

## OPTICAL LOCAL AREA NETWORK SYSTEM DESIGN AND PERFORMANCE

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High-speed transmission is essential in telecommunication systems and increases according to the needs of users for various applications such as live broadcasting, video on the Internet, videoconferencing, etc. In this paper, we describe our optical communication network. Moreover, we have shown the influence of several parameters on the transmission quality of Optical Local Area Network (Optical LAN). This study allowed us to optimize the parameters of the networks, which give it possible to save the cost of installation and to add more services on the same network.

*Key words:*      *Optical network; Local Area Network; Optic Components; OptiSystem Software.*