

RF AMPLIFIER

Available as: QBH-122, 4 Pin TO-8 (T4)

QBH-9-122, Connectorized Housing (ES E52-1501)

MODEL QBH-122

Features

- High Gain: 17 dB Typical
- High Power: +20 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Maximum Ratings

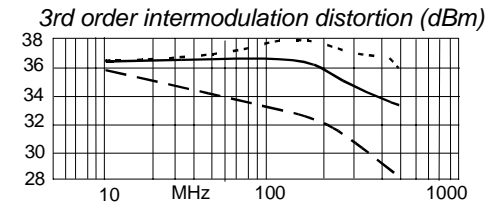
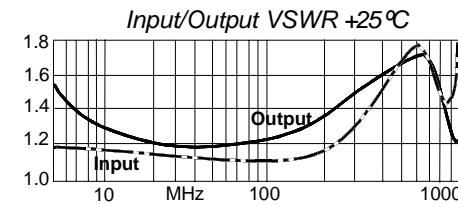
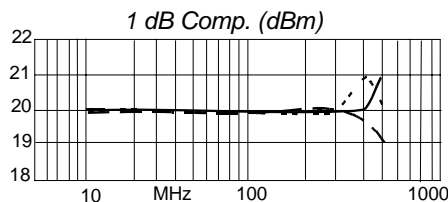
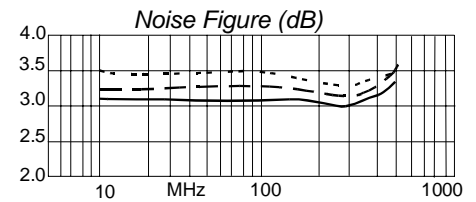
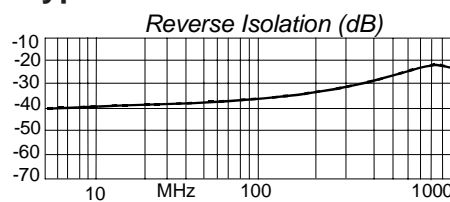
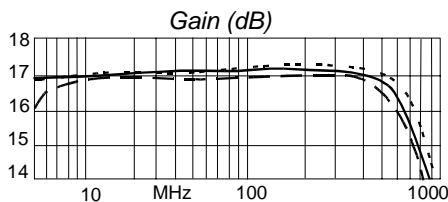
Ambient Operating Temperature -55°C to + 125 °C
 Storage Temperature -65°C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 16.5 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	17.0 ± 0.5	—
Gain vs. Temperature	—	+0.4/-0.8 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-22	-22 Min.
VSWR In	2.0:1	2.0:1 Max.
VSWR Out	2.0:1	2.0:1 Max.
1 dB Compression (dBm)	+20	+19 Min.
Output Intercept point		
3rd Order	+30	+26 Min.
2nd Order	+38	+32 Min.
Noise Figure (dB)	4.2	4.6 Max.
Power Vdc	+15	+15
mA	65	65 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 Data

FREQ. MHz	-- S11-- dB	Ang	-- S21-- dB	Ang	-- S12-- dB	Ang	-- S22-- dB	Ang
10	-24.7	-169.0	17.2	-174.9	-37.9	14.5	-18.1	149.8
40	-28.2	-179.1	17.3	166.9	-36.9	9.0	-21.2	174.0
60	-28.7	-172.0	17.3	158.5	-36.3	9.7	-21.0	-178.2
70	-28.8	-167.8	17.3	154.3	-36.1	8.1	-20.8	-175.8
90	-28.5	-157.2	17.3	146.4	-35.4	9.2	-20.2	-172.3
100	-28.2	-152.6	17.3	142.4	-35.1	8.8	-19.8	-171.5
300	-17.9	-142.2	17.3	63.8	-29.1	-27.3	-13.9	157.6
400	-14.6	-166.3	17.3	23.5	-27.1	-54.0	-12.4	130.6
500	-12.4	163.4	17.2	-18.1	-25.5	-85.1	-11.6	100.7



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