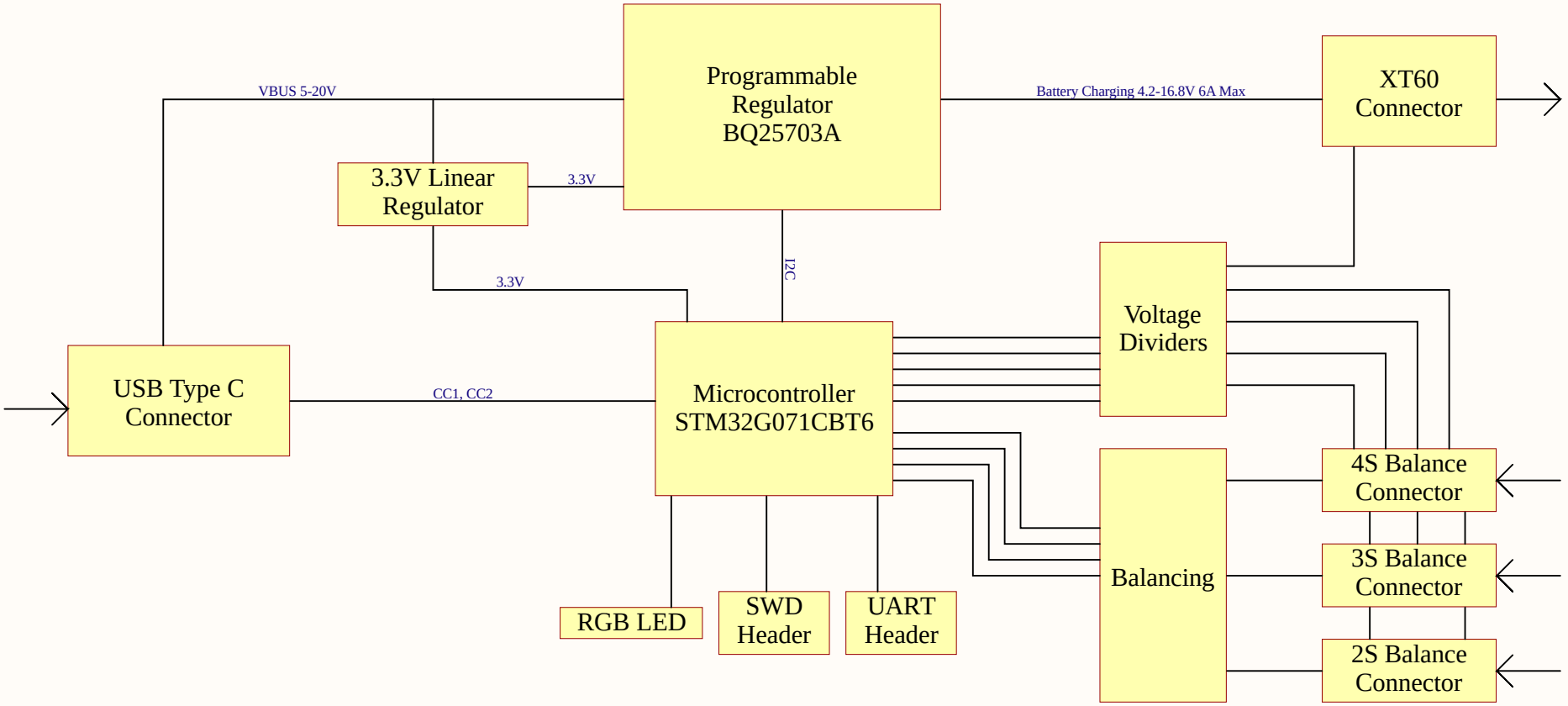
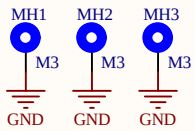
USB Type C with Power Delivery LiPo Battery Charger





