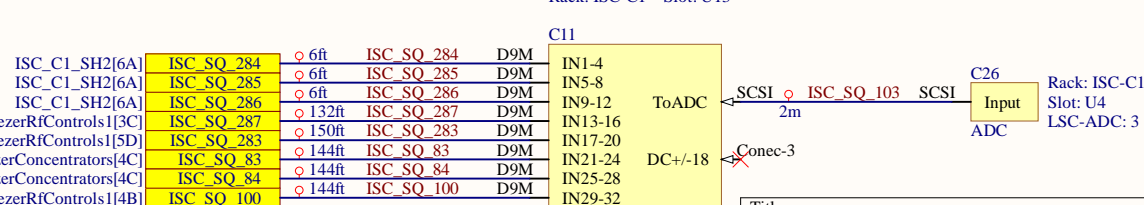
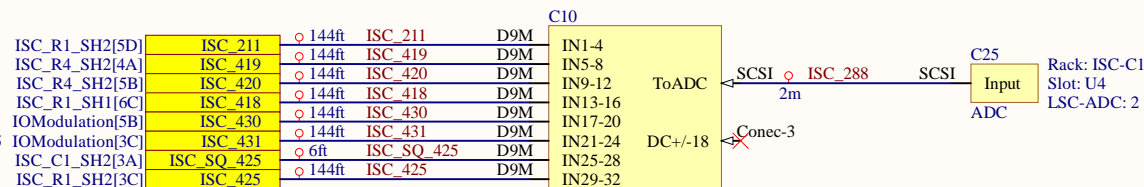
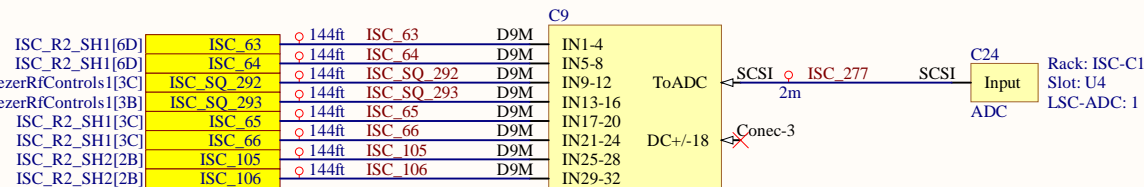
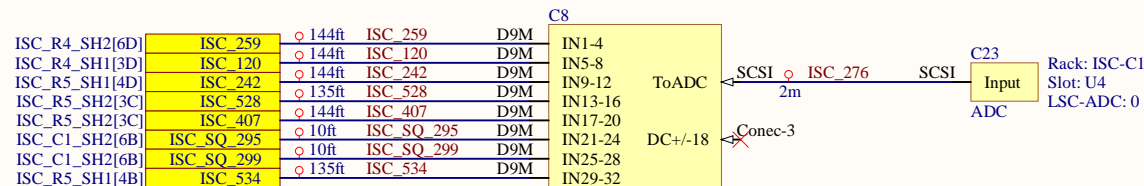
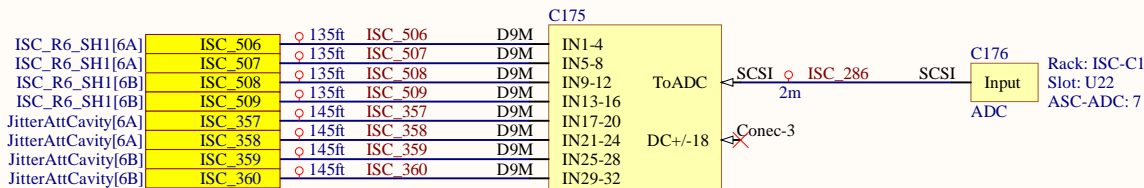
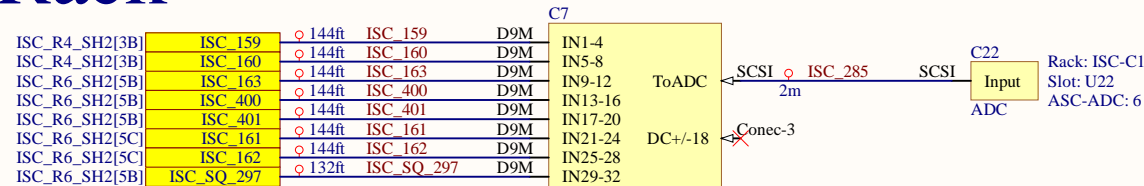
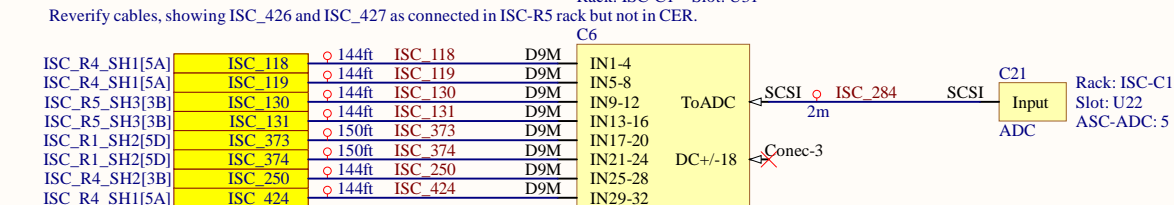
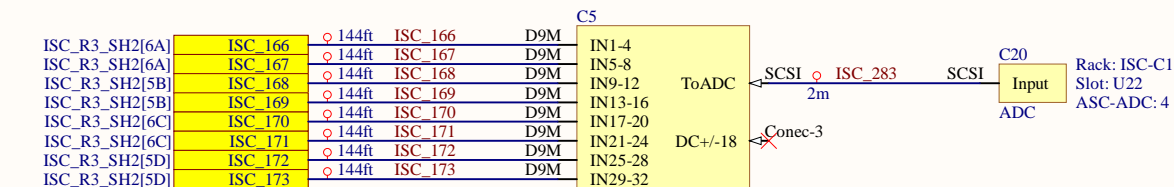
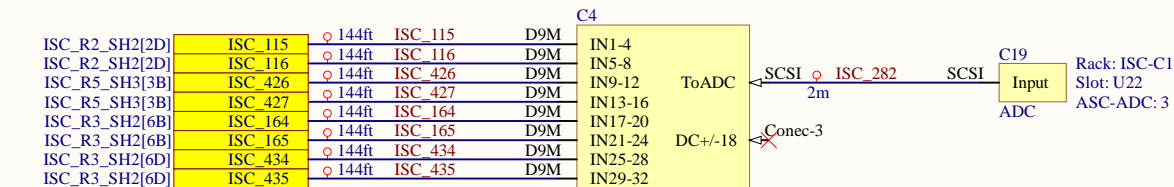
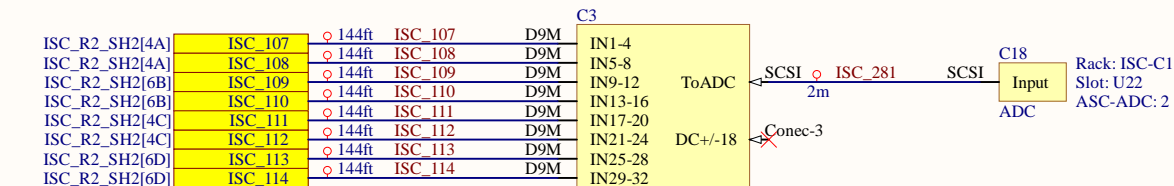
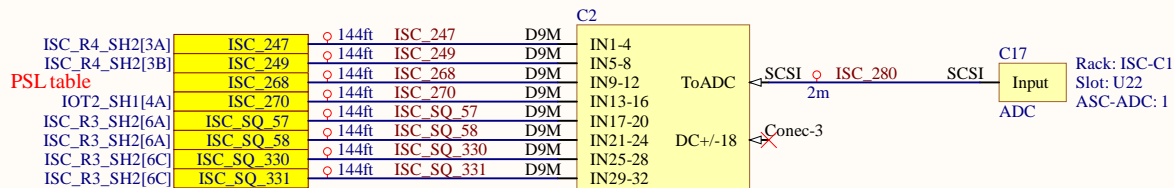
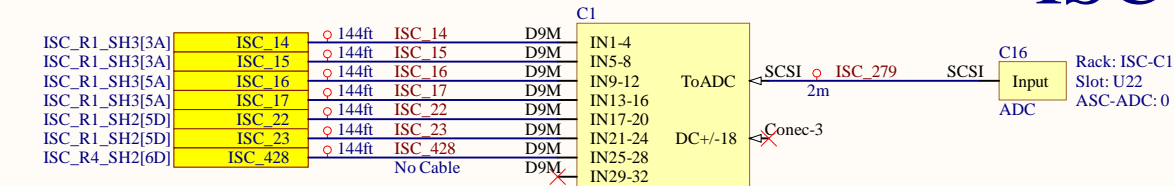


ISC-C1 Rack

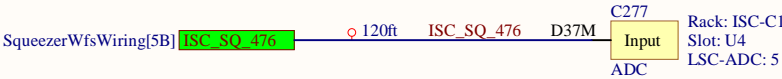
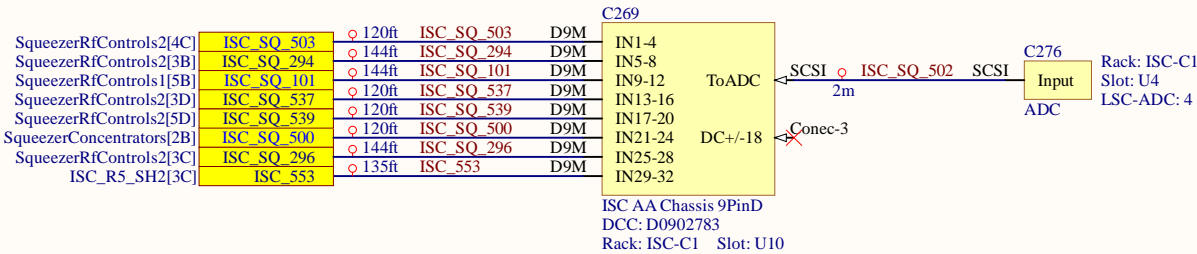
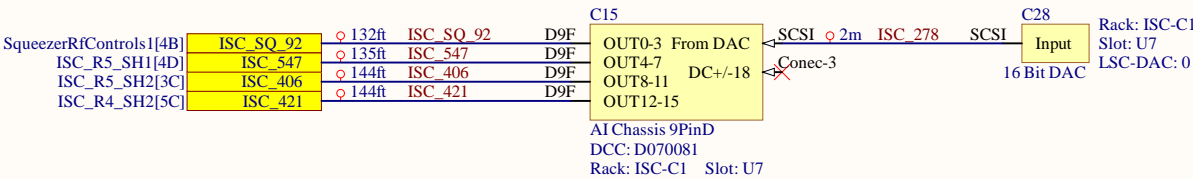
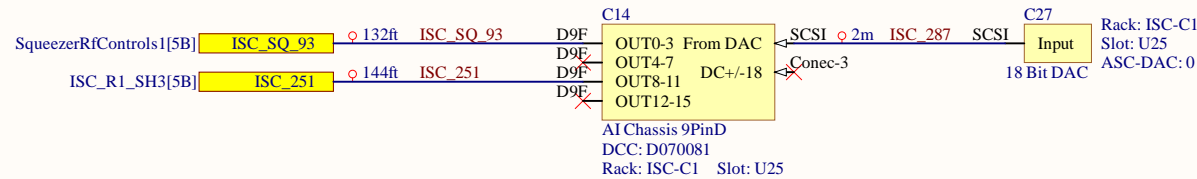
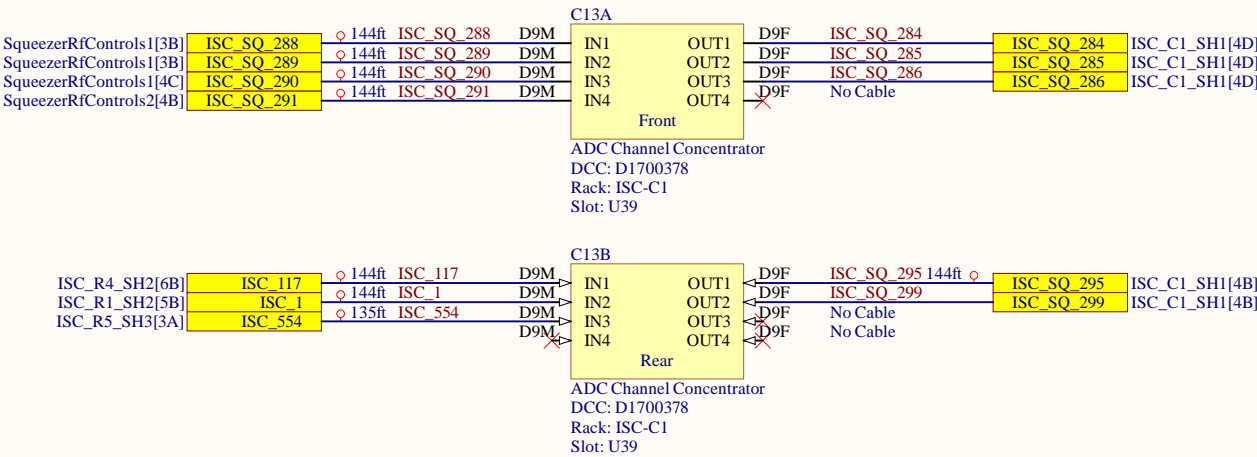
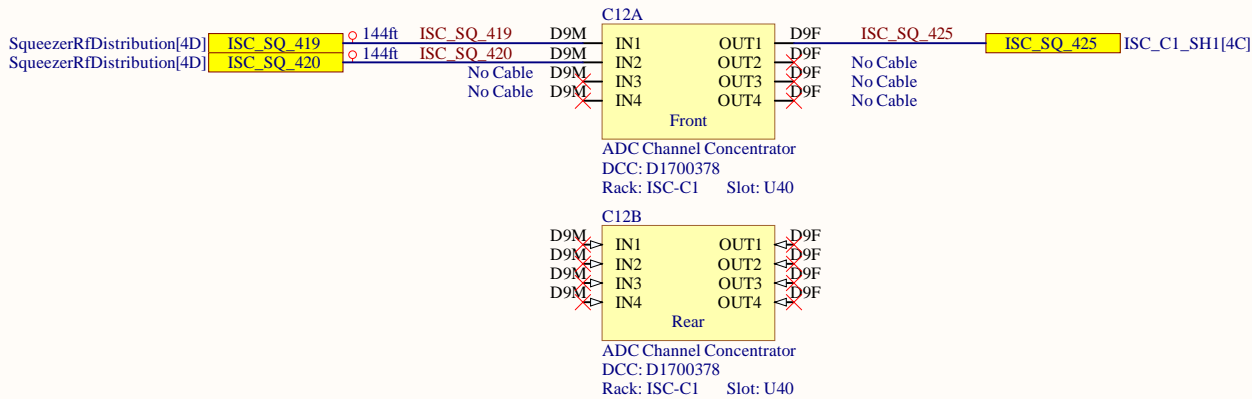


Following cables are not connected in the CER:

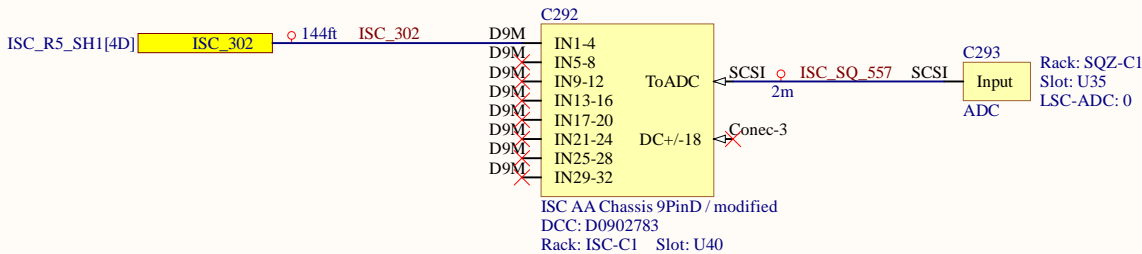
ISC_101,ISC_175,ISC_242, ISC_410.

Title		
ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of 1 43
File:	C:\Users\...ISC_C1_SH1.SchDoc	Drawn By: Filiberto Clara

ISC-C1 Rack



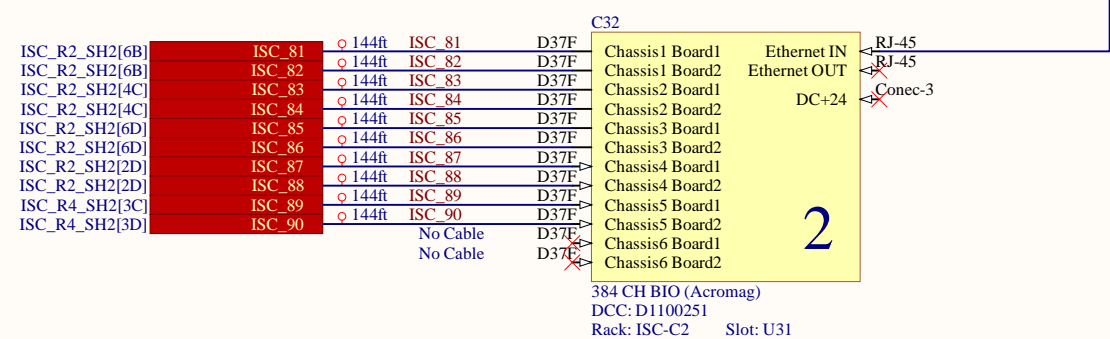
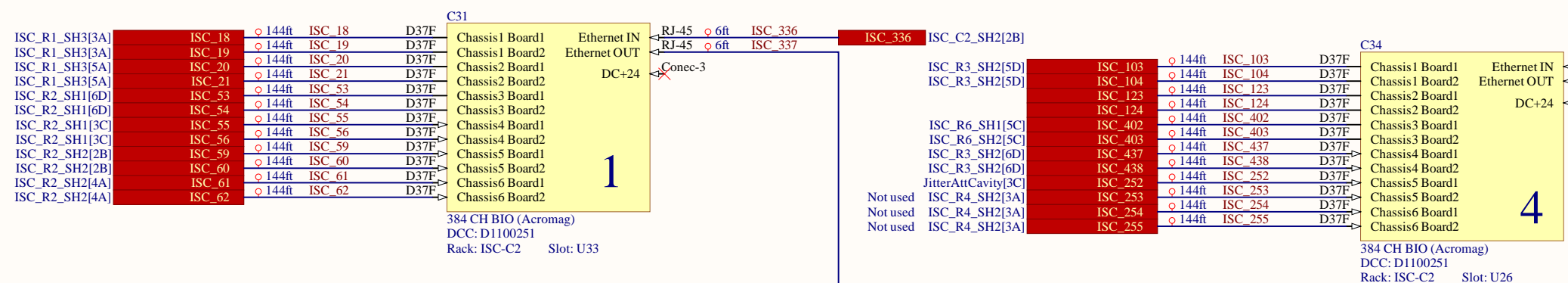
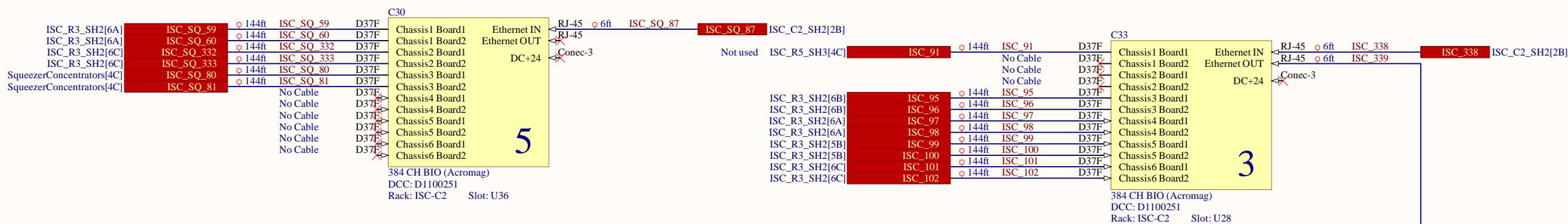
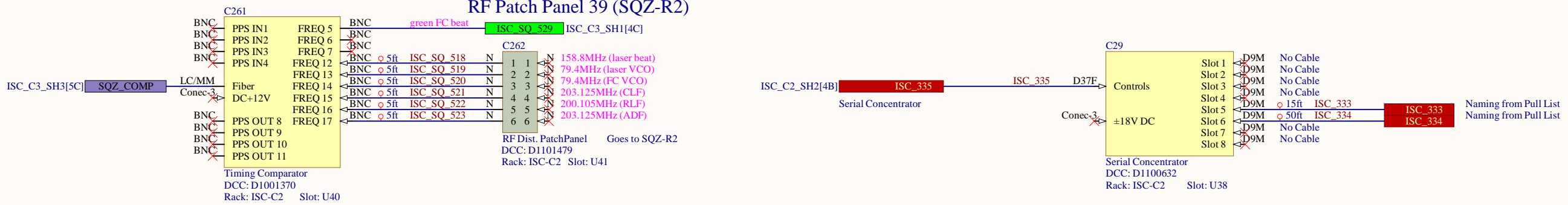
SQZ-C1 Rack



Title			
ISC System Wiring Diagram			
Size	Number	Revision	
B	D1900511	V12	
Date:	11/25/2025	Sheet of	2 43
File:	C:\Users\...\ISC_C1_SH2.SchDoc	Drawn By:	Filiberto Clara

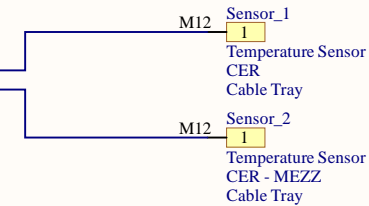
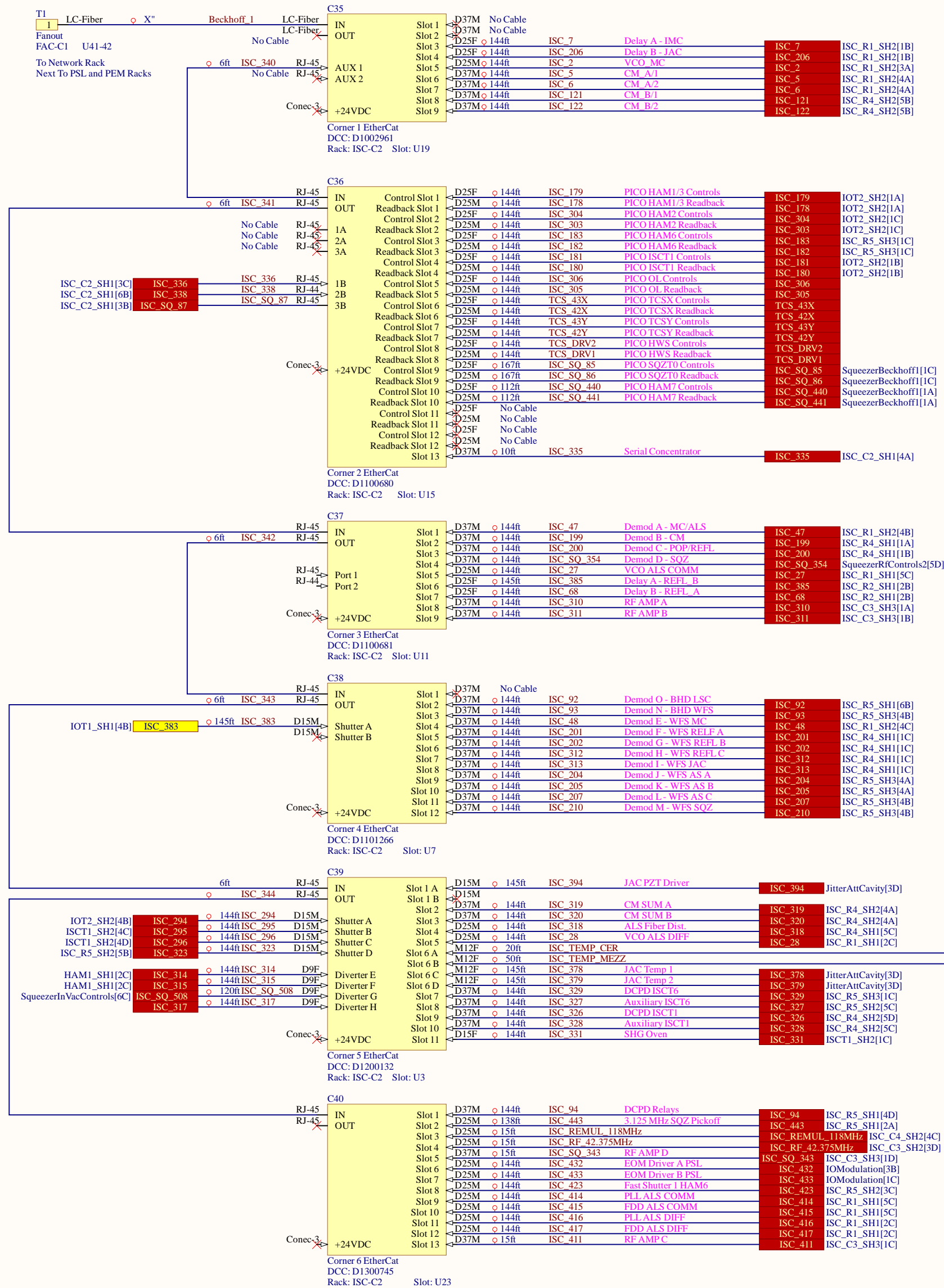
ISC-C2 Rack

RF Patch Panel 39 (SQZ-R2)



Title			
ISC System Wiring Diagram			
Size	Number	Revision	
B	D1900511	V12	
Date:	11/25/2025	Sheet of 3	43
File:	C:\Users\...\ISC_C2_SH1.SchDoc	Drawn By: Filiberto Clara	

ISC-C2 Rack

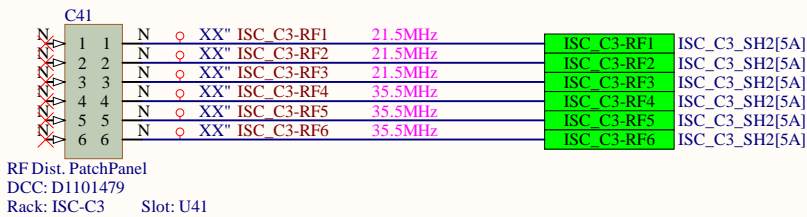


Title		
<h1 style="text-align: center;">ISC System Wiring Diagram</h1>		
Size	Number	Revision
C	D1900511	V12
Date:	11/25/2025	Sheet of 43
File:	C:\Users\jisc_C2_SH2\SchDoc	Drawn By: Filiberto Clara

ISC-C3 Rack

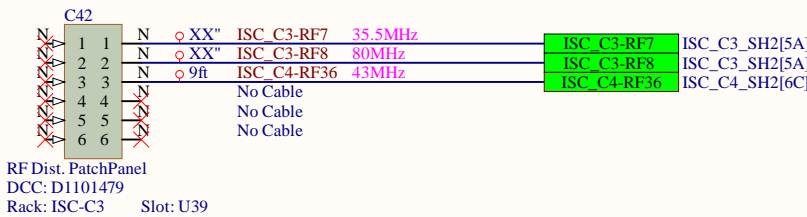
RF Patch Panel 7 (PSL)

Goes to PSL-R2



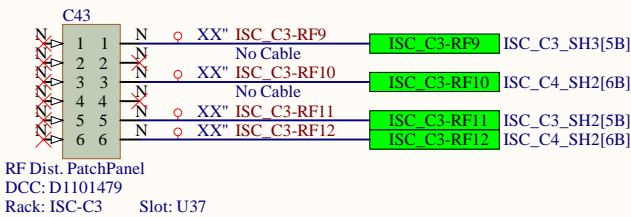
RF Patch Panel 8 (PSL)

