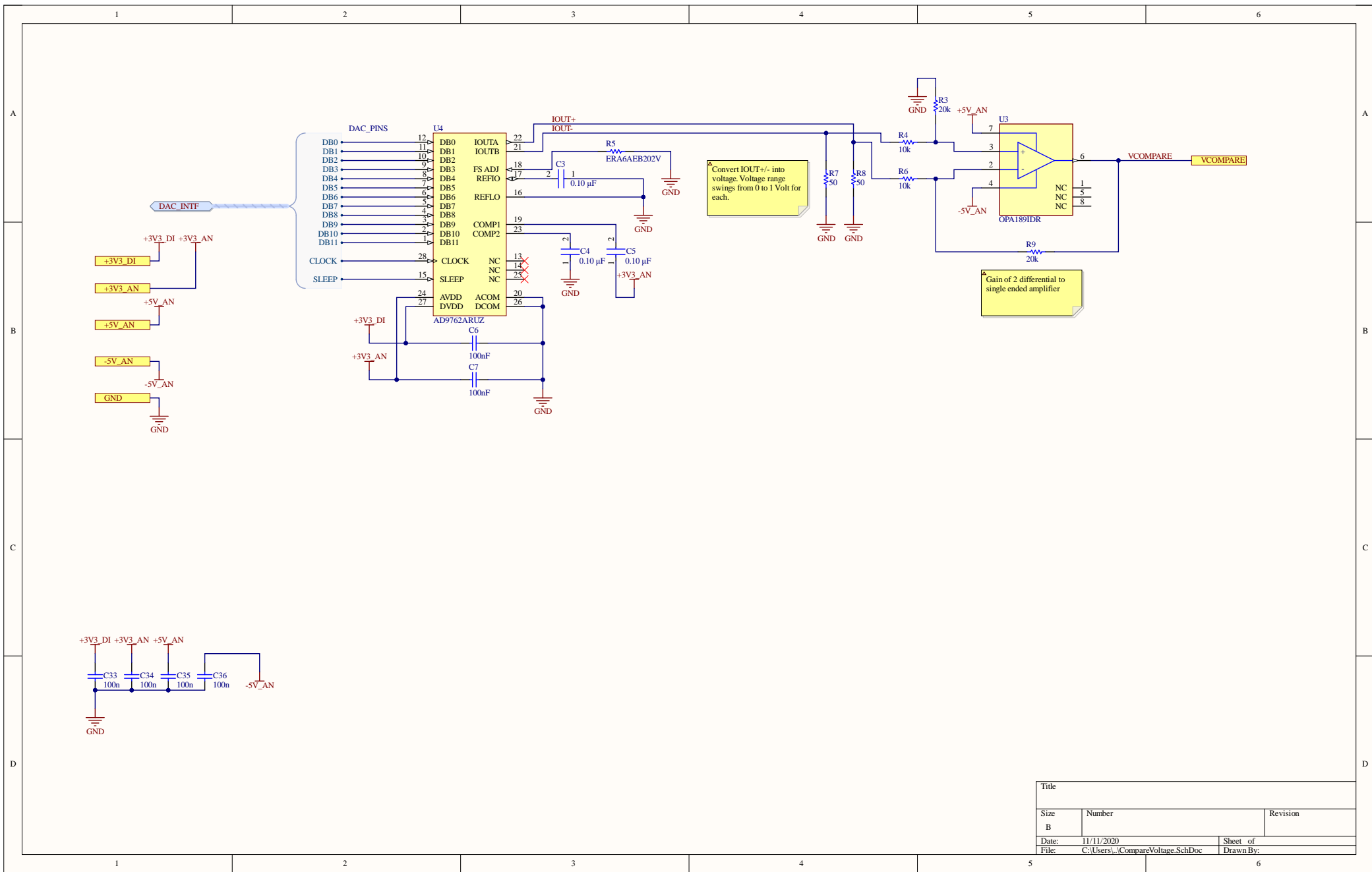
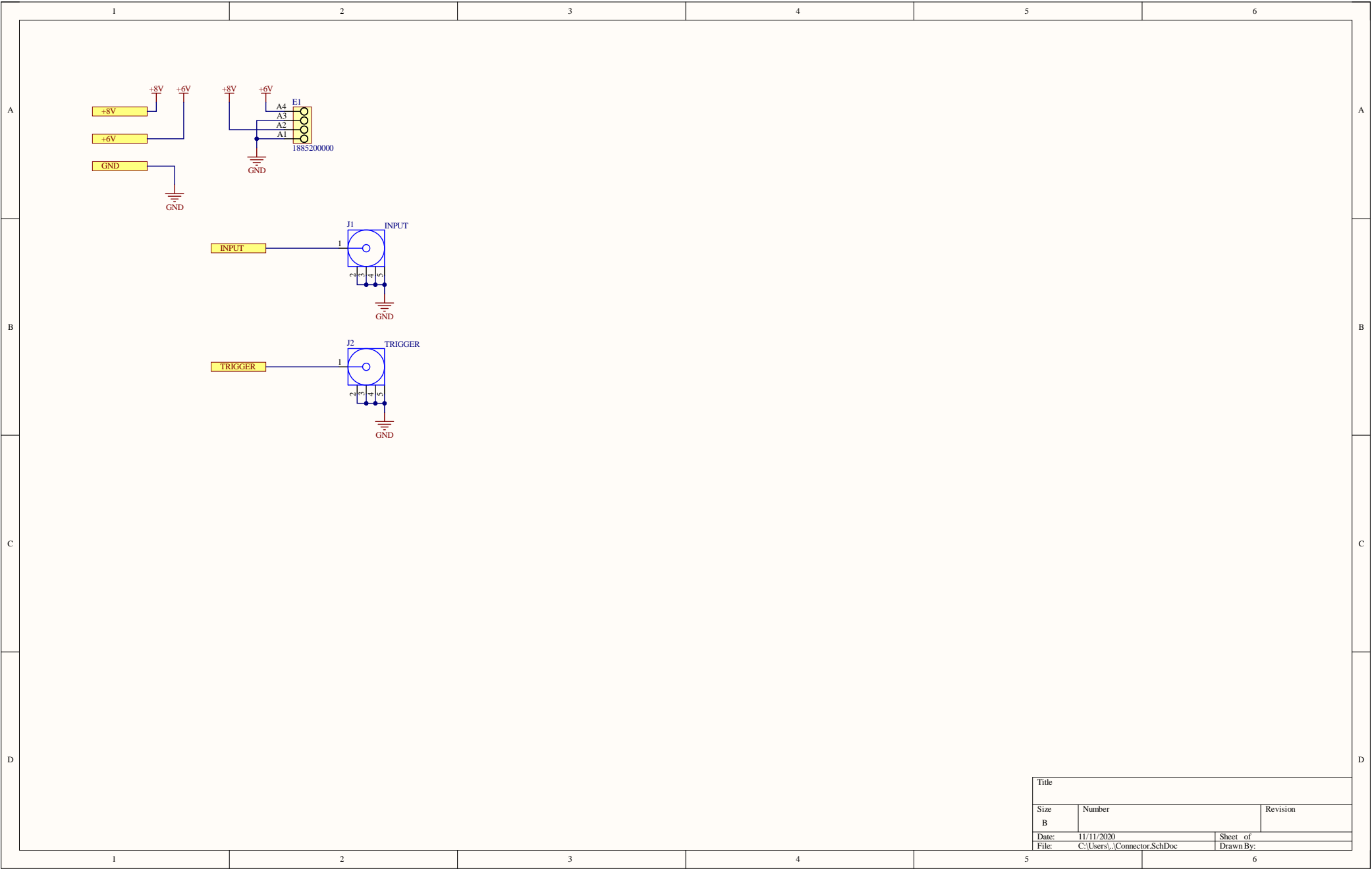
