RF Amplifier
High Gain: 9.5 dB

Model QBH-8916
1800 to 2500 MHz

Features

- High Gain: 9.5 dB Typical
- High Power: +25 dBm Typical
- Operating Temp. - 40 ºC to +70 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -40 ºC to +70 ºC
Frequency	1800 - 2500 MHz	1800 - 2500 MHz
Gain (dB)	9.5 Min.	—
Gain vs. Temperature	—	+1.5 Max.
Gain Flatness	0.3	1.0 Max.
Reverse Isolation (dB)	-18	-17 Min.
VSWR In	1.4:1	2.0:1 Max.
VSWR Out	1.4:1	2.0:1 Max.
1 dB Compression (dBm)	+25	+24 Min.
Output Intercept point		
3rd Order	+40	+38 Min.
2nd Order	—	—
Noise Figure (dB)	3.7	5.0 Max.
Power Vdc	+12	+12
Power mA	215	230 Max.

Maximum Ratings

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

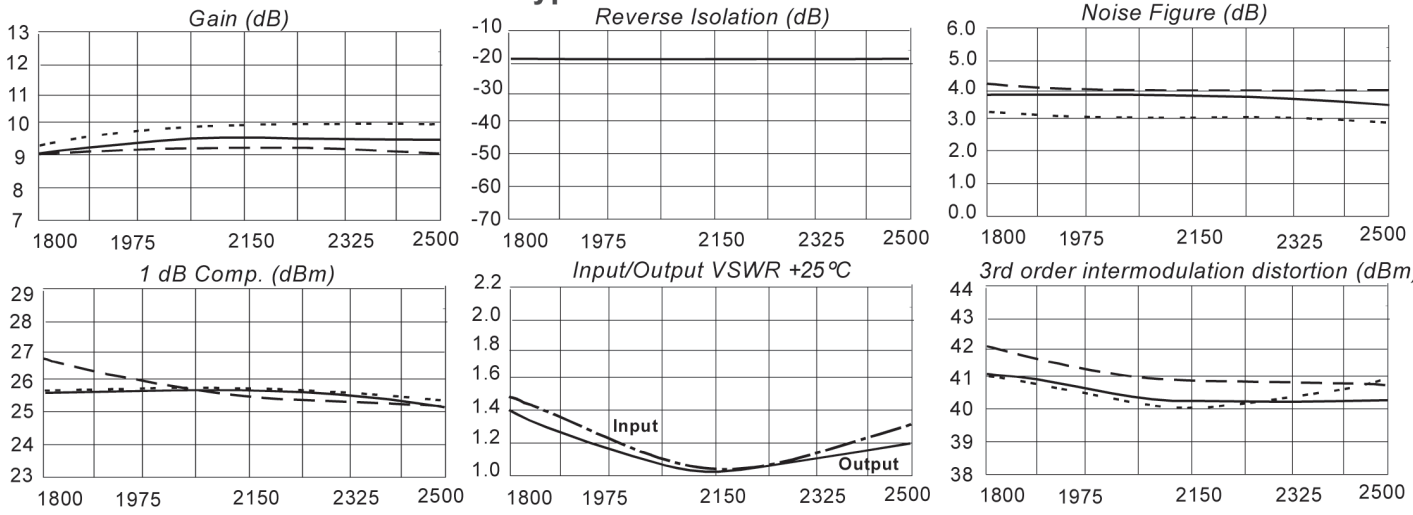
Note:
1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

Packaging Options (see Appendix)

QBH-8916, Hybrid SM (E52-19422)

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

Typical Performance Data



Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 Ang
1800	-14.2	-0.2	9.3	-111.0	-18.5	120.9	-16.1	-67.0
1950	-17.1	-17.0	9.5	-140.1	-18.5	98.8	-20.6	-94.6
2050	-20.1	-24.7	9.6	-160.0	-18.4	83.4	-25.2	-118.0
2100	-22.4	-26.4	9.6	-170.1	-18.4	75.8	-29.1	-135.1
2200	-28.7	-17.8	9.6	169.3	-18.3	59.9	-34.4	149.1
2300	-27.0	12.8	9.6	148.0	-18.3	43.4	-29.3	62.7
2350	-23.8	22.6	9.6	137.2	-18.3	34.8	-25.7	46.7
2450	-19.2	19.7	9.5	115.1	-18.3	17.5	-21.7	22.3
2500	-17.6	13.3	9.4	103.7	-18.2	8.4	-20.2	12.6

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