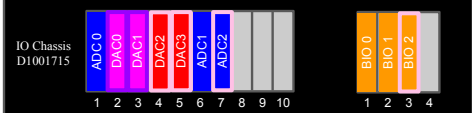


SUSB2H34 & SUS-C1/-C2

susb2h34

(DACs – 2026 LHO Config; “limited 32 CH DACs”, “No QOSEMs/BBSS”)

D2300383-v5



- (1) Re-arrange and install ADCs, DACs, and BIOs, creating new susb2h34 arrangement
 - (a) Disconnect existing input/output cables of sush34 (079, 089, 095, 096, 102, 103, 109, 110).
 - (b) Move ADC1 in Slot 3 to Slot 6.
 - (c) Install **new** ADC2 in Slot 7.
 - (d) Consolidate 8 CH 20-bit DACs 0, 1 (in Slots 2, 4) to Slots 2, 3.
 - (e) Install 3x **new** 32CH 28-bit DACs into slots 4, 5, and 8; 1x **new** ADC into slot 10; 1x **new** BIO card in slot BIO 3.
 - (f) Reconnect all cables from ADC/DAC/BIO to AA/AI/BIO as shown
- (2) Disconnect all existing D9 cables from SUS-C1 U31, U30 D1000305 AI Chassis (leave PR2/SR2 U24 AI chassis output cables chassis alone)
- (3) Upgrade SUS-C1 to 1x **32CH 28-bit DAC** chain.
 - (a) Replace 2x SUS-C1 U31, U30 D1000305 AI chassis with 2x **new** D2500353 AI chassis
 - (b) Reconnect MC2, PR2 and SR2 output cables to U31 and U30 AI chassis as shown.
- (4) Install **new** 1x **32CH 28-bit DAC** DAC chains for BS, LO1, and LO2
 - (a) Disconnect **existing** BS cables (BS_091, BS_093, BS_095) from SUS-C6 U37, **reroute to SUS-C1**.
 - (b) Install **new** D2500353 AI chassis into SUS-C1 U14 and U13
 - (c) Connect re-routed **existing** BS cables and **new** BS BOT cable to SUS-C2 U14 AI chassis as shown
 - (d) Connect **new** LO1 and LO2 cables to SUS-C2 U13 AI chassis as shown.

Needs:

- Re-routing of BS coil driver cables from SUS-C6 to SUS-C2
 - Shifting 2x existing 8-CH 20-bit DAC card positions
 - 2x 32CH 28-bit DAC Cards
 - 2x 32CH DAC Adapter Cards
 - 4x D2500353 AI chassis
 - New cables from LO1, LO2, and BS BOT.
- Bought with ECR E2400409*
- Bought with A+*



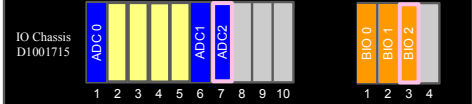
Does not exist yet

SUSB2H34 & SUS-C1/-C2

(ADCs – LHO “No QOSEMs/BBSS” Config)

