

RF AMPLIFIER

Available as: QBH-872, 4 Pin TO-8 (080-10114-0001)
 QB-9300, SMA Connectorized Housing (ES E52-1501)

MODEL QBH-872

Features

- High Linearity: IP3 of +42 dBm
- High Output Power: +29 dBm Typical
- Operating Temp. -55 °C to +65 °C
- Environmental Screening Available

Specifications

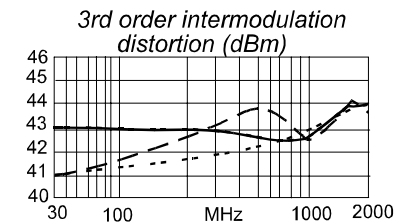
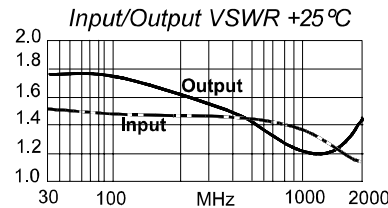
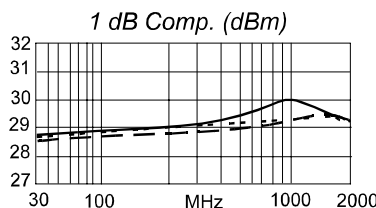
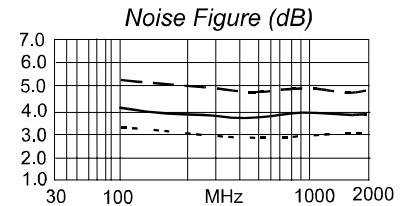
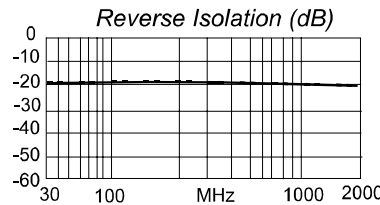
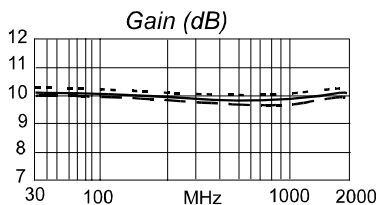
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +65 °C
Frequency	30 - 2000 MHz	30 - 2000 MHz
Gain (dB)	10.3 ± 0.8	—
Gain vs. Temperature	—	+0.6/-0.6 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-19	-18 Min.
VSWR In	1.8:1	2.0:1 Max.
VSWR Out	1.8:1	2.0:1 Max.
1 dB Compression (dBm)	+29	+28 Min.
Output Intercept point		
3rd Order	+42	+40 Min.
2nd Order	+48	+46 Min.
Noise Figure (dB)	4.5	6.0 Max.
Power Vdc	+15	+15
mA	400	400 Max.

Maximum Ratings

Ambient Operating Temperature -55°C to +65 °C
 Storage Temperature -65°C to +150 °C
 Case Temperature +125 °C
 DC Voltage +16 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 - - - +65 °C ····· -55 °C

Linear S-Parameters Data

FREQ. MHz	-- S11-- dB	Ang	-- S21-- dB	Ang	-- S12-- dB	Ang	-- S22-- dB	Ang
30	-13.7	-23.6	10.1	-173.0	-20.4	7.4	-11.6	174.5
80	-14.2	-22.5	10.1	171.3	-20.4	-4.4	-11.5	169.0
200	-14.3	-40.3	10.0	149.1	-20.3	-20.2	-12.1	154.2
500	-14.7	-89.3	9.9	100.1	-20.5	-54.3	-13.3	120.0
800	-15.0	-133.6	9.9	52.2	-20.7	-87.1	-15.6	88.8
1100	-15.8	-172.8	9.9	4.7	-20.8	-119.2	-18.4	65.9
1400	-17.5	147.8	10.0	-43.7	-20.8	-150.8	-19.5	54.1
1700	-21.2	105.5	10.1	-93.4	-20.8	176.9	-18.0	32.1
2000	-26.8	24.1	10.1	-144.4	-20.9	143.5	-15.3	-6.9



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