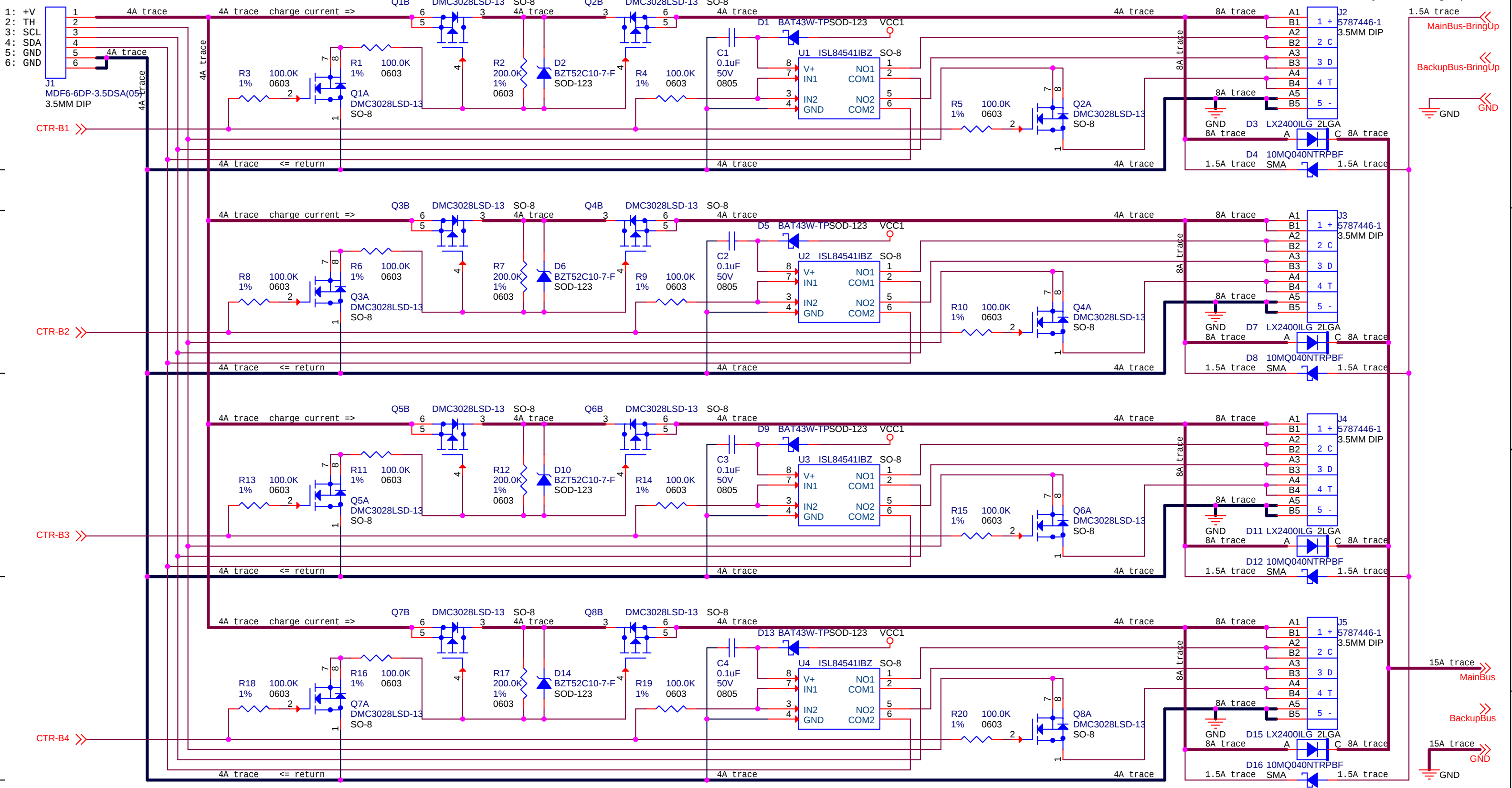


Charge Port
Ocean Server XP-08SR

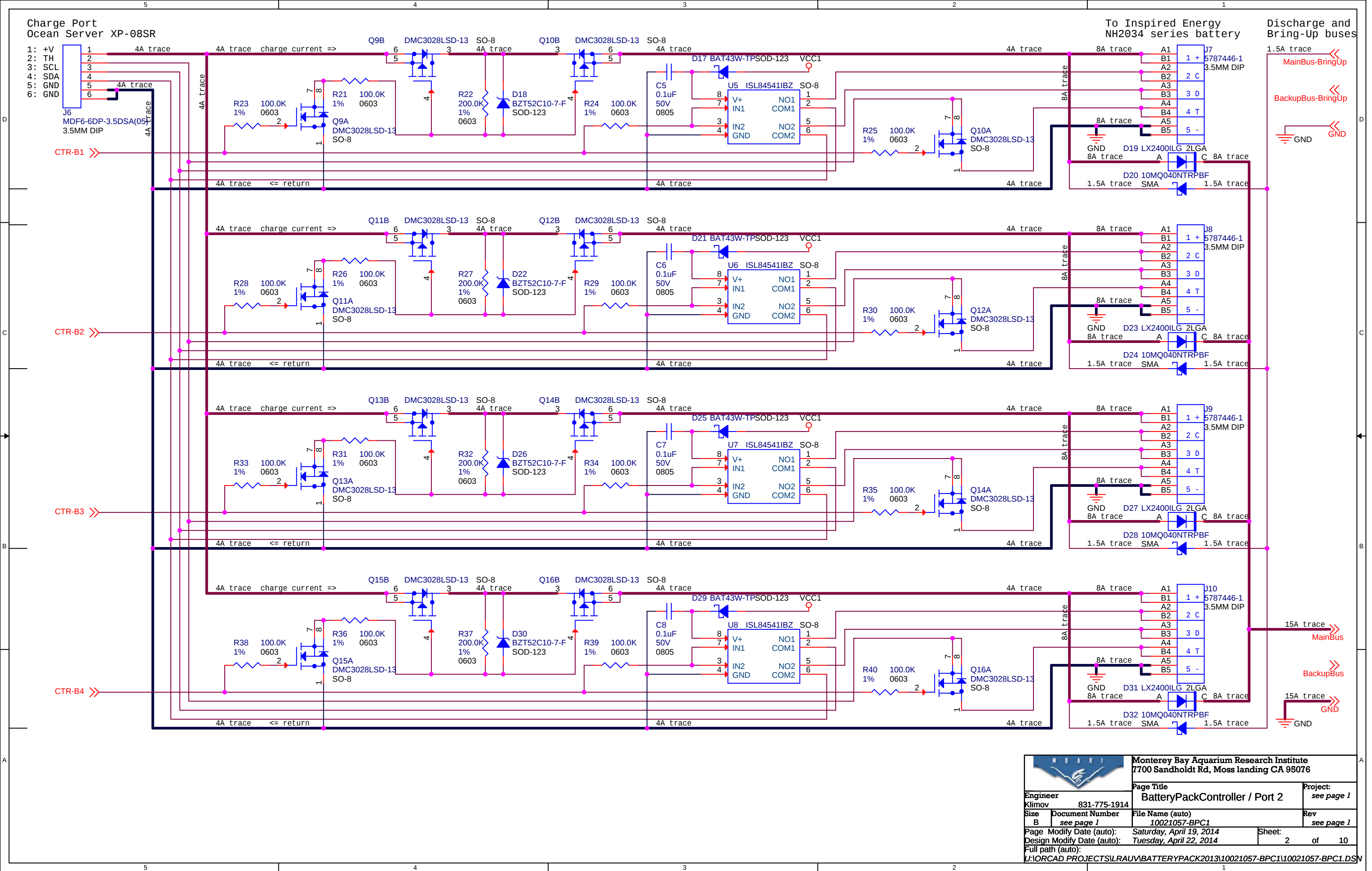


DRAFT

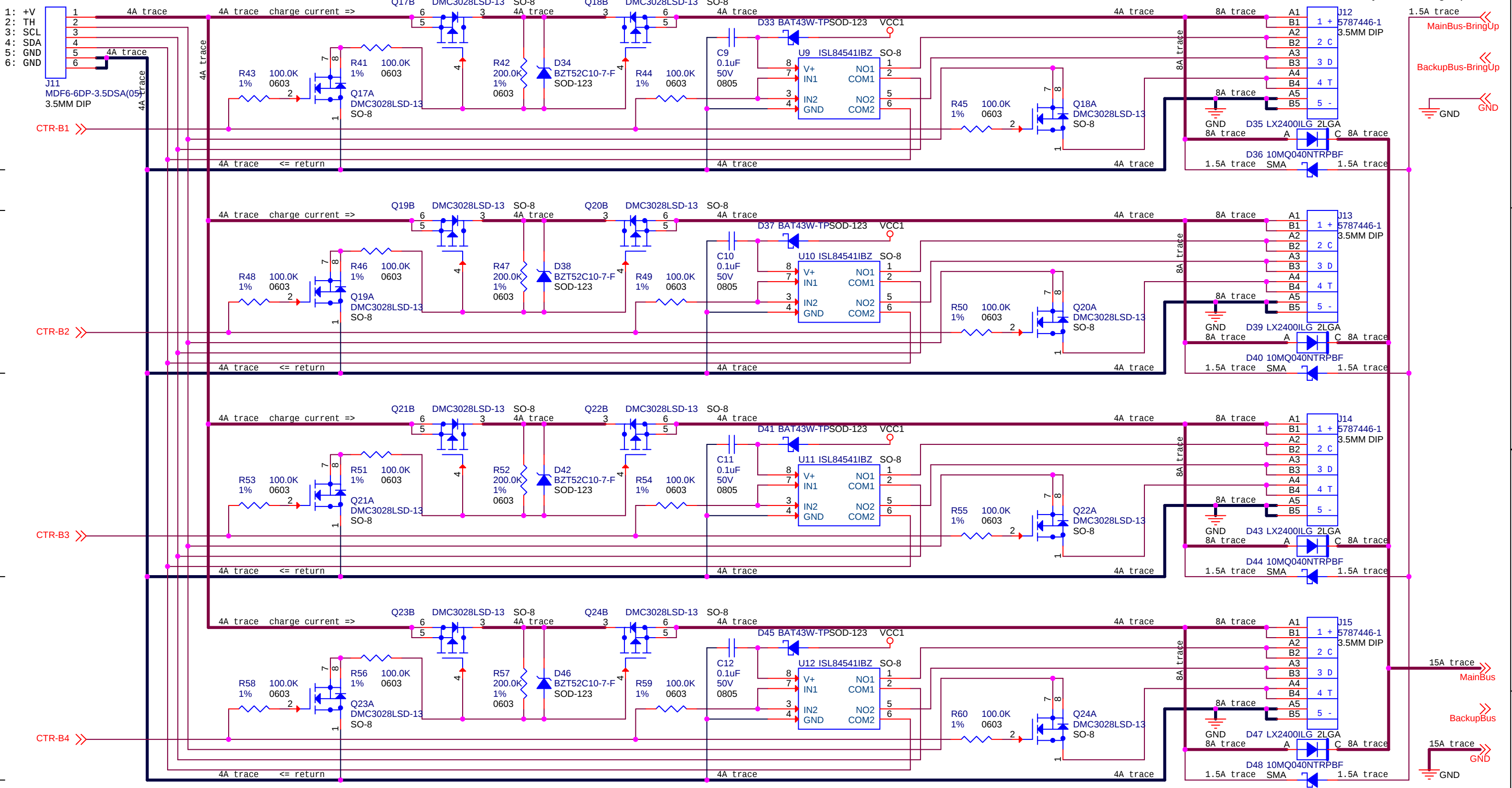
Rev0(xx/xx/xxxx): Initial Release



