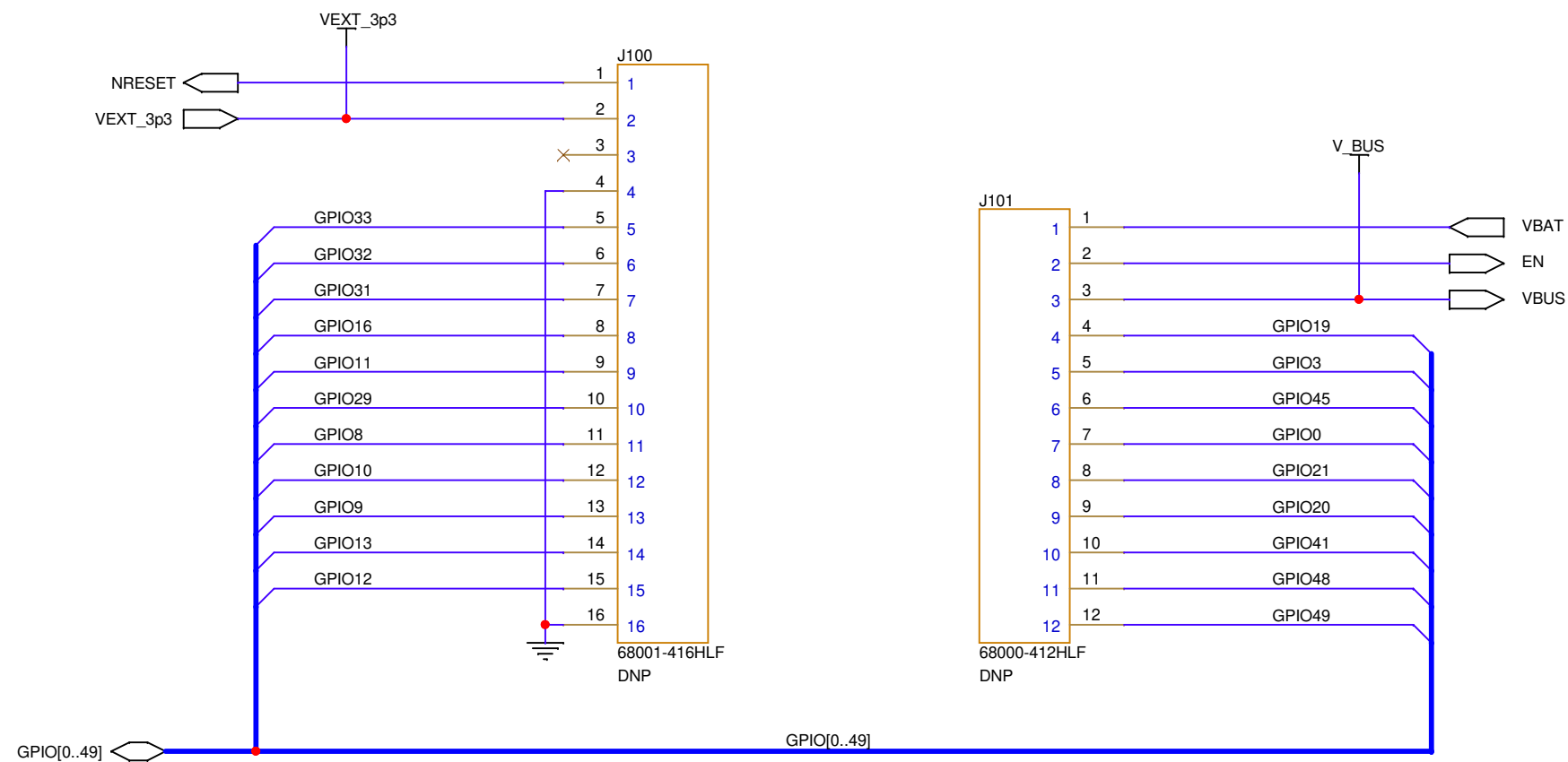

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CONFIDENTIAL		PROGRAM NM180310 Feather	
DRAWN BY Zoey Loy		TITLE Block Diagram	
R&D CHECK <R&D Check>			
MFG CHECK <MFG Check>			
EDITED BY <Edited By>		DRAWING NUMBER SCH-180310-001	REVISION A
LAST EDIT Friday, January 22, 2021	SIZE B	SHEET 1	of 8

