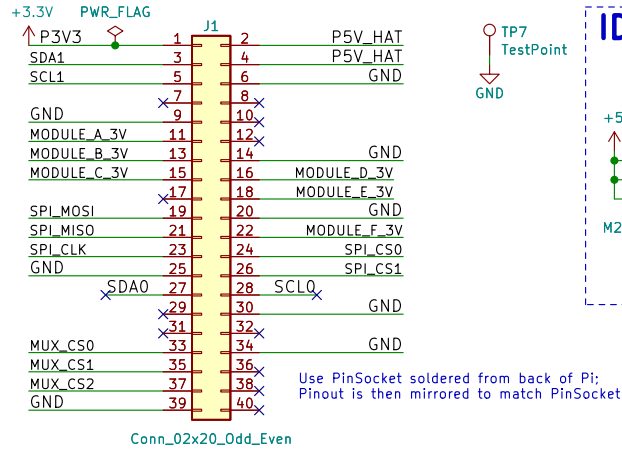
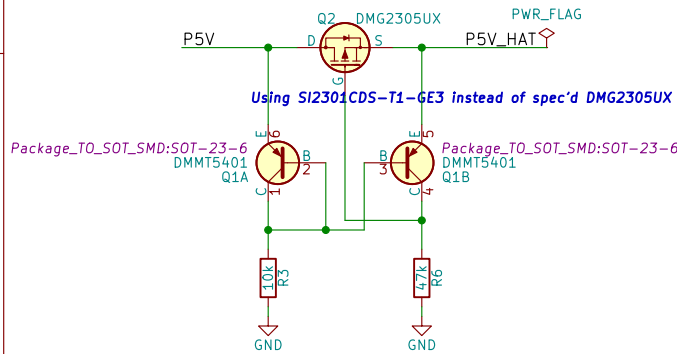


## 40-Pin HAT Connector

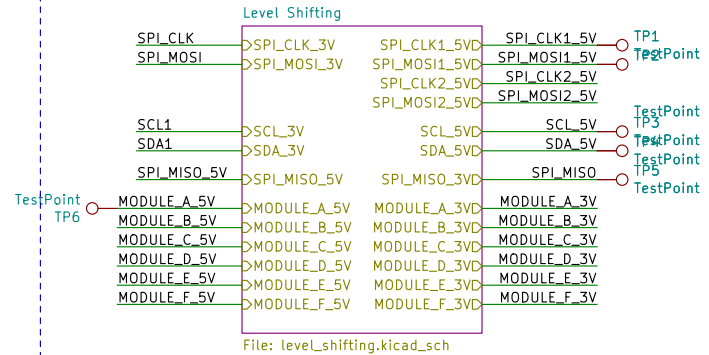


## 5V Powered HAT Protection

This is the recommended 5V rail protection for a HAT with power going to the Pi.

