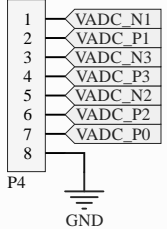
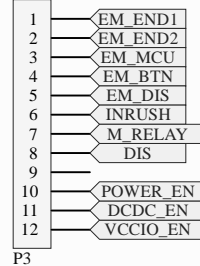
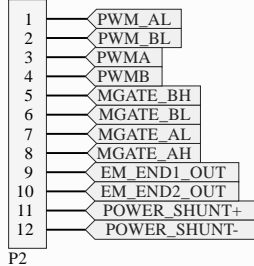
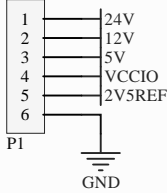
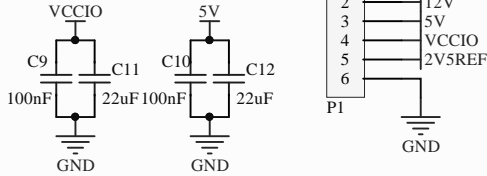
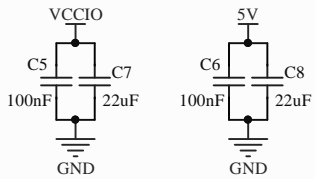


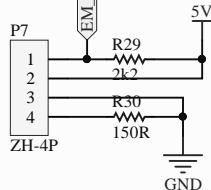
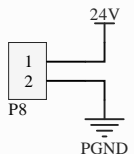
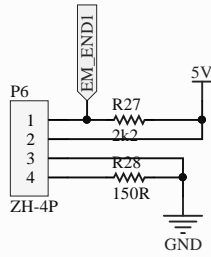
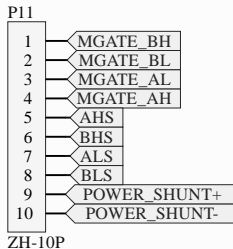
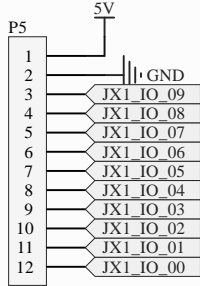
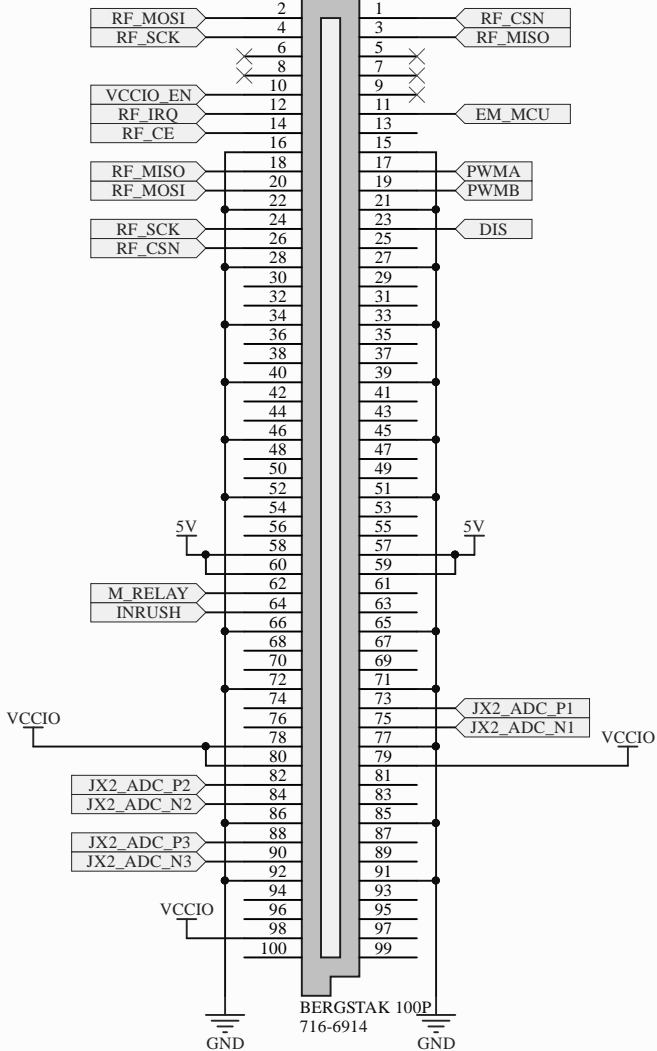
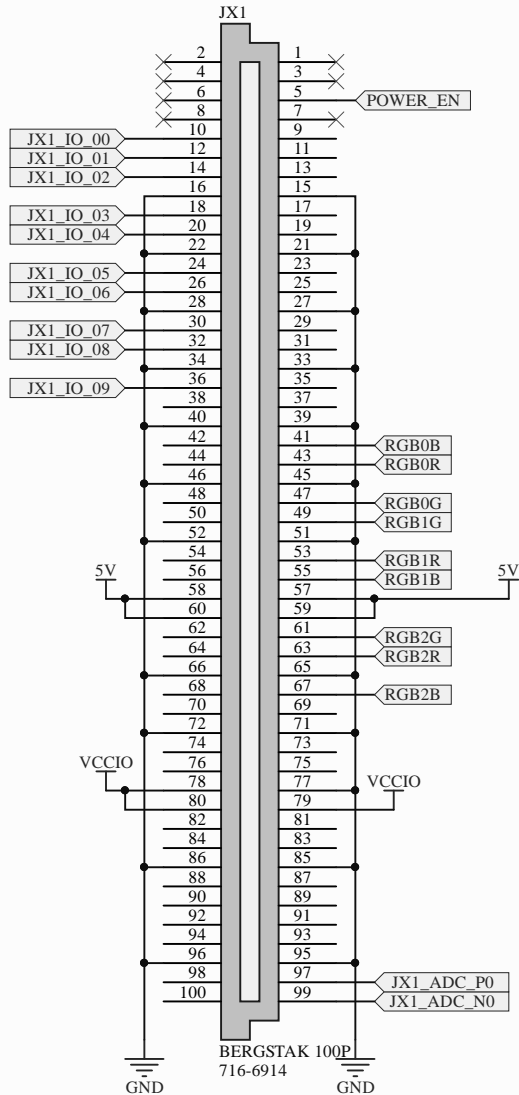
A

