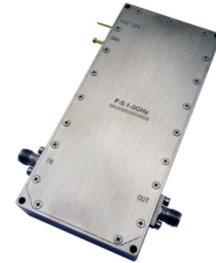




Wide Band Solid State Power Amplifier 0.1GHz~3GHz

Features

- Gain: 41dB Typical
- Output power +41dBm Typical
- Supply Voltage: +24~+28V
- 50 Ohm Matched



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

| Parameter | Min. | Typ. | Max. | Units |
|--|------|------|------|-------|
| Frequency Range | 0.1 | | 3.0 | GHz |
| Gain | 35 | 41 | | dB |
| Gain Flatness | | ±2.5 | | dB |
| Gain Variation Over Temperature (-40°C~ +85°C) | | ±3.0 | | dB |
| Input VSWR | | 2.0 | | :1 |
| Output Power for 1 dB Compression (P1dB) | 34 | 36 | | dBm |
| Saturated Output Power (Psat) | | 41 | | dBm |
| IM3 | | 25 | | dBc |
| DC Quiescent Current (No RF Input Power) | | 1.6 | | A |
| DC Current (Vcc=+24~+28V) at Pout=Psat | | 2.2 | 2.5 | A |
| Efficiency at Psat (RF Output Power / DC Power Consumption) | | 21 | | % |

| | | | |
|---------------------------|------------------|-----------------|--|
| Weight | 16.0ounces(Max.) | Impedance | 50ohms |
| Input / Output Connectors | SMA-Female | Material | copper |
| Finish | Nickel Plated | Package Sealing | Epoxy Sealing (Standard) |
| | | | Hermetically Sealed (Option with extra charge) |



Absolute Maximum Ratings

| | |
|-----------------------|-----------|
| Operating Voltage | +30V Max. |
| RF Input Power (RFIN) | +8dBm Max |

Biasing Up Procedure

| | |
|--------|--------------------------|
| Step 1 | Connect Ground Pin |
| Step 2 | Connect input and output |
| Step 3 | Connect +24~28V biasing |

Power OFF Procedure

| | |
|--------|--------------------------|
| Step 1 | Turn off +24~28V biasing |
| Step 2 | Remove RF connection |
| Step 3 | Remove Ground |

