

## Bending Effect on POF Splitter Performance for Different Thickness of Fiber Cores

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**Abstract :** Experimental study has been done to study the performance on polymer optical fiber splitter characterization when different bending radii are applied on splitters with different fiber cores. The splitters with different cores pair are attached successively to splitter platform of ellipse-shape geometrical blocks of several bending radii. A force is exerted upon the blocks thus the splitter in order to encourage the splitting of energy between the two fibers. The aim of this study is to investigate which fiber core pair gives the optimum performance that goes with each bending radius in order to develop an effective splitter.

**Keywords :** splitter, macro-bending, cores, geometrical blocks

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