

PROJECT: SLT 6U Satellite

sub-system: SLT_110.PrjPcb

Version: 1.1.0



Project: SLT 6U Satellite

Sub-system: SLT 6U Satellite

Design by: Cam Doan

Sheet title: COVER PAGE.SchDoc

Sheet 1 of 21

Checked by: Bao Bui

Document No: 1

Size: A3

Approved by: Vu Pham

Revision: 1.1.0

Date: 09/29/2025

A

A

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Project: SLT 6U Satellite

Sub-system: SLT 6U Satellite

Design by: Cam Doan

Sheet title: BLOCK DIAGRAM.SchDoc Sheet 2 of 21

Checked by: Bao Bui

Document No: 2

Size: A3

Approved by: Vu Pham

Revision: 1.1.0

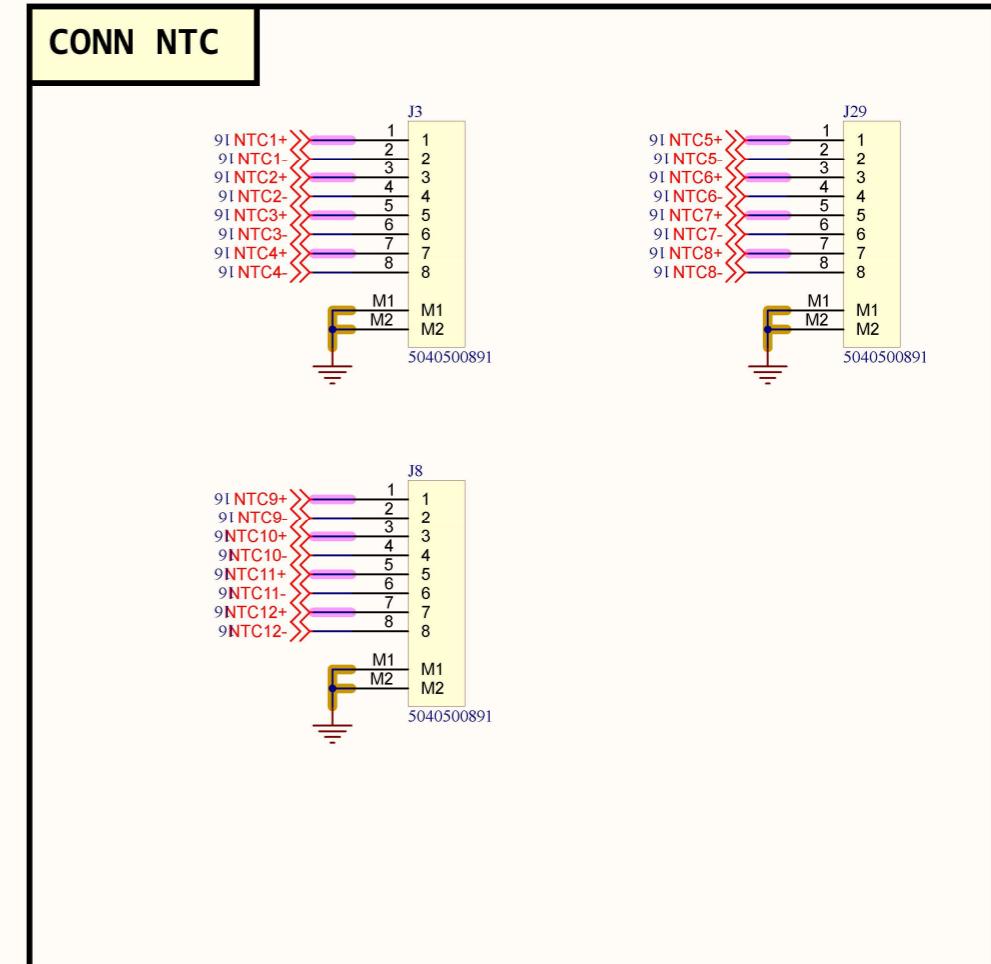
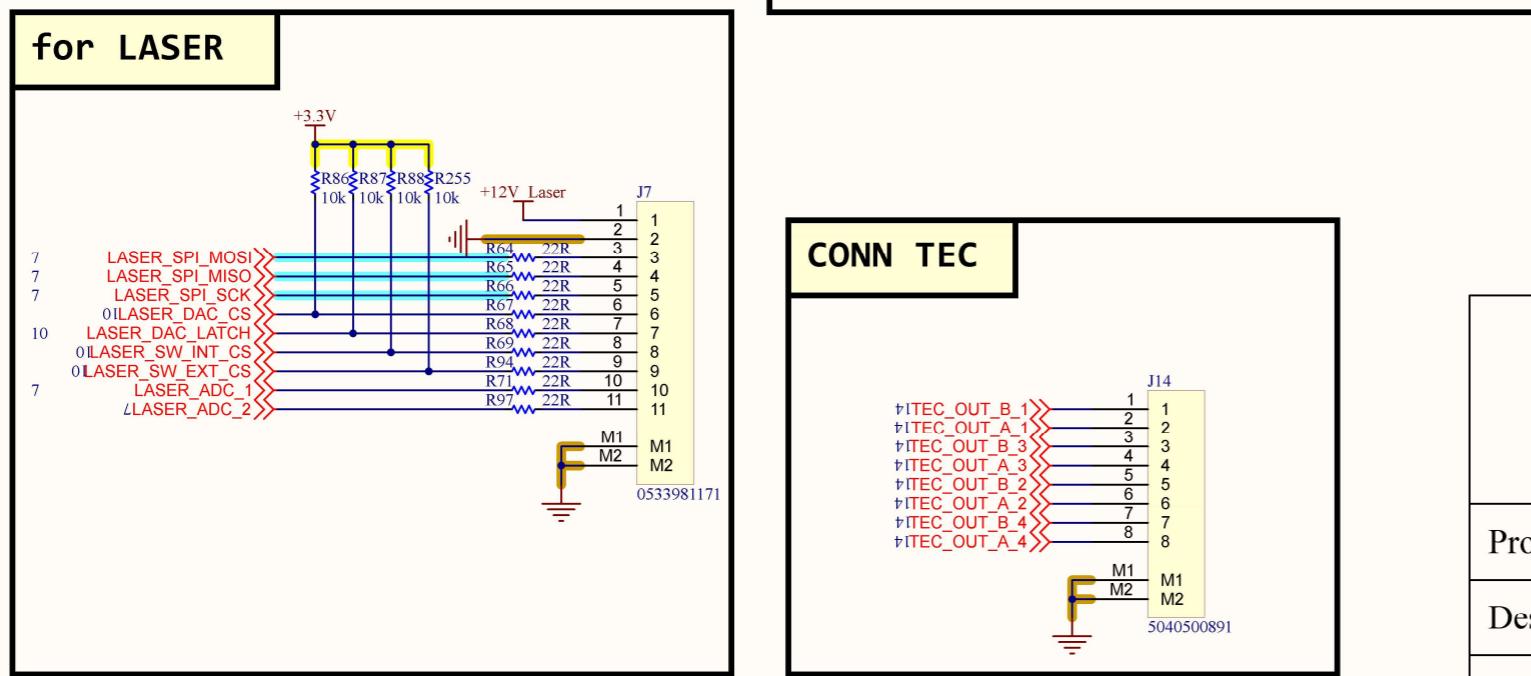
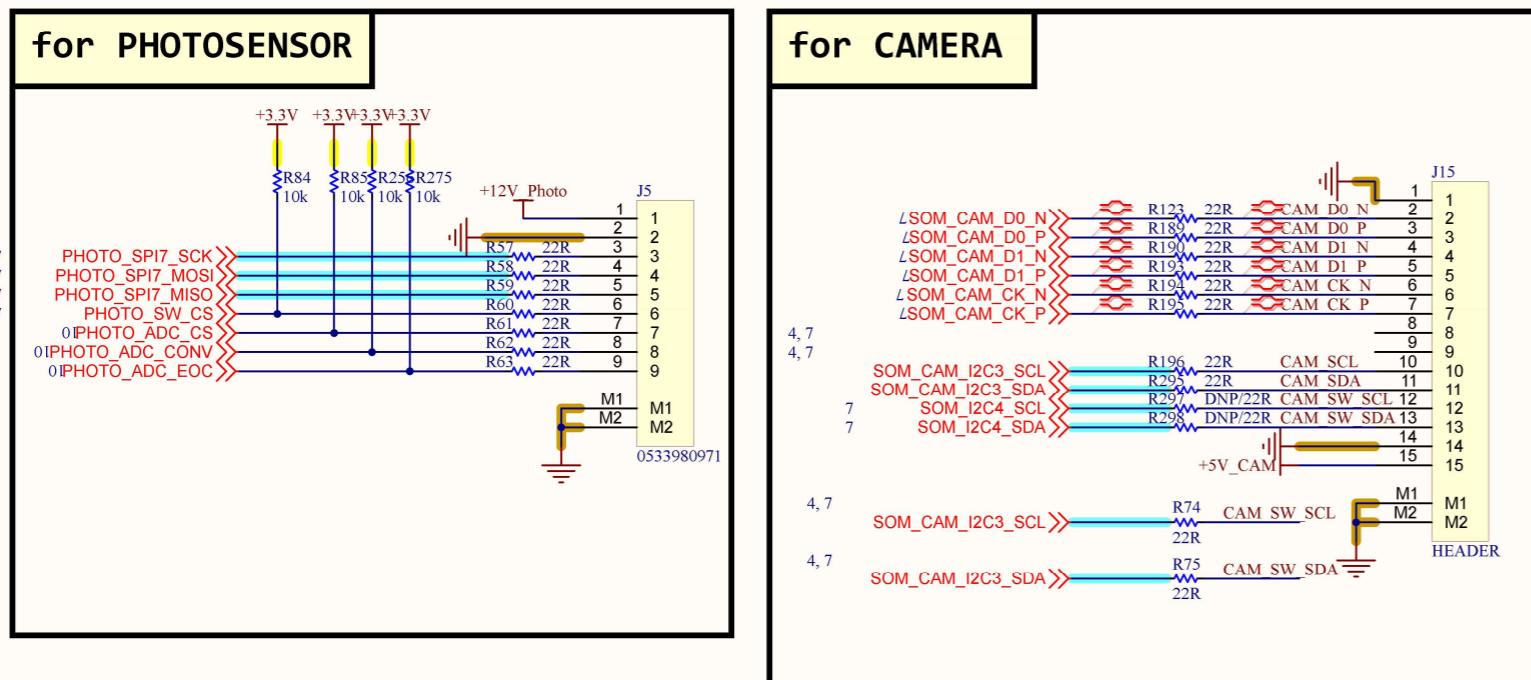
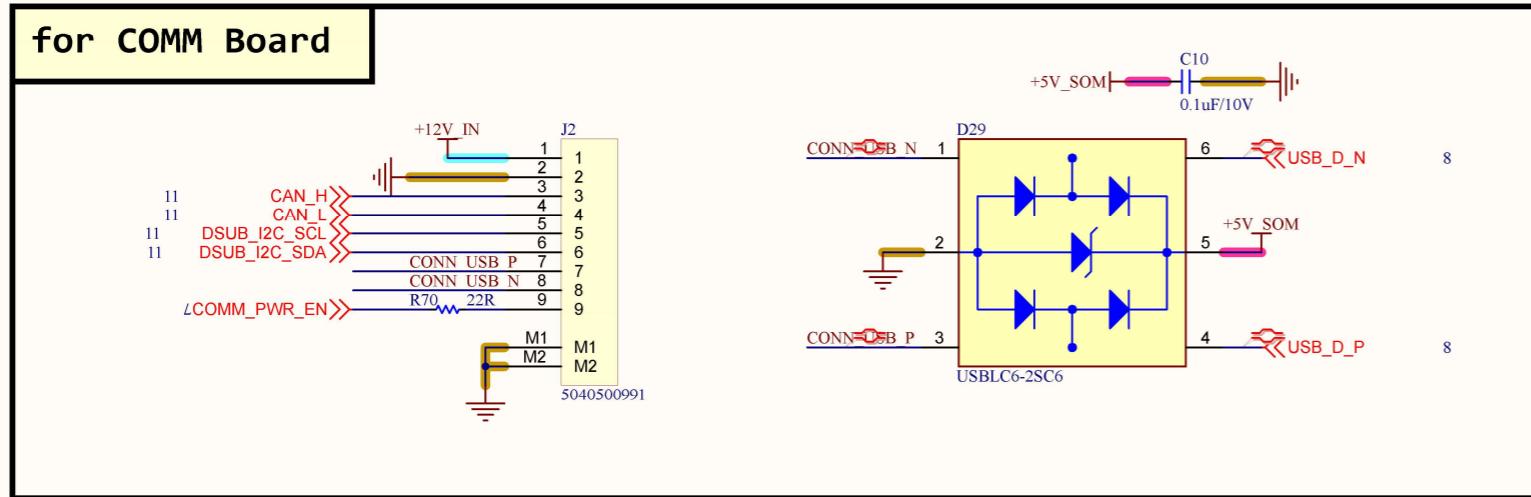
Date: 09/29/2025

