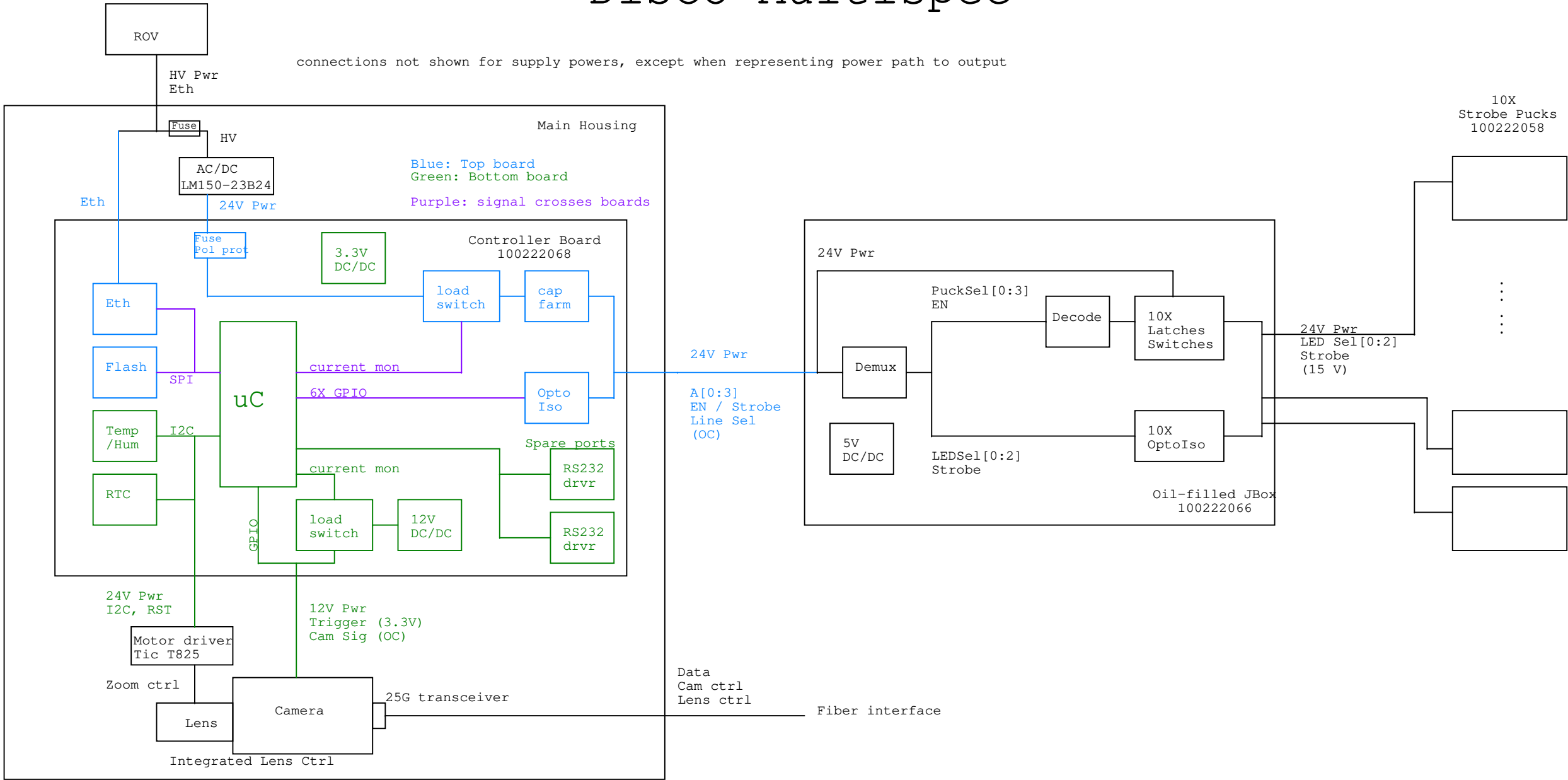
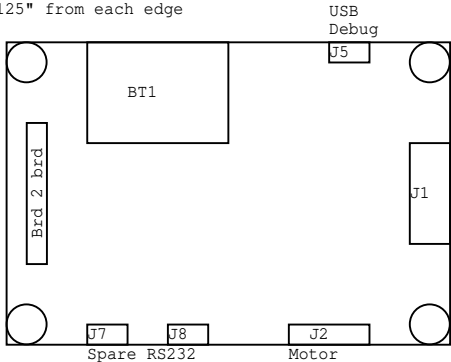


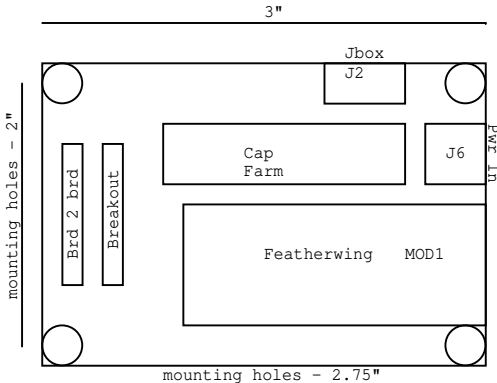
DiSCO Multispec



#4 clearance holes
center 0.125" from each edge



Bottom



Top

<Variant Name>

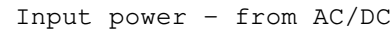
Monterey Bay Aquarium
Research Institute
7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name:				
MSpec Controller				
Page Title: 1_SystemBlockDiagram			Engineer: Irene Hu	
Project Name: DISCO Multispec		Group Name: DiSCOMultispec		Designer: <Designer>
System: DISCO Multispec		Subsystem: <Subsystem>		Last Updated By: jrosal
Drawing Number: 100222068		Release: A Version: 27		Status: Active
Page Modify Date: Monday, April 22, 2024		Check In Date: 4/22/2024 11:05:42 AM		Size: B
		Sheet 1 of 7		