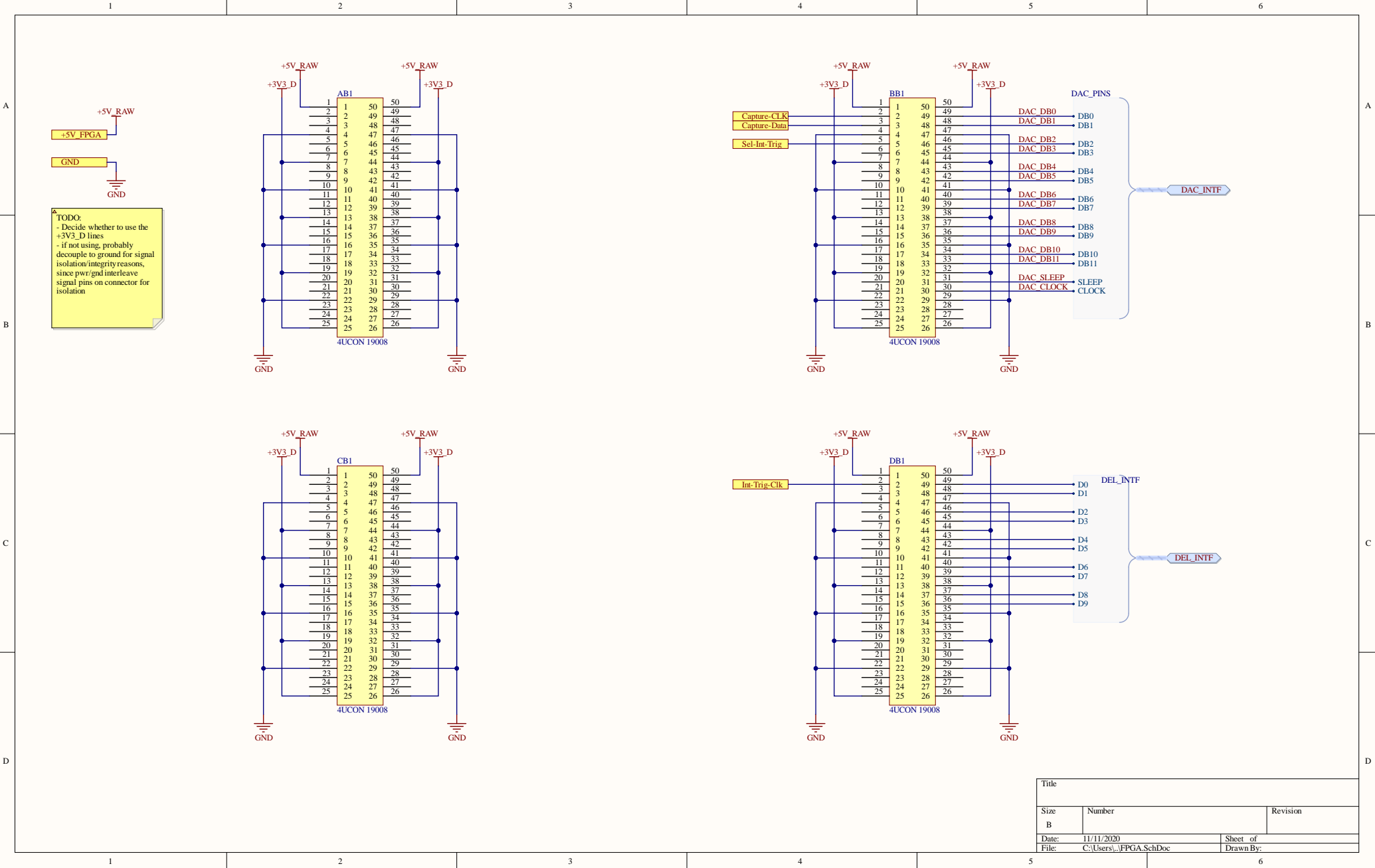