A



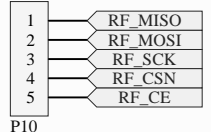
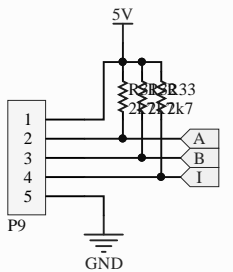
B

B



C

C

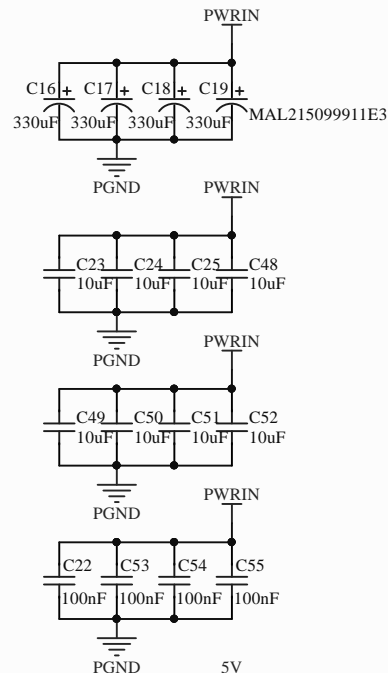
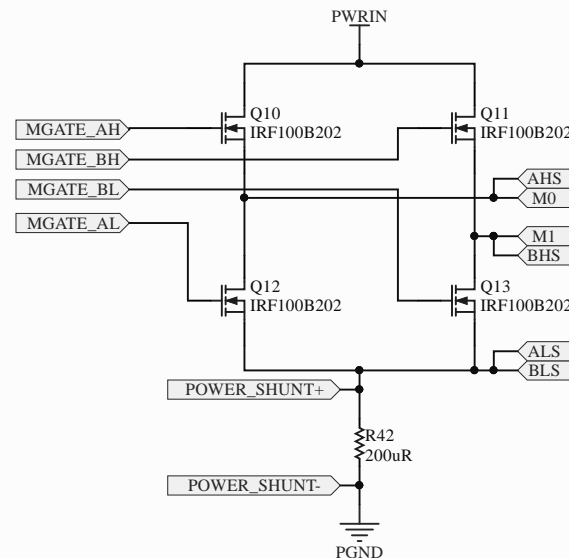
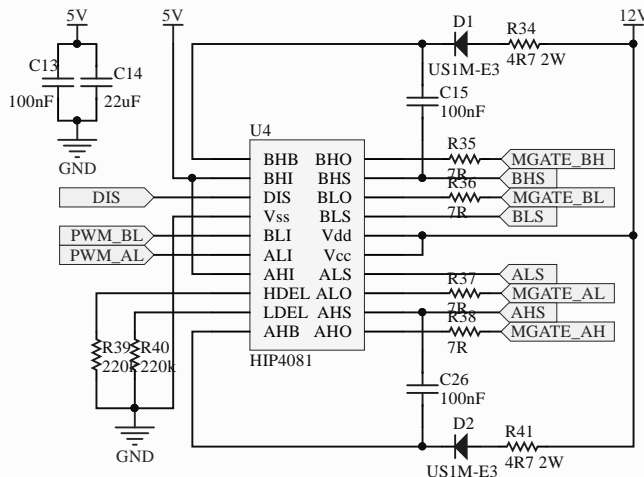
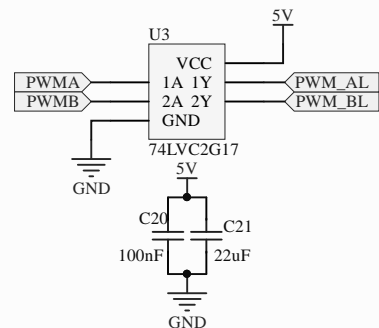


