

## Design of Bidirectional Wavelength Division Multiplexing Passive Optical Network in Optisystem Environment

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**Abstract :** Now a days the demand for broadband service has increased. Due to which the researchers are trying to find a solution to provide a large amount of service. There is a shortage of bandwidth because of the use of downloading video, voice and data. One of the solutions to overcome this shortage of bandwidth is to provide the communication system with passive optical components. We have increased the data rate in this system. From experimental results we have concluded that the quality factor has increased by adding passive optical networks.

**Keywords :** WDM-PON, optical fiber, BER, Q-factor, eye diagram

**Conference Title :** ICCCISE 2015 : International Conference on Computer, Communication and Information Sciences, and Engineering

**Conference Location :** Jeddah, Saudi Arabia

**Conference Dates :** January 26-27, 2015