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DO NOT DISTRIBUTE

Lenovo - FP5DALICX

PROJECT INFORMATION

PHASE:	SVT
BOM:	0.1
SVID:	17AA
SSID:	3708

PCA Part Number (From BOM Team)

FP5DALICX-R3250U	/	FP5DALICX-R3250U-M	/
FP5DALICX-A3150U	/	FP5DALICX-A3150U-M	/
FP5DALICX-A3050U	/	FP5DALICX-A3050U-M	/
FP5DALICX-R3500U	/	FP5DALICX-R3500U-M	/
FP5DALICX-3020e			

01. INDEX	34. RTL8111HN
02. BLOCK DIAGRAM	35. RJ45/BLEEDOFF/USB X2
03. CLOCKS & RESET	36. USB2.0 Hub GL852G-OHY60 - 1
04. POWER DELIVERY	37. USB2.0 Hub GL852G-OHY60 - 2
05. HSIO MAPPING	38. BLANK
06. STRAP & GPIO	39. BLANK
07. POWER SEQUENCE DIAGRAM	40. M.2 2280
08. SMBUS DIAGRAM	41. M.2 2230
09. AMD HDT+	42. SATA
10. FP5 - PCIE/ SATA/ USB	43. FRONT U3 X2 U2X2
11. FP5 - DP/ MISC	44. REAR U2 X2
12. FP5 - AUDIO/ I2C/ GPIO	45. FAN
13. FP5 - CLK/ SDIO/ SPI/ LPC	46. F-PANEL MSIC HEADER
14. FP5 - DDR4 CHA	47. MECH EMC PARTS
15. FP5 - DDR4 CHB	48. DEBUG LEDs LPC
16. FP5 - POWER	49. ADAPTER ID
17. FP5 - STRAP/ MISC	50. UVP
18. FP5 - GND	51. +VCORE
19. BLANK	52. BLANK
20. DDR4_CHA_DIMM1	53. +VDDP S5&+VDDP
21. DDR4_CHB_DIMM2	54. +1V8 S5&+1V8 MAIN
22. BLANK	55. +1V5 S5
23. BLANK	56. ADP VIN
24. BLANK	57. +12V
25. BLANK	58. +3V3 DSW & +5V S5
26. BLANK	59. +5V & +3V3
27. DP2VGA	60. +VDDQ & +VTT
28. HDMI	61. -12V
29. SPI ROM & SPI DEBUG	62. +VPP
30. IT8651E HX[1]	63. BLANK
31. IT8651E HX[2] THML COM	64. PWR CHANGE LIST
32. AUDIO ALC222	65. EE CHANGE LIST
33. AUDIO CONNECTOR	

BIOS Licence Label

LBL1	Note:
BIOS LICENCE	AMI uEFI

PCB For DALI BB3

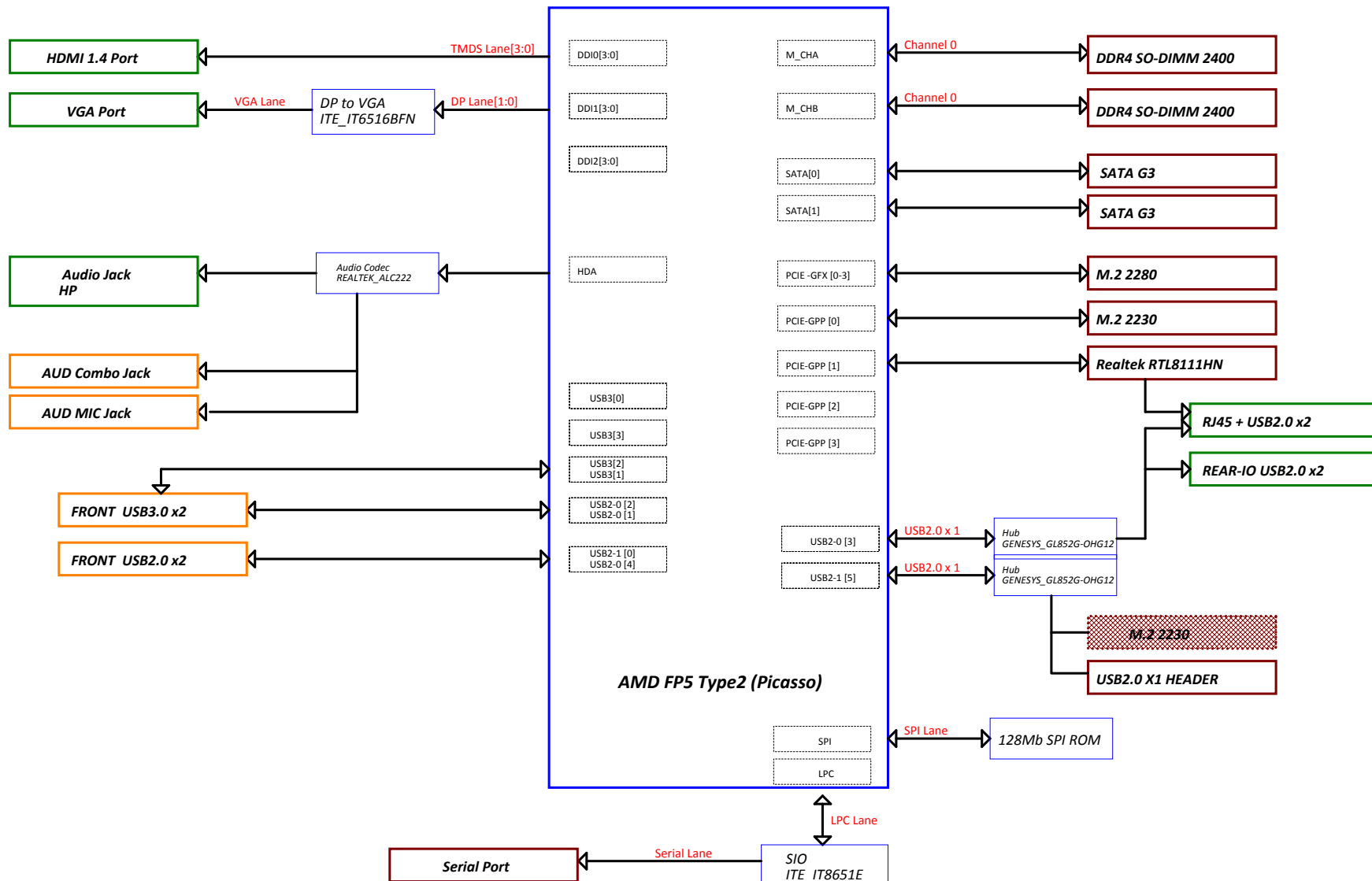
PCB1	I
Printed	Circuit
Board	
0101J1102-491-G	
CCL=Y	
6-Layer PCB,Color With GREEN Soldermask,WHITE Silkscreen,11.142*6.693inch,Rev:V1.0,ROHS	
0101J1102-491-G	

PCB / SILKSCREEN COLOR

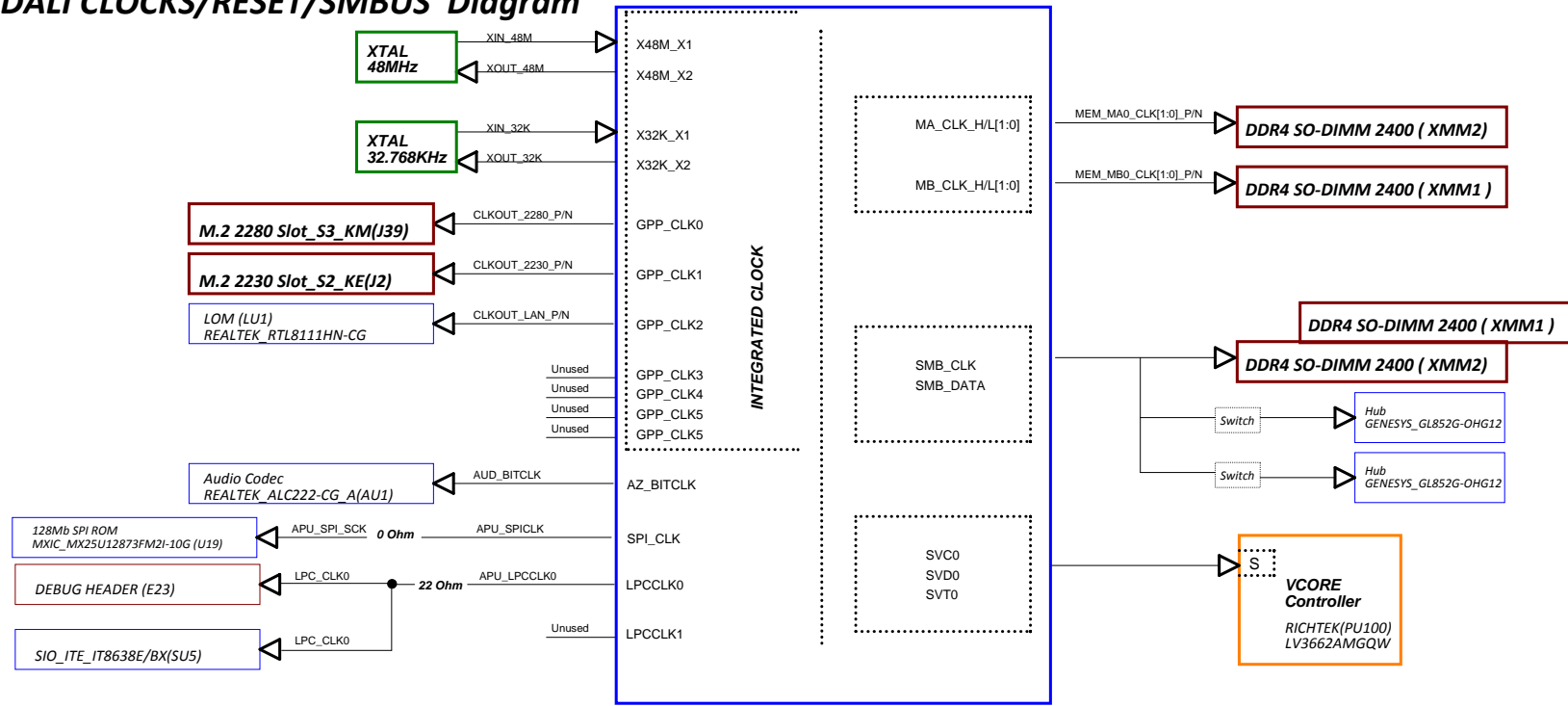
PHASE	PCB	SILKSCREEN
ET	RED	YELLOW
SDV	Blue	WHITE
SIT/SIT-R/SVT	GREEN	WHITE

BOM DEFINITION:

MARKING	DESCRIPTION
I	INSTALL
NI	NOT INSTALL
MP	PRODUCTION PART ONLY
PROTO	NOT FOR PRODUCTION PART
CCL	CRITICAL COMPONENT LIST

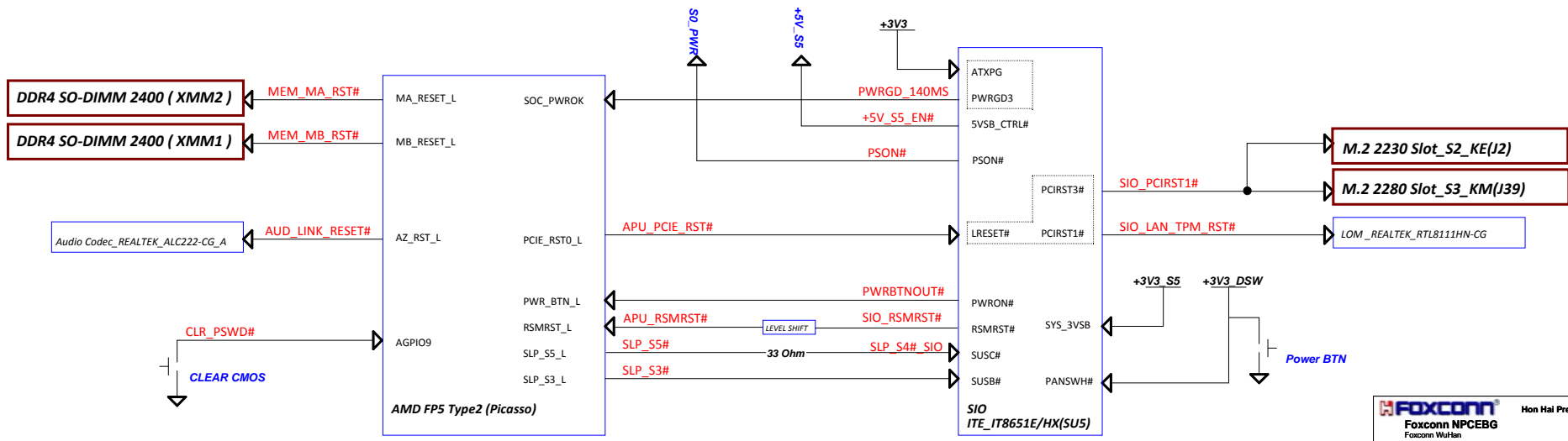


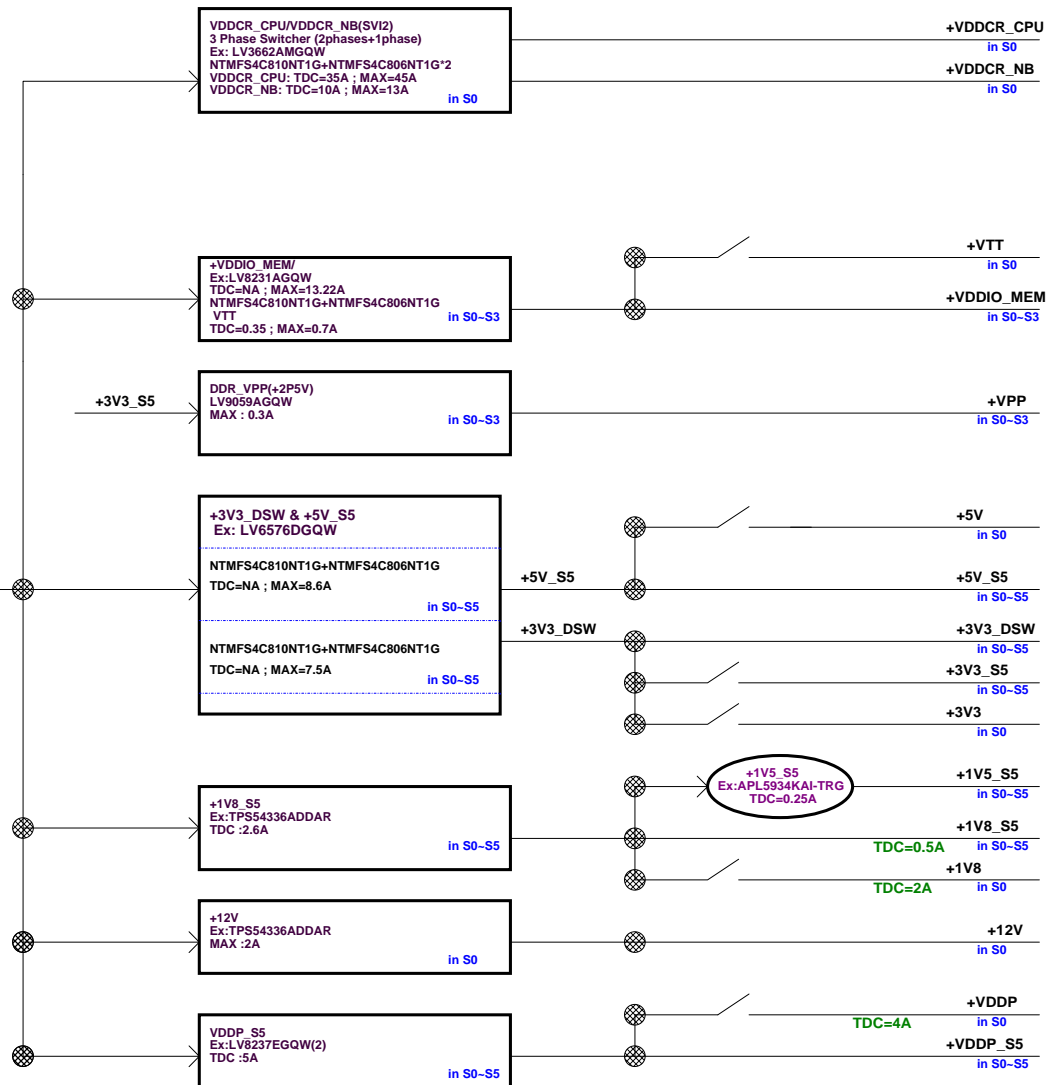
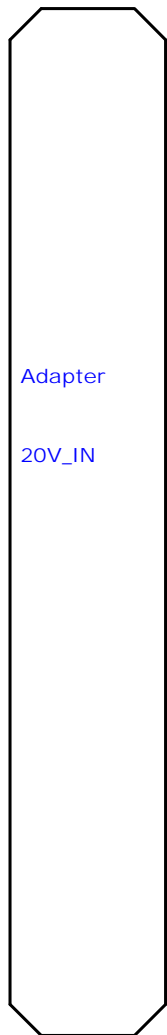
BB3 DALI CLOCKS/RESET/SMBUS Diagram



AMD FP5 Type2 (Picasso)

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DALI HSIO MAPPING

USB2 P5		USB HUB-2
USB2 P4		F-USB2-1
USB3.0 P4		
USB2 P3		USB HUB-1
USB3.2 P3		
DP2		
USB2 P2		F-USB3-2 Gen1
USB3.2 P2		
USB2 P1		F-USB3-1 Gen1
USB3.2 P1		F-USB2-2
USB2 P0		
USB3.2 P0		
DP2	DP3	
DP1		DP-IO-VGA
DP0		HDMI
PCIe GPP P7	SATA1	SATA1 (P63)
PCIe GPP P6	SATA0	SATA0 (P62)
PCIe GPP P5		
PCIe GPP P4		
PCIe GPP P3		
PCIe GPP P2		
PCIe GPP P1		LAN RTL8111HN
PCIe GPP P0		M.2 2230 (J2)
PCIe GFX P7		
PCIe GFX P6		
PCIe GFX P5		
PCIe GFX P4		
PCIe GFX P3		
PCIe GFX P2		
PCIe GFX P1		
PCIe GFX P0		M.2 2280 (J39)

