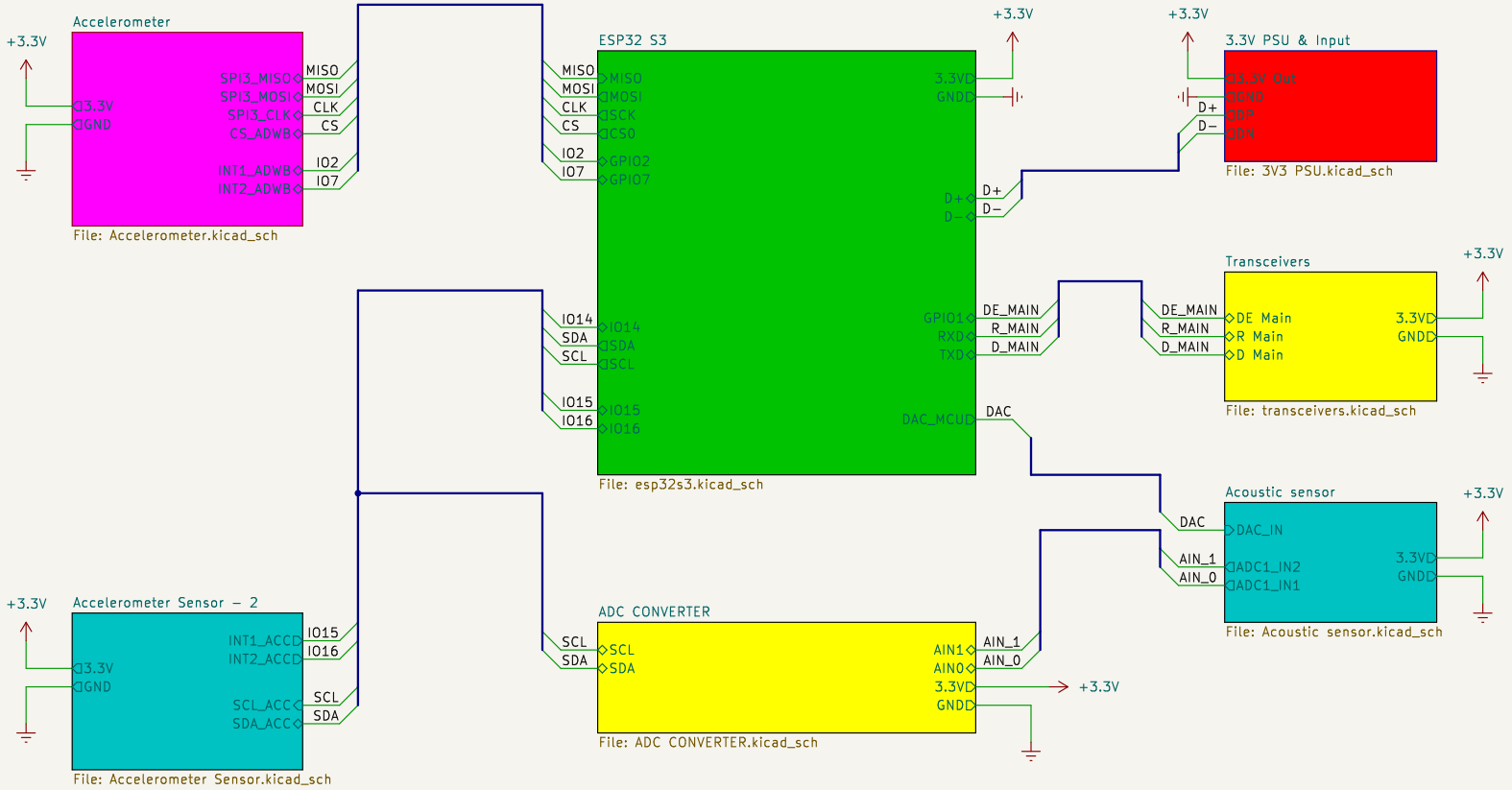

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Title: AVA V1.2

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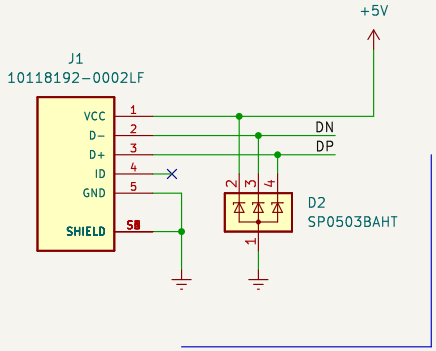
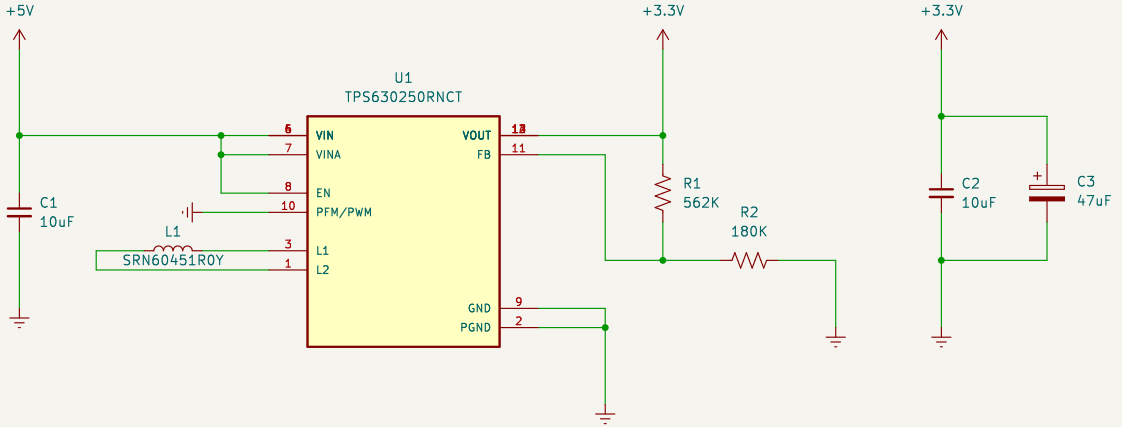
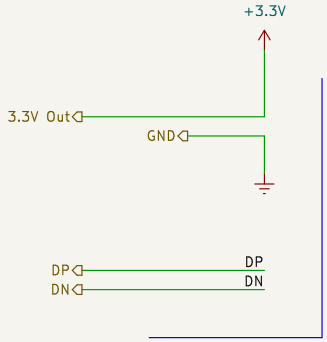




