Content Indexing

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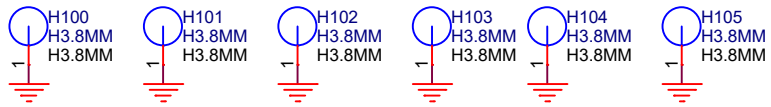
I2C address(7Bit)

1: I2C0

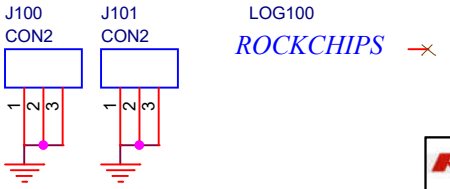
2: I2C1

FM_RDA5807M:0X10

HOLE



MARK

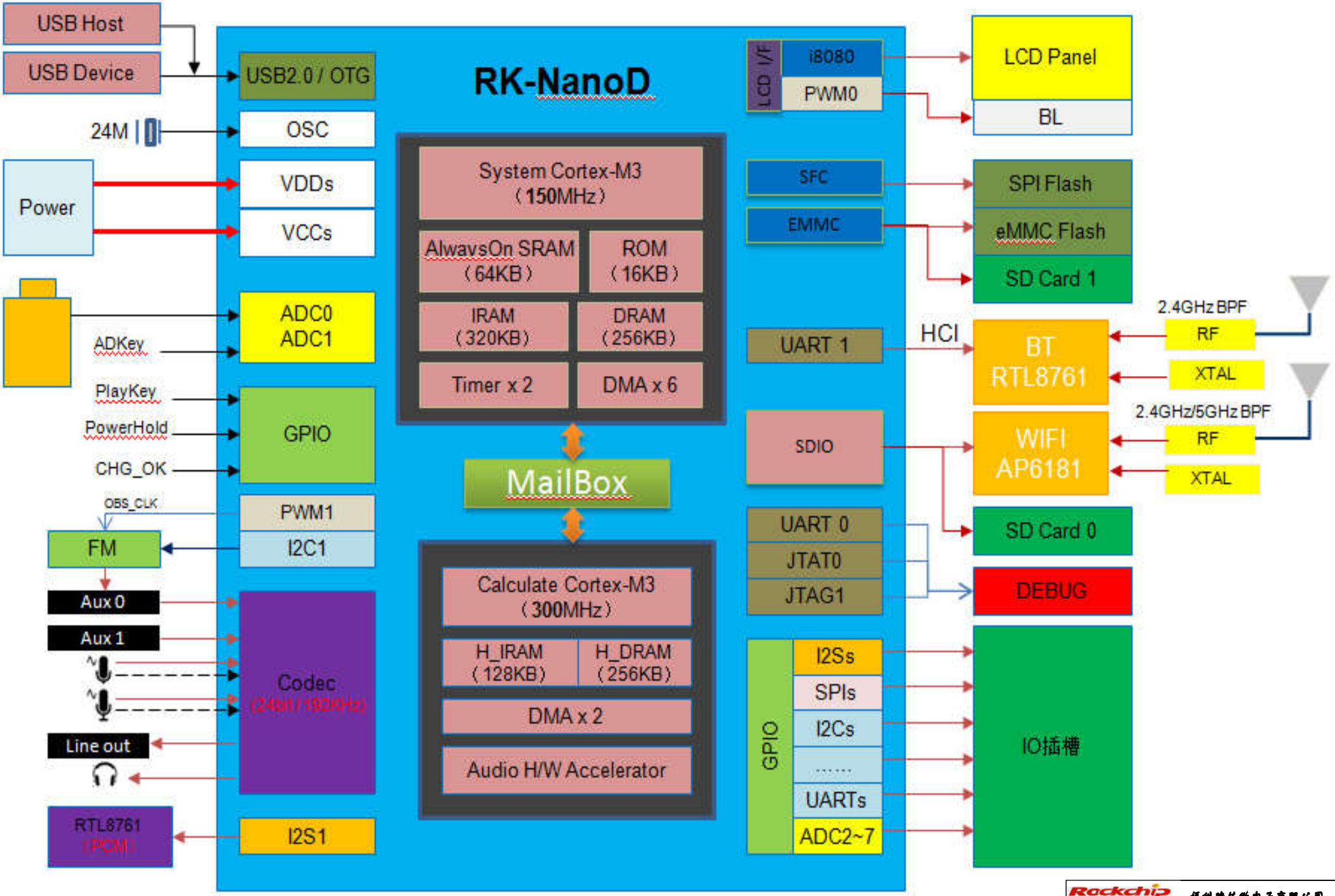


Rockchip 瑞芯微电子 福州瑞芯微电子有限公司

Title:	Index	
File:	RKNanoD	REV:V0.1
Create Date:	Sunday, January 18, 2015	Page Num:1
Modify Date:	Tuesday, September 08, 2015	Page Total:16

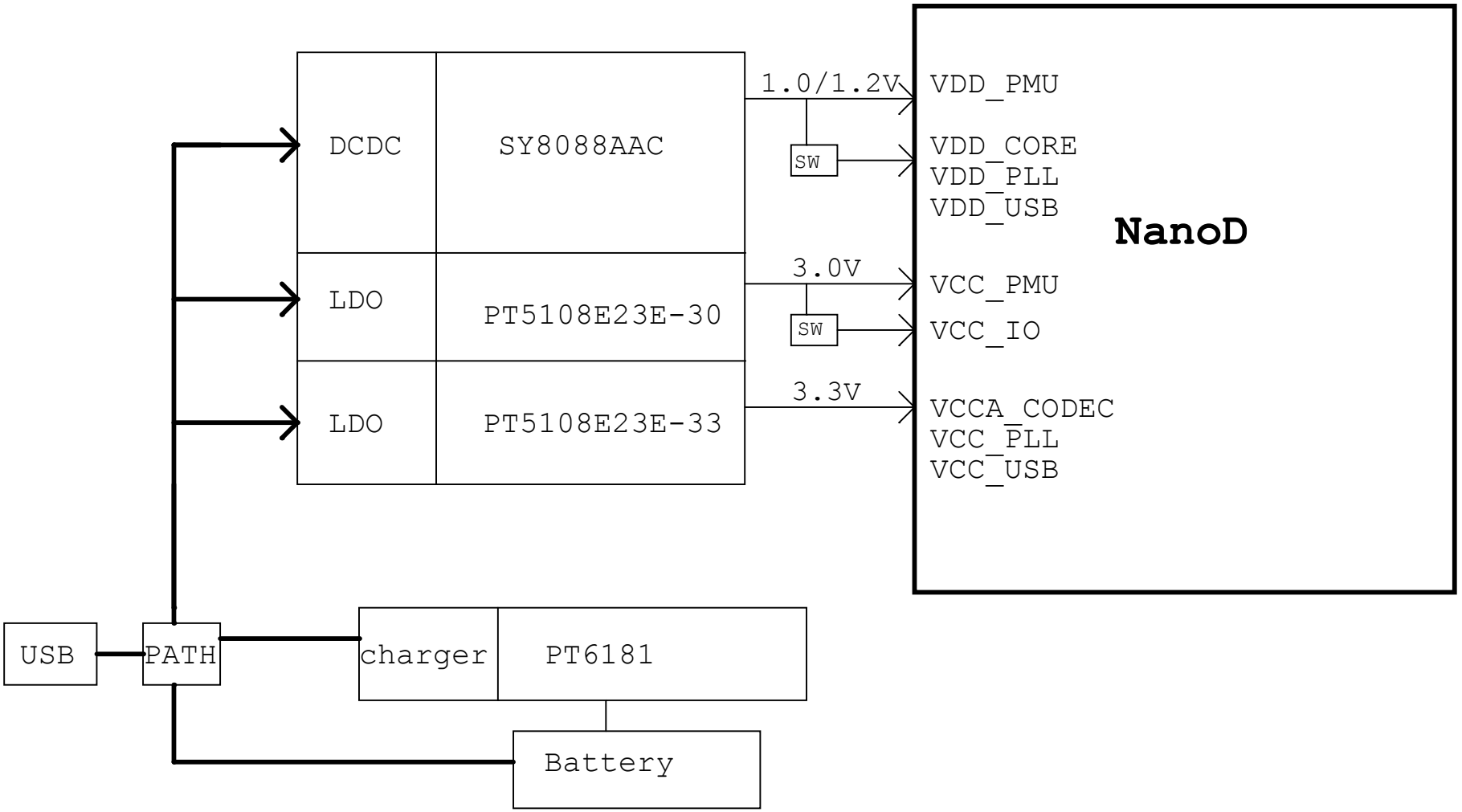
Version	Date	Author	Change Note	Approved
V1.0	20150119	ZJC	First edictor	
V2.0	20150416	ZJC	1: Optimize System Power; 2: Change wifi to RTL8189; 3: Delete ACL5633.	
V2.1	20150511	ZJC	1: Change wifi to INP6000;	
V2.2	20150722	ZJC	1: Change wifi to AP6181;	

