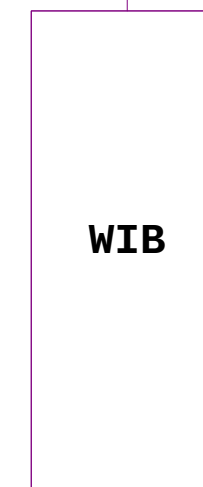
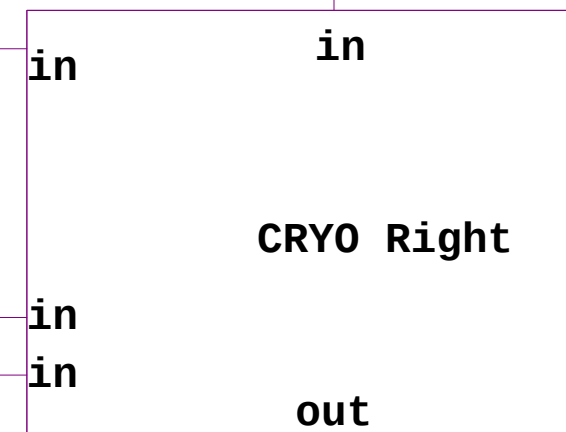
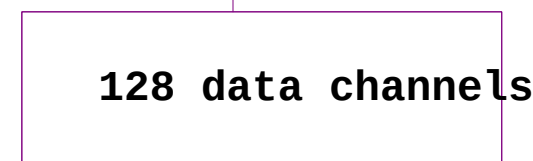
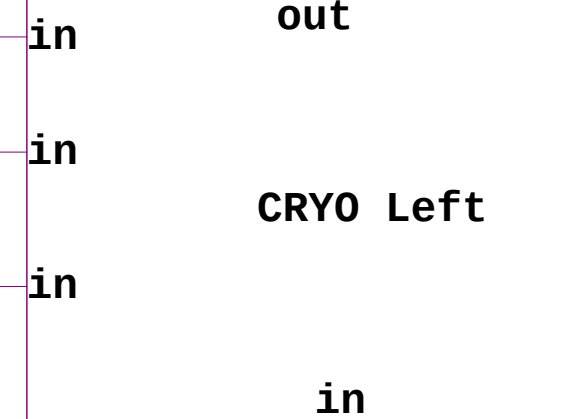
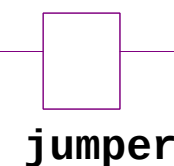
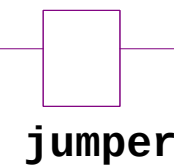
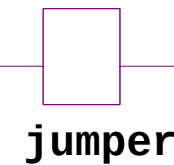
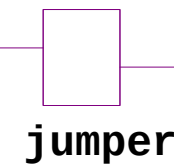
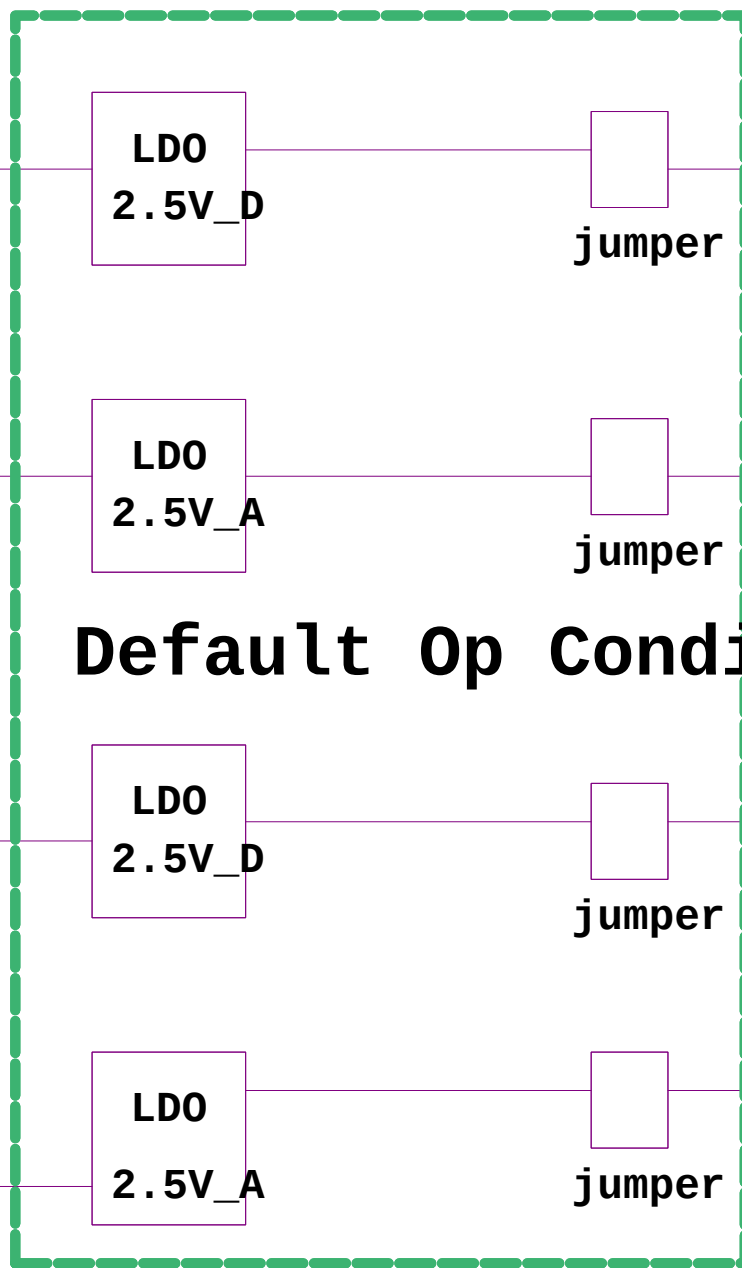
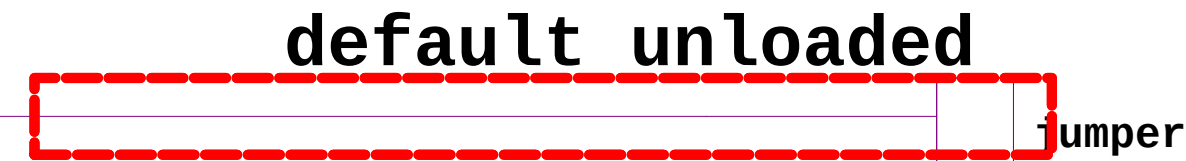
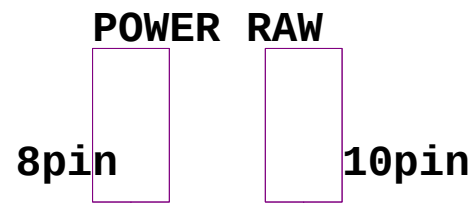


DUNE FRONT END MOTHERBOARD - REVISION B

University of Hawaii at Manoa IDL

Adapted from Brookhaven Design and SLAC Cold Board

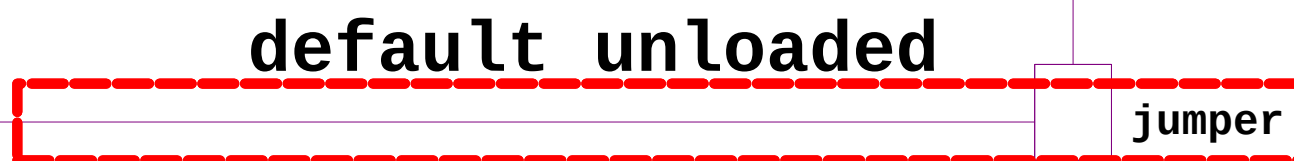


DATA out to WIB

WIB clk to CRY0

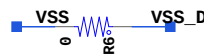
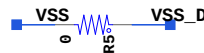
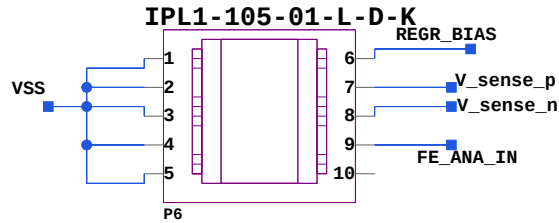
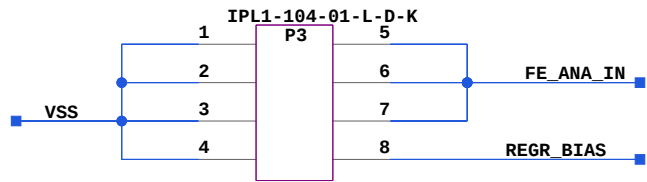
WIB SACI to CRYO