HSIO

USAGE

FRONT-IO U2-2

FRONT-IO U2-1

M.2 2230

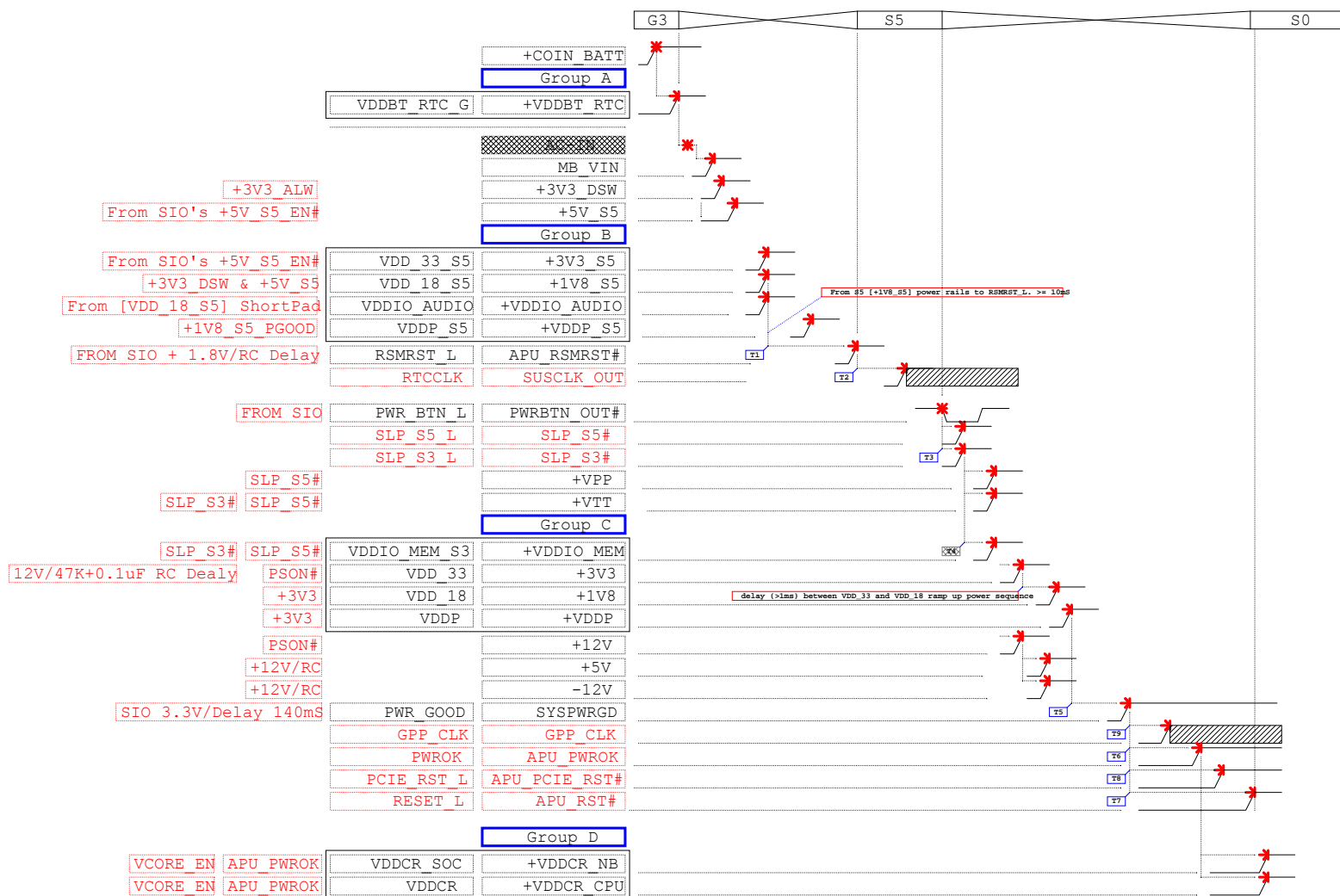
REAR-IO U2-2

REAR-IO U2-1

RJ45-U2-2

RJ45-U2-1

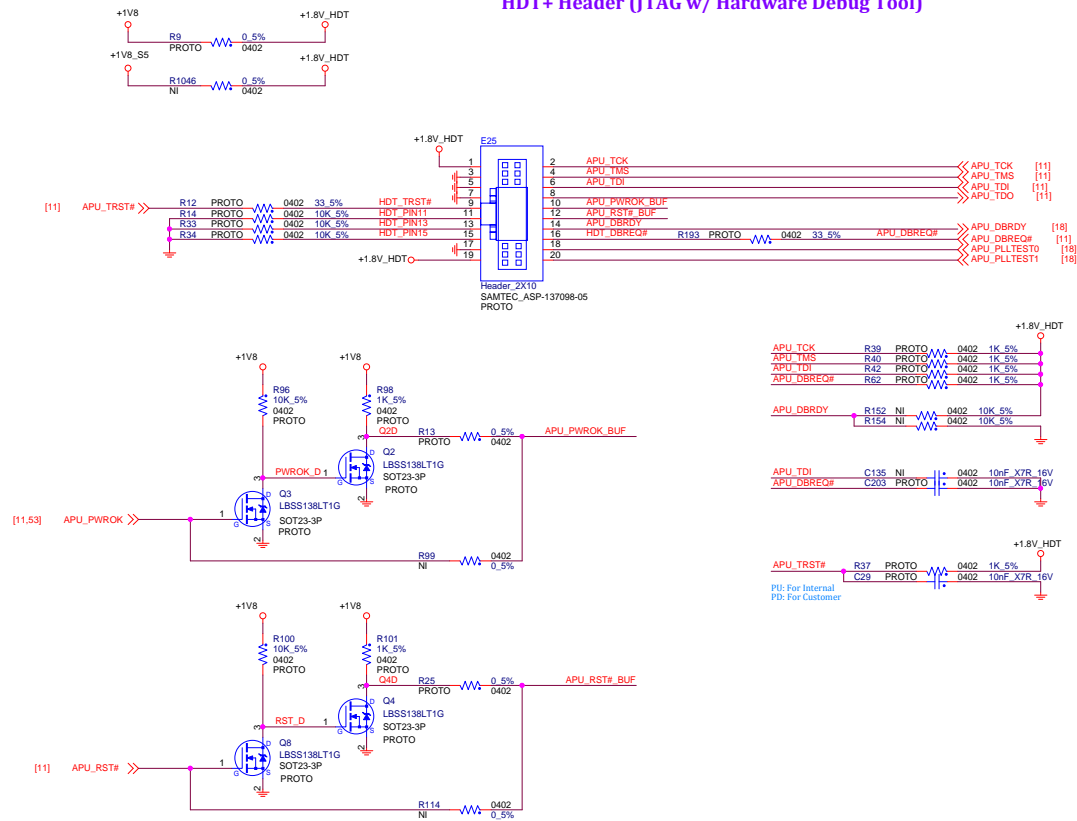
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13	13	13	13	13	13
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47	47	47	47	47	47
48	48	48	48	48	48
49	49	49	49	49	49
50	50	50	50	50	50



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5	4	3	2	1
D				D
C				C
B				B
A				A
5	4	3	2	1

HDT+ Header (JTAG w/ Hardware Debug Tool)



FP5 PCIE/SATA

M.2 2280

M.2 2230

LAN

SATA 0

SATA1

HU1B

PCIE

HU1J

USB

Type 1: PCIe/SATA
Type 2: SATA only

FP5 REV 1.11
PART 2 OF 13

FP5

USB3 P3

APU Sku

XU1-C1

GEMINI LAKE SOC
FCBGA-1090P

ZM20S1C4120FG

IC,AMD APU Processor,FP5 Type2,BGA-1140P,SMD,ROHS,HF
NI

F_USB2 -2

F_USB4 -1 [USB3.0]

F_USB4 -2 [USB3.0]

USB2 HUB -1

F_USB2 -1

USB2 HUB -2

USB3 PORT_0

USB3 PORT_1

USB3 PORT_2

Type 1: DP/USB
Type 2: USB only

USB3 PORT_3



[43] USB_OCO#_FNT1

[43] USB_OCO#_FNT2

[30] SIO_SMI#

[51] ADP_ID1

[51] ADP_ID2

AK10 USB_OCI_LIAGP016

AK9 USB_OCI_LIAGP017

AL9 USB_OCI_LIAGP018

AL8 USB_OCI_LIAGP024

AW7 AGP014USB_OCI_L

AT12 AGP013USB_OCI_L

FP5

USB3 P3

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Foxconn NPCEBG
Foxconn Wuhan
China

Phone: 027-59603888
Fax:

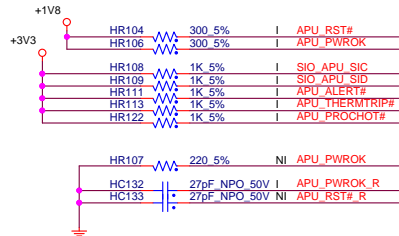
Title
10. FP5 - PCIE/ SATA/ USB

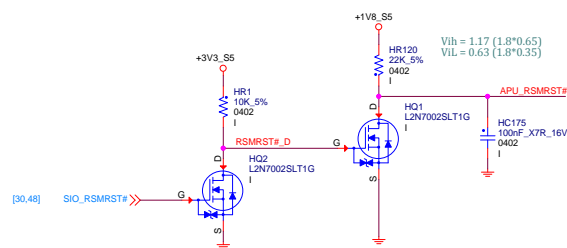
Size
Customer
Document Number
FP5DALICX

Page Modified: Wednesday, May 20, 2020 16:37:41 (UTC+8GMT) Sheet 10 of 55

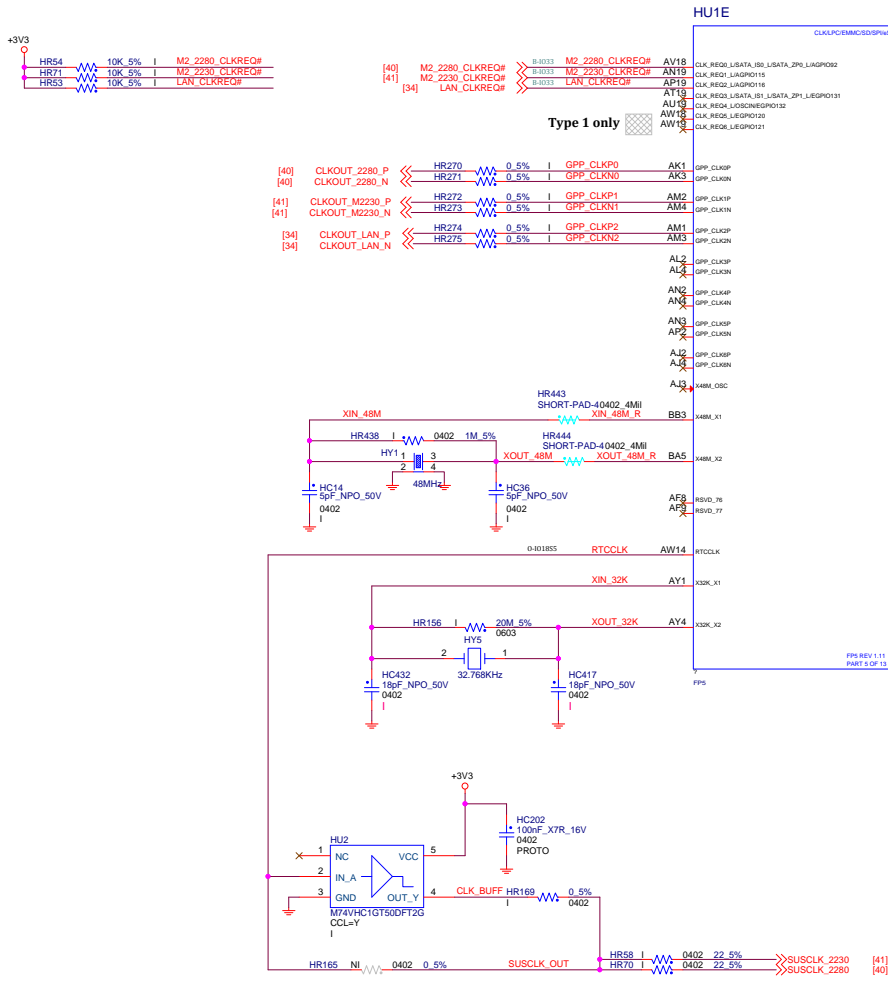
Rev
SVT

Checked_0628

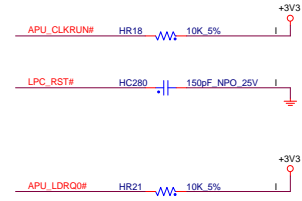
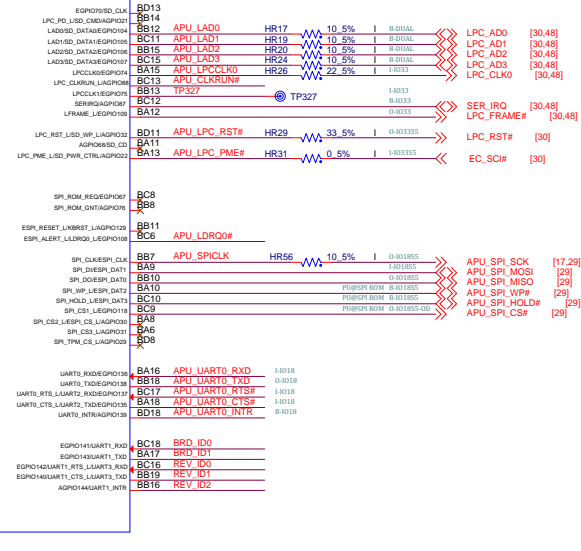


[illegible]

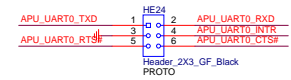
FP5 CLK/ SDIO/ SPI/ eSPI



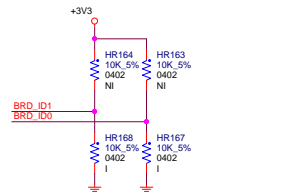
AGPIO: can be used for interrupt, wake or GPIO.
EGPIO: can be used only for GPIO.



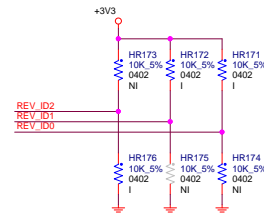
AMD UART Debug Header



PCA Board ID



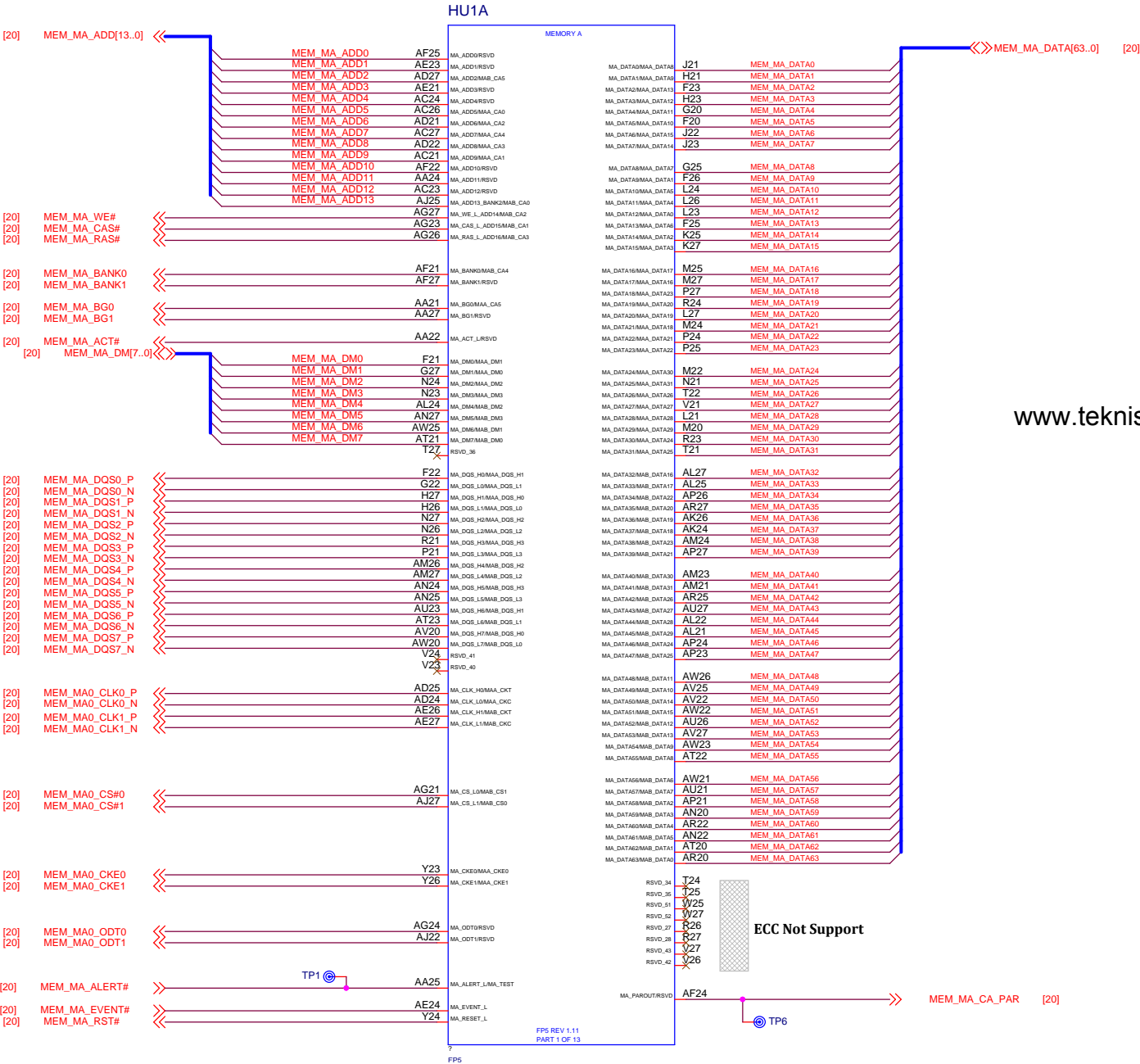
PCA Rev ID



PCA_REV_ID Resistor values

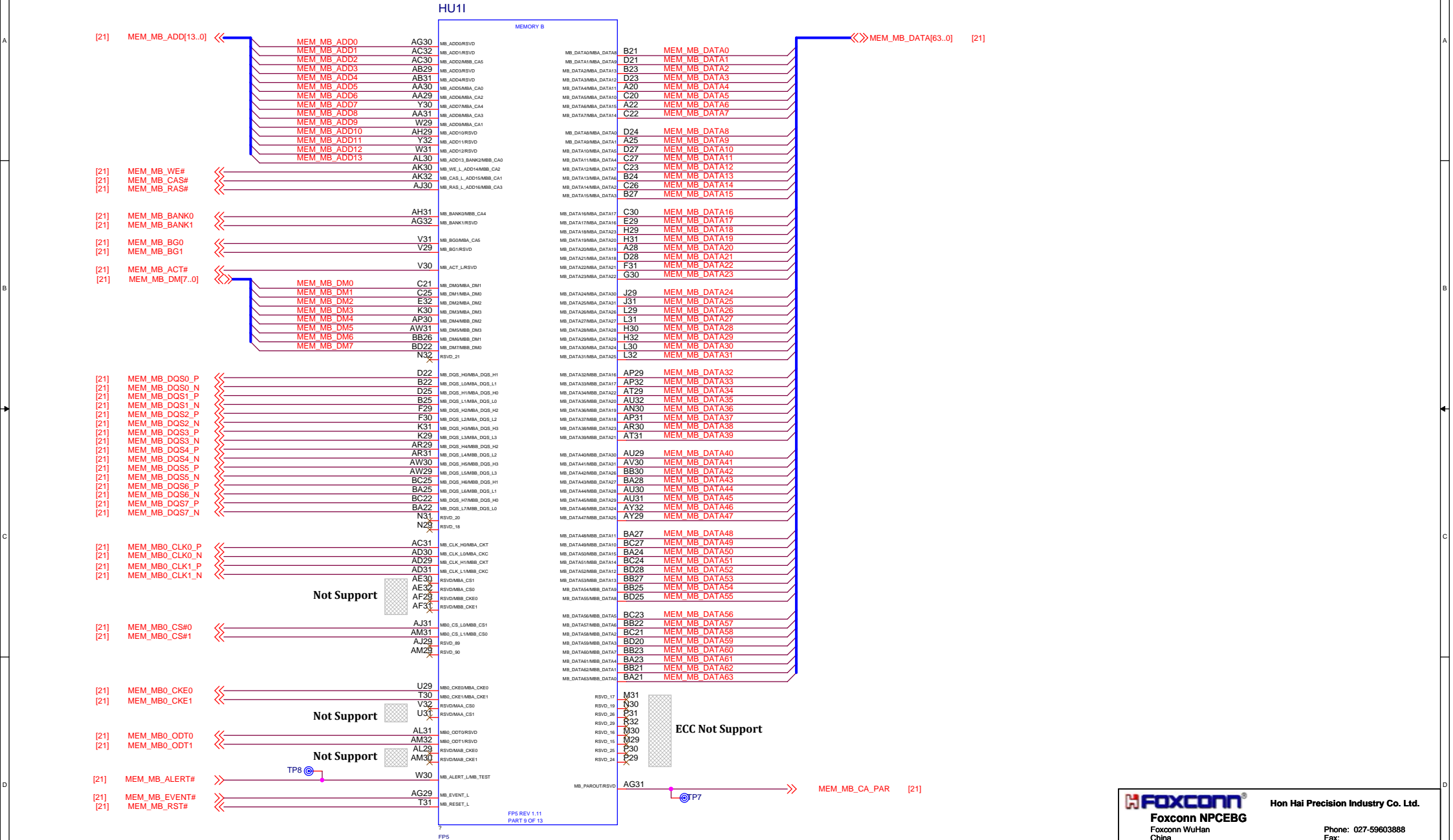
Value (h)	Phase	Rev [2:0]
0	ET	000
1	SDV	001
2	SIT	010
3	SVT	011
4	1st ECN	100
5	2nd ECN	101
6	3rd ECN	110
7	4th ECN	111

