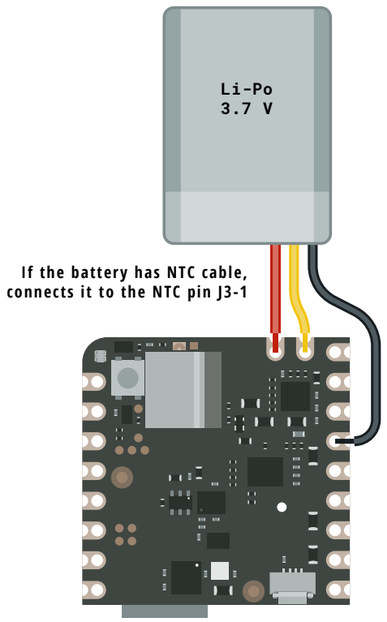
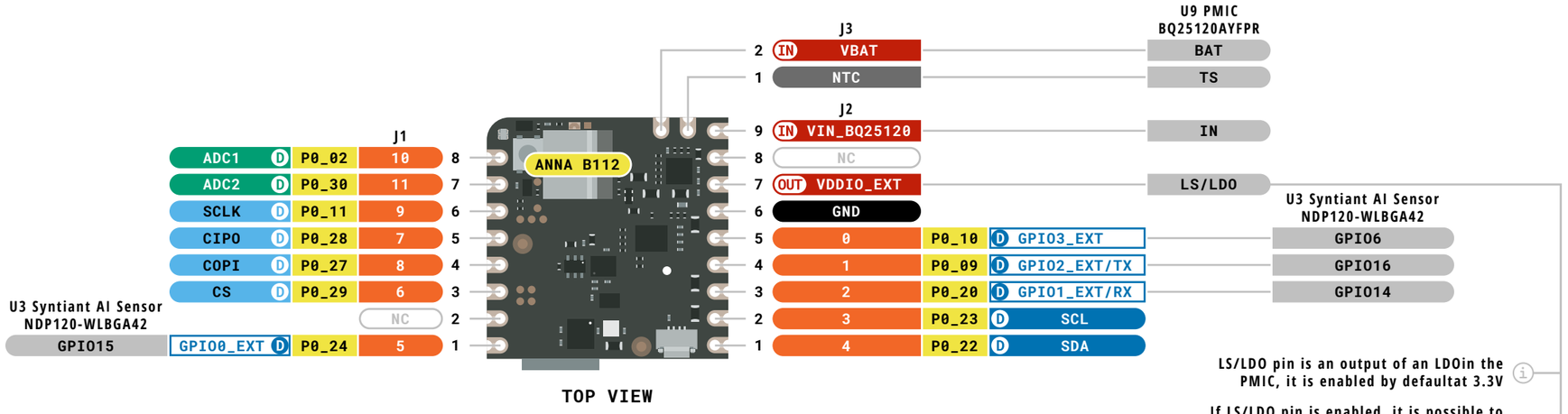


If the battery has NTC cable, connects it to the NTC pin J3-1

TOP VIEW

The battery also connects with the Battery Connector J4 on the bottom of the board

WARNING Do NOT connect two batteries at the same time

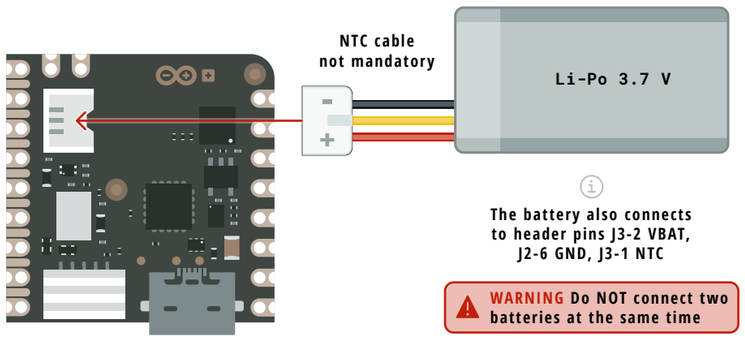


TOP VIEW

LS/LDO pin is an output of an LDOin the PMIC, it is enabled by defaultat 3.3V

If LS/LDO pin is enabled, it is possible to configure the Nicla to work at 3.3V or 1.8V; depending on the configuration the maximum input voltage can be 3.3V or 1.8V

