

Compal Confidential

PBJ20 Schematics Document

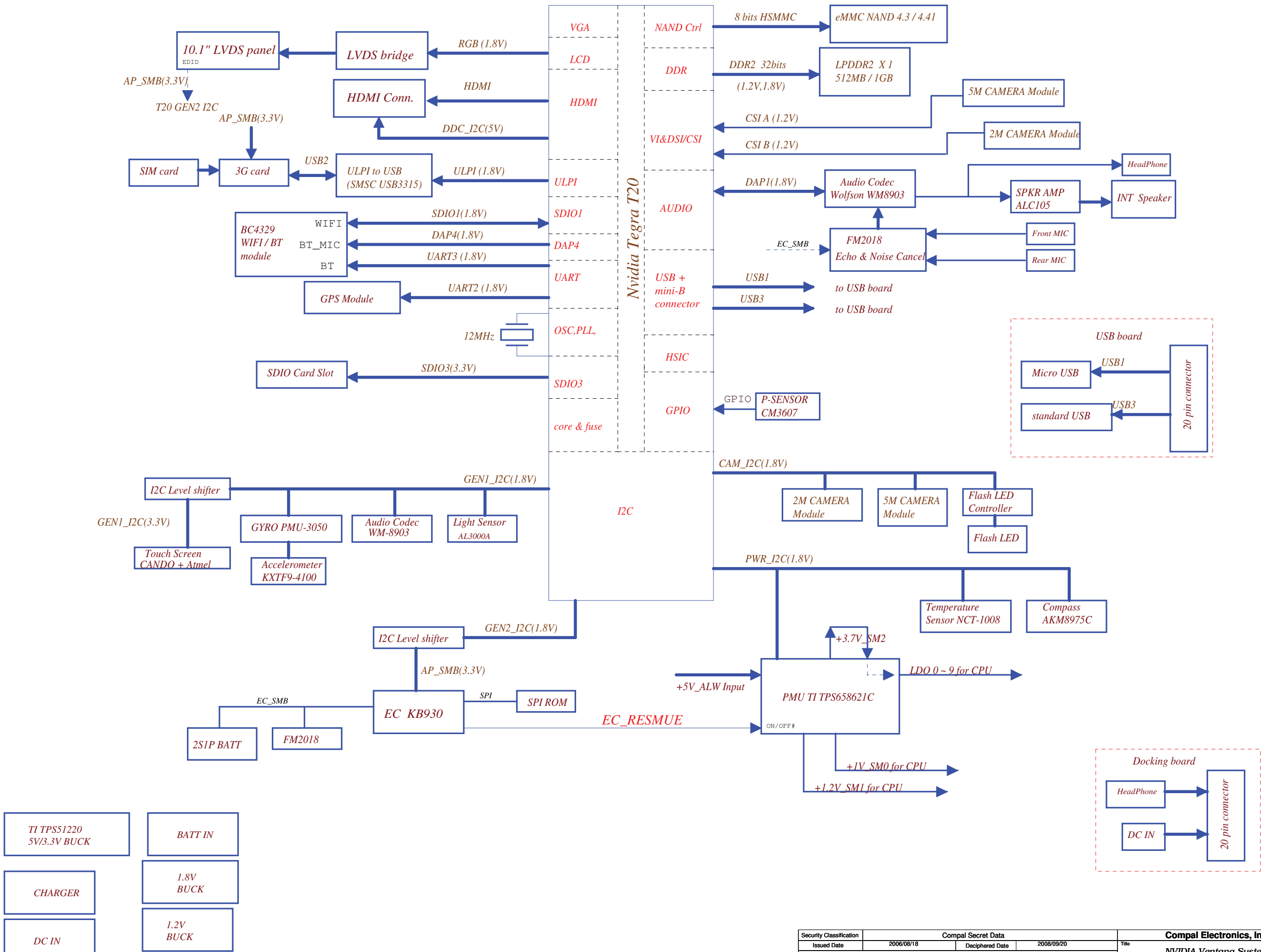
Nvdia(T20) + LPDDRII

2010-10-07

REV: 0.4

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2011/4/1		2008/09/20		Cover Page	
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PBJ20 system block diagram



<http://hobi-elektronika.net>

Voltage Rails

Power Plane	Description	IDLE	Standby
VIN	Adapter power supply (12V)	ON	ON
B+	AC or battery power rail for power circuit.	ON	ON
+1.2VS_SM0	Core voltage for CPU	ON	ON
+1.0VS_SM1	CPU voltage for CPU	ON	OFF
+1.1VS_LDO1	AVDD_PLL power rail	ON	OFF
+1.2VS_LDO2	T20 RTC power rail	ON	OFF
+1.8VS_LDO4	T20 system power rail	ON	ON
+3.3VS_LDO3	T20 USB power rail	ON	OFF
+2.85VS_LDO5	Core voltage for EMMC	ON	OFF
+2.85VS_LDO6	Core voltage for CAMERA	ON	OFF
+3.3VS_LDO7	T20 HDMI power rail	ON	OFF
+1.8VS_LDO8	T20 HDMI PLL power rail	ON	OFF
+2.85VS_LDO9	T20 DDR RX power rail	ON	ON
+3VALW	3.3V always on power rail	ON	ON
+3VS	3.3V switched power rail for standby mode	ON	OFF
+5VALW	5V always on power rail	ON	ON
+1.8V	1.8V always on power rail	ON	ON
+1.8VS	1.8V switched power rail for standby mode	ON	OFF
+3.3VS_RTC	RTC power	ON	ON

STATE \ SIGNAL	EC_SYS_STANDBY#	EN_VDD_+1.8VS_S3	EN_VDD_3V3	EN_VDD_1V8
Full ON	High	High	High	High
Standby	High	High	High	High

PWR_I2C address

Device	Address
PMU	0110 100X b
E-Compass	
Temperature sensor	1001 100X b

CAM_I2C address

Device	Address
CAMERA 5M	0110 110X b
CAMERA 1.3M	1001 000X b
LED FLASH	

GEN1_I2C

Device	Address
Audio Codec	1001 010xb
Light sensor	0100 010xb
Gyro	1101 000xb

TS_I2C

Device	Address
Touch Panel	0100 110xb

GEN2_I2C

Device	Address
--------	---------

AP_SMB

Device	Address
PANEL EDID	
3G Card	
EC	

EC_SMB

Device	Address
Echo Cancellation	1011 111xb
BATT	

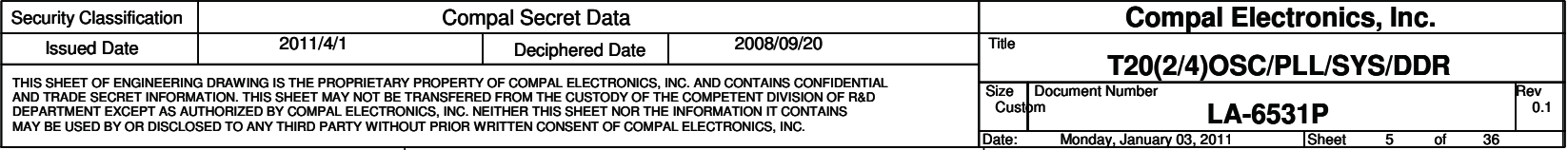
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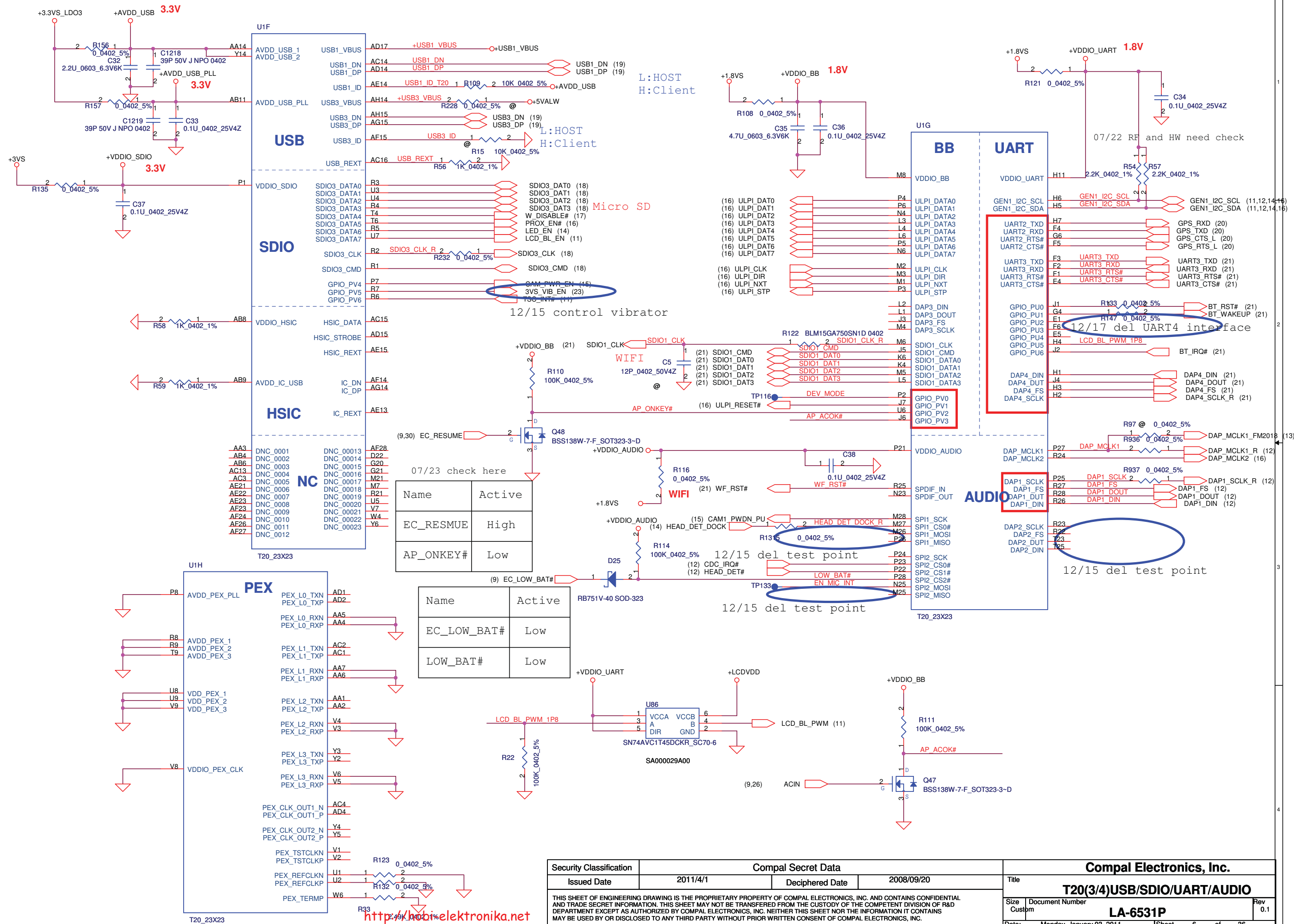
Device	Address
G-sensor	0000 1111 b

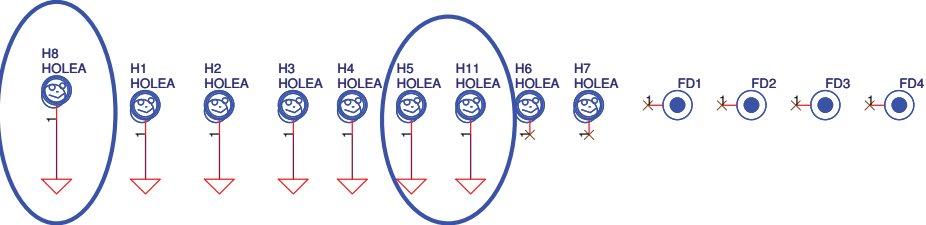
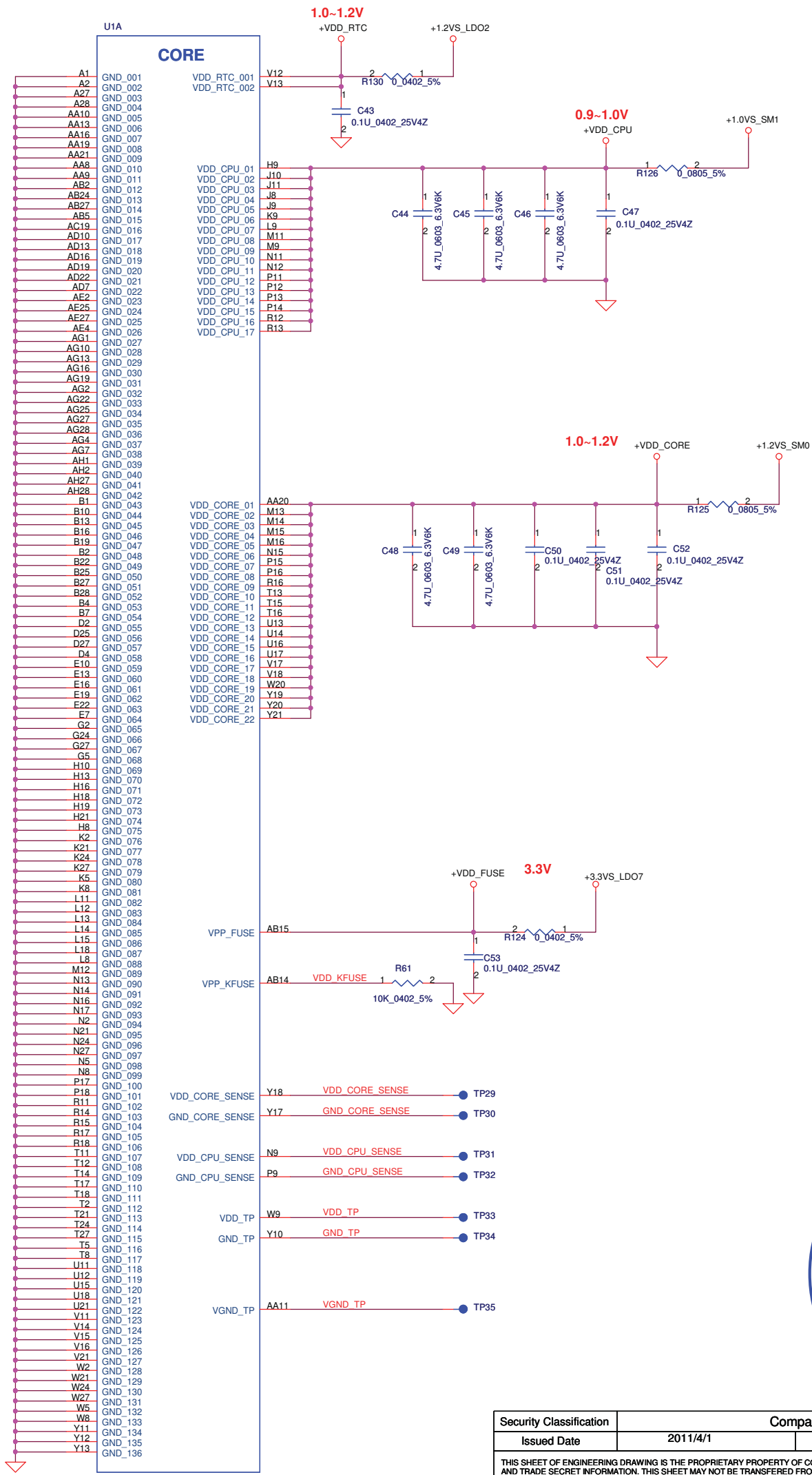
DDC_I2C

