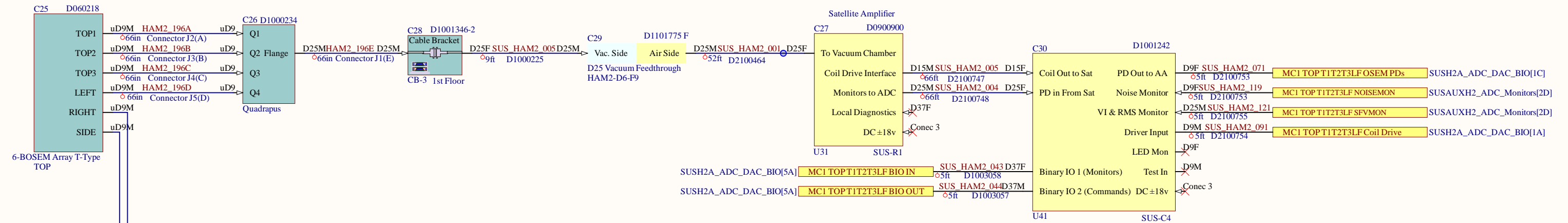
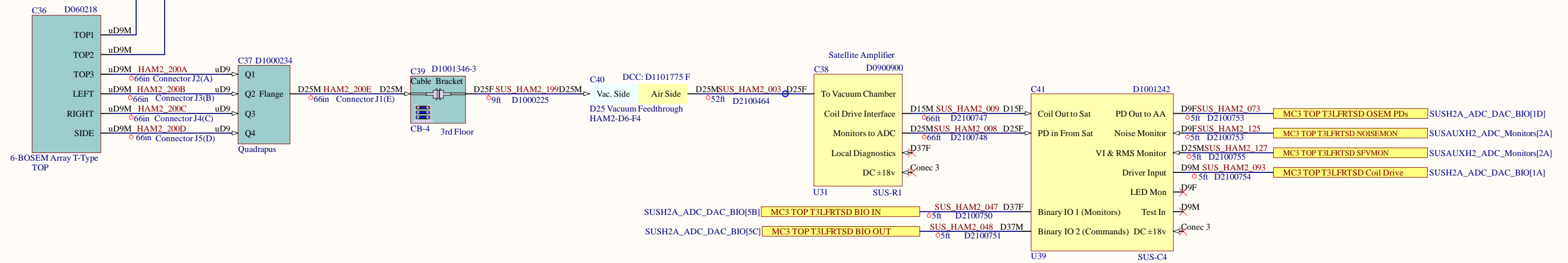


MC1 and MC3 TOP MASSES

MC1



MC3

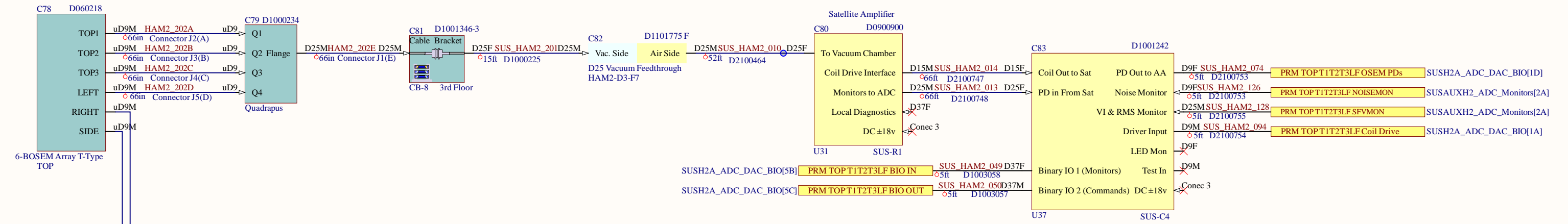


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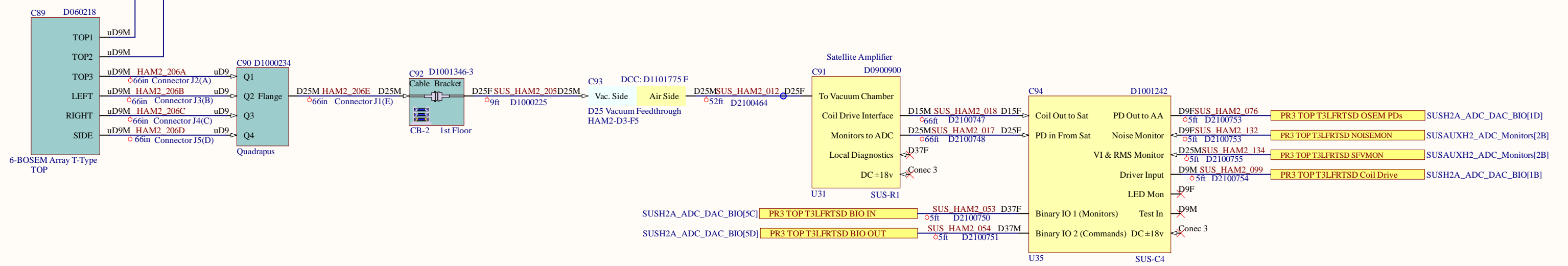
Title MC1 and MC3 Top Masses		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:33 AM
File: C:\Users\daniel.sig\Desktop\JAC\D0902810-v10_Altium\MC1 and MC3 Top Masses.SchDoc					
				Sheet 1 of 14	

PRM and PR3 TOP MASSES

PRM



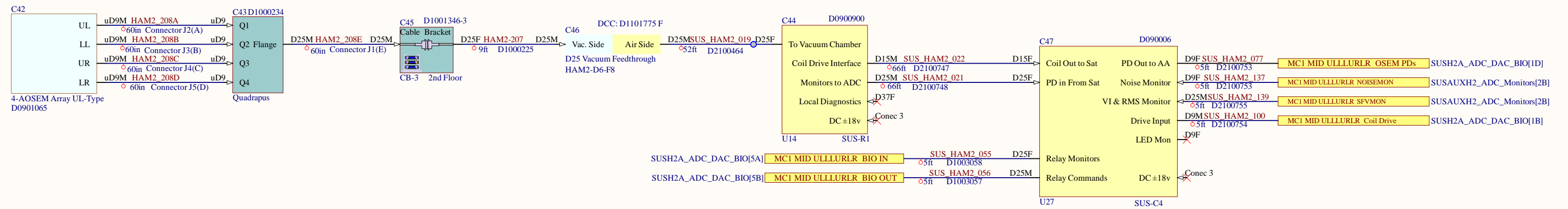
PR3



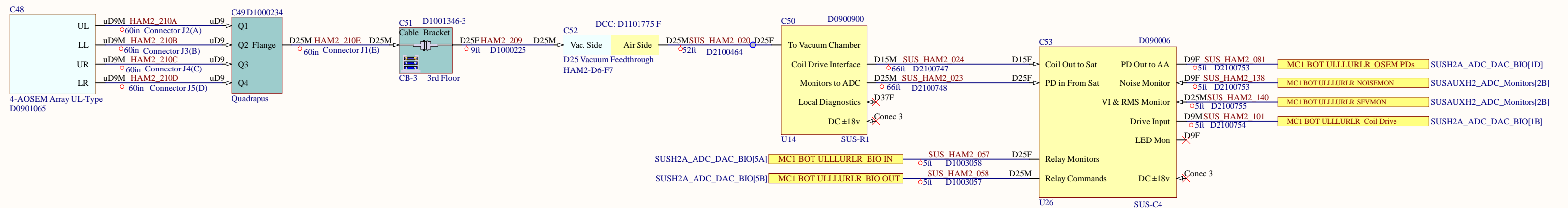
Last Edited: 1/29/2025

Title PRM and PR3 Top Masses		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:33 AM
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Sheet 2 of 14					