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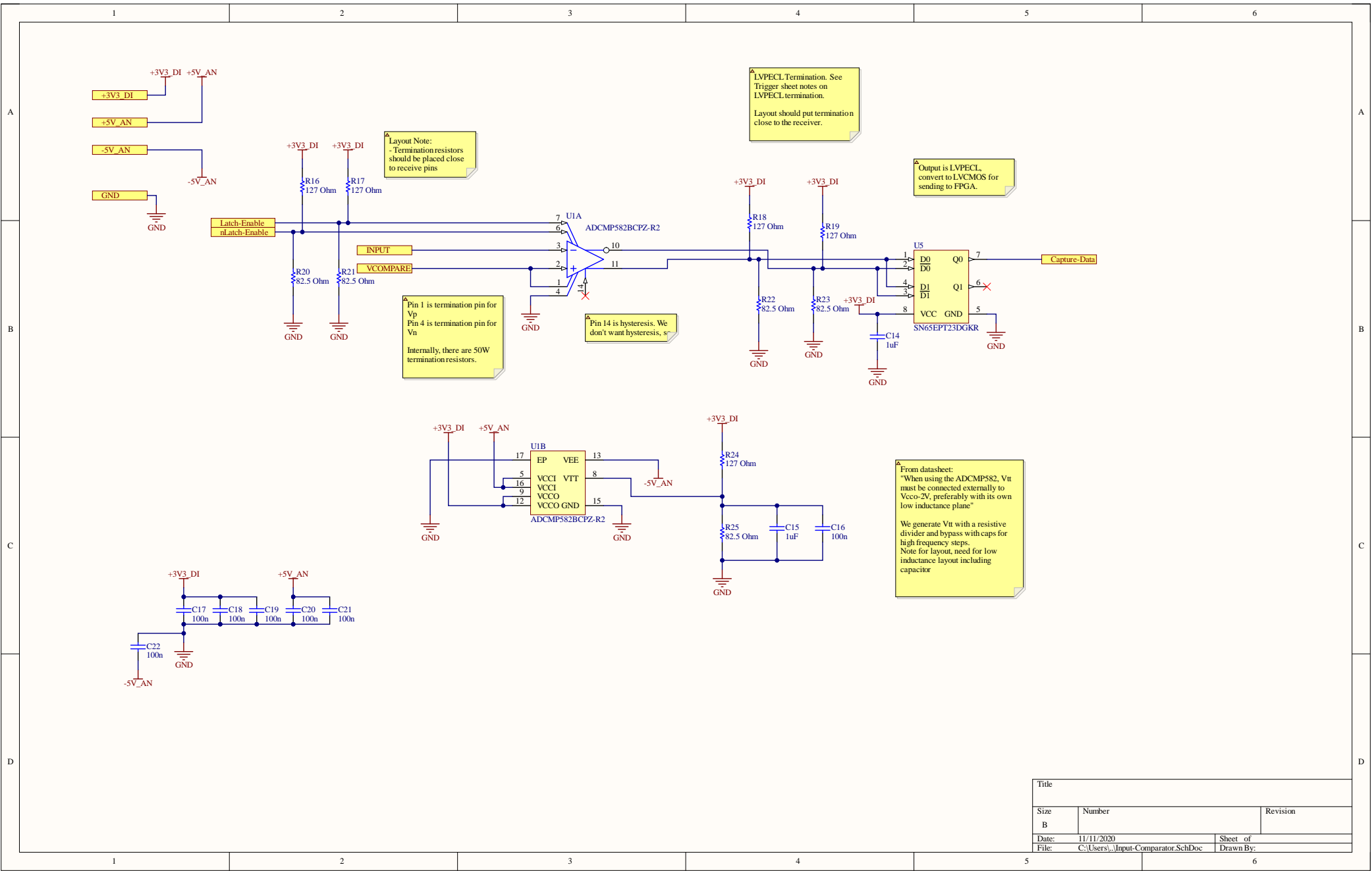


