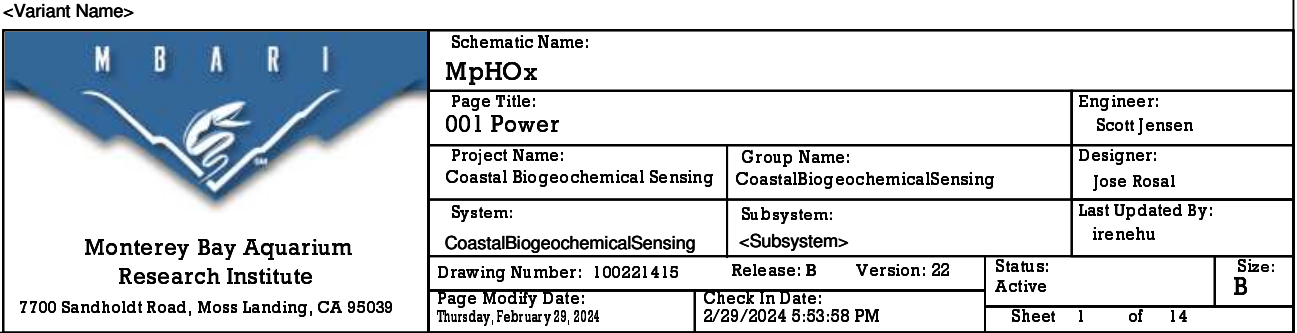
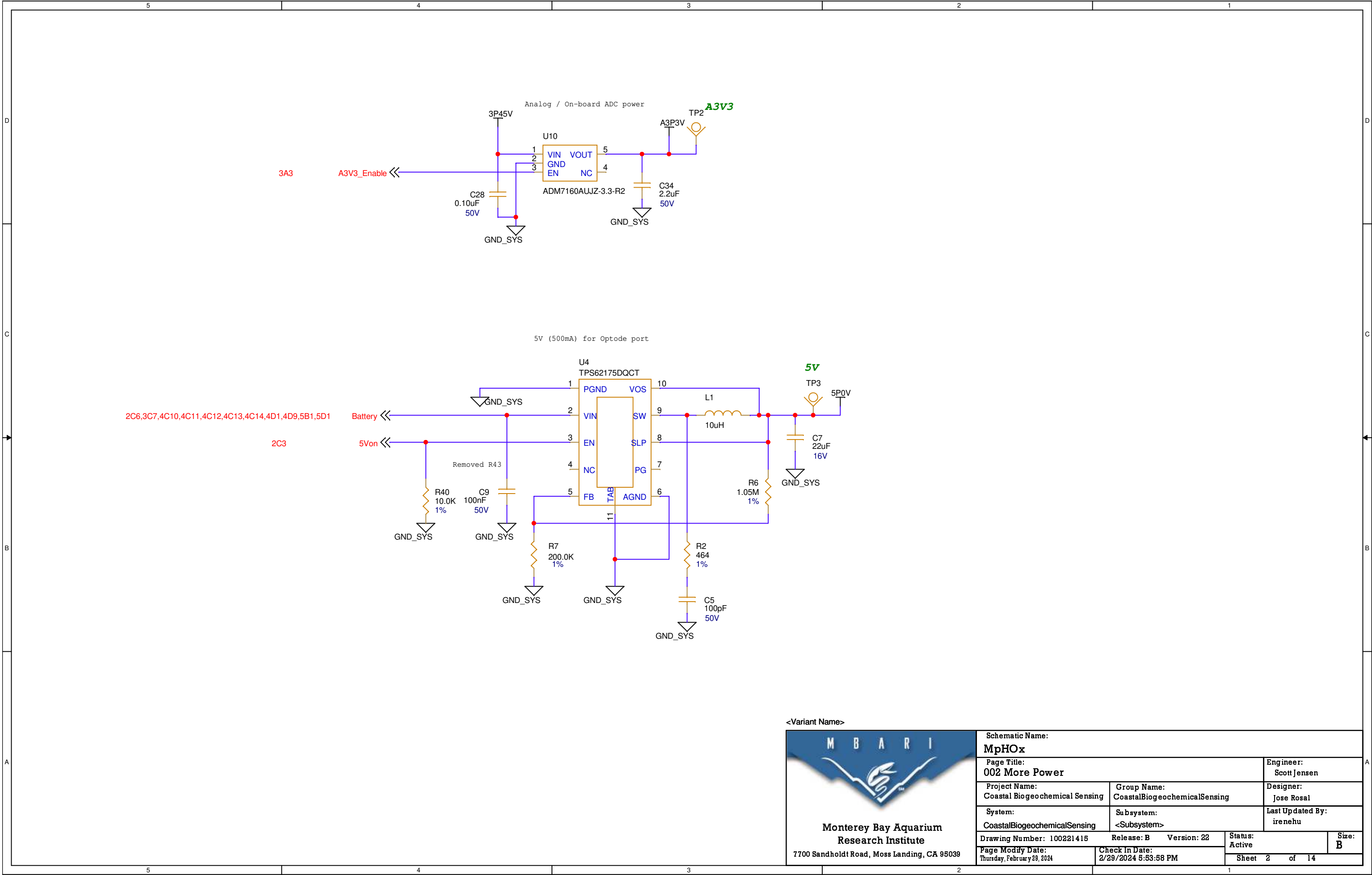
