

# RF AMPLIFIER

## MODEL QBH-8115

Available as: QBH-8115, Hybrid SM (E52-19422)

### Features

- High Gain: 12.3 dB Typical
- High Power: +26 dBm Typical
- Operating Temp. - 55 °C to +71 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +71 °C
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	12.3 ± 0.8	—
Gain vs. Temperature	—	+0.8/-0.8 Max.
Gain Flatness	1.0	1.2 Max.
Reverse Isolation (dB)	-23	-22 Min.
VSWR In	1.6:1	1.7:1 Max.
VSWR Out	1.6:1	1.7:1 Max.
1 dB Compression (dBm)	+26	+25 Min.
Output Intercept point		
3rd Order	+35	+35 Min.
2nd Order	+42	+42 Min.
Noise Figure (dB)	7.8	8.4 Max.
Power Vdc	+15	+15
mA	165	165 Max.

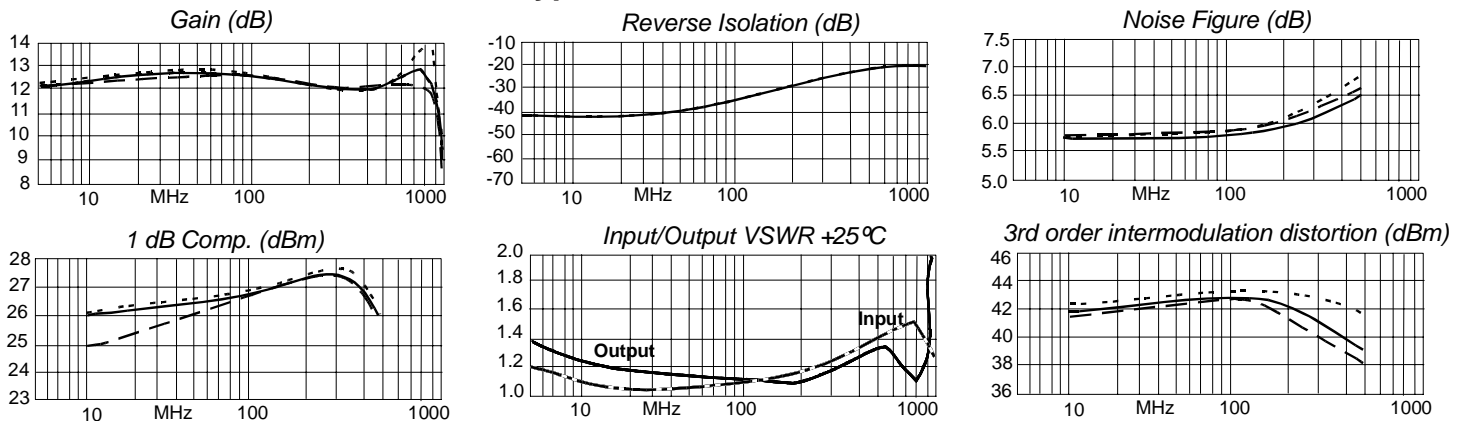
### Maximum Ratings

Ambient Operating Temperature ..... -55°C to +105 °C  
 Storage Temperature ..... -65°C to + 150 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 16.5 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



Legend ——— + 25 °C    - - - - + 71 °C    ······ -55 °C

### Linear S-Parameters Data

FREQ. MHz	-- S11--		-- S21--		-- S12--		-- S22--	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
10	-29.0	-92.1	12.5	-175.6	-42.3	35.3	-20.3	141.5
40	-33.7	-61.1	12.6	169.1	-40.3	41.4	-24.8	137.2
60	-31.8	-71.2	12.6	162.0	-38.2	44.3	-25.9	127.3
70	-31.2	-78.0	12.5	158.7	-37.4	46.2	-26.4	121.1
90	-29.5	-86.2	12.5	152.1	-35.8	45.8	-27.4	107.7
100	-28.8	-93.4	12.5	148.8	-35.1	45.6	-27.8	100.6
300	-19.9	-172.5	12.2	87.4	-26.4	15.4	-23.3	-71.8
400	-17.4	153.7	12.1	57.0	-24.2	-6.5	-19.4	-123.5
500	-15.7	117.8	12.2	25.0	-22.9	-29.0	-17.9	-169.2



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