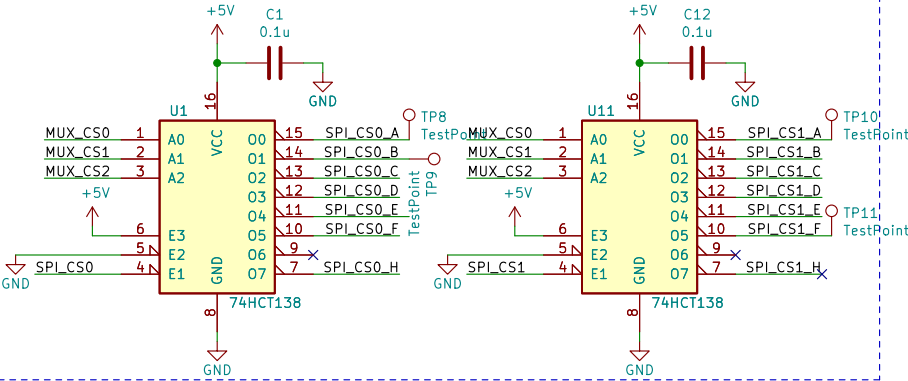


## Level Shifting

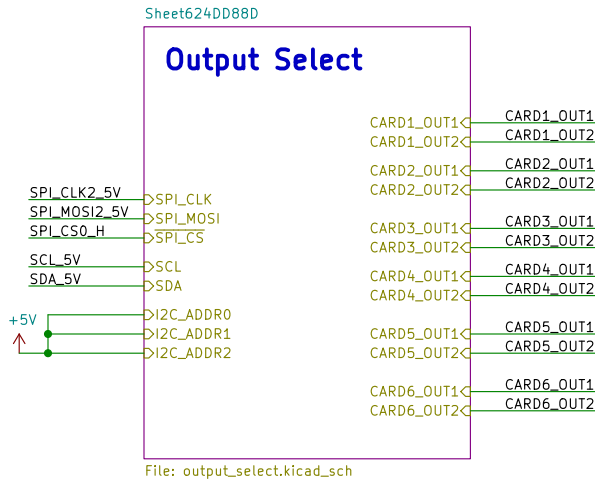


## Chip Select w/ Level Shift

SPI Chip Select Multiplexed via GPIO; use HCT part



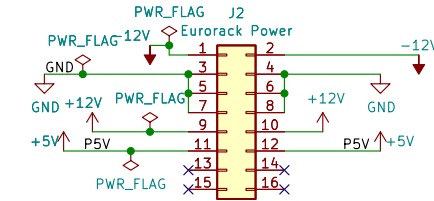
