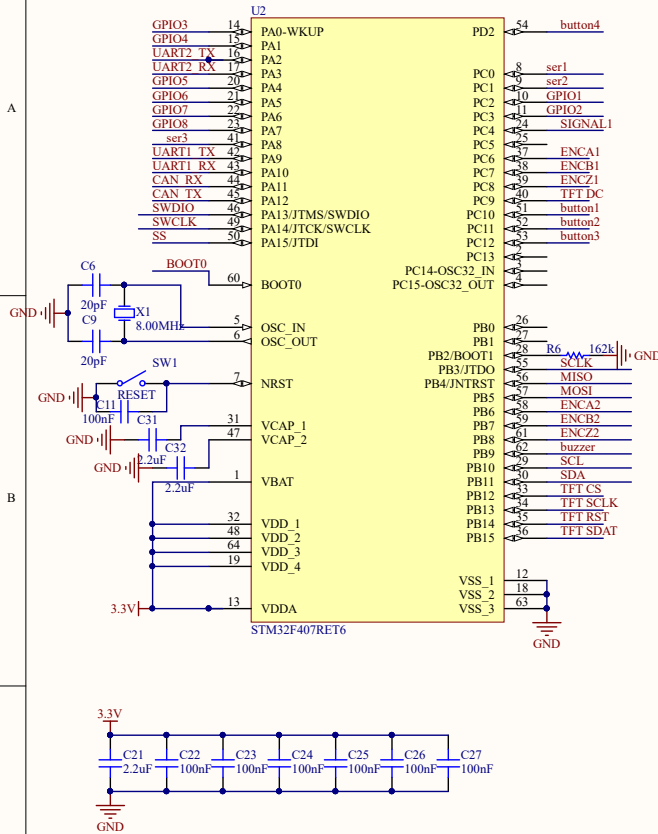
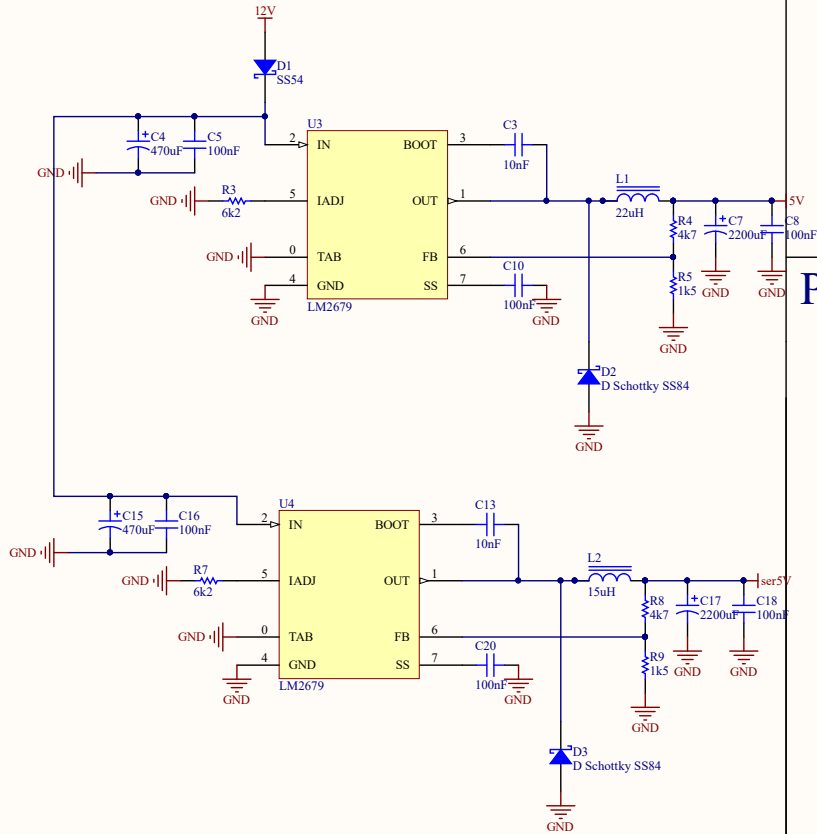


