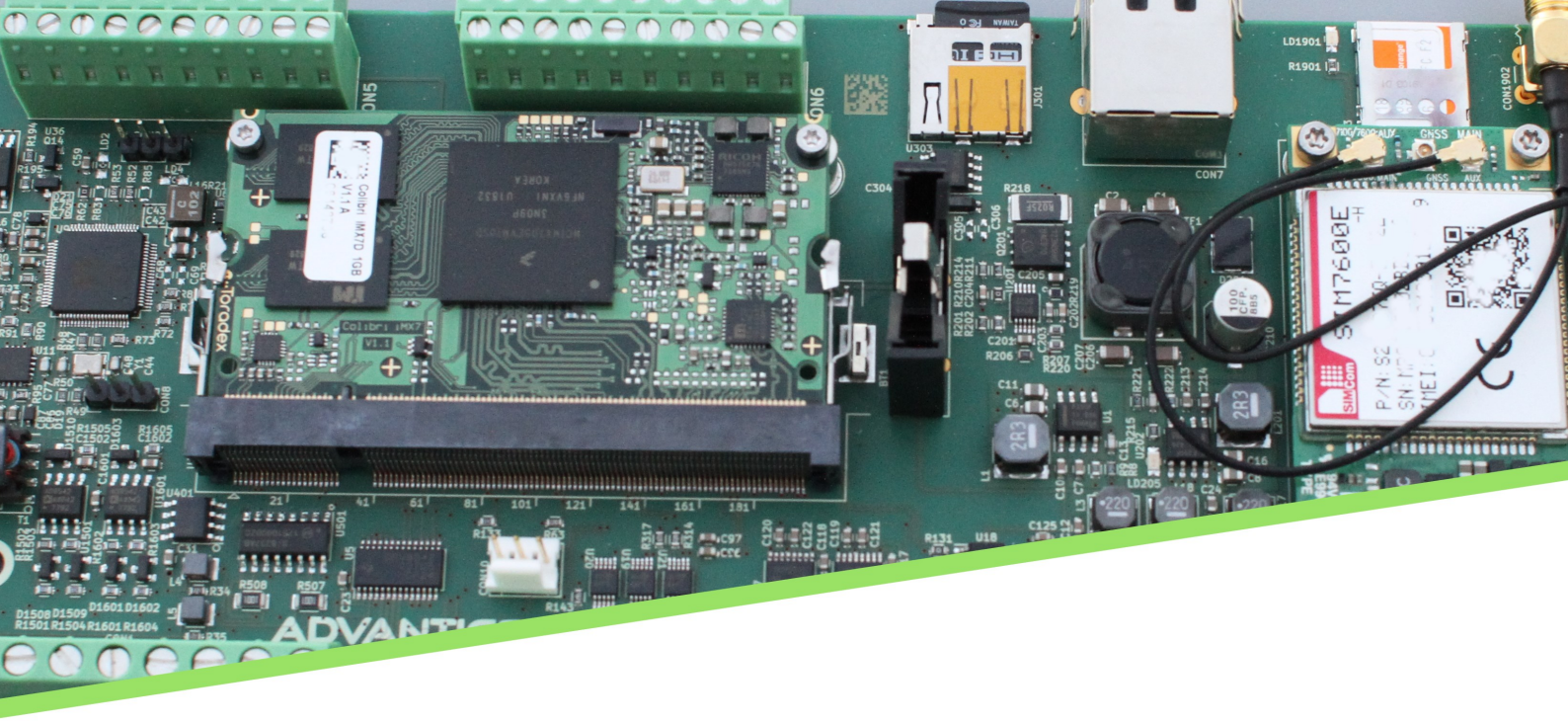


Charge Station controller

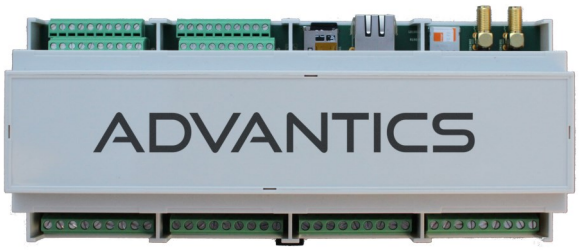
Electric Vehicle charging station communication controller for DC and AC charging standards.
High versatility, thanks to support of user-written applications and industrial interfaces.

