

**⚠ MAXIMUM** current per pin  
40mA, 20mA recommended

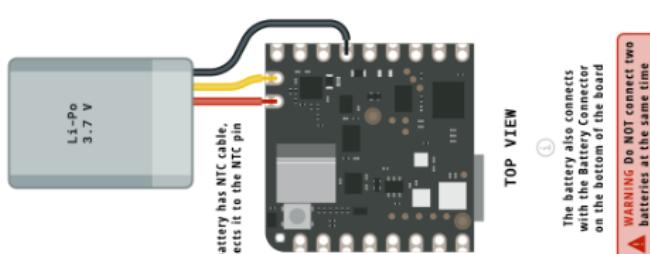
**⚠ MAXIMUM** current 200mA  
for the entire package

**⚠** The total current of each port power group **should not exceed** 100mA

**VIN** 7-21 V input to the board.

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

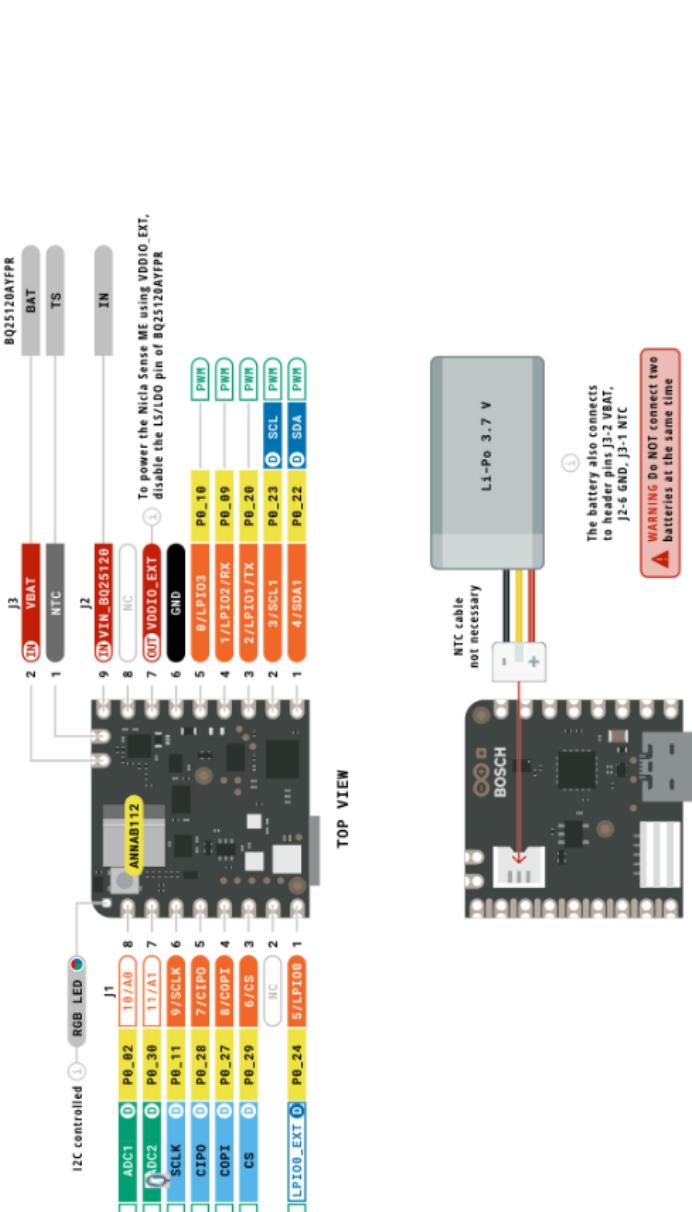
■ Ground	■ Digital Pin
■ Power	■ Analog Pin
■ LED	■ Other Pin
■ Internal Pin	■ Microcontroller's Port
■ SWD Pin	■ Default



