

Project: Theia Thermal Camera ESP32

Designer: Ahmed Chehaibi

Open Source

Sheet: /

File: theia_v1.kicad_sch

Title: Top Level

Size: A4

Date: 2025-01-17

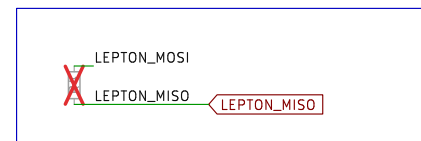
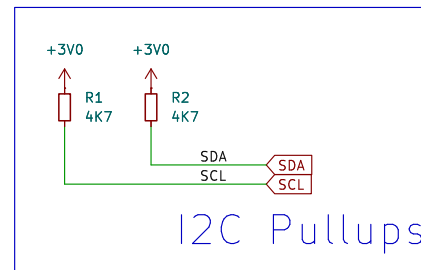
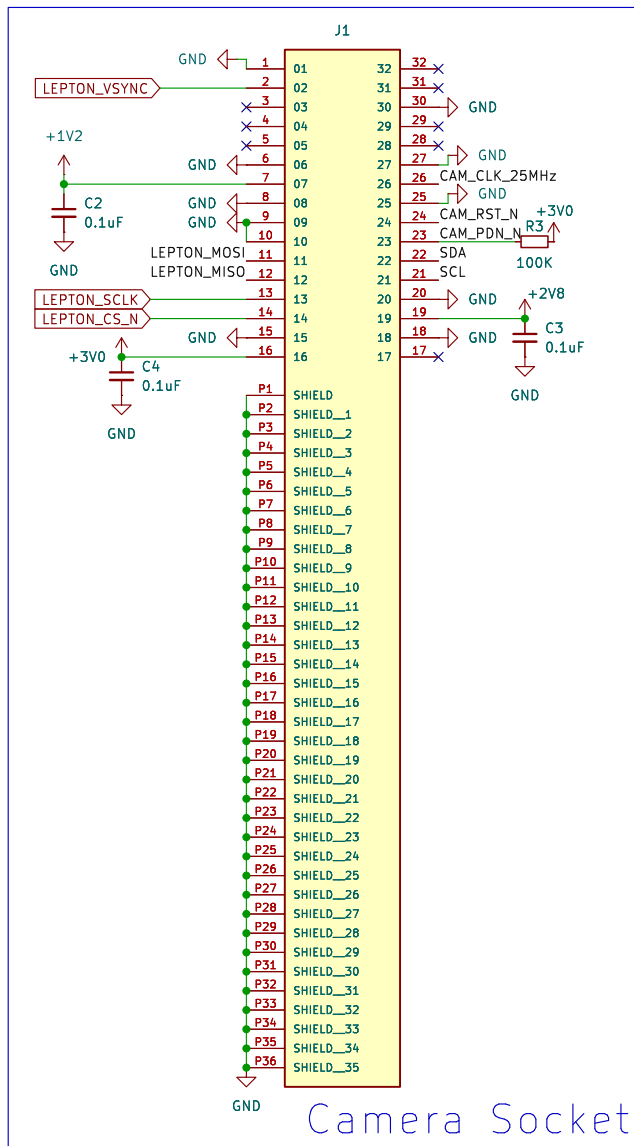
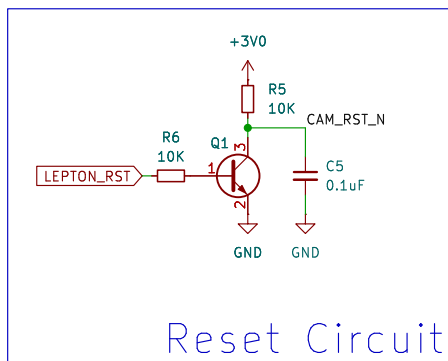
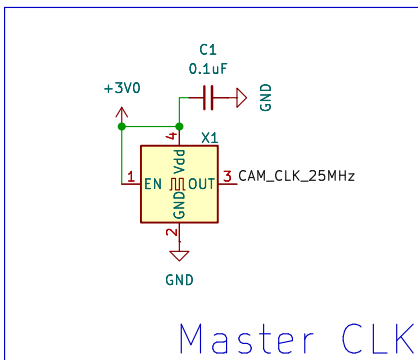
KiCad E.D.A. 9.0.0

