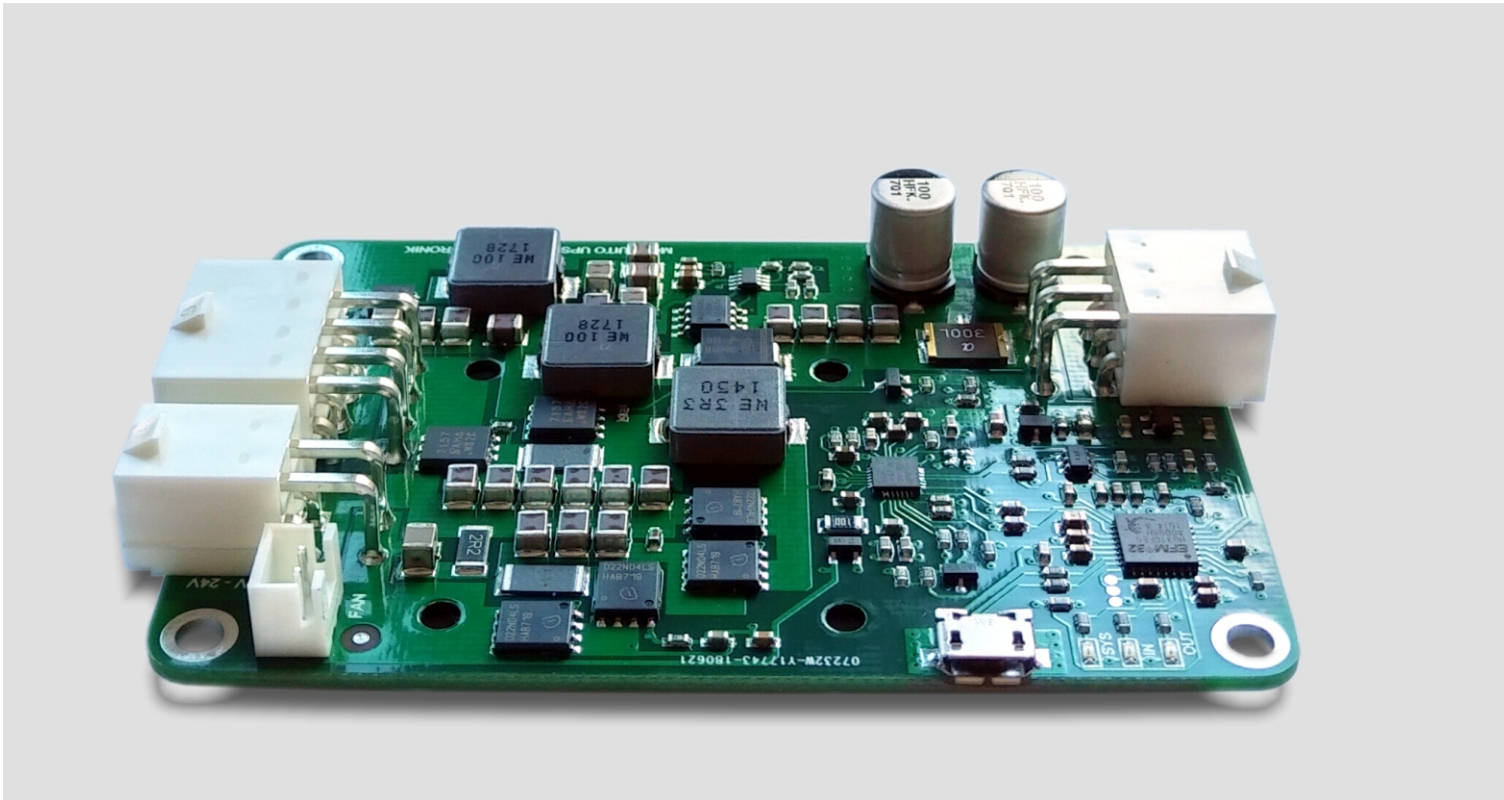


UPS-Lite

Uninterruptible Power Source

Lithium technologies



Technology of lithium batteries

UPS-Lite is a general-purpose uninterruptible power source you may configure as required by your application. It supports Li-Ion and LiFePO4 battery packs, it has integrated charger with programmable charging current from 1A to 8A.