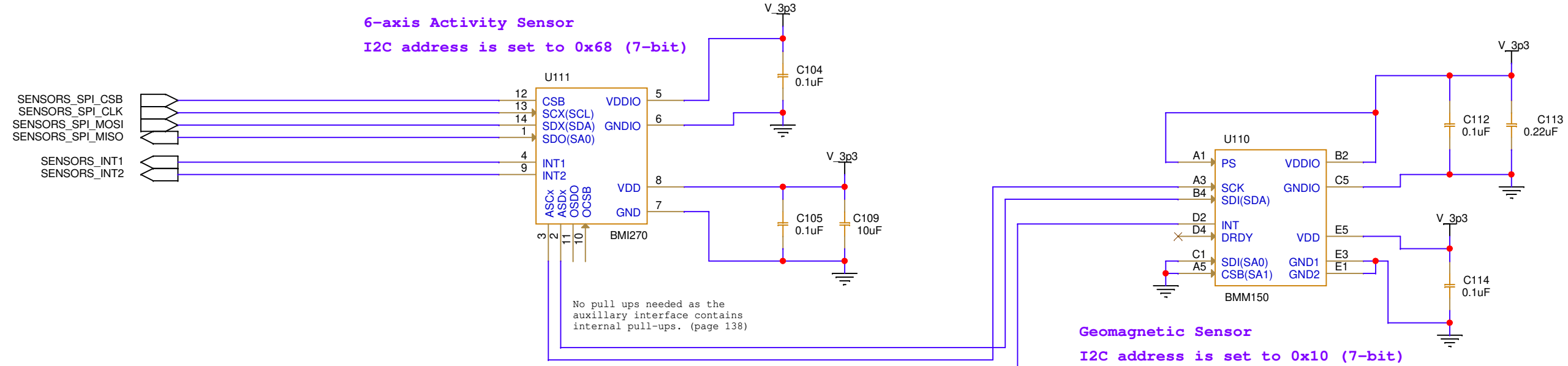


**Note:**

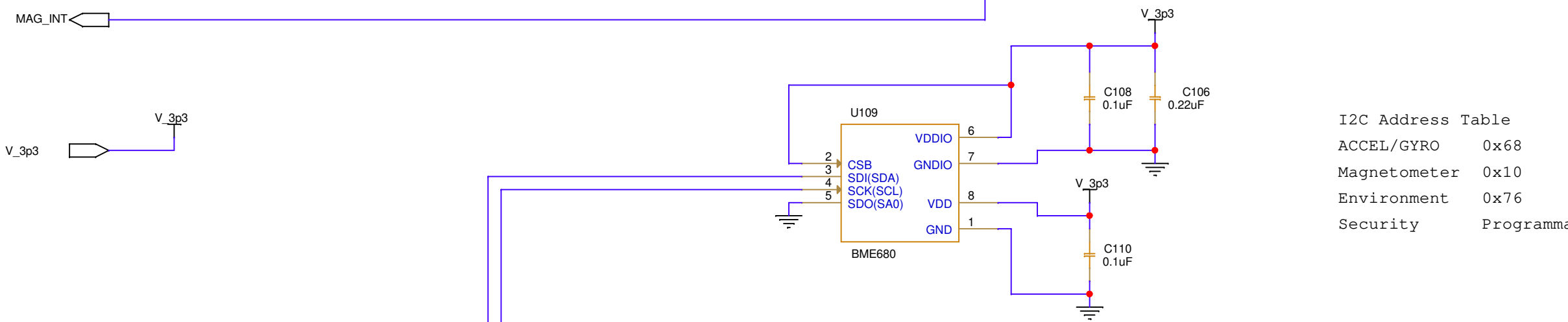
The connectors are DNP by default. The padstack of each pin consists of a drilled hole and a half-moon castellation. This allows the user the option to either use the feather:

- 1) with a header connector/receptacle for prototyping with a bread-board or
- 2) SMT the entire feather board onto another carrier PCB for integrating into the application hardware.

