

RF AMPLIFIER

MODEL QBH-817

Available as: QBH-817, 4 Pin TO-8 (T4)
 QBH-9-817, Connectorized Housing (ES E52-1501)

Features

- High Gain: 13.5 dB Typical
- High Power: +20 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Specifications

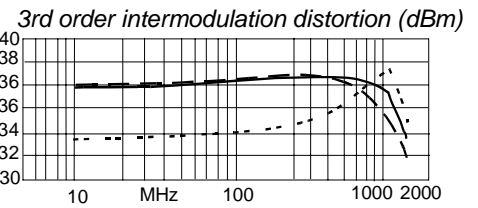
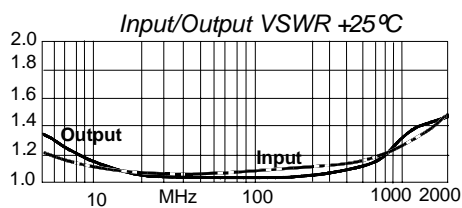
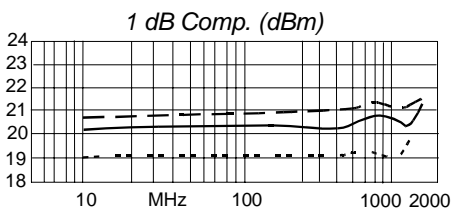
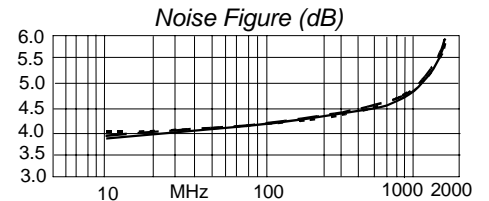
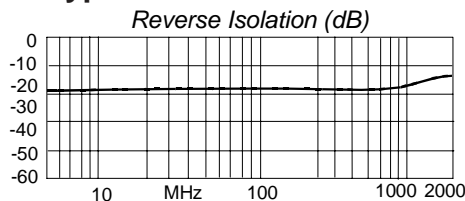
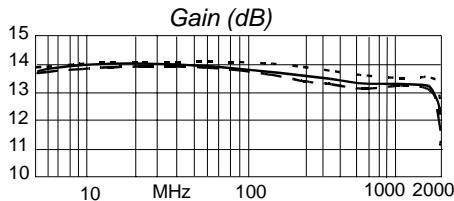
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 1500 MHz	10 - 1500 MHz
Gain (dB)	13.5 ± 0.5	—
Gain vs. Temperature	—	+0.6/-0.7 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-13.5	-13.5 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+20	+19 Min.
Output Intercept point 3rd Order	+30	+29 Min.
2nd Order	+42	+40 Min.
Noise Figure (dB)	6.5	7.0 Max.
Power Vdc	+15	+15
mA	105	107 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to + 125 °C
 Storage Temperature -65°C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 16.5 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 - - - - - -55 °C

Linear S-Parameters Data

FREQ. MHz	-- S11-- dB Ang	-- S21-- dB Ang	-- S12-- dB Ang	-- S22-- dB Ang
10	-24.7 -59.2	14.0 -176.9	-17.9 3.7	-22.8 109.0
50	-31.1 -68.1	14.0 168.5	-17.7 -6.1	-33.2 100.0
80	-30.9 -80.7	14.0 160.6	-17.7 -10.8	-35.4 84.7
200	-28.5 -115.4	13.8 130.8	-17.7 -27.8	-36.1 -1.3
500	-24.0 -168.8	13.5 59.0	-17.2 -70.9	-25.3 -98.4
700	-21.6 156.0	13.4 11.3	-16.7 -101.0	-21.4 -139.3
1000	-20.0 92.8	13.4 -61.1	-15.8 -149.9	-17.8 153.9
1300	-19.4 6.2	13.5 -136.2	-14.9 155.6	-16.1 75.8
1500	-16.0 -56.4	13.5 168.5	-14.5 119.6	-15.3 -6.7



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