

REVISION RECORD			
LTR	ECO NO	APPROVED	DATE

Note: Daisy chain from PMIC.50 ohm impedance routing connect to G20 firstly then to L6

It is required only for 5GHz WLAN_XO can be grounded

U7014

R1106_R1107 close to MSM within 5mm

Note1:靠近CPU

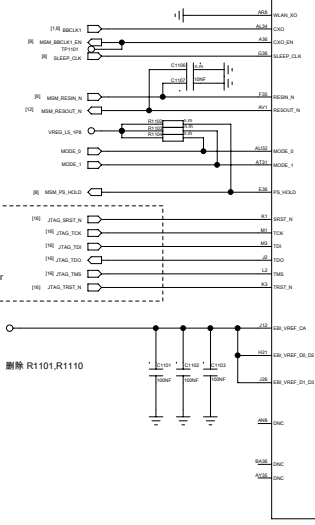
不支持SD卡的话，SDC2该怎么接？

90 ohm differential impedance routing

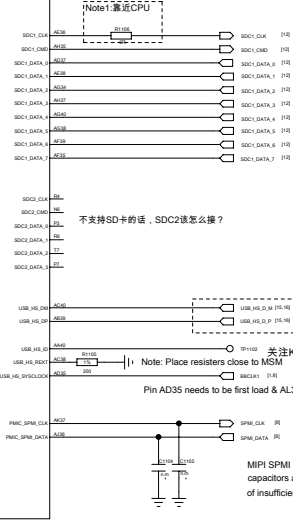
Note: Place resistors close to MSM

Pin AD35 needs to be first load & AL34 will be the last load from PMIC.

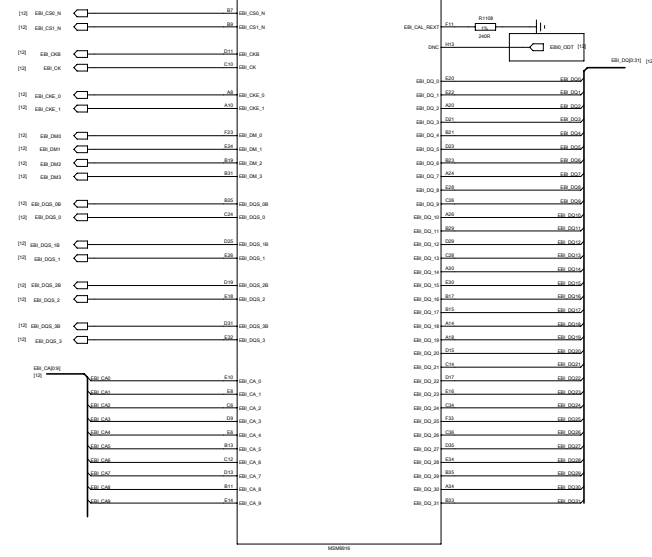
关注K7mini OTG结果
 MIPI SPMI standards require 15pF-50pF of bus loading capacitors and the placeholders can be used in case of insufficient bus loading.



删除 R1101,R1110



U7016



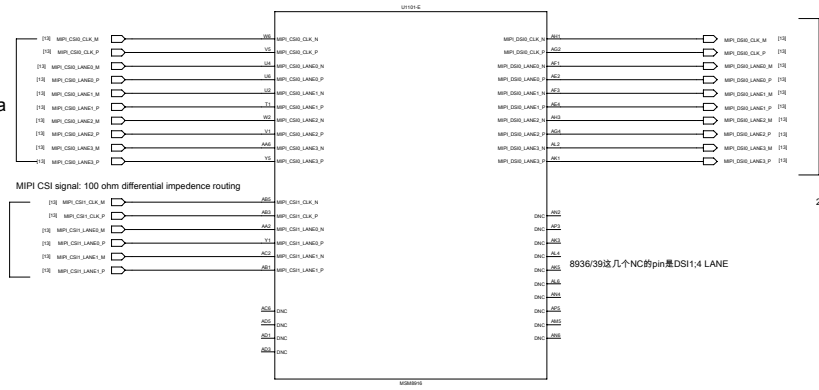
U7009

SOPM001				LENOVO			
TITLE:							
Sisley_MB_H301							
DESIGN:	L1Yan	DATED:	2016-08-10	CODE:		ISS:	
CHECKED:	Zhang Yu	DATED:	2016-08-10	DRAWING NO:	11_MSM8916_CONTROL_1_MEMORY		REV:
QUALITY CONTROL:		DATED:		D	H301		
RELEASED:		DATED:		SCALE:			SHEET: 08 06

REVISION RECORD			
LTR	ECO NO	APPROVED	DATE

Rear Camera

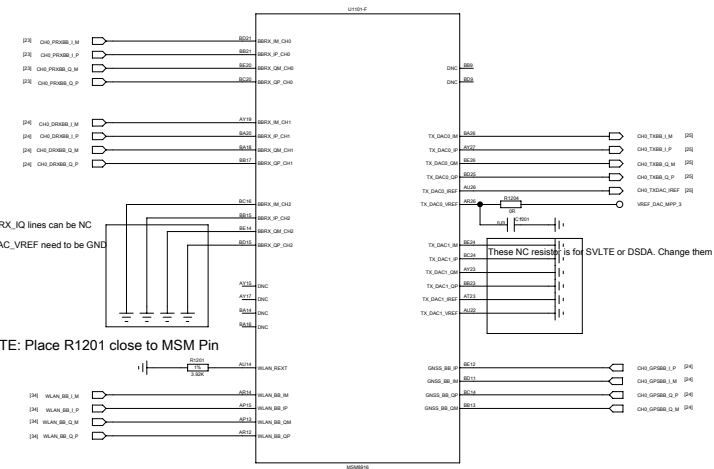
Front Camera



Display

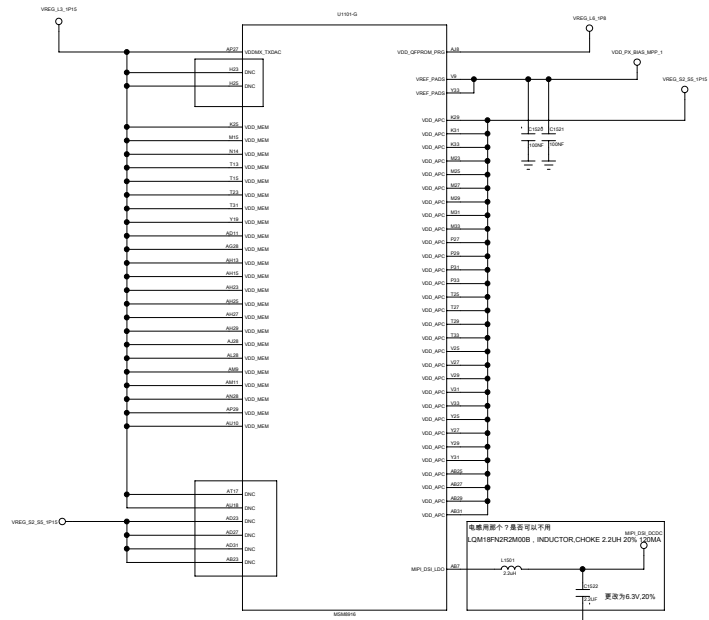
- 1) Unused BBRX_IQ lines can be NC
- 2) Unused TX_DAC0_IQ, TX_DAC_IREF and TX_DAC_VREF need to be GND

NOTE: Place R1201 close to MSM Pin

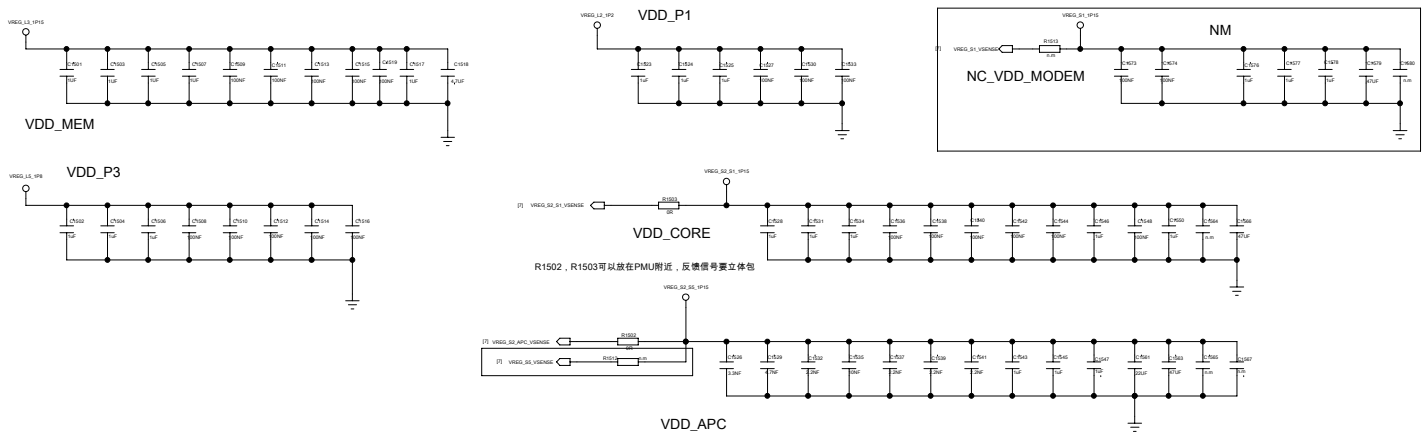
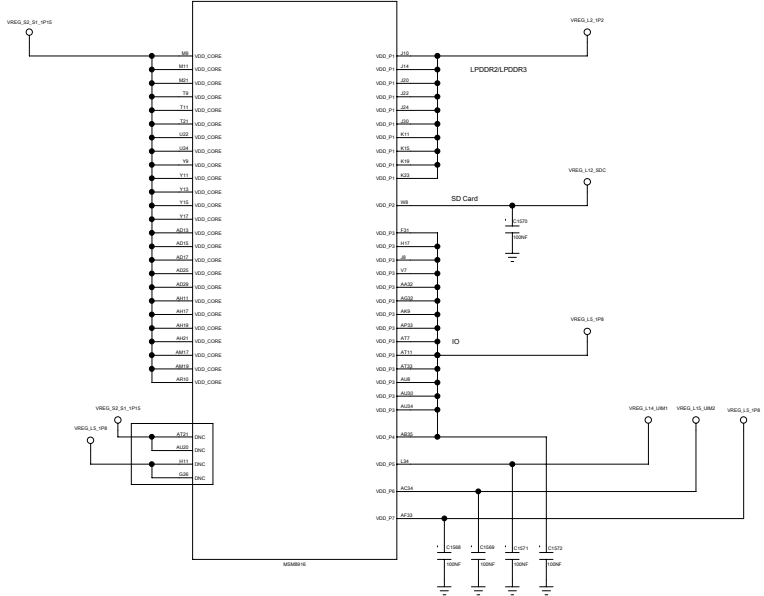


