NE6000/7500

LTE-A / 5G NR Network Emulator Signaling Test System

Most Affordable Test Solution for R&D and End of Production Line Verification

- Compliant with 3GPP 5G NR Release 16
- FR1/FR2
- FDD/TDD
- MIMO

- NSA/SA
- RF Parametric Measurement
- R&D Regression and UE Performance Testing

SCAN ME

NE6000/7500
LTE-A/5G NR Signaling Test System

Description ▬▬▬

The ALifecom NE6000/NE7500 is a test system designed to simulate various aspects of a cellular network for the purpose of testing the performance and functionality of user equipment (UE), such as smartphones, tablets, and other wireless devices. It includes 3GPP compliant components such as an eNodeB, a gNodeB, an Evolved Packet Core (EPC), and a 5G Core (5GC).

The system is used for a variety of purposes, including R&D regression testing, stability testing, and end-of-production line verification. It can be used to perform RF measurements, IP/MAC throughput tests, MIMO tests, inter- and intra-cell handover tests, and user experience tests. These tests can help ensure that the UE is functioning properly and meets the performance standards required for use in a cellular network.
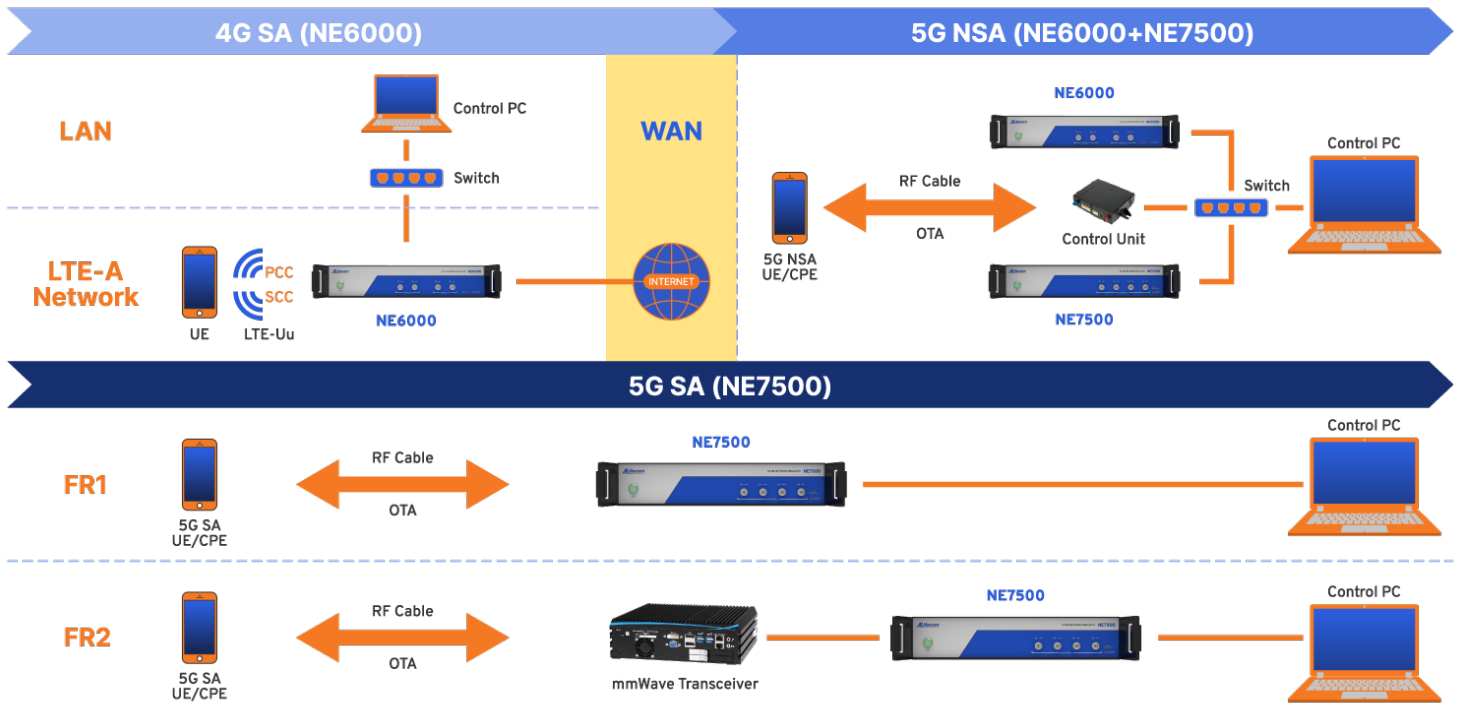
Signaling Testing Features ▬▬▬