Disabling the LS/LDO pin output of the PMIC it is possible to power the level translators with the VDDIO_EXT pin at a different voltage rather than 3.3V



BOTTOM VIEW

The battery also connects to header pins J3-2 VBAT, J2-6 GND, J3-1 NTC

WARNING Do NOT connect two batteries at the same time

Legend:

- Power
- Ground
- Power Input
- Power Output
- GPIO Digital External
- Analog External
- Main Part
- Secondary Part
- Internal Component
- Other Pins (Reset, System Control, Debugging)
- I2C — Default
- SPI — Default
- UART/USART — Default
- Other SERIAL Communication
- Analog — Default
- PWM/Timer
- LED
- RGB LED
- Other

MAXIMUM current per pin is 10mA

MAXIMUM current sunk overall is 40mA

MAXIMUM current sourced overall is 40mA

CIPO/COPI have previously been referred to as MISO/MOSI

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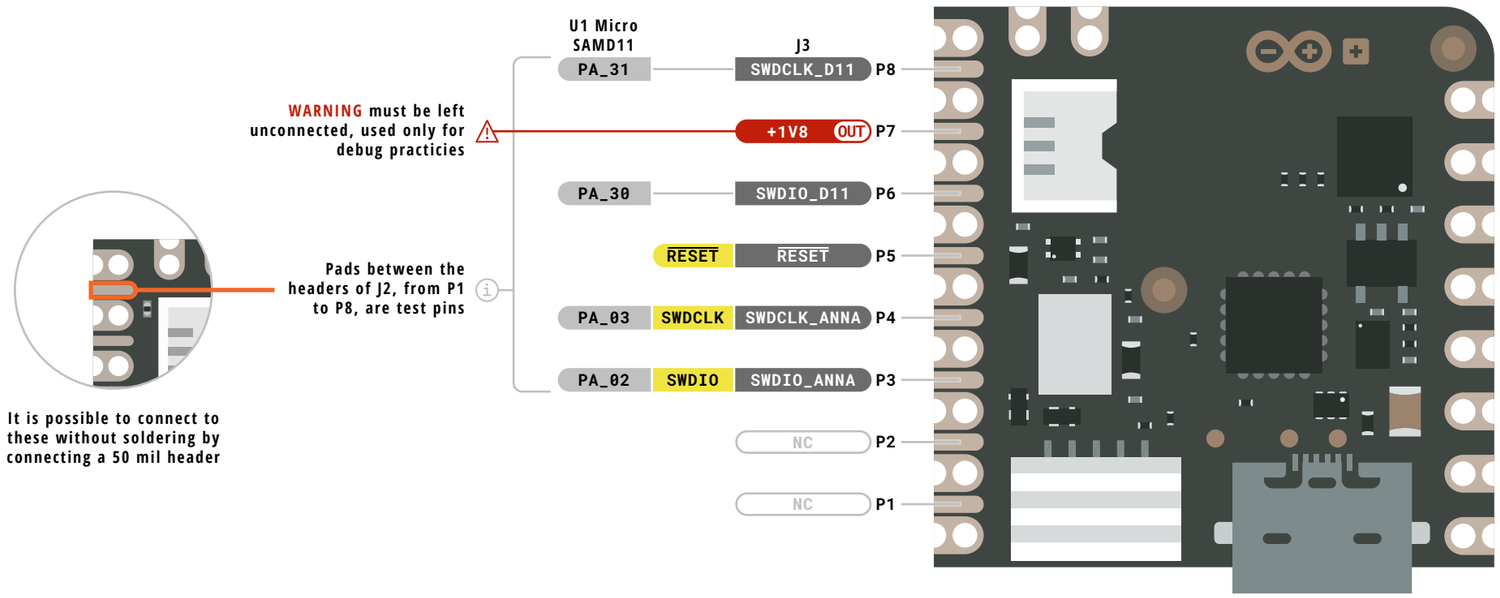

