

RF AMPLIFIER

Available as: QBH-4007, 4 Pin TO-8 (080-10114-0001)
 QBH-9-4007, Connectorized Housing (ES E52-1501)

MODEL QBH-4007

Features

- High Gain: 10.0 dB Typical
- High Power: +27 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

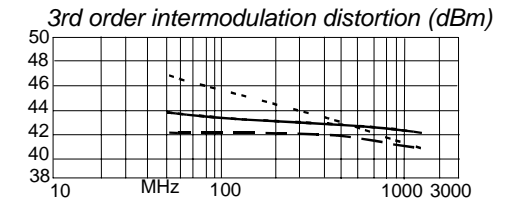
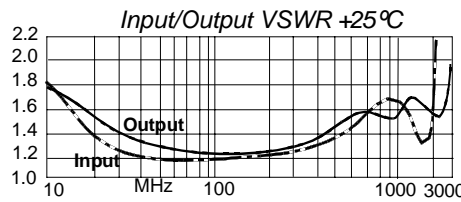
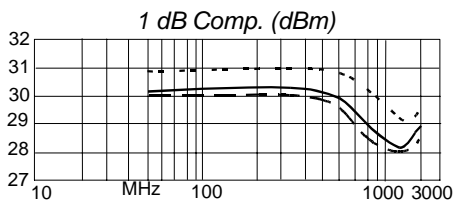
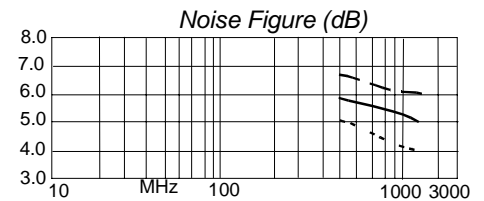
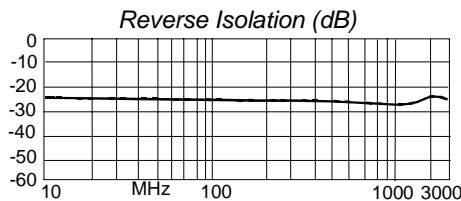
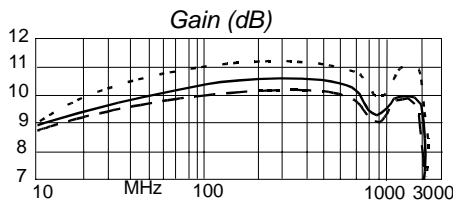
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	50 - 2000 MHz	50 - 2000 MHz
Gain (dB)	10.0 ± 1.0	—
Gain vs. Temperature	—	+0.8/-0.8 Max.
Gain Flatness	2.0	2.0 Max.
Reverse Isolation (dB)	-20	-20 Min.
VSWR In	2.0:1	2.0:1 Max.
VSWR Out	2.0:1	2.0:1 Max.
1 dB Compression (dBm)	+27	+26 Min.
Output Intercept point		
3rd Order	+38	+36 Min.
2nd Order	+46	+45 Min.
Noise Figure (dB)	6.0	7.0 Max.
Power Vdc	+15	+15
mA	225	225 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +17 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
50	-20.1 -132.4	10.3 -177.0	-24.5 -2.4	-17.6 -19.4
90	-20.7 -144.4	10.5 170.2	-24.6 -11.3	-18.2 -37.0
300	-18.8 -161.3	10.7 123.3	-24.8 -43.8	-17.2 -93.3
600	-15.1 178.9	10.5 61.0	-25.2 -90.1	-13.3 -158.7
900	-12.3 146.5	9.7 5.7	-26.1 -131.0	-13.5 138.7
1200	-11.8 102.1	10.2 -51.1	-25.8 -173.7	-13.3 109.0
1500	-12.8 49.1	10.5 -112.7	-26.2 149.0	-11.7 59.9
1800	-17.2 -59.5	10.5 -178.5	-24.0 82.8	-13.2 -12.8
2000	-12.7 -156.1	10.2 134.1	-23.7 42.6	-13.7 -70.6



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