

RF AMPLIFIER

Available as: QBH-181, 4 Pin TO-8 Tall (080-22502-0001)
QBH-9-181, Connectorized Housing (ES E52-1501)

MODEL QBH-181

Features

- High Gain: 24.4 dB Typical
- High Power: +16 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Specifications

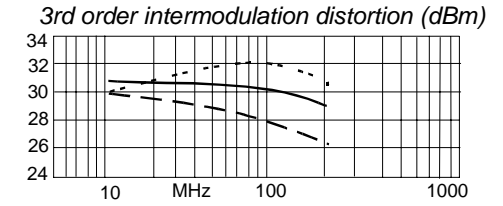
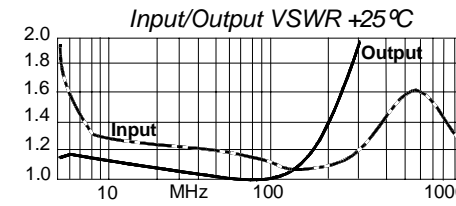
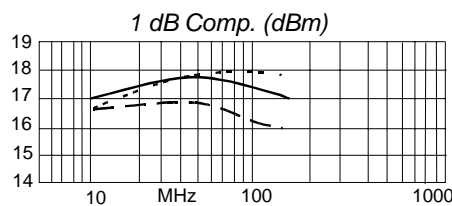
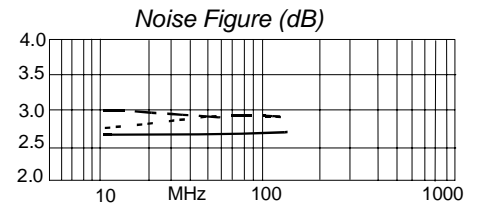
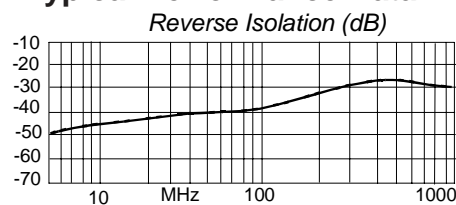
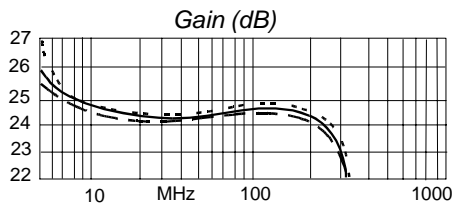
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 200 MHz	10 - 200 MHz
Gain (dB)	24.4 ± 1.0	—
Gain vs. Temperature	—	+0.5/-1.0 Max.
Gain Flatness	0.6	0.8 Max.
Reverse Isolation (dB)	-31	-31 Min.
VSWR In	1.6:1	1.6:1 Max.
VSWR Out	1.6:1	1.6:1 Max.
1 dB Compression (dBm)	+16	+14.5 Min.
Output Intercept point 3rd Order	+25	+22 Min.
2nd Order	+36	+32 Min.
Noise Figure (dB)	2.8	3.1 Max.
Power Vdc	+15	+15
mA	33	34 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +125 °C
Storage Temperature -65°C to +150 °C
Case Temperature +125 °C
DC Voltage +20 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
10	-17.8 121.8	24.7 -175.0	-46.0 26.2	-23.5 165.1
40	-18.8 131.1	24.4 165.5	-42.0 34.1	-28.7 158.5
50	-20.3 123.7	24.5 160.8	-40.8 36.6	-29.8 160.6
60	-20.7 117.2	24.5 156.1	-39.9 40.1	-31.1 162.5
80	-21.7 103.0	24.5 146.9	-38.4 39.2	-34.3 -178.7
90	-22.2 95.2	24.5 142.3	-37.5 39.3	-35.9 -160.5
100	-22.6 85.9	24.6 137.7	-36.8 38.8	-35.4 -143.1
150	-26.2 40.0	24.6 114.5	-33.9 34.3	-24.2 -123.5
200	-29.5 -25.2	24.5 90.6	-31.8 24.5	-17.6 -144.9



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