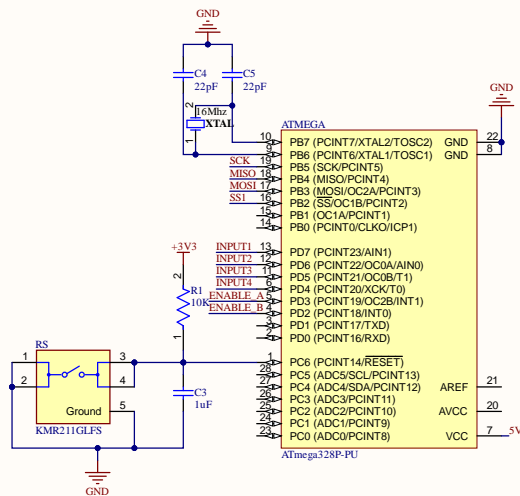


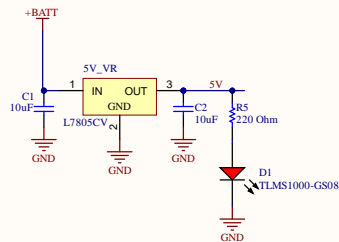
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REVISION	DESCRIPTION	DATE	APPROVED

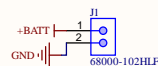
## MICROCONTROLLER



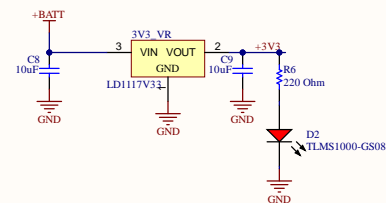
## 5V Voltage Regulator



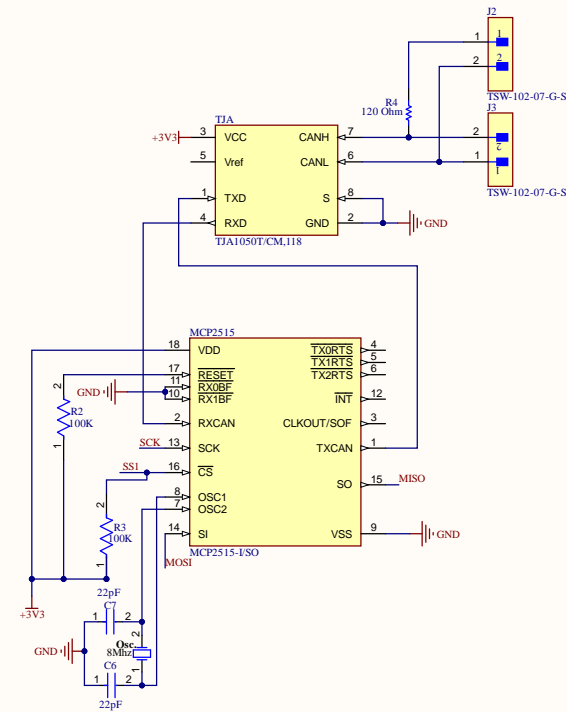
