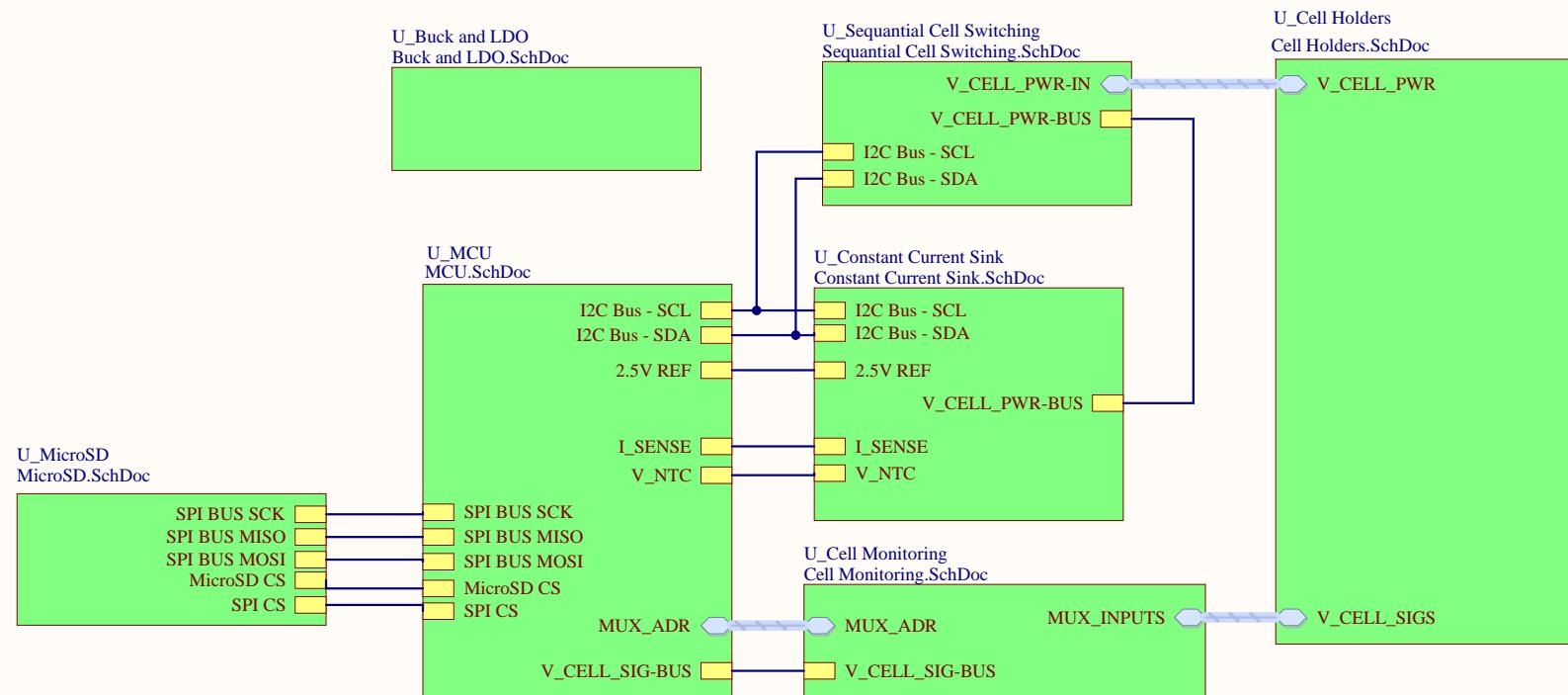


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File: C:\Users\...\TopLevel.SchDoc