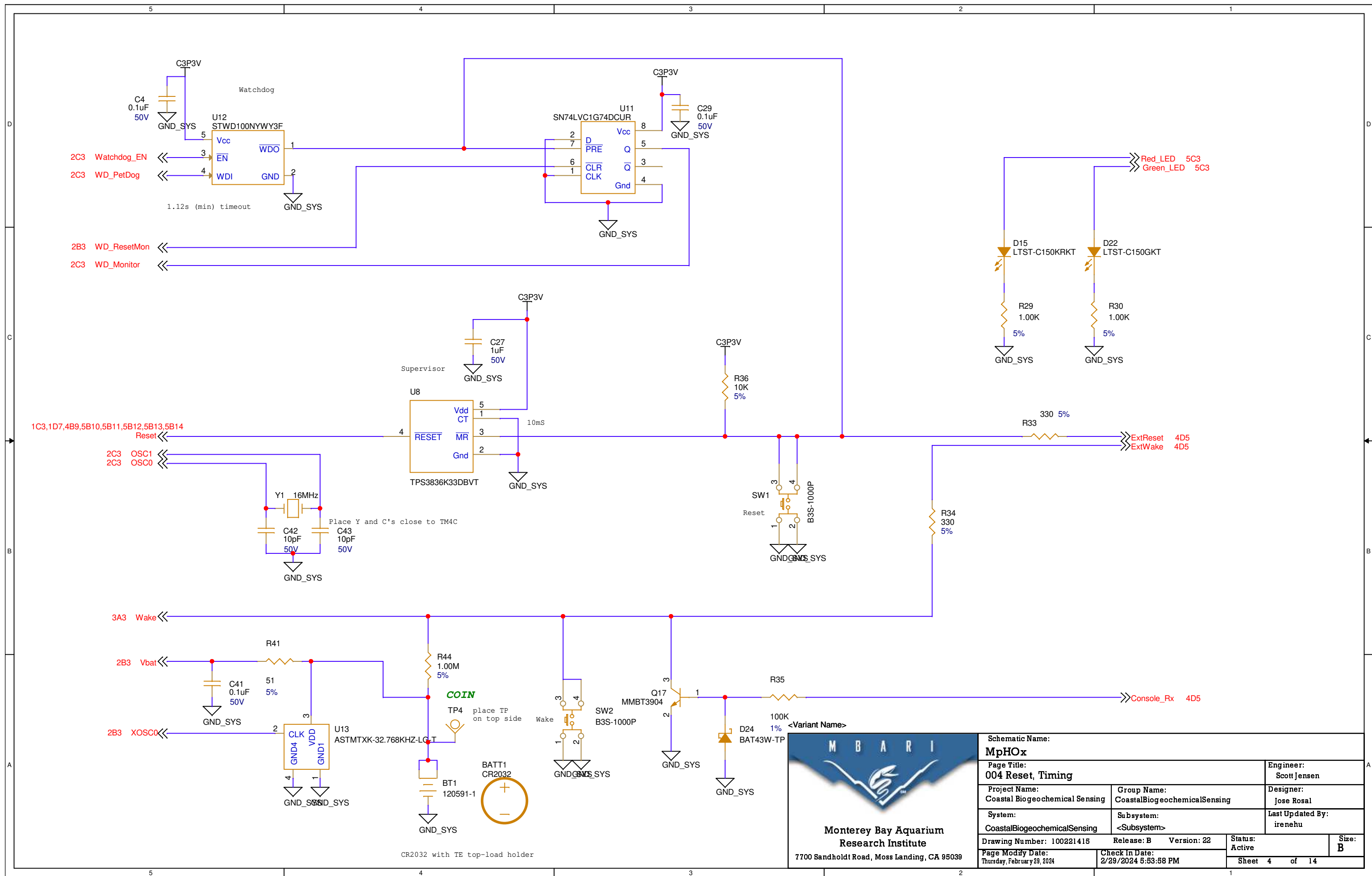


