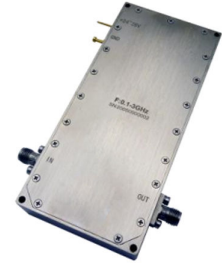




Ultra Wide Band AC–Low Noise Amplifier 0.1GHz~4GHz

Features

- Gain: 32dB Typical
- Output power +35dBm Typical
- High P1dB: +32dB m Full Band
- 50 Ohm Matched Input / Output



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

| Parameter | Min. | Typ. | Max. | Min. | Typ. | Max. | Units |
|---|------|------|------|------|------|------|-------|
| Frequency Range | 0.1 | | 2 | 2 | | 4 | GHz |
| Gain | 30 | 32 | | 30 | 31 | | dB |
| Gain Flatness | | ±1.5 | | | ±1.0 | | dB |
| Gain Variation Over Temperature (-40°C~+85°C) | | ±1.0 | | | ±1.0 | | dB |
| Input Return Loss | | 14 | | | 12 | | dB |
| Output Power for 1 dB Compression (P1dB) | 32 | 33 | | 31 | 32 | | dBm |
| Saturated Output Power (Psat) | | 35 | | | 33 | | dBm |
| Output Third Order Intercept (OIP3) | | 40 | | | 35 | | dBm |
| Isolation S12 | 60 | 65 | | 70 | 75 | | dB |
| Reference Supply Current (Idd) (Vdd= +12V) | | 250 | 1000 | | 250 | 1000 | mA |

| | | | |
|--------------------------|--------------|-----------|-----------------|
| Weight | 70.55 ounces | Impedance | 50ohms |
| Input /Output Connectors | SMA-Female | Material | Aluminum/copper |
| Finish | Gray Painted | | |



Absolute Maximum Ratings

| | |
|-----------------------|----------|
| Operating Voltage | 110~220V |
| RF Input Power (RFIN) | +5dB m |

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 Uncontrolled 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 |

Biassing Up Procedure

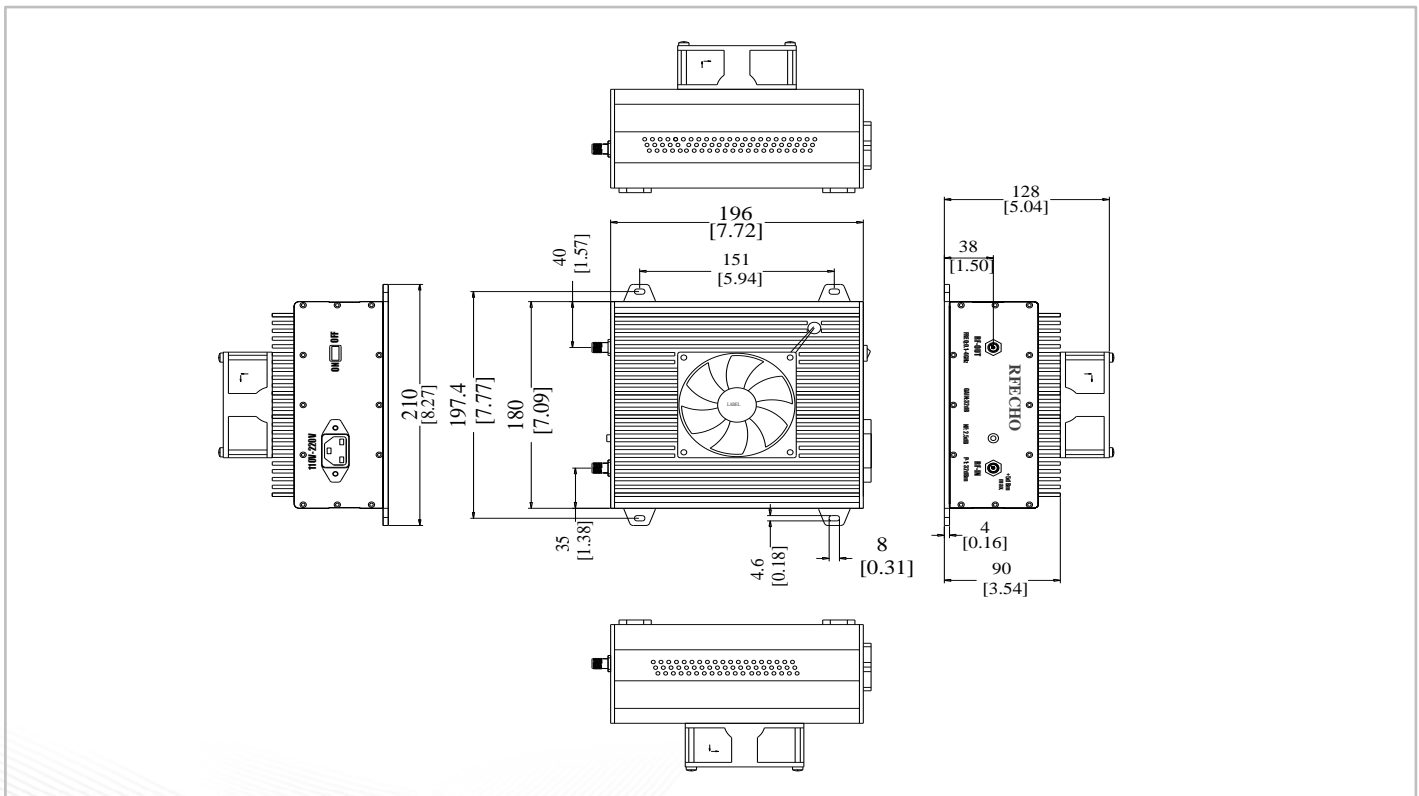
| | |
|--------|---|
| Step 1 | Connect input and output with 50 Ohm source and load with in band return loss better than 10dB. |
| Step 2 | Connect AC Plug |
| Step 3 | Flip switch to "ON" position |

