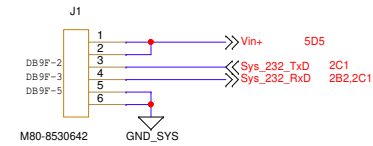


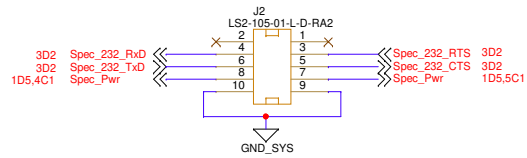
### Power and Comms

Vin = 8-22VDC  
Mate: M80-8880605



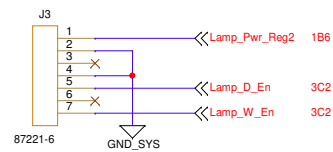
### Spectrometer Pwr/Comms

Spec current draw (5V): 100-120 mA



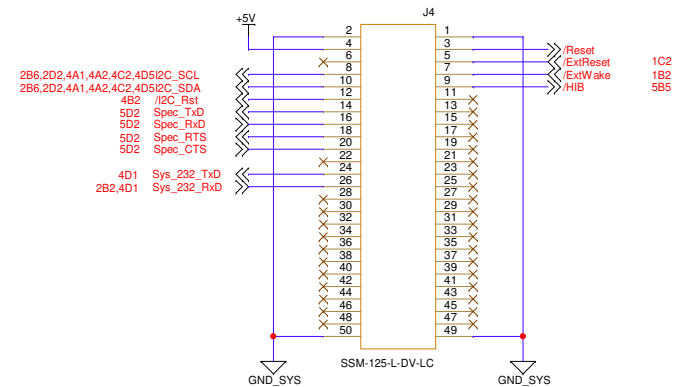
### Fiberlight Interface

Solder to Fiberlight board      Fiberlight current draw (12V): <450 mA



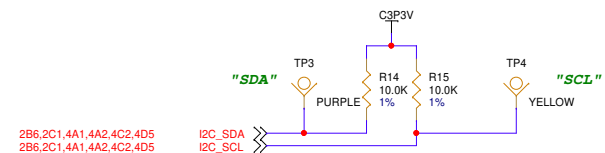
### Tiva Module Interface

Module takes 5V for easier testing - has its own 3.3V reg  
HIB controls nothing on module; use to disable 5V reg on baseboard  
Sys\_232 level shifting on module  
Wake on receive is implemented on baseboard, not module  
/ExtReset is input to module to reset it (WR from supervisor)  
/Reset is output from module indicating it has been reset



<Variant Name>

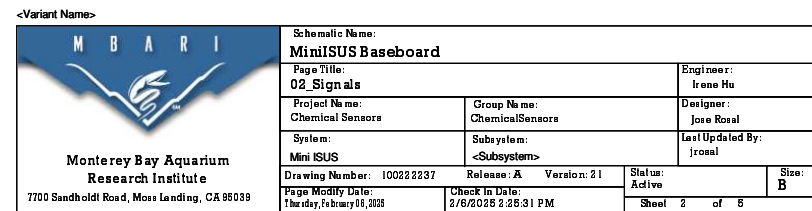
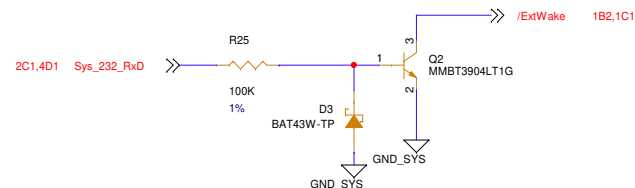
|                                                                                                                                                                                             |                                       |                                             |                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------|-----------------------|
| <br><b>Monterey Bay Aquarium<br/>Research Institute</b><br>7700 Sandholdt Road, Moss Landing, CA 95039 |                                       | Schematic Name:<br><b>MiniSUS Baseboard</b> |                       |
|                                                                                                                                                                                             |                                       | Page Title:<br><b>01_Connectors</b>         | Engineer:<br>Irene Hu |
| Project Name:<br>Chemical Sensors                                                                                                                                                           | Group Name:<br>ChemicalSensors        | Designer:<br>Jose Rosal                     |                       |
| System:<br>Mini ISUS                                                                                                                                                                        | Subsystem:<br><Subsystem>             | Last Updated By:<br>jrosal                  |                       |
| Drawing Number:<br>100222237                                                                                                                                                                | Release: A                            | Version: 21                                 | Status:<br>Active     |
| Page Modify Date:<br>Thursday, February 18, 2025                                                                                                                                            | Check in Date:<br>2/6/2025 2:25:31 PM | Sheet<br>1 of 6                             | Size:<br>B            |

