

MODEL NAME : ZIJI2
PCB NO : LA-811P
BOM P/N : xxxx



Compal Confidential

ZIJI2 Schematics Document

Intel Bay Trail

2014-06-03

REV: SOVP

BOM Structure Table

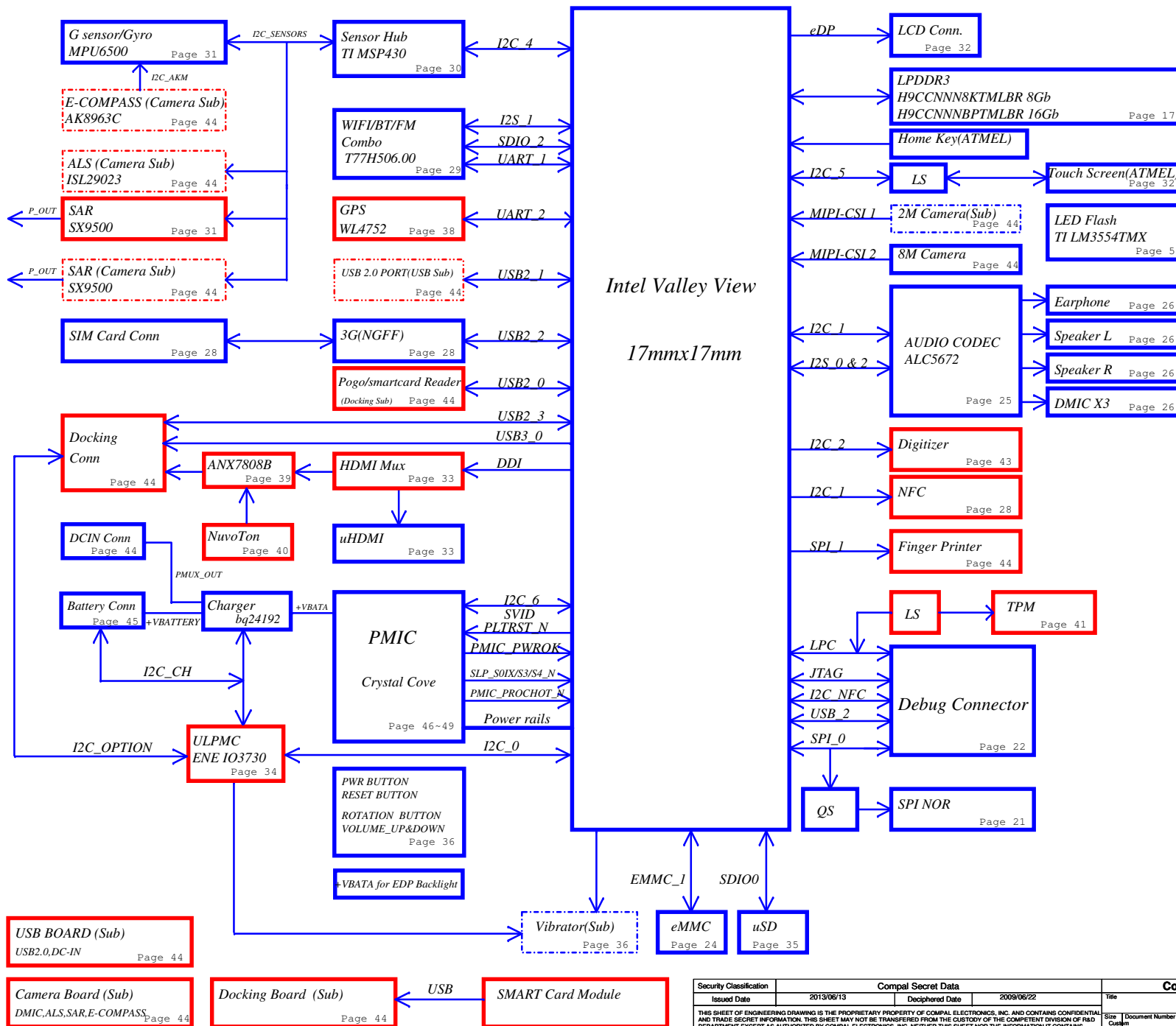
BTO Item	BOM Structure	ASM/NO ASM
@:Nopop Component	@	NO ASM
RF Reserved	@RF	NO ASM
3G WWAN SKU	3G@	ASM
WIFI Only SKU	WIFI@	ASM
EMI/ESD requirement	EMI@	ASM
RF requirement	RF@	ASM
Debug	DBG@	ASM
Debug	DBG@	NO ASM FOR SOVP, MP
Me conn	ME@	ASM
DIGI SKU	DIGI@	ASM
NFC SKU	NFC@	ASM

Revision history

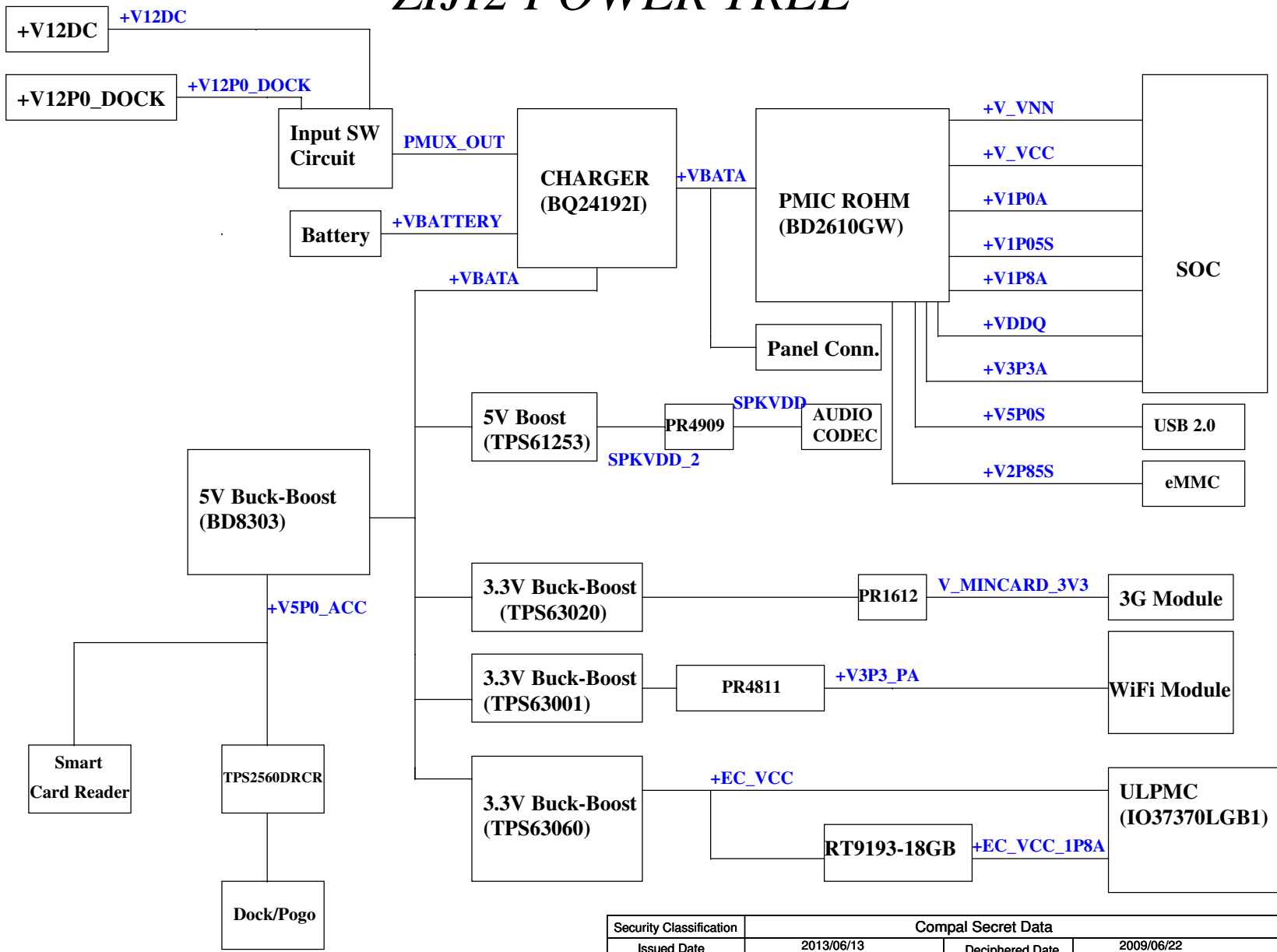
Version	Date	Description
SDV	2013/06/05	* Initial release
SDV-R	2013/07/22	
FVT-2	2013/08/06	
SIT	2013/11/08	
SVT	2013/12/28	
SOVP	2014/03/17	
SOVP_0520	2014/05/20	Cut in ECR 140520_01(Richtek PW IC rework)
SOVP_0603	2014/06/03	Cut in ECR 140603_01(Remove R527)

Ella Bay Trail-T Block Diagram

LS-----Level Shifter



ZIJI2 POWER TREE



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V0JV3 POWER SEQUENCE

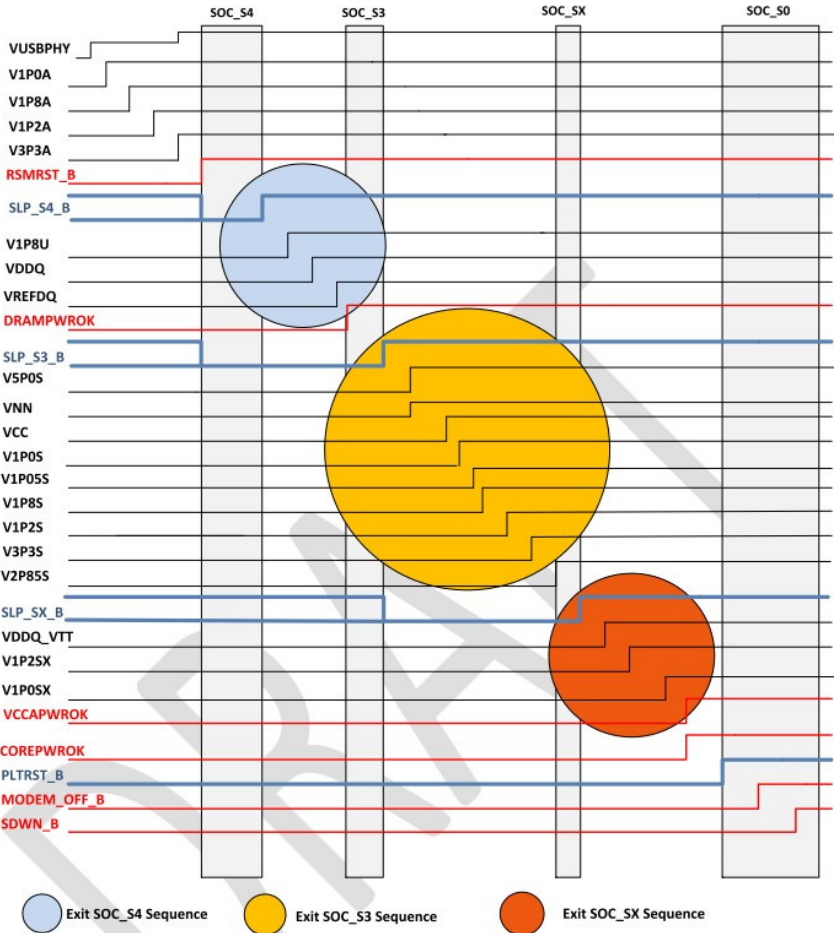
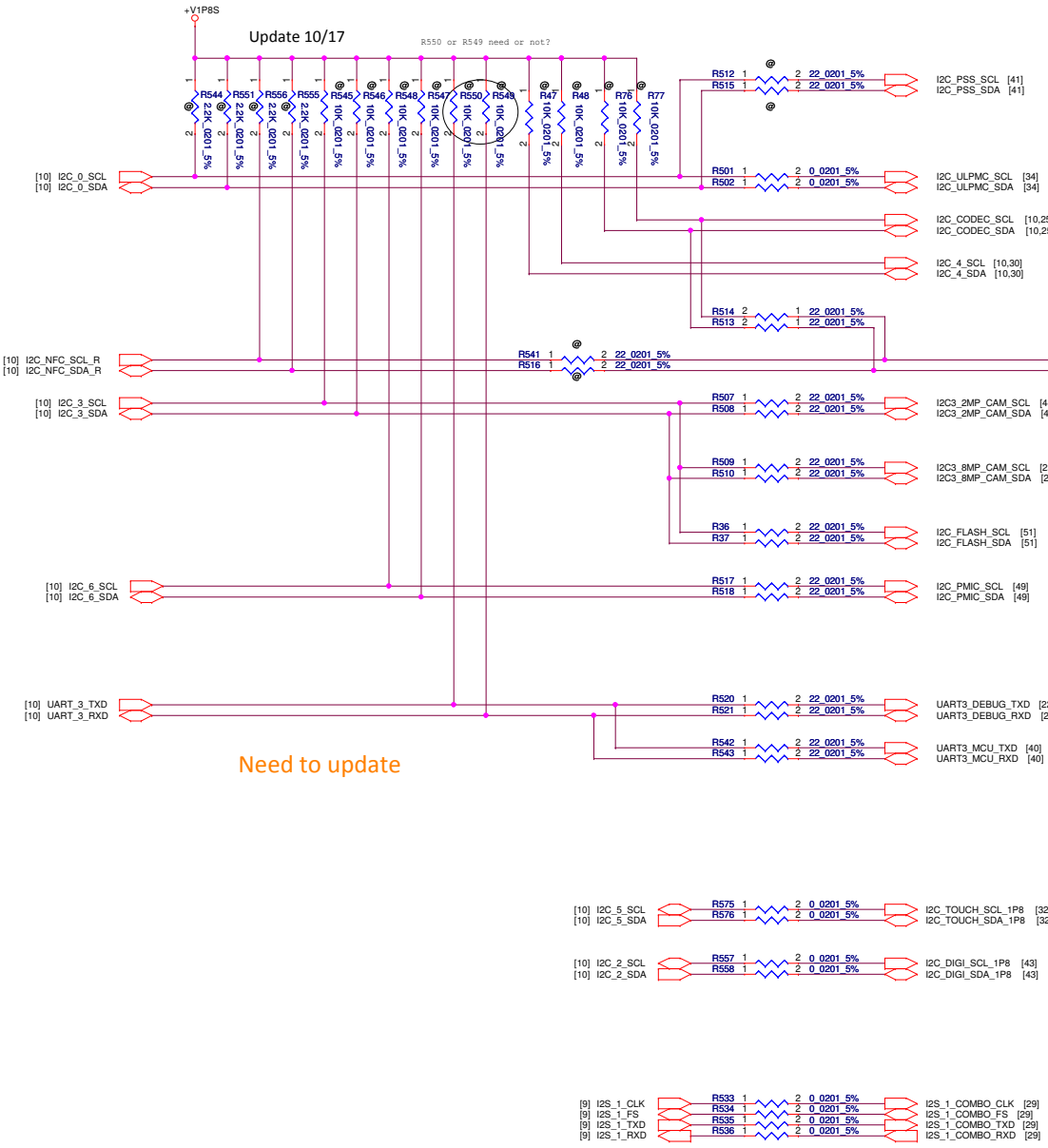


Figure 9: Cold Boot Power Sequencing Diagram

Voltage Rail ON/OFF On Various Power States

Num.	Voltage domain	Supply Module	PWR TYPE	S0	S0ix	S3	S4/5	G3
1	+VCC	VLV2	SVID BUCK	ON	OFF	OFF	OFF	OFF
2	+VNN	VLV2	SVID BUCK	ON	ON	OFF	OFF	OFF
3	+V1PoA	VLV2	BUCK	ON	ON	ON	ON	OFF
4	+V1Po5S	VLV2	BUCK	ON	ON	OFF	OFF	OFF
5	+V1P8A	VLV2	BUCK	ON	ON	ON	ON	OFF
6	+VDDQ	VLV2/DDR	BUCK	ON	ON	ON	OFF	OFF
7	+V3P3A	VLV2, Peripheral	BUCK-BOOST	ON	ON	ON	ON	OFF
8	+V2P85S	Peripheral	BUCK-BOOST	ON	ON	OFF	OFF	OFF
9	+V5PoS	Peripheral	BOOST	ON	ON	OFF	OFF	OFF
10	+VSDIO	Peripheral	FET SW	ON/OFF	ON/OFF	OFF	OFF	OFF
11	+VDDQ_VTT	DDR3	LDO	ON	OFF	OFF	OFF	OFF
12	+V1P2A	VLV2	LDO	ON	ON	ON	ON	
13	+VREF		LDO					
14	+VUSBPHY	Peripheral	FET SW	ON	ON	ON	ON	ON
15	+VSYS_U	Peripheral	EXT FET SW	ON/OFF	ON/OFF	ON	OFF	OFF
16	+VSYS_S		FET SW	ON/OFF	ON/OFF	OFF	OFF	OFF
17	+V1P2S		FET SW	ON	ON	OFF	OFF	OFF
18	+V1P2SX		FET SW	ON	OFF	OFF	OFF	OFF
19	+V1P8S	VLV2	FET SW	ON	ON	OFF	OFF	OFF
20	+V1P8SX		FET SW	ON/OFF	ON/OFF	OFF	OFF	OFF
21	+V2P85SX	Peripheral	FET SW	ON/OFF	ON/OFF	OFF	OFF	OFF
22	+V3P3U	Peripheral	EXT FET	ON/OFF	ON/OFF	ON	OFF	OFF
23	+VHDMI	Peripheral	FET SW	ON/OFF	ON/OFF	OFF	OFF	OFF
24	+V1P8U	Peripheral	EXT FET SW	ON	ON	ON	OFF	OFF
25	+V1PoS	VLV2	EXT FET SW	ON	ON	OFF	OFF	OFF
26	+V1PoSX	VLV2	EXT FET SW	ON	OFF	OFF	OFF	OFF
27	+V3P3S	VLV2	EXT FET SW	ON	ON	OFF	OFF	OFF
28	+VBUS	Peripheral	EXT SW	ON/OFF	ON/OFF	OFF	OFF	OFF
29	+VSYS_SX	Peripheral	EXT FET SW	ON/OFF	ON/OFF	OFF	OFF	OFF
30	+VREFDQ0		LDO	ON	ON	OFF	OFF	OFF
31	+VREFDQ1		LDO	ON	ON	ON	OFF	OFF