## Output Select



## Mounting Holes



## Euro rack Power Connector



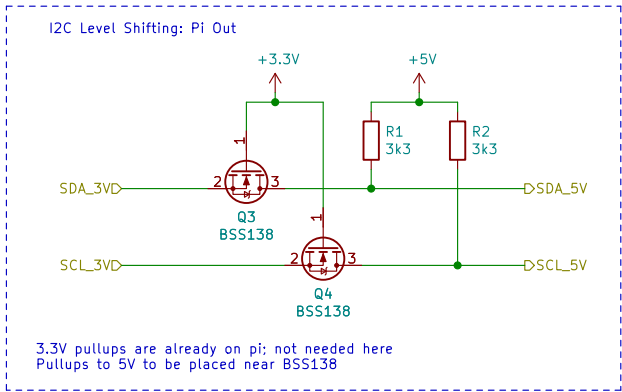
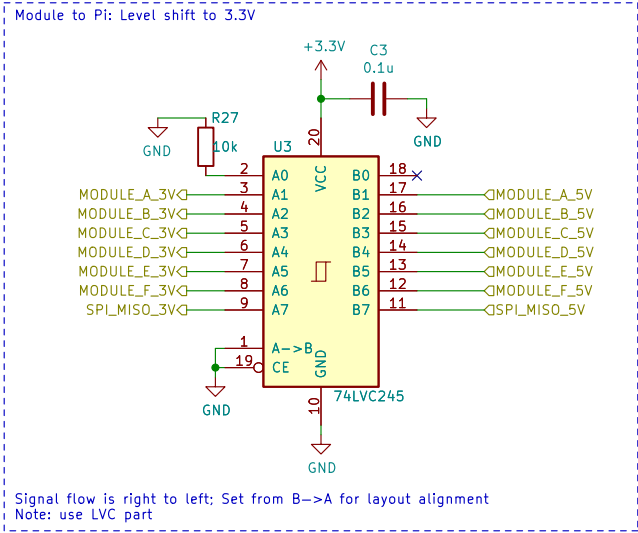
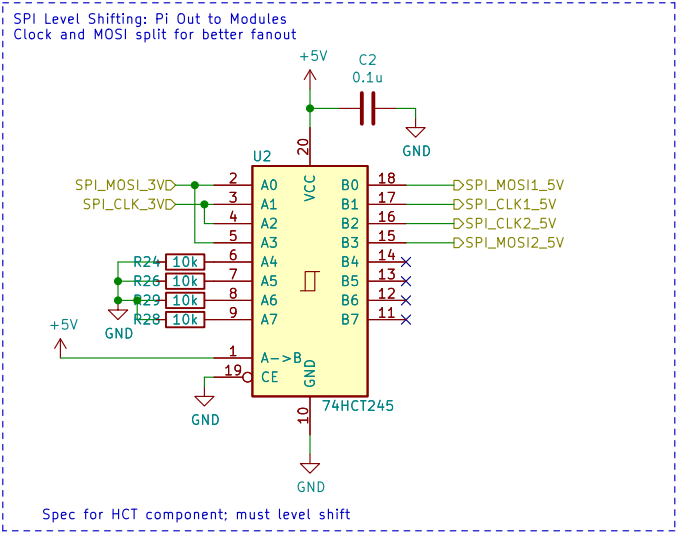
Zoxnoxious Engineering

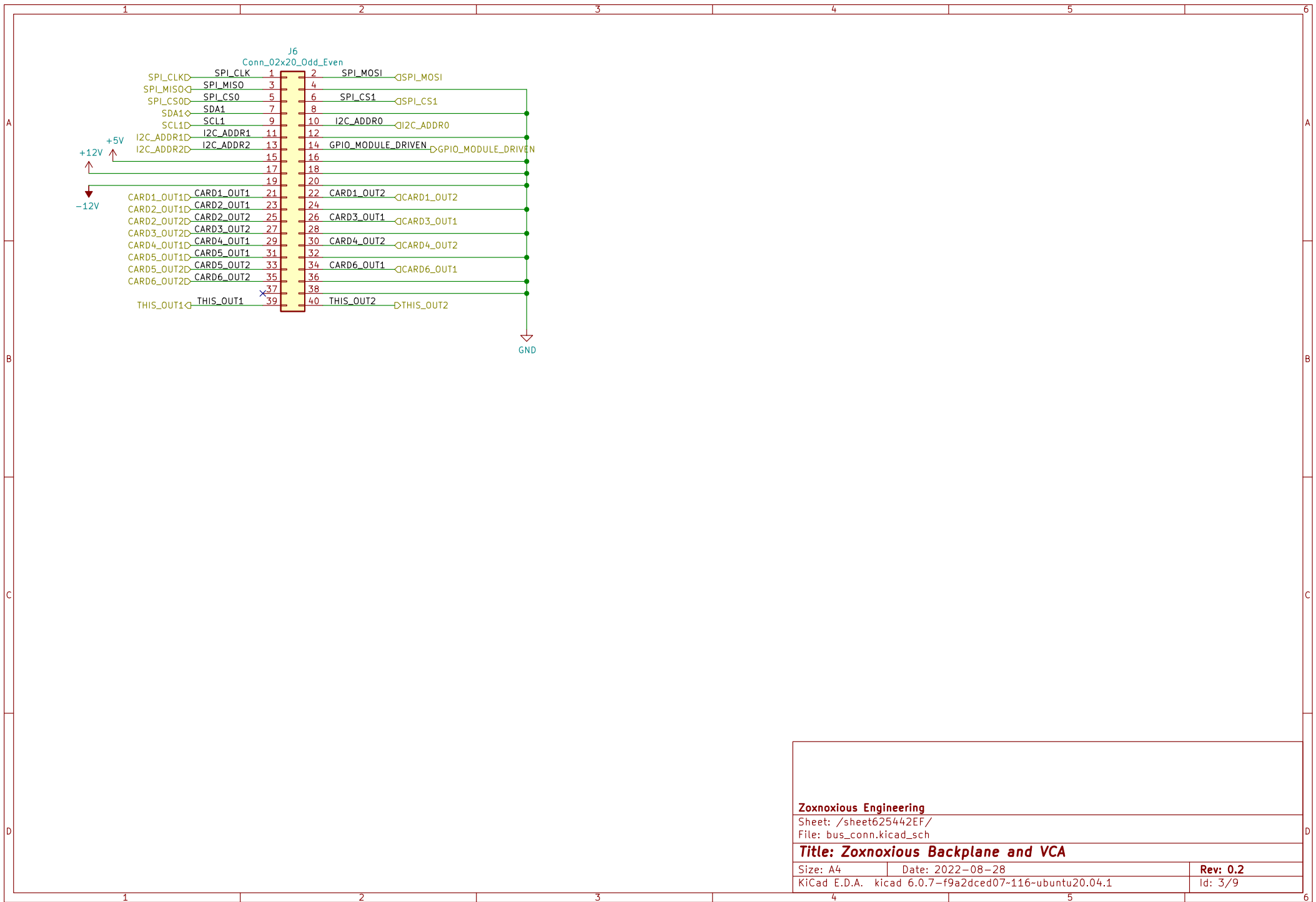
Sheet: /  
File: vca\_backplane.kicad\_sch