- Frequency Range: FR1 and FR2(with MM100)
- Bandwidth Up to 100MHz
- NSA/SA Mode
- iPerf IP/MAC layer Throughput Testing
- RF Parametric measurement (PWR/EVM/ACLR/ Spectrum Mask/OBW)
- UL UE Max PWR Testing/DL RSSI Reporting/UE RX Sensitivity Testing
- Inter/Intra Cell Handover
- Embedded Protocol Analyzer
- Carrier Aggregation:
  - LTE-A: 2CA DL 2x2 MIMO,
  - 5G NR FR1/FR2: 2CA DL 4x4 MIMO

4G/5G Test Items	
Attach/Detach	RSSI
IMEI	Handover (FDD/TDD)
Band List	VoLTE/VoNR
APN	Protocol Analyzer
MAC Throughput	SMS Test
IP Throughput	PWS
TX Power	NB-IOT PSM/eDRX Test
Sensitivity	eMTC PSM/eDRX Test

4G SA (NE6000) | 5G NSA (NE6000+NE7500) | 5G SA (NE7500)

Friendly GUI and Useful SW Tools

ALifecom provides a range of software tools (CTS, MTS and ATS) that can be used to cover various testing scenarios and segments in the development and integration of 5G NR SA/NSA devices as well as LTE devices.

- UE Status
- Band List
- ENDC

- TX Power
- TX EVM
- RSSI

- DL/UL MAC throughput

- Link Status

- DNN (APN)

- RRC/NSA
- Protocol Message

SW Tools

ATS – 1-DUT production test SW

iATS – multi-DUT (max. 4 UE's) for production test

MTS – Generic GUI for NE6000

CTS-Lite – Generic GUI for NE7500

CTS – Advanced GUI with applications test function and protocol analyzer for NE6000/NE7500

Model	Type	Description	SW Tools Included
NE6000-IOT	Production	■ LTE-A FDD/TDD Dual Mode ■ 400MHz to 3.8GHz ■ Cat.1/NB-IOT/eMTC ■ RF Ports x 2	ATS+iATS+MTS
NE6000P	Production	■ LTE-A FDD/TDD Dual Mode ■ 400MHz to 3.8GHz ■ NB-IOT/eMTC/Cat.1 to Cat.4 ■ RF Ports x 2 (4 with Cat.6)	ATS+iATS+MTS
NE6000R	R&D	■ LTE-A FDD/TDD Dual Mode ■ 400MHz to 3.8GHz ■ NB-IOT/eMTC/Cat.1 to Cat.4 ■ RF Ports x 2 (4 with Cat.6)	ATS+iATS+CTS
NE7500P	Production	■ 5G NR SA (FDD/TDD) ■ FR1:400MHz to 6 GHz ■ 100 MHz BW ■ DL 4x4 MIMO ■ 256QAM DL / 64QAM UL ■ RF Ports x 4	ATS+iATS+CTS-lite
NE7500R	R&D	■ 5G NR SA (FDD/TDD) ■ FR1:400MHz to 6 GHz ■ 100 MHz BW ■ DL 4x4 MIMO ■ 256QAM DL / 64QAM UL ■ RF Ports x 4	ATS+iATS+CTS
NE7500NSA	Production	■ NE7500P x1 ■ NE6000P x1	ATS+iATS+CTS-lite
NE7500NSA+	R&D	■ NE7500R x1 ■ NE6000R x1 ■ Control Unit (EPC) x1	ATS+iATS+CTS

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