Sliding prism switch using planar microlens array

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Abstrak

With the growth of optical communications using Low toss optical. fibers. the need for an optical switching system that exchanges optical. signals without any optoelectric and electro optic converter may arise. In this study, an experimental model of sliding prism switch using planar micro lens array has been constructed. The performance of the constructed switching device was studied by measuring insertion Loss. coupling efficiency and cross talk. The experiment shows that the measured results of insertion losses that is 6 and 7 dB are greater than the theoretically calculation that is 1.3 dB. The modulated signal has been measured as we t t ; the shape of the signal does not change after passing through the switch and on the other hand the amplitude of the output signal. is tower than the input signal due to the transmission Loss. I t is concluded that the experimental model of sliding prism demonstrate the potential application of planar micro lens in optical switch device.