D

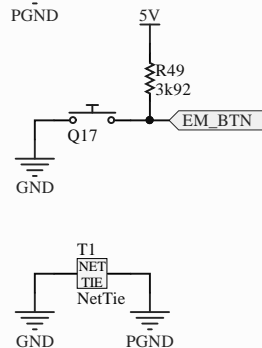
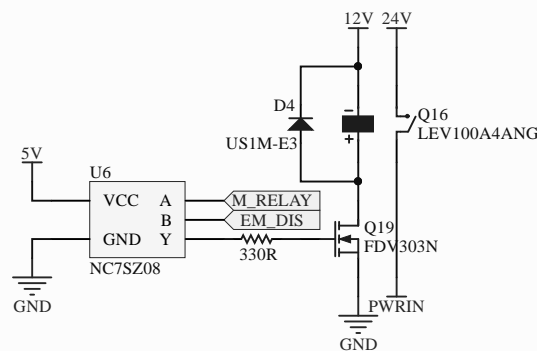
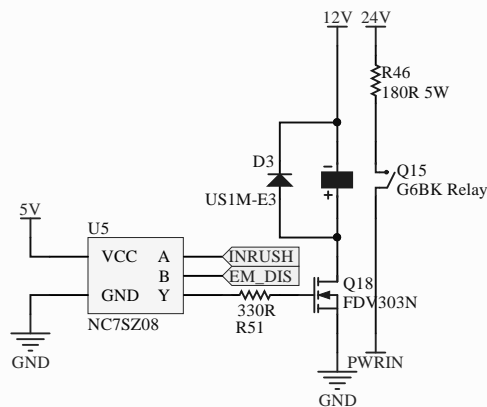
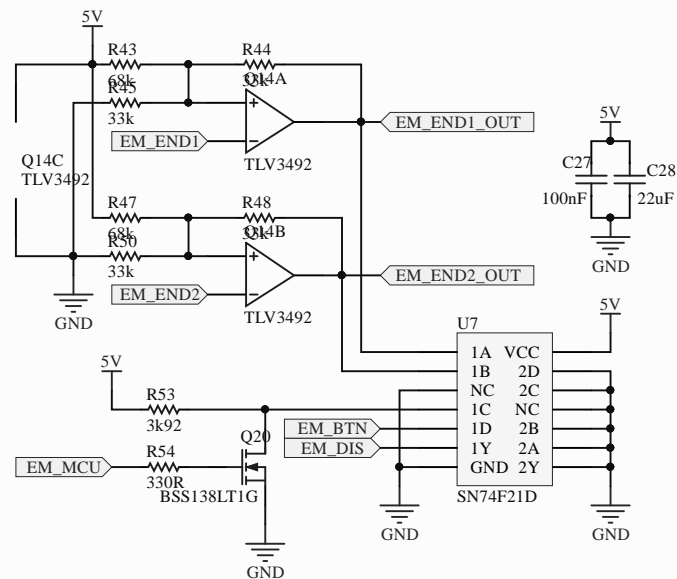
D

Title		
Connectors		
Size	Number	Revision
A4		4
Date:	05/10/2017	Sheet 1 of 4
File:	C:\SDUEmbedded\...\connectors.SchDoc	Drawn By:

A



B

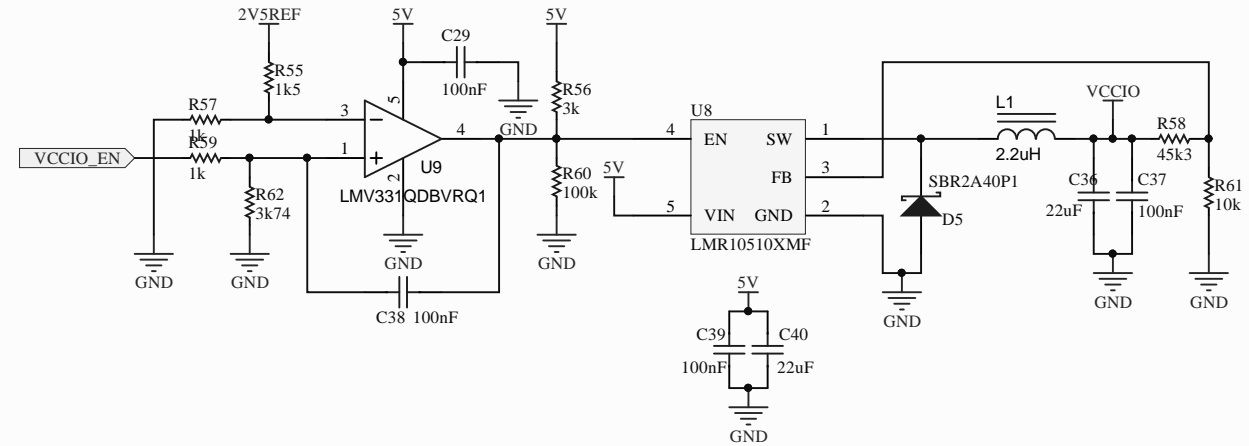
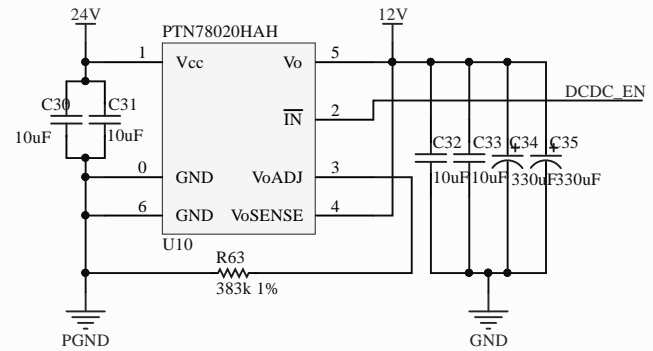


