
**Legend:**

■ Power      IN Power Input

OUT Power Output

■ Ground

■ GPIO Digital External

□ Analog External

■ Main Part

■ Secondary Part

■ Internal Component

■ Other Pins (Reset, System Control, Debugging)

■ LED

■ RGB LED

□ Other

**MAXIMUM** LPIOS are driven by bidirectional translators powered by VDDIO\_EXT. These translators are meant for low power and can only drive very limited current. Please check translator datasheet for details. VDDIO\_EXT is software programmable between 1.8 and 3.3V

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



SKU code: ABX0051  
Full Pinout - Page 2 of 9  
Last update: 14 Dec, 2022

DOCS.ARDUINO.CC

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

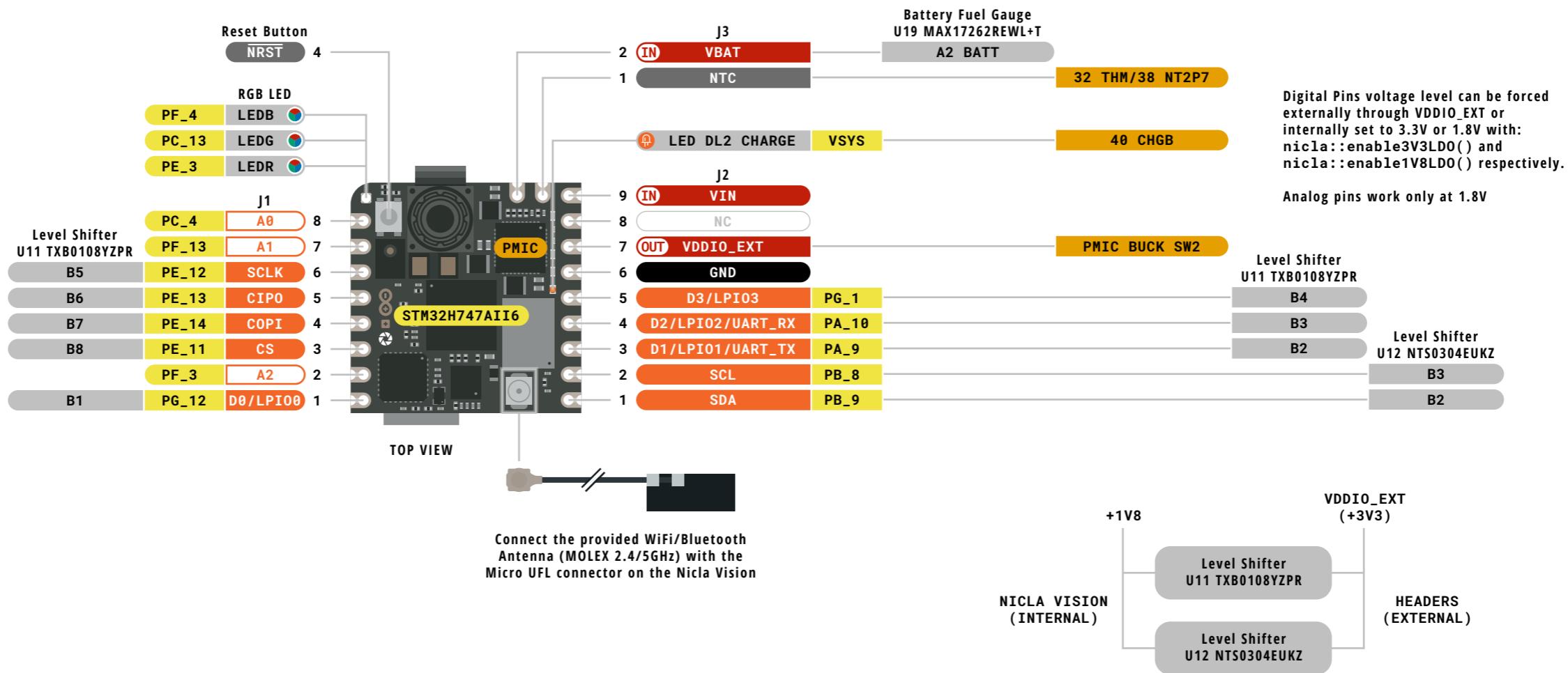


**W A R N I N G !**

## **Advanced Section**

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





Legend:	
<span style="color: red;">■</span> Power	<span style="color: red;">■</span> Power Input
<span style="color: black;">■</span> Ground	<span style="color: red;">■</span> Power Output
<span style="color: orange;">■</span> Main Part	<span style="color: orange;">■</span> GPIO Digital External
<span style="color: grey;">■</span> Internal Component	<span style="color: orange;">□</span> Analog External
<span style="color: darkgrey;">■</span> Other Pins (Reset, System Control, Debugging)	<span style="color: green;">■</span> LED
	<span style="color: green;">□</span> RGB LED
	<span style="color: yellow;">□</span> Secondary Part
	<span style="color: lightgrey;">□</span> Other