Monterey Bay Aquarium Research Institute 7700 Sandholdt Rd, Moss landing CA 95076			
4	Page Title BatteryPackController / Port 1		Project: 901400
	File Name (auto) 10021057-BPC1		Rev *
	Saturday, April 19, 2014 Tuesday, April 22, 2014	Sheet: 1 of 10	
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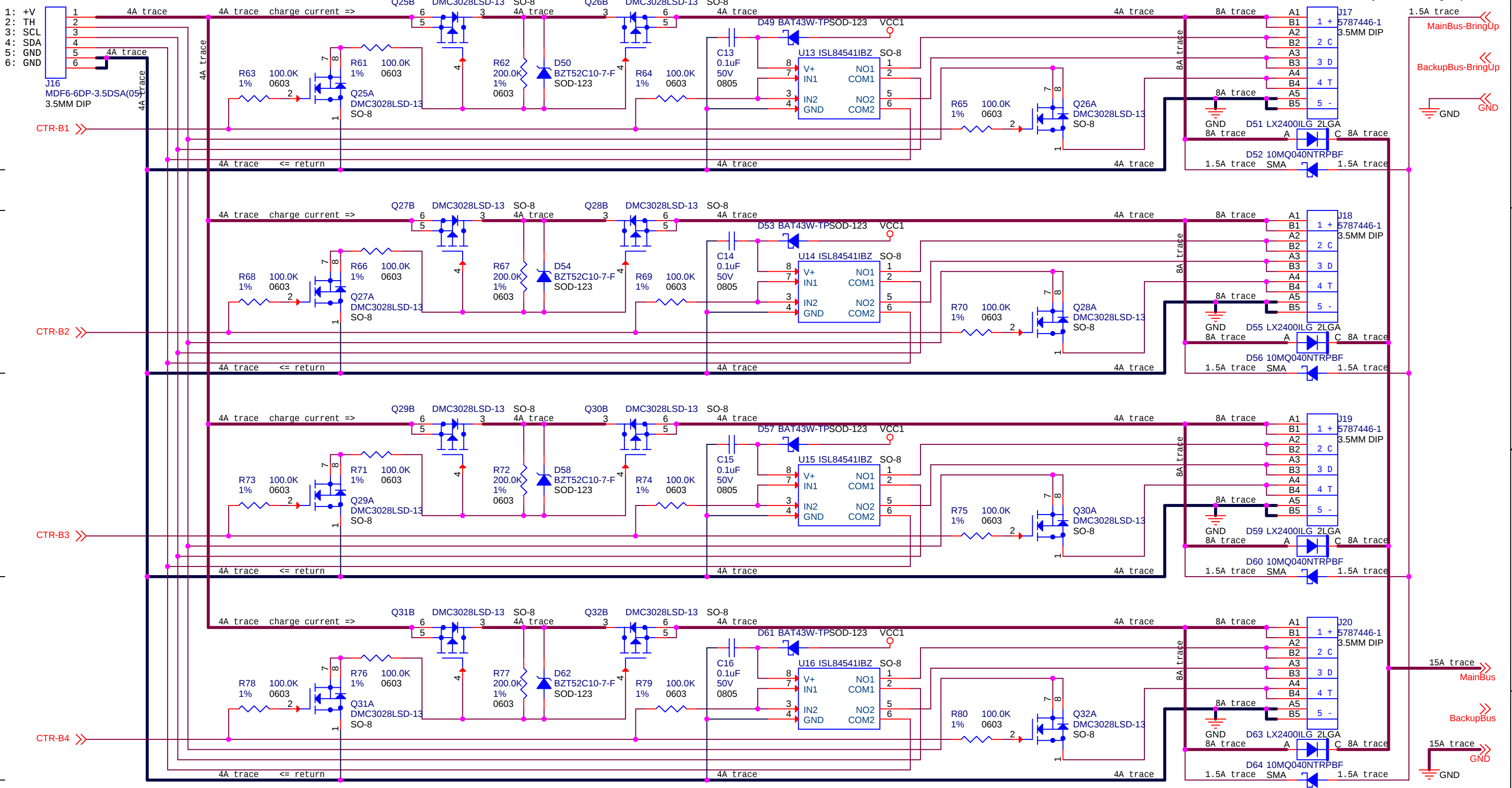
Charge Port
Ocean Server XP-08SR