C

D

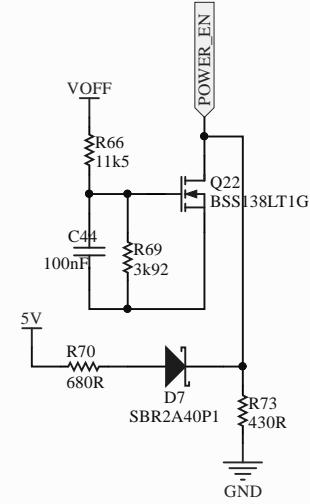
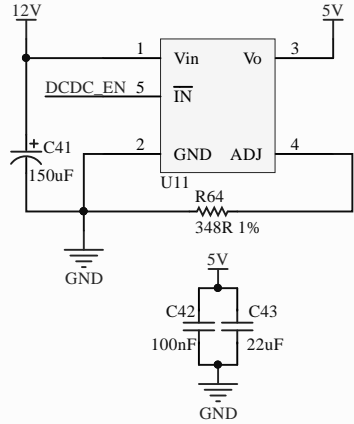
Title		
Motor Driver		
Size	Number	Revision
A4		4
Date:	05/10/2017	Sheet 2 of 4
File:	C:\SDUEmbedded\...\motor_driver.SchDoc	Drawn By:

A



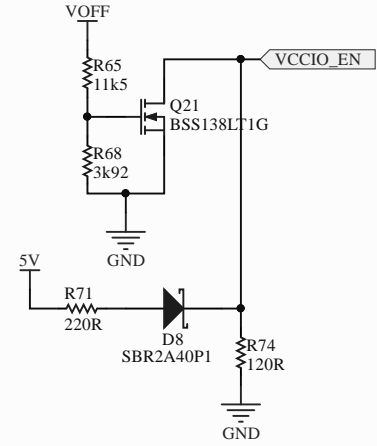
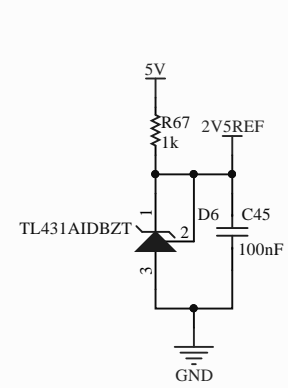
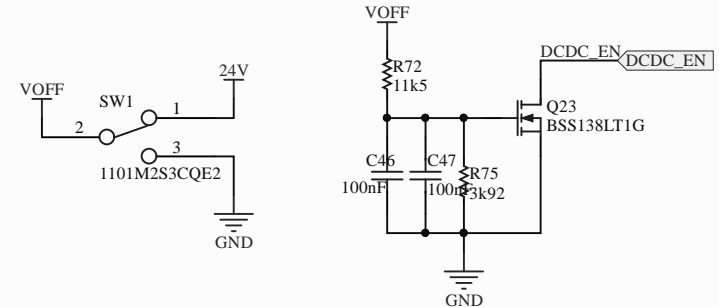
A

