

RF AMPLIFIER

MODEL QBH-137

Available as: QBH-137, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-137, Connectorized Housing (ES E52-1501)

Features

- High Gain: 12.7 dB Typical
- High Power: +21 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

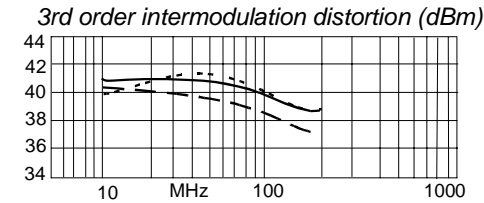
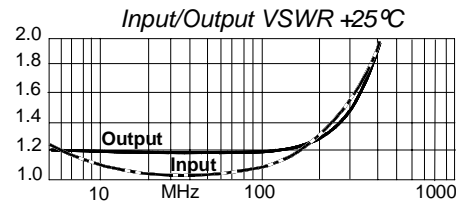
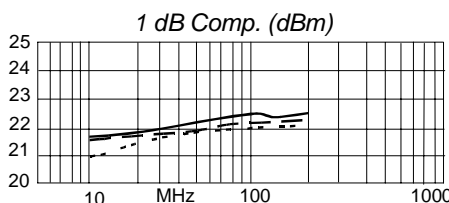
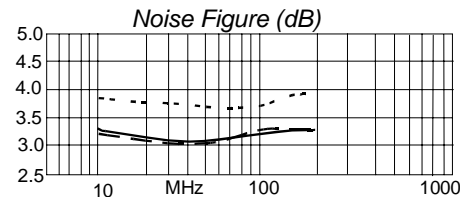
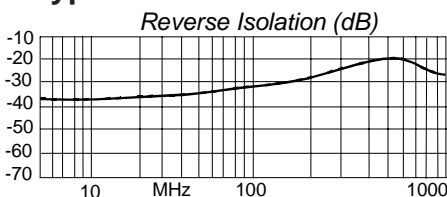
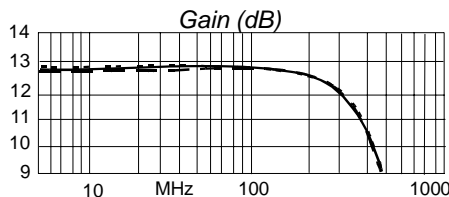
| CHARACTERISTIC | TYPICAL Ta= 25 °C | MIN/MAX Ta = -55 °C to +85 °C |
|------------------------|----------------------|----------------------------------|
| Frequency | 10 - 200 MHz | 10 - 200 MHz |
| Gain (dB) | 12.7 ± 0.5 | — |
| Gain vs. Temperature | — | +0.6/-0.5 Max. |
| Gain Flatness | 0.8 | 1.0 Max. |
| Reverse Isolation (dB) | -25 | -25 Min. |
| VSWR In | 1.5:1 | 1.5:1 Max. |
| VSWR Out | 1.5:1 | 1.5:1 Max. |
| 1 dB Compression (dBm) | +21 | +19 Min. |
| Output Intercept point | | |
| 3rd Order | +36 | +33 Min. |
| 2nd Order | +48 | +45 Min. |
| Noise Figure (dB) | 3.5 | 3.9 Max. |
| Power Vdc | +15 | +15 |
| mA | 94 | 99 Max. |

Maximum Ratings

Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +16 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: 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 -- dB Ang | -- S21 -- dB Ang | -- S12 -- dB Ang | -- S22 -- dB Ang |
|--------------|------------------------|------------------------|------------------------|------------------------|
| 10 | -25.0 -103.8 | 12.6 -177.4 | -35.9 27.6 | -20.8 12.1 |
| 40 | -31.4 -115.5 | 12.6 166.1 | -34.8 19.1 | -20.8 -18.3 |
| 50 | -30.9 -115.5 | 12.6 161.7 | -34.4 19.8 | -20.8 -25.8 |
| 60 | -29.8 -113.2 | 12.7 157.3 | -33.9 19.0 | -20.7 -32.7 |
| 80 | -27.6 -115.7 | 12.7 149.1 | -33.0 20.7 | -20.7 -45.9 |
| 90 | -26.4 -119.8 | 12.7 144.9 | -32.5 20.2 | -20.6 -52.9 |
| 100 | -25.5 -122.2 | 12.7 140.7 | -32.1 20.3 | -20.6 -59.9 |
| 150 | -21.4 -138.6 | 12.6 120.0 | -29.7 14.6 | -20.2 -98.6 |
| 200 | -18.0 -156.3 | 12.5 99.2 | -27.8 4.4 | -18.9 -141.3 |



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