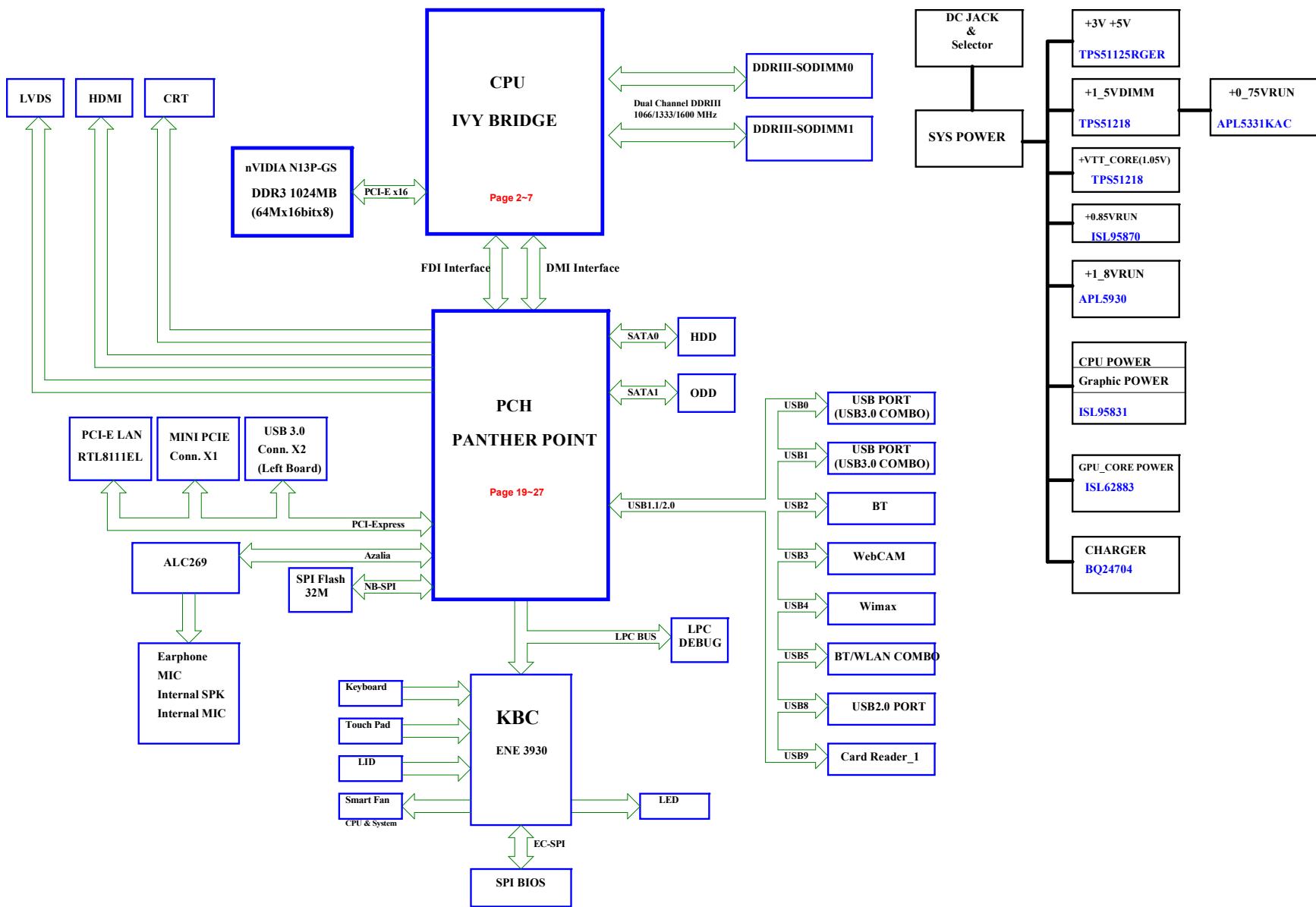
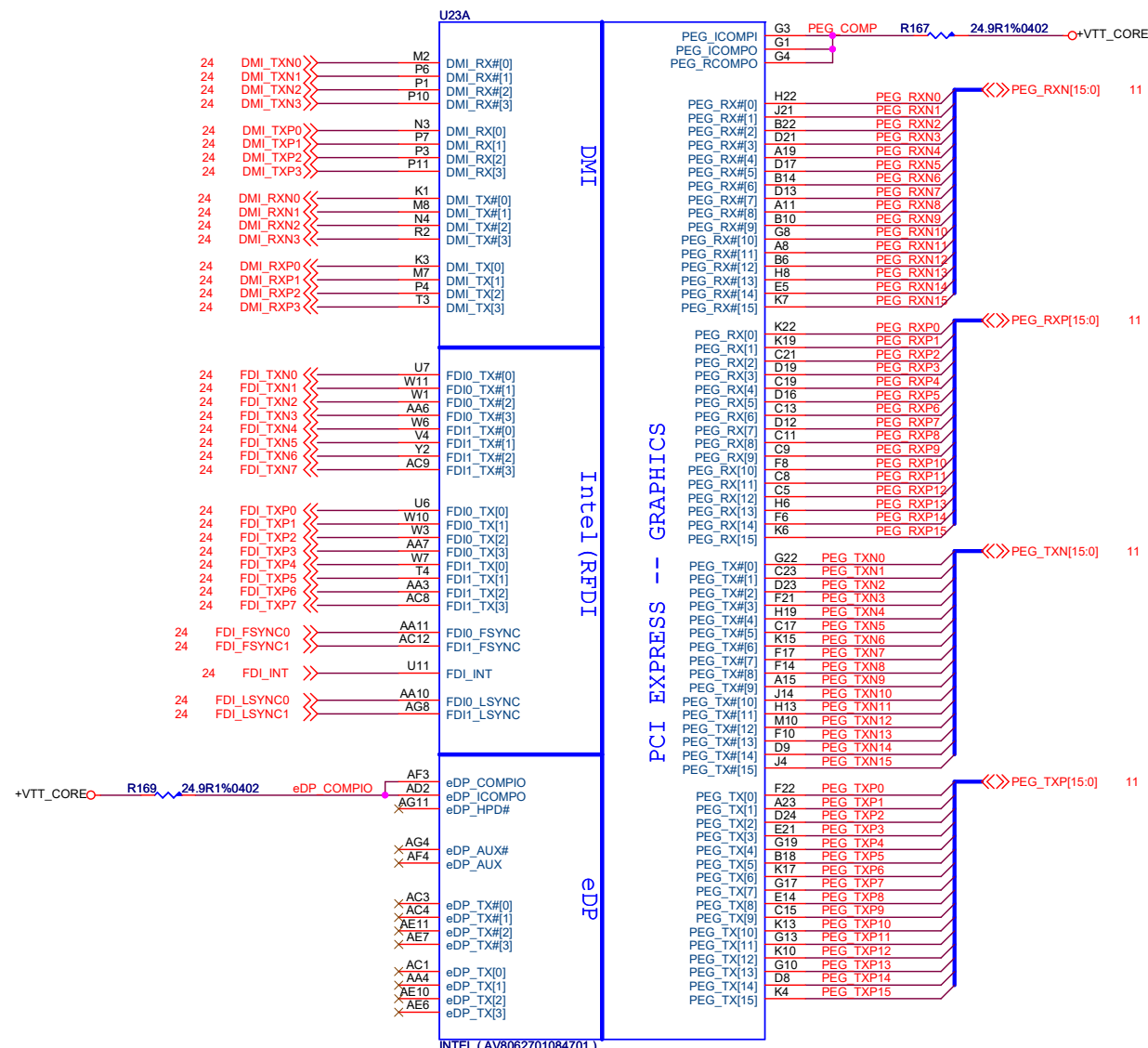


