

I/O Expanders (PI410E5V6408):

- E0 @ 0x43 (buttons & LoRa control)
- E1 @ 0x44 (power/UI: LCD reset/backlight, GROVE power, VIN detect, LED)

Legend:

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

■ I <sup>2</sup> C	■ Default	■ LED
■ SPI	■ Default	■ RGB LED
■ UART/USART	■ Default	
■ Other SERIAL		
■ Analog	■ Default	
■ PWM/Timer		

**WARNING** All GPIO pins are 3.3V logic only and are not 5V tolerant.  
**WARNING** Handle the internal LiPo battery with care. Do not puncture, short-circuit, expose to high temperatures.

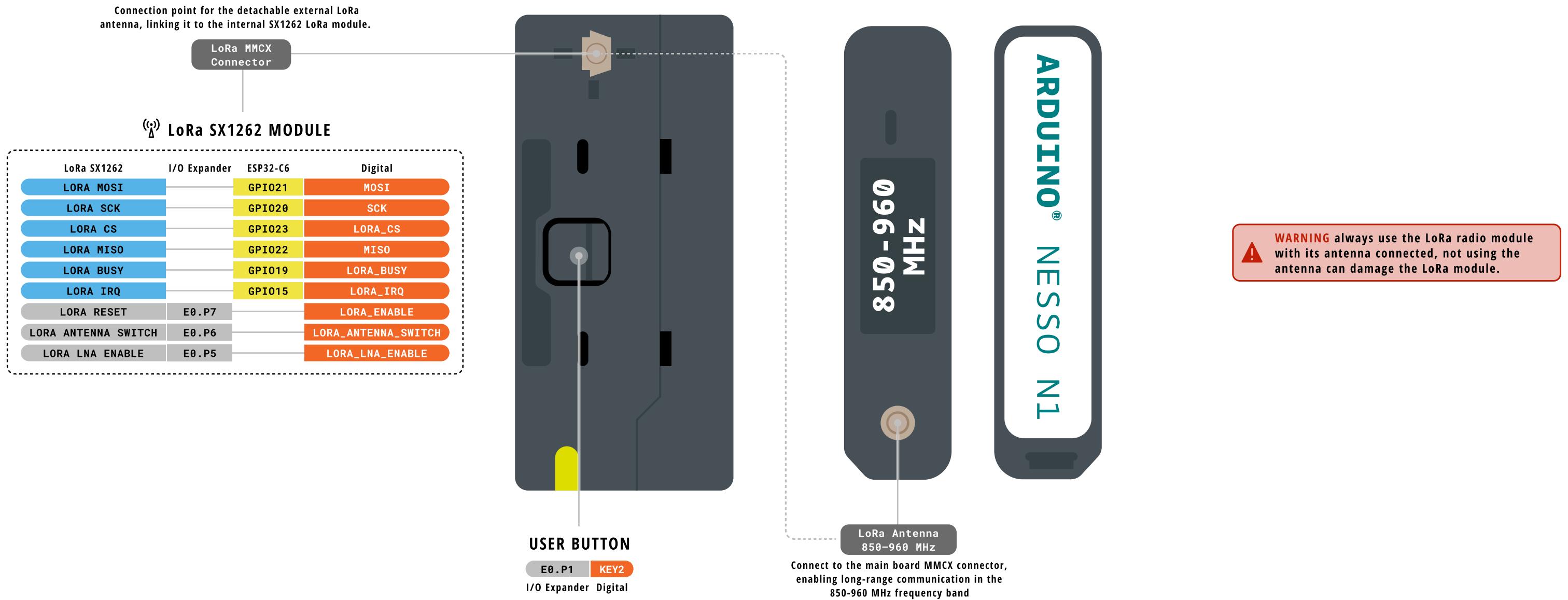


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■ I2C	■ Default	■ LED
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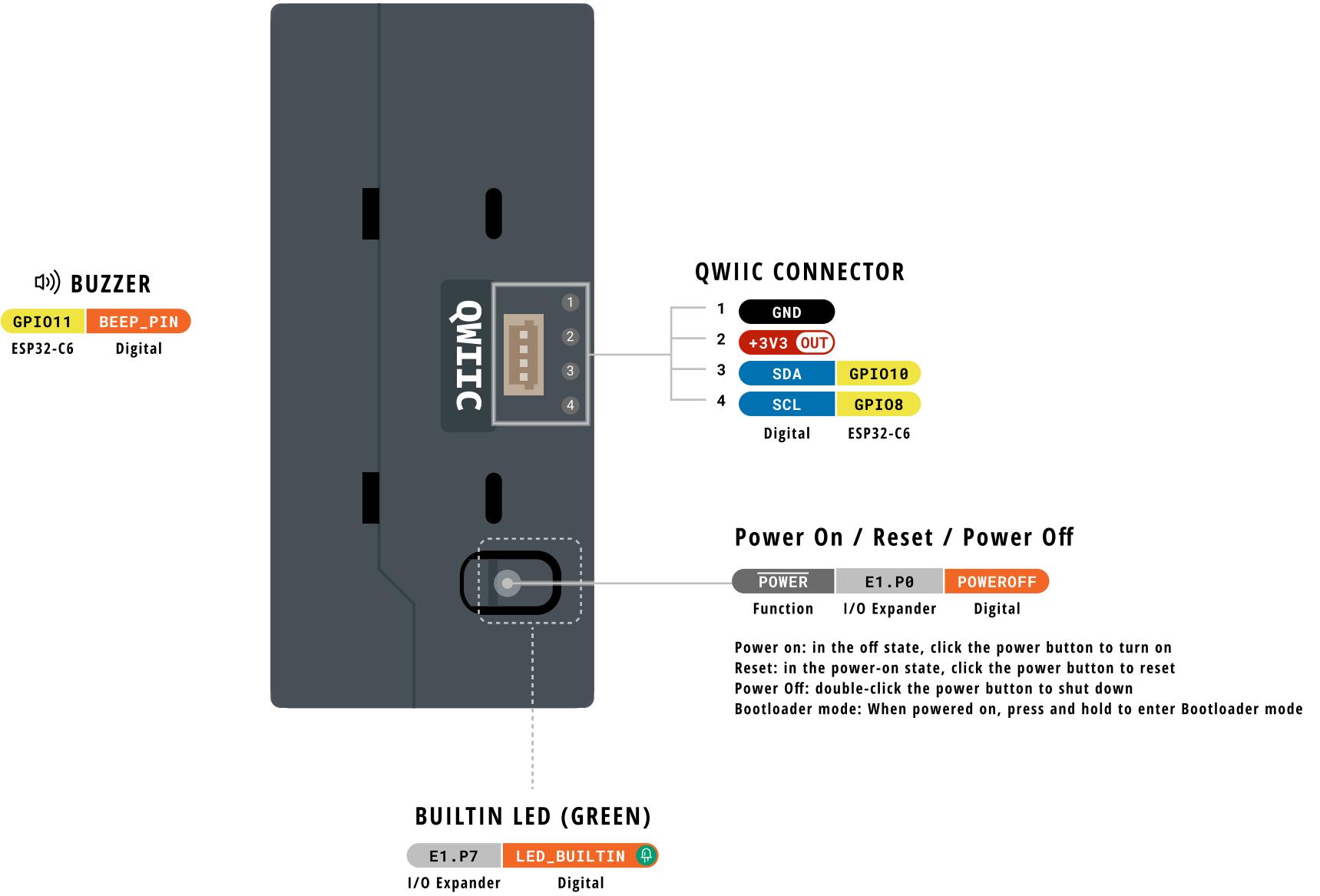


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■ Ground	■ Power Output	■ Analog External
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■ Other SERIAL		
■ Analog	■ Default	
■ PWM/Timer		