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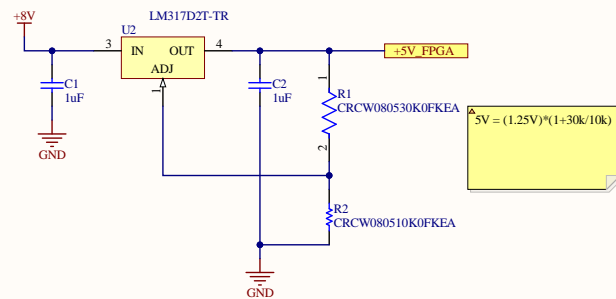
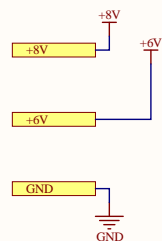




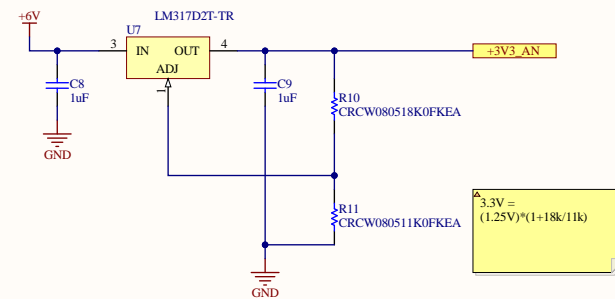
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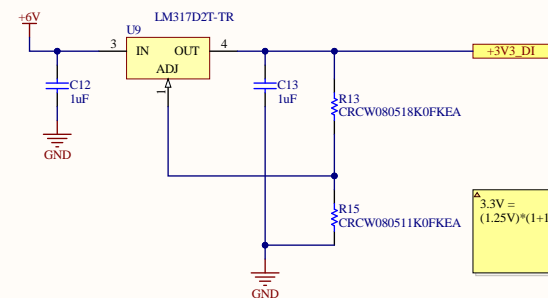
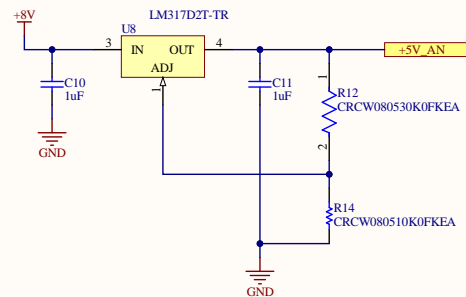
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$$5V = (1.25V) * (1 + 30k/10k)$$