Device	Address
HDMI EDID	1010 000xb

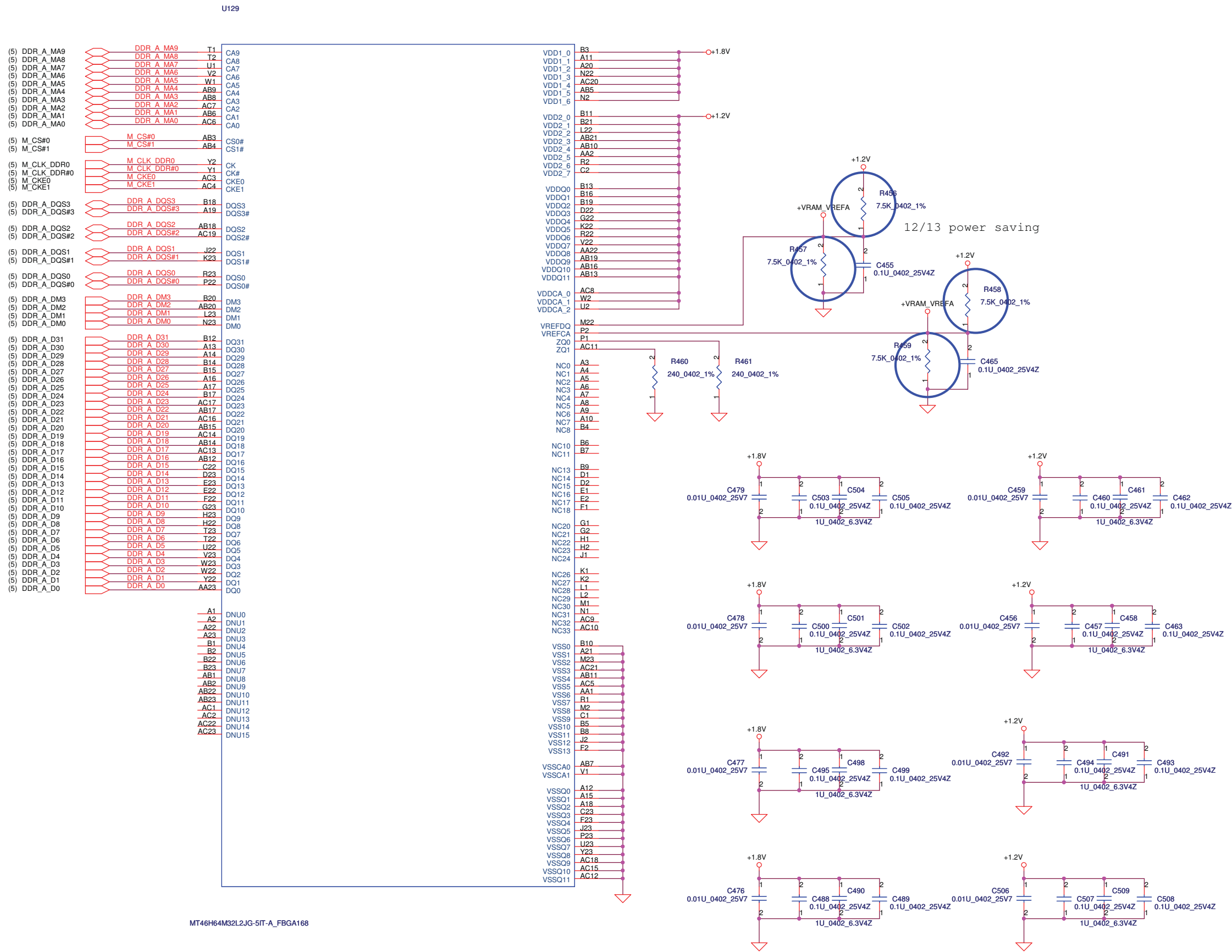


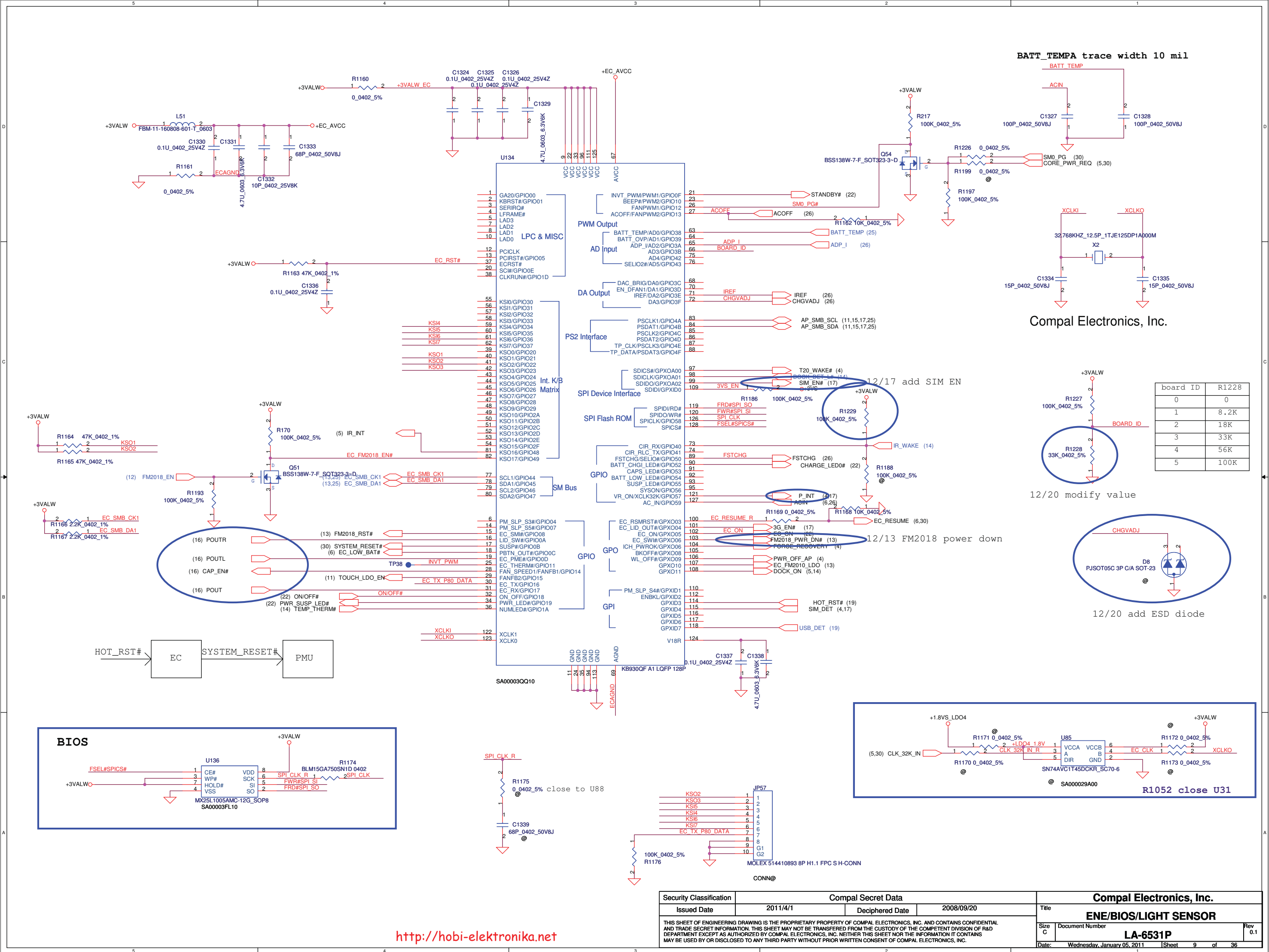


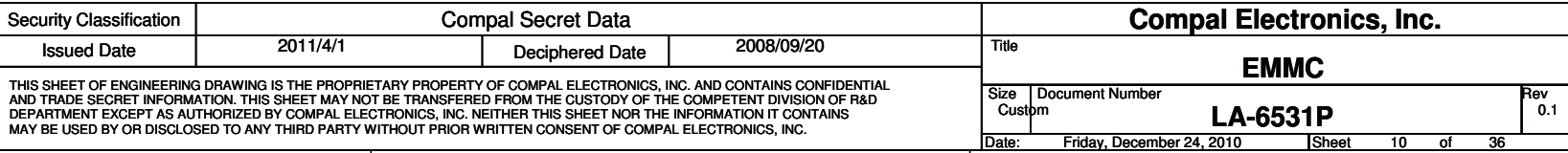


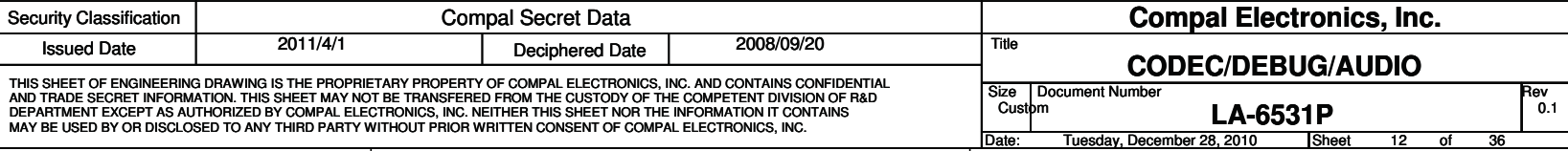


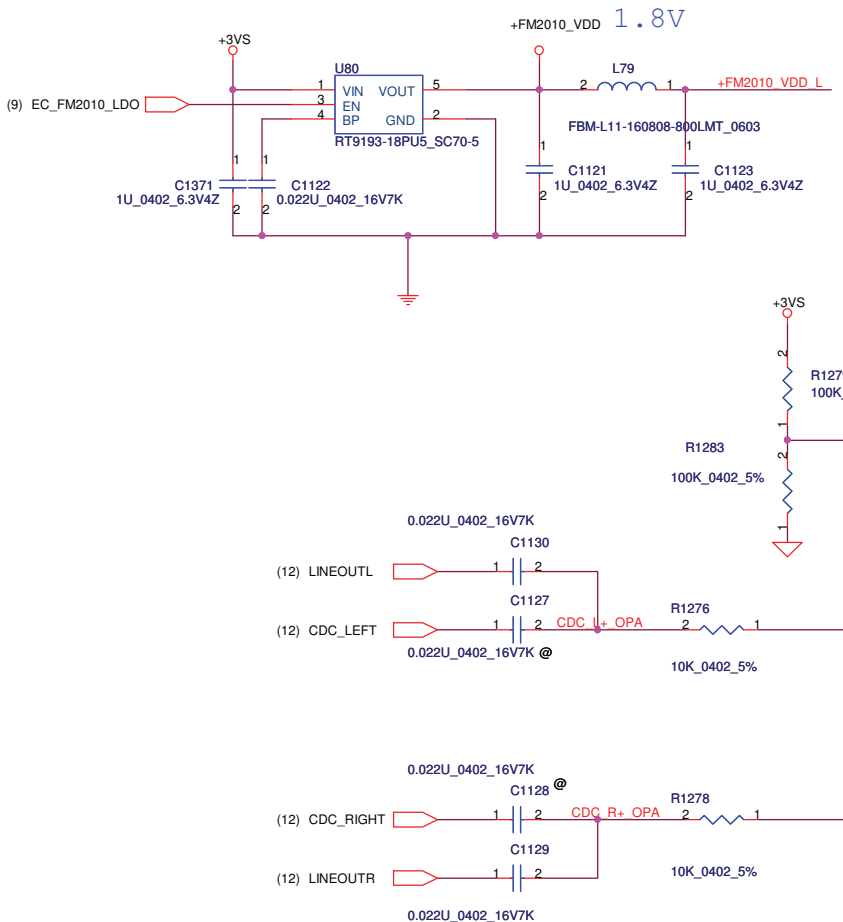
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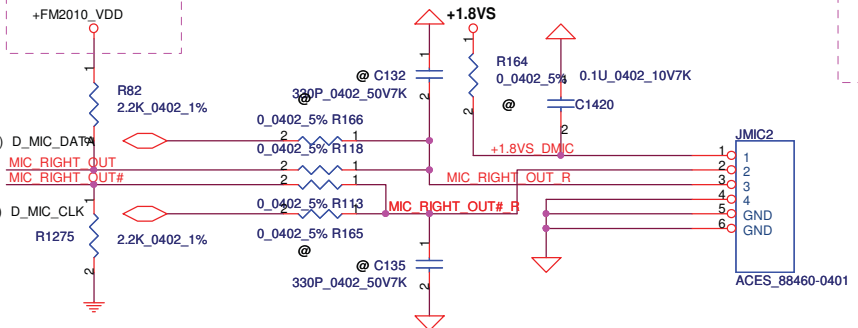