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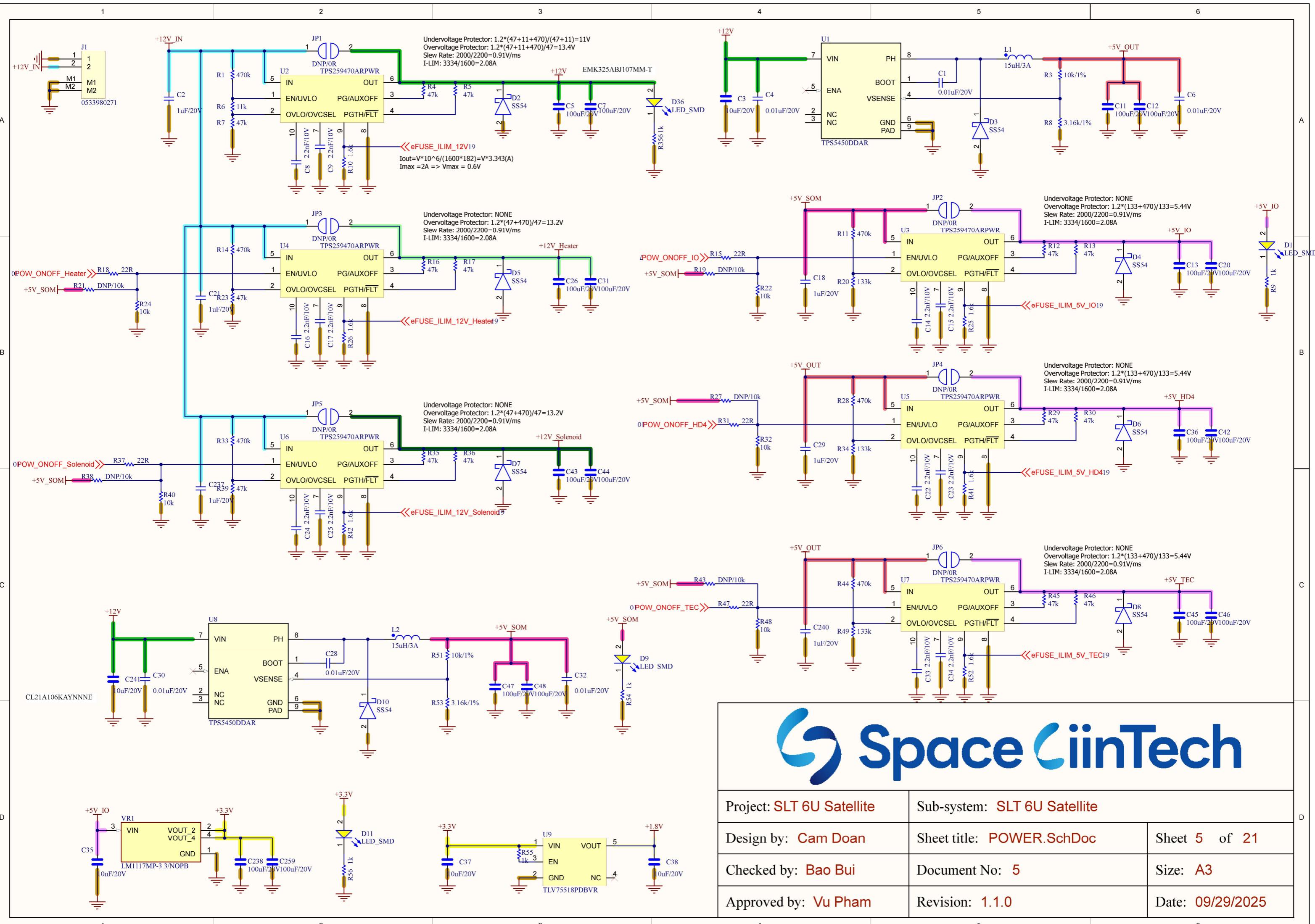


Project: SLT 6U Satellite	Sub-system: SLT 6U Satellite	
Design by: Cam Doan	Sheet title: INDEX.SchDoc	Sheet 3 of 21
Checked by: Bao Bui	Document No: 3	Size: A3
Approved by: Vu Pham	Revision: 1.1.0	Date: 09/29/2025

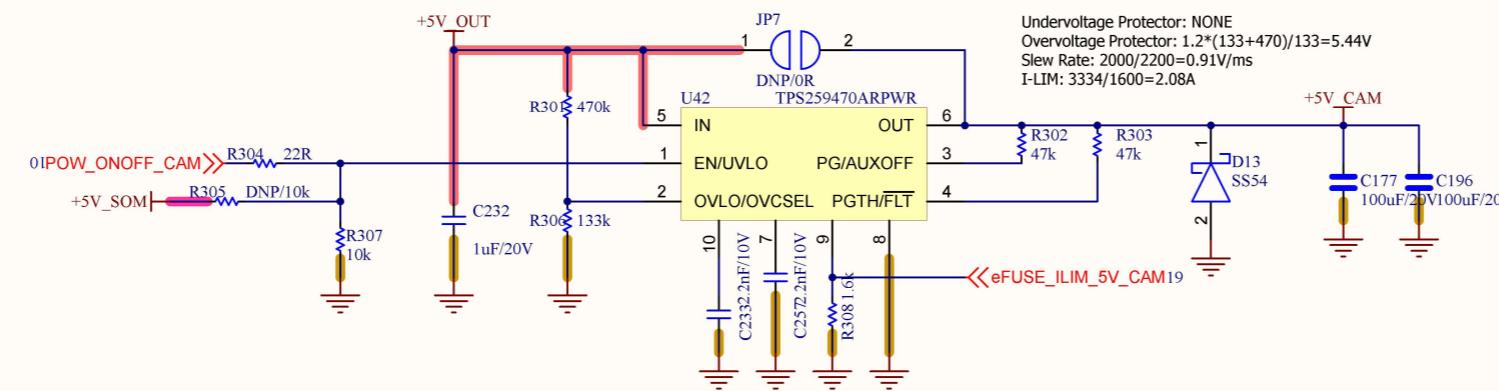


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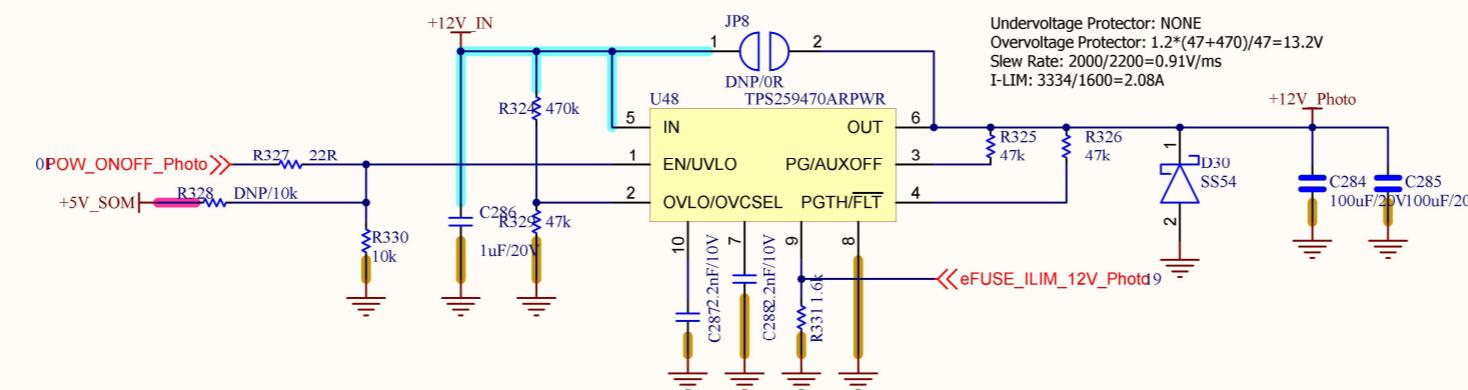
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Design by: Cam Doan	Sheet title: CONNECTOR.SchDoc	Sheet 4 of 21
Checked by: Bao Bui	Document No: 4	Size: A3
Approved by: Vu Pham	Revision: 1.1.0	Date: 09/29/2025



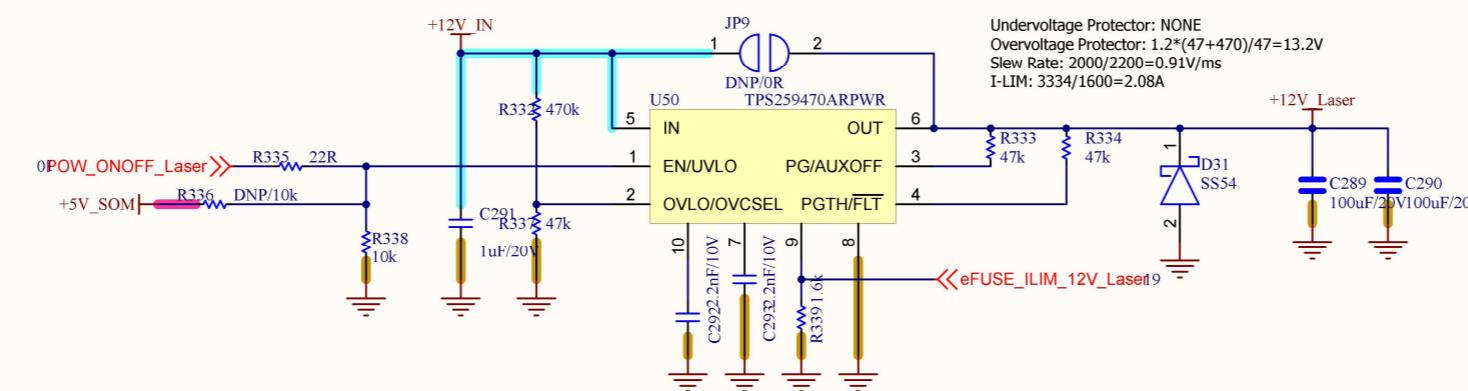
A



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Project: SLT 6U Satellite

Sub-system: SLT 6U Satellite

Design by: Cam Doan

Sheet title: POWER_2.SchDoc

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Checked by: Bao Bui

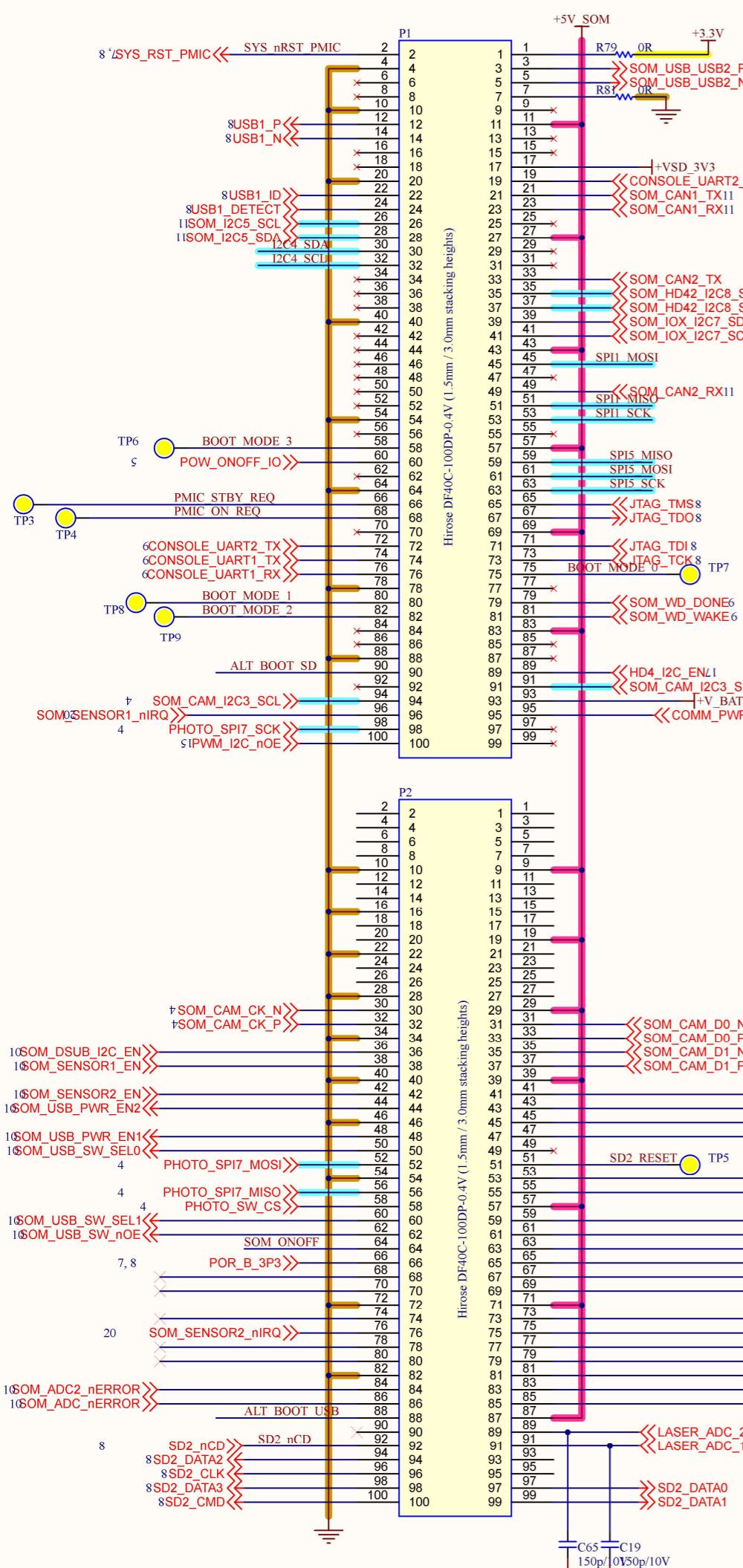
Document No: 6

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Revision: 1.1.0

Date: 09/29/2025

**I₂C I₂C5 COMM****I₂C8 HD****I₂C7 IO_EXPAND****PWM****I₂C4 I₂C Sensors****CAMERA****I₂C3 CAMERA**I₂C4 SDA → SOM_I2C4_SDA, SENSOR_I2C4_SDA, Heat_I2C4_SDA.I₂C4 SCL → SOM_I2C4_SCL, SENSOR_I2C4_SCL, Heat_I2C4_SCL.

SOM_IOX_I2C7_SCL → PWM_I2C_SCL, SOM_IOX_I2C7_SDA → PWM_I2C_SDA.

7, 10

SPI SPI7 PHOTO**SPI1 LASER****SPI5 TEC ADC**

SPI5_MISO → SOM_ADC_SPI_SDO, SOM_TEC_SPI_MISO.

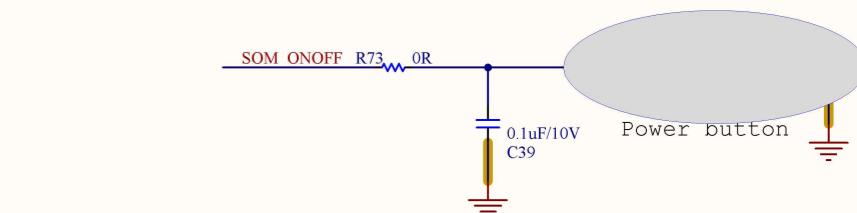
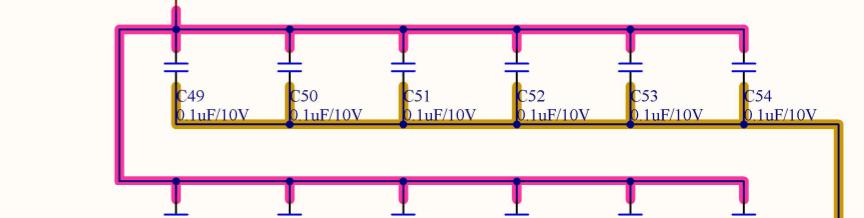
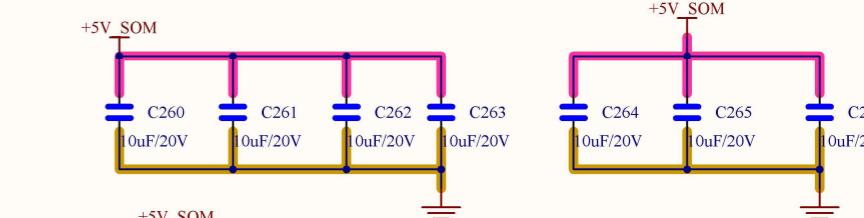
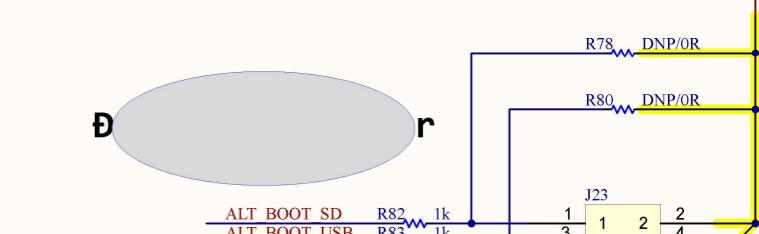
SPI5_MOSI → SOM_ADC_SPI_SDI, SOM_TEC_SPI_MOSI.

SPI5_SCK → SOM_ADC_SPI_SCLK, SOM_TEC_SPI_SCK.

SPI1_MISO → LASER_SPI_MISO.

SPI1_MOSI → LASER_SPI_MOSI.

SPI1_SCK → LASER_SPI_SCK.

UART UART1 Console**UART2 Console****Đổi thành testpoint short**

Project: SLT 6U Satellite

Sub-system: SLT 6U Satellite

Design by: Cam Doan

Sheet title: SOM_POWER.SchDoc

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Checked by: Bao Bui

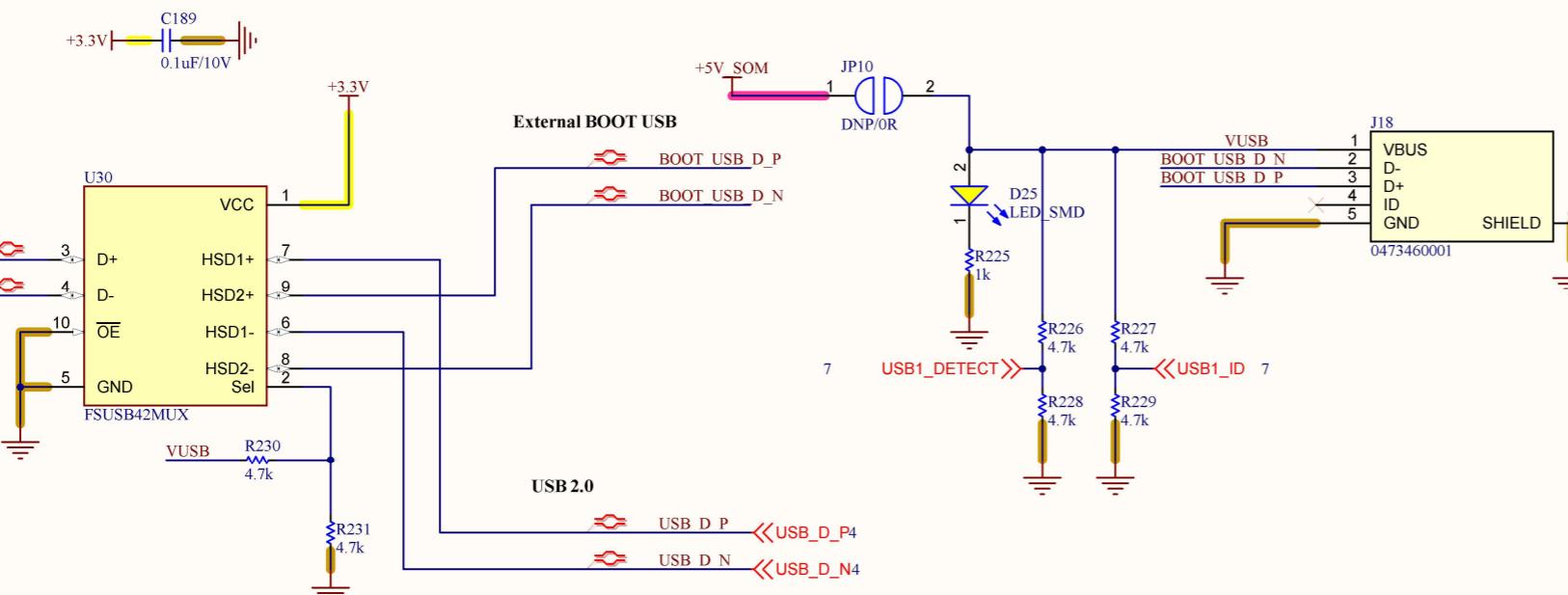
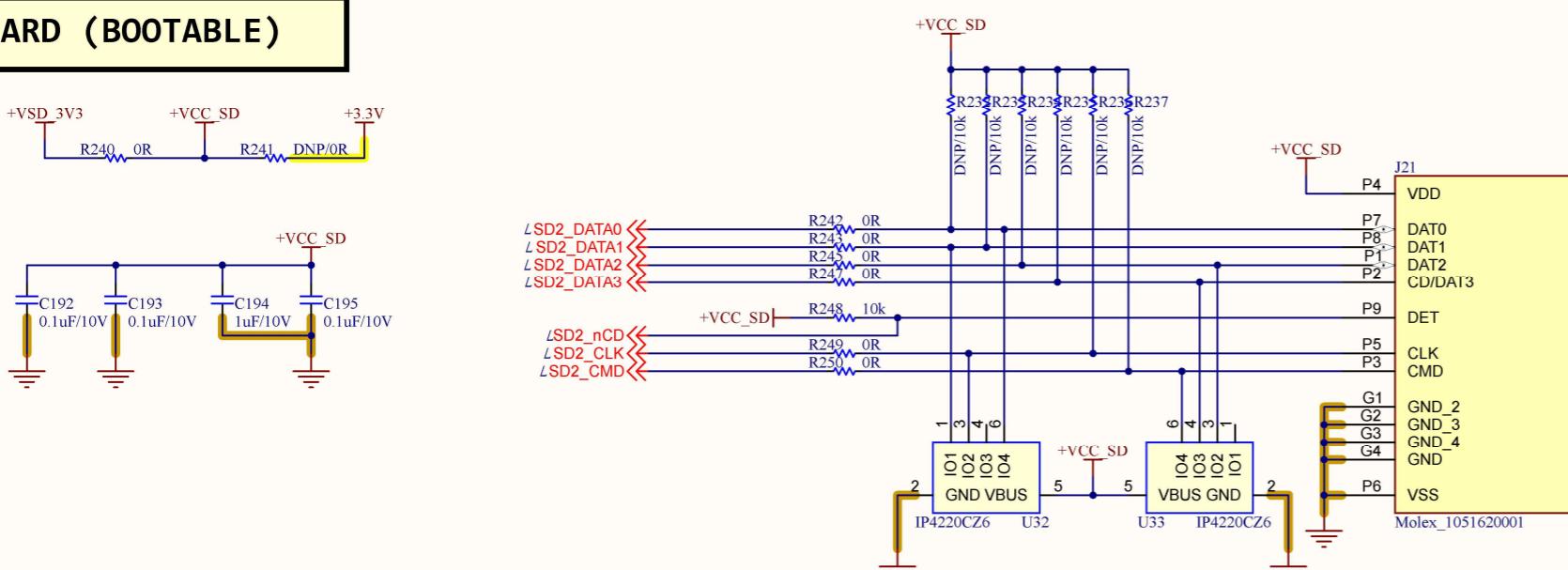
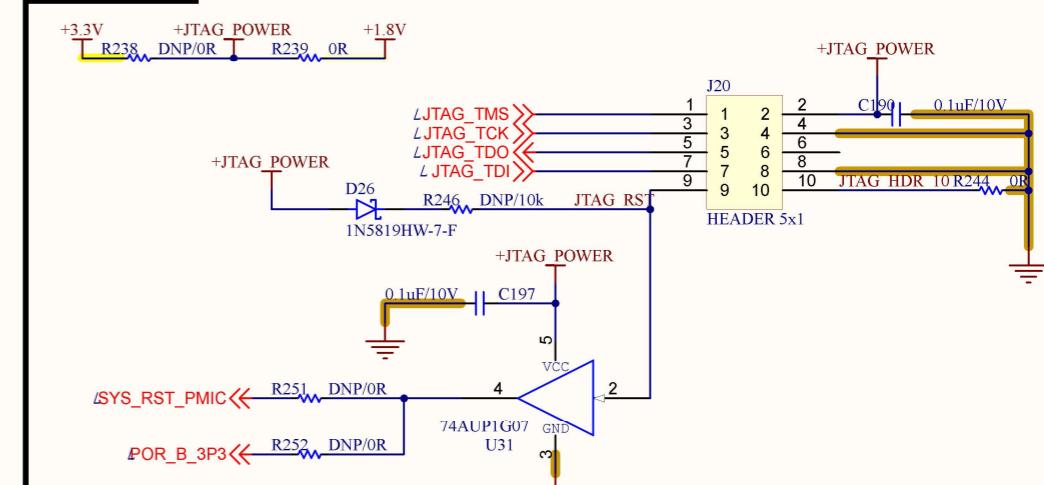
Document No: 7

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Approved by: Vu Pham

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USB (BOOTABLE)**SD CARD (BOOTABLE)****JTAG**

Project: SLT 6U Satellite

Sub-system: SLT 6U Satellite

Design by: Cam Doan

Sheet title: SOM_BOOT.SchDoc

Sheet 8 of 21

Checked by: Bao Bui

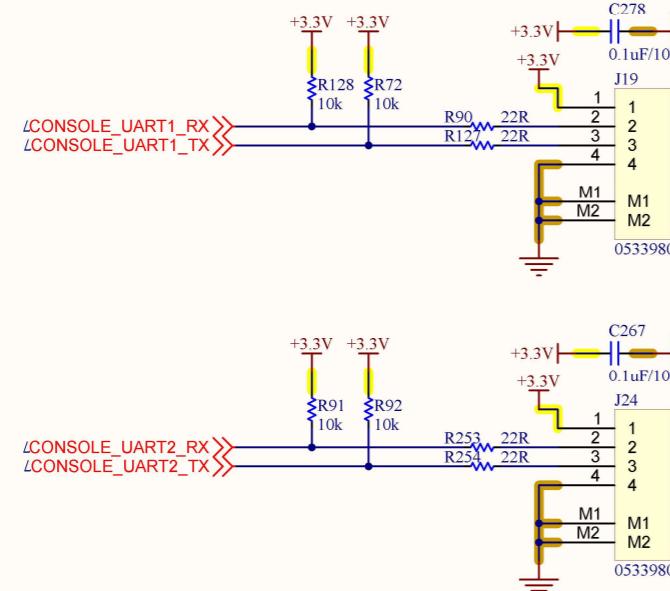
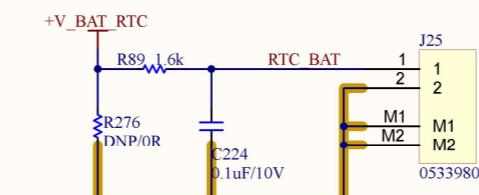
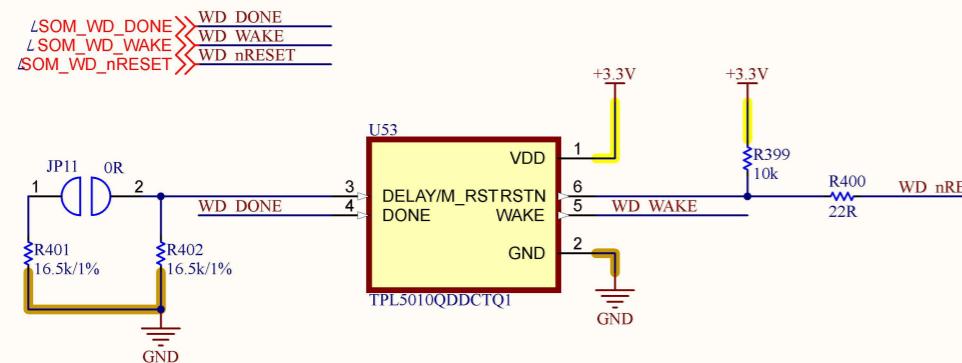
Document No: 8

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CONSOLE**RTC****WATCH DOG**

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Project: **SLT 6U Satellite**

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Design by: **Cam Doan**

Sheet title: **SOM_Console.SchDoc**

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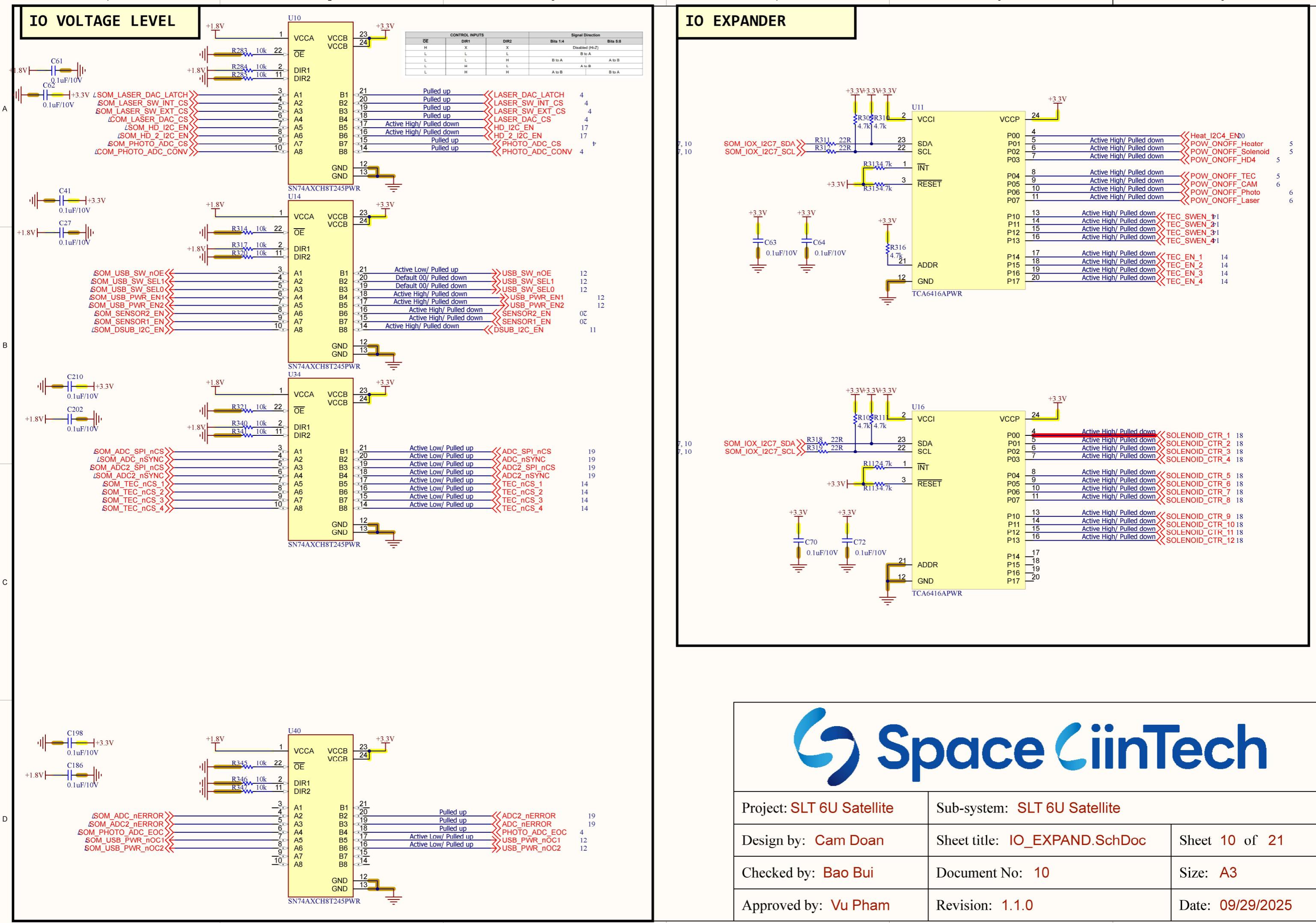
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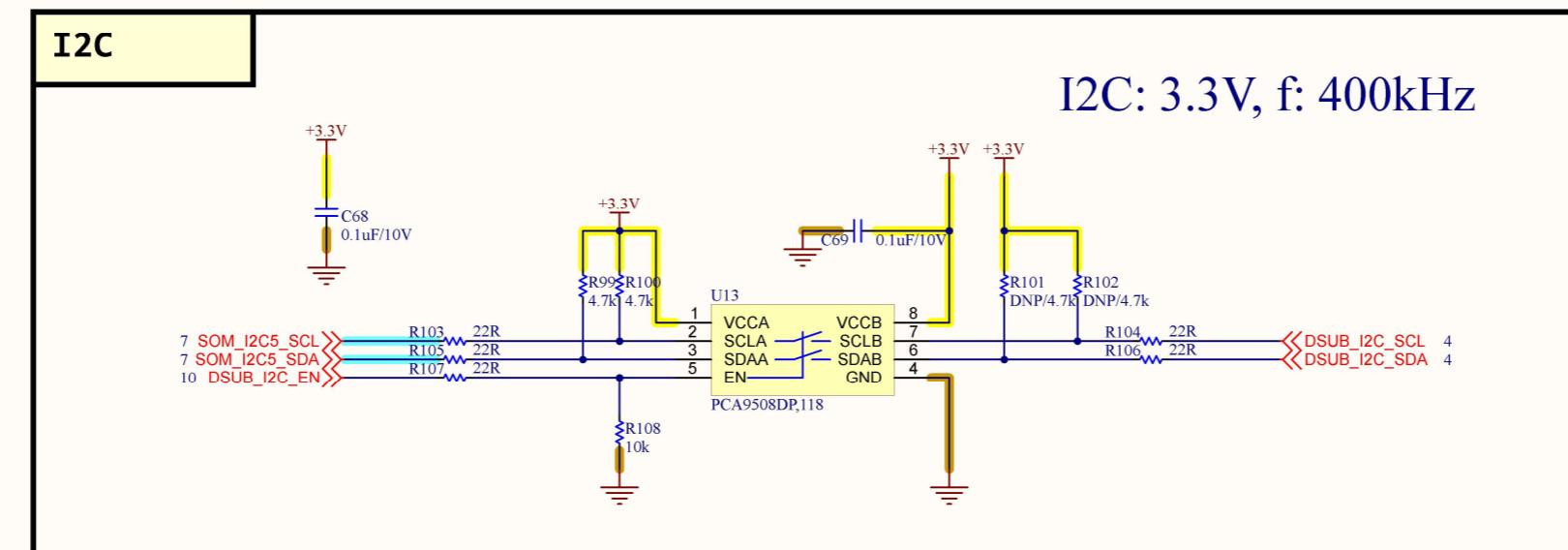
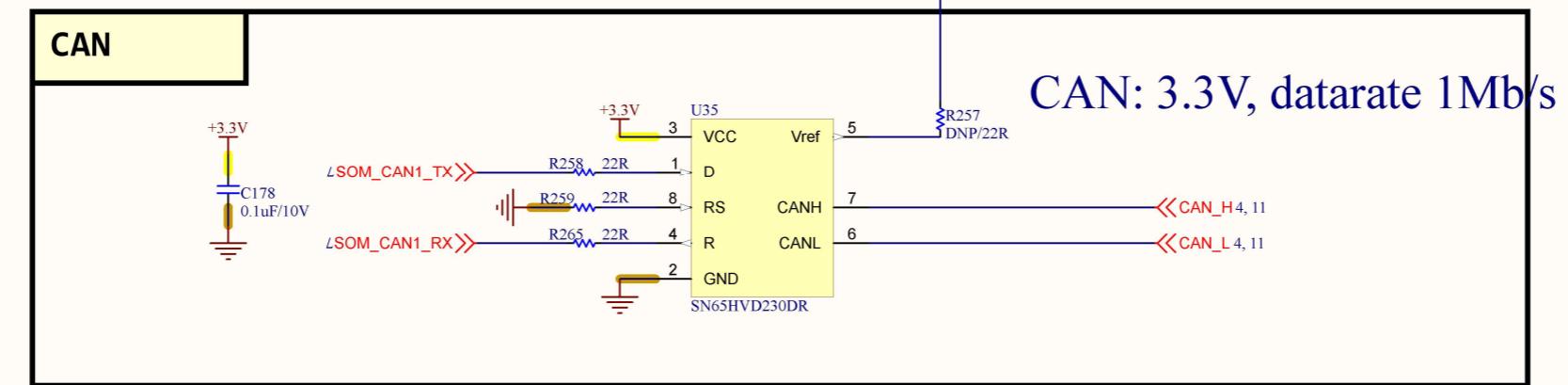
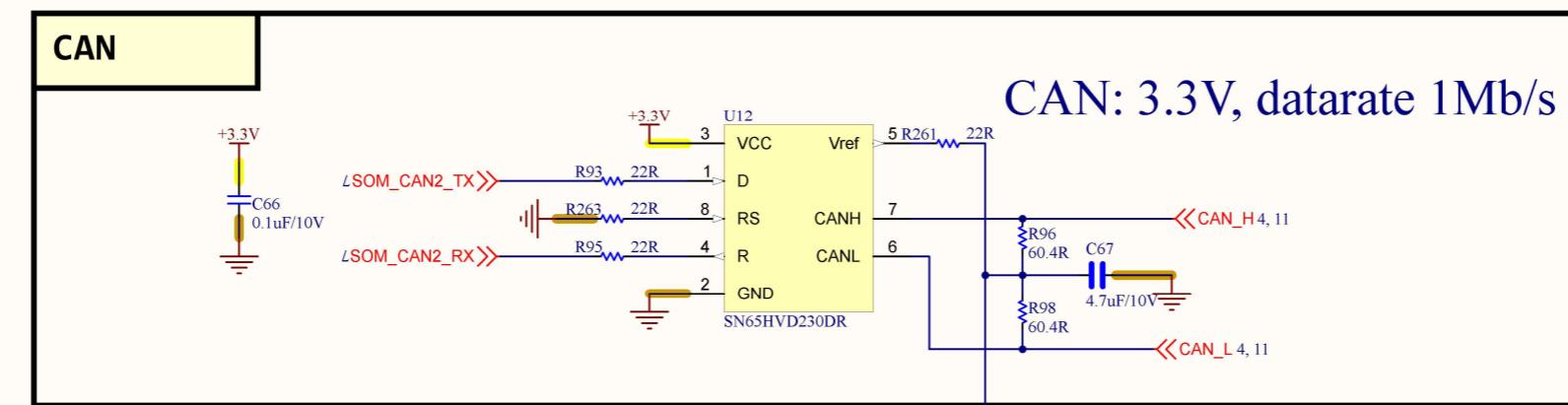
Size: **A3**

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Sub-system: SLT 6U Satellite

Design by: Cam Doan

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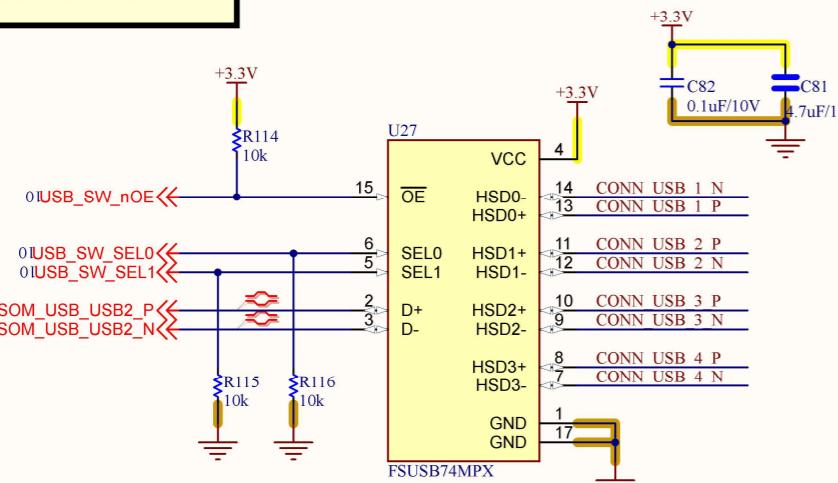
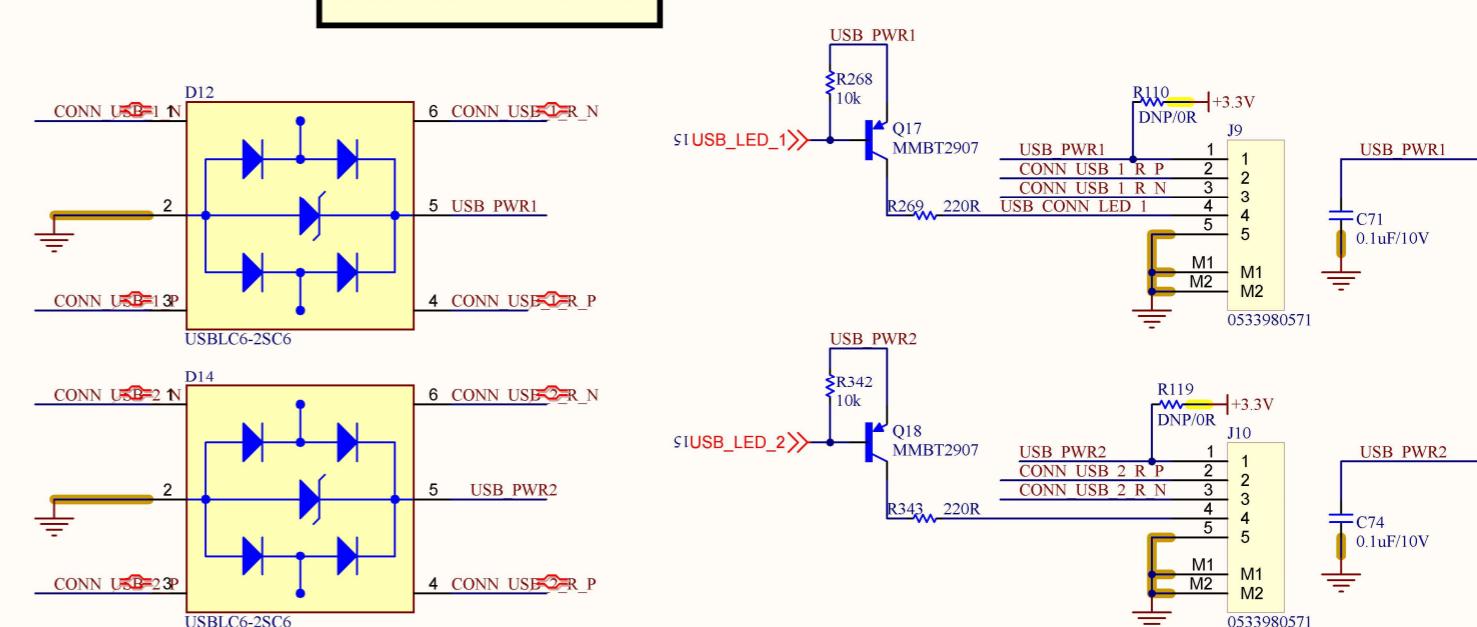
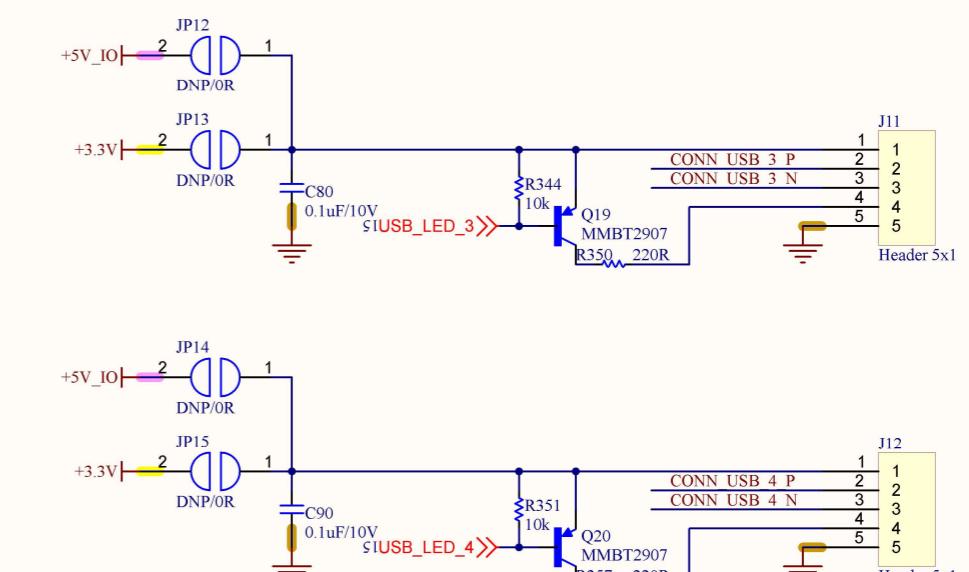
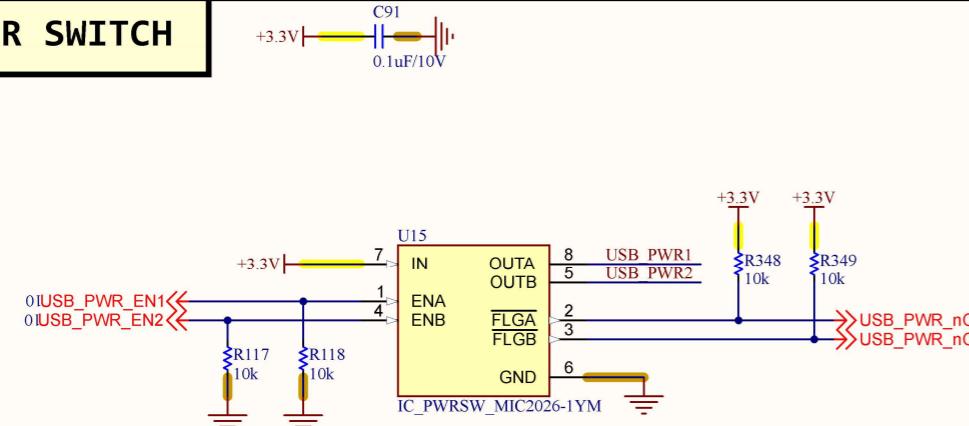
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USB SW 1:4**USB Connectors****POWER SWITCH**

Theme BJT keo LED



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$$I_{LD} = (VDAC * R3) / (R32 * R8)$$

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LED PWM

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C



D

D



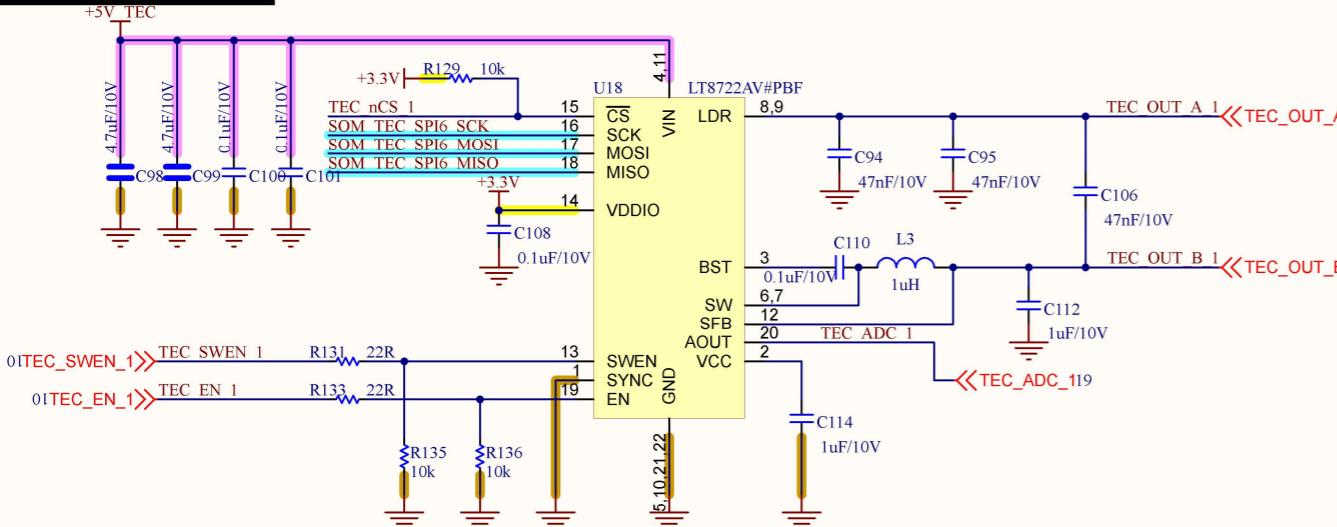
Project: SLT 6U Satellite	Sub-system: SLT 6U Satellite	
Design by: Cam Doan	Sheet title: LED.SchDoc	Sheet 13 of 21
Checked by: Bao Bui	Document No: 13	Size: A3
Approved by: Vu Pham	Revision: 1.1.0	Date: 09/29/2025

L_SOM_TEC_SPI_SCK
 SOM TEC SPI6 SCK
 L_SOM_TEC_SPI_MOSI
 SOM TEC SPI6 MOSI
 L_SOM_TEC_SPI_MISO
 SOM TEC SPI6 MISO

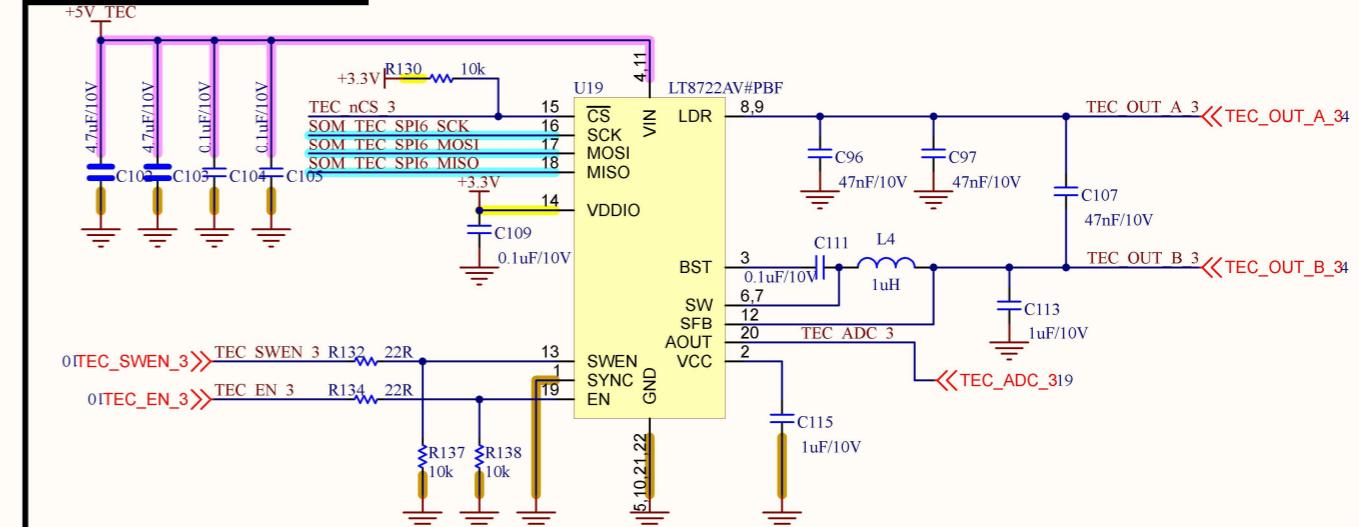
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 TEC nCS 1
 0I TEC_nCS_2
 TEC nCS 2
 0I TEC_nCS_3
 TEC nCS 3
 0I TEC_nCS_4
 TEC nCS 4

Check lại nhờ Sang

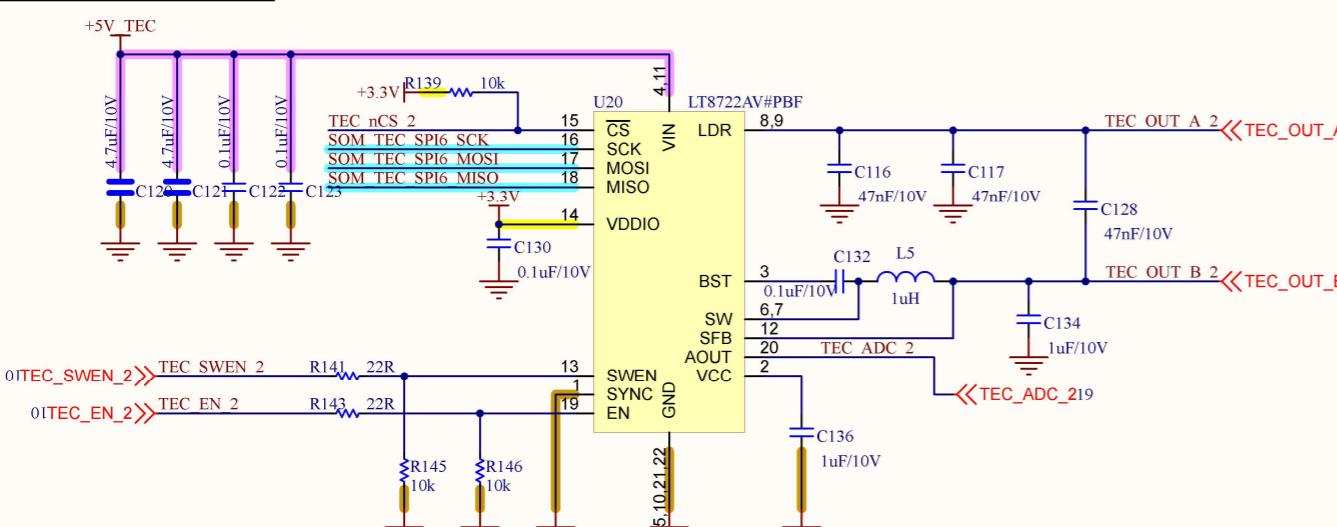
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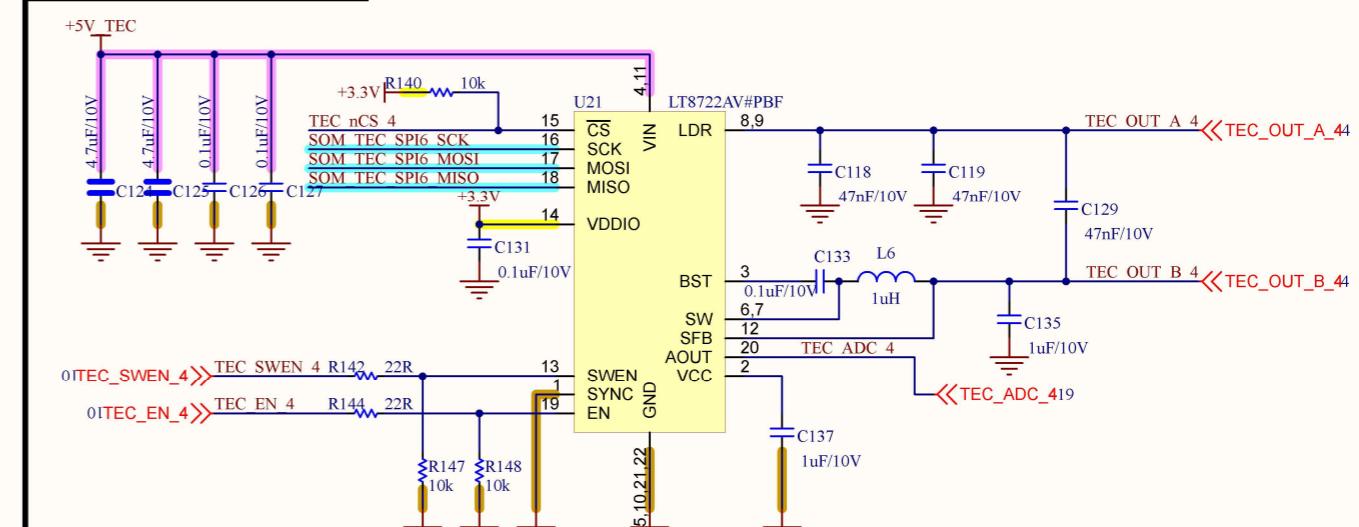
TEC 3



TEC 2



TEC 4



Project: SLT 6U Satellite

Sub-system: SLT 6U Satellite

Design by: Cam Doan

Sheet title: TEC.SchDoc

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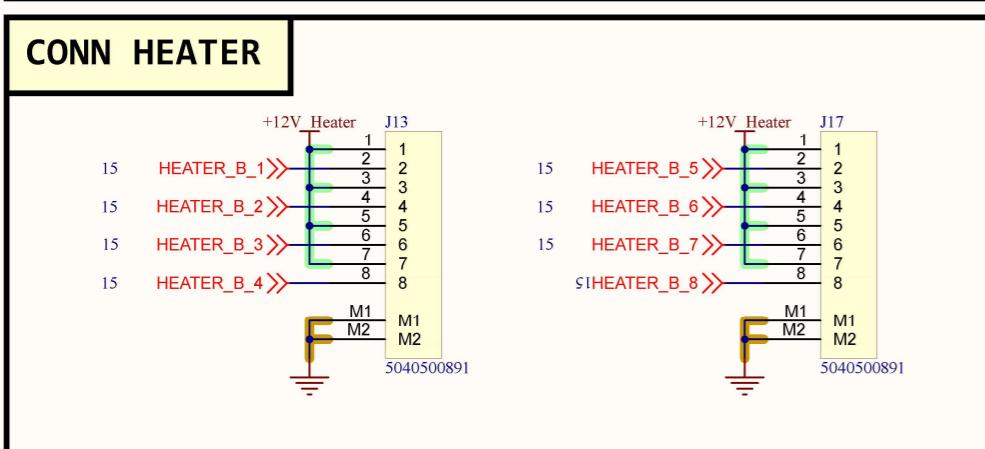
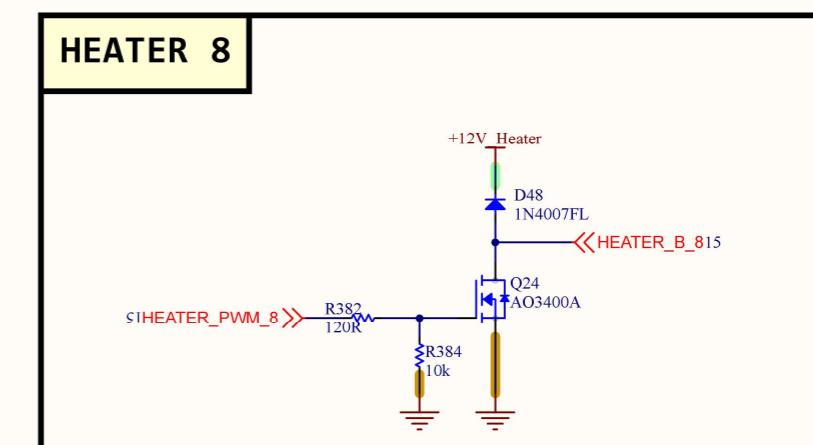
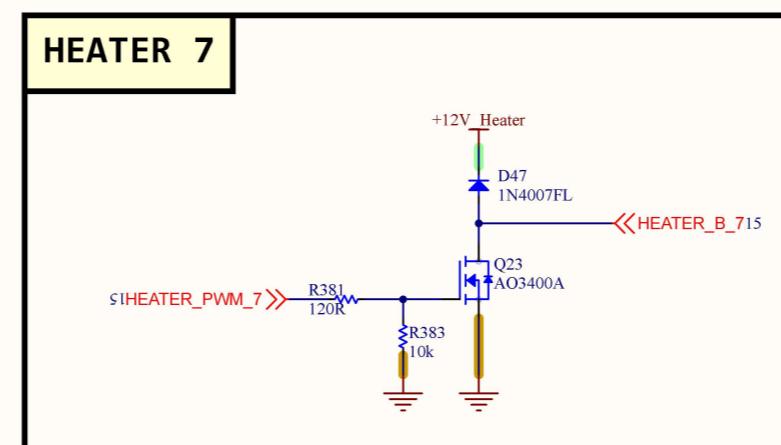
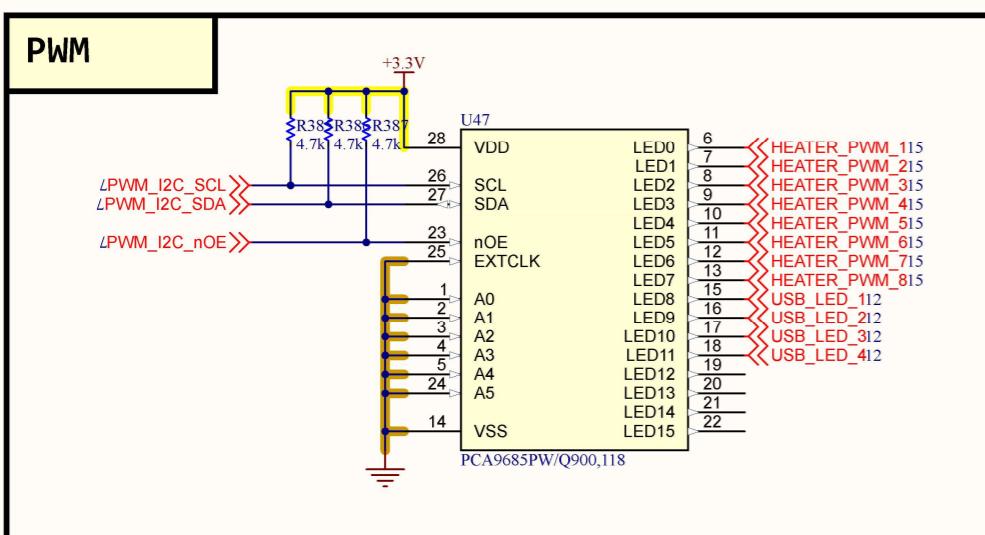
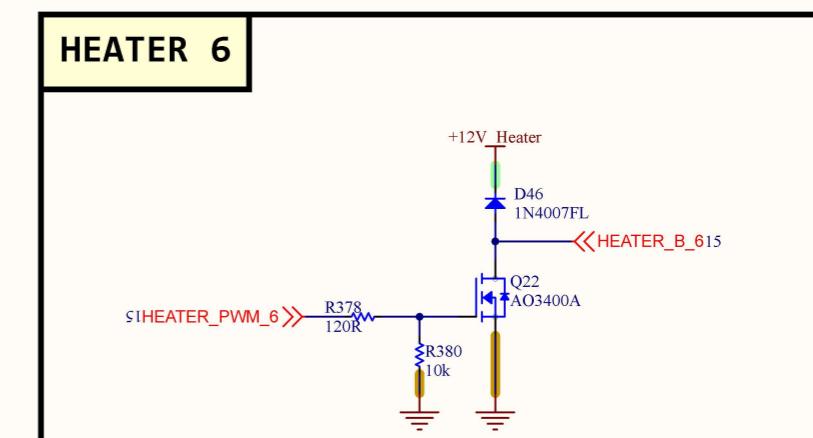
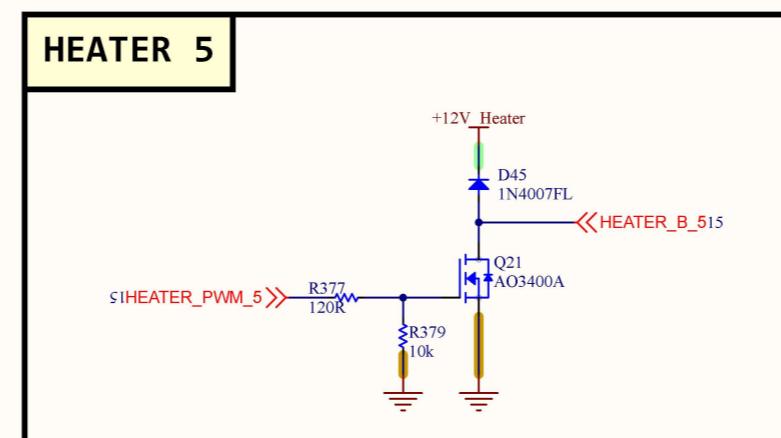
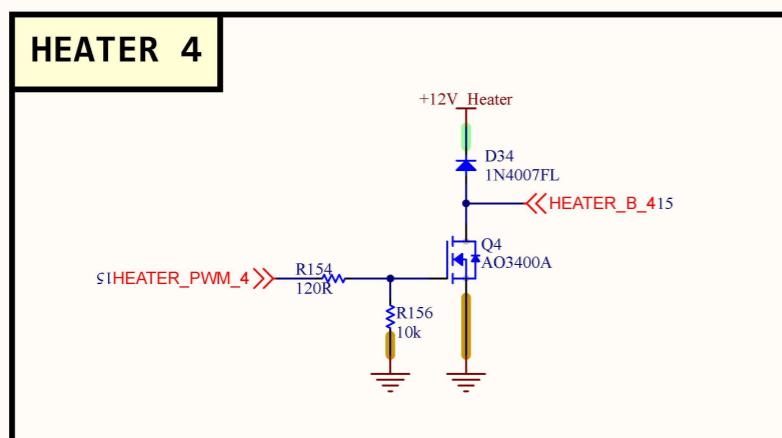
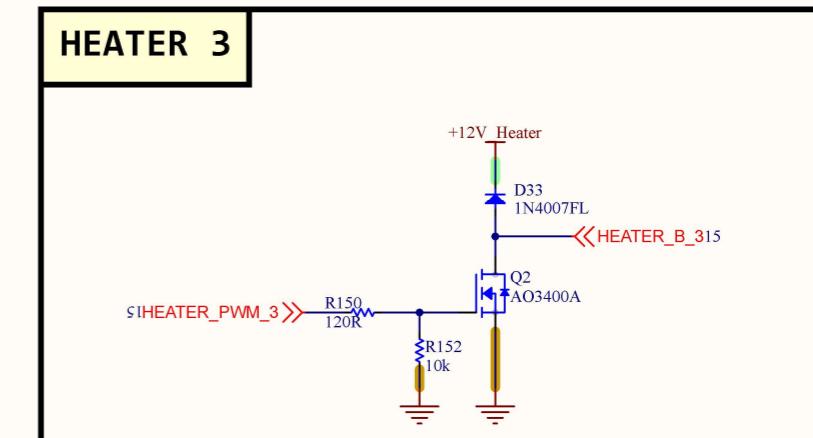
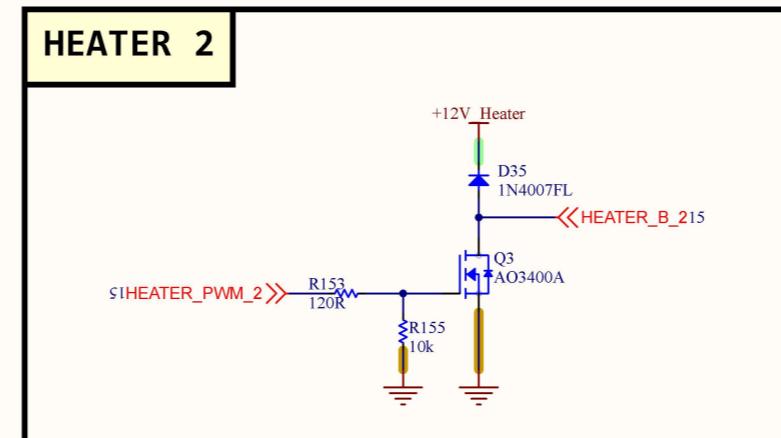
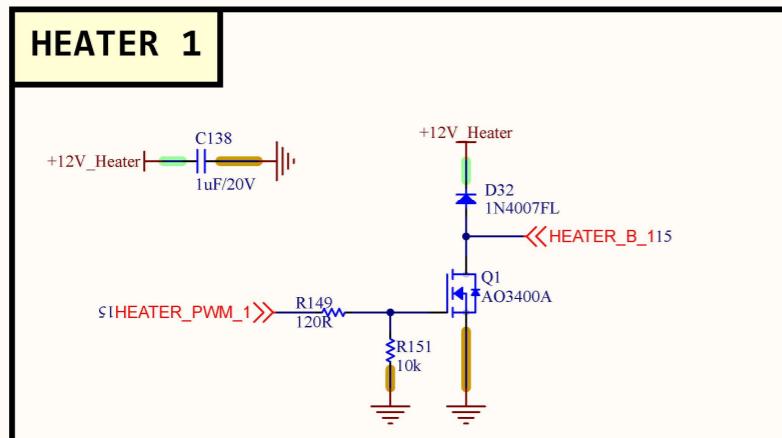
Size: A3

Approved by: Vu Pham

Revision: 1.1.0

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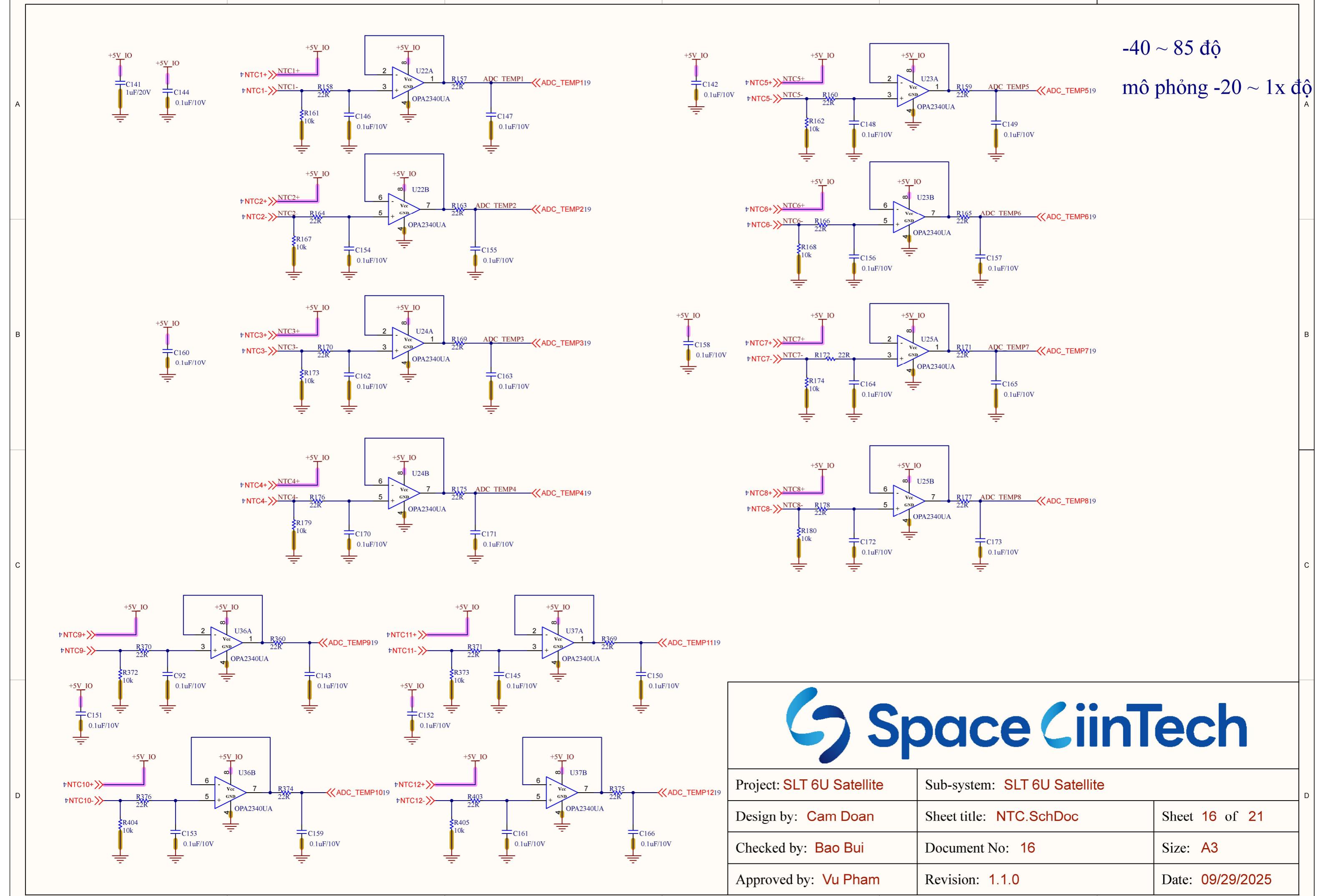


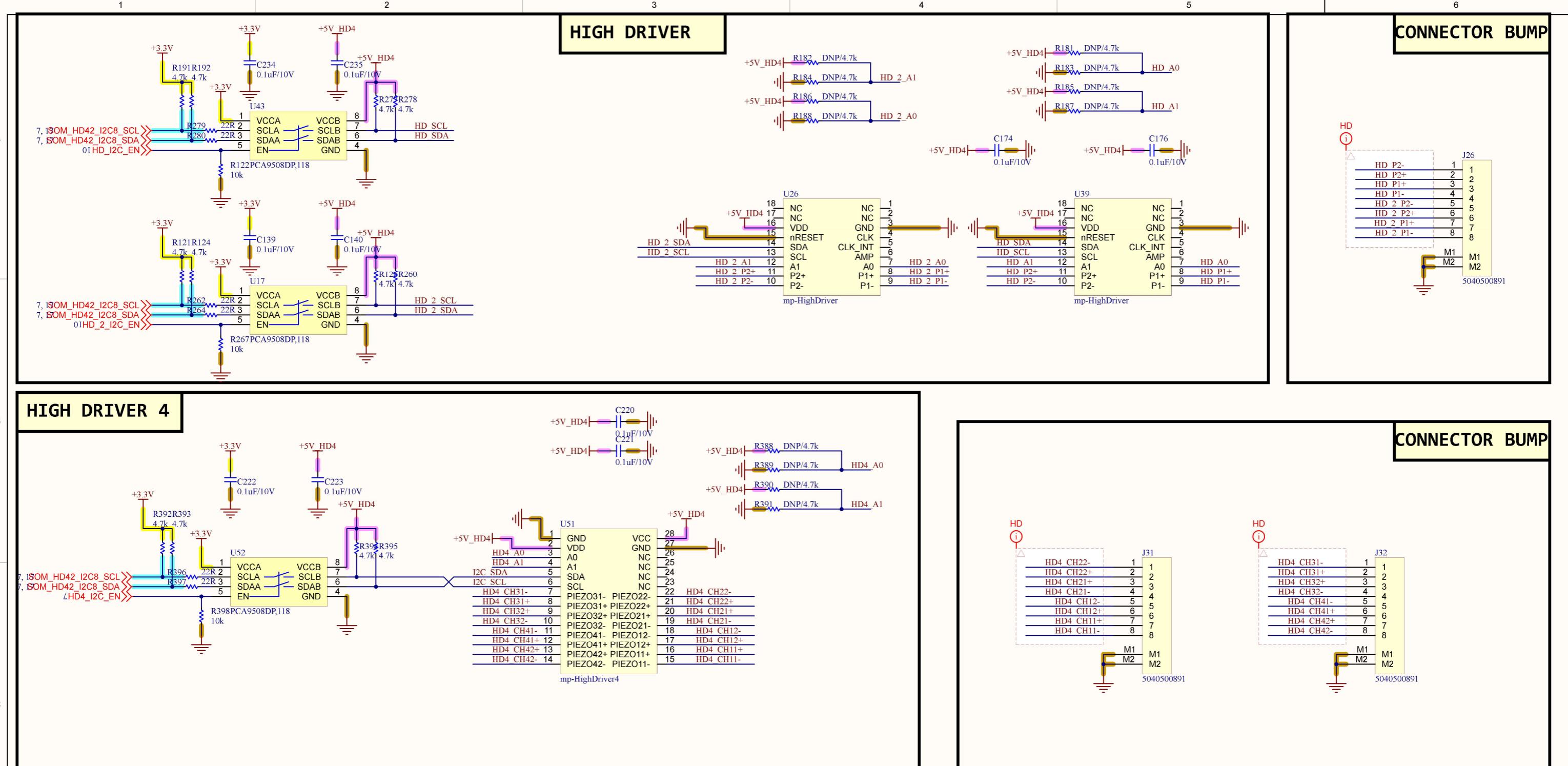
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Design by: Cam Doan	Sheet title: HEATER.SchDoc	Sheet 15 of 21
Checked by: Bao Bui	Document No: 15	Size: A3
Approved by: Vu Pham	Revision: 1.1.0	Date: 09/29/2025

-40 ~ 85 độ

mô phỏng -20 ~ 1x độ

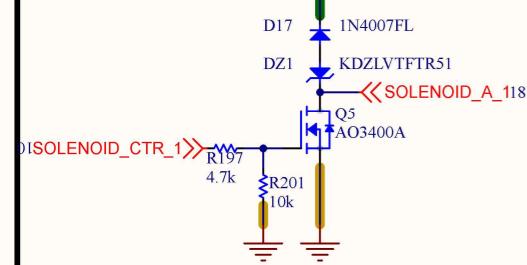




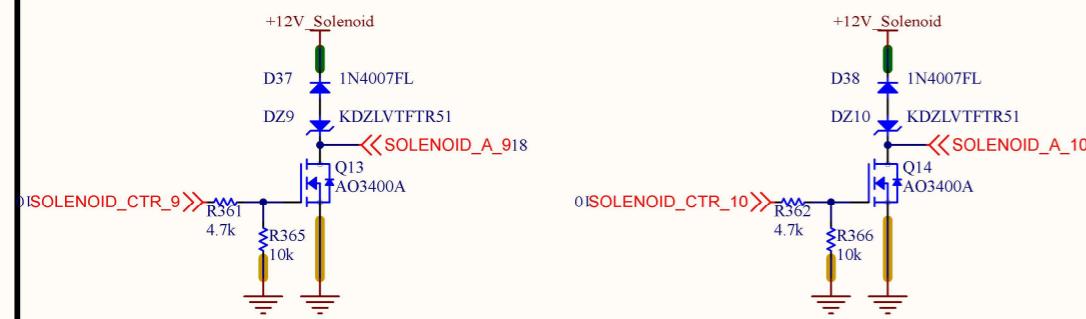
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Design by: Cam Doan	Sheet title: FLUIDIC_CTRL.SchDoc	Sheet 17 of 21
Checked by: Bao Bui	Document No: 17	Size: A3
Approved by: Vu Pham	Revision: 1.1.0	Date: 09/29/2025

SOLENOID x12

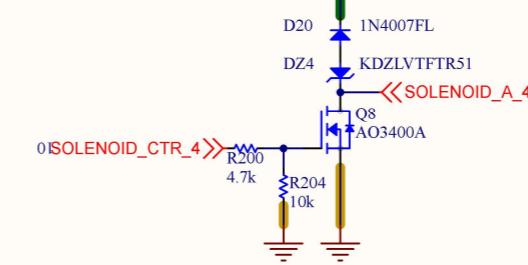
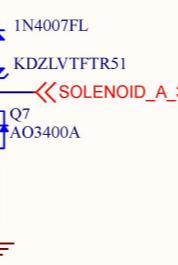
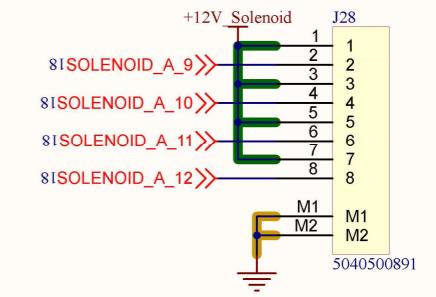
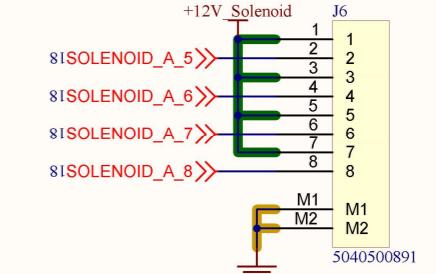
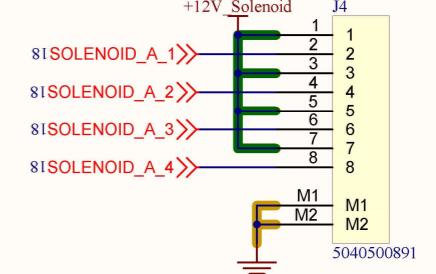
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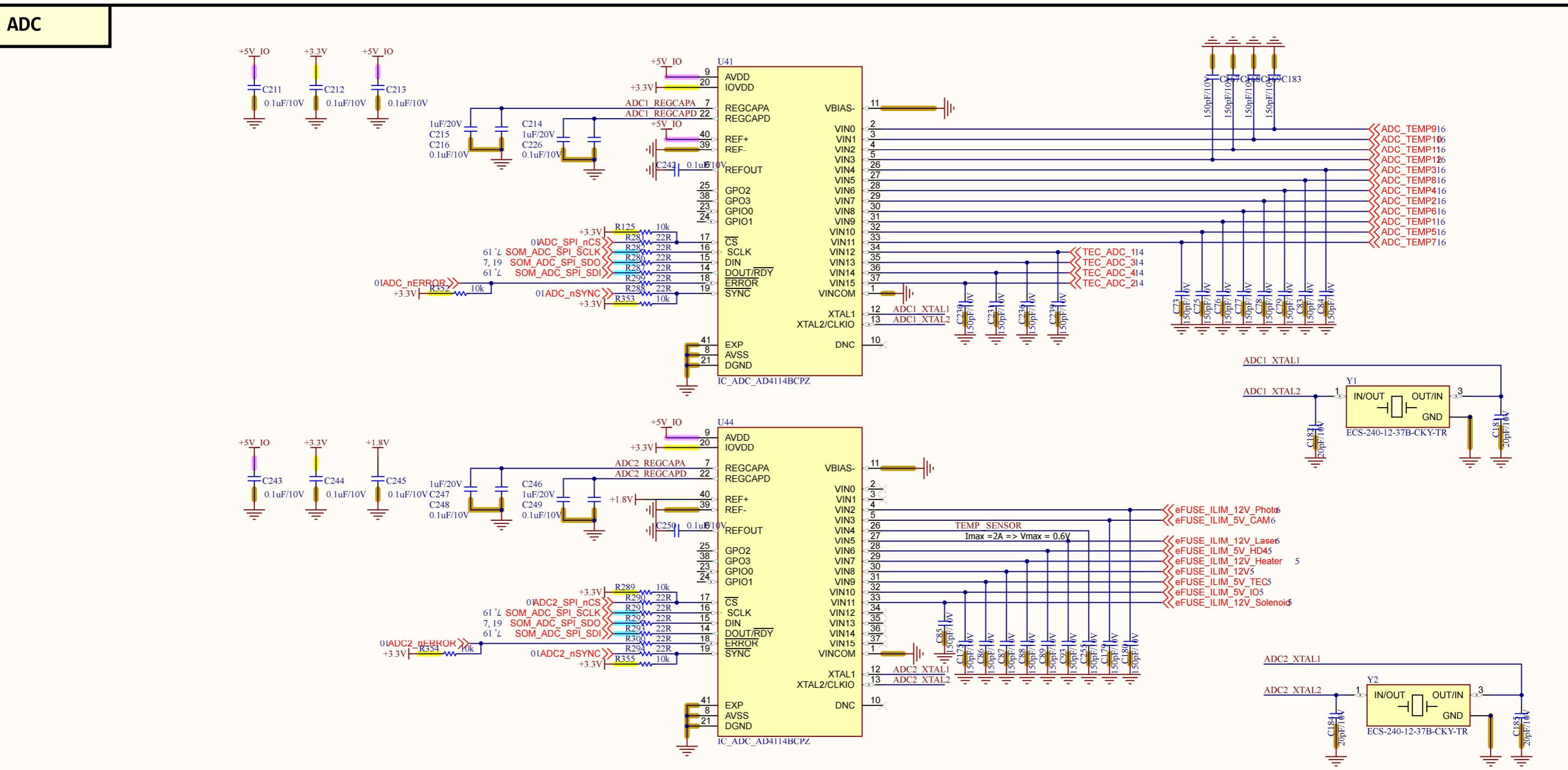
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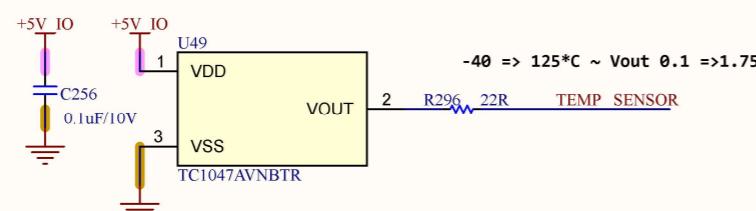
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**CONN SOLENOID**

Project: SLT_110.PrjPcb	Sub-system: *	
Design by: Cam Doan	Sheet title: *	Sheet 18 of 21
Checked by: BAO BUI Q.	Document No: 18	Size: A3
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TEMPERATURE SENSOR



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Project: **SLT 6U Satellite**

Sub-system: **SLT 6U Satellite**

Design by: **Cam Doan**

Sheet title: **ADC.SchDoc**

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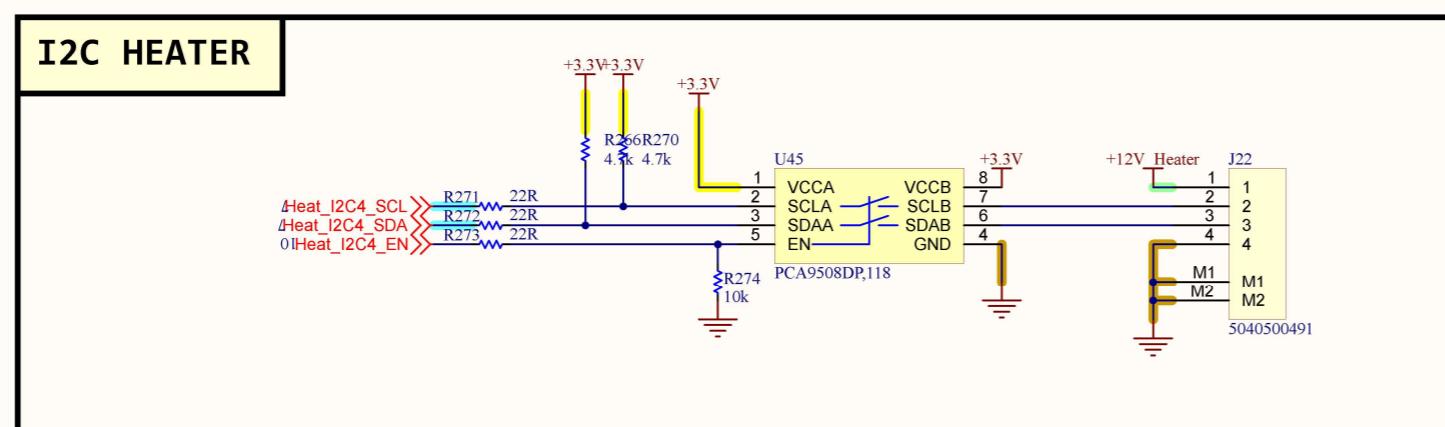
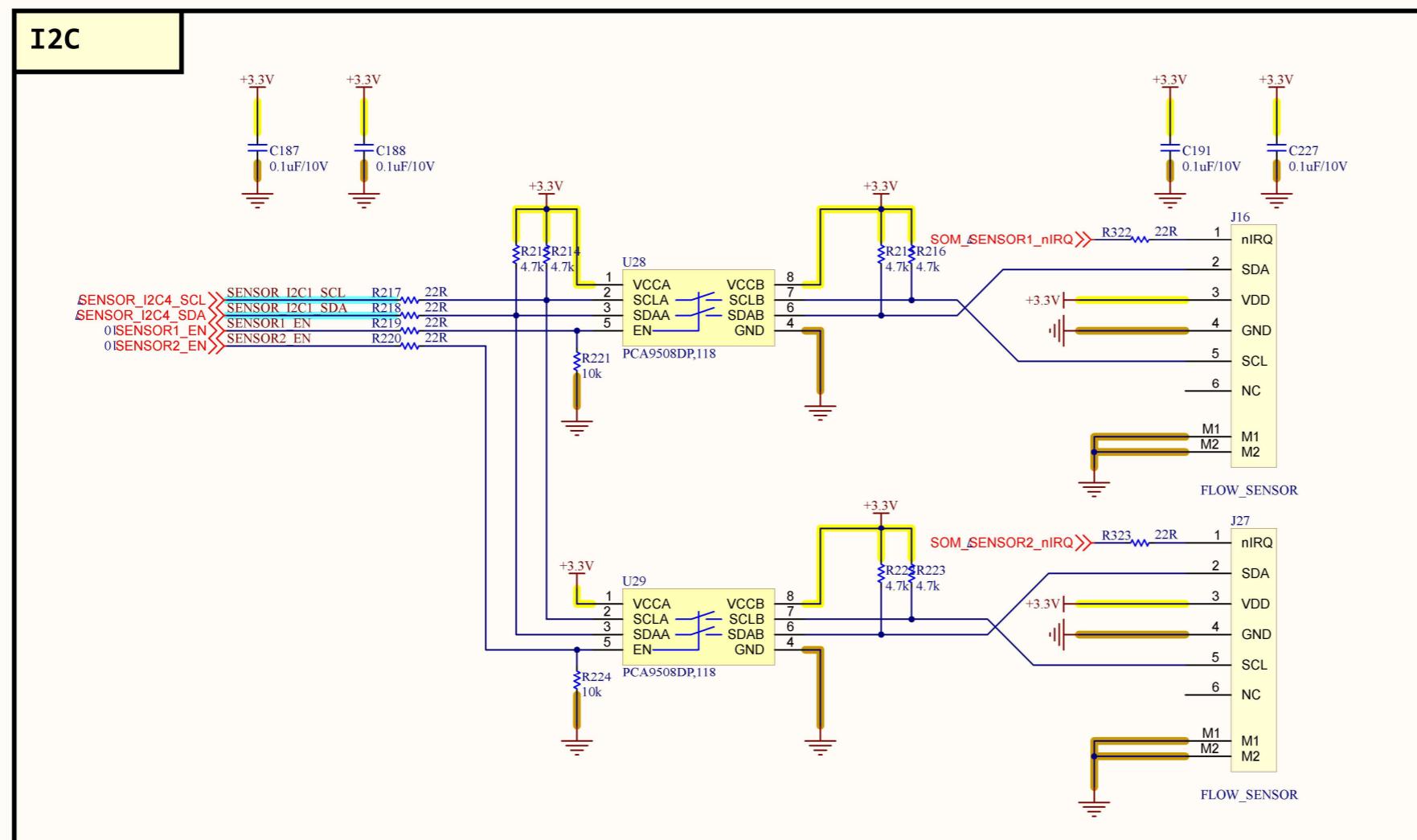
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Size: **A3**

Approved by: **Vu Pham**

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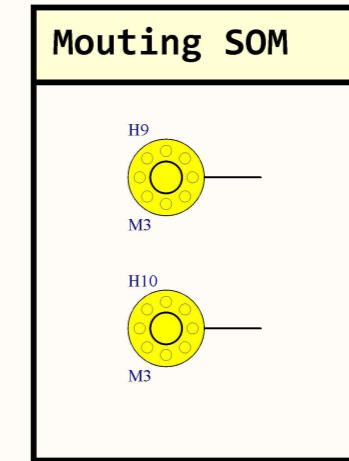
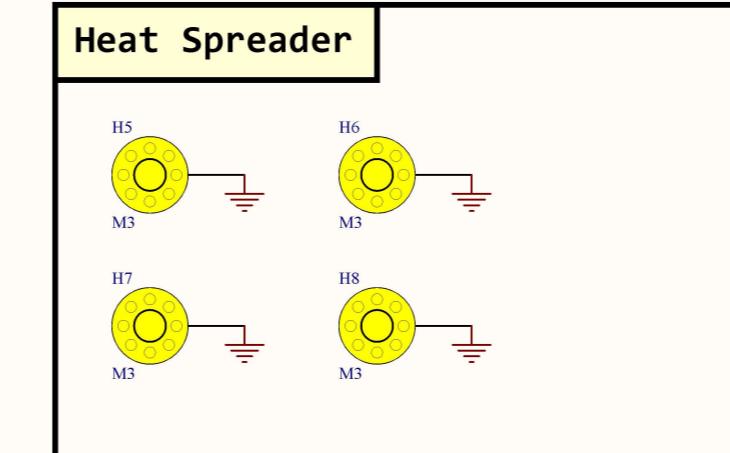
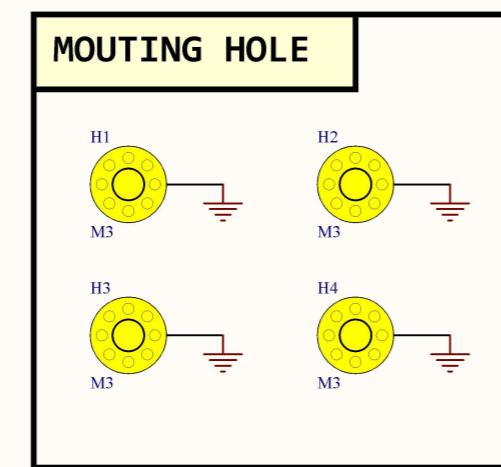


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Design by: Cam Doan	Sheet title: I2C_Sensor.SchDoc	Sheet 20 of 21
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Approved by: Vu Pham	Revision: 1.1.0	Date: 09/29/2025

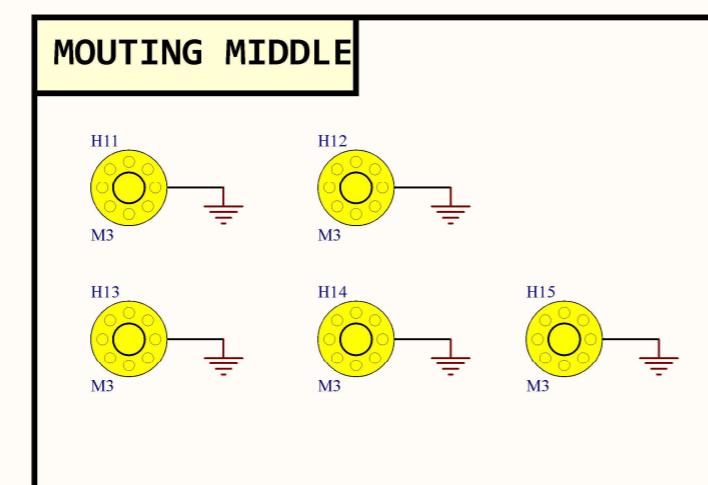
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Project: **SLT_110.PrjPcb**

Sub-system: *

Design by: **Cam Doan**

Sheet title: *

Sheet **21** of **21**Checked by: **BAO BUI Q.**Document No: **21**Size: **A3**Approved by: **VU PHAM**Revision: **1.1.0**Date: **09/29/2025**