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DRAWN BY Zoey Loy		TITLE Feather I/O	
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MFG CHECK <MFG Check>			
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LAST EDIT Friday, November 20, 2020	SIZE B	SHEET 2	of 8



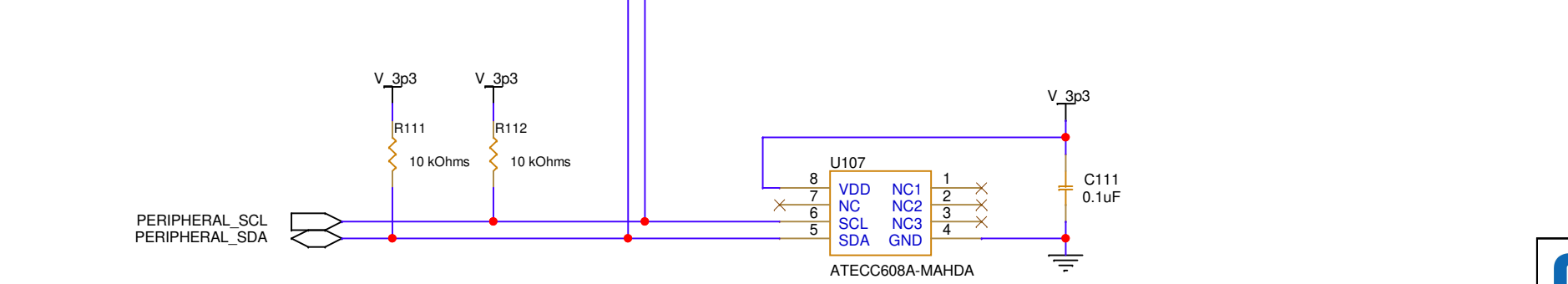
**Geomagnetic Sensor**  
I2C address is set to 0x10 (7-bit)



