

University of Alabama in Huntsville

**Ashton Johnson**

Sheet: /

File: portable\_imedance.sch

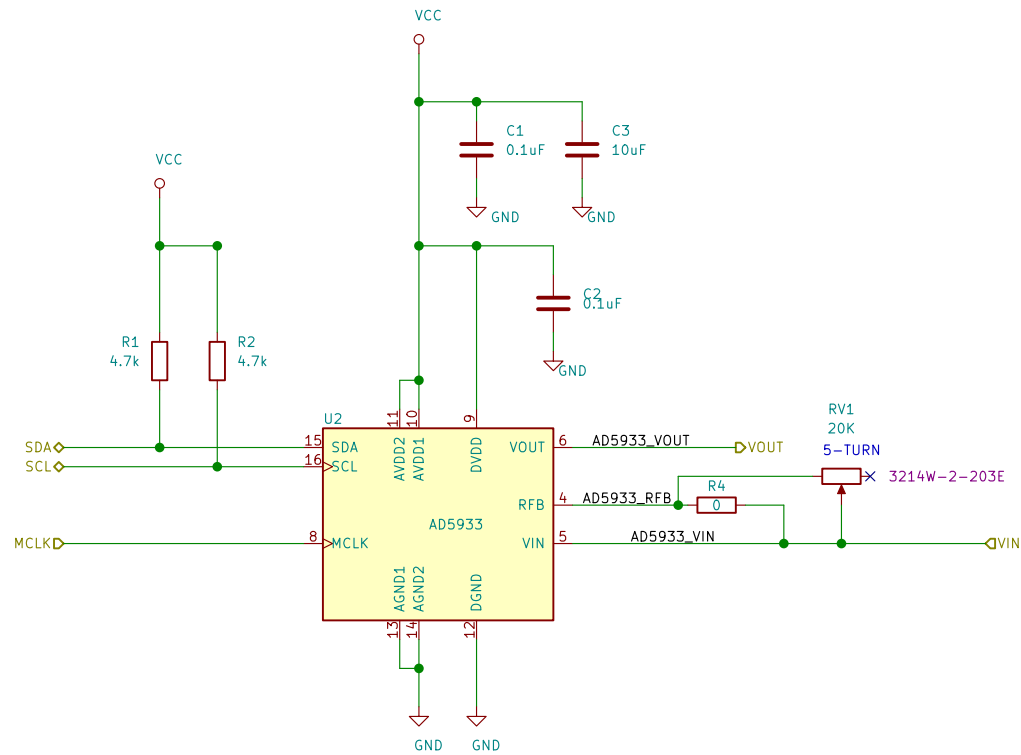
# **Title: Portable Impedance Tomography**