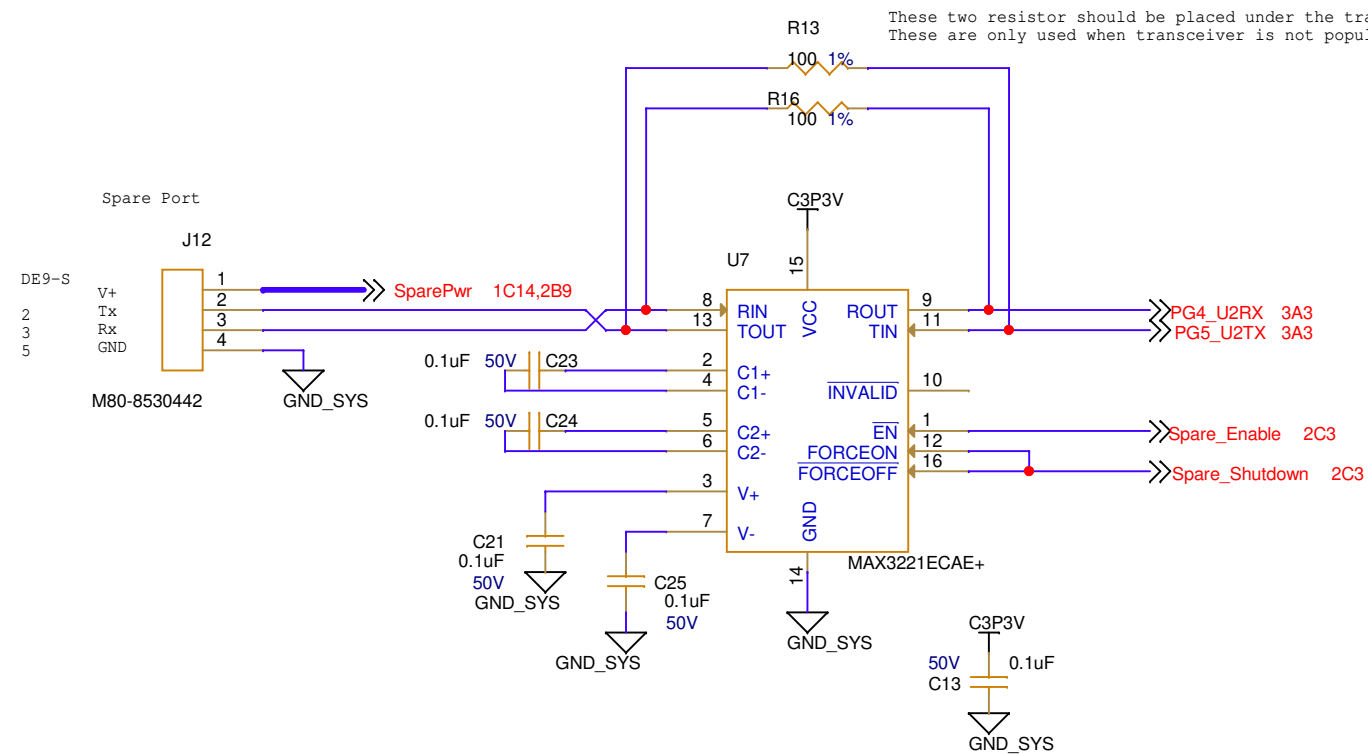
