
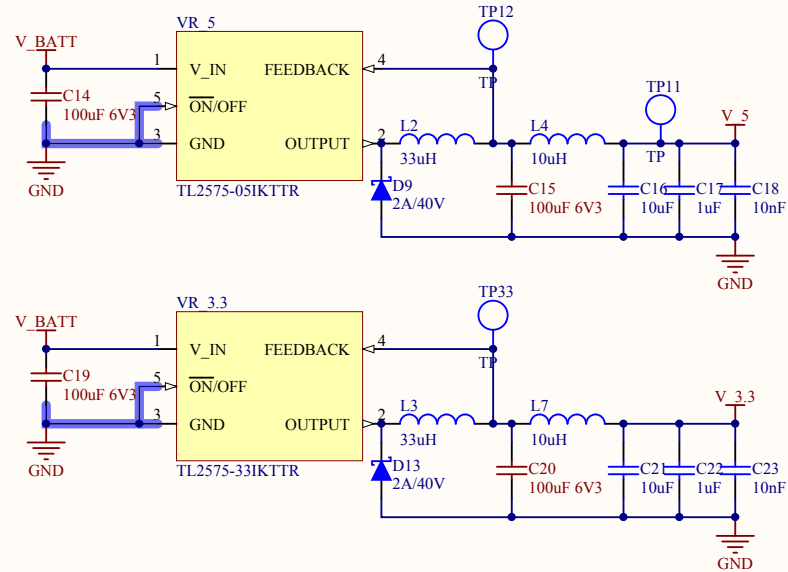
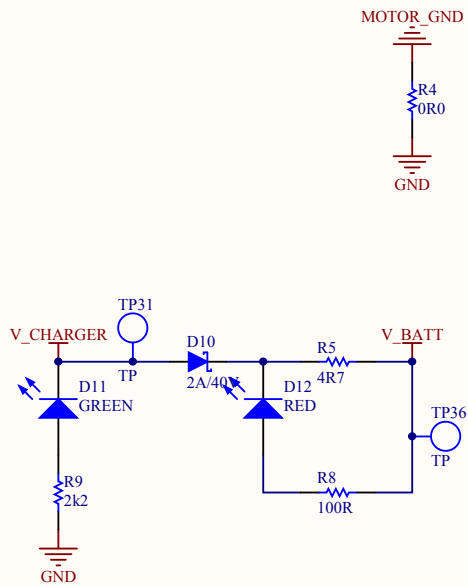

