

RF AMPLIFIER

MODEL QBH-150

Available as: QBH-150, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-150, Connectorized Housing (ES E52-1501)

Features

- High Gain: 20.0 dB Typical
- High Power: +18 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Maximum Ratings

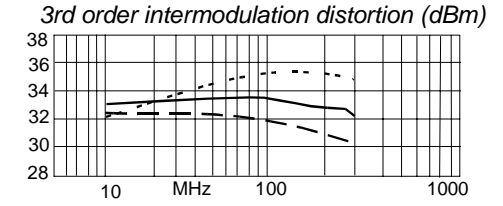
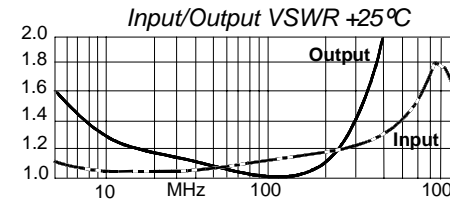
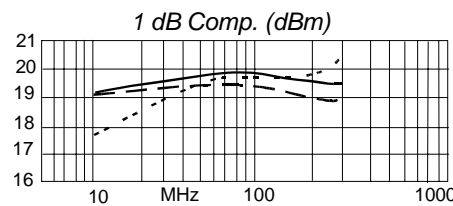
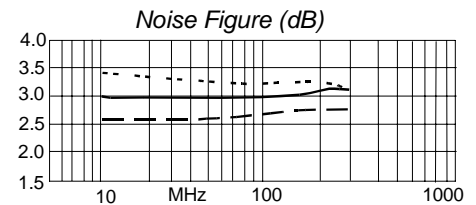
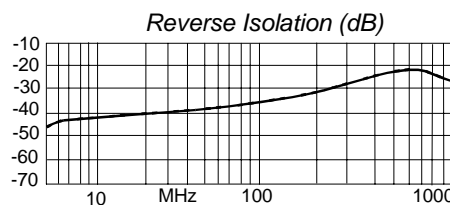
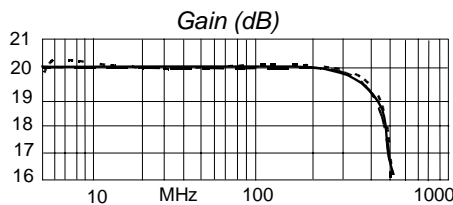
Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +20 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 μsec Max.)

Specifications

CHARACTERISTIC	TYPICAL	MIN/MAX
	Ta = 25 °C	Ta = -55 °C to +85 °C
Frequency	10 - 300 MHz	10 - 300 MHz
Gain (dB)	20.0 ± 0.5	—
Gain vs. Temperature	—	+0.4/-0.8 Max.
Gain Flatness	0.4	0.6 Max.
Reverse Isolation (dB)	-25	-25 Min.
VSWR In	1.5:1	1.5:1 Max.
Out	2.0:1	2.0:1 Max.
1 dB Compression (dBm)	+18	+17 Min.
Output Intercept point		
3rd Order	+30	+28 Min.
2nd Order	+40	+36 Min.
Noise Figure (dB)	3.9	4.4 Max.
Power Vdc	+15	+15
mA	46	47 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--		-- S21--		-- S12--		-- S22--	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
10	-30.1	-137.1	20.0	-176.5	-41.0	26.4	-18.3	125.0
40	-29.2	119.5	20.0	166.0	-38.0	22.8	-26.1	131.4
60	-26.9	91.4	20.0	157.4	-36.9	28.7	-28.4	131.8
70	-26.0	80.7	20.0	153.2	-36.3	28.7	-29.5	131.0
90	-24.3	63.0	20.0	145.1	-35.1	30.0	-32.5	130.5
100	-23.5	54.8	20.0	141.0	-34.6	30.0	-34.4	132.5
200	-19.7	-14.7	20.1	99.7	-30.1	20.8	-26.0	-135.0
250	-19.3	-53.5	20.2	77.9	-28.2	12.7	-19.6	-154.9
300	-19.0	-96.7	20.1	55.1	-26.6	1.6	-15.2	-178.2



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 03/11/05

www.SpectrumMicrowave.com Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001