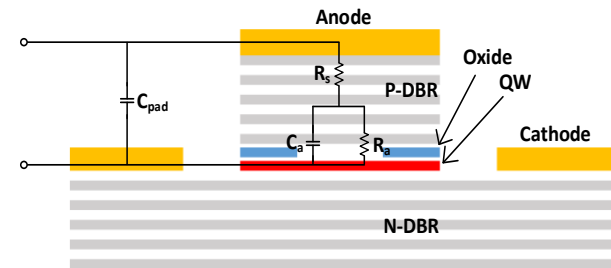
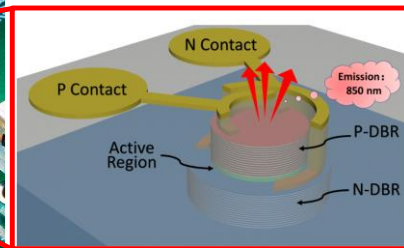
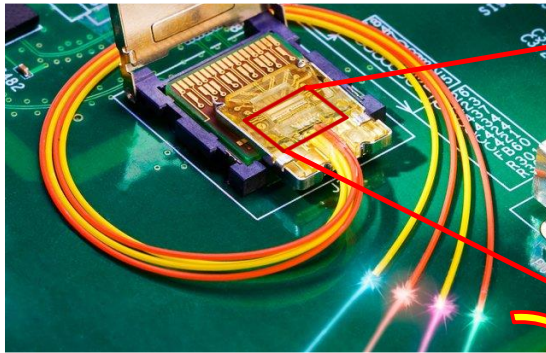


2022-1,2 Works

850-nm VCSEL



Vertical-Cavity Surface-Emitting Laser (VCSEL) based Optical transmitter
→ 850-nm VCSEL + Electronic Circuits



- Cost effective



- Low system size



- Low power consumption



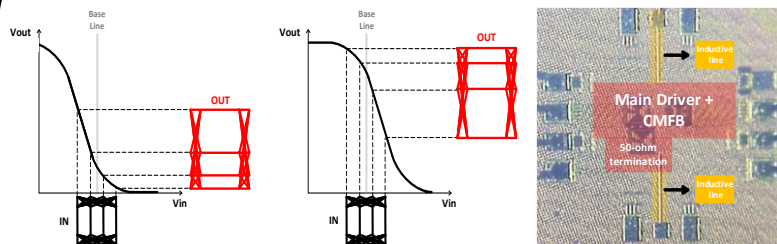
- Non-linear properties



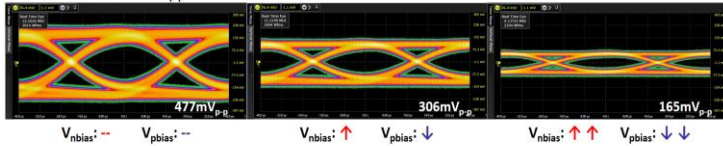
- Process and Temperature dependency

2022-1,2 Works

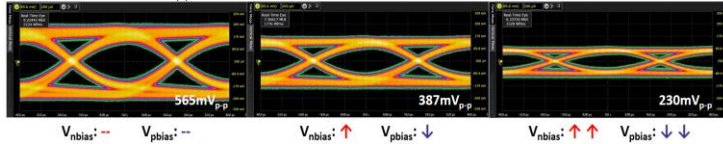
PAM-4 RLM controllable low power driver



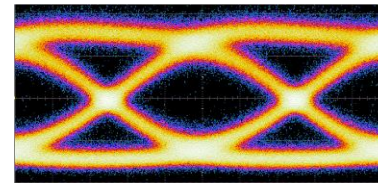
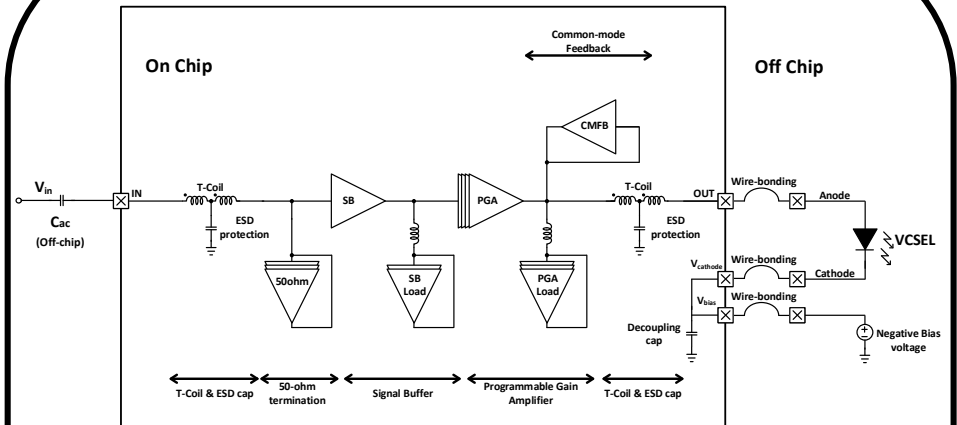
LSB input source: 500mV_{p-p} PRBS15, 25Gbps



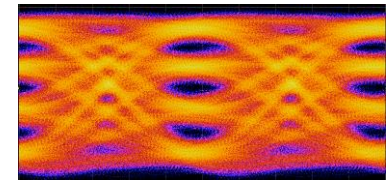
MSB input source: 650mV_{p-p} PRBS15, 25Gbps



850-nm VCSEL based low power optical transmitter



NRZ 25 Gb/s
(PRBS31)



PAM-4 40 Gb/s
(PRBS7)