

# RF AMPLIFIER

## MODEL QBH-118

Available as: QBH-118, 4 Pin TO-8 (T4)  
 QBH-9-118, Connectorized Housing (ES E52-1501)

### Features

- High Gain: 16.3 dB Typical
- High Power: +11dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	3 - 100 MHz	3 - 100 MHz
Gain (dB)	16.3 ± 0.5	—
Gain vs. Temperature	—	+0.7/-0.5 Max.
Gain Flatness	0.4	0.8 Max.
Reverse Isolation (dB)	-35	-35 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+11	+8 Min.
Output Intercept point		
3rd Order	+26	+23 Min.
2nd Order	+38	+35 Min.
Noise Figure (dB)	1.9	2.1 Max.
Power Vdc	+15	+15
mA	21	22 Max.

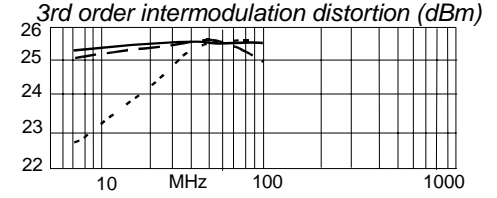
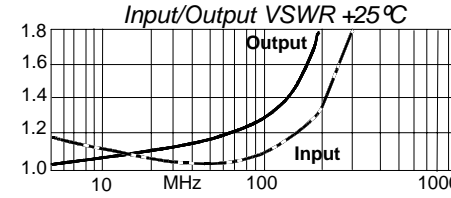
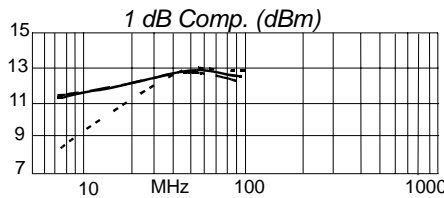
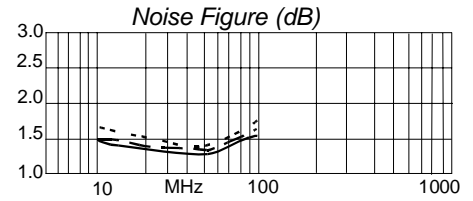
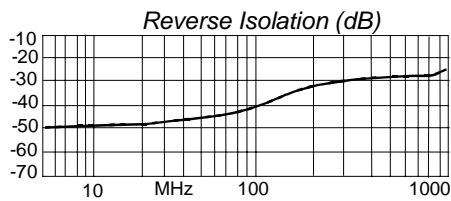
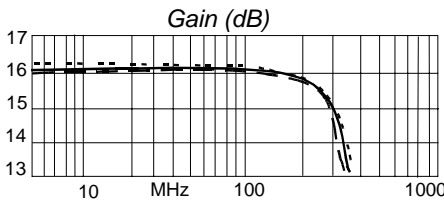
### Maximum Ratings

Ambient Operating Temperature ..... -55°C to +125 °C  
 Storage Temperature ..... -65°C to + 150 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 20.0 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.)

#### 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    - - - + 85 °C    - - - - -55 °C

### Linear S-Parameters Data

FREQ. MHz	-- S11-- dB	Ang	-- S21-- dB	Ang	-- S12-- dB	Ang	-- S22-- dB	Ang
3	-22.8	-101.9	16.3	-178.6	-50.1	74.8	-31.6	48.5
7	-28.4	-129.9	16.1	-177.8	-50.0	47.5	-32.0	3.4
9	-29.9	-139.5	16.1	176.7	-49.4	42.2	-31.6	-9.9
20	-33.2	-162.2	16.1	171.4	-47.8	51.3	-28.9	-49.2
30	-34.0	-163.9	16.1	166.8	-46.2	46.8	-26.4	-67.4
50	-33.5	-155.7	16.2	157.3	-42.5	47.3	-22.6	-89.3
70	-31.1	-151.7	16.2	147.9	-39.6	47.3	-19.8	-104.4
80	-29.7	-152.3	16.2	143.2	-38.7	45.3	-18.7	-111.0
100	-27.0	-157.9	16.2	133.6	-36.8	38.7	-16.7	-122.8



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