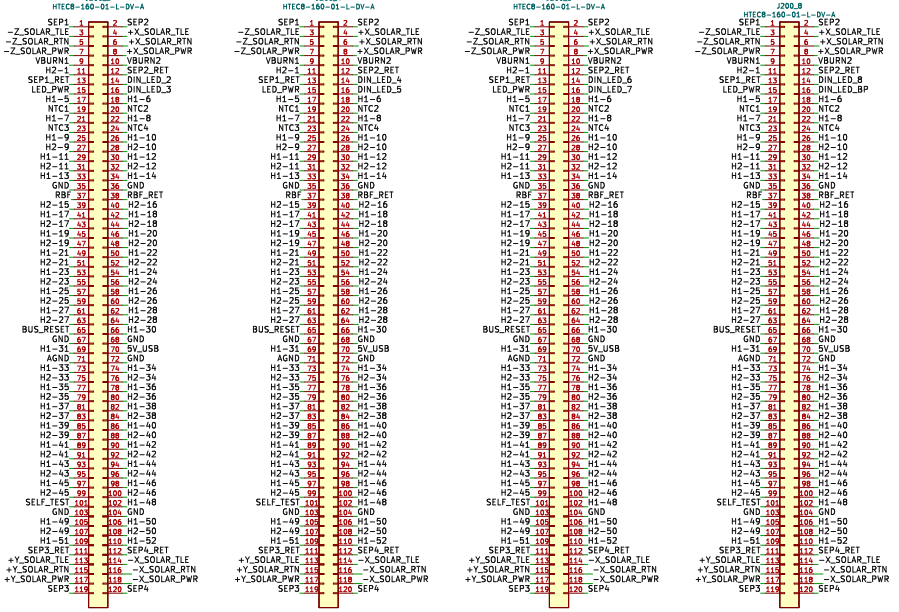
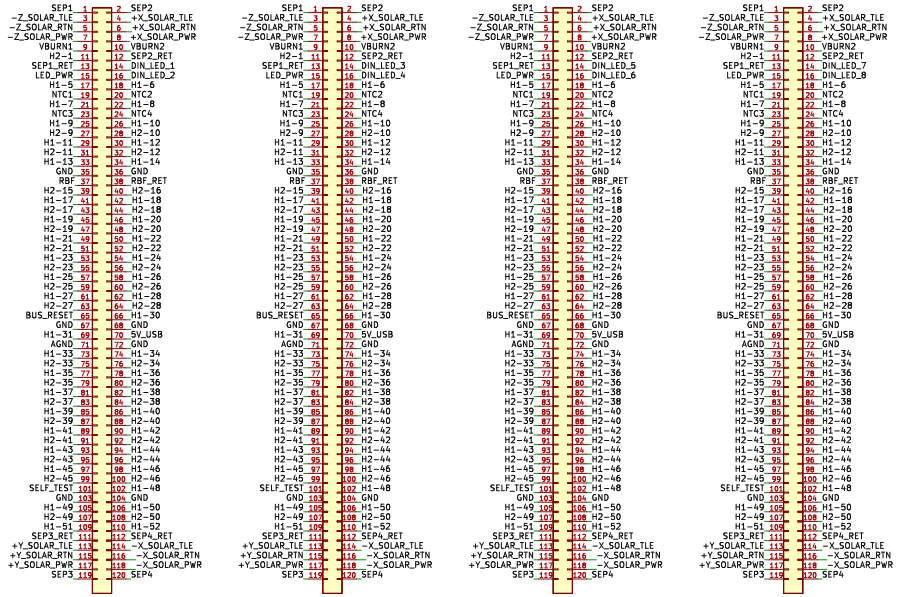
Bus Connectors



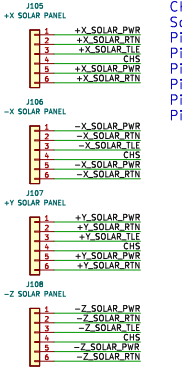


BACKPLANE CONNECTORS ARE NUMBERED FROM BOTTOM OF STACK
CONTACT RATING 2.8A PER PIN

COPPER THICKNESS: 2OZ
TRACE WIDTH: 0.5mm VIA SIZE: 0.2mm DRILL, 0.5mm PAD

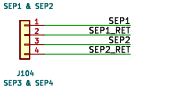
Solar Pinout Following
Pumpkin PN 710-00772

Solar Connectors

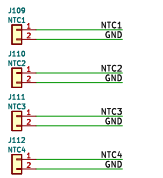


CK 6-1-23
Solar Panel
Pin 1 - POS
Pin 2 - RTN
Pin 3 - TLM
Pin 4 - NC
Pin 5 - NC
Pin 6 - NC

Seperation Switch Connectors

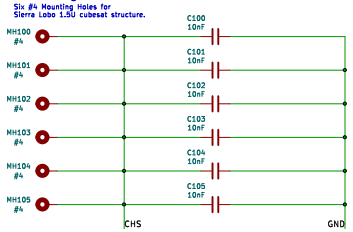


NTC Connectors



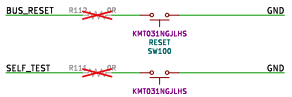
Mounting Holes

Six #4 Mounting Holes for
Sierra Labo 1.5U cubesat structure.



