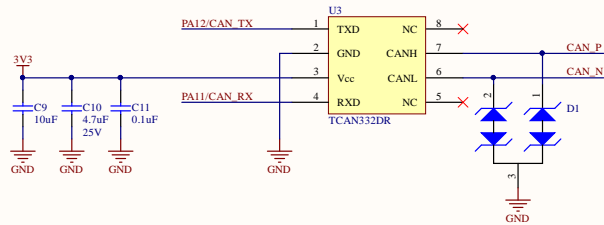
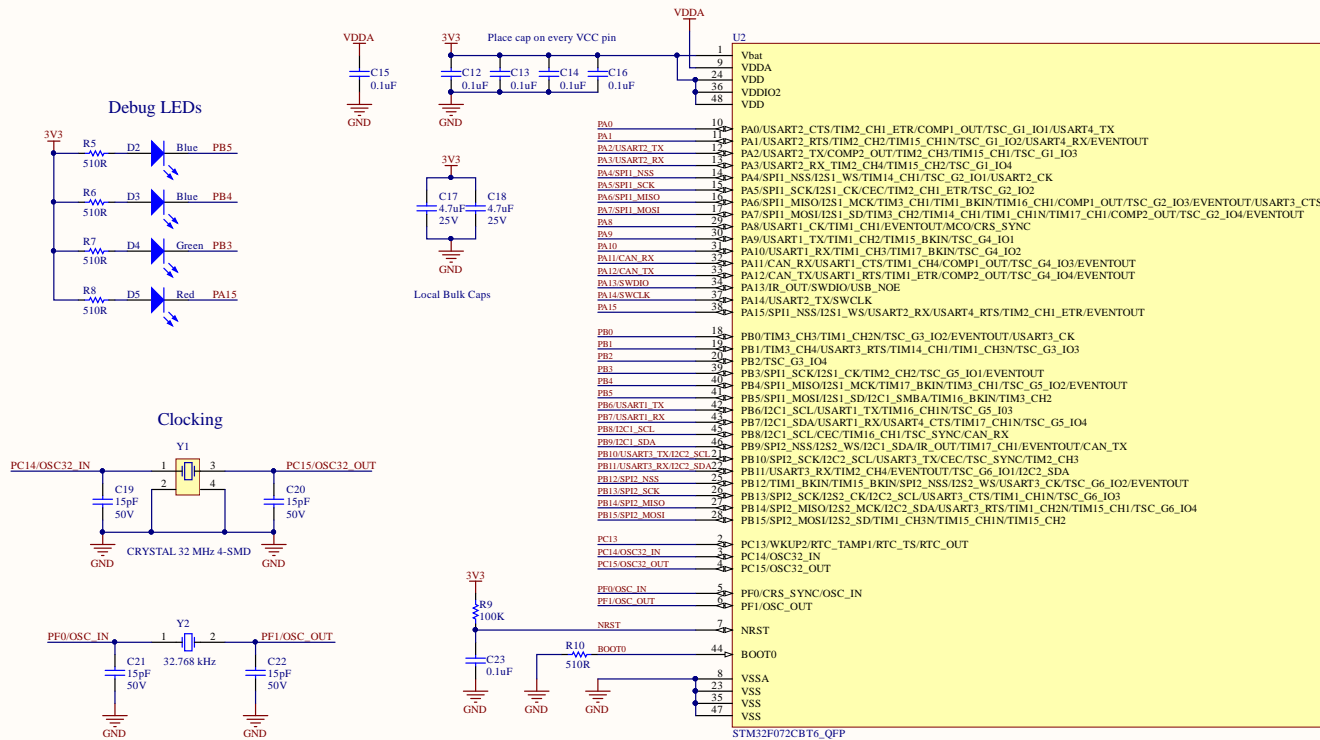