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5V Buck / 3.3V LDO

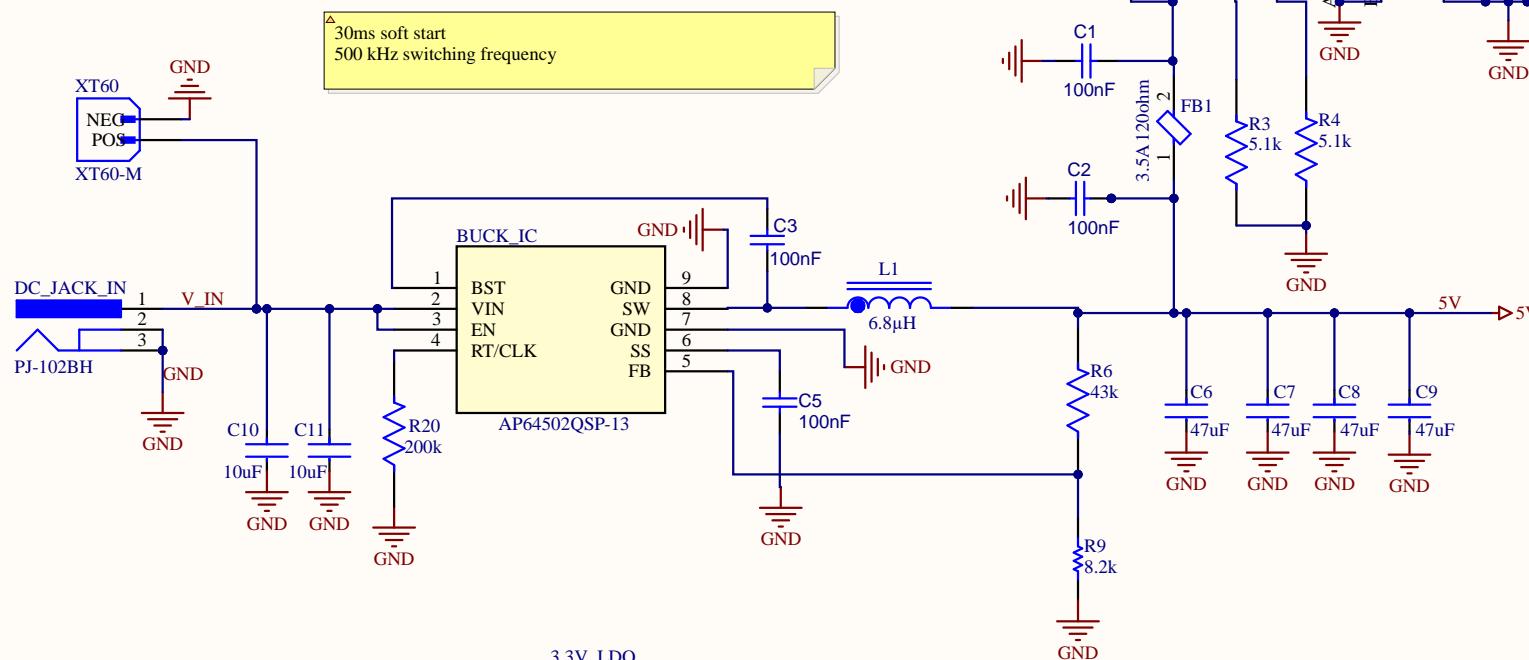
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30ms soft start
500 kHz switching frequency