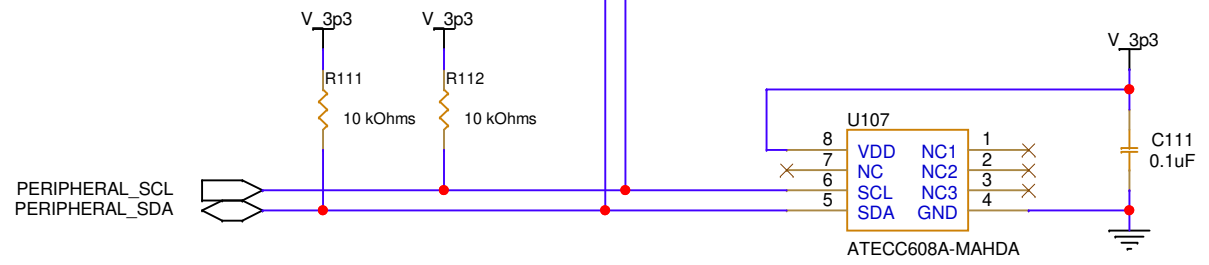
I2C Address Table

ACCEL/GYRO	0x68
Magnetometer	0x10
Environment	0x76
Security	Programmable

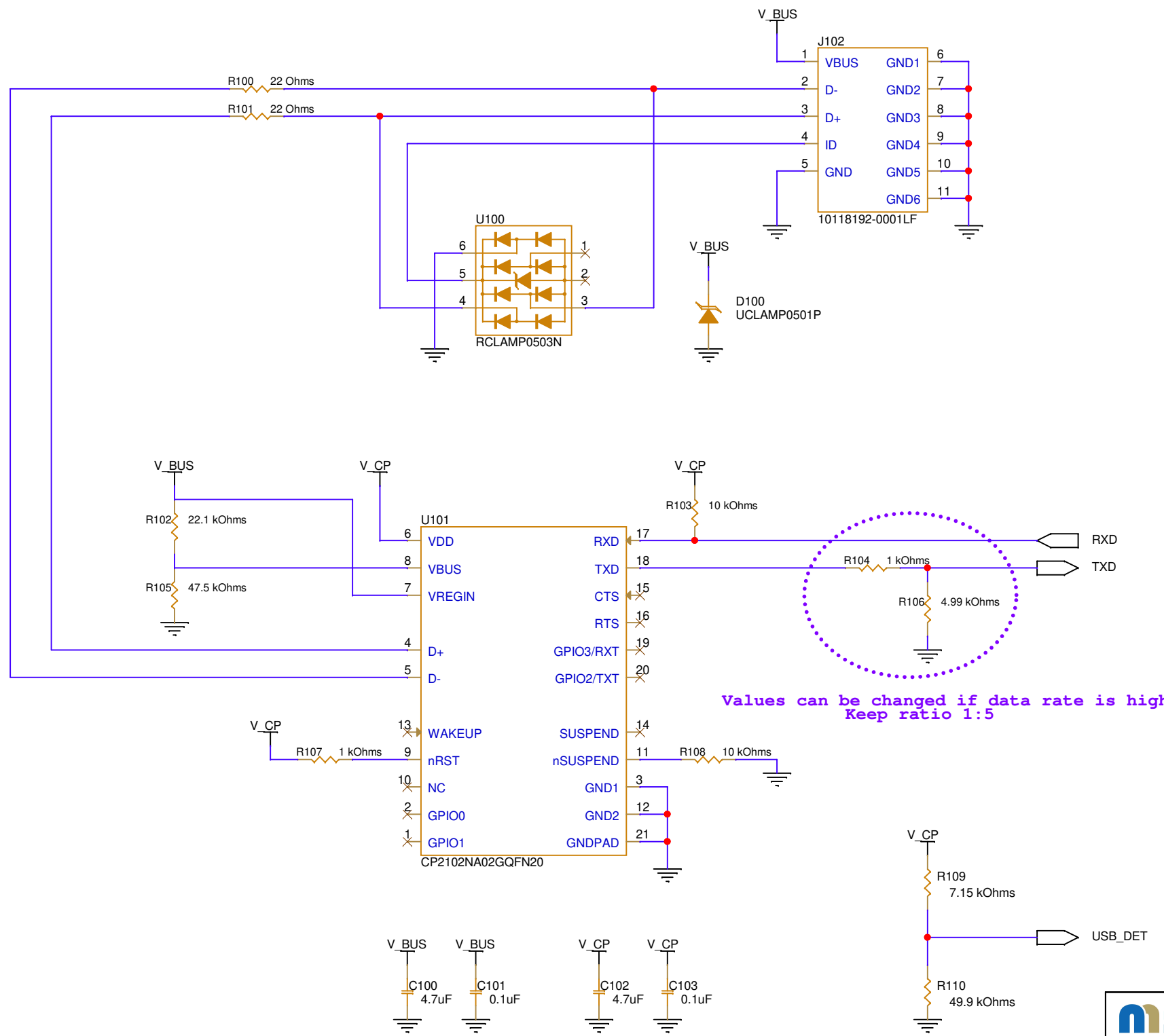
**Gas, Humidity, Temperature and Pressure Sensor**  
I2C address is set to 0x76 (7-bit)



