



Ultra Wide Band AC-Low Noise Amplifier 0.1GHz~18GHz

Features

- High Output Power 26dBm.
- Microwave Radio and VSAT.
- Telecom Infrastructure Applications.
- High peak to average handling capability.
- High linearity and low noise figure.
- Convenient AC Power Input.
- Integrated Heat Sink and Fan.
- All specifications can be modified upon request

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	0.1		10	10		18	GHz
Gain	29	32		25	29		dB
Gain Flatness		±1.5	±2.5		±2.0		dB
Gain Variation Over Temperature (-40°C~+85°C)		±1.0			±1.5		dB
Noise Figure		2.5	4.5		2.5	4.5	dB
Input VSWR		1.6			1.8		: 1
Output VSWR		1.6			1.8		: 1
Output 1dB Compression Point (P1dB)	24	26		18	23		dBm
Saturated Output Power (Psat)		28			24		dBm
Output Third Order Intercept (OIP3)		32			30		dBm
Isolation S12		-70			-60		dB
Reference Supply Current		320	400		320	400	mA

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



Absolute Maximum Ratings	
Supply Voltage	AC110~220V
RF Input Power(RFIN)	0dBm

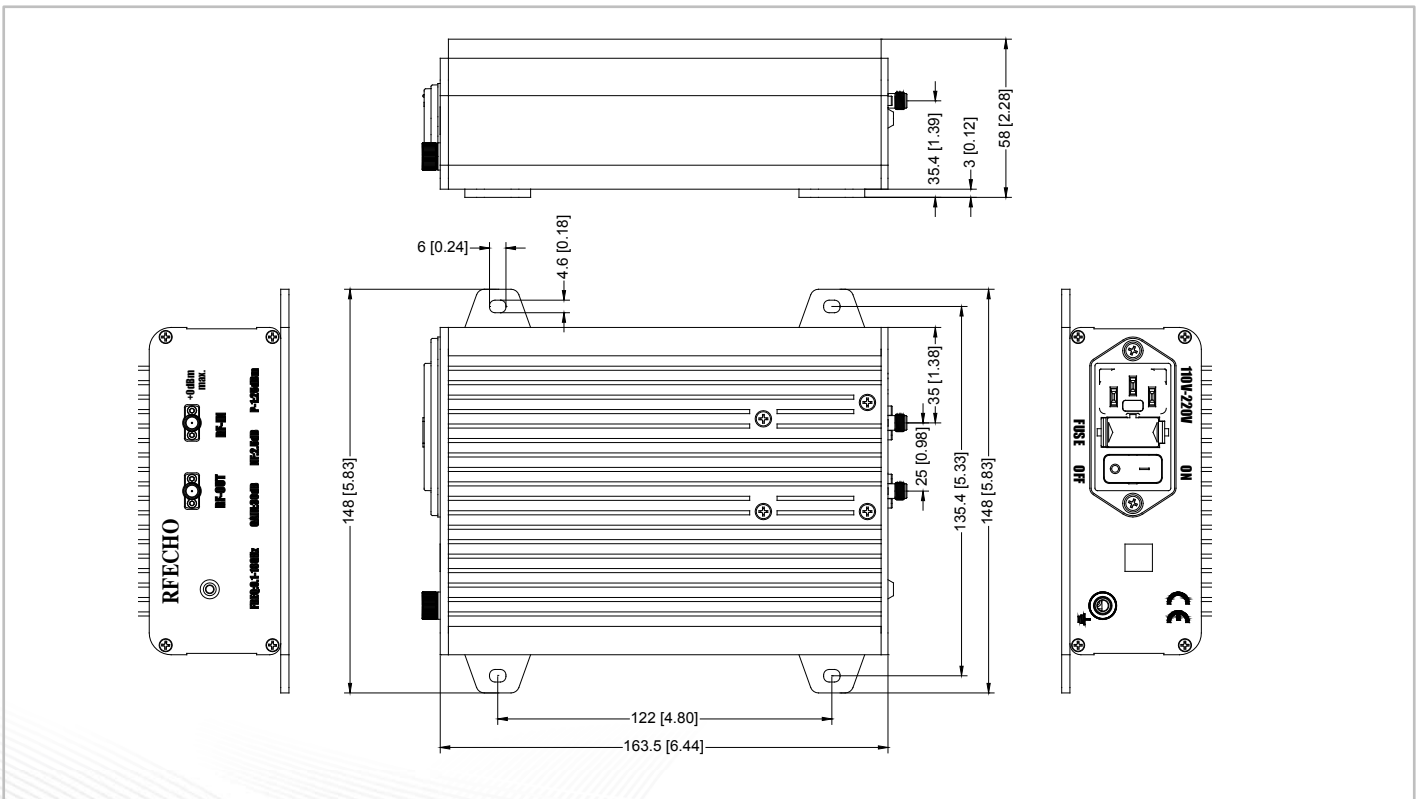
Biasing Up Procedure	
Step 1	Connect input and output with 50 Ohm source and load with in band return loss better than 10dB.
Step 2	Connect AC Plug
Step 3	Flip switch to "ON" position

