









C25				
C25	Designator	Comment	Description WCAP-CSGP	Quantity
Centeral Purpose, 100			Multilayer Ceramic	
100	C25	1uF, 10V	General Purpose,	1
Color				
Col.				
C4, C13	ro	1uF 25V	Chip Capacitor,	1
A	C9	Tur, 25V		·
C4, C13 4, 7uf , 10V C10 10nf , 1eV C10 10nf , 1eV C20 C10 10nf , 1eV C20 C20 C20 C20 C20 C20 C20 C2			25V	
2,4,113			Multilayer Ceramic	
Size Bodd, XSR, 47uF, 1007 1007	C4, C13	4.7uF, 10V		2
C10	,		size 0603, X5R, 4.7uF,	
Color				
101			Multilayer Ceramic	
160	C10	10nF, 16V	General Purpose,	1
C7, C8 22pf, 50V C7, C8 22pf, 50V C8 C8 C8 C8 C8 C8 C8 C8 C8 C				
C7, C8 2pF, 50V Chip Capacitor, Central Purpose, size 0603, NPO, 22pF, 50V			WCAP-CSGP	
100 100	C7. C8	22pF, 50V	Chip Capacitor,	2
226 24.0 24.0 25.0 2			General Purpose, size 0603, NPO, 22pF,	
C26	112	24l Cvv		1
C26	02	ZHLOAN	WCAP-CSGP	
Seneral Purpose, Size Golds, XRR, 100nF, 100r	001	400 F 40V		
10V	C26	100nF, 10V	General Purpose,	1
C1, C2, C3, C5, C6, C1, C1, C1, C1, C2, C1, C1, C1, C1, C1, C1, C1, C1, C1, C1			10V	
C11, C12, C14, C15, C16, C17, C18, C20, C21 C21 C21 C22 C21 C22 C23 C23	C1, C2, C3, C5, C6,			
Content Cont	C11, C12, C14, C15,	100nF, 25V	Chip Capacitor,	14
1004H, 0.77A	C16, C17, C18, C20, C21		size 0603, X7R, 100nF,	
1004H, 0.77A				
C23	L1	100uH, 0.77A	Inductor, size 7850,	1
C23			WCAP-ASLI	
Capacitor, V-Chip, Da 3 x H7 7mm, 20uf; 16V			Aluminum	
220uf. 16V WAP-ASI Aluminum Electrolytic Capacitor, V-Chip, D12.5 x H1-Amm, 88.0uf. 35V SomA, 160g, height SomA, 160g, he	C23	220uF	Capacitor, V-Chip,	1
Aluminum				
C24				
Capacitor, V-Chip, D12.5 x H14mm, 680.0f, 35V WS-TASy J-Bend SMIT Tact Switch, 12VDC, SmA, 160g, height Smith	C24	680uF	Electrolytic	1
Main			680uF, 35V	
Bite AMS1117-3.39	SW1	434123050816	Tact Switch, 12VDC,	1
MI, MZ, M3, M4		15112555575		
MI, MZ, MS, N94	U8	AMS1117-3.3V		1
D4 Blue, 3.2V Waterclaer, size 12 BMS INPUT Jack T 120A 1 JI BMS OUTPUT JACK T 120A 1 JI JACK T 120A 1 JI JACK T	M1, M2, M3, M4	AOD472	Channel	4
Blue, 3.2V Waterclear, size 10	D4			
140deg		Blue, 3.2V		1
BMS OUTPUT Jack T 120A 1			140deg	
R2-9, K90 Resistor Shurit Resistor 2-2 D2. D3 D Schottiky Schottiky Diode 2-2 P3. P7. P8 Header 3H Header, 3-Pin, Right 3-3 P4. P5 Header 4H Header, 4-Pin, Right 3-4 P6. Header 5H Header, 5-Pin, Right 1-4 Role Role Role Role Role Role Header, 5-Pin, Right 1-4 Role Rol	J2 J1			1
D2_D3	R29, R30		Shunt Resistor	2
Page	D2, D3			2
P6 Header 5H Header, 5-Pin, Right Angle	P3, P7, P8	Header 3H	Angle	3
