

Huawei 5g base station equipment power consumption





Overview

How much power does a 5G station use?

The power consumption of a single 5G station is 2.5 to 3.5 times higher than that of a single 4G station. The main factor behind this increase in 5G power consumption is the high power usage of the active antenna unit (AAU). Under a full workload, a single station uses nearly 3700W.

Is 5G more energy efficient than 4G?

Although the absolute value of the power consumption of 5G base stations is increasing, their energy efficiency ratio is much lower than that of 4G stations. In other words, with the same power consumption, the network capacity of 5G will be as dozens of times larger than 4G, so the power consumption per bit is sharply reduced.

How will a 5G network increase power consumption?

In the 5G network, low-frequency and high-frequency bands will be deployed together. To meet the service requirements of increasing network capacity, a large number of end sites will be deployed. The number of network sites will increase greatly, and the power consumption of the entire network will increase exponentially.

How much power will 5G use in 2023?

Multiple bands in one site will be the typical configuration in the 5G era. The proportion of sites with more than five bands will increase from 3% in 2016 to 45% in 2023. As a result, the maximum power consumption of a site will be higher than 10 kW, in a site where there is more than 10 bands, the power consumption will exceed 20 kW.



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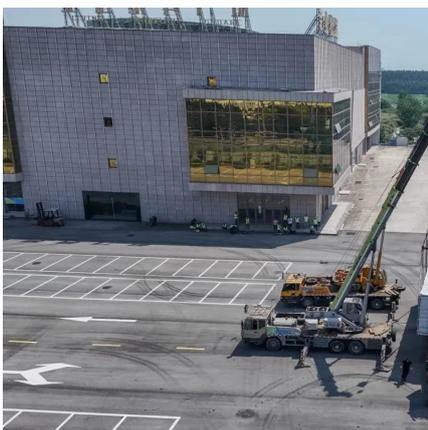
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