BOTTOM VIEW

Legend:

- Power
- Ground
- Power Input
- Power Output
- GPIO Digital External
- Analog External
- Main Part
- Secondary Part
- Internal Component
- Other Pins (Reset, System Control, Debugging)
- LED
- RGB LED
- Other

MAXIMUM current per pin is 10mA

MAXIMUM current sunk overall is 40mA

MAXIMUM current sourced overall is 40mA

CIPO/COPI have previously been referred to as MISO/MOSI

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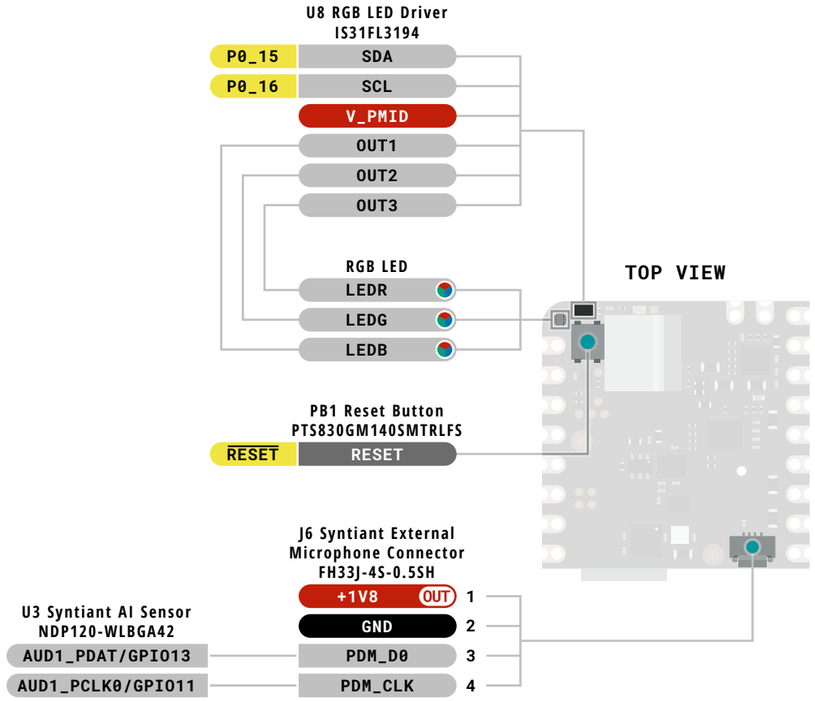