Switching Voltage Regulators 4A Switch Sng-Ind Buck-Boost Converter

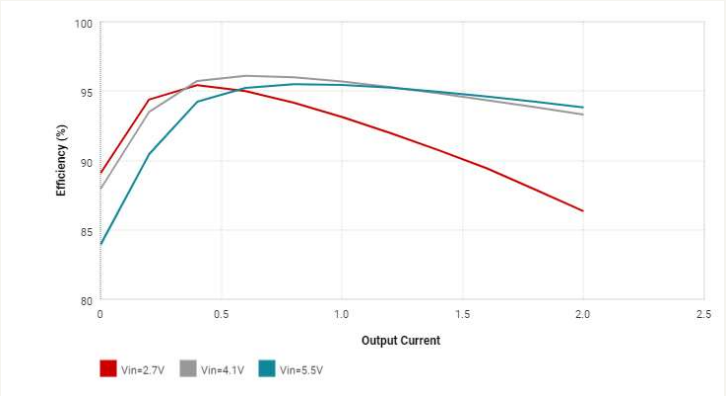


H1 MountingHole

H2 MountingHole

H3 MountingHole

H4 MountingHole



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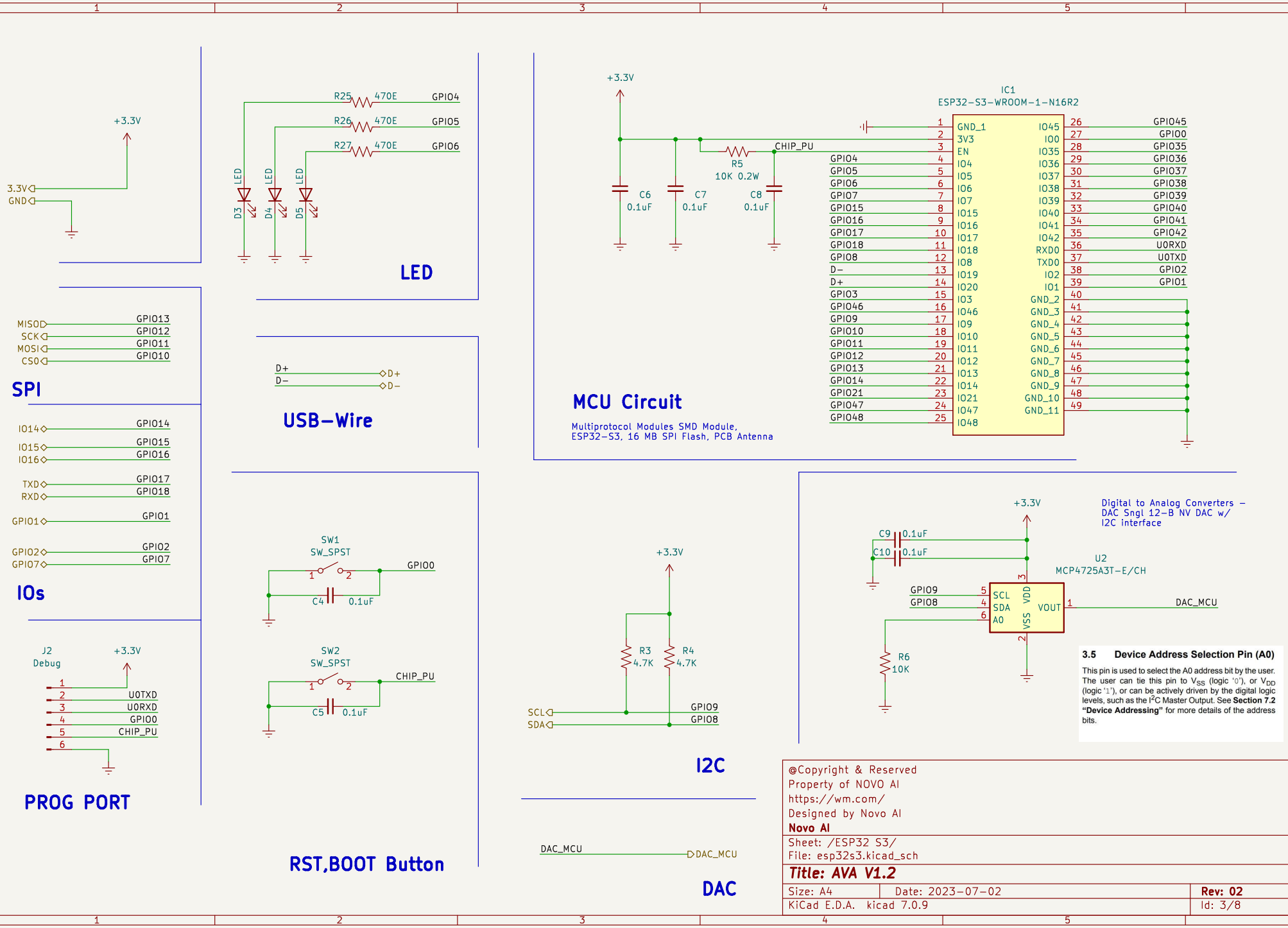

