

RF AMPLIFIER

MODEL QBH-804

Available as: QBH-804, 4 Pin TO-8 Tall (080-22502-0001)
QBH-9-804, Connectorized Housing (ES E52-1501)

Features

- High Gain: 19.8 dB Typical
- High Power: +24 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

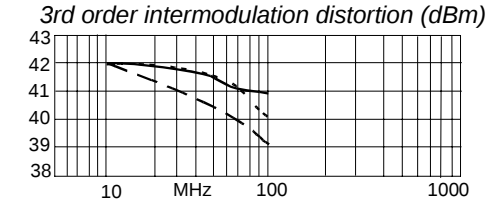
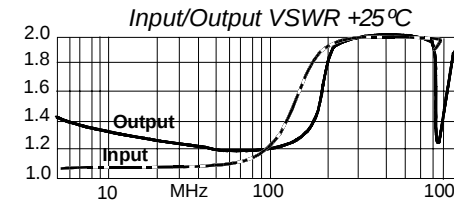
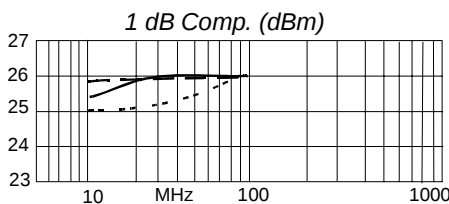
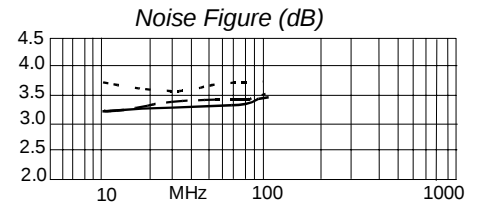
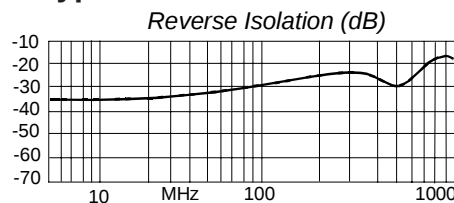
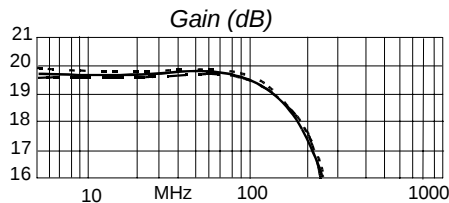
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 100 MHz	10 - 100 MHz
Gain (dB)	19.8 ± 0.5	—
Gain vs. Temperature	—	+0.4/-0.5 Max.
Gain Flatness	0.5	0.6 Max.
Reverse Isolation (dB)	-27	-27 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+24	+23 Min.
Output Intercept point		
3rd Order	+38	+37 Min.
2nd Order	+48	+46 Min.
Noise Figure (dB)	4.0	5.0 Max.
Power Vdc	+15	+15
mA	82	85 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +125 °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	-27.3 -142.5	19.7 -179.9	-35.4 17.0	-18.3 38.4
30	-26.8 -142.1	19.6 164.4	-34.4 16.6	-20.1 1.5
40	-26.7 -139.3	19.6 158.1	-33.8 18.5	-20.4 -8.2
50	-26.5 -135.7	19.6 151.9	-33.1 19.9	-20.6 -17.0
60	-26.1 -129.3	19.6 145.8	-32.4 22.8	-21.0 -26.0
70	-25.3 -127.5	19.6 139.7	-31.7 23.1	-21.6 -36.0
80	-24.1 -127.9	19.6 133.5	-31.1 22.8	-22.2 -46.7
90	-22.6 -127.9	19.6 127.2	-30.3 22.8	-23.1 -59.9
100	-21.0 -128.9	19.6 120.8	-29.6 22.2	-24.1 -76.8



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