

# Base station communication is very poor







#### **Overview**

Why are base stations important in cellular communication?

Base stations are important in the cellular communication as it facilitate seamless communication between mobile devices and the network communication. The demand for efficient data transmission are increased as we are advancing towards new technologies such as 5G and other data intensive applications.

What is a base station?

What is Base Station?

A base station represents an access point for a wireless device to communicate within its coverage area. It usually connects the device to other networks or devices through a dedicated high bandwidth wire of fiber optic connection. Base stations typically have a transceiver, capable of sending and receiving wireless signals;

What are the properties of a base station?

Here are some essential properties: Capacity: Capacity of a base station is its capability to handle a given number of simultaneous connections or users. Coverage Area: The coverage area is a base station is that geographical area within which mobile devices can maintain a stable connection with the base station.

Why do we need a base station?

Technological advancements: The New technologies result in evolved base stations that support upgrades and enhancements such as 4G, 5G and beyond, its providing faster speeds with better bandwidth. Emergency services: They provide access to emergency services, so that in case of emergency, people can call through their mobile phones.

What happens if a reradiated signal is near a base station?



The reradiated signals are usually very low in amplitude. However, if the radiating element (rusty fence, barn, or downpipe) is close to the receiver of a base station and if its intermodulation product falls within the receive band, the result will be receiver desensitization. Figure 7. Beyond the antenna, or rusty bolt PIM.

What are the different types of base stations?

Some basic types of base stations are as follows: Macro-base stations are tall towers ranging from 50 to 200 feet in height, placed at strategic locations to provide maximum coverage in a given area. Those are equipped with large towers and antennas that transmit and receive radio signals from wireless devices.



### Base station communication is very poor



## <u>Passive Intermodulation (PIM) Effects in Base Stations</u>

Passive intermodulation is a significant issue within the cellular industry and it is extremely difficult to troubleshoot. In cell communication systems, PIM can create interference and will reduce ...

#### <u>Troubleshooting: Base Station Communication</u> <u>Issues with Devices</u>

Customer: My telephone #1 is not communicating with the base station even 2 ft away. However, my telephone #2 is communicating with the base station even though it is on the other floor ...



## Optimizing redeployment of communication base station

In this paper, the major work is to solve the "blind spot" of 5G existing network BSs. In other words, it aims to solve the signal coverage problem of weak coverage points on the ...

#### **Contact Us**



For catalog requests, pricing, or partnerships, please visit: https://legnano.eu