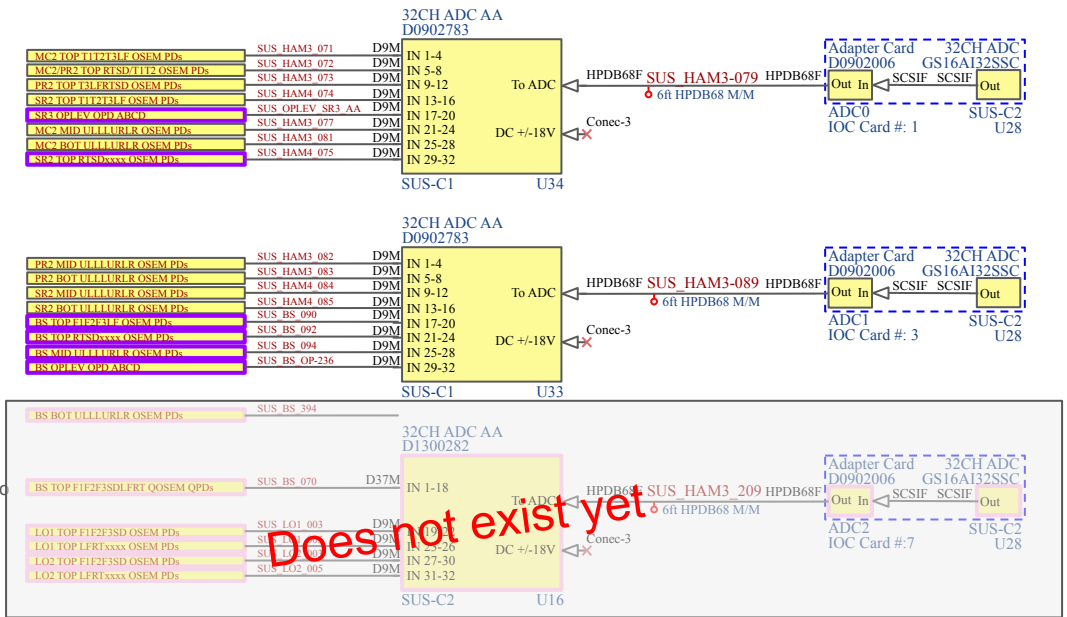
D2300383-v5

susb2h34



(DAC cards and thus where ADC cards are are site-dependent – see DAC pages above)

- (1) Re-arrange and install ADCs, DACs, and BIOs, creating new susb2h34 arrangement
 - (a) Disconnect existing input/output cables of sush34 (079, 089, 095, 096, 102, 103, 109, 110).
 - (b) Move ADC1 in Slot 3 to Slot 9.
 - (c) Install **new** ADC2 in Slot 10.
- (2) Rearrange **existing** DB9 input cables to maximize existing ADC channel usage
 - (a) Disconnect SR2 TOP RTSDxxxx (HAM4_075) from Port 5 (CH17-20) of SUS-C1 U34 AA chassis, and move to Port 8 (CH29-32).
 - (b) Move SR3 Oplev (OPLEV_SR3_AA) from SUS-C1 U33 AA Port 5 (CH17-20) to SUS-C1 U34 AA chassis Port 5 (CH17-20)
- (3) Move in BS and PR3 optical levers from disparate racks
 - (a) [Do not reroute PR3 optical lever]
 - (b) Reroute **existing** BS oplev cable from SUS-C6 U41 3rd Port (CH9-12) to SUS-C1 U33 Port 8 (CH29-32)
- (4) Land all remaining BS sensors
 - (a) Reroute **existing** BS TOP (SUS_BS_90 and SUS_BS_092) to SUS-C1 U33 Port 5 and 6 (CH17-20 and CH21-24)
 - (b) Reroute **existing** BS MID (SUS_BS_094) OSEMs from SUS-C6 U40 Port 8 (CH29-32) to SUS-C1 U33 Port 7 (CH25-28)



- Needs:
- Re-arrangement of existing ADC cards in IO chassis
 - Re-routing of BS TOP cables from SUS-C6 to SUS-C1
 - Re-routing of BS MID and OL cables from SUS-C6 to SUS-C1

