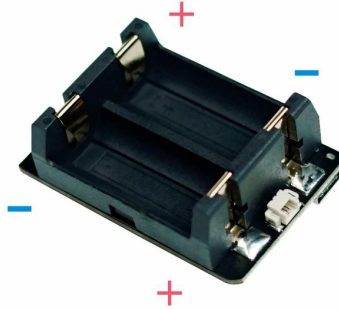
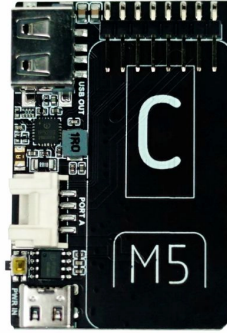


Hat PowerC

SKU:U081



Description

Hat PowerC is a charging module designed specifically for the M5StickC, featuring a built-in IP3005 high-precision lithium battery protection IC and IP5209 power management IC. It uses the I2C communication protocol to transmit data with the host M5StickC, allowing you to view voltage, current, and other information through programming. The battery holder on the back of the module can accommodate two 16340 batteries, which can be charged via the charging module or used to supply power externally as a power bank. Additionally, it provides an XH1.25 plug lithium battery charging interface. The module offers an I2C interface for connecting I2C peripherals, a type-C interface for power input, and a USB-A female port for power output, with an output voltage of 5V/1.5A and an input voltage of 5V. The module is equipped with an independent switch, which can be turned on with a single press and turned off with a double press.

Features

- Synchronous switching for charging and discharging
 - 2.4A synchronous boost conversion, 2.1A synchronous switch charging
 - Boost efficiency up to 96%
 - Charging efficiency up to 97%
 - Built-in power path management, supports charging and discharging simultaneously

- Charging
 - Adaptive charging current adjustment to match all adapters
 - Charging voltage accuracy: $\pm 0.5\%$
 - Supports 4.20V, 4.30V, and 4.35V batteries
 - Supports battery temperature NTC comparison
- Power Display
 - Built-in 14-bit ADC and power meter
 - Supports 5 / 4 / 3 LED power display
 - Battery power curve can be set for more uniform display lighting
- Rich Features
 - Automatic detection of phone insertion and removal
 - Integrated smart recognition of phone charging current DCP
- Low Power Consumption
 - Intelligent load recognition, automatic standby
 - Standby power consumption less than 100 μA
- I2C Interface (Address 0x75)

| Includes

- 1 x Hat PowerC

| Applications

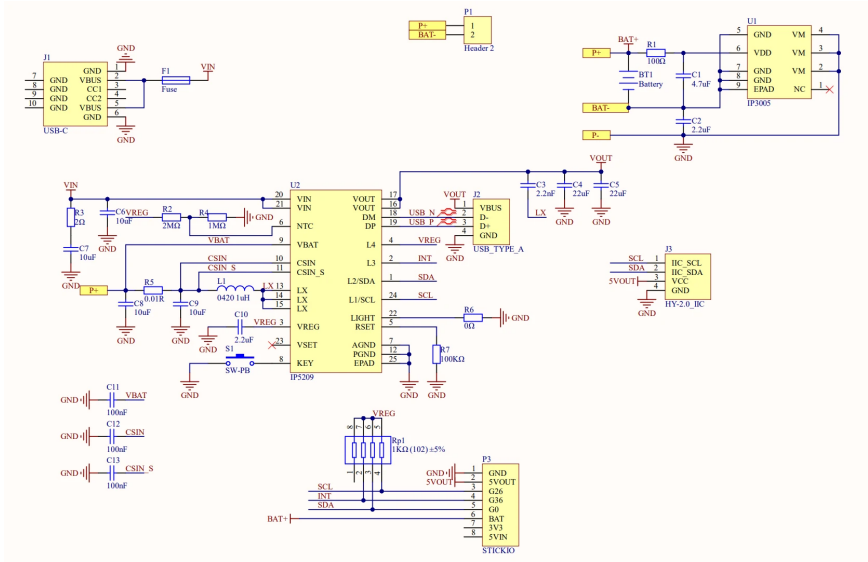
- Power bank
- Battery charger

| Specifications

Specification	Parameter
Communication Port	I2C @0x75
Product Size	55.0 x 35.0 x 25.0mm
Product Weight	55.0g
Package Size	100.0 x 96.0 x 70.0mm
Gross Weight	68.0g

| Schematics

- [Hat PowerC Schematic PDF](#)



PinMap

M5StickC	G0	G26	5V	GND
PowerC	SDA	SCL	5V	GND
PortA	YELLOW	WHITE	RED	BLACK

Datasheets

- [IP5209 Datasheet](#)
- [IP3005 Datasheet](#)

Softwares

Arduino

- [Hat PowerC Example - with M5StickC](#)
- [Hat PowerC Example - with M5StickC-Plus](#)

UiFlow1

- [Hat PowerC UiFlow1 Docs](#)
- [Hat PowerC Test Example](#)

EasyLoader

Easyloader	Download Link	Note
Hat PowerC Easyloader	download	/

PowerC_HAT.mp4