FP5 DDR4 CHA



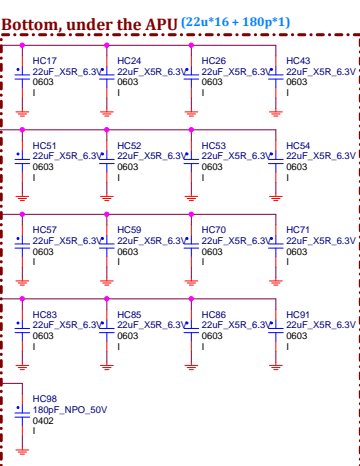
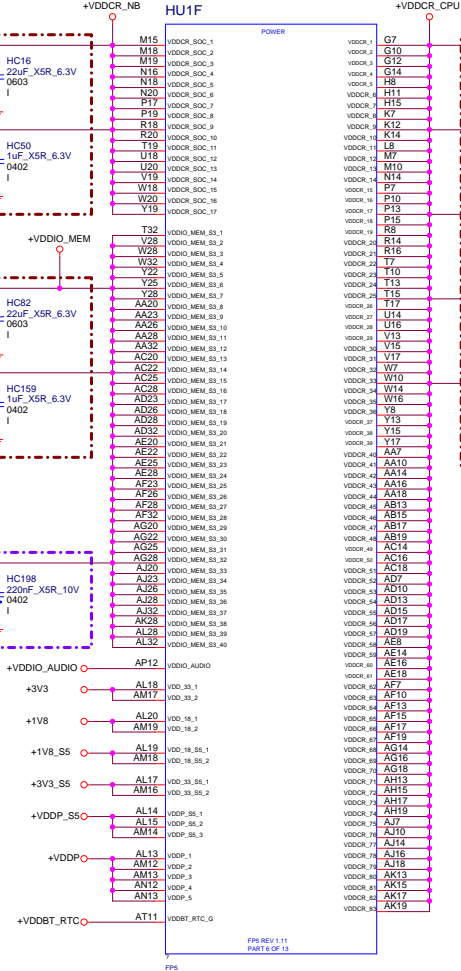
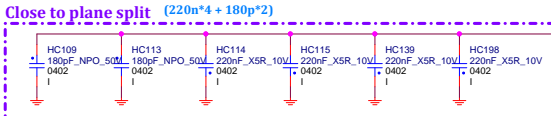
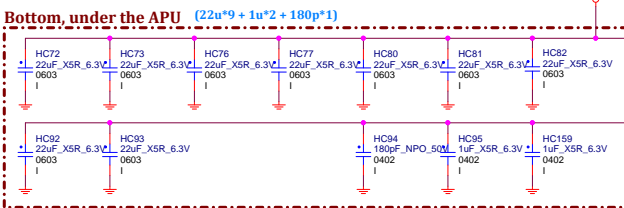
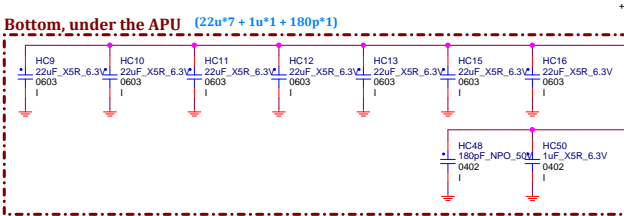
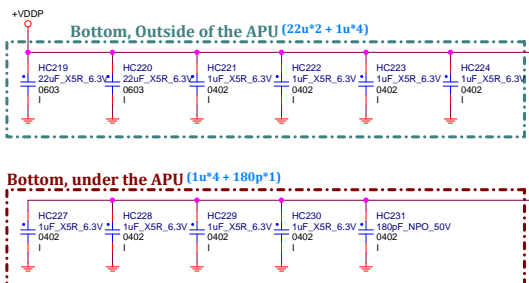
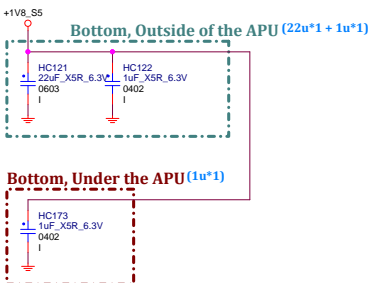
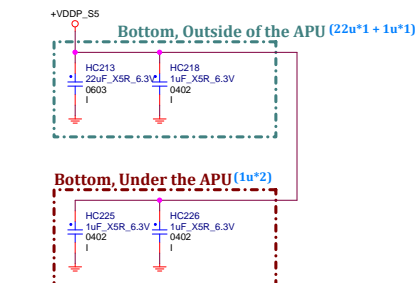
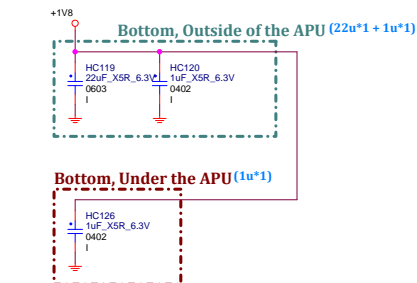
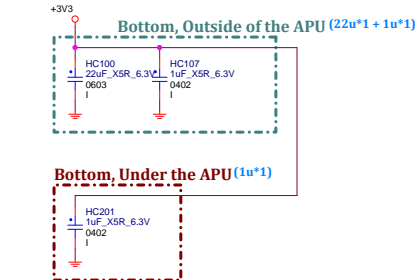
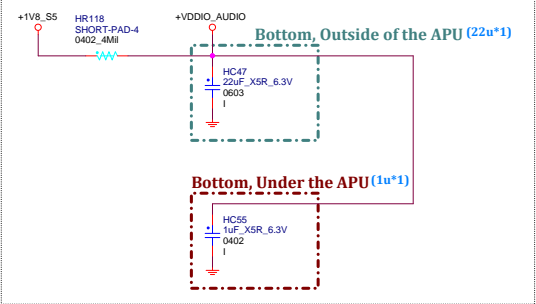
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FP5 DDR4 CHB

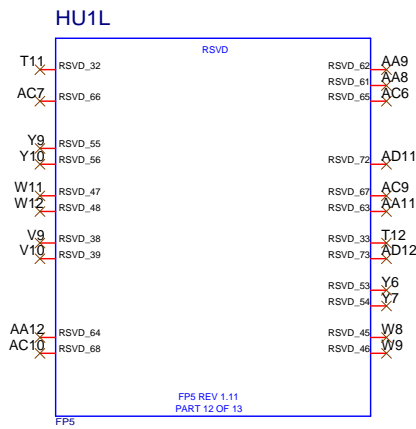


FP5 POWER

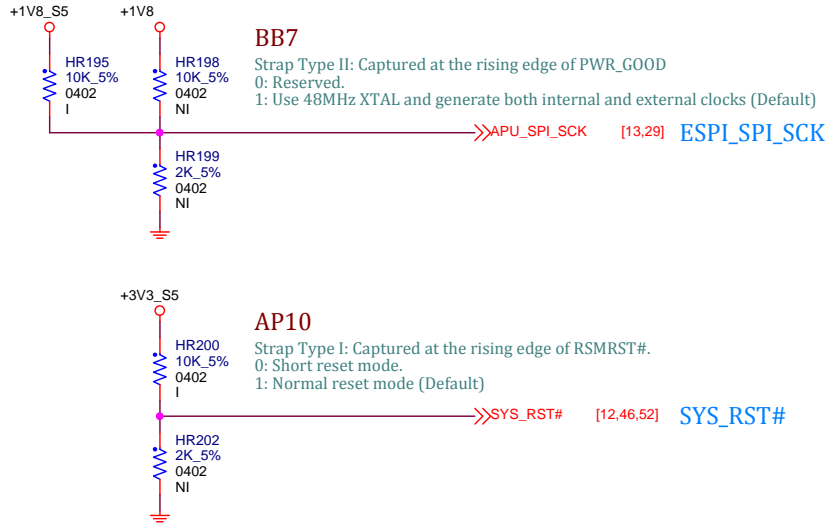
[Andrew] Remove "+1V5 55" Option



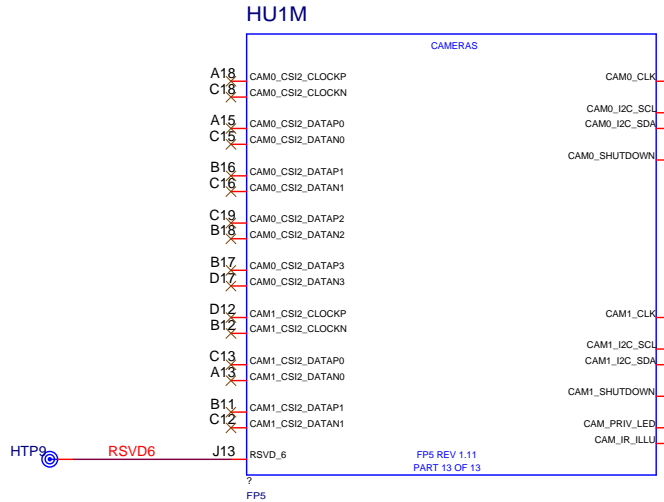
FP5 RSVD



Strapping

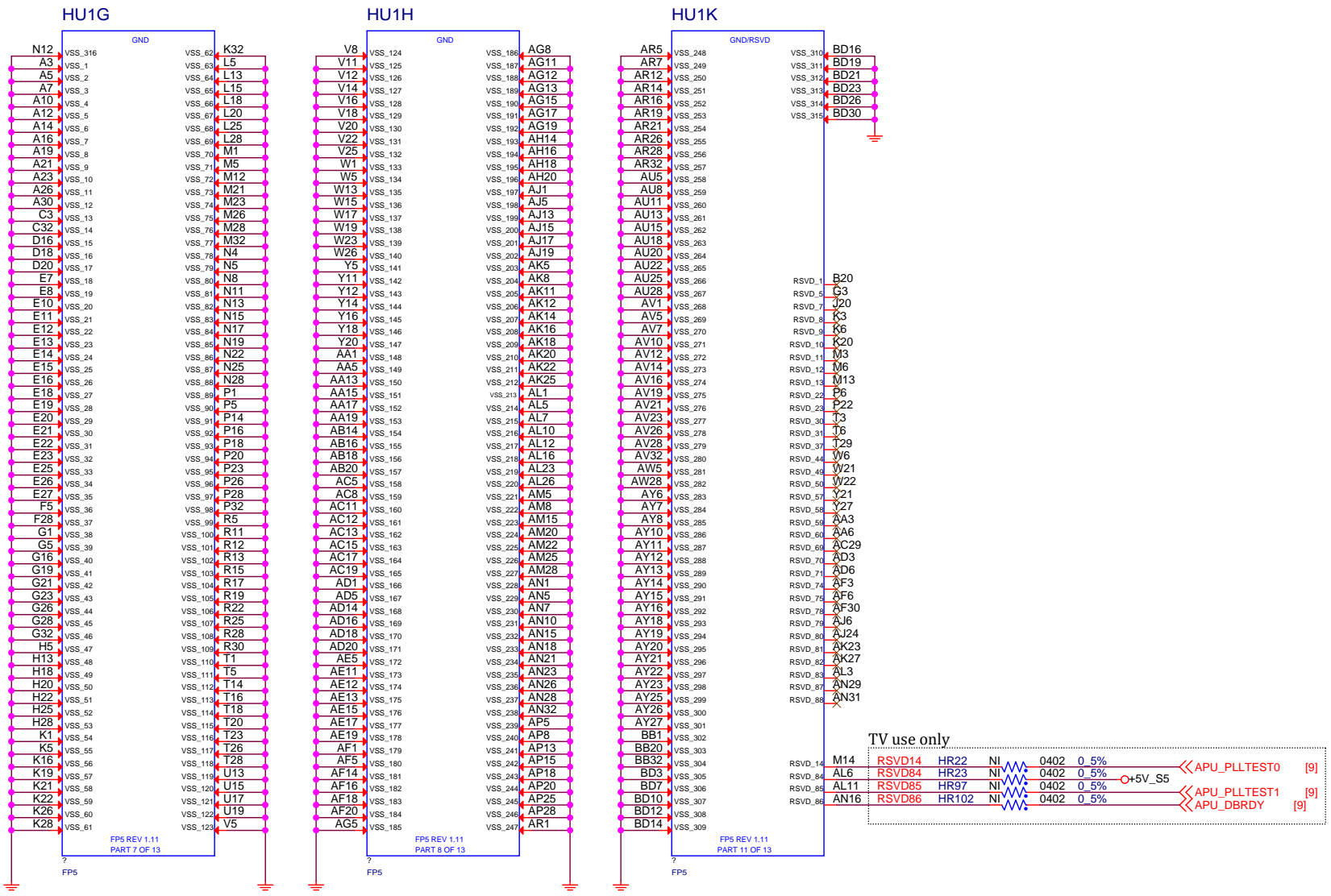


FP5 CSI (Camera Serial Interface)



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FP5 GND



BLANK



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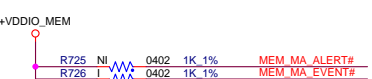
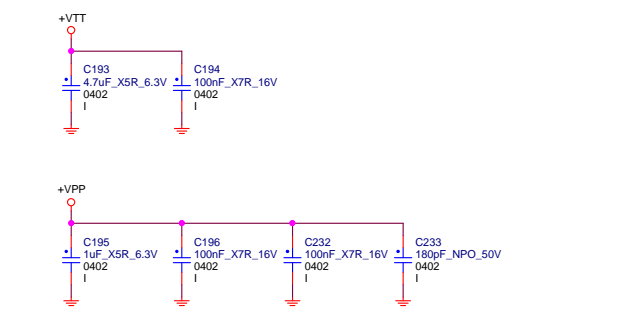
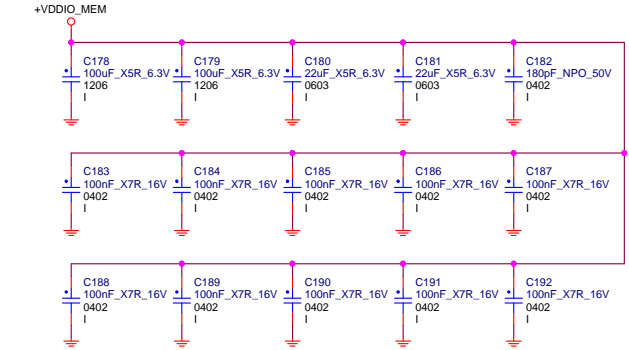
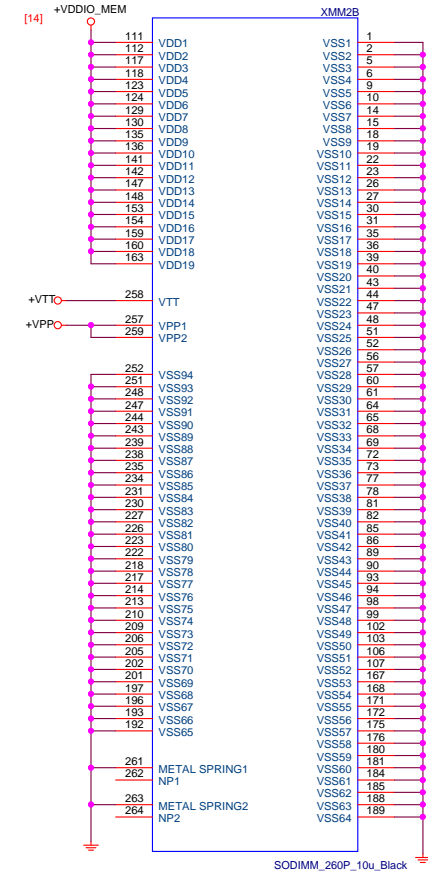
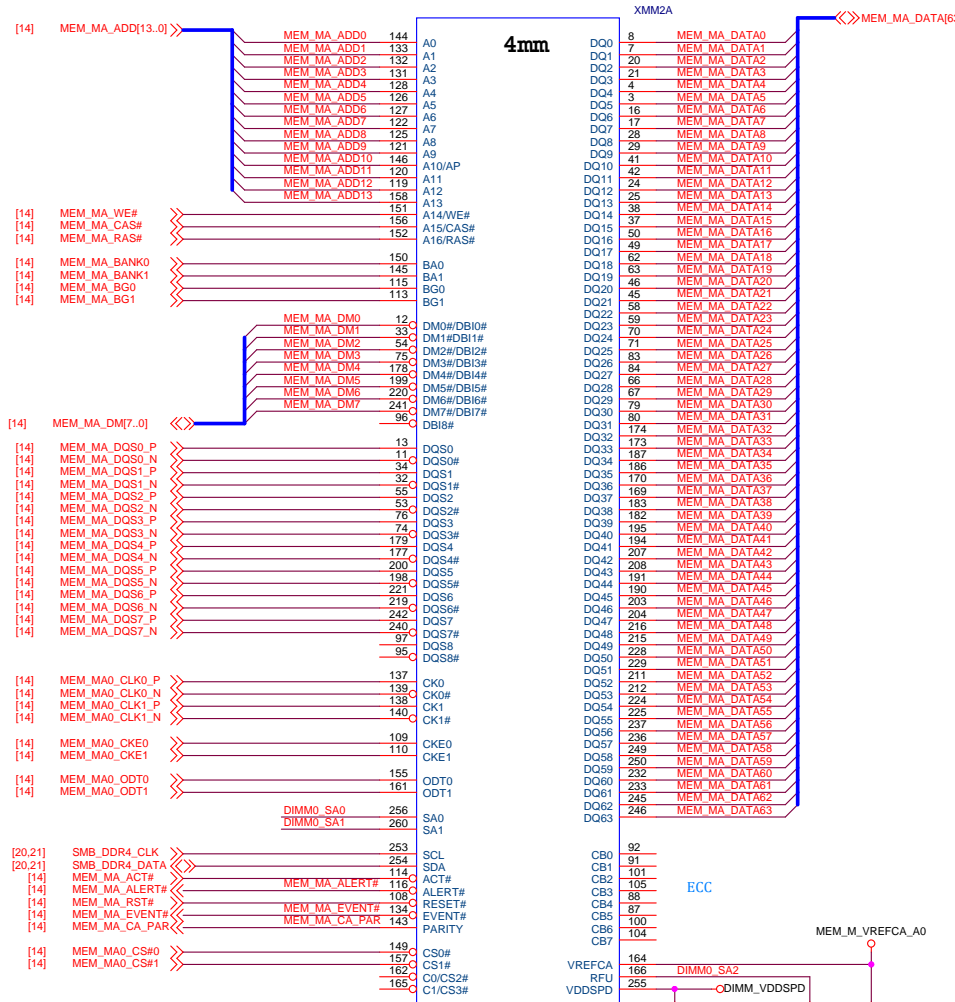
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Fax:

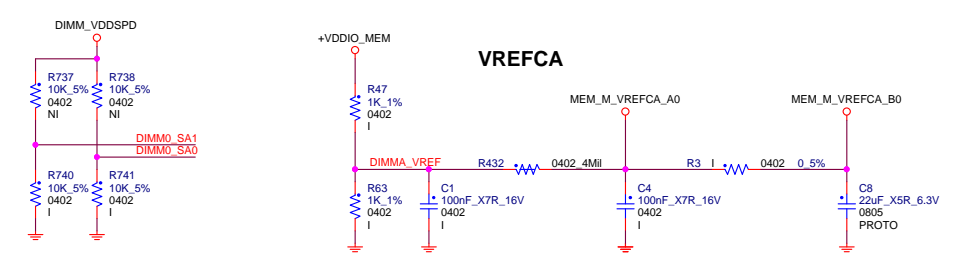
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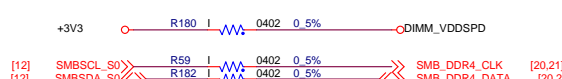
DDR4 Channel A DIMM 1 (4.0mm)



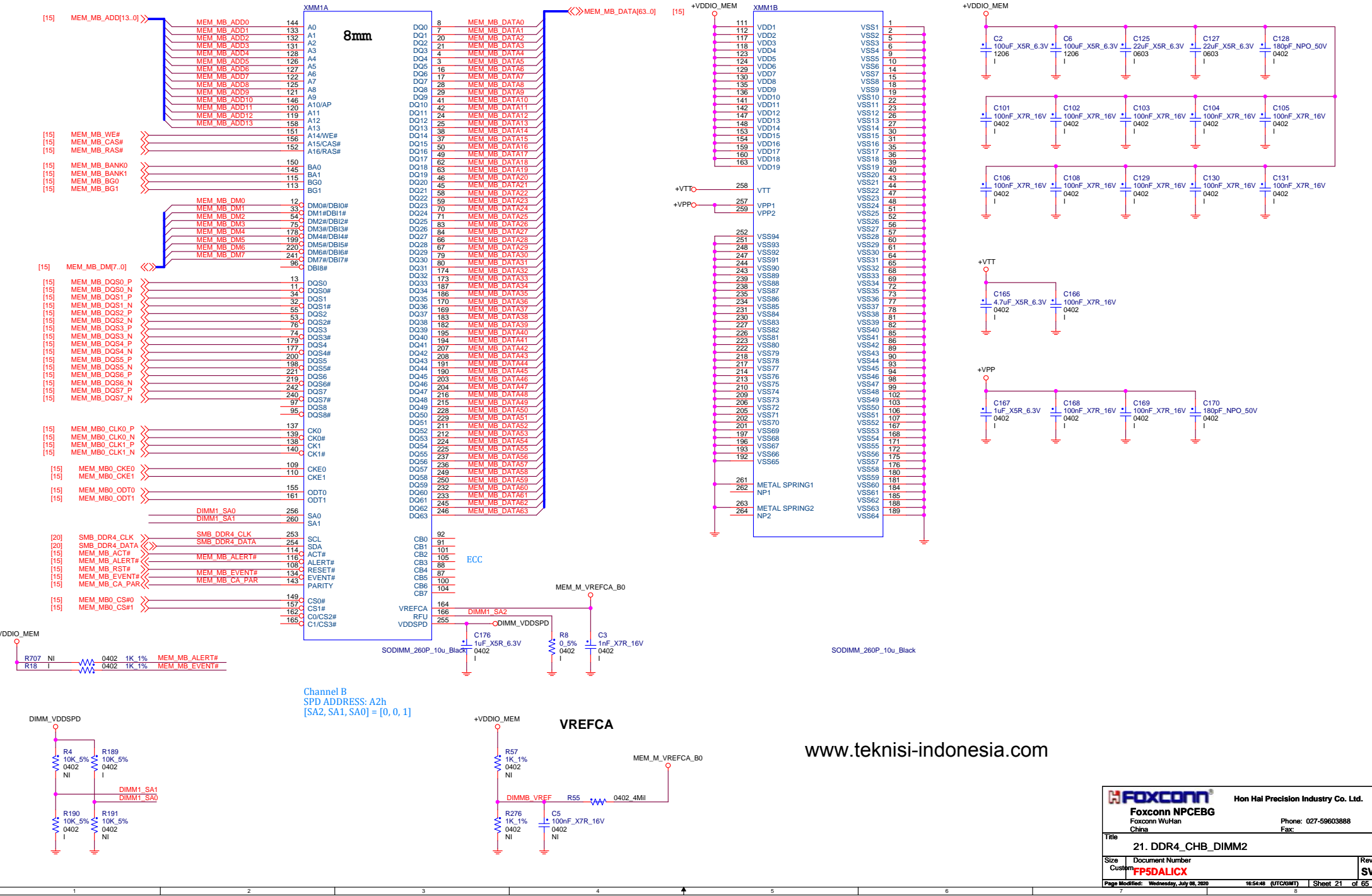
Channel A
SPD ADDRESS: A0h
[SA2, SA1, SA0] = [0, 0, 0]




