

How many volts of electricity does a 5g base station need





Overview

The 5G NR standard has been designed based on the knowledge of the typical traffic activity in radio networks as well as the need to support sleep states in radio network equipment. By putting the base sta.

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.

Why does 5G use more power than 4G?

The data here all comes from operators on the front lines, and we can draw the following valuable conclusions: 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).

How much power does a 5G antenna use?

For sub-6GHz in 5G, let's say you have a macro base station. The power levels at the antenna range from 40 watts, 80 watts or 100 watts. On the RRH board, you have various devices such as power amps, low-noise amplifiers (LNAs), transceivers and others. The RF process is complex with several steps.

How much power does a 4G base station use?

A 4G base station has a transmission power of 40 W for a bandwidth of 20 MHz for each sector (there are typically three sectors) and uses eight transmission and eight reception antennas. In contrast, a 5G base station has a transmission power of 240 W for a bandwidth of 100 MHz and uses 64 transmission and 64 reception antennas.



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