MC1 MIDDLE MASS



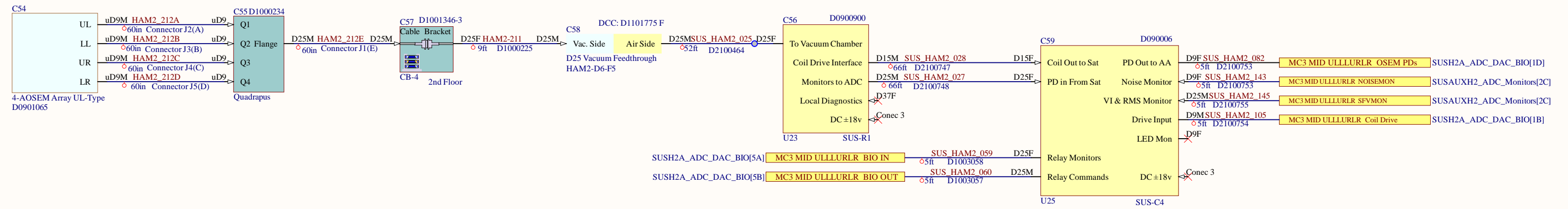
MC1 BOTTOM MASS



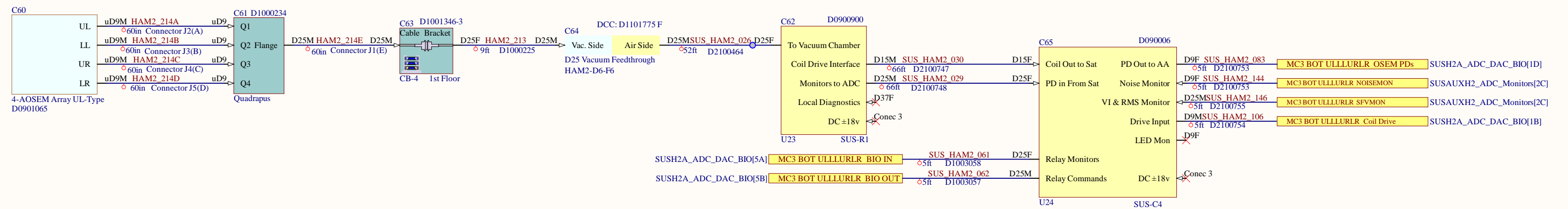
Last Edited: 1/29/2025

Title MC1 Middle and Bottom		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:33 AM
File: C:\Users\daniel.sig\Desktop\JAC\D0902810-v10_Altium\MC1 Middle and Bottom.SchDoc					Sheet 3 of 14

MC3 MIDDLE MASS



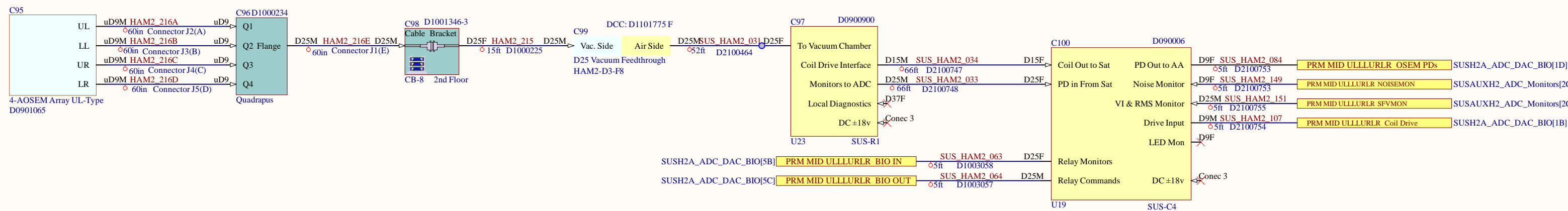
MC3 BOTTOM MASS



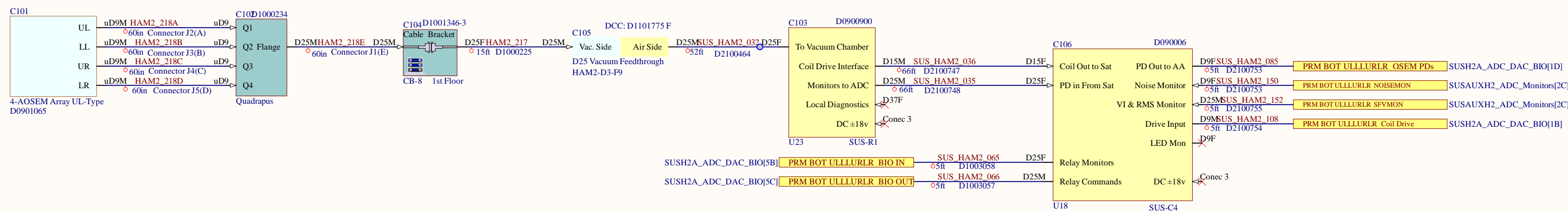
Last Edited: 1/29/2025

Title MC3 Middle and Bottom		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:33 AM
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				Sheet 4 of 14	

PRM MIDDLE MASS



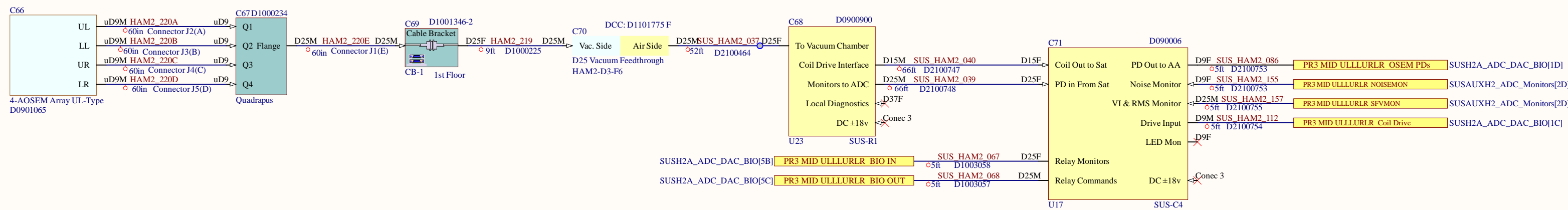
PRM BOTTOM MASS



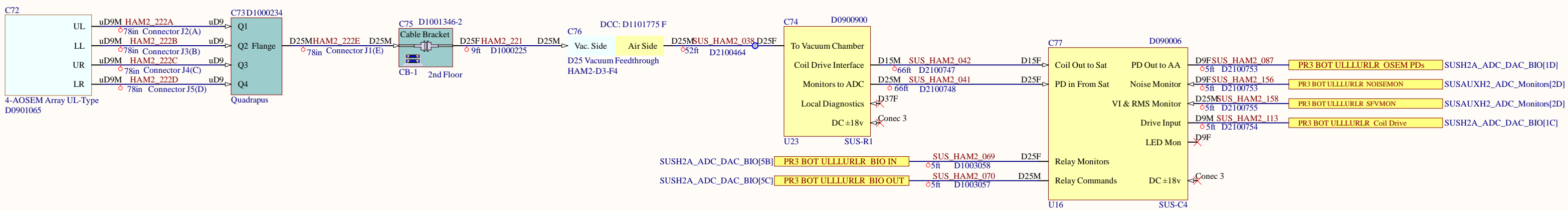
Last Edited: 1/29/2025

Title PRM Middle and Bottom		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:33 AM
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PR3 MIDDLE MASS



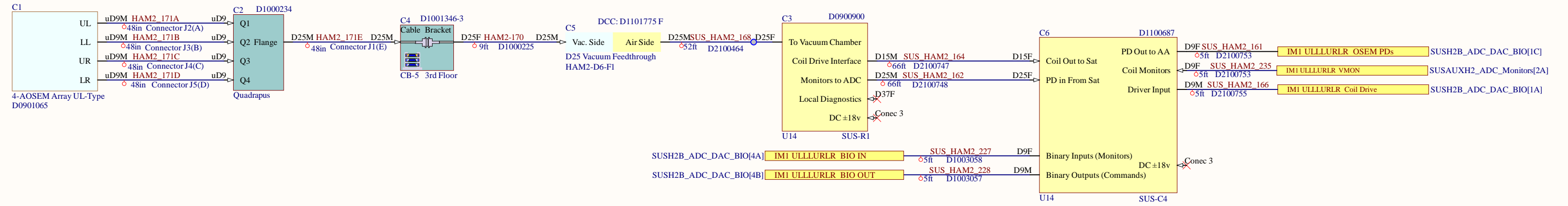
PR3 BOTTOM MASS



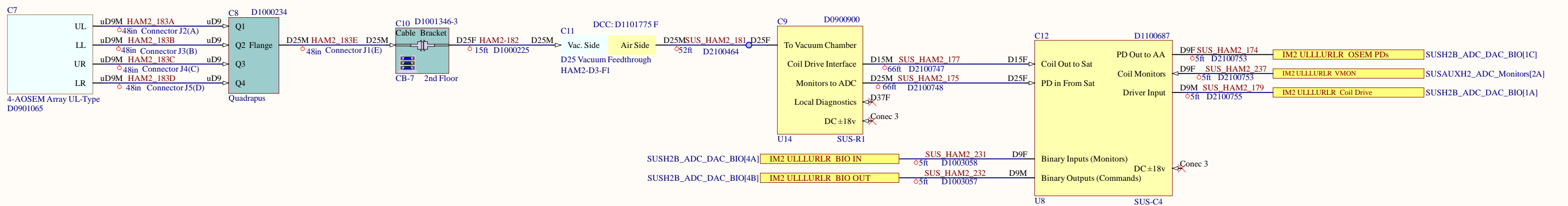
Last Edited: 1/29/2025

Title PR3 Middle and Bottom		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:33 AM
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Sheet 6 of 14					

