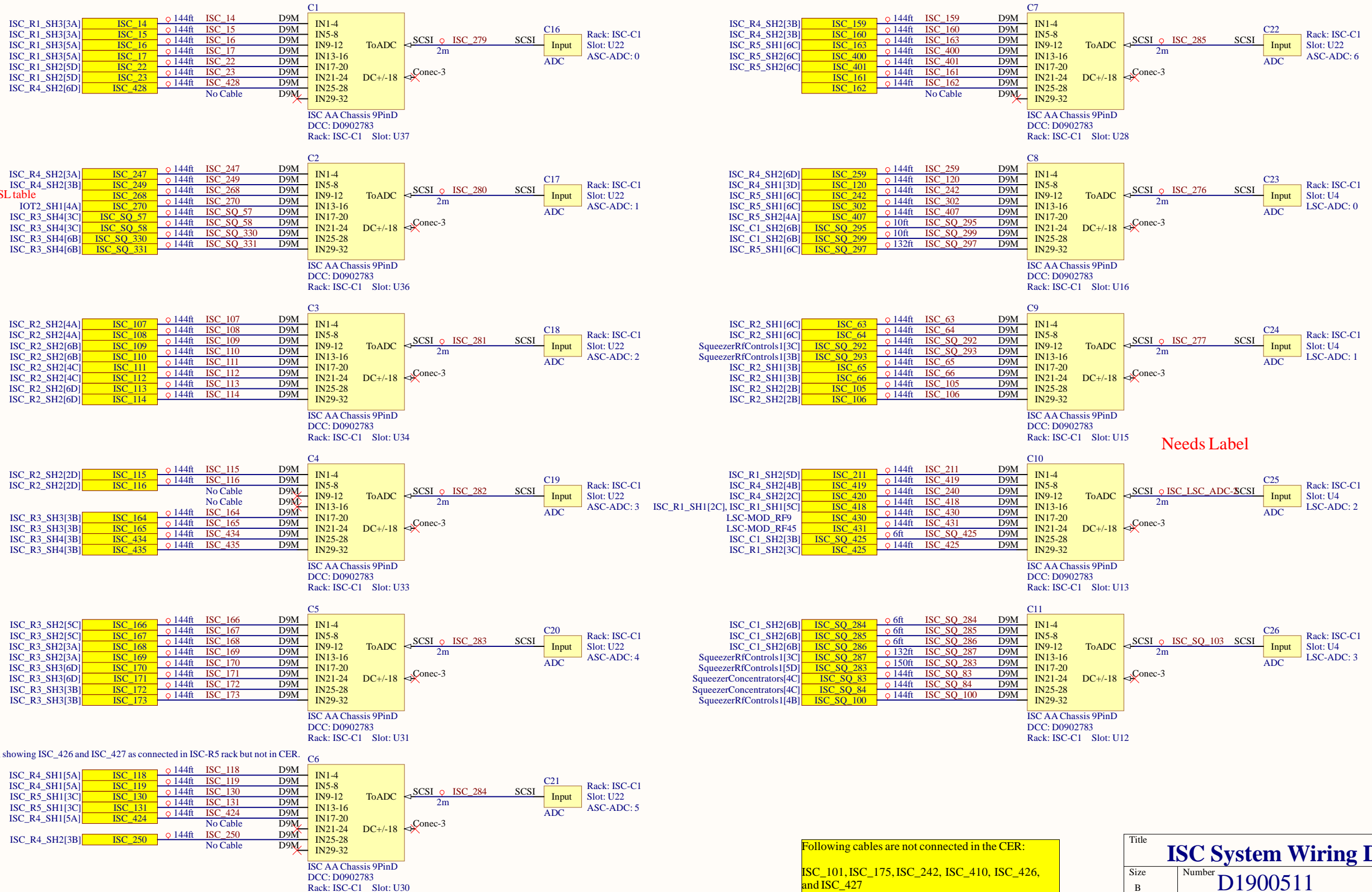


# ISC-C1 Rack



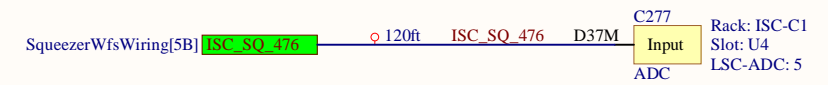
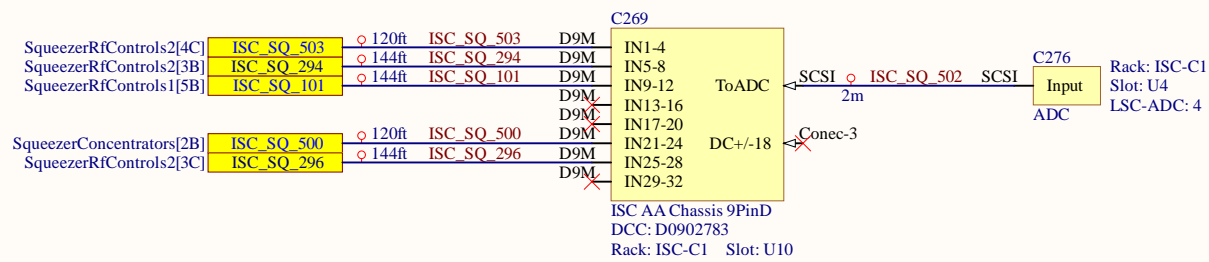
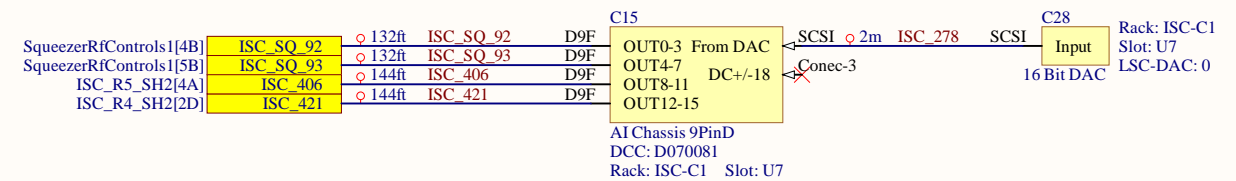
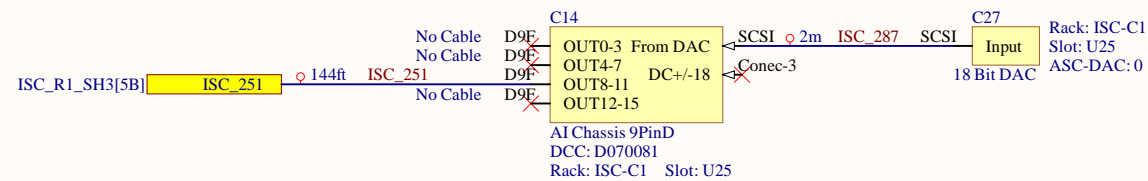
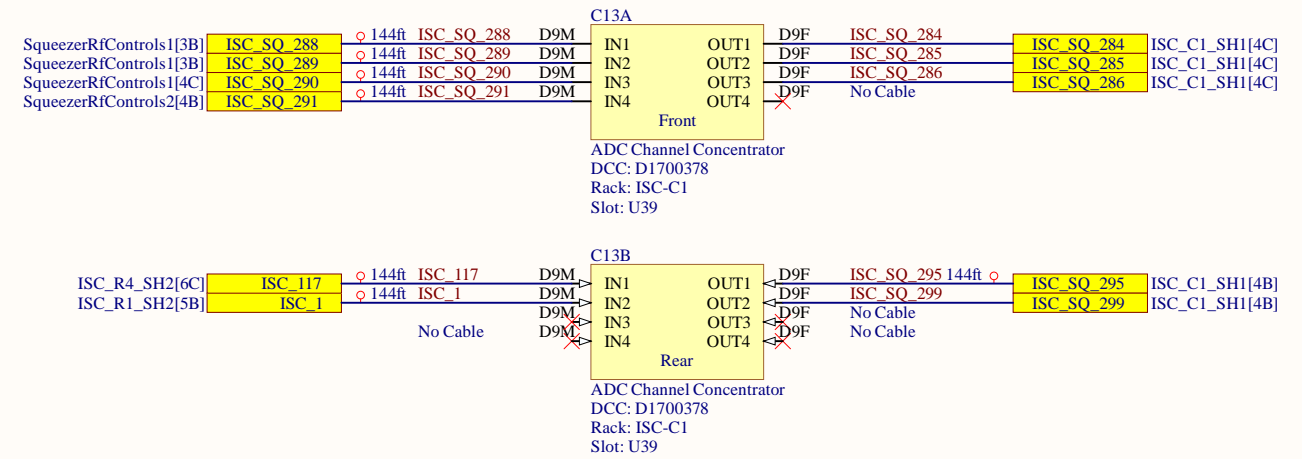
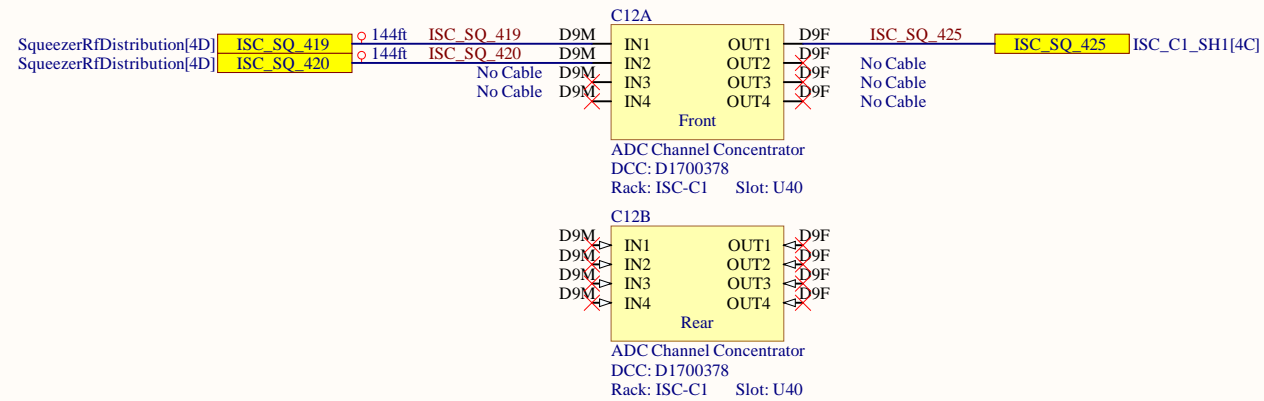
Reverify cables, showing ISC\_426 and ISC\_427 as connected in ISC-R5 rack but not in CER.

Needs Label

Following cables are not connected in the CER:  
ISC\_101, ISC\_175, ISC\_242, ISC\_410, ISC\_426,  
and ISC\_427

Title <b>ISC System Wiring Diagram</b>		
Size B	Number <b>D1900511</b>	Revision <b>V8</b>
Date: 8/29/2022	Sheet of 1	38
File: C:\Users\...ISC_C1_SH1.SchDoc	Drawn By: Filiberto Clara	

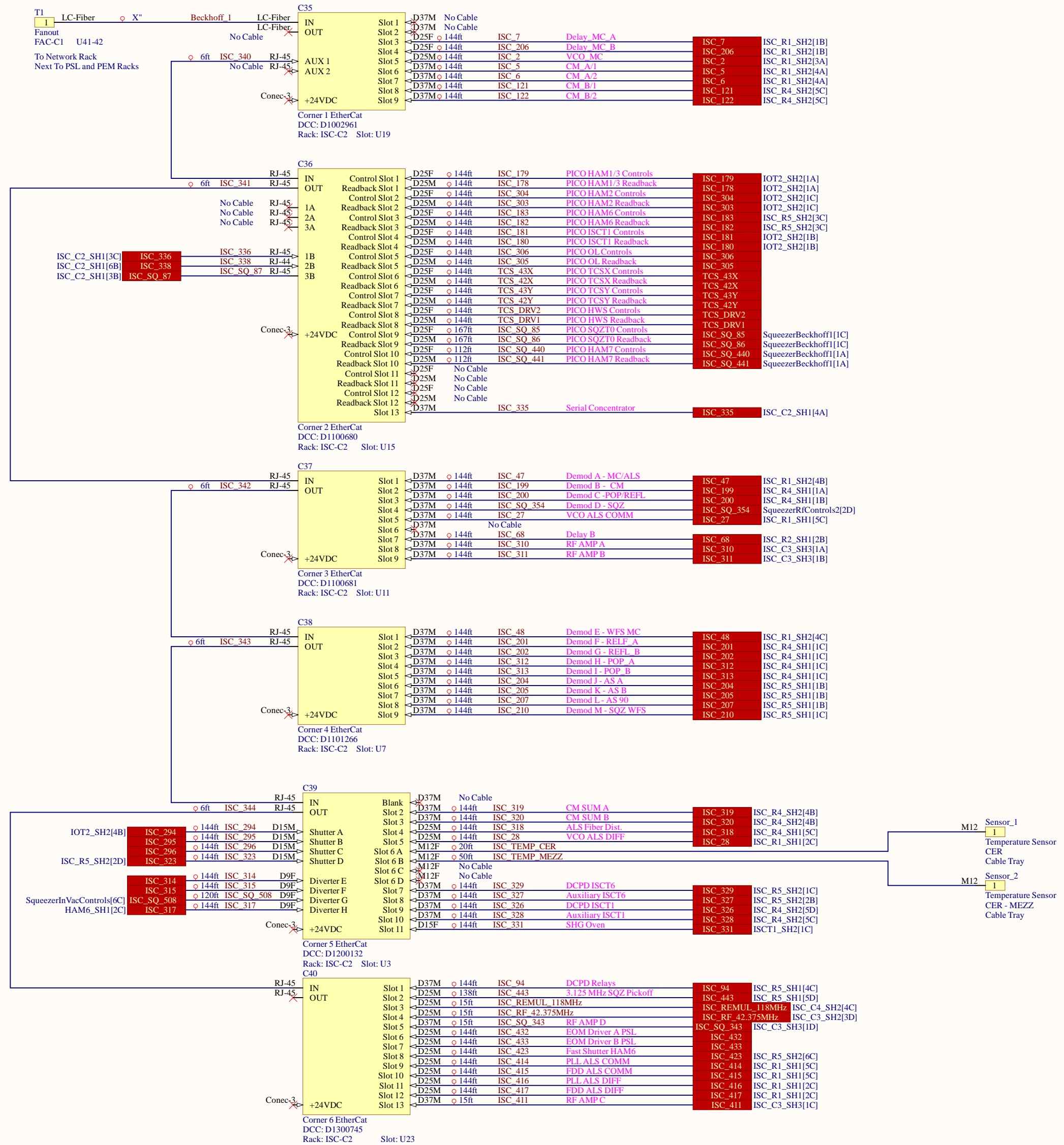
# ISC-C1 Rack



Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
B	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 2 38
File:	C:\Users\...ISC_C1_SH2.SchDoc	Drawn By: Filiberto Clara



# ISC-C2 Rack

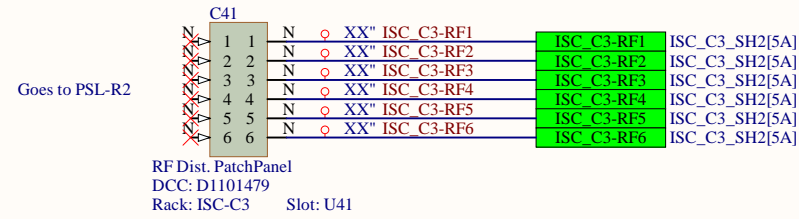


Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
C	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 38
File:	C:\Users\...ISC_C2_SH2.SchDoc	Drawn By: Filiberto Clara

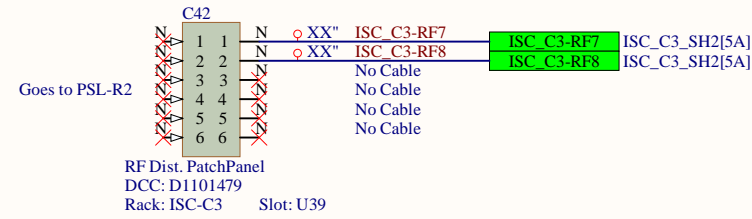


# ISC-C3 Rack

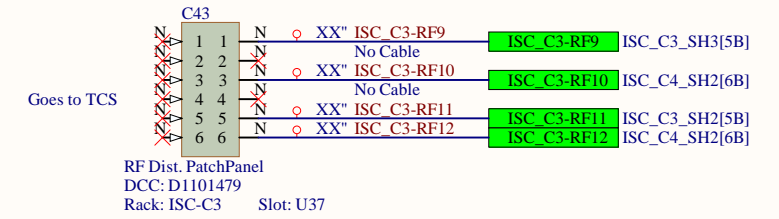
RF Patch Panel 7 (PSL)



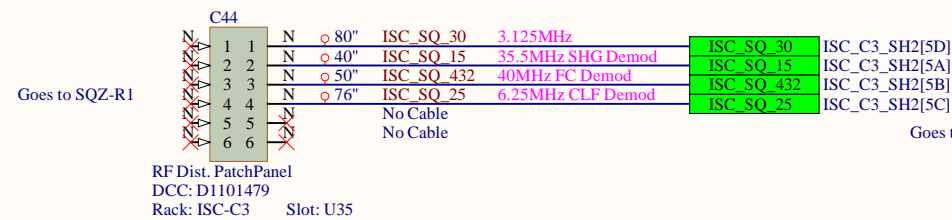
RF Patch Panel 8 (PSL)



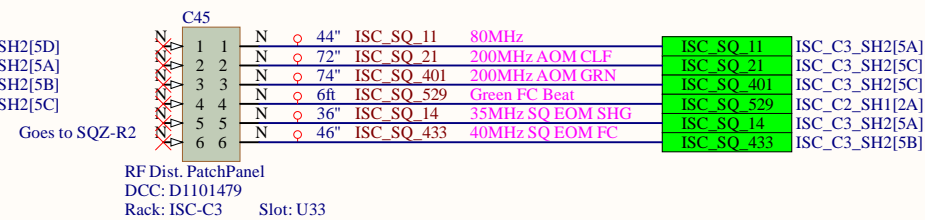
RF Patch Panel 9 (TCS)



RF Patch Panel 32 (SQZ)



RF Patch Panel 33 (SQZ)

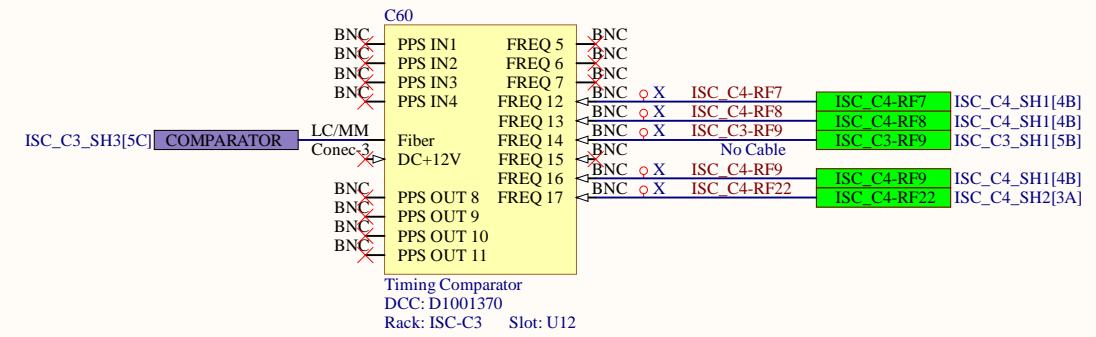
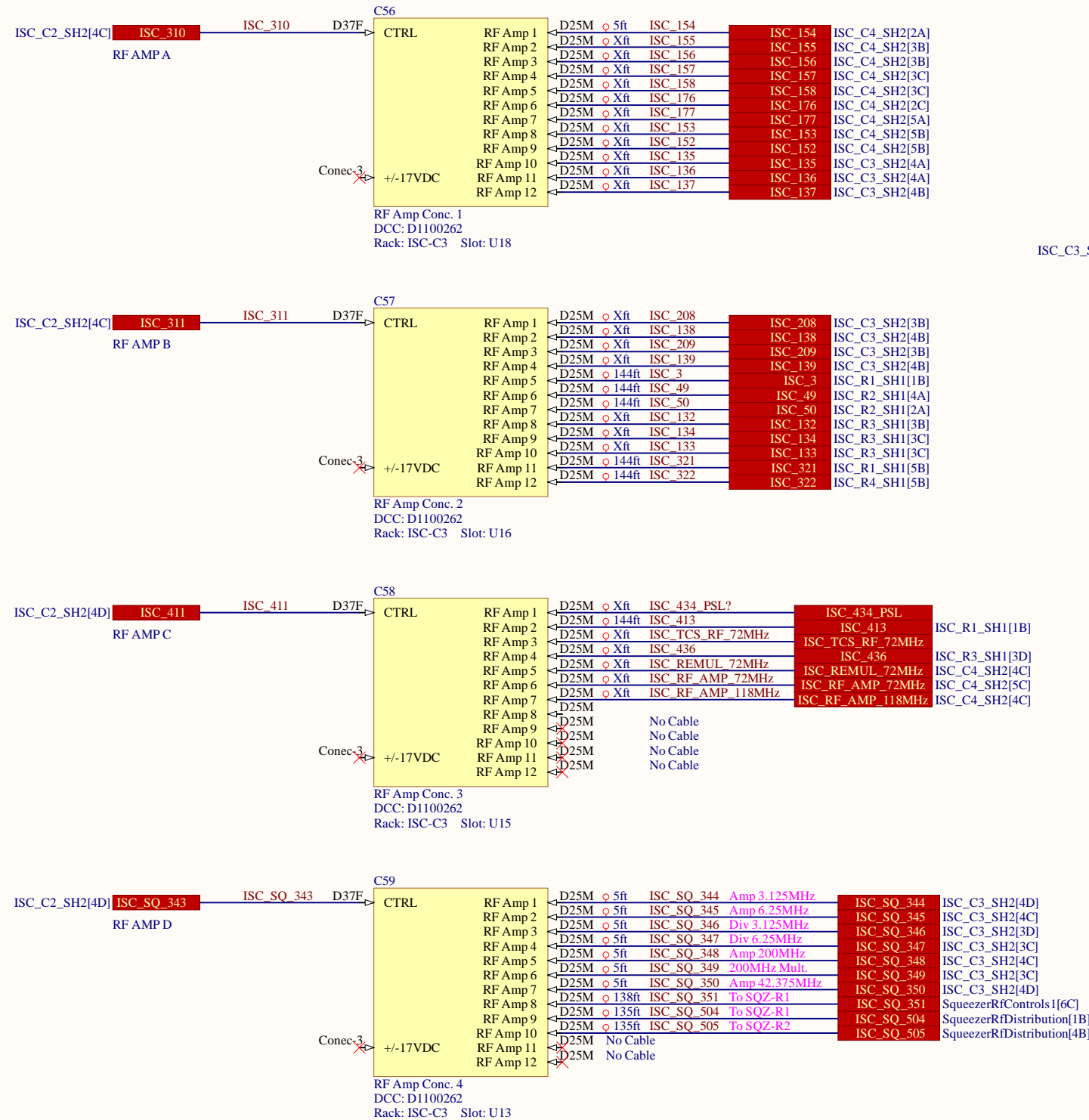


Cables that are removed  
ISC\_SQ\_31  
ISC\_SQ\_12  
ISC\_SQ\_78

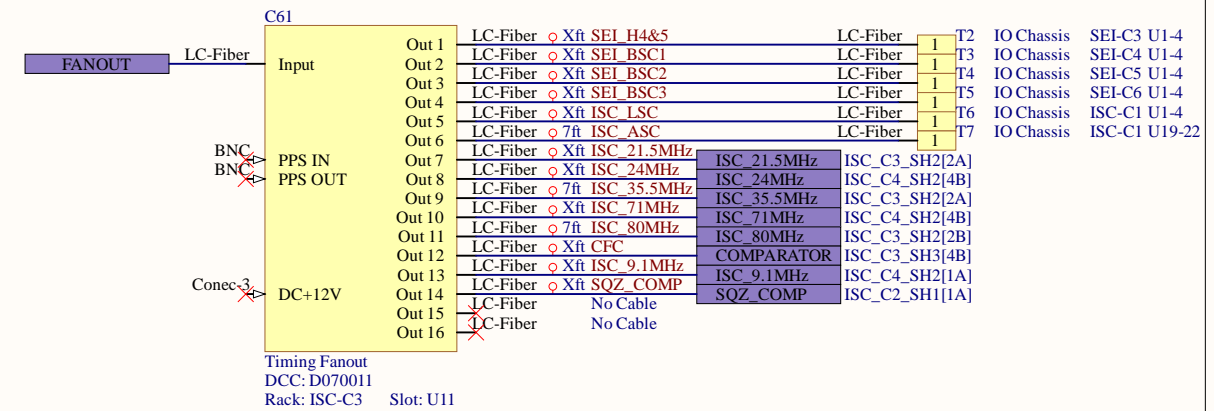
Title			<b>ISC System Wiring Diagram</b>		
Size	Number			Revision	
B	D1900511			V8	
Date:	8/29/2022	Sheet of	5	38	
File:	C:\Users\...ISC_C3_SH1.SchDoc	Drawn By:	Filiberto Clara		