## BATTERY HEADER



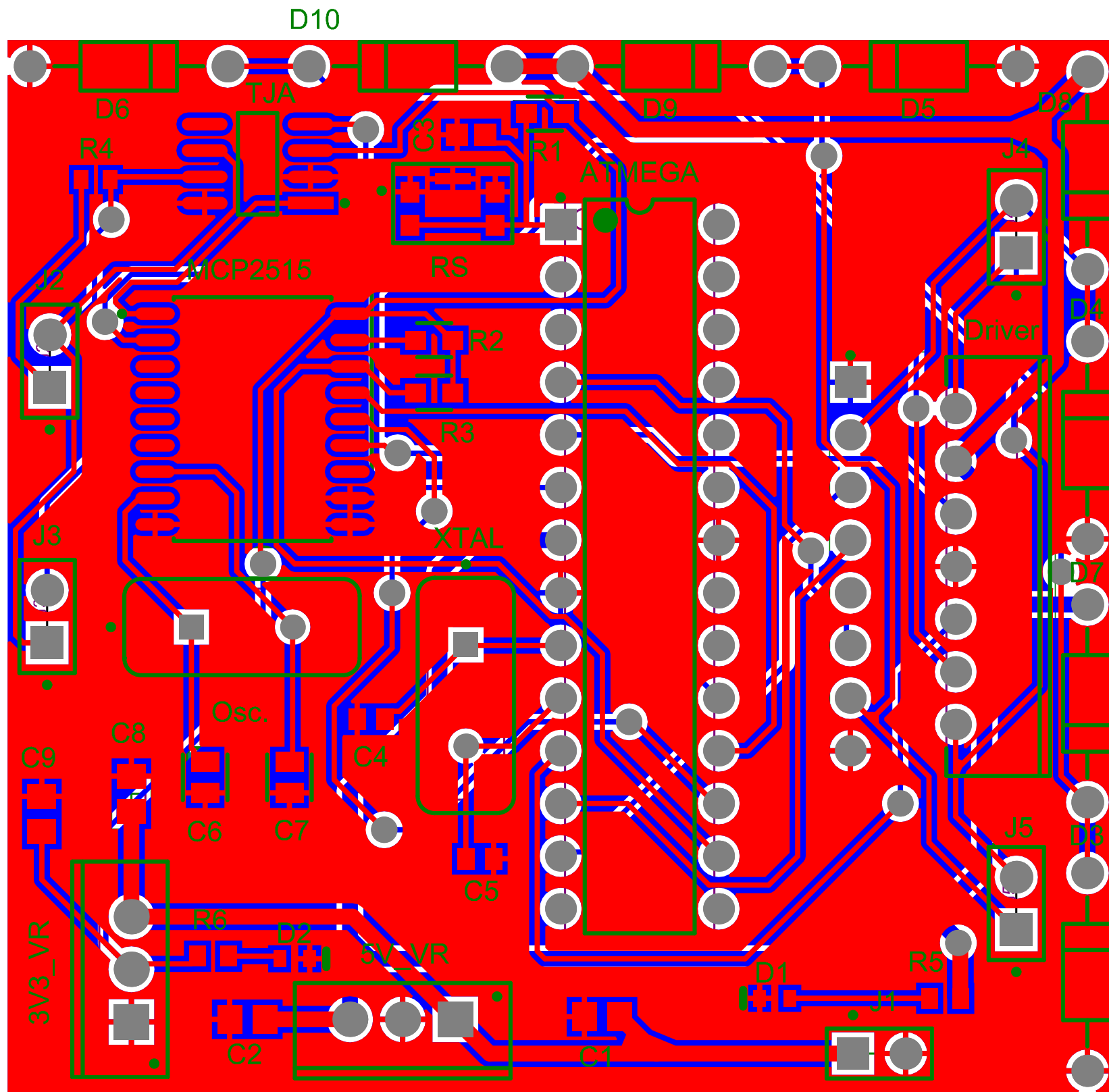
## 3V3 Voltage Regulator



## CANBUS



APPROVALS	DATE	PROJECT	Altium
ENG: -		PROJECT REVISION: -	Not in version control
DSN: -		DESIGN ITEM: -	Not in version control
CHK: -		TITLE	
REFERENCE DOCUMENTS			
BOM:			
ASSY DWG:		SIZE	CAGE CODE
FAB DWG:		B	DWG NO.
PCB DWG:		SCALE:	FILENAME
			Sheet4.SchDoc
		SHEET	1 OF 1