Power OFF Procedure	
Step 1	Flip switch to "OFF" position
Step 2	Remove AC Plug
Step 3	Remove RF Connection

Environmental Specifications	
Operational Temperature	-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

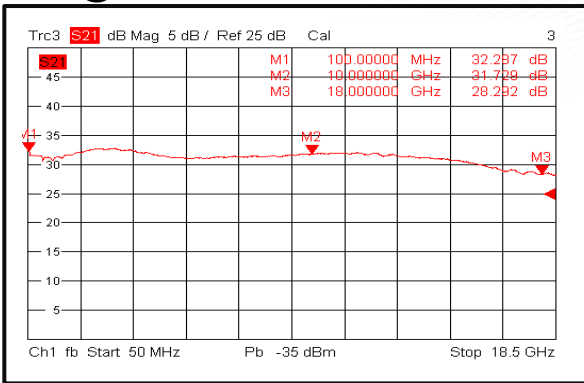
Outline Drawing:

All Dimensions in mm (inches) Tolerances ±1.5 (0.06)

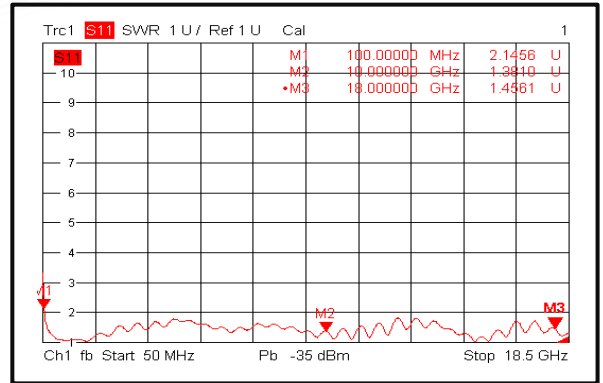