# ISC-C3 Rack



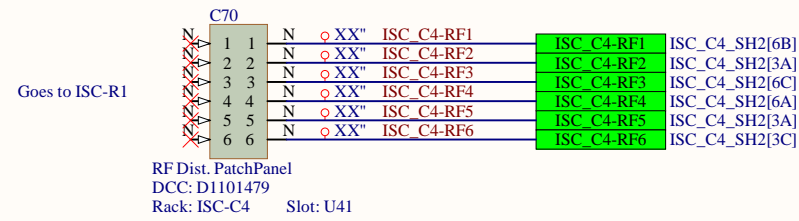
Need Locations of other ends.  
SEI IO Chassis



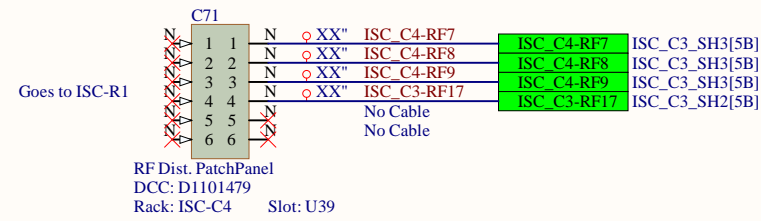
Title			
<b>ISC System Wiring Diagram</b>			
Size	Number	Revision	
B	D1900511	V8	
Date:	8/29/2022	Sheet of 7	38
File:	C:\Users\...ISC_C3_SH3.SchDoc	Drawn By: Filiberto Clara	

# ISC-C4 Rack

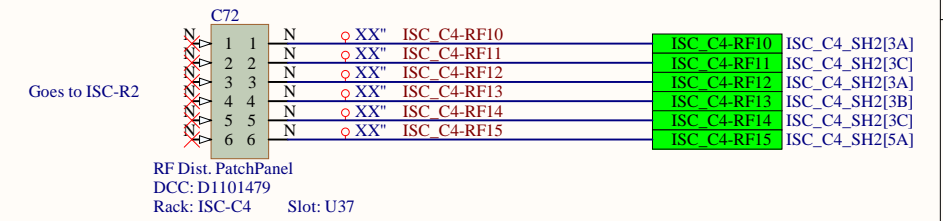
### RF Patch Panel 1 (ISC)



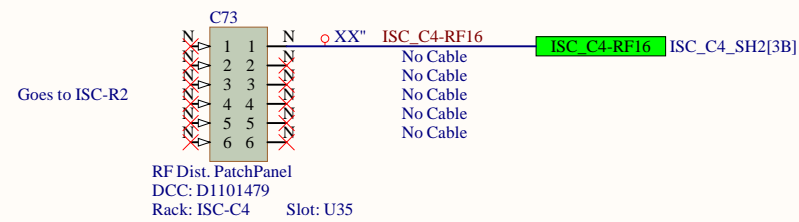
### RF Patch Panel 2 (ISC)



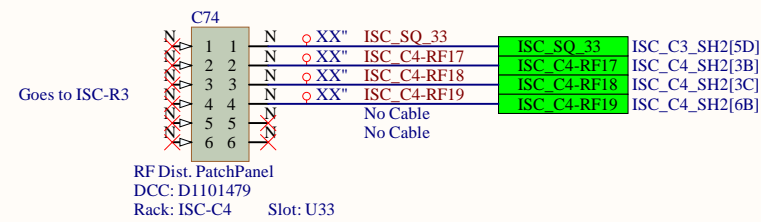
### RF Patch Panel 3 (ISC)



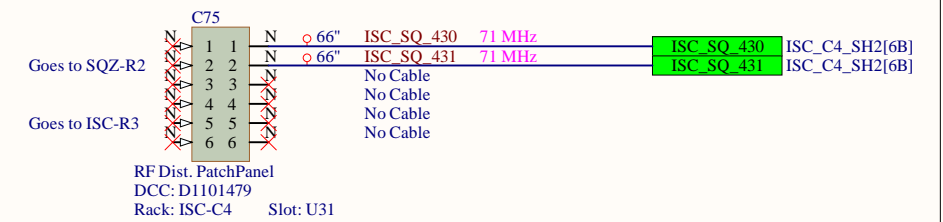
### RF Patch Panel 4 (ISC)



### RF Patch Panel 5 (ISC)

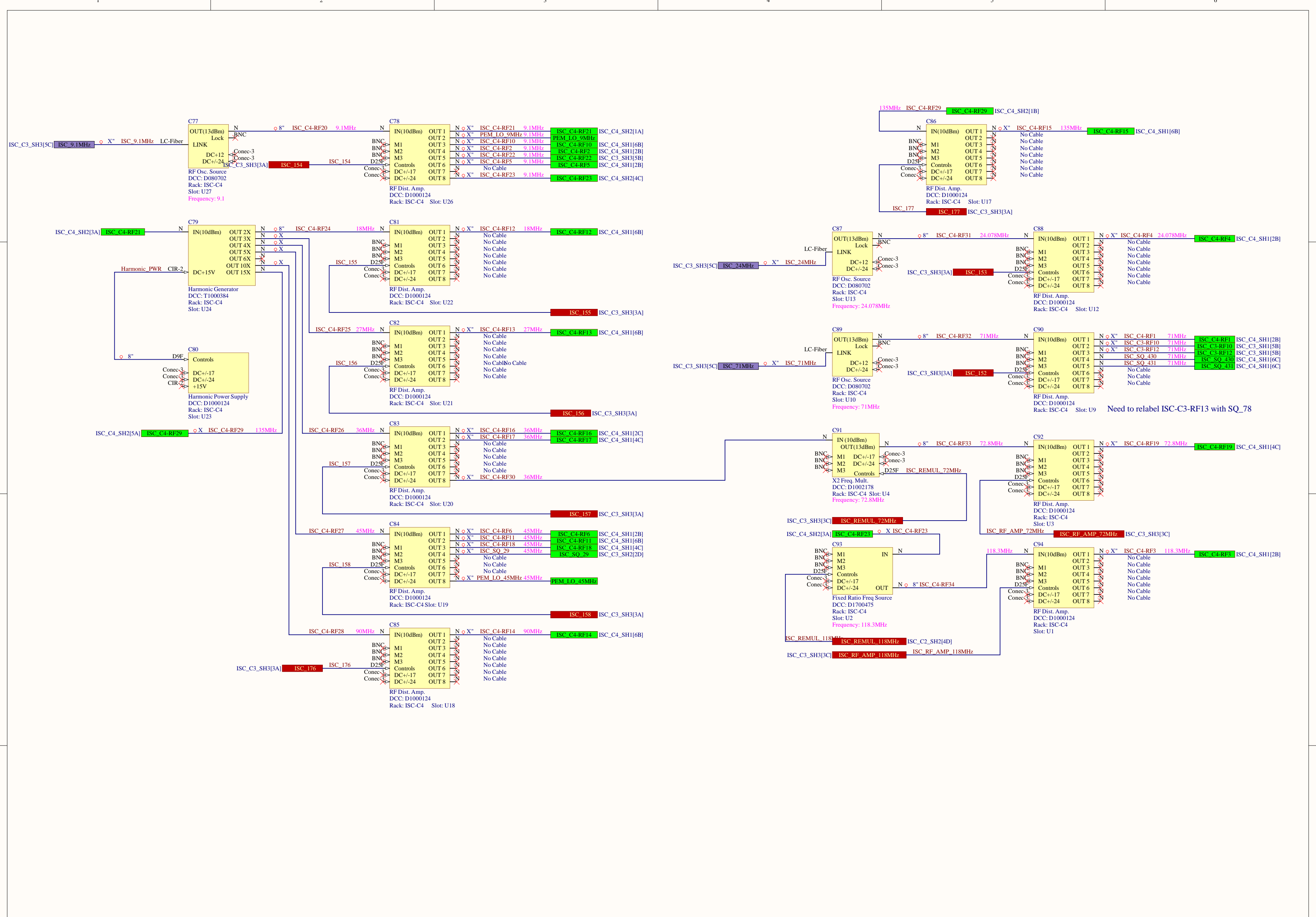


### RF Patch Panel 6 (SQZ/ISC)



Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
B	D1900511	V8
Date:	8/29/2022	Sheet of 8 38
File:	C:\Users\...ISC_C4_SH1.SchDoc	Drawn By: Filiberto Clara

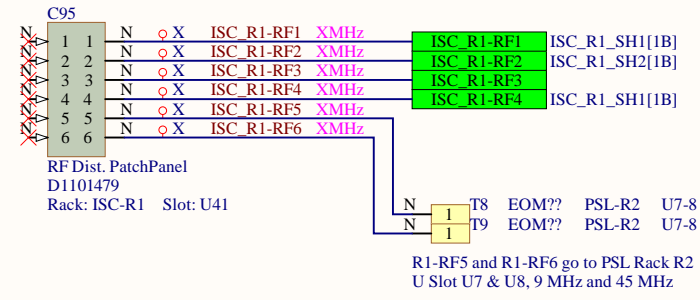




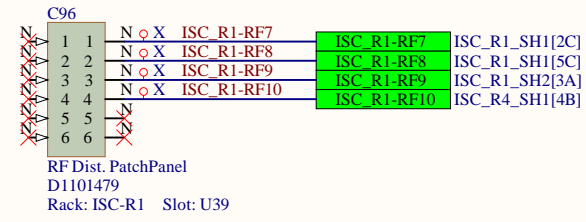
# ISC-C4 Rack

Title			
<b>ISC System Wiring Diagram</b>			
Size	Number	Revision	
C	D1900511	V8	
Date:	8/29/2022	Sheet of 9	38
File:	C:\Users\...ISC_C4_SH2.SchDoc	Drawn By: Filiberto Clara	

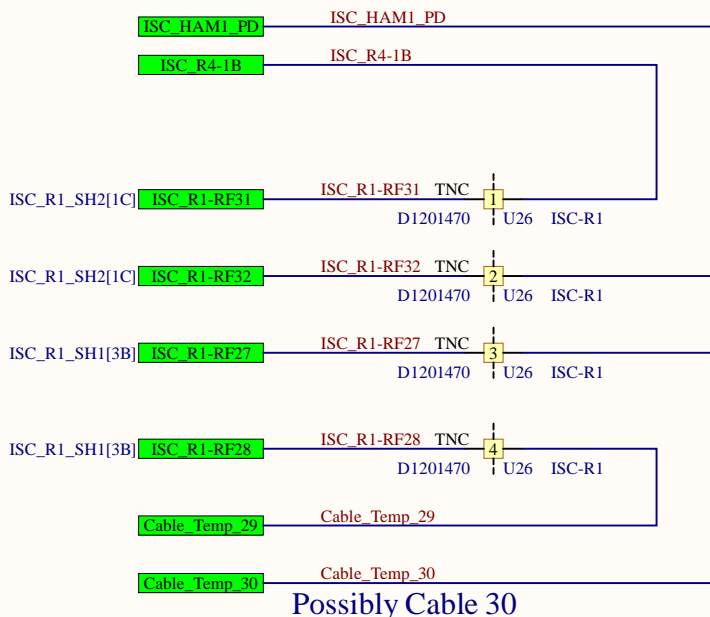
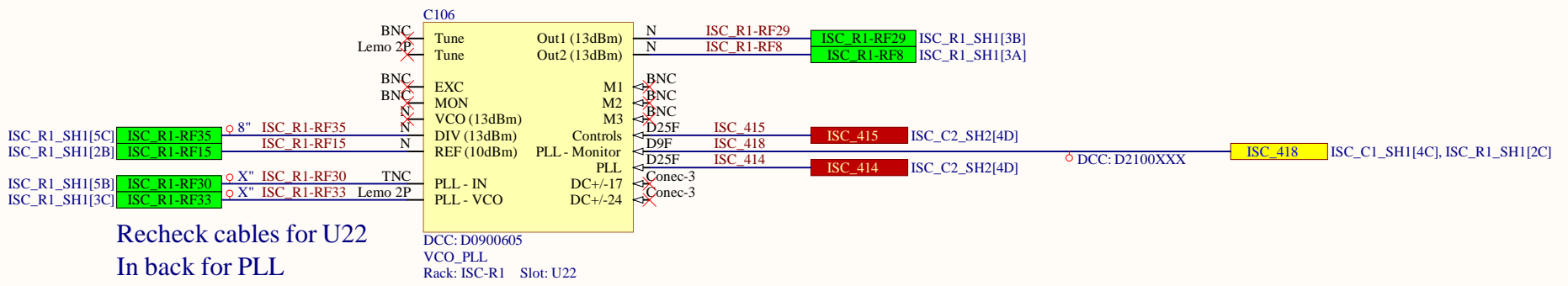
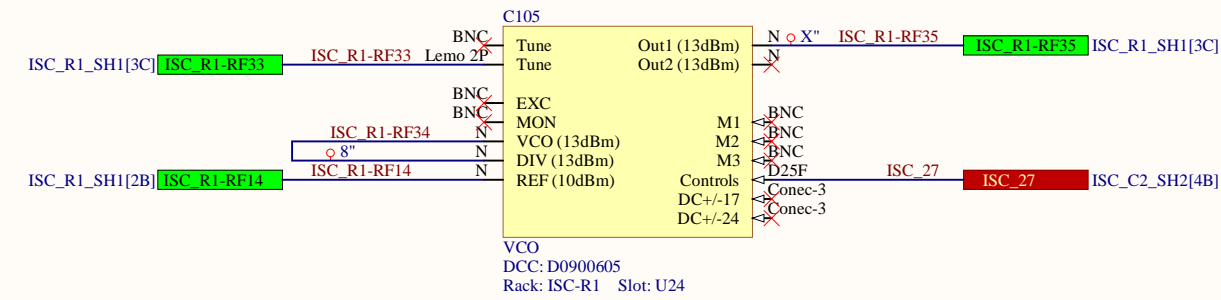
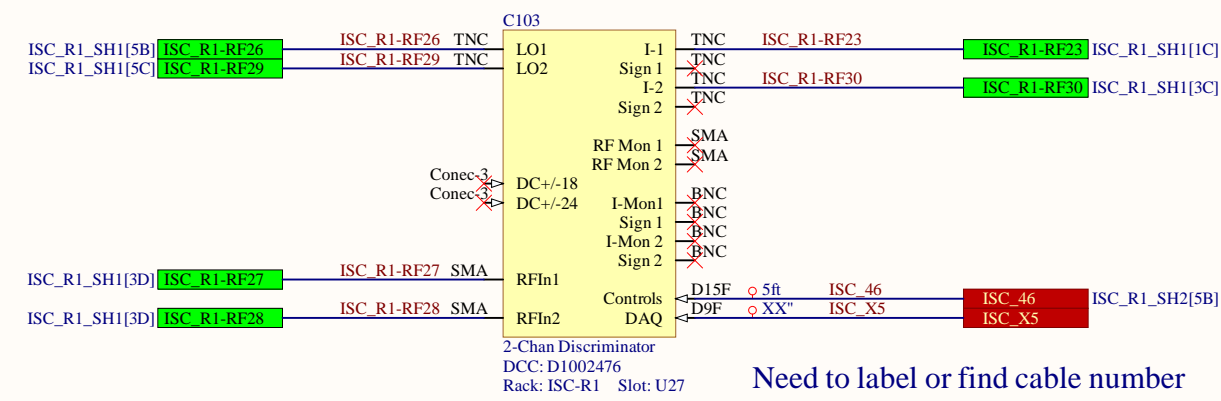
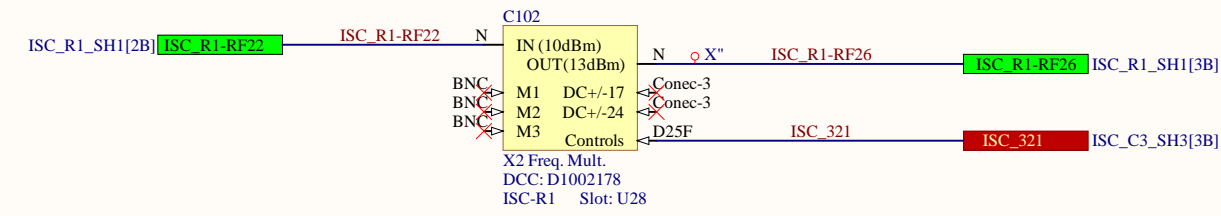
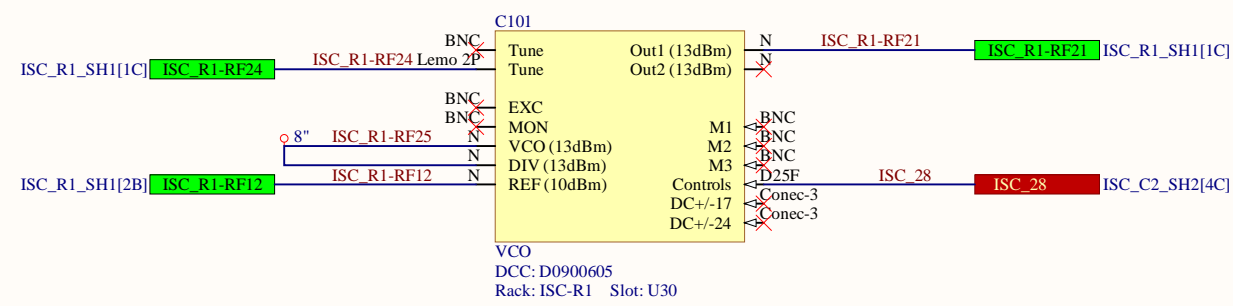
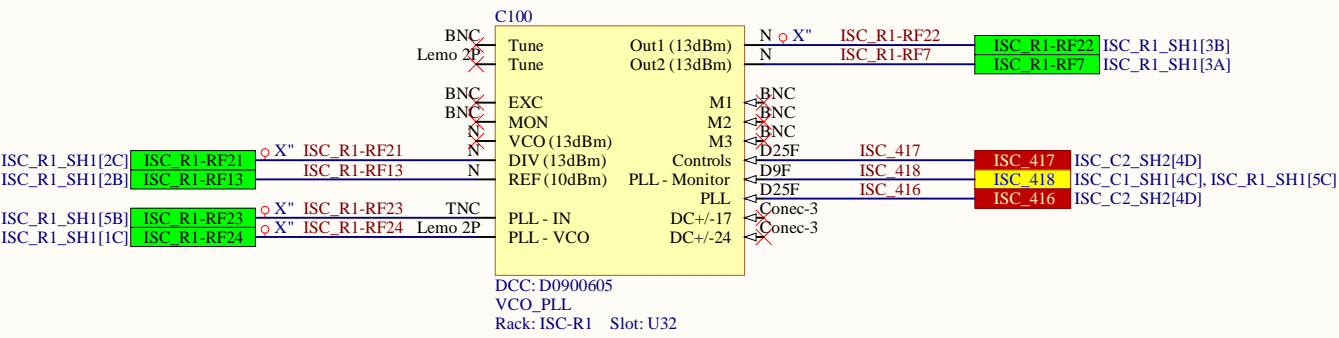
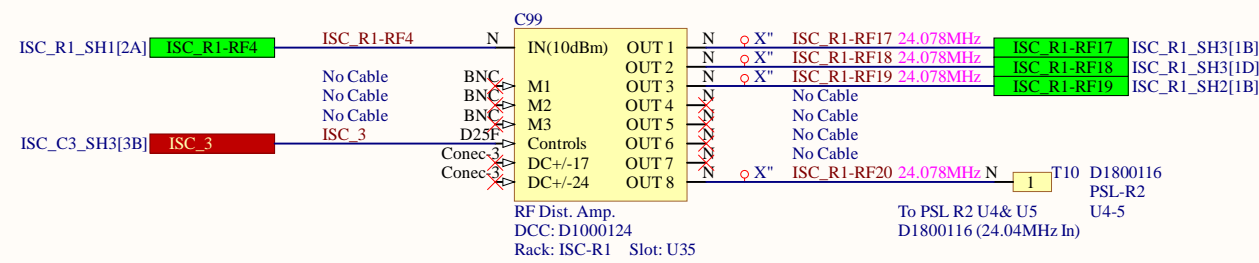
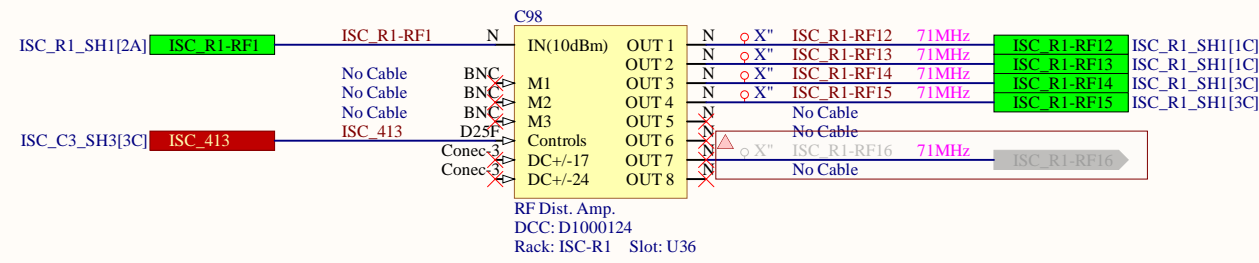
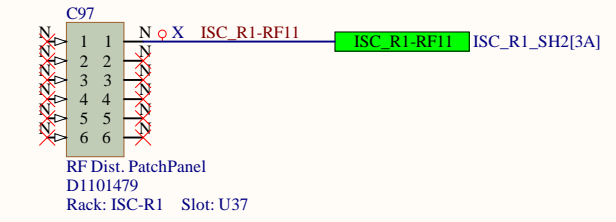
RF Patch Panel 10