Goes to PSL-R2



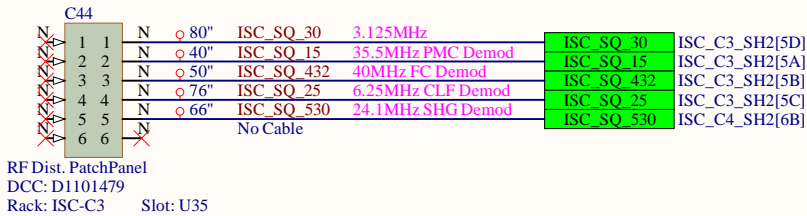
RF Patch Panel 9 (TCS)

Goes to TCS



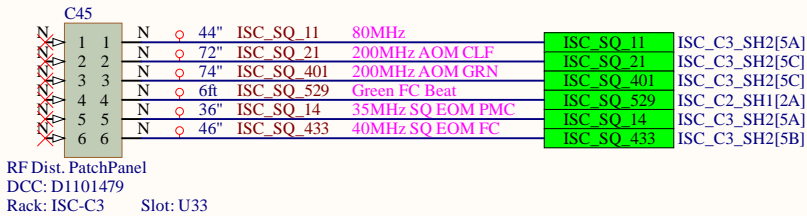
RF Patch Panel 32 (SQZ-R1)

Goes to SQZ-R1



RF Patch Panel 33 (SQZ-R2)

Goes to SQZ-R2

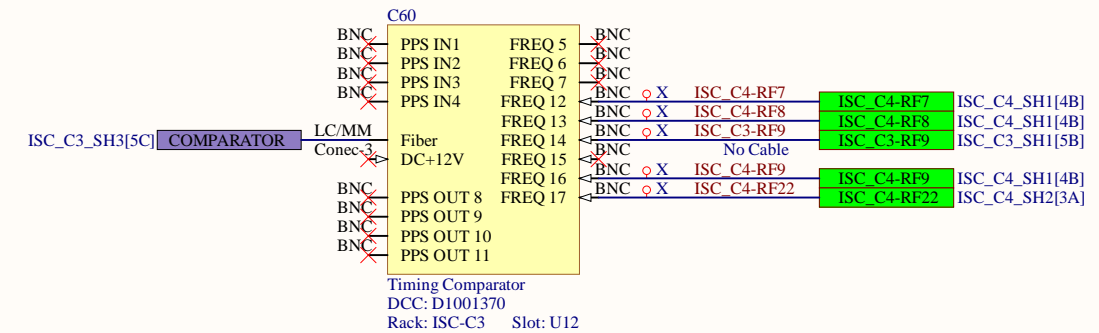
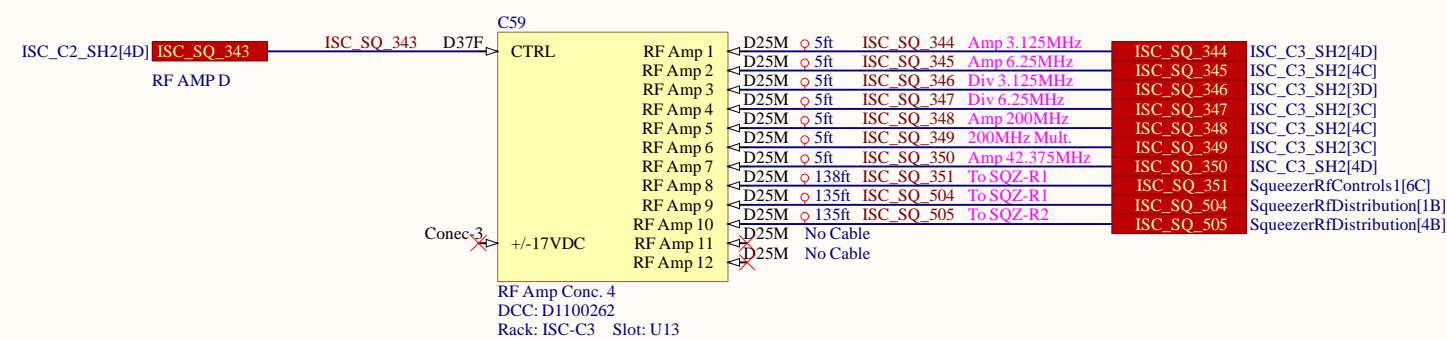
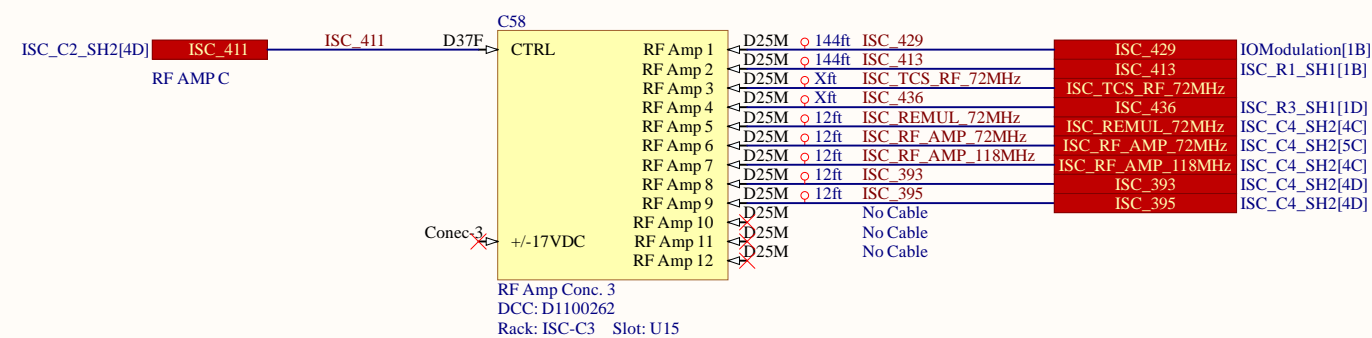
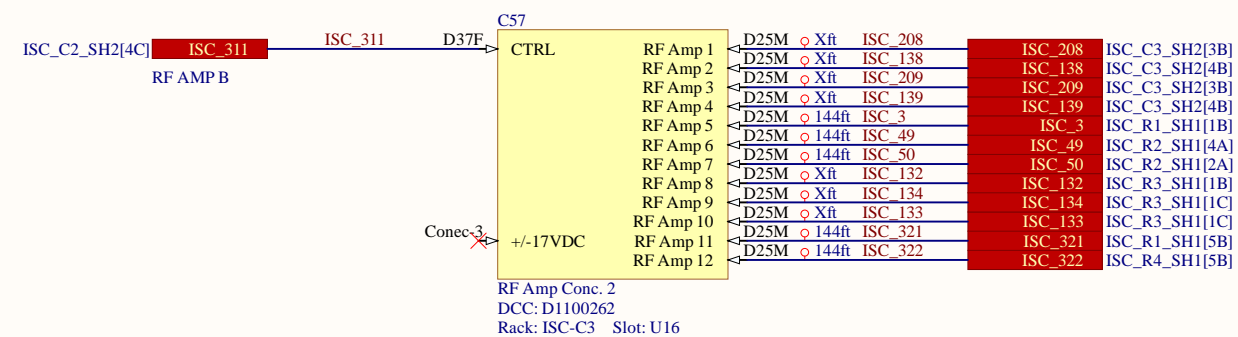
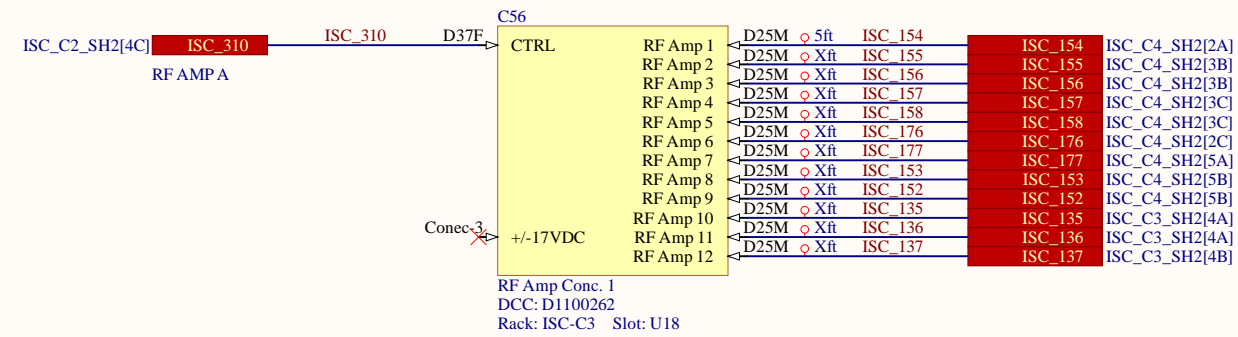


Cables that are removed
ISC_SQ_31
ISC_SQ_12
ISC_SQ_78

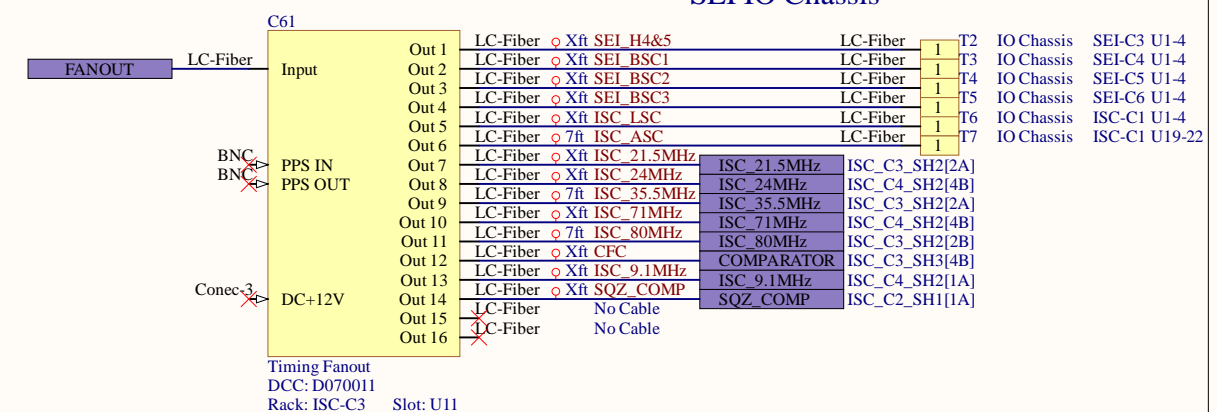
Title			
ISC System Wiring Diagram			
Size	Number	Revision	
B	D1900511	V12	
Date:	11/25/2025	Sheet of	5 43
File:	C:\Users\...\ISC_C3_SH1.SchDoc	Drawn By:	Filiberto Clara

A

ISC-C3 Rack



Need Locations of other ends.
SEI IO Chassis

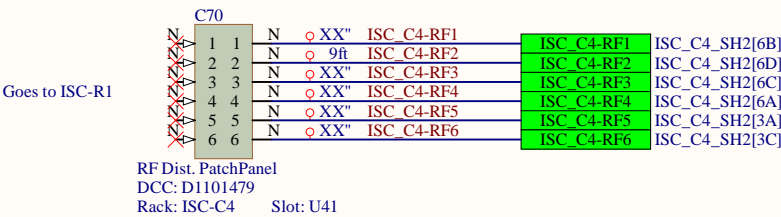


ISC System Wiring Diagram

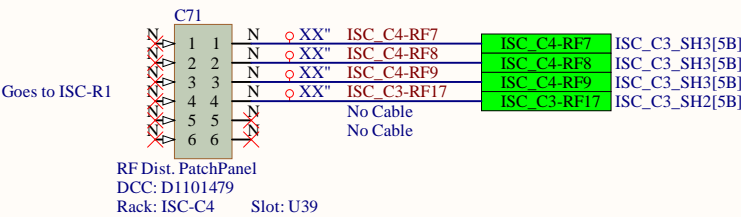
Size B	Number D1900511	Revision V12
Date:	11/25/2025	Sheet of 7 43
File:	C:\Users\...ISC_C3_SH3.SchDoc	Drawn By: Filiberto Clara

ISC-C4 Rack

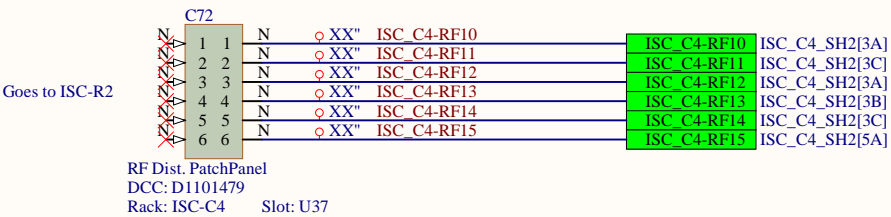
RF Patch Panel 1 (ISC-R1/IO)



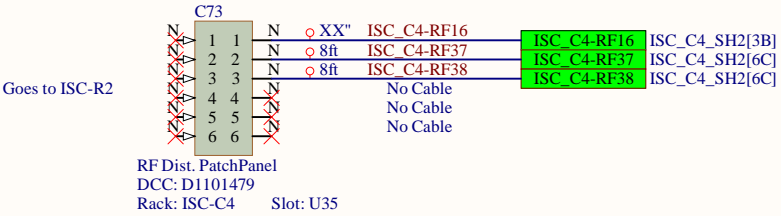
RF Patch Panel 2 (ISC-R1/IO)



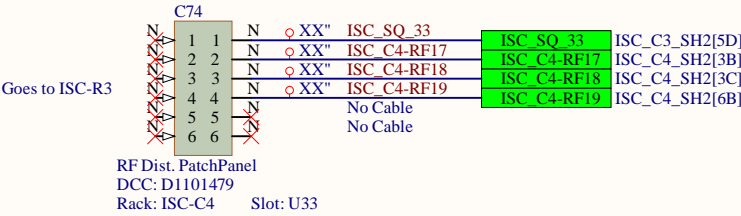
RF Patch Panel 3 (ISC-R2/REFL)



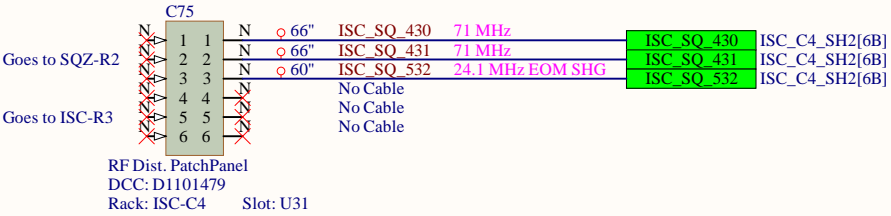
RF Patch Panel 4 (ISC-R2/REFL)



RF Patch Panel 5 (ISC-R3/AS)

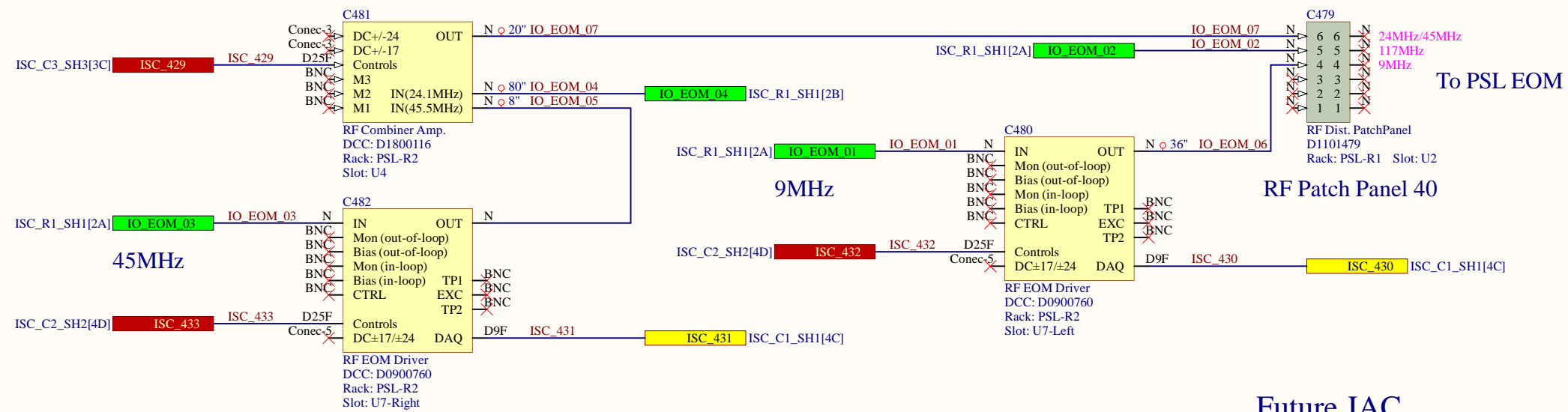


RF Patch Panel 6 (SQZ-R2/ISC-R3)



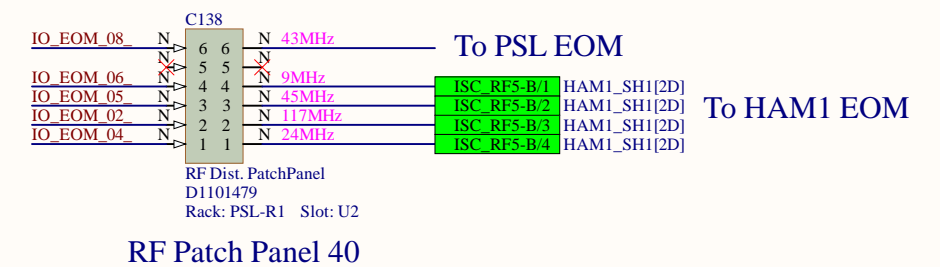
Title		
ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of8 43
File:	C:\Users\...\ISC_C4_SH1.SchDoc	Drawn By: Filiberto Clara

IO Modulation



Future JAC

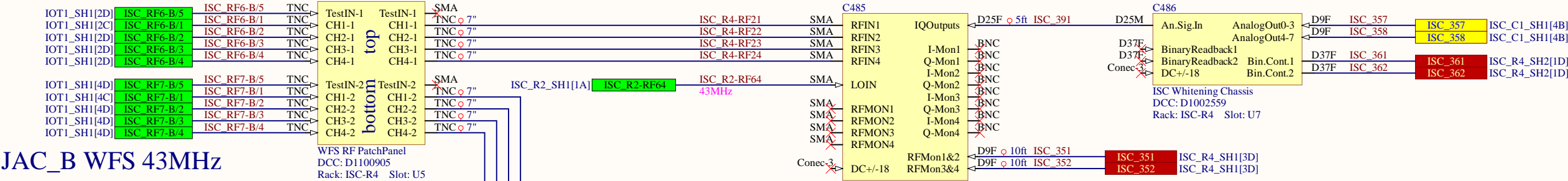
From PSL-R2 RF patch panel 18/3



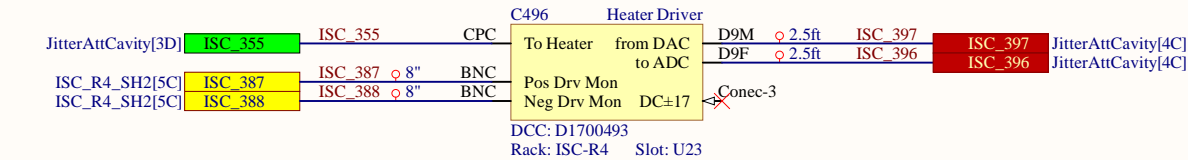
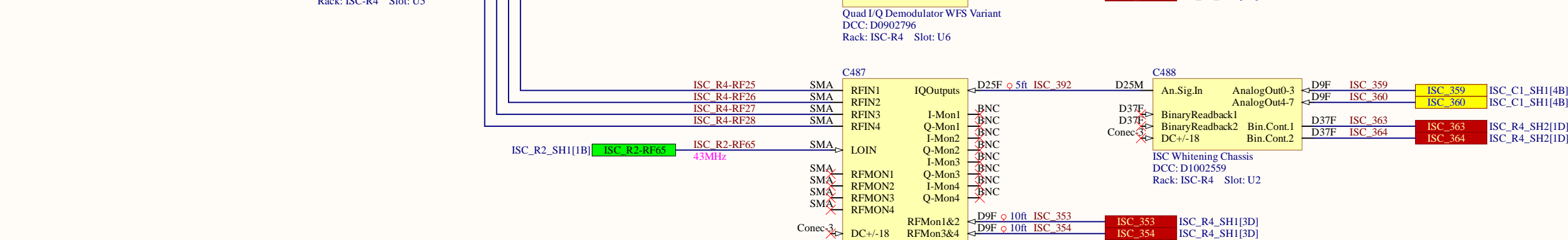
Title ISC System Wiring Diagram		
Size B	Number D1900511	Revision V12
Date: 11/25/2025	Sheet of 43	File: C:\Users\...\IOModulation.SchDoc
	Drawn By:	Filiberto Clara

Jitter Attenuation Cavity

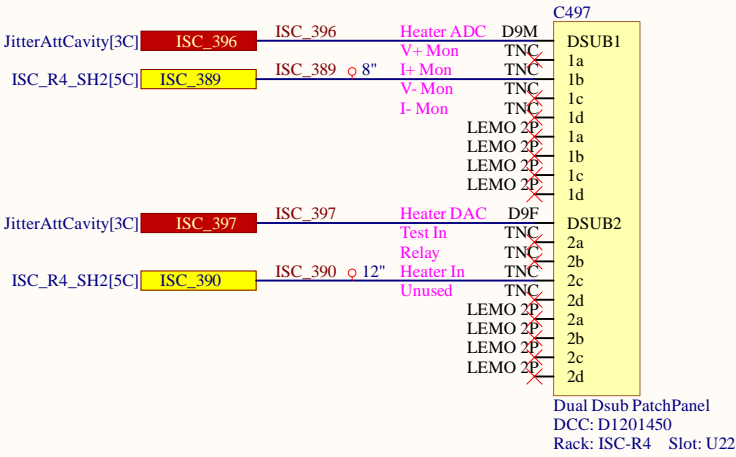
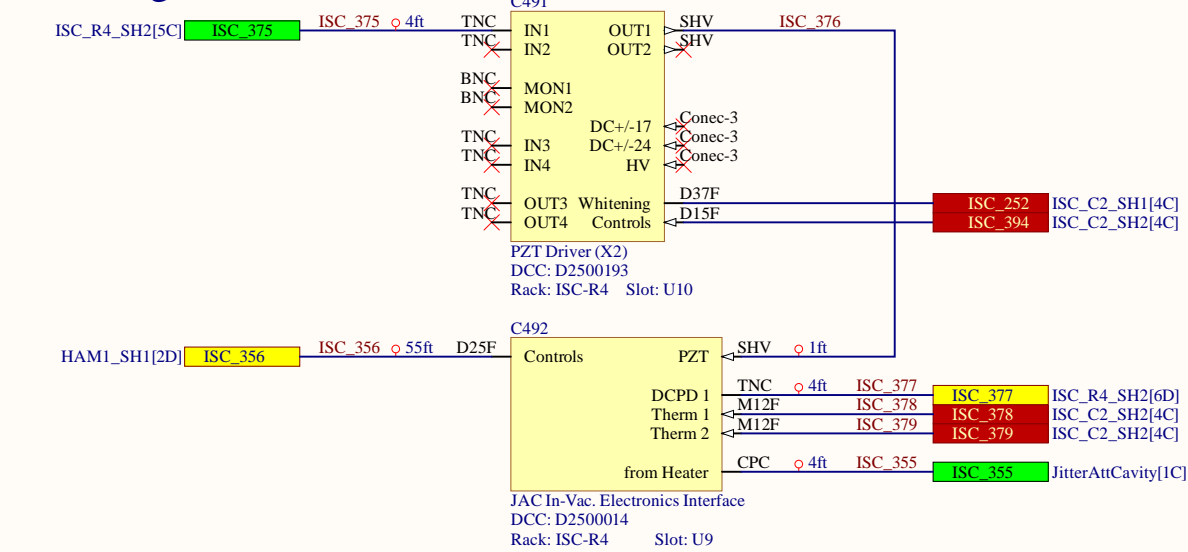
JAC_A WFS 43MHz



JAC_B WFS 43MHz



JAC Length controls

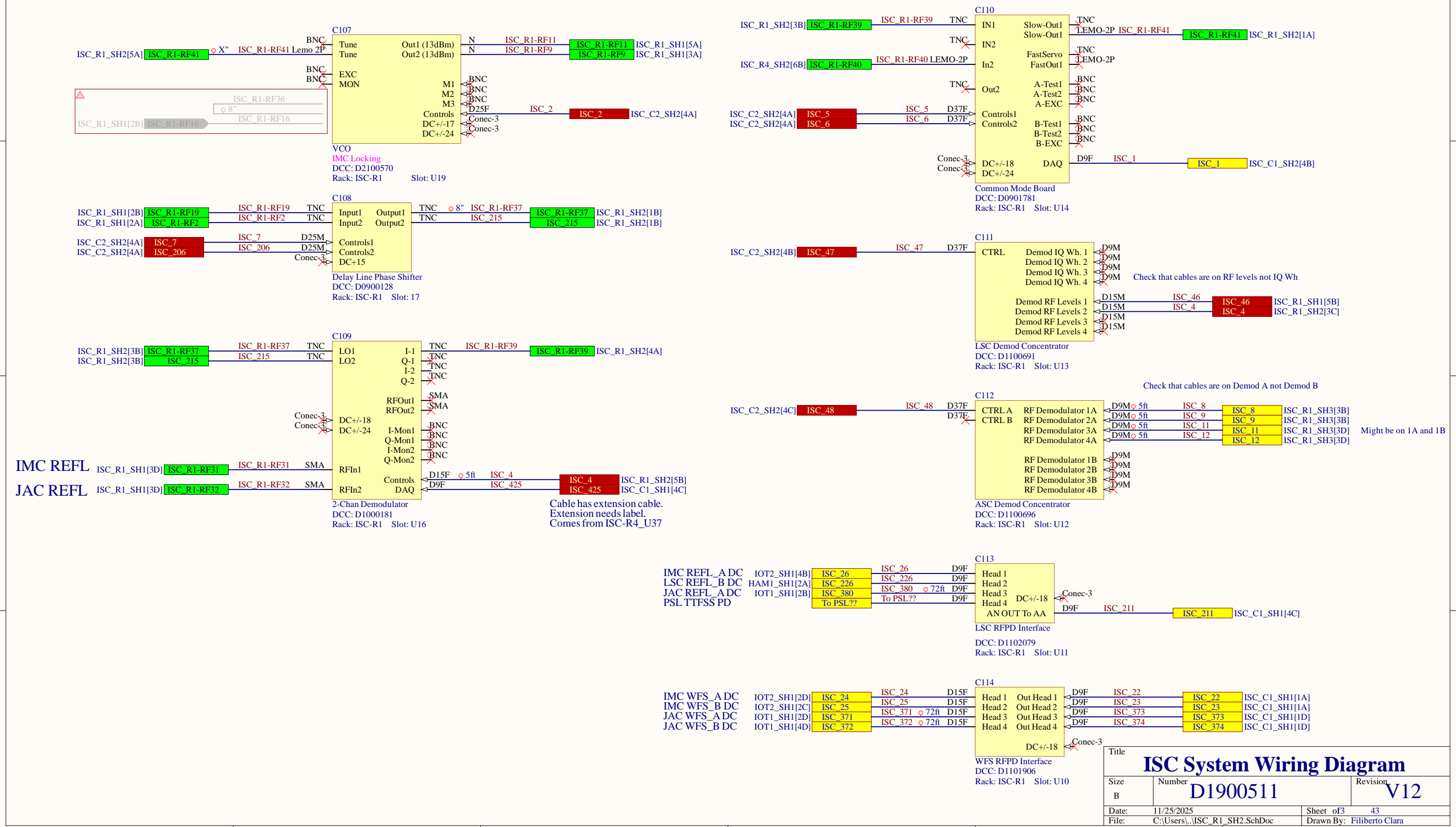


Title			
ISC System Wiring Diagram			
Size	Number	Revision	
B	D1900511	V12	
Date:	11/25/2025	Sheet of	43
File:	C:\Users\...\JitterAttCavity.SchDoc	Drawn By:	Filiberto Clara

