EasyEVSE Development Platform (Linux OS, EVerest)

EV-CHRG-STN-MPU

Active

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The EasyEVSE MPU (i.MX 93, Linux OS, Wi-Fi 6) development platform provides software, boards, cables, design files and detailed instructions to quickly simulate a charging control session between a charging station and an electric vehicle. This modular scalable platform is the foundation for developing secure wireless cloud connectivity, accurate energy billing, safe control, one-tap NFC authentication and ISO 15118 power line communications across a HomePlug Green PHY.

The ISO 15118-2 platform variant supports traditional EV charging with a Plug and Charge feature to simplify the user experience. The ISO 15118-20 platform variant adds support for bi-directional power transfer between the electric vehicle supply equipment (EVSE) and the vehicle.

The development platform supports proprietary ISO#15118 evaluation stack and EVerest open source. The hardware and software configurations vary depending on the selected solution.

- Proprietary solution, supported features:
  - ISO 15118 commercial evaluation stack (bi-directional charging and Plug and Charge) on the i.MX 93 application processor
  - Basic charging (SAE 1772) software on the LCP5536/LPC55s36
  - Connection via Ethernet or Wi-Fi® Murata module with NXP IW612 chipset (Wi-Fi 6, Bluetooth LE)
  - Encryption and authentication cloud services with EdgeLock® SE050 secure element
  - One tap authentication with PN7160 Plug and Play near field communication (NFC) controller
  - Safety functions (GFCI and relay drive)
  - Accurate power measurement through KM35x and modifiable pre-certified metrology software for accurate billing and power line monitoring