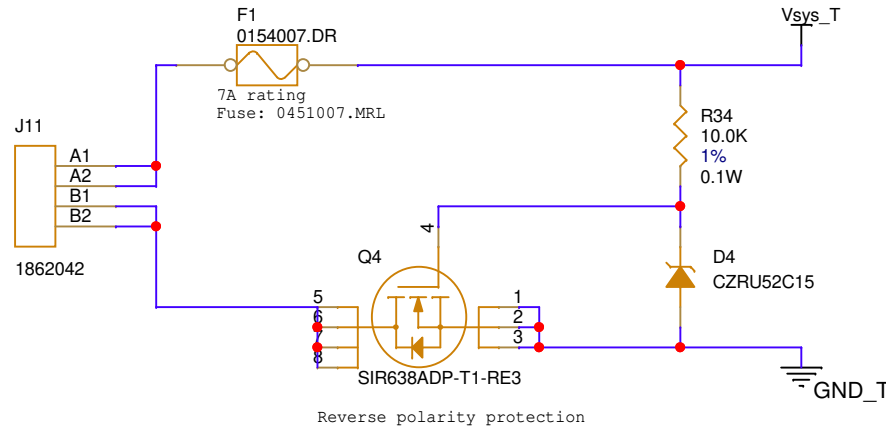
Connectors

Top

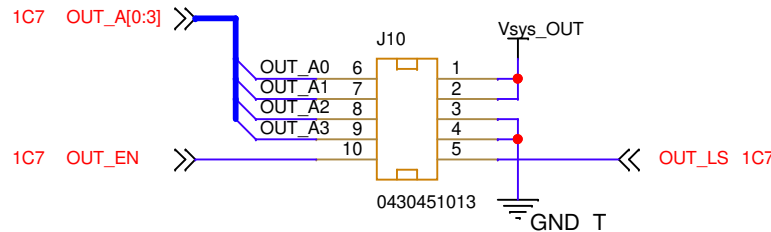
Bottom



16-24 AWG



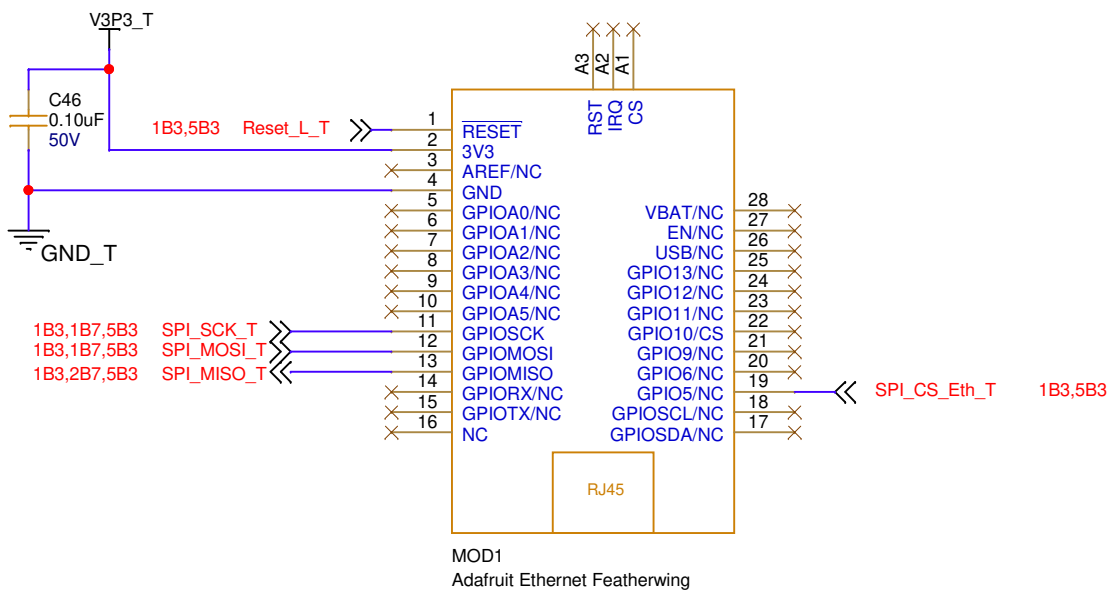
Jbox - slightly >5A draw



Crimp pin 0430300002 (20-24 AWG)
Mating header 0430251008
Split Pwr/GND connectors from MINK bulkhead

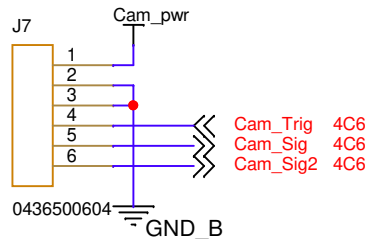
GPIO are inverted by jbox

Ethernet module



SILKSCREEN LABELS

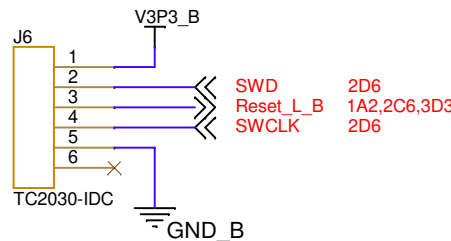
Camera - <1 A draw



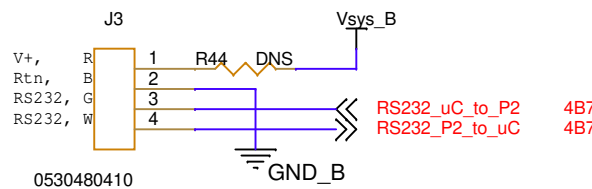
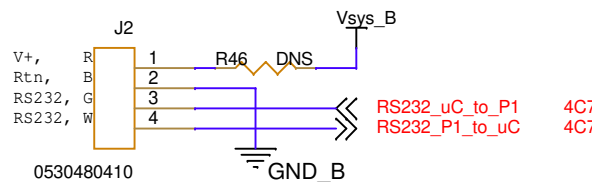
Crimp pin 0430300002 (20-24 AWG)
Mating header 0436450500

Camera isolated GPIO: 3.3 - 24 V, use ISO_GND

Prog / load bootloader



Spare RS232 ports



<Variant Name>



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Schematic Name:
MSpec Controller

Page Title:

2_Connectors

Project Name:

DISCO Multispec

System:

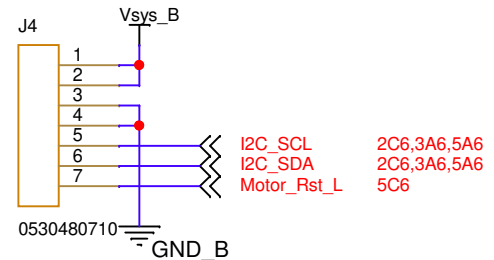
DiSCO Multispec

Drawing Number: 100222068

Page Modify Date:

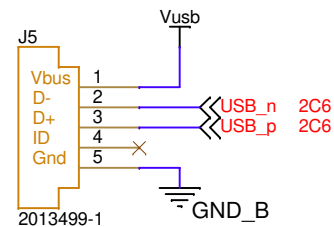
Monday, April 22, 2024

Stepper motor driver - 2A limit draw

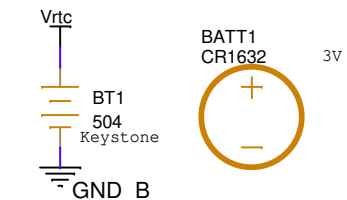


Crimp pin 0500798025 (26-28 AWG)
Mating header 0510210700
Split PWR/GND from motor driver module
RESET: pulled up (10k) to 5V by motor driver
Disable I2C pullups on motor driver

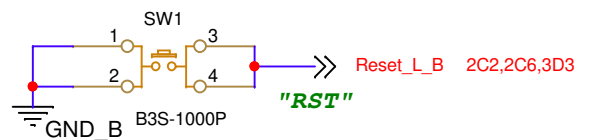
Debug / Arduino functionality



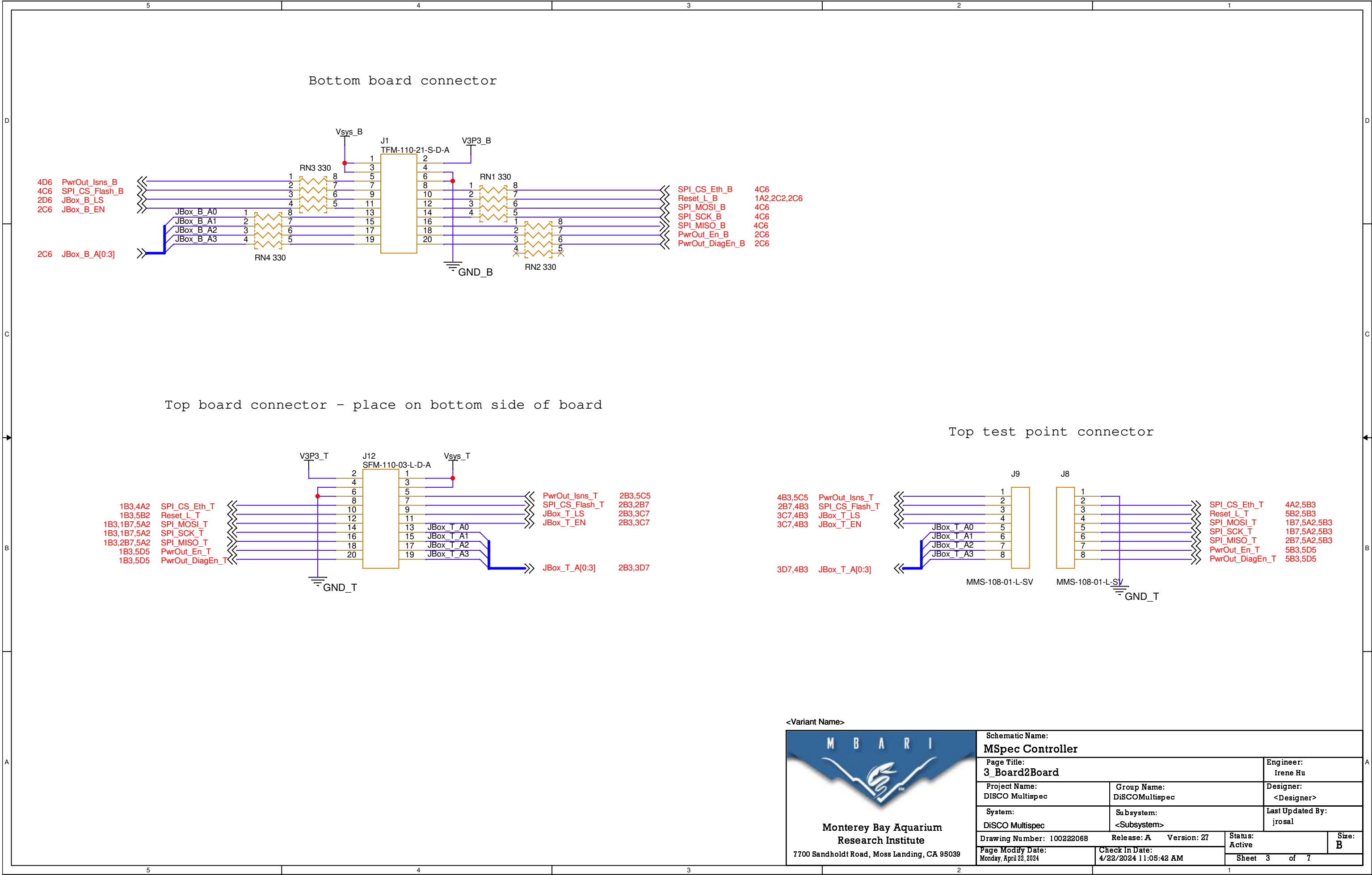
Battery



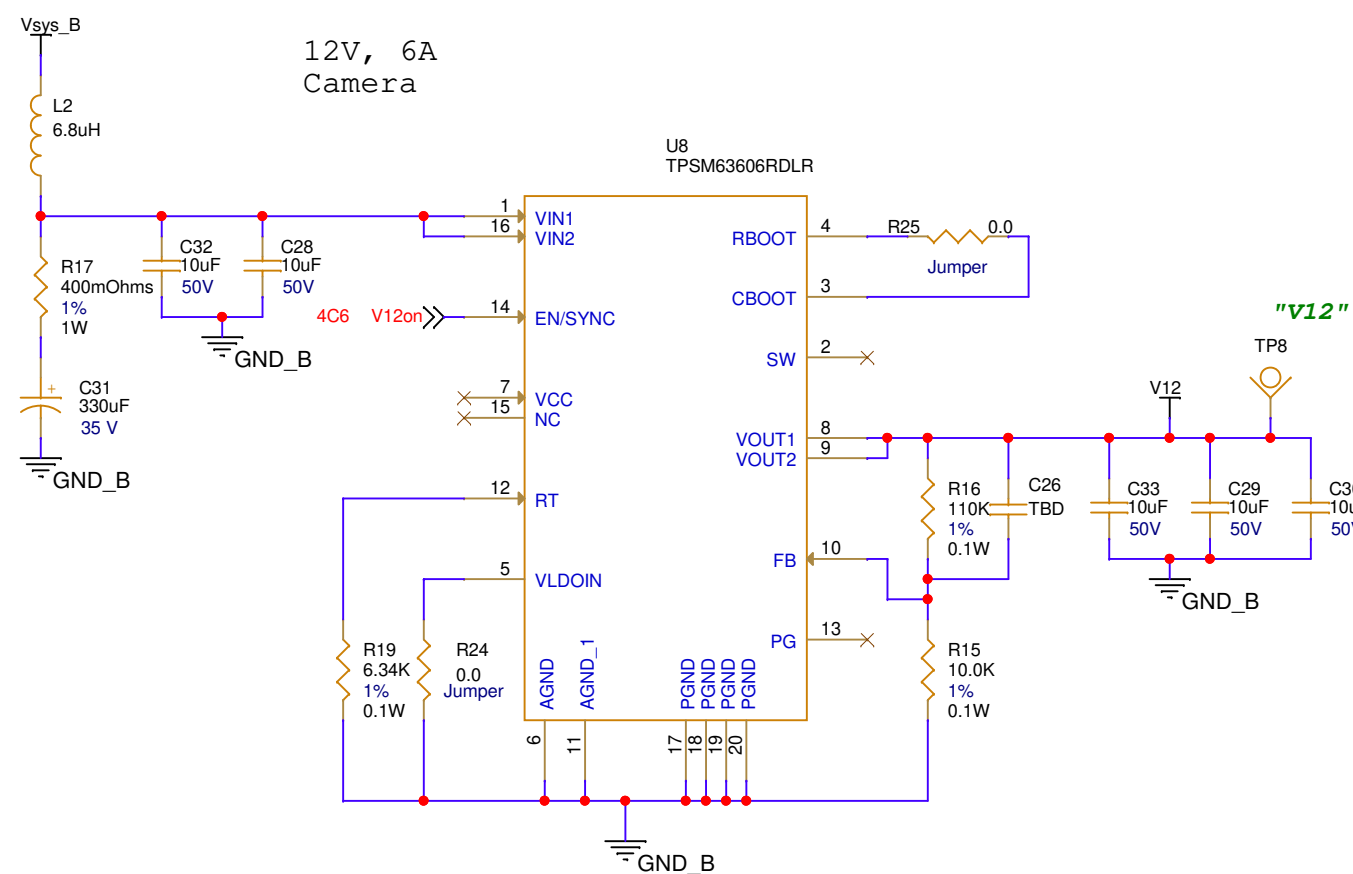
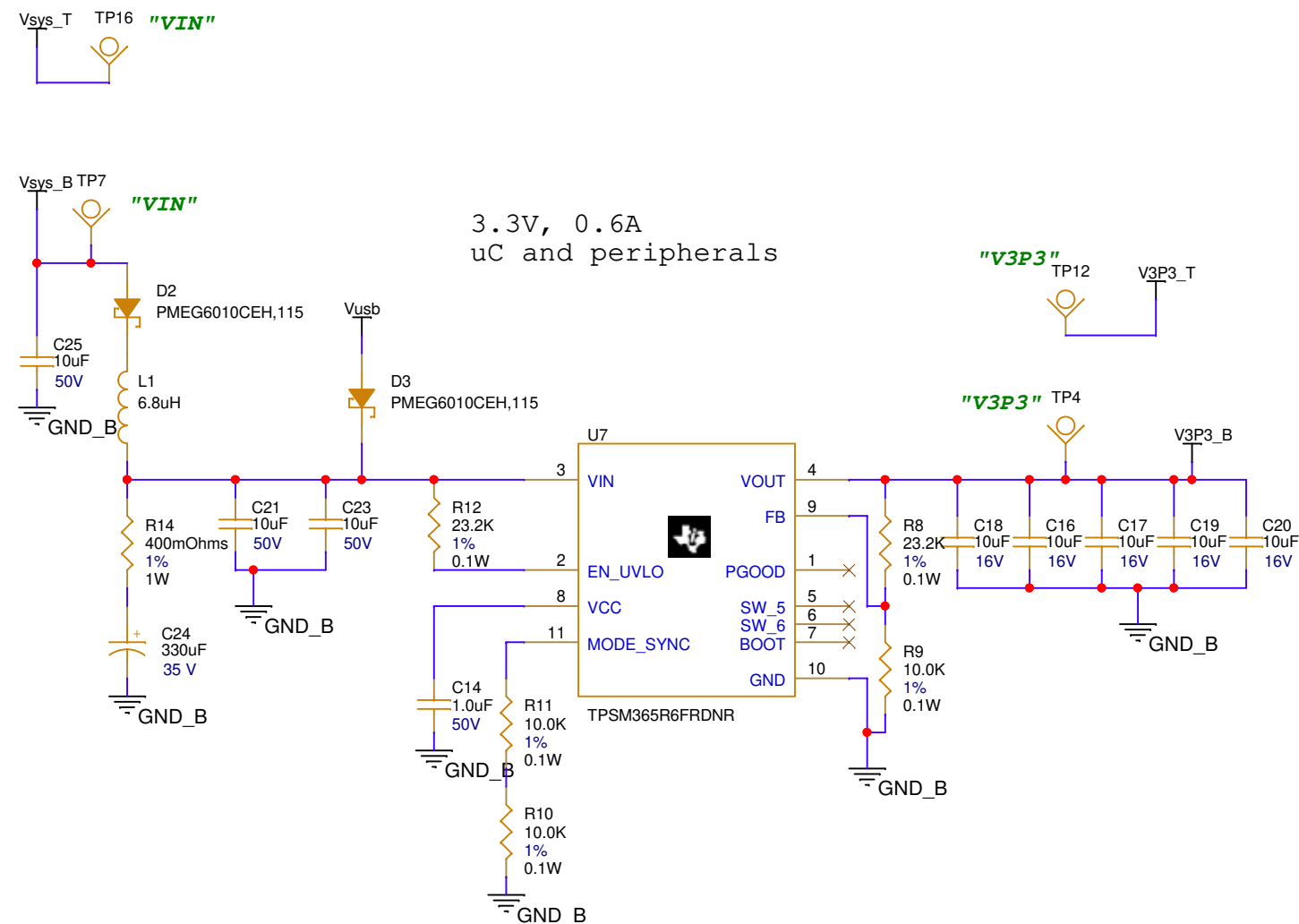
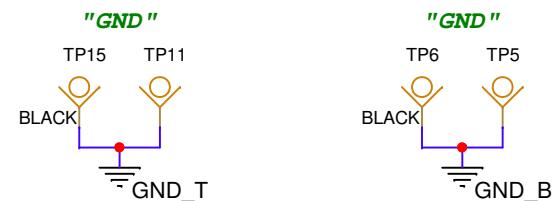
Reset button