(all LDOs and power options have enable pins and jumpers to load a

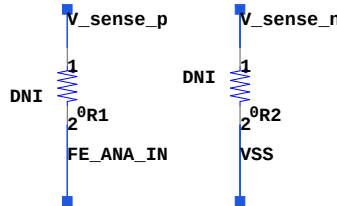


TITLE			
DUNE FRONT END MOTHER BOARD			
TEAM			
UNIVERSITY OF HAWAII MANOA INSTRUMENT DEVELOPMENT LAB			
SIZE	REV	SHEET	1 OF 12
DRAWN	JEFF KLEYNER	DATE	19/02/2021:17:21

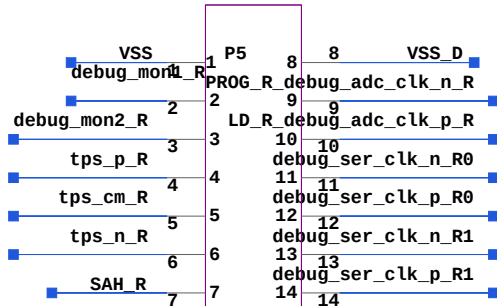
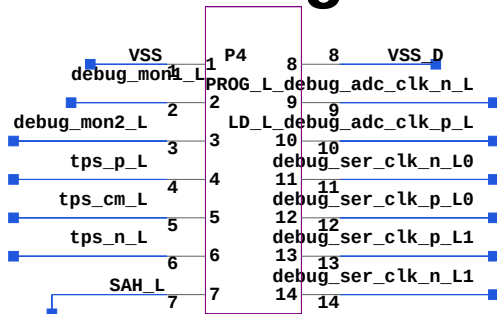
Raw Pwr



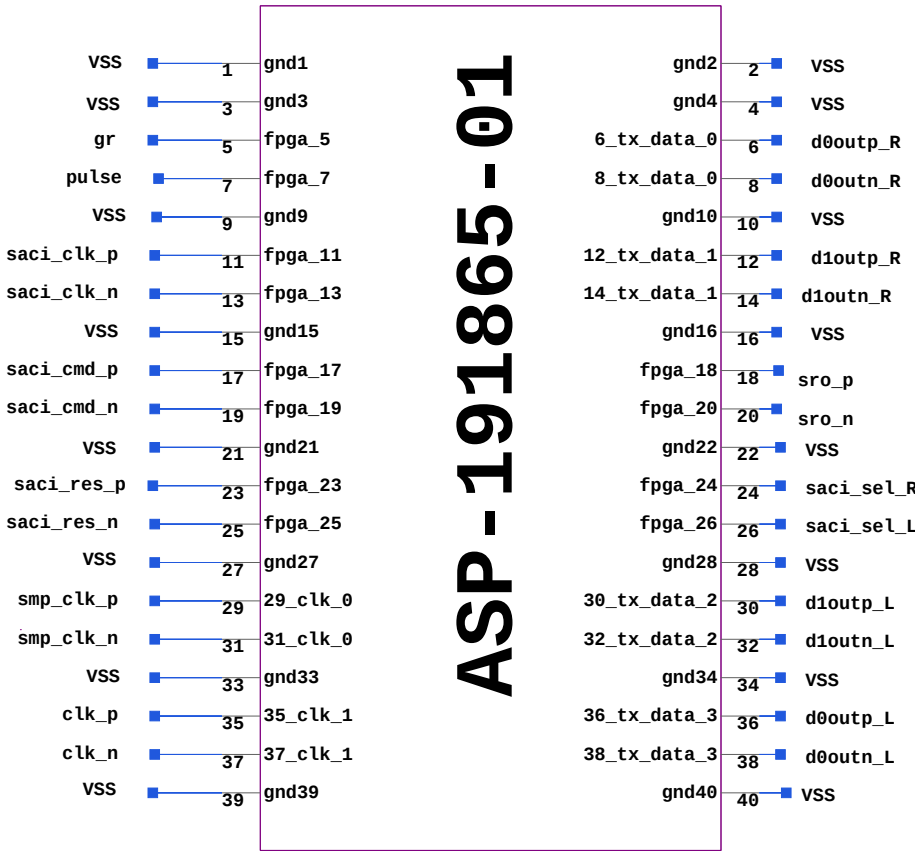
sense lines. Keep resistors close to asic. in between both



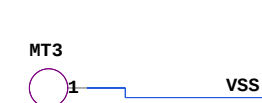
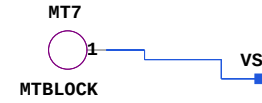
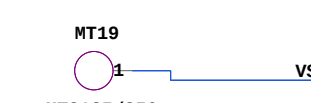
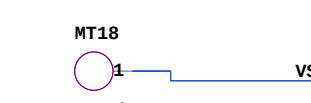
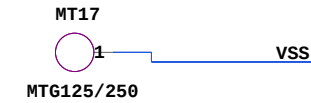
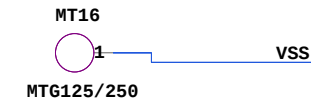
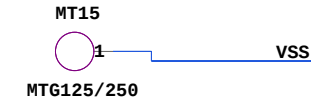
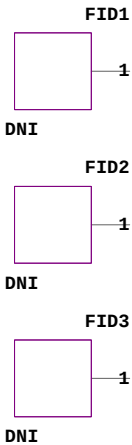
Debug connectors



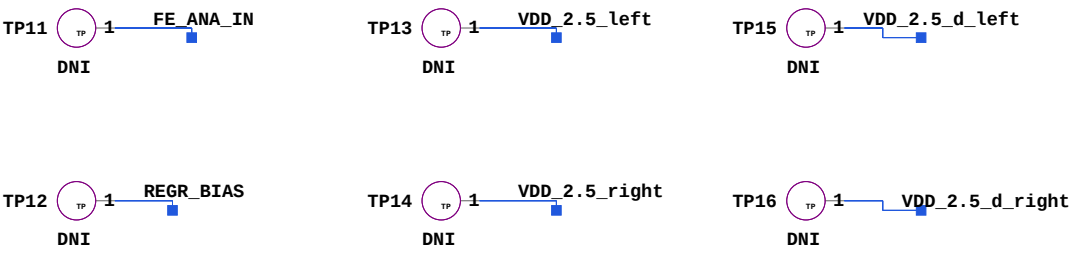
WIB DATA Connector



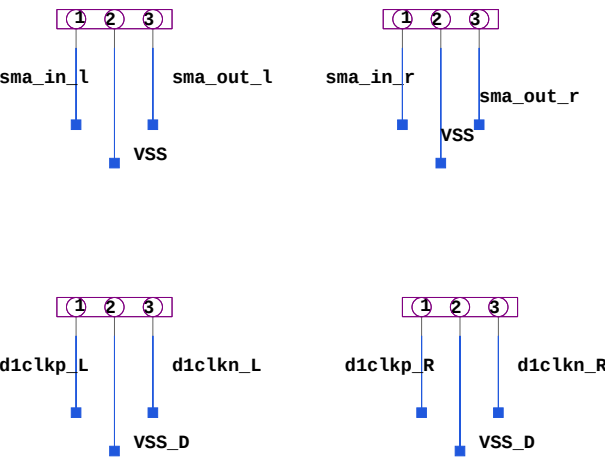
ASP-191865-01



Testpoints



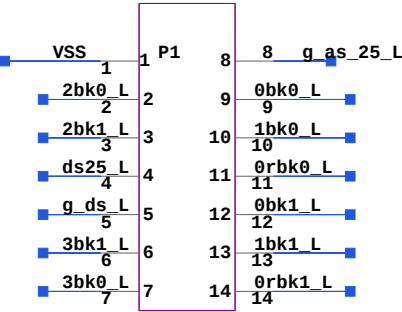
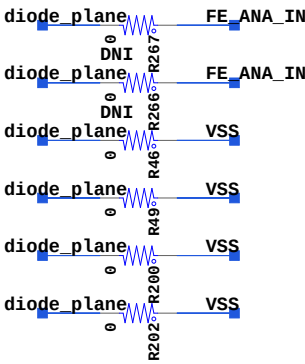
Ext. Monitor