P6	P4, P5	Header 4H		2
HI, Hz, H3, H4 Hole Hole 3mm 4 Hijhs, Side Measurement Current Shart Measurement Urrent Shart Me	P6	Header 5H	Header, 5-Pin, Right	1
UT UT UM324 Pupose Amplifler 4 Circuit 1.2MHz Ceneral Pupose Amplifler 4 Circuit 1.2MHz UA, U6 UM358 Amplifler 2 Circuit 1.1MHz UT UM2596 UM358 Amplifler 2 Circuit 1.1MHz Simple Switcher Power Converter 150- kHz 4V to 60V, 3A Step-Down Voltage Regulator WL-SMCW SMT Mono color Chip LED Waterclear, size 6003 dome, Red, ZV, 60deg Polymeric PTC RESETTABLE FUSE 1206 RES, R7, R11, R13, R18, Resistor 00 hm 0603 dome, Red, ZV, 60deg Amplifler 2 Circuit 1.0MHz To Code 000, 170 Metric, Concave R5, R7, R11, R13, R18, Resistor 10 KOhm 6003 1% R84 Resistor 20 KOhm 6003 1% Resistor 40 Ohm 6003 17, 170W Sas, Ra, R9, R14, R15, Resistor 20 KOhm 6003 18, R3, R3, R3, R14, R15, Resistor 20 KOhm 6003 18, R3, R3, R3, R14, R15, Resistor 20 KOhm 6003 18, R3, R3, R3, R14, R15, Resistor 75 Ohm 603 R3, R8, R9, R14, R15, Resistor 75 Ohm 603 R3, R8, R9, R14, R15, Resistor 75 Ohm 603 R3, R8, R9, R14, R15, Resistor 75 Ohm 603 R3, R3, R3, R3, R3, R4, R4, R4, R4, R4, R4, R4, R4, R4, R4	H1, H2, H3, H4	Hole		4
U1 U1 UM324				
U1	U5	INA139	Current Shunt	1
Circuit 1 28/4tz				
U4, U6 LM358 Amplifer 2 Circuit 1.1M-bz 2 Amplifer 2 Circuit 1.1M-bz 3 Simple Switcher Power Converter 150-kHz 4V to 60V, 3A 1 Step-Down Voltage Regulator Wisser Converter 150-kHz 4V to 60V, 3A 1 Step-Down Voltage Regulator Wisser Converter 150-kHz 4V to 60V, 3A 1 Step-Down Voltage Regulator Wisser Color Chip LED Waterclear, size 6603 1 1 Waterclear, size 6603 1 Wat	U1	LM324		1
1.1MHz Simple Switcher Power Converter 150- Mtz 47 to 607, 3A 1 Simple Switcher Power Converter 150- Mtz 47 to 607, 3A 1 Step-Down Voltage Regulator Mtz 47 to 607, 3A 1 Mtz 47 to 607, 3A		114050	General Purpose	
UT LM2596 Simple Switcher Power Converter 150- LM2596 Hz 4V to 60V, 3A Step-Down Voltage Regulator WSMCW SMT Mono color Chip LED WSMCW SMT Mono color Chip LED Waterclear, size 6003 dome, Red, 2V, 60deg Polymeric PTC RESETTABLE FUSE 1206 Metric_Concave SSmA In Surface Mount 1206_5216 Metric_Concave RS, R7, R11, R13, R18, Resistor 0 Ohm 0603 R20, R24, R26 Resistor 10 KOhm 0603 r8, R27, R27, R32, R36 Resistor 20 KOhm 0603 r18, R38, R38, R38, R39, R48, R5, R14, R15, Resistor 20 KOhm 0603 r18, R38, R38, R37 r18, R38, R38, R37 r18, R38, R38, R37 r18, R38, R38, R37 r18, R38, R38, R39, R38, R39, R38, R39, R39, R39, R39, R39, R39, R39, R39	U4, U6	LM358		2