SMBUS/SPD PWR



DDR4 Channel B
DIMM 2 (8.0mm)



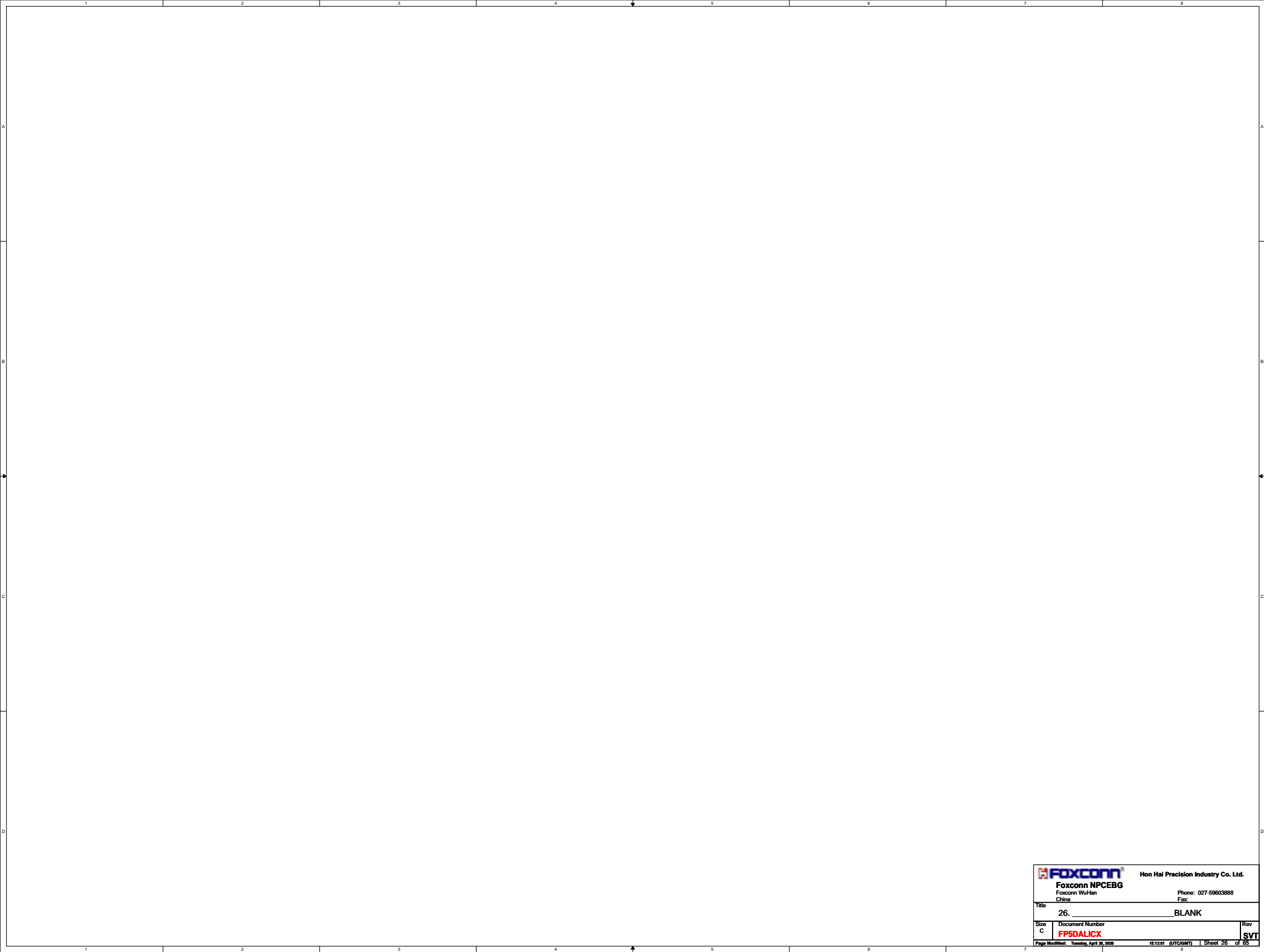
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Foxconn WuHan		Fax:	
China			
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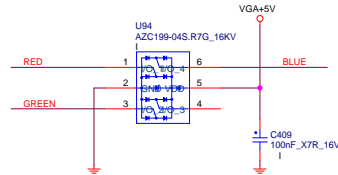
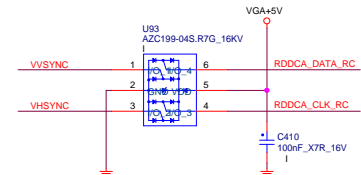
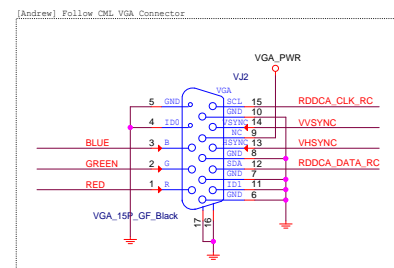
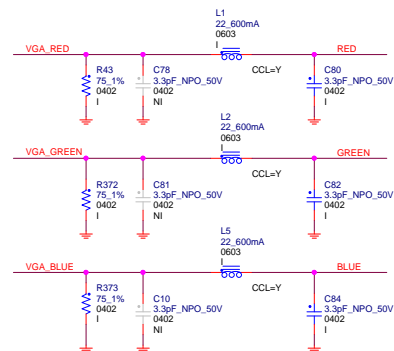
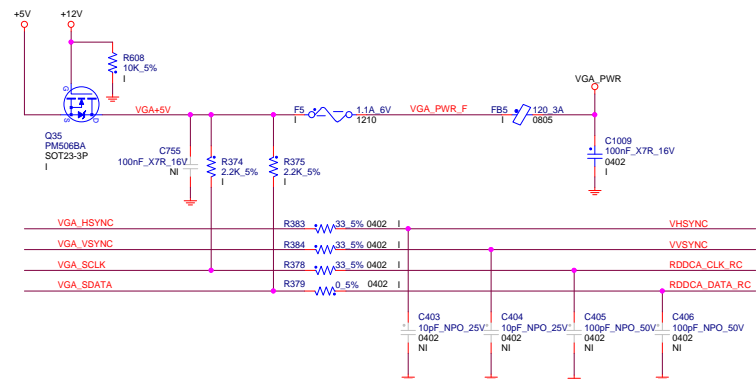
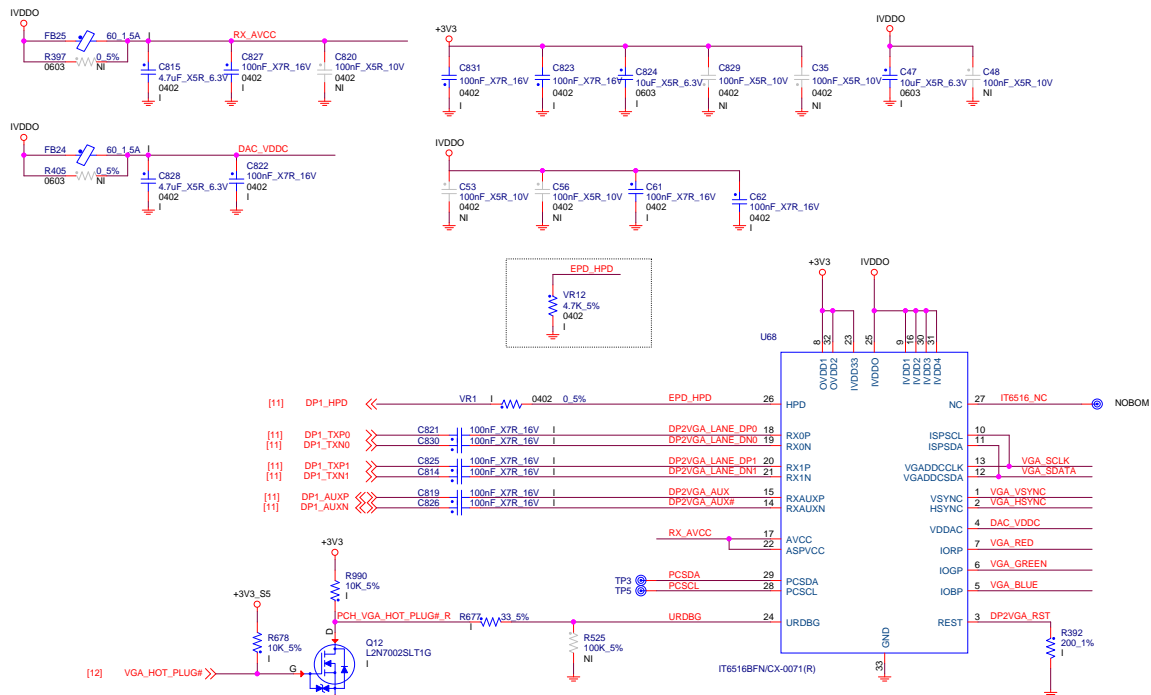
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C				
D				

5					4					3					2					1				
D																								
C																								
B																								
A																								

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China			
Title		26. BLANK	
Size	Document Number	Rev	
C	FP5DALICX	SVT	
Page Modified: Tuesday, April 29, 2020		16:12:01 (UTC+08:00) Sheet 26 of 65	



J18 HDMI_R_19P_15u Black

CCL=Y

[11] DP0_TXP0 C772 100nF X7R 16V I TMDSC_DATA2 1

[11] DP0_TXN0 C773 100nF X7R 16V I TMDSC_DATA2# 2

[11] DP0_TXP1 C776 100nF X7R 16V I TMDSC_DATA1 3

[11] DP0_TXN1 C768 100nF X7R 16V I TMDSC_DATA1# 4

[11] DP0_TXP2 C765 100nF X7R 16V I TMDSC_DATA0 5

[11] DP0_TXN2 C774 100nF X7R 16V I TMDSC_DATA0# 6

[11] DP0_TXP3 C771 100nF X7R 16V I TMDSC_CLK 7

[11] DP0_TXN3 C770 100nF X7R 16V I TMDSC_CLK# 8

HDCM_CTRL_CLK 13

HDCM_CTRL_DATA 14

DPC_PWR 15

DPC_HPD 16

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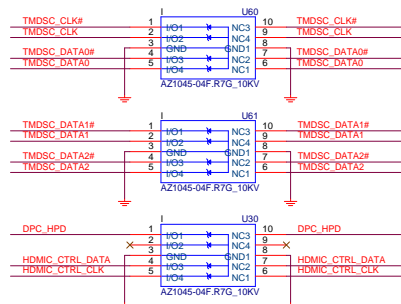
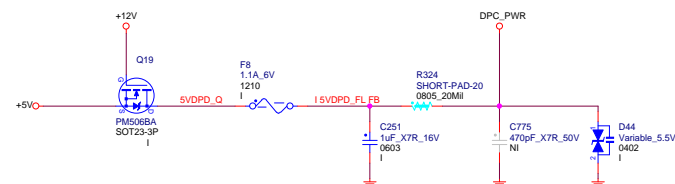
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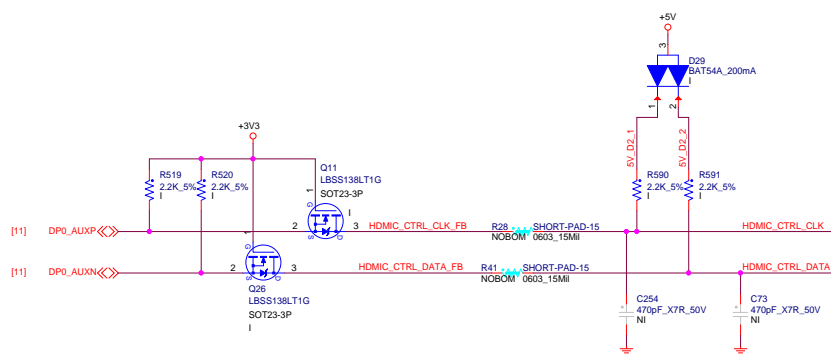
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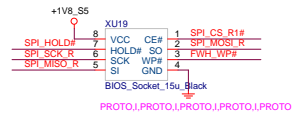
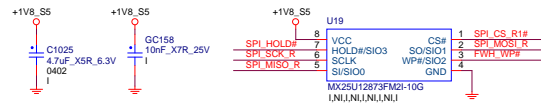
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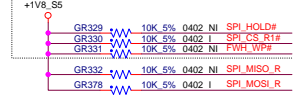
The schematic diagram illustrates the connection of the TMS320C6741 chip to the TMS320C6741 evaluation board. The TMS320C6741 chip is shown with its pins connected to the TMS320C6741 evaluation board. The TMS320C6741 chip is shown with its pins connected to the TMS320C6741 evaluation board. The TMS320C6741 chip is shown with its pins connected to the TMS320C6741 evaluation board.

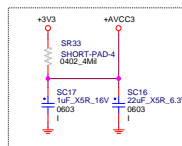


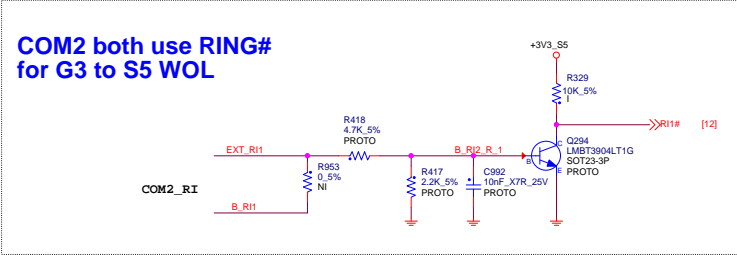
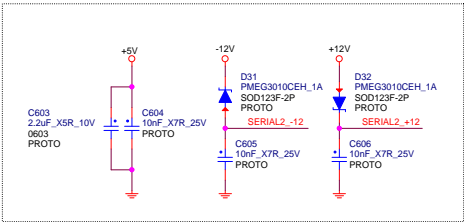
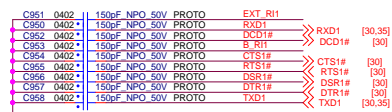
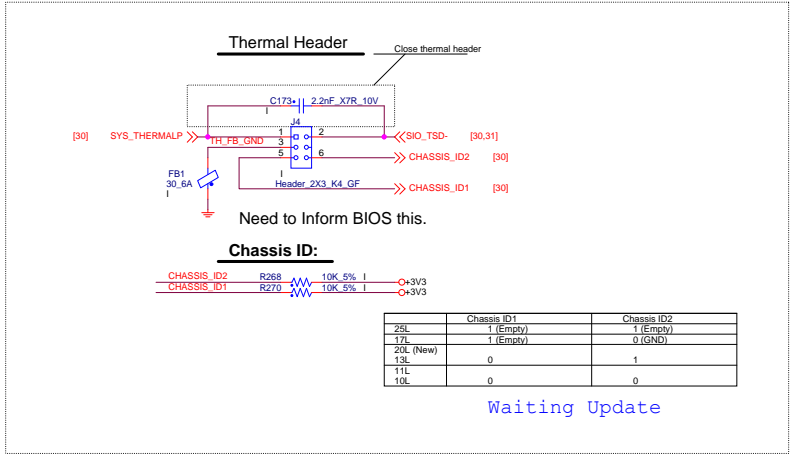
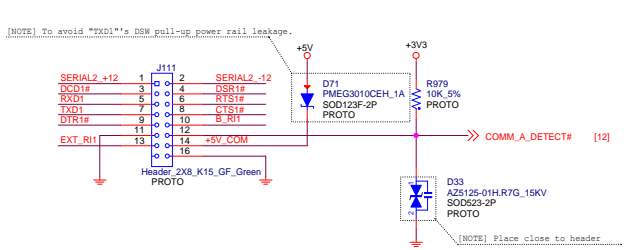
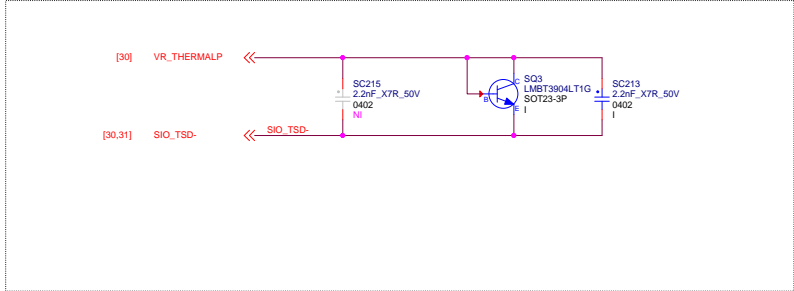
SPI ROM (16MB)



[NOTE] SPI_HOLD#/SPI_WP_ Connected to a pull-up resistor (DNI) to VDD 1.8_S5 By AMD CheckList



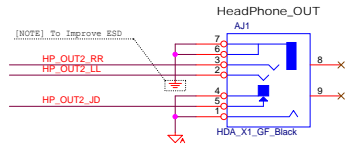
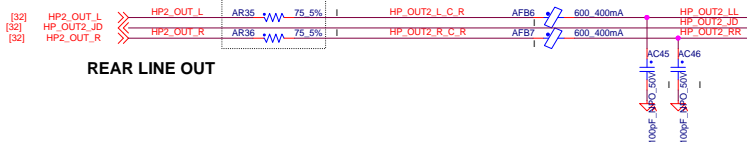




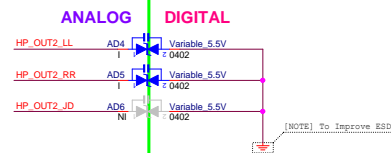
	Chassis ID1	Chassis ID2
25L	1 (Empty)	1 (Empty)
17L	1 (Empty)	0 (GND)
20L (New)		
13L	0	1
11L		
10L	0	0

Waiting Update

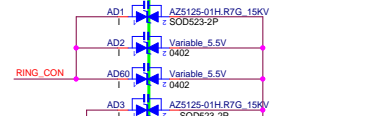
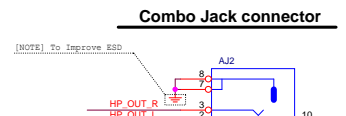
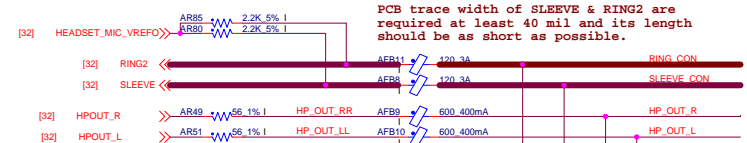
Rear Audio Jack



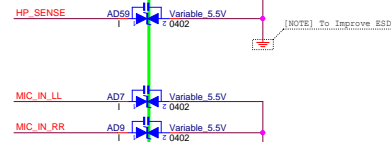
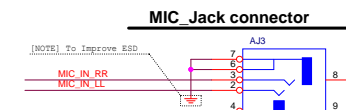
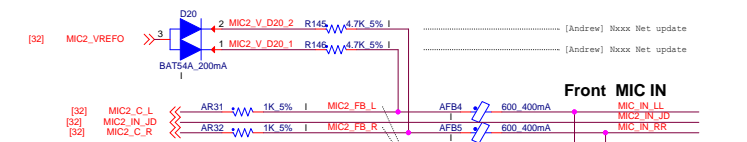
Audio Jack