RF Patch Panel 11



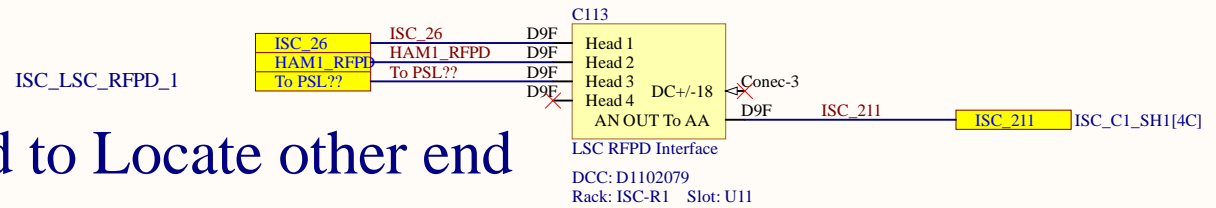
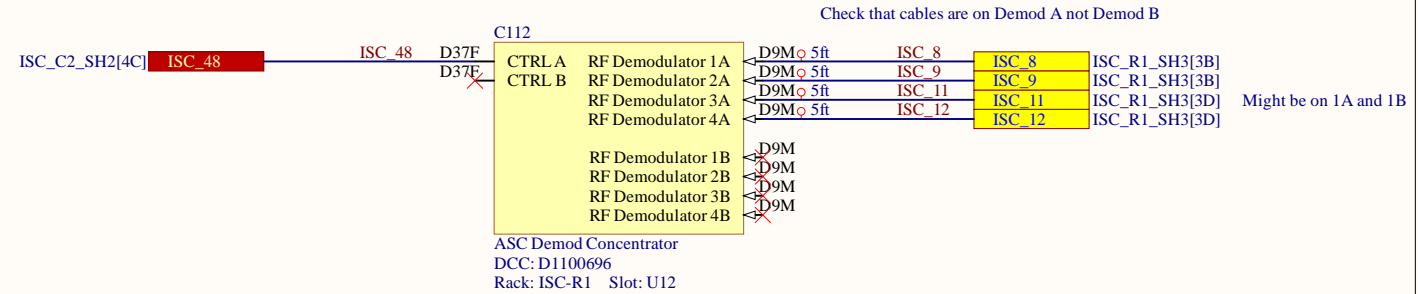
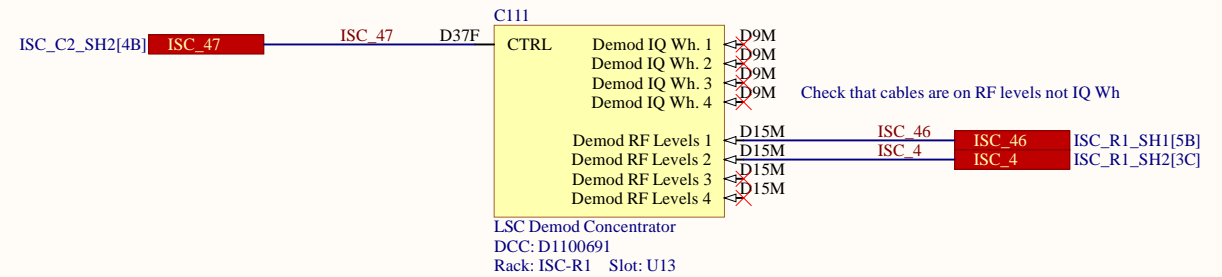
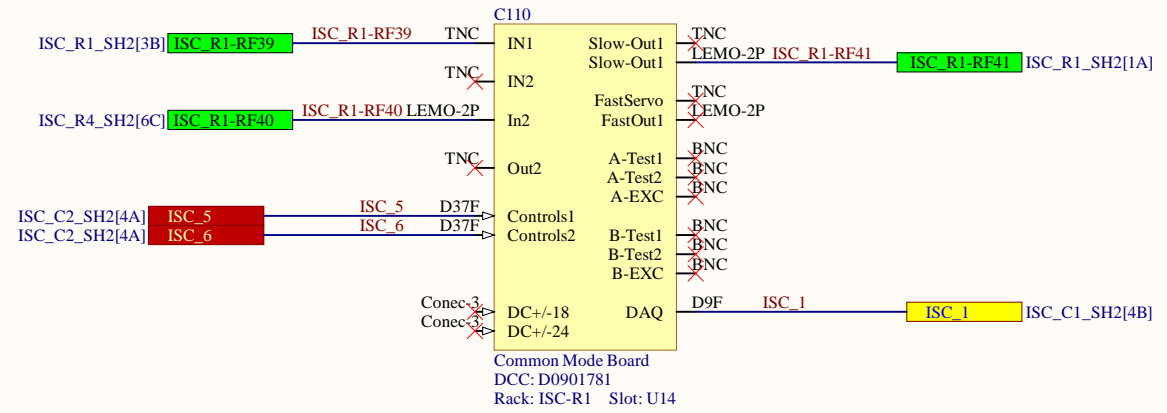
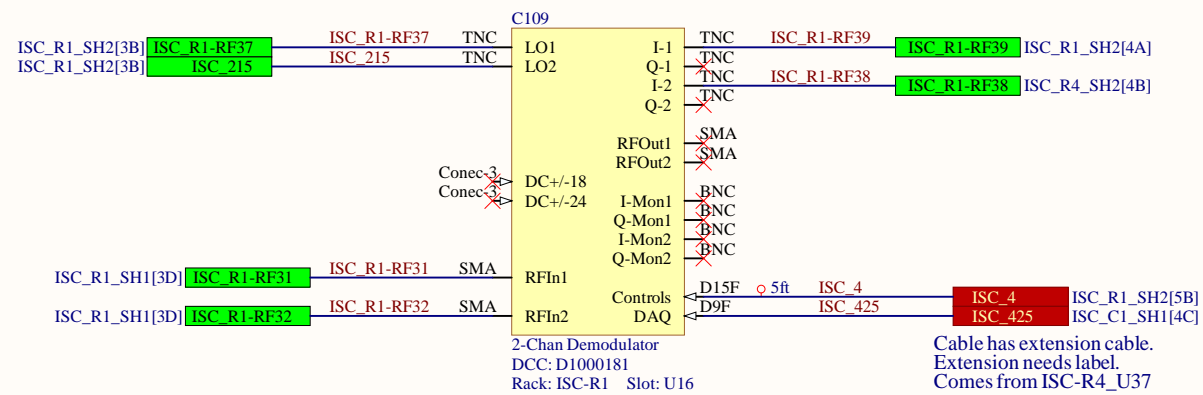
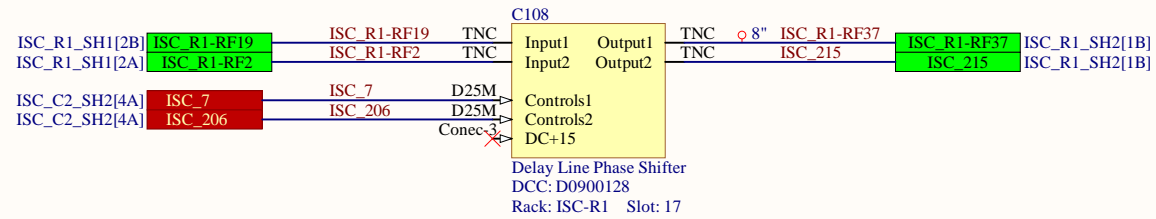
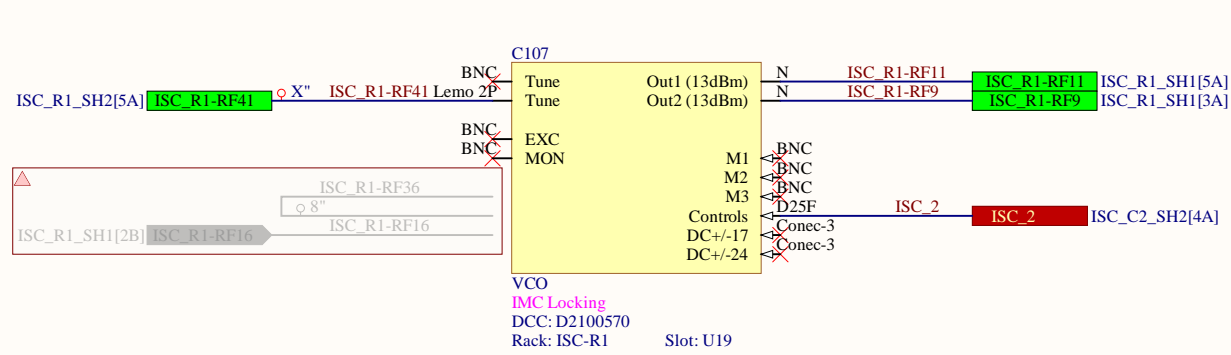
RF Patch Panel 12



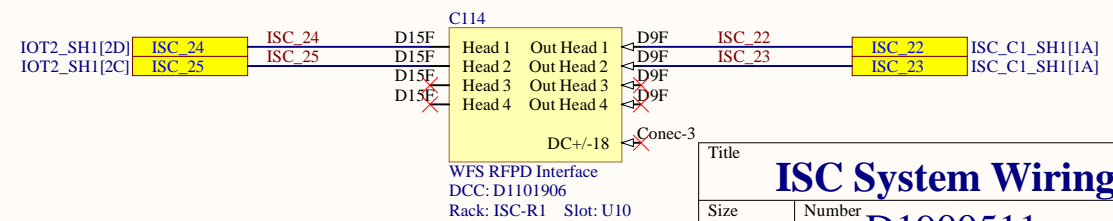
ISC-R1 Rack

Title		
ISC System Wiring Diagram		
Size	Number	Revision
C	D1900511	V8
Date:	8/29/2022	Sheet of 38
File:	C:\Users\...ISC_R1_SchDoc	Drawn By: Filiberto Clara

# ISC-R1 Rack

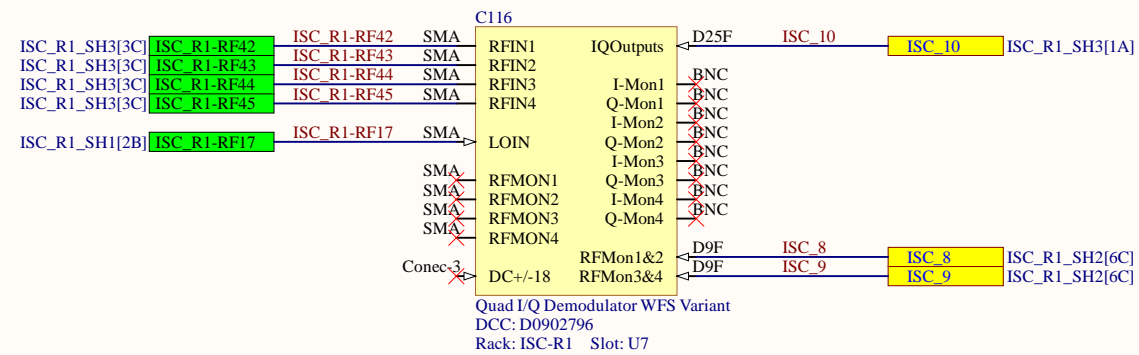
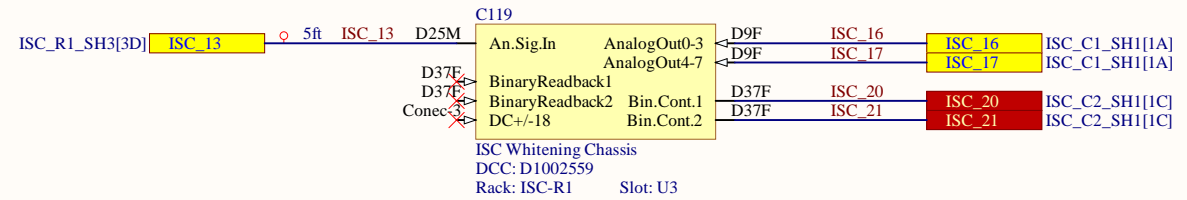
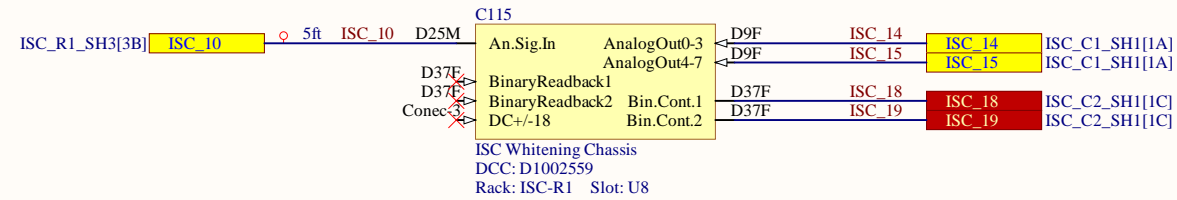


Need to Locate other end

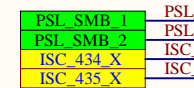


Title			
<b>ISC System Wiring Diagram</b>			
Size	Number	Revision	
B	D1900511	V8	
Date:	8/29/2022	Sheet of	38
File:	C:\Users\...ISC_R1_SH2.SchDoc	Drawn By:	Filiberto Clara

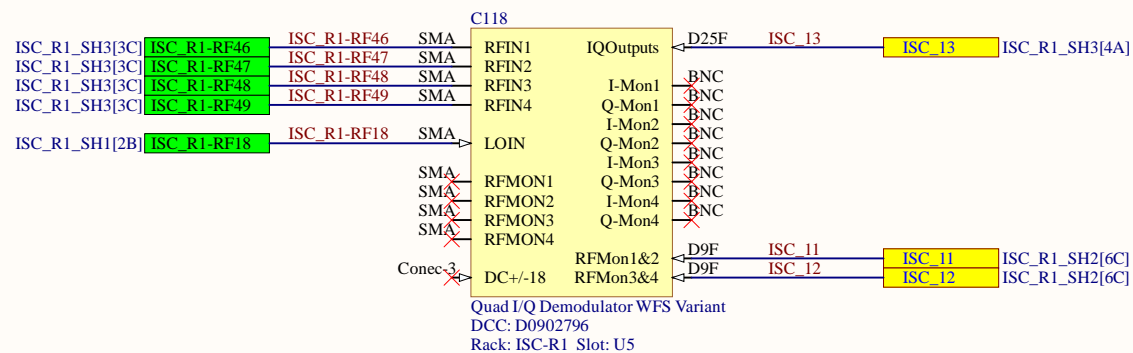
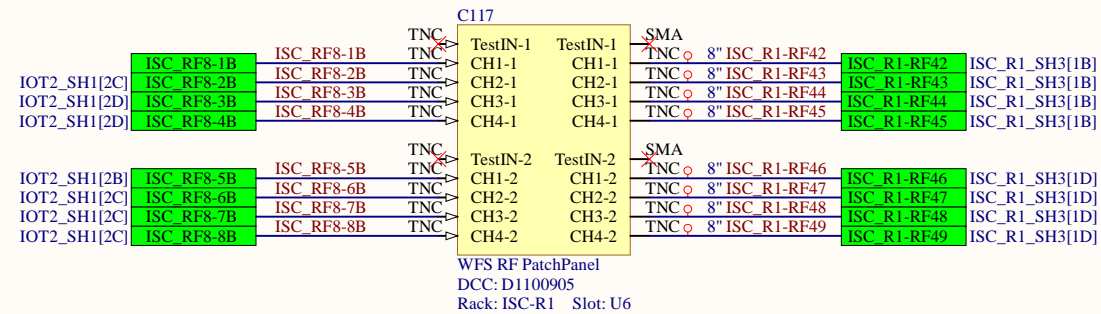
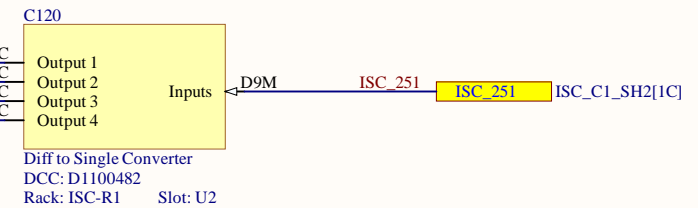
# ISC-R1 Rack



Need to locate other end



434/435 already used  
 ASC-POP\_X\_PIT/YAW

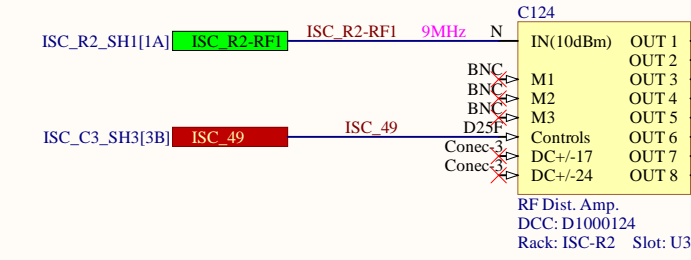
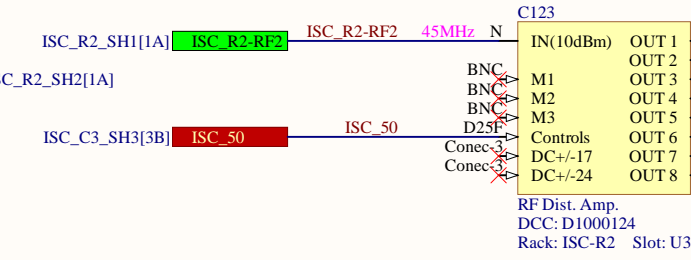
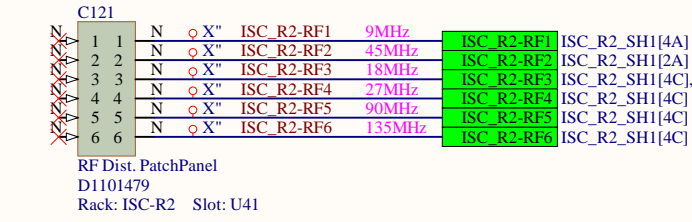


Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
B	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 2 38
File:	C:\Users\...ISC_R1_SH3.SchDoc	Drawn By: Filiberto Clara

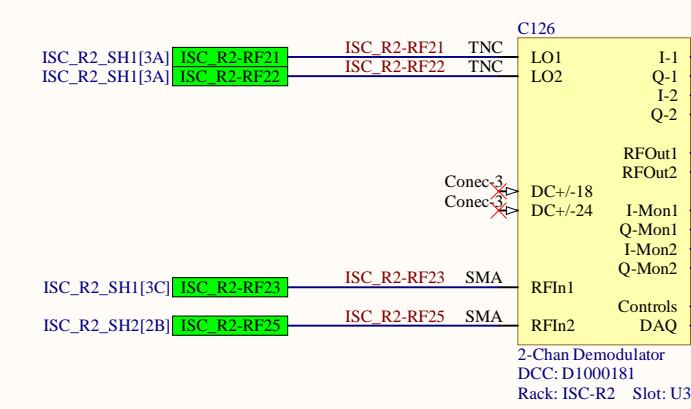
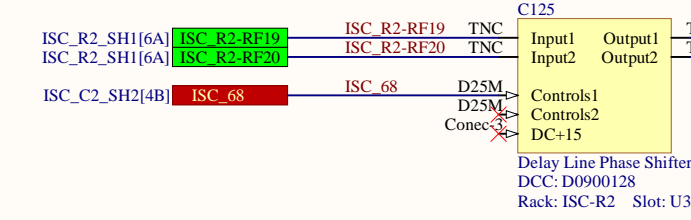
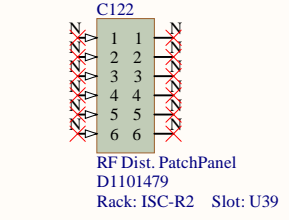


# ISC-R2 Rack

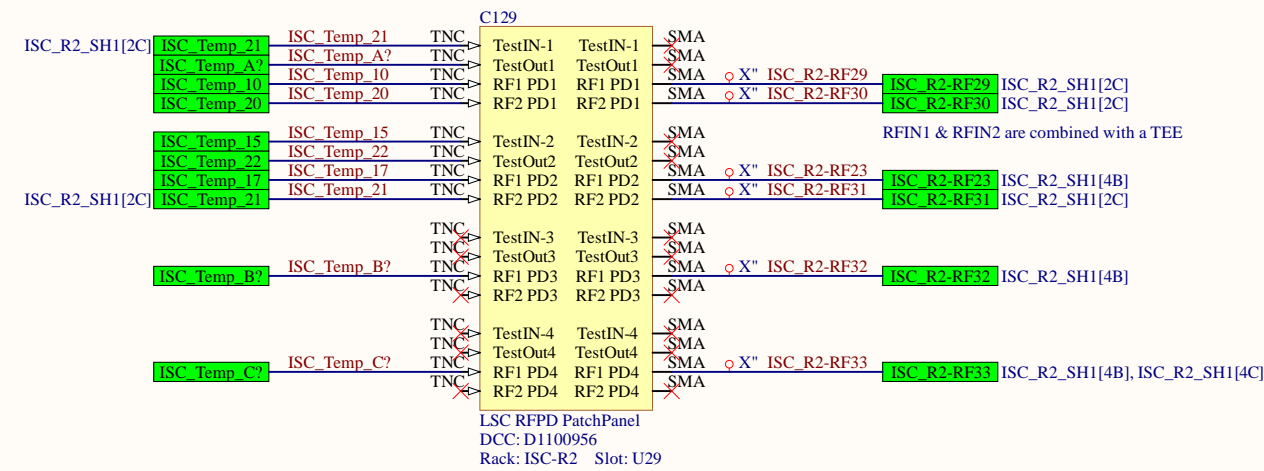
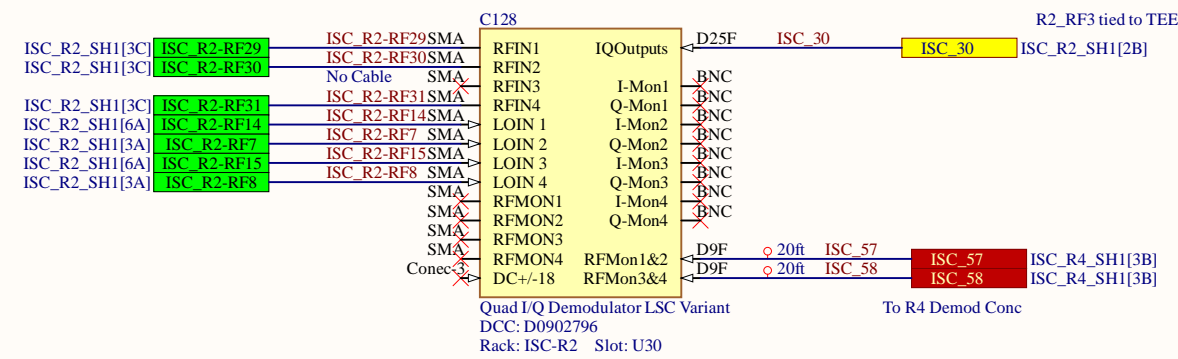
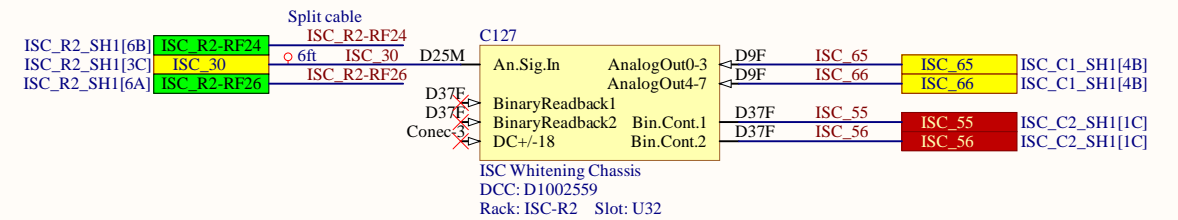
## RF Patch Panel 13



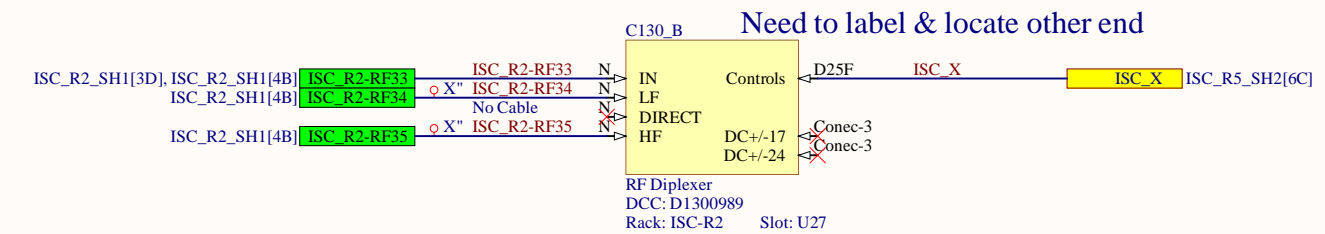
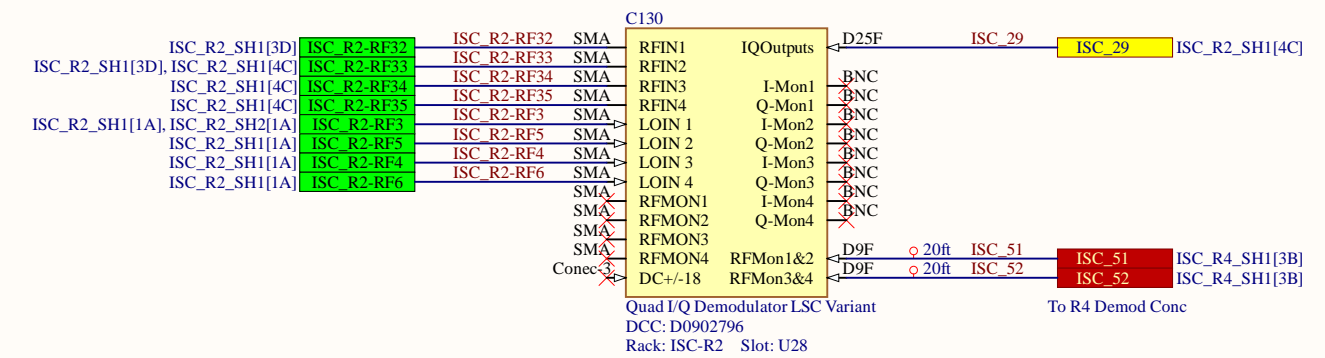
## RF Patch Panel 14