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11	nVIDIA N12P-GS_MEM Interface A
12	nVIDIA N12P-GS_MEM Interface C
13	nVIDIA N12P-GS_FrameA DDR3 I
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30	KBC/EC/uP (KB3930)
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32	BTB PCIE Connectors
33	Audio ALC892 / AMP(APA2031)
34	Battery Select & Charger
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38	M_0.85VRUN & 1.8VRUN
39	M_GPU CORE
40	M_CPU power,Graphic power
41	Screw / ME
42	EMI
43	[A] CRT/USB/LAN/BT/CONN
44	[A] PCIE GLAN(RTL 8111E)
45	[B] AUDIO/CONN
46	[B] USB3.0
47	[C] PWR_SW /LED Launch Board

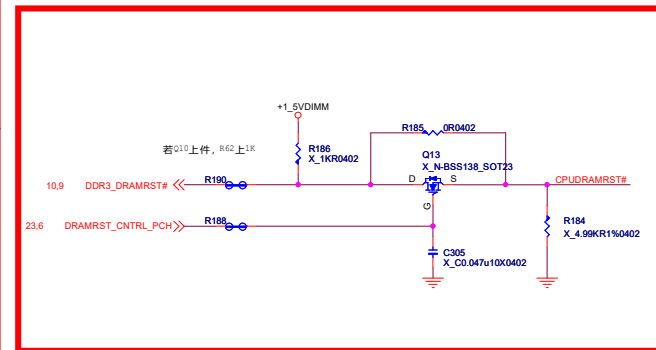
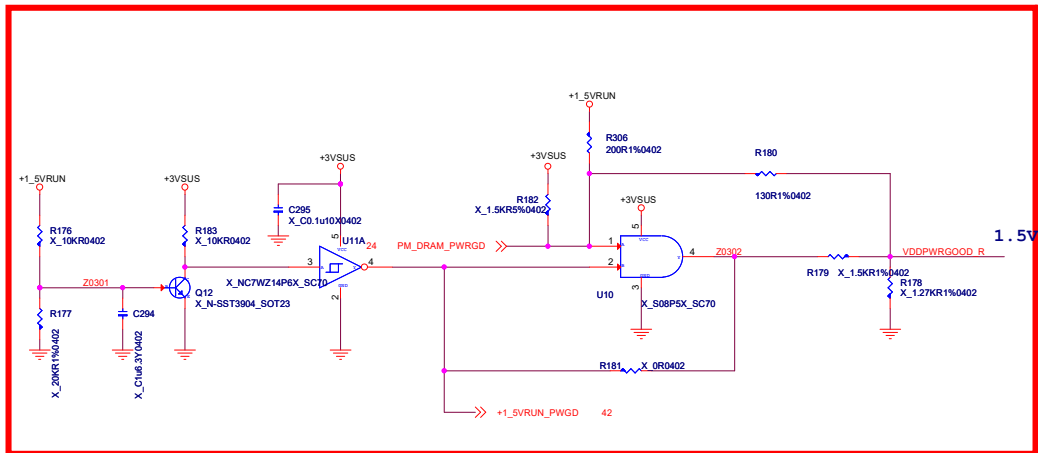
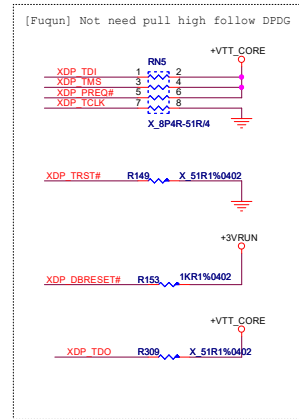
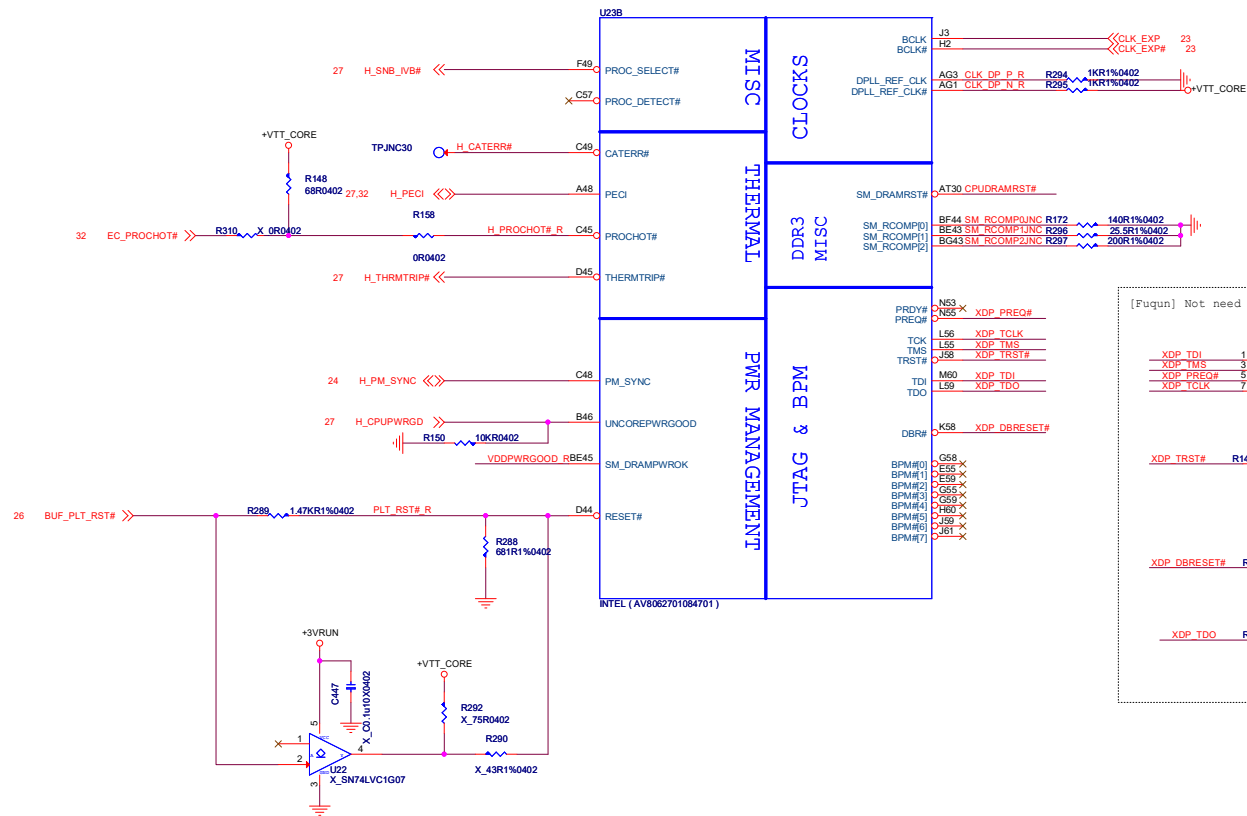


IVY BRIDGE PROCESSOR (HOST)