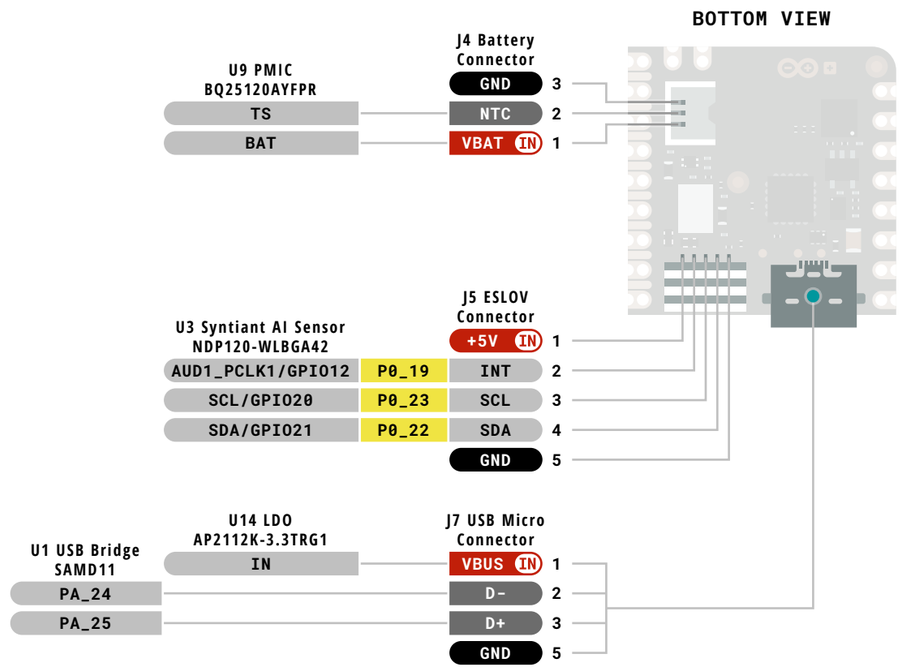

Legend:

- Power
- Ground
- IN Power Input
- OUT Power Output
- GPIO Digital External
- Analog External
- Main Part
- Secondary Part
- Internal Component
- Other Pins (Reset, System Control, Debugging)
- LED
- RGB LED
- Other

⚠ **MAXIMUM** current per pin is 10mA

⚠ **MAXIMUM** current sunk overall is 40mA

⚠ **MAXIMUM** current sourced overall is 40mA

ⓘ CIPO/COPI have previously been referred to as MISO/MOSI

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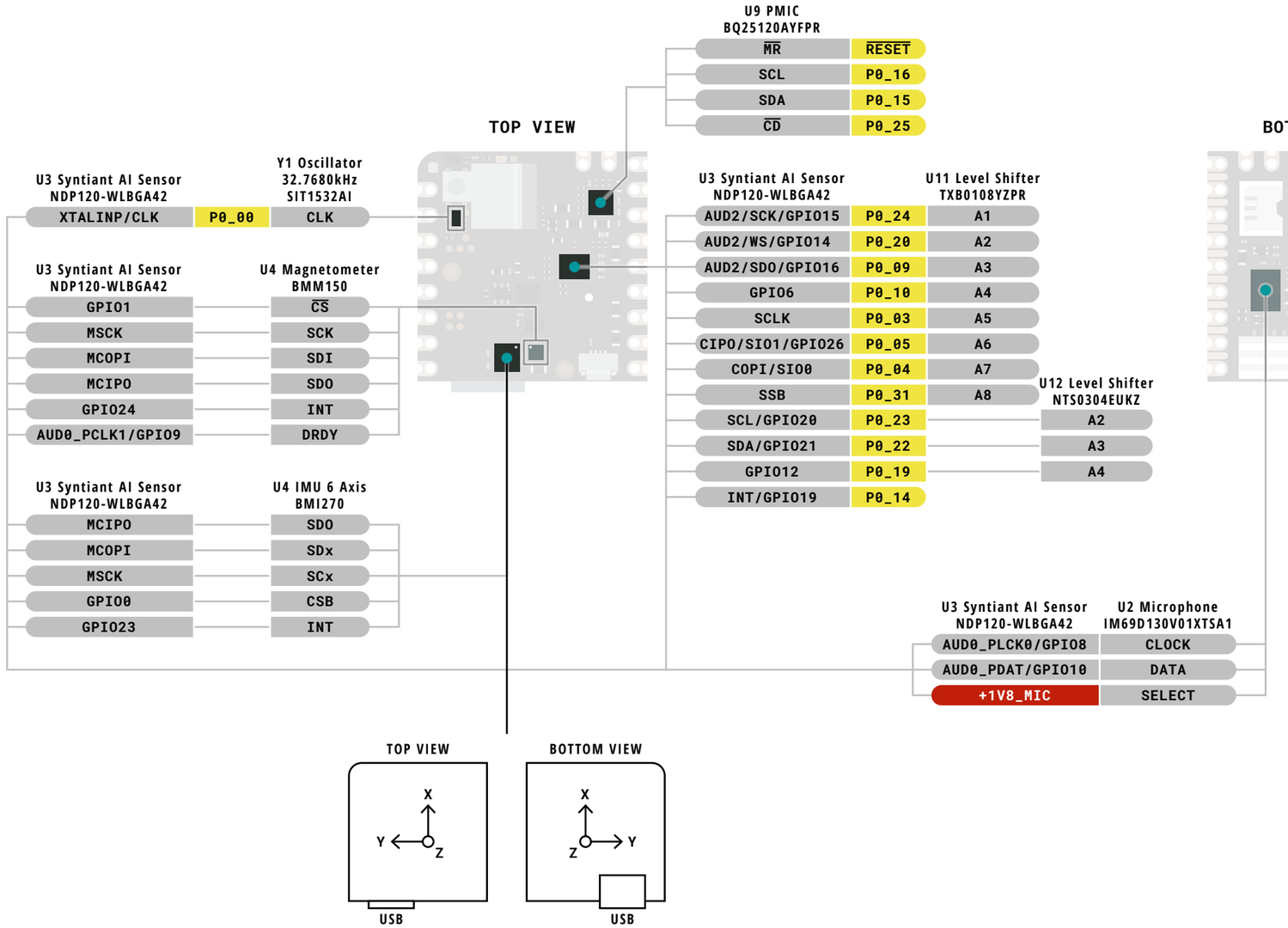
WARNING!