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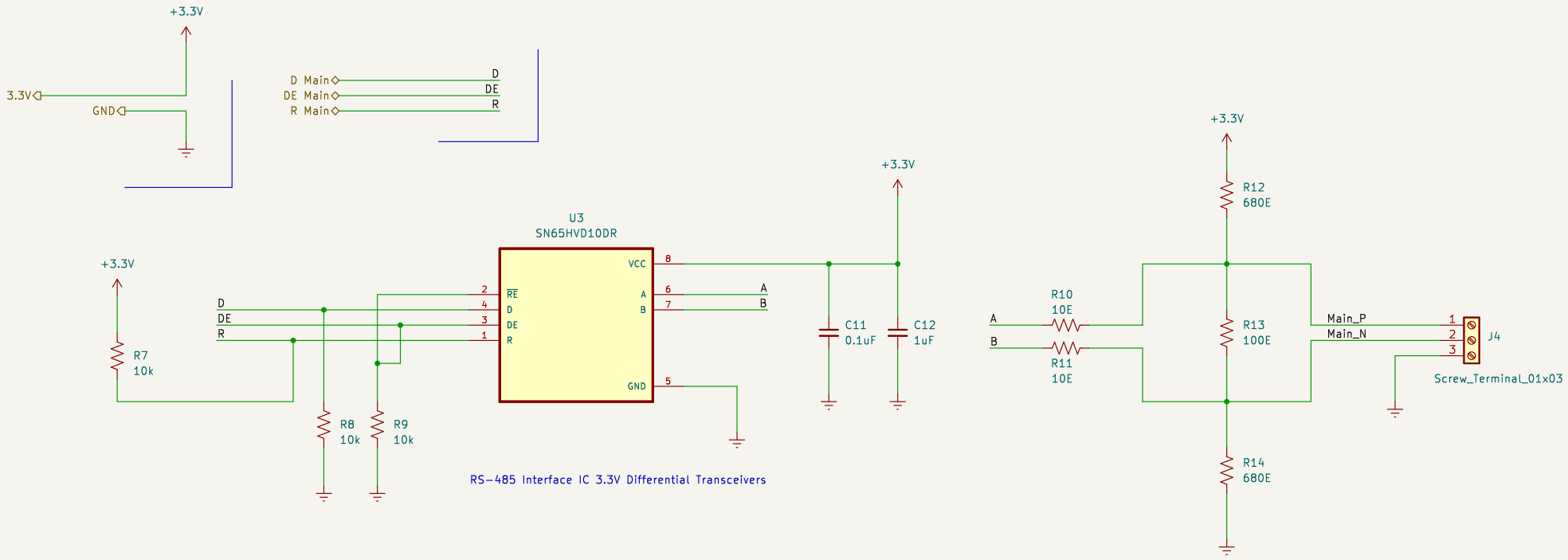


Driver Functions

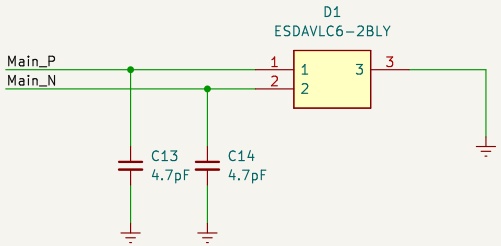
INPUT	ENABLE	OUTPUTS		FUNCTION
D	DE	A	B	
H	H	H	L	Actively drive bus High
L	H	L	H	Actively drive bus Low
X	L	Z	Z	Driver disabled
X	OPEN	Z	Z	Driver disabled by default
OPEN	H	H	L	Actively drive bus High by default

(1) H = high level; L = low level; Z = high impedance; X = irrelevant; ? = indeterminate

Receiver Functions

DIFFERENTIAL INPUT $V_{ID} = V_A - V_B$	ENABLE $\overline{RE}$	OUTPUT R	FUNCTION
$V_{ID} > V_{IT+}$	L	H	Receive valid bus High
$V_{IT-} < V_{ID} < V_{IT+}$	L	?	Indeterminate bus state
$V_{ID} < V_{IT-}$	L	L	Receive valid bus Low
X	H	Z	Receiver disabled
X	OPEN	Z	Receiver disabled by default
Open-circuit bus	L	H	Fail-safe high output
Short-circuit bus	L	H	Fail-safe high output

(1) H = high level; L = low level; Z = high impedance; X = irrelevant; ? = indeterminate