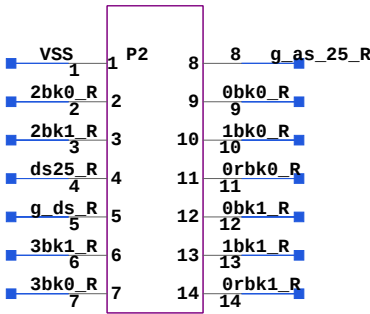
Input protection diode load options

load R266,267 for VDD

load R46,49,200,202 for VSS



internal LDO testpoints



4



2

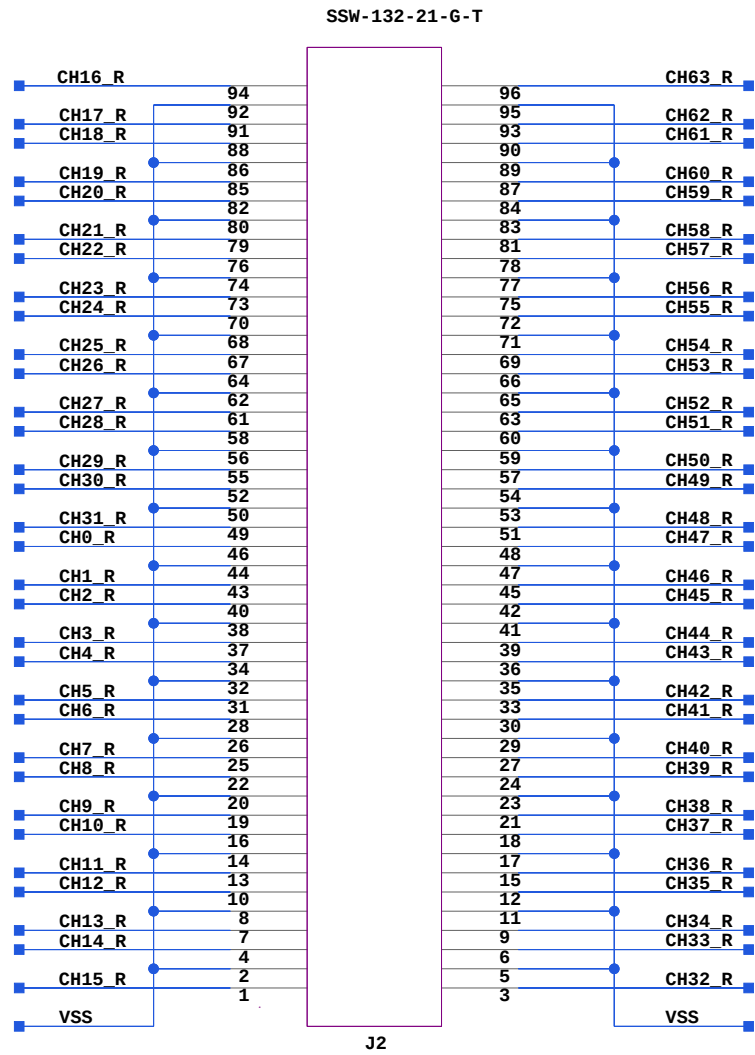
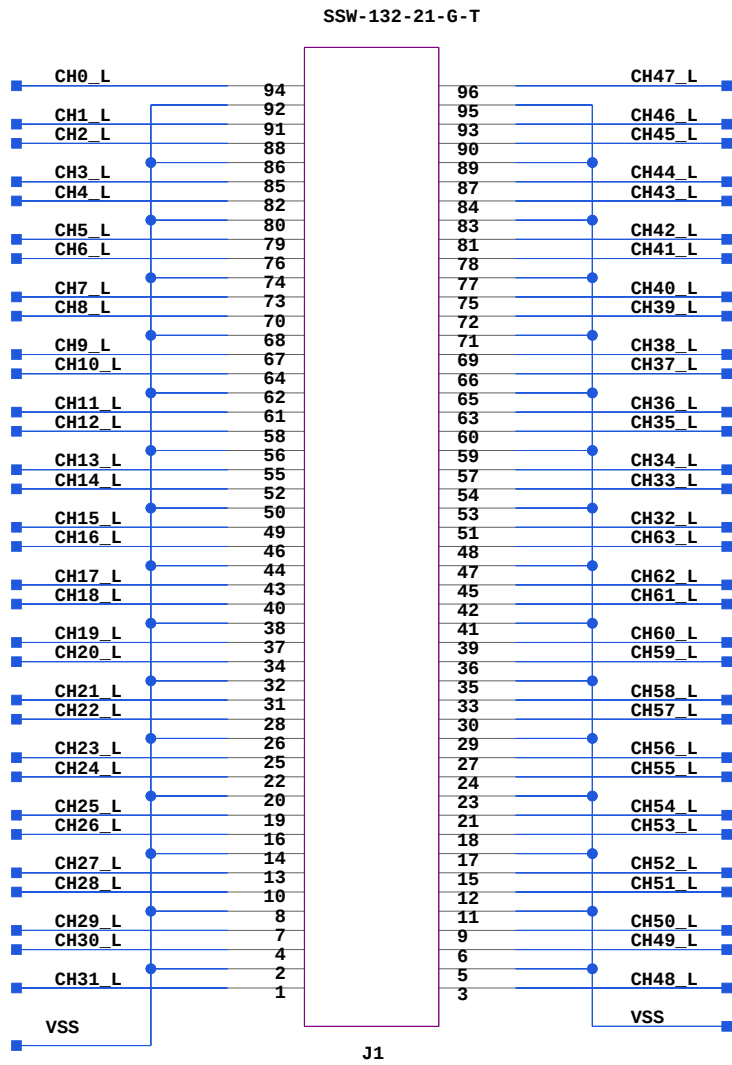