Advanced Section

The following information is for advanced use only and may not be officially supported by Arduino software



Legend:

- Power
- Ground
- Power Input (IN)
- Power Output (OUT)
- GPIO Digital External
- Analog External
- Main Part
- Secondary Part
- Internal Component
- Other Pins (Reset, System Control, Debugging)
- LED
- RGB LED
- Other

MAXIMUM current per pin is 10mA

MAXIMUM current sunk overall is 40mA

MAXIMUM current sourced overall is 40mA

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LEVEL SHIFTERS

U3 Syntiant AI Sensor NDP120-WLBGA42

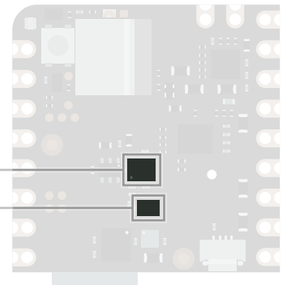
U11 TXB0108YZPR

		+1V8	VCCA
GPIO15	P0_24	GPIO38	A1
GPIO14	P0_20	GPIO45	A2
GPIO16	P0_09	GPIO21	A3
GPIO6	P0_10	GPIO22	A4
	P0_11	SCLK1	A5
	P0_28	CIPO1	A6
	P0_27	COPI1	A7
	P0_29	CS1	A8
		VDDIO_EXT	VCCB
Pin Name			
J1-1		GPIO0_EXT	B1
J2-3		GPIO1_EXT	B2
J2-4		GPIO2_EXT	B3
J2-5		GPIO3_EXT	B4
J1-6		SCLK1_EXT	B5
J1-5		CIPO1_EXT	B6
J1-4		COPI1_EXT	B7
J1-3		CS1_EXT	B8
		VDDIO_EXT	OE

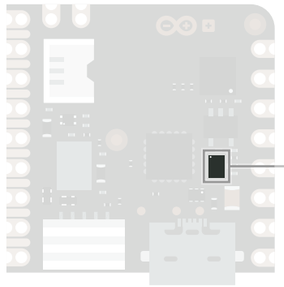
U12 NTS0304EUKZ

		+1V8	VCCA
U3 Syntiant AI Sensor NDP120-WLBGA42		NC	A1
SDA/GPIO21	P0_22	SDA1	A2
SCL/GPIO20	P0_23	SCL1	A3
GPIO12	P0_19	INT_ESLOV	A4
		VDDIO_EXT	VCCB
Pin Name		NC	B1
J2-1		SDA1_EXT	B2
J2-2		SCL1_EXT	B3
ESLOV J5-2 INT		INT_ESLOV_EXT	B4
		VDDIO_EXT	OE