- Custom-designed graphical user interface on the DY1212W#4856 LCD display

- EVerest solution, supported features:
  - ISO 15118 EVerest open-source (bi-directional charging and Plug and Charge) running on the i.MX 93 application processor
  - Open-source EVerest Open Charge Point Protocol (OCPP) library running on the i.MX 93 application processor
  - Basic charging (SAE 1772) software on the LCP5536/LPC55s36
  - Connection via Ethernet or Wi-Fi® Murata module with NXP IW612 chipset (Wi-Fi 6, Bluetooth LE)
  - Encryption and authentication cloud services with EdgeLock® SE050 secure element
  - One tap authentication with PN7160 Plug and Play near field communication (NFC) controller
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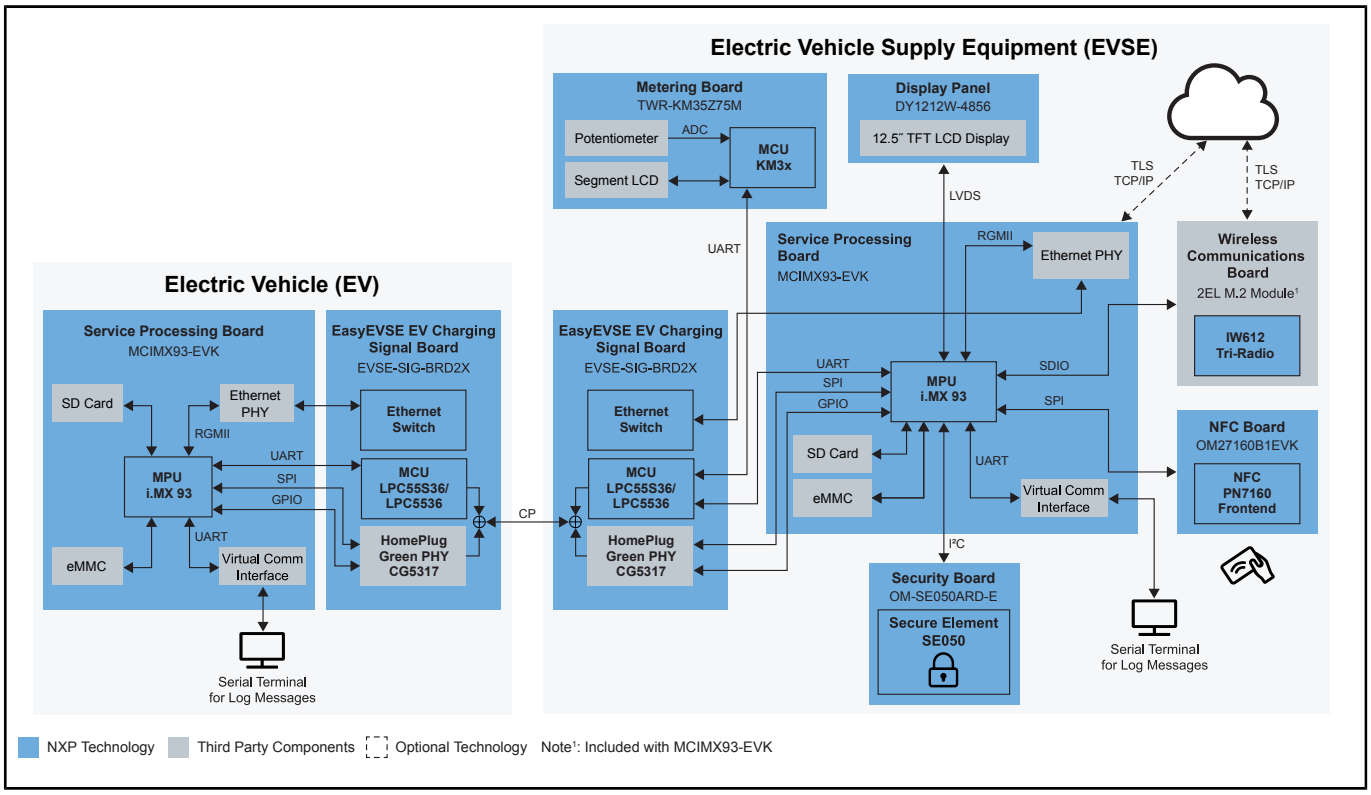
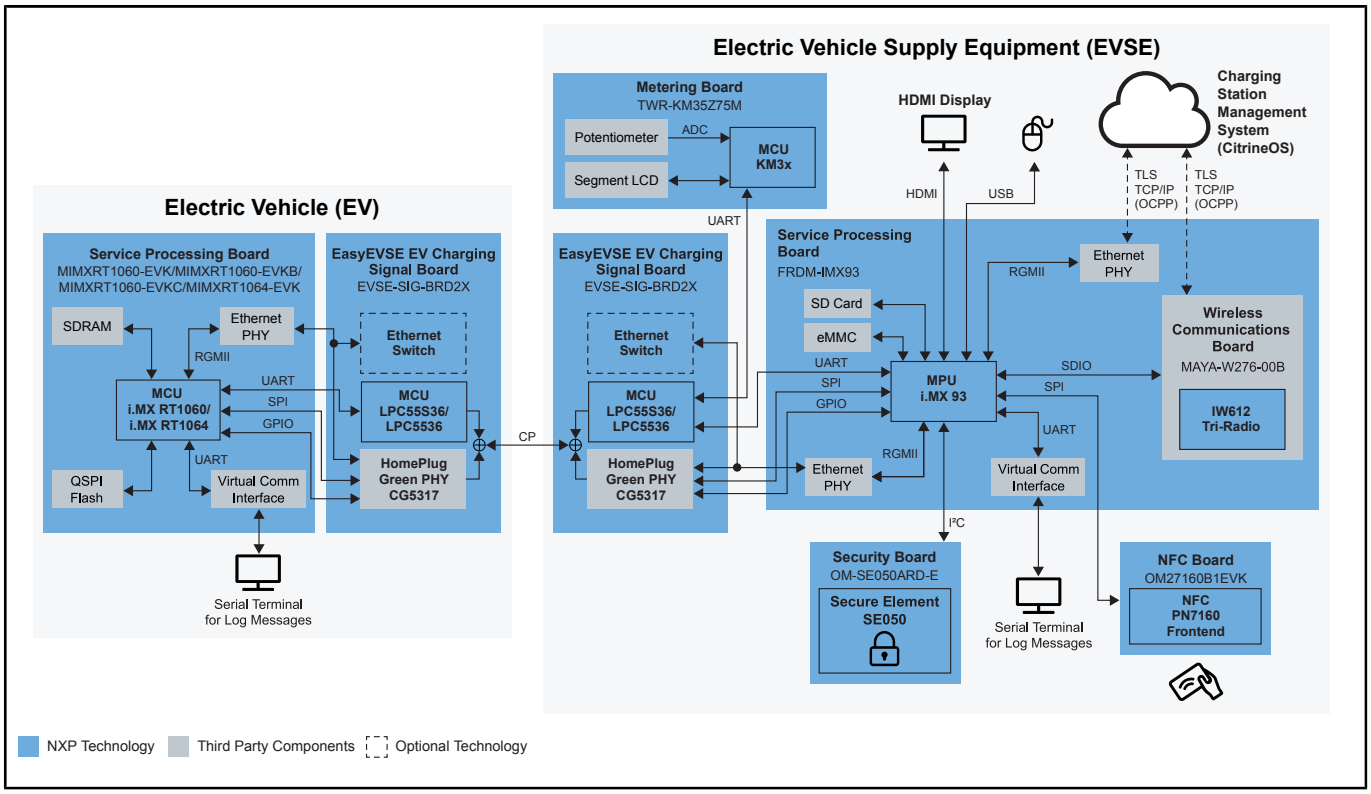
EasyEVSE Development Platform with proprietary ISO 15118 stack Block Diagram



EasyEVSE Development Platform on EVerest Block Diagram



View additional information for EasyEVSE Development Platform (Linux OS, EVerest).

Note: The information on this document is subject to change without notice.