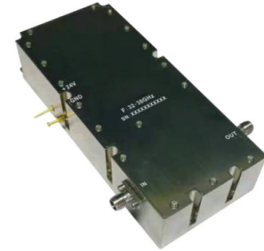




# QOTANA TECHNOLOGIES

## Features

- Gain: 33dB Typical
- P1dB Output Power: 33dBm Typical
- Supply Voltage: +24V @ 1000mA
- 50 Ohm Matched Input / Output



## Typical Applications

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

RF Microwave & VSAT  
Fiber Optics

| Parameter                                      | Min. | Typ. | Max. | Units |
|--|------|------|------|-------|
| Frequency Range                                | 32   |      | 38   | GHz   |
| Gain   | 30   | 35   | 40   | dB    |
| Gain Flatness                                  |      | ±3.5 |      | dB    |
| Gain Variation Over Temperature(-40°C ~ +85°C) |      | ±3.0 |      | dB    |
| Input VSWR                                     |      | 1.5  |      | :1    |
| Output 1dB Compression Point (P1dB)            | 32   | 33   |      | dBm   |
| Saturated Output Power (Psat)                  |      | 34   |      | dBm   |
| Supply Current (Idd) (Vcc=+24V)                |      | 1000 | 2000 | mA    |
| Isolation S12                                  |      | -60  |      | dB    |

|                           |  |                 |   |
|---------------------------|--|-----------------|---|
| Weight                    | -----  | Impedance       | 50ohms  |
| Input / Output Connectors | 2.92 mm - Female   | Material        | Copper  |
| Finishing                 | Standard: Gold 40 micron;<br>Nickel 220 micron thickness | Package Sealing | Epoxy Sealing (Standard)                          |
|                           | Option: Gold 80 micron; Nickel<br>180 micron thickness   |                 | Hermetically Sealed (Option<br>with extra charge) |



### Absolute Maximum Ratings

|                       |      |
|-----------------------|------|
| Operating Voltage     | +28V |
| RF Input Power (RFIN) | 0dBm |