Power OFF Procedure

| | |
|--------|-------------------------------|
| Step 1 | Flip switch to "OFF" position |
| Step 2 | Remove AC Plug |
| Step 3 | Remove RF Connection |

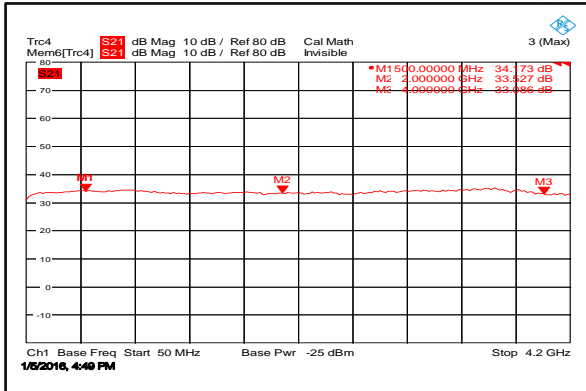
Outline Drawing:

All Dimensions in mm (inches)

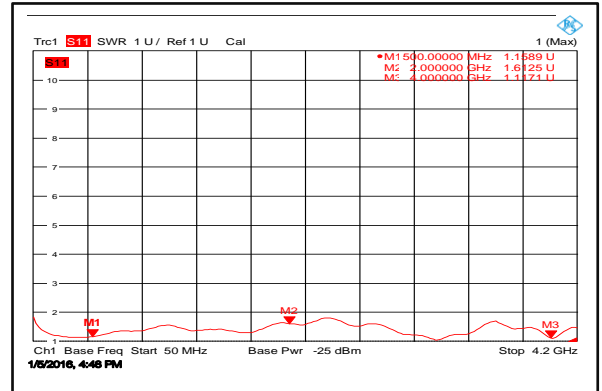




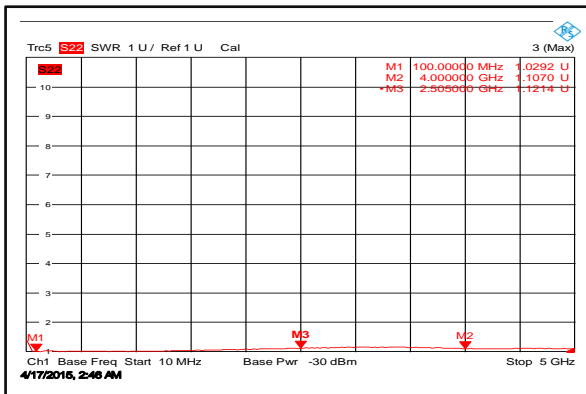
Gain



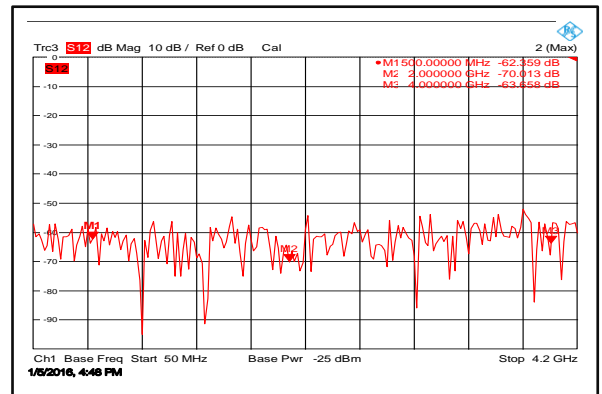
Input VSWR



