

RF AMPLIFIER

MODEL QBH-816

Available as: QBH-816, 4 Pin TO-8 (080-10114-0001)
 QBH-9-816, Connectorized Housing (ES E52-1501)

Features

- High Gain: 10.2 dB Typical
- High Power: +20 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

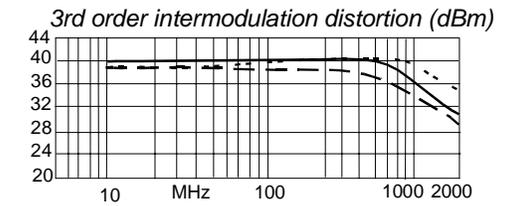
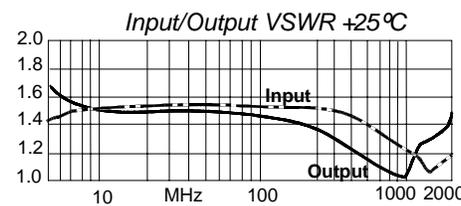
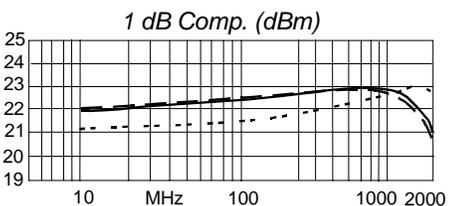
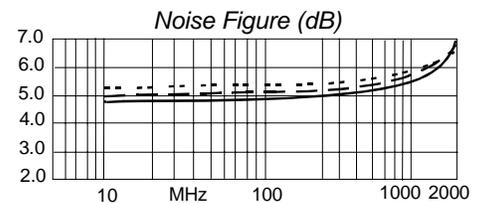
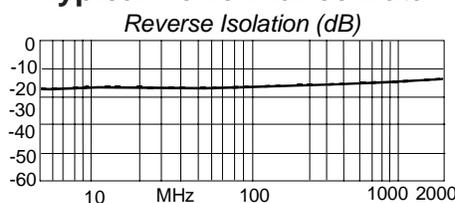
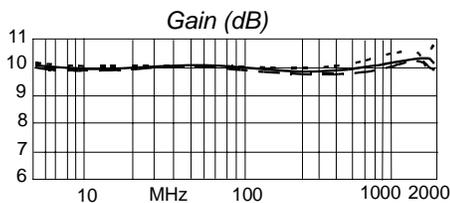
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 2000 MHz	10 - 2000 MHz
Gain (dB)	10.2 ± 0.5	—
Gain vs. Temperature	—	+0.8/-0.8 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-11	-11 Min.
VSWR In	1.6:1	1.8:1 Max.
VSWR Out	1.6:1	1.8:1 Max.
1 dB Compression (dBm)	+20	+19 Min.
Output Intercept point		
3rd Order	+30	+28 Min.
2nd Order	+40	+38 Min.
Noise Figure (dB)	8.5	9.0 Max.
Power Vdc	+15	+15
mA	120	125 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +17 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	-14.5 -160.8	10.2 -175.1	-15.8 5.5	-13.8 165.8
50	-14.1 175.9	10.1 170.6	-15.6 -5.4	-14.5 167.6
90	-14.0 166.3	10.1 161.7	-15.6 -11.3	-14.8 162.1
201	-14.1 143.3	10.0 138.5	-15.6 -26.0	-15.6 144.6
600	-15.3 65.2	10.1 57.3	-15.3 -78.3	-19.1 83.2
1000	-19.1 -16.4	10.4 -26.0	-14.7 -134.4	-37.6 34.2
1300	-27.4 -77.2	10.5 -91.2	-14.4 -179.4	-18.9 127.5
1700	-23.9 -90.0	10.5 -176.9	-14.1 122.7	-16.5 73.1
2000	-23.3 -133.5	10.3 112.0	-13.5 75.1	-14.5 39.5



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