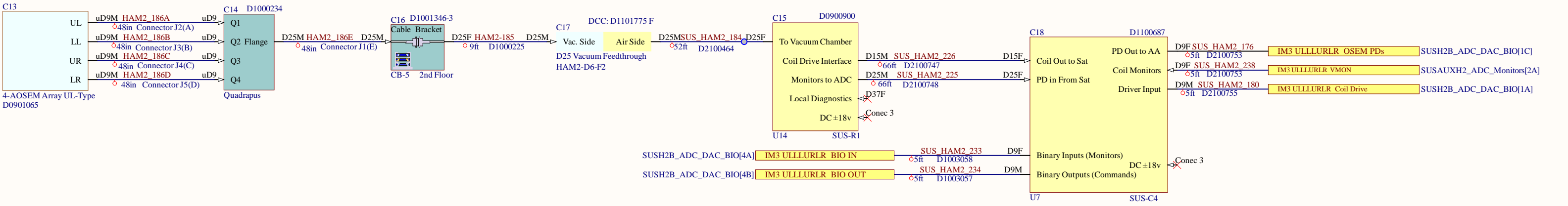
IM1



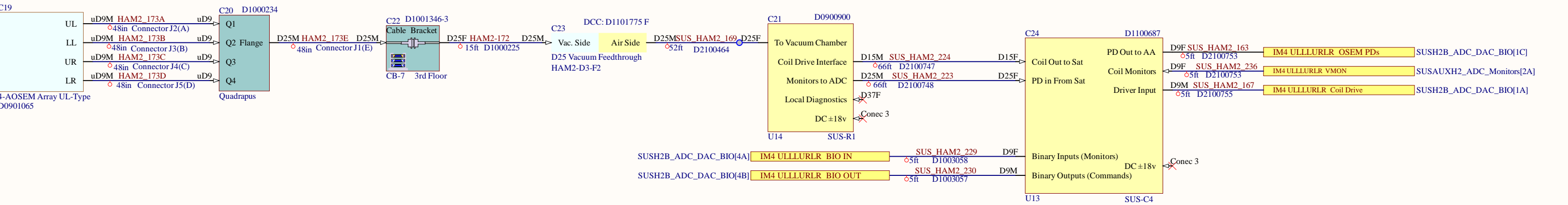
IM2

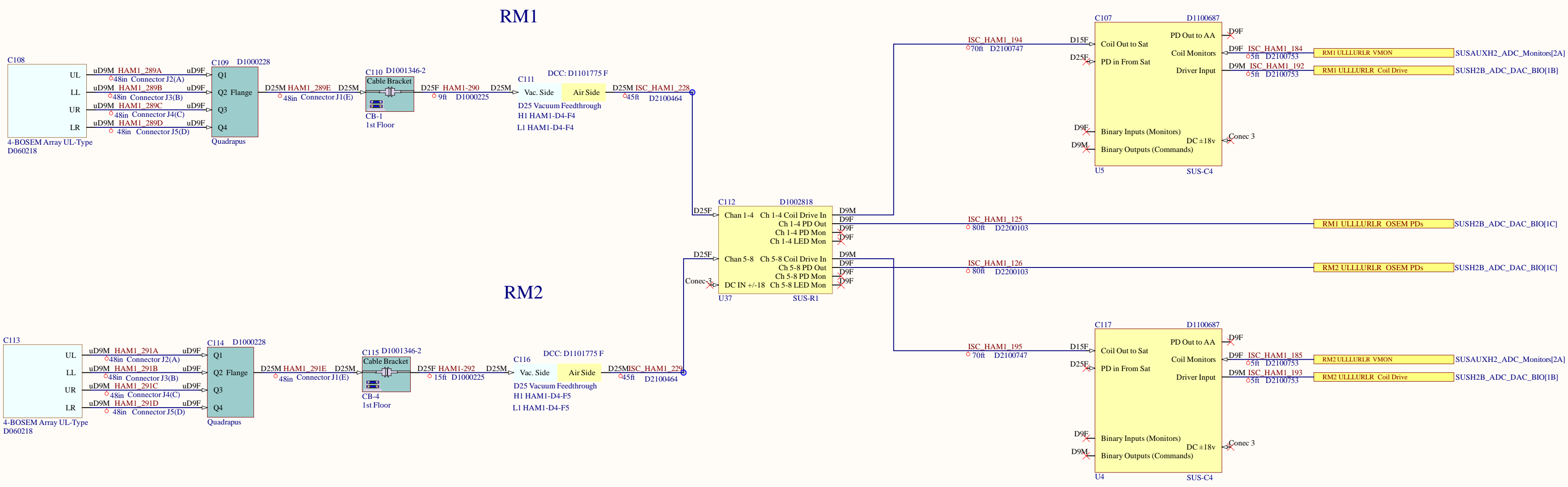


IM3



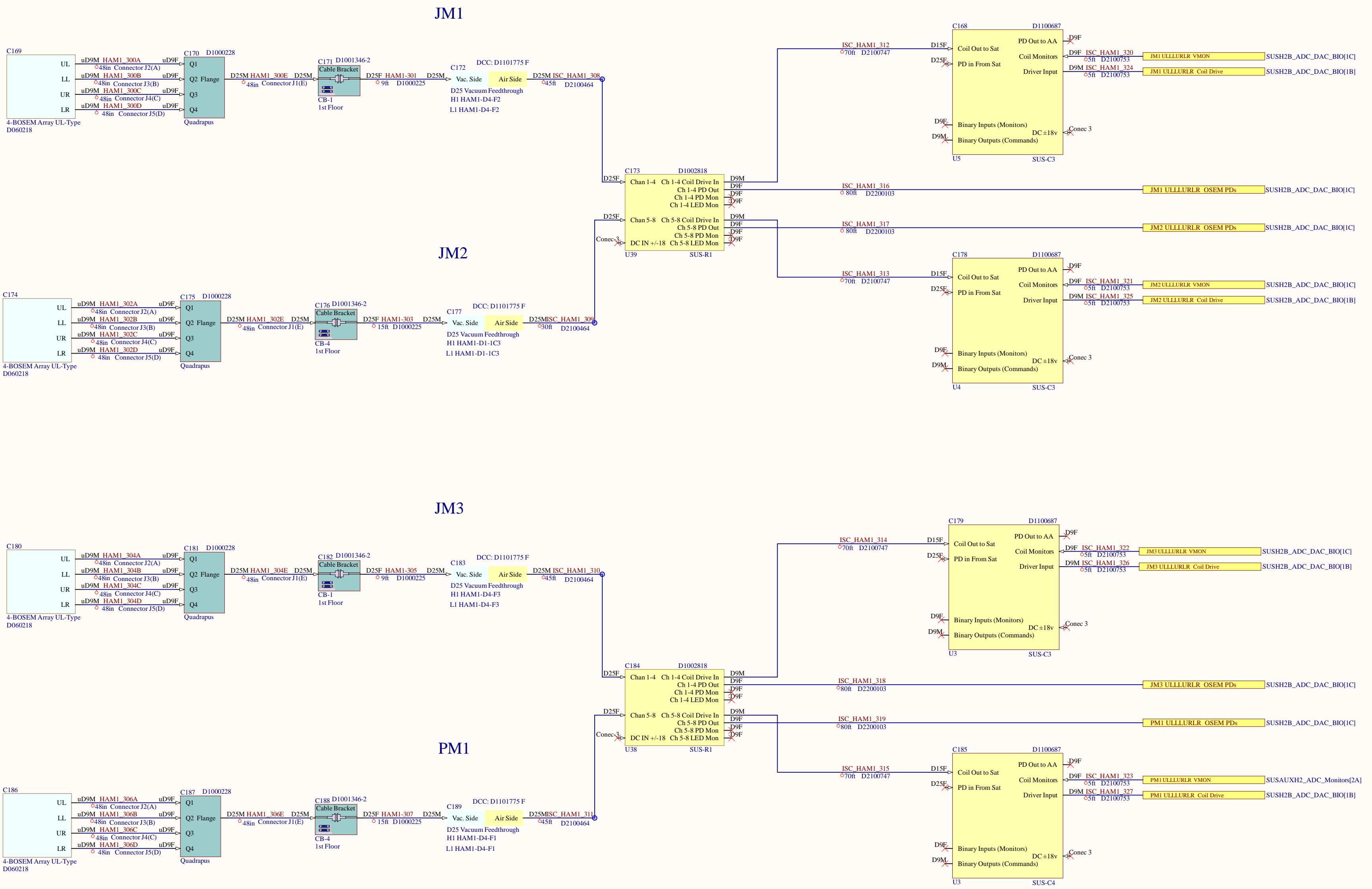
IM4





Last Edited: 1/31/2025

Title		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:33 AM