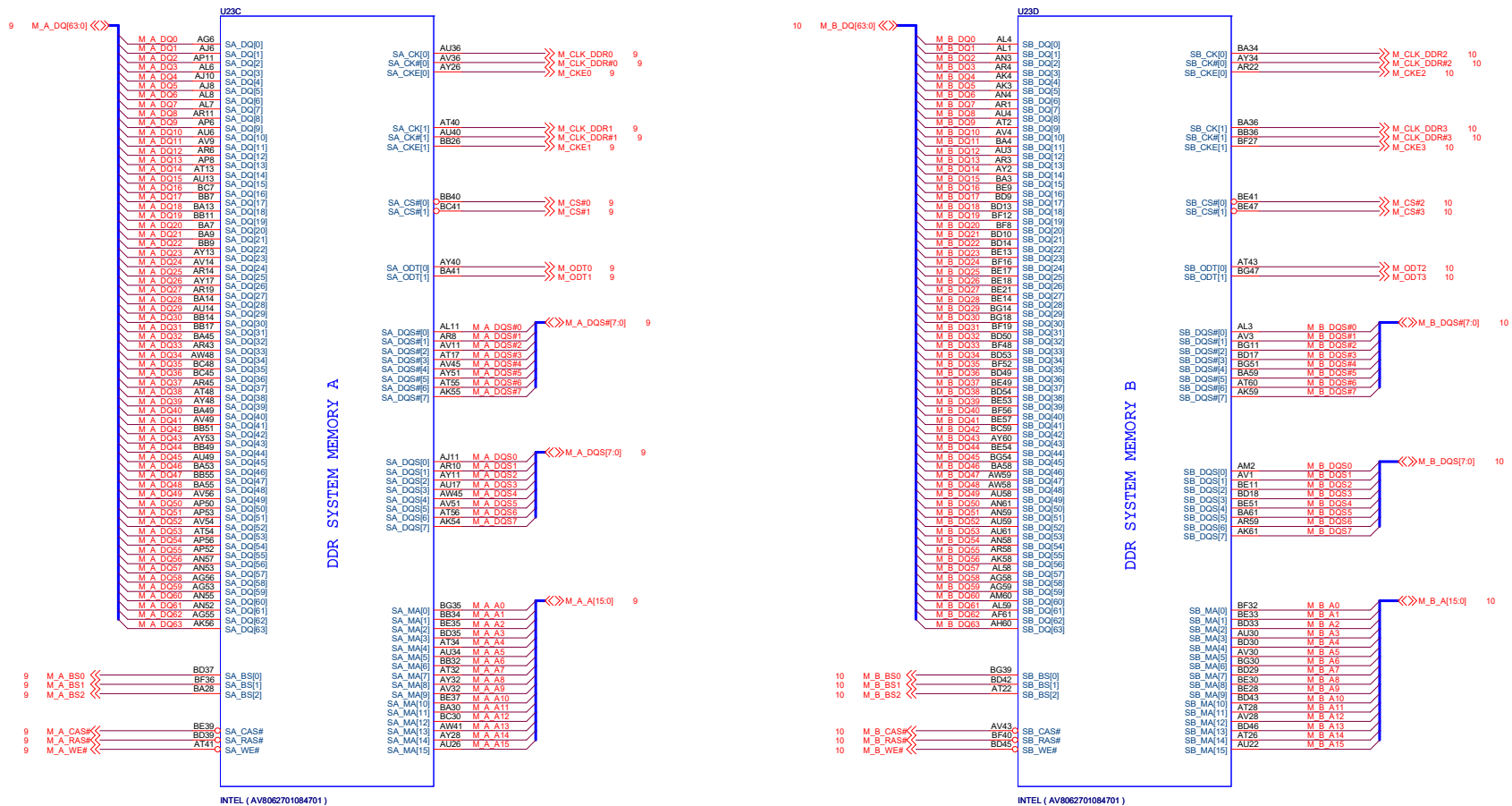


Title			
PROCESSOR-1 (HOST BUS)			
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IVY