

# RF AMPLIFIER

## MODEL QBH-8900

Available as: QBH-8900, Hybrid SM (E52-19422)

### Features

- High Gain: 22.0 dB Typical
- High Power: +31.5 dBm Typical
- Operating Temp. - 40 °C to +70 °C
- Environmental Screening Available

### Specifications

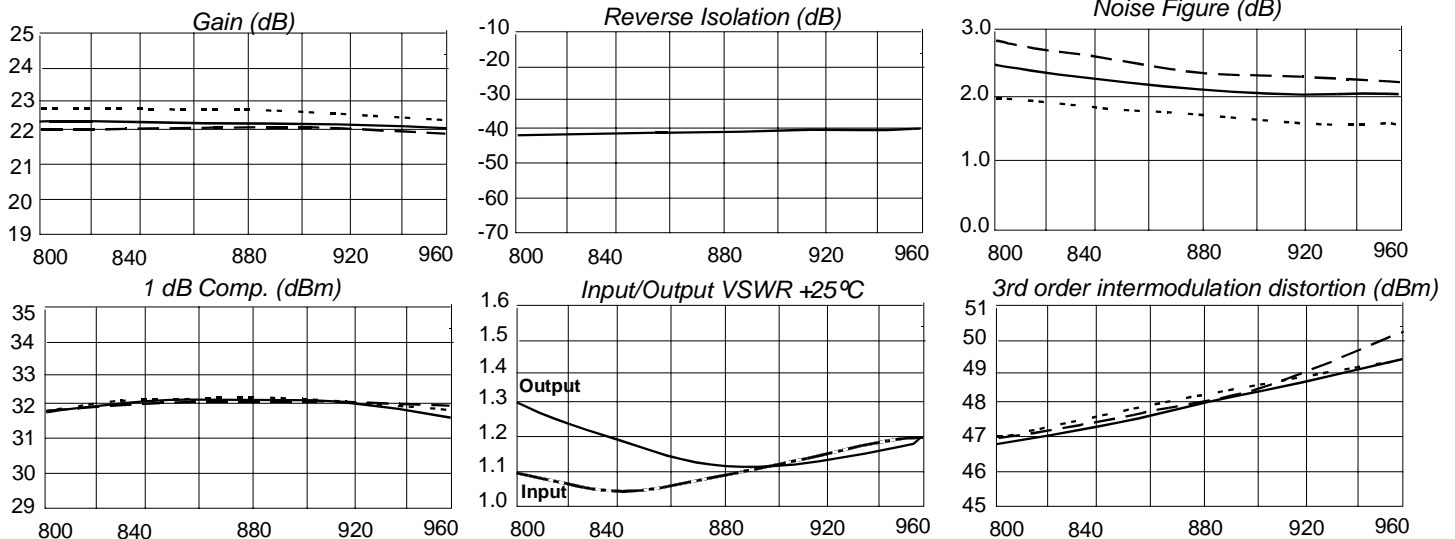
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +70 °C
Frequency	800 - 960 MHz	800 - 960 MHz
Gain (dB)	22.0 ± 0.5	—
Gain vs. Temperature	—	+0.7/-0.7 Max.
Gain Flatness	1.0	—
Reverse Isolation (dB)	—	—
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+31.5	+31 Min.
Output Intercept point 3rd Order	+47	+46 Min.
2nd Order	—	—
Noise Figure (dB)	3.0	3.0 Max.
Power Vdc	+15	+15
mA	350	370 Max.

### Maximum Ratings

Ambient Operating Temperature ..... -55 °C to +100 °C  
 Storage Temperature ..... -65 °C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 18 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    - - - - + 70 °C    ······ -40 °C

### Linear S-Parameters Data

FREQ. MHz	-- S11-- dB    Ang	-- S21-- dB    Ang	-- S12-- dB    Ang	-- S22-- dB    Ang
800	-26.2 -72.8	22.2 101.9	-42.6 29.5	-18.2 -133.0
830	-31.6 -36.3	22.2 89.0	-42.4 26.0	-20.5 -134.5
850	-38.1 -12.4	22.2 80.6	-42.4 23.6	-22.2 -133.3
870	-30.6 -7.6	22.2 72.4	-42.2 22.4	-23.6 -129.1
890	-26.6 -4.7	22.2 64.4	-41.8 18.8	-24.6 -120.8
910	-24.4 -7.1	22.1 56.5	-41.5 17.9	-24.6 -107.0
930	-22.7 -11.1	22.0 48.8	-41.3 15.9	-24.0 -90.7
950	-21.5 -15.8	22.0 41.2	-41.1 13.0	-22.8 -75.7
960	-21.1 -19.5	21.9 37.4	-40.7 11.7	-22.1 -70.0



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