## LSC POPAIR A 9&45, LSC REFLAIR A 45



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



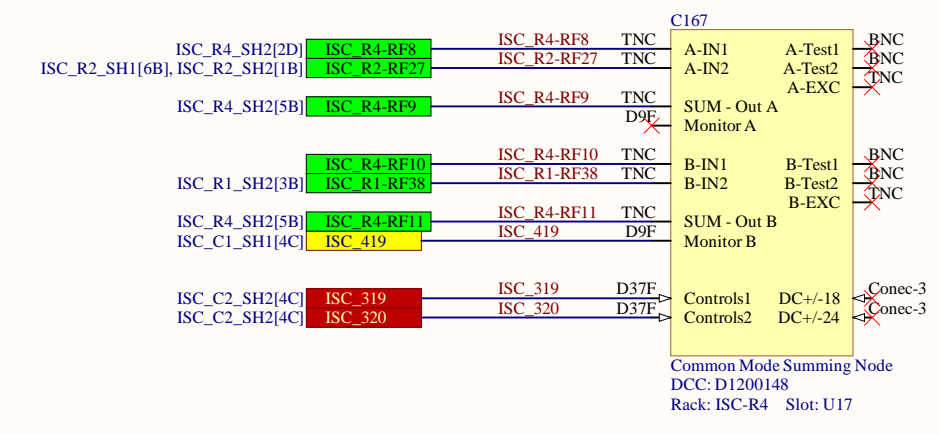
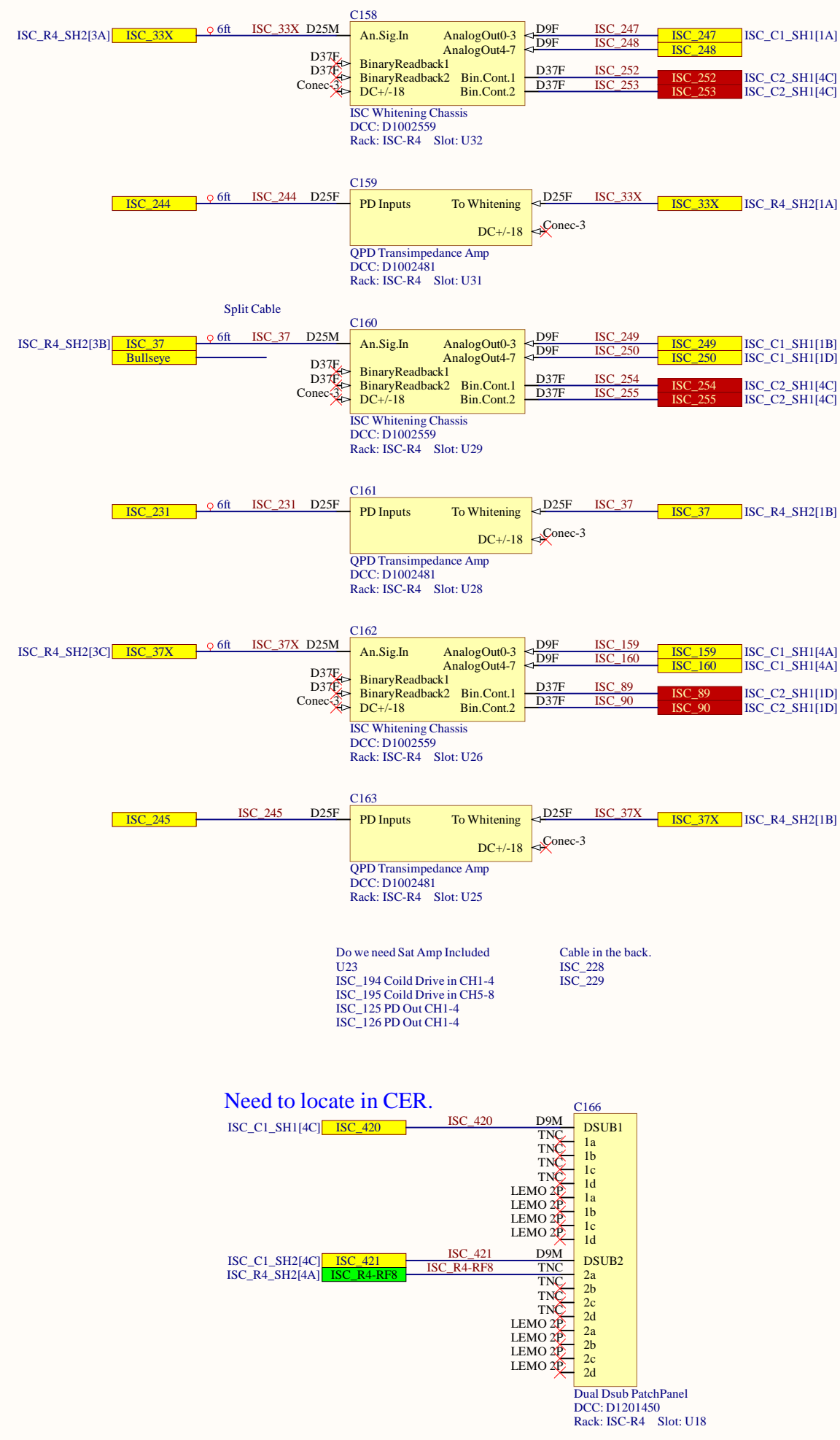
Title		<b>ISC System Wiring Diagram</b>	
Size	Number	Revision	
C	D1900511	V8	
Date:	8/29/2022	Sheet of3	38
File:	C:\Users\...ISC_R2_SH1.SchDoc	Drawn By:	Filiberto Clara



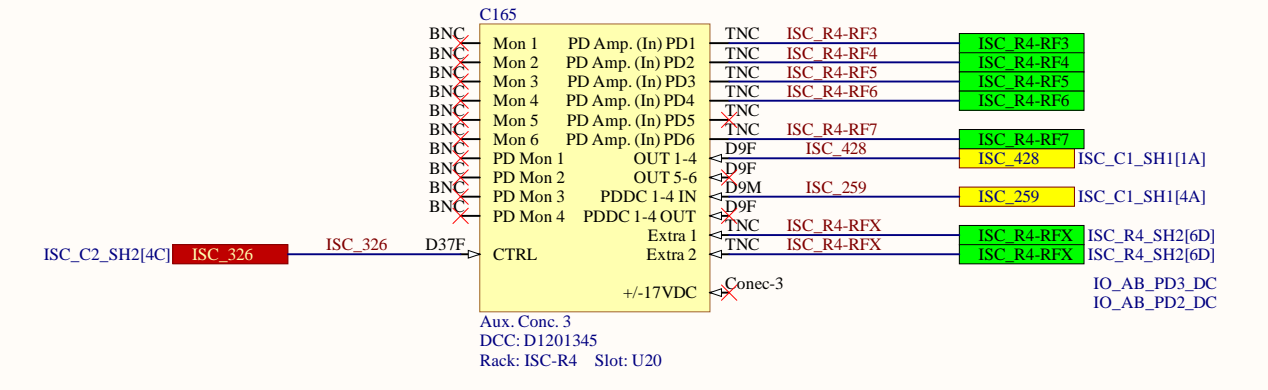
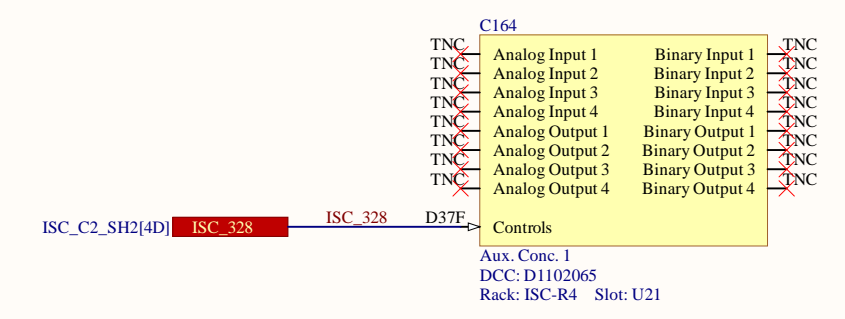
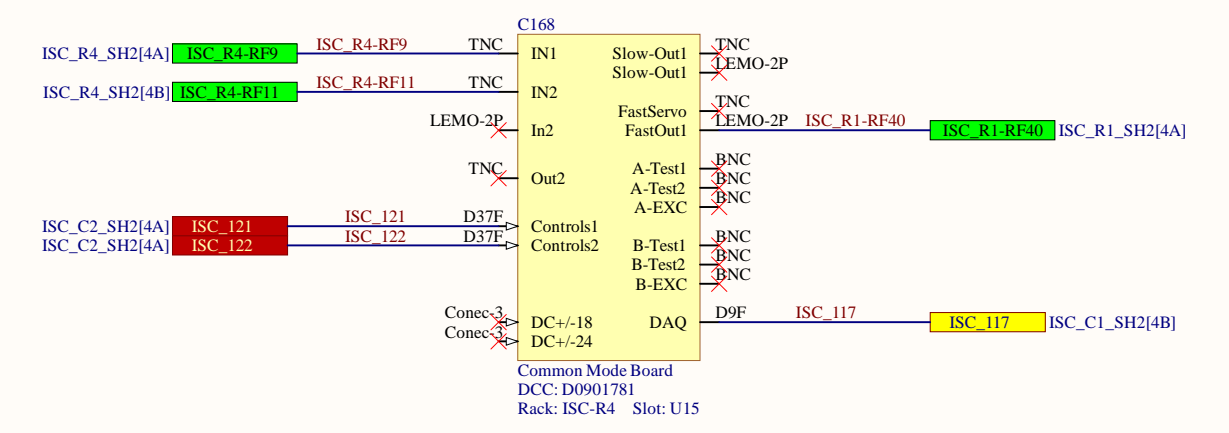




# ISC-R4 Rack



Otherside not labeled. RED  
Otherside not labeled. Green  
Otherside not labeled. R4 ISC1  
Otherside not labeled. R4 ISC2  
Otherside not labeled. Old label H1\_ALS\_PSL\_PD1



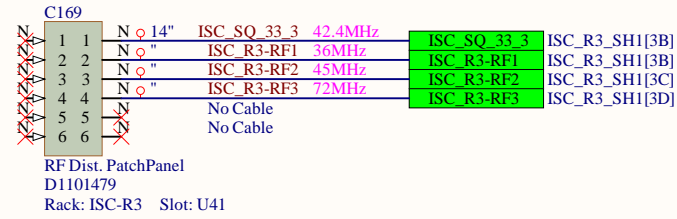
Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
C	D1900511	V8
Date:	8/29/2022	Sheet of 6 38
File:	C:\Users\...ISC_R4_SH2.SchDoc	Drawn By: Filiberto Clara



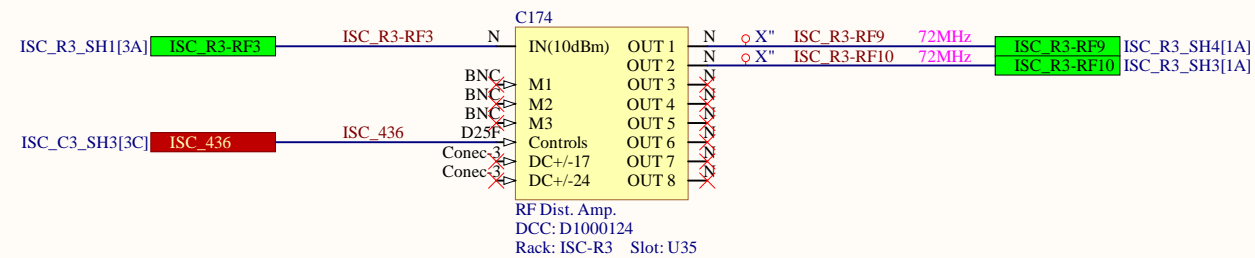
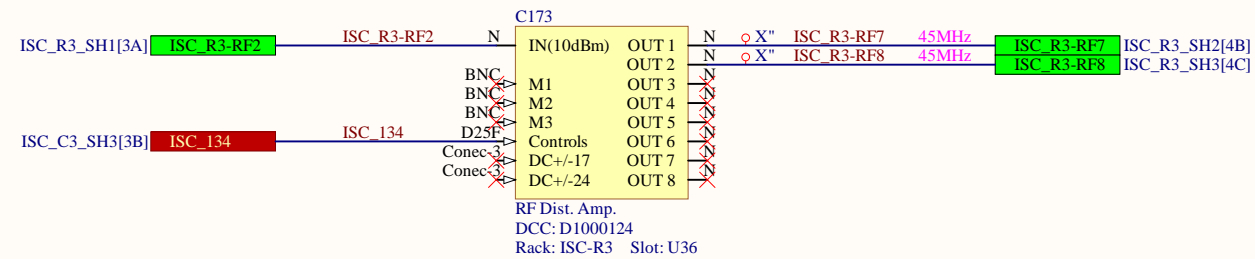
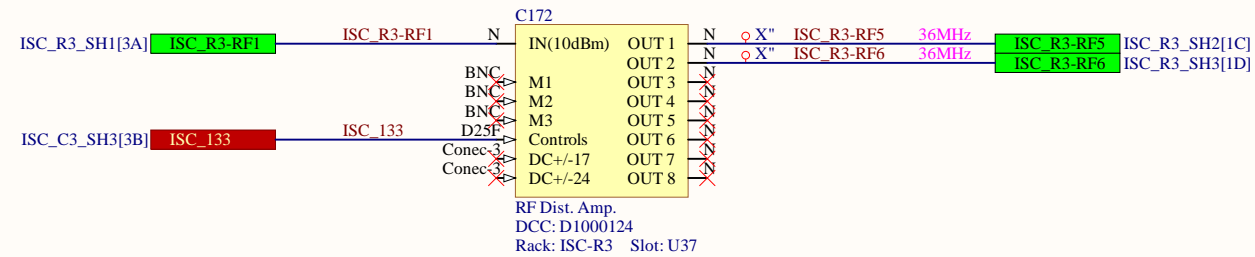
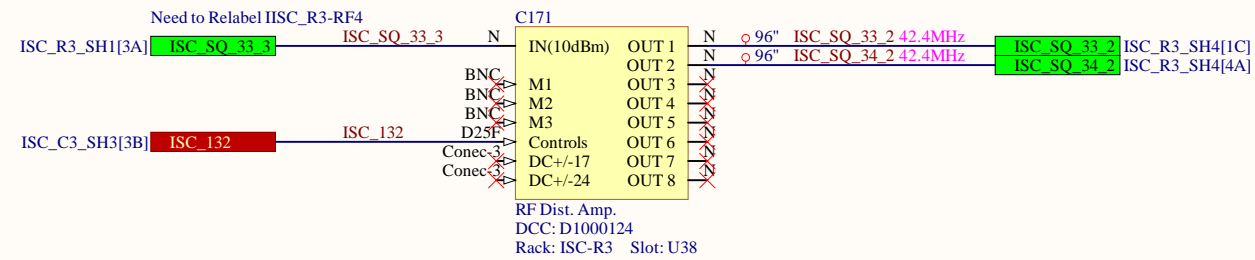
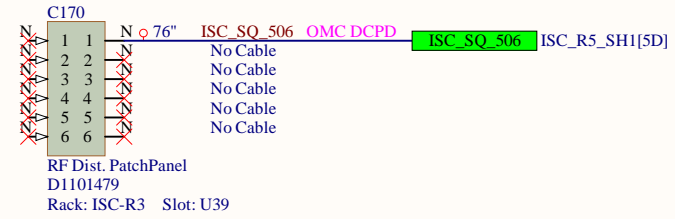
# ISC-R3 Rack

Need to Relabel ISC\_R3-RF4

RF Patch Panel 15

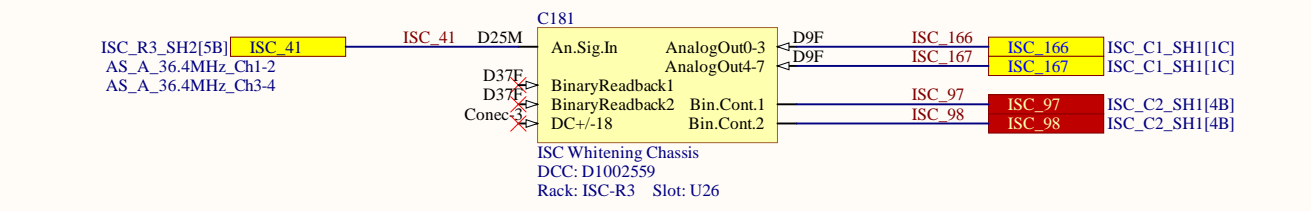
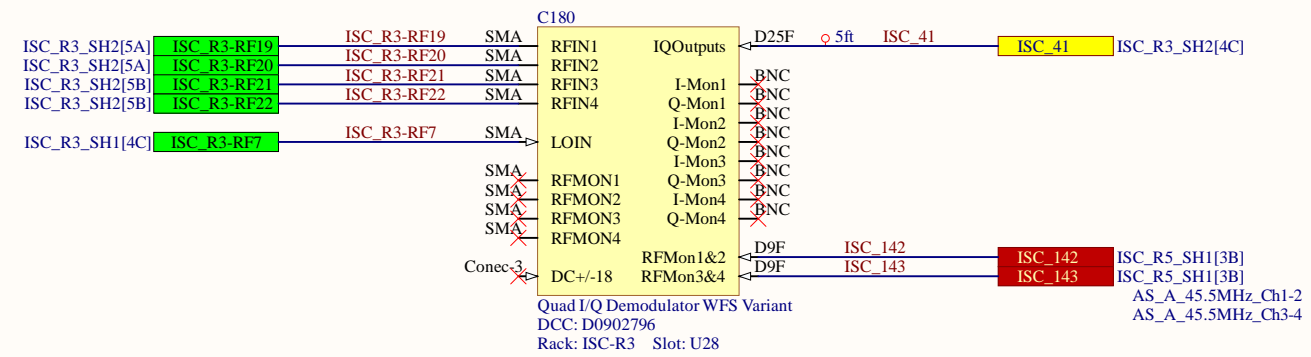
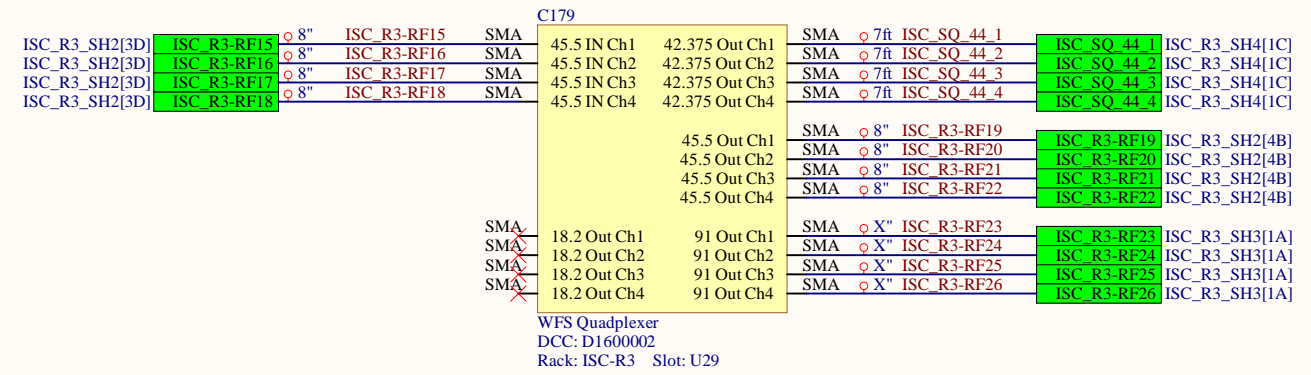
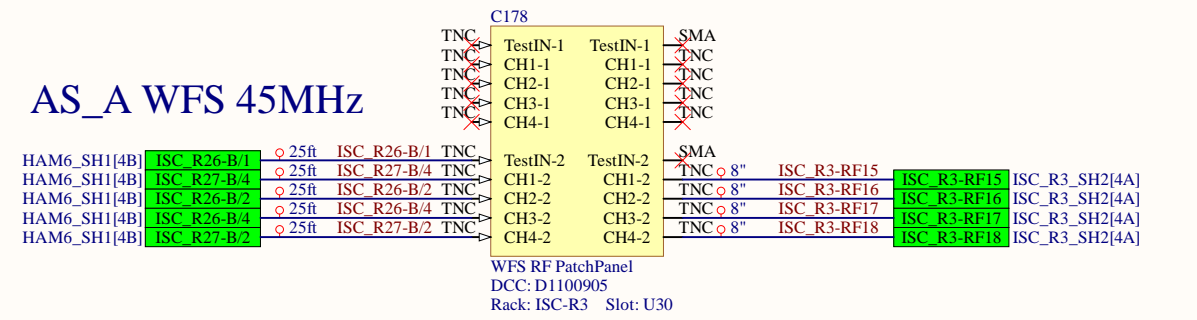
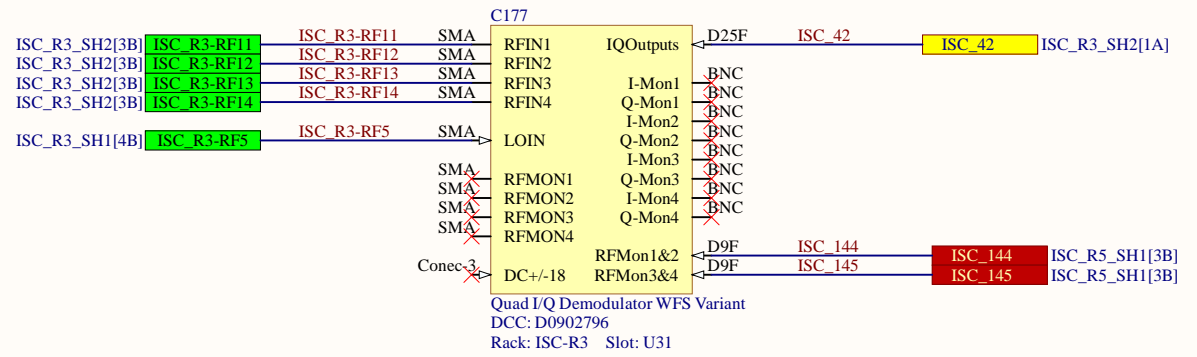
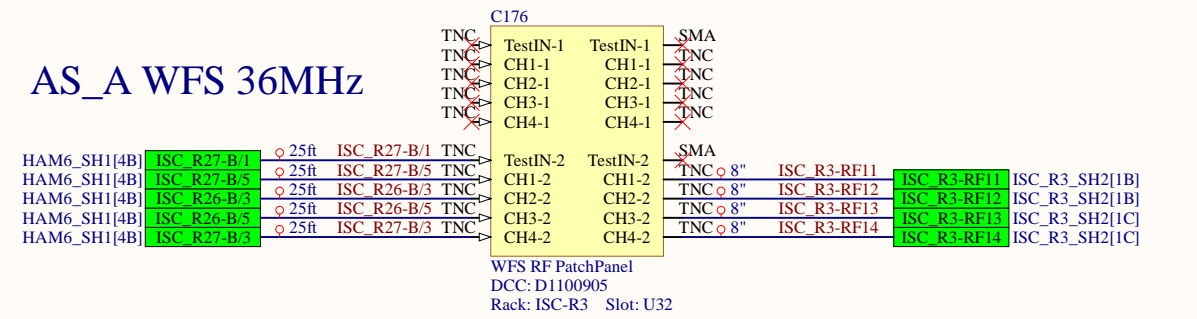
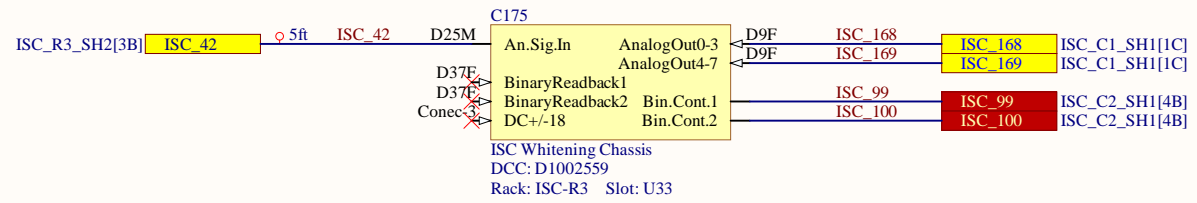


RF Patch Panel 16



Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
B	D1900511	V8
Date:	8/29/2022	Sheet of 7 38
File:	C:\Users\...ISC_R3_SH1.SchDoc	Drawn By: Filiberto Clara