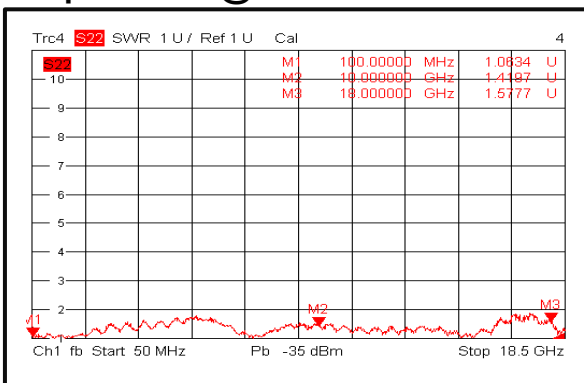
Gain@+25°C



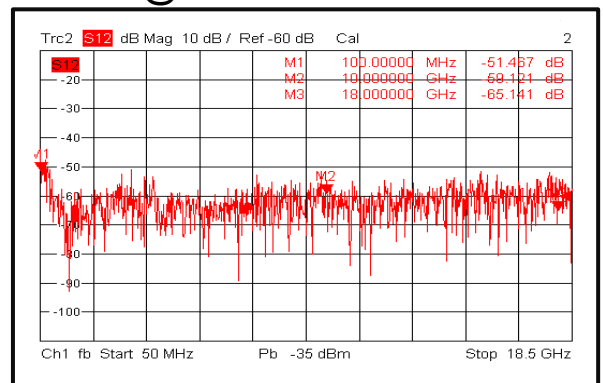
Input VSWR@+25°C



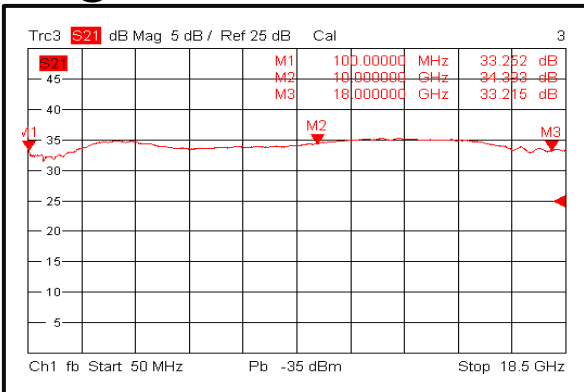
Output VSWR@+25°C



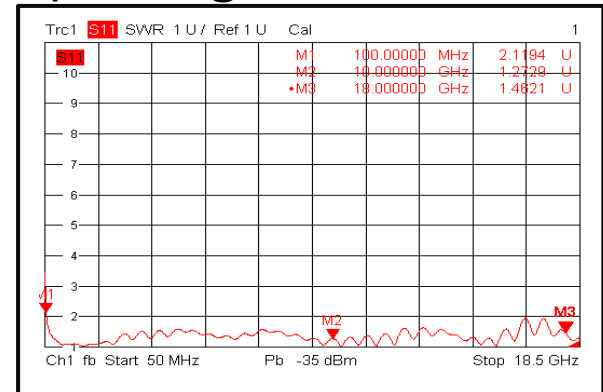
Isolation@+25°C



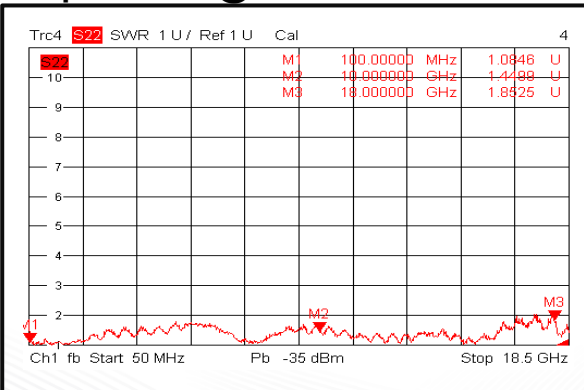
Gain@-40°C



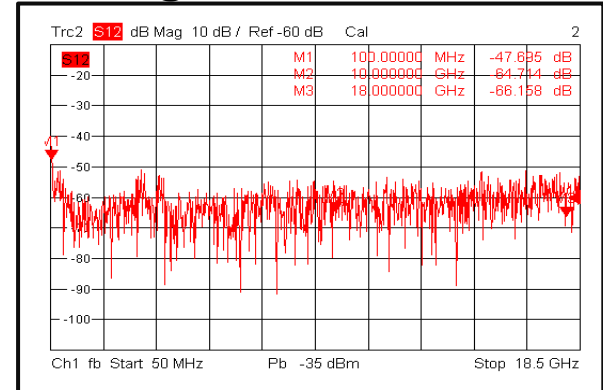
Input VSWR@-40°C



Output VSWR@-40°C

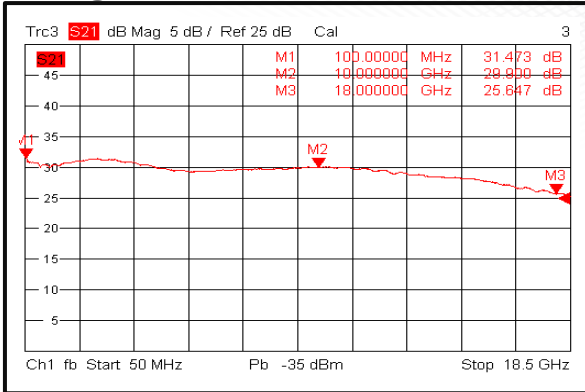


