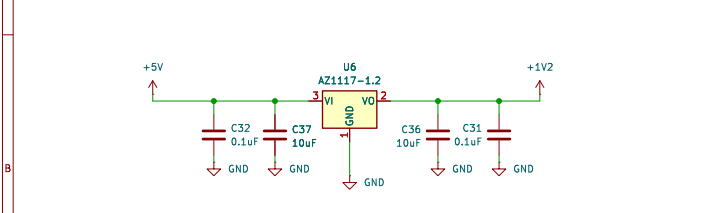


## POWER

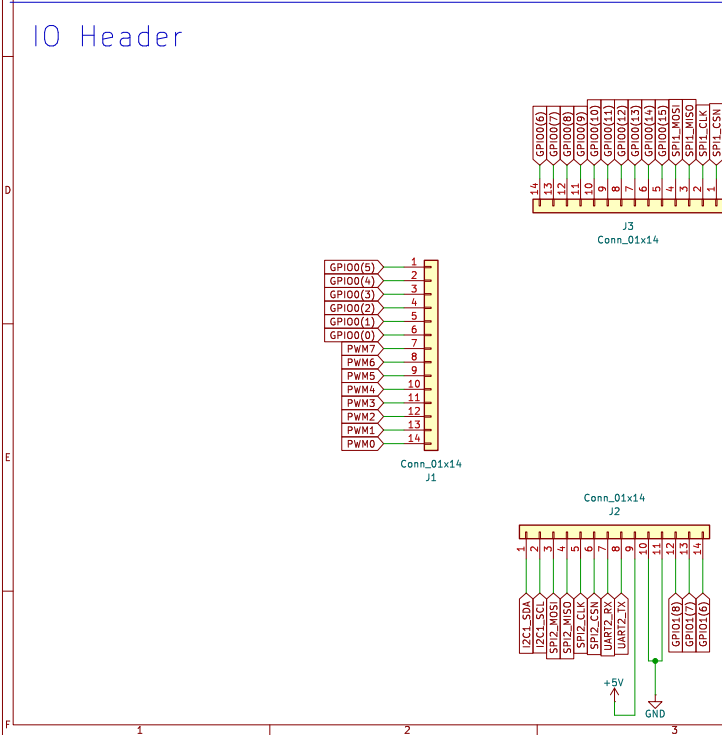
The diagram illustrates the power supply circuit for the AMS51117-3.3 module. A +5V input line is connected to several components: a 0.1uF capacitor (C34), a 10uF capacitor (C39), the VI pin of the AMS51117-3.3 module, a 22uF capacitor (C38), and a 0.1uF capacitor (C33). The VO pin of the module is connected to a +3V3 output line. A PWR\_FLAG pin is also shown, connected to +5V and GND.



## I2C Pullups

The diagram illustrates the I2C pullup configuration for three modules. Each module's SCL and SDA lines are connected to a +3V3 supply through a 10k resistor. The resistors are labeled R32, R31, R2, R1, R18, and R19 respectively.

- I2C0:** SCL is connected to +3V3 through resistor R32 (10k). SDA is connected to +3V3 through resistor R31 (10k).
- I2C1:** SCL is connected to +3V3 through resistor R2 (10k). SDA is connected to +3V3 through resistor R1 (10k).
- I2C2:** SCL is connected to +3V3 through resistor R18 (10k). SDA is connected to +3V3 through resistor R19 (10k).

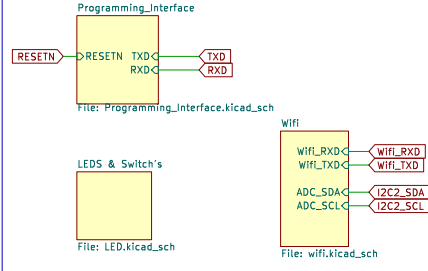


# Oscillator

File: Programming\_Interface.kicad\_sch

File: LED.kicad\_sch

File: wifi.kicad\_sch



# Thejas32

The image displays the PCB layout of the Thejas32 board. The board is populated with various components including capacitors (C1 through C22), resistors (R21, R20), and a microcontroller (U1: C9800T3402 THEAS32). The layout includes power planes for +1V2 and +3V3, and ground connections. A detailed pinout table is provided, listing the connections for the microcontroller pins, including SPI, UART, I2C, and GPIO interfaces.

