RF Amplifier
High Gain: 14.5 dB

Model QBH-8904
850 to 950 MHz

Features

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

Maximum Ratings

Ambient Operating Temperature ..... -55 ºC to +125 ºC
Storage Temperature ..... -65 ºC to + 150 ºC
Case Temperature ..... + 125 ºC
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.

Specifications

CHARACTERISTIC		TYPICAL Ta= 25 ºC	MIN/MAX Ta = -40 ºC to +70 ºC
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.

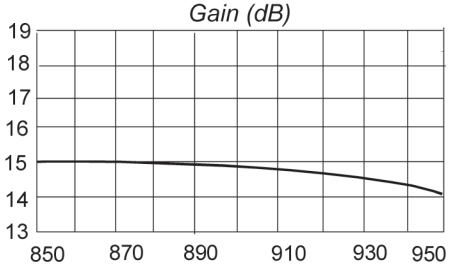
Packaging Options (see Appendix)

QBH-8904, Hybrid SM (E52-19422)

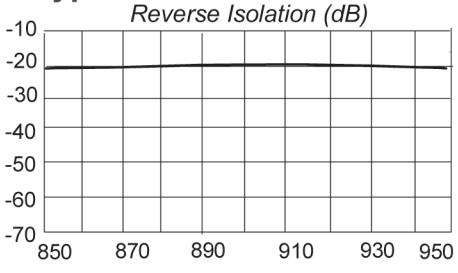
Legend ——— + 25 ºC – – – + 70 ºC - - - - - - -40 ºC

Typical Performance Data

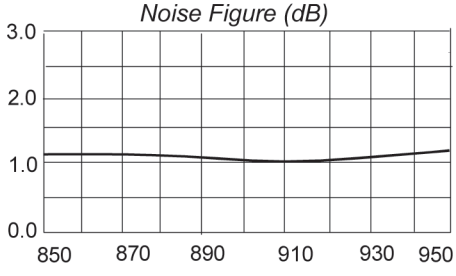
Gain (dB)



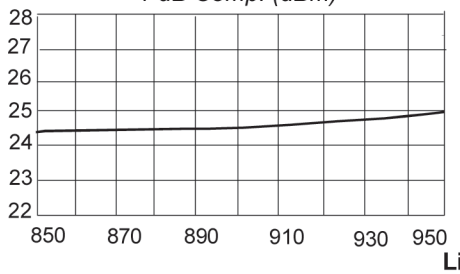
Reverse Isolation (dB)



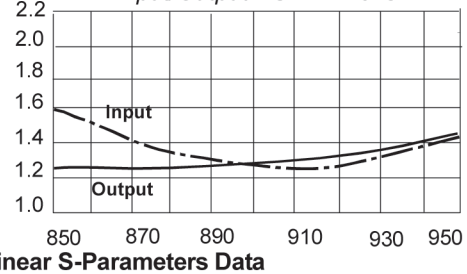
Noise Figure (dB)



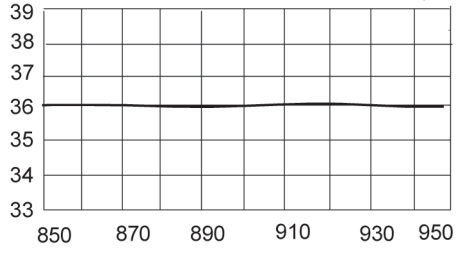
1 dB Comp. (dBm)



Input/Output VSWR +25ºC



3rd order intermodulation distortion (dBm)



Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 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

SPECTRUM MICROWAVE • 2144 Franklin Drive N.E. • Palm Bay, Florida 32905 • Phone: (888) 553-7531 • Fax: (888) 553-7532
www.specwave.com SPECTRUM CONTROL GmbH • Hansastrasse 6 • 91126 Schwabach, Germany • Phone: (49)-9122-795-0 • Fax: (49)-9122-795-58