

RF AMPLIFIER

MODEL QB-152

Available as: QB-152, Housing (E52-19044)

Features

- High Gain: 21.9 dB Typical
- High Power: +31 dBm Typical
- Operating Temp. 0 °C to +50 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = 0 °C to +50 °C
Frequency	0.5 - 35 MHz	0.5 - 35 MHz
Gain (dB)	21.9 ± 0.7	—
Gain vs. Temperature	—	+0.2/ -0.5 Max.
Gain Flatness	0.5	0.8 Max.
Reverse Isolation (dB)	31	31 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+31	+31 Min.
Output Intercept point		
3rd Order	+50	+50 Min.
2nd Order	+100	+100 Min.
Noise Figure (dB)	4.0	4.5 Max.
Power Vdc	+24	+24
mA	420	420 Max.

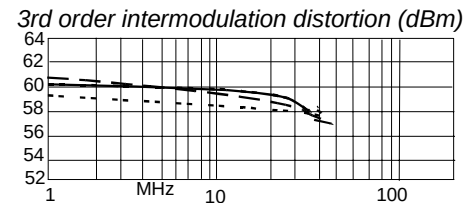
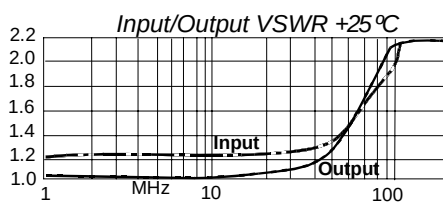
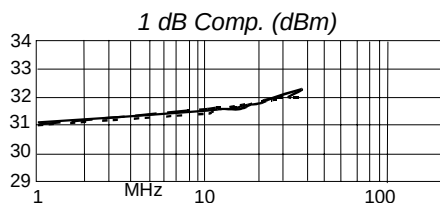
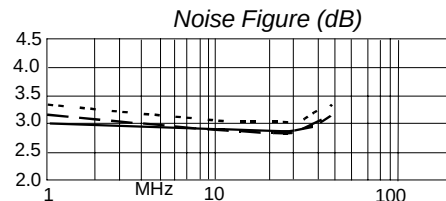
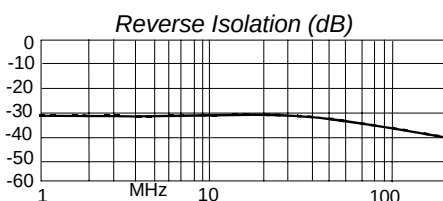
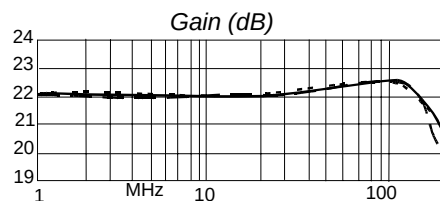
Note:

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

Maximum Ratings

Ambient Operating Temperature -54 °C to +71 °C
 Storage Temperature -65 °C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 25 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.)

Typical Performance Data



Legend ——— + 25 °C - - - - + 50 °C - - - - - 0 °C

Linear S-Parameters Data

FREQ. MHz	-- S11 -- dB Ang	-- S21 -- dB Ang	-- S12 -- dB Ang	-- S22 -- dB Ang
1	-19.9 7.5	21.9 -178.4	-31.7 -175.7	-36.8 134.4
3	-19.5 -2.6	22.0 175.4	-31.7 176.7	-40.9 115.0
5	-19.3 -11.0	22.0 170.9	-31.7 172.0	-46.3 84.8
7	-19.1 -18.5	22.0 166.8	-31.6 167.9	-46.5 20.0
9	-19.1 -25.5	22.0 162.7	-31.7 164.2	-42.1 -25.2
20	-18.8 -63.0	22.0 141.1	-31.9 143.9	-28.9 -70.3
30	-18.2 -98.1	22.1 121.5	-32.1 125.8	-22.9 -91.0



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