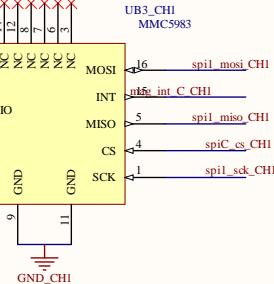
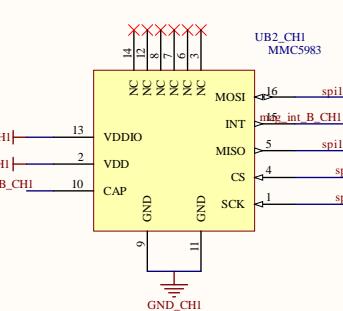
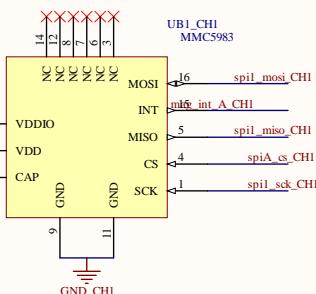
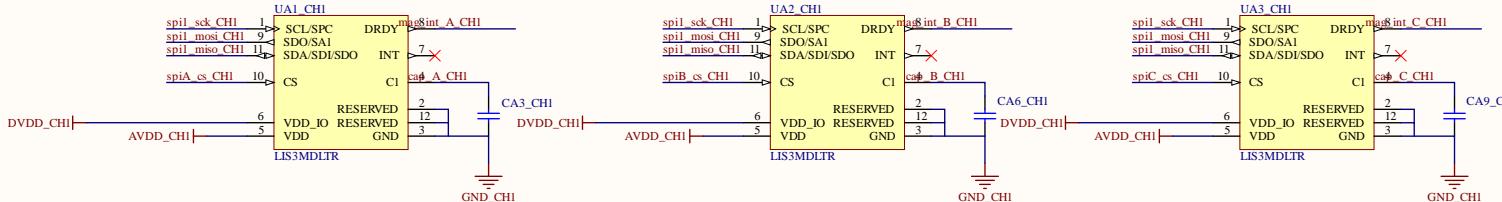
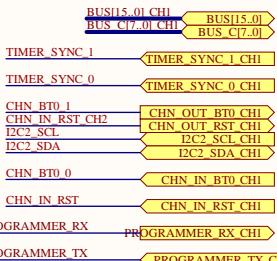


3D magnetometer

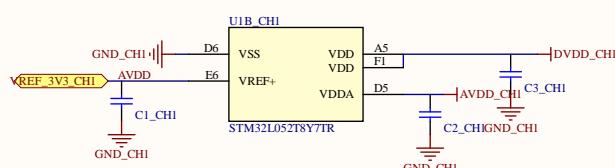
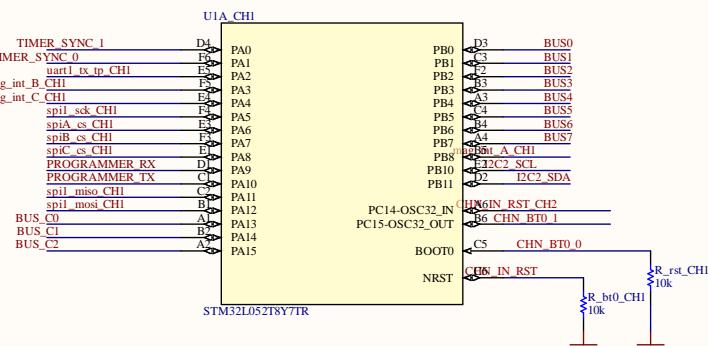
Parameter Set
AVDD_CHI → AVDD_CHI
DVDD_CHI → DVDD_CHI
GND_CHI → GND_CHI

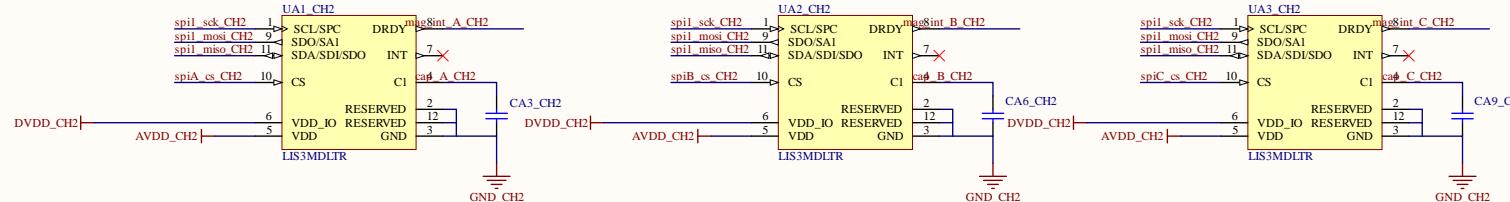


STM32L072 notes
Add testpoints for UART1_TX_TP and UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)

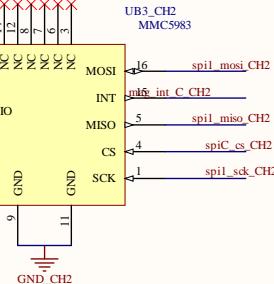
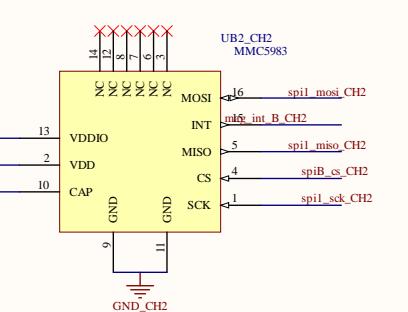
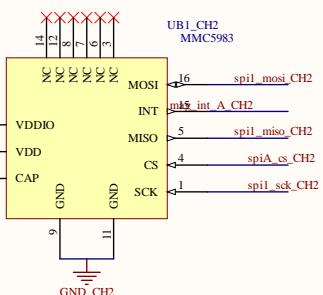
PNI sensor coils require the use of halide-free solder pastes

LED notes
220 ohms in series with R
100 ohms in series with B and G

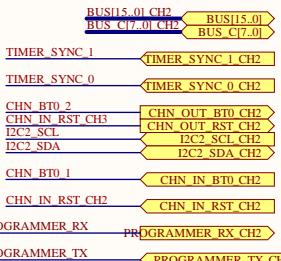


3D magnetometer**3D magnetometer**

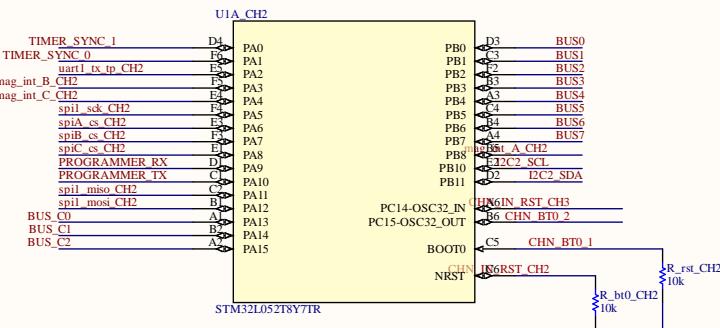
LIS3MDLnotes
100nF connected between Pin 4 and GND
100nF, 1uF connected between Pin 5 (VDD) and GND



Parameter Set
AVDD_CH2 → AVDD_CH2
Parameter Set
DVDD_CH2 → DVDD_CH2
Parameter Set
GND_CH2 → GND_CH2

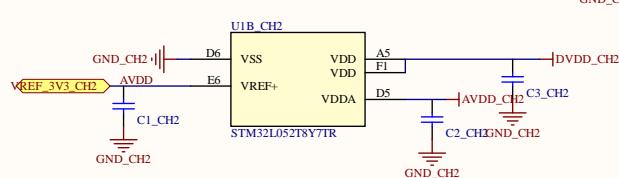
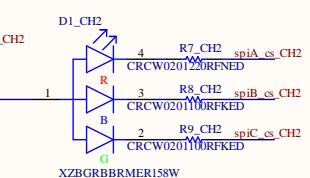


STM32L072 notes
Add testpoints for UART1_TX_TP and UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)



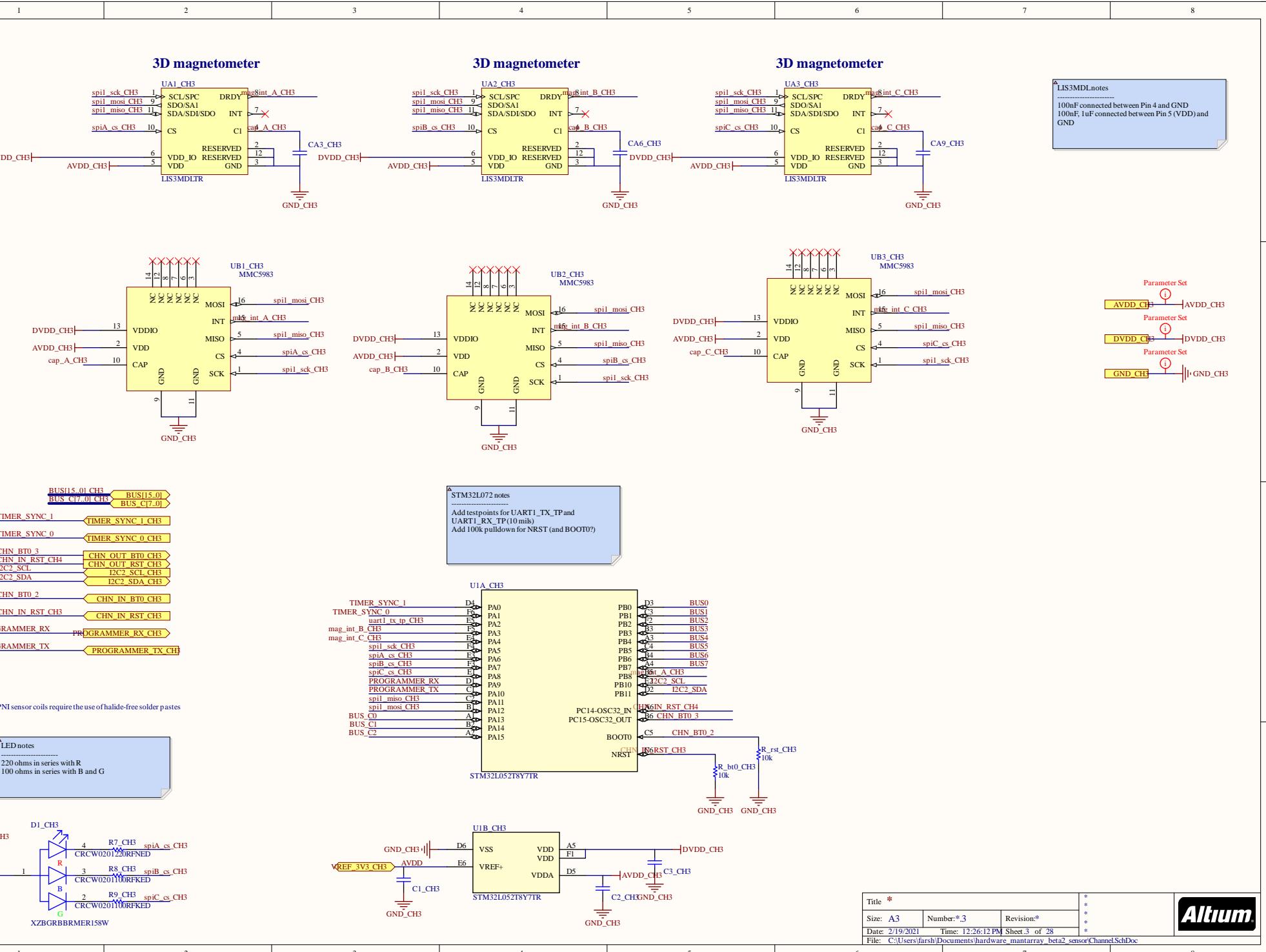
PNI sensor coils require the use of halide-free solder pastes

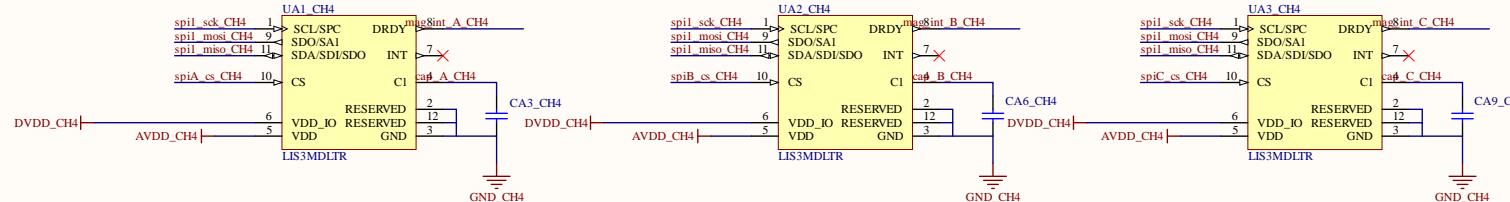
LED notes
220 ohms in series with R
100 ohms in series with B and G



