

RF AMPLIFIER

MODEL QBH-115

Available as: QBH-115, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-115, Connectorized Housing (ES E52-1501)

Features

- High Gain: 11.5 dB Typical
- High Power: +26 dBm Typical
- Operating Temp. -55 °C to +71 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +71 °C
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	11.5 ± 0.7	—
Gain vs. Temperature	—	+0.4/-0.8 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-25	-20 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+26	+25 Min.
Output Intercept point		
3rd Order	+35	+35 Min.
2nd Order	+42	+42 Min.
Noise Figure (dB)	9.5	9.9 Max.
Power Vdc	+15	+15
mA	165	165 Max.

Maximum (No Damage) Ratings

Ambient Operating Temperature -55°C to +105 °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.)

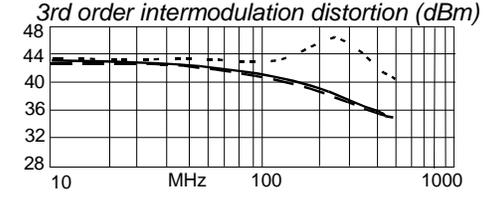
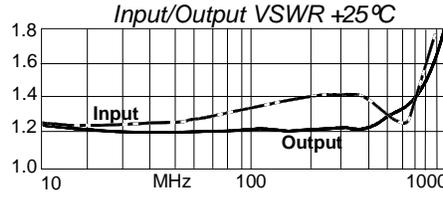
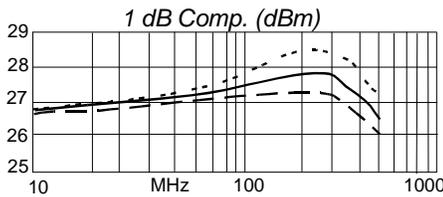
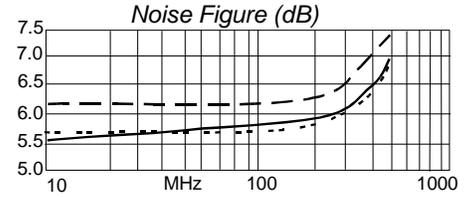
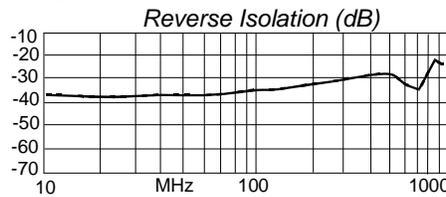
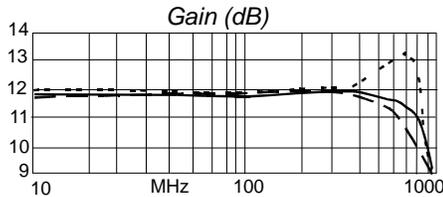
Note:

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

Revision: 12/3/2015

(Reverse Isolation: 25 dB to 20 dB)

Typical Performance Data



Legend ——— + 25 °C - - - - + 71 °C ······ -55 °C

Linear S-Parameters Data

FREQ. MHz	-- S11-- dB	Ang	-- S21-- dB	Ang	-- S12-- dB	Ang	-- S22-- dB	Ang
10	-19.2	-28.9	11.7	-172.1	-36.6	34.5	-18.1	68.6
30	-19.1	-25.1	11.8	173.2	-36.8	13.3	-20.8	27.4
40	-19.0	-29.2	11.8	168.6	-36.7	16.7	-20.9	17.6
60	-18.6	-39.9	11.8	160.4	-36.3	12.0	-20.7	13.8
80	-18.3	-51.2	11.8	152.5	-35.7	11.7	-20.5	-7.3
90	-18.1	-56.8	11.8	148.7	-35.5	13.6	-20.4	-11.8
200	-16.2	-110.7	11.9	107.4	-32.1	2.1	-20.0	-63.7
400	-15.3	164.7	11.9	31.1	-28.9	-48.9	-20.3	165.4
500	-16.6	122.8	11.7	-7.7	-29.5	-78.3	-17.9	101.4

