

RF AMPLIFIER

Available as: QBH-838, 4 Pin TO-8 (T4)
 QBH-9-838, Connectorized Housing (ES E52-1501)

MODEL QBH-838

Features

- High Gain: 15.0 dB Typical
- High Power: +1.0 dBm Typical
- Environmental Screening Available

Maximum Ratings

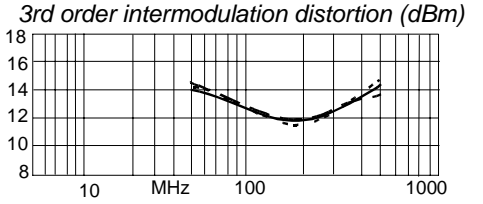
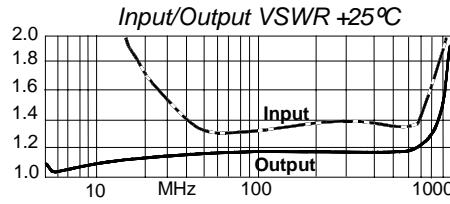
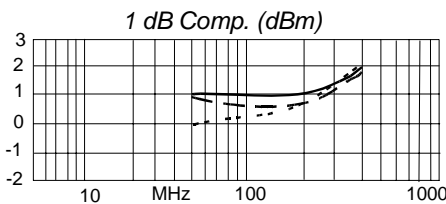
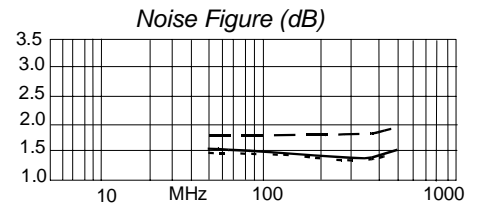
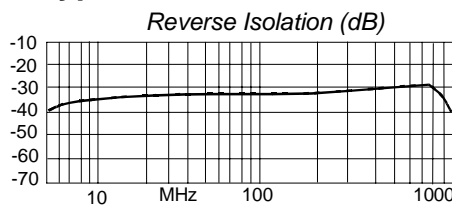
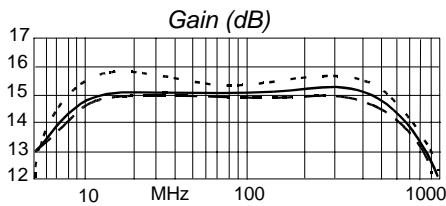
Ambient Operating Temperature -55°C to + 125 °C
 Storage Temperature -65°C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 16 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX
Frequency	50 - 500 MHz	—
Gain (dB)	15.0 ± 0.5	—
Gain vs. Temperature	—	—
Gain Flatness	—	—
Reverse Isolation (dB)	-25	—
VSWR In	2.0:1	—
VSWR Out	2.0:1	—
1 dB Compression (dBm)	+1.0	—
Output Intercept point		
3rd Order	+12	—
2nd Order	+16	—
Noise Figure (dB)	1.7	—
Power Vdc	+15	—
mA	12	—

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
50	-16.1 -45.3	15.0 172.3	-33.8 7.0	-23.6 0.1
80	-16.8 -34.8	15.0 160.8	-33.6 4.6	-23.4 -9.5
90	-16.8 -32.7	15.1 157.3	-33.5 2.5	-23.3 -12.5
100	-16.8 -31.4	15.1 154.0	-33.5 3.3	-23.2 -15.4
200	-15.9 -43.0	15.1 122.0	-32.8 -4.4	-22.7 -40.3
300	-15.6 -75.5	15.2 90.2	-31.7 -11.3	-22.4 -69.4
400	-15.9 -120.6	15.2 57.4	-30.6 -22.6	-22.5 -104.8
500	-16.4 -179.7	15.0 23.3	-29.6 -37.3	-22.6 -150.2



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