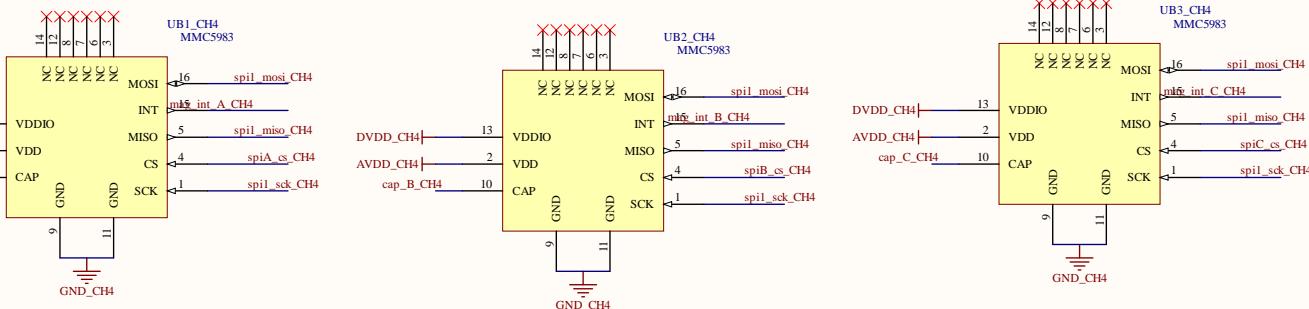
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Date: 2/19/2021	Time: 12:26:12 PM	Sheet 2 of 28
File: C:/Users/farsh/Documents/hardware/manarray_beta2_sensor/ChannelSchDoc		

Altium

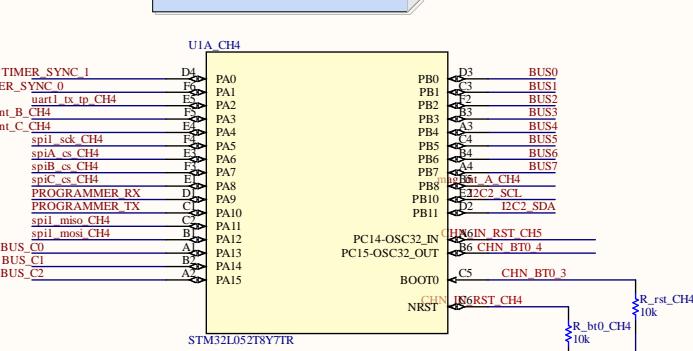
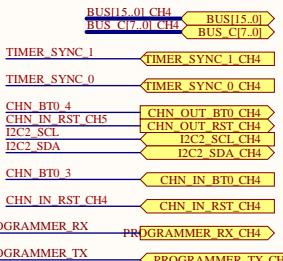


3D magnetometer

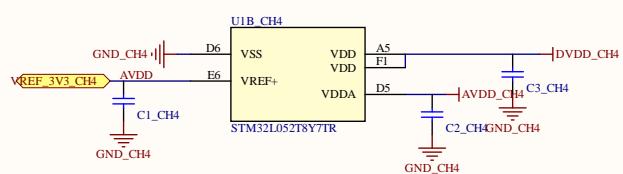
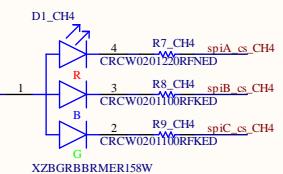
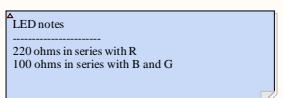
LIS3MDLnotes
100nF connected between Pin 4 and GND
100nF, 1uF connected between Pin 5 (VDD) and GND



Parameter Set
AVDD CH4 → AVDD_CH4
Parameter Set
DVDD CH4 → DVDD_CH4
Parameter Set
GND CH4 → GND_CH4

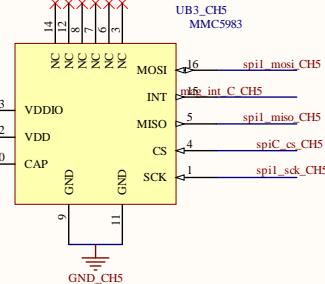
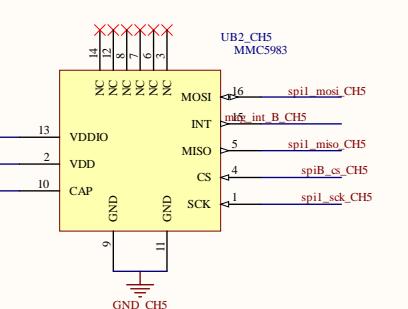
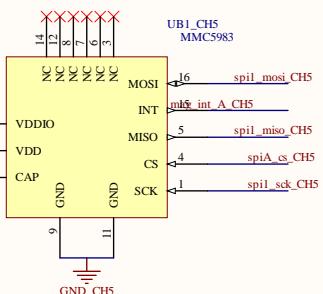
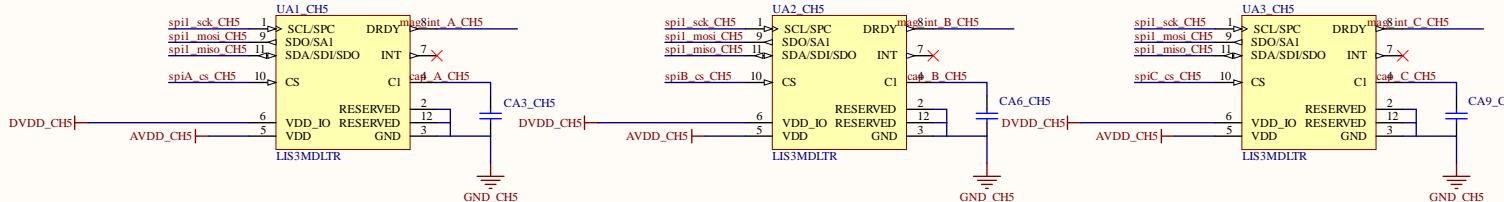


PNI sensor coils require the use of halide-free solder pastes

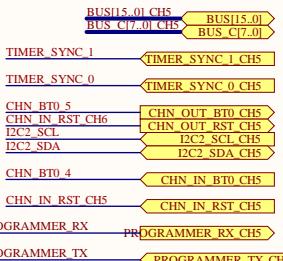


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Size: A3	Number: *4	Revision: *
Date: 2/19/2021	Time: 12:26:12 PM	Sheet 4 of 28
File: C:/Users/farsh/Documents/hardware/manarray_beta2_sensor/ChannelSchDoc		

Altium

3D magnetometer

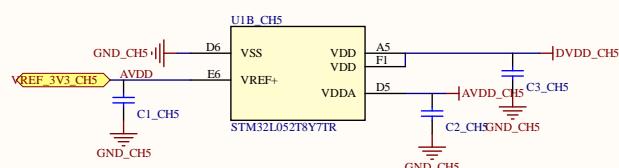
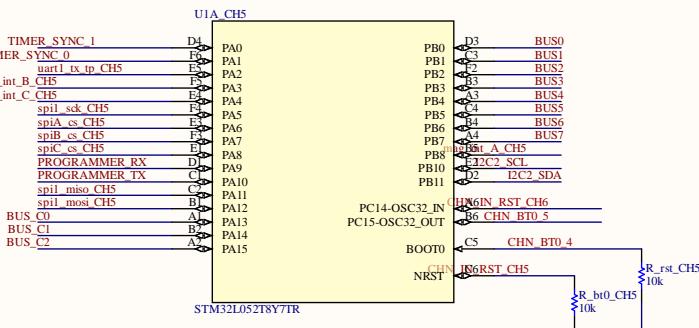
Parameter Set
AVDD_CH5 → AVDD_CH5
Parameter Set
DVDD_CH5 → DVDD_CH5
Parameter Set
GND_CH5 → GND_CH5



STM32L072 notes
Add testpoints for UART1_TX_TP and UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)

PNI sensor coils require the use of halide-free solder pastes

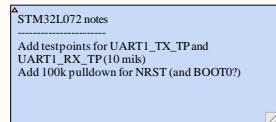
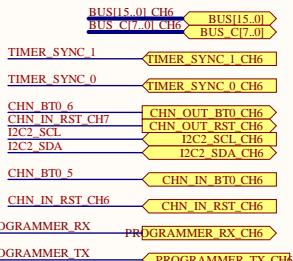
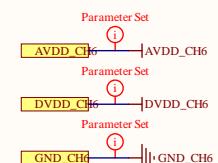
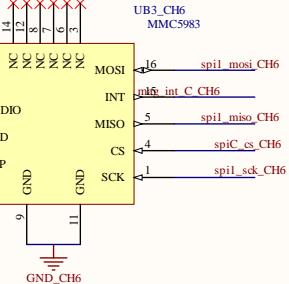
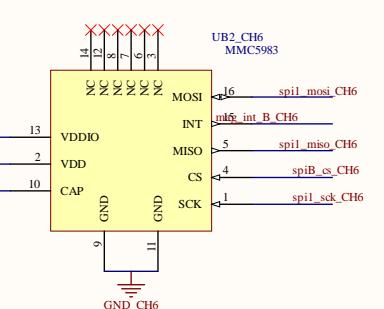
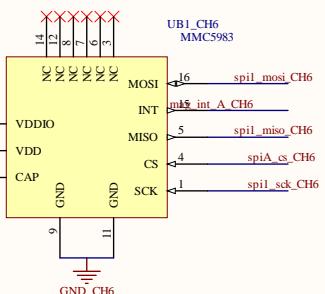
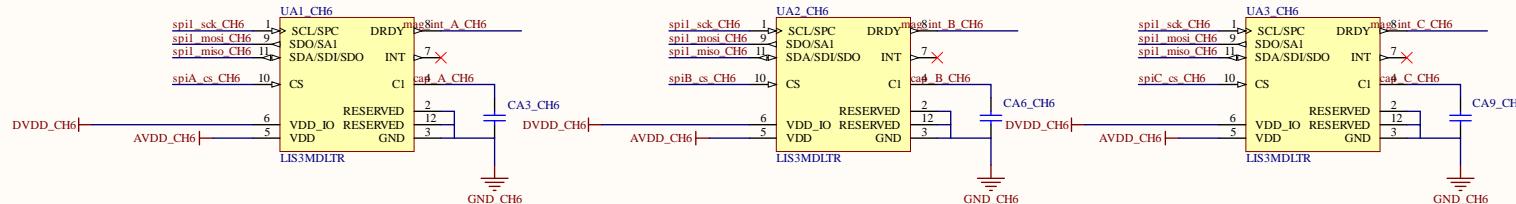
LED notes
220 ohms in series with R
100 ohms in series with B and G



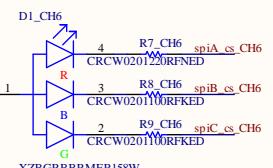
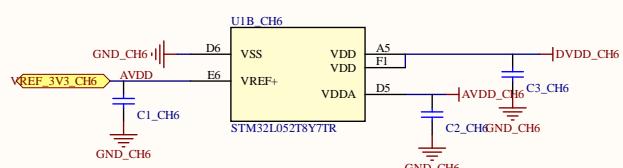
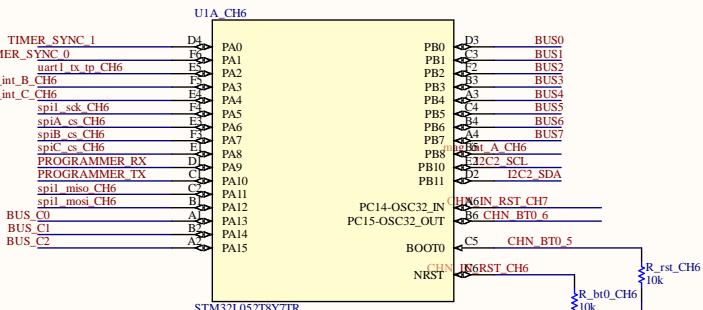
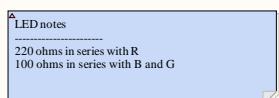
3D magnetometer**3D magnetometer****3D magnetometer**

LIS3MDLnotes

100nF connected between Pin 4 and GND
100nF, 1uF connected between Pin 5 (VDD) and GND

