

5g base station electromagnetic wave intensity





Overview

Does a 5G base station increase field levels?

Adding the 5G systems does not significantly increase the overall field levels in the surroundings of the base station, in normal working conditions, compared to those of the previous generation. This has been checked during a measurement campaign in the surroundings of a 5G base station under operation.

Does 5G signal exposure affect base station compliance?

This agrees with measurements done in other countries whose authors conclude that the exposure to 5G signals is limited , , , but this does not assure the base station compliance as full load situation should be considered for such assessment. It also shows that the increase in the EMF field is due to the induced data traffic.

Why is a 5G network a challenge?

5G networks deployment poses new challenges when evaluating human exposure to electromagnetic fields. Fast variation of the user load and beamforming techniques may cause large fluctuations of 5G base stations field level. They may be underestimated, resulting in compliance of base stations not fitting the requirements.

What is the bandwidth of 5G synchronization signal block?

Capture of the 5G Synchronization Signal Block, with a span of 7.2 MHz (SSB is limited by the two green diamond markers which bandwidth results are at top right under M1 label). From the same measurement outcome, we can also conclude that the actual bandwidth of 5G base station was 60 MHz.



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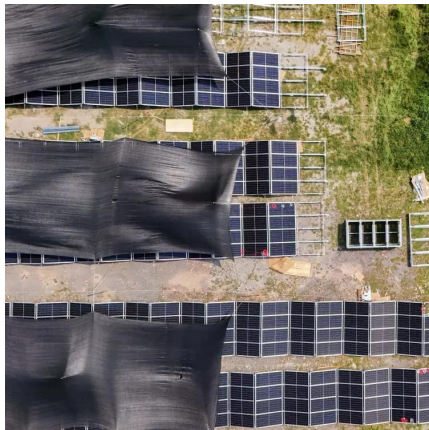
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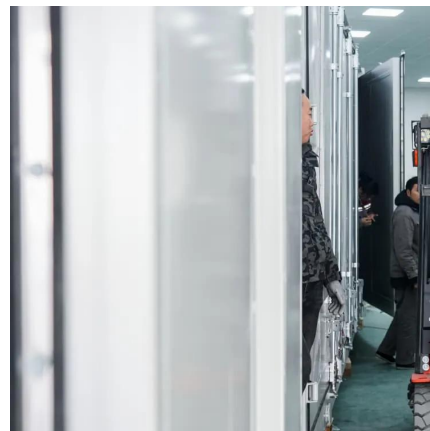


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In different scenarios, 5G base station environmental electromagnetic radiation is affected by multiple factors. Building density affects the superposition of reflected waves. Single user ...



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