

## SolarTech Power Solutions

# Why do 5G base stations need backup power supplies



## Overview

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What are the components of a 5G base station?

Baseband Unit (BBU): Handles baseband signal processing. Remote Radio Unit (RRU): Converts signals to radio frequencies for transmission. Active Antenna Unit (AAU): Integrates RRU and antenna for 5G-era efficiency. 2. Power Supply System This acts as the “blood supply” of the base station, ensuring uninterrupted power. It includes:.

What is a base station power supply?

This acts as the “blood supply” of the base station, ensuring uninterrupted power. It includes: AC distribution box: Distributes mains power and offers surge protection. Switch-mode power supply: Converts and stabilizes power while managing DC output. Battery banks: Serve as backup power to keep systems running during outages. 3.

What are the benefits of a base station?

Base stations, while small in structure, are equipped with everything necessary to operate independently. They ensure: Protection against environmental factors like wind, rain, and lightning. Uninterrupted power supply through robust systems and backup solutions. Efficient signal transmission to connect users to the broader network.

What is a 5G Brain Center?

Often referred to as the brain center, this includes: Baseband Unit (BBU): Handles baseband signal processing. Remote Radio Unit (RRU): Converts signals to radio frequencies for transmission. Active Antenna Unit (AAU): Integrates RRU and antenna for 5G-era efficiency. 2. Power Supply System.

What does a base station do?

The base station, positioned between users and data centers, is the first responder to user requests. It relays signals efficiently, ensuring users stay

connected. This image highlights the compact but comprehensive nature of base stations, showcasing their integration of protective enclosures, power systems, and antennas. 3.

What is a BBU in a base station?

The BBU is a key element of the base station's architecture. Unlike the large cabinet setups of the past, modern BBUs are compact and resemble distributed devices, similar in size to DVD players. Function: Processes baseband signals, which are low-frequency signals in their raw, unmodulated state.

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## Contact Us

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