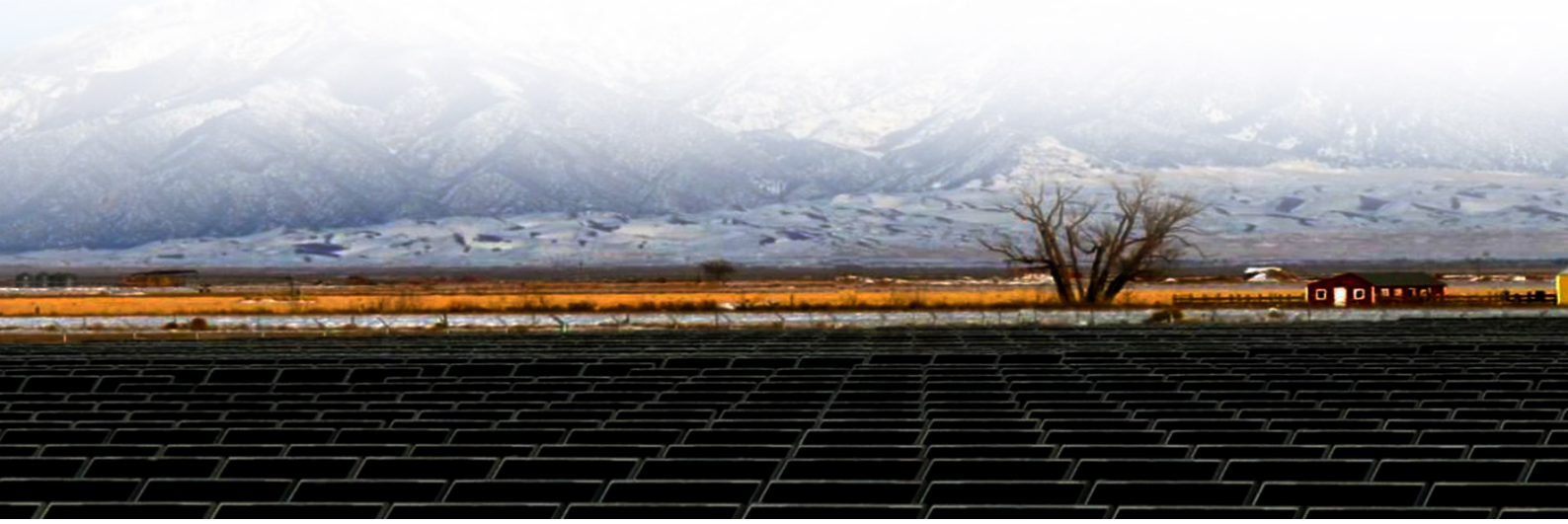
If the LTE base station reports the board power



Overview

If the LTE signal Crest Factor (peak to average power ratio) is 14 dB, the LTE base station transmit signal peak power will be +46 dBm + 14 dB = +60 dBm.

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Since TDD systems use the same frequencies for both downlinks and uplinks, they have an advantage of good frequency usage efficiency, but on the other hand, if the timeslot synchronization accuracy and the power control during the transmit Off period are inadequate, there is a risk of interference.

The R&S®FSW signal and spectrum analyzer provides the high dynamic range needed to accurately measure the ON/OFF power of your transmitter in accordance with 3GPP TS 36.141. TDD-based communications systems divide the time do-main into transmission and reception periods. Transition between both has.

This application note describes the LTE TDD E-UTRA base station transmit ON/OFF power measurement—also known as the power-versus-time measurement— as provided in the Keysight Technologies, Inc. N9082A LTE TDD measurement application. The N9082A application runs on the following Keysight X-Series.

In LTE, the base station is known as eNodeB or eNB. Since eNodeB units are fixed, they don’t necessarily need to interact with non-LTE systems like GSM or UMTS. This means fewer measurements are usually performed on the eNodeB compared to an LTE-compliant User Equipment (UE). This page will focus.

Note 1: For single entry analysis, the maximum antenna height of 60 meters for base stations and 1.5 meters for mobile/portable stations will be used. For aggregate analysis antenna heights will be varied between the minimum and maximum values shown in the table. Note 3: A base station typically.

The LTE-A conformance tests for base stations (eNodeB) are defined in 3GPP TS 36.141 Release 10 [1] and include transmitter (Tx), receiver (Rx) and performance (Px) tests. T&M instruments from Rohde & Schwarz can be used to perform all tests easily and conveniently. This application note describes. What is a base station in LTE?

