

Communication module obtains base station time





Overview

What is a macro base station?

In addition to upgrading the macro base stations (often called macro cell sites) providing basic LTE coverage for the first wave of LTE-capable devices, more widespread adoption of LTE by mobile users requires a completely new base station technology called small cells.

Should macro base stations be decommissioned?

While macro base stations previously could receive accurate frequency synchronization from legacy E1/T1 TDM connections and Time of Day (ToD) through GPS/GNSS satellite receivers, E1/T1 connections are decommissioned everywhere to reduce recurring access operating costs.

Why is timing synchronization important in radio access networks?

After cell location and connectivity, delivery of precise timing is the most important element in radio access networks, as timing synchronization directly affects radio spectral efficiency and in turn throughput.

Which network elements can support both BC and TC?

The optimal solution may be a combination of BCs located at network interconnection points and TCs in the subsequent tributaries and rings. Generally, most network elements will be able to support both BC and TC, in particular if they could also serve as a time slave.



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Time synchronization in the laboratory(Synchronized by one rubidium oscillator signal because distance between the base station and the ...

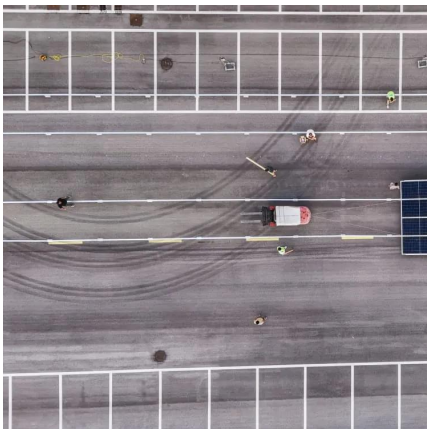
Timing & Synchronization technology adopted base station ...

Overseas, the Furuno GPS timing module is known for its high reliability, and has been adopted by many major base station manufacturers. Furuno develops GPS timing technology for the ...



[Precise Timing for Base Stations in the Evolution to LTE](#)

Aug 23, 2019 · In addition to upgrading the macro base stations (often called macro cell sites) providing basic LTE coverage for the first wave of LTE-capable devices, more widespread ...



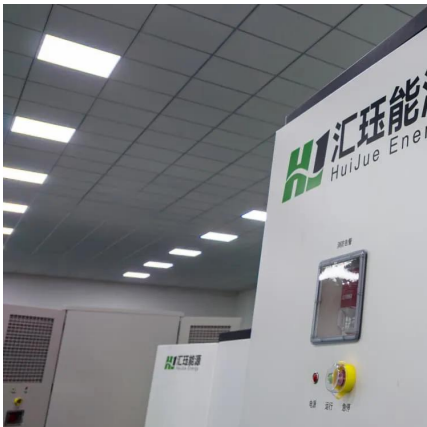
[Research and Implementation on Time Synchronisation ...](#)

Oct 25, 2024 · In comparison to synchronous Ethernet and network clock protocols, 1588v2 offers sub-microsecond time synchronisation that fulfils the precision and accuracy requirements of 5 ...



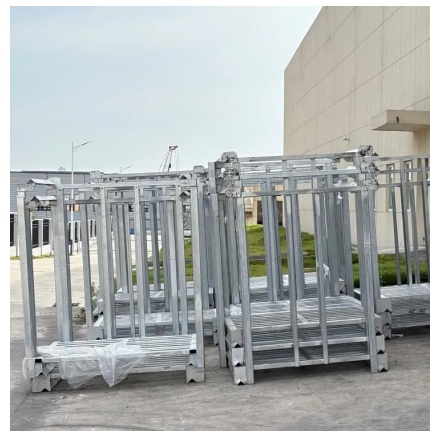
[Blockage Prediction and Fast Handover of Base Station...](#)

Aug 12, 2023 · Abstract--We propose a blockage prediction and fast base station (BS) handover (BP-FBSH) scheme based on the reference signal received power (RSRP) of the mobile ...



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Mar 30, 2022 · The system communicates with the CDMA base station through the high-precision data receiver chip, receives the time information of the CDMA base station, synchronizes the ...



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[Modular Communications Transceiver for 4G/5G](#)

...

Apr 1, 2023 · ABSTRACT This application report describes the methodology to construct modular 4G/5G distributed antenna systems (DAS) and base stations (BTS). It provides an example of ...

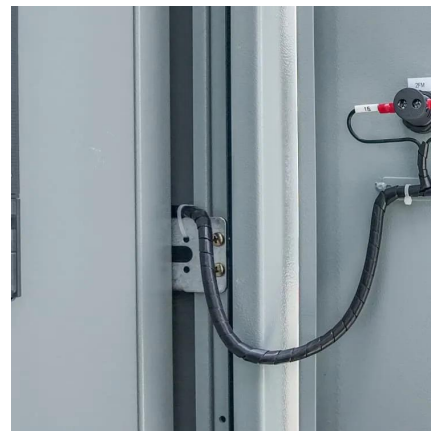


[Time Synchronization in Radio Communication Networks](#)

Jun 10, 2024 · The distance between the base station and the receiver is d_{mn} , which further can be expressed using the positions of the base station and the receiver, p . The sensors in the ...

[Communication module application in base station](#)

Nov 5, 2025 · A base transceiver station (BTS) or a baseband unit (BBU) is a piece of equipment that facilitates wireless communication between user equipment (UE) and a network.



[Fujikura develops high-sensitivity 60GHz millimeter-wave](#)

Feb 6, 2023 · Fujikura Ltd. (Director, President and CEO Okada Naoki) has developed a high-sensitivity 60 GHz millimeter-wave wireless communication module (hereinafter referred to as ...



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Time synchronization in the laboratory(Synchronized by one rubidium oscillator signal because distance between the base station and the terminal is short.) In remote outdoor locations, if ...



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