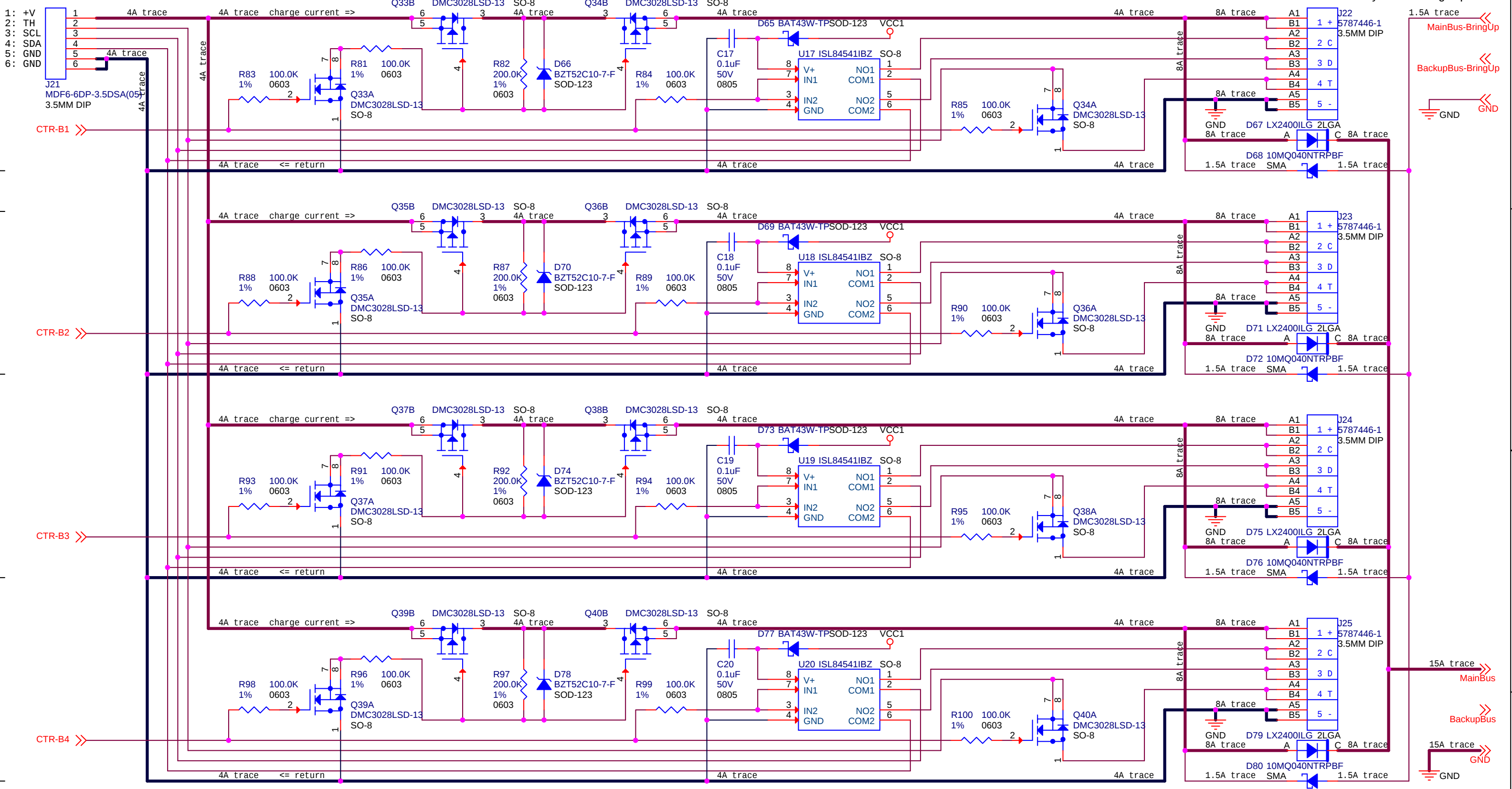
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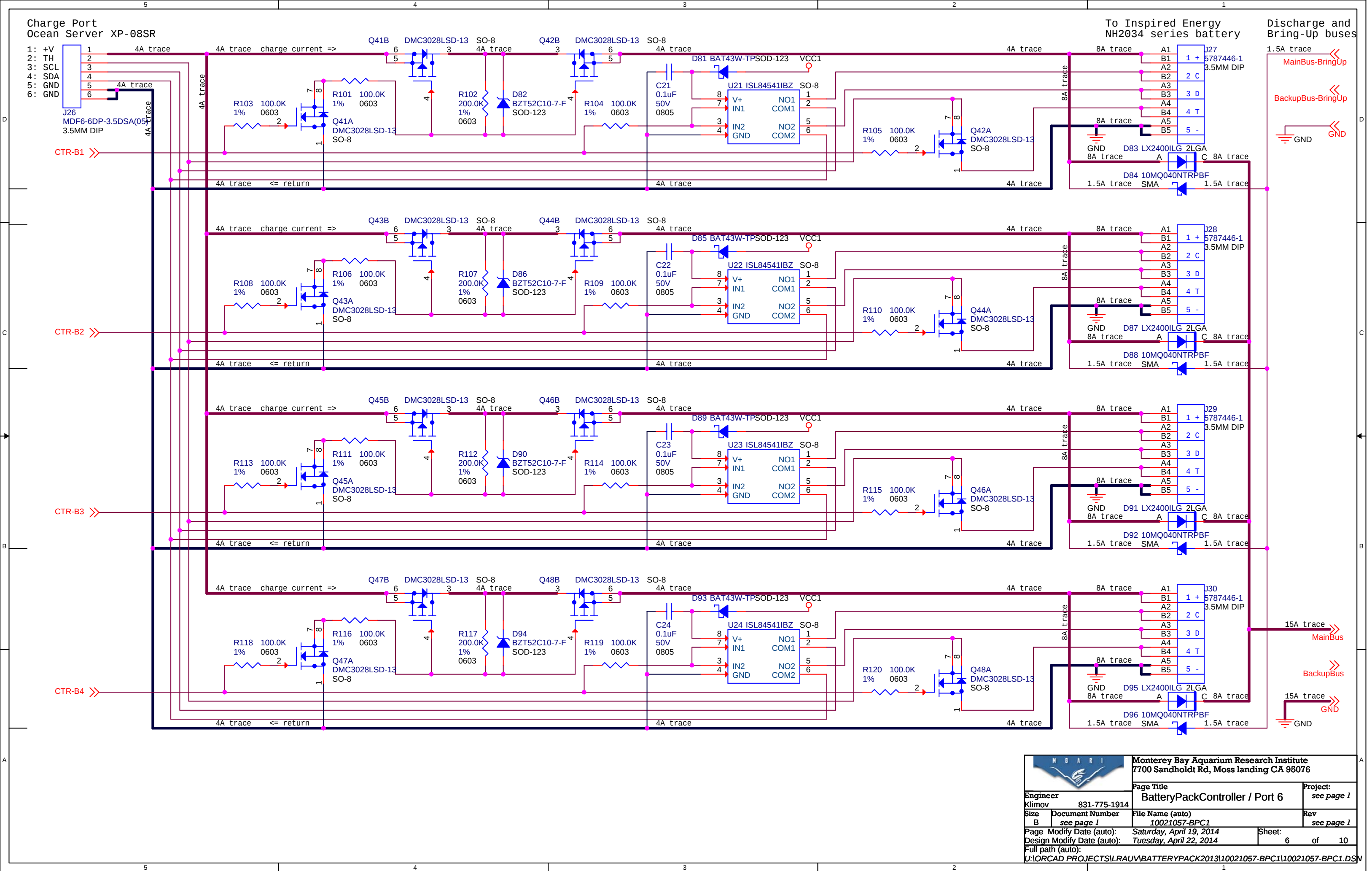
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Charge Port
Ocean Server XP-08SR

