ATMEGA16U2

| PD5 | TX LED |
| PD4 | RX LED |

| Power |

PB27	LED_BUILTIN
PA21	TXL LED
PC30	RXL LED

| NC |
| IOREF |
| RESET | RESET |
| +3V3 |
| +5V |
| GND |
| GND |
| VIN |

ADC[0]	PA16	A0	D54
ADC[1]	PA24	A1	D55
ADC[2]	PA23	A2	D56
ADC[3]	PA22	A3	D57
ADC[4]	PA6	A4	D58
ADC[5]	PA4	A5	D59
ADC[6]	PA3	A6	D60
ADC[7]	PA2	A7	D61

ADC[8]	PB17	A8	D62
ADC[9]	PB18	A9	D63
ADC[10]	PB19	A10	D64
ADC[11]	PB20	A11	D65
DAC[0]	PB15	DAC2/D66
DAC[1]	PB16	DAC1/D67
CANRX0	PA1	CANRX/D68
CANTX0	PA0	CANTX/D69

D21/SCL	PA18	SCL
D20/SDA	PA17	SDA
AREF	AREF
GND
D13	PB27
D12	PD8
D11	PD7
D10	PA28
D9	PC21
D8	PC22

D7	PC23
D6	PC24
D5	PC25
D4	PA29
D3	PC28
D2	PB25
D1/TX0	PA9
D0/RX0	PA8

D14/TX3	PD4
D15/RX3	PD5
D16/TX2	PA13
D17/RX2	PA12
D18/TX1	PA11
D19/RX1	PA10
D20/SDA	PB12
D21/SCL	PB13

Legend

Ground	
Power	
LED	
Internal Pin	
SWD Pin	

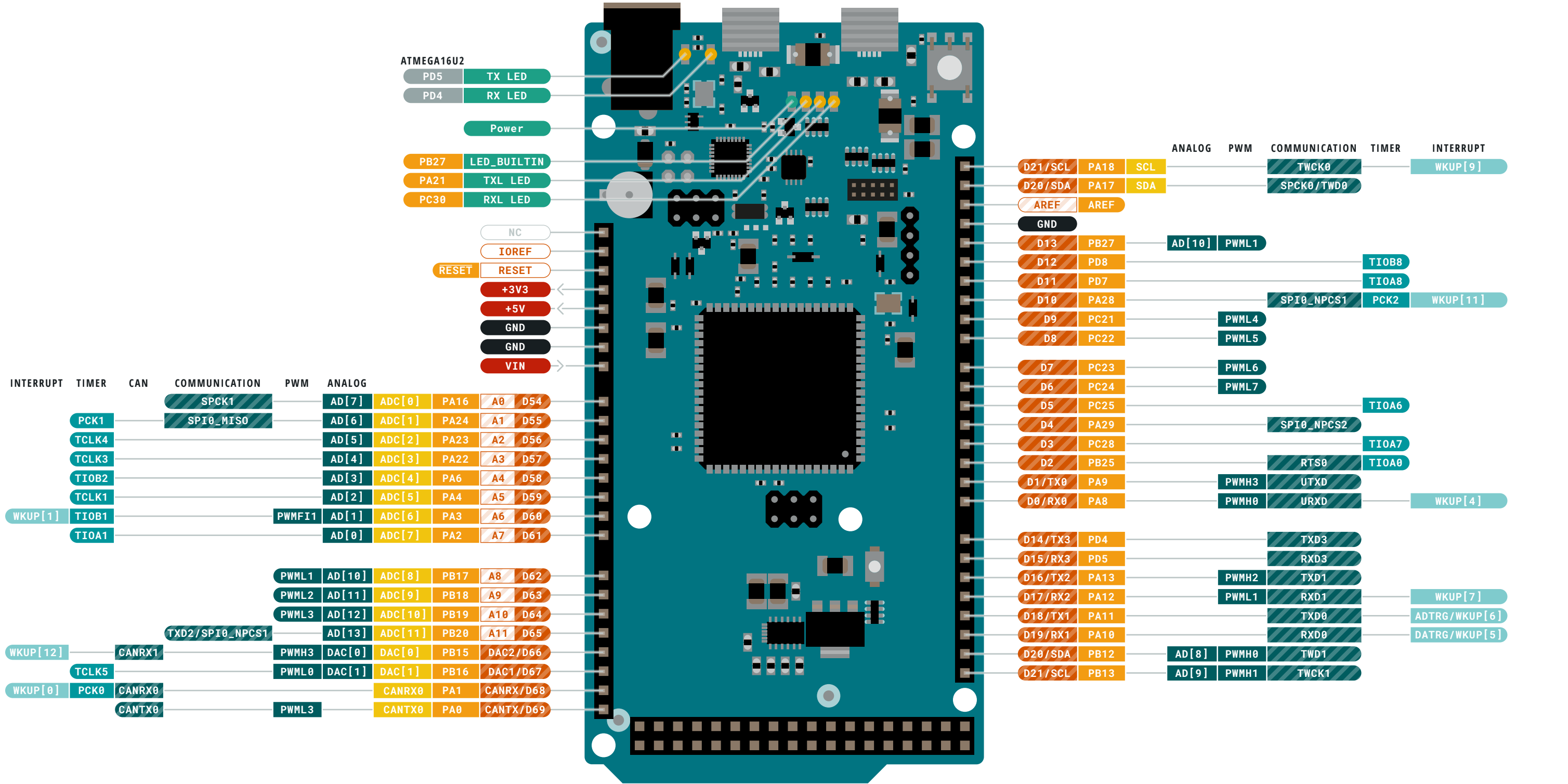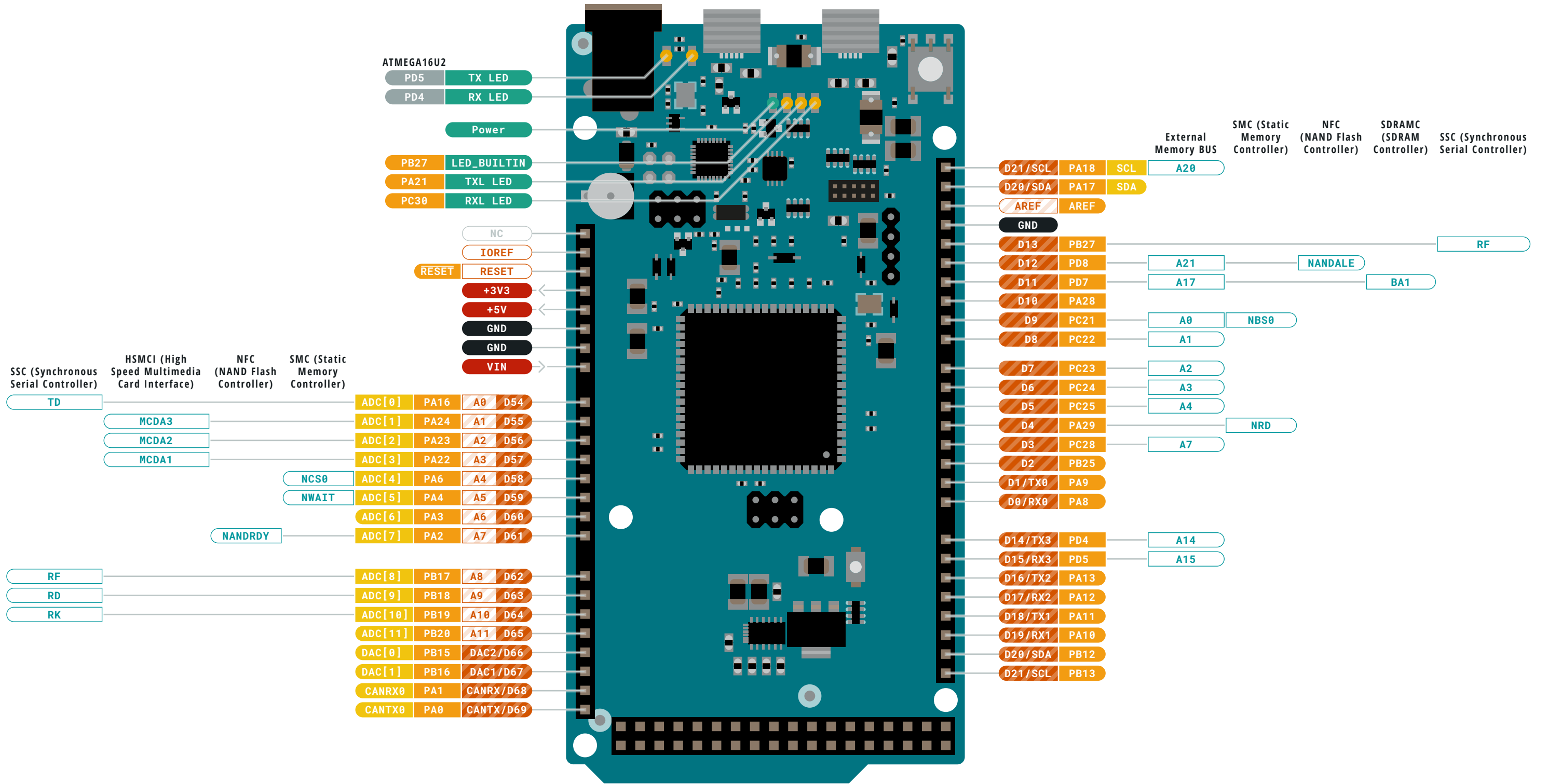|	
Digital Pin	
Analog Pin	
Other Pin	
Microcontroller's Port	
Default	

⚠ **TOTAL DC OUTPUT** current per I/O lines is 130mA

VIN 6-20 V input to the board.

