eBox CC

Validation of Public Safety Solutions over LTE

The ENENSYS eBox CC for Critical Communications is a complete, compact and portable test tool, used to validate Public Safety offers.

The ENENSYS eBox CC is used by device manufacturers, mobile radio operators, and application developers to evaluate and demonstrate their mission critical communications offers, over a LTE network in compliance with the 3GPP specifications.

Included Components

eBox CC is a real PS-LTE Broadcast network. It includes a RAN (MCE/eNodeB), an EPC (MME, MBMS Gateway, S/P-Gateway, HSS), and a BM-SC server, the ENENSYS BMSC.
eBox CC comes in a small box, with all components pre-integrated - shortening test cycles and time-to-market. All components are 3GPP compliant and carrier-grade. They have been deployed and proven in LTE commercial uses, by tier-one mobile network operators and leading mobile device makers. It supports any LTE Broadcast enabled hand-held device integrated with the ENENSYS Middleware or others 3GPP compliant Middleware.

Full Push-To-Talk Support

eBox CC comes with an optional GCS-AS, enabling mission critical group calls (MCPTT) and private communications with automatic/manual commencement, over 3GPP-standardized LTE network.

Rich Video and Data Support

eBox CC supports a full set of rich mission critical communications content distribution, including high-definition mission critical video (MCVideo) group broadcast, push/pull video and private communications. It also supports rich data delivery and access (MCData). Each is easily managed through the application interface.

Easy to Set-up and Configure

eBox CC is easy to set-up and configure. Various parameters are set and managed through an easy-to-understand interface. There is no complexity of sourcing from a wide ecosystem or code to develop.

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Applications

- Device certification
- Device validation
- Public Service scenario validation
- Demonstration

Other benefits

- Small and portable
- Easy to set-up and configure
- Shortens time-to-market
- Smoothes out validation tests
- Extremely cost effective
- Reduces investment risks

Technical specifications

INPUT

1x Gigabit Ethernet RJ45 for the integration with external sources like MCS server or CDN

- MB2 for integration with MCS server (TS 29.468)
- HTTP(s) for injection of external Content (DASH, HLS, Files)
- RTP for injection of external video streams
- Rx for PCRF

WiFi AP for control functions

OUTPUT

3GPP Release
LTE release 15, MBMS release 13 (TS 26.346)

Frequency bands
All FDD and TDD bands with support of custom frequencies (400MHz to 4.4GHz)

RF Max output power
15dBm - 20 dBm

TX Output Power Gain Range
TX Output Power Gain Range: 0 dB - 31 dB

Bandwidth
1.4, 3, 5, 10, 15 and 20 MHz in LTE

Supported number of cells
1 or 3

RF Antenna
2 for the configuration with one cell and 4 for the three cells configuration

FEATURING

Proven BM-SC
Comes fully integrated with a functional carrier-grade BM-SC server and MBMS-GW deployed by network operators worldwide

MCS Server integration
MB2 and Rx interfaces for integration with any external 3GPP compliant MCS servers

MCPTT, MCVideo, MCData
Comes with an optional pre-integrated MCS server supporting all Mission Critical services

Simple Scenario
Comes with a set of predefined validation scenarios

MooD
Supports dynamic activation and de-activation of Multicast delivery

Dynamic Resource Allocation
Supports dynamic allocation of MBMS resources

RTP Stream Management
Supports injection of external Unicast and Multicast RTP streams

DASH Stream Delivery
Pre-recorded DASH segments and interface with external CDN source

File Download
Predefined scenarios for the validation of file delivery (binary and VoD)

Multiple Cells
Possibility to control 1 or 3 cells for the validation of handover scenario

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PHYSICAL

Height
225 mm

Width
178 mm

Depth
319 mm

Power Supply
100-240V 50/60Hz

Hard drive
SSD 250 Go

Ordering codes

eBox CC
LTE Broadcast platform with Mission Critical Service interfaces

Ordering options

eBox-Multicells
One Additional Cell Radio (2 max total), pre-installed

eBox-MCS
MC Server compliant with 3GPP specification, pre-installed