B



B

C

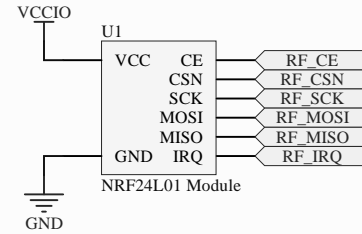
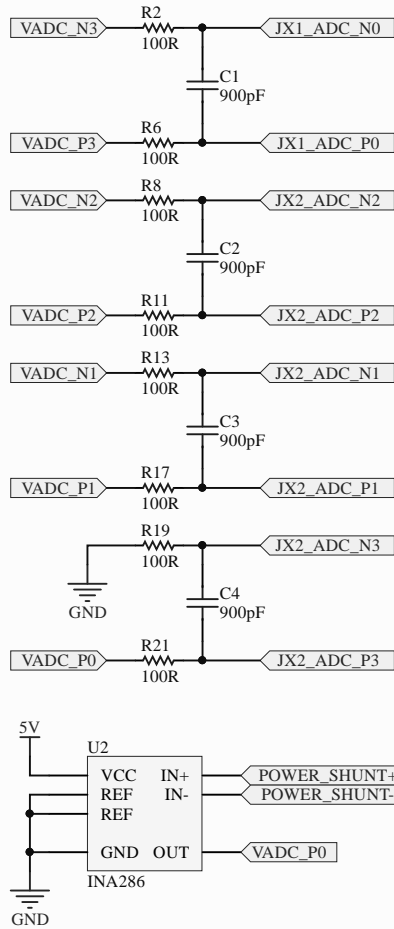
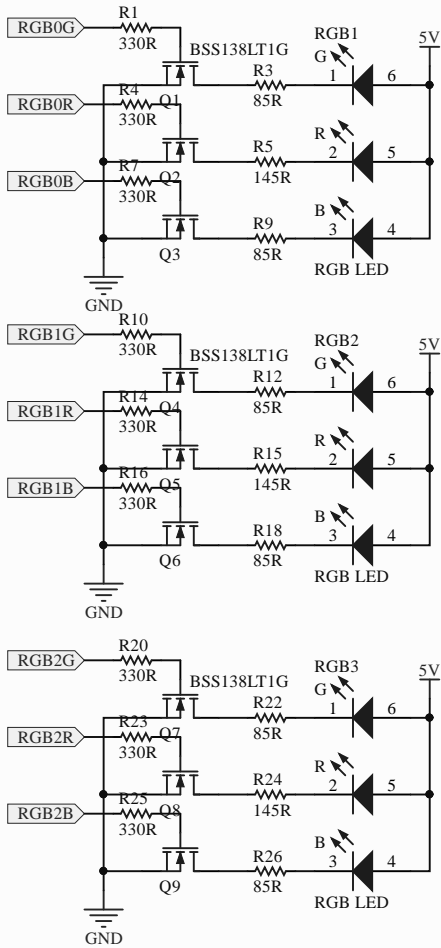


