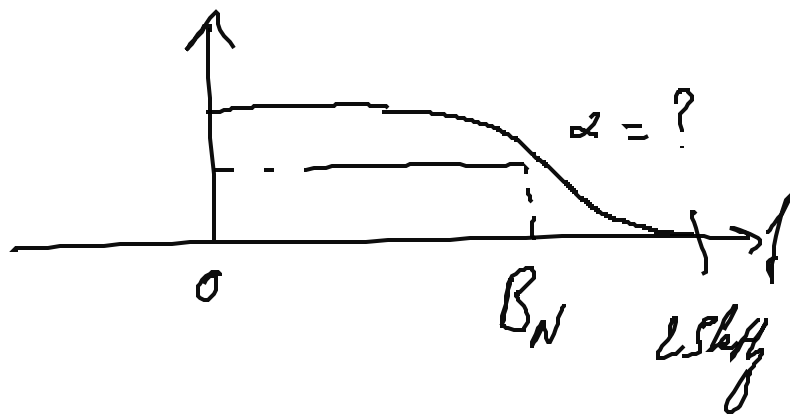


$$\eta = 2 \log_2 M$$



$D_s$

$$= \frac{\quad}{\quad}$$

$B_{P_{min}}$

$D_c \cdot \log_2 M$

$$= \frac{\quad}{\quad}$$

$B_{P_{min}}$

$$= \frac{2 \cancel{B_{P_{min}}} \cdot \log_2 M}{\cancel{B_{P_{min}}}} = 2 \log_2 M$$

$M = 4 \rightarrow \log_2 M = 2$

$$\eta = 2 \cdot 2 = 4 \text{ bits/s/Hz}$$