Ultra Wide Band Low Noise Amplifier 0.01GHz~30GHz

Features

- Gain: 38dB Typical
- Noise Figure: 3.5dB Typical
- P1dB Output Power: 28dBm Typical
- Supply Voltage: AC110V~220V

Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.
Frequency Range	0.01		15	15		25	25		30	GHz
Gain	35	40	45	35	35	38	32	36	39	dB
Gain Flatness		±2.0	±3.0		±1.0	±2.0		±1.0	±2.0	dB
Gain Variation Over Temperature (-40ºC~+85ºC)		±1.0			±1.0			±1.5		dB
Noise Figure		3.5	5.5		3.5	5.5		4.0	5.5	dB
Input VSWR		1.4	1.8		1.4	2.0		1.4	2.0	： 1
Output VSWR		1.5	2.2		1.4	1.8		1.5	1.8	： 1
1dB Point Compression (P1dB)	25	29		23	27		20	25		dBm
Saturated Output Power (Psat)		31			30			28		dBm
Output Third Order Intercept (OIP3)		38			33			31		dBm
Isolation S12		-70			-70			-60		dB
Supply Current(+12V)		500	650		500	650		500	650	mA

Weight	39 ounces (Max.)	Impedance	50ohms
Input /Output Connectors	2.92mm-Female	Material	Aluminum
Finish	Gray Painted		

Absolute Maximum Ratings

Operating Voltage	AC110~220V
RF Input Power(RFIN)	-6dBm

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

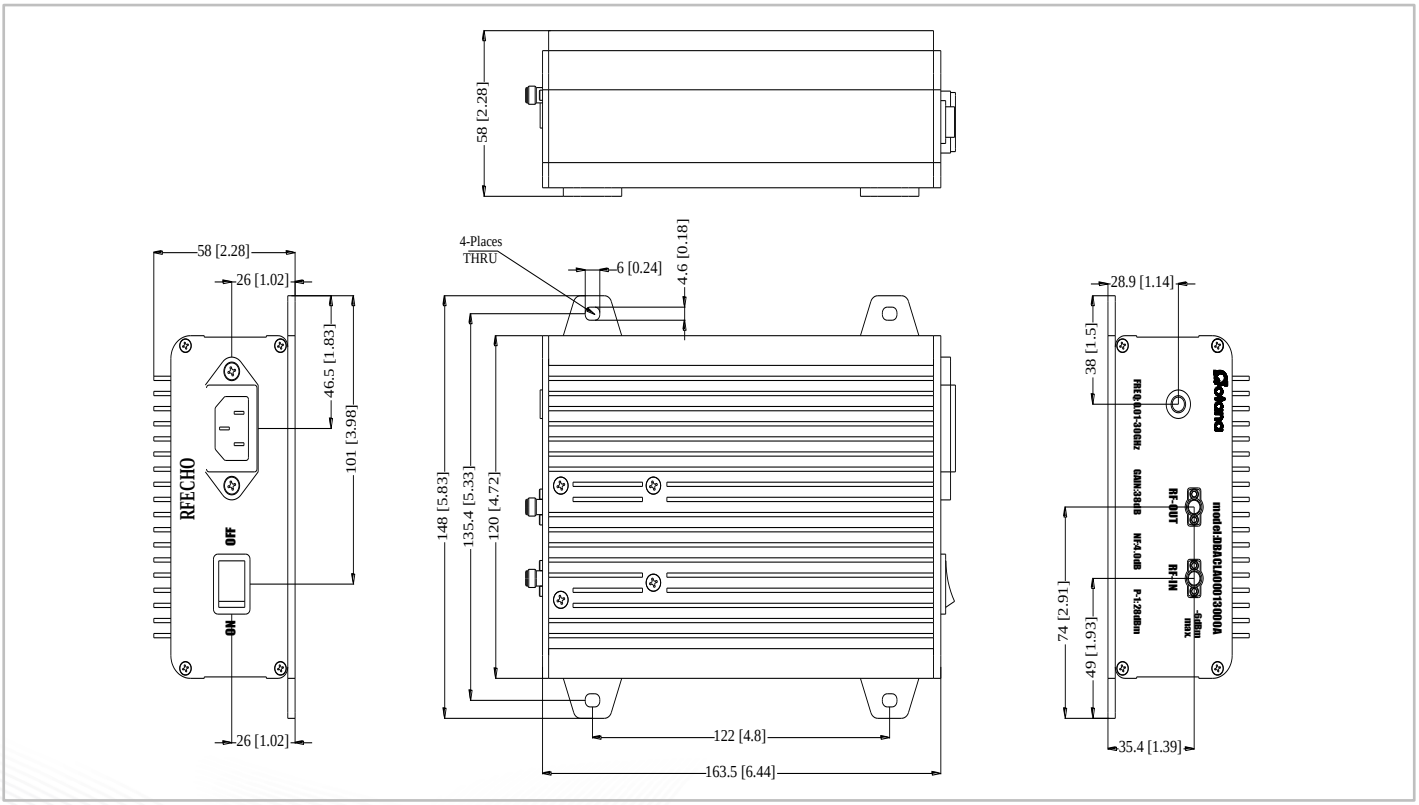
Step 1	Flip switch to “OFF” position
Step 2	Remove AC Plug
Step 3	Remove RF Connection