**MAXIMUM LPIOS** are driven by bidirectional translators powered by VDDIO\_EXT. These translators are meant for low power and can only drive very limited current. Please check translator datasheet for details. VDDIO\_EXT is software programmable between 1.8 and 3.3V

**i** CIPO/COPi have previously been referred to as MISO/MOSI

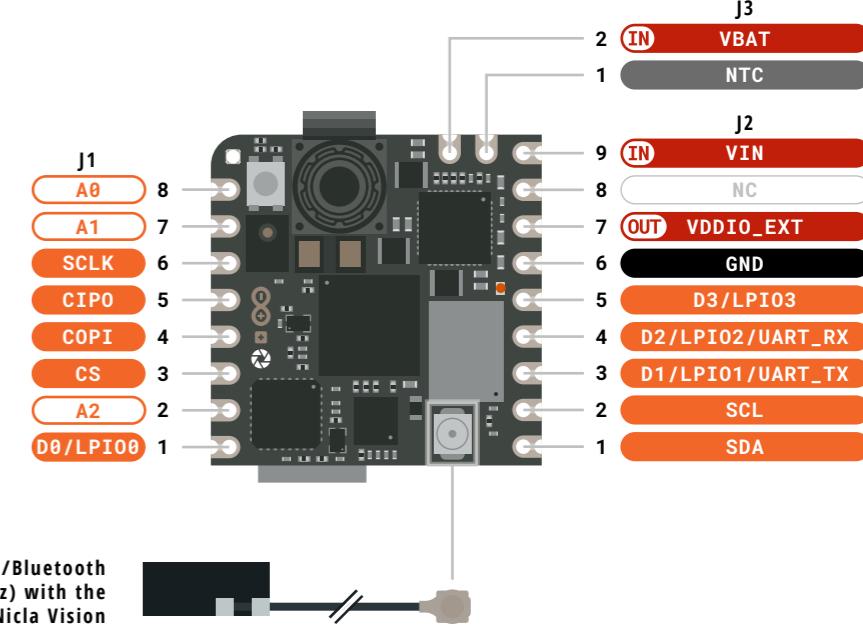
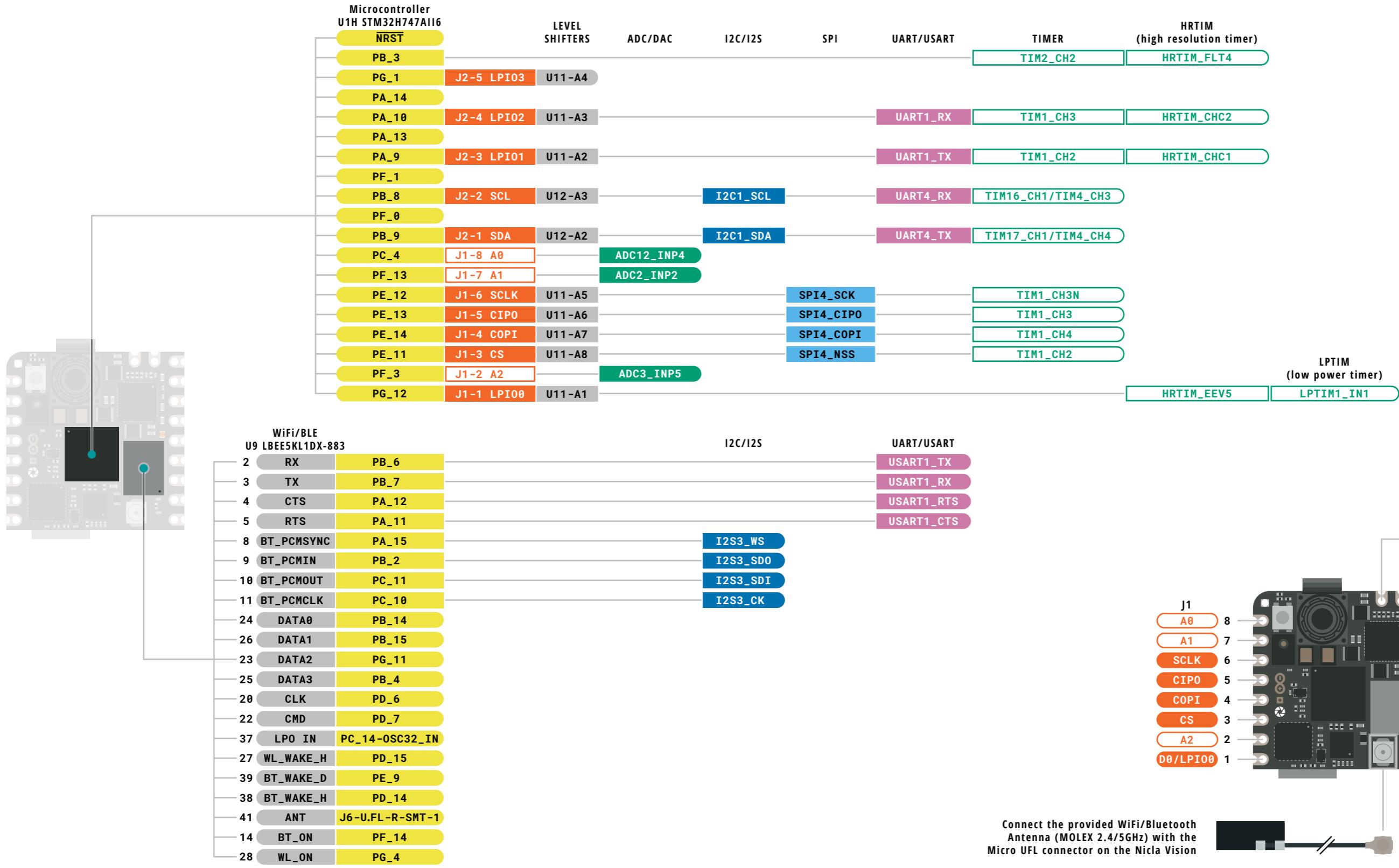
**NICLA VISION ARDUINO**