**Pinout Table:**

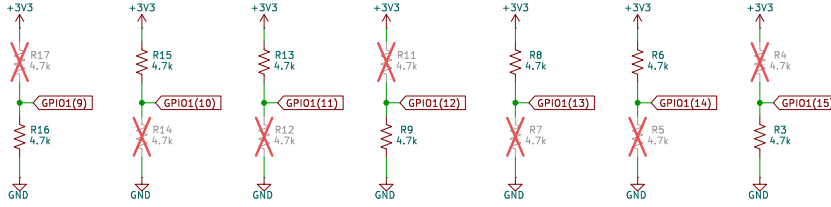
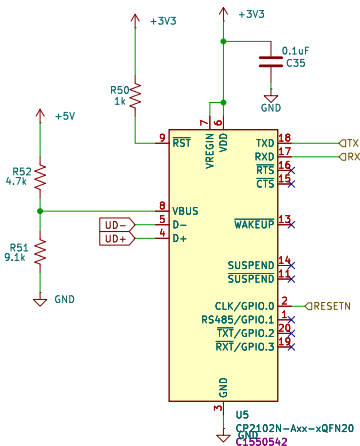
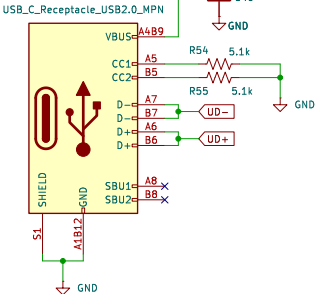
Pin	Signal	Pin	Signal
91	FLASH_CLK	86	PWM[0]
92	FLASH_CS	85	PWM[1]
90	IIC_MISO	82	PWM[2]
87	IIC_MOSI	81	PWM[3]
40	SPI1_CLK	80	PWM[4]
39	SPI1_CSN	77	PWM[5]
41	SPI1_MISO	76	PWM[6]
42	SPI1_MOSI	75	PWM[7]
101	SPI2_CLK		
102	SPI2_CSN		
98	SPI2_MISO		
97	SPI2_MOSI		
11	SPI3_CLK		
12	SPI3_CSN		
10	SPI3_MISO		
7	SPI3_MOSI		
107	UART0_RX	74	GPIO0(0)
108	UART0_TX	73	GPIO0(1)
50	UART1_RX	72	GPIO0(2)
45	UART1_TX	71	GPIO0(3)
105	UART2_RX	66	GPIO0(4)
106	UART2_TX	65	GPIO0(5)
33	I2C0_SCL	64	GPIO0(6)
34	I2C0_SDA	63	GPIO0(7)
96	I2C1_SCL	62	GPIO0(8)
95	I2C1_SDA	61	GPIO0(9)
32	I2C2_SCL	58	GPIO0(10)
31	I2C2_SDA	55	GPIO0(11)
44	CLK	54	GPIO0(12)
15	BOOT_SEL	53	GPIO0(13)
16	PROC_HEART_BEAT	52	GPIO0(14)
43	PUSH_RESETN	51	GPIO0(15)
23	TJTAG_TDI		
20	TJTAG_CLK		
22	TJTAG_TMS	6	GPIO1(0)
21	TJTAG_TDO	5	GPIO1(1)
29	TJTAG_TRST	2	GPIO1(2)
28	TJTAG_TCK	1	GPIO1(3)
30	TJTAG_MODE	128	GPIO1(4)
17	GND	127	GPIO1(5)
		122	GPIO1(6)
		121	GPIO1(7)
		120	GPIO1(8)
		119	GPIO1(9)
		118	GPIO1(10)
		117	GPIO1(11)
		116	GPIO1(12)
		111	GPIO1(13)
		110	GPIO1(14)
		109	GPIO1(15)

Rev: 1A

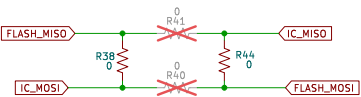
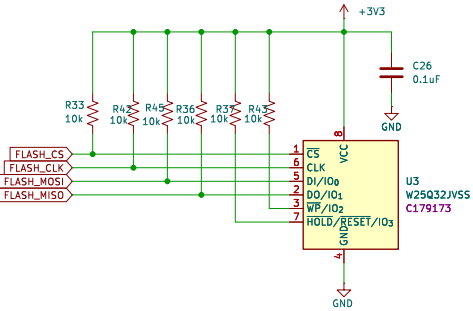
Programming Interface