Environmental Specifications

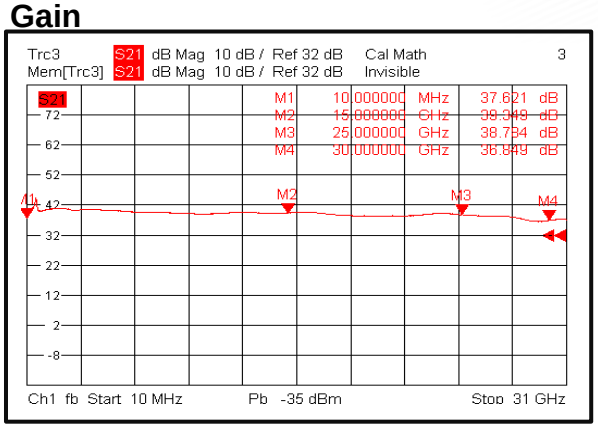
Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH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

Outline Drawing:

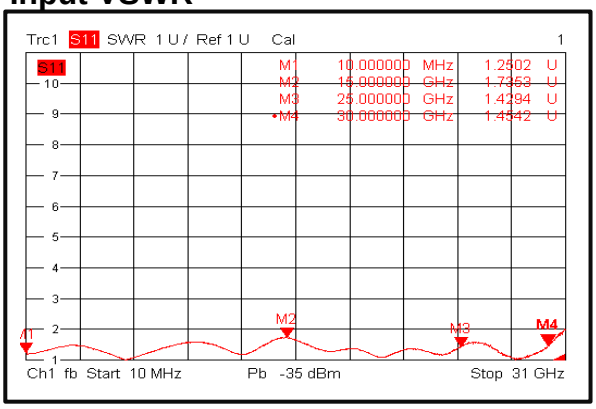
All Dimensions in mm (inches)