SDMPW01				LENOVO			
TITLE:				Sisley_MB_H301			
DESIGN:	LYT/WH	DATE:	2014-08-12	CODE:		ISS:	
CHECKED:	Zhang YH	DATE:	2014-08-12	DRAWING NO:	12_MSMB916_CONTROL_2	REV:	H301
QUALITY CONTROL:		DATE:					
REL ENGINEER:		DATE:					
SCALE:							SHEET 7 OF 36

REVISION RECORD			
LTR	ECO NO	APPROVED	DATE

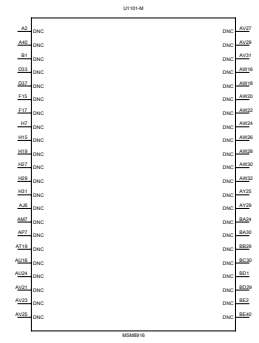
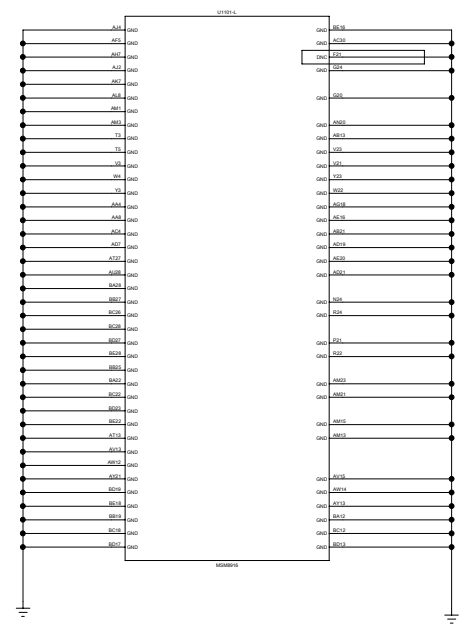
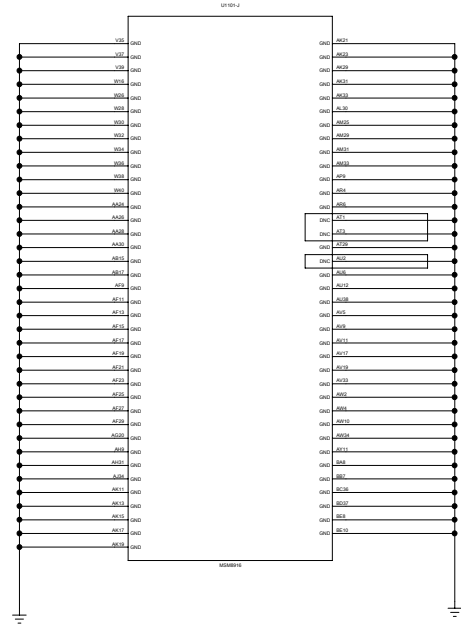
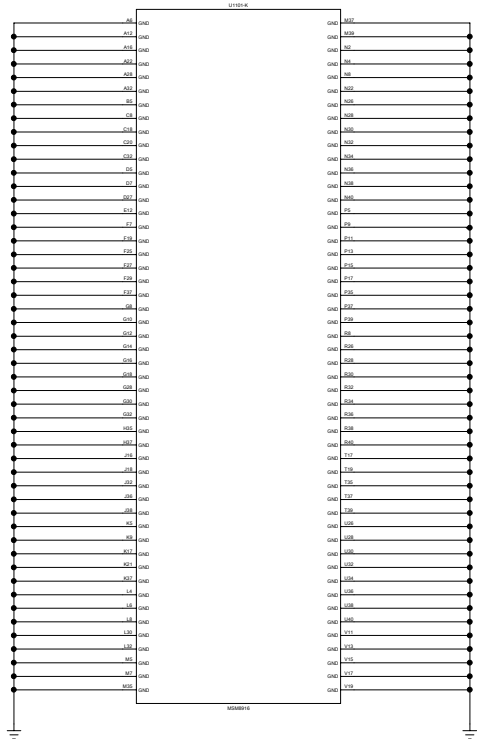


MIP1 DSI supports LDO and SMPS mode. Default configuration for this design is LDO mode. If SMPS mode is required install 2.2UH inductor.



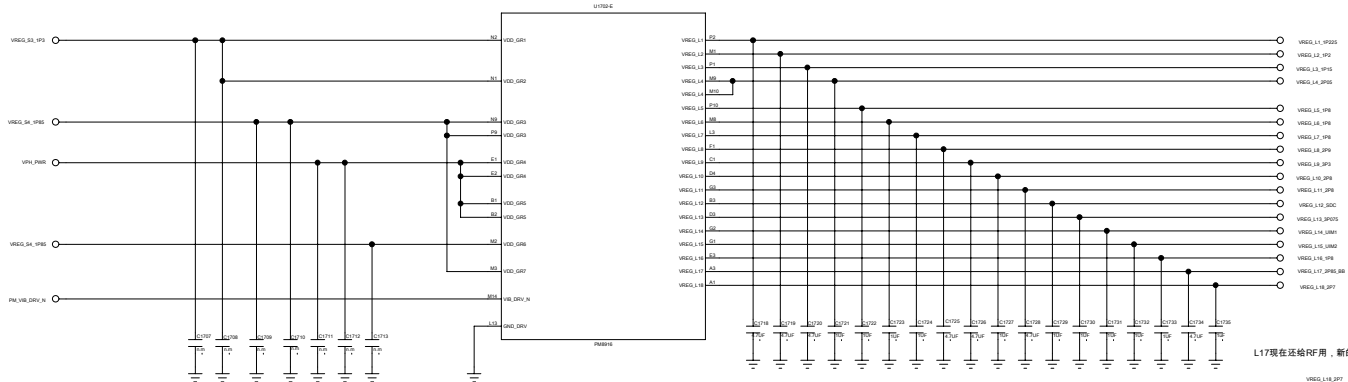
S04P001		LENOVO	
TITLE: Sisley_MB_H301			
DESIGN: L1Yan	DATE: 2014-08-12	CODE: D	REV: H301
CHECKED: Zhang Wu	DATE: 2014-08-12	ISS:	DRAWING NO:
QUALITY CONTROL:	DATE:	SCALE:	SHEET: 1/1
RELEASED:	DATE:		

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

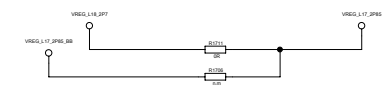


SDMPW01				LENOVO			
TITLE:							
Sisley_MB_H301							
DATE:	L1/Ya/Ta	DATE:	2014-08-12	CODE:	SEC:	DRAWING NO.:	REV:
CHECKED:	Zhang Ma	DATE:	2014-08-12	D			H301
QUALITY CONTROL:		DATE:					
RELEASED:		DATE:		SCALE:	SHEET: 08 36		

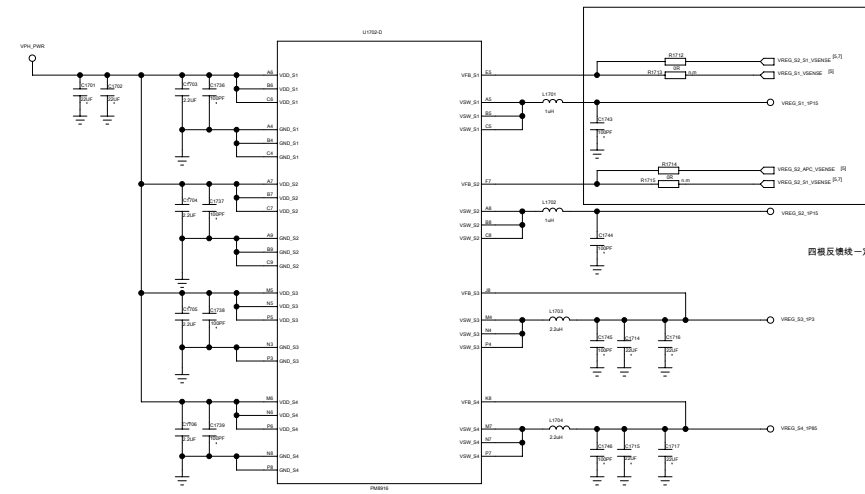
REVISION RECORD			
LTR	ECO NO	APPROVED	DATE



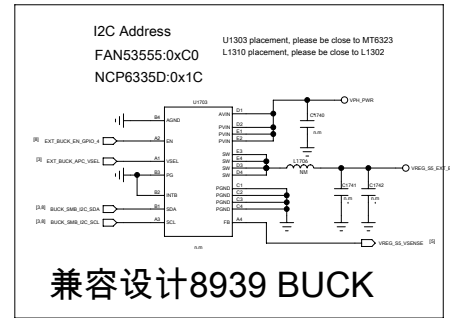
L17 现在还在给RF用，新的参考设计中，使用L18替代L17给RF供电



删除U1701及其匹配电路

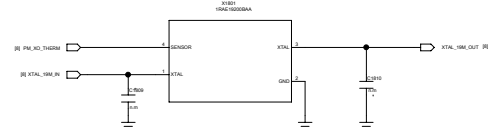


四根反卷线一定要立体包好

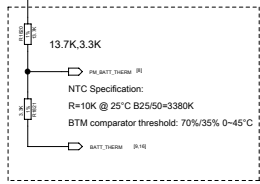
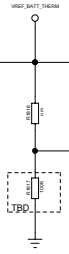


