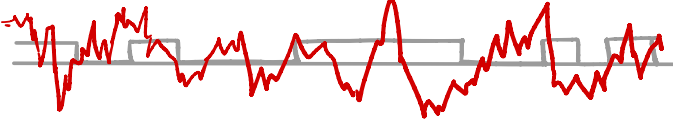
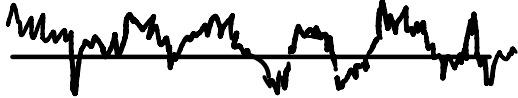


# ① Connecting over long distances.



■ Difficult because → Power attenuates with distance → bit errors

Recall :  → 

■ What matters is the ratio :  $\frac{\text{Received power of signal (S)}}{\text{Power of (noise (N) + interference (I))}}$

$$= \frac{S}{N + I} \quad \text{called SINR}$$