SKU code: ABX0051  
Full Pinout - Page 4 of 9  
Last update: 14 Dec, 2022

DOCS.ARDUINO.CC

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.




**Legend:**
**Power** Power Input

Power Output

**Ground**

GPIO Digital External

Analog External

Main Part

Secondary Part

Internal Component

Other Pins (Reset, System Control, Debugging)

I2C

SPI

UART/USART

Other SERIAL Communication

Analog

PWM/Timer

Default

Default

Default

Default

Default

Default

LED

RGB LED

Other

**MAXIMUM LPIOs** are driven by bidirectional translators powered by VDDIO\_EXT. These translators are meant for low power and can only drive very limited current. Please check translator datasheet for details.

VDDIO\_EXT is software programmable between 1.8 and 3.3V

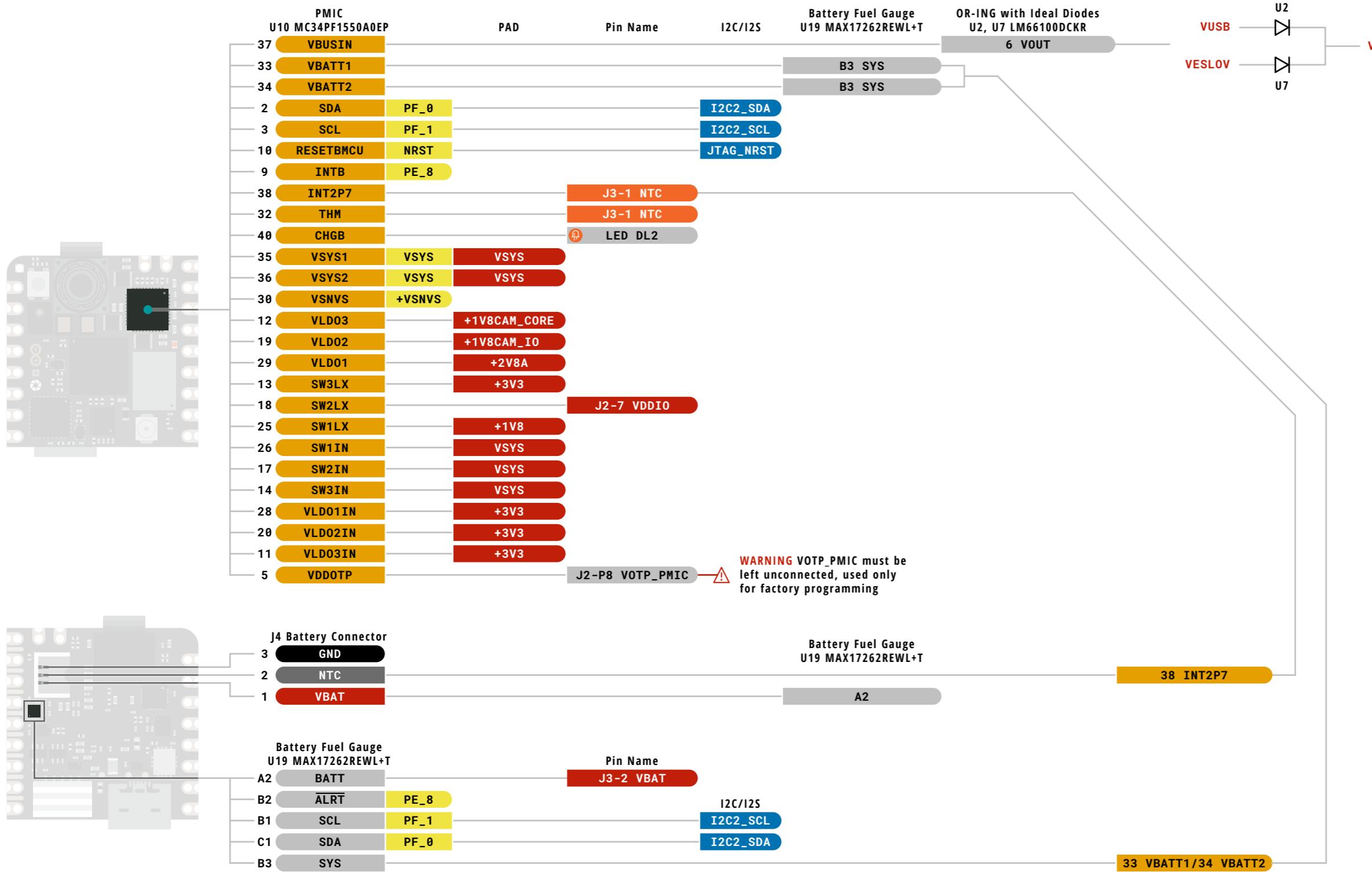
**i** CIPO/COPI have previously been referred to as MISO/MOSI

