

# **Deploy base stations on power towers**





## Overview

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How to deploy a base station in a complex network environment?

Previous research has extensively explored strategies for base station deployment using intelligent optimization algorithms. These studies employed advanced algorithms such as the sparrow algorithm, artificial immune system algorithm, and genetic algorithm, aiming to find optimal base station layouts in complex network environments.

What are base stations & cell towers?

These structures facilitate the transmission and reception of signals between mobile devices and the wider network, enabling voice calls, text messages, and data services. Understanding the role and technology behind base stations and cell towers is key to appreciating how mobile networks operate and evolve to meet growing demands. Base Stations.

How to obtain base station deployment parameters that better reflect real-world conditions?

To obtain base station deployment parameters that better reflect real-world conditions, this section introduces a series of constraints, mainly including the candidate locations for base stations, the height of ground base stations, the height of rooftop base stations, and the distance between base stations. 3.2.1.

How does a base station deployment method optimize the base station layout?

The base station deployment method proposed in this study dynamically optimizes the base station layout based on annual environmental change characteristics.



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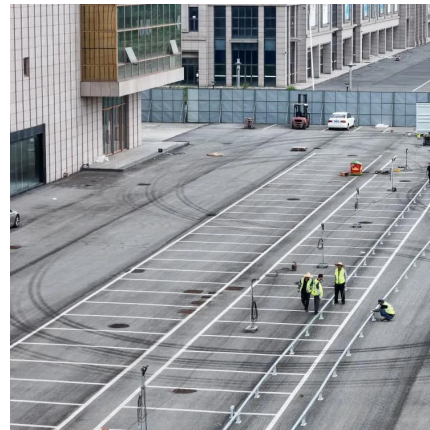


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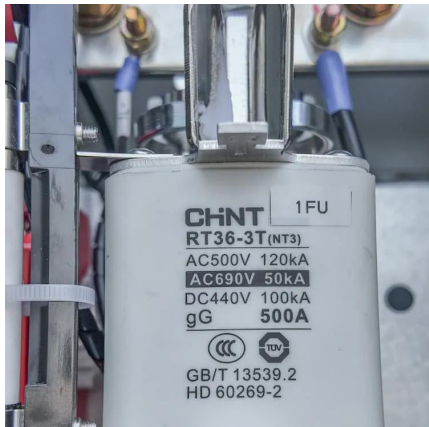
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