

RF AMPLIFIER

MODEL QBH-8920

Available as: QBH-8920, Hybrid SM (E52-19422)

Features

- High Gain: 17.5 dB Typical
- High Power: +29 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	800 - 960 MHz	800 - 960 MHz
Gain (dB)	17.5± 0.5	—
Gain vs. Temperature	—	—
Gain Flatness	0.5	0.5 Max.
Reverse Isolation (dB)	22	22 Min.
VSWR In	1.3:1	1.5:1 Max.
Out	1.3:1	1.5:1 Max.
1 dB Compression (dBm)	+29	+28 Min.
Output Intercept point 3rd Order	+45	+44 Min.
2nd Order	—	—
Noise Figure (dB)	2.5	3.0 Max.
Power Vdc	+9	+9
mA	330	350 Max.

Absolute Maximum Ratings

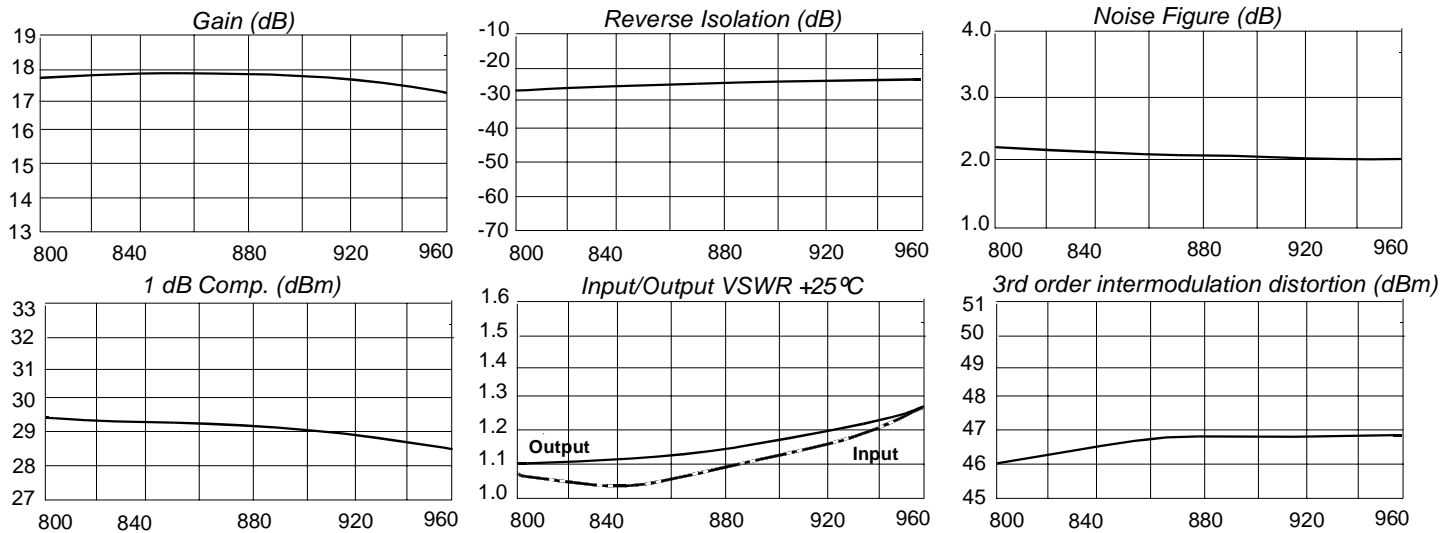
Ambient Operating Temperature -55 °C to +100 °C
 Storage Temperature -65 °C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 11 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Note: Care should always be taken to effectively ground the case of each unit.

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
800	-32.5	31.2	17.7	96.4	-25.3	48.7	-28.0	73.6
840	-34.8	65.0	17.8	80.6	-24.6	36.9	-25.7	71.0
880	-28.6	85.3	17.8	65.1	-24.0	25.2	-23.2	67.8
920	-22.7	91.0	17.6	49.9	-23.4	13.8	-20.8	63.1
960	-19.0	88.2	17.4	35.1	-23.0	2.5	-18.7	57.1



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

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