UPS HAT for Jetson Nano

DFR0865

Description

DFRobot UPS HAT for Jetson Nano is an advanced Uninterruptible Power Supply (UPS) module designed for the Jetson Nano developer kit. This module provides up to 5.1V 8000mA backup power for the Jetson Nano board. The UPS HAT for the Jetson Nano module supports power loss/adapter fault detection, automatic startup, complete shutdown from software, advanced power path management, I^2C bus communication, and onboard LED indicators for monitoring battery capacity.

The UPS HAT for the Jetson Nano module features $5V_{DC}$±5%, ≥4A power input, 5.1V±5% maximum 8A UPS output, 3A UPS charging current, 4.24V terminal battery voltage, and 4.1V charging threshold. This module also features an integrated battery protection circuit, integrated over-current protection, and over-voltage protection, integrate Maxim's fuel gauge system (read battery voltage and percentage through I^2C), and intelligent automatic charging and discharging. The UPS HAT for Jetson Nano is powered by six 18650 batteries and can operate for up to 10 to 30 hours (depending on the type of battery used).

Specifications

- $5V_{DC}$±5%, ≥4A power input
- 5.1V±5% maximum 8A UPS output
- 3A UPS charging current
- 4.24V terminal battery voltage
- 4.1V charging threshold

Features

- Continuous operation for up to 10 to 30 hours (depending on the battery type and the amount of battery used)
- Provides a maximum of 5.1V 8000mA backup power
- Can work with 1/2/3/4/5/6 18650 lithium-ion batteries
- Support 3A fast battery charging
- Integrated battery protection circuit
- Integrated overcurrent protection and over-voltage protection
- Integrate Maxim's fuel gauge system (read battery voltage and percentage through I^2C)
- Intelligent automatic charging and discharging
- On-board 4 green LEDs indicate battery charging and discharging levels of 25%, 50%, 75%, and 100%
- The onboard blue LED indicator shows the power on/off status
- The onboard button can control the power on/off (short press the button-turn on, press and hold the button for at least three seconds-turn off)
- Power loss or power adapter fault detection (LED and GPIO indication)
- Onboard XH2.54 power output connector for powering other devices
- Mounting holes and standoffs provide mechanical stability for Jetson Nano and T208 components

Overview

Mouser Part Number

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