XCAL-eCall

Automated eCall testing

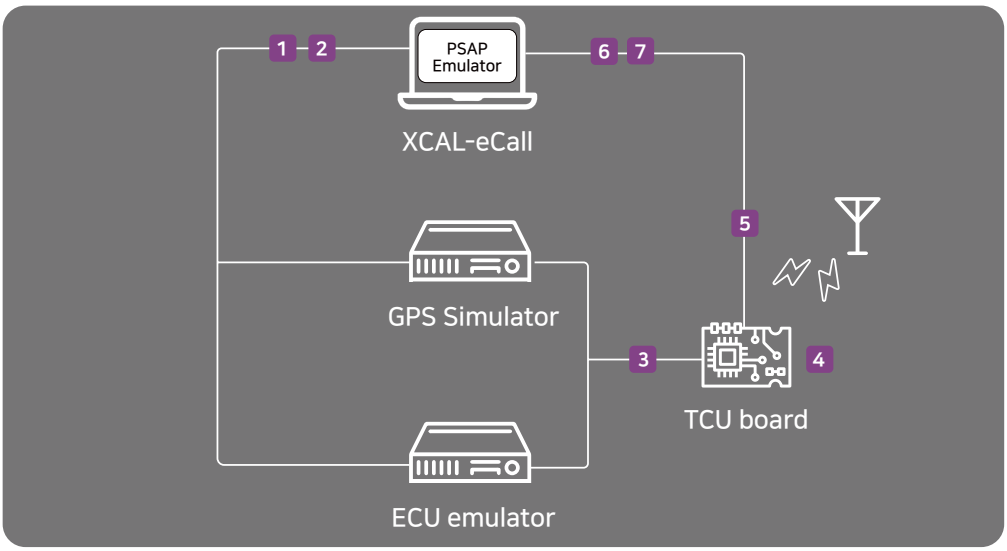
XCAL-eCall is a comprehensive PC-based solution that validates the entire emergency call sequence, from accident simulation to PSAP reception. By integrating virtual crash mapping and deep-dive chipset diagnostics, it provides a highly repeatable, automated lab environment without the need for physical vehicle testing. This all-in-one platform ensures flawless 4G/5G performance and compliance with international standards for a more reliable emergency response.

Features

* Enables cost-effective and highly reproducible validation of real TCU behavior
* Eliminates complex manual test setups and handset dependency
* Automated testing significantly reduces validation lead time
* Supports remote and high-volume testing

Functions

* **Automated IMS/eCall scenario testing**
  : Call origination and setup
  : Call connection and retry
  : Handover events
  : Network condition changes
* **Collection and analysis of key KPIs and logs**
  : SIP / RTP / IMS signaling
  : Call setup and connection time
  : MSD Decoding
* **Automated report generation**
* **Defect reproduction packages for efficient root-cause analysis**
* **PSAP integration**



Key Features	
1 Accident case setup	Define various accident scenarios
2 MSD generation	Auto-generate EN 15722-compliantMSD messages
3 Accident simulation	Reproduce crashes on a virtual map
4 Vehicle signal transmission	Generate CAN/SOME-IP signals and transmit to the TCU
5 NG eCall initiation	The TCU, triggered via ECU emulator, initiates an NG eCall
6 NG eCall reception	The PSAP emulator receives NG eCall
7 Data collection & analysis	Collect, analyze and monitor real-time data from TCU and PSAP Emulator