

# Compal Confidential

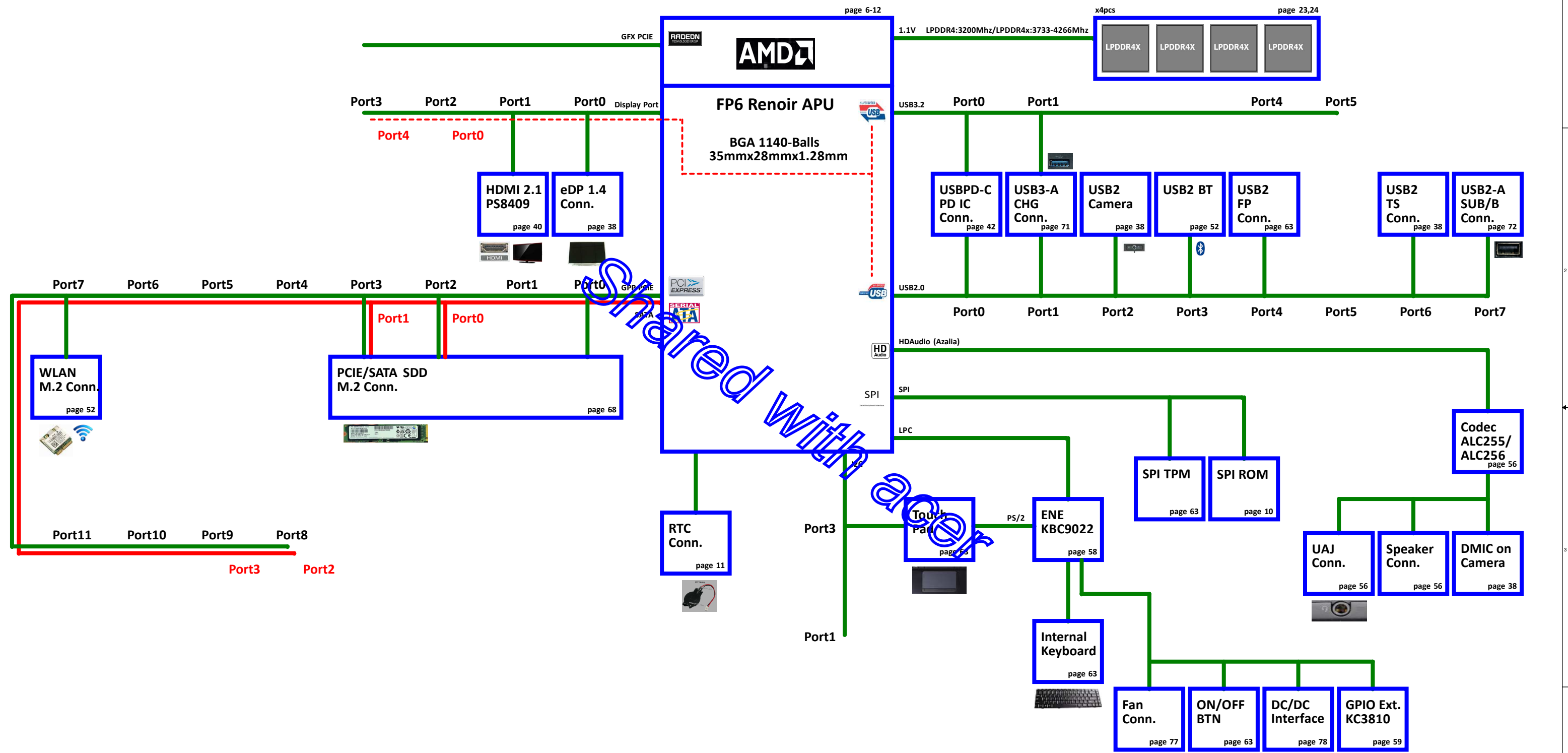
## FH4FR Schematics Document

AMD Renoir Ridge Platform

LA-J731P REV:1.0

2019-11-28

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		COVER PAGE			
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Power Circuits DC/DC

Sub Board

LS-J731P

LS-J732P

page 81-100

## Voltage Rails

Power Plane	Description	S0	S3	S5
+19V_VIN	Adapter power supply (19V)	ON	ON	ON
+19VB	AC or battery power rail for power circuit.	ON	ON	ON
+APU_CORE	Core voltage for APU	ON	OFF	OFF
+APU_CORE_SOC	Voltage for On-die VGA of APU	ON	OFF	OFF
+0.75VALW	0.75V always on power rail	ON	ON	OFF
+0.75VS	0.75V switched power rail	ON	OFF	OFF
+1.8VALW	1.8V always on power rail	ON	ON	OFF
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+1.8V	1.8V power rail for APU and DDR	ON	ON	OFF
+1.1V	1.1V power rail for APU and DDR	ON	ON	OFF
+MEM_VDDQ	1.1V/0.6V switched power rail for LPDDR4/4x	ON	ON	OFF
+3VALW	3.3V always on power rail	ON	ON	OFF
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	AC:ON DC:OFF
+5VS	5V switched power rail	ON	OFF	OFF
+RTC_APU	RTC power	ON	ON	ON
+LCDVDD	3.3V panel logic power	ON	OFF	OFF
+5VS_BL	5V Keyboard Backlight power	ON	OFF	OFF
+USB3_VCCA	USB Type-A Conn. power	ON	OFF	OFF
+VBUS_CONN	USB Type-C Conn. power	ON	OFF	OFF

## Modern Standby Voltage Rails/Signal

Power Plane	Description	S0	S0i3	S5
+TP_VCC	3.3V Touch Pad power	ON	ON	OFF
+TS_PWR	3.3V Touch Screen Power	ON	OFF	OFF
+FP_VCC	3.3V Finger Print power	ON	ON	OFF
+3V_SSD	3.3V PCIE/SATA SSD	ON	OFF	OFF
+3V_WLAN	3.3V WLAN power	ON	ON	ON
+VDDA	5V Audio Codec power	ON	ON	ON
+3V_CAM	3.3V Camera power	ON	ON	OFF
+DMIC_VCC	1.8V DMIC power	ON	ON	ON
+VDDIO_AUDIO	1.8V APU Audio power	ON	ON	ON
BT_ON	Follow SYSON	ON	ON	OFF
WL_OFF#	Follow SYSON	ON	ON	OFF

## APU SMBus/I2C Address Table

Master	Device	Address[7:1]	Address [7:0]	
			Write	Read
I2C Port 0 (+1.8VS)				
I2C Port 1 (+1.8VS)	G-Sensor (Reserver)	0001 1000b 18h	0011 0000b 30h	0011 0001b 31h
I2C Port 2 (+3VS)				
SBMUS Port 0 (+3VS)	JDIMM1	0101 0000b 50h	1010 0000b A0h	1010 0001b A1h
	JDIMM2	0101 0001b 51h	1010 0010b A2h	1010 0011b A3h
I2C Port 3 (+3VALW)	PTP (Synaptics)	0010 1100b 2Ch	0101 1000b 58h	0101 1001b 59h
	PTP (ELAN)	0001 1111b 15h	0011 1110b 3Eh	0011 1111b 3Fh
	SMBus Port 1 (+3VALW)			

## BOARD ID Table

Board ID	PCB Revision
0	EVT
1	DVT
2	PVT

777 PCB@  
  
**DAA000M4000**  
**PCB 2WG LA-J731P REV0 MB 2**

## BOM Structure Table

[illegible]

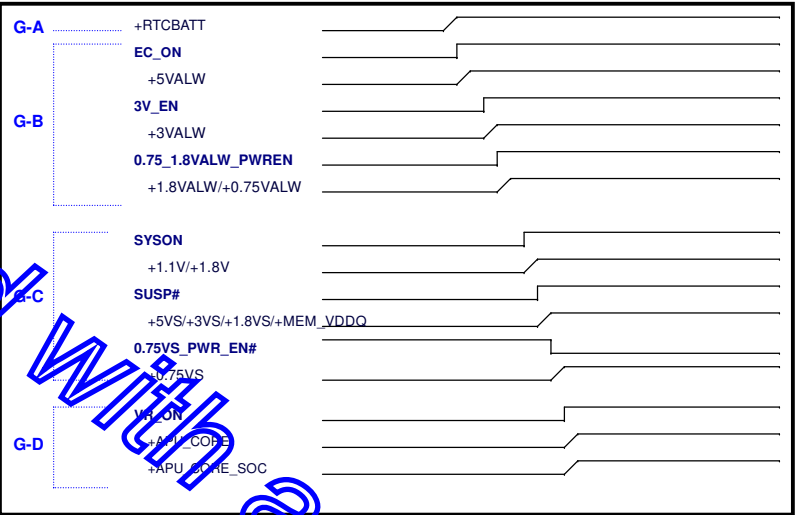
## EC SMBus Address Table

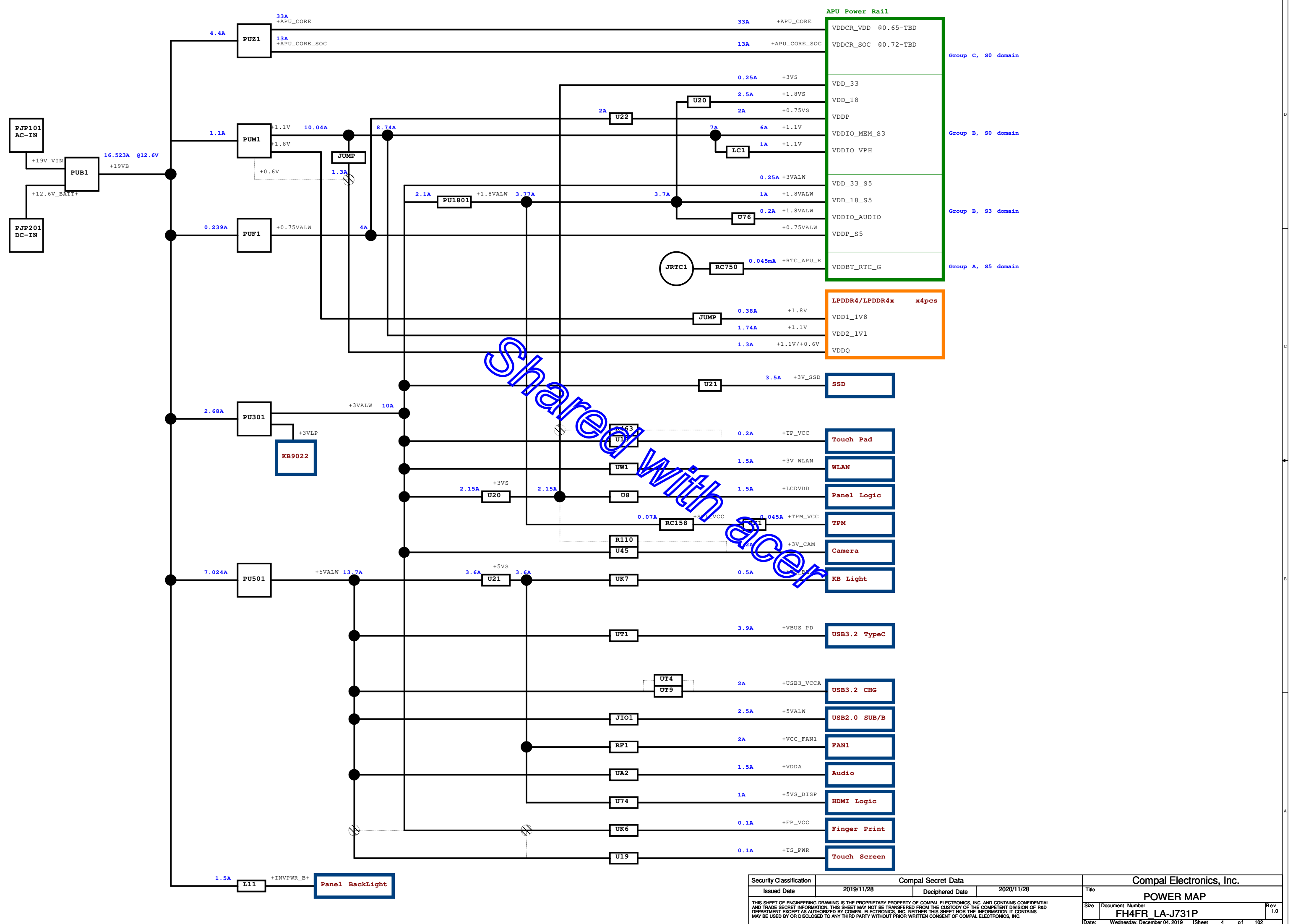
SMBus Port 1 (+3VALW)	Smart Battery	0000 1011b 0Bh	0001 0110b 16h	0001 0111b 17h
	Charger IC	0000 1001b 09h	0001 0010b 12h	0001 0011b 13h
SMBus Port 2 (+EC_VCC)	APU Temp.	0100 1100b 4Ch	1001 1000b 98h	1001 1001b 99h
	TPS65987	0010 0011b 23h	0100 0110b 46h	0100 0111b 47h
	Therm Sensor Temp.	0100 1000b 48h	1001 0000b 90h	1001 0001b 91h
	HDMI Retimer PS8409A		0001 0000b-0010 1111b 10h-2Fh	

## Board ID / SKU ID Table for AD channel

Vcc	3.3V				
Ra	100K +/- 1%				
Board ID	Rb	V min	V typ	V max	EC AD
0	0		0.000V	0.300V	0x00 - 0x0B
1	12K +/- 1%	0.347V	0.354V	0.360V	0x0C - 0x1C
2	15K +/- 1%	0.423V	0.430V	0.438V	0x1D - 0x26
3	20K +/- 1%	0.541V	0.550V	0.559V	0x27 - 0x30
4	27K +/- 1%	0.691V	0.702V	0.713V	0x31 - 0x3B
5	33K +/- 1%	0.807V	0.819V	0.831V	0x3C - 0x46
6	43K +/- 1%	0.978V	0.992V	1.006V	0x47 - 0x54
7	56K +/- 1%	1.169V	1.185V	1.200V	0x55 - 0x64
8	75K +/- 1%	1.398V	1.414V	1.430V	0x65 - 0x76
9	100K +/- 1%	1.634V	1.650V	1.667V	0x77 - 0x87
10	130K +/- 1%	1.849V	1.865V	1.881V	0x88 - 0x96
11	160K +/- 1%	2.015V	2.031V	2.046V	0x97 - 0xA3
12	200K +/- 1%	2.185V	2.200V	2.215V	0xA4 - 0xAD
13	240K +/- 1%	2.316V	2.329V	2.343V	0xAE - 0xB7
14	270K +/- 1%	2.395V	2.408V	2.421V	0xB8 - 0xC0
15	330K +/- 1%	2.521V	2.533V	2.544V	0xC1 - 0xC9
16	430K +/- 1%	2.667V	2.677V	2.687V	0xCA - 0xD3
17	560K +/- 1%	2.791V	2.800V	2.808V	0xDC - 0xDC
18	750K +/- 1%	2.905V	2.912V	2.919V	0xDD - 0xE6
19	NC	3.000V	3.300V		0xE7 - 0xFF

## POWER SEQUENCE





APU Power Rail	
VDDCR_VDD @0.65-TBD	
VDDCR_SOC @0.72-TBD	
VDD_33	
VDD_18	
VDDP	
VDDIO_MEM_S3	
VDDIO_VPH	
VDD_33_S5	
VDD_18_S5	
VDDIO_AUDIO	
VDDP_S5	
VDDBT_RTC_G	

Group C, S0 domain

Group B, S0 domain

Group B, S3 domain

Group A, S5 domain

LPDDR4/LPDDR4x	x4pcs
VDD1_1V8	
VDD2_1V1	
VDDQ	

SSD

Touch Pad

WLAN

Panel Logic

TPM

Camera

KB Light

USB3.2 TypeC

USB3.2 CHG

USB2.0 SUB/B

FAN1

Audio

HDMI Logic

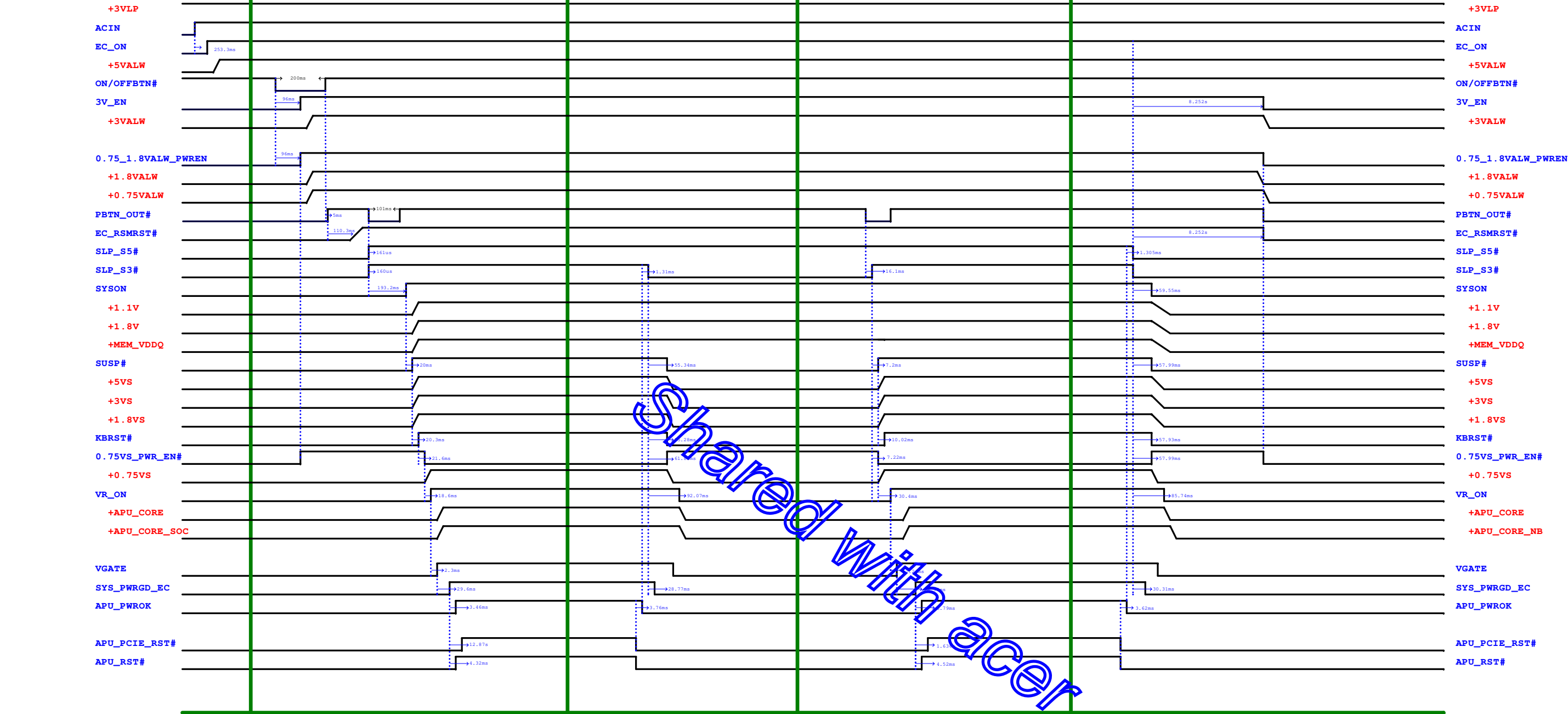
Finger Print

Touch Screen

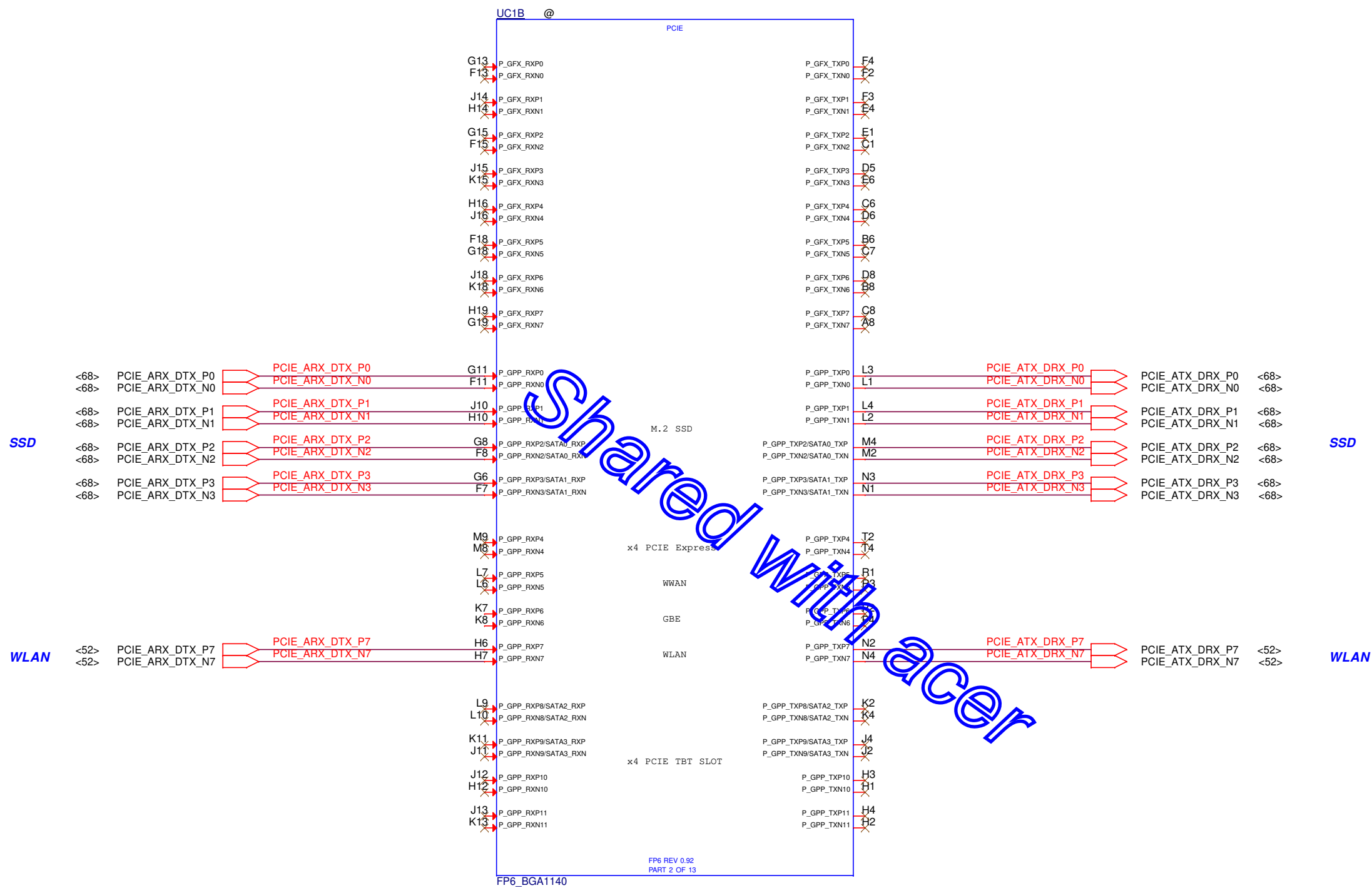
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Issued Date	2019/11/28	Deciphered Date	2020/11/28	Title	POWER MAP
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Power Sequence

