EV Charge Controller (CCS)

Electric Vehicle onboard charge controller for DC and AC charging standards.
High versatility, thanks to support of user-written applications.

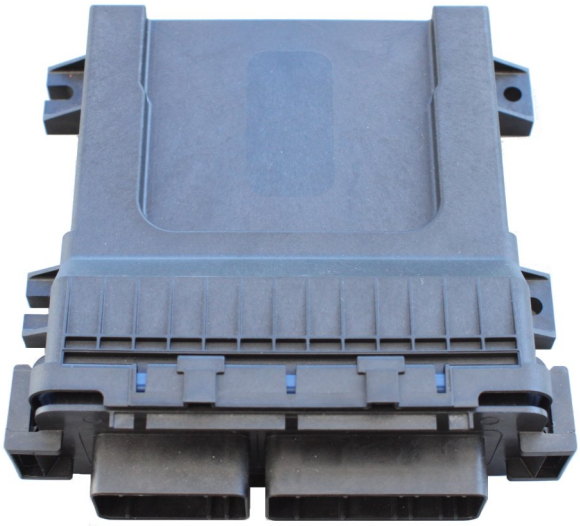
Characteristics

- PEV / EVCC (Electric Vehicle Charge Controller)
- CCS charging protocol (DIN SPEC 70121 and ISO 15118)
- AC charging supported (J1772, IEC 61851-1)
- Ethernet interface accessible for easier development
- CAN bus 2.0B for communication with the vehicle
- Users can deploy their own code (C/C++, Python)
- Built-in control for DC and AC contactors
- Communication stacks included
- Compatible with different BMS (battery monitor systems)
- Supports both 12V and 24V power systems
- Advanced logging
- Automatic deep sleep and wake up for energy saving
- Automotive housing

Order code: ADM-CS-EVCC

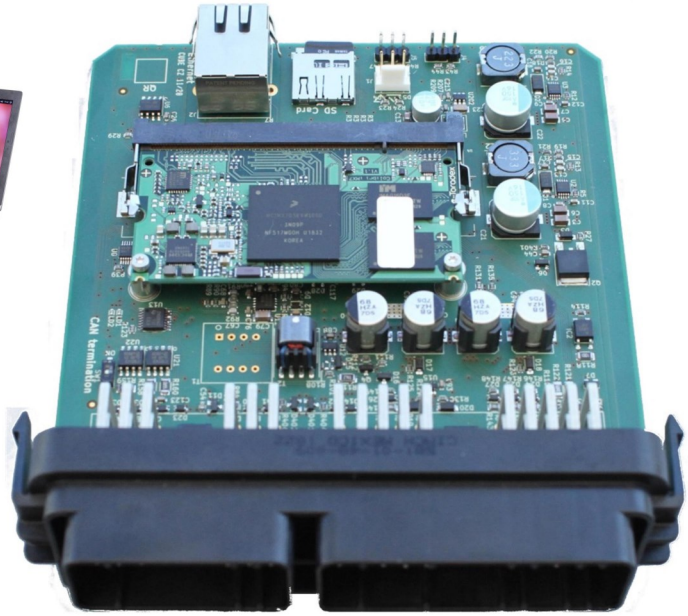
Applications

- EV charge control
- Portable batteries
- EV simulation, development



Charging Standards	AC	SAE J1772, IEC 61851-1
	CHAdeMO	Only on special request
	CCS (Combo 1,2)	DIN SPEC 70121, ISO 15118
Power input	Input voltage min / max	9V / 32V
	Recommended nominal	12V and 24 V systems
	Typical / Peak consumption	5 W / 20W
Interfaces (user side)	CAN bus	CAN 2.0B, extended addresses
	Ventilator PWM	2 independent PWM channels
	Digital Outputs	3 outputs, push-pull
	Digital Inputs	2 inputs, 24V tolerant
	LEDs	3 LED outputs, 12V, overcurrent protected
	Ethernet	100Mbps RJ45
	SD memory card	16 GB card standard
	Charge Stop input	HW charge disable (emergency)
	Fast charging contactors	2 contactor drivers, externally powered
	Wake up / Sleep	Wake up on ignition, AC,CCS,CHAdeMO
AC+CCS interface	Communication wires	CP (Control Pilot), PP (Proximity Pilot)
	Temperature measurements	3 PT1000 inputs
	PLC (Powerline Communication)	MStar / MediaTek GreenPHY
	Output contactor driver	1 relay for driving output DC contactors
	Protection	HW interlocked relay (CP state monitor)
CHAdeMO interface (not used currently)	Communication wires	SEQ1, SEQ2, PROX, PERM, CANH, CANL
	Temperature measurements	3 PT1000 inputs (shared with CCS inlet)
Mechanical	Module dimensions	153 x 150 x 56 mm
	Module housing	Automotive, IP67
	Connections	CINCH automotive SHS series
	Weight	400 g

Logging, R&D
(Ethernet)



Digital input (x2)

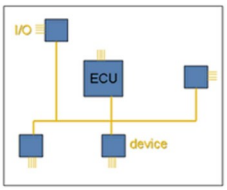
Digital output (x3)

Indicators

Charge stop

CCS Inlet
(Type 1,2)

CHAdeMO
(currently not supported)



CAN bus

Fast Charge
DC Contactors

12V/24V supply