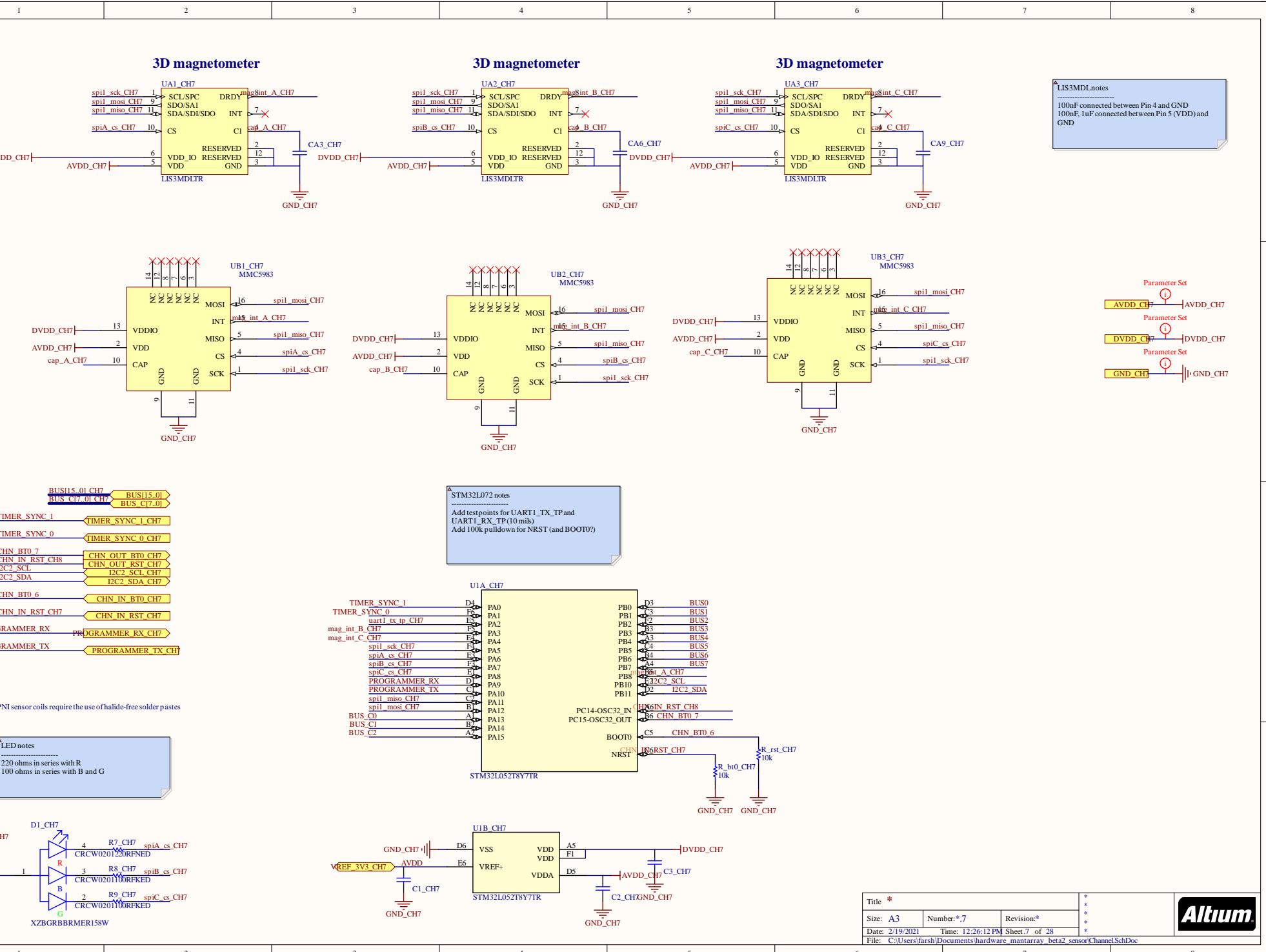


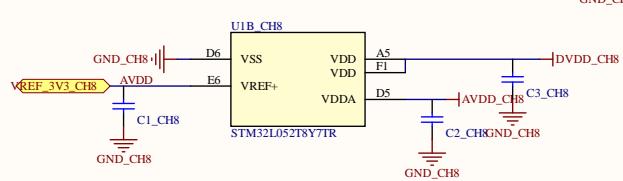
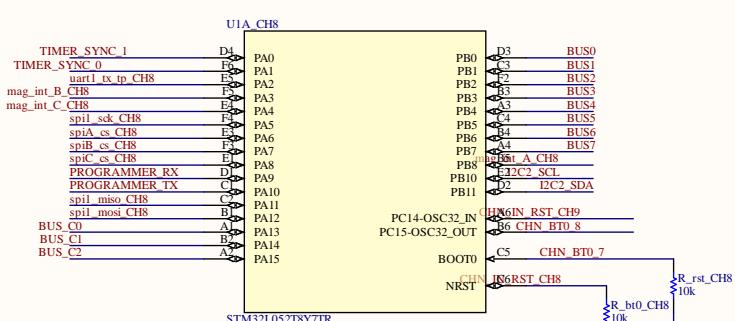
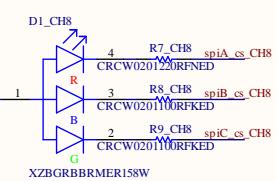
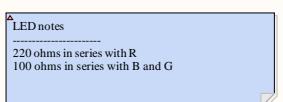
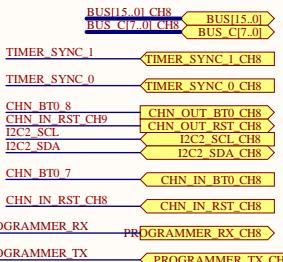
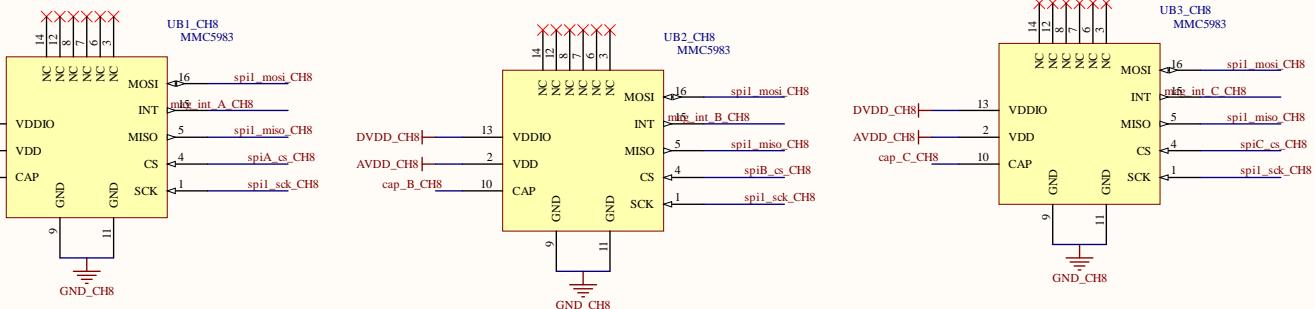
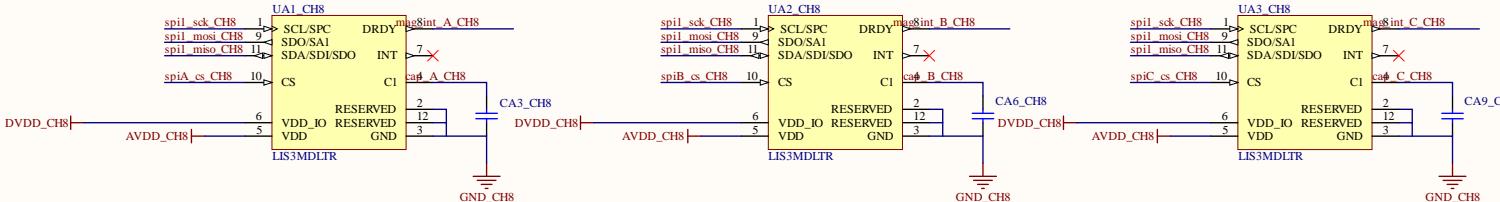
PNI sensor coils require the use of halide-free solder pastes



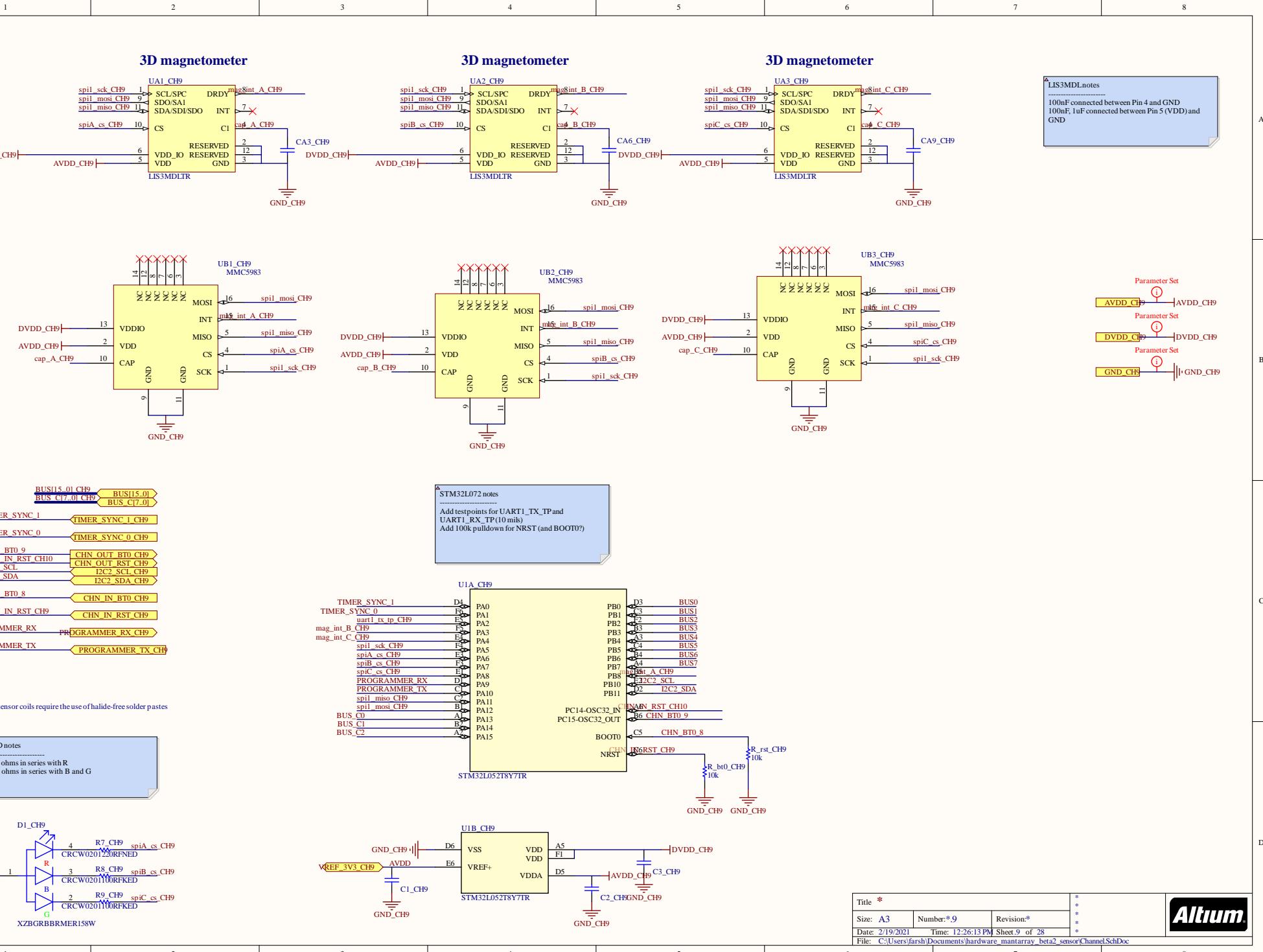
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Revision: *	*
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Sheet 6 of 28	*
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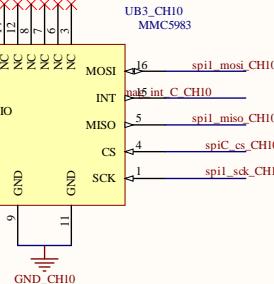
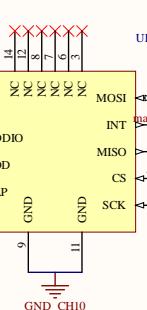
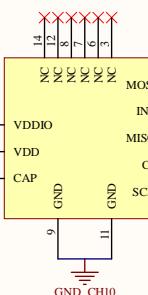
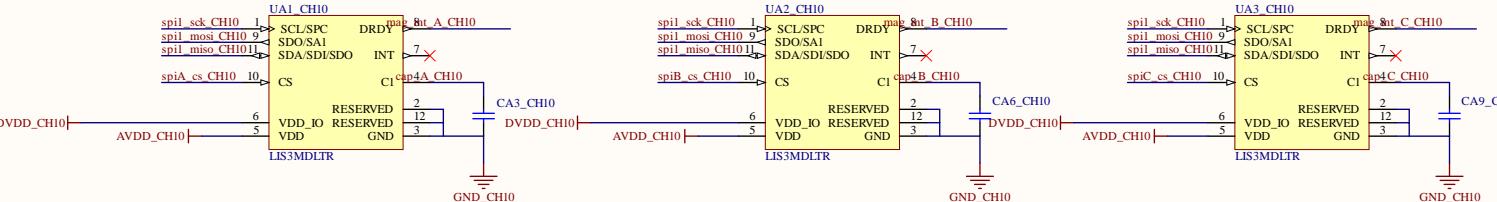
Altium