→ →



Main Func = CPU



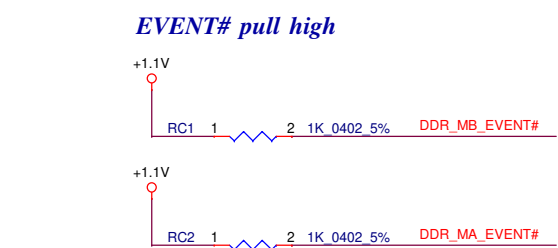
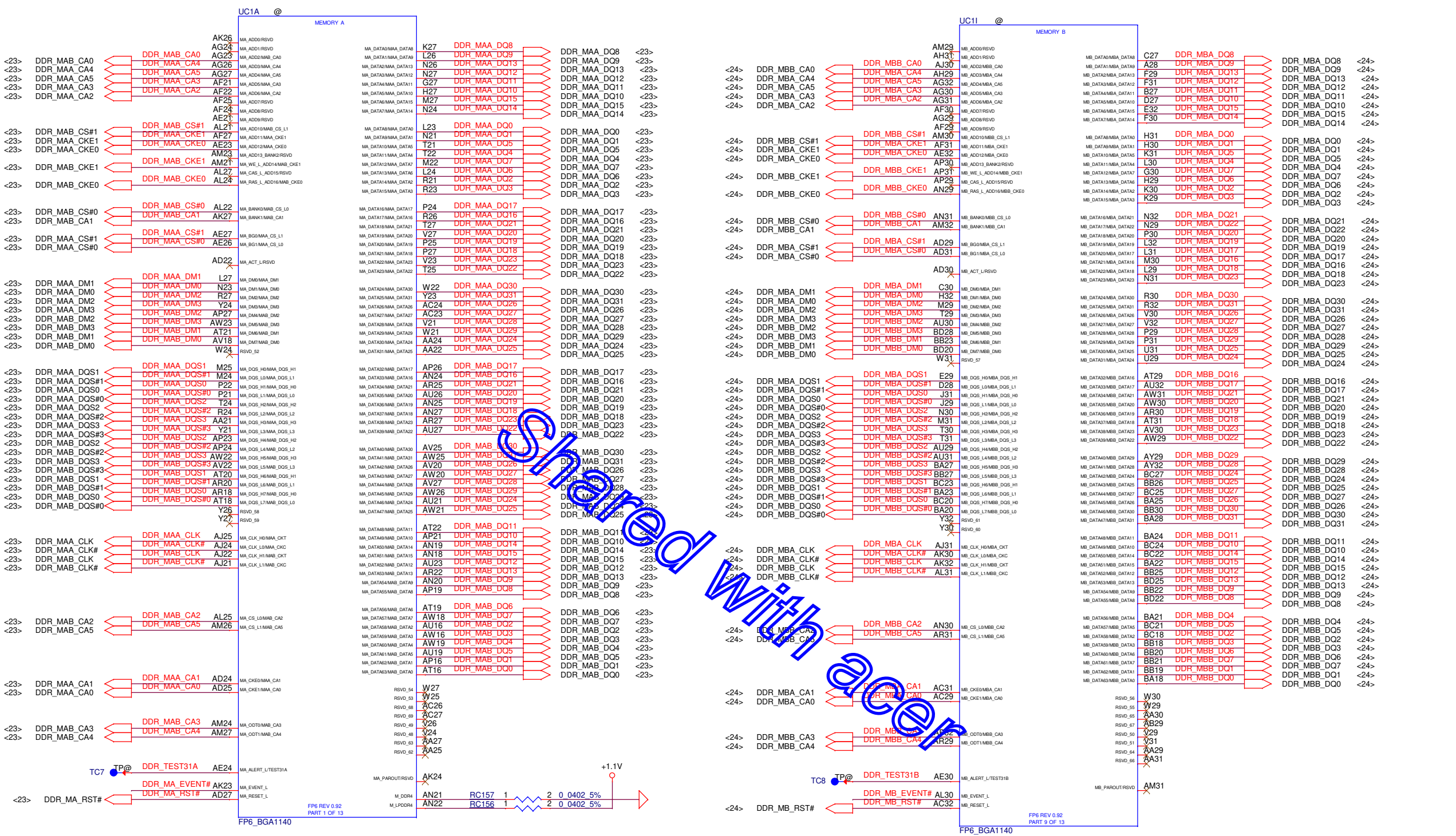
APU PN Table

APU Platform	Customer PN	Customer PN	Customer PN	Customer PN
Renoir	UC1 R3@ SA0000D3V10 S IC RYZEN3 100-000000085-00 2.7G APU	UC1 R5@ SA0000D4A10 S IC RYZEN5 100-000000084-00 2.375G APU	UC1 R747@ SA0000D4910 S IC RYZEN7 100-000000083-00 2G APU	UC1 R748@ SA0000D1730 S IC RYZEN7 100-000000082-00 1.8G BGAAPU

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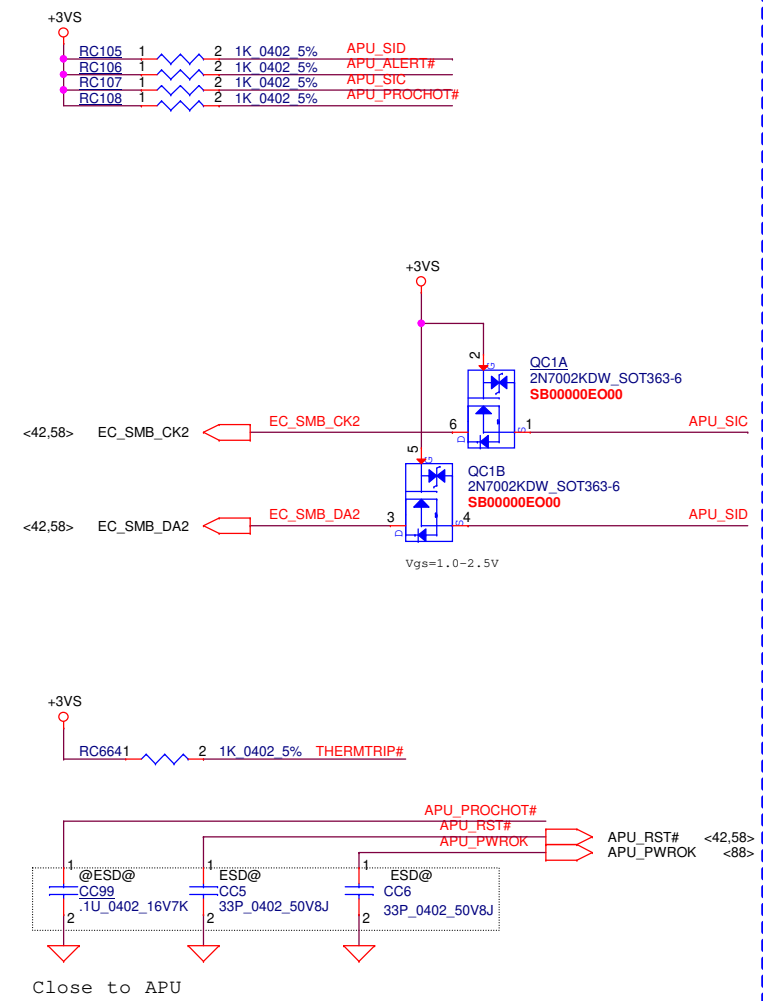
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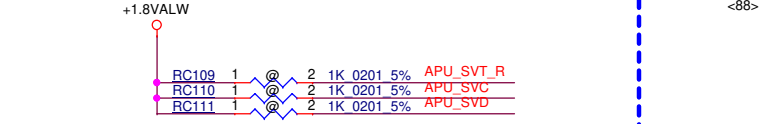
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Main Func = CPU

EC/THERM



SVID

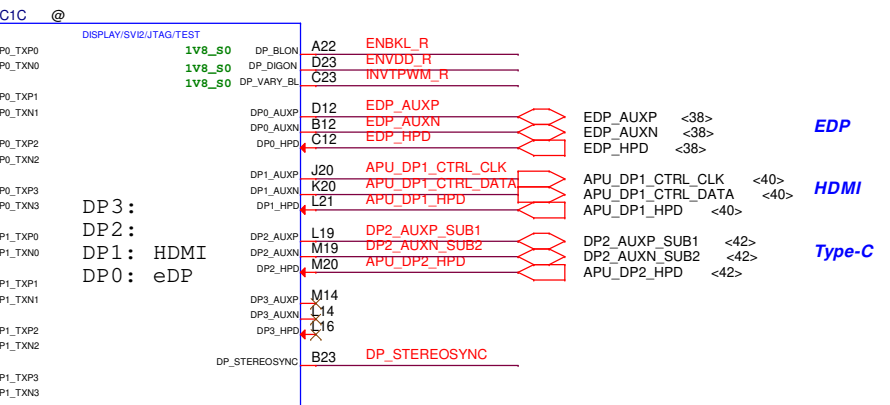
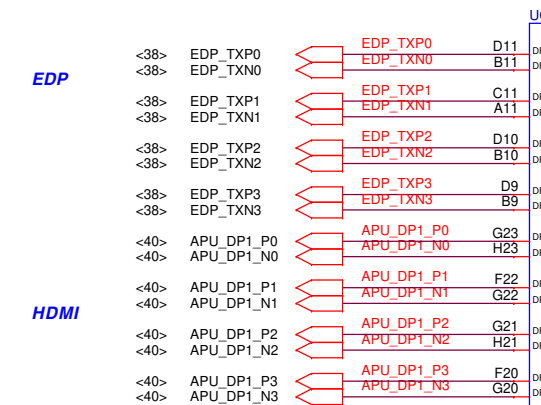


AMD DEBUG

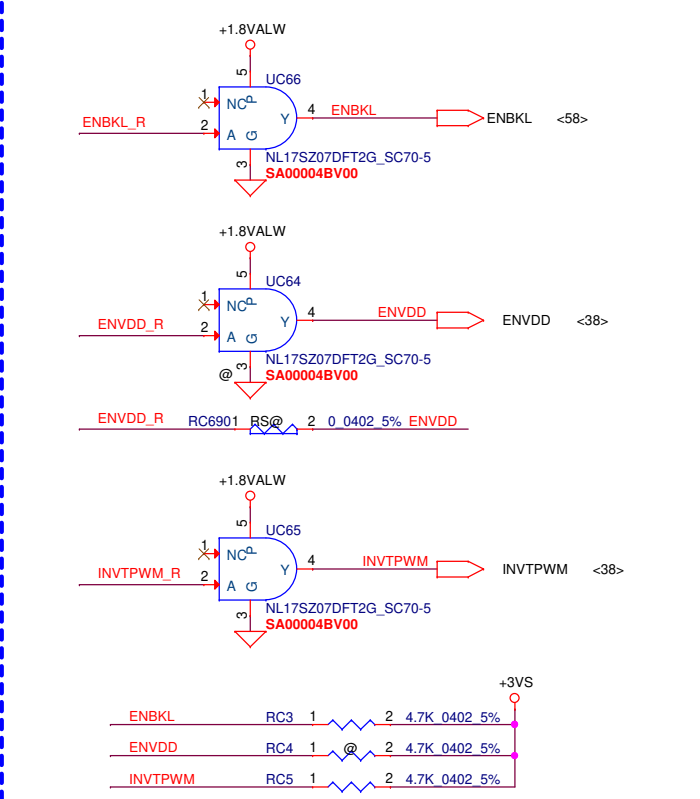


EDP

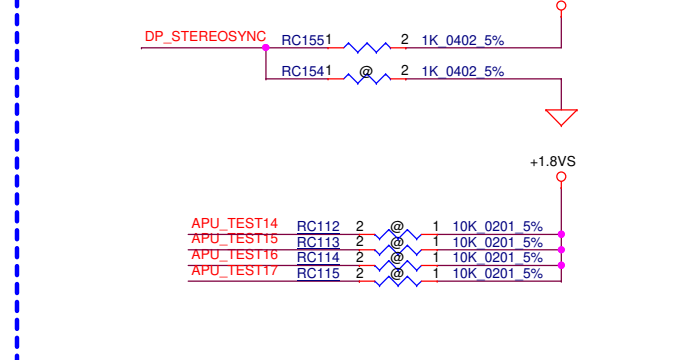
HDMI



DISP



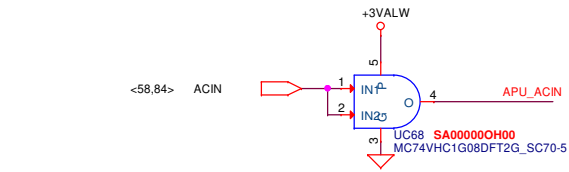
TESTPOINT



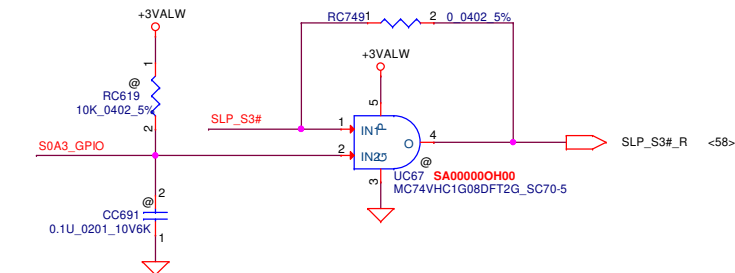
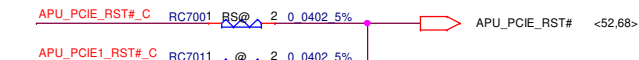
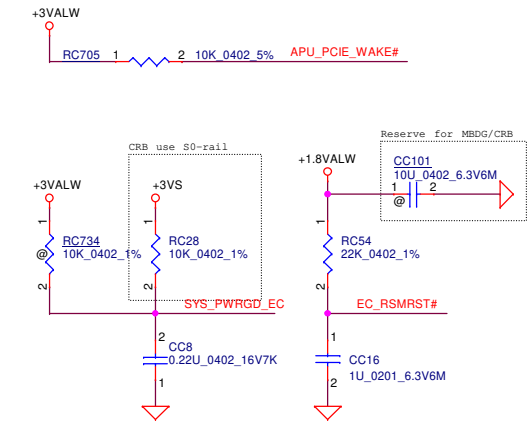
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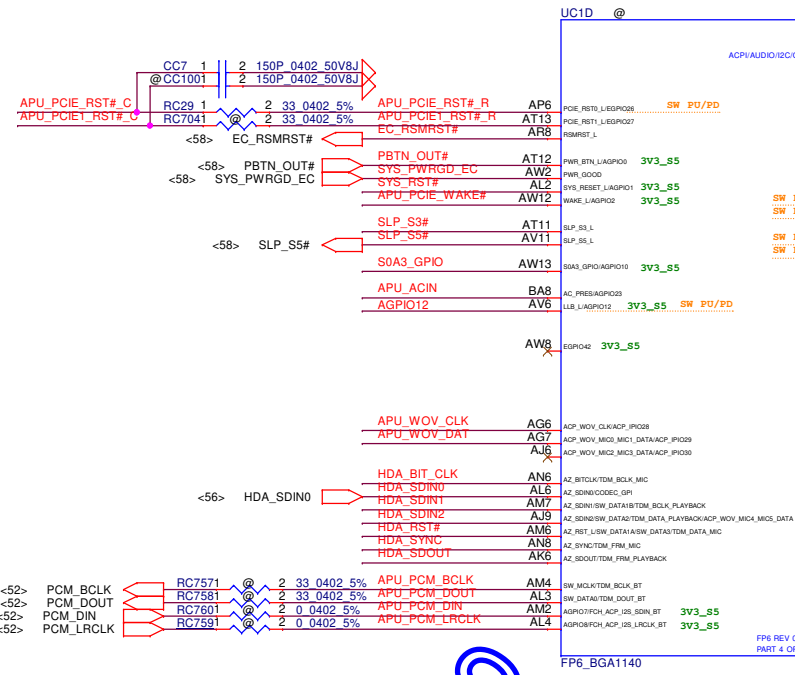
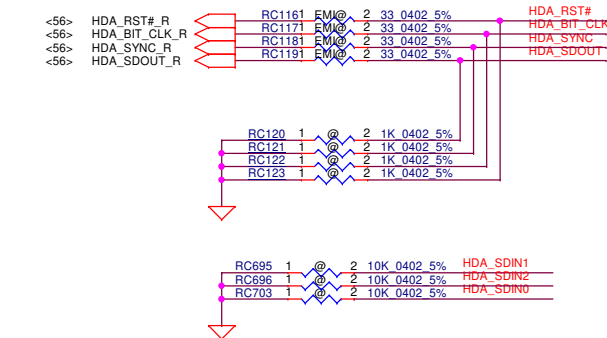
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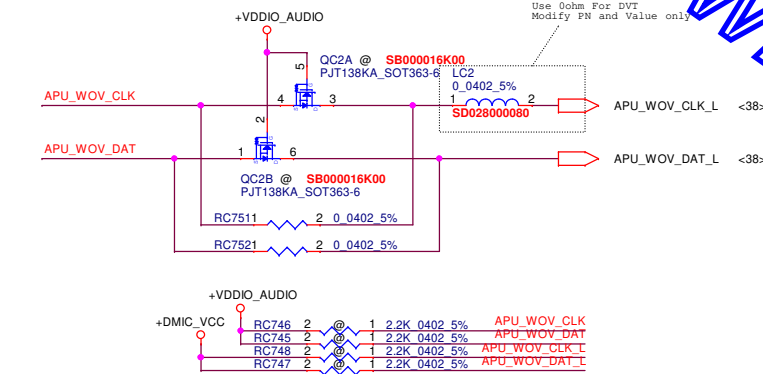
ACPI



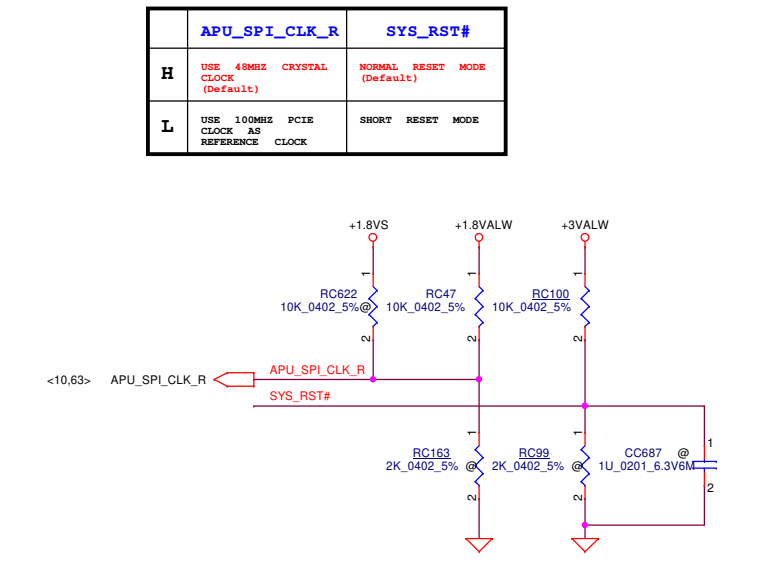
HDA



APU WOV

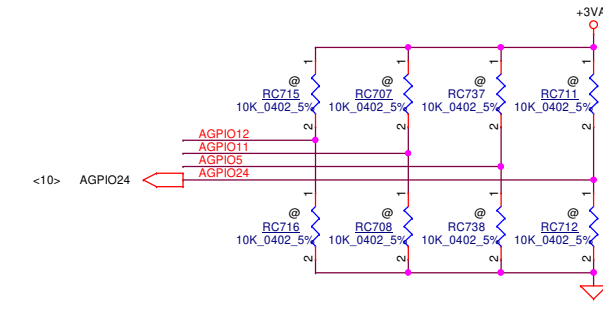


Strap Pin



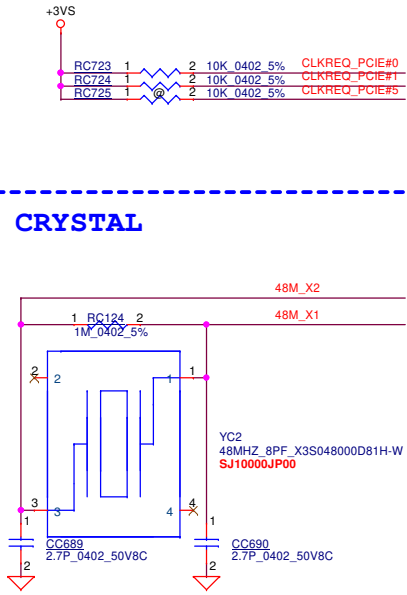
GPIO Table

AGPIO[12:11:5:24]	LPDDR4 Vendor PN	RC716	RC708	RC738	RC712
0 0 0 0	HYN4X_4GB	HYN4X 4G@	HYN4X 4G@	HYN4X 4G@	HYN4X 4G@
0 0 0 1	MIC4X_4GB	MIC4X 4G@	MIC4X 4G@	MIC4X 4G@	MIC4X 4G@
0 0 1 0	SAM4X_4GB	SAM4X 4G@	SAM4X 4G@	SAM4X 4G@	SAM4X 4G@
0 0 1 1	HYN4_2GB	HYN4 2G@	HYN4 2G@	HYN4 2G@	HYN4 2G@
0 1 0 0	MIC4_2GB	MIC4 2G@	MIC4 2G@	MIC4 2G@	MIC4 2G@
0 1 0 1	SAM4_2GB	SAM4 2G@	SAM4 2G@	SAM4 2G@	SAM4 2G@
0 1 1 0	HYN4_1GB	HYN4 1G@	HYN4 1G@	HYN4 1G@	HYN4 1G@
0 1 1 1	MIC4_1GB	MIC4 1G@	MIC4 1G@	MIC4 1G@	MIC4 1G@
1 0 0 0					
1 0 0 1					
1 0 1 0					
1 0 1 1					
1 1 0 0					
1 1 0 1					
1 1 1 0					
1 1 1 1					

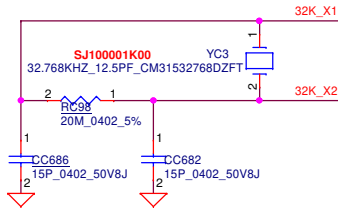


Main Func = CPU

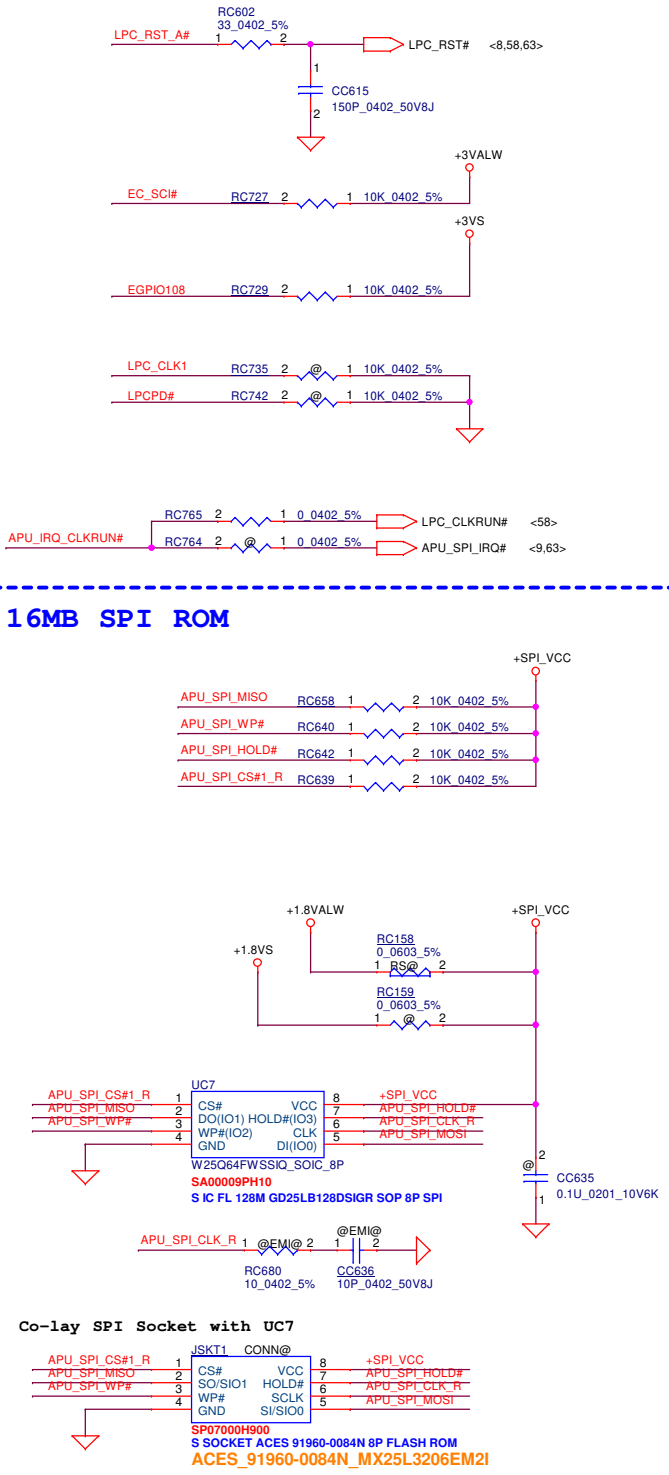
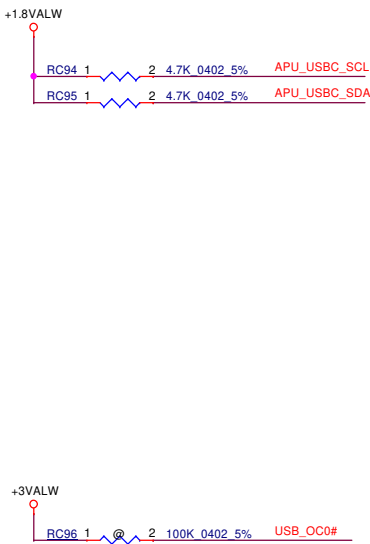
48MHz CRYSTAL