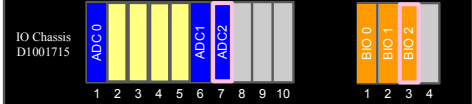
SUSB2H34 & SUS-C1/-C2

susb2h34

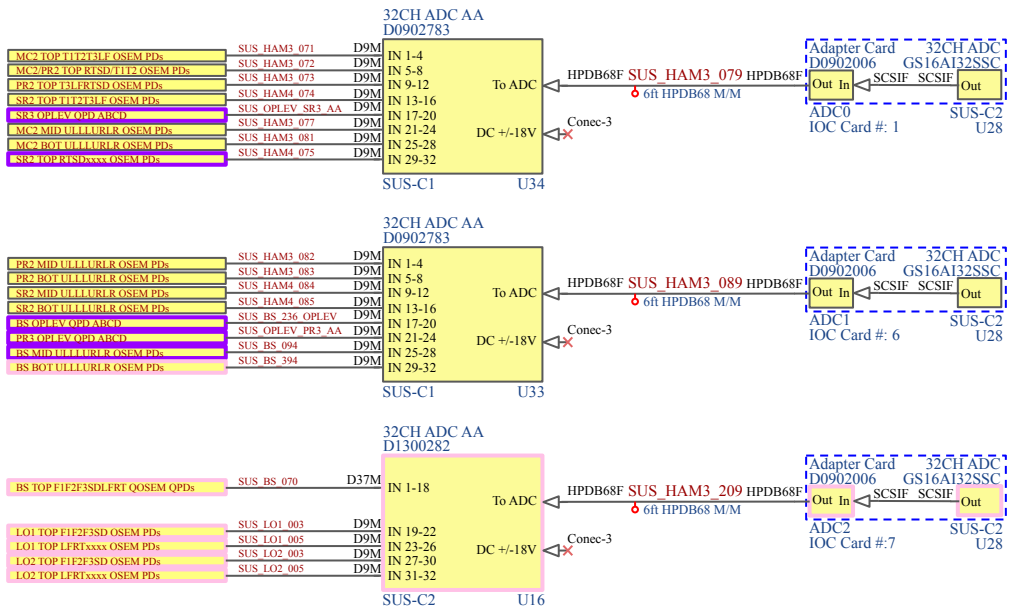
(ADCs – O5 Config)

D2300383-v5

- (1) Re-arrange and install ADCs, DACs, and BIOs, creating new susb2h34 arrangement
 - (a) Disconnect existing input/output cables of sush34 (079, 089, 095, 096, 102, 103, 109, 110).
 - (b) Move ADC1 in Slot 3 to Slot 9.
 - (c) Install **new** ADC2 in Slot 10.
- (2) Rearrange **existing** DB9 input cables to maximize existing ADC channel usage
 - (a) Disconnect SR2 TOP RTSDxxxx (HAM4_075) from Port 5 (CH17-20) of SUS-C1 U34 AA chassis, and move to Port 8 (CH29-32).
 - (b) Move SR3 Oplev (OPLEV_SR3_AA) from SUS-C1 U33 AA Port 5 (CH17-20) to SUS-C1 U34 AA chassis Port 5 (CH17-20)
- (3) Move in BS and PR3 optical levers from disparate racks
 - (a) Reroute **existing** PR3 optical lever QPD from SUS-C4 U32 8th port (CH29-32) into SUS-C1 U33 6th port (CH21-24)
 - (b) Reroute **existing** BS oplev cable from SUS-C6 U41 3rd Port (CH9-12) to SUS-C1 U33 Port 5 (CH17-20)
- (4) Land all remaining BS, LO1, and LO2 sensors
 - (a) Reroute **existing** BS MID (SUS_BS_094) OSEMs from SUS-C6 U40 Port 8 (CH29-32) to SUS-C1 U33 Port 7 (CH25-28)
 - (b) Land new BS BOT (SUS_BS_394) OSEMs in SUS-C1 U33 Port 8 (CH29-32)
 - (c) Install **new** D1300282 AA chassis into SUS-C2 U16.
 - (d) Land **new** BS TOP QOSEM cable (SUS_BS_???) into SUS-C2 U16 Port 1 (CH1-18).
 - (e) Land **new** LO1 and LO2 TOP cables (LO1_003, LO1_005, LO2_003, LO2_005) as shown.



(DAC cards and thus where ADC cards are are site-dependent – see DAC pages above)



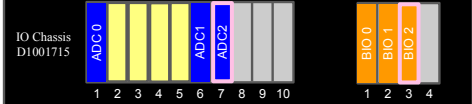
- Needs:
- Re-arrangement of existing ADC cards in IO chassis
 - Re-routing of BS MID and OL cables from SUS-C6 to SUS-C1
 - Re-routing of PR3 OL cable from SUS-C4 to SUS-C1
 - 1x 32CH ADC Cards
 - 1x 32CH ADC Adapter Cards
 - 1x D1300282 AA chassis
 - New cables from LO1, LO2, and BS TOP and BOT.