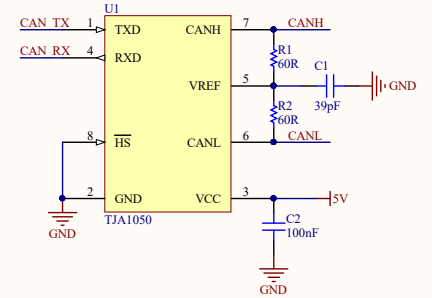
MCU



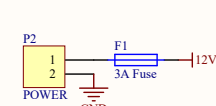
12 to 5V REGULATOR



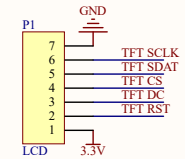
CAN



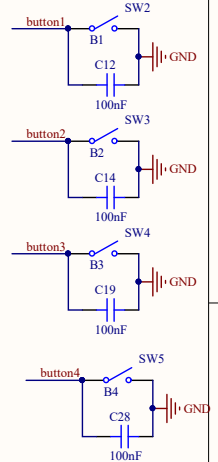
POWER



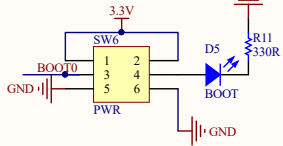
TFT



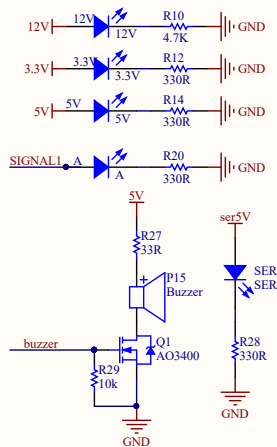
Buttons