# ISC-R3 Rack

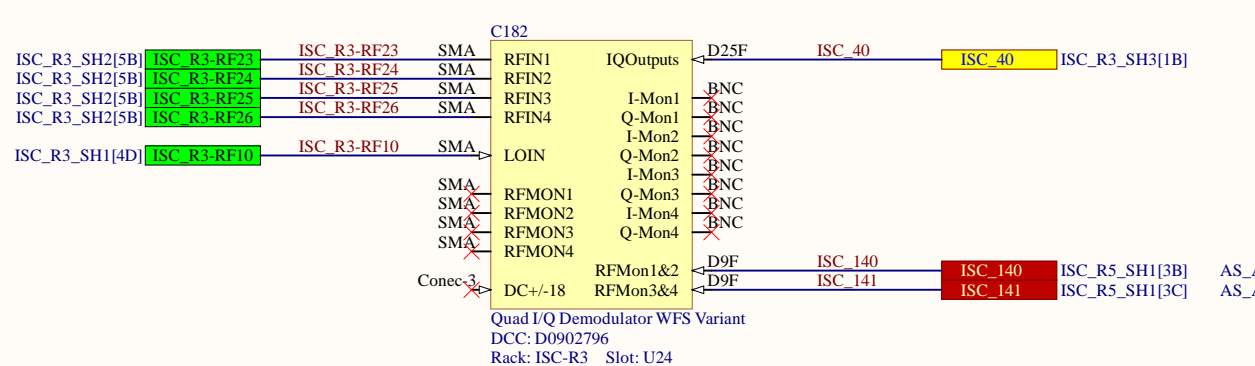


## AS\_A WFS 36MHz

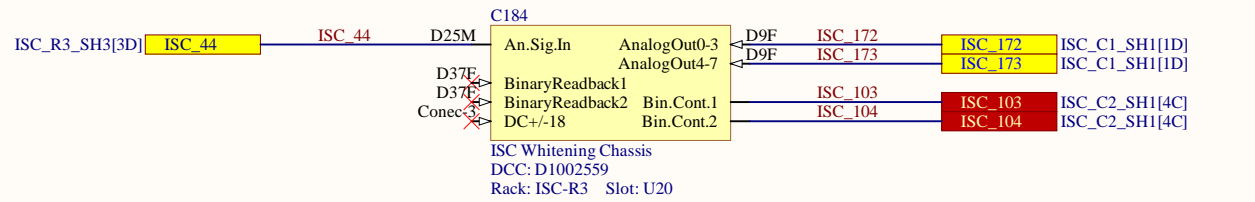
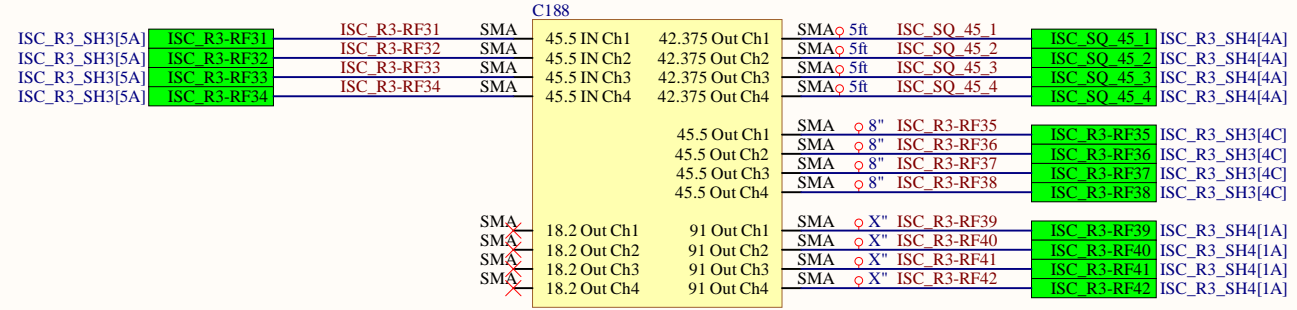
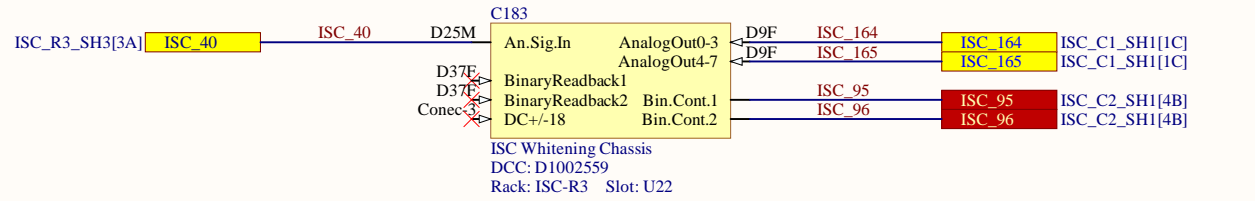
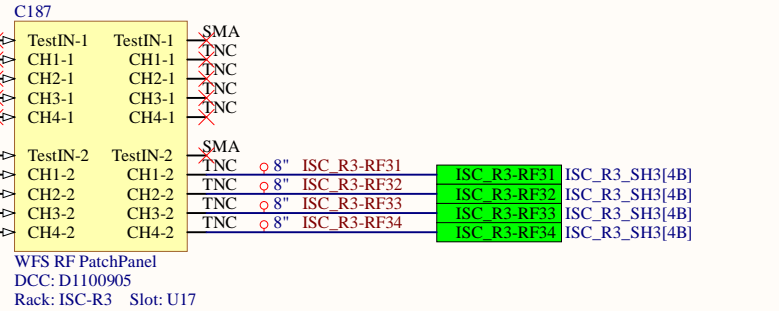
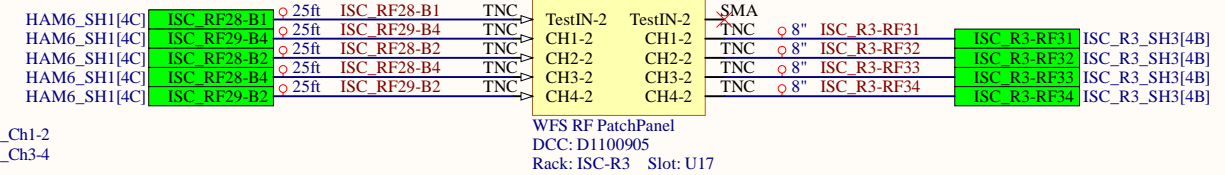
## AS\_A WFS 45MHz

Title			<b>ISC System Wiring Diagram</b>		
Size	Number	Revision			
B	<b>D1900511</b>	<b>V8</b>			
Date:	8/29/2022	Sheet of	8	38	
File:	C:\Users\...ISC_R3_SH2.SchDoc	Drawn By:	Filiberto Clara		

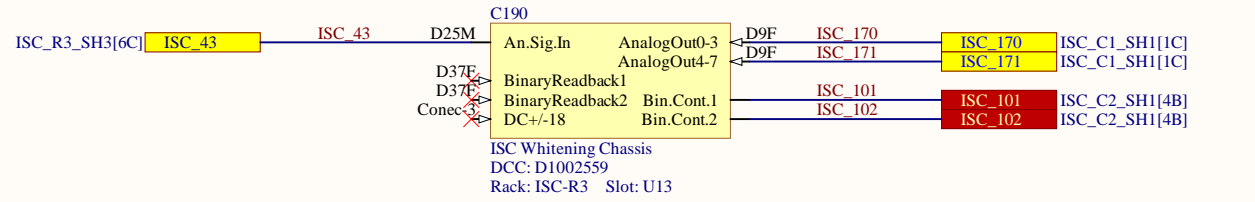
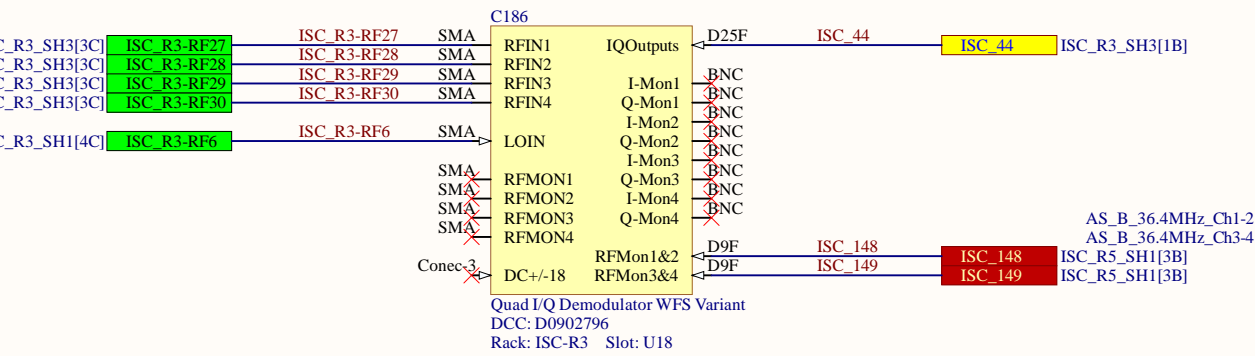
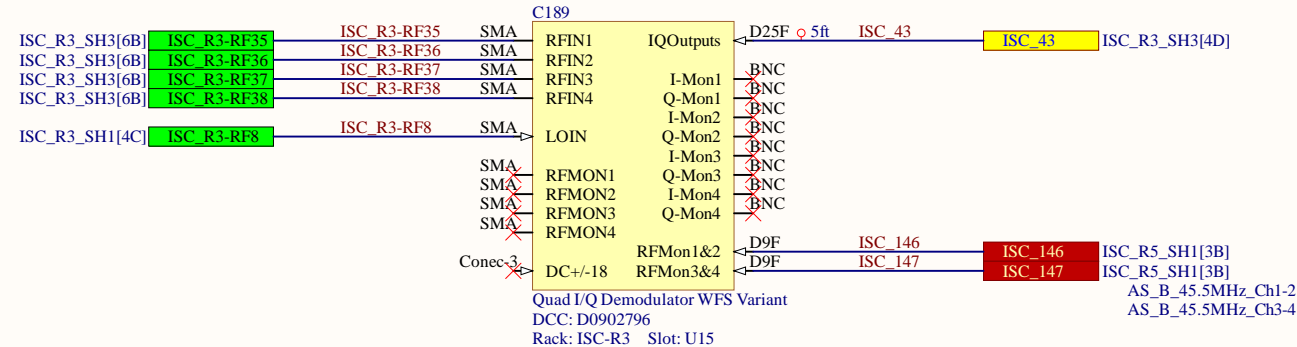
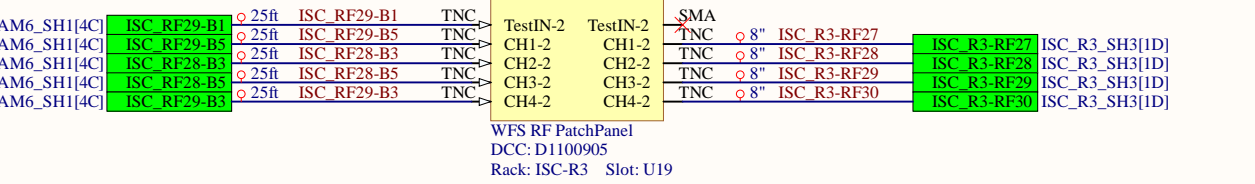
# ISC-R3 Rack



## AS\_A WFS 45MHz



## AS\_A WFS 36MHz

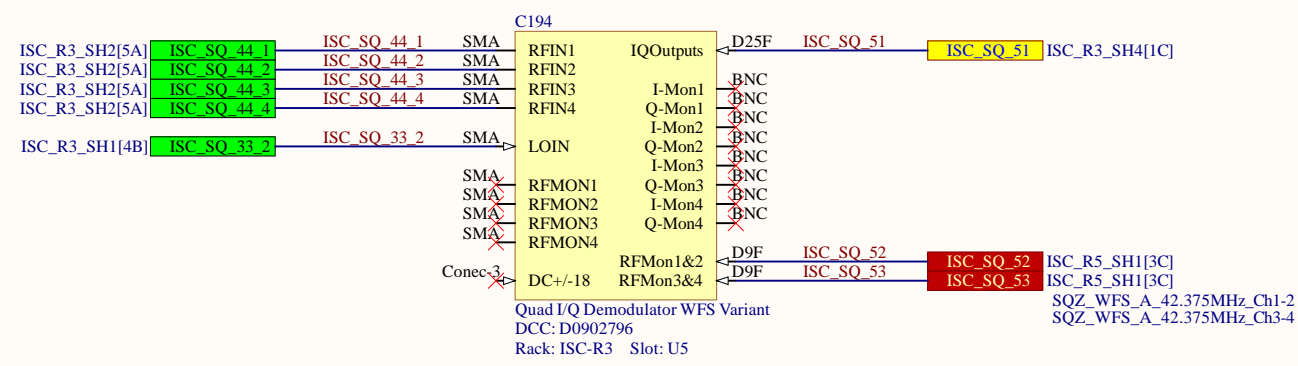
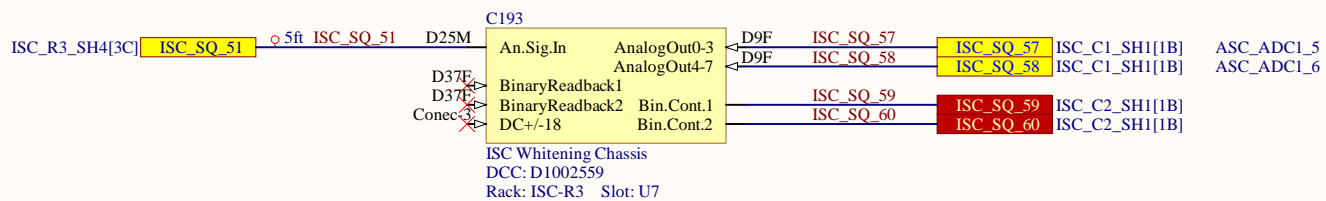
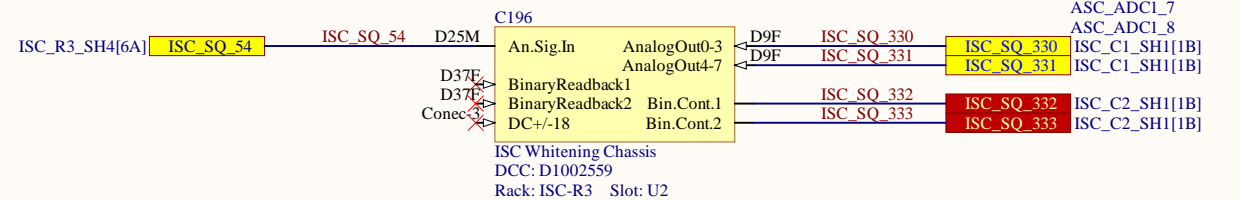
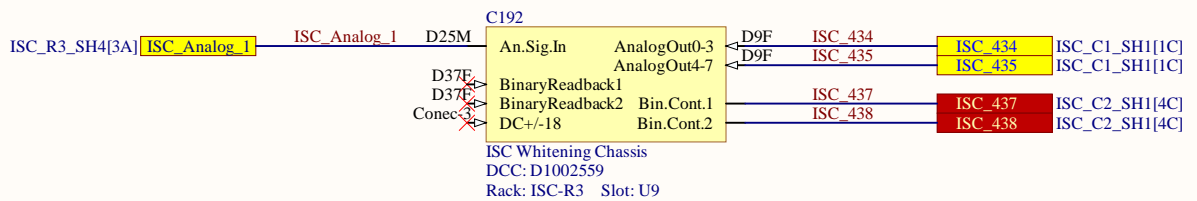
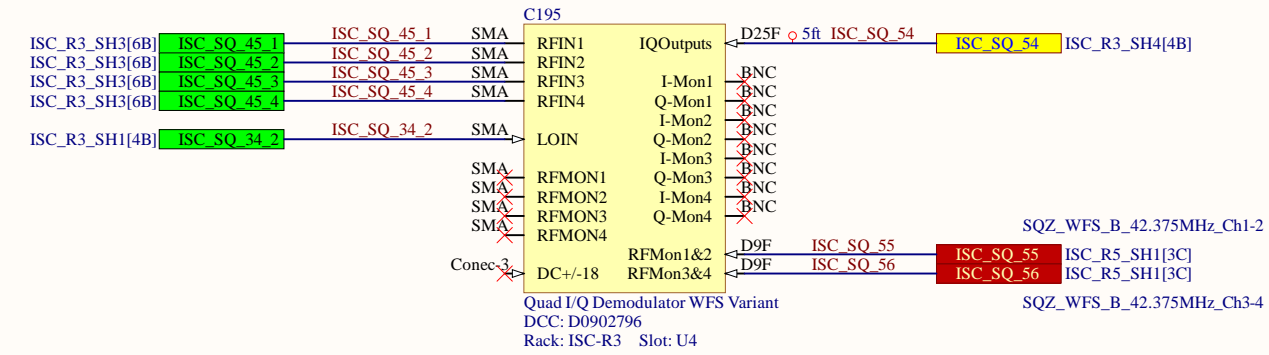
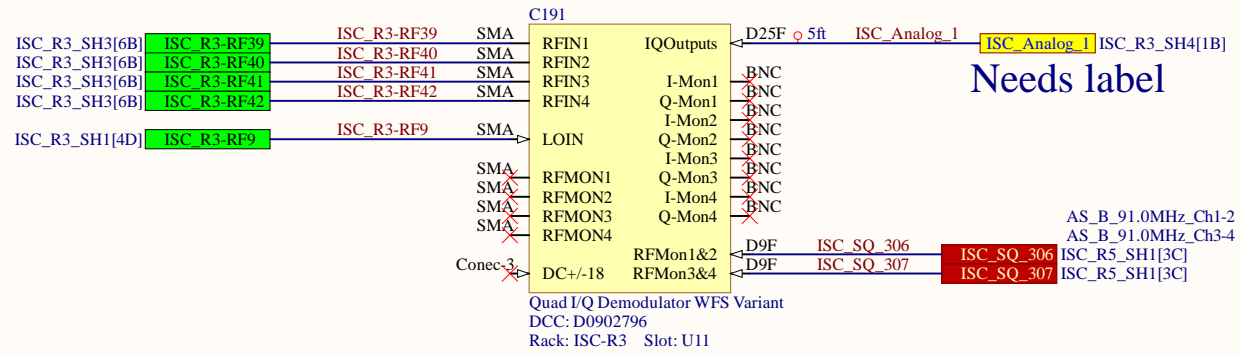


Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
B	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 9 38
File:	C:\Users\...ISC_R3_SH3.SchDoc	Drawn By: Filiberto Clara

# ISC-R3 Rack

## Needs labels

Needs label

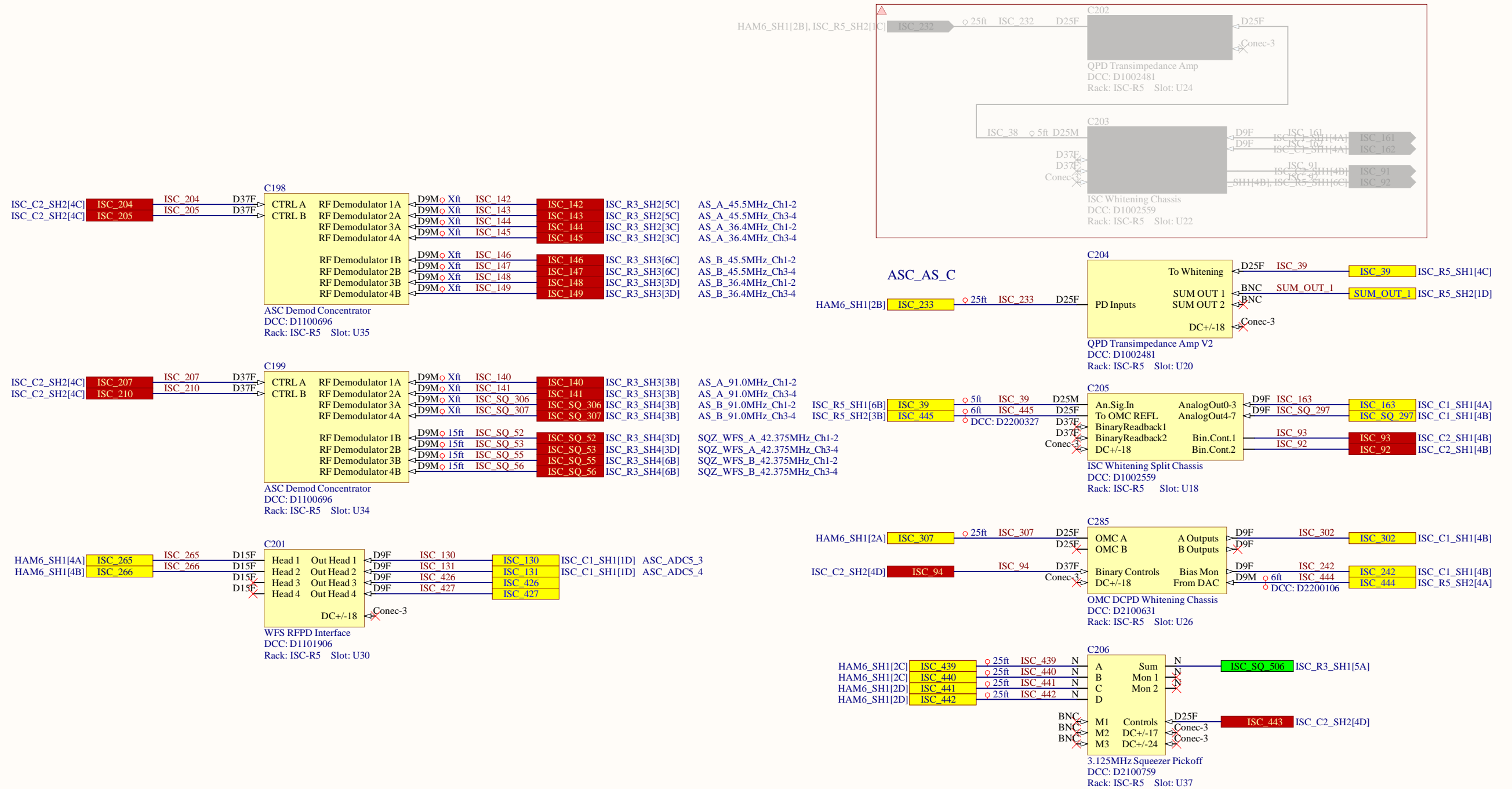


Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
B	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 38
File:	C:\Users\...ISC_R3_SH4.SchDoc	Drawn By: Filiberto Clara