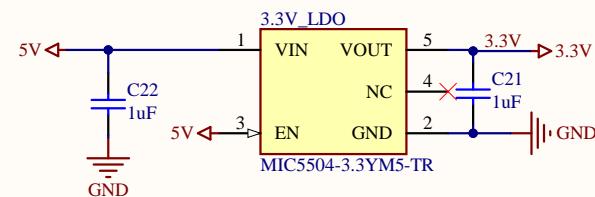
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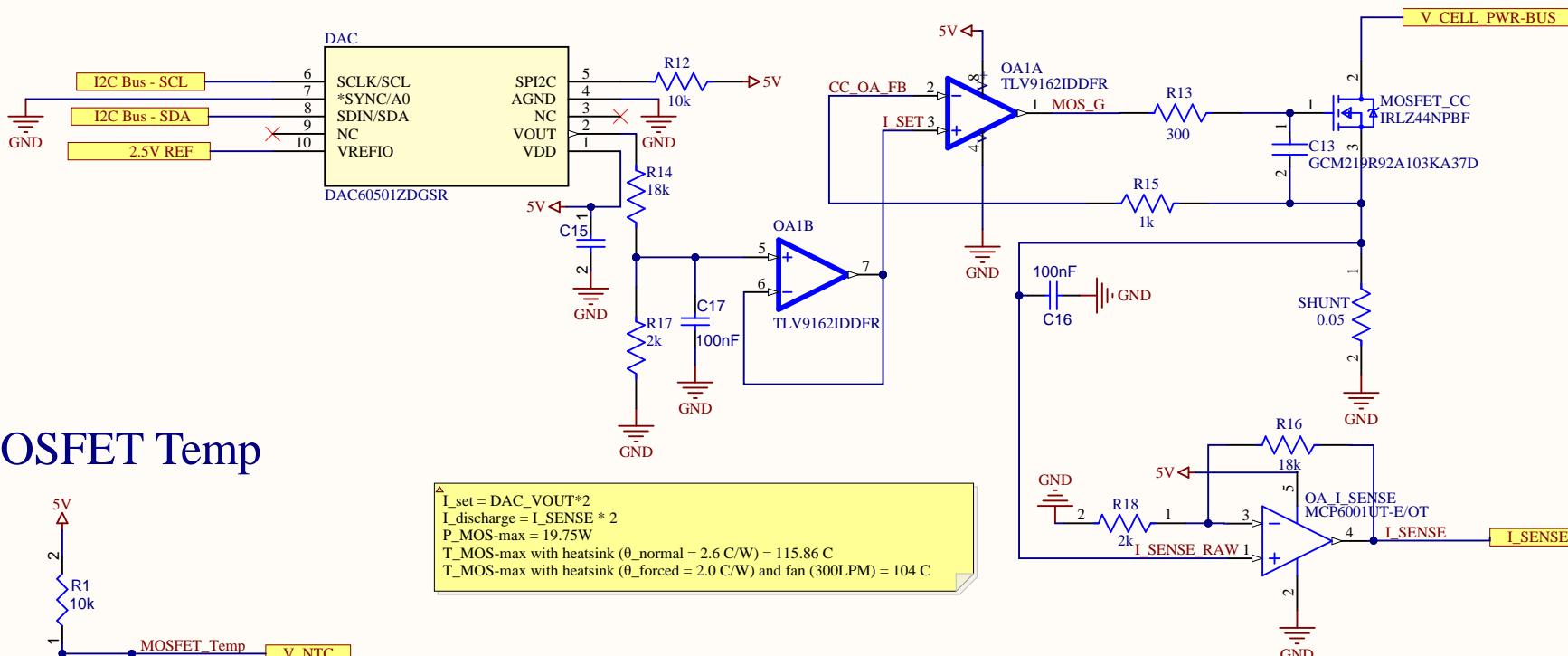
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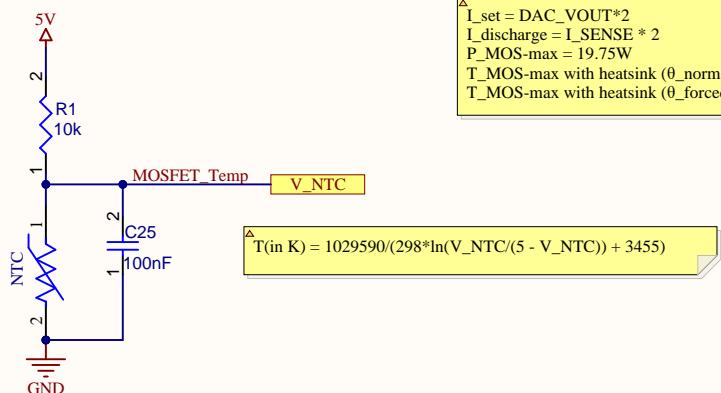
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CONSTANT CURRENT SINK



MOSFET Temp



```

△ I_set = DAC_VOUT*2
I_discharge = I_SENSE * 2
P_MOS-max = 19.75W
T_MOS-max with heatsink (θ_normal = 2.6 C/W) = 115.86 C
T_MOS-max with heatsink (θ_forced = 2.0 C/W) and fan (300LPM) = 104 C

```

$$T(\text{in K}) = 1029590/(298*\ln(V_{\text{NTC}}/(5 - V_{\text{NTC}})) + 3455)$$

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File:	C:\Users\...\Constant Current Sink.SchDoc	Drawn By:

CELL HOLDERS

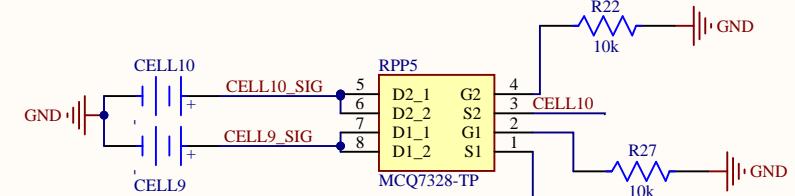
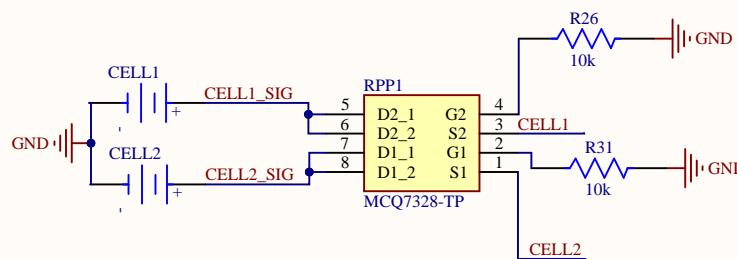
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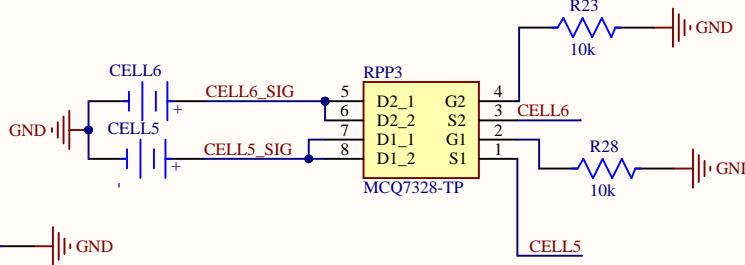
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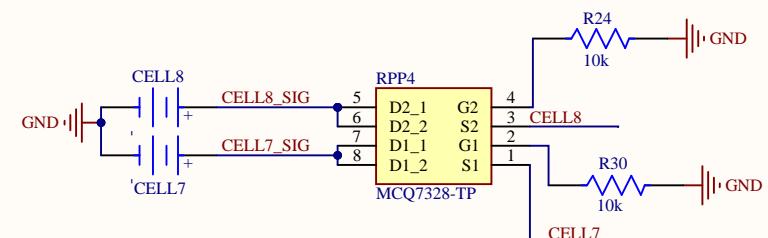
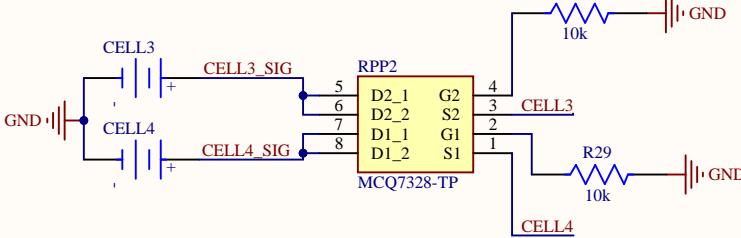


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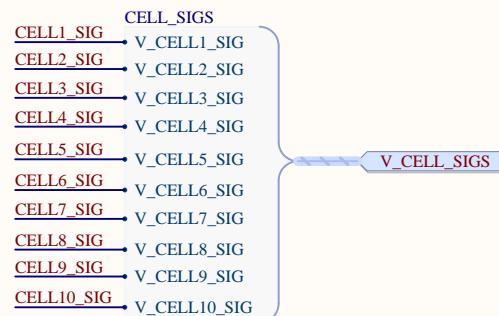
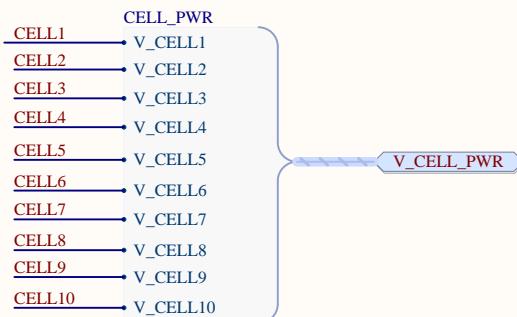


△ RPP1-5 are for reverse polarity protection. Approx voltage drop across D-S @ 5A is 140mv. SIG wires are added before RPP for kelvin sense

C



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File: C:\Users\...\Cell Holders.SchDoc		Drawn By:

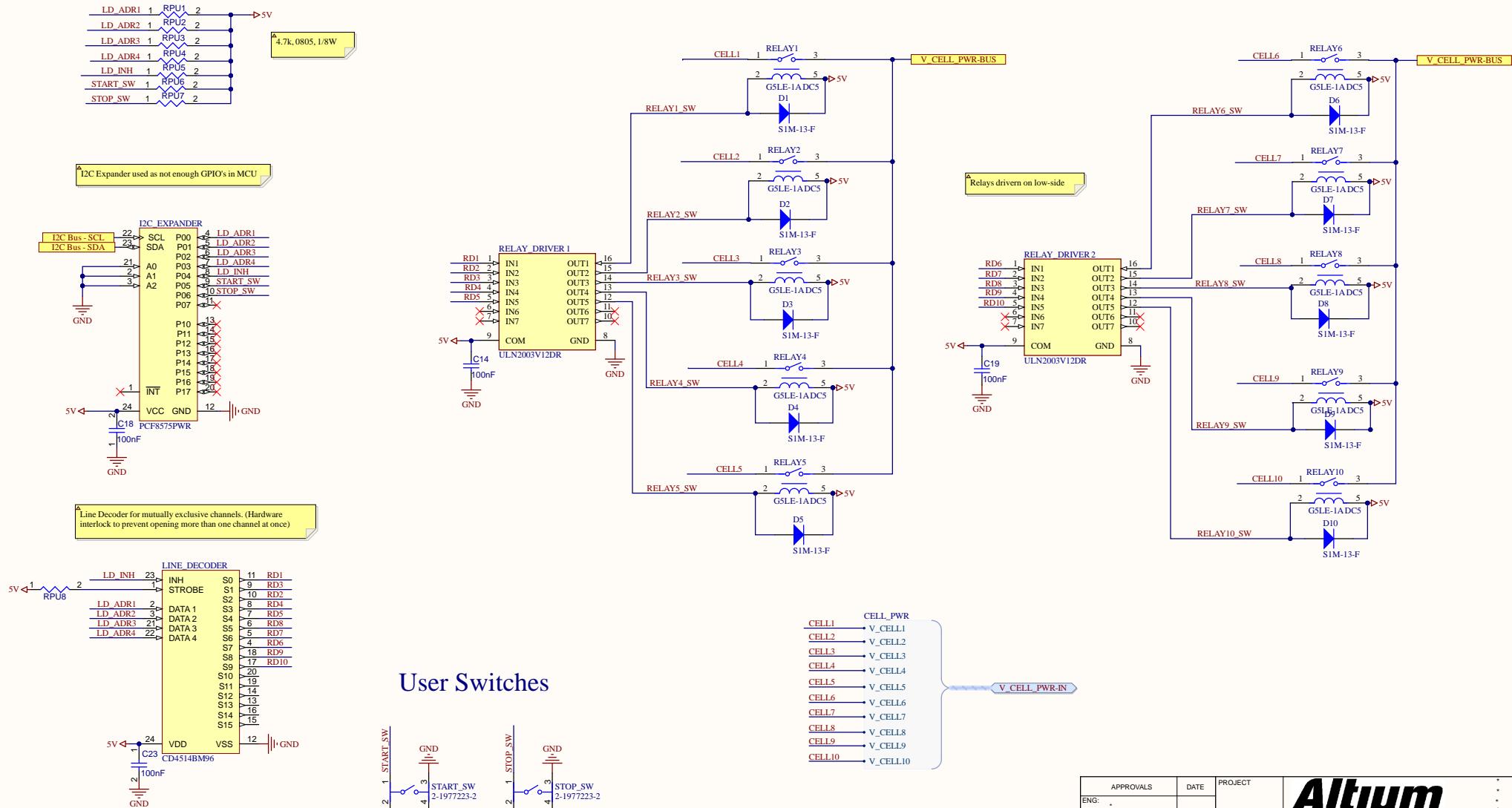
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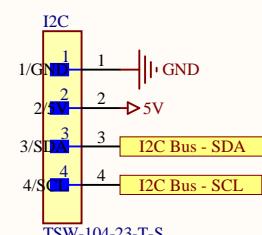
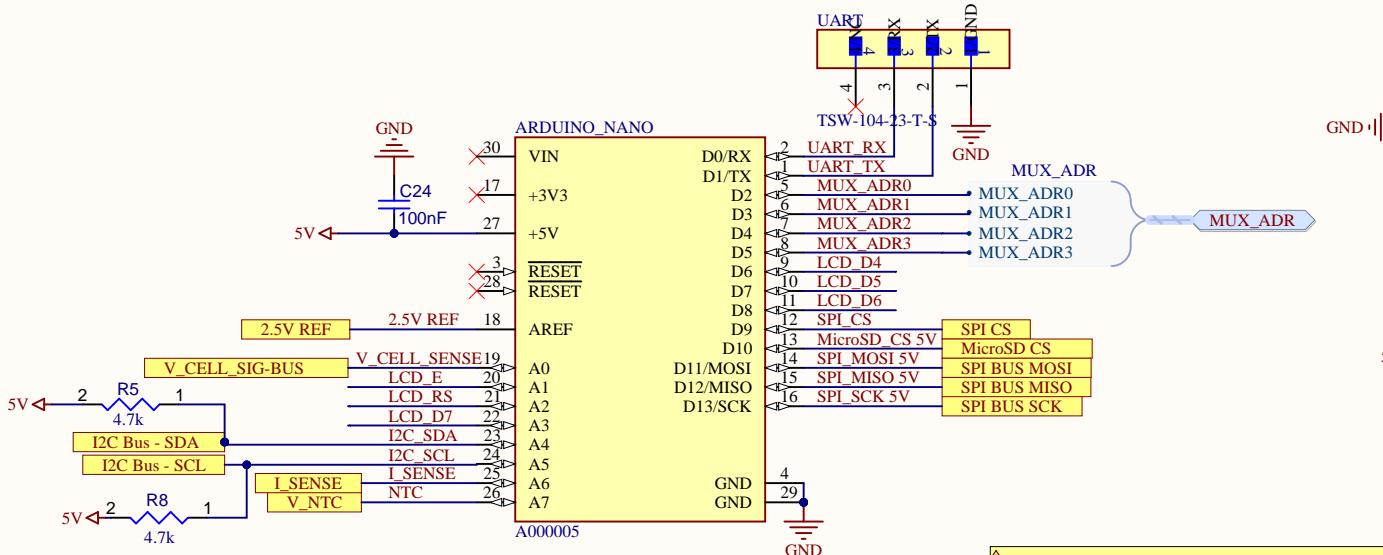
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SEQUANTIAL CELL SWITCHING