SUSB2H34 & SUS-C1/-C2

susb2h34

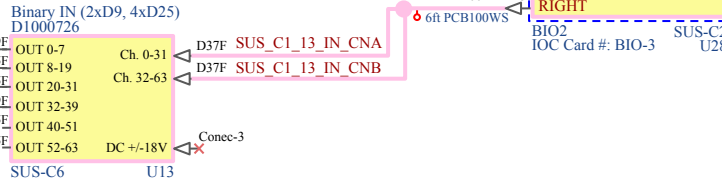
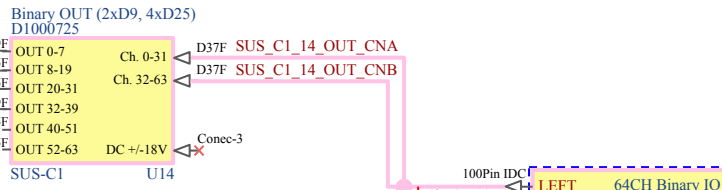
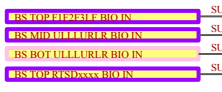
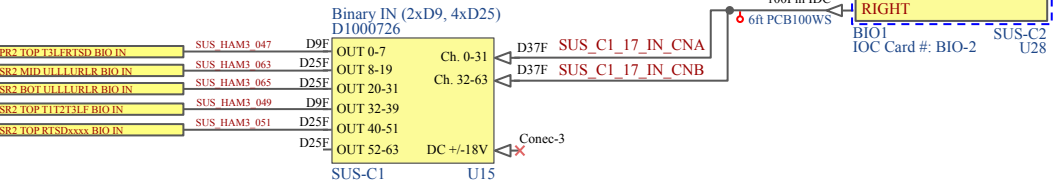
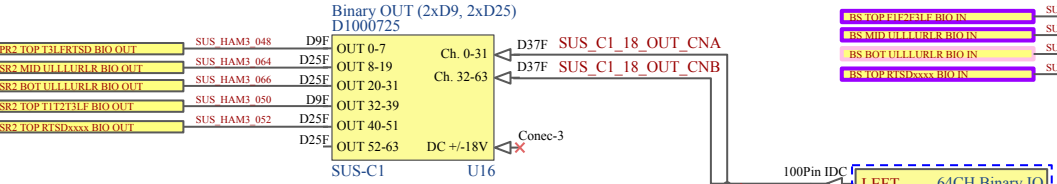
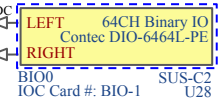
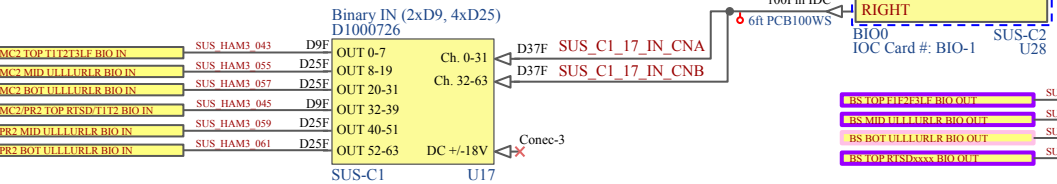
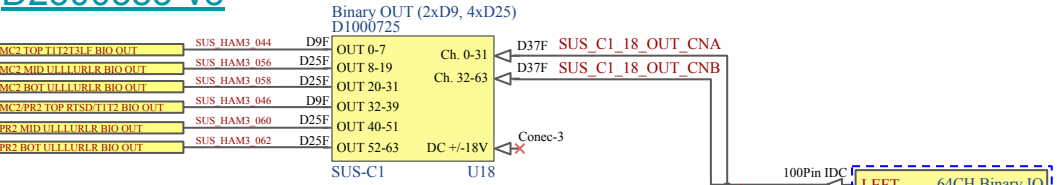
(Binary Inputs/Outputs – O5 Config)