Schematic Name:			
MSpec Controller			
Page Title: 2_Connectors			Engineer: Irene Hu
Project Name: DISCO Multispec	Group Name: DiSCOMultispec		Designer: <Designer>
System: DiSCO Multispec	Subsystem: <Subsystem>		Last Updated By: jrosal
Drawing Number: 100222068		Release: A Version: 27	Status: Active
Page Modify Date: Monday, April 22, 2024		Check In Date: 4/22/2024 11:05:42 AM	Size: B
		Sheet 2 of 7	



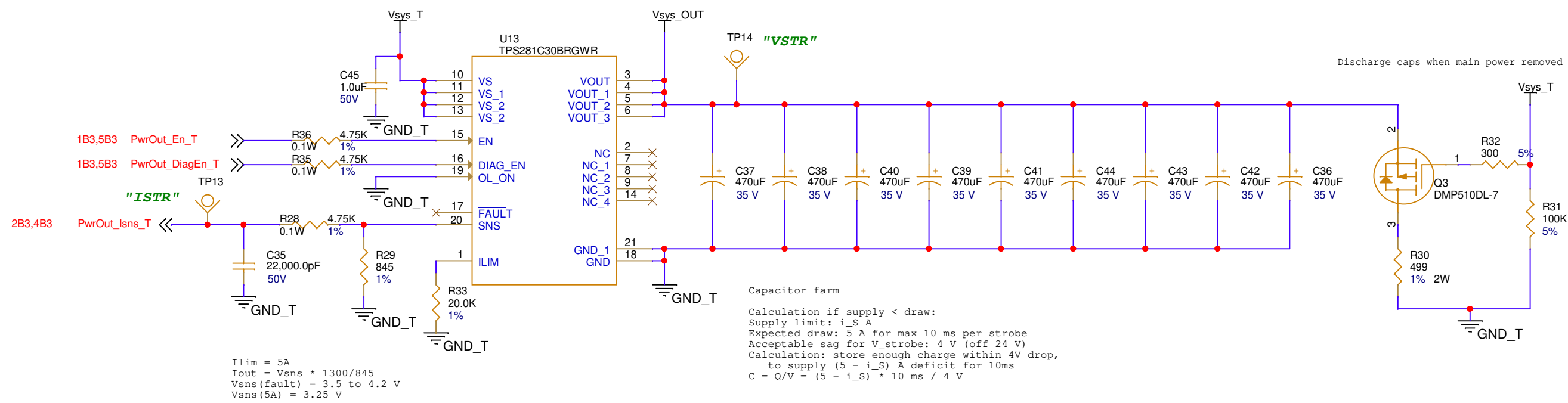
Power



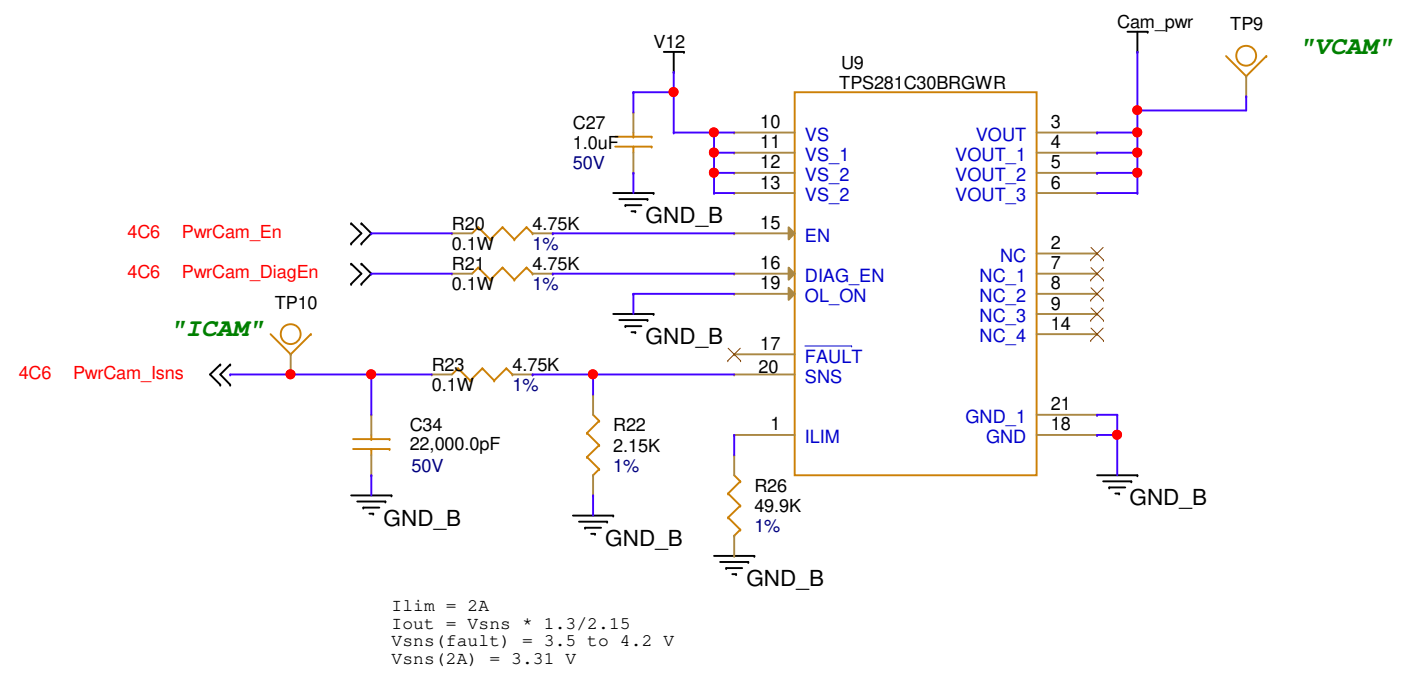
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Schematic Name:			
MSpec Controller			
Page Title: 4 Power		Engineer: Irene Hu	
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System: DISCO Multispec	Subsystem: <Subsystem>		Last Updated By: jrosal
Drawing Number: 100222068		Release: A	Version: 27
Status: Active		Size: B	
Page Modify Date: Monday, April 22, 2024	Check In Date: 4/22/2024 11:05:42 AM		Sheet 4 of 7

