

RF AMPLIFIER

MODEL QBH-816

Available as: QBH-816, 4 Pin TO-8 (T4)
 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

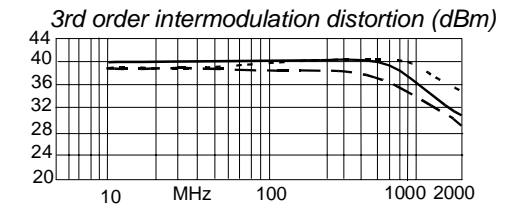
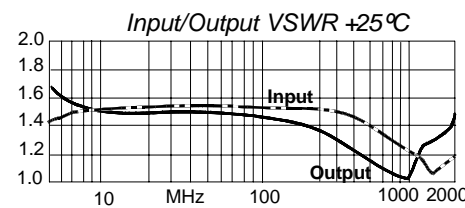
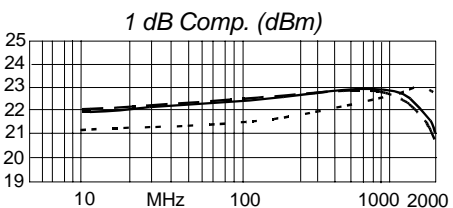
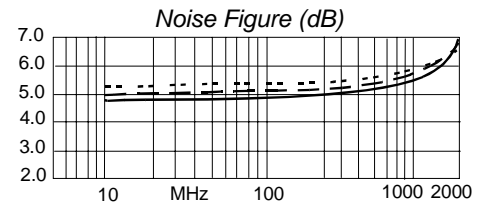
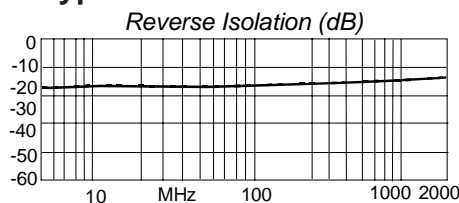
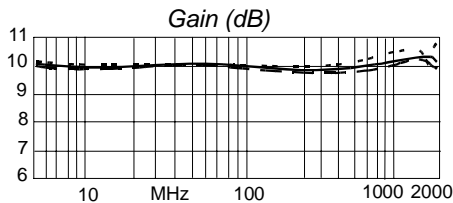
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 2000 MHz	10 - 2000 MHz
Gain (dB)	10.2 ± 0.5	—
Gain vs. Temperature	—	+0.8/-0.8 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-11	-11 Min.
VSWR In	1.6:1	1.8:1 Max.
VSWR Out	1.6:1	1.8:1 Max.
1 dB Compression (dBm)	+20	+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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