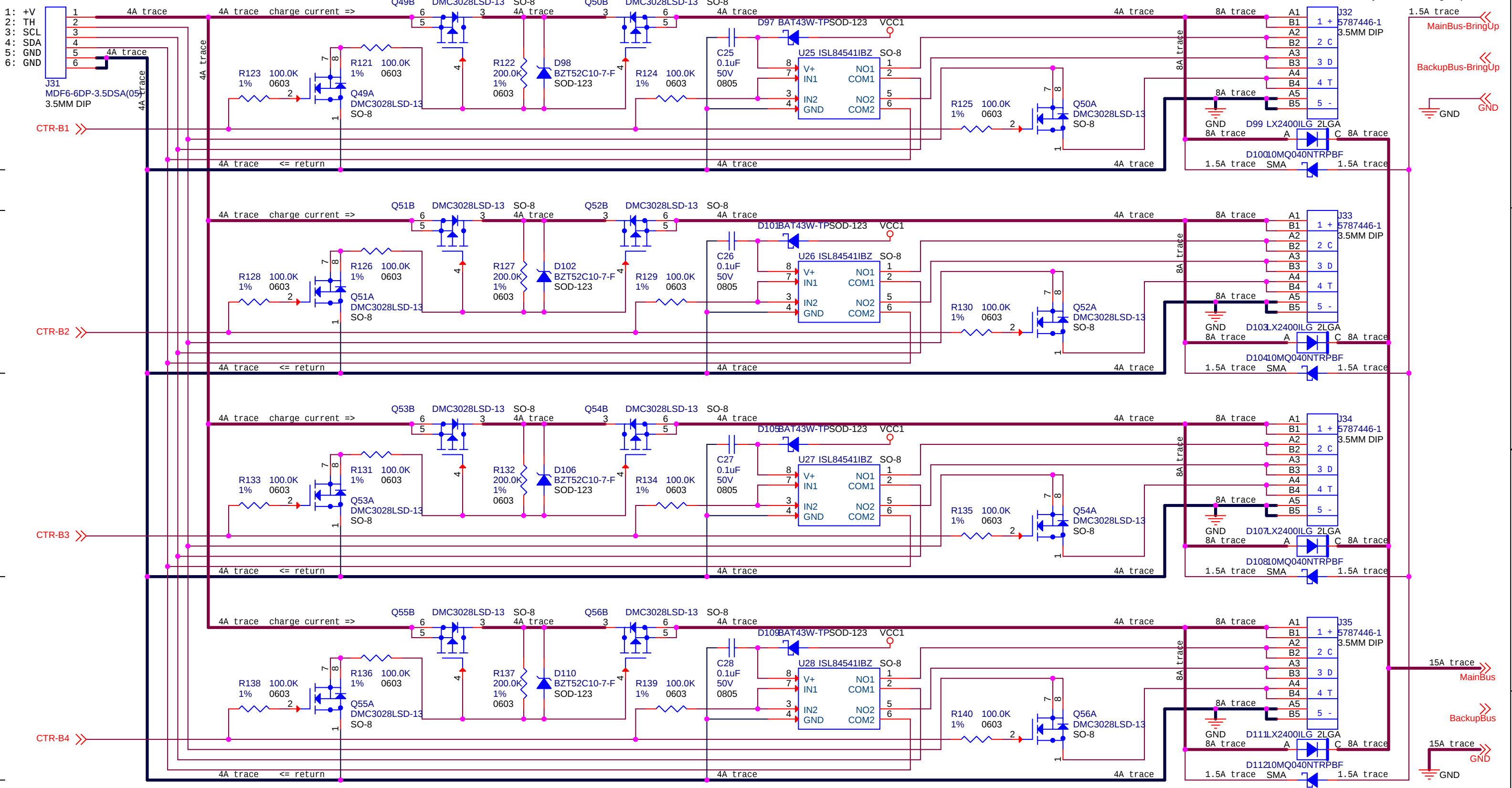


Charge Port
Ocean Server XP-08SR



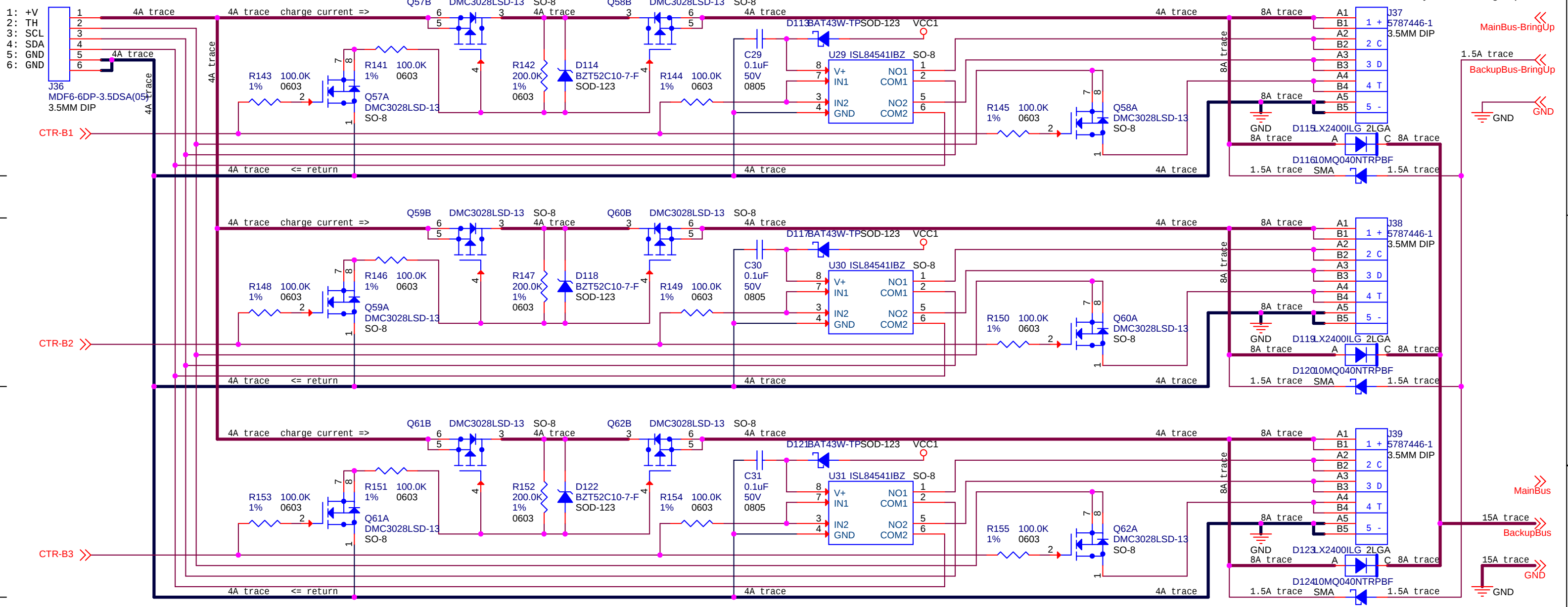


Charge Port
Ocean Server XP-08SR



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Engineer Klimov	831-775-1914	Project: see page 1
Size B	Document Number see page 1	Rev see page 1
Page Modify Date (auto): Design Modify Date (auto): Full path (auto):	Saturday, April 19, 2014 Tuesday, April 22, 2014 U:\ORCAD