

RF AMPLIFIER

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

MODEL QBH-8407

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.

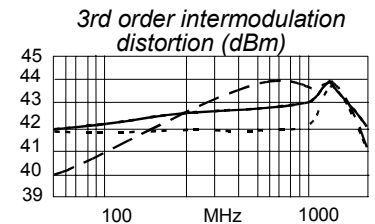
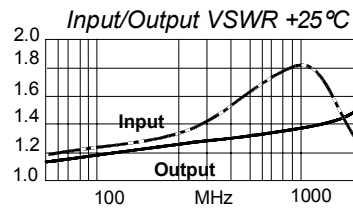
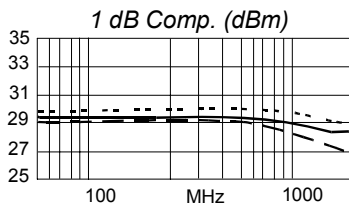
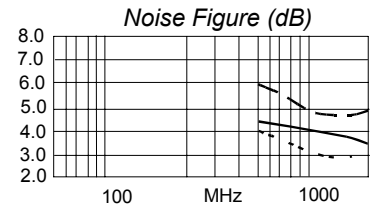
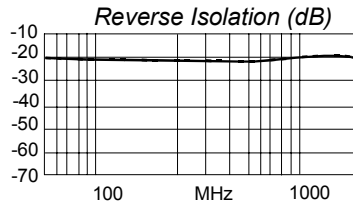
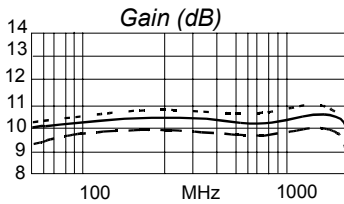
Absolute Maximum (No Damage) Ratings

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.)

Notes:

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



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Rev.
6/11/10

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