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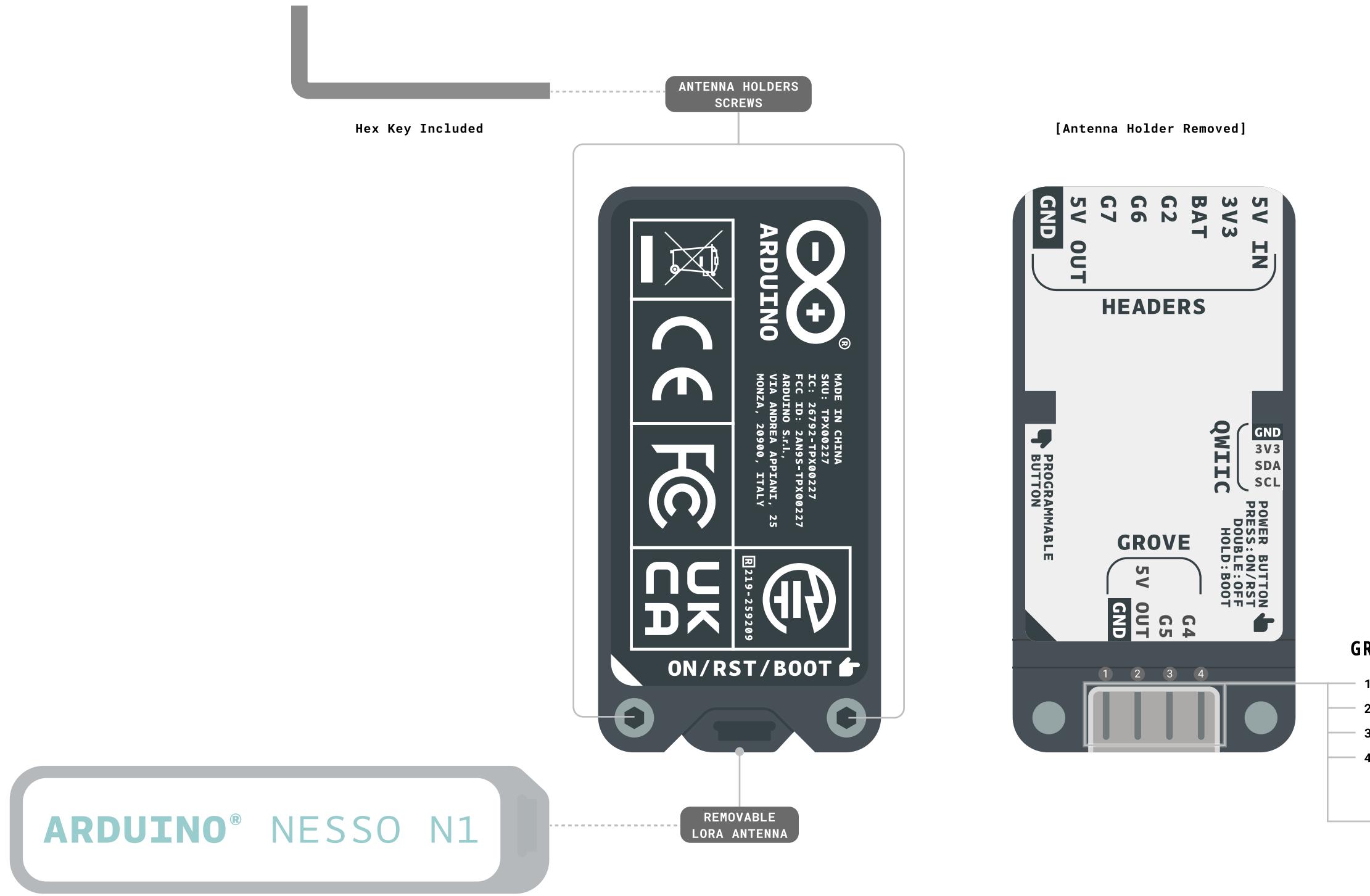


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#### Legend:

<span style="color:red">█</span> Power	<span style="color:red">IN</span> Power Input	<span style="color:orange">█</span> GPIO Digital External
<span style="background-color:black">█</span> Ground	<span style="color:red">OUT</span> Power Output	<span style="color:orange">█</span> Analog External
		<span style="background-color:yellow">█</span> Main Part
		<span style="color:orange">█</span> Secondary Part
		<span style="background-color:grey">█</span> Internal Component
		<span style="background-color:darkgrey">█</span> Other Pins (Reset, System Control, Debugging)

<span style="color:blue">█</span> I2C	<span style="color:blue">D</span> Default
<span style="color:blue">█</span> SPI	<span style="color:blue">D</span> Default
<span style="color:magenta">█</span> UART/USART	<span style="color:magenta">D</span> Default
<span style="color:blue">█</span> Other SERIAL	
<span style="color:green">█</span> Analog	<span style="color:green">D</span> Default
<span style="color:green">█</span> PWM/Timer	

<span style="color:cyan">█</span> LED
<span style="color:teal">█</span> RGB LED

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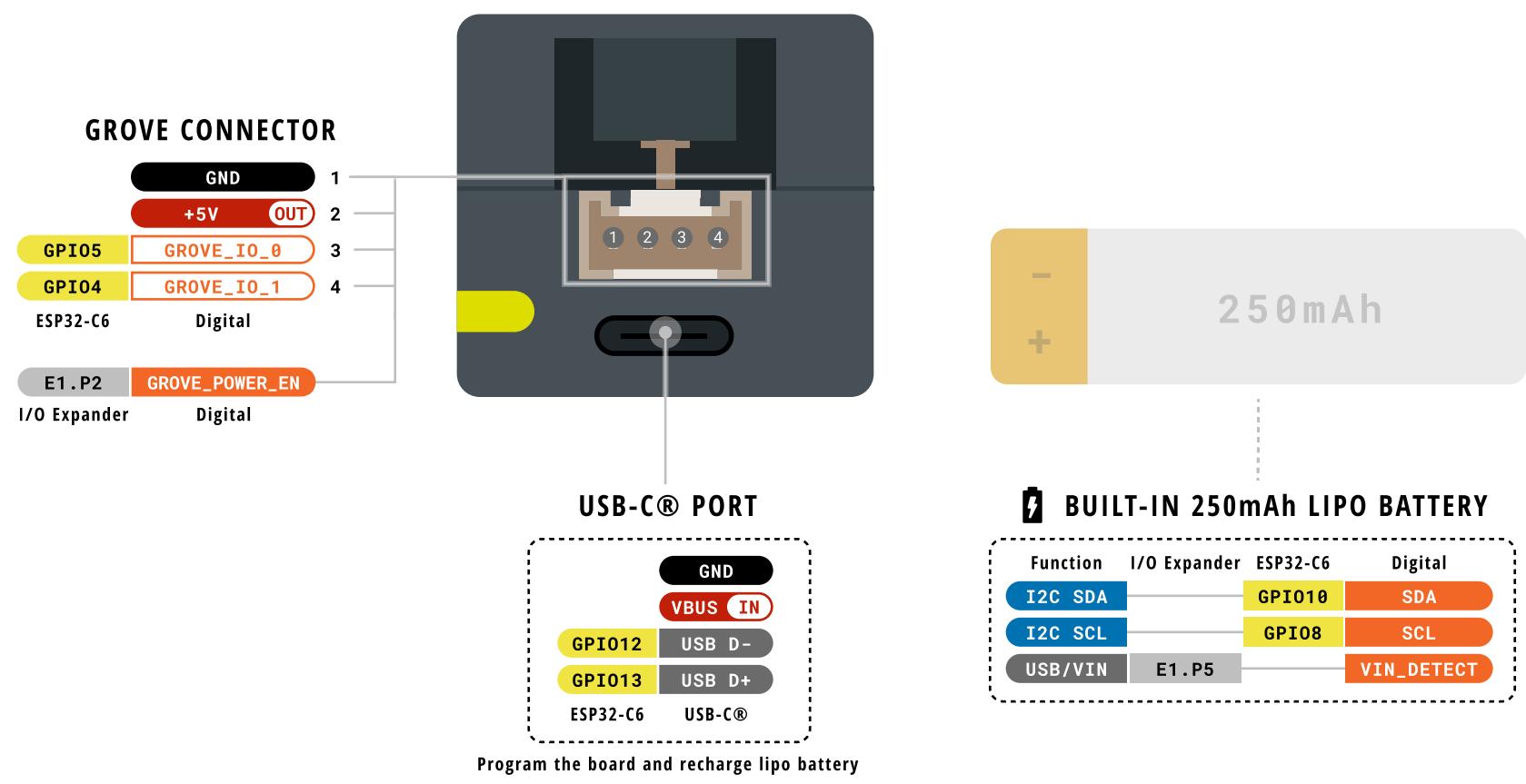


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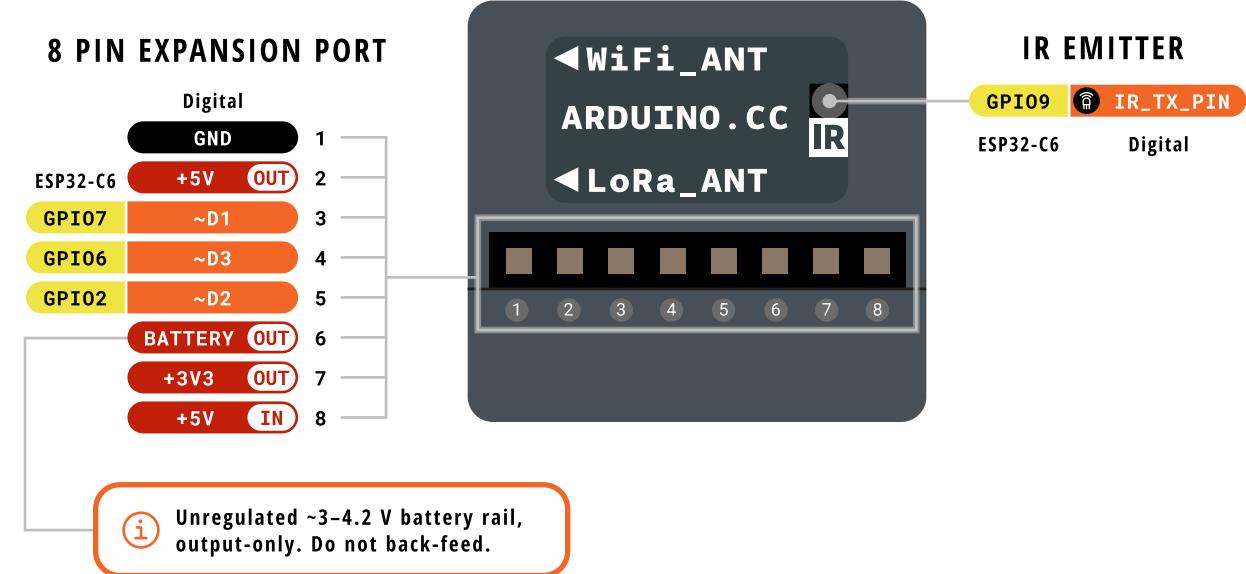


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**i** 8-pin expansion port compatible with the M5StickC HAT series

**Legend:**

**Power** Power Input  
**Ground** Power Output

GPIO Digital External  
 Analog External  
 Main Part  
 Secondary Part  
 Internal Component  
 Other Pins (Reset, System Control, Debugging)

I2C  
 SPI  
 UART/USART  
 Other SERIAL  
 Analog  
 PWM/Timer

Default  
 Default  
 Default  
 Default  
 Default

LED  
 RGB LED

**WARNING** All GPIO pins are 3.3V logic only and are not 5V tolerant.  
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