PROJECTS\ILRAU\BATTERYPACK2013\10021057-BPC1\10021057-BPC1.DSN	Sheet: 7 of 10

Charge Port
Ocean Server XP-08SR



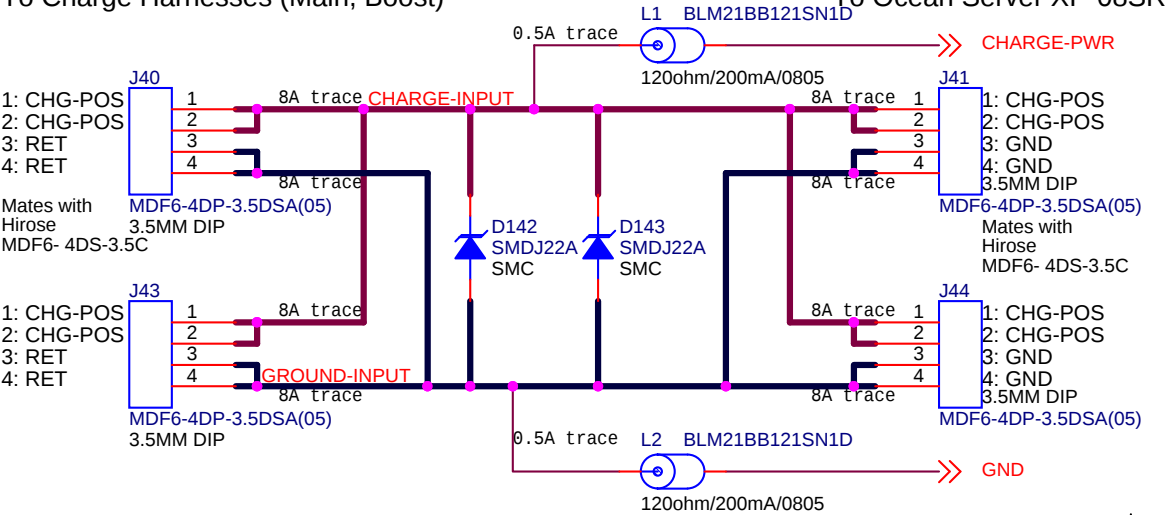
Backup batteries Port 8, banks B1, B2, B3



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Page Title BatteryPackController / Port 8		Project: see page 1	
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Charge inputs and power distribution to XP-08SR

To Charge Harnesses (Main, Boost)