General-Purpose

Supplies two potentials of output voltage. One output can be configured from 10V to 28V, second of fixed potential of 5V. Adjustable output voltage is always stabilised to a configured potential and is independent of input voltage of DC INPUT and current battery level.

Dynamic power management

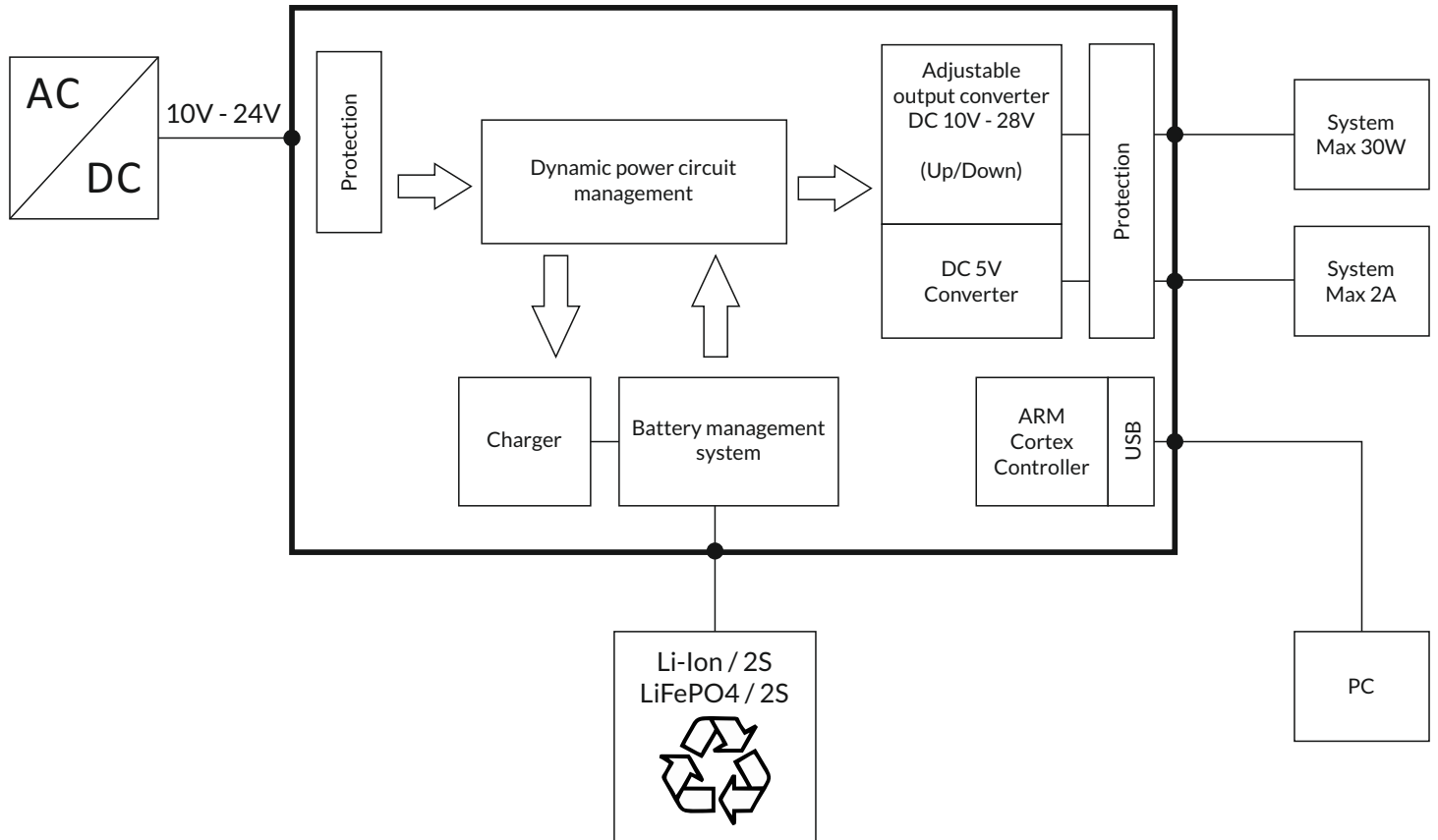
UPS-Lite is operating with dynamic power switching circuit. In operation mode, if voltage is present at the input of DC INPUT, the system of dynamic power switching will first supply the load at the output, and then the remaining power will be directed to a charger system. If power demand at the output exceeds the capacity of DC INPUT source – the remaining power will be supplied from battery. Functionality of dynamic power management prevents overloading of DC INPUT source and allows for cost reduction of the whole installation.