I2C & I2S MAP



I2C Mapping	
I2C_0	ULPMC, PSS
I2C_1	Audio Codec
I2C_2	Digitizer
I2C_3	Camera
I2C_4	Sensor Hub
I2C_5	Touch Sensor
I2C_6	PMIC
I2C_NFC	NFC, Debug

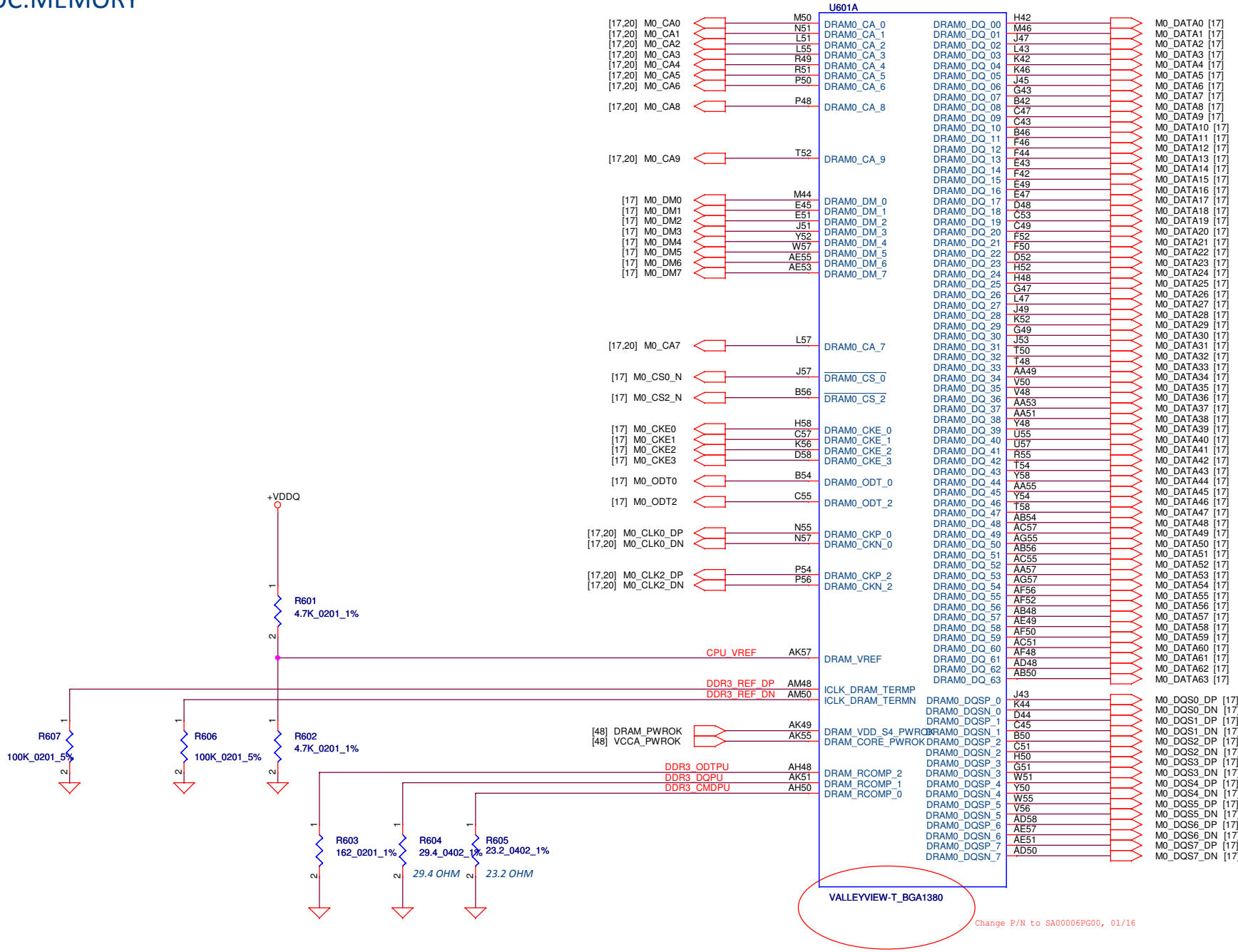
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USB3.0	0	
	DEV 0	
USB2.0	0	USB2.0 PORT:Cradle
	1	STD USB
	2	NGFF
	3	POGO
SDIO	1	W/L
	2	micro SD
I2S	0	CODEC
	1	BT
	2	CODEC

FOR Touch

FOR DIGITIZER

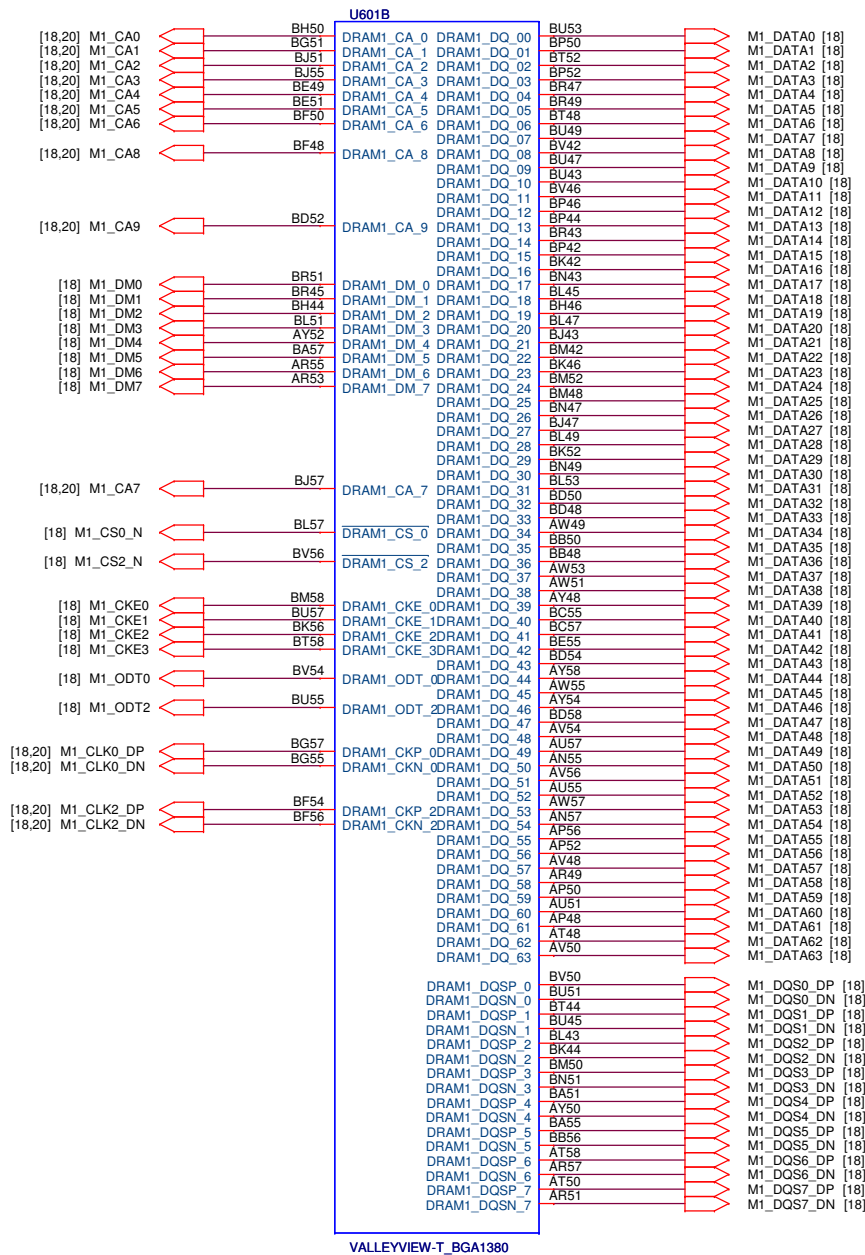
FOR BT

SOC:MEMORY



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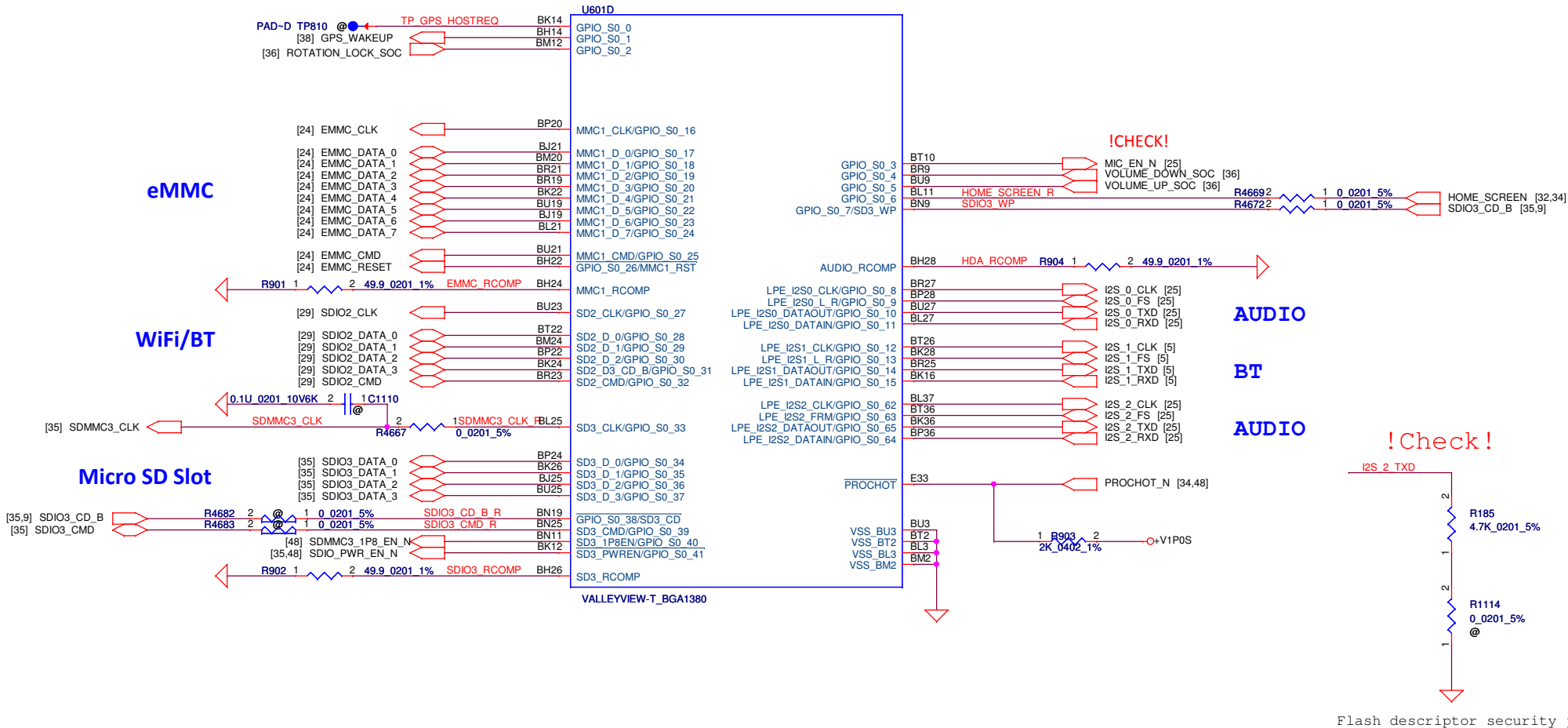
HDMI



Signal Name	Direction / Type	Description
HCSL_GPIO[00]	I/O	Output from shutter switch when its pressed halfway. This switch state is used to trigger the Auto Focus LED for LED Flash or Torch mode for LED Flash
HCSL_GPIO[01]	I/O	Output from shutter switch when its pressed full way. This switch state is used to trigger Xenon flash or LED Flash
HCSL_GPIO[02]	I/O	Active high control signal to Xenon Flash to start charging the Capacitor
HCSL_GPIO[03]	I/O	Active low output from Xenon Flash to indicate that the capacitor is fully charged and is ready to be triggered
HCSL_GPIO[04]	I/O	Active high Xenon Flash trigger / Enables Torch mode on LED Flash IC
HCSL_GPIO[05]	I/O	Enables Red Eye Reduction LED for Xenon / Triggers STROBE on LED Flash IC /
HCSL_GPIO[06]	I/O	Camera Sensor 0 Strobe Output to SoC to indicate beginning of capture / Active high signal to still camera to power down the device.
HCSL_GPIO[07]	I/O	Camera Sensor 1 Strobe Output to SoC to indicate beginning of capture / Active high signal to still camera to power down the device.
HCSL_GPIO[08]	I/O	Active high signal to video camera to power down the device.
HCSL_GPIO[09]	I/O	Active low output signal to reset digital still camera #0.
HCSL_GPIO[10]	I/O	Active low output signal to reset digital still camera #1
HCSL_GPIO[11]	I/O	Active low output signal to reset digital video camera

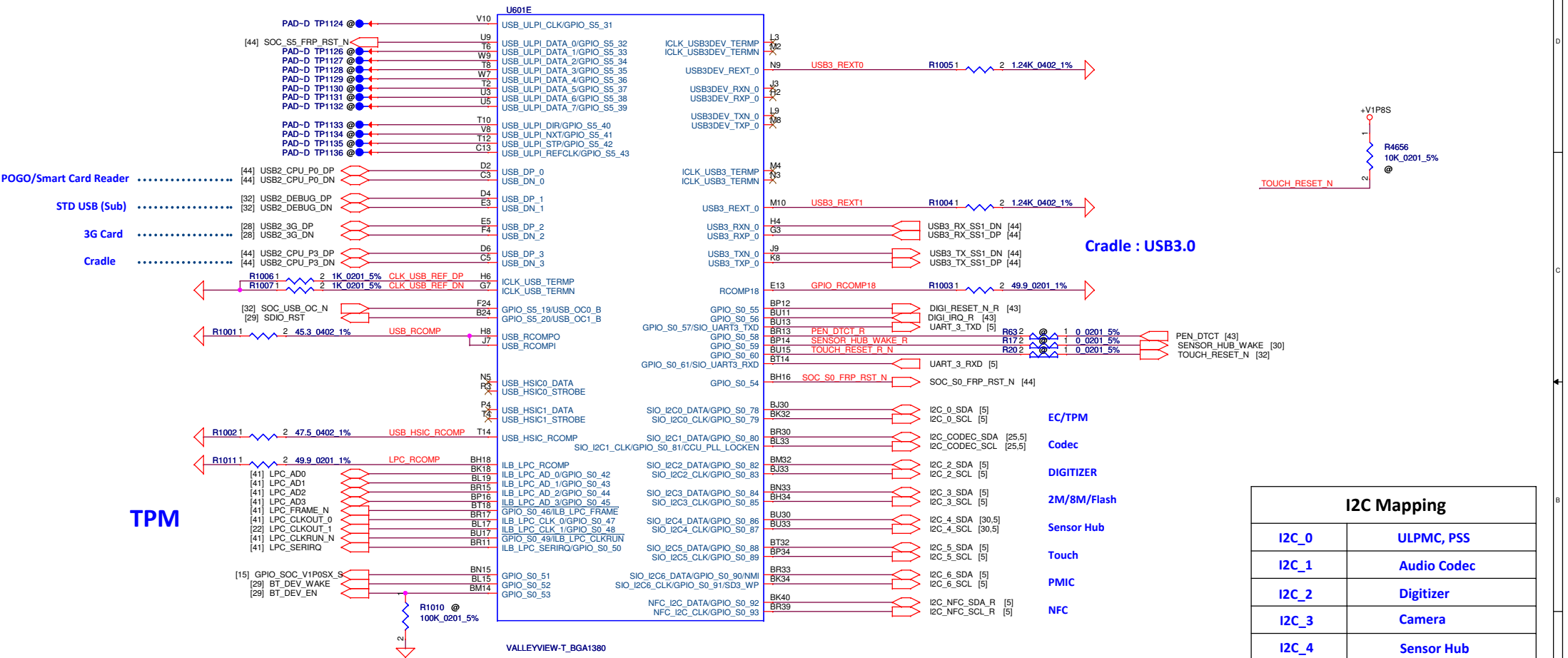
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SOC:STORAGE AND AUDIO



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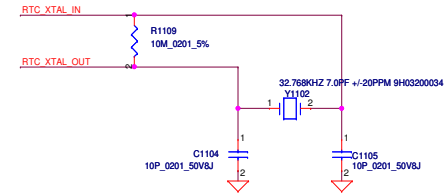
SOC:USB & I2C



I2C Mapping	
I2C_0	ULPMC, PSS
I2C_1	Audio Codec
I2C_2	Digitizer
I2C_3	Camera
I2C_4	Sensor Hub
I2C_5	Touch Sensor
I2C_6	PMIC
I2C_NFC	NFC, Debug