The ADC's channel 15 is not available because connected to the ATSAM3X8E temperature sensor

To check the maximum currents applicable per pins please see the datasheet at STORE.ARDUINO.CC/ARDUINO-DUE

ARDUINO

ATMEGA16U2

| PD5 | TX LED |
| PD4 | RX LED |

| | Power |

PB27	LED_BUILTIN
PA21	TXL LED
PC30	RXL LED

	NC
	IOREF
RESET	RESET
	+3V3
	+5V
	GND
	GND
	VIN

ANALOG	PWM	COMMUNICATION	TIMER	INTERRUPT

D21/SCL	PA18	SCL			TWCK0		WKUP[9]
D20/SDA	PA17	SDA			SPCK0/TWD0		
AREF	AREF						
GND							
D13	PB27		AD[10]	PWML1			
D12	PD8				TIOB8		
D11	PD7				TIOA8		
D10	PA28				SPI0_NPCS1	PCK2	WKUP[11]
D9	PC21			PWML4			
D8	PC22			PWML5			
D7	PC23			PWML6			
D6	PC24			PWML7			
D5	PC25					TIOA6	
D4	PA29				SPI0_NPCS2		
D3	PC28					TIOA7	
D2	PB25				RTS0	TIOA0	
D1/TX0	PA9			PWMH3	UTXD		
D0/RX0	PA8			PWMH0	URXD		WKUP[4]
D14/TX3	PD4				TXD3		
D15/RX3	PD5				RXD3		
D16/TX2	PA13			PWMH2	TXD1		
D17/RX2	PA12			PWML1	RXD1		WKUP[7]
D18/TX1	PA11				TXD0		ADTRG/WKUP[6]
D19/RX1	PA10				RXD0		DATRG/WKUP[5]
D20/SDA	PB12		AD[8]	PWMH0	TWD1		
D21/SCL	PB13		AD[9]	PWMH1	TWCK1		

INTERRUPT	TIMER	CAN	COMMUNICATION	PWM	ANALOG				

			SPCK1		AD[7]	ADC[0]	PA16	A0	D54
	PCK1		SPI0_MISO		AD[6]	ADC[1]	PA24	A1	D55
	TCLK4				AD[5]	ADC[2]	PA23	A2	D56
	TCLK3				AD[4]	ADC[3]	PA22	A3	D57
	TIOB2				AD[3]	ADC[4]	PA6	A4	D58
	TCLK1				AD[2]	ADC[5]	PA4	A5	D59
WKUP[1]	TIOB1			PWMFI1	AD[1]	ADC[6]	PA3	A6	D60
	TIOA1				AD[0]	ADC[7]	PA2	A7	D61
				PWML1	AD[10]	ADC[8]	PB17	A8	D62
				PWML2	AD[11]	ADC[9]	PB18	A9	D63
				PWML3	AD[12]	ADC[10]	PB19	A10	D64
			TXD2/SPI0_NPCS1		AD[13]	ADC[11]	PB20	A11	D65
WKUP[12]		CANRX1		PWMH3	DAC[0]	DAC[0]	PB15	DAC2/D66	
	TCLK5			PWML0	DAC[1]	DAC[1]	PB16	DAC1/D67	
WKUP[0]	PCK0	CANRX0					PA1	CANRX/D68	
		CANTX0		PWML3		CANTX0	PA0	CANTX/D69	

■ Ground	▨ Digital Pin	▨ Analog
■ Power	▨ Analog Pin	▨ Communication
■ LED	■ Other Pin	■ Timer
■ Internal Pin	■ Microcontroller's Port	■ Interrupt
■ SWD Pin	■ Default	■ Memory

⚠ **TOTAL DC OUTPUT** current per I/O lines is 130mA

VIN 6-20 V input to the board

The ADC's channel 15 is not available because connected to the ATSAM3X8E temperature sensor

To check the maximum currents applicable per pins please see the datasheet at STORE.ARDUINO.CC/ARDUINO-DUE

ARDUINO

ATMEGA16U2

| PD5 | TX LED |
| PD4 | RX LED |

| | Power |

PB27	LED_BUILTIN
PA21	TXL LED
PC30	RXL LED

	NC
	IOREF
RESET	RESET
	+3V3
	+5V
	GND
	GND
	VIN

External Memory BUS   **SMC (Static Memory Controller)**   **NFC (NAND Flash Controller)**   **SDRAMC (SDRAM Controller)**   **SSC (Synchronous Serial Controller)**

