

A

B

C

D

E

F

A

B

C

D

E

F

V1.1 Change logs:

- 1. Change the size of MH5 to D3.81mm for the bracket.
- 2. Change the C10 to a smaller size capacitor - UCL1V221MNL1GS
- 3. Change the L2 to a smaller size inductor - NS10155T6R8NNA.
- 4. Change CN2 to a vertical connector.
- 5. Change CN17 to a SMD connector.
- 6. Correct 3.3V Power rail on LTE Page.
- 7. Change CN9, CN10 to smaller size connector - B4B-PH-K-S(LF)(SN)
- 8. Change CN13, CN14 to smaller size connector - B2B-PH-K-S(LF)(SN)
- 9. Removed Testing points from TP40 to TP51, merge the signals into CN17 and change CN17 to 20 PINs connector - 0878325922
- 10. Change CN18 to smaller size connector - B7B-PH-K-S(LF)(SN)
- 11. Swap signals on U6 and CN17 for better PCB routing

V1.2 Change logs:

- 1. Change Mounting holes to Non-plated and remove the GND
- 2. Swapp PIN1 and PIN2 on CN1
- 3. Change R2 to R3 in design note of U1

V2 Change logs:

- 1. Change CN13 to Molex 5055680271
- 2. Correct SCI5 and SCI8 naming.
- 3. Change U6 to R7FA6M3AH3CFP##AA0

V2.1 Change logs:

- 1. Change F1 to 0685T2000-01
- 2. Change U8 to ESP32-WROOM-32E(8MB)
- 3. DNP U9
- 4. Change the connector to match serial port (follow ESP-PROG pinout)
- 5. Remove Jtag test points
- 6. Add CLI passthrough Tx/Rx test points
- 7. Add SCI2 tx and rx test points

V2.6 Change logs:

- 1. Changed title bock
- 2. Updated Silk screen

V3.0 Change logs:

- 1. The programming ports are on bottom
- 2. Battery connector is flipped 180

V3.2 Change logs:

- 1. Changes solder mask bridge and Layer Stack as per Fabricator's requirement
- 2. Update pannel placement and Gerber file

V3.3 Change logs:

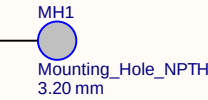
- 1. IR sensor current limiting resistor reduced
- 2. IR sensor collector resistor reduced
- 3. Cell sensor current limiting resistor reduced
- 4. Cell sensor collector resistor reduced

Notes (unless otherwise specified):

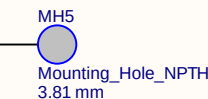
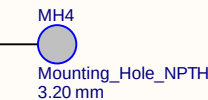
- 1. All resistors are 1%.
- 2. Board operating temperature is 0°C to 50°C.
- 3. Capacitors and resistors are 0603 unless noted (termination resistors and BGA capacitors are 0402).
- 4. Text in *italic* placed on a wire doesn't correspond to net name. It just helps to identify rapidly MCU IO related to this wire.
- 5. 10 mil PCB Layout clearance for Critical circuit section.

Medesto-PCBA3.0-V3.0

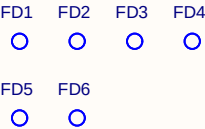
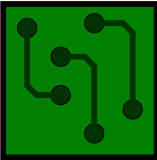
- 1. Title
- 2. Block Diagram
- 3. Power Management
- 4. Battery Charger
- 5. MCU
- 6. Stepper Motor Driver
- 7. Solenoid Driver
- 8. Sensor
- 9. User Interface
- 10. SD Card
- 11. WiFi
- 12. NFC
- 13. Audio
- 14. LTE CAT M1
- 15. Extension Connector



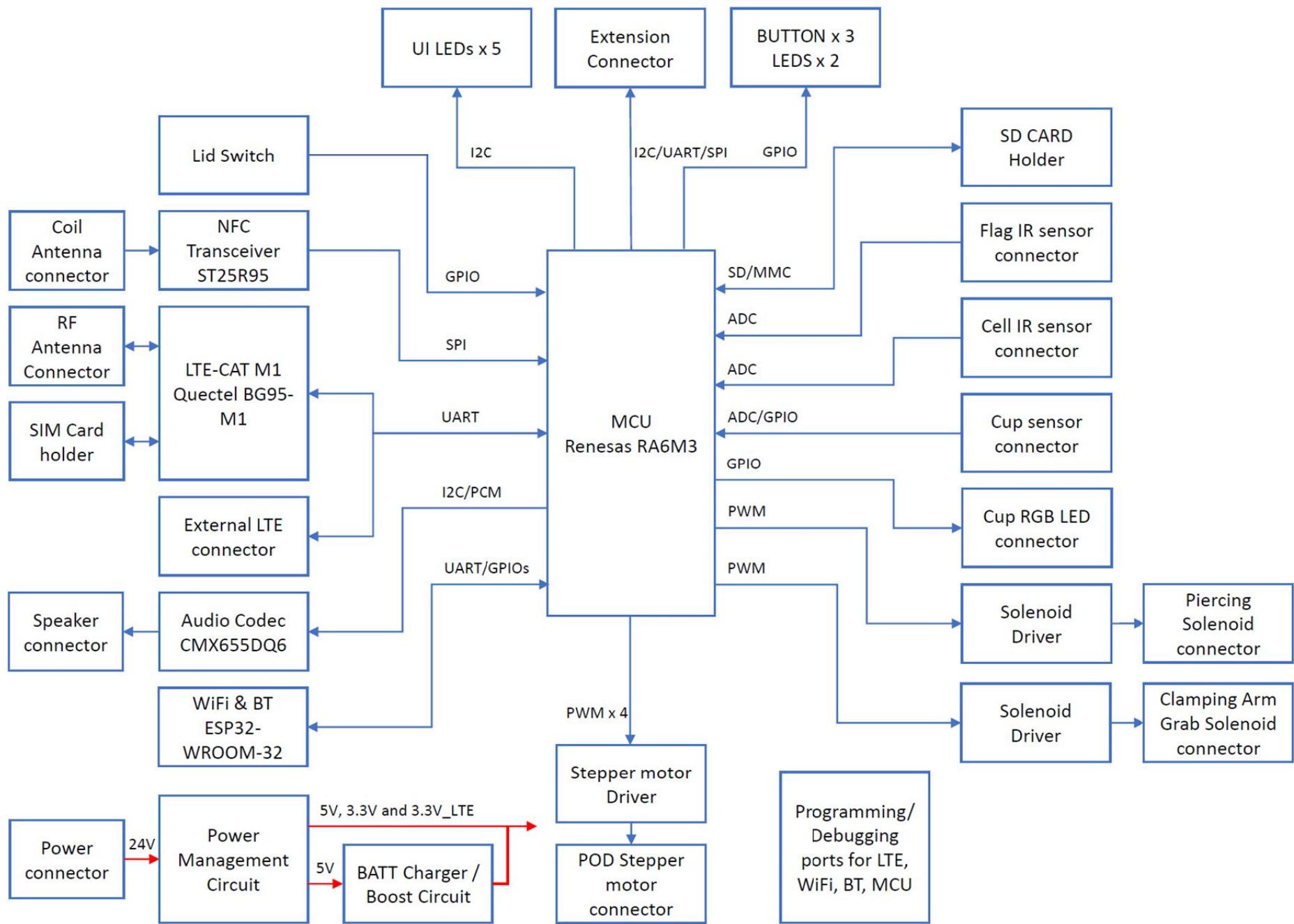
Four holes (MH1 - 4) for #3 machine screws and washers



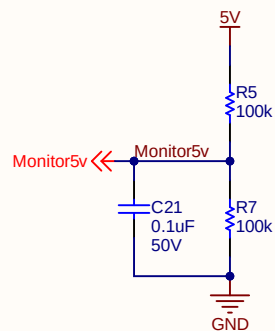
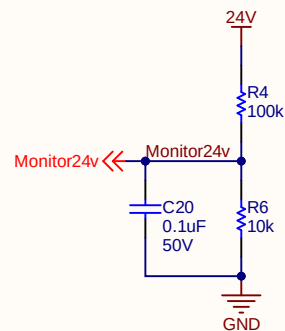
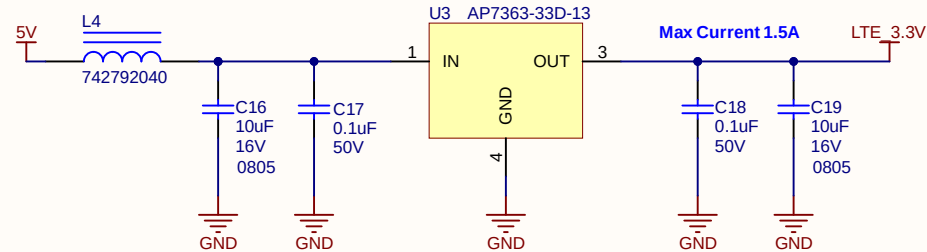
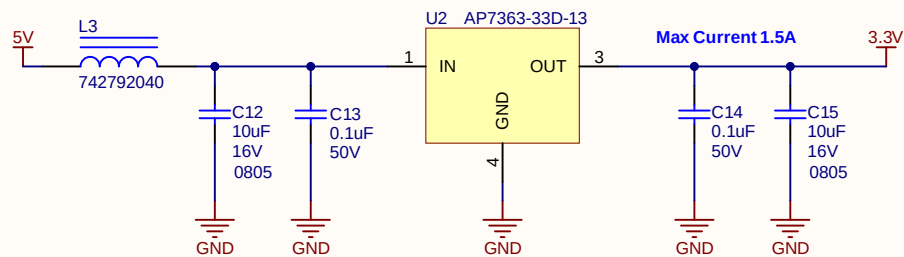
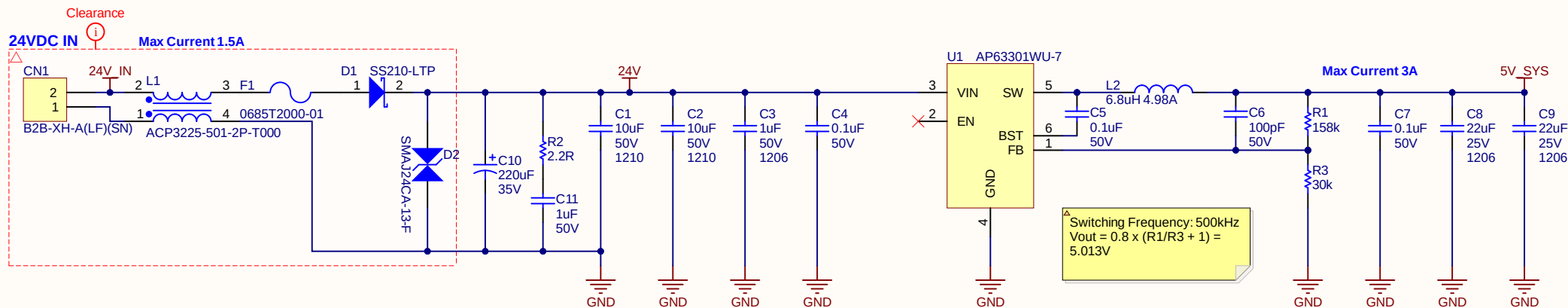
PCB1
Medesto-PCBA3.0-V3.3



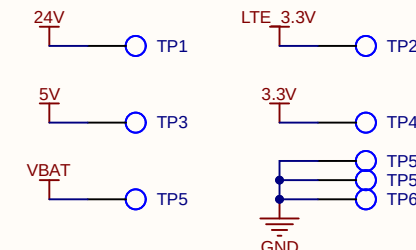
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Size: ANSI A	Perigon #: LB100-3000-OA - PCBA 3.0	Project: G3.5 Dispenser	
Date: 6/21/202212:19:35 PM	Page: 1 of 15	Designed By: AU , JW	Approved By: JG



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ANSI A	LB100-3000-OA - PCBA 3.0	G3.5 Dispenser	
Date:	Page:	Designed By:	Approved By:
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Jig Test Points



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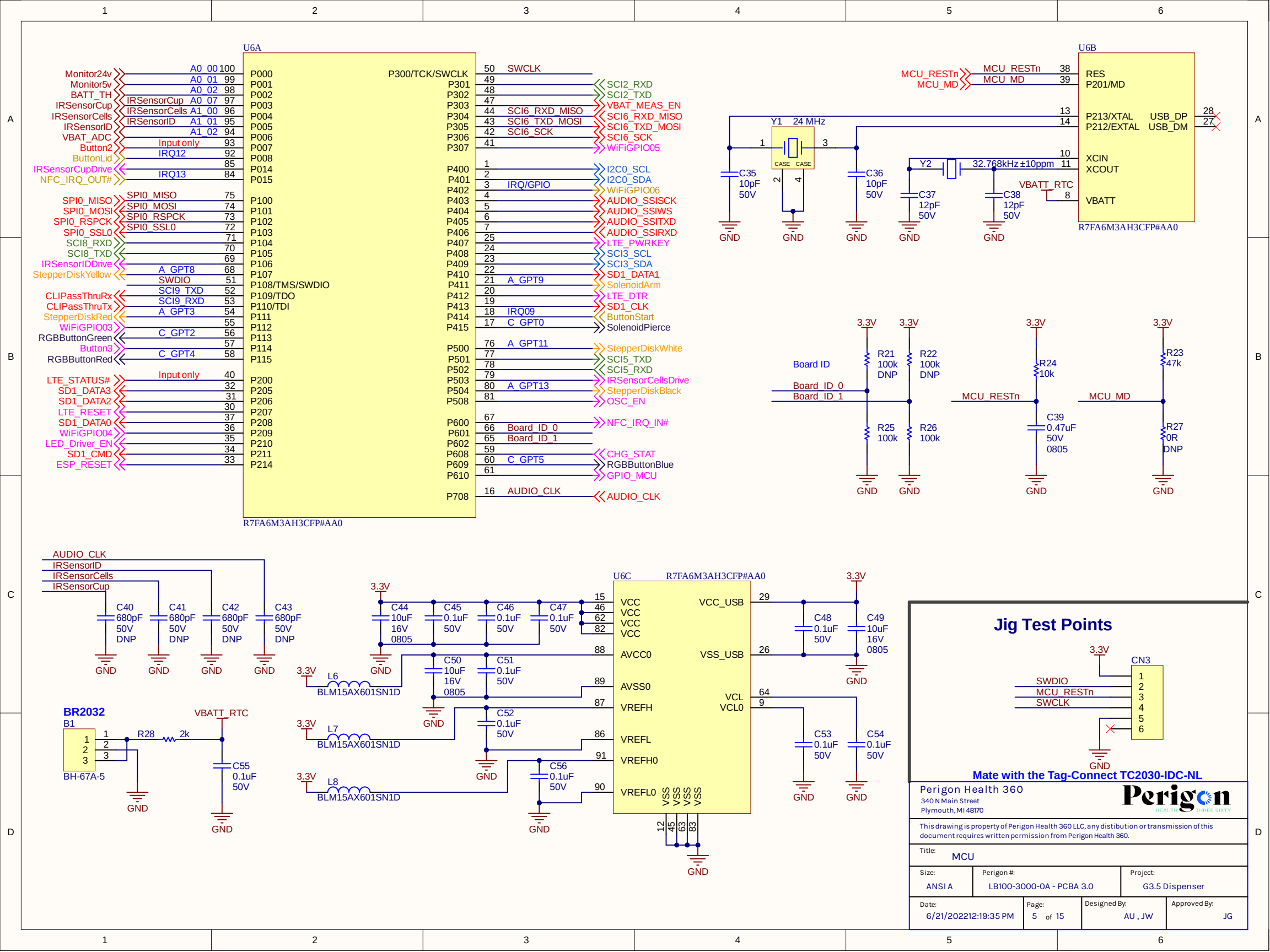
Perigon
REAL TIME PROTECT SIXTY

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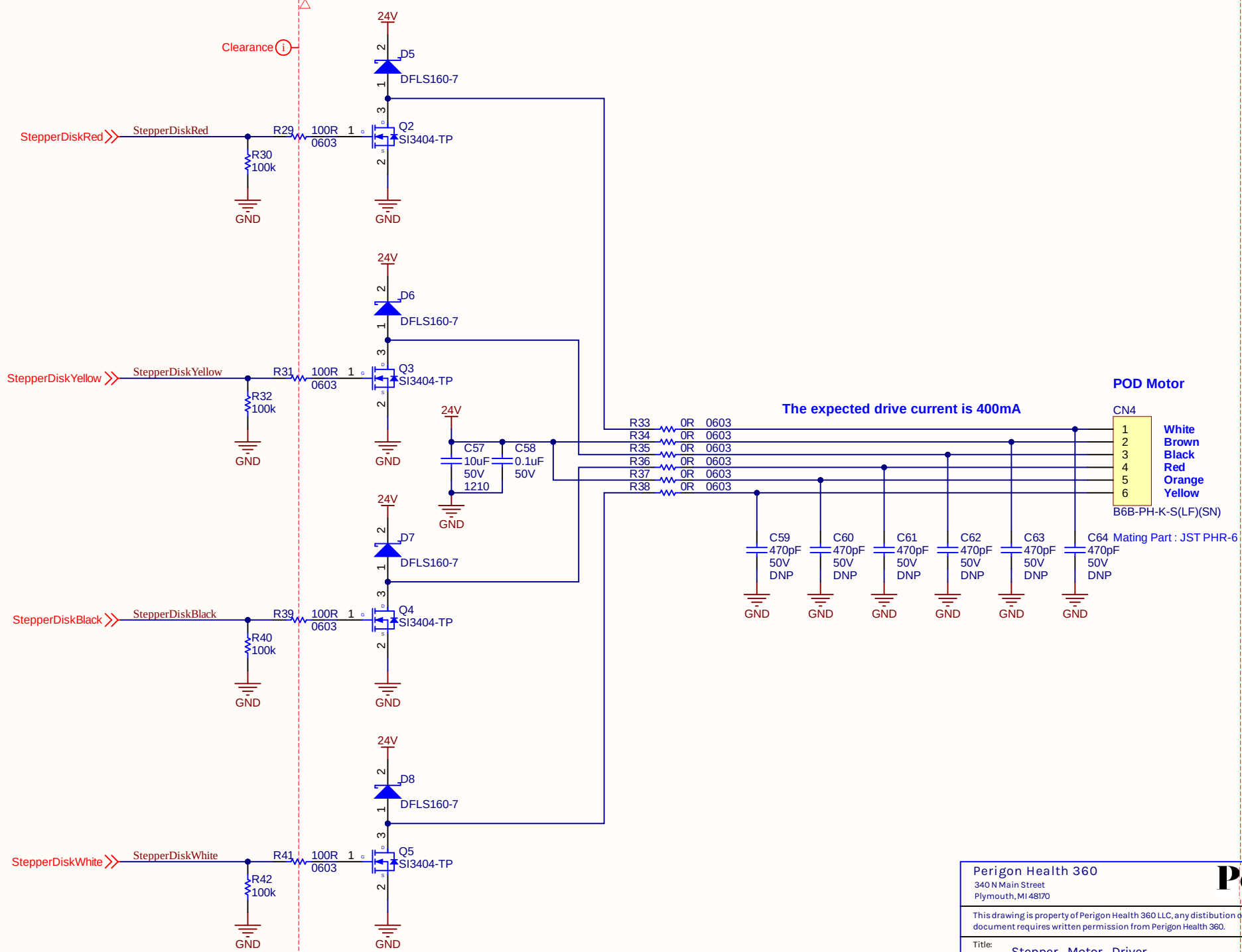
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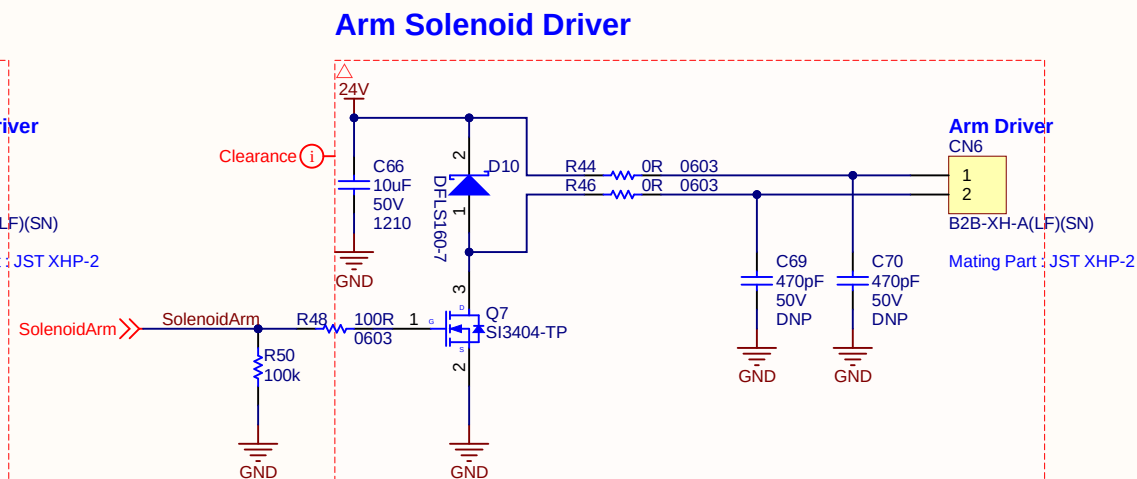
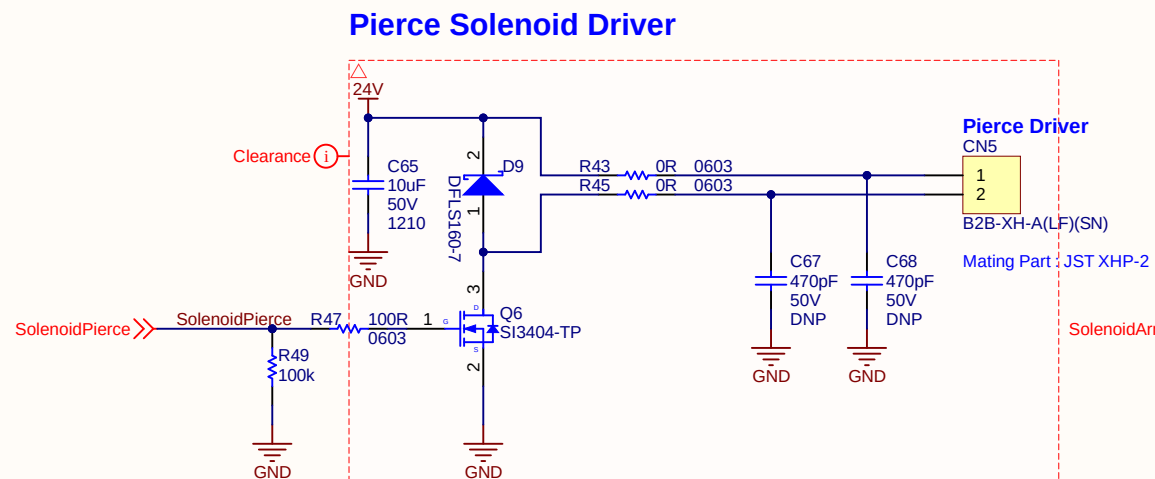
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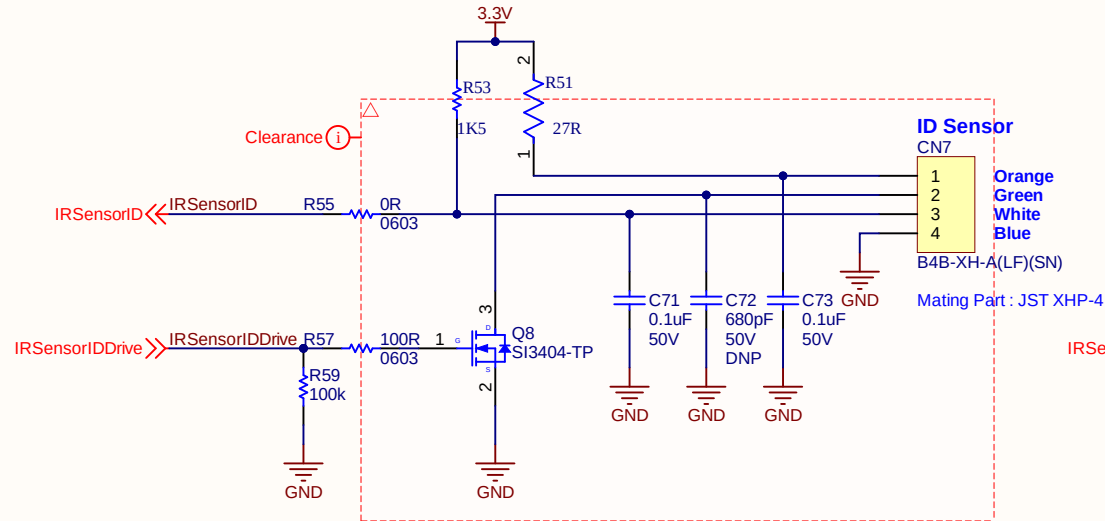
Disk Stepper Motor Driver



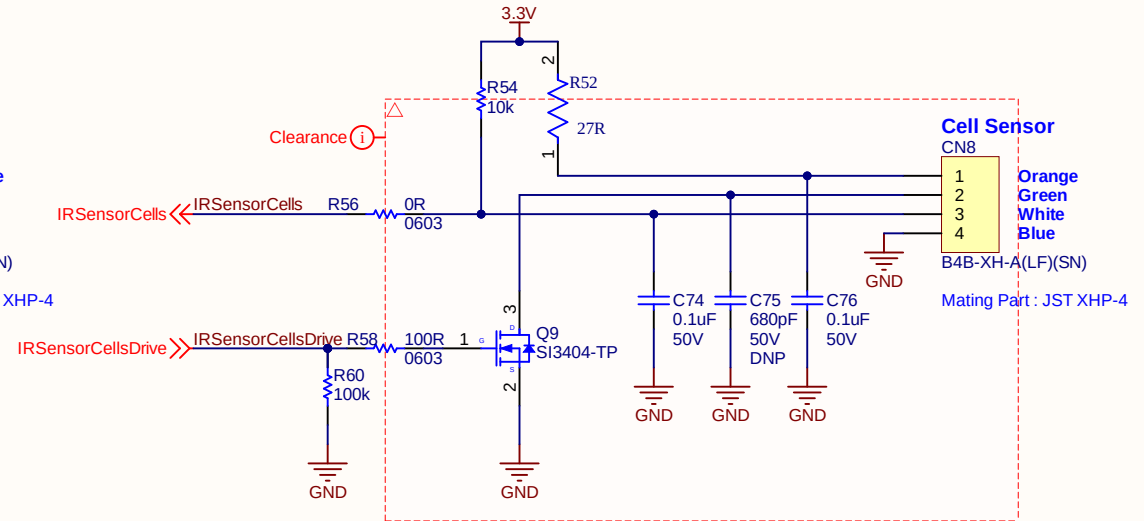
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Date:	Page:	Designed By:	Approved By:		
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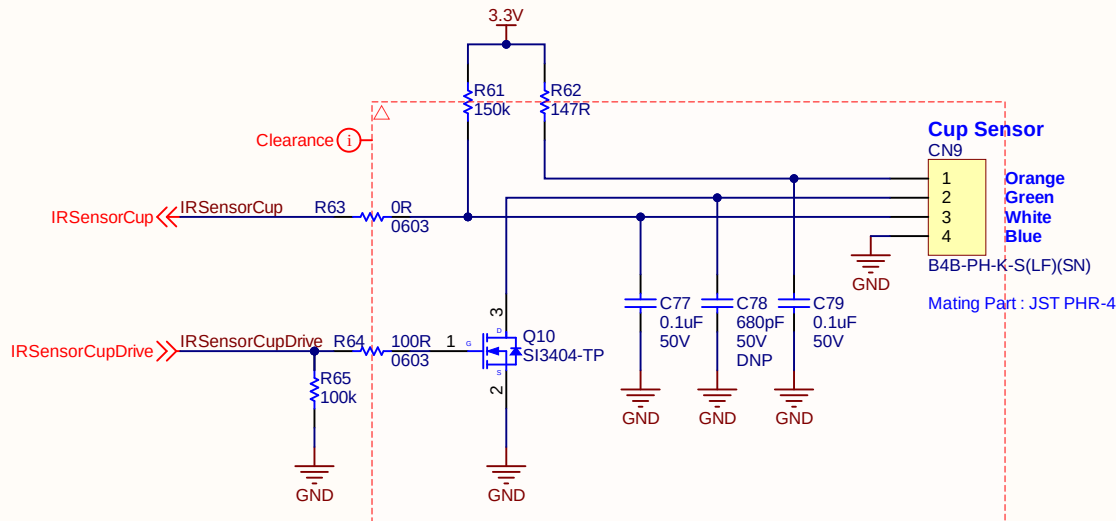
ID IR Sensor



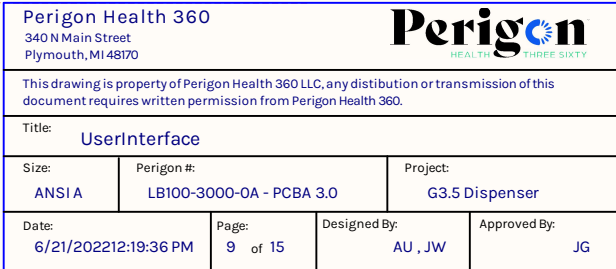
Cells IR Sensor

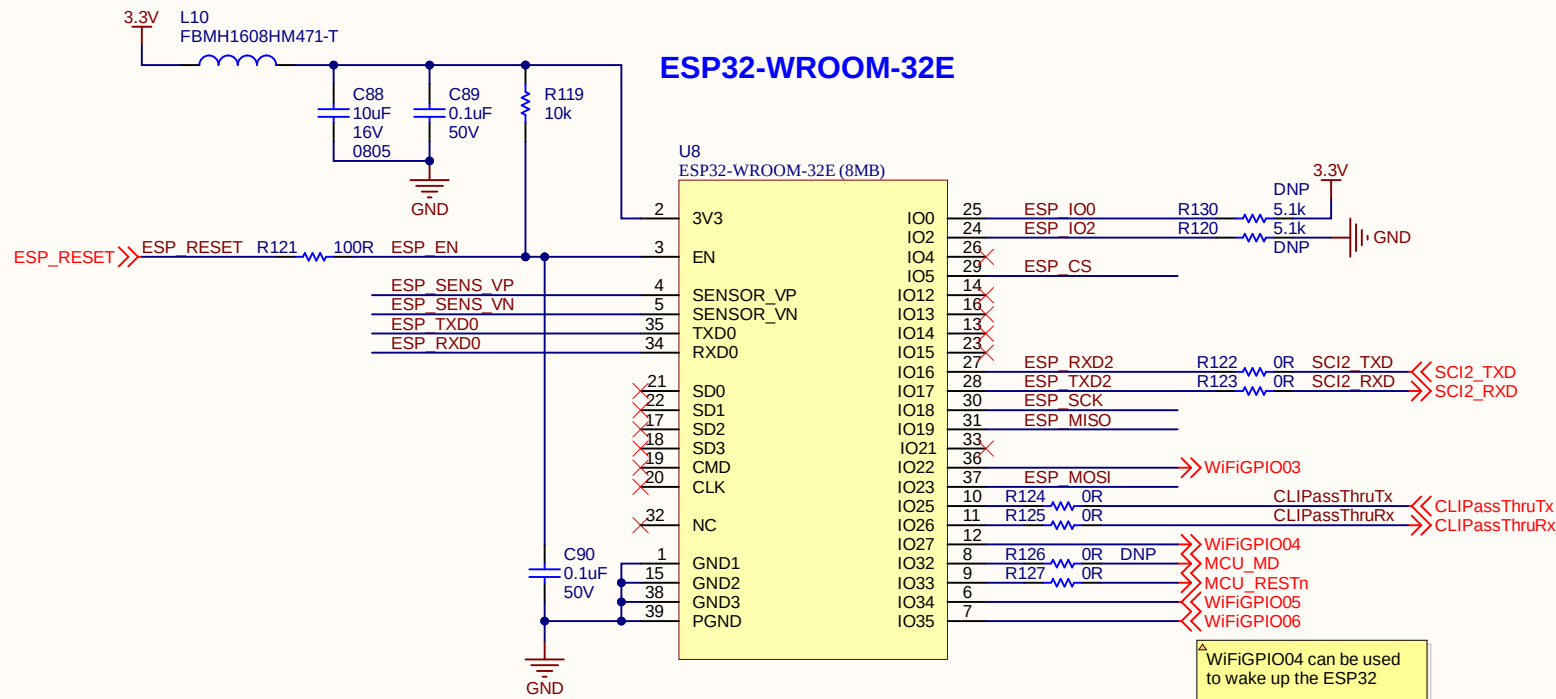


Cup IR Sensor

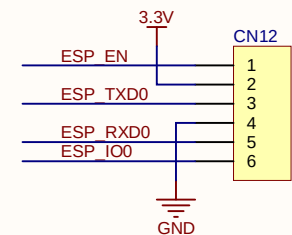
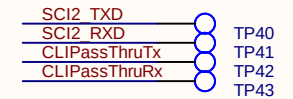
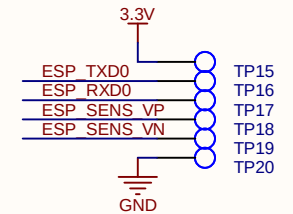
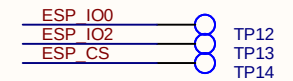


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Title: Sensor			
Size:	Perigon #:	Project:	
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Date:	Page:	Designed By:	Approved By:
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- WiFiGPIO04 can be used to wake up the ESP32
- WiFiGPIO06 can be used to wake up MCU if needed



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HEALTH THREE SIXTY

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Title: WiFi

Size:
ANSI A

Perigon #:	LB100-3000-OA - PCBA 3.0
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Project:

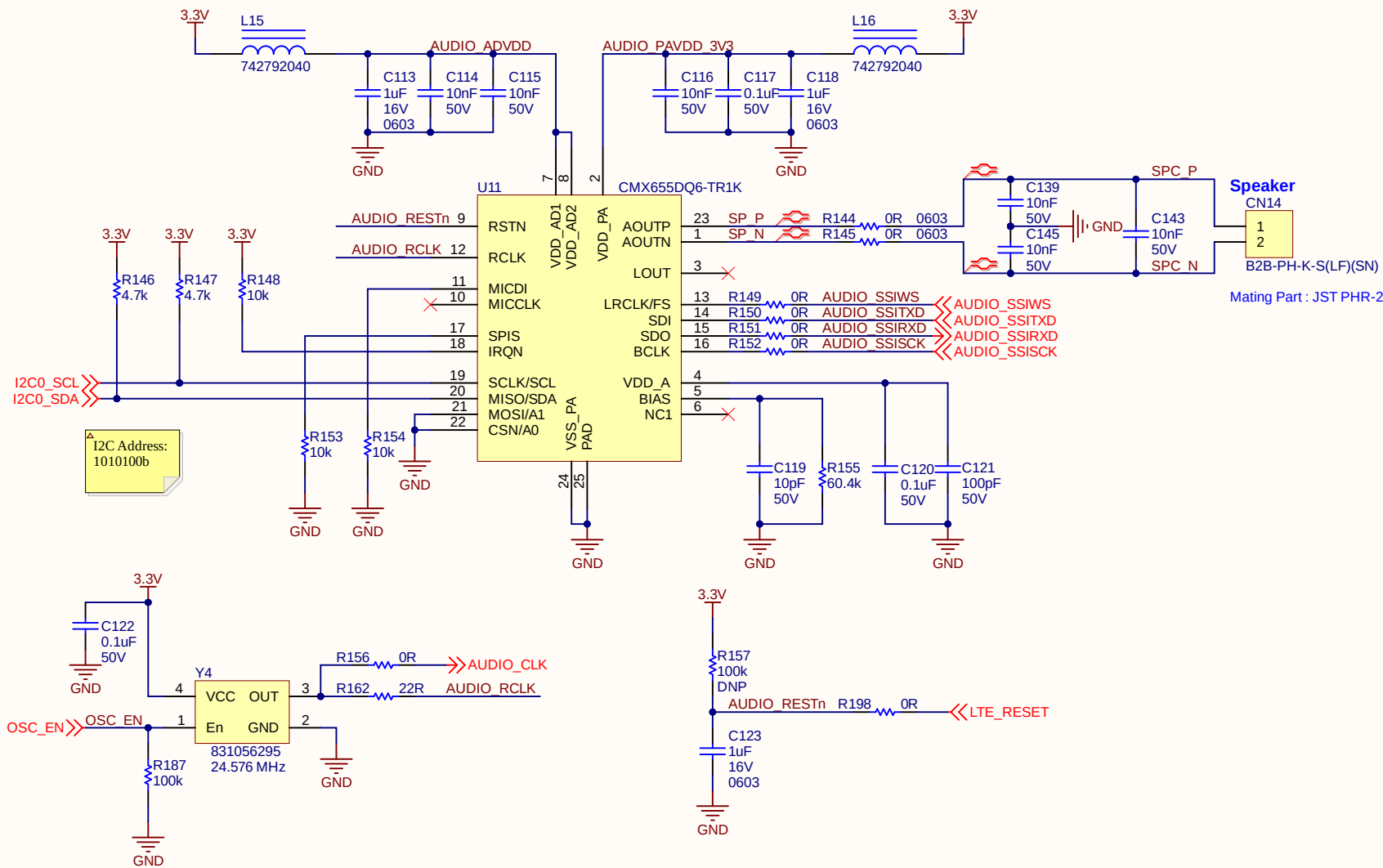
G3.5 Dispenser

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Page: 11 of 15

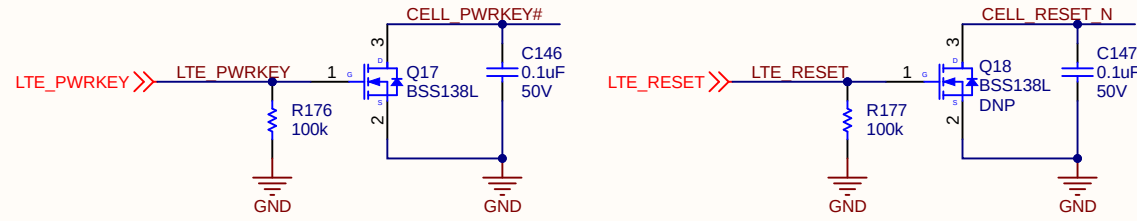
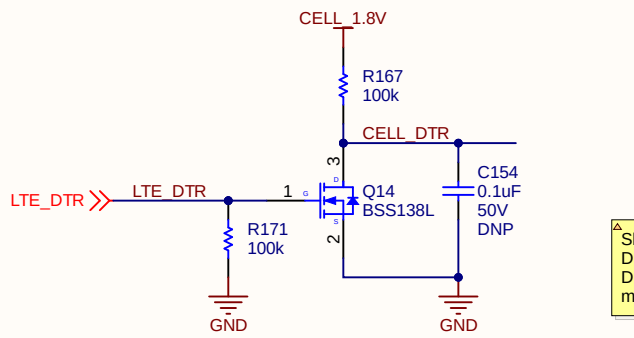
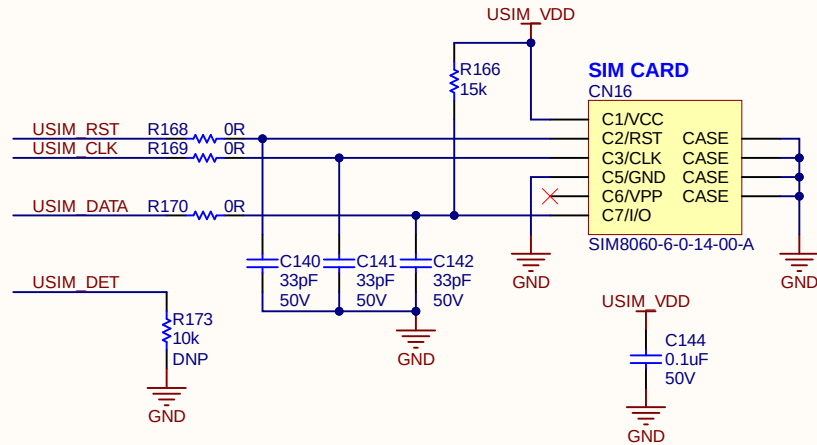
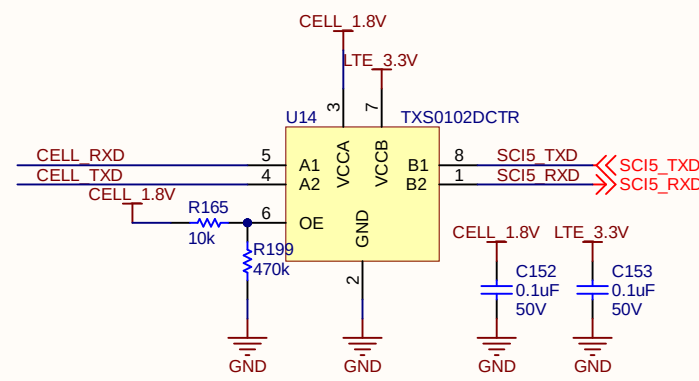
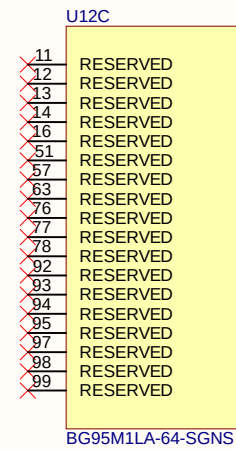
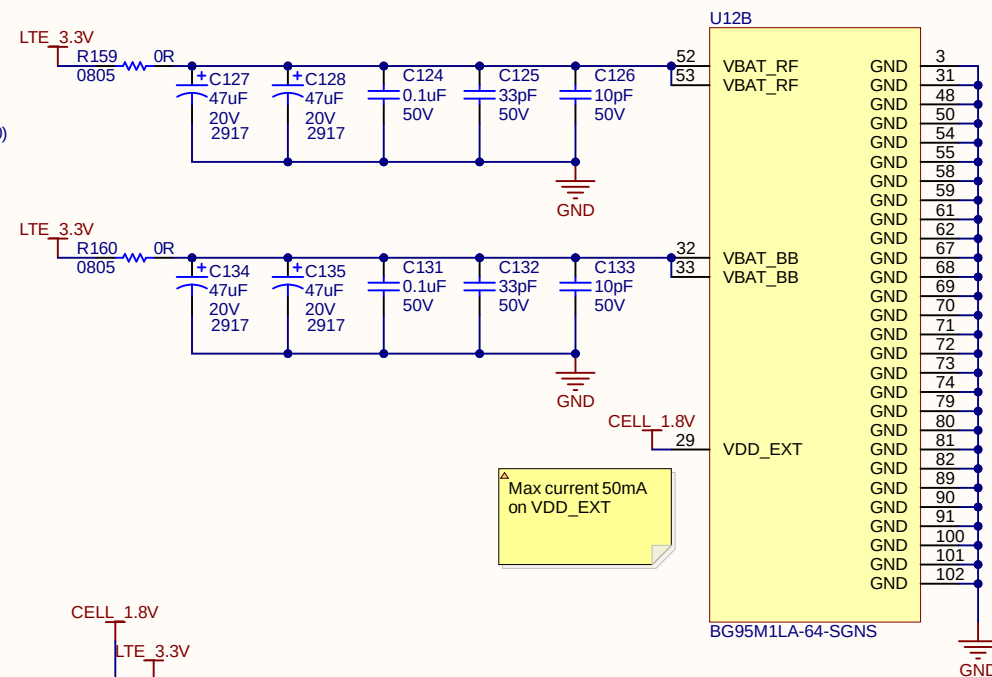
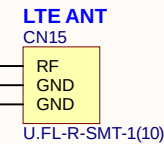
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Date: 6/21/2022 12:19:36 PM	Page: 13 of 15	Designed By: AU, JW	Approved By: JG

U12A			
CELL_RXD	34	MAIN_RXD	ANT_MAIN
CELL_TXD	35	MAIN_TXD	
CELL_CTS	36	MAIN_CTS	
CELL_RTS	37	MAIN_RTS	ANT_GNSS
CELL_DTR	30	MAIN_DTR	
	38	MAIN_DCD	
	39	MAIN_RI	ANT_WIFI
CELL_USB_VBUS	8	USB_VBUS	ADC0
CELL_USB_D_P	9	USB_DP	ADC1
CELL_USB_D_N	10	USB_DM	GPIO1
			GPIO2
CELL_I2C_SCL	40	I2C_SCL	GPIO3
CELL_I2C_SDA	41	I2C_SDA	GPIO4
			GPIO5
CELL_PWRKEY#	15	PWRKEY	GPIO6
CELL_RESET_N	17	RESET_N	GPIO7
CELL_STATUS	20	STATUS	GPIO8
CELL_NET_STATUS	21	NET_STATUS	GPIO9
	19	AP_READY	GRFC1
	18	W_DISABLE#	GRFC2
	1	PSM_IND	
CELL_USB_BOOT	75	USB_BOOT	DBG_RXD
			DBG_TXD
USIM_VDD	43	USIM_VDD	GNSS_RXD
USIM_RST	44	USIM_RST	GNSS_TXD
USIM_DATA	45	USIM_DATA	
USIM_CLK	46	USIM_CLK	
USIM_DET	42	USIM_DET	PCM_CLK
	47	USIM_GND	PCM_SYNC
			PCM_DIN
	96	PON_TRIG	PCM_DOUT



CELL 1.8V

CELL USB BOOT

CELL USB VBUS

CELL USB D N

CELL USB D P

CELL DBG TXD

CELL DBG RXD

LTE PWRKEY

LTE RESET

LTE STATUS#

GND

TP29

TP30

TP31

TP32

TP33

TP34

TP35

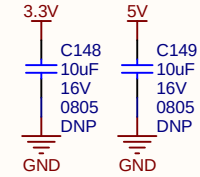
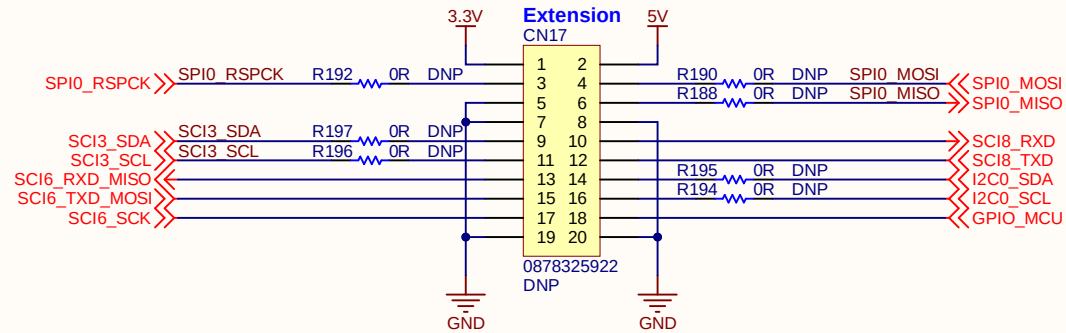
TP36

TP37

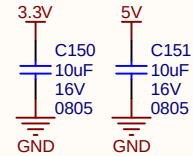
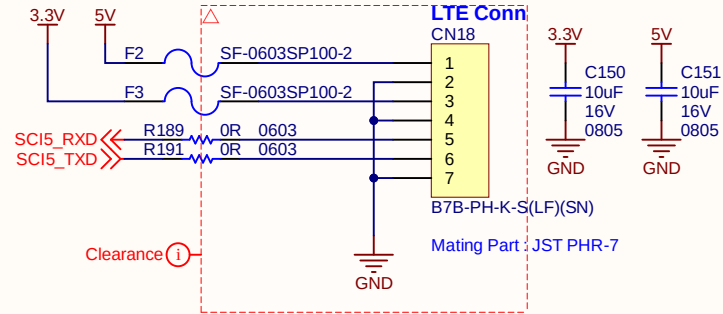
TP38

TP39

Extension Conn - DNP



External LTE Module Conn



Clearance (i)

Mating Part: JST PHR-7

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Size: ANSI A	Perigon #: LB100-3000-OA - PCBA 3.0		Project: G3.5 Dispenser
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