

Design and Simulation of Polymer Based 1x4 Multimode Interference Splitter

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Abstract. This paper presents design, simulation, and optimization of 1x4 multimode interference (MMI) splitter based on polymer waveguide structure. The splitter was designed as a planar structure for an operating wavelength 1.55 μm . The waveguide core size was set to $2 \times 2 \mu\text{m}^2$. The splitter was designed in two software tools: Optiwave and RSoft. The obtained simulation results are discussed and compared. The objective of this paper is to create study for design of MMI splitter in 3D arrangement, which will be fabricated by 3D lithography.