

RF AMPLIFIER

Available as: QBH-8152, Hybrid SM (E52-19422)

MODEL QBH-8152

Features

- High Gain: 17.0 dB Typical
- High Power: +18 dBm Typical
- Operating Temp. - 40 °C to +70 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -40 °C to +70 °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	1.0 Max.
Reverse Isolation (dB)	-24	-24 Min.
VSWR In	1.7:1	1.8:1 Max.
VSWR Out	1.7:1	1.8:1 Max.
1 dB Compression (dBm)	+18	+17 Min.
Output Intercept point		
3rd Order	+33	+30 Min.
2nd Order	+43	+40 Min.
Noise Figure (dB)	3.5	3.8 Max.
Power Vdc	+15	+15
mA	68	75 Max.

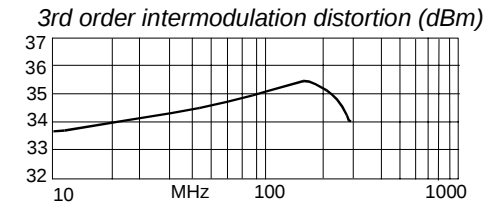
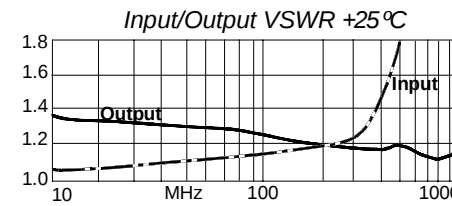
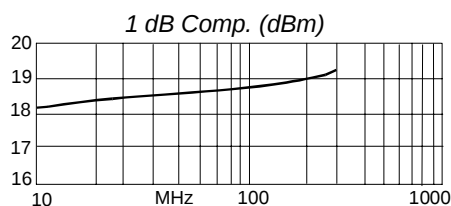
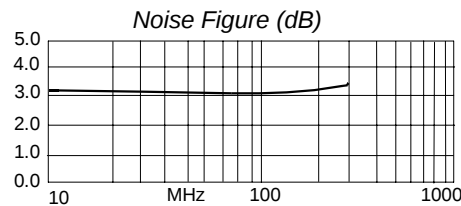
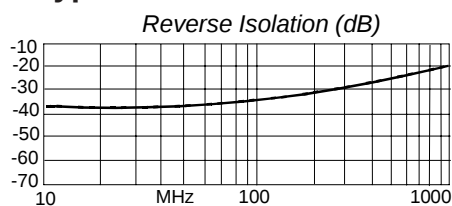
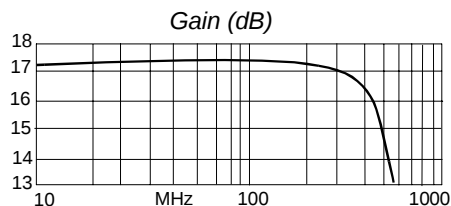
Maximum Ratings

Ambient Operating Temperature -40 °C to +70 °C
Storage Temperature -65 °C to + 150 °C
Case Temperature + 125 °C
DC Voltage + 16.5 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:

1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

Typical Performance Data



Legend — + 25 °C

Linear S-Parameters Data

FREQ. MHz	-- S11 -- dB Ang	-- S21 -- dB Ang	-- S12 -- dB Ang	-- S22 -- dB Ang
10	-28.3 17.4	17.1 -177.8	-37.7 21.9	-17.1 157.6
30	-26.4 12.3	17.3 172.7	-36.8 15.4	-17.8 164.8
50	-25.2 7.9	17.3 165.7	-36.2 19.7	-18.1 162.4
60	-24.7 5.5	17.3 162.4	-36.0 21.6	-18.1 160.9
75	-24.0 2.0	17.3 157.5	-35.2 22.9	-18.3 158.0
90	-23.4 -2.8	17.3 152.4	-34.6 23.9	-18.5 155.6
100	-23.1 -5.1	17.3 149.1	-34.2 26.3	-18.6 153.7
200	-21.2 -43.5	17.3 116.0	-30.5 21.0	-20.2 135.8
300	-20.3 -103.2	17.2 81.5	-27.8 9.4	-22.4 121.2



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