C

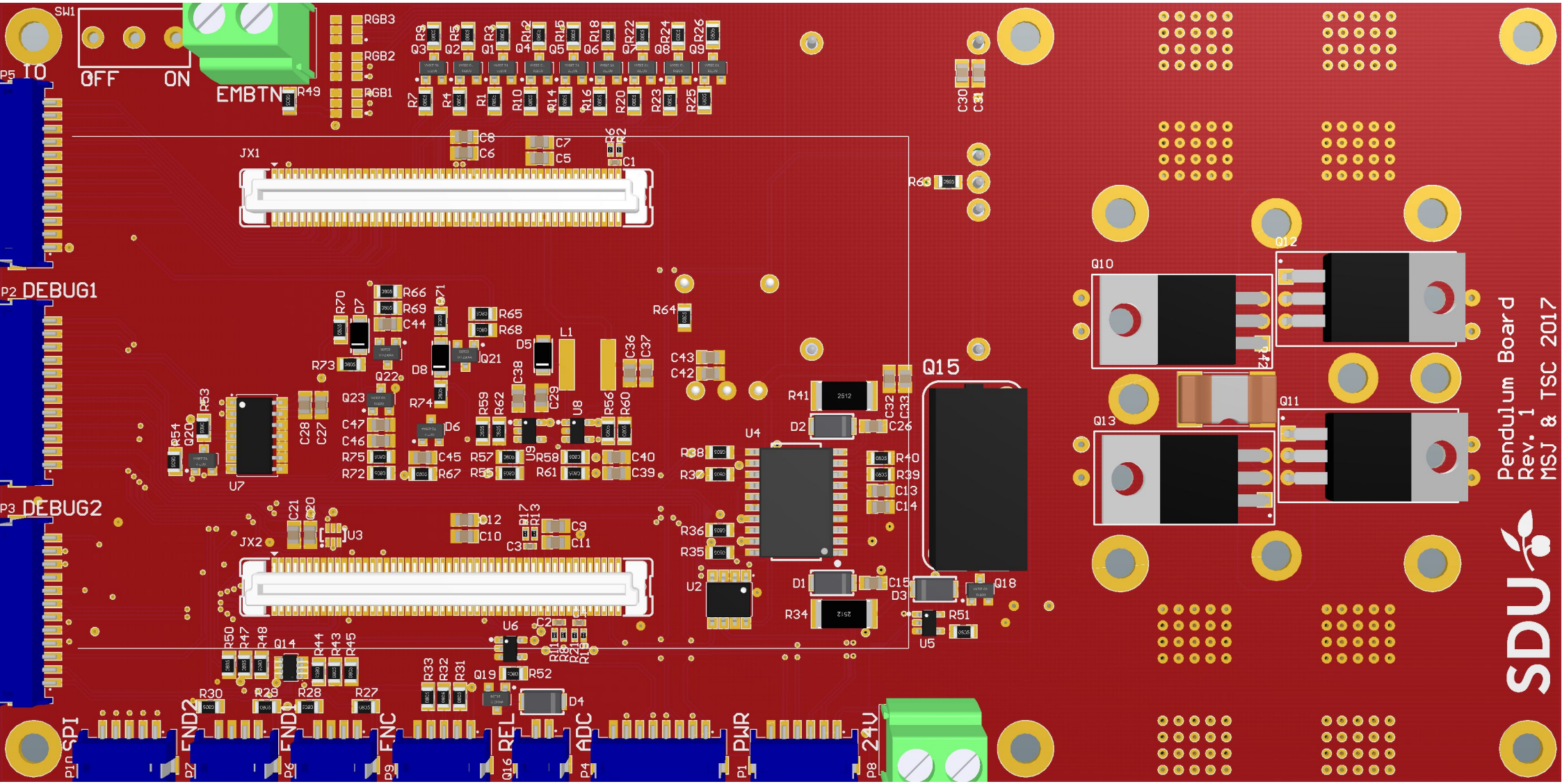
D

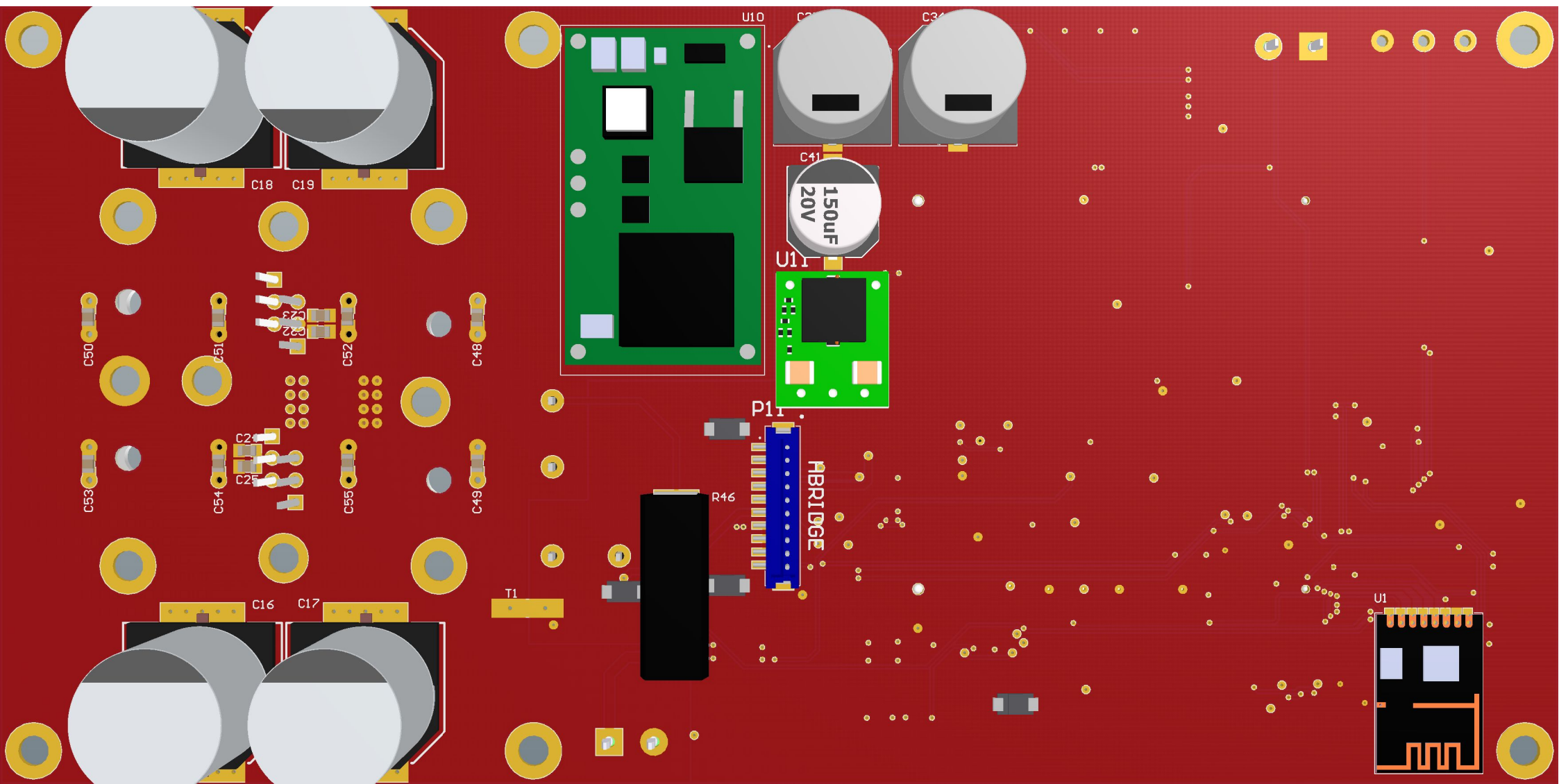
Title Power Delivery		
Size A4	Number	Revision 4
Date:	05/10/2017	Sheet 3 of 4
File:	C:\SDUEmbedded\...\power_delivery.Sch	Drawn By:

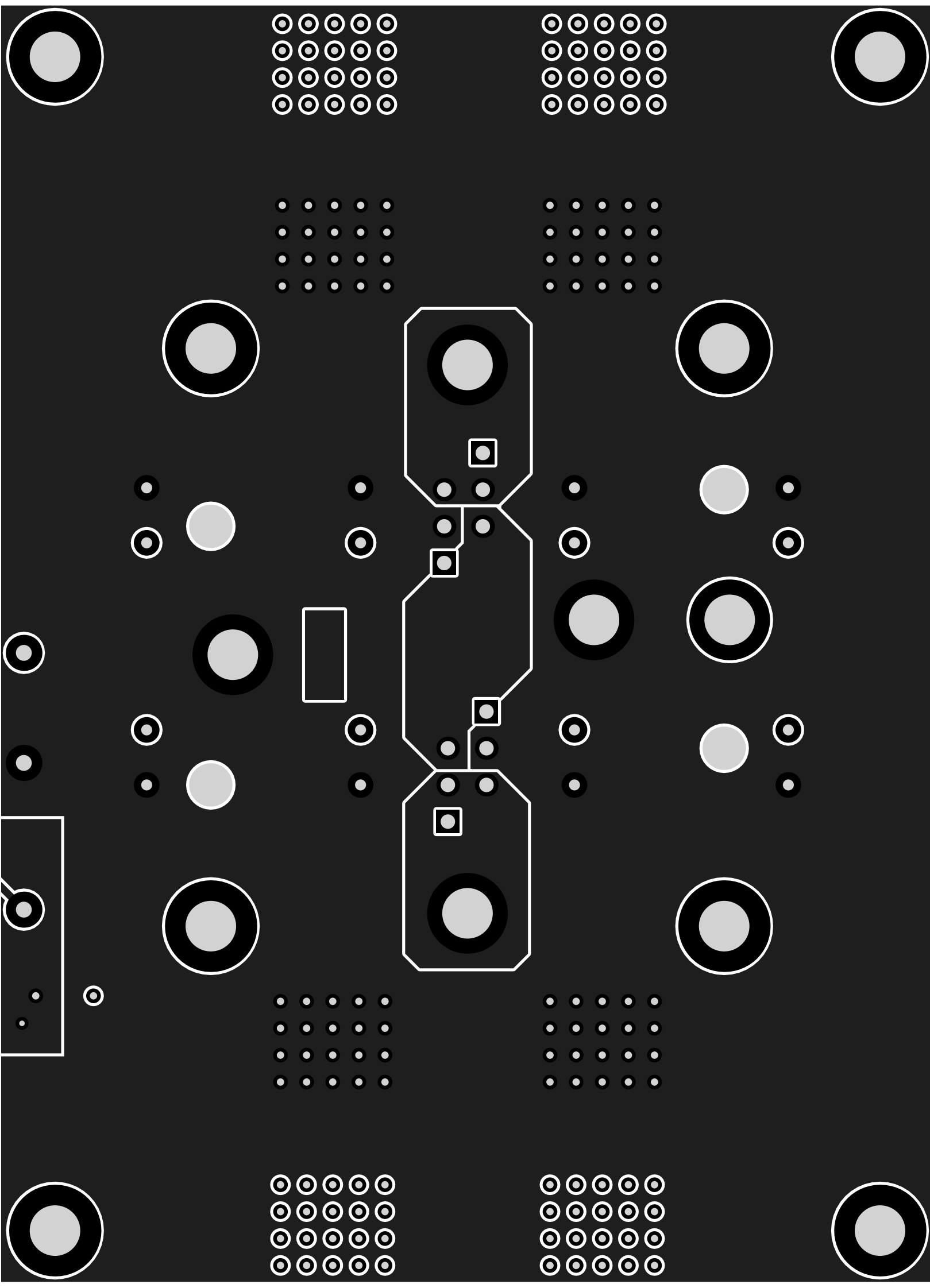
D



Title Auxiliary			
Size A4	Number		Revision 4
Date:	05/10/2017	Sheet 4 of 4	
File:	C:\SDUEmbedded\..\auxiliary.SchDoc	Drawn By:	







