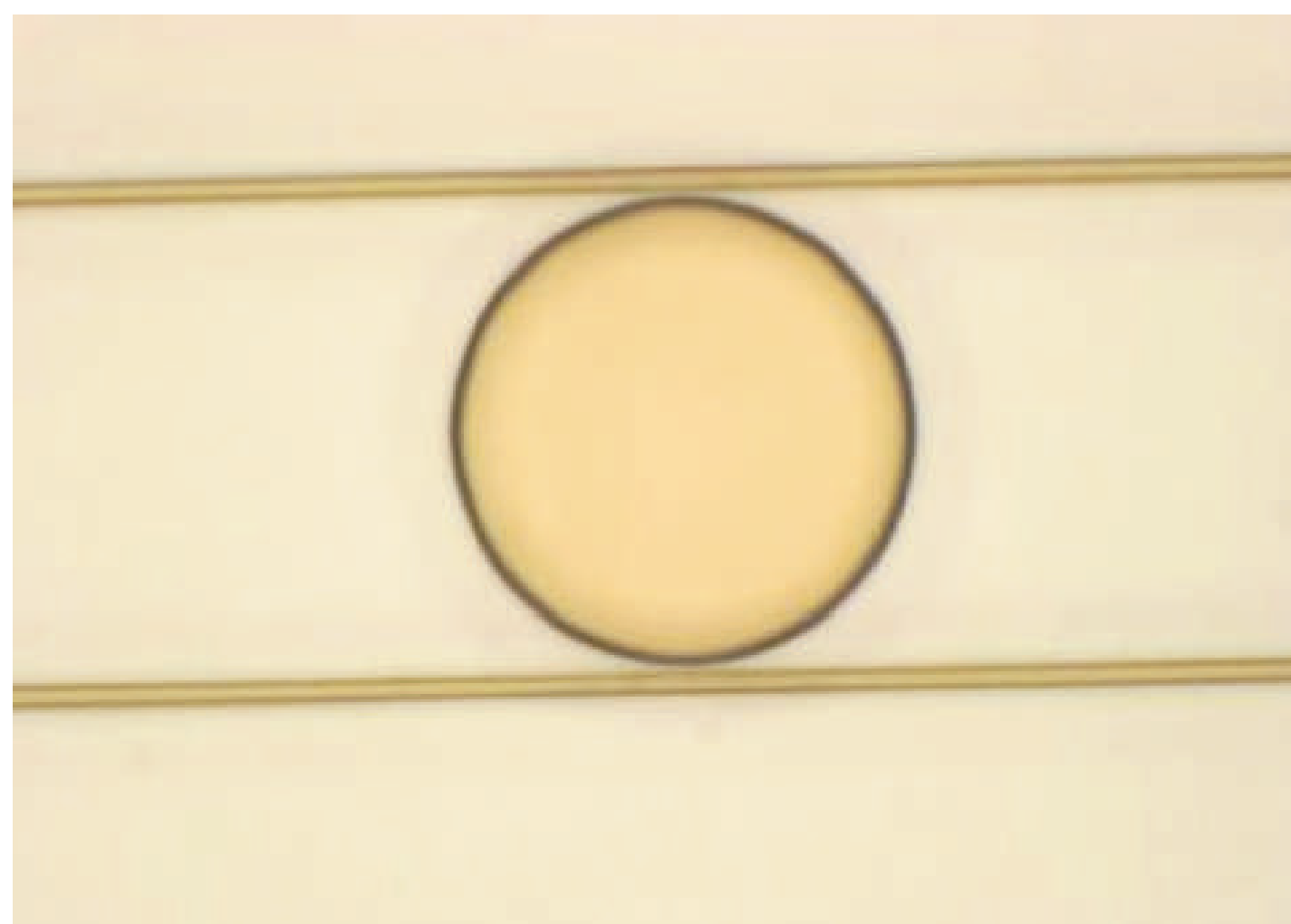
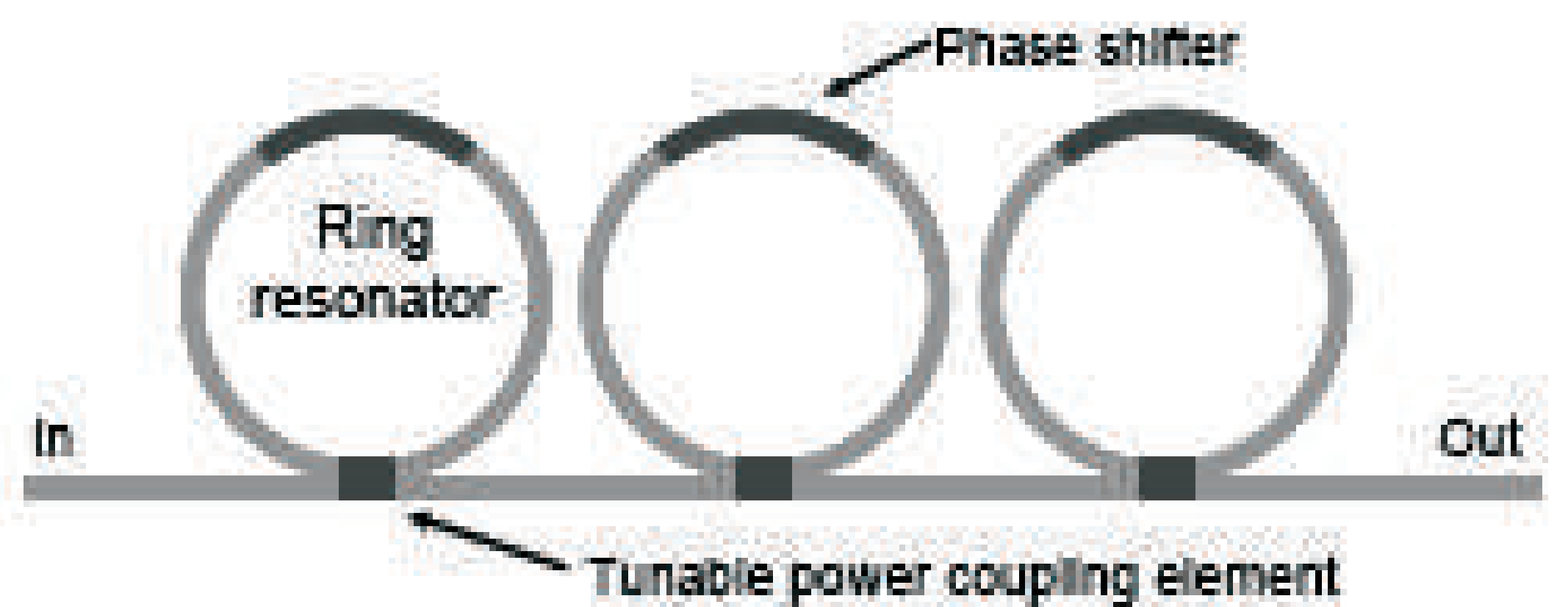


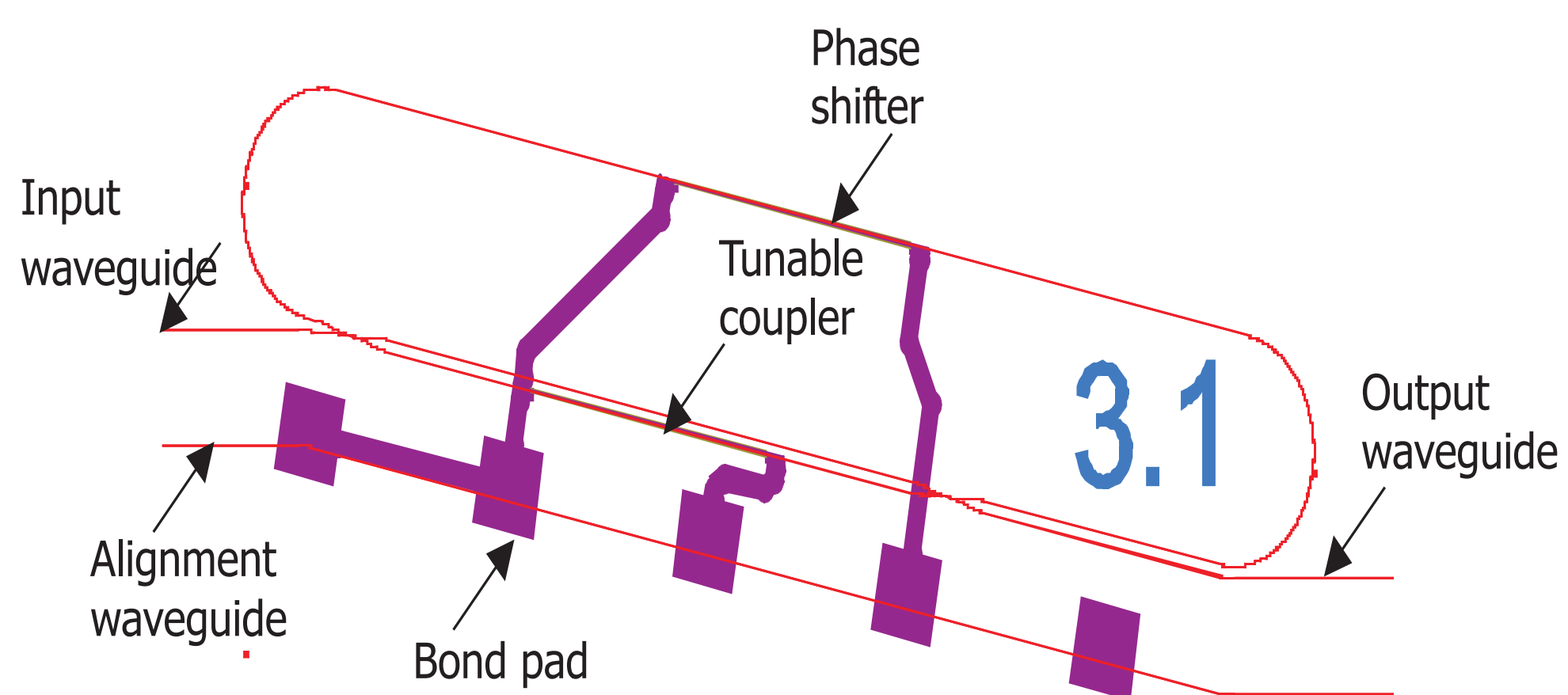
## Ring-resonator based