Comment	Description	Designator	Footprint	LibRef	Quantity
LD1117V33	Fixed Low Drop Positive Voltage Regulator, 3.3V, 3-Pin TO-220	3V3_VR	TO220	CMP-0244-00470-1	1
L7805CV	Positive Voltage Regulator, 5V, 3-Pin TO-220	5V_VR	TO220	CMP-0244-00483-1	1
ATmega328P-PU	8-bit AVR Microcontroller, 32KB Flash, 1KB EEPROM, 2KB SRAM, 28-pin PDIP, Industrial Grade (-40°C to 85°C)	ATMEGA	28P3	CMP-0095-00013-2	1
10uF		C1, C2, C8, C9	CAPC2013X135X45NL10T25	CMP-2007-03463-1	4
1uF	Chip Capacitor, 1 uF, +/- 10%, 50 V, -55 to 85 degC, 0603 (1608 Metric), RoHS, Tape and Reel	C3	CAPC1608X90X35ML10T25	CMP-2000-05447-1	1
22pF		C4, C5	CAPC1508X91X25NL25T13	CMP-2006-04643-1	2
22pF	CAP CER 22PF 50V 10% NP0 0805	C6, C7	FP-C0805C-DN-MFG	CMP-2007-00466-2	2
TLMS1000-GS08	Low Current LED, 40 mW, 1.8 V, -40 to 100 degC, 2-Pin SMD (0603), RoHS, Tape and Reel	D1, D2	VISH-TLMS1000_V	CMP-2000-07254-1	2
1N4007RLG	Standard Recovery Rectifier, 2-Pin Axial_Lead, Pb-Free, Tape and Reel	D3, D4, D5, D6, D7, D8, D9, D10	ONSC-AXIAL_LEAD-2-59-10_P	CMP-0902-00147-1	8
L298N	Dual Full-Bridge Driver, 4.8 to 46 V, -40 to 150 degC, 15-Pin FM (MW 15L), RoHS, Tube	Driver	STM-FM-15	CMP-2000-06526-1	1
68000-102HLF	Male Header, Pitch 2.54 mm, 1 x 2 Position, Height 8.38 mm, Tail Length 2.41 mm, RoHS, Bulk	J1	AMPH-68000-102HLF_V	CMP-2000-05666-1	1
TSW-102-07-G-S	CONN HEADER VERT 2POS 2.54MM	J2, J3, J4, J5	FP-TSW-102-07-G-S-MFG	CMP-02766-000084-1	4
MCP2515-I/SO	IC CAN CONTROLLER W/SPI 18SOIC	MCP2515	FP-C04-051-MFG	CMP-0186-00133-3	1
8Mhz	Resistance Weld Thru Hole Crystal, 8 MHz, -20 to 70 degC, 2-Pin THD, RoHS, Bulk	Osc.	FOX-FOXSLF080-20	CMP-1749-00002-1	1
10K	RES SMD 10KΩ 1% 1/16W 0603	R1	FP-CPF0603-MFG	CMP-03211-008304-1	1
100K	RES SMD 100KΩ 0.1% 1/16W 0603	R2, R3	FP-CPF0603-MFG	CMP-03211-008043-1	2
120 Ohm	Chip Resistor, 120 Ohm, +/- 1%, 100 mW, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel	R4	RESC1608X55X25NL10T15	CMP-1659-00034-1	1
220 Ohm	General Purpose Chip Resistors, 220 Ohm, +/- 1%, -55 to 155 degC, 0603 (1608 Metric), RoHS, Tape and Reel	R5, R6	RESC1608X55X25ML10T15	CMP-1659-00018-2	2
KMR211GLFS	SWITCH TACTILE SPST-NO 0.05A 32V	RS	FP-KMR211GLFS-MFG	CMP-10040-000023-1	1
TJA1050T/CM,118	IC TRANSCEIVER HALF 1/1 8SO	TJA	FP-SOT96-1-IPC_A	CMP-2000-04923-2	1
16Mhz	Resistance Weld Thru Hole Crystal, 16 MHz, -20 to 70 degC, 2-Pin THD, RoHS, Bulk	XTAL	FOX-FOXSLF160-20	CMP-1749-00003-1	1