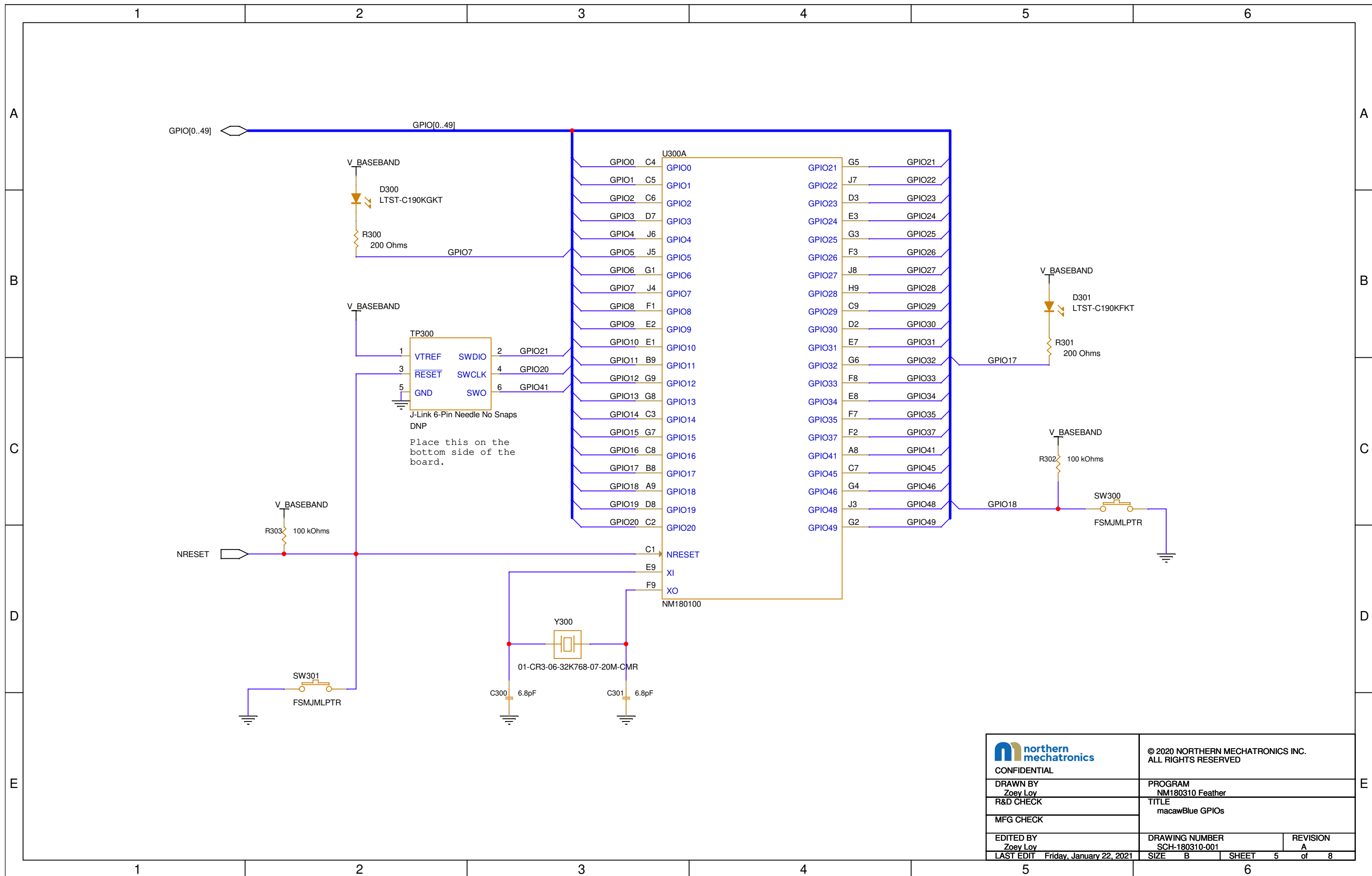
**Security**  
Default address:  
programmable after secret  
zone is locked