100

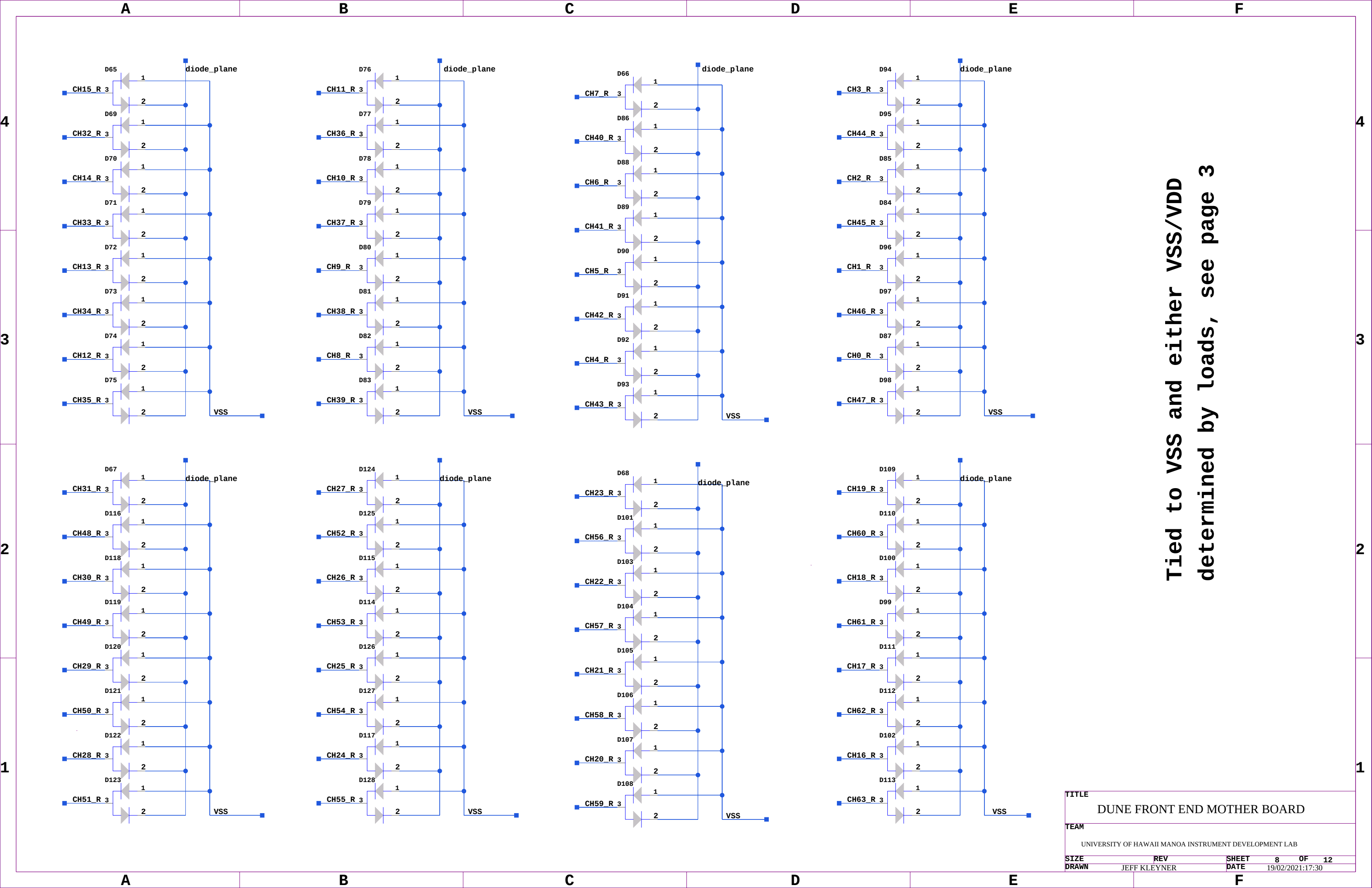
5

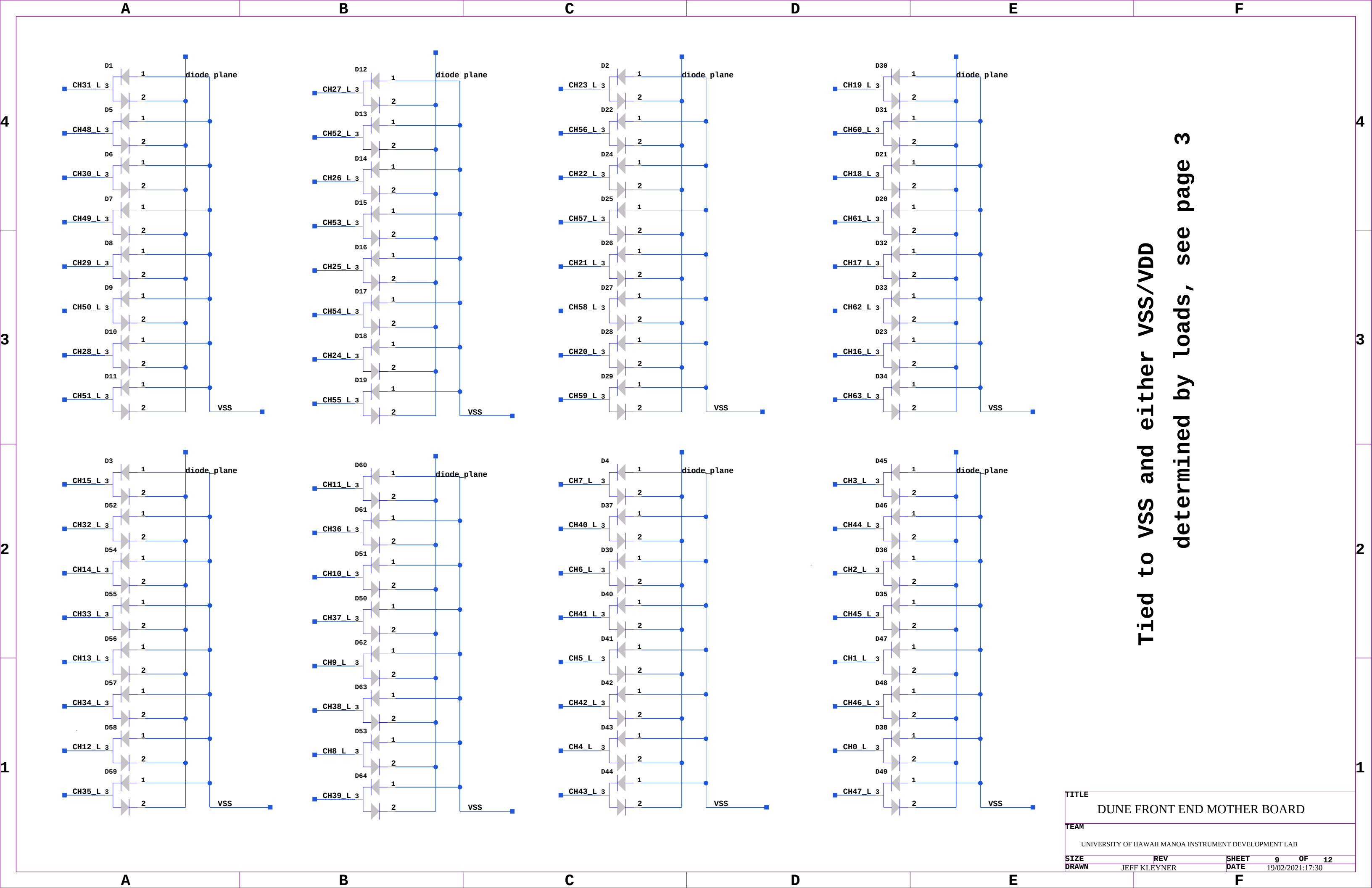
D

D



Input Signal Connectors





4

3

2

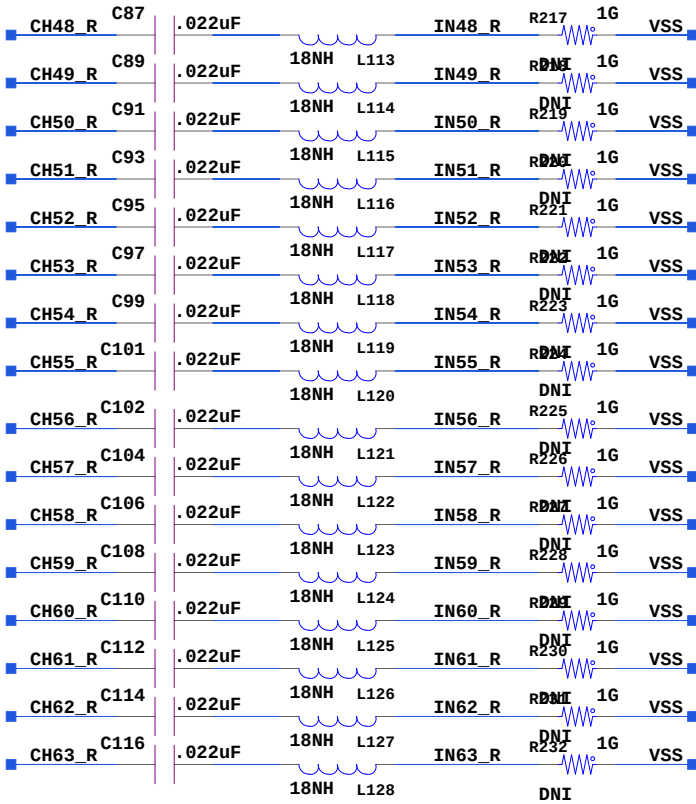
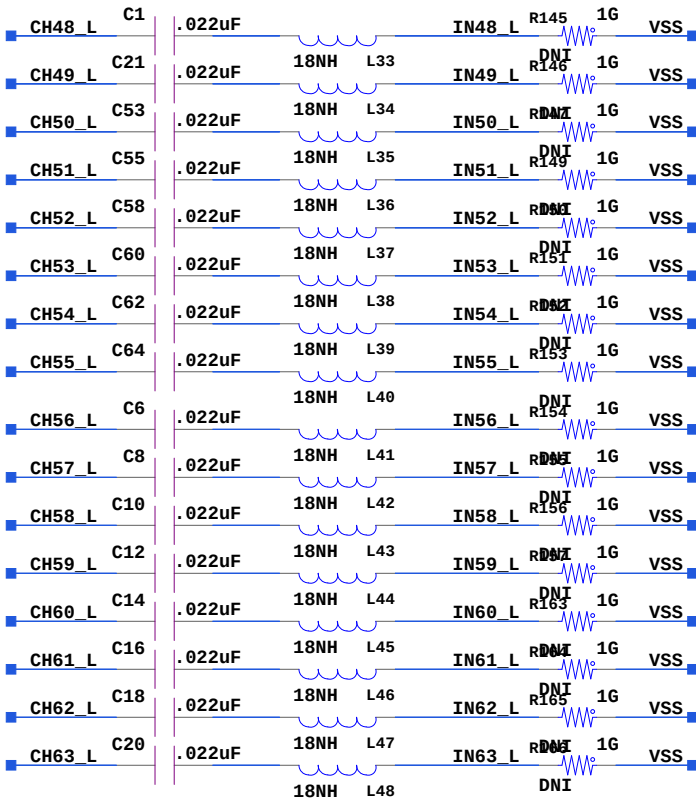
