

Technical Data

DECIBELS (dB) AND POWER, VOLTAGE, AND CURRENT RATIOS

Power Ratio	Voltage and Current Ratio	Decibels	Power Ratio	Voltage and Current Ratio	Decibels
1.0233	1.0116	0.1	19.953	4.4668	13.0
1.0471	1.0233	0.2	26.119	5.0119	14.0
1.0715	1.0351	0.3	31.623	5.6234	15.0
1.0965	1.0471	0.4	39.811	6.3096	16.0
1.1220	1.0593	0.5	50.119	7.0795	17.0
1.1482	1.0715	0.6	63.096	7.9433	18.0
1.1749	1.0839	0.7	79.433	8.9125	19.0
1.2023	1.0956	0.8	100.00	10.0000	20.0
1.2303	1.1092	0.9	158.49	12.589	22.0
1.2589	1.1220	1.0	251.19	15.849	24.0
1.3183	1.1482	1.2	398.11	19.953	26.0
1.3804	1.1749	1.4	630.96	25.119	28.0
1.4454	1.2023	1.6	1000.0	31.623	30.0
1.5136	1.2303	1.8	1584.9	39.811	32.0
1.5849	1.2589	2.0	2511.9	50.119	34.0
1.6595	1.2882	2.2	3981.1	63.096	36.0
1.7378	1.3183	2.4	6309.6	79.433	38.0
1.8197	1.3490	2.6	10 ⁴	100.000	40.0
1.9055	1.3804	2.8	10 ⁴ x 1.5849	125.89	42.0
1.9953	1.4125	3.0	10 ⁴ x 2.5119	158.49	44.0
2.2387	1.4962	3.5	10 ⁴ x 3.9811	199.53	46.0
2.5119	1.5849	4.0	10 ⁴ x 6.3096	251.19	48.0
2.8184	1.6788	4.5	10 ⁴	316.23	50.0
3.1623	1.7783	5.0	10 ⁴ x 1.5849	398.11	52.0
3.5481	1.8836	5.5	10 ⁴ x 2.5119	501.19	54.0
3.9811	1.9953	6.0	10 ⁴ x 3.9811	630.96	56.0
5.0119	2.2387	7.0	10 ⁴ x 6.3096	794.33	58.0
6.3096	2.5119	8.0	10 ⁴	1,000	60.0
7.9433	2.8184	9.0	10 ⁴	3,162.3	70.0
10.000	3.1623	10.0	10 ⁴	10,000.0	80.0
12.589	3.5481	11.0	10 ⁴	31,623	90.0
15.849	3.9811	12.0	10 ⁴	100,000	100.0

To convert:

Decibels to nepers multiply by 0.1151.

Nepers to decibels multiply by 8.686.

Where the power ratio is less than unity, it is usual to invert the fraction and express the answer as a decibel loss.

CELWAVE[®]
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