### Biassing Up Procedure

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

### Power OFF Procedure

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

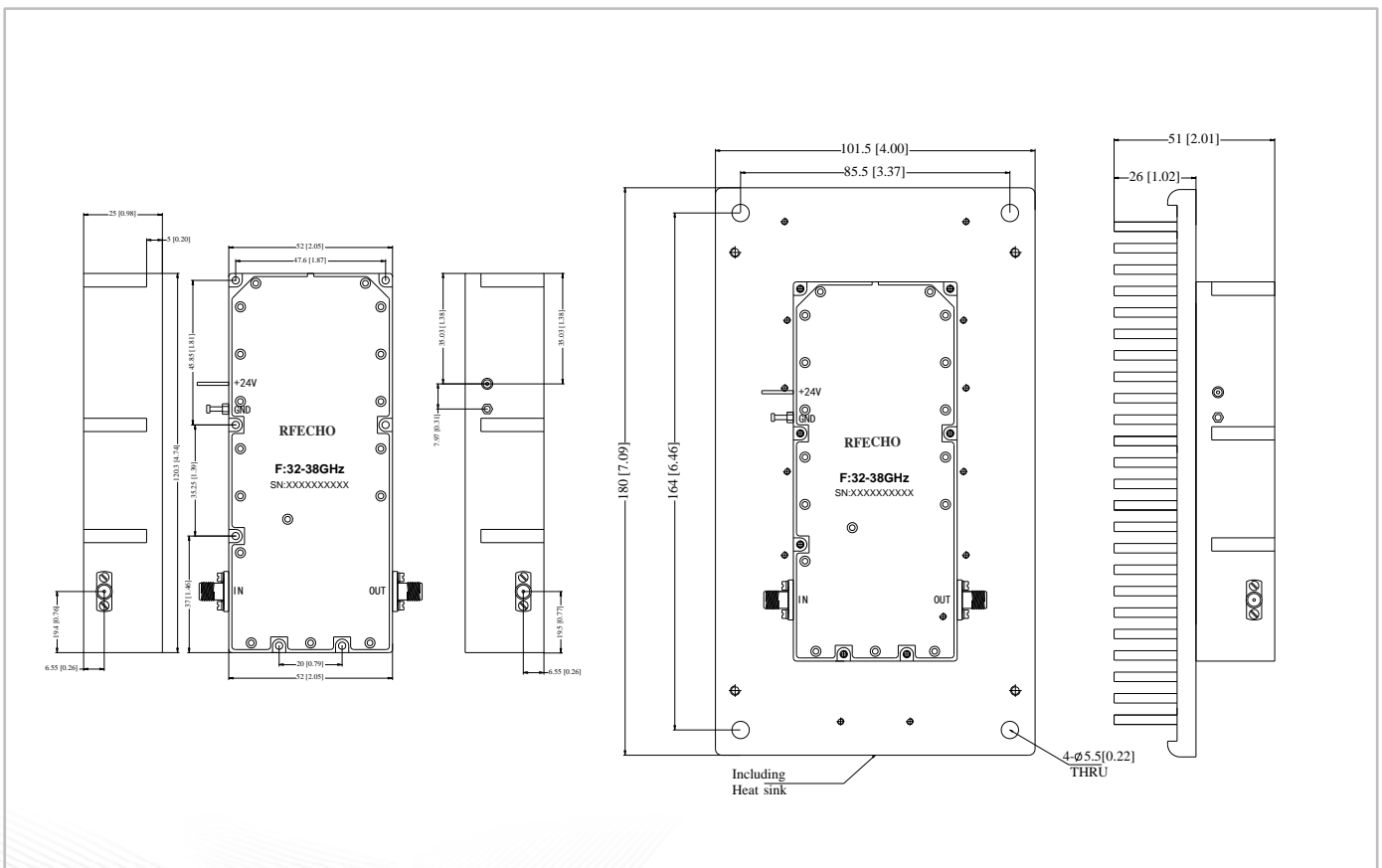
### Environmental Specifications

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

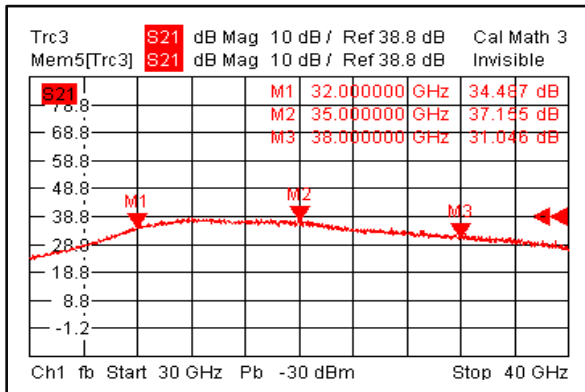
All Dimensions in mm (inches)

Heat Sink required during operation(Sold Separately)

