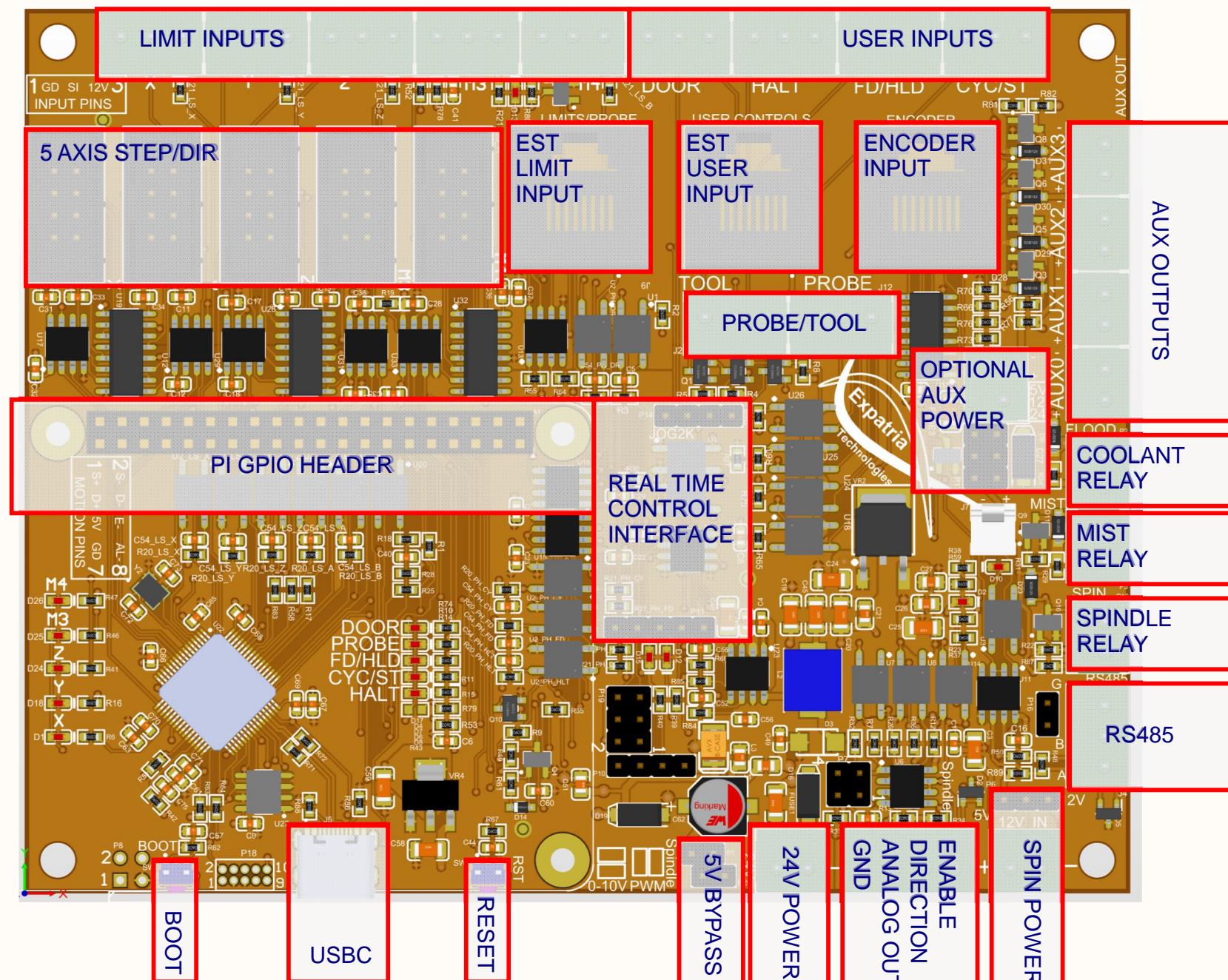


# Flexi-HAL 2000 CNC Controller

STM32F446 CNC Controller  
STM32F446RE\_board.SchDoc



**ZZ1**  
Assembly Note  
These assemblies are ESD sensitive, ESD precautions shall be observed.

**ZZ2**  
Assembly Note  
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

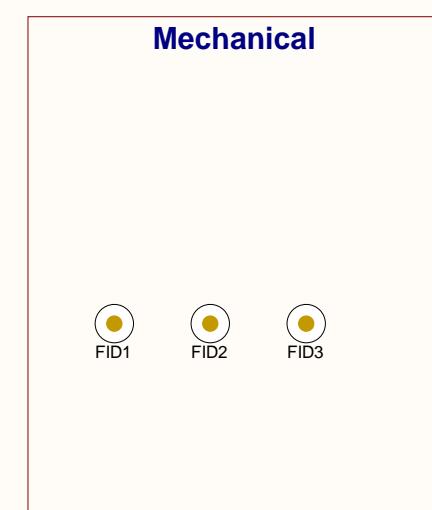
**ZZ3**  
Assembly Note  
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

