

# RF AMPLIFIER

## MODEL QBH-5122

Available as: QBH-5122, F-Pack (E52-18563)

### Features

- High Gain: 17.0 dB Typical
- High Power: +19 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 - 500 MHz	10 - 500 MHz
Gain (dB)	17.0 ± 0.5	—
Gain vs. Temperature	—	+0.6/-0.8 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-22	-22 Min.
VSWR In	1.8:1	2.0:1 Max.
VSWR Out	1.8:1	2.0:1 Max.
1 dB Compression (dBm)	+19	+18 Min.
Output Intercept point		
3rd Order	+30	+26 Min.
2nd Order	+38	+32 Min.
Noise Figure (dB)	4.2	4.6 Max.
Power Vdc	+15	+15
mA	65	65 Max.

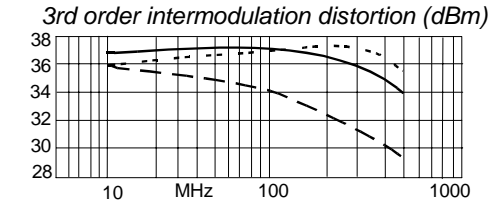
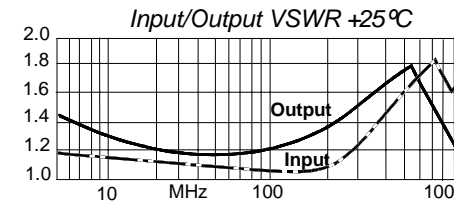
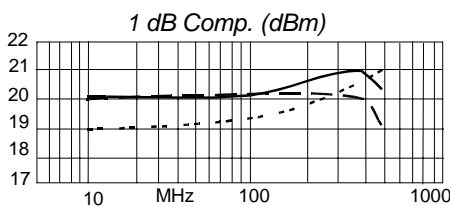
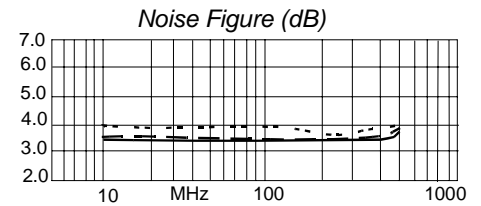
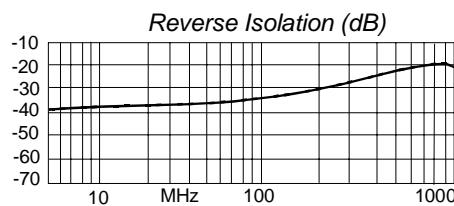
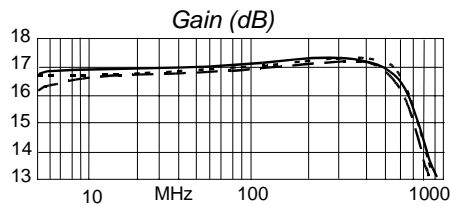
### Maximum Ratings

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:

1. 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 -171.9	17.0 -174.5	-36.7 14.7	-18.7 151.0
40	-29.1 176.9	17.1 168.9	-35.7 11.8	-22.1 172.7
60	-30.5 -178.3	17.2 161.3	-35.1 15.0	-22.0 179.9
70	-31.2 -173.9	17.2 157.7	-34.8 13.4	-21.8 -176.7
90	-32.5 -166.2	17.2 150.5	-34.1 14.9	-21.2 -172.8
100	-32.8 -161.5	17.2 147.0	-33.8 14.3	-20.8 -171.7
300	-20.5 -139.2	17.4 76.6	-27.5 -11.9	-14.2 169.0
400	-15.7 -157.6	17.4 40.0	-25.3 -33.6	-12.3 147.4
500	-12.6 178.2	17.3 2.0	-23.6 -59.1	-11.3 123.6



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