USB managed

“UPS-Lite Manager” application supported by MS Windows and Linux. UPS-Lite may operate in Off-Line or On-Line mode. In Off-Line mode, after the configuration is saved, the power unit is disconnected from PC and all settings are stored in non-volatile memory. In On-Line mode, parameters of power unit are sent to host computer in real time.

- Input voltage range from 10V to 24V. Protection against reverse polarisation
- Adjustable output voltage range from 10V to 28V, power up to 30W
- Non-adjustable second output 5V/2A
- Li-Ion 2S 7.4V or LiFePO4 2S 6.4V battery pack
- Quick charger from 1A to 8A
- Configurable maximum current of DC INPUT source
- Dynamic power management

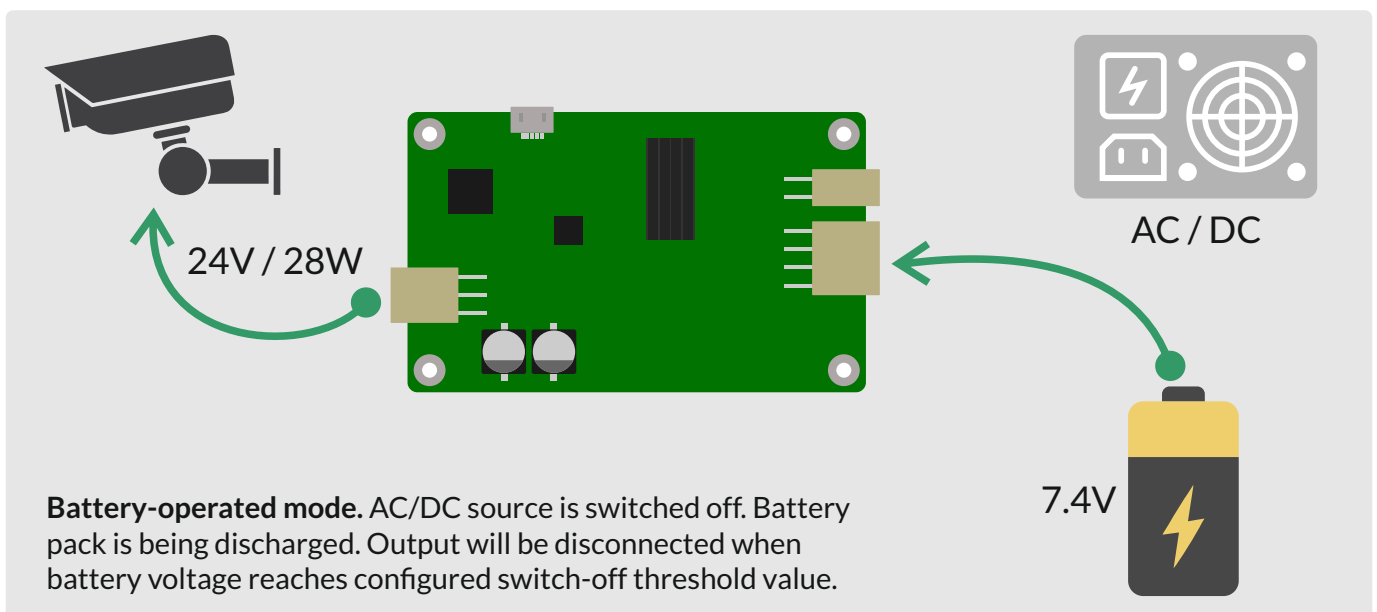
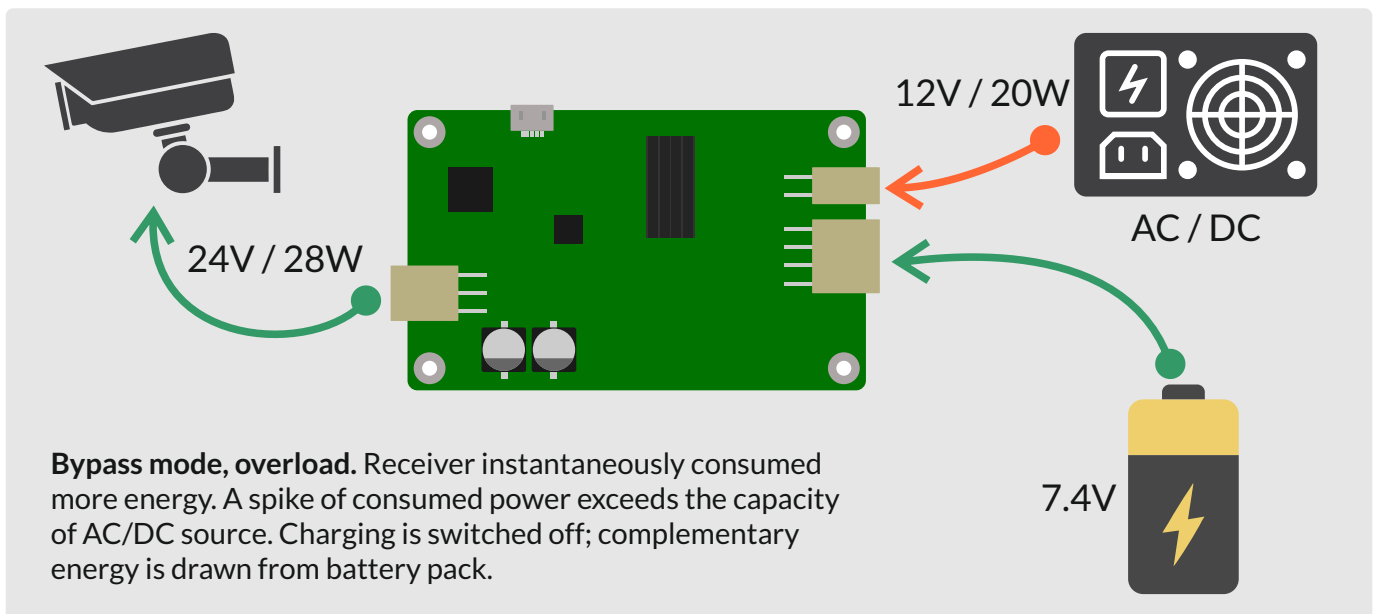
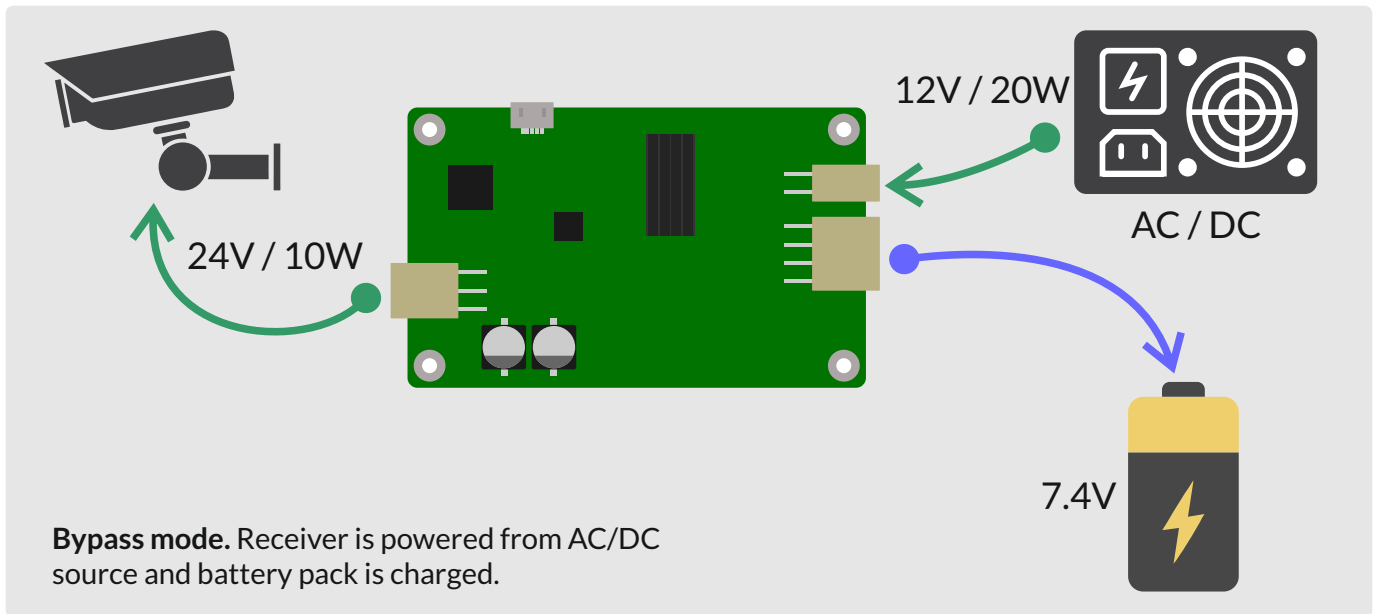
1. Functional flow chart



