The electric field variation along distance (z) is normally written as

where the first term represents the phase variation, and the second term is the amplitude attenuation.

Now, we need to solve α from a loss per m in Db (denoted as LossLog). Let’s first convert it to linear scale:

Then, α can be calculated from via

Not that in Eq. (3), is used, which is because it is that represents the electric intensity.