

RF AMPLIFIER

Available as: QBH-5409, F-Pack (E52-18563)

MODEL QBH-5409

Features

- High Gain: 10.0 dB Typical
- High Power: +25.5 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 - 2000 MHz	10 - 2000 MHz
Gain (dB)	10.0 ± 1.0	—
Gain vs. Temperature	—	+1.0/-1.0 Max.
Gain Flatness	1.0	1.4 Max.
Reverse Isolation (dB)	-16	-16 Min.
VSWR In	2.0:1	2.0:1 Max.
Out	2.0:1	2.0:1 Max.
1 dB Compression (dBm)	+25.5	+25.5 Min.
Output Intercept point		
3rd Order	+39	+37 Min.
2nd Order	+46	+44 Min.
Noise Figure (dB)	4.5	5.5 Max.
Power Vdc	+15	+15
mA	195	205 Max.

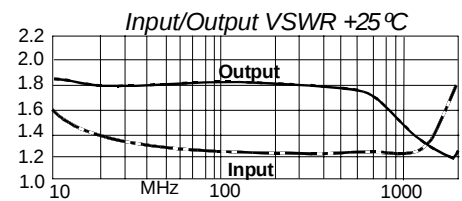
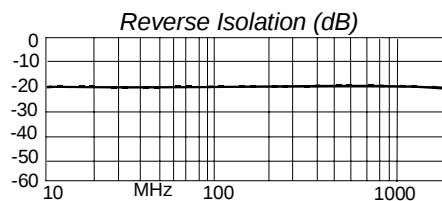
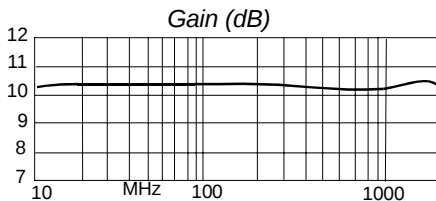
Maximum Ratings

Ambient Operating Temperature -55°C to +85 °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:

1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.
2. Noise Figures increase below 500 NHz

Typical Performance Data



Legend — + 25 °C

Linear S-Parameters Data

FREQ. MHz	-- S11-- dB Ang	-- S21-- dB Ang	-- S12-- dB Ang	-- S22-- dB Ang
10	-12.7 -105.6	10.4 -156.7	-18.5 11.1	-10.6 155.2
60	-18.5 -168.7	10.5 172.9	-18.9 -7.5	-10.8 169.7
90	-18.7 -179.1	10.5 165.7	-19.0 -12.4	-10.8 165.9
400	-18.4 123.8	10.4 103.7	-19.1 -55.8	-11.2 118.4
700	-18.1 80.1	10.3 45.7	-19.2 -97.3	-11.9 71.6
1000	-18.4 47.1	10.4 -12.9	-19.3 -138.6	-13.6 25.5
1400	-17.4 22.3	10.5 -93.1	-19.5 166.2	-17.6 -23.9
1700	-14.5 -5.1	10.5 -155.8	-19.8 125.2	-20.4 -31.8
2000	-11.2 -49.2	10.4 138.4	-19.9 85.5	-18.2 -36.9



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