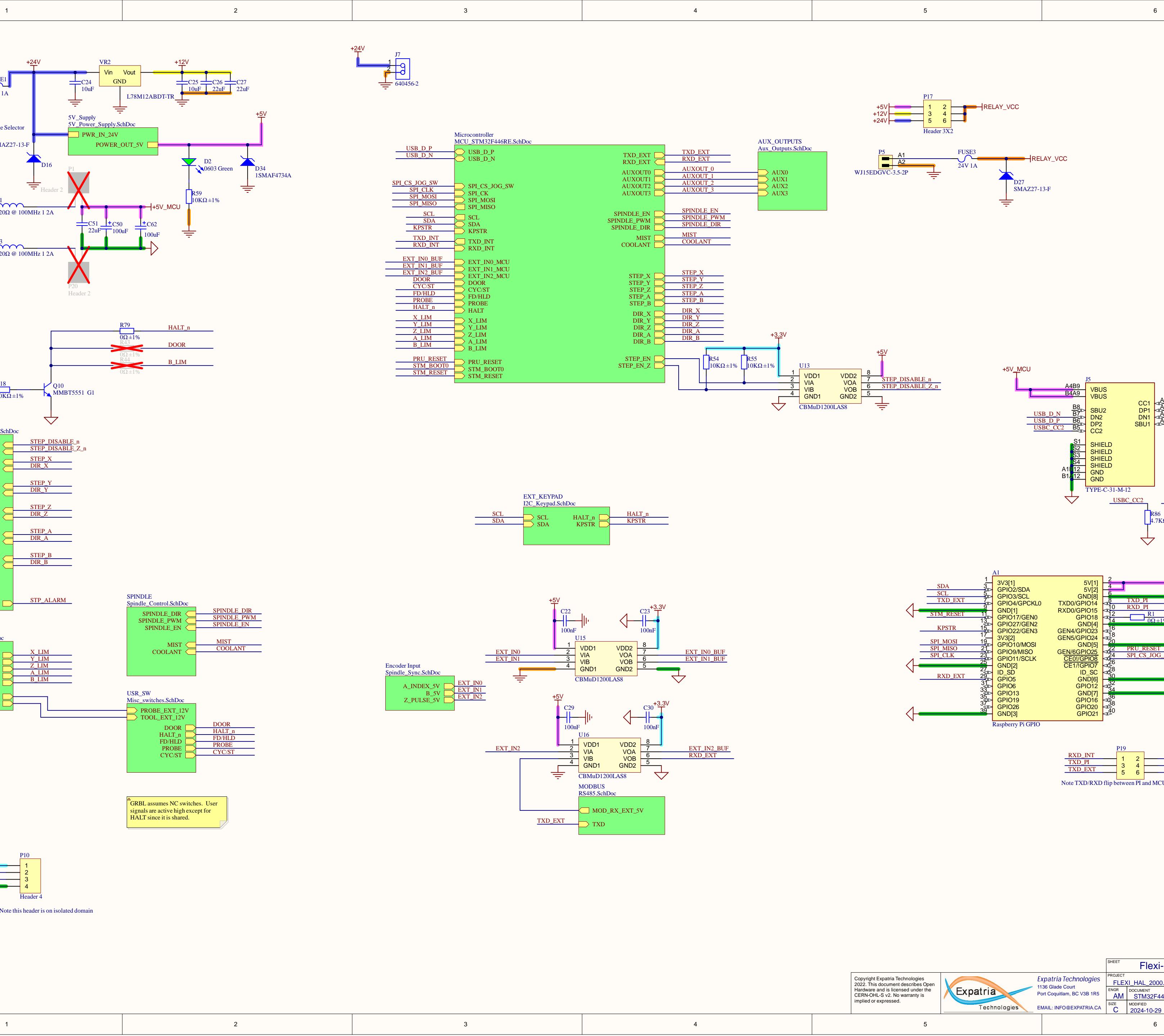
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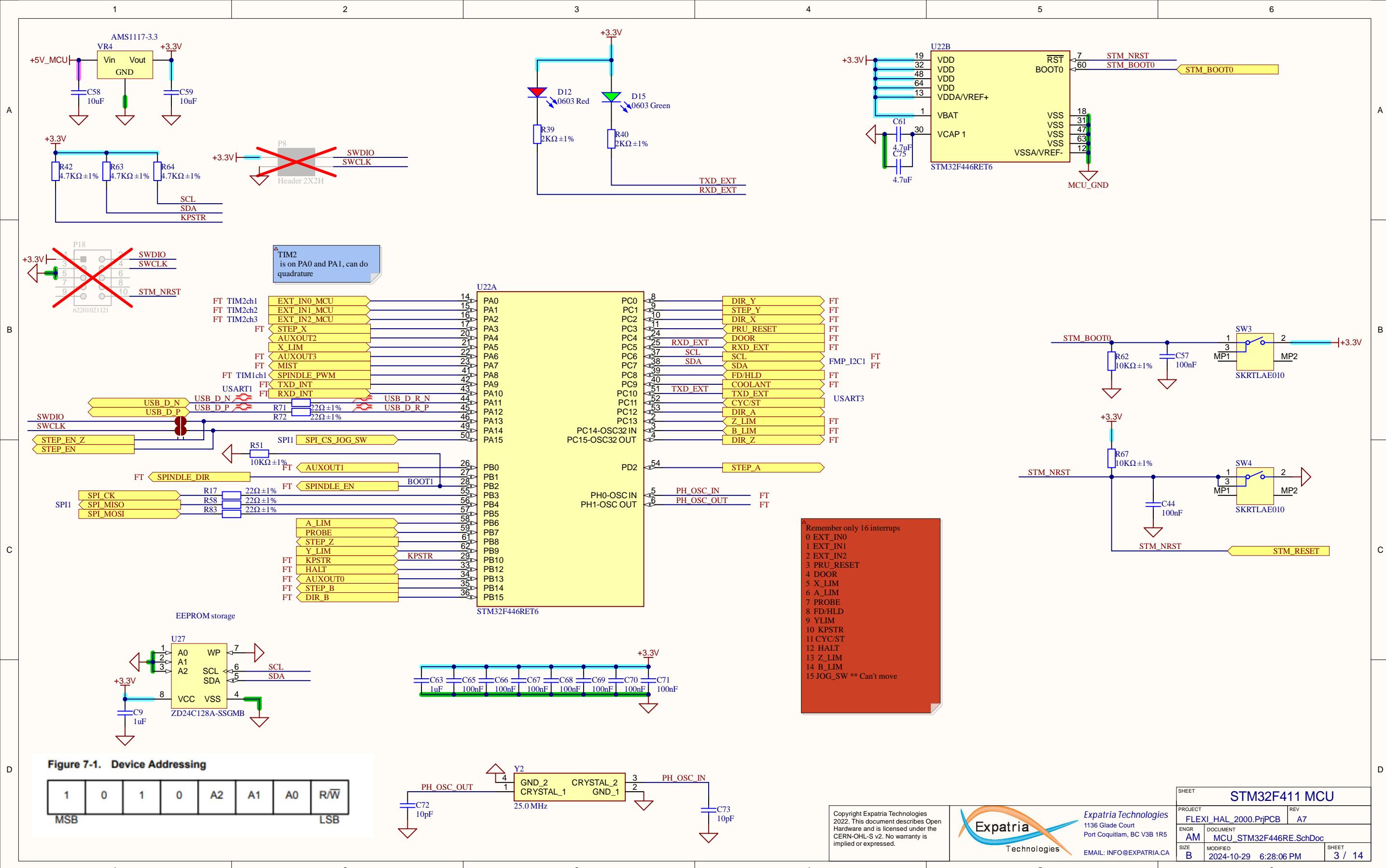


