Evaluating the performance of optical receivers

This application note provides an in-depth analysis of the complete receiver optical sensitivity and the potential power penalties related to the accumulation of random noise and inter-symbol interference ...

The following section demonstrates how to accurately estimate the receiver optical sensitivity with practical device implementations, when overall receiver random noise, ISI, and CDR jitter tolerance ...

In our concluding chapter we will combine our photodetector and receiver-noise modeling techniques with front-end and demodulator designs to construct complete receiver structures. Our goal is to ...

Receiver performance is defined as the effectiveness of user equipment (UE) receivers in enhancing link efficiency, user experience, and capacity, which can be improved through advanced equalization ...

The bandwidth of a photodetector is determined by the speed with which it responds to variations in the incident optical power. The chapter focuses on reverse-biased p-n junctions that are used for ...

The performance of digital and analogue direct-detection optical receivers with space diversity reception is analysed. The cumulative probability distribution of the ...

ABSTRACT: The performance of an optical receiver in a digital optical communication link is studied. In the design of an optical receiver, it is vital that the module is capable of converting and shaping the ...

Optical receivers are essential components in fiber-optic communication systems. Proper testing and characterization ensure they perform reliably and meet specifications. This article ...

When designing a good optical receiver, it is critical to understand the different parameters that will impair overall receiver sensitivity.

This article provides an in- depth analysis of complete receiver optical sensitivity and the potential power penalties related to the accumulation of random noise and intersymbol interference (ISI) in both ...

The performance of digital and analogue direct-detection optical receivers with space diversity reception is analysed. The cumulative probability distribution of the received signal is calculated for M-branch ...

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