Size: USLetter Date: 2017-09-10

KiCad E.D.A. kicad (2017-02-21 revision 35a8d78)-master

**Rev: NEW**

Id: 1/9



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**Ashton Johnson**

Sheet: /AD5933/

File: ad5933.sch

**Title: Portable Impedance Tomography**

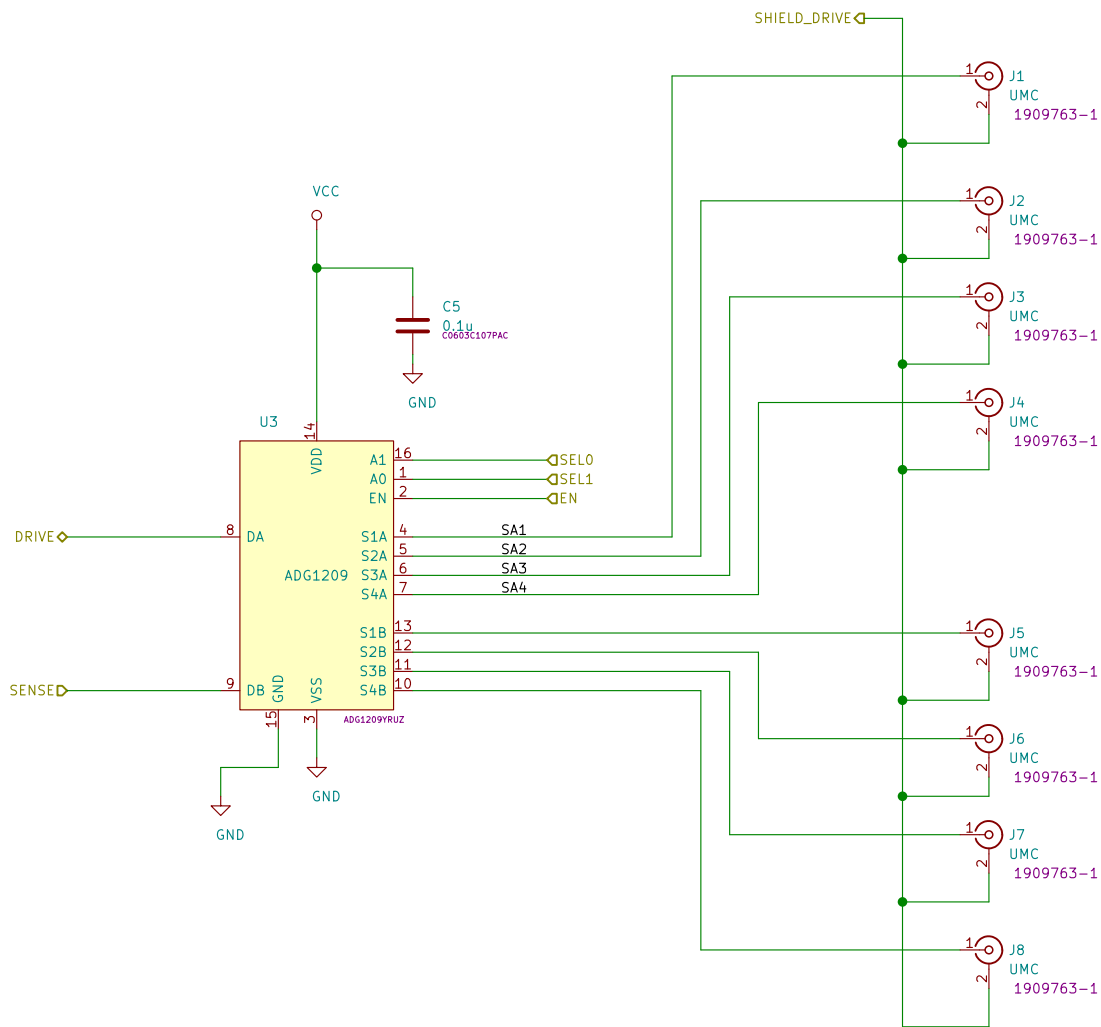
Size: A4

Date: 2017-09-10

Rev: **NEW**

KiCad E.D.A. kicad (2017-02-21 revision 35a8d78)-master

Id: 2/9