2. Specification

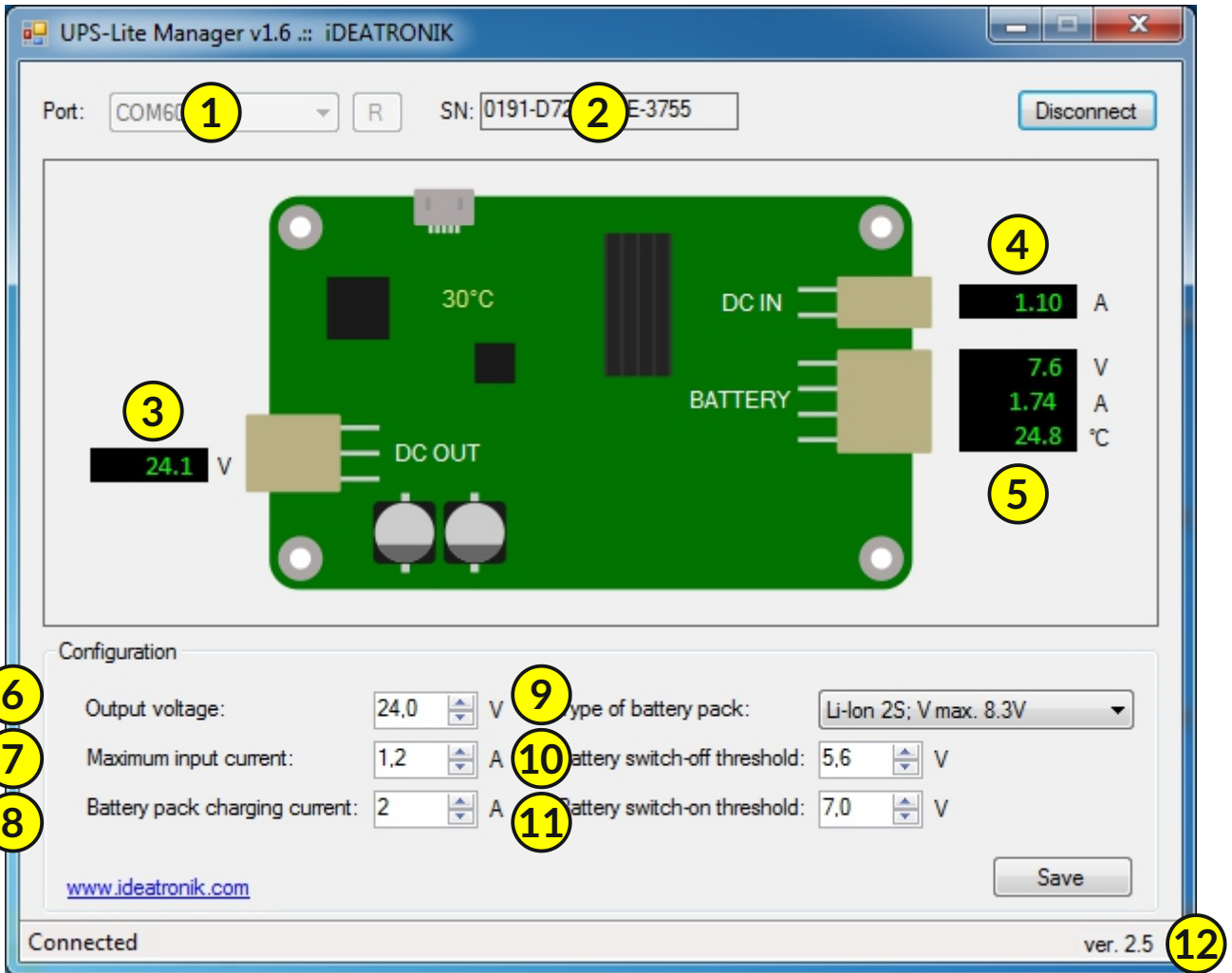
PARAMETER	MIN	TYP	MAX	JEDNOSTKA
Input voltage range of DC INPUT	10		24	V
Adjustment range of DC INPUT current limitations	0.2		8	A
Range of adjustable output voltage of DC OUTPUT	10		28	V
Power of adjustable output of DC OUTPUT			30	W
Voltage of non-adjustable output of DC OUTPUT	4.95	5.0	5.25	V
Current of non-adjustable output of DC OUTPUT		2	3	A
Maximum Li-Ion / 2S battery charging voltage	8.28	8.30	8.32	V
Maximum LiFePO4 / 2S battery charging voltage	7.15	7.17	7.19	V
Battery charging current	1		8	A
Range of operating (ambient) temperatures	-30		60	°C
Short-circuit protection, polymer fuse	3.0		3.6	A
Protection against exceeding the input voltage	24	26	28	V
Protection against exceeding the maximum battery voltage	102		104	%
Protection against exceeding the temperature	135		155	°C

