

2023-2 Biannual Workshop

Minhyeok Seong

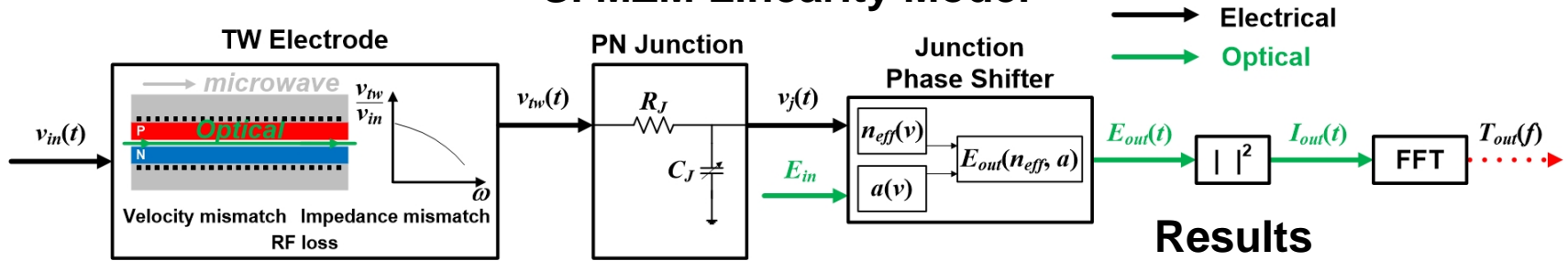
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**High-Speed Circuits & Systems Lab.
Dept. of Electrical and Electronic Engineering
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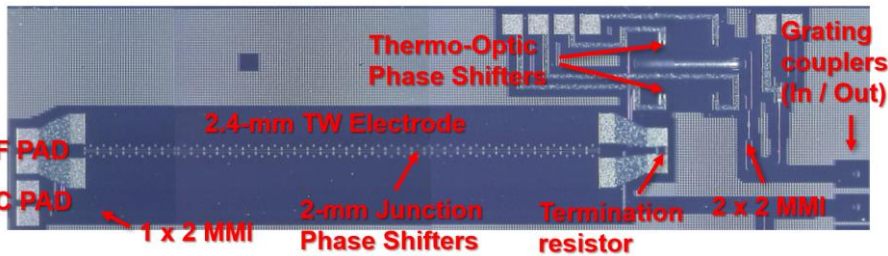
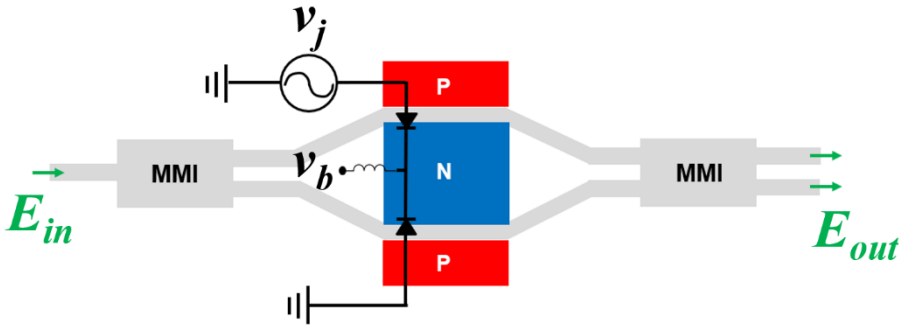
2023-2 semester

➤ Si MZM linearity characterization

Si MZM Linearity Model

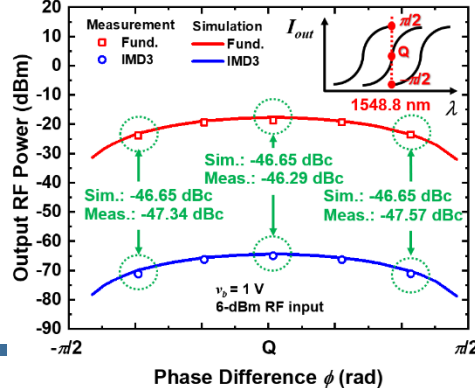
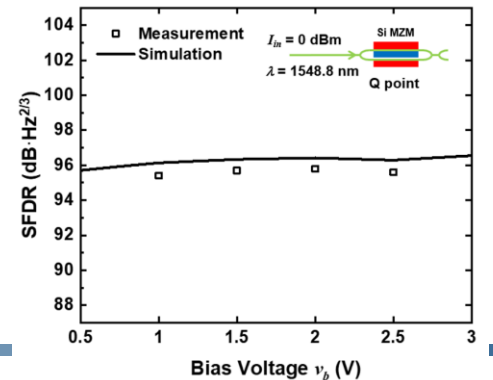
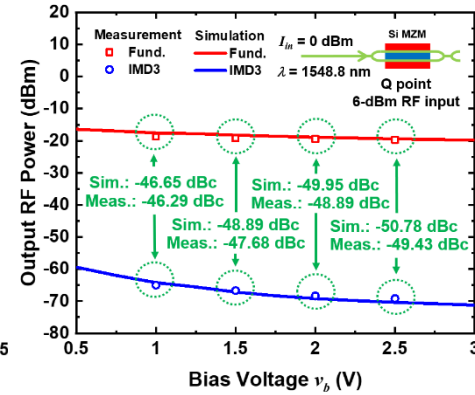
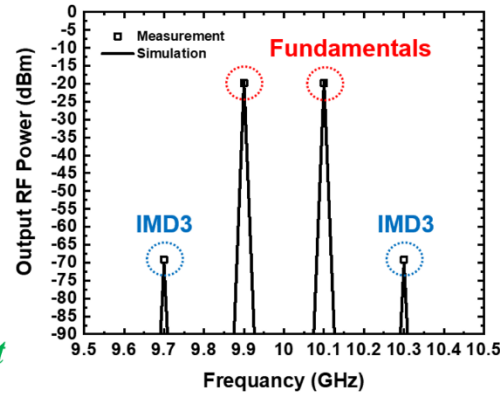


