Vector E-Mobility Solutions

Product Portfolio
E-Mobility Solutions

Vector E-Mobility Portfolio

- **MICROSAR.CHARGE**: Embedded Software for EVCC
- **VC-VCCU**: Vehicle Charging Control Unit
- **VC-EVCC-P**: Vehicle Charging Control Unit for Pantograph Charging
- **VHS110**: CCS Listener
- **VT7870**: Smart Charge Communication Test Module
- **CANoe Option Smart Charging**: CANoe Test Package EV

Find out more about our E-Portfolio Solutions online.
Vector E-Mobility Portfolio

Electric Vehicle Communication Controller (EVCC)

**VC-VCCU** - Vehicle Charging Control Unit
- Small series ECU for electric vehicles
- CAN-PLC Gateway incl. extensive documentation
- IEC 61851, DIN 70121 und IEC/ISO 15118 support
- CCS inlet support
  - Combo 2 for evaluation purposes and series
  - Combo 1 for evaluation purposes

**VC-EVCC-P** - Vehicle Charging Control Unit for Pantograph Charging
- Generic charging control unit for 24V vehicle electrical systems
- Supports charging via inverted pantograph according to the OppCharge standard
- CAN-WiFi Gateway enables wireless communication based on IEEE 802.11a/n (20 MHz channel in 5 GHz band)
- Supports also charging via roof mounted pantograph
MICROSAR.CHARGE - Embedded Software for EVCC

- Smart Charging Communication over PLC/Wi-Fi according to
  - ISO 15118 GEN1 & GEN2
  - DIN SPEC 70121 & SAE J2847/2
- Charging communication via CAN to
  - GB/T 27930:2015 & GB/T 27930:2011
  - CHAdeMO Version 2.0 – 0.9
- Supports all use cases
  - AC & DC, BPT, WPT, ACD
  - EIM & PnC, Scheduled & Dynamic
E-Mobility Measurement Solution from Vector and CSM

- Powerful and flexible measurement system from Vector and CSM for HV applications
- Fast, multi-channel measurements in high-voltage cables and components with **CSM HV measuring modules**
- Time-synchronous measurement and acquisition of physical values, internal ECU signals and signals sent via the vehicle bus **vMeasure exp** and **vMeasure log**
- Online calculation of all relevant parameters such as performance, efficiency or ripple with **eMobilityAnalyzer**
Vector E-Mobility Portfolio

Supply Equipment Communication Controller (SECC)

**vSECClib** - Embedded Software for SECC
- Smart Charging Communication according to
  - ISO 15118
  - DIN SPEC 70121
  - OCPP 2.0.1
- Hardware independent C/C++ library
- Compatible with all Linux-based systems (RTOS compatibility under development)

**vSECC** - Communication Board for SE
- Series Controller
- 1x CCS (Basic Signaling and PLC)
- 1x CCS (Basic Sign. and PLC) or 1x CHAdeMO or 1x GB/T
- Up to 2x EVSE's
- OCPP 2.0.1
Vector E-Mobility Portfolio

Development Tools and Testing

**CANoe Option .Smart Charging**
- Analysis and monitoring of the charging communication
- Simulation of EV and EVSE
- Supported protocols: DIN70121, ISO15118-2/-3, GB/T 27930
- Protocols under development: CHAdeMO, ISO15118-20
- Transport Layer Security (TLS) for ISO15118 PnC

**CANoe Test Package EV**
- Automated conformity and interoperability tests for EV
- Supported test specifications: DIN70122, ISO15118 and GB/T 34658
- Test cases for CHAdeMO in future releases
- Editable with vTESTstudio, executable with CANoe
- Complete solution with test hardware (incl. power unit)
Vector E-Mobility Portfolio

Development Tools and Testing

**VT7870** - Smart Charge Communication Test Module
- Extension module for the VT System (modular HIL test system)
- Simulation of EV and EVSE
- PWM Basic Signaling (IEC 61851)
- Powerline Communication (PLC)
- Available with Qualcomm or Mediatek chipsets

**VH5110** - CCS Listener
- Listening to the PWM and PLC communication between EV and EVSE
- Protocol Analysis in CANoe
- Direct connection to CP line without man-in-the-middle
- Can be connected via inductive coupler around charging cable
- Passive behaviour, no influence on communication
**vCharM** - Charging Station Management System

- Load management for depot and fleet charging
- Value-Added Service Backend according to VDV261 specification
- Monitoring and diagnosis of the charging station with report function
- Vehicle Authorization
- OCPP 1.6J, OCPP2.0 and OCPP 2.0.1
For more information about Vector and our products please visit

www.vector.com

Author:
Vector Germany