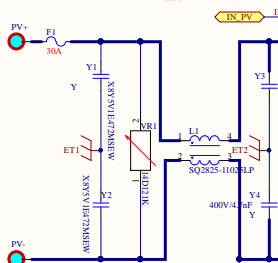
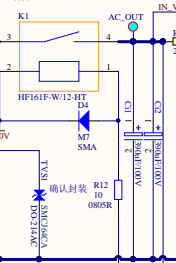


### 输入滤波器



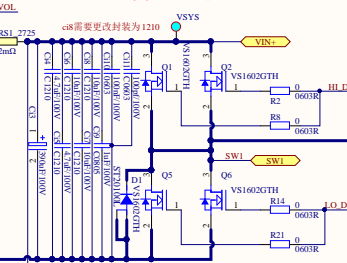
**EMC\_IN:**  
 1. 滤波器类型: 共模  
 2. 感值: TBD  
 3. DCR: < 5mΩ (尽量小)  
 4. 封装: 环状, 插件, 有支架  
 5. 尺寸: 按照结构, 放到最大, EMC 模底确定电感值。

### 输入保护继电器



确认封装  
 确认封装

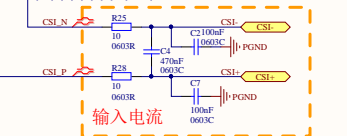
### 降压半桥



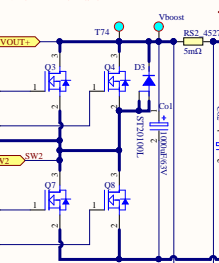
**主电感要求:**  
 1. 感值: 5uH  
 2. DCR: < 8mΩ (尽量小)  
 3. 封装: 环状, 插件, 有支架

### 主电感

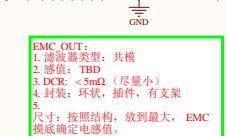
### 输入电流



### 升压半桥

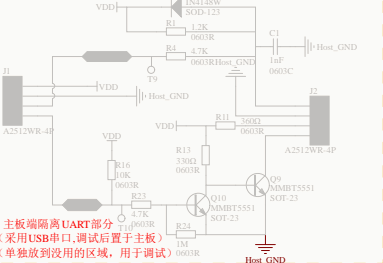


### 输出电流

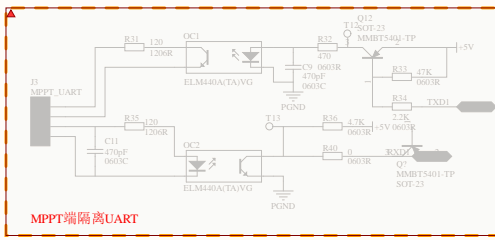


**EMC\_OUT:**  
 1. 滤波器类型: 共模  
 2. 感值: TBD  
 3. DCR: < 5mΩ (尽量小)  
 4. 封装: 环状, 插件, 有支架  
 5. 尺寸: 按照结构, 放到最大, EMC 模底确定电感值。

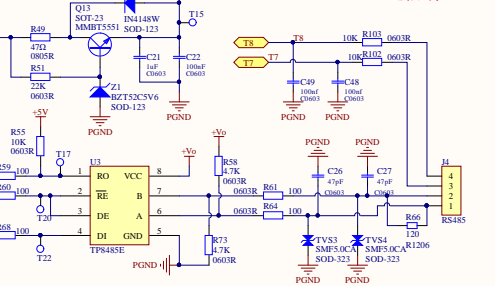
### 输出滤波器



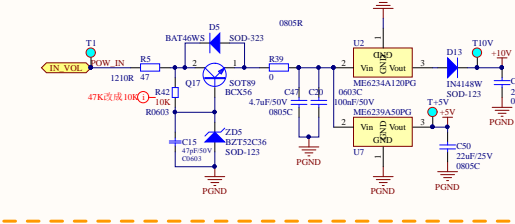
主板端隔离UART部分  
 (采用USB串口, 调试后置于主板)  
 (单独放没用到的区域, 用于调试)



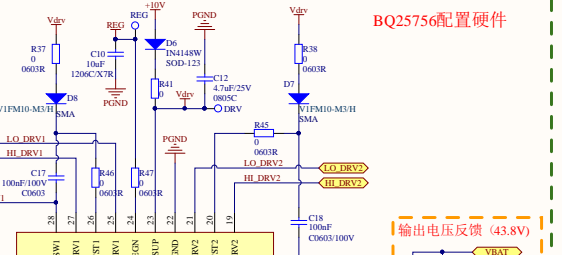
### RS485通信端口



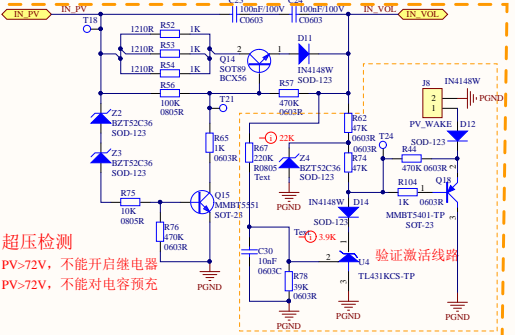
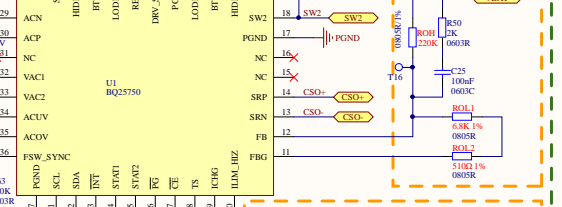
### 驱动电压



