

# RF AMPLIFIER

Available as: QBH-204, F-Pack (E52-5006)

## MODEL QBH-204

### Features

- High Gain: 12.5 dB Typical
- High Power: +22 dBm Typical
- Operating Temp. - 54 °C to +85 °C
- Environmental Screening Available

### Specifications

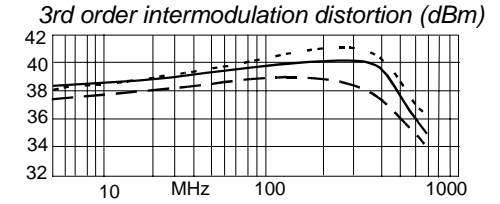
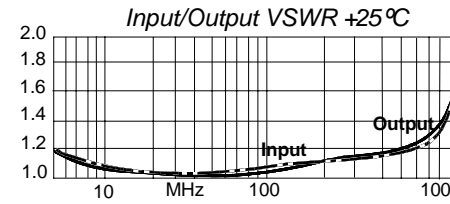
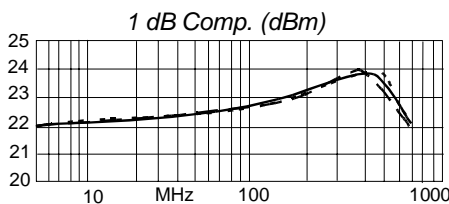
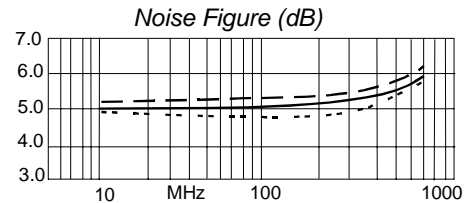
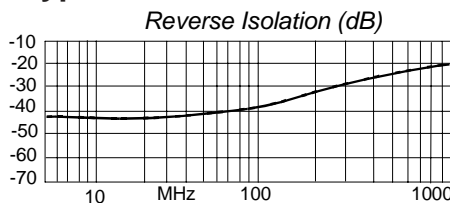
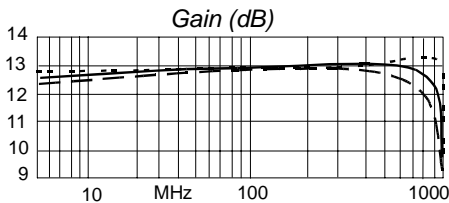
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -54 °C to +85 °C
Frequency	5 - 700 MHz	5 - 700 MHz
Gain (dB)	12.5 ± 0.5	—
Gain vs. Temperature	—	+0.9/-0.9 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-20	-20 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+22	+22 Min.
Output Intercept point 3rd Order	+34	+34 Min.
2nd Order	+50	+50 Min.
Noise Figure (dB)	7.0	7.6 Max.
Power Vdc	+15	+15
mA	95	100 Max.

### Maximum Ratings

Ambient Operating Temperature ..... -54°C to + 100 °C  
 Storage Temperature ..... -54°C to + 150 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 17.5 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    ······ -54 °C

### Linear S-Parameters Data

FREQ. MHz	-- S11-- dB    Ang	-- S21-- dB    Ang	-- S12-- dB    Ang	-- S22-- dB    Ang
5	-21.2   -79.3	12.6   -168.3	-43.3   33.1	-22.7   111.0
9	-26.9   -60.2	12.7   -175.4	-43.4   24.2	-26.4   96.6
20	-29.9   -20.6	12.7   177.2	-43.2   19.8	-31.1   70.8
50	-29.4   1.3	12.7   166.0	-41.3   32.2	-34.1   41.8
70	-28.8   5.3	12.7   159.5	-40.0   37.7	-33.6   32.9
90	-28.2   7.5	12.7   153.2	-38.6   39.2	-32.7   26.2
300	-23.5   -9.8	12.7   88.5	-29.9   12.6	-23.9   -43.8
500	-21.3   -34.9	12.7   26.6	-25.8   -27.2	-19.5   -118.2
700	-17.8   -53.7	12.6   -39.0	-23.1   -72.1	-15.4   169.0



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