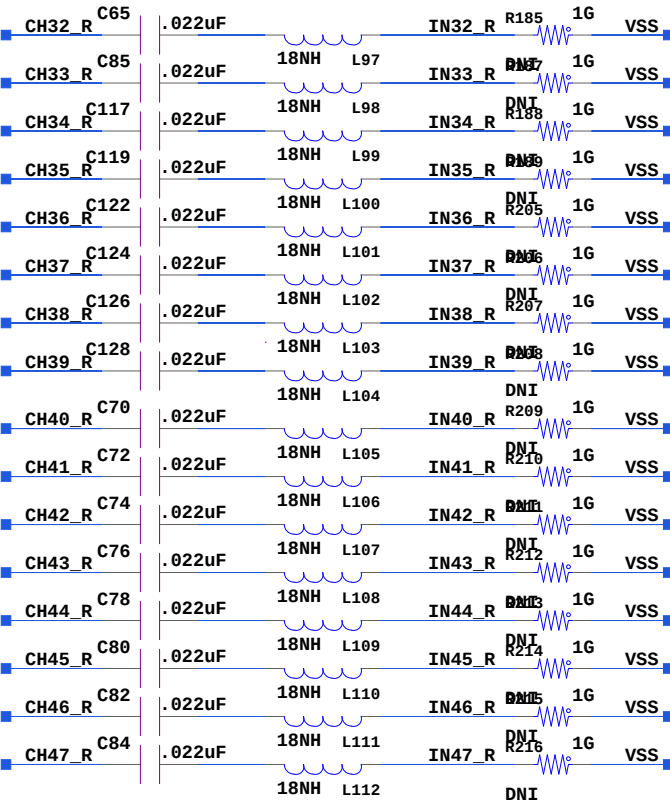
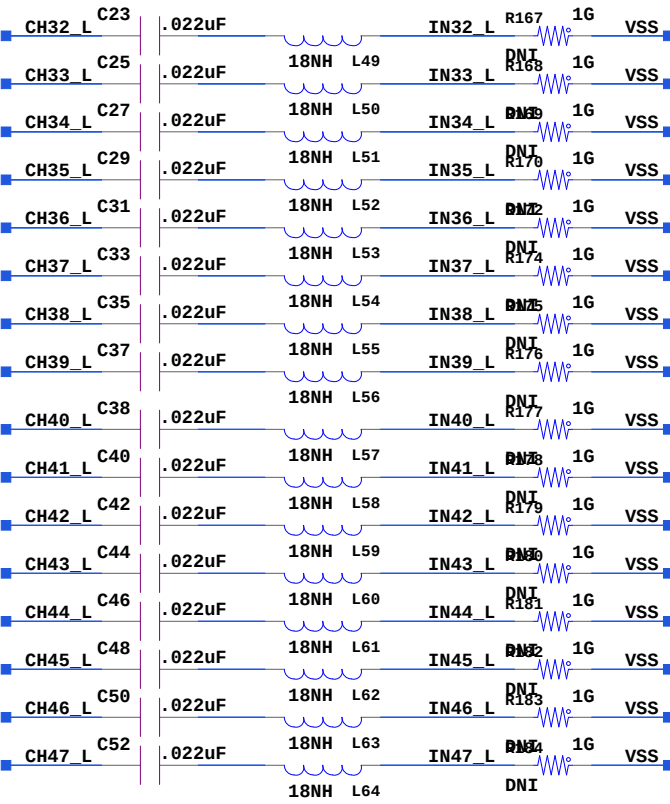
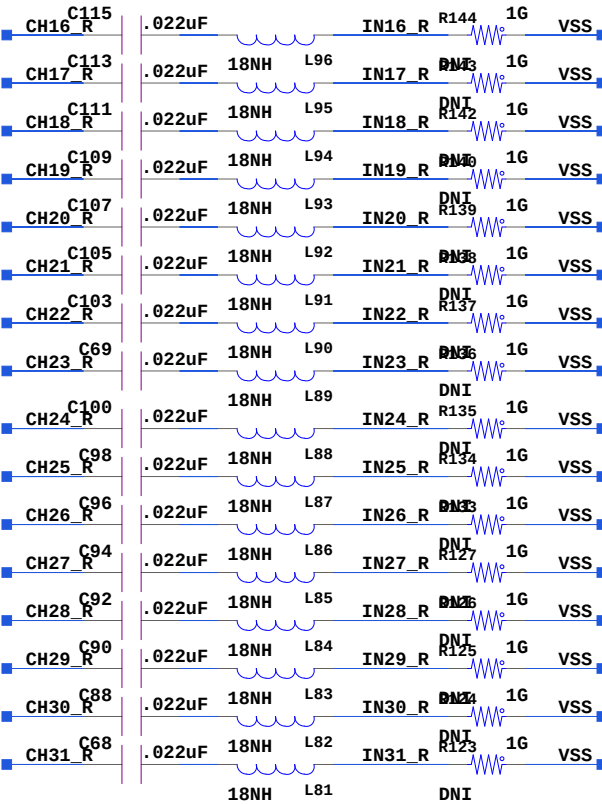
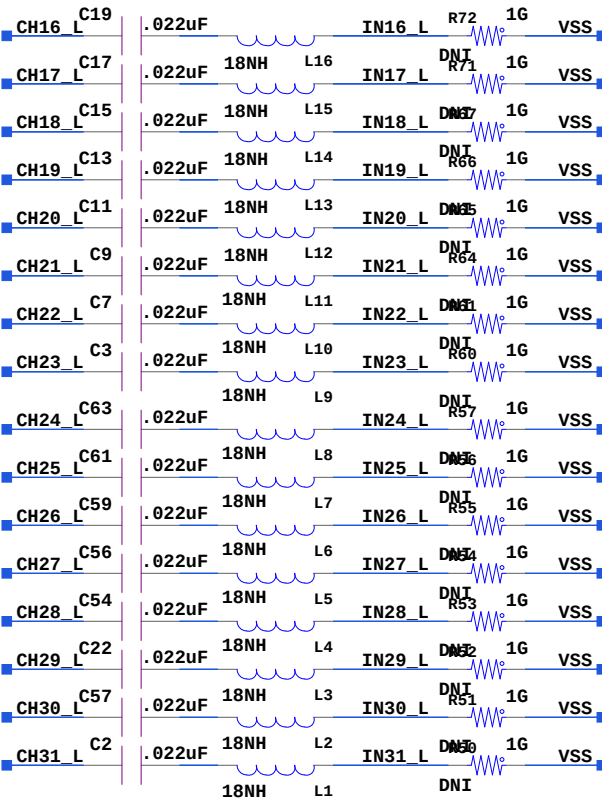
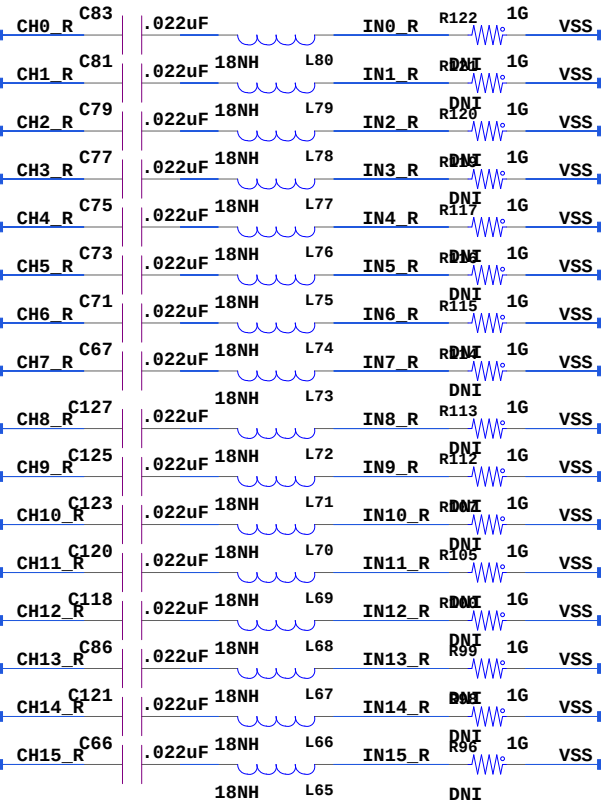
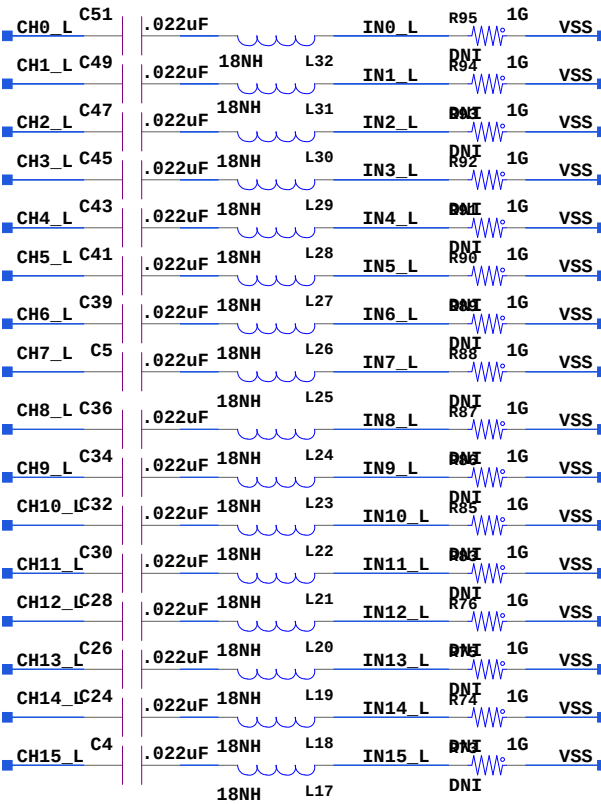
1