MCU (Nucleo / Nano)

LCD

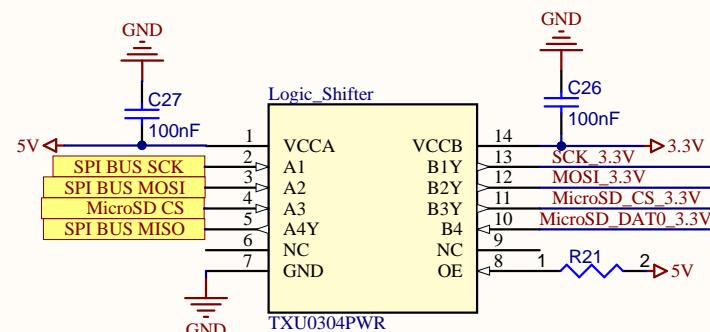


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MicroSD

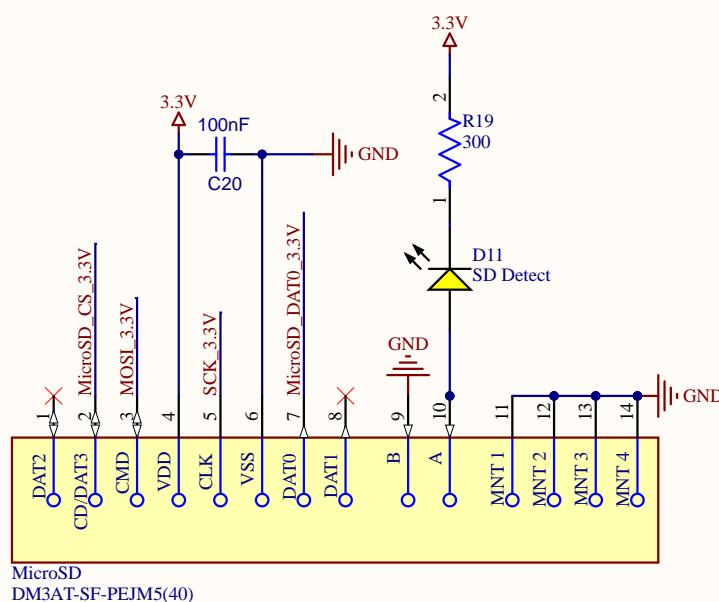
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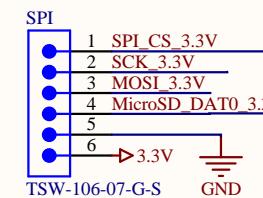
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SPI header for testpoint and future expansion modules



