

RASPBERRY PI 4 HAT

CAN termination resistor is onboard

Copperhill (USA) supplies the PiCAN3 board with a switch-mode power-supply. The CAN hat is stackable on Raspberry Pi 4 cards.



The PiCAN3 is equipped with a CAN transceiver and a stand-alone CAN controller by Microchip (Source: Copperhill)

power failure occurs.

The switch-mode power-supply allows connecting an input voltage range of 6 V_{DC} to 20 V_{DC} suitable for industrial and automotive applications and environments. It powers the Raspberry Pi main board and the PiCAN3 hat. The CAN interface is realized by means of the MCP2515 stand-alone controller and the MCP2551 transceiver. Both chips are made by Microchip. The CAN interface supports bit-rates up to 1 Mbit/s, a 120-Ohm termination resistor is provided. It is available via a 9-pin Dsub connector or screw terminals. A SocketCAN driver software comes with the product. Programming can be accomplished in C or Python.

The onboard PCF8523 real-time clock and calendar chip is optimized for low-power consumption. Data is transferred serially via the I²C interface with a maximum data rate of 1 Mbit/s. Alarm and timer functions are accessible with the opportunity to produce a wake-up signal on an interrupt pin. An offset register allows fine-tuning of the clock. The PCF8523 has a backup battery switch-over circuitry, which detects power failures and automatically switches to the battery supply when a

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