Title: Zoxnoxious Backplane and VCA

Size: B Date: 2022-08-28  
KiCad E.D.A. kicad 6.0.7-f9a2dced07-116-ubuntu20.04.1

Rev: 0.2  
Id: 1/9





**Zoxnoxious Engineering**

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File: bus\_conn.kicad\_sch

**Title: Zoxnoxious Backplane and VCA**

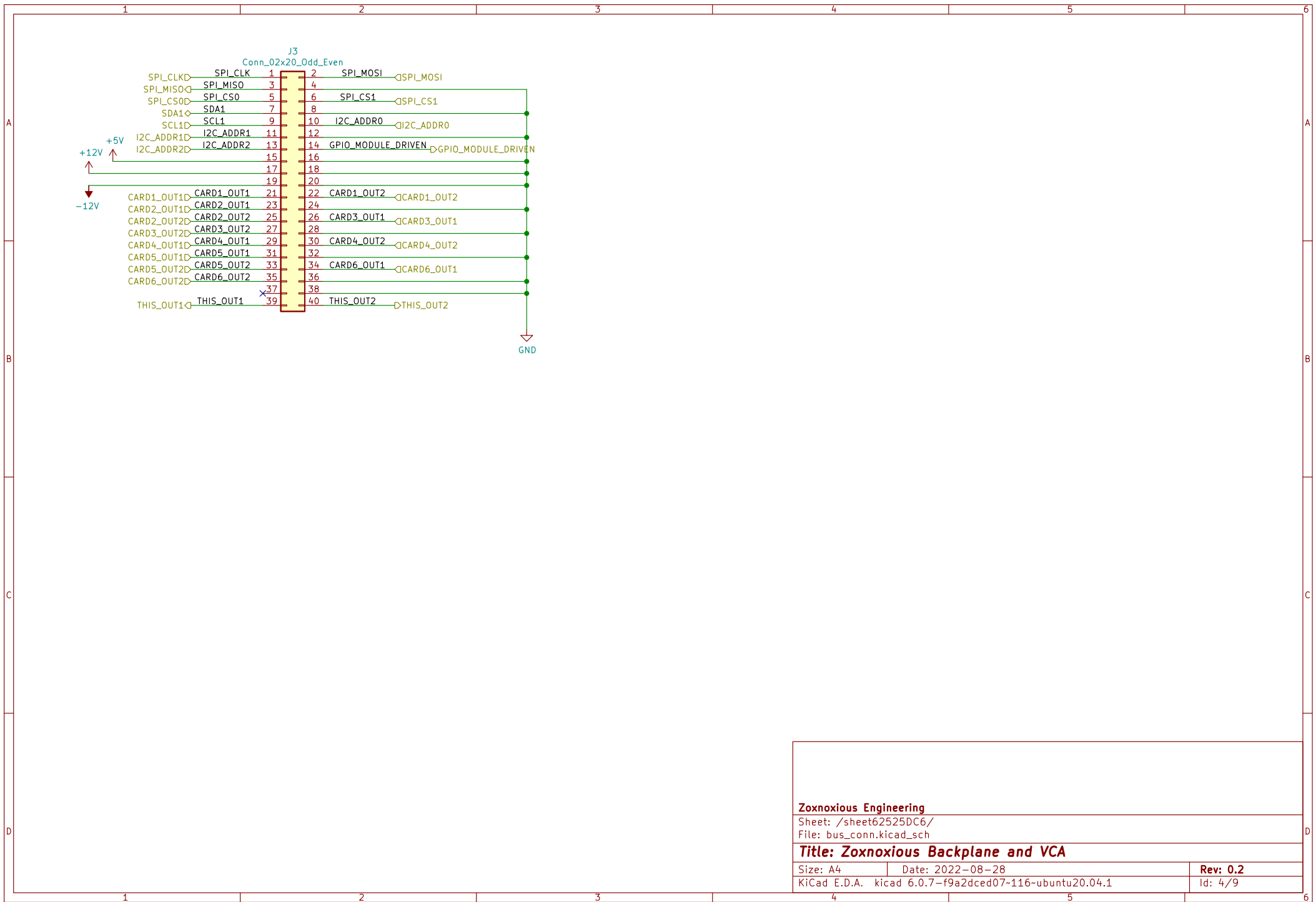
Size: A4

Date: 2022-08-28

Rev: 0.2

KiCad E.D.A. kicad 6.0.7-f9a2dc07-116-ubuntu20.04.1

Id: 3/9



**Zoxnoxious Engineering**

Sheet: /sheet62525DC6/

File: bus\_conn.kicad\_sch

**Title: Zoxnoxious Backplane and VCA**

Size: A4

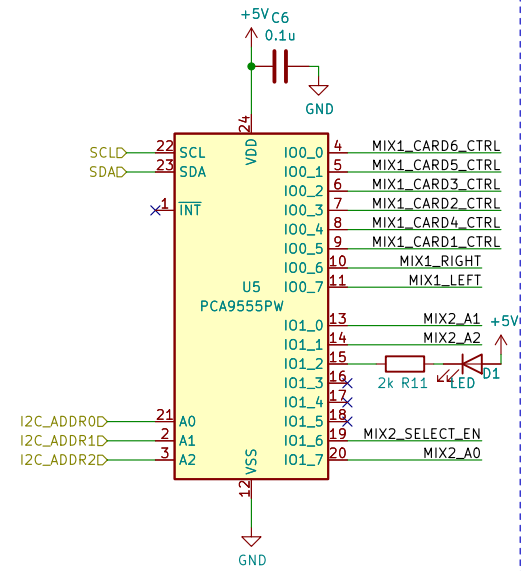
Date: 2022-08-28

Rev: 0.2

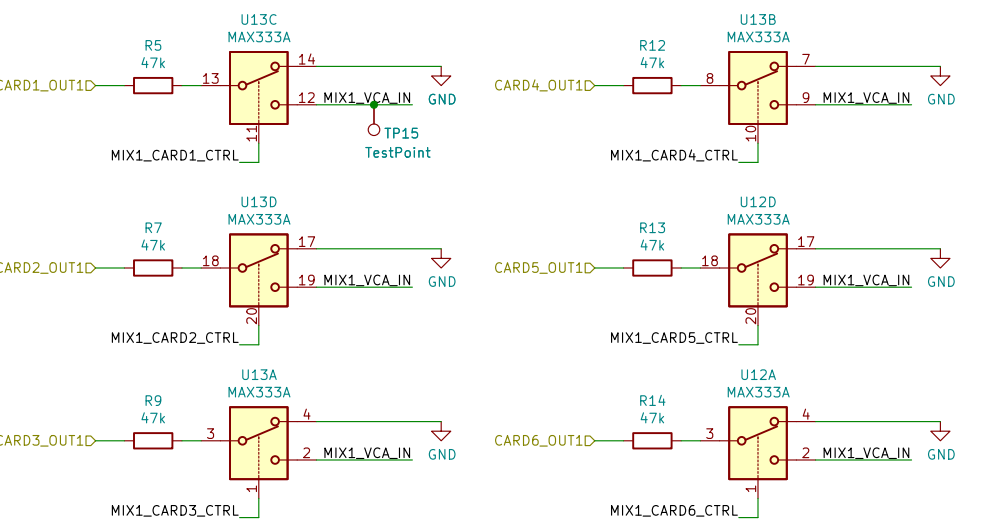
KiCad E.D.A. kicad 6.0.7-f9a2dcad07-116-ubuntu20.04.1

Id: 4/9

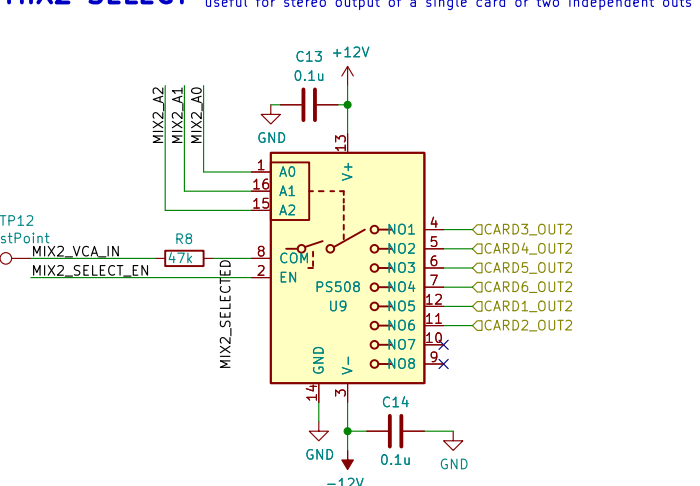
Control Lines "Patch Select"