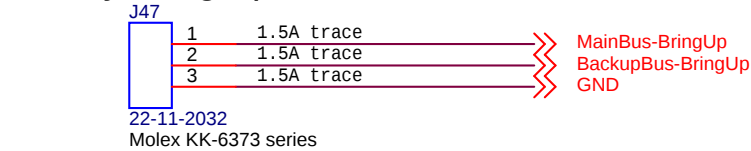


RS-232 pass-thru from discharge harness to Ocean Server XP-08SR

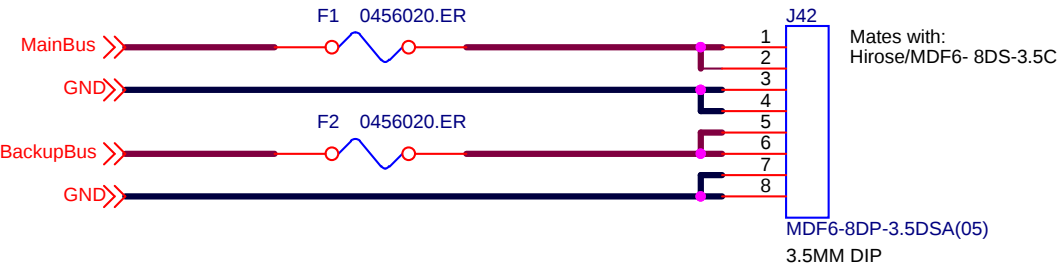
RS-232 port to MB



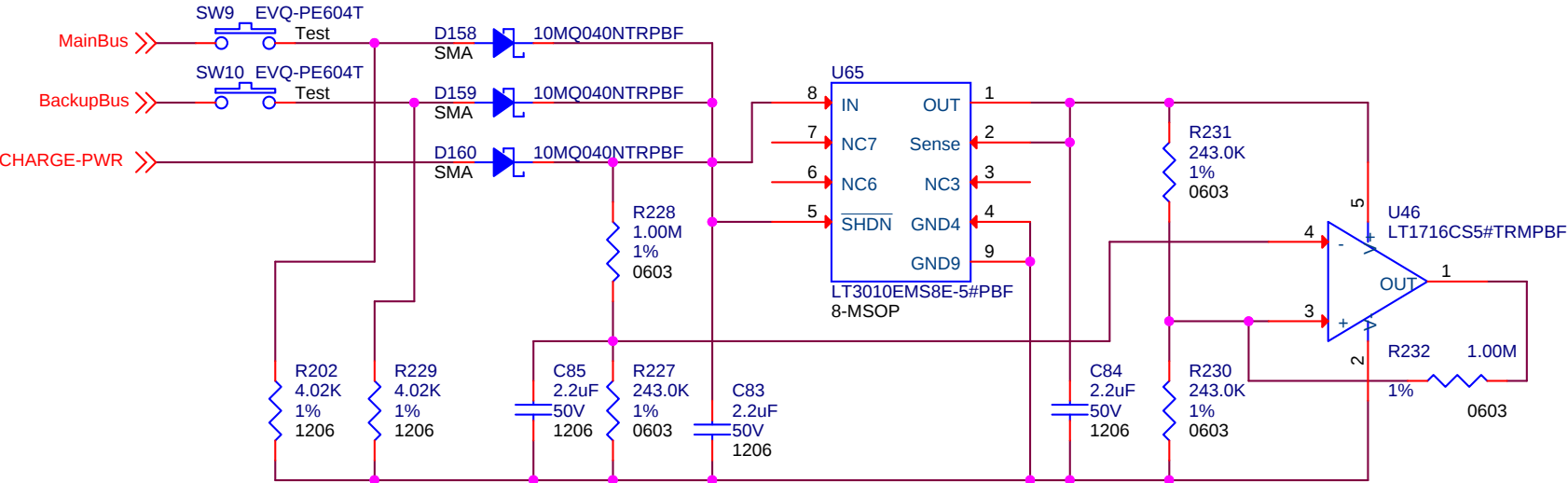
Battery bring-up interface



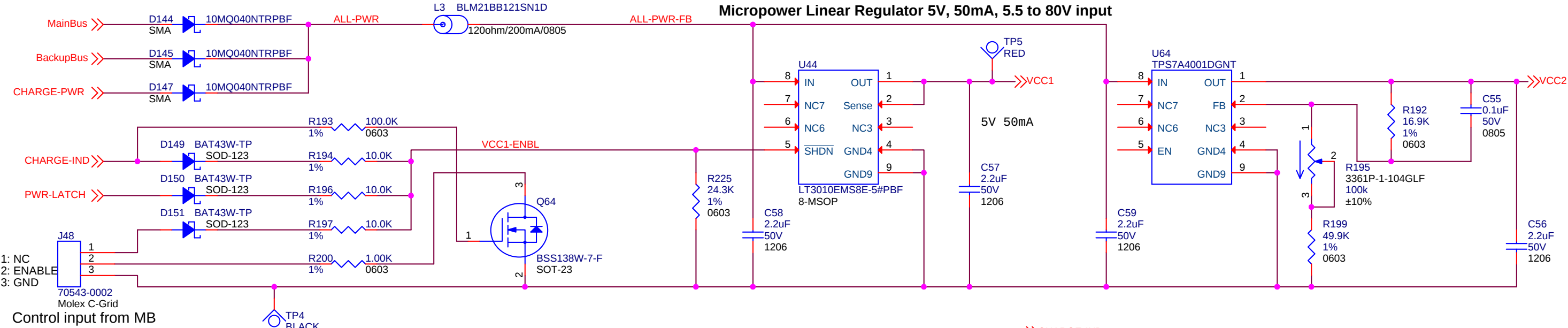
Outputs to MB by Discharge Harness



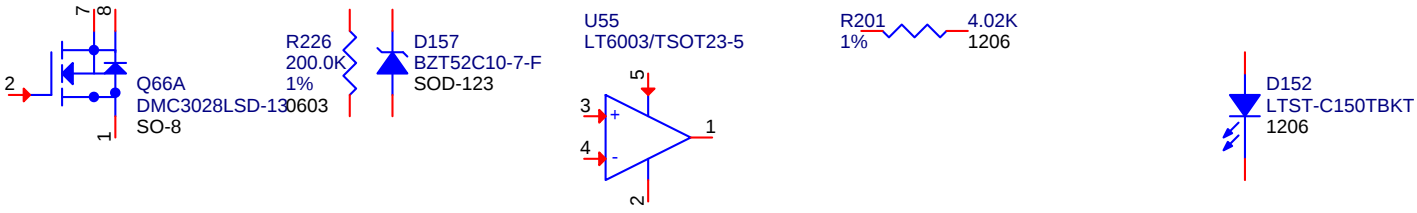
Charging currents required per Half-Pack:
18V: 8A initial, 12A final
20V: 7.9A initial, 11.2A final
22V: 7.2A initial, 10.2A final
24V: 6.6A initial, 9.4A final
Charging time at 24V and full current with cycling loss and top-off:
(6.2 AH x 4 x 2) / 3A x 1.12 x 1.04 = 19.3 hours