TOP VIEW



BOTTOM VIEW



U13 NTS0304EUKZ

VCCA	+1V8	
A1	PA03_1V8	SWCLK
A2	PA02_1V8	SWDIO
A3	TX_1V8	P0_09
A4	RX_1V8	PO_20
VCCB	+3V3	
B1	PA_03	PA_03
B2	PA_02	PA_02
B3	PA_08	PA_08
B4	PA_05	PA_05
OE	PA_04	PA_04

U1 USB Bridge SAMD11

Legend:

- Power
- Ground
- Power Input
- Power Output
- GPIO Digital External
- Analog External
- Main Part
- Secondary Part
- Internal Component
- Other Pins (Reset, System Control, Debugging)
- LED
- RGB LED
- Other

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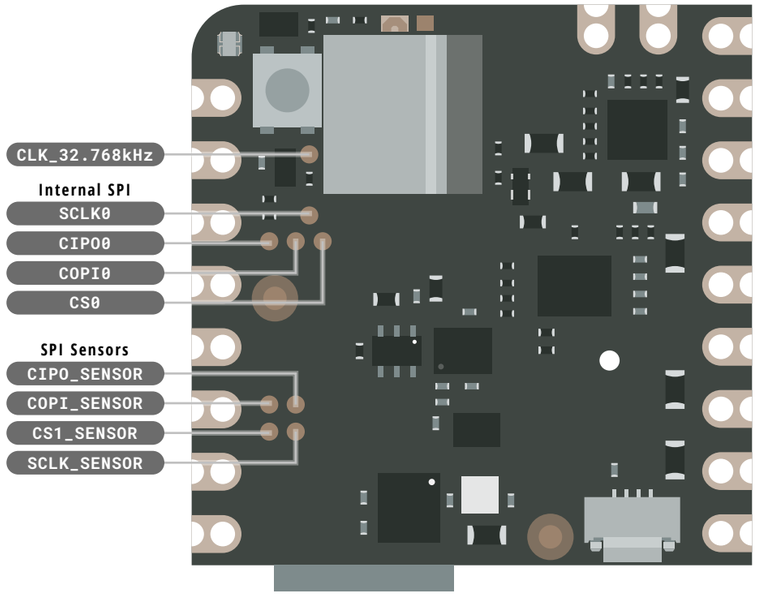
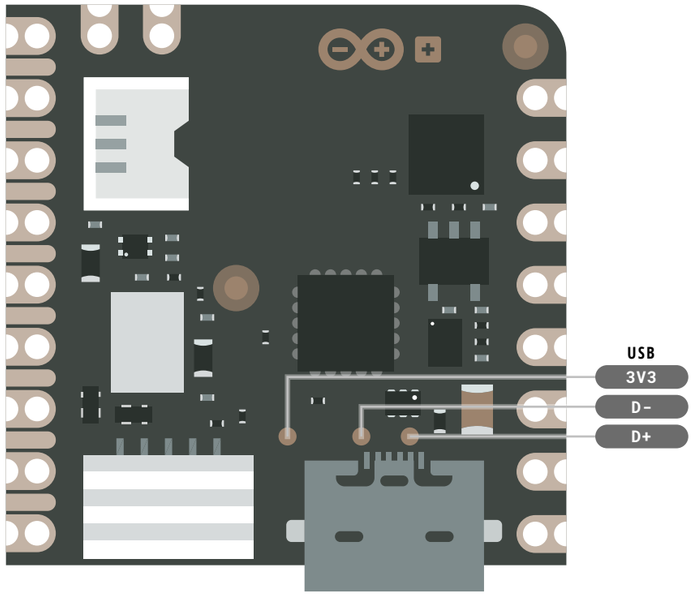
Test Points



TOP VIEW



BOTTOM VIEW

Legend:

- **Power**
- **Ground**
- **Power Input**
- **Power Output**
- **GPIO Digital External**
- **Analog External**
- **Main Part**
- **Secondary Part**
- **Internal Component**
- **Other Pins (Reset, System Control, Debugging)**
- **LED**
- **RGB LED**
- **Other**

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