ARK Electronics LLC **Alex R. Klimaj**			
Page Title: Cover Sheet		Drawn By: Alex Klimaj	
		Checked By: *	
Project Title: USB Type C PD 3.0 Lipo Charger		Revision: 2.0	Variant: Production
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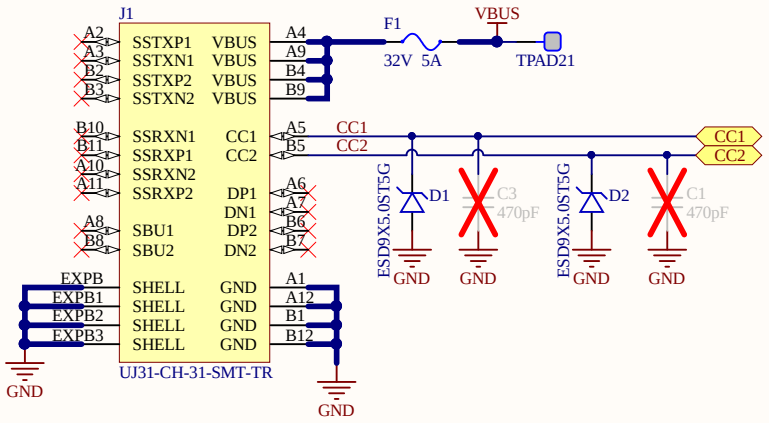
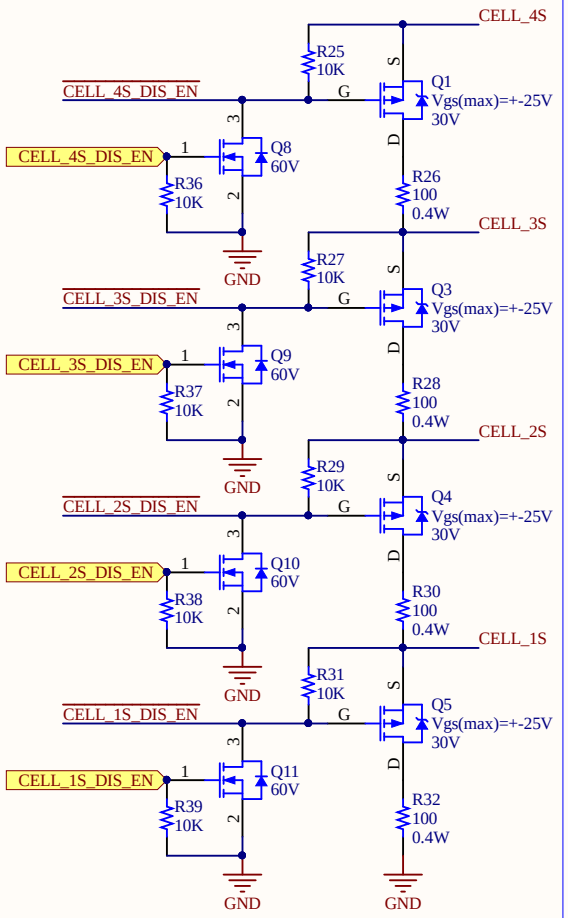
Connectors, USB PD, and Balancing

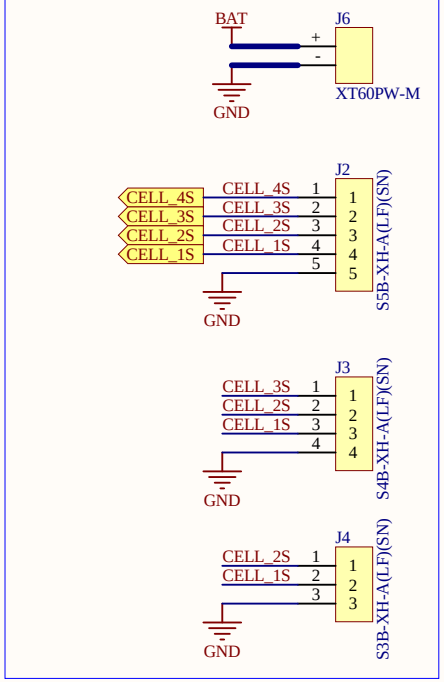
USB C Connector



Balancing



Battery Connectors



Alternates for Q1, Q3, Q4, and Q5
RSC002P03T316
NTR1P02T1G
DMP510DL-7
PMV250EPEAR
Si2347DS