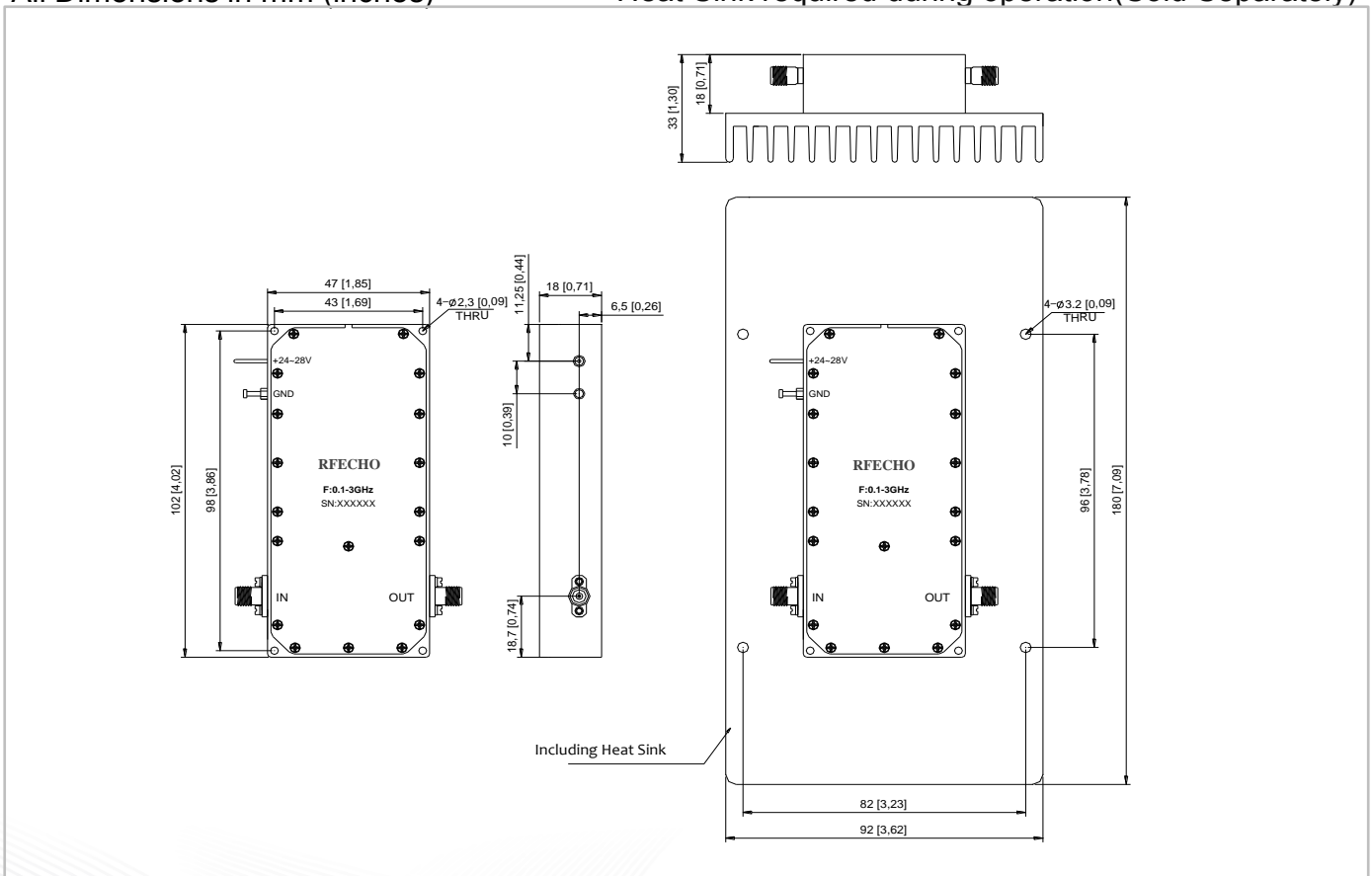
Environmental Specifications

| | |
|-------------------------|--|
| 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:

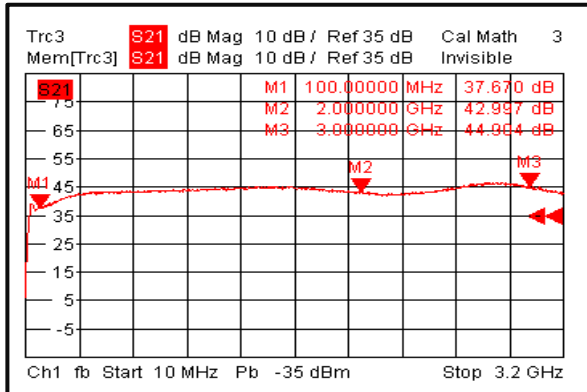
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