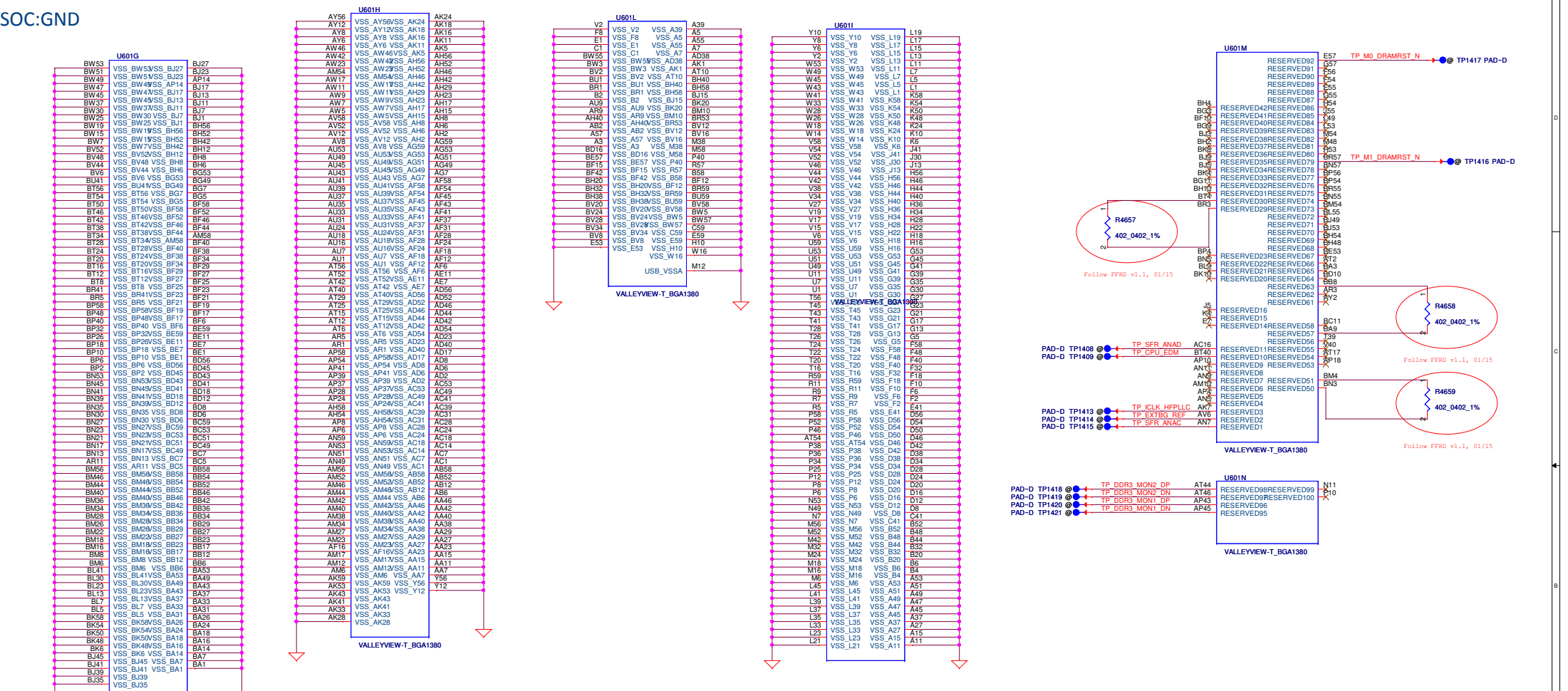
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PMC_PLT_CLK Usage
CLK0 CAM 8MP 19.2MHz
CLK1 CAM 2MP 19.2MHz
CLK2 NC
CLK3 Audio 19.2/25MHz
CLK4 NC
CLK5 NC

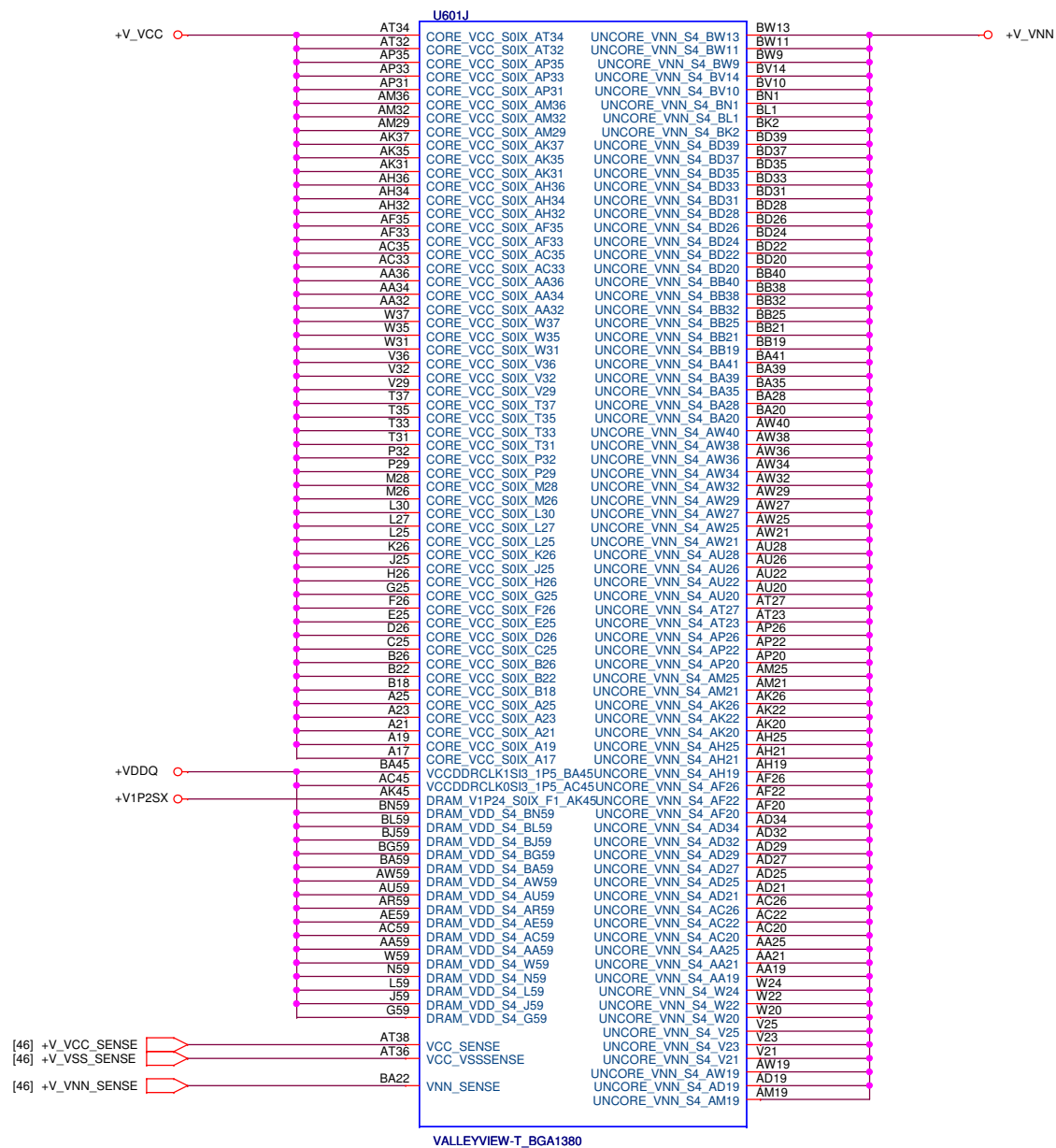


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SOC:GND

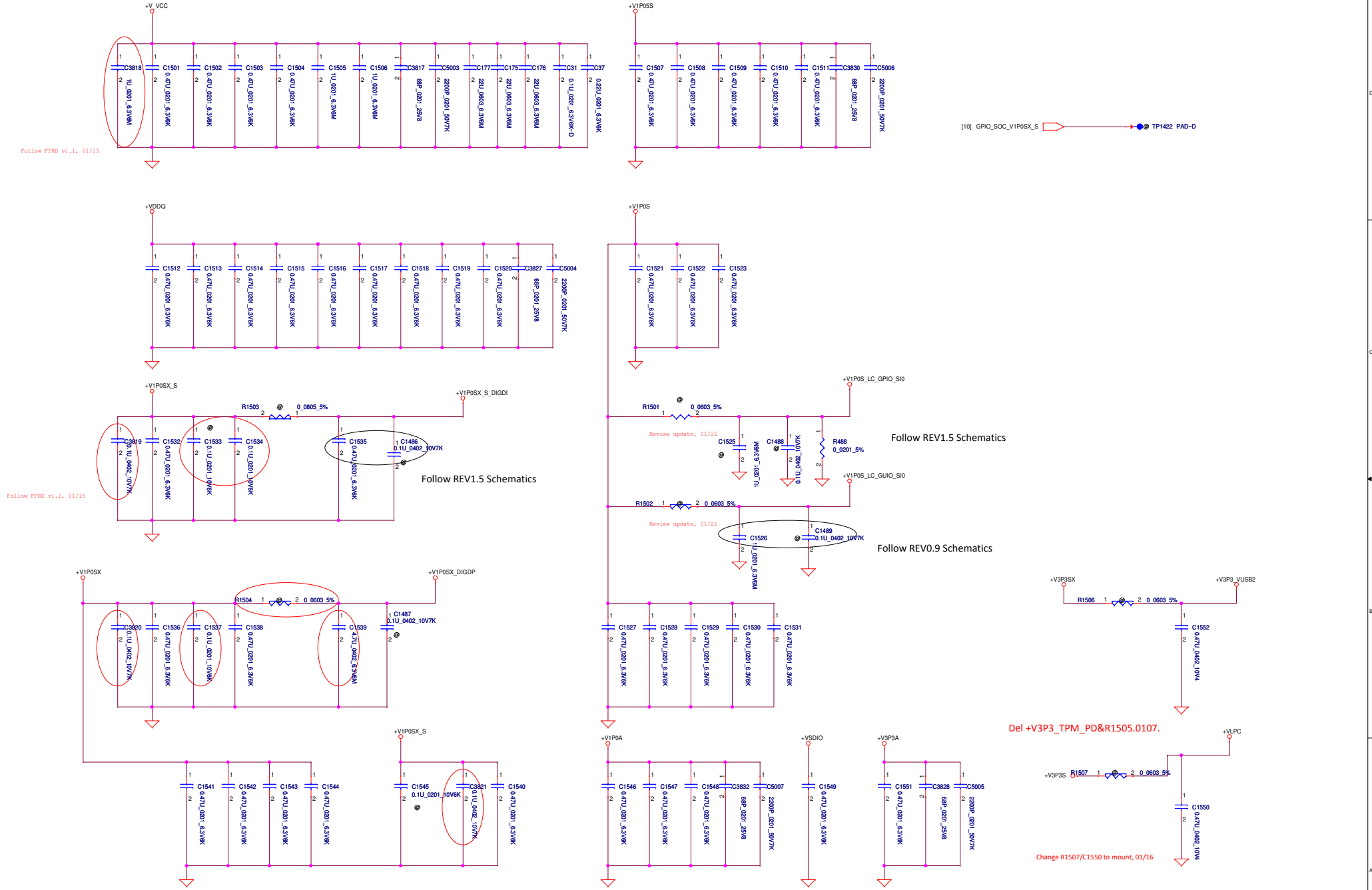


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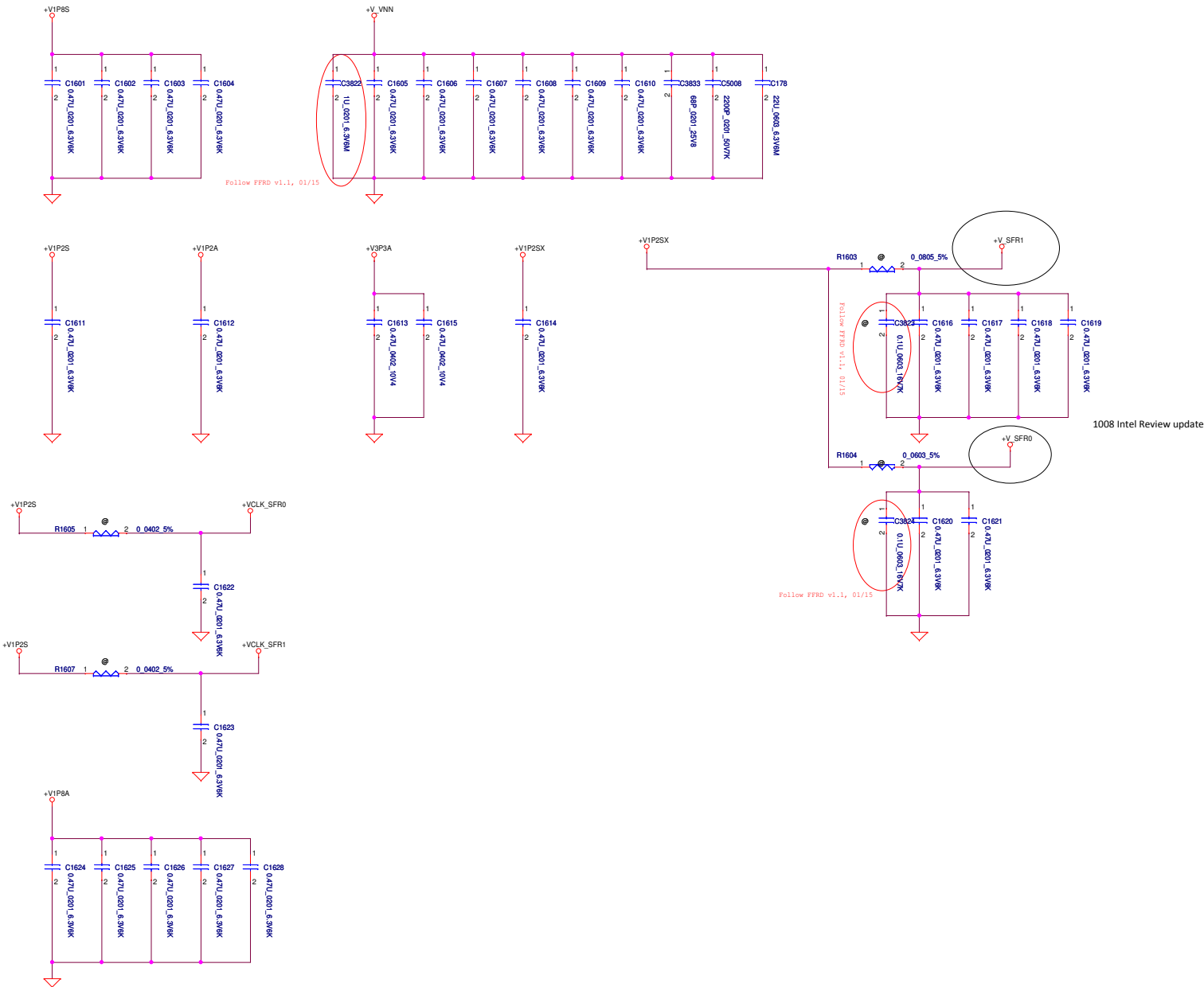


