

RF AMPLIFIER

MODEL QBH-842

Available as: QBH-842, 4 Pin TO-8 (T4)
QBH-9-842, Connectorized Housing (ES E52-1501)

Features

- High Gain: 13.5 dB Typical
- High Power: +26 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Specifications

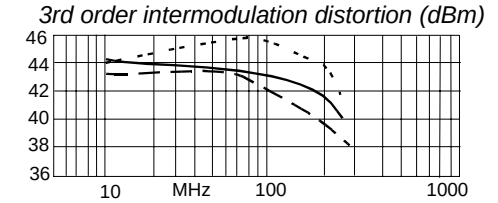
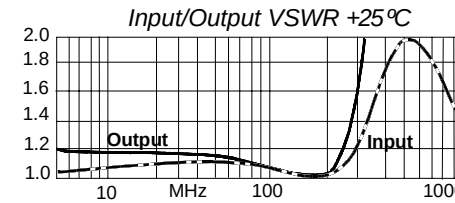
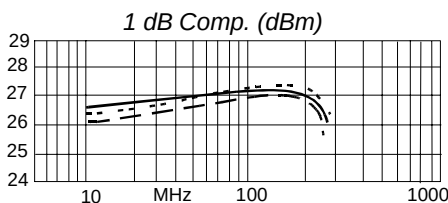
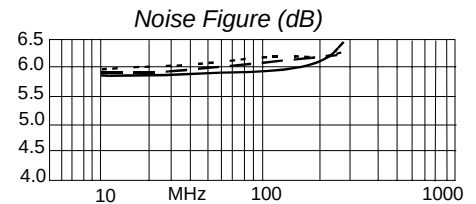
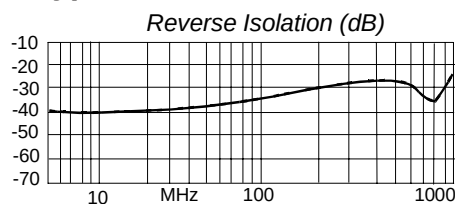
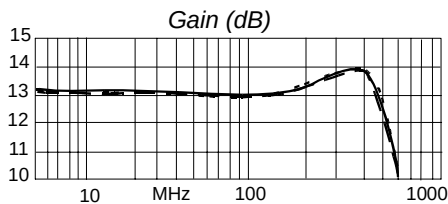
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 250 MHz	10 - 250 MHz
Gain (dB)	13.5 ± 0.5	—
Gain vs. Temperature	—	+0.5/-0.5 Max.
Gain Flatness	0.5	0.5 Max.
Reverse Isolation (dB)	-24	-24 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.8:1	1.8:1 Max.
1 dB Compression (dBm)	+26	+26 Min.
Output Intercept point		
3rd Order	+40	+38 Min.
2nd Order	+48	+45 Min.
Noise Figure (dB)	7.5	8.1 Max.
Power Vdc	+15	+15
mA	122	125 Max.

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 + 13.0 dBm
Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
Maximum Peak Power 0.5 Watt (3 µsec 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	-29.2 8.1	13.2 179.4	-38.2 12.6	-22.9 30.7
40	-26.8 -8.3	13.2 164.3	-37.0 18.5	-24.0 -5.0
50	-26.8 -13.8	13.2 160.1	-36.4 19.9	-24.3 -10.4
70	-26.9 -21.1	13.2 151.6	-35.3 22.2	-25.1 -20.3
80	-27.0 -27.2	13.2 147.5	-34.7 22.1	-25.7 -24.1
90	-27.3 -31.0	13.2 143.2	-34.0 20.9	-26.5 -27.5
150	-30.5 -67.1	13.1 118.6	-31.3 13.9	-28.7 -52.8
200	-33.5 -140.1	13.2 98.4	-29.5 3.6	-30.5 -123.7
250	-27.1 154.4	13.4 77.0	-28.0 -10.0	-22.1 177.2



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