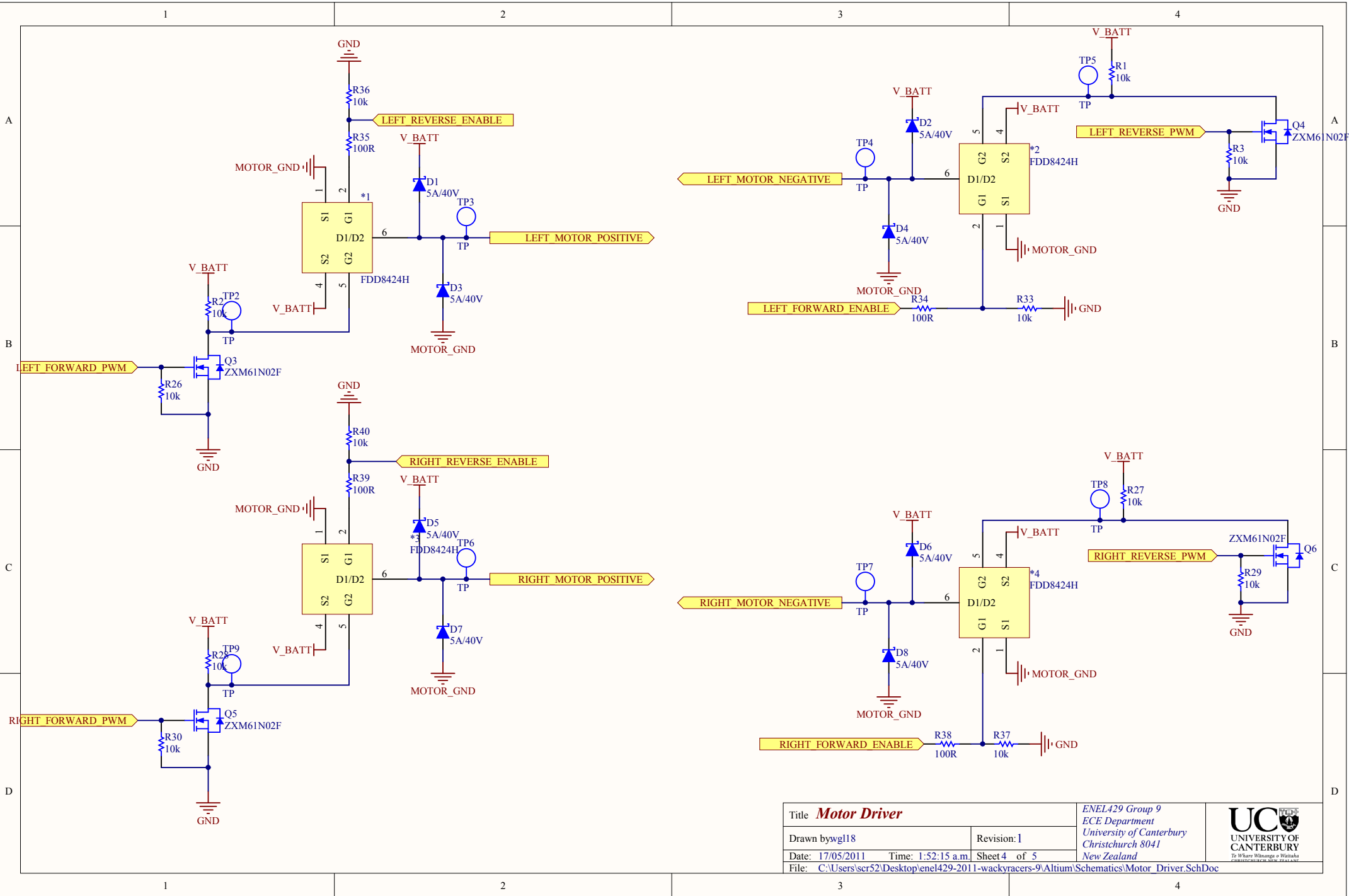



Title Top Level - Motor Board			ENEL429 Group 9 ECE Department University of Canterbury Christchurch 8041 New Zealand	 UNIVERSITY OF CANTERBURY Te Whare Wānanga o Waitaha CHRISTCHURCH, NEW ZEALAND
Drawn by wgl18, hvj10	Revision: 1			
Date: 17/05/2011	Time: 1:52:15 a.m.	Sheet 1 of 5		
File: C:\Users\scr52\Desktop\enel429-2011-wackyracers-9\Altium\Schematics\Motor Board.SchDoc				

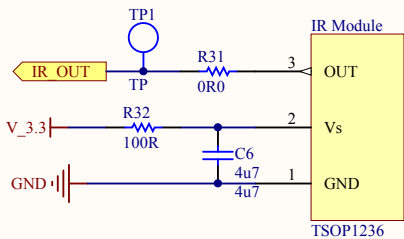


Title <i>Power Supply</i>		ENEL429 Group 9 ECE Department University of Canterbury Christchurch 8041 New Zealand		 UNIVERSITY OF CANTERBURY <i>To Whom We Owe a Debt of Gratitude</i> CHRISTCHURCH, NEW ZEALAND
Drawn by hvj10		Revision: 1		
Date: 17/05/2011	Time: 1:52:15 a.m.	Sheet 3 of 5		
File: C:\Users\scr52\Desktop\enel429-2011-wackyracers-9\Altium\Schematics\Power_Supply.SchDoc				

