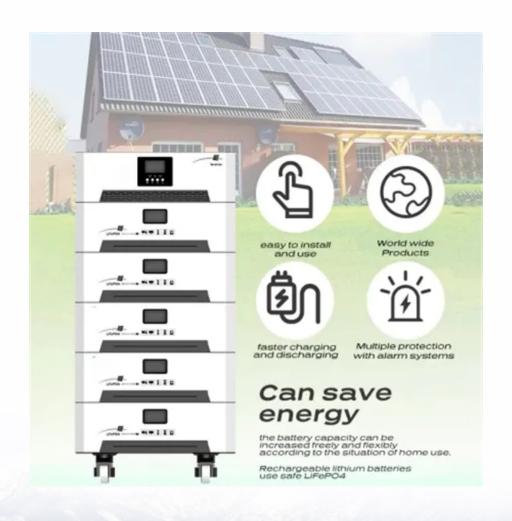


SolarInvert Energy Solutions

Distributed Communication Green Base Station Company



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Overview

What is a green base station solution?

The green base station solution involves base station system architecture, base station form, power saving technologies, and application of green technologies. Using SDR-based architecture and distributed base stations is a different approach to traditional multiband multimode network construction.

What should a base station do in a wireless communications network?

In a wireless communications network, the base station should maintain highquality coverage. It should also have the potential for upgrade or evolution. As network traffic increases, power consumption increases proportionally to the number of base stations. However, reducing the number of base stations may degrade network quality.

What is the equipment composition of a 5G communication base station?

Figure 1 illustrates the equipment composition of a typical 5G communication base station, which mainly consists of 2 aspects: a communication unit and a power supply unit.

Where are 5G communication base stations located?

Furthermore, 5G communication base stations with energy storage are located at nodes 6, 8, 15, and 31, each group containing 100 base stations, labeled as groups 1, 2, 3, and 4. The fundamental parameters of the base stations are listed in Table 1.

What is a soft base station?

The modular design of an SDR soft base station allows innovation on the base station's form. Two innovative forms are distributed base station and super baseband pool. In distributed base station, the Base Band Unit (BBU) is separated from the Remote Radio Unit (RRU), making network deployment more flexible.



What is SDR soft base station?

The SDR soft base station platform enables a telecom operator to combine networks of different modes and different bands into one network. It simplifies network structure and greatly decreases the number of Network Elements (NEs) and auxiliary facilities, thus reducing power consumption base station power consumption.



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Green Base Station Solutions and Technology

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Multiple input/output power system

AC LOAD

DC LOAD

Generation

Grid

Battery

DC Line

AC Line

Communication Line

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51.2V 150AH, 7.68KWH

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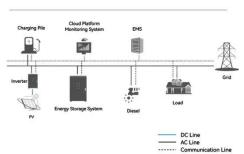
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System Topology



Green Communications, Engineering And Technology Journal





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communications with the focus on the power efficiency of wireless base station, renewable power source, and ...

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Jul 1, 2022 · Green communication is becoming an impacting quality feature in cellular communications nowadays. Several techniques discuss how to improve cellular network ...





Base Stations

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is incomplete without the base stations as these constitute an important part of the modern-day scheme of wireless ...

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The base station architecture evolution: (a) ...

The base station architecture evolution:
(a) Conventional macro base station, (b)
Conventional distributed RAN, and (c) CRAN architecture. BBU: baseband ...

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China Unicom Contributes to Green, Low-Carbon Development



Nov 24, 2021 · China United Network Communications Group Co., Ltd. (China Unicom) has been making efforts to promote green and low-carbon development based on technology and

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Self-Adaptive Scheduling of Base Transceiver Stations in ...

Energy expenditure and corresponding CO 2 emissions from base transceiver stations (BTSs) of 5G mobile networks have been increased given the increase in traffic volume.

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On the Spatial Distribution of Base Stations and Its ...

Nov 12, 2021 · ABSTRACT The spatial distribution of base stations (BSs) and traf c demands is essential for ef cient network planning and BS sleeping, which are key elements of green ...

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Resource management in cellular base stations powered by ...





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