

# **Light Loss in Single Mode Fiber Optical Switches**

Jonathan S. Grimsley

Project report submitted to the Faculty of the  
Virginia Polytechnic Institute and State University  
in partial fulfillment of the requirements for the degree of

Master of Physics

Guy Indebetouw, Chair  
Alfred Ritter  
Randy Heflin

May 16, 1999  
Blacksburg, Virginia

## **ABSTRACT**

Light loss in single mode fiber optical switches is investigated. Loss due to reflection, aberration and fiber misalignment are evaluated. A simple model of image to fiber end face overlap for the fiber/lens system is developed. The intensity distribution of light in the fiber and imaging system is assumed to be gaussian. It was found that aberration is a major cause of loss and that fiber misalignment did not cause as much loss as expected. Loss due to reflection is assumed to be minimal due to the presence of anti-reflection coatings on the optical components.

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