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Optical communication 5g base station acceleration

Overview

Can a bidirectional optical wireless communication system improve 5G communication?

Lu et al. demonstrated a bidirectional optical wireless communication system for 5G communications using wavelength-division multiplexing and cascaded reflective semiconductor optical amplifiers. The system achieves an aggregate rate of 36.4 Gb/s over a 100-m optical wireless link, enhancing 5G communication capabilities.

Are optical networks optimized for 5G?

To address the new requirements on optical networks imposed by the upcoming fifth-generation wireless (5G), such as high bandwidth, low latency, accurate synchronization, high reliability, and flexible application-specific network slicing, a new generation of optical networks that are optimized for 5G is in great demand.

What are enabling technologies for 5G-oriented optical networks?

In this chapter we will present and discuss enabling technologies for such 5G-oriented optical networks. We will first describe 5G wireless trends and technologies such as cloud radio access networks, massive multiple-input and multiple-output (MIMO), and coordinated multiple-point (CoMP).

What is a 5G FSO communication system?

A distinctive feature of a 5G FSO system is its direct correlation with 5G networks. Therefore, in practical applications, the development of a 5G FSO communication system is essential, as opposed to a FSO communication system that lacks direct connectivity to 5G communications.

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