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**Ashton Johnson**

Sheet: /Receive Mux/

File: rx\_mux.sch

**Title: Portable Impedance Tomography**

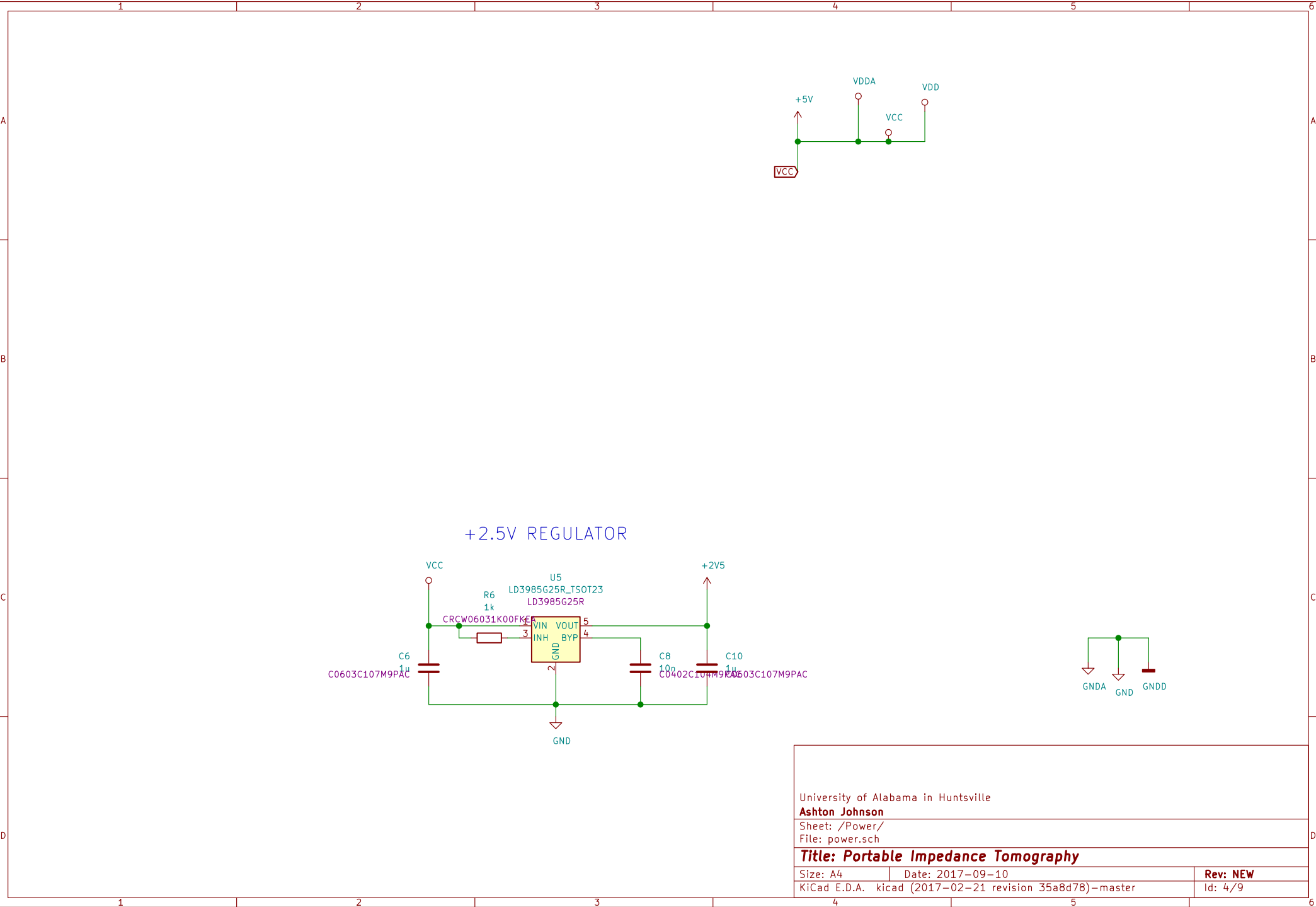
Size: A4

Date: 2017-09-10

**Rev: NEW**

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Id: 3/9



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Ashton Johnson

Sheet: /Power/

File: power.sch

**Title: Portable Impedance Tomography**

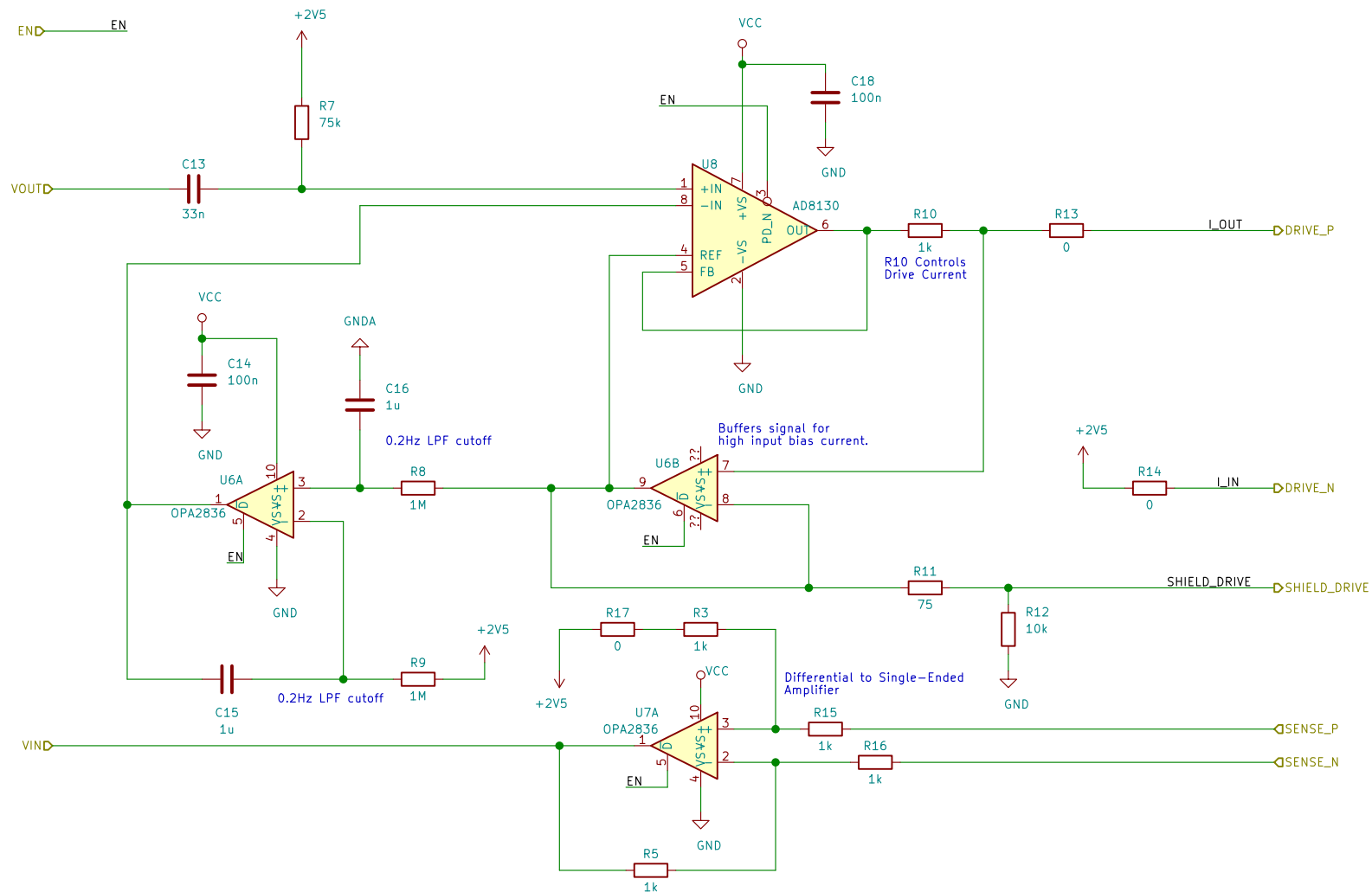
Size: A4

Date: 2017-09-10

Rev: NEW

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Id: 4/9



Design Published in:

R. Harder, A. Diedrich, J. S. Whitfield, M. S. Buchowski, J. B. Pietsch, and F. J. Baudenbacher, "Smart Multi-Frequency Bioelectrical Impedance Spectrometer for BIA and BIVA Applications," IEEE Transactions on Biomedical Circuits and Systems, vol. 10, no. 4, pp. 912-919, Aug. 2016.

