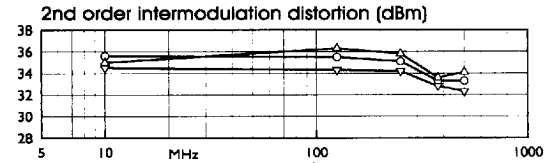
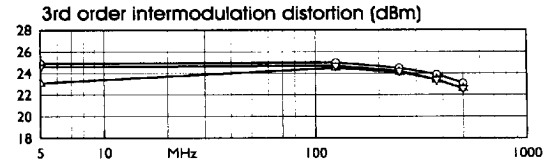
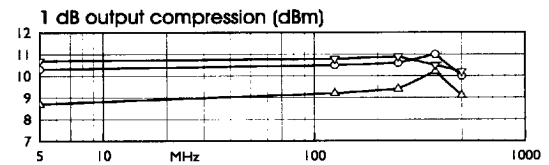
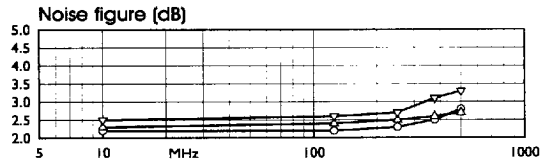
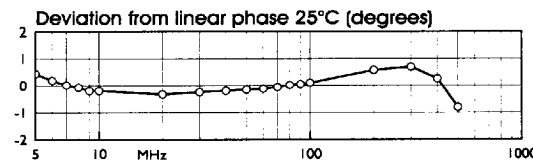
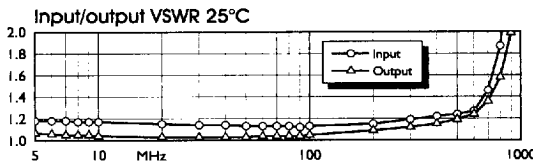
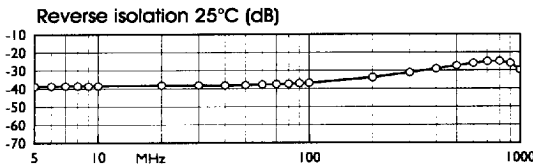
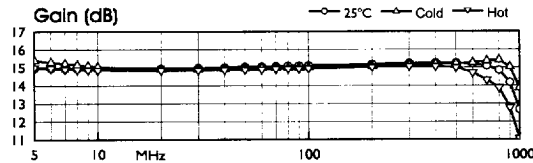


5 - 500 MHz Standard Hybrid Amplifier

QBH-210

- **5-500 MHz bandwidth**
- **Low noise figure**
- **High reverse isolation**
- **Low power operation**

Parameters	Specification limit		Units
Temperature	+25	-55 to +100	°C
Frequency range	5 - 500		MHz
Small signal gain	15.0 ± 0.5		dB
Gain vs. temperature		+1.0/-1.0	dB Max
Gain flatness	0.6	1.0	dB Max p-p
Reverse isolation	25	25	dB Min
VSWR Input	1.5:1	1.5:1	Max
Output	1.5:1	1.5:1	Max
1 dB compression	+9	+9	dBm Min
Output intercept point			
3rd Order	+23	+22	dBm Min
2nd Order	+33	+32	dBm Min
Noise figure	3.0	3.5	dB Max
DC power @ 15 Vdc ± 1%	29	31	mA Max
Gain vs. Vdc			dB/Volt Max
Housing	F-PACK .625 SMD (see page P-22 for details)		



HYBRID

Typical S-Parameter Data

MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
5	-21.6	-172.2	15.0	-179.7	-38.8	9.2	-29.9	137.1
10	-22.2	177.4	14.9	177.9	-38.5	6.4	-33.3	132.2
50	-24.1	162.5	15.0	164.0	-38.0	5.0	-35.7	106.8
100	-24.6	152.9	15.1	146.8	-36.8	5.0	-32.9	76.5
200	-23.1	122.3	15.2	112.4	-33.8	-6.0	-27.8	41.8
300	-21.1	81.4	15.2	77.7	-31.2	-26.8	-25.1	14.6
400	-20.2	30.1	15.3	42.4	-29.1	-52.1	-23.1	-15.7
500	-19.6	-31.5	15.2	6.4	-27.3	-80.7	-21.4	-46.4

ABSOLUTE MAXIMUM RATINGS

Power supply voltage	
Sustaining	+17.0 Vdc
Pulse (transient)	+25.0 Vdc
Temperature	
Operating	-55 to +125°C
Storage	-65 to +150°C
Maximum input drive	1.0 VRMS
Thermal rise, junction-to-case	+14°C

H91-0210.0495, Revision B1

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