



$$\mu_w = 0$$

$$\sigma_w^2 = 10^{-\left(\frac{\text{SNR}_{db}}{10}\right)}$$

$$\text{SNR}_{db} = 10 \log_{10} \left(\frac{E_b}{\sigma_w^2} \right)$$

$$E_b = 1$$

$$\text{Ber}_{\text{OOK}} = \frac{1}{2} \text{erfc} \left(\frac{d}{2\sqrt{2}\sigma_w} \right)$$

$$= \frac{1}{2} \text{erfc} \left(\frac{1}{\sqrt{2}\sigma_w} \right)$$

