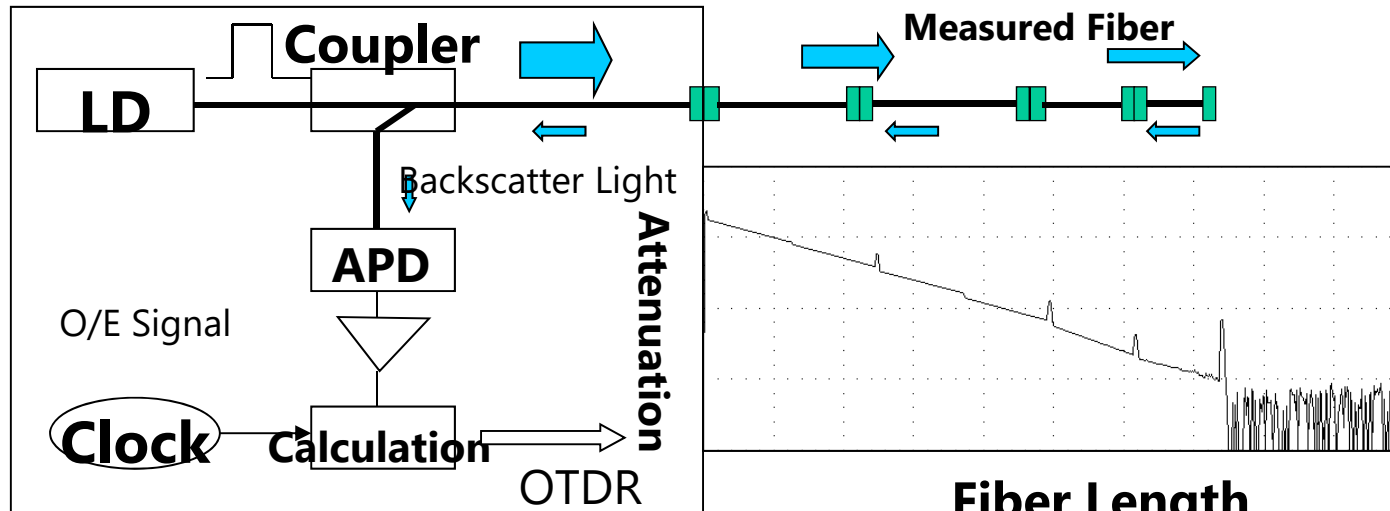
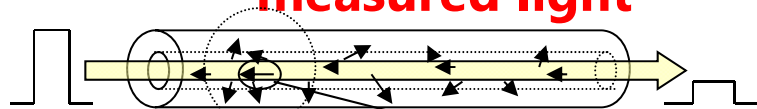


2. OTDR Structure & Measurement Principle

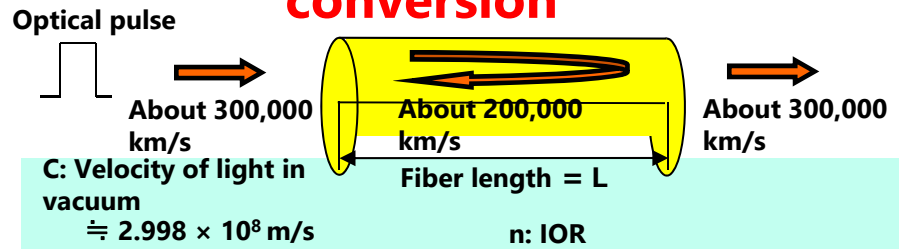


Actual nature of OTDR-measured light



Rayleigh dispersion + Backscatter
light returning to ODR measured

Time-to-distance conversion



(Optical loss) \propto (Rayleigh dispersion)
OTDR measures backscatter dispersion and estimates loss

$$2L = \frac{C}{n} \times t \quad \Rightarrow \quad L = \frac{(C \times t)}{(2 \times n)}$$