Comment	Description	Designator	Footprint	LibRef	Quantity	Value
Capacitor	Capacitor	C1, C2, C3, C4	CAP-0402	Capacitor	4	900pF
		C5, C6, C9, C10, C13, C15, C20, C22, C26, C27, C29, C37, C38, C39, C42, C44, C45, C46, C47, C53, C54, C55				
Capacitor	Capacitor	C7, C8, C11, C12, C14, C21, C28, C36, C40, C43	CAP-0805	Capacitor	10	22uF
MAL21509991E3		C16, C17, C18, C19	CAP-1621	Electrolytic Capacitor	4	330uF
Capacitor	Capacitor	C23, C24, C25, C30, C31, C32, C33, C48, C49, C50, C51, C52	CAP-0805	Capacitor	12	10uF
		C34, C35	CAP-H13	Electrolytic Capacitor	2	330uF
20SPV150M		C41	CAP-F12	Electrolytic Capacitor	1	150uF
US1M-E3		D1, D2, D3, D4	DO-214AC	Diode	4	
SBR2A40P1	Schottky Rectifier	D5, D7, D8	POWERDI-123	SBR2A40P1	3	
TL431AIDBZT	Variable voltage reference	D6	SOT-23B	TL431AIDBZT	1	
BERGSTAK 100P	100p connector, BERGSTAK	JX1, JX2	FCI_BERGSTAK_100P	BERGSTAK 100P	2	
2.2uH	SRN5020-2R2Y	L1	SRN5020-2R2Y_FP	SRN5020-2R2Y	1	2.2uH
ZH-6P		P1	ZH-6P	ZH-6P	1	
ZH-12P		P2, P3, P5	ZH-12P	ZH-12P	3	
ZH-8P		P4	ZH-8P	ZH-8P	1	
ZH-4P		P6, P7	ZH-4P	ZH-4P	2	
2P Terminal		P8	2P-TERM	2P Terminal	1	
ZH-5P		P9, P10	ZH-5P	ZH-5P	2	
ZH-10P		P11	ZH-10P-T	ZH-10P	1	
BSS138LT1G	N-Channel MOSFET	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q20, Q21, Q22, Q23	SOT-23B	BSS138LT1G	13	
IRF100B202		Q10, Q11, Q12, Q13	TO-220AB	IRF100B202	4	
TLV3492		Q14	SOT23-8	TLV3492	1	
G4BK Relay		Q15	G4BK	G4BK Relay	1	
LEV100A4ANG		Q16	ZH-2P	LEV100A4ANG	1	
Emergency Button		Q17	2P-TERM	Emergency Button	1	
FDV303N		Q18, Q19	SOT-23B	FDV303N	2	
Resistor	Resistor	R1, R4, R7, R10, R14, R16, R20, R23, R25, R51, R52, R54	RES-0805	Resistor	12	330R
Resistor	Resistor	R2, R6, R8, R11, R13, R17, R19, R21	RES-0402	Resistor	8	100R
Resistor	Resistor	R3, R9, R12, R18, R22, R26	RES-0805	Resistor	6	85R
Resistor	Resistor	R5, R15, R24	RES-0805	Resistor	3	145R
Resistor	Resistor	R27, R29	RES-0805	Resistor	2	2k2
Resistor	Resistor	R28, R30	RES-0805	Resistor	2	150R
Resistor	Resistor	R31, R32, R33	RES-0805	Resistor	3	2k7
Resistor	Resistor	R34, R41	RES-2512	Resistor	2	4R7 2W
Resistor	Resistor	R35, R36, R37, R38	RES-0805	Resistor	4	7R
Resistor	Resistor	R39, R40	RES-0805	Resistor	2	220k
Resistor	Resistor	R42	RES-3920	Resistor	1	200uR
Resistor	Resistor	R43, R47	RES-0805	Resistor	2	68k
Resistor	Resistor	R44, R45, R48, R50	RES-0805	Resistor	4	33k
Resistor	Resistor	R46	RES-RWS5	Resistor	1	180R 5W
Resistor	Resistor	R49, R53, R68, R69, R75	RES-0805	Resistor	5	3k92
Resistor	Resistor	R55	RES-0805	Resistor	1	1k5
Resistor	Resistor	R56	RES-0805	Resistor	1	3k
Resistor	Resistor	R57, R59, R67	RES-0805	Resistor	3	1k
Resistor	Resistor	R58	RES-0805	Resistor	1	45k3
Resistor	Resistor	R60	RES-0805	Resistor	1	100k
Resistor	Resistor	R61	RES-0805	Resistor	1	10k
Resistor	Resistor	R62	RES-0805	Resistor	1	3k74
Resistor	Resistor	R63	RES-0805	Resistor	1	383k 1%
Resistor	Resistor	R64	RES-0805	Resistor	1	348R 1%
Resistor	Resistor	R65, R66, R72	RES-0805	Resistor	3	11k5
Resistor	Resistor	R70	RES-0805	Resistor	1	680R
Resistor	Resistor	R71	RES-0805	Resistor	1	220R
Resistor	Resistor	R73	RES-0805	Resistor	1	430R
Resistor	Resistor	R74	RES-0805	Resistor	1	120R
RGB LED		RGB1, RGB2, RGB3	RGB_LED	LTR8 R8SF	3	
1101M253CQE2		SW1	1101M253CQE2_FP	1101M253CQE2	1	
NRF 24L01 Module		U1	NRF 24L01 Module	NRF 24L01 Module	1	
INA286		U2	SOIC-8	INA286	1	
74LVC2G17	74LVC2G17 Dual non-inverting Schmitt-trigger with 5v tolerant input	U3	SOT-363	74LVC2G17	1	
HIP4081		U4	SOIC-20 WB	HIP4081	1	
NC75Z08		U5, U6	SOT23-5	NC75Z08	2	
SN74F21D	Dual 4-Input AND Gate	U7	SOIC-14	SN74F21D	1	
LMR10510XMF	IC SMD AMP+ COMPAR Combo SOIC-8	U8	SOT23-5	LMR10510XMF	1	
LMV331QDBVRQ1		U9	SOT23-5	LMV331QDBVRQ1	1	
PTN78020HAH		U10	PTN78020	PTN78020HAH	1	
PTH08080WAH		U11	PTH08080W_FP	PTH08080WAH	1	