

4 Ohms	
Watts	Volts
0.5	1.414214
1	2
3	3.464102
5	4.472136
7.5	5.477226
10	6.324555
12.5	7.071068
15	7.745967
17.5	8.3666
20	8.944272
22.5	9.486833
25	10
27.5	10.48809
30	10.95445
32.5	11.40175
35	11.83216
37.5	12.24745
40	12.64911
42.5	13.0384
45	13.41641
47.5	13.78405
50	14.14214
52.5	14.49138
55	14.8324
57.5	15.16575
60	15.49193
62.5	15.81139
65	16.12452
67.5	16.43168
70	16.7332
72.5	17.02939
75	17.32051
80	17.88854
85	18.43909
90	18.97367
95	19.49359
100	20
105	20.4939
110	20.97618
115	21.44761
120	21.9089
125	22.36068
130	22.80351
135	23.2379
140	23.66432
145	24.08319
150	24.4949
175	26.45751
200	28.28427

8 Ohms	
Watts	Volts
0.5	2
1	2.828427
3	4.898979
5	6.324555
7.5	7.745967
10	8.944272
12.5	10
15	10.95445
17.5	11.83216
20	12.64911
22.5	13.41641
25	14.14214
27.5	14.8324
30	15.49193
32.5	16.12452
35	16.7332
37.5	17.32051
40	17.88854
42.5	18.43909
45	18.97367
47.5	19.49359
50	20
52.5	20.4939
55	20.97618
57.5	21.44761
60	21.9089
62.5	22.36068
65	22.80351
67.5	23.2379
70	23.66432
72.5	24.08319
75	24.4949
80	25.29822
85	26.07681
90	26.83282
95	27.5681
100	28.28427
105	28.98275
110	29.66479
115	30.3315
120	30.98387
125	31.62278
130	32.24903
135	32.86335
140	33.4664
145	34.05877
150	34.64102
175	37.41657
200	40

dB	% Distortion	dB to Volts
0	100.000000	1.0000000000
-6	50.118723	0.5011872336
-14	19.952623	0.1995262315
-20	10.000000	0.1000000000
-26	5.011872	0.0501187234
-34	1.995262	0.0199526231
-40	1.000000	0.0100000000
-46	0.501187	0.0050118723
-54	0.199526	0.0019952623
-60	0.100000	0.0010000000
-66	0.050119	0.0005011872
-74	0.019953	0.0001995262
-80	0.010000	0.0001000000
-86	0.005012	0.0000501187
-94	0.001995	0.0000199526
-100	0.001000	0.0000100000
-110	0.000316	0.0000031623
-120	0.000100	0.0000010000
-130	0.000032	0.0000003162
-140	0.000010	0.0000001000
-150	0.000003	0.0000000316

$$THD = 20 \times \log \left[\frac{\sqrt{V_2^2 + V_3^2 + \dots + V_x^2}}{V_1} \right]$$

V2, V3, Vx are harmonics. V1 is the fundamental

*If V1 is not 0dB, enter the value (ie -3.0dB)

**If you notch, reduce V1 by the amount of the notch (-20dB, -40, etc)

Gain/loss as a ratio (out/in)	Gain / Loss as a factor	Gain/loss in dB (Voltage gain)	Gain/loss in dB (Power gain)
10,000:1	10,000	+80.00 dB	+40.00 dB
1,000:1	1,000	+60.00 dB	+30.00 dB
100:1	100	+40.00 dB	+20.00 dB
10:1	10	+20.00 dB	+10.00 dB
5:1	5	+13.98 dB	+6.99 dB
4:1	4	+12.04 dB	+6.02 dB ●
2:1	2	+6.02 dB ●	+3.01 dB
1:1	1	0.00 dB	0.00 dB
1:2	0.5	-6.02 dB ●	-3.01 dB
1:4	0.25	-12.04 dB	-6.02 dB ●
1:5	0.2	-13.98 dB	-6.99 dB
1:10	0.1	-20.00 dB	-10.00 dB
1:100	0.01	-40.00 dB	-20.00 dB
1:1,000	0.001	-60.00 dB	-30.00 dB
1:10,000	0.0001	-80.00 dB	-40.00 dB