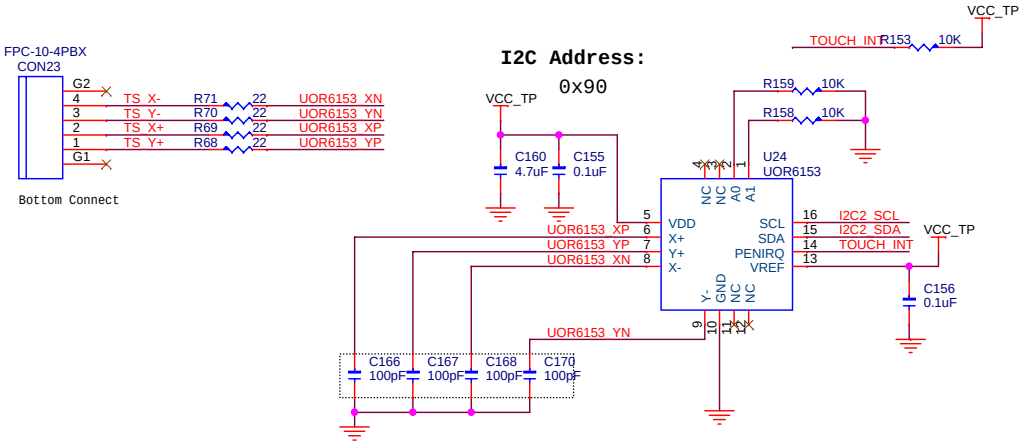
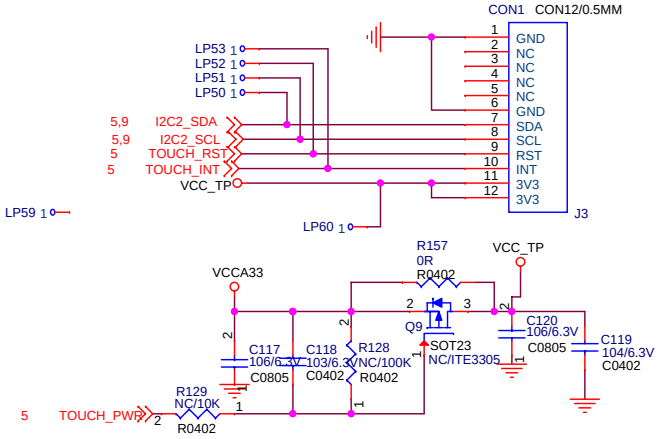
Version	Date	Author	Change Note	Approved
V1.0	20120117	HCH	First edictor	

NOTES:
1.I2C0, I2C1 only used for the regular power supply module ;
2.UART1 only use for debugging;
3.The IO be defauled as input port, please note that the pull-up port can not be set to pull-down function;
  the drop-down port can not be set to pull-up function;
4.The default status of GPIO please reference RK2906 IO list from ROCKCHIP;

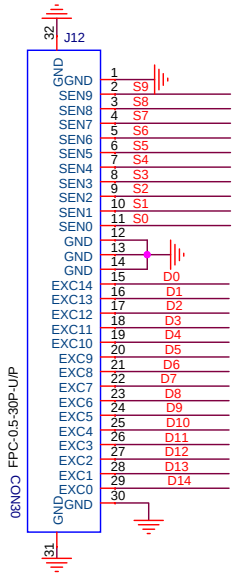
Rockchip 瑞芯微电子	福州瑞芯微电子有限公司
Title: RK2906_RK610_PMIC_2DDR_REF	
File: Modify note	REV:1.0
Create Date: Saturday, October 23, 2010	Page Num:1
Modify Date: Friday, June 08, 2012	Page Total:16

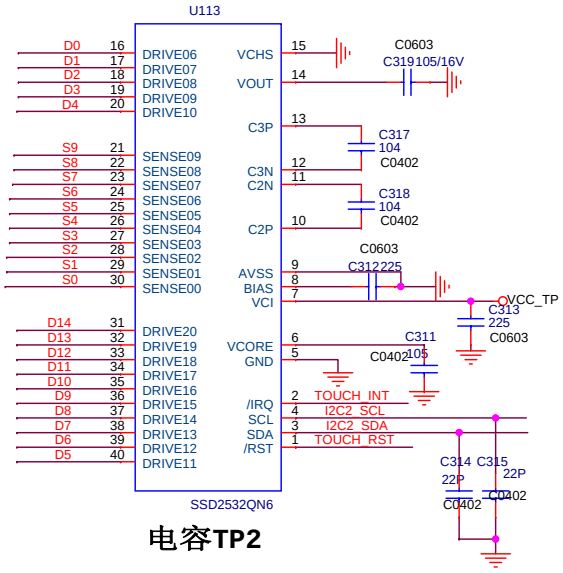




部分TP的电源需要控制，请参考相关Datesheet！
在这种情况下，建议I2C接RK2918的I2C3口！

电容TP1





电容TP2

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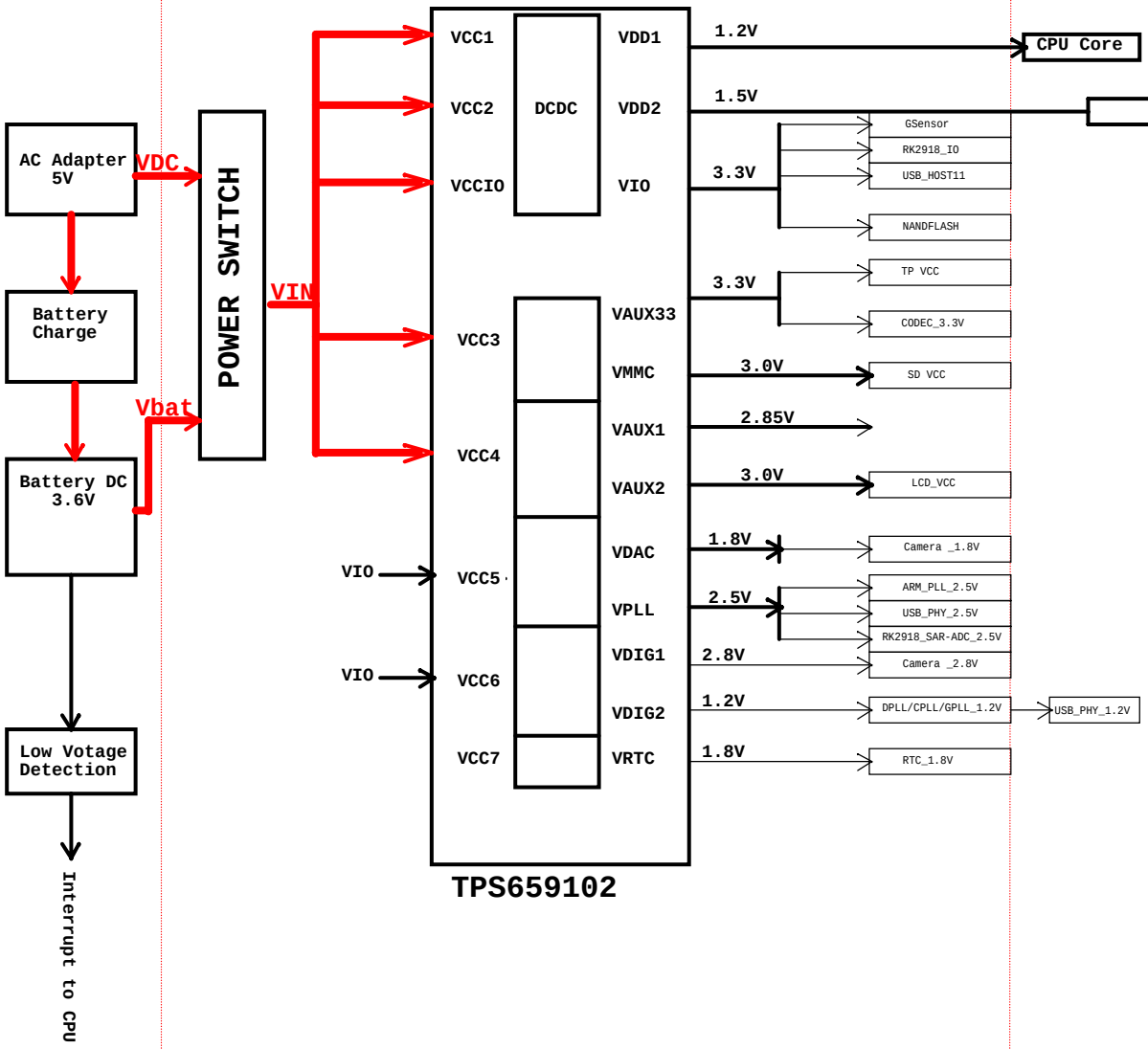
Size B	Document Number <Doc>	Rev <RevCode>
Date: Friday, June 08, 2012	Sheet 1 of 1	



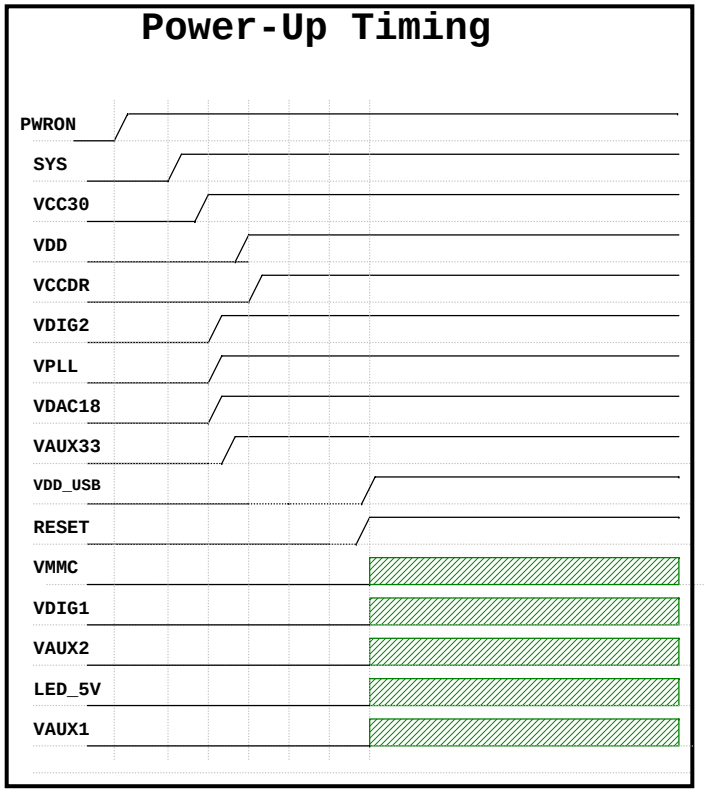
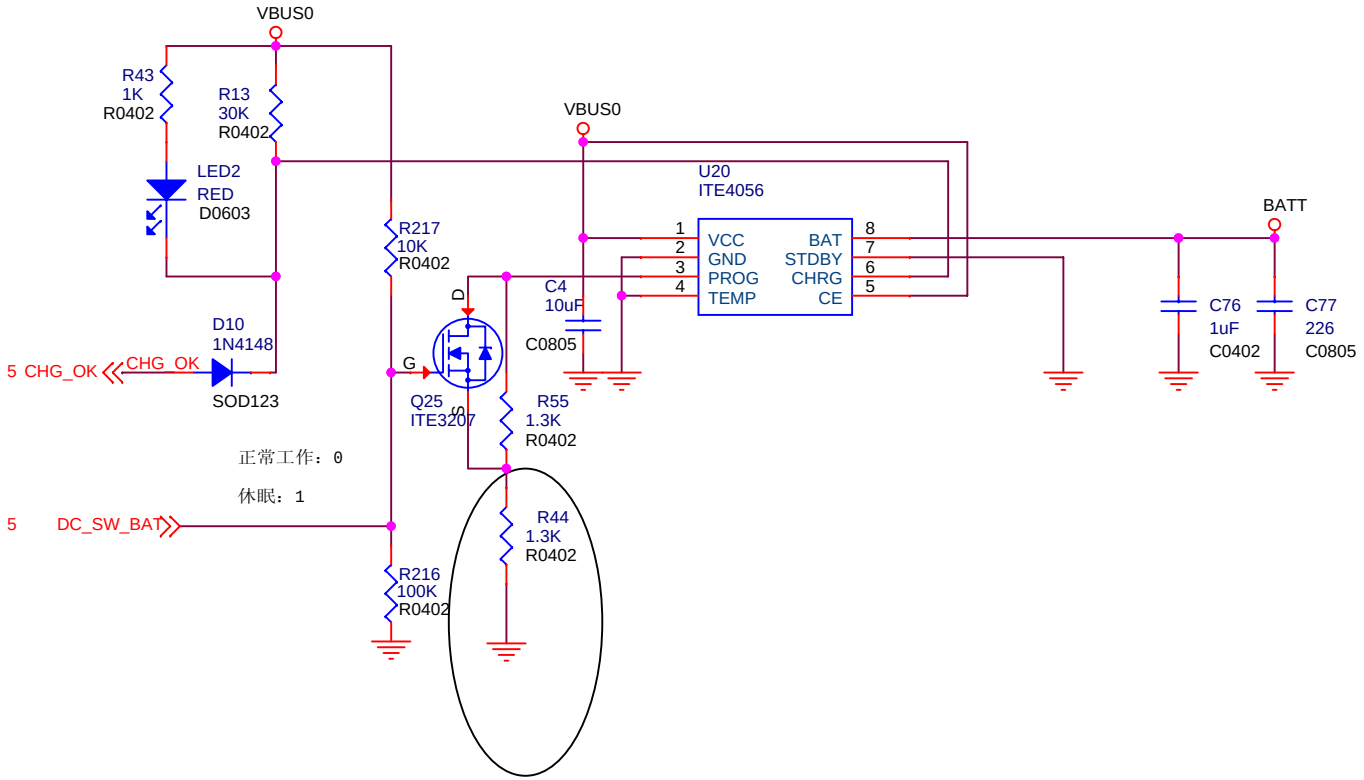


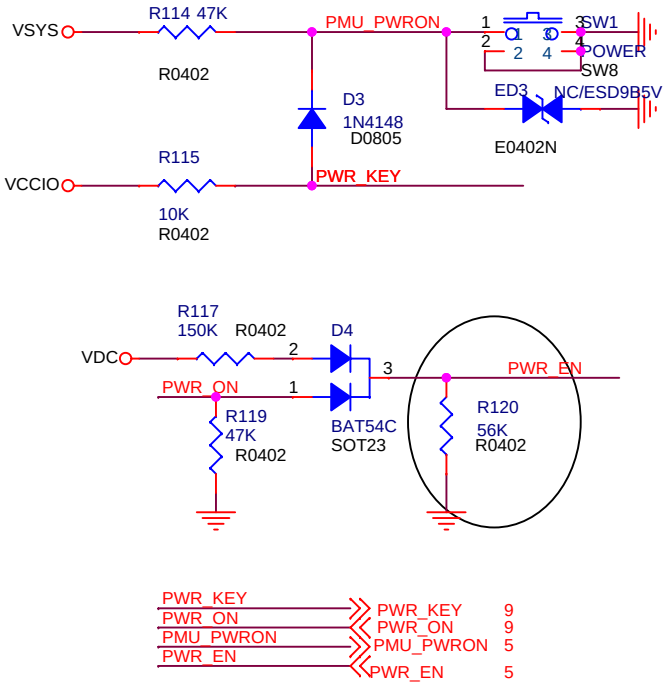
Table 12. Power Sources

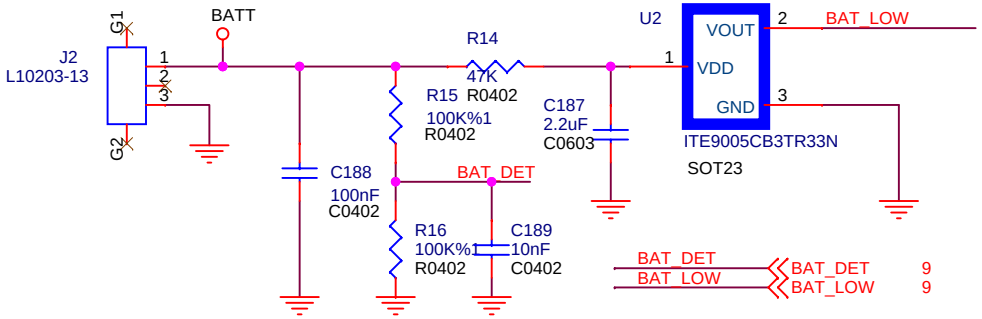
RESOURCE	TYPE	VOLTAGES	POWER
VIO	SMPS	1.5 V / 1.8 V / 2.5 V / 3.3 V	1000 mA
VDD1	SMPS	0.6 ... 1.5 in 12.5-mV steps Programmable multiplication factor: x2, x3	1500 mA
VDD2	SMPS	0.6 ... 1.5 in 12.5-mV steps Programmable multiplication factor: x2, x3	1500 mA
VDD3	SMPS	5 V	100 mA
VDIG1	LDO	1.2 V, 1.5 V, 1.8 V, 2.7 V	300 mA
VDIG2	LDO	1 V, 1.1 V, 1.2 V, 1.8 V	300 mA
VPLL	LDO	1.0 V, 1.1 V, 1.8 V, 2.5 V	50 mA
VDAC	LDO	1.8 V, 2.6 V, 2.8 V, 2.85 V	150 mA
VAUX1	LDO	1.8 V, 2.5 V, 2.8 V, 2.85 V	300 mA
VAUX2	LDO	1.8 V, 2.8 V, 2.9 V, 3.3 V	150 mA
VAUX33	LDO	1.8 V, 2.0 V, 2.8 V, 3.3 V	150 mA
VMMC	LDO	1.8 V, 2.8 V, 3.0 V, 3.3 V	300 mA

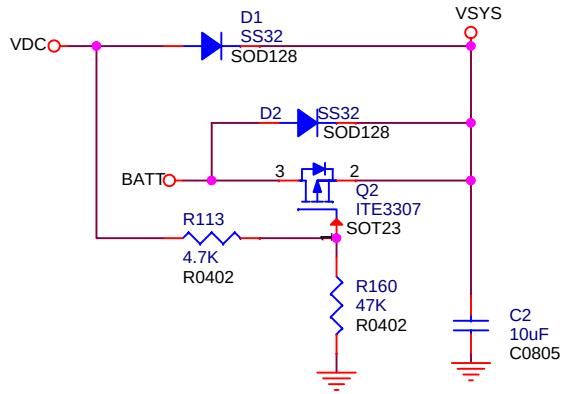
Power Diagram

Rockchip 福州瑞芯微电子有限公司
Title: RK2906_RK610_PMIC_2DDR_REF
File: System Power Diagram REV: 1.0
Create Date: Wednesday, March 02, 2011 Page Num: 3
Modify Date: Friday, June 08, 2012 Page Total: 16









BATTER IN &LOW BAT LEVEL DET

福州瑞芯微电子有限公司		
Title: RK2906_RK610_PMIC_2DDR_REF		
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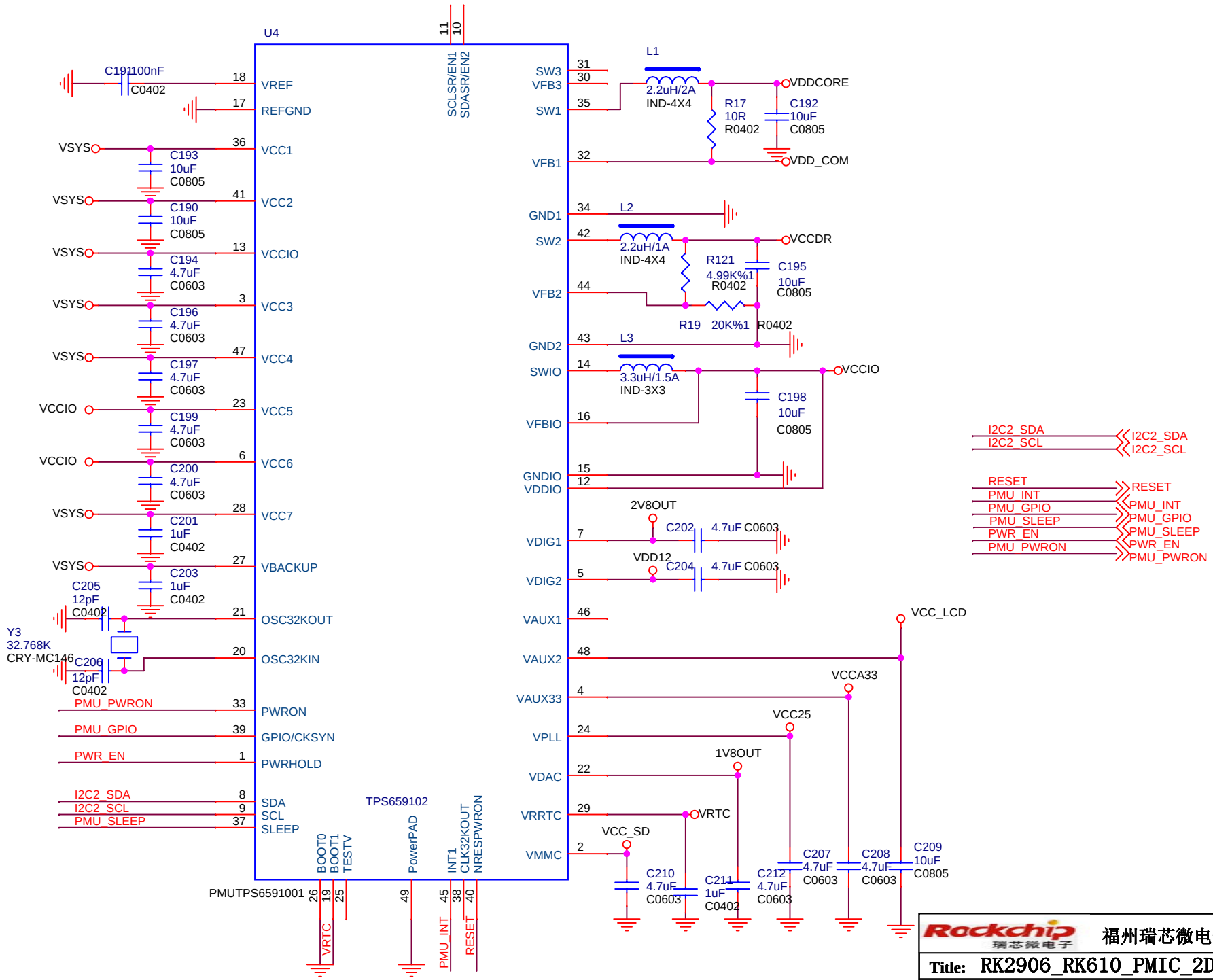
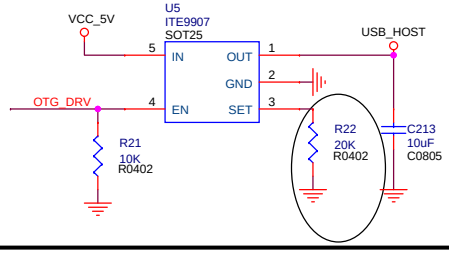
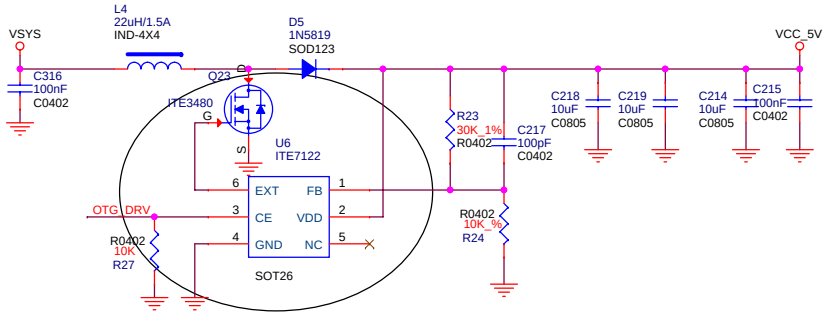
Modify Date: Friday, June 08, 2012	Page Total:	16



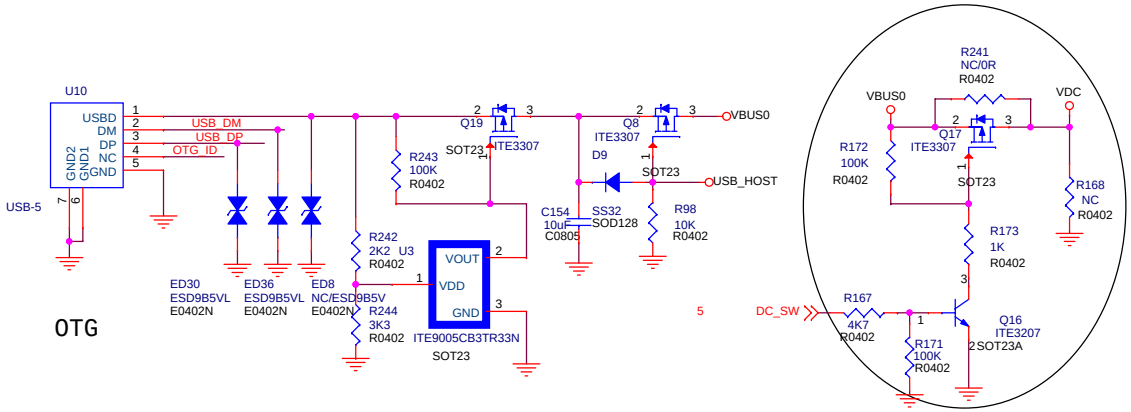
福州瑞芯微电子有限公司	
Title: RK2906_RK610_PMIC_2DDR_REF	
File: PMU_SYSTEM POWER	REV: 1.0
Create Date: Wednesday, October 13, 2010	Page Num: 5
Modify Date: Friday, June 08, 2012	Page Total: 16



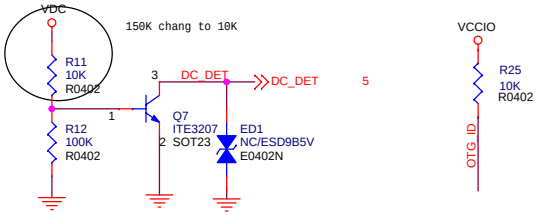
HOST POWER SWITCH

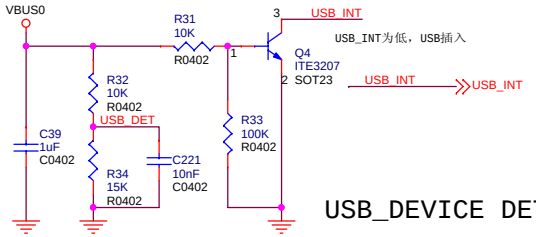


USB HOST POWER

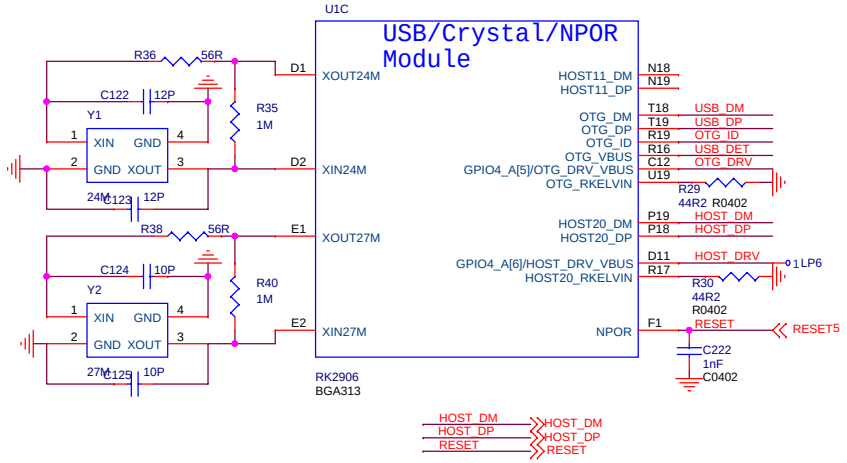


OTG





USB_DEVICE DETECT



RK2906-C

Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	RK2906_RK610_PMIC_2DDR_REF	
File:	USB_OTG	REV:1.0
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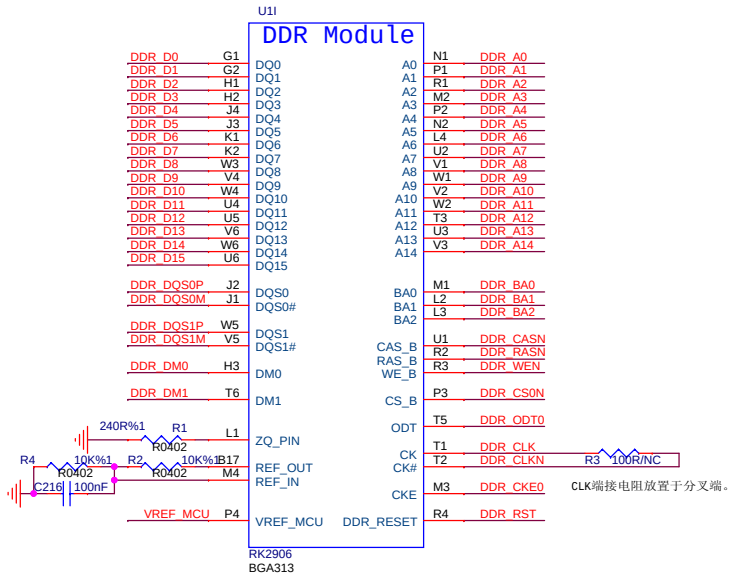
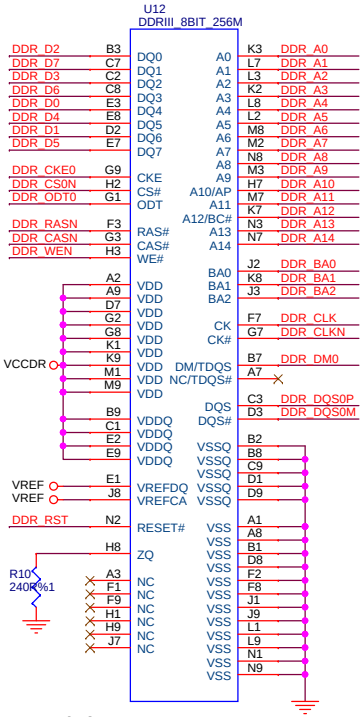
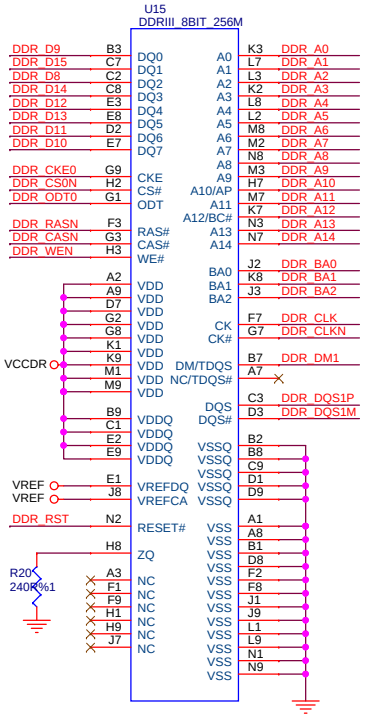
Modify Date:	Friday, June 08, 2012	Page Total:16



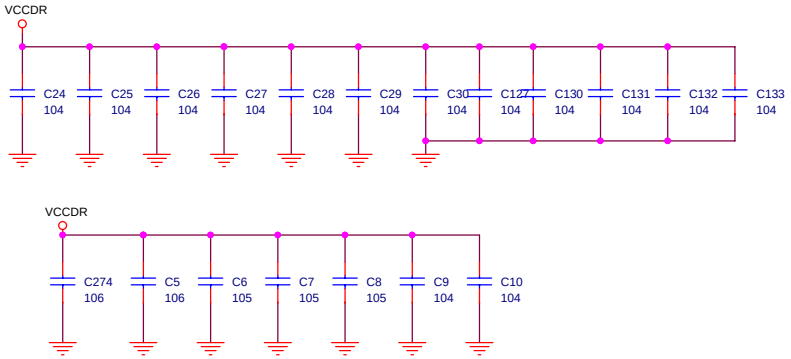
RK2906-I

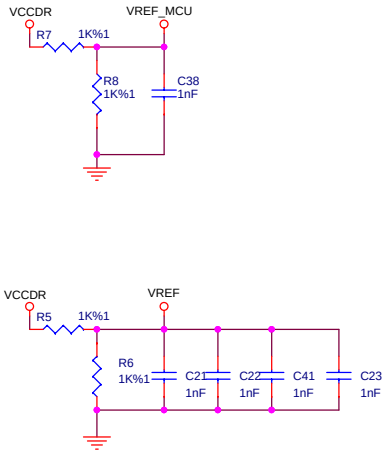


8bits DDR3 1TH



8bits DDR3 2ND





DDR FILTER

Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	RK2906_RK610_PMIC_2DDR_REF	
File:	DDR3	REV:1.0
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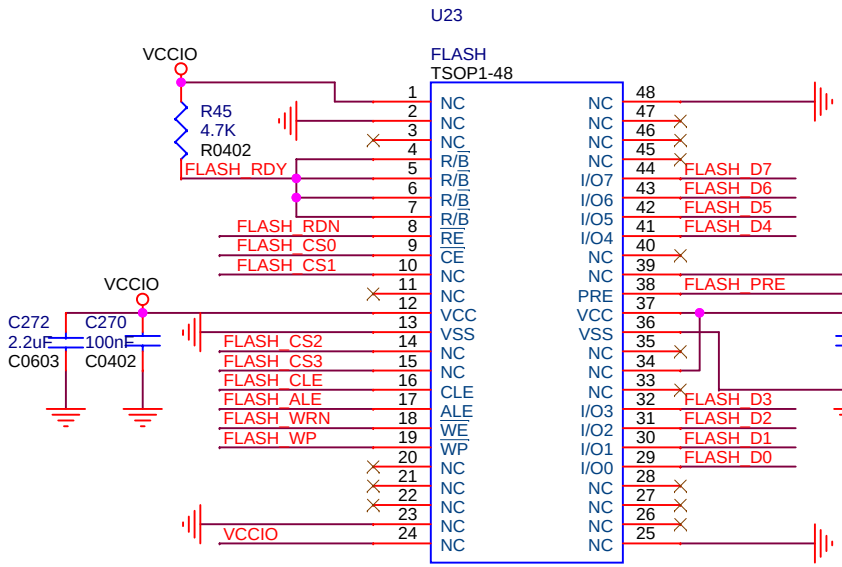
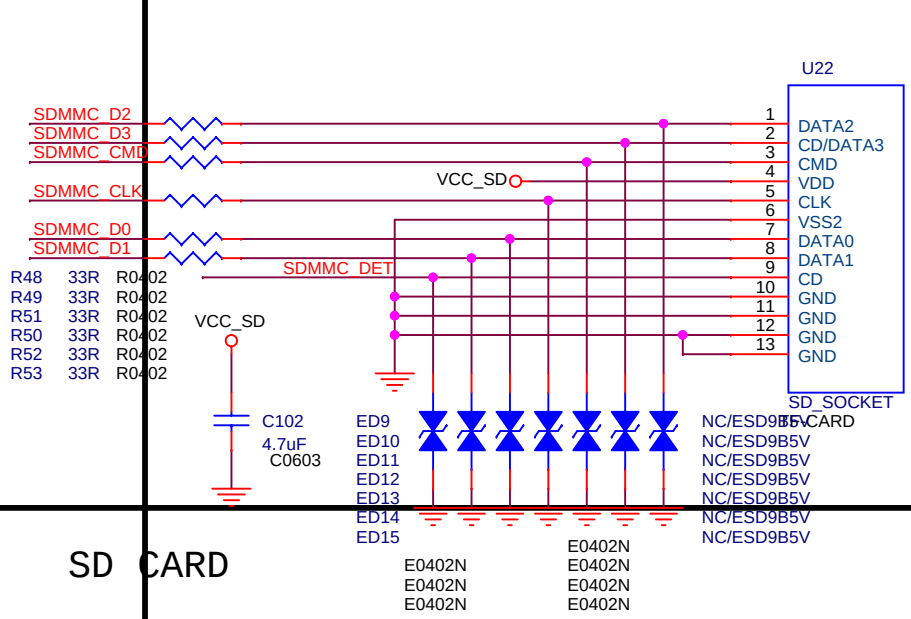
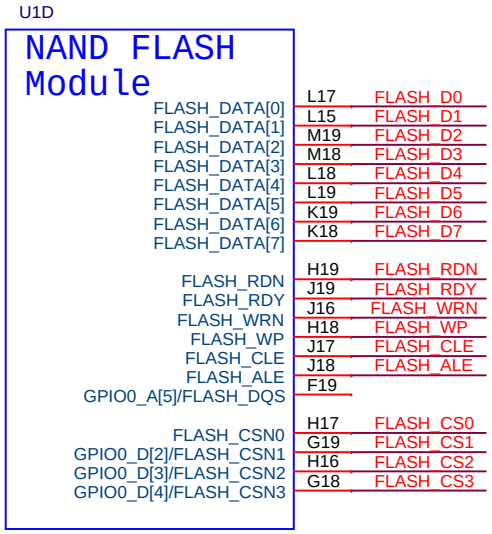
Modify Date:	Friday, June 08, 2012	Page Total:16



THE 1st FLASH

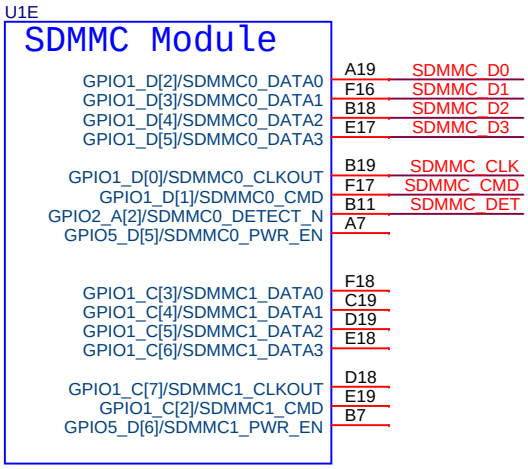


SD CARD



RK2906
BGA313

RK2906-D



RK2906
BGA313

RK2906-E

Rockchip 瑞芯微电子	福州瑞芯微电子有限公司
Title: RK2906_RK610_PMIC_2DDR_REF	
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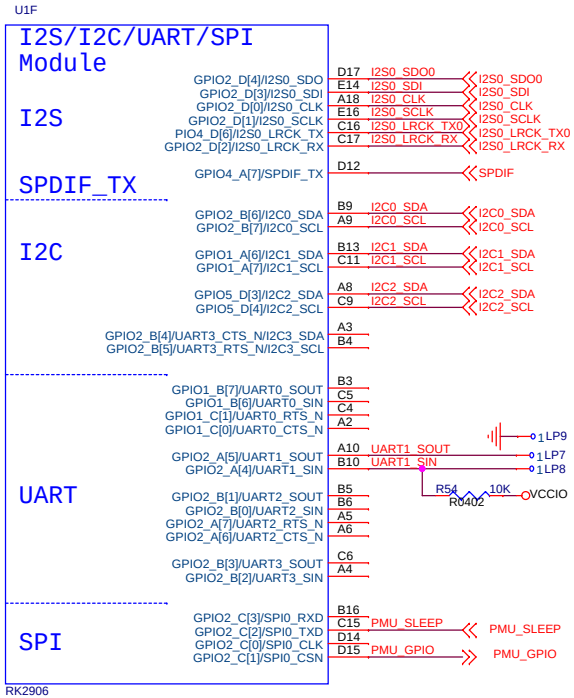
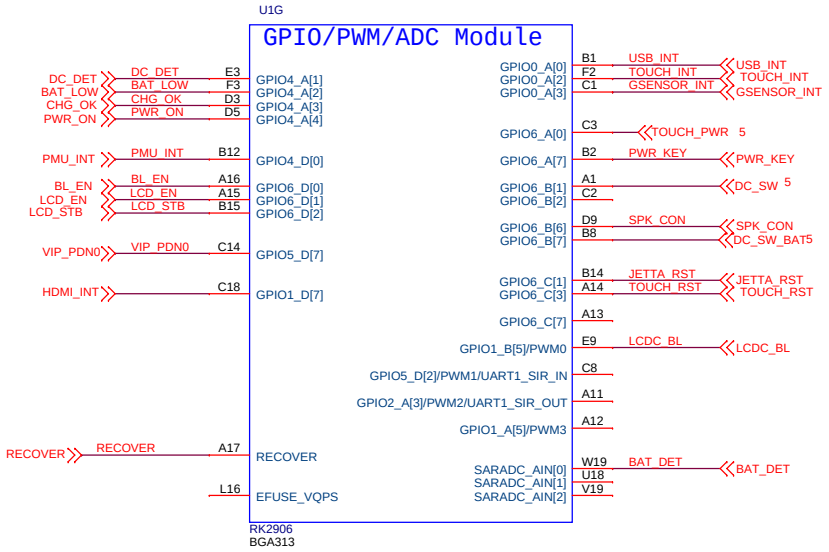
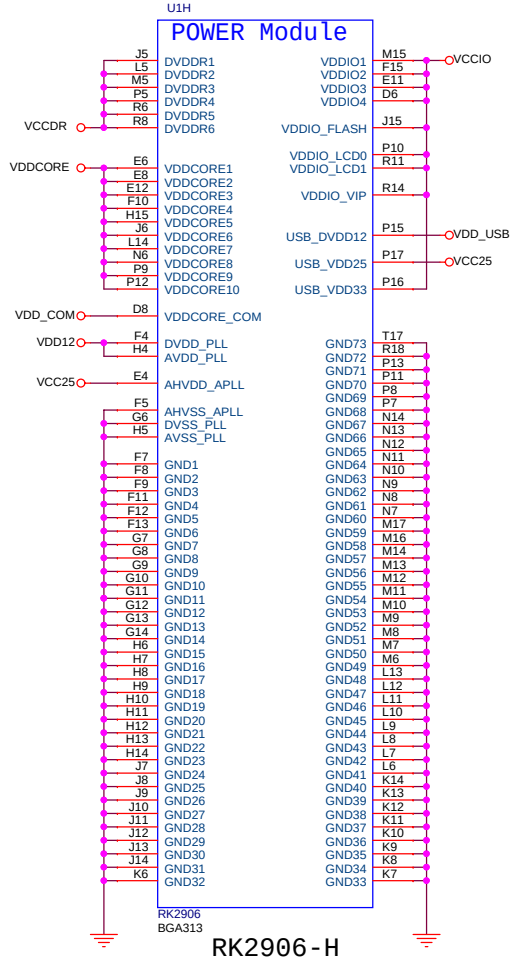


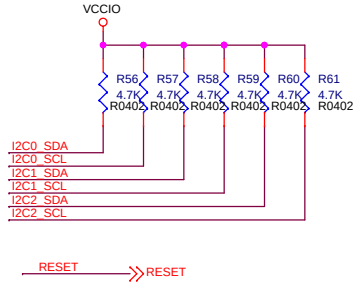
RK2906-F



RK2906-G

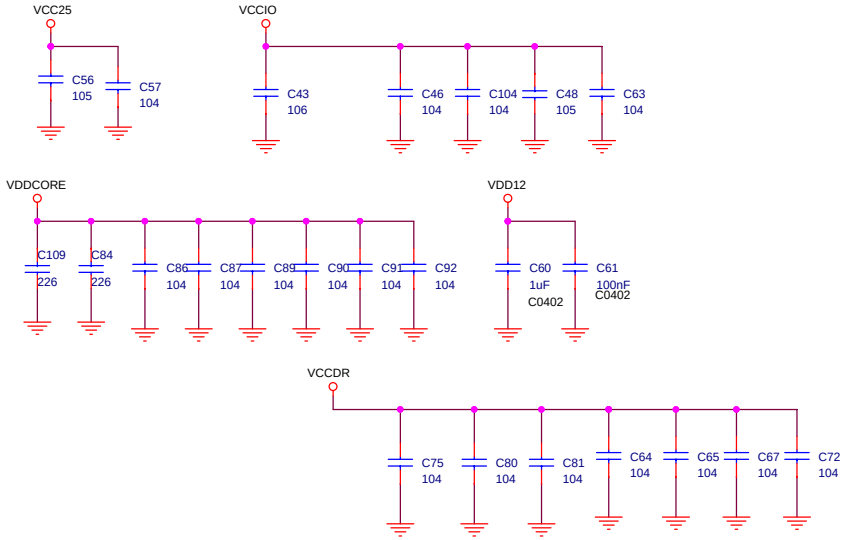


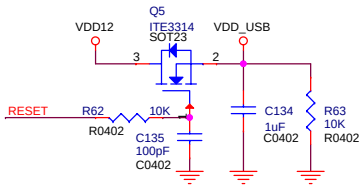
RK2906-H



PULL UP FOR I2C

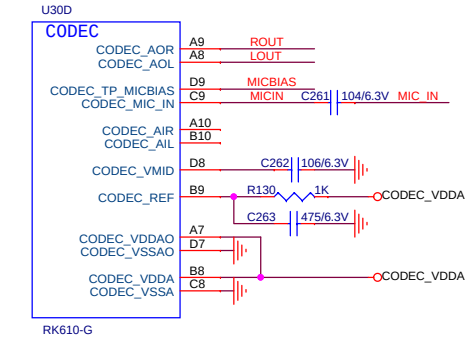
RK2918 POWER FILITER

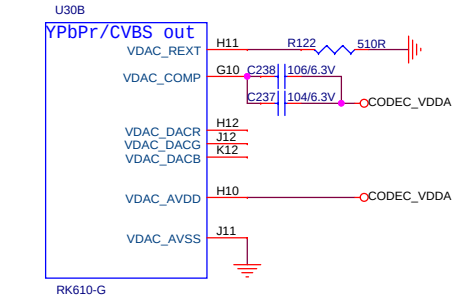


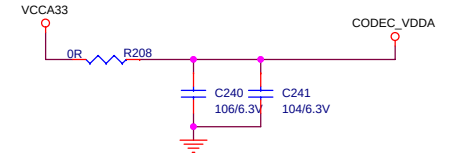


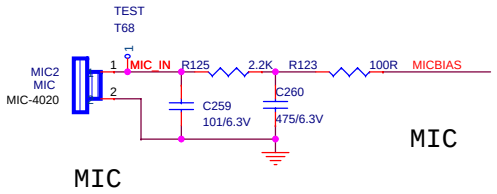
Note: The Vgs of NMOS must be less than 1.5V.

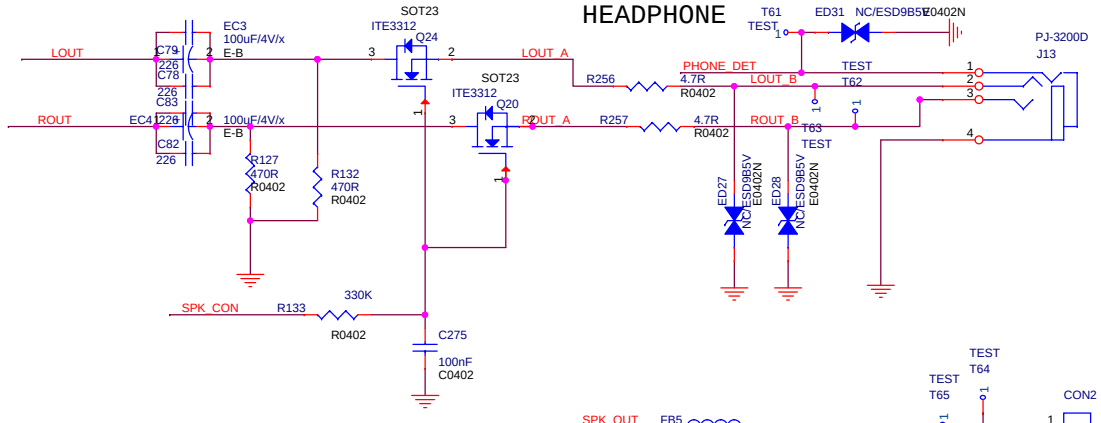
Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title: RK2906_RK610_PMIC_2DDR_REF		
File: GPIO		REV: 1.0
Create Date: Monday, October 18, 2010		Page Num: 9
Modify Date: Friday, June 08, 2012		Page Total: 16

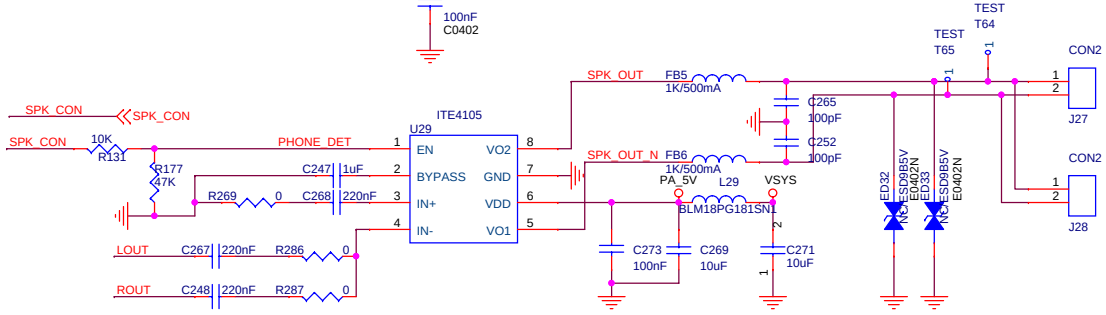


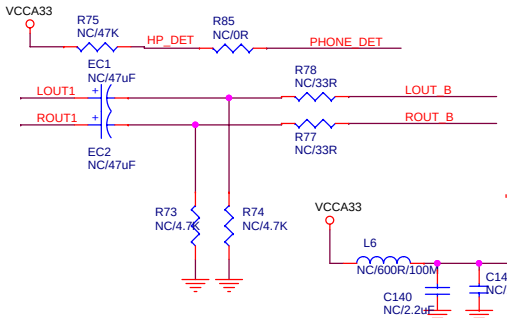






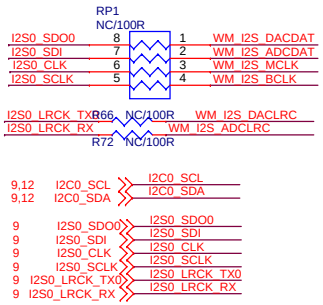


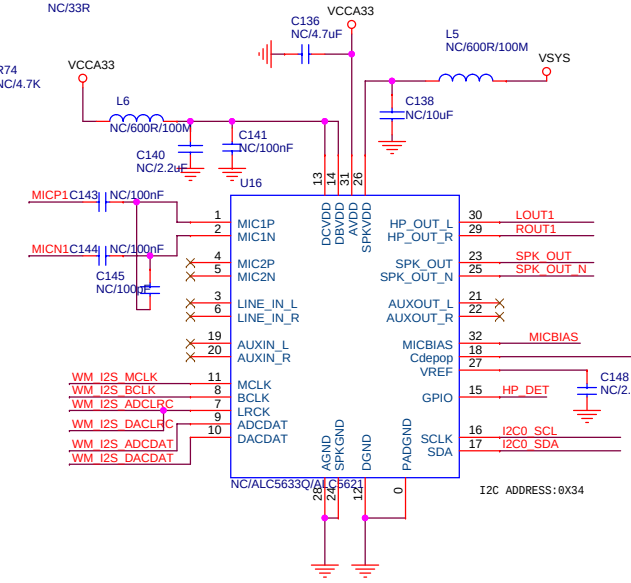


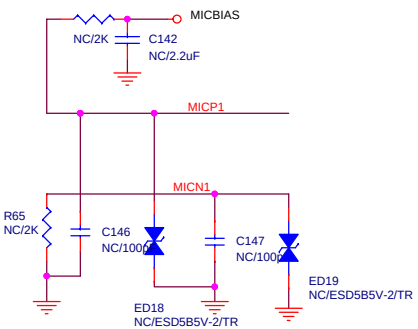


HEADPHONE

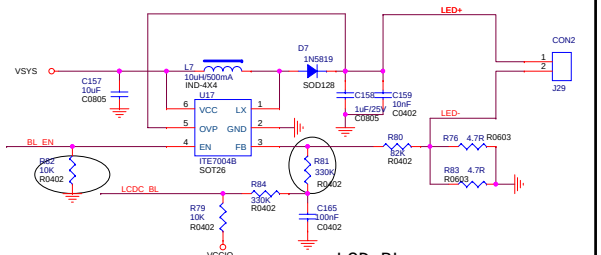
Note:
Please place these 4 components as close to CODEC as possible.



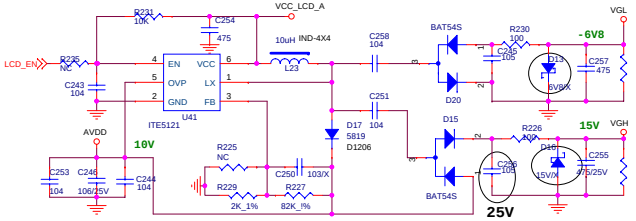




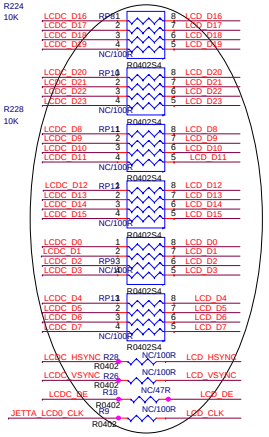
Rockchip 瑞芯微电子 福州瑞芯微电子有限公司	
Title: RK2906_RK610_PMIC_2DDR_REF	
File: AUDIO	REV:1.0
Create Date: Friday, October 15, 2010	Page Num:10
Modify Date: Friday, June 08, 2012	Page Total:16

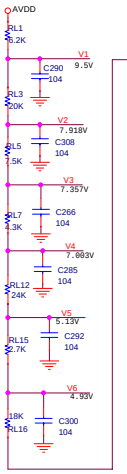


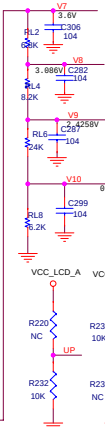
LCD_BL

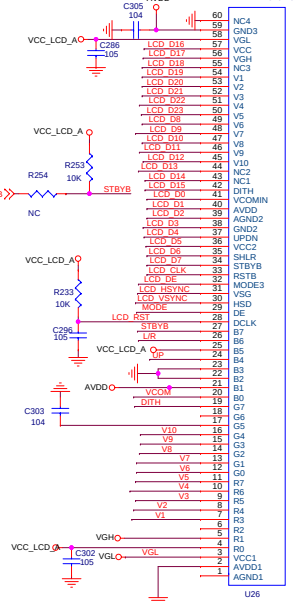


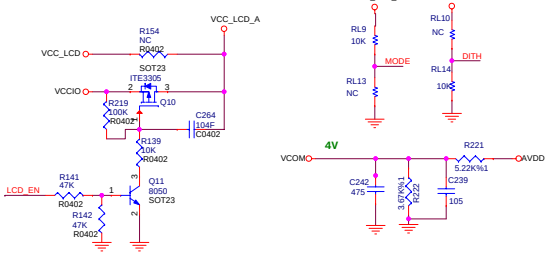
LCM BACKLIGHTPOWER



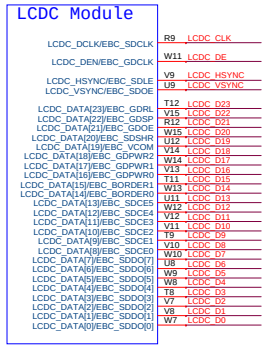




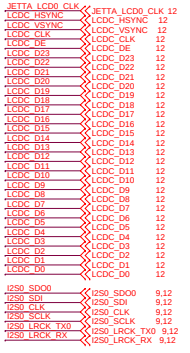


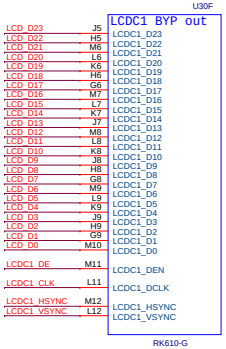


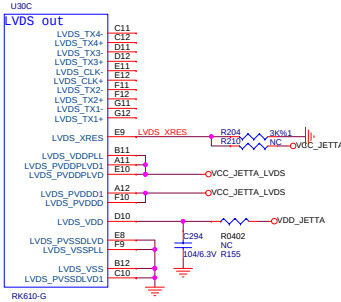
PMU中VCC_LCD在3.3V输出时最大输出电流150mA， 如果超出这个电流，请选用VCCIO作为VCC_LCD_A

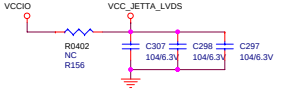


Correspondence between LCDC DATA and RGB			
LCDC_D0	B0	LCDC_D12	G4
LCDC_D1	B1	LCDC_D13	G5
LCDC_D2	B2	LCDC_D14	G6
LCDC_D3	B3	LCDC_D15	G7
LCDC_D4	B4	LCDC_D16	R0
LCDC_D5	B5	LCDC_D17	R1
LCDC_D6	B6	LCDC_D18	R2
LCDC_D7	B7	LCDC_D19	R3
LCDC_D8	G0	LCDC_D20	R4
LCDC_D9	G1	LCDC_D21	R5
LCDC_D10	G2	LCDC_D22	R6
LCDC_D11	G3	LCDC_D23	R7





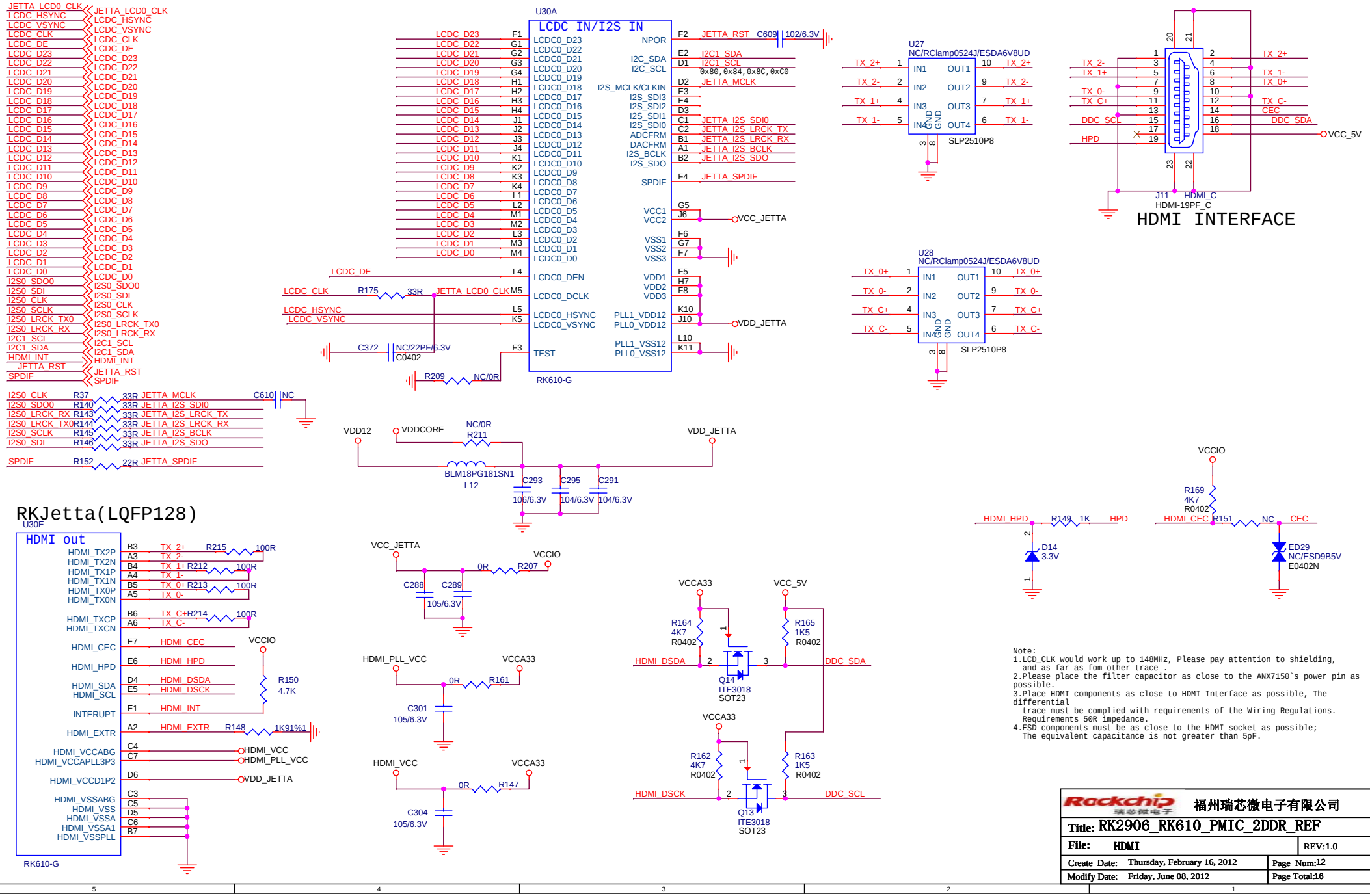


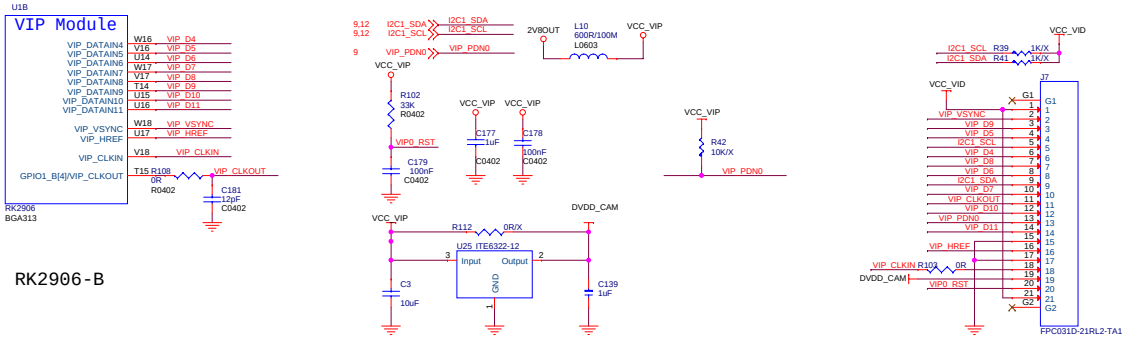


LCD PANEL CONNECTOR WITH LVDS OUTPUT

RK2906-A

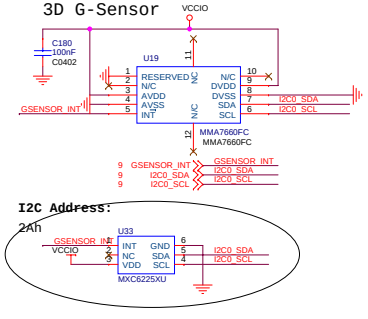
Rockchip 瑞芯微	福州瑞芯微电子有限公司
Title:	RK2906_RK610_PMIC_2DDR_REF
File:	LCD REV:1.0
Create Date:	Friday, October 15, 2010 Page Num:11
Modify Date:	Friday, June 08, 2012 Page Total:16

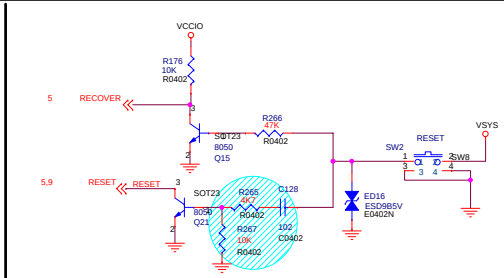

U30A
LCDC IN/I2S IN
RK610-G
U27
NC/RClamp0524J/ESDA6V8UD
SLP2510P8
U28
NC/RClamp0524J/ESDA6V8UD
SLP2510P8
HDMI INTERFACE
J11
HDMI_C
HDMI-19PF_C
RKJetta(LQFP128)
U30E
HDMI out
RK610-G
Note:
1.LCD_CLK would work up to 148MHz, Please pay attention to shielding,
and as far as fom other trace .
2.Please place the filter capacitor as close to the ANX7150`s power pin as possible.
3.Place HDMI components as close to HDMI Interface as possible, The differential
trace must be complied with requirements of the Wiring Regulations.
Requirements 50R impedance.
4.ESD components must be as close to the HDMI socket as possible;
The equivalent capacitance is not greater than 5pF.
Rockchip
福州瑞芯微电子有限公司
Title: RK2906_RK610_PMIC_2DDR_REF
File: HDMI
REV:1.0
Create Date: Thursday, February 16, 2012
Page Num:12
Modify Date: Friday, June 08, 2012
Page Total:16



RK2906-B

Note: If using other sensor modules,
follow tthe requirements of SPEC on the power supply.





Rockchip 福州瑞芯微电子有限公司	
Title: RK2906_RK610_PMIC_2DDR_REF	
File: CAMERA/G_SENSOR/KEY/COMP	REV:1.0
Create Date: Friday, October 15, 2010	Page Num:13
Modify Date: Friday, June 08, 2012	Page Total:16