

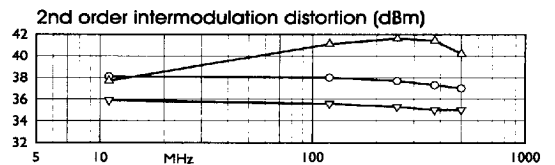
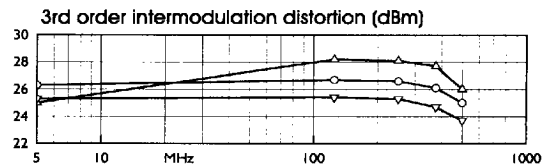
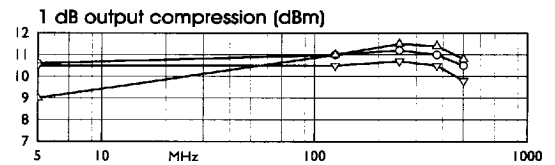
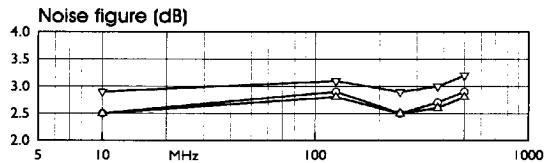
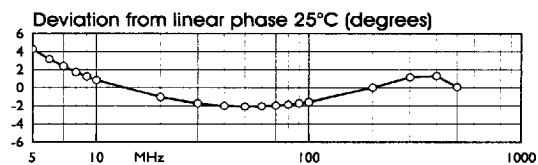
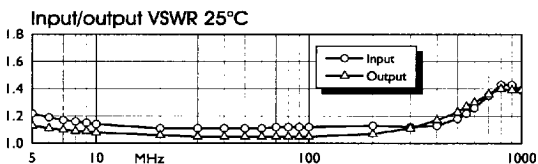
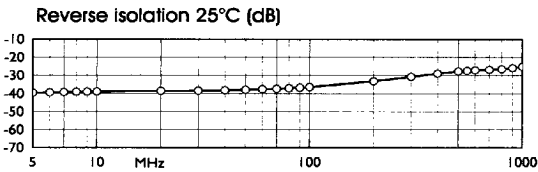
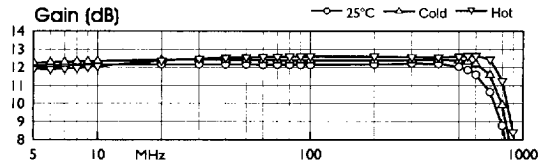
5 - 500 MHz Standard Hybrid Amplifier

QBH-104

- **5-500 MHz bandwidth**
- **High reverse isolation**
- **Wide frequency bandwidth**
- **Low VSWR**
- **Quick ship item**

Parameters	Specification limit		Units
Temperature	+25	-55 to +85	°C
Frequency range	5 - 500		MHz
Small signal gain	12.3 ± 0.5		dB
Gain vs. temperature	+0.5/-1.0		dB Max
Gain flatness	0.6	0.9	dB Max p-p
Reverse isolation	23	22	dB Min
VSWR Input	1.5:1	1.7:1	Max
Output	1.5:1	1.7:1	Max
1 dB compression	+10.5	+9	dBm Min
Output intercept point			
3rd Order	+25	+23	dBm Min
2nd Order	+37	+35	dBm Min
Noise figure	4.5	4.9	dB Max
DC power @ 15 Vdc ± 1%	29	30	mA Max
Gain vs. Vdc	0.10		dB/Volt Max
Housing	TO-8 (see page P-14 for details)		

HYBRID



Typical S-Parameter Data

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
5	-20.2	79.4	12.3	-173.5	-39.6	23.6	-24.3	79.5
10	-23.8	66.1	12.4	-178.3	-38.9	15.7	-28.1	52.0
50	-25.5	18.2	12.4	167.5	-37.9	14.9	-32.3	-14.8
100	-24.9	0.1	12.4	153.9	-36.4	20.8	-32.1	-36.2
200	-24.6	-19.3	12.4	127.4	-33.2	19.6	-28.9	-59.7
300	-25.0	-33.7	12.4	100.4	-30.8	9.1	-25.5	-86.0
400	-25.4	-37.2	12.4	72.4	-29.0	-4.7	-22.3	-112.1
500	-22.2	-36.3	12.4	43.0	-27.8	-20.7	-19.8	-143.5

ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining	+17.0 Vdc
Pulse (transient)	+17.0 Vdc
Temperature	
Operating	-55 to +125°C
Storage	-65 to +150°C
Maximum input drive	1.2 VRMS
Thermal rise, junction-to-case	+17°C

H91-0104.0495, Revision A1

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