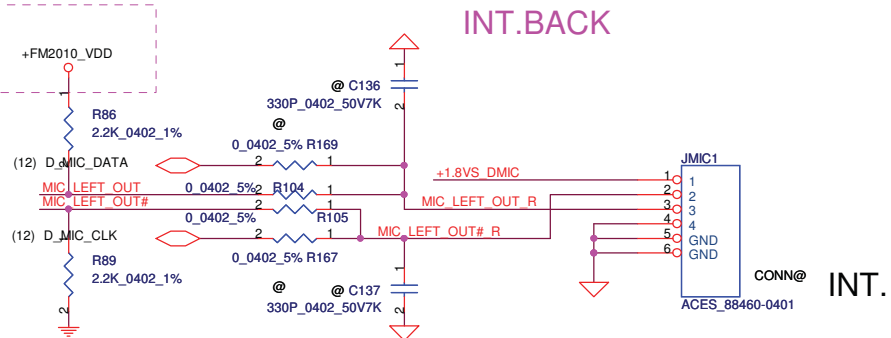




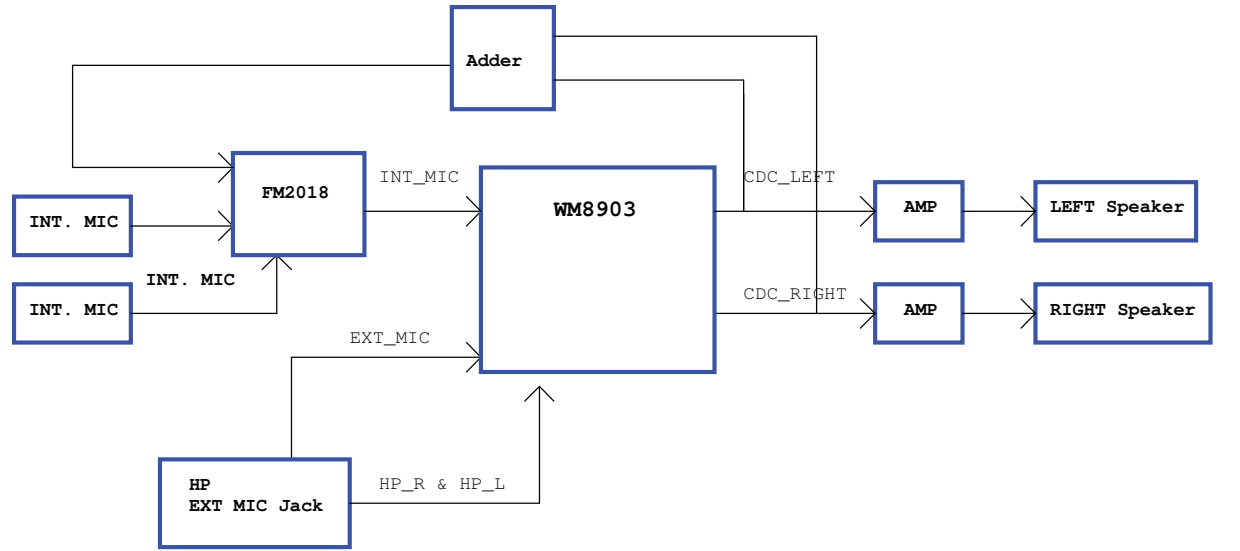
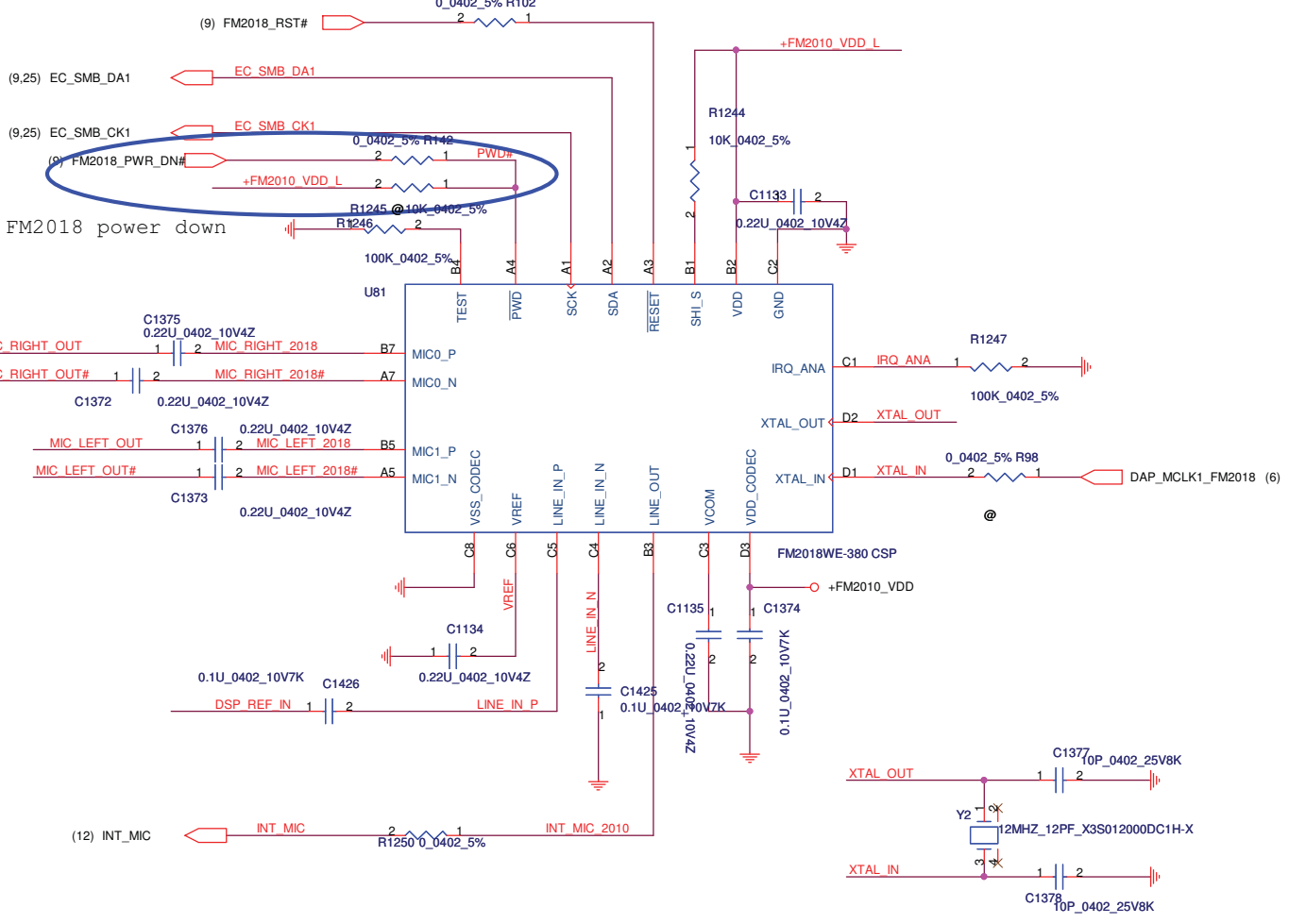
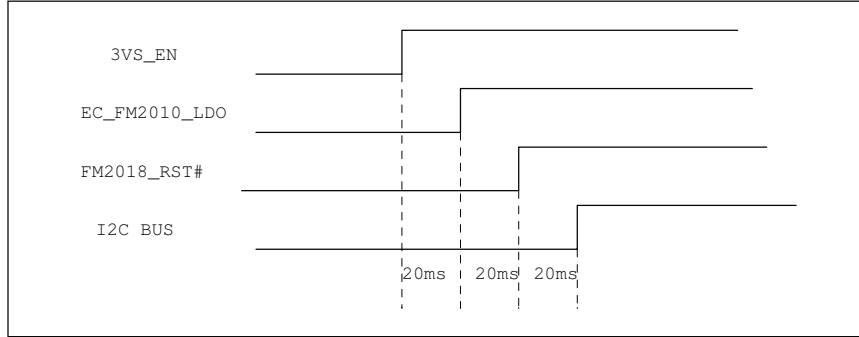
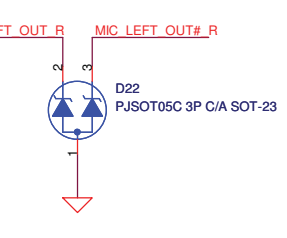
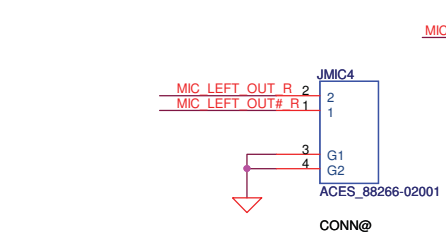
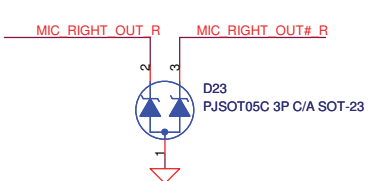
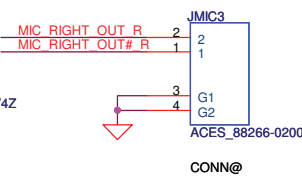
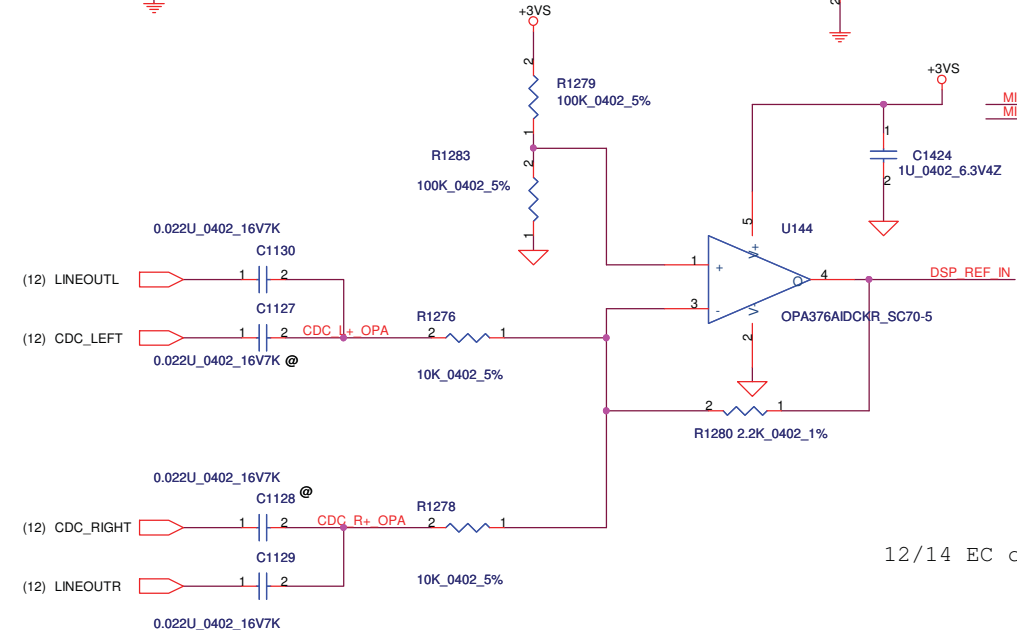
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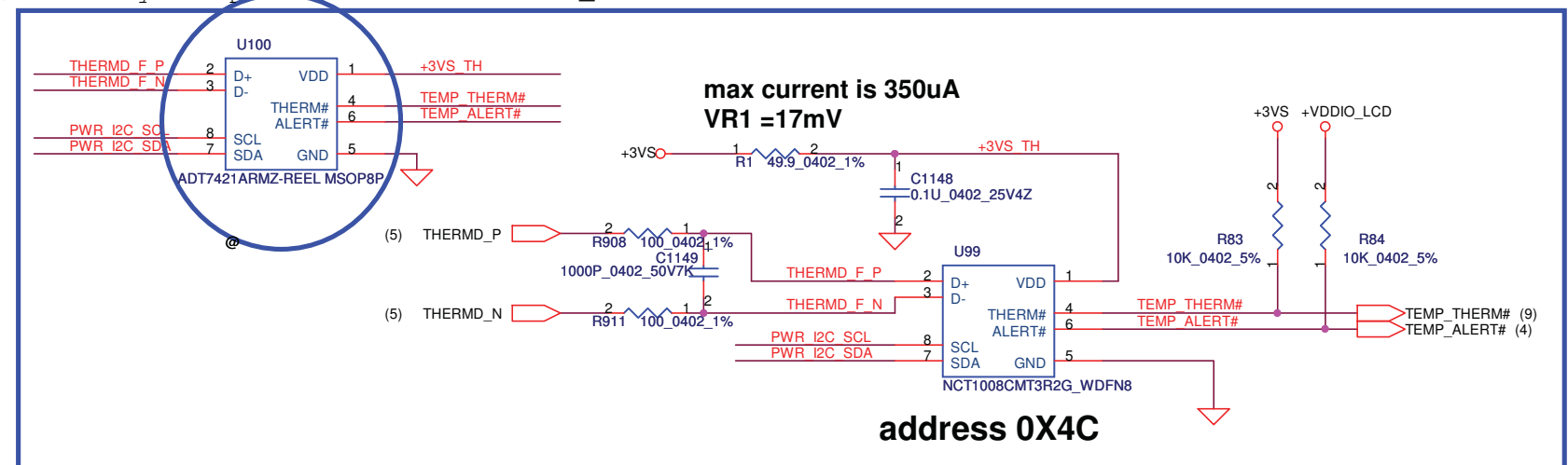
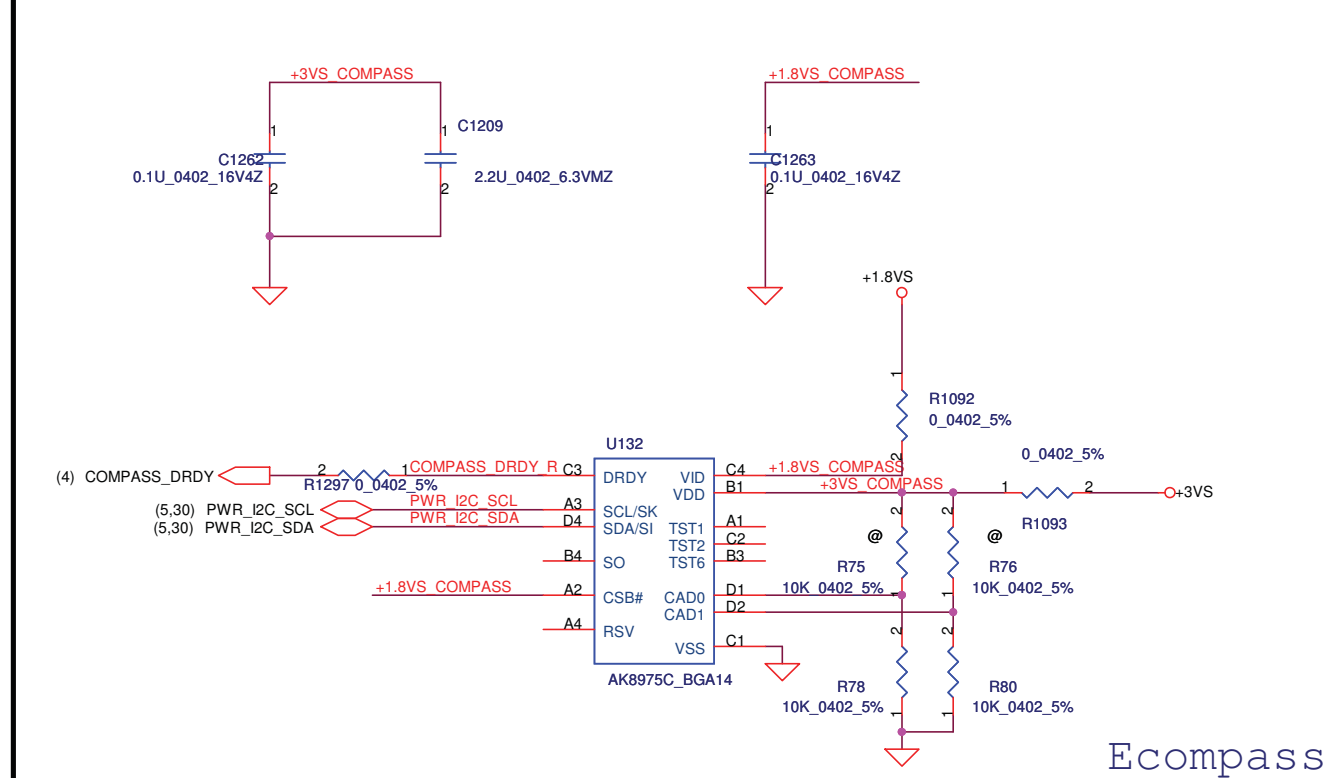
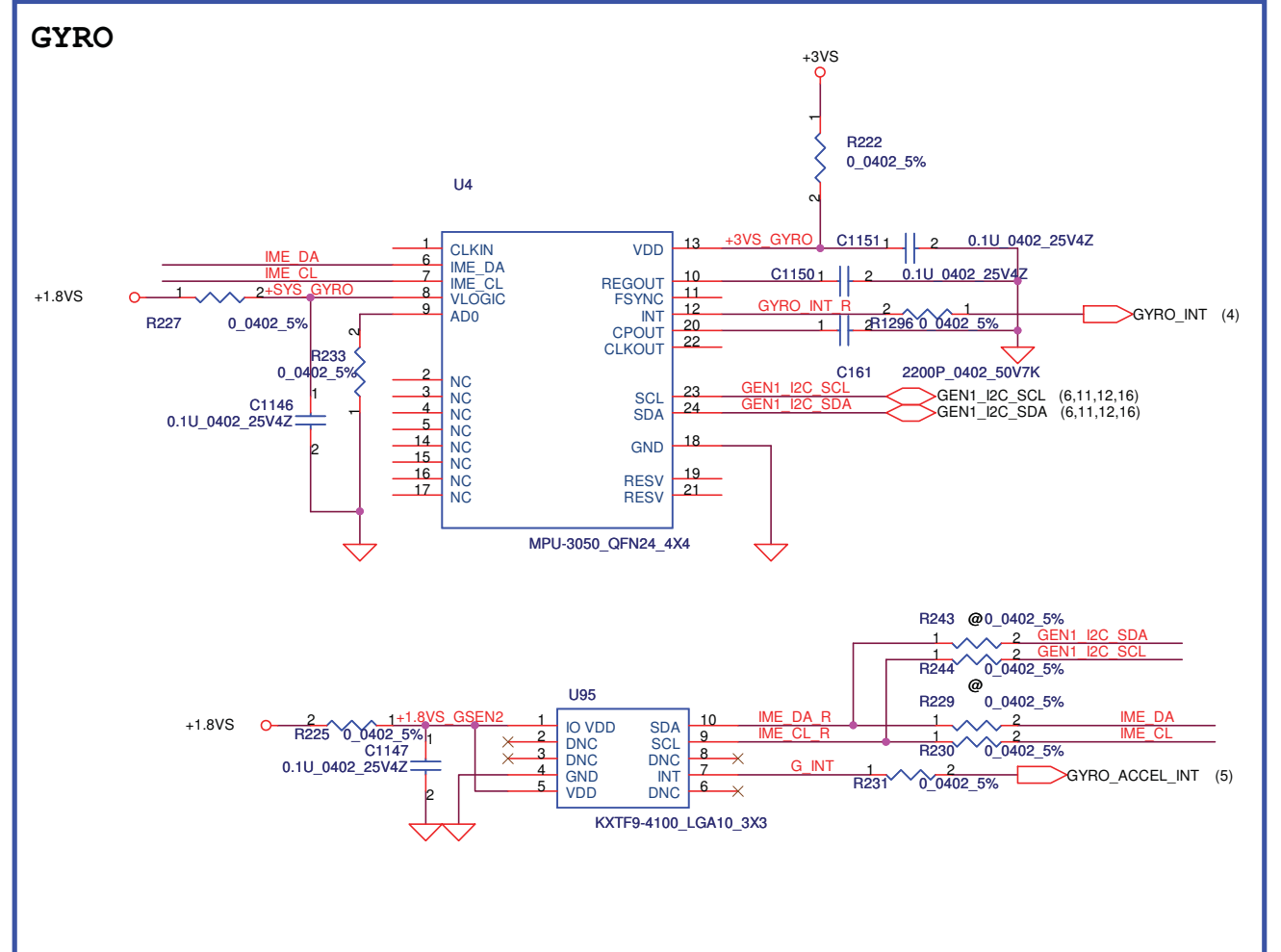
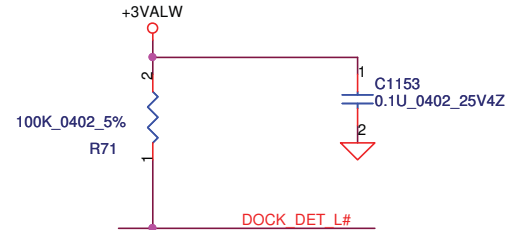
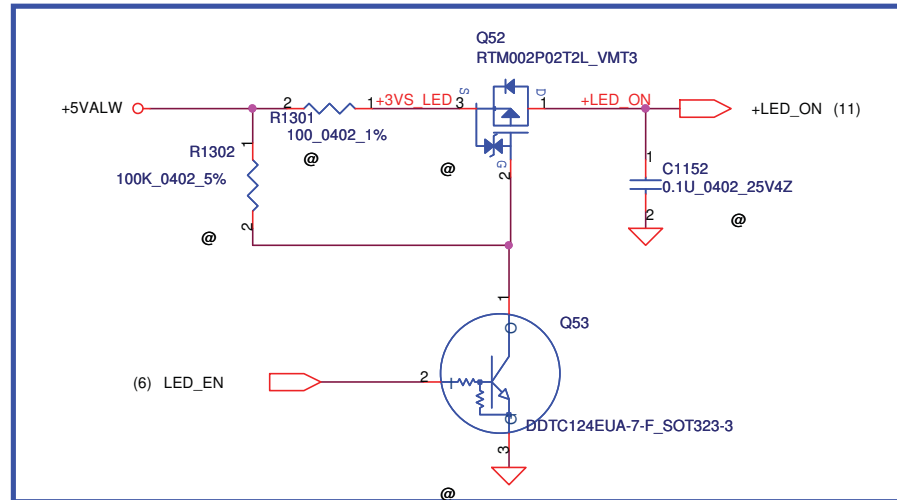
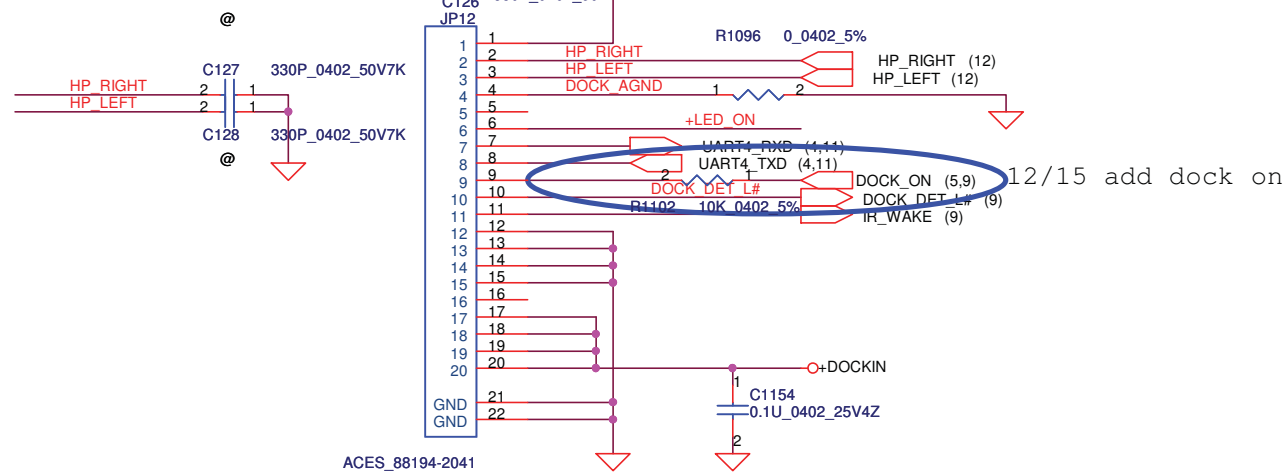


