

RF Amplifier

High Gain: 13.5 dB

Model QBH-8817

10 to 1500 MHz

Features

- High Gain: 13.5 dB Typical
- High Power: +20 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 1500 MHz	10 - 1500 MHz
Gain (dB)	13.5 ±0.5	—
Gain vs. Temperature	—	+2.0/ -2.0 Max.
Gain Flatness	1.0	1.5 Max.
Reverse Isolation (dB)	-13.5	-13 Min.
VSWR In	1.5:1	2.0:1 Max.
VSWR Out	1.5:1	2.0:1 Max.
1 dB Compression (dBm)	+20	+19 Min.
Output Intercept point		
3rd Order	+32	+30 Min.
2nd Order	+40	+38 Min.
Noise Figure (dB)	5.0	6.5 Max.
Power Vdc	+15	+15
mA	102	102 Max.

Maximum Ratings

Ambient Operating Temperature -55 °C to +125 °C
 Storage Temperature -65 °C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 19 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.)

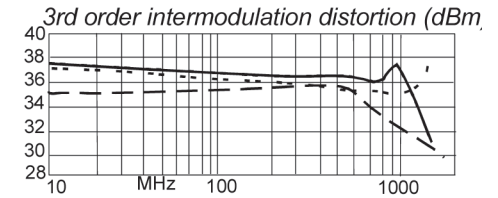
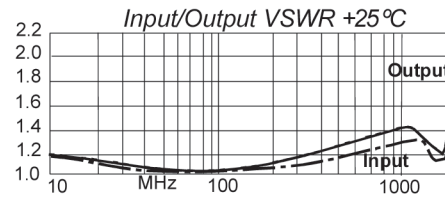
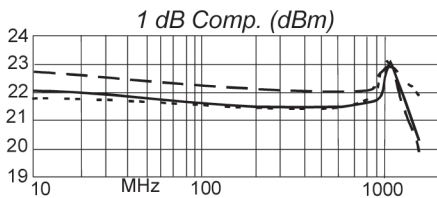
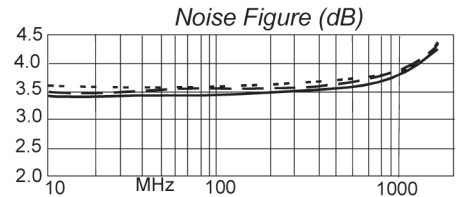
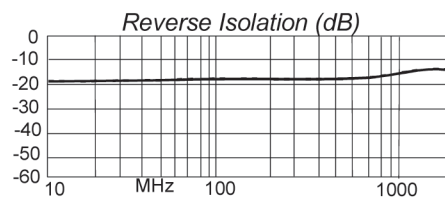
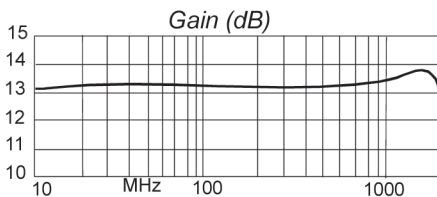
Note: 1. Specifications are guaranteed when tested in a 50 Ohm system.
 Specifications indicated as typical are not guaranteed.

Packaging Options (see Appendix)

QBH-8817, Hybrid SM (E52-19422)

Legend ——— + 25 °C - - - - + 85 °C - - - - - -55 °C

Typical Performance Data



Linear S-Parameters Data

FREQ. MHz	-- S11--		-- S21--		-- S12--		-- S22--	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
10	-23.9	-68.5	13.2	-175.6	-17.5	5.3	-22.3	119.3
50	-31.6	-72.4	13.4	171.2	-17.3	-4.7	-29.8	96.2
80	-34.3	-63.4	13.4	164.5	-17.2	-8.8	-29.9	83.6
200	-31.3	-94.5	13.4	139.9	-17.2	-24.3	-25.3	49.9
500	-24.8	-130.5	13.4	79.6	-16.9	-62.1	-18.7	-14.9
700	-21.6	-149.9	13.5	38.7	-16.7	-88.3	-16.2	-58.5
1000	-18.3	178.9	13.6	-24.7	-16.2	-129.7	-14.6	-133.6
1300	-18.7	142.5	13.6	-91.8	-15.7	-173.7	-16.7	136.7
1500	-23.9	134.7	13.7	-137.8	-15.3	153.4	-19.8	58.6