**NICLA VISION ARDUINO**

SKU code: ABX0051  
Full Pinout - Page 5 of 9  
Last update: 14 Dec, 2022

DOCS.ARDUINO.CC

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.



**Legend:**
**Power**: Power Input (IN), Power Output (OUT)

**Ground**: Ground

**GPIO Digital External**: Main Part (Yellow), Secondary Part (Orange)

**Analog External**: Main Part (Yellow), Secondary Part (Orange)

**Main Part**: Internal Component (Grey)

**Secondary Part**: Internal Component (Grey)

**Internal Component**: Other Pins (Reset, System Control, Debugging) (Grey)

**Other Pins (Reset, System Control, Debugging)**: Other Pins (Reset, System Control, Debugging) (Grey)

**I2C**
**SPI**
**UART/USART**
**Other SERIAL Communication**
**Analog**
**PWM/Timer**
**Default**
**Default**
**Default**
**Default**
**Default**
**LED**
**RGB LED**
**Other**

**MAXIMUM LPIOs** are driven by bidirectional translators powered by VDDIO\_EXT. These translators are meant for low power and can only drive very limited current. Please check translator datasheet for details. VDDIO\_EXT is software programmable between 1.8 and 3.3V

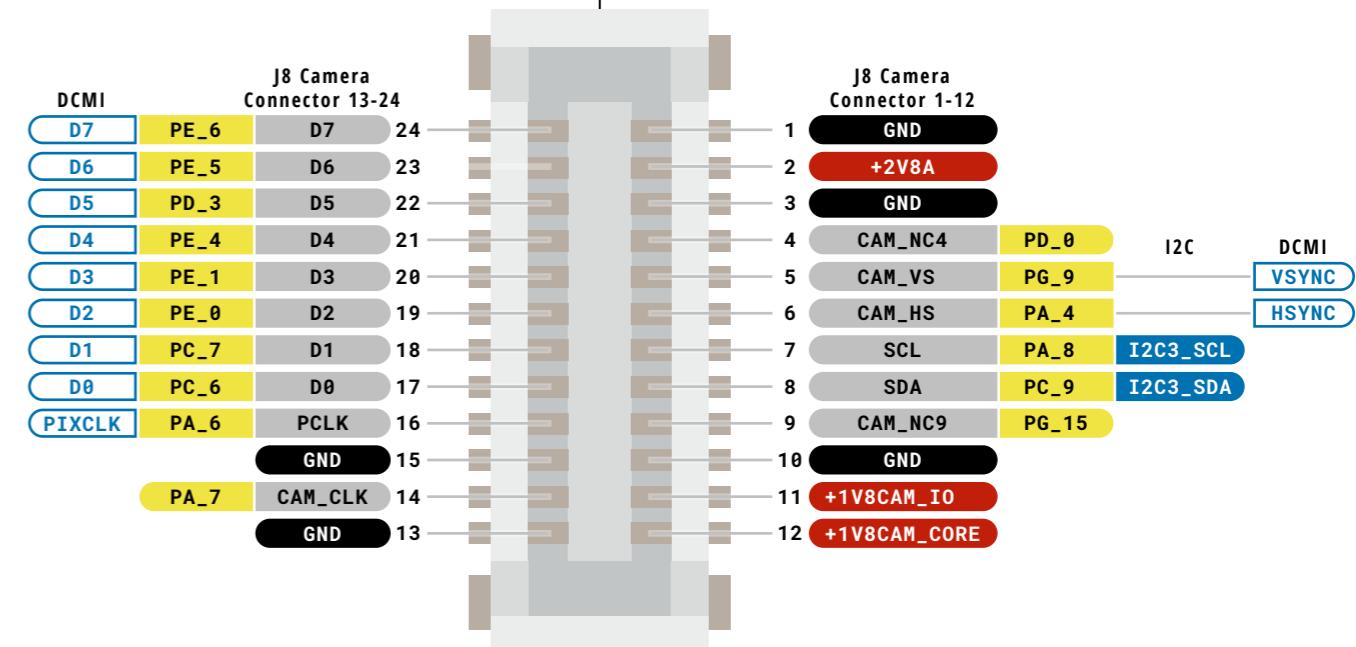
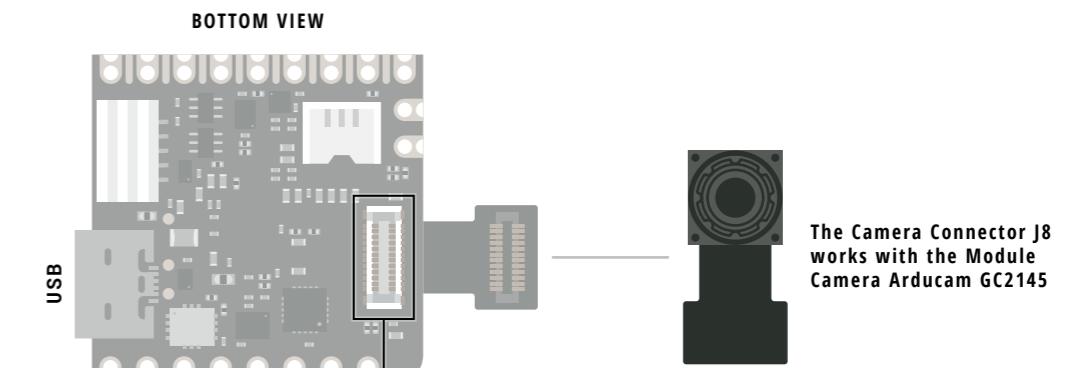
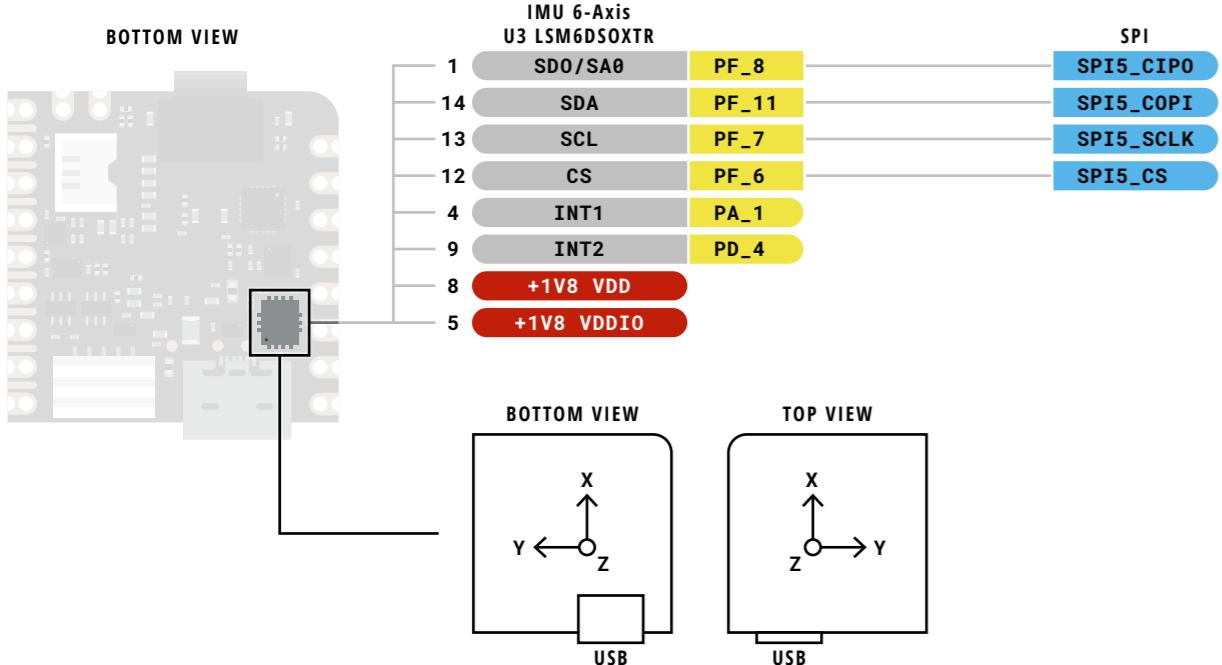
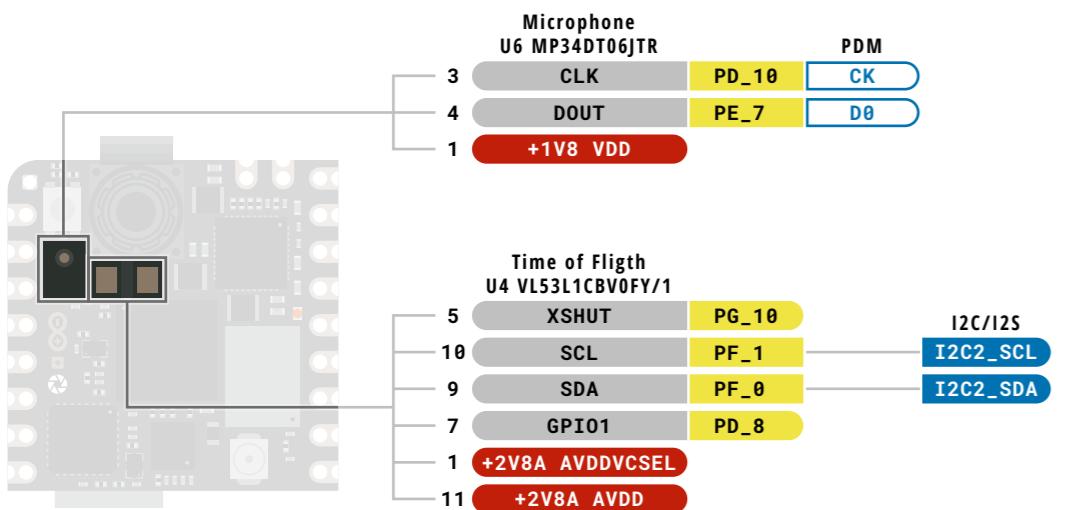
**i** CIPO/COPi have previously been referred to as MISO/MOSI