D21/SCL	PA18	SCL		A20
D20/SDA	PA17	SDA
AREF	AREF
	GND
D13	PB27					RF
D12	PD8		A21		NANDALE
D11	PD7		A17			BA1
D10	PA28
D9	PC21		A0	NBS0
D8	PC22		A1
D7	PC23		A2
D6	PC24		A3
D5	PC25		A4
D4	PA29			NRD
D3	PC28		A7
D2	PB25
D1/TX0	PA9
D0/RX0	PA8

D14/TX3	PD4		A14
D15/RX3	PD5		A15
D16/TX2	PA13
D17/RX2	PA12
D18/TX1	PA11
D19/RX1	PA10
D20/SDA	PB12
D21/SCL	PB13

SSC (Synchronous Serial Controller)   **HSMCI (High Speed Multimedia Card Interface)**   **NFC (NAND Flash Controller)**   **SMC (Static Memory Controller)**

| TD |
| MCDA3 |
| MCDA2 |
| MCDA1 |

		ADC[0]	PA16	A0	D54
		ADC[1]	PA24	A1	D55
		ADC[2]	PA23	A2	D56
		ADC[3]	PA22	A3	D57
NCS0		ADC[4]	PA6	A4	D58
NWAIT		ADC[5]	PA4	A5	D59
		ADC[6]	PA3	A6	D60
NANDRDY		ADC[7]	PA2	A7	D61

RF		ADC[8]	PB17	A8	D62
RD		ADC[9]	PB18	A9	D63
RK		ADC[10]	PB19	A10	D64
		ADC[11]	PB20	A11	D65
		DAC[0]	PB15	DAC2/D66
		DAC[1]	PB16	DAC1/D67
		CANRX0	PA1	CANRX/D68
		CANTX0	PA0	CANTX/D69

Legend:

Ground	Digital Pin	Analog
Power	Analog Pin	Communication
LED	Other Pin	Timer
Internal Pin	Microcontroller's Port	Interrupt
SWD Pin	Default	Memory

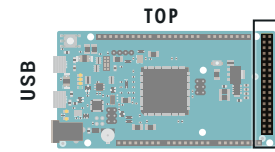⚠ **TOTAL DC OUTPUT** current per I/O lines is 130mA

VIN 6-20 V input to the board

The ADC's channel 15 is not available because connected to the ATSAM3X8E temperature sensor
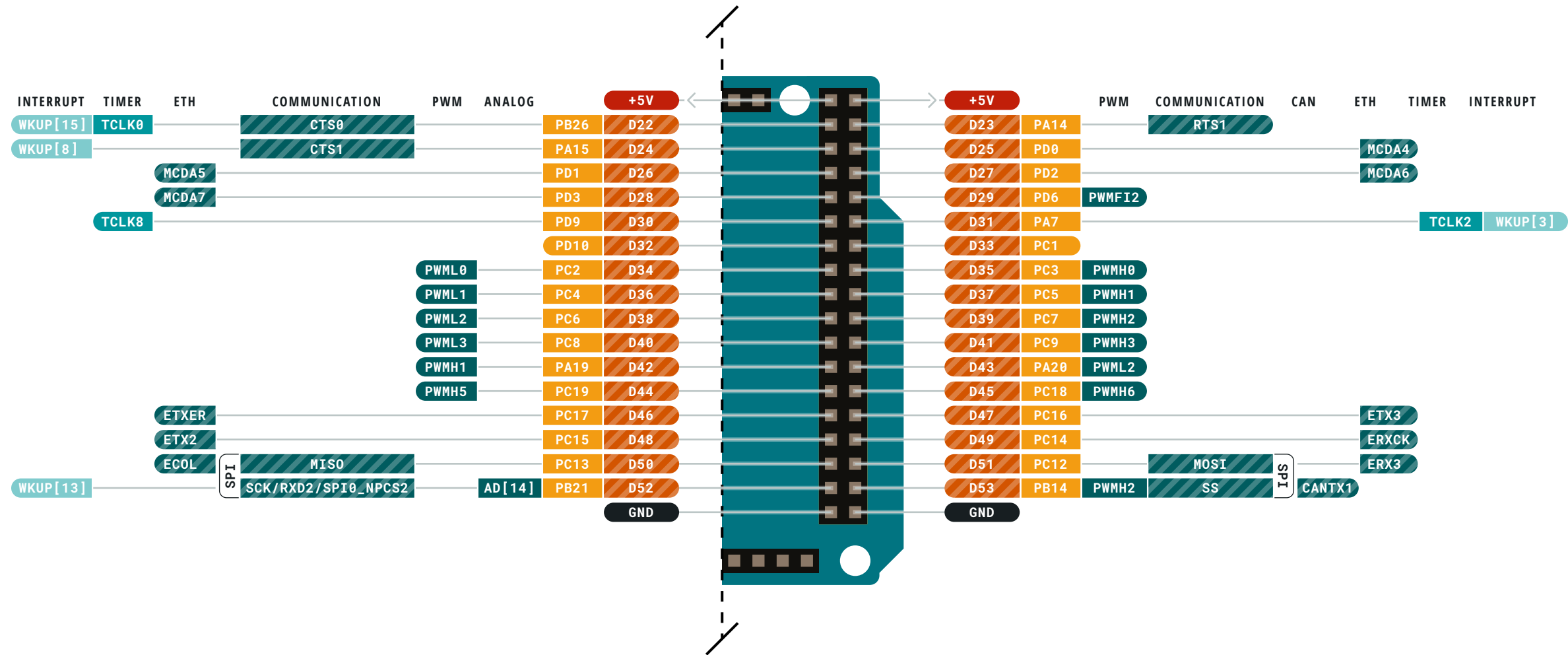
To check the maximum currents applicable per pins please see the datasheet at STORE.ARDUINO.CC/ARDUINO-DUE