S04P001		LENOVO	
TITLE:			
Sisley_MB_H301			
DESIGN:	L17a7a	DATE:	2014-08-12
CHECKED:	Zhang YH	DATE:	2014-08-12
QUALITY CONTROL:		DATE:	
REL ENGINEER:		DATE:	
CODE:	S02:	DRAWING NO:	H301
D		17_PM8916_PWR	
SCALE:		SHEET:	02 of 06

REVISION RECORD			
LTR	ECO NO	APPROVED	DATE



follow 19.2 MHz XO Source -80-VP447-10 Layout Guidelines



测试夹具需要从TP1801处开机
 R1808可以接到CPU端

R1809, R1810接到另一端

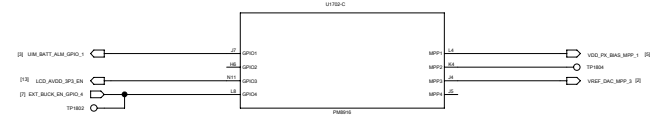
BBCLK2给NFC, R1811, C1804可以接到CPU端

QRD最新的图纸已经将VREF_BATT_THERM删除

GND_XO and GND_XO_BUFF should have a dedicated via directly to main GND

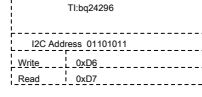
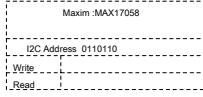
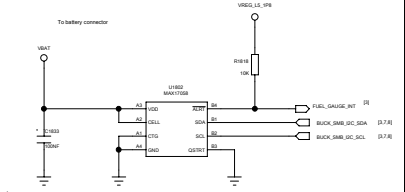
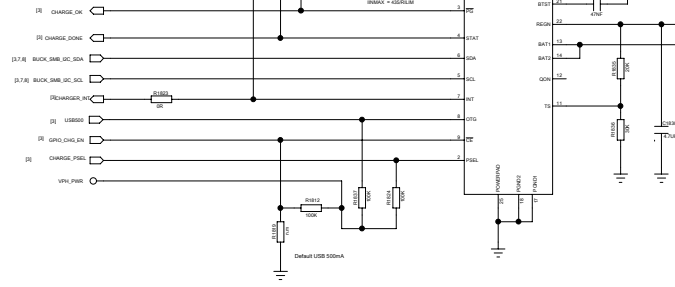
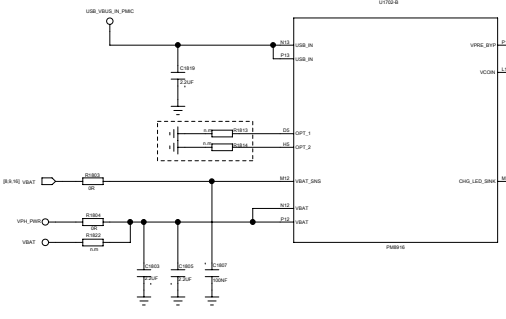
GND_REF must connect directly to cap on a thin trace the cap should via directly to main ground with no connections to intermediate ground fills.

DIRECTLY TO MAIN GROUND



电池不可拆卸, 此电容是否可以换个小点的, QRDEV2用10uF

VBAT_SNS需要立体物, 线不需要太高



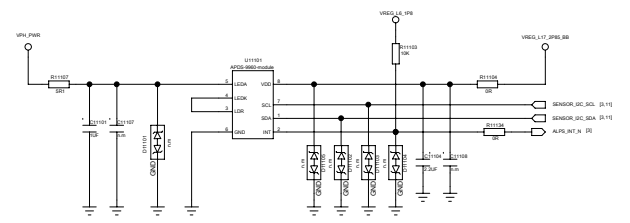
Pins	Hi Z	GND
OPT_1	No SMB1360	SMB1360 Present
OPT_2	No Ext APC Buck(S5)	Ext APC buck(S5) Present

SDMP001				LENOVO			
TITLE: Sisley_MB_H301							
DESIGN: L1/Ya/Ta	DATE: 2014-08-12	CODE: D		SIC:		DRAWING NO: H301	
CHECKED: Zhang Ma	DATE: 2014-08-12	REV: 1		DRAWING NO: H301		REV: 1	
QUALITY CONTROL:	DATE:	SCALE:		SHEET: 18		IN	
RELEASED:	DATE:	SCALE:		SHEET: 18		IN	

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

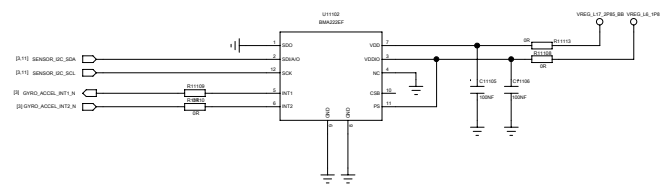
ALS & PS (P-sensor)

ROHM: RPR-0521RS
 *I2C Address: 1001001 (0x49) *
 *Write: 10010010 , Read: 10010011 *



G Sensor

BMA222EP
 Write Addr: 0X0010000
 Read Addr: 0X0010001



Sensor hub

E-Compass

eCompass是由CPU复位，I2C加在HUB上，不知道X2调通没？

Status Light

SIEN_SN3193
 I2C Address 11010000
 Write: 0x00

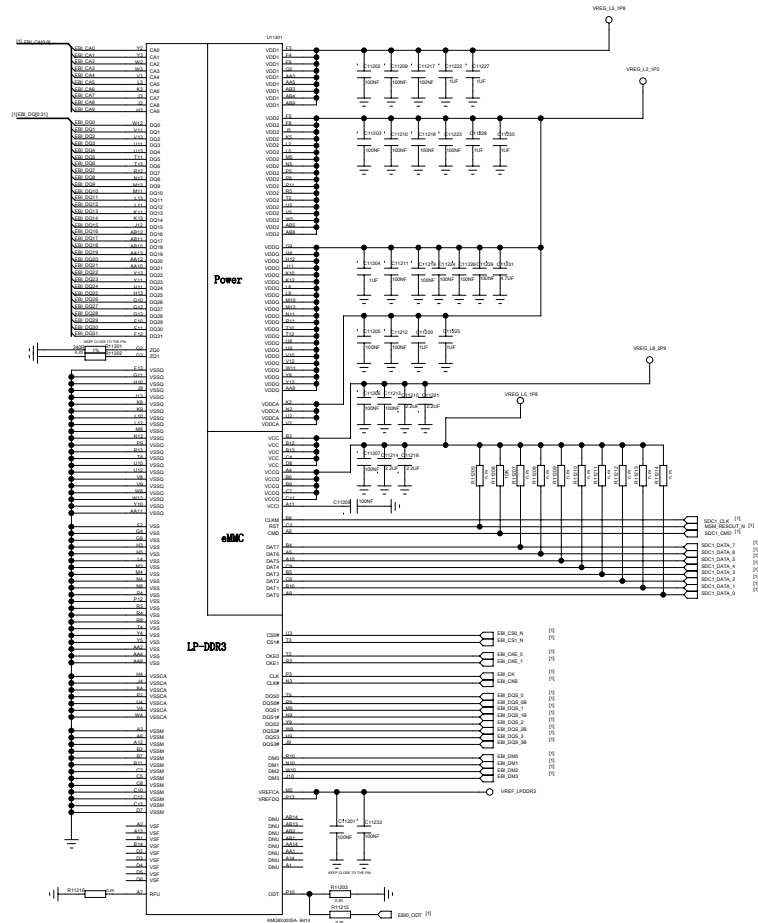
Hall Sensor

Hall的中断连在CPU上，不知道X2调通没？

SDMPW: LENOVO			
TITLE: Sisley_MB_H301			
DATE: 1/12/12	DATE: 2/14/12	DATE: 3/14/12	DATE: 4/14/12
CHECKED: Zhang Yu	DATE: 2/14/12	DATE: 3/14/12	DATE: 4/14/12
QUALITY CONTROL:	DATE:	DATE:	DATE:
RELEASED:	DATE:	DATE:	DATE:
CODE: D	SIZE:	DRAWING NO:	REV: H301
SCALE:		SHEET: 08 36	

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

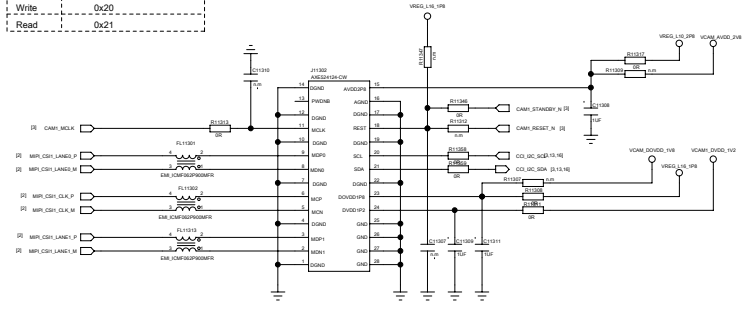
16GB eNAND+8GbDDR3的高度是0.9 , 16GB eNAND+16Gb LPDDR3 (先放的此料,高度是1.1) ; 32GB eNAND+16Gb LPDDR3的高度1.3mm , 评估时注意



