

$$6) \cdot 2q - 1 = 2 \cdot 0,98 - 1 = 0,96$$

$$\cdot \operatorname{erf}(z) = 0,96 \Leftrightarrow z = 1,4557$$

$$\left. \begin{array}{l} 1,4 \rightarrow 0,9523 \\ 1,5 \rightarrow 0,9661 \end{array} \right\} \lambda = \frac{0,9661 - 0,9523}{1,5 - 1,4} = 0,138$$

$$0,96 - 0,9523 = 0,138(z - 1,4) \Leftrightarrow$$

$$\Leftrightarrow z = \frac{0,96 - 0,9523}{0,138} + 1,4 \Leftrightarrow z = 1,4557$$

$$\cdot \gamma = \sqrt{2} \cdot z \cdot \sigma = \sqrt{2} \cdot 1,4557 \cdot 10 \Leftrightarrow \gamma = 20,5867 \text{ dB}$$

$$\cdot P_{\min} = P_{\text{sens}} + \gamma = -91,2 + 20,5867 \Leftrightarrow P_{\min} = -70,6133 \text{ dBm}$$

$$\cdot \frac{P_0}{P_{\min}} = \frac{r_{\max}^2}{r_0^2} \Leftrightarrow r_{\max} = \sqrt{\frac{10^{-\frac{20}{10}} \cdot 10^2}{10^{-\frac{70,6133}{10}}}} \Leftrightarrow r_{\max} = 3393 \text{ m}$$