BRIDGE PROCESSOR (CLK,MISC,JTAG)



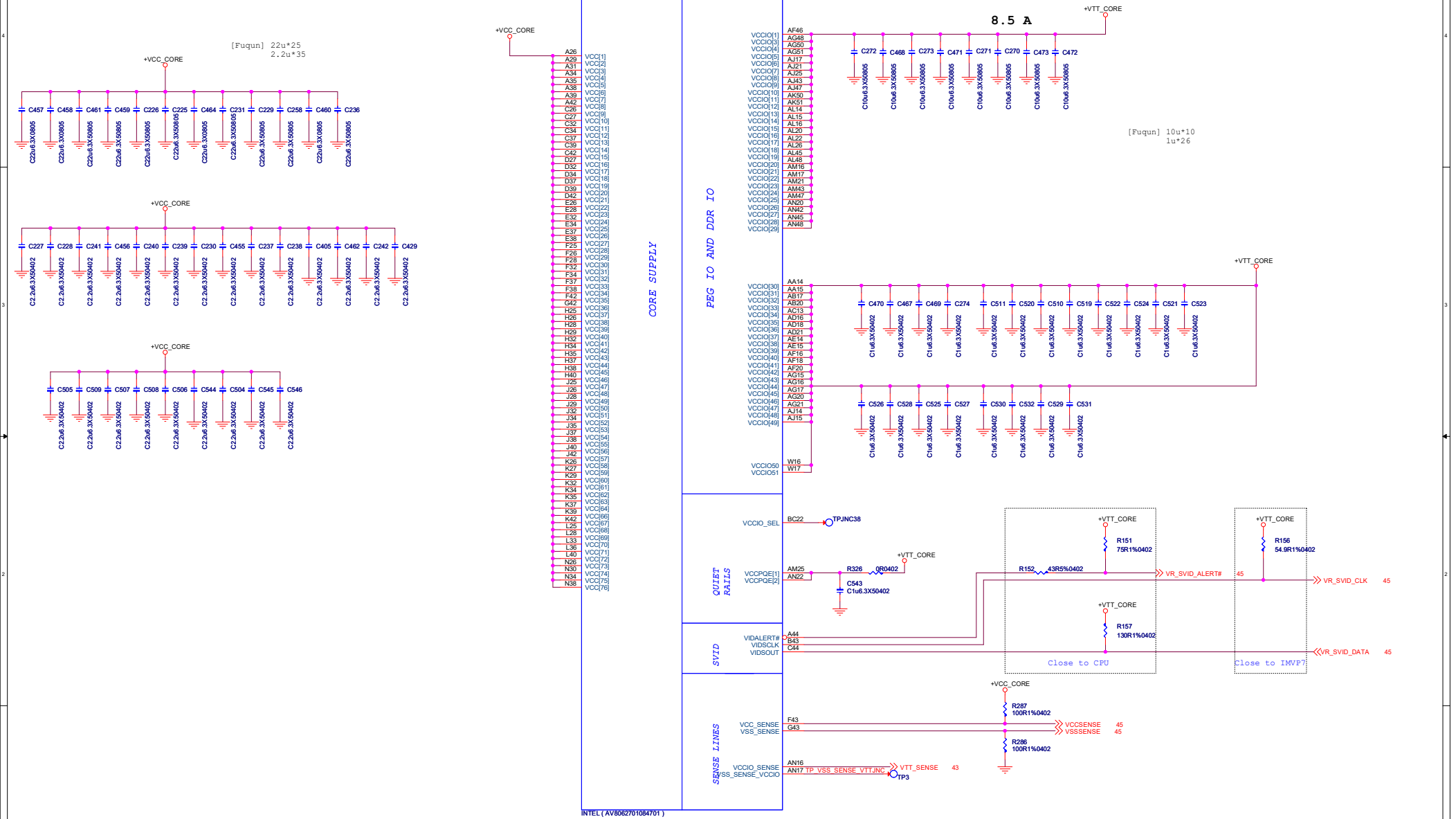
IVY BRIDGE PROCESSOR (DDR3)



