

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.

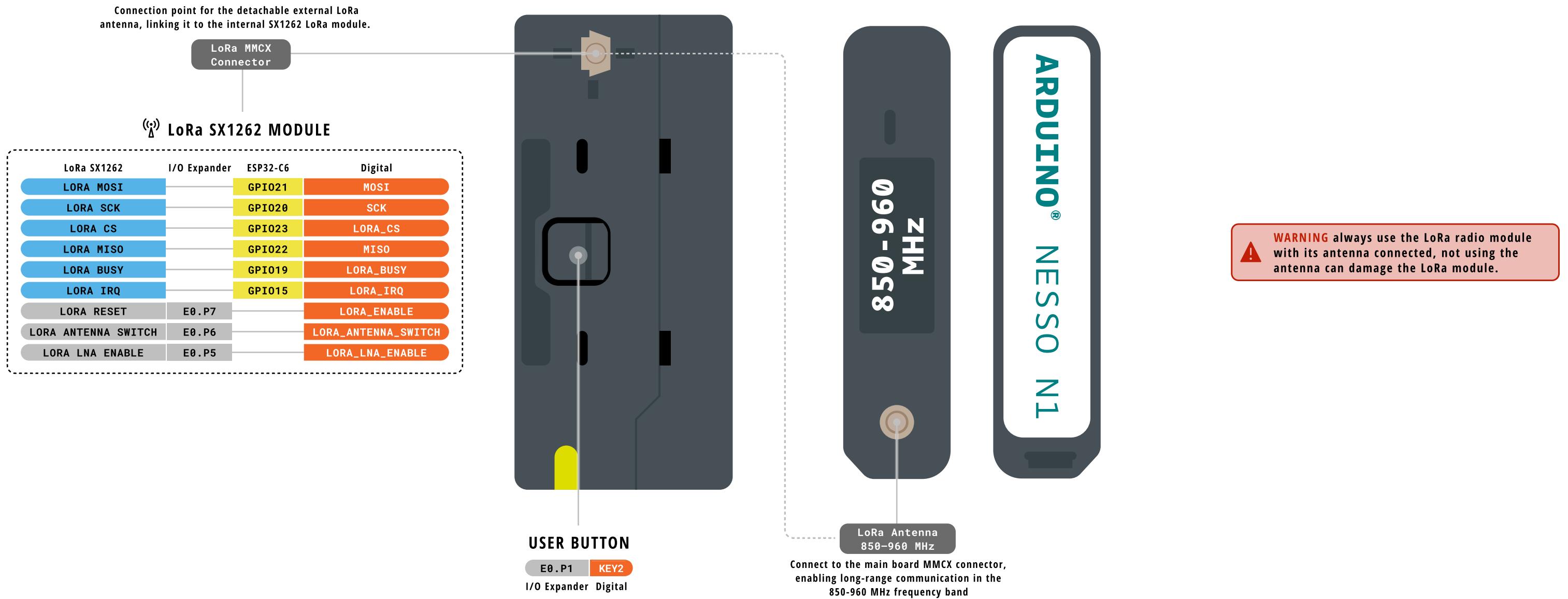
**NESSO N1**  
**ARDUINO**

SKU code: TPX00227  
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Last update: 24 Oct, 2025

