

RF AMPLIFIER

Available as: QBH-845, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-845, Connectorized Housing (ES E52-1501)

MODEL QBH-845

Features

- High Gain: 17.0 dB Typical
- High Power: +16 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

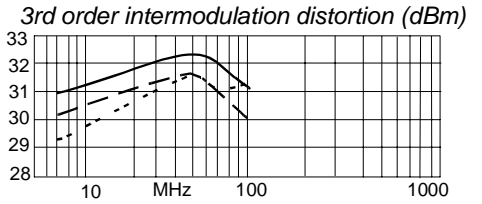
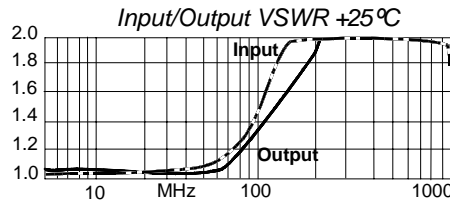
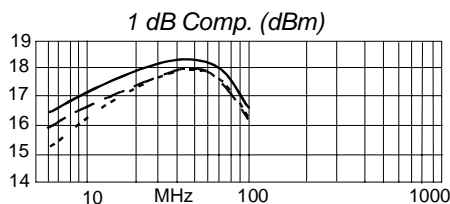
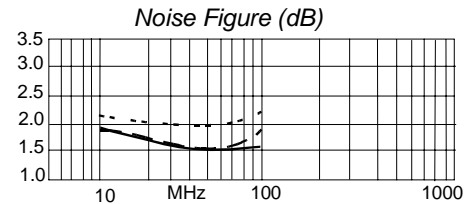
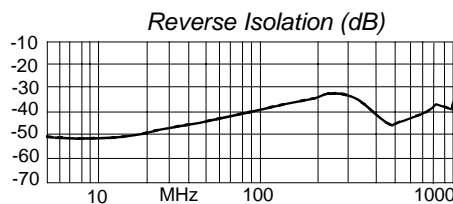
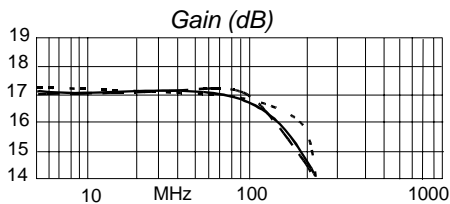
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	3 - 100 MHz	3 - 100 MHz
Gain (dB)	17.0 ± 0.5	—
Gain vs. Temperature	—	+0.8/-0.8 Max.
Gain Flatness	0.6	1.0 Max.
Reverse Isolation (dB)	-34	-34 Min.
VSWR In	1.6:1	1.7:1 Max.
VSWR Out	1.6:1	1.7:1 Max.
1 dB Compression (dBm)	+16	+15 Min.
Output Intercept point		
3rd Order	+29	+27 Min.
2nd Order	+43	+41 Min.
Noise Figure (dB)	1.9	2.4 Max.
Power Vdc	+15	+15
mA	30	32 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 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
3	-37.7 151.8	17.1 -176.6	-51.9 66.1	-28.4 37.6
6	-40.5 133.7	17.0 179.2	-52.6 51.6	-29.2 20.5
8	-40.4 119.4	17.1 177.4	-52.4 41.7	-29.3 14.7
10	-41.3 117.3	17.1 175.8	-51.1 40.3	-29.4 10.3
30	-29.2 -87.0	17.1 161.9	-46.4 44.9	-31.6 -8.0
50	-23.8 -105.7	17.2 148.5	-42.8 29.8	-33.7 147.9
70	-20.2 -120.8	17.2 134.5	-39.9 22.6	-24.9 139.9
90	-17.1 -136.3	17.2 119.0	-37.8 7.4	-18.8 122.2
100	-15.8 -144.5	17.0 110.3	-37.1 -4.2	-16.4 109.6



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