

# RF AMPLIFIER

## MODEL QBS-158

Available as: QBS-158, Housing (E52-19250)

### Features

- High Gain: 21.5 dB Typical
- High Power: +33 dBm Typical
- Operating Temp. - 40 °C to +85 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +85 °C
Frequency	800 - 960 MHz	800 - 960 MHz
Gain (dB)	21.5 ± 0.5	—
Gain vs. Temperature	—	+0.5/ -0.2 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	24	—
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+33	+33 Min.
Output Intercept point 3rd Order	+50	+50 Min.
2nd Order	—	—
Noise Figure (dB)	2.5	3.0 Max.
Power Vdc	14-28	14-28
mA	790	—

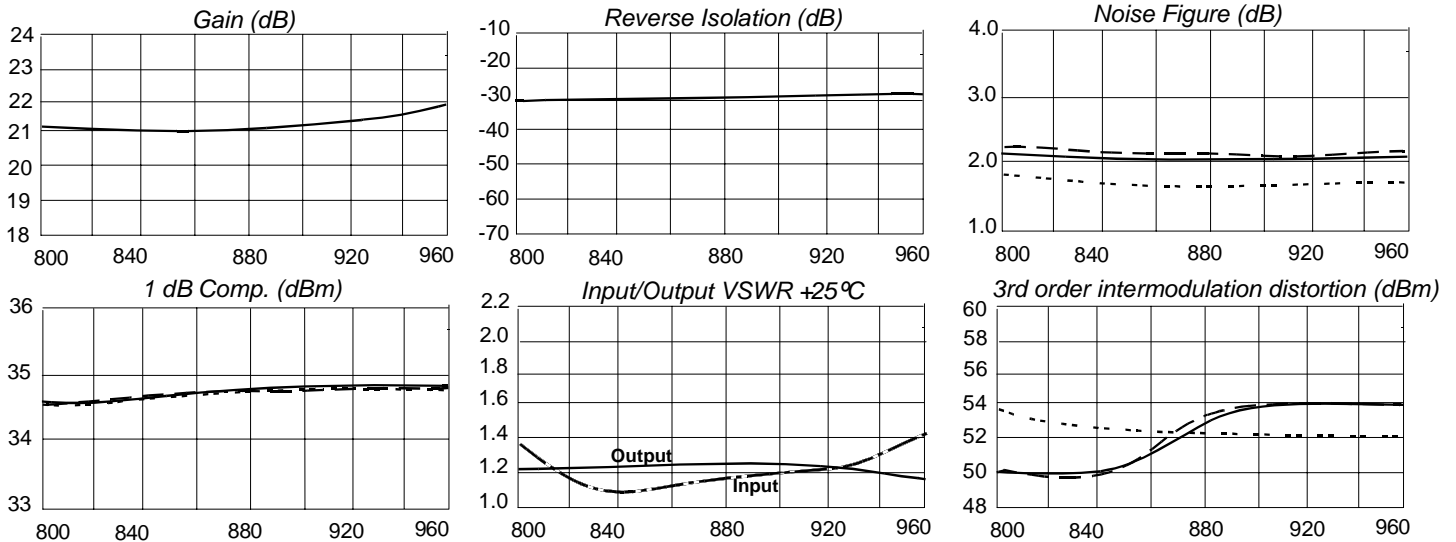
### Maximum Ratings

Ambient Operating Temperature ..... -40 °C to +85 °C  
 Storage Temperature ..... -55 °C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 28 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    - - - - + 85 °C    ······ -40 °C

### Linear S-Parameters Data

FREQ. MHz	-- S11-- dB    Ang	-- S21-- dB    Ang	-- S12-- dB    Ang	-- S22-- dB    Ang
800	-17.1    12.0	21.2    79.7	-29.5    16.9	-20.1    14.1
840	-27.0    -74.8	21.0    51.4	-28.8    -11.5	-18.6    4.0
880	-20.9    179.8	21.1    21.9	-28.4    -40.8	-17.9    -12.7
920	-19.5    158.2	21.4    -9.8	-27.7    -71.3	-18.5    -37.9
960	-15.1    -159.8	22.0    -47.8	-26.7    -108.6	-22.2    -96.6



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