Isolation@-40°C

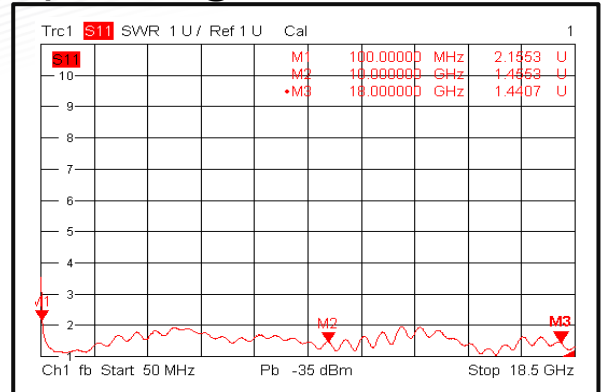




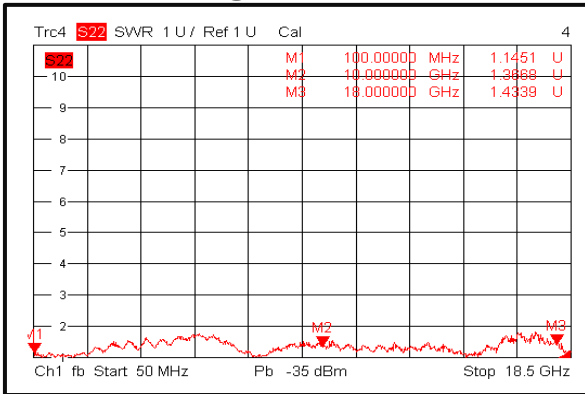
Gain@+85°C



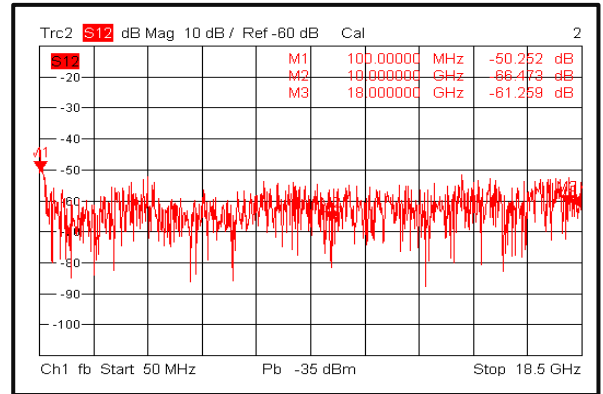
Input VSWR@+85°C



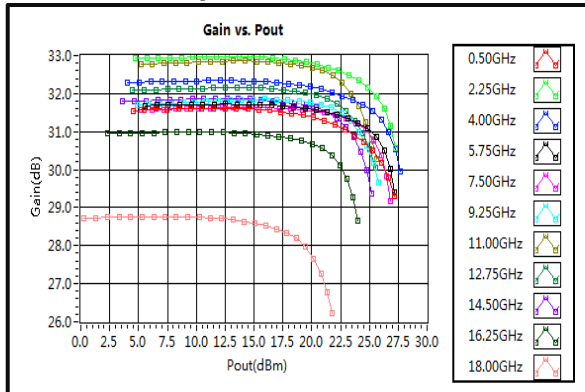
Output VSWR@+85°C



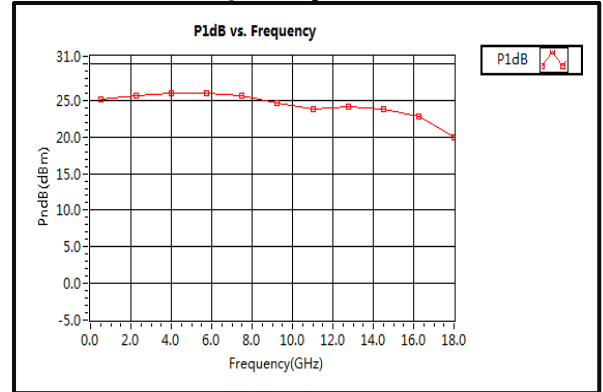
Isolation@+85°C



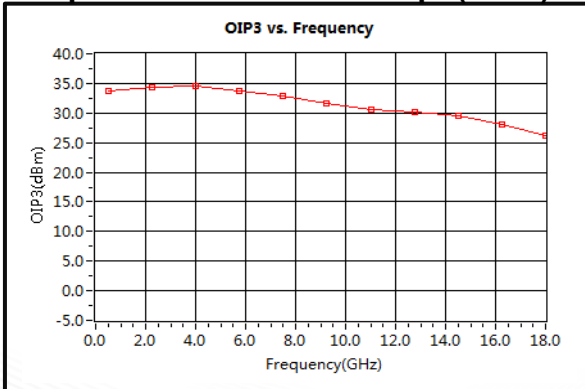
Gain vs. Output Power