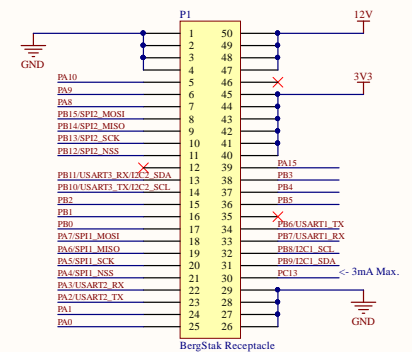
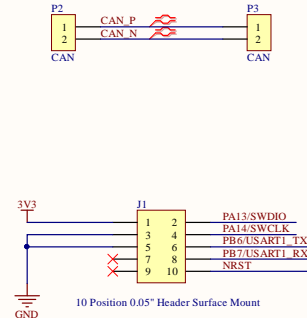
CAN




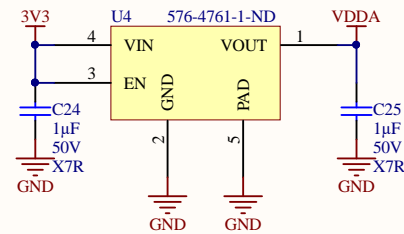
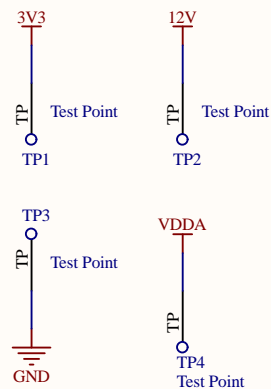
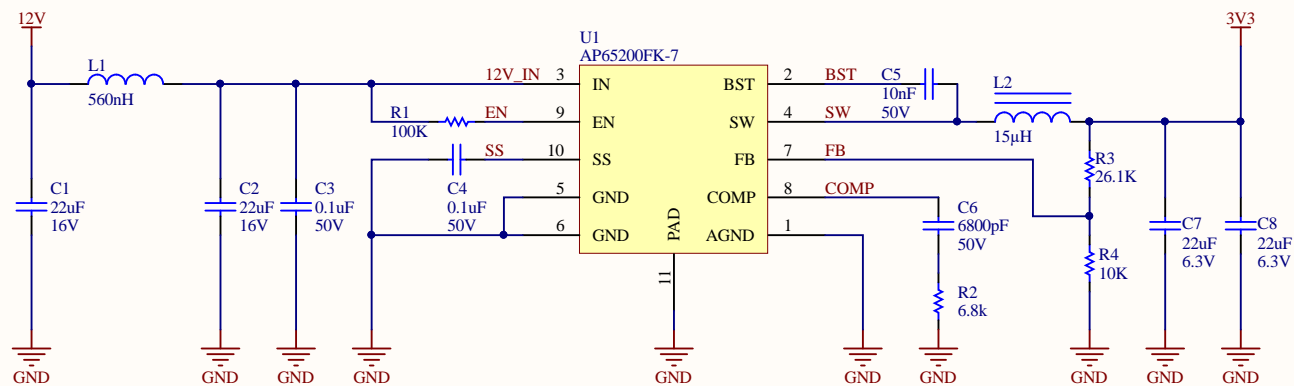
MCU + Peripherals