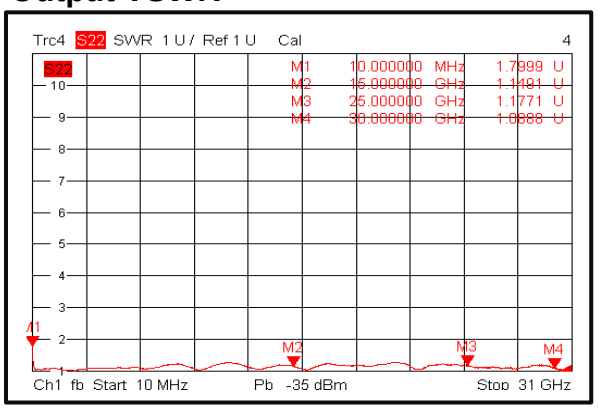
Gain



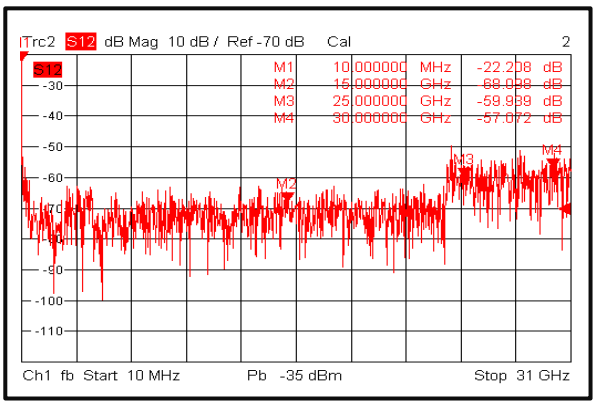
Input VSWR



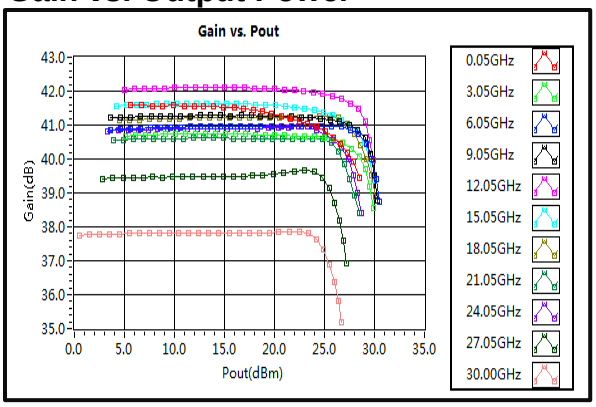
Output VSWR



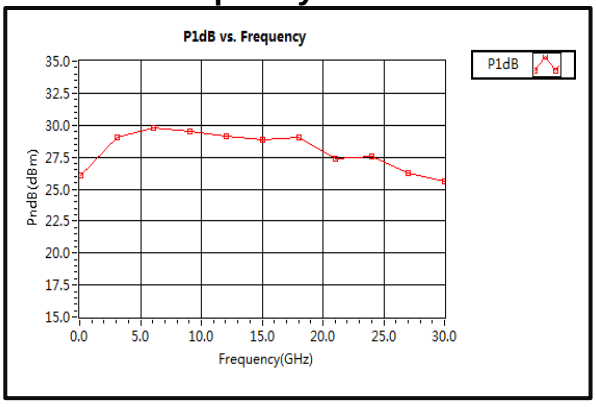
Isolation



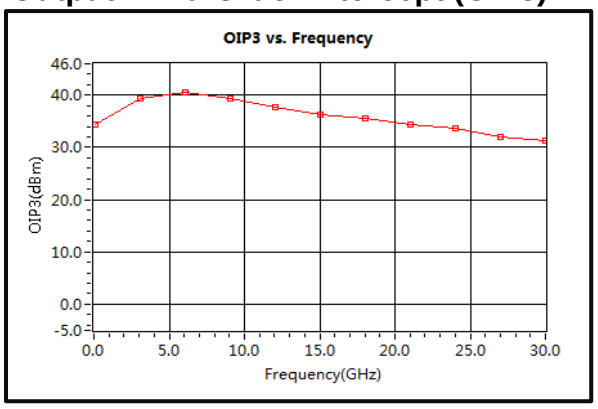
Gain vs. Output Power



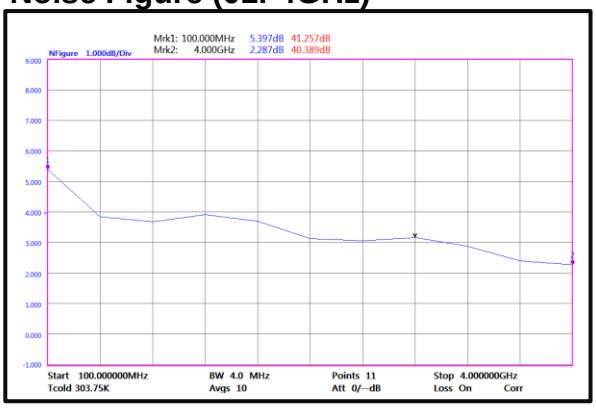
P1dB vs. Frequency



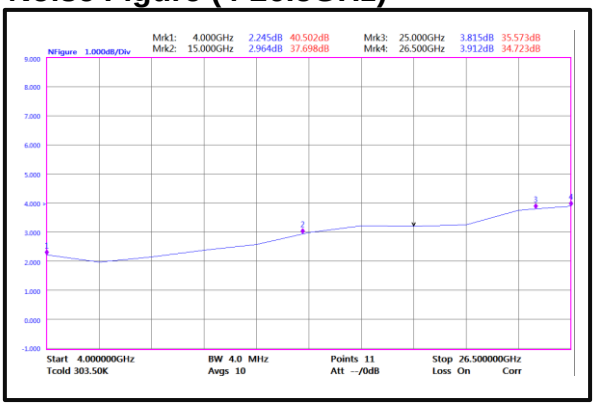
Output Third Order Intercept (OIP3)



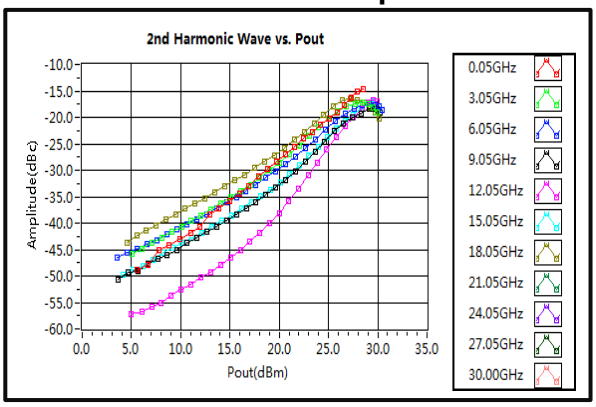
Noise Figure (01.-4GHz)



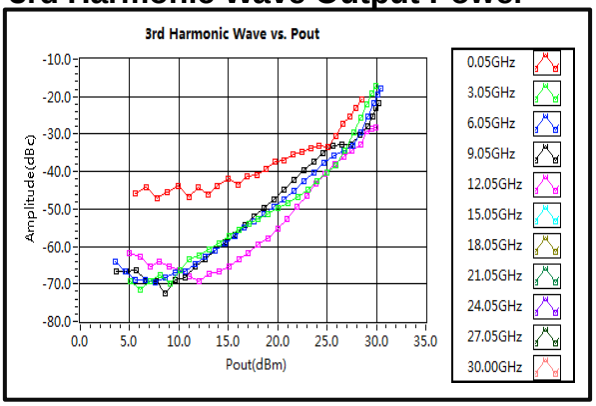
Noise Figure (4-26.5GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power