Surface-Normal Optically-Controlled Waveguide Switches

- Developing optically-controlled waveguide switches for use in future optical networks.
- Targeted applications include wavelength conversion and signal routing.
- Demonstrated 2.5 GHz switching using GaAs-based devices.
- Future goal is demonstration of 10 GHz C-band wavelength conversion using InP-based devices.

Single p-i-n diode:

Both photodetector and modulator

- CW Signal @~868nm
- Control @~822nm
- Modulated Signal @~868nm

p-AlGaAs (upper cladding)
i-AlGaAs (core)
n-AlGaAs (lower cladding)