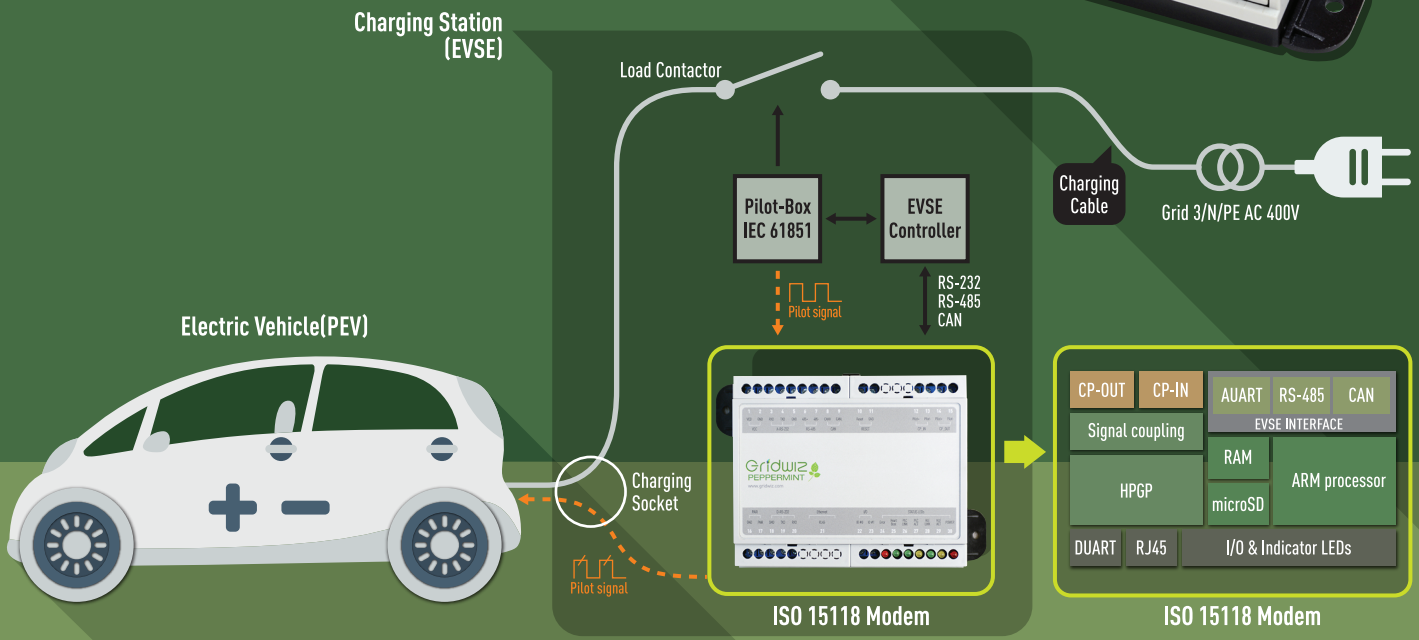
Gridwiz PEPPERMINT

PLC modem for EV Charger

PEPPERMINT is a PLC(Power Line Communication) based modem for DC charge, satisfying ISO/IEC 15118 and DIN 70121 communication standards.



PEPPERMINT modem processes communication protocols required for EV charging and supports RS232, RS485 and CAN interfaces for communications between EV and EVSE. This modem mounts debug port for status checking, status LED, input-output port and Ethernet port for the connection with external services. Also, to be equipped inside of chargers, it supports DIN-rail(EN 50022) mount and Wall-mount brackets, providing more diverse, scalable and convenient connection between EV and EVSE. It guarantees stability with its qualified software stack.

PEPPERMINT Specification

Interface to connect with EV Charger	Expansion Interface
▪ RS-232 : Max 250kbps	▪ RS-232 : Debug UART
▪ RS-485 : Max 10Mbps	▪ Ethernet : 10/100M RJ45
▪ CAN : Max 1Mbps	▪ 2 Input/Output port
▪ CP_IN for PLC	▪ 7 Indicator LEDs
▪ CP_OUT for PLC	▪ RESET

PLC technology : HomePlug Green PHY ™

Operation Voltage : 7VDC ~ 30VDC

Dimension : 105mm x 90mm x 31mm (w/o wall-mount bracket)