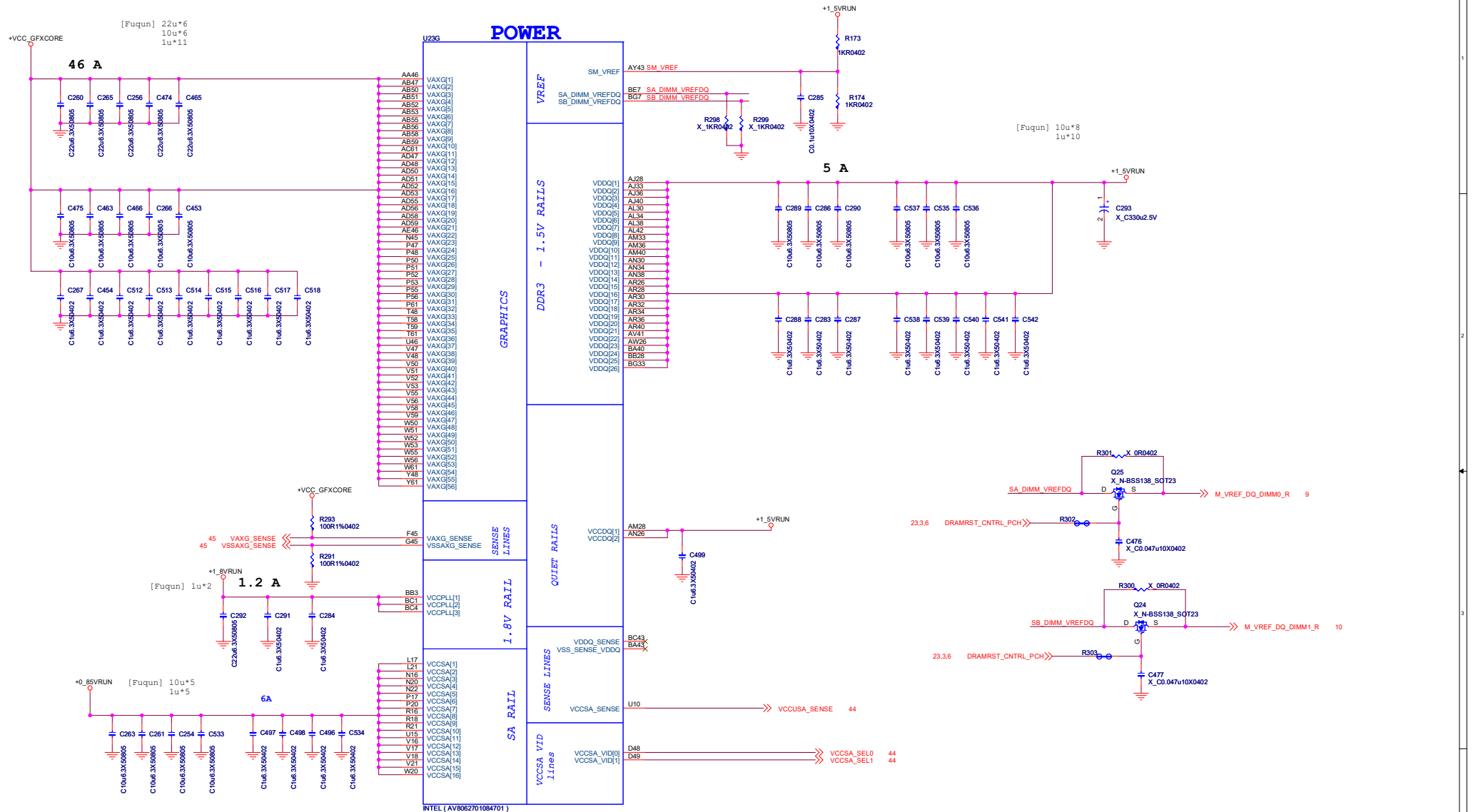
IVY BRIDGE PROCESSOR (POWER)

