

RF AMPLIFIER

MODEL QBH-4012

Available as: QBH-4012, 4 Pin TO-8B (T8)
 QBH-7-4012, Connectorized Housing (080-22513-0001)

Features

- High Gain: 19.5 dB Typical
- High Power: +23 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	100 - 2000 MHz	100 - 2000 MHz
Gain (dB)	19.5 ± 0.5	—
Gain vs. Temperature	—	+1.5/-1.0 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-35	-35 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.8:1	2.0:1 Max.
1 dB Compression (dBm)	+23	+22 Min.
Output Intercept point 3rd Order	+33	+33 Min.
2nd Order	+52	+45 Min.
Noise Figure (dB)	3.2	4.0 Max.
Power Vdc	+15	+15
mA	190	200 Max.

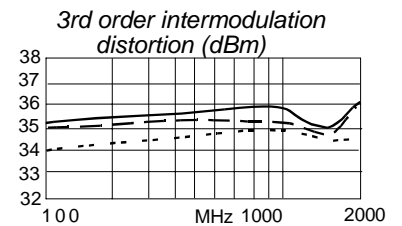
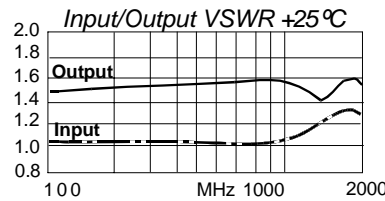
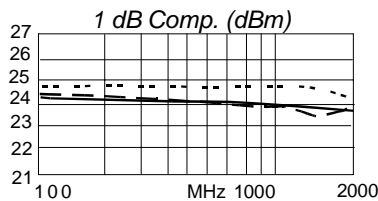
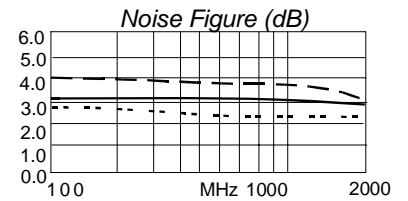
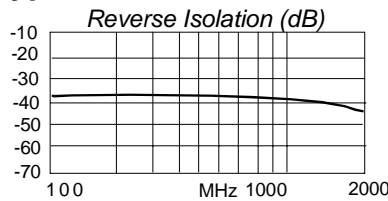
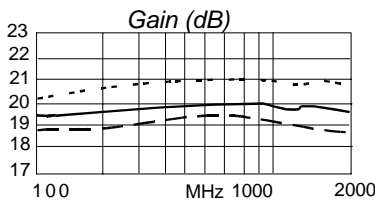
Maximum Ratings

Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to + 150 °C
 Case Temperature + 125 °C
 DC Voltage + 18 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.
2. Noise Figures increase below 500 MHz

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
100	-31.5 149.1	19.4 -13.8	-36.5 -6.7	-14.2 -172.4
400	-35.8 156.9	19.8 -80.3	-36.9 -40.5	-13.7 140.2
600	-37.2 136.3	19.9 -123.4	-37.0 -60.3	-13.5 113.4
900	-34.5 -79.6	20.0 171.2	-37.3 -88.5	-13.5 59.3
1100	-26.9 -85.5	19.9 127.1	-37.4 -106.1	-13.2 16.6
1300	-20.9 -130.5	19.7 85.8	-37.2 -133.3	-14.7 -31.2
1600	-18.7 -166.7	19.5 19.8	-39.9 -162.4	-13.0 -97.6
1800	-17.8 154.8	19.5 -23.8	-41.3 175.9	-12.8 -142.2
2000	-17.7 110.8	19.4 -69.5	-44.0 160.7	-13.2 170.9



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