32.768KHz CRYSTAL



USB Function

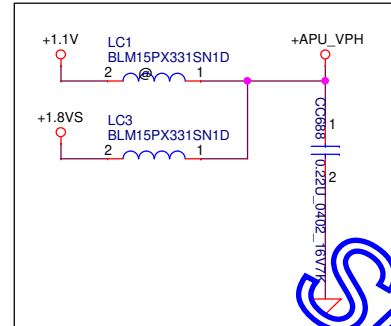
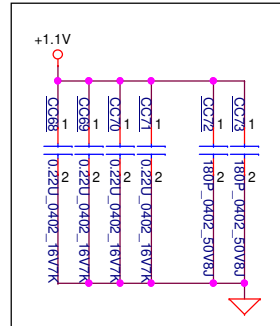
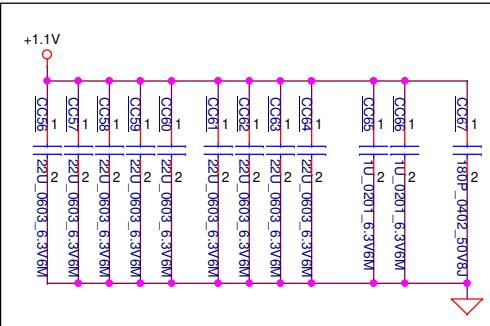


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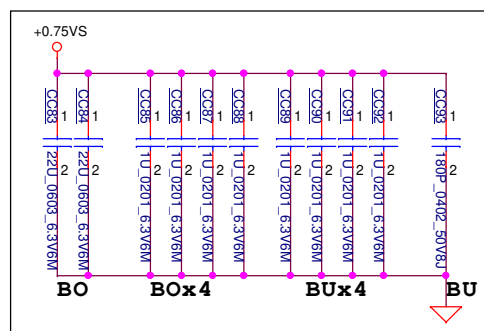
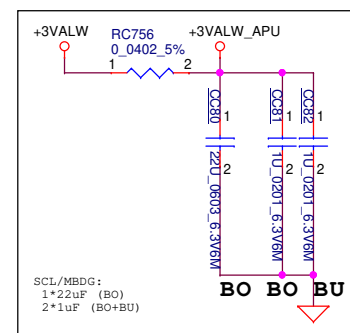
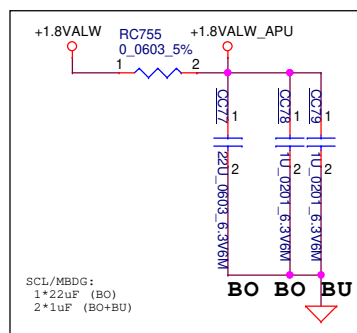
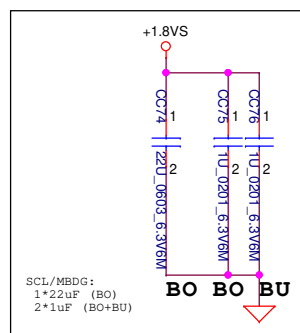
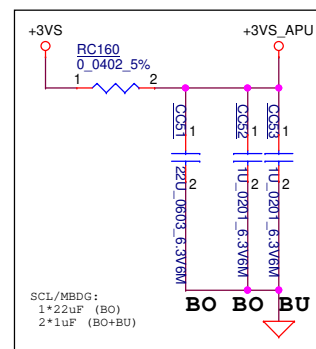
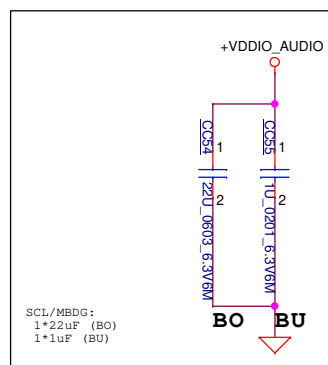
```
+APU_CORE_SOC Cap
place at Power Side
```

SCL/MBDG:  
7\*22uF (BU)  
1\*1uF (BU)  
1\*180pF (BU)

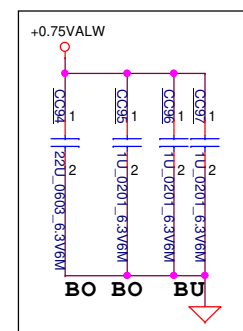
SCL/MBDG:  
7\*22uF (BU)  
2\*1uF (BU)  
4\*0.22uF  
1\*180pF (BU)  
2\*180pF



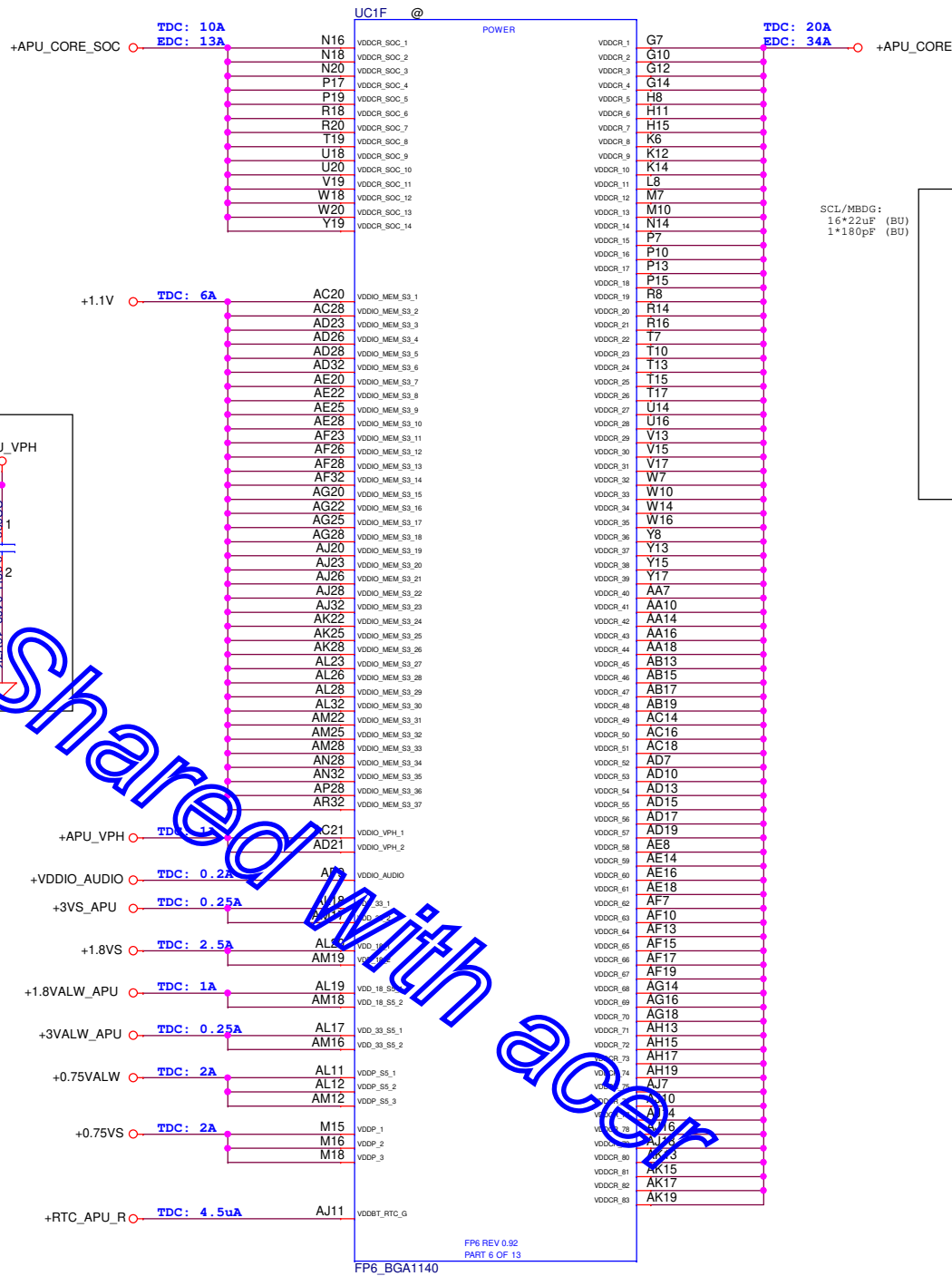
All BU(on bottom side under SOC) **ACROSS VDDIO AND VSS SPLIT**



SCL/MBDG:  
2\*22uF (BO)  
8\*1uF (BOx4+BUx4)  
1\*180pF (BU)

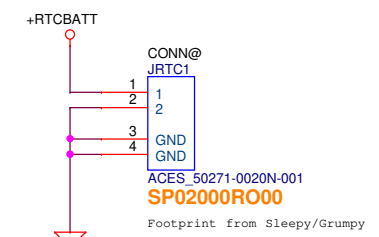


SCL/MBDG:  
1\*22uF (BO)  
3\*1uF (BOx1+BUx2)

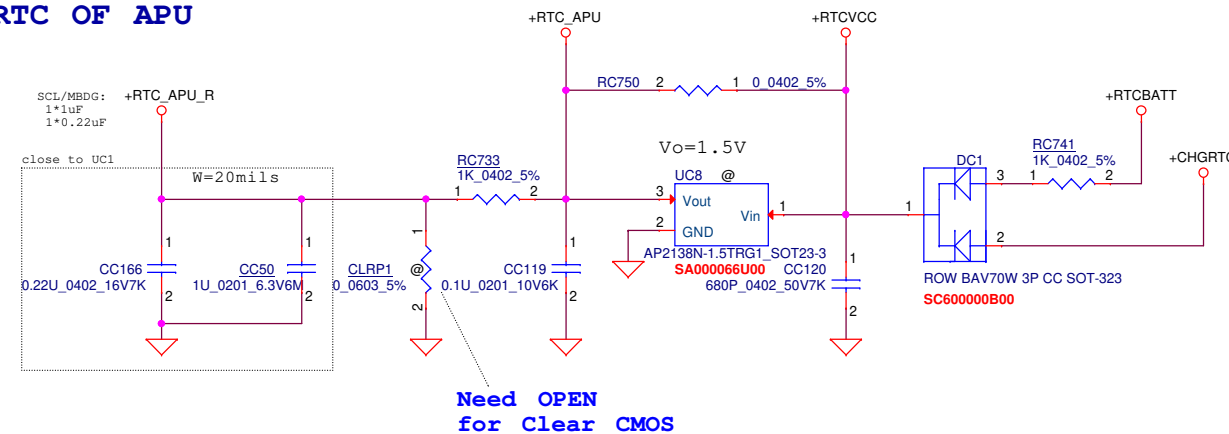


SCL/MBDG:  
16\*22uF (BU)  
1\*180pF (BU)

```
+APU_CORE Cap place at Power Side
```



## RTC OF APU



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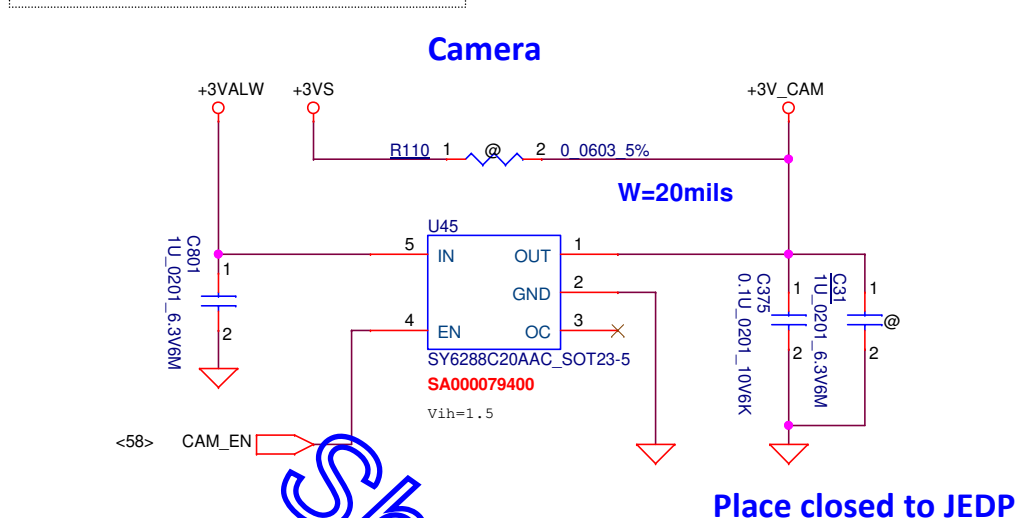
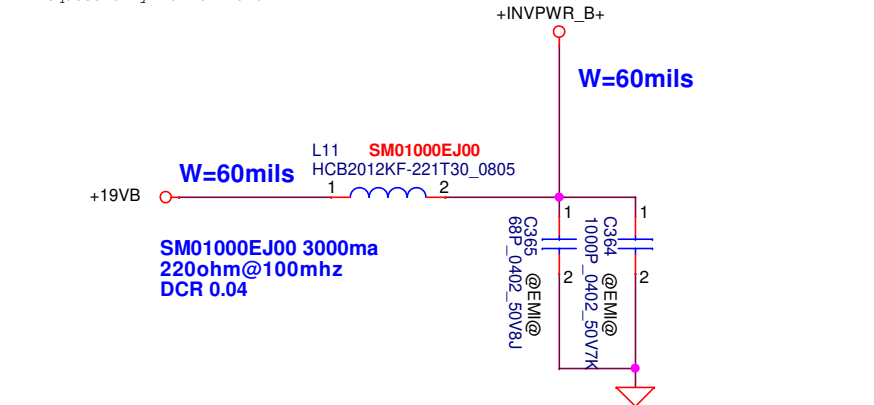
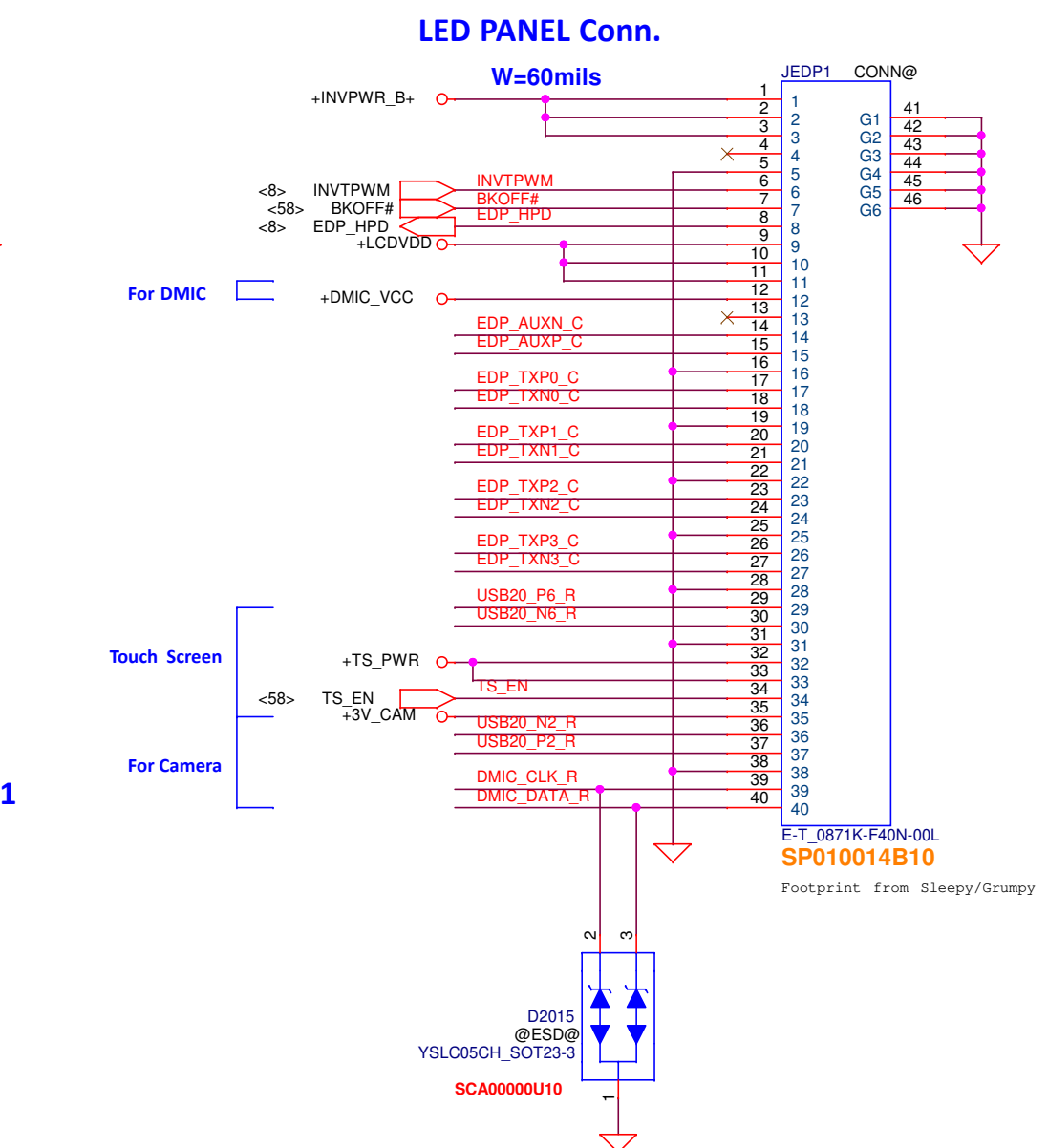
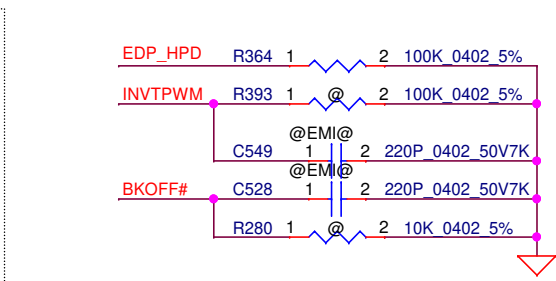
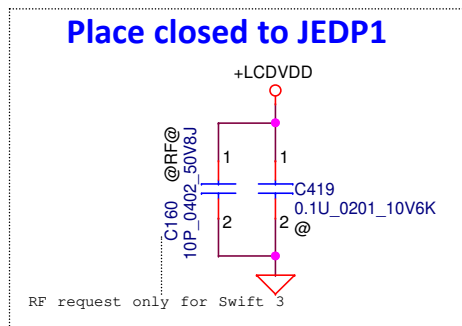
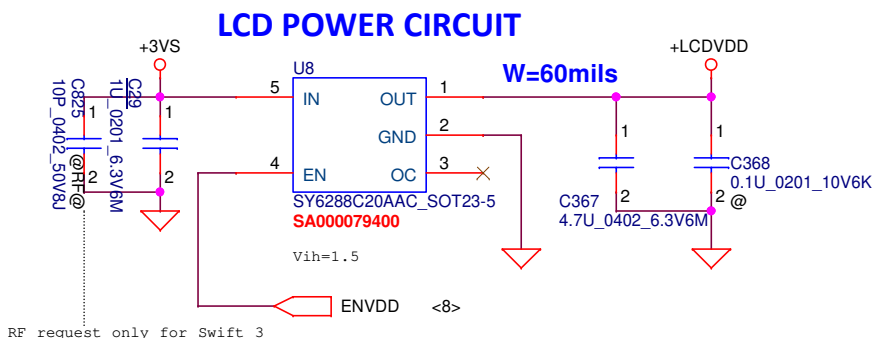
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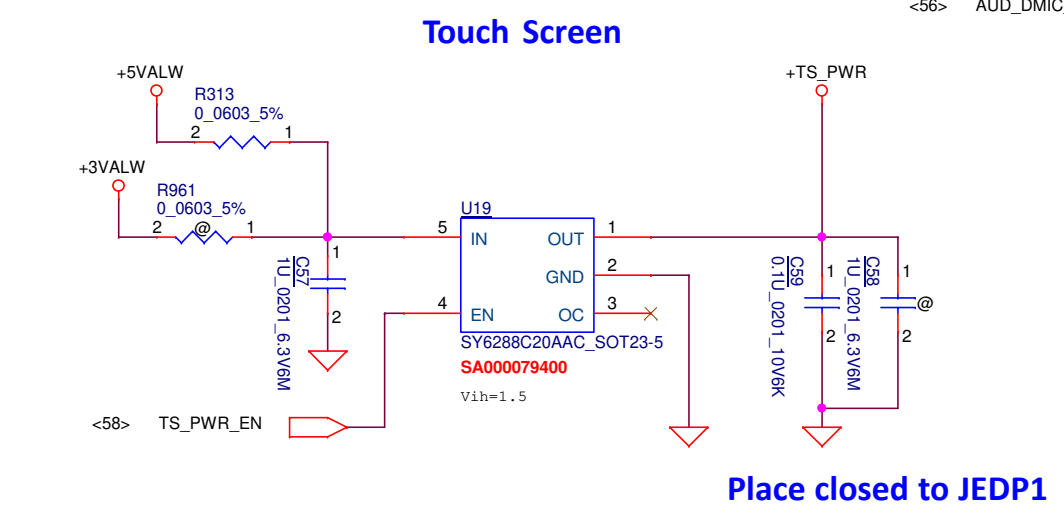
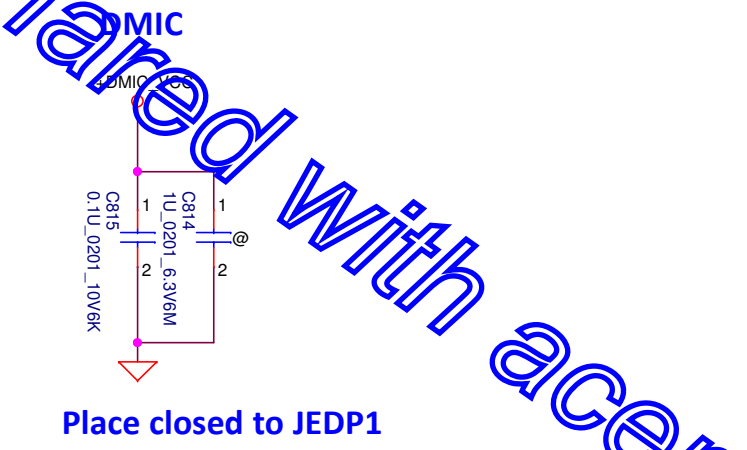
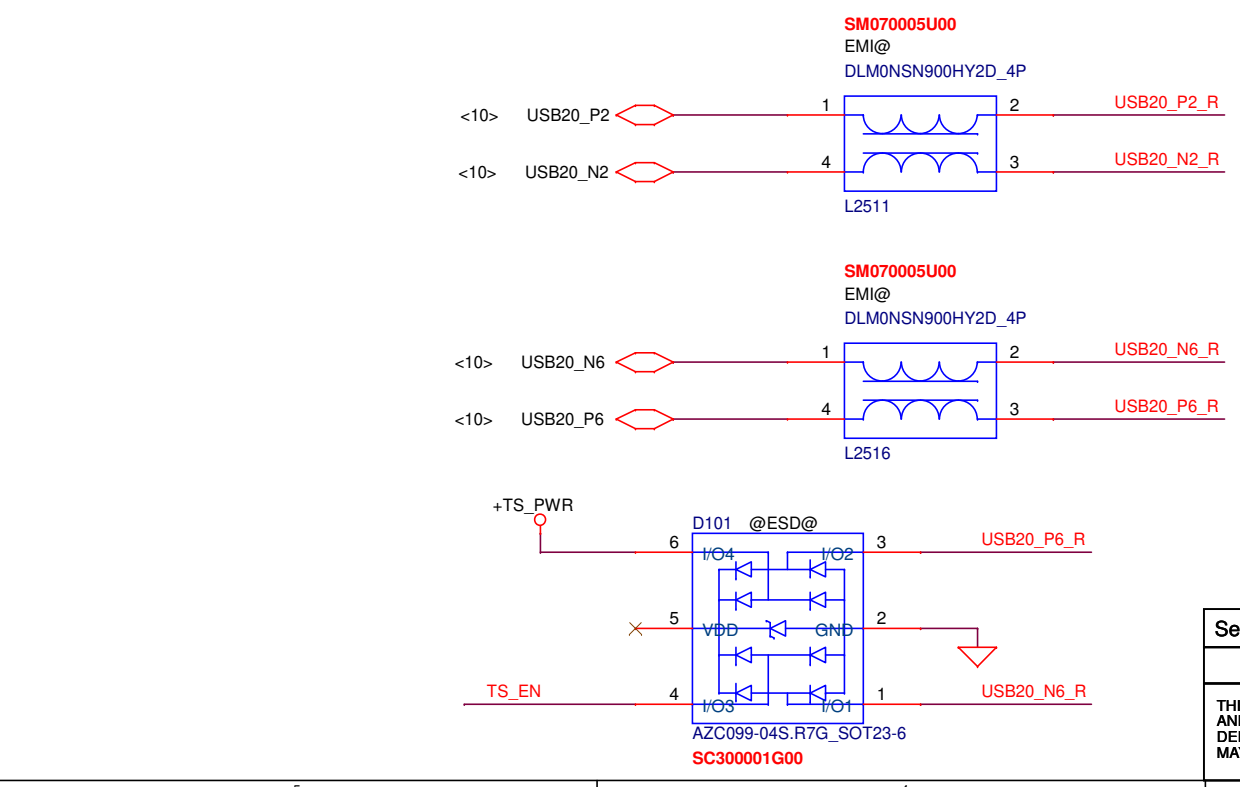
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<8>	EDP_TXP0	C371	1	2	.1U_0402_16V7K	EDP_TXP0_C
<8>	EDP_TXN0	C372	1	2	.1U_0402_16V7K	EDP_TXN0_C
<8>	EDP_TXP1	C373	1	2	.1U_0402_16V7K	EDP_TXP1_C
<8>	EDP_TXN1	C374	1	2	.1U_0402_16V7K	EDP_TXN1_C
<8>	EDP_TXP2	C802	1	2	.1U_0402_16V7K	EDP_TXP2_C
<8>	EDP_TXN2	C803	1	2	.1U_0402_16V7K	EDP_TXN2_C
<8>	EDP_TXP3	C804	1	2	.1U_0402_16V7K	EDP_TXP3_C
<8>	EDP_TXN3	C805	1	2	.1U_0402_16V7K	EDP_TXN3_C