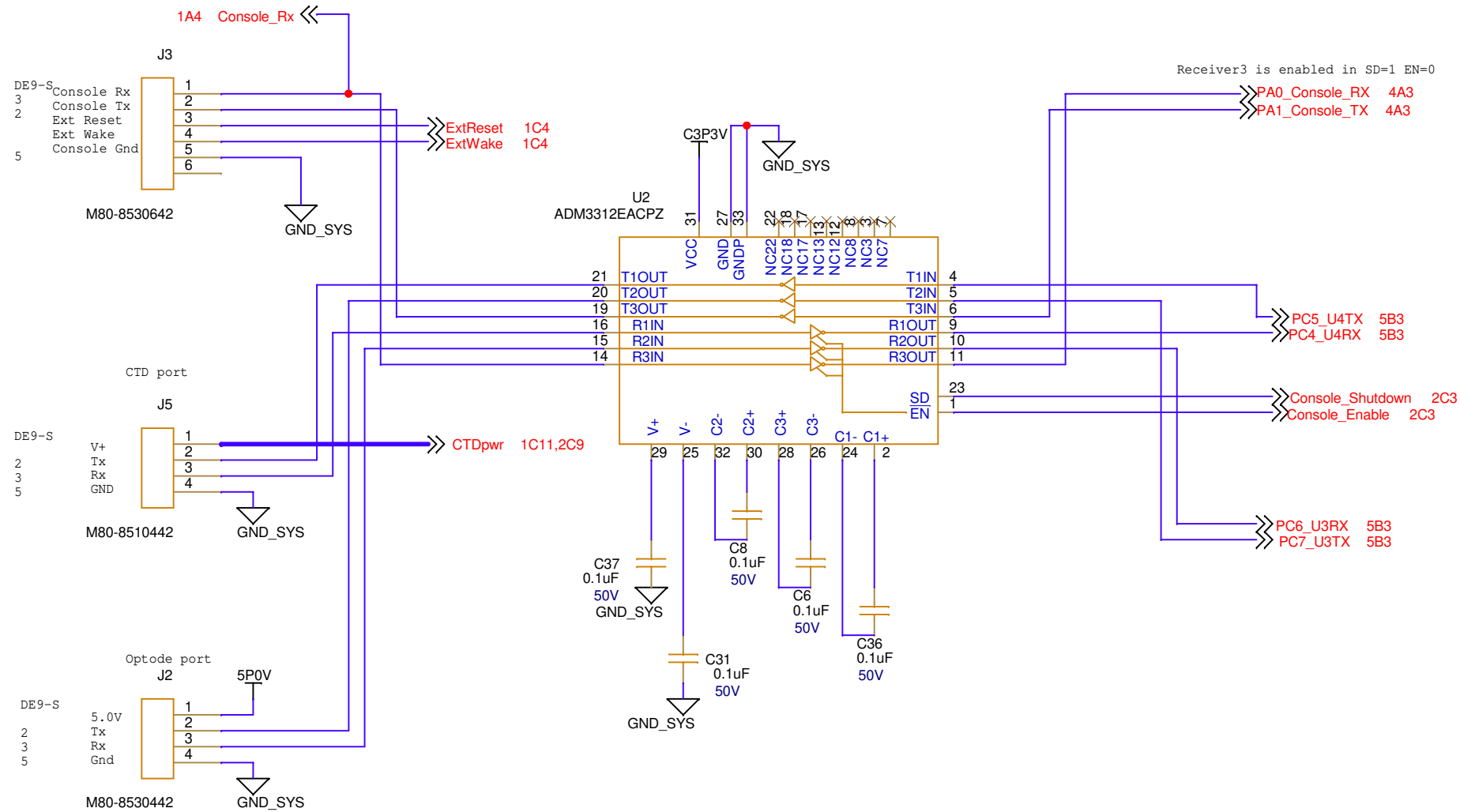






