



# Electromagnetic power density of 5G base stations





## Overview

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What was the actual bandwidth of 5G base station?

From the same measurement outcome, we can also conclude that the actual bandwidth of 5G base station was 60 MHz. This information will be relevant for extrapolating SSB measurement results.

Does adding a 5G system increase field levels?

Discussion 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.

Does 5G network contribute to environmental RF EMF exposure?

It was found that the contribution from the 5G network to the total environmental RF EMF exposure was less than 10 percent even in the case of 100 percent induced traffic and that the maximum exposure levels from the 5G base stations were 150 to 200 times below the international limits set by the ICNIRP.



## Electromagnetic power density of 5G base stations



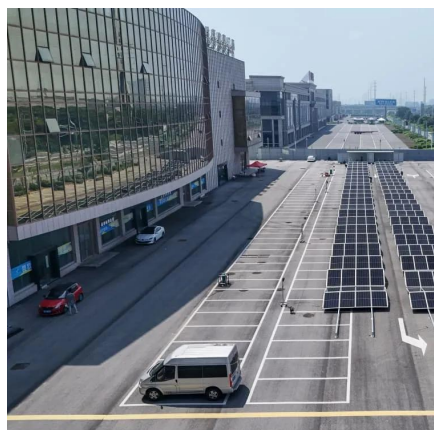
### In-Situ Measurements of Radiofrequency Electromagnetic Fields

Power density spot measurements close to 56 5G macro base stations in the UK were performed following IEC 62232 62232:2025. Extrapolation to maximum exposure was [Request Quote](#).

### [The Measurement and Evaluation of the Electromagnetic ...](#)

Through the detection of the surrounding electromagnetic environment before and after the construction of a 5G base station, the impact of 5G communication on the electromagnetic ...

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### [Analysis of the Actual Power and EMF Exposure ...](#)

In this work, monitoring of the transmit power for several base stations operating in a live 5G network (Telstra, Australia) was conducted ...

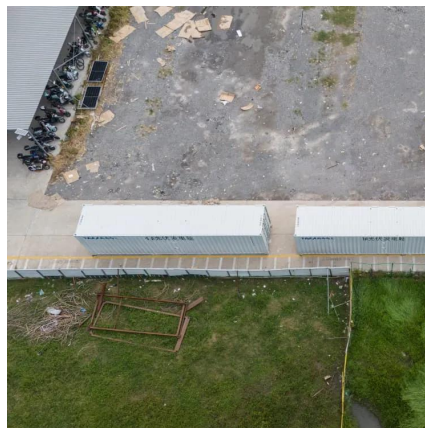
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### [New protocol measures 5G radiation from phones and base ...](#)

To measure the RF-EMF levels emitted by devices and base stations, the study team selected two cities (Zurich and Basel) and three rural villages (Hergiswil, Willisau, and Dagmersellen).



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## A study on the ambient electromagnetic radiation level of 5G

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This paper selects several typical scenes (Open spaces, building concentration areas, user and building intensive areas) for electromagnetic radiation monitoring, and analyzes the ...

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## Signal Analysis Techniques to Minimize Electromagnetic Radiation in 5G

Signal Analysis Techniques to Minimize Electromagnetic Radiation in 5G Mobile Networks. Journals . Cureus Journal of Engineering Cureus Journal of Computer Science Cureus Journal ...

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## Human exposure to EMF from 5G base stations: analysis, ...

Performance of three different methodologies and equipment (broadband probes, spectrum analyzers, and drive test scanners), in the context of human exposure to ...

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## A Review of EMF Radiation for 5G



## Mobile Communication Systems

The deployment of 5G is expected to substantially raise power density levels, which are necessary to cover a specific area of concern by a significant increase in base station ...

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## Analysis of the Actual Power and EMF Exposure from Base Stations ...

In this work, monitoring of the transmit power for several base stations operating in a live 5G network (Telstra, Australia) was conducted with the purpose of analyzing the radio ...

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## Accurately assessing EMF exposure from 5G

This white paper provides information related to human exposure to radio frequency electromagnetic fields (RF EMF) from the base stations in the new 5G networks and describes ...

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## A study on the ambient electromagnetic radiation level of 5G base

The results show that the factors that have significant impacts on the environmental radiation power density of 5G base stations including transmission distance, ...

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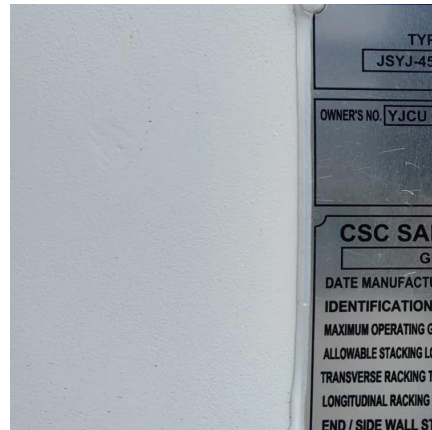
## Signal Analysis Techniques to Minimize



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