

ANALYSIS OF THE BROADBAND NOISE AND ITS
REDUCTION IN THE POWER LINE SYSTEM ARCHITECTURE

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ABSTRACT

For data communication over any medium, it is necessary to determine the characteristics of the communication channel. Power line channel has been considered as a medium not only for low-rate, control purpose communication, but also for high-speed data communication, such as home networking and Internet access. In order to implement advanced communication technologies, the complete knowledge of the broadband power line channel is required. This paper presents the analysis of the broadband noise and its reduction in the power line system architecture. The goal of this research paper is to provide basic knowledge of the type of noise and its classification in the power line system architecture. The approach of broadband over power line will also be reviewed for further understanding of its application on the power line system. An approach on OFDM (orthogonal frequency division multiplexing) will be studied and the concept of this modulation technique will be applied on the design consideration for noise reduction of this project.

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