U7 IM2596			Simple Switcher	
Regulator WL-SMCW SMT Mono Color Chip LED Waterclear, size 0603 1 Waterclear, size 0603 1 Waterclear, size 0603 1 Waterclear, size 0603 dome, Red, 2V, 60deg Polymeric PTC RESEITABLE FUSE Stock Market Polymeric PTC Resettable Fuse 6V Polymeric PTC	U7	LM2596	kHz 4V to 60V, 3A	1
MxSMCW SMT Mono color Chip LED Materclear, size 0603 1 Materclear, size 0603 Materclear, size 0603 1 Materclear, size 0603 1 Materclear, size 0603 Materclear, size				
D1 Red, 2V Waterclear, 3ize 6603 dome, Red, 2V, 600deg Av, 600deg Polymeric PTC RESETTABLE FUSE 1206 Subject Polymeric PTC Resistor 1206 Subject Polymeric PTC Resistor 10 Nohm 1206, 2316 Metric_Concave St. 7i, R11, R13, R18, Resistor 0 Ohm 0603 St. 20, R24, R26 St. 20, R26, R26, R26, R26, R26, R26, R26, R26			WL-SMCW SMT Mono	
	D1	Red, 2V	Waterclear, size 0603	1
Polymeric PTC RESETTABLE FUSE 1206 RES, R7, R11, R13, R18, Resistor 0 Ohm 0603 R20, R24, R26 R1, R2, R27, R32, R36 R20, R24, R26 R3, R2, R32, R36 R4 R6sistor 20 KOhm 0603 1% R6sistor 20 KOhm 0603 1% R6sistor 20 KOhm 0603 1% R6sistor 49, PKOhm 0603 1% R6sistor 69 KOhm 0603 1% R21, R22, R28 R83, R39, R14, R15, R6sistor 60 KOhm R21, R22, R28 R83, R37 R8sistor 75 Ohm 0603 1% Resistor 75 Ohm 0603 1% R6sistor 75 Ohm 0603 1% R6sistor 75 Ohm 0603 1% R6sistor 75 Ohm 0603 1% Code 603, 1/10W 20 R83, R37 R8sistor 75 Ohm 0603 1% R6sistor 75 Ohm 0603 1% Code 603, 1/10W 21 R17, R21, R24, R26 R6sistor 100 KOhm R19, R23, R25 R6sistor 100 Ohm R19, R23, R25 R6sistor 200 Ohm R19, R23, R25 R6sistor 200 Ohm R19, R6sistor 470 Ohm R19, R22, R25 R6sistor 200 Ohm R19, R6sistor 470 Ohm R19, R6sistor 470 Ohm R19, R21, R22 R17 R17 R6sistor 200 Ohm R19,			dome, Red, 2V,	
F1 RESETTABLE FUSE 1206 Som Al h Surface Mount 1206_3216 Mehritc. Concave Mount 1206_3216 Mount 1206_32			Polymeric PTC	
12.06 Mount 1206, 23216 Metric_Concave	F1		350mA Ih Surface	1
RS, R7, R11, R13, R18, R50, R250, R24, R26 5% Code 0R, 1/10W 8 RR1, R2, R27, R32, R36 68csistor 10 KOhm 0603 1% Code 103, 1/10W 5 R34 Resistor 20 KOhm 0603 1% Code 203, 1/10W 1 R35, R38 Resistor 349, 9KOhm 0603 1% Code (4992, 68C), 1/10W 2 R3,		1200	Mount 1206_3216	
R20, R24, R26				8