Connectors

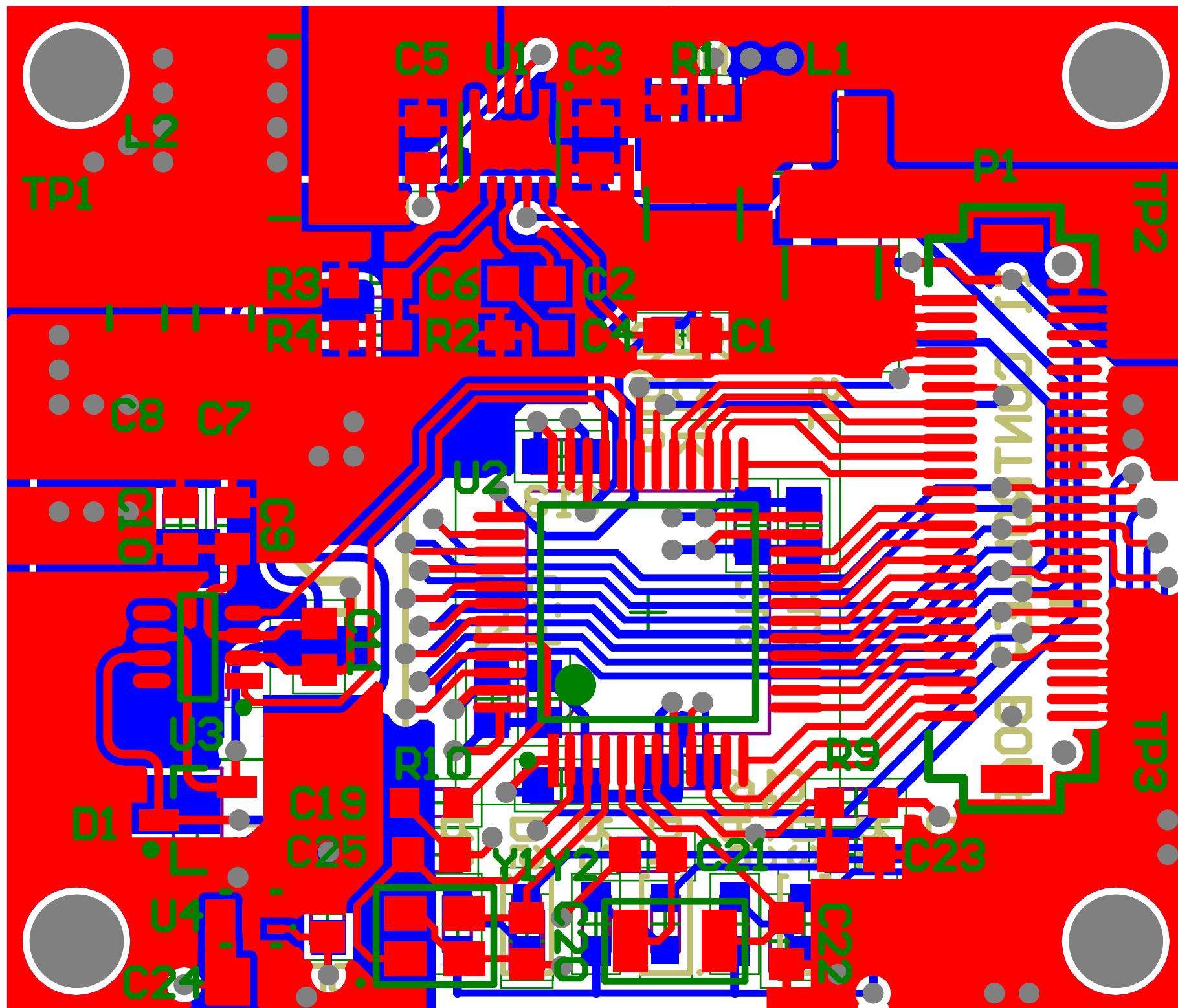


Project: Controller-Board.PrjPcb	
Title: Controller Board Main	
Project Lead: Kevin Chen, Aleksa, Yifei Li	University of Waterloo 200 University Ave W Waterloo, ON, Canada N2L 3E9
Size: Letter	Revision: 4.0
Date: 6/9/2017	Sheet: 1 of 2
Website: www.uwmidsun.com	



IC REG LDO 3V 0.2A 4-TDFN

Project:	Controller-Board.PrjPcb	
Title:	Controller Board Power Supply	
Project Lead:	Kevin Chen, Aleksa, Yifei Li	
Size:	Letter	Revision: 4.0
Date:	6/9/2017	Sheet2 of 2