SKU code: ABX0051  
Full Pinout - Page 6 of 9  
Last update: 14 Dec, 2022

DOCS.ARDUINO.CC

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.





<b>Legend:</b>												
<span style="color:red">■</span> Power	<span style="color:red">IN</span> Power Input	<span style="color:orange">■</span> GPIO Digital External	<span style="color:blue">■</span> I2C	<span style="color:blue">D</span> Default	<span style="color:grey">■</span> LED	<span style="color:purple">■</span> MAXIMUM LPIOs are driven by bidirectional translators powered by VDDIO_EXT. These translators are meant for low power and can only drive very limited current. Please check translator datasheet for details.						
<span style="color:red">OUT</span> Power Output		<span style="color:orange">□</span> Analog External	<span style="color:blue">■</span> SPI	<span style="color:blue">D</span> Default	<span style="color:grey">■</span> RGB LED	VDDIO_EXT is software programmable between 1.8 and 3.3V						
<span style="color:black">■</span> Ground		<span style="color:yellow">■</span> Main Part	<span style="color:magenta">■</span> UART/USART	<span style="color:magenta">D</span> Default	<span style="color:grey">□</span> Other							
		<span style="color:orange">■</span> Secondary Part	<span style="color:cyan">■</span> Other SERIAL Communication	<span style="color:green">■</span> Analog	<span style="color:blue">D</span> Default							
		<span style="color:grey">■</span> Internal Component	<span style="color:cyan">■</span> PWM/Timer									
		<span style="color:darkgrey">■</span> Other Pins (Reset, System Control, Debugging)										

**MAXIMUM LPIOs** are driven by bidirectional translators powered by VDDIO\_EXT. These translators are meant for low power and can only drive very limited current. Please check translator datasheet for details.  
VDDIO\_EXT is software programmable between 1.8 and 3.3V