If the battery has NTC cable, connects it to the NTC pin

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

**WARNING** Do NOT connect two batteries at the same time



TOP VIEW

BOTTOM VIEW

**Legend:**

- Power  
■ Ground

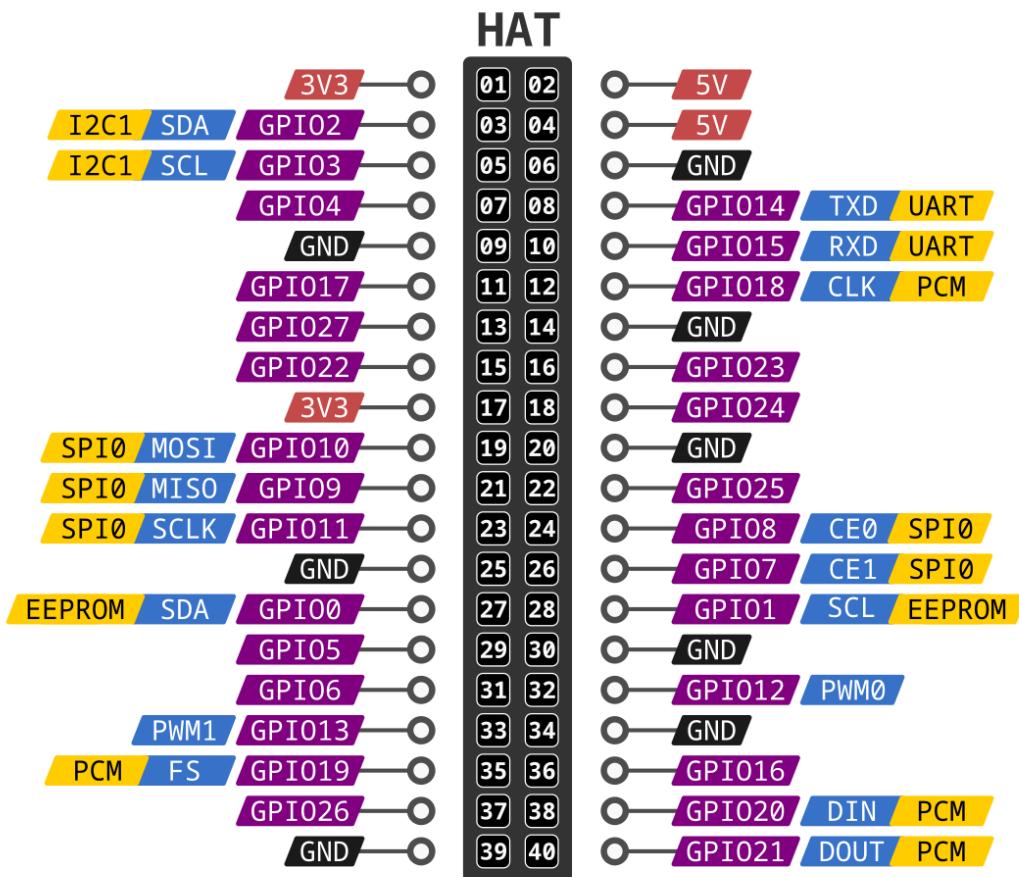
	GPIO Digital External
	Analog External
	Main Part
	Secondary Part
	Internal Component
	Other Pins (Reset, System Control, Debugging)

	I2C	<input checked="" type="radio"/> Default
	SPI	<input checked="" type="radio"/> Default
	UART/USART	<input checked="" type="radio"/> Default
	Other SERIAL Communication	<input type="checkbox"/>
	Analog	<input checked="" type="radio"/> Default
	PWM/Timer	<input type="checkbox"/>

**MAXIMIN** LPIOTS are driven by bidirectional transistors powered by VDDIO/ENT. These transistors are meant for low power and can only create very limited current. Please check translator datasheet for details.

VDDIO/ENT is software programmable between 1.8 and 3.3V. CIRCOPT has previously been referred to as MI30/MOSI

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GND
   
 POWER
   
 GPIO NUMBER
   
 PIN FUNCTION

**BeagleY-AI**

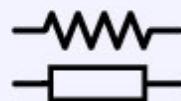
40-pin HAT header pinout

**4 Bands**



**1.2 Ω 10%**

Color	1st Digit	2nd Digit	Multiplier	Tolerance
Black	0	0	1	-
Brown	1	1	10	1%
Red	2	2	100	2%
Orange	3	3	1 K	-
Yellow	4	4	10 K	-
Green	5	5	100 K	0.5%
Blue	6	6	1 M	0.25%
Violet	7	7	10 M	0.1%
Gray	8	8	-	0.05%
White	9	9	-	-
Gold	-	-	0.1	5%
Silver	-	-	0.01	10%



**Resistor Color Codes**

1K = 1 000  
1M = 1 000 000