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| Schematic Name:                                  |  |                                             |             |                             |            |
| MphOx                                            |  |                                             |             |                             |            |
| Page Title:<br>003 Processor                     |  |                                             |             | Engineer:<br>Scott Jensen   |            |
| Project Name:<br>Coastal Biogeochemical Sensing  |  | Group Name:<br>CoastalBiogeochemicalSensing |             | Designer:<br>Jose Rosal     |            |
| System:<br>CoastalBiogeochemicalSensing          |  | Subsystem:<br><Subsystem>                   |             | Last Updated By:<br>irenehu |            |
| Drawing Number: 100221415                        |  | Release: B                                  | Version: 22 | Status:<br>Active           | Size:<br>B |
| Page Modify Date:<br>Thursday, February 23, 2024 |  | Check In Date:<br>2/29/2024 5:53:58 PM      |             | Sheet 3 of 14               |            |

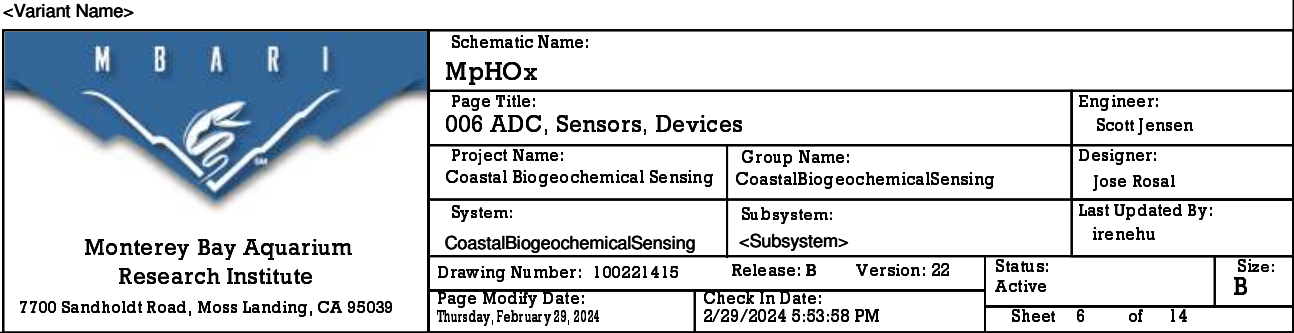




<Variant Name>



|                                                  |  |                                             |                           |                             |
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| Schematic Name:<br><b>MpHOx</b>                  |  |                                             |                           |                             |
| Page Title:<br><b>005 RS-232 Ports</b>           |  |                                             | Engineer:<br>Scott Jensen |                             |
| Project Name:<br>Coastal Biogeochemical Sensing  |  | Group Name:<br>CoastalBiogeochemicalSensing |                           | Designer:<br>Jose Rosal     |
| System:<br>CoastalBiogeochemicalSensing          |  | Subsystem:<br><Subsystem>                   |                           | Last Updated By:<br>irenehu |
| Drawing Number: 100221415                        |  | Release: B                                  | Version: 22               | Status:<br>Active           |
| Page Modify Date:<br>Thursday, February 29, 2024 |  | Check In Date:<br>2/29/2024 5:53:58 PM      |                           | Size:<br>B                  |
| Sheet 5 of 14                                    |  |                                             |                           |                             |







54321

D

C

B

A

Rev B

Replaced temperature/humidity sensors with BME280, removed EnvEnable

Renamed nets from microprocessor to reflect SPI, UART, etc channel #s

Bring out several pins to new external breakout connector

Added non-iso ADC (SPI bus 1), DC/DC for A3V3, and connector for ADC

Removed SB5 for JTAG, SB3/4 for Dfet interface, SB1/2 for reset timing (fix to fast), unused R43 for optode 5V

Changed coin cell to 2032 and add test point for top probing

Added watchdog (with latch to monitor) and pullup on supervisor's MR

Some reorganization between pages

Swapped fuses from 125mA to 3A

Added test points

Renumbered all parts

<Variant Name>

M B A R I



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Schematic Name:  
MpHOx

Page Title:  
008 Notes

Project Name:  
Coastal Biogeochemical Sensing

System:  
CoastalBiogeochemicalSensing

Drawing Number: 100221415

Page Modify Date:  
Thursday, February 29, 2024

Group Name:  
CoastalBiogeochemicalSensing

Subsystem:  
<Subsystem>

Release: B    Version: 22

Check In Date:  
2/29/2024 5:53:58 PM

Engineer:  
Scott Jensen

Designer:  
Jose Rosal

Last Updated By:  
irenehu

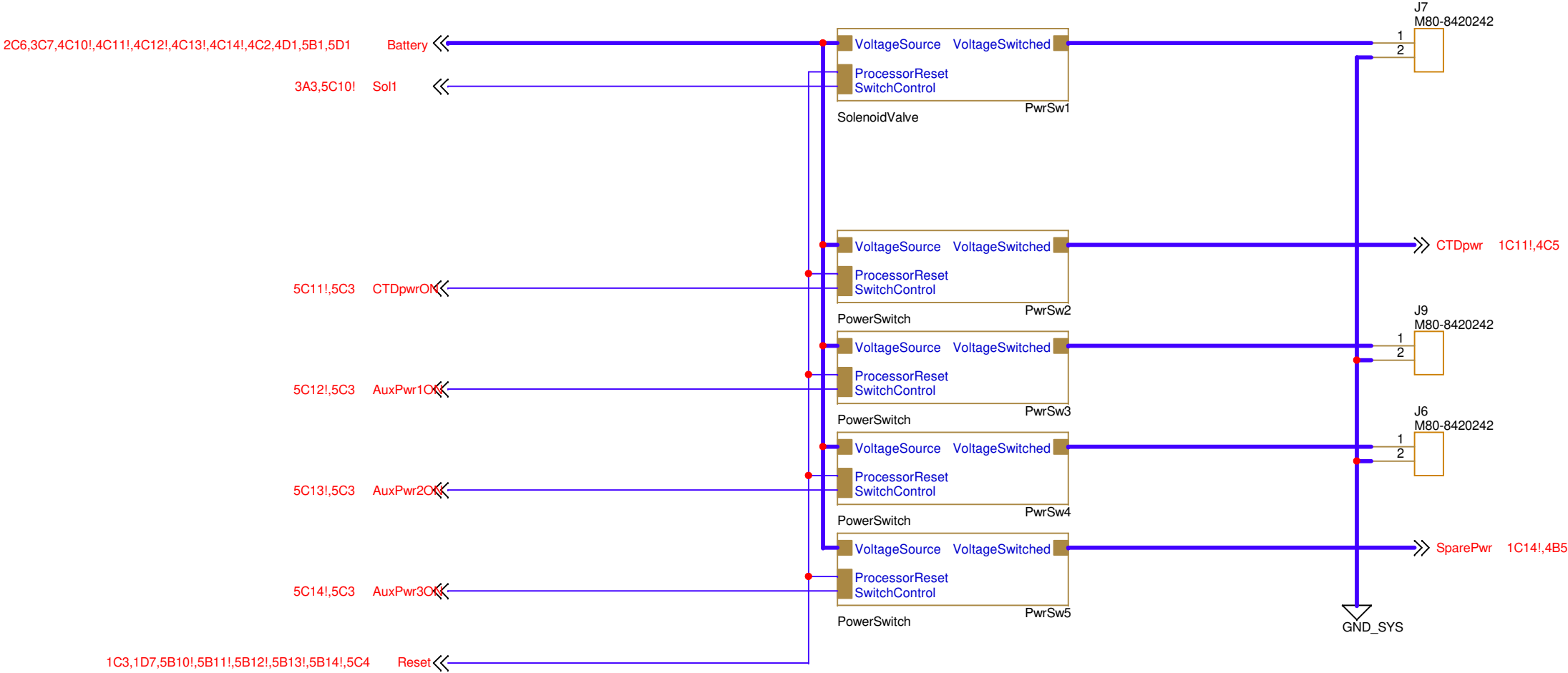
Status:  
Active

Size:  
B

Sheet 8 of 14



Replacement fuse for switches: Littelfuse 0453003 (3A)  
451, 453, and 448 series all ok

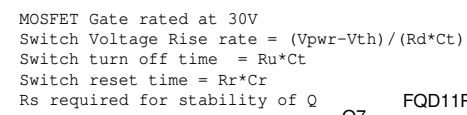


<Variant Name>



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|                                                  |                                             |                                        |                             |
|--------------------------------------------------|---------------------------------------------|----------------------------------------|-----------------------------|
| Schematic Name:<br><b>MpHOx</b>                  |                                             |                                        |                             |
| Page Title:<br><b>009 Power Switches</b>         |                                             | Engineer:<br>Scott Jensen              |                             |
| Project Name:<br>Coastal Biogeochemical Sensing  | Group Name:<br>CoastalBiogeochemicalSensing |                                        | Designer:<br>Jose Rosal     |
| System:<br>CoastalBiogeochemicalSensing          | Subsystem:<br><Subsystem>                   |                                        | Last Updated By:<br>irenehu |
| Drawing Number: 100221415                        |                                             | Release: B                             | Version: 22                 |
| Page Modify Date:<br>Thursday, February 29, 2024 |                                             | Check In Date:<br>2/29/2024 5:53:58 PM |                             |
|                                                  |                                             | Status:<br>Active                      | Size:<br>B                  |
| Sheet 9 of 14                                    |                                             |                                        |                             |