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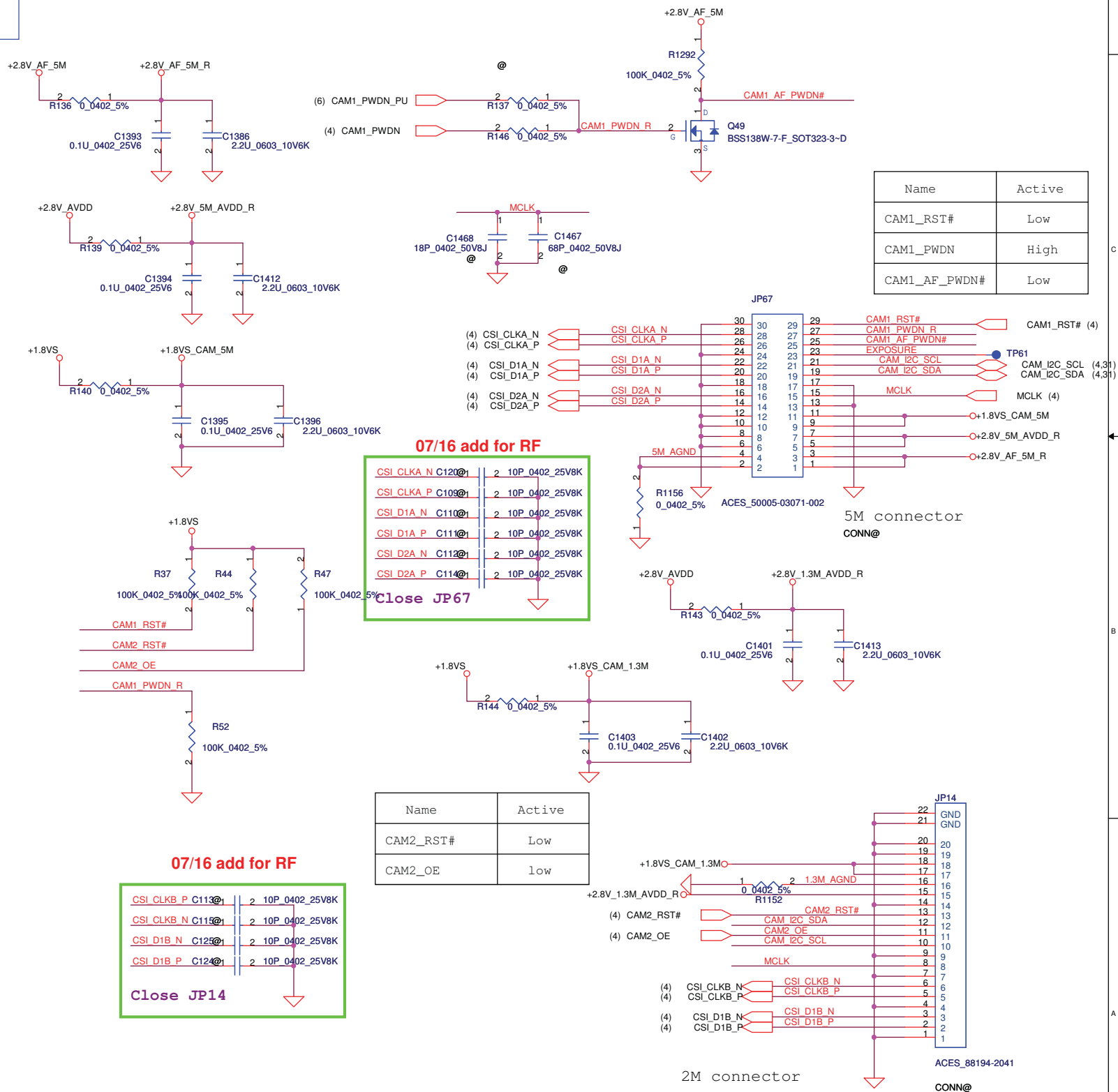
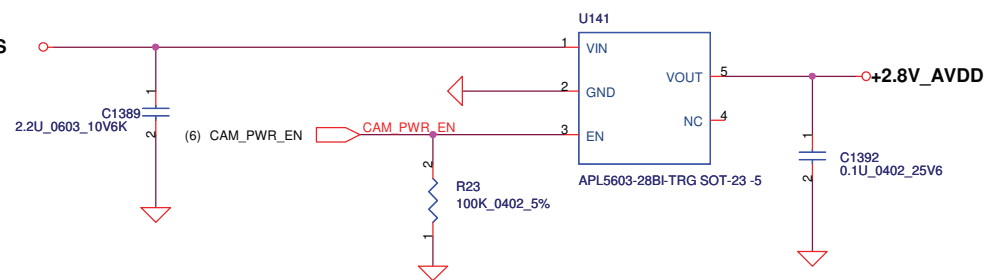
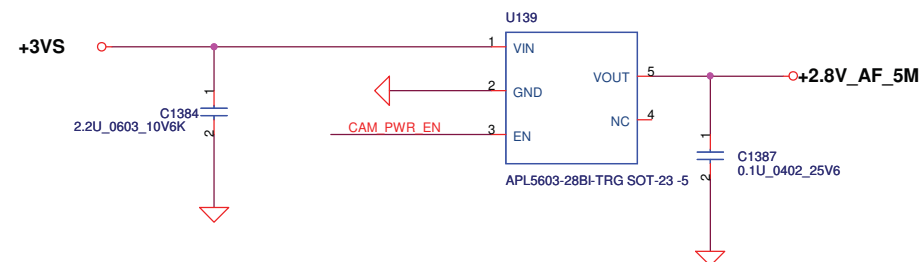
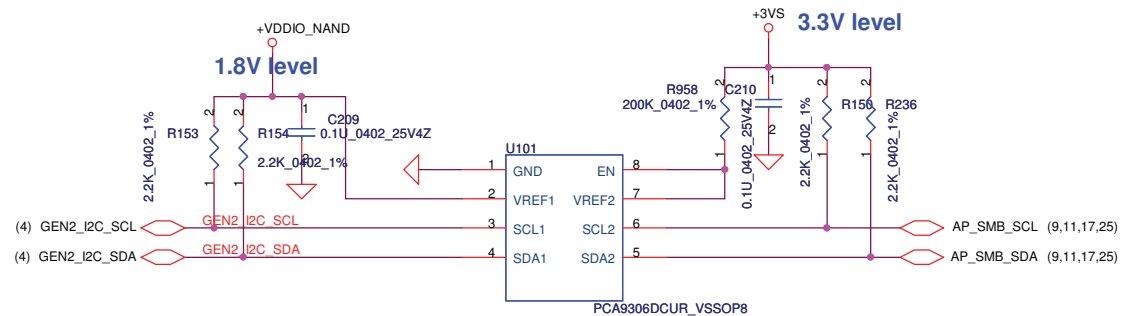
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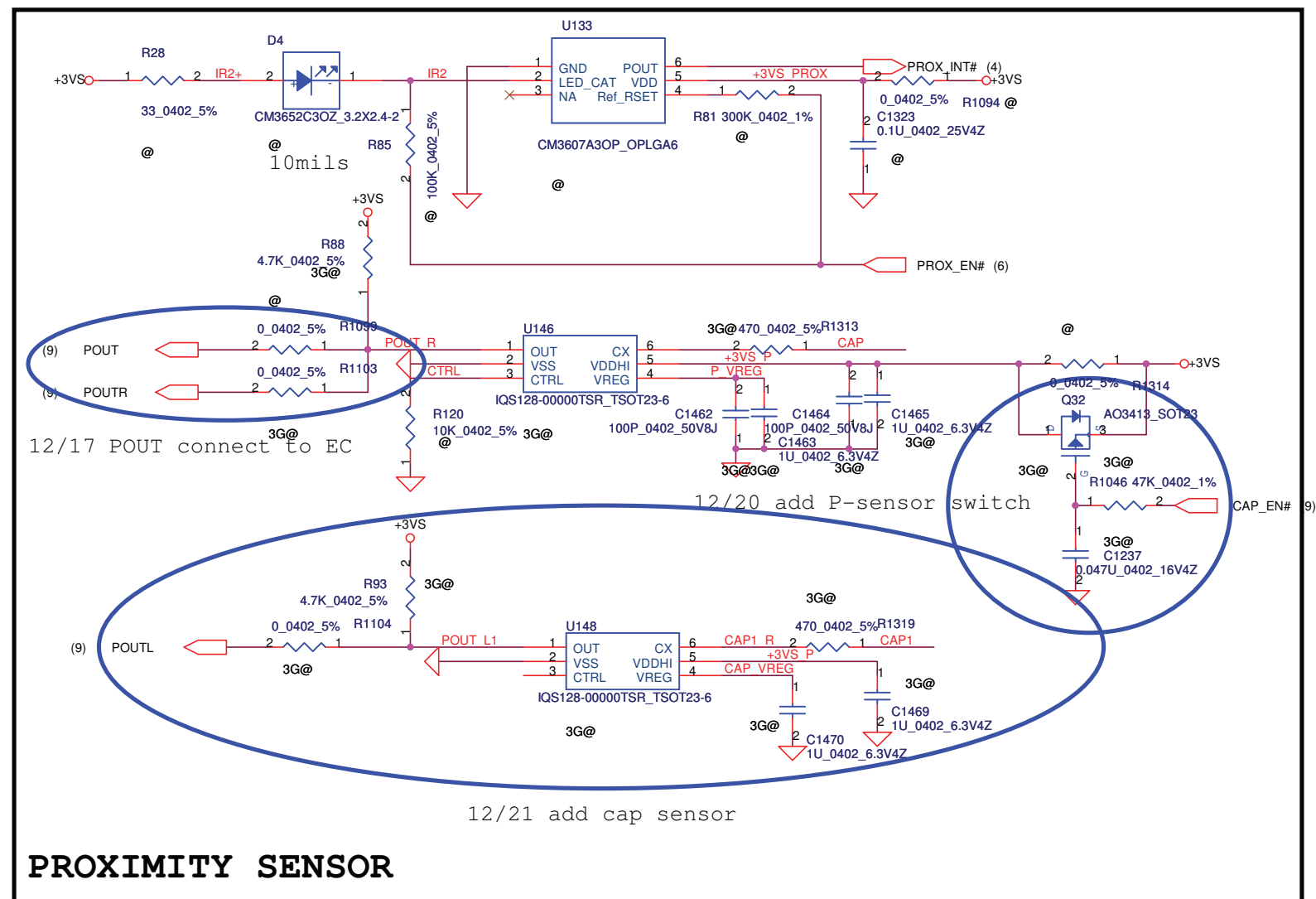
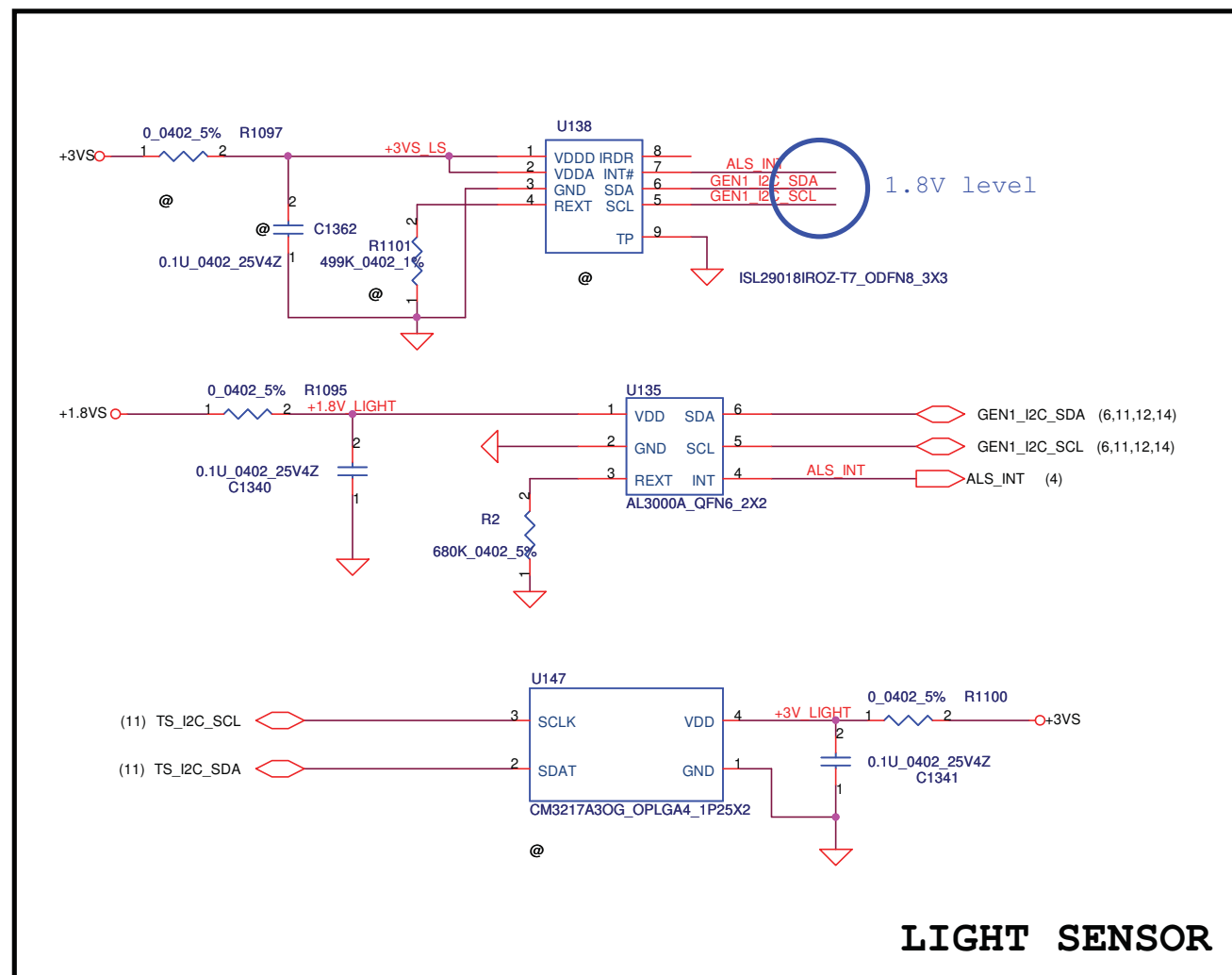
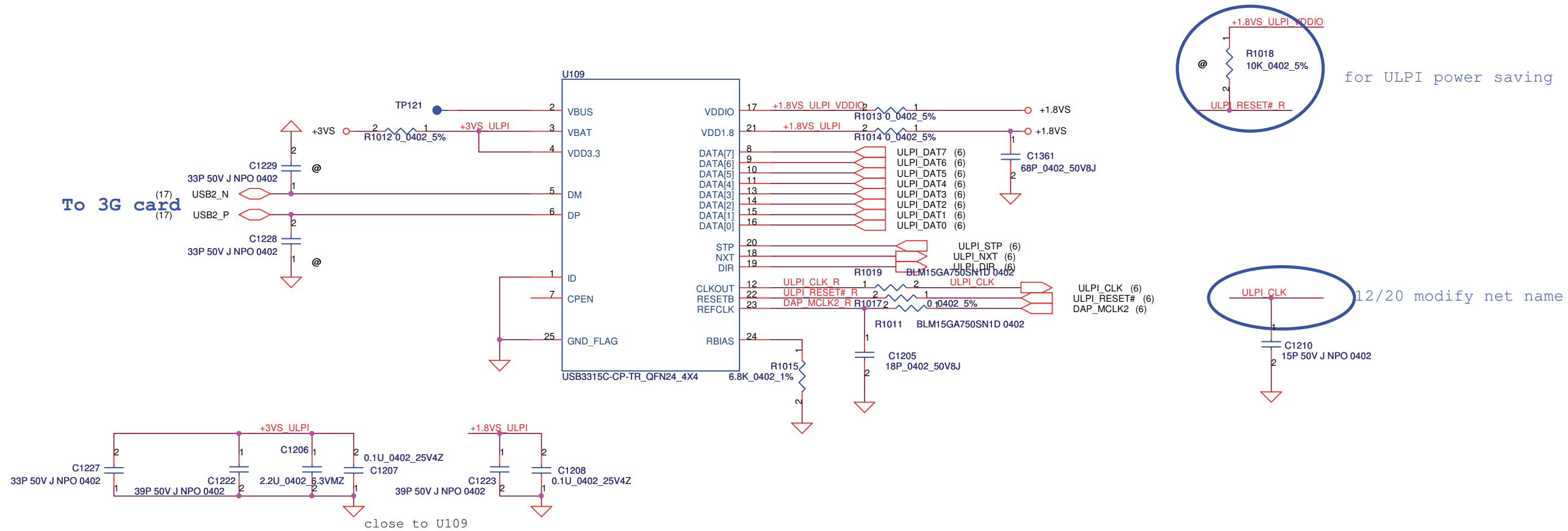


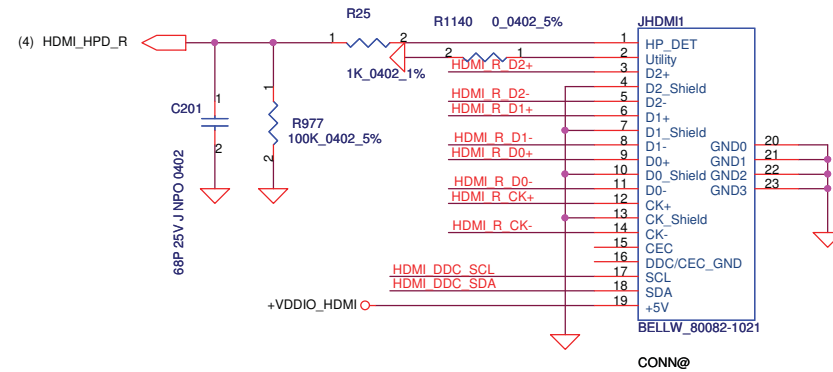
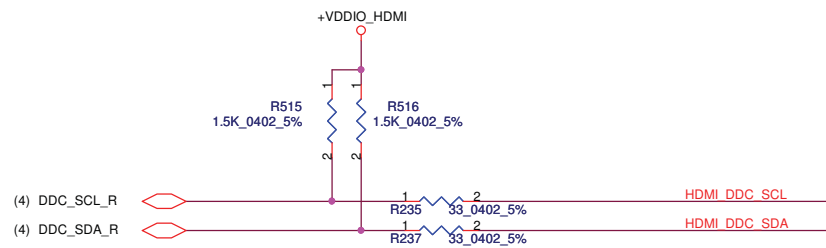


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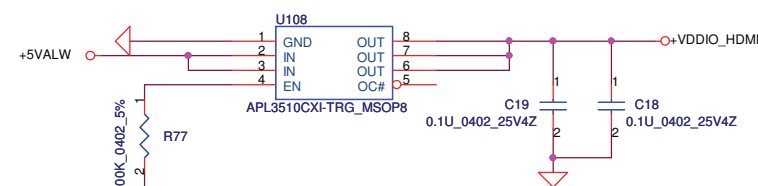
Level shift