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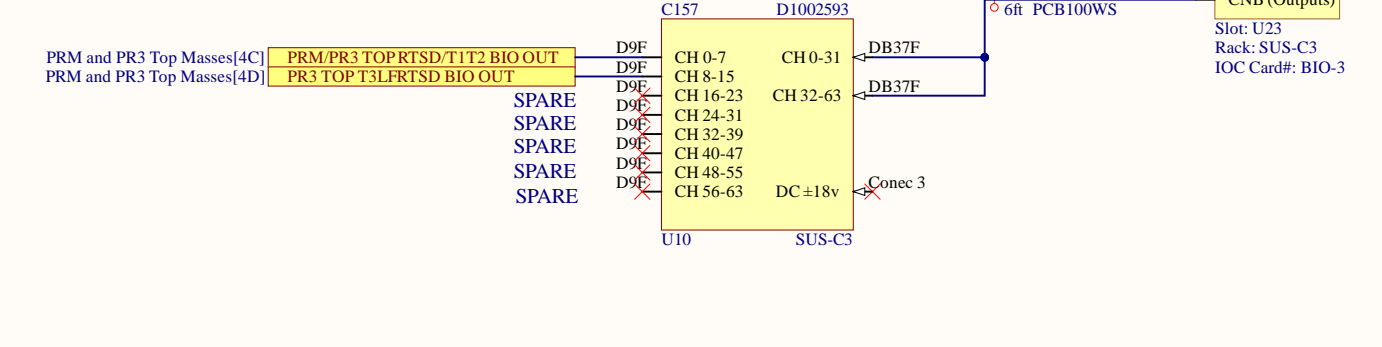
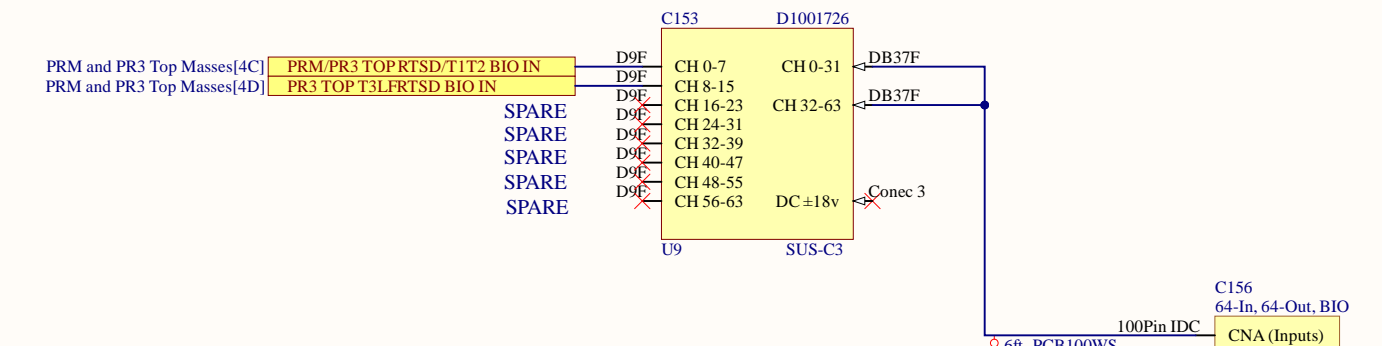
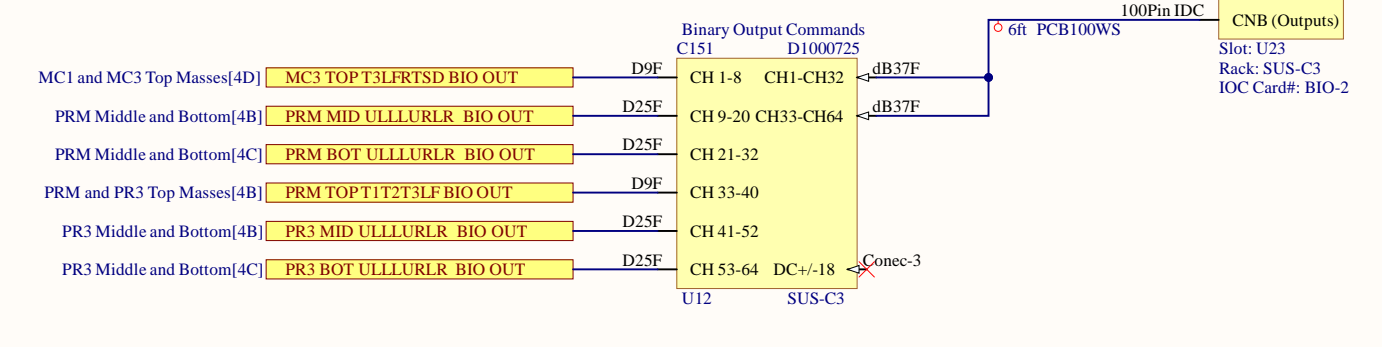
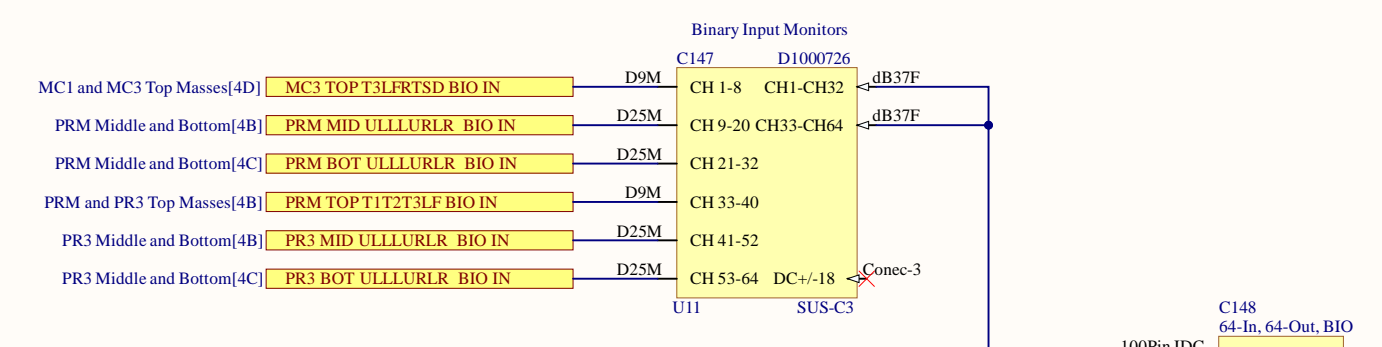
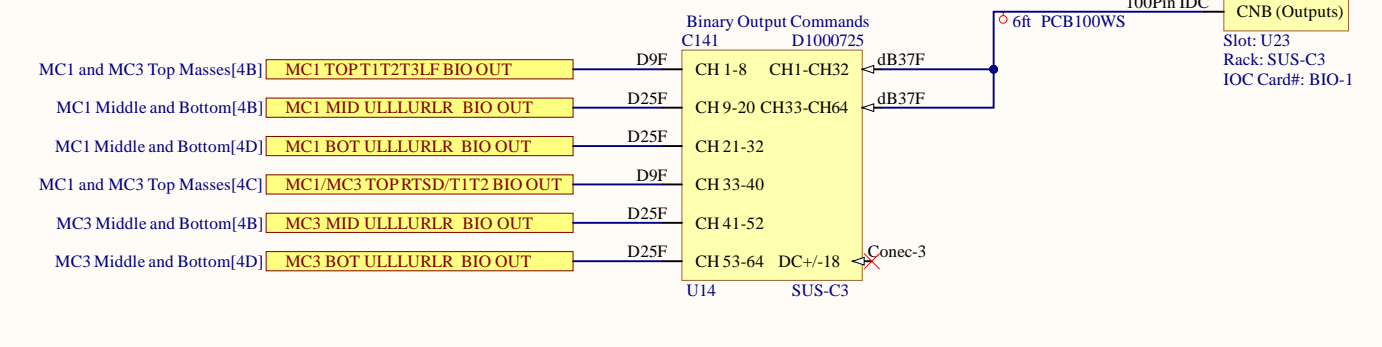