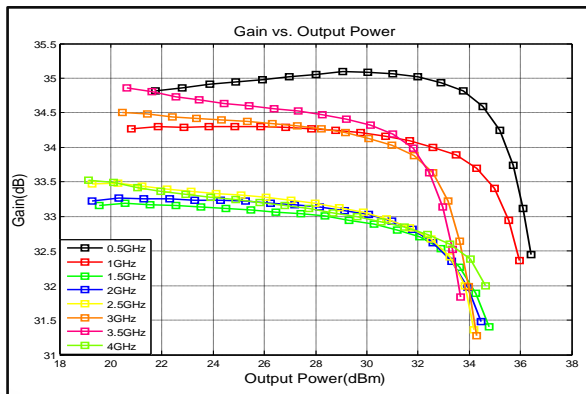
Output VSWR



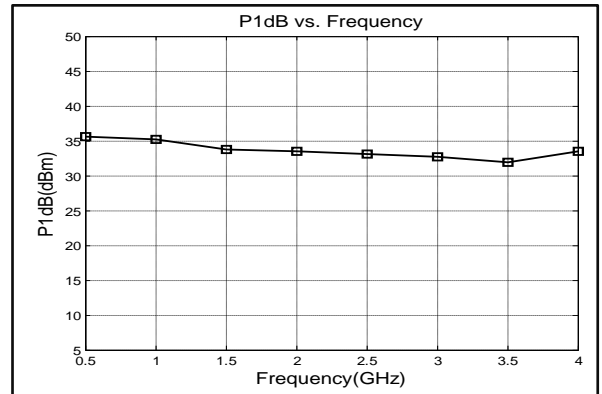
Isolation



Gain vs. Output Power

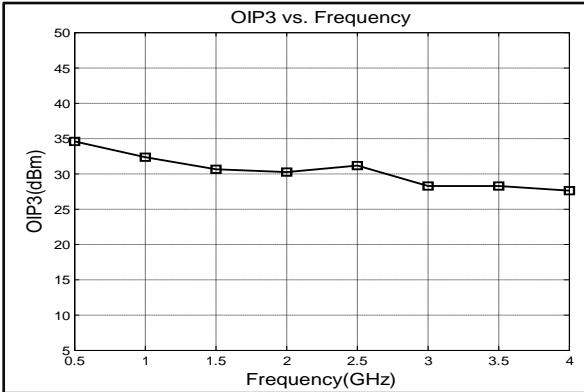


P1dB vs. Frequency

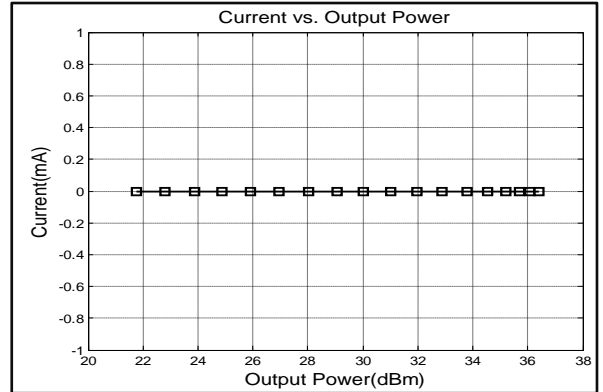




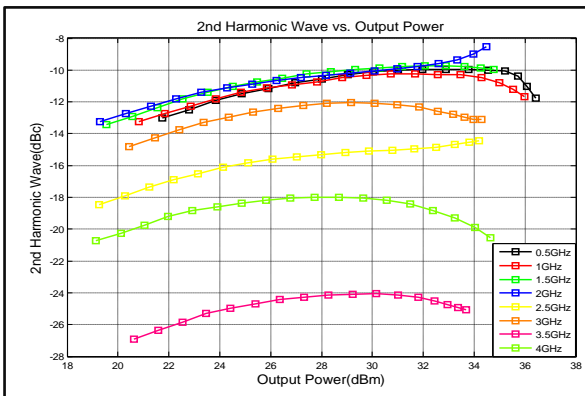
Output Third Order Intercept (OIP3)



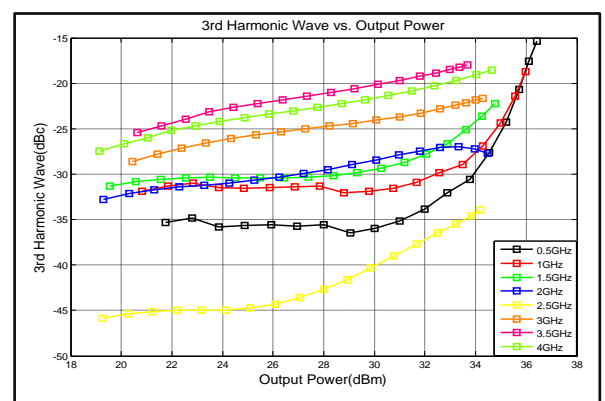
Current



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