BAUD Rate Configuration

USB Module



Flash memory



Reviewed by: Yatharth Agarwal  
Designed by: Kaustubh Pandey

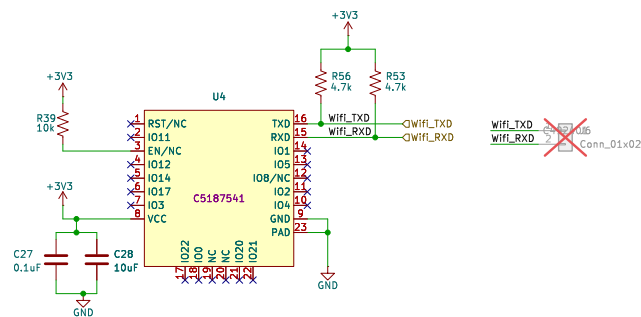
Sheet: /Programming\_Interface/  
File: Programming\_Interface.kicad\_sch

Title: VSDSquadron Ultra

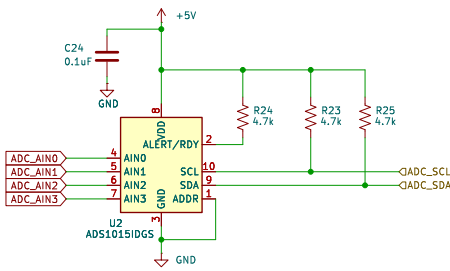
Size: A3 Date: 2025-02-28  
KiCad E.D.A. 9.0.0

Rev: 1A  
Id: 2/4

Wi-Fi and BLE Module



ADC Module



Reviewed by: Yatharth Agarwal  
Designed by: Kaustubh Pandey

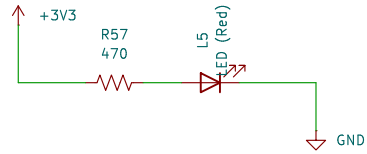
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**Title: VSDSquadron Ultra**

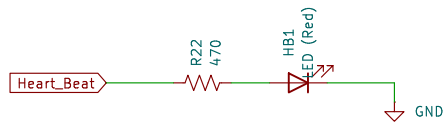
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KiCad E.D.A. 9.0.0

Rev: 1A  
Id: 3/4

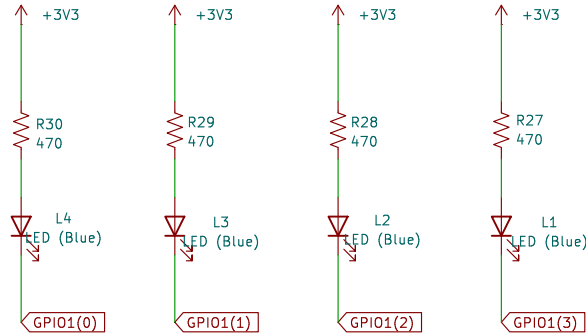
## POWER LED



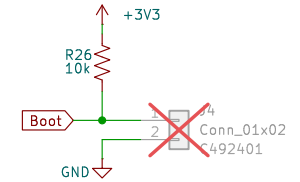
## Heart\_Beat LED



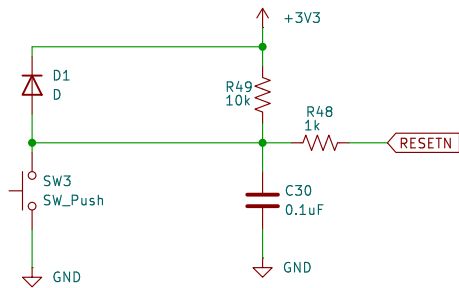
## USER GPIO LED



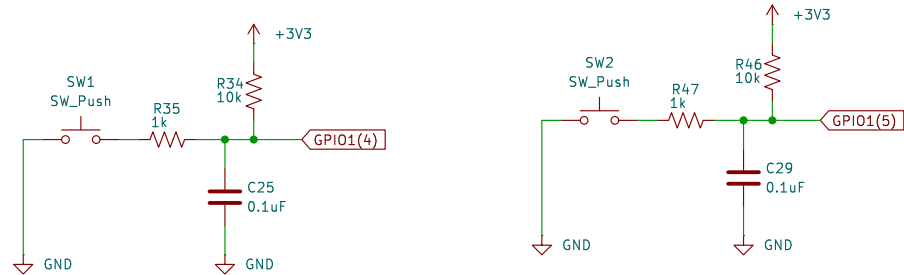
## Boot Select



## Power on Reset



## USER Push Button



Reviewed by: Yatharth Agarwal  
Designed by: Kaustubh Pandey

Sheet: /LEDS & Switch's/  
File: LED.kicad\_sch

**Title: VSDSquadron Ultra**

Size: A4 Date: 2025-02-28

KiCad E.D.A. 9.0.0

**Rev: 1A**

Id: 5/4