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Project Title: USB Type C PD 3.0 Lipo Charger		Revision: 2.0	Variant: Production
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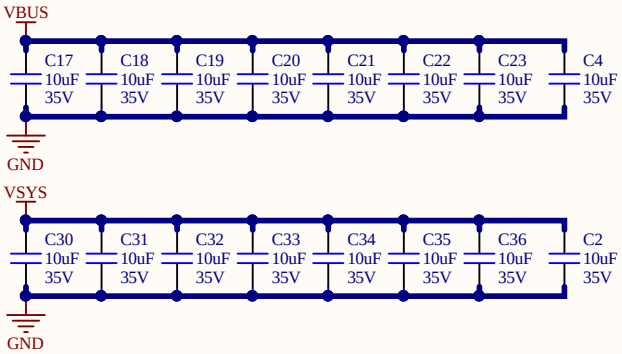
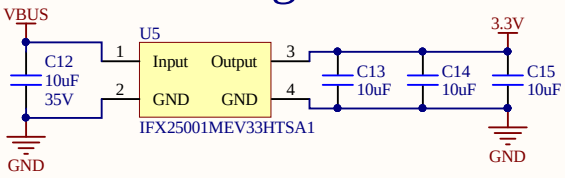
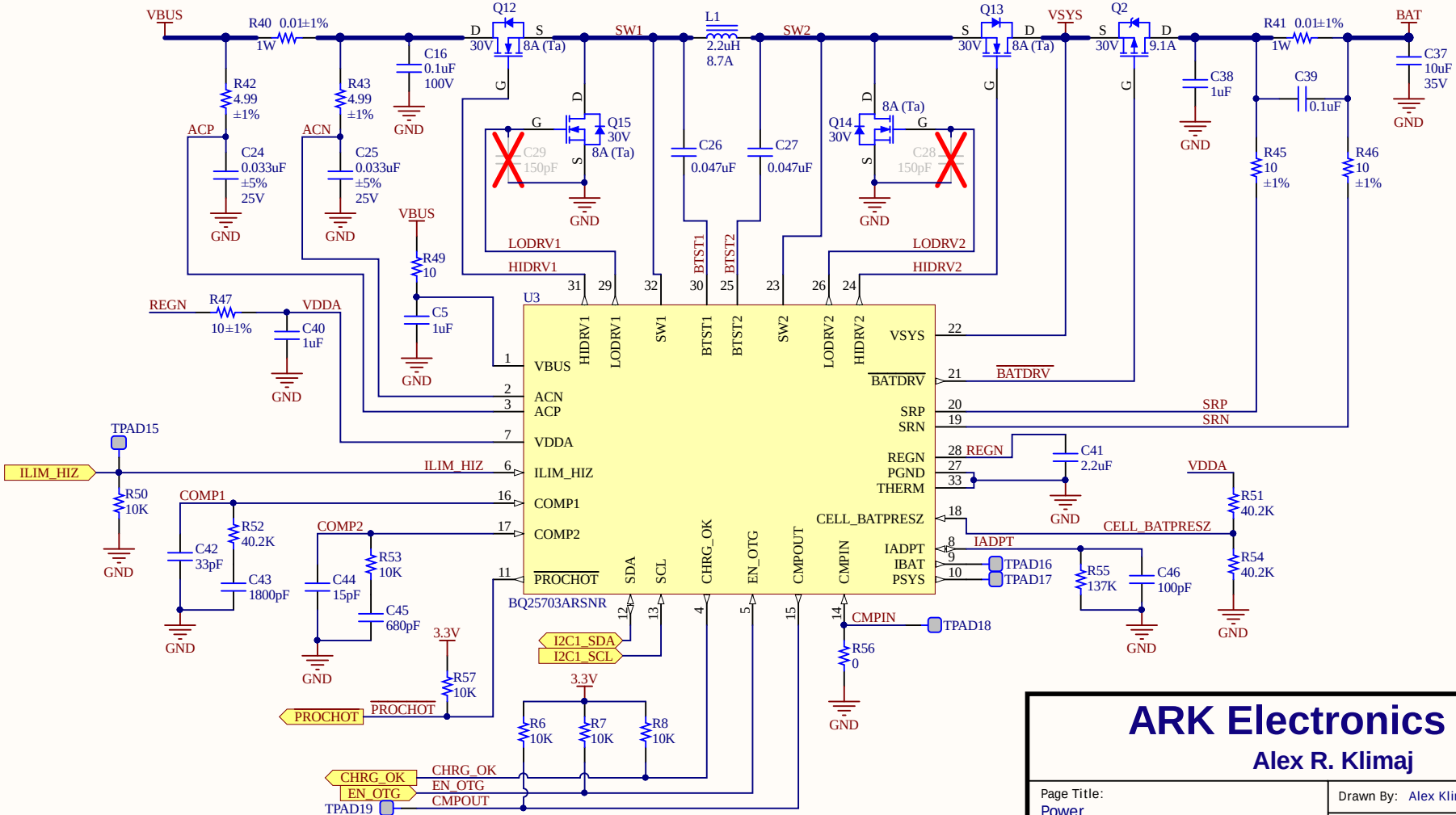
Power



3.3V Power Requirements
Oscillator - 10mA
FUSB302BMPX - 25uA
STM32F030K6T6TR - 120mA
RGB LED - 15mA
Total = 145mA
Total x 30% = 190mA

3.3V Regulator





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Project Title: USB Type C PD 3.0 Lipo Charger		Revision: 2.0	Variant: Production
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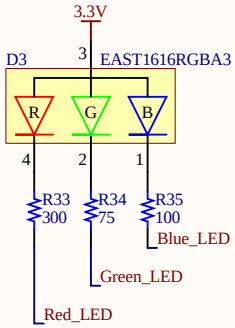
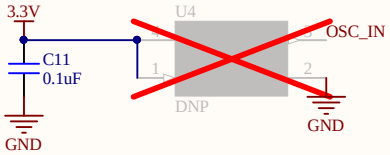
Microcontroller