Rev: V1.0

Id: 1/6



THEIA V1



Project: Theia Thermal Camera ESP32

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Sheet: /FLIR Lepton V3.5/

File: flir_lepton.kicad_sch

Title: Flir Lepton V3.5 Module

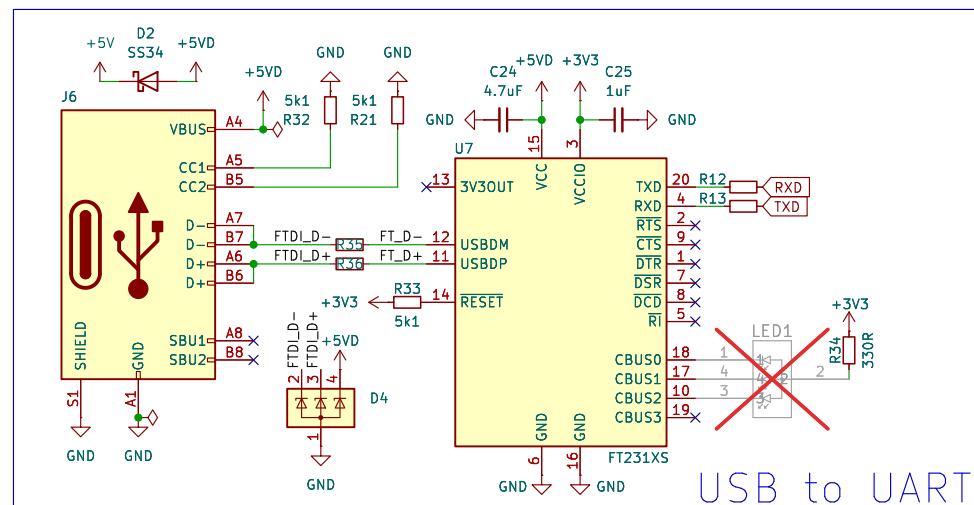
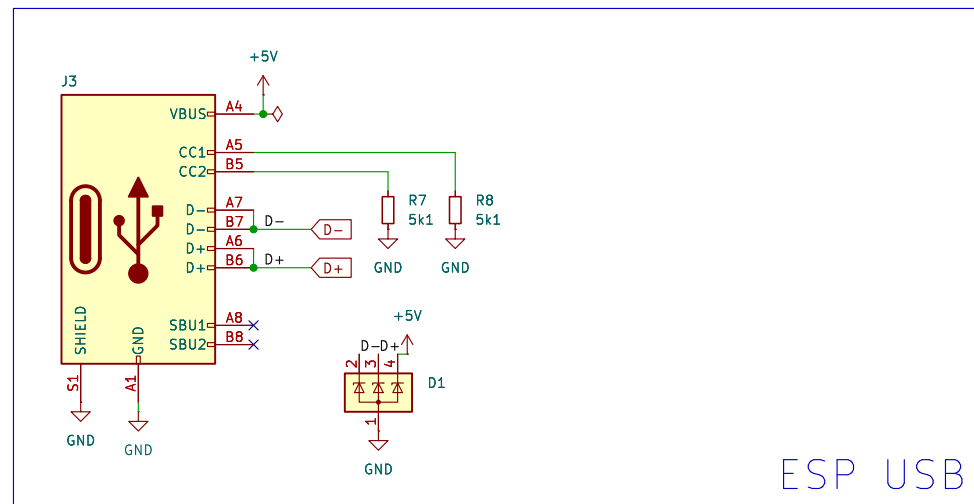
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Project: Theia Thermal Camera ESP32