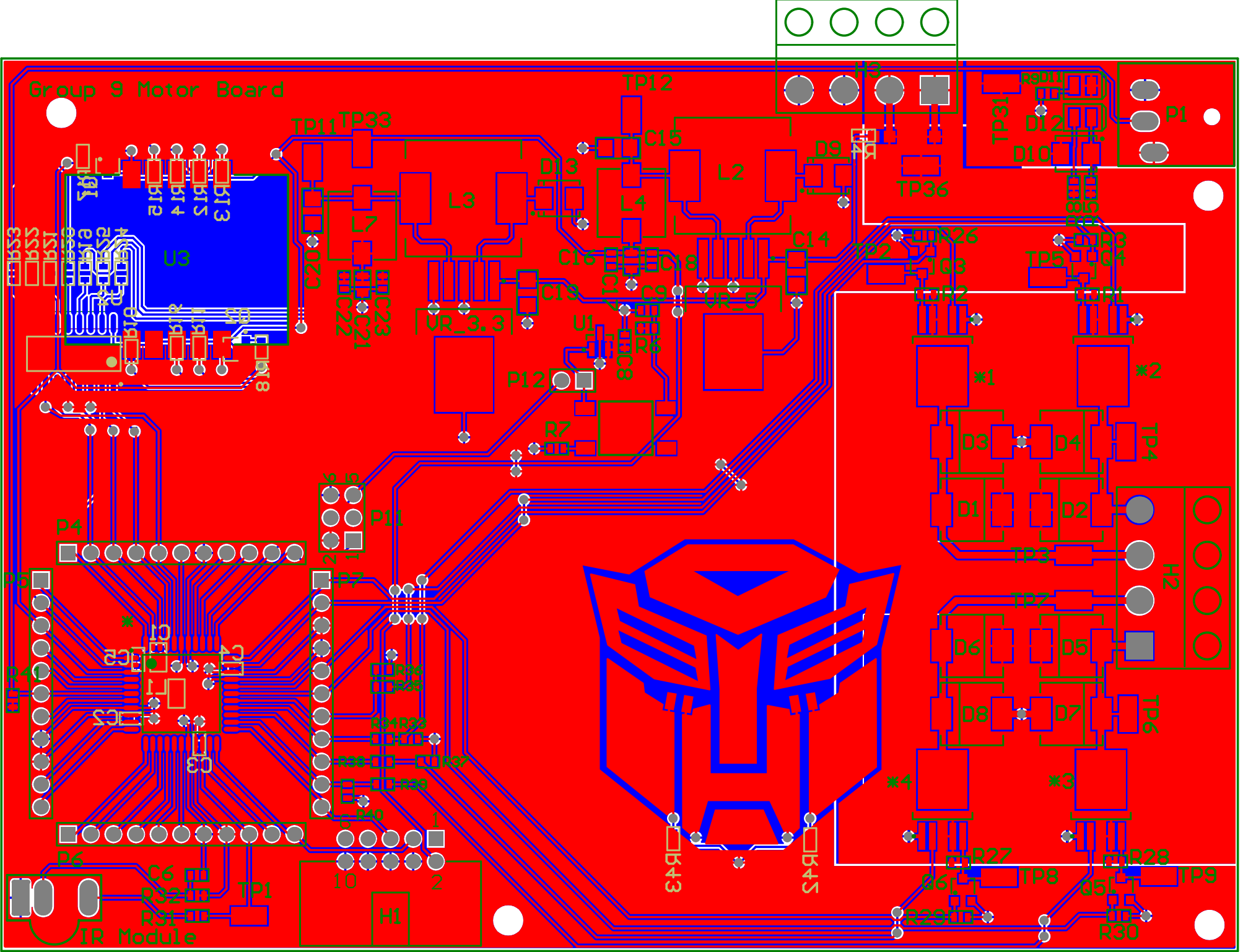


Title Motor Driver			ENEL429 Group 9 ECE Department University of Canterbury Christchurch 8041 New Zealand		 UC UNIVERSITY OF CANTERBURY To Whaea Whangā / Te Waipapa CHRISTCHURCH, NEW ZEALAND
Drawn by wgl18		Revision: 1			
Date: 17/05/2011	Time: 1:52:15 a.m.	Sheet 4 of 5			
File: C:\Users\scr52\Desktop\enel429-2011-wackyracers-9\Altium\Schematics\Motor_Driver.SchDoc					





