

# RF AMPLIFIER

## MODEL QBH-8126

Available as: QBH-8126, Hybrid SM (E52-19422)

### Features

- High Gain: 15.0 dB Typical
- High Power: +16 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	5 - 400 MHz	5 - 400 MHz
Gain (dB)	15.0 Min.	—
Gain vs. Temperature	—	+1.0 Max.
Gain Flatness	0.6	1.2 Max.
Reverse Isolation (dB)	-24	-23 Min.
VSWR In	1.4:1	1.5:1 Max.
VSWR Out	1.4:1	1.5:1 Max.
1 dB Compression (dBm)	+16	+15 Min.
Output Intercept point		
3rd Order	+30	+28 Min.
2nd Order	+38	+34 Min.
Noise Figure (dB)	3.8	4.2 Max.
Power Vdc	+15	+15
mA	50	54 Max.

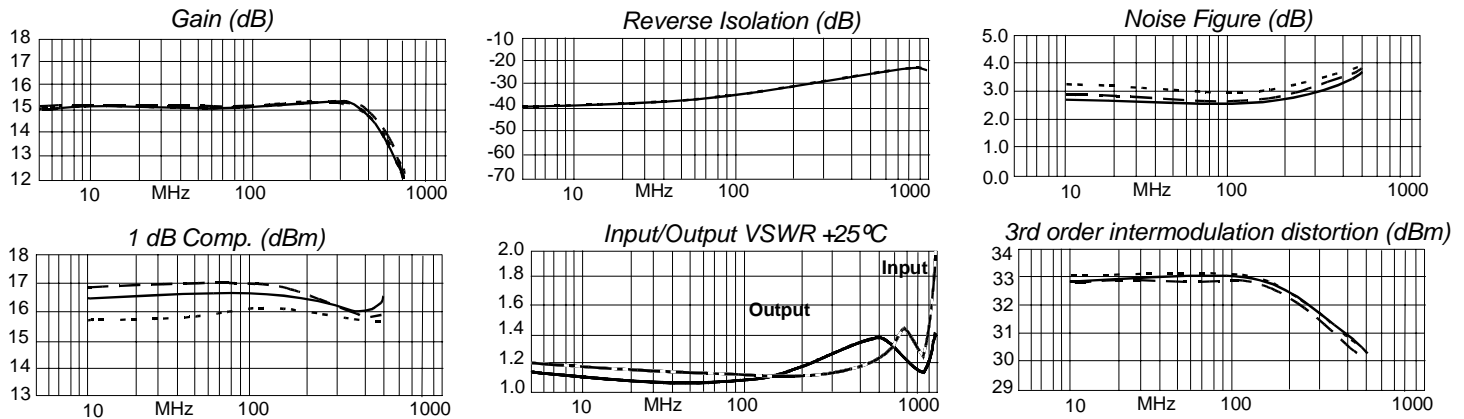
### Maximum Ratings

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



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
5	-20.9   -163.3	15.1   -176.7	-38.2   11.4	-24.9   128.5
9	-21.7   -174.6	15.1   -179.9	-38.1   9.5	-28.8   141.2
20	-22.7   -179.3	15.2   175.0	-37.6   9.1	-31.3   172.6
40	-23.3   -178.6	15.2   167.8	-37.2   13.0	-31.0   -157.2
60	-23.5   -176.6	15.2   161.0	-36.4   16.7	-29.3   -141.5
80	-23.6   -175.0	15.2   154.5	-35.7   18.6	-27.5   -133.4
100	-23.6   -174.2	15.2   147.9	-34.8   18.4	-25.7   -129.9
300	-23.6   180.0	15.5   80.3	-28.6   -8.1	-16.8   -158.6
400	-22.1   -148.5	15.4   41.8	-26.7   -30.3	-15.6   177.0



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