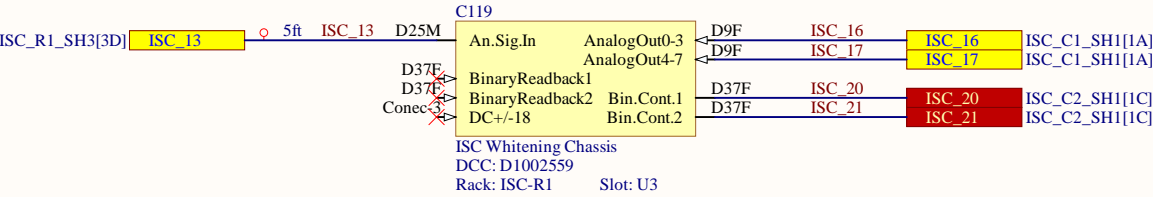
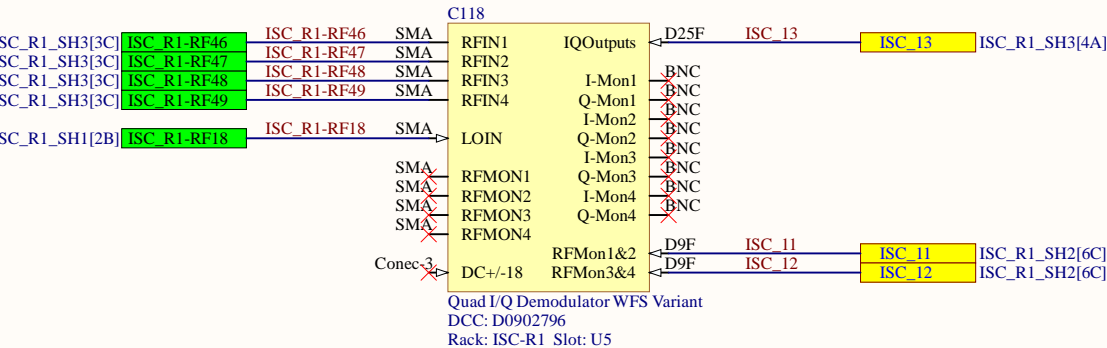
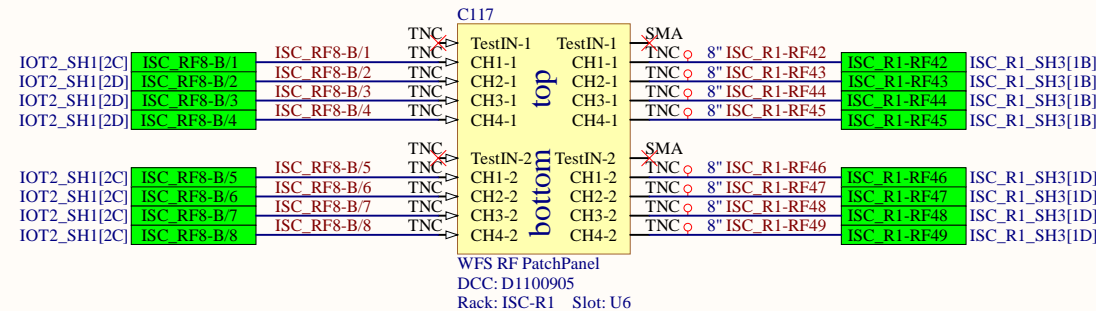
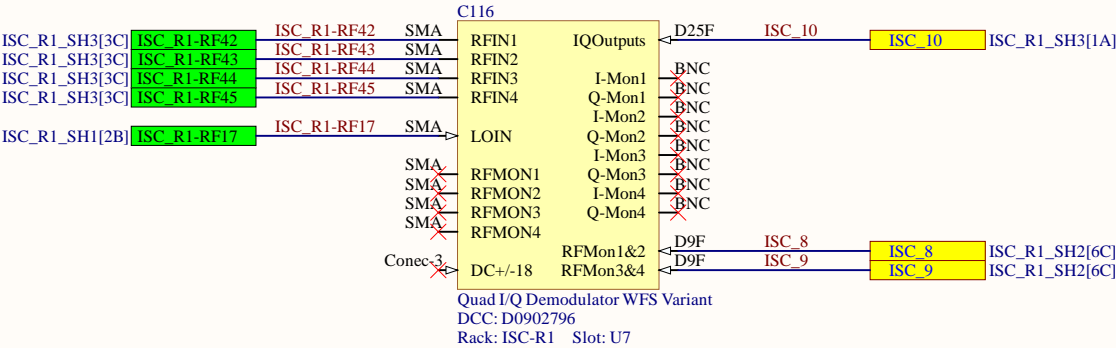
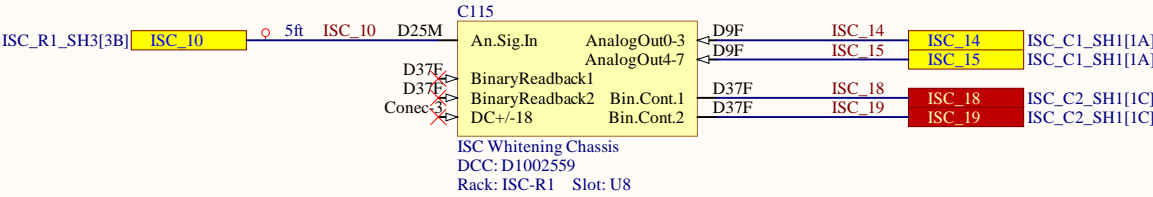
C9

1	1
2	2
3	3
4	4
5	5
6	6

ISC-R1 Rack



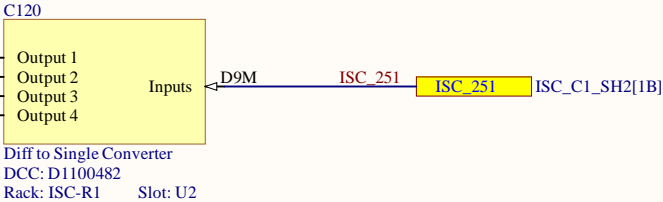
ISC-R1 Rack



Need to locate other end

PSL_SMB_1	PSL_SMB_1	BNC
PSL_SMB_2	PSL_SMB_2	BNC
ISC_434_X	ISC_434_X	BNC
ISC_435_X	ISC_435_X	BNC

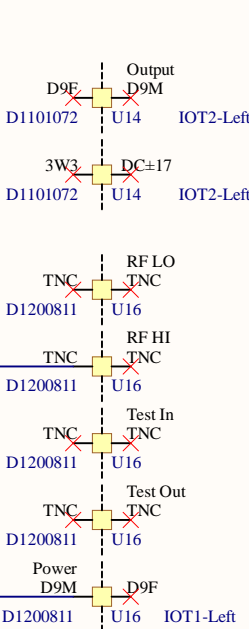
434/435 already used
ASC-POP_X_PIT/YAW



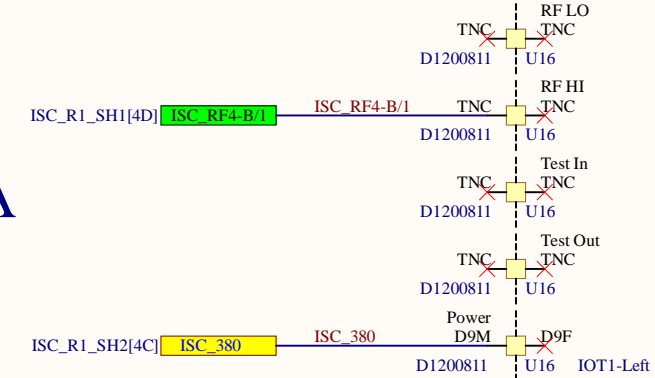
Title ISC System Wiring Diagram			
Size B	Number D1900511	Revision V12	
Date:	11/25/2025	Sheet of	43
File:	C:\Users\...\ISC_R1_SH3.SchDoc	Drawn By:	Filiberto Clara

IOT1

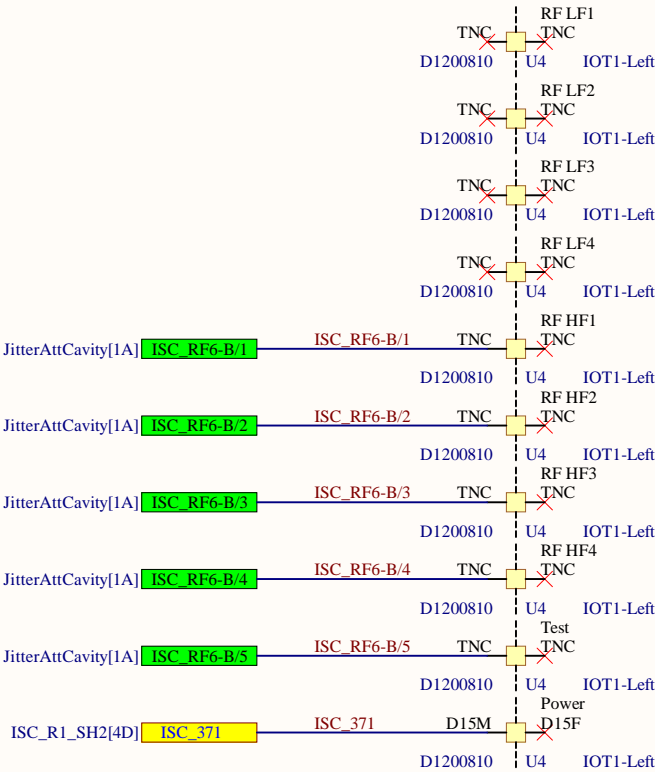
Generic PD Interface



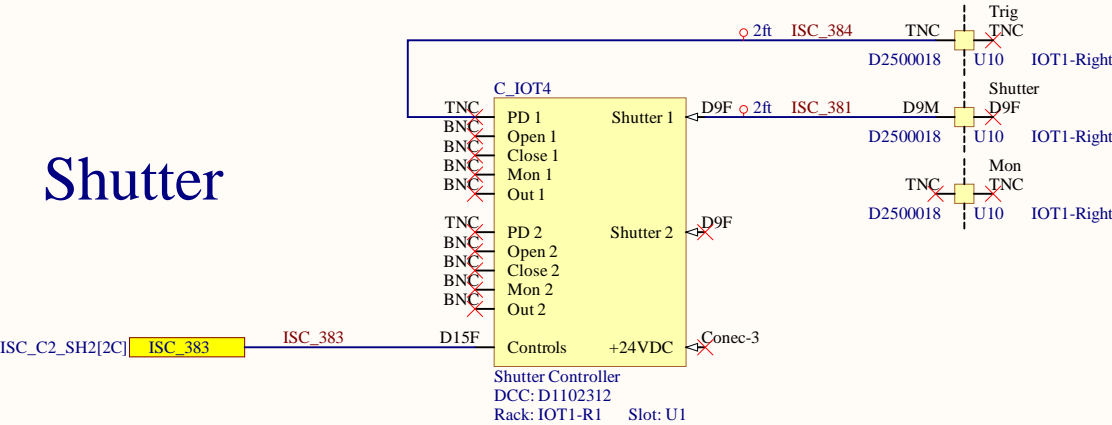
JAC REFL_A



JAC WFS_A



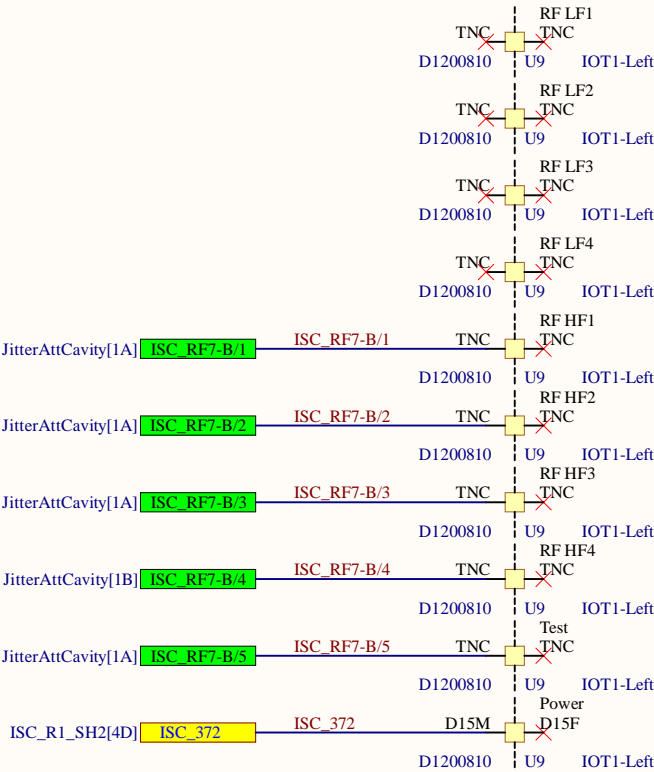
Shutter



Picomotor



JAC WFS_B



Title		
ISC System Wiring Diagram		
Size B	Number D1900511	Revision V12
Date: 11/25/2025	Sheet of 5 43	
File: C:\Users\...\IOT1_SH1.SchDoc	Drawn By: Filiberto Clara	

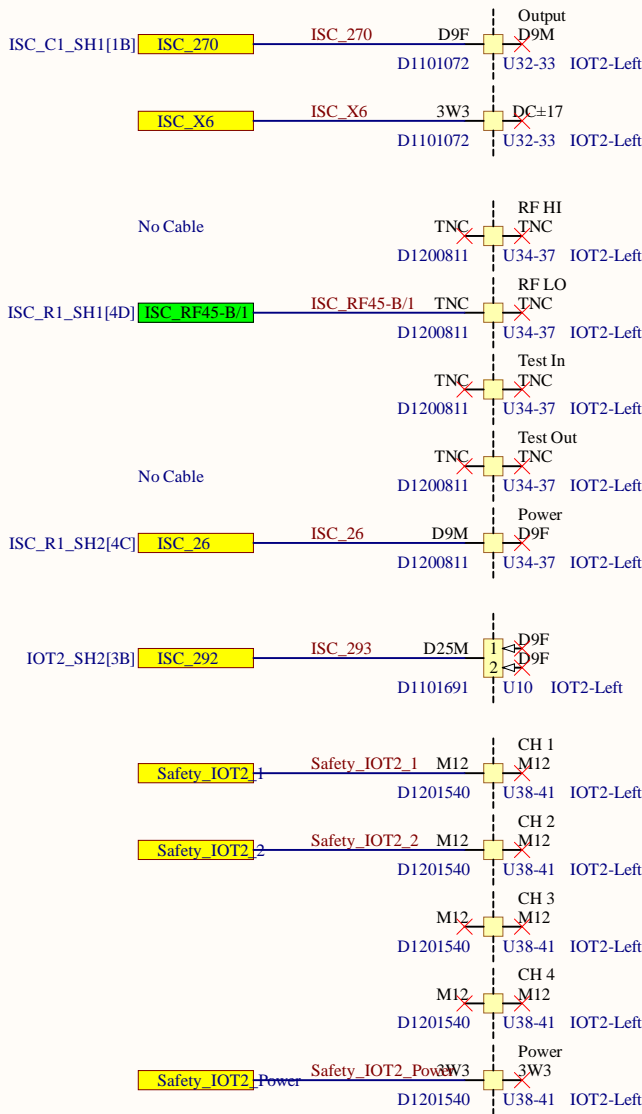
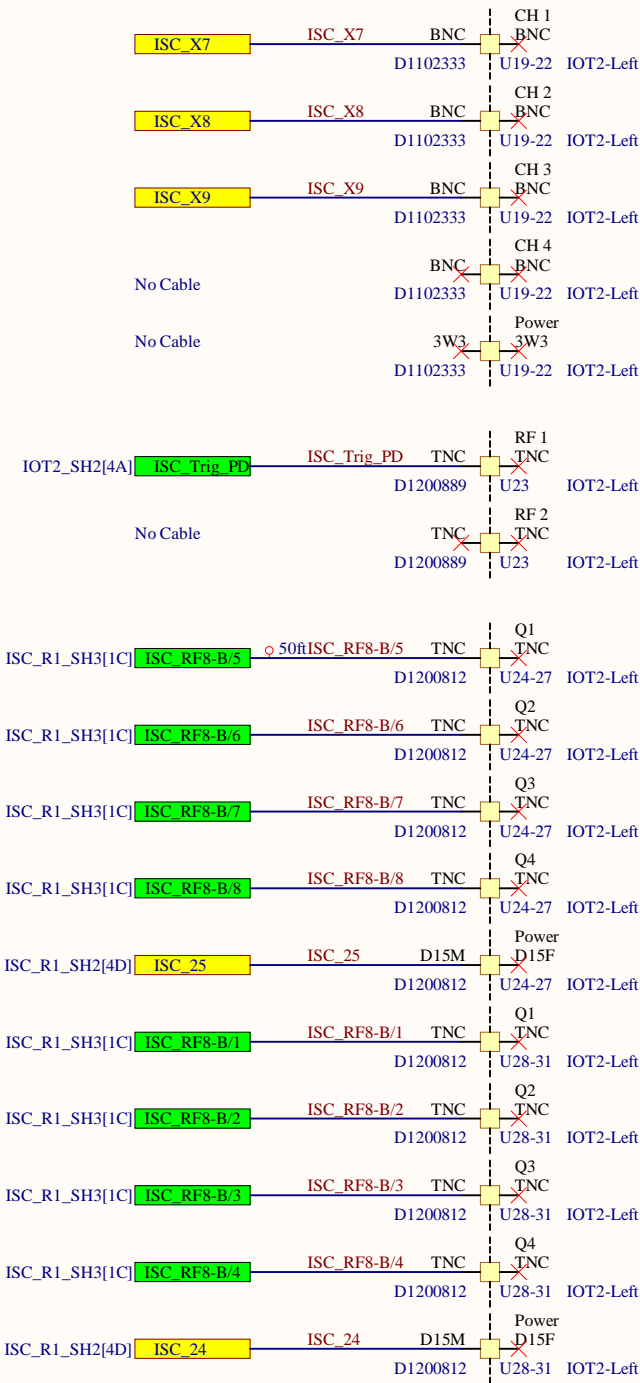
IOT2 - Left Side

PEM

Trigger PD

IMC WFS1

IMC WFS2



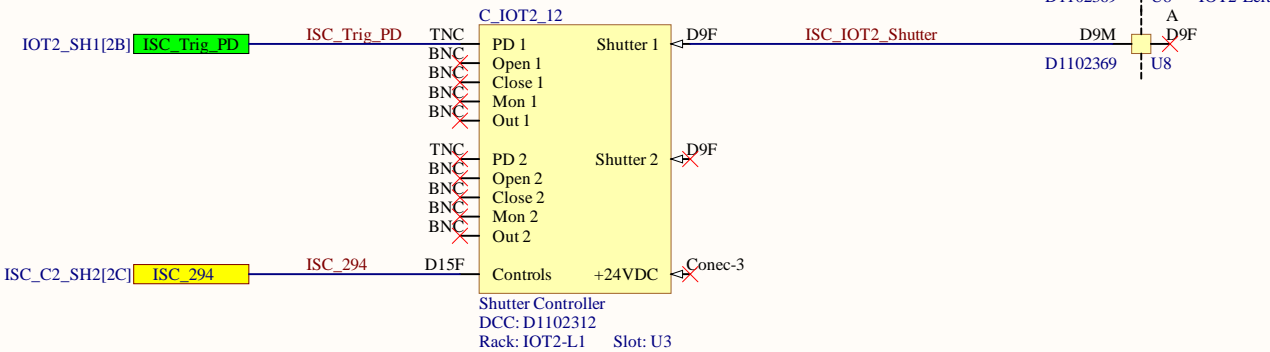
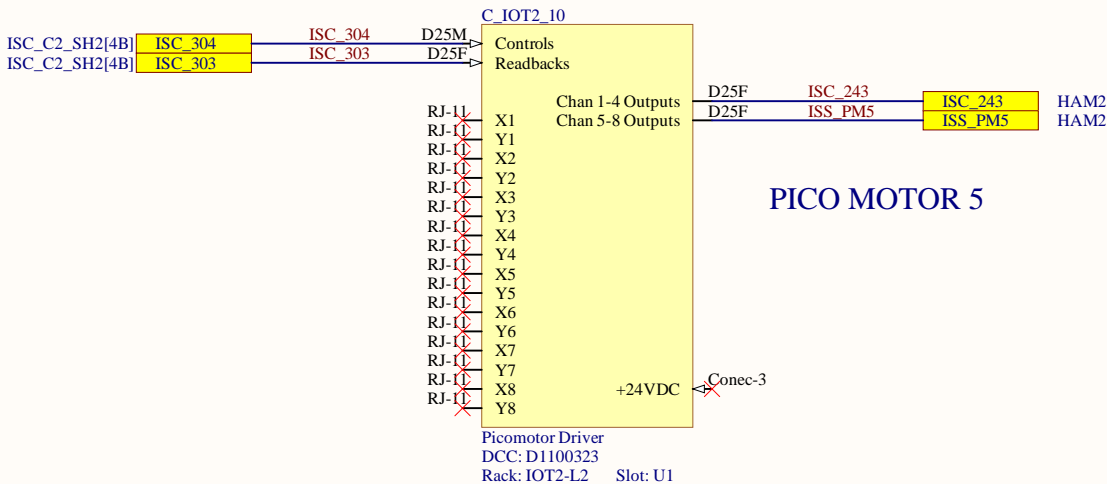
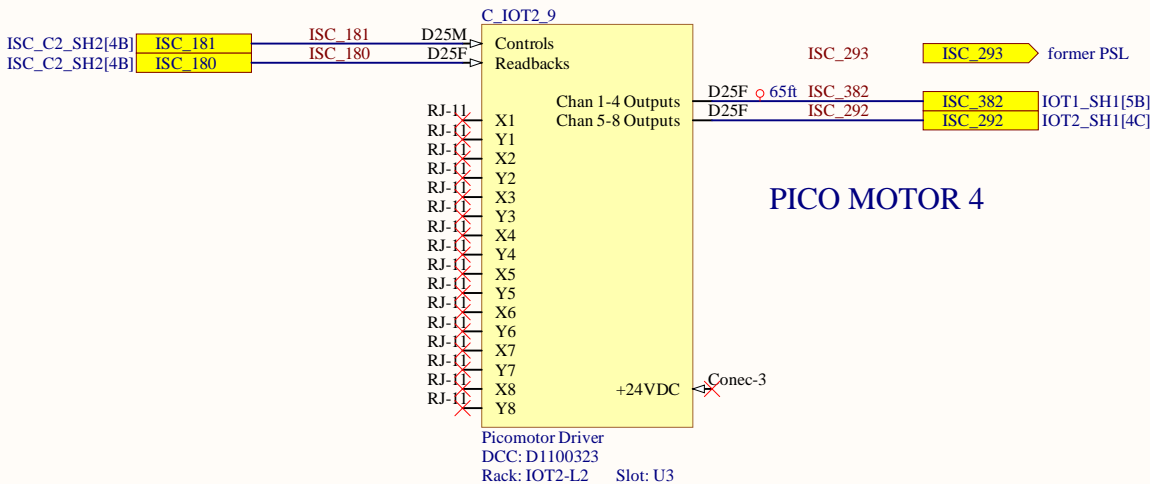
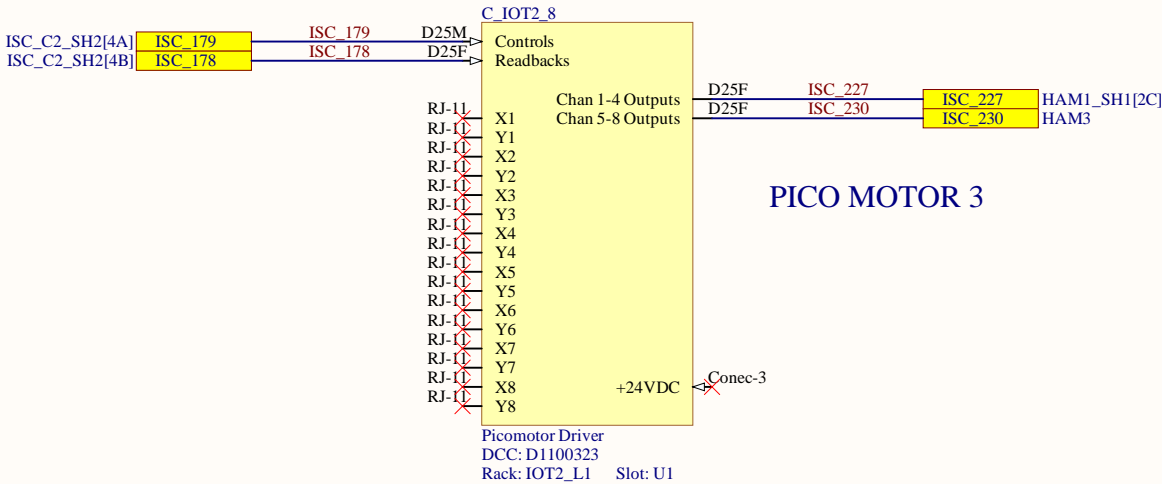
Generic PD Interface

IMC REFL_A

Picomotor

Interlock

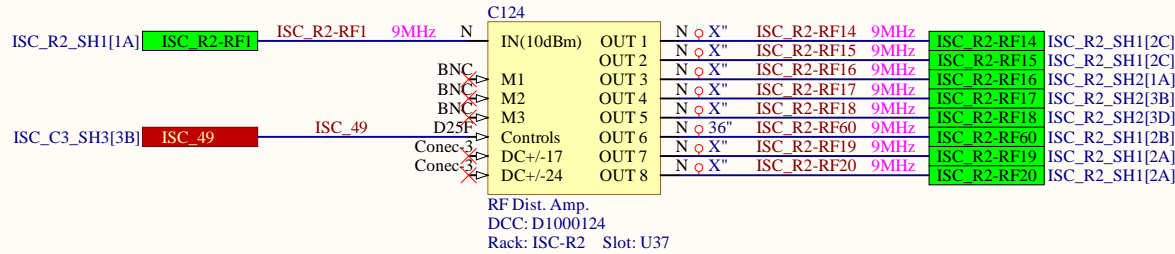
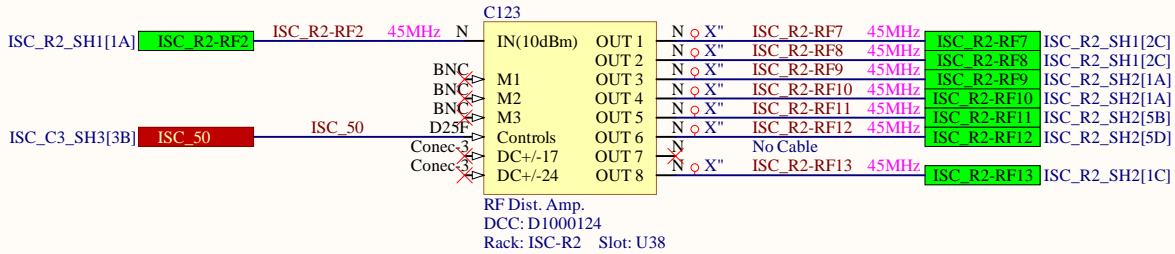
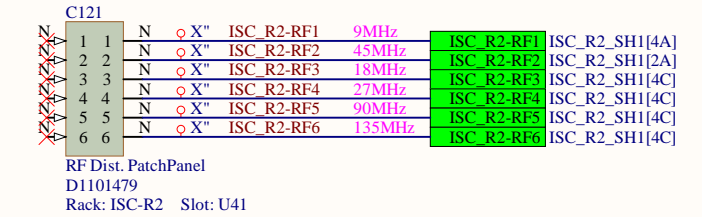
Title			
ISC System Wiring Diagram			
Size	Number	Revision	
B	D1900511	V12	
Date:	11/25/2025	Sheet of	43
File:	C:\Users\...\IOT2_SH1.SchDoc	Drawn By:	Filiberto Clara



