

RF AMPLIFIER

Available as: QBH-851, 4 Pin TO-8 (080-10114-0001)
 QBH-9-851, Connectorized Housing (ES E52-1501)

MODEL QBH-851

Features

- High Gain: 10.0 dB Typical
- High Power: +20 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

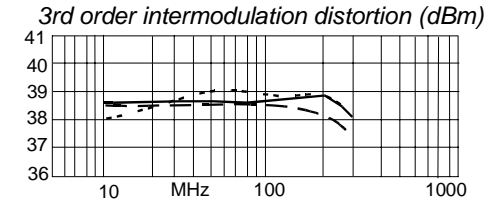
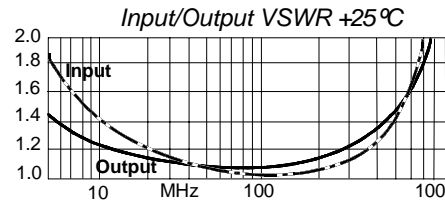
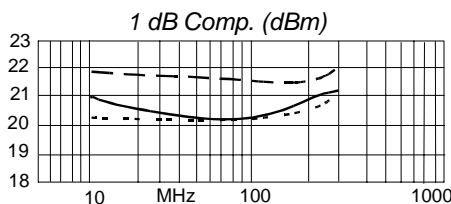
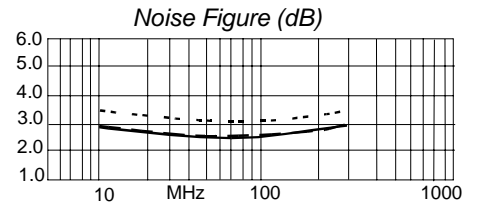
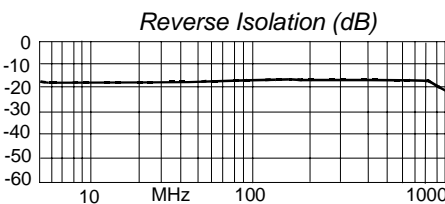
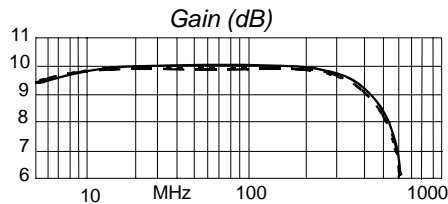
CHARACTERISTIC	TYPICAL	MIN/MAX
	Ta = 25 °C	Ta = -55 °C to +85 °C
Frequency	10 - 300 MHz	10 - 300 MHz
Gain (dB)	10.0 ± 0.5	—
Gain vs. Temperature	—	+0.5/-0.5 Max.
Gain Flatness	0.5	0.5 Max.
Reverse Isolation (dB)	-15	-15 Min.
VSWR In	1.7:1	1.8:1 Max.
VSWR Out	1.5:1	1.6:1 Max.
1 dB Compression (dBm)	+20	+19 Min.
Output Intercept point		
3rd Order	+38	+37 Min.
2nd Order	+54	+53 Min.
Noise Figure (dB)	4.0	4.0 Max.
Power Vdc	+15	+15
mA	90	90 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +18 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	-15.9	-63.6	9.7	-168.7	-16.5	-167.8	-19.6	-126.2
40	-28.1	-85.7	9.8	170.7	-16.7	169.6	-24.2	-165.6
50	-30.2	-83.4	9.8	166.7	-16.7	165.2	-24.6	-169.6
60	-32.1	-70.1	9.8	163.1	-16.7	161.2	-25.0	-171.9
80	-34.6	-45.7	9.8	156.0	-16.7	153.8	-25.6	-173.1
90	-35.6	-37.0	9.8	152.5	-16.7	150.1	-25.8	-172.9
100	-36.8	-30.8	9.8	149.0	-16.7	146.6	-25.9	-171.8
200	-29.0	-66.2	9.8	114.9	-16.6	111.9	-23.8	-167.6
300	-20.9	-136.2	9.7	79.8	-16.3	77.6	-18.7	171.6



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