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

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

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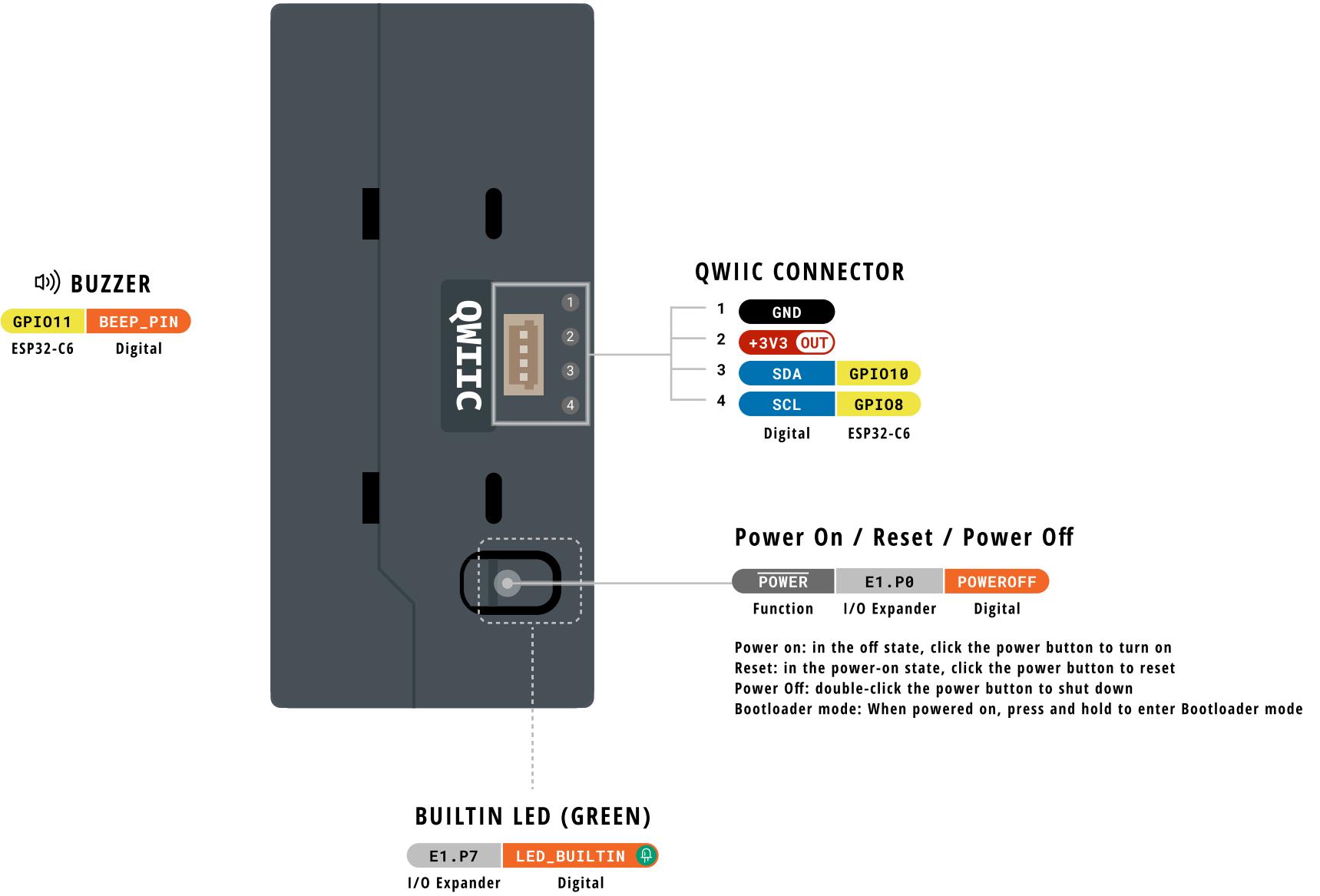
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- E1 @ 0x44 (power/UI: LCD reset/backlight, GROVE power, VIN detect, LED)

