

RF AMPLIFIER

MODEL QBH-5169

Available as: QBH-5169, F-Pack (E52-18563)

Features

- High Gain: 12.0 dB Typical
- High Power: +20 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 - 1000 MHz	10 - 1000 MHz
Gain (dB)	12.0 ± 0.5	—
Gain vs. Temperature	—	+0.5/-0.7 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-13	-13 Min.
VSWR In	2.0:1	2.0:1 Max.
VSWR Out	2.0:1	2.0:1 Max.
1 dB Compression (dBm)	+20	+20 Min.
Output Intercept point		
3rd Order	+34	+32 Min.
2nd Order	+49	+44 Min.
Noise Figure (dB)	7.0	7.9 Max.
Power Vdc	+15	+15
mA	105	110 Max.

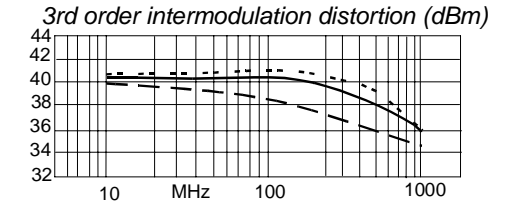
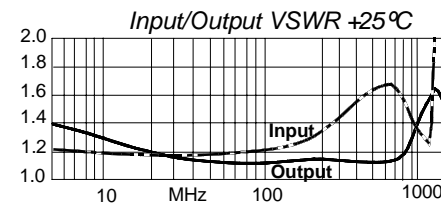
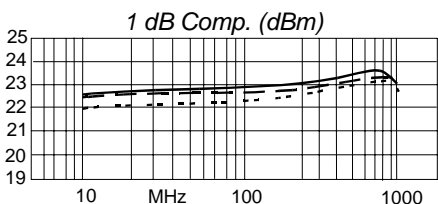
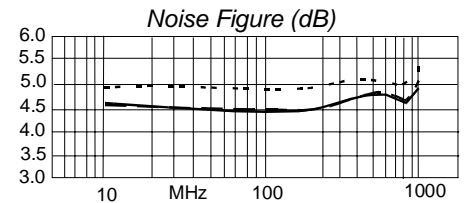
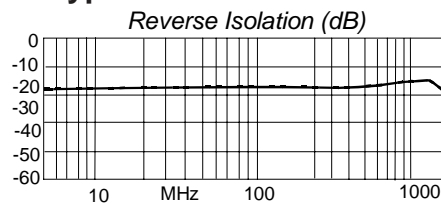
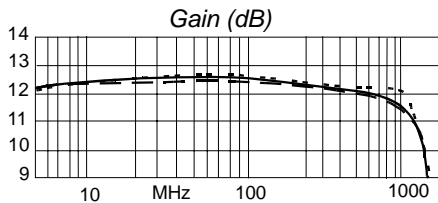
Maximum Ratings

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.

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	-21.2 -139.9	12.5 -176.2	-17.0 4.6	-19.9 146.0
50	-21.0 -164.0	12.5 168.6	-16.8 -6.3	-22.7 163.4
70	-20.5 -165.1	12.5 163.1	-16.8 -9.6	-22.9 163.2
90	-20.1 -165.7	12.5 157.8	-16.8 -13.0	-23.1 162.8
200	-17.4 -171.8	12.4 129.6	-16.7 -29.9	-23.6 154.9
400	-13.7 156.9	12.3 79.2	-16.5 -60.8	-25.1 142.9
600	-11.9 117.0	12.1 28.9	-16.1 -92.6	-25.3 142.1
800	-12.2 71.5	12.1 -22.2	-15.5 -126.3	-20.7 129.8
1000	-15.4 7.2	12.0 -75.8	-14.9 -163.2	-15.5 98.0



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