Block Diagram



Rockchip 瑞芯微电子 福州瑞芯微电子有限公司		
Title:	Block Diagram	
File:	RKNanoD	REV: V0.1
Create Date:	Sunday, January 18, 2015	Page Num: 3
Modify Date:	Tuesday, September 08, 2015	Page Total: 16

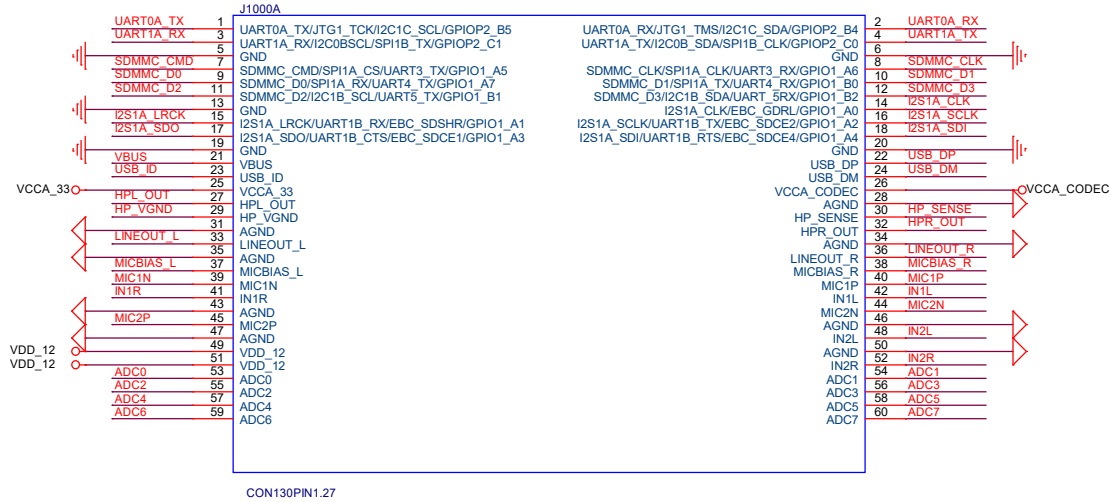
Power Tree



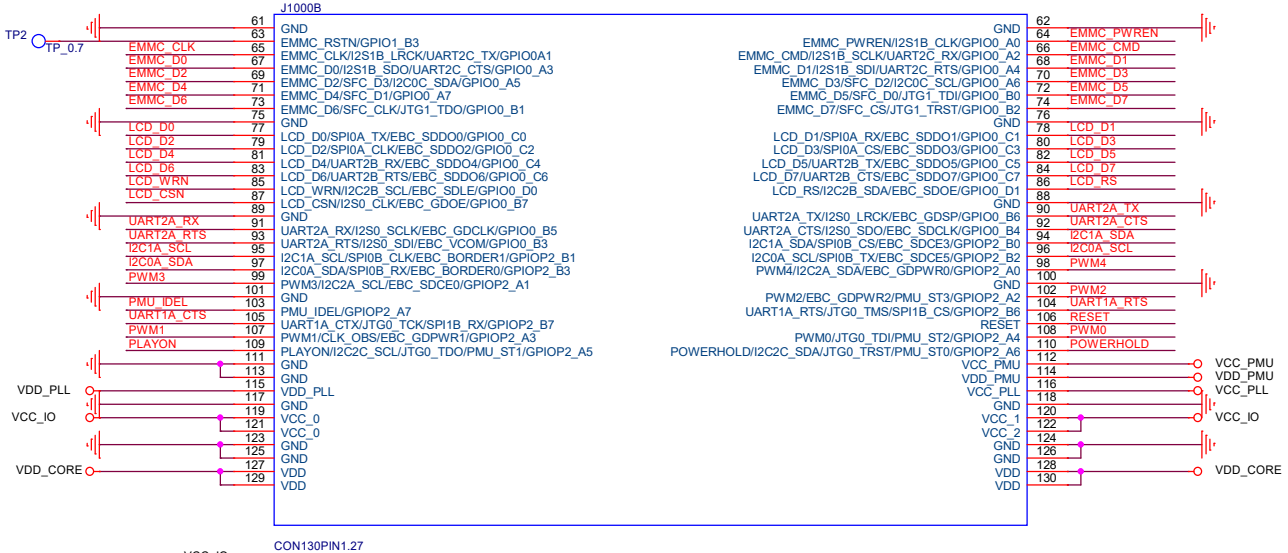
Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	Power tree	
File:	RKNanoD	REV:V0.1
Create Date: Monday, January 19, 2015		Page Num:4
Modify Date: Tuesday, September 08, 2015		Page Total:16