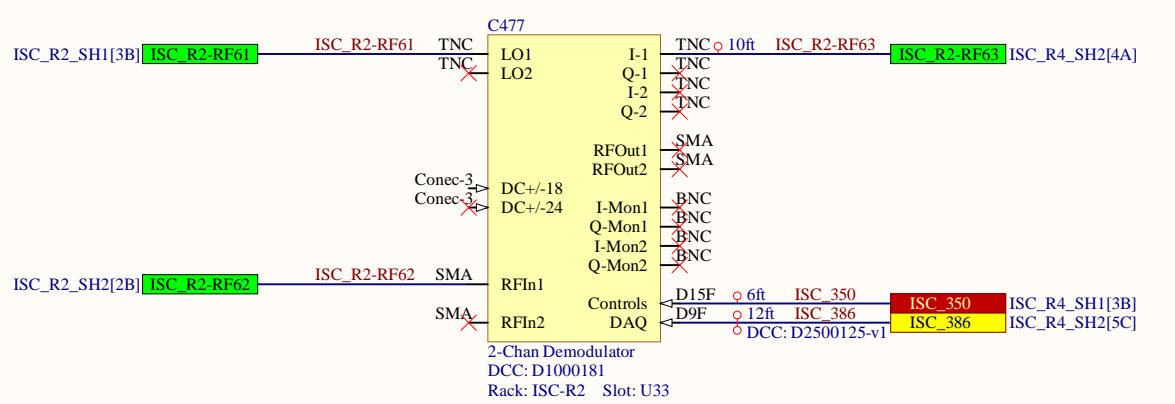
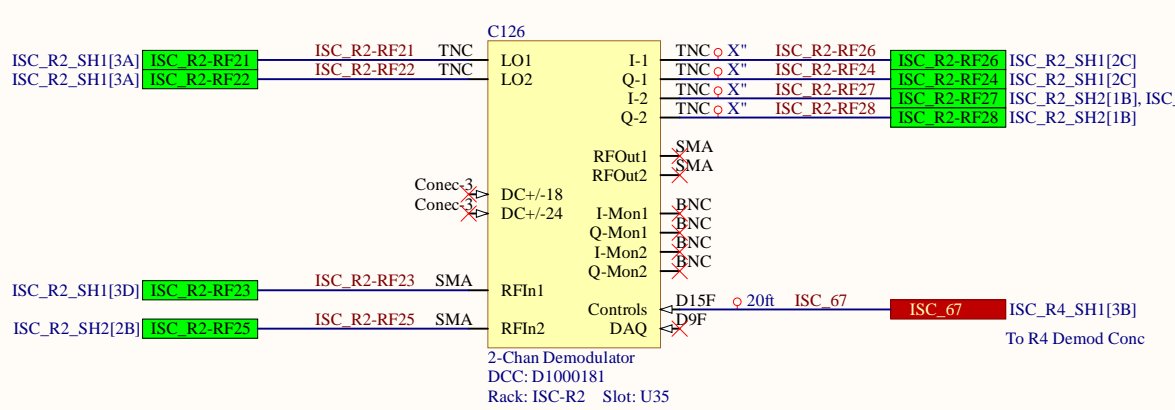
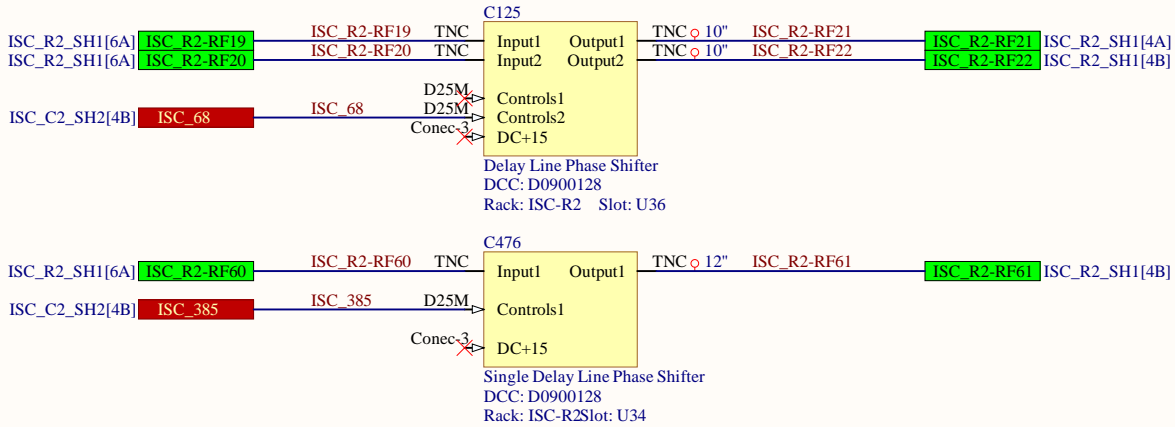
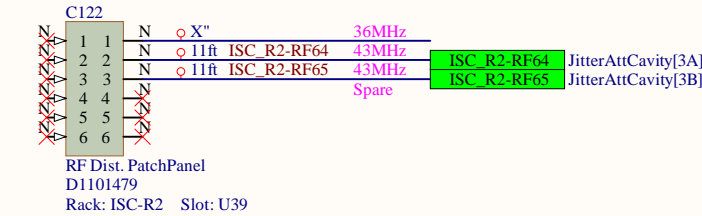
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Size	Number	Revision	
B	D1900511	V12	
Date:	11/25/2025	Sheet of	43
File:	C:\Users\...\IOT2_SH2.SchDoc	Drawn By:	Filiberto Clara

ISC-R2 Rack

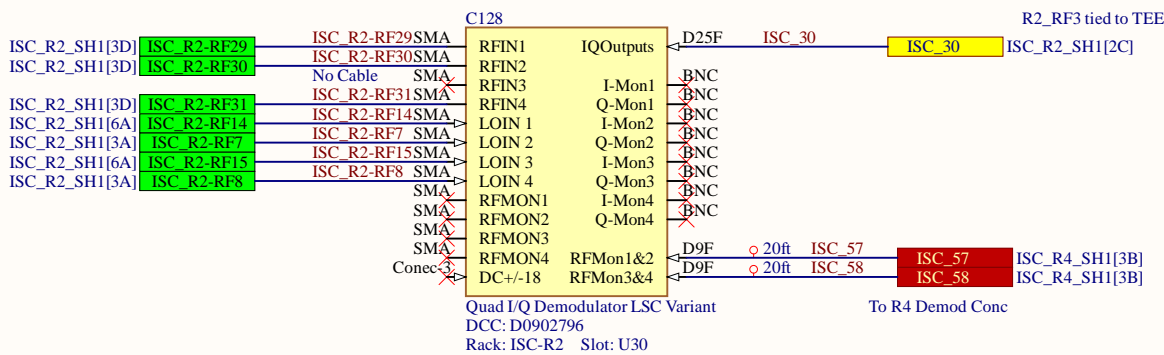
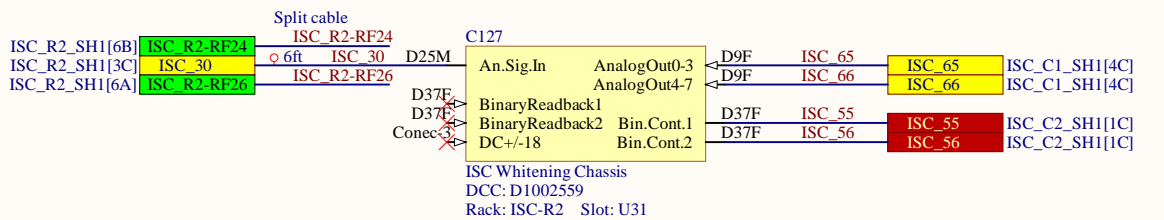
RF Patch Panel 13



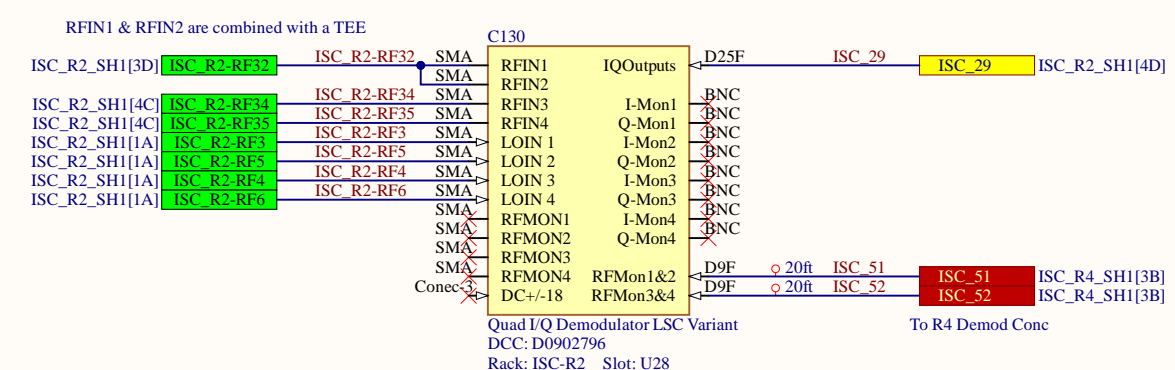
RF Patch Panel 14



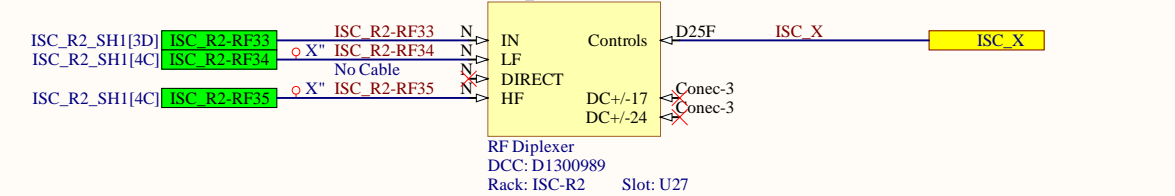
LSC POPAIR A 9&45, LSC REFLAIR A 45



LSC POPAIR B 18&90, LSC REFLAIR B 27&135



Need to label & locate other end

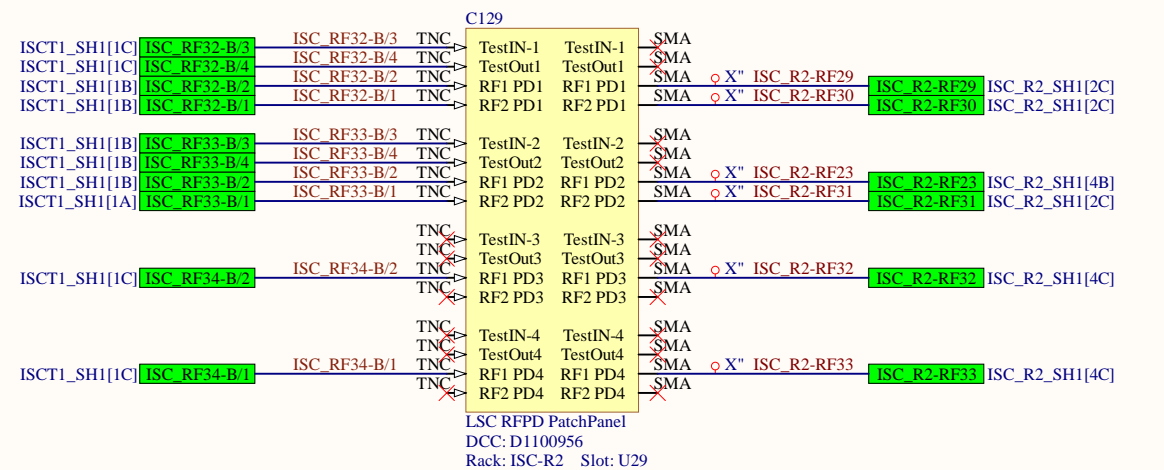


LSC POPAIR A 9&45

LSC REFLAIR A 9/45

LSC POPAIR B 18&90

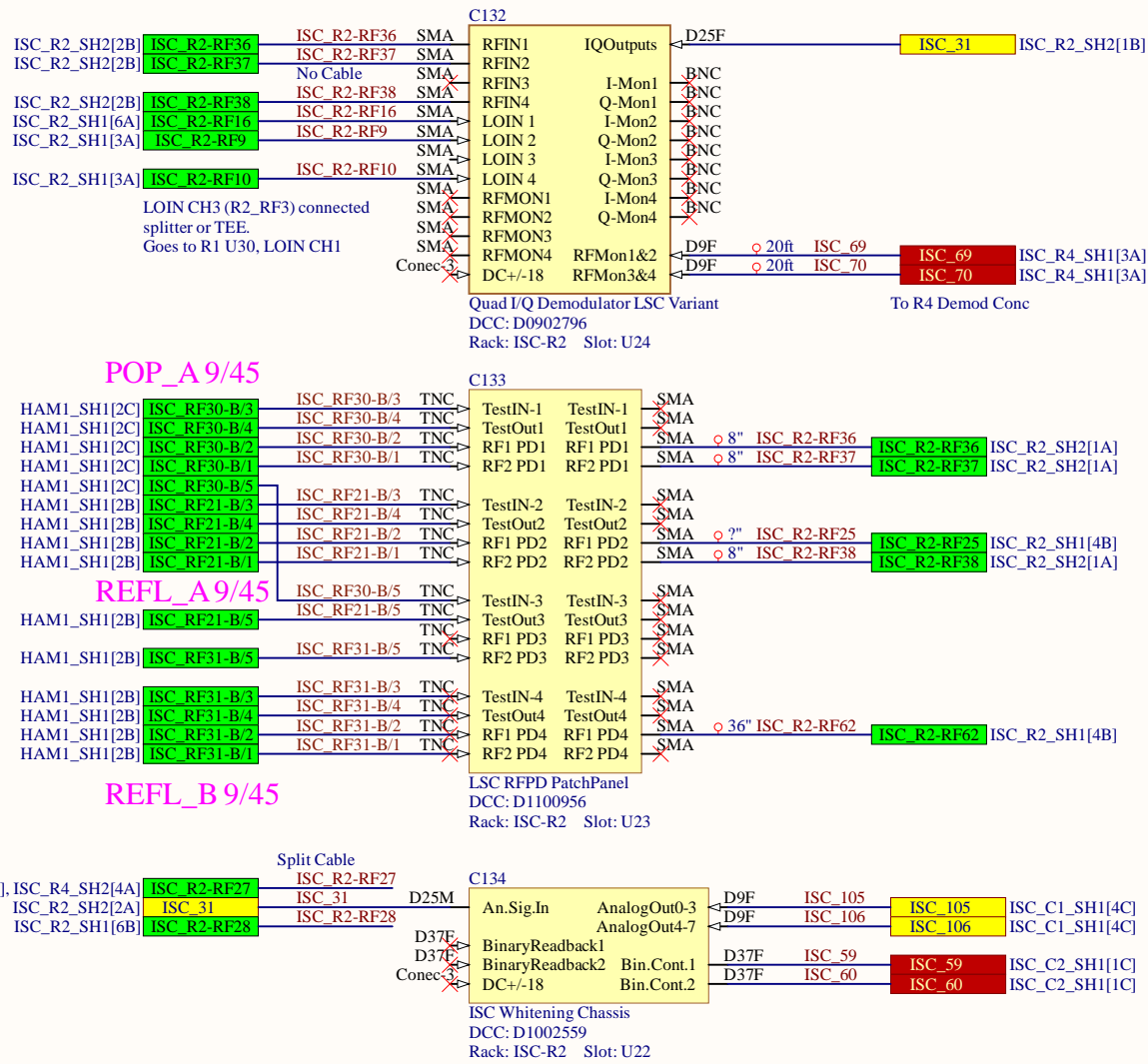
LSC REFLAIR B 27/135



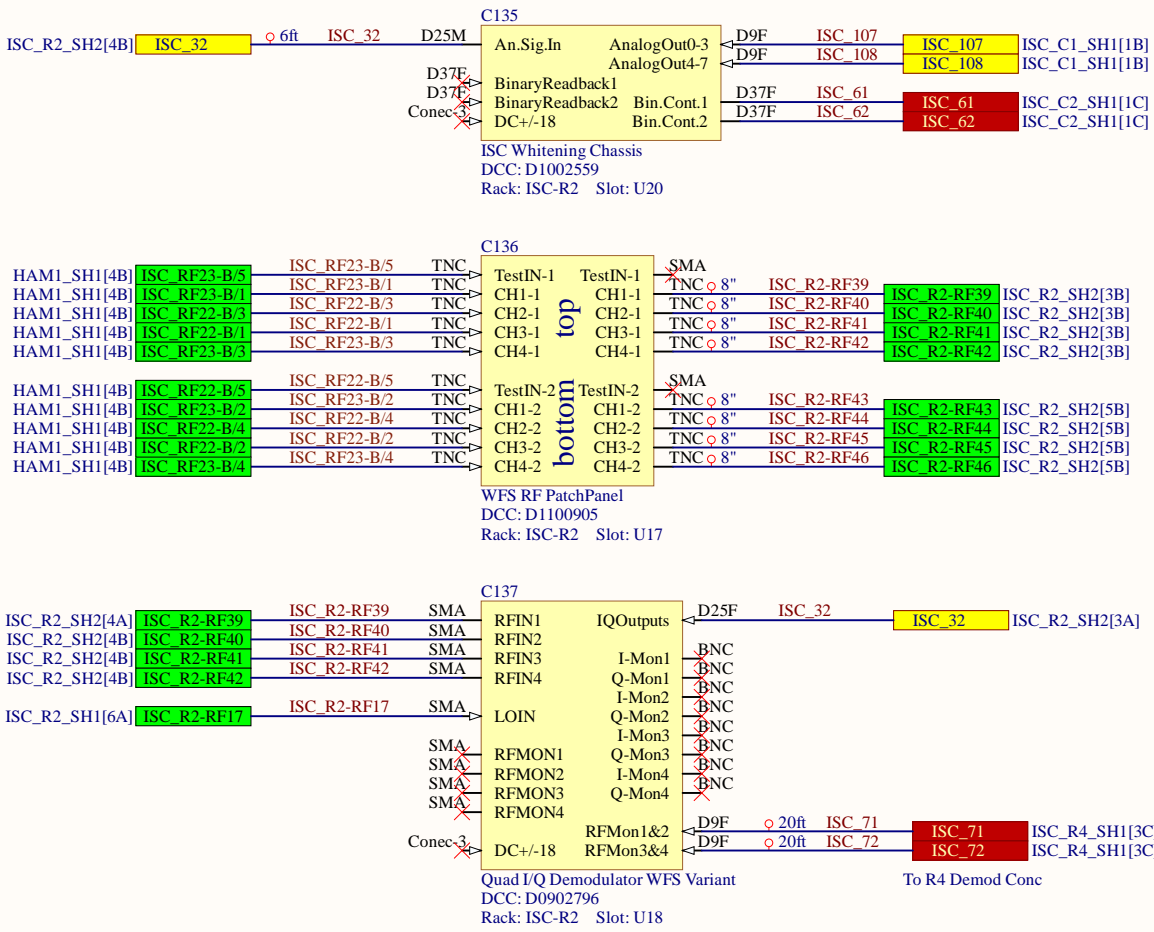
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ISC System Wiring Diagram		
Size	Number	Revision
C	D1900511	V12
Date:	11/25/2025	Sheet of8 43
File:	C:\Users\...ISC_R2_SH1.SchDoc	Drawn By: Filiberto Clara

