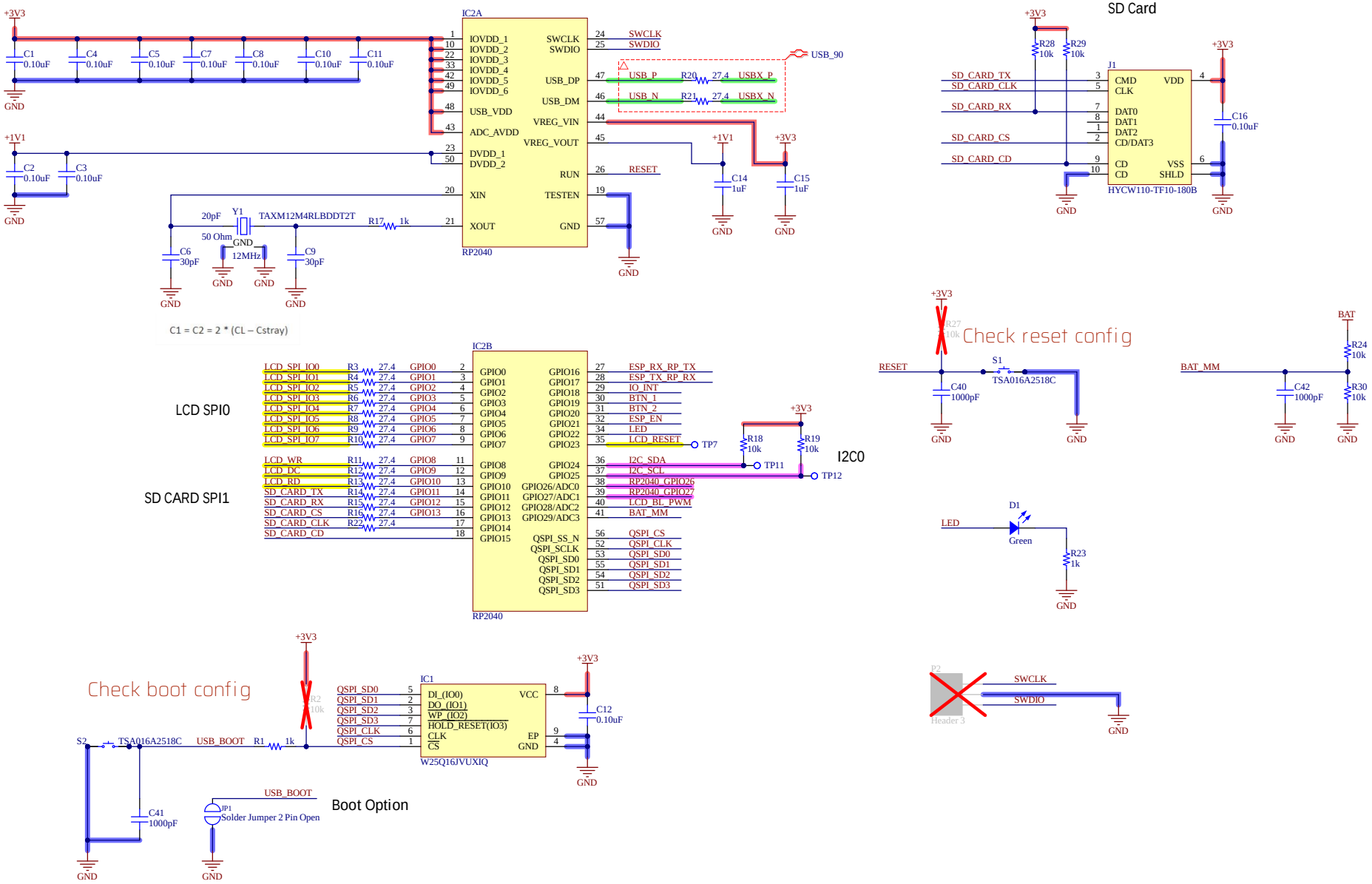

Title: RP2040.SchDoc	Document Number: SCH23210001	Revision: 2323-r3a	Alptron AB Vaesteas Sweden
Project: RP2040-ESP32C3 Dev. Board	Variant: Serial Production No Shunt		
	Drawn By: Caner Alp	Date: 30/07/2023 Sheet 1 of 5 Size: A3	

