

RF AMPLIFIER

Available as: QBH-8911, Hybrid SM (E52-19422)

MODEL QBH-8911

Features

- High Gain: 10.0 dB Typical
- High Power: +25 dBm Typical
- Operating Temp. - 40 °C to +70 °C
- Environmental Screening Available

Specifications

| CHARACTERISTIC | TYPICAL Ta = 25 °C | MIN/MAX Ta = -40 °C to +70 °C |
|-------------------------------------|-----------------------|----------------------------------|
| Frequency | 50 - 2000 MHz | 50 - 2000 MHz |
| Gain (dB) | 10.0 Min. | — |
| Gain vs. Temperature | — | +0.8/ -0.8 Max. |
| Gain Flatness | 1.0 | 1.8 Max. |
| Reverse Isolation (dB) | -20 | -19 Min. |
| VSWR In | 1.7:1 | 2.1:1 Max. |
| VSWR Out | 1.5:1 | 2.0:1 Max. |
| 1 dB Compression (dBm) | +25 | +24 Min. |
| Output Intercept point 3rd Order | +40 | +35 Min. |
| 2nd Order | +48 | +43 Min. |
| Noise Figure (dB) | 4.5 | 7.5 Max. |
| Power Vdc | +12 | +12 |
| mA | 220 | 240 Max. |

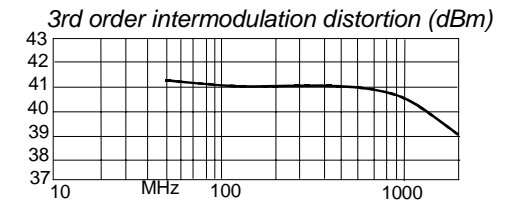
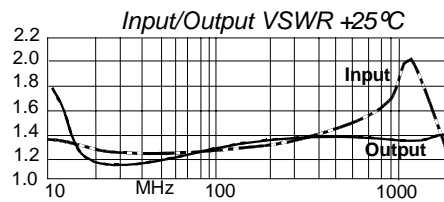
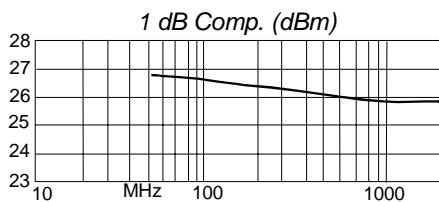
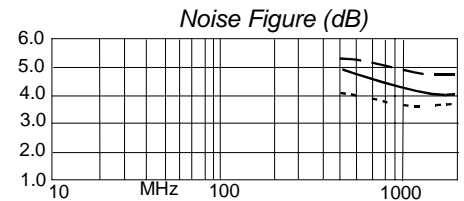
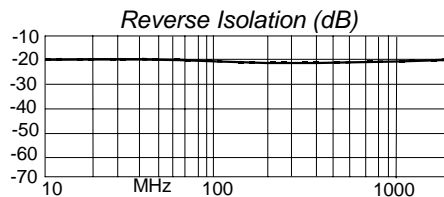
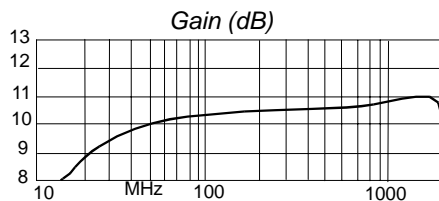
Maximum Ratings

Ambient Operating Temperature -55 °C to +125 °C
 Storage Temperature -65 °C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 18 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.
2. Noise Figures increase below 500 NHz

Typical Performance Data



Legend ——— + 25 °C

Linear S-Parameters Data

| FREQ. MHz | -- S11-- | | -- S21-- | | -- S12-- | | -- S22-- | |
|--------------|----------|--------|----------|--------|----------|--------|----------|--------|
| | dB | Ang | dB | Ang | dB | Ang | dB | Ang |
| 50 | -18.9 | -138.3 | 10.0 | -175.8 | -21.3 | -10.9 | -19.7 | -131.8 |
| 100 | -18.3 | -154.7 | 10.4 | 169.7 | -21.8 | -17.1 | -17.4 | -159.8 |
| 230 | -16.7 | -166.7 | 10.6 | 142.7 | -22.1 | -33.0 | -16.5 | 173.7 |
| 500 | -13.6 | 169.9 | 10.6 | 92.7 | -22.3 | -67.9 | -16.5 | 143.1 |
| 800 | -11.3 | 137.5 | 10.6 | 38.7 | -22.2 | -107.8 | -17.1 | 121.1 |
| 1100 | -9.9 | 102.2 | 10.7 | -16.6 | -22.0 | -148.7 | -17.4 | 110.8 |
| 1400 | -9.5 | 63.0 | 10.8 | -74.2 | -21.7 | 167.8 | -16.0 | 93.8 |
| 1700 | -12.7 | 13.4 | 10.9 | -136.4 | -21.2 | 119.0 | -15.2 | 57.2 |
| 2000 | -15.2 | -175.4 | 10.3 | 152.3 | -21.5 | 60.4 | -21.0 | -26.5 |



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