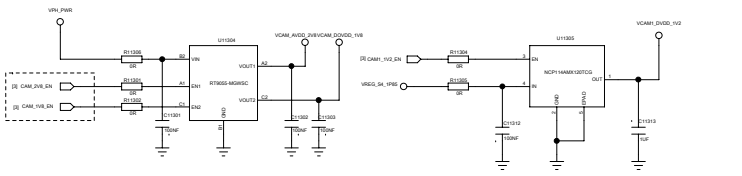
SOP:WPT		LENOVO	
TITLE:			
Sisley_MB_H301			
DATE:	1/17/2016	DATE:	2016-08-12
CHECKED:	Zhang Ma	DATE:	2016-08-12
QUALITY CONTROL:		DATE:	
RELEASED:		DATE:	
SCALE:		DRAWING NO.:	H301
		REV:	
		CODE:	D
		ISS:	
		SHEET:	08/16

Front Camera 8M

I2C Address
Write: 0x20
Read: 0x21



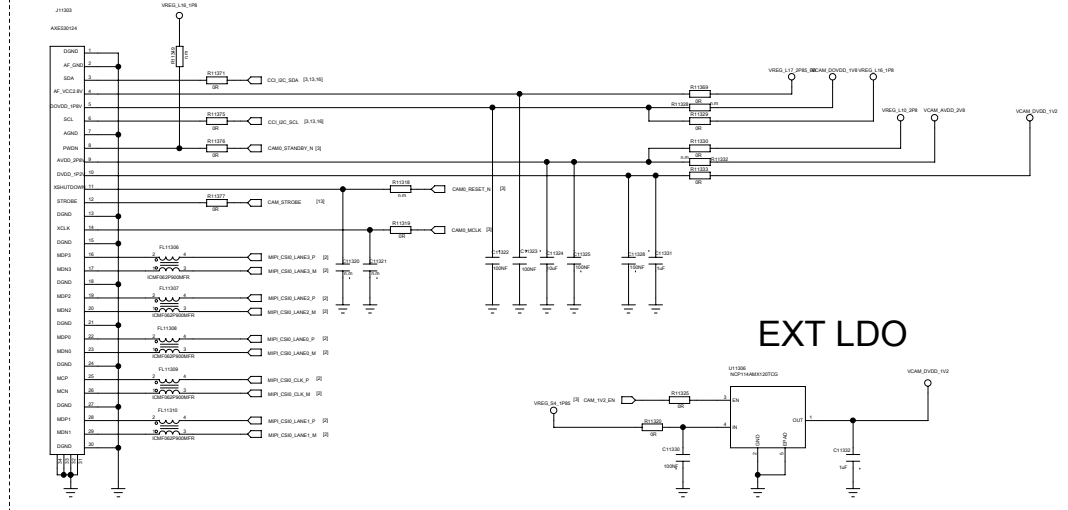
EXT LDO



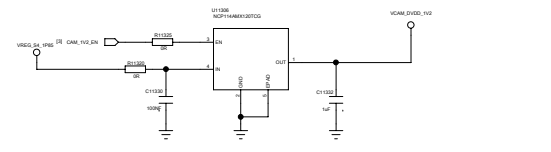
Rear Camera 13M

Rear Camera: 13Mp
Module: 舜宇
Sensor: OV13850
I2C Address
Write: 0x6C
Read: 0x6D

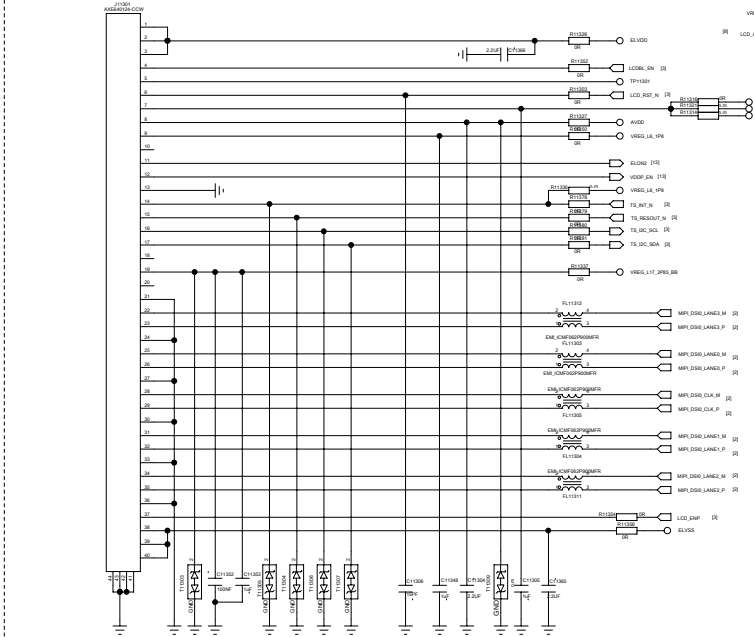
找下Camera Sensor的SPEC, DVDD是内部供电还是外部供? 内部电路是什么



EXT LDO

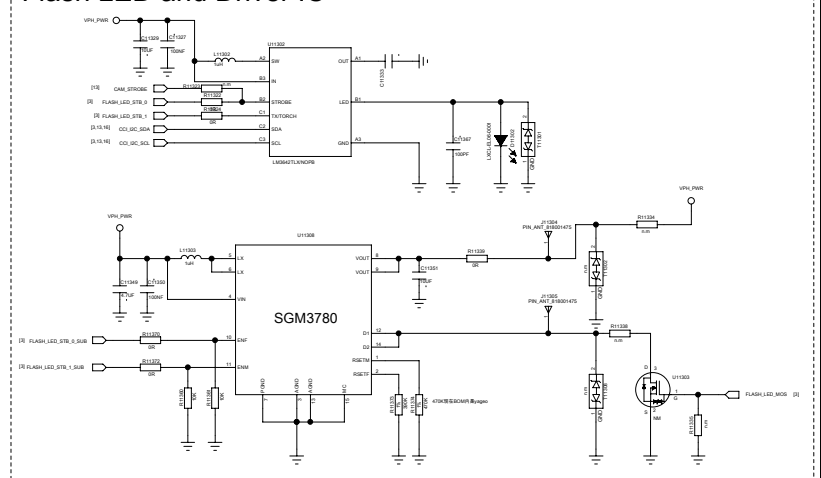


LCD 是否要支持qHD的屏? 如果不支持, 可以把电源上的备手删掉



Intersil: ISL98607
I2C Address: 0101000
Write: 0x50
Read: 0x51
Goodix 915
I2C Address: 0X38
Write: 0x70
Read: 0x71
(0x38 if use 7 bytes I2c address)

Flash LED and Driver IC I2C Address: 0x63 0x110000/0/1



Swire现在使用GPIO模拟, 不知道能不能行? 需跟供应商确认

REVISION RECORD			
LTR	ECO NO	APPROVED	DATE

LENOVO			
TITLE: Sisley_MB_H301			
DESIGN: LiYanTan	DATED: 2014-08-15	DRAWING NO: D_13_CAMERA_LCD_TP_FLASH-H301	REV:
CHECKED: Zhang Wu	DATED: 2014-08-15		
QUALITY CONTROL:	DATED:	CODE:	SOC:
RELEASED:	DATED:	SCALE:	SHEET: 08/ 16

6

5

4

3

2

1

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

D

D

C

C

B

B

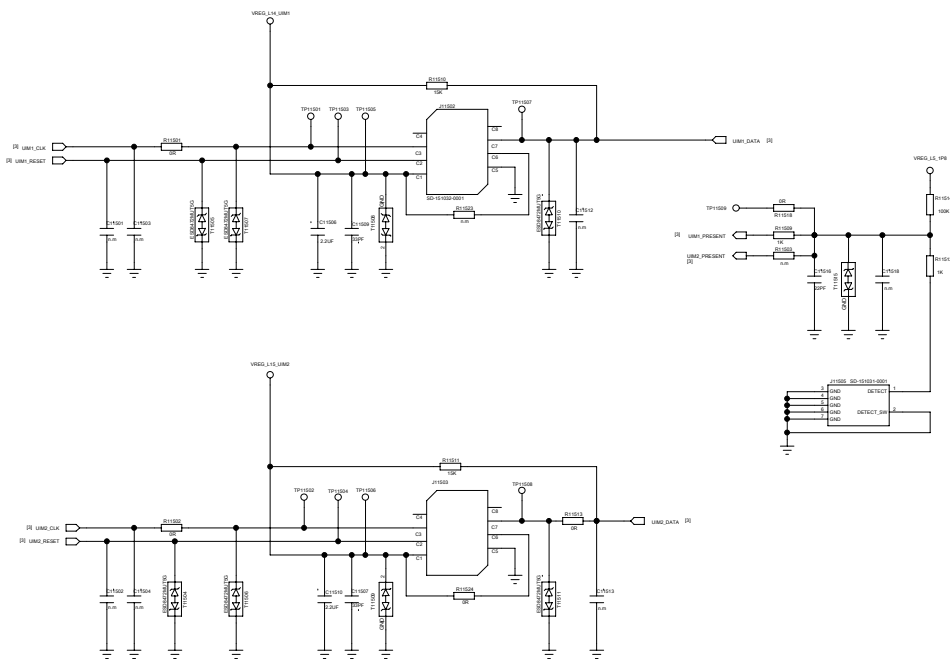
A

A

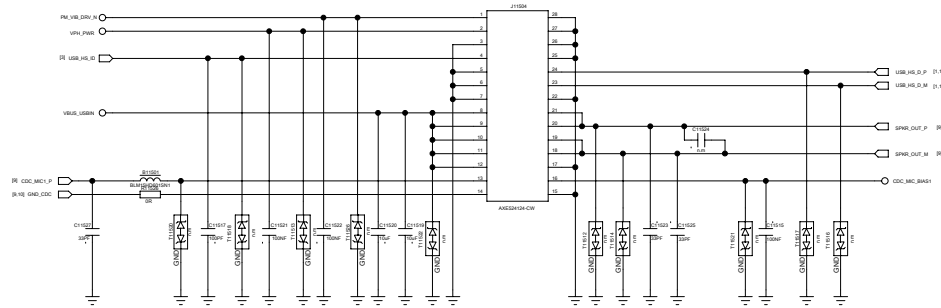
SOP/APP: LENOVO			
TITLE: Sisley_MB_H301			
CODE:	SEC:	DRAWING NO:	REV:
	D		H301
SCALE:			SHEET: 01/ 01

