

Base station module changes to adjustable power supply





Overview

Are 5G base stations a flexible resource for power systems?

The authors declare no conflicts of interest. Abstract 5G base stations (BSs) are potential flexible resources for power systems due to their dynamic adjustable power consumption. However, the ever-increasing energy consumption of 5G BSs place.

Why is a base station power amplifier important?

The proliferating frequency bands and modulation schemes of modern cellular networks make it increasingly important that base-station power amplifiers offer the right combination of output power, efficiency and multi-band support – at both peak and average power levels. PAs are the main energy consumers in modern base stations.

What is an adjustable output power supply (AVS)?

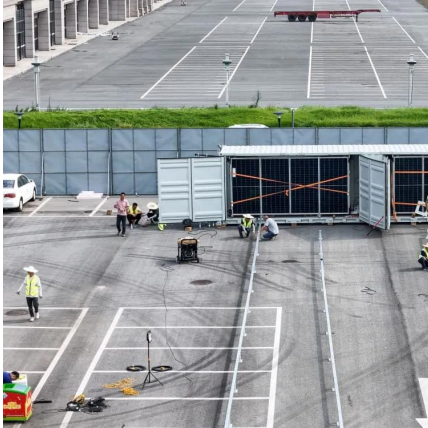
Using AVS allows the processor to optimize the core voltage, thus improving performance and reducing power dissipation. This is just one example of how to create an adjustable-output power supply. For more information, see my latest Power Tips post on EETimes.

What is PA drain bias voltage modulation?

PA drain bias voltage modulation The signals in modern wireless communication systems have high peak-to-average power ratios (PAPR). Techniques such as average power tracking (APT) and envelope tracking (ET) increase the power efficiency of a PA in a base-station application, as depicted in Figure 1.



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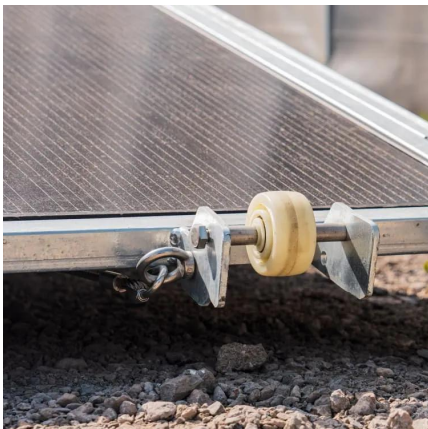


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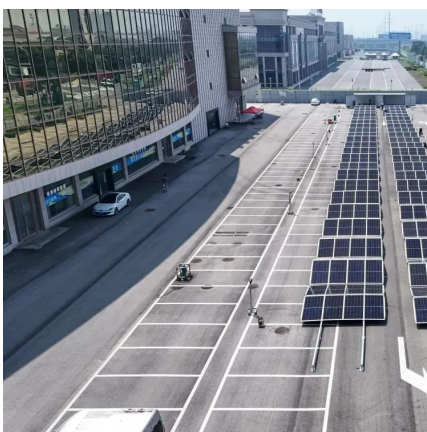
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