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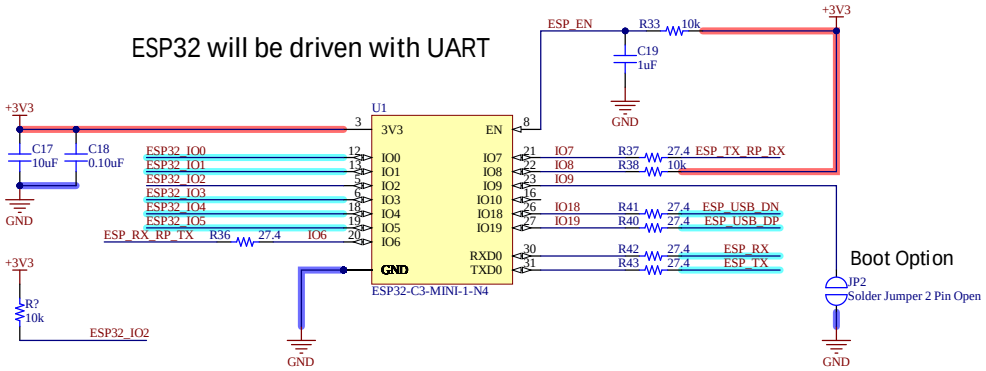
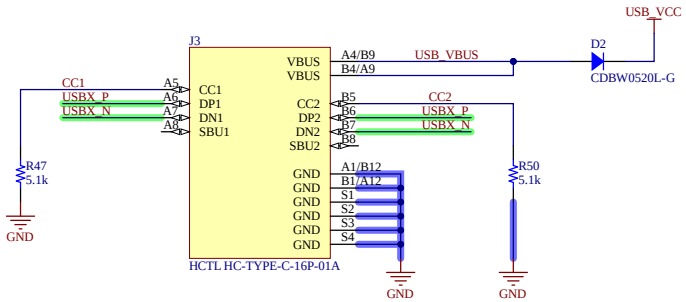
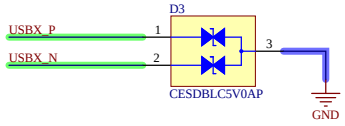


Title: ESP32-C3 Module.SchDoc	Document Number: SCH23210001	Revision: 2323-r3a
Project: RP2040-ESP32C3 Dev. Board	Variant: Serial Production No Shunt	Alptron AB Vaesteas Sweden
	Drawn By: Caner Alp Date: 30/07/2023 Sheet 2 of 5 Size: A3	ALP ELECTRONIX



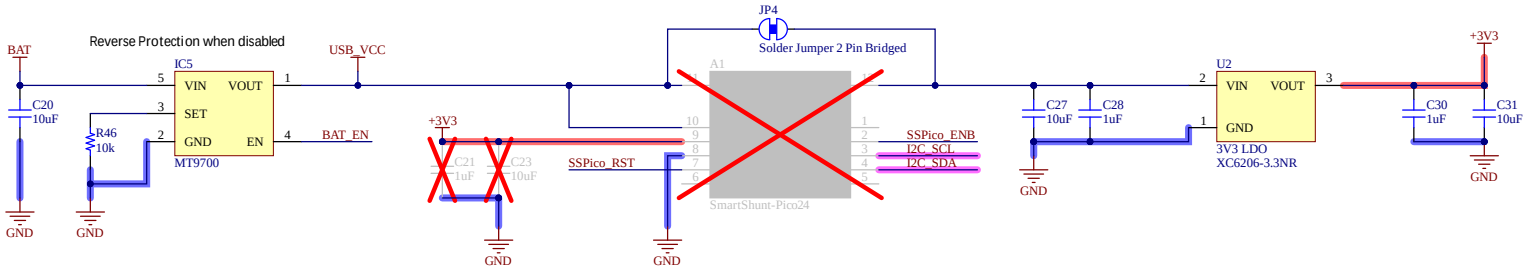
CC1 = 5.1k, CC2 = 5.1k Sink Mode
(current = 500mA for USB2.0 or 900mA in USB3.0).