4

3

2

1



Input Protection channels

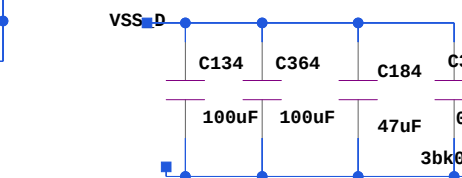
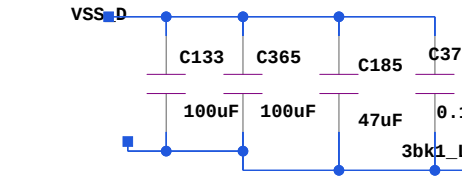
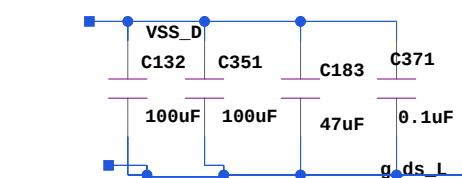
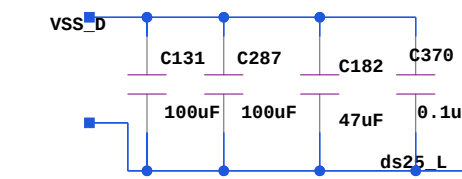
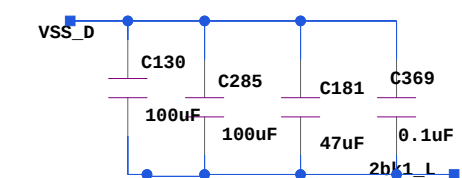
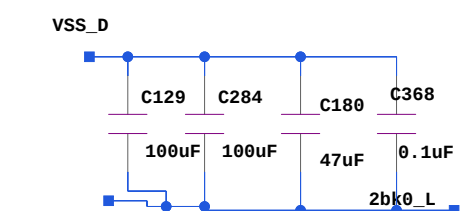
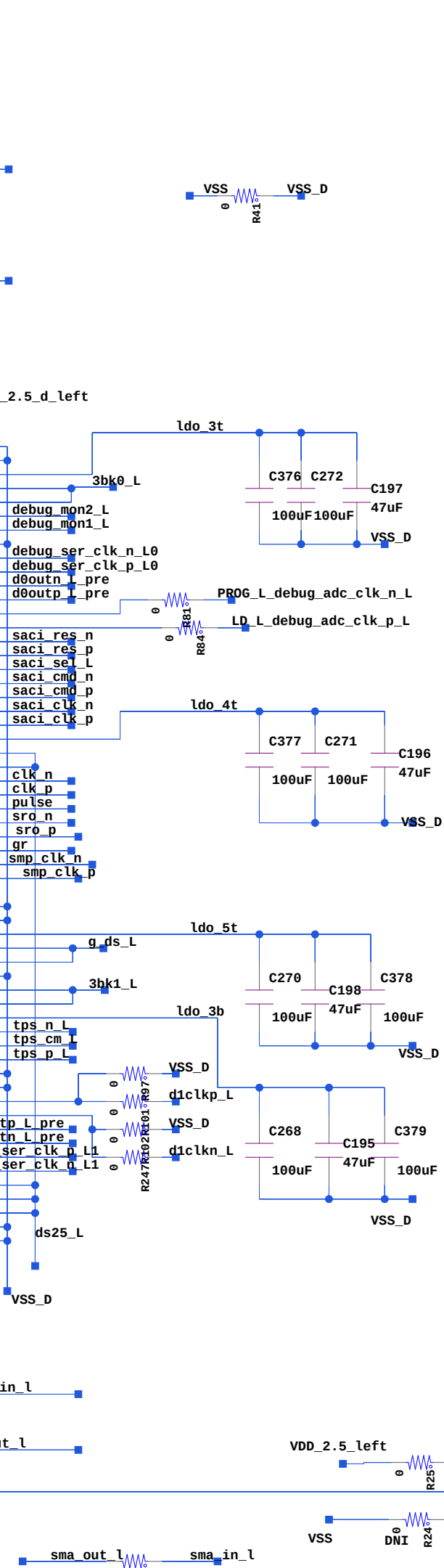
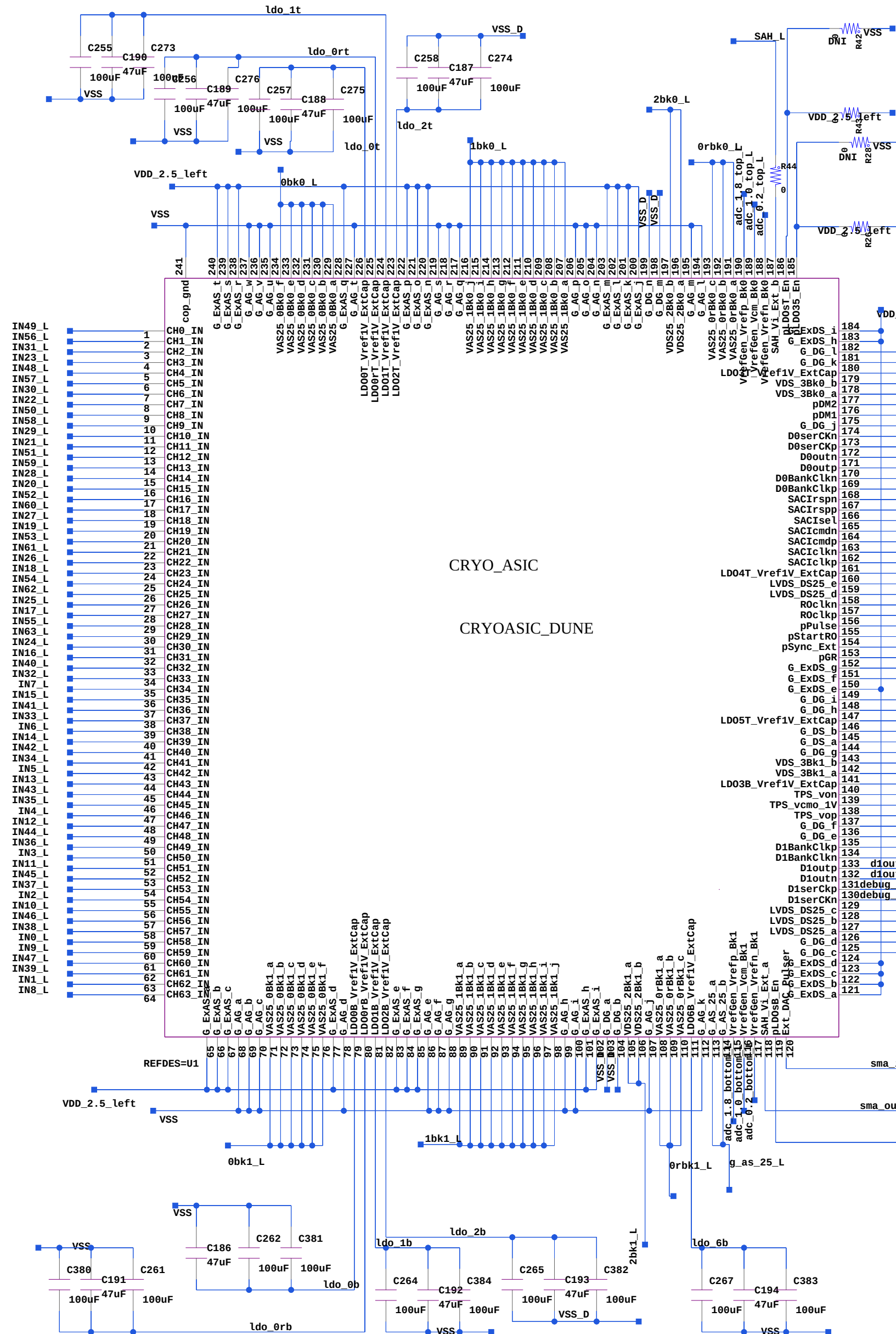
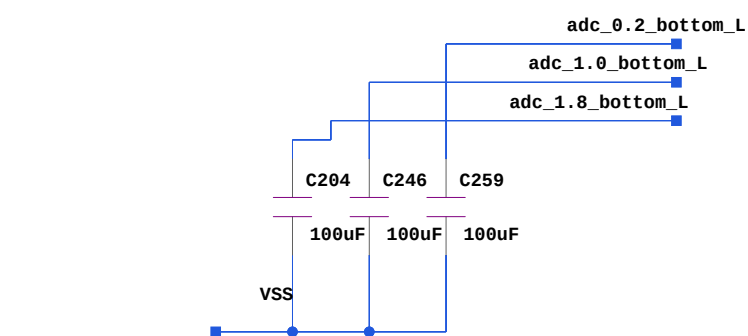
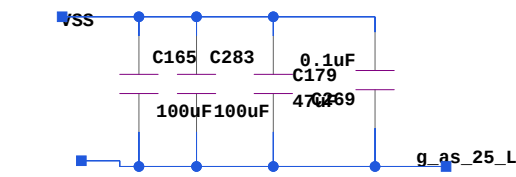
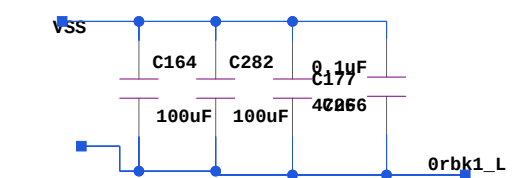
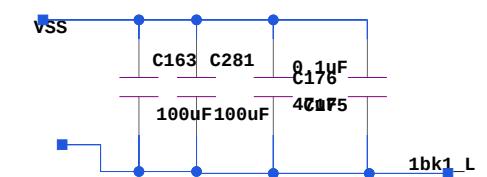
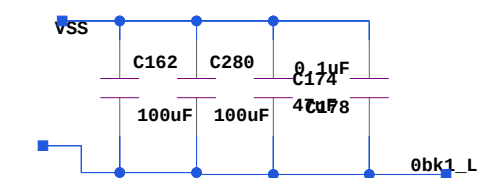
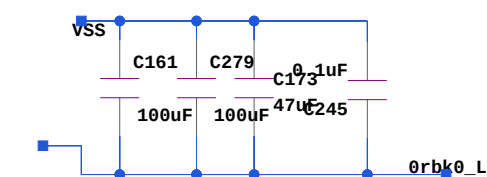
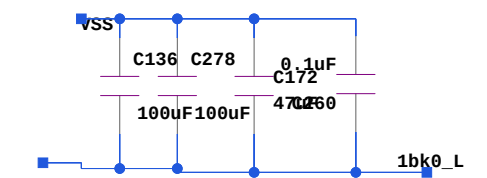
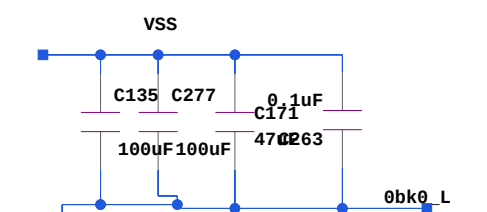
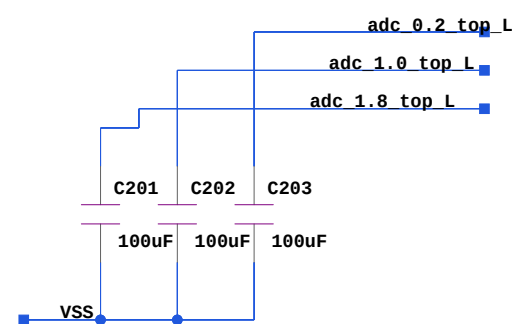
Resistors are not loaded, values of 1G