<8>	EDP_AUXP	C370	1	2	.1U_0402_16V7K	EDP_AUXP_C
<8>	EDP_AUXN	C369	1	2	.1U_0402_16V7K	EDP_AUXN_C

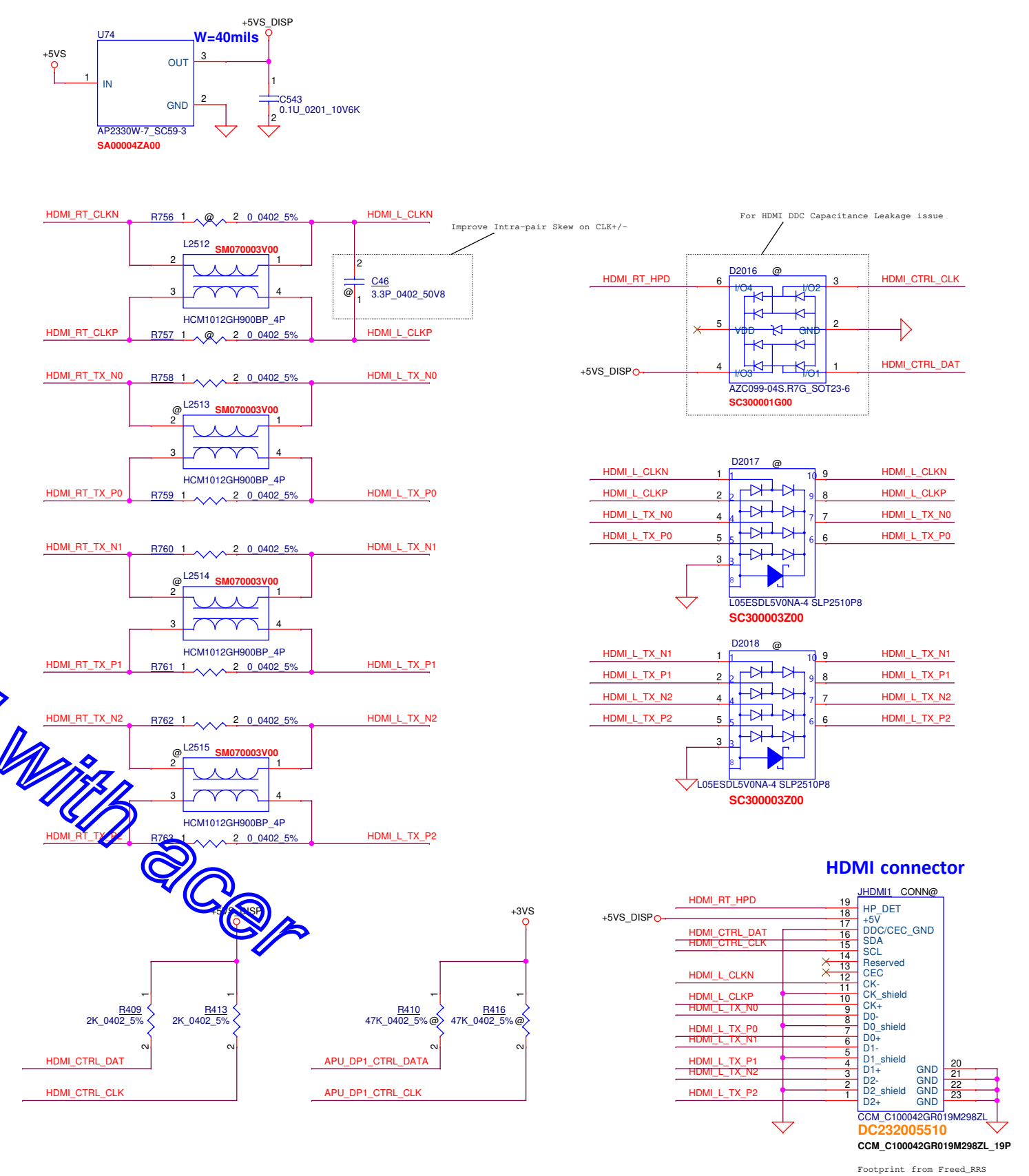
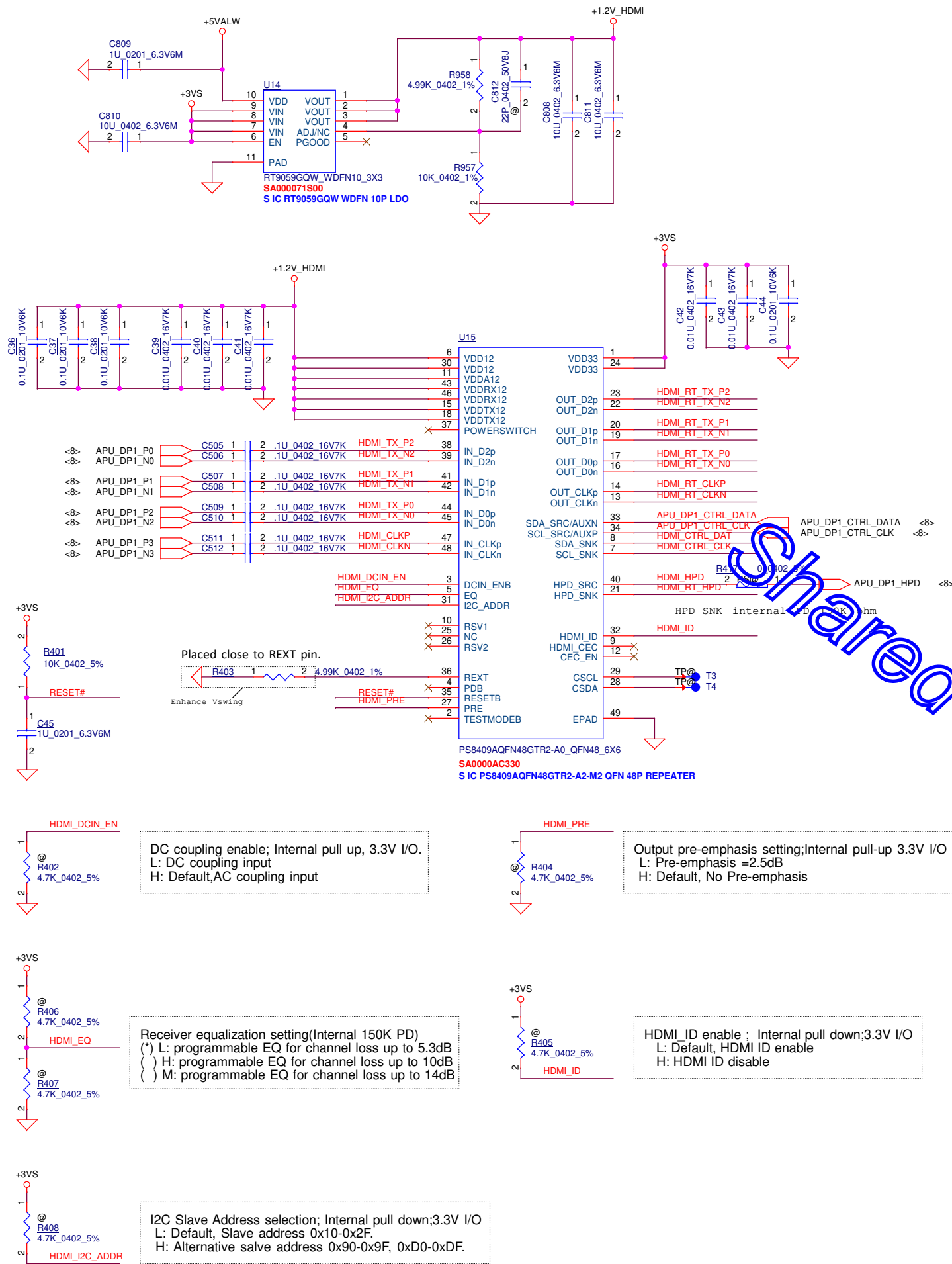


<9>	APU_WOV_CLK_L	R962	1	2	0_0402_5%	DMIC_CLK_R
<56>	AUD_DMIC_CLK	R963	1	2	0_0402_5%	
<9>	APU_WOV_DAT_L	R965	1	2	0_0402_5%	DMIC_DATA_R
<56>	AUD_DMIC_DATA	R964	1	2	0_0402_5%	

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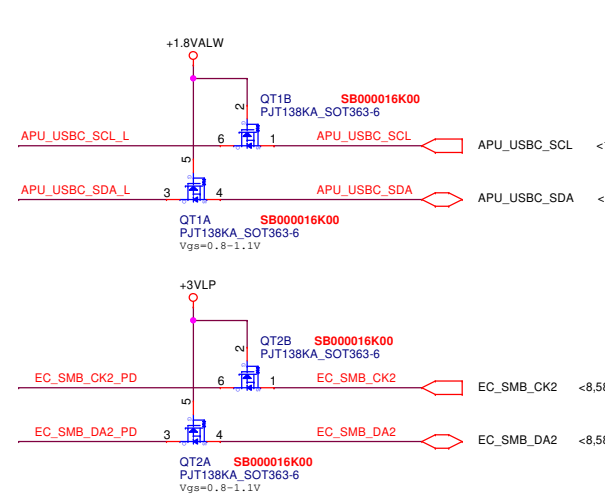
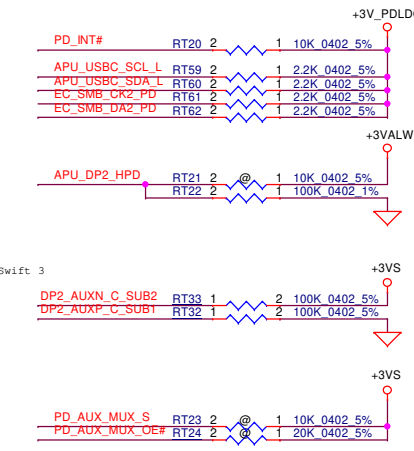
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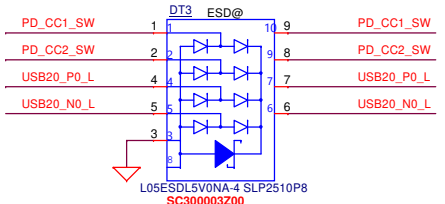
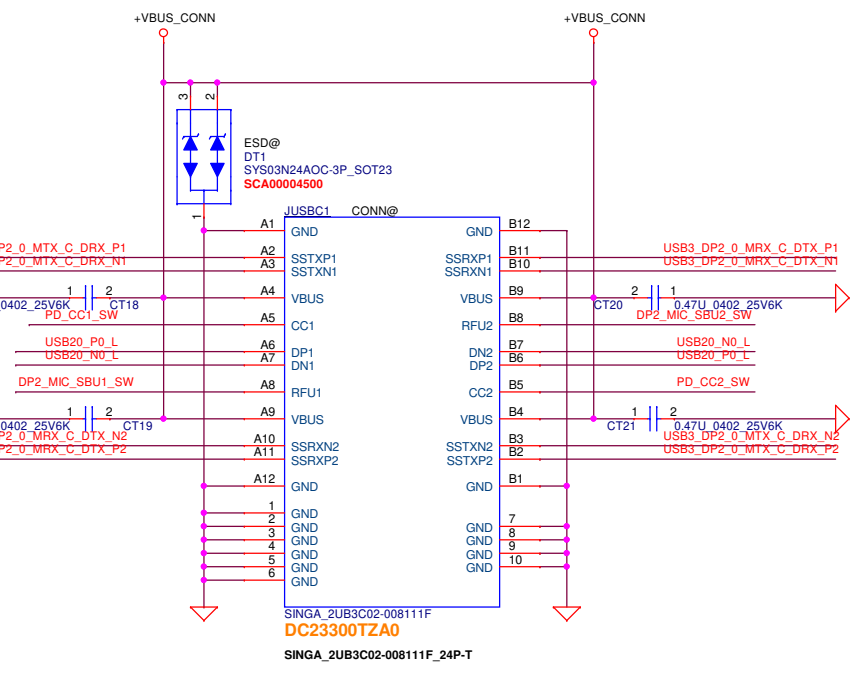


The diagram shows the timing of USB3 signals. The signals are grouped into pairs (P1, N1), (P2, N2) for MTX and MRX/DTX. The timing parameters are as follows:

Signal	Parameter	Value
USB3_DP2_0_MTX_DRX_P1	CT22	1
USB3_DP2_0_MTX_DRX_N1	CT23	1
USB3_DP2_0_MRX_DTX_P1	CT26	1
USB3_DP2_0_MRX_DTX_N1	CT27	1
USB3_DP2_0_MTX_DRX_P2	CT24	1
USB3_DP2_0_MTX_DRX_N2	CT25	1
USB3_DP2_0_MRX_DTX_P2	CT28	1
USB3_DP2_0_MRX_DTX_N2	CT29	1

The diagram also shows the timing of the USB3 signals relative to the USB3\_DP2\_0\_MTX\_DRX\_P1 signal. The timing parameters are as follows:

Signal	Parameter	Value
USB3_DP2_0_MTX_DRX_P1	CT22	1
USB3_DP2_0_MTX_DRX_N1	CT23	1
USB3_DP2_0_MRX_DTX_P1	CT26	1
USB3_DP2_0_MRX_DTX_N1	CT27	1
USB3_DP2_0_MTX_DRX_P2	CT24	1
USB3_DP2_0_MTX_DRX_N2	CT25	1
USB3_DP2_0_MRX_DTX_P2	CT28	1
USB3_DP2_0_MRX_DTX_N2	CT29	1



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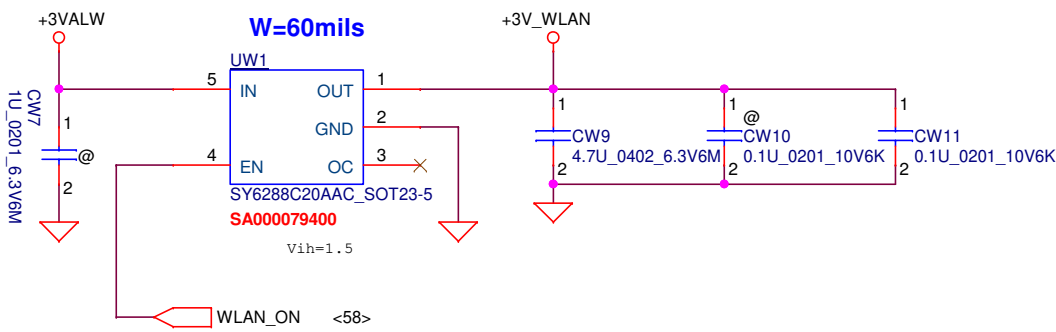
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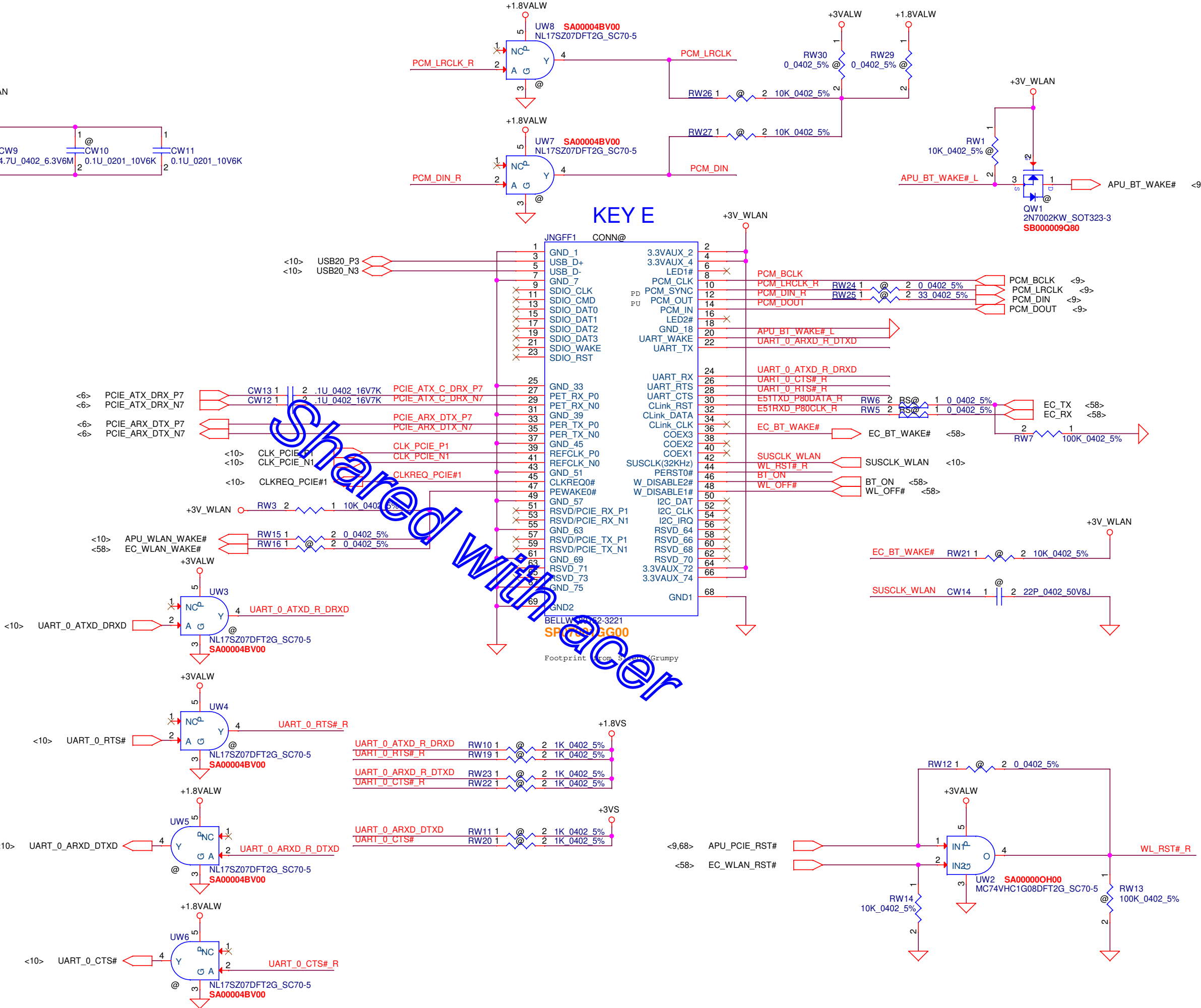


Wireless LAN



NGFF WL+BT (KEY E)

74	3.3V	GND	75
72	3.3V	RESERVED/REFCLKN1	73
70	UIM_Power_SRC/GPIO1/PEWake1#	RESERVED/REFCLKP1	71
68	UIM_Power_SNK/CLKREQ1#	GND	69
66	UIM_SWP/PERST1#	Reserved/PERn1	67
64	RESERVED	Reserved/PERp1	65
62	ALERT# (I/O)(3.3)	GND	63
60	I2C CLK (O)(0/3.3)	Reserved/PETn1	61
58	I2C DATA (I/O)(0/3.3)	Reserved/PETp1	59
56	W_DISABLE#1 (O)(0/3.3V)	GND	57
54	Reserved/W_DISABLE#2 (O)(0/3.3V)	PEWake0# (I/O)(0/3.3V)	55
52	PERST0# (O)(0/3.3V)	CLKREQ0# (I/O)(0/3.3V)	53
50	SUSCLK(32KHz) (O)(0/3.3V)	GND	51
48	COEX1 (I/O)(0/1.8V)	REFCLKN0	49
46	COEX2(I/O)(0/1.8V)	REFCLKP0	47
44	COEX3(I/O)(0/1.8V)	GND	45
42	VENDOR DEFINED	PERn0	43
40	VENDOR DEFINED	PERp0	41
38	VENDOR DEFINED	GND	39
36	UART RTS (O)(0/1.8V)	PETn0	37
34	UART CTS (I/O)(1.8V)	PETp0	35
32	UART Tx (O)(0/1.8V)	GND	33
22	UART Rx (I)(0/1.8V)	SDIO Reset# (O)(0/1.8V)	23
20	UART Wake# (I)(0/3.3V)	SDIO Wake# (I)(0/1.8V)	21
18	GND	SDIO DAT3(O)(0/1.8V)	19
16	LED#2 (I)(OD)	SDIO DAT2(O)(0/1.8V)	17
14	PCM_OUT/I2S_SD_OUT (O)(0/1.8V)	SDIO DAT1(O)(0/1.8V)	15
12	PCM_IN/I2S_SD_IN (I)(0/1.8V)	SDIO DAT0(O)(0/1.8V)	13
10	PCM_SYNC/I2S_WS (O)(0/1.8V)	SDIO CMD0(O)(0/1.8V)	11
8	PCM_CLK/I2S_SCK (O)(0/1.8V)	SDIO CLK(O)(0/1.8V)	9
6	LED#1 (I)(OD)	GND	7
4	3.3V	USB_D-	5
2	3.3V	USB_D+	3
		GND	1