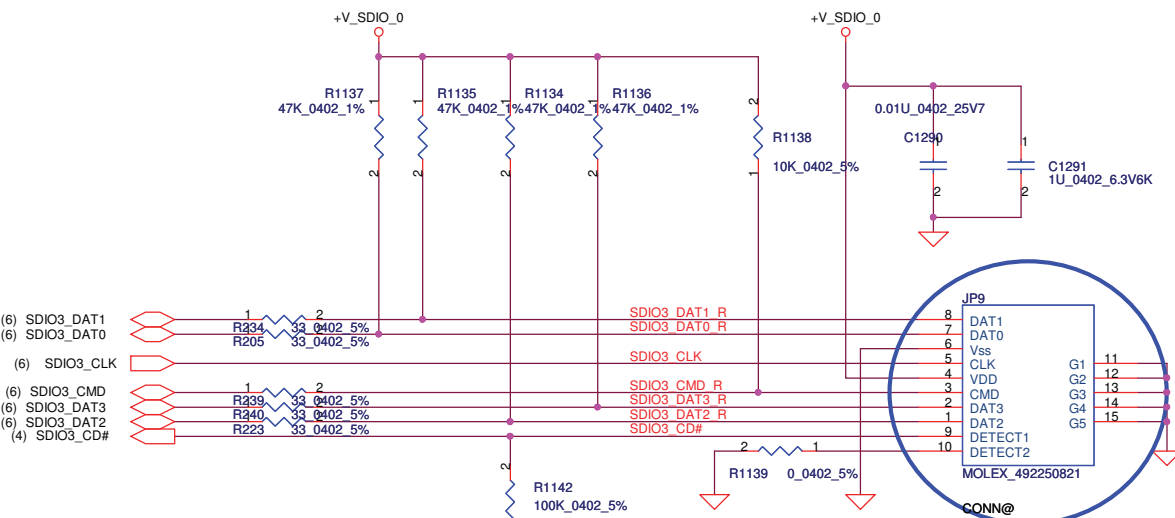
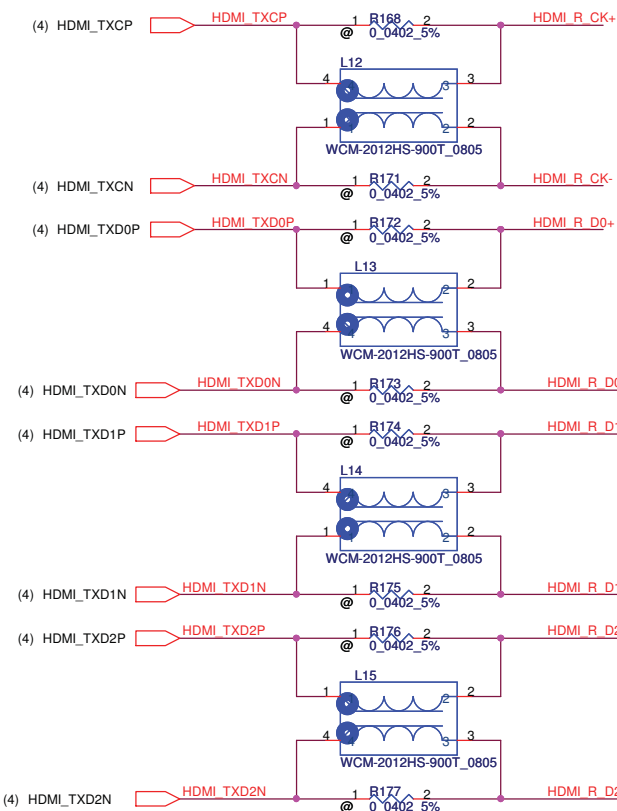




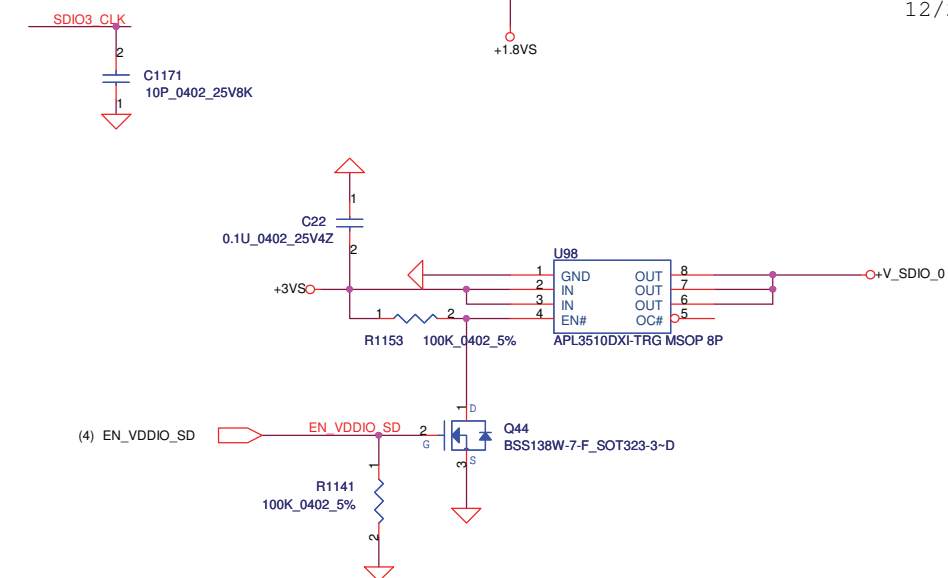
HDMI Type D Connector



07/23 pull high

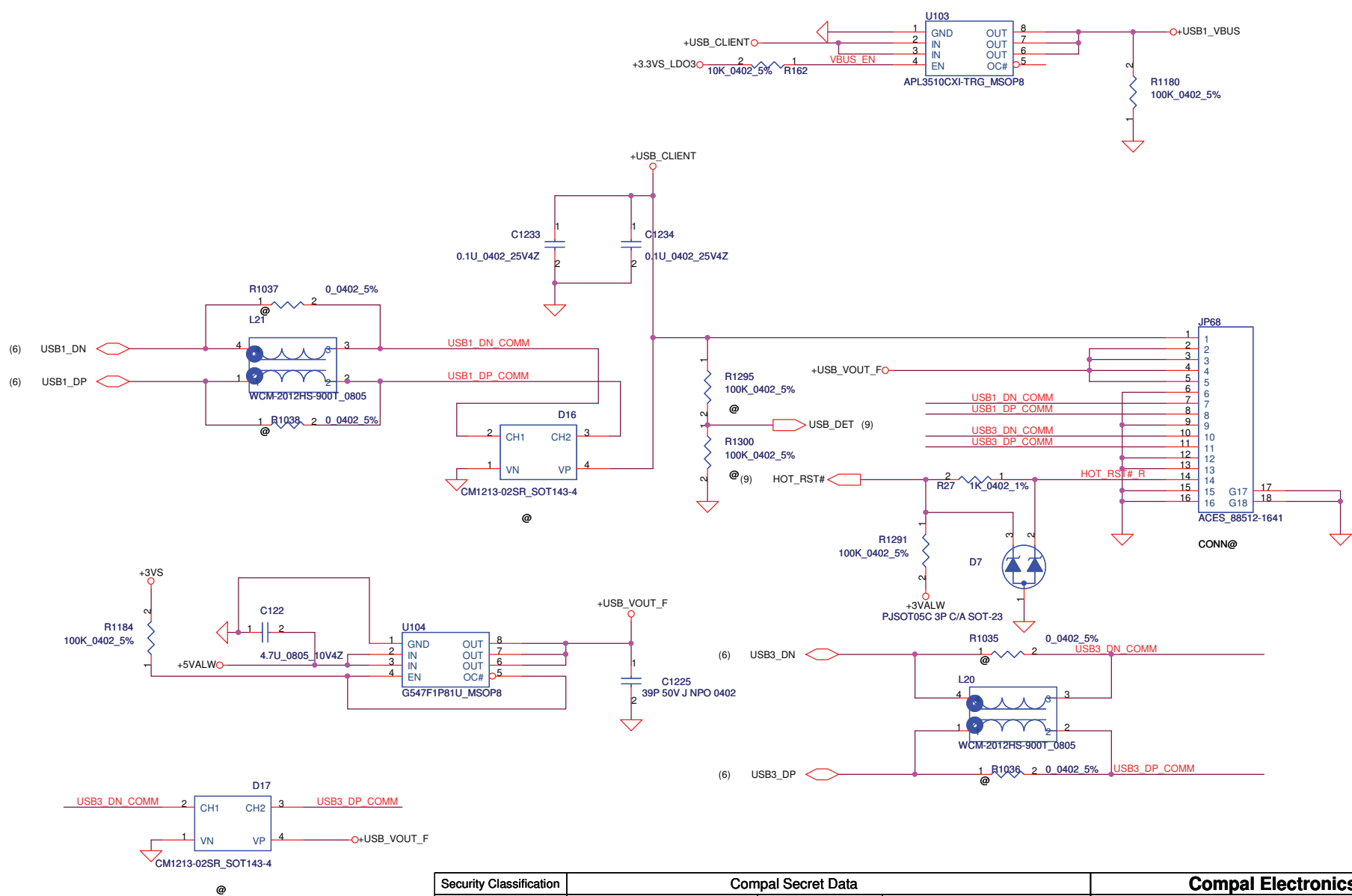


12/20 modify footprint



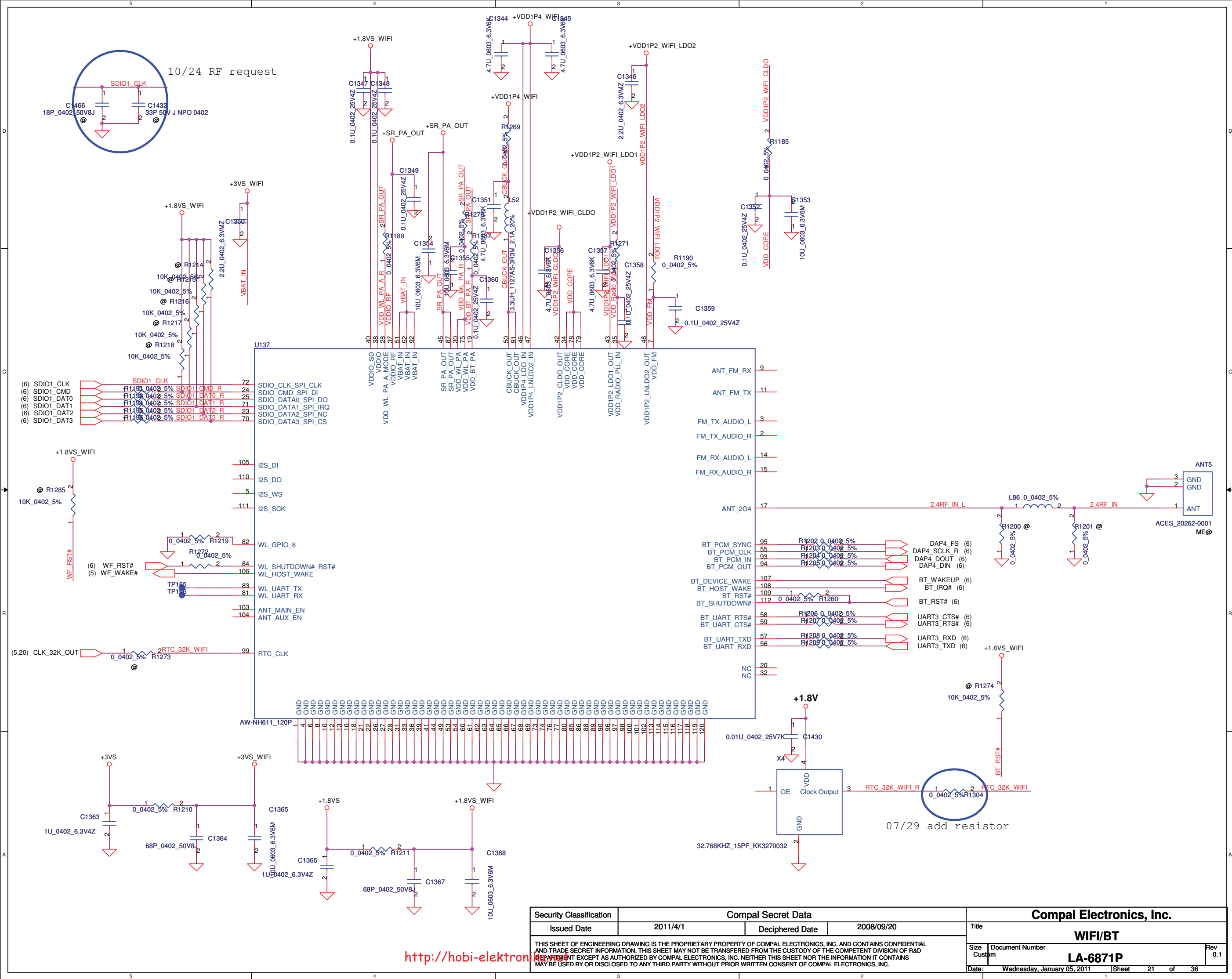
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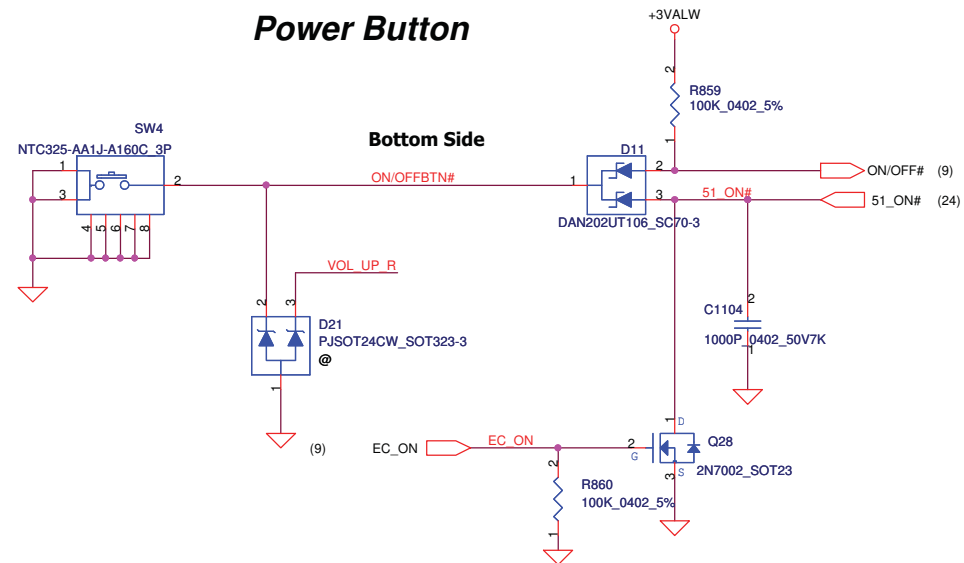
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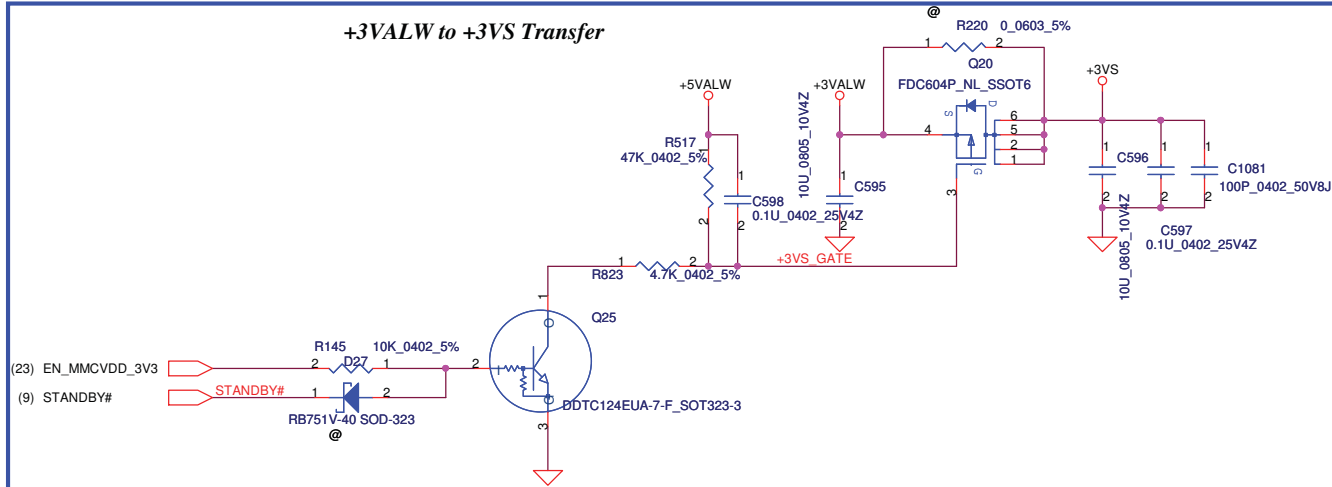