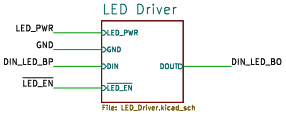
User Switches

Configure pin on controller to have an
internal pull up SELF_TEST input.

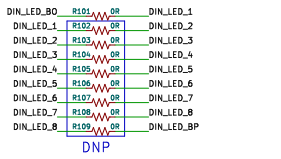


LEDs

SK6812-EC3210 (NeoPixel) LEDs.
Pull enable high at controller.
LEDs are configured in a ring,
with jumpers to bypass or terminate
the data signal.



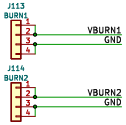
DIN_LED-DOUT_LED jumpers
install to bypass or stop data signal.



CHS, GND Jumper

RBF Jumper

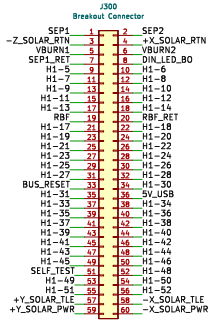
Burn Wire Connectors

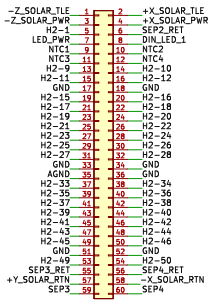


Breakout Connectors

Breakout connectors are only used for ground testing.
2.5A per pin.
trace width: 0.25mm
Via: 0.2mm drill, 0.5mm dia.

To connect breakout, connect male headers on rear of backplane
then connect breakout harness (Samtec SFSD-30-28-G-15.74-D-NUS)
Ensure harness is of "NUS" option for connecting to breakout.

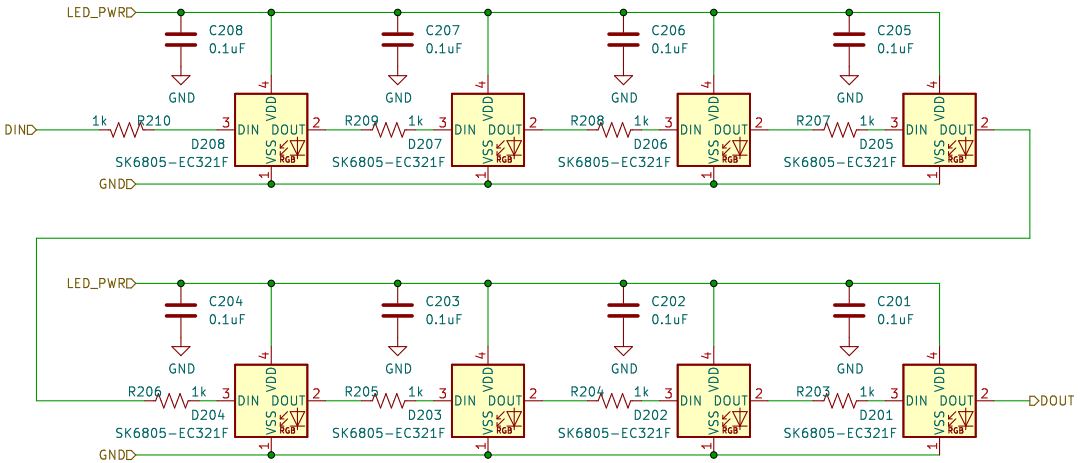




TECHNOLOGY DEVELOPMENT & ENGINEERING CENTER EAST 11401 HOOVER ROAD, MILAN, OHIO 44846			
TITLE: backplane			
SIZE: B	DWG NO.		REV: C
DRAWN BY: CH, CK	ENGINEER: CH, CK		2023-06-08
FILE NAME: backplane.kicad_sch	KiCad E.D.A. KiCad 7.0.1		SHEET 1 OF 2

Reverse-Mounted Addressable RGB LEDs (Neopixels)

shine THROUGH the the board



TECHNOLOGY DEVELOPMENT & ENGINEERING CENTER EAST 11401 HOOVER ROAD, MILAN, OHIO 44846				
TITLE: backplane				
SIZE: B	DWG NO.			REV: C
DRAWN BY	CH, CK	ENGINEER	CH, CK	2021-12-10
FILE NAME	LED_Driver.kicad_sch	KiCad E.D.A. kicad 7.0.1		SHEET 2 OF 2