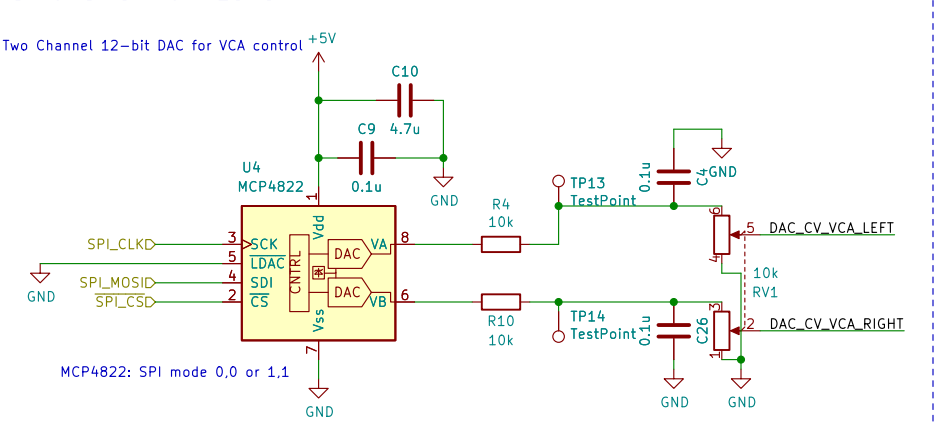
MIX1 SELECT



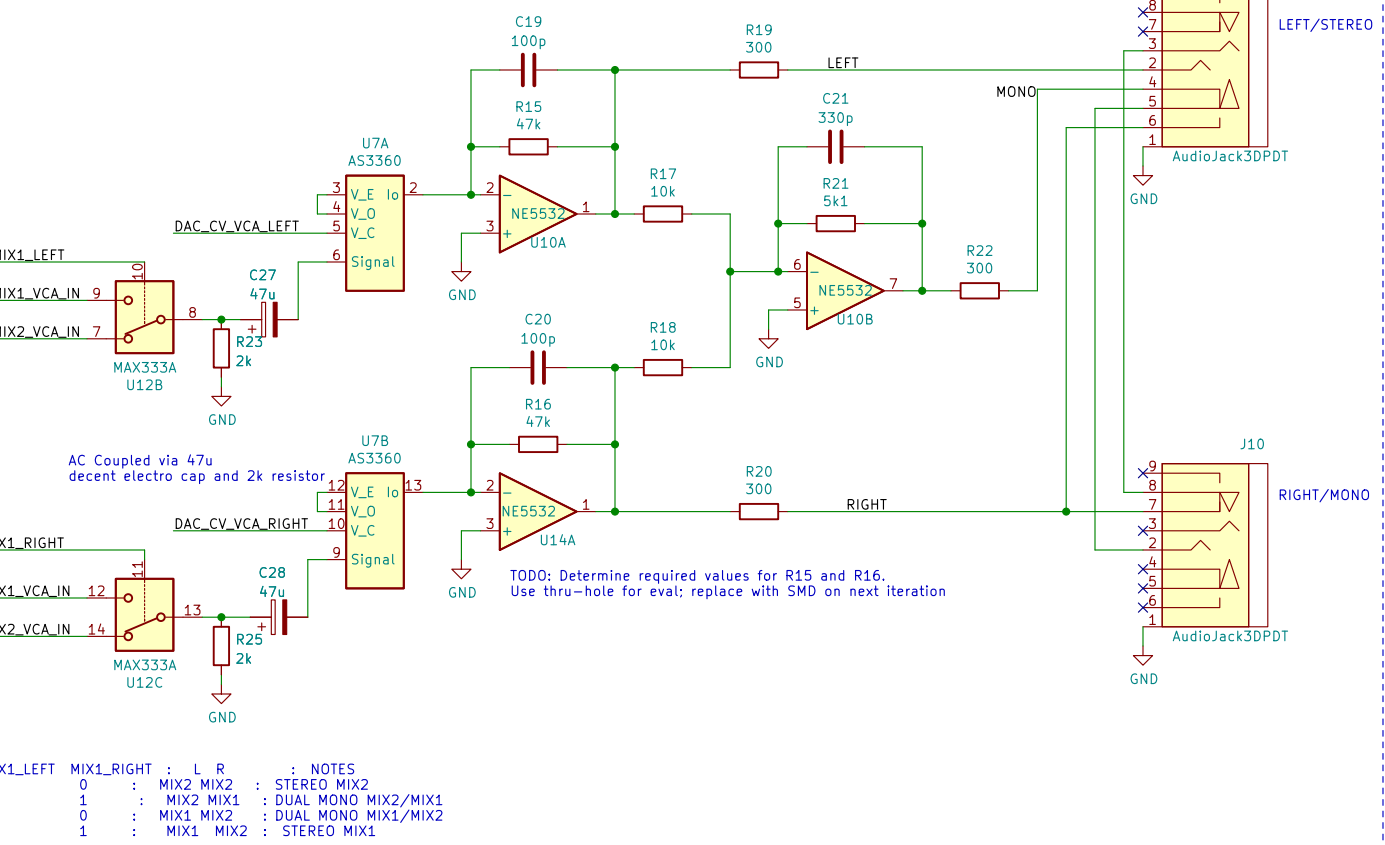
MIX2 SELECT



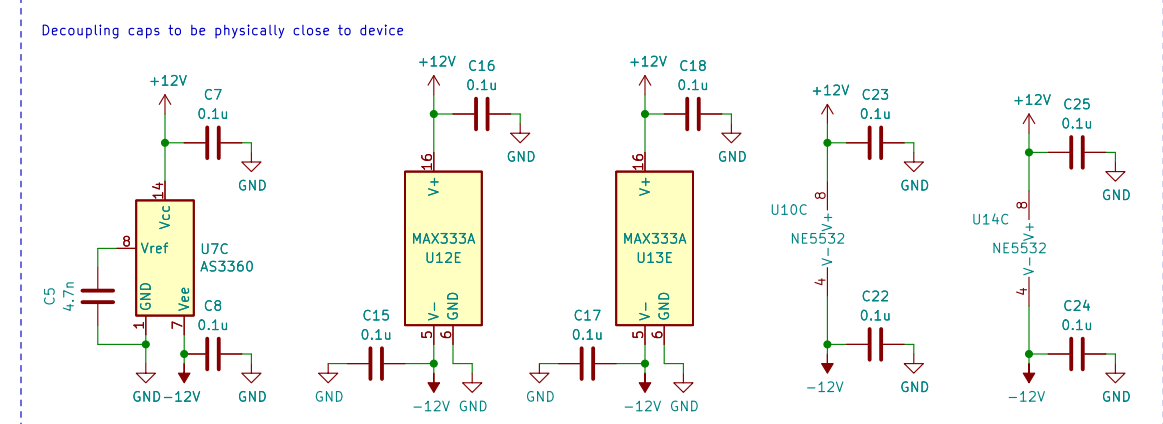
DAC and VCA Level

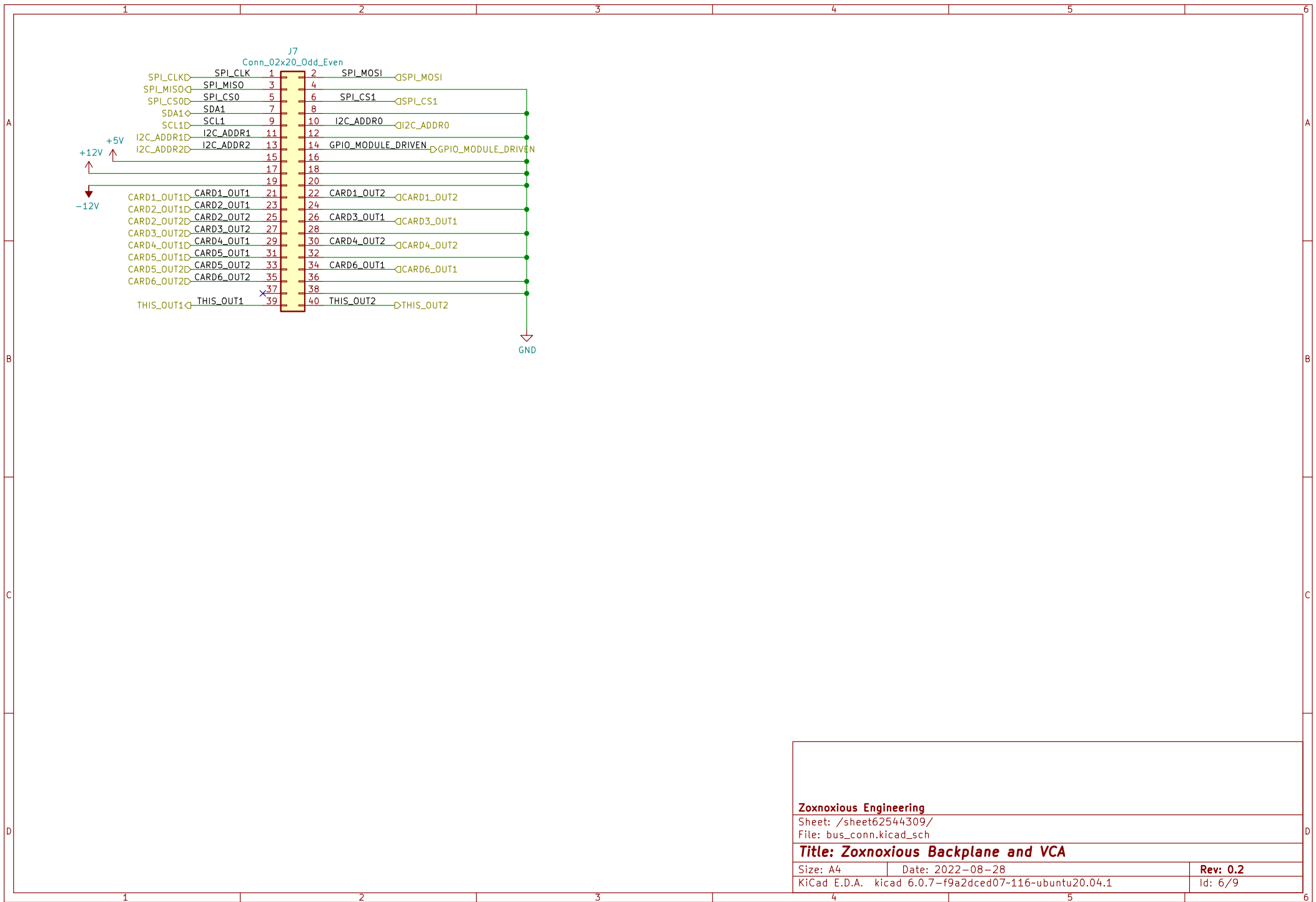


OUTPUT SWITCHING



DECOUPLING CAPS





