Coherent Optical Transmitter based on Si RM
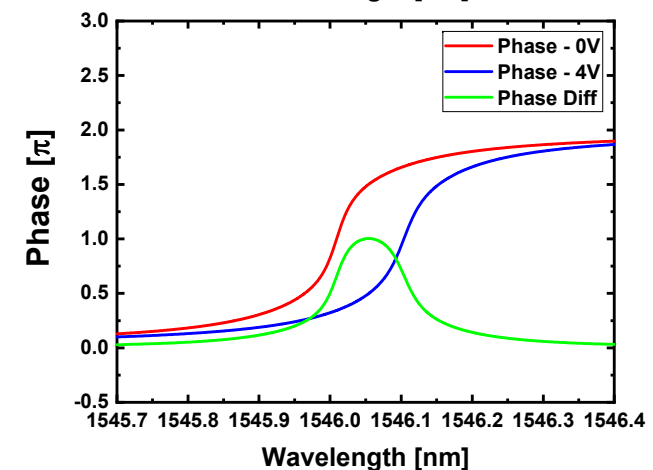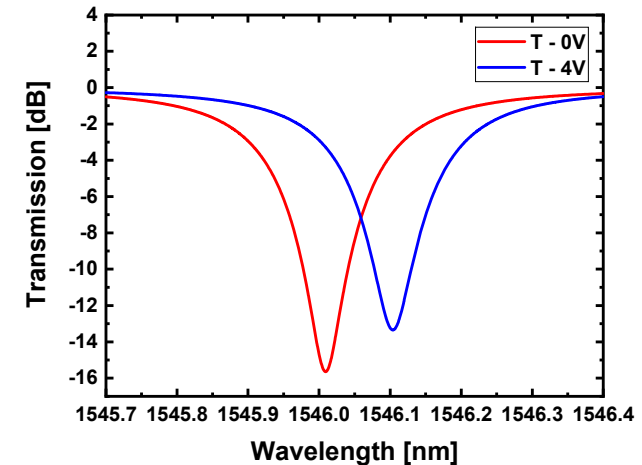
- Block diagram of QPSK transmitter

- Si ring modulator (RM)
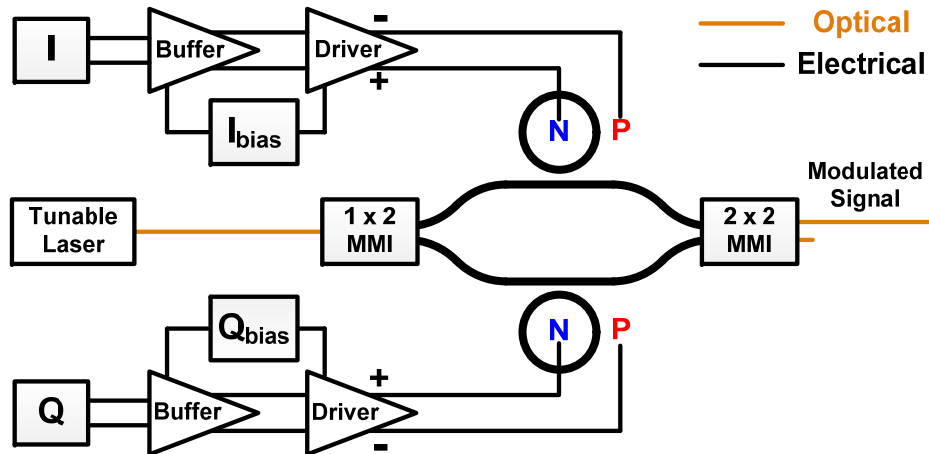
- Things to do:
  - Combined simulation environment for Photonics and Electronics
  - Si ring BPSK modulator optimization
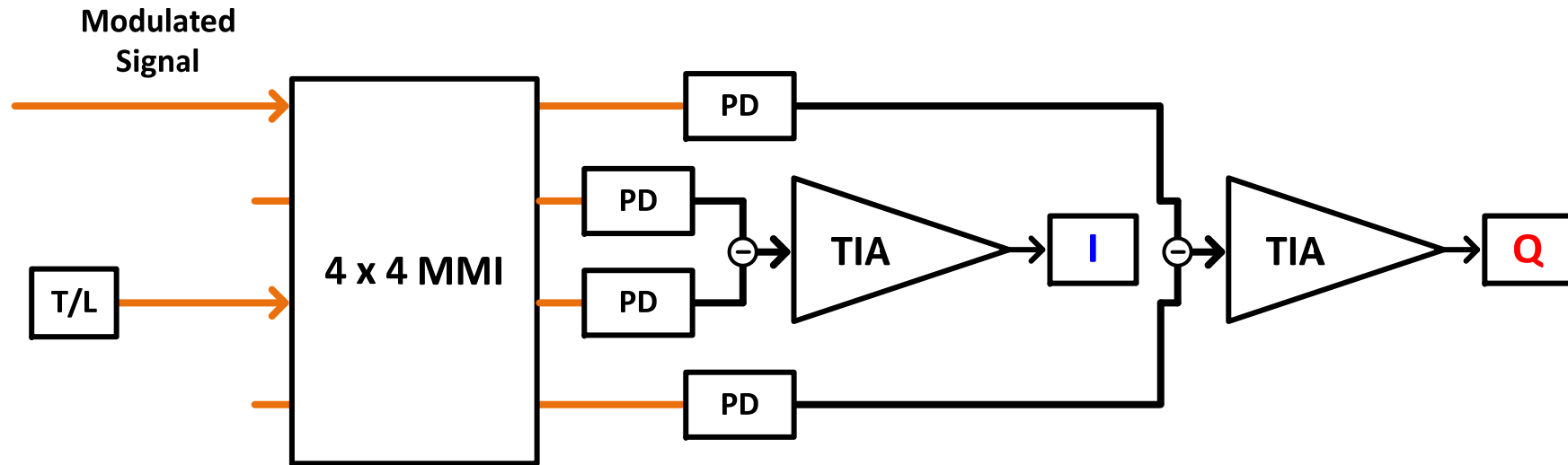 - Si ring driver circuit optimization

Optimization: Insertion loss, Vπ

Coherent Optical Receiver

🔵 Block diagram of coherent optical receiver

🔵 Things to do:
- 4 x 4 multi-mode interferometer (MMI) optimization
- Trans-impedance amplifier (TIA) for I, Q channel design
- DSP process after oscilloscope