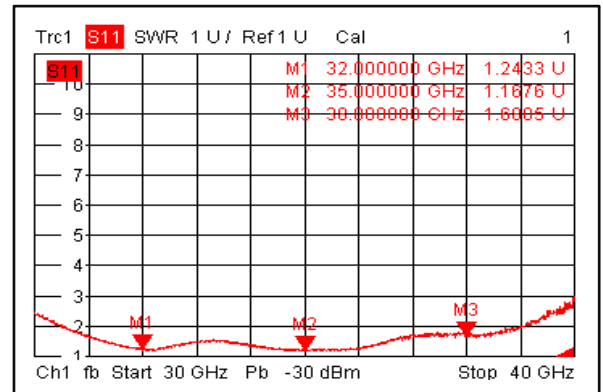




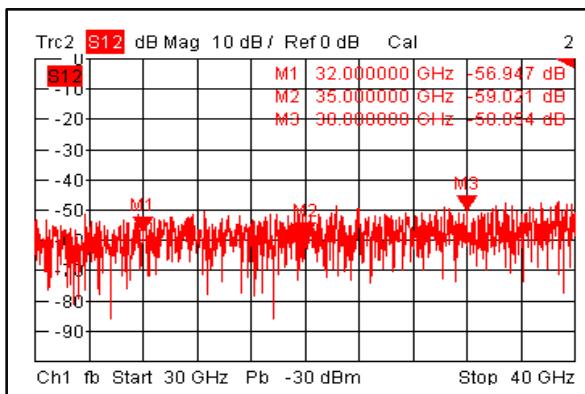
### Gain



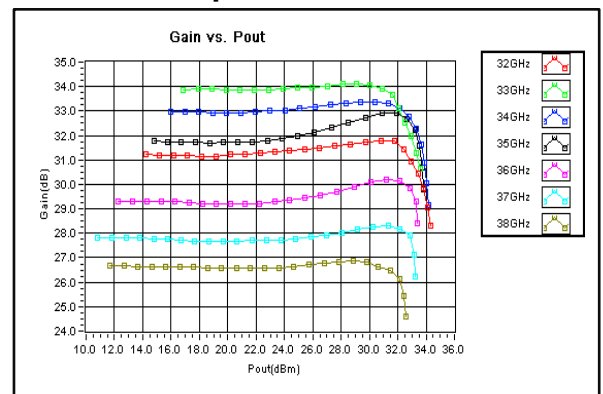
### Input VSWR



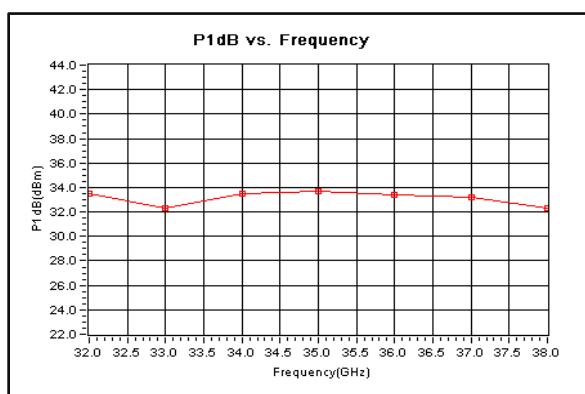
### Isolation



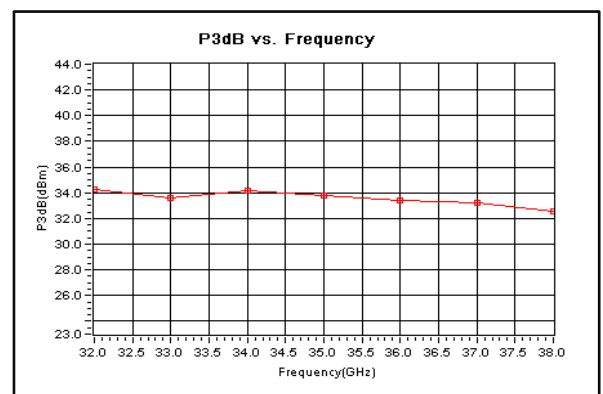
### Gain vs. Output Power



### P1dB vs. Frequency

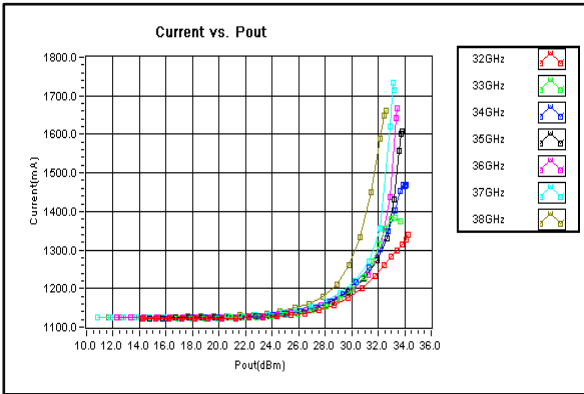


### P3dB vs. Frequency





## Current



## Right IM3 vs. Pout