Note: Inductors are instead loaded by 0ohm R using same footprint

TITLE
DUNE FRONT END MOTHER BOARD

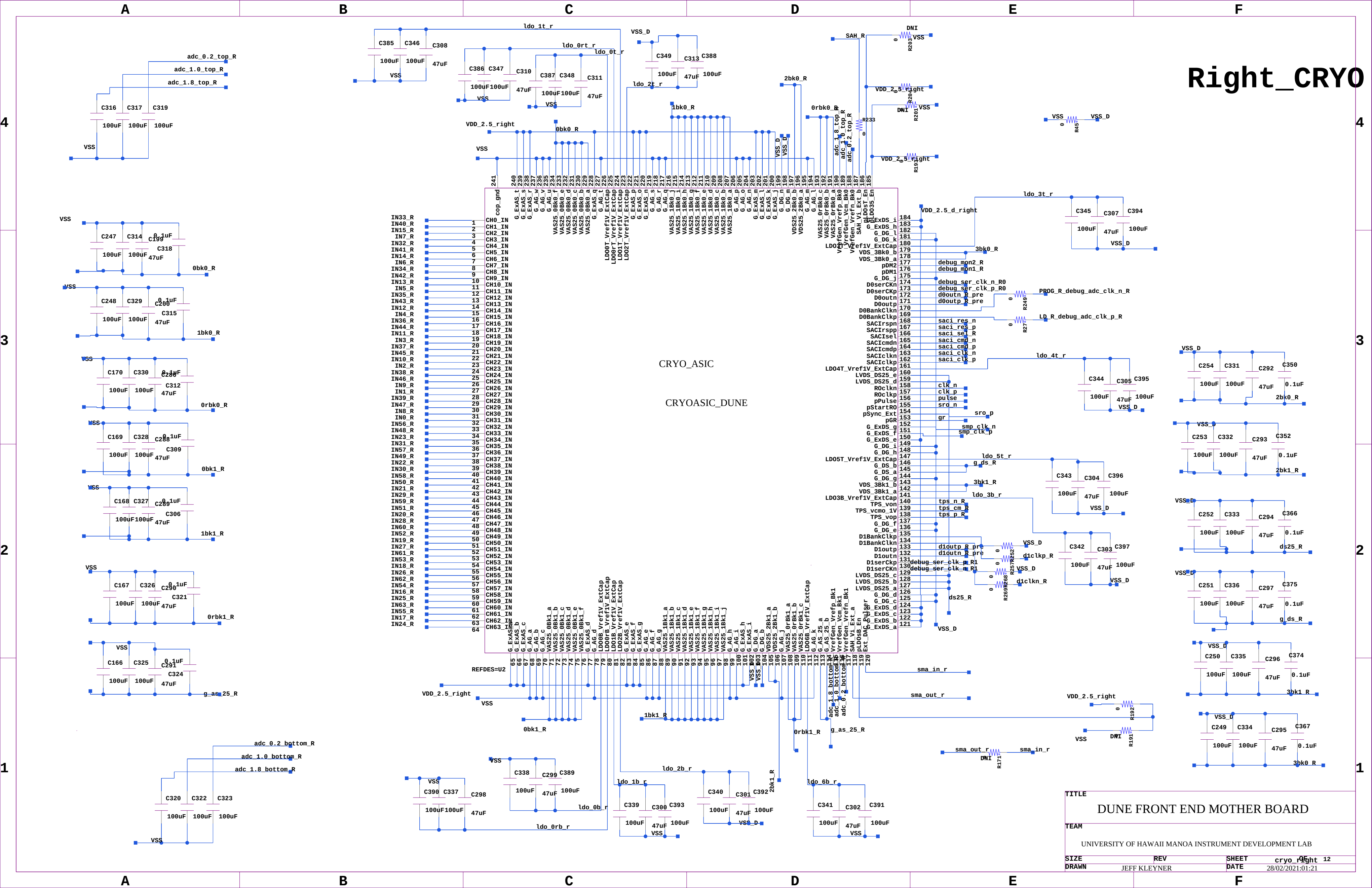
TEAM
UNIVERSITY OF HAWAII MANOA INSTRUMENT DEVELOPMENT LAB