Front Audio Jack

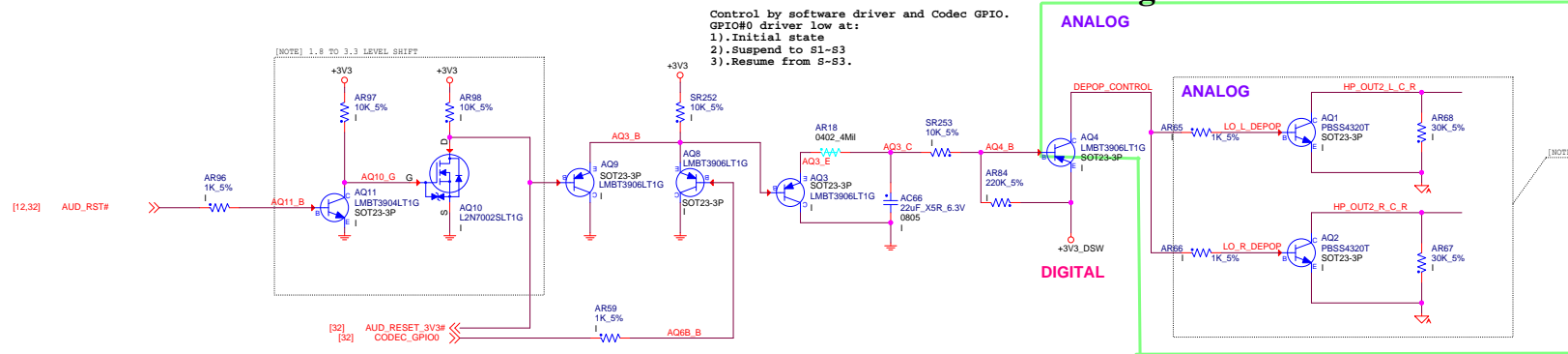


Front Combo Jack



Front MIC-In Jack

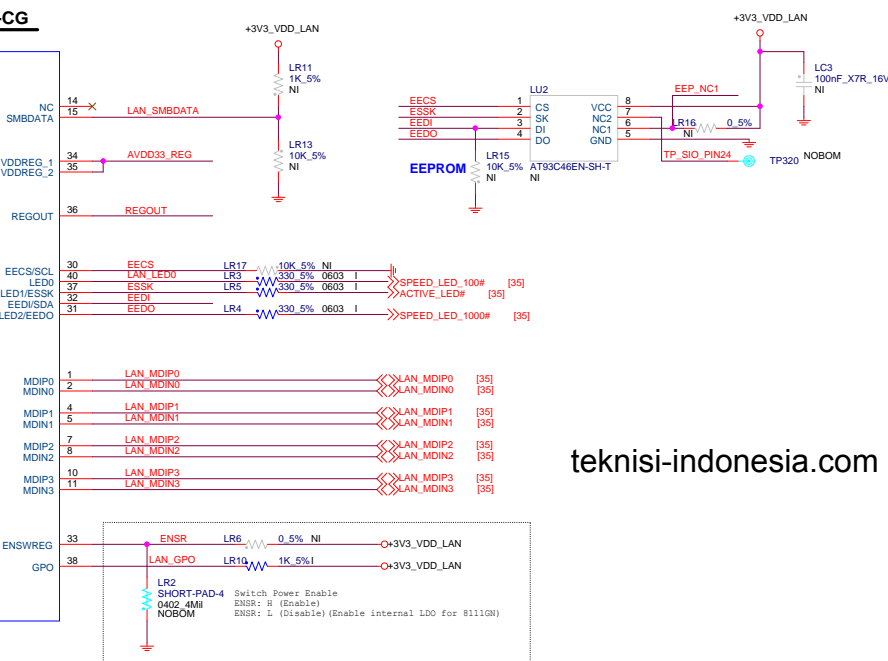
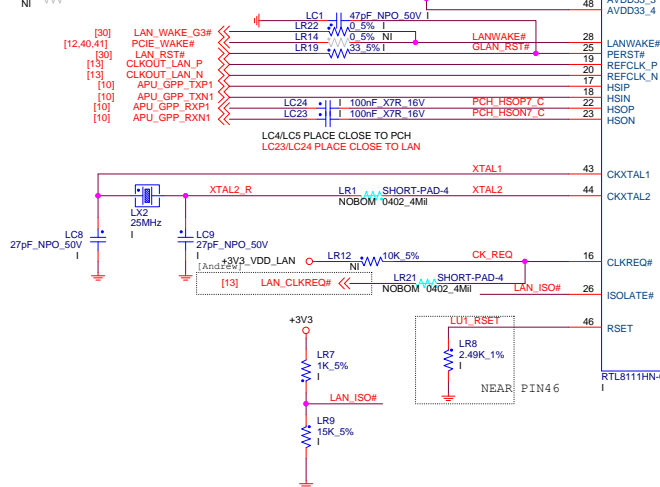
Darlington circuit



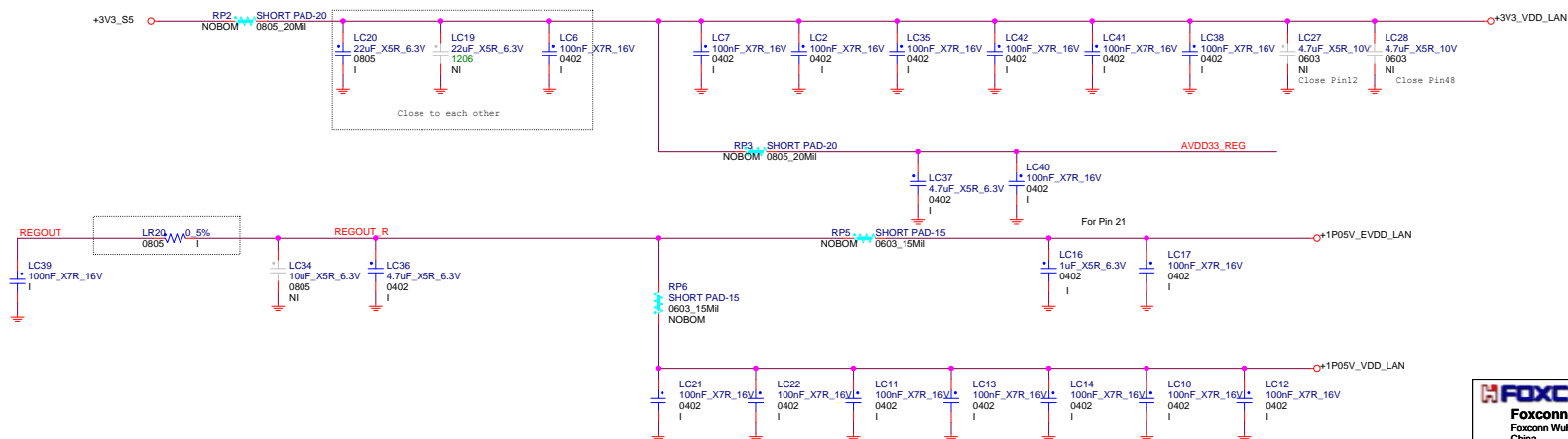
For Rear Line Out Depop

[illegible]

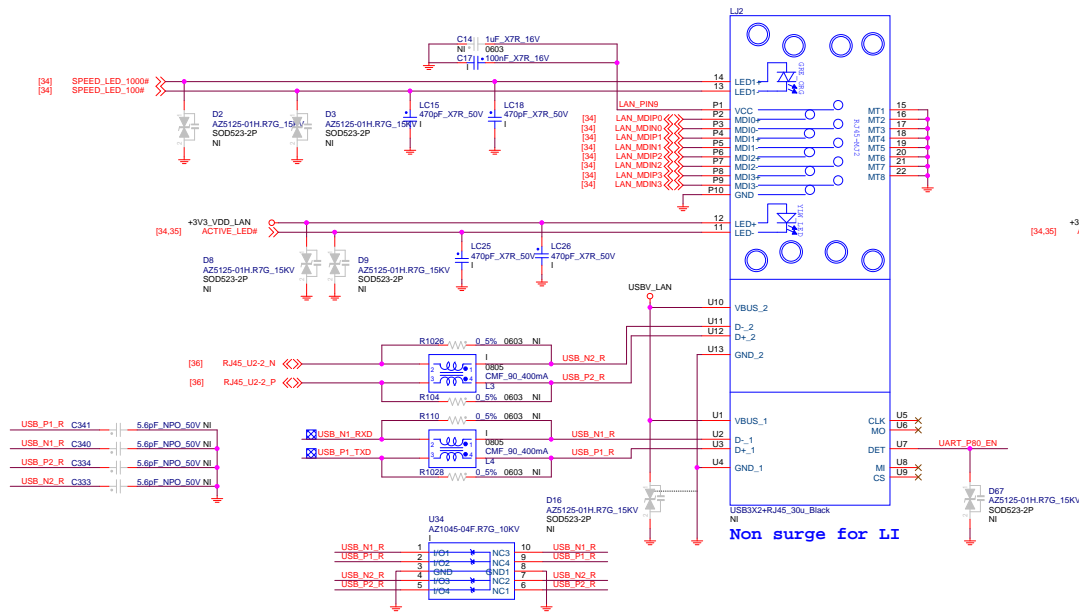
+3V3 VDD LAN LR18 10K_5% PCIE_WAKE#



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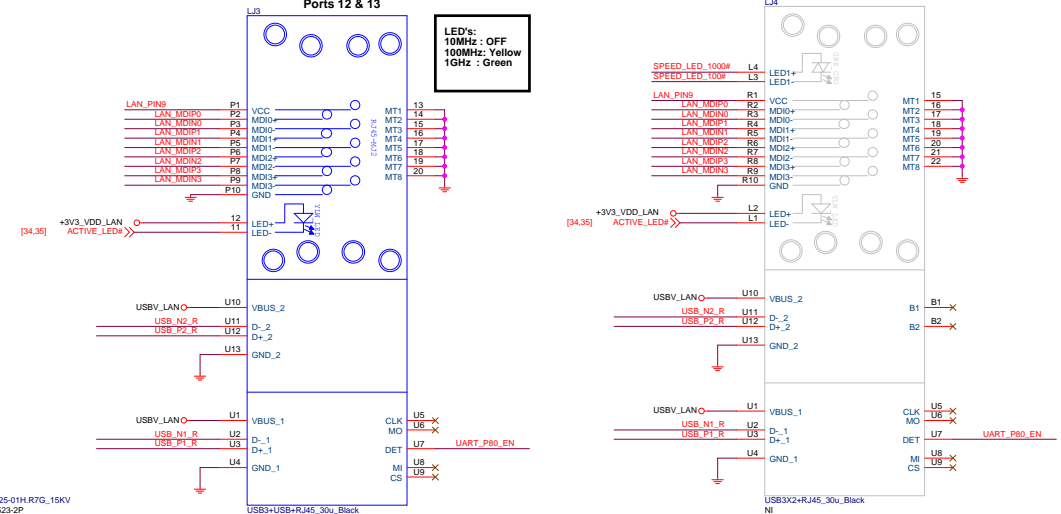


LJ2/LJ3/LJ4 Co-layout



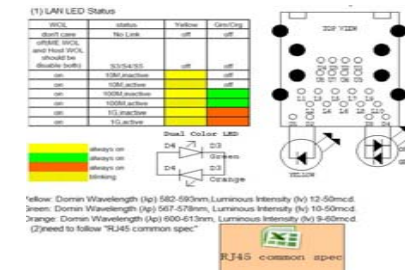
REAR LAN + USB

Ports 12 & 13



Surge for LC

Non surge for LI(UDE source)

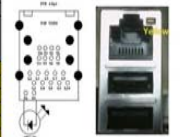


1.2 definition for LC
(1) LAN LED Status
(2) Yellow: Domin Wavelength (λ_p) 582-593nm, Luminous Intensity (Iv) 12-50mcd

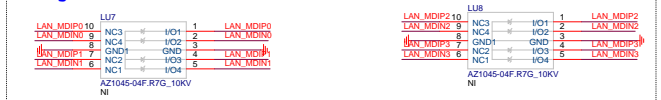
WOL	status	Yellow
don't care	No Link	off
off(ME WOL and Host WOL should be disable both)	S3/S4/S5	off
on	10M inactive	
on	10M active	
on	100M inactive	
on	100M active	
on	1G inactive	
on	1G active	

☐ always on

☐ blinking

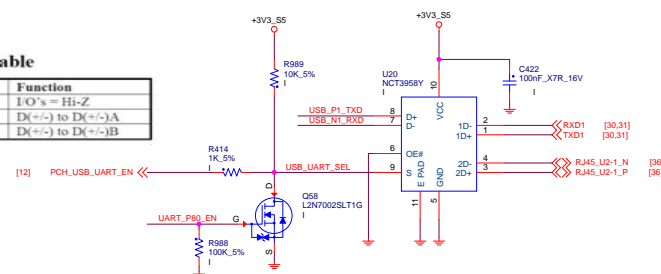


Surge IC close to RJ45

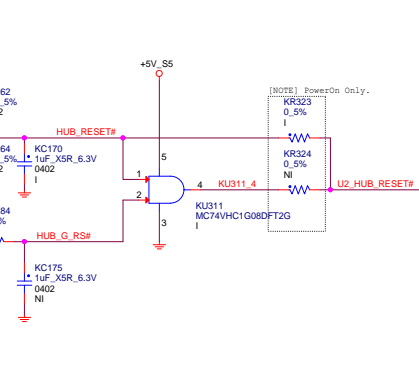
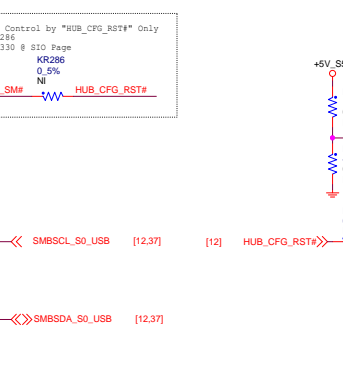
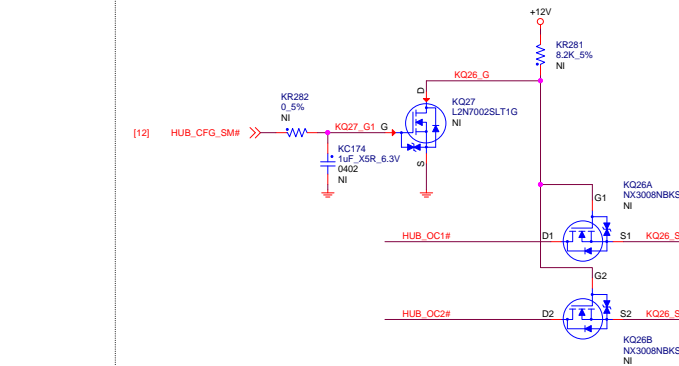
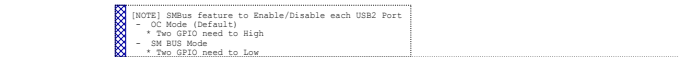
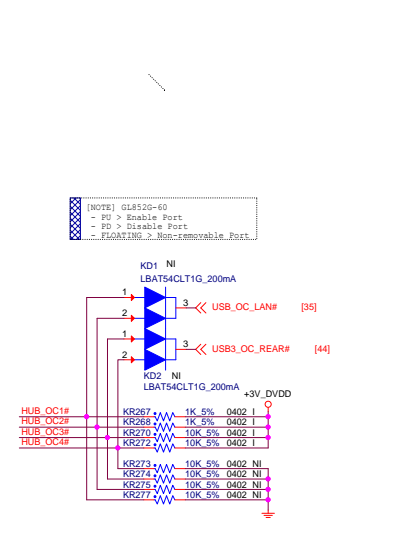
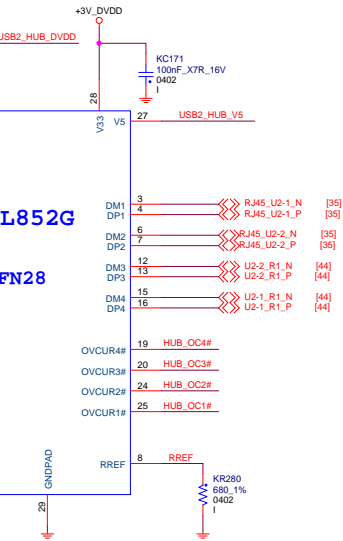
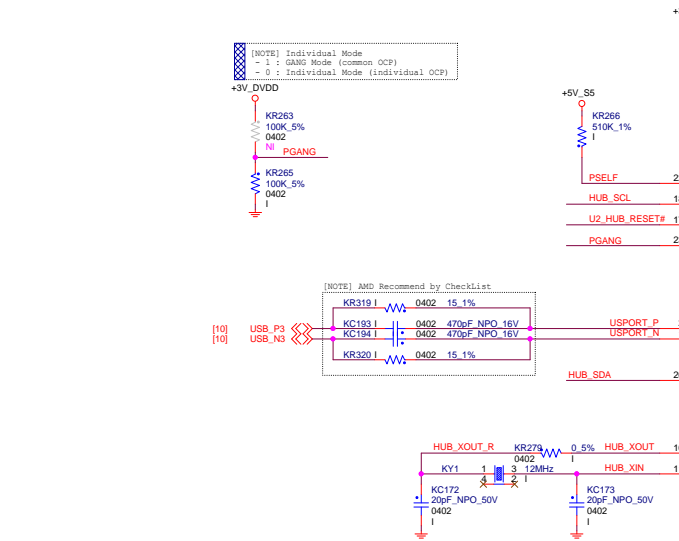
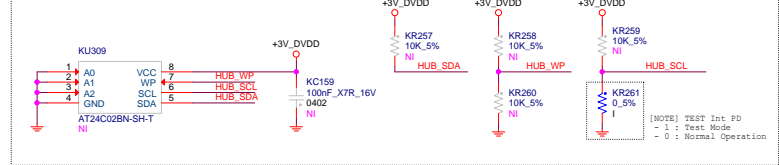
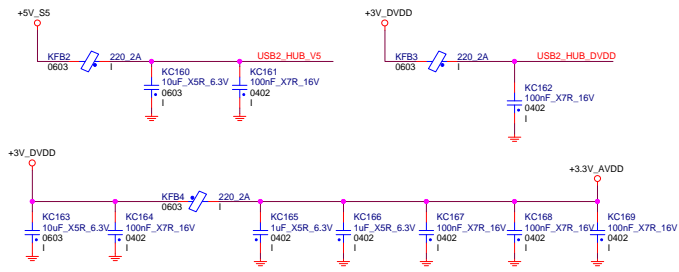


Logic Function Table

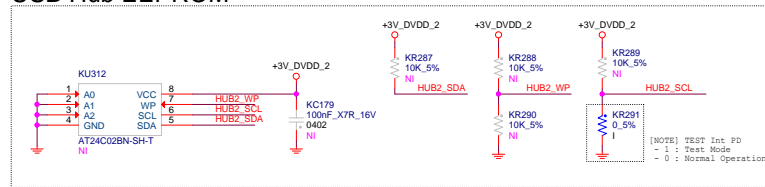
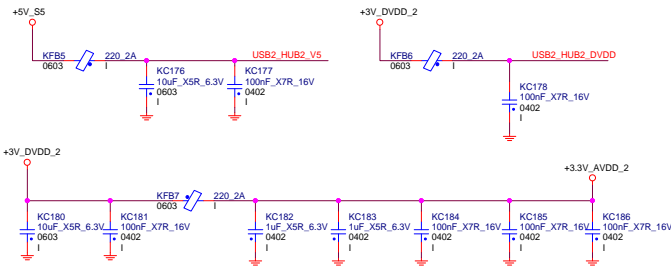
/OE	SEL	Function
H	X	I/O's = Hi-Z
L	L	D(+/-) to D(+/-)A
L	H	D(+/-) to D(+/-)B



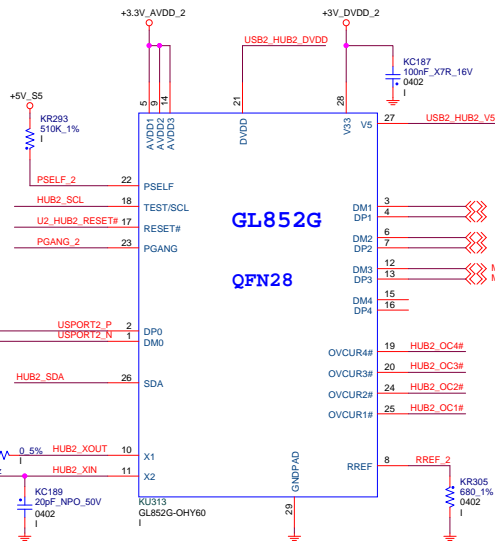
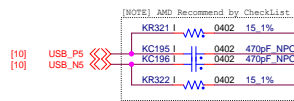
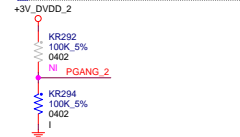
USB Hub EEPROM



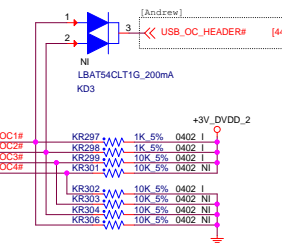
USB Hub EEPROM



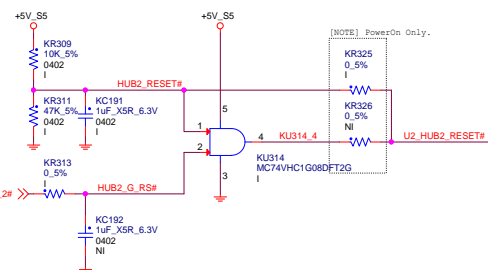
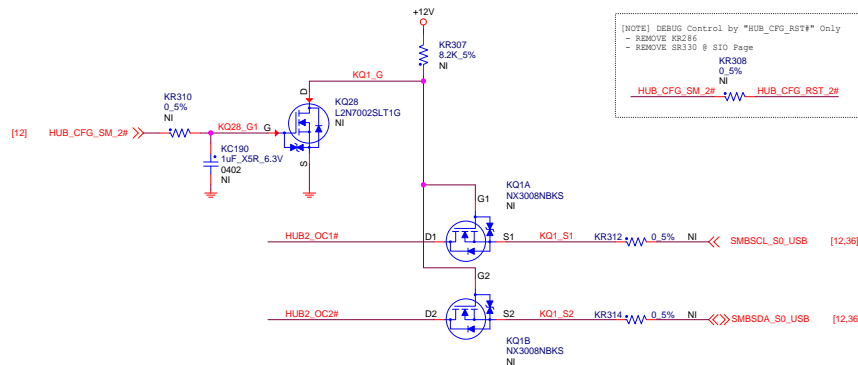
[NOTE] Individual Mode
- 1 : GANG Mode (common OCP)
- 0 : Individual Mode (Individual OCP)




[NOTE] GL852G-60
- PD > Enable Port
- PD > Disable Port
- FLOATING > Non-removable Port.