Load switch for strobe power



Load switch for cam power

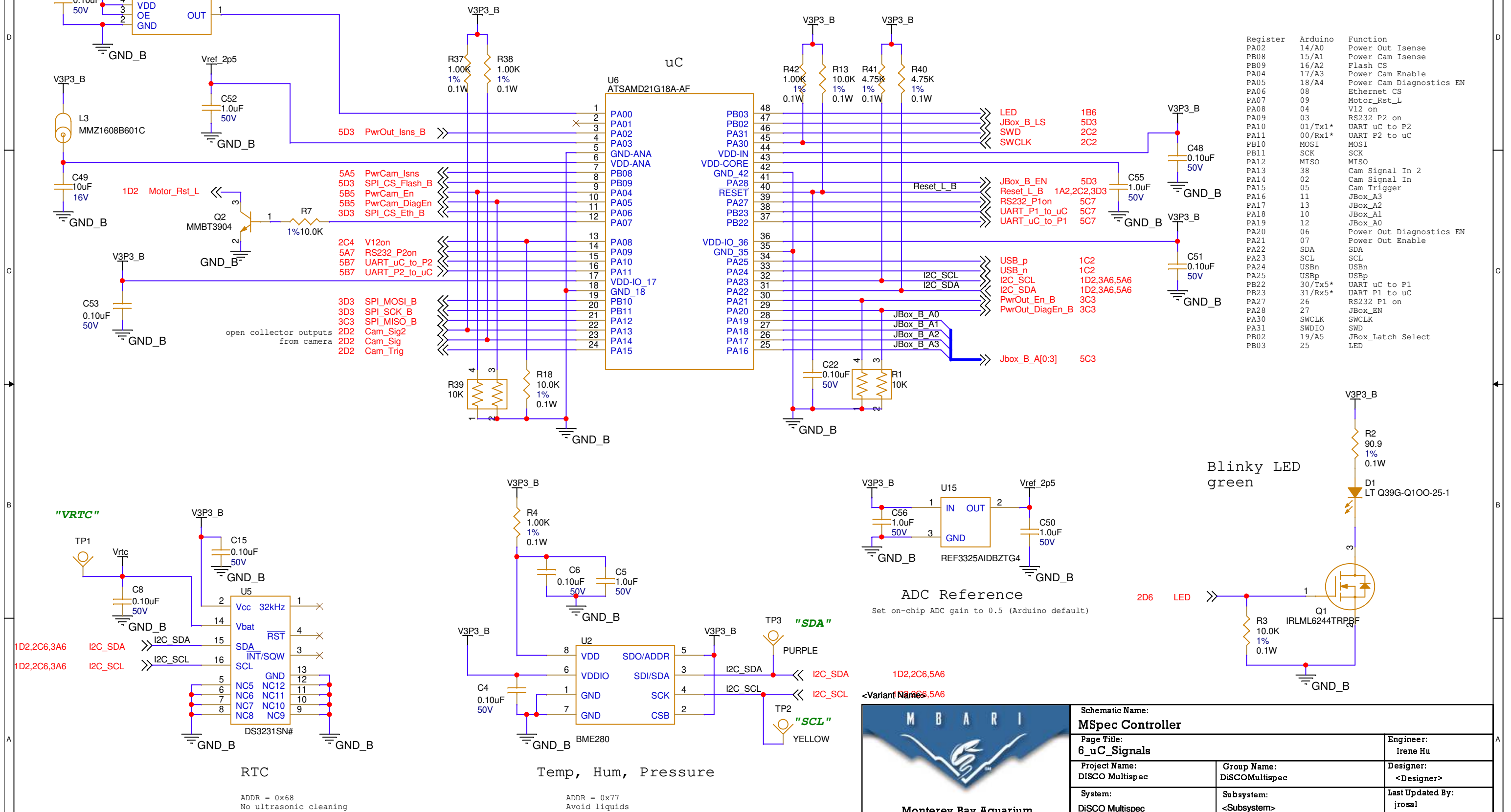


<Variant Name>



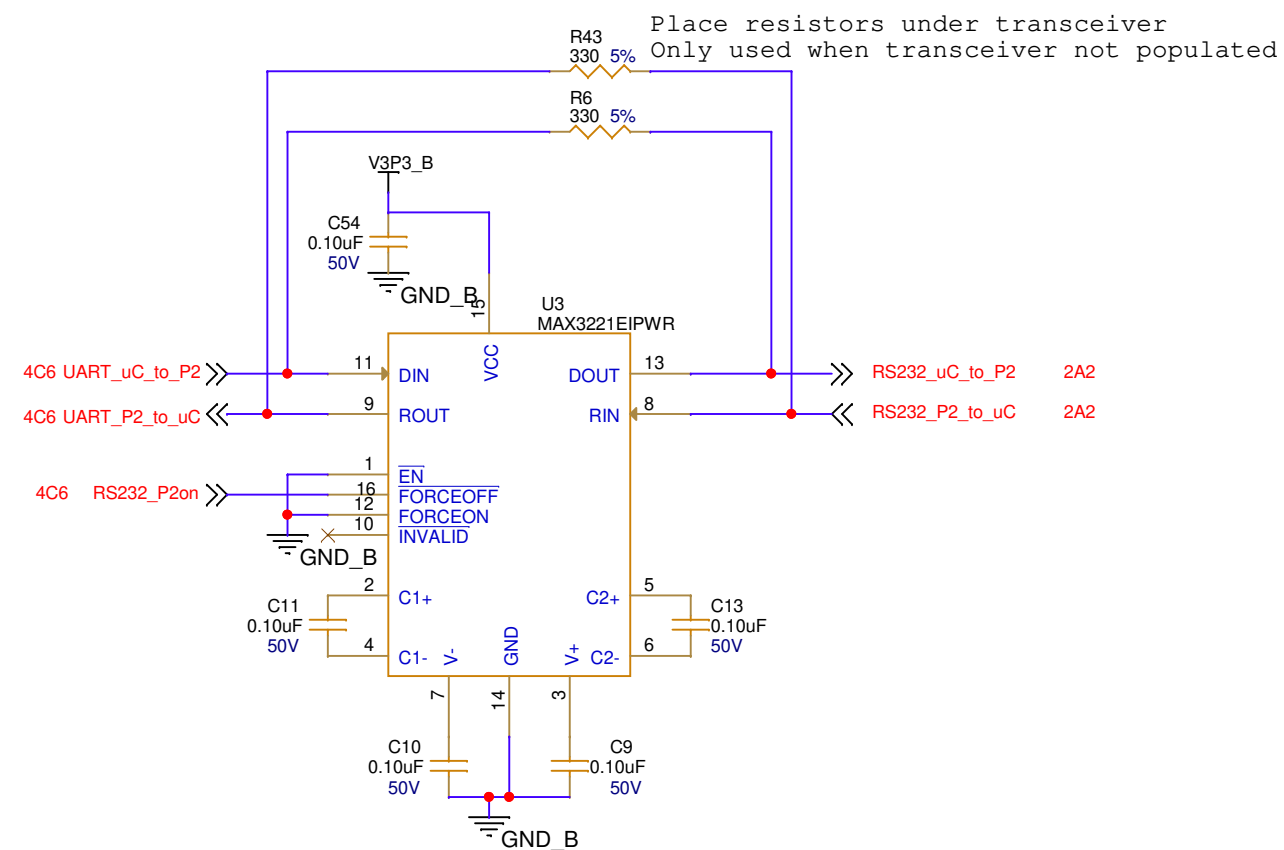
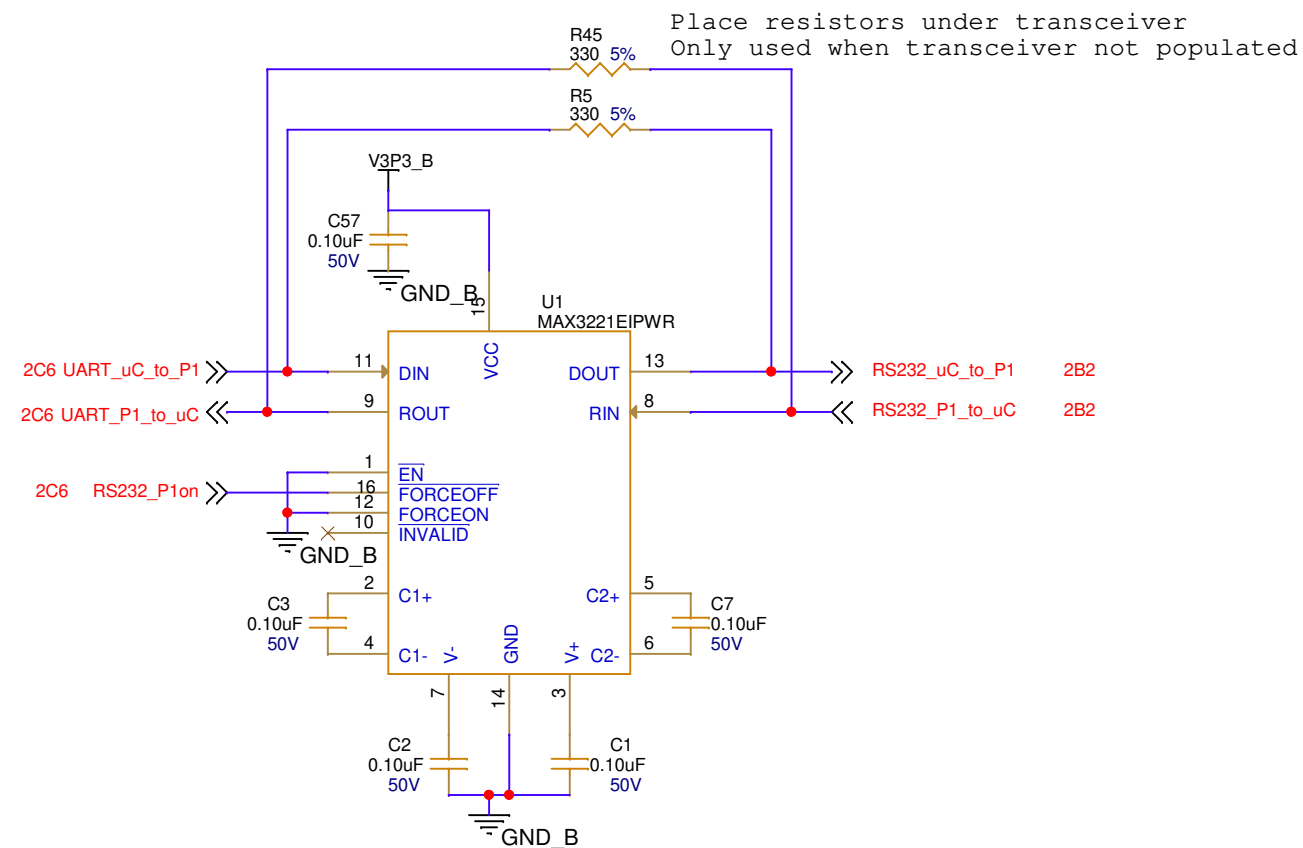
Schematic Name: MSpec Controller				
Page Title: 5_PowerSwitches			Engineer: Irene Hu	
Project Name: DISCO Multispec		Group Name: DiSCOMultispec		Designer: <Designer>
System: DiSCO Multispec		Subsystem: <Subsystem>		Last Updated By: jrosal
Drawing Number: 100222088		Release: A Version: 27		Status: Active
Page Modify Date: Monday, April 22, 2024		Check In Date: 4/22/2024 11:05:42 AM		Size: B
		Sheet 5 of 7		