#### 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

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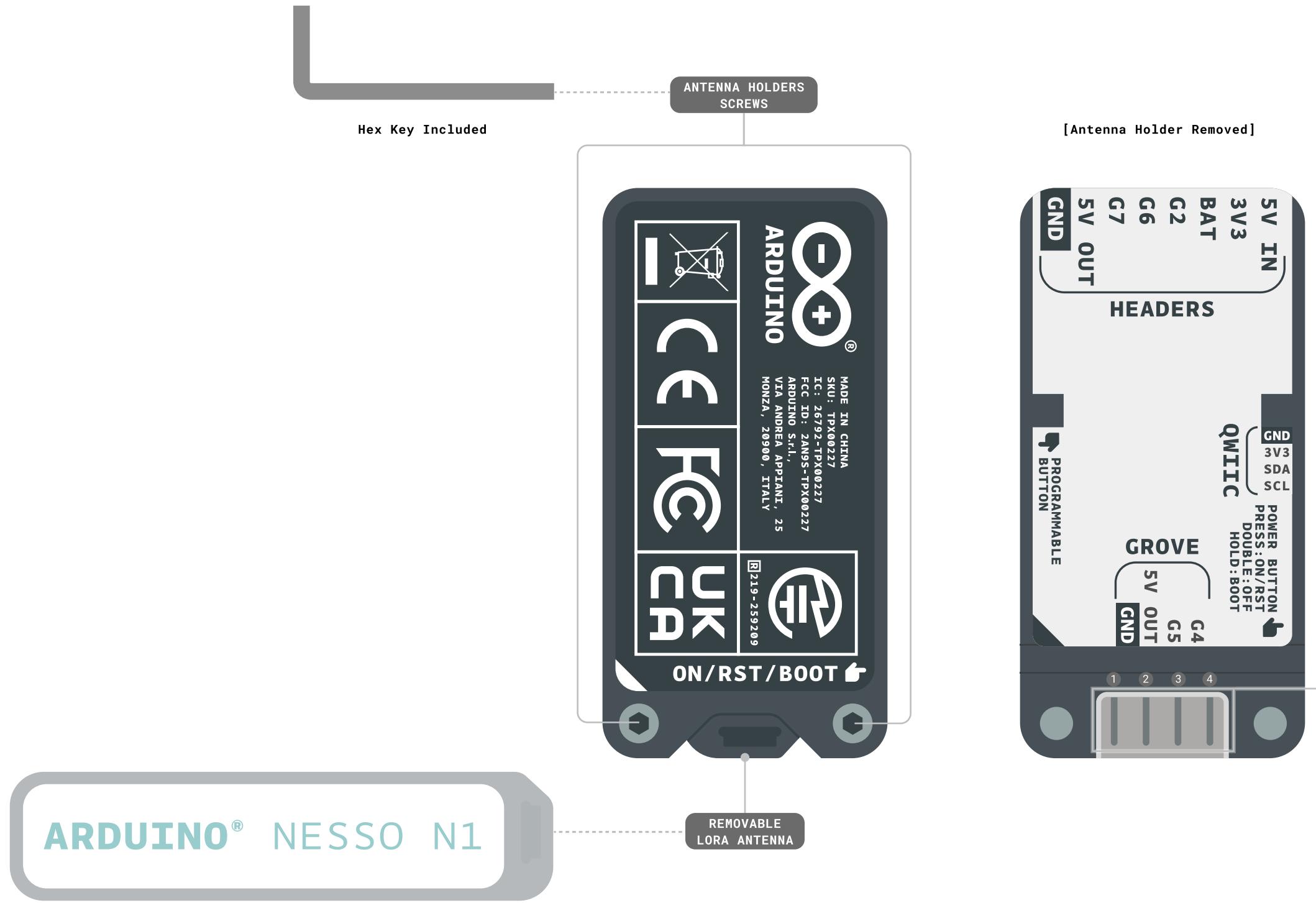
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- E1 @ 0x44 (power/UI: LCD reset/backlight, GROVE power, VIN detect, LED)

#### 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:green">█</span> LED
<span style="color:blue">█</span> SPI	<span style="color:blue">D</span> Default	<span style="color:green">█</span> RGB LED
<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:blue">D</span> Default	
<span style="color:green">█</span> PWM/Timer		