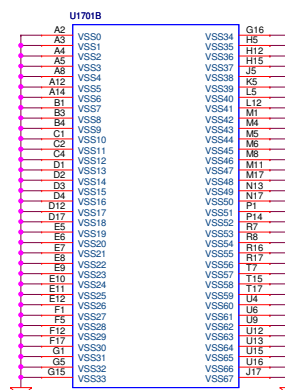
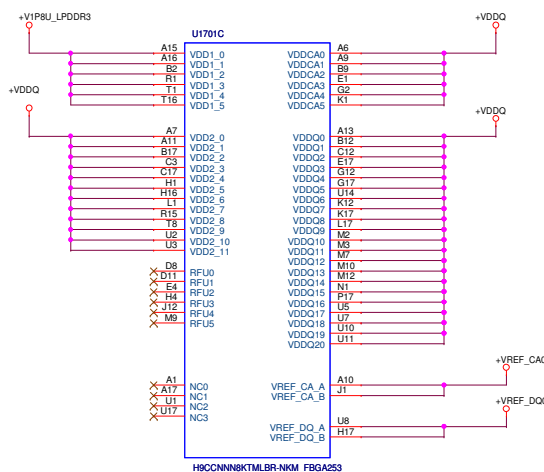
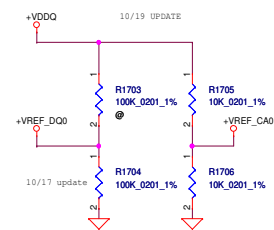
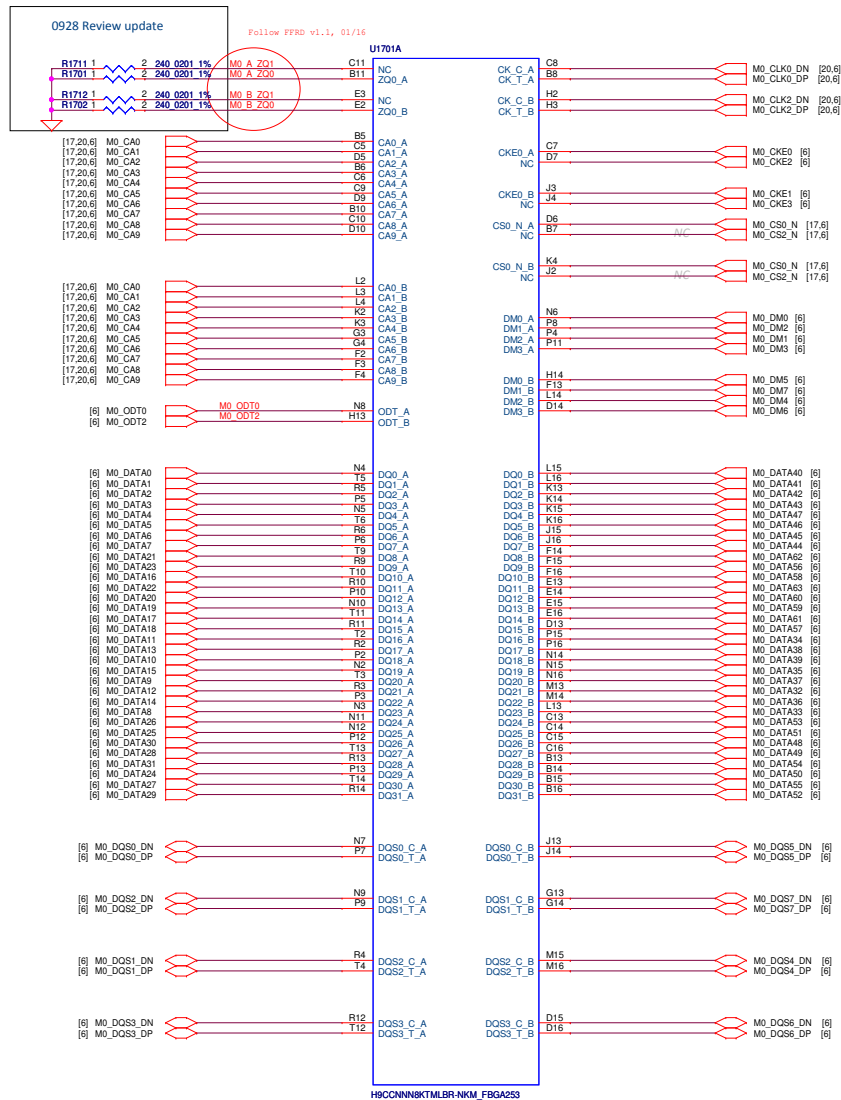
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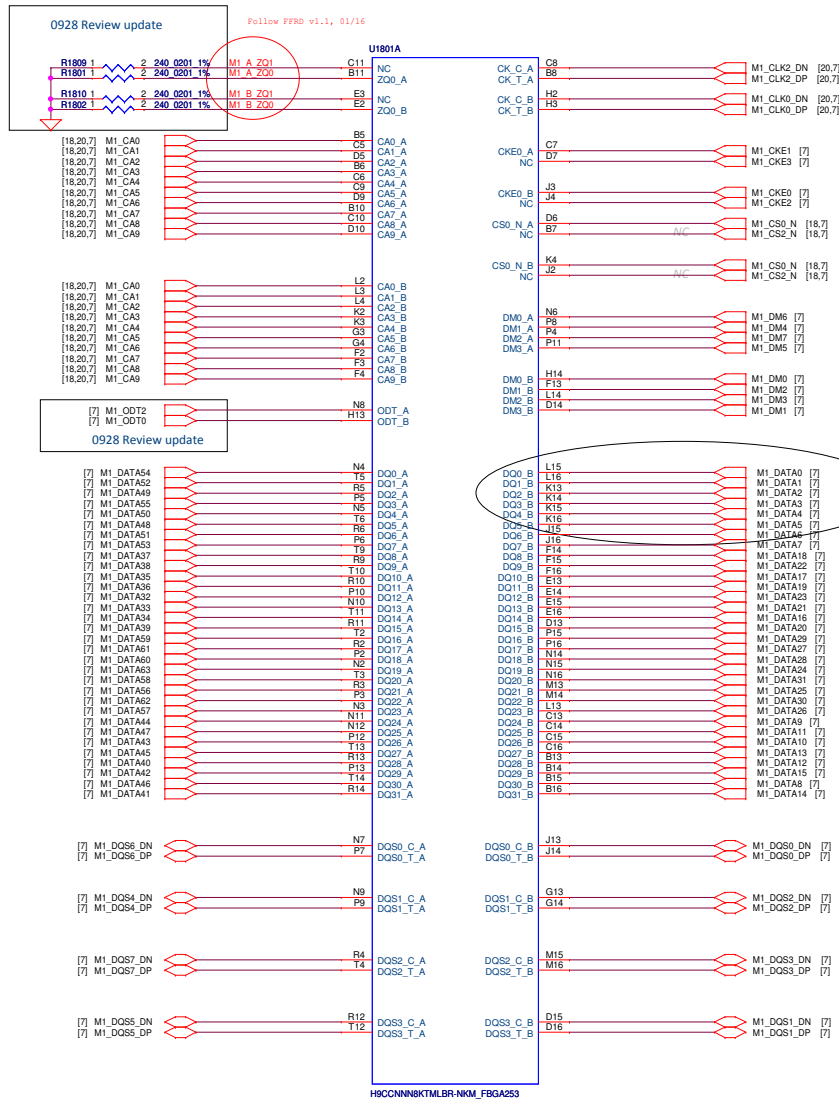
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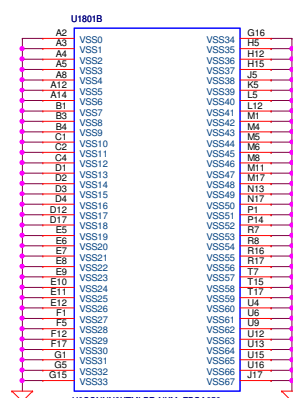
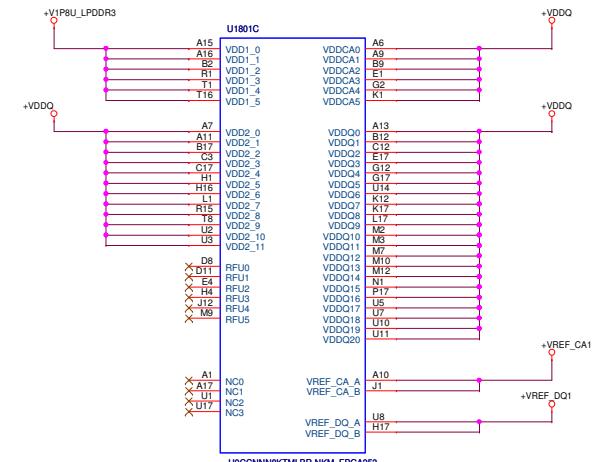
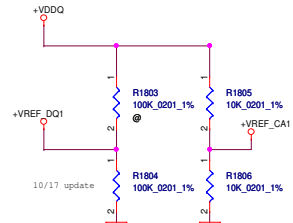
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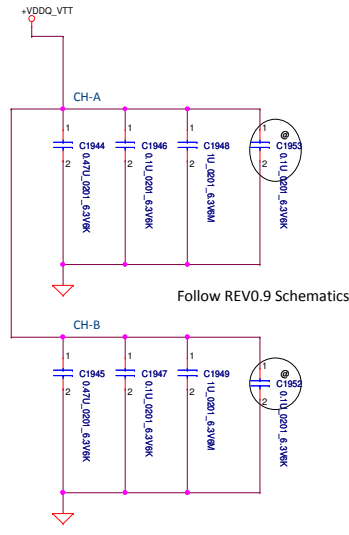
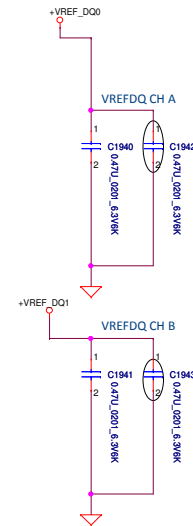
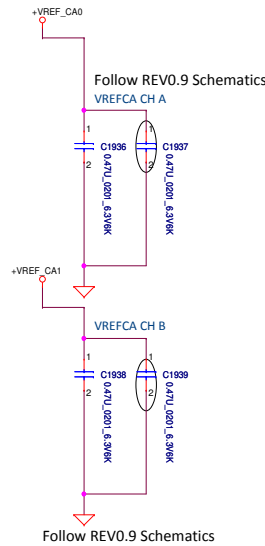
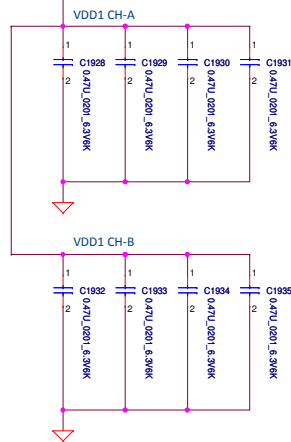
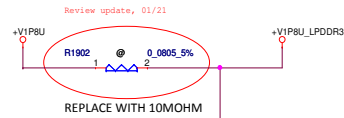
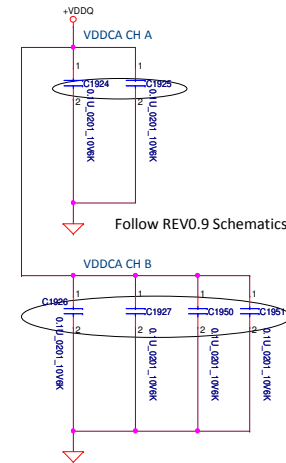
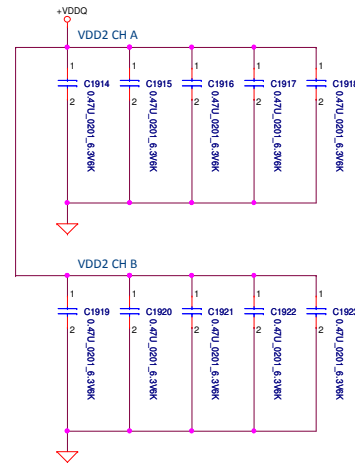
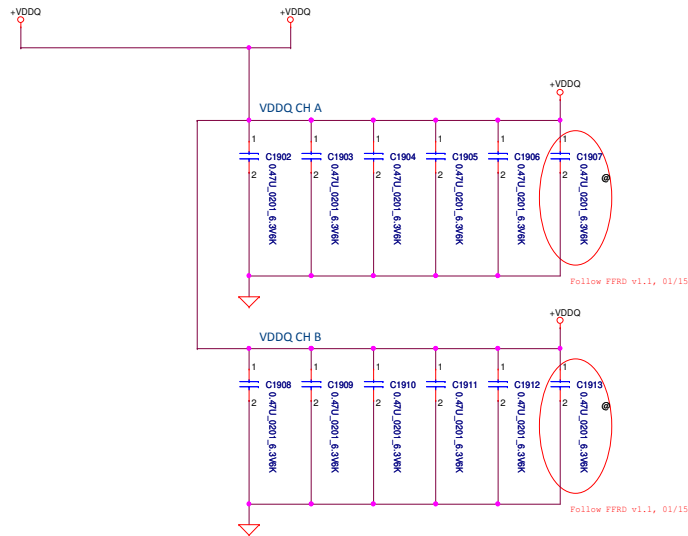
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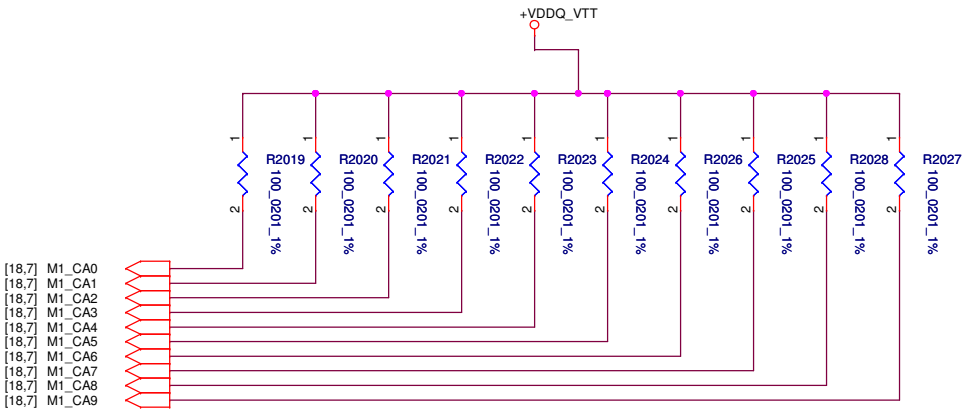
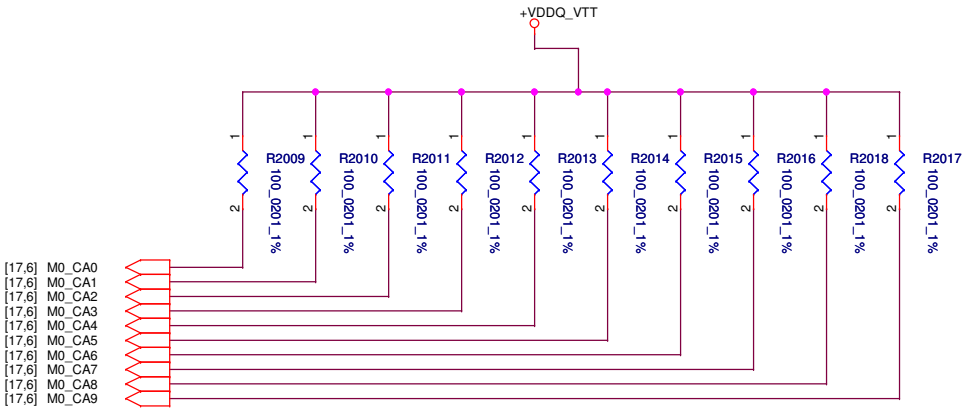
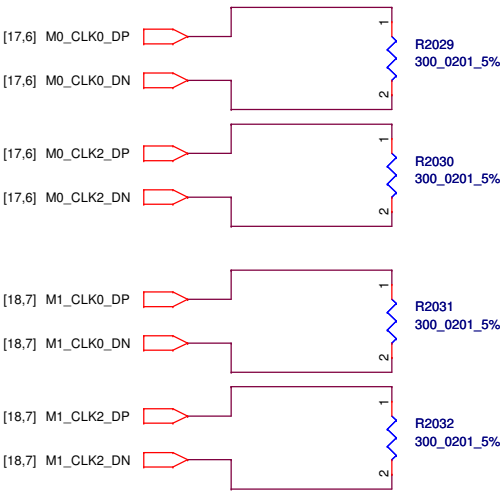
Change net name

Swap byte1

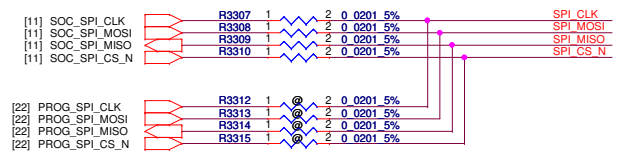
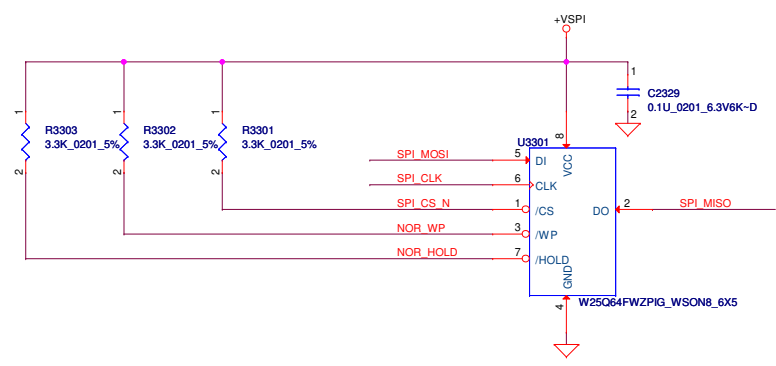
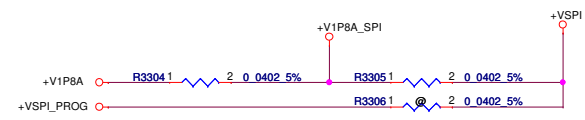
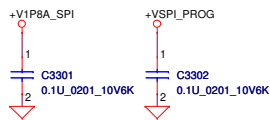




0928 Review update
Remove seris termination for CKE

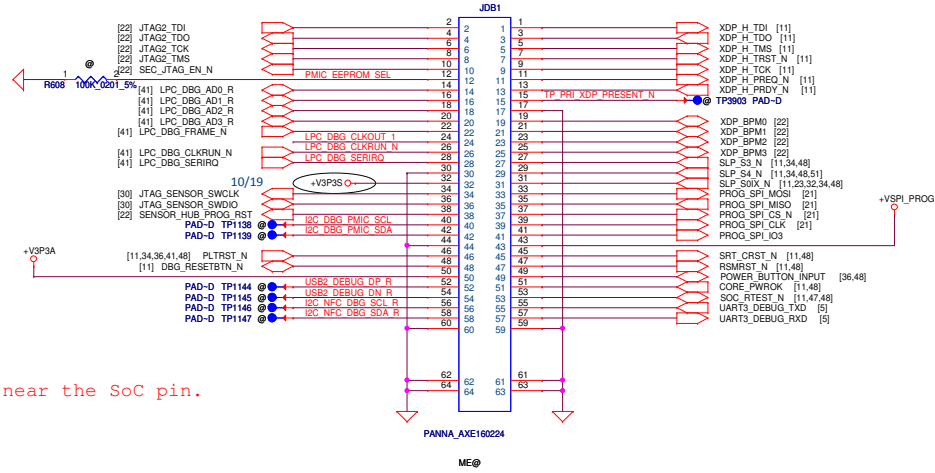


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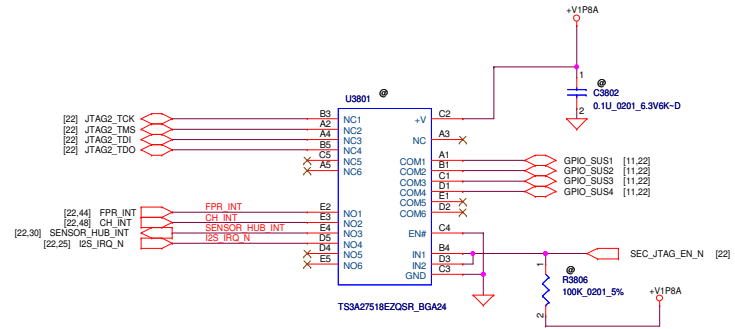
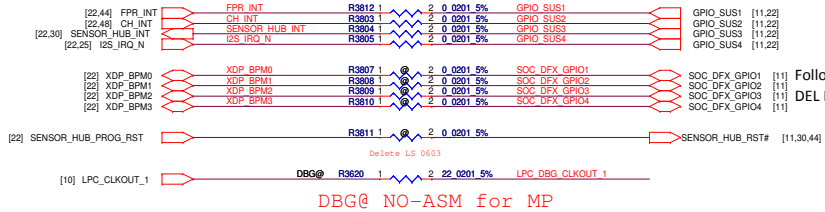
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WW39.4 : CHANGED THE CONNECTIONS ON PIN 10 AND 12
Follow REV1.2



R3819,R3820 *Places near the SoC pin.

