

SolarTech Power Solutions

Technical requirements for base station equipment of LTE digital cellular mobile communication network



Overview

This standard specifies the basic functional requirements for 5G base stations in the frequency band below 6GHz, the architecture and functional requirements of LTE-NR dual connectivity (EN-DC), performance requirements and interface requirements. What are the technical specifications for mobile broadband base station Radio Frequency equipment?

Technical Specifications for Mobile Broadband Base Station Radio Frequency Equipment 1. Legal Basis The Specifications are established on Paragraph 2, Article 66 of the Telecommunications Management Act. 2. Definitions and Abbreviations: 2.1 Definitions: NTXU, counted per cell: Number of active transmission units in a single cell.

What are the basic parts of an LTE base station?

The basic parts of an LTE base station include the baseband part, which handles data processing and signaling and decides the capacity of the system, and the radio part, which converts digital data into RF signals, filters, and amplifies the RF signal, and decides the coverage of the system.

What are the functions of LTE network equipment?

LTE Network Equipment includes: the baseband part, which handles data processing and signaling and decides the capacity of the system, the radio part, which interconverts digital data and RF signal, filters and amplifies the RF signal, and decides the coverage of the system, and the antenna, which transmits and receives RF signal and decides the 'Shape' of the coverage. The baseband part and radio part are the essential parts of the LTE eNodeB.

How to test a BS type 1 h base station?

A BS Type 1-H base station shall be tested at the emission end of every TAB antenna port according to its operating frequency band. 6.1.1.1.2.2 The channel bandwidth and subcarrier spacing shall be defined in normal environment and voltage according to Table 35.

Which dBm is not applicable if $f_{max} < 10$ MHz?

4 dBm (note 1) Note 1: The requirement is not applicable when $\Delta f_{max} < 10$ MHz. Note 2: The test requirements are originated from the basic limits. The proportional factor (difference between conducted & radiation), which is 9 dB, has be incorporated and applies to any test tolerance.

What is essential to know about 4G-LTE?

To fully understand 4G-LTE, it's important to know the basic structure of the network, the basic equipment used in it and their applications, and the basic regulations in the testing of LTE equipment.

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Introduction to Cellular Mobile Communications

Sep 16, 2019 · The first-generation (1G) mobile cellular system was created to enable voice communications and support mobile users when a voice call would "hand off" to another base ...

YD/T 3923-2021 TD-LTE????????? ??????

Jun 25, 2025 · ??????????3GPP Release13
?Release14?Release15?Massive-MIMO?N
R????CA????????????,?TD-
LTE????????????????? ...



JOINT OPERATORS TECHNICAL SPECIFICATION OF GSM, ...

Nov 23, 2020 · JOINT OPERATORS
TECHNICAL SPECIFICATION OF GSM,
UMTS & LTE INDOOR CELLULAR SYSTEM
SCOPE This document defines the
requirements of indoor ...

Equipment in the LTE Network

Oct 17, 2016 · Mobility / Access control / Conversation management What does a base station do? BBU Is the coverage the larger the better? To ensure the equipment / components ...



Simulation and Classification of Mobile Communication Base Station

Dec 16, 2020 · In recent years, with the rapid deployment of fifth-generation base stations, mobile communication signals are becoming more and more complex. How to identify and classify ...

English YD/T 3861-2021 PDF

Jun 21, 2025 · This standard specifies the technical requirements for the related equipment of the dedicated core network (DCN) of the LTE digital cellular mobile communication network, ...



5G Technology and Transceiver Architecture

ESS



Aug 14, 2025 · Theoretically, MIMO can benefit from an arbitrarily large number of antennas. Current commercial solutions include 64TX and 64RX for base station deployment compared ...

CELLULAR & MOBILE COMMUNICATIONS

Aug 10, 2021 · The cellular switch, which can be either analog or digital, switches calls to connect mobile subscribers to other mobile subscribers and to the nationwide telephone network.



Antenna Systems for Cellular Base Stations

Feb 19, 2023 · Cellular networks use distributed terrestrial base stations to serve the different mobile users. The antenna characteristics determine the coverage of the base station and the ...

Technical Specifications for Mobile Broadband Base ...

Jun 26, 2023 · Technical Specifications

for Mobile Broadband Base Station Radio Frequency Equipment 1. Legal Basis The Specifications are established on Paragraph 2, Article 66 of the ...



Telecommunications Standards Advisory Committee ...

Nov 13, 2024 · This Specification defines the minimum technical requirements for Cellular Base Station and Repeater System (broadly termed "CBS" in this Specification) to be used in the ...

ITU-T Rec. K.114 (08/2022) Electromagnetic compatibility ...

Recommendation ITU-T K.114 specifies the electromagnetic compatibility common requirements and test methods for digital cellular mobile communication base station (BS) equipment, ...



Telecommunications Standards Advisory

ommittee (TSA) ...

Sep 24, 2024 · This Specification defines the minimum technical requirements for Cellular Base Station and Repeater System (broadly termed "CBS" in this Specification) to be used in the ...



5G Mobile Communication Systems: Fundamentals, ...

Sep 2, 2018 · After 4G systems were rolled out in 2011, research comities have changed their interests to investigate innovations for wireless communication technologies, namely for 5G ...



A Beginners Guide to Mobile Communication ...

Mar 23, 2019 · Beamforming is a traffic-signaling system for cellular base stations that identifies the most efficient data-delivery route to a particular user. [19] ** ...



YD/T 3923-2021 TD-LTE?????????? ??????

Apr 9, 2025 · YD/T 3923-2021???????,TD-LTE????????? ????????(????), TD-LTE digital cellular mobile communication network base station equipment ...



YD/T 2577-2013 LTE FDD????????? ??????

Jul 15, 2025 · LTE FDD????????? ????????(????) Technical Requirements for Terminal Equipment of LTE FDD Digital Cellular Mobile Communication ...

ITU-T Rec. K.114 (08/2022) Electromagnetic compatibility ...

Summary Recommendation ITU-T K.114 specifies the electromagnetic compatibility common requirements and test methods for digital cellular mobile communication base station (BS) ...



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