

## Rapporti in decibel (dB)

Per rapporti tra ampiezze:

$$\left. \frac{A_1}{A_2} \right|_{\text{dB}} = 20 \log_{10} \frac{A_1}{A_2}$$

Per rapporti tra potenze:

$$\left. \frac{P_1}{P_2} \right|_{\text{dB}} = 10 \log_{10} \frac{P_1}{P_2}$$

Rapporto in dB	tra ampiezze: $\frac{A_1}{A_2}$	tra potenze: $\frac{P_1}{P_2}$
$10 n$ dB	$\sqrt{10^n}$	$10^n$
...	...	...
60 dB	1000	$10^6$
30 dB	$\sqrt{1000} \approx 31.6$	1000
20 dB	10	100
10 dB	$\sqrt{10} \approx 3.16$	10
6 dB	$\approx 2$	$\approx 4$
3 dB	$\approx 1.4$	$\approx 2$
1 dB	$\approx 1.12$	$\approx 1.26$
0 dB	1	1
-1 dB	$\approx 0.9$	$\approx 0.8$
-3 dB	$\approx 0.7$	$\approx 0.5$
-10 dB	$\sqrt{0.1} \approx 0.316$	0.1
...	...	...
$-10 n$ dB	$\sqrt{10^{-n}}$	$10^{-n}$