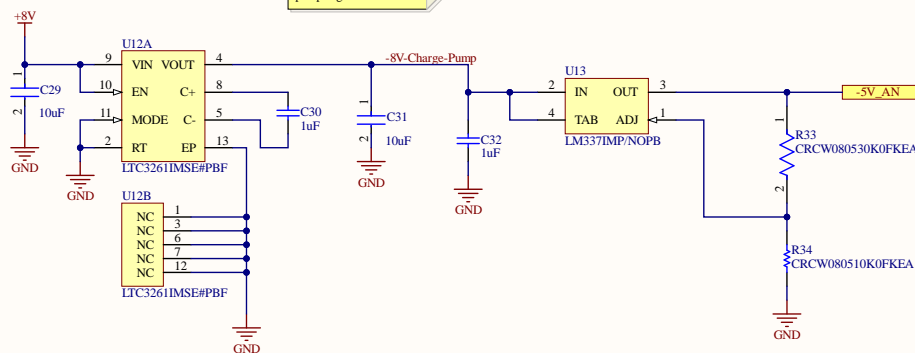
$$3.3V = (1.25V) * (1 + 18k/11k)$$



$$3.3V = (1.25V) * (1 + 18k/11k)$$

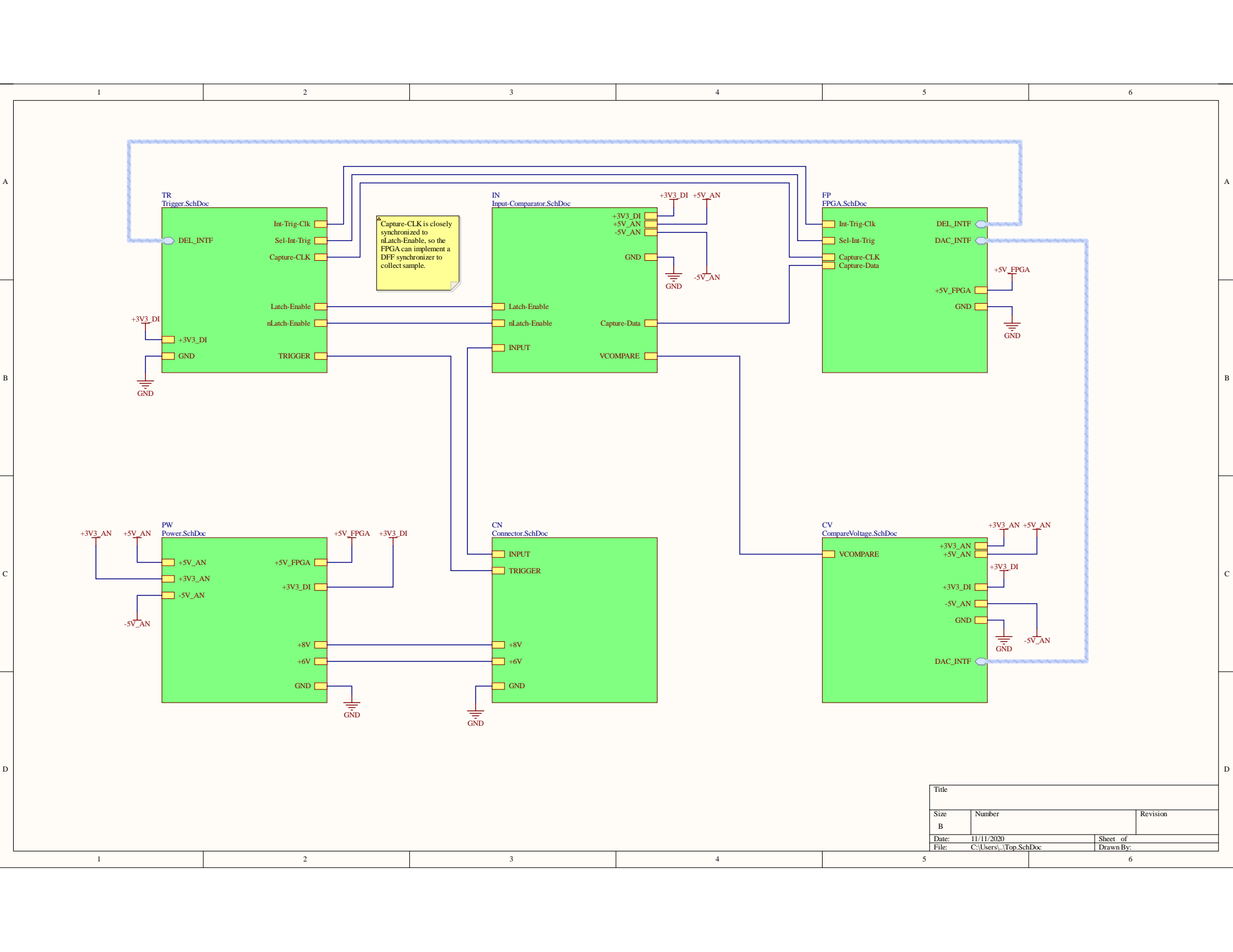
See LTSpice Sim of inverting charge pump

Use LTC3261 inverting charge pump and then LM337 LDO to regulate to accurate 5V (the charge pump sags about 1 volt)

