PC communicates with LTE base station

Overview

How does LTE mobile work?

LTE Mobile communicates with just one base station and one cell at a time and there are following two main functions supported by eNB: The eBN sends and receives radio transmissions to all the mobiles using the analogue and digital signal processing functions of the LTE air interface.

What are LTE EPC emulators?

The LTE EPC Emulators from Polaris Networks offer an easy-to-use, feature-rich and low-cost alternative to replace real EPC elements in a test network. The EPC Emulators include the MME, SGW, PDN-GW, HSS/AAA, PCRF, MBMS-GW, MCE, ANDSF and ePDG Emulators and can be used together to simulate the complete LTE Packet Core.

How does lteenb work?

LTEENB allows to build a real 4G LTE / 5G NR base station (called an eNodeB (4G) or gNodeB (5G)) using a standard PC and a low cost software radio frontend. All the physical layer and protocol layer processing is done in real time inside the PC, so no dedicated hardware is necessary. NB-IoT and Cat-M1 devices are also supported.

What is a LTE EPC?

The EPC is responsible for handling data and signaling between the mobile device (UE - User Equipment) and the external networks, such as the Internet or other telecommunication networks. Let's dive into the technical details of the LTE EPC architecture:

PC communicates with LTE base station

lte epc architecture

The eNodeB is the LTE base station that communicates directly with the UE. It is responsible for radio communication, including modulation/demodulation, scheduling, ...

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LTE/NR Base Station Software

Introduction LTEENB allows to build a real 4G LTE / 5G NR base station (called an eNodeB (4G) or gNodeB (5G)) using a standard PC and a low cost software radio frontend. All ...

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Towards Open Cellular Ecosystem - ...

It can be used to build and customize a LTE base station (OAI eNB), a user equipment (OAI UE) and a core network (OAI EPC) on a PC. The OAI eNB can be connected either to a commercial UEs or OAI UEs to test different ...

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Building Your Own 4G LTE Base Station

Posted in Cellphone Hacks, Radio Hacks Tagged 4g, base station, GSM base station, LTE, srsRAN
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LTE Network Architecture

Complete Packet Core Emulation for testing Base Stations and UEs The LTE EPC Emulators from Polaris Networks offer an easy-to-use, feature-rich and low-cost alternative to ...

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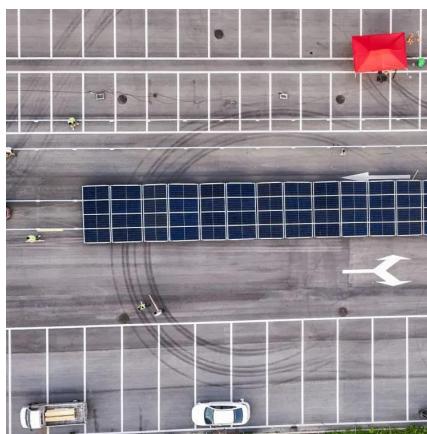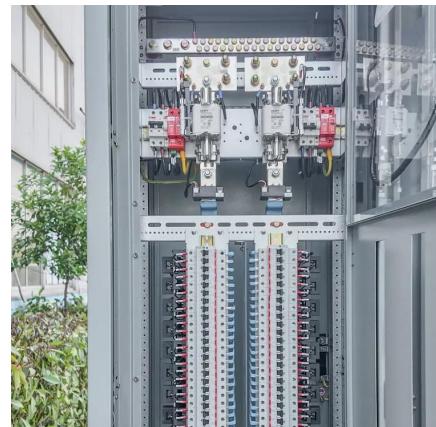
Building Your Own 4G LTE Base Station

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Can I use srsUE to receive the signal from real LTE

base station...

I need to use a Linux PC installed srsENB and srsEPC and a RF_front (e.g. USRP) to build a LTE signal transceiver (a simulated base station). Then the LTE signal receiver can ...

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LTE Drive Test

4G LTE Drive Test Although some of the LTE drive test data can be analyzed during the drive test process as it is displayed on a laptop screen, much of the details can best be examined in a lab. Software in the ...

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**LTE Network Architecture**

lte epc architecture

The eNodeB is the LTE base station that communicates directly with the UE. It is responsible for radio communication, including modulation/demodulation, scheduling, handovers, and radio resource ...
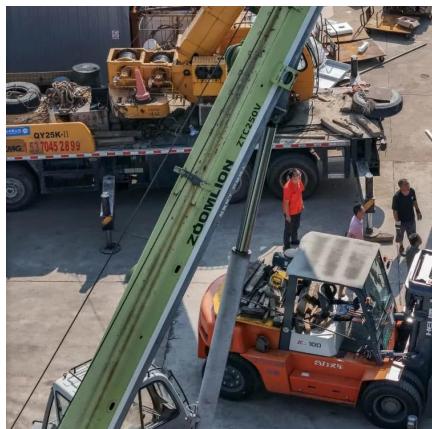
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EPC Emulators

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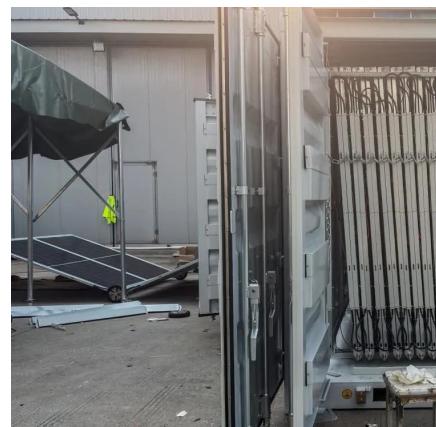
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Programmable Dongles Turn PCs Into LTE Base Stations

Finally, the "heavy lifting" of processing the LTE stack and interfacing to the backhaul is handled by the PC, which provides a solution that is both cost-effective and easy ...

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Real-Time Embedded Software Frameworks For LTE Base ...

Abstract: As LTE continues to underpin global mobile communication infrastructure, the demand for robust, deterministic, and low-latency real-time software frameworks for LTE ...

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