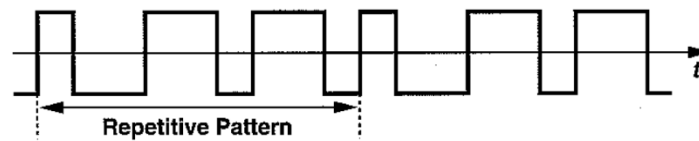
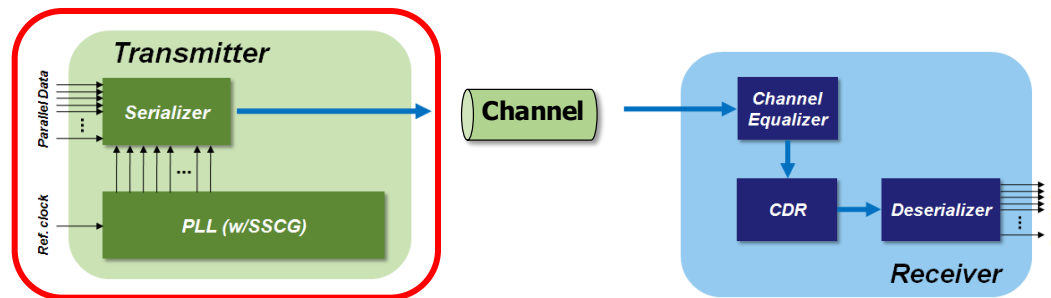


# Transmitter with PRBS generator

- Pseudo-random binary sequences (PRBSs)
  - A repetition of a pattern that itself consists of a random sequence of a number of bits for simulation or characterization

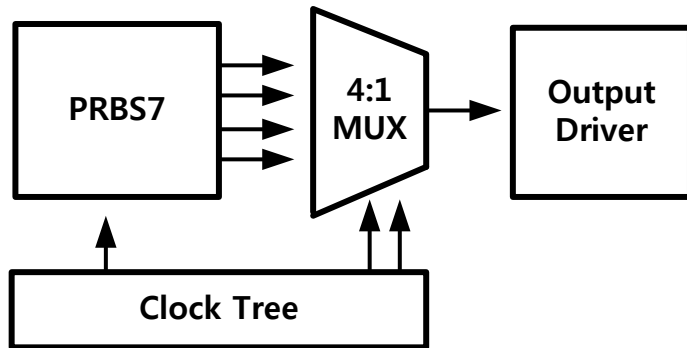


- Serial-interface circuit
  - In wire-line communication, serial-interface circuit is used
    - Ex) PCI-Express, USB, etc..

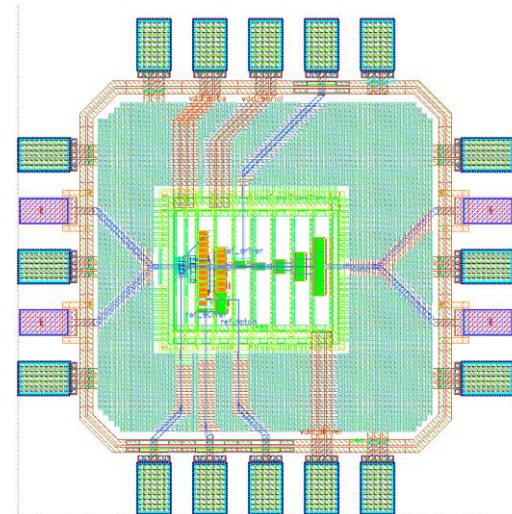


# Transmitter with PRBS generator

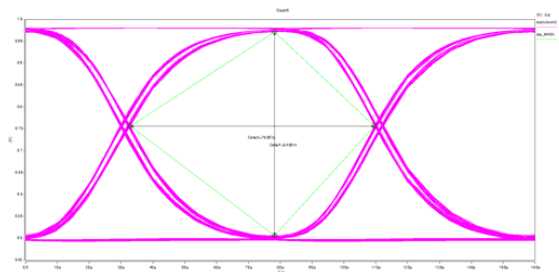
- 10Gbps conventional **transmitter** with PRBS generator Fab out
  - Getting used to CML type and CMOS type blocks



<Block diagram>



<Chip layout>



<Eye diagram>

## Specification

Target frequency	10Gbps
Jitter	0.044UI
Supply voltage	1V
Voltage Swing	500mV
Power	36.25mW