# ISC-R5 Rack

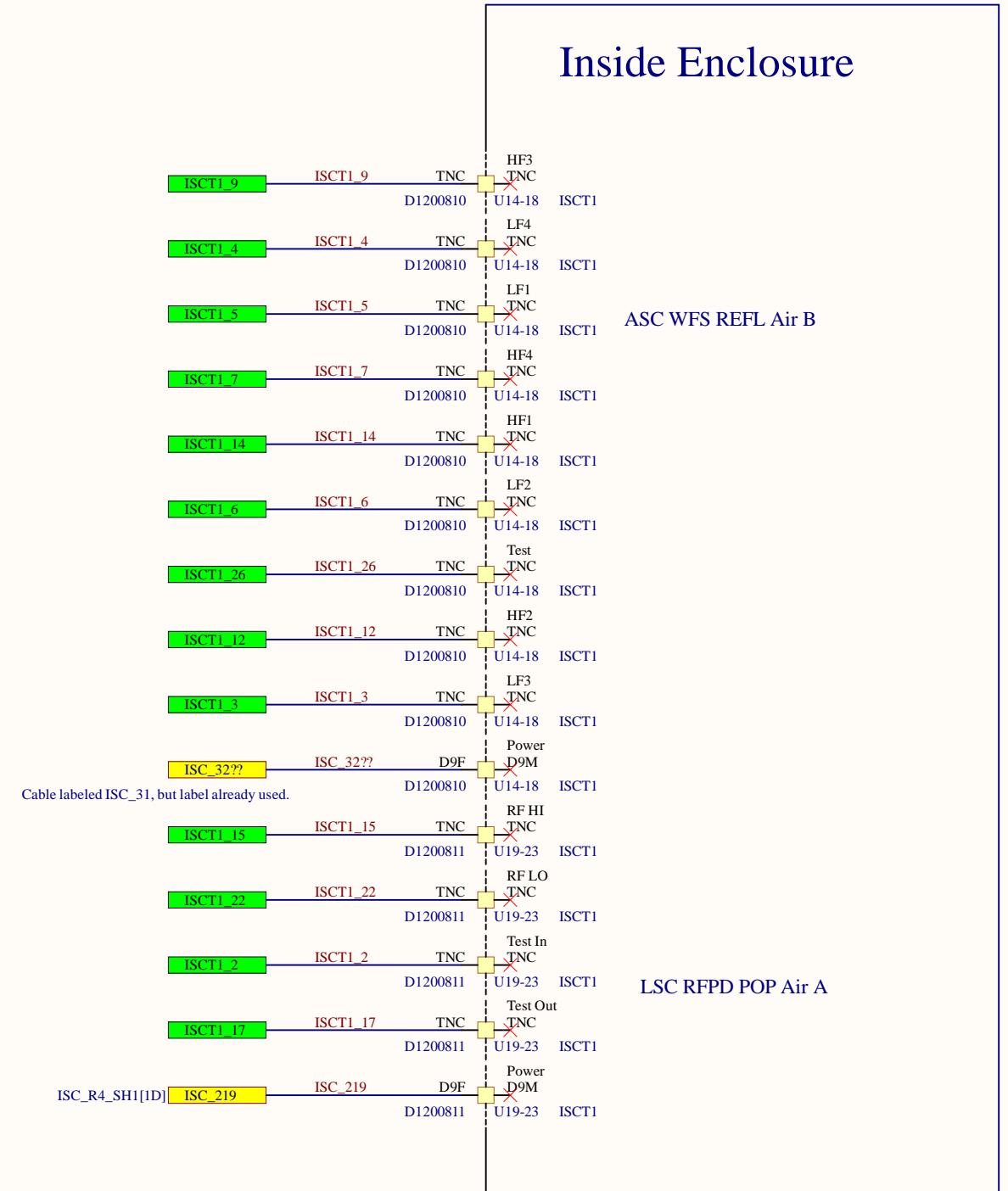
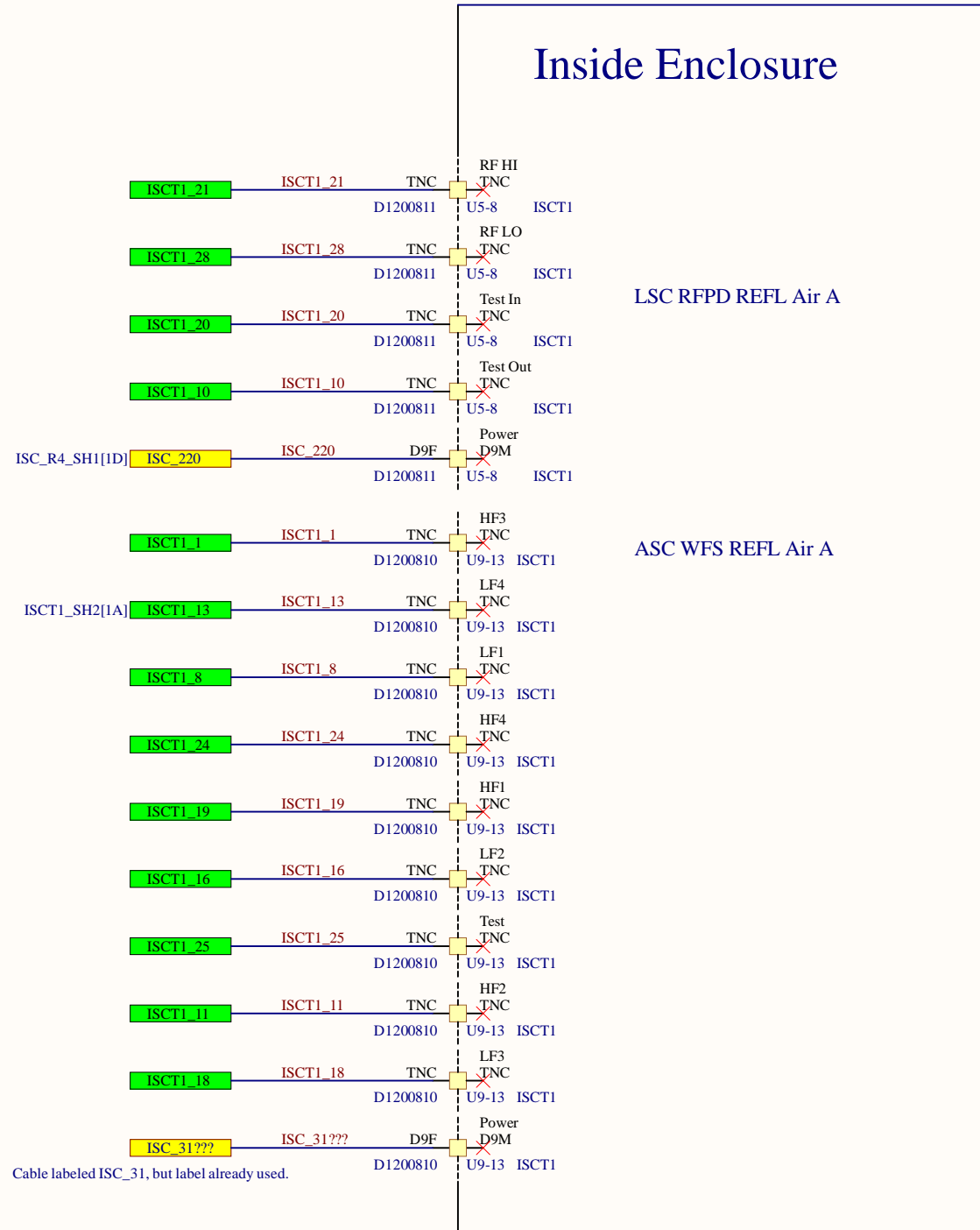
OMCR no longer used at LHO



Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
B	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 1 38
File:	C:\Users\...ISC_R5_SH1.SchDoc	Drawn By: Filiberto Clara



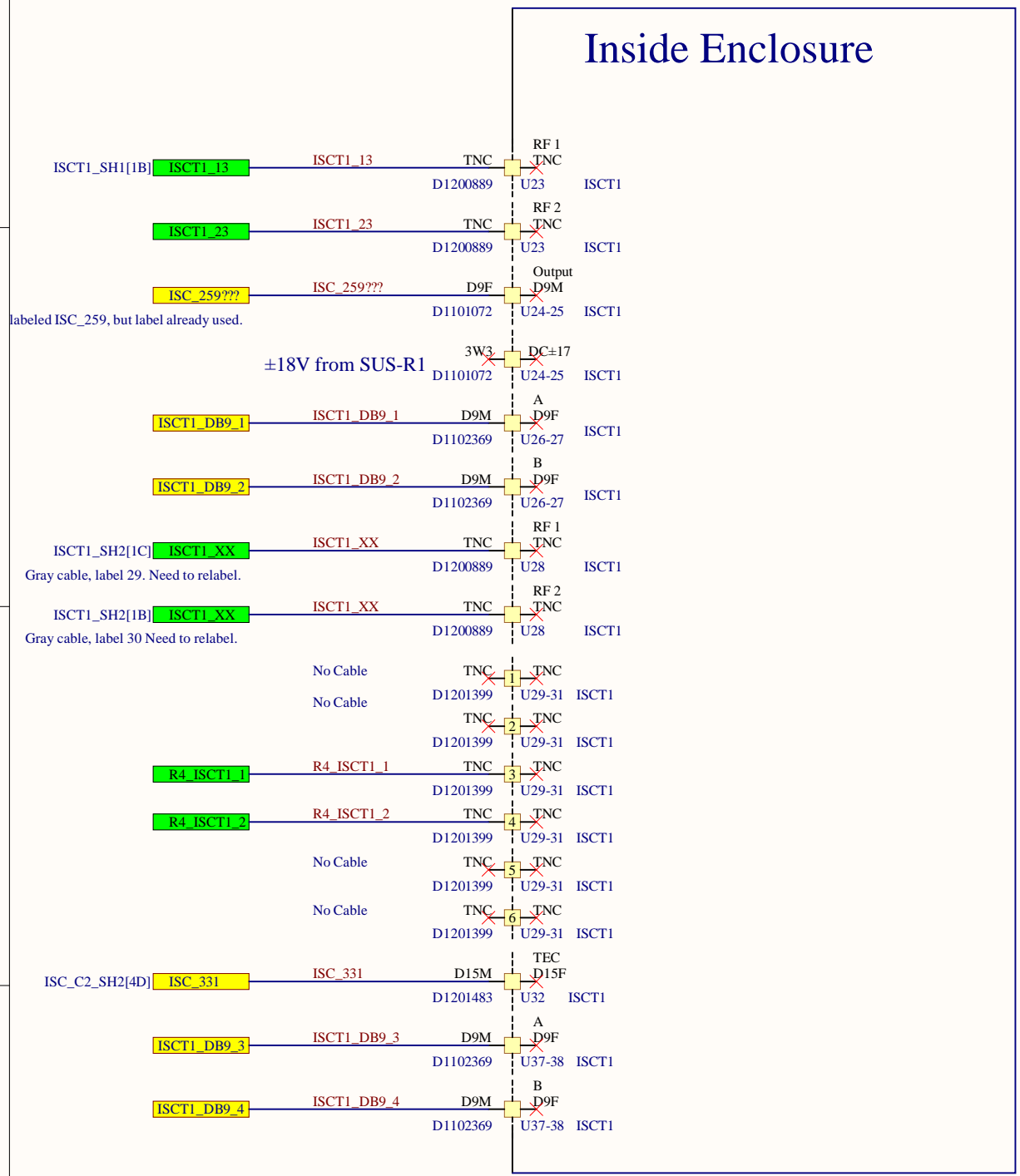
# ISCT1 - Right Side



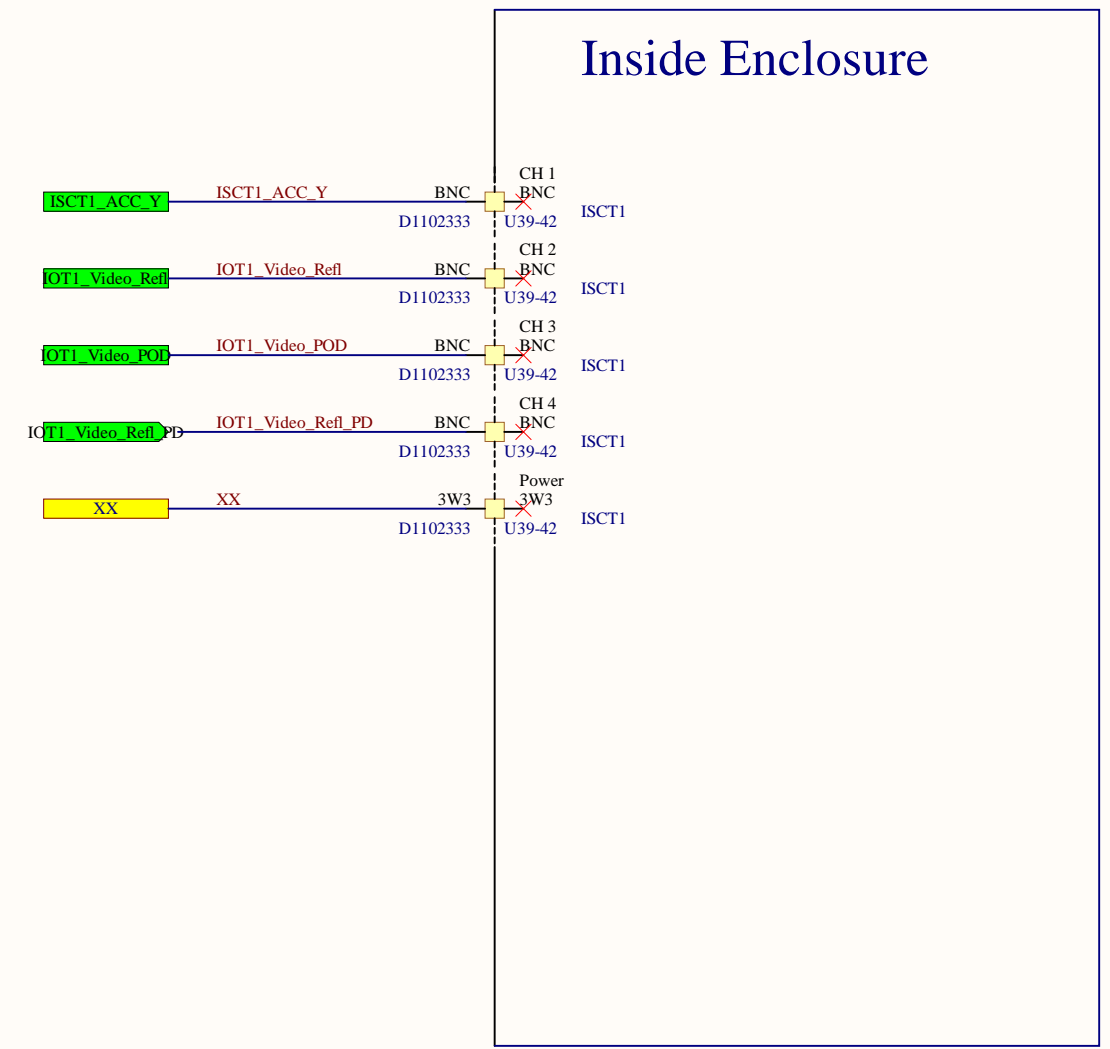
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Size	Number	Revision			
B	D1900511	V8			
Date:	8/29/2022	Sheet of	38		
File:	C:\Users\...\ISCT1_SH1.SchDoc	Drawn By:	Filiberto Clara		

# ISCT1 - Right Side

## Inside Enclosure

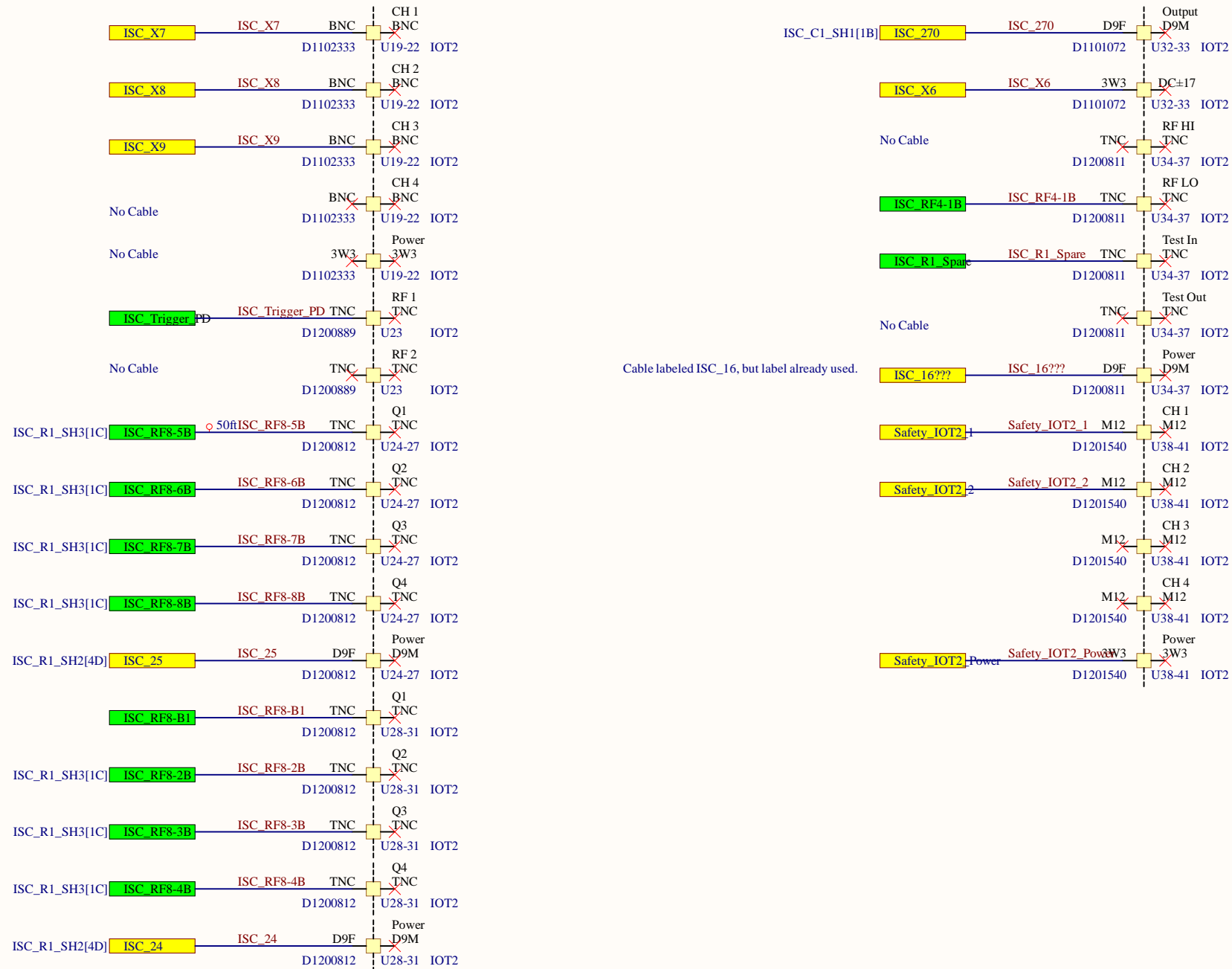


## Inside Enclosure



Title			<b>ISC System Wiring Diagram</b>		
Size	Number	Revision			
B	D1900511	V8			
Date:	8/29/2022	Sheet of	4	38	
File:	C:\Users\...\ISCT1_SH2.SchDoc	Drawn By:	Filiberto Clara		

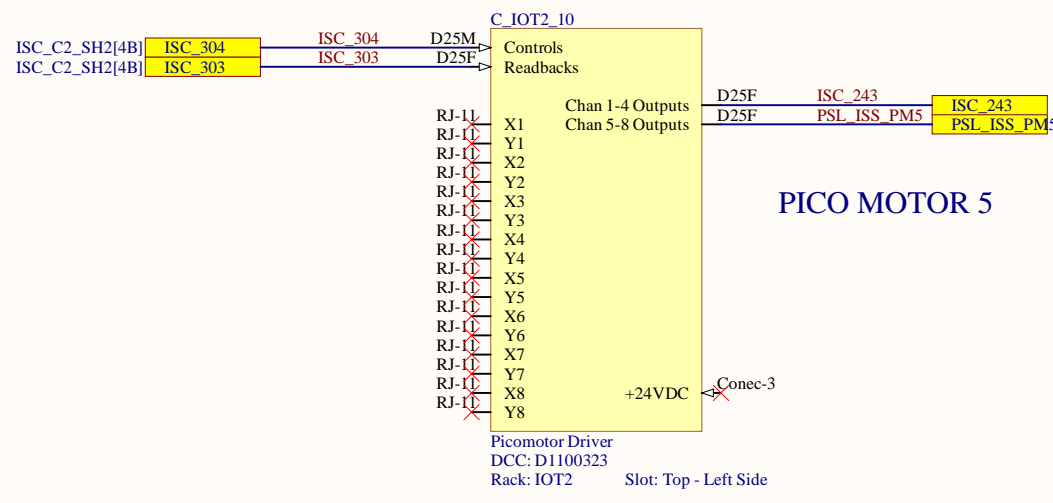
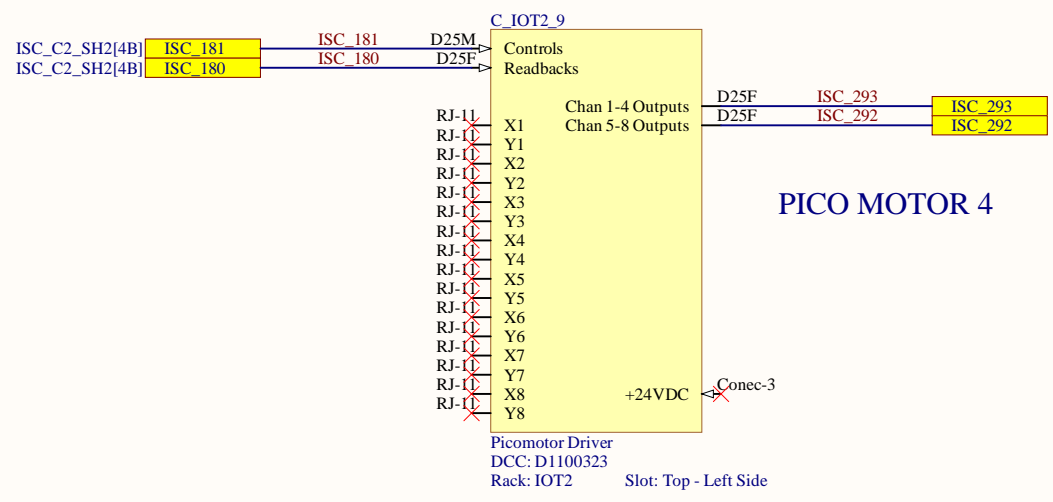
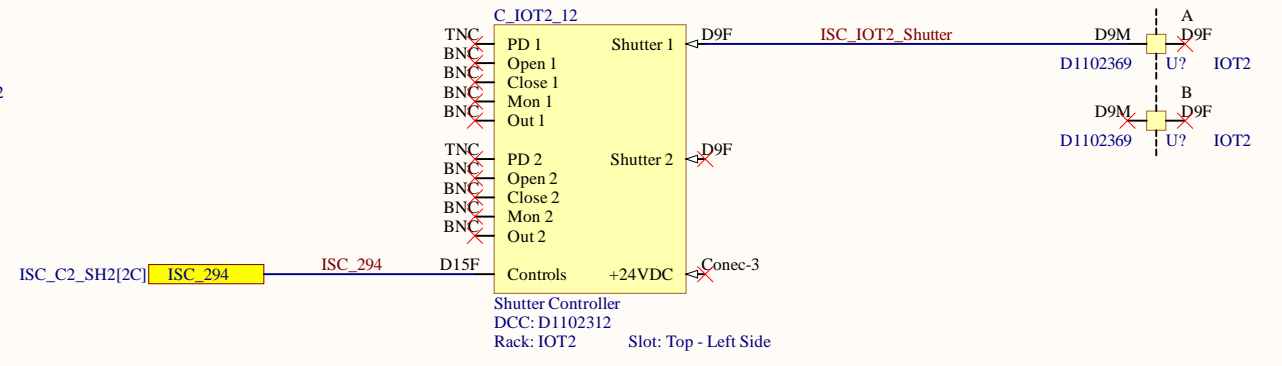
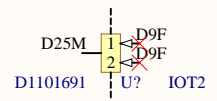
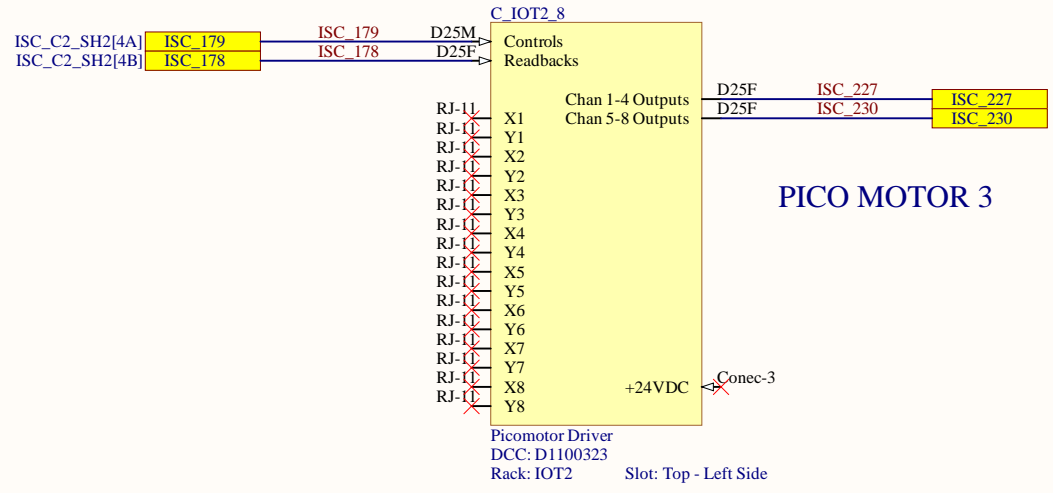
# IOT2 - Left Side



Cable labeled ISC\_16, but label already used.

