

RF AMPLIFIER

MODEL QBH-8407

Available as: QBH-8407, Hybrid SM (E52-19422)

Features

- High Gain: 10.0 dB Typical
- High Power: +28 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	50 - 2000 MHz	50 - 2000 MHz
Gain (dB)	10.0 Min.	—
Gain vs. Temperature	—	+1.5 Max.
Gain Flatness	0.8	1.8 Max.
Reverse Isolation (dB)	-20	-19 Min.
VSWR In	1.7:1	2.1:1 Max.
VSWR Out	1.5:1	2.0:1 Max.
1 dB Compression (dBm)	+28	+24.5 Min.
Output Intercept point		
3rd Order	+42	+37 Min.
2nd Order	+50	+45 Min.
Noise Figure (dB)	4.5	7.5 Max.
Power Vdc	+15	+15
mA	220	240 Max.

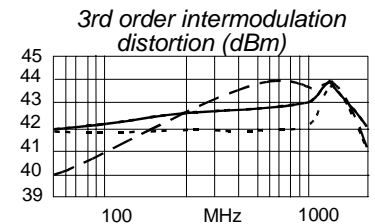
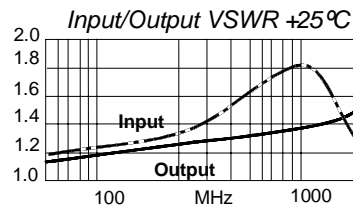
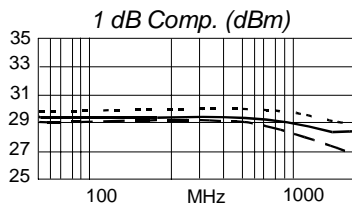
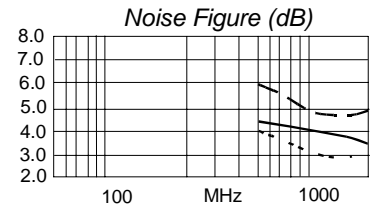
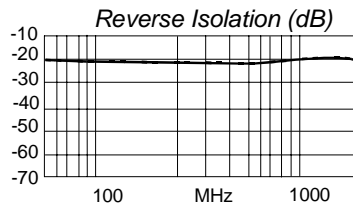
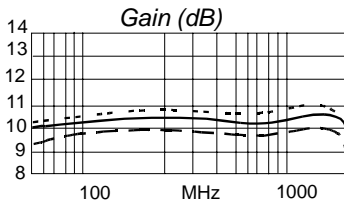
Maximum Ratings

Ambient Operating Temperature -55 °C to +125 °C
 Storage Temperature -65 °C to + 150 °C
 Case Temperature + 125 °C
 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.
2. Noise Figures increase below 500 MHz

Typical Performance Data



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

Linear S-Parameters Data

FREQ. MHz	-- S11-- dB	Ang	-- S21-- dB	Ang	-- S12-- dB	Ang	-- S22-- dB	Ang
50	-19.9	-133.9	9.8	-177.4	-21.0	-9.2	-23.7	-118.1
90	-19.3	-147.0	10.2	170.5	-21.3	-15.4	-20.8	-146.4
300	-15.2	-167.8	10.4	124.9	-21.7	-44.8	-18.0	177.8
600	-12.1	157.1	10.3	66.1	-21.7	-87.1	-16.9	146.5
900	-11.1	118.2	10.2	8.3	-21.5	-131.4	-16.1	112.7
1200	-11.1	75.5	10.4	-51.0	-21.0	-178.2	-15.7	75.5
1500	-12.8	20.3	10.5	-113.1	-20.5	130.7	-15.0	31.7
1800	-17.9	-78.8	10.4	-179.5	-20.1	75.0	-14.2	-27.8
2000	-14.5	174.8	10.0	133.2	-20.1	33.6	-13.5	-75.9



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