The base station is the physical node that transmits and receives RF signals on one or more antenna connectors. Note that a base station is not the same thing as an eNodeB, which is the corresponding logical node in the LTE Radio-Access Network. The terminal is denoted UE in the description below, as it is in all RF specifications.

How LTE TDD base station downlink transmit off power affects quality?

The quality of the LTE TDD base station downlink transmit Off power not only has a direct impact on the uplink communications quality but since there is also a risk of impact on connected systems, sometimes different regions and service operators set stricter standards than the 3GPP specifications.

What happens if an adjacent base-station transmission is detected?

If an adjacent base-station transmission (UTRA or LTE) is detected under certain conditions, the maximum allowed Home base-station output power is reduced in proportion to how weak the adjacent base-station signal is, in order to avoid interference to the adjacent base station.

What is the output power of a base station?

Output power of the Base Station is the mean power delivered to a load with resistance equal to the nominal load impedance of the transmitter. The maximum total output power, P max, of the Base Station is the mean power level measured at the antenna connector during the transmitter ON period in a specified reference condition.

If the LTE base station reports the board power

[LTE Testing: A Comprehensive Guide , Test]

This guide covers LTE testing procedures for both User Equipment (UE) and eNodeB, including RF and PHY conformance tests and key test equipment.

[6.2 Base Station output power - TechSpec]

The maximum total output power, P max, of the Base Station is the mean power level measured at the antenna connector during the transmitter ON period in a specified reference condition.

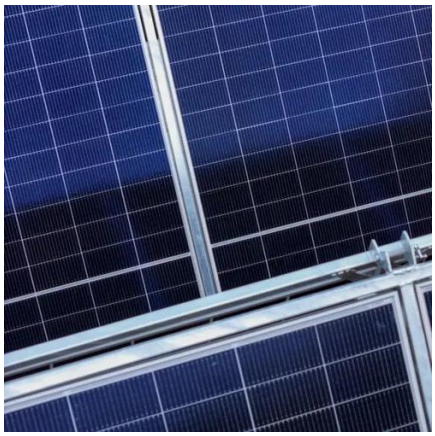
LTE Testing: A Comprehensive Guide , Test & Measurement World

This guide covers LTE testing procedures for both User Equipment (UE) and eNodeB, including RF and PHY conformance tests and key test equipment.

FSW_Test_ac_en_5214-4842-92_v0200 dd

The purpose of the transmitter OFF power test in chapter 6.4.1 is to verify that the output power of the base station does not exceed the specified

limit during the OFF period of the signal.



LTE eNodeB Physical Layer Measurements

Explore LTE eNodeB physical layer measurements, including downlink RS transmit power, received interference, and thermal noise. Understand key metrics for base station performance.

LTE-A Base Station Transmitter Tests

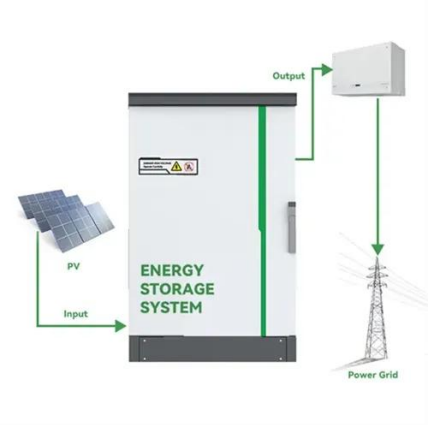
Very high power occurs on base stations! Be sure to use suitable attenuators in order to prevent damage to the test equipment. Multicarrier configurations are a significant portion of LTE-A ...

LTE TDD Base Station Transmit On/Off Power Measurement

This document explains transmit On/Off power measurements of LTE TDD base stations using the Anritsu Signal Analyzer MS269xA series running the LTE TDD Downlink Measurement ...

E-UTRA Base Station Transmit ON/OFF Power Measurement

This application note describes the LTE TDD E-UTRA base station transmit ON/OFF power measurement--also known as the power-versus-time measurement-- as provided in the ...



TS 137 107

The base station shall stop transmission on the current operating channel and will not resume normal transmissions as long as the interference signal is present.

The equipment characteristics for LTE FDD transmitters and ...

PREFSENS is the power level of a single instance of the reference measurement channel. This requirement shall be met for each consecutive application of a single instance of FRC A1-3 ...

Power Base Station

If an adjacent base-station transmission (UTRA or LTE) is detected under certain conditions, the maximum allowed Home base-station output power is reduced in proportion to how weak the ...

E-UTRA Base Station Transmit ON/OFF Power ...

This application note describes the LTE TDD E-UTRA base station transmit ON/OFF power measurement--also known as the power-versus-time ...

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