Follow REV0.9 Schematics, 0->22,
DEL LPC DBG RESET R N



IN1	NC TO COM,	NO TO COM,
IN2	COM TO NC	COM TO NO
L	ON	OFF
H	OFF	ON

Codec

(Lenovo) remove R4671 R4672, ensure impedance on it lower than 0.1ohm
 Add layout notice:
 put jack as closer as possible to codec
 width of HP_MIC_OUT and HP_MIC_OUT2 at least 40mil

(Lenovo) change pin4 to DMIC_DATA1_C
 and pin5 to DMIC_DATA2_C 0608

DMIC_DATA1_C
 Left/right: Low

DMIC_DATA1_C
 Left/right: High
 on Subcard

DMIC_DATA2_C
 Left/right: High

DMIC location and its connection

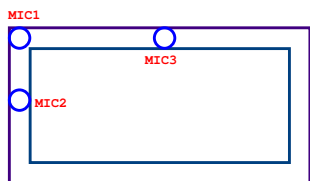
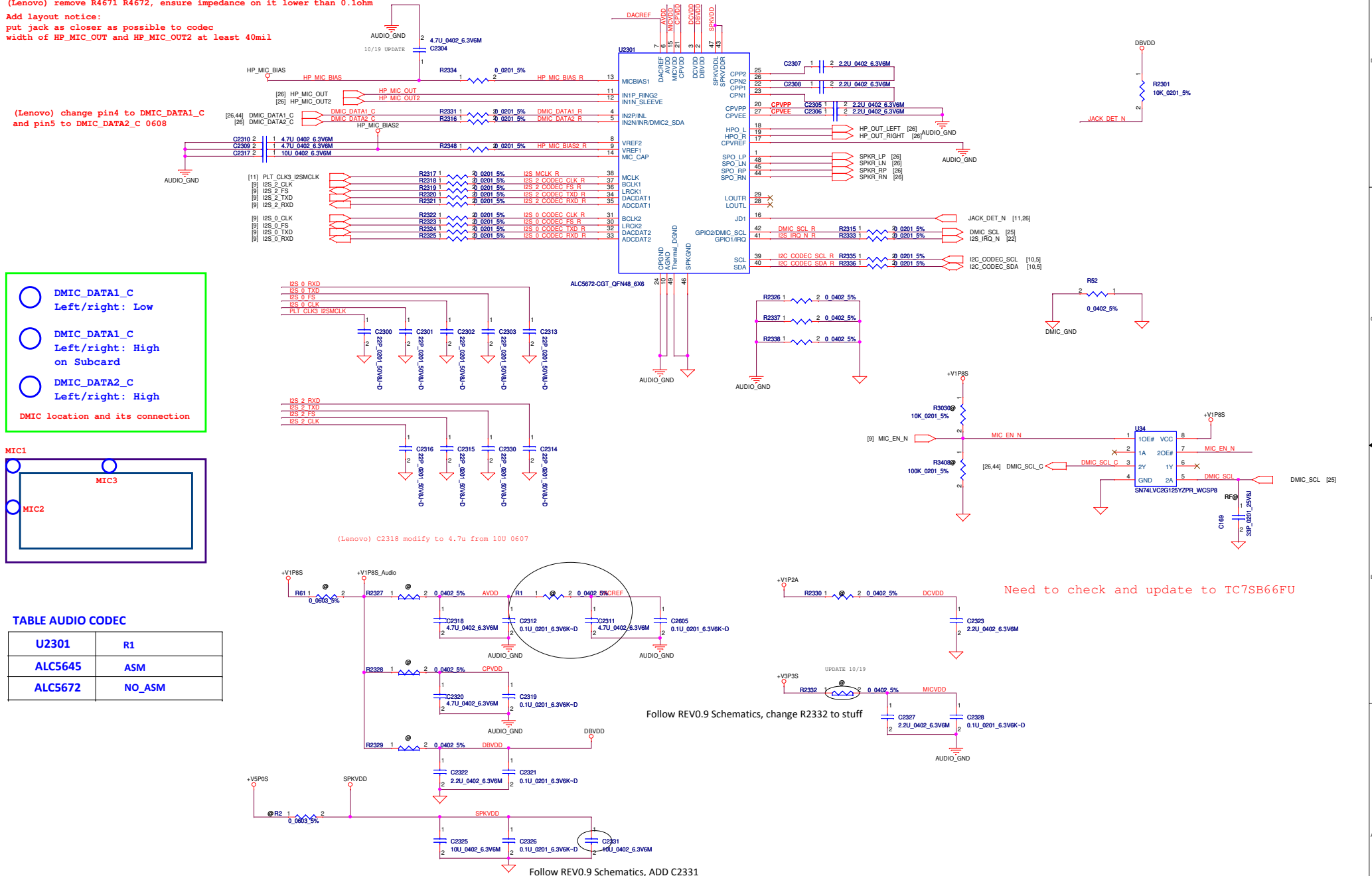
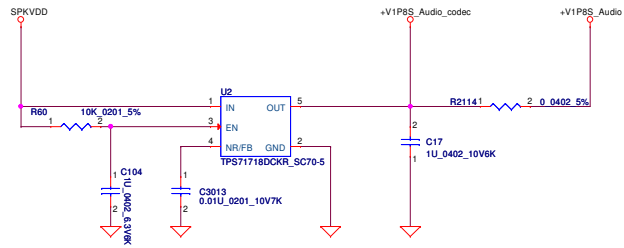


TABLE AUDIO CODEC

U2301	R1
ALC5645	ASM
ALC5672	NO_ASM

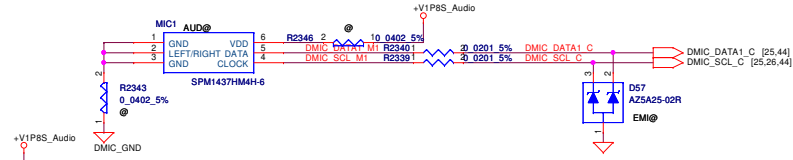


Digital MIC Conn.

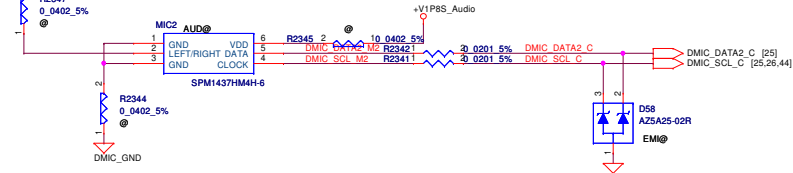


place close to DMIC

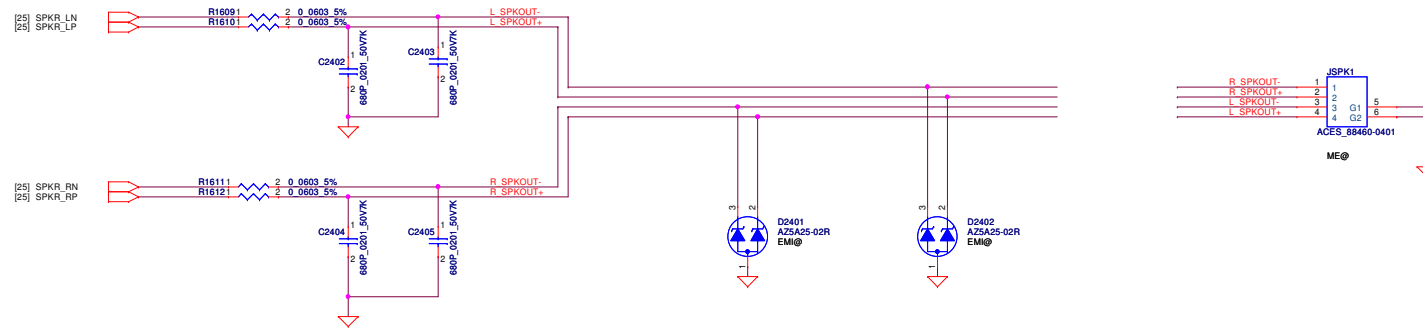
Corner Front



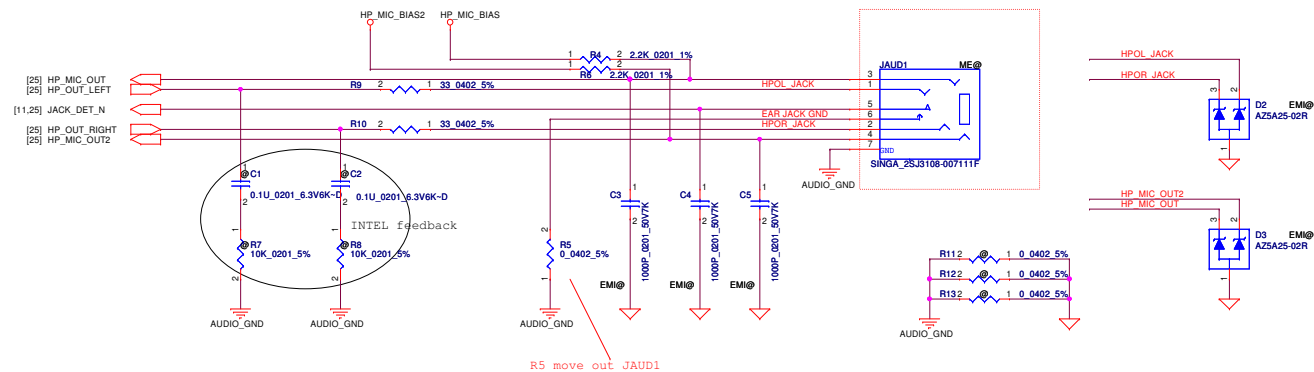
Side Front



SPEAKERS

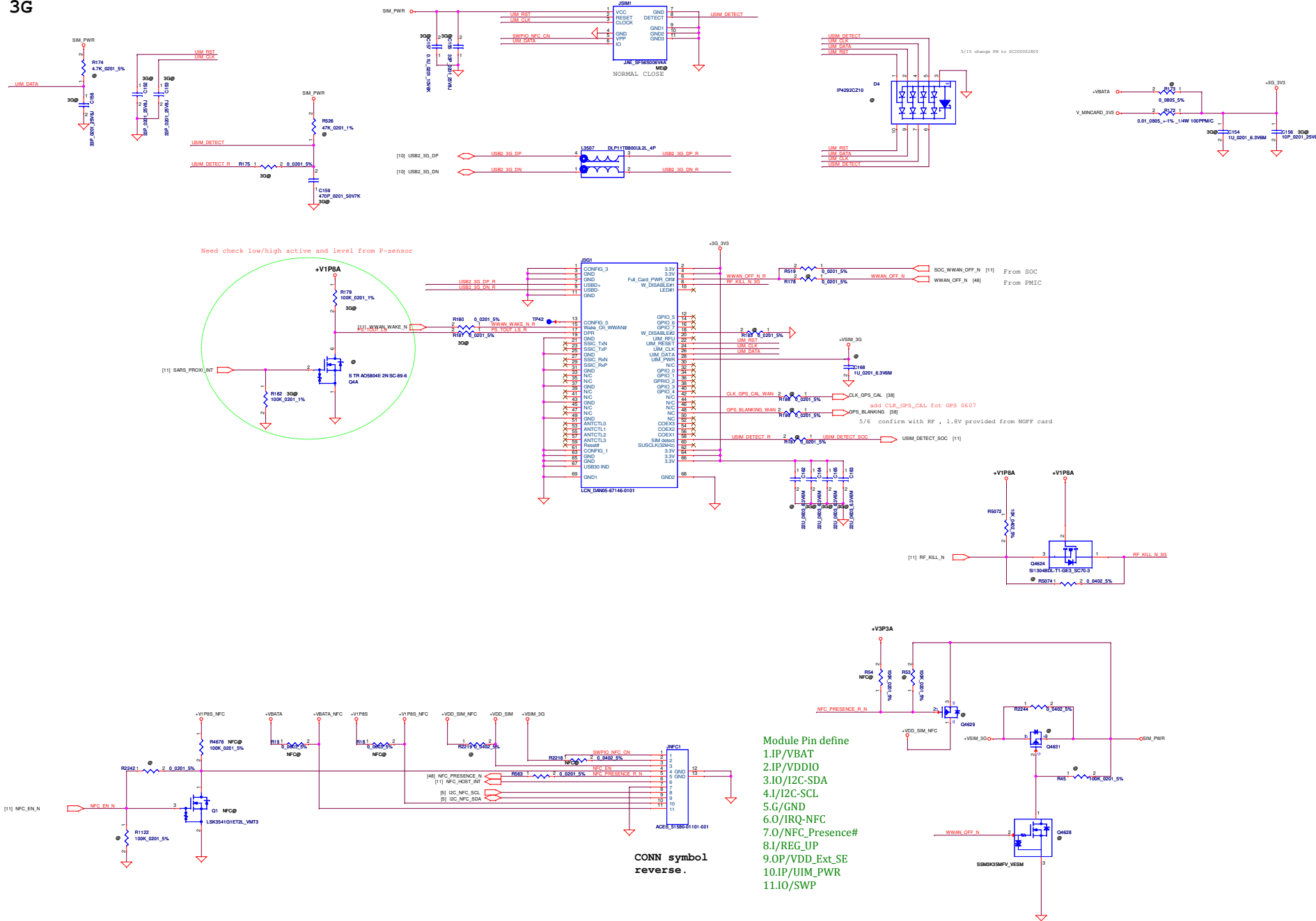


Audio Jack Audio Jack need to confirm normal open

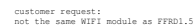
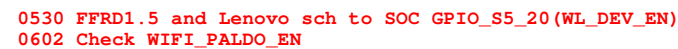


R5 move out JAUD1

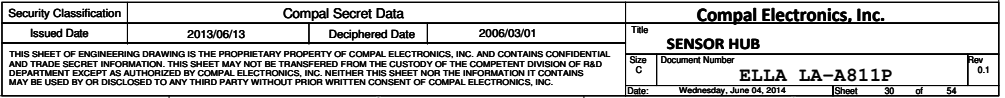
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Accelarometer + GYROSCOPE

PROXIMITY SENSOR

Accelerometer + GYROSCOPE

PROXIMITY SENSOR

SX9500 I2C Address Table

A1	A0	Address	
0	0	0x28	P-Sensor 1(MB)
0	1	0x29	
1	0	0x2A	P-Sensor 2(SUB CAM)
1	1	0x2B	

TABLE P-Sensor STRAP

Location	TWO P-Sensor (2PS@)	One P-SENSOR (1PS@)
R522	ASM	NO ASM
R500	NO ASM	ASM

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Accelarometer + GYROSCOPE

PROXIMITY SENSOR

Accelerometer + GYROSCOPE

This schematic shows the connection of an MPU-6500 (U4504) to various sensors. It includes power supply decoupling with capacitors C285, C288, C290, and C310. Signal lines for I2C and INT are shown with pull-up resistors R491-R499. A note specifies an ASM diode at R527 location.

PROXIMITY SENSOR

This schematic details the proximity sensor setup featuring an Sx9500ULTR (JSAR1) connected to a microcontroller (U22). It shows I2C/SPI connections, power supply filtering with capacitors C310-C318, and status LEDs TP1140-TP1142. Pull-up resistors R3107-R3109 and R3103 are also indicated.