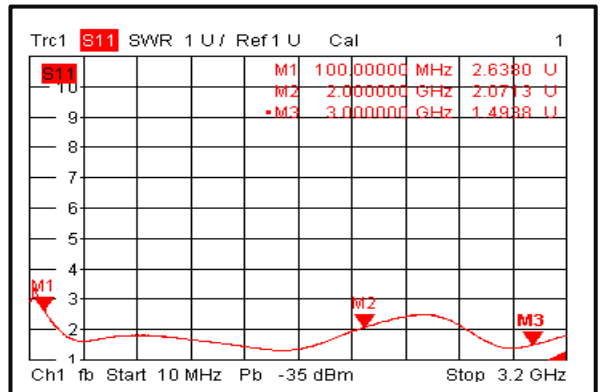




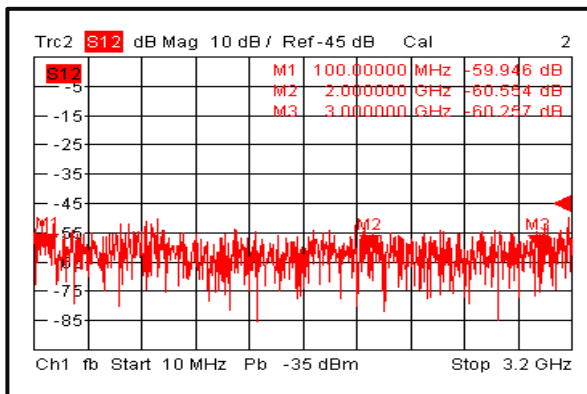
Gain @+25°C



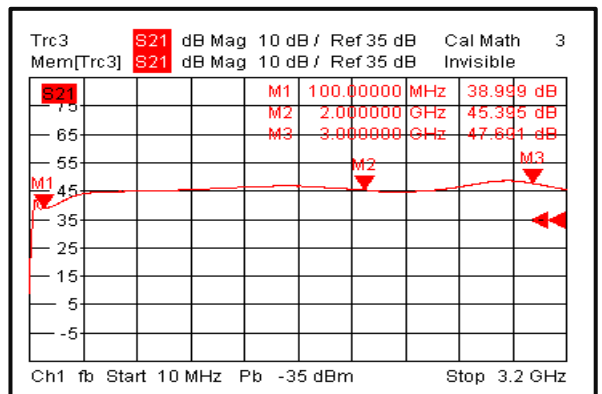
Input VSWR @+25°C



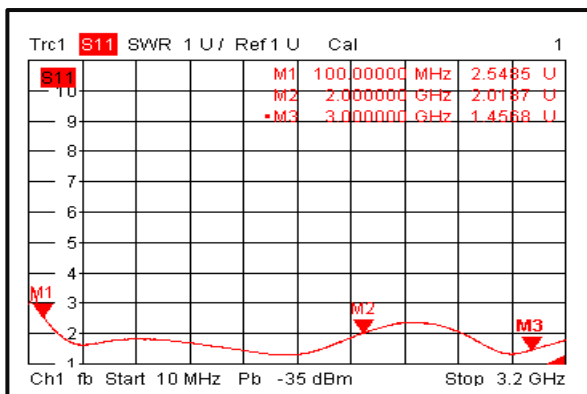
Isolation @+25°C



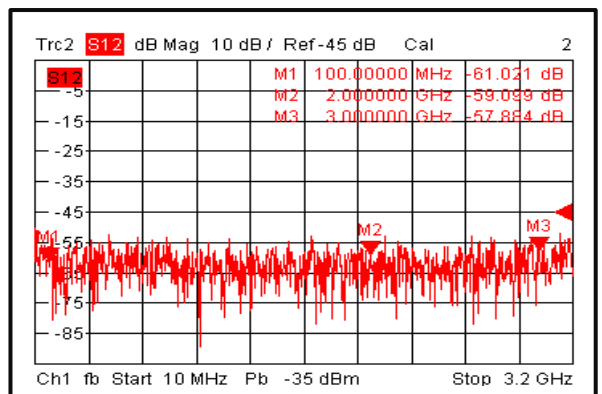
Gain @-40°C



Input VSWR @-40°C

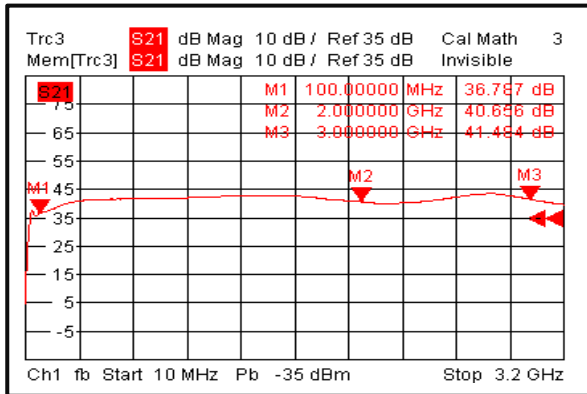


Isolation @-40°C