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**Ashton Johnson**

Sheet: /AD5933 Front End/

File: front\_end.sch

### Title: Portable Impedance Tomography

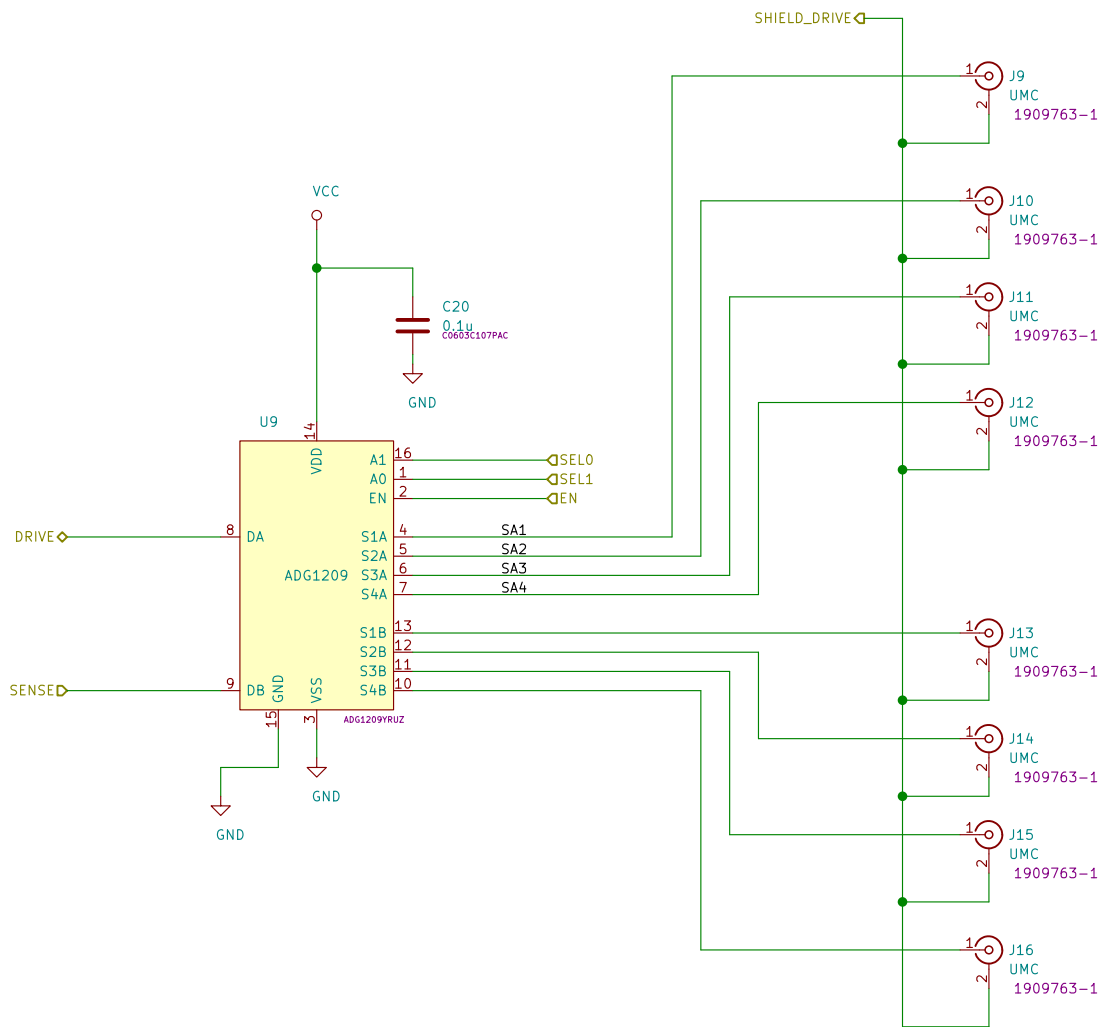
Size: A4

Date: 2017-09-10

Rev: **NEW**

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Id: 5/9



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**Ashton Johnson**

Sheet: /Transmit Mux/

File: rx\_mux.sch

**Title: Portable Impedance Tomography**

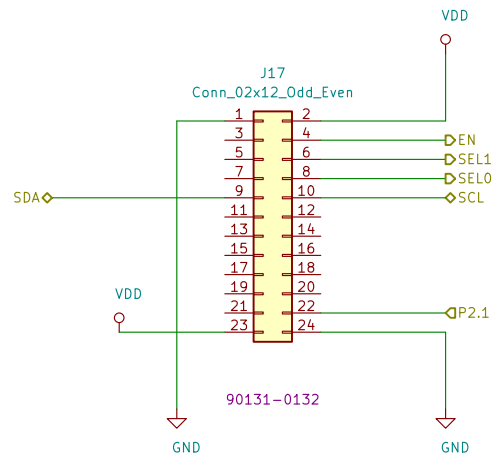
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Date: 2017-09-10

Rev: **NEW**

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Id: 6/9

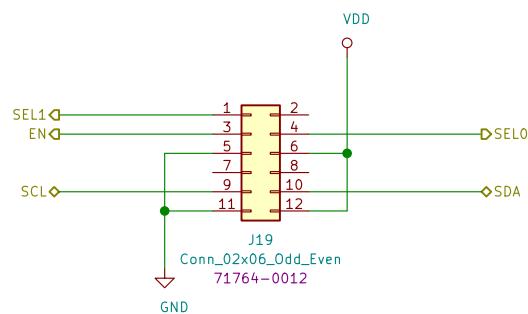


Cypress BLE Module Kit:  
<http://www.cypress.com/file/140711/download>  
 See Table 4 for pinout of CY8C4247LQI-BL483  
<http://www.cypress.com/file/137466/download>

Sheet: /Cypress BLE Headers/  
 File: cypress\_headers.sch

**Title:**

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KiCad E.D.A. kicad (2017-02-21 revision 35a8d78)-master		Id: 7/9



This interface is capable of being mated to any 2x6 PMOD host, but is specifically compatible for the Digilent Zybo MIO PMOD JF connection.