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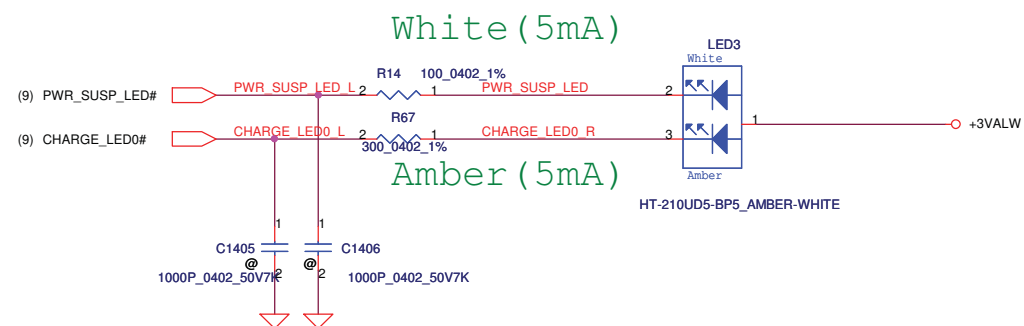
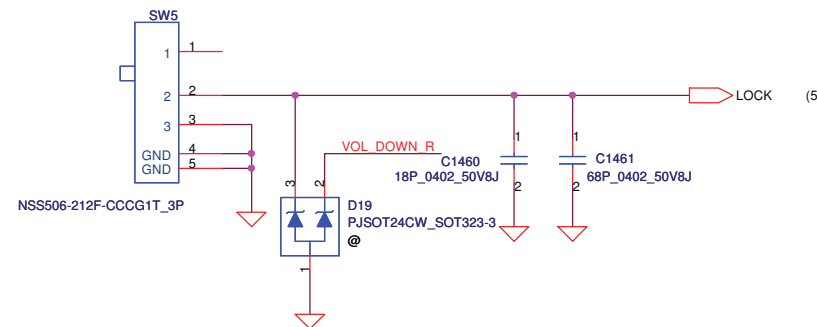
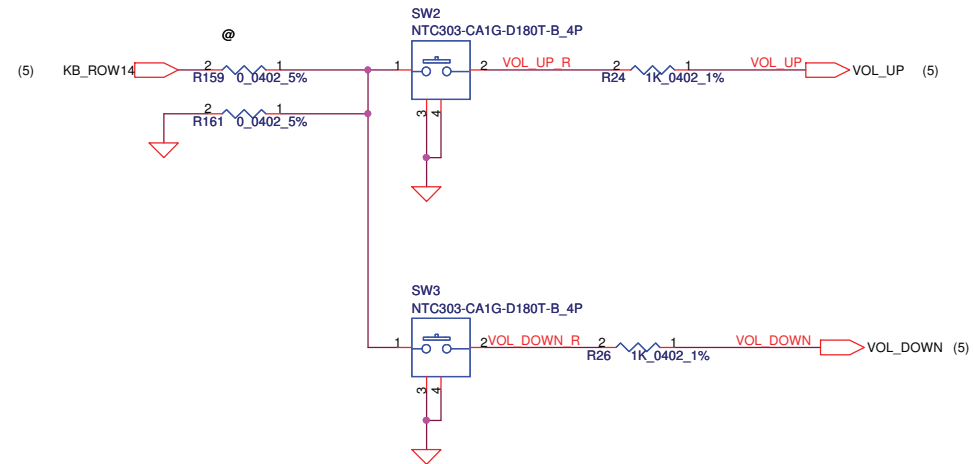
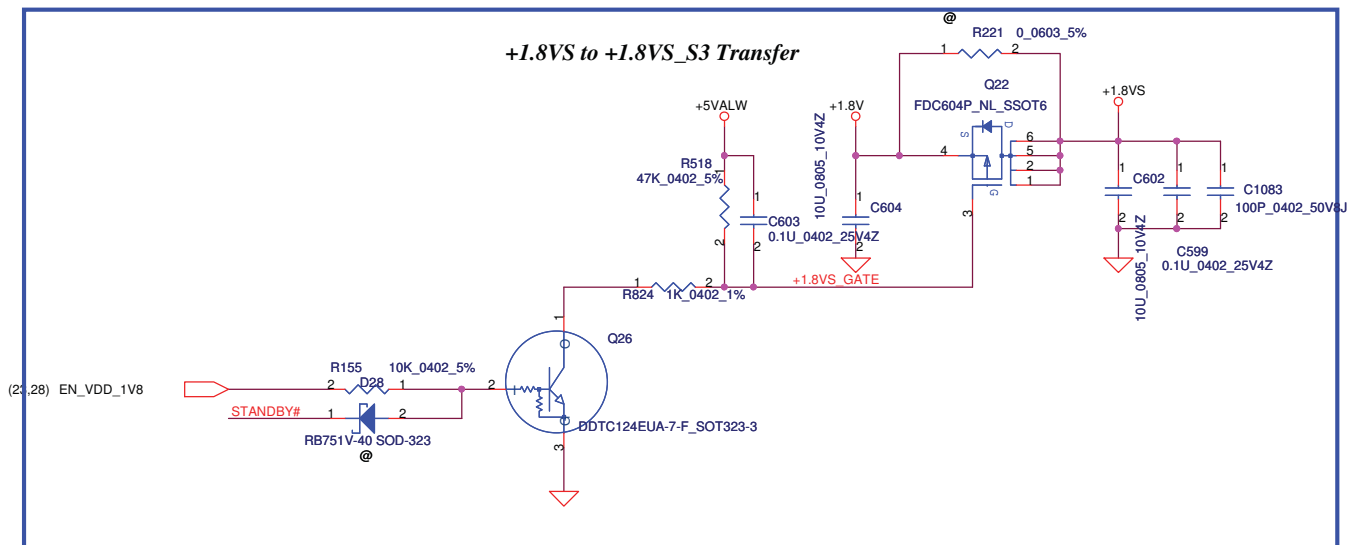
Power Button

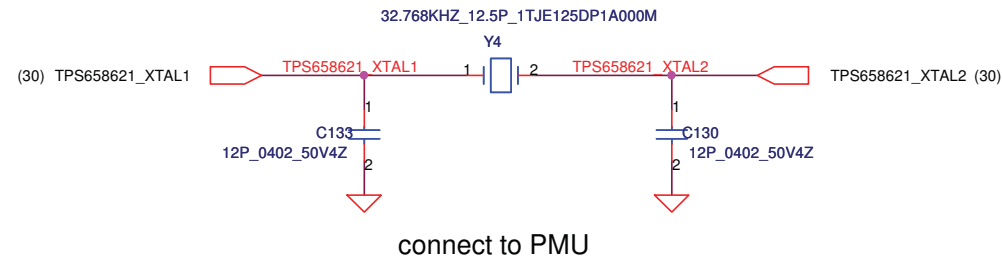
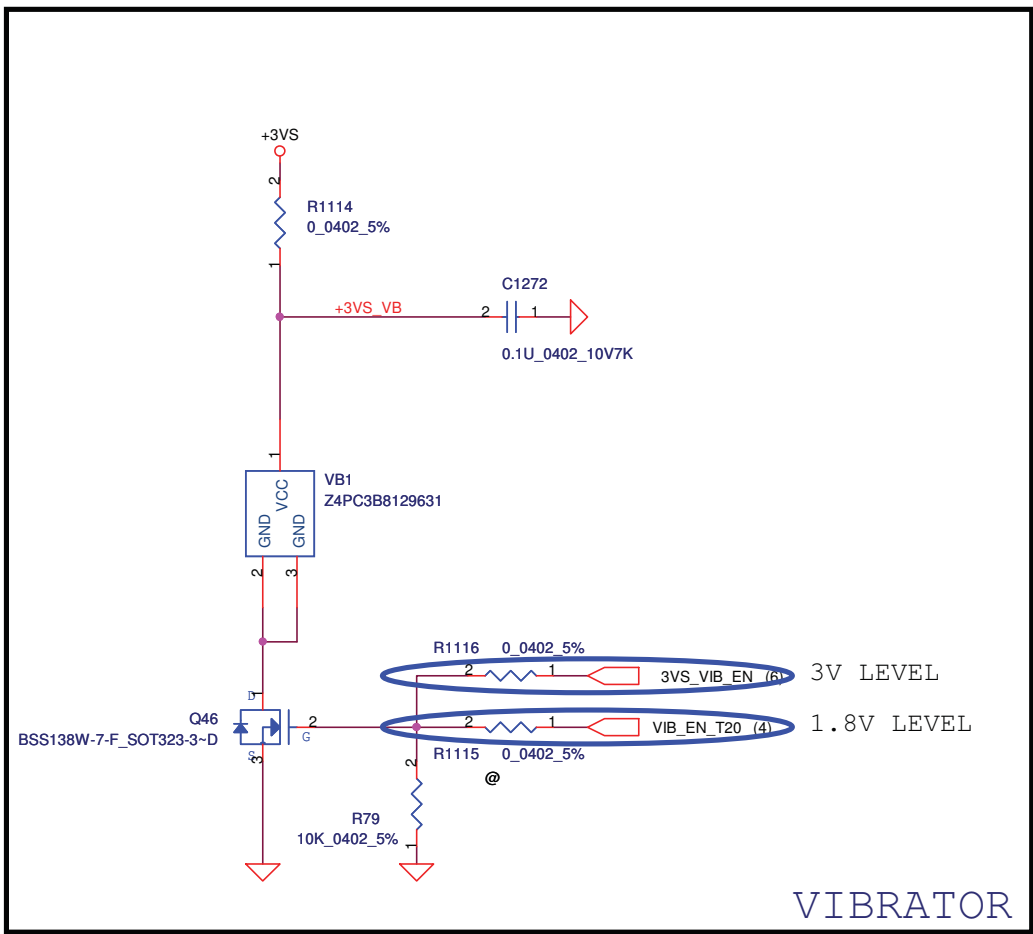
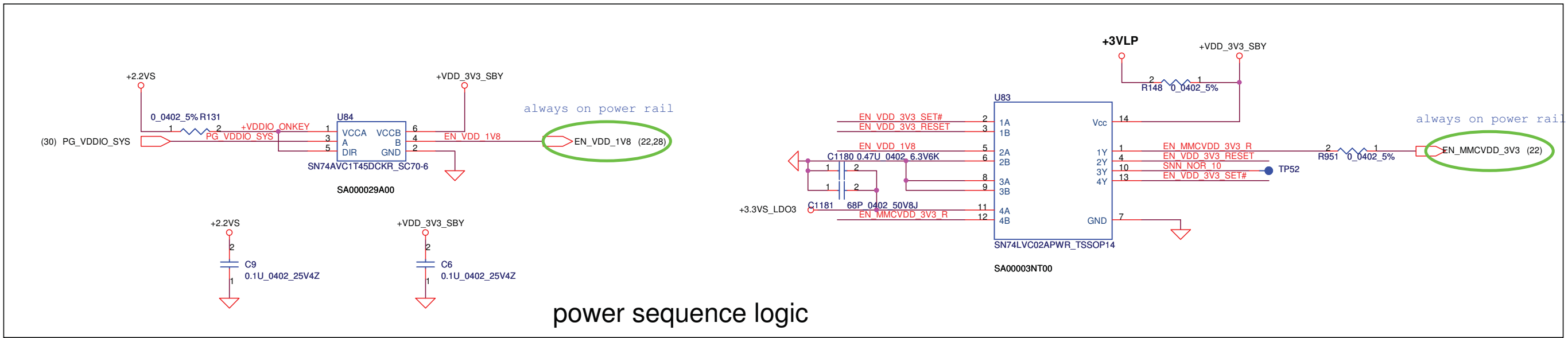


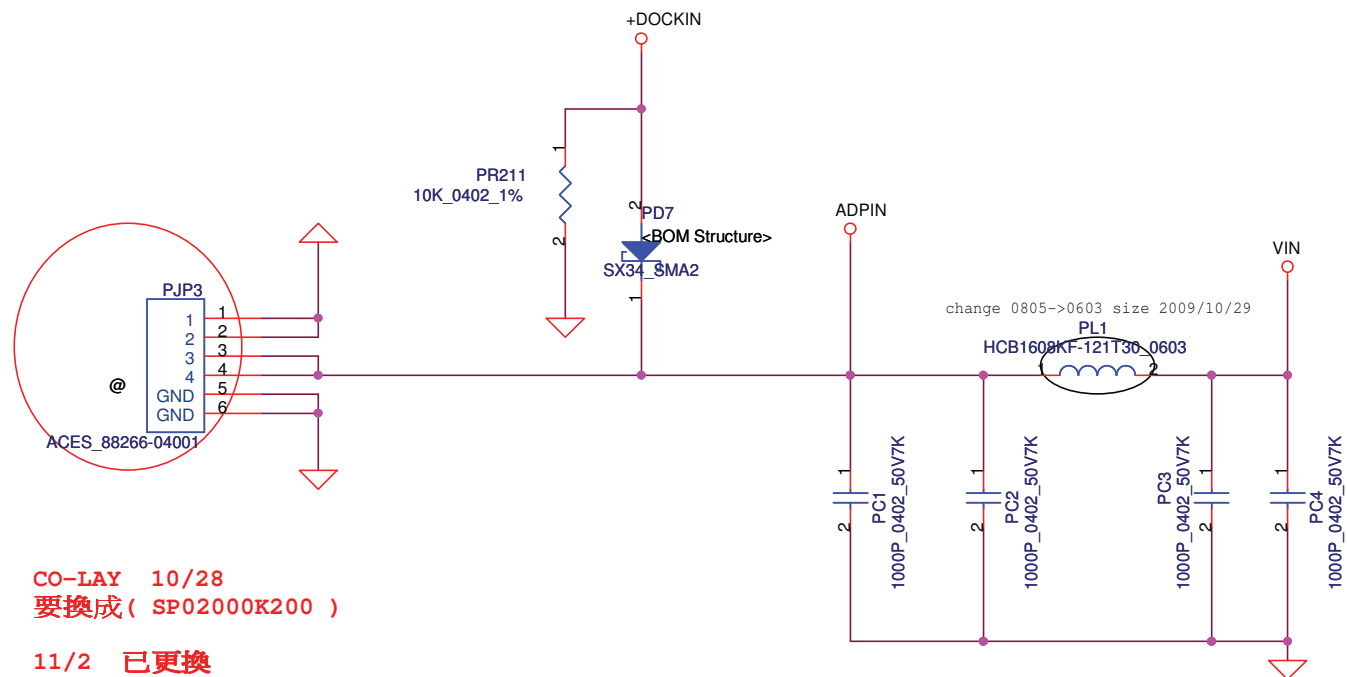
+3VALW to +3VS Transfer



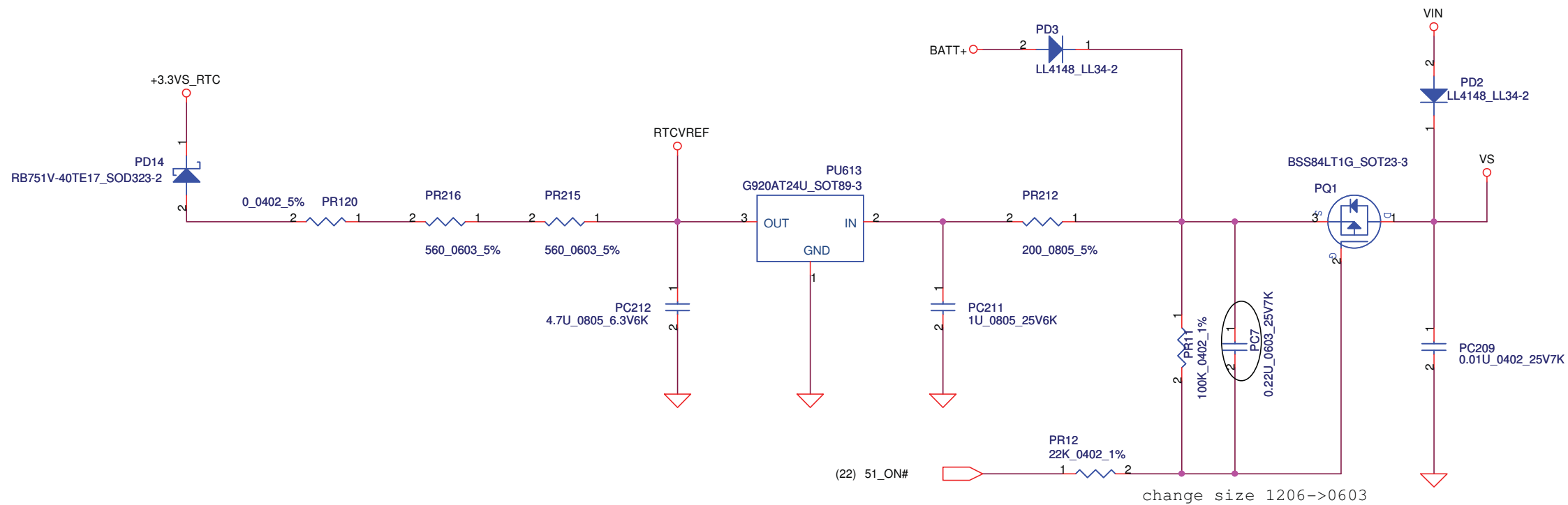
+1.8VS to +1.8VS_S3 Transfer





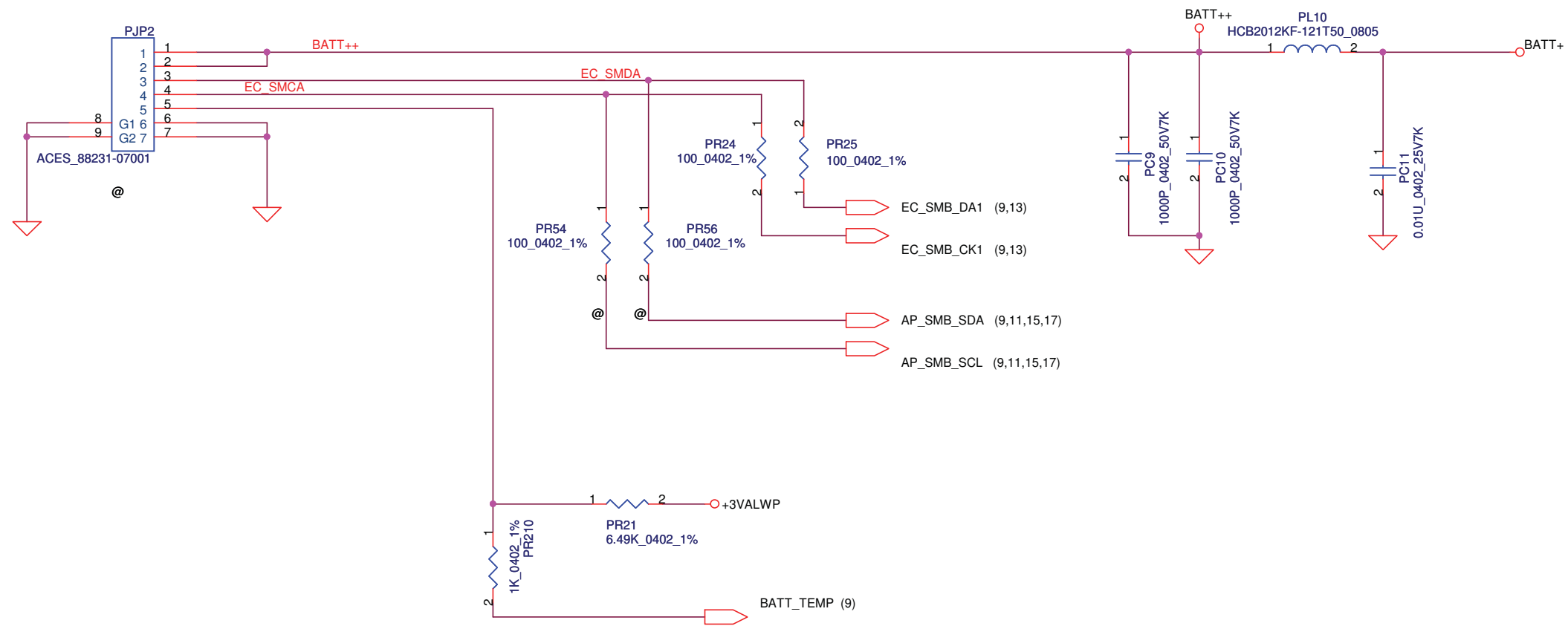


CO-LAY 10/28
要換成(SP02000K200)
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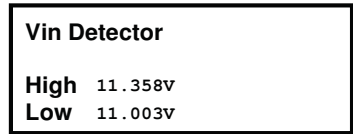