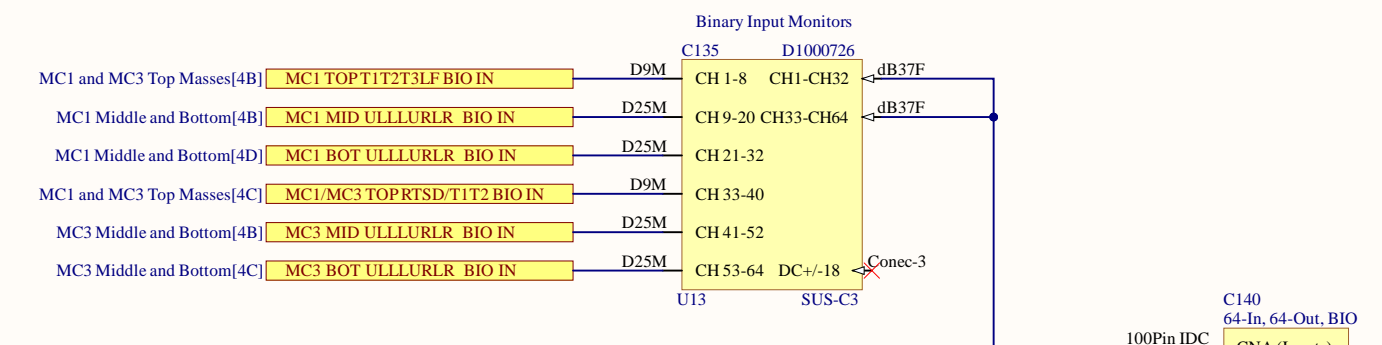
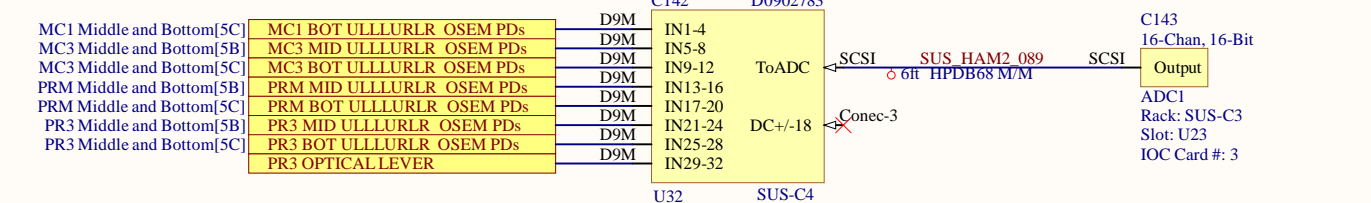
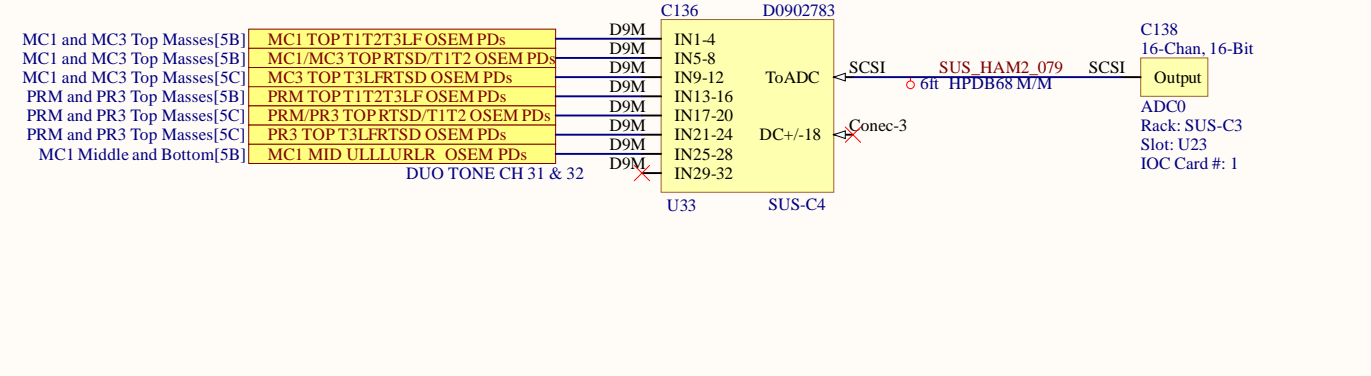
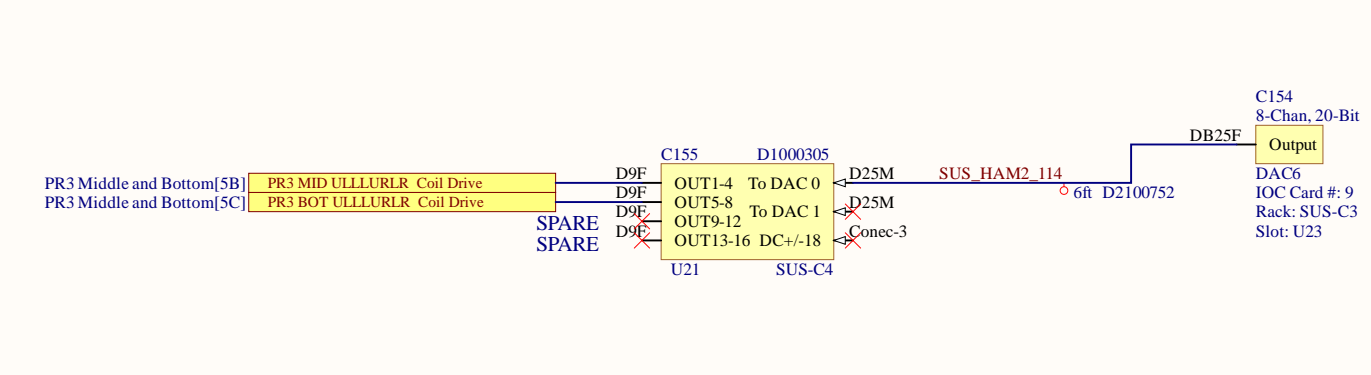
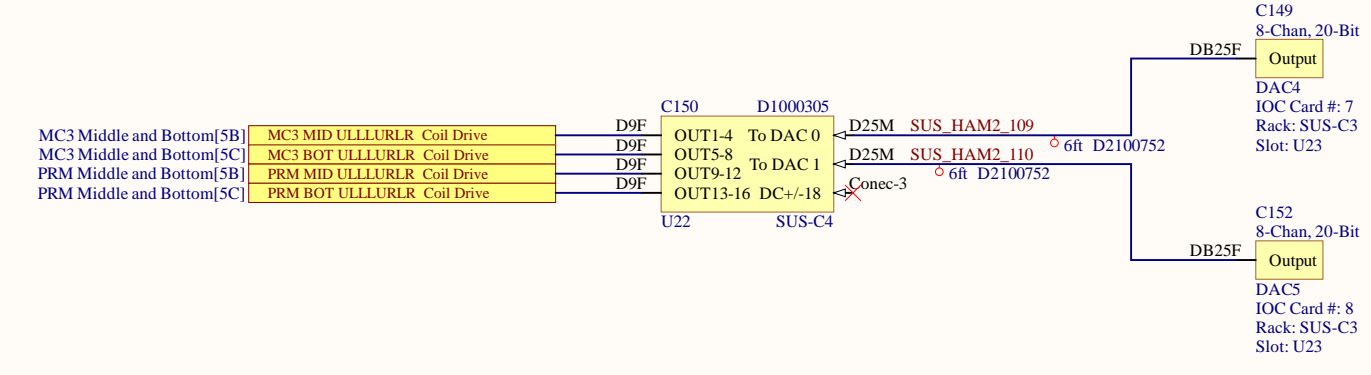
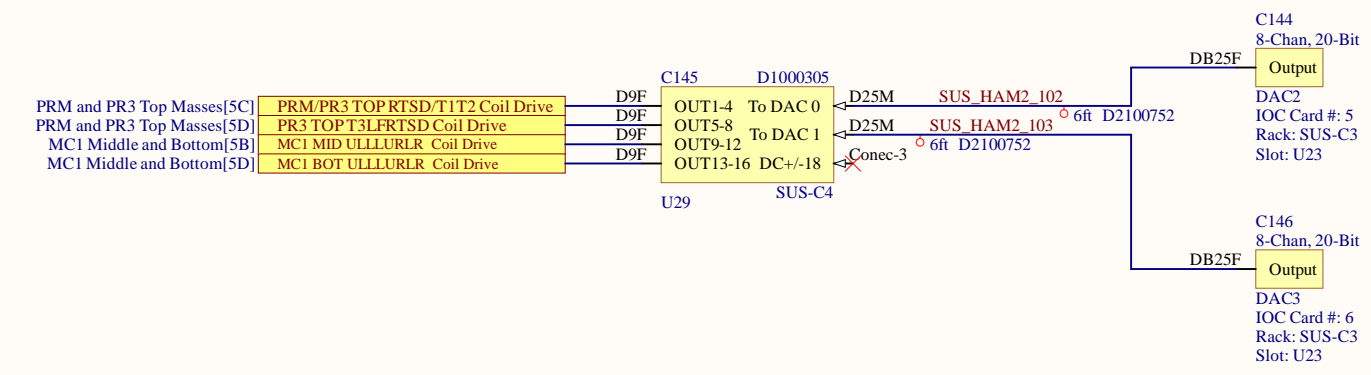
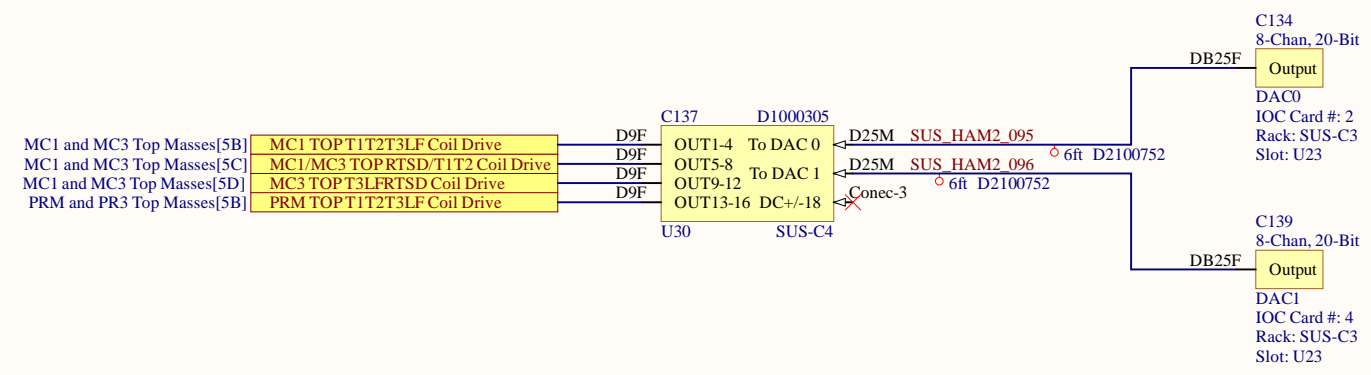