For SV CPU

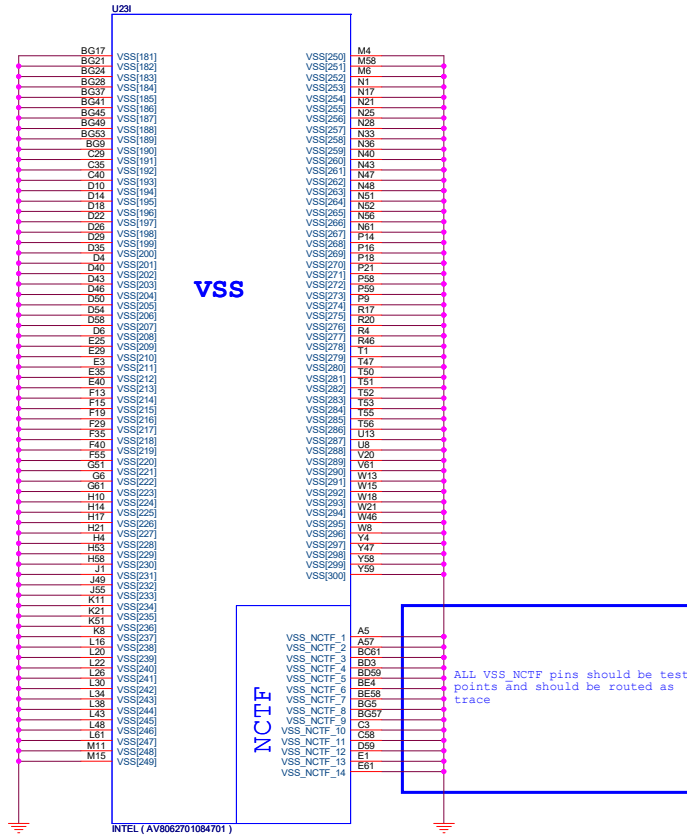
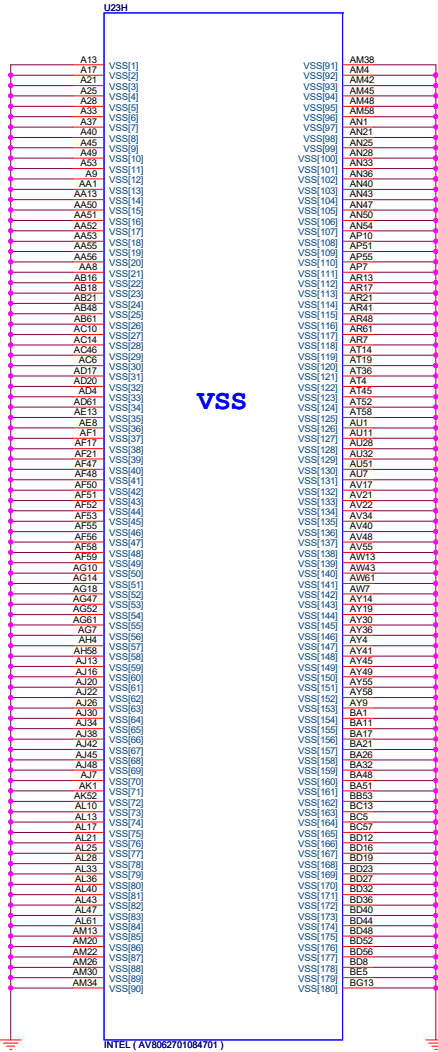
POWER



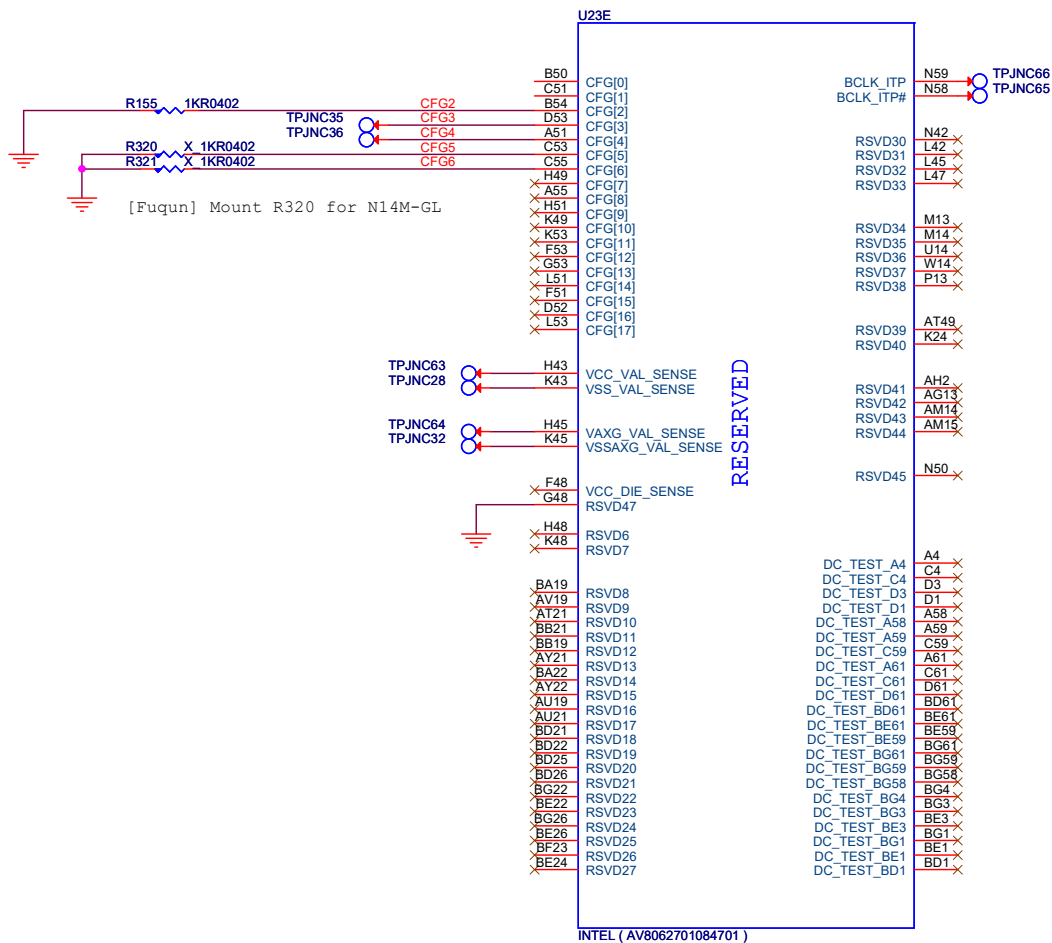
IVY BRIDGE PROCESSOR (GRAPHICS POWER)



