Budowa Silesia Photonics

Optical module rate of the main control board used in 4G sites

Overview

Data rate determines the transmission capacity of optical modules: 100 Mbps: Suitable for legacy systems. 1 Gbps (Gigabit): Common in standard enterprise networks. 25/40/100 Gbps: For high-throughput. Which optical modules are commonly used in 4G base stations?

In this blog, ETU-LINK will talk about 4G base stations and common types of optical modules. According to one BBU towing three pairs of antennas and three pairs of RRUs, the total area of the antenna system PCB is about 0. Designing and producing these complex PCBs presents formidable challenges, requiring a convergence of disciplines—from high-frequency signal integrity and advanced thermal. A Remote Radio Head (RRH) is a remote radio transceiver that connects to a radio base station unit through an electrical or wireless interface. The RRH is termed “Remote” as it is usually installed on a mast-top, or tower-top location that is physically some distance away from the base station. Today's advanced 4G LTE and 5G mobile communications networks rely on large quantities of optical fibre cable to provide connectivity between radio access networks and core networks, between core network sites and for interconnects with other operators, the public internet, private networks and. This chapter fully describes the digital modulation process used in 4G, including OFDMA (Orthogonal Frequency Division Multiple Access) and SC-FDMA (Single-Carrier Frequency Division Multiple Access), and related concepts such as Baud Rate, Symbol Rate, Sampling Time (TS), RB (Resource Block), RE.

Article Content

MoP guidelines for I& M of 4G and 5G cell sites

Calculating the optical budget allows the measured insertion to be compared to the expected (calculated) optical insertion loss to determine any anomalies with the link installation.

Remote Radio Head, RRH for 4G & 5G

The RRH is connected to the Base band unit (BBU) via fibre optical cable which uses CPRI format signals. Optical cable is used because it has less loss and it is cheaper as compared to RF Coaxial ...

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4G and 5G base station structure and 5G PCB usage

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