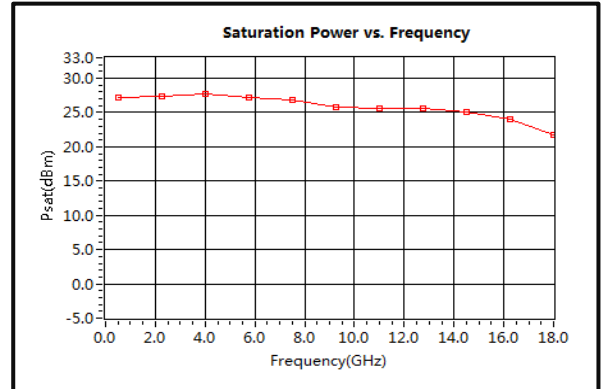
P1dB vs. Frequency



Output Third Order Intercept (OIP3)

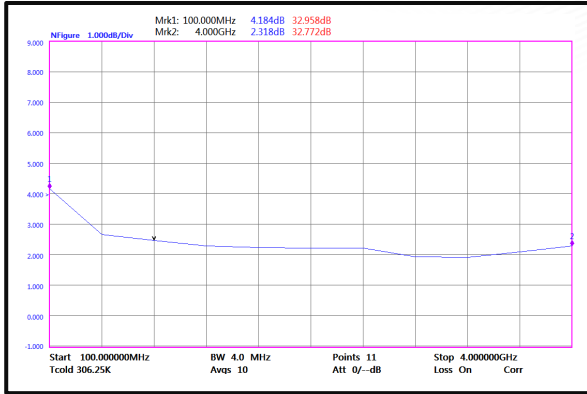


Saturation Power vs. Frequency

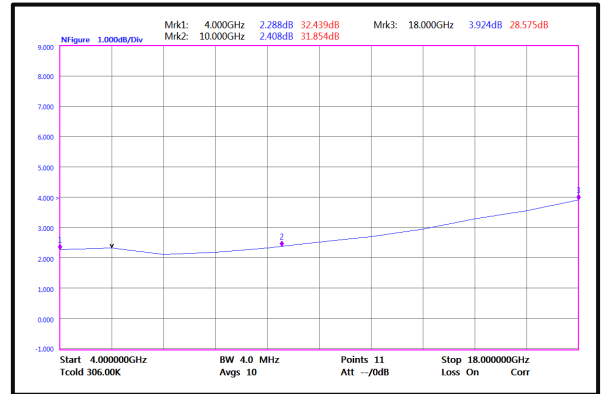




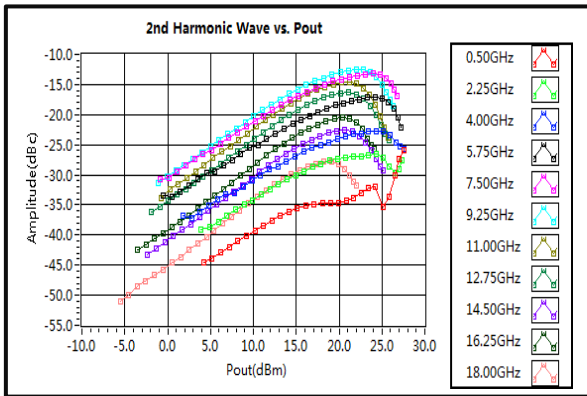
Noise Figure(0.1-4GHz)



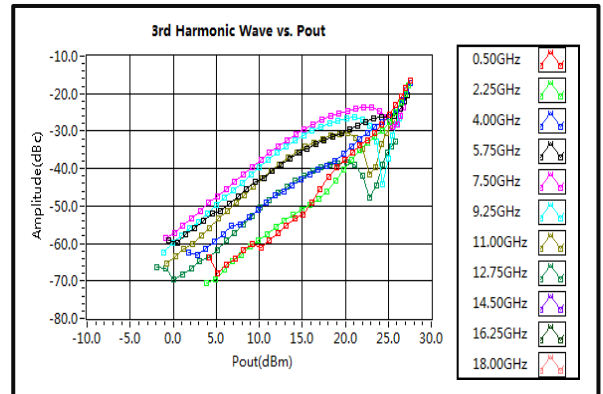
Noise Figure(4-18GHz)



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