Digilent PMOD Spec  
[https://reference.digilentinc.com/\\_media/reference/pmod/digilent-pmod-interface-specification.pdf](https://reference.digilentinc.com/_media/reference/pmod/digilent-pmod-interface-specification.pdf)

Zybo MIO PMOD JF Pinout (Table 16.1) :  
<https://reference.digilentinc.com/reference/programmable-logic/zybo-z7/reference-manual>

Zynq MIO Signal Routing (Table 2-4):  
[https://www.xilinx.com/support/documentation/user\\_guides/ug585-Zynq-7000-TRM.pdf](https://www.xilinx.com/support/documentation/user_guides/ug585-Zynq-7000-TRM.pdf)

Sheet: /Pmod 2x6 Header/  
 File: pmod.sch

**Title:**

Size: A4

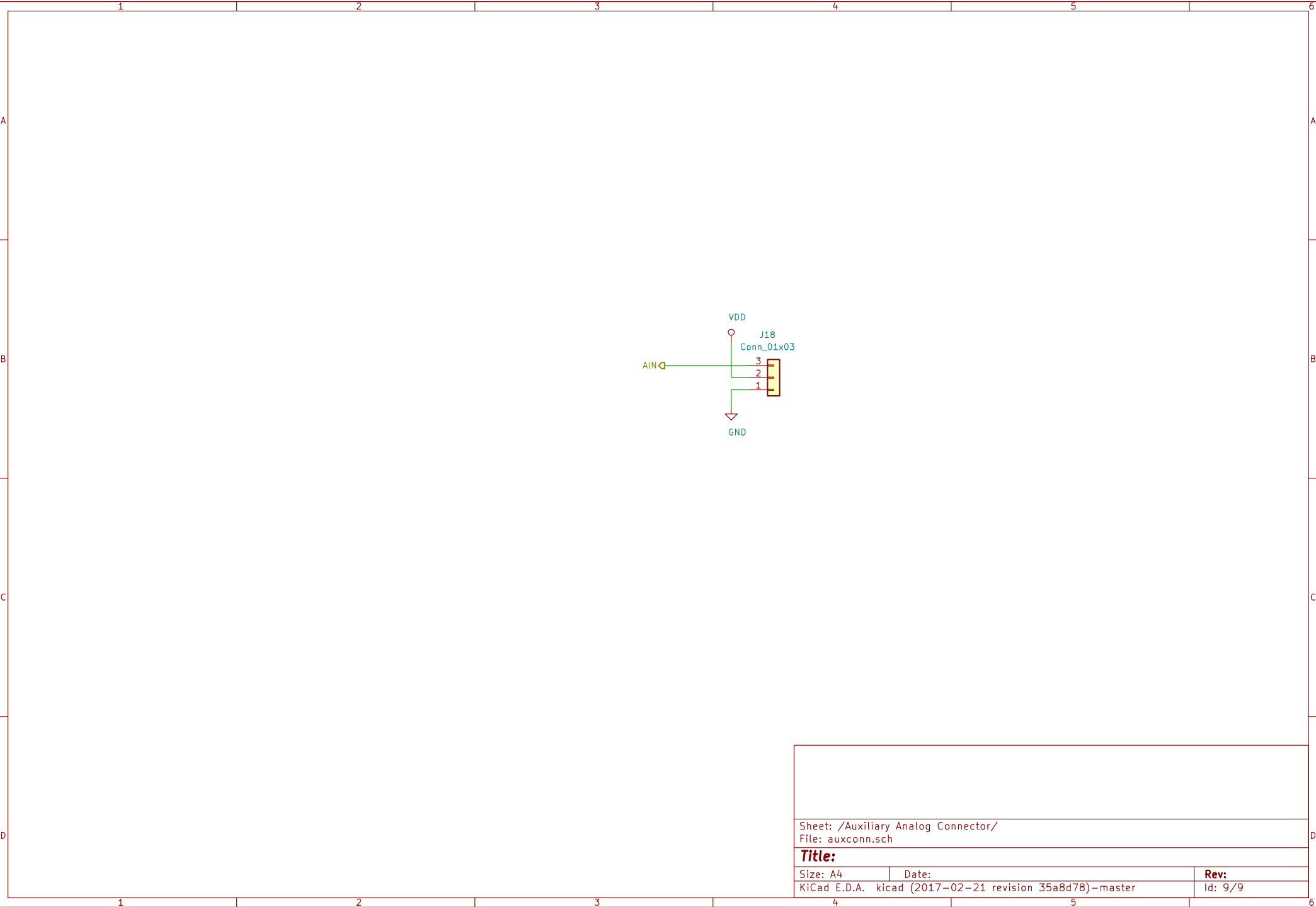
Date:

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Id: 8/9





Sheet: /Auxiliary Analog Connector/ File: auxconn.sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad (2017-02-21 revision 35a8d78)-master		Id: 9/9