ISC-R2 Rack

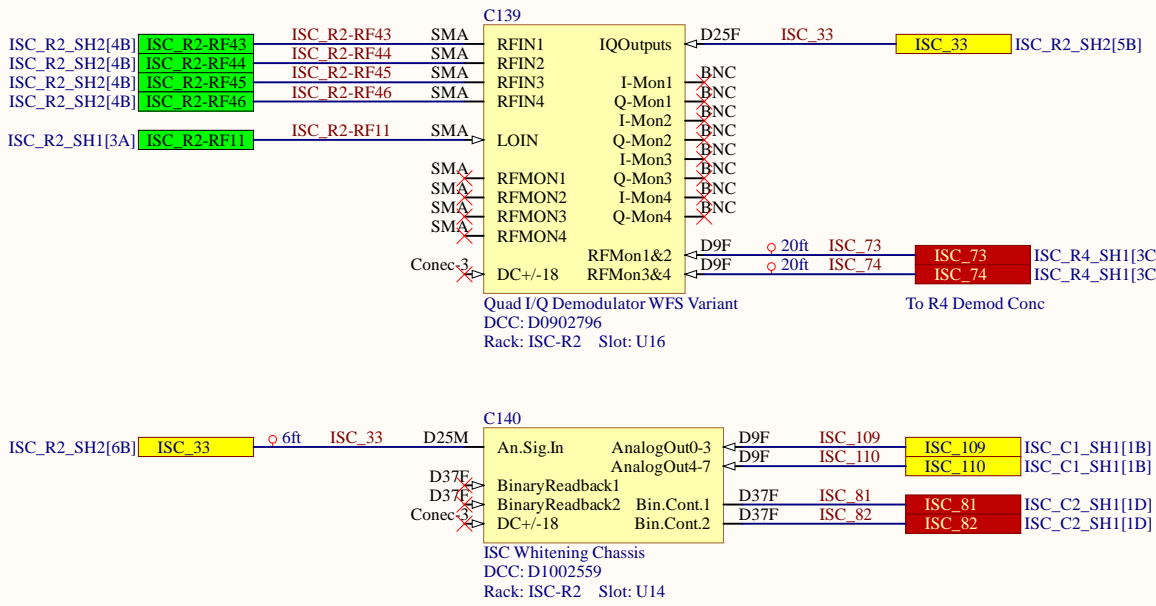
LSC POP, LSC REFL



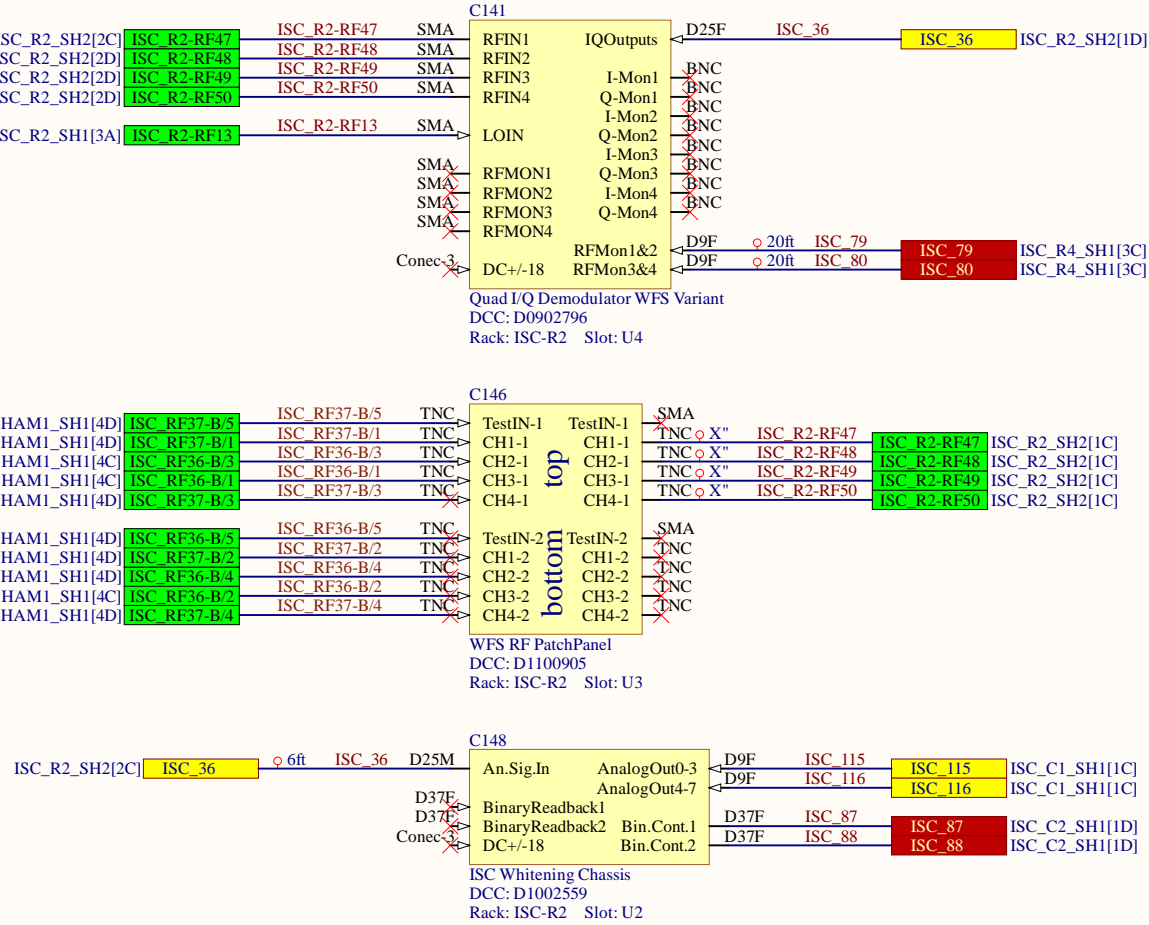
ASC REFL A 9MHz



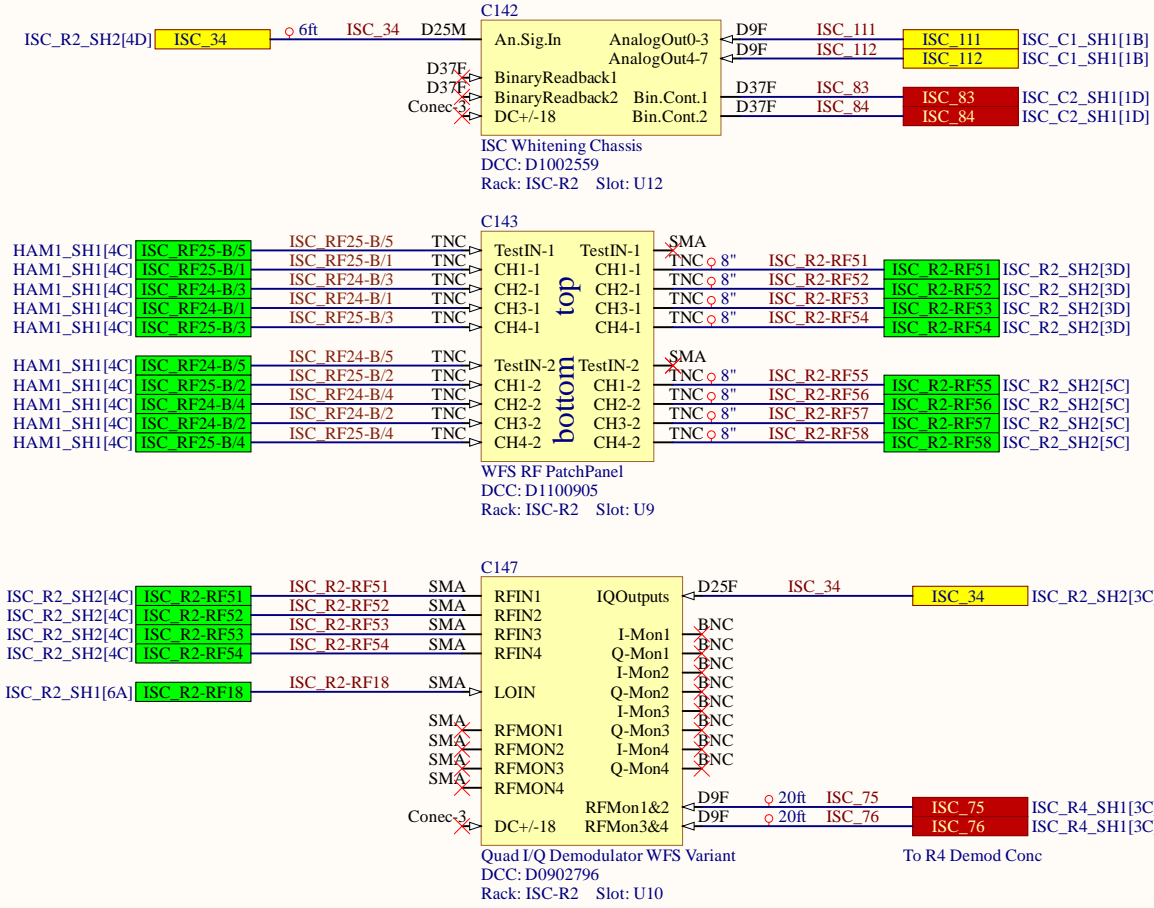
ASC REFL A 45MHz



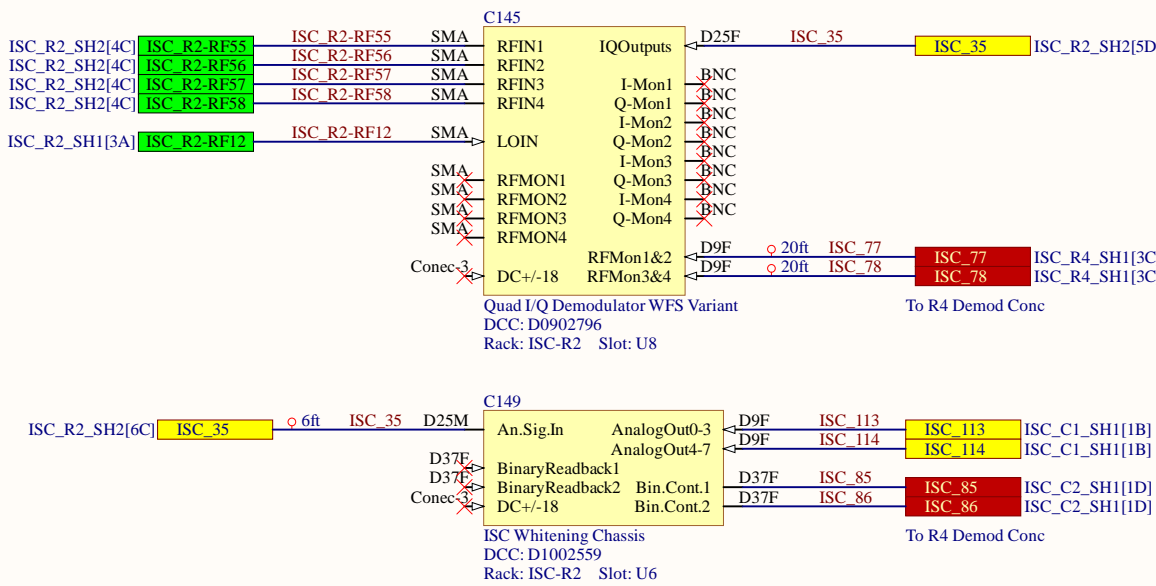
ASC POP X 45MHz



ASC REFL B 9MHz

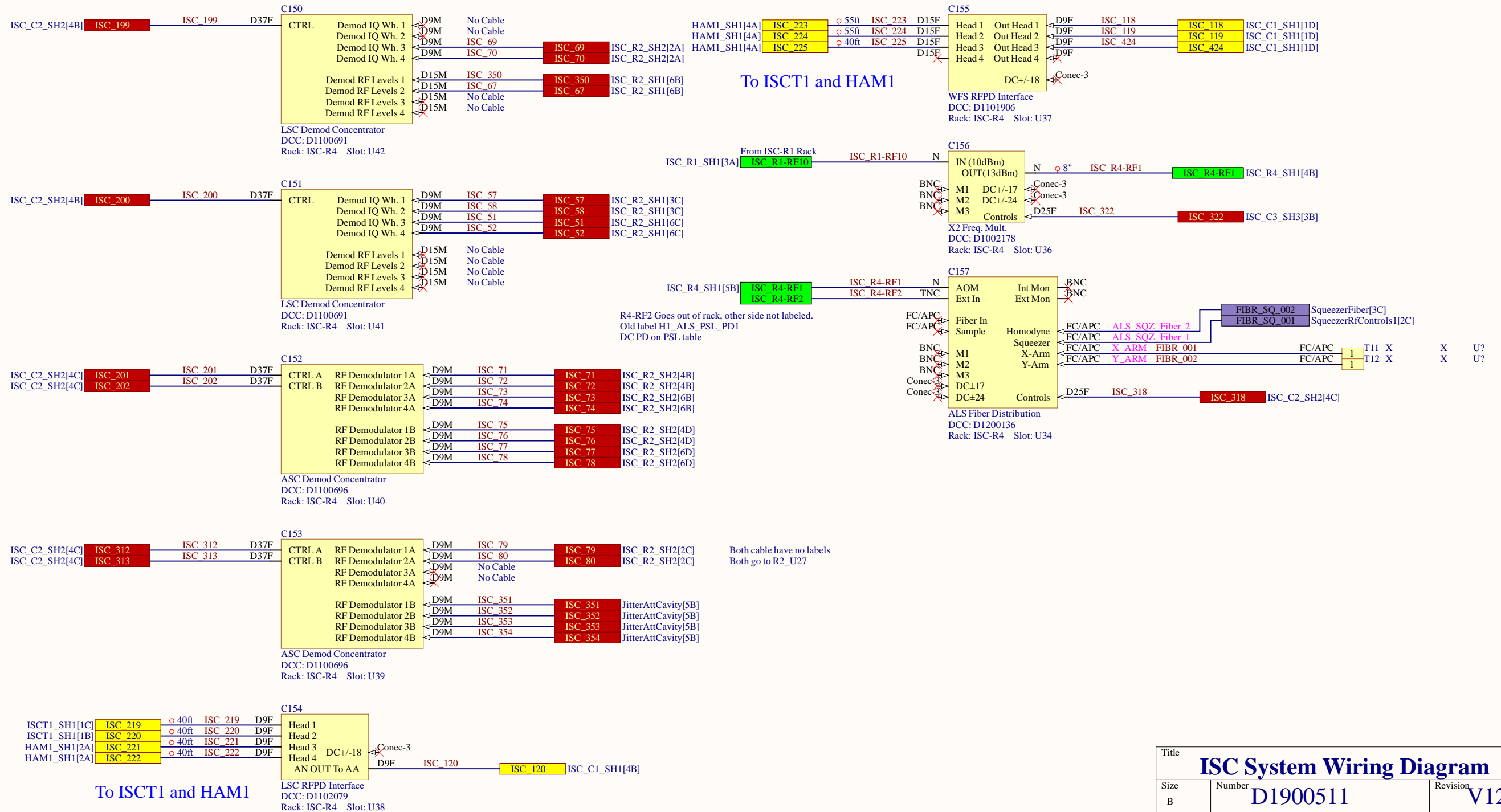


ASC REFL B 45MHz



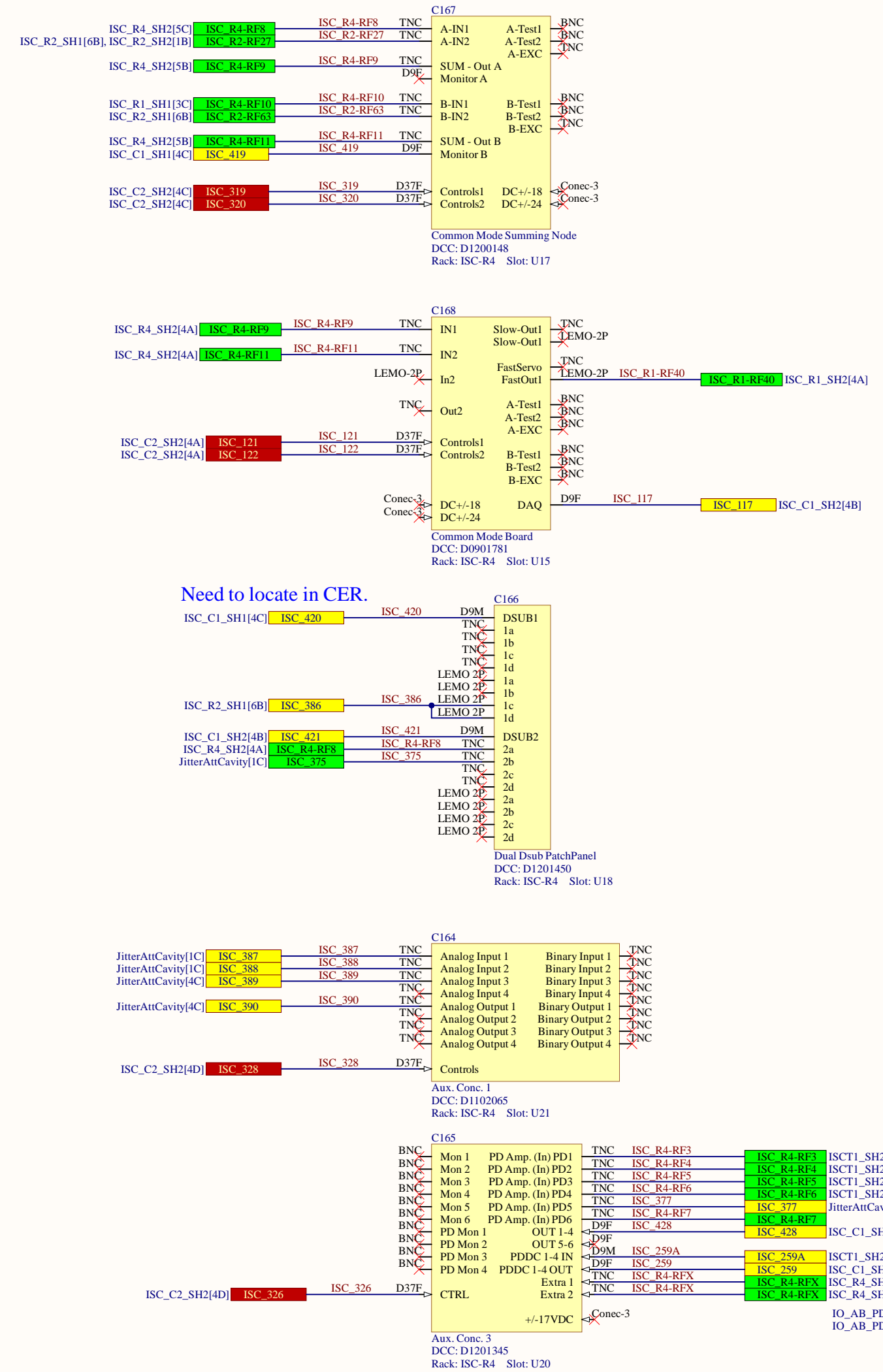
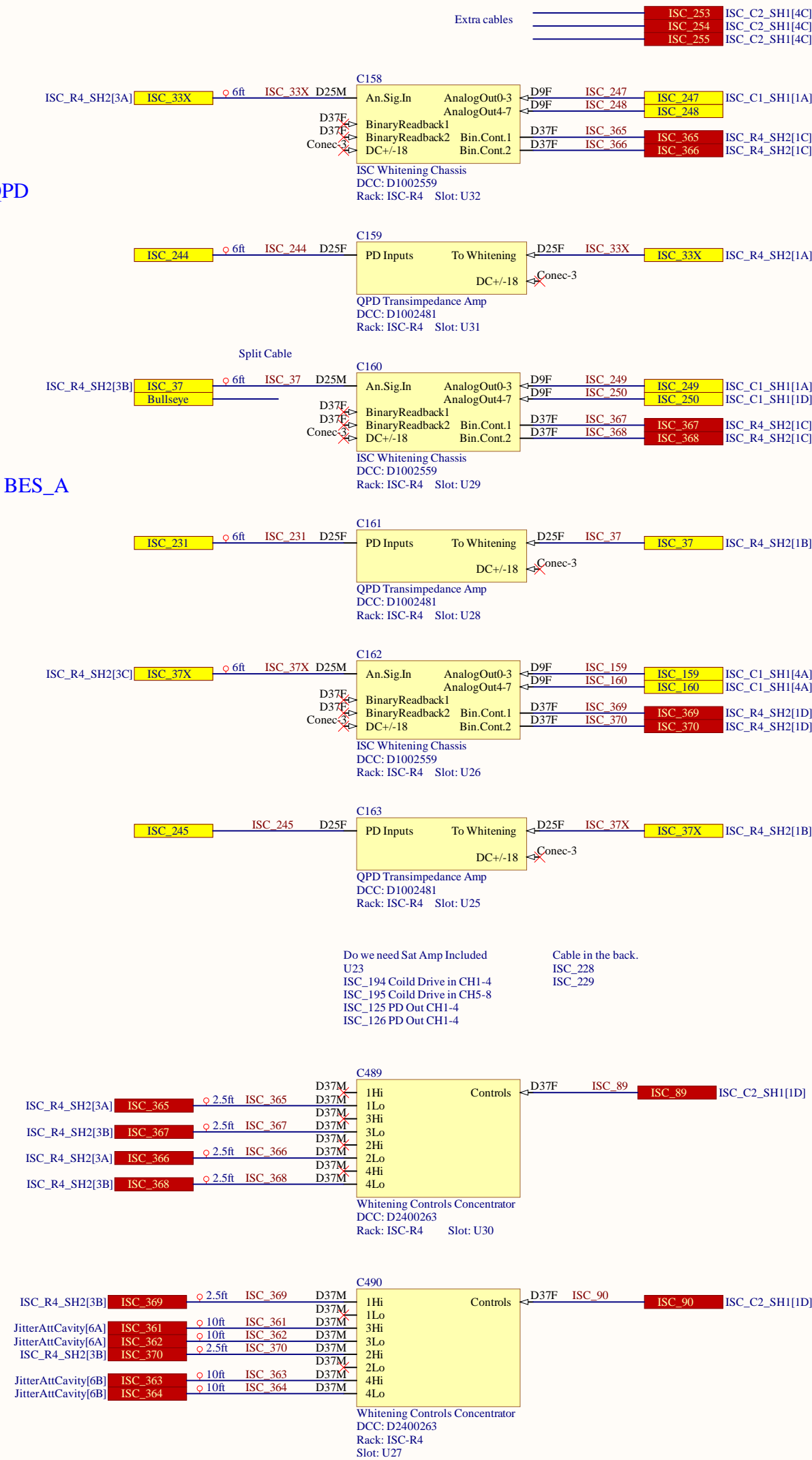
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ISC System Wiring Diagram			
Size	Number	Revision	
C	D1900511	V12	
Date:	11/25/2025	Sheet of	43
File:	C:\Users\ISC_R2_SH2\SchDoc	Drawn By: Filiberto Clara	

ISC-R4 Rack



Title ISC System Wiring Diagram		
Size B	Number D1900511	Revision V12
Date: 11/25/2025	Sheet of 43	
File: C:\Users\ISC_R4_SHL\SchDoc	Drawn By: Filiberto Clara	

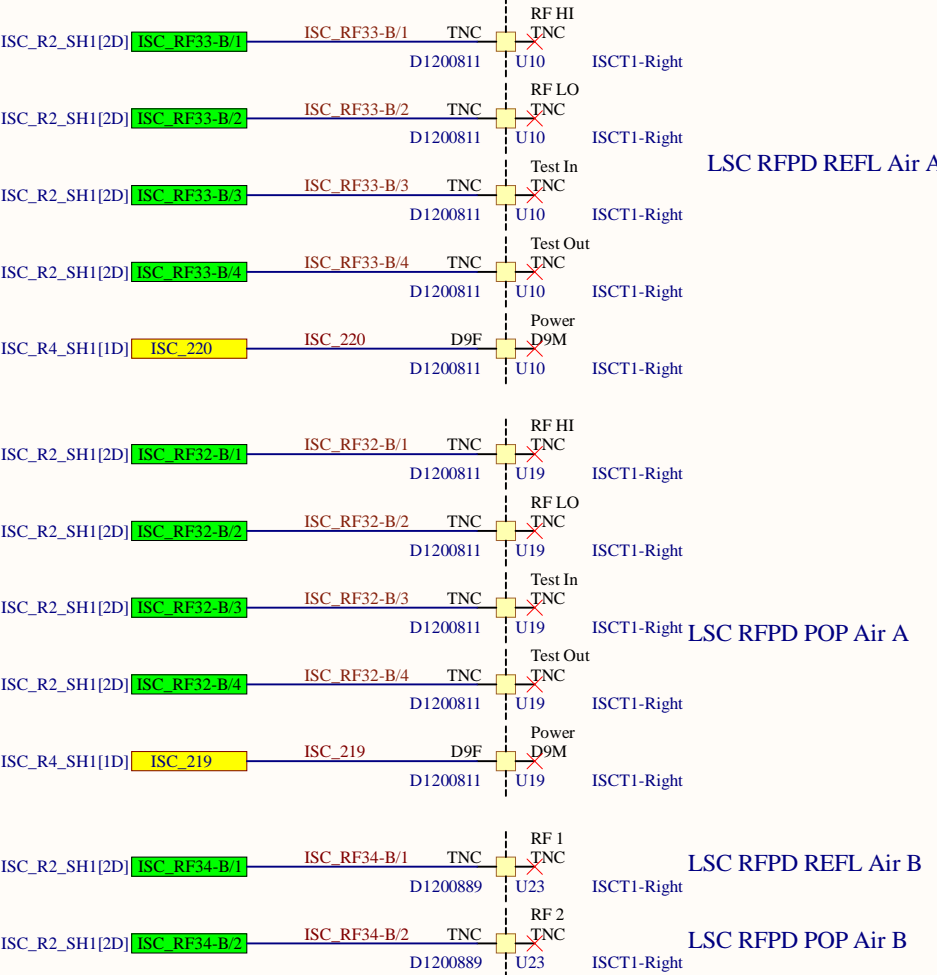
ISC-R4 Rack



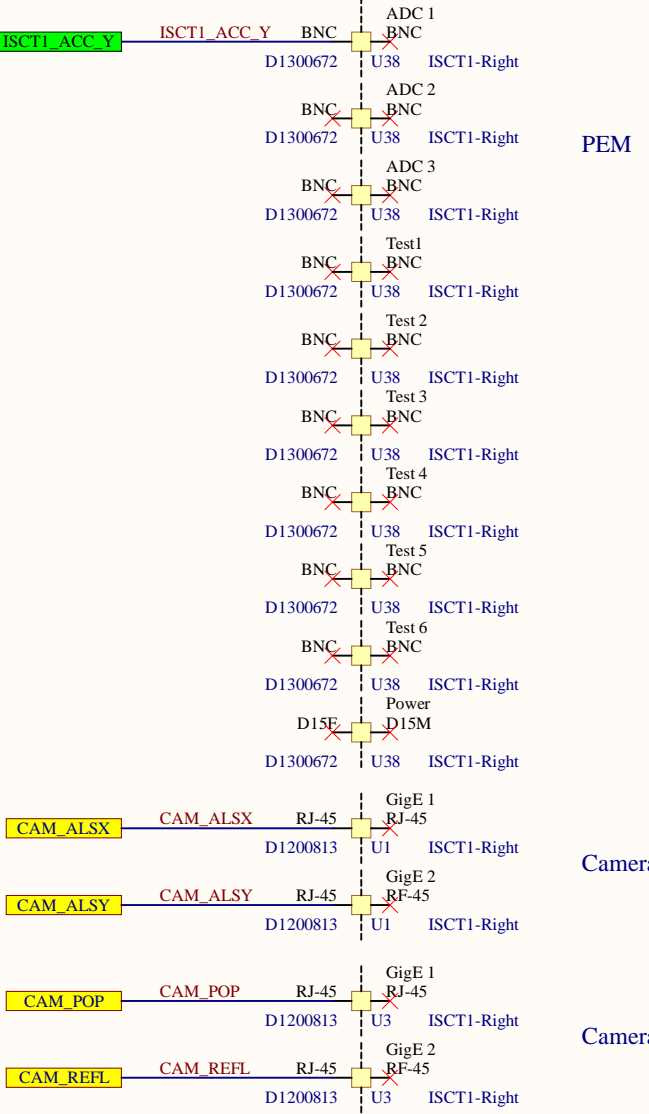
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<h1 style="text-align: center;">ISC System Wiring Diagram</h1>			
Size	Number	Revision	
C	D1900511	V12	
Date:	11/25/2025	Sheet of	43
File:	C:\Users\j\ISC_R4_SH2_SchDoc	Drawn By:	Filberto Clara

ISCT1 - Right Side

Inside Enclosure



Inside Enclosure

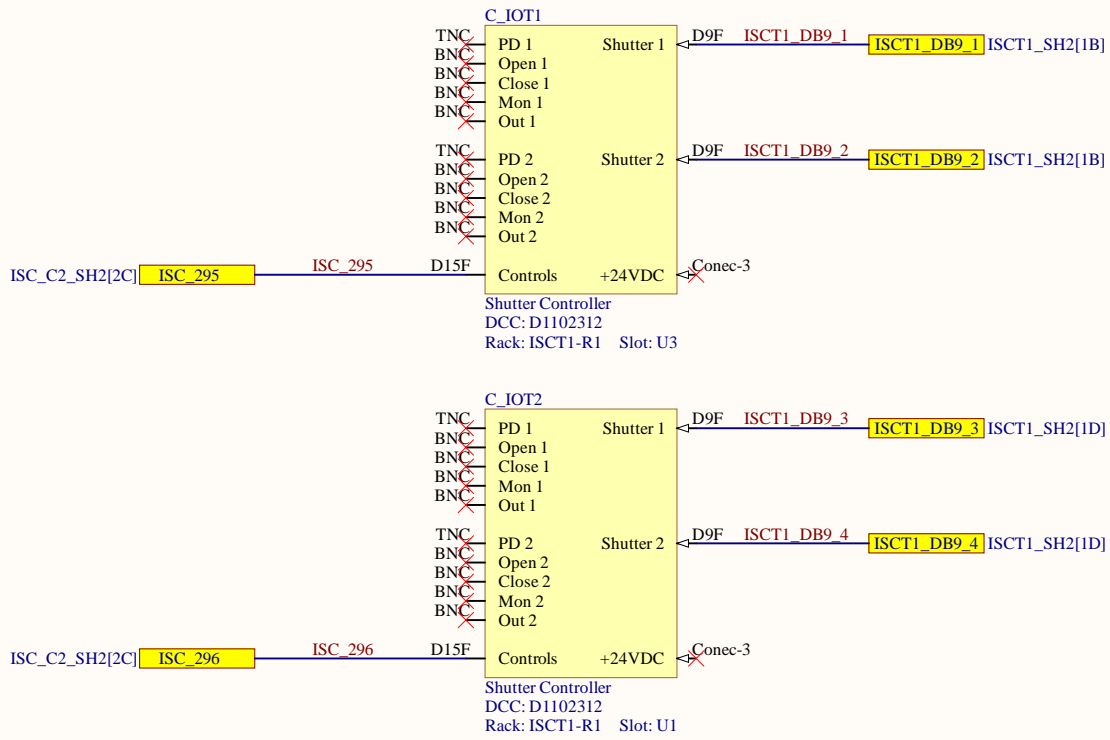
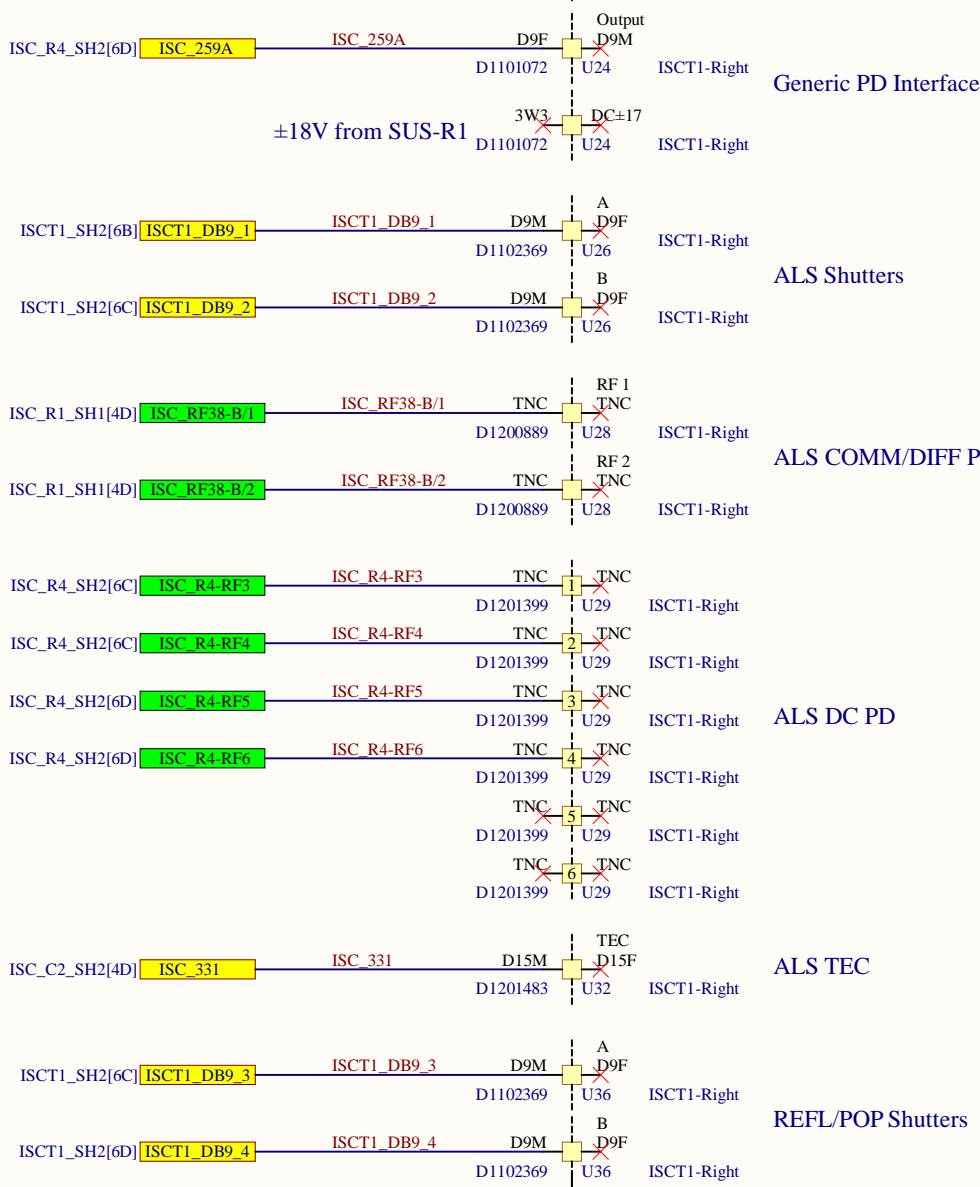