3. Operation modes

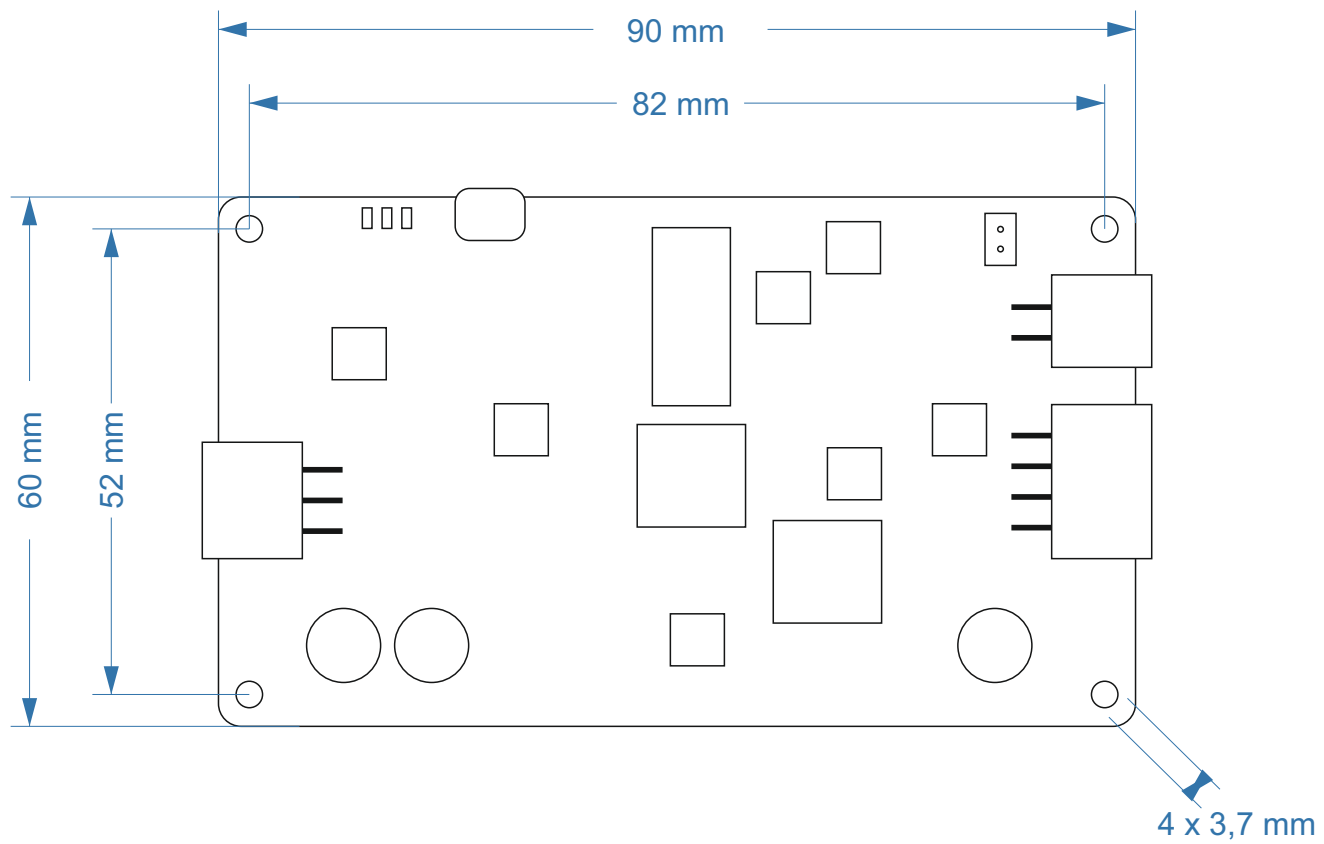


4.4. "UPS-Lite Manager" application

After connecting to USB port, the device is detected as virtual COM serial port. Controller is compatible with MS Windows XP, 7, 8, 10. The application to download: http://www.ideatronik.com/devices/ups_lite/bin/UPS_Lite_v1_6_EN.zip.



FIELD	DESCRIPTION
1	Virtual COM serial port, the device controller is connected to
2	Serial number of the device
3	Measured voltage of adjustable output
4	Measured voltage charged from power source
5	Measured voltage, current and temperature of the battery. Negative current value - discharging
6	Configuration of adjustable output voltage
7	Configuration of current limitation for power source
8	Configuration of maximum battery pack charging current
9	Configuration of battery pack's type
10	Configuration of battery voltage at which output is to be disconnected
11	Configuration of minimum voltage at which output is to be connected
12	Connection status and software version of device's system



