

# RF AMPLIFIER

## MODEL QBH-8817

Available as: QBH-8817, Hybrid SM (E52-19422)

### Features

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

### Specifications

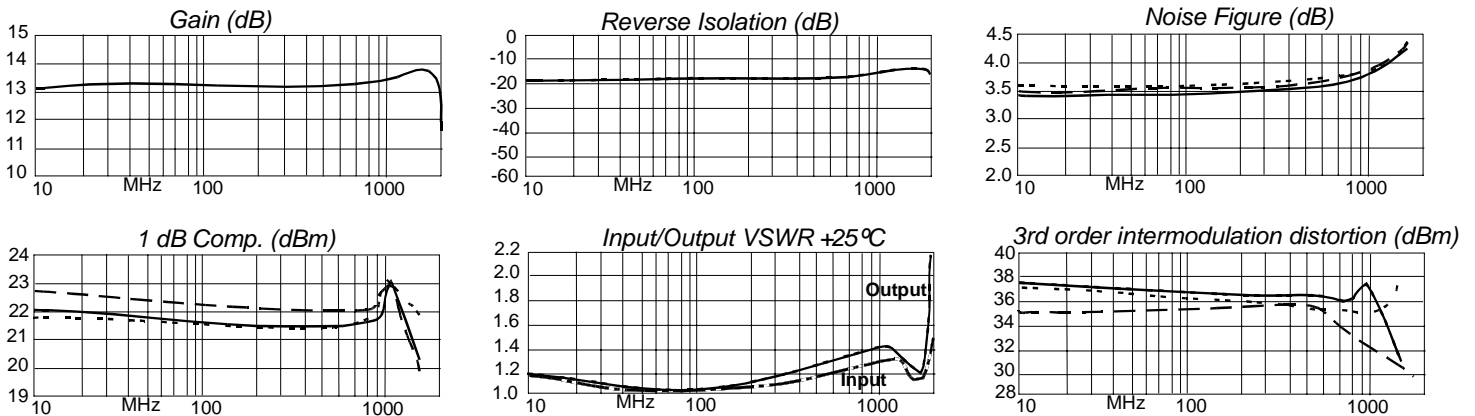
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 1500 MHz	10 - 1500 MHz
Gain (dB)	13.5 ±0.5	—
Gain vs. Temperature	—	+2.0/ -2.0 Max.
Gain Flatness	1.0	1.5 Max.
Reverse Isolation (dB)	-13.5	-13 Min.
VSWR In	1.5:1	2.0:1 Max.
VSWR Out	1.5:1	2.0:1 Max.
1 dB Compression (dBm)	+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.

### Typical Performance Data



### Linear S-Parameters Data

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



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 03/11/05

www.SpectrumMicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001