Design requirements for small power base stations

How much power does a base station have?
Maximum base station power is limited to 38 dBmoutput 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.

What is a small-cell base station (SBS) antenna?
To address the growing demand, 5G technology is being implemented at a larger scale. Small-cell Base Station (SBS) antennas are crucial for exploring the full potential of 5G networks by expanding the network in urban areas, densely populated regions, indoor environments, and low-coverage zones.

What is the maximum base station Power?
Maximum base station power is limited to 24 dBmoutput power for Local Area base stations and to 20 dBm for Home base stations,counting the power over all antennas (up to four). There is no maximum base station power defined for Wide Area base stations.

What are RF requirements for a base station?
In the base station specifications,there is one set of RF requirements that is generic,applicable to what is called "general purpose" base stations. This is the original set of UTRA requirements developed in 3GPP release 99. It has no restrictions on base station output power and can be used for any deployment scenario.

Apr 23, 2024 · Looking at RF requirements for FR1 (<6 GHz) base stations, we can consider two ways to define the system. First, the definition as standardized by 3GPP (in the 38.104 series ...

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