

How to check the power supply capacity of base station





Overview

How do I choose a base station?

Key Factors: **Power Consumption:** Determine the base station's load (in watts). **Backup Duration:** Identify the required backup time (hours). **Battery Voltage:** Select the correct voltage based on system design. **Efficiency & Discharge Rate:** Consider battery efficiency and discharge characteristics.

How do you calculate battery capacity?

Formula: Capacity (Ah)=Power (W)×Backup Hours (h)/Battery Voltage (V)

Example: If a base station consumes 500W and needs 4 hours of backup at 48V, the required capacity is: $500W \times 4h / 48V = 41.67Ah$ Choosing a battery with a slightly higher capacity ensures reliability under real-world conditions.

How is the schedulable capacity of a standby battery determined?

In this article, the schedulable capacity of the battery at each time is determined according to the dynamic communication flow, and the scheduling strategy of the standby power considering the dynamic change of communication flow is proposed. In addition, the model of a base station standby battery responding grid scheduling is established.

How much power does a base station have?

Maximum base station power is limited to 38 dBm output power for Medium-Range base stations, 24 dBm output power for Local Area base stations, and to 20 dBm for Home base stations. This power is defined per antenna and carrier, except for home base stations, where the power over all antennas (up to four) is counted.



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