

RF AMPLIFIER

Available as: QBH-149, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-149, Connectorized Housing (ES E52-1501)

MODEL QBH-149

Features

- High Gain: 23.0 dB Typical
- High Power: +17.5 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

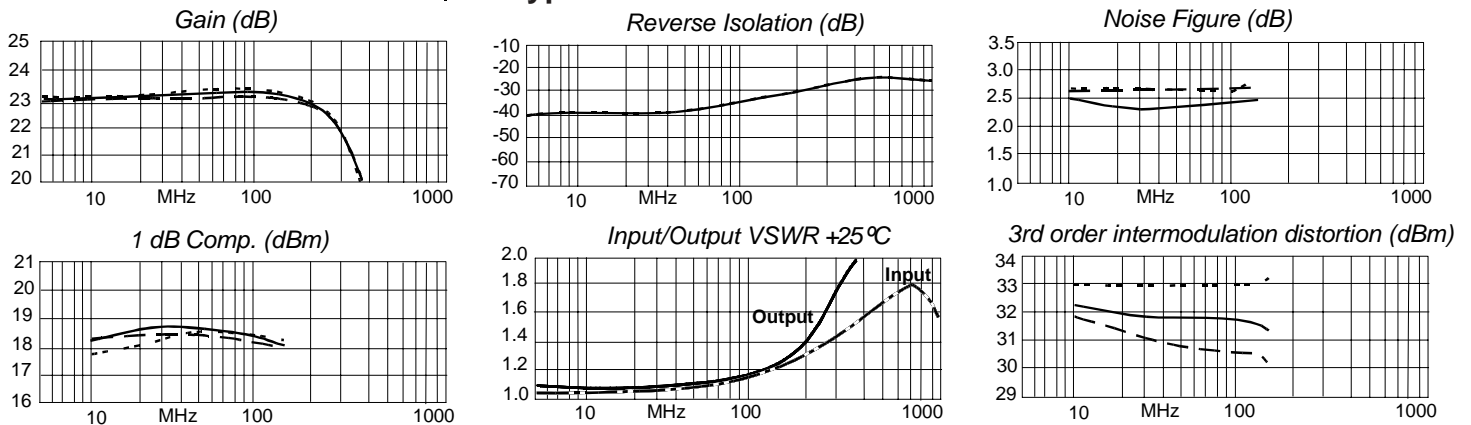
CHARACTERISTIC	TYPICAL	MIN/MAX
	Ta= 25 °C	Ta = -55 °C to +85 °C
Frequency	10 - 150 MHz	10 - 150 MHz
Gain (dB)	23.0 ± 0.5	—
Gain vs. Temperature	—	+0.4/-1.2 Max.
Gain Flatness	0.6	0.8 Max.
Reverse Isolation (dB)	-30	-30 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+17.5	+16.5 Min.
Output Intercept point		
3rd Order	+29	+27 Min.
2nd Order	+39	+37 Min.
Noise Figure (dB)	3.2	3.5 Max.
Power Vdc	+15	+15
mA	39	40 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +20 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	-31.6 -6.1	23.2 179.4	-39.6 12.7	-27.1 47.1
40	-27.9 -32.9	23.3 163.3	-38.2 15.4	-26.4 -19.5
50	-27.3 -43.9	23.3 158.7	-37.7 18.3	-25.7 -30.3
70	-25.9 -61.2	23.2 149.7	-36.8 22.2	-24.3 -48.0
80	-25.2 -69.2	23.2 145.2	-36.2 24.7	-23.5 -55.4
90	-24.5 -75.7	23.2 140.8	-35.6 25.8	-22.8 -62.3
110	-23.2 -90.5	23.2 131.7	-34.6 25.9	-21.3 -75.4
130	-22.0 -103.5	23.2 122.6	-33.5 24.5	-19.9 -87.7
150	-20.8 -116.2	23.1 113.2	-32.5 22.3	-18.6 -99.8



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