

RF AMPLIFIER

Available as: QBH-124, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-124, Connectorized Housing (ES E52-1501)

MODEL QBH-124

Features

- High Gain: 19.8 dB Typical
- High Power: +17 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Maximum Ratings

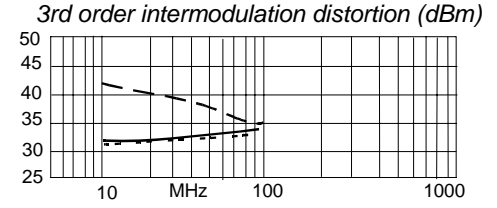
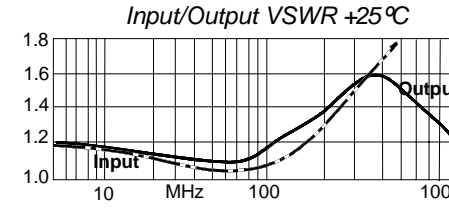
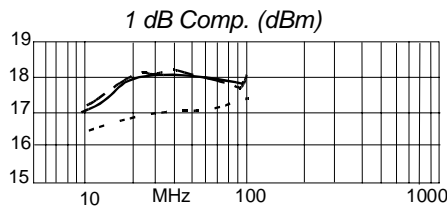
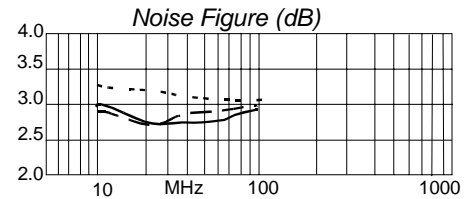
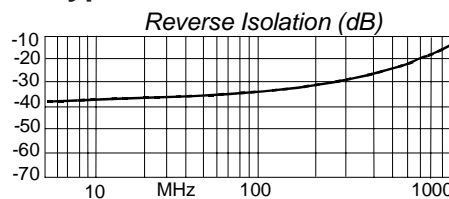
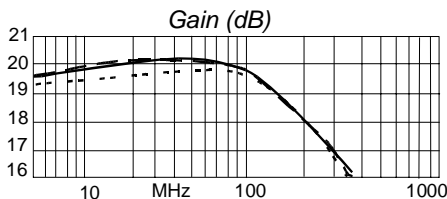
Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +17 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 μsec Max.)

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 100 MHz	5 - 100 MHz
Gain (dB)	19.8 ± 0.5	—
Gain vs. Temperature	—	+0.4/-0.4 Max.
Gain Flatness	0.8	1.0 Max.
Reverse Isolation (dB)	-32	-32 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+17	+16 Min.
Output Intercept point		
3rd Order	+30	+29 Min.
2nd Order	+40	+39 Min.
Noise Figure (dB)	3.5	3.8 Max.
Power Vdc	+15	+15
mA	60	64 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
5	-24.7 147.3	19.5 -169.8	-37.9 24.5	-24.0 124.1
8	-25.7 152.9	19.7 -174.8	-36.9 18.8	-25.9 115.3
10	-26.4 155.1	19.7 -176.7	-36.8 17.1	-26.4 110.8
20	-29.6 161.9	19.9 176.2	-36.2 15.7	-26.8 91.9
40	-30.1 -161.1	20.0 165.6	-35.7 17.0	-24.4 72.3
60	-27.1 -141.0	19.9 156.3	-35.0 19.8	-22.1 59.0
70	-25.7 -133.9	19.9 151.9	-34.8 24.3	-21.1 52.9
90	-23.4 -129.2	19.8 143.1	-34.1 25.7	-19.4 42.3
100	-22.4 -130.2	19.7 138.8	-33.6 26.7	-18.7 37.3



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