

# 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.
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.

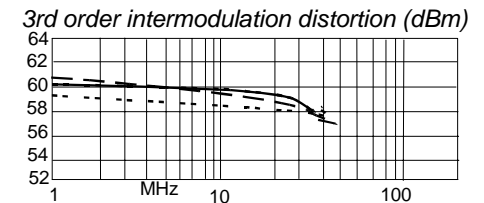
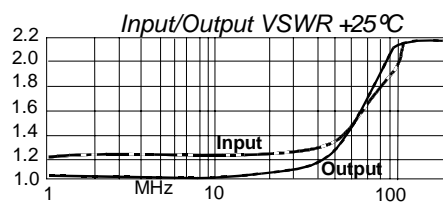
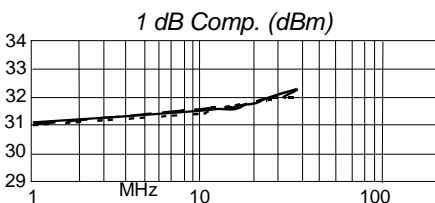
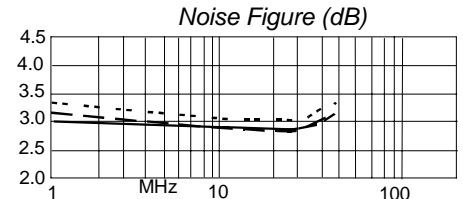
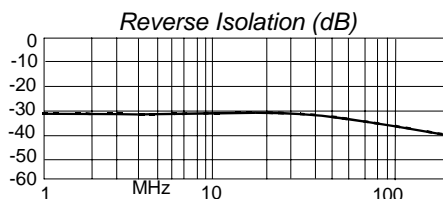
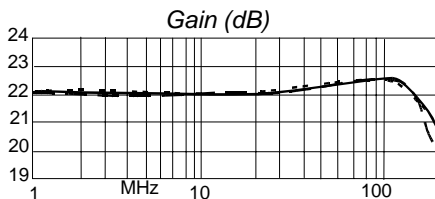
### Maximum Ratings

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.)

#### 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    - - - - + 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



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 05/23/05

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