**Zoxnoxious Engineering**

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File: bus\_conn.kicad\_sch

**Title: Zoxnoxious Backplane and VCA**

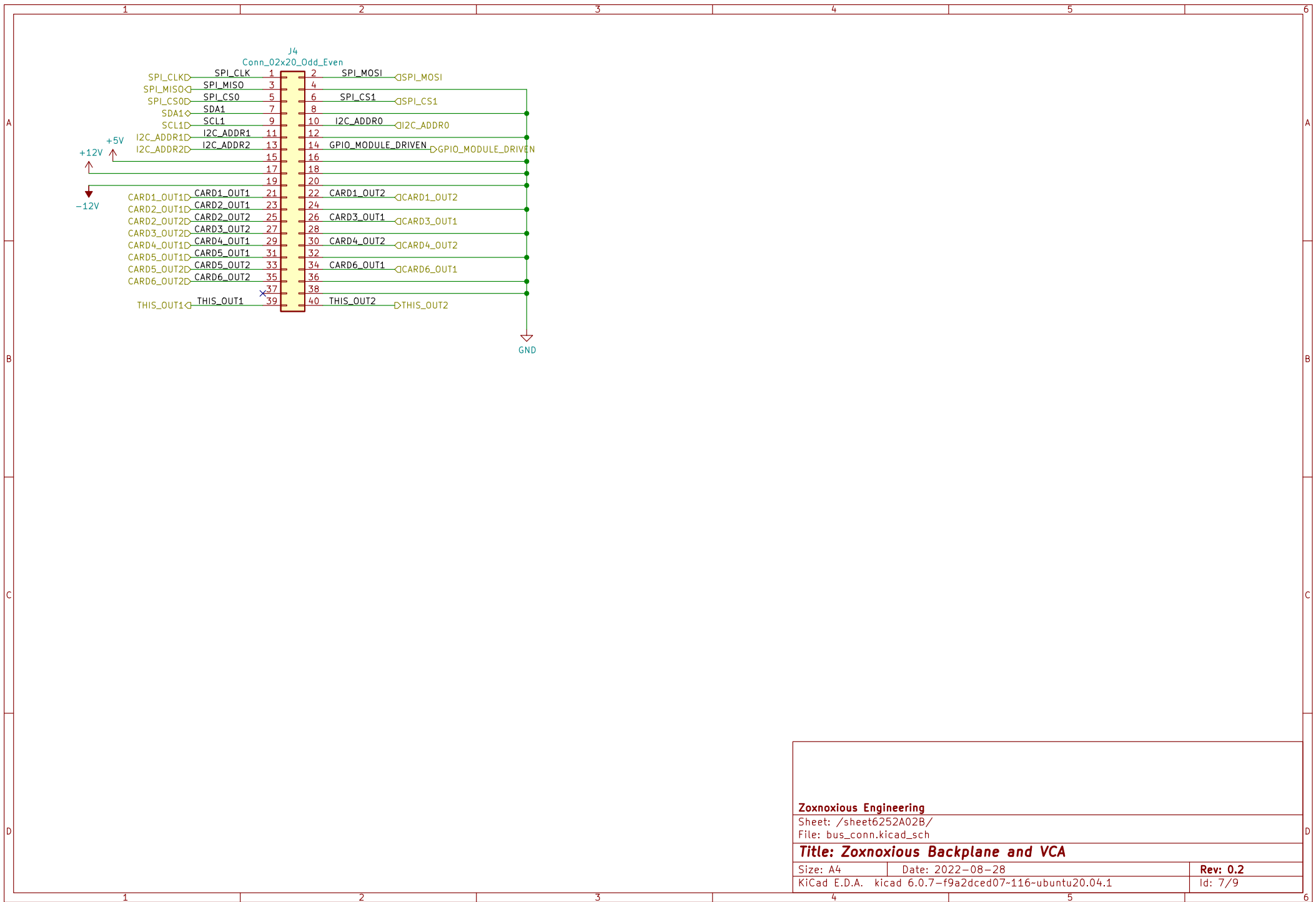
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Date: 2022-08-28

Rev: 0.2