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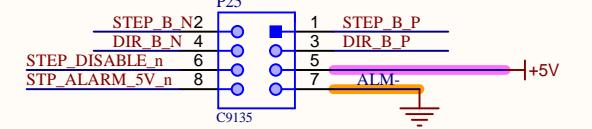
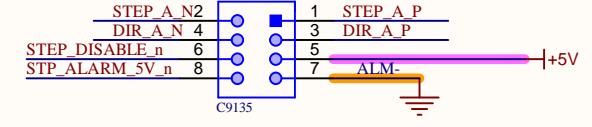
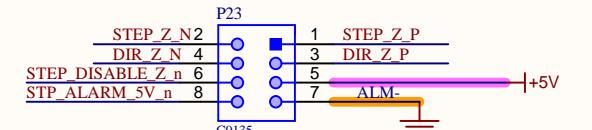
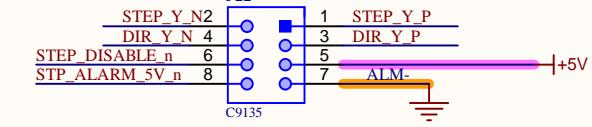
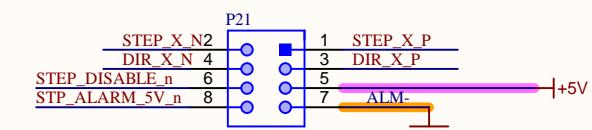
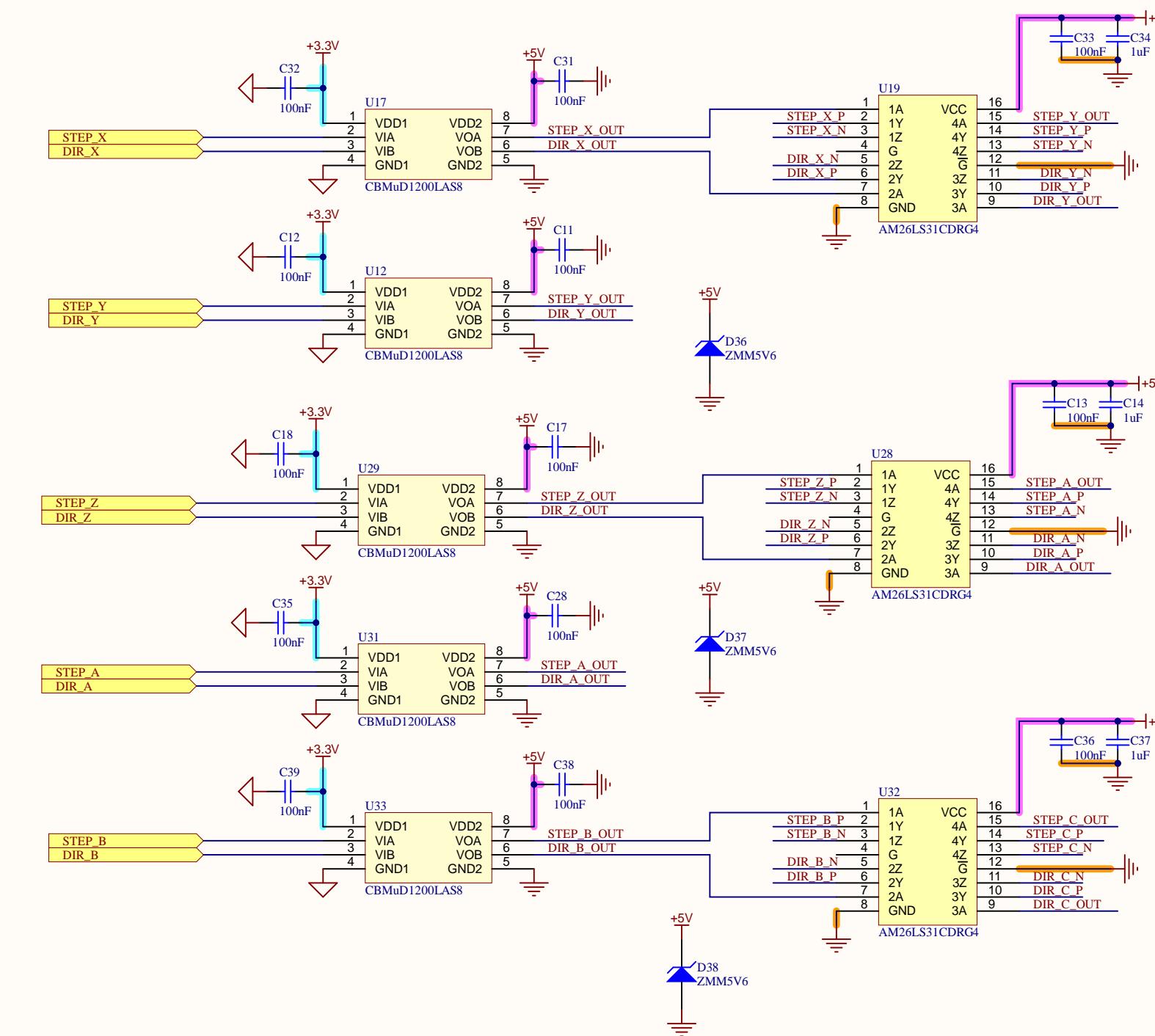
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ENGR	DOCUMENT	
AM	Title Sheet.SchDoc	
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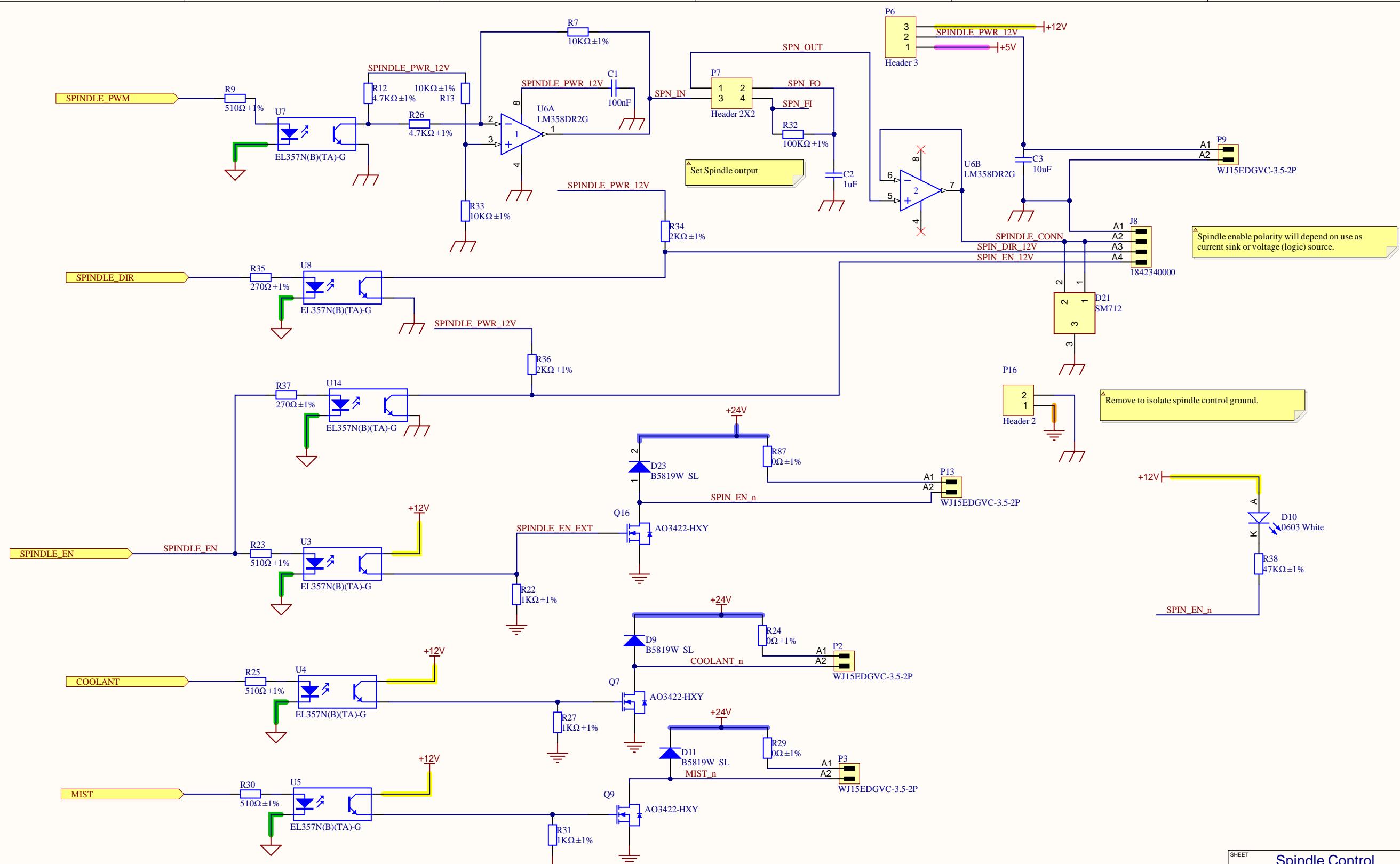






