

5G base station power supply cutover





Overview

What is a 5G power supply?

The equipment ensures that devices across the infrastructure stack receive reliable power from the mains network, wherever they happen to reside. With it, individuals and organizations can continue to render services to both themselves and their customers. Overview The 5G network architecture uses multiple types of power supplies.

How will 5G affect power supply design?

Higher bandwidths and compression techniques will let 5G networks shuttle more data through systems in a given period, leaving more power-saving idle time. In light of this, the move to 5G infrastructure is necessitating new power supply design considerations.

How does a 5G base station reduce OPEX?

This technique reduces opex by putting a base station into a “sleep mode,” with only the essentials remaining powered on. Pulse power leverages 5G base stations’ ability to analyze traffic loads. In 4G, radios are always on, even when traffic levels don’t warrant it, such as transmitting reference signals to detect users in the middle of the night.

What is a 5G backhaul power supply?

The backhaul part of the 5G network connects the access interface - including masts, eNodeB, and cell site gateway - to the mobile core and internet beyond. And just like the access equipment, it too has specific power supply requirements. Backhaul power supplies must cater to aggregation routers and core routers.

How will masts change 5G?

Masts in 5G systems have more control over their own operation instead of being controlled by a central tower. However, these changes mean that power



supplies need to evolve. Small cells will need to be able to fit in compact environments, such as traffic lights, utility poles, and rooftops.

What is the access side of the 5G stack?

The access side of the 5G stack includes user equipment such as smartphones, tablets, laptops, and desktop devices. Devices in this part of the stack require power supply equipment that can operate at room temperatures indoors and protect sensitive electronics - already a well-developed area.



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