

RF AMPLIFIER

MODEL QBH-152

Available as: QBH-152, 4 Pin TO-8 Tall (080-22502-0001)
QBH-9-152, Connectorized Housing (ES E52-1501)

Features

- High Gain: 17.0 dB Typical
- High Power: +18 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

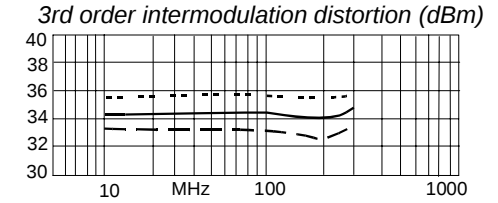
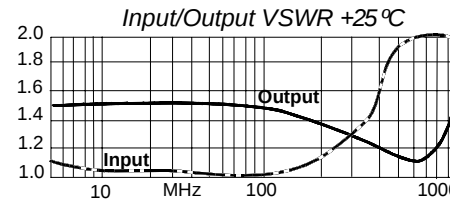
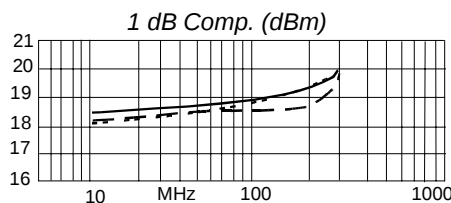
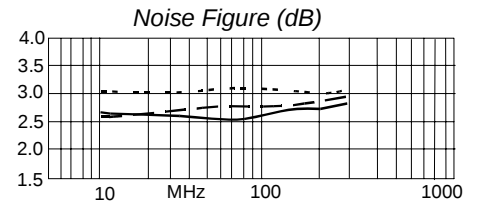
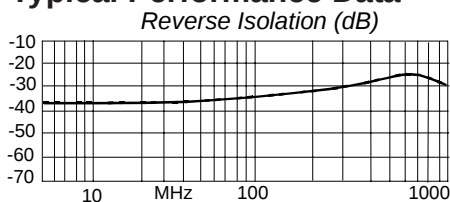
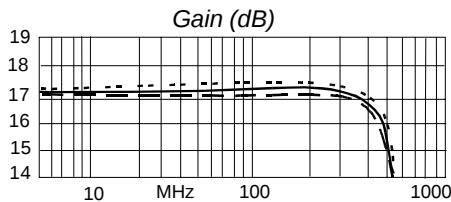
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 300 MHz	10 - 300 MHz
Gain (dB)	17.0 ± 0.6	—
Gain vs. Temperature	—	+1.0/-1.0 Max.
Gain Flatness	0.6	0.8 Max.
Reverse Isolation (dB)	-26	-26 Min.
VSWR In	1.5:1	1.6:1 Max.
Out	1.6:1	1.6:1 Max.
1 dB Compression (dBm)	+18	+17 Min.
Output Intercept point		
3rd Order	+33	+30 Min.
2nd Order	+46	+42 Min.
Noise Figure (dB)	3.9	4.6 Max.
Power Vdc	+15	+15
mA	79	82 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +125 °C
Storage Temperature -65°C to +150 °C
Case Temperature +125 °C
DC Voltage +16 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	-29.9 144.4	17.4 178.3	-35.2 8.1	-14.0 174.9
40	-34.3 119.8	17.4 166.7	-34.6 6.3	-13.9 166.2
50	-34.6 111.4	17.4 163.2	-34.6 5.9	-14.0 163.0
60	-35.3 100.5	17.4 159.7	-34.2 6.6	-14.0 159.7
80	-35.4 67.9	17.4 152.7	-34.1 6.4	-14.2 153.0
90	-35.0 47.2	17.4 149.2	-33.9 7.0	-14.3 149.8
100	-34.5 27.1	17.4 145.7	-33.6 7.0	-14.3 146.4
200	-24.9 -75.8	17.4 110.6	-31.5 1.2	-15.4 113.6
300	-18.3 -132.1	17.4 73.5	-29.8 -11.2	-17.5 80.4



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