STEP\_DISABLE\_n  
STEP\_DISABLE\_Z\_n



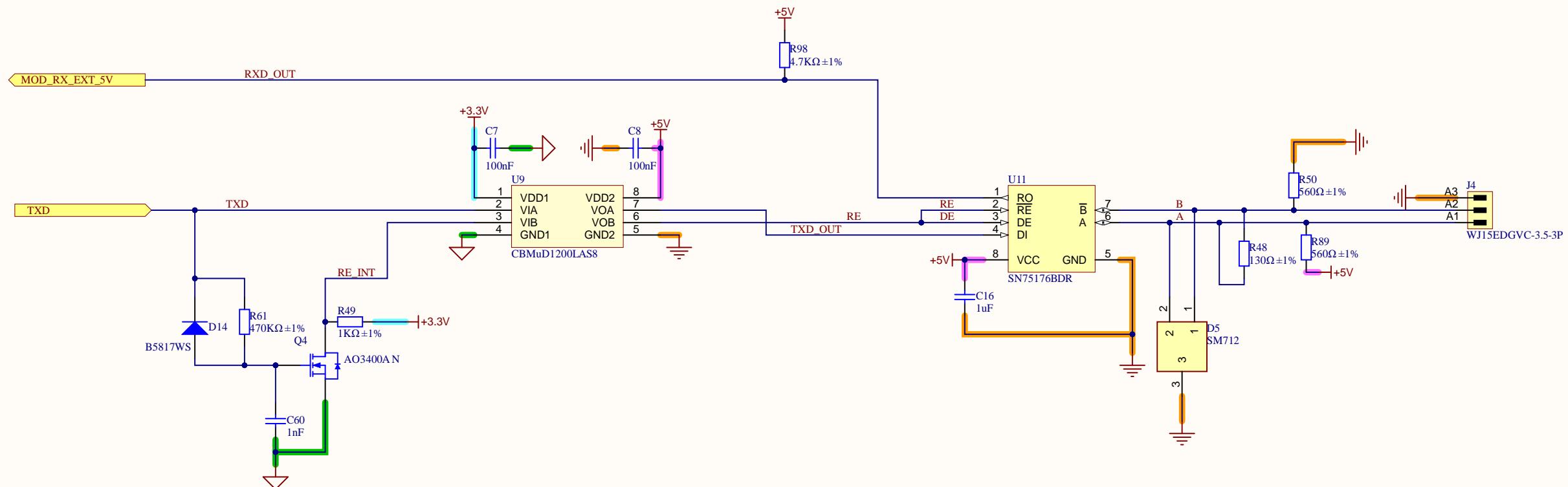


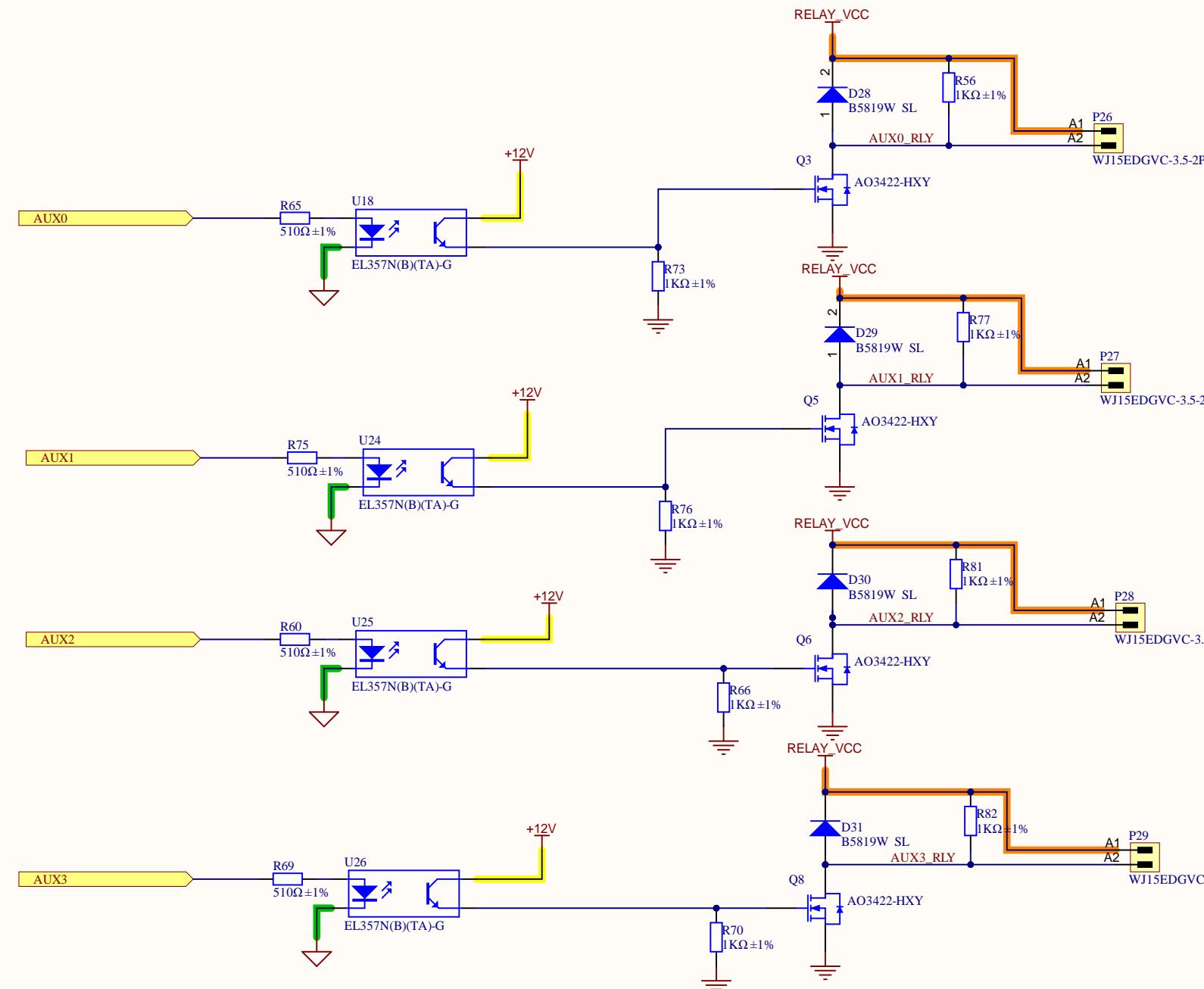
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Spindle Control	
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FLEXI_HAL_2000.PriPCB	A7
ENGR	DOCUMENT
AM	Spindle_Control.SchDoc
SIZE	MODIFIED
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SHEET 5 / 14	





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Spindle Control	
PROJECT	REV
FLEXI_HAL_2000.PnjPCB	A7
ENGR	DOCUMENT
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SIZE	MODIFIED
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	SHEET
	10/ 14

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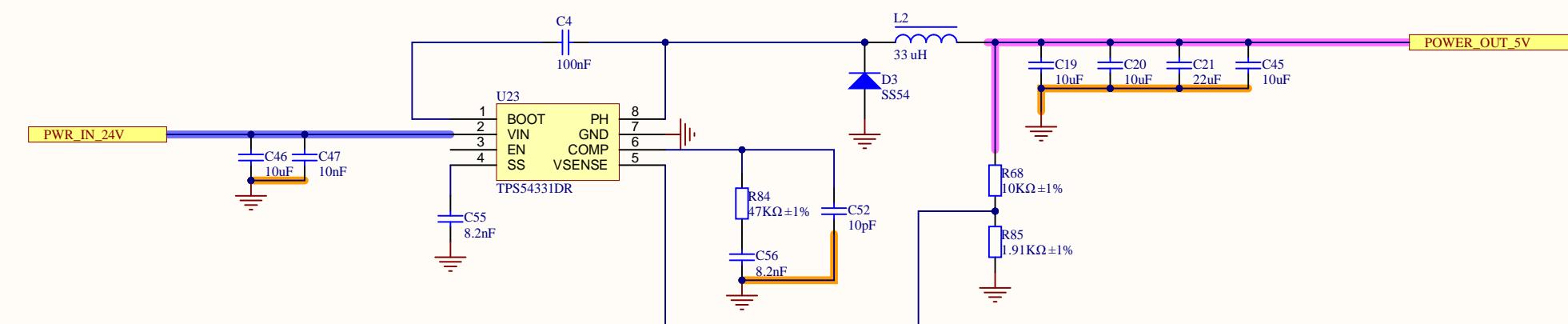
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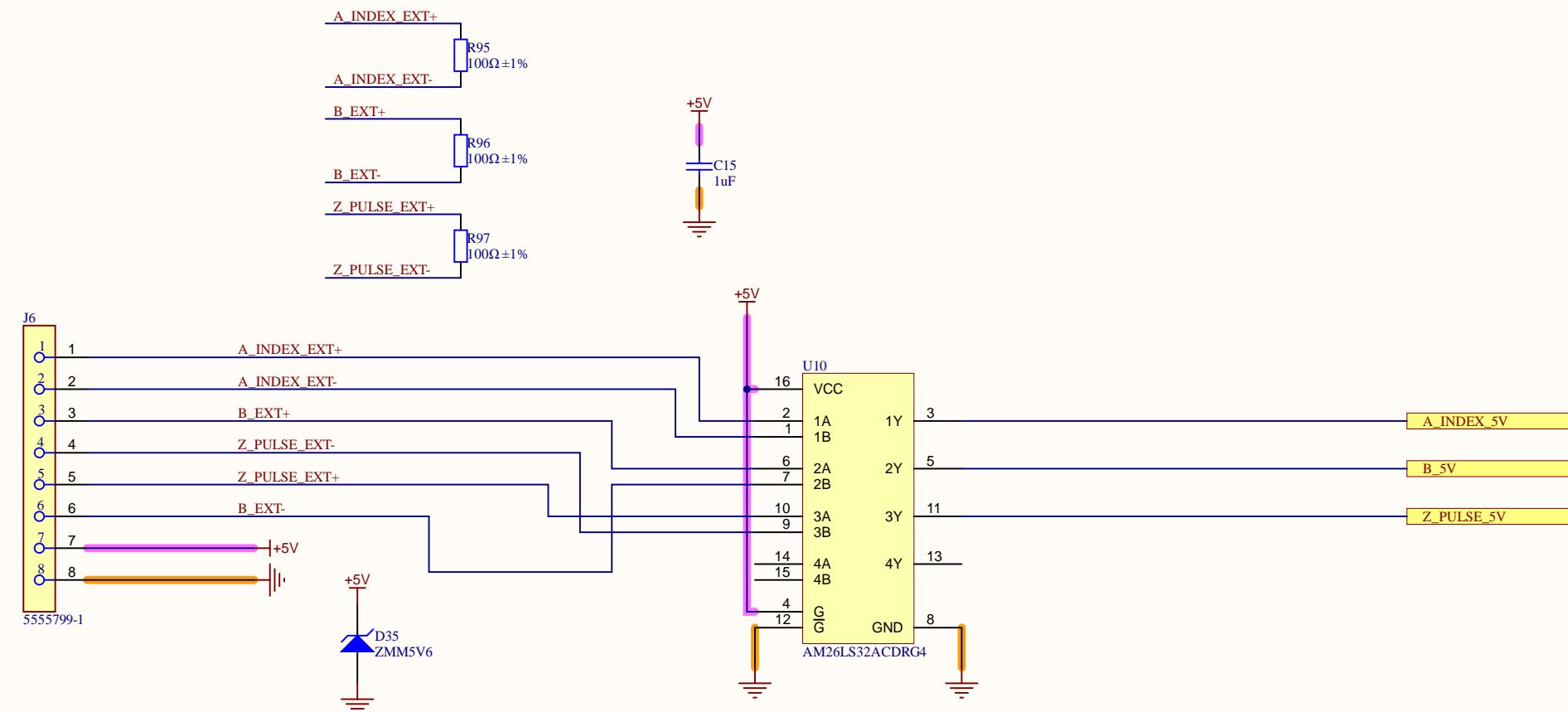