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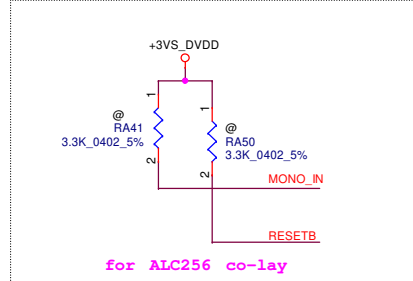
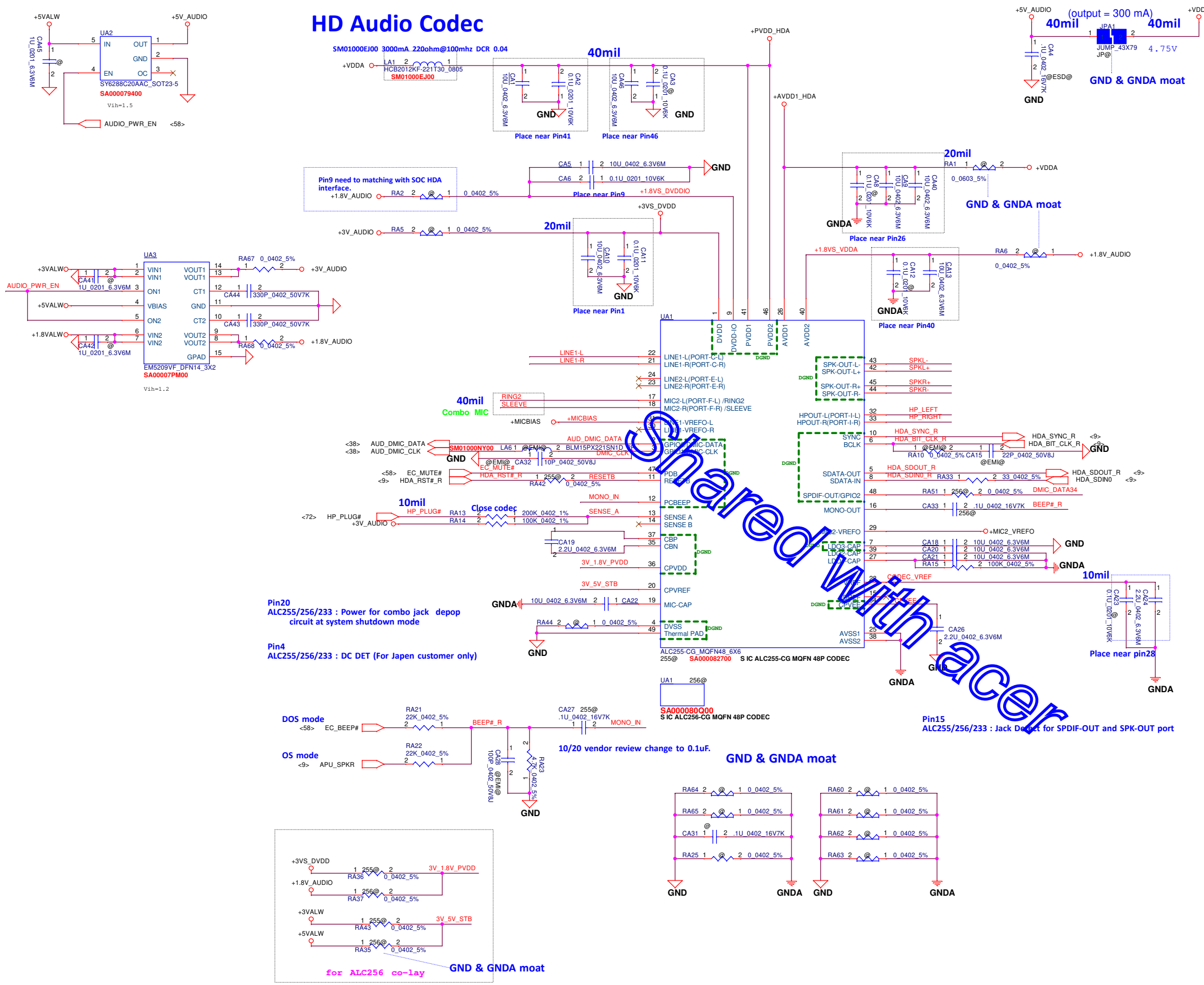
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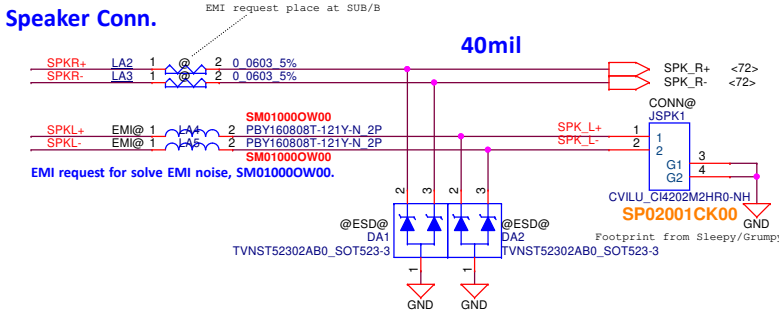
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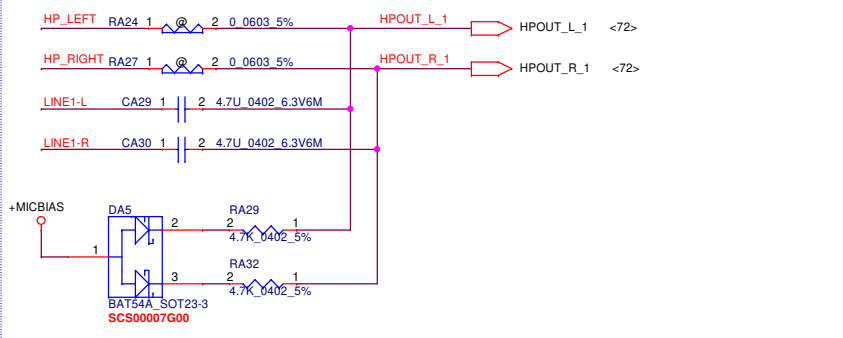
# HD Audio Codec



## Int. Speaker Conn.



## Headphone Out



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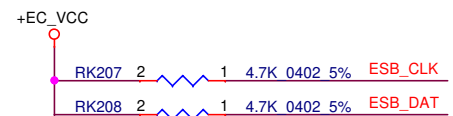
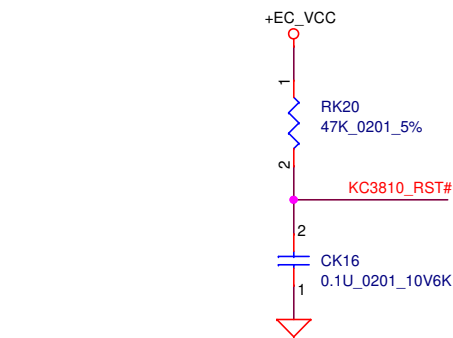
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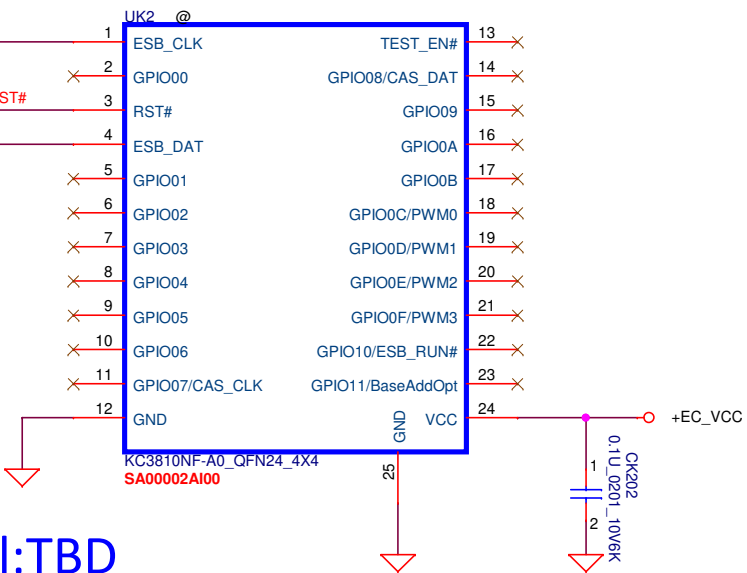
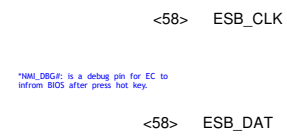






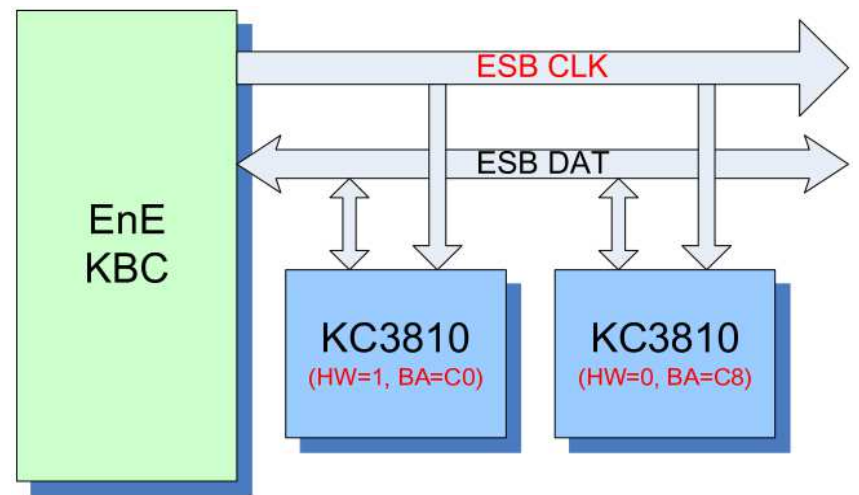


OMEN New ESB CLK&DAT for Extend I/O



Some EC GPIO maybe change to extend IO control:TBD

Some EC GPIO maybe change to extend IO control:TBD



- 以下GPIO可以接到external I/O
1. USB\_CTL1(GPIO48 Pin84),
  2. USB\_CTL2(GPIO3F Pin72),
  3. USB\_CTL3(GPIO1D Pin38),
  4. USB\_CHARGE\_EN(GPIO1A Pin36),
  5. GPU\_OVERTH(GPIO0D Pin19) => DPF50 NO USE
  6. LAN\_PWR\_EN(GPIO4D Pin86),
  7. WL\_PWREN\_EC(GPIO61 Pin98),
  8. DCHG\_I(GPIO40 Pin73) => DPF50 NO USE
  9. USB\_ONH(GPIO37 Pin 121),
  10. LED : 5 Pin.

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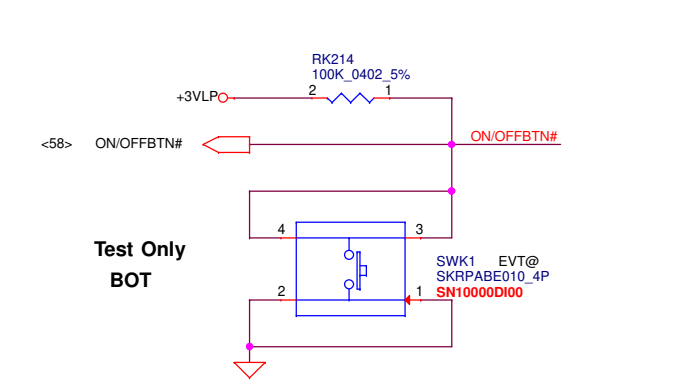
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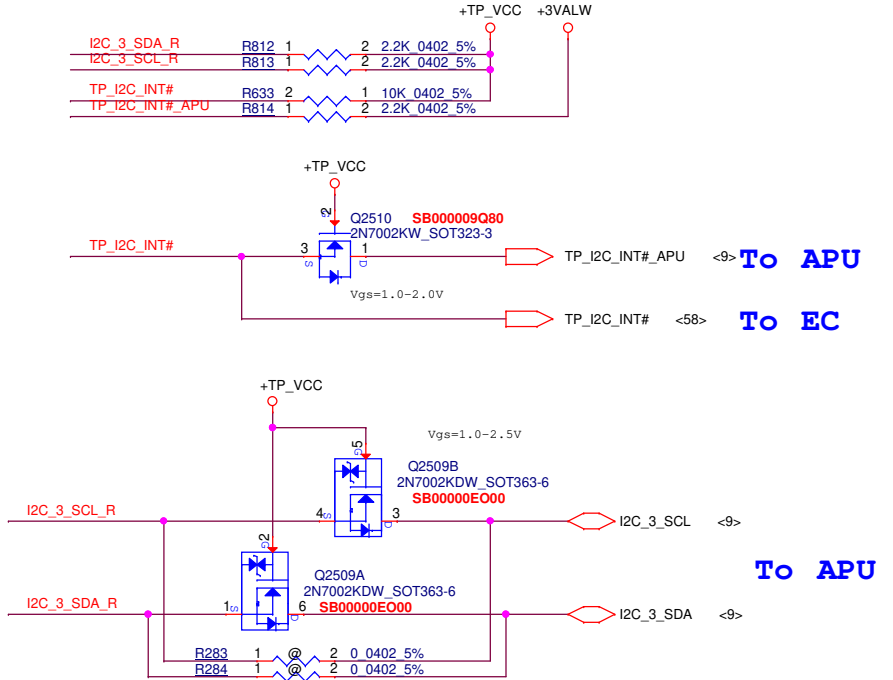
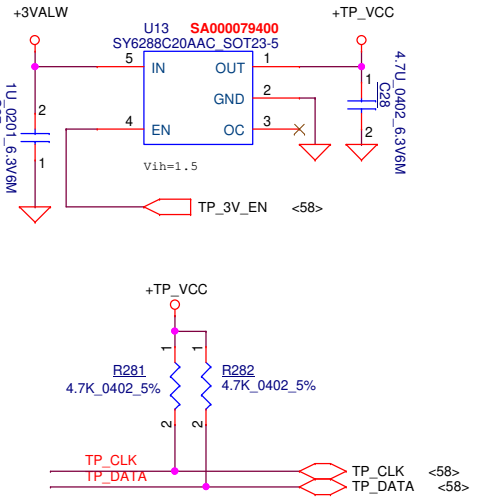
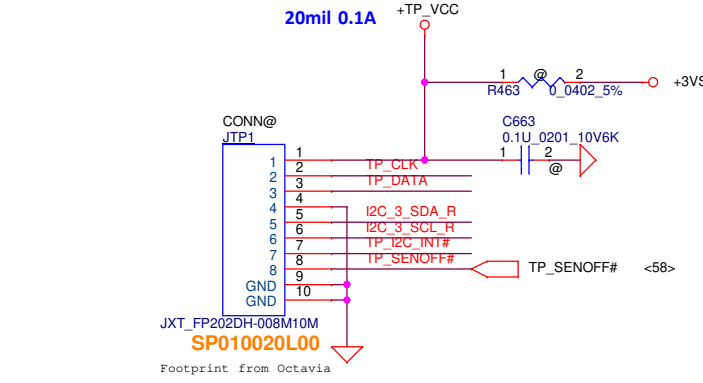
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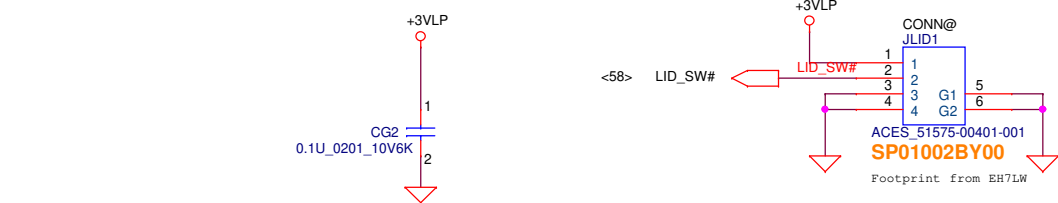
ON/OFF BTN



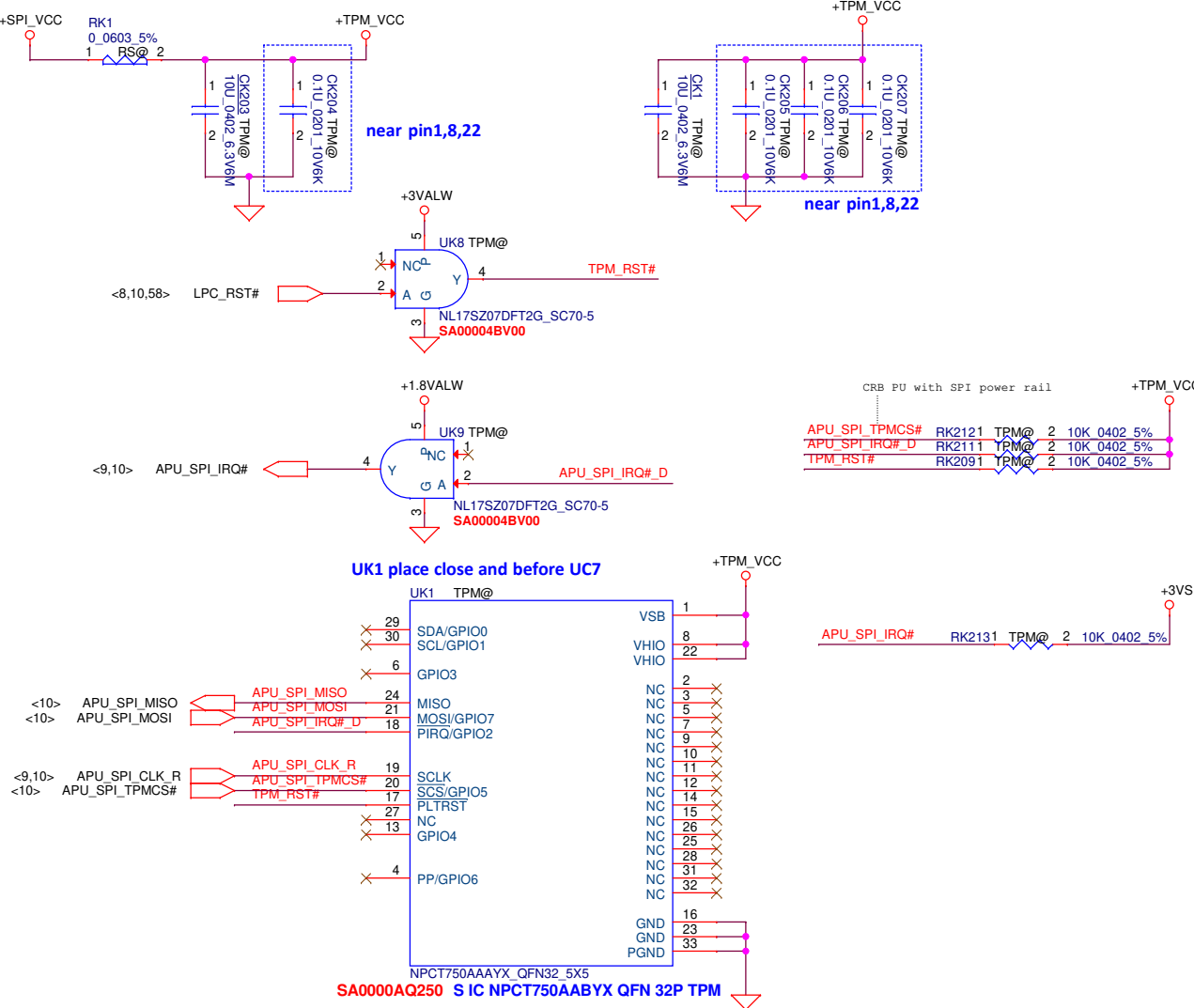
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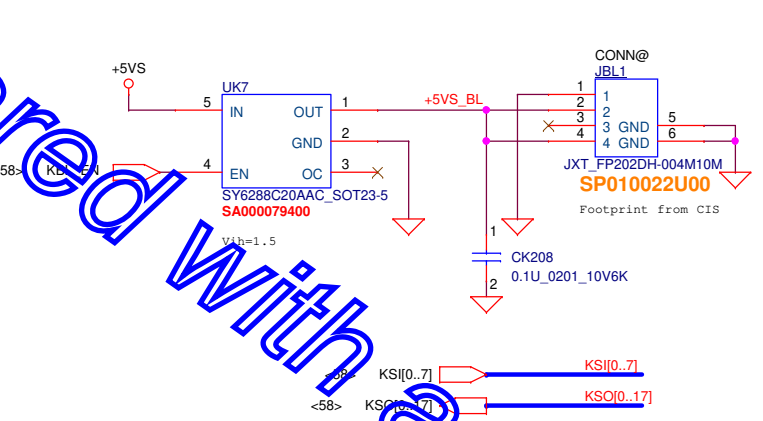
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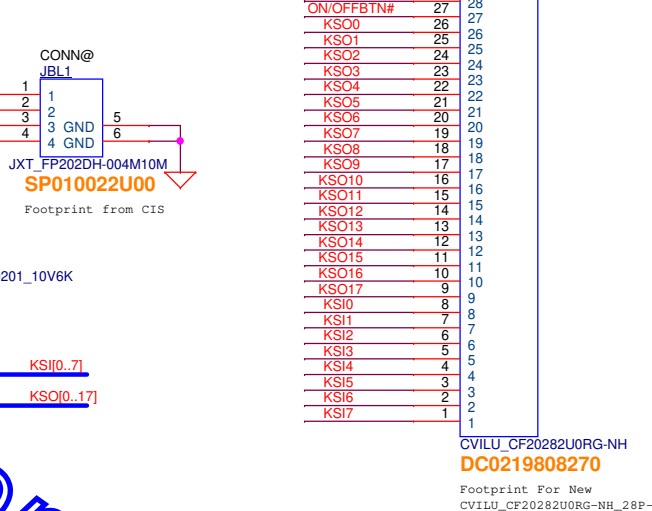
TPM



KB BackLight

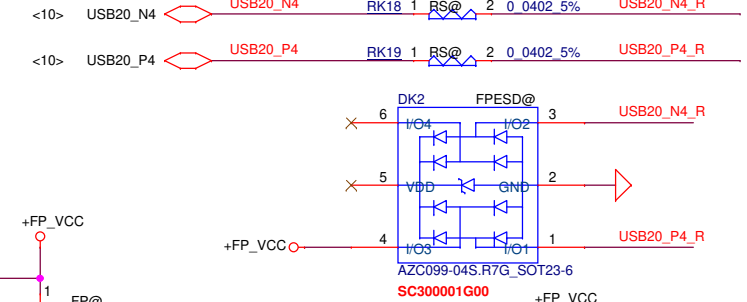
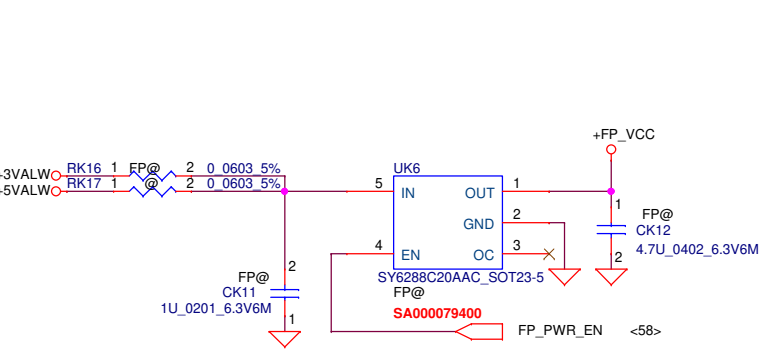


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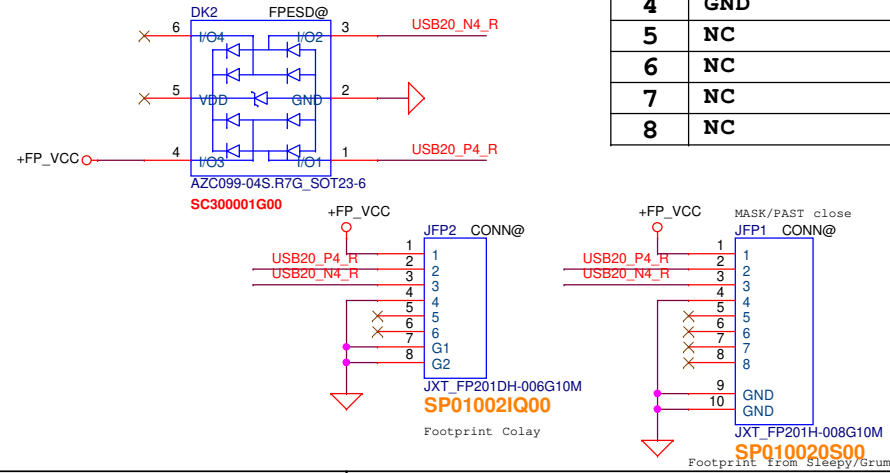


Finger Print

Power Source Check  
EGIS ETU801 +FP\_VCC=5V  
ELAN SA464K-2200 +FP\_VCC=3.3V



JFP1	
PIN	SA464K-2200
1	+FP_VCC (3V)
2	D+
3	D-
4	GND
5	NC
6	NC
7	NC
8	NC



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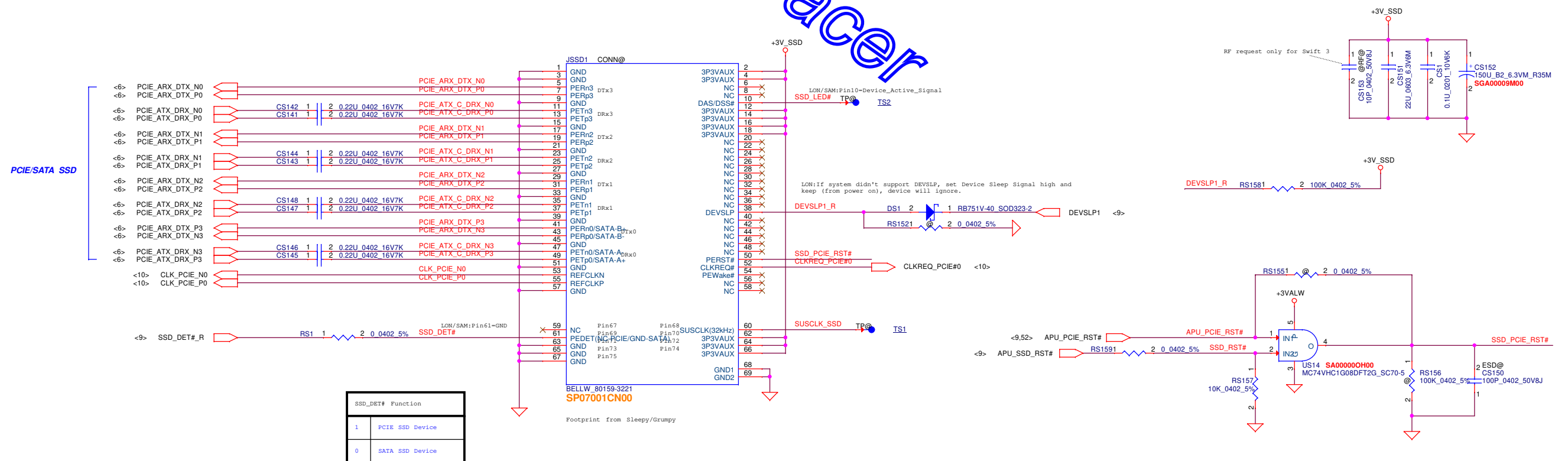
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## PCIE/SATA NGFF SSD Conn.