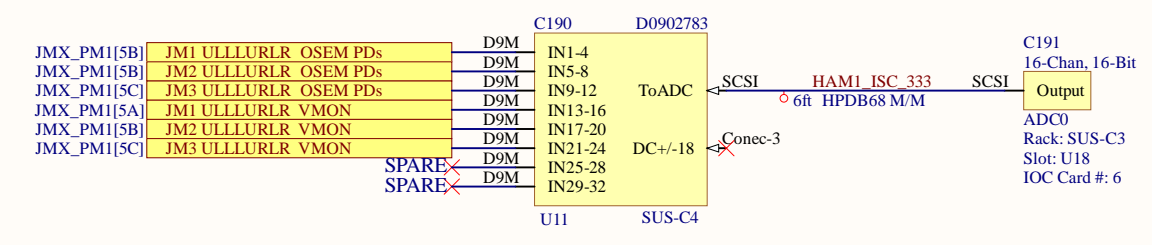
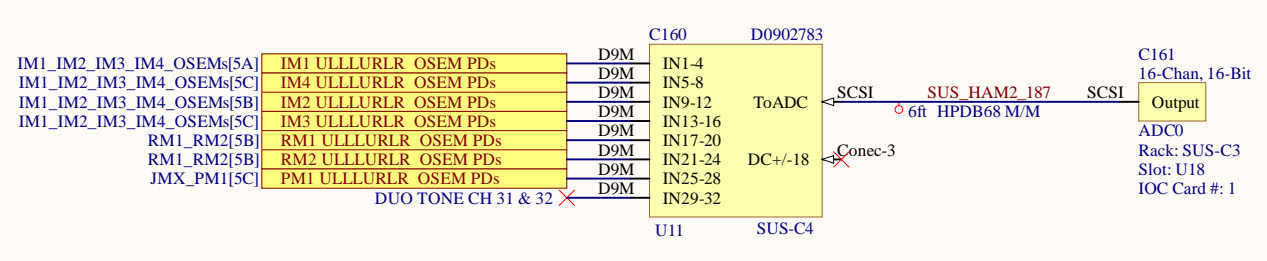
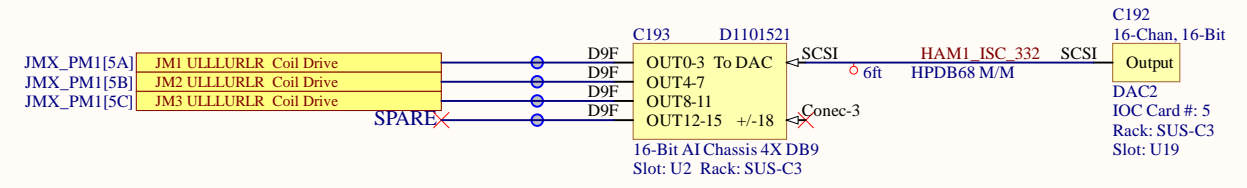
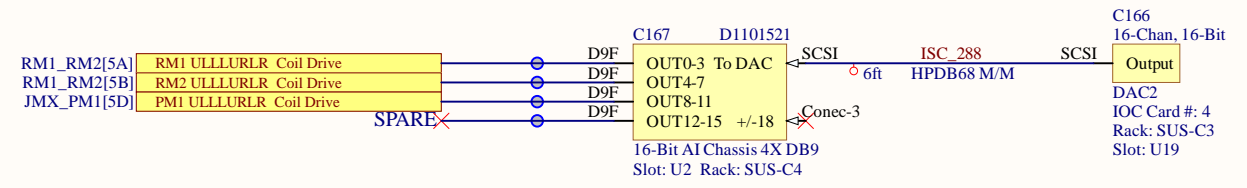
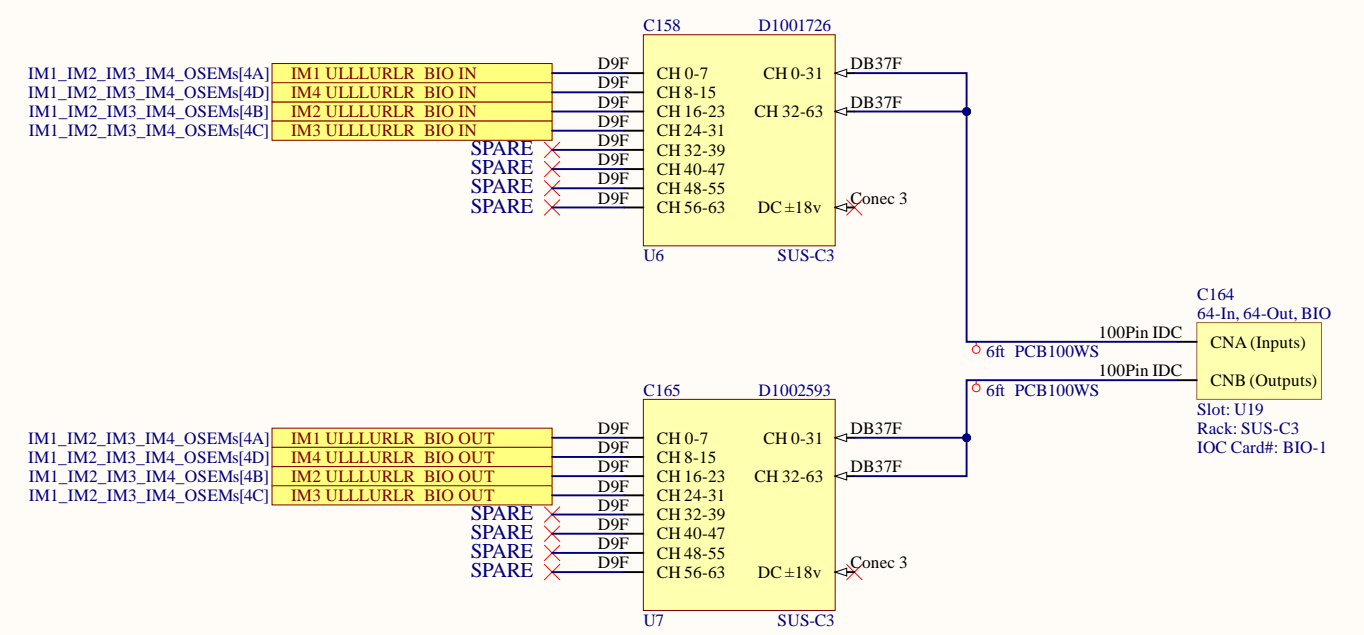
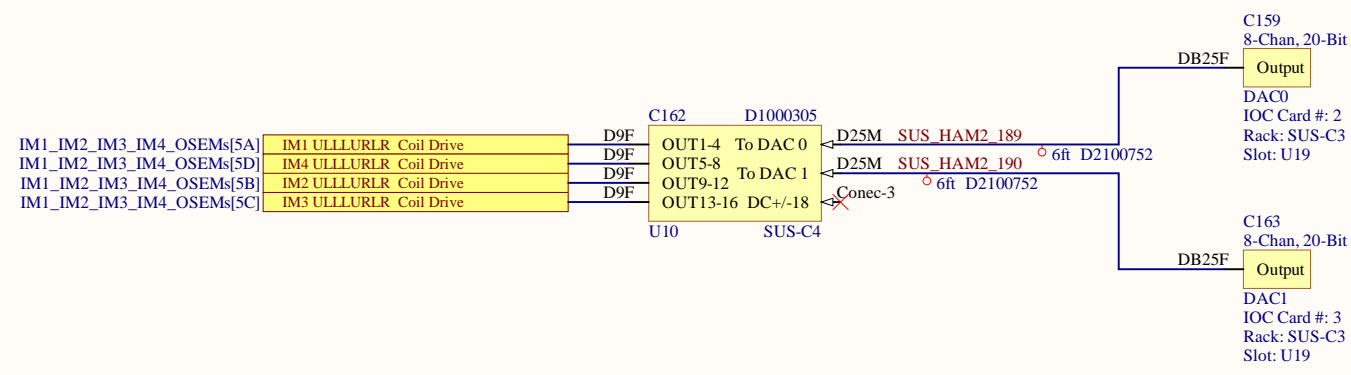
Last Edited: 1/31/2025

