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Wireless communication tower base station design

Overview

What is a wireless 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;.

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 wireless base station (BBU)?

A wireless base station, often referred to as a BBU (Base Band Unit), is a device that manages wireless communication between user devices and the core network. It takes care of the medium access control of the wireless spectrum. The BBU is usually associated with the antenna tower and is responsible for the reverse actions happening in the upstream direction. Historically, the BBU was located in a powered room at the bottom of a cellular tower, as shown in Fig. 8.2.

What is a base station?

Network Coverage: Base stations cover a given part of the earth. Various base stations are set up in such a way that forms a network to encompass all areas of the city, region or even an entire country.

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