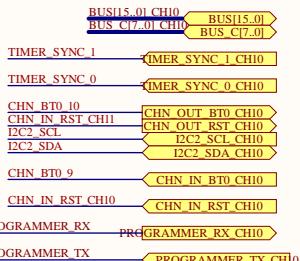
3D magnetometer

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File: C:/Users/farsh/Documents/hardware/manarray_beta2_sensor/ChannelSchDoc		



3D magnetometer

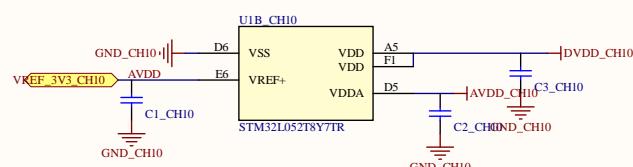
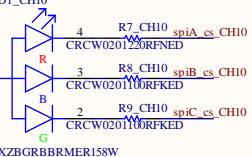
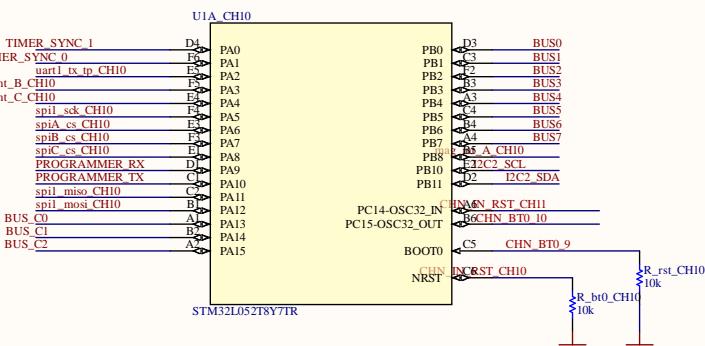
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Parameter Set
DVDD_CH10 → DVDD_CH10
Parameter Set
GND_CH10 → GND_CH10

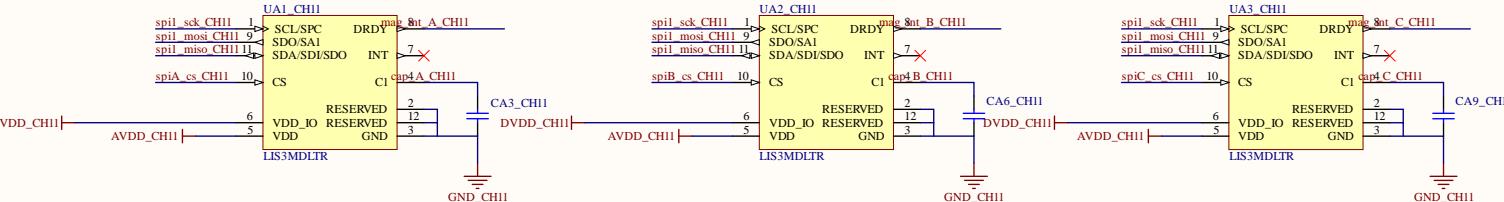


STM32L072 notes
Add testpoints for UART1_TX_TP and
UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)

PNI sensor coils require the use of halide-free solder pastes

LED notes
220 ohms in series with R
100 ohms in series with B and G



3D magnetometer

A

A

B

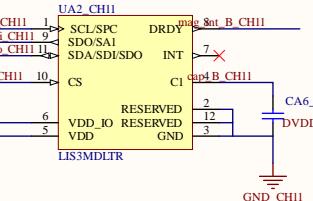
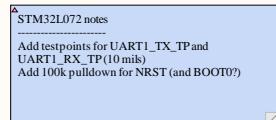
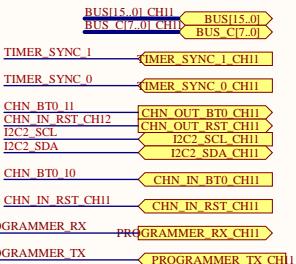
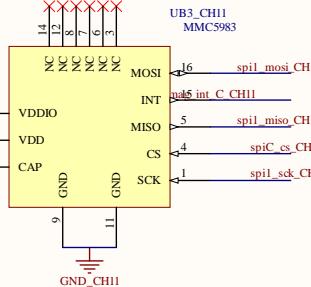
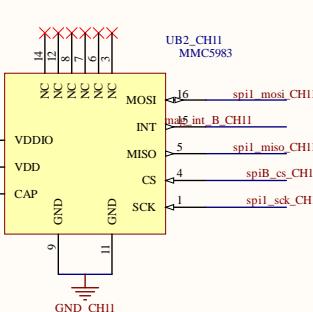
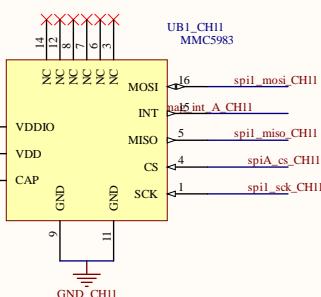
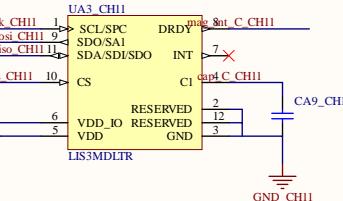
B

C

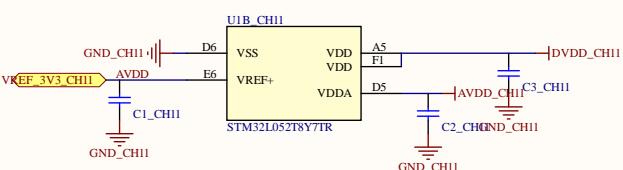
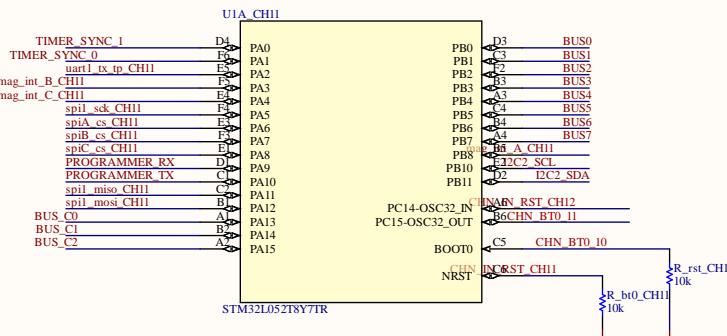
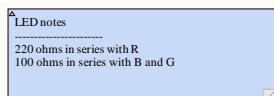
C

D

D

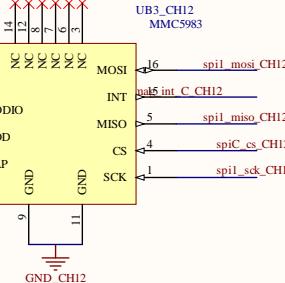
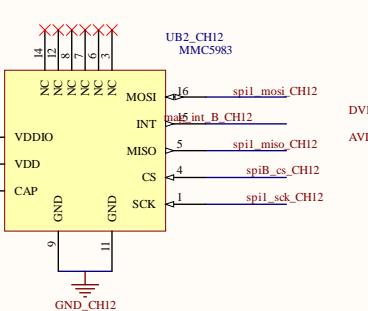
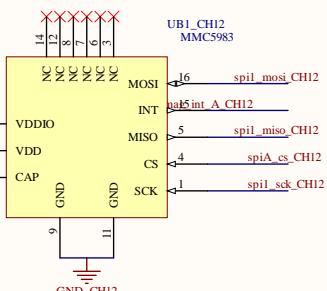
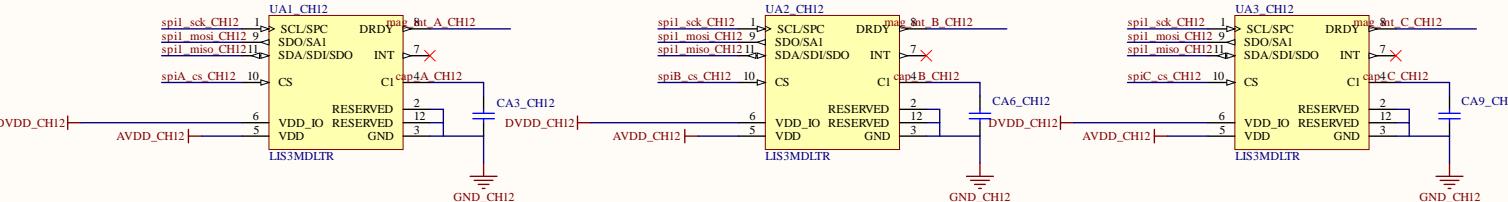
3D magnetometer**3D magnetometer**

PNI sensor coils require the use of halide-free solder pastes

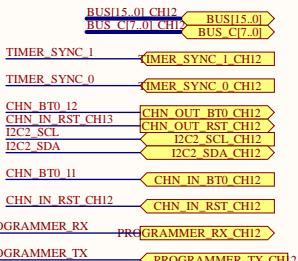


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Sheet: II of 28	*
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Altium

3D magnetometer

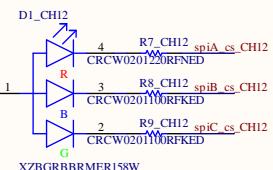
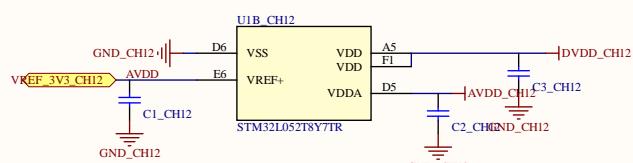
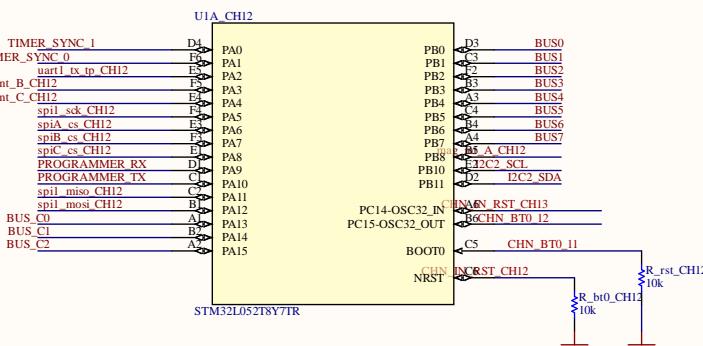
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Parameter Set
DVDD_CH12 → DVDD_CH12
Parameter Set
GND_CH12 → GND_CH12