ARDUINO.CC

TOP

USB

Digital pins D22-D53

INTERRUPT	TIMER	ETH	COMMUNICATION	PWM	ANALOG		+5V				+5V			PWM	COMMUNICATION	CAN	ETH	TIMER	INTERRUPT
WKUP[15]	TCLK0		CTS0		PB26	D22						D23	PA14		RTS1				
WKUP[8]			CTS1		PA15	D24						D25	PD0						MCDA4
		MCDA5			PD1	D26						D27	PD2						MCDA6
		MCDA7			PD3	D28						D29	PD6	PWMFI2					
		TCLK8			PD9	D30						D31	PA7					TCLK2	WKUP[3]
					PD10	D32						D33	PC1						
				PWML0	PC2	D34						D35	PC3	PWMH0					
				PWML1	PC4	D36						D37	PC5	PWMH1					
				PWML2	PC6	D38						D39	PC7	PWMH2					
				PWML3	PC8	D40						D41	PC9	PWMH3					
				PWMH1	PA19	D42						D43	PA20	PWML2					
				PWMH5	PC19	D44						D45	PC18	PWMH6					
		ETXER			PC17	D46						D47	PC16						ETX3
		ETX2			PC15	D48						D49	PC14						ERXCK
		ECOL		MISO	PC13	D50						D51	PC12		MOSI				ERX3
WKUP[13]			SCK/RXD2/SPI0_NPCS2		AD[14] PB21	D52						D53	PB14	PWMH2	SS	CANTX1			
						GND						GND							

SPI (left, near MISO/SCK)
SPI (right, near MOSI/SS)

Legend

Ground	Digital Pin
Power	Analog Pin
LED	Other Pin
Internal Pin	Microcontroller's Port
SWD Pin	Default

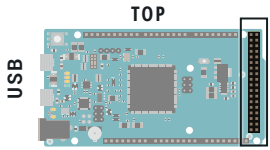| |
|---|
| Analog |
| Communication |
| Timer |
| Interrupt |
| Memory |