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Id: 6/9



**Zoxnoxious Engineering**

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**Title: Zoxnoxious Backplane and VCA**

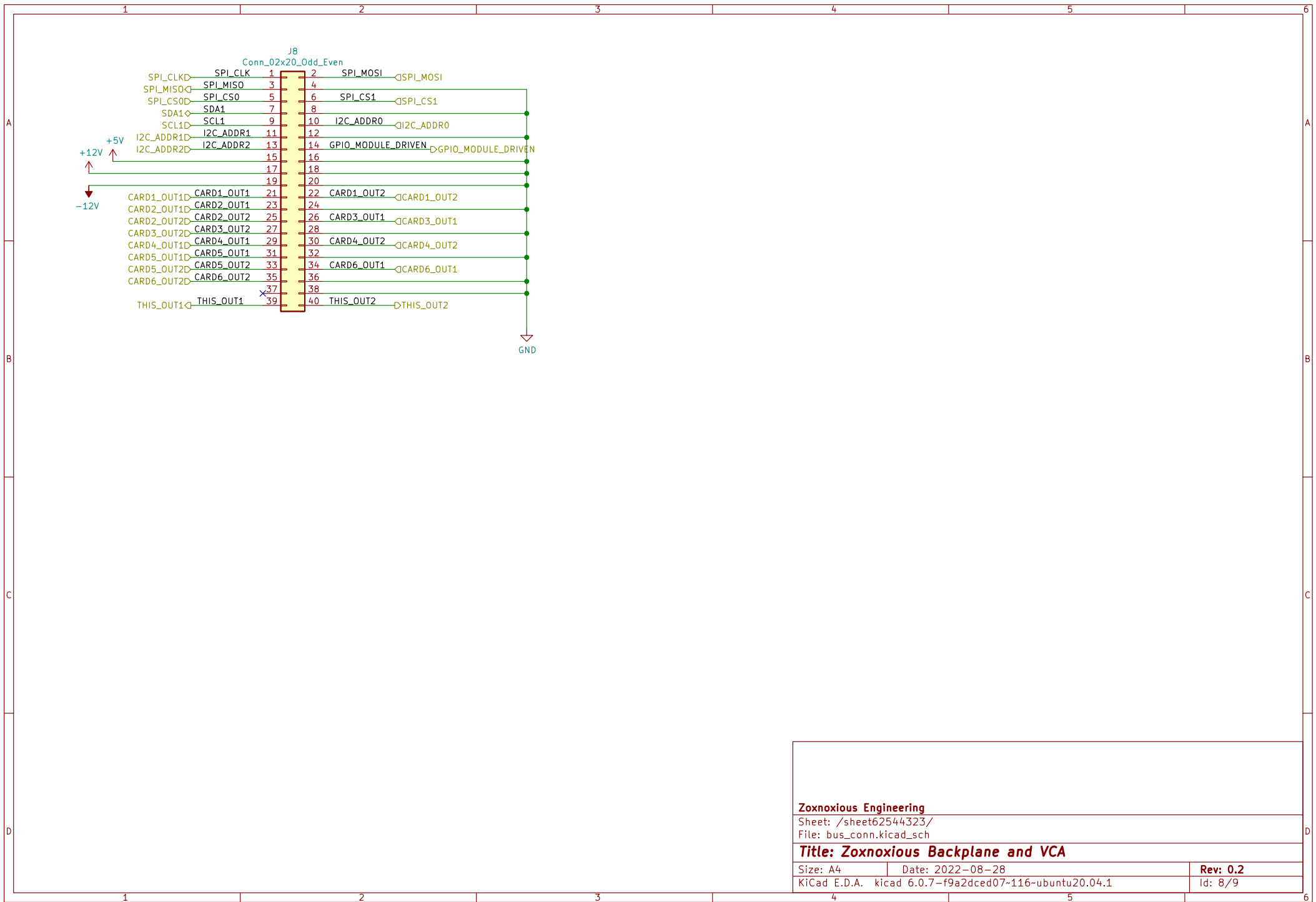
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Date: 2022-08-28