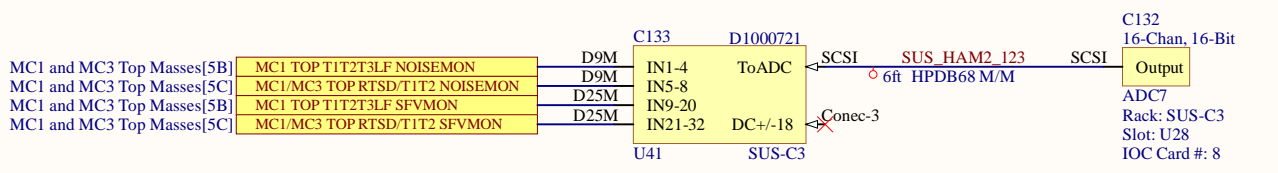
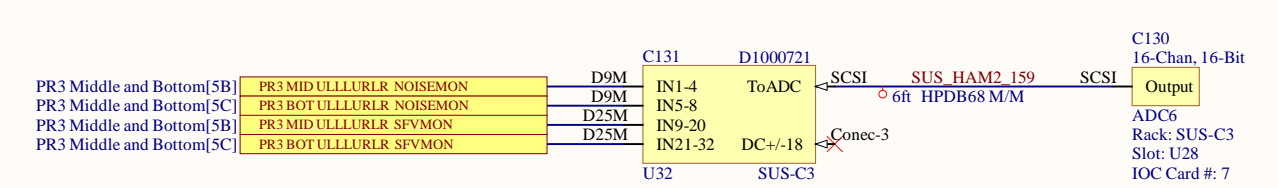
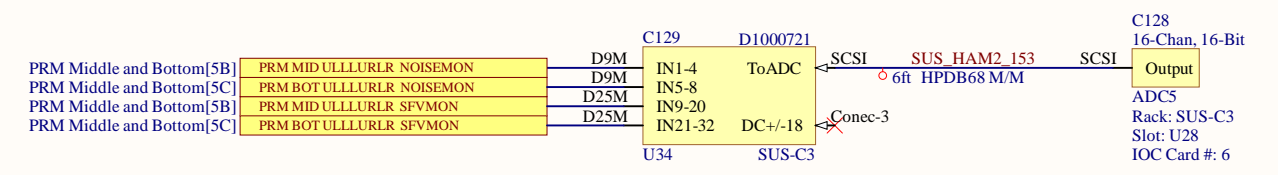
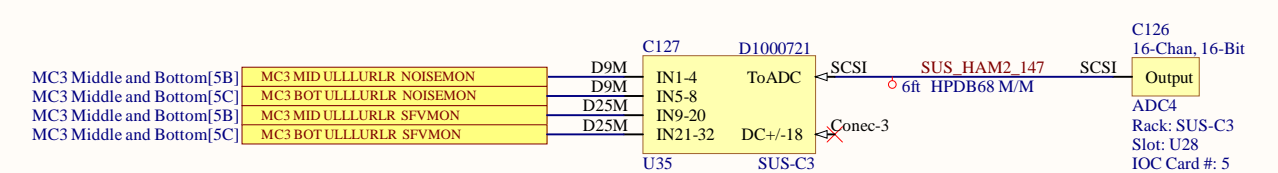
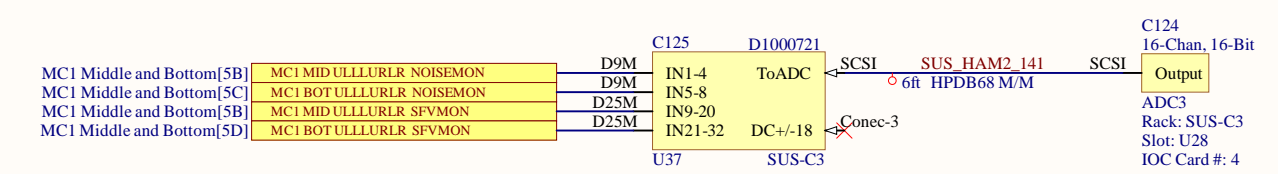
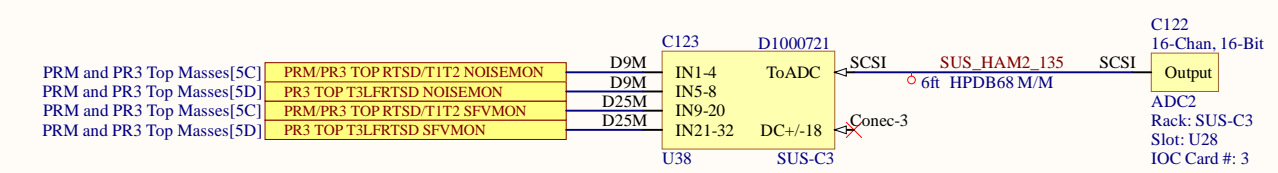
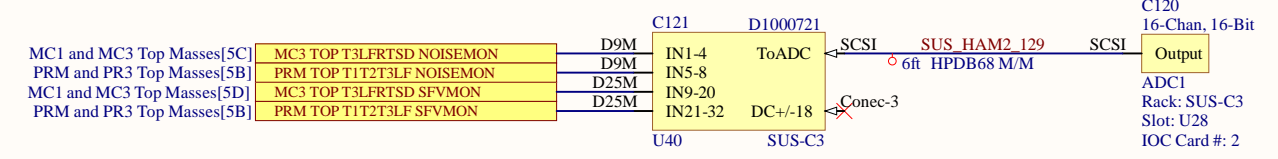
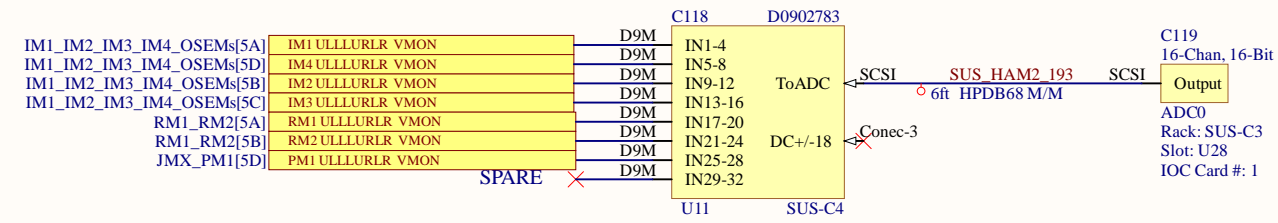
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Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:33 AM