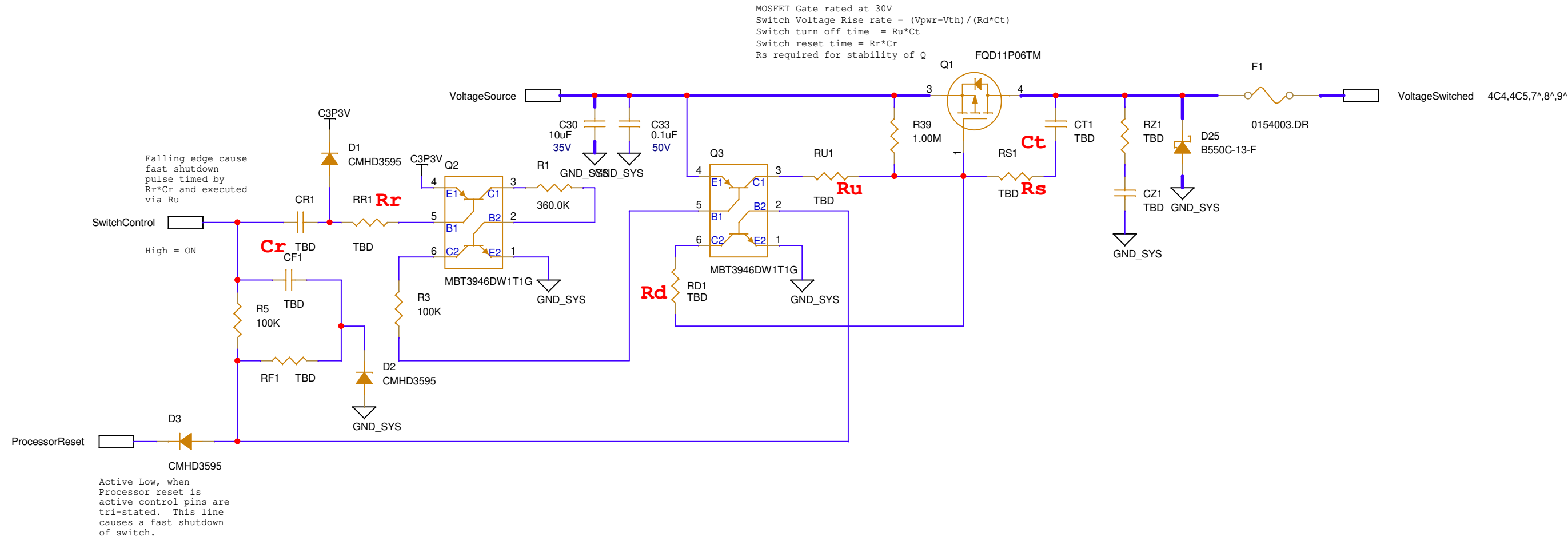


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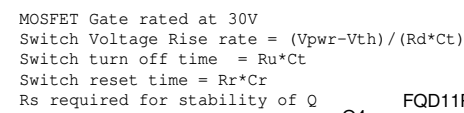
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|--------------------------------------------------|--|---------------------------------------------|---------------------------|-----------------------------|
| Schematic Name:<br><b>PowerSwitch</b>            |  |                                             |                           |                             |
| Page Title:<br><b>Power Switch</b>               |  |                                             | Engineer:<br>Scott Jensen |                             |
| Project Name:<br>CoastalBiogeochemical Sensing   |  | Group Name:<br>CoastalBiogeochemicalSensing |                           | Designer:<br>Jose Rosal     |
| System:<br>CoastalBiogeochemicalSensing          |  | Subsystem:<br><Subsystem>                   |                           | Last Updated By:<br>irenehu |
| Drawing Number: 100221415                        |  | Release: B                                  | Version: 22               | Status:<br>Active           |
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|                                                  |  | Sheet 10 of 14                              |                           |                             |



<Variant Name>

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------|---------------------------|
| <br><b>Monterey Bay Aquarium<br/>Research Institute</b><br>7700 Sandholdt Road, Moss Landing, CA 95039 |  | Schematic Name:<br><b>PowerSwitch</b>       |                           |
|                                                                                                                                                                                             |  | Page Title:<br><b>Power Switch</b>          |                           |
| Project Name:<br>Coastal Biogeochemical Sensing                                                                                                                                             |  | Group Name:<br>CoastalBiogeochemicalSensing | Engineer:<br>Scott Jensen |
| System:<br>CoastalBiogeochemicalSensing                                                                                                                                                     |  | Subsystem:<br><Subsystem>                   | Designer:<br>Jose Rosal   |
| Drawing Number: 100221415                                                                                                                                                                   |  | Release: B                                  | Version: 22               |
| Page Modify Date:<br>Thursday, February 29, 2024                                                                                                                                            |  | Check In Date:<br>2/29/2024 5:53:58 PM      | Status:<br>Active         |
|                                                                                                                                                                                             |  | Sheet 11 of 14                              | Size:<br>B                |



