





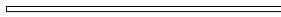

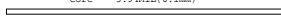
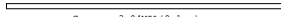
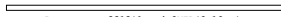

## CONTENT INDEXING

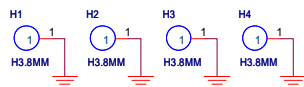
01. INDEX
02. Modify note
03. Block Diagram
04. SYSTEM POWER DIAGRAM
05. SYSTEM POWER
06. USB OTG
07. DDR3
08. Nand Flash/SD
09. GPIO/RK3066 POWER
10. HDMI out
11. YPbPr/CVBS/VGA out
12. SPDIF out
13. RMI Ethernet
14. WIFI+BT/IR
15. TS CON
16. SATA
17. CAMERA/AV-IN

## PCB POWER WIRE WIDTH INDICATE

	above 80 miles
	above 50 miles
	above 30 miles
	above 16 miles
No indicate	Under needs

## 6 LAYERS PCB STACK

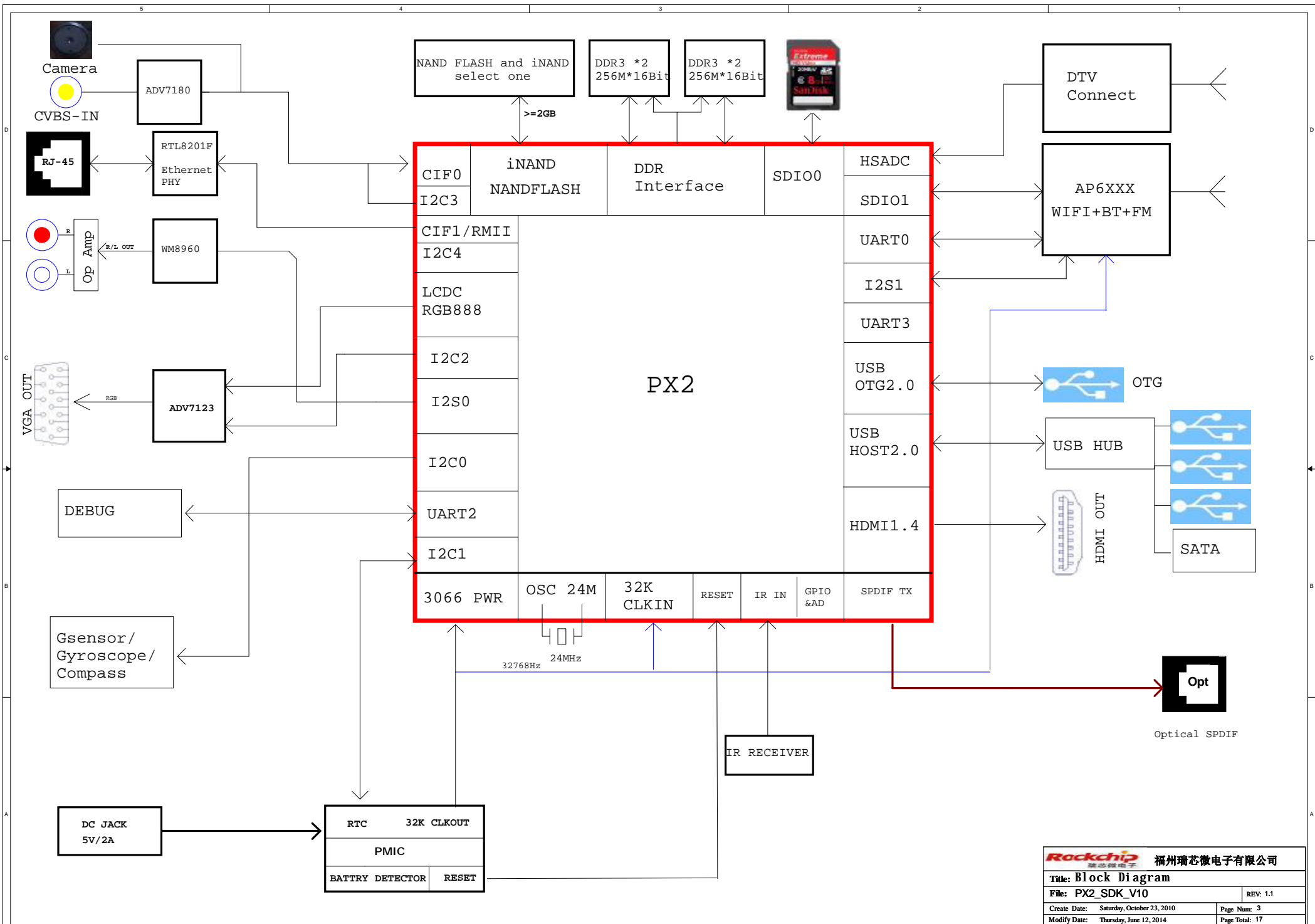
TOP		Hoz(18um) + plating copper(18um)
GND		1oz(35um)
POWER(S1)		1oz(35um)
	Adjust	
S1(S2)		1oz(35um)
GND(POWER)		1oz(35um)
S2(BOTTOM)		Hoz(18um) + plating copper(18um)



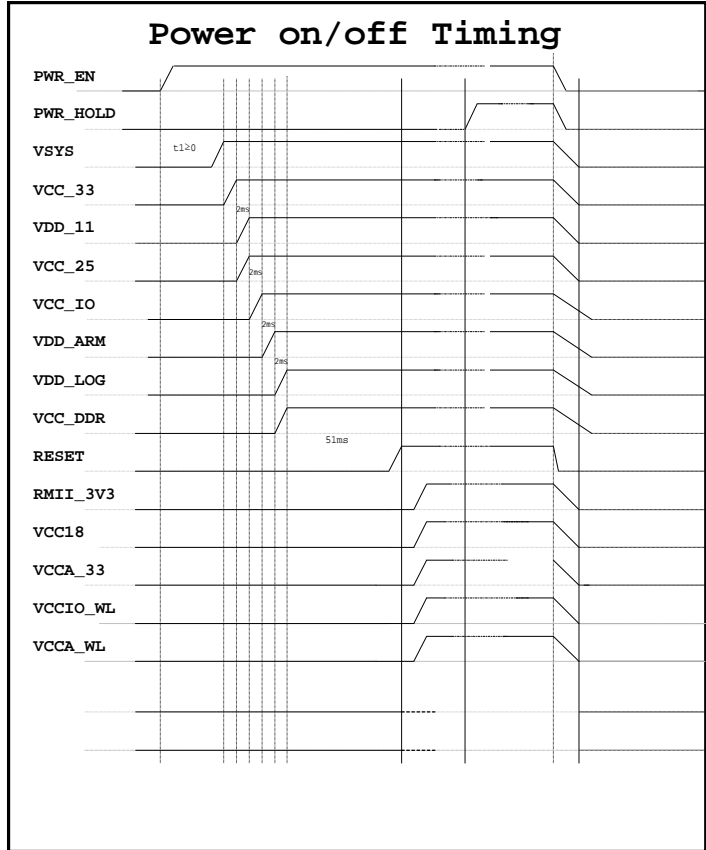
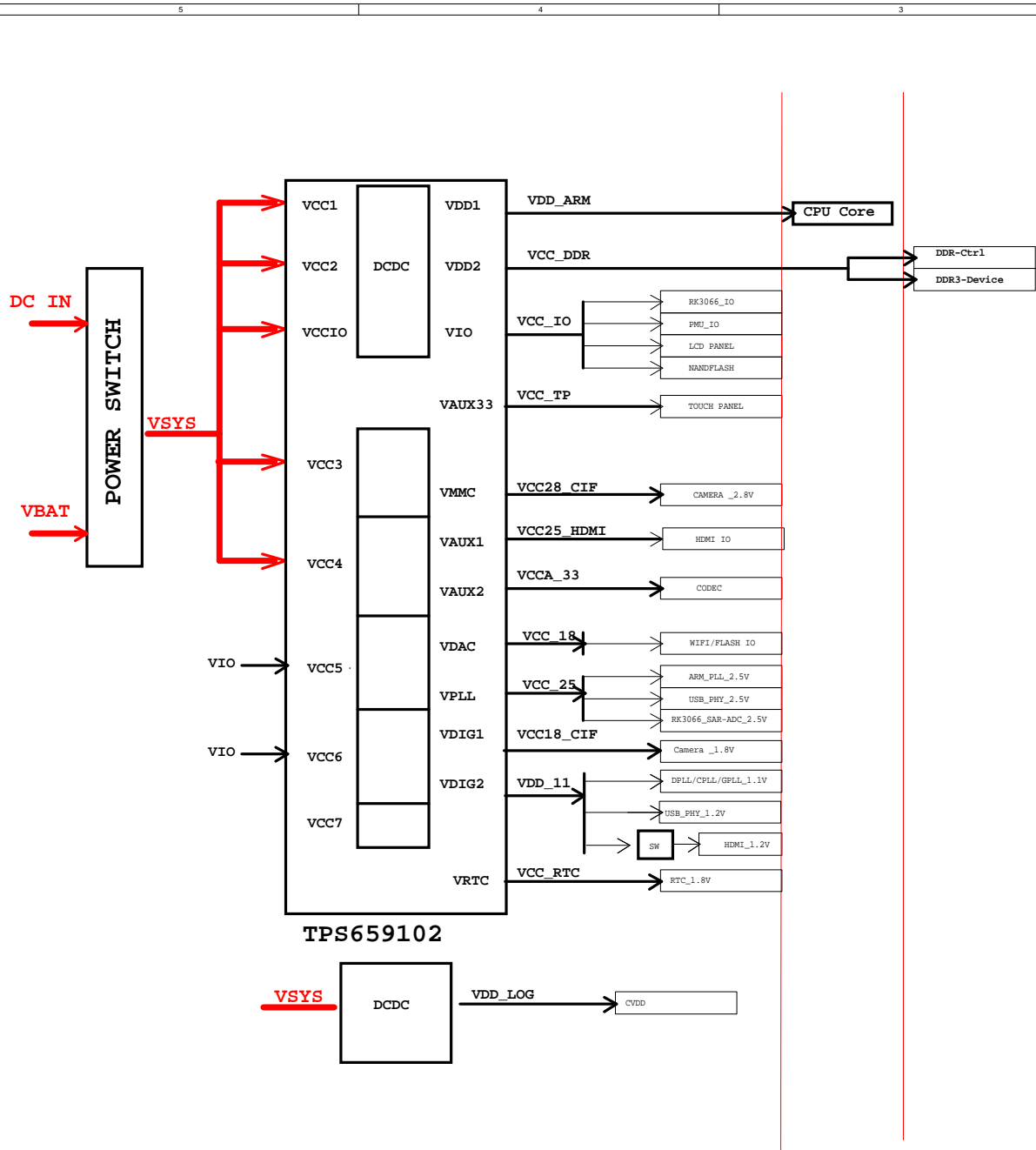
		福州瑞芯微电子有限公司	
Title: Index			
File: PX2_SDK_V10			REV: 1.1
Create Date:	Wednesday, December 14, 2011	Page Num:	1
Modify Date:	Thursday, June 12, 2014	Page Total:	17

Version	Date	Author	Change Note	Approved
V1.0	20140111		First edictor	

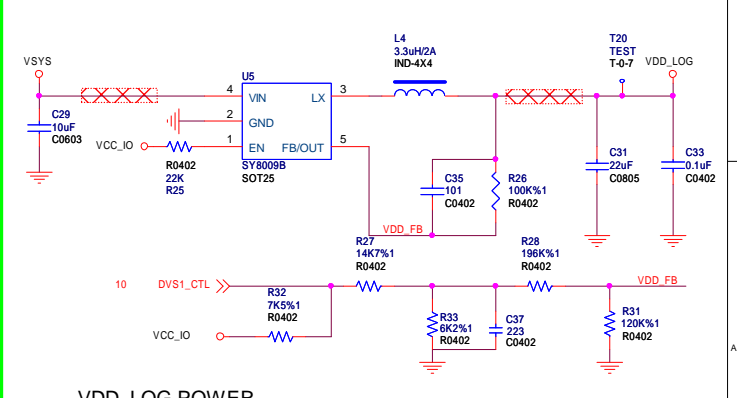
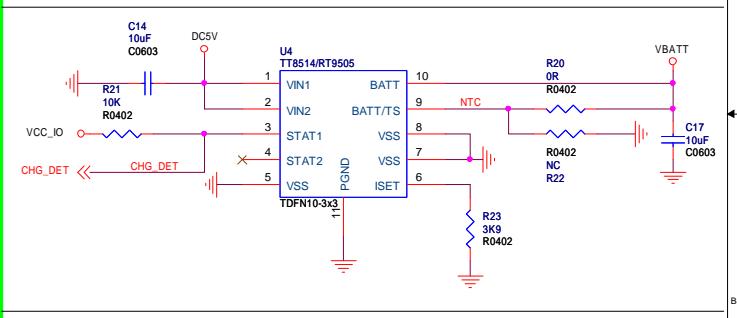
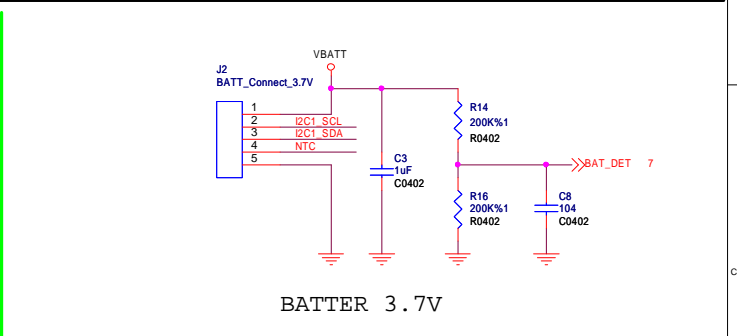
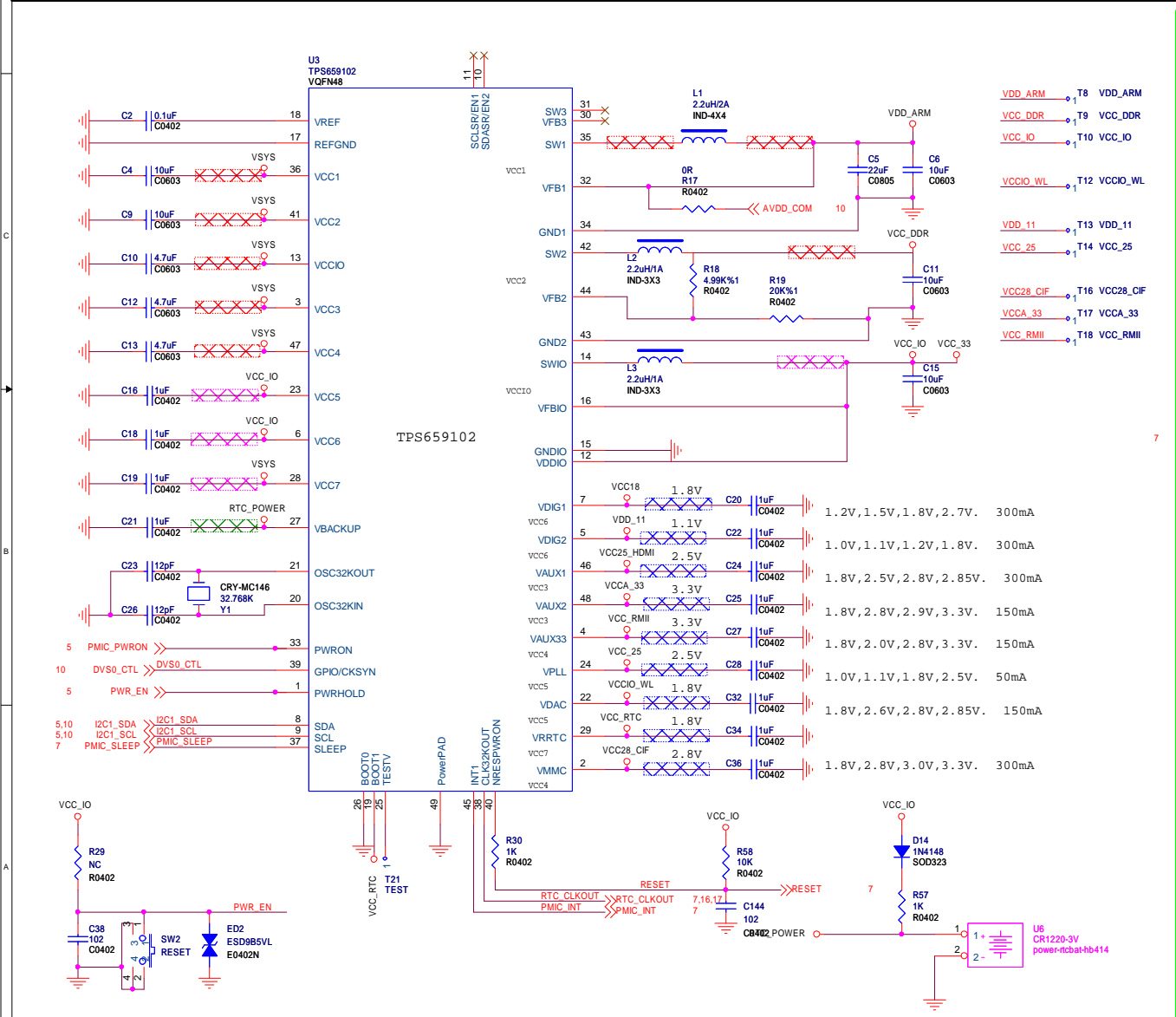
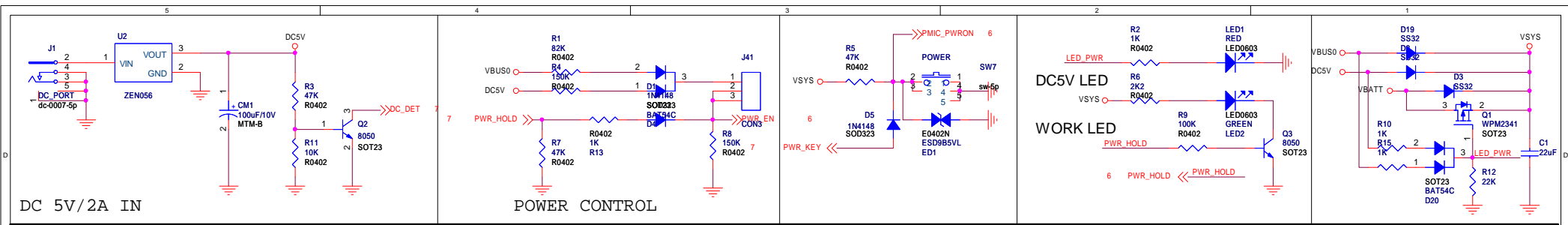
 福州瑞芯微电子有限公司 瑞芯微电子	
Title: Modify note	
File: PX2_SDK_V10	REV: 1.1
Create Date: Saturday, October 23, 2010	Page Num: 2
Modify Date: Thursday, June 12, 2014	Page Total: 17



<b>Rockchip</b> 福州瑞芯微电子有限公司	
Title: Block Diagram	
File: PX2_SDK_V10	REV: 1.1
Create Date: Saturday, October 23, 2010	Page Num: 3
Modify Date: Thursday, June 12, 2014	Page Total: 17



POWER DIAGRAM



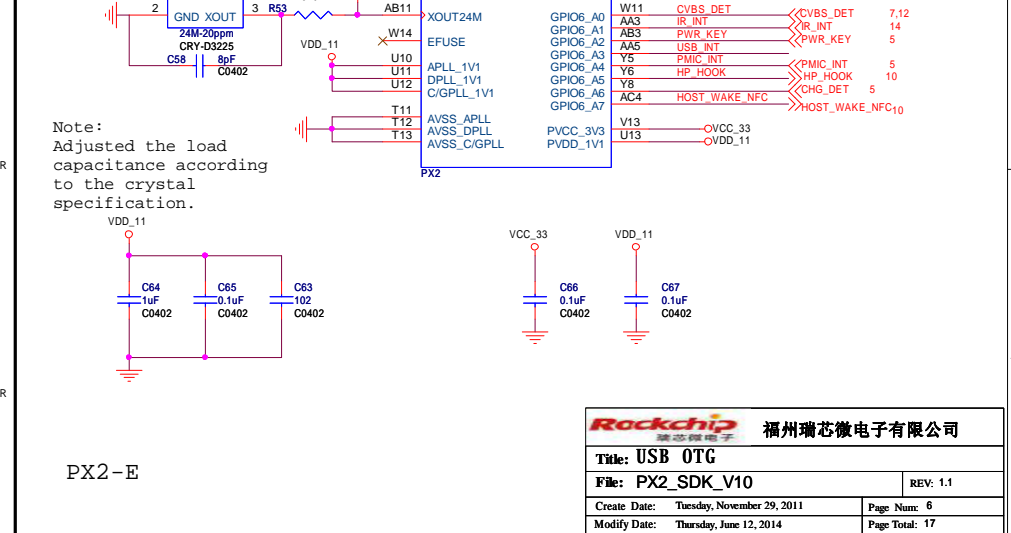
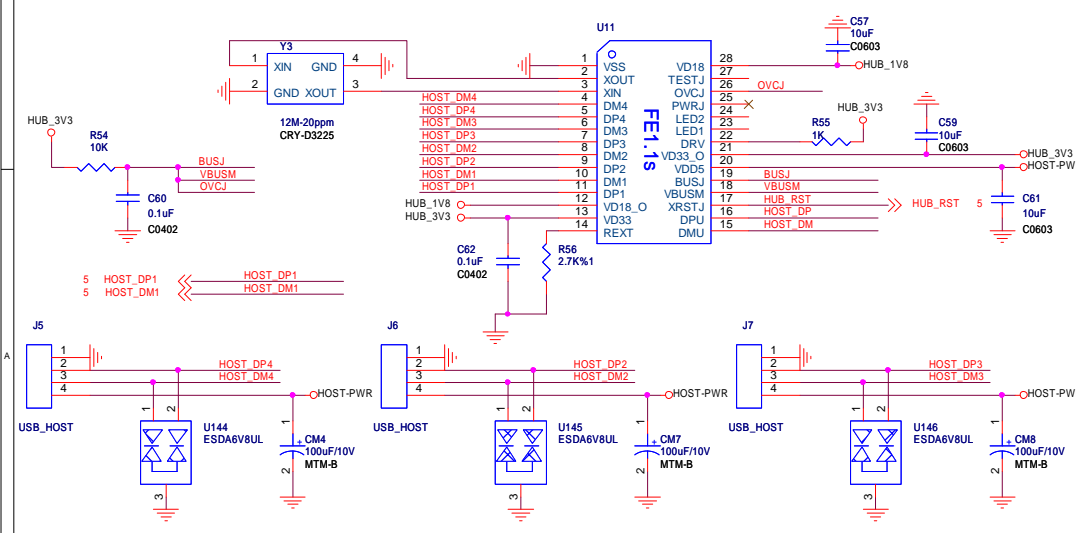
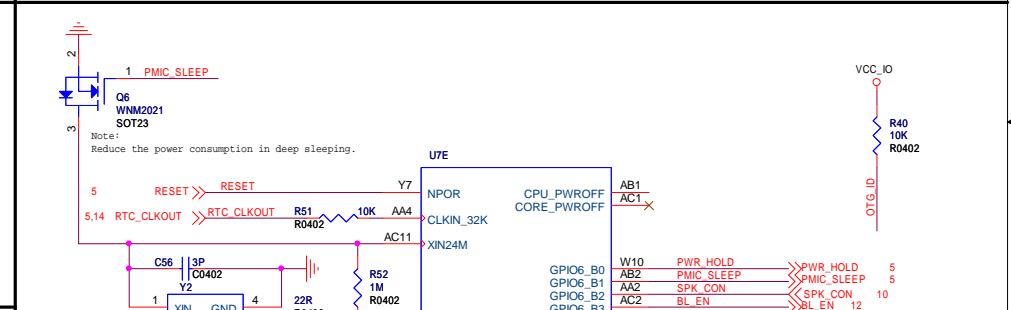
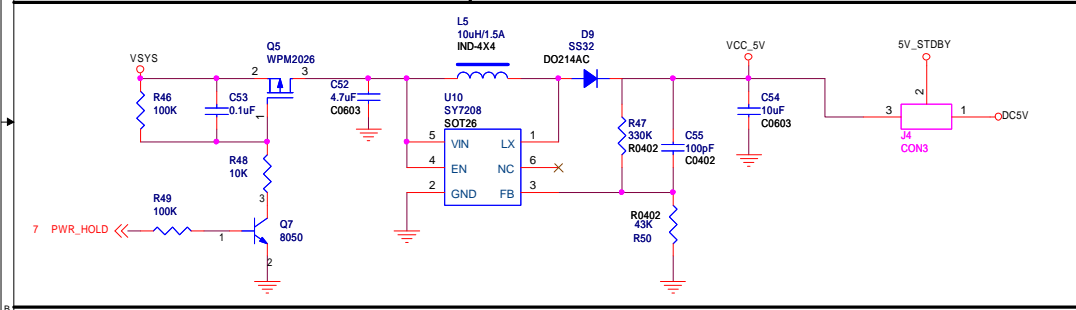
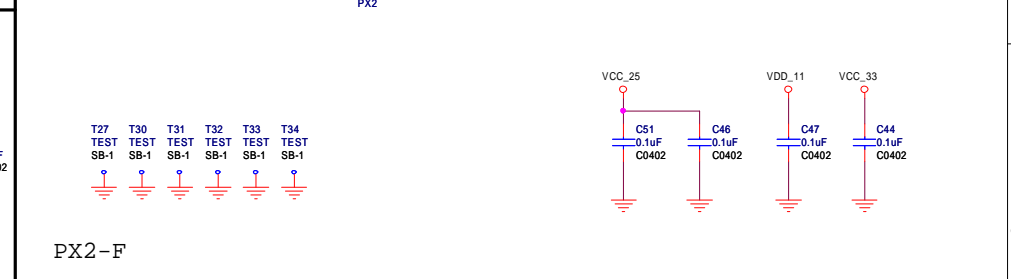
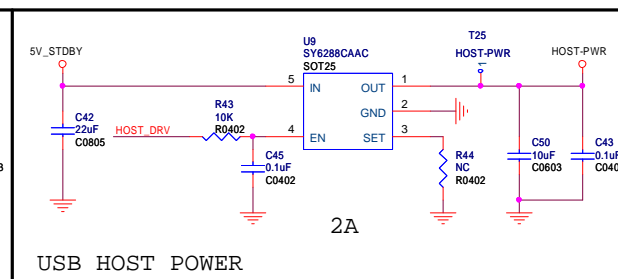
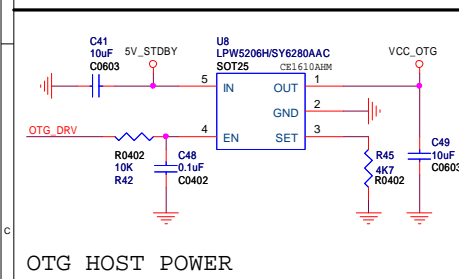
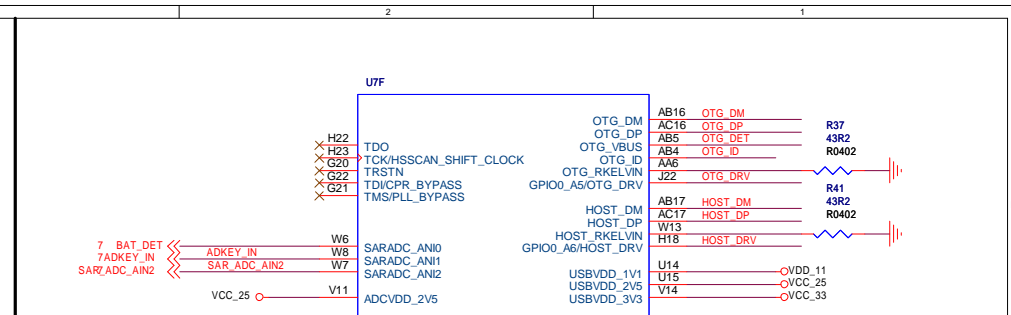
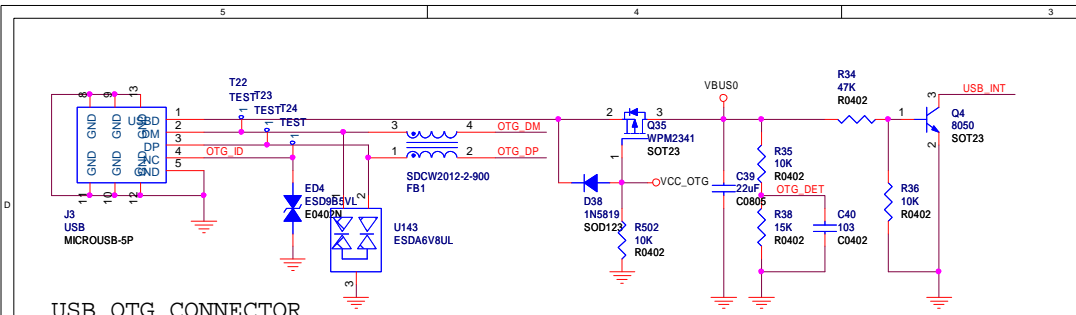
**Rackchip** 福州瑞芯微电子有限公司

**Title: System power**

**File: PX2\_SDK\_V10** REV: 1.1

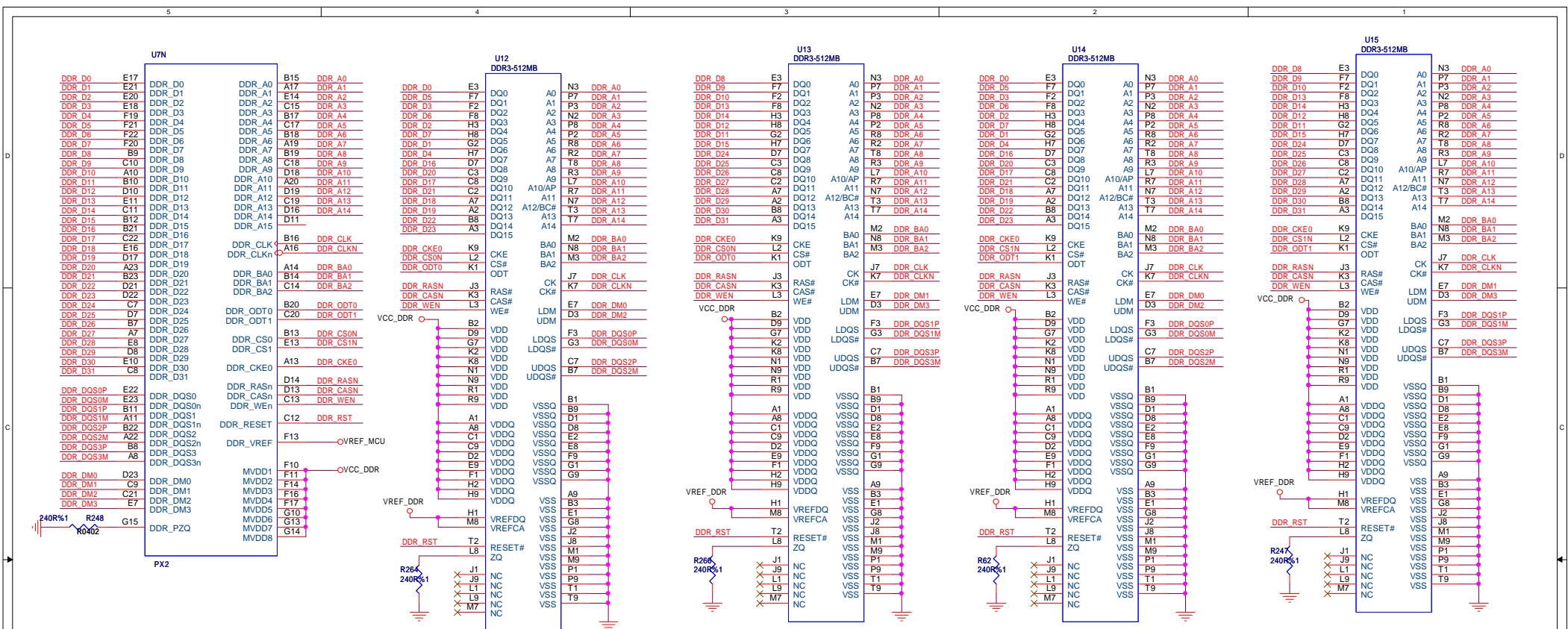
Create Date: Tuesday, November 29, 2011 Page Num: 5

Modify Date: Thursday, June 12, 2014 Page Total: 17

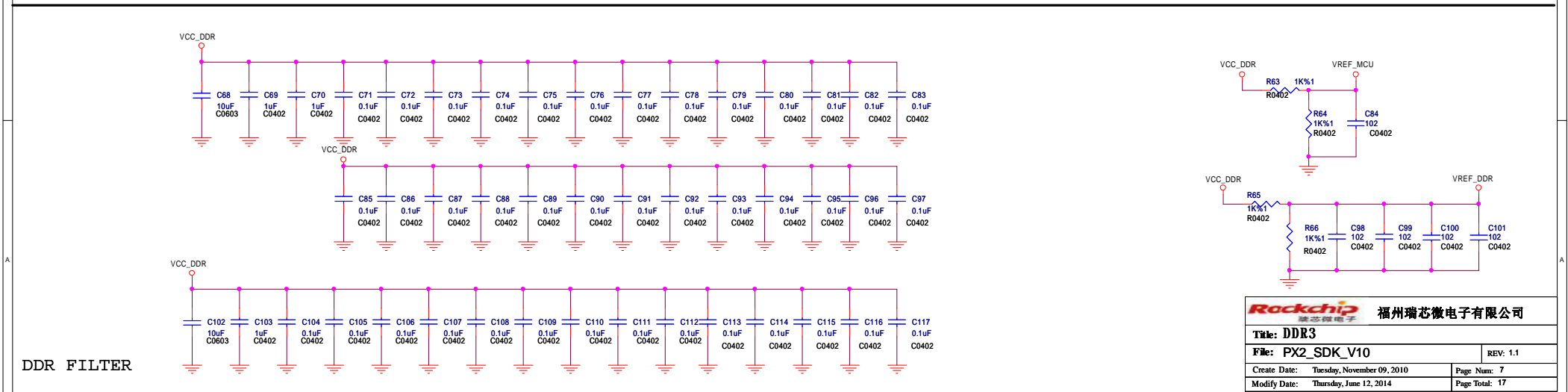


**Rockchip**  
福州瑞芯微电子有限公司

<b>Title: USB OTG</b>		REV: 1.1
<b>File: PX2_SDK_V10</b>		Page Name: 6
Create Date: Tuesday, November 29, 2011	Page Total: 17	
Modify Date: Thursday, June 12, 2014		

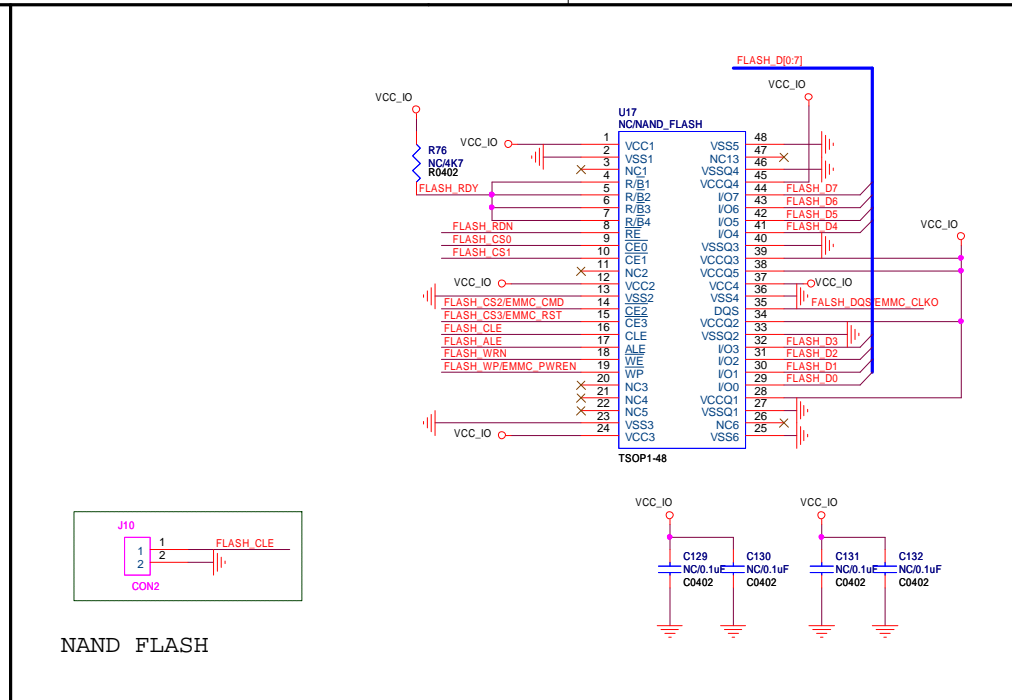
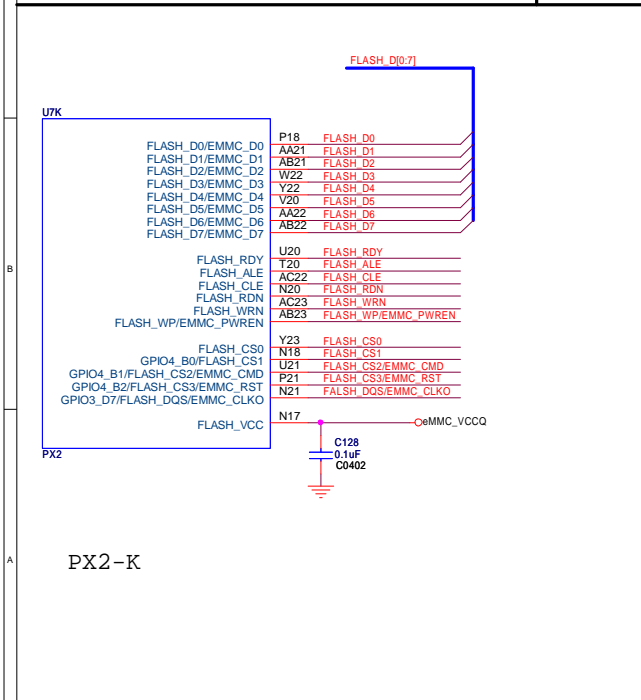
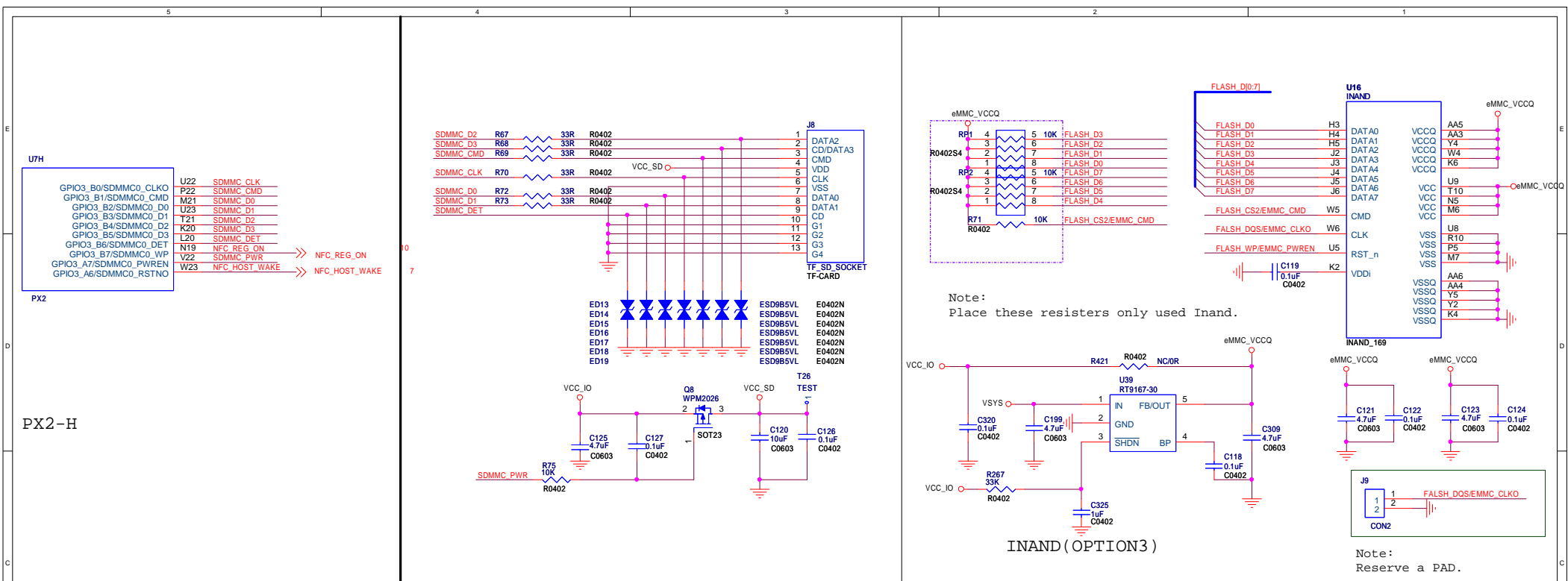


PX2-N



**Rockchip** 福州瑞芯微电子有限公司

Title: DDR3  
 File: PX2\_SDK\_V10  
 Create Date: Tuesday, November 09, 2010  
 Modify Date: Thursday, June 12, 2014  
 REV: 1.1  
 Page Num: 7  
 Page Total: 17



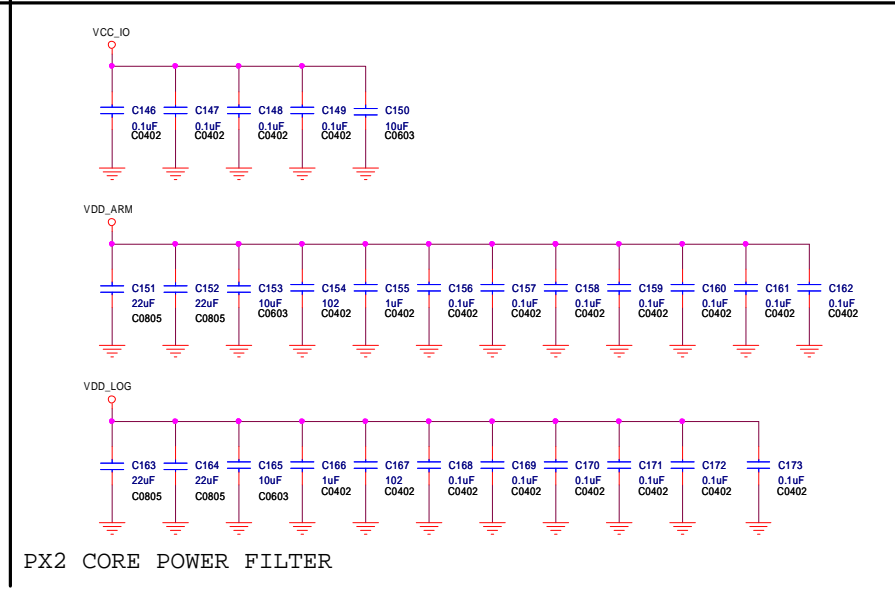
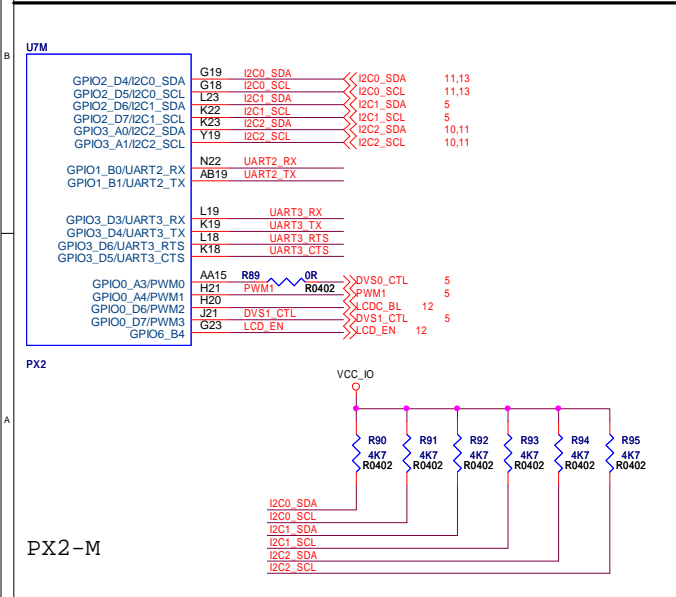
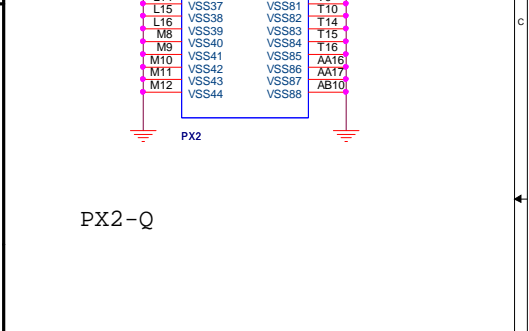
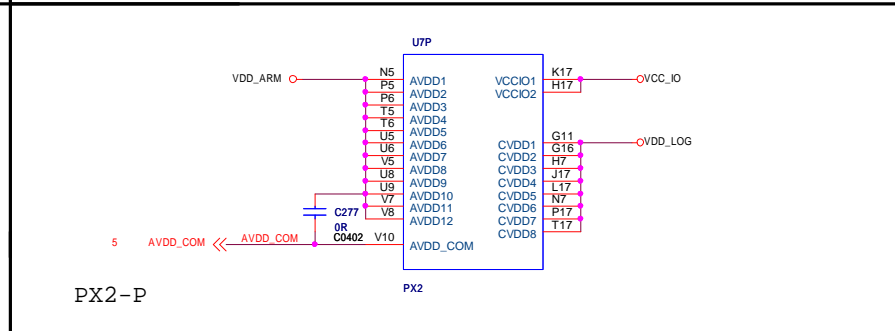
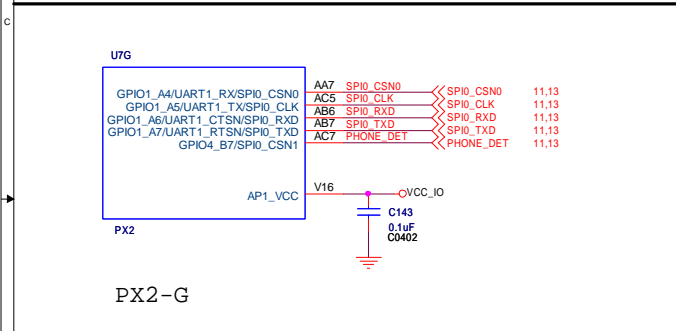
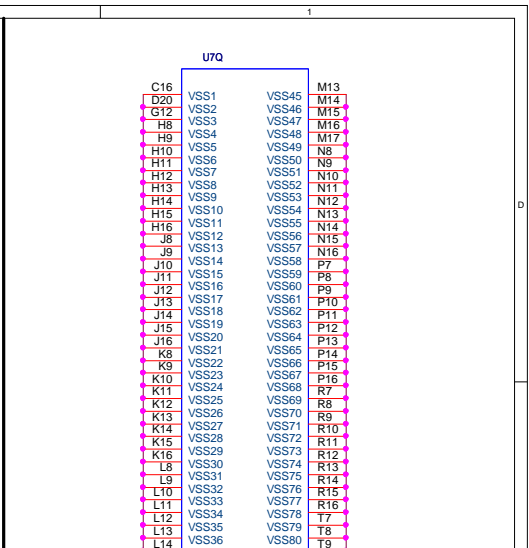
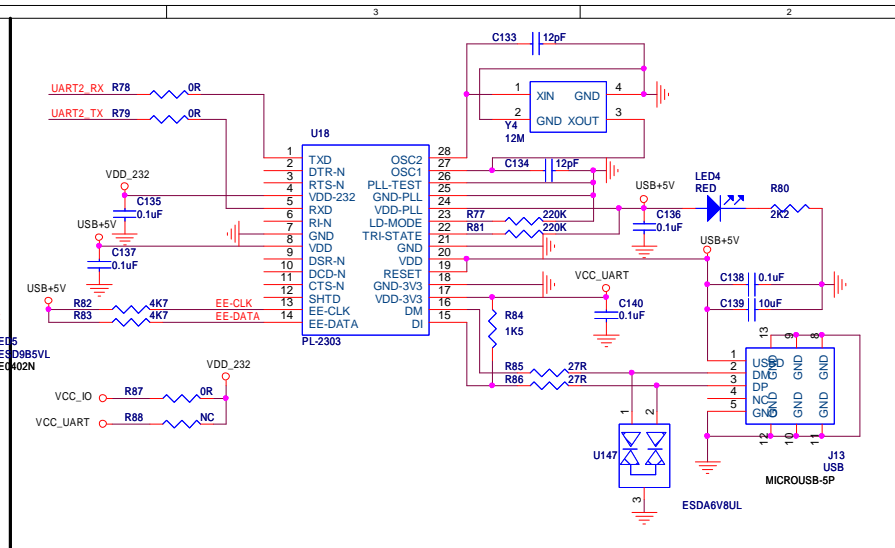
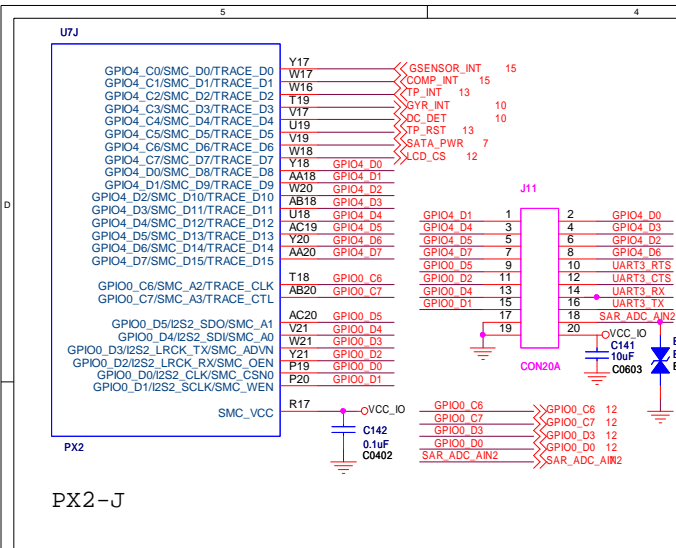
**Rockchip**  
福州瑞芯微电子有限公司

**Title: Nand Flash/SD**

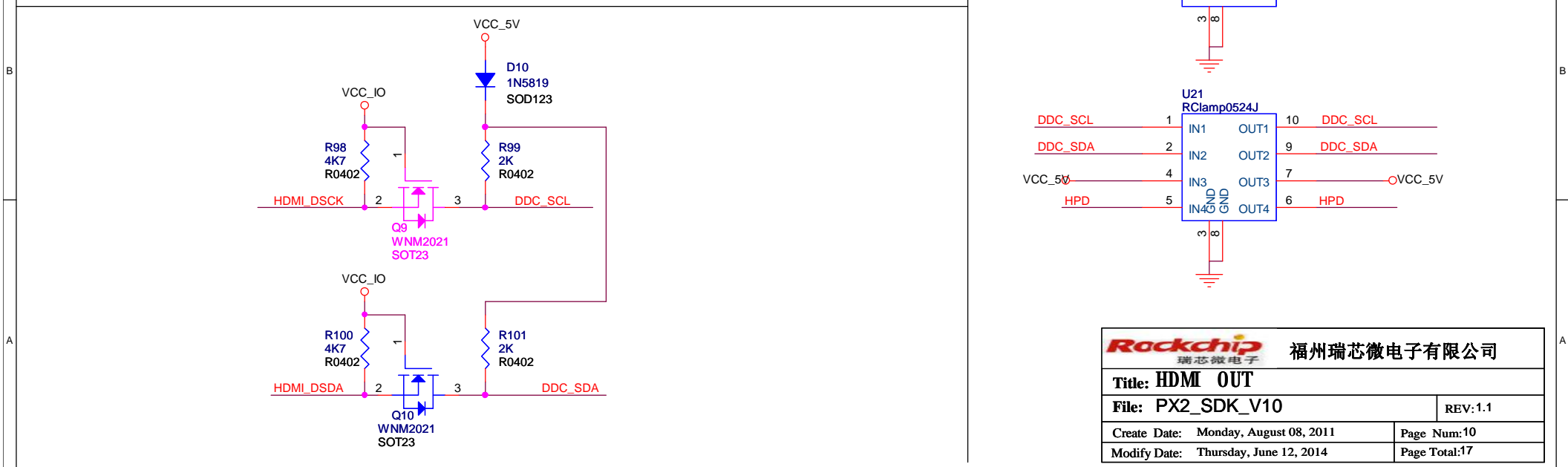
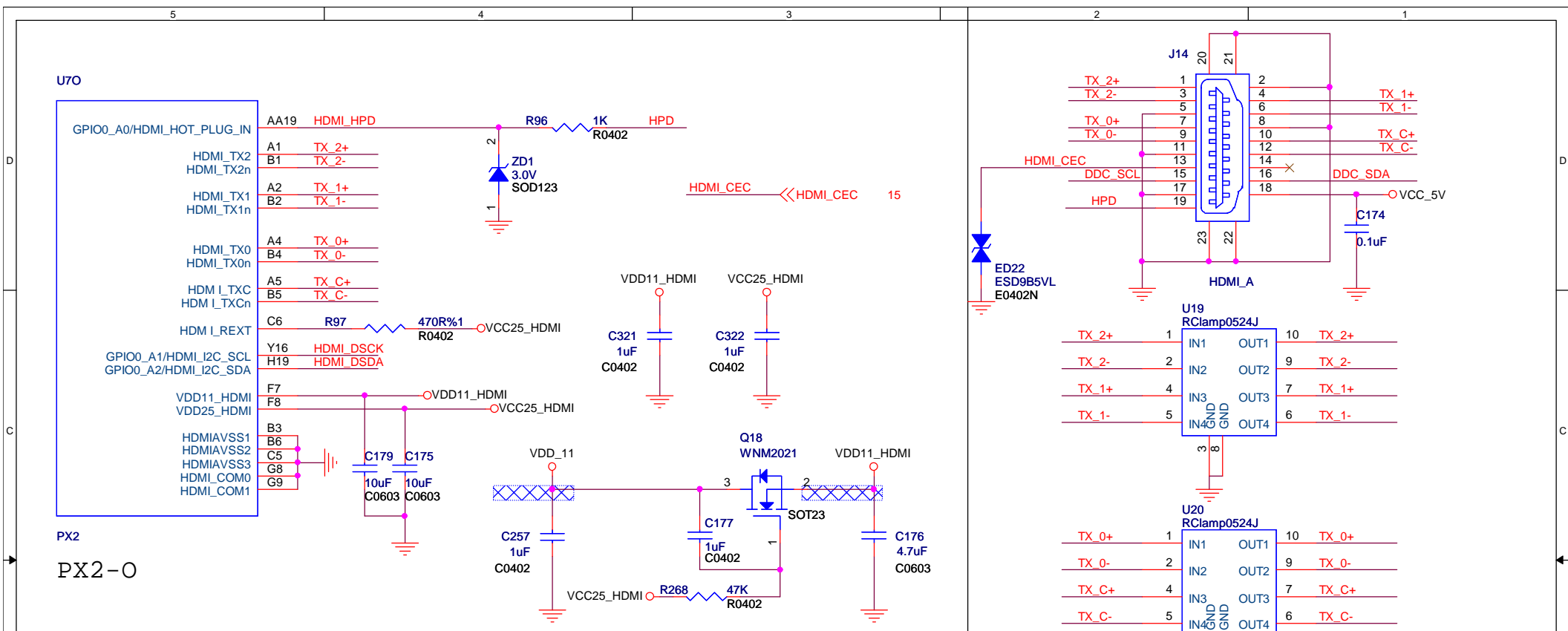
**File: PX2\_SDK\_V10** REV: 1.1

Create Date: Thursday, October 14, 2010	Page Name: 8
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 <b>福州瑞芯微电子有限公司</b>		
<b>Title: GPIO/RK3066 POWER</b>		
<b>File: PX2_SDK_V10</b>		<b>REV: 1.1</b>
Create Date: <b>Monday, October 18, 2010</b>	Page Name: <b>9</b>	
Modify Date: <b>Thursday, June 12, 2014</b>	Page Total: <b>17</b>	



**Rockchip** 瑞芯微电子 福州瑞芯微电子有限公司

**Title: HDMI OUT**

**File: PX2\_SDK\_V10** REV:1.1

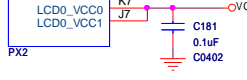
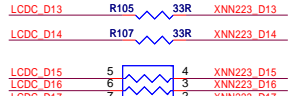
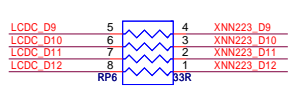
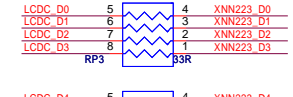
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Modify Date: Thursday, June 12, 2014 Page Total:17

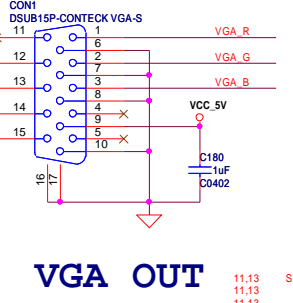
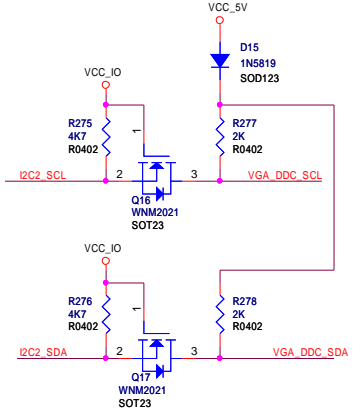
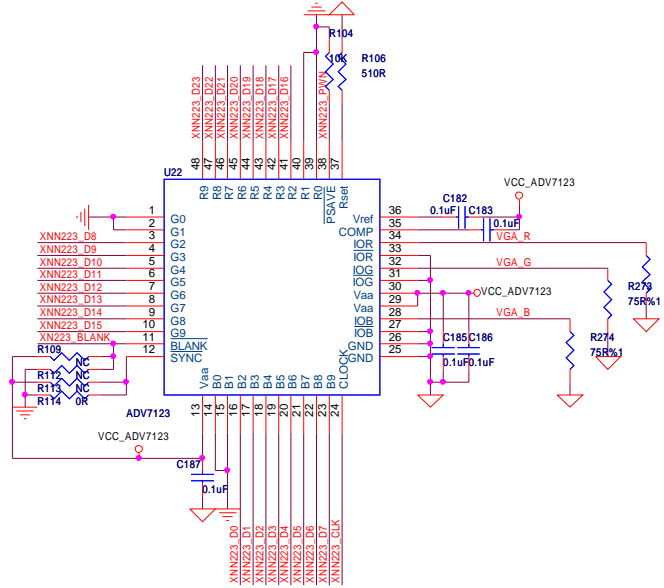
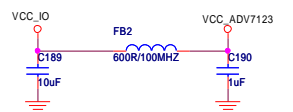
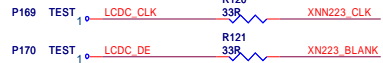
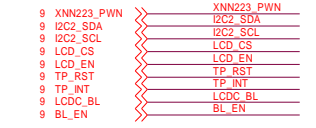
U7A

LCDO\_DEN  
LCDO\_DCLK  
LCDO\_VSYNC  
LCDO\_HSYNC

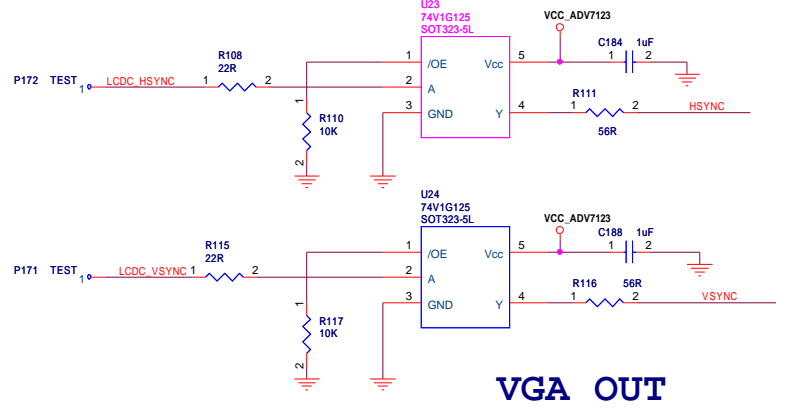
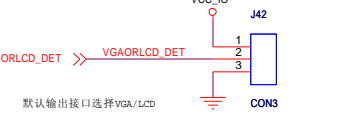
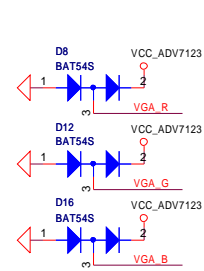
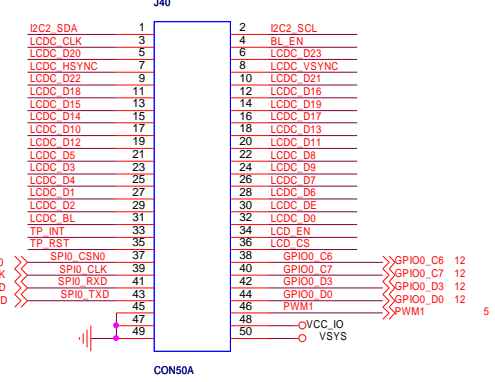
D4 LCDC\_DE  
E6 LCDC\_CLK  
D5 LCDC\_VSYNC  
D6 LCDC\_HSYNC



PX2-A

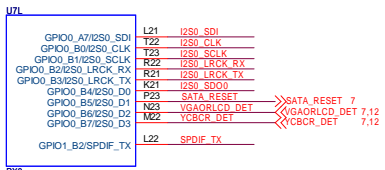


VGA OUT

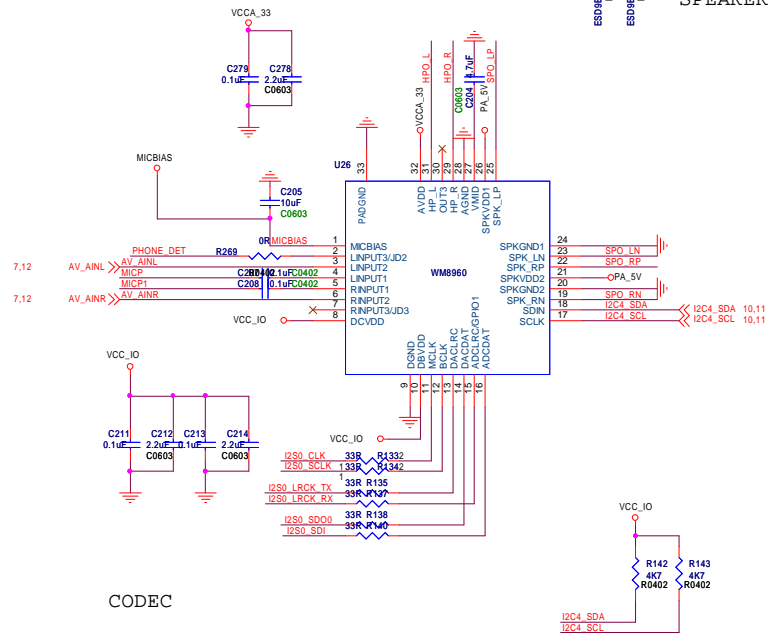
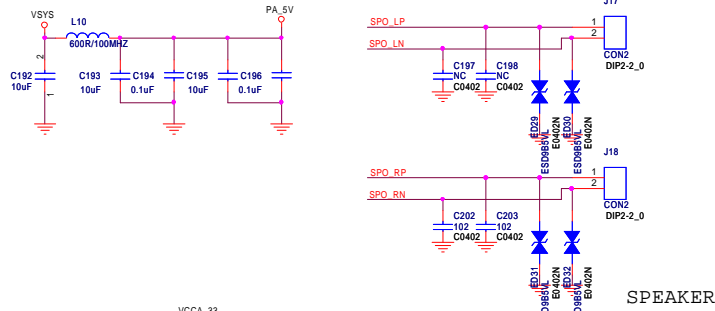
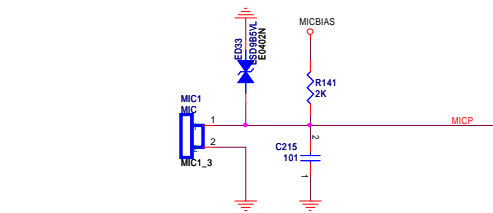
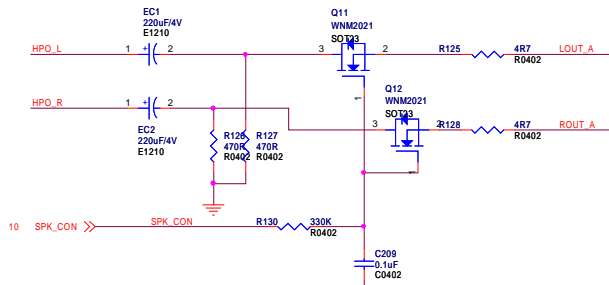


VGA OUT

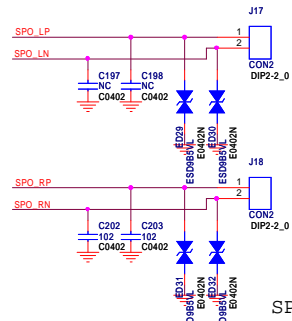
<b>Rackchip</b> 福州瑞芯微电子有限公司	
<b>Title: YPbPr/CVBS/VGA OUT</b>	
<b>File: PX2_SDK_V10</b>	<b>REV: 1.1</b>
<b>Create Date: Friday, October 15, 2010</b>	<b>Page Num: 11</b>
<b>Modify Date: Thursday, June 12, 2014</b>	<b>Page Total: 17</b>



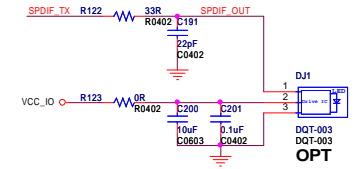
PX2-L



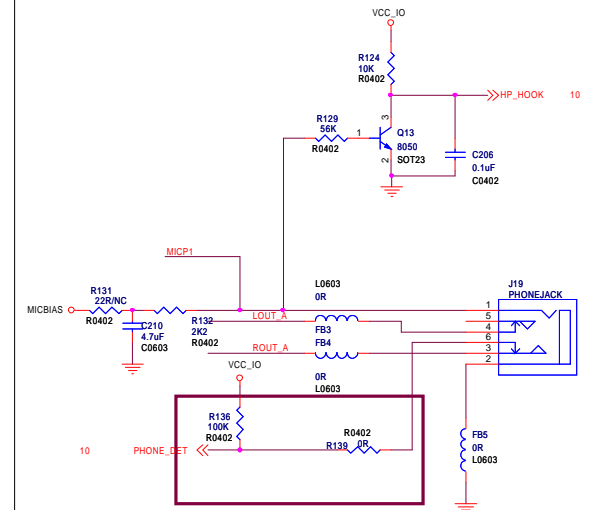
CODEC



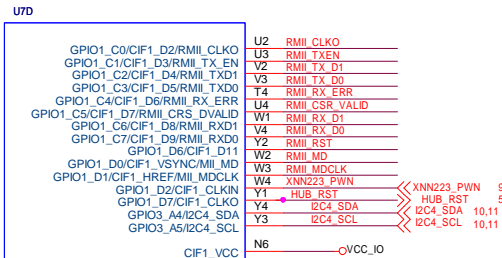
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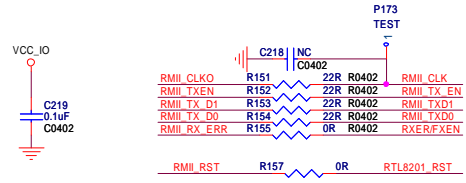
Optical SPDIF OUT



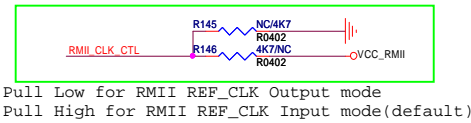
<b>Rockchip</b> 福州瑞芯微电子有限公司	
<b>Title:</b> SPDIF OUT/AUDIO	
<b>File:</b> PX2_SDK_V10	
REV: 1.1	
Create Date: Monday, May 07, 2012	Page Num: 12
Modify Date: Thursday, June 12, 2014	Page Total: 17



PX2-D

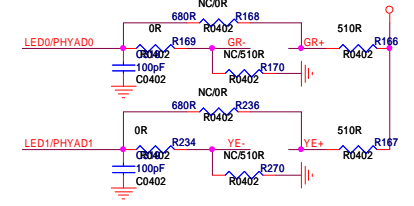


### RMII REF\_CLK direction

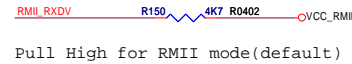


Pull Low for RMII REF\_CLK Output mode  
Pull High for RMII REF\_CLK Input mode(default)

### PHY Address/LED



### MII/RMII Selection



Pull High for RMII mode(default)

### UTP / Fiber Selection

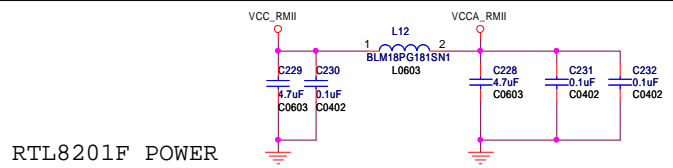
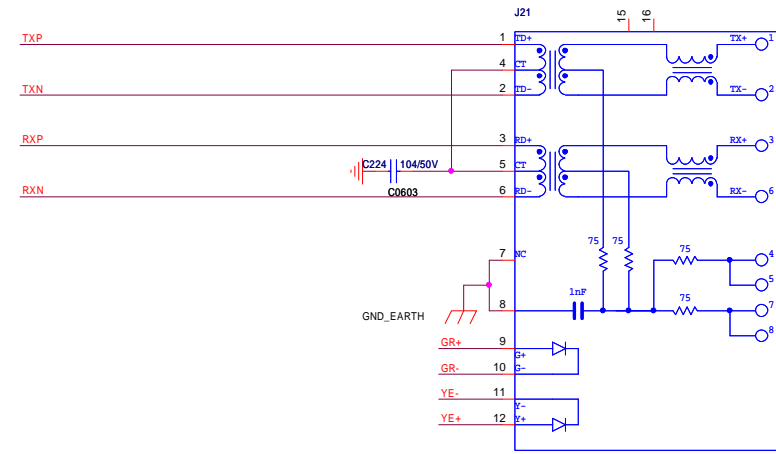
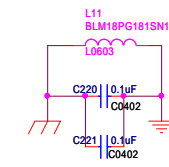
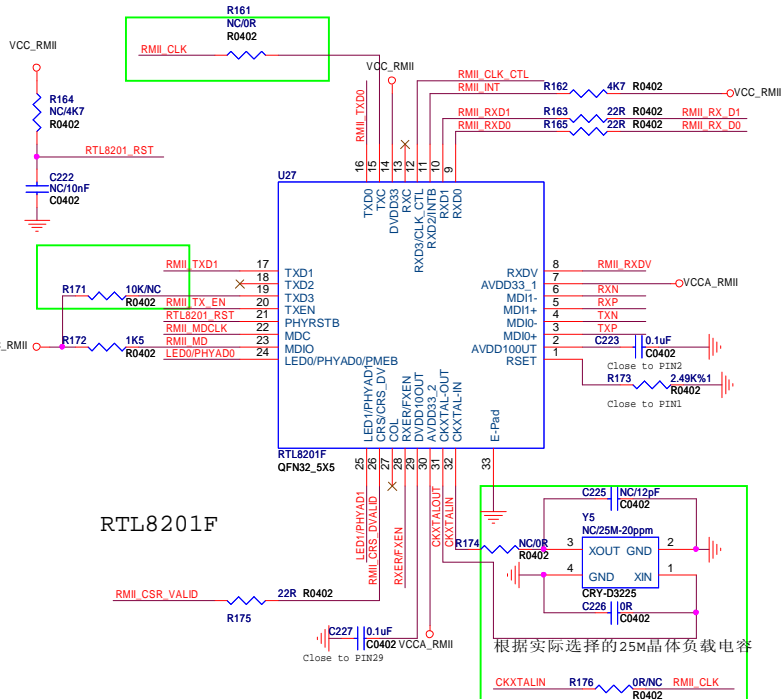


Pull Low for UTP Mode(default)  
Pull High for Fiber Mode

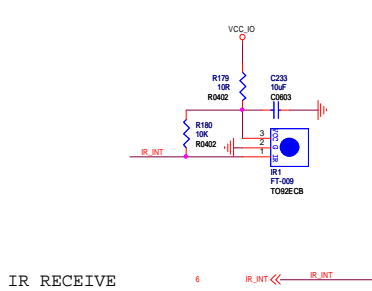
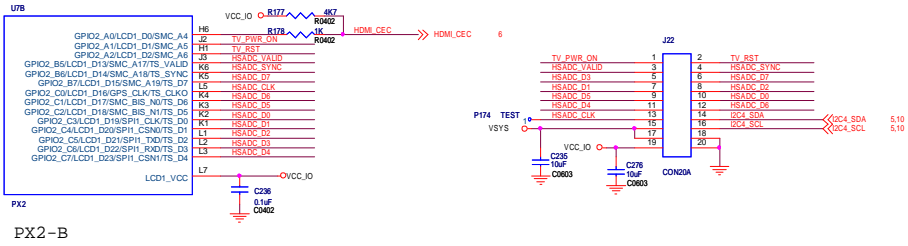
### WOL/LED0 Selection



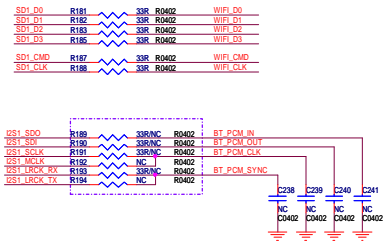
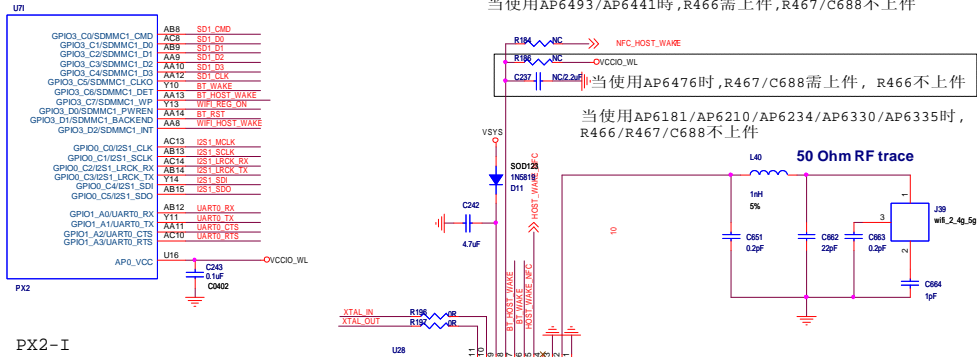
Pull Low for LED0 Mode(default)  
Pull High for WOL Mode  
WOL:Wake-on-LAN



<b>Rackchip</b> 福州瑞芯微电子	
<b>Title: RMII Ethernet</b>	
<b>File: PX2_SDK_V10</b>	
REV: 1.1	
Create Date: Friday, October 15, 2010	Page Num: 13
Modify Date: Thursday, June 12, 2014	Page Total: 17

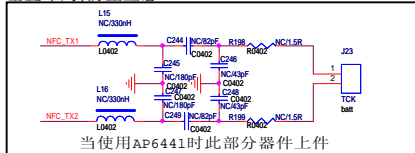


当使用AP6493/AP6441时,R466需上件,R467/C688不上件

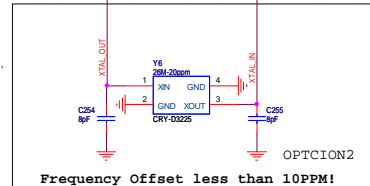
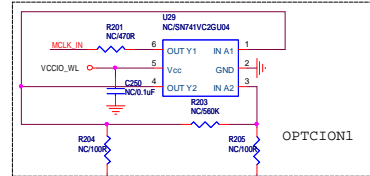


Note :PLS design the RF under RK RF LAYOUT guide;  
For more suggestions, please refer to the SPEC of the wireless IC

NFC\_TX1/TX2的走线不能小于12mil;L20/L21不用平行布局,垂直布局,防止互感



当使用AP6441时此部分器件上件



Frequency Offset less than 10PPM!

当使用 AP6181/AP6330/AP6441/AP6234时, R449/R461电阻皆需移除不上件,  
当使用 AP6210/AP6476/AP6493时, R449电阻要上件,R461电阻要移除不上件,  
当使用 AP6335时, R449电阻需移除不上件, R461电阻要上件选择SDIO2.0/3.0 (VIO1.8V状态)

当使用AP6441时此部分器件上件

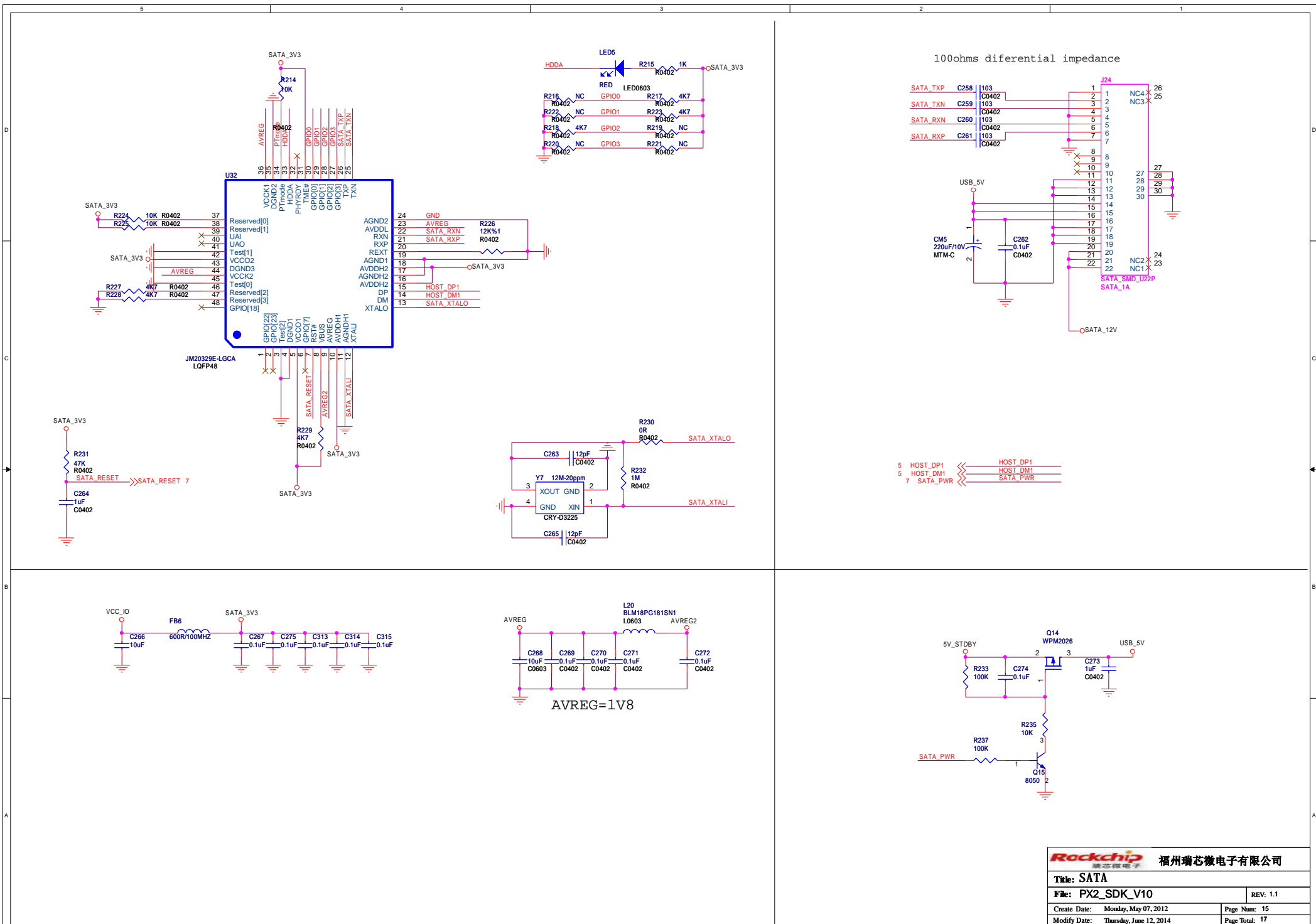
当使用AP6210/AP6493时,OPTCION1/2皆需要上件,OPTCION3 移除

当使用AP6181/AP6330/AP6335/AP6441/AP6234时, OPTCION2需要上件,OPTCION1/3 移除

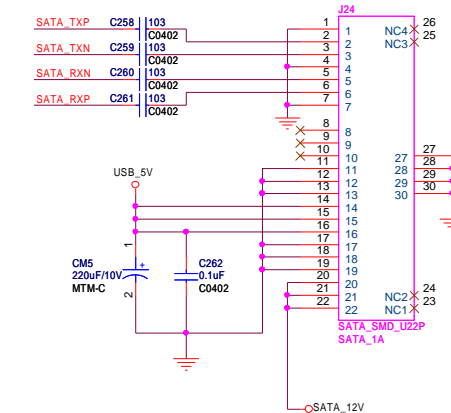
当使用AP6335时,晶振器件Y6要更改为37.4MHz

当使用AP6476时,框A,OPTCION1/2皆不上件,OPTCION3上件.

<b>Rockchip</b> 福州瑞芯微电子有限公司	
Title: WIFI+BT/IR	
File: PX2_SDK_V10	
Create Date: Friday, October 15, 2010	Page Num: 14
Modify Date: Thursday, June 12, 2014	Page Total: 17

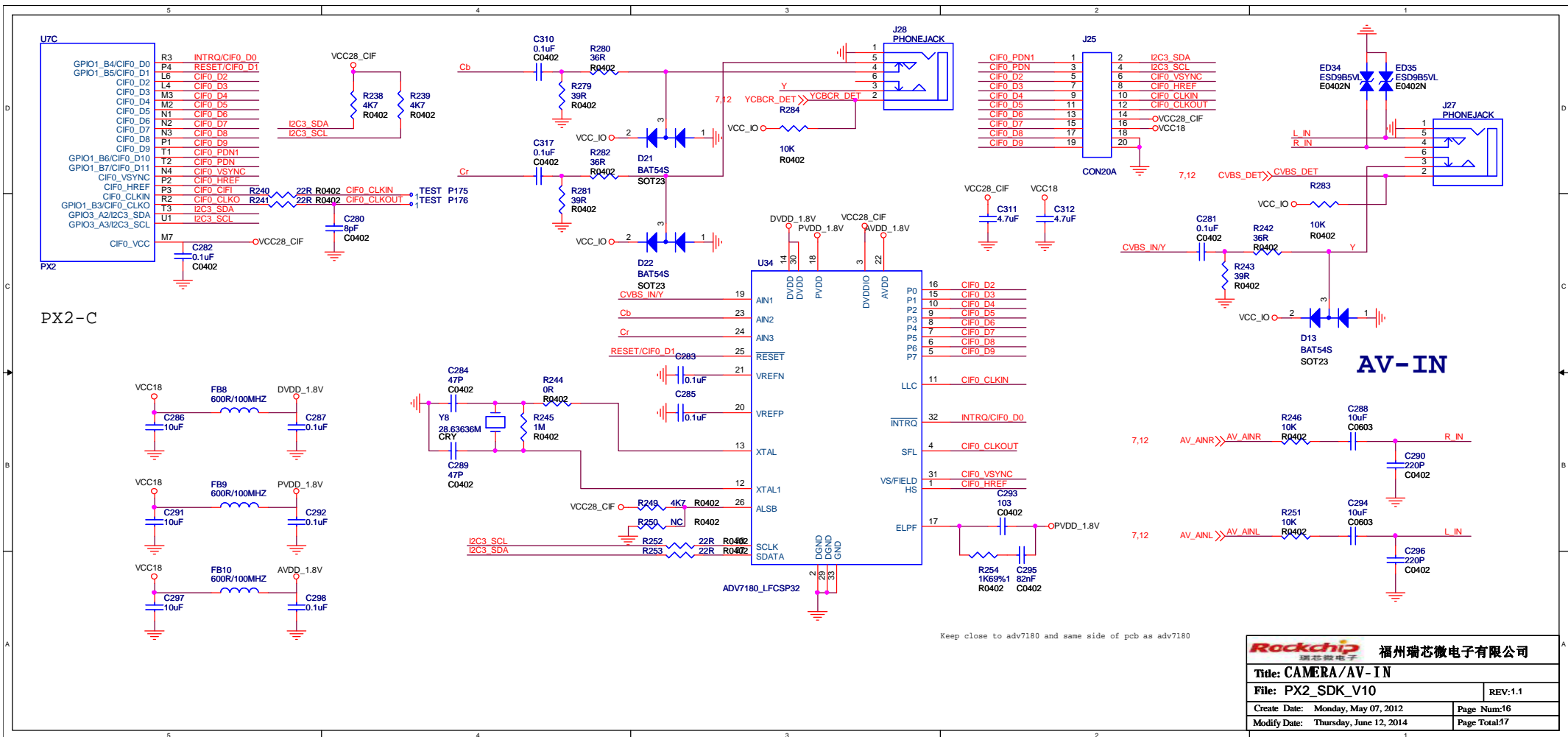


100ohms diferential impedance



- 5 HOST\_DP1
- 5 HOST\_DM1
- 7 SATA\_PWR

<b>Rackchip</b> 福州瑞芯微电子有限公司	
<b>Title:</b> SATA	
<b>File:</b> PX2_SDK_V10	<b>REV:</b> 1.1
<b>Create Date:</b> Monday, May 07, 2012	<b>Page Num:</b> 15
<b>Modify Date:</b> Thursday, June 12, 2014	<b>Page Total:</b> 17



**Rockchip**  
福州瑞芯微电子有限公司

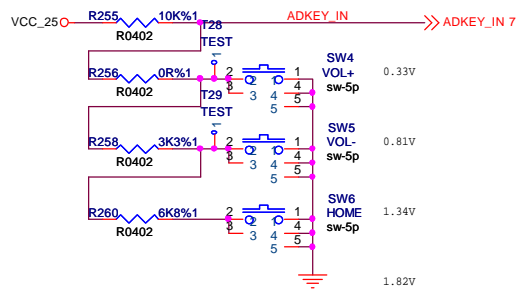
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**File: PX2\_SDK\_V10** REV:1.1

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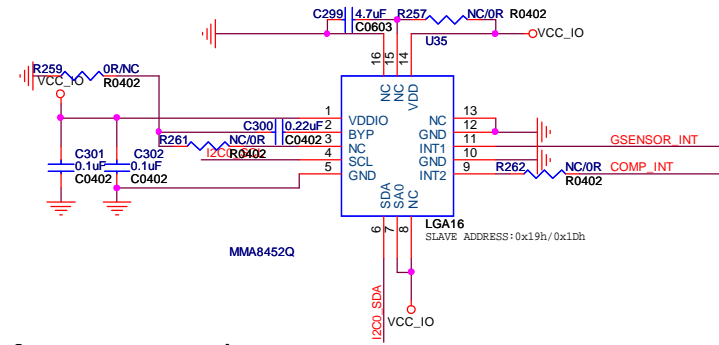
Modify Date: Thursday, June 12, 2014 Page Total:17



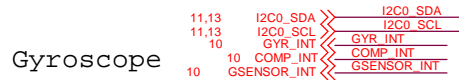
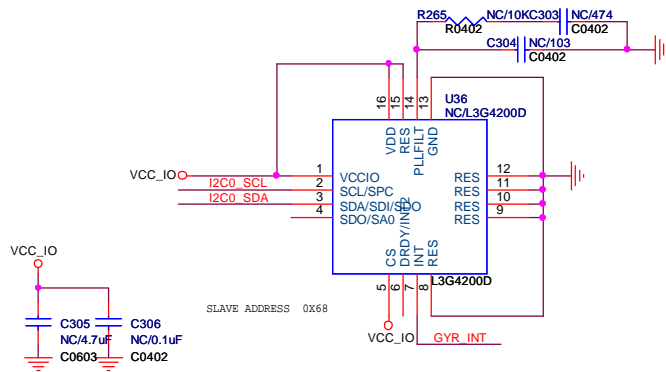


KEY BAORD

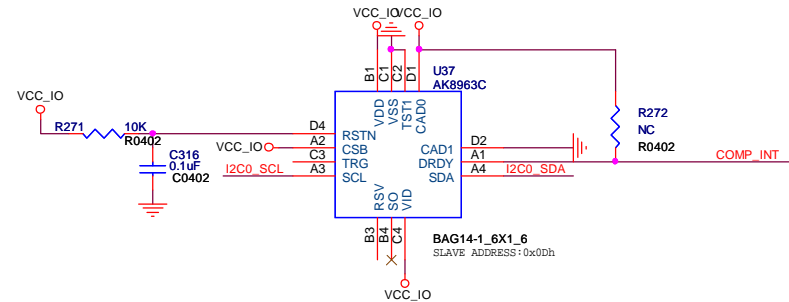
	LIS3DH/ MMA8452Q	LSM303D	KXT1K-1013
C303	NC	4.7uF	NC
R190	0ohm	NC	NC
R192	0ohm	NC	NC
C265	0.1uF	2.2uF	NC
U34	AK8963C	NC	NC
		R196 0R	
		R194 0R	



Note:  
The first pin of G-sensor must be place on the lower left corner of PCB.  
3D G-Sensor



Gyroscope



Compass

Title			<Title>
Size	Document Number		Rev
B	<Doc>		<Rev Code>
Date:	Thursday, June 12, 2014	Sheet	17 of 17