

RF AMPLIFIER

Available as: QBH-280, F-Pack (E52-5006)

MODEL QBH-280

Features

- High Gain: 29.0 dB Typical
- High Power: +18 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Specifications

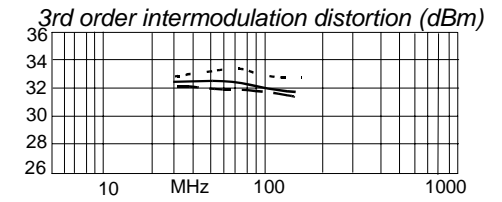
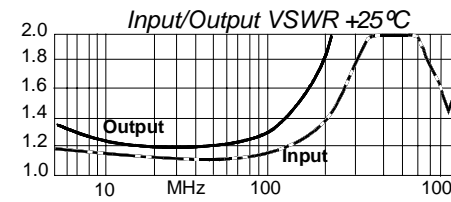
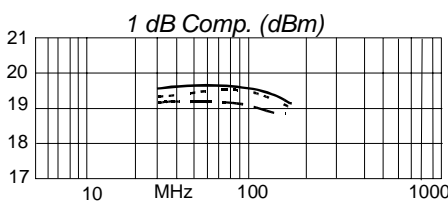
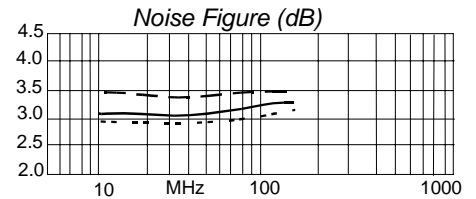
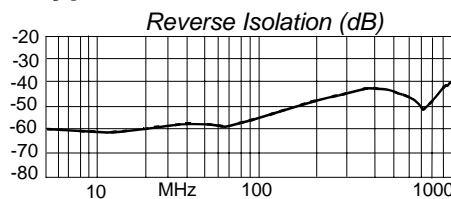
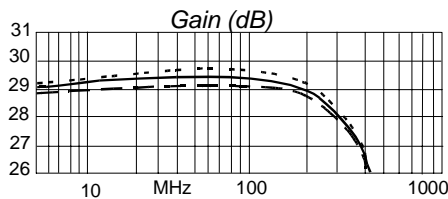
| CHARACTERISTIC | TYPICAL Ta= 25 °C | MIN/MAX Ta = -55 °C to +85 °C |
|-------------------------------------|----------------------|----------------------------------|
| Frequency | 5 - 150 MHz | 5 - 150 MHz |
| Gain (dB) | 29.0 ± 1.0 | — |
| Gain vs. Temperature | — | +0.5/-0.7 Max. |
| Gain Flatness | 0.5 | 0.6 Max. |
| Reverse Isolation (dB) | -46 | -45 Min. |
| VSWR In | 1.6:1 | 2.1:1 Max. |
| VSWR Out | 1.6:1 | 2.1:1 Max. |
| 1 dB Compression (dBm) | +18 | +17 Min. |
| Output Intercept point 3rd Order | +31 | +30 Min. |
| 2nd Order | +42 | +41 Min. |
| Noise Figure (dB) | 3.8 | 4.2 Max. |
| Power Vdc | +15 | +15 |
| mA | 59 | 61 Max. |

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.)

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 |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 5 | -21.4 -48.5 | 29.3 15.0 | -62.1 41.1 | -17.1 146.8 |
| 9 | -22.9 -41.4 | 29.3 5.0 | -60.8 37.8 | -19.1 155.6 |
| 20 | -24.7 -32.7 | 29.4 -6.6 | -61.4 33.1 | -20.9 170.4 |
| 40 | -25.5 -30.9 | 29.5 -20.7 | -56.9 26.3 | -21.2 -173.2 |
| 60 | -24.8 -30.2 | 29.5 -33.1 | -56.3 48.4 | -20.4 -164.6 |
| 80 | -23.4 -32.6 | 29.5 -45.3 | -53.9 47.0 | -19.2 -159.8 |
| 100 | -22.4 -41.0 | 29.4 -57.3 | -51.9 50.5 | -17.9 -159.3 |
| 130 | -20.3 -46.1 | 29.4 -75.5 | -50.6 30.4 | -15.8 -162.3 |
| 150 | -18.7 -52.3 | 29.4 -87.4 | -48.6 25.2 | -14.5 -166.1 |



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 03/11/05

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