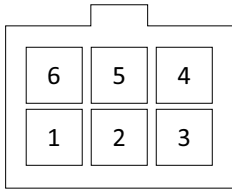
UPS-LITE-2S-8A

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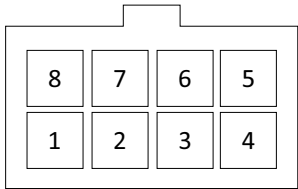


iDEATRONIK
Smart Power Systems

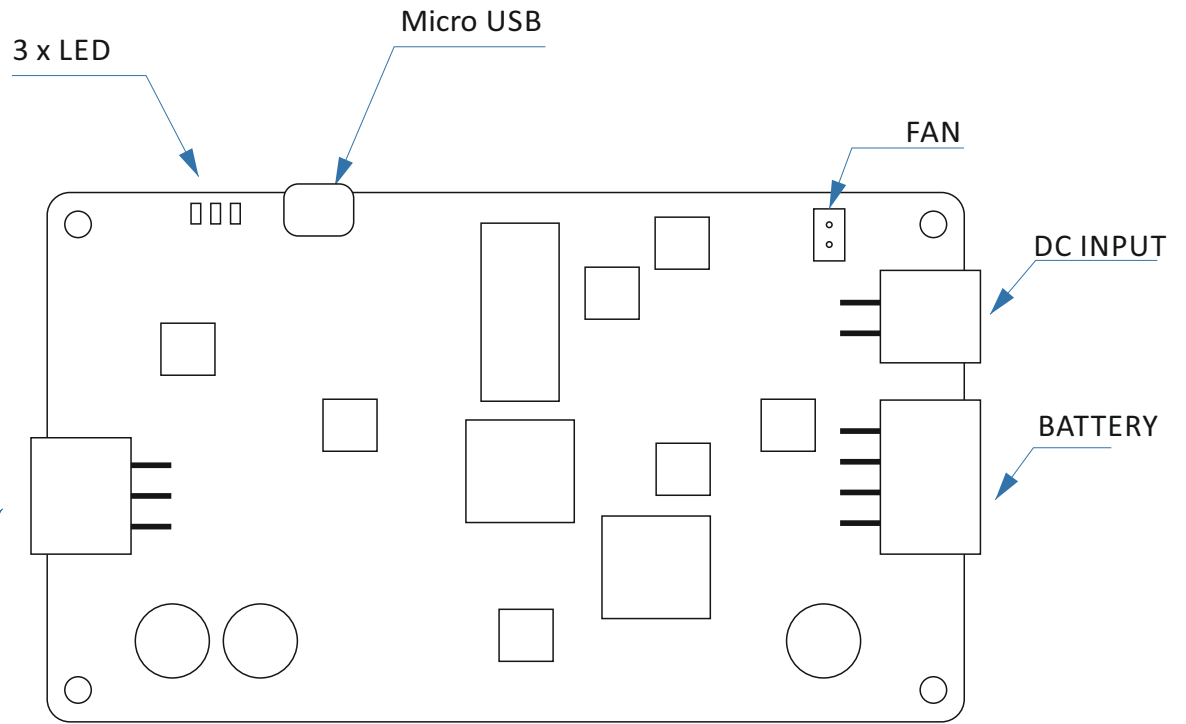
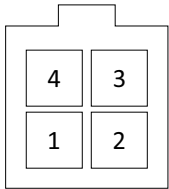
DC OUTPUT	
1	GND
2	GND
3	GND
4	ADJ
5	ADJ
6	5V



BATTERY	
1	GND
2	GND
3	GND
4	NTC (10K; B3380)
5	EEPROM (Optional)
6	BAT+
7	BAT+
8	BAT+



DC INPUT	
1	GND
2	GND
3	VCC
4	VCC



CONNECTORS (Wurth Electronics - WR-MPC4 Dual Row Female)	
DC OUTPUT	649006113322
BATTERY	649008113322
DC INPUT	649004113322

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