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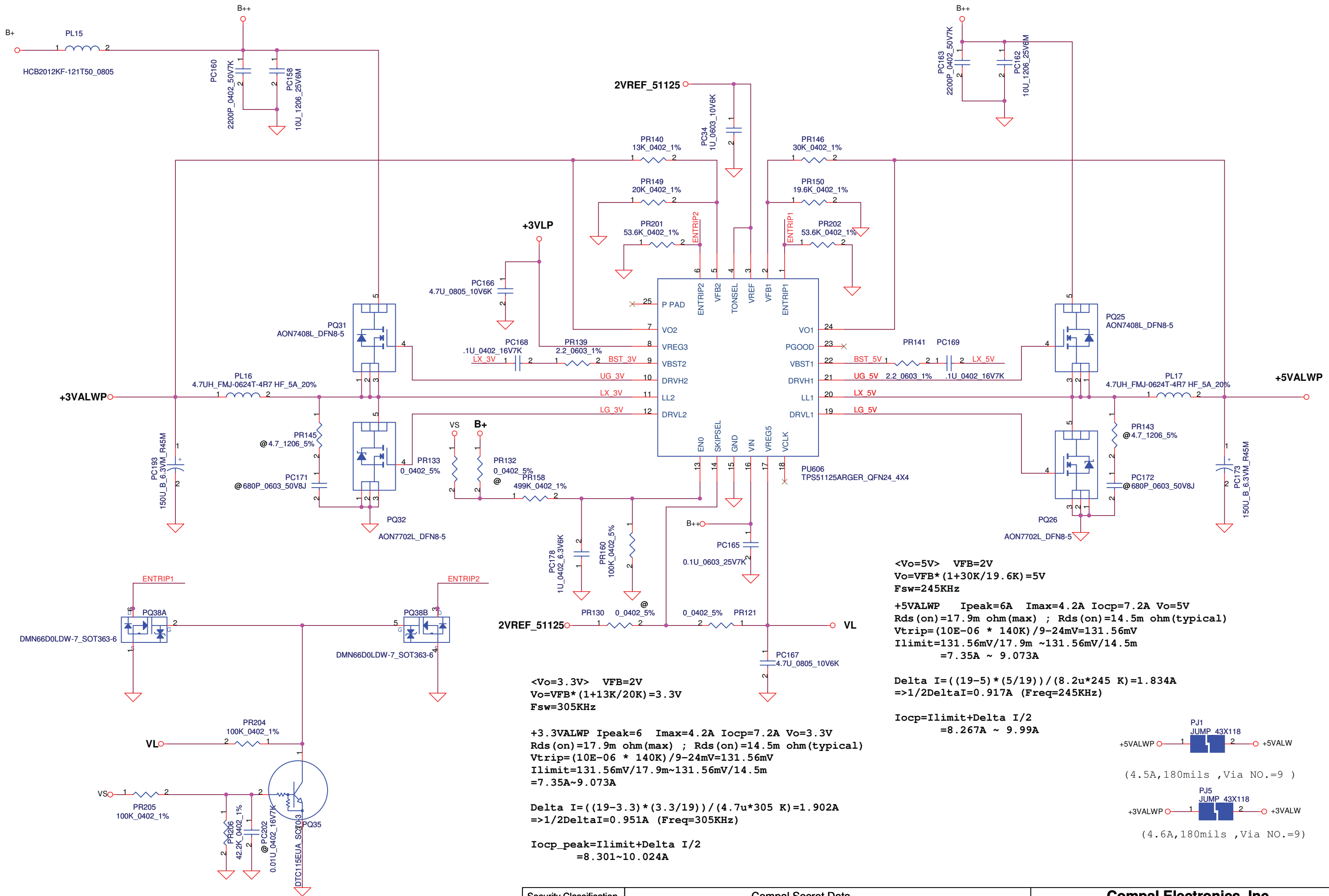
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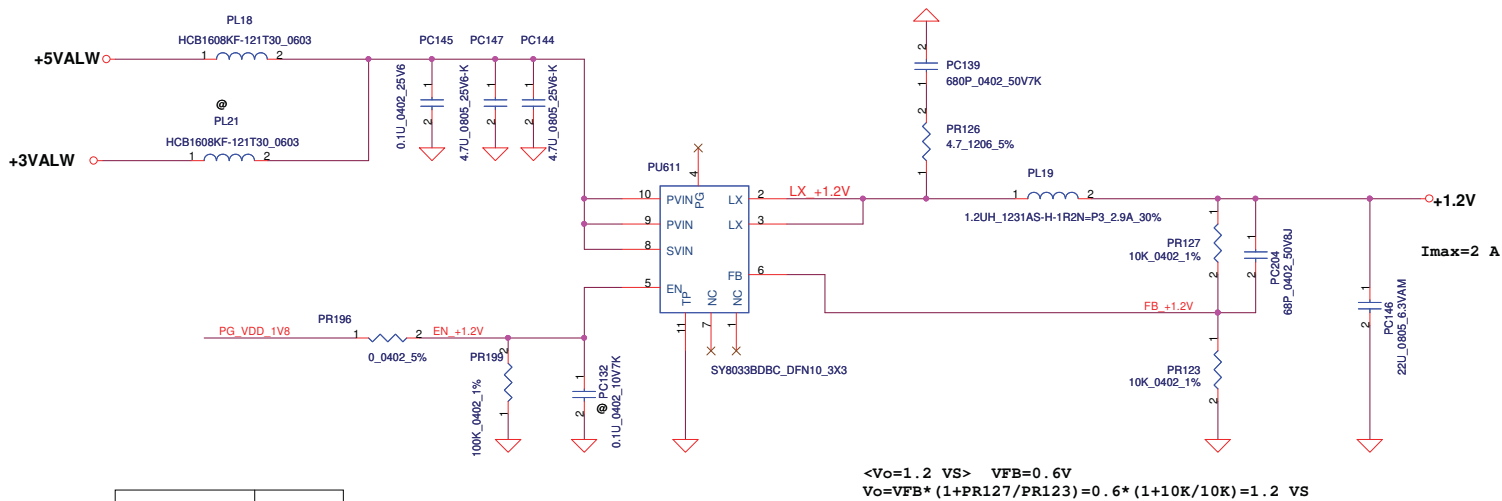
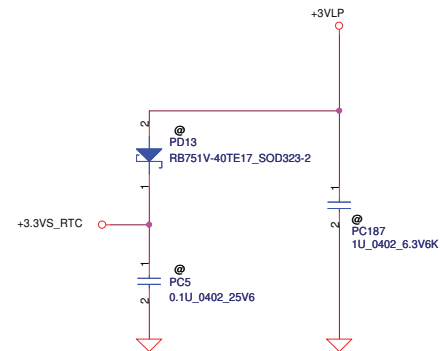
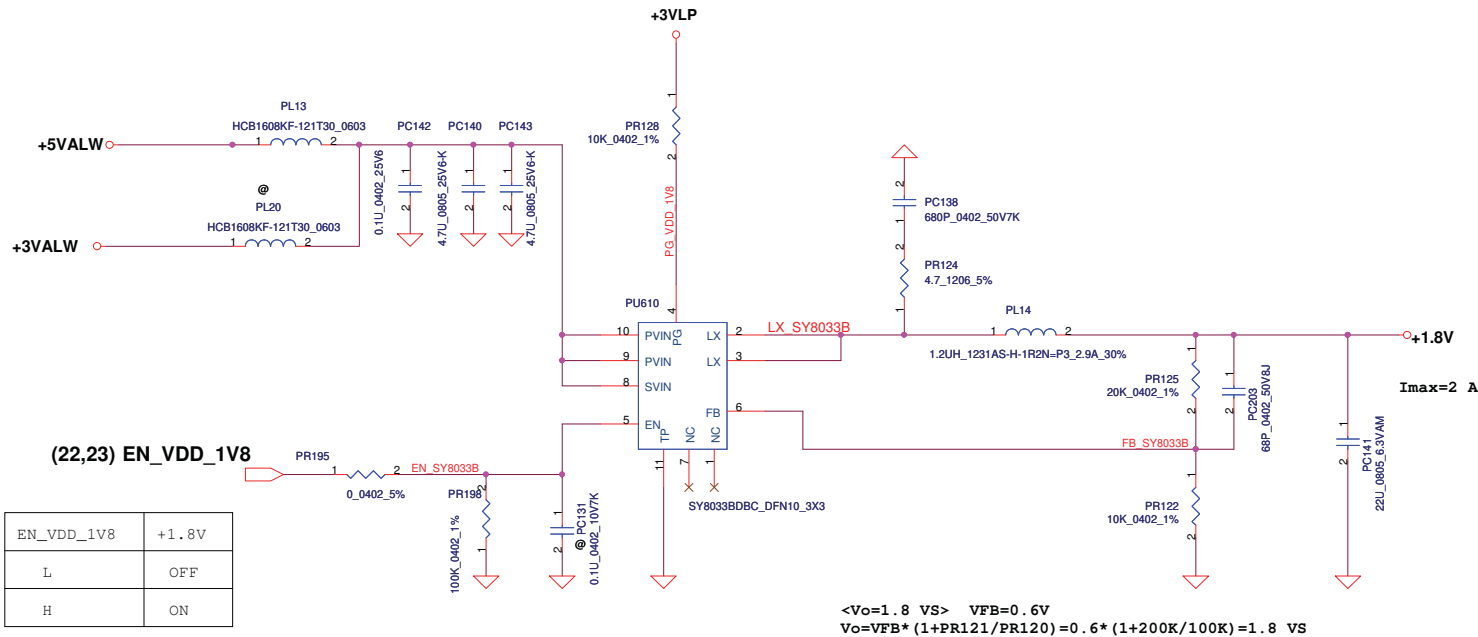


CHGVADJ	CV mode
0V	4V
1.885V	4.2V
3.3V	4.35V

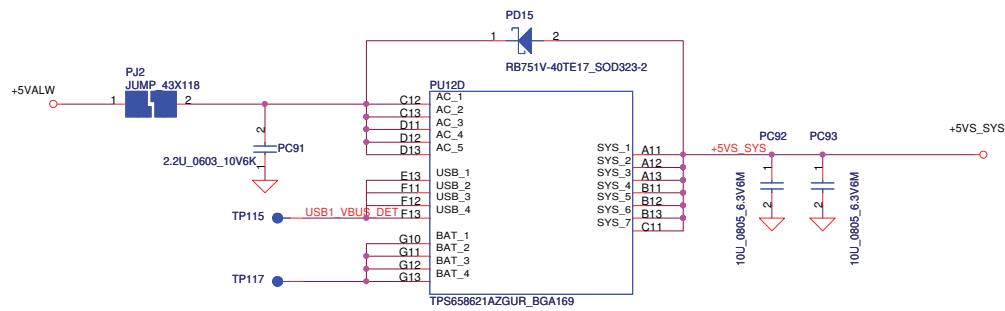


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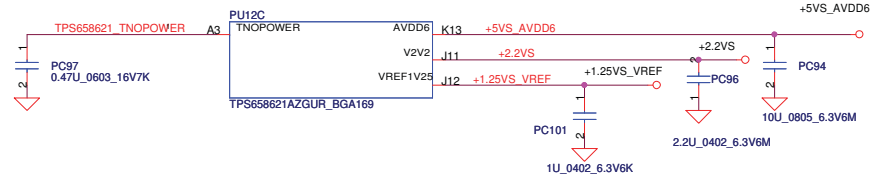
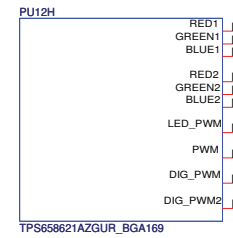
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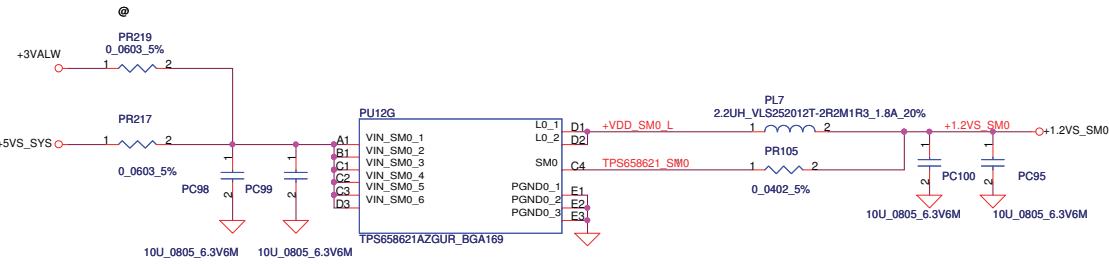
+VDD_SYS=5V
MAX current=1A



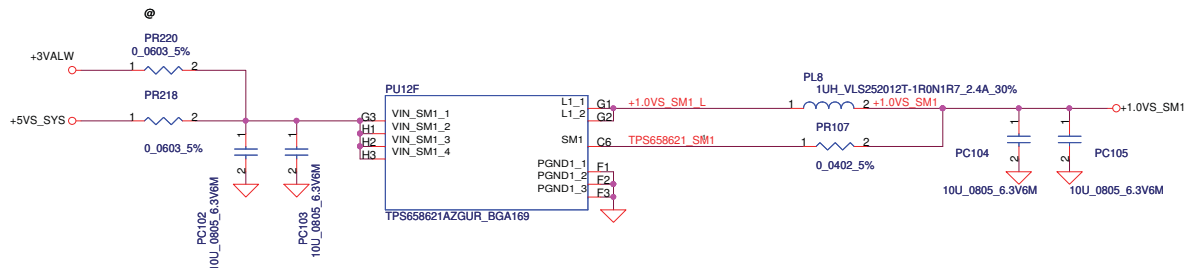
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+VDD_V2V2 =2.2V
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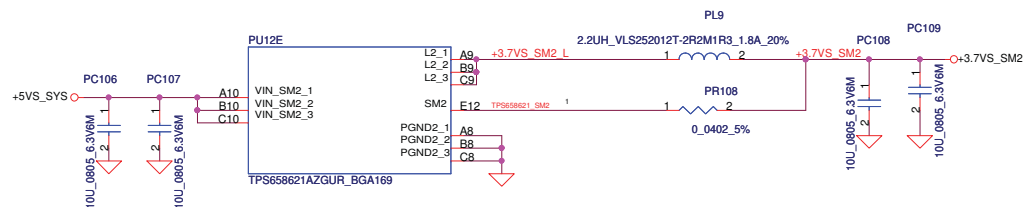
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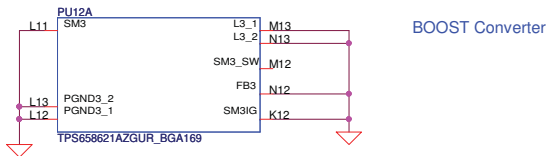
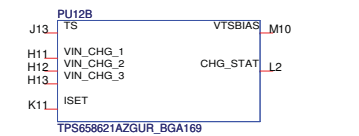
+VDD_SM0=1.2V
MAX current=0.6A