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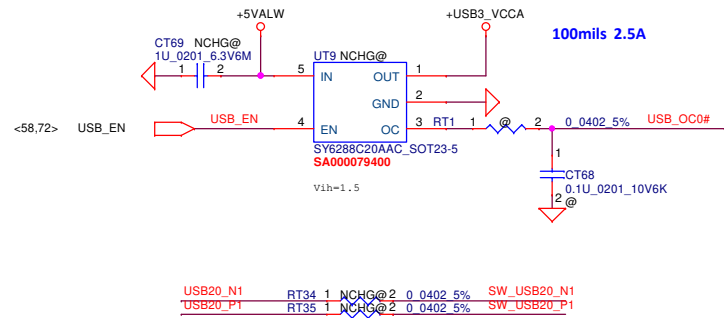
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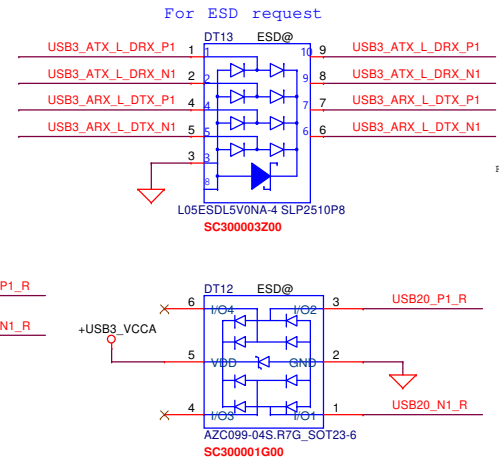
## Non-Charger Co-lay



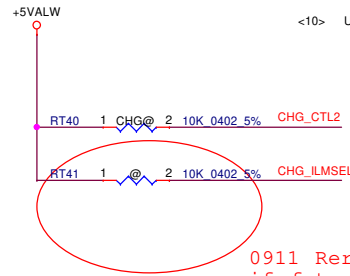
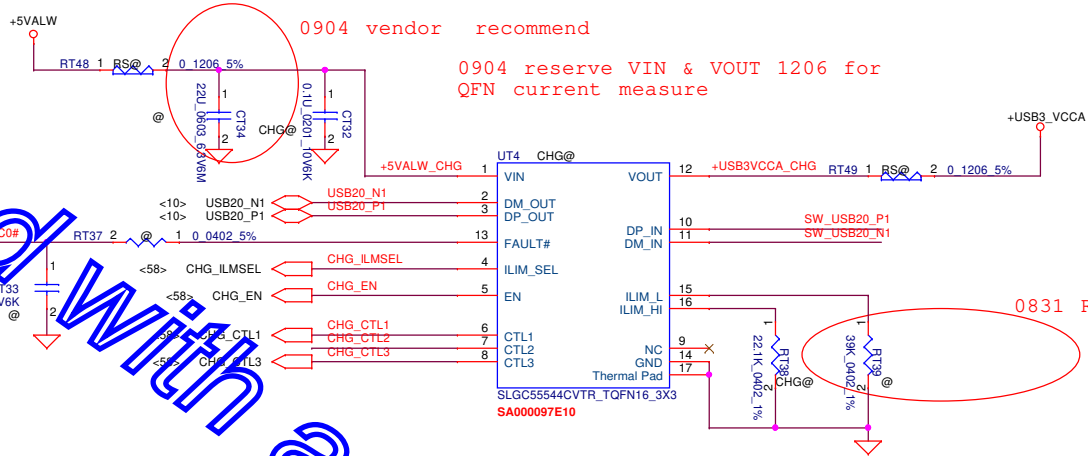
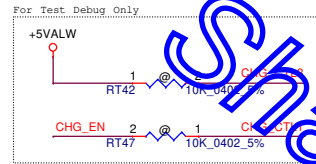
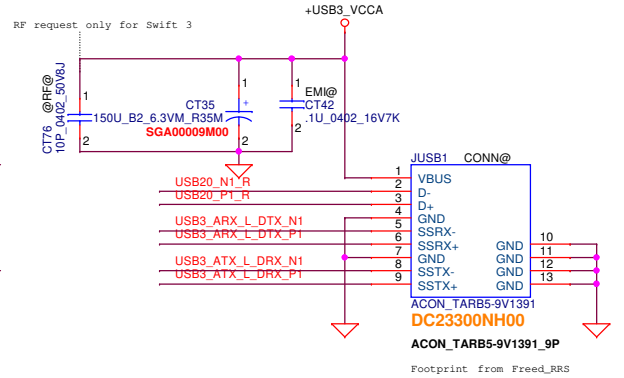
## USB Host Charger Truth Table

CHG_EN	CTL1	CTL2	CTL3	ILIM_SEL	MODE	Current Limit Setting	Note
0	0	1	0	1	SDP1-OFF	ILIM_H	Port power off
1	0	1	0	1	SDP1	ILIM_H	Data Lines Connected
1	0	1	1	1	DCP Auto	ILIM_H	Data Lines Disconnected
1	1	1	1	1	CDP	ILIM_H	Data Lines Connected

## USB3.0 (Port 1)



## USB3.0 Conn.



0911 Rerserve PU, vendor suggest to EC call if future need support SDP2

0904 vendor recommend  
0904 reserve VIN & VOUT 1206 for QFN current measure

0831 Reserve ILIM\_L R as vendor recommend

ILM R vaule  
Ios (mA)=50250/R (Kohm)  
ILIM\_Hi=2273mA  
ILIM\_L=1288mA



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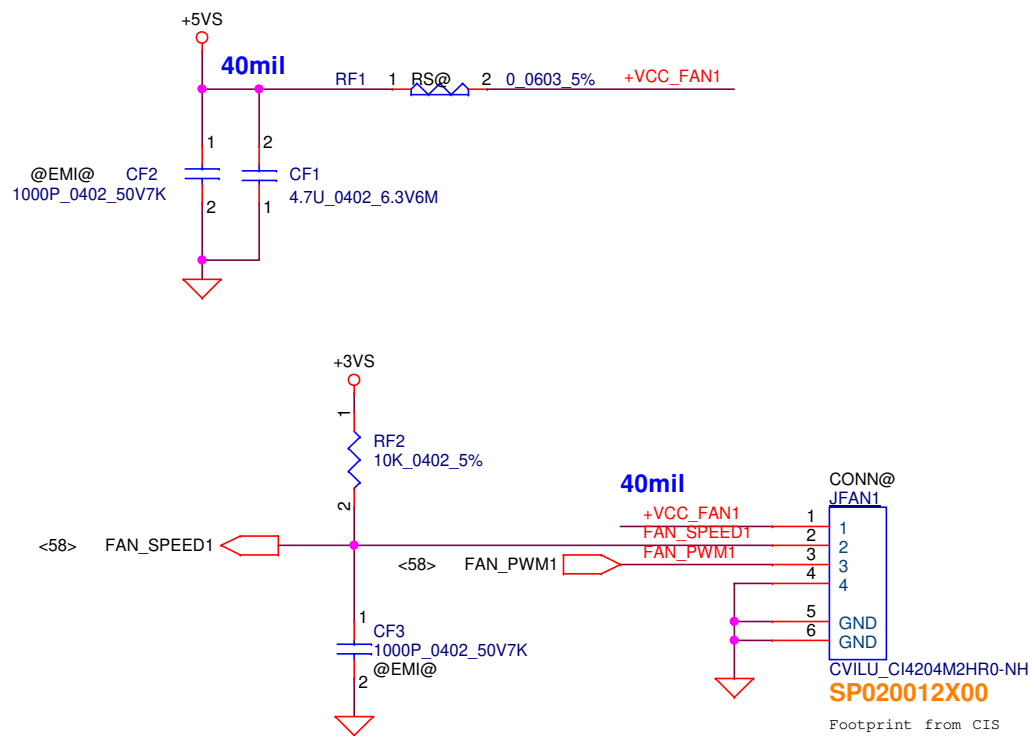
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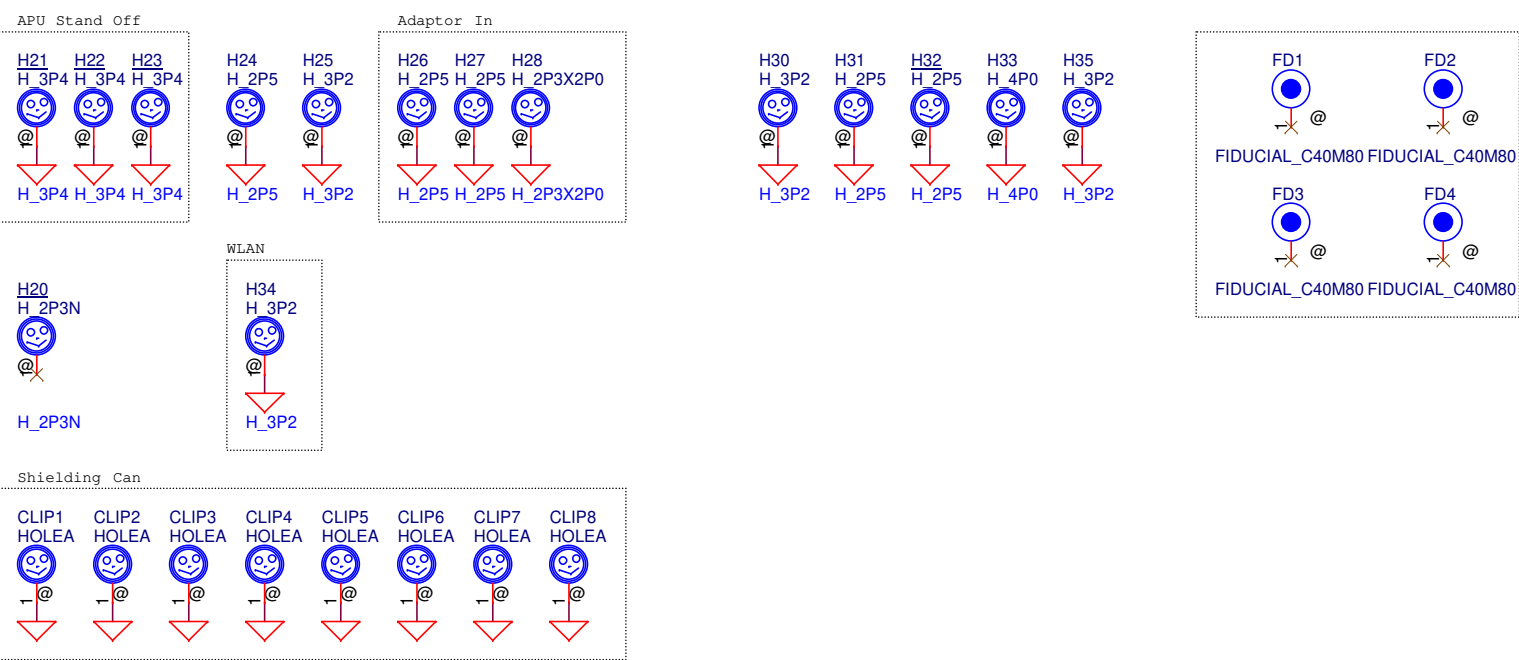
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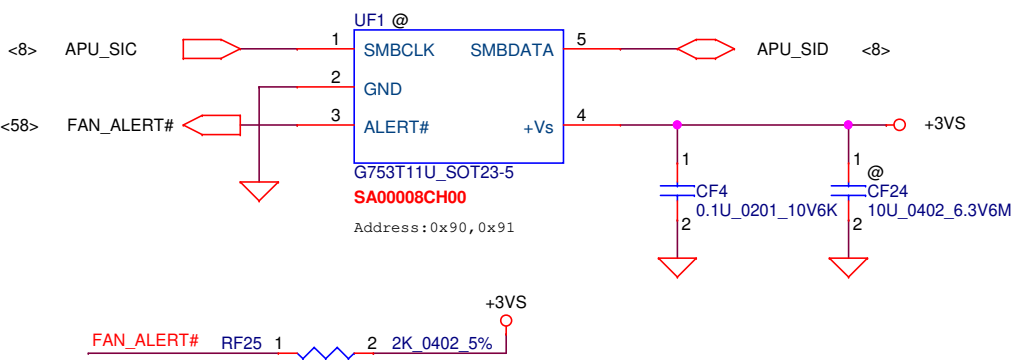
FAN Conn



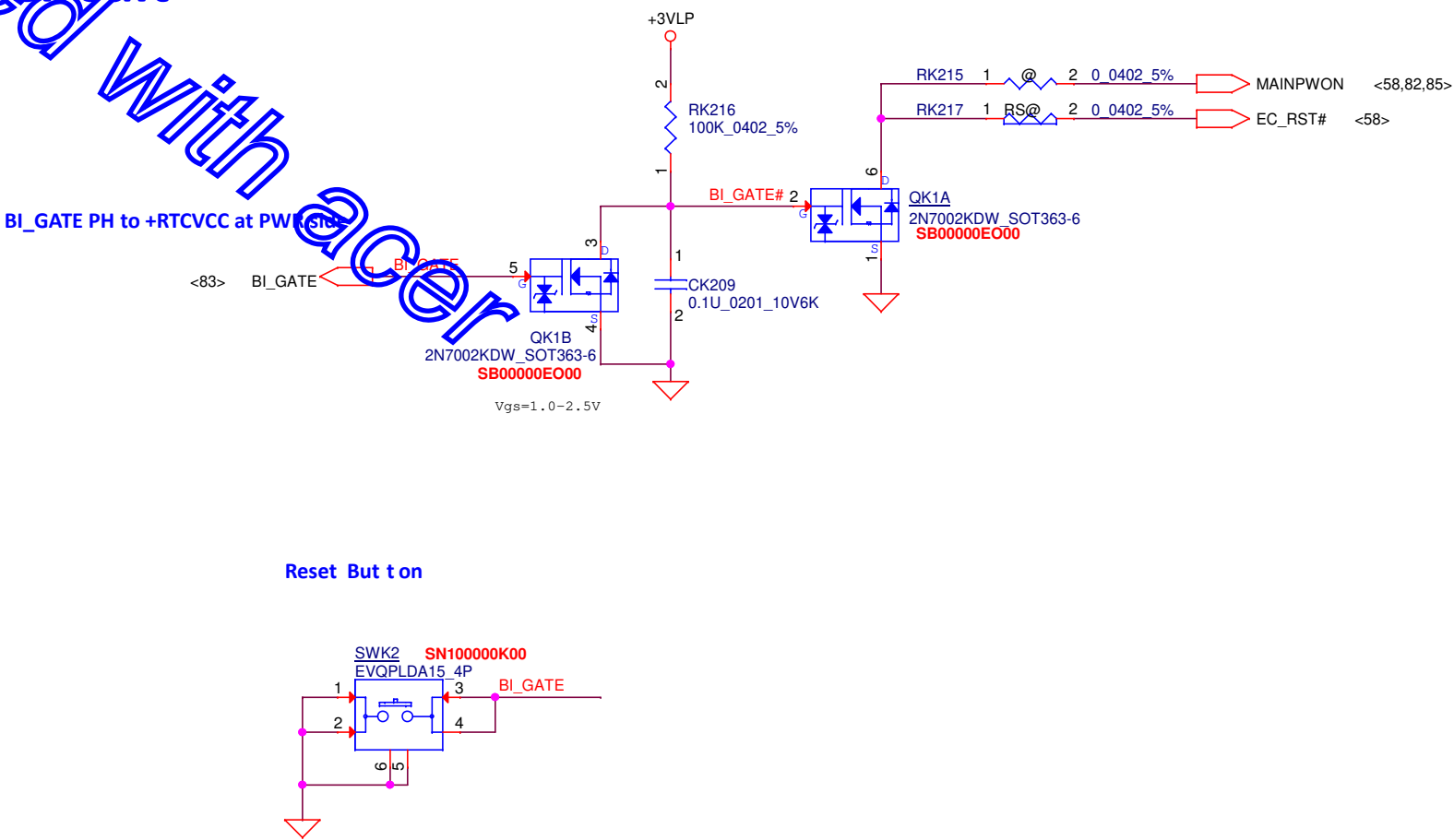
Screw Hole



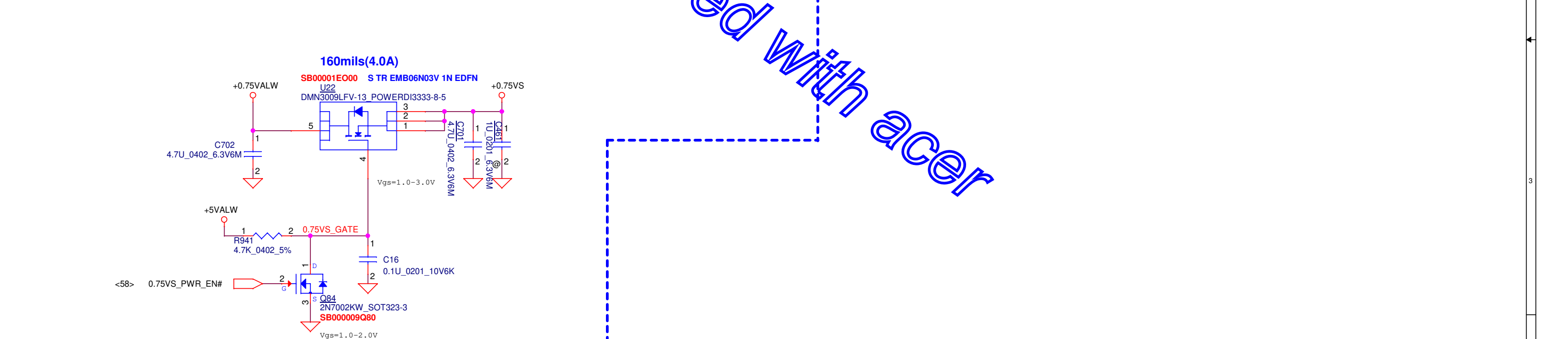
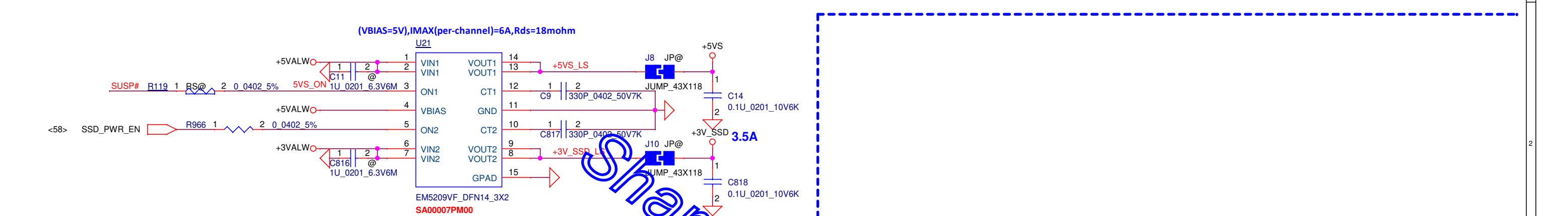
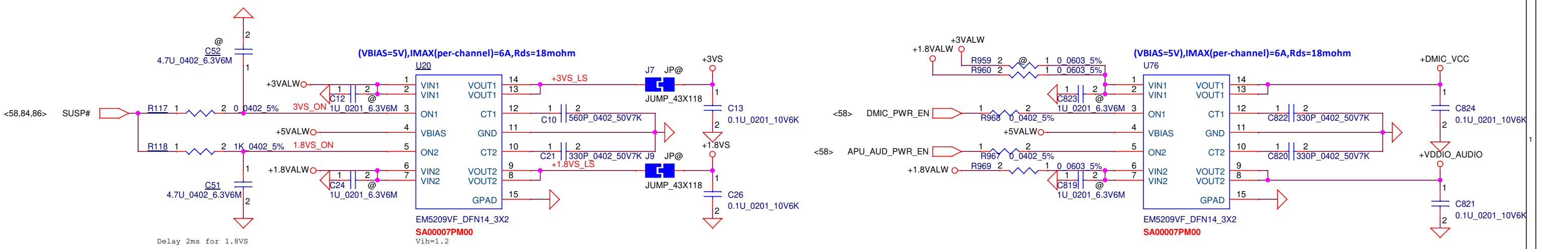
Thermal Sensor



Reset Circuit



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ME Keyboard Braket Support

Place below component at Keyboard support white paint area.