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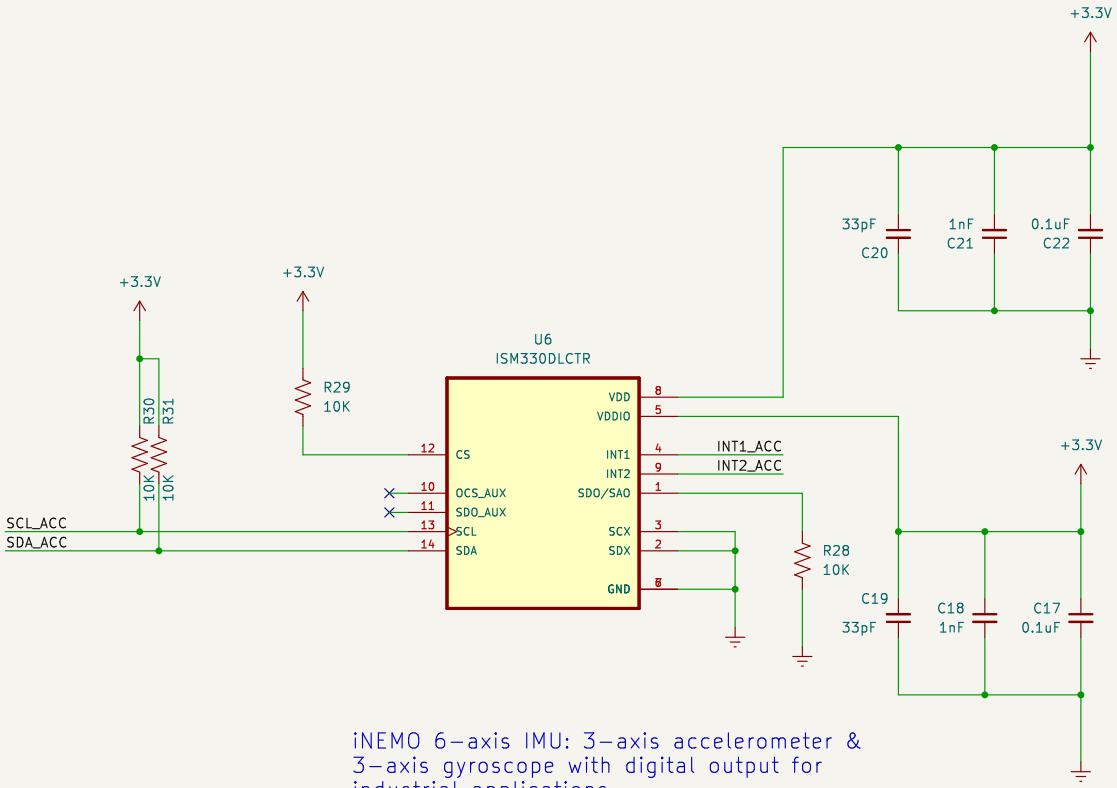

