

RF AMPLIFIER

MODEL QBH-180

Available as: QBH-180, 4 Pin TO-8 Tall (080-22502-0001)
 QBH-9-180, Connectorized Housing (ES E52-1501)

Features

- High Gain: 29.0 dB Typical
- High Power: +18 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

Maximum Ratings

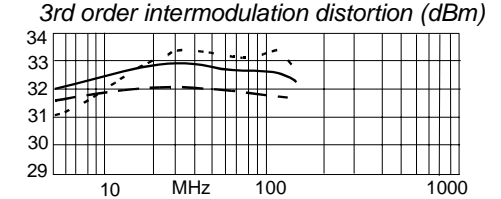
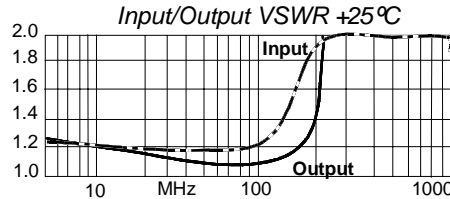
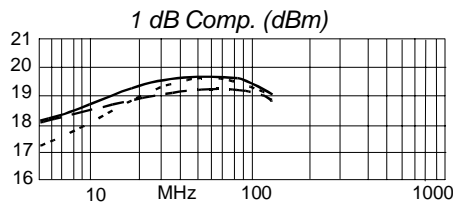
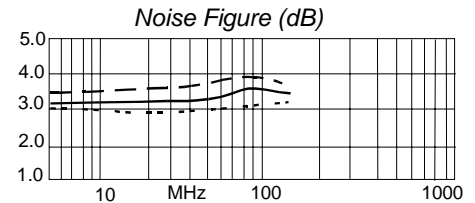
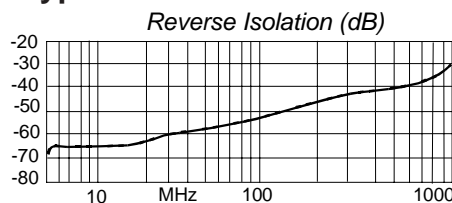
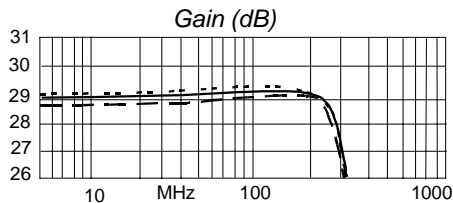
Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +20 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 μsec Max.)

Specifications

CHARACTERISTIC	TYPICAL	MIN/MAX
	Ta = 25 °C	Ta = -55 °C to +85 °C
Frequency	5 - 150 MHz	5 - 150 MHz
Gain (dB)	29.0 ± 1.0	—
Gain vs. Temperature	—	+0.5/-0.7 Max.
Gain Flatness	0.5	0.6 Max.
Reverse Isolation (dB)	-45	-45 Min.
VSWR In	1.6:1	2.1:1 Max.
VSWR Out	1.6:1	2.1:1 Max.
1 dB Compression (dBm)	+18	+17 Min.
Output Intercept point		
3rd Order	+31	+30 Min.
2nd Order	+42	+41 Min.
Noise Figure (dB)	3.8	4.2 Max.
Power Vdc	+15	+15
mA	59	61 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 --		-- S21 --		-- S12 --		-- S22 --	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
5	-19.6	-36.5	29.1	14.5	-65.9	35.9	-18.4	121.6
9	-21.0	-30.5	29.2	4.7	-64.9	24.7	-21.5	120.7
20	-22.3	-25.9	29.3	-7.3	-64.0	32.8	-25.2	113.4
40	-22.3	-30.0	29.3	-22.0	-60.4	42.9	-28.2	91.5
60	-21.4	-31.8	29.3	-35.2	-57.7	48.9	-29.7	62.1
80	-20.3	-37.7	29.4	-48.0	-54.7	56.9	-29.9	30.9
100	-18.8	-44.1	29.4	-60.7	-53.0	45.6	-28.1	2.9
130	-16.5	-54.1	29.4	-79.8	-50.6	46.1	-23.2	-31.6
150	-15.0	-60.0	29.4	-92.8	-49.4	40.3	-20.3	-51.4



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