True-Time-Delays



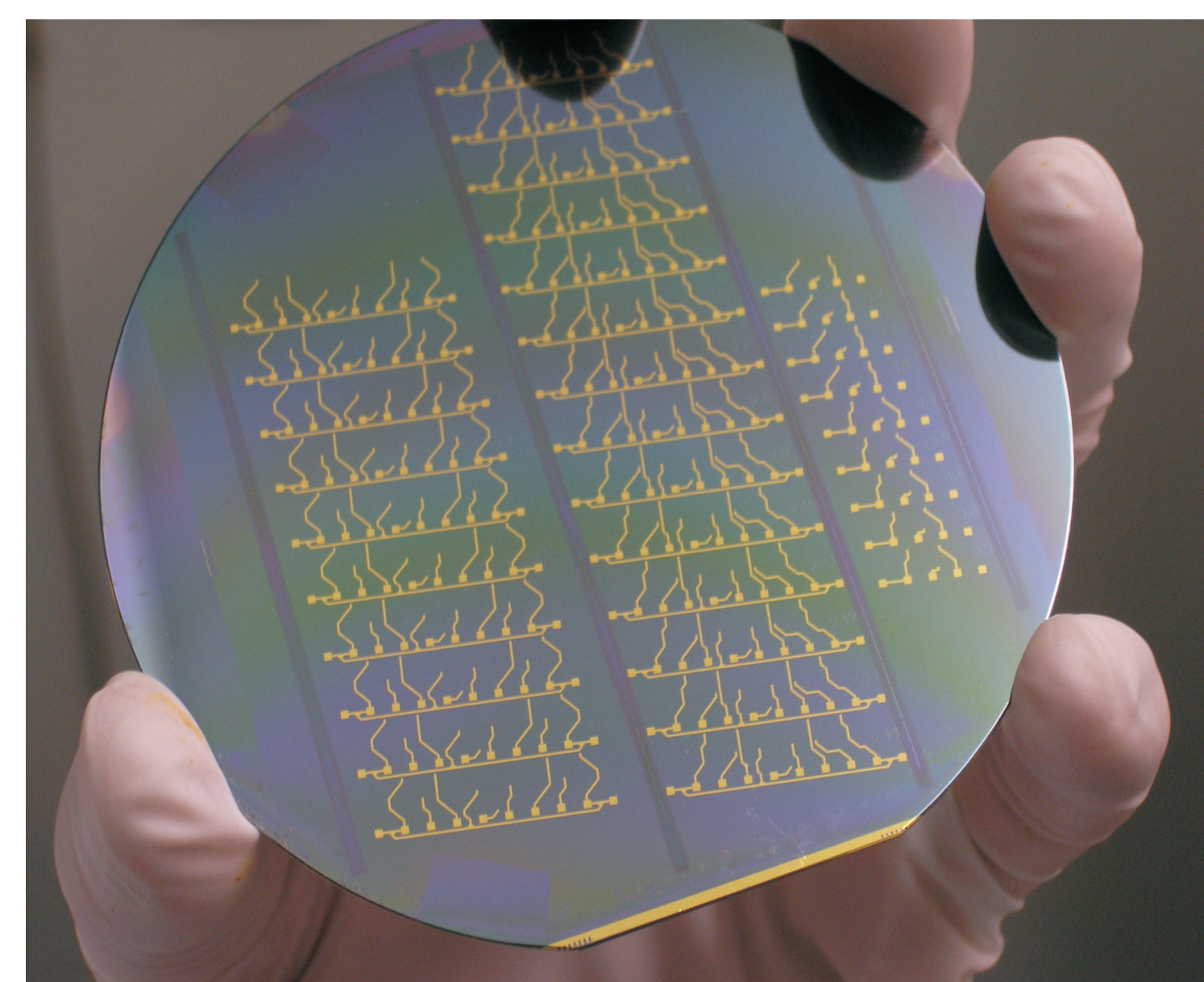
Laterally coupled ring resonator with diameter of 50 micron



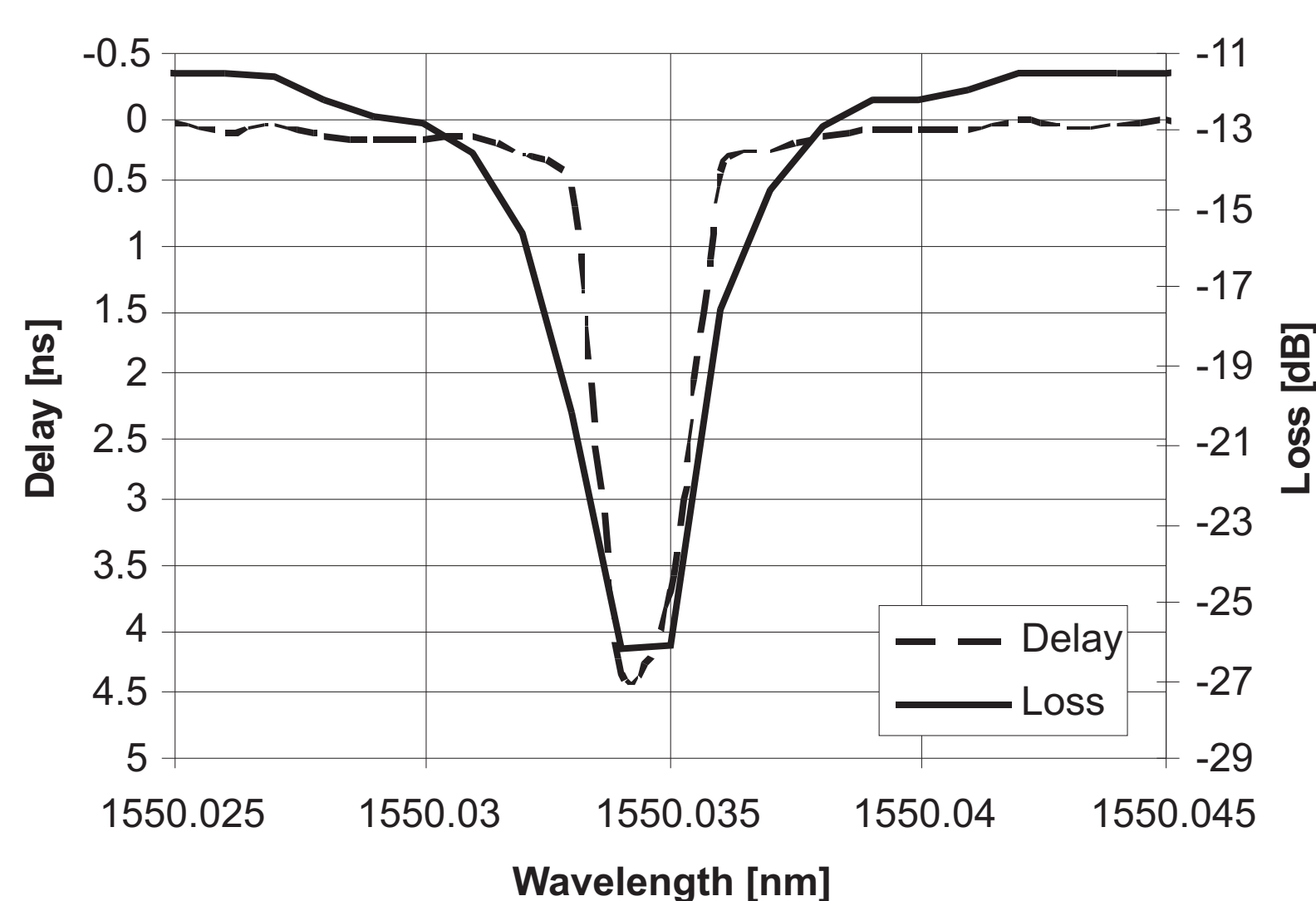