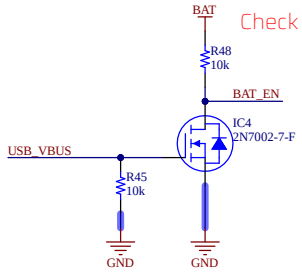


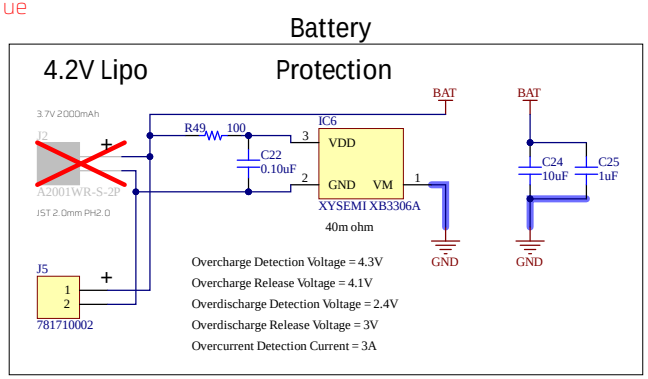
USB_VBUS	BAT_EN
0	1
1	0

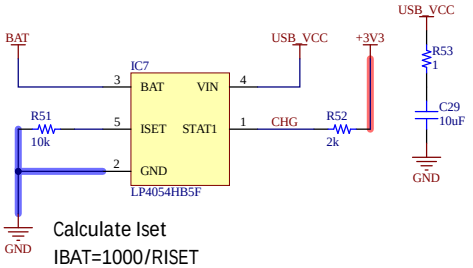
$$I_{SET}(A) = \frac{6.8k\Omega}{R_{SET}(k\Omega)}$$

I_{set}(mA)	R_{set}(kΩ)
600	11.3
800	8.45
1000	6.8
1500	4.53
2000	3.4







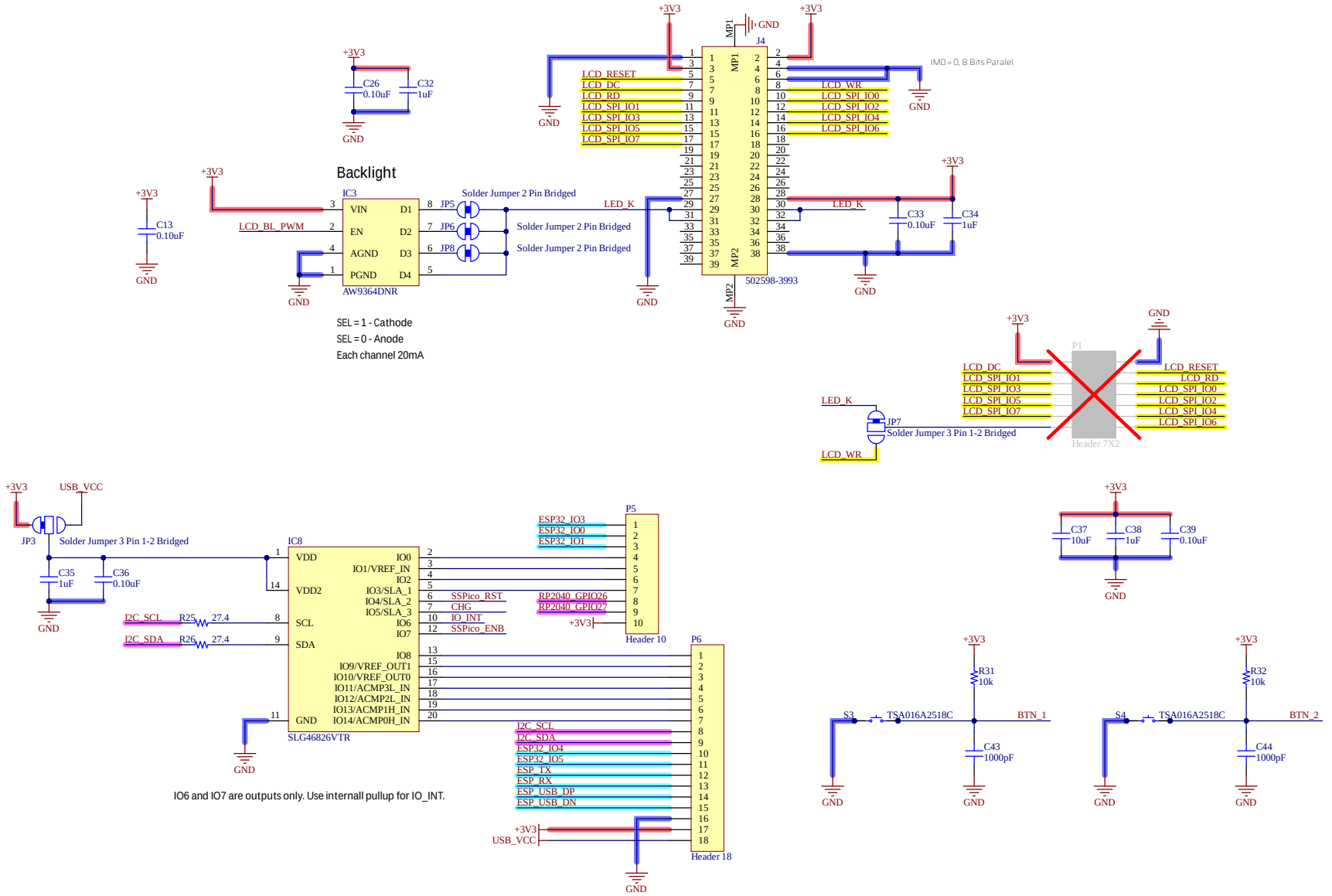


Calculate Iset
IBAT=1000/RISET
125C Thermal Protection
4.2V Li-Ion

R_{ISET} = 10K , Current Mode		100		mA
R_{ISET} = 2K , Current Mode		500		

Title: Power.SchDoc	Document Number: SCH23210001	Revision: 2323-r3a	Alptron AB Vasteras Sweden
Project: RP2040-ESP32C3 Dev. Board	Variant: Serial Production No Shunt		
	Drawn By: Caner Alp	Date: 30/07/2023 Sheet 3 of 5 Size: A3	

ALP ELECTRONIX



Title: Interface.SchDoc	Document Number: SCH23210001	Revision: 2323-r3a	Alptron AB Vaesteas Sweden
Project: RP2040-ESP32C3 Dev. Board	Variant: Serial Production No Shunt		
	Drawn By: Caner Alp	Date: 30/07/2023 Sheet 4 of 5	Size: A3

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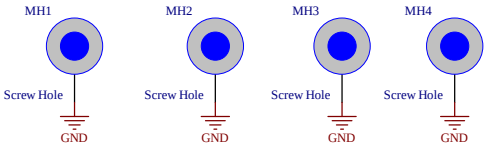

Release History

- 4322r1a / First release

- Initial Release

- 0623r2a / Second release

- Paste layer has been adjusted for components IC3, IC8, IC1 and IC2
- Paste layer has been adjusted for Test Points
- Paste layer has been adjusted for J4
- Reset button and Pull-up resistor and a capacitor are placed.
- Boot button and Pull-up resistor and a capacitor are placed.
- LDO (U2) Footprint Error corrected. (Wrong pinout)

- 2323r3a / Third release

- USB-C connector pads have been adjusted for hand soldering.
- The layout has been redesigned with 6 layers.
- Some components have been put to bottom layer.

Title: Information.SchDoc	Document Number: SCH23210001 Revision: 2323-r3a	Alptron AB Vaesteas Sweden
Project: RP2040-ESP32C3 Dev. Board	Variant: Serial Production No Shunt	
	Drawn By: Caner Alp Date: 30/07/2023 Sheet 5 of 5 Size: A3	

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