

RF AMPLIFIER

MODEL QBH-136

Available as: QBH-136, 4 Pin TO-8 (T4)
QBH-9-136, Connectorized Housing (ES E52-1501)

Features

- High Gain: 20.0 dB Typical
- High Power: +21 dBm Typical
- Operating Temp. -40 °C to +85 °C
- Environmental Screening Available

Specifications

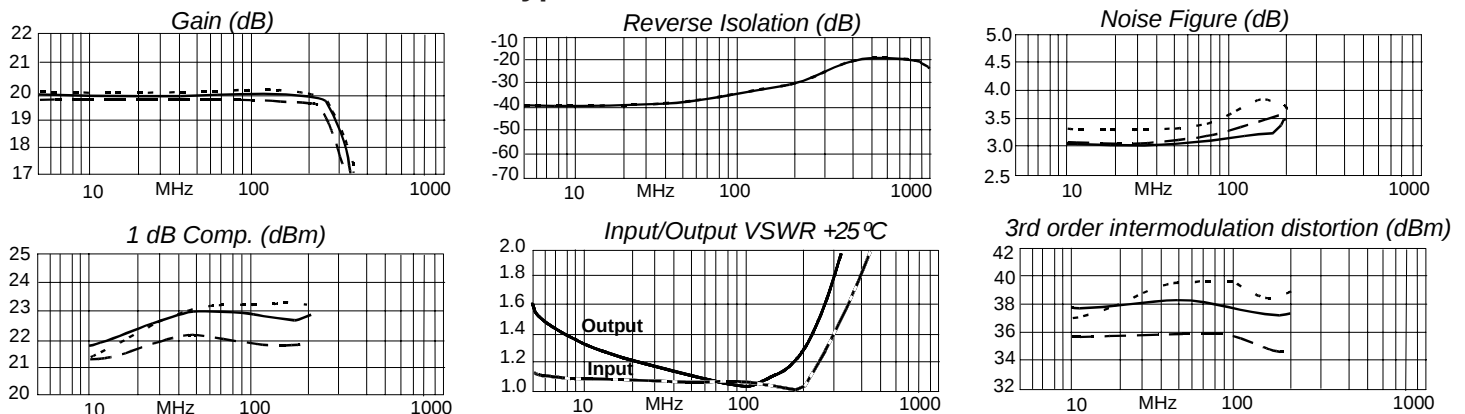
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +85 °C
Frequency	10 - 200 MHz	10 - 200 MHz
Gain (dB)	20.0 ± 0.5	—
Gain vs. Temperature	—	+0.5/-1.3 Max.
Gain Flatness	0.5	1.0 Max.
Reverse Isolation (dB)	-26	-25 Min.
VSWR In	1.5:1	1.5:1 Max.
Out	1.5:1	2.0:1 Max.
1 dB Compression (dBm)	+21	+19 Min.
Output Intercept point		
3rd Order	+33	+30 Min.
2nd Order	+42	+37 Min.
Noise Figure (dB)	4.5	4.9 Max.
Power Vdc	+15	+15
mA	70	70 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °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



Linear S-Parameters Data

FREQ. MHz	-- S11 -- dB Ang	-- S21 -- dB Ang	-- S12 -- dB Ang	-- S22 -- dB Ang
10	-30.2 -125.4	20.0 -177.6	-39.1 32.3	-16.8 130.3
40	-30.9 161.0	20.1 163.7	-37.3 28.2	-22.8 137.7
50	-30.0 142.0	20.1 158.8	-36.7 29.9	-23.8 137.7
60	-29.5 128.9	20.1 154.0	-36.0 30.9	-24.9 136.6
70	-29.0 120.8	20.0 149.2	-35.5 30.6	-26.1 136.8
80	-28.4 109.4	20.1 144.5	-34.8 32.3	-27.5 136.0
90	-28.3 99.0	20.1 139.8	-34.1 34.0	-29.4 136.2
100	-28.2 89.3	20.1 135.1	-33.6 35.1	-31.7 141.7
200	-35.8 -172.4	20.0 86.1	-28.4 24.6	-19.2 -121.4



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 03/11/05

www.SpectrumMicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001