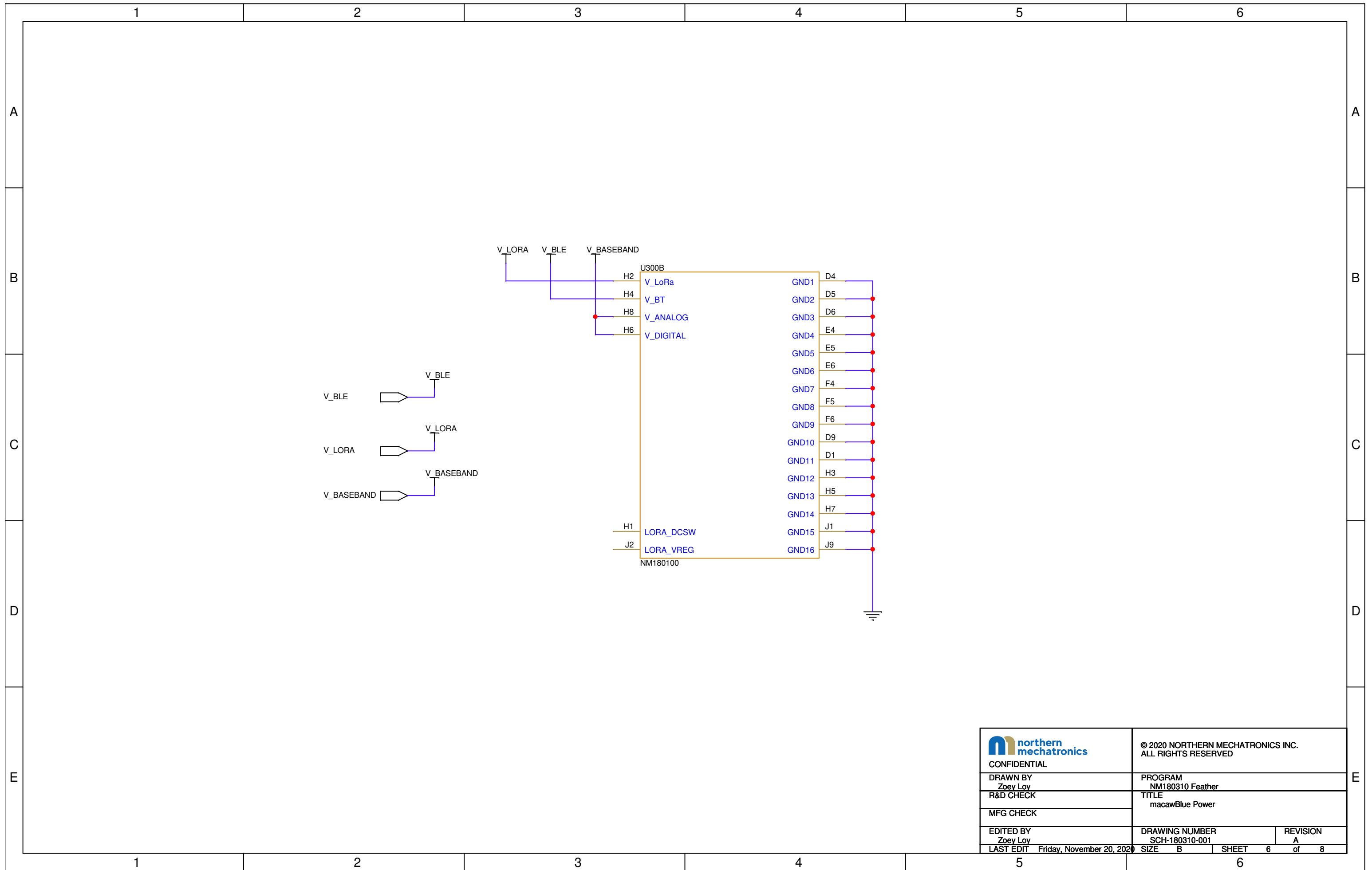
		© 2020 NORTHERN MECHATRONICS INC. ALL RIGHTS RESERVED	
CONFIDENTIAL		PROGRAM NM180310 Feather	
DRAWN BY Zoey Loy		TITLE Sensors Circuits	
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EDITED BY <Edited By>		DRAWING NUMBER SCH-180310-001	REVISION A
LAST EDIT Saturday, December 19, 2020		SIZE B	SHEET 3 of 8