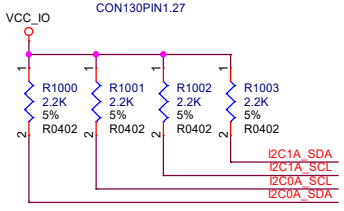
Interface

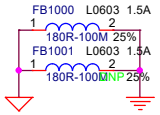
NanoD Interface Part-A



NanoD Interface Part-B







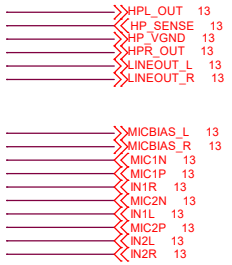
UART0&1 Interface

SDMMC Interface

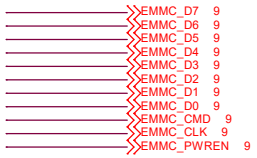
I2S Interface

USB Interface

Audio Interface

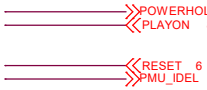


eMMC Interface



ADC Interface

Power Ctrl Interface

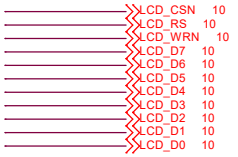


PWM

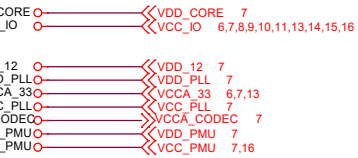
I2C

UART2 Interface

LCD Interface

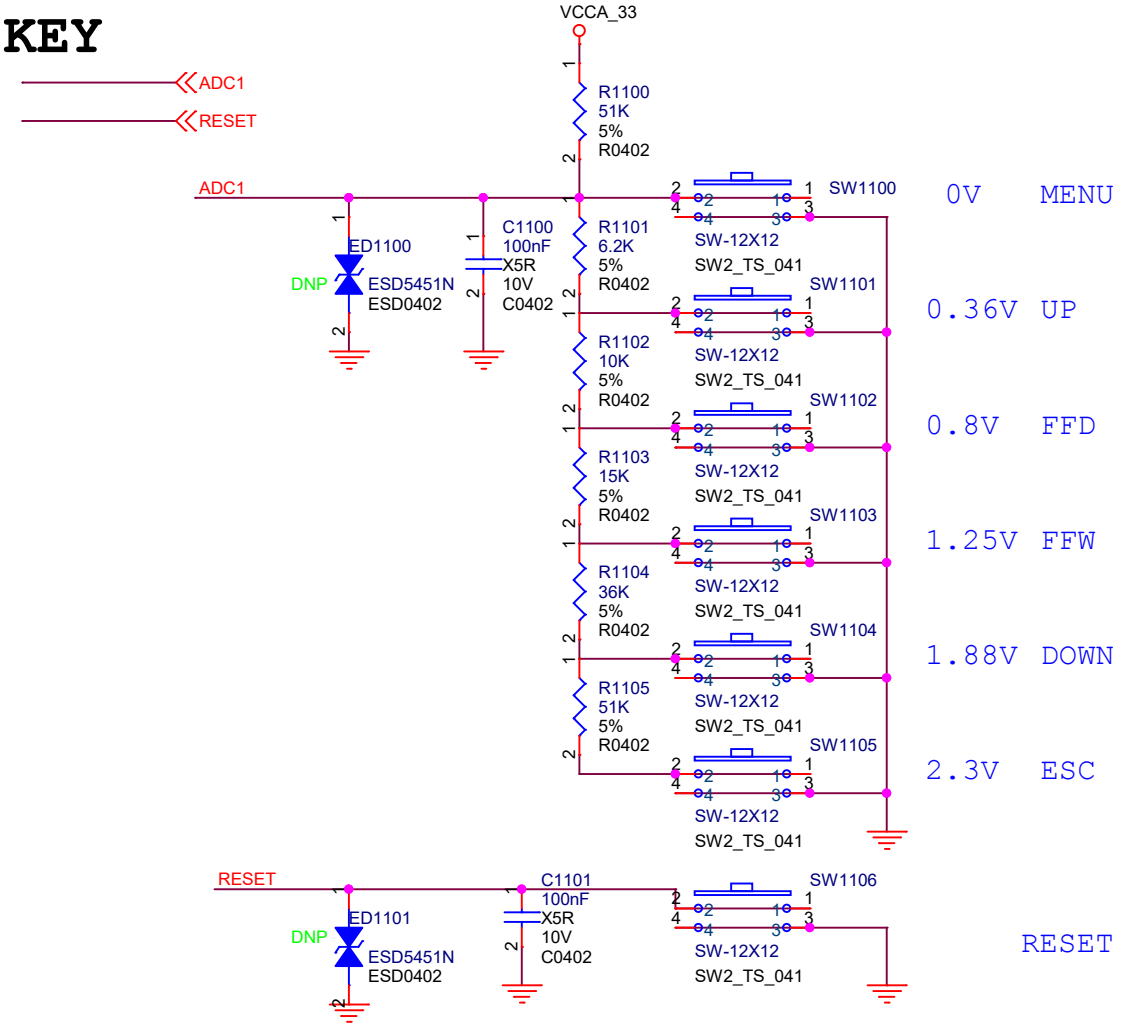


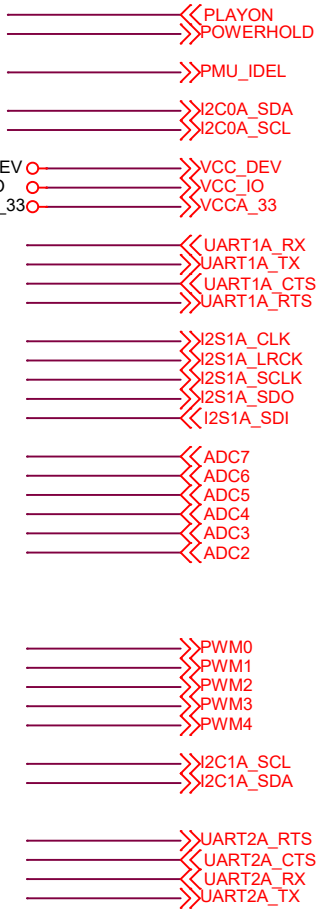
Power Interface



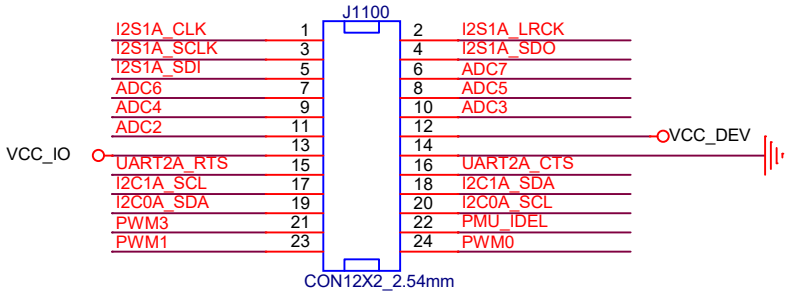
Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	NanoD Interface	
File:	RKNanoD	REV: V0.1
Create Date:	Tuesday, January 06, 2015	Page Num: 5
Modify Date:	Tuesday, September 08, 2015	Page Total: 16

KEY



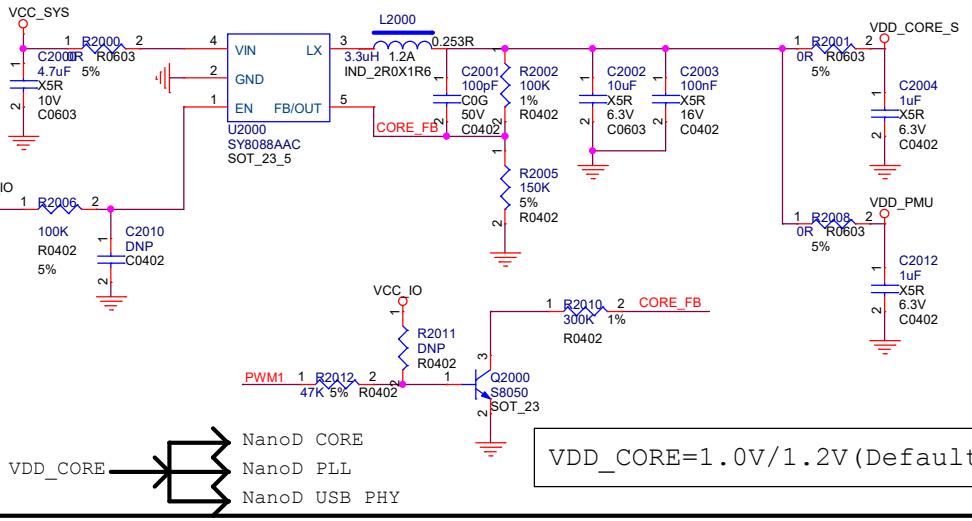


IO Interface



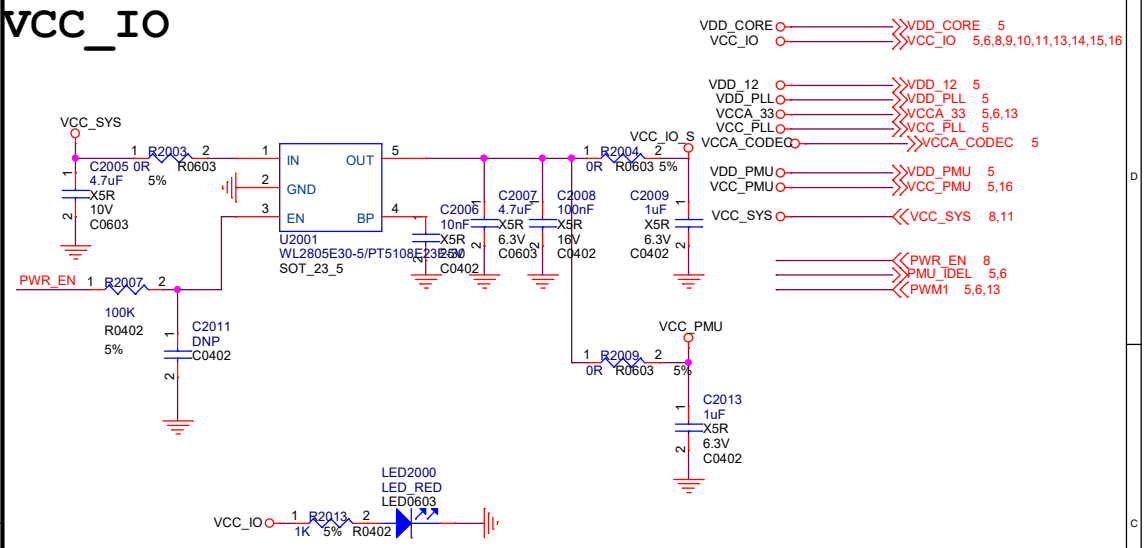
Rockchip 瑞芯微电子	福州瑞芯微电子有限公司		
Title:	Key & Interface		
File:	RKNanoD		REV:V0.1
Create Date:	Sunday, January 18, 2015		Page Num:6
Modify Date:	Tuesday, September 08, 2015		Page Total:16

VDD_CORE

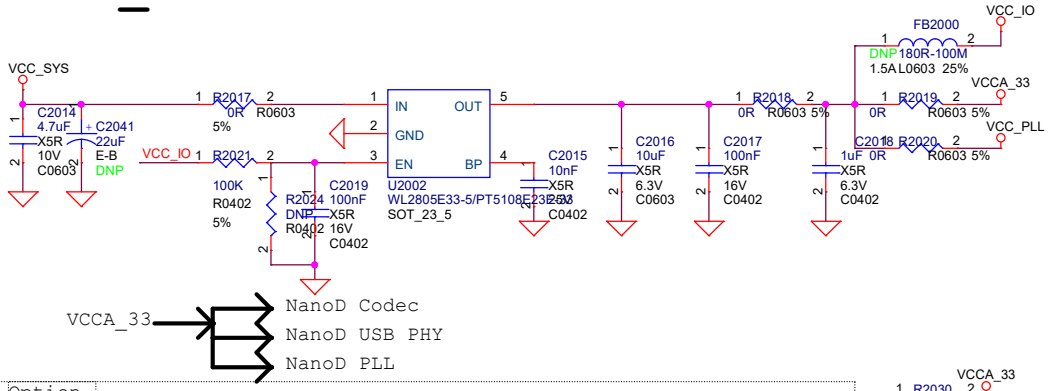


VDD_CORE=1.0V/1.2V(Default)