### BQ25756配置硬件

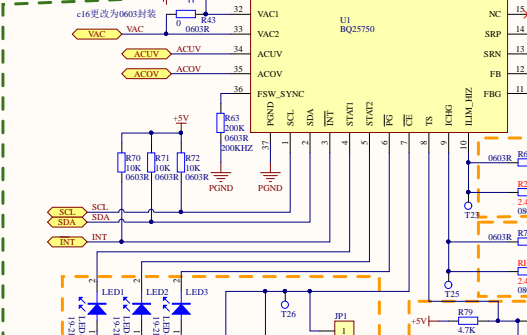


### 输出电压反馈 (43.8V)



### 超压检测

PV>72V, 不能开启继电器  
 PV>72V, 不能对电容预充



### 输入最大电流设置

6.8k 1%  
 2.4k 1%  
 3.0k 1%

### 输出最大电流设置

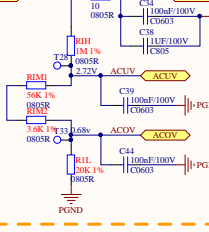
2.4k 1%  
 3.0k 1%

### 电池温度检测

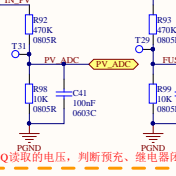


### 输入UV/OV设置

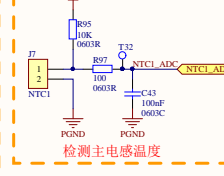
OV = 65V UV = 15V



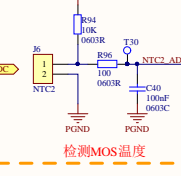
### MCU采样电压



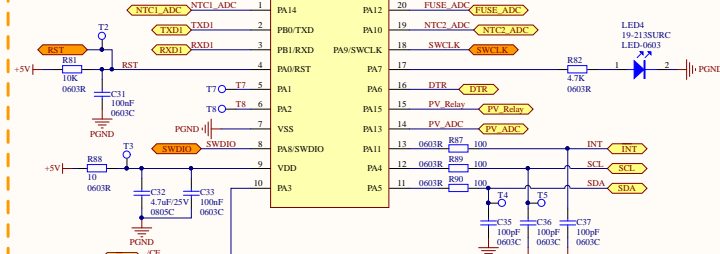
### 检测主电感温度



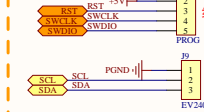
### 检测MOS温度



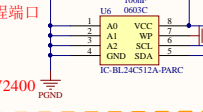
### MCU控制线路



### 编程端口



### EV2400

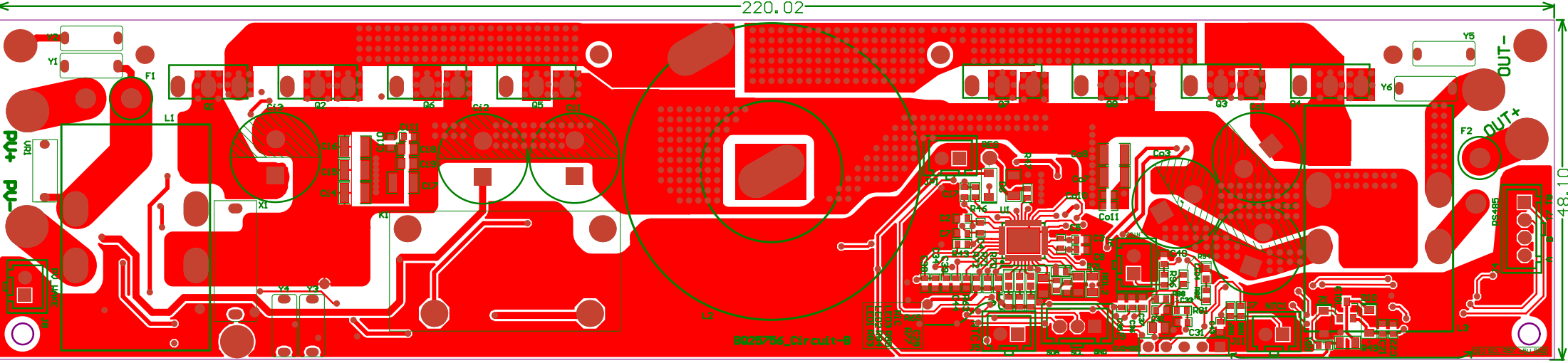


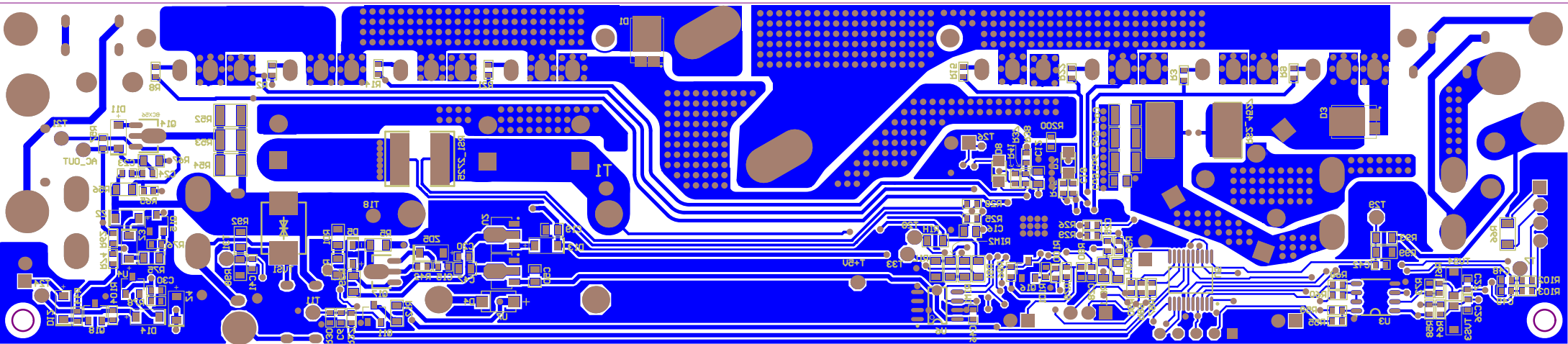
Title	Number	Revision
A2		
Date:	2024/7/17	Sheet: 4
File:	E002 - BQ25756_Circuit_20241202-14_040976p_Circuit_20241202-14-040976p	

220.02

48.10

8926756\_Circuit-B

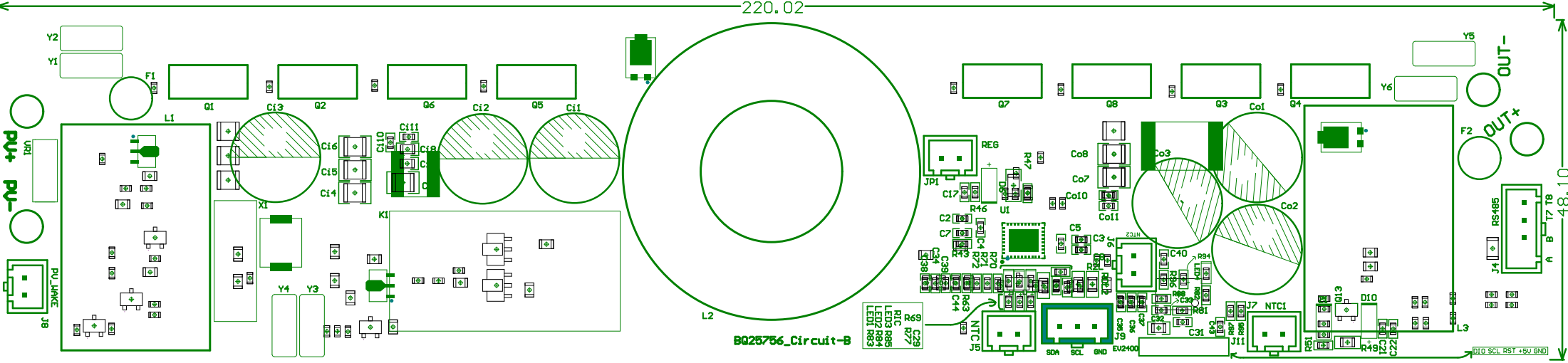




220.02

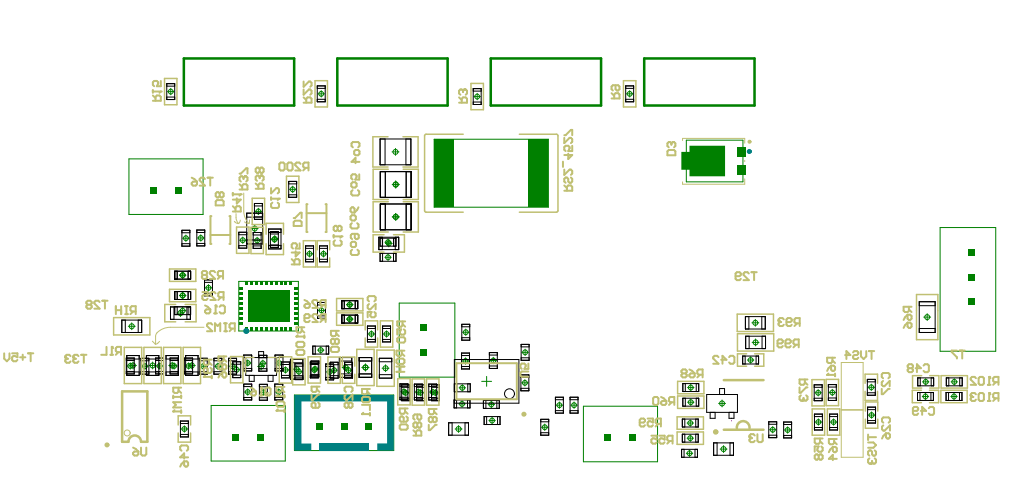
48.10

BQ25756\_Circuit-B

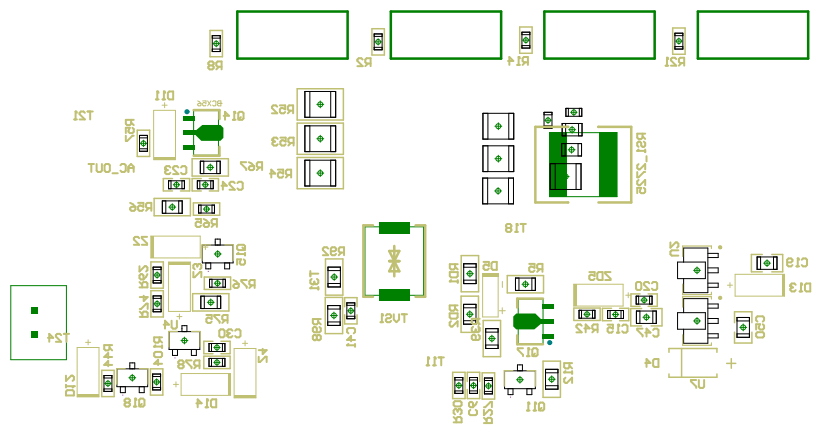


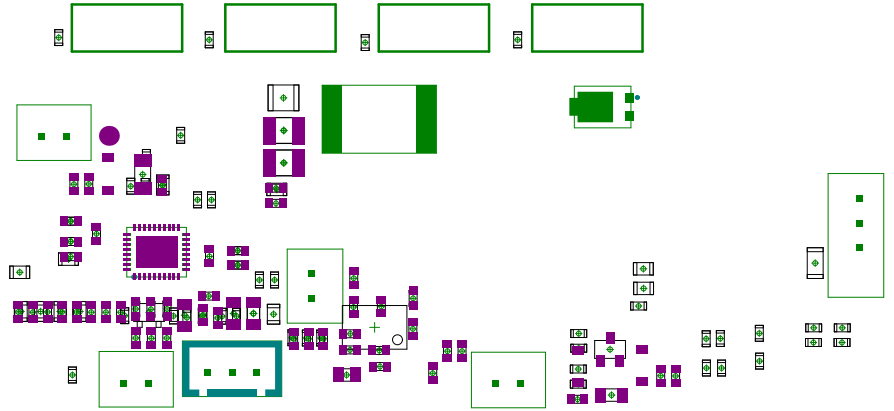
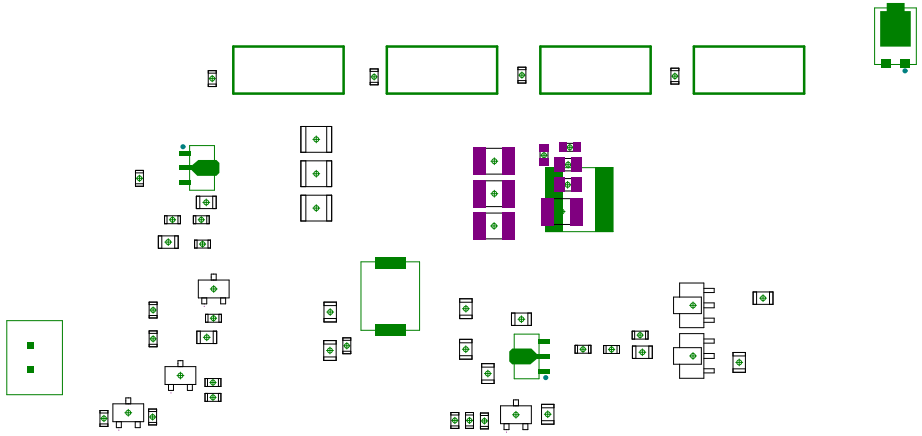
C29  
 R77  
 R76  
 R75  
 R74  
 R73  
 R72  
 R71  
 R70  
 R69  
 R68  
 R67  
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 R1

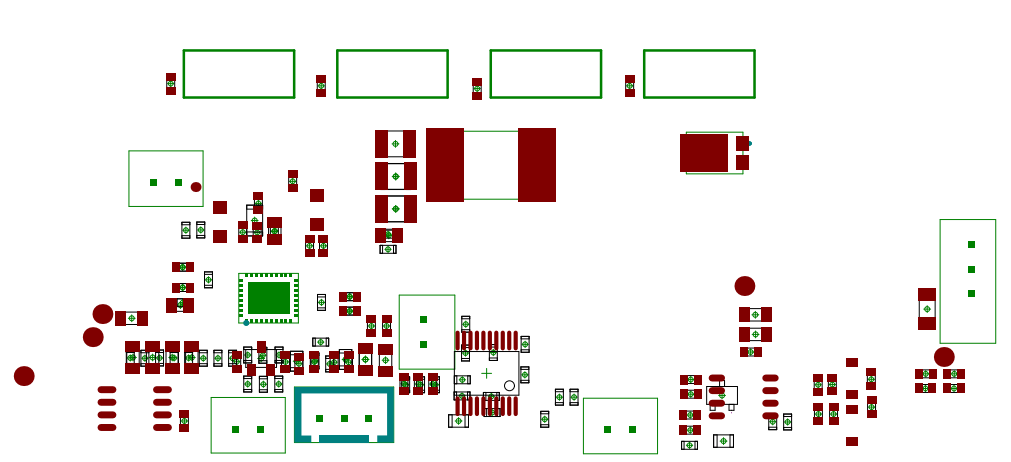
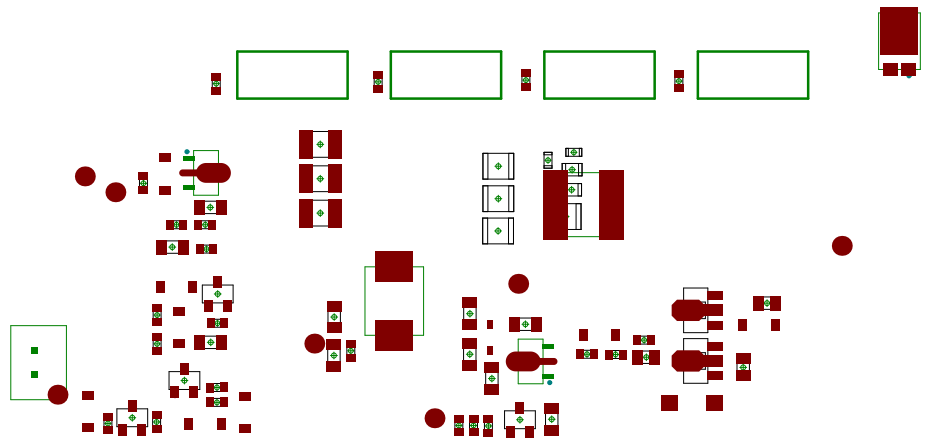
D10  
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 R52  
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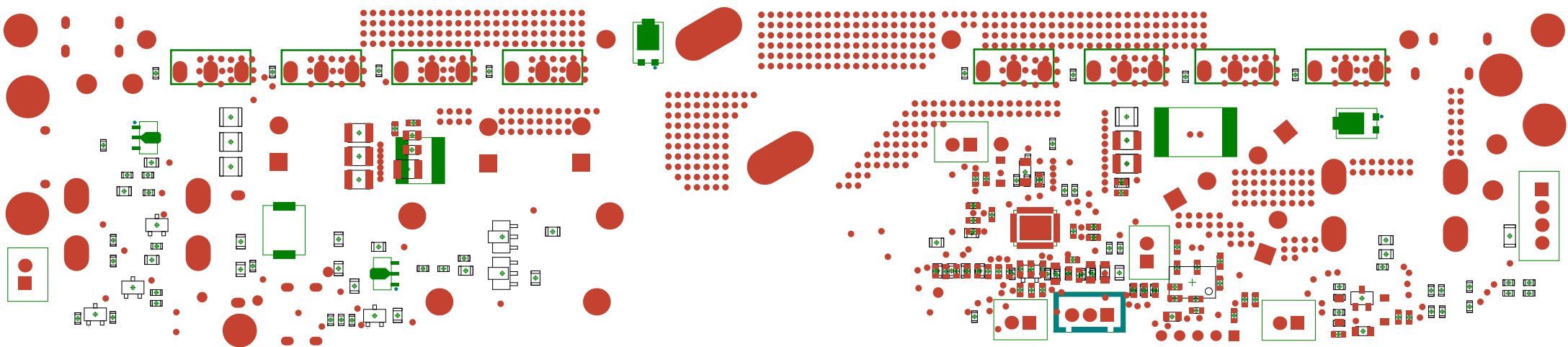


LT

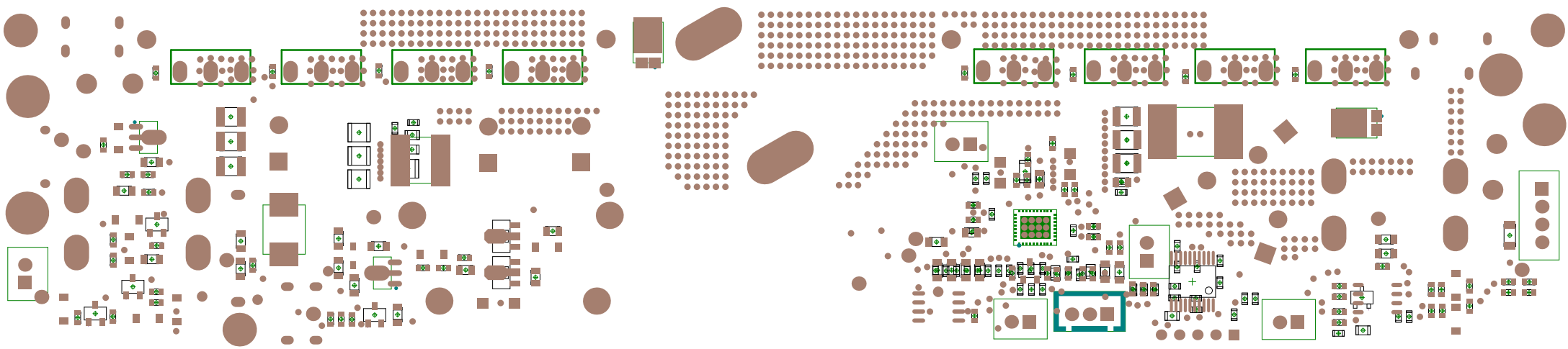


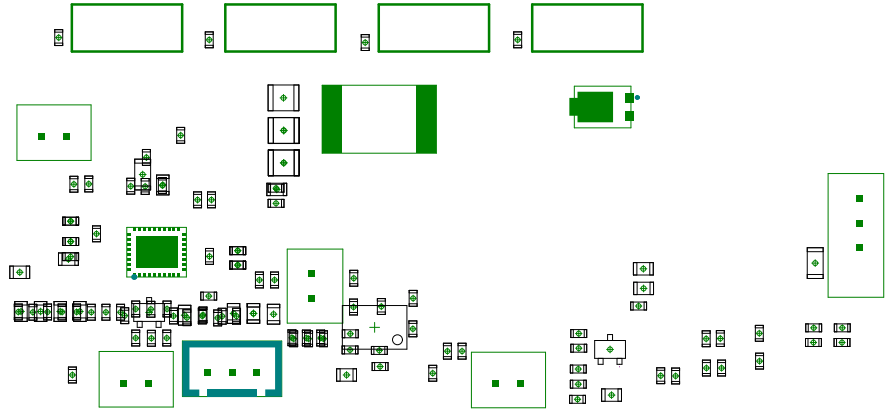
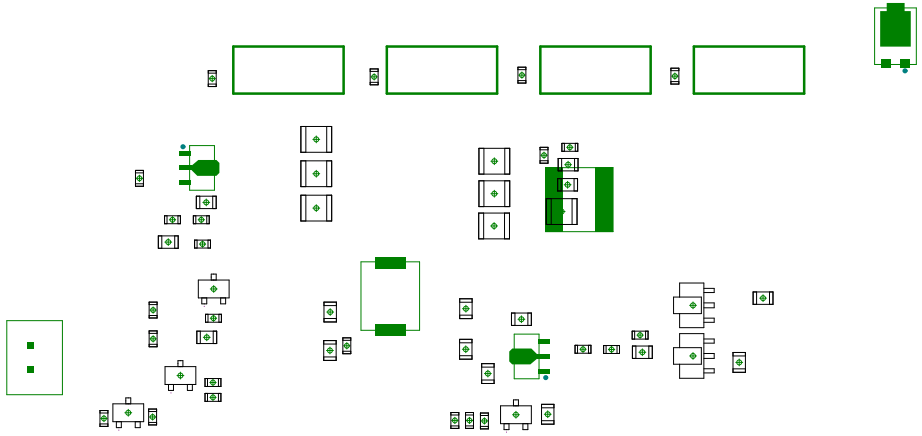


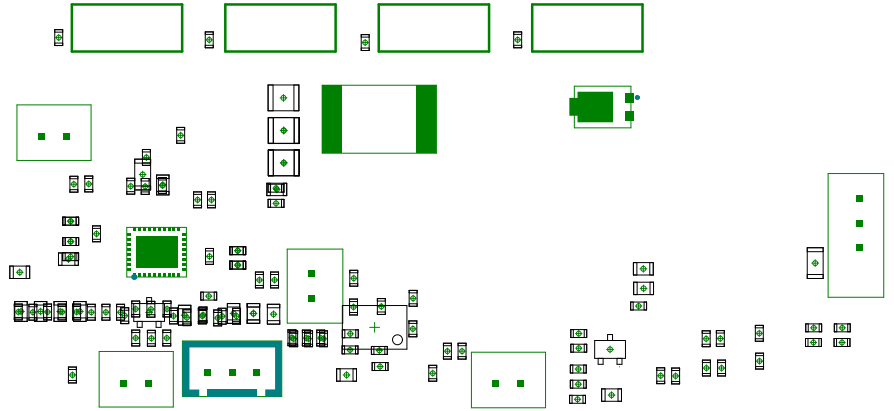
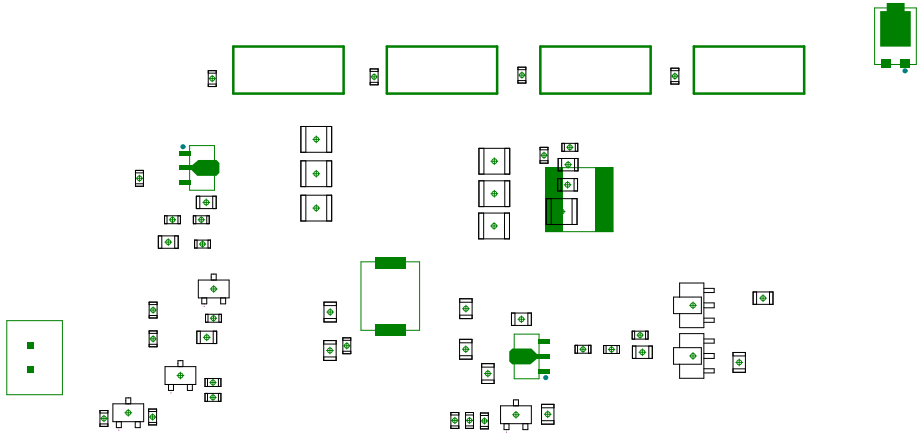


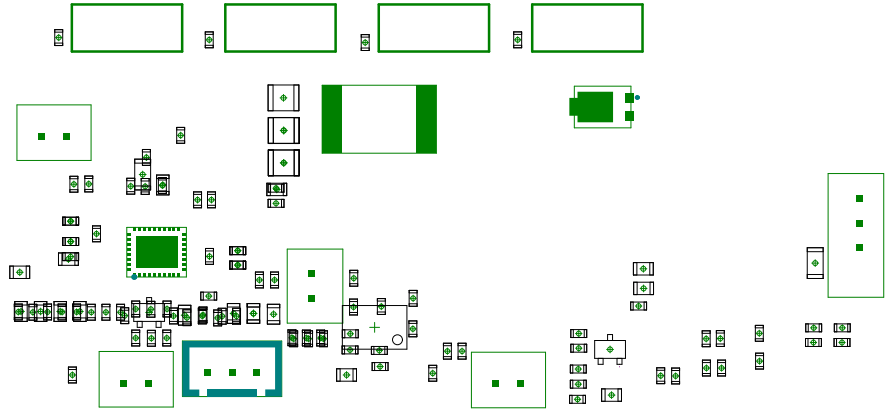
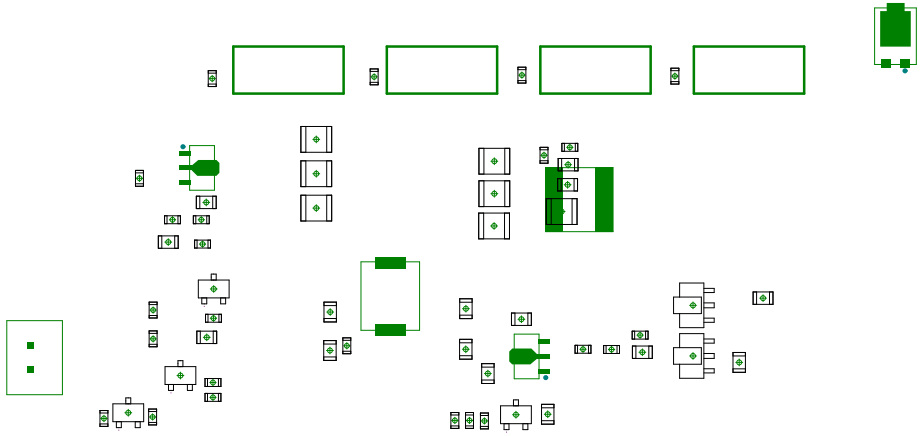


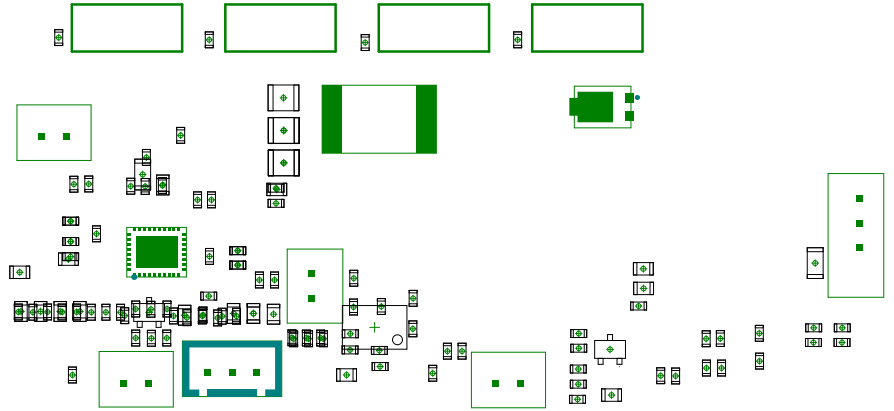
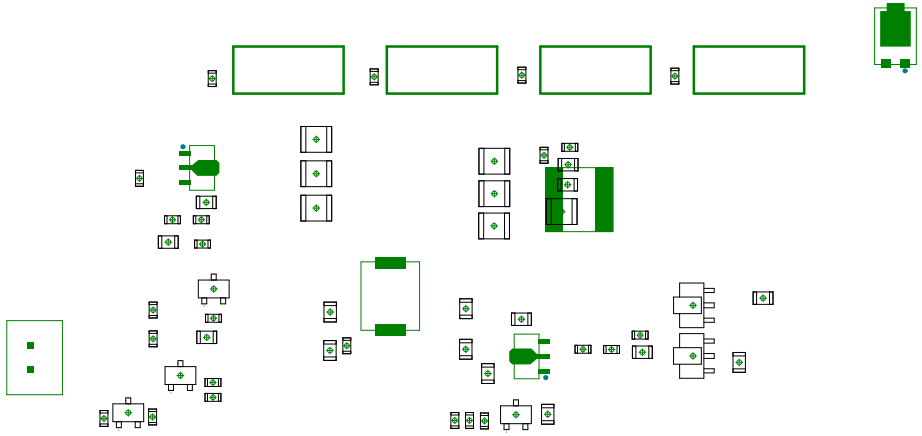


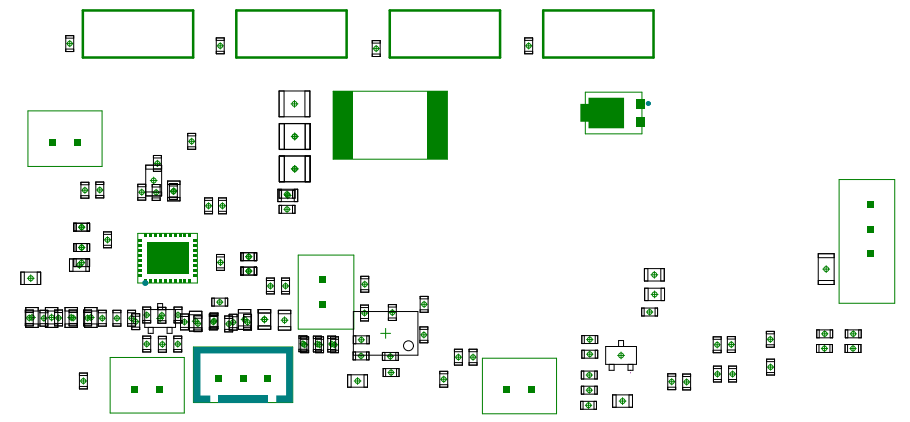
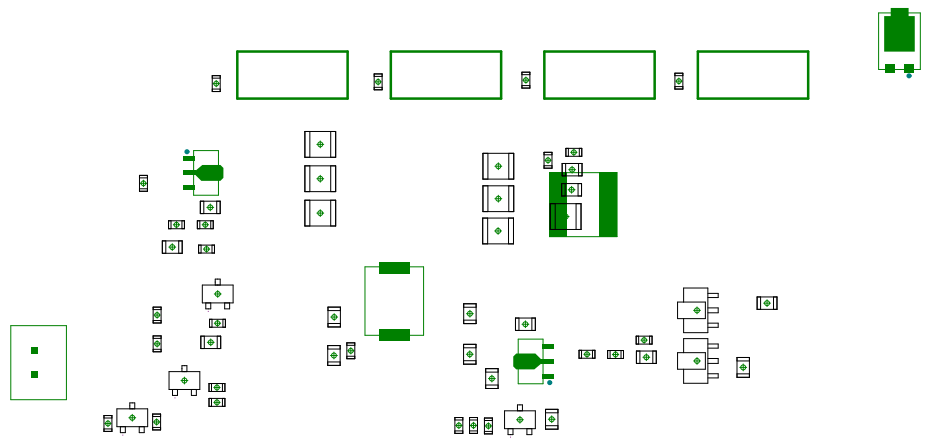


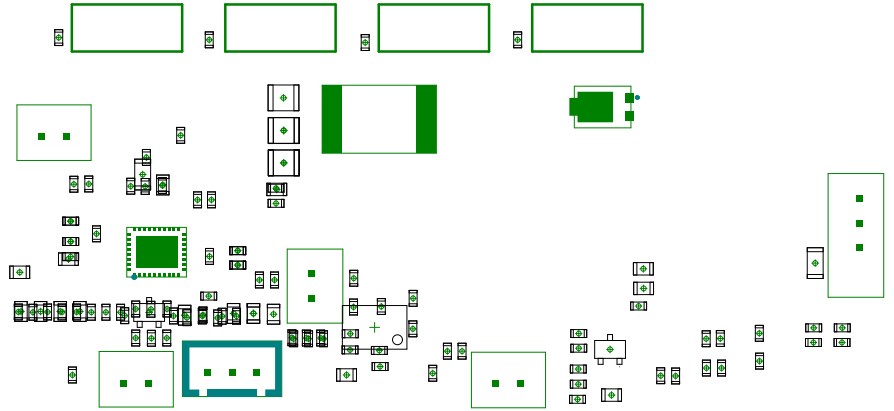
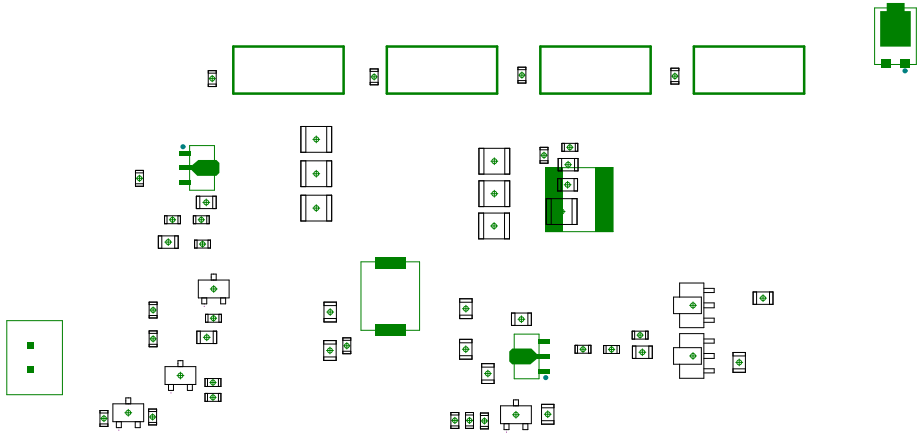


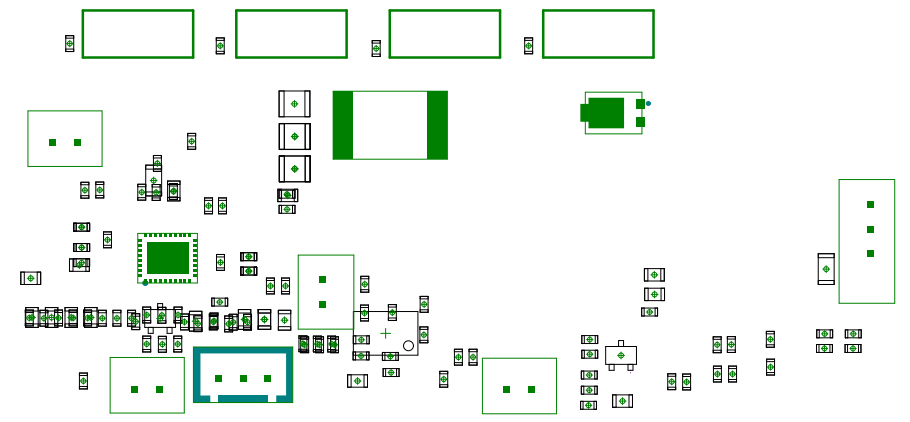
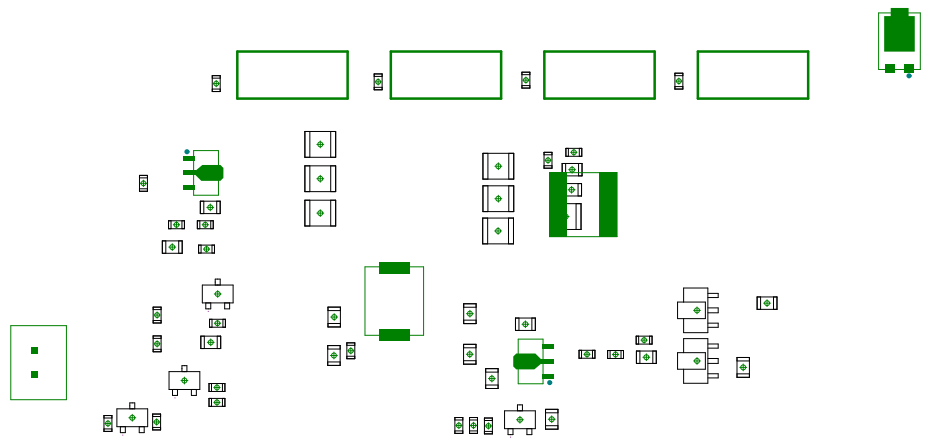




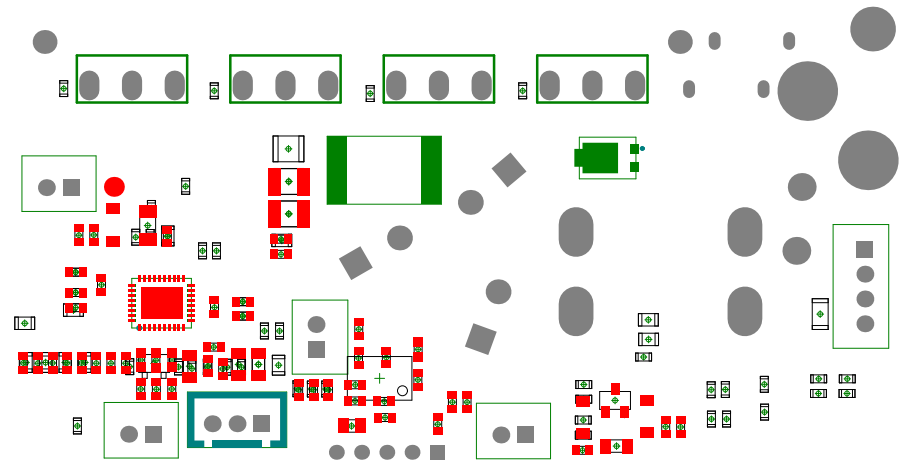
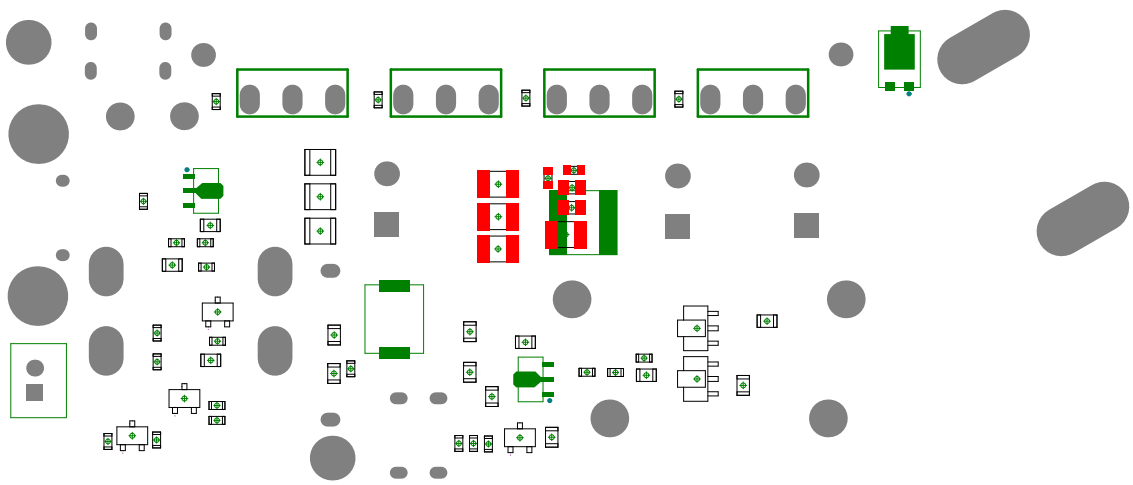


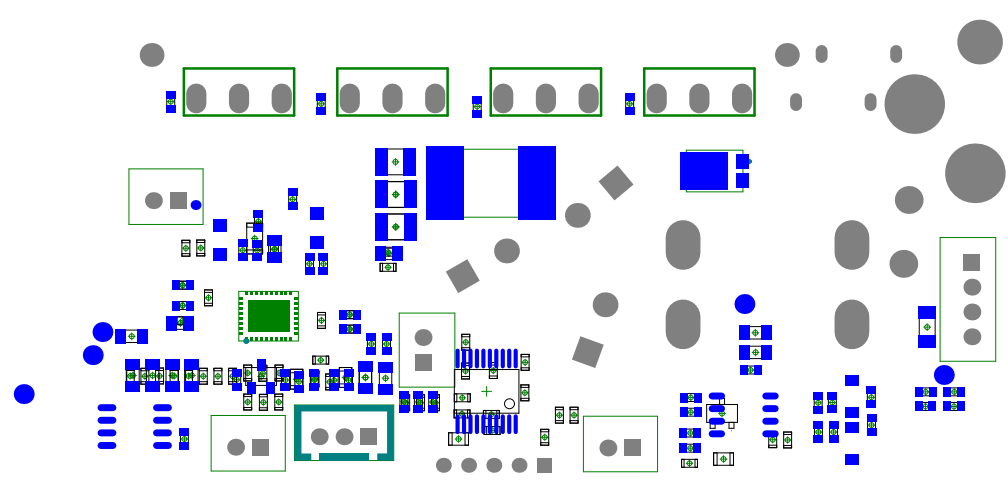
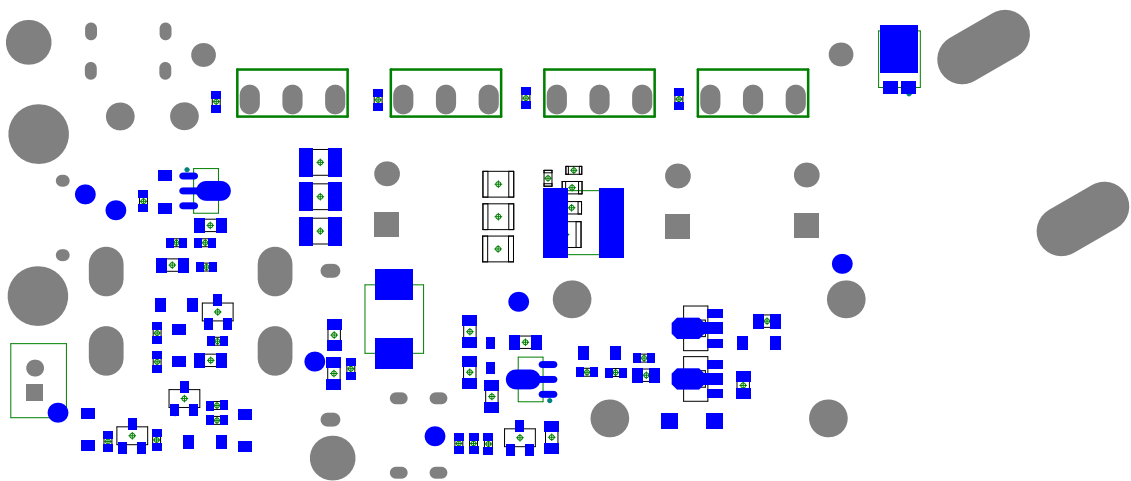