SIZE REV SHEET 10 OF 12
DRAWN JEFF KLEYNER DATE 27/02/2021:22:06

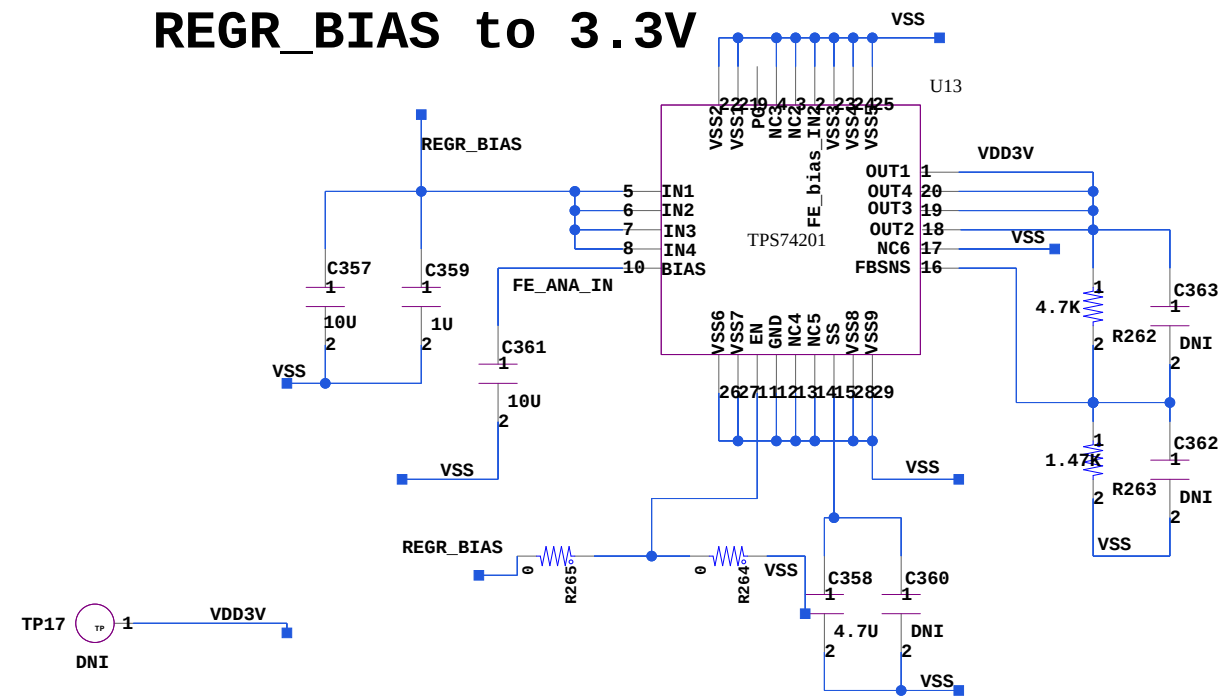


Left_CRYO

TITLE DUNE FRONT END MOTHER BOARD				
TEAM UNIVERSITY OF HAWAII MANOA INSTRUMENT DEVELOPMENT LAB				
SHEET	REV	SHEET	cryo_1ef	12
DRAWN	JEFF KLEYNER	DATE	28/02/2021:01:20	

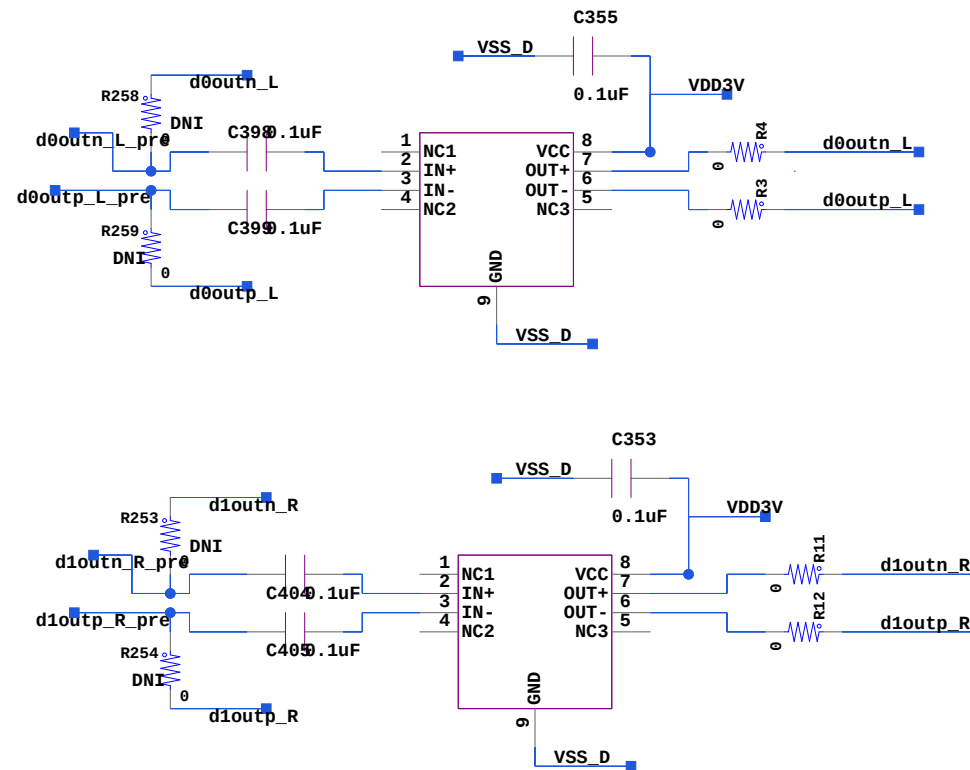
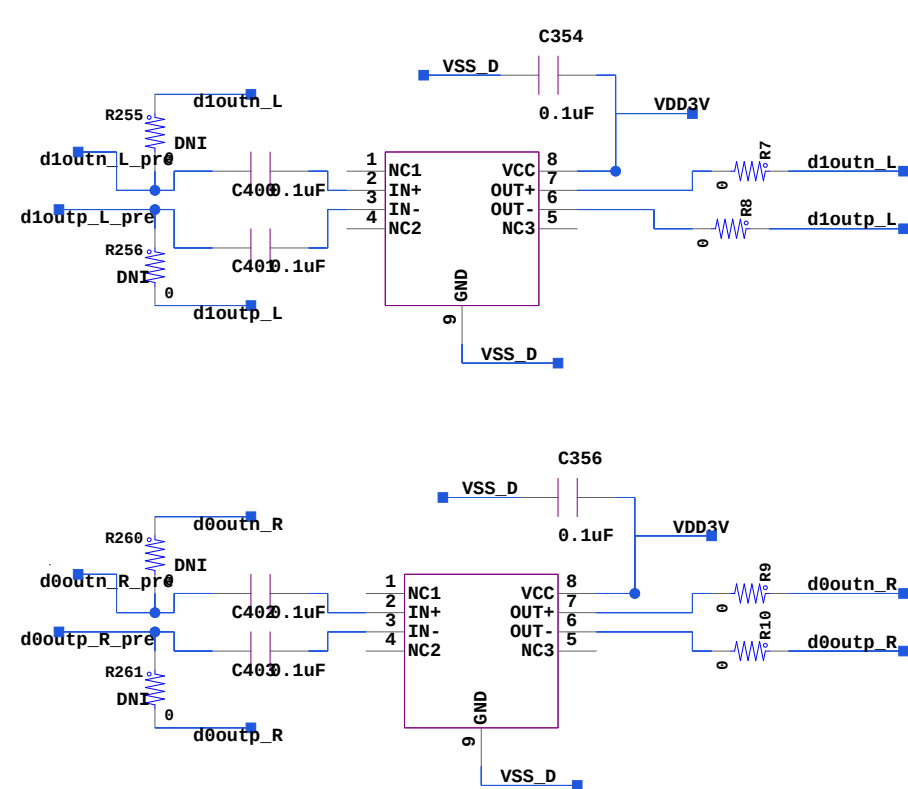


REGR_BIAS to 3.3V



LVDS Drivers

**Load R3,4,7,8,9,10,11,12 and C398,399,400,401,402,403,404,405 to use drivers
Instead load R253,254,255,256,258,259,260,261 to bypass drivers**



TITLE				
DUNE FRONT END MOTHER BOARD				
TEAM				
UNIVERSITY OF HAWAII MANOA INSTRUMENT DEVELOPMENT LAB				
SIZE	REV	SHEET	13	OF 12
DRAWN	JEFF KLEYNER	DATE	28/02/2021:18:19	