



**S.USV UPs - UNINTERRUPTIBLE POWER SUPPLY (UPS) FOR ALL UP BOARDS**  
**INTEGRATED AND ADJUSTABLE CHARGING FUNCTION**  
**EXTENDED VOLTAGE RANGE**

**PRODUCT DESCRIPTION**

S.USV UPs is an advanced power supply additional module for all UP board models, with the main focus on the uninterruptible power supply of the single-board computer. The module also provides additional functions in order to optimize the operation of the UP board by the user. Among other things, this has the ability to adjust the integrated charging current to 300mA (standard), 500mA, or 1A, causing much faster battery charging time.

The S.USV UPs is a fully functional plug & play solution. The power supply occurs directly through GPIO on the UP board and therefore uses a common voltage source, thus no additional cabling or power supply needed. In addition, the module is equipped with a LiPo battery. An integrated boost switching power converter covers the necessary voltage range, thereby the UP board shut down safely in case of misconduct and prevent data loss.

The S.USV UPs also provides a power input for the extended voltage range of 7-24 volts (solar cells, automotive applications, etc.).

To ensure uninterrupted power supply of the UP board, the S.USV UPs offers a fully integrated monitoring - system with a wide spectrum of operating options. All possible operating states of the UP board are monitored internally, so the module is always able to respond to misbehaviour accordingly.

If, for example, the power supply of the single-board computer falls below the adjustable voltage threshold, the S.USV UPs automatically switches to battery mode and keeps the functionality of the UP board over a by the user adjustable time period constant and bridges the power failure or shut down the single-board computer in case of a long-term power outage securely.

All these features work automatically. In Addition, the operator has the opportunity to check and control all operating states or switching operations on a software.

**FUNCTION OVERVIEW**

- ⊕ HAT compliant UPS Module
- ⊕ Compatible with all UP boards
- ⊕ Uninterruptible power supply
- ⊕ Plug & Play (Power via UP board)
- ⊕ Monitoring – System
- ⊕ Intelligent software solution
- ⊕ Built-in LiPo battery (300mAh) with adjustable charging function
- ⊕ Battery Management Controller
- ⊕ Battery Monitoring System
- ⊕ Integrated Real Time Clock
- ⊕ Time-controlled on and off switching of the UP board
- ⊕ Supply Switch (Power on and off buttons / File safe shutdown)
- ⊕ LED – Status display
- ⊕ Bootloader for Live – Firmware updates
- ⊕ Power input with extended voltage range of 7-24 volts

**TECHNICAL SPECIFICATIONS**

	S.USV UPs
Plug & Play	√
Power Supply	5 Volts/2500 mA
Extended Voltage Range	7-24 Volts/3500 mA
Secondday output power	5 Volts/3500 mA
Interfaces	I <sup>2</sup> C
ID EEPROM	√
Monitoring - System	√
LiPo - Battery	√
Battery Management	√
Battery Monitoring	√
Real Time Clock	√
Supply Switch	√
Compatibility	All UP boards
Dimensions	65x56,5 mm