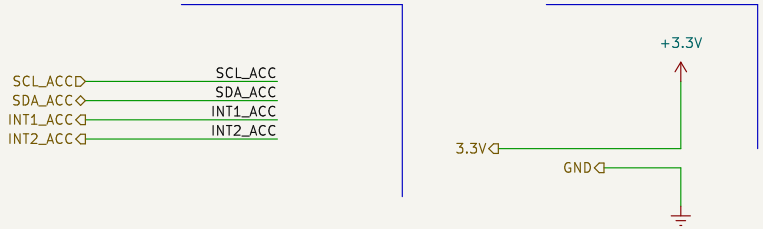

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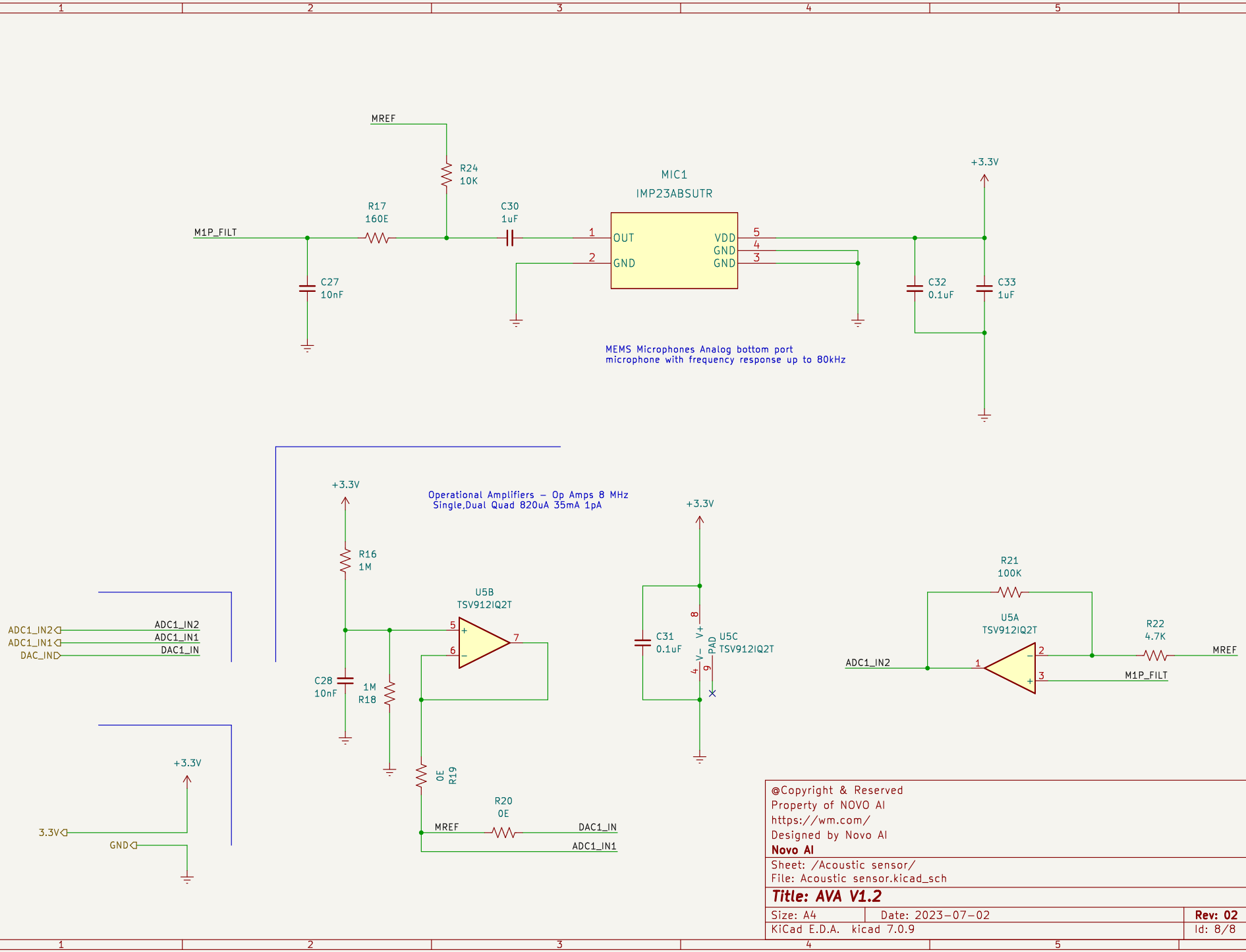
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R24
10K
MIC1
IMP23ABSUTR
+3.3V
R17
160E
C30
1uF
M1P_FILT
OUT
GND
VDD
GND
GND
C27
10nF
C32
0.1uF
C33
1uF
MEMS Microphones Analog bottom port
microphone with frequency response up to 80kHz
+3.3V
Operational Amplifiers – Op Amps 8 MHz