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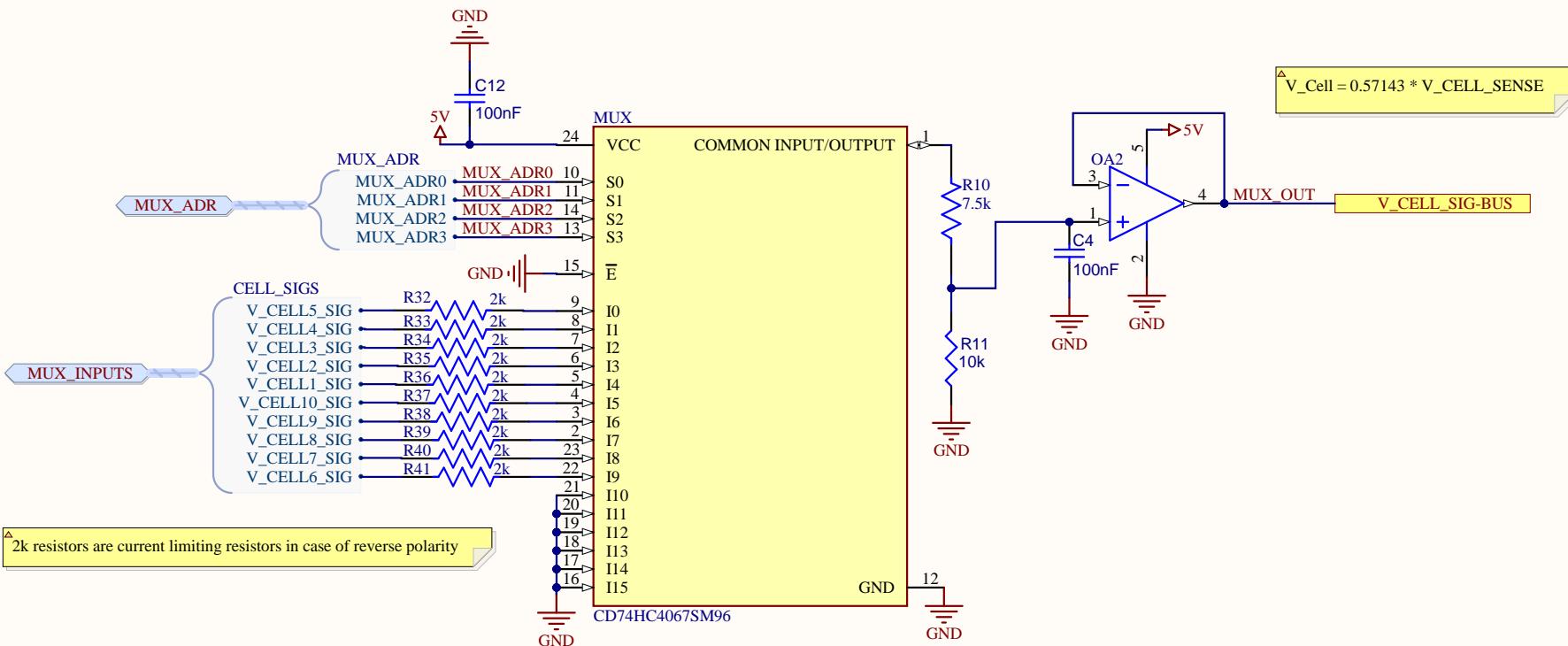
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CELL MONITORING

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