SX9500 I2C Address Table

A1	A0	Address	
0	0	0x28	P-Sensor 1(MB)
0	1	0x29	
1	0	0x2A	P-Sensor 2(SUB CAM)
1	1	0x2B	

TABLE P-Sensor STRAP

Location	TWO P-Sensor (2PS@)	One P-SENSOR (1PS@)
R522	ASM	NO ASM
R500	NO ASM	ASM

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SENSORS

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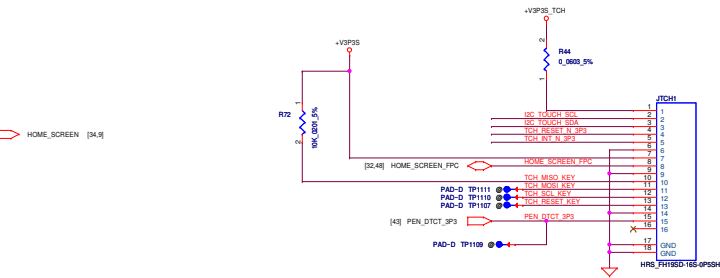
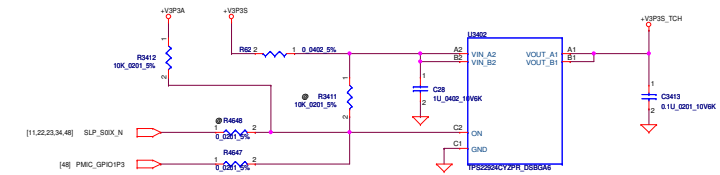
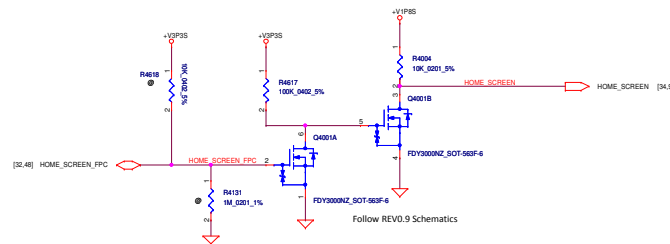
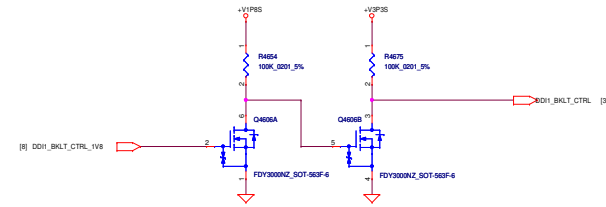
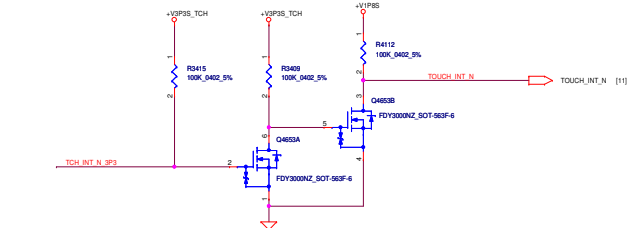
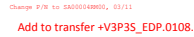
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Rev

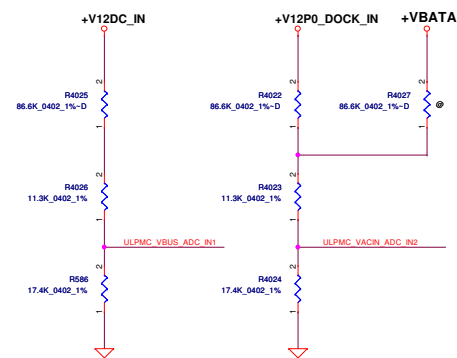
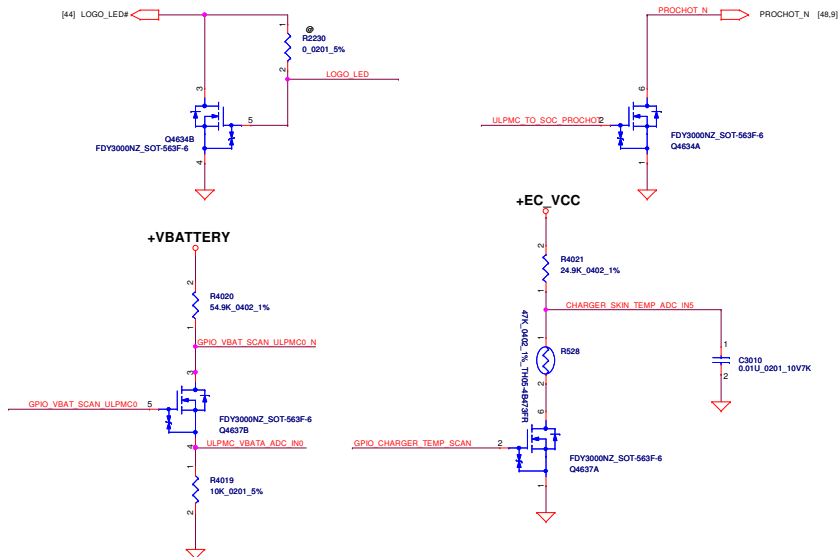
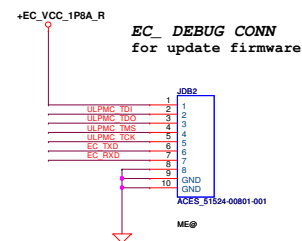
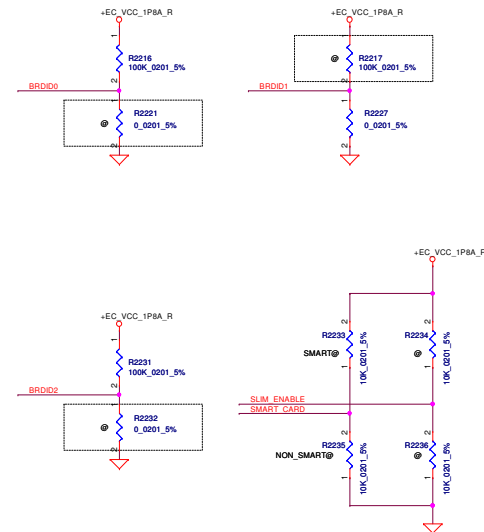
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[illegible][illegible][illegible]

Signal	Pin	Connector	Pin	Connector	Signal
[D01_Tx1_DN]	2	0 RJ 2422 16V42	2	0 RJ 2422 16V42	EDP_C_Tx1_DN
[D01_Tx1_DP]	2	0 RJ 2422 16V42	3	0 RJ 2422 16V42	EDP_C_Tx1_CK_DP
[D01_Tx0_DN]	2	0 RJ 2422 16V42	2	0 RJ 2422 16V42	EDP_C_Tx0_DN
[D01_Tx0_DP]	2	0 RJ 2422 16V42	3	0 RJ 2422 16V42	EDP_C_Tx0_CK_DP



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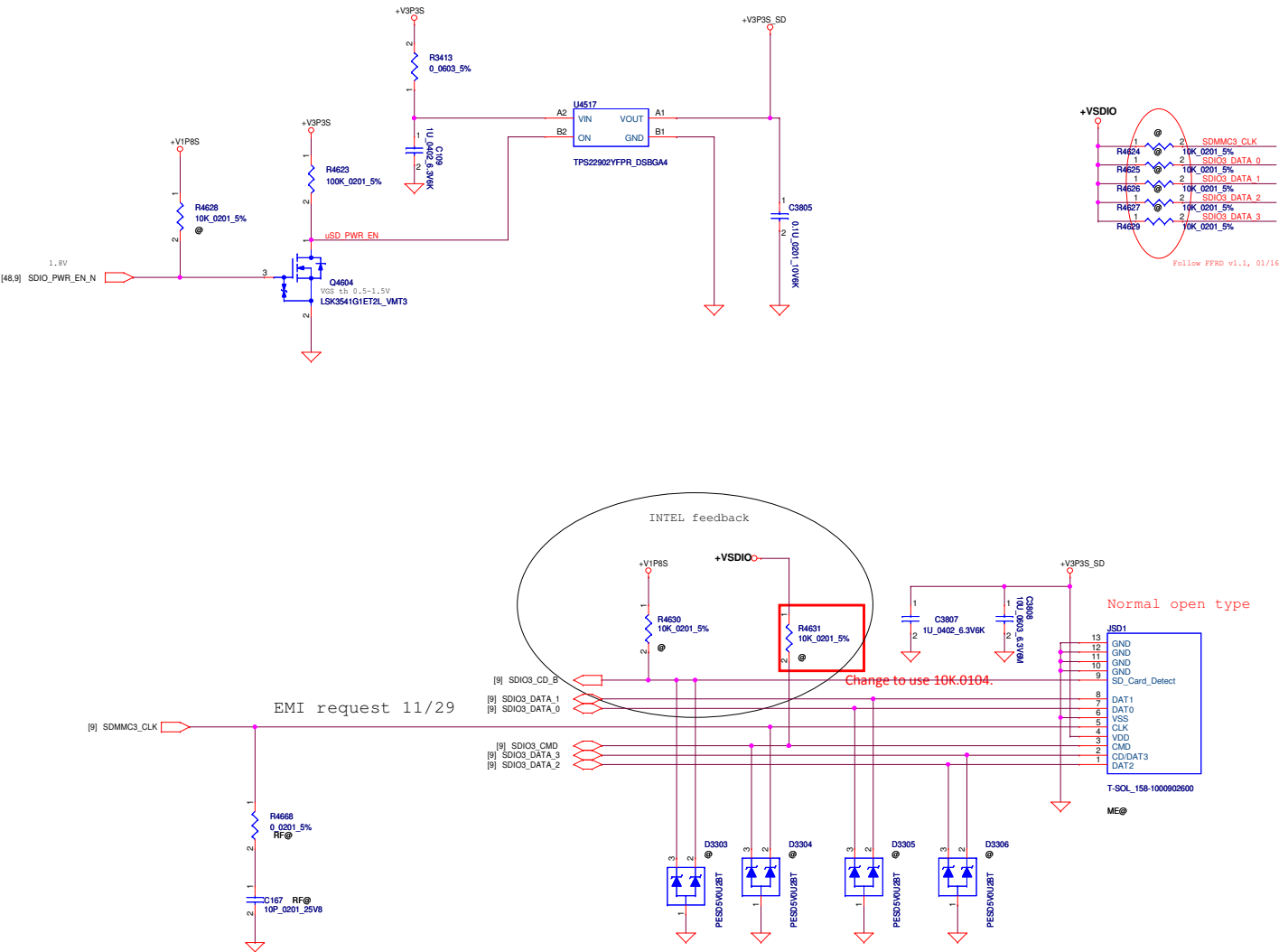
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R2235	NO ASM	ASM

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SDV	0	0	0
SDV-R	0	1	1
	BRID00 (GPIO27)	BRID01 (GPIO30)	BRID02 (GPIO11)
FVT	0	0	1
FVT-2	1	1	0
SIT	0	1	0
(TBD)	1	1	1
SVT	1	0	0
SOVP	1	0	1

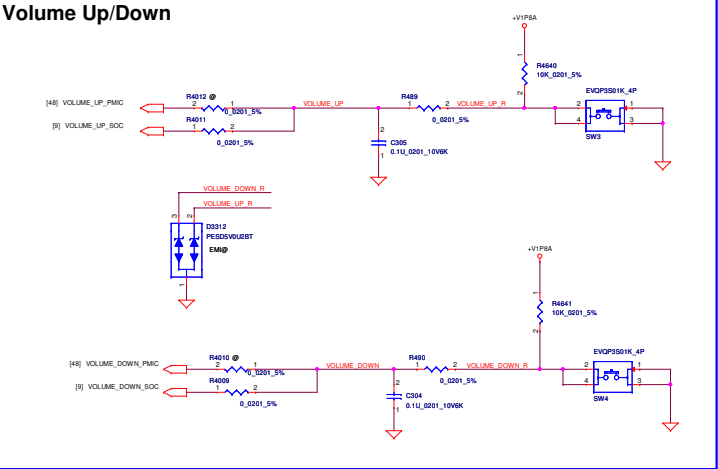


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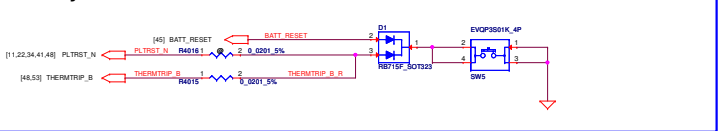
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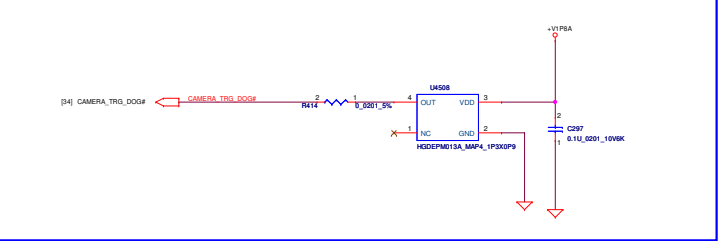
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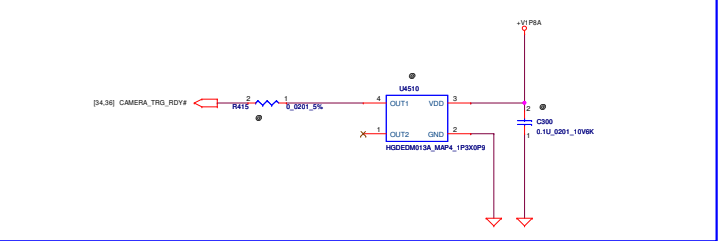
Battery Reset Reset Button check



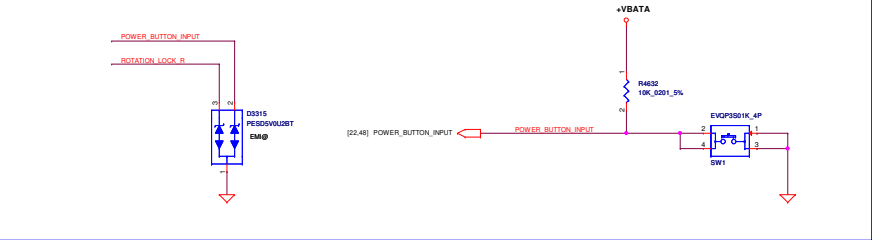
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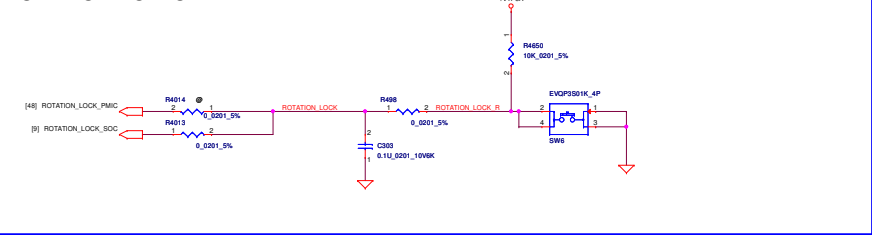
COVER LID SENSOR



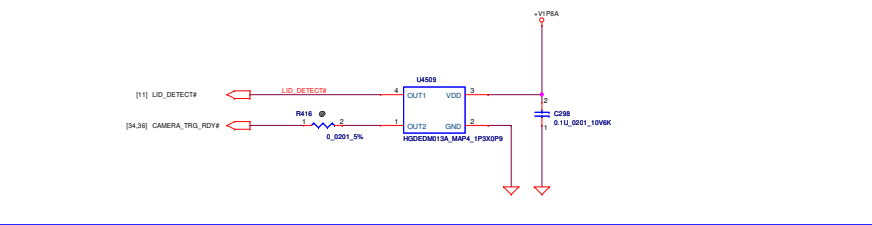
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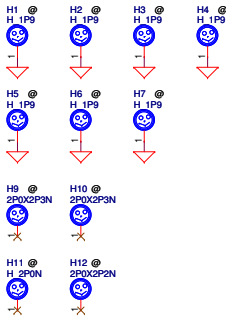
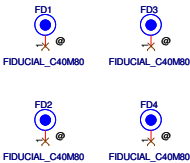
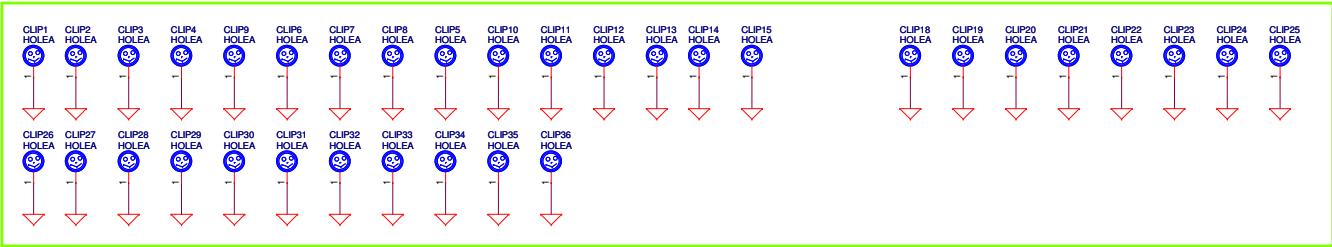


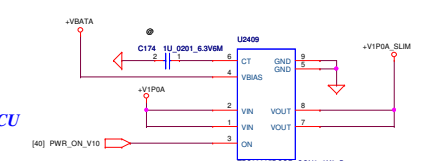
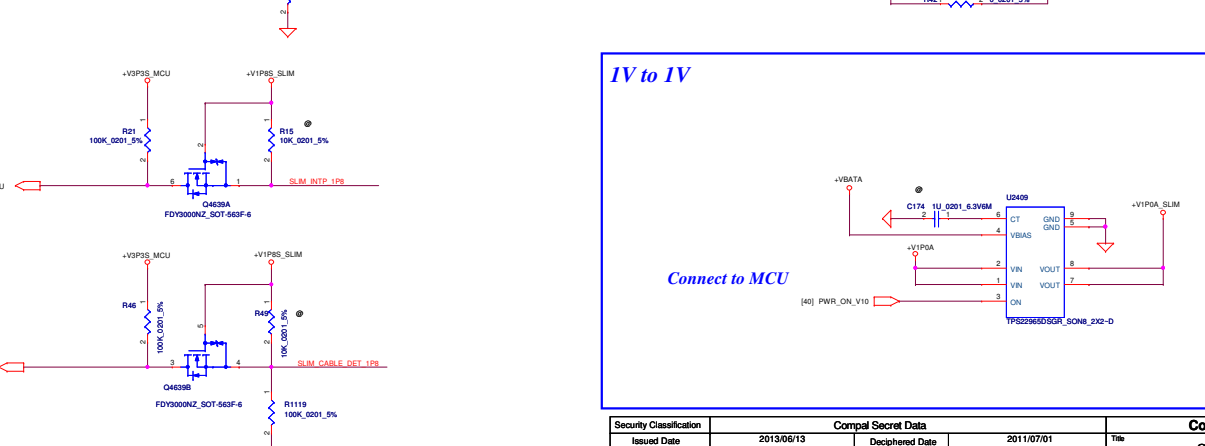
ROTATION BUTTON