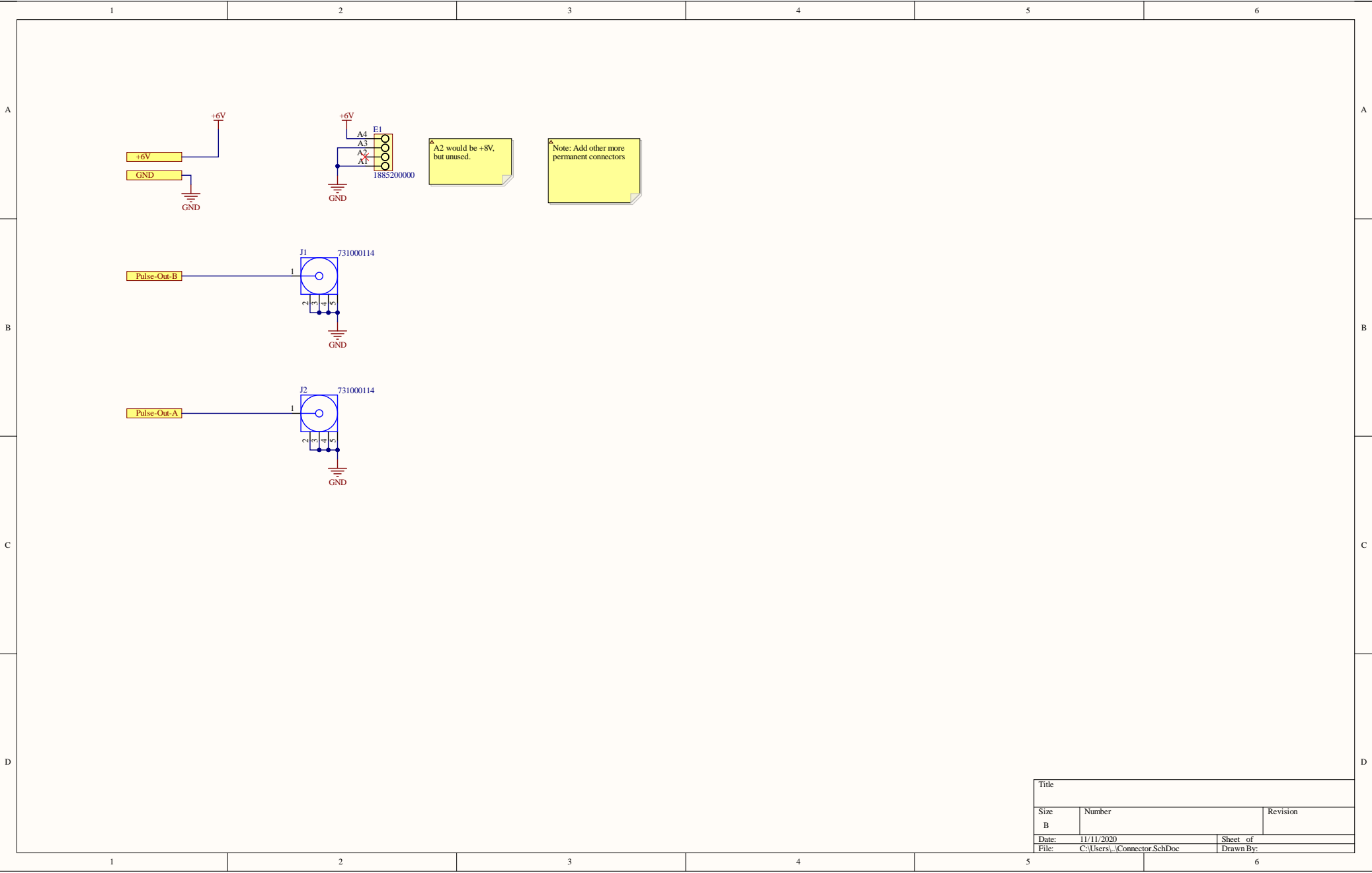


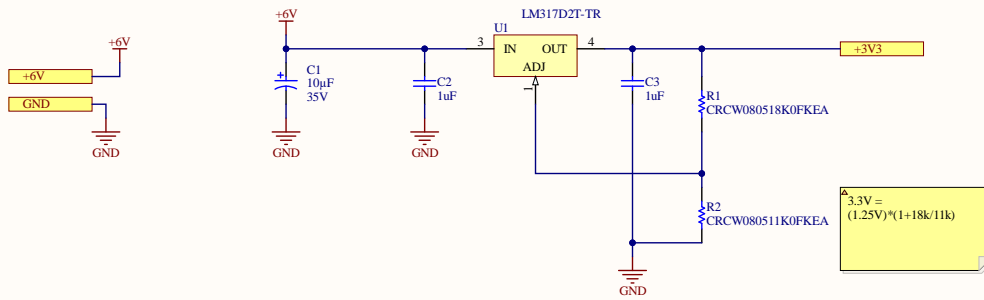
$$-5V = -(1.25V) * (1 + 30k/10k)$$

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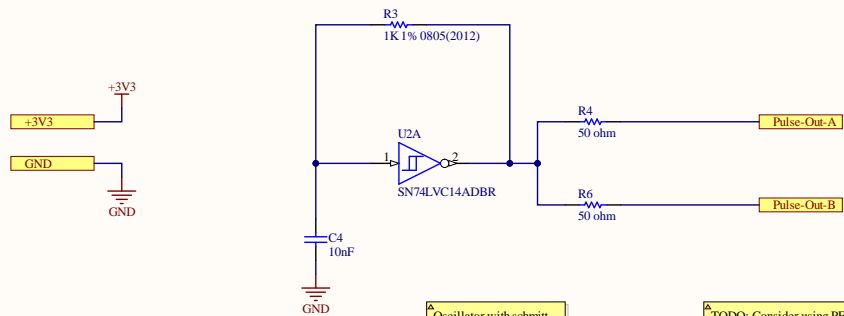


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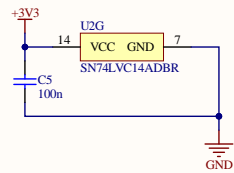
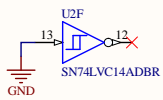
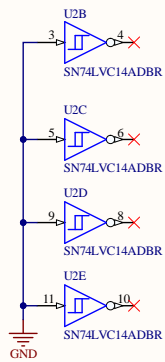