Single,Dual Quad 820uA 35mA 1pA
+3.3V
R16
1M
U5B
TSV912IQ2T
ADC1_IN2
ADC1_IN1
DAC_IN
C28
10nF
1M
R18
C31
0.1uF
U5C
TSV912IQ2T
R21
100K
U5A
TSV912IQ2T
R22
4.7K
MREF
M1P_FILT
0E
R19
R20
0E
MREF
DAC1_IN
ADC1_IN1
+3.3V
3.3V
GND
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Sheet: /Acoustic sensor/
File: Acoustic sensor.kicad_sch
Title: AVA V1.2
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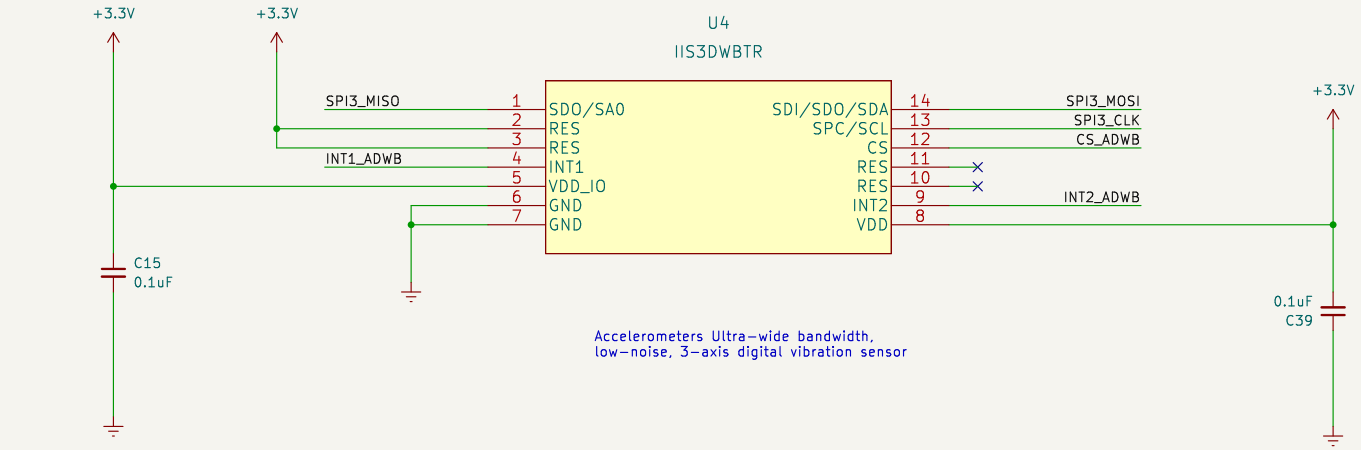