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Sheet: /USB 2.0/

File: usb.kicad_sch

Title: USB & UART

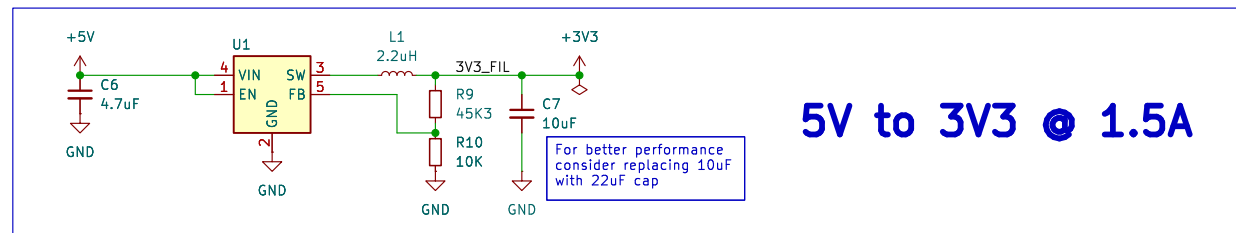
Size: A4

Date: 2025-01-17

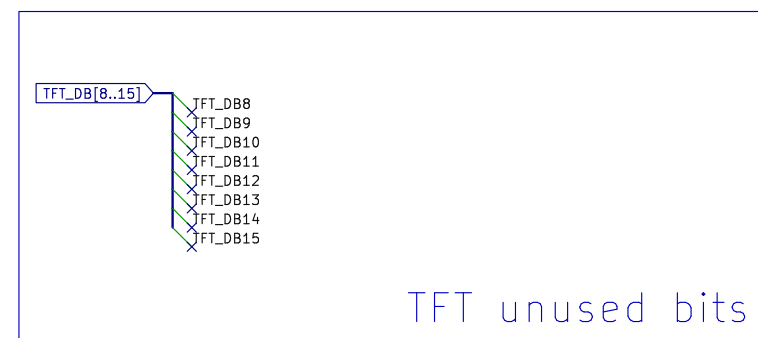