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Date:	11/11/2020	Sheet of
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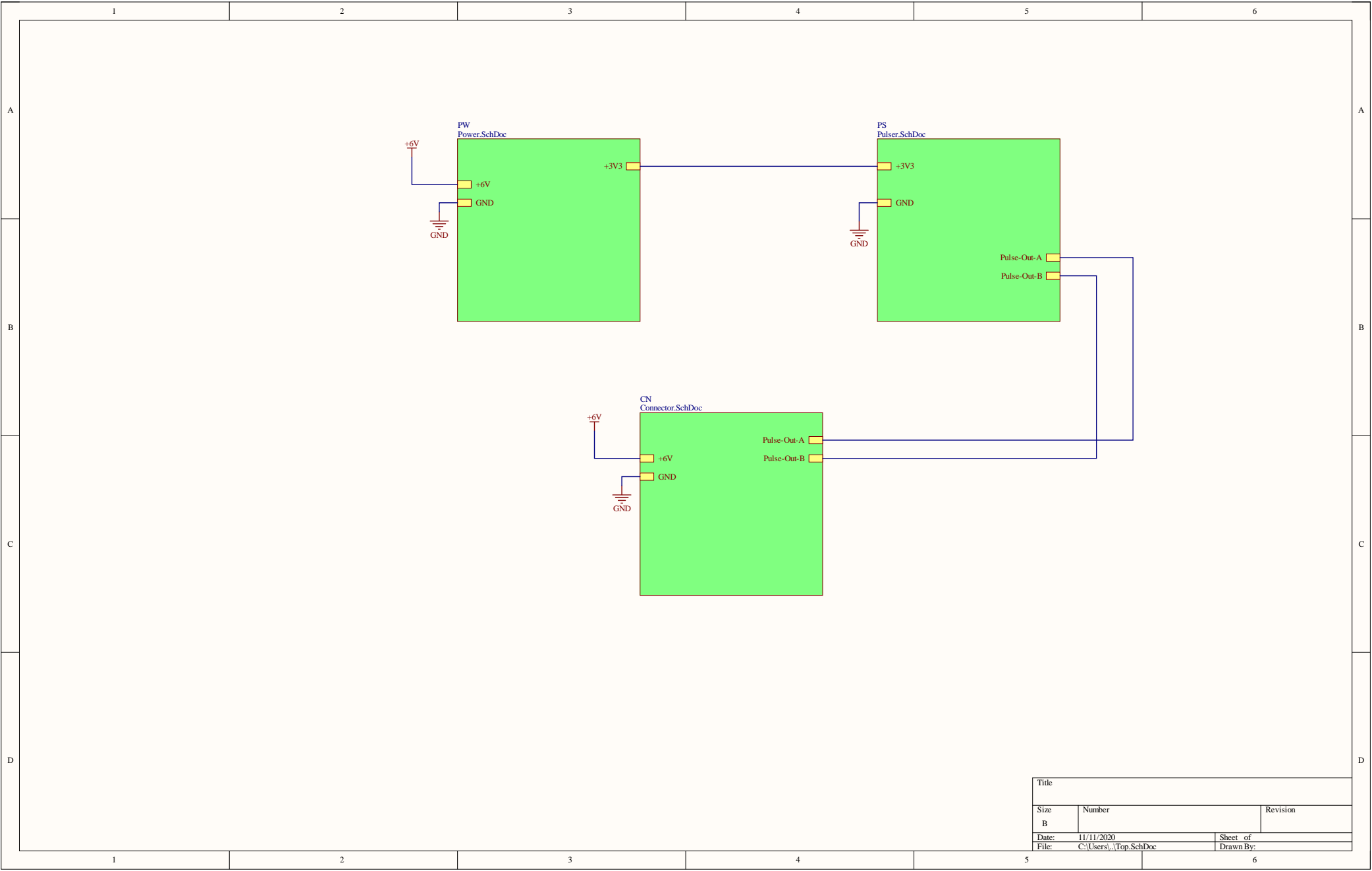


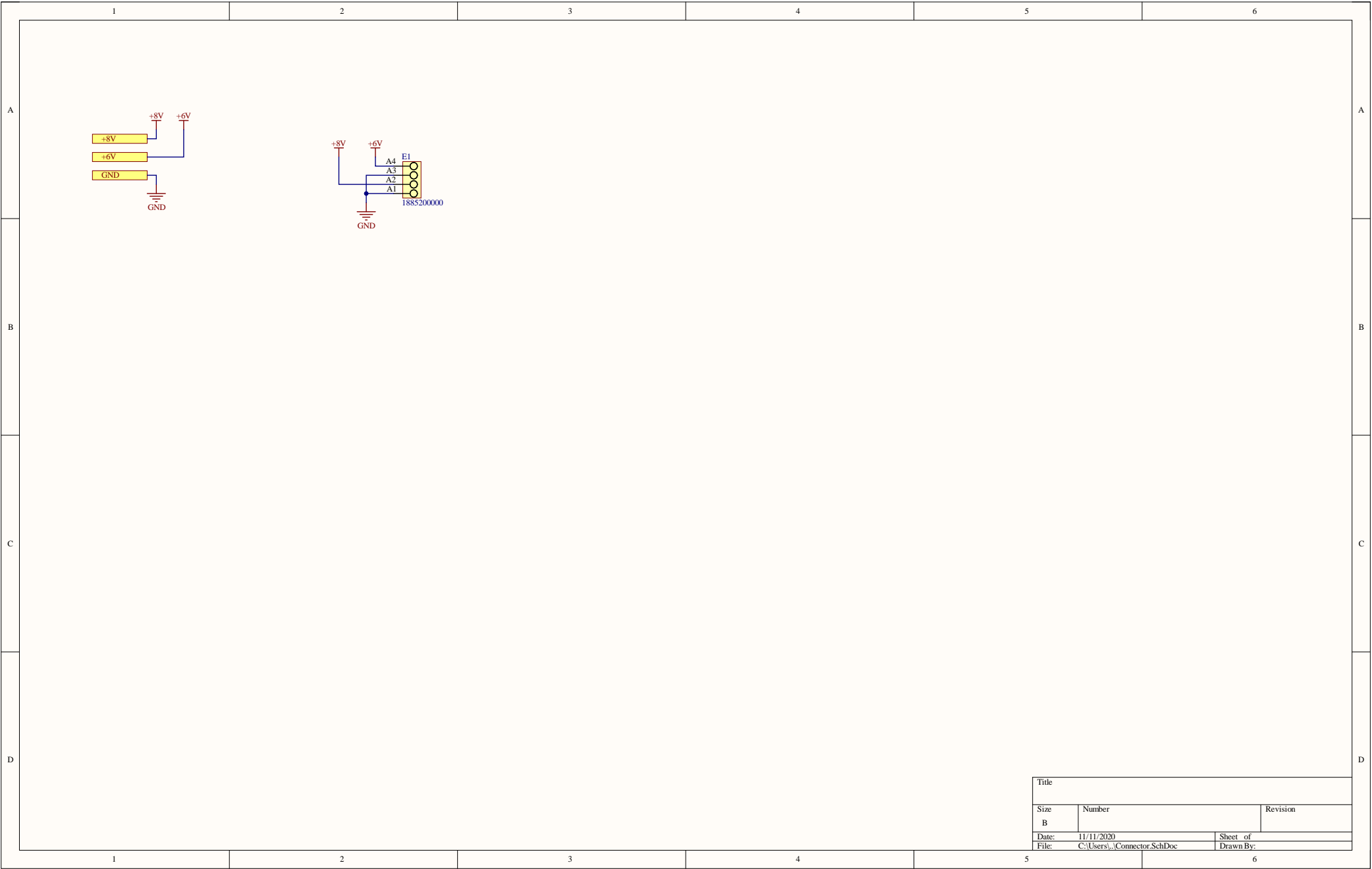
Oscillator with schmitt trigger hysteresis