DESIGN:	L1/YaTn	DATE:	2014-08-12
CHECKED:	ZhangYn	DATE:	2014-08-12
QUALITY CONTROL:		DATE:	
RELEASED:		DATE:	

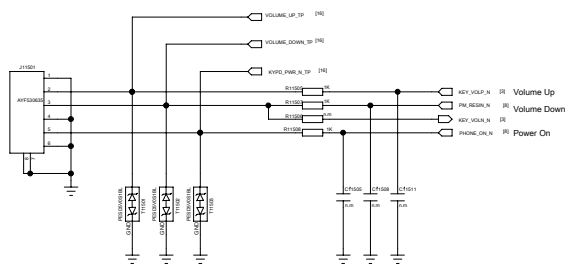
SIM Card



FPC connector
根据小板PIN序调整主板pin序



Keys



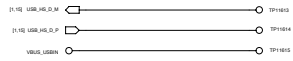
Signal	Description
KPSNS0	Volume Up
KPSNS1	Camera Shutter
KPSNS2	Camera Focus
PM_RST_N	Volume Down
KYPD_PWR_N	PWER_ON
PM_RST_N+	Hardware Reset

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

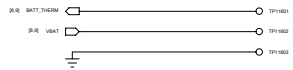
EDMPART: LENOVO			
TITLE: Sisley_MB_H301			
DESIGN: L1YanTao	DATE: 2014-08-12		
CHECKED: ZhangYun	DATE: 2014-08-12	CODE: D	REV: H301
QUALITY CONTROL:	DATE:	SCALE:	SHEET: 08/16
RELEASED:	DATE:		

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

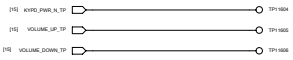
Factory test piont for USB



Factory test piont for battery



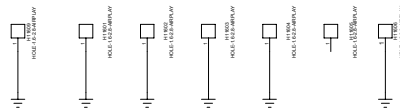
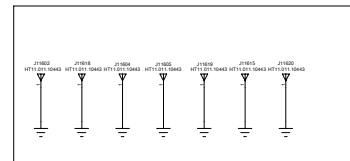
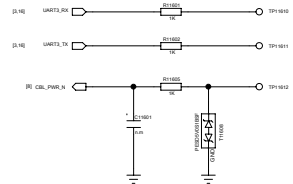
Factory test piont for power on



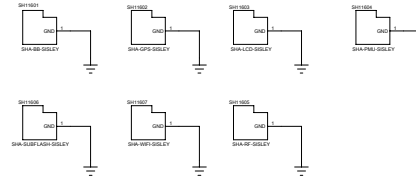
Factory test piont for force usb boot



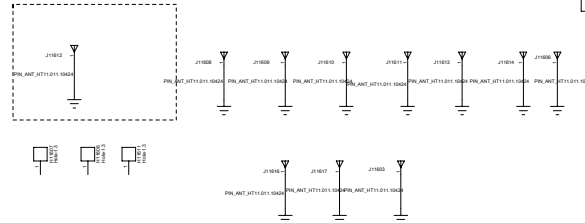
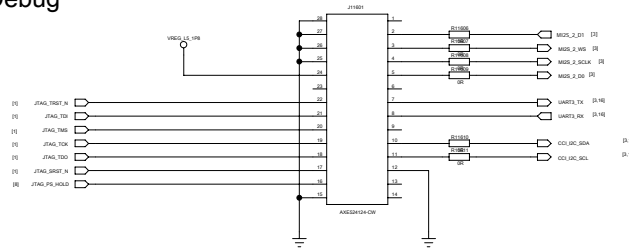
Factory test piont for communication



电池压接片

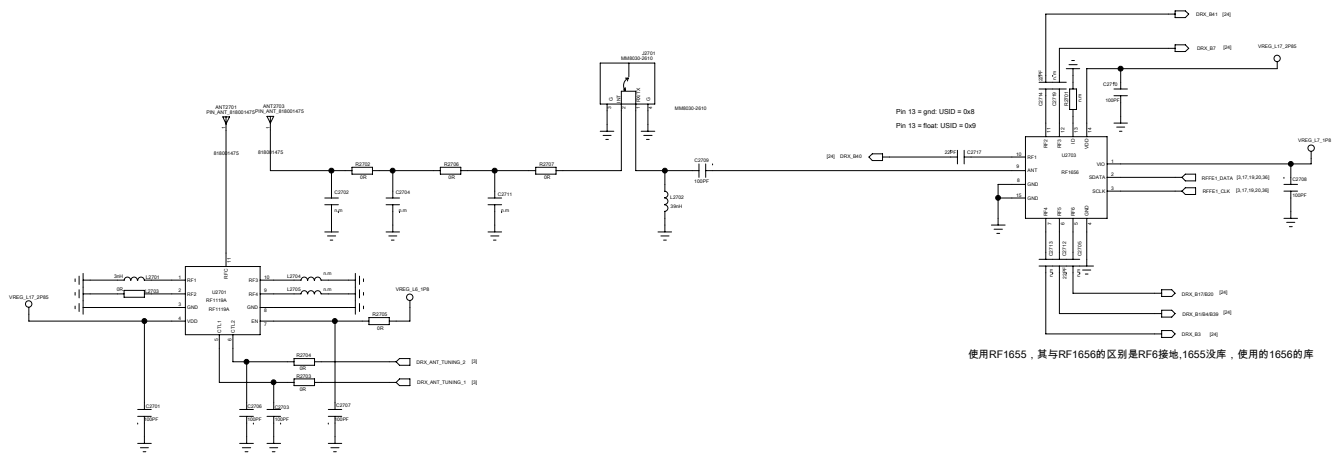


JTAG for Debug



SOP/PPWT				LENOVO			
TITLE							
Sisley_MB_H301							
DESIGN:	L1/Ya/Ta	DATED:	2014-08-12	CODE:	SOC:	DRAWING NO.:	REV:
CHECKED:	Zhang YH	DATED:	2014-08-12	D		H301	
QUALITY CONTROL:		DATED:					
RELEASED:		DATED:					
SCALE:				SHEET: 008 / 01			

REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE



使用RF1655, 其与RF1656的区别是RF6接地, 1655没库, 使用的1656的库

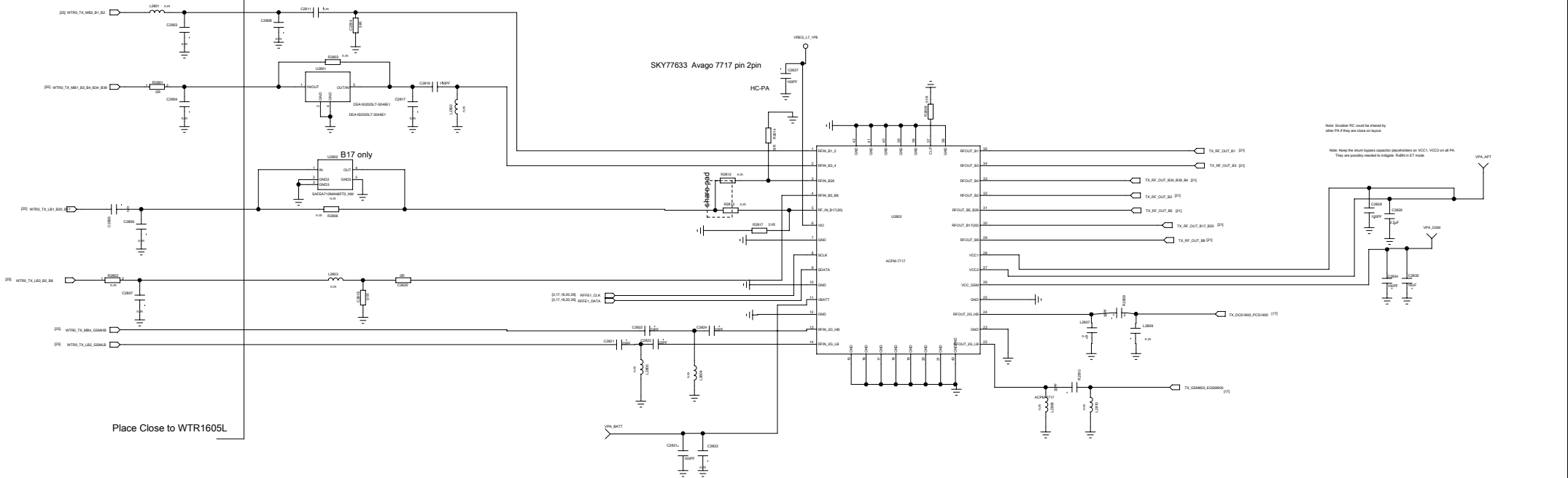
SDMPW1				LENOVO			
TITLE							
Sisley_MB_H301							
DESIGN	Li YanTao	DATED	2014-08-12	CODE		ISS	
CHECKED	Zhang Wei	DATE	2014-08-12	DRAWING NO.			
QUALITY CONTROL		DATED					
RELEASED		DATED					
SCALE				SHEET: 18B 36			

D

H301

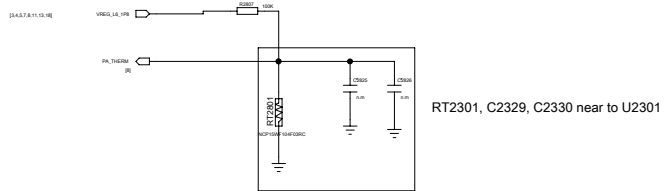
REVISION RECORD			
LTR	ECO NO	APPROVED	DATE

	PIN 3	PIN 5	
for SKY77633(ROW_EU)	RF_IN_B20	GND	R2812 0R,R2814 nm , R2813 nm , R2817 0R
for Avago7717(ROW_LA/EU)	端接51R	RF_IN_B17/B20	R2812 nm,R2814 51R , R2813 0R , R2817 nm
for Avago7717(CMCC/CT/CU)	端接51R	端接51R	R2812 nm,R2814 51R , R2813 nm , R2817 51R
for SKY77633(CMCC/CT/CU)	端接51R	GND	R2812 nm,R2814 51R , R2813 nm , R2817 0R



Note: Studator IEC could be shared by other PA if they are close on board.
 Note: Keep the short bypass capacitor capacitance on VCC1, VCC2 as all PA. They are possibly needed to mitigate Rabi in ET mode.