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5V Power Supply	
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ENGR	DOCUMENT
AM	5V_Power_Supply.SchDoc
SIZE	MODIFIED
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SHEET	9 / 14



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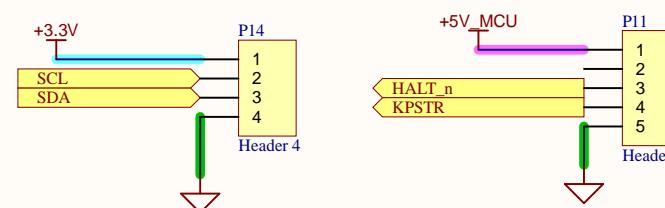
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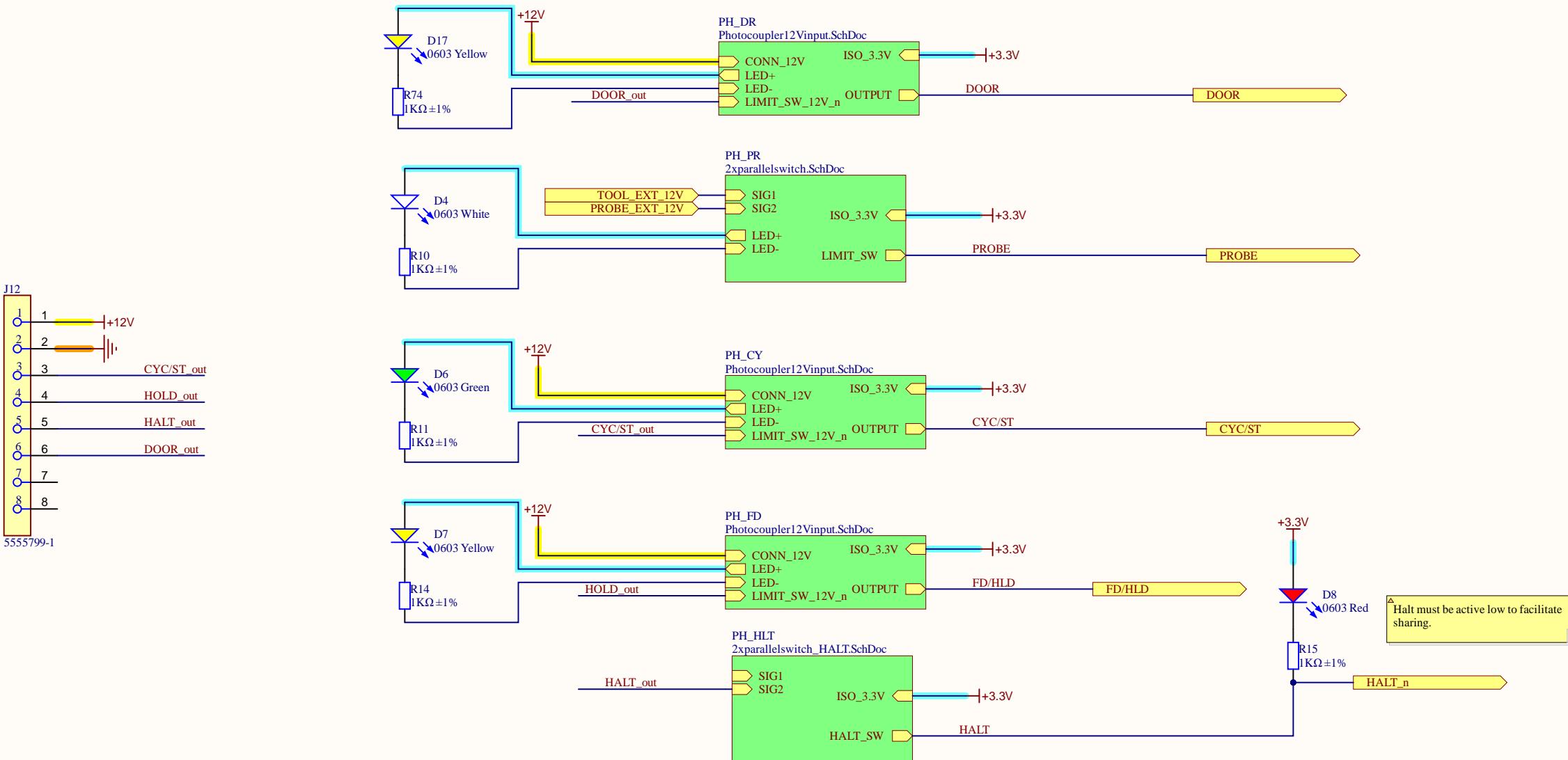
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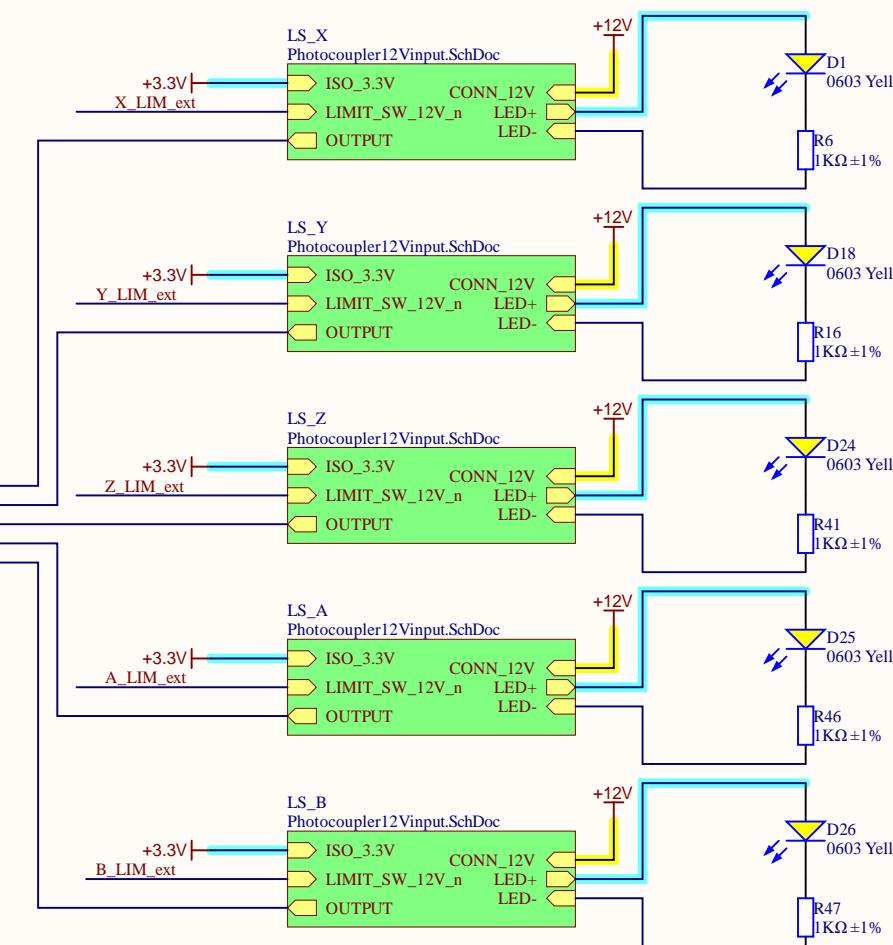
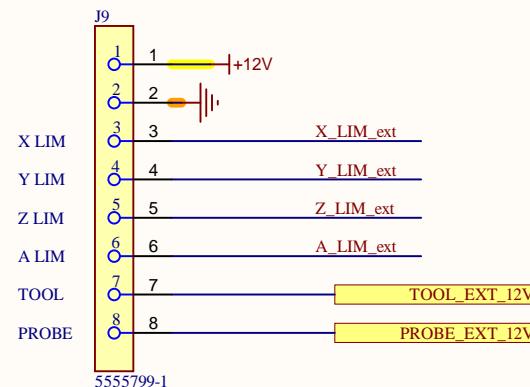
△ Pendant is in MCU domain  
HALT is active low.