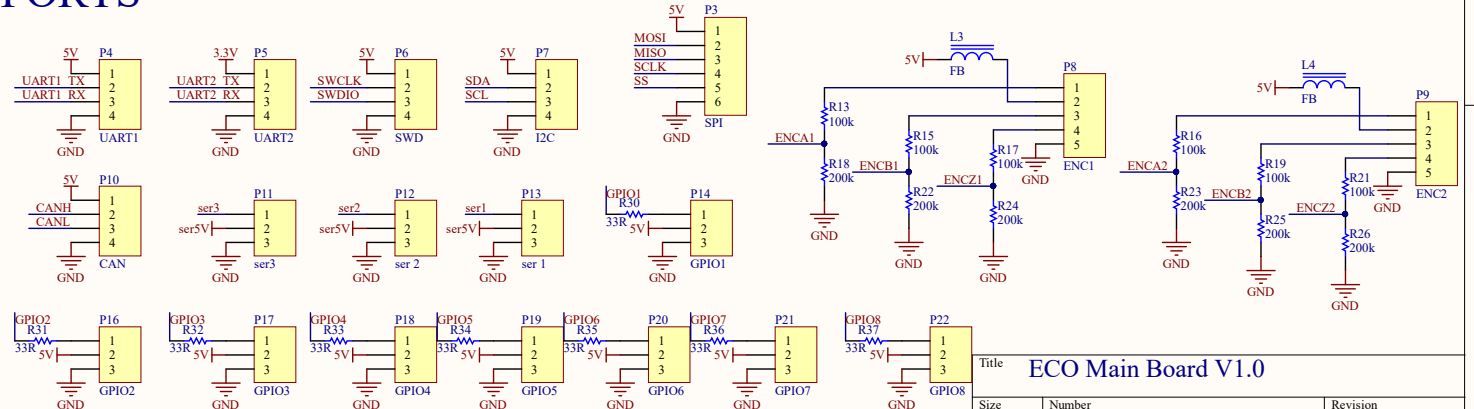
BOOT



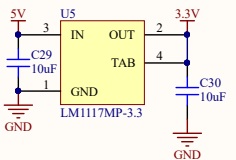
INDICATORS



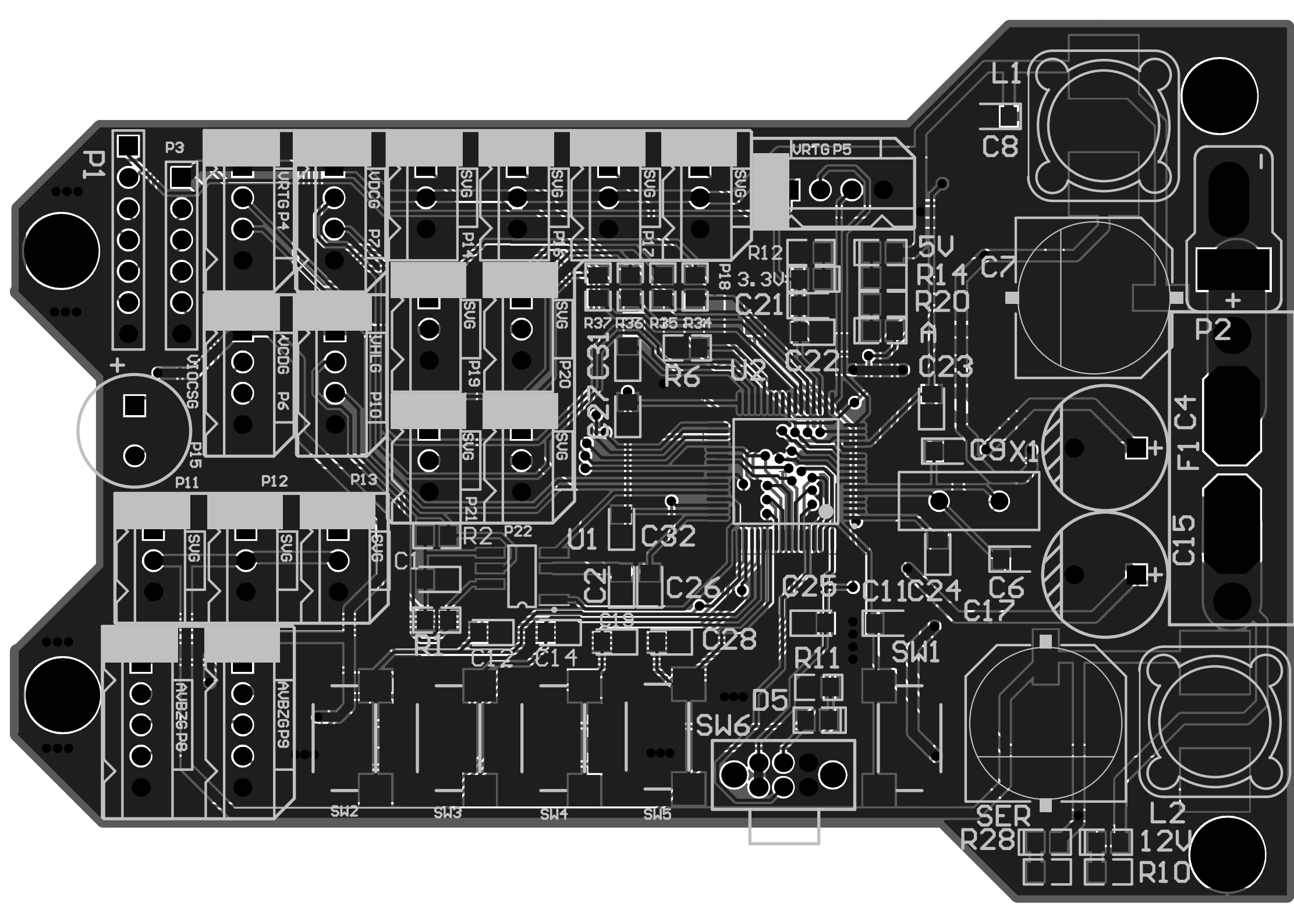
PORTS



REGULATOR



Title		
ECO Main Board V1.0		
Size	Number	Revision
A3		GORE
Date:	27/5/2016	Sheet of
File:	E:\ECO_Main_boardV1.0\ECO_Main_boardV1.0.sch	Doc