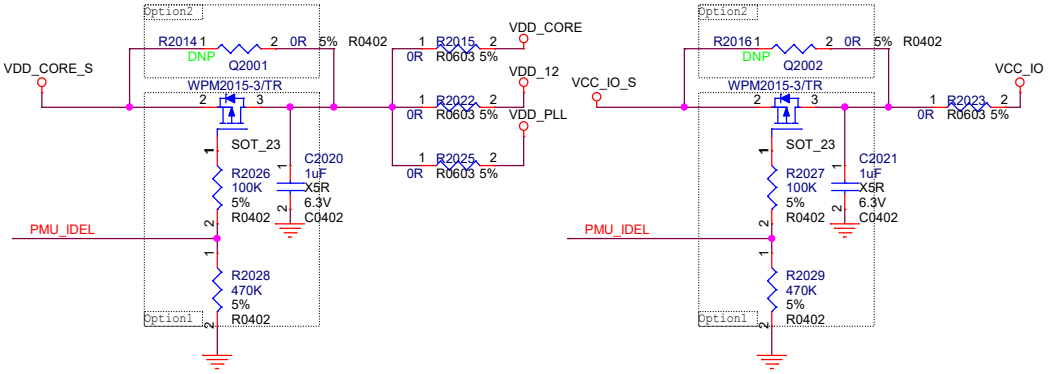
VCC_IO



VCCA_33



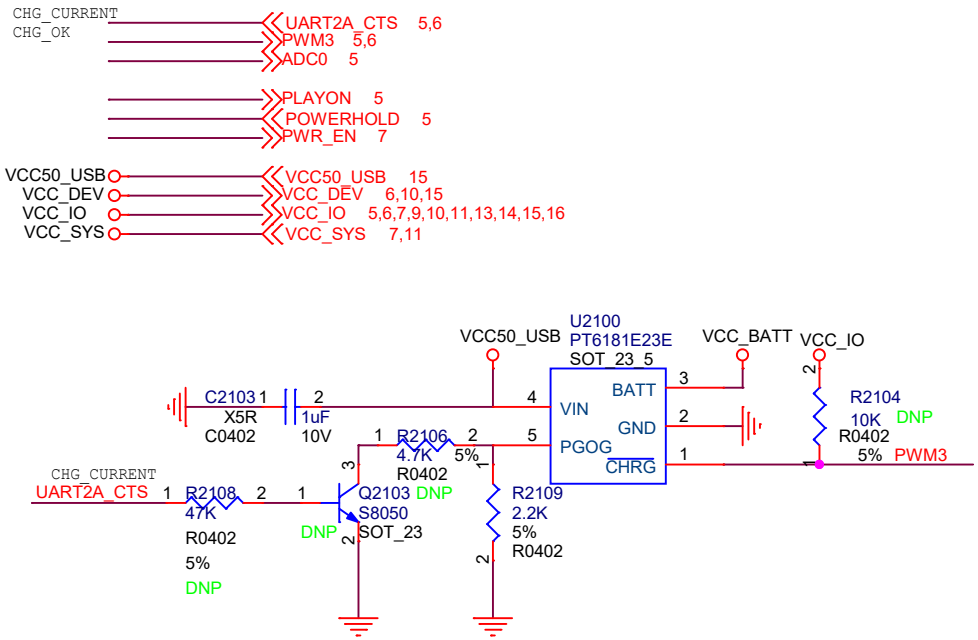
SLEEP Mode(Option)



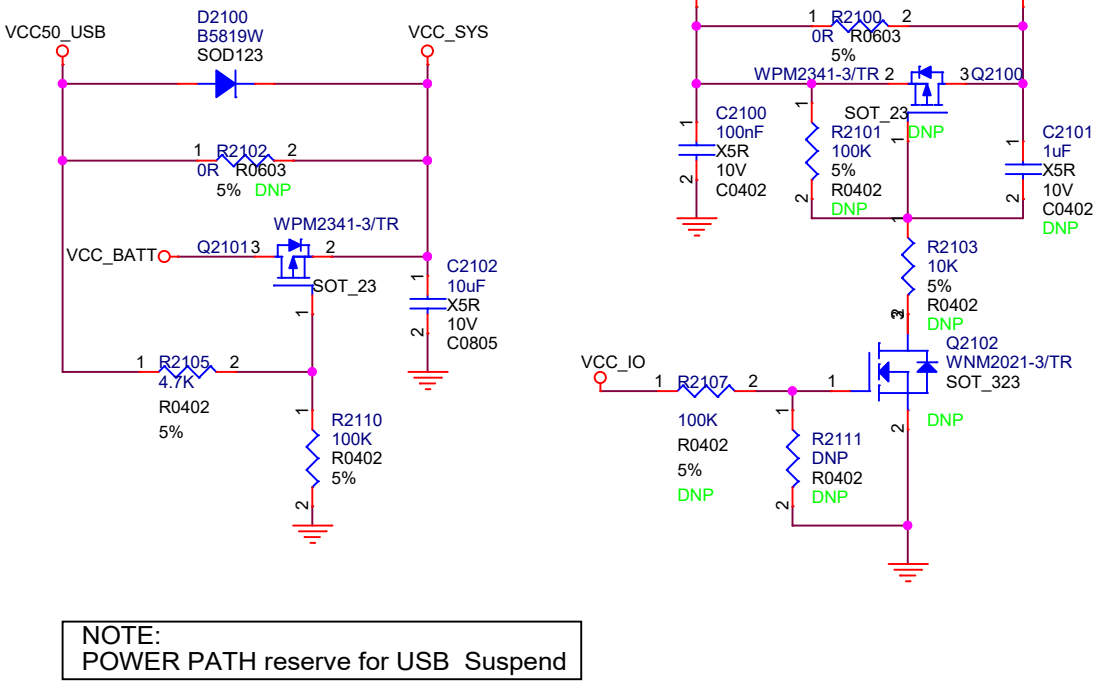
NOTE:
LOW_POWER Mode: Option1 (Default)
NORMAL Mode: Option2

Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	System Power	
File:	RKNanoD	REV:V0.1
Create Date:	Tuesday, January 06, 2015	Page Num:7
Modify Date:	Tuesday, September 08, 2015	Page Total:16

CHARGER

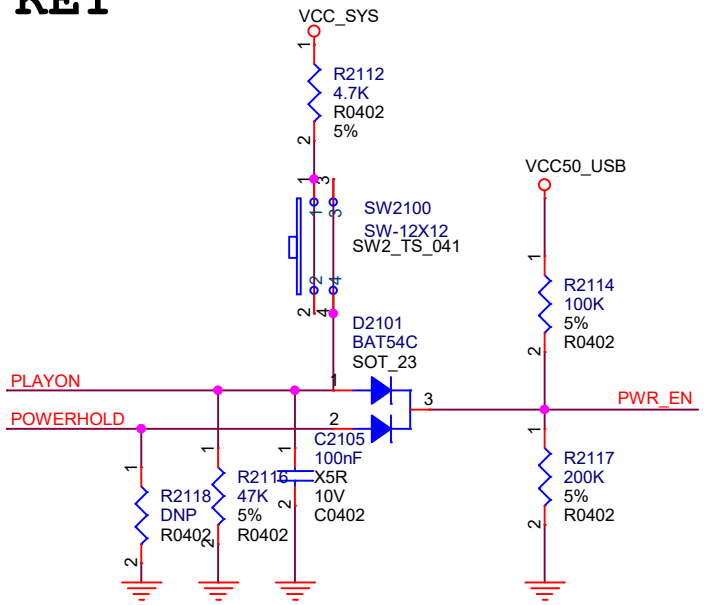


POWER PATH

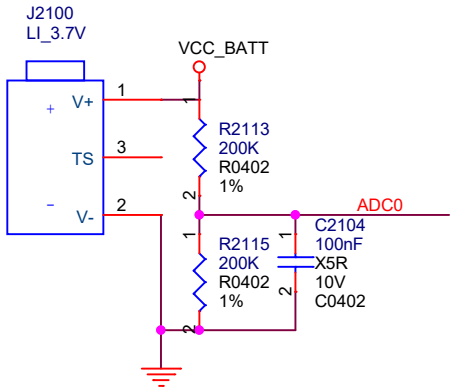


NOTE:
POWER PATH reserve for USB Suspend

POWER KEY

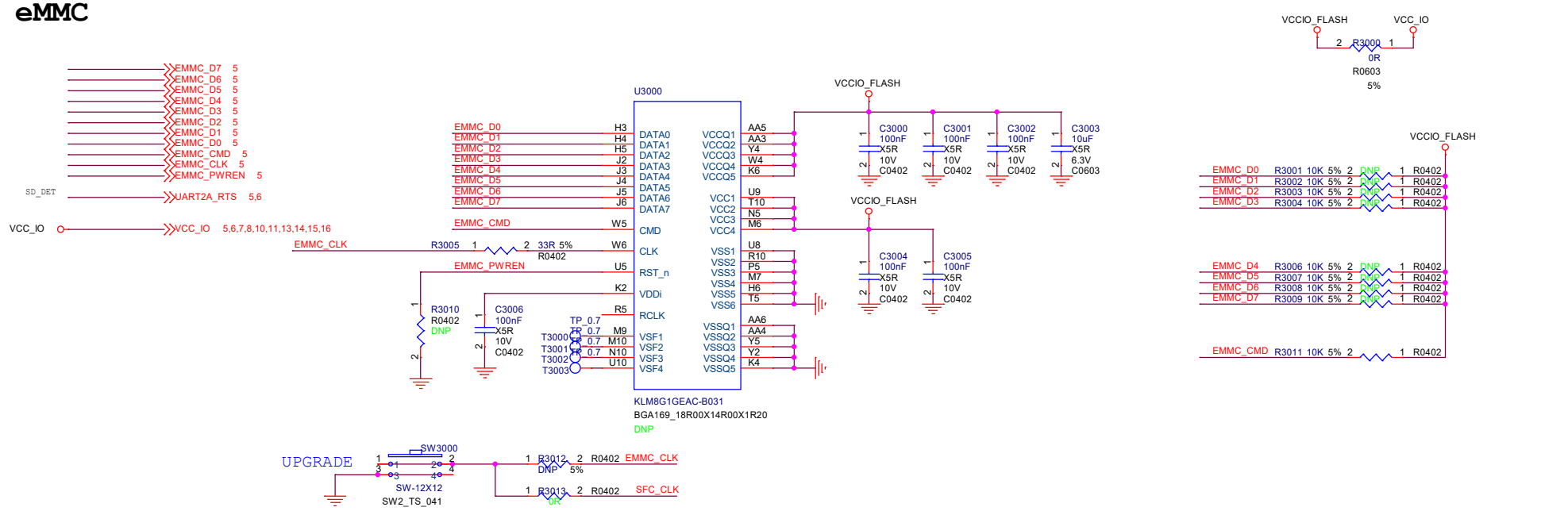


BATTERY

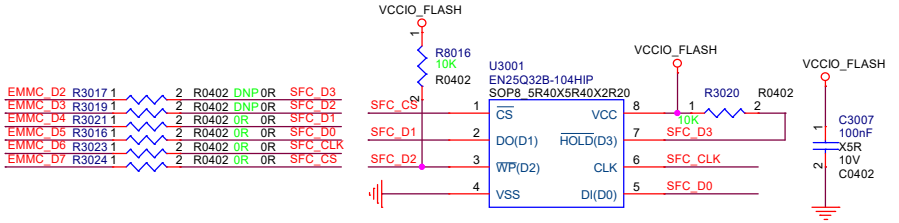


Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	Charger	
File:	RKNanoD	REV:V0.1
Create Date:	Thursday, January 15, 2015	Page Num:8
Modify Date:	Tuesday, September 08, 2015	Page Total:16

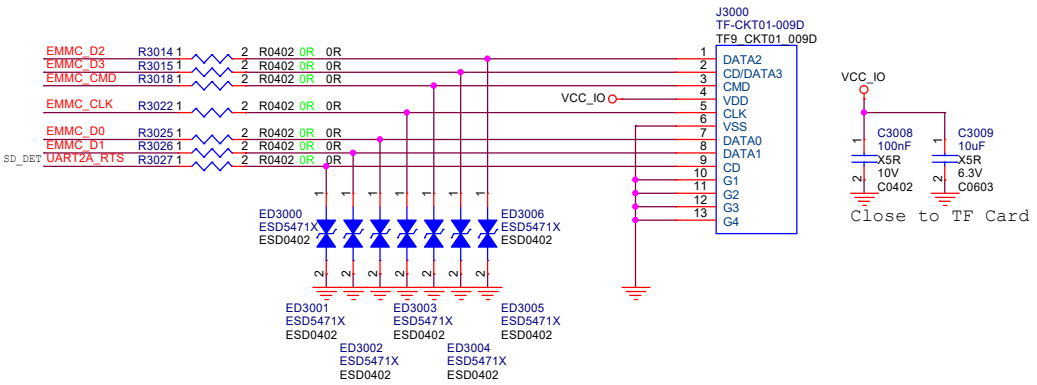
eMMC



NorFlash(OPTION)

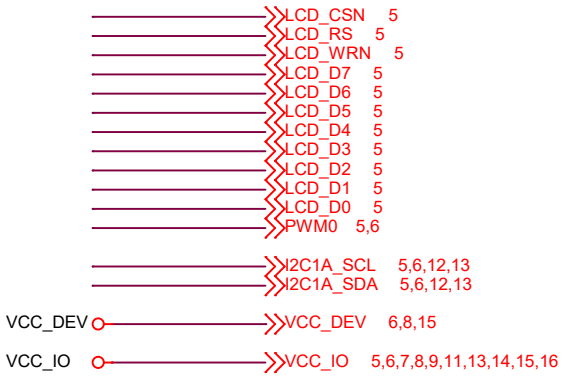


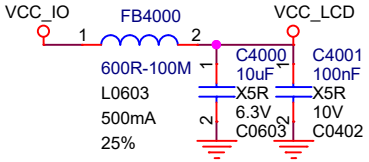
TFCard(OPTION)

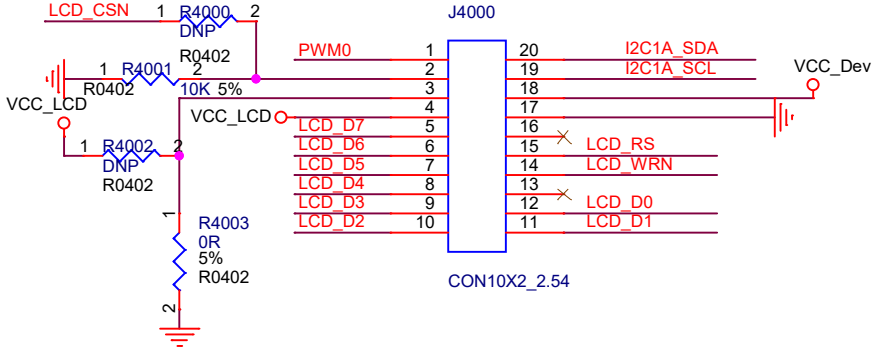


Rockchip 瑞芯微电子	福州瑞芯微电子有限公司
Title:	Flash
File:	RKNanoD
REV:	V0.1
Create Date:	Thursday, January 15, 2015
Page Num:	9
Modify Date:	Tuesday, September 08, 2015
Page Total:	16

LCD Interface

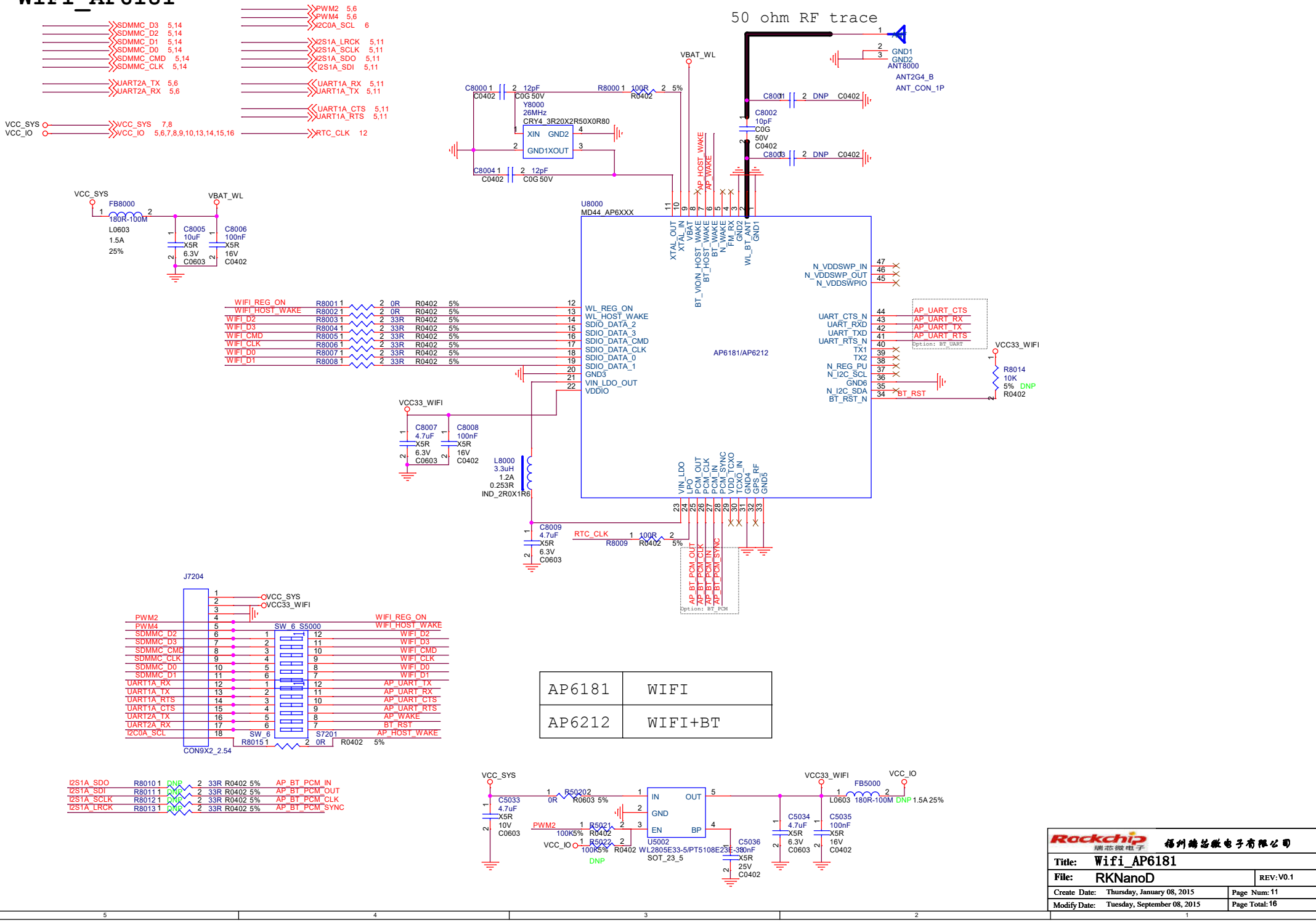




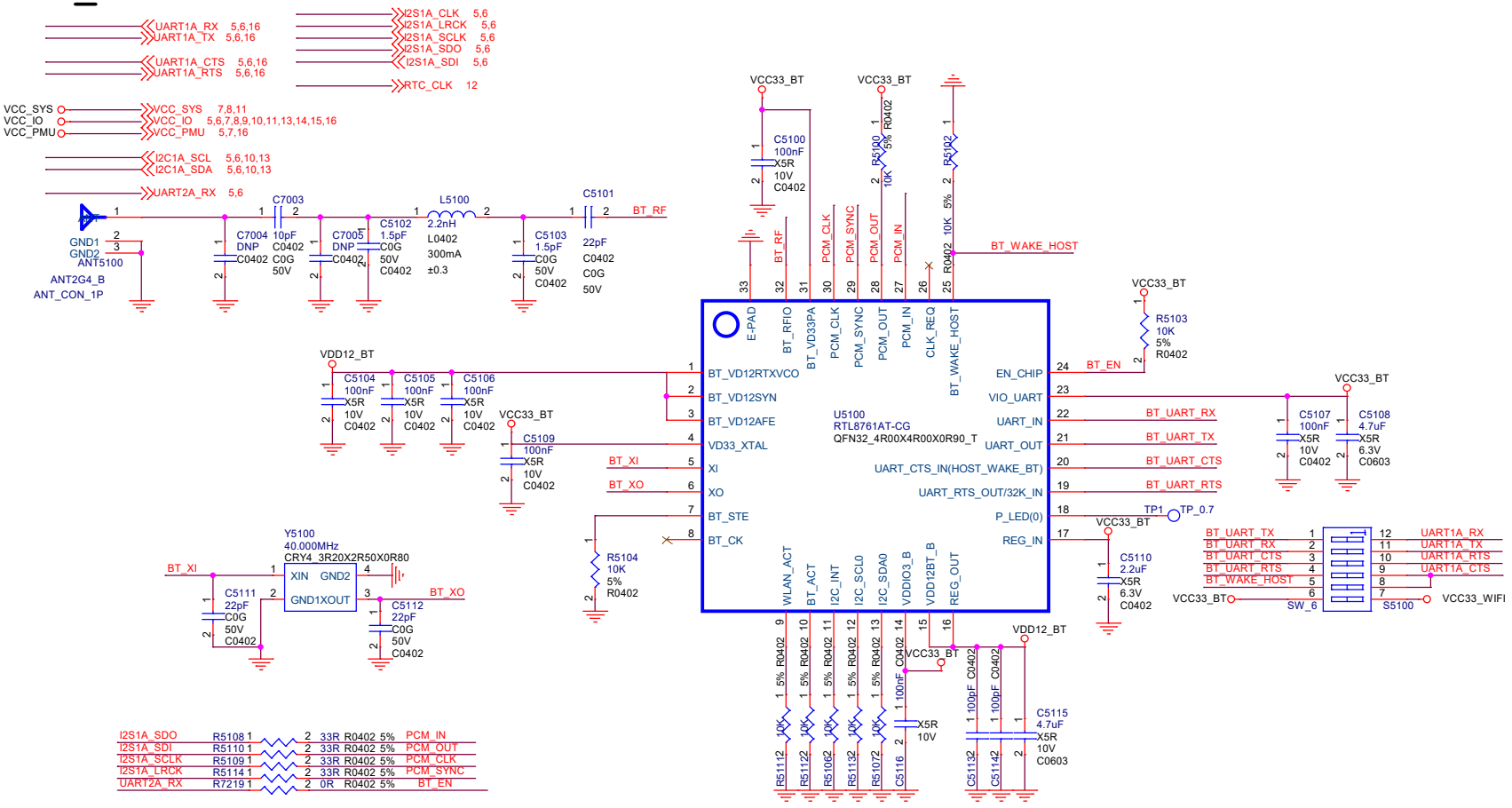


Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	Flash	
File:	RKNanoD	REV:V0.1
Create Date:	Friday, January 16, 2015	Page Num:10
Modify Date:	Tuesday, September 08, 2015	Page Total:16

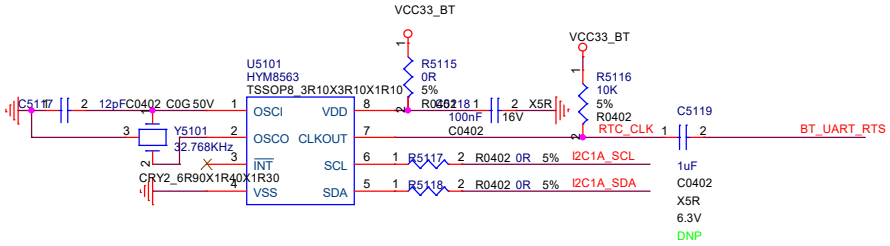
WIFI_AP6181


50 ohm RF trace
AP6181/AP6212
U8000
MD44_AP6XXX
J7204
CON9X2_2.54
SW_6_S5000
S7201
U5002
WL2805E33-5/PT5108E23E-3
SOT_23_5
AP6181 WIFI
AP6212 WIFI+BT
Rockchip 瑞芯微电子
Title: Wifi_AP6181
File: RKNanoD
REV: V0.1
Create Date: Thursday, January 08, 2015
Modify Date: Tuesday, September 08, 2015
Page Num: 11
Page Total: 16

BT_RTL8761

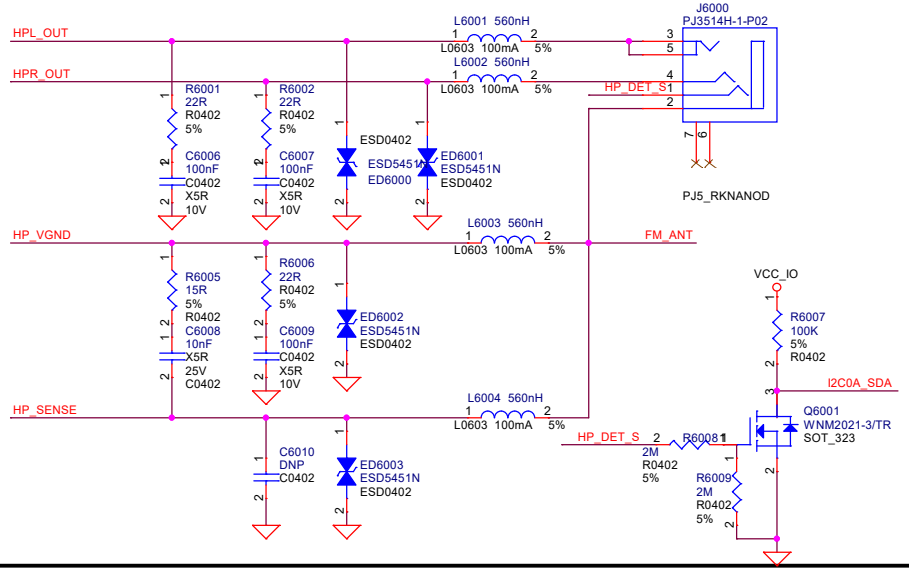


RTC_HYM8563

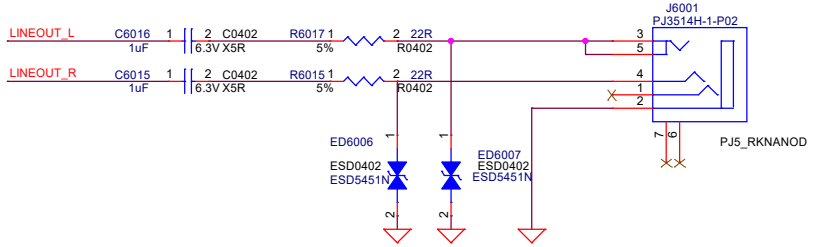


Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	BT_RTL8761	
File:	RKNanoD	REV: V0.1
Create Date:	Monday, January 12, 2015	Page Num: 12
Modify Date:	Tuesday, September 08, 2015	Page Total: 16

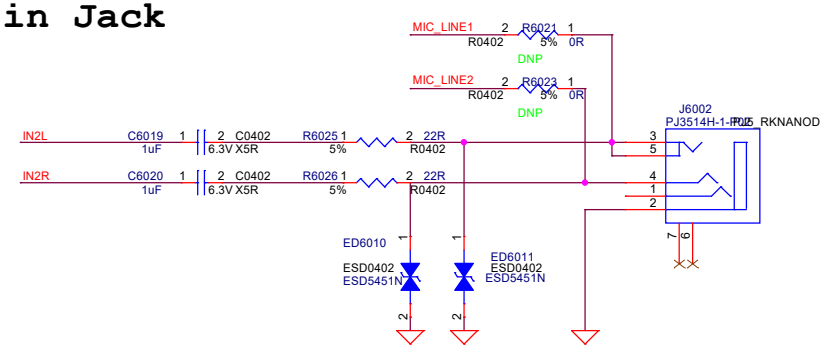
EarPhone Jack



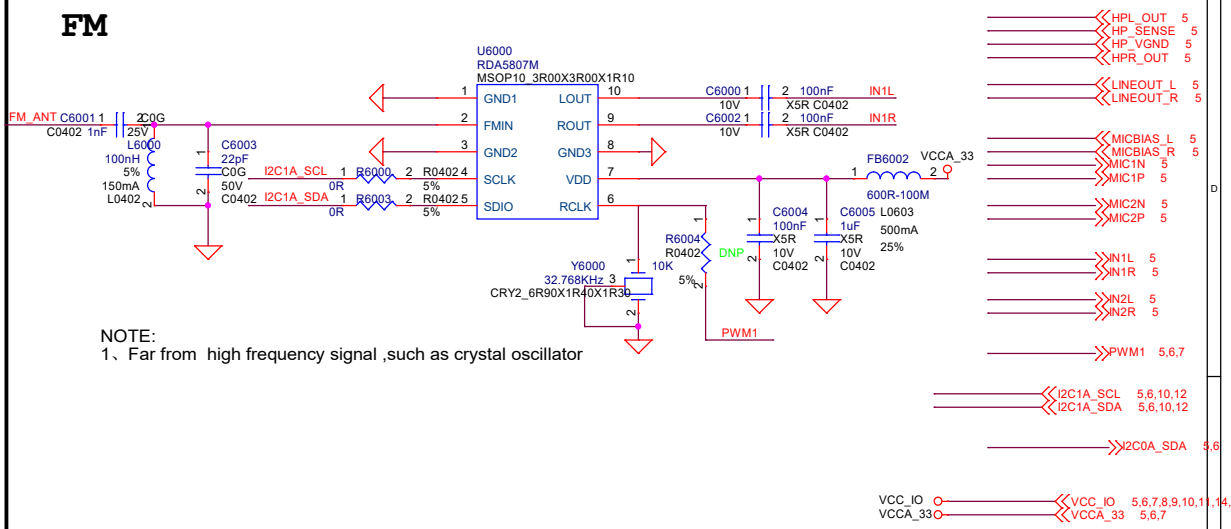
Lineout Jack



Line2in Jack

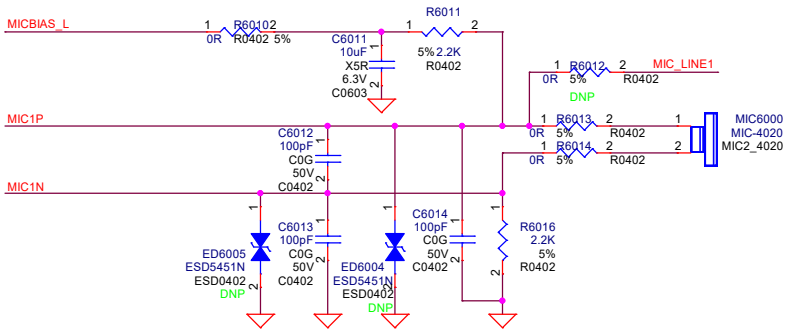


FM



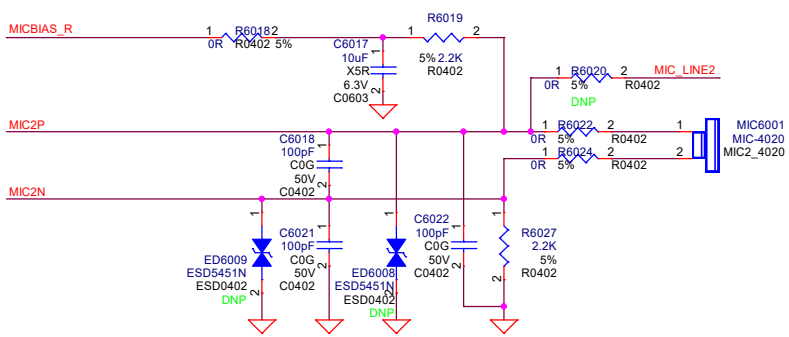
NOTE:
1、Far from high frequency signal ,such as crystal oscillator

MIC1



Option Single-End Mode: R7009=0R;
ED7004,C7015,C7013,=NC.

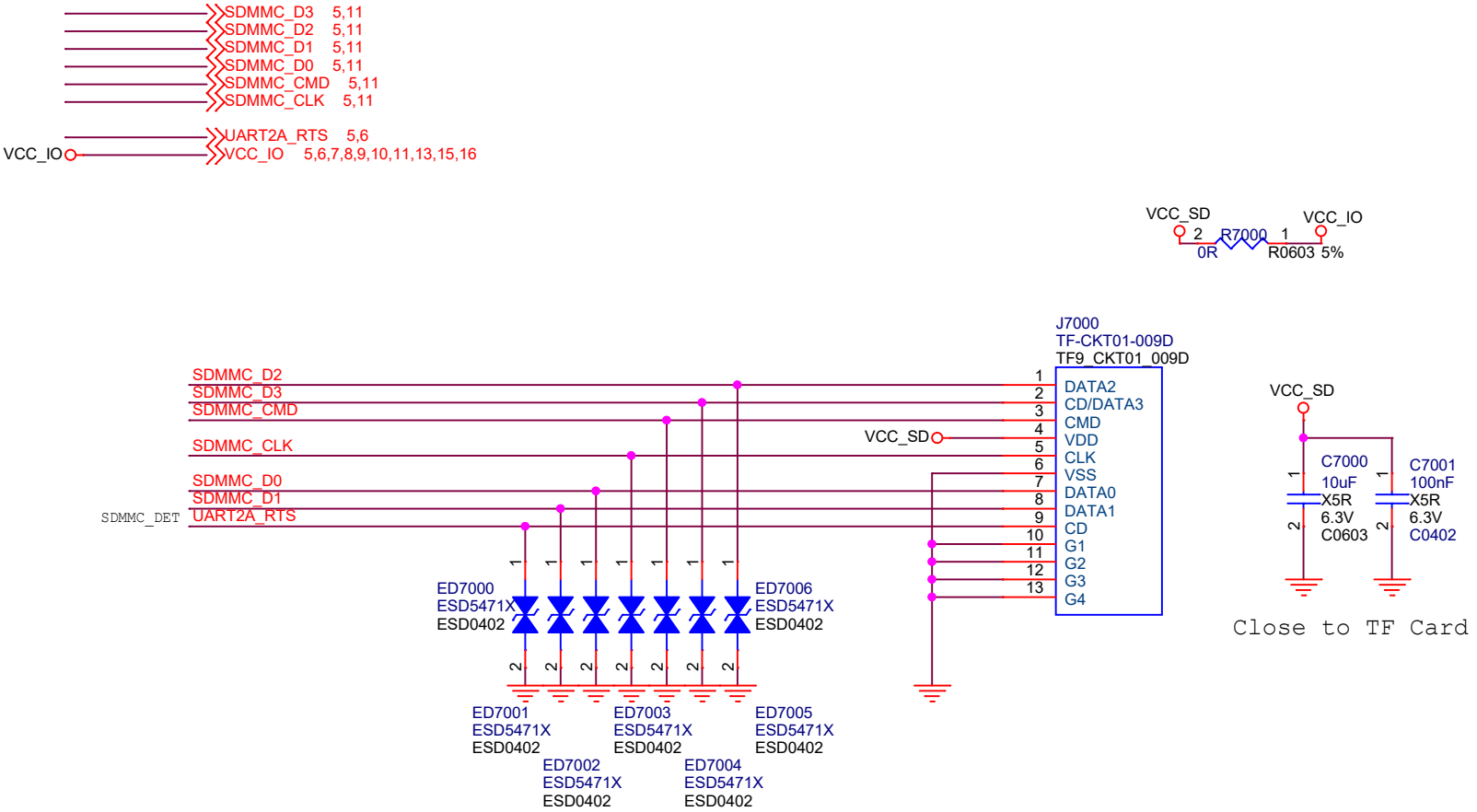
MIC2



Option Single-End Mode: R7015=0R;
ED7009,C7027,C7023=NC.

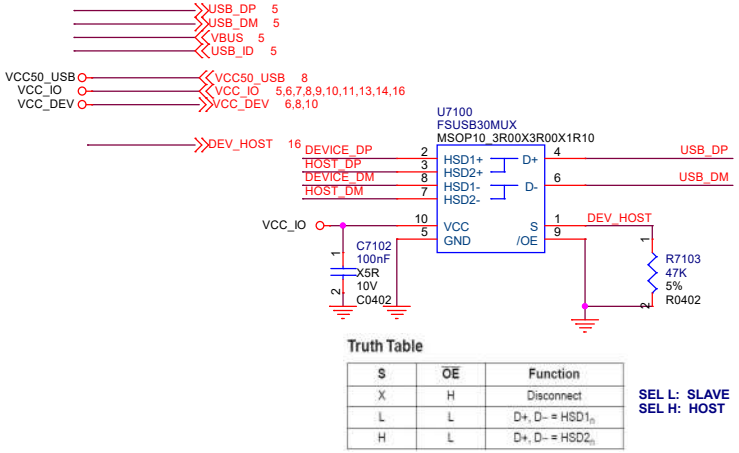
Rockchip 瑞芯微电子	福州瑞芯微电子有限公司	
Title:	Audio_NanoD	
File:	RKNanoD	REV: V0.1
Create Date:	Thursday, January 15, 2015	Page Num: 13
Modify Date:	Tuesday, September 08, 2015	Page Total: 16

TF Card



Rockchip 瑞芯微电子	福州瑞芯微电子有限公司		
Title:	TF Card		
File:	RKNanoD		REV:V0.1
Create Date:	Friday, January 16, 2015		Page Num:14
Modify Date:	Tuesday, September 08, 2015		Page Total:16

USB Switch

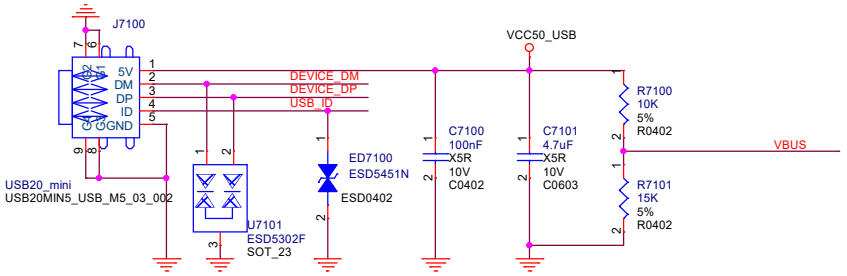


Truth Table

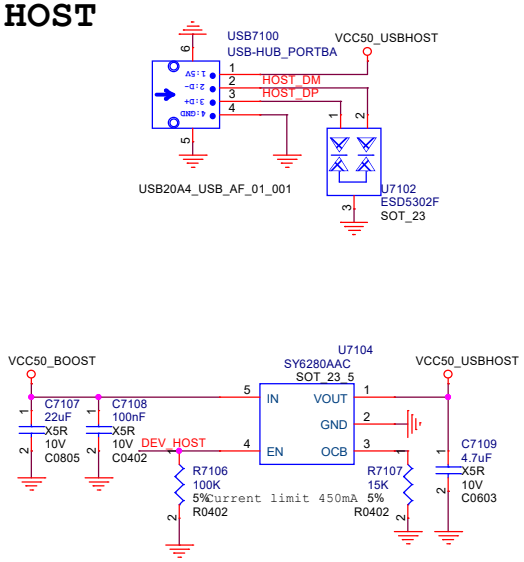
S	$\overline{OE}$	Function
X	H	Disconnect
L	L	D+, D- = $HSD1_n$
H	L	D+, D- = $HSD2_n$

SEL L: SLAVE
SEL H: HOST

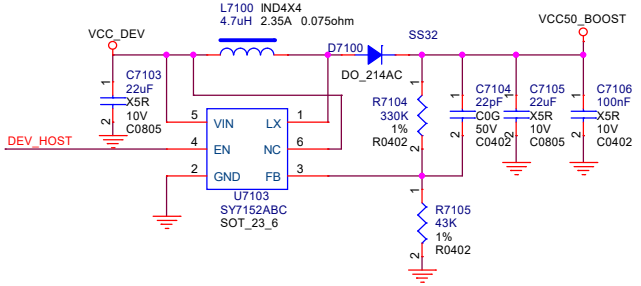
USB DEVICE



USB HOST



USB POWER



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Title: USB Port		
File: RKNanoD		REV: V0.1
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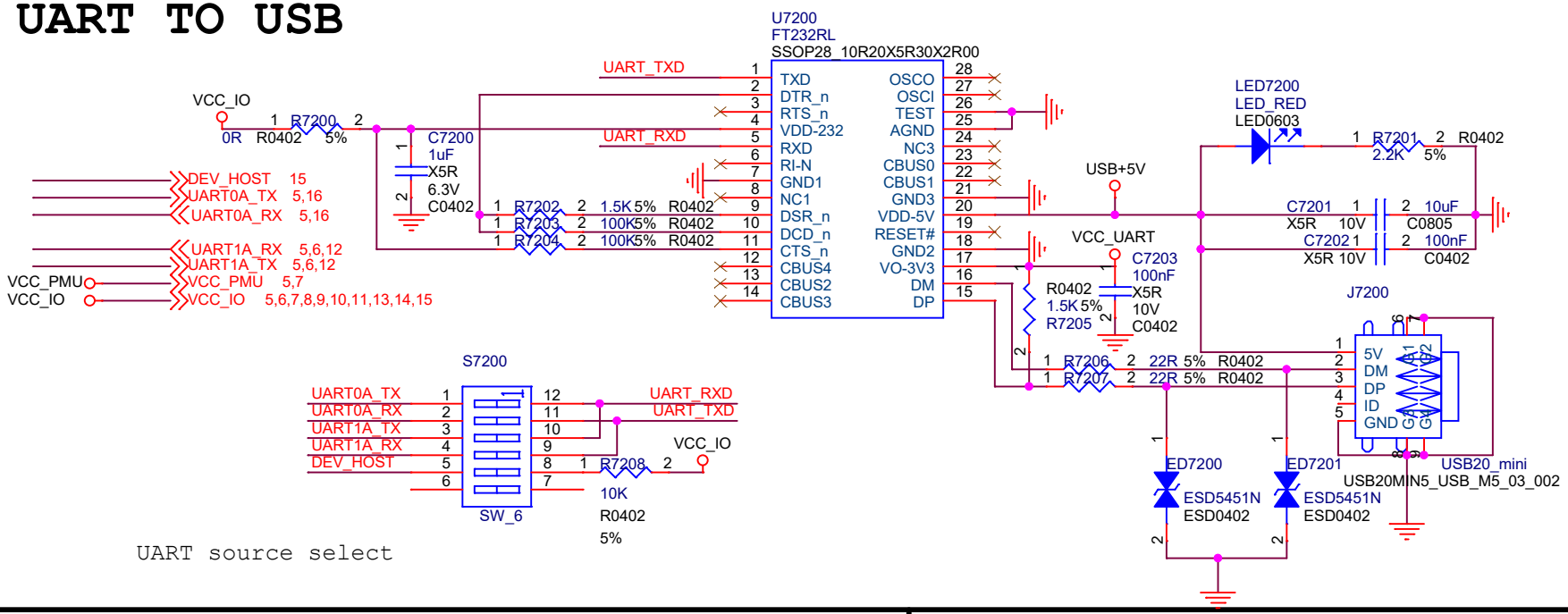
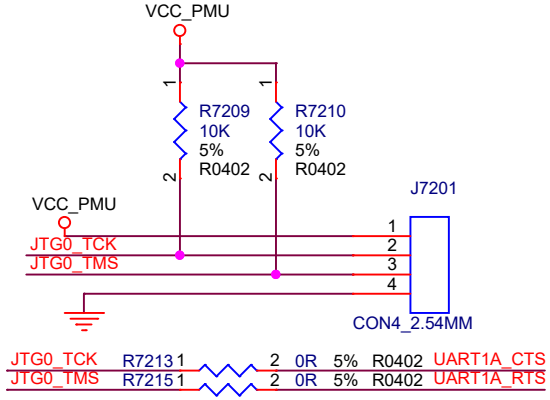
UART TO USB



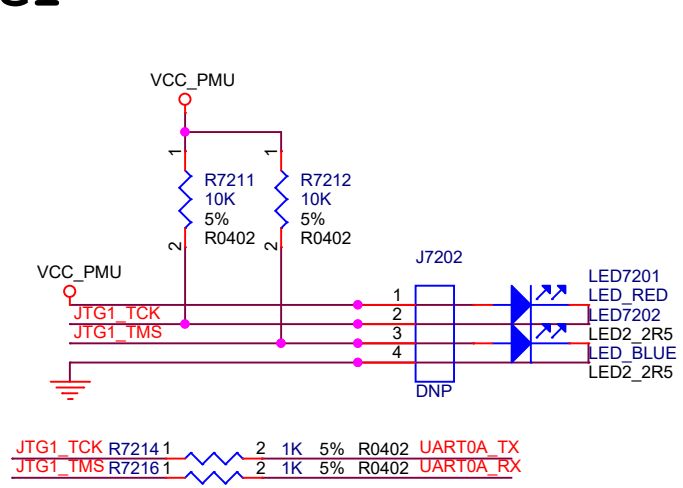
UART source select

JTAG0



NOTE: Jtag Default SWD Mode

JTAG1



NOTE: Jtag Default SWD Mode

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Title:	UART & JTAG	
File:	RKNanoD	REV:V0.1
Create Date:	Sunday, January 18, 2015	Page Num:16
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