R34 R84 Resistor 20 KOhm Code 203,1710W 2 R85, R88, R9, R14, R15, Resistor 49 9 KOhm (204 e902, 68C), 1710W 2 R3, R8, R9, R14, R15, Resistor 49 9 KOhm (204 e902, 68C), 1710W 2 R3, R8, R9, R14, R15, Resistor 60 KOhm (204 e003, 1710W) 2 R3, R8, R9, R14, R15, Resistor 75 Ohm 603 r1% (204 e003, 1710W) 2 R4, R6, R10, R12, R16, Resistor 100 KOhm (204 e003, 1710W) 2 R31, R40 (204 e003) R8, R63 r10 Code 104, 1710W 2 R31, R40 (204 e003) R63 r1% (204 e003, 1710W) 2 R31, R40 (204 e003) R63 r1% (204 e003, 1710W) 2 R31, R40 (204 e003) R63 r1% (204 e003, 1710W) 2 R31, R40 (204 e003, 1710W) 2 R31, R40 (204 e003, 1710W) 2 R31, R40 (204 e003, 1710W) 2 R41, R41, R41, R41, R41, R41, R41, R41,	R20, R24, R26			
1.00		0603 1%		
170W 2 2 3 3 3 4 170W 2 3 3 3 4 170W 3 3 3 4 170W 3 3 3 4 170W 3 3 3 3 3 3 3 3 3	R34	0603 1%		1
R3, R8, R9, R14, R15, Resistor 60 KOhm o603 1% Code 603, 1/10W 8 8 2721, R22, R28 o603 1% Code 603, 1/10W 2 2 R4, R6, R10, R12, R16, Resistor 100 KOhm o603 1% Code 104, 1/10W 8 8 R619, R23, R25 o603 1% Code 104, 1/10W 2 2 R619, R23, R25 o603 1% Code 100, 1/10W 2 2 R619, R23, R25 o603 1% Code 100, 1/10W 2 2 R619, R21, R21 o603 1% Code 201, 1/10W 1 1 0603 1% Code 20	R35, R38			2
R21, R22, R26 R23, R37 R4, R6, R10, R12, R16, Resistor 75 Ohm 0603 R19, R23, R25 R31, R40 Resistor 100 Ohm R31, R40 Resistor 100 Ohm R31, R40 Resistor 200 Ohm R31, R40 Resistor 200 Ohm R31, R40 R41, R40	R3, R8, R9, R14, R15, R21, R22, R28	Resistor 60 KOhm		8
R4, R6, R10, R12, R16, Resistor 100 K0hm R19, R23, R25		Resistor 75 Ohm 0603		
R19, R23, R25	R4, R6, R10, R12, R16,			
R17	R19, R23, R25	0603 1%	Lode 104, 1/10W	8
R17 Resistor 200 Ohm 0633 5% 0635% Code 201, 1/10W 1 R39 Resistor 470 Ohm 0603 1% Code 471, 1/10W 1 P1 Rotary Encoder KY-040 1 U3 STM32F030C816 1 C19, C22 Tantalum Capacitor Code 105 10%, 1206 (3216 Metric) 2 C27 Tantalum Capacitor Code 261 10%, 2312 (3632 Metric) 1 P2 TFT 1.8" ST7735 1 1	R31, R40	0603 1%	Code 1000, 1/10W	2
R39 Resistor 470 Ohm	R17	Resistor 200 Ohm	Code 201, 1/10W	1
P1 Rotary Encoder KY-040 1 US STM32F030C816 1 C19, C22 Tantalum Capacitor (3216 Metric) 2 C27 Tantalum Capacitor (6032 Metric) 1 C28 TFT 1.8" ST7735 1 TFT 1.7735 1 1	R39	Resistor 470 Ohm	Code 471, 1/10W	1
U3 STM32F030C816 1 C19, C22 Tantalum Capacitor (20de 105 10%, 1206 (3216 Metric)) 2 C27 Tantalum Capacitor (6032Metric) Code 226 10%, 2312 (2004 Metric) 1 P2 TFT 1.8" ST7735 LCD 1.8inch 1060 L28 (17735 Metric) 1	P1			
C27	U3	STM32F030C8T6		1
P2 TFT 1.8" ST7735 (6032 Metric) 1 LCD 1.8inch 160x128 1 TFT ST7735 1 TFT ST7735 1	C19, C22	Tantalum Capacitor	(3216 Metric)	2
P2 TFT 1.8" ST7735 LCD 1.8inch 160x128 TFT ST7735 1	C27	Tantalum Capacitor		1
IF1 517/35			LCD 1.8inch 160x128	1
	P2	TFT 1.8" ST7735	TET ST7725	