Comment	Description	Designator	Footprint	LibRef	Quantity
3.3V	Typical RED GaAs LED	3.3V	D0805	LED	1
5V	Typical RED GaAs LED	5V	D0805	LED	1
12V	Typical RED GaAs LED	12V	D0805	LED	1
A	Typical RED GaAs LED	A	D0805	LED	1
39pF	Capacitor (Semiconductor SIM Model)	C1	CC2012-0805	Cap Semi	1
100nF	Capacitor (Semiconductor SIM Model)	C2, C5, C8, C10, C11, C12, C14, C16, C18, C19, C20, C22, C23, C24, C25, C26, C27, C28	CC2012-0805	Cap Semi	18
10nF	Capacitor (Semiconductor SIM Model)	C3, C13	CC2012-0805	Cap Semi	2
470uF	Polarized Capacitor (Radial)	C4, C15	CAP10x12	Cap Pol DIP	2
20pF	Capacitor (Semiconductor SIM Model)	C6, C9	CC2012-0805	Cap Semi	2
2200uF	Polarized Capacitor (Axial)	C7, C17	SV-H	Cap Pol SMD	2
2.2uF	Capacitor (Semiconductor SIM Model)	C21, C31, C32	CC2012-0805	Cap Semi	3
10uF	Capacitor (Semiconductor SIM Model)	C29, C30	CC2012-0805	Cap Semi	2
SS54	Schottky Diode	D1	SMA	D Schottky	1
D Schottky SS84	Schottky Diode	D2, D3	SMC	D Schottky	2
BOOT	Typical RED GaAs LED	D5	D0805	LED	1
3A Fuse	Fuse	F1	FUSE SOCKET	Fuse	1
22uH	Inductor	L1	MSS1260	Inductor	1
15uH	Inductor	L2	MSS1260	Inductor	1
FB	Inductor	L3, L4	CL3225-1210	Inductor	2
LCD	Header, 7-Pin	P1	HDR1X7	Header 7	1
POWER	Header, 2-Pin	P2	T-CONNECTOR(M)	Header 2	1
SP1	Header, 6-Pin	P3	HDR1X6	Header 6	1
UART1	Header, 4-Pin	P4	LOCKEDHDR-4	Header 4	1
UART2	Header, 4-Pin	P5	LOCKEDHDR-4	Header 4	1
SWD	Header, 4-Pin	P6	LOCKEDHDR-4	Header 4	1
I2C	Header, 4-Pin	P7	LOCKEDHDR-4	Header 4	1
ENC1	Header, 5-Pin	P8	lockedHDR-5	Header 5	1
ENC2	Header, 5-Pin	P9	lockedHDR-5	Header 5	1
CAN	Header, 4-Pin	P10	LOCKEDHDR-4	Header 4	1
ser3	Header, 3-Pin	P11	LOCKEDHDR-3	Header 3	1
ser 2	Header, 3-Pin	P12	LOCKEDHDR-3	Header 3	1
ser 1	Header, 3-Pin	P13	LOCKEDHDR-3	Header 3	1
GPIO1	Header, 3-Pin	P14	LOCKEDHDR-3	Header 3	1
Buzzer		P15	BUZ-9.0	Buzzer	1
GPIO2	Header, 3-Pin	P16	LOCKEDHDR-3	Header 3	1
GPIO3	Header, 3-Pin	P17	LOCKEDHDR-3	Header 3	1
GPIO4	Header, 3-Pin	P18	LOCKEDHDR-3	Header 3	1
GPIO5	Header, 3-Pin	P19	LOCKEDHDR-3	Header 3	1
GPIO6	Header, 3-Pin	P20	LOCKEDHDR-3	Header 3	1
GPIO7	Header, 3-Pin	P21	LOCKEDHDR-3	Header 3	1
GPIO8	Header, 3-Pin	P22	LOCKEDHDR-3	Header 3	1
AO3400	N-Channel MOSFET	Q1	SO-G3/Z3.3	AO3400	1
60R	Semiconductor Resistor	R1, R2	CR2012-0805	Res Semi	2
6k2	Semiconductor Resistor	R3, R7	CR2012-0805	Res Semi	2
4k7	Semiconductor Resistor	R4, R8	CR2012-0805	Res Semi	2
1k5	Semiconductor Resistor	R5, R9	CR2012-0805	Res Semi	2
162k	Semiconductor Resistor	R6	CR2012-0805	Res Semi	1
4.7K	Semiconductor Resistor	R10	CR2012-0805	Res Semi	1
330R	Semiconductor Resistor	R11, R12, R14, R20, R28	CR2012-0805	Res Semi	5
100k	Semiconductor Resistor	R13, R15, R16, R17, R19, R21	CR2012-0805	Res Semi	6
200k	Semiconductor Resistor	R18, R22, R23, R24, R25, R26	CR2012-0805	Res Semi	6
33R	Semiconductor Resistor	R27, R30, R31, R32, R33, R34, R35, R36, R37	CR2012-0805	Res Semi	9
10k	Semiconductor Resistor	R29	CR2012-0805	Res Semi	1
SER	Typical RED GaAs LED	SER	D0805	LED	1
RESET	Single-Pole, Single-Throw Switch	SW1	PUSH SWITCH	SW-SPST	1
B1	Single-Pole, Single-Throw Switch	SW2	PUSH SWITCH	SW-SPST	1
B2	Single-Pole, Single-Throw Switch	SW3	PUSH SWITCH	SW-SPST	1
B3	Single-Pole, Single-Throw Switch	SW4	PUSH SWITCH	SW-SPST	1
B4	Single-Pole, Single-Throw Switch	SW5	PUSH SWITCH	SW-SPST	1
PWR	Header, 3-Pin, Dual row	SW6	POWER SWITCH	Header 3X2	1
TJA1050	5V to 12V Charge Pump	U1	SOP-8	TJA1050	1
STM32F407RET6	STM32 ARM-based 32-bit MCU with 64 Kbytes Flash, 100-pin LQFP, Industrial Temperature	U2	LQFP64_N	STM32F407RET6	1
LM2679	5A Step-Down Switching Mode Voltage Regulator	U3, U4	TO-263(7)	LM2679	2
LM1117MP-3.3	800mA Low-Dropout Linear Regulator	U5	MP04A_N	LM1117MP-3.3	1
8.00MHz	Crystal Oscillator	X1	BCY-W2/E4.7	XTAL	1