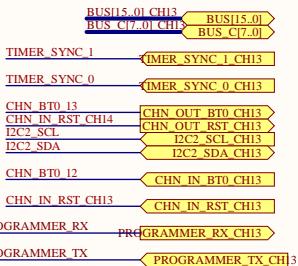
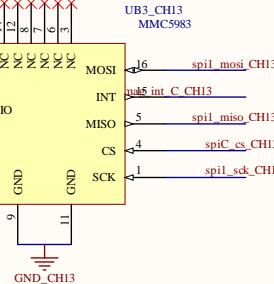
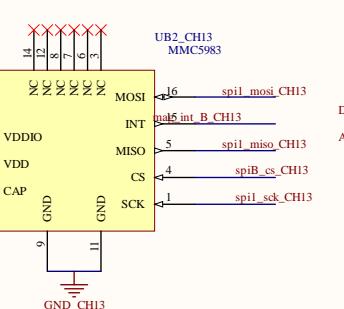
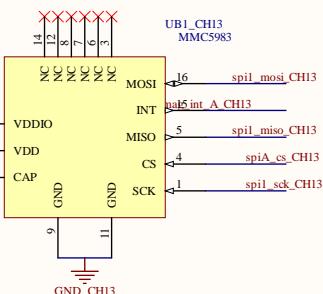
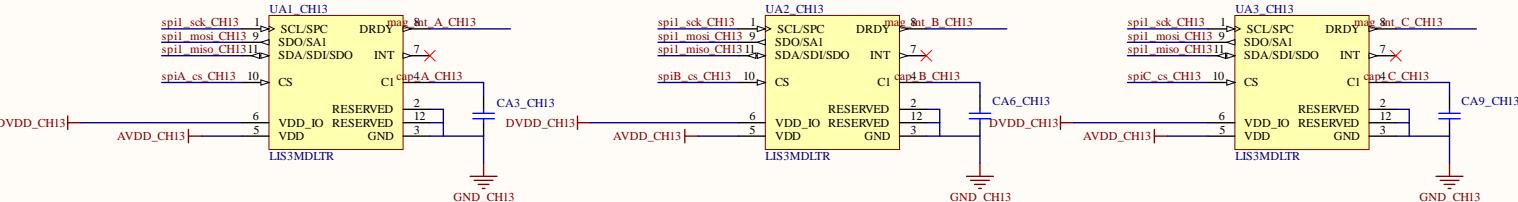


STM32L072 notes
Add testpoints for UART1_TX_TP and
UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)

PNI sensor coils require the use of halide-free solder pastes

LED notes
220 ohms in series with R
100 ohms in series with B and G

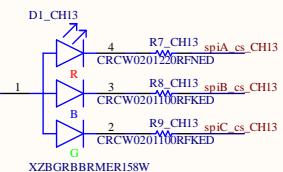
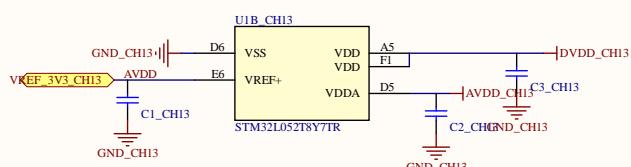
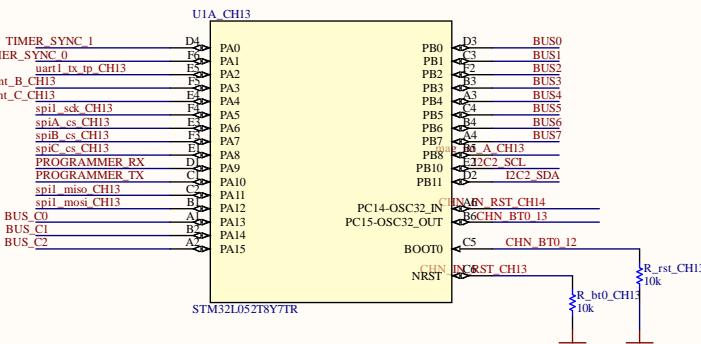


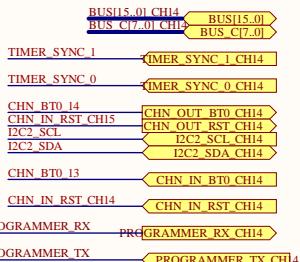
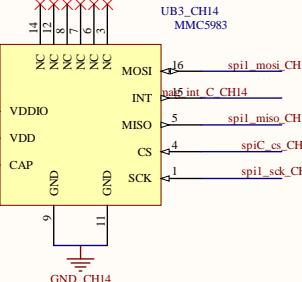
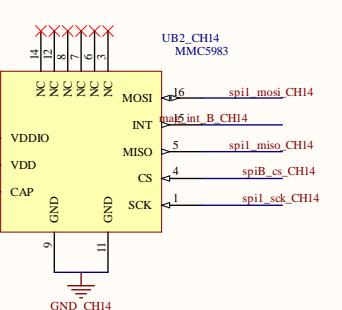
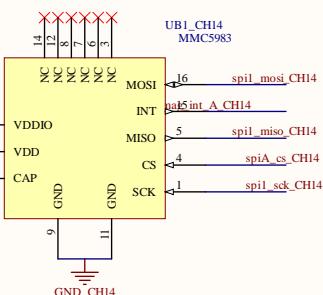
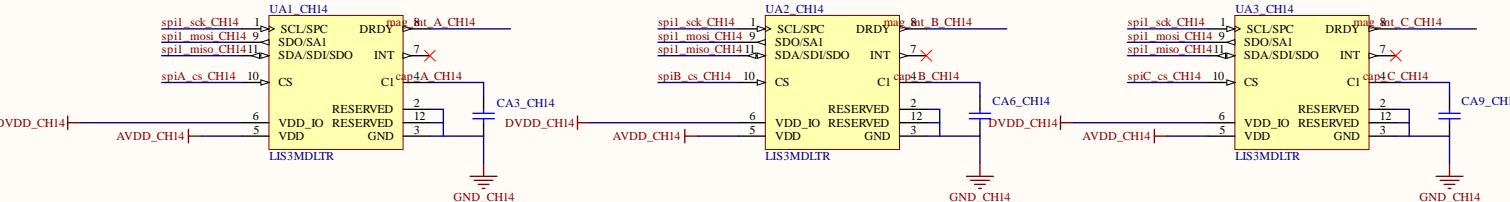
3D magnetometer

STM32L072 notes
Add testpoints for UART1_TX_TP and UART1_RX_TP (10 mils)
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PNI sensor coils require the use of halide-free solder pastes

LED notes
220 ohms in series with R
100 ohms in series with B and G

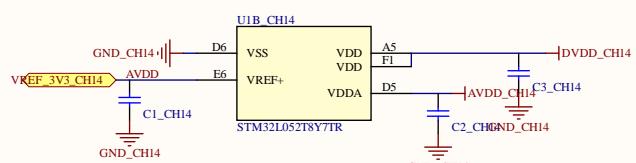
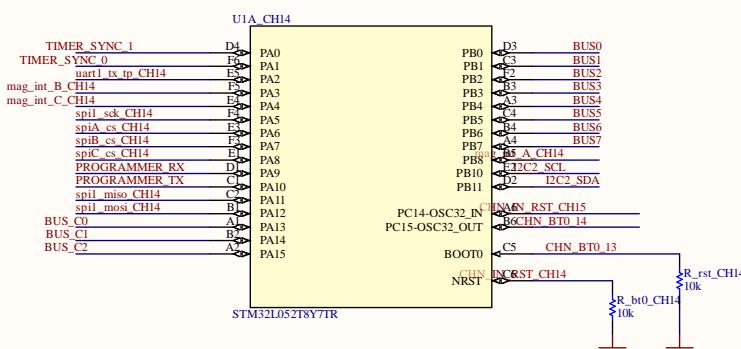
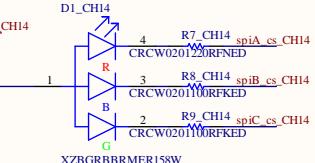


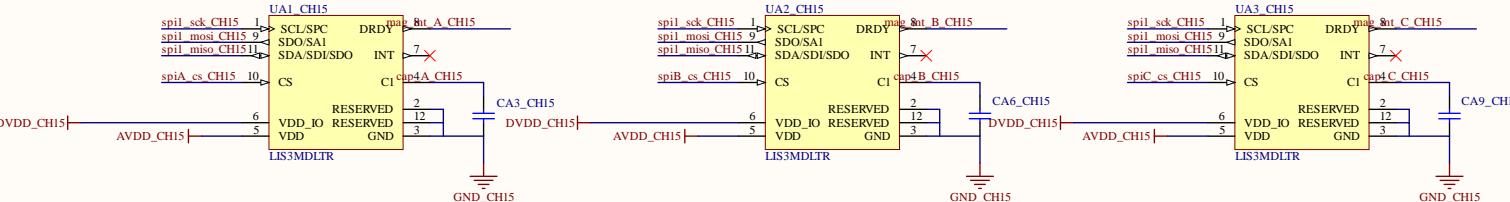
3D magnetometer

STM32L072 notes
Add testpoints for UART1_TX_TP and UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)

PNI sensor coils require the use of halide-free solder pastes

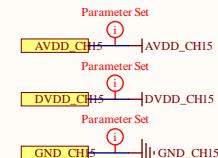
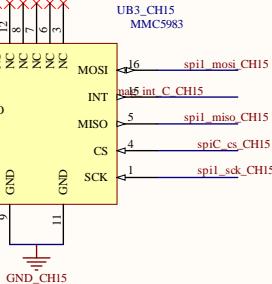
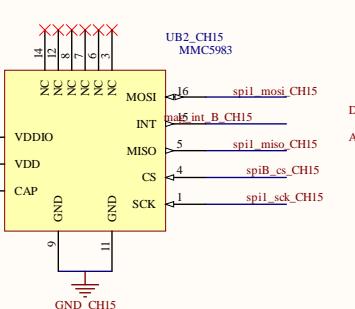
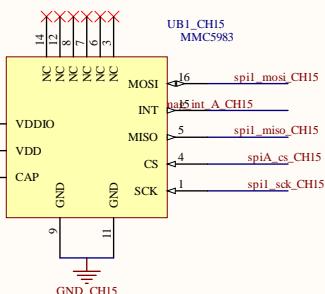
LED notes
220 ohms in series with R
100 ohms in series with B and G



3D magnetometer

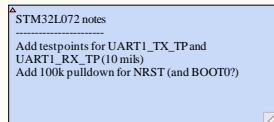
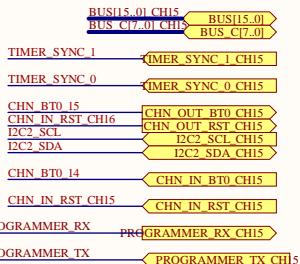
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A



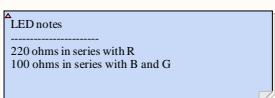
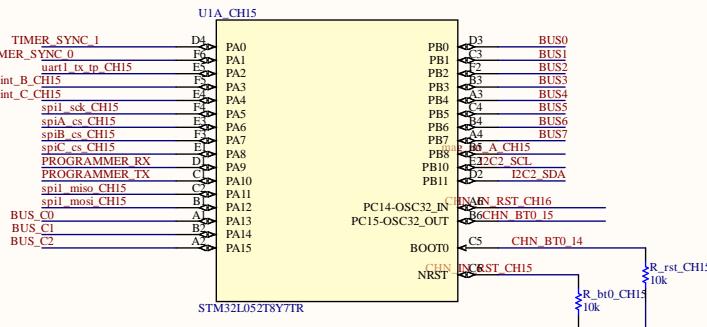
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B



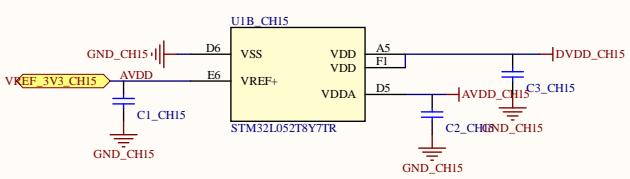
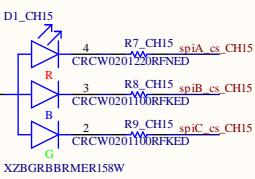
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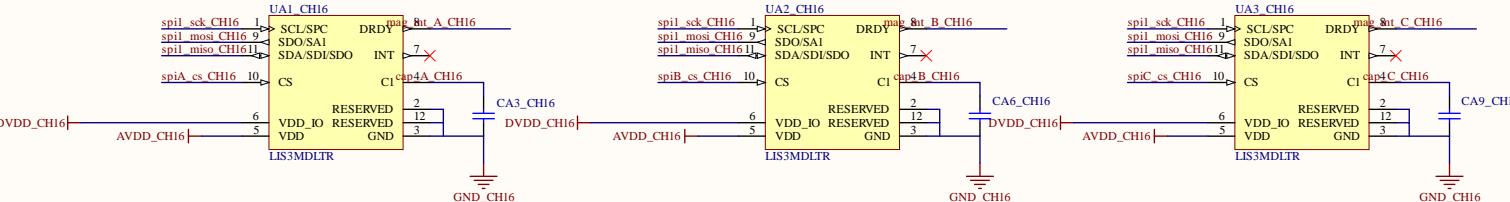
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D