Rev: 0.2

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Id: 7/9



**Zoxnoxious Engineering**

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**Title: Zoxnoxious Backplane and VCA**

Size: A4

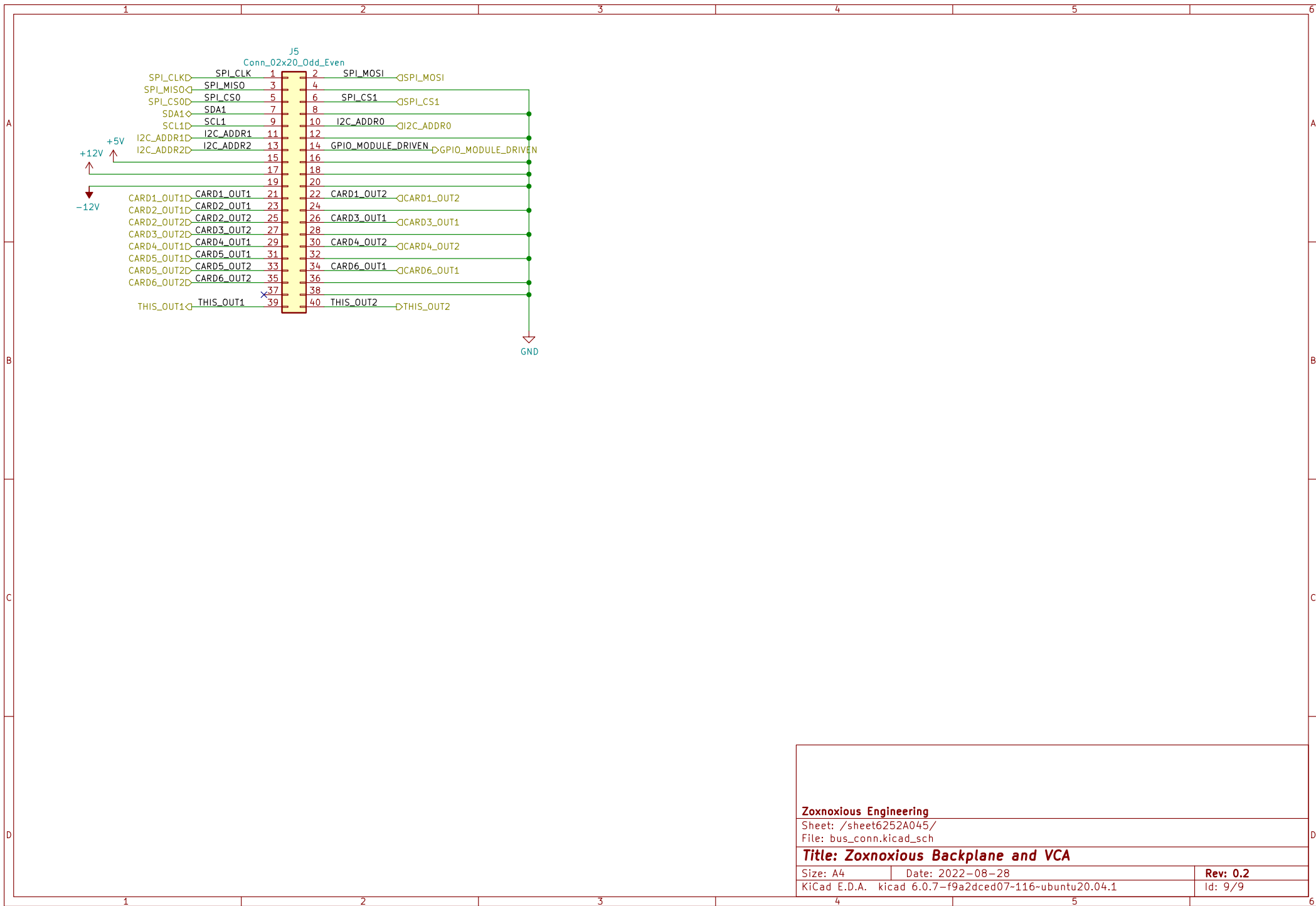
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Rev: 0.2

KiCad E.D.A. kicad 6.0.7-f9a2dc07-116-ubuntu20.04.1

Id: 8/9





**Zoxnoxious Engineering**

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File: bus\_conn.kicad\_sch

**Title: Zoxnoxious Backplane and VCA**

Size: A4

Date: 2022-08-28

Rev: 0.2

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Id: 9/9