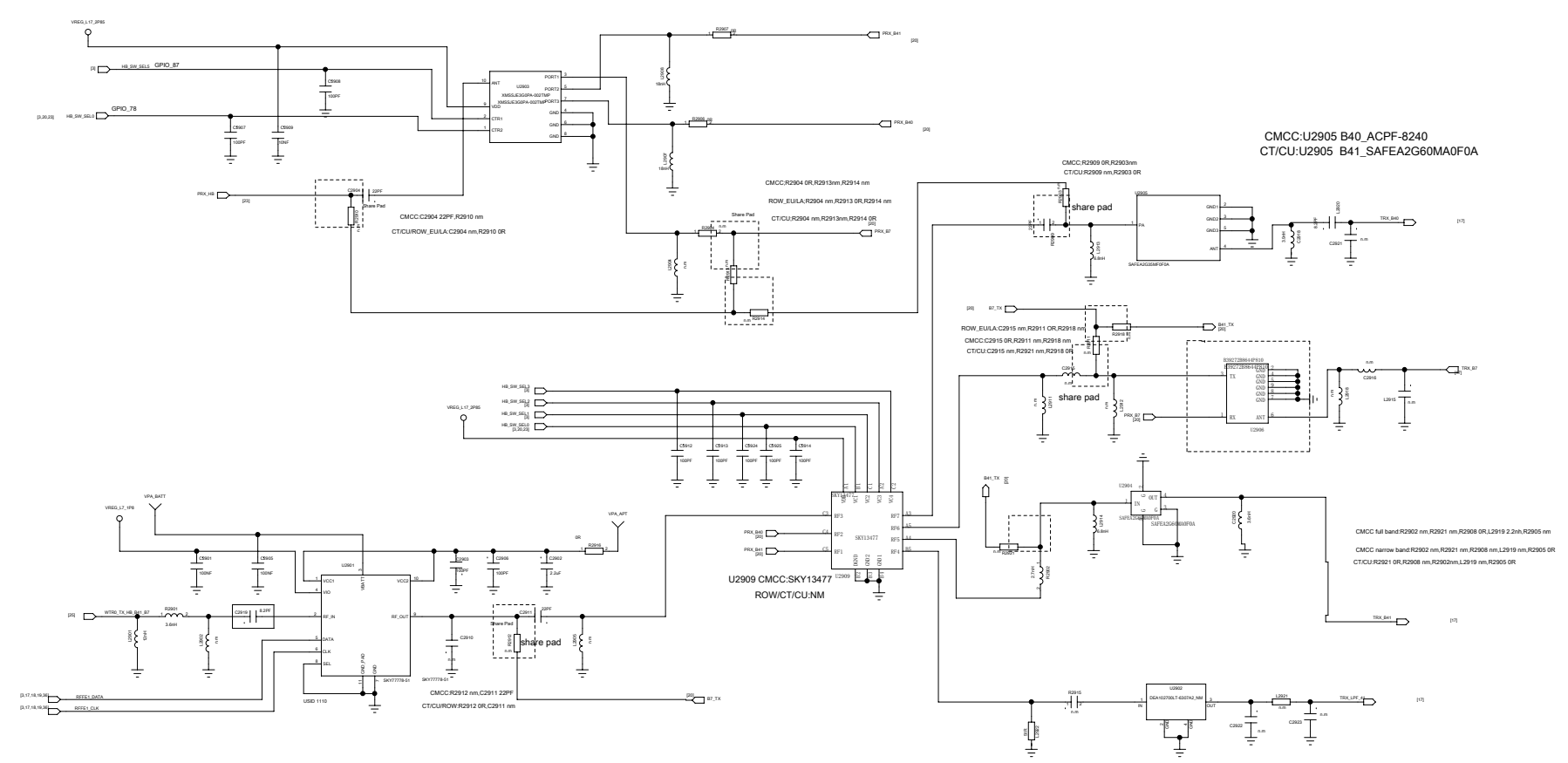
Place Close to WTR1605L



RT2301, C2329, C2330 near to U2301

SOP:WTR		LENOVO	
TITLE:			
Sisley_MB_H301			
DATE:	1/14/2014	DATE:	2014-08-12
CHECKED:	Zhang YH	DATE:	2014-08-12
QUALITY CONTROL:		DATE:	
RELEASED:		DATE:	
CODE:	D	ISS:	
DRAWING NO:		REV:	H301
SCALE:		SHEET:	08/16

REVISION RECORD			
LTR	ECO NO	APPROVED	DATE



VC1	VC2	VC3	VC4	path	descreaption
0	0	0	0	All Isolation	NON
1	1	0	1	RF1 to RF5	B38/B41 RX
1	0	0	1	RF1 to RF6	-----
0	0	0	1	RF2 to RF7	B40 RX
0	1	0	1	RF3 to RF4	B7 Tx
0	1	1	1	RF3 to RF5	B38/B41 TX
0	0	1	1	RF3 to RF6	-----
0	0	1	0	RF3 to RF7	B40 TX

CMCC:U2905 B40_ACPF-8240
CT/CU:U2905 B41_SAFEA2G60MA0F0A

CMCC full band:R2902 nm,R2921 nm,R2908 OR,L2919 2.2nh,R2905 nm
CMCC narrow band:R2902 nm,R2921 nm,R2908 nm,L2919 nm,R2905 OR
CT/CU:R2921 OR,R2908 nm,R2902nm,L2919 nm,R2905 OR

SDR:WIFI LENOVO

TITLE: Sisley_MB_H301

DESIGN: Li YanTao	DATE: 2014-08-12	CODE: D	ISS: H301	DRAWING NO:	REV: H301
CHECKED: Zhang Wei	DATE: 2014-08-12	SCALE: 1:20		36	
QUALITY CONTROL:	DATE:				
RELEASED:	DATE:				

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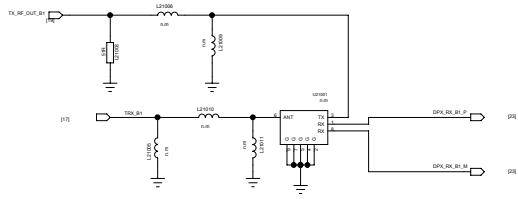
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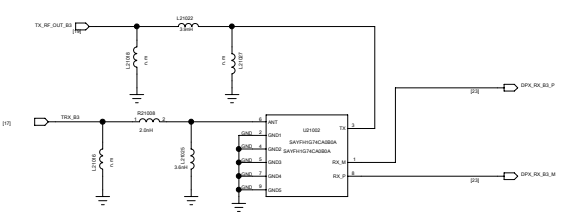
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REVISION RECORD			
LTR	ECO NO	APPROVED	DATE

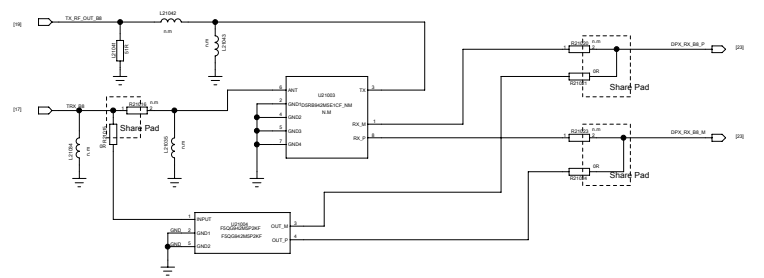
Band 1 DPX



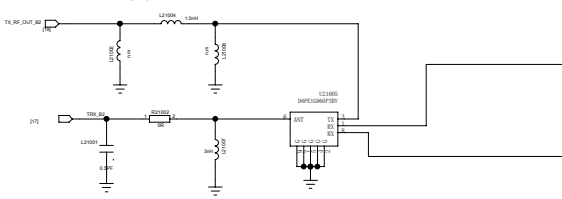
Band 3 DPX



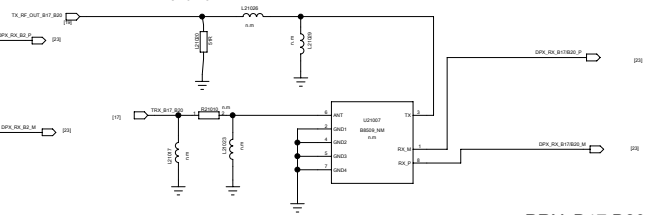
Band 8 DPX



Band 2 DPX



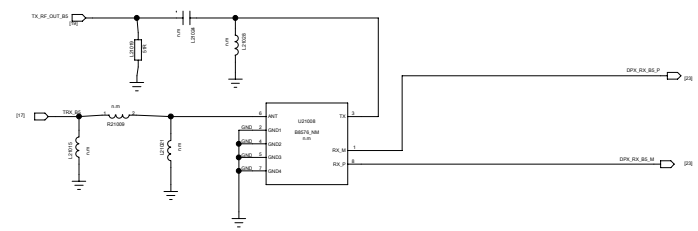
Band 20 DPX



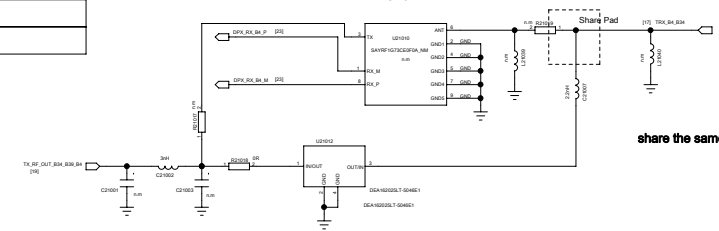
PRX_B17,B20, DPX

Band	U21007
B17 PRX	A177
B20 PRX	B8509

Band 5 DPX



Band 4 DPX



CSFB, SGLTE please reference datasheet of 20140212

S04P001				LENOVO			
TITLE: Sisley_MB_H301							
DESIGN:	L1Yan	DATE:	2014-08-12	CODE:		SCALE:	
CHECKED:	Zhang Ma	DATE:	2014-08-12	ISS:		DRAWING NO:	
QUALITY CONTROL:		DATE:		D:			H301
RELEASED:		DATE:					