Title		
<b>ISC System Wiring Diagram</b>		
Size	Number	Revision
B	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 5 38
File:	C:\Users\... \IOT2_SH1.SchDoc	Drawn By: Filiberto Clara

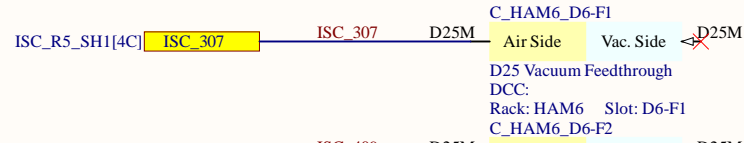




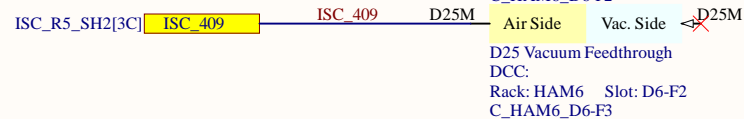
Title			<b>ISC System Wiring Diagram</b>		
Size	Number	Revision			
B	<b>D1900511</b>	<b>V8</b>			
Date:	8/29/2022	Sheet of	38		
File:	C:\Users\... \IOT2_SH2.SchDoc	Drawn By:	Filiberto Clara		

# HAM6 Flange Layout

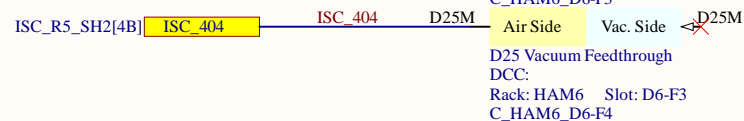
DCPD



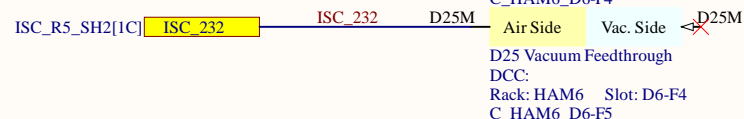
PZTs



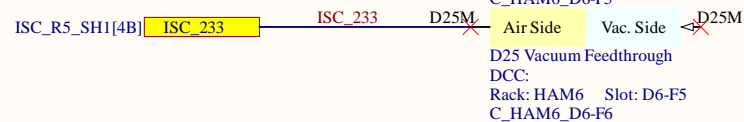
OMC QPD



OMCR QPD

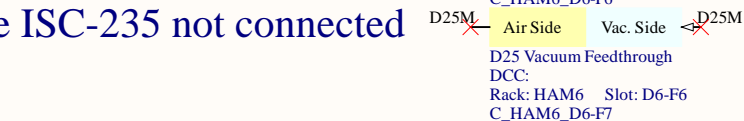


AS\_C QPD

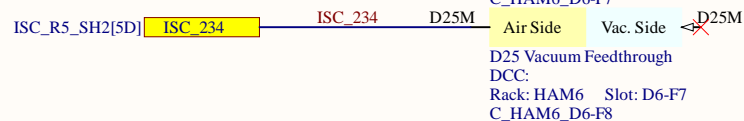


OMCR/AS Picomotor

Cable ISC-235 not connected



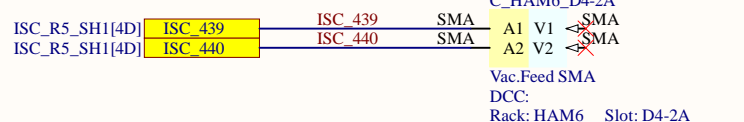
AS\_C Picomotor



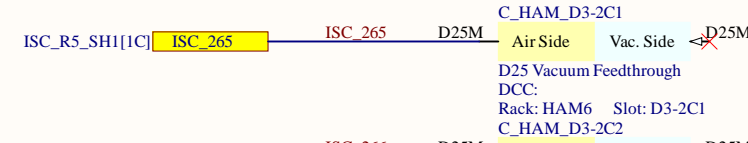
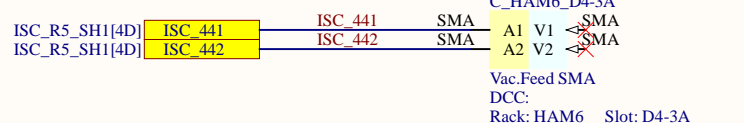
Beam diverter



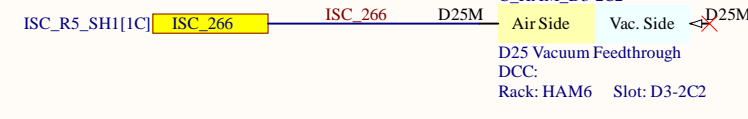
DCPD 3.1MHz A/B



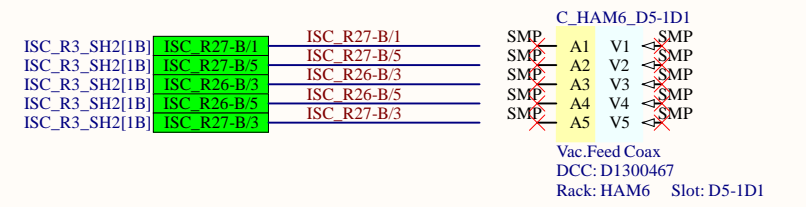
DCPD 3.1MHz C/D



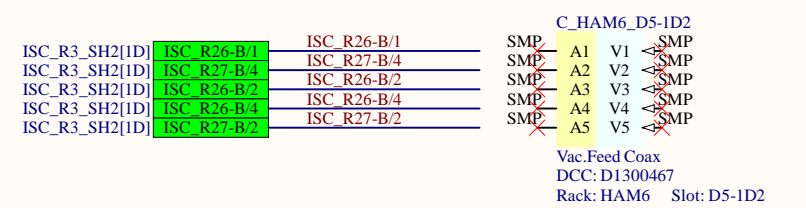
AS\_A WFS DC



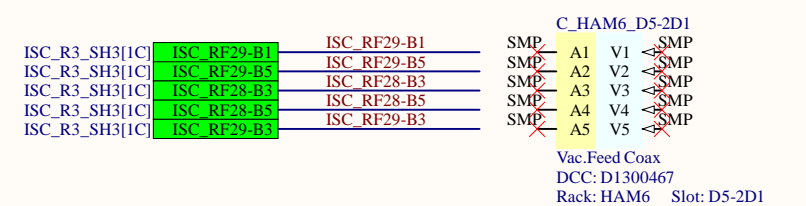
AS\_B WFS DC



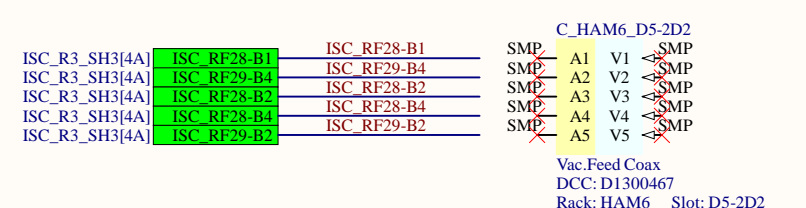
AS\_A WFS 36MHz



AS\_A WFS 45MHz



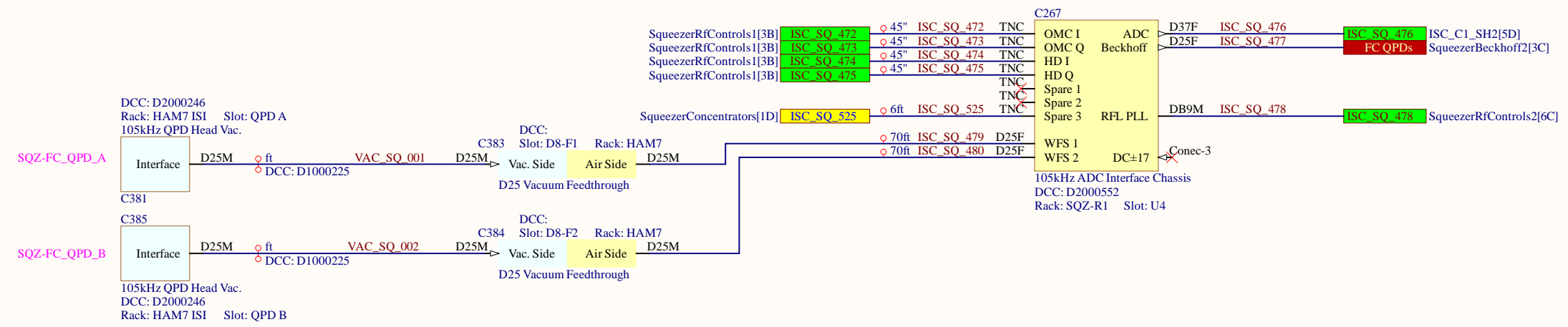
AS\_B WFS 36MHz



AS\_B WFS 45MHz

Need to check WFS RF!

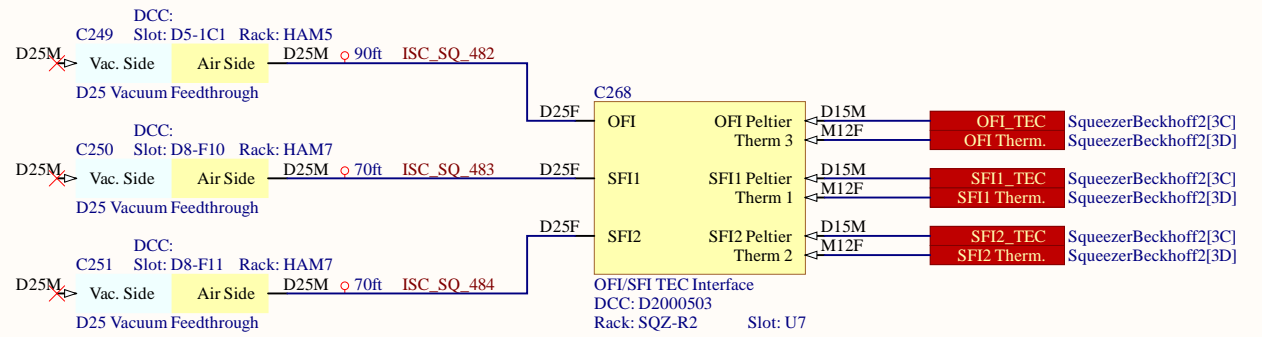
Title			
<b>ISC System Wiring Diagram</b>			
Size	Number	Revision	
B	D1900511	V8	
Date:	8/29/2022	Sheet of	27 38
File:	C:\Users\...HAM6_SH1.SchDoc	Drawn By:	Filiberto Clara



**Key**

- Ties to Beckhoff Ties to Beckhoff
- Ties to RF Distribution 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

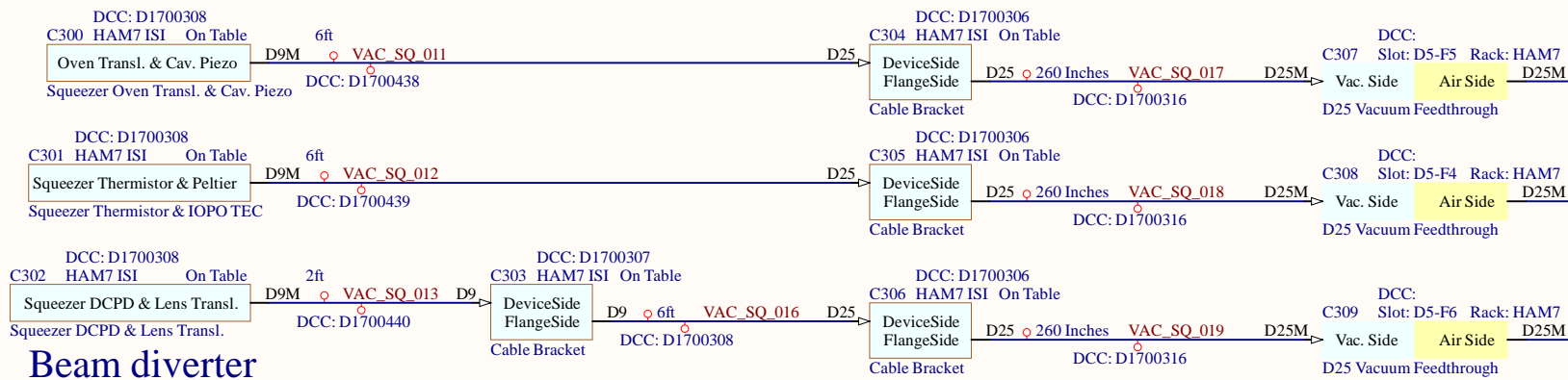
Title		
<b>Squeezer Wavefront Sensing</b>		
Size	Number	Revision
B	D1900511	V8
Date:	8/29/2022	Sheet of 28 38
File:	C:\Users\...\SqueezerWfsWiring.SchDoc	Drawn By: R. Abbott



OFI 2

SFI 1

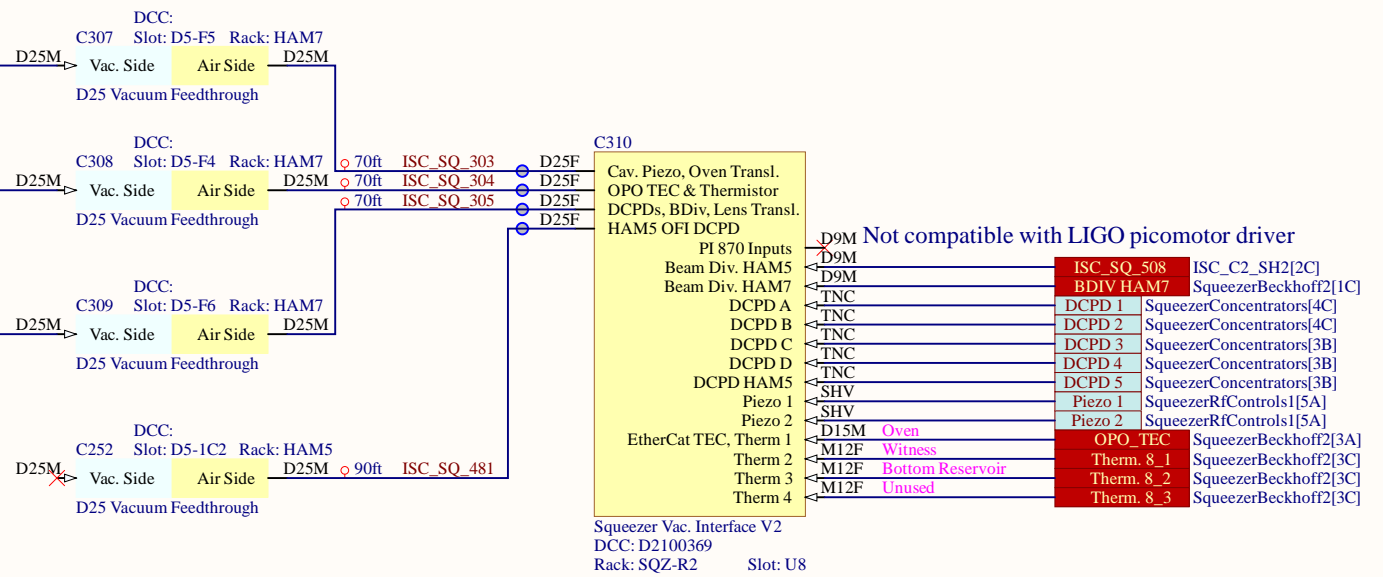
SFI 2



Beam diverter

D1700308 Wiring Diagram - More Cables

HAM5 DCPD  
Beam diverter?



Ties to Beckhoff

**Key**

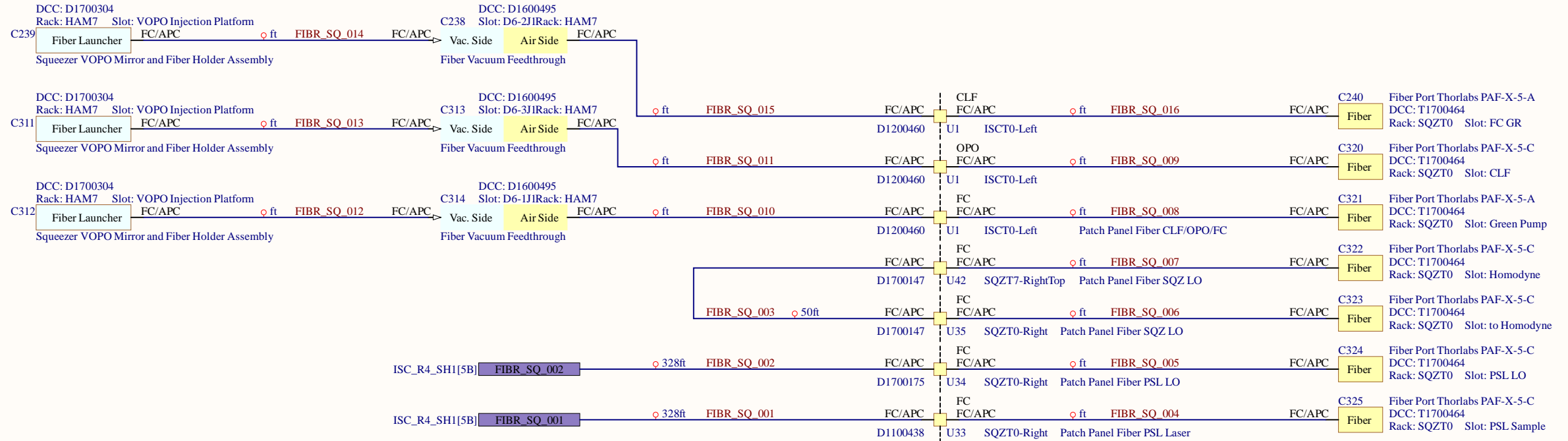
- Dot Identifies Cable Shield Terminating to Backshell
- Pin With Triangle Indicates Pin on Rear or the Like
- Pin With No Triangle Indicates Pin on Front or the Like
- Light Blue Symbols Are In-Vacuum
- Yellow Symbols Are In-Air

	LHO	LLO
DCPD A	Green pump	Green pump
DCPD B	Red CLF	Red CLF
DCPD C	Green FC	Green FC
DCPD D	OPI_A HAM7	OPI_A HAM7
DCPD HAM5	OPI_B HAM5	OPI_B HAM5

FC

CLF

OPO



Last Edited: 1/27/2022

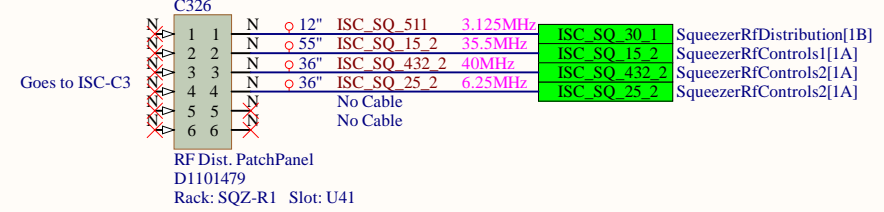
Title <b>Squeezer Fiber Connections</b>		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: B	DCC Number: D1900511	Revision: V8	Engineer: R. Abbott	Date: 8/29/2022	Time: 4:35:35 PM

File: C:\Users\daniel.sigg\Documents\Protel\WiringPlan\ISC\D1900511\SqueezerFiber.SchDoc

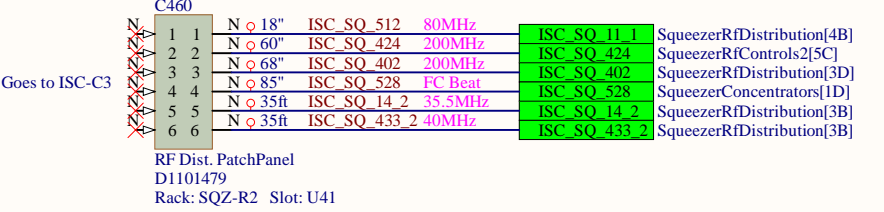
Sheet 30 of 38



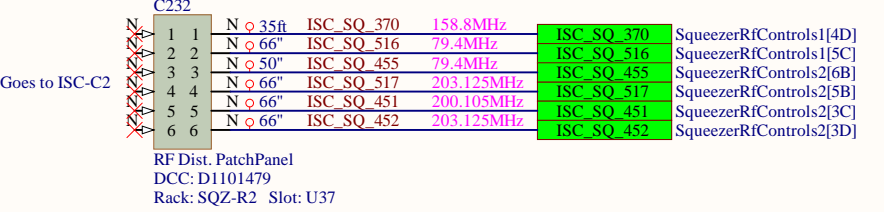
**RF Patch Panel 34**



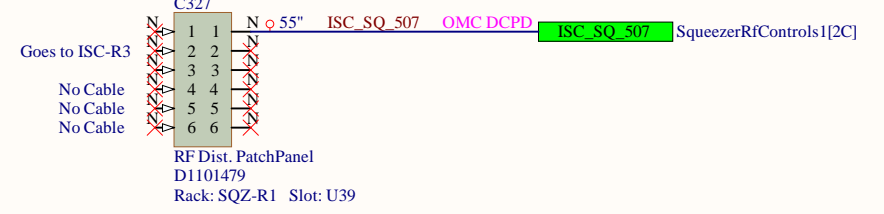
**RF Patch Panel 36**



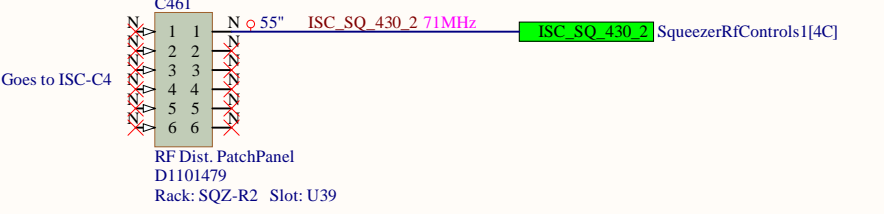
**RF Patch Panel 38**



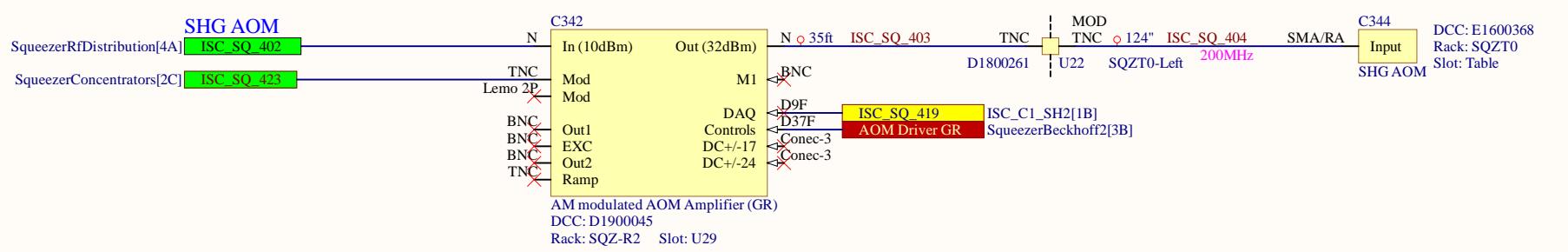
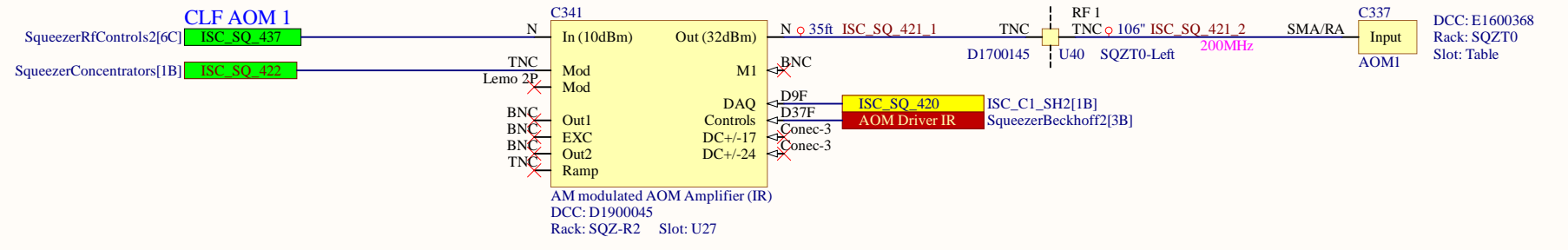
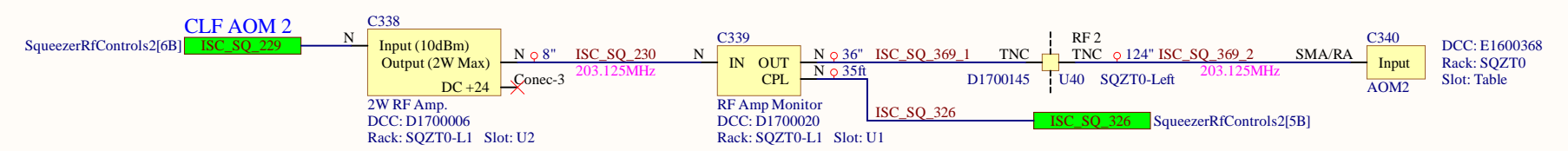
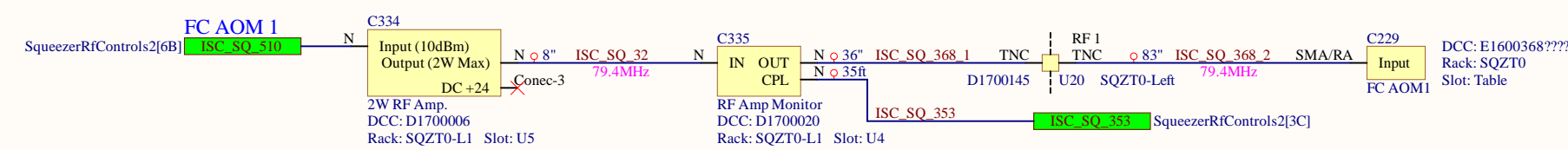
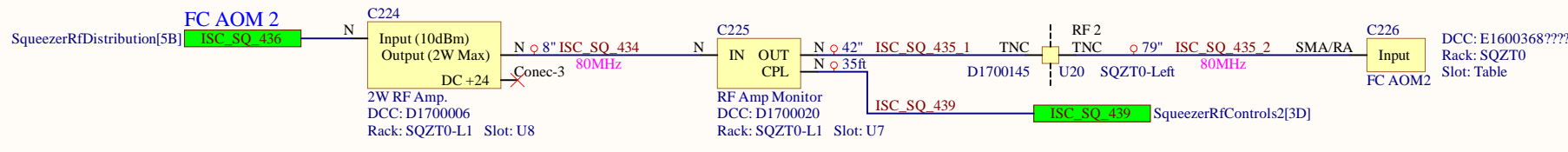
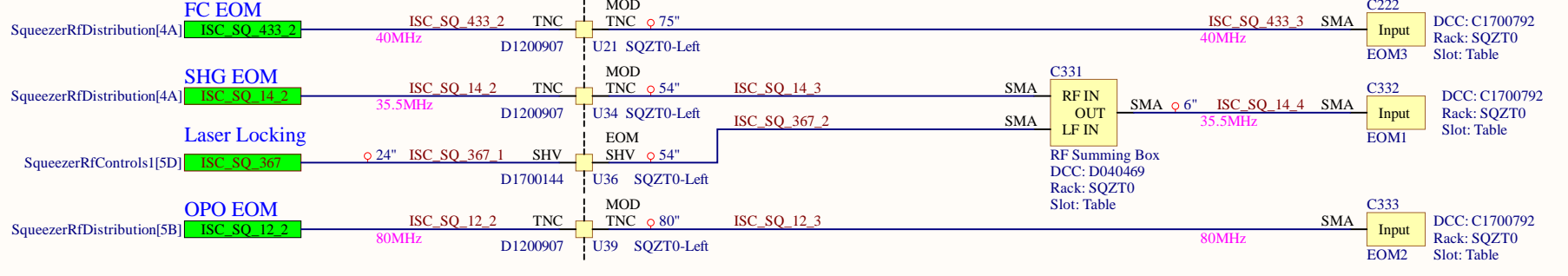
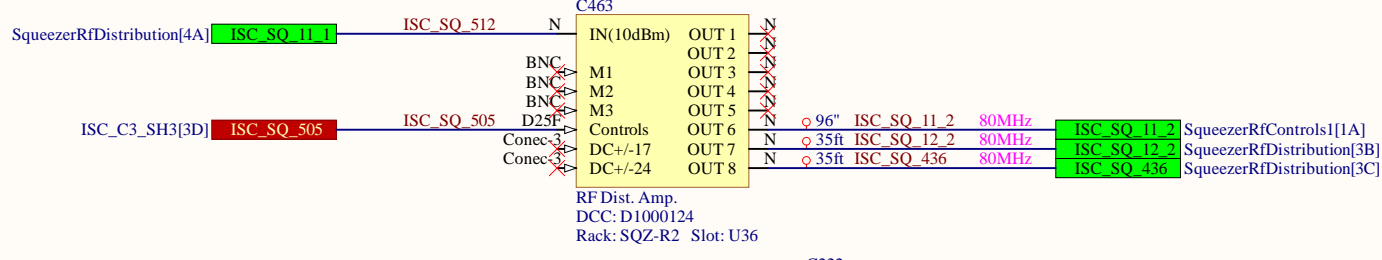
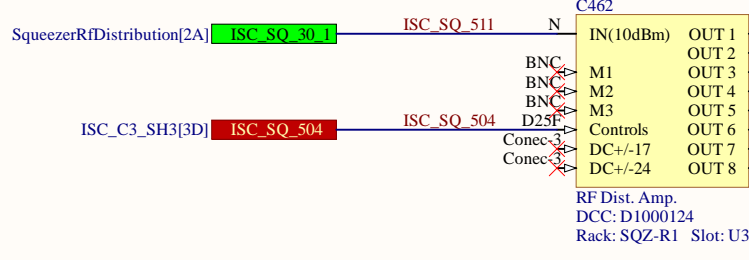
**RF Patch Panel 35**