D2300383-v5



(DAC cards and thus where ADC cards are are site-dependent – see DAC pages above)

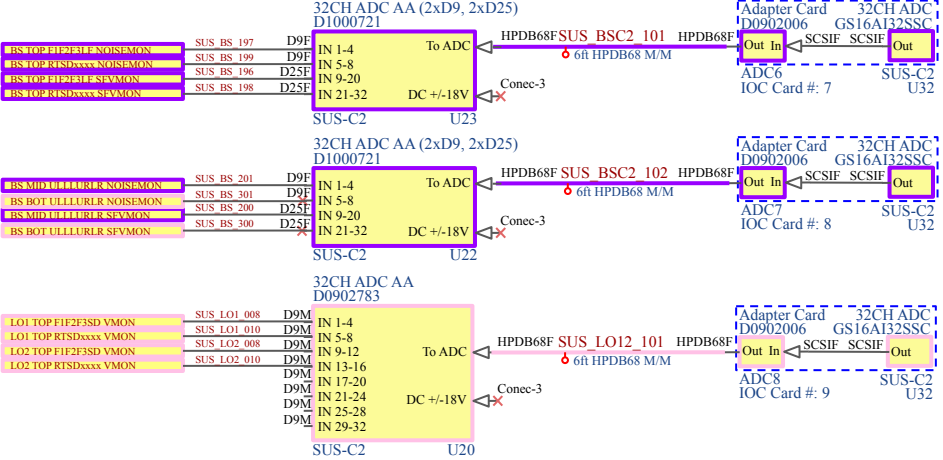
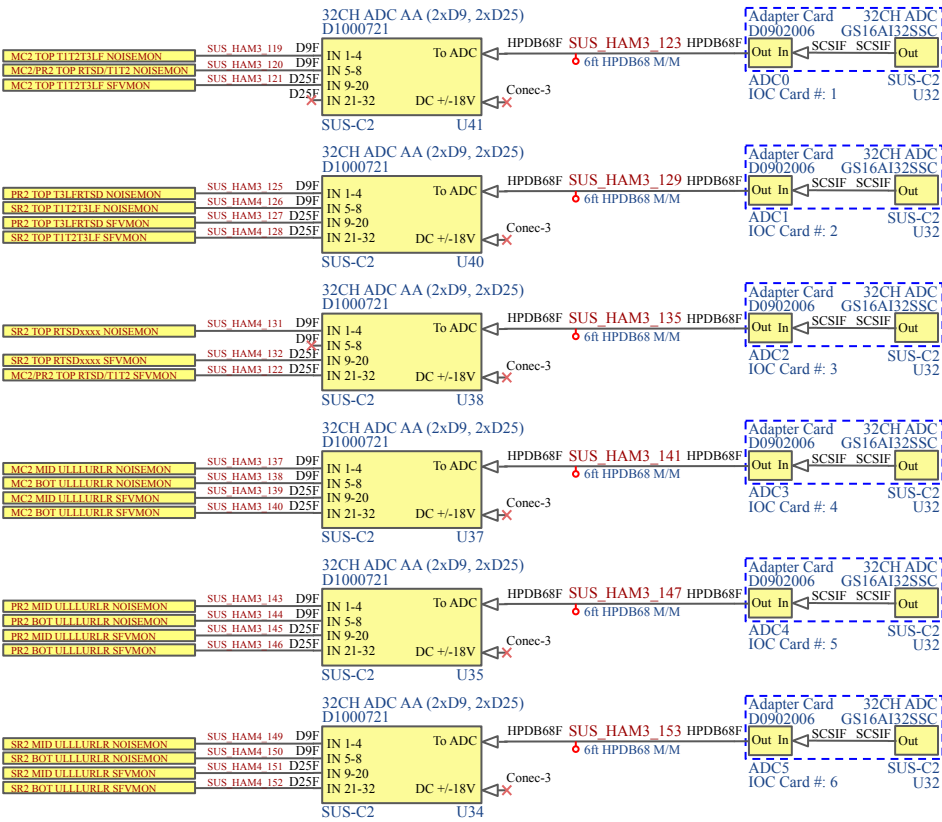
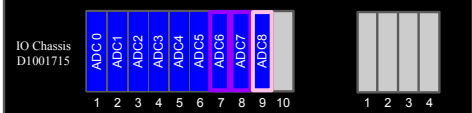
- (1) Install **new** BIO card, BI chassis, BO chassis, and associated cabling as shown below
- (2) Re-route **existing** BS cabling into SUS-C1
- (3) Plug in **new** BS M3 coil driver switching



