

The Analysis of a Transmission System Employing SONET-Like Frames

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Abstract

Frame synchronization systems that employ multiple-code markers have been shown to give better synchronization performance than systems that employ single-code markers. It has been shown, however, that only a few of the codewords in the marker need to be used in order to attain optimum synchronization performance. Among the multiple-code marker systems which have gained wide usage recently is the SONET scheme for information transmissions at high data rates. In this report, a model for the analysis of the synchronization performance of systems which employ SONET-like frames is developed. The model is then applied to the SONET scheme to study how its performance varies with the choice of the parameters in its frame structure.

Keywords

SONET;

Frame synchronization;

Multiple code markers;

Synchronization efficiency