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Base station communication distance calculation

Overview

What is the distance between a base station and a mobile station?

The distance between the base station and the mobile station must be from 1 to 20 km. The Walfisch-Ikegami radio propagation model works best in urban environments with buildings in the vertical plane between the transmitter and the receiver. This propagation model is most efficient when the antenna is above the roof height.

How many MHz should a base station have?

The carrier frequency for this model must be from 1500 to 2000 MHz. The base station antenna height must be from 30 to 200 meters. The distance between the base station and the mobile station must be from 1 to 20 km.

How many MHz is a base station antenna?

The carrier frequency for this model must be from 800 to 2000 MHz The base station antenna height must be from 4 to 30 meters. The distance between the base station and the mobile station must be from 0.02 to 5 km. The coverage plan is dependent on geographical and environmental factors.

How high should a base station antenna be?

The base station antenna height must be from 30 to 200 meters. The distance between the base station and the mobile station must be from 1 to 20 km. COST231 is a radio propagation model that extends the Hata model to cover more complex frequencies. It is mostly suited for urban areas.

What are the constraints of a base station?

(2) Constraints: Euclidean distance between base stations, whether the base station covers the test point, whether the coverage reaches the standard, etc. (3) Output: the specific planning point of the base station, the simulation diagram of the base station coverage test point.

How to choose a base station?

The selection of base stations should comprehensively consider various indicators, such as sharing rate, planning accuracy rate, and planning depth. This is a multi-objective planning problem.

Base station communication distance calculation

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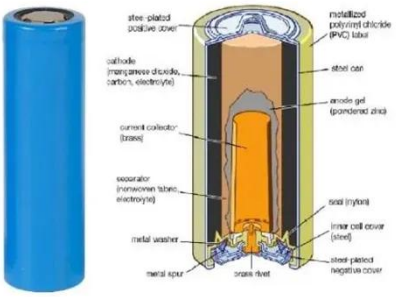

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