ISC System Wiring Diagram

Title	Number	Revision
Size B	D1900511	V12
Date:	11/25/2025	Sheet of 2 43
File:	C:\Users\...\ISCT1_SH1.SchDoc	Drawn By: Filiberto Clara

ISCT1 - Right Side

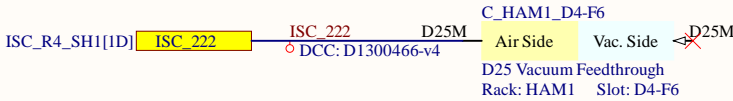
Inside Enclosure



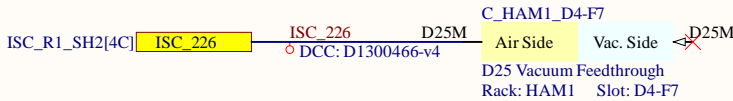
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ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of 3 43
File:	C:\Users\...\\ISCT1_SH2.SchDoc	Drawn By: Filiberto Clara

HAM1 Flange Layout

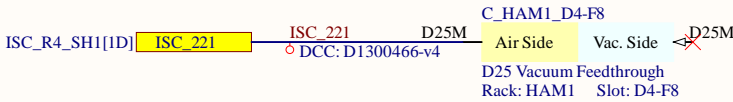
REFL_A LSC DC



REFL_B LSC DC



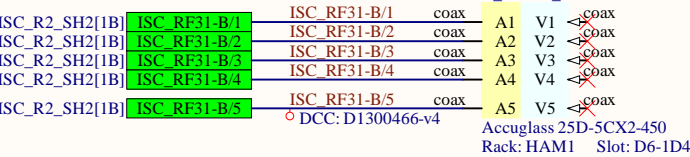
POP_A LSC DC



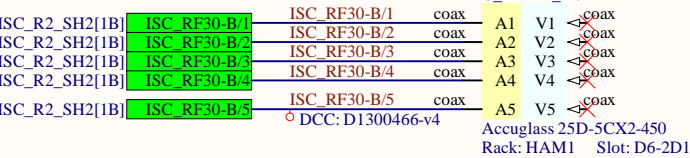
REFL_A LSC
9/45MHz



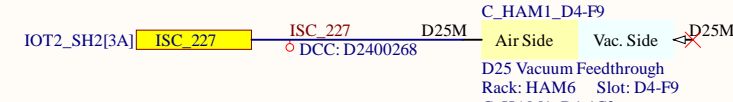
REFL_B LSC
9/45MHz



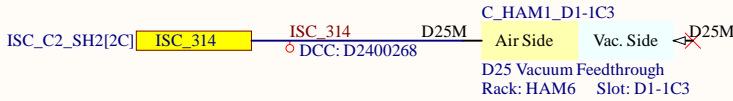
POP_A LSC
9/45MHz



Picomotor



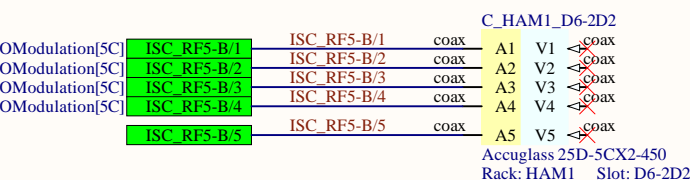
REFL Beam Diverter



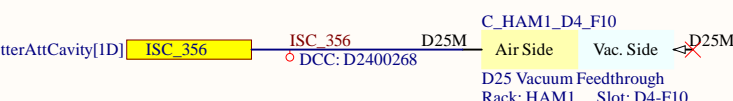
POP Beam Diverter



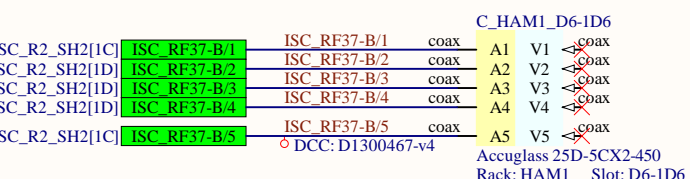
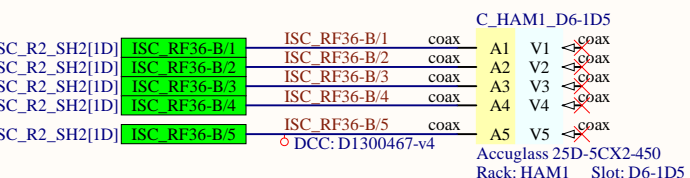
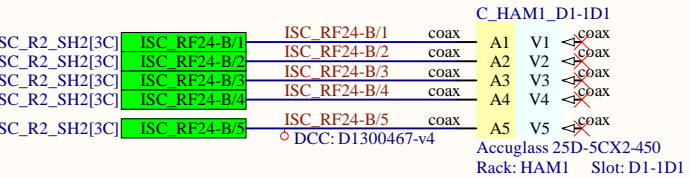
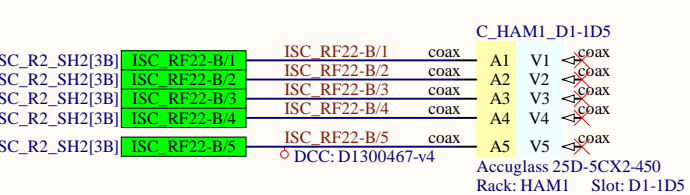
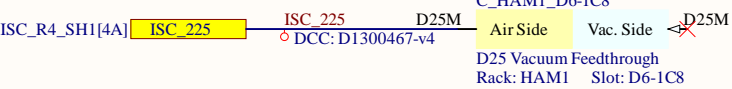
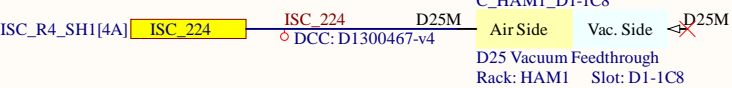
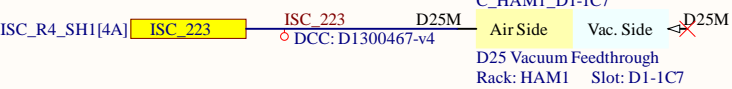
EOM



JAC Controls



JAC Heater



REFL_A WFS DC

REFL_B WFS DC

POP_X WFS DC

REFL_A WFS 9/45MHz

REFL_A WFS 9/45MHz

REFL_B WFS 9/45MHz

REFL_B WFS 9/45MHz

POP_X WFS 36/45MHz

POP_X WFS 36/45MHz

ISC System Wiring Diagram

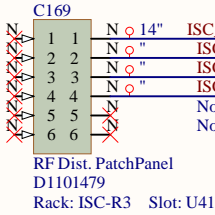
Size B Number D1900511 Revision V12

Date: 11/25/2025 Sheet of 24 43 File: C:\Users\...HAM1_SH1.SchDoc Drawn By: Filiberto Clara

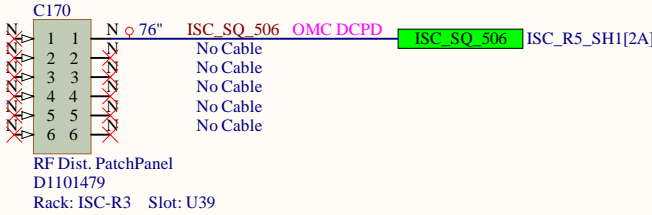
ISC-R3 Rack

Need to Relabel ISC_R3-RF4

RF Patch Panel 15

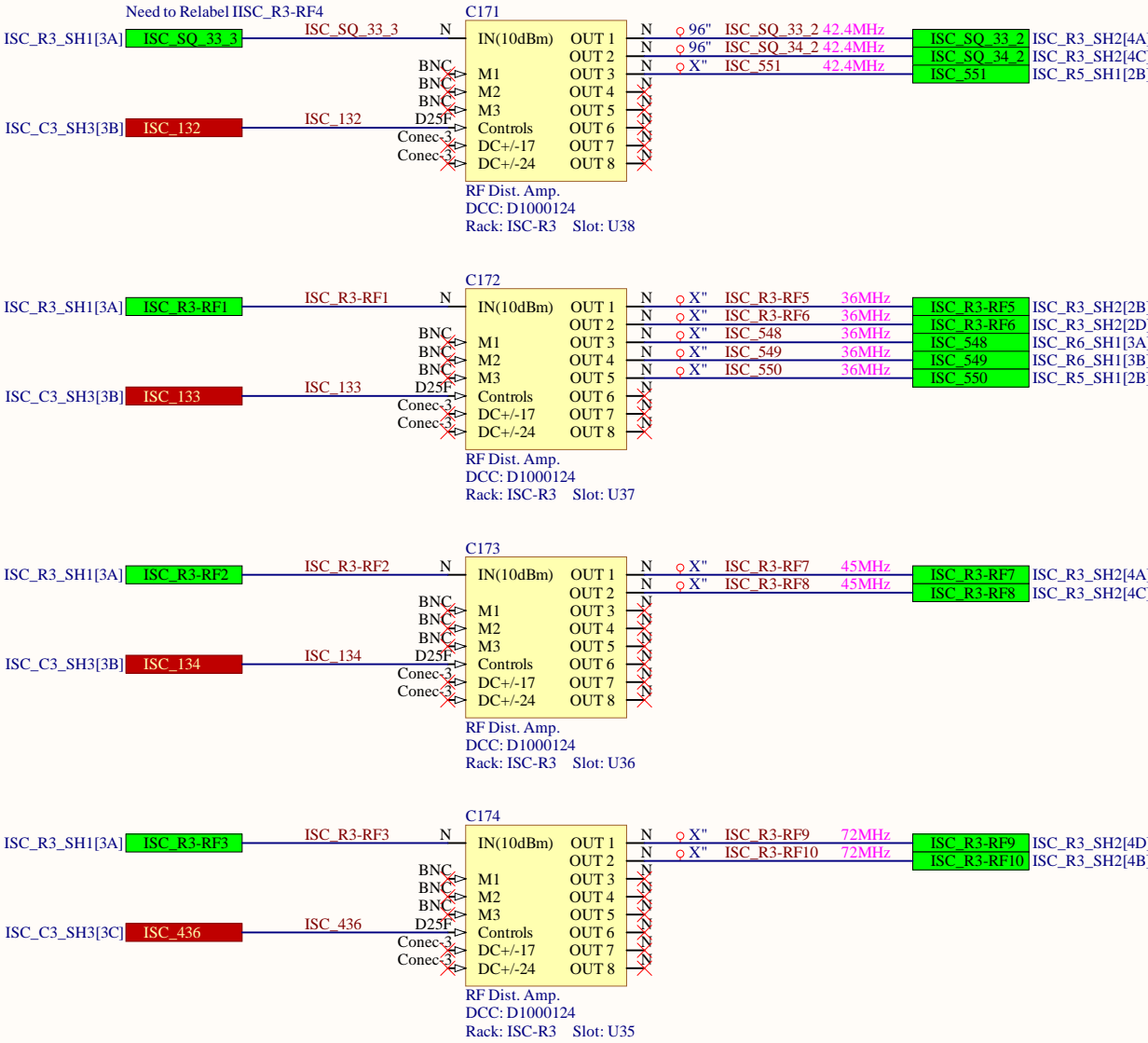


RF Patch Panel 16



Goes to ISC-C4

Goes to SQZ-R1/ISC-C4



Title		
ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of5 43
File:	C:\Users\...\ISC_R3_SH1.SchDoc	Drawn By: Filiberto Clara

ISC-R3 Rack

AS_A WFS 42MHz

AS_A WFS 45MHz

AS_A WFS 72MHz

AS_B WFS 42MHz

AS_B WFS 45MHz

AS_B WFS 72MHz

AS_A WFS >45MHz

AS_A WFS 36MHz

LO_B WFS 45MHz

AS_B WFS >45MHz

AS_B WFS 36MHz

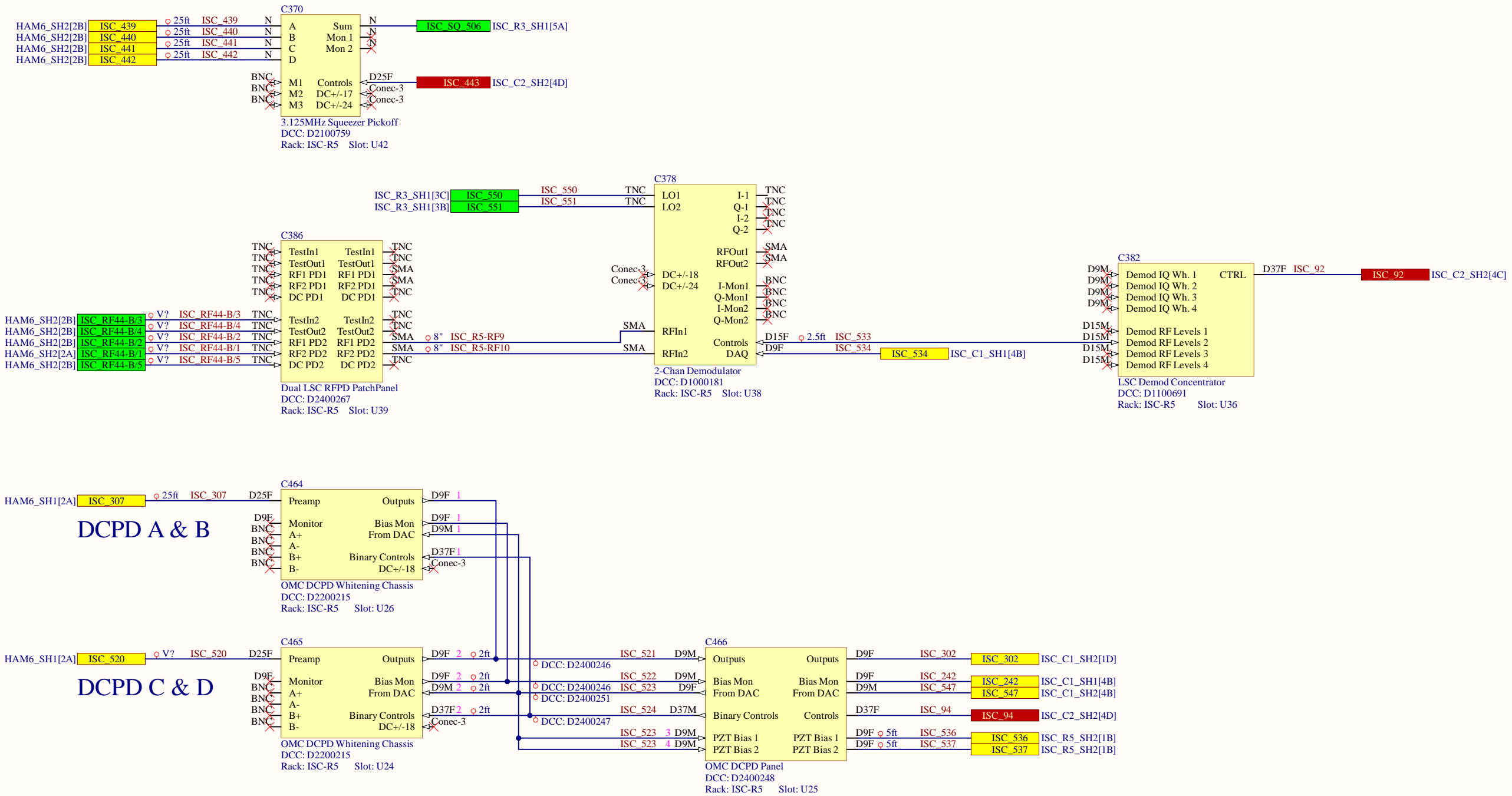
AS_A WFS RF multiplexer

AS_B WFS RF multiplexer

ISC System Wiring Diagram

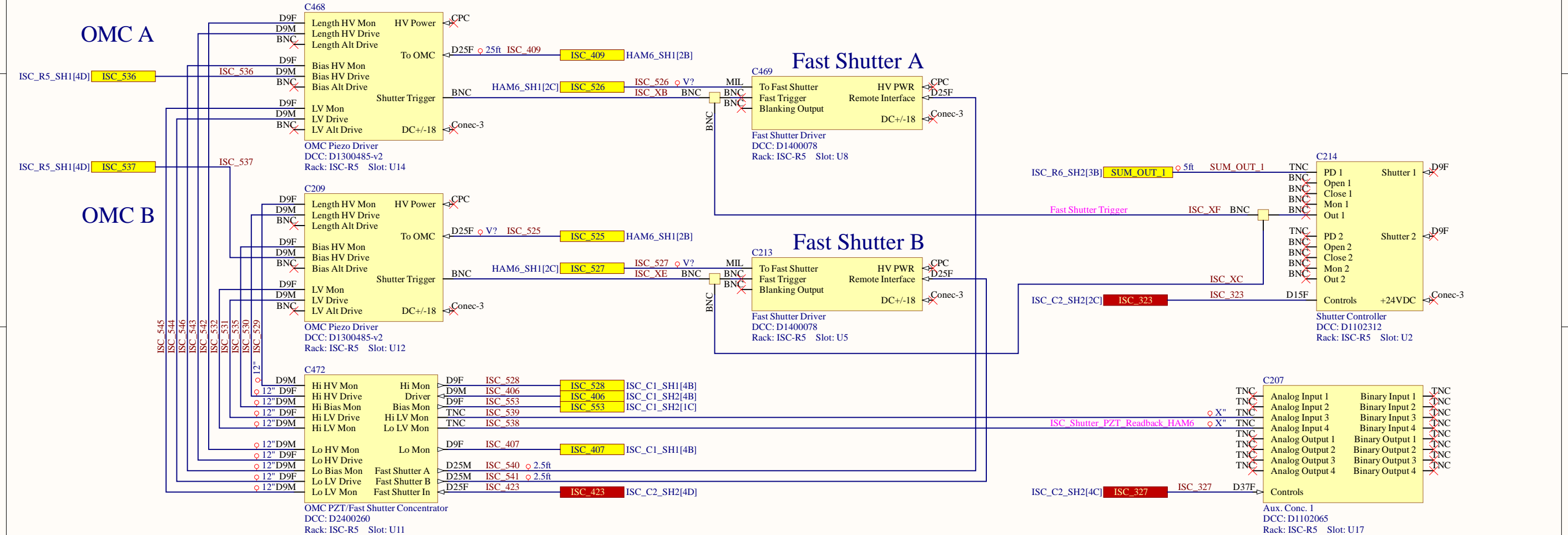
Size	Number	Revision
C	D1900511	V12
Date:	11/25/2025	Sheet of 26 43
File:	C:\Users\...ISC_R3_SH3.SchDoc	Drawn By: Filiberto Clara

ISC-R5 Rack (LSC)



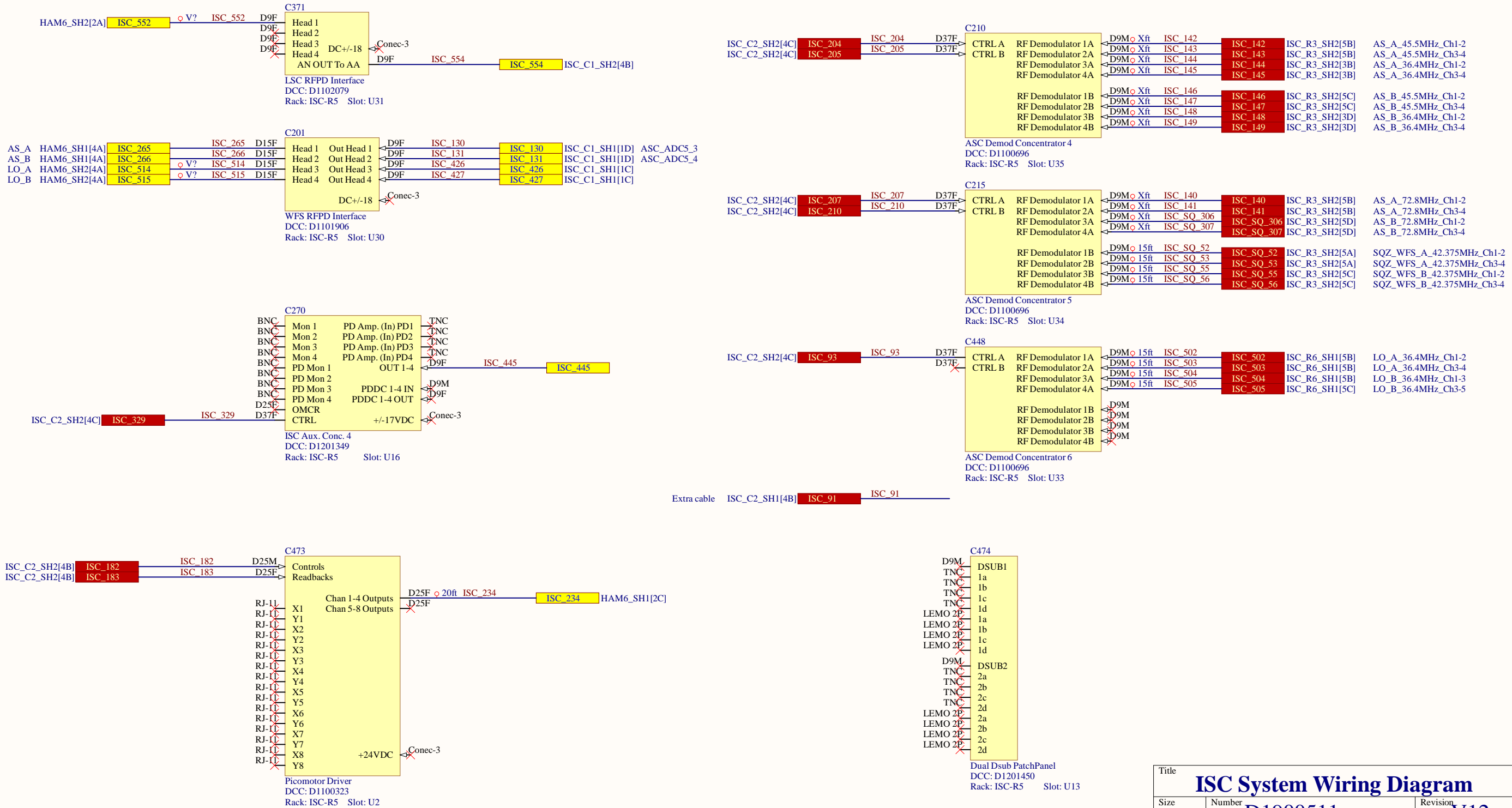
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Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet 43 of 7
File:	C:\Users\...ISC_R5_SH1.SchDoc	Drawn By: Filiberto Clara

ISC-R5 Rack



Title		
ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet 028 43
File:	C:\Users\...\ISC_R5_SH2.SchDoc	Drawn By: Filiberto Clara

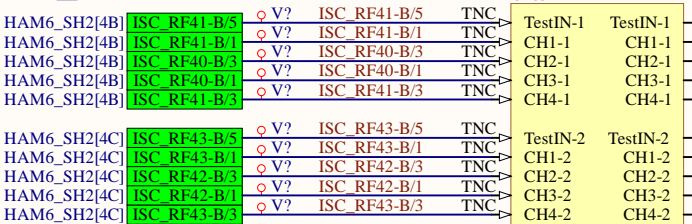
ISC-R5 Rack



Title			ISC System Wiring Diagram		
Size	Number			Revision	
B	D1900511			V12	
Date:	11/25/2025	Sheet	of 9	43	
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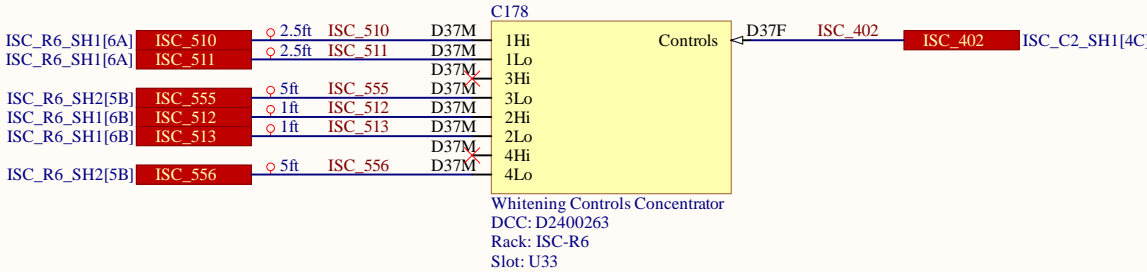
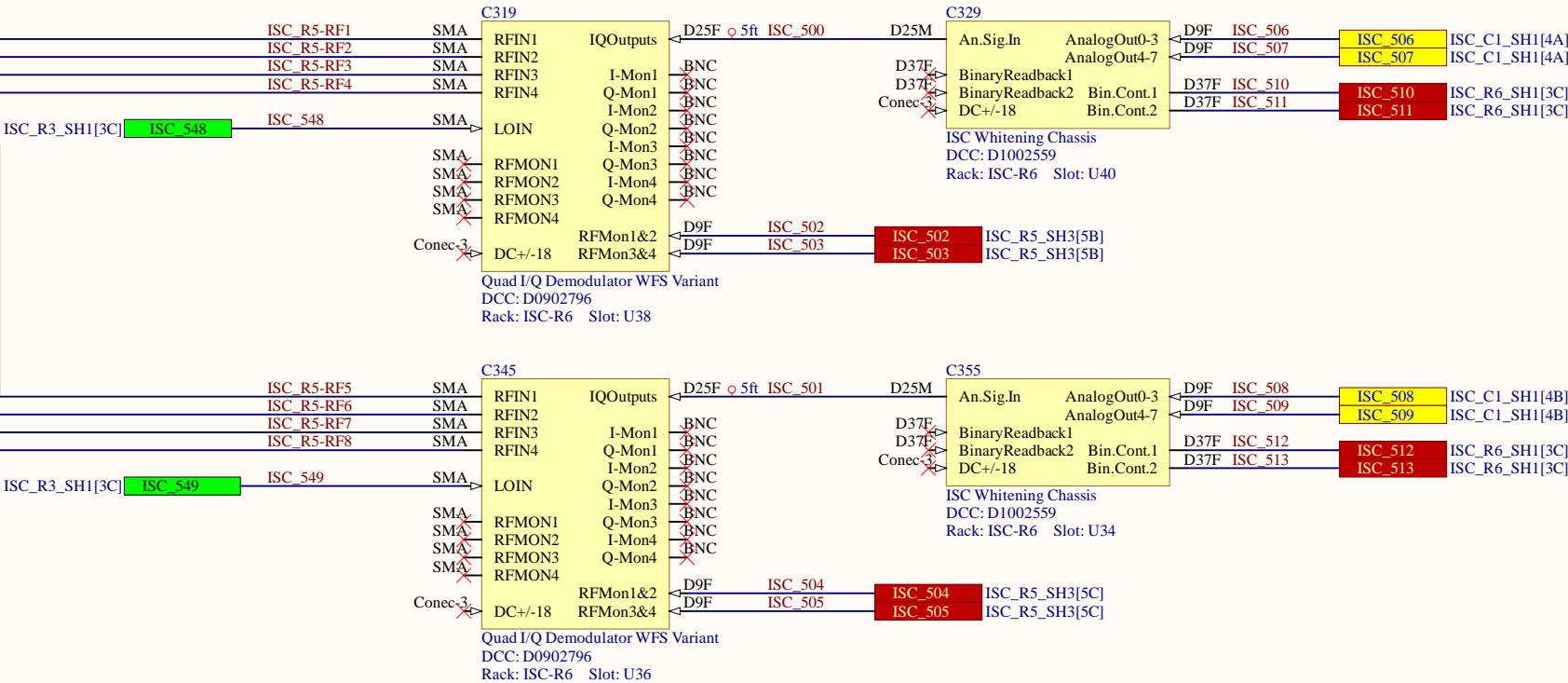
ISC-R6 Rack (ASC)