IVY BRIDGE PROCESSOR (GND)



IVY BRIDGE PROCESSOR (RESERVED)



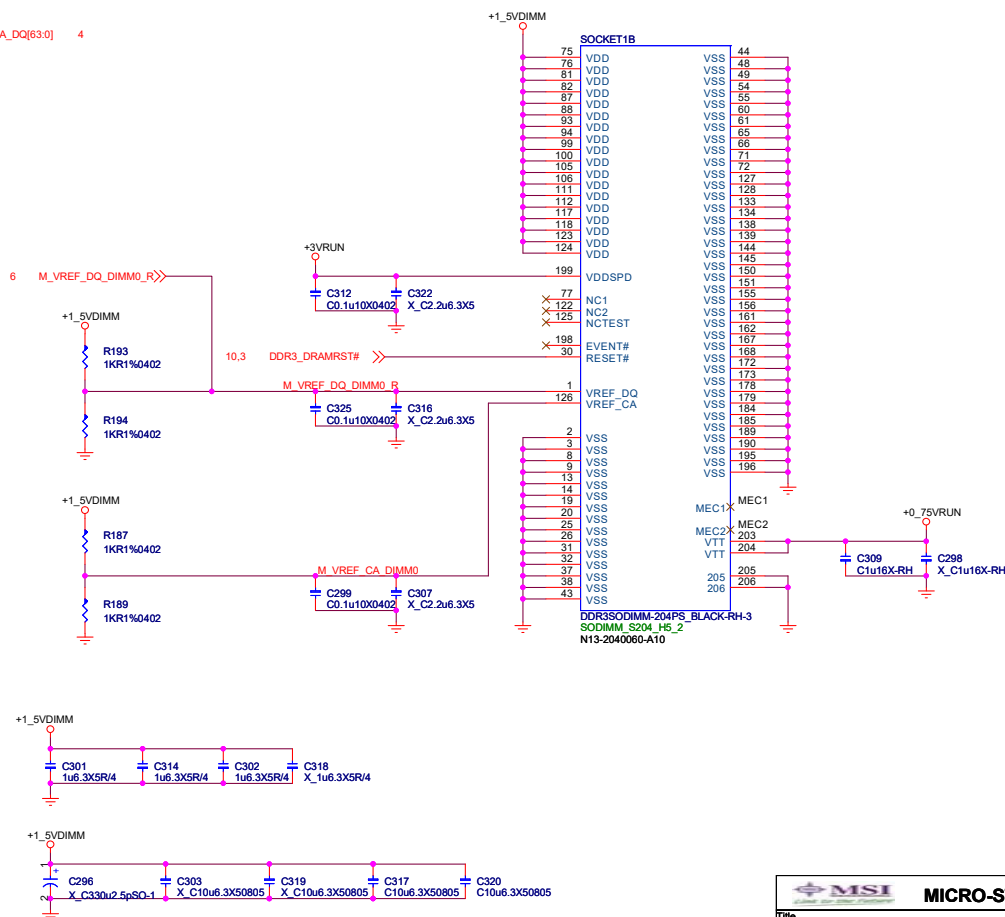
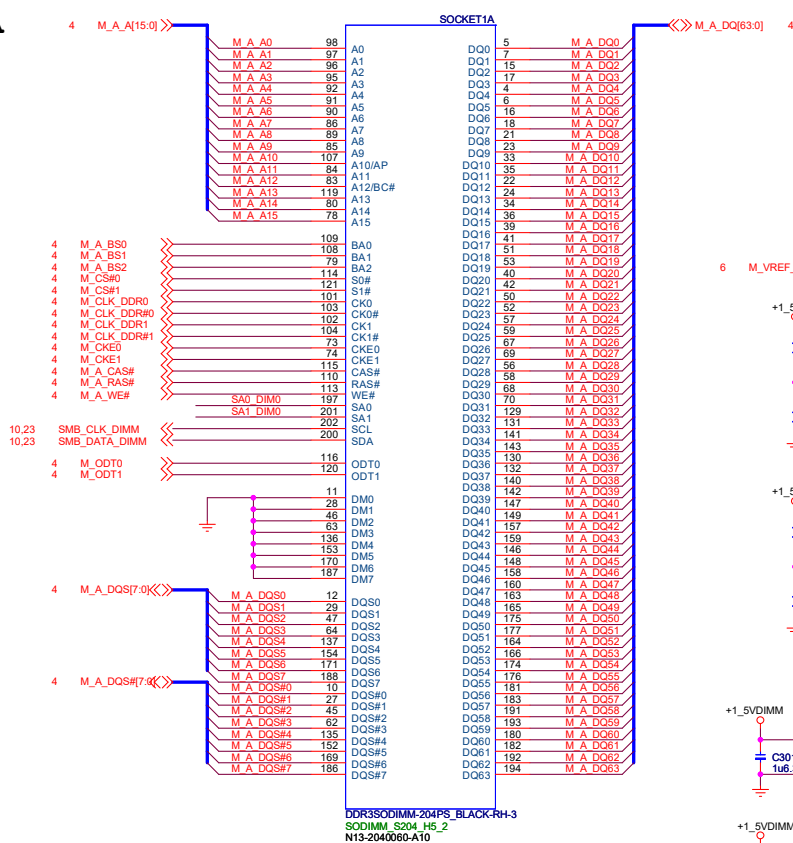
CFG2 - PCI-Express Static Lane Reversal	
CFG2	1: Normal Operation 0: Lane Numbers Reversed 15 -> 0, 14 -> 1, ...

