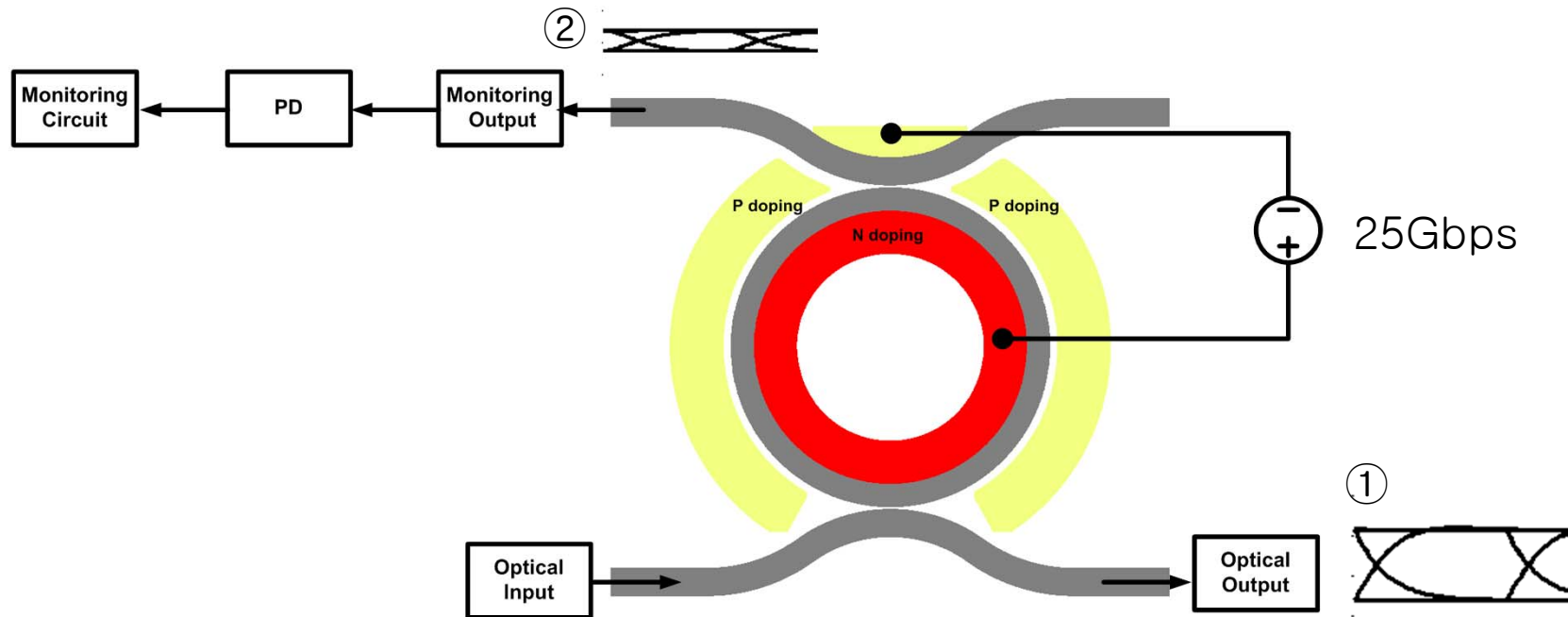


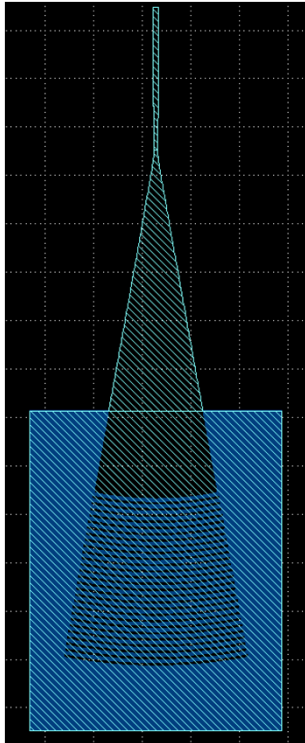
Add-Drop Ring Optimization



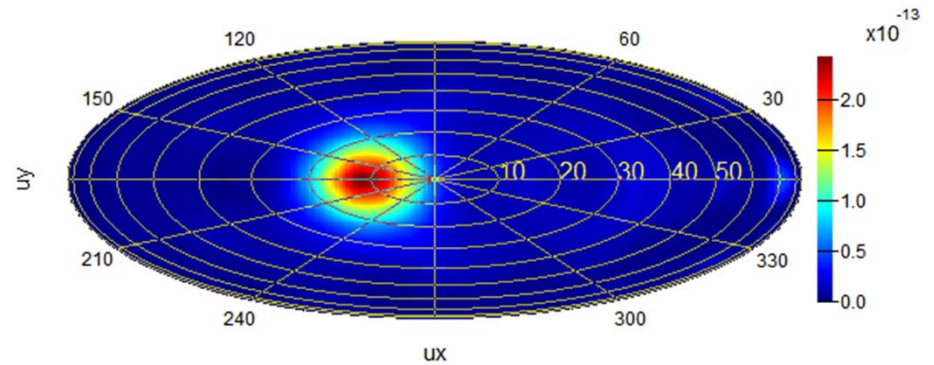
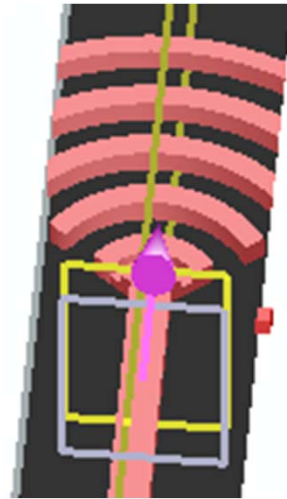
● Spec of add-drop ring modulator(ADMRM)

- ① Optical modulation amplitude(OMA)
 - High Q
 - Sufficient Bandwidth
- ② Detectable monitoring power
 - Need at least **80μW** of amplitude in monitoring signal ($P_{in} = 1\text{mW} \rightarrow 0.08P_{in}$ for monitoring eye)

Grating Coupler



Device structure



Lumerical FDTD simulation

- Low loss grating for fabrication
- Large bandwidth
- Small footprint for phased array