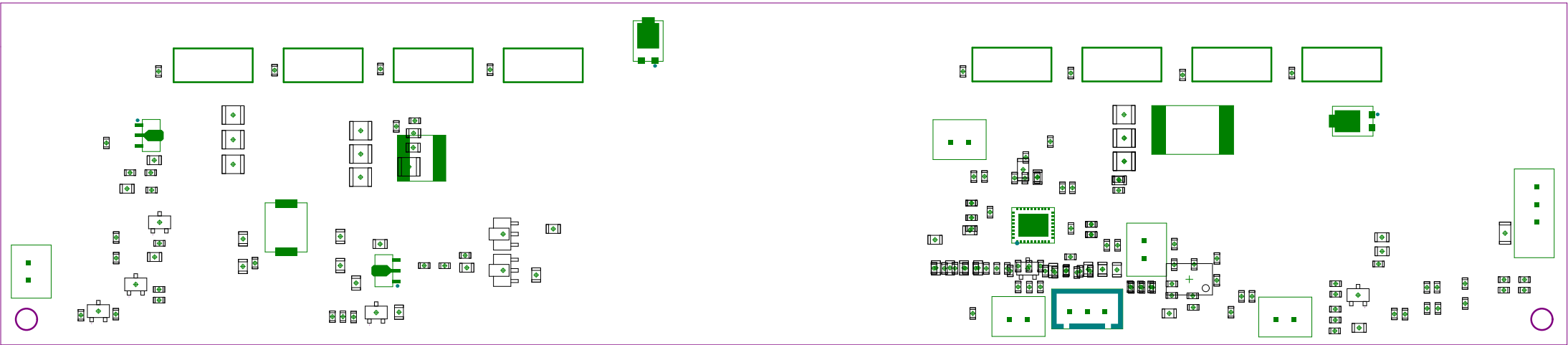


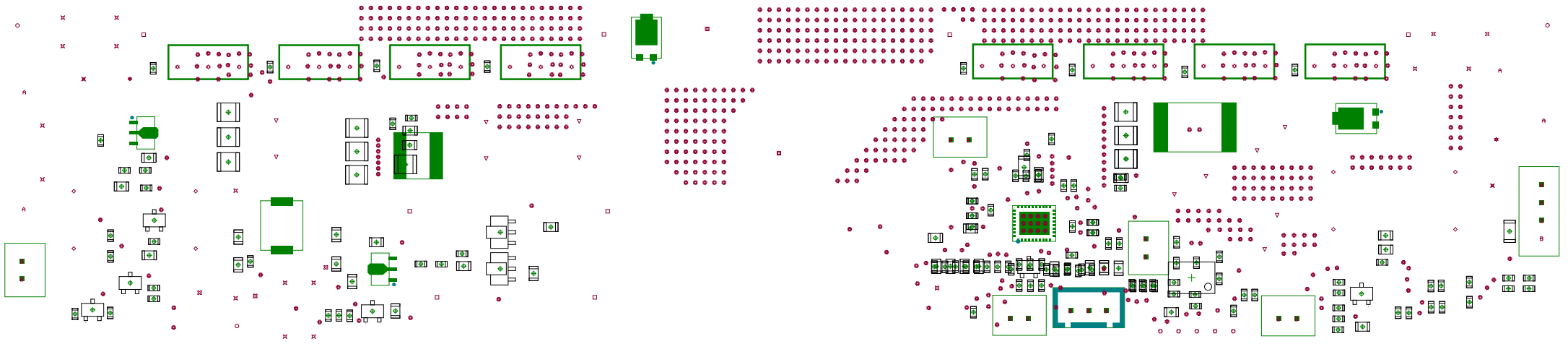


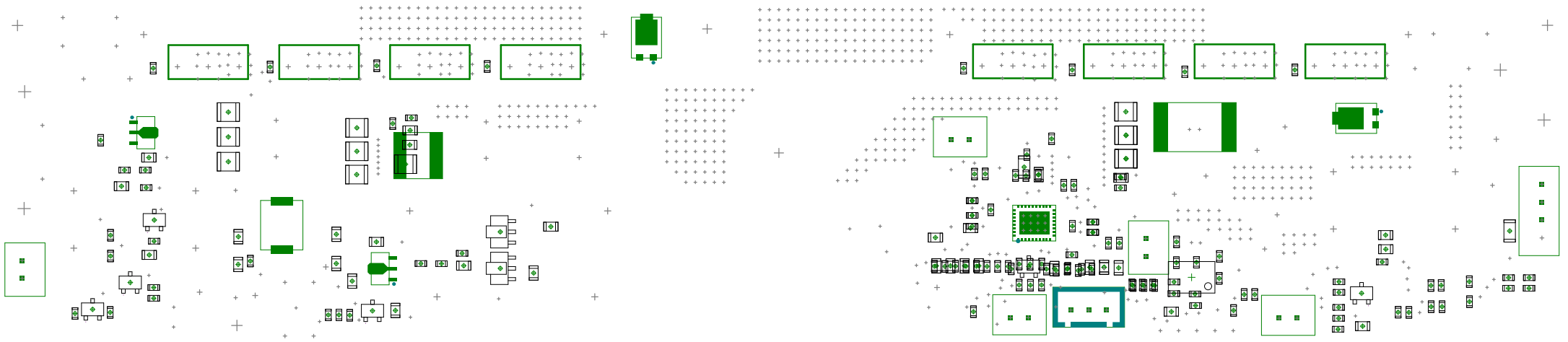












Comment	Description	Designator	Footprint	LibRef	Quantity
TP	测试点	AC_OUT_Board	TP-100	TP	2
100nF		C2, C3, C7, C8, C18, C22, C25, C28, C29, C31, C33, C40, C41, C42, C43, C44, C46, C48, C49	C0603	CAP0603_Cap	18
470nF		C4, C5	C0603	CAP0603	2
10nF		C6, C30	C0603	CAP0603	2
10uF		C10	C1206	CAP0603	1
4.7uF/25V		C12, C32	C0805	CAP0603	2
47pF/50V		C15	C0603	Cap	1
100nF/100V		C16, C17, C23, C24, C34, C39, C44, C10, C010	C0603	CAP0603	9
22uF/25V		C19, C50	C0805	CAP0603	2
100nF/50V		C20	C0603	CAP0603	1
1uF		C21	C0603	Cap	1
47pF		C26, C27	C0603	Cap	2
100pF		C35, C36, C37	C0603	CAP0603	3
1uF/100V		C38	C0603	CAP0603	1
4.7uF/50V		C47	C0805	CAP0603	1
300nF/100V	CAP	C1, C2, C3, C6,2, C6,3	ACC-500-D1200-TM	CAP_1	3
4.7uF/100V		C4, C5, C6,4, C6,5	C1210	CAP0603	4
10uF/100V		C6, C7, C6,6, C6,7, C6,8	C1210	CAP0603	5
15uF/100V		C8	C0805	CAP0603	1
1uF/100V		C9, C6,9	C0805	CAP0603	2
100uF/100V		C11, C11	C0603	CAP0603	2
1000uF/100V	CAP	C1	ACC-500-D1200-TM	CAP_1	1
ST2010K	DIODE	D1, D3	ST20100L	DIODE_1	2
M7		D4	SMA/DO-21AC	Diode	1
BAT44WS		D5	SOD-323	Diode_1	1
IN4148W		D6, D10, D11, D12, D13, D14	SOD-123	Diode_1	6
V1FM1D.M3UH		D7, D8	DO-219AB	Diode	2
		DRV, REG, T2, T3, T4, T5, T6, T7, T8, T11, T15, T16, T17, T18, T20, T21, T22, T23, T24, T25, T26, T27, T28, T29, T30, T31, T32, T33	TP-200	TEST	28
30A	Fuse	F1, F2	S20800-P(陶瓷保险)	F_2P	2
RS485	Connector	J4	HDR_TH_4P-P2.54	CON_4	1
NTC	Connector	J5	HDR_TH_2P-P2.54	CON-2	1
NTC2	Connector	J6	HDR_TH_2P-P2.54	CON-2	1
NTC3	Connector	J7	HDR_TH_2P-P2.54	CON-2	1
PV_WAKE	Connector	J8	HDR_TH_2P-P2.54	CON-2	1
EV2400	Connector	J9	HDR_TH_3P-P2.54	CON-3	1
PROG	Connector	J11	HDR1X5-TM-VM	CON-5	1
PN2	Connector	JPI	HDR_TH_2P-P2.54	CON-2	1
HF161F-W/12-HT		K1	HF161F-W (谐振器)	HF161F/12-HT	1
SC0205-1102SLP	INDUCTOR	L1, L3	SC0205-1102SLP(电感器)	L-INDUCTOR-4P	2
珠电电感 (40A/5uH)	INDUCTOR	L2	电感/40A/5uH	L-INDUCTOR-2P	1
19-2135JRC	LED	LED1, LED2, LED3, LED4	LED-0603-R	LED	4
		OUT-, OUT+, PV-, PV+	PAD.CA.SR1.4.SR1	PCB_7	4
V51602GTH	MOS	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8	TO-220-3P-V (V51602GTH)	MOS-N	8
AO3400		Q11	SOT_23	MOSFET_N	1
MMBT5551		Q13, Q15, Q16	SOT_23	NPN	3
8CWS6		Q14, Q17	SOT_89(back5)	NPN	2
MMBT5401-TP	Triode	Q18	SOT_23	P-NPN	1
50K 1%		R1	R0805	RES(1206)	1
0		R2, R3, R8, R9, R14, R15, R21, R22, R27, R28, R41, R43, R45, R46, R47, R200	R0603	RES(0805)	16
2.4K		R2L	R0805	RES(1206)	1
M7		R5	R0805	RES(1206)	1
10		R12, R91	R0805	RES(1206)	2
10		R25, R26, R28, R29, R88	R0603	RES(0805)	5
1K		R27, R65, R104	R0603	RES(0603) RES(0805)	3
1M		R30	R0603	RES(0603)	1
0		R39	R0805	RES(1206)	1
10K		R42, R55, R70, R71, R72, R81, R83, R84, R85, R86, R94, R95, R100, R102	R0603	RES(0805)	14
470K		R44, R57, R76	R0603	RES(0805)	3
17D		R49	R0805	RES(1206)	1
2K		R50, R69, R77	R0603	RES(0805)	3
22K		R51	R0603	RES(0805)	1
1K		R52, R53, R54	R1210	RES(1206)	3
100K		R56, R51, R52	R0805	RES(1206)	3
4.7K		R58, R73, R79, R82, R100	R0603	RES(0805)	5
100		R59, R60, R61, R64, R66, R67, R69, R90, R96, R97	R0603	RES(0805)	10
47K		R62, R74, R101	R0603	RES(0805)	3
200K		R63	R0603	RES(0805)	1
120		R66	R1206	RES1	1
220K		R67, R20H	R0805	RES(0805) RES(1206)	2
10K		R75, R98, R99	R0805	RES(1206)	3
39K		R78	R0603	RES(0805)	1
27K		R80	R0603	RES(0805)	1
470K		R92, R93	R0805	RES(1206)	2
2.4K 1%		R9C	R0805	RES(1206)	1
1M 1%		R9H	R0805	RES(1206)	1
56K 1%		R9M1	R0805	RES(1206)	1
3.6K 1%		R9M2	R0805	RES(1206)	1
6.8K 1%		R9L1	R0805	RES(1206)	1
5100 1%		R9L2	R0805	RES(1206)	1
2mD		RS1, Z125	Z125	RES	1
5mD		RS2, RS27	R4527	RES	1
TP	测试点	T1, T10V, T+5V	TP-050	TP	3
TP	测试点	T74	CU-3*20MM	TP	1
SMC34CA	TVS	TVS1	SMC (DO-214AB)(TVS)	D-TV5	1
SMF15CA	TVS	TVS3, TVS4	SOD-123-B	D-TV5	2
RC26.750		U1	TCFN_36RC26750	RC26756, RCVR	1
ME623A1-20PG	Voltage Regulator	U2	SOT_89	Volt Reg	1
TP8485E		U3	SOIC8-127	SP483	1
TL431KCS-TP		U4	SOT_23	TL431	1
N12G003		U5	TSSOP-20P-005-05040	N12G003-TSSOP-20	1
IC-8L24C512A-PARC		U6	SOP-8-127-W	IC-8L24C512A-PARC	1
ME6239A50PG	Voltage Regulator	U7	SOT_89	Volt Reg	1
14D121K		VR1	14D121K(压敏电阻)	VAR	1
TP	测试点	Z95	CU-1*10MM	TP	1
MPX224K31D2KN15800		X1	224K31D2KN15800 (3P 压电器)	CAP0603	1
89S1V1472M5EW		Y1, Y2, Y3, Y5, Y6	89S1V1472M5EW	CAP0603	5
4000V47nF		Y4	89S1V1472M5EW	CAP0603	1
B752C25V6		Z1	SOD-123	D_Zener	1
B752C36		Z2, Z3, Z4, ZD5	SOD-123	D_Zener	4