

# RF AMPLIFIER

## MODEL QBH-126

Available as: QBH-126, 4 Pin TO-8 (T4)  
 QBH-9-126, Connectorized Housing (ES E52-1501)

### Features

- High Gain: 15.0 dB Typical
- High Power: +16 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Maximum Ratings

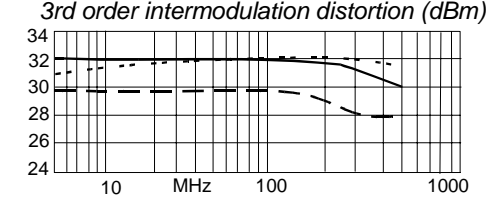
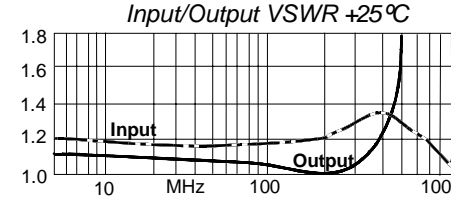
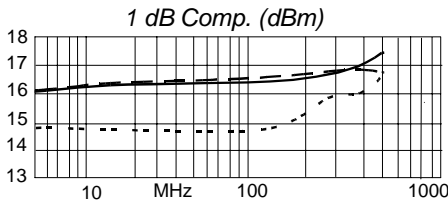
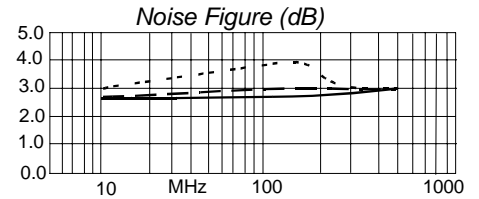
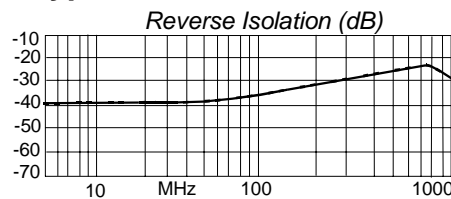
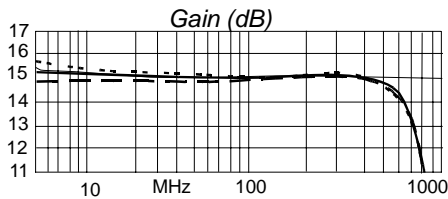
Ambient Operating Temperature ..... -55°C to + 125 °C  
 Storage Temperature ..... -65°C to + 150 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 19.0 Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 μsec Max.)

### Specifications

CHARACTERISTIC	TYPICAL	MIN/MAX
	Ta= 25 °C	Ta = -55 °C to +85 °C
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	15.0 ± 0.5	—
Gain vs. Temperature	—	+1.0/-0.8 Max.
Gain Flatness	0.6	1.2 Max.
Reverse Isolation (dB)	-25	-25 Min.
VSWR In	1.5:1	1.5:1 Max.
Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+16	+15 Min.
Output Intercept point		
3rd Order	+29	+27 Min.
2nd Order	+35	+31 Min.
Noise Figure (dB)	3.8	4.2 Max.
Power Vdc	+15	+15
mA	50	54 Max.

Note: Specifications are guaranteed when tested in a 50 Ohm system.  
 Specifications indicated as typical are not guaranteed.

### Typical Performance Data



Legend ——— + 25 °C    - - - - + 85 °C    - - - - -55 °C

### Linear S-Parameters

FREQ. MHz	-- S11 -- dB    Ang	-- S21 -- dB    Ang	-- S12 -- dB    Ang	-- S22 -- dB    Ang
5	-20.4    170.4	15.1    -178.1	-38.5    13.0	-27.5    160.3
9	-20.7    168.3	15.1    179.2	-38.3    9.3	-28.6    165.3
20	-21.5    162.1	15.1    174.9	-38.2    7.1	-29.0    166.9
40	-22.2    153.9	15.1    168.4	-37.8    9.4	-29.7    161.4
60	-22.5    146.2	15.1    162.1	-37.2    13.6	-30.5    153.9
80	-22.6    138.3	15.1    155.9	-36.6    16.2	-31.4    146.6
100	-22.6    130.0	15.1    149.7	-35.9    17.7	-32.8    138.8
300	-18.7    53.6	15.1    88.6	-30.2    -0.8	-29.8    -92.4
500	-17.7    -26.6	15.1    23.8	-27.5    -38.2	-16.1    -173.8



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