## Adafruit MatrixPortal M4 Power https://www.adafruit.com/product/4745 ■ GND Control CircuitPvthon Name Arduino Name GPIO INT DAC/AREF The Microchip (nee Atmel) SAMD51 is an ARM Cortex-M4F running at 120 MHz with ADC SERCOM 192 or 256kB on-chip SRAM, up to 1MB Flash memory and built in USB. All GPIO SERCOM Alt is 3.3V in/out max unless otherwise Timer stated. SERCOMs can be used as UART (TX SOF 1KHZ TC7[0] S5.2 S1.2 6 PB22 2 BUTTON\_UP Timer Alt on SERCOM pad 0, RX on any pad), I2C (SDA on pad 0, SCL on pad 1), or SPI (SCK on pad 1, MOSI on pad 0 or 3, MISO Timer Alt2 Special **I2S** on any pad remaining) TC7[1]-S5.3-S1.2-7-PB23-3 BUTTON\_DOWN-PCC TC7[0]-S5.2 TCC2[2] TC6[0] S5.0 2 PB02 9 MTX B1 TC6[1]-S5.1-3 PB03 10 MTX\_R2 -00-MTX\_G2 11 PB04 4 A1[6] MTX\_ADDRE 18 PB08 8 A0[2]/A1[0] -5 PB05 12 MTX\_B2 S4.0 TC4[0] 7 PB07 17 MTX ADDRA TC5[1]-TCC4[1] 6 PB06 14 MTX CLK TC5[0]-TCC4[0] MTX ADDRE 21 PB13 13 TCC3[0]] TC4[0]-12 PB12 16 MTX OE TC4[1] TCC3[1] T TCC4[1]; TC0[1]; S5.0; S7.1; 15; PB31; 5 SDA ADDRE pins are chosen by a jumper ESP32 WiFi Co-processor Control VOUTO 2 PA02 22/A0 A0 O ESP CS 33 PB17 1 S5.1 TC6[1] TC03[1] ESP GPI00 29 PA20 4 S5.2 S3.2 TC7[0] TCC1[4] FS0 DATA4 ESP\_BUSY 31 PA22 6 S3.0 S5.1 TC4[0] TCC1 6 SDI DATA6 ESP\_RESET 30 PA21 5 S5.3 S3.3 TC7[1] TCC1[5] DATA 32 PA18 2 S1.2 S3.2 TC3[0] TCC1[2] DATA2 ESP\_TX 28 PA13 13 S2.1 S4.0 TC2[1] TCC0[7] DEN2 ESP\_RX PA12 12 S2.0 S4.1 TC2[0] TCC0[6] DEN1 DATAO A0[5] A0[4] A0[6] A0[7] 34 PA16 0 S1.0 S3.1 TC2[0] TCC1[0] 36 PA19 3 S1.3 S3.3 TC3[1] TCC1[3] DATA3 MISO 35 PA17 1 S1.1 S3.0 TC2[1] TCC1 1] DATA1 LED | 13 PA14 14 S2.2 S4.2 TC3[0] TCC2[0] TCC1[2] CLK NEOPIXEL 4 PA23 7 S3.1 S5.0 TC4[1] TCC1 7 TCC0[3] SOF 1KHZ FS1 [DATA7] TC2[0] TC2[1] TC0[1] TC0[0] TC1[0] ACCELEROMETER\_SCL | 6 | PB30 | 14 | S7.0 | S5.1 | TC0[0] | TCC4[0] | TCC0[6] | SWD0 ACCELEROMETER SDA 5 PB31 15 S7.1 S5.0 TC0[1] TCC4[1] TCC0[7 ACCELEROMETER INTERRUPT 39 PA27-11

DATA9

DATA8