SUSAUXB2H34 & SUS-C1/-C2

(ADCs – O5 Config)

D2300383-v5



- (1) Install **existing** BS coil driver Monitor Chain
 - (a) Install 2x ADC and adapter cards from (former) susauxb123 as ADC5 and ADC6 in (now) susauxb2h34
 - (b) Install 2x25, 2x15 AA chassis into SUS-C2 U23 and U22
 - (c) Connect cabling from re-routed from SUS-C6 as shown above
- (2) Install new BS M3 stage, LO1 M1, and LO2 M1 stages coil driver monitors
 - (a) Connect **new** US_BS_300 and SUS_BS_301 cables into ports 2 and 4 of **existing** SUS-C2 U22 AA chassis migrated from SUS-C6.
 - (b) Build entirely **new** LO1 and LO2 monitor chain as shown.

D2300383-v5

HAM3_082, HAM3_083, HAM4_084, HAM4_085, BS_090, BS_092, BS_094, BS_236_OPLEV

SR2 TOP, MC2 MID, MC2 BOT, Spare

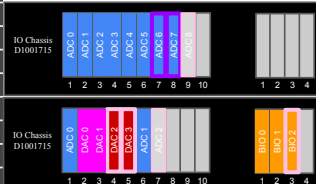
MC2 MID
MC2 BOTPR2 BOTSR2 BOTPR2 BOTSpare

A, N/A
e, Spare
A, N/A
e, Spare

BS_085
BS_087BS_087
AS TOP LEFTBS_089

SUS - C1

SUS - C2



```
MC2 TOP Noise, MC2/PR2 TOP Noise, MC2 TOP SFV, Spare
PR2 TOP Noise, SR2 TOP Noise, PR2 TOP SFV, SR2 TOP SFV

SR2 TOP Noise, Spare, SR2 TOP SFV, MC2/PR2 TOP SFV
MC2 MID Noise, MC2 BOT Noise, MC2 MID SFV, MC2 BOT SFV

PR2 MID Noise, PR2 BOT Noise, PR2 MID SFV, PR2 BOT SFV
SR2 MID Noise, SR2 BOT Noise, SR2 MID SFV, SR2 BOT SFV
```

SUS AUX B2H34SUS B2H34

BS 197, BS 199, BS 196, BS 198
BS TOP Noise, BS TOP Noise, BS TOP SVF, BS TOP SVF
BS 201, BS 301, BS 200, BS 300
BS MTD Noise, BS MTD Noise, BS MTD SVF, BS MTD SVF

LO1 008, LO1 010, LO2 008, LO2 010, N/A x4

BS 070, LO1 004, LO1 006, LO2 004, LO2 006
BS 700, LO1 700, LO1 700, LO2 700, LO2 700

BS 091, BS 093, BS 095, BS 395
BS TOP, BS TOP, BS MID, BS BOT
LO1 007, LO1 009, LO2 007, LO2 009
LO1 TOP, LO1 TOP, LO2 TOP, LO2 TOP

LO1 003
LO1 TOP FIF2F3SD
LO1 005
LO1 TOP LFRT

LO2 003
LO2 TOP FIF2F3SD
LO2 005
LO2 TOP LFRT

SUSB2H34

& SUS-C1/-C2

(O5 Config)

