

# Q-bit

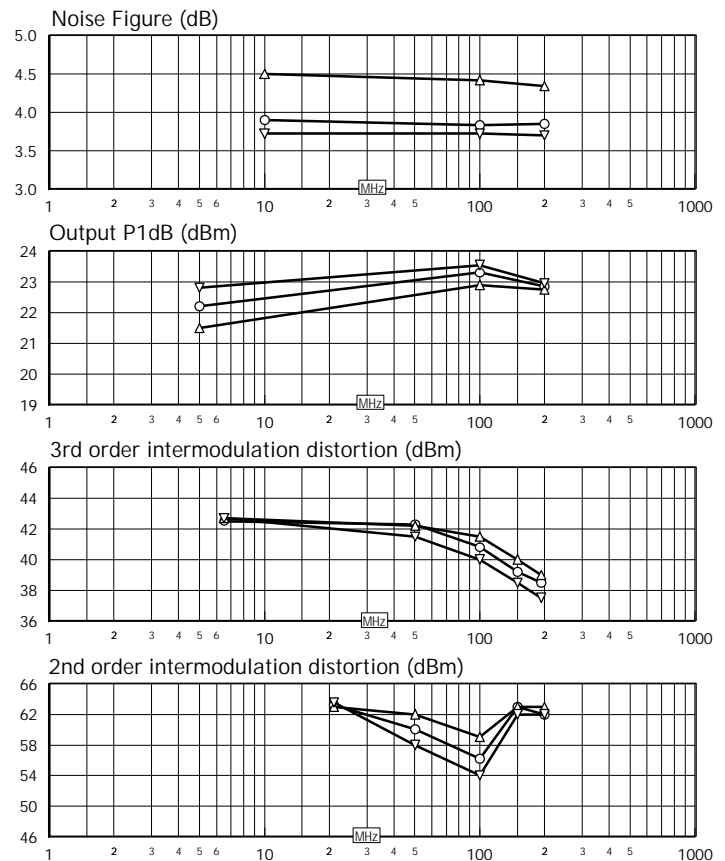
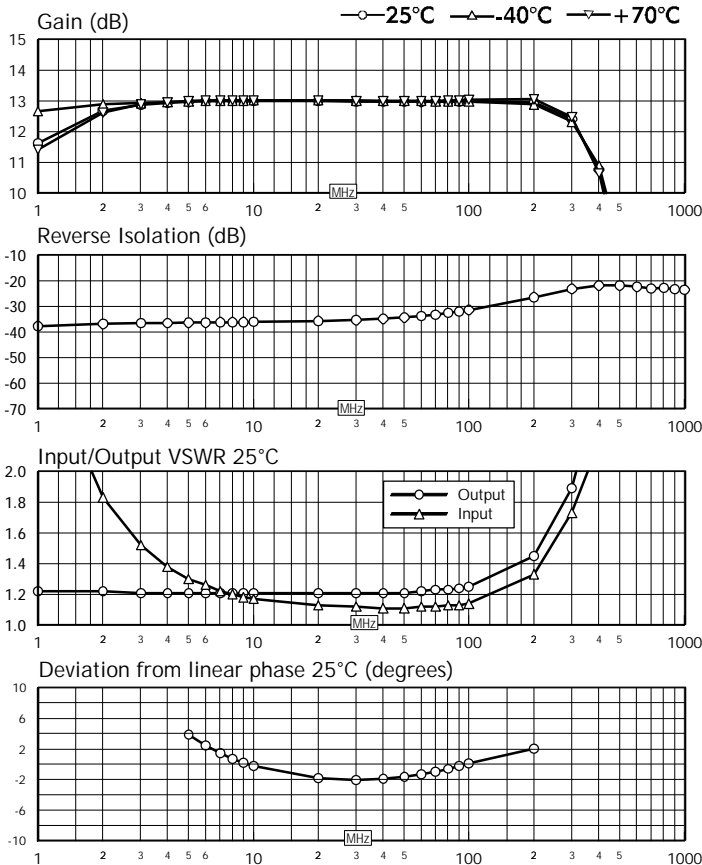
## LCSM Hybrid Amplifier

### QBH-8908

- 5-200 MHz bandwidth
- Low cost surface mount package
- High intercept point, +37 dBm typical  $IP_3$  and +53 dBm typical  $IP_2$
- 15 Vdc operation

Parameters	Typical 25°C	Guaranteed -40 to +70°C	Units
Frequency Range	5 - 200		MHz
Small signal gain	13.0	12.0 (min)	dB
Gain flatness	0.8	1.0	dB p-p
Reverse isolation	25	25	dB
VSWR Input	1.5:1	1.5:1	
Output	1.5:1	1.5:1	
1 dB compression	+21	+20	dBm
OIP 3rd order	+37	+36	dBm
2nd order	+53	+51	dBm
Noise figure	4.5	5.0	dB
DC supply voltage *	15		Vdc
DC supply current	99	99	mA
Gain vs. Vdc	0.05		dB/Volt
Housing/Package	E52-19422 (see back for details)		

\* all specification ratings are based on DC supply voltage  $\pm$  1%



#### TYPICAL S-PARAMETER DATA

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
5	-17.6	-112.1	13.0	-173.5	-36.3	26.3	-20.4	11.5
10	-22.0	-135.2	13.0	-179.6	-36.1	17.5	-20.5	-0.7
20	-24.6	-152.7	13.0	174.6	-35.8	16.5	-20.5	-11.9
40	-25.4	-160.1	13.0	166.1	-34.9	21.7	-20.4	-28.5
60	-25.2	-159.1	13.0	158.4	-33.8	25.5	-20.1	-44.2
80	-24.5	-156.9	13.0	150.8	-32.6	28.0	-19.6	-59.4
100	-23.6	-154.5	13.0	143.2	-31.4	29.0	-19.1	-74.5
200	-17.2	-160.2	13.0	103.4	-26.5	16.3	-14.7	-142.7

#### ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining	+14.0 Vdc
Pulse (transient)	+17.0 Vdc
Temperature	
Operating	-55 to +85°C
Storage	-65 to +150°C
Maximum input drive	1.0 Vrms

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