Schematic layout of the 3-stage ring resonator filter



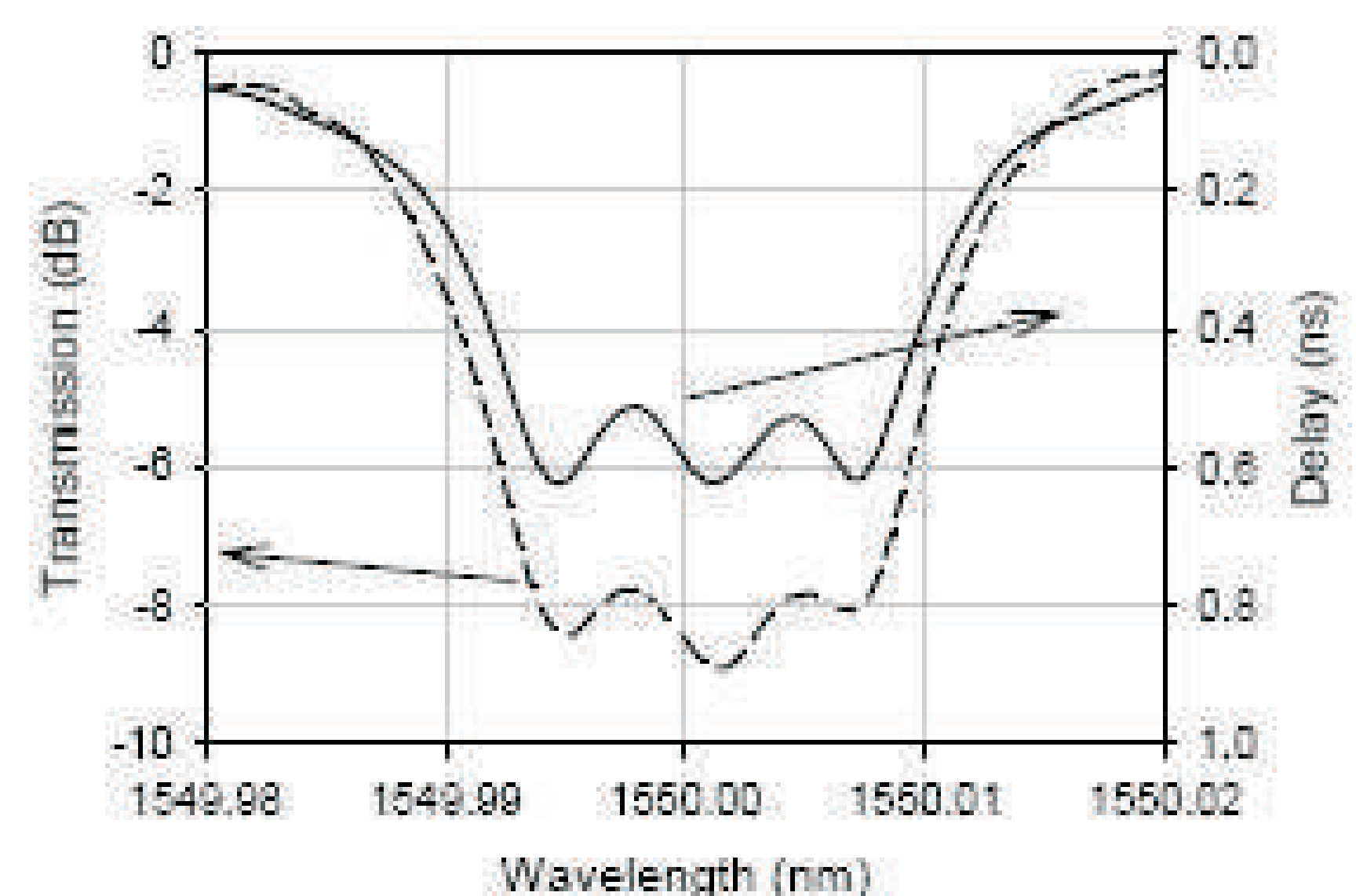
Design of single 2 cm Ring Resonators with heater element



Photograph of a wafer with TTD devices. The bond pads and leads are clearly visible



Measured intensity and phase tuned to maximum delay of a single Ring Resonator (4.3 ns ~ 1.3 m)



Measured power (dashed line) and delay (solid line) spectrum of a 3-stage Ring Resonator filter