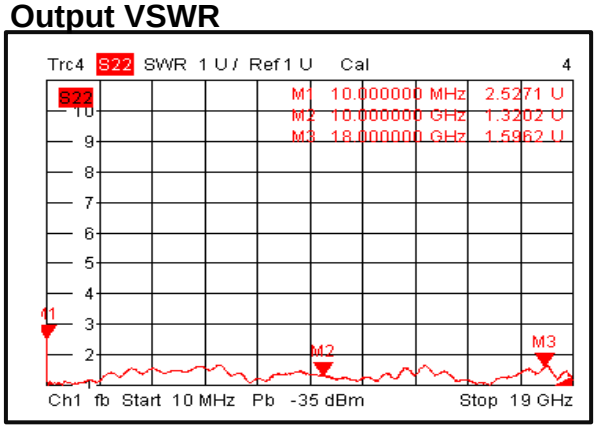
Gain



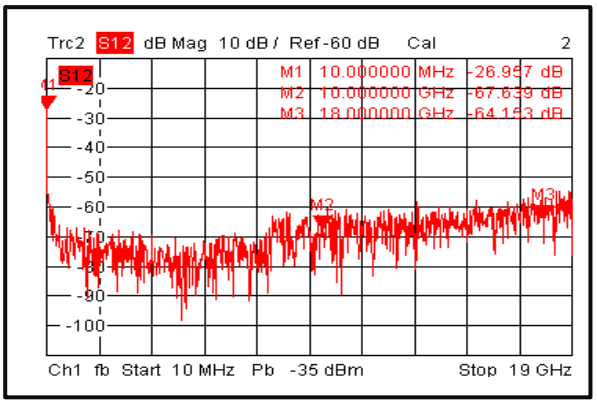
Input VSWR



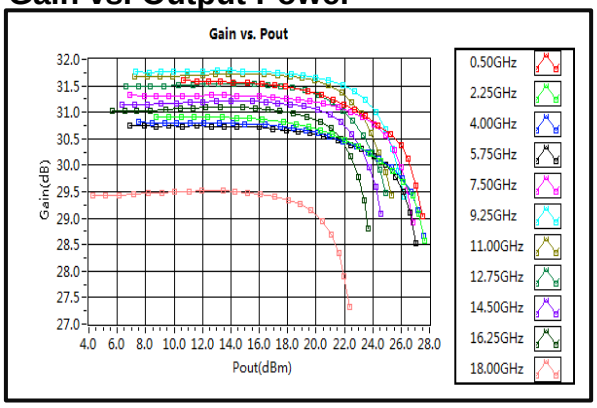
Output VSWR



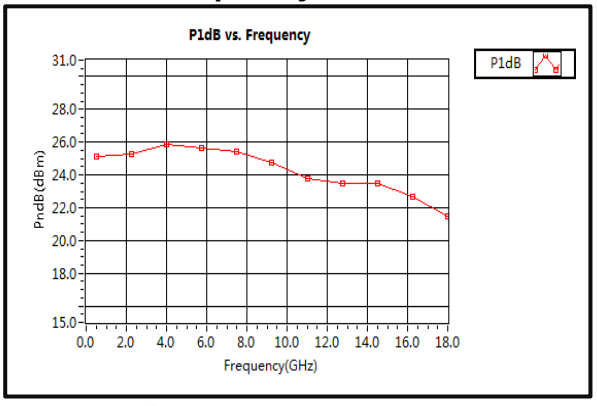
Isolation



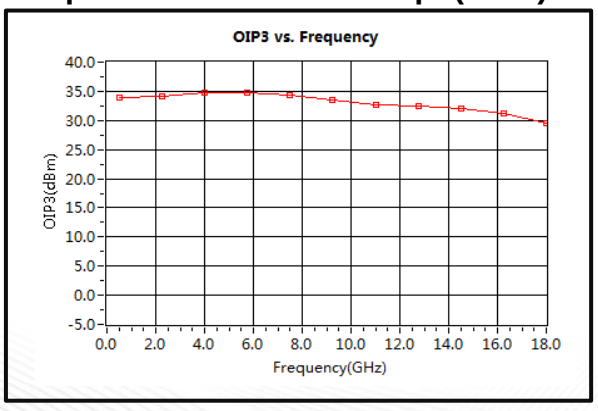
Gain vs. Output Power



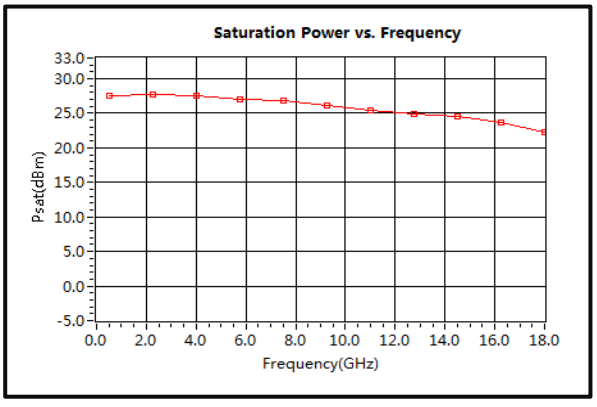
P1dB vs. Frequency



