

# 5g base stations should be divided into communication

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What's the difference between 3GPP 'Option 2' and 'base station' architectures?

These names originate from the 3GPP study of 5G radio access technologies documented within 3GPP Technical Report 38.801. Both architectures have Base Stations that connect to the 5G Core Network. The 'option 2' architecture is based on a gNode B connected to the 5G Core Network.

How does 5G work?

5G networks divide coverage areas into smaller zones called cells, enabling devices to connect to local base stations via radio. Each station connects to the broader telephone network and the Internet through high-speed optical fiber or wireless backhaul.

What is a 5G base station?

A 5G Base Station is known as a gNode B (next 'generation' Node B). This is in contrast to a 4G Base Station which is known as an eNode B ('evolved' Node B), and a 3G Base Station which is known as a Node B. Figure 21 illustrates two Standalone (SA) Base Station architectures, known as 'option 2' and 'option 5'.

What is the difference between 4G and 5G base stations?

5G Base Stations: Compared to 4G base stations, 5G brings higher data throughput and power density, significantly increasing heat generation. Therefore, the performance requirements for thermal materials are much higher. ? Small/Micro Base Stations: These base stations are compact, with limited space, making thermal design more challenging.

The first is to connect new 5G base stations to existing 4G-based EPCs, and then incrementally evolve the Mobile Core by refactoring the components and adding NG-Core capabilities over ...

5G supports network slicing, allowing the network to be virtually divided into multiple slices with different characteristics to serve various use cases (e.g., enhanced Mobile ...

It facilitates wireless communication between user equipment (UE) and the core network. The architecture of a 5G base station is designed to support higher data rates, lower latency, and ...

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5G network architecture is divided into three main parts: User Equipment (UE), the Radio Access Network (RAN) and the Core Network. Here's a breakdown: User Equipment ...

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In this comprehensive article, we will delve into the intricate world of 5G base stations, exploring their components, architecture, enabling technologies, deployment strategies, and the ...

Base stations are the core of mobile communication, and with the rise of 5G, thermal and energy challenges are increasing. This article explains the definition, structure, ...

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Key for connecting base stations into a network, this system ensures smooth communication. It becomes a top priority during power ...

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