Interupts A Name Serial Power GND Serial Com C/D E/F Control Timer PTC В Arduino Port Misc G/H DAC ADC 8-bit PWM pins maked with ~

SAMD21 Mini Breakout (DEV-13664)

Arduino Zero compatible

TC - Timer Counter TCC - Timer Counter - Controller PTC - Peripheral Touch Controller NMI - External Non-Maskable Interupt Pin can only be A,B,C,D,E,F,G or H at any time Selecting B disables digital control

LEDs Power: Red D13 (PIN_LED_13): Blue TX (PIN_LED_TXL): Green RX (PIN_LED_RXL): Yellow

Programming Header 1. VCC 3.3V

2. SWEDIO/TMS

3. GND

4. SWDCLK/TCK

5. GND

6. SWO/TDO

7. Key

246810 13579 8. NC/TDI

9. GNDDTCT

10. Nreset

SJ1 - on back of board disconnect to disconnect power LED

Power LED User (D13) LED																			
12S/SCK[0]	PTC:X2	TCC1:0/0:2	SER0:2/2:2	TX (Serial1)	EXTINT10	AIN18	PA10	D1	1/TX	OI UINO	Vin	RAW							
12S/FS[0]	PTC:X3	TCC1:1/0:3	SER0:3/2:3	RX (Serial1)	EXTINT11	AIN19	PA11	D0	O/RX		GND	GND							
							RESET	/RST		AREF	REFA	PA03	AIN1	EXTINT3	PTC:Y1				
								GND	GND		VCC	VCC							
			XIN	TC3:0/TCC0:4	SER2:2/4:2*	EXTINT14	PA14	D2	2	2 RM HIIIIIIIIII A3	A3	REFB	A3	PA04	AIN4	EXTINT4	SER0:0	TCC0:0	PTC:Y2
	12S/MCK[0]	PTC:X1	TCC0:1/1:3	SER0:1/2:1*	EXTINT9	AIN17	PA09	D3 ~	3	O3 : A2 € A2	A2	A2	PB09	AIN3	EXTINT9	SER4:1	TC4:1	PTC:Y15	
	12S/SD[1]	PTC:X0	TCC0:0/1:2	SER0:0/2:0	*NMI	AIN16	PA08	D4 ~	4	A2 O A A A A A A A A A A A A A A A A A A	Al	A1	PB08	AIN2	EXTINT8	SER4:0	TC4:0	PTC:Y14	
			XOUT	TC3:1/TCC0:5	SER2:3/4:3	EXTINT15	PA15	D5 ~	5	O ₅	A0	A0	PA02	AIN0	EXTINT2	PTC:YO	DAC		
		12S/SCK[0]	PTC:X8	TC7:0/TCC0:6	SER5:2/3:2	EXTINT4	PA20	D6 ~	6	06 111111111111111111111111111111111111	13	D13 ~	PA17	EXTINT	SCK	SER1:1/3:1*	TCC2:1/0:7	PTC:X5	
		12S/FS[0]	PTC:X9	TC7:1/TCC0:7	SER5:3/3:3	EXINIT5	PA21	D7	7		12	D12 ~	PA19	EXTINT3	MISO	SER1:3/3:3	TC3:1/TCC0:3	PTC:X7	12S/SD[0]
		PTC:Y4	TCC1:0	SER0:2	EXTINT6	AIN6	PA06	D8 ~	8	B TX IOOOO RX TO	11	D11 ~	PA16	EXTINTO	MOSI	SER1:0/3:0*	TCC2:0/0:6	PTC:X4	
	12S/SD[0]	PTC:Y5	TCC1:1	SER0:3	EXTINT7	AIN7	PA07	D9 ~	9	09 # # # # # # # # # # # # # # # # # # #	10	D10 ~	PA18	EXTINT2	SS	SER1:2/3:2	TC3:0/TCC0:2		
Reset Button TX LED RX LED																			

Micro A/B USB

					_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		TXLED
	PTC:Y9						RXLED
PTC:X5	TCC2:1/0:7	SER1:1/3:1*	SCK	EXTINT1	PA17	D13 ~	13 LED

SCL		PA23	EXTINT7	SCL	SER3:1/5:1*	TC4:1/TCC0:5	USB/SOF 1KhZ
SDA	D20	PA22	EXTINT6	SDA	SER3:0/5:0	*TC4:0/TCC0:4	PCT:X10

Power

RAW: 3.5V-6.0V VCC: 600mA @3.3V

Each pin is 3.3V tolerant and can source/sink

no more than 7mA/10mA

Each cluster of I/O pins can source 46mA and sink 65mA. Clusters are defined as Yellow, Pink, Green, Blue, and Red outlines.

SamD21G18

VCC:1.62-3.63V

Arm Cortex-M0 + (32-bit)

Flash Memory: 256KB

SRAM: 32KB

ADC: 12-bit 48MHz

RTC

USB 2.1 with USB host capability

Serial

USB: SerialUSB

Hardware Serial: Serial1

Only Ports with * can be configured to do I2C USB host: Set PIN_USB_HOST_ENABLE high