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

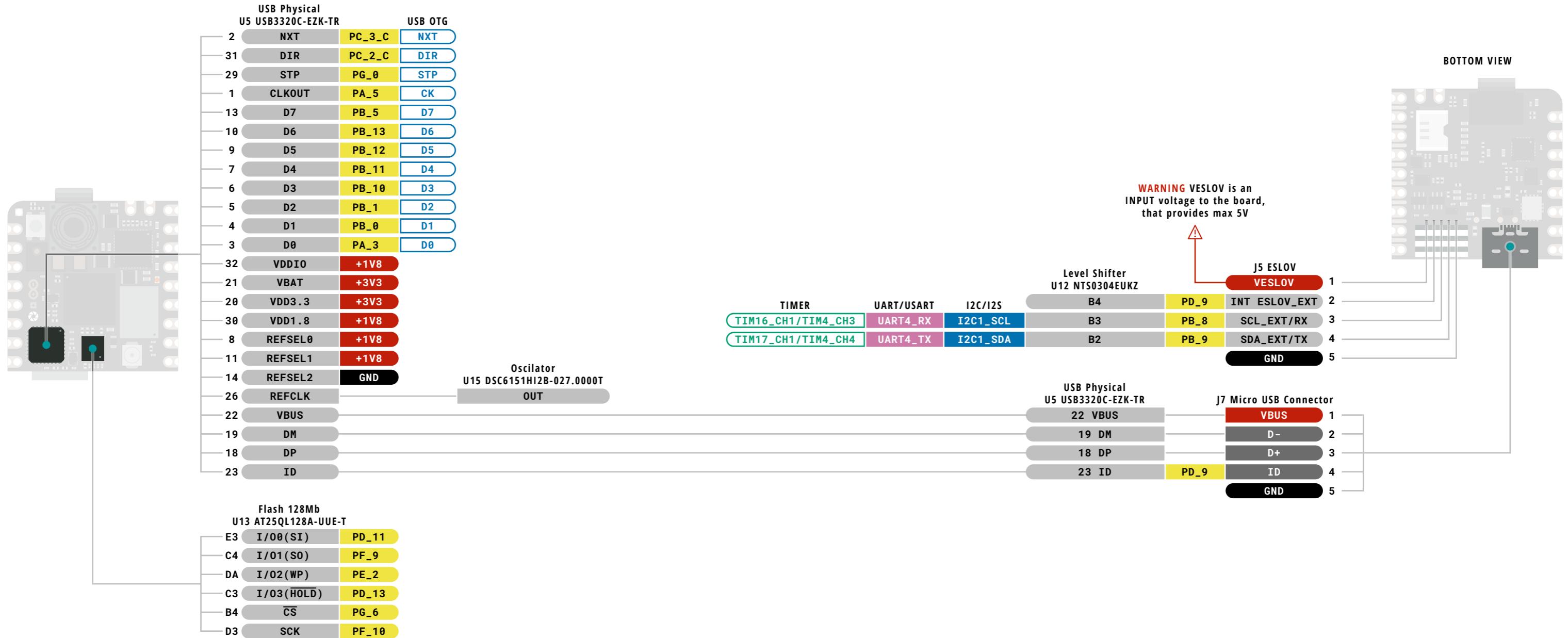
**NICLA VISION ARDUINO**

SKU code: ABX0051  
Full Pinout - Page 7 of 9  
Last update: 14 Dec, 2022

DOCS.ARDUINO.CC

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.





<b>Legend:</b>										
<span style="color:red">■</span> Power	<span style="color:red">IN</span> Power Input	<span style="color:orange">■</span> GPIO Digital External	<span style="color:blue">■</span> I2C	<span style="color:blue">D</span> Default	<span style="color:red">■</span> LED					
<span style="color:black">■</span> Ground	<span style="color:red">OUT</span> Power Output	<span style="color:orange">□</span> Analog External	<span style="color:blue">■</span> SPI	<span style="color:blue">D</span> Default	<span style="color:blue">■</span> RGB LED					
		<span style="color:yellow">■</span> Main Part	<span style="color:magenta">■</span> UART/USART	<span style="color:magenta">D</span> Default	<span style="color:blue">□</span> Other					
		<span style="color:orange">■</span> Secondary Part	<span style="color:cyan">■</span> Other SERIAL Communication							
		<span style="color:grey">■</span> Internal Component	<span style="color:green">■</span> Analog	<span style="color:blue">D</span> Default						
		<span style="color:grey">■</span> Other Pins (Reset, System Control, Debugging)	<span style="color:cyan">■</span> PWM/Timer							

**MAXIMUM** LPIOs are driven by bidirectional translators powered by VDDIO\_EXT. These translators are meant for low power and can only drive very limited current. Please check translator datasheet for details.  
VDDIO\_EXT is software programmable between 1.8 and 3.3V