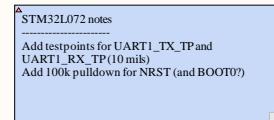
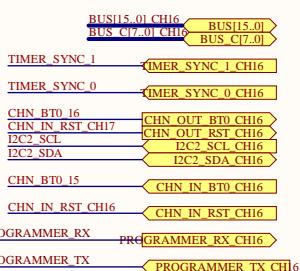
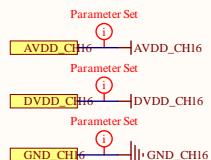
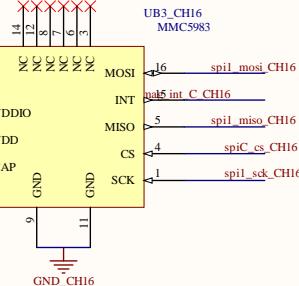
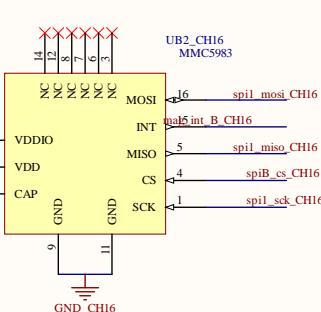
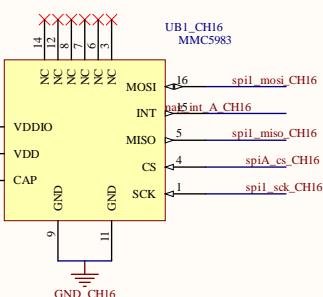
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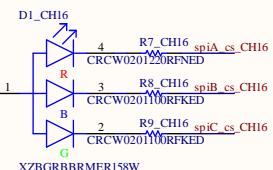
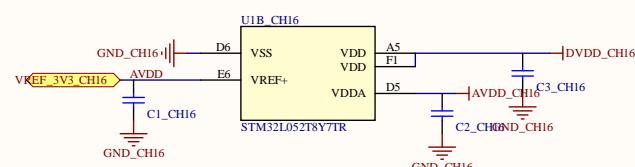
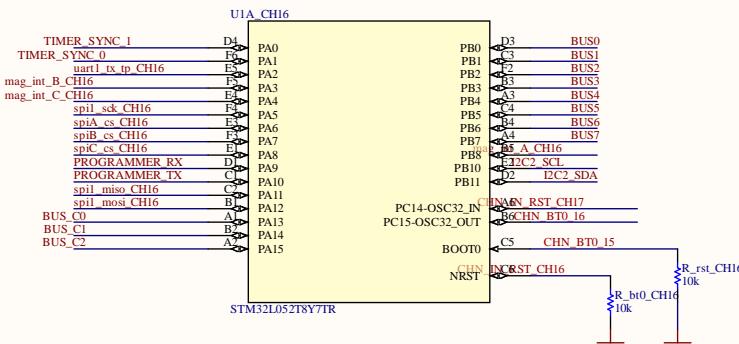
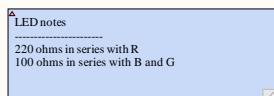
3D magnetometer

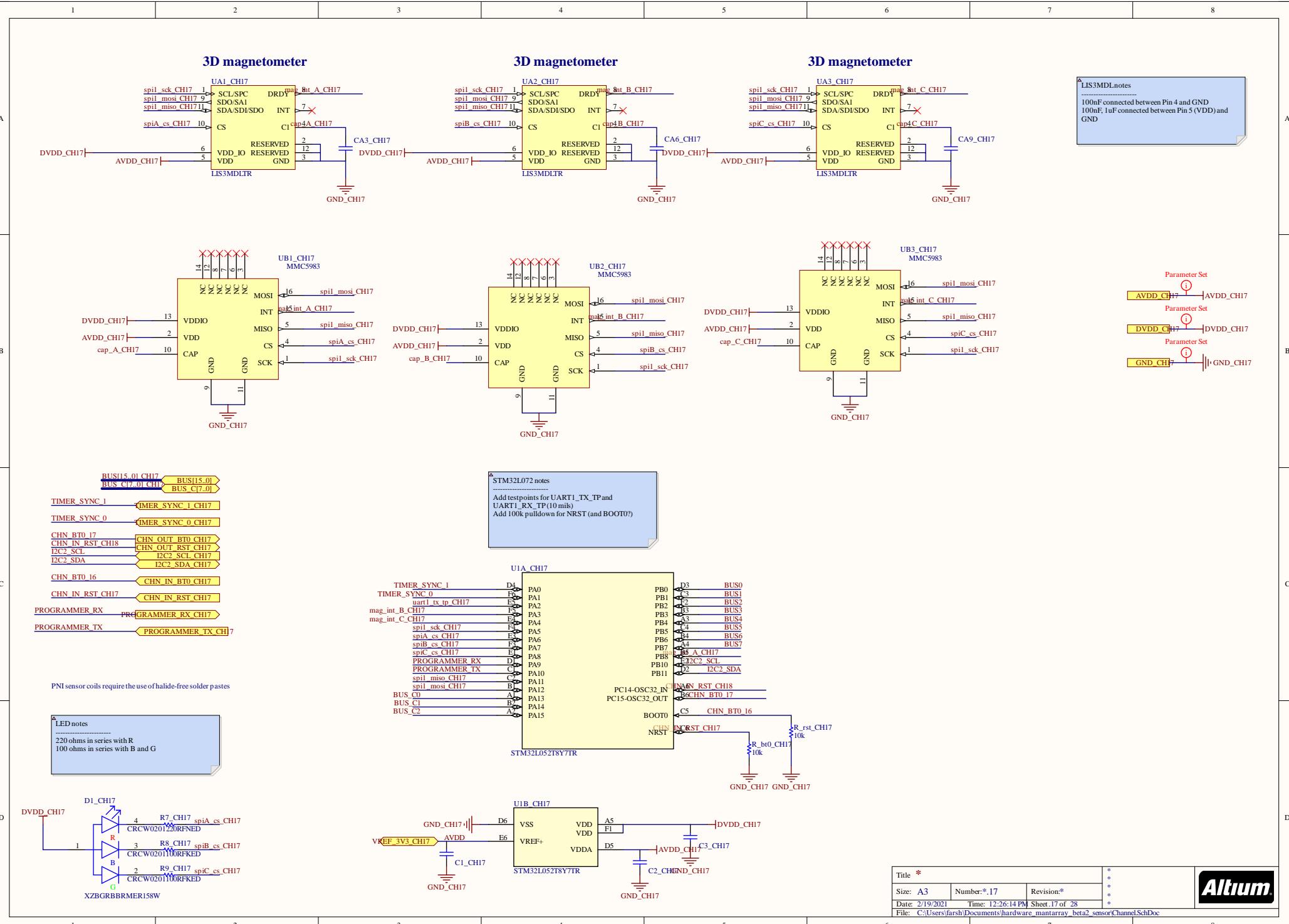
LIS3MDLnotes

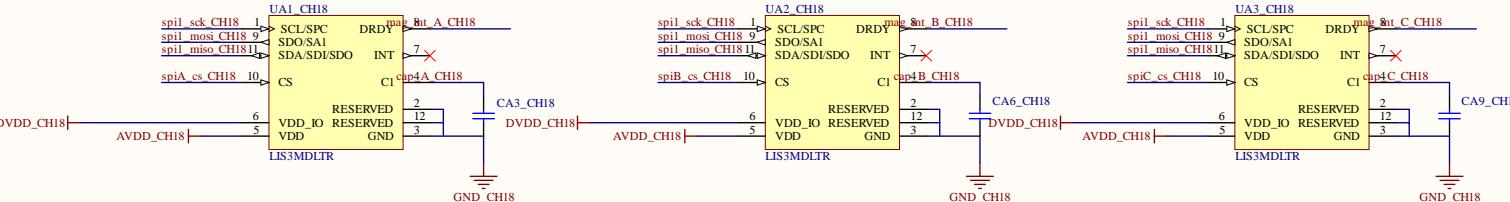
100nF connected between Pin 4 and GND
100nF, 1uF connected between Pin 5 (VDD) and GND



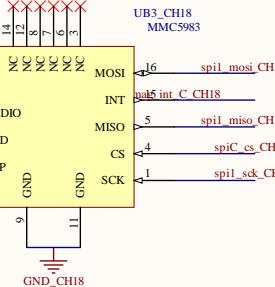
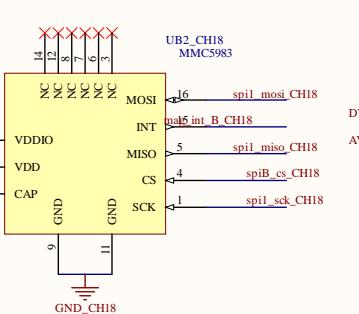
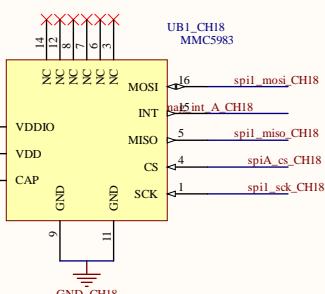
PNI sensor coils require the use of halide-free solder pastes



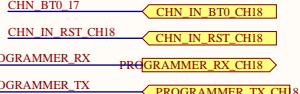


3D magnetometer**3D magnetometer**

LIS3MDLnotes
100nF connected between Pin 4 and GND
100nF, 1uF connected between Pin 5 (VDD) and GND



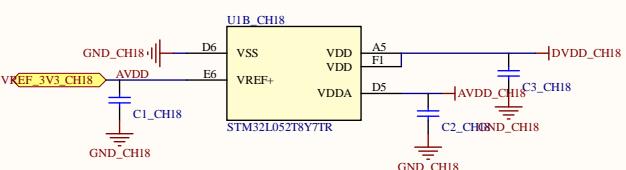
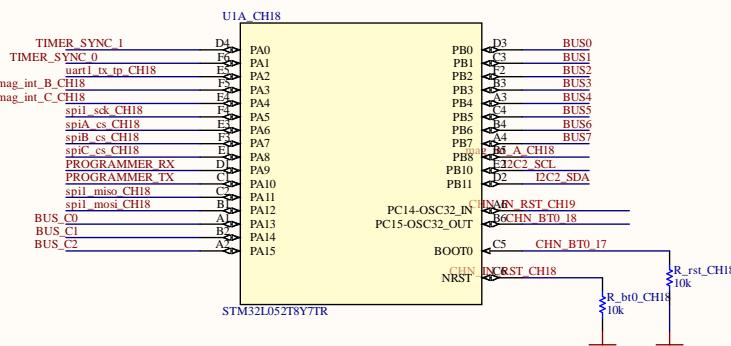
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Parameter Set
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Parameter Set
GND_CH18

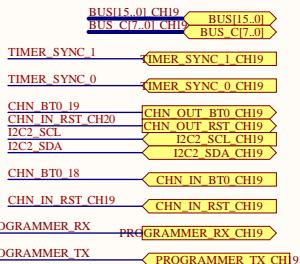
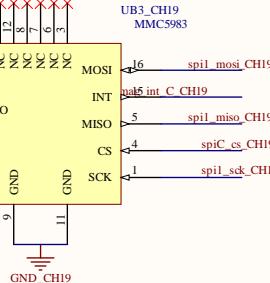
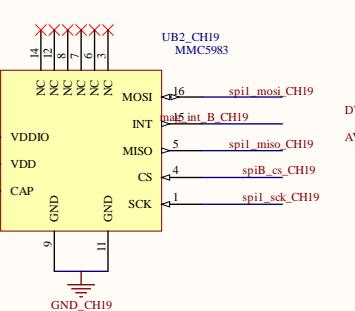
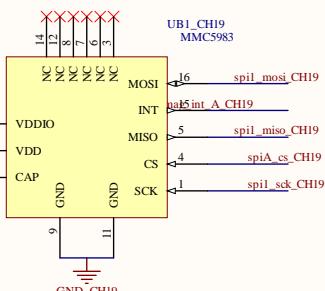
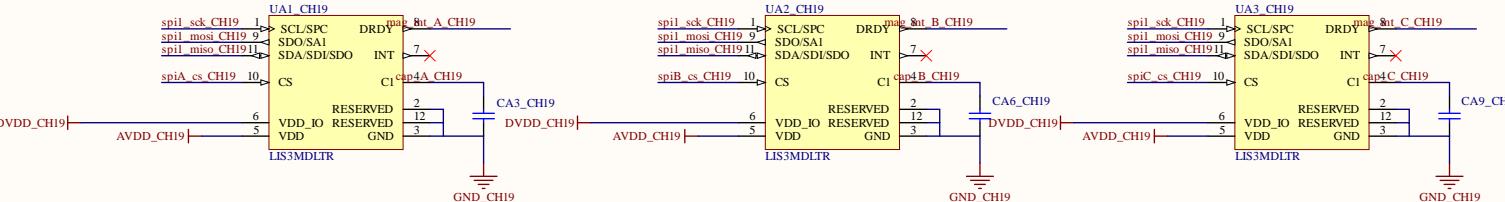


STM32L072 notes
Add testpoints for UART1_TX_TP and UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)