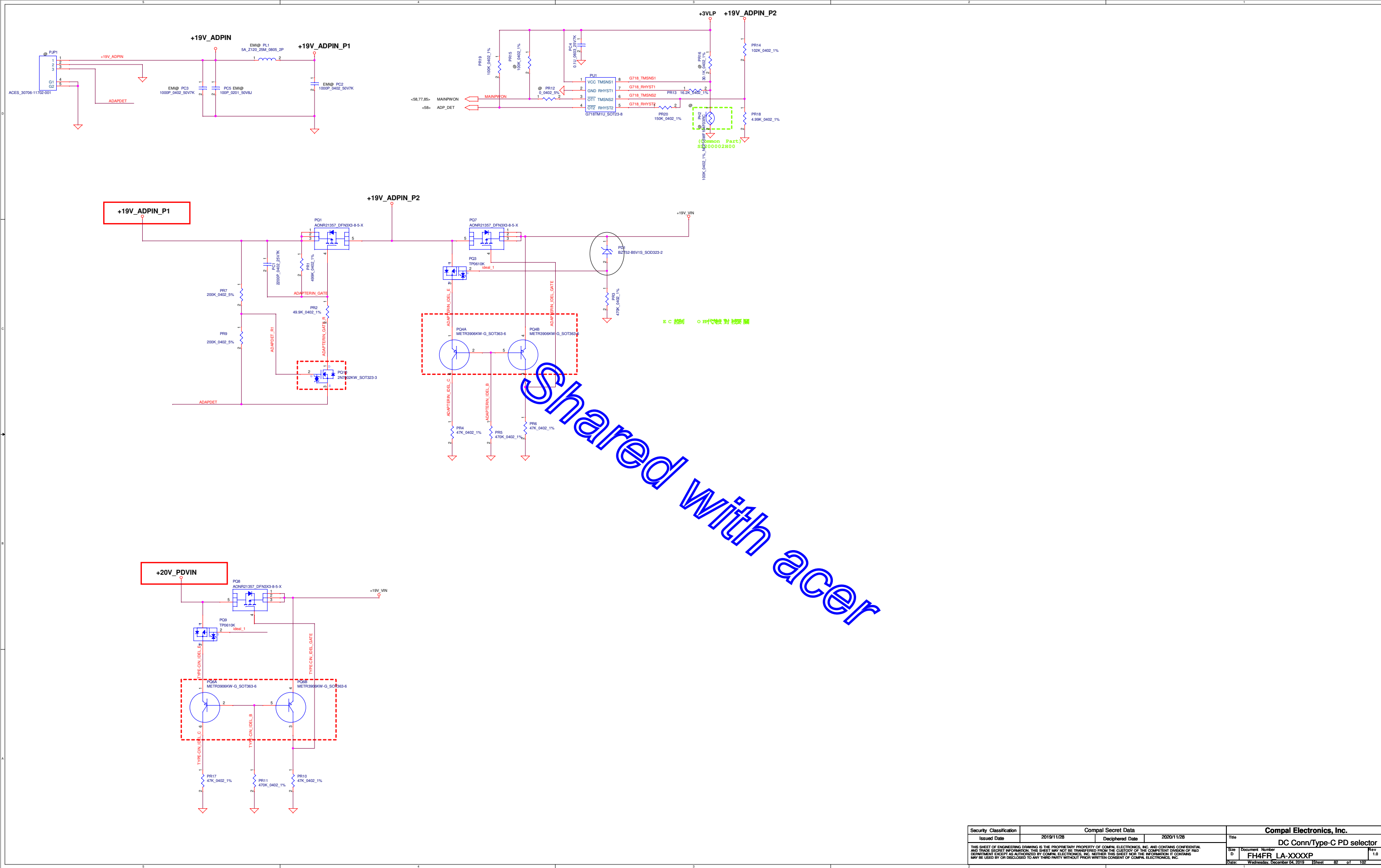
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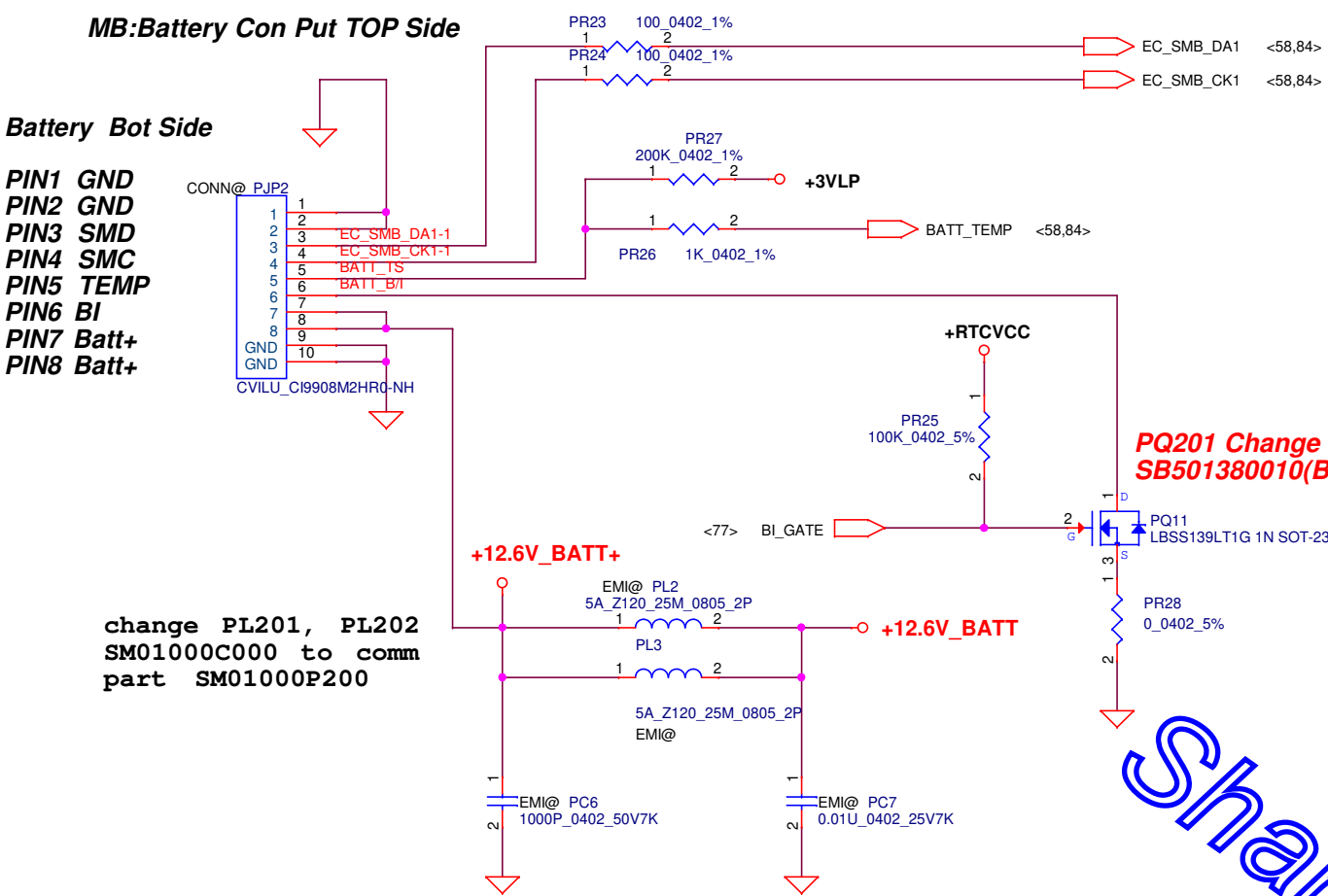
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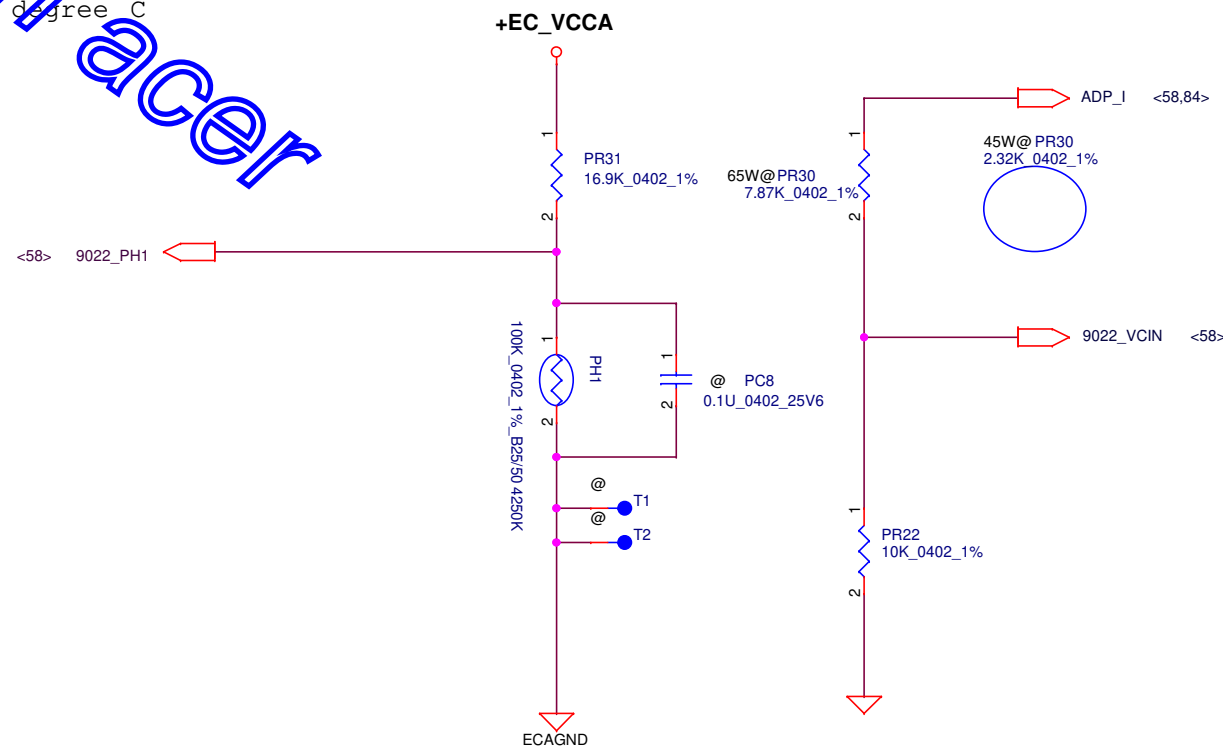
change PL201, PL202  
SM01000C000 to comm  
part SM01000P200

PQ201 Change to SB00000Q000,  
SB501380010(BSS138LT1G Del)

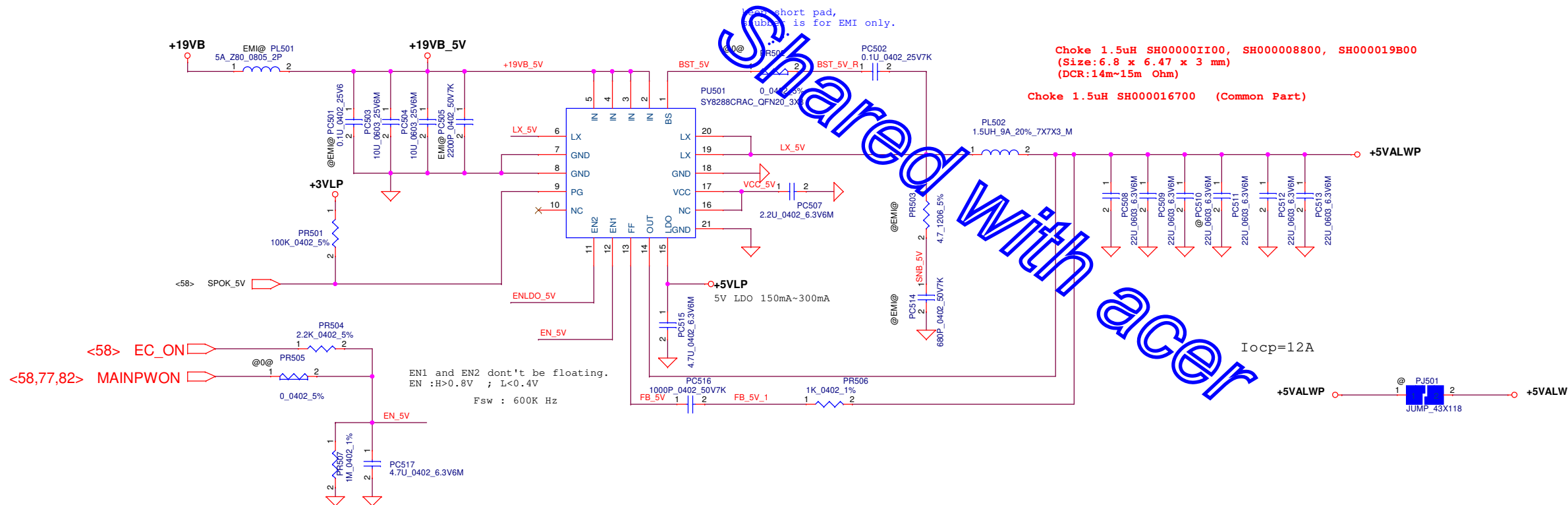
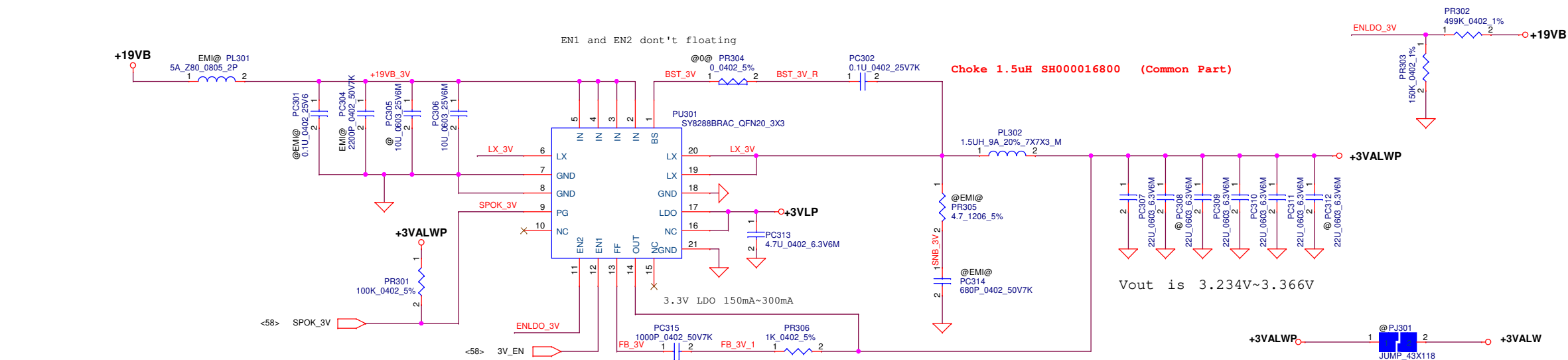
For KB9022 OTP	Active	Recovery
VCIN0_PH(V)	92C, 1V	56C, 2V

For KB9012 sense 20mΩ	Active	Recovery
FP6 65W	84.5W, 1V	84.5W, 1V

PH202 under CPU bottom side :  
CPU thermal protection at 92 degree C ( shutdown )  
Recovery at 56 degree C

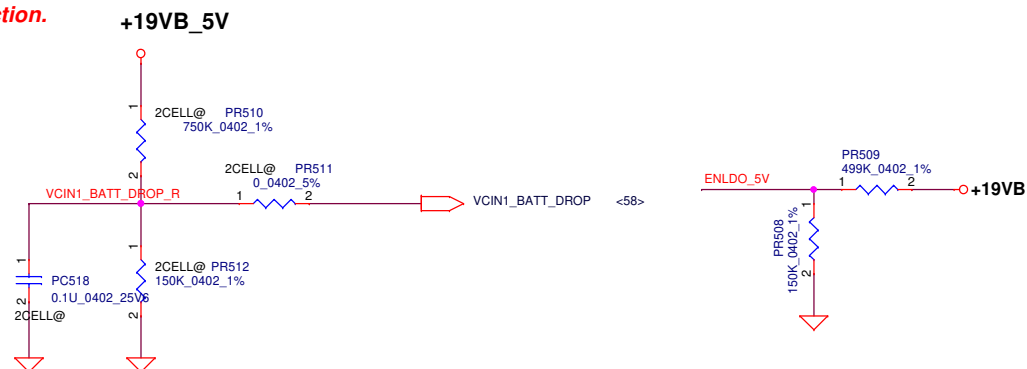




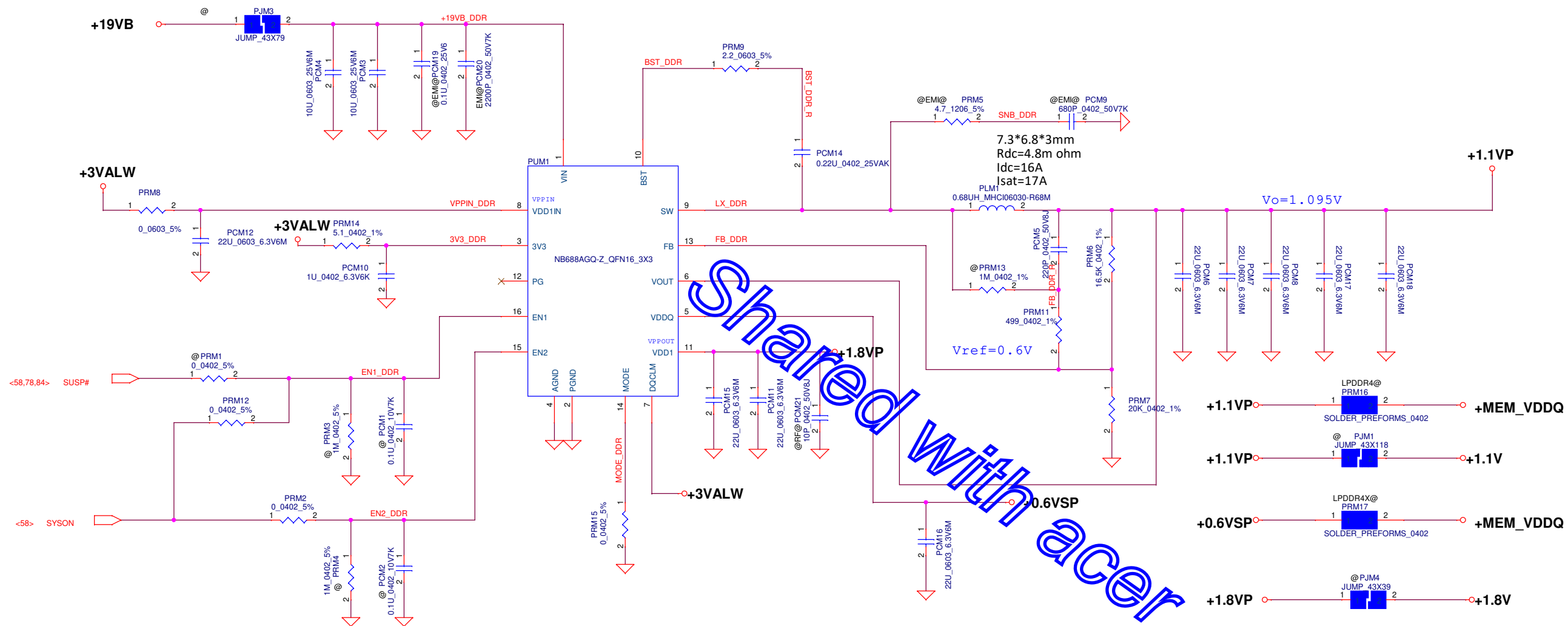


2013/10/02  
Add for ENE9022 Battery Voltage drop detection.  
Connect to ENE9022 pin64 AD1.

Reserve for 2-cell design

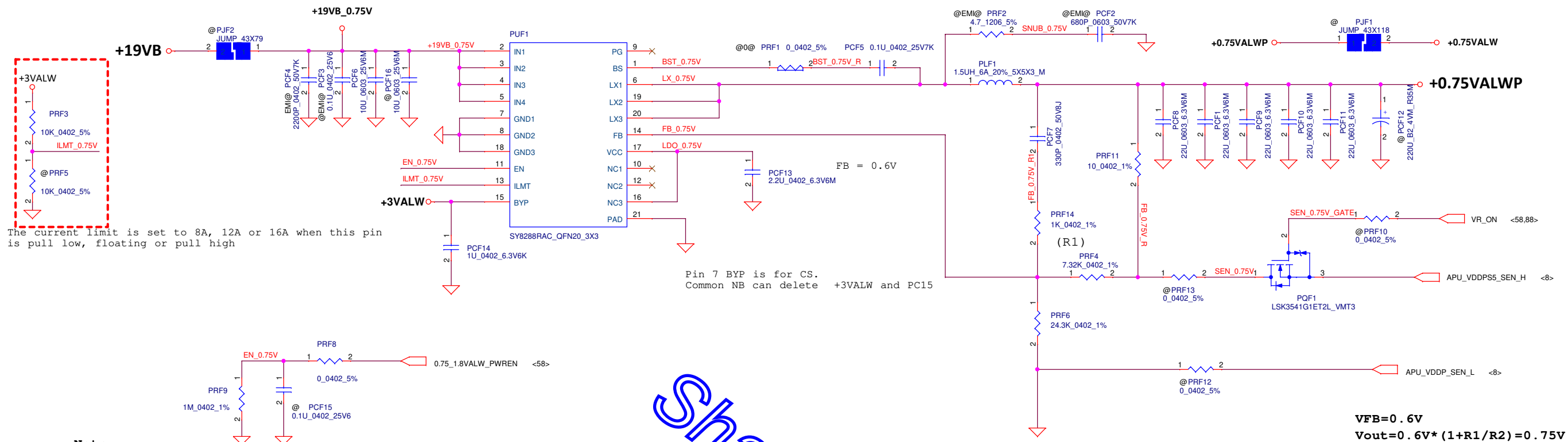


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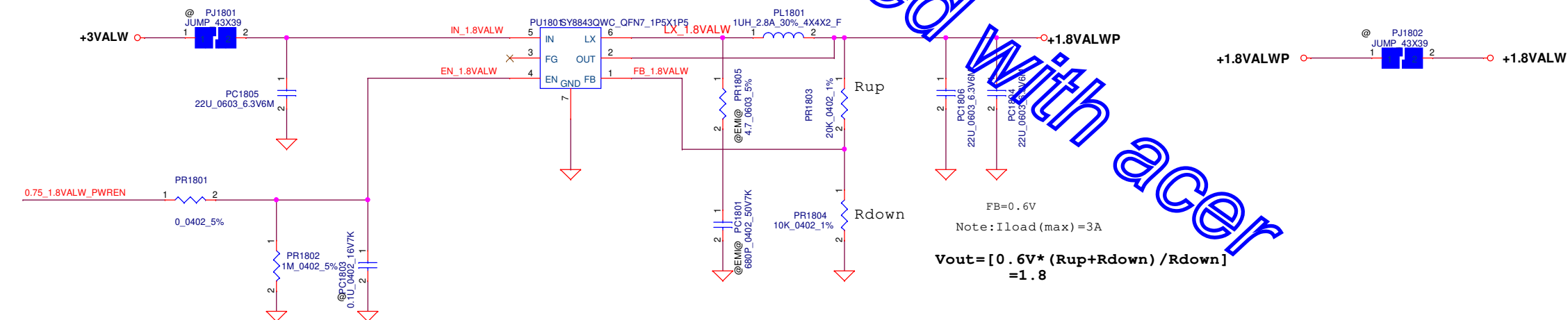


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EN pin don't floating  
If have pull down resistor at HW side, pls delete PR702



Note:  
When design Vin=5V, please stuff snubber to prevent Vin damage



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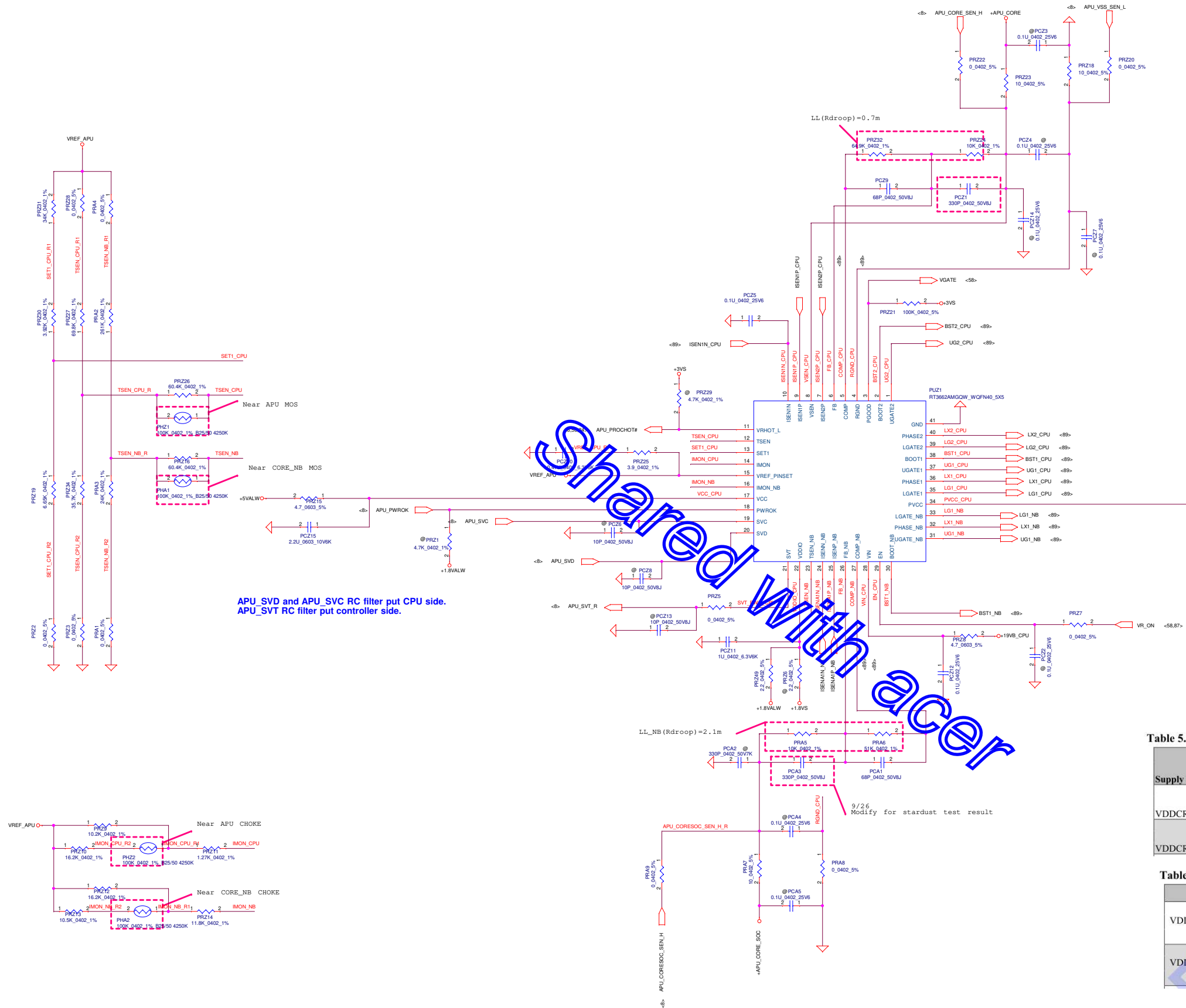