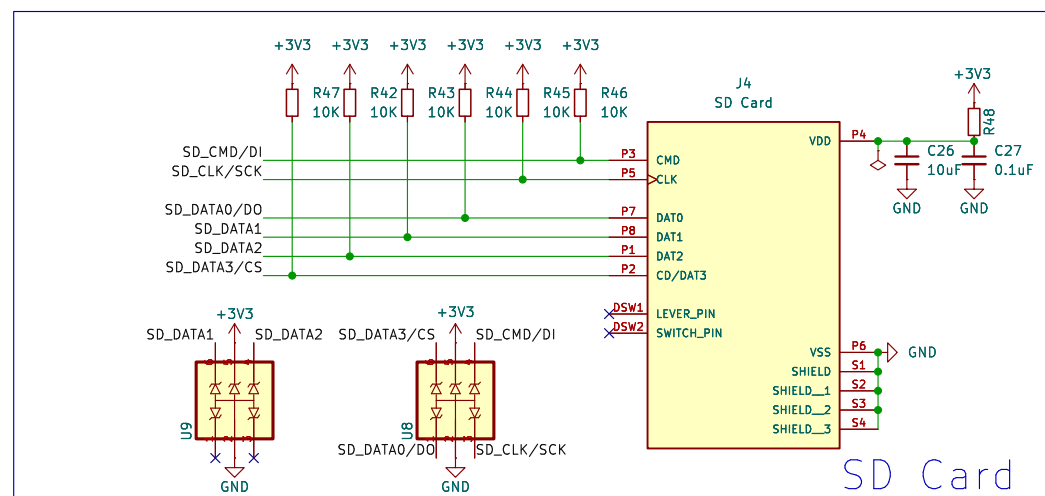
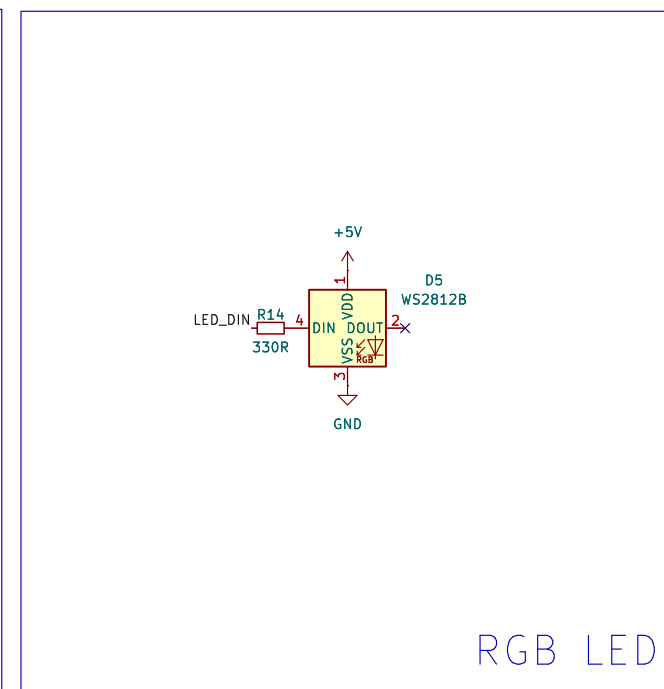
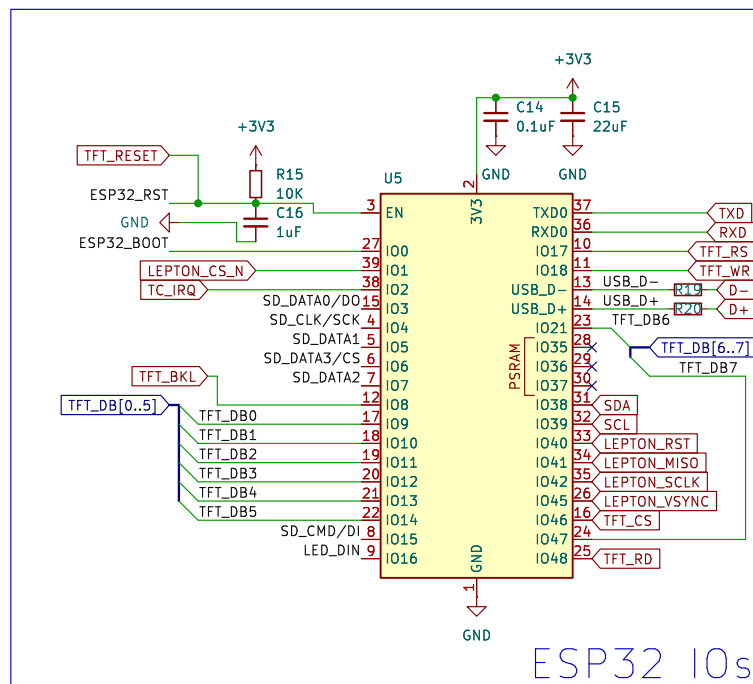
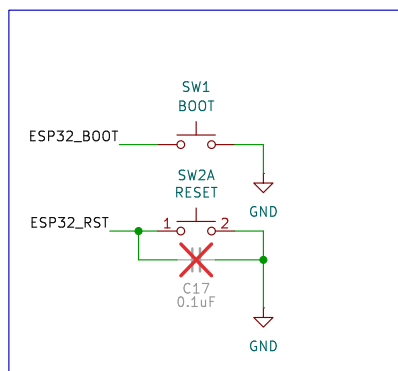
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Rev: V1.0