+VDD_SM1=1V
MAX current=1.5A



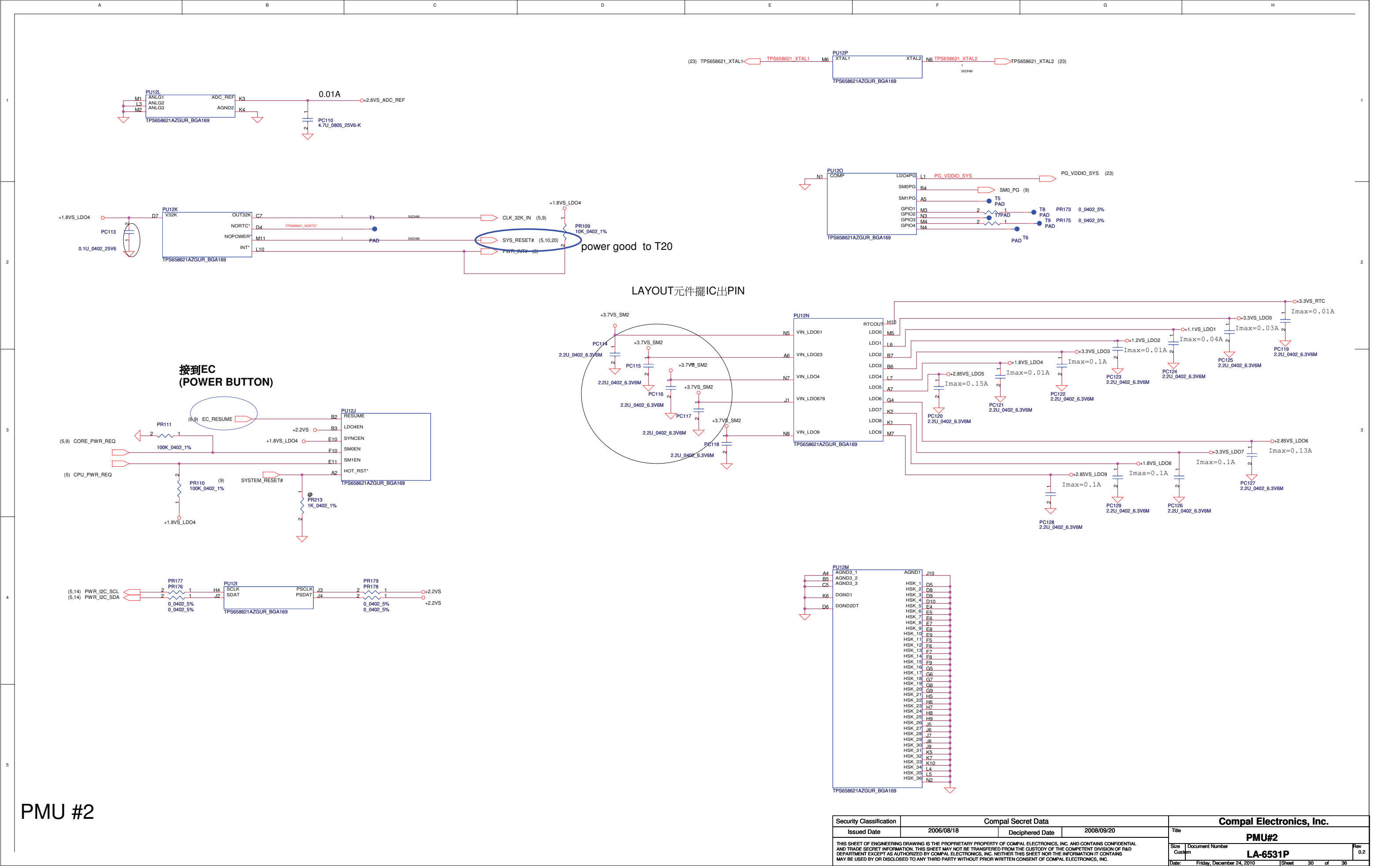
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MAX current=0.75A

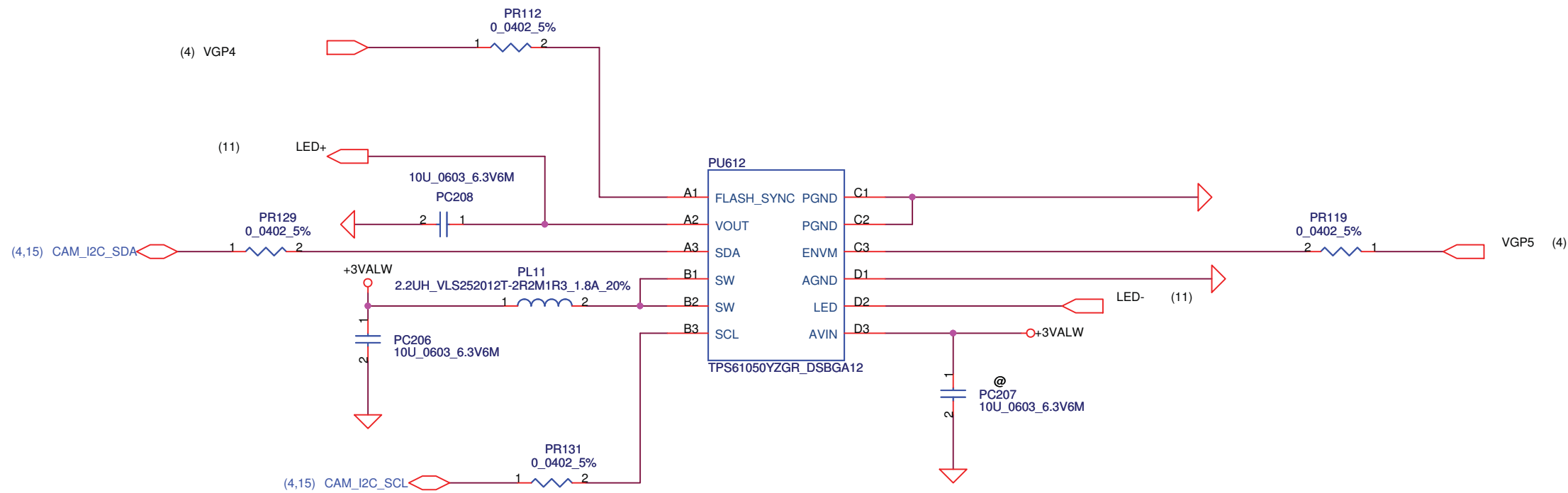


BOOST Converter

PMU #1

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						Size	Document Number			LA-6531P		Rev
						Custom						0.2
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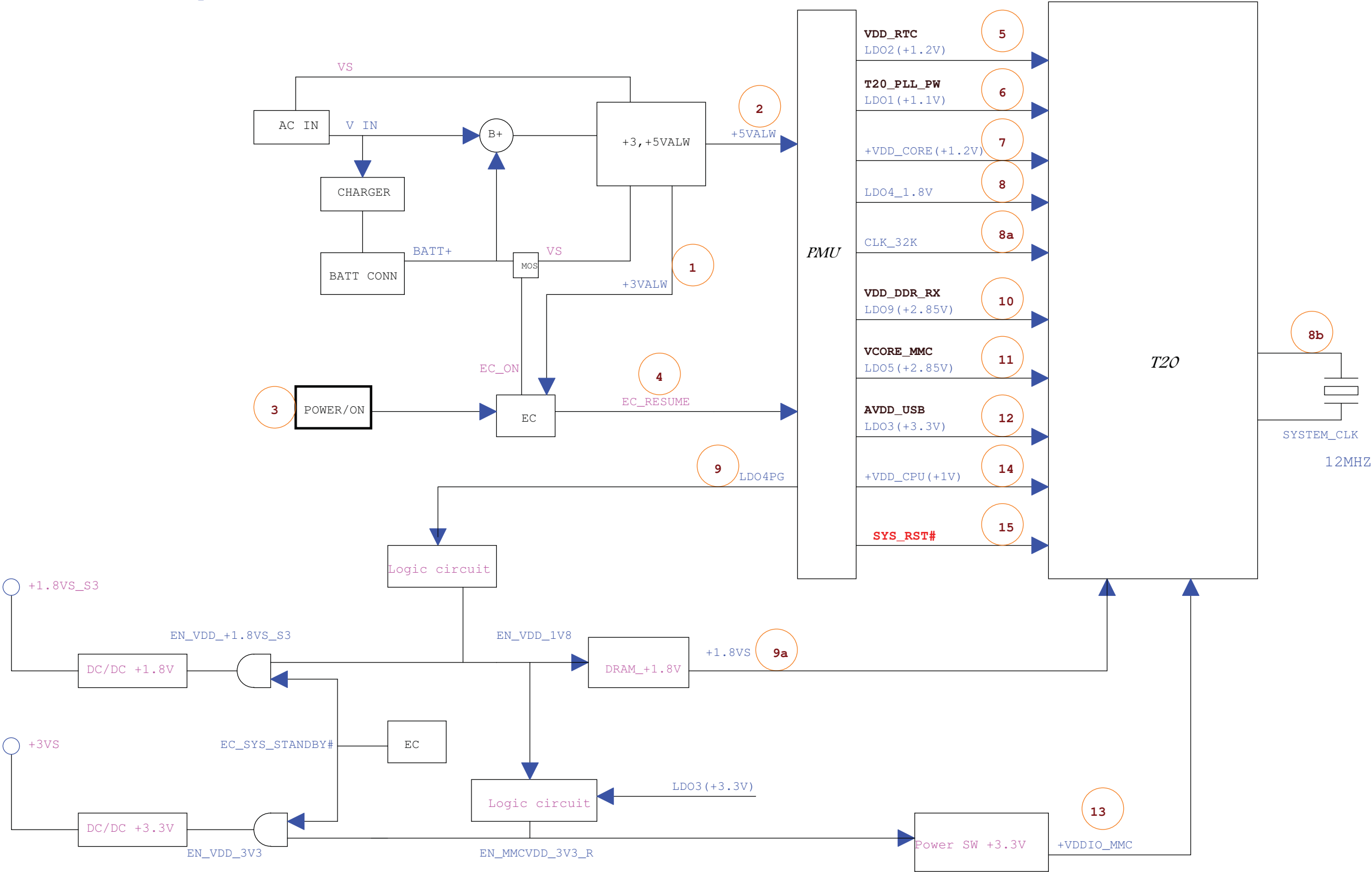




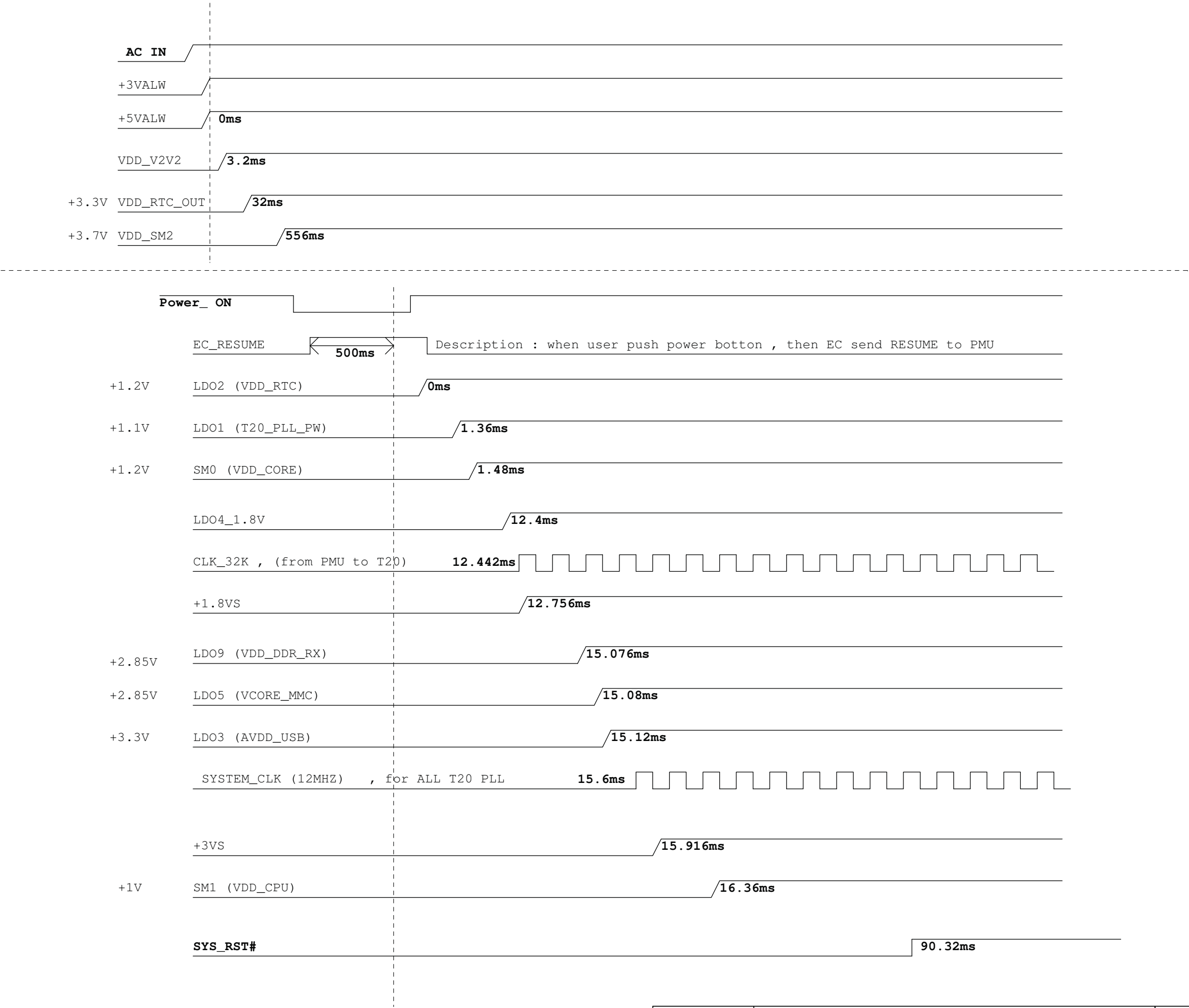
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								Size A3	Document Number						Rev 0.2
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PBJ20 Power Sequence Flow Chart

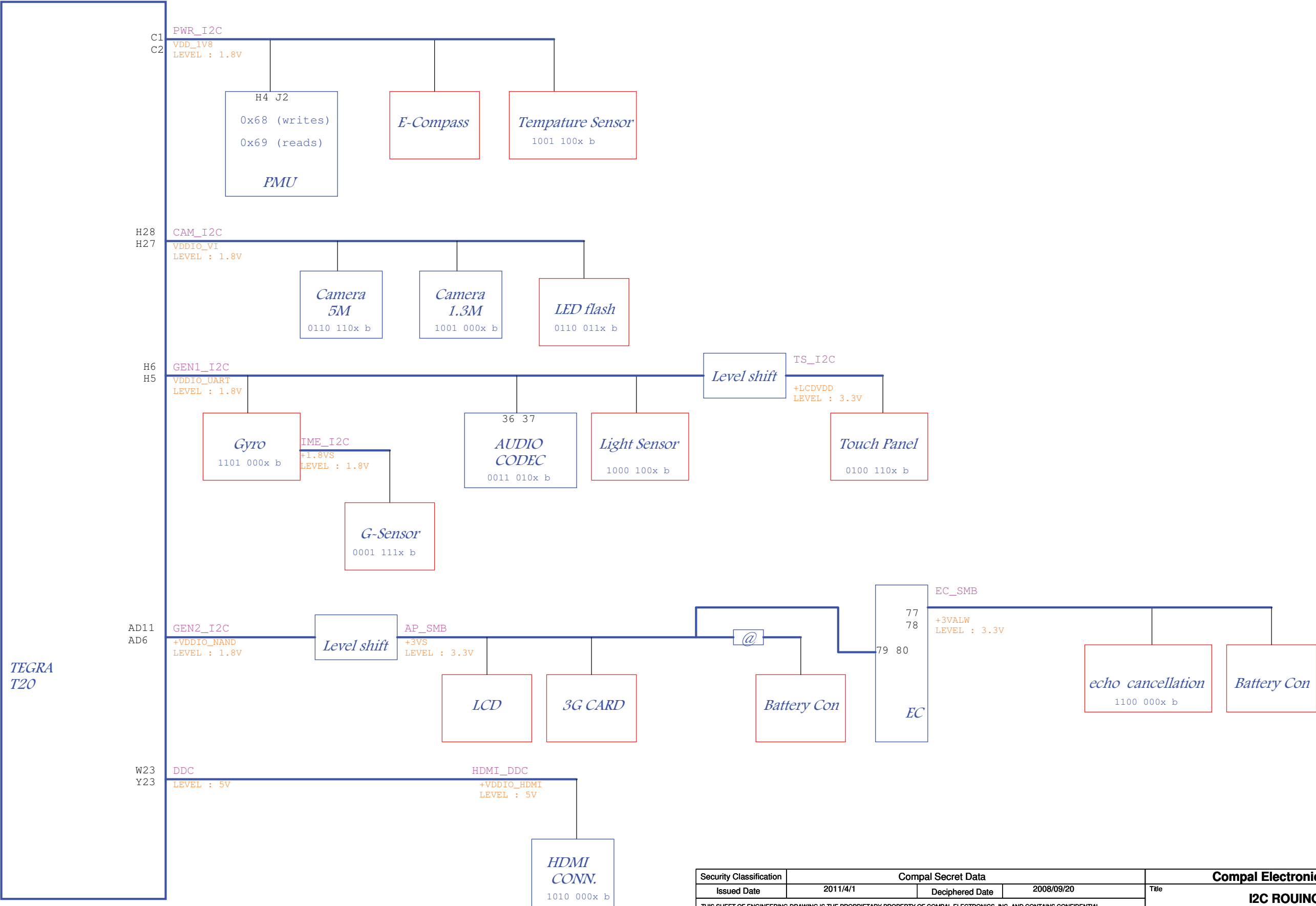


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				Size	Document Number	Rev
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				Size	Document Number	Rev
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PBJ20 I2C Routing



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		Size C	Document Number		Rev
			LA-6531P		0.1
Date:		Wednesday, November 17, 2010		Sheet	34 of 36

Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1							
2							
3							
4							
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Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1		增加控制CAMERA的GPIO	A		add CAM1_PWDN,CAM2_OE,CAM2_RST#,CAM1_RST#	08/29	DVT
2		修改EC firmware pin define	A		add KSI4,KSI5,KSI6,KSI7	08/29	DVT
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