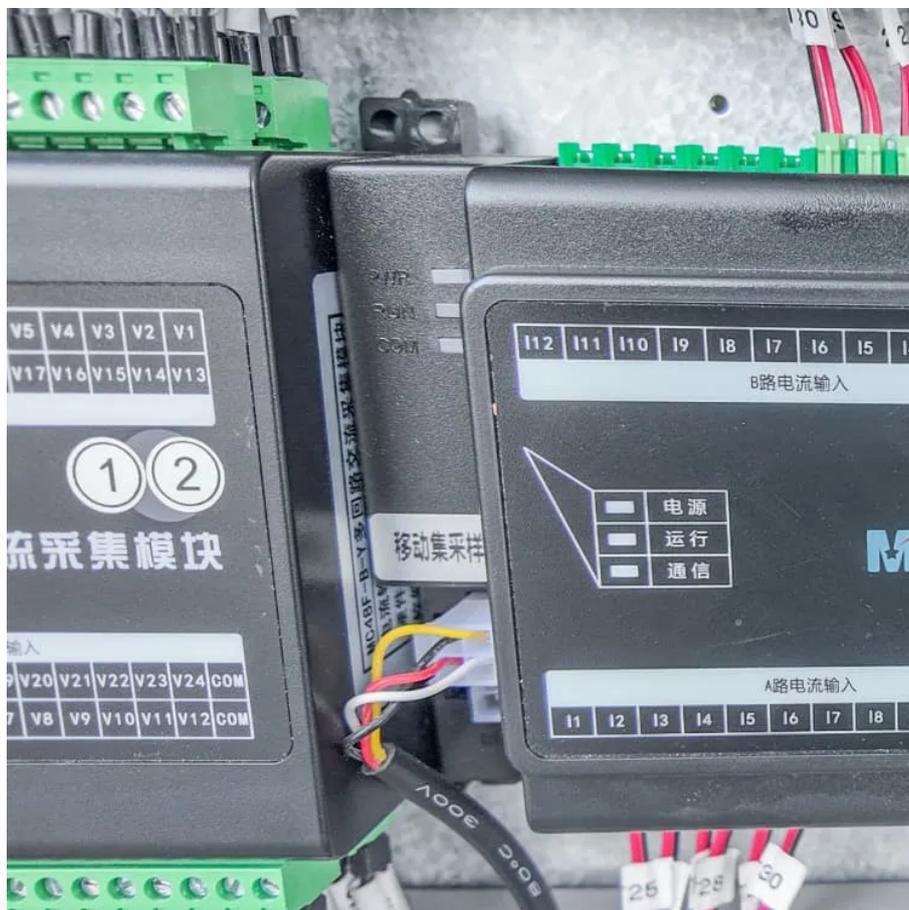


Communication 5g base station and comparison





Overview

What is a 5G network & how does it work?

The roll-out of 5G networks necessarily implies the deployment of new base station equipment, including new radiating systems. These systems may be provided with massive multiple-input multiple-output (M-MIMO) capabilities, where up to a hundred antenna elements are used for beamforming.

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.

Do 5G SBS antenna designs improve performance and compactness?

As networks become more complex and 5G systems require more network coverage, implementing several antenna designs in SBSs presents unique challenges related to performance and compactness. This paper discusses 5G SBS antenna designs that have been proposed recently and studies their characteristics with the parameters that enhance the performance.

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.



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