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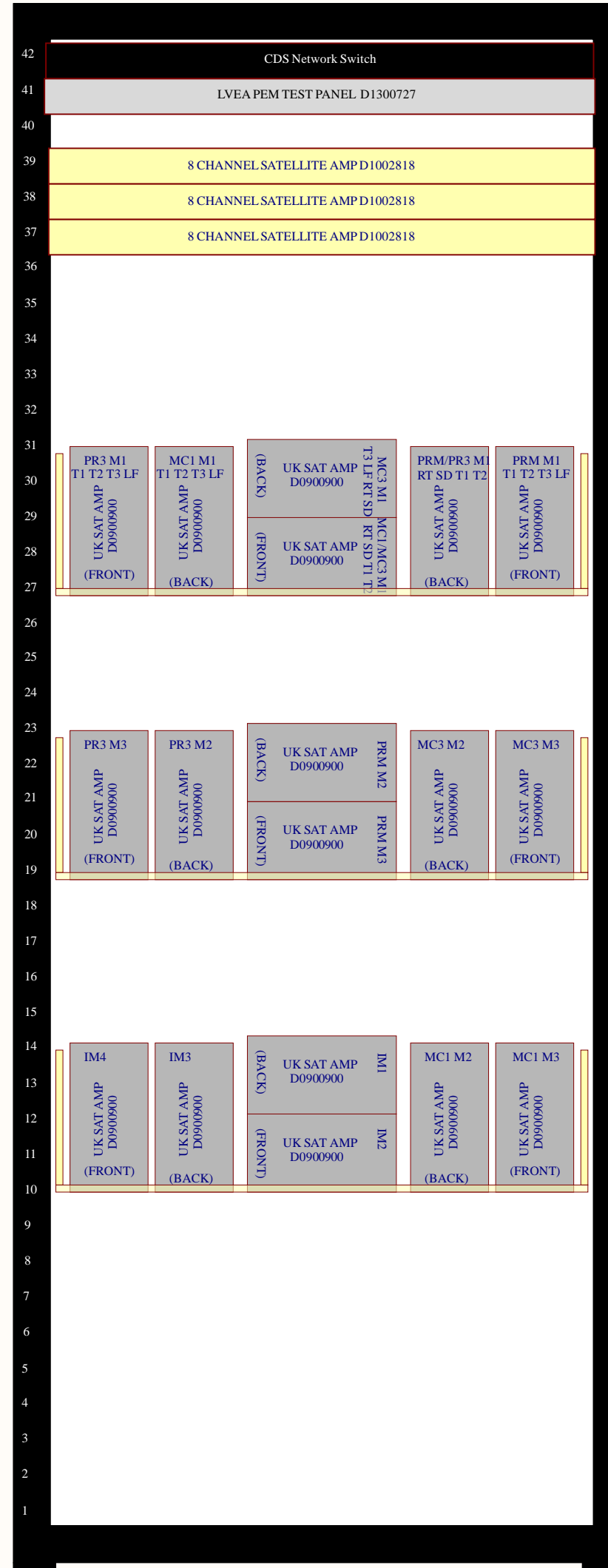






Front View
FLOOR SUS-R1 HAMI

JM1, JM2
JM3, PM1
RM1, RM2



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Front view

SUS C4



MC1 TOP T1T2T3LF
MC1/MC3 TOP RTSD/T1T2
MC3 TOP T3LFRTSD

PRM TOP T1T2T3LF
PRM/PR3 TOP RTSD/T1T2
PR3 TOP T3LFRTSD

MC1 TOP, MC1/MC3 TOP, MC3 TOP, PRM TOP, PRM/PR3 TOP, PR3 TOP, MC1 MID, Spare
MC1 BOT, MC3 MID, MC3 BOT, PRM MID, PRM BOT, PR3 MID, PR3 BOT, PR3 OL
MC2 TOP, MC2/PR2 TOP, PR2 TOP, SR2 TOP
MC1 TOP, MC1/MC3 TOP, MC3 TOP, PRM TOP
PRM/PR3 TOP, PR3 TOP, MC1 MID, MC1 BOT

MC1 MID
MC1 BOT
MC3 MID
MC3 BOT

MC3 MID, MC3 BOT, PRM MID, PRM BOT
PR3 MID, PR3 BOT, Spare, Spare

PRM MID
PRM BOT
PR3 MID
PR3 BOT

IM1
IM4

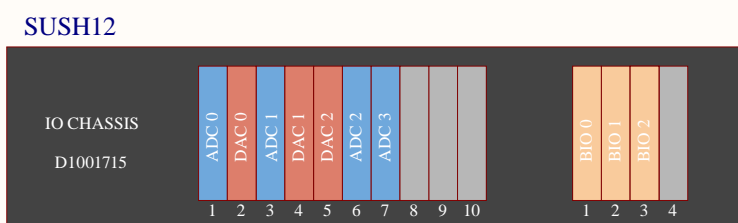
IM1, IM4, IM2, IM3

IM2
IM3

RM1
RM2
PM1

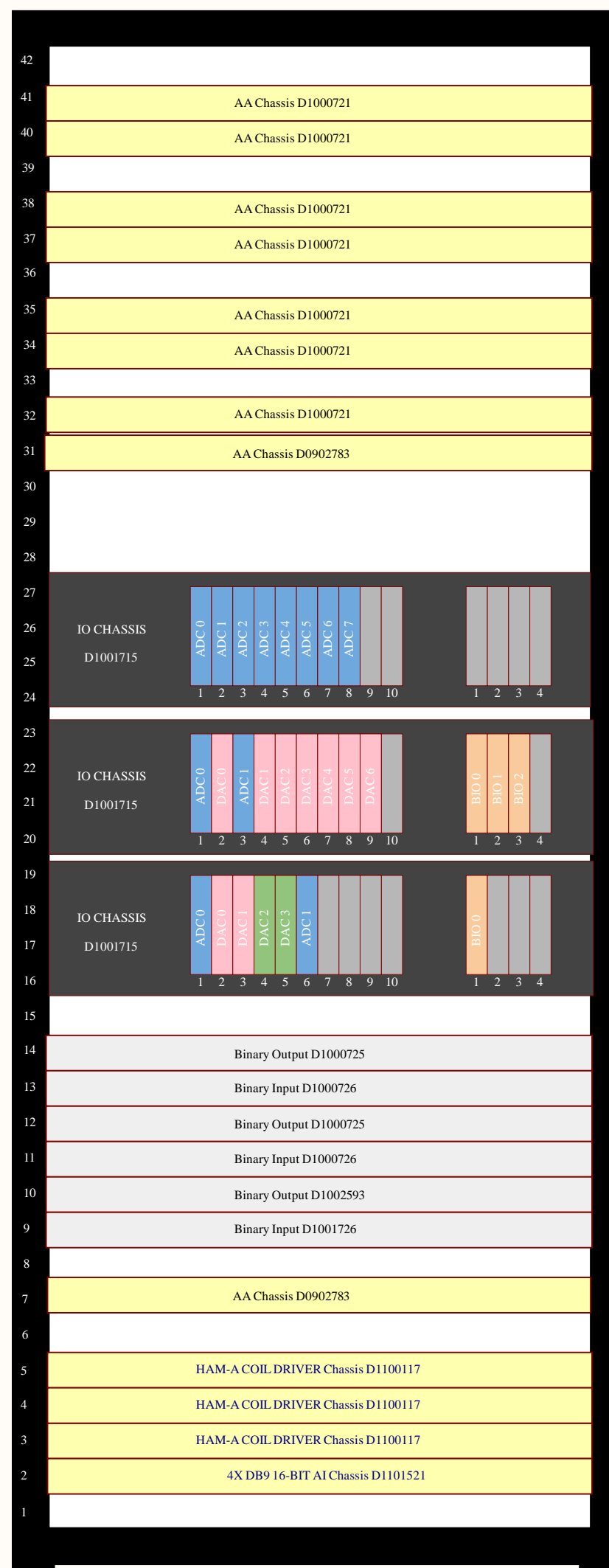
RM1, RM2, PM1, Spare

If we use the new 32-channel DAC, we can combine SUS12A and SUS12B into a single IO chassis:
- DAC channels needed: 96
- ADC channels needed: 100 (+12 channel VMON)
- Binary IO: <192 inputs/outputs



Front view

SUS C3



MC1 TOP Noise, MC1/MC3 TOP Noise, MC1 TOP SFV, MC1/MC3 TOP SFV
MC3 TOP Noise, PRM TOP Noise, MC3 TOP SFV, PRM TOP SFV

PRM/PR3 TOP Noise, PR3 TOP Noise, PRM/PR3 TOP SFV, PR3 TOP SFV
MC1 MID Noise, MC1 BOT Noise, MC1 MID SFV, MC1 BOT SFV

MC3 MID Noise, MC3 BOT Noise, MC3 MID SFV, MC3 BOT SFV
PRM MID Noise, PRM BOT Noise, PRM MID SFV, PRM BOT SFV

PR3 MID Noise, PR3 BOT Noise, PR3 MID SFV, PR3 BOT SFV
IM1 Vmon, IM4 Vmon, IM2 Vmon, IM3 Vmon, RM1 Vmon, RM2 Vmon, Spare, Spare

SUS AUXH12

SUSH12A

SUSH12B

MC1 TOP, MC1 MID, MC1 BOT, MC1/MC3 TOP, MC3 MID, MC3 BOT

MC3 TOP, PRM MID, PRM BOT, PRM TOP, PR3 MID, PR3 BOT

PRM/PR3 TOP, PR3 TOP, Spare, Spare, Spare, Spare, Spare, Spare

JM1, JM2, JM3 OSEM, JM1, JM2, JM3 VMON, Spare, Spare

JM1

JM2

JM3

JM1, JM2, JM3, Spare

Last Edited: 1/29/2025

Title C3 & C4 Rack		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D0902810	SCH / PCB Revision: v10	Engineer: J.Kissel/L.Sánchez	Date: 1/31/2025	Time: 10:48:34 AM
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