Connectors & Uart Switch

J1
Conn_02x09_Odd_Even

TX To Module

J3
Conn_02x07_Odd_Even

RX From Module

Data Return Path

GND
GND
+12V

GND
+12V

GND
GND
+5V
+12V

+5V

U2A 74LVC1G66

U2B 74LVC1G66

+5V
1
2
VCC GND
5
3

4
C2
100nF

R1
10K

J2
Conn_02x09_Odd_Even

GND
GND
+12V

+12V

Row End Switching circuit:

When this "Top Connector" board is the last board in the row:
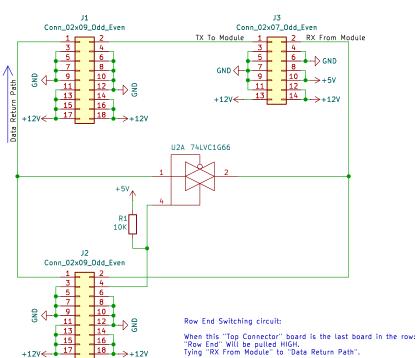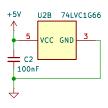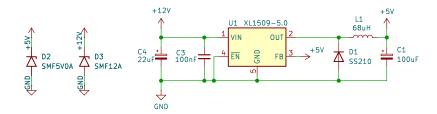"Row End" Will be pulled HIGH.
Tying "RX From Module" to "Data Return Path".

When this "Top Connector" board is NOT the last board in the row:
"Row End" Will be pulled LOW.
Disconnecting "RX From Module" from "Data Return Path".

Power DC/DC
12V To 5V 2A Buck convertor.

+5V
D2
SMF5V0A
GND

+12V
D3
SMF12A
GND

+12V

U1 XL1509-5.0

+5V

L1
68uH

C4
22uF
C3
100nF

VIN   OUT
EN   FB
GND

+5V

D1
SS210

C1
100uF

GND

Title: Top Connector

Size: A4 | Date: 2025-09-01 | **Rev: 3.0.0**
KiCad E.D.A. 8.0.6 | | Id: 1/1

H1
MountingHole

+12V
+5V
GND