

# RF AMPLIFIER

## MODEL QBS-367

Available as: QBS-367, Housing (E52-19563)

### Features

- High Gain: 32.0 dB Typical
- High Power: +42 dBm Typical
- Operating Temp. 0 °C to +70 °C
- Environmental Screening Available

### Specifications

| CHARACTERISTIC                      | TYPICAL<br>Ta= 25 °C | MIN/MAX<br>Ta = -0 °C to +70 °C |
|-------------------------------------|----------------------|---------------------------------|
| Frequency                           | 2400 - 2450 MHz      | 2400 - 2450 MHz                 |
| Gain (dB)                           | 32.0 ± 1.0           | —                               |
| Gain vs. Temperature                | —                    | +1.0/ -1.0 Max.                 |
| Gain Flatness                       | 1.0                  | —                               |
| Reverse Isolation (dB)              | -50                  | -50 Min.                        |
| VSWR In                             | 1.5:1                | 1.7:1 Max.                      |
| VSWR Out                            | 1.5:1                | 1.7:1 Max.                      |
| 1 dB Compression (dBm)              | +42                  | +41 Min.                        |
| Output Intercept point<br>3rd Order | +52                  | +50 Min.                        |
| 2nd Order                           | —                    | —                               |
| Power Vdc                           | 13-15                | 13-15                           |
| mA                                  | 6500                 | 6700 Max.                       |

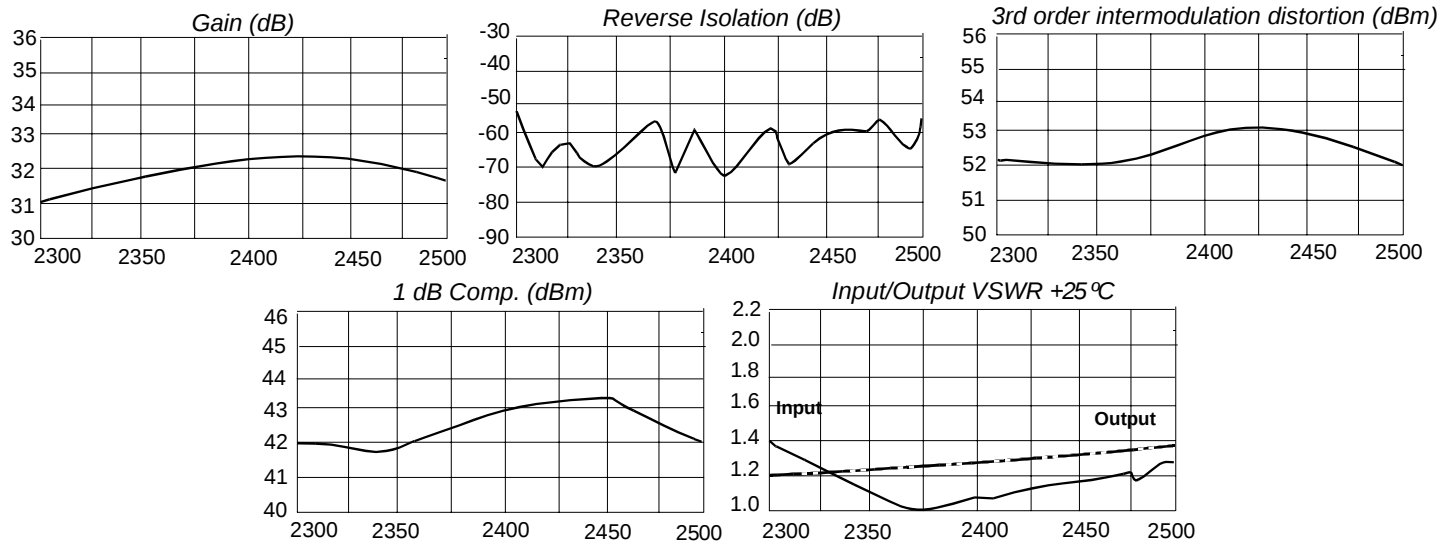
### Maximum Ratings

Ambient Operating Temperature ..... 0 °C to +70 °C  
 Storage Temperature ..... -65 °C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 15 Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

#### Note:

1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

### Typical Performance Data



Legend — + 25 °C

### Linear S-Parameters Data

| FREQ.<br>MHz | -- S11 --<br>dB Ang | -- S21 --<br>dB Ang | -- S12 --<br>dB Ang | -- S22 --<br>dB Ang |
|--------------|---------------------|---------------------|---------------------|---------------------|
| 2400         | -18.1 104.8         | 32.3 -107.1         | -73.9 108.6         | -26.6 6.9           |
| 2410         | -17.9 103.8         | 32.4 -129.2         | -66.3 115.8         | -27.1 29.7          |
| 2420         | -17.7 102.1         | 32.4 -151.5         | -56.7 -125.8        | -25.9 7.0           |
| 2430         | -17.5 101.1         | 32.5 -174.1         | -68.3 -36.1         | -22.8 19.5          |
| 2440         | -17.5 101.2         | 32.5 163.0          | -60.2 -110.1        | -22.5 -21.6         |
| 2450         | -17.0 99.2          | 32.4 139.7          | -59.9 -126.5        | -21.5 -9.9          |



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