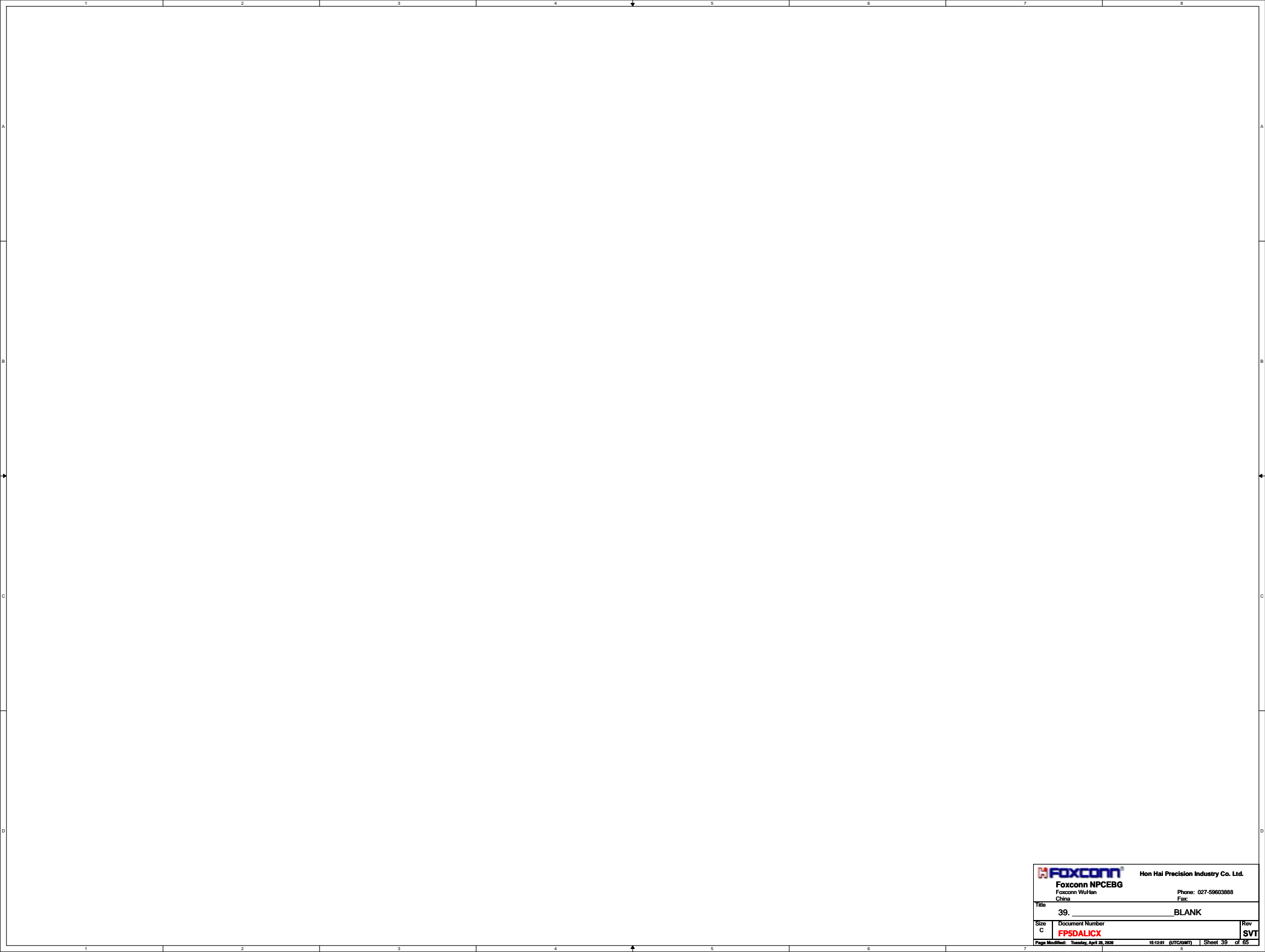


[NOTE] SMBus Control by "HUB_CFG_RST#" Only
- REMOVE SR330 @ SIO Page
KR308
0.5%
NI
HUB_CFG_SM_2#
HUB_CFG_RST_2#



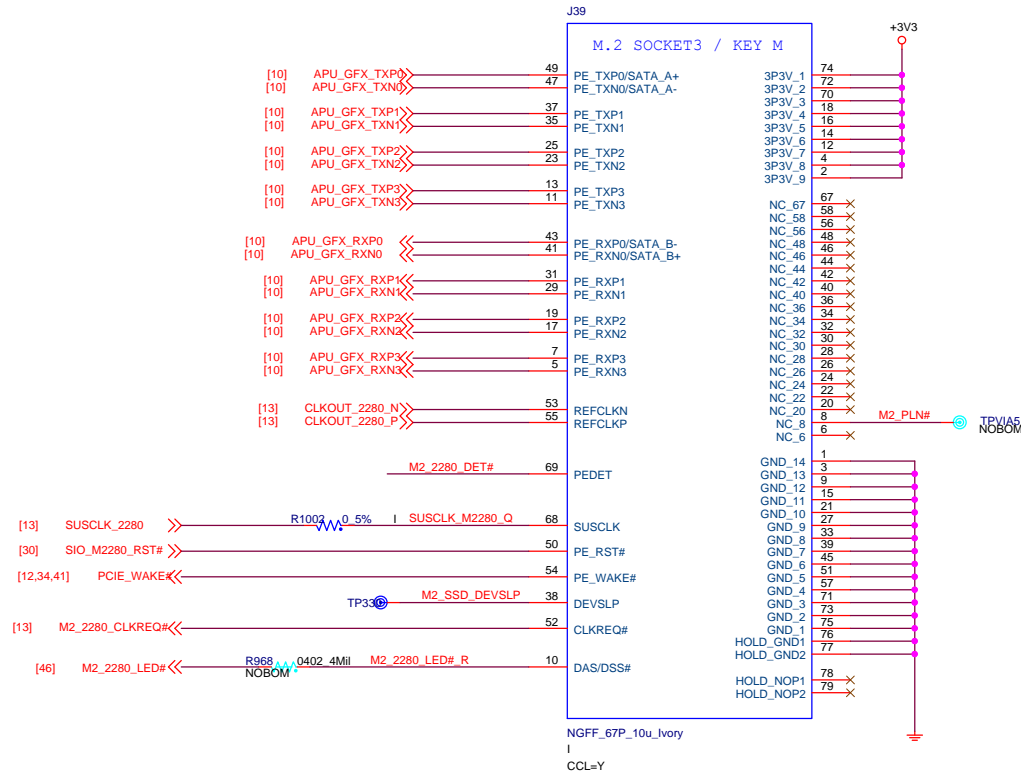
1	2	3	4	5	6	7	8
A							
B							
C							
D							
1	2	3	4	5	6	7	8

		Hon Hai Precision Industry Co. Ltd.	
Foxconn NPCEBG Foxconn Wuhan China		Phone: 027-59603888 Fax:	
Title		38. _____ BLANK	
Size Custom	Document Number FP5DALICX		Rev SVT
Page Modified: Tuesday, April 26, 2020		15:12:01 (UTC+08:00)	Sheet 38 of 65



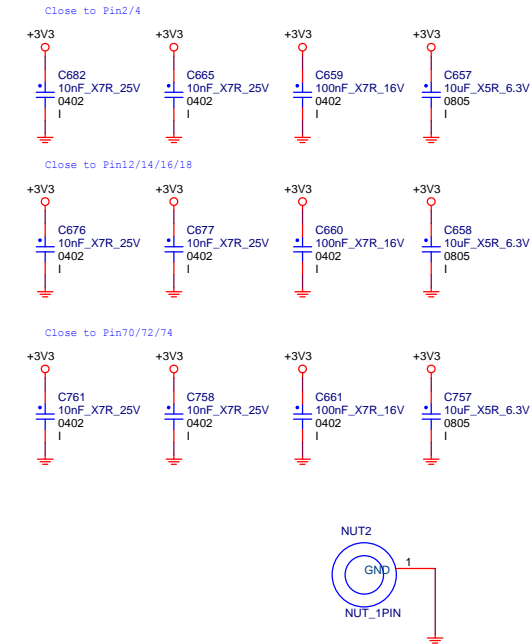
M.2 2280-3M

white color



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Decoupling CAP (J39)

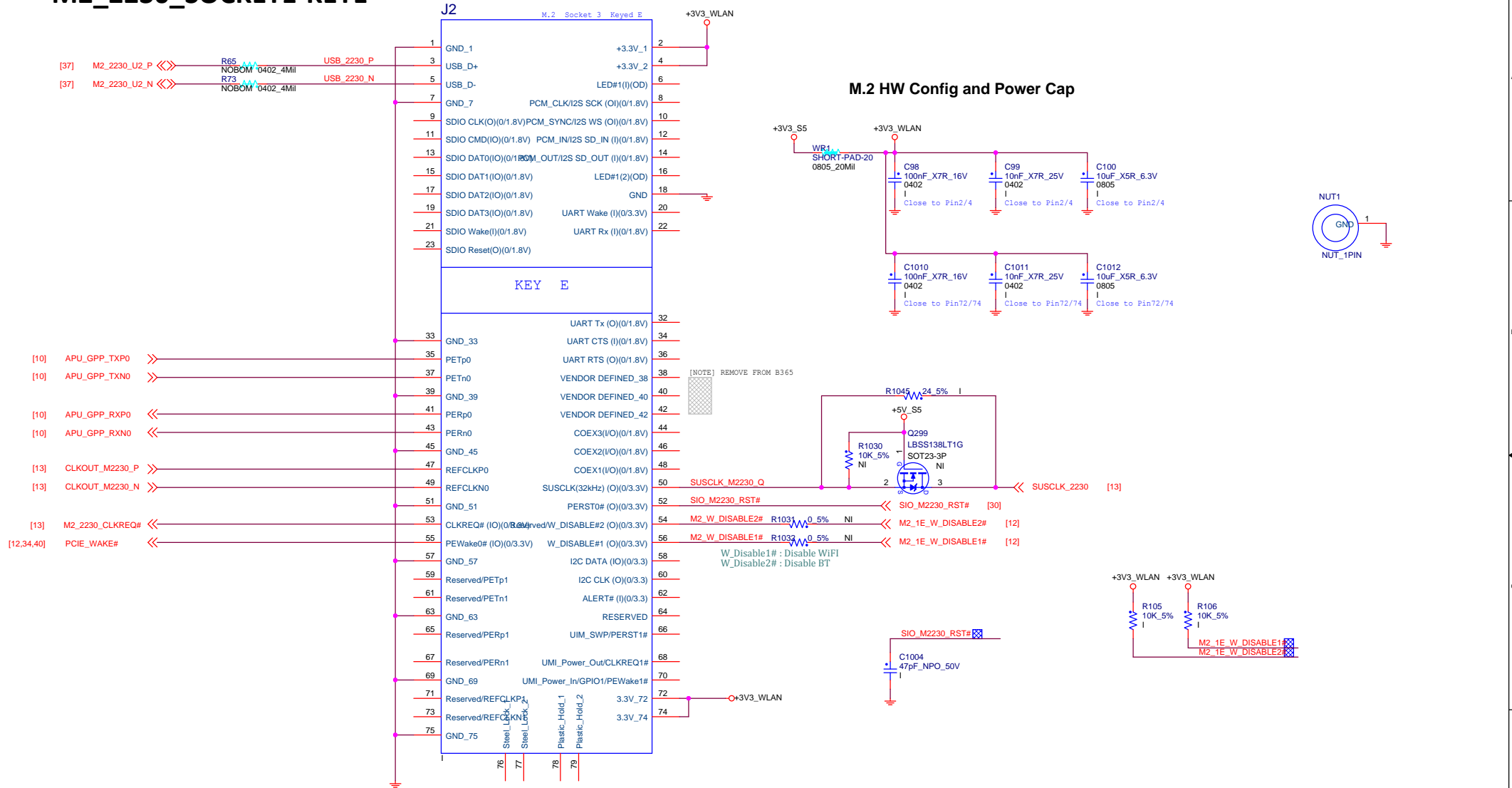


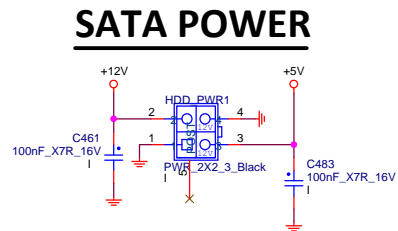
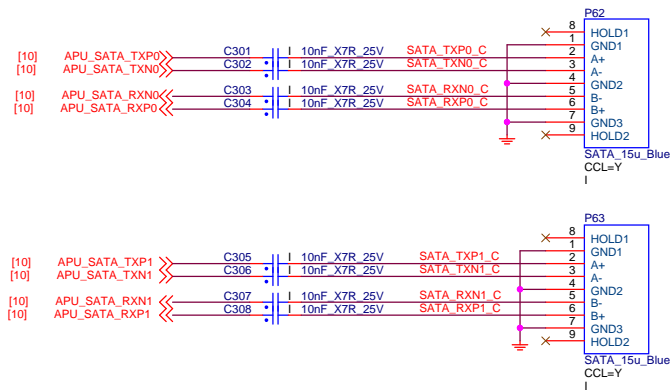
M.2 SSD PU/PD Config

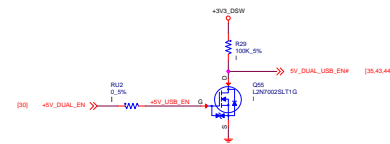
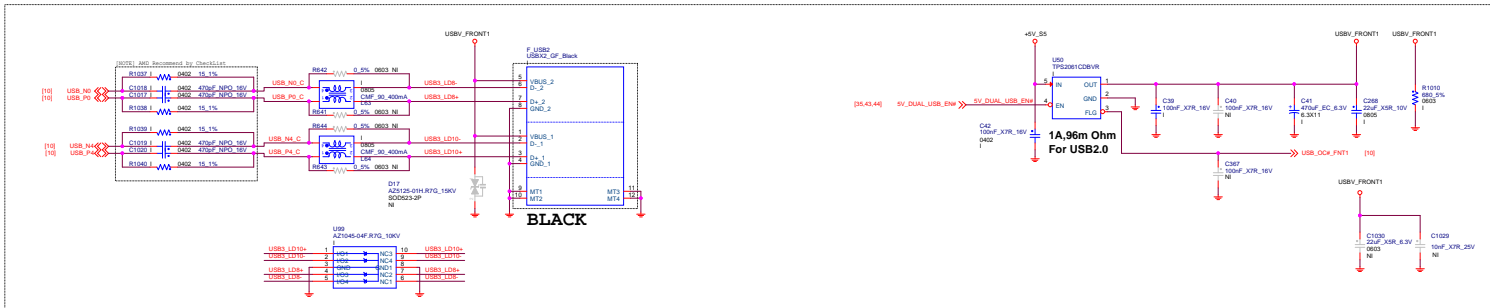


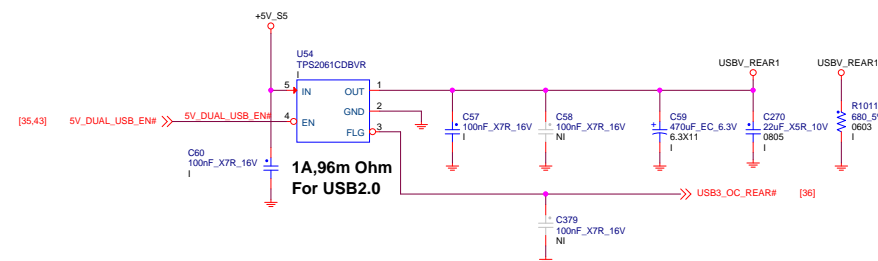
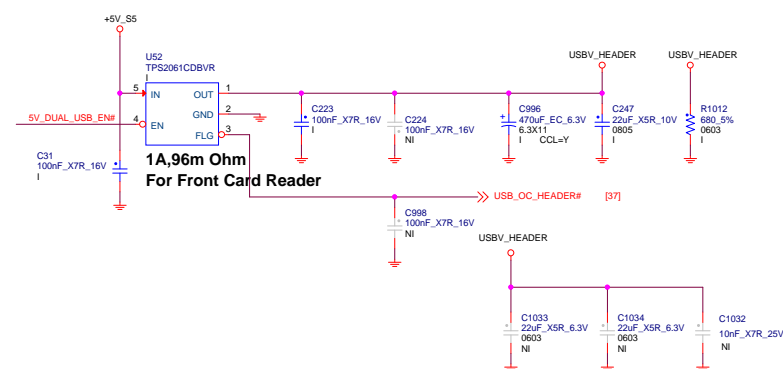
FOXCONN		Hon Hai Precision Industry Co. Ltd.	
Foxconn NPCEBG		Phone: 027-59603888	
Foxconn Wuhan		Fax:	
China			
Title			
40. M.2 2280			
Size		Document Number	
Custom		FP5DALICX	
Page Modified: Tuesday, April 26, 2020		15:12:01 (UTC+GMT)	
Sheet 40		of 65	

M2_2230_SOCKET1-KEYE



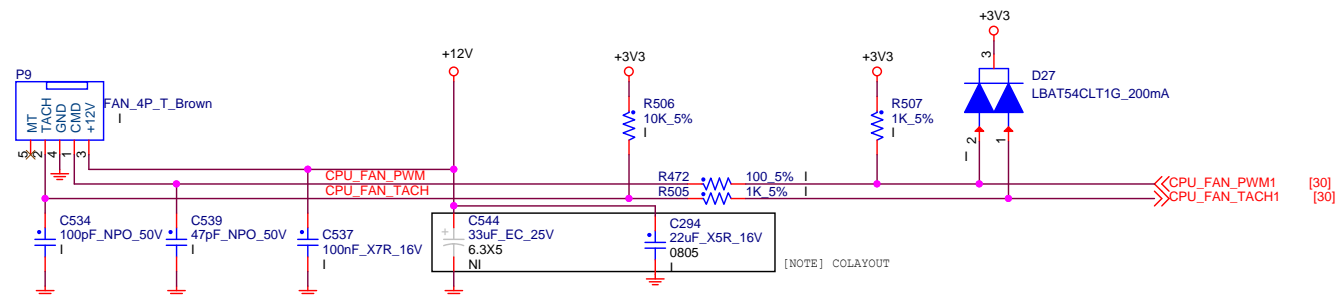




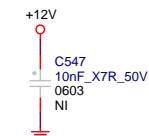
[illegible]