Table 5. FP6 Processor Voltage Supply Currents

Supply <sup>1</sup>	Nominal Voltage at Pkg Ball (V) <sup>2</sup>	Condition	SYSTEM CONFIGURATION					
			1 10W	2 15W	3 25W	4 35W	5 45W	6 54W
VDDCR_VDD	Variable (0.65-TBD) <sup>5</sup>	TDC <sup>3</sup>	20	33	44	51	58	58
		EDC	34	50	70	90	96	96
		Max Loadstep <sup>4</sup>	29	43	65	76	84	84
VDDCR_SOC	Variable (0.7-TBD) <sup>5</sup>	TDC <sup>3</sup>	10	13			15	
		EDC	13	17			20	
		Max Loadstep <sup>4</sup>						

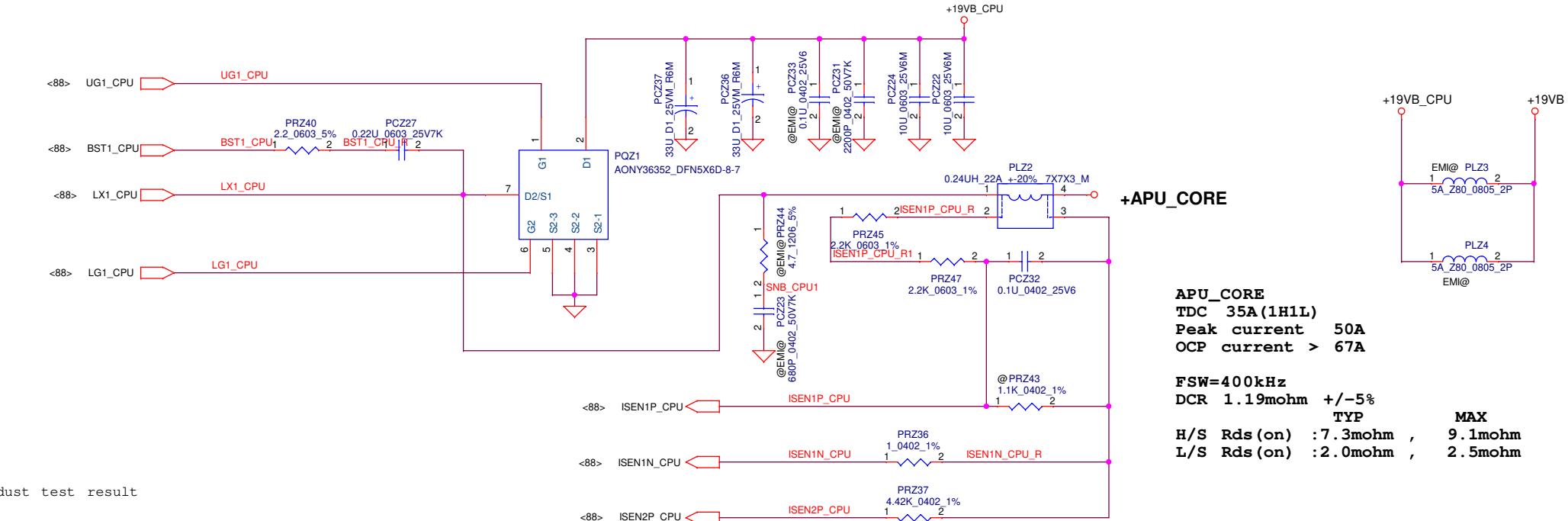
Table 7. FP6 Processor Voltage Supply Tolerances

Supply	Limit 1	Voltage Tolerance 2
VDDCR_VDD	DC	VID_VDDCR_VDD - (IDDCR_VDD * 0.7 mΩ) ± 20 mV
	Max,AC	VID_VDDCR_VDD + 95 mV <sup>3</sup>
	Min,AC	VID_VDDCR_VDD - (IDDCR_VDD * 0.7 mΩ) - 80 mV <sup>4</sup>
VDDCR_SOC	DC	VID_VDDCR_SOC - (IDDCR_SOC * 2.1 mΩ) ± 20 mV
	Max,AC	VID_VDDCR_SOC + 70 mV <sup>3</sup>
	Min,AC	VID_VDDCR_SOC - (IDDCR_SOC * 2.1 mΩ) - 40 mV <sup>4</sup>

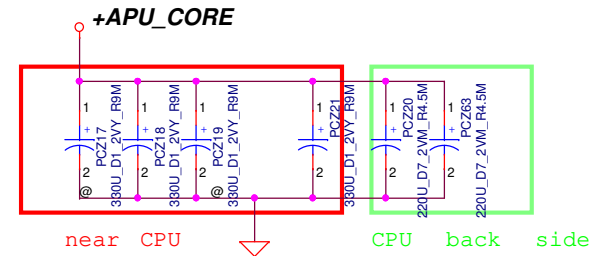
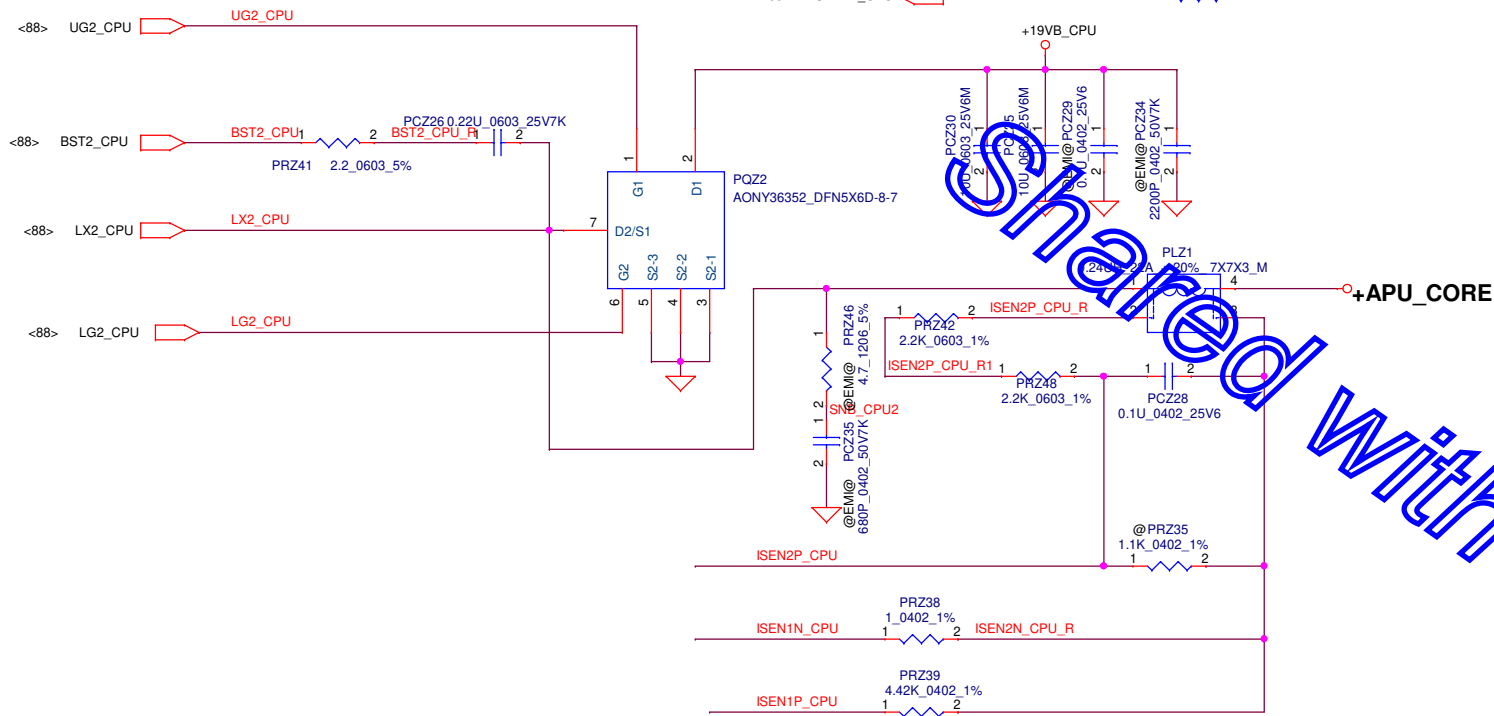
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		1.0		



Modify for stardust test result

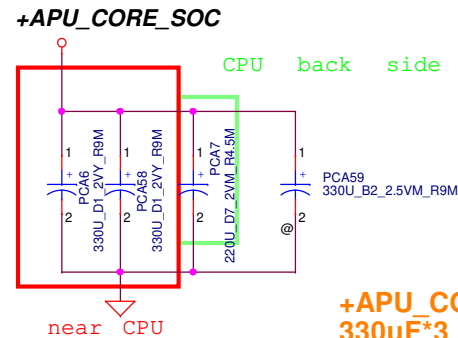
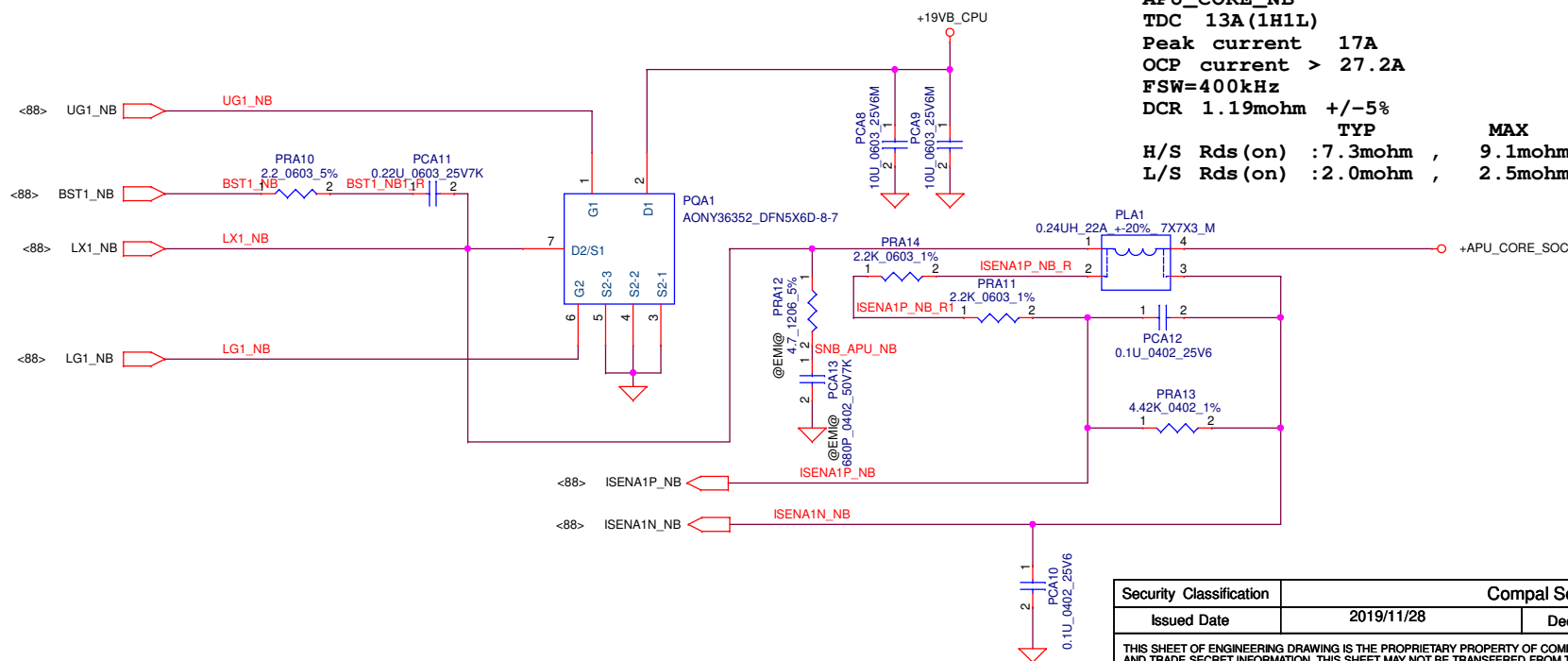


APU\_CORE  
TDC 35A(1H1L)  
Peak current 50A  
OCP current > 67A  
FSW=400kHz  
DCR 1.19mohm +/-5%  
H/S Rds(on) : 7.3mohm , 9.1mohm  
L/S Rds(on) : 2.0mohm , 2.5mohm



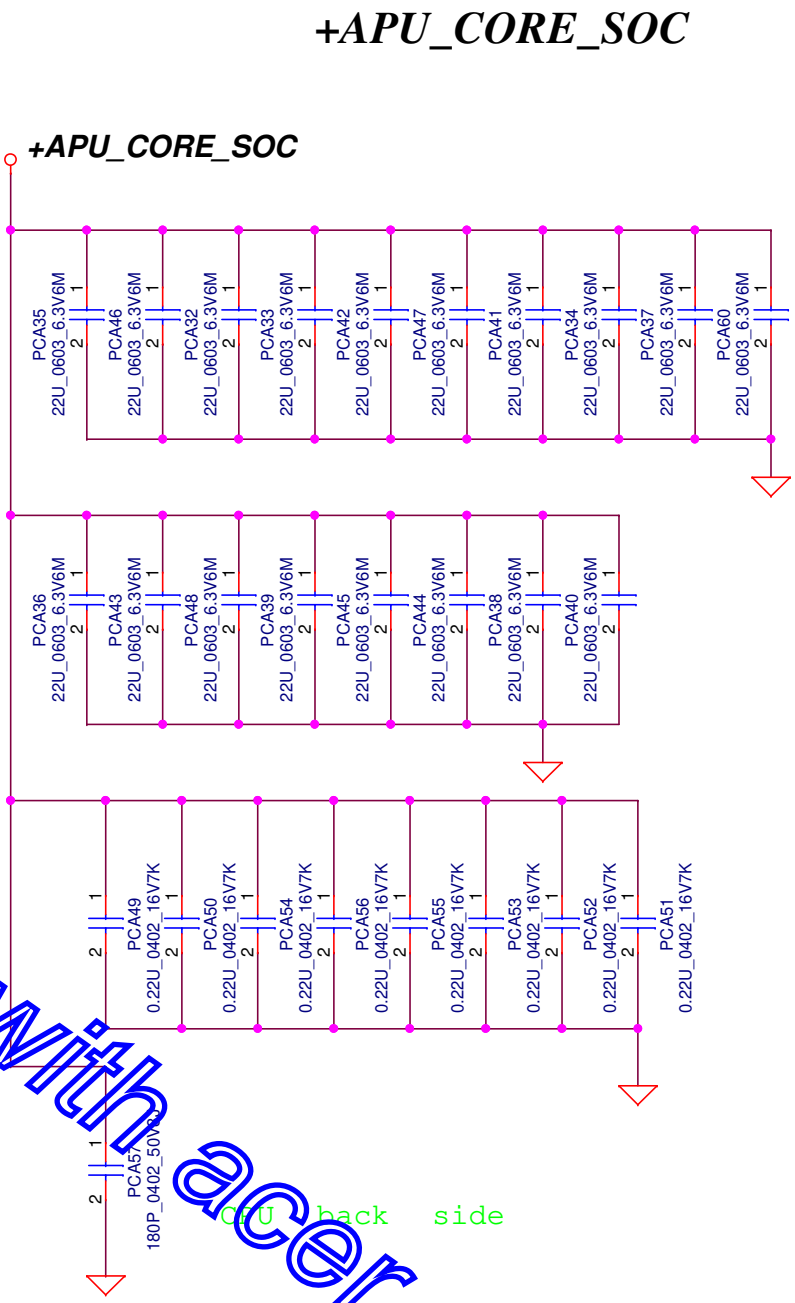
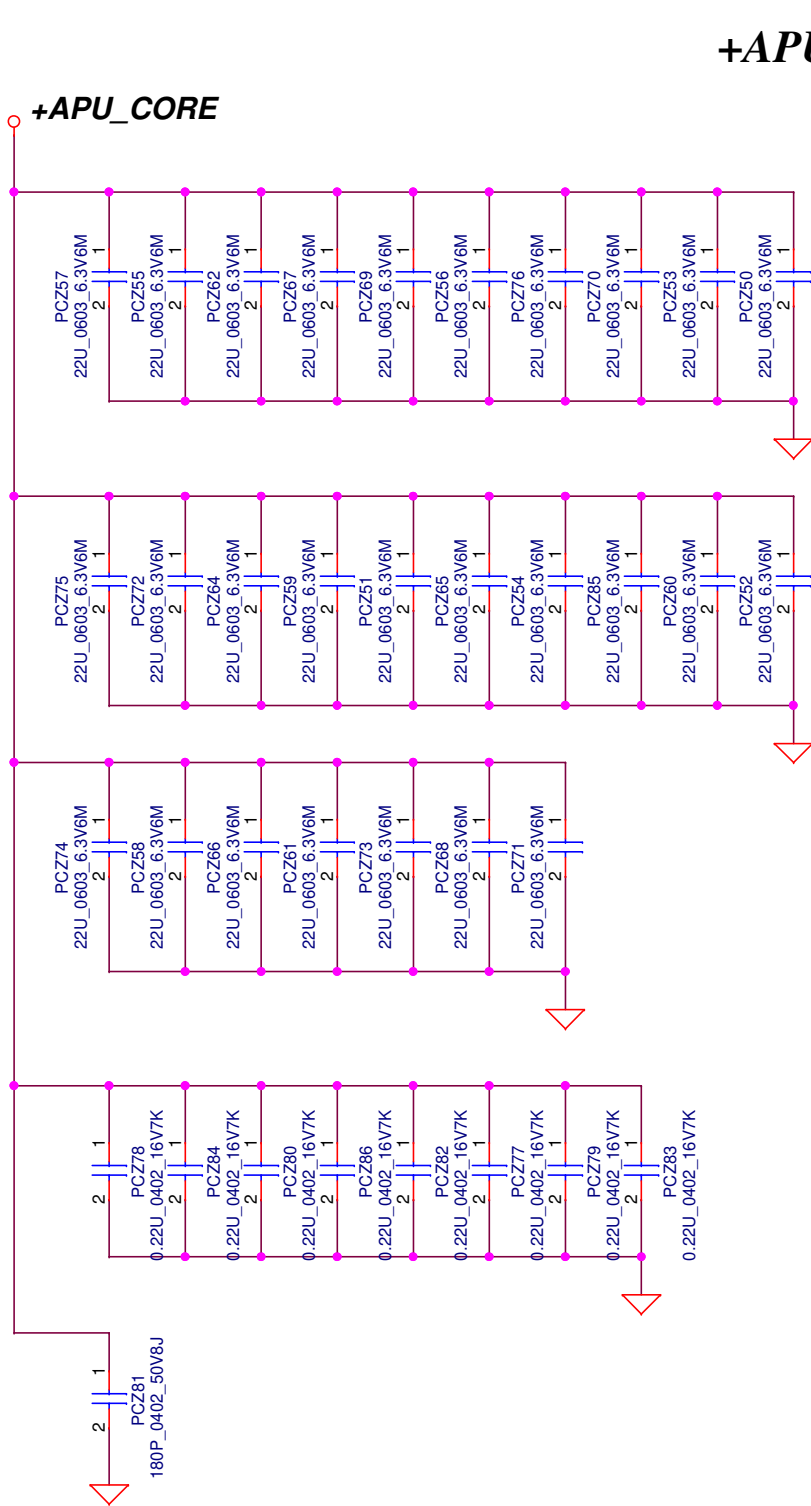
+APU\_CORE  
330uF\*4  
220uF\*2  
22uF\*27

APU\_CORE\_NB  
TDC 13A(1H1L)  
Peak current 17A  
OCP current > 27.2A  
FSW=400kHz  
DCR 1.19mohm +/-5%  
H/S Rds(on) : 7.3mohm , 9.1mohm  
L/S Rds(on) : 2.0mohm , 2.5mohm



+APU\_CORE\_SOC  
330uF\*3  
220uF\*1  
22uF\*18

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Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
01		CPU_CORE transient test		P41	<1>change bom: PRZ52 R0402_OOHMSD028000080-->O_0402_5%SD028000080 <2>Add & Smt: PRV45 PRV46 O_0402_5%SD028000080 <3>Add & unpop: PCZ89 PCZ90 PCZ91 C_0402SE00000F180 <4>Add & unpop: PCV63 PCV64 PCV65 C_0402SE00000F180 <5>Smt: PCZ43 220U_D7_2VM_R4.5MSGA0000AM00 <6>unpop: PCZ49 330U_D1_2VY_R9MSGA00009S00 <7>Add & Smt: PCG35 330U_B2_2.5VM_R9MSGA00007Z00 <8>change bom: PRZ15 732_0402_1%SD000001480->976_0402_1%SD000003280 <9>Smt: PRZ6 210K_0402_1%SD034210380 <10>Add & Smt: PCZ92 680P_0402_50V7KSE074681K80 <11>change bom: PRZ16 41.2K_0402_1%SD000009K00->34K_0402_1%SD034340280	20190201	EVT
02		VGA transient test & change to R-Short & 5V CHOKE Common Part			<1>PR101 PR217 PR210:O_0402_5% SD028000080->R0402_Oohm O_0402_5% SD028000080 change to R-Short <2>PRB15 PRB17 PRB23 PRB26:O_0402_5% SD028000080 -> R0402_Oohm O_0402_5% SD028000080 change to R-Short <3>PRB16 PR304 PRF1:O_0603_5% SD013000080 -> R0603_Oohm O_0603_5% SD013000080 change to R-Short <4>PR502 PR505: O_0402_5% SD028000080 -> R0402_Oohm O_0402_5% SD028000080 change to R-Short <5>PRW3: O_0402_5% SD028000080 -> R0402_Oohm O_0402_5% SD028000080 change to R-Short <6>PCV31 PCV33: 220U_2V_Y_D2_SGA0000BT00 -> 330U_2V_Y_ESR9M_SGA00009S00 BOM change <7>PCV32: 220U_2V_Y_D2_SGA0000BT00 -> Unpop BOM change <8>PL502: 7*7*3SH00000II00 -> 7*7*3 1.5uH SH000016700 BOM change->Common Part) <9>PC302 PC502 PCB11: 0.1U_0603_25V7K_SE042104K80 ->0.1U_0402_25V7K_SE00000W210 <10>PCW7: 0.1U_0603_25V7K_SE042104K80 ->0.1U_0402_25V7K_SE00000W210 <11>PCB1: 1000P_0603_50V7_SE025102K80 -> 1000P_0402_50V7K_SE074102K80	20190212	EVT
03		CPUtransient test			PRZ26 137K_0402_1%_SD034137380 -> 38.3K_0402_1%_SD034383280 PRZ6 210K_0402_1%_SD034210380 -> 41.2K_0402_1%_SD000009K00 PRZ4 137K_0402_1%_SD034137380 -> 28.7K_0402_1%_SD034287280 PCZ4 330U_D1_2VY_R9M_SGA00009S00_->UnPOP	20190325	DVT
13							
14							
15							
16							
17							
18							
19							

Item	Page#	Date	Request Owner	Issue Description	Solution Description	Rev.
1		09/25				0.1
2		10/14		(1) SC300003Z00 as main, SC300001Y00 as 2nd. (2) SB000009Q80 as main, SB00001GE00 as 2nd. (3) SJ10000JP00 as main, SJ10000AF00 as 2nd. (4) SCA00004F00 as main. (5) SB00001EO00 as main, SB00001IR00 as 2nd. (6) LC2 change PN to SD028000080. (7) UC68 add for ACIN into APU side. (8) CC689,CC690 change to 2.7pF (SE07127AC80) (9) CC682,CC686 change to 15pF (SE071150J80) (10)RC80,RC81 change to 4.7k (SD028470180)		0.2
		10/18		(1) Combined Power schematic.		
		10/24		(1) QME14 change to unpop. (2) CT9 change to SE000006900 from SE000009R80.		
		10/30		(1) SCA00004F00 change to SCA00004500. (Due to 4F00 shortage)		
3		11/25		(1) Add -NPM at R756, R757, L2513, L2514, L2515, RT85, RT86, RT87, RT88, RT89, RT90, RT91, RT92, RT93, RT94, RT95, RT96, RT97, RT98, RT99, RT100, RT101 for Layout close PAST/MASK. (2) R215 change to 15K_0402_1%(SD034150280) for Board ID.		1.0
		11/27		(1) LC1 change to @, LC3 change to pop (AMD recommand)		
		11/28		(1) CPU PN update to PR sample.		

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