

RF Amplifier

High Gain: 21.5 dB

Model QBH-8719

30 to 145 MHz

Features

- High Gain: 21.5 dB Typical
- High Power: +25 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	30 - 145 MHz	30 - 145 MHz
Gain (dB)	21.5 ±1.5	—
Gain vs. Temperature	—	—
Gain Flatness	0.2	1.0 Max.
Reverse Isolation (dB)	-32	-26 Min.
VSWR In	1.2:1	1.5:1 Max.
Out	1.2:1	1.7:1 Max.
1 dB Compression (dBm)	+25	+23 Min.
Output Intercept point		
3rd Order	+40	+37 Min.
2nd Order	+51	+48 Min.
Noise Figure (dB)	2.5	3.0 Max.
Power Vdc	+15	+15
mA	105	115 Max.

Maximum Ratings

Ambient Operating Temperature -55 °C to +125 °C
 Storage Temperature -65 °C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 15 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:

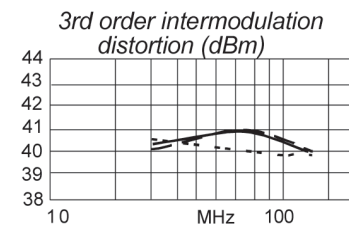
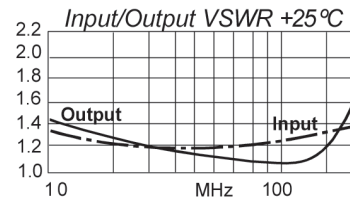
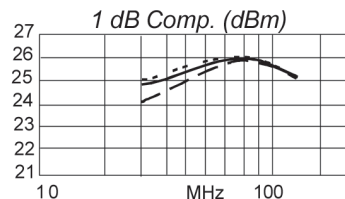
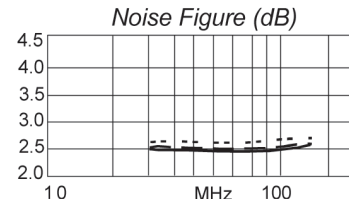
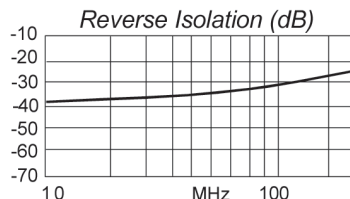
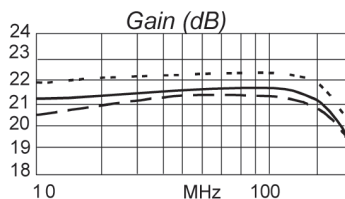
- Specifications are guaranteed when tested in a 50 Ohm system.
 Specifications indicated as typical are not guaranteed.

Packaging Options (see Appendix)

QBH-8719, 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
30	-21.2 -37.6	21.5 170.8	-36.6 -31.9	-21.6 96.9
60	-22.2 -42.2	21.5 155.5	-34.6 33.1	-25.0 73.6
70	-22.1 -44.8	21.6 150.7	-33.9 35.0	-25.9 65.5
80	-22.0 -48.0	21.6 146.0	-33.4 34.6	-26.7 56.8
100	-21.5 -54.7	21.6 136.6	-32.1 34.6	-28.8 37.8
115	-21.0 -61.6	21.6 129.4	-31.3 34.0	-30.2 21.8
125	-20.5 -65.6	21.6 124.6	-30.8 32.9	-30.0 9.6
135	-20.2 -70.5	21.6 119.8	-30.3 32.6	-29.3 -4.6
145	-19.8 -76.0	21.6 114.9	-29.8 31.1	-28.7 -20.4