**i** CIPO/COPi have previously been referred to as MISO/MOSI

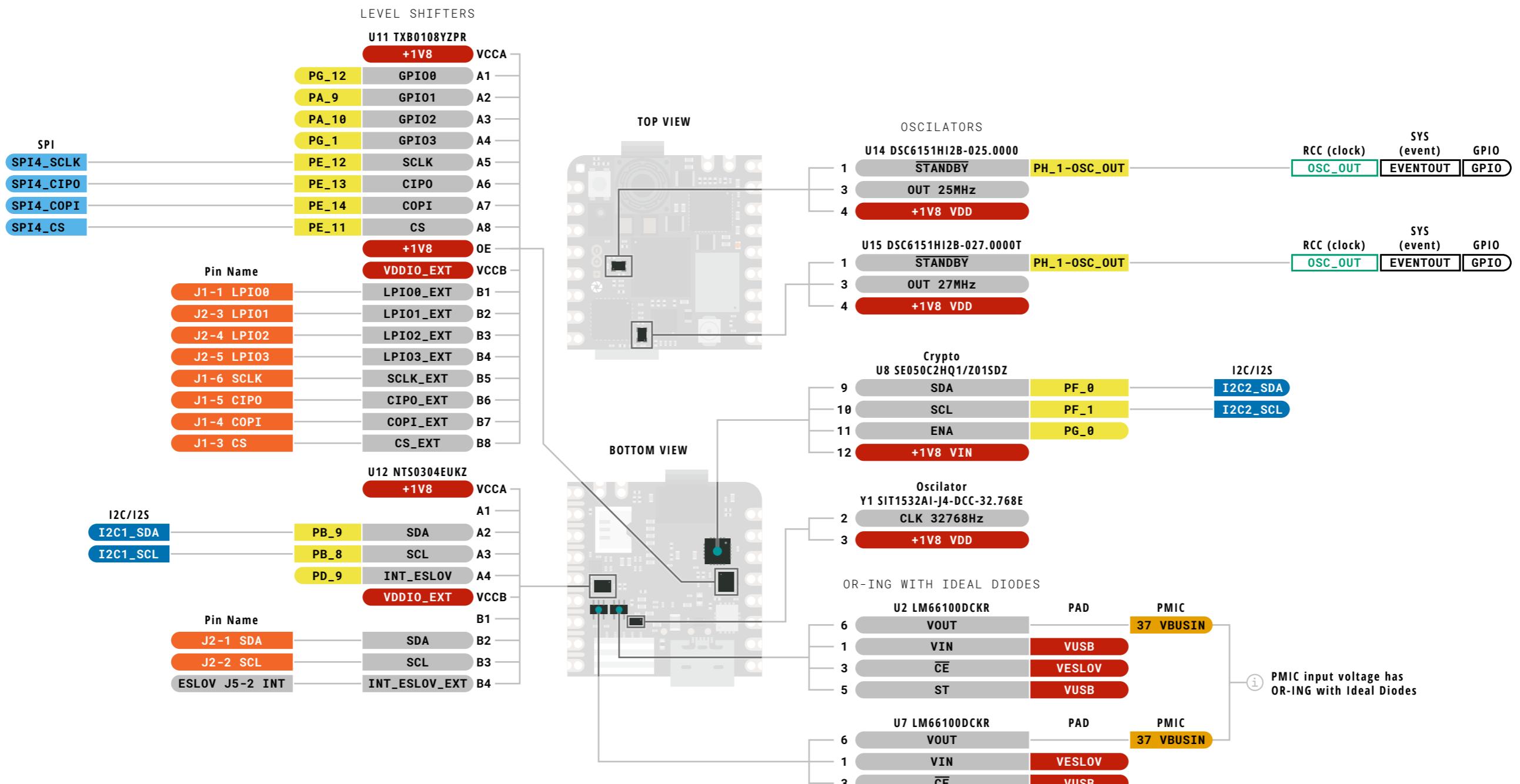
**NICLA**  
**ARDUINO**

SKU code: ABX0051  
Full Pinout - Page 8 of 9  
Last update: 14 Dec, 2022

DOCS.ARDUINO.CC

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.




**Legend:**

■ Power IN Power Input

OUT Power Output

■ Ground

■ GPIO Digital External

□ Analog External

■ Main Part

■ Secondary Part

■ Internal Component

■ Other Pins (Reset, System Control, Debugging)

■ I2C

□ SPI

■ UART/USART

□ Other SERIAL Communication

■ Analog

□ PWM/Timer

□ Default

□ Default

□ Default

□ Default

□ Default

□ Default

■ LED

● RGB LED

□ Other

**MAXIMUM LPIOs** are driven by bidirectional translators powered by VDDIO\_EXT. These translators are meant for low power and can only drive very limited current. Please check translator datasheet for details. VDDIO\_EXT is software programmable between 1.8 and 3.3V

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



SKU code: ABX0051  
Full Pinout - Page 9 of 9  
Last update: 14 Dec, 2022

DOCS.ARDUINO.CC

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