Item #	Item Name Error:Manufacturer	Manufacturer	Quantity	Note	Designator	Description	Footprint	Comment	LibRef
1			2		C1, C2	22µF ±20% 16V Ceramic Capacitor X5R 1210 (3225 Metric)			CAP CER 22UF 16V X5R 1210
2			8		C3, C4, C11, C12, C13, C14, C16, C23	0.10µF ±10% 50V Ceramic Capacitor X7R 0603 (1608 Metric)			CAP CER 0.1UF 50V 10% X7R 0603
3			1		C5	10000pF ±5% 50V Ceramic Capacitor U2J 0603 (1608 Metric)			CAP CER 10nF 50V 5% X7R 0603
4			1		C6	6800pF ±10% 50V Ceramic Capacitor X7R 0603 (1608 Metric)			CAP CER 6800pF 50V 10% X7R 0603
5			2		C7, C8	22µF ±10% 6.3V Ceramic Capacitor X7R 1206 (3216 Metric)			CAP CER 22UF 6.3V X7R 1206
6			1		C9	10µF ±20% 25V Ceramic Capacitor X5R 0603 (1608 Metric)			CAP CER 10uF 25V 20% X5R 0603
7			3		C10, C17, C18	4.7µF ±10% 25V Ceramic Capacitor X5R 0603 (1608 Metric)			CAP CER 4.7UF 25V 10% X5R 0603
8			1		C15	0.10µF ±10% 50V Ceramic Capacitor X7R 0603 (1608 Metric)			CAP CER 0.1UF 50V 10% X7R 0603
9			4		C19, C20, C21, C22	15pF ±5% 50V Ceramic Capacitor C0G, NP0 0603 (1608 Metric)			CAP CER 15PF 50V NPO 0603
10			2		C24, C25	1µF ±10% 50V Ceramic Capacitor X7R 0603 (1608 Metric)			CAP CER 1UF 50V 10% X7R 0603
11			1		D1	TVS DIODE 24VWM 70VC SOT23			TVS Diode
12			2		D2, D3	LED BLUE CLEAR 0603 SMD			LED_BLUE
13			1		D4	LED GREEN CLEAR 0603 SMD			LED_GREEN
14			1		D5	Red LED 0603			LED_RED
15			1		J1	10 Positions Header Connector 0.050" (1.27mm) Surface Mount Gold			10 Position 0.05" Header Surface Mount
16			1		L1	560nH Shielded Multilayer Inductor 2.1A 80 mOhm Max 0806 (2016 Metric)			IND 560NH 2.1A 80 MOHM SMD
17			1		L2	15µH Shielded Wirewound Inductor 1.03A 220 mOhm Max 1919 (4848 Metric)			IND 15UH 1.03A 220 MOHM
18			1		P1	50 Position Connector Receptacle, Center Strip Contacts Surface Mount Gold			BergStak 50 Position Connector Receptacle
19			2		P2, P3	2 Positions Header, Shrouded Connector 0.079" (2.00mm) Surface Mount, Right Angle Tin			2 Position DuraClik CAN Connector
20			2		R1, R9	RES SMD 100K OHM 5% 1/10W 0603			RES 100K OHM 1/8W 5% 0603 SMD
21			1		R2	RES SMD 6.8K OHM 1% 1/10W 0603			RES 6.8k OHM 1% 1/10W 0603 SMD
22			1		R3	RES SMD 26.1K OHM 1% 1/10W 0603			RES 26.1K OHM 1/10W 1% 0603 SMD
23			1		R4	RES SMD 10K OHM 1% 1/10W 0603			RES SMD 10K OHM 1% 1/10W 0603
24			5		R5, R6, R7, R8, R10	RES SMD 510 OHM 5% 1/10W 0603			RES 510 OHM 1/10W 0603 SMD
25			4		TP1, TP2, TP3, TP4				Test Point
26			1		U1	Buck Switching Reg IC Positive Adjustable 0.925V 1 Output 2A 10-UFDFN Exposed Pad			AP65200FK-7 Buck Switching Regulator
27			1		U2				STM32F072CBT6_QFP
28			1		U3	1/1 Transceiver CAN 8-SOIC			TCAN332DR CAN Transceiver_SOT
29			1		U4				IC REG LDO 3V 0.2A 4-TDFN
30			1		Y1	32MHz ±15ppm Crystal 8pF 50 Ohm -40°C ~ 85°C AEC-Q200 Surface Mount 4-SMD, No Lead			CRYSTAL 32 MHz 4-SMD
31			1		Y2	32.768kHz ±20ppm Crystal 6pF 50 kOhm -40°C ~ 85°C Surface Mount 4-SOJ, 5.50mm pitch			CRYSTAL 32.768KHZ 9PF 2-SMD