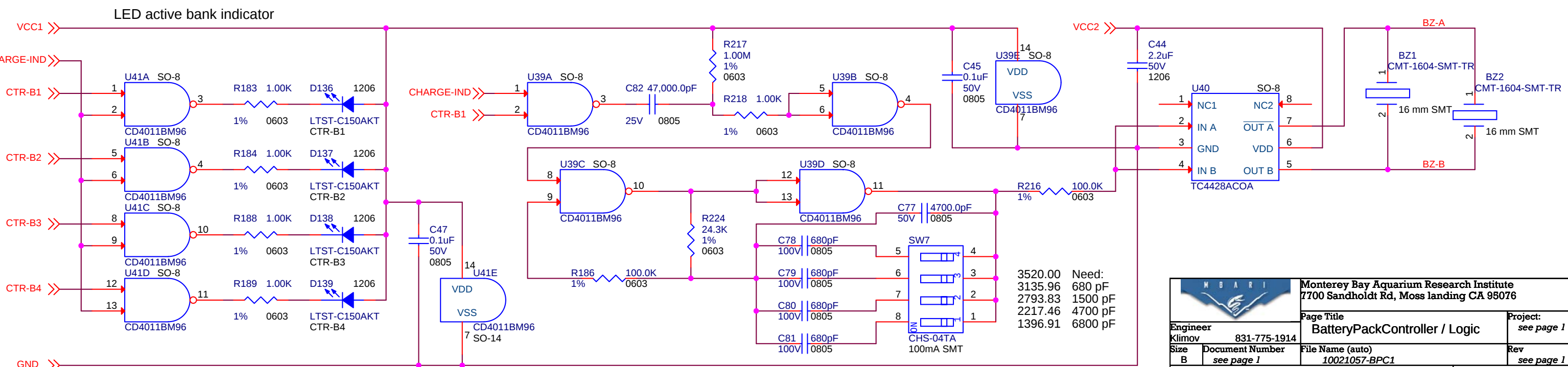
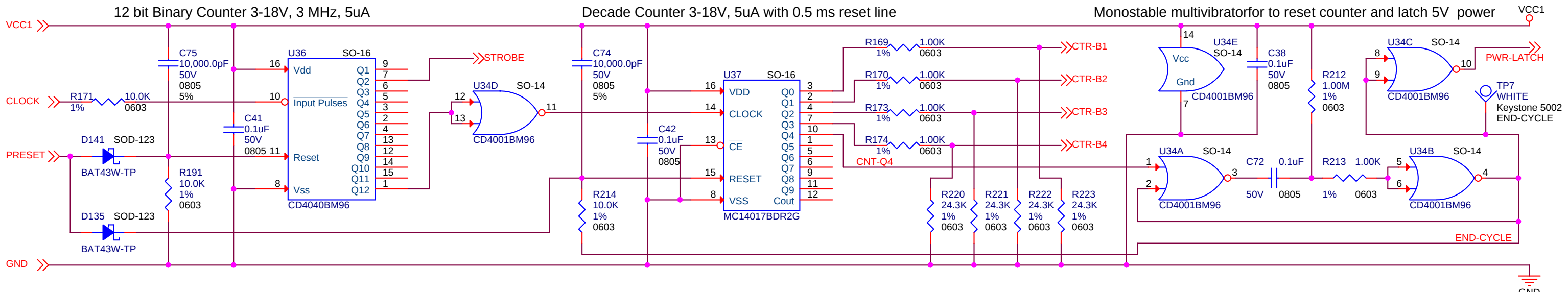
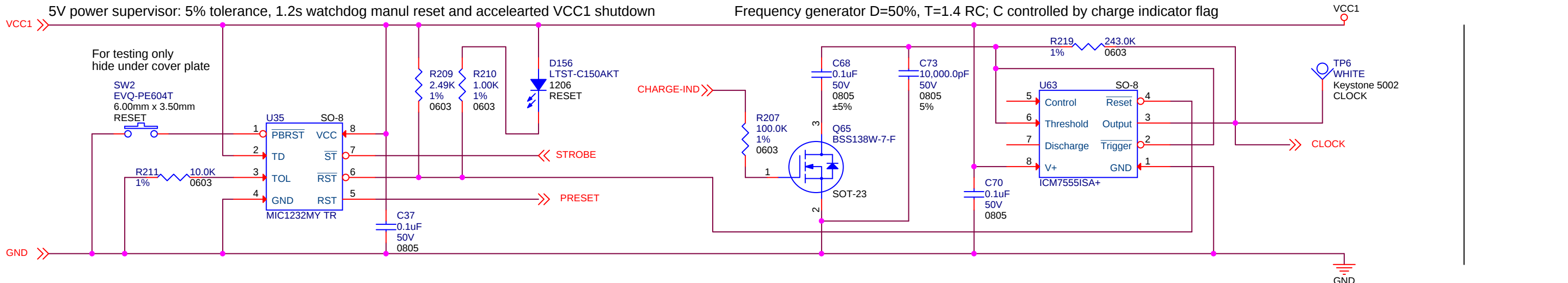
Micropower Linear Regulator 5V, 50mA, 5.5 to 80V input



Control input from MB



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Page Modify Date (auto): Design Modify Date (auto):		Tuesday, April 22, 2014 Tuesday, April 22, 2014	Sheet: 9 of 10
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Engineer Klimov	831-775-1914	Page Title BatteryPackController / Logic	Project: see page 1
Size B	Document Number see page 1	File Name (auto) 10021057-BPC1	Rev see page 1
Page Modify Date (auto): Design Modify Date (auto): Full path (auto):		Monday, April 21, 2014 Tuesday, April 22, 2014 U:\ORCAD PROJECTS\ILRAU\VBATTERYPACK2013\10021057-BPC1\10021057-BPC1.DSN	Sheet: 10 of 10