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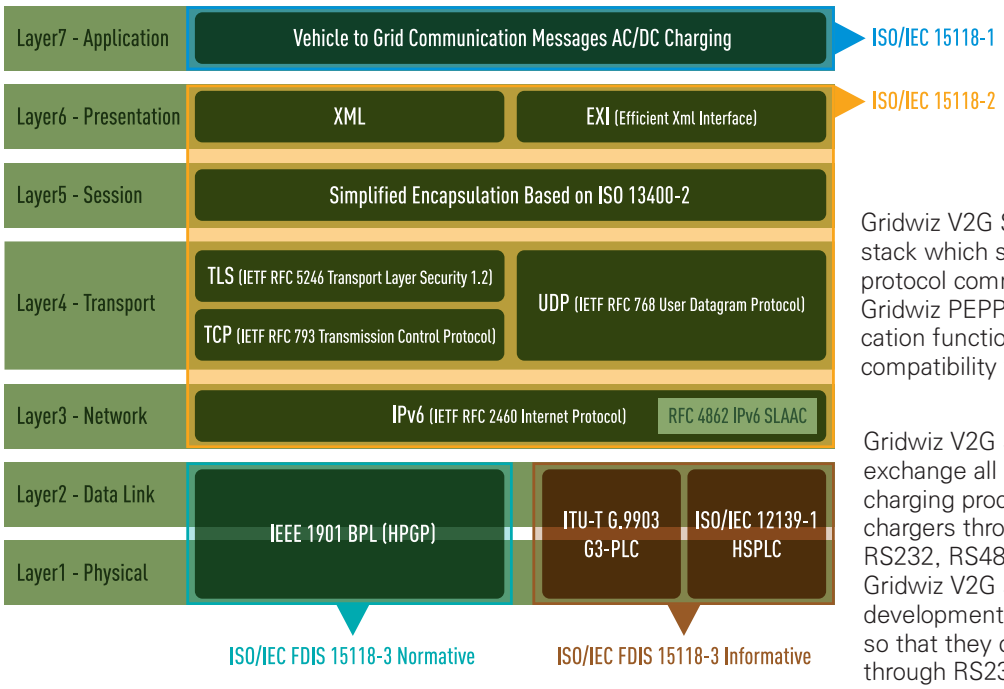
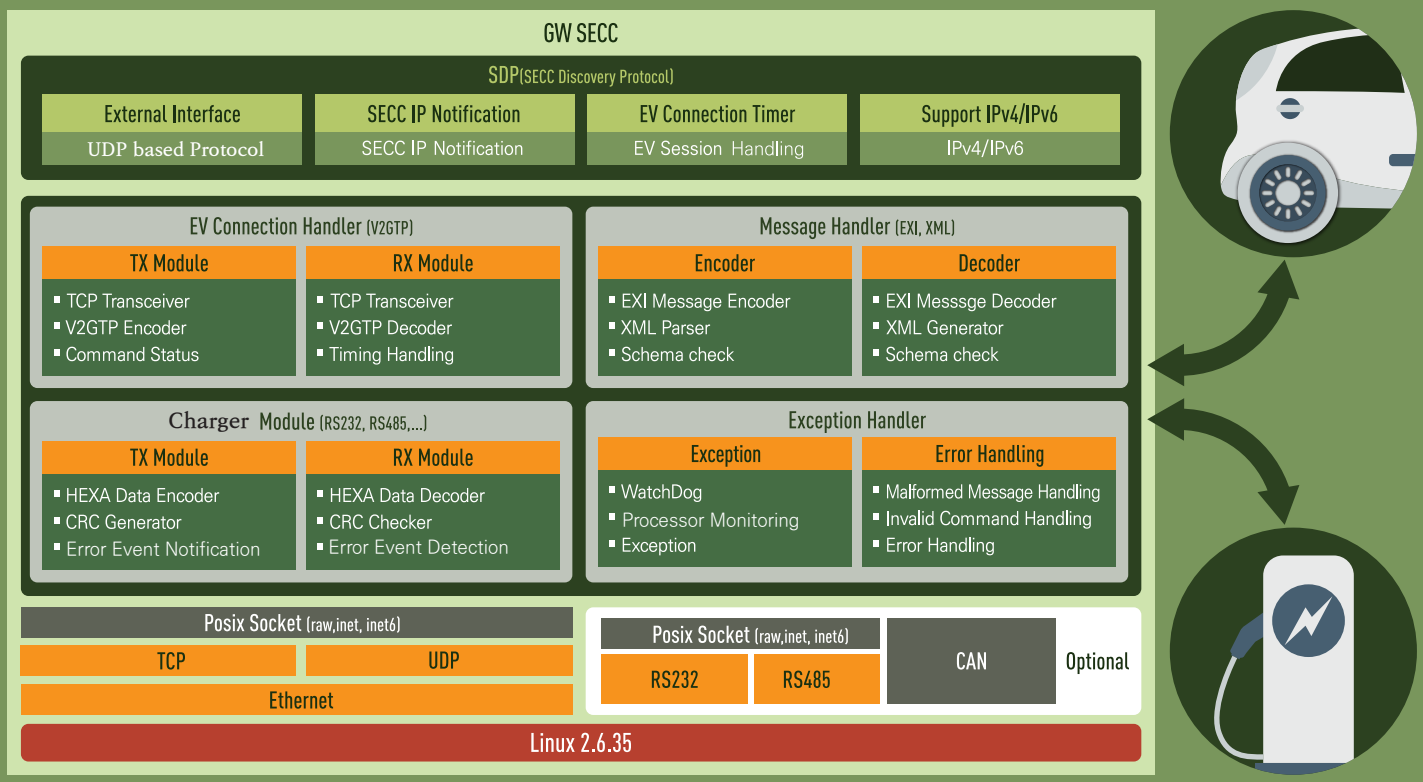
GW V2G Stack



Gridwiz V2G Stack is an EV charging software stack which supports ISO/IEC 15118 (DIN 70121) protocol communication. The stack mounted on Gridwiz PEPPERMINT boards provides communication functions required in all physical layers and compatibility with various electrical vehicles

Gridwiz V2G Stack is designed to be able to exchange all the information necessary in a charging process with the main controller of chargers through various interfaces such as RS232, RS485, CAN and etc.
Gridwiz V2G stack facilitates additional development to existing protocols of chargers so that they can communicate with modems through RS232, RS485 and CAN interfaces.

It is also designed with the scalability of Vehicle-to-Grid, so it can support VAS(Value Added Service) and EIM(External Identification Means) through Ethernet port



GW V2G Stack Features

- ISO 15118/ DIN 70121 Compliant Communication
- Allows for AC and DC Charging
- Support Ethernet Port for Internet Access
- Support for Value Added Services (VAS)
- Support for External Identification Means (EIM)
- Ported on Linux
- RS232, RS485, CAN and Ethernet Interface to Power Electronics
- Integrated TLS 1.2 Security
- Implemented Protocols: IPv6, TCP, SDP, V2GTP
- Own V2G Implementation as a Stable
- Customer Specific Interface Adaptations on Request

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