CPU FAN

Color: Brown
Follow DTDL

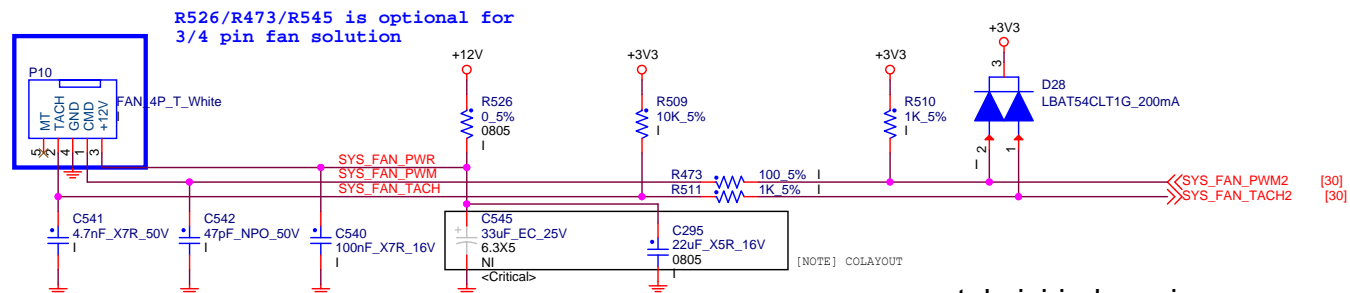


For EMI



SYSTEM FAN

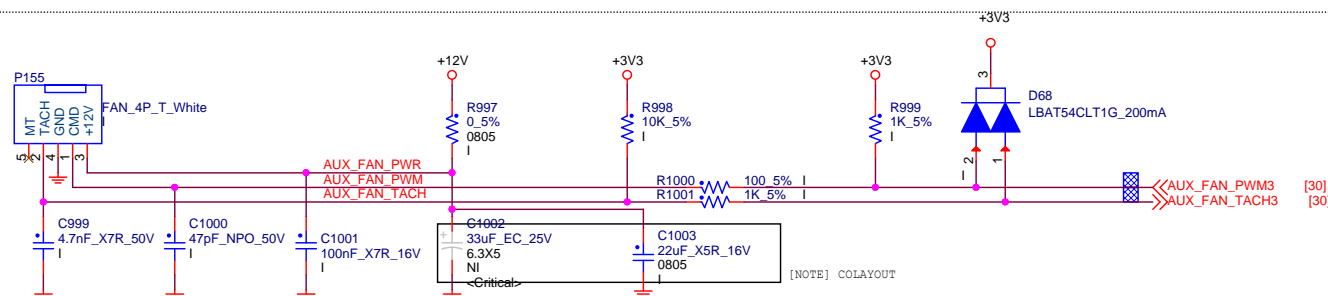
Color: White
Follow DTDL



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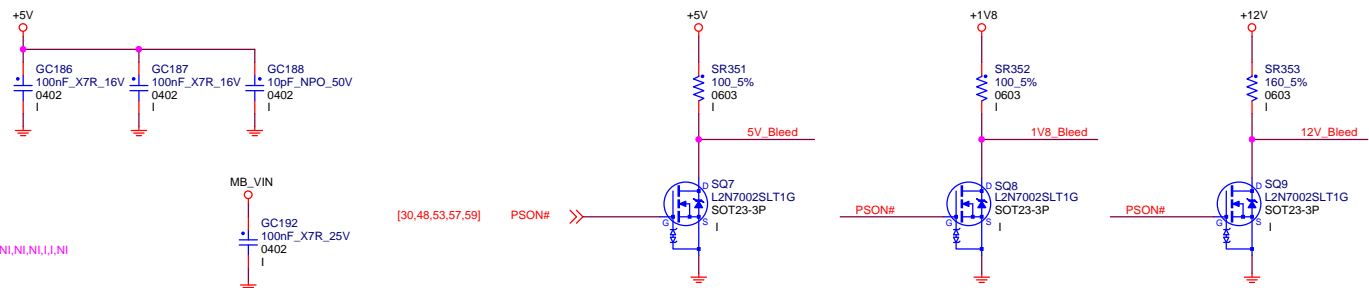
AUX FAN

Color: White
Follow DTDL

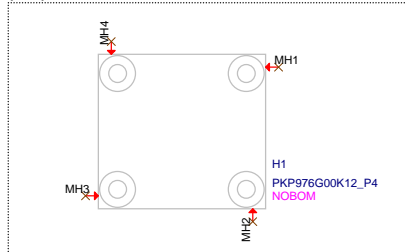


EMI CAPS

Bleed off



[NOTE] Foot Print ONLY For CPU HEATSINK



HU1-E
GEMINI LAKE SOC
FCBGA-1090P

3500
IC 64BIT MICROPROCESSOR(2 Core)

HU1-C
GEMINI LAKE SOC
FCBGA-1090P

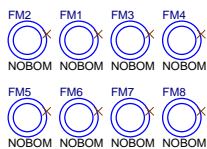
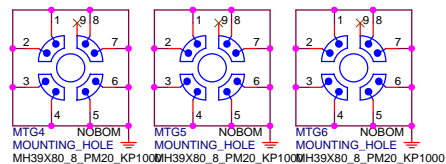
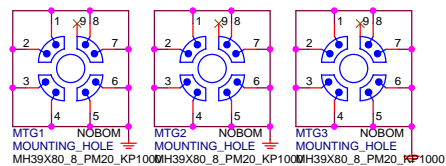
3150
IC 64BIT MICROPROCESSOR(2 Core)

HU1-D
GEMINI LAKE SOC
FCBGA-1090P

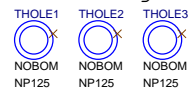
3050
IC 64BIT MICROPROCESSOR(2 Core)

HU1-F
GEMINI LAKE SOC
FCBGA-1090P

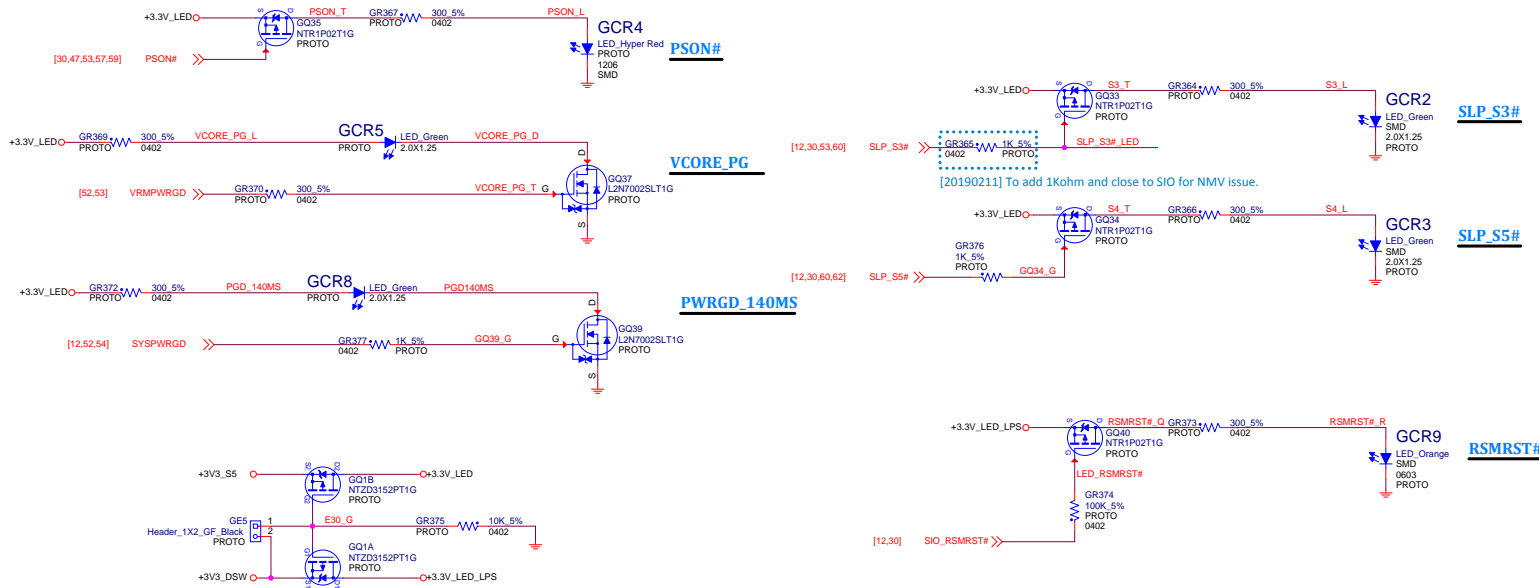
3020e
IC 64BIT MICROPROCESSOR(2 Core)



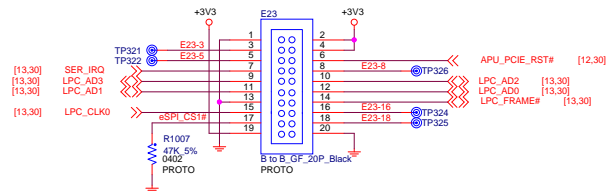
DFT Tooling Hole



DEBUG LEDs

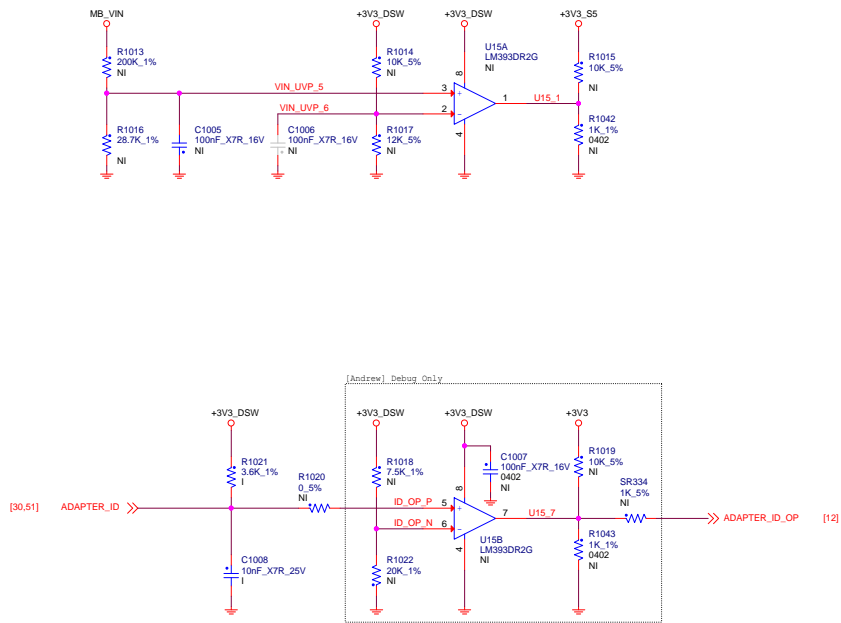


[NOTE] LPC INTERFACE ONLY



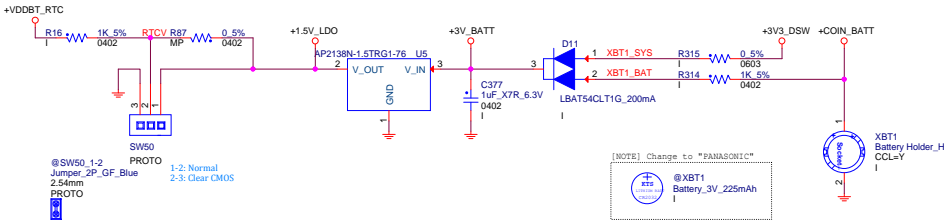
[NOTE] Waitng Lenovo Spec Update to Modify

[NOTE] Adapter's under volatge detect circuit , Below 14.5V




O/P Watt	ID Resistor (Ω)	Voltage
45W	118	0.104
65W	287	0.243
90W	549	0.436
120W	750	0.568
150W	1400	0.924
170W	1910	1.143
135W	1000	0.717
230W	4640	1.858

BATTERY

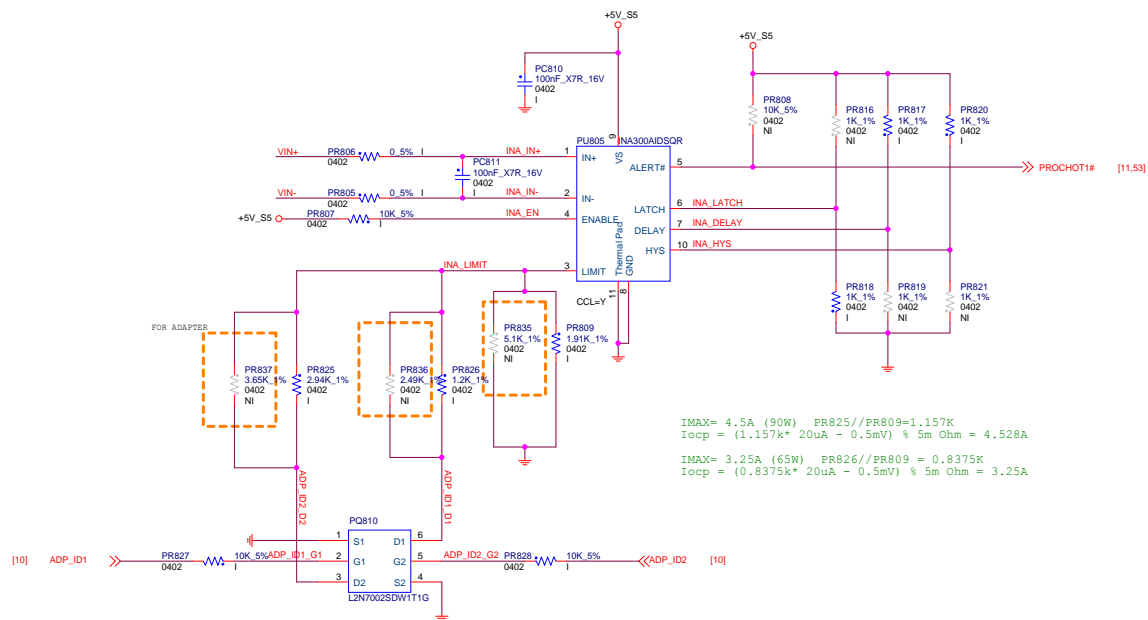
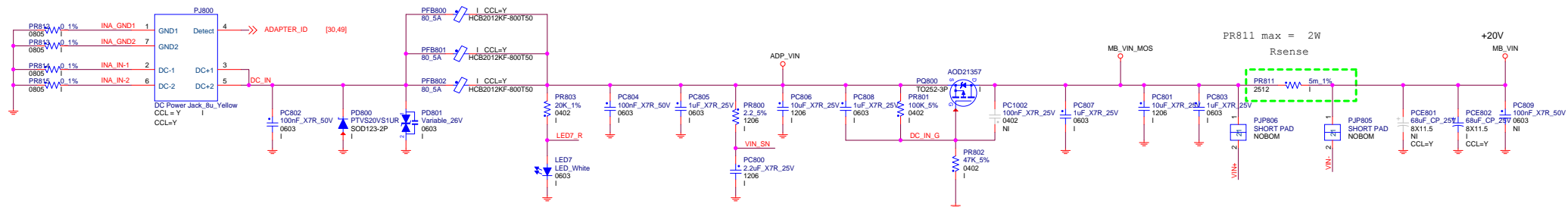


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1	2	3	4	5	6	7	8
A							A
B							B
C							C
D							D
1	2	3	4	5	6	7	8

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50.=====DC Power=====			
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Adapter-In

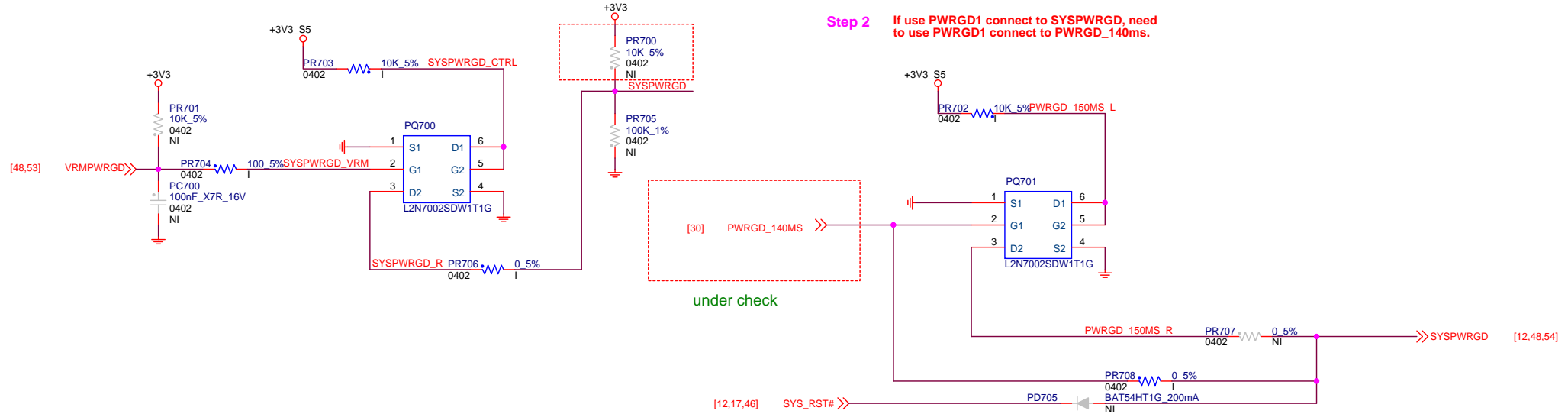


ADP_ID1	ADP_ID2	ADP	OBP SET POINT
1	0	65W	3.25A
0	1	90W	4.5A

SYSTEM POWER GOOD

SYSPWRGD Has been pulled up by EE,NI PR700


Step 1



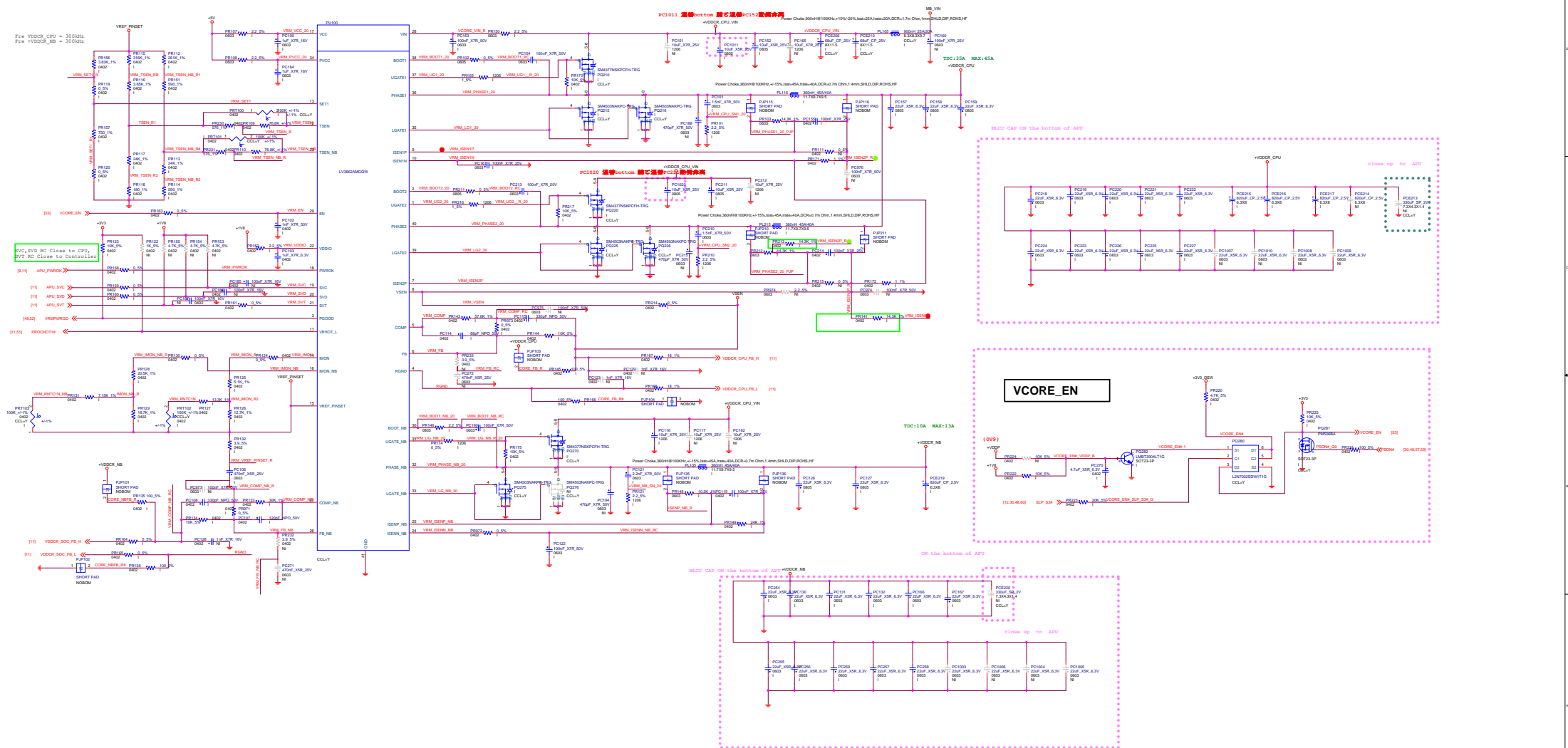
Step 2

If use PWRGD1 connect to SYSPWRGD, need to use PWRGD1 connect to PWRGD_140ms.

under check

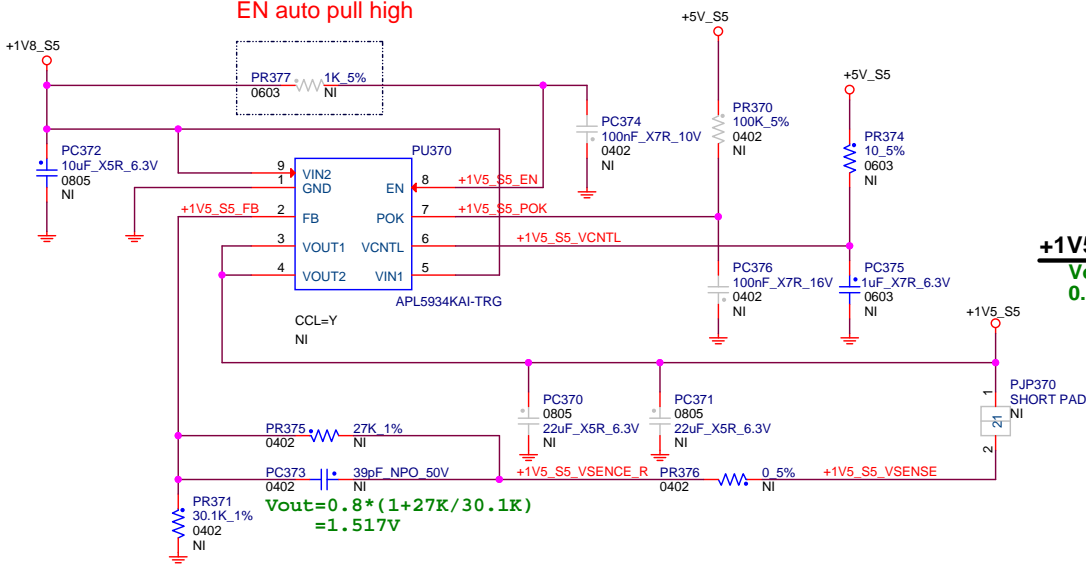
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Title			
52. SYSTEM POWER GOOD			
Size Custom	Document Number FP5DALICX		Rev SDV
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+VDDCR_CPU&+VDDCR_NB