Group 9 Motor Board



Bill of Materials

Top Level - Motor Board

Source Data From: Motor_Board.PrjPcb
 Project: Motor_Board.PrjPcb
 Variant: None

Creation Date: 17/05/2011 1:52:45 a.m.
 Print Date: 40680 40680.07836

#Column Nam	Comment	#Column Name	Designator	Description	Quantity
	ATXMEGA16A4-AU				1
	FDD8424H		*1, *2, *3, *4		4
	10uF		C1, C16, C21	CAP 10uF 10% 10V X5R 0805	3
	100nF		C2, C3, C4, C5, C8, C9	CAP CER .10UF 50V X5R 0603	6
	4u7		C6	CAP CER 4.7UF 10V X5R 0603	1
	100uF 6V3		C14, C15, C19, C20	100uF 6.3V 1206 multi-layer ceramic capacitor	4
	1uF		C17, C22	CAP CER 1.0UF 50V X7R 0603	2
	10nF		C18, C23	CAP CER 10000PF 100V X7R 0603	2
	5A/40V		D1, D2, D3, D4, D5, D6, D7, D8	DIODE SCHOTTKY 5A,40V SMC	8
	2A/40V		D9, D10, D13	Schottky Diode - 2A/30V	3
	LED Green		D11	Green LED 0805	1
	LED Red		D12, D14, D15	Red LED 0805	3
	Comms		H1	Header, IDC 10-Pin	1
	Twin Motor Connector		H2	5.08mm Pluggable Terminal Header	1
	Twin Battery Connector		H3	5.08mm Pluggable Terminal Header	1
	TSOP1236		IR Module		1
	IN_FERRITE CHIP 120 OHM 800mA 0805 Inductor		L1	FERRITE CHIP 120 OHM 800mA 0805	1
	10uH		L2, L3	INDUCTOR POWER SHIELD 33UH 2.6A SMD	2
	Header 3		L4, L7	INDUCTOR POWER 10UH 2.0A SMD	2
	Header 11		P1	Header, 3-Pin	1
	Header 3X2		P4, P5, P6, P7	Header, 11-Pin	4
	Header 2		P11	Header, 3-Pin, Dual row	1
	ZXM61N02F		P12	Header, 2-Pin	1
	ZXM61P02F		Q1, Q3, Q4, Q5, Q6	20V N-channel enhancement mode MOSFET	5
	10k		Q2	20V P-channel enhancement mode MOSFET	1
	4R7		R1, R2, R3, R6, R10, R11, R12, R13, R14, R15, R16, R26, R27, R28, R29, R30, R33, R36, R37, R40, R41	RES 10.0K OHM 1/10W 1% 0603 SMD	21
	330R		R5	RES 4.7R 1/10W 5% 0603 SMD	1
	100R		R7	RES 330 OHM 1/10W 1% 0603 SMD	1
	2k2		R8, R32, R34, R35, R38, R39	RES 100 OHM 1/10W 1% 0603 SMD	6
	180R		R9	RES 2.2K OHM 1/10W 5% 0603 SMD	1
	680R		R17, R19, R20, R21, R22, R23, R24, R25	RES 180OHM 1/10W 1% 0603 SMD	8
	150R		R18	RES 680 OHM 1/10W 1% 0603 SMD	1
	FSM2JSMA		R42, R43	RES 150 OHM 1/10W 1% 0603 SMD	2
	MCP130T-300I/TT		S1	DPST SMD Switch	1
	SN74LS47		U1	Microcontroller Supervisory Circuit with Open Drain Output, 3-Pin SOT-23, Industrial Temperature, Tape and Reel	1
	HDSM-541C		U2	SN74LS47	1
	TL2575-33IKTTR		U3	2 character 7 segment display	1
	TL2575-05IKTTR		VR_3.3		1
			VR_5		1
					107

Approved	Notes