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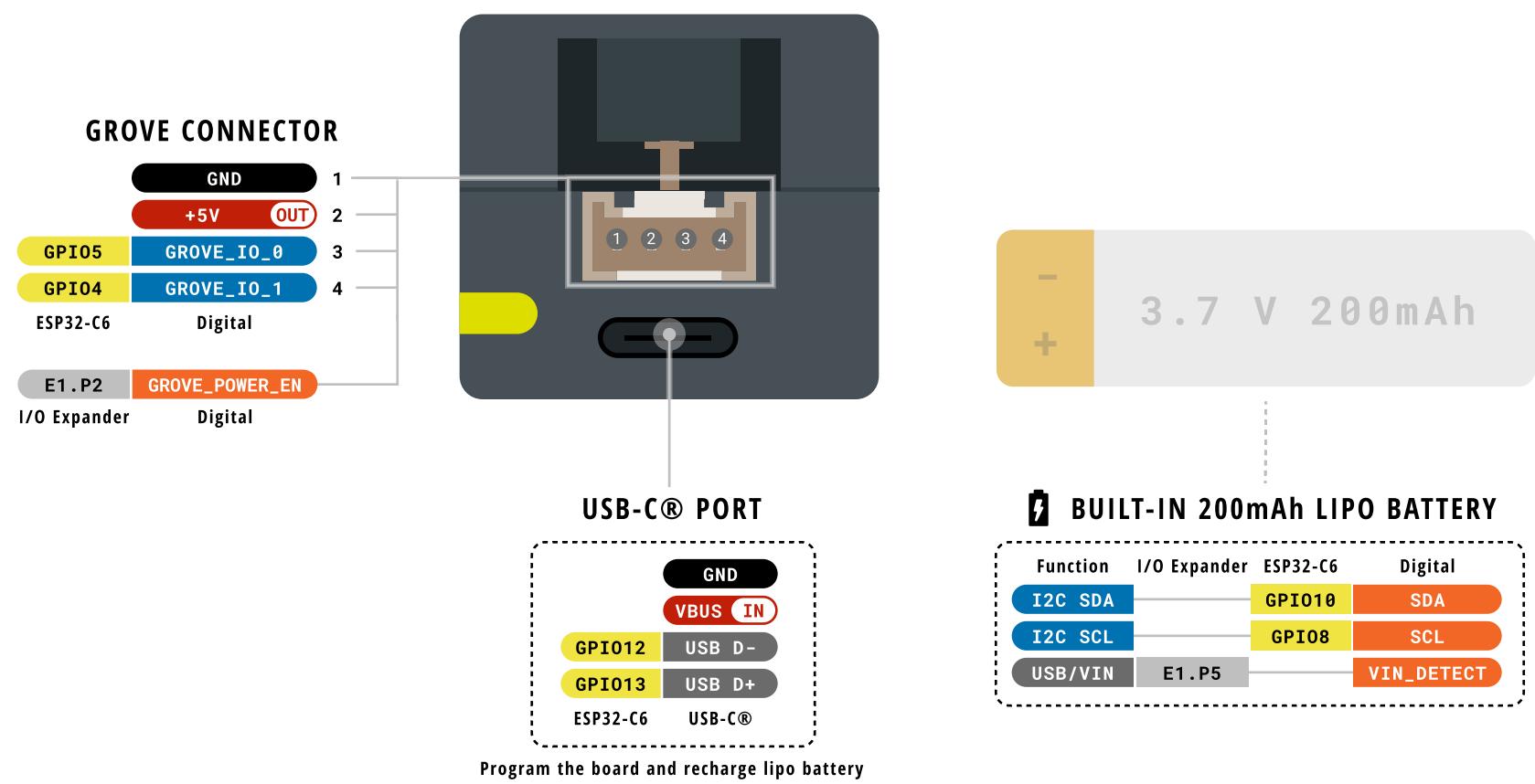


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#### Legend:

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

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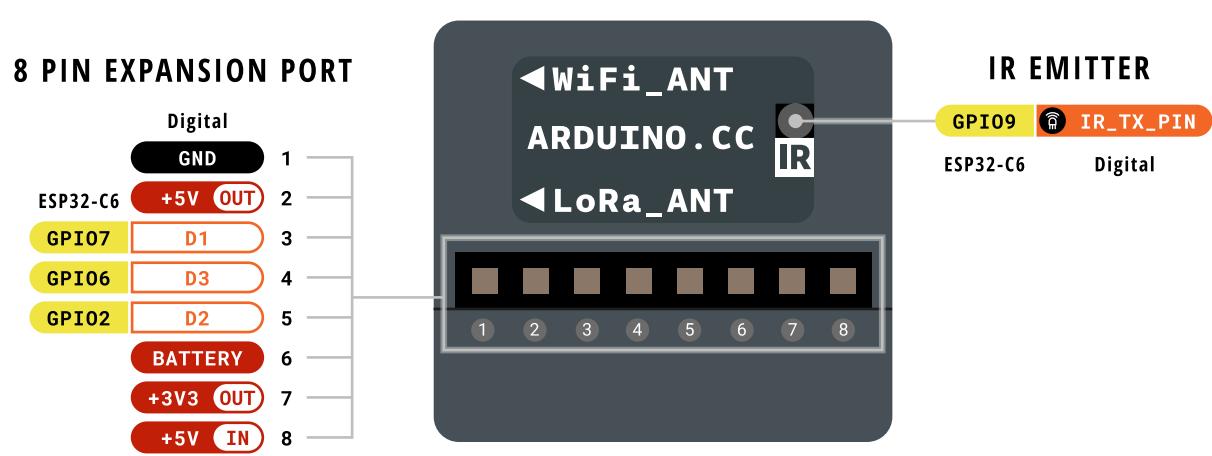
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**i** 8-pin expansion port compatible with the M5StickC HAT series

**Legend:**

■ Power IN Power Input

■ Ground OUT 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

D Default

D Default

D Default

D Default

D Default

■ LED

○ RGB LED

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