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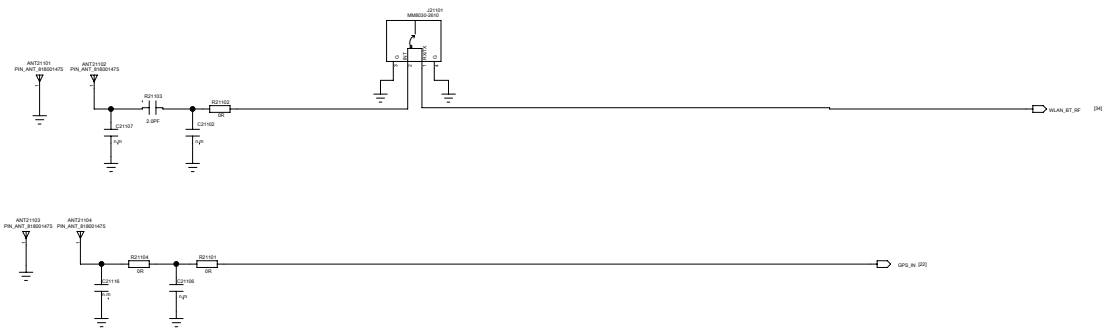
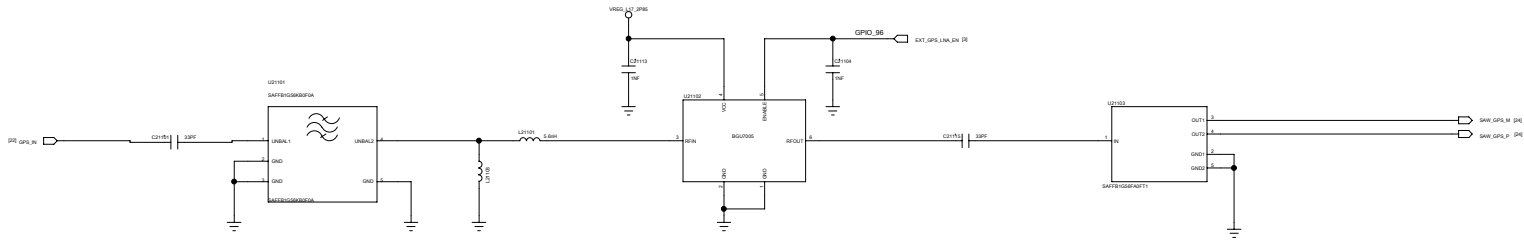
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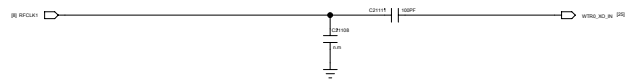
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REVISION RECORD			
LTR	ECO NO	APPROVED	DATE



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DESIGNER: Li YanTao		DATED: 2014-08-12		SCALE: 1:22		SHEET: 36	
CHECKED: Zhang Wei		DATED: 2014-08-12		SCALE: 1:22		SHEET: 36	
QUALITY CONTROL:		DATED:		SCALE: 1:22		SHEET: 36	
RELEASED:		DATED:		SCALE: 1:22		SHEET: 36	

SDMPW01			
LENOVO			
TITLE: Sisley_MB_H301			
CODE:	SEC:	DRAWING NO:	REV:
D			H301

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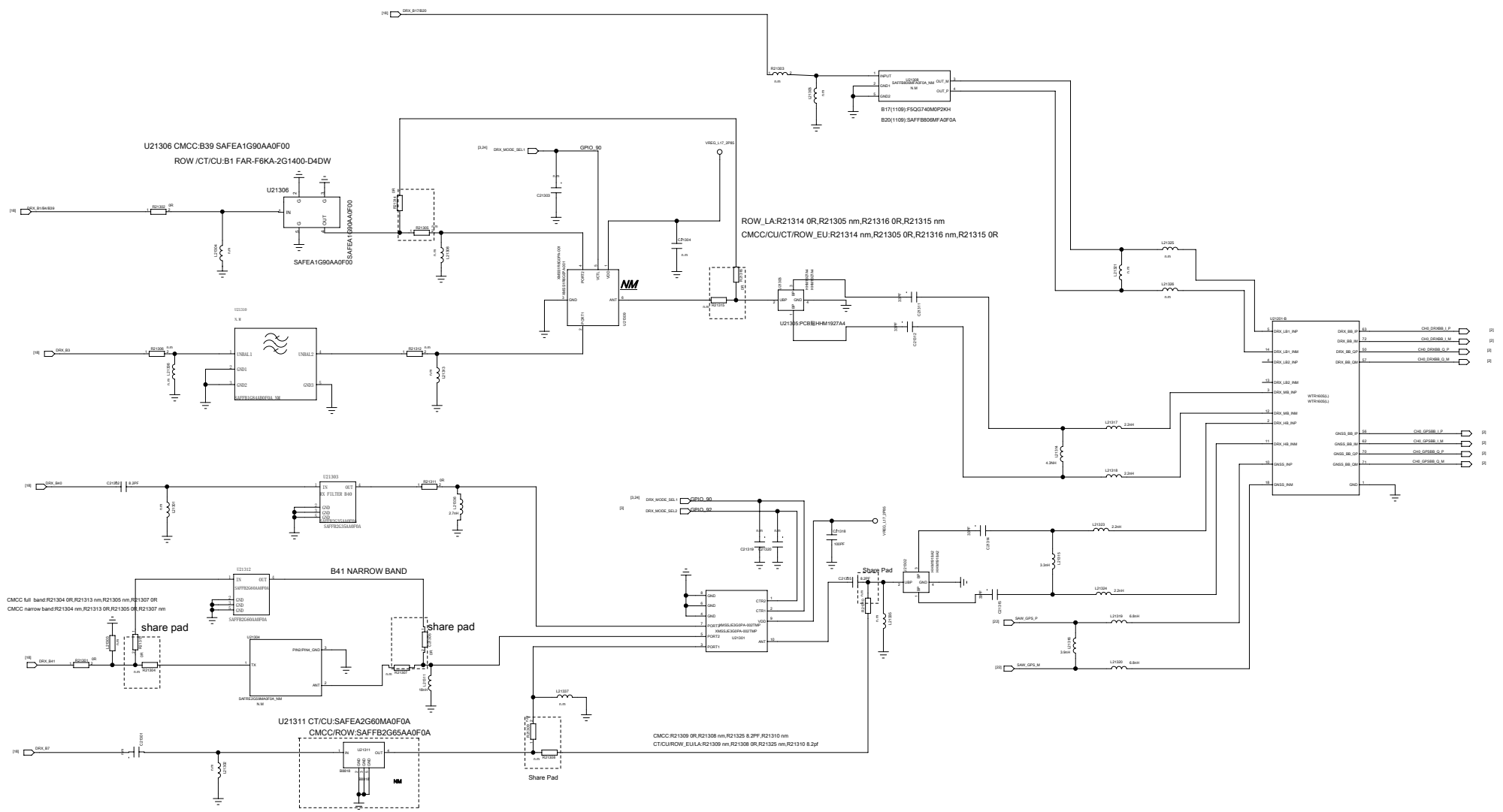
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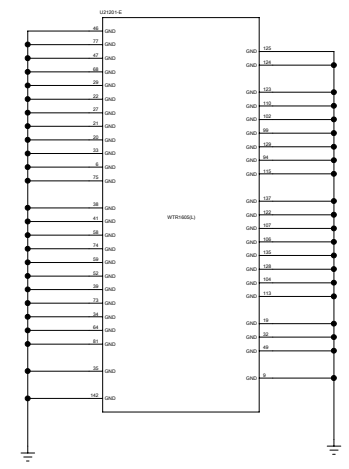
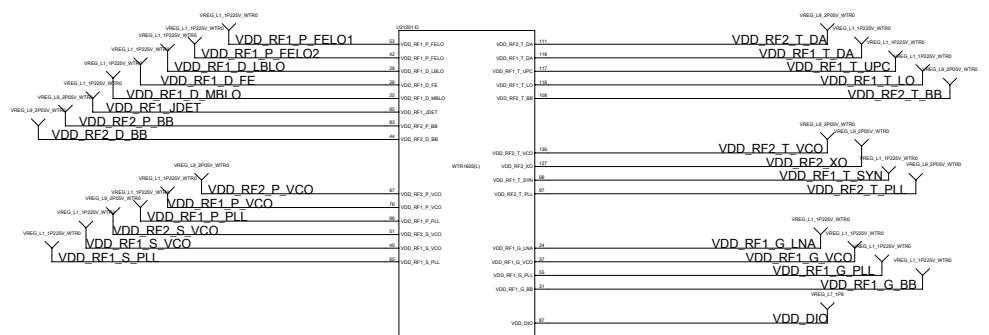
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REVISION RECORD			
LTR	ECO NO	APPROVED	DATE



SDP#001				LENOVO			
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Sisley_MB_H301							
DESIGN:	L/Ya/Ta	DATE:	2014-08-12	CODE:	SEC:	DRAWING NO:	REV:
CHECKED:	Zhang YH	DATE:	2014-08-12	D		H301	
QUALITY CONTROL:		DATE:					
RELEASED:		DATE:					
SCALE:				SHEET: 08/ 16			

