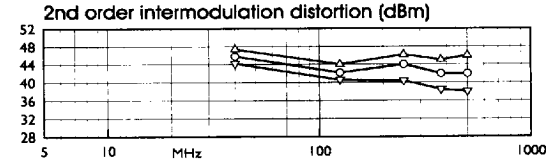
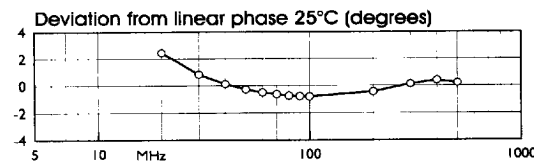
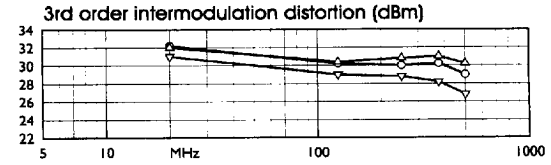
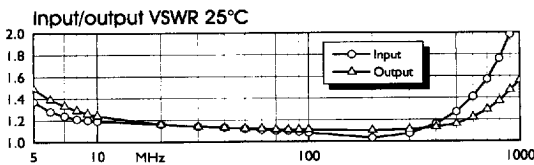
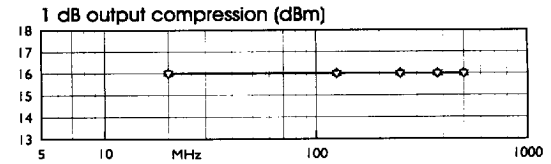
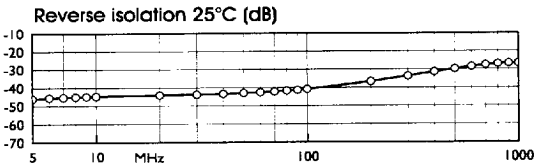
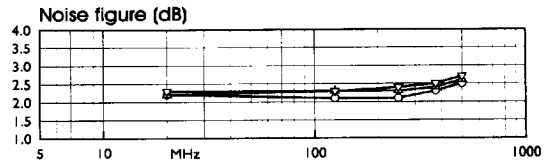
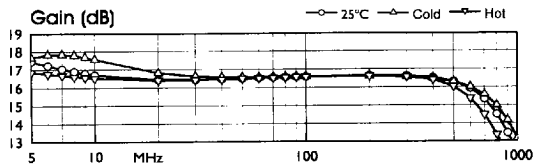


20 - 500 MHz Standard Hybrid Amplifier

QBH-175

- **20-500 MHz bandwidth**
- **High reverse isolation**
- **Guaranteed specifications over temperature**
- **Unconditionally stable**

Parameters	Specification limit		Units
Temperature	+25	-55 to +85	°C
Frequency range	20 - 500		MHz
Small signal gain	16.3 ± 0.8		dB
Gain vs. temperature		+0.3/-0.5	dB Max
Gain flatness	0.8	1.0	dB Max p-p
Reverse isolation	28	28	dB Min
VSWR Input	1.5:1	1.6:1	Max
Output	1.5:1	1.6:1	Max
1 dB compression	+15	+14	dBm Min
Output intercept point			
3rd Order	+29	+25	dBm Min
2nd Order	+40	+33	dBm Min
Noise figure	3.3	3.8	dB Max
DC power @ 15 Vdc ± 1%	48	50	mA Max
Gain vs. Vdc	0.10		dB/Volt Max
Housing	TO-8 LP (see page P-13 for details)		



Typical S-Parameter Data

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
20	-22.9	168.6	16.4	-178.2	-44.1	17.6	-22.7	168.8
50	-25.0	148.4	16.5	171.1	-43.0	21.7	-25.0	158.2
100	-28.0	127.1	16.6	157.2	-40.8	30.3	-25.9	147.6
200	-37.8	69.7	16.7	130.8	-36.7	30.3	-26.2	126.9
300	-29.9	-81.3	16.6	104.7	-33.8	20.0	-25.6	108.7
400	-22.7	-121.1	16.5	78.3	-31.5	6.2	-24.3	93.7
500	-18.4	-156.5	16.3	51.3	-29.8	-9.5	-22.5	77.5

ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining	+18.0 Vdc
Pulse (transient)	+25.0 Vdc
Temperature	
Operating	-55 to +125°C
Storage	-65 to +150°C
Maximum input drive	1.2 VRMS
Thermal rise, junction-to-case	+30°C

H31-0175, 0495, Revision B1

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