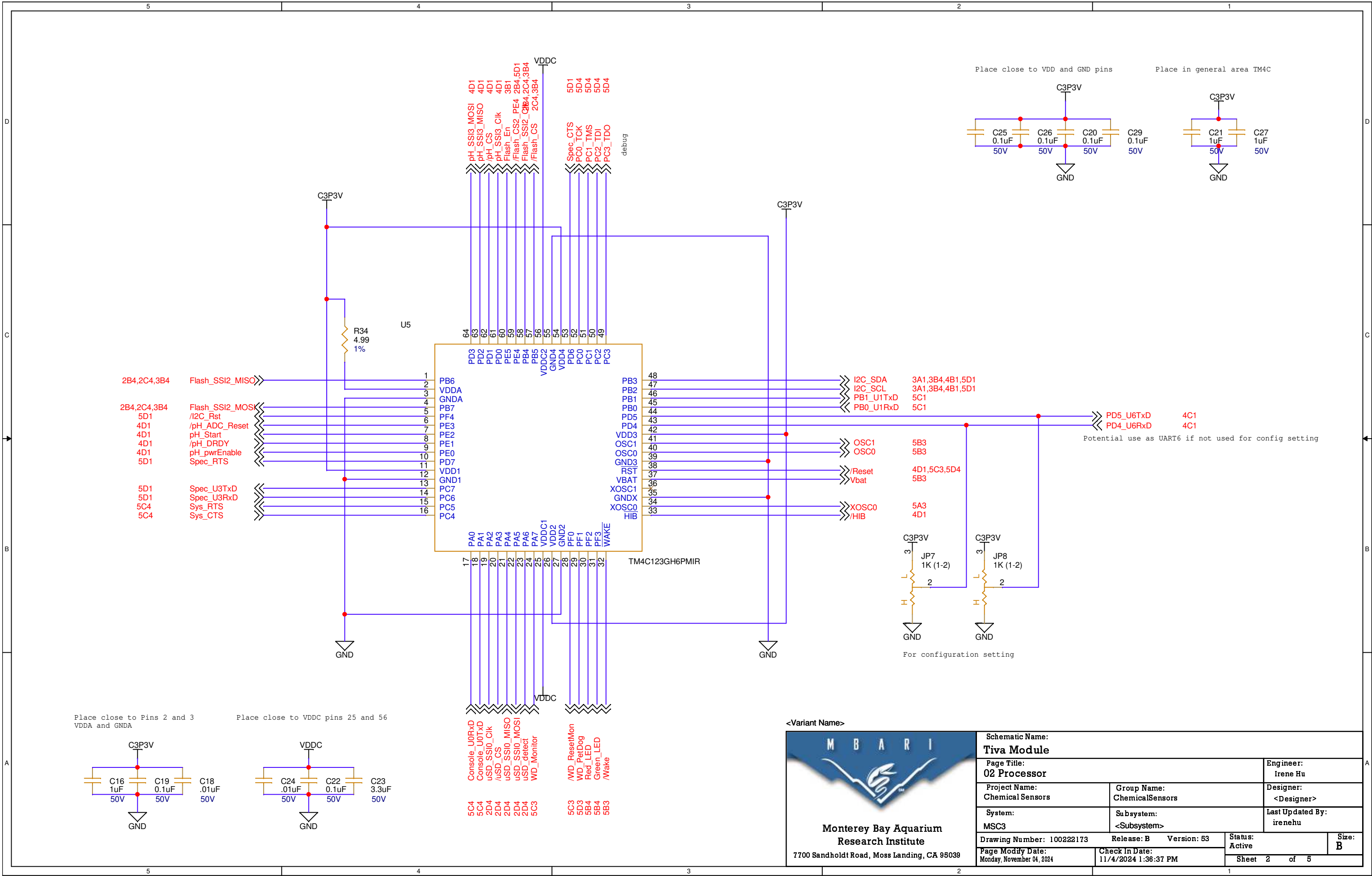


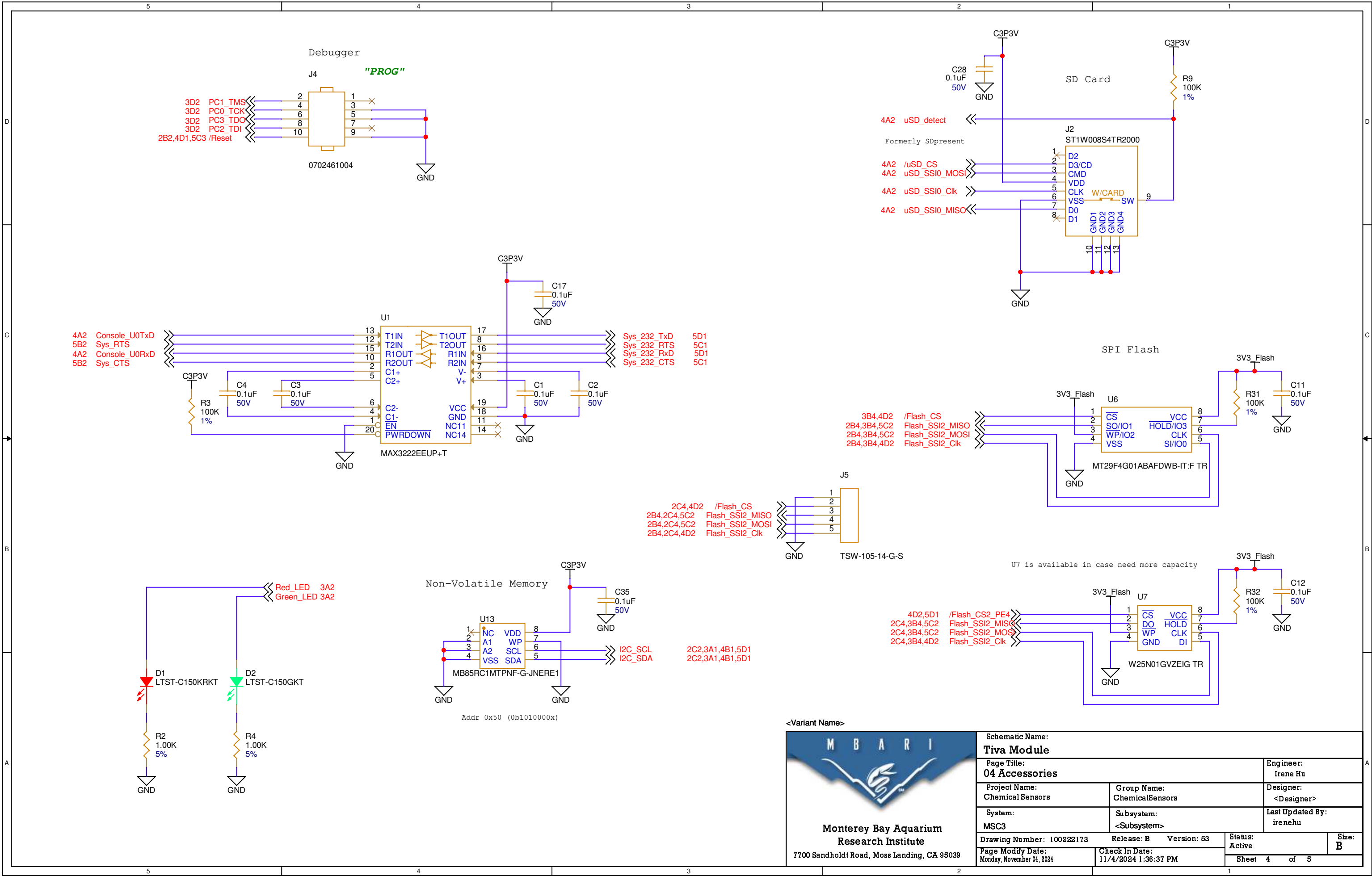


<Variant Name>



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

Schematic Name: Tiva Module				
Page Title: 02 Processor			Engineer: Irene Hu	
Project Name: Chemical Sensors		Group Name: ChemicalSensors		Designer: <Designer>
System: MSC3		Subsystem: <Subsystem>		Last Updated By: irenehu
Drawing Number: 100222173		Release: B		Version: 53
Page Modify Date: Monday, November 04, 2024		Check In Date: 11/4/2024 1:36:37 PM		Status: Active
		Sheet 2 of 5		Size: B



<Variant Name>



Schematic Name:					
Tiva Module					
Page Title: 04 Accessories			Engineer: Irene Hu		
Project Name: Chemical Sensors	Group Name: ChemicalSensors		Designer: <Designer>		
System: MSC3	Subsystem: <Subsystem>		Last Updated By: irenehu		
Drawing Number: 100222173		Release: B	Version: 53	Status: Active	Size: B
Page Modify Date: Monday, November 04, 2024		Check In Date: 11/4/2024 1:36:37 PM		Sheet 4 of 5	

54321

Rev B updates

Added FRAM

Added I2C pullups and TVS diode

GND_SYS changed to GND for U12, C15, R8, Q1

Flash1 replaced with larger capacity Micron chip; Flash2 set to DNS in default BOM variant

FlashEn and regulator for two flash chips consolidated into one

Flash Hold replaced with pullup for both flash chips

ConsoleEN disconnected; U1 /PWRDOWN on a pullup (always enabled) (formerly a pulldown + GPIO)

Watchdog EN line removed, replaced with pulldown and jumper to 3.3V (always on, disable w/ jumper)

Spec_232_En removed (will be on baseboard port expander)

U10 (PCA6408 port expander) removed, remaining signals tied directly to processor

