

Interference of base stations on communication equipment





Overview

In the wireless communication system of large venues, the signal conflict of multiple base stations will seriously affect the communication quality, and the problem of signal conflict of multiple base stations can be solved from multiple dimensions, such as frequency planning, base station layout and parameter adjustment, application of technical means, optimization management and monitoring. How to reduce interference between 5G base stations and FSS earth stations?

To reduce the interference between 5G base stations (BSs) and FSS earth station (ES), a guard band protection method is proposed. Additionally, the distance and angular protection methods are amalgamated. The performances are evaluated by simulation in realistic 3GPP. Also, the impacts of four antenna types are analysed for a 5G BS.

What is interference-to-noise ratio (i/n)?

An interference-to-noise ratio (I/N) is considered the interference evaluation benchmark. For long-term interference criterion, I/N corresponds to -20 dB as the aggregate interference from all other sources of interference. 2.3. Guard band protection: Adjacent channel interference.

Does guard band protection reduce neighbouring channel interference?

This study's contributions are as follows. (1) In order to reduce neighbouring channel interference, guard band protection is developed (10, 50 and 90 MHz). (2) The effectiveness is compared with a combination of angular protection and distance protection for the 10 MHz guard band.

Can guard band protection solve the interference for 5g/fss coexistence?

The numerical results show that the guard band protection can solve the interference for the 5G/FSS coexistence, when the distance protection is combined. In addition, when the hybrid protection method is employed, the coexistence between 5G BS and FSS ES is guaranteed.

1. Introduction



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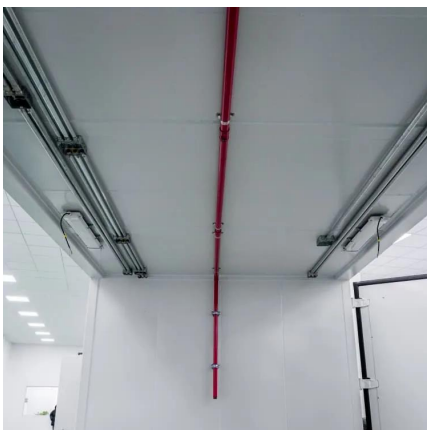
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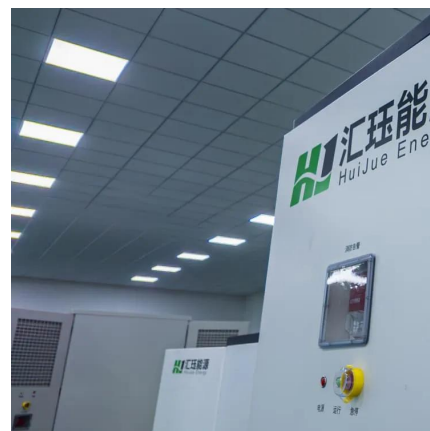


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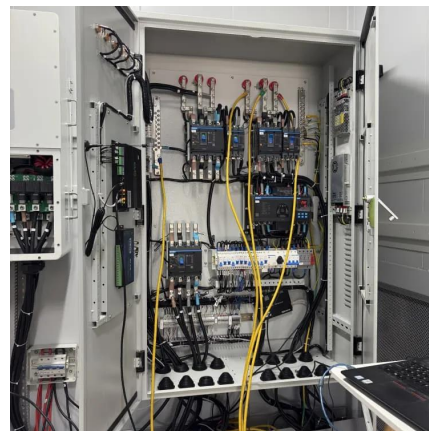


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