

RF AMPLIFIER

Available as: QBH-119, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-119, Connectorized Housing (ES E52-1501)

MODEL QBH-119

Features

- High Reverse Isolation: -35 dB Typical
- Low Noise: 2.0 dB 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.)

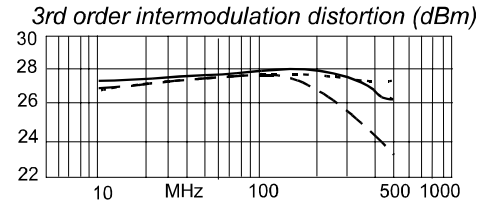
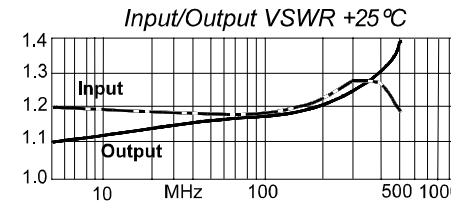
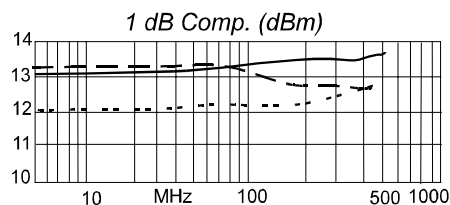
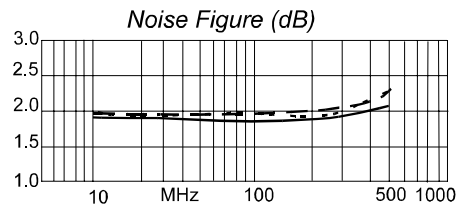
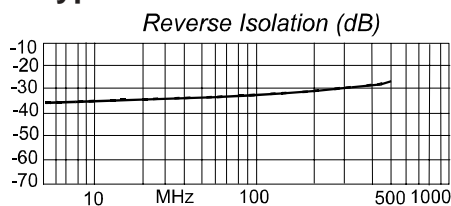
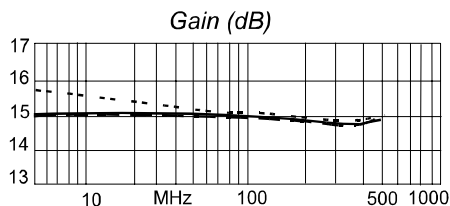
Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	15.0 ± 0.5	—
Gain vs. Temperature	—	+0.8/-0.4 Max.
Gain Flatness	0.6	1.0 Max.
Reverse Isolation (dB)	-35	-25 Min.
VSWR In	1.5:1	1.5:1 Max.
Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+13	+11 Min.
Output Intercept point		
3rd Order	+27	+23 Min.
2nd Order	+39	+33 Min.
Noise Figure (dB)	2.0	3.3 Max.
Power Vdc	+15	+15
mA	33	34 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

Typical S-Parameters Data

FREQ. MHz	-- S11-- dB Ang	-- S21-- dB Ang	-- S12-- dB Ang	-- S22-- dB Ang
5	-20.5 -168.3	15.1 -180.0	-40.3 11.2	-27.8 155.5
100	-21.5 131.0	15.0 148.3	-38.2 11.2	-22.3 87.2
200	-19.8 94.5	14.7 119.4	-35.6 8.2	-20.7 53.8
300	-18.4 61.6	14.7 89.9	-33.5 -6.6	-18.7 39.9
400	-18.4 30.2	14.8 59.7	-31.8 -25.7	-17.1 31.0
500	-22.2 -0.2	14.9 27.9	-30.6 -46.7	-15.2 24.9



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