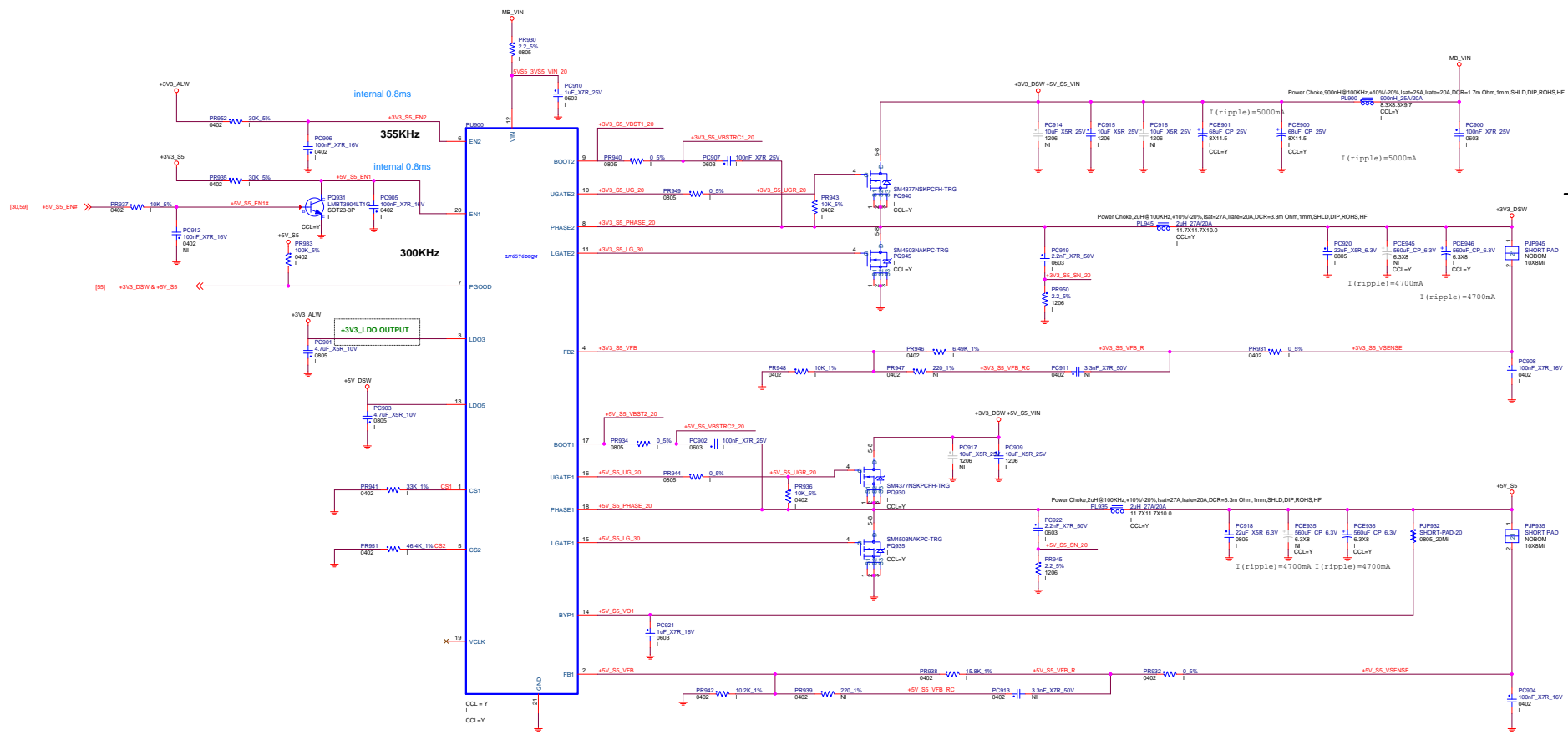
+1V5_S5

EN auto pull high



BOM Definition

I	Installed
NI	Not Installed
CCL	Critical Components List
PROTO	Not For Production Part
MP	Production Part ONLY



+3V3_DSW

Vout= 3.3V
TBD/8.9A

+5V_S5

Vout= 5V
TBD/8.63A

$$D = V_o / V_{in} = 3.3V / 20V = 0.165$$

$$I_{in,ripple} = (I_o / n) * \pm [nD * (1 - nD)]$$

$$= (9/1) * \pm [0.165 * (1 - 0.165)]$$

$$= 3.34A$$

$$D = V_o / V_{in} = 5V / 20V = 0.25$$

$$I_{in,ripple} = (I_o / 1) * \pm [nD * (1 - nD)]$$

$$= (10/1) * \pm [0.25 * (1 - 0.25)]$$

$$= 4.3A$$

$$V_{out} = 2 * (1 + PR946/PR948) = 3.33V$$

$$OCP \text{ set point } R_{cs2}$$

$$I_{pk-pk1} = (20 - 3.3) / 3.3 / 20 / 2uH / 355KHz = 3.88A$$

$$LS \text{ OCP} = (R_{cs} / I_{cs} / 8 / (R_{dson} / N(LS))) + I_{pk-pk/2}$$

$$= (30.8K * 10uA) / 8 * 4 + 3.88A / 2$$

$$= 13.125A$$

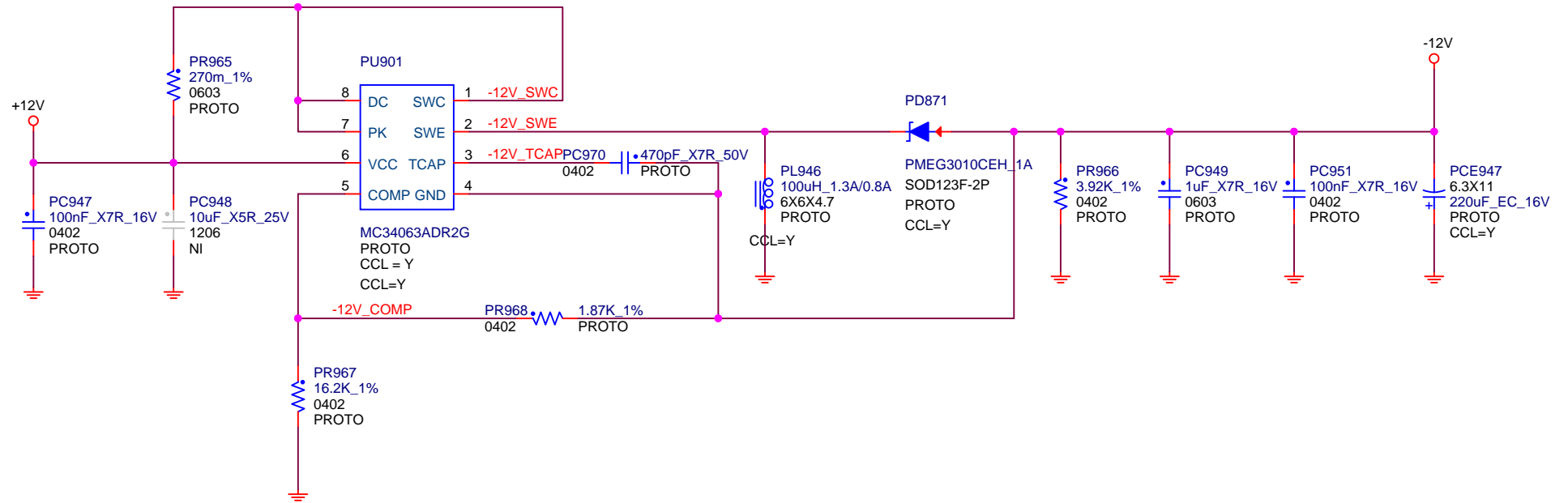
$$V_{out} = 2 * (1 + PR938/PR942) = 5.009V$$

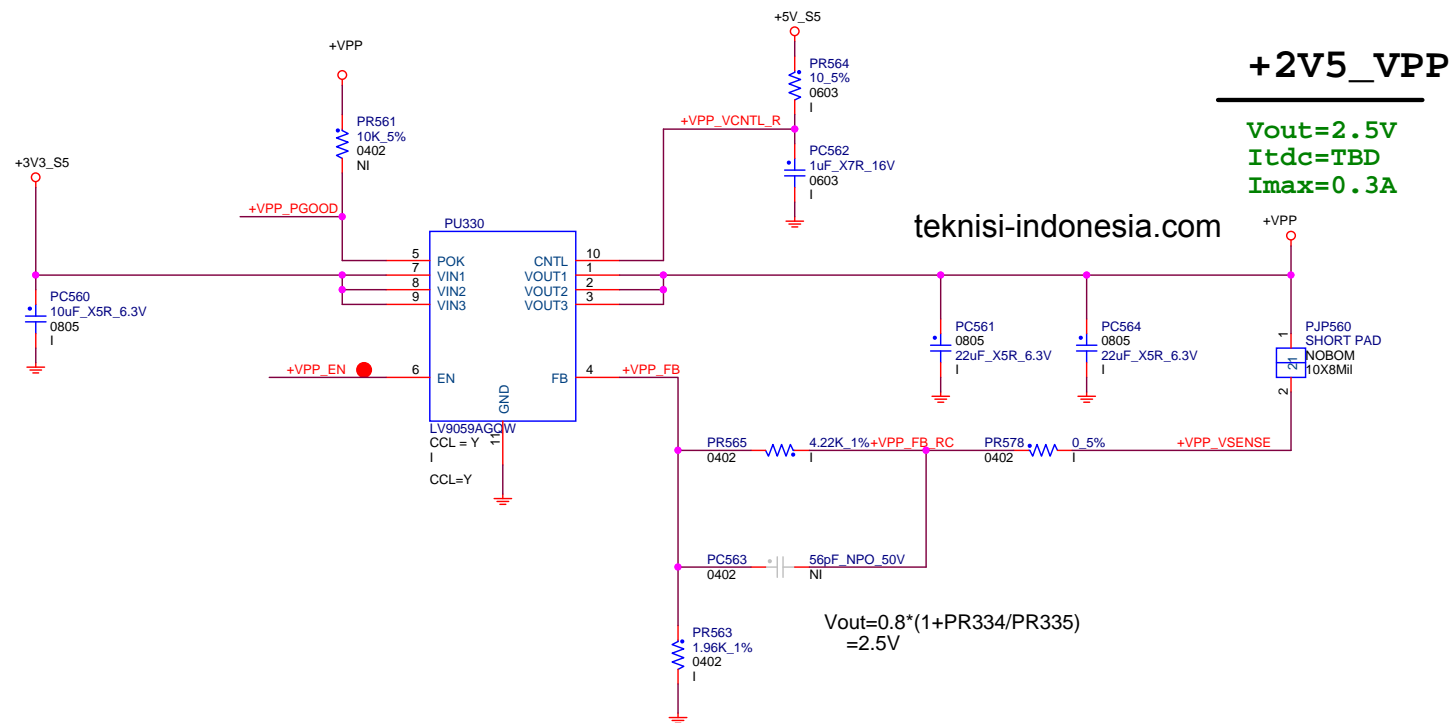
$$I_{pk-pk1} = (20 - 5) / 5 / 20 / 2uH / 300KHz = 6.25A$$

$$I_{ocp} = R_{cs} / I_{cs} / 8 / R_{dson} + I_{pk-pk/2}$$

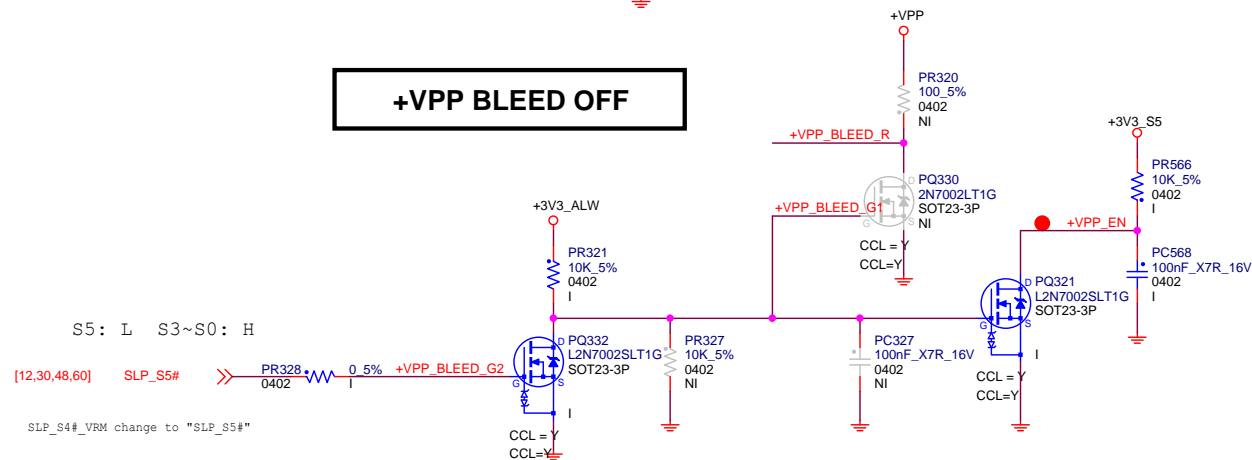
$$= 15A$$

-12V






+VPP BLEED OFF



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62.+VPP			
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1	2	3	4	5	6	7	8
A							
B							
C							
D							

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* 0926 *

change PR563 from 610114K03-011-H to 610114K00-011-H
change PR812,PR813,PR814,PR815 from 61010LB00-011-H to 61010LB00-044-H
change PCE214,PCE215,PCE216,PCE217,PCE218,PCE219,PCE475,PCE476,PCE605 from 621207807-021-H to 621207801-021-H
change PC490 from 620121801-023-H to 620121800-026-H
change PR708 from NI to I
change PR109,PR110 from 610125M00-011-H to 610125M00-012-H
change PR938 FROM 15.8K TO 15K
change PR946 FROM 6.65K TO 6.49K
change PR476 from 7.68k to 7.32k


1008
change PC546,PC541,PC542,PC543 FROM 0603 TO 1206 (LAYOUT CHANEG)
change PCE216 FROM NI TO I

1010
add pjpl1000, pc1000,pr1000 (LAYOUT CHANEG)

1011
change PC652 and PR673 from I to NI
change PR661 from 39k to 470K
change PC536 from 100nf to 22nf
ADD PR1001(LAYOUT CHANEG)

1014
change PCE210 from I to NI
change PC480 from 0402(100nf,NI) to 0805(1uf,I)
ADD PC1002 (LAYOUT CHANGE)

1118
Delete pc503,pc546,add PCE550,PCE560

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64. PWR Change list			
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EE Change List

ET-SDV :

For +3V3 leakage issue
*Remove R1019
*Remove PR808,PR122 @ PROCHOT1#
*Change? HR216,HR217 pull-up power rail to "+3V3_S5"
*Remove "LR12"
*Change "R107" Pull-up power to "+3V3"
*Change "E23" power rail to "+3V3"

For +3V3_S5 leakage issue
*Change "HR197" Pull-up power to "+3V3_S5"

For +3V3_S5 leakage issue
*Change "HR197" Pull-up power to "+3V3_S5"

Follow AMD CRB
*Add +1V8/+5V/+12V Bleed Off Circuit

Follow AMD CRB
*Add +1V8/+5V/+12V Bleed Off Circuit

For power button LED issue
*ADD Q300

For SUSCLK_2230/SUSCLK_2280 voltage issue
*Remove HR165/Q299/R1030,install HR169/R1045

For RJ45 & s USB debug port can * t wake by KB/Mouse issue
*Change GPIO from "AGPIO40" to "TP328(EPIO42)" @ PCH_USB_UART_EN

For SID issue
*Change C41,C65,C996 to MLCC 22uF_X5R_6.3V/0603 + 10nF/0402

Follow AMD CRB
*Change "R9" Pull-up power to "+1v8"

Correct pull up RES
*Change R106/100K and R105/100K to 10k

For SMB_DDDR4_CLK/SMB_DDDR4_DATA NMV issue
*Add KR328/KR329 for SMB_DDDR4_CLK/SMB_DDDR4_DATA NMV issue

For APU_RST#_R NMV issue
*Add KR328/KR329 for Change HR139 from 0ohm to 33ohm

For APU_RST#_R NMV issue
*Add KR328/KR329 for Change HR139 from 0ohm to 33ohm

For APU_PWROK_R NMV issue
*Change HR11 from 0ohm to 33ohm

For Audio measurement fail
*Change AR49 | AR51 from 75ohm to 56ohm

For Audio SDOUT/SYNC RSR&FSR issue
*Change HR36 | HR121 from 33ohm to 0ohm,Add AC78/AC79 7 reserve 5

For VGA_SDATA NMV issue
*Change R379 from 33ohm to 0ohm

For +1P05V_VDD_LAN noise issue
*Install LC36 and change to 4.7uF

For SS request
*Replace ANPEC_APL3511BBI-TRG with *ANPEC_APL35538BI-TRG as U2
*Replace PANIIT_BAT54C with LRC_LBAT54CLT1G as D11/D27/D28/D68/KD1/KD2/KD3
*Replace ON_MM8T390GLT1G with LRC_LM8T390GLT1G as AQ3,AQ4,AQ8,AQ9
*Replace NEXPERIA_74AHC1G08GW with ON_MC74VHC1G08DFT2G as KU311,KU314
*Replace ON_BSS138LT1G with LRC_LBSS138LT1G as Q11,Q26
*Replace LPL1077-SR503-9H with LPL1077-SR503-9F as P62/P63
*Replace M74VHC1GT50DFT1G with M74VHC1GT50DFT2G as HU2

For factory request
*Replace RONNIE_S5-4020-38 with RONNIE_S8-4020-445 as NUT1/NUT2

Change SATA connector color from "black" to "red"
*Replace FOXCONN_LPL1077-5L503 with FOXCONN_LPL1077-SR503-9H as P63/P63

For Vendor request
Change HC417,HC432 from 15pF to 18pF
Change HC14,HC36 from 22pF to 5 pF
Change SC217 from 10pF to 20pF,Change SC218 from 10pF to 22pF
Change LC8,LC9 from 30pF to 27pF

SDV-SIT :

For factory request
*Replace PINREX_220-97-05GB02 with PINREX_220-97-05GB37 as P154
*Replace FOXCONN_HC11061-YP6 with FOXCONN_HCL11061-WP6 as P152

For Lenovo request
*Replace FOXCONN_JA31131-4132B-7F with FOXCONN_JA31131-4132D-7F as AJ1&AJ3
*ReplaceFOXCONN_JA41131-41N2B-7F with FOXCONN_JA41131-41N1B-7F as AJ2

For SS request
*Replace TAIYO_LMK107BJ475KA-T with MURATA_GRM155R60J475ME87D as C815,C828,C1025,LC37

Change USB's Cap type from MLCC to Ecap.
Front USB3.0
- Install C65/470uF
- Dummy C1031/22uF, C1027/10nF
Front USB2.0
- Install C41/470uF
- Dummy C1030/22uF, C1029/10nF
Internal USB Header
- Install C996/470uF
- Dummy C1033/22uF, C1034/22uF, C1032/10nF

Change FAN's Cap type from Ecap to Ecap.
CPU Fan
- Install MLCC C294/22uF
- Dummy Ecap C544/33uF
System Fan
- Install MLCC C295/22uF
- Dummy Ecap C545/33uF
Aux Fan
- Install MLCC C1003/22uF
- Dummy Ecap C1002/33uF

For factory request Change VGA Connector "VJ2"
*Change FOXCONN_DV11201-H4R9-4F to FOXCONN_D211621-H650V-4F

Fix +5V/+1V8/+12V Bleed-Off Feature
Add "PSON# " Page-Off Connector in Page47

For SYSPWRGD glitch issue
Remove PR707 and SR60 2 install PR708

For EMC fail issue
Change AC49 ,AC53 from 100pF to 680pF

3500 SIT-SVT :

For Picasso 3500 CTDP 25W
*ADD HU1-E
-AMD "YM3500C4T4MFG"

For SVT Rev ID
*Install "HR171", remove "HR174"

For Board ID
*install "HR168"

3020e SIT-SVT :