⚠ **TOTAL DC OUTPUT** current per I/O lines is 130mA

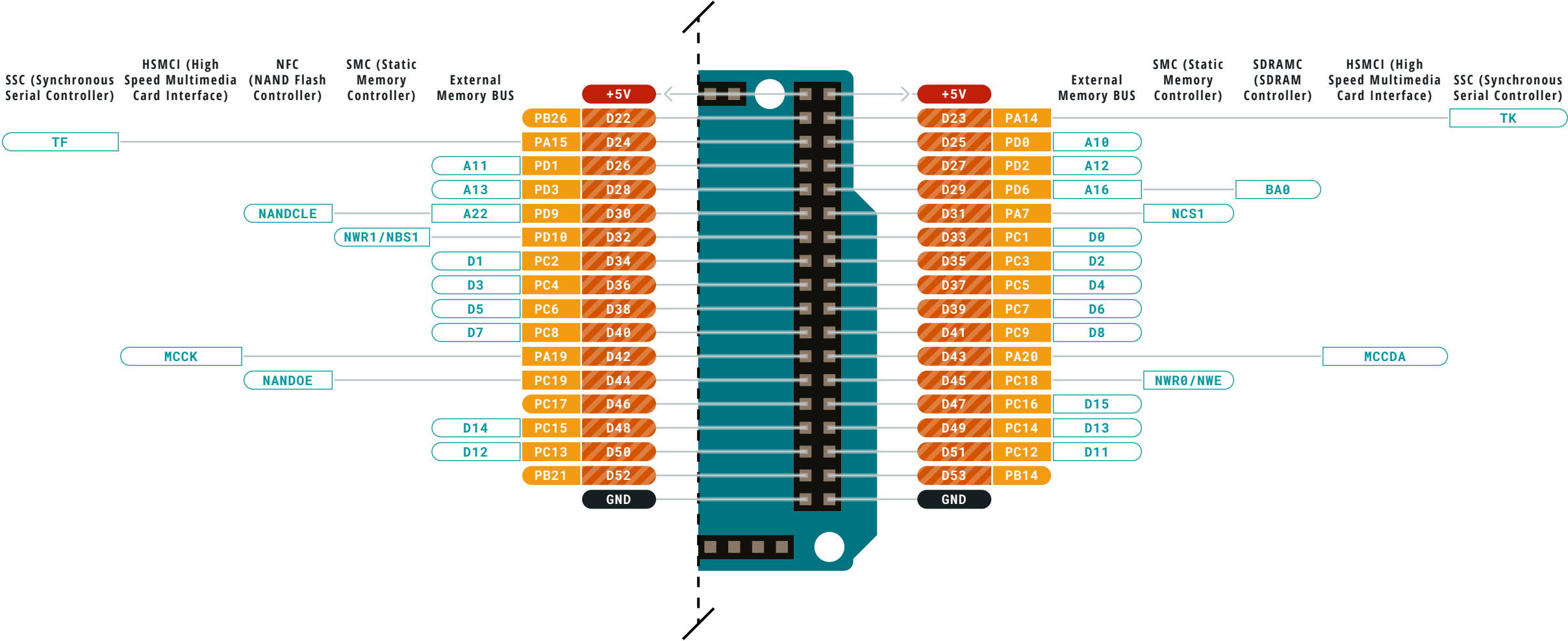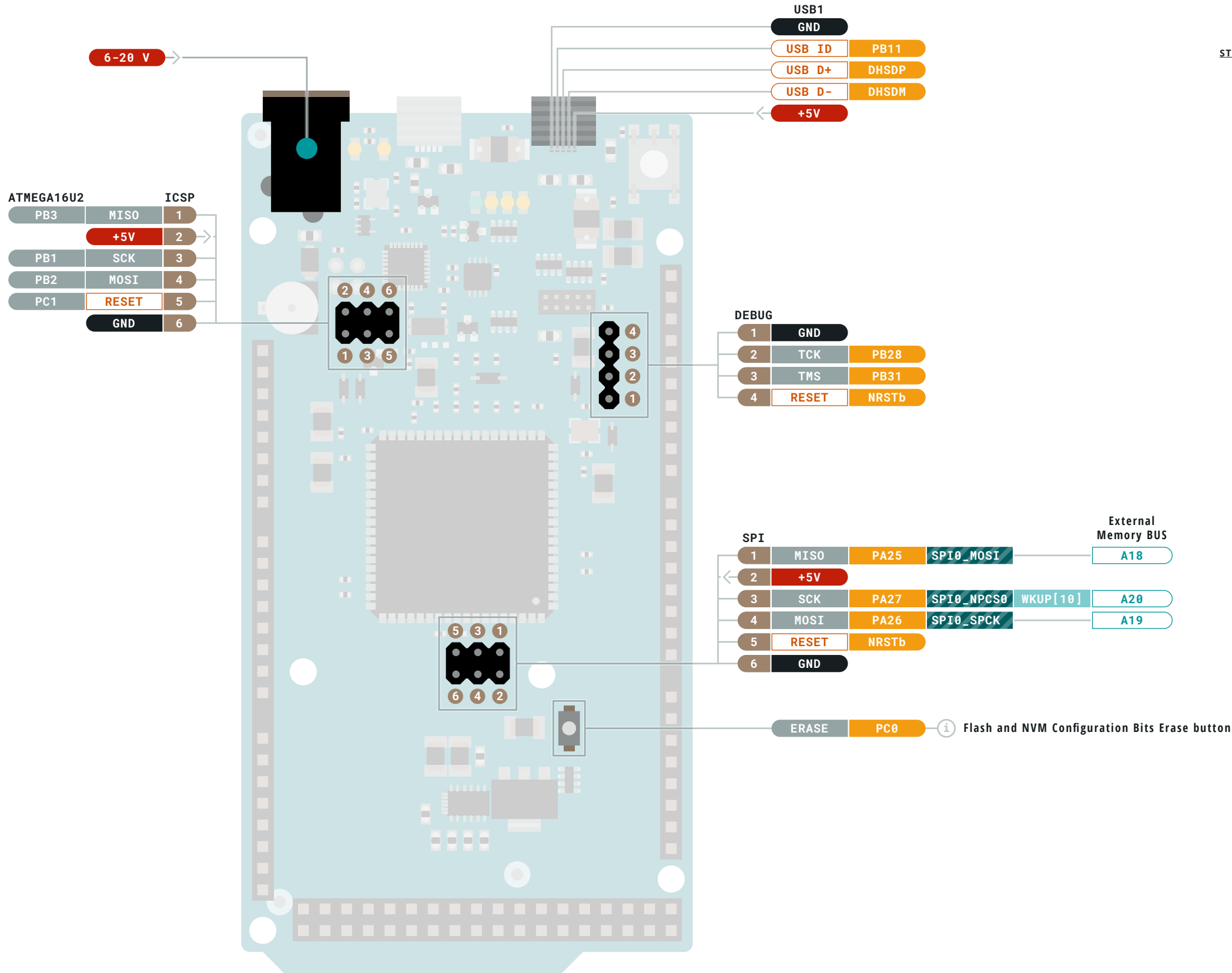**VIN** 6-20 V input to the board

The ADC's channel 15 is not available because connected to the ATSAM3X8E temperature sensor

To check the maximum currents applicable per pins please see the datasheet at STORE.ARDUINO.CC/ARDUINO-DUE

TOP
USB
Digital pins D22-D53

ARDUINO
DUE
STORE.ARDUINO.CC/DUE

SSC (Synchronous Serial Controller)	HSMCI (High Speed Multimedia Card Interface)	NFC (NAND Flash Controller)	SMC (Static Memory Controller)	External Memory BUS					External Memory BUS	SMC (Static Memory Controller)	SDRAMC (SDRAM Controller)	HSMCI (High Speed Multimedia Card Interface)	SSC (Synchronous Serial Controller)
					+5V		+5V						
				PB26	D22	D23	PA14						TK
TF				PA15	D24	D25	PD0	A10					
			A11	PD1	D26	D27	PD2	A12					
			A13	PD3	D28	D29	PD6	A16		BA0			
		NANDCLE	A22	PD9	D30	D31	PA7		NCS1				
			NWR1/NBS1	PD10	D32	D33	PC1	D0					
			D1	PC2	D34	D35	PC3	D2					
			D3	PC4	D36	D37	PC5	D4					
			D5	PC6	D38	D39	PC7	D6					
			D7	PC8	D40	D41	PC9	D8					
MCCK				PA19	D42	D43	PA20						MCCDA
		NANDOE		PC19	D44	D45	PC18	NWR0/NWE					
				PC17	D46	D47	PC16	D15					
			D14	PC15	D48	D49	PC14	D13					
			D12	PC13	D50	D51	PC12	D11					
				PB21	D52	D53	PB14						
					GND	GND							

Legend:

- Ground
- Power
- LED
- Internal Pin
- SWD Pin

- Digital Pin
- Analog Pin
- Other Pin
- Microcontroller's Port
- Default

- Analog
- Communication
- Timer
- Interrupt
- Memory

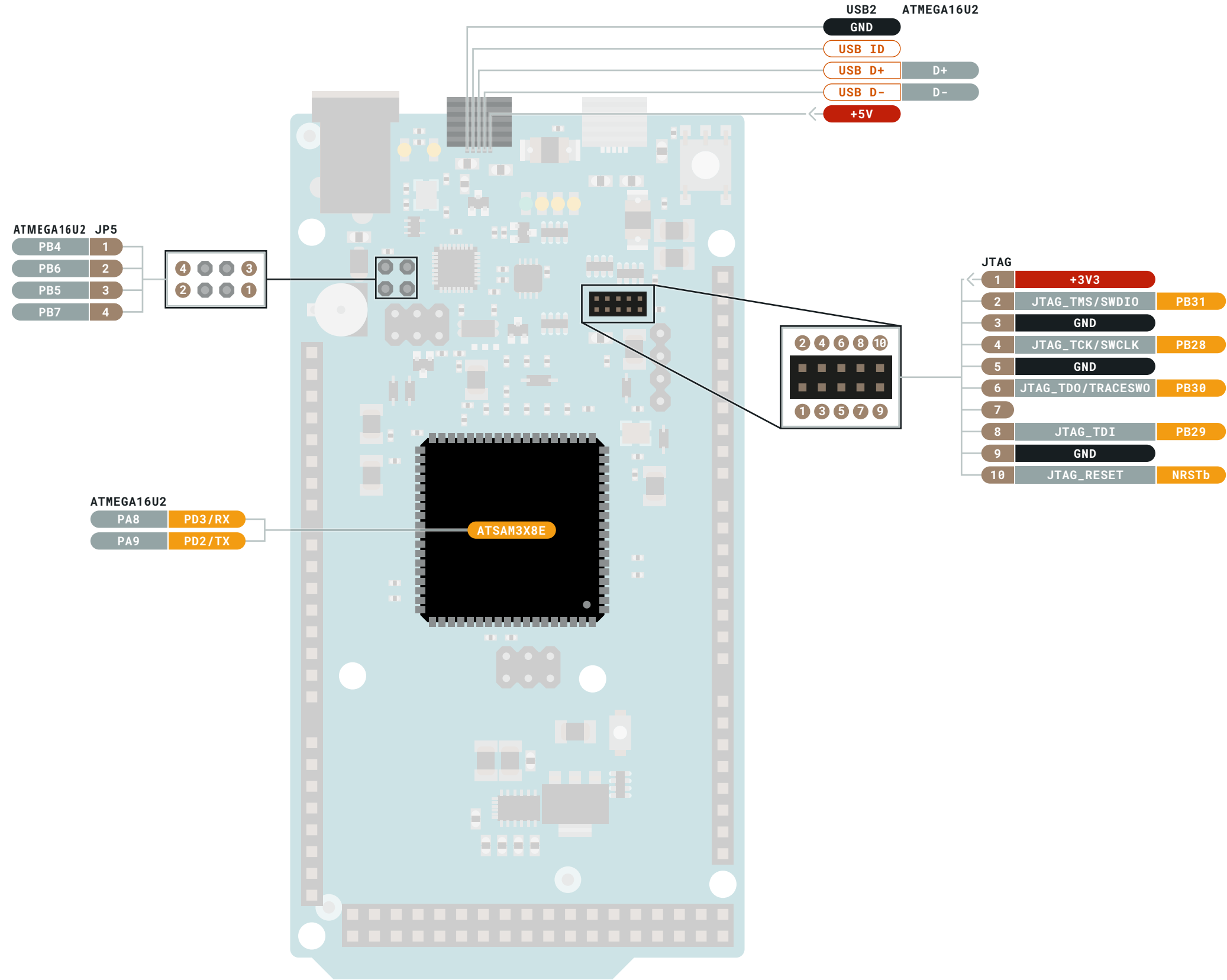⚠ **TOTAL DC OUTPUT** current per I/O lines is 130mA

VIN 6-20 V input to the board

The ADC's channel 15 is not available because connected to the ATSAM3X8E temperature sensor

To check the maximum currents applicable per pins please see the datasheet at STORE.ARDUINO.CC/ARDUINO-DUE

USB1

GND		
USB ID	PB11	
USB D+	DHSDP	
USB D-	DHSDM	
+5V		

6-20 V

ATMEGA16U2   **ICSP**

PB3	MISO	1
	+5V	2
PB1	SCK	3
PB2	MOSI	4
PC1	RESET	5
	GND	6

2 4 6
1 3 5

DEBUG

1	GND	
2	TCK	PB28
3	TMS	PB31
4	RESET	NRSTb

4
3
2
1

SPI

External Memory BUS

1	MISO	PA25	SPI0_MOSI		A18
2	+5V				
3	SCK	PA27	SPI0_NPCS0	WKUP[10]	A20
4	MOSI	PA26	SPI0_SPCK		A19
5	RESET	NRSTb			
6	GND				

5 3 1
6 4 2

ERASE	PC0

(i) Flash and NVM Configuration Bits Erase button

Legend		
■ Ground	▨ Digital Pin	▨ Analog
■ Power	▢ Analog Pin	▨ Communication
■ LED	▢ Other Pin	■ Timer
■ Internal Pin	■ Microcontroller's Port	■ Interrupt
■ SWD Pin	■ Default	▢ Memory

⚠ **TOTAL DC OUTPUT** current per I/O lines is 130mA

VIN 6-20 V input to the board

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To check the maximum currents applicable per pins please see the datasheet at STORE.ARDUINO.CC/ARDUINO-DUE

USB2   ATMEGA16U2

| GND |
| USB ID |
| USB D+ | D+ |
| USB D- | D- |
| +5V |

ATMEGA16U2 JP5

PB4	1
PB6	2
PB5	3
PB7	4

JTAG

1	+3V3	
2	JTAG_TMS/SWDIO	PB31
3	GND	
4	JTAG_TCK/SWCLK	PB28
5	GND	
6	JTAG_TDO/TRACESWO	PB30
7		
8	JTAG_TDI	PB29
9	GND	
10	JTAG_RESET	NRSTb

ATMEGA16U2

| PA8 | PD3/RX |
| PA9 | PD2/TX |

ATSAM3X8E

Ground

Power

LED

Internal Pin

SWD Pin

Digital Pin

Analog Pin

Other Pin

Microcontroller's Port

Default

⚠ **TOTAL DC OUTPUT** current
per I/O lines is 130mA

VIN 6-20 V input to the board.

The ADC's channel 15 is not available
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