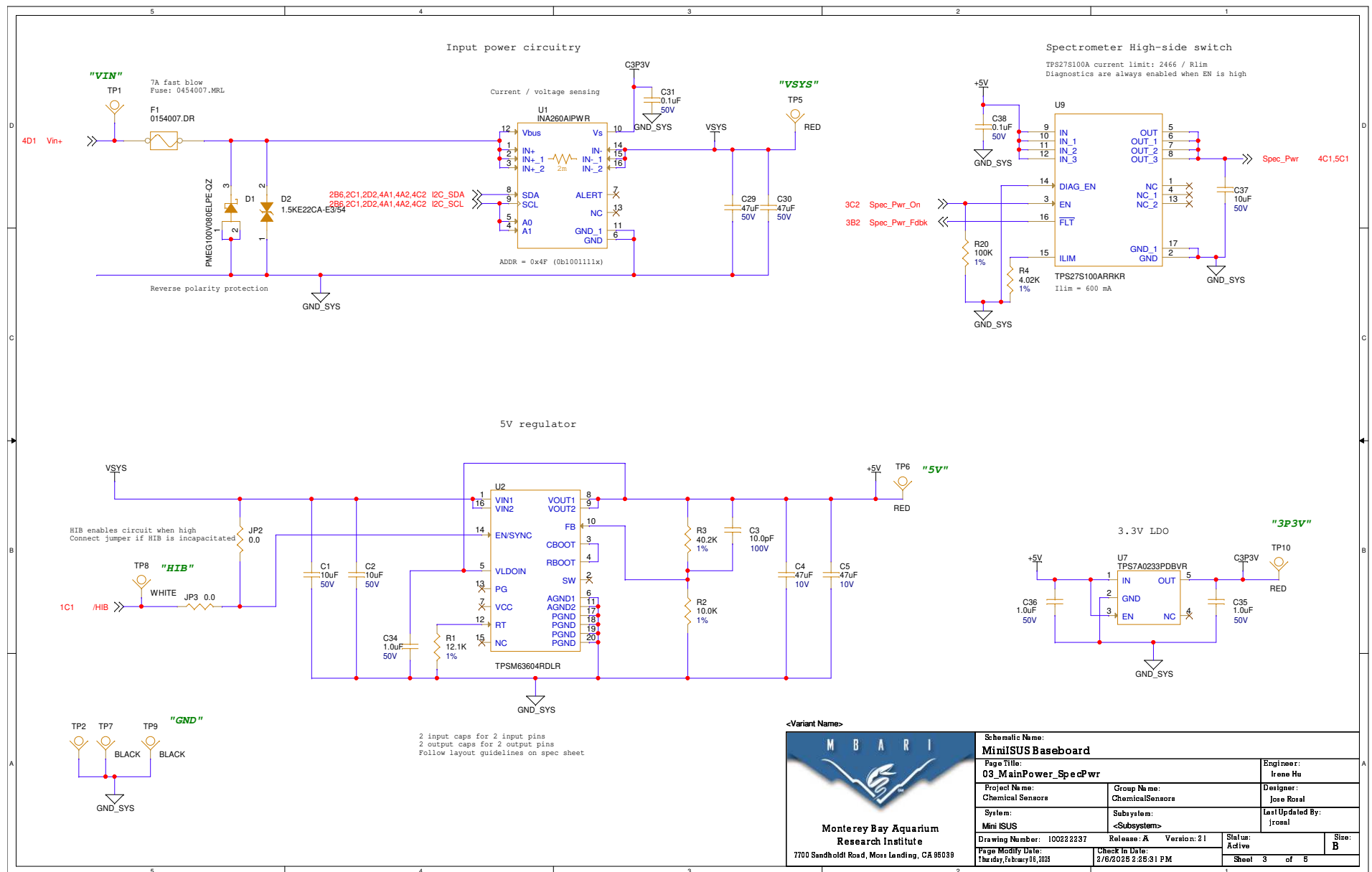


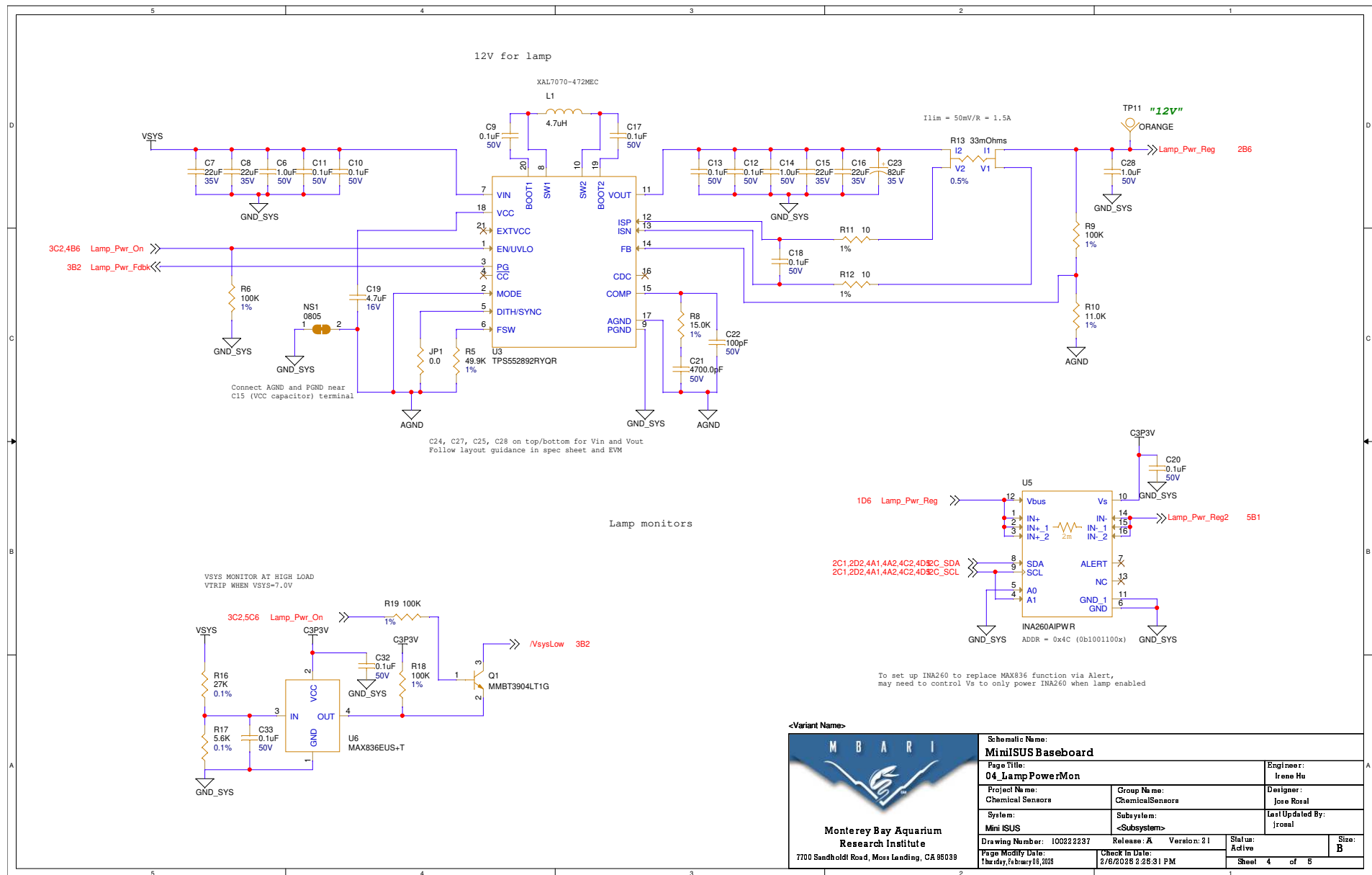
```
I2C 7-bit addresses

Baseboard:
PCAL6414A (GND): 0x20
BME280 (Vcc): 0x76
INA260 (SCL/SCL): 0x4F
INA260 (GND/SCL): 0x4C

Tiva Module:
MB85RC1MT (GND/GND): 0x50
```







NOTE: THIS BOARD USES VARIANTS TO CONFIGURE JUMPERS  
Do not populate everything; follow variants

Configuration Notes  
JP3, 4: Control 5V regulator with HIB (JP3) or leave always on (JP4) (05 Power1)  
JP6: Potential replacement with capacitor for convertor dithering, otherwise leave 0ohms (06 Power2)

<Variant Name>

|                                                                                                                                                                                             |  |                                              |                                |                            |                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------|--------------------------------|----------------------------|-------------------|
| <br><b>Monterey Bay Aquarium<br/>Research Institute</b><br>7700 Sandholdt Road, Moss Landing, CA 95039 |  | Schematic Name:<br><b>MiniISUS Baseboard</b> |                                |                            |                   |
|                                                                                                                                                                                             |  | Page Title:<br><b>05_Notes</b>               |                                | Engineer:<br>Irene Hu      |                   |
|                                                                                                                                                                                             |  | Project Name:<br>Chemical Sensors            | Group Name:<br>ChemicalSensors | Designer:<br>Jose Rosal    |                   |
|                                                                                                                                                                                             |  | System:<br>Mini ISUS                         | Subsystem:<br><Subsystem>      | Last Updated By:<br>jrosal | Size:<br>B        |
|                                                                                                                                                                                             |  | Drawing Number:<br>100222237                 | Release: A                     | Version: 21                | Status:<br>Active |
| Page Modify Date:<br>Thursday, February 08, 2024                                                                                                                                            |  | Check in Date:<br>2/6/2025 2:25:31 PM        |                                |                            |                   |