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5g base station number communication





Overview

What is a 5G base station?

It plays a central role in enabling wireless communication between user devices (such as smartphones, IoT devices, etc.) and the core network. The base station in a 5G network is designed to provide high data rates, low latency, massive device connectivity, and improved energy efficiency compared to its predecessors.

How 5G mobile communication technology is affecting the network capacity?

With the rapid development of 5G mobile communication technology, the number of 5G users has significantly increased, leading to a corresponding expansion in network capacity. To meet the growing user demand, researchers have begun to focus on improving the throughput of base stations (e.g. Refs. [2, 3]).

How can a 5G base station be optimized?

This article proposes an optimization approach for the deployment of 5G base stations. Initially, a continuous wave (CW) test is conducted in the planned area to acquire drive test data. These data, along with the least squares method, are utilized to calibrate the signal propagation model.

How many 5G base stations are there in general urban areas?

It is known that there are 20 3/4G shared base stations in this area. According to Section 5, the number of base stations in general urban areas ranges from 20 to 36. Therefore, in the simulation experiment, the optimal results of the base station layout are shown in Table 10. Table 10. Layout results of 5G base station in general urban areas.



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What Is 5G Base Station?

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