

RF AMPLIFIER

Available as: QBH-137, 4 Pin TO-8 (T4)
QBH-9-137, Connectorized Housing (ES E52-1501)

MODEL QBH-137

Features

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

Specifications

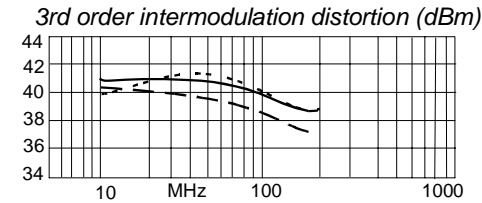
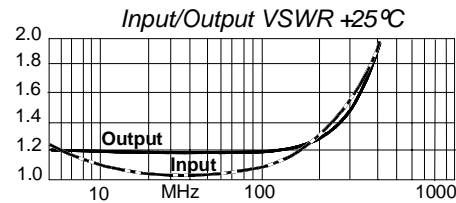
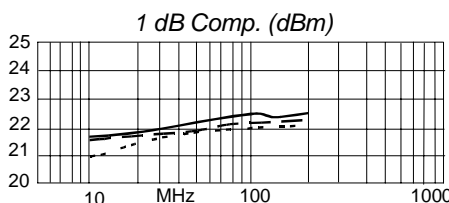
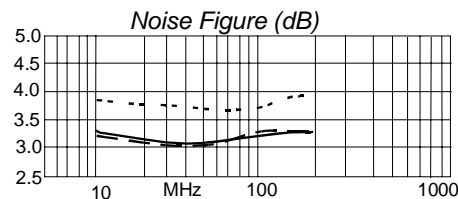
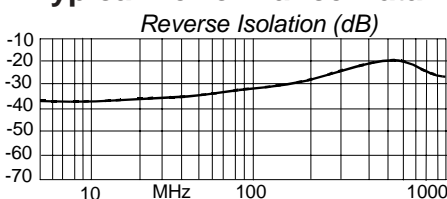
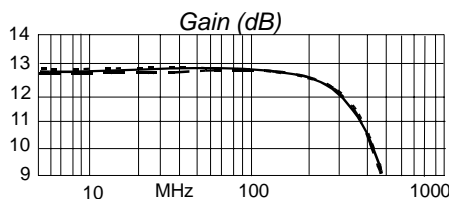
| CHARACTERISTIC | TYPICAL | MIN/MAX |
|------------------------|--------------|-----------------------|
| | Ta= 25 °C | Ta = -55 °C to +85 °C |
| Frequency | 10 - 200 MHz | 10 - 200 MHz |
| Gain (dB) | 12.7 ± 0.5 | — |
| Gain vs. Temperature | — | +0.6/-0.5 Max. |
| Gain Flatness | 0.8 | 1.0 Max. |
| 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 -- | | -- S21 -- | | -- S12 -- | | -- S22 -- | |
|--------------|-----------|--------|-----------|--------|-----------|------|-----------|--------|
| | dB | Ang | dB | Ang | dB | Ang | 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 |



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 10/24/06

www.SpectrumMicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001