



The following will work to allow you to use as many devices as you can find spare GPIO.

Find 8 spare GPIO (i.e. not being used by SPI or anything else in your project). Do not use or connect CE0.

I will refer to them as G1 to G8.

Connect the slave select (or whatever it is called for your chips) of ADC1 to G1, ADC2 to G2, ..., ADC8 to G8.

Connect the other SPI signals (MISO/MOSI/SCLK) in parallel to the ADCs as normal.

Initialise each of G1 to G8 as a high output.

Open the SPI device associated with CE0 (/dev/spidev0.0). Note, nothing should be connected to CE0.

To communicate with ADCx do the following.

1. Set Gx low.
2. Do a SPI transfer to the opened SPI device.
3. Set Gx high.

Repeat as needed for each ADC.

waveshare 2inch LCD Display Module,
Compatible with Raspberry Pi/Pi zero/Arduino/Esp32,
with ST7789 Driver, 262K Color, IPS Screen,
240×320 Resolution, SPI Interface WITH Cable.
Amazon \$15 x 6 = 90 + 8 = 98 (tax, free ship)
Ordered 1/27/25

RPi (2G RAM), Heatsink, Tape, Pwr-Sup
adafruit 56+16+5= 77 (ship,tax)
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98+77 = \$175