LO_A WFS 36MHz



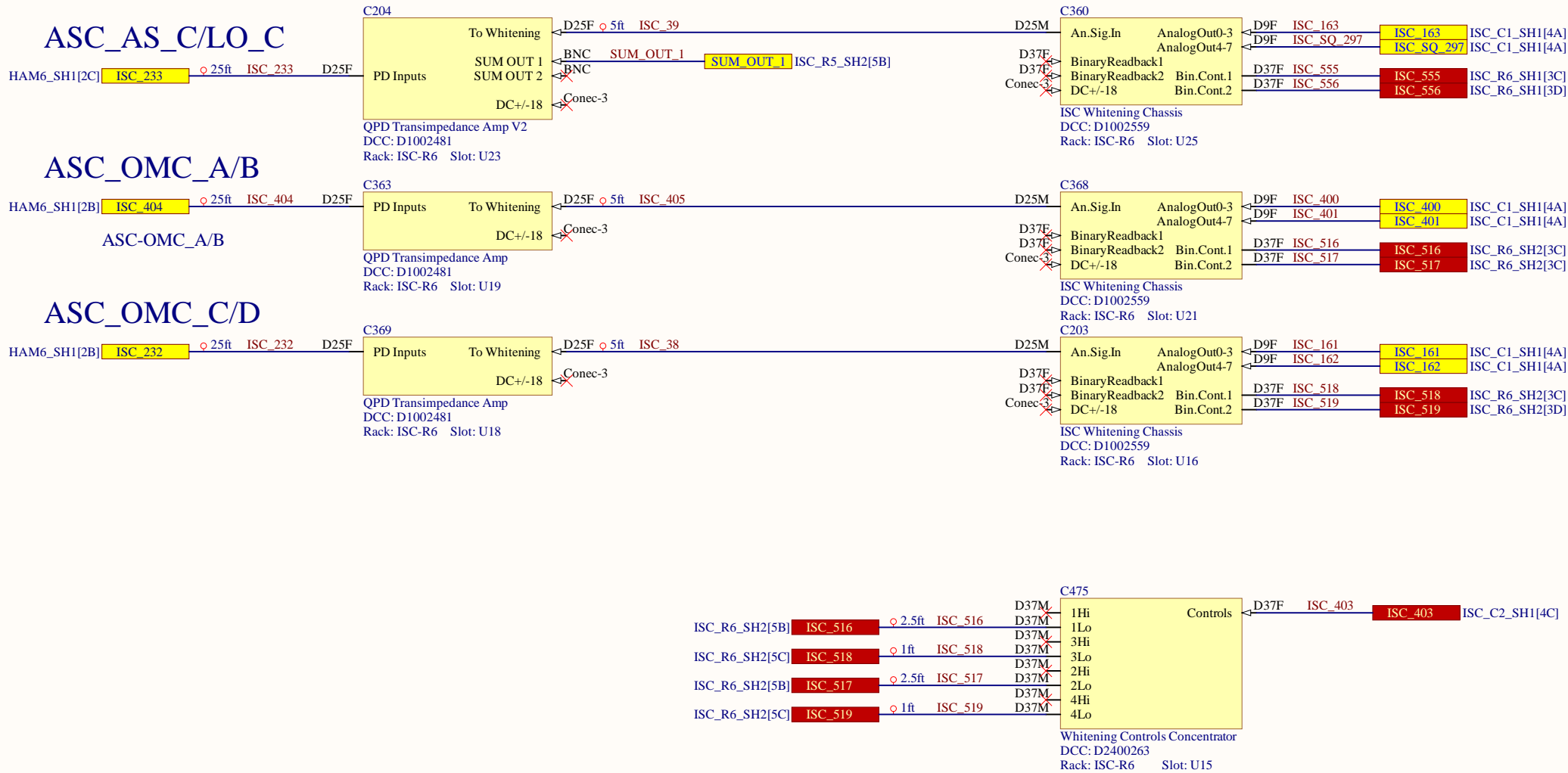
LO_B WFS 36MHz

WFS RF PatchPanel
DCC: D1100905
Rack: ISC-R6 Slot: U37



Title		
ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of 43
File:	C:\Users\...\ISC_R6_SH1.SchDoc	Drawn By: Filiberto Clara

ISC-R6 Rack (ASC)



Title		
ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of 1 43
File:	C:\Users\...\ISC_R6_SH2.SchDoc	Drawn By: Filiberto Clara

HAM6 Flange Layout

DCPD A/B

DCPD C/D

OMC A PZTs

OMC B PZTs

OMC A/B QPD

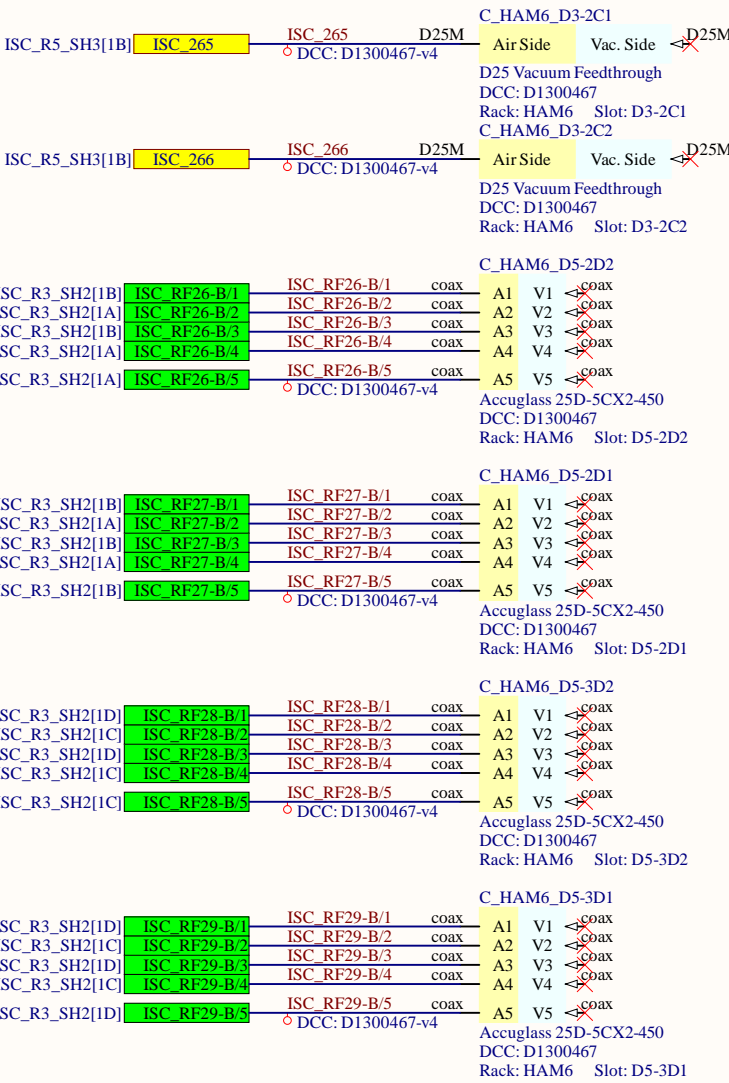
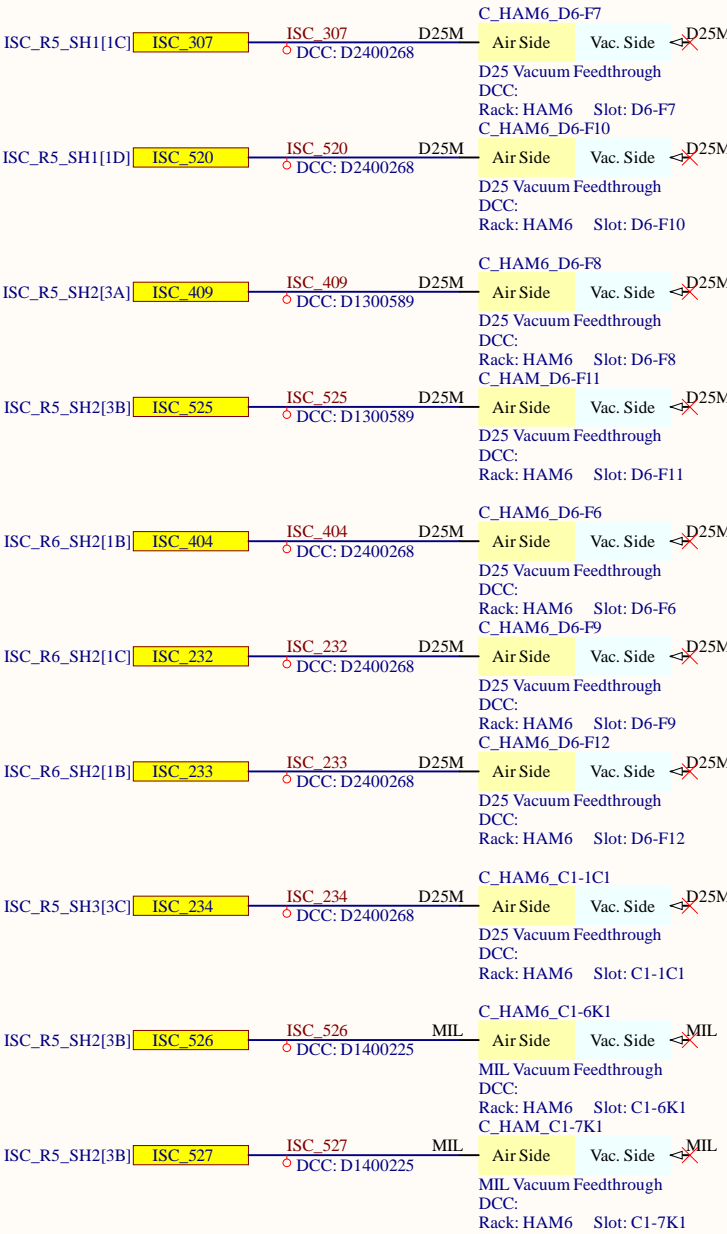
OMC C/D QPD

AS_C/LO_C QPD

Picomotor

Fast Shutter 1

Fast Shutter 2



AS_A WFS DC

AS_B WFS DC

AS_A WFS 36/45MHz

AS_A WFS 36/45MHz

AS_B WFS 36/45MHz

AS_B WFS 36/45MHz

Title		
ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of 32 43
File:	C:\Users\...HAM6_SH1.SchDoc	Drawn By: Filiberto Clara

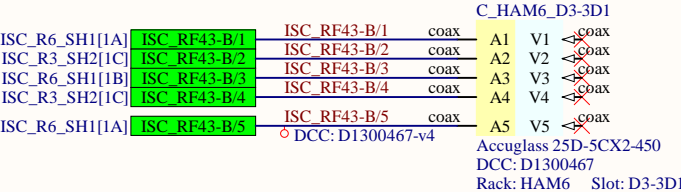
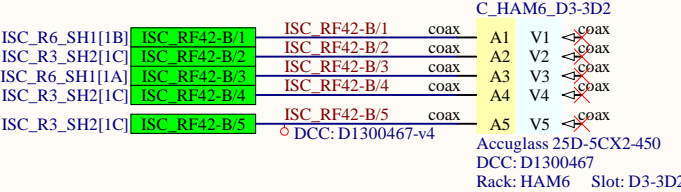
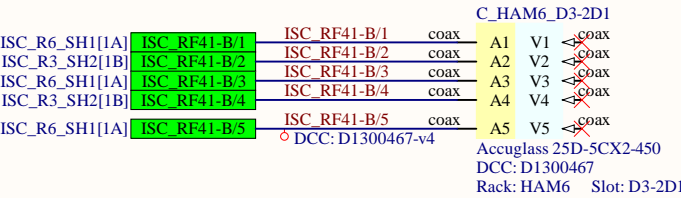
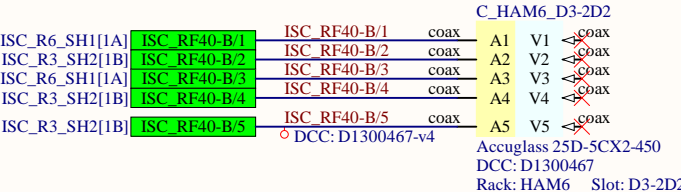
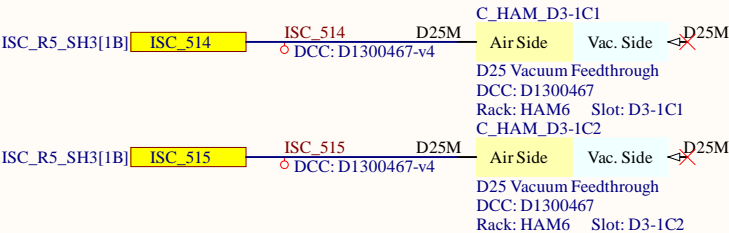
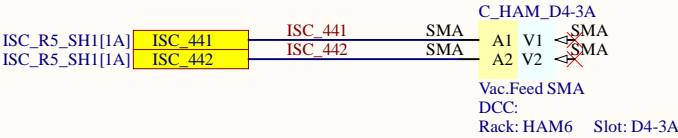
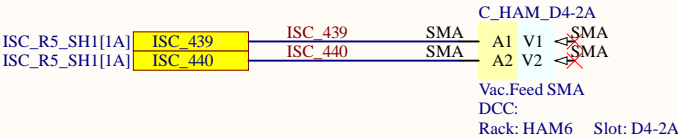
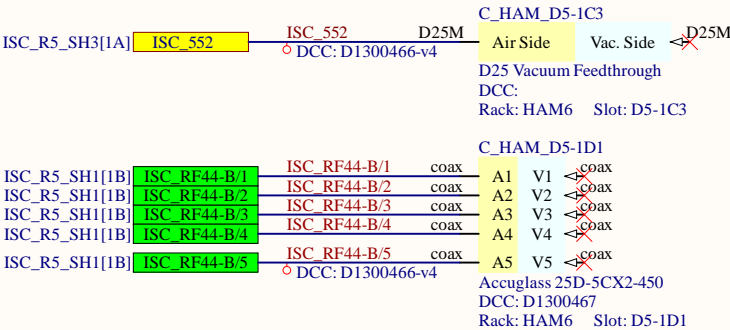
HAM6 Flange Layout

OMC_REFL DC

OMC_REFL_A

DCPD 3.1MHz A/B

DCPD 3.1MHz C/D



LO_A WFS DC

LO_B WFS DC

LO_A WFS 36/45MHz

LO_A WFS 36/45MHz

LO_B WFS 36/45MHz

LO_B WFS 36/45MHz

Title		
ISC System Wiring Diagram		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of 33 43
File:	C:\Users\...\HAM6_SH2.SchDoc	Drawn By: Filiberto Clara

Key

Ties to Beckhoff

Ties to RF Distribution

Dot Identifies Cable Shield Terminating to Backshell

Pin With Triangle Indicates Pin on Rear or the Like

Pin With No Triangle Indicates Pin on Front or the Like

Light Blue Symbols Are In-Vacuum

Yellow Symbols Are In-Air

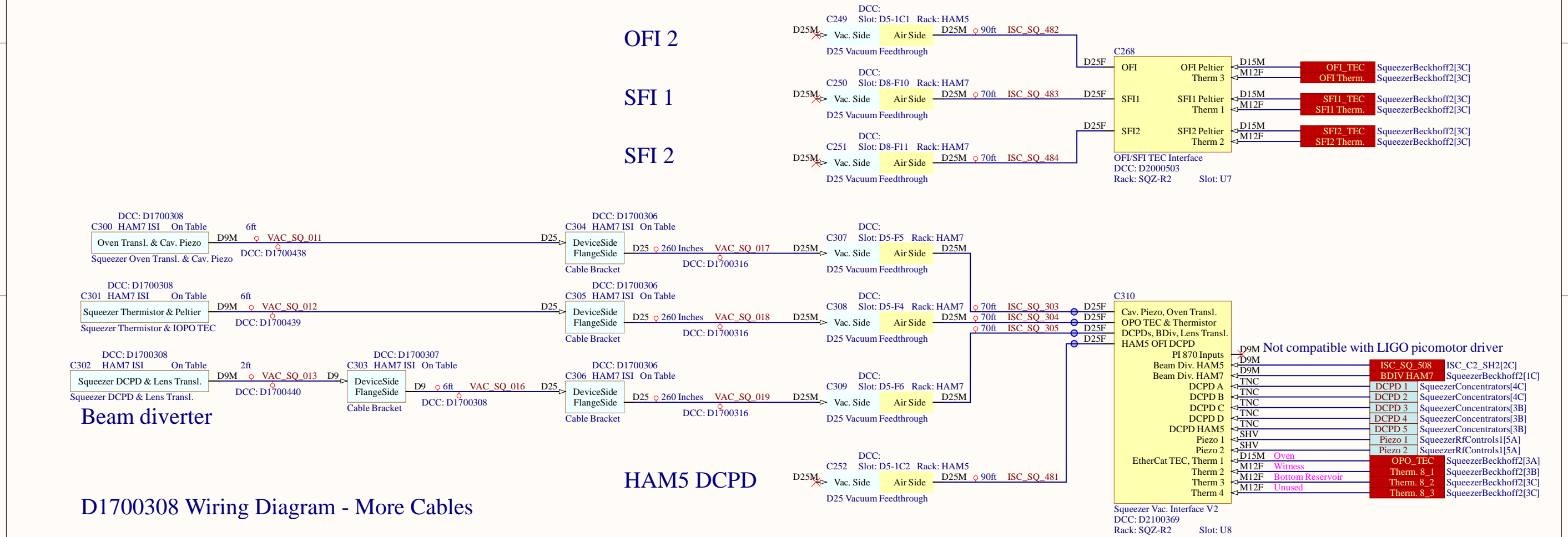
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Squeezer Wavefront Sensing		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of 34 43
File:	C:\Users\...\SqueezerWfsWiring.SchDoc	Drawn By: R. Abbott

A

B

C

D



A

A

B

B

C

C

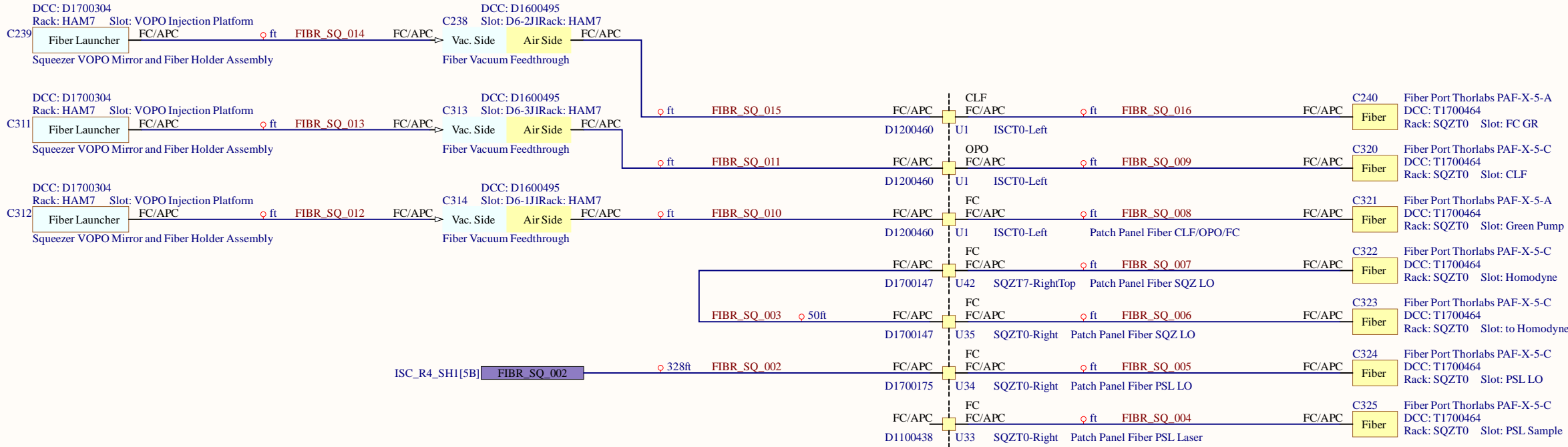
D

D

FC

CLF

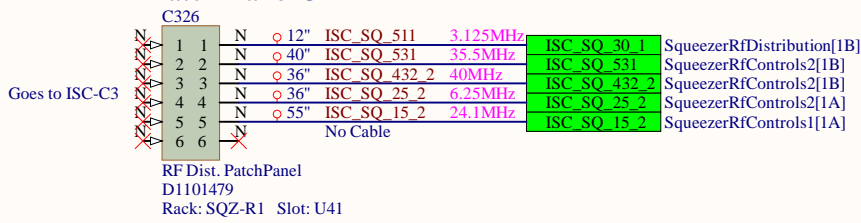
OPO



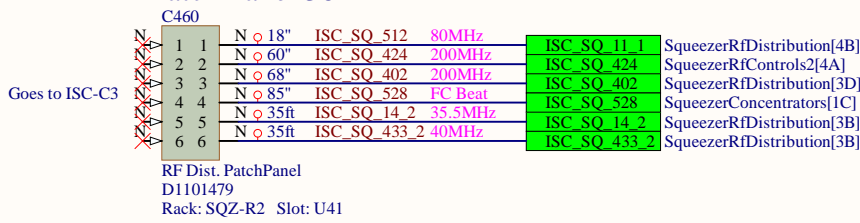
A

A

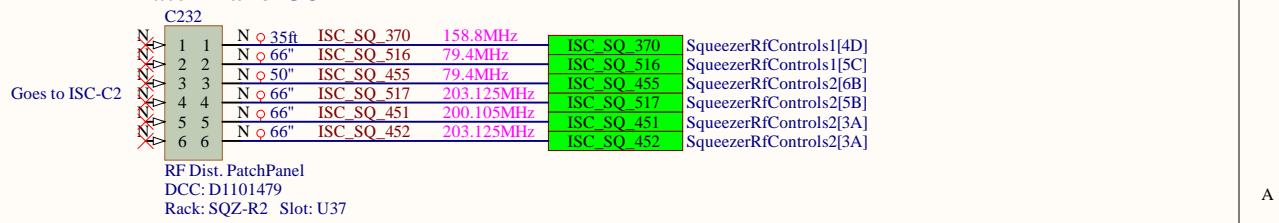
RF Patch Panel 34



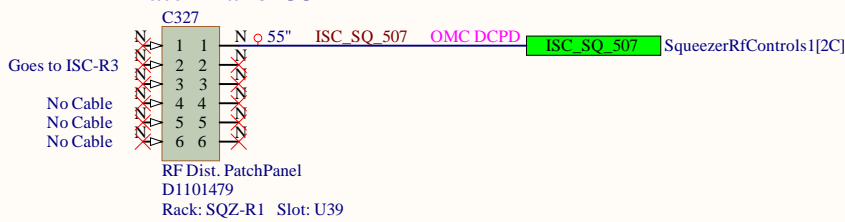
RF Patch Panel 36



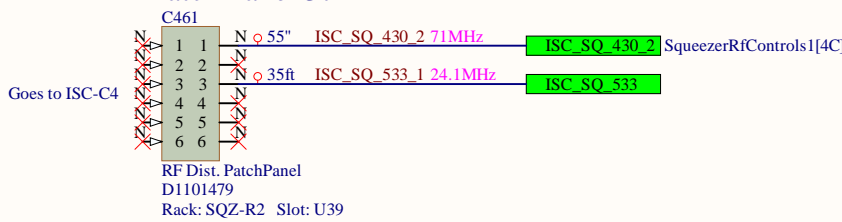
RF Patch Panel 38



RF Patch Panel 35



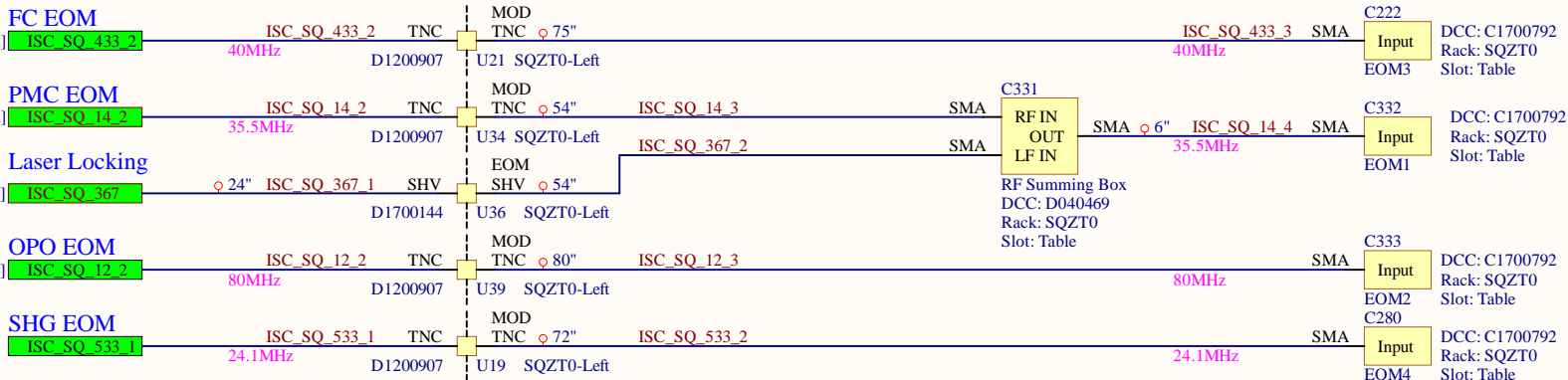
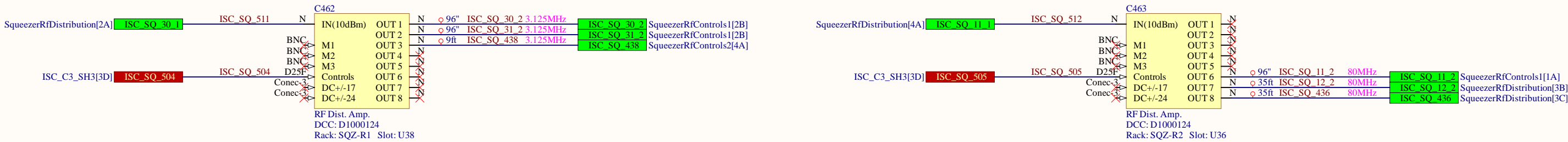
RF Patch Panel 37



