

The background features a large, light blue watermark of the Yonsei University logo. The logo is circular with the text 'YONSEI UNIVERSITY' around the top and '1885' at the bottom. In the center is a shield with a book, a lamp, and a central circle.

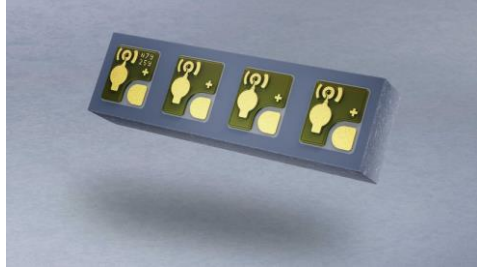
2024 Workshop

Donghyeon Kim

**High-Speed Circuits & Systems Lab.
Dept. of Electrical and Electronic Engineering
Yonsei University**

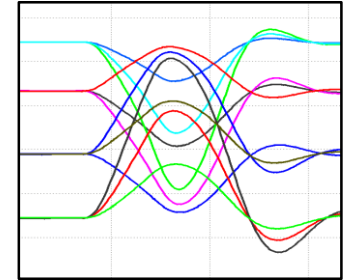
2024 Workshop

VCSEL Characteristic



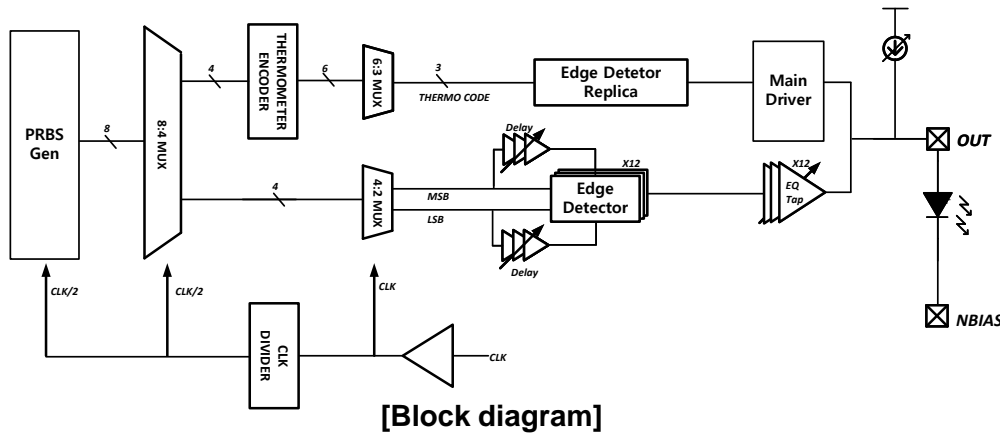
[Datacom VCSEL]

- 😊 Low-cost (Wafer-level test)
- 😊 Low-power consumption
- 😊 Good beam quality (Circular beam)
- 😞 Non-linear optical response

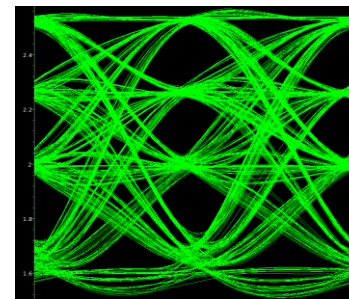


[VCSEL PAM4 SBR]

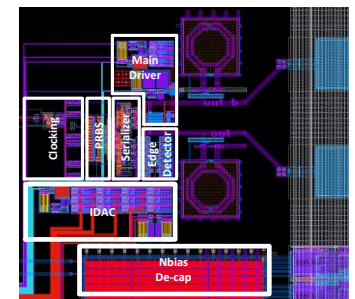
2023.10 MPW 56Gbps PAM-4 VCSEL Driver



[Block diagram]



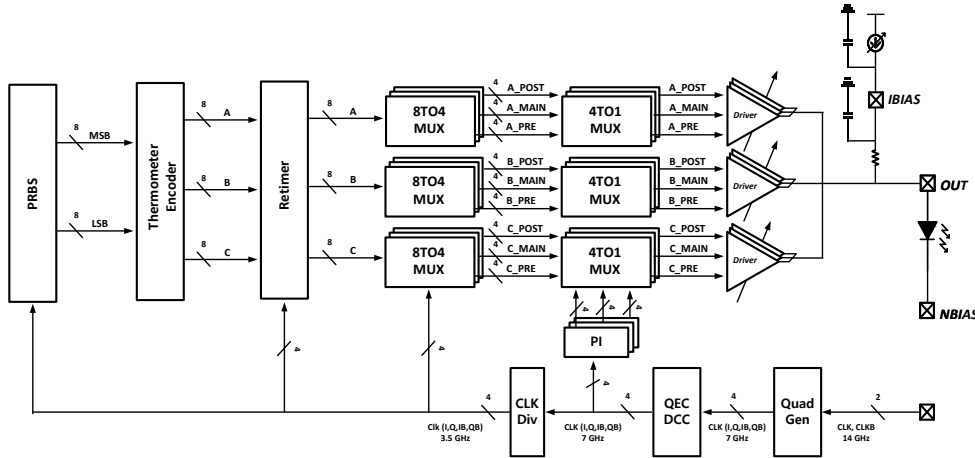
[Eye diagram]



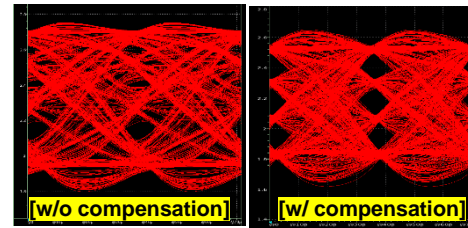
[Top layout]

2024 Workshop

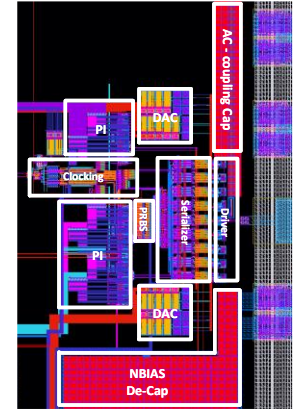
2024.01 MPW 56Gbps PAM-4 VCSEL Driver



[Block diagram]



[Eye diagram]



[Top layout]

Next plan

- ▶ Measurement: 2023.10 MPW VCSEL Driver (3月)
- ▶ Measurement: 2024.01 MPW VCSEL Driver (6 ~ 7月)