REVISION RECORD			
LTR	ECO NO	APPROVED	DATE

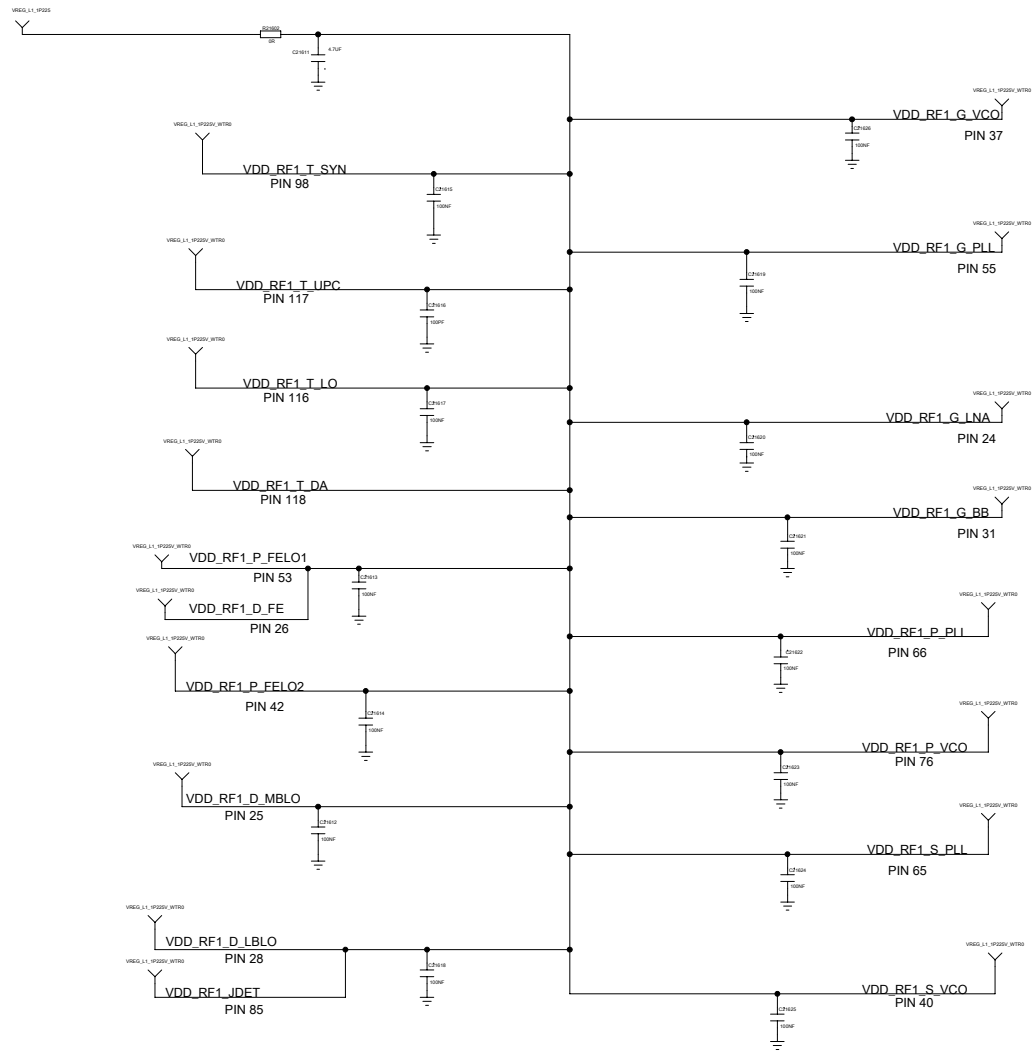
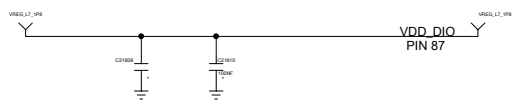
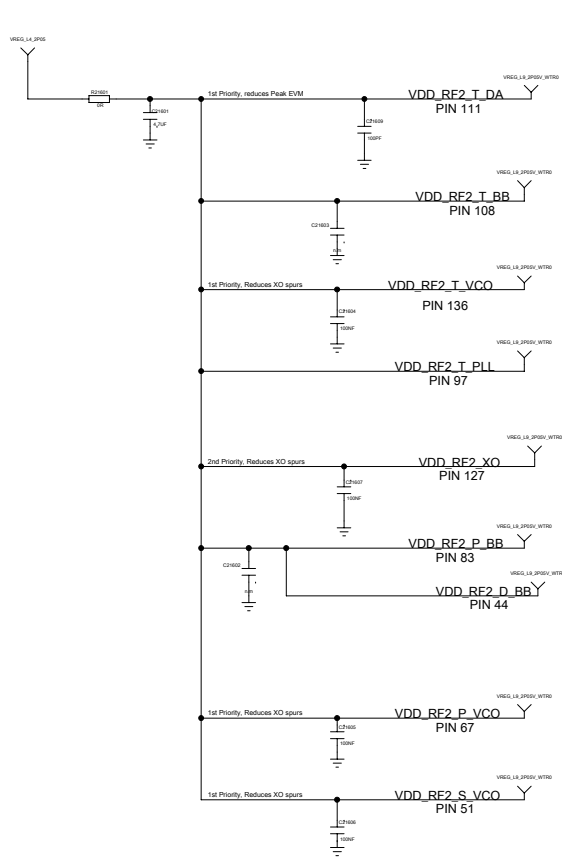


DRAWN: L.Yan				DATED: 2014-08-12			
CHECKED: Zhang Wu				DATED: 2014-08-12			
QUALITY CONTROL:				DATED:			
RELEASED:				DATED:			
CODE:		SIC:		DRAWING NO:		REV:	
D				H301			
SCALE:				SHEET: 08/ 8			

SDMPWTR LENOVO

TITLE: Sisley_MB_H301

REVISION RECORD			
LTR	ECO NO	APPROVED	DATE



SDMPART				LENOVO			
TITLE							
Sisley_MB_H301							
DESIGN	L1/Ya/Ta	DATE	2014-08-12	CODE		ISS	
CHECKED	Zhang Ma	DATE	2014-08-12	DRAWING NO.			REV
QUALITY CONTROL		DATE		D		H301	
RELEASED		DATE		SCALE		SHEET: 0/1	

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REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

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SOP/APP: LENOVO	
TITLE: Sisley_MB_H301	
CODE: D	REV: H301
SCALE: _____ SHEET: 001 01	

DESIGN: LiYan	DATE: 2014-08-12
CHECKED: ZhangYan	DATE: 2014-08-12
QUALITY CONTROL:	DATE:
RELEASED:	DATE:

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REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

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SOP/APP: LENOVO			
TITLE: Sisley_MB_H301			
CODE:	SEC:	DRAWING NO:	REV:
	D		H301
SCALE:			SHEET: 001 01

DESIGN:	L1/Ya/Ta	DATE:	2014-08-12
CHECKED:	Zhang/Ya	DATE:	2014-08-12
QUALITY CONTROL:		DATE:	
RELEASED:		DATE:	

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REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

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SOP/APP: LENOVO			
TITLE: Sisley_MB_H301			
CODE:	SEC:	DRAWING NO:	REV:
	D		H301
SCALE:			SHEET: 001 / 01

DESIGN:	L1/YaTn	DATE:	2014-08-12
CHECKED:	Zhang Yn	DATE:	2014-08-12
QUALITY CONTROL:		DATE:	
RELEASED:		DATE:	

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REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

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SOP/APP: LENOVO			
TITLE: Sisley_MB_H301			
CODE:	SEC:	DRAWING NO:	REV:
	D		H301
SCALE:			SHEET: 01/ 01

DESIGN:	L'YanTao	DATE:	2014-08-12
CHECKED:	ZhangYan	DATE:	2014-08-12
QUALITY CONTROL:		DATE:	
RELEASED:		DATE:	

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REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

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COMPANY: LENOVO

TITLE: Sisley_MB_H301

DESIGN:	LiyuTao	DATE:	2014-08-12
CHECKED:	ZhangYan	DATE:	2014-08-12
QUALITY CONTROL:		DATE:	
RELEASED:		DATE:	

CODE:		SIZE:		DRAWING NO.:		REV:	
		D				H301	
SCALE:						SHEET: 001 / 01	

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REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

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SOP/APP: LENOVO			
TITLE: Sisley_MB_H301			
CODE:	SEC:	DRAWING NO:	REV:
	D		H301
SCALE:			SHEET: 001 / 01

DESIGN:	L1/YaTn	DATE:	2014-08-12
CHECKED:	Zhang Yn	DATE:	2014-08-12
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REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE

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DRAWN: Li YanTao		DATED: 2014-08-12		COMPANY: LENOVO	
CHECKED: Zhang Wei		DATED: 2014-08-12		TITLE: Sisley_MB_H301	
QUALITY CONTROL:		DATED:		CODE: D	REV: H301
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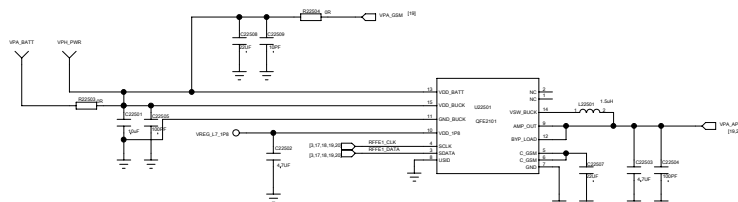
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REVISION RECORD			
LTR	ECO NO.	APPROVED	DATE



SDMPW1				LENOVO			
TITLE							
Sisley_MB_H301							
DATE:	Li YanTao	DATED:	2014-08-12	CODE:		ISS:	
CHECKED:	Zhang Wei	DATED:	2014-08-12	DRAWING NO.:		REV:	
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