uC + Bottom board accesories

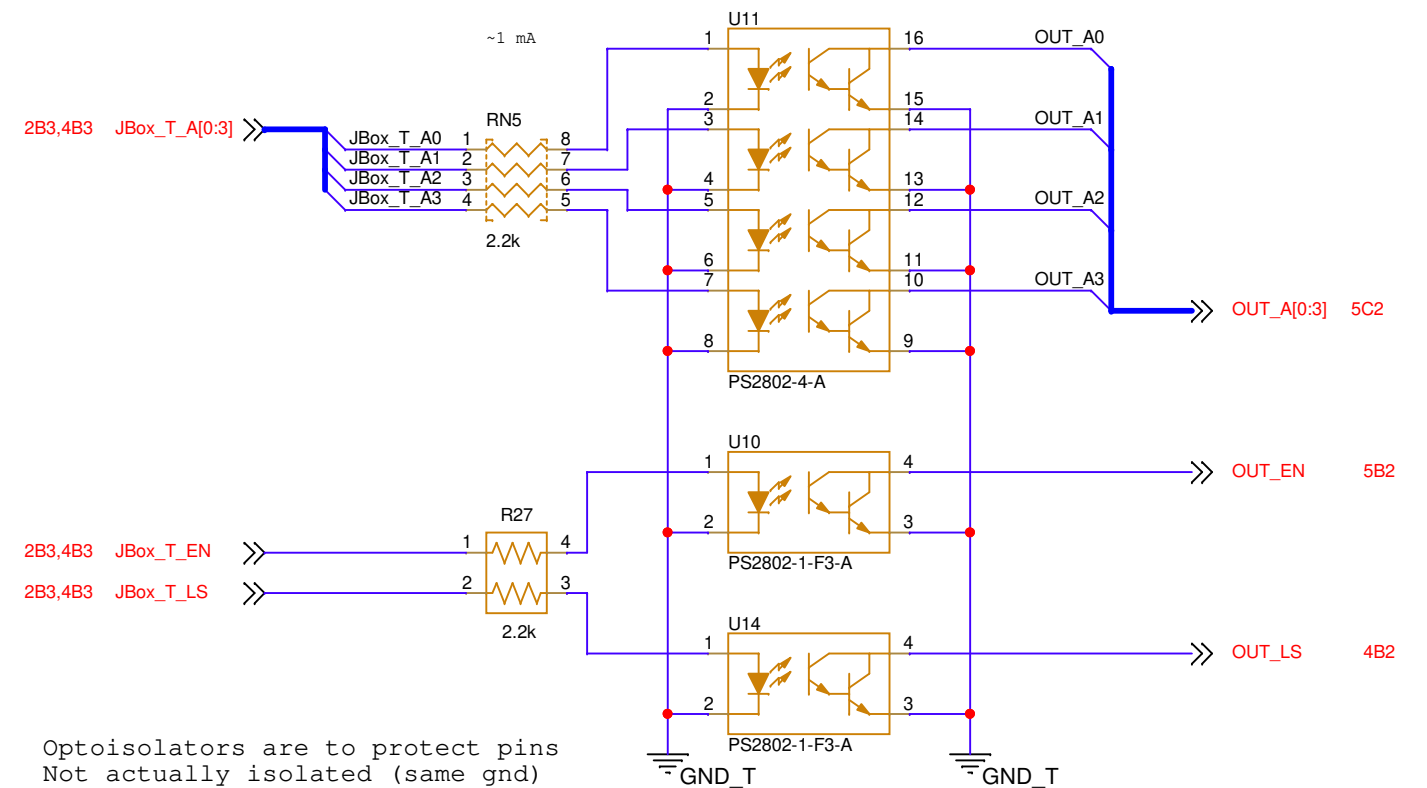


Schematic Name:			
MSpec Controller			
Page Title:		Engineer:	
6_uC_Signals		Irene Hu	
Project Name:	Group Name:	Designer:	
DISCO Multispec	DiSCOMultispec	<Designer>	
System:	Subsystem:	Last Updated By:	
DISCO Multispec	<Subsystem>	jrosal	
Drawing Number: 100222068		Release: A	Version: 27
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Active		B	
Page Modify Date:	Check In Date:	Sheet 6 of 7	
Monday, April 22, 2024	4/22/2024 11:05:42 AM		

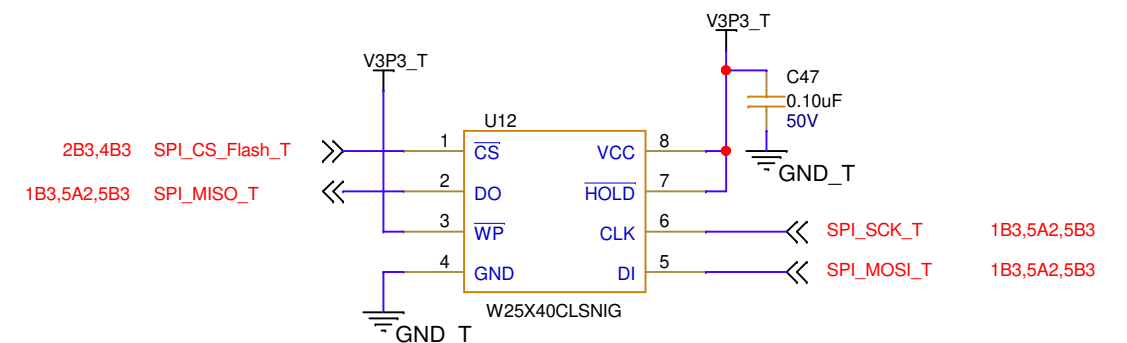
RS232 Drivers



Top board signals



Flash



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Schematic Name:			
MSpec Controller			
Page Title:		Engineer:	
7_MoreSignals		Irene Hu	
Project Name:	Group Name:	Designer:	
DISCO Multispec	DiSCOMultispec	<Designer>	
System:	Subsystem:	Last Updated By:	
DiSCO Multispec	<Subsystem>	jrosal	
Drawing Number: 100222068	Release: A	Status: Active	Size: B
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Monday, April 22, 2024	4/22/2024 11:05:42 AM		