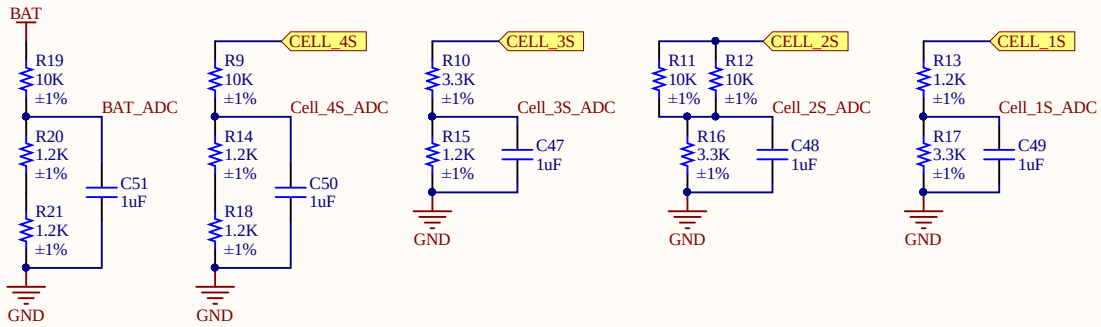
RGB LED



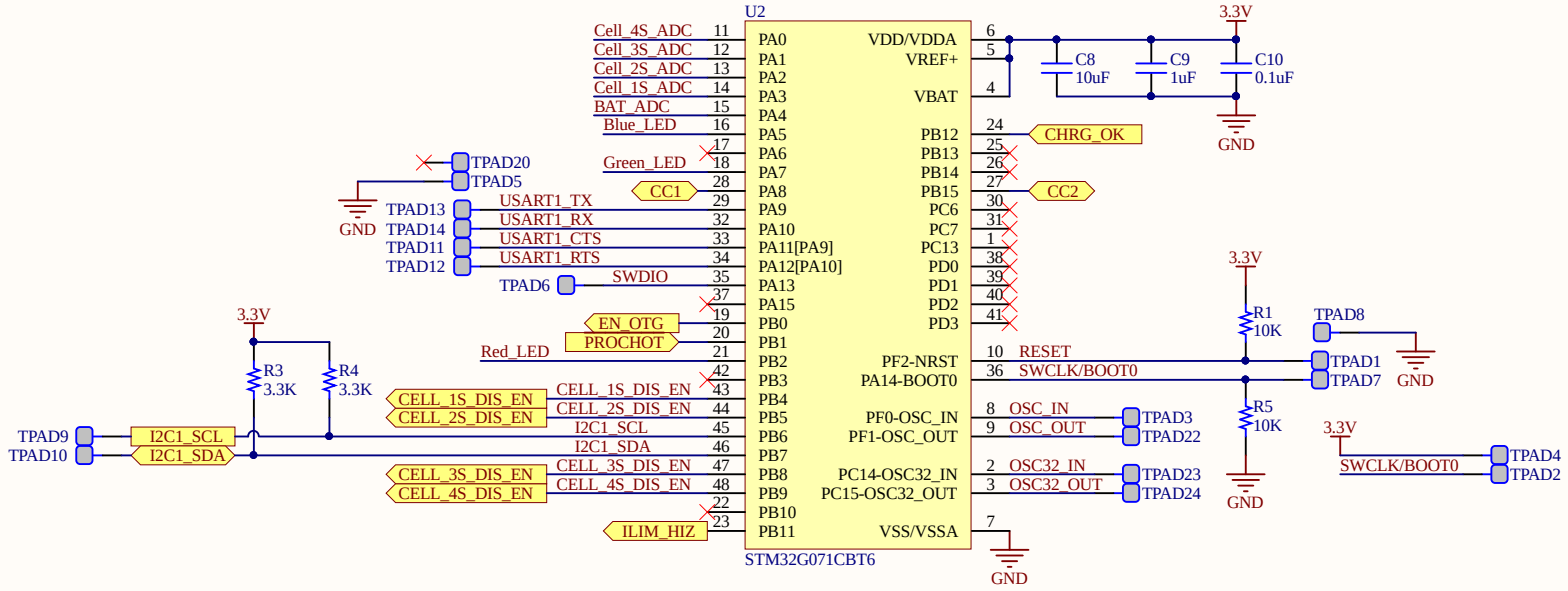
External Oscillator



ADC Input Scaling



Microcontroller



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