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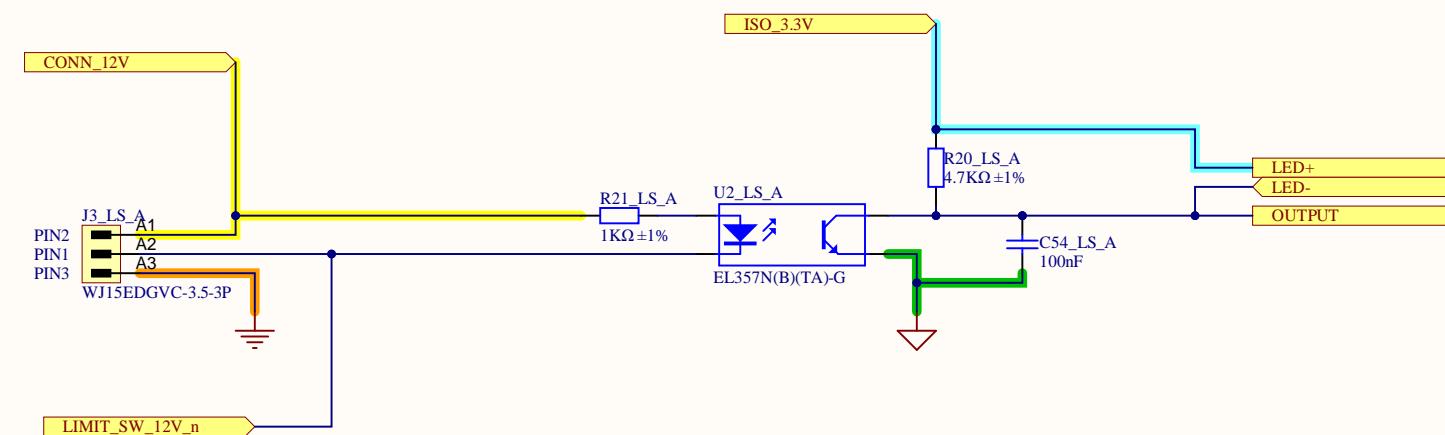
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FLEXI_HAL_2000.PnjPCB	A7	
ENGR	DOCUMENT	
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SIZE	MODIFIED	SHEET
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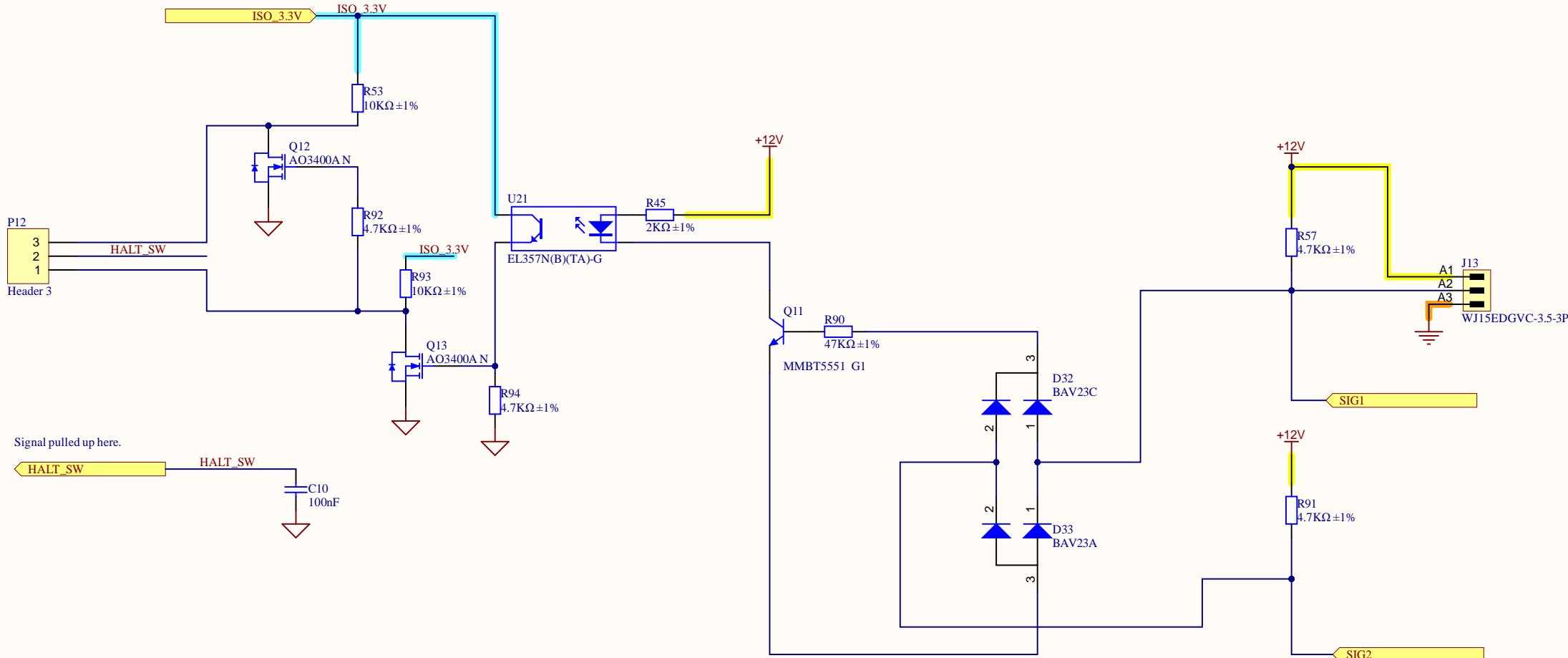
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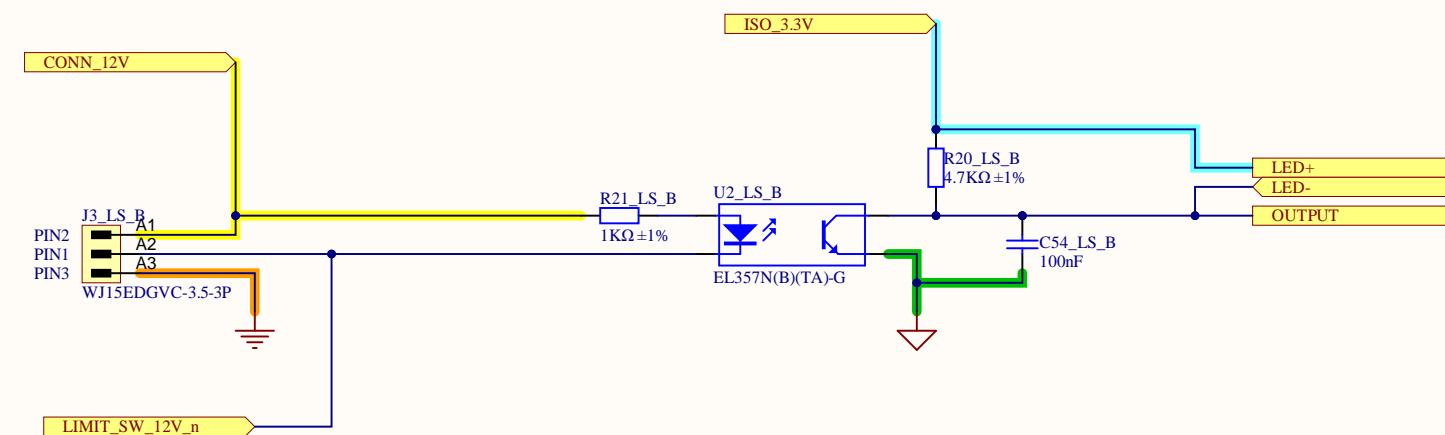
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SHEET Coupler 12V input		
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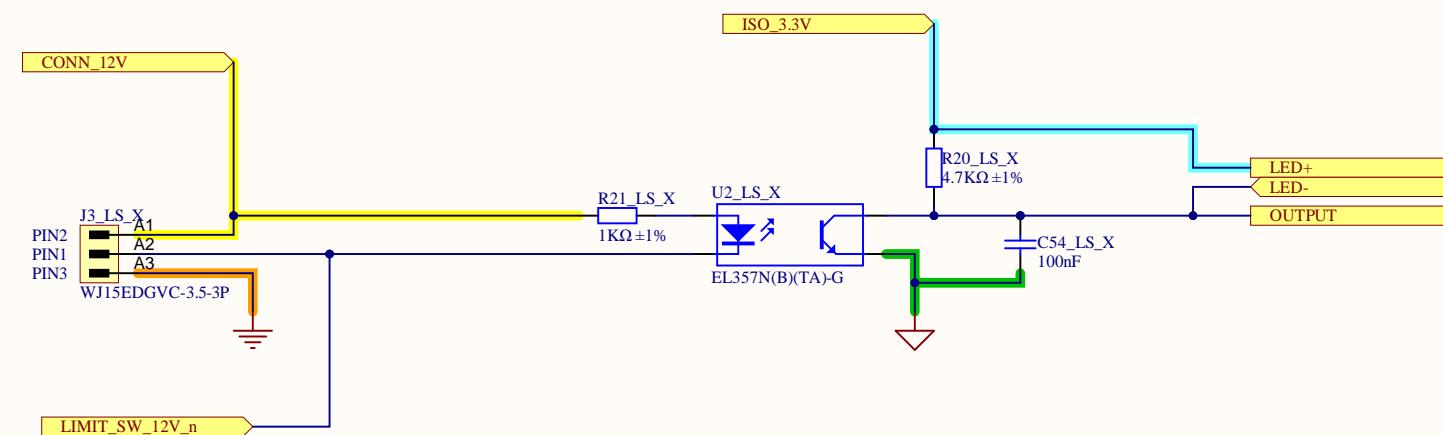
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SHEET Coupler 12V input		
PROJECT	REV	
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SIZE	MODIFIED	SHEET
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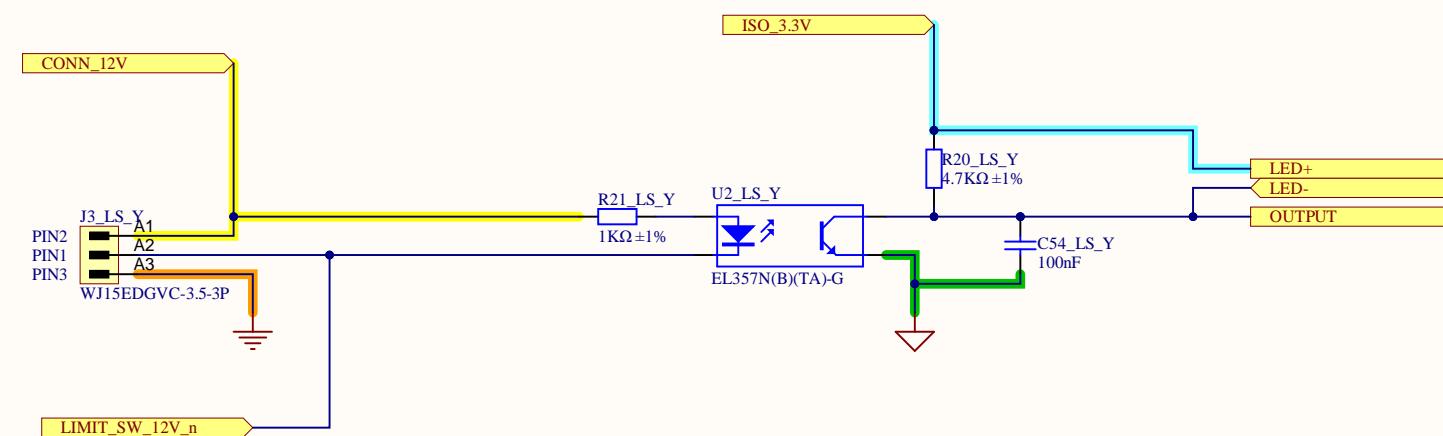
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SHEET Coupler 12V input		
PROJECT	REV	
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SIZE	MODIFIED	SHEET
B	2024-10-29 6:28:07 PM	14/ 14