Some existing pins were moved around: Flash_En, Flash_CS2, I2C_Rst

Spare GPIOs brought out to header: UART1, config setting pins (double as UART6), and /Flash_CS2 (unused if Flash2 unpopulated)

J1: all unused pins on 50-pin connector tied to GND, some via solder blobs

Added 5ohms to microprocessor VDDA line and upsized V rating of C23

Added decoupling cap to U13

Added optional ideal diode for coin cell (behind jumpers)

Renamed some signals

Changed a couple of resistor parts to consolidate BOMs (across module and baseboard)

Mirrored J1 so pin numbers match baseboard; need to switch board sides

Board layout: please move GND testpoint away from J1

Configuration Notes

JP1: Reset/Wake pin header (03 ResetWake)

JP2: Pin header to disable watchdog (03 ResetWake)

JP3: Connect Vcoin rail to Baseboard (01 Connectors)

JP4, 5, 6: Bypass (JP4) or connect (JP5, 6) ideal diode protecting coin cell (03 ResetWake)

JP7, 8: Configuration setting- uP pins can be read by software to adjust software settings

<Variant Name>

M B A R I



Monterey Bay Aquarium
Research Institute

7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name:
Tiva Module

Page Title:
05_Notes

Project Name:
Chemical Sensors

System:
MSC3

Drawing Number: 100222173

Page Modify Date:
Monday, November 04, 2024

Engineer:
Irene Hu

Group Name:
ChemicalSensors

Subsystem:
<Subsystem>

Release: B Version: 53

Check In Date:
11/4/2024 1:36:37 PM

Designer:
<Designer>

Last Updated By:
irenehu

Status:
Active

Size:
B

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