**RF Patch Panel 37**



New cables for A\_ start at ISC\_SQ\_430



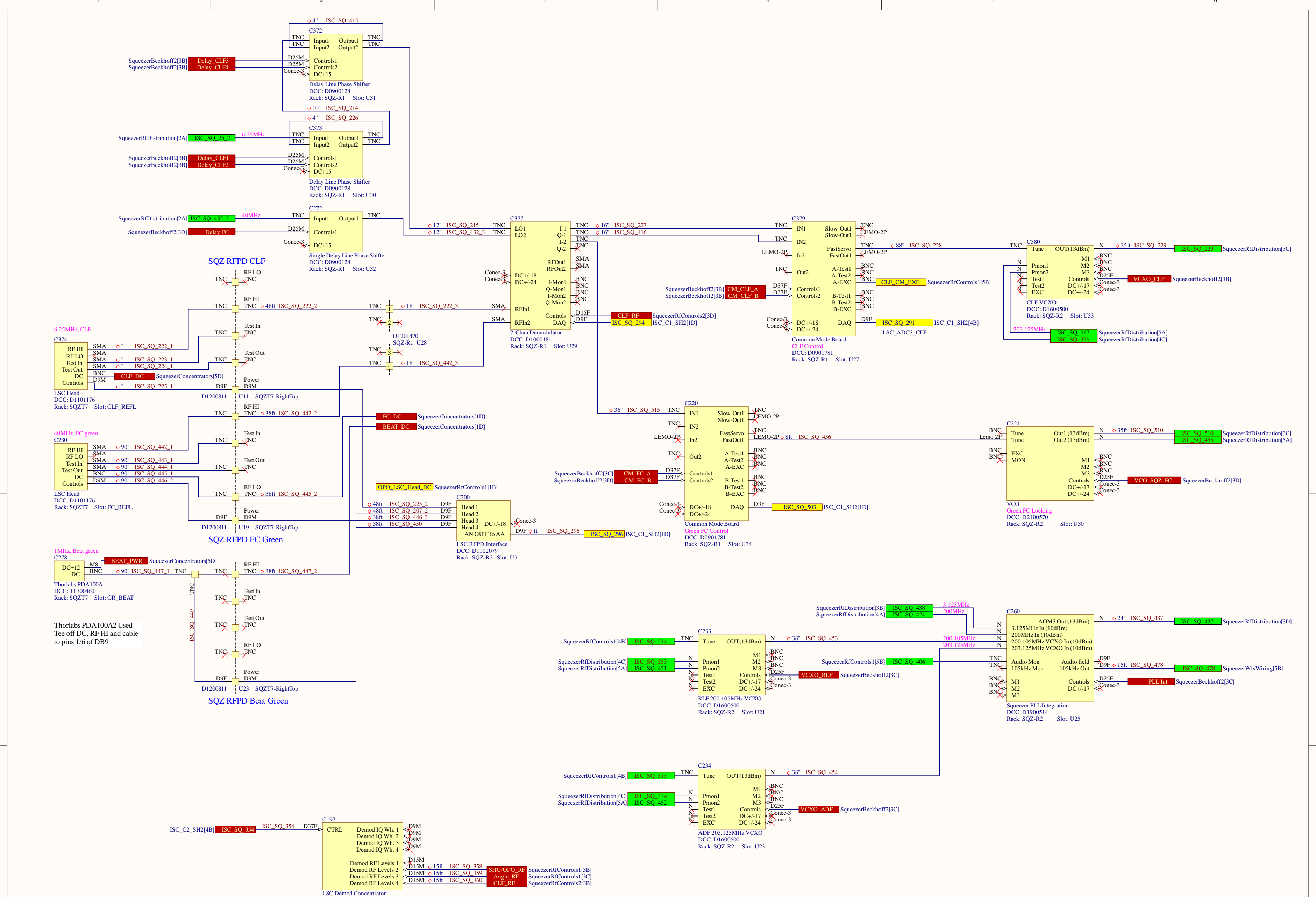
RF cables carrying the AOM signals need to be 1/4" superflexible helical corrugated coax.

**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		
<b>Squeezer RF Distribution</b>		
Size	Number	Revision
C	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 31 38
File:	C:\Users\...SqueezerRfDistribution.SchDb\Drawn By: R. Abbott	

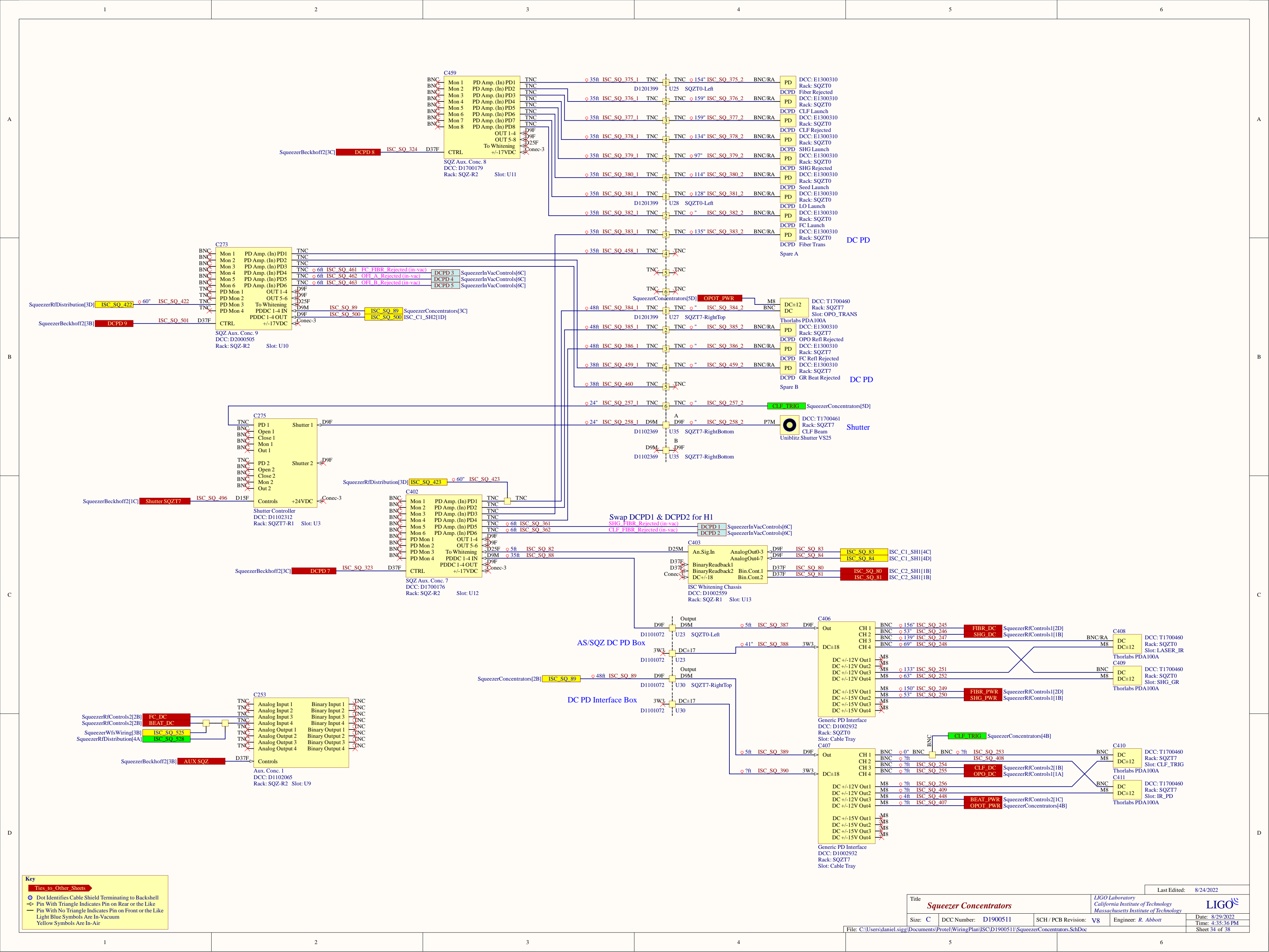




**Key**

- 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



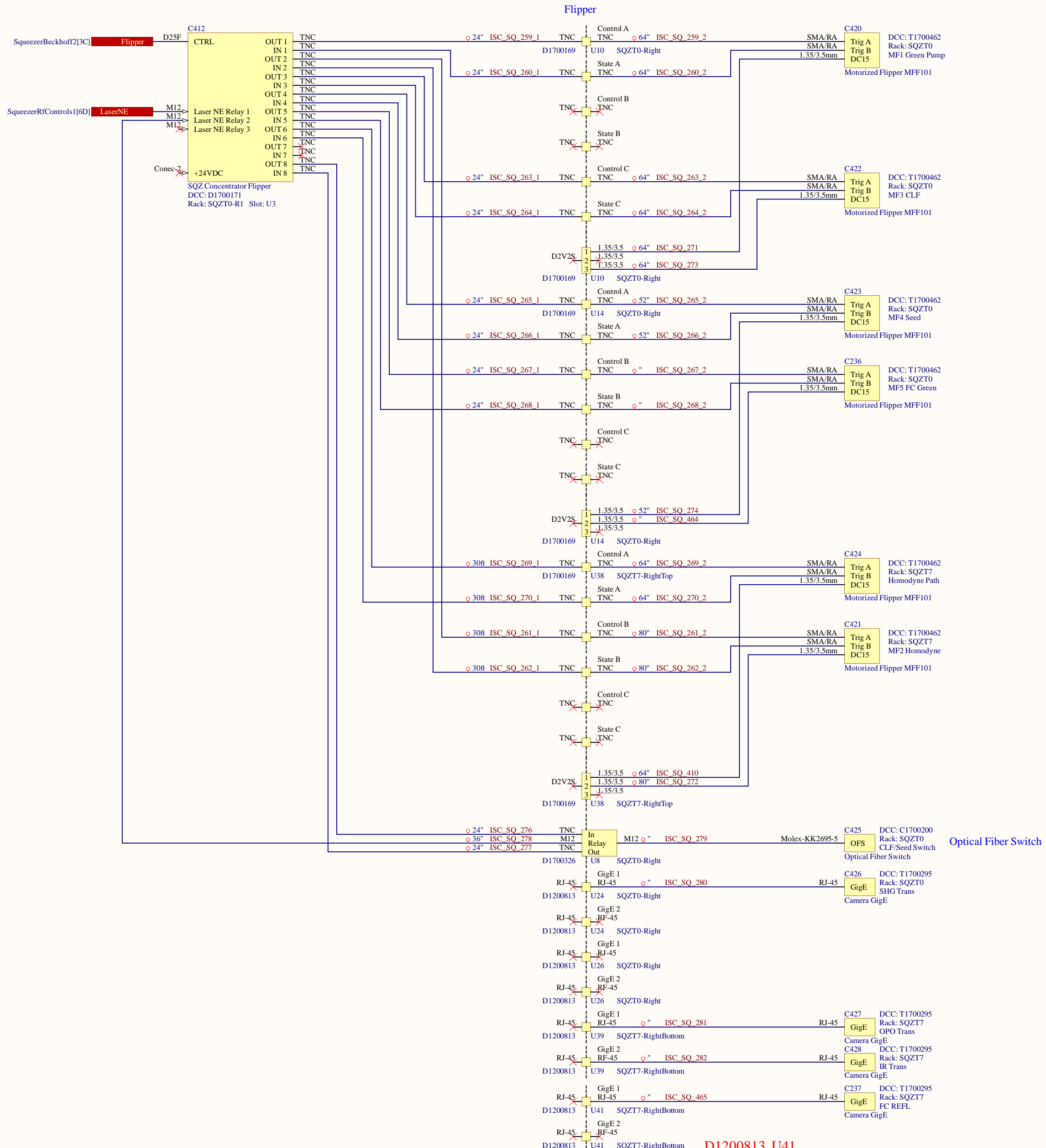


**Key**

- 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 <b>Squeezer Concentrators</b>		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		Last Edited: 8/24/2022	
Size: C	DCC Number: D1900511	SCH / PCB Revision: V8	Engineer: R. Abbott	Date: 8/29/2022	Time: 4:35:36 PM
File: C:\Users\daniel.sig\Documents\Protel\WiringPlan\ISC\D1900511\SqueezerConcentrators.SchDoc					
Sheet 34 of 38					





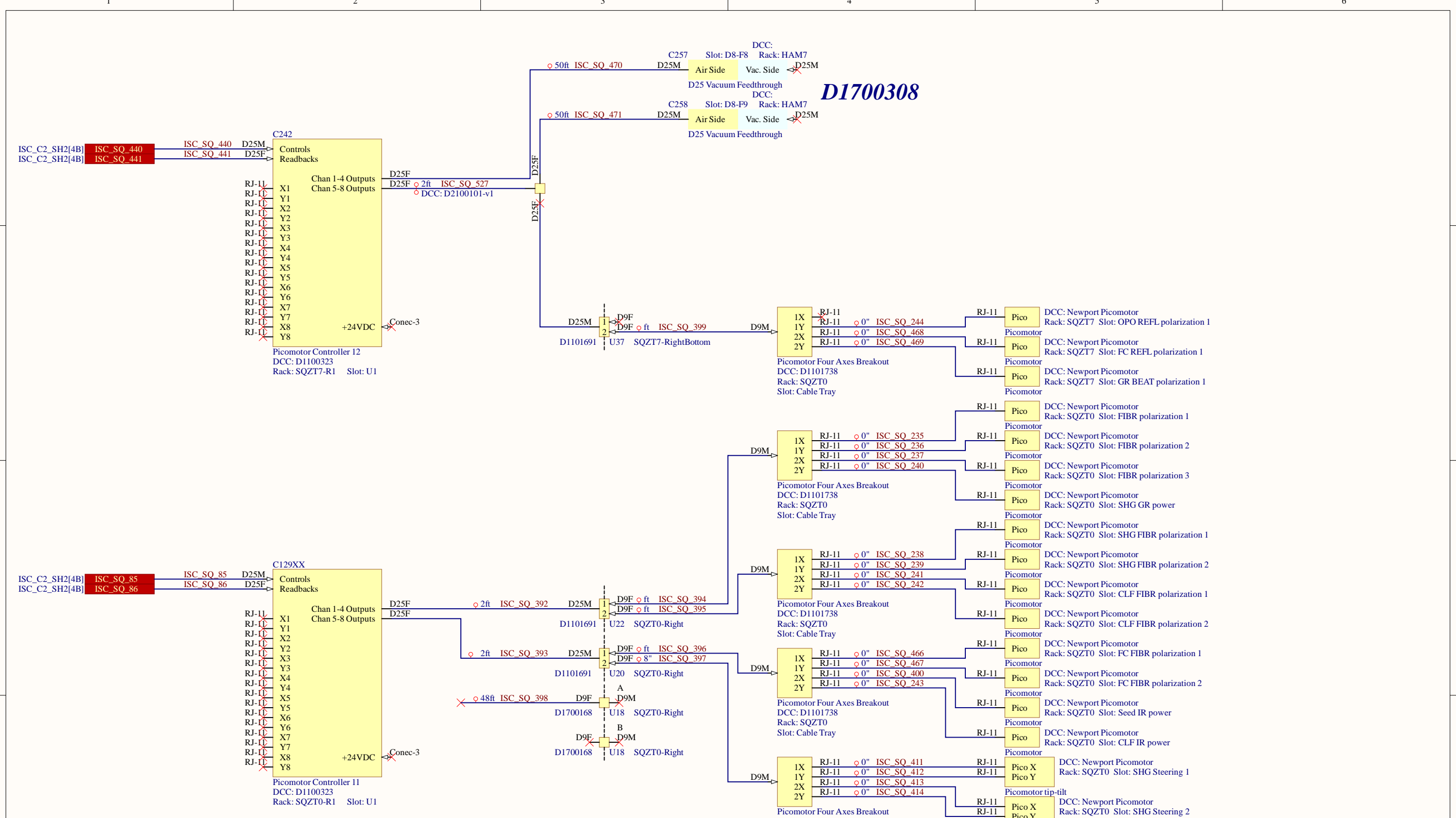
**Key**

- 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

D1200813, U41  
New Cameras per Table Feedthrough Panel

Title <b>Squeezer Miscellaneous</b>		LIGO Laboratory California Institute of Technology Massachusetts Institute of Technology		LIGO	
Size: C	DCC Number: D1900511	SCH / PCB Revision: V8	Engineer: R. Abbott	Date: 8/29/2022	Time: 4:35:36 PM
File: C:\Users\daniel.sig\Documents\Protel\WiringPlan\ISC\D1900511\SqueezerMiscellaneous.SchDoc				Sheet 35 of 38	

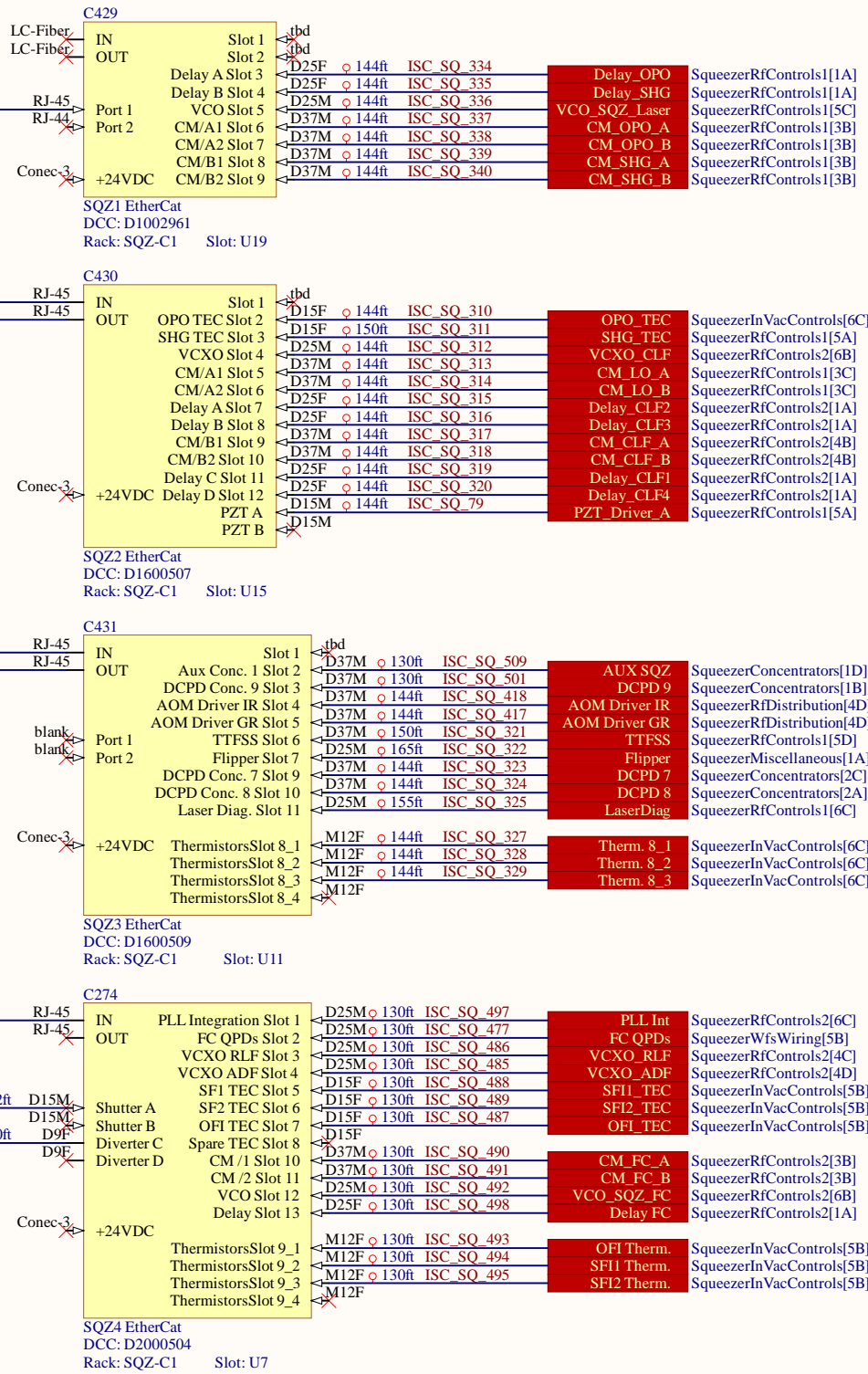
Last Edited: 8/24/2022



**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		
<b>Squeezer Beckhoff Interfaces</b>		
Size	Number	Revision
B	<b>D1900511</b>	<b>V8</b>
Date:	8/29/2022	Sheet of 6 38
File:	C:\Users\... \SqueezerBeckhoff1.SchDoc	Drawn By: R. Abbott



SqueezerConcentrators[1C] Shutter SQZT7 ISC\_SQ\_496  $\phi$  122ft D15M

SqueezerInVacControls[6C] BDIV HAM7 ISC\_SQ\_524  $\phi$  130ft D15M

**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		
<b>Squeezer Beckhoff Interfaces</b>		
Size	Number	Revision
B	<b>D1900511</b>	<b>V8</b>
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File:	C:\Users\... \SqueezerBeckhoff2.SchDoc	Drawn By: R. Abbott