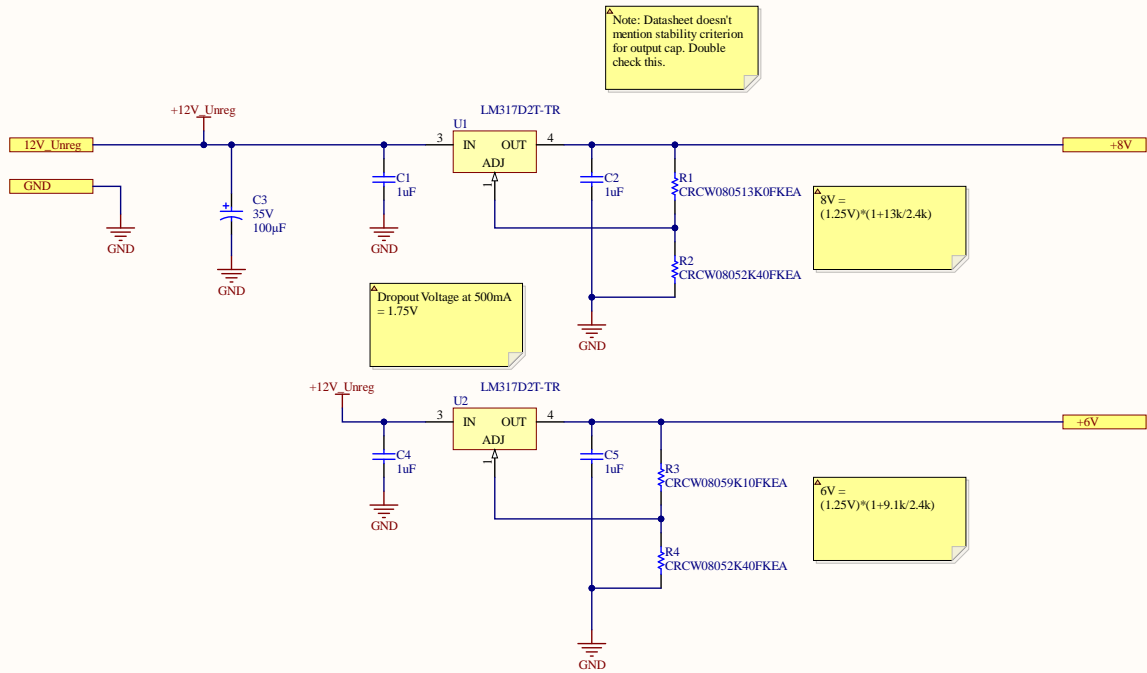
TODO: Consider using PECL logic as edge generator. PECL is waaaaay faster (100ps edge is not uncommon).



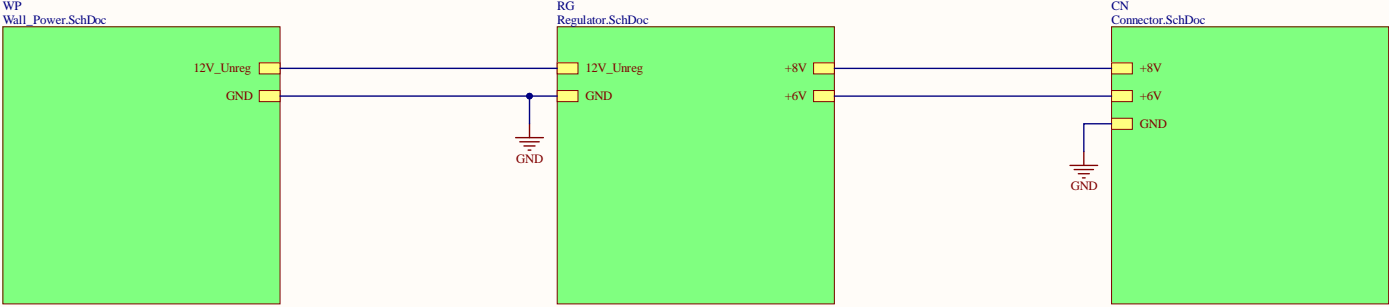
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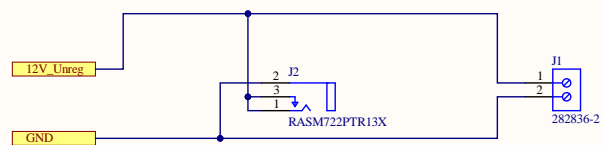


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A. The power board generates a 8V and a 6V rail for the sampler board

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Title		
Size	Number	Revision
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File:	C:\Users\...Wall Power.SchDoc	Drawn By: