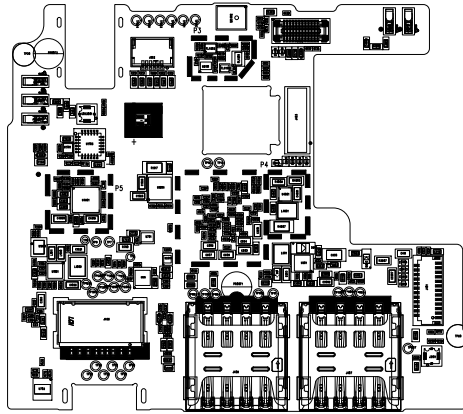




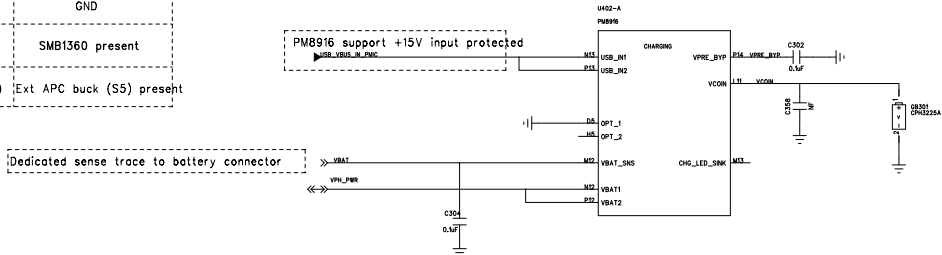
# VIETMOBILE.VN





2014816  
北京小米科技有限责任公司

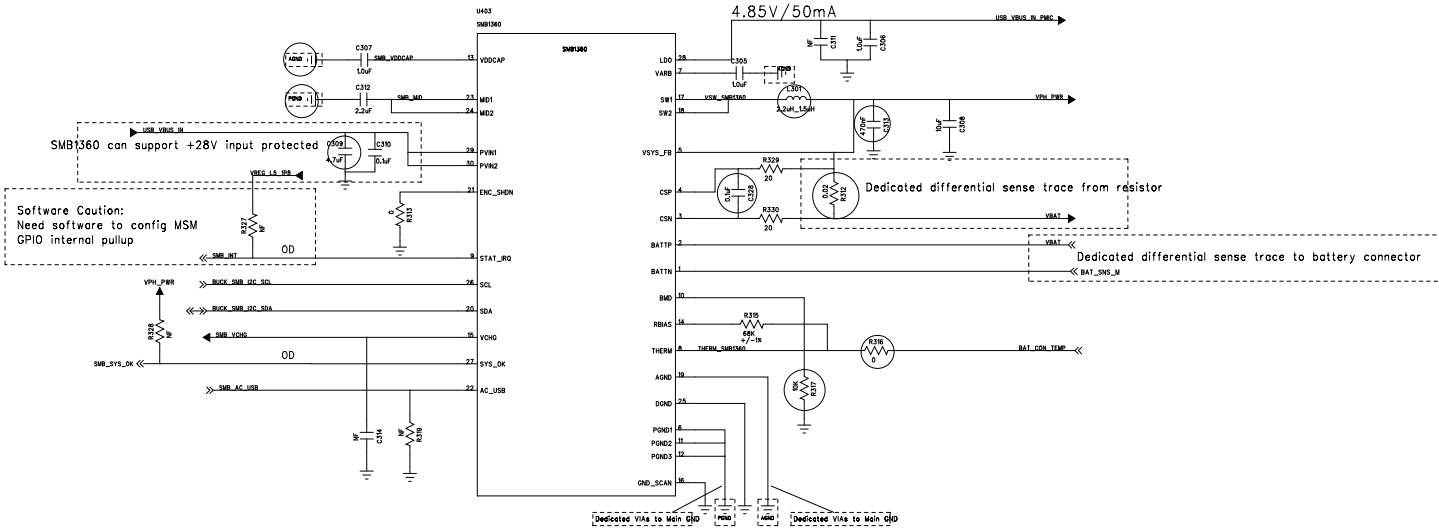
Pins	Hi Z	GND
OPT_1	No SMB1360	SMB1360 present
OPT_2	No Ext APC buck (S5)	Ext APC buck (S5) present



Dedicated sense trace to battery connector

Already have 47k resistor in subboard

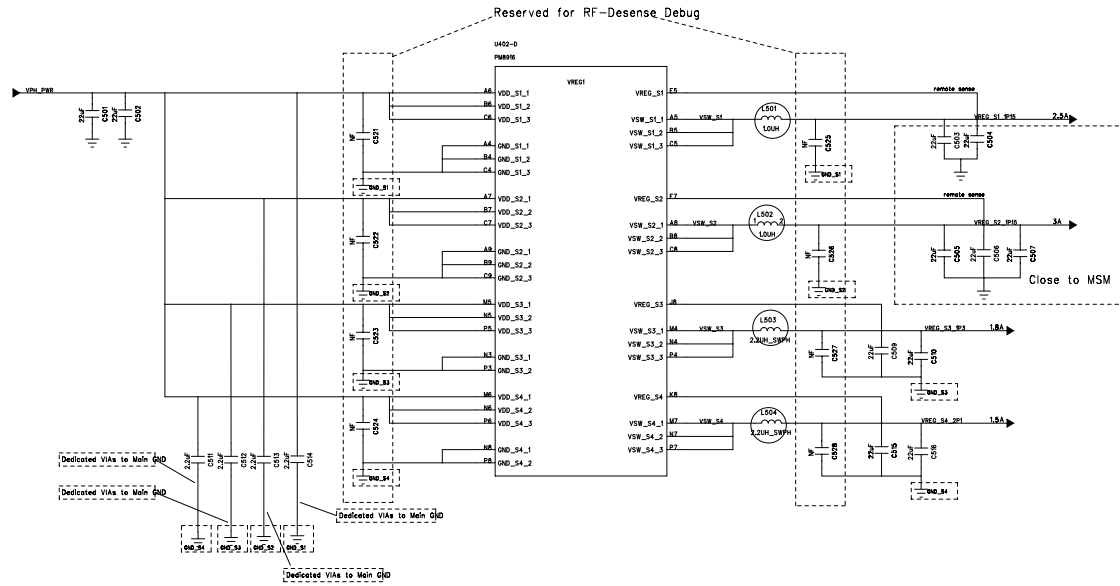
Close to connector  
if using PMIC's linear charger  
C0301 should assemble 4.7uF/16V capacitor  
R0307 should assemble 0 ohm  
R0302 should be NC  
R0312 should be 0ohm  
B.A.T. THERM switch to PM8916



Software Caution:  
Need software to config MSM  
GPIO internal pullup



2014816  
北京小米科技有限责任公司

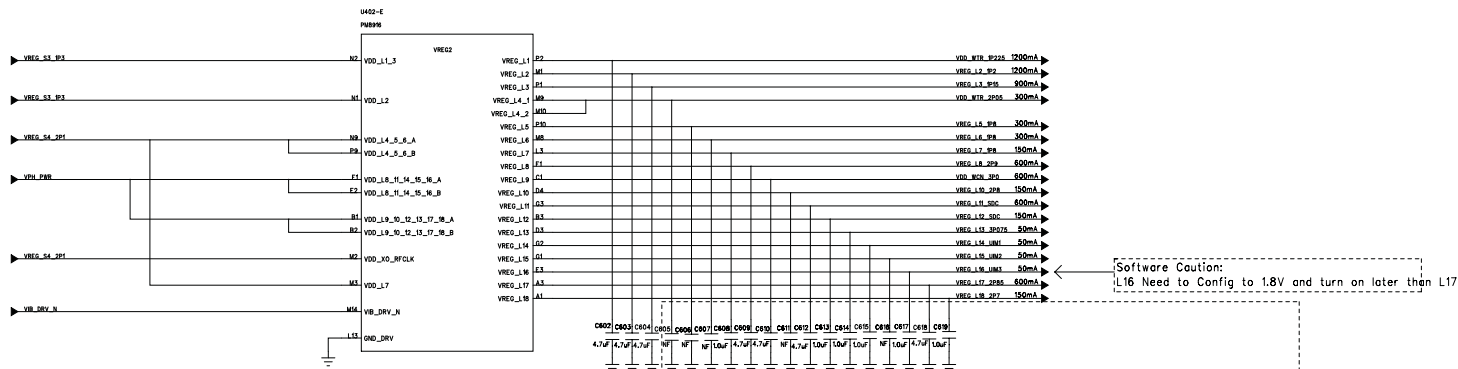


NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR  
ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE  
EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Warehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title	Rev
Size	Form
DATE	ISSUE

2014816  
北京小米科技有限责任公司



Software Caution:  
L16 Need to Config to 1.8V and turn on later than L17

PSEUDO CAPLESS LDOs  
L4, L5, L6, L7, L8, L9, L10, L11, L12, L13, L14, L15, L16, L17, L18

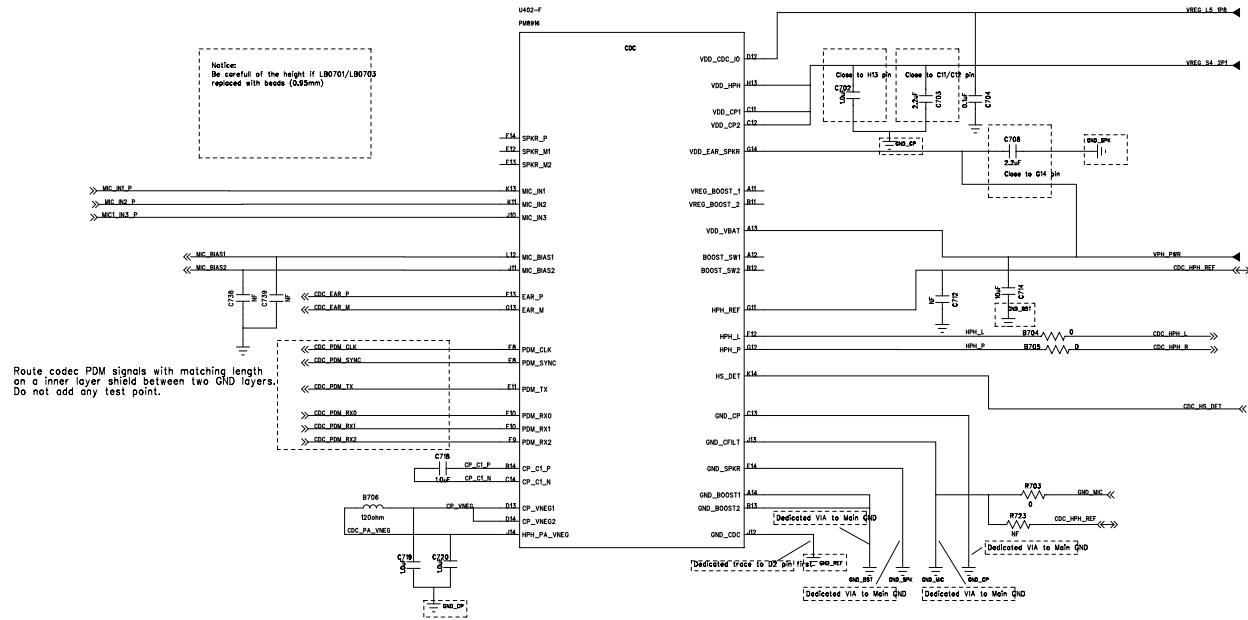
Local output capacitor can NC/Remove depends on remote load capacitors and PCB layout  
LDOs L8, L9, L11, L17 each shall have total effective output capacitance of 4.7uF.  
Please refer to PM8996 training slides(80-NK808-21) for limits on LDO output trace resistance and inductance  
Rest of the LDOs shall each have total effective output capacitance of 1.0uF.

The Pseudo capless LDOs must comply to following tolerable routing requirement:  
P50: R<400mOhms, L<45nH  
P150: R<200mOhms, L<20nH  
P300: R<150mOhms, L<18nH  
P600: R<150mOhms, L<18nH

Please ensure when you DNI the output capacitor of Pseudo capless LDOs  
the effective total capacitance at load side shall match above requirement

NC first

2014816  
北京小米科技有限责任公司



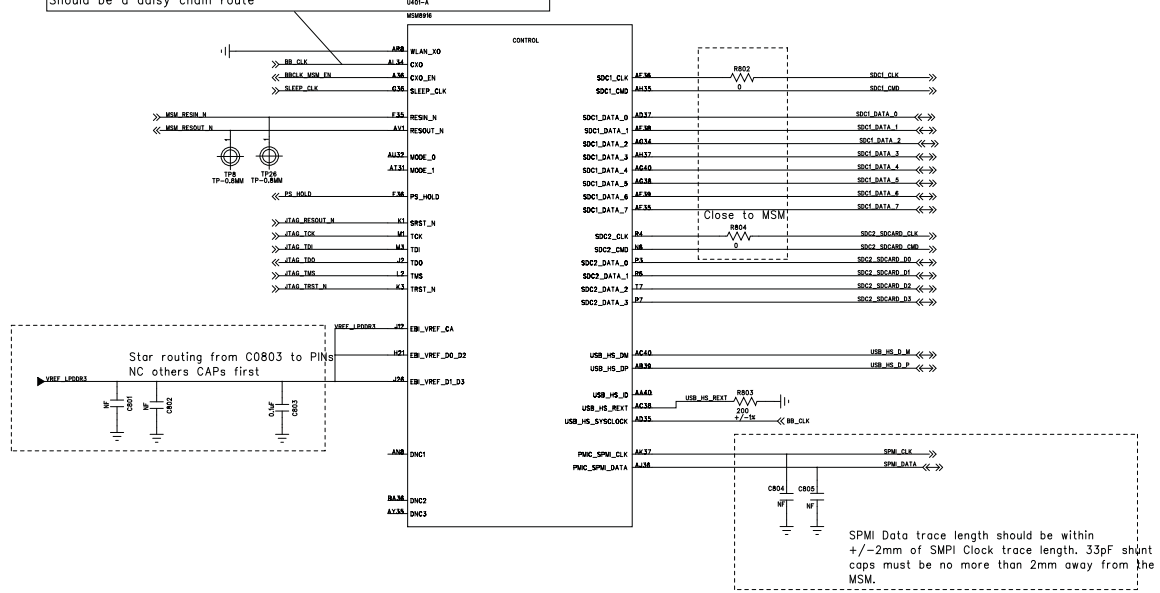
NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title \_\_\_\_\_  
Date Issued \_\_\_\_\_  
Rev \_\_\_\_\_  
PART: 2014816

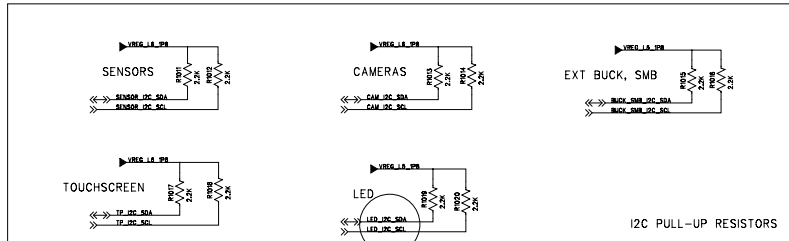
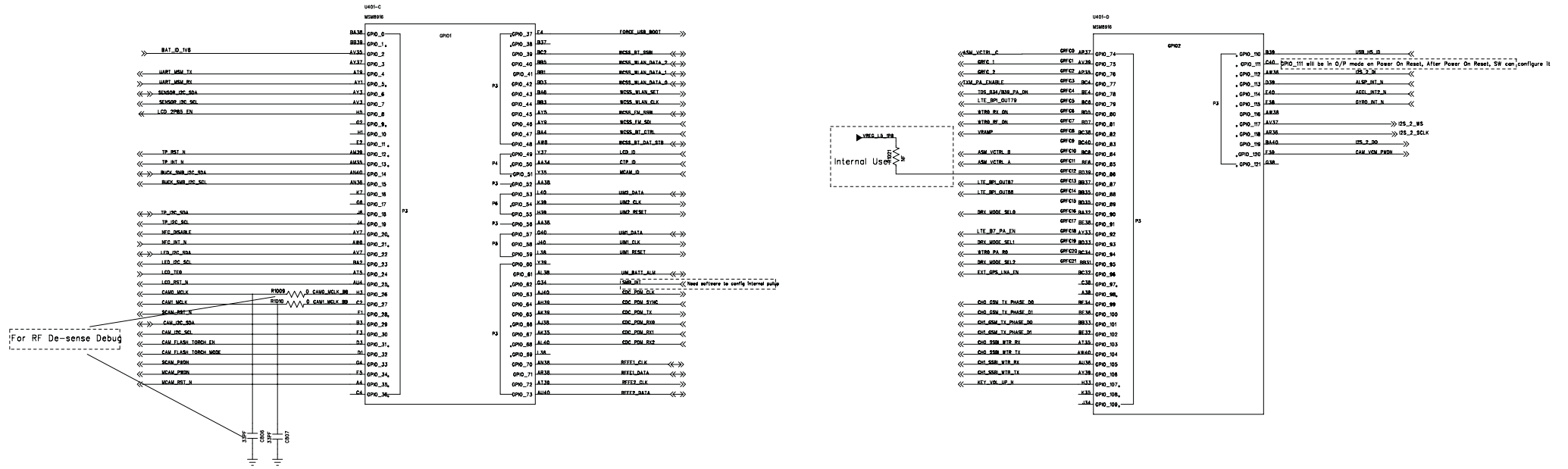
2014816  
北京小米科技有限责任公司

For BBCLK1,AD35 will be the first load and AL34 will be the final load  
Should be a daisy chain route





2014816  
北京小米科技有限责任公司

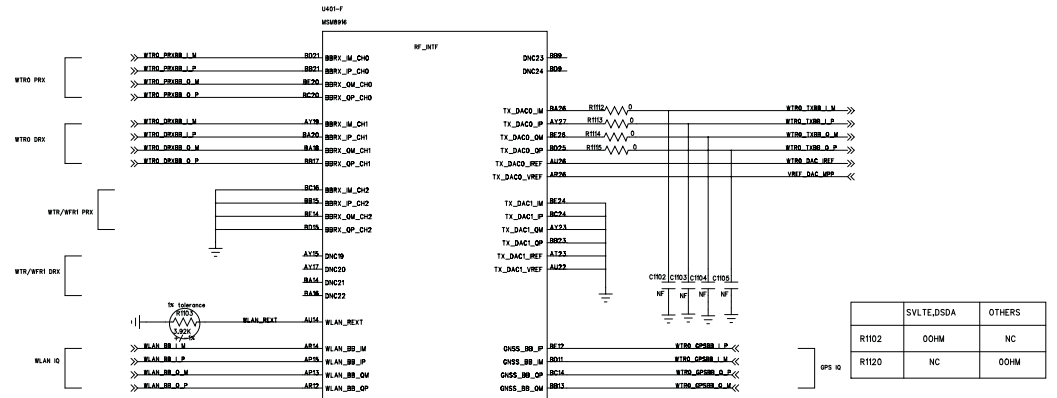
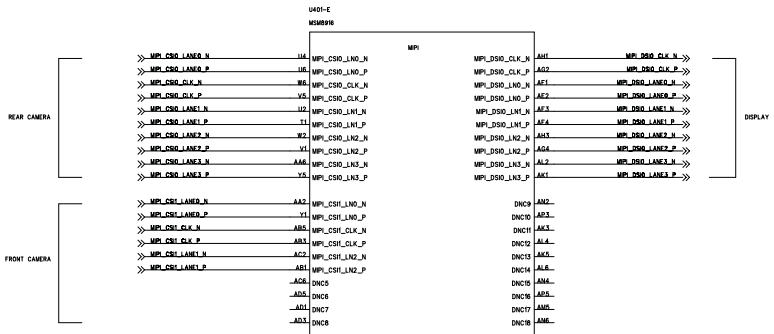


NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

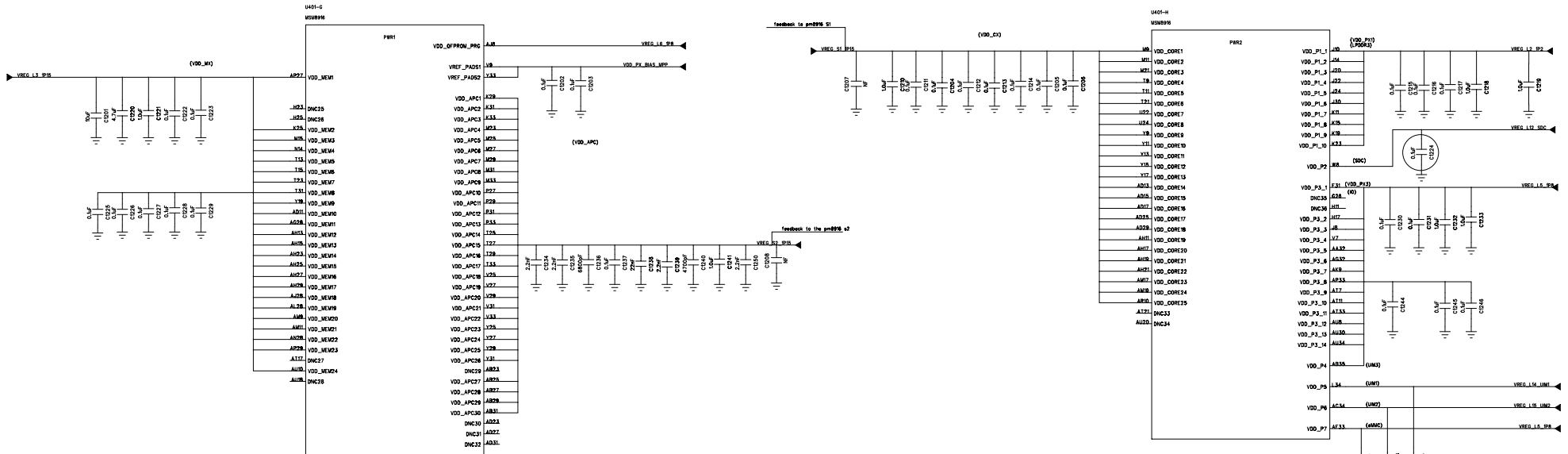
Title	
Rev	Rev
Date	Date
Author	Design

2014816  
北京小米科技有限责任公司

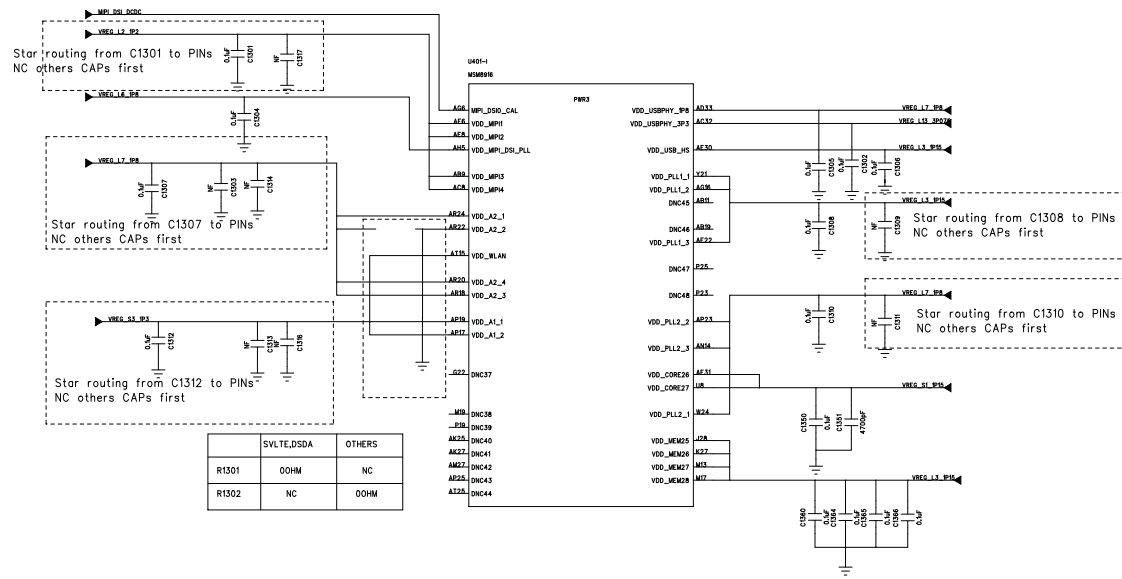


These NC resistor is for SVLTE or DSSS. Change them to 0ohm on other modes.

2014816  
北京小米科技有限责任公司



2014816  
北京小米科技有限责任公司

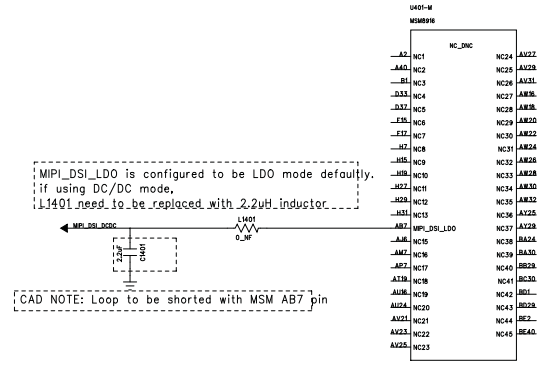
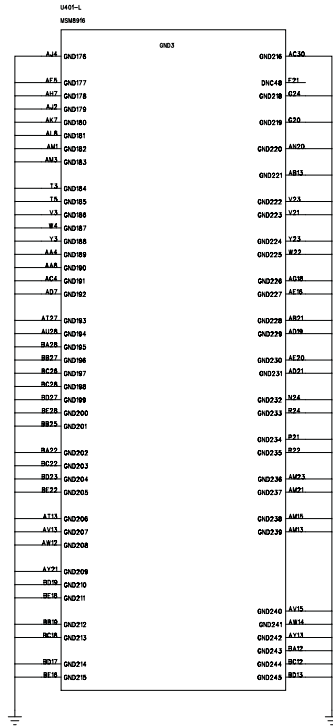
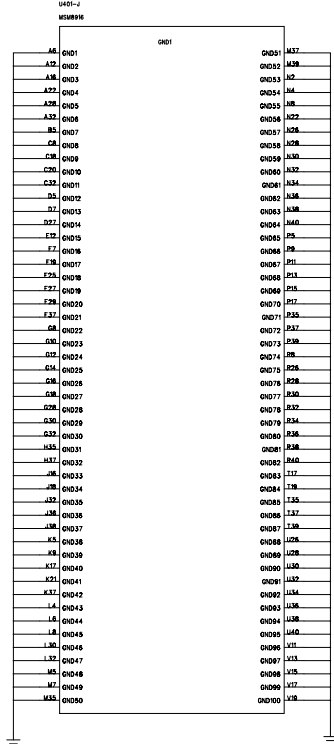
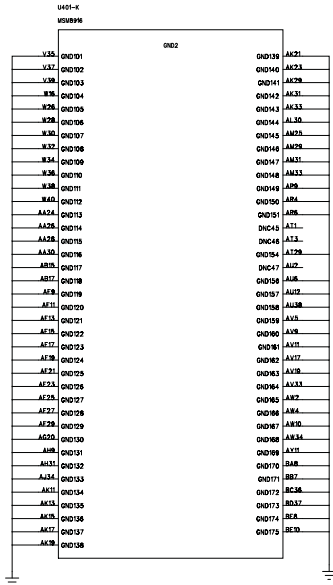


NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

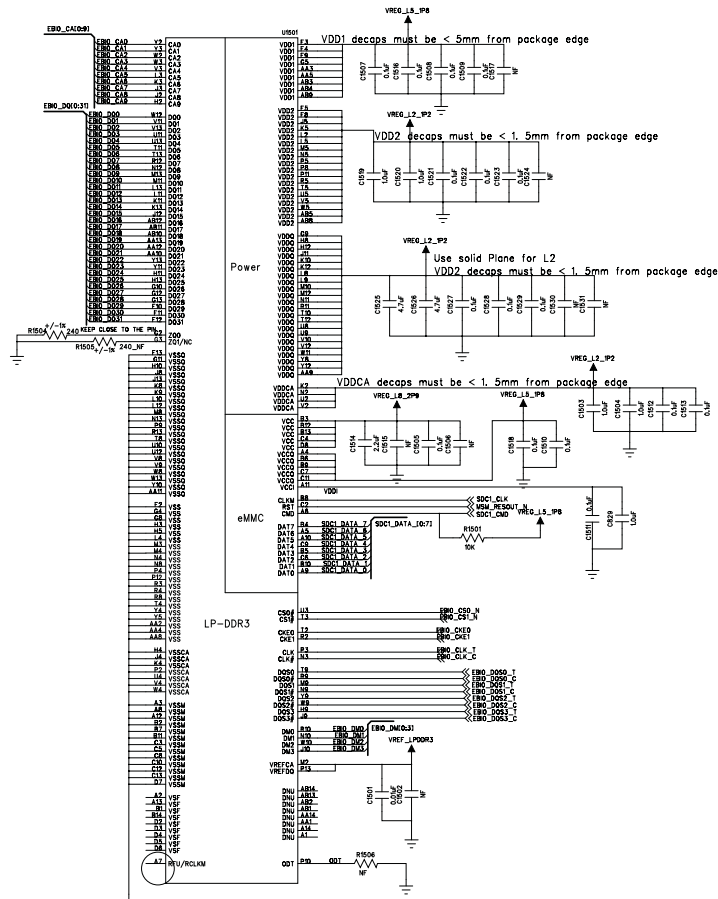
Title \_\_\_\_\_  
Date \_\_\_\_\_  
Rev \_\_\_\_\_

2014816  
北京小米科技有限责任公司

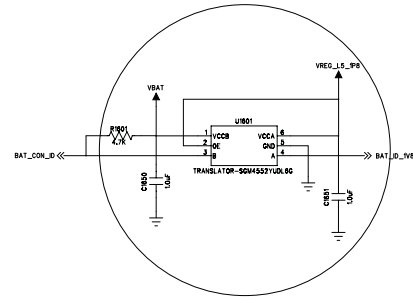
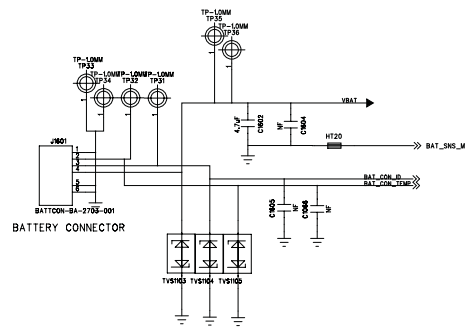


2014816  
北京小米科技有限责任公司

	MICRO/HYNIX	SAMSUNG
U1501.G3	ZQ1	NC
U1501.A7	RFU	RCLK



2014816  
北京小米科技有限责任公司



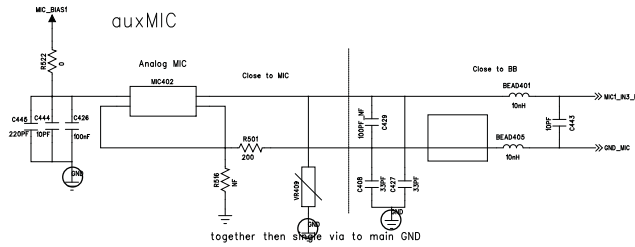
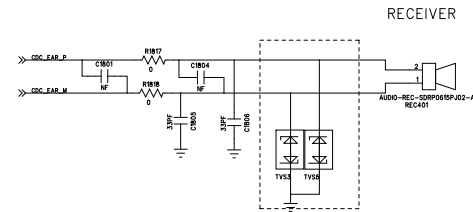
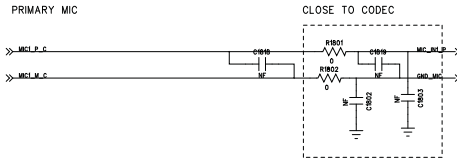
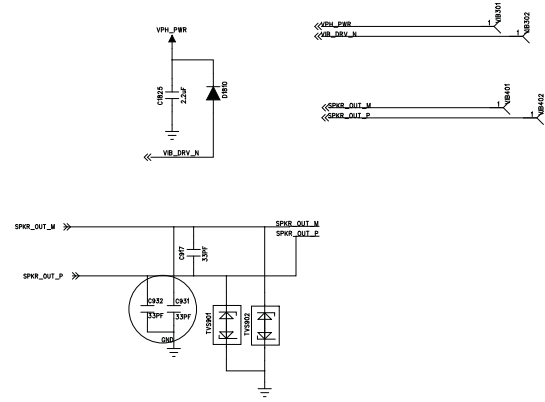
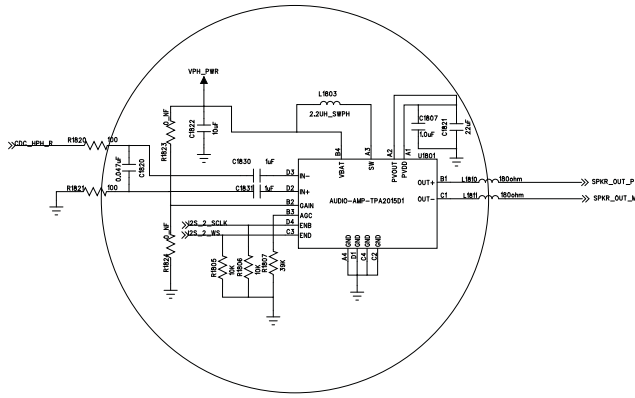
NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775, Warehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title	Rev
DATE	ISSUE



2014816  
北京小米科技有限责任公司

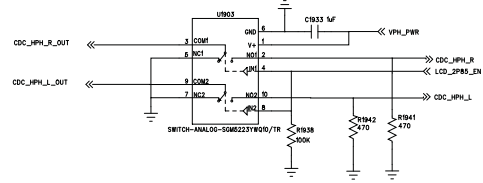
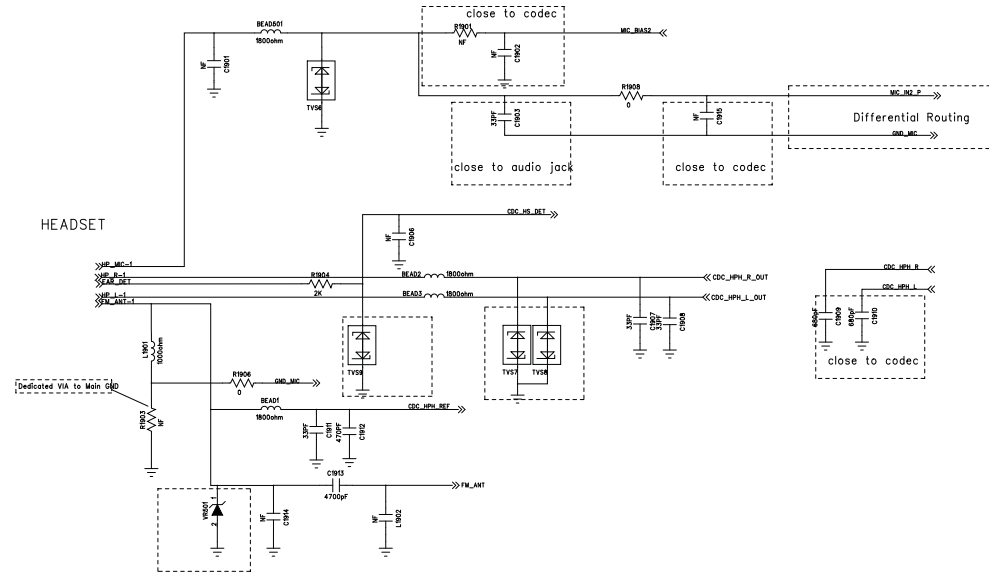
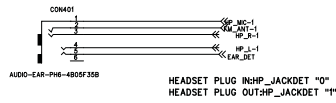


NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title	
Size	Rev
Issue	Date
10/11	10/11

2014816  
北京小米科技有限责任公司



IN=0, COM Connected to NC;  
IN=1, COM Connected to NO;

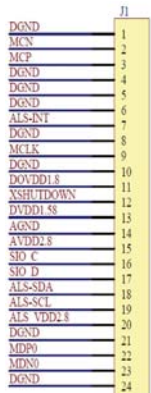
<small>NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.</small>		<b>QUALCOMM Incorporated</b> 5775 Morehouse Drive San Diego, CA 92121-1714 U.S.A.	
Title			
Size	Reset		
Date	Form		
DATE	ISSUED	BY	REV



Sub Camera

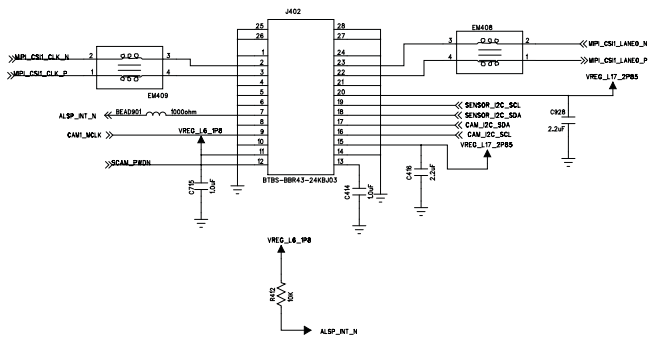
# FRONT\_camera+LP Sensor+SPK

2014816  
北京小米科技有限责任公司



BBR13-24K601

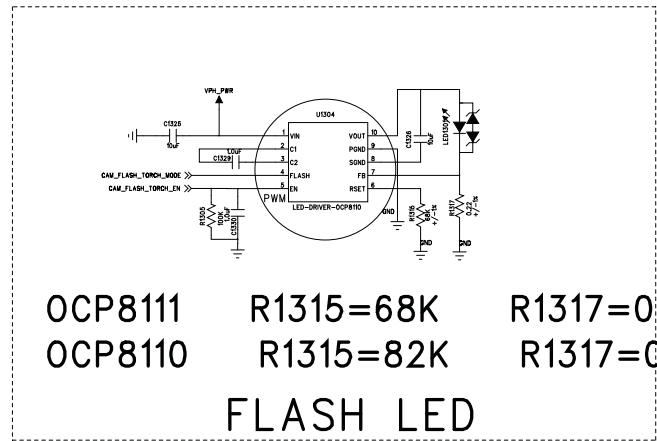
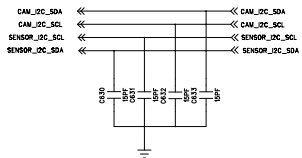
Main Camera / Sub Camera share power domain design should double check the voltage level is compatible



light sensor 0x90 Write(STK3171)  
light sensor 0x46 Write (LTR-558ALS)

Front Camera: 2M	I2C Address
Module:	Write : 0x20
Sensor: OV2680	Read : 0x21

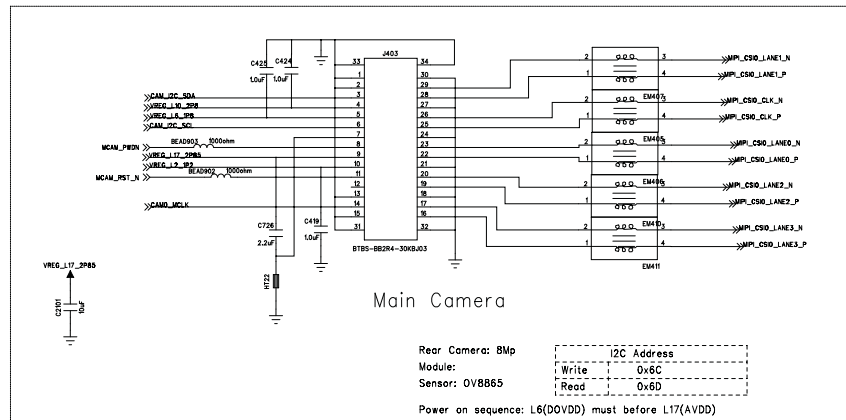
Power on sequence: L6(DOVDD)/L17(AVDD) can be applied in any order



OCP8111 R1315=68K R1317=0.22  
OCP8110 R1315=82K R1317=0.47  
FLASH LED

light sensor 0x90 Write(STK3171)  
light sensor 0x46 Write (LTR-558ALS)

Main Camera / Sub Camera share power domain design should double check the voltage level is compatible



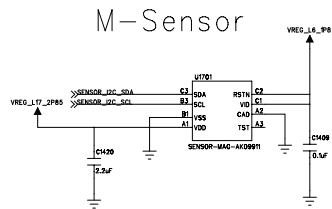
Main Camera

Rear Camera: 8Mp	I2C Address
Module:	Write : 0x6C
Sensor: OV8865	Read : 0x6D

Power on sequence: L6(DOVDD) must before L17(AVDD)

NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_  
Rev: \_\_\_\_\_

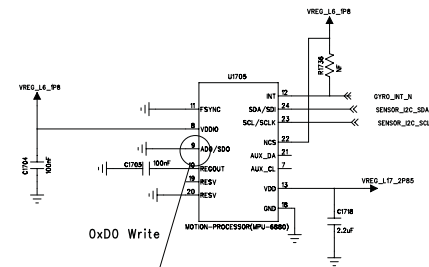


AKM: AK09911

I2C Address@CAD=0	
Write	0x1B
Read	0x19
I2C Address@CAD=1	
Write	0x1A
Read	0x1B

Power on sequence: L6/L17 can be applied in any order

## Gyroscope



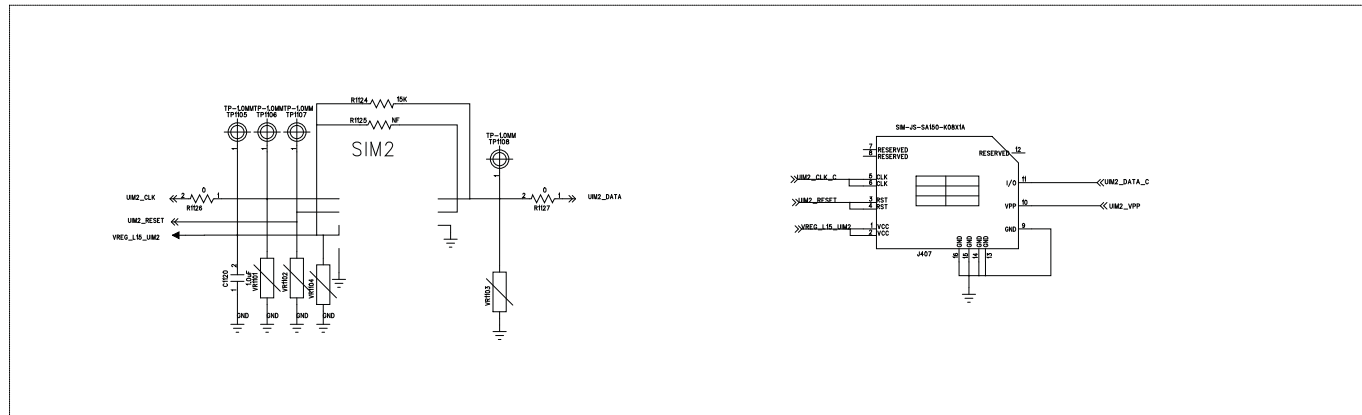
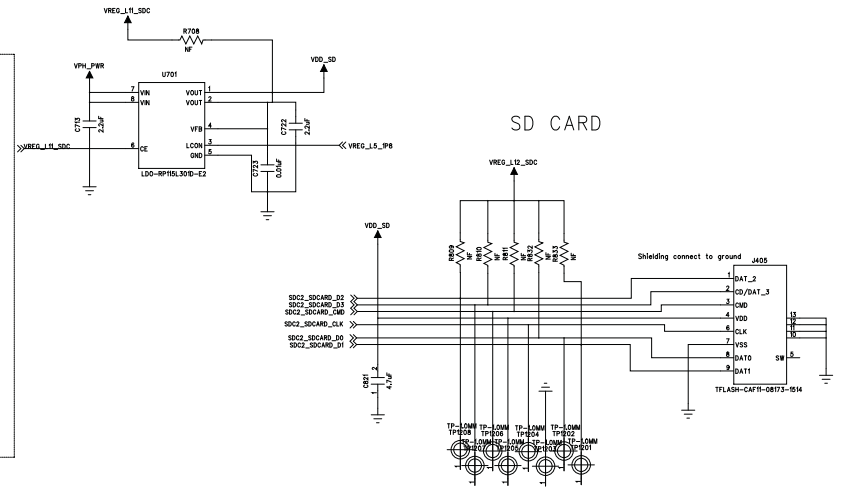
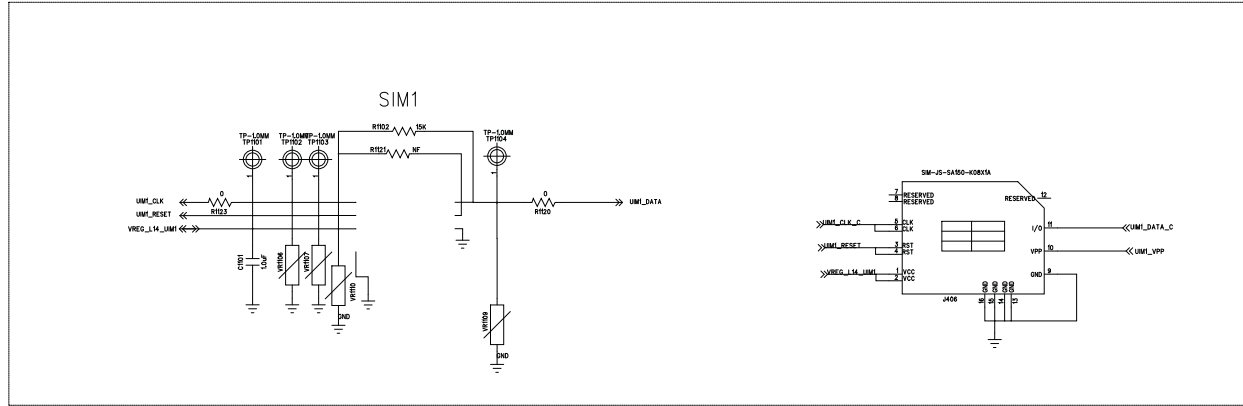
AD0=0 7b1101000 0x68  
AD0=1 7b1101001 0x69

InvenSense: MPU6880

I2C Address@AD0=0	
Write	0xD0
Read	0xD1
I2C Address@AD0=1	
Write	0xD2
Read	0xD3

Power on sequence: L6/L17 can be applied in any order

2014816  
北京小米科技有限责任公司



NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

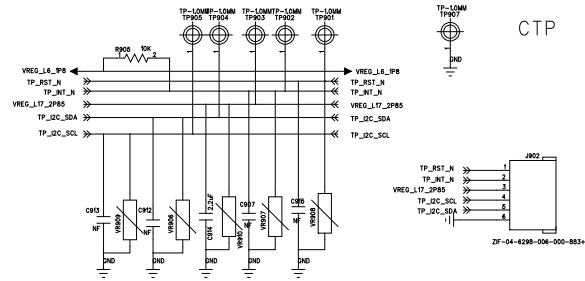
QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title	
Size	
Issue	
DATE	ISSUE



2014816

北京小米科技有限责任公司



Power on sequence: Single Supply  
FocalTech: FT5336  
I2C Address  
Write : 0x70 It can be changed by FACTORY.  
Read : 0x71

NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

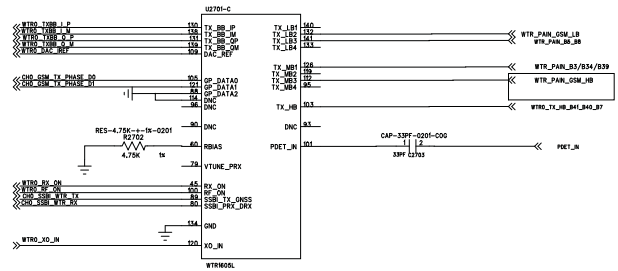
QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title	
Size	
Issue	
Date	
Drawn	
Checked	
Approved	

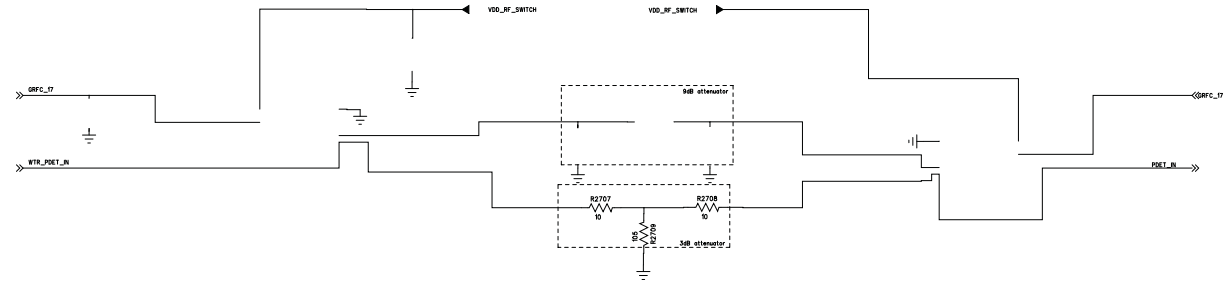


2014816

北京小米科技有限责任公司



use C2701 for both SPDT power supply, and use C2705 for both SPDT control line

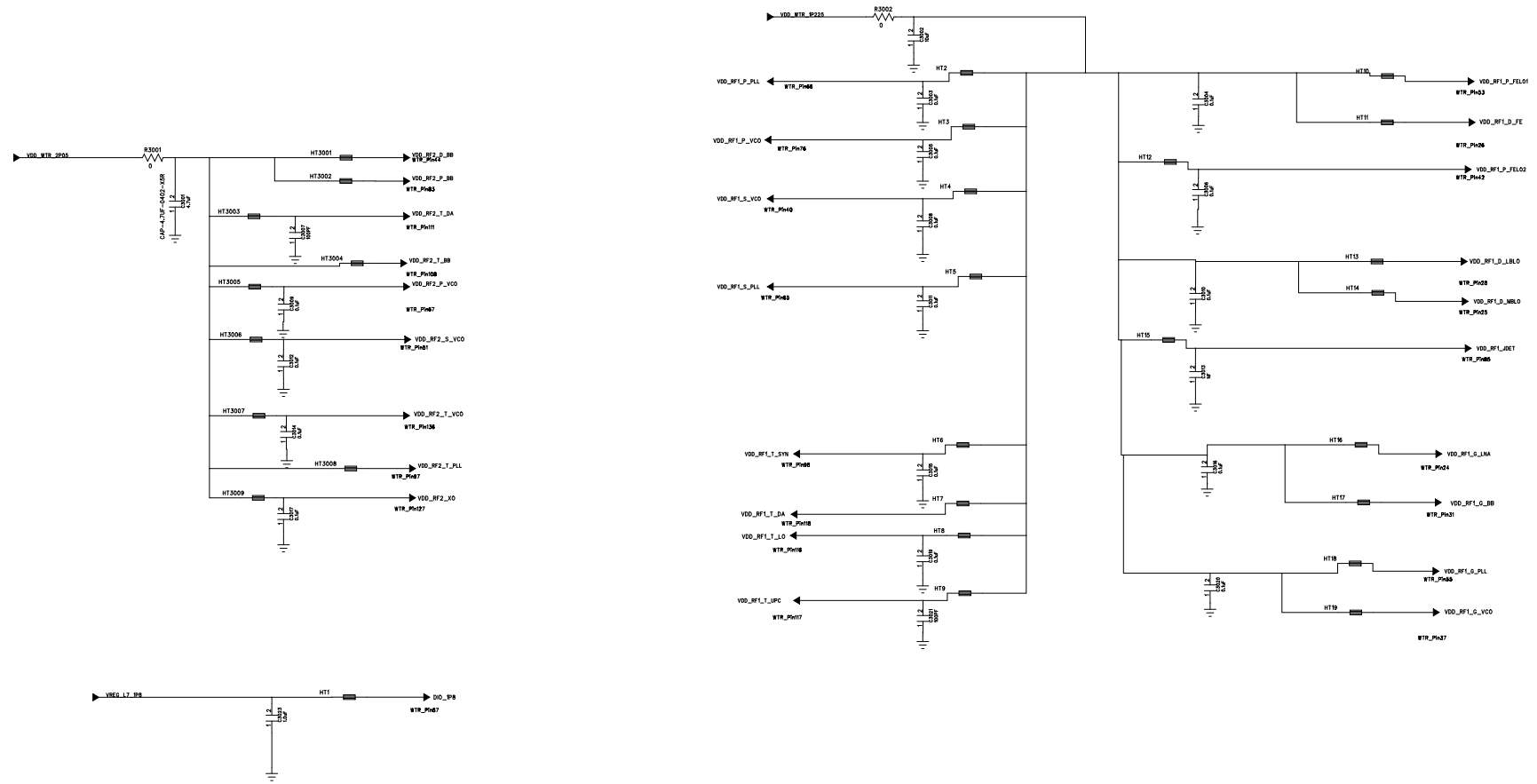


<p>NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.</p>		<p>QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714 U.S.A.</p>	
<p>Title</p>		<p>Rev</p>	
<p>Size</p>	<p>Sheet</p>	<p>Page</p>	<p>Date</p>

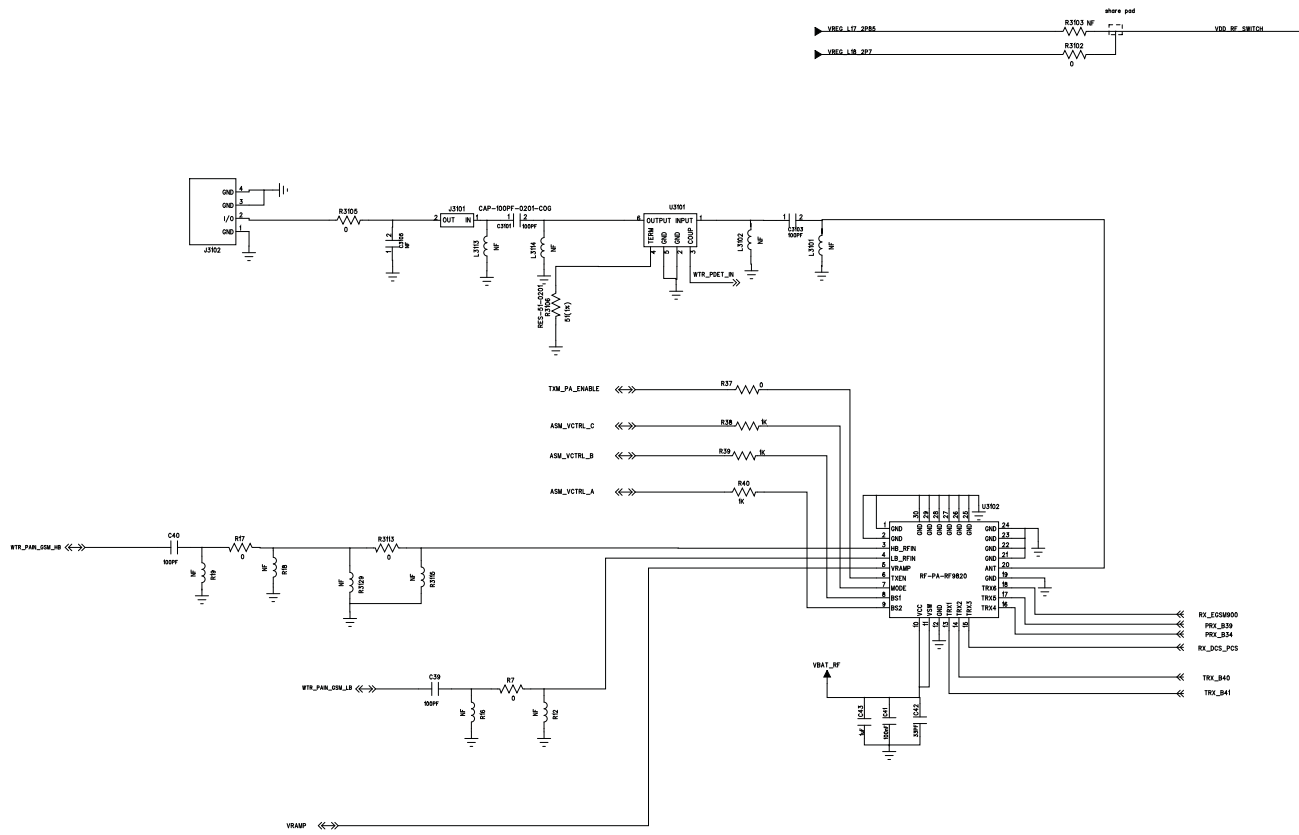




2014816  
北京小米科技有限责任公司



2014816  
北京小米科技有限责任公司

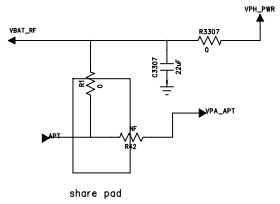
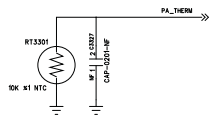
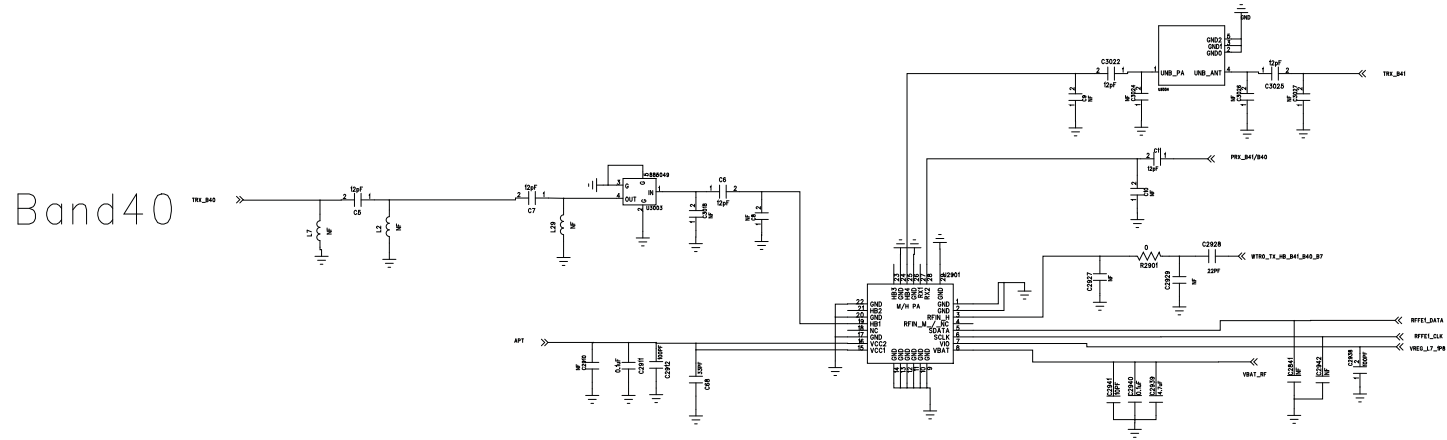


	ANT_SWITCH_CTL0	ANT_SWITCH_CTL1
TRX_B7		
TRX_B40		
QFE2320_ANT		
TRX_B38_41		

2014816  
北京小米科技有限责任公司

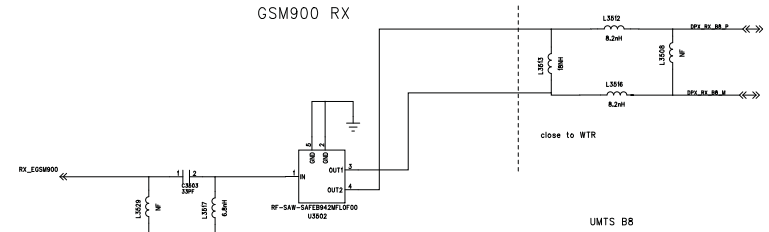
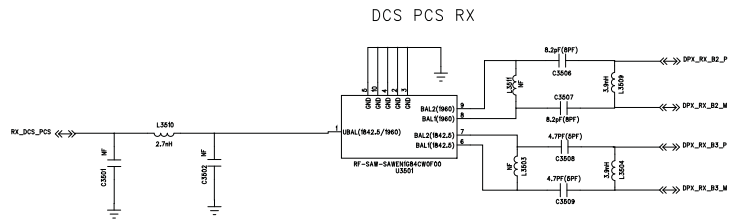
Band40

Band41



<p>NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.</p>		<p>QUALCOMM Incorporated 5775 Morehouse Drive San Diego, CA 92121-1714 U.S.A.</p>
<p>Title</p>		<p>Rev</p>
<p>DATE</p>	<p>ISSUE</p>	<p>31</p>

2014816  
北京小米科技有限责任公司

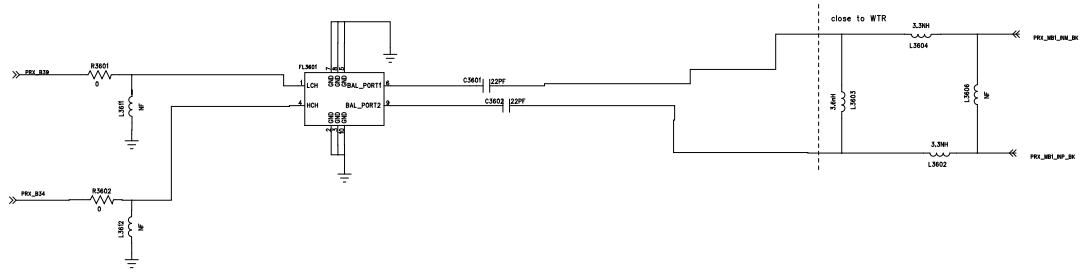


NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title	Rev
Size	
Sheet	
TOTAL	1/1

2014816  
北京小米科技有限责任公司

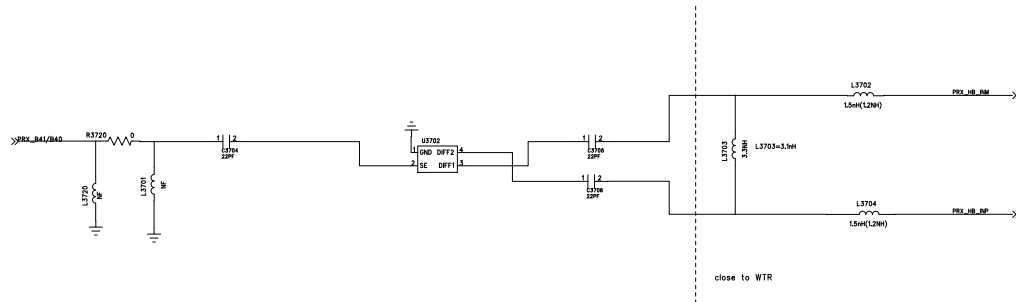


NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title


2014816  
北京小米科技有限责任公司



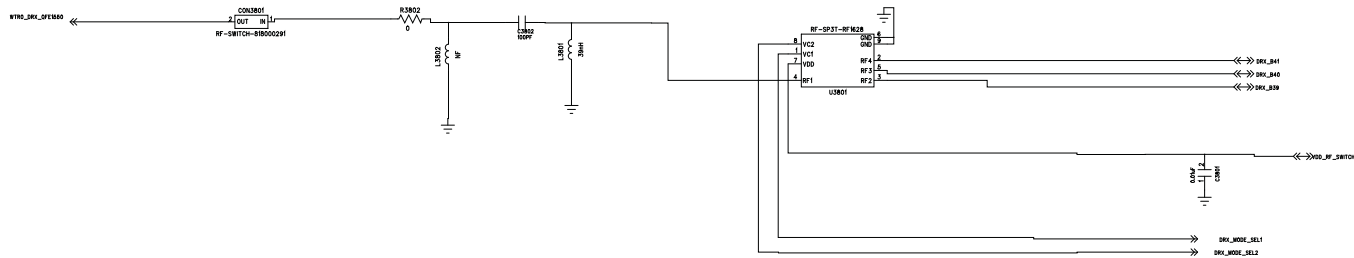
NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR  
ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE  
EXPRESS WRITTEN PERMISSION OF QUALCOMM.

PRX\_B41/240

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title \_\_\_\_\_  
Date \_\_\_\_\_  
Rev \_\_\_\_\_

2014816  
北京小米科技有限责任公司



RX BAND SELECT LOGIC

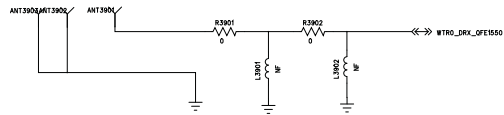
	PORT	DRX_MODE_SELO	DRX_MODE_SEL1	DRX_MODE_SEL2
DRX_B7	RF1			
DRX_B40	RF2			
DRX_B41	RF3			
DRX_B39_B1	RF4			
DRX_B3	RF6			

NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title	
Size	
Sheet	
Rev	
DATE	2014/07/27

2014816  
北京小米科技有限责任公司

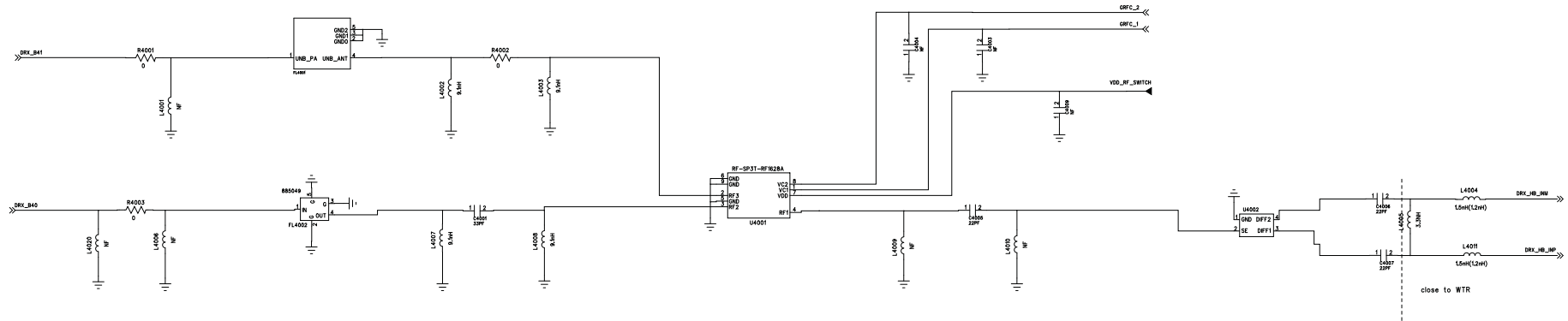


NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title	
Size	Sheet
Date	Sheet

2014816  
北京小米科技有限责任公司

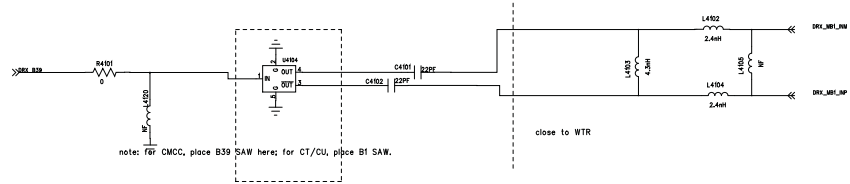


NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR  
ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE  
EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

Title \_\_\_\_\_  
Size \_\_\_\_\_  
Date \_\_\_\_\_  
Rev \_\_\_\_\_

2014816  
北京小米科技有限责任公司

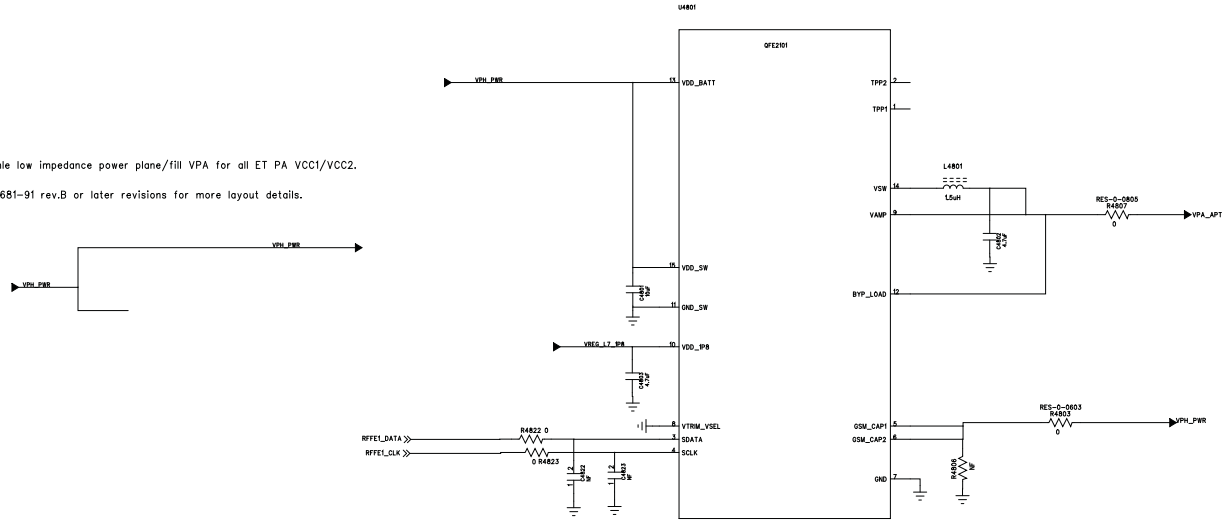


LTE B1,B39/B3 RX Switch

MODE	B39_B3_SWITCH_SEL
PORT1 TO PORT2	L
PORT1 TO PORT3	H

2014816  
北京小米科技有限责任公司

Note: Use a single low impedance power plane/fill VPA for all ET PA VCC1/VCC2.  
Refer to 80-NA681-91 rev.B or later revisions for more layout details.



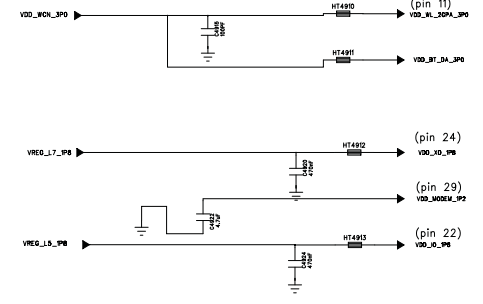
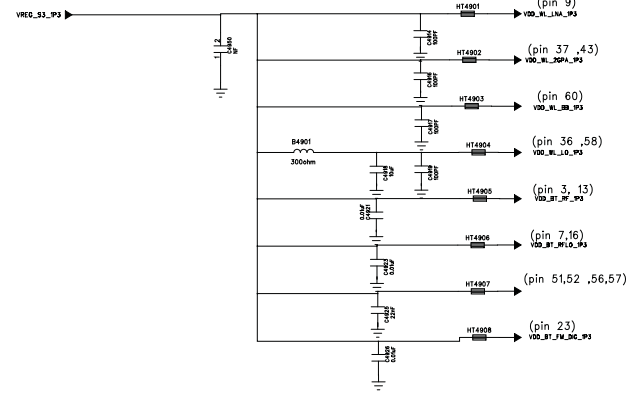
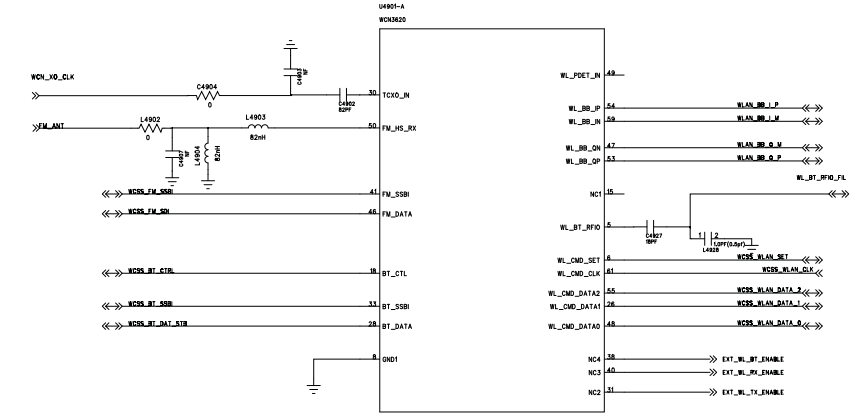
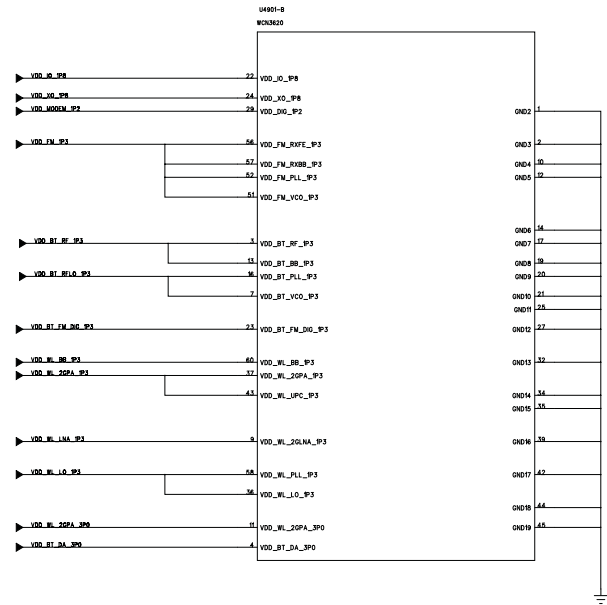
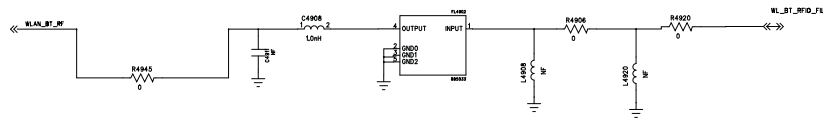
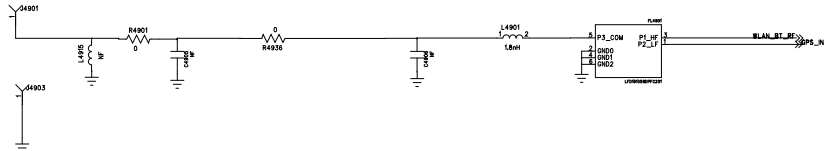
NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, CA 92121-1714  
U.S.A.

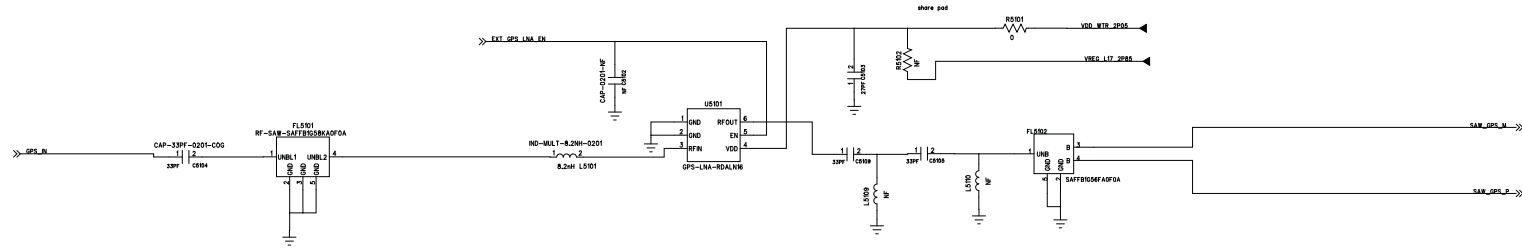
Title \_\_\_\_\_  
Date \_\_\_\_\_  
Rev \_\_\_\_\_

2014816  
北京小米科技有限责任公司

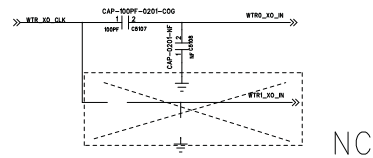
WIFI/BT



2014816  
 北京小米科技有限责任公司  
 GPS



XO DISTRIBUTION



NOT TO BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF QUALCOMM.

QUALCOMM Incorporated  
 5775 Morehouse Drive  
 San Diego, CA 92121-1714  
 U.S.A.

Title	SCHEMATIC, CCA, MAIN BOARD, 0608995_2-4-3, CMC0 CSFB, EV1
File Name	
Rev	
Date	2014/07/27