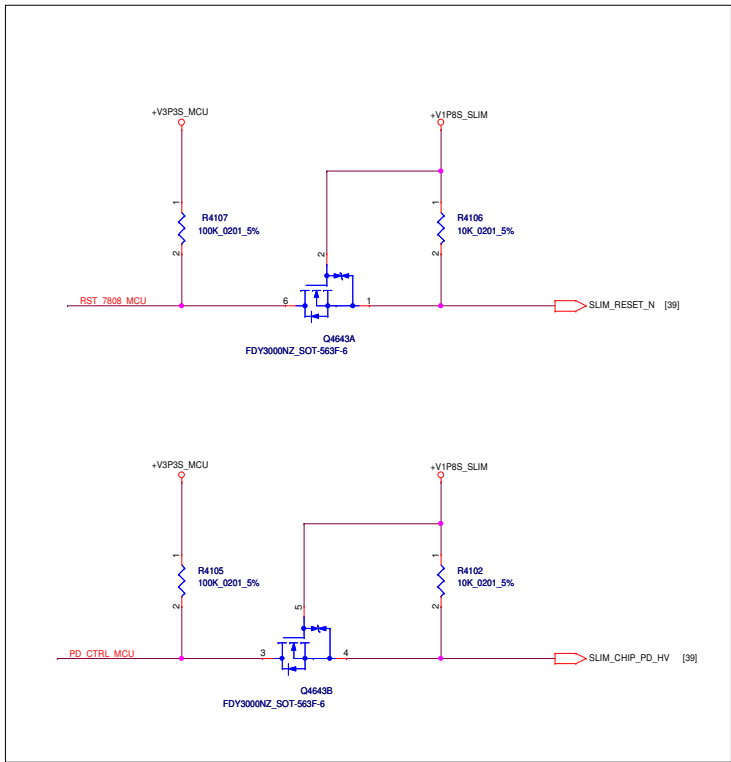
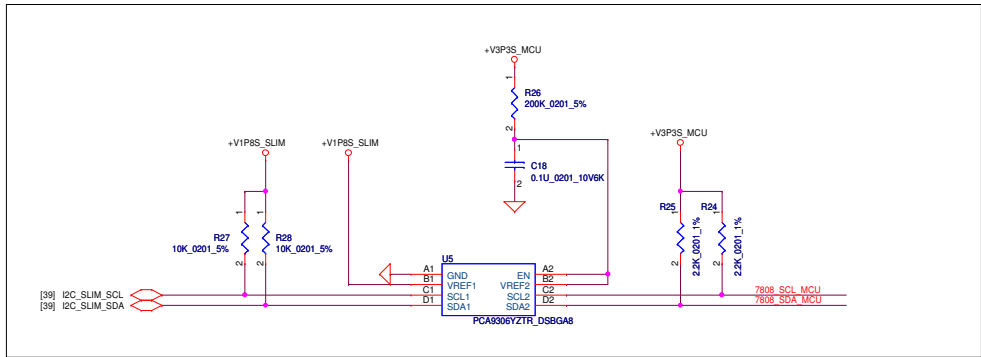
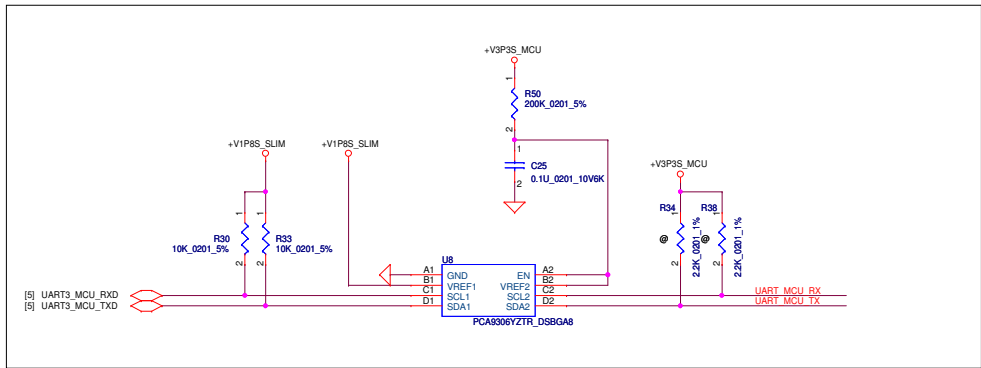
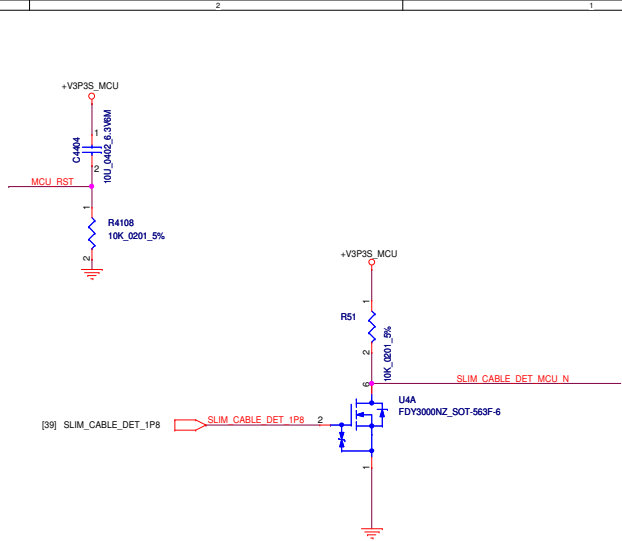
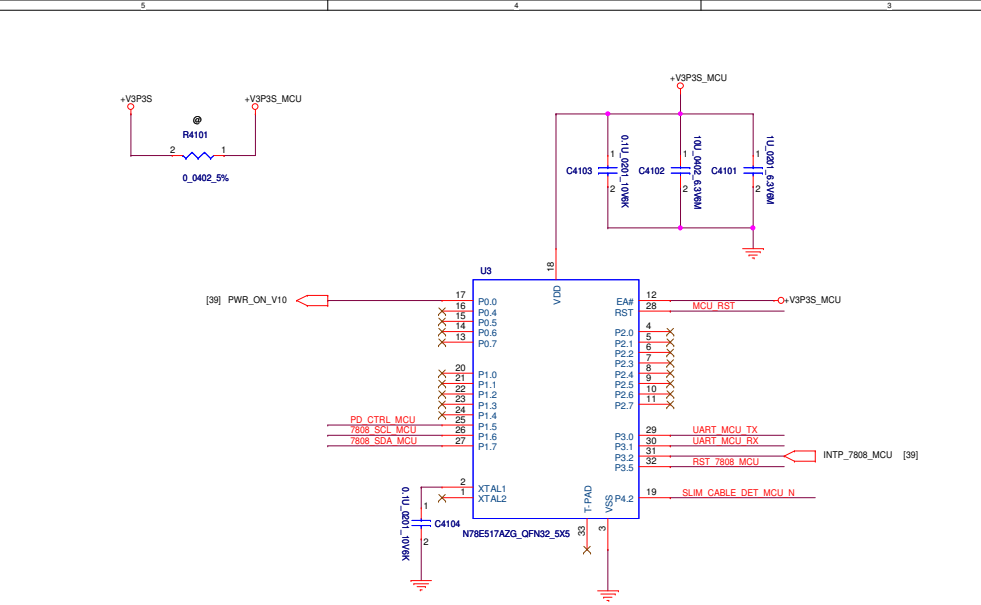
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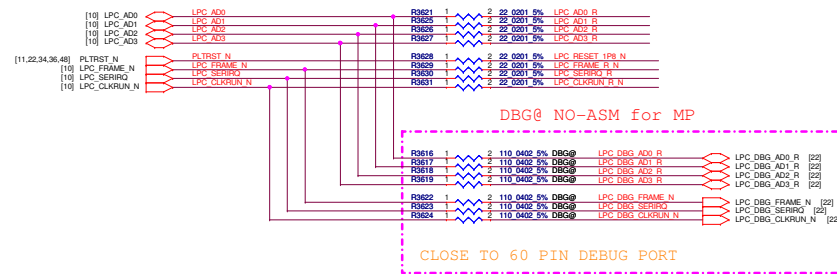
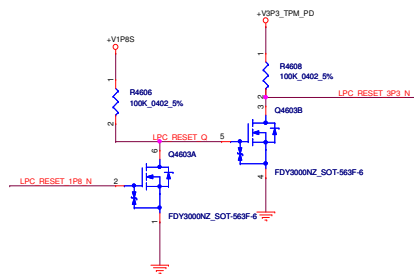
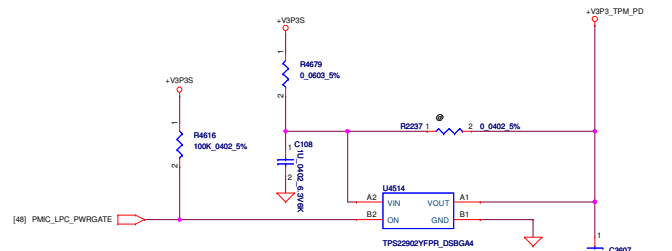
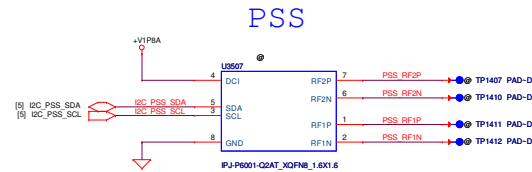
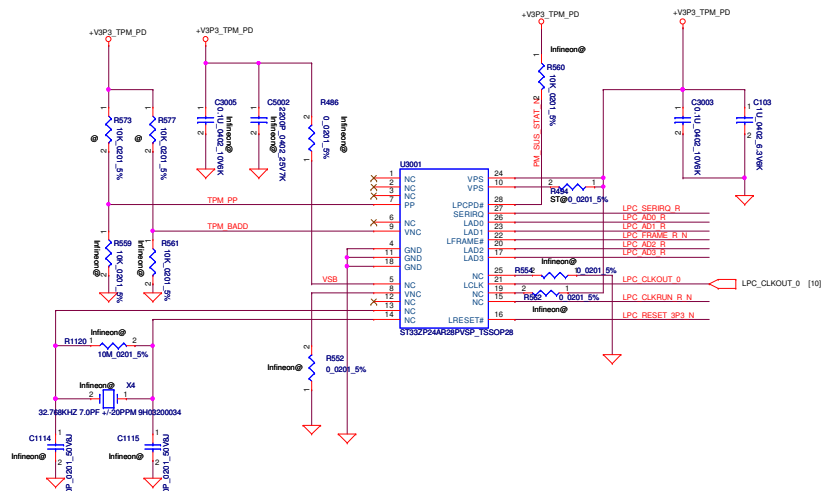


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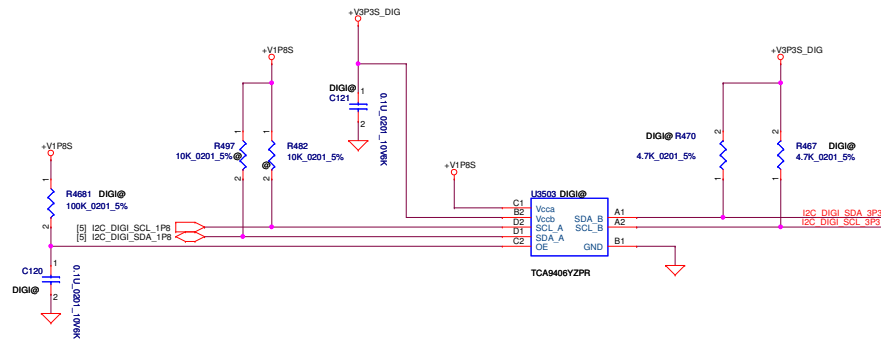
TPM



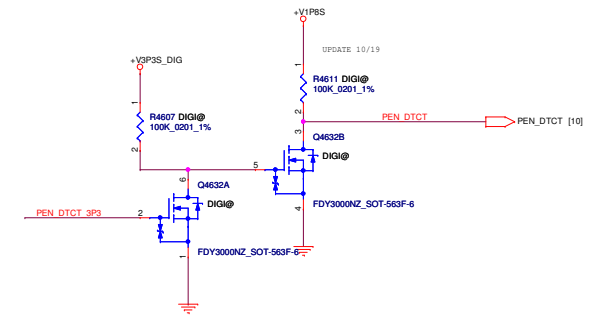
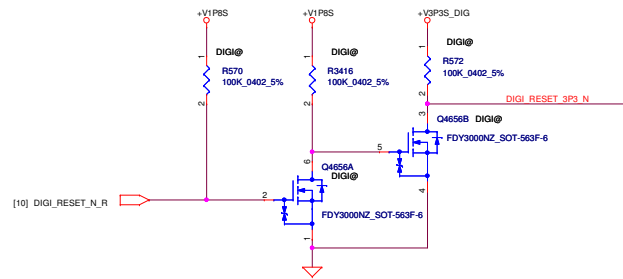
Follow Lenovo sch

TABLE TPM CONFIGURATION

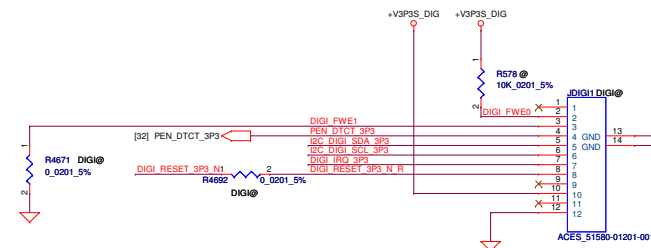
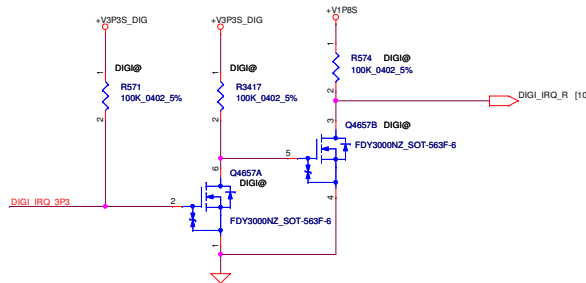
Location	Infinion	ST Micro	Non dTPM MODEL
C103	ASM	ASM	NO ASM
C108	ASM	ASM	
C1114	ASM	NO ASM	
C1115	ASM	NO ASM	
C3003	ASM	ASM	
C3005	ASM	NO ASM	
C3607	ASM	ASM	
C5002	ASM	NO ASM	
R486	ASM	NO ASM	
R494	NO ASM	ASM	
R552	ASM	NO ASM	
R554	ASM	NO ASM	
R559	ASM	NO ASM	
R560	ASM	NO ASM	
R561	ASM	NO ASM	
R562	ASM	NO ASM	
R573	NO ASM	NO ASM	
R577	NO ASM	NO ASM	
R1120	ASM	NO ASM	
R3621	ASM	ASM	
R3625	ASM	ASM	
R3626	ASM	ASM	
R3627	ASM	ASM	
R3628	ASM	ASM	
R3629	ASM	ASM	
R3630	ASM	ASM	
R3631	ASM	ASM	
R4616	ASM	ASM	
R4606	ASM	ASM	
R4608	ASM	ASM	
R4679	ASM	ASM	
Q4603	ASM	ASM	
X4	ASM	NO ASM	
U4514	ASM	ASM	
U3001	SLB9635	ST33ZP24AR	