D2300383-v5

*Differences highlighted
as compared to the
“No QOSEMs/BBSS”
config

	SUS - C1	SUS - C2	
	42	42	MC2 TOP Noise, MC2/PR2 TOP Noise, MC2 TOP SFV, Spare
MC2 TOP T1T2T3LF	41 Triple Top Coil Driver D1001242	41 AA Chassis D1000721	PR2 TOP Noise, SR2 TOP Noise, PR2 TOP SFV, SR2 TOP SFV
MC2/PR2 TOP RTSDF/T1T2	40 Triple Top Coil Driver D1001242	40 AA Chassis D1000721	
PR2 TOP T3LFT3SD	39 Triple Top Coil Driver D1001242	39	SR2 TOP Noise, Spare, SR2 TOP SFV, MC2/PR2 TOP SFV
	38	38 AA Chassis D1000721	MC2 MID Noise, MC2 BOT Noise, MC2 MID SFV, MC2 BOT SFV
SR2 TOP T1T2T3LF	37 Triple Top Coil Driver D1001242	37 AA Chassis D1000721	
SR2 TOP RTSDFxxxx	36 Triple Top Coil Driver D1001242	36	PR2 MID Noise, PR2 BOT Noise, PR2 MID SFV, PR2 BOT SFV
MC2 TOP, MC2/PR2 TOP, PR2 TOP, SR2 TOP, SR3 OL, MC2 MID, MC2 BOT, SR2 TOP	35	35 AA Chassis D1000721	SR2 MID Noise, SR2 BOT Noise, SR2 MID SFV, SR2 BOT SFV
HAM3_082, HAM3_083, HAM4_084, HAM4_085, BS_236_OPLEV, OPLEV_FR3_AA, BS_094, BS_394	34 AA Chassis D0902783	34 AA Chassis D1000721	
PR2_MID, PR2_BOT, SR2_MID, SR2_BOT, SR3_OL, SR3_MID, SR3_SFV	33 AA Chassis D0902783	33	
	32	32	
MC2 TOP, MC2/PR2 TOP, PR2 TOP, SR2 TOP	31 AI Chassis D2500353	31	SUS AUX B2H34
SR2 TOP, MC2 MID, MC2 BOT, Spare	30 AI Chassis D2500353	30	
	29	29	
MC2 MID	28 Triple Acq Coil Driver D090006	28	
MC2 BOT	27 Triple Acq Coil Driver D090006	27	
PR2 MID	26 Triple Acq Coil Driver D090006	26	
	25	25	
PR2 MID, PR2 BOT, SR2 MID, SR2 BOT	24 AI Chassis D1000305	24	
	23	23	
PR2 BOT	22 Triple Acq Coil Driver D090006	22	BS TOP Noise, BS TOP Noise, BS TOP SFV, BS TOP SFV
SR2 MID	21 Triple Acq Coil Driver D090006	21	BS_201, BS_301, BS_200, BS_300
SR2 BOT	20 Triple Acq Coil Driver D090006	20	LO1_008, LO1_010, LO2_008, LO2_010, N/A x4
	19	19	
MC2 TOP, MC2 MID, MC2 BOT, MC2/PR2 TOP, PR2 MID, PR2 BOT	18 Binary Output D1000725	18	
	17 Binary Input D1000726	17	
PR2 TOP, SR2 MID, SR2 BOT, SR2 TOP, SR2 TOP, Spare	16 Binary Output D1000725	16	BS_070, LO1_004, LO1_006, LO2_004, LO2_006
	15 Binary Input D1000726	15	
BS_117, BS_133, BS_333, BS_119, N/A, N/A	14 Binary Output D1000725	14	BS_091, BS_093, BS_095, BS_395
BS_116, BS_132, BS_332, BS_118, N/A, N/A	13 Binary Input D1000726	13	LO1_007, LO1_009, LO2_007, LO2_009
	12	12	
	11	11	
	10	10	
BS TOP F1F2F3SD	9 Triple Top Coil Driver D1001242	9	LO1_003
BS TOP LFRT	8 Triple Top Coil Driver D1001242	8	LO1_005
	7	7	
BS MID	6 Triple Acq Coil Driver D090006	6	LO2_003
BS_389	5 Triple Acq Coil Driver D090006	5	LO2_005
	4	4	
	3	3	
	2	2	
	1	1	