Id: 3/6



Project: Theia Thermal Camera ESP32		
Designer: Ahmed Chehaibi		
Open Source		
Sheet: /Power/		
File: power.kicad_sch		
Title: Power Supplies		
Size: A4	Date: 2025-01-17	Rev: V1.0
KiCad E.D.A. 9.0.0	Id: 4/6	



4 Bit Mode / SPI Mode

Project: Theia Thermal Camera ESP32

Designer: Ahmed Chehaibi

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Sheet: /ESP32 S3/

File: esp32.kicad_sch

Title: ESP32 & MicroSD & RGB LED

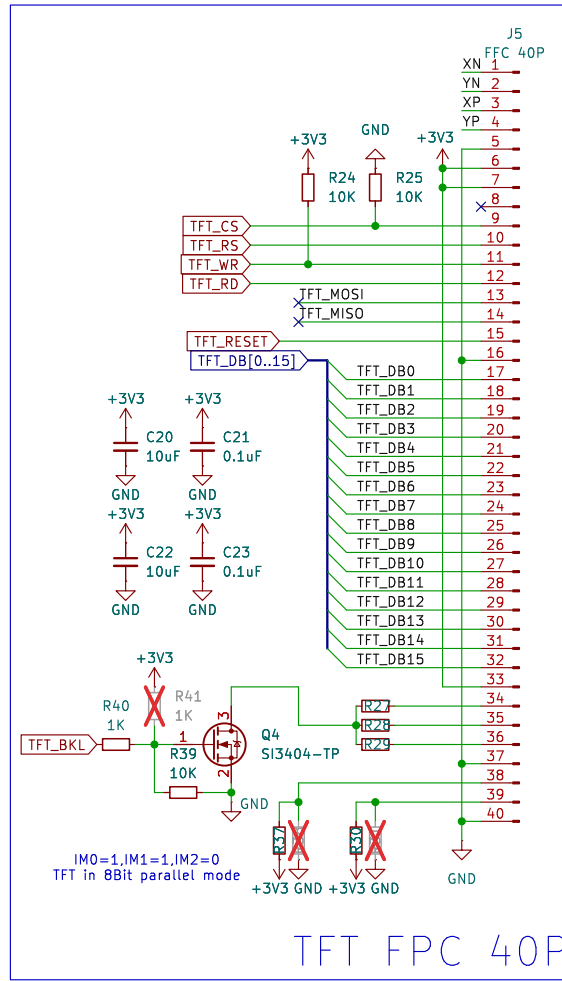
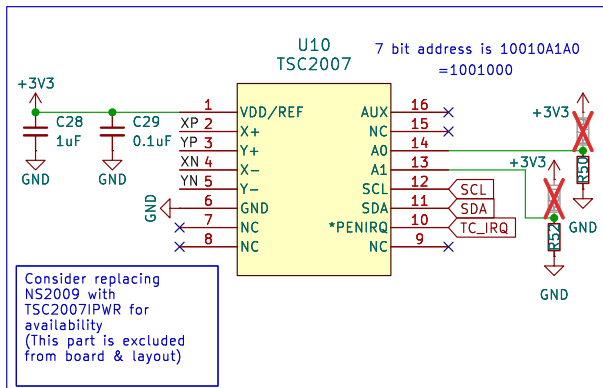
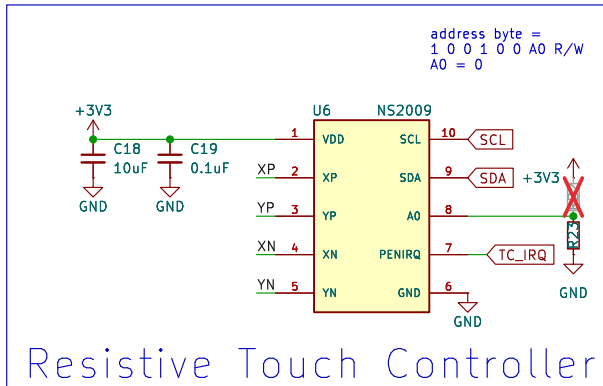
Size: A4

Date: 2025-01-17

Rev: V1.0

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Id: 5/6



PIN	DESC
1	X-
2	Y-
3	X+
4	Y+
5	GND
6	VCC
7	VCC
8	FMARK
9	CS/SPLCS
10	RS/SPLSCL
11	WR/SPLAO
12	RD
13	SPL_SDA
14	SPL_SDO
15	RESET
16	GND
17	D0
18	D1
19	D2
20	D3
21	D4
22	D5
23	D6
24	D7
25	D8
26	D9
27	D10
28	D11
29	D12
30	D13
31	D14
32	D15
33	A
34	K1
35	K2
36	K3
37	GND
38	IM0
39	IM1
40	IM2

Display interface mode selection pin, by connecting these 3 pins to high/low level, select 3-wire

SPI serial port/4-wire SPI serial port/MCU-8-bit parallel port/MCU-16-bit parallel port

IM2	IM1	IM0	Interface mode	Data pin
0	1	0	MCU-16-bit parallel port	DB15-DB0
0	1	1	MCU-8-bit parallel port	DB7-DB0
1	0	1	3-wire SPI serial port	SDA:in SDO:out
1	1	1	4-wire SPI serial port	SDA:in SDO:out

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Sheet: /LCD Display/
File: tft_lcd.kicad_sch

Title: Parallel TFT & Touch

Size: A4 Date: 2025-01-17

KiCad E.D.A. 9.0.0

Rev: V1.0

Id: 7/6