

$$dB = 0.01 \text{ nW/m}^2 = 10^{-2} \text{ nW/m}^2$$

$$\beta_{\text{abs}} = \log_{10} \frac{10^{-2}}{10^{-12}} = \log_{10} 10^{10}$$

$$= 10$$

$$dB = 100$$