check to PMIC 0604

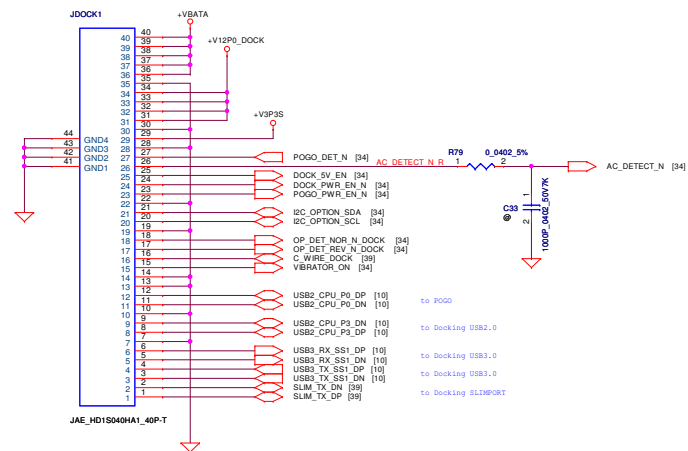


Digitizer board connector

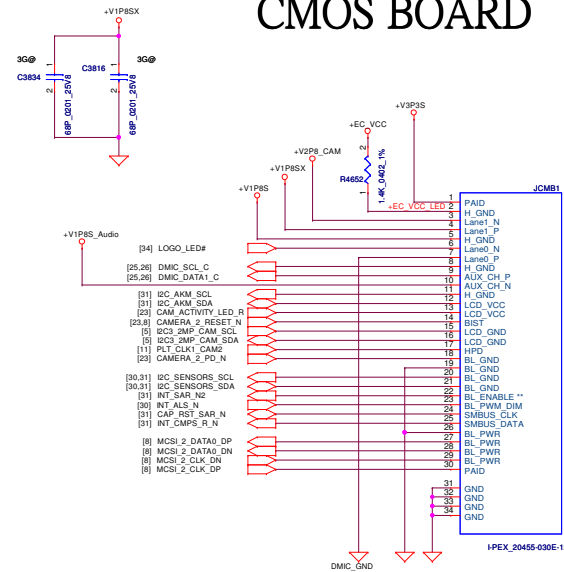


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2013/06/13		2014/04/01		Digitizer			
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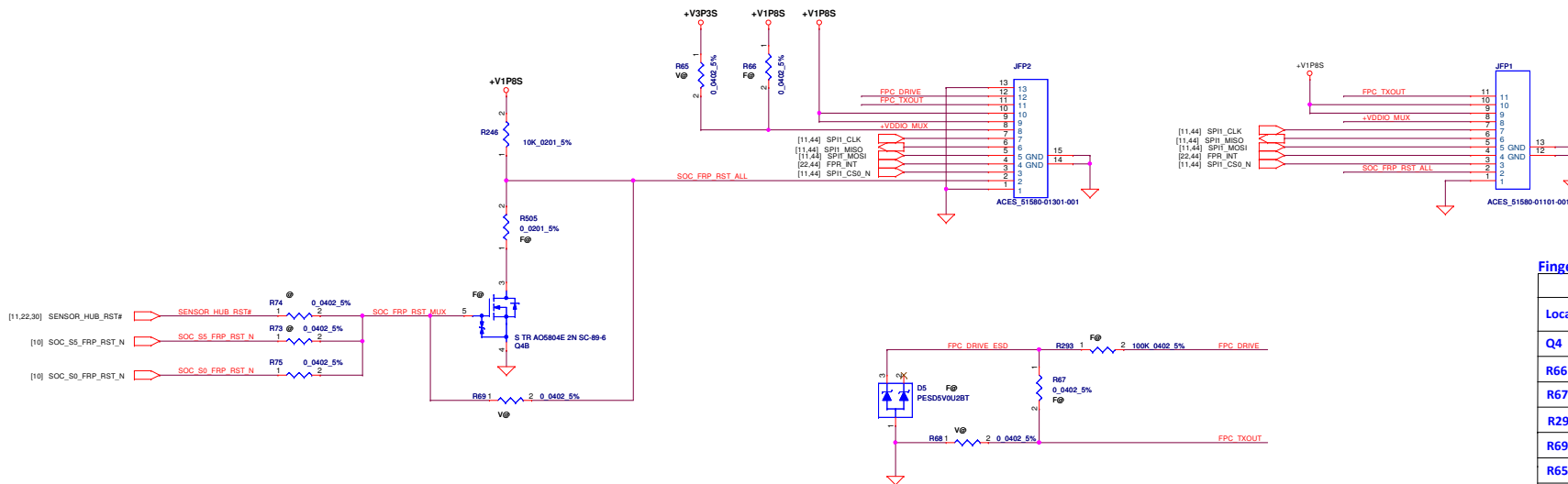
Docking conn



CMOS BOARD



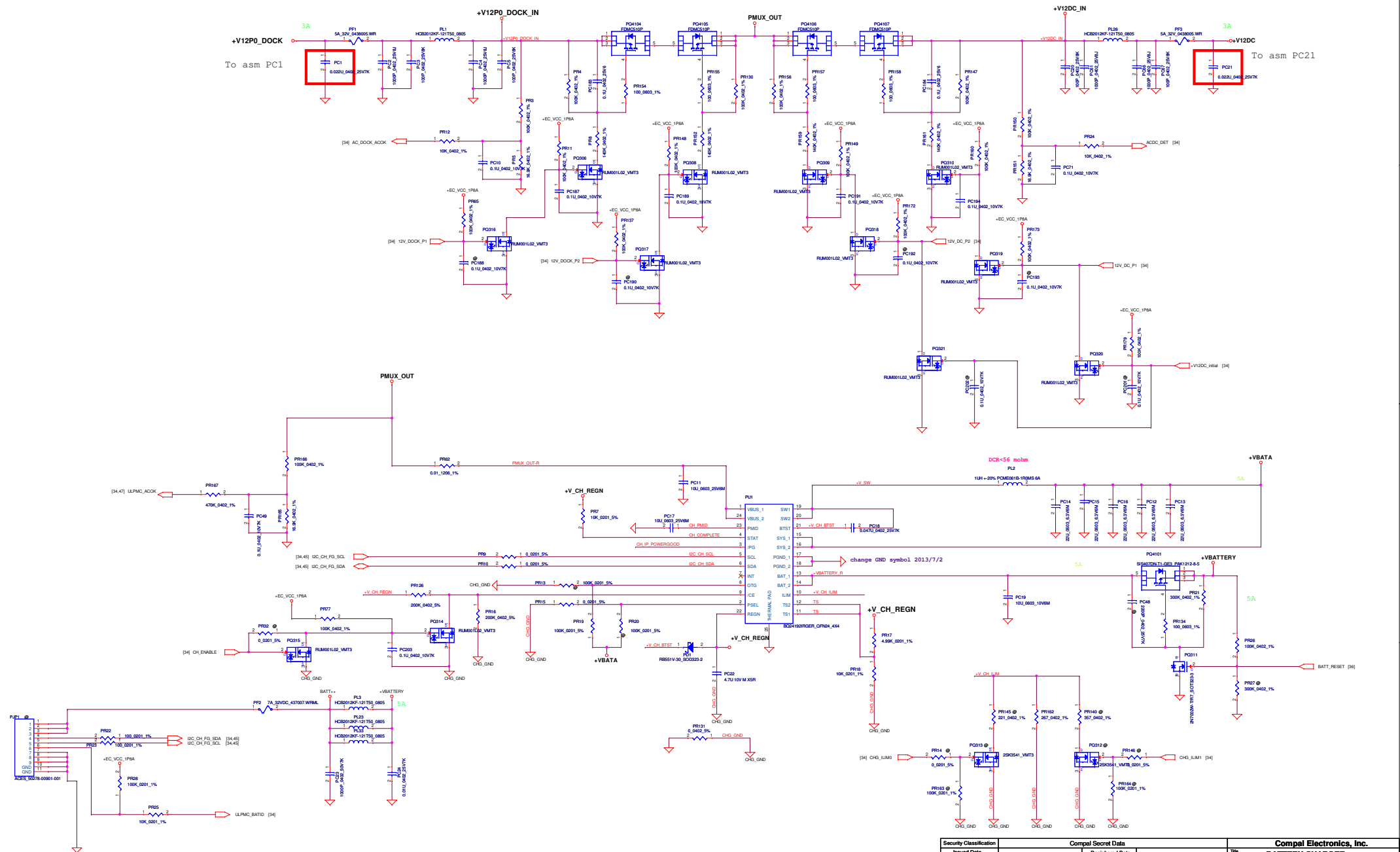
Finger Printer Conn

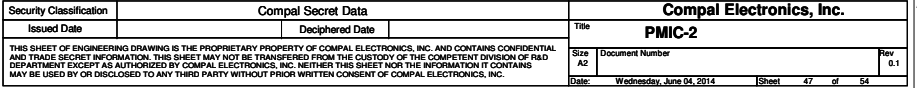


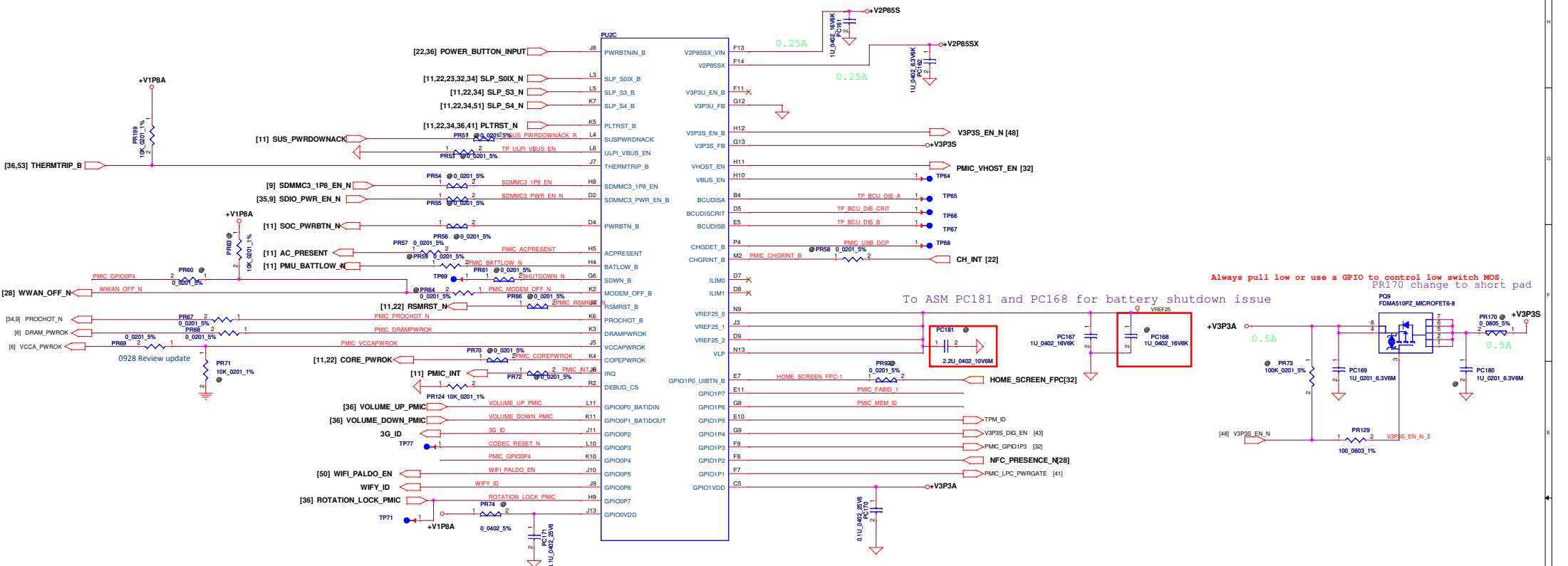
Finger Printer BOM Structure

	JFP1	JFP2
Location	Validitycyn (V@) (MCS_31500-31510-001)	Fingerprints (F@) (MCS_31500-31510-001)
Q4	N0 ASM	ASM
R66	N0 ASM	ASM
R67	N0 ASM	ASM
R293	N0 ASM	ASM
R69	ASM	N0 ASM
R65	ASM	N0 ASM
R68	ASM	N0 ASM
D5	N0 ASM	ASM
R505	N0 ASM	ASM

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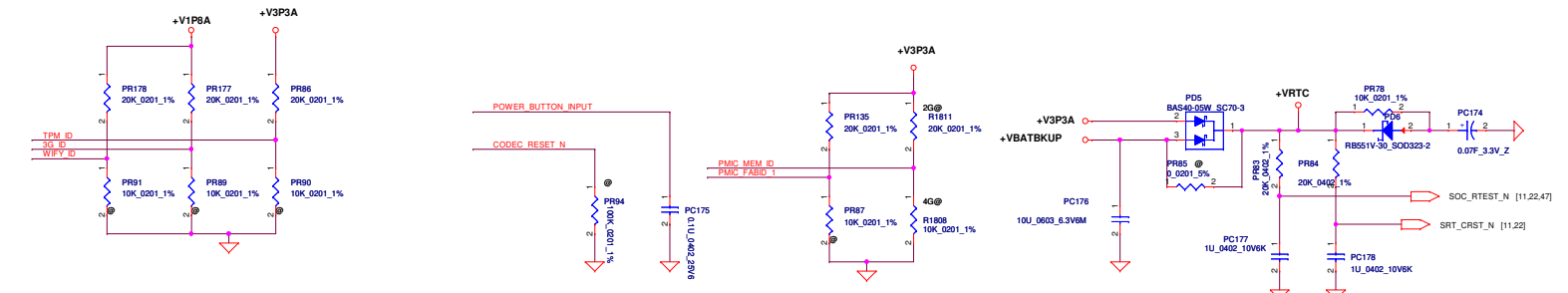


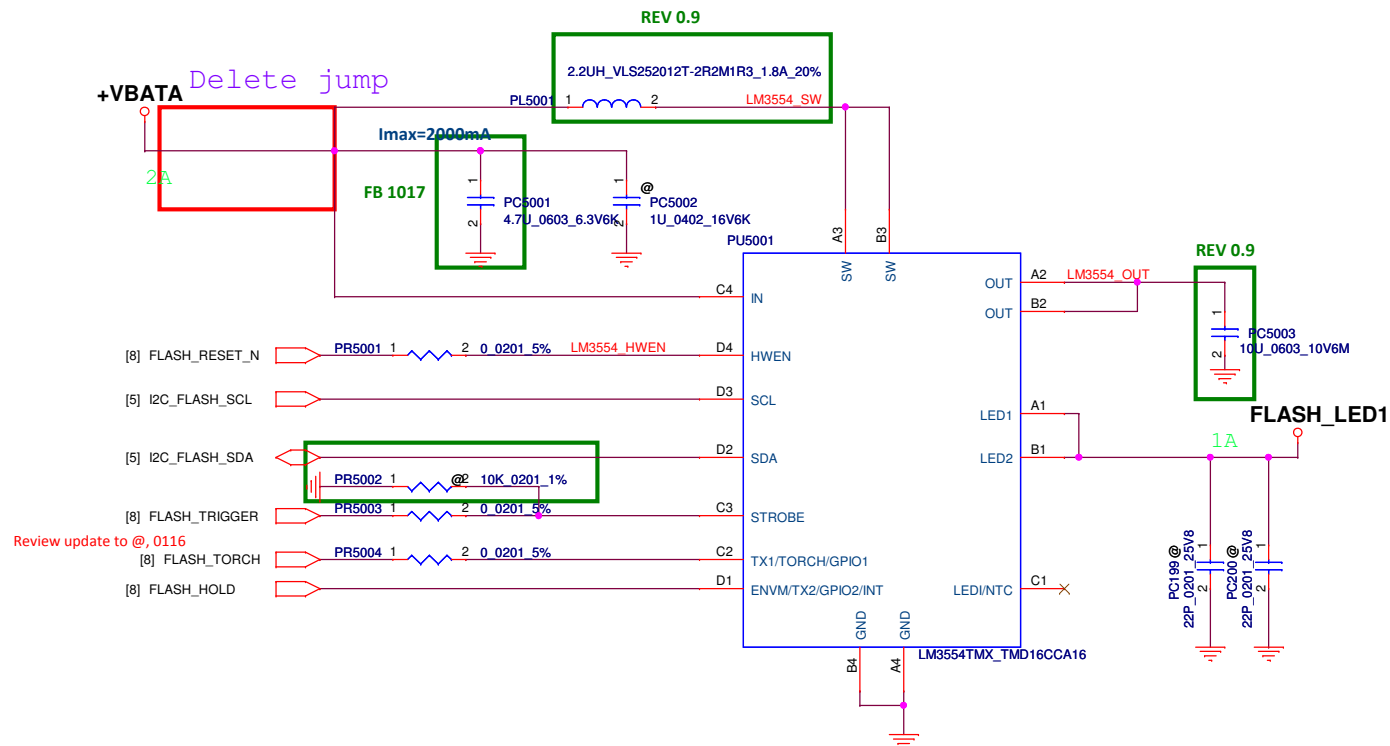
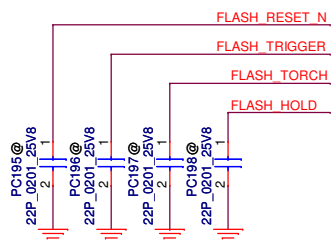
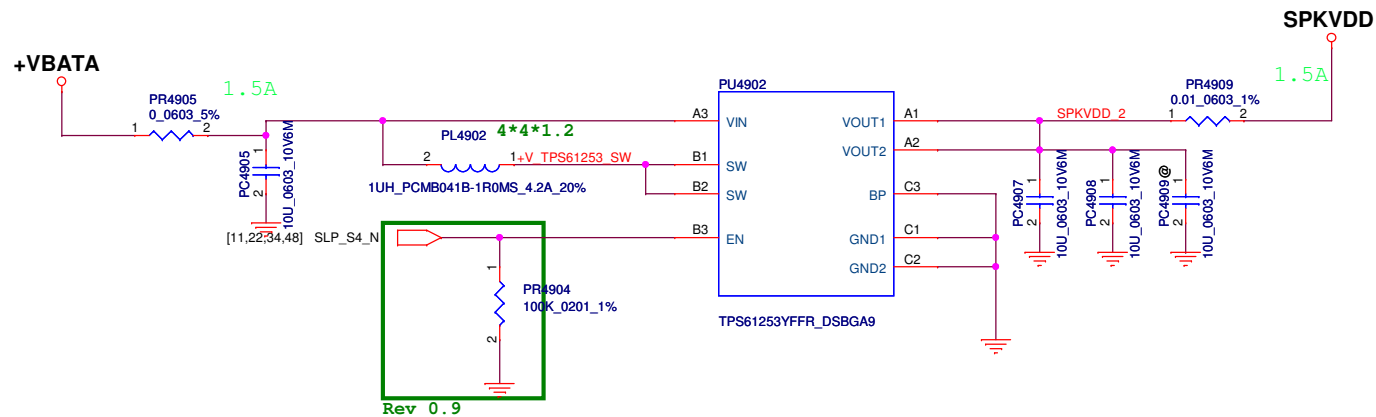
Always pull low or use a GPIO to control low switch MOS. PRI70 change to short pad

To ASM PC181 and PC168 for battery shutdown issue

TABLE MEMORY STRAP

Location	2G	4G
R1811	ASM	NO ASM
R1808	NO ASM	ASM





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								SPK 5V/Flash LED Driver	
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