

Signal	Pin	Port	Value	Direction	Internal Signal	Internal Value	Internal Direction	External Signal	External Value	External Direction
ESP_CS	8	PB14	14	S4.2	TC5[0]	TCC4[0]	TCC0[2]			DATA8
ESP_GPI00	6	PB15	15	S4.3	TC5[1]	TCC4[1]	TCC0[3]			DATA9
ESP_BUSY	5	PB16	0	S5.0	TC6[0]	TCC3[0]	TCC0[4]	SDCD	SCK0	
ESP_RESET	7	PB17	1	S5.1	TC6[1]	TCC3[1]	TCC0[5]	SDWP	MCK0	
ESP_RTS	51	PA15	15	S2.3	TC3[1]	TCC2[1]	TCC1[3]			
ESP_TX	1	PB12	12	S4.0	TC4[0]	TCC3[0]	TCC0[0]	SDCD	SCK1	
ESP_RX	0	PB13	13	S4.1	TC4[1]	TCC3[1]	TCC0[1]	SDWP	MCK1	
MOSI	29	PA12	12	S2.0	TC2[0]	TCC0[6]	TCC1[2]	SDCD		DEN1
SCK	30	PA13	13	S2.1	TC2[1]	TCC0[7]	TCC1[3]	SDWP		DEN2
MISO	31	PA14	14	S2.2	TC3[0]	TCC2[0]	TCC1[2]			CLK

LCD_DATA0	34	PA16	0	S1.0	S3.1	TC2[0]	TCC1[0]	TCC0[4]				DATA0
LCD_DATA1	35	PA17	1	S1.1	S3.0	TC2[1]	TCC1[1]	TCC0[5]				DATA1
LCD_DATA2	36	PA18	2	S1.2	S3.2	TC3[0]	TCC1[2]	TCC0[6]				DATA2
LCD_DATA3	37	PA19	3	S1.3	S3.3	TC3[1]	TCC1[3]	TCC0[7]				DATA3
LCD_DATA4	38	PA20	4	S5.2	S3.2	TC7[0]	TCC1[4]	TCC0[0]	SDCMD	FS0		DATA4
LCD_DATA5	39	PA21	5	S5.3	S3.3	TC7[1]	TCC1[5]	TCC0[1]	SDCK	SDO		DATA5
LCD_DATA6	40	PA22	6	S3.0	S5.1	TC4[0]	TCC1[6]	TCC0[2]		SDI		DATA6
LCD_DATA7	41	PA23	7	S3.1	S5.0	TC4[1]	TCC1[7]	TCC0[3]	SOF_1KHZ	FS1		DATA7

Pin	Label	Port	Signal
24/A8	TFT_RESET	PA00	0
9	TFT_RD	PB04	4 A1[6]
10	TFT_RS	PB05	5 A1[7]
11	TFT_CS	PB06	6 A1[8]
12	TFT_TE	PB07	7 A1[9]
26	TFT_WR	PB09	9 A0[3]/A1[1]
25/A9	TFT_BACKLIGHT	PB31	15

Connections:

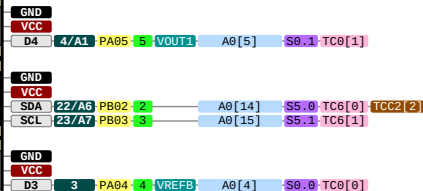
- S1.0 TC2[0]
- S4.1 TC4[1]
- S7.1 S5.0 TC0[1]
- TCC4[1]
- TCC0[7]

TOUCH_YD	18/A2	PB00	0	A0[12]	S5.2	TC7[0]	
TOUCH_XL	19/A3	PB01	1	A0[13]	S5.3	TC7[1]	
TOUCH_YU	20/A4	PA06	6	A0[6]	S0.2	TC1[0]	SDCD
TOUCH_XR	21/A5	PB08	8	A0[2]/A1[0]	S4.0	TC4[0]	

SD CS	32	PB30	14	S7.0	S5.1	TC0[0]	TCC4[0]	TCC0[6]	SWD0
SD CARD DETECT	33	PA01	1		S1.1	TC2[1]			
MOSI	29	PA12	12	S2.0	S4.1	TC2[0]	TCC0[6]	TCC1[2]	SDCD DEN1
SCK	30	PA13	13	S2.1	S4.0	TC2[1]	TCC0[7]	TCC1[3]	SDWP DEN2
MISO	31	PA14	14	S2.2	S4.2	TC3[0]	TCC2[0]	TCC1[2]	CLK



<https://www.adafruit.com/product/4116>



- Power
- GND
- CircuitPython Name
- Arduino Name
- GPIO
- INT
- DAC/AREF
- ADC
- SERCOM
- SERCOM Alt
- Timer
- Timer Alt
- Timer Alt2
- Special
- I2S
- PCC

The Microchip (nee Atmel) SAMD51 is an ARM Cortex-M4F running at 120 MHz with 192 or 256kB on-chip SRAM, up to 1MB Flash memory and built in USB. All GPIO is 3.3V in/out max unless otherwise stated. SERCOMs can be used as UART (TX 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 on any pad remaining)

SPEAKER	12	PA02	2	VOUT0	A0 [0]
SPEAKER_ENABLE	50	PA27	11		