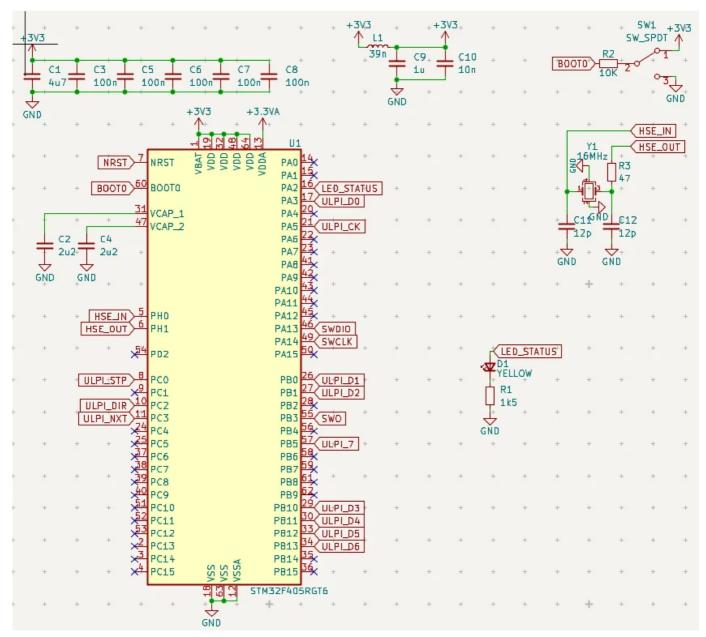


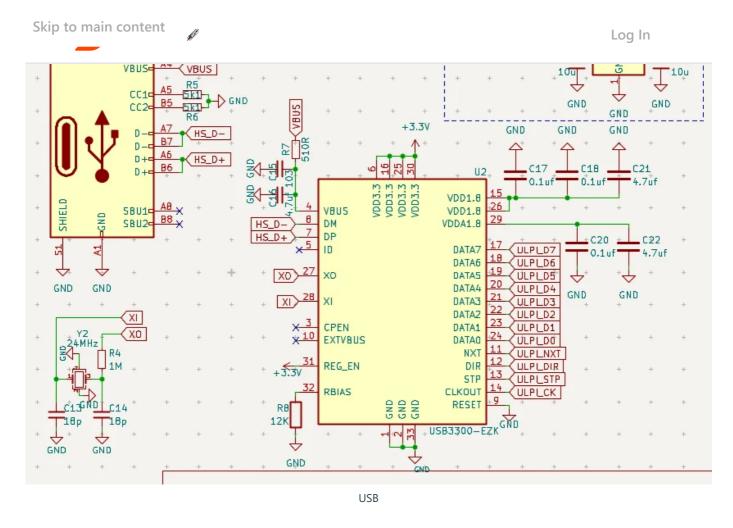


First pcb design (stm32 & usb-c) minimum function check

Hello, I am trying to make my first pcb, this is with a stm32 (stm32f405rg). Before I go on adding extra things I would like to check if what I have now works. What I mainly want to double check is can a usb type c power the mcu and does the mcu work with this schematic. All help is appreciated.



MCU



Edit: R4 is now in parallel, the +3.3V on the right of L1 is now +3.3VA and added +5v to the VBUS.



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wfriedrich • 2y ago

R4 (1Meg resistor) should be across XI and XO, not inline.

I did not see any other +5V power label, other than on the regulator input. I am guessing this should be connected to VBUS.

L1 is useless as it has the same +3.3V net on both sides.

For beautification, please draw the GND power label only downward pointing, makes a much more readable schematic.

Edit: added L1 comment.

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Yes, I had another look and it is right that they should be in parallel.

I did not see any other +5V power label, other than on the regulator input. I am guessing this should be connected to VBUS.

I've added one now.

L1 is useless as it has the same +3.3V net on both sides.

Silly of me to have overlooked the fact that it should be a +3.3VA instead of a +3.3V on the right.

For beautification, please draw the GND power label only downward pointing, makes a much more readable schematic.

Thanks for the feedback and will do so in the future.





PJ796 • 2y ago

L1 is shorted btw. I assume the right side should say +3.3VA instead of just +3.3V?



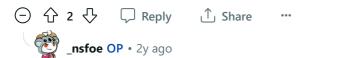
Correct. I have changed it now. Thank you for your reaction.





PositiveEnergyMatter • 2y ago

You know there are crystals that don't need the extra components



I did not know this. Are there any benefits other than fewer extra components?



Simpler is better to me, less likely to make a mistake like you did too :). They are pretty cheap, probably cheaper then all your components combined.





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2. 1M resistor should be across the crystal not in-line3. Where does +5V come from?	
I'll let someone else pick the MCU page apart	
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_nsfoe OP • 2y ago	
Thank you for your response. I think everything is OK for the usb now. https://imgur.com/a/r6S8zuW	
edit: Added picture	
↑ 1	
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Enlightenment777 • 2y ago	
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Instructions for schematic & PCB reviews:	
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