

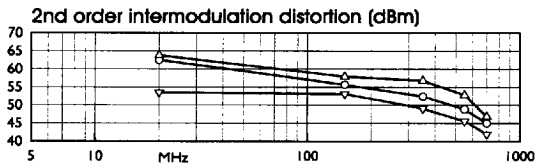
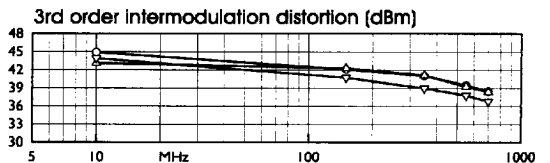
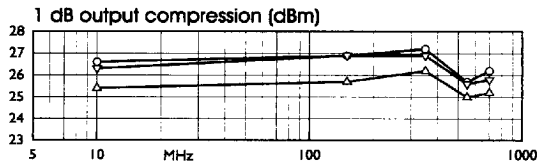
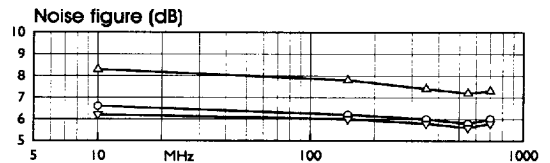
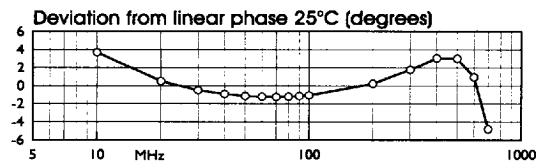
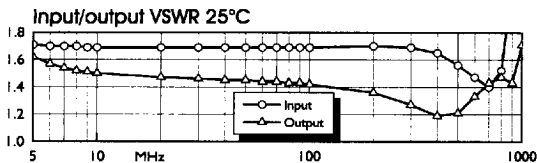
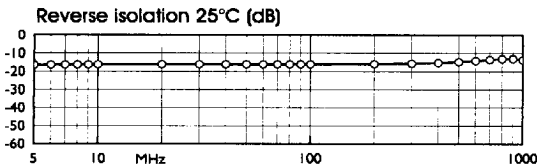
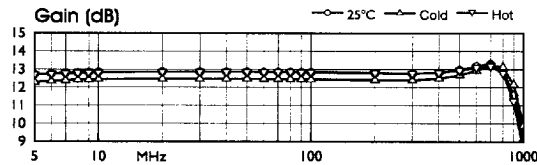
10 - 700 MHz Standard Hybrid Amplifier

QBH-153

- **10-700 MHz bandwidth**
- **High dynamic range**
- **Wide bandwidth**
- **Low profile TO-8 package**
- **Excellent for L.O. driver applications**

Parameters	Specification limit		Units
Temperature	+25	-55 to +85	°C
Frequency range	10 - 700		MHz
Small signal gain	13.0 ± 0.5		dB
Gain vs. temperature		+0.5/-1.0	dB Max
Gain flatness	1.0	1.0	dB Max p-p
Reverse isolation	13	13	dB Min
VSWR Input	2.0:1	2.0:1	Max
Output	2.0:1	2.0:1	Max
1 dB compression	+25	+24	dBm Min
Output intercept point			
3rd Order	+37	+35	dBm Min
2nd Order	+45	+41	dBm Min
Noise figure	7.5	8.5	dB Max
DC power @ 15 Vdc ± 1%	175	180	mA Max
Gain vs. Vdc	0.30		dB/Volt Max
Housing	TO-8 LP (see page P-13 for details)		

Hybrid



Typical S-Parameter Data

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
10	-11.8	-165.3	12.8	-176.6	-16.2	5.3	-14.0	167.3
50	-11.8	177.5	12.9	164.7	-16.1	-7.4	-14.8	169.0
100	-11.8	169.8	12.8	147.4	-16.1	-16.8	-15.2	162.2
200	-11.8	154.9	12.8	113.9	-15.9	-34.8	-16.3	146.4
300	-11.8	138.4	12.8	80.6	-15.7	-53.2	-18.4	135.9
400	-12.2	119.3	12.8	47.1	-15.3	-72.4	-21.3	139.7
500	-13.2	96.2	13.0	12.3	-14.8	-93.4	-20.3	154.6
600	-14.5	67.0	13.2	-24.6	-14.1	-116.1	-17.1	148.4
700	-15.7	17.8	13.3	-65.2	-13.5	-142.0	-15.0	117.9

ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining	+17.0 Vdc
Pulse (transient)	+20.0 Vdc
Temperature	
Operating	-55 to +85°C
Storage	-65 to +150°C
Maximum input drive	1.4 VRMS
Thermal rise, junction-to-case	+60°C

H91-0153, 0496, Revision C1

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