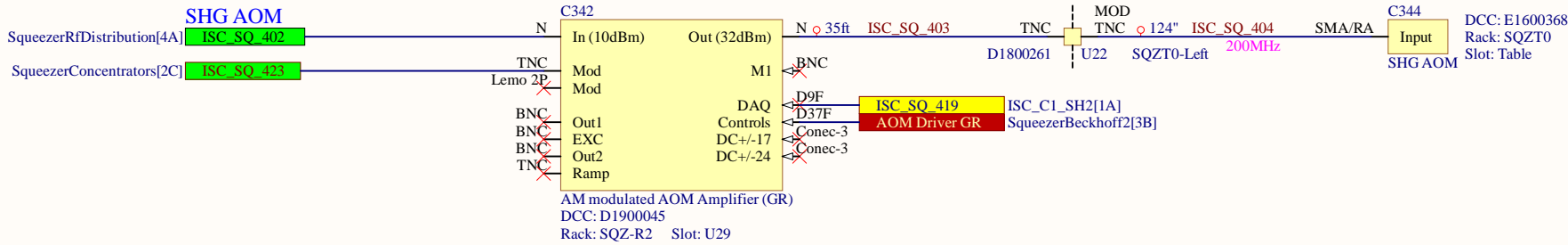
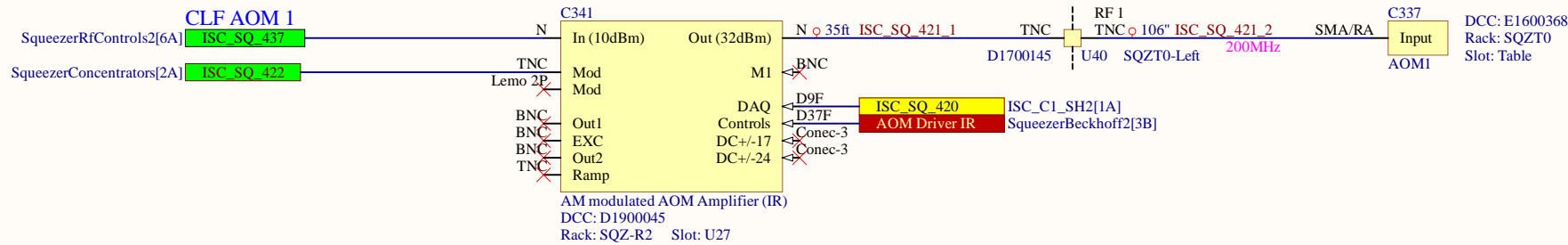
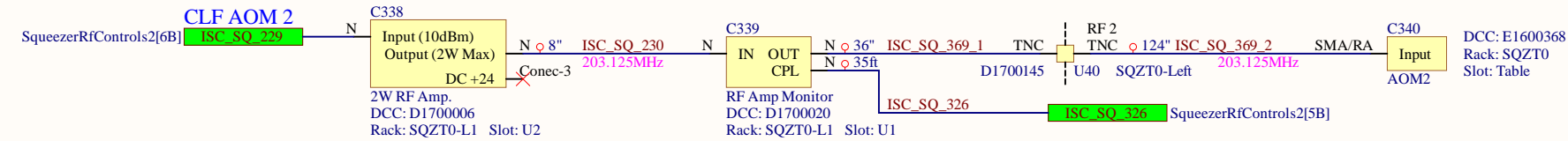
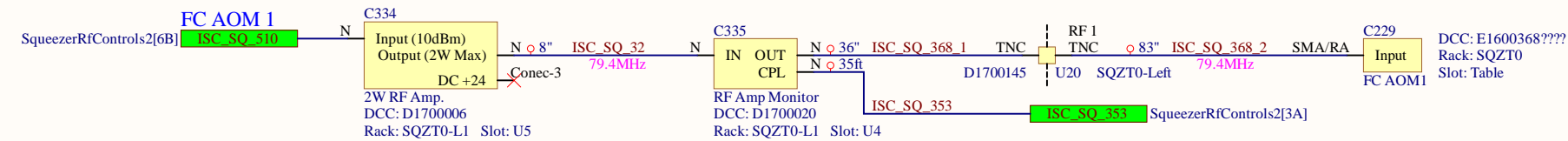
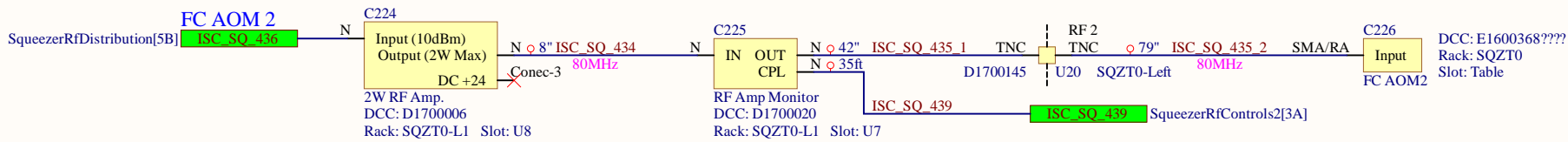
New cables for A_ start at ISC_SQ_430

B

B



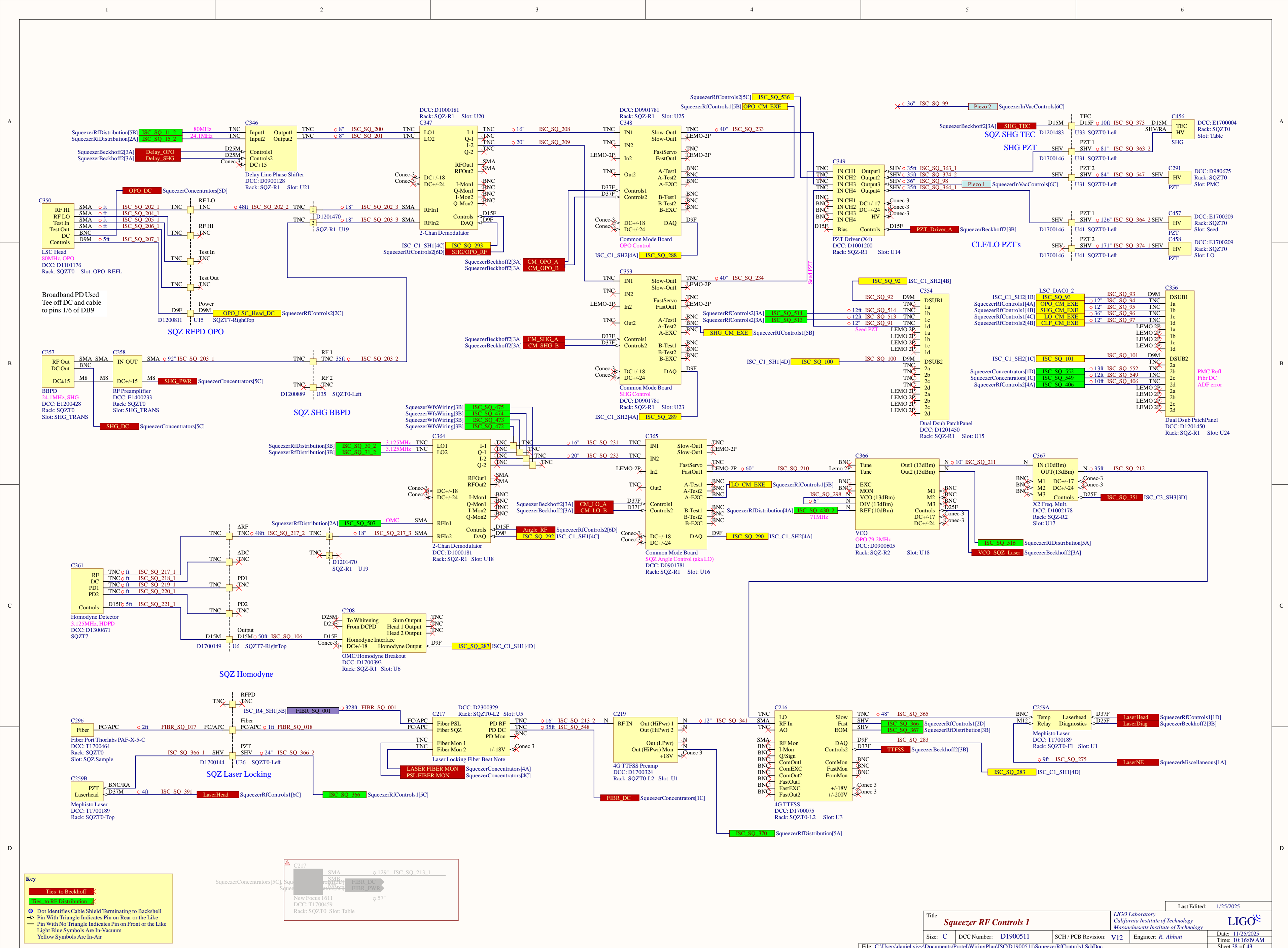
Part Number??

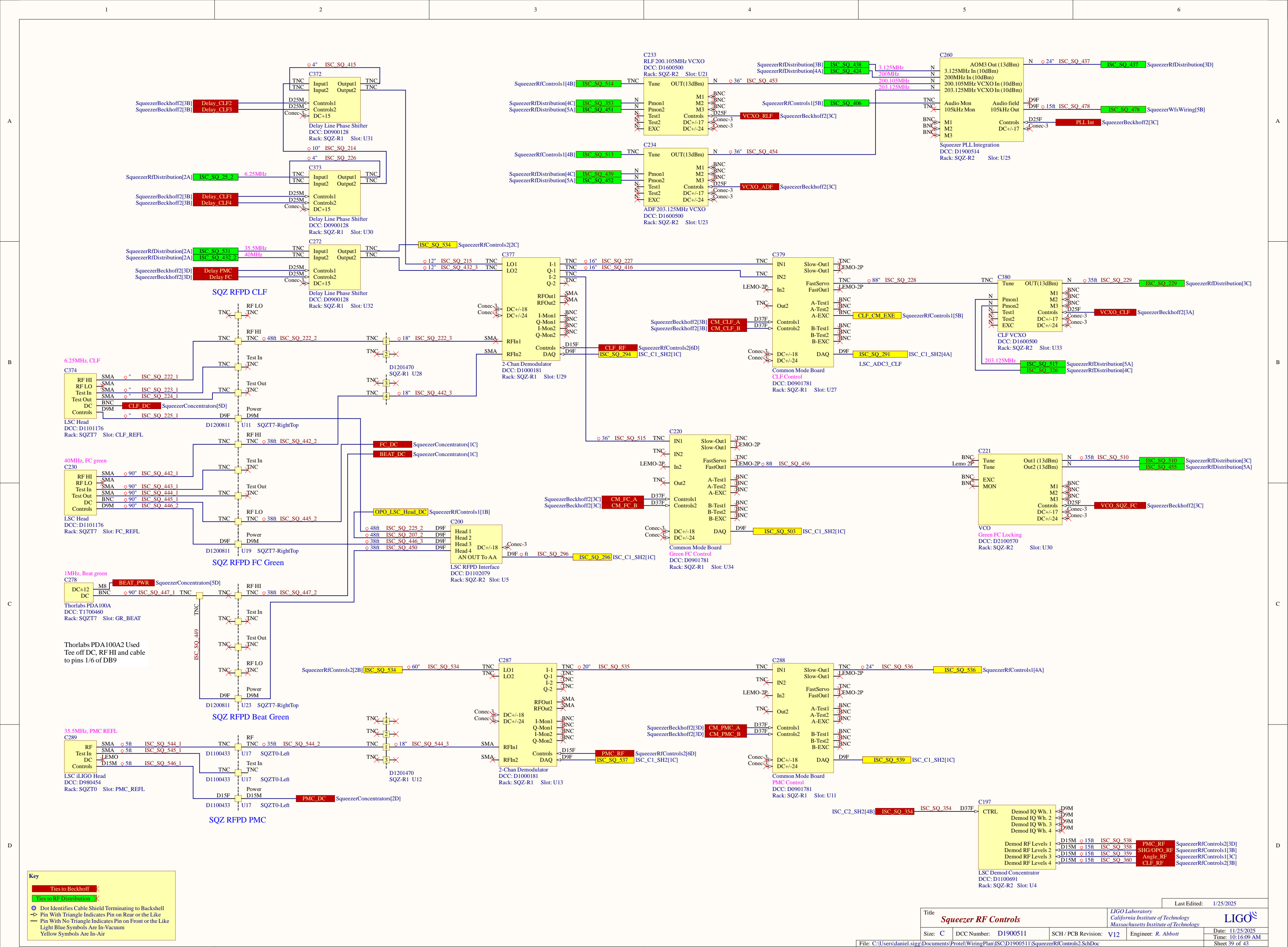


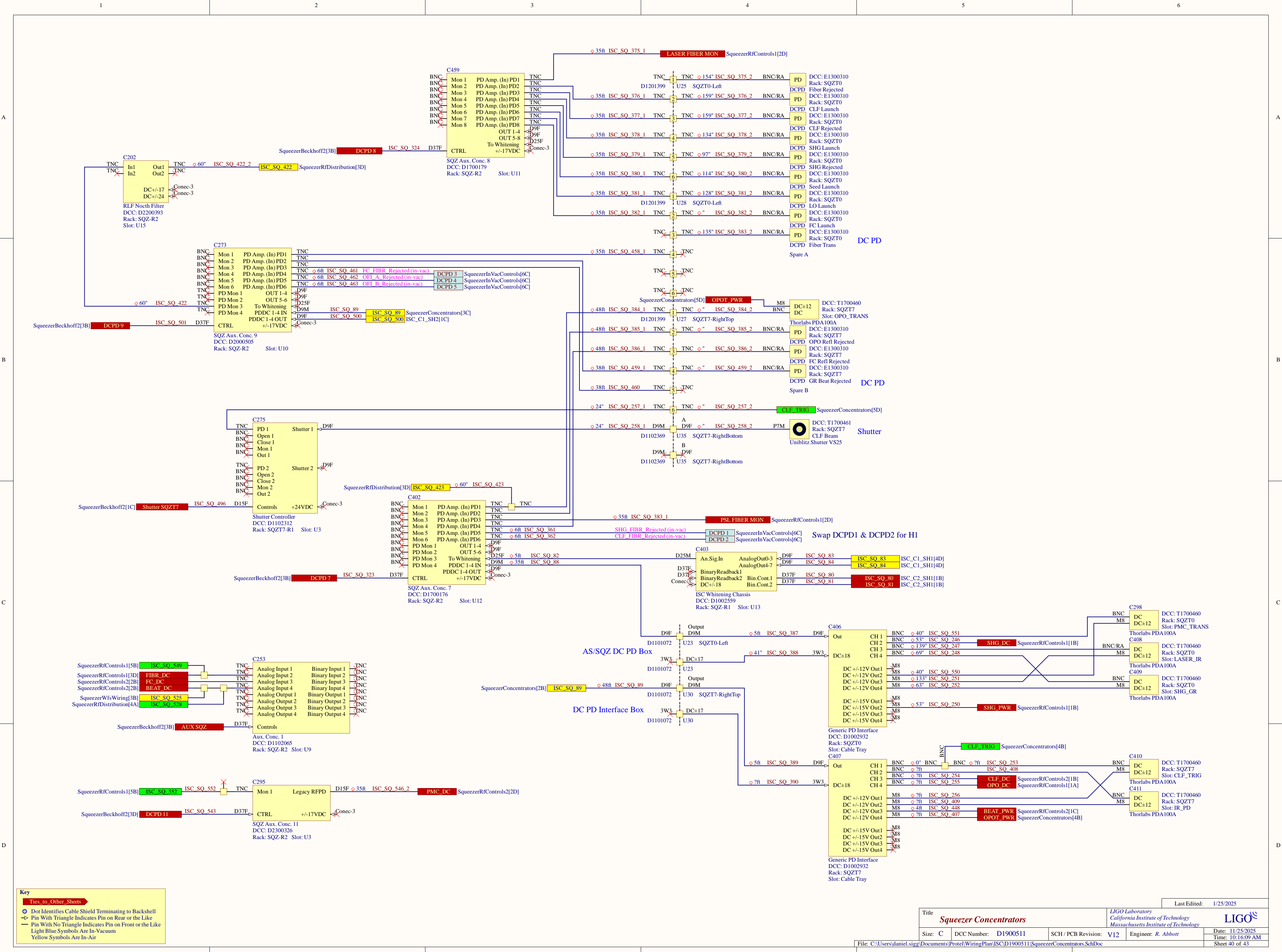
Key

- Ties to Beckhoff
- Ties to RF Controls or WFS Wiring
- Dot Identifies Cable Shield Terminating to Backshell
- Pin With Triangle Indicates Pin on Rear or the Like
- Pin With No Triangle Indicates Pin on Front or the Like
- Light Blue Symbols Are In-Vacuum
- Yellow Symbols Are In-Air

Title		
Squeezer RF Distribution		
Size	Number	Revision
C	D1900511	V12
Date:	11/25/2025	Sheet of 37 43
File:	C:\Users\...SqueezerRfDistribution.SchDpDrawn By: R. Abbott	







Key

Ties to Other Sheets

Dot Identifies Cable Shield Terminating to Backshell

Pin With Triangle Indicates Pin on Rear or the Like

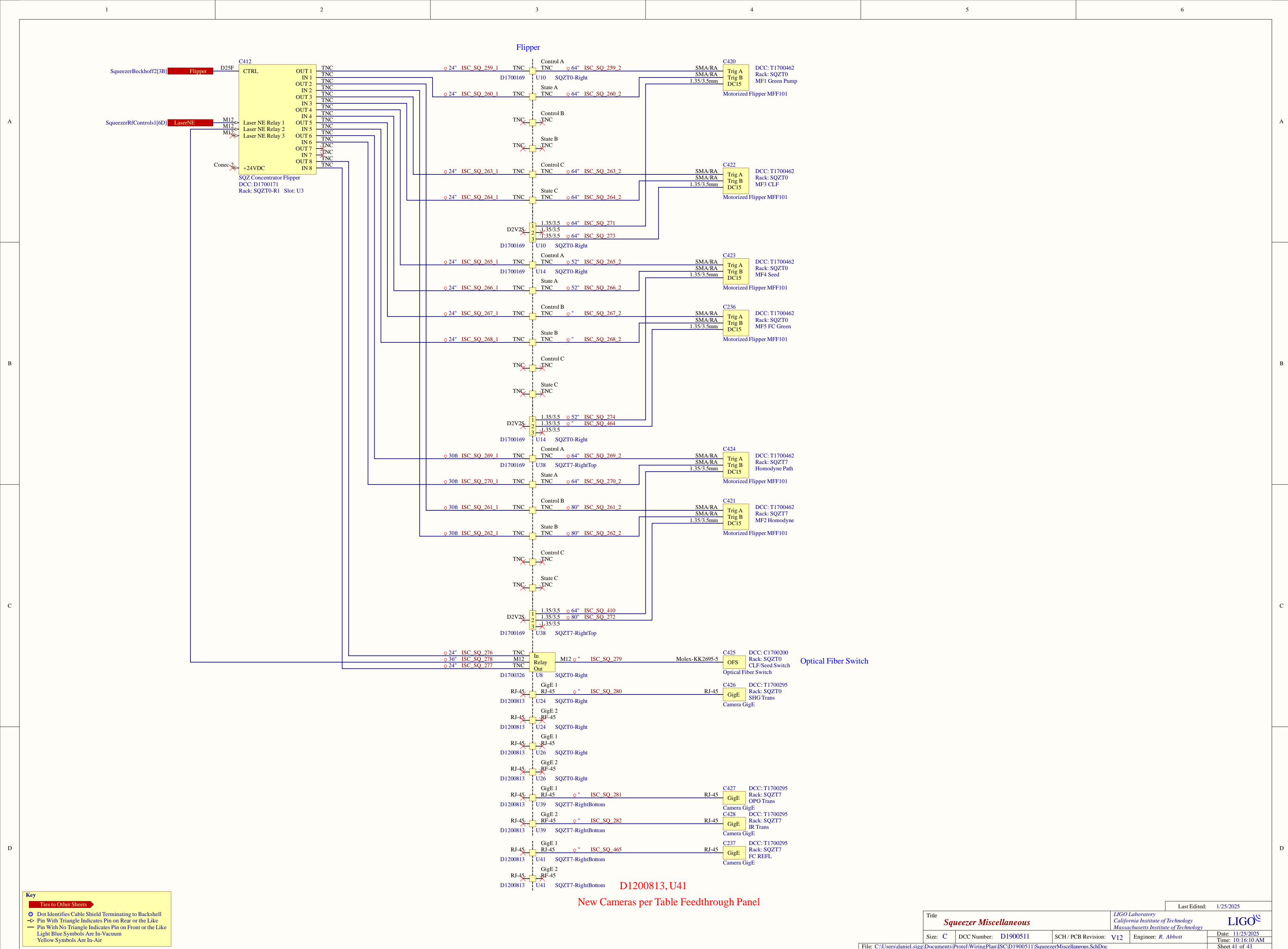
Pin With No Triangle Indicates Pin on Front or the Like

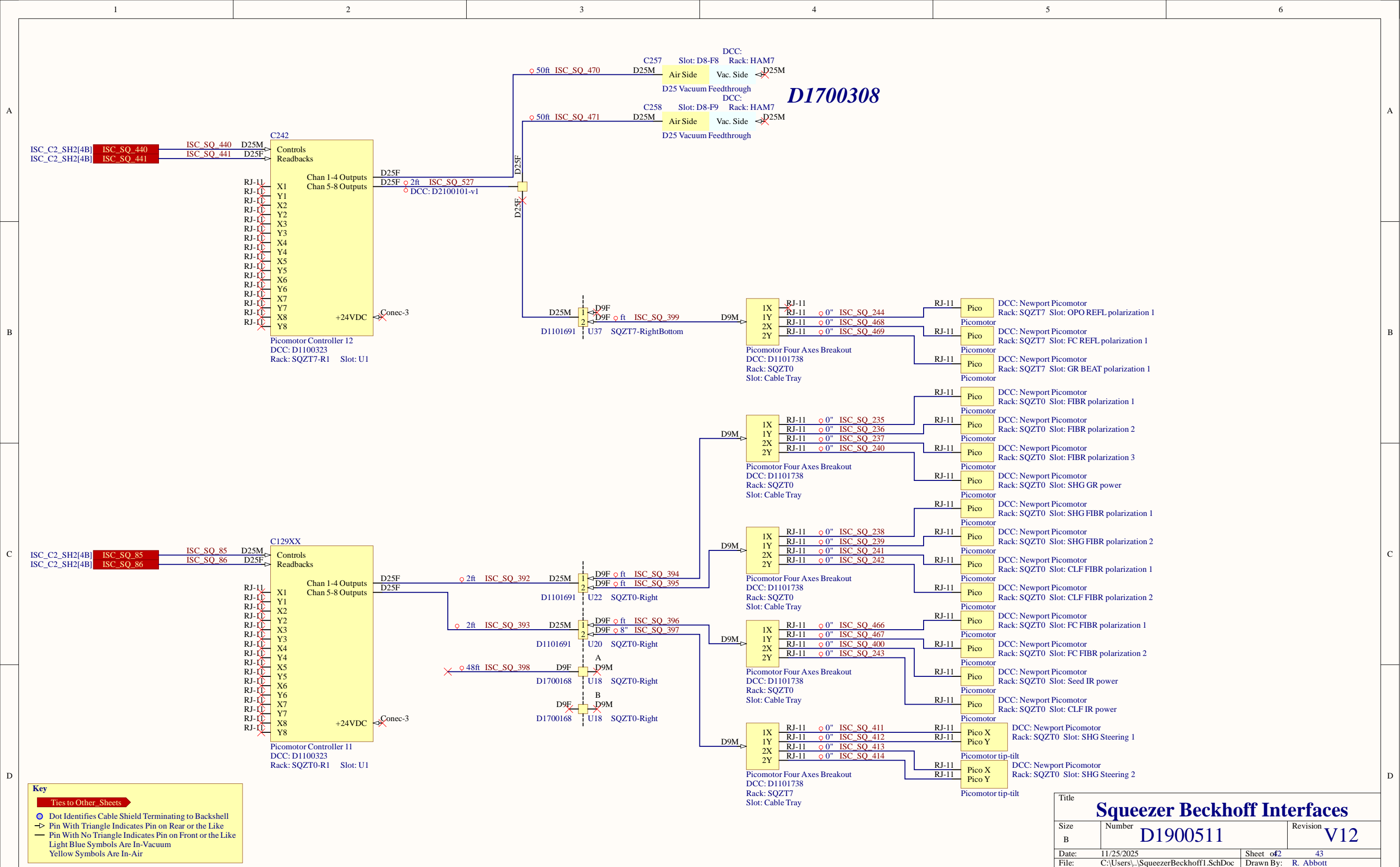
Light Blue Symbols Are In-Vacuum

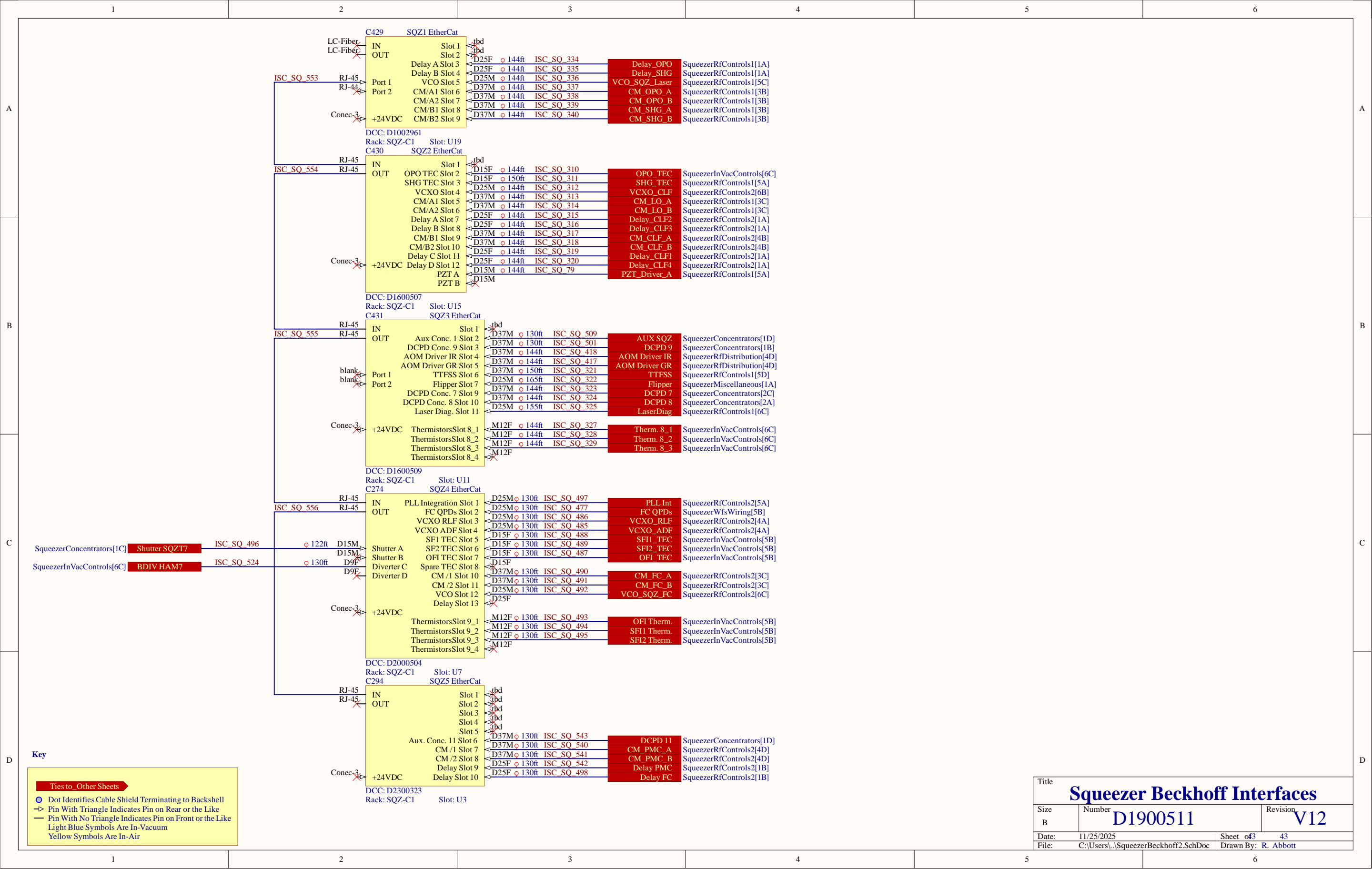
Yellow Symbols Are In-Air

Title			Last Edited: 1/25/2025	
Squeezer Concentrators			LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology	
Size: C			Date: 11/25/2025	
DCC Number: D1900511			Time: 10:16:09 AM	
SCH / PCB Revision: V12			Engineer: R. Abbott	

File: C:\Users\daniel.sig\Documents\Protel\WiringPlan\ISC\D1900511\SqueezerConcentrators.SchDoc







Title		
Squeezer Beckhoff Interfaces		
Size	Number	Revision
B	D1900511	V12
Date:	11/25/2025	Sheet of343
File:	C:\Users\...\SqueezerBeckhoff2.SchDoc	Drawn By: R. Abbott