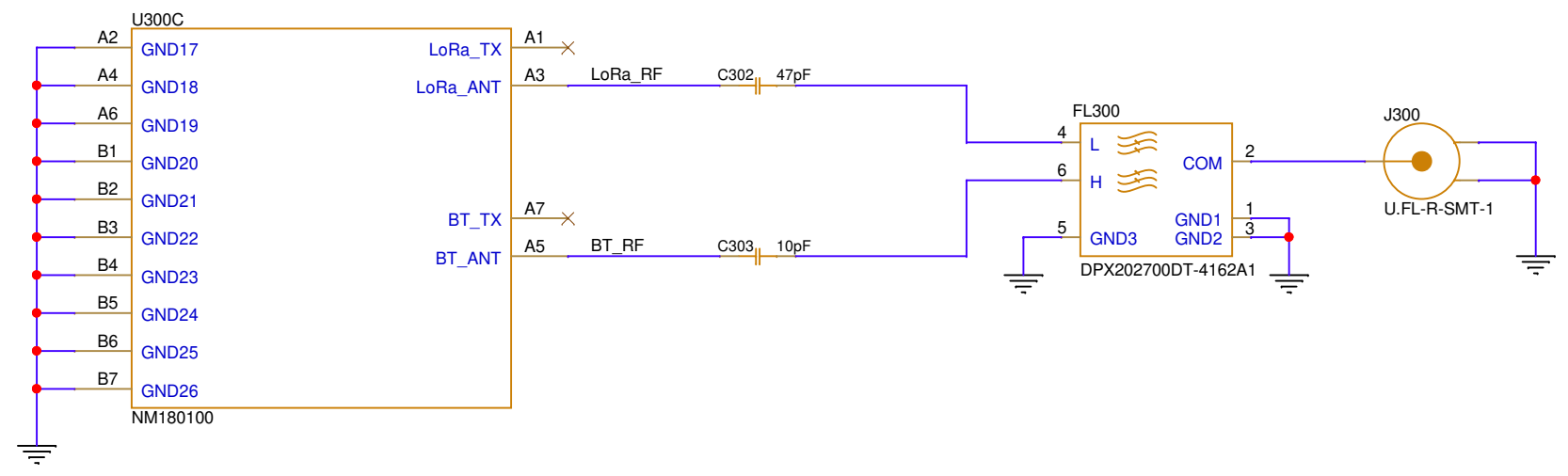
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CONFIDENTIAL		PROGRAM NM180310 Feather	
DRAWN BY Zoey Loy		TITLE USB to Serial Interface	
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LAST EDIT Friday, January 22, 2021	SIZE B	SHEET 4	of 8