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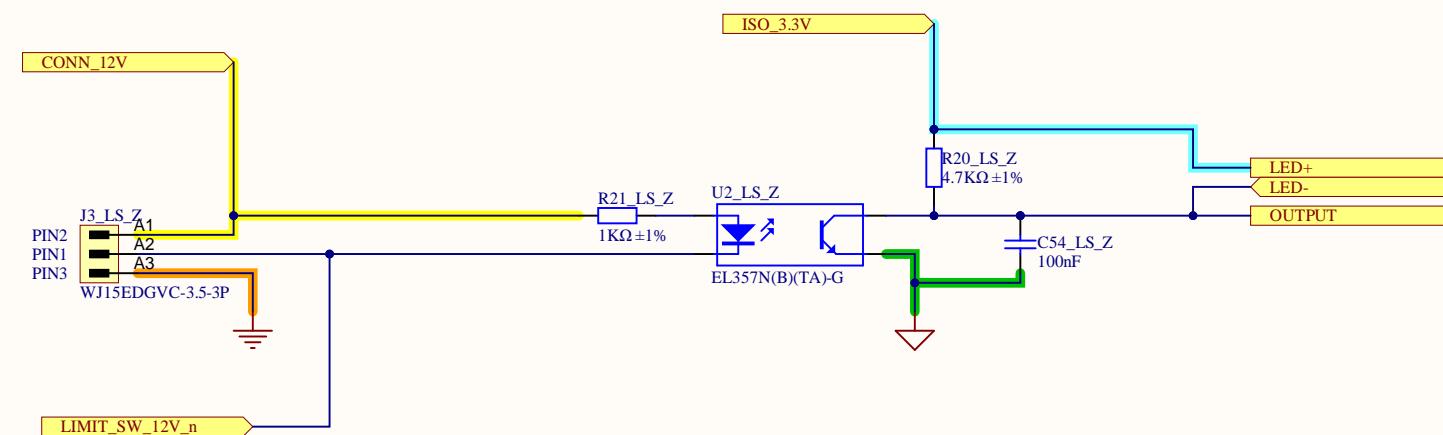
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SHEET Coupler 12V input		
PROJECT	REV	
FLEXI_HAL_2000.PnjPCB	A7	
ENGR	DOCUMENT	
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SIZE	MODIFIED	SHEET
B	2024-10-29 6:28:07 PM	14/ 14

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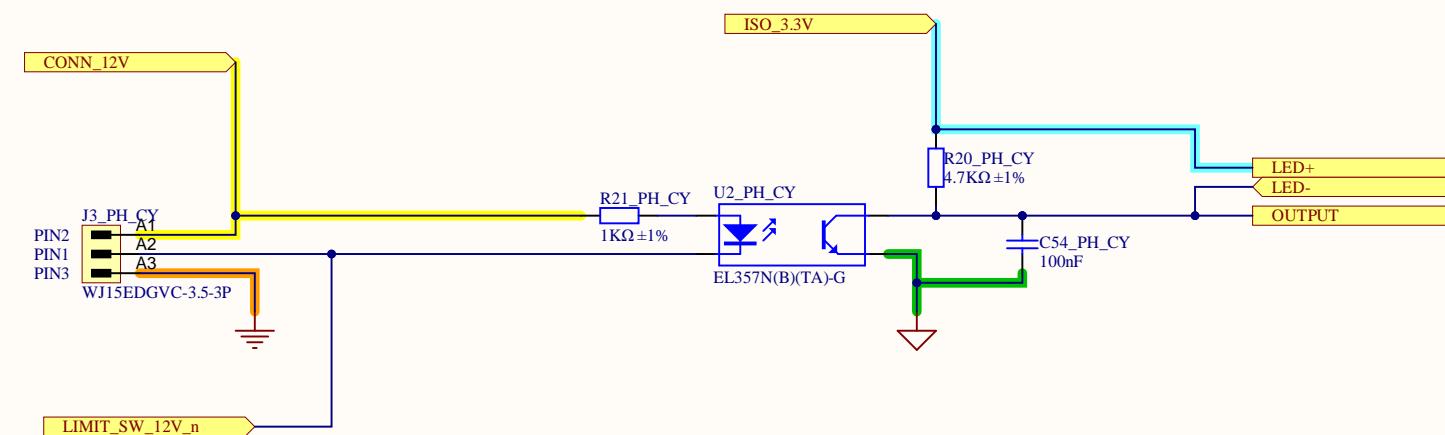
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SHEET Coupler 12V input		
PROJECT	REV	
FLEXI_HAL_2000.PnjPCB	A7	
ENGR	DOCUMENT	
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SIZE	MODIFIED	SHEET
B	2024-10-29 6:28:07 PM	14/ 14