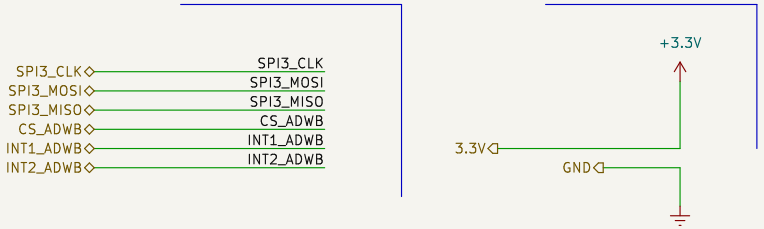

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Title: AVA V1.2

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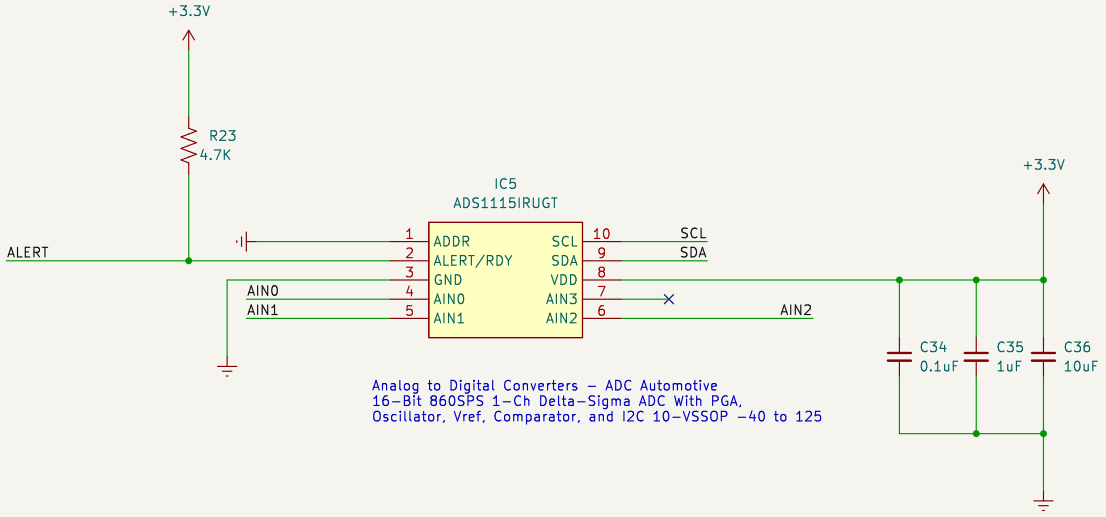

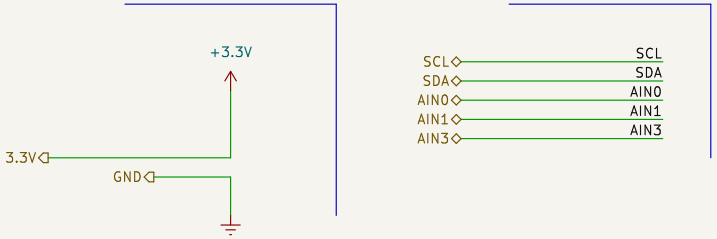

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Title: AVA V1.2

Size: A4	Date: 2023-07-02	**Rev: 02**
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