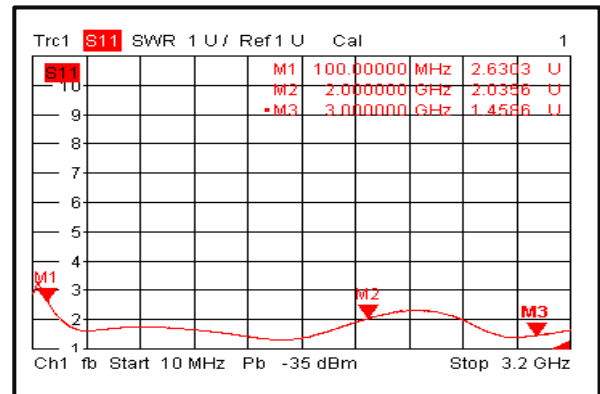




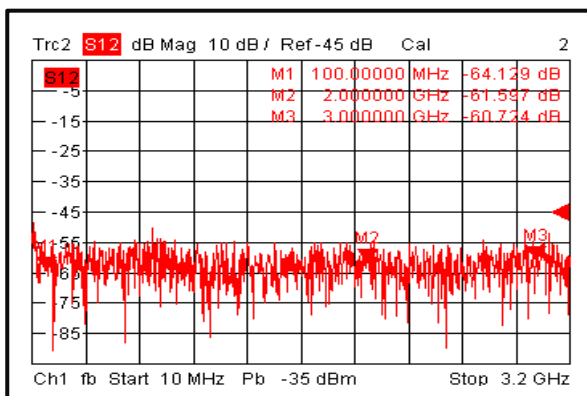
Gain @+85°C



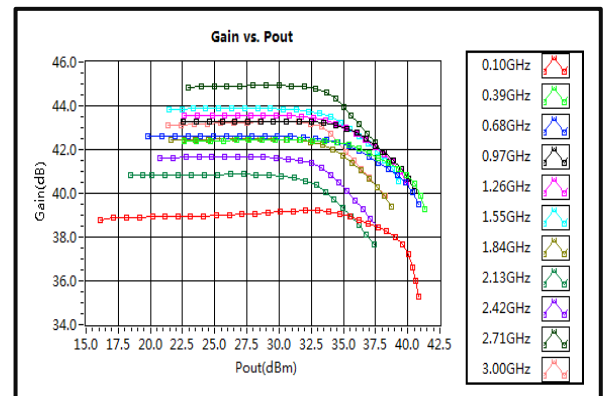
Input VSWR @+85°C



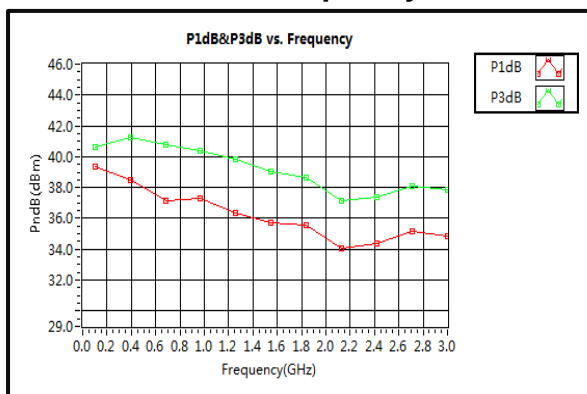
Isolation @+85°C



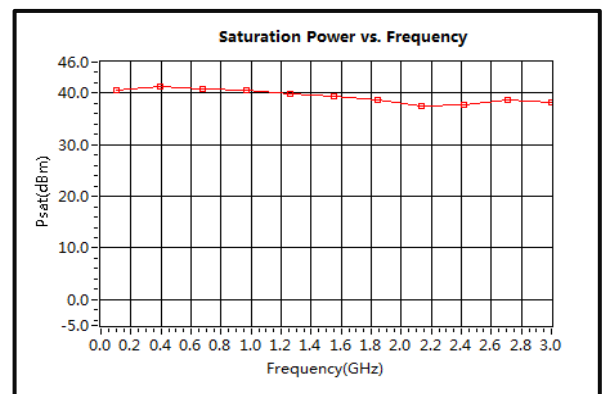
Gain vs. Output Power



P1dB&P3dB vs. Frequency

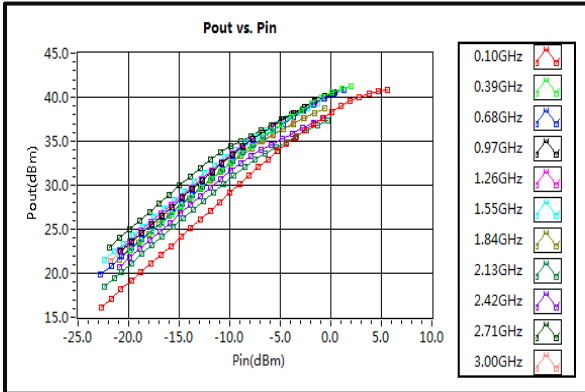


