

Conversion Table (3)

Decibel to Ratio 20–140 dB



Ratio downwards (-)		dB	Ratio upwards (+)	
Power	Voltage		Voltage	Power
10.0 x 10 ⁻³	100 x 10 ⁻³	20	10.0	100
6.31 x 10 ⁻³	79.4 x 10 ⁻³	22	12.6	159
3.98 x 10 ⁻³	63.1 x 10 ⁻³	24	15.9	251
2.51 x 10 ⁻³	50.1 x 10 ⁻³	26	20.0	398
1.59 x 10 ⁻³	39.8 x 10 ⁻³	28	25.1	631
1.00 x 10 ⁻³	31.6 x 10 ⁻³	30	31.6	1.00 x 10 ³
0.631 x 10 ⁻³	25.1 x 10 ⁻³	32	39.8	1.59 x 10 ³
0.398 x 10 ⁻³	20.0 x 10 ⁻³	34	50.1	2.51 x 10 ³
0.251 x 10 ⁻³	15.9 x 10 ⁻³	36	63.1	3.98 x 10 ³
0.159 x 10 ⁻³	12.6 x 10 ⁻³	38	79.4	6.31 x 10 ³
100 x 10 ⁻⁶	10.0 x 10 ⁻³	40	100	10.0 x 10 ³
63.1 x 10 ⁻⁶	7.94 x 10 ⁻³	42	126	15.9 x 10 ³
39.8 x 10 ⁻⁶	6.31 x 10 ⁻³	44	159	25.1 x 10 ³
25.1 x 10 ⁻⁶	5.01 x 10 ⁻³	46	200	39.8 x 10 ³
15.9 x 10 ⁻⁶	3.98 x 10 ⁻³	48	251	63.1 x 10 ³
10.0 x 10 ⁻⁶	3.16 x 10 ⁻³	50	316	100 x 10 ³
6.31 x 10 ⁻⁶	2.51 x 10 ⁻³	52	398	159 x 10 ³
3.98 x 10 ⁻⁶	2.00 x 10 ⁻³	54	501	251 x 10 ³
2.51 x 10 ⁻⁶	1.59 x 10 ⁻³	56	631	398 x 10 ³
1.59 x 10 ⁻⁶	1.26 x 10 ⁻³	58	794	631 x 10 ³
1.00 x 10 ⁻⁶	1.00 x 10 ⁻³	60	1.00 x 10 ³	1.00 x 10 ⁶
316 x 10 ⁻⁹	562 x 10 ⁻⁶	65	1.78 x 10 ³	3.16 x 10 ⁶
100 x 10 ⁻⁹	316 x 10 ⁻⁶	70	3.16 x 10 ³	10.0 x 10 ⁶
31.6 x 10 ⁻⁹	178 x 10 ⁻⁶	75	5.62 x 10 ³	31.6 x 10 ⁶
10.0 x 10 ⁻⁹	100 x 10 ⁻⁶	80	10.0 x 10 ³	100 x 10 ⁶
3.16 x 10 ⁻⁹	56.2 x 10 ⁻⁶	85	17.8 x 10 ³	316 x 10 ⁶
1.00 x 10 ⁻⁹	31.6 x 10 ⁻⁶	90	31.6 x 10 ³	1.00 x 10 ⁹
100 x 10 ⁻¹²	10.0 x 10 ⁻⁶	100	100 x 10 ³	10.0 x 10 ⁹
10.0 x 10 ⁻¹²	3.16 x 10 ⁻⁶	110	316 x 10 ³	100 x 10 ⁹
1.00 x 10 ⁻¹²	1.00 x 10 ⁻⁶	120	1.00 x 10 ⁶	1.00 x 10 ¹²
100 x 10 ⁻¹⁵	316 x 10 ⁻⁹	130	3.16 x 10 ⁶	10.0 x 10 ¹²
10.0 x 10 ⁻¹⁵	100 x 10 ⁻⁹	140	10.0 x 10 ⁶	100 x 10 ¹²

NOTE: In determining decibels for current or voltage ratios the currents (or voltages) being compared must be referred to the same value of impedance