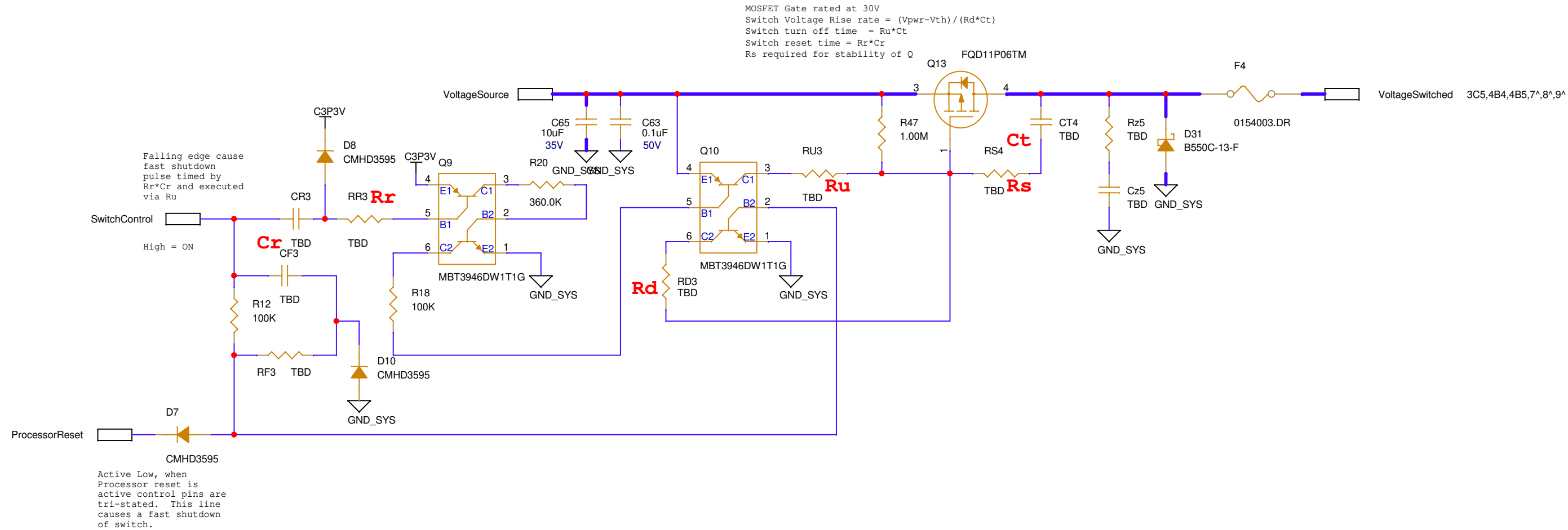


<Variant Name>



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|                                                  |  |                                             |                           |                             |
|--------------------------------------------------|--|---------------------------------------------|---------------------------|-----------------------------|
| Schematic Name:<br><b>PowerSwitch</b>            |  |                                             |                           |                             |
| Page Title:<br><b>Power Switch</b>               |  |                                             | Engineer:<br>Scott Jensen |                             |
| Project Name:<br>CoastalBiogeochemical Sensing   |  | Group Name:<br>CoastalBiogeochemicalSensing |                           | Designer:<br>Jose Rosal     |
| System:<br>CoastalBiogeochemicalSensing          |  | Subsystem:<br><Subsystem>                   |                           | Last Updated By:<br>irenehu |
| Drawing Number: 100221415                        |  | Release: B                                  | Version: 22               | Status:<br>Active           |
| Page Modify Date:<br>Thursday, February 23, 2024 |  | Check In Date:<br>2/29/2024 5:53:58 PM      |                           | Size:<br>B                  |
|                                                  |  | Sheet 13 of 14                              |                           |                             |



<Variant Name>



|                                                  |                                             |            |                             |                   |            |
|--------------------------------------------------|---------------------------------------------|------------|-----------------------------|-------------------|------------|
| Schematic Name:<br><b>PowerSwitch</b>            |                                             |            |                             |                   |            |
| Page Title:<br><b>Power Switch</b>               |                                             |            | Engineer:<br>Scott Jensen   |                   |            |
| Project Name:<br>Coastal Biogeochemical Sensing  | Group Name:<br>CoastalBiogeochemicalSensing |            | Designer:<br>Jose Rosal     |                   |            |
| System:<br>CoastalBiogeochemicalSensing          | Subsystem:<br><Subsystem>                   |            | Last Updated By:<br>irenehu |                   |            |
| Drawing Number: 100221415                        |                                             | Release: B | Version: 22                 | Status:<br>Active | Size:<br>B |
| Page Modify Date:<br>Thursday, February 29, 2024 | Check In Date:<br>2/29/2024 5:53:58 PM      |            | Sheet 14 of 14              |                   |            |