PNI sensor coils require the use of halide-free solder pastes

LED notes
220 ohms in series with R
100 ohms in series with B and G

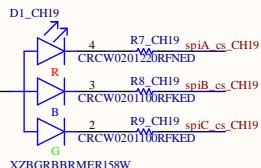
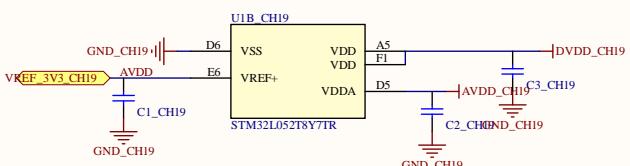
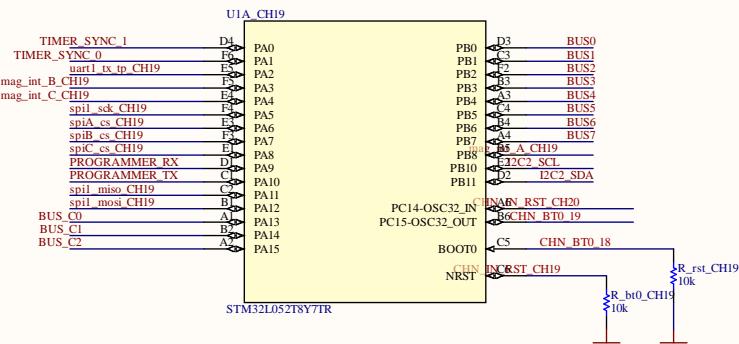


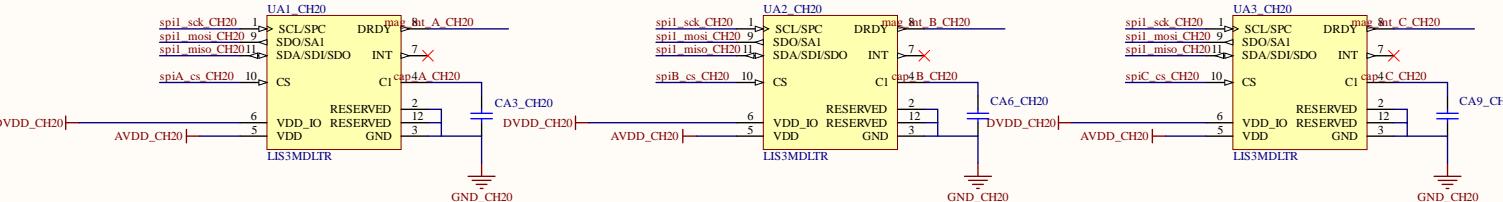
3D magnetometer

STM32L072 notes
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UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)

PNI sensor coils require the use of halide-free solder pastes

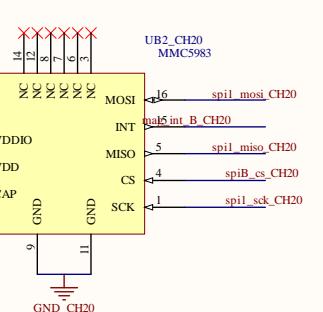
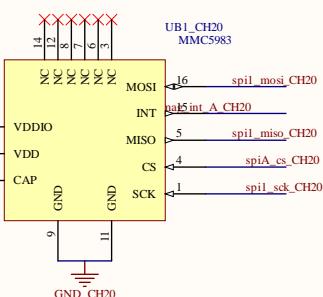
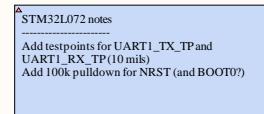
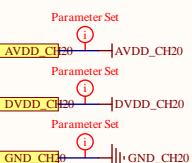
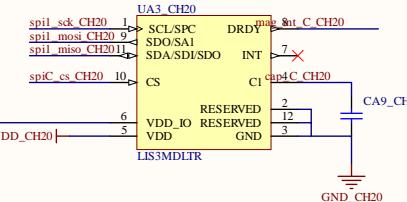
LED notes
220 ohms in series with R
100 ohms in series with B and G



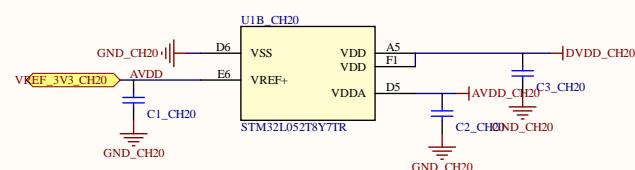
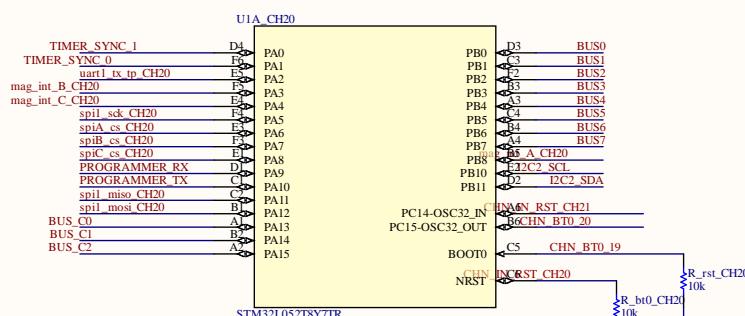
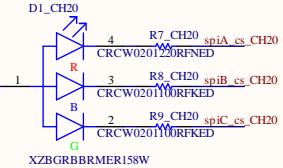
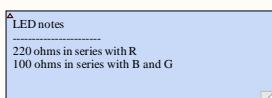
3D magnetometer

LIS3MDLnotes

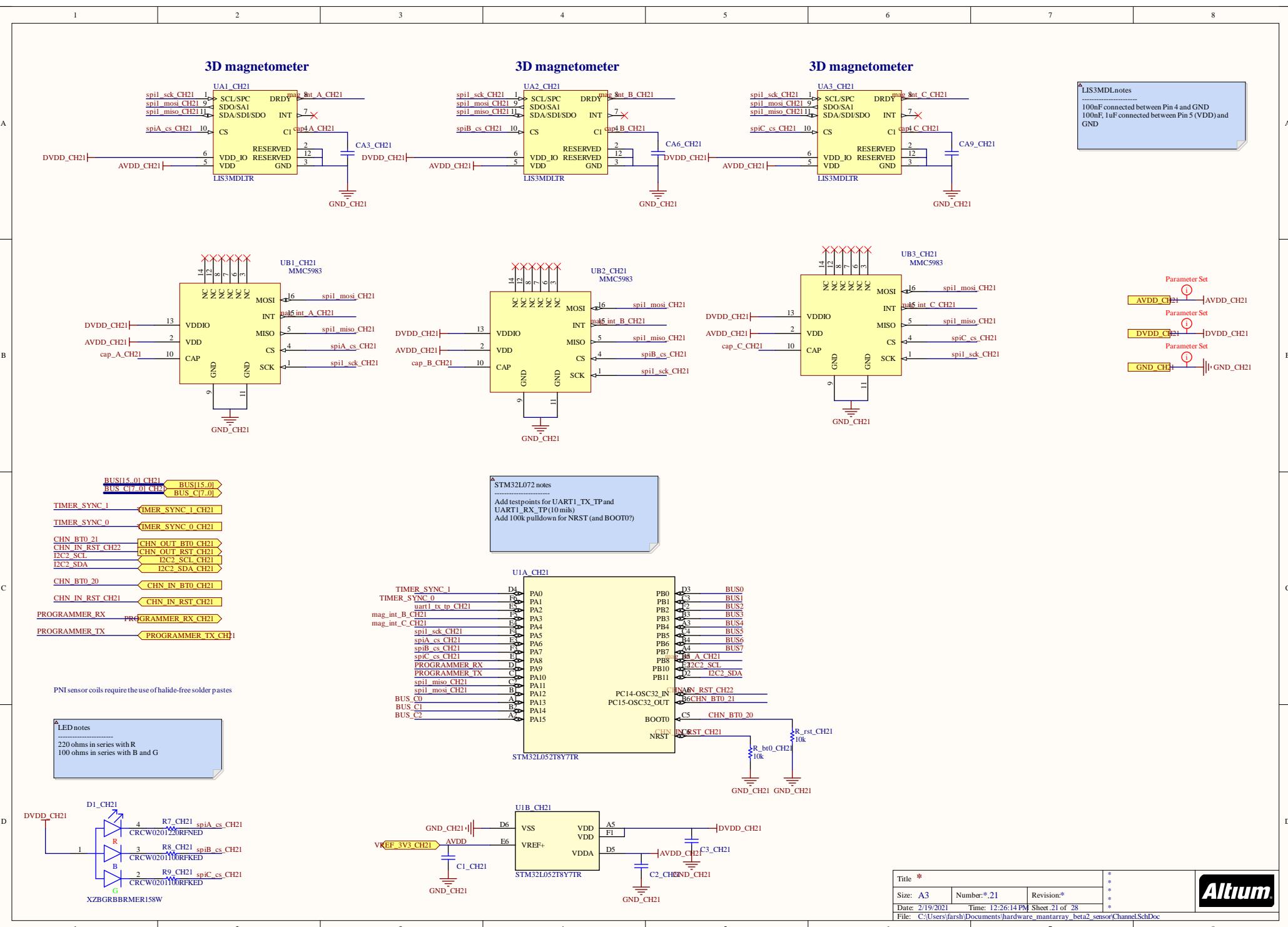
100nF connected between Pin 4 and GND
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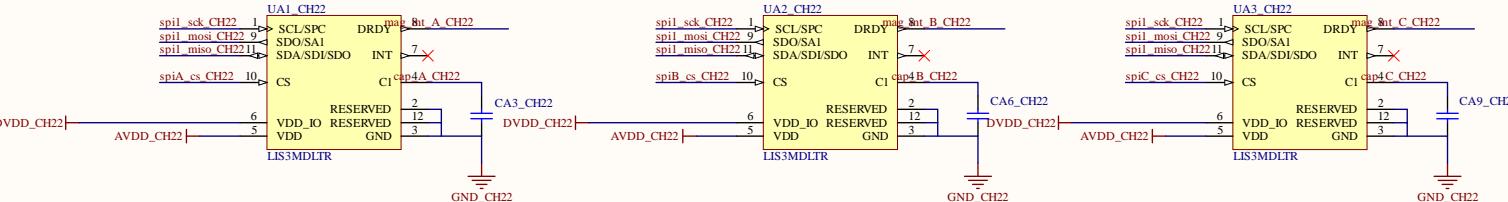
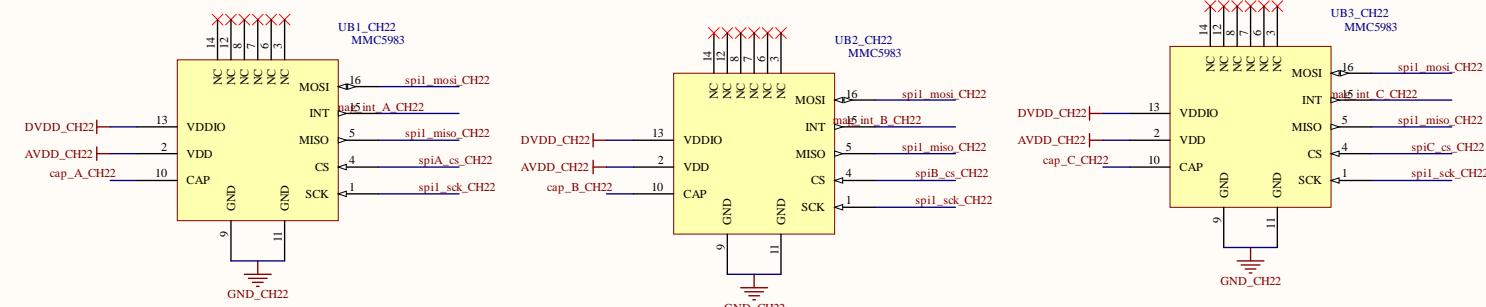
**3D magnetometer**

