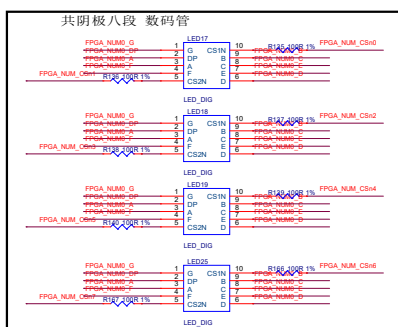
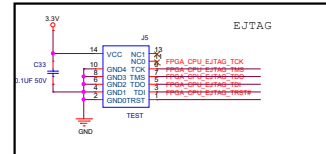
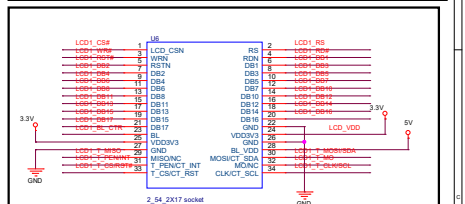
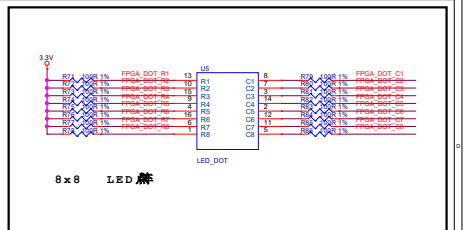
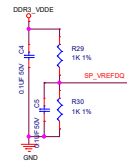
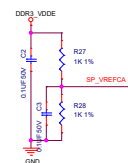
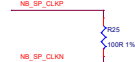
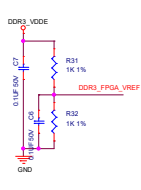
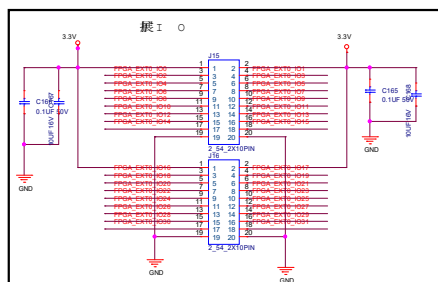
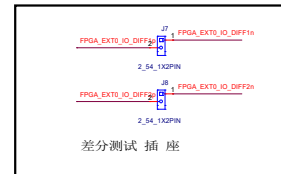
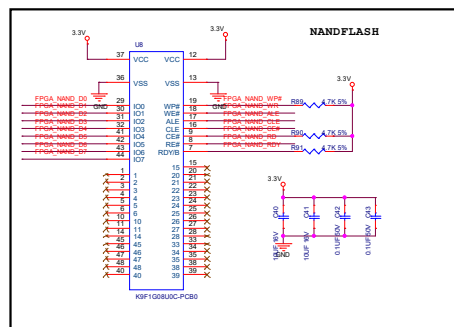
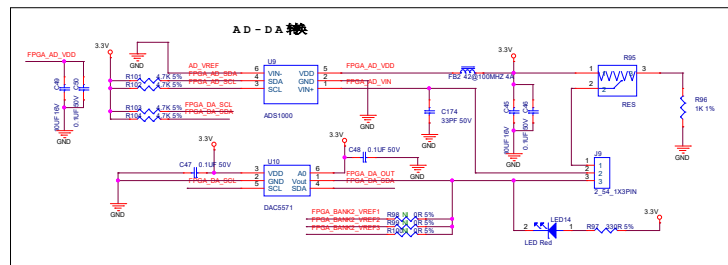
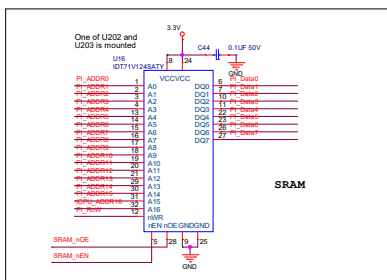


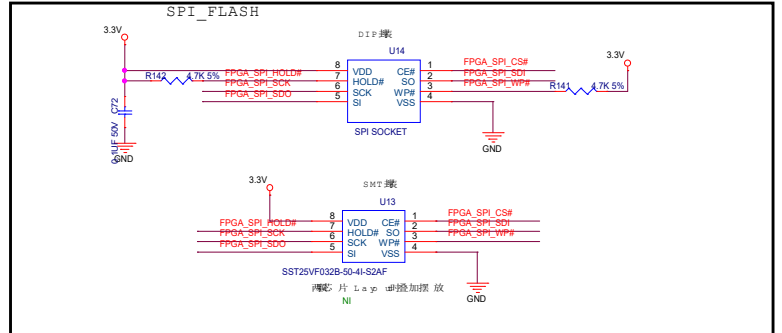
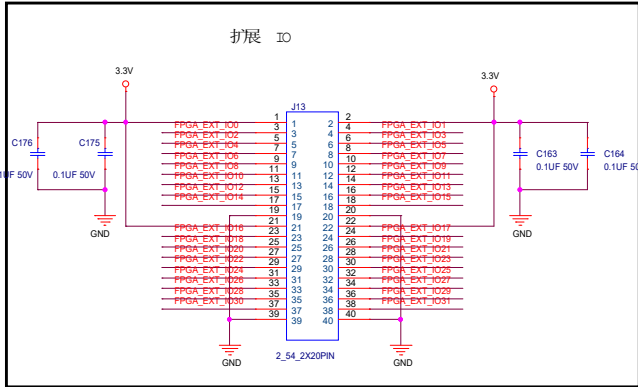
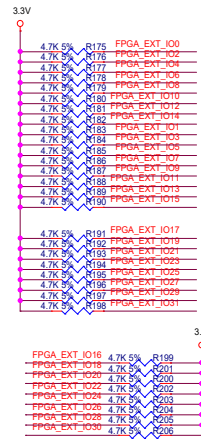
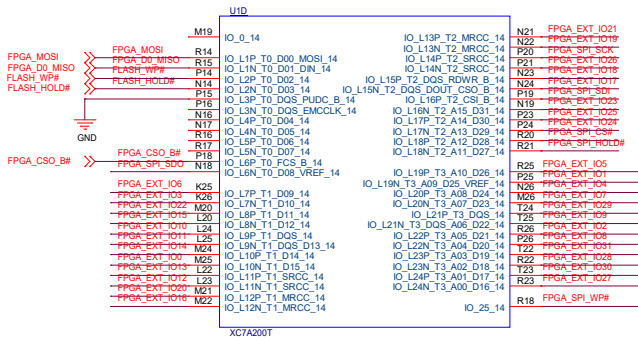
<div>龙芯中科</div> <div>LOONGSON TECHNOLOGY</div> <div>龙芯中科技术有限公司 北京市海淀区东升园中关村科技园</div>			
板卡名称 FPCA-A7-PRJ-UD8			
Size B	部门	通用事业部	Rev V1.3
Date: Tuesday, April 10, 2018		Sheet 1 of 14	
Drawn By 曹宏杰		Checked By 杜望宇	











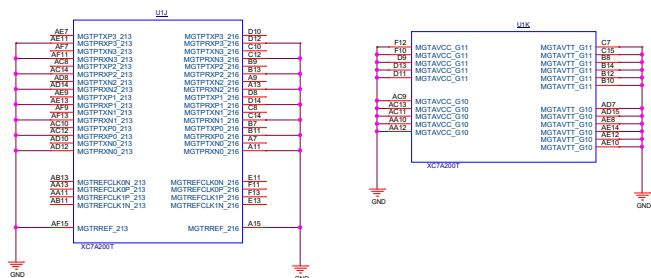
龙芯中科 龙芯中科技术有限公司
LOONGSON TECHNOLOGY 北京亦海园区新秀丽路中关村材料园二期 1013 号

板卡名称 FPGA-A7-PRJ-UIDB

Size B 部门 通用事业部 Rev V1.3

Date: Tuesday, April 10, 2018 Sheet 7 of 14

Drawn By 曹宏杰 Checked By 杜望宁



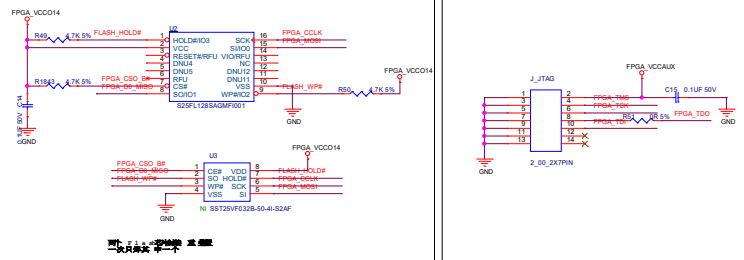
If none of the GTP Quads in a power supply group are used in the application, the GTP Quad device pins can be connected as shown in [Table 5-4](#).

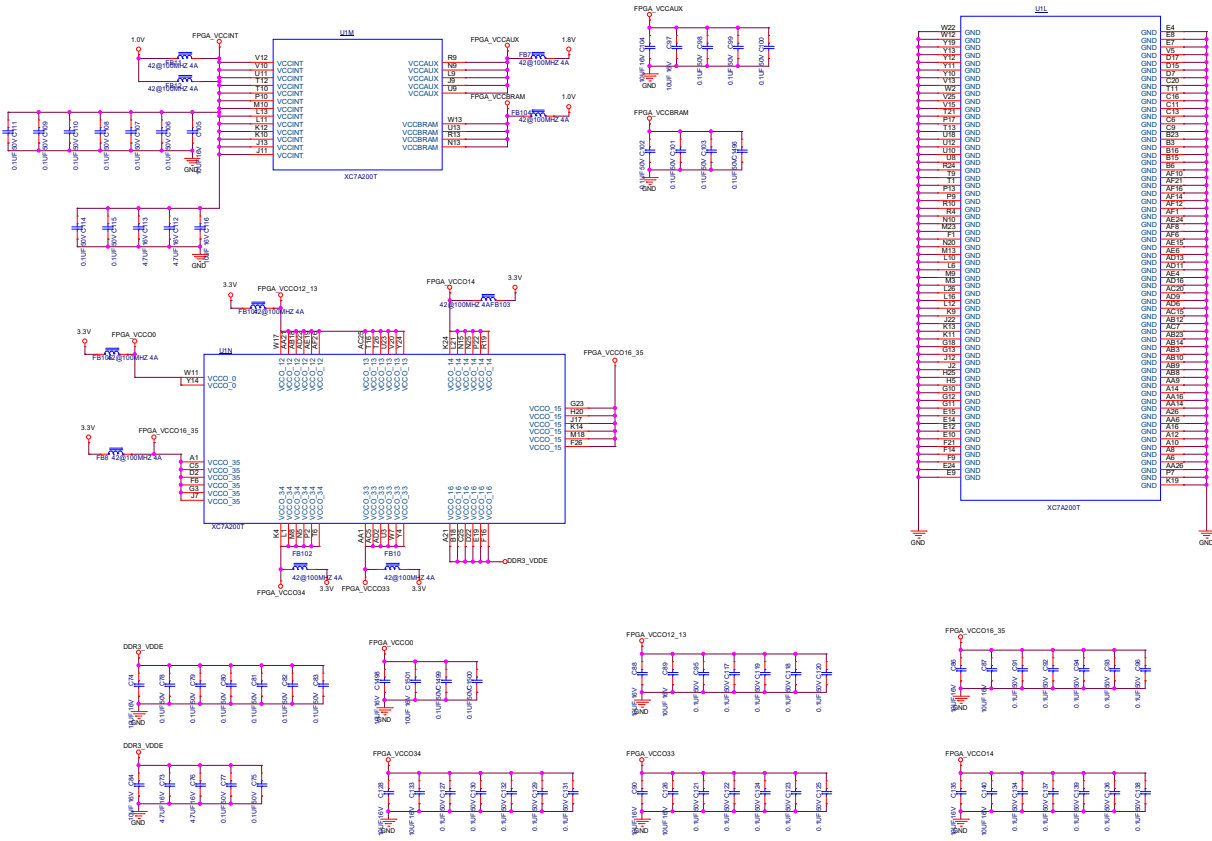
Table 5-4: Unused GTP Quad Column Connections

Pin or Pin Pair of the Unused GTP Quad	Connection
MGTAVCC	GND
MGTAVTT	GND
MGTREFCLKP/MGTREFCLKN	Float
MGTRXP/MGTRXN	GND
MGTTXP/MGTTXN	Float
MGTRREF ⁽¹⁾	GND

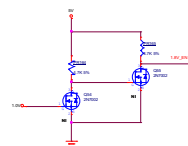
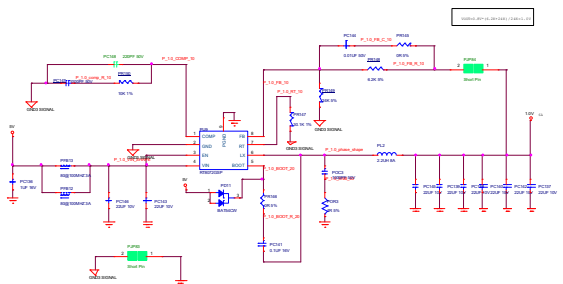
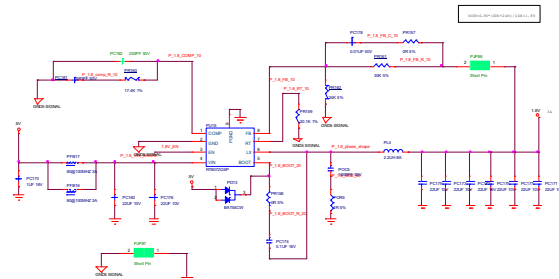
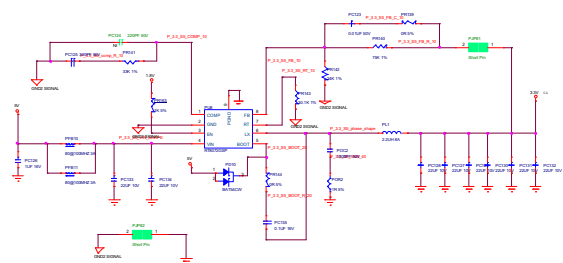
Notes:

1. This is the only scenario when the MGTREF pins can be connected to ground. In all other scenarios, these pins must be connected for normal operation.

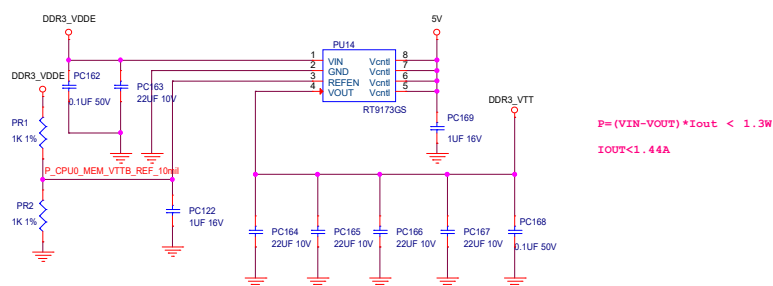




		龙 芯 中 科 搬 移 有 限 公 司 北京市海淀区稻香湖路中关村科技园 意 盛 园	
板卡名称 FPGA-A7-PRJ-UDB			
Size A	部 门 通用事业部		Rev V1.3
Date: Tuesday, April 10, 2018		Sheet 10 of 14	
Drawn By 翟宏杰		Checked By 杜望宁	



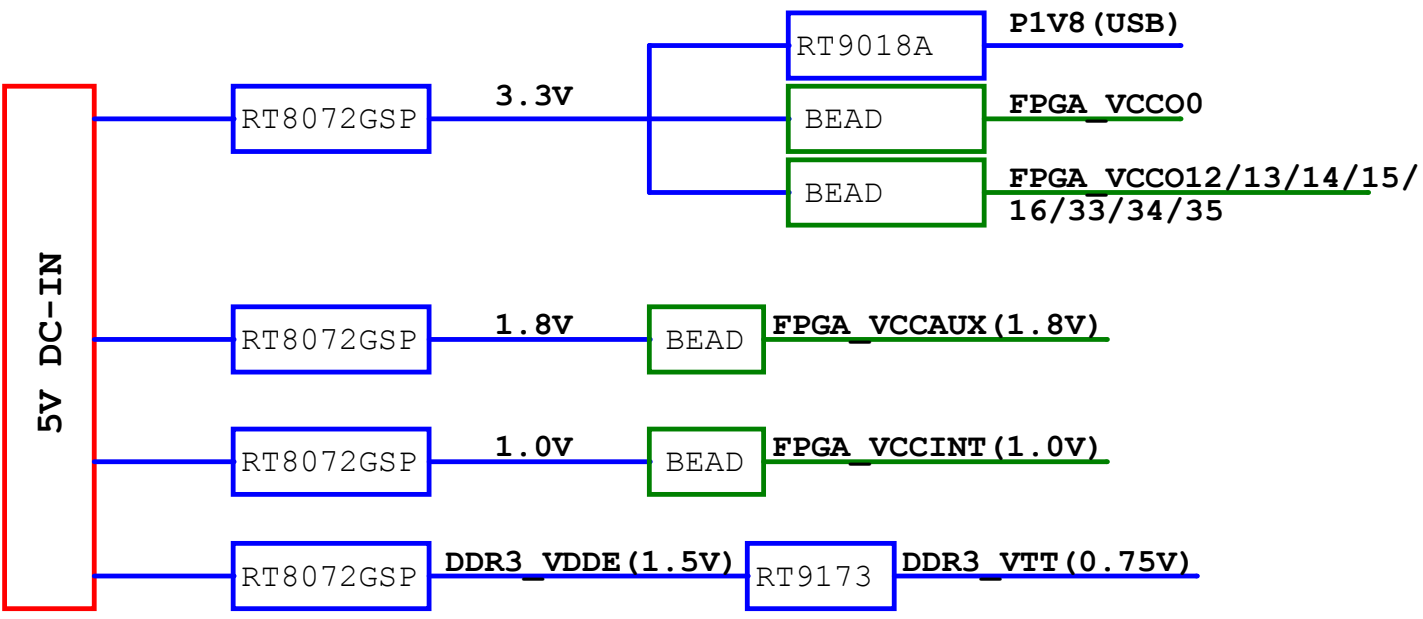
V_{OUT} (V)	R_{S1} (M Ω)	R_{S2} (M Ω)	R_C (k Ω)	C_C (nF)	L (μ H)	C_{OUT}
5.3	75	24	33	0.33	0.47	Cer 20V μ F + E-Cap 100 μ F
2.3	51	24	24	0.47	0.47	Cer 20V μ F + E-Cap 100 μ F
1.8	30	24	18	0.56	0.47	Cer 20V μ F + E-Cap 100 μ F
1.5	21	24	15	0.68	0.33	Cer 20V μ F + E-Cap 100 μ F
1.2	12	24	12	1	0.33	Cer 20V μ F + E-Cap 100 μ F
1	6	24	10	1	0.33	Cer 20V μ F + E-Cap 100 μ F



$$P = (V_{IN} - V_{OUT}) * I_{out} < 1.3W$$

$$I_{OUT} < 1.44A$$

		龙 芯 中 科 技 有 限 公 司 LONGSON TECHNOLOGY		北京市海淀区新客隆南中关村科技园 惠 德 园	
板卡名 称 FPGA-A7-PRJ-UDB					
Size B		部 门 通用事业部		Rev V1.3	
Date: Tuesday, April 10, 2018				Sheet 12 of 14	
Drawn By 邵宏杰		Checked By 杜望宇			



<div><div>龙芯中科</div><div>LOONGSON TECHNOLOGY</div></div> <div>龙芯中科技术有限公司 北京市海淀区稻香湖路中关村科技园 鑫康园</div>			
板卡名称 FPGA-A7-PRJ-USB			
Size A	部门 通用事业部		Rev V1.3
Date: Tuesday, April 10, 2018		Sheet 13 of 14	
Drawn By 崔宏杰		Checked By 杜望宇	

OSC
100M

100M

FPGA

MAC
25M

USB
24M

<div><div>龙芯中科</div><div>LOONGSON TECHNOLOGY</div></div> <div>龙 芯 中 科 技 术 有 限 公 司</div> <div>北京市海淀区稻香湖路中关村科技园 鑫 康 园</div>			
板卡名 称 FPGA-A7-PRJ-USB			
Size A	部 门 通用事业部		Rev V1.3
Date: Tuesday, April 10, 2018		Sheet 14 of 14	
Drawn By 崔宏杰		Checked By 杜望宇	