



## What does dB mean?

dB, an abbreviation for "decibel", is a logarithmic unit used to express the ratio of one value to another. In filtering it is the ratio of the output amplitude to the input amplitude at a given frequency. 0 dB means no change in ratio and is the response of a filter in the pass band.

dB is computed as  $20 * \log(\text{ratio})$  where ratio is output amplitude divided by input amplitude. So -100dB means a ratio of  $10^{-5}$  or 0.00001. You can see this by switching the response from dB to Gain and expanding the range vertically quite a lot:

