

RF Amplifier

High Gain: 16.0 dB

Model QBH-8714

800 to 825 MHz

Features

- High Gain: 16.0 dB Typical
- High Power: +27 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 - 825 MHz	800 - 825 MHz
Gain (dB)	16.0 Min.	—
Gain vs. Temperature	—	+1.5 Max.
Gain Flatness	0.3	0.6 Max.
Reverse Isolation (dB)	-21	-19 Min.
VSWR In	1.5:1	2.0:1 Max.
VSWR Out	1.6:1	2.0:1 Max.
1 dB Compression (dBm)	+27	+26 Min.
Output Intercept point		
3rd Order	+41	+38 Min.
2nd Order	—	—
Noise Figure (dB)	1.1	1.5 Max.
Power Vdc	+15	+15
Power mA	150	170 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:

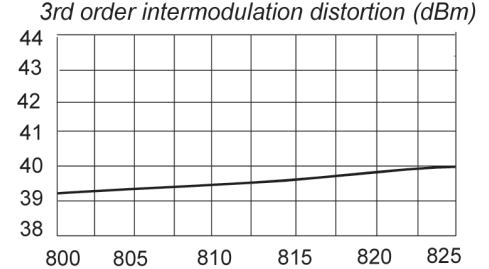
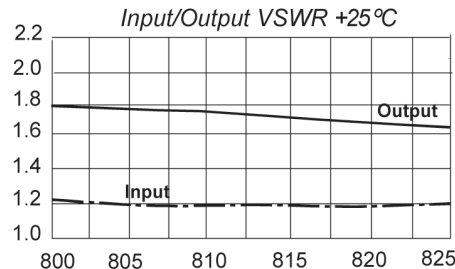
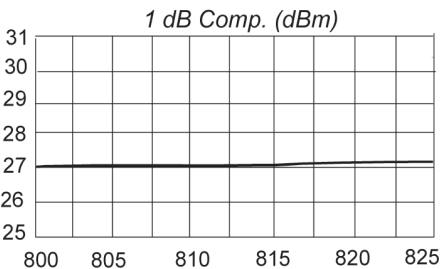
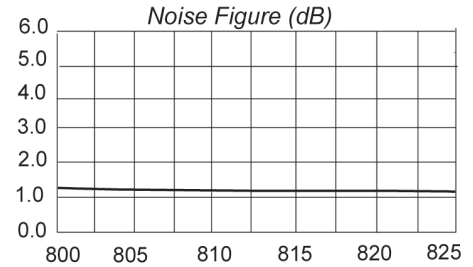
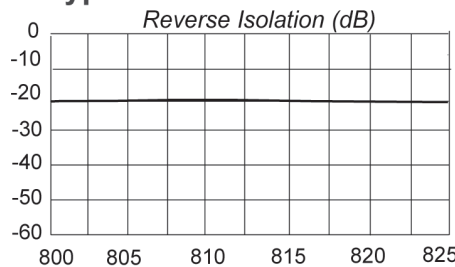
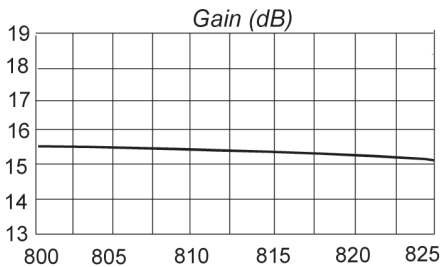
1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

Packaging Options (see Appendix)

QBH-8714, Hybrid SM (E52-19422)

Legend ——— + 25 °C - - - - + 70 °C - - - - - - - - - - -40 °C

Typical Performance Data



Linear S-Parameters Data

FREQ. MHz	--S11-- dB Ang	--S21-- dB Ang	--S12-- dB Ang	--S22-- dB Ang
800	-21.0 -8.4	15.4 -35.5	-20.5 -45.9	-11.1 -74.6
805	-21.7 -22.3	15.4 -37.9	-20.4 -47.3	-11.2 -78.4
810	-21.6 -32.8	15.3 -40.3	-20.3 -49.6	-11.4 -82.7
815	-21.2 -41.4	15.3 -42.7	-20.3 -51.6	-11.6 -86.9
820	-20.8 -48.5	15.2 -45.1	-20.2 -53.5	-11.9 -91.2
825	-20.7 -54.1	15.2 -47.5	-20.2 -55.4	-12.1 -95.5