Saturation Output Power

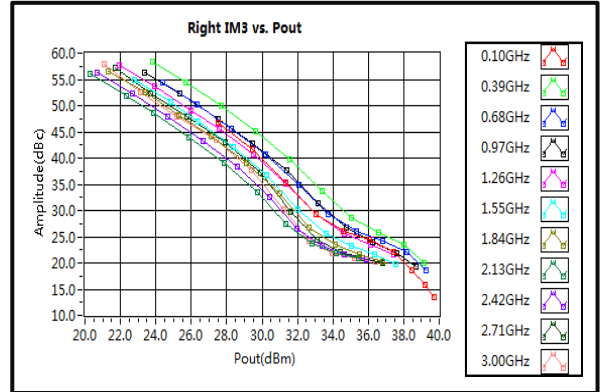




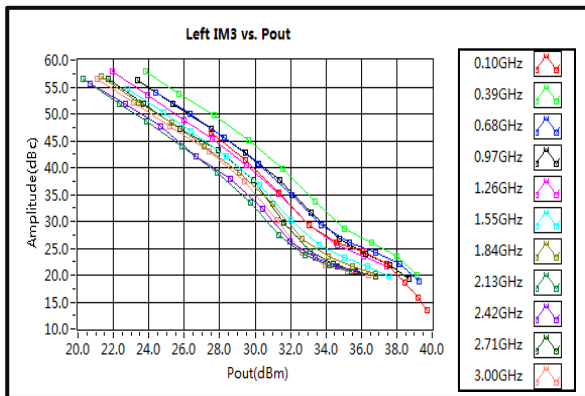
Pout vs. Pin



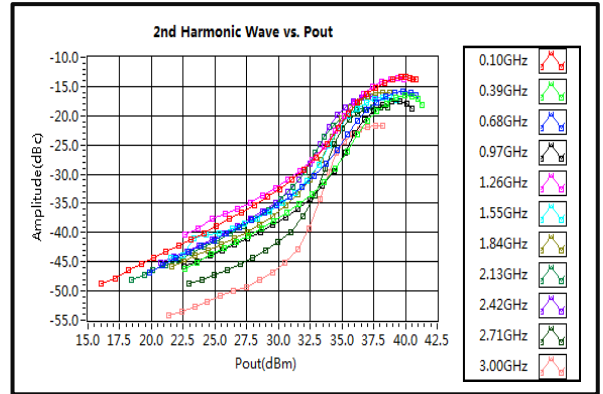
Right IM3 vs. Pout



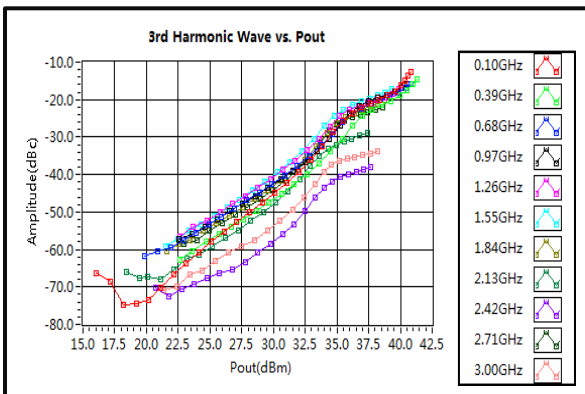
Left IM3 vs. Pout



2nd Harmonic Wave Output Power



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power