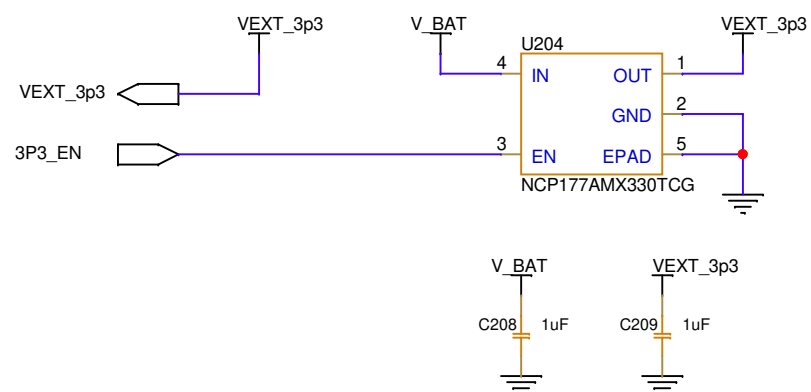
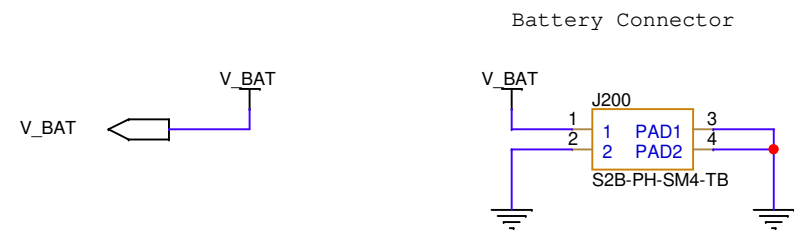
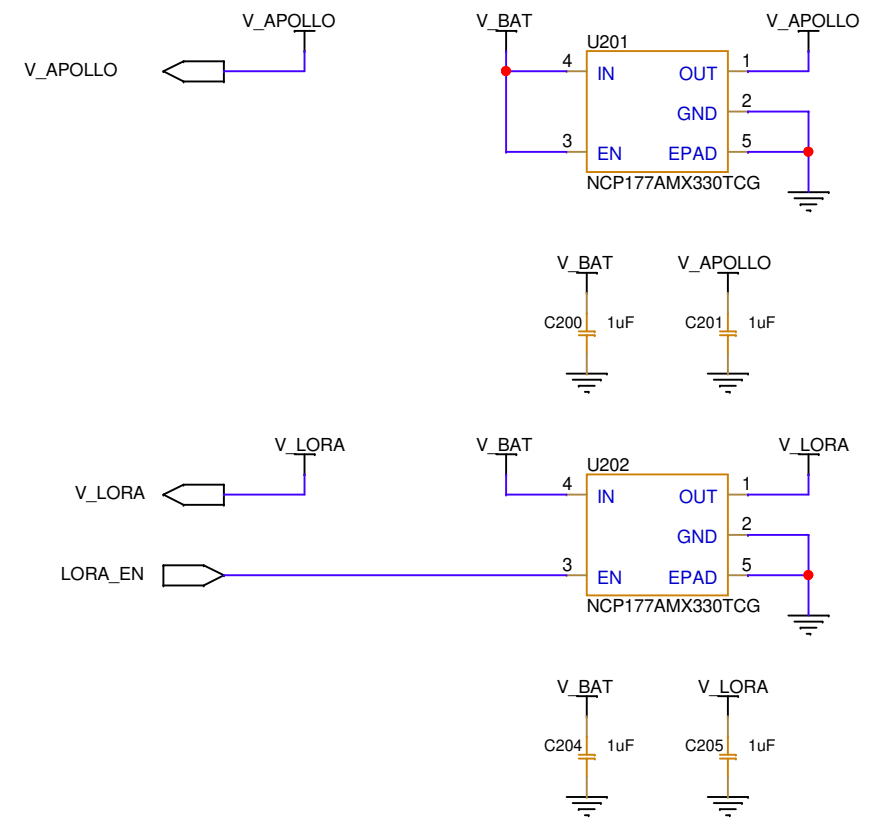
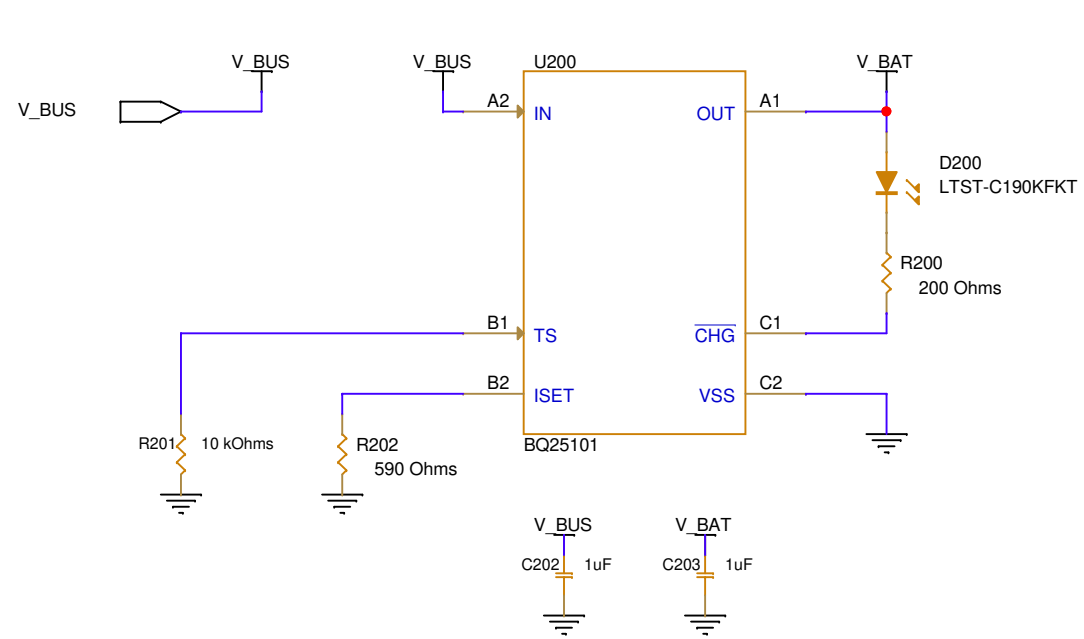
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DRAWN BY Zoey Loy		TITLE macawBlue GPIOs	
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The external 3.3V is controlled by the EN pin of the feather board as per the Adafruit feather requirement.  
<https://learn.adafruit.com/adafruit-feather/feather-specification>

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R&D CHECK <R&D Check>		MFG CHECK <MFG Check>	
EDITED BY <Edited By>		DRAWING NUMBER SCH-180310-001	REVISION A
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