

RF AMPLIFIER

Available as: QBH-250, F-Pack (E52-5006)

MODEL QBH-250

Features

- High Gain: 20.0 dB Typical
- High Power: +18 dBm Typical
- Environmental Screening Available

Maximum Ratings

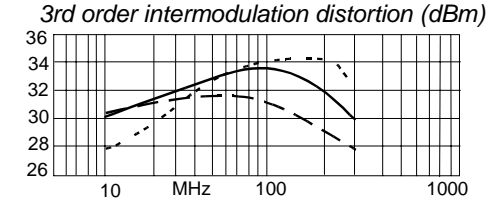
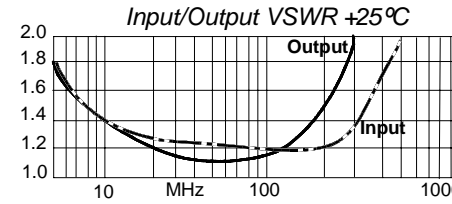
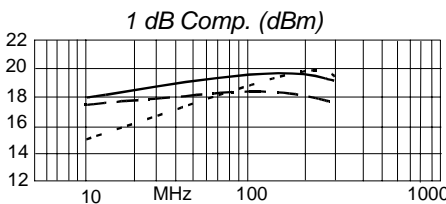
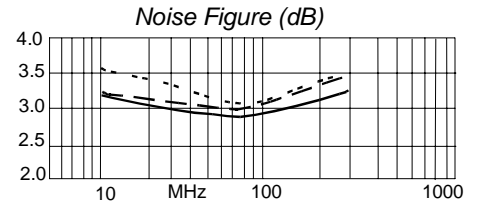
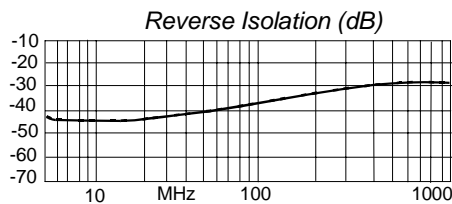
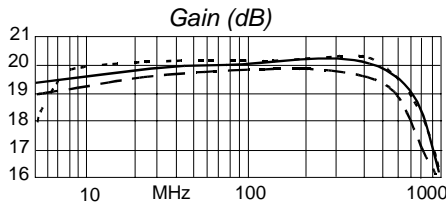
Ambient Operating Temperature -55°C to + 125 °C
 Storage Temperature -65°C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 20 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Specifications

| CHARACTERISTIC | TYPICAL Ta= 25 °C | MIN/MAX |
|------------------------|-----------------------|---------|
| Frequency | 10 - 300 MHz | — |
| Gain (dB) | 20.0 ± 0.5 | — |
| Gain vs. Temperature | — | — |
| Gain Flatness | 1.0 | — |
| Reverse Isolation (dB) | -23 | — |
| VSWR | In 1.5:1 Out 2.0:1 | — |
| 1 dB Compression (dBm) | +18 | — |
| Output Intercept point | | — |
| 3rd Order | +30 | |
| 2nd Order | +41 | |
| Noise Figure (dB) | 3.5 | — |
| Power | Vdc +15 mA 51 | — |

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

Typical Performance Data



Legend ——— + 25 °C - - - - + 85 °C ······ -55 °C

Linear S-Parameters Data

| FREQ. MHz | -- S11 -- | | -- S21 -- | | -- S12 -- | | -- S22 -- | |
|--------------|-----------|--------|-----------|--------|-----------|------|-----------|--------|
| | dB | Ang | dB | Ang | dB | Ang | dB | Ang |
| 10 | -15.8 | -120.1 | 19.8 | -168.7 | -45.2 | 76.5 | -16.2 | 145.1 |
| 40 | -19.1 | -167.6 | 20.1 | 169.2 | -42.5 | 44.6 | -23.5 | 168.6 |
| 60 | -19.3 | -178.2 | 20.1 | 160.6 | -41.0 | 43.0 | -23.7 | -173.0 |
| 70 | -19.6 | 177.8 | 20.1 | 156.5 | -40.3 | 41.6 | -23.3 | -166.3 |
| 90 | -19.7 | 170.0 | 20.1 | 148.5 | -38.7 | 40.3 | -22.1 | -157.8 |
| 100 | -19.8 | 168.3 | 20.1 | 144.7 | -38.1 | 39.9 | -21.4 | -155.5 |
| 200 | -19.6 | 145.9 | 20.3 | 105.9 | -33.0 | 22.1 | -15.1 | -161.1 |
| 250 | -18.0 | 139.0 | 20.3 | 85.8 | -31.1 | 10.0 | -12.4 | -173.1 |
| 300 | -15.9 | 128.4 | 20.3 | 65.2 | -29.6 | -3.4 | -10.2 | 172.4 |



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