

# RF AMPLIFIER

## MODEL QBH-8904

Available as: QBH-8904, Hybrid SM (E52-19422)

### Features

- High Gain: 14.5 dB Typical
- High Power: +24.5 dBm Typical
- Operating Temp. - 40 °C to +70 °C
- Environmental Screening Available

### Specifications

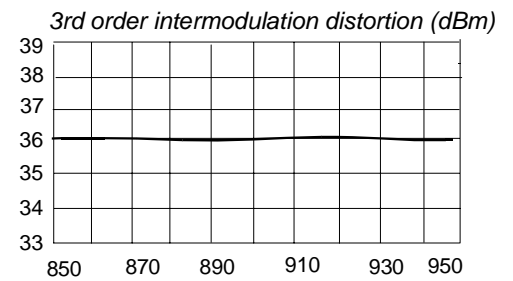
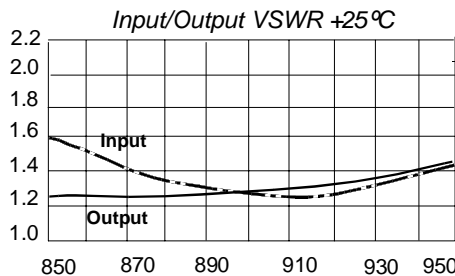
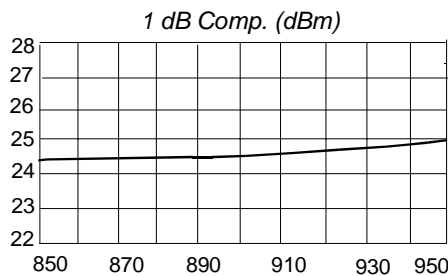
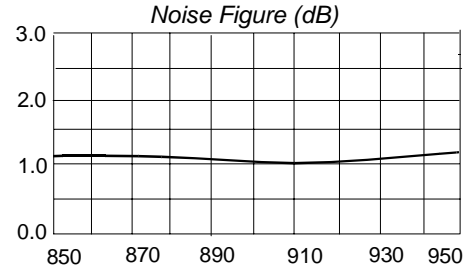
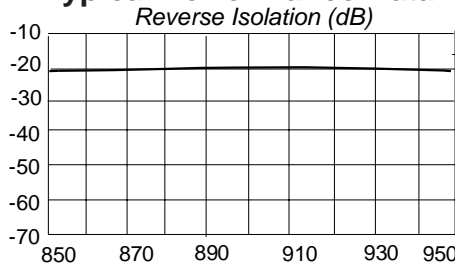
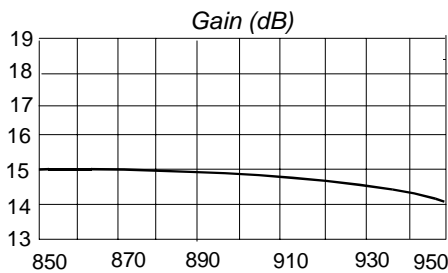
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +70 °C
Frequency	850 - 950 MHz	850 - 950 MHz
Gain (dB)	14.5 Min.	—
Gain vs. Temperature	—	+1.5 Max.
Gain Flatness	1.0	1.5 Max.
Reverse Isolation (dB)	20	19
VSWR In	1.4:1	2.0:1 Max.
Out	1.3:1	2.0:1 Max.
1 dB Compression (dBm)	+24.5	+23 Min.
Output Intercept point 3rd Order	+37	+34 Min.
2nd Order	—	—
Noise Figure (dB)	1.2	1.7 Max.
Power Vdc	+15	+15
mA	85	100 Max.

### Maximum Ratings

Ambient Operating Temperature ..... -55 °C to +125 °C  
 Storage Temperature ..... -65 °C to + 150 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 20 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

### Linear S-Parameters Data

FREQ. MHz	-- S11-- dB Ang	-- S21-- dB Ang	-- S12-- dB Ang	-- S22-- dB Ang
850	-12.5 96.6	15.1 -14.5	-21.3 -44.8	-18.7 -85.2
870	-14.9 78.1	15.0 -22.3	-21.0 -51.6	-18.7 -104.7
890	-17.5 49.0	14.9 -30.3	-20.8 -58.4	-18.1 -123.7
900	-18.4 28.2	14.8 -34.3	-20.7 -61.9	-17.5 -132.6
910	-18.7 4.7	14.7 -38.3	-20.6 -65.1	-17.0 -141.1
930	-16.9 -34.3	14.5 -46.2	-20.5 -72.1	-15.7 -156.5
950	-14.2 -58.5	14.2 -54.2	-20.5 -78.7	-14.5 -170.3



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