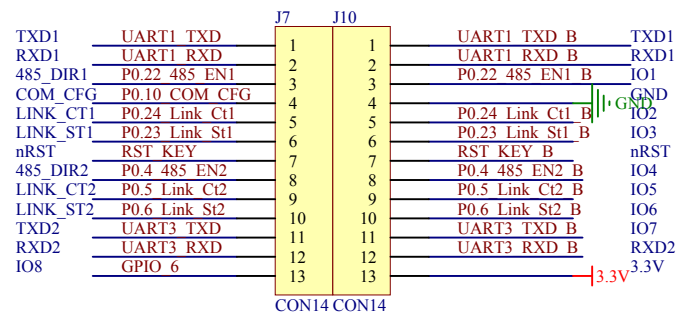
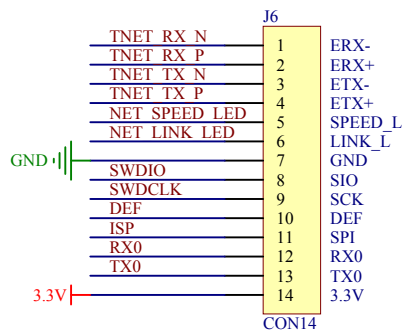
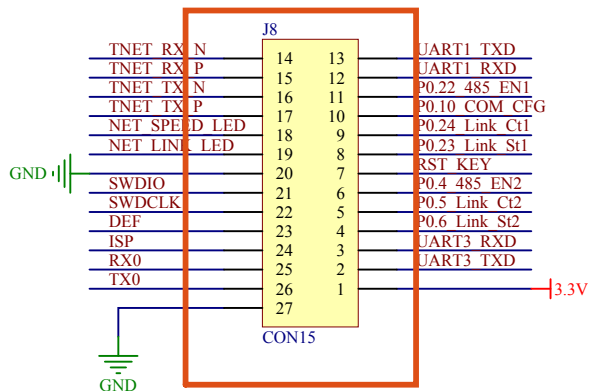
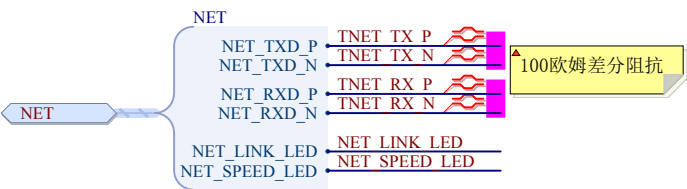
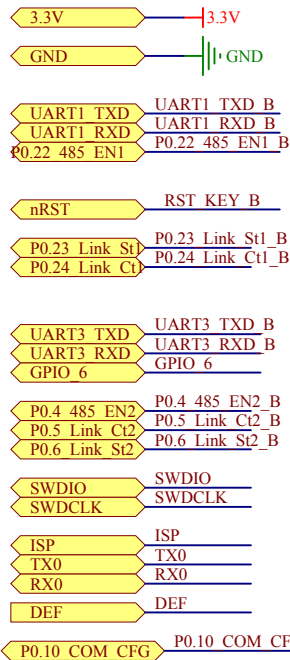
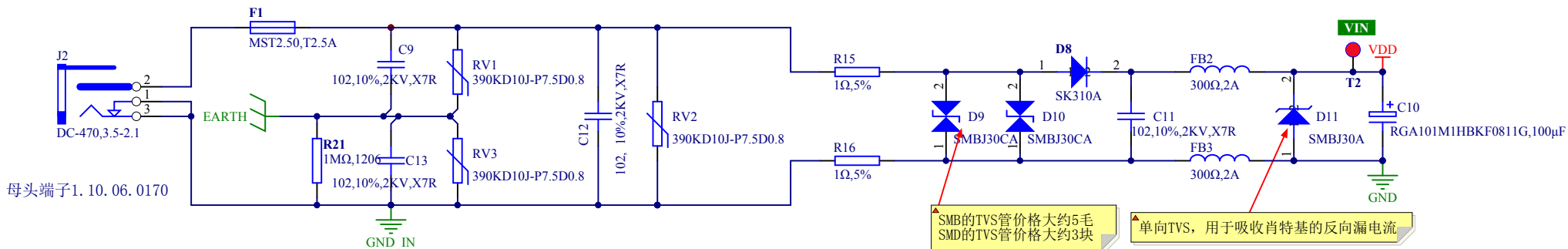
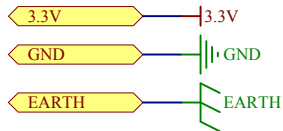


# 1. <图纸名称>



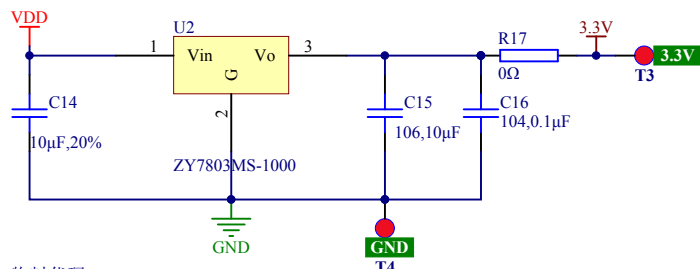
#	修改日期	修改内容
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2		
3		

# 1. <图纸名称>



▲SMB的TVS管价格大约5毛  
SMD的TVS管价格大约3块

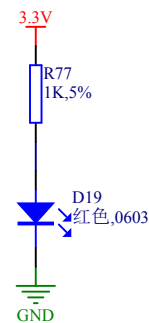
▲单向TVS，用于吸收肖特基的反向漏电流



物料代码：2.14.01.1210，4.75~28V

物料代码：2.14.01.2073，4.75~20V

▲注意封装



#	修改日期	修改内容
1		
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3		

# 1. <图纸名称>

3.3V

GND

RST KEY

DEF

WDO\_EN

GPIO 0

GPIO 1

GPIO 2

GPIO 3

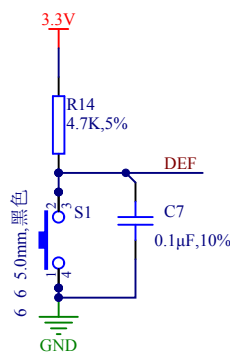
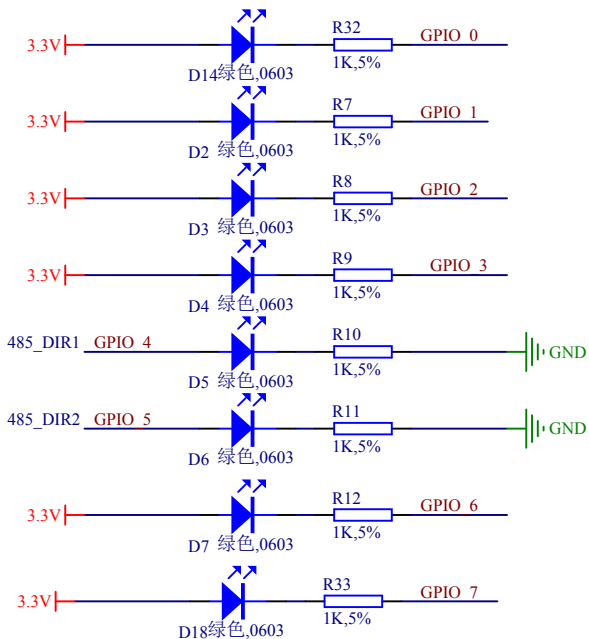
GPIO 4

GPIO 5

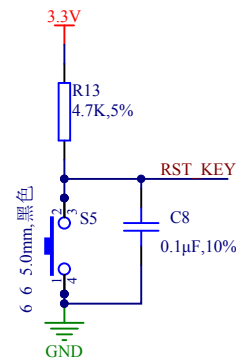
GPIO 6

GPIO 7

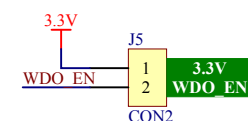
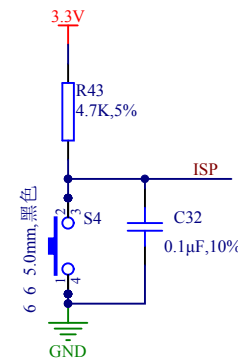
ISP



恢复出厂设置

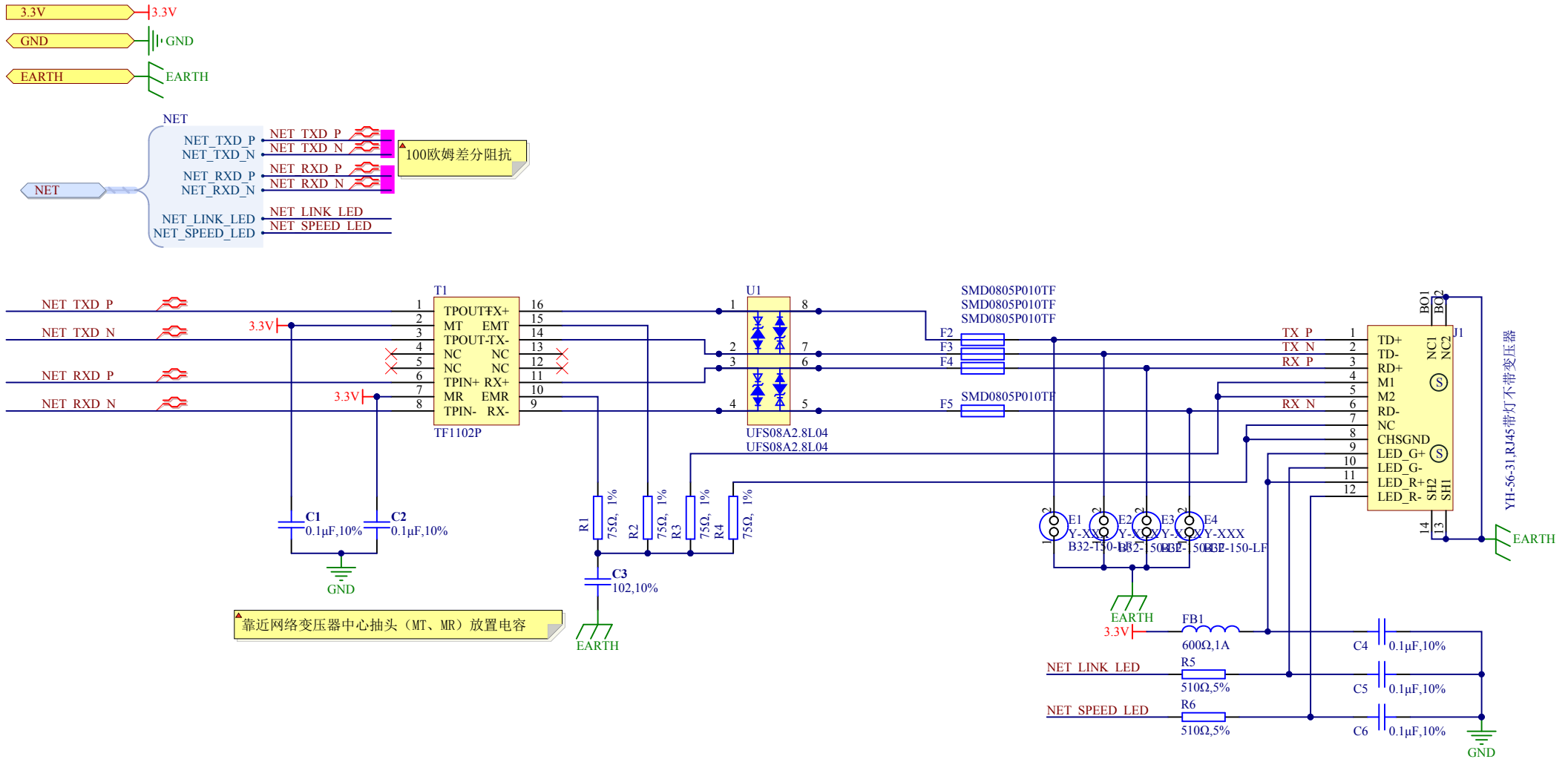


复位按钮



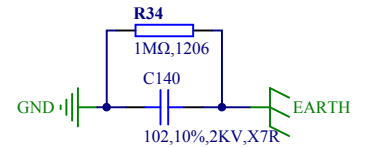
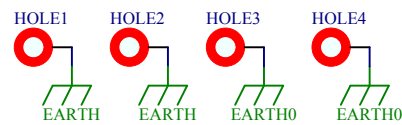
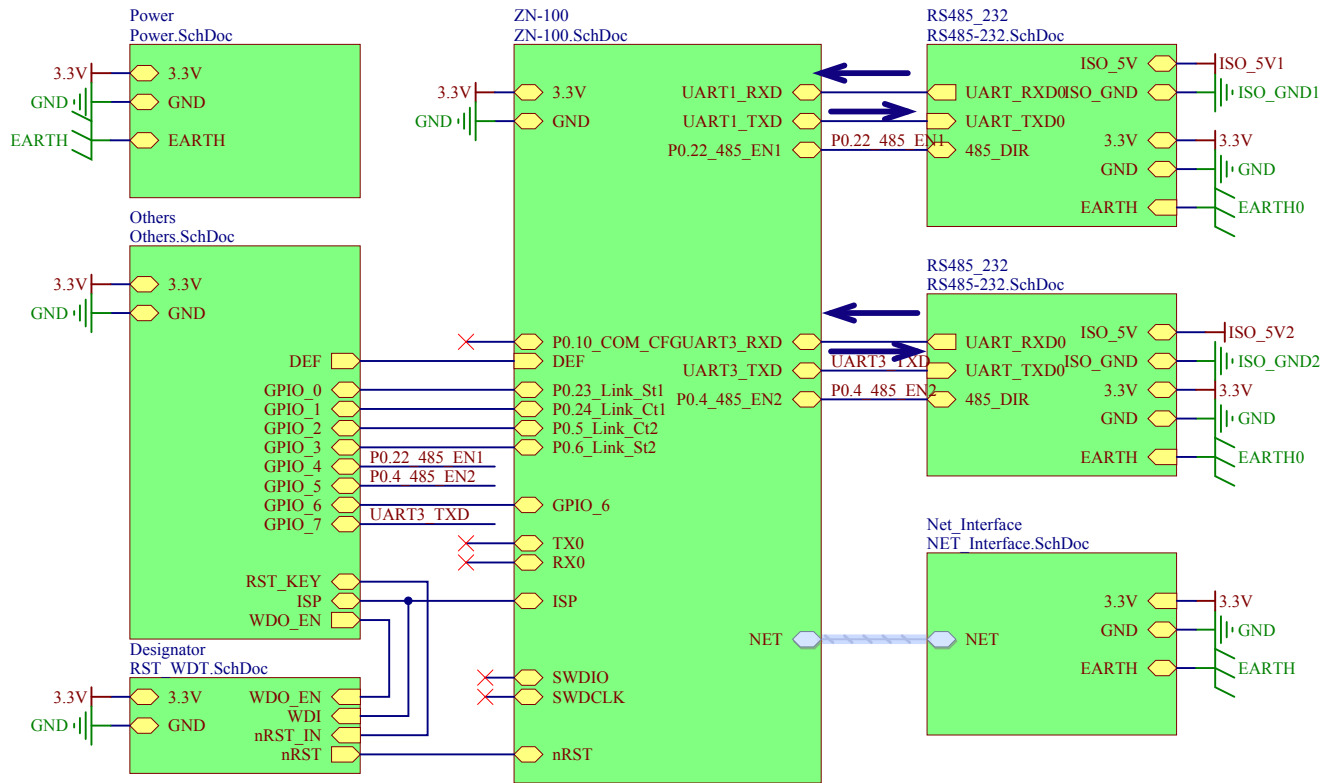
#	修改日期	修改内容
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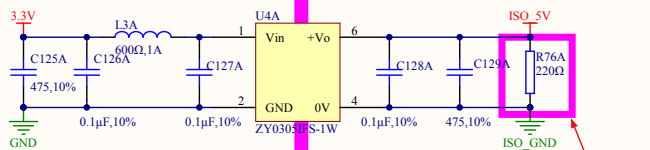
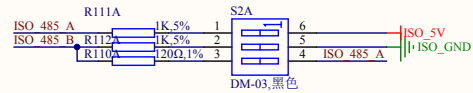
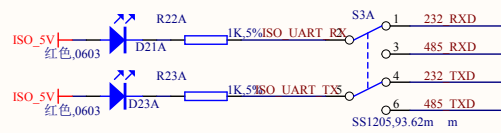
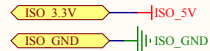
#	修改日期	修改内容
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# 1. <图纸名称>



#	修改日期	修改内容
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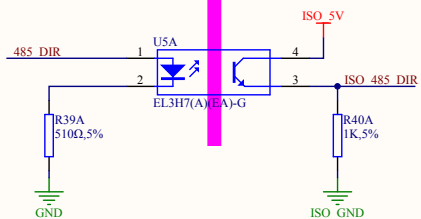
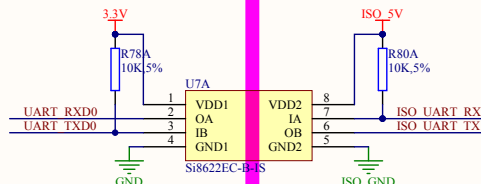
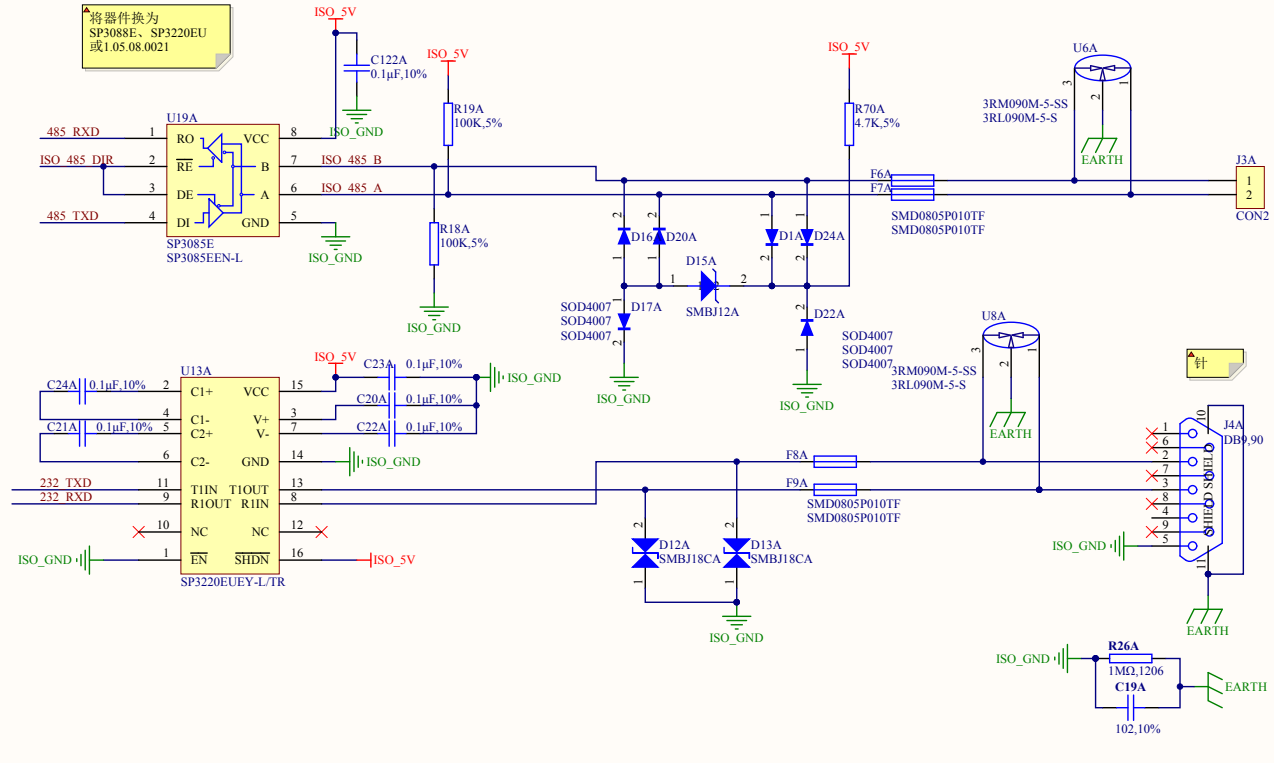
# 1. <图纸名称>



物料代码: 2.11.01.2539

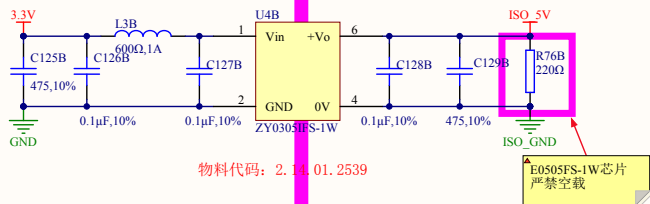
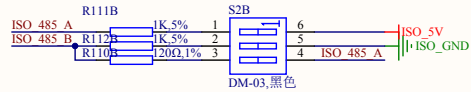
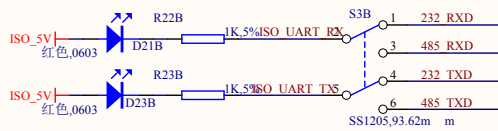
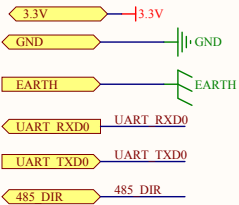
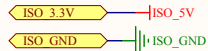
E0505FS-1W芯片  
严禁空载

将器件换为  
SP3085E、SP3220EU  
或1.05.08.0021

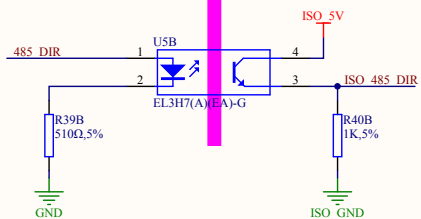
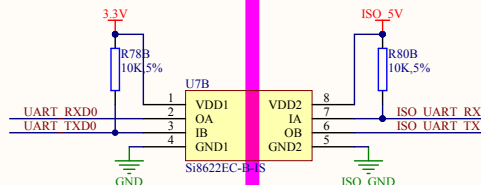
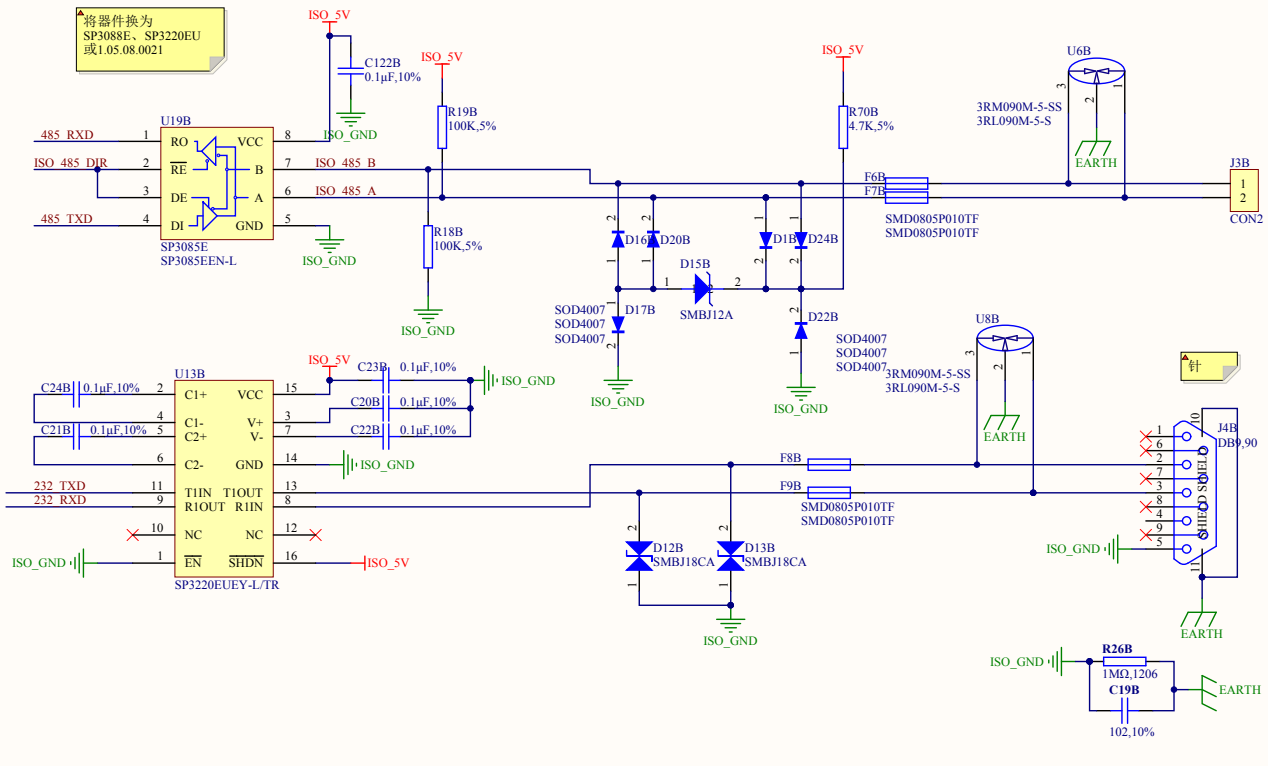


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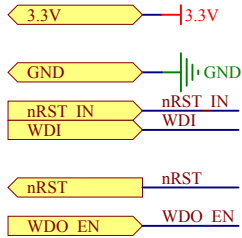


将器件换为 SP3088E、SP3220EU 或1.05.08.0021



#	修改日期	修改内容
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# 17. RST\_WDT

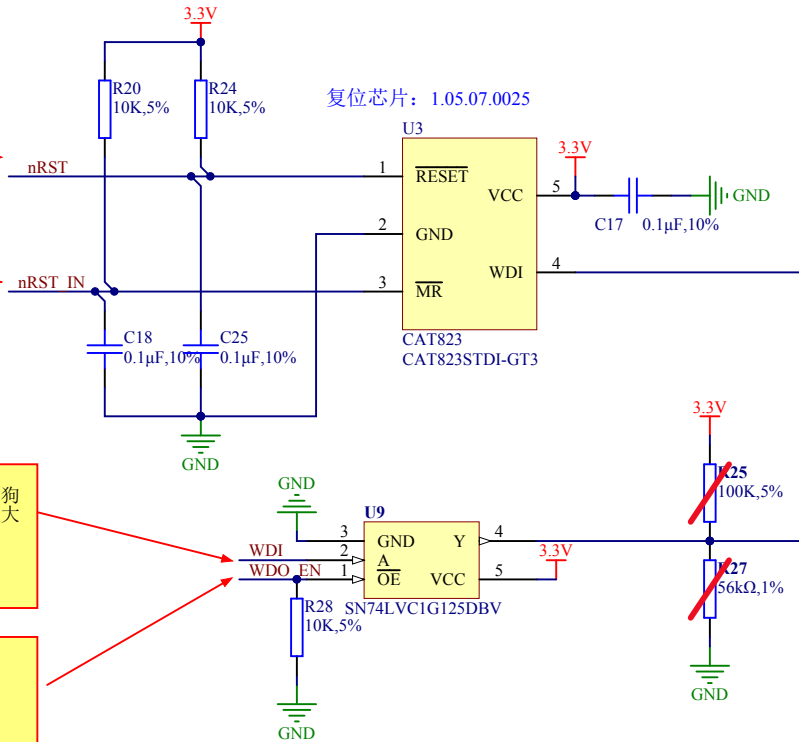


低电平输出复位信号，周期200ms  
时钟线包地处理

手动复位输入。  
低电平有效，复位低电平最大  
0.3Vcc，复位低电平持续最小1us

看门狗喂狗信号输入，看门狗  
定时器溢出周期典型1.6s；喂狗  
脉冲最小50ns脉宽，低电平最大  
0.3Vcc，高电平最低0.7Vcc


3.3V  
底板接排针，高电平禁能看  
门狗，默认悬空使能看门狗



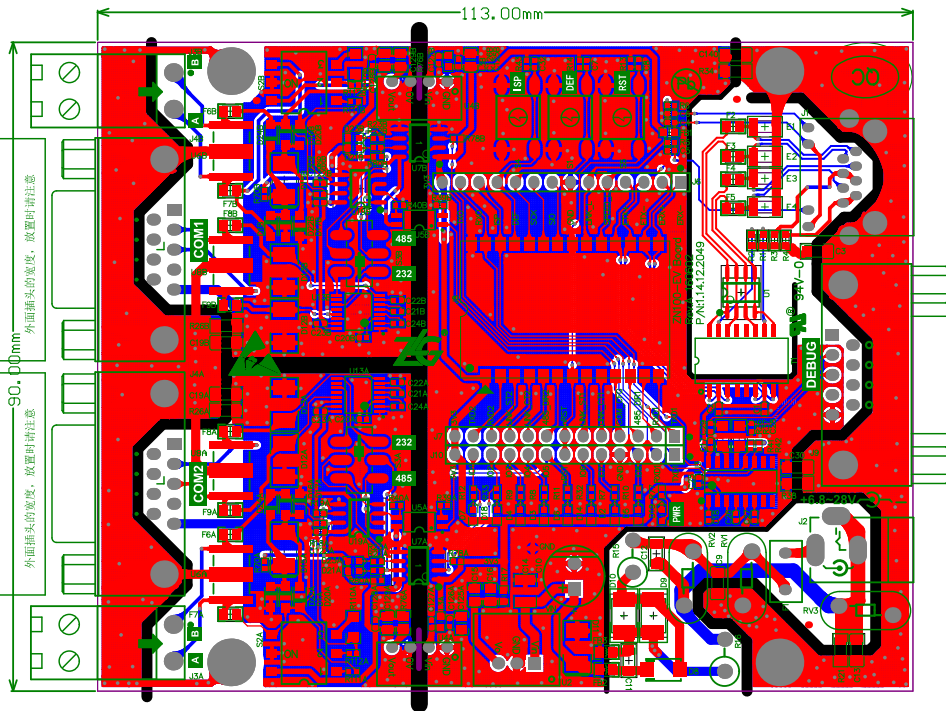
#	修改日期	修改内容
1		
2		
3		



## PCB加工工艺要求

尺寸	113 mm x 90 mm																																				
板材	<input checked="" type="checkbox"/> FR4 TG140 <input type="checkbox"/> FR4 TG170 <input type="checkbox"/> 生益有胶材料 <input type="checkbox"/> MEGTRON6 <input type="checkbox"/> 其他:																																				
板层	<input type="checkbox"/> 单面 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 10																																				
板厚	<input type="checkbox"/> 0.4mm <input type="checkbox"/> 0.6mm <input type="checkbox"/> 0.8mm <input type="checkbox"/> 1.0mm <input type="checkbox"/> 1.2mm <input type="checkbox"/> 1.4mm <input checked="" type="checkbox"/> 1.6mm <input type="checkbox"/> 1.8mm <input type="checkbox"/> 2.0mm																																				
铜厚	外层 (完成铜厚)	<input type="checkbox"/> 1/2OZ <input checked="" type="checkbox"/> 1OZ <input type="checkbox"/> 2OZ																																			
	内层	<input type="checkbox"/> 1/2OZ <input type="checkbox"/> 1OZ <input type="checkbox"/> 2OZ																																			
丝印颜色	<input checked="" type="checkbox"/> 白色 <input type="checkbox"/> 其他:																																				
阻焊颜色	<input checked="" type="checkbox"/> 绿色 <input type="checkbox"/> 黑色 <input type="checkbox"/> 红色 <input type="checkbox"/> 蓝色 <input type="checkbox"/> 黄色 <input type="checkbox"/> 其他:																																				
表面处理工艺	<input checked="" type="checkbox"/> 沉镍金 <input type="checkbox"/> 无铅喷锡 <input type="checkbox"/> 电镀镍金 <input type="checkbox"/> 电镀软金 <input type="checkbox"/> OSP <input type="checkbox"/> 光板																																				
特殊工艺	<input checked="" type="checkbox"/> 无 <input type="checkbox"/> 按键镀硬金 <input type="checkbox"/> 金手指 <input type="checkbox"/> 半孔工艺 <input type="checkbox"/> FPCB补强 <input type="checkbox"/> 树脂塞孔 <input type="checkbox"/> 电镀填孔																																				
是否阻焊塞孔	<input checked="" type="checkbox"/> 是 <input type="checkbox"/> 否 <input type="checkbox"/> 按文件																																				
交货方式	<input checked="" type="checkbox"/> 非拼板 <input type="checkbox"/> 拼板 <input type="checkbox"/> 分成单板交货																																				
Gerber输出: 英制、相对零点、抑制前导零、精度2:5 NC Drill输出: 英制、相对零点、抑制前导零、精度2:4																																					
<b>其他说明</b> <ol style="list-style-type: none"> <li>机械1层(*GM1)为外形铣边; 若存在工艺副边, 请在副边上增加分流点</li> <li>请用供应商UR认证标识(包括认证号, 生产周期)替换放置在板上的UR标志; 且保持其位置、方向一致; 板内无UR标志的, 若有工艺副边, 可在副边上添加; 否则禁止添加。标志样式如右 &gt;&gt;&gt;  94V-0</li> <li>要求板翘曲度&lt;=0.75%, 若无法做到请确认</li> <li>出货时PCB需放入防潮袋并密封, 另需附上干燥材料、湿度指示卡、成品检验报告、测试报告等</li> <li>板厚≤0.6mm, 需热压整平, 且在出货时在包装内增加加强板(前后都要加)</li> <li>若存在V-CUT, 无特别说明时, 必须是双面V-CUT, 且余量按以下表格执行</li> </ol> <table border="1" data-bbox="1243 1029 1668 1141"> <thead> <tr> <th>筋厚</th> <th colspan="7">PCB厚度 (mm)</th> </tr> <tr> <th>(余量)</th> <th>0.6</th> <th>0.8</th> <th>1</th> <th>1.2</th> <th>1.6</th> <th>2</th> <th>2.5</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>最小值</td> <td>0.16</td> <td>0.2</td> <td>0.3</td> <td>0.3</td> <td>0.4</td> <td>0.5</td> <td>0.5</td> <td>0.5</td> </tr> <tr> <td>最大值</td> <td>0.32</td> <td>0.4</td> <td>0.45</td> <td>0.5</td> <td>0.6</td> <td>0.7</td> <td>0.8</td> <td>0.8</td> </tr> </tbody> </table>			筋厚	PCB厚度 (mm)							(余量)	0.6	0.8	1	1.2	1.6	2	2.5	3	最小值	0.16	0.2	0.3	0.3	0.4	0.5	0.5	0.5	最大值	0.32	0.4	0.45	0.5	0.6	0.7	0.8	0.8
筋厚	PCB厚度 (mm)																																				
(余量)	0.6	0.8	1	1.2	1.6	2	2.5	3																													
最小值	0.16	0.2	0.3	0.3	0.4	0.5	0.5	0.5																													
最大值	0.32	0.4	0.45	0.5	0.6	0.7	0.8	0.8																													
7. 具体叠层顺序 <table border="1" data-bbox="1243 1173 1512 1228"> <tr> <td style="width: 20px; height: 10px;"></td> <td>TOP</td> </tr> <tr> <td style="width: 20px; height: 10px;"></td> <td>BOT</td> </tr> </table>				TOP		BOT																															
	TOP																																				
	BOT																																				

8. PCB做完后, 请高温烘烤进行应力释放, 再整平(或重物压板烘烤), 防止翘曲



外面插头的宽度, 放置时请注意