

APPENDIX A

AMPLITUDE-RATIO-DECIBEL CONVERSION TABLE

This table is a tabulation of the relationship

$$\text{db} = 20 \log_{10} N$$

where

db = number of decibels

N = amplitude ratio

AMPLITUDE-RATIO-DECIBEL CONVERSION TABLE

N	0	1	2	3	4	5	6	7	8	9
0.01	-40.00	-39.17	-38.42	-37.72	-37.08	-36.48	-35.92	-35.39	-34.89	-34.42
0.02	-33.98	-33.56	-33.15	-32.77	-32.40	-32.04	-31.70	-31.37	-31.06	-30.75
0.03	-30.46	-30.17	-29.90	-29.63	-29.37	-29.12	-28.87	-28.64	-28.40	-28.18
0.04	-27.96	-27.74	-27.53	-27.33	-27.13	-26.94	-26.74	-26.56	-26.38	-26.20
0.05	-26.02	-25.85	-25.68	-25.51	-25.35	-25.19	-25.04	-24.88	-24.73	-24.58
0.06	-24.44	-24.29	-24.15	-24.01	-23.88	-23.74	-23.61	-23.48	-23.35	-23.22
0.07	-23.10	-22.97	-22.85	-22.73	-22.62	-22.50	-22.38	-22.27	-22.16	-22.05
0.08	-21.94	-21.83	-21.72	-21.62	-21.51	-21.41	-21.31	-21.21	-21.11	-21.01
0.09	-20.92	-20.82	-20.72	-20.63	-20.54	-20.45	-20.35	-20.26	-20.18	-20.09
0.1	-20.00	-19.17	-18.42	-17.72	-17.08	-16.48	-15.92	-15.39	-14.89	-14.42
0.2	-13.98	-13.56	-13.15	-12.77	-12.40	-12.04	-11.70	-11.37	-11.06	-10.75
0.3	-10.46	-10.17	-9.90	-9.63	-9.37	-9.12	-8.87	-8.64	-8.40	-8.18
0.4	-7.96	-7.74	-7.53	-7.33	-7.13	-6.94	-6.74	-6.56	-6.38	-6.20
0.5	-6.02	-5.85	-5.68	-5.51	-5.35	-5.19	-5.04	-4.88	-4.73	-4.58
0.6	-4.44	-4.29	-4.15	-4.01	-3.88	-3.74	-3.61	-3.48	-3.35	-3.22
0.7	-3.10	-2.97	-2.85	-2.73	-2.62	-2.50	-2.38	-2.27	-2.16	-2.05
0.8	-1.94	-1.83	-1.72	-1.62	-1.51	-1.41	-1.31	-1.21	-1.11	-1.01
0.9	-0.92	-0.82	-0.72	-0.63	-0.54	-0.45	-0.35	-0.26	-0.18	-0.09
1.0	0.00	0.09	0.17	0.26	0.34	0.42	0.51	0.59	0.67	0.75
1.1	0.83	0.91	0.98	1.06	1.14	1.21	1.29	1.36	1.44	1.51
1.2	1.58	1.66	1.73	1.80	1.87	1.94	2.01	2.08	2.14	2.21
1.3	2.28	2.35	2.41	2.48	2.54	2.61	2.67	2.73	2.80	2.86
1.4	2.92	2.98	3.05	3.11	3.17	3.23	3.29	3.35	3.41	3.46

1.5	3.52	3.58	3.64	3.69	3.75	3.81	3.86	3.92	3.97	4.03
1.6	4.08	4.14	4.19	4.24	4.30	4.35	4.40	4.45	4.51	4.56
1.7	4.61	4.66	4.71	4.76	4.81	4.86	4.91	4.96	5.01	5.06
1.8	5.11	5.15	5.20	5.25	5.30	5.34	5.39	5.44	5.48	5.53
1.9	5.58	5.62	5.67	5.71	5.76	5.80	5.85	5.89	5.93	5.98
2	6.02	6.44	6.85	7.23	7.60	7.96	8.30	8.63	8.94	9.25
3	9.54	9.83	10.10	10.37	10.63	10.88	11.13	11.36	11.60	11.82
4	12.04	12.26	12.47	12.67	12.87	13.06	13.26	13.44	13.62	13.80
5	13.98	14.15	14.32	14.49	14.65	14.81	14.96	15.12	15.27	15.42
6	15.56	15.71	15.85	15.99	16.12	16.26	16.39	16.52	16.65	16.78
7	16.90	17.03	17.15	17.27	17.38	17.50	17.62	17.73	17.84	17.95
8	18.06	18.17	18.28	18.38	18.49	18.59	18.69	18.79	18.89	18.99
9	19.08	19.18	19.28	19.37	19.46	19.55	19.65	19.74	19.82	19.91
10	20.00	20.83	21.58	22.28	22.92	23.52	24.08	24.61	25.11	25.58
20	26.02	26.44	26.85	27.23	27.60	27.96	28.30	28.63	28.94	29.25
30	29.54	29.83	30.10	30.37	30.63	30.88	31.13	31.36	31.60	31.82
40	32.04	32.26	32.47	32.67	32.87	33.06	33.26	33.44	33.62	33.80
50	33.98	34.15	34.32	34.49	34.65	34.81	34.96	35.12	35.27	35.42
60	35.56	35.71	35.85	35.99	36.12	36.26	36.39	36.52	36.65	36.78
70	36.90	37.03	37.15	37.27	37.39	37.50	37.62	37.73	37.84	37.95
80	38.06	38.17	38.28	38.38	38.49	38.59	38.69	38.79	38.89	38.99
90	39.08	39.18	39.28	39.37	39.46	39.55	39.65	39.74	39.82	39.91