

MCP23008 - i2c 8 input/output port expander

PRODUCT ID: 593

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DESCRIPTION

TECHNICAL DETAILS



DESCRIPTION

Add another 8 pins to your microcontroller using a MCP23008 port expander. The MCP23008 uses two i2c pins (these can be shared with other i2c devices), and in exchange gives you 8 general purpose pins. You can set each of 8 pins to be input, output, or input with a pullup. There's even the ability to get an interrupt via an external pin when any of the inputs change so you don't have to keep polling the chip.

Use this chip from 2.7-5.5V (good for any 3.3V or 5V setup), and you can sink/source up to 20mA from any of the I/O pins so this will work for LEDs and such. Team it up with a high-power MOSFET if you need more juice. DIP package means it will plug into any breadboard or perfboard.

You can set the i2c address by tying the ADDR0-2 pins to power or ground, for up to 8 unique addresses. That means 8 chips can share a single i2c bus - that's 64 I/O pins!

We used this chip in our SPI/i2c backpack and found it to be very reliable and easy to get up and running. [We even have an Arduino library with example code written which will set pin state, read and write from individual pins, and set the pullups.](#)

TECHNICAL DETAILS

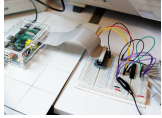
- This board/chip uses I2C 7-bit address between 0x20-0x27, selectable with jumpers

Downloads:

[Datasheet for MCP23008](#)

Downloaded from [Arrow.com](#)

LEARN



[MCP230xx GPIO Expander on the Raspberry Pi](#)

Add 8 or 16 extra GPIO pins to your pia via I2C



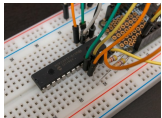
[Character LCD with Raspberry Pi or BeagleBone Black](#)

Use a 16x2 or 20x4 character LCD with a small Linux board!



[I2C addresses!](#)

I2C addresses from 0x00 to 0x7F (inclusive)



[Using MCP23008 & MCP23017 with CircuitPython](#)

How to wire up and use the MCP230xx I2C I/O extender with CircuitPython!

MAY WE ALSO SUGGEST...



MCP23017 - i2c 16



74LVC245 - Breadboard



Adafruit ATSAM09

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