CFG4 - Display Port Presence	
CFG4	1: Disabled; No Physical Display Port attached to Embedded Display Port (NC in DG) 0: Enabled; An external Display Port device is connected to the Embedded Display Port (Pull down to GND through a 1K \pm 5% resistor)

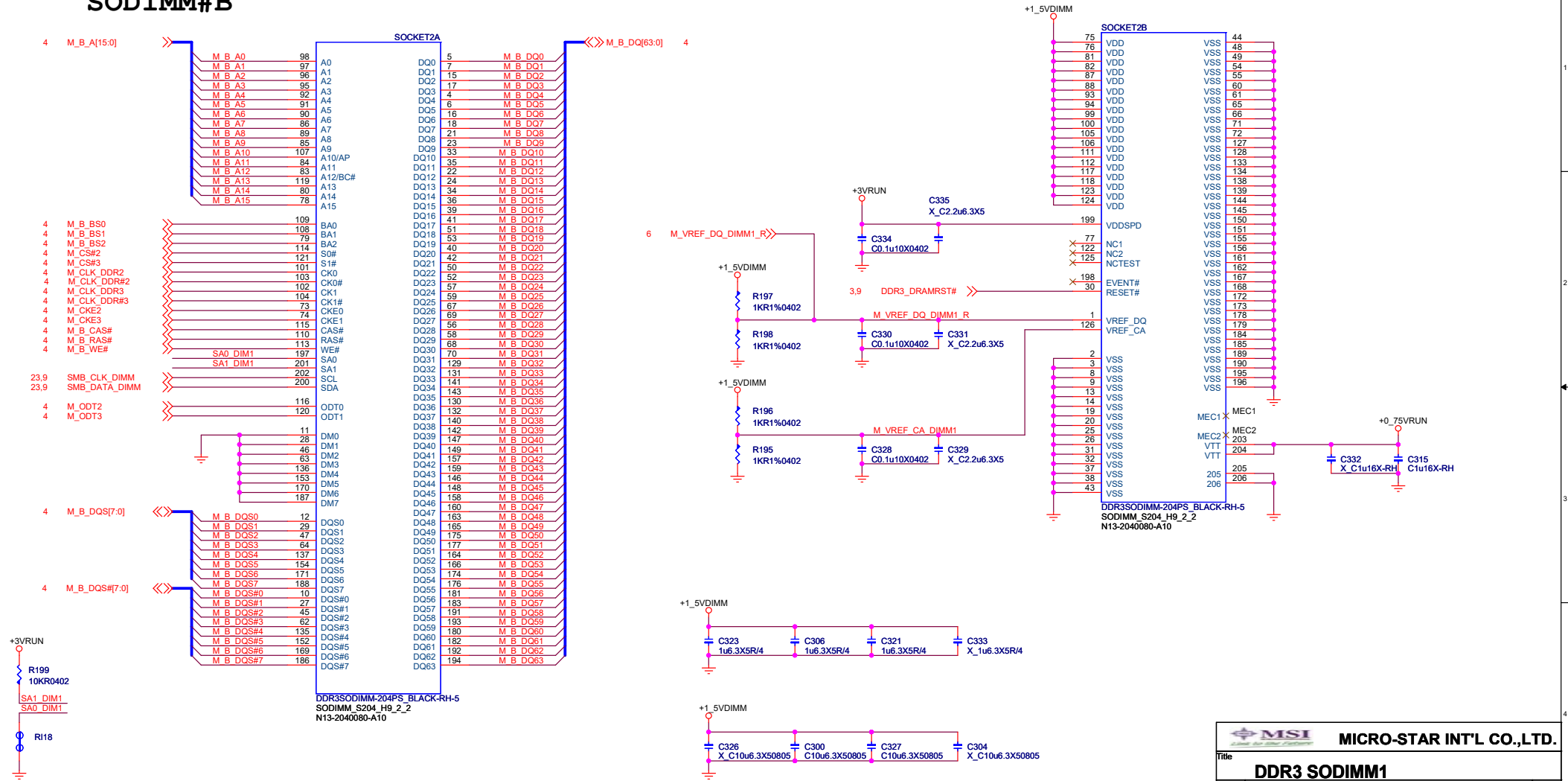
PCI-Express Configuration Select	
CFG[5:6]	00 = 1 x 8, 2 x 4 PCI Express 01 = reserved 10 = 2 x 8 PCI Express 11 = 1 x 16 PCI Express (Default)