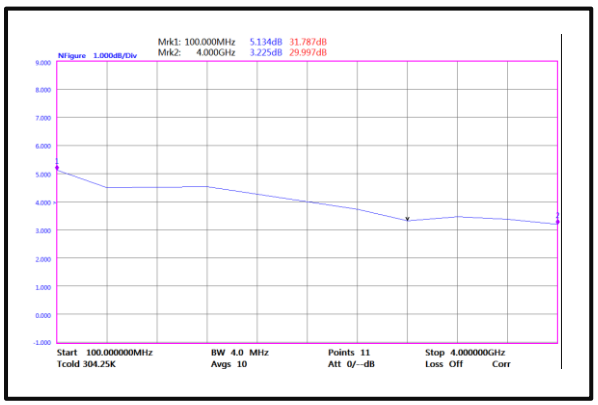
Output Third Order Intercept (OIP3)



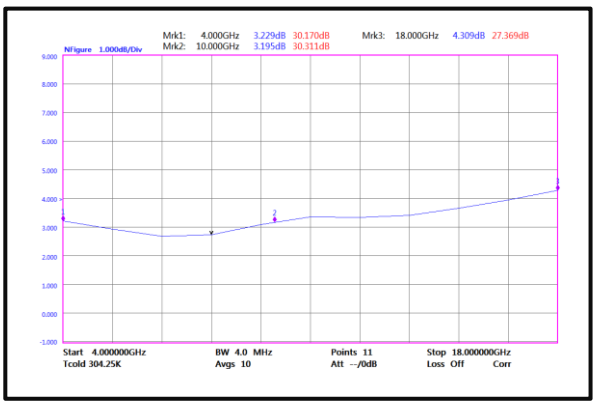
Saturated Power vs. Frequency



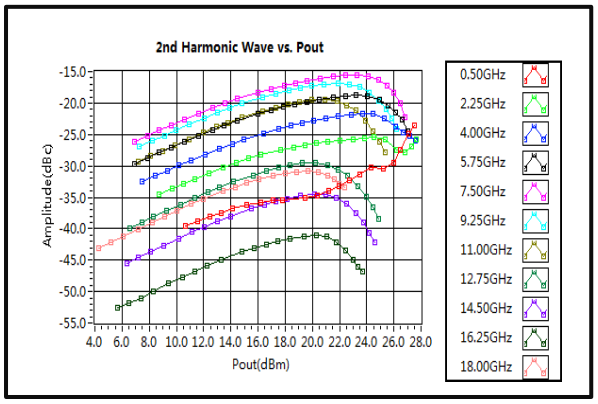
Noise Figure(0.1-4GHz)



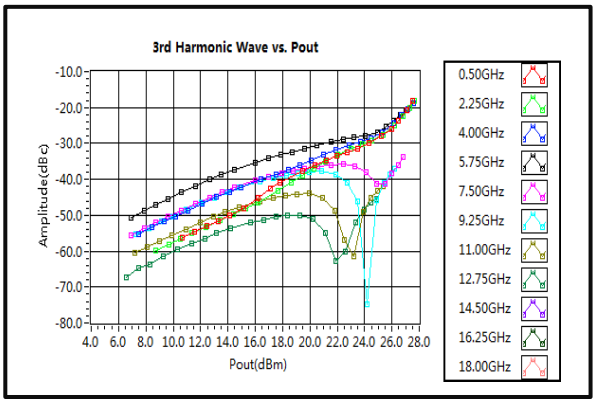
Noise Figure(4-18GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power