PNI sensor coils require the use of halide-free solder pastes

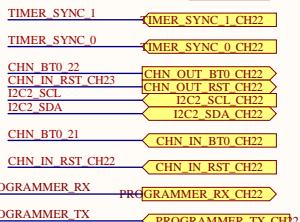


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Time: 12:26:14 PM	*
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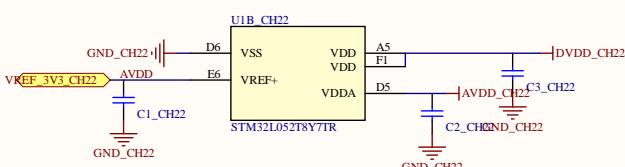
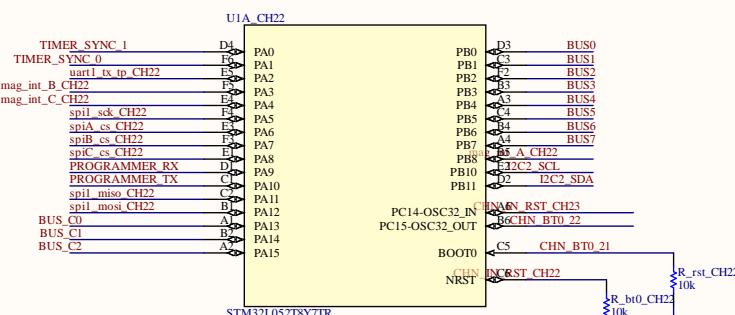
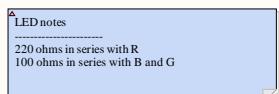


3D magnetometer**3D magnetometer****STM32L072 notes**

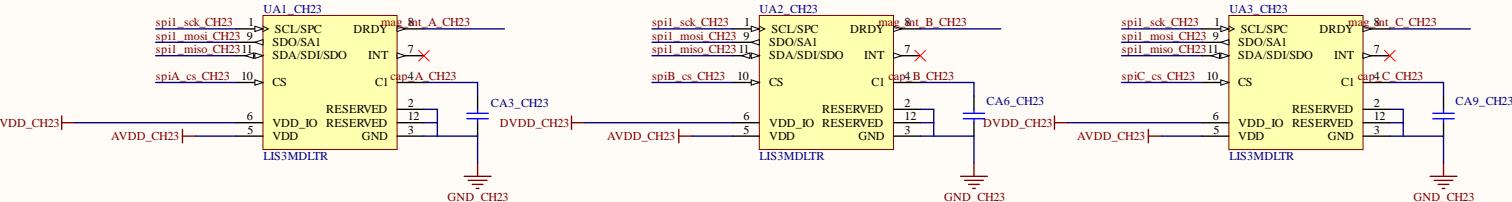
Add testpoints for UART1_TX_TP and
UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)



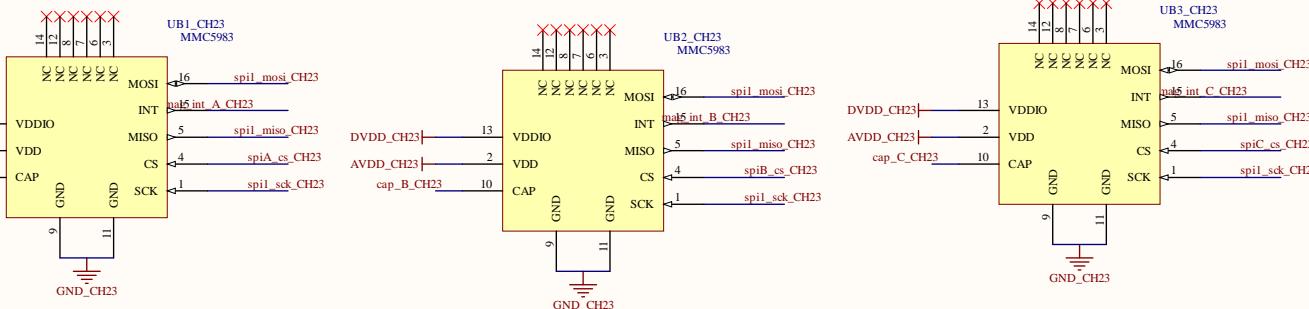
PNI sensor coils require the use of halide-free solder pastes



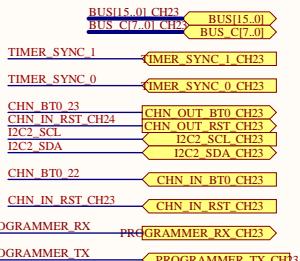
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Date: 2/19/2021	Time: 12:26:14 PM	Sheet: 22 of 28	*
File: C:/Users/farsh/Documents/hardware/manarray_beta2_sensor/ChannelSchDoc			*

3D magnetometer

LIS3MDLnotes
100nF connected between Pin 4 and GND
100nF, 1uF connected between Pin 5 (VDD) and GND



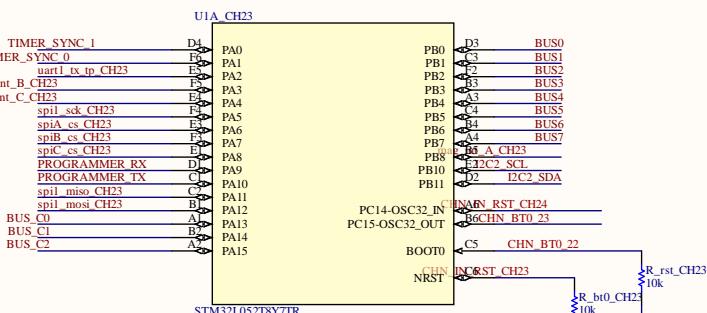
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Parameter Set
DVDD_CH23
Parameter Set
GND_CH23



STM32L072 notes
Add testpoints for UART1_TX_TP and UART1_RX_TP (10 mils)
Add 100k pulldown for NRST (and BOOT0?)

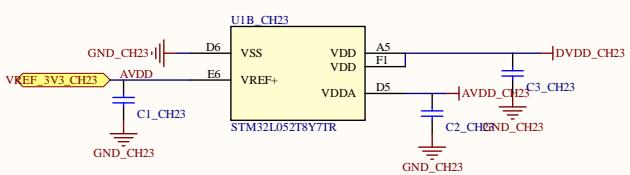
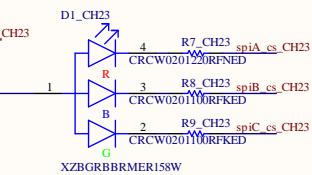
PNI sensor coils require the use of halide-free solder pastes

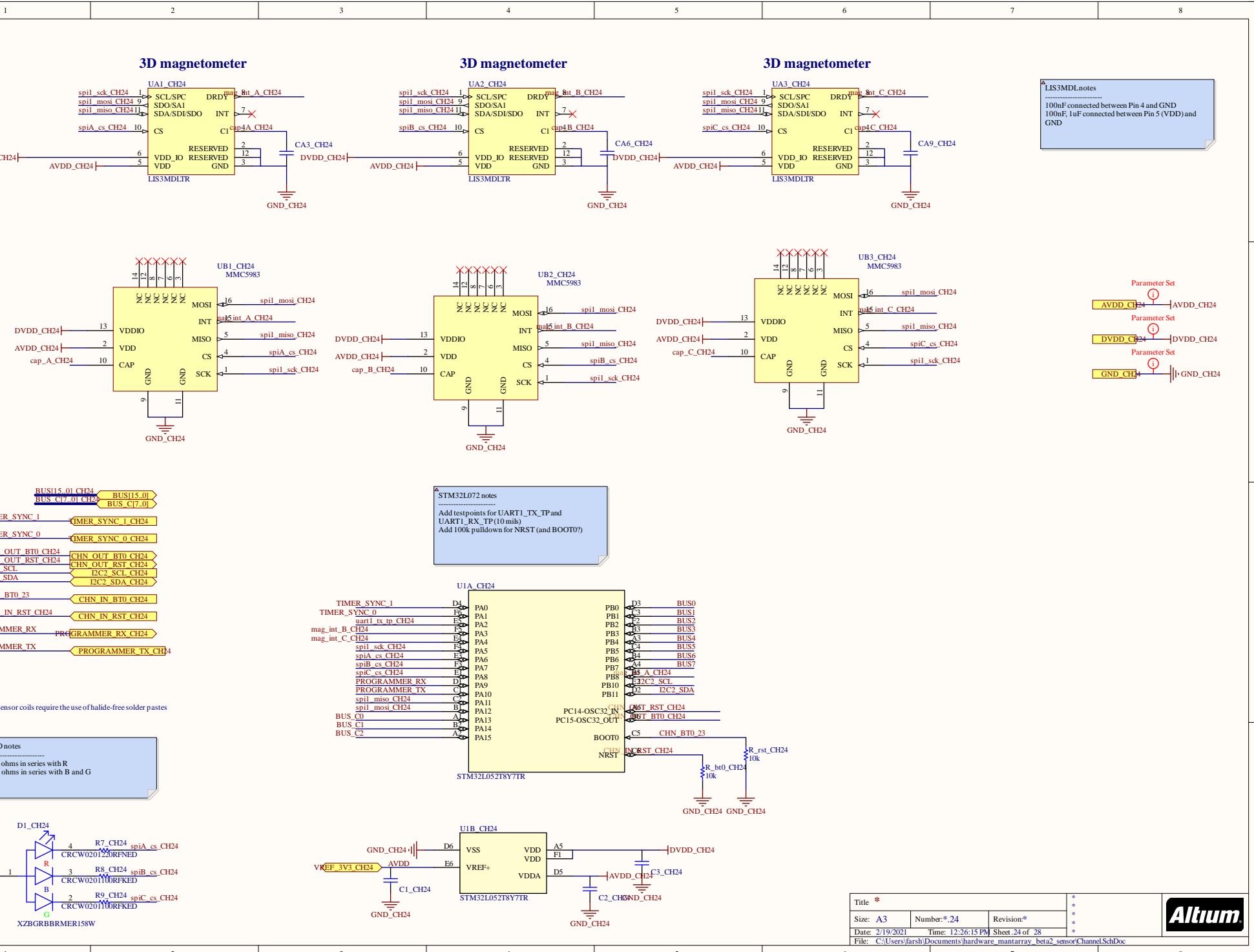
LED notes
220 ohms in series with R
100 ohms in series with B and G



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Altium





A

A

B

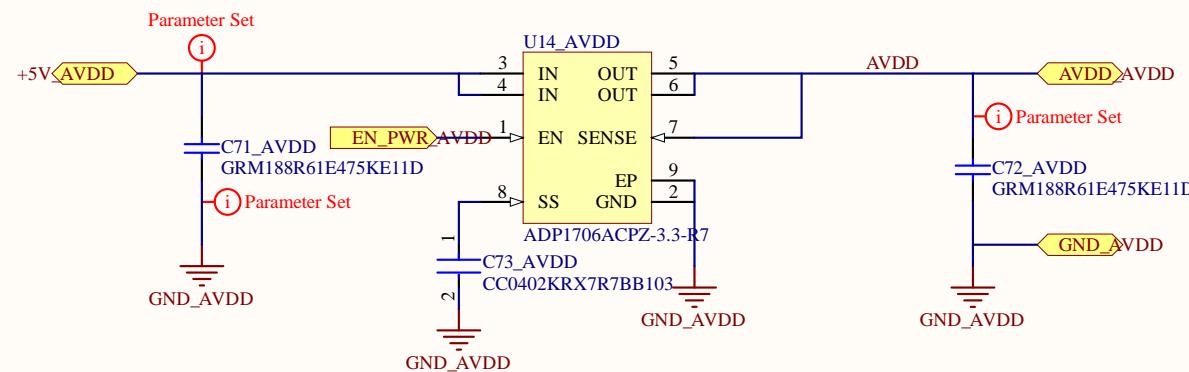
B

C

C

D

D



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A

A

B

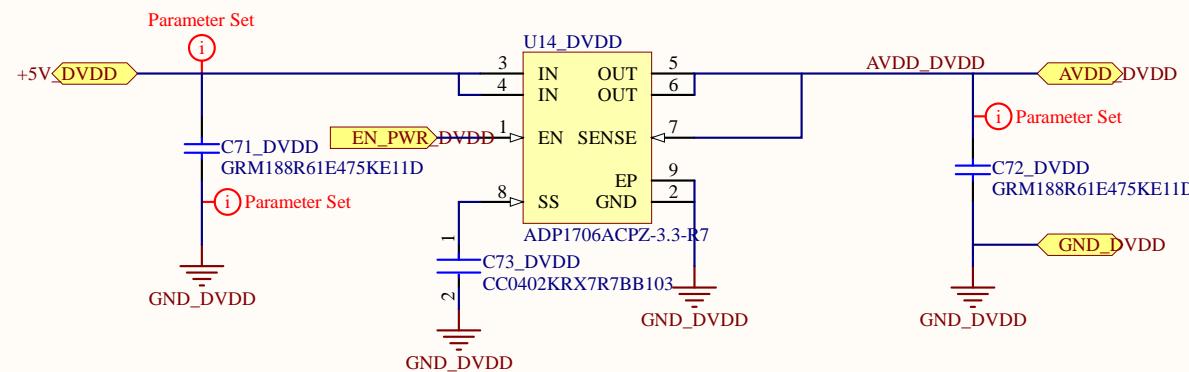
B

C

C

D

D



Title		
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