Characteristics

- EVSE / SECC (Supply Equipment Charge Controller)
- Supports simultaneous connection of several vehicles
- CCS protocol (DIN SPEC 70121 and ISO 15118)
- CHAdeMO protocol (with V2X extension coming)
- AC charging supported (J1772, IEC 61851-1)
- 4G connectivity modules available for all zones
- RS-485 (including Modbus-RTU)
- Ethernet, CAN bus for power modules control
- Users can deploy their own code (C/C++, Python)
- Relays for DC and AC contactors control
- Communication stacks included
- Compatible with different power modules
- OCPP interface possible

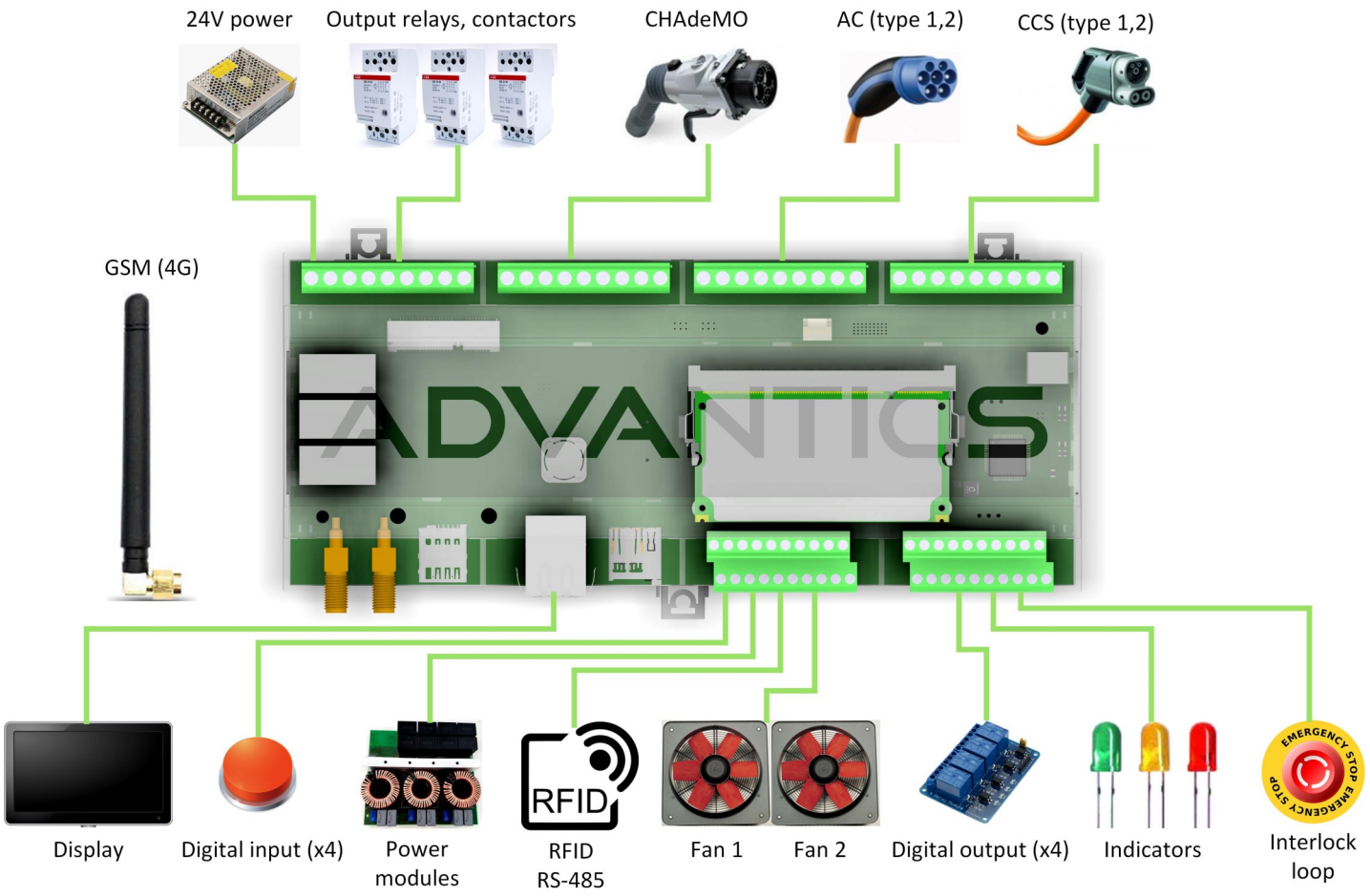
Applications

- EV DC and AC charging stations
- Industrial control
- Charging station simulation
- EV development



Order code: ADM-CS-SECC

Charging Standards	AC	SAE J1772, IEC 61851-1
	CHAdeMO	1.x, with V2G and 2.0 coming
	CCS (Combo 1,2)	DIN SPEC 70121, ISO 15118
Power input	Input voltage min / max	20 V / 28 V
	Input voltage max	28 V
	Recommended nominal	24 V
	Typical / Peak consumption	5 W / 20W
Interfaces (user side)	CAN bus	CAN 2.0B, extended addresses
	Interlock	20mA current loop, 24V
	Ventilator PWM	2 independent PWM channels
	Digital Outputs	4 outputs, 24V, PLC style
	Digital Inputs	4 inputs, PLC style, 24V tolerant
	LEDs	3 LED outputs, 12V, overcurrent protected
	RS-485	Modbus-RTU stack available
	Ethernet	100Mbps RJ45. Modbus TCP available
	SD memory card	16 GB card standard
	4G network connectivity	Mini PCIE slot, populated with 4G modem
	4G regions (per user request)	EMEA/Korea/Thailand, NA, Australia, Japan
	SIM slot	Micro SIM, user supplied
AC interface	Communication wires	CP (Control Pilot), PP (Proximity Pilot)
	Temperature measurements	2 PT1000 inputs
	Locking mechanism	Standard AC inlet locking interface
	Output contactor driver	1 relay for driving output AC contactors
	Protection	HW interlocked relay (CP state monitor)
CCS interface	Communication wires	CP (Control Pilot), PP (Proximity Pilot)
	Temperature measurements	2 PT1000 inputs
	PLC (Powerline Communication)	MStar GreenPHY
	Output contactor driver	1 relay for driving output DC contactors
	Protection	HW interlocked relay (CP state monitor)
CHAdeMO interface	Communication wires	SEQ1, SEQ2, PROX, PERM, CANH, CANL
	Temperature measurements	1 PT1000 input
	Locking mechanism	Solenoid driver
	Output contactor driver	1 relay for driving output DC contactors
	Protection	HW interlocked relay (PERM state monitor)
Mechanical	Module dimensions	212 x 90 x 58 mm
	Connections	Screw wire terminals
	Weight	350 g



						top-row		bottom-row
				GPIO	CON5	10	interlock line	20 GND (interlock)
EVSE CP A	1	CON1	AC + CCS			9	c loop in	19
EVSE PP A	2					8	c loop out	18
(CCS A) GND	3					7	LED 3	17 GND (LED3)
EVSE CP B	4					6	LED 2	16 GND (LED2)
EVSE PP B	5					5	LED 1	15 GND (LED1)
(CCS B) GND	6					4	digital output 4	14 GND (digital output 4)
lock pos B	7					3	digital output 3	13 GND (digital output 3)
lock neg B	8					2	digital output 2	12 GND (digital output 2)
lock fb B	9					1	digital output 1	11 GND (digital output 1)
PT1000 ch1 A	1	CON2			CON6	10	fan PWM ch1	20 GND (fan PWM ch1)
(PT1000 ch1 A) GND	2					9	fan PWM ch2	19 GND (fan PWM ch2)
PT1000 ch2 A	3					8	RS485 -	18 GND (RS485)
(PT1000 ch2 A) GND	4					7	RS485 +	17 GND (CAN)
PT1000 ch1 B	5					6	CAN H	16 120Ω bridge CAN
(PT1000 ch1 B) GND	6					5	CAN L	15 120Ω bridge CAN
PT1000 ch2 B	7			COM		4	digital input 4	14 GND (digital input 4)
(PT1000 ch2 B) GND	8					3	digital input 3	13 GND (digital input 3)
(ChaDeMo PT1000) GND	9					2	digital input 2	12 GND (digital input 2)
						1	digital input 1	11 GND (digital input 1)
PT1000	1	CON3	CHADEMO	SD				SD card holder
solenoid P	2							
(solenoid) GND	3							
EVSE SEQ1	4							
EVSE SEQ2	5							
EVSE PROX	6			ETH	CON7			ethernet
EVSE PERM	7							
CAR CAN L	8							
CAR CAN H	9							
(ChaDeMo) GND	1	CON4	RELAIS	SIM				SIM card holder
relais 1 - com	2							
relais 1 - no	3			ANT 1	CON8			antenna 1
relais 2 - com	4							
relais 2 - no	5							
relais 3 - com	6			ANT 2	CON9			antenna 2
relais 3 - no	7							
24V in	8		PWR					
(24V) GND	9							

1mm² terminals
1,5mm² terminals