



Flea 3 EVSE

Highly integrated control unit for charging stations

Manufacturers of charging stations are under pressure to keep costs down. By integrating functions into one device both prices and complexity can be significantly reduced. Additional device management via telematics offers an interesting setup with regard to unit and operating costs.

Functions

- Control of charging process
- Identification and authorization
- Communication between vehicle, charging station and backend
- Registration of billing data
- Surveillance and monitoring during charging process

Properties

- Control of charging process
- Vehicle interface according to IEC61851/ SAE J1772/ ISO15118
- Server interface according to OCPP 1.5
- Approved runtime environment with many basic functions
- Open system environment and efficient application development
- Direct control of electric meter, direct debit terminal, contactless card reader, display and much more
- Remote maintenance

Hardware	Flea 3 EVSE
Processor	ARM11 32 Bit 532 MHz
Main memory	128 MB SDRAM
Flash memory	512 MB NAND, 8 MB NOR
Ethernet	10 Base-T/100Base-TX
UMTS/GPRS/EDGE	UMTS/HSPA (800/850/900/1700/1900/2100 MHz), GSM/GPRS/EDGE quad-band
Wireless LAN	optional
Interfaces	1 x RS232, 1 x RS485 (half duplex/full duplex), 2 x CAN high speed, 1 x USB 2.0, 1 x I2 C , 1 x Ethernet, 6 x digital outputs (open drain), 2 x digital outputs (high side with flyback diode), 4 x outputs for motor driver application (max. 12A), 15 x analog inputs (proximity detection, interlock feedback, ...), 2 x PWM outputs (control pilot), filtered power supply pin for external component, real time clock, internal temperature/voltage measurement, 1 x custom interface module, 1 x Power Line Communication-Modul (optional)
Input voltage	5 V ... 36 V
Operating temp	- 40°C ... + 85°C
Dimensions	136 mm x 106 mm x 36 mm incl. main connector
Weight	420 g
Software	
Operating System	Embedded Linux / Kernel 3.7
Protocols	IEC61851/ SAE J1772/ ISO15118 und OCPP 1.5
Applications	Charging Pillar Control, Smart Charging, Emobility, Smart Energy Management

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Flea 3 EVSE

Technical Specification

General Specifications

- **Power Supply:**
 - 5V ... 36V
- **Overvoltage Protection:**
 - 36 V
- **Interfaces:**
 - 1 x RS232, 1 x RS485
 - 2 x CAN High Speed
 - 1 x USB 2.0
 - 1 x I2 C
 - 1 x Ethernet RJ45
 - 1 x PLC Green Phy
 - 6 x digital outputs (open drain)
 - 2 x digital outputs (high side)
 - 4 x outputs for motor driver (max. 12 A)
 - 2 x PWM outputs
 - 15 x analog inputs
 - GSM antenna connector
- **Power Consumptions:**
 - Off: 0 mA
 - Sleep (Systemcontroller only): < 0,5 mA
 - Run : 300 mA

Memory

- Flash NOR: 8 MB
- Flash NAND: 512 MB
- RAM: 128 MB

USB

- 2 x USB 2.0 Host (1 internal)

UMTS/EDGE/GSM Specifications

- Six-band UMTS/HSPA 800/850/900/1700/1900/2100 MHz
- Quadband GSM/ E-GSM 850/900/1800/1900 MHz
- Power Class 4 for GSM, Power Class E2 for EDGE, Power Class 3 for HSPA
- Data calls
- SMS (MO/ MT)

CAN

- 2 x HS CAN interfaces
- Operating independently or as gateway
- Immediate startup

Network

- Ethernet
- 10 Base-T/100 Base-TX
- IEEE 802.3u Standard

Mechanical Design

- Dimensions: 136 mm x 106 mm x 36 mm incl. main connector
- Weight: 420 g
- Connector: ELO

Wakeup Options

- RTC
- CAN (dominant level, any message, special message)
- Modem Ring

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