A Sample Si MZM



Seong et al., IEEE JLT, 2023

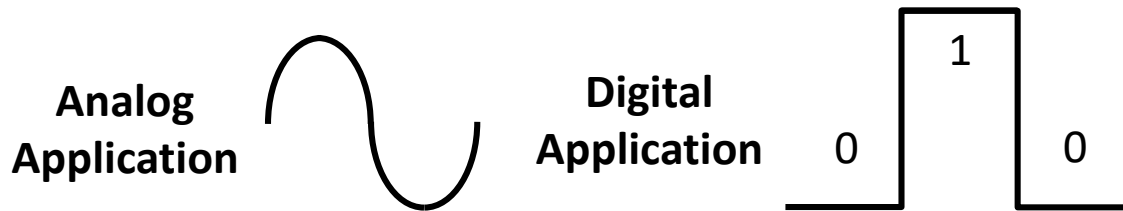
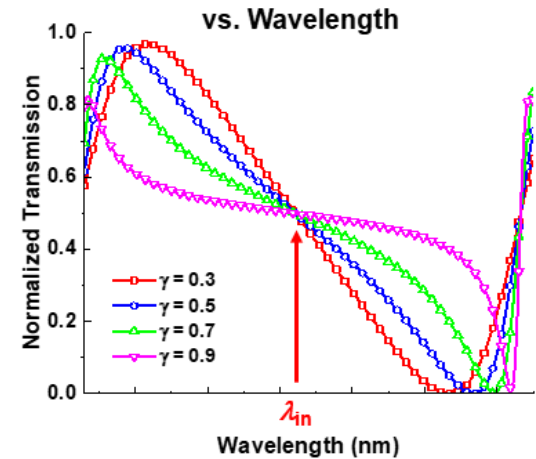
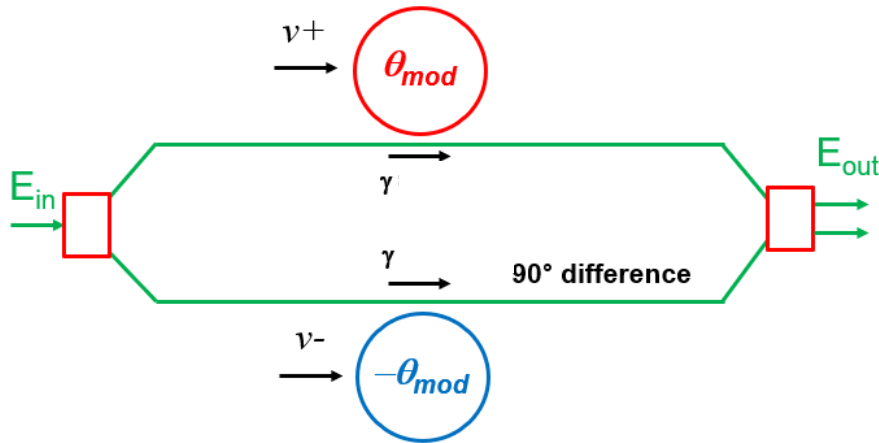
Results



2024-1 semester

➤ Ring-assisted Mach-Zehnder Modulators (RAMZM)

① Simulation and PIC Design for RAMZM (~ April/May 2024)



- ✓ Analog application
- ✓ Digital application
- ✓ Structure Optimization
 - Radius (α)
 - Coupling gap (γ)

② Measurement (~ 2024-2 semester)

- ✓ S parameter (Electrical part)
- ✓ Linearity and NRZ signal Measurement