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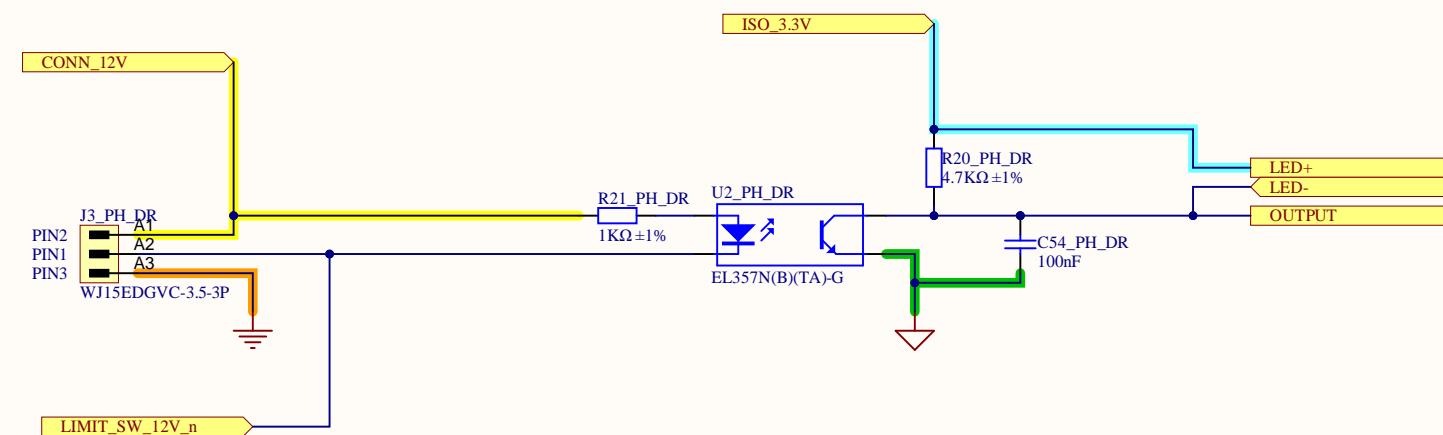
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SHEET Coupler 12V input		
PROJECT	REV	
ENGR	DOCUMENT	
FLEXI_HAL_2000.PnjPCB	A7	
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B	MODIFIED 2024-10-29 6:28:07 PM	SHEET 14/ 14

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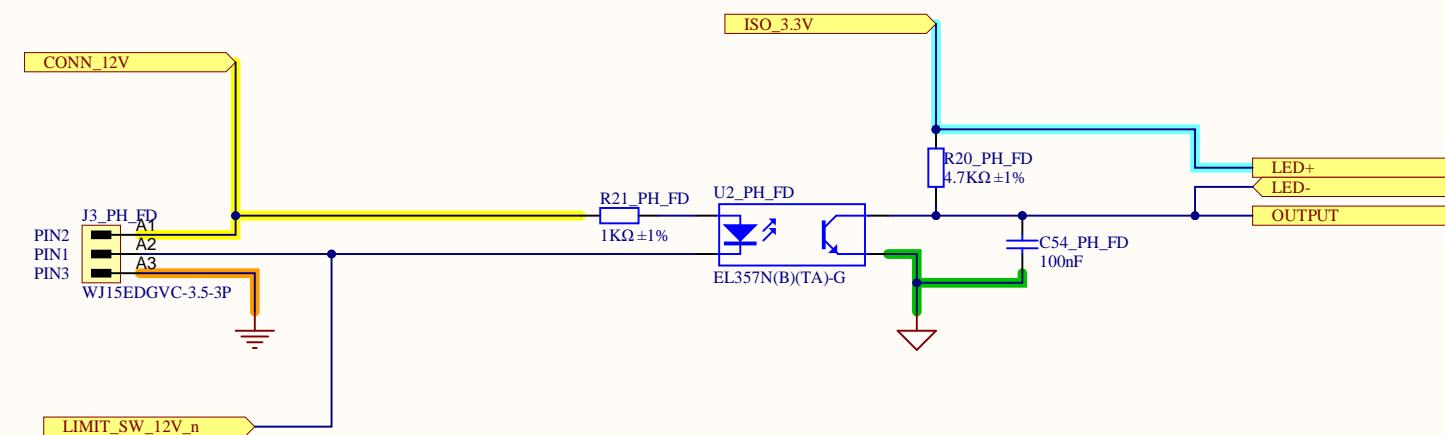
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SHEET Coupler 12V input		
PROJECT	REV	
FLEXI_HAL_2000.PnjPCB	A7	
ENGR	DOCUMENT	
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SIZE	MODIFIED	SHEET
B	2024-10-29 6:28:07 PM	14/ 14

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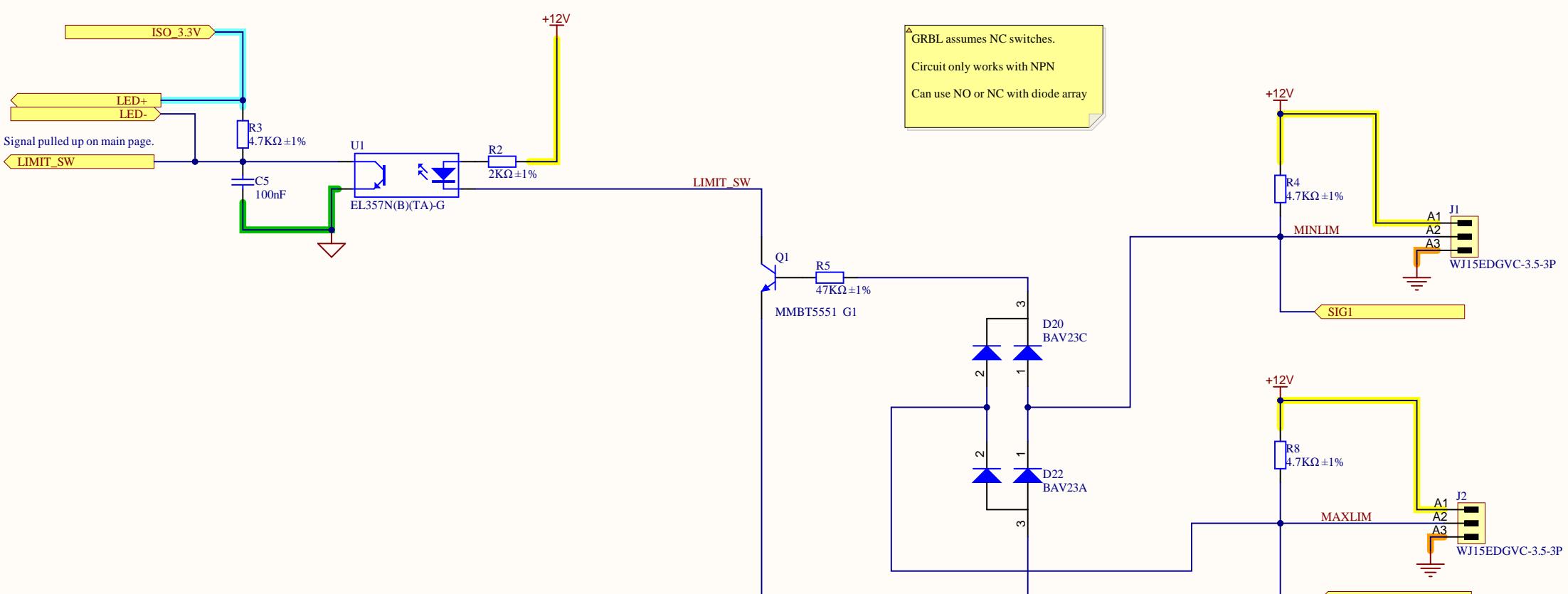
D

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w 128 144 128 96 1
g 80 288 80 304 0 0
t 80 160 128 160 0 1 -4.99999971946758
2.4687242029037016e-8 100 default
r 128 48 128 96 0 330
R 128 48 128 0 0 40 5 0 0 0.5
R -288 64 -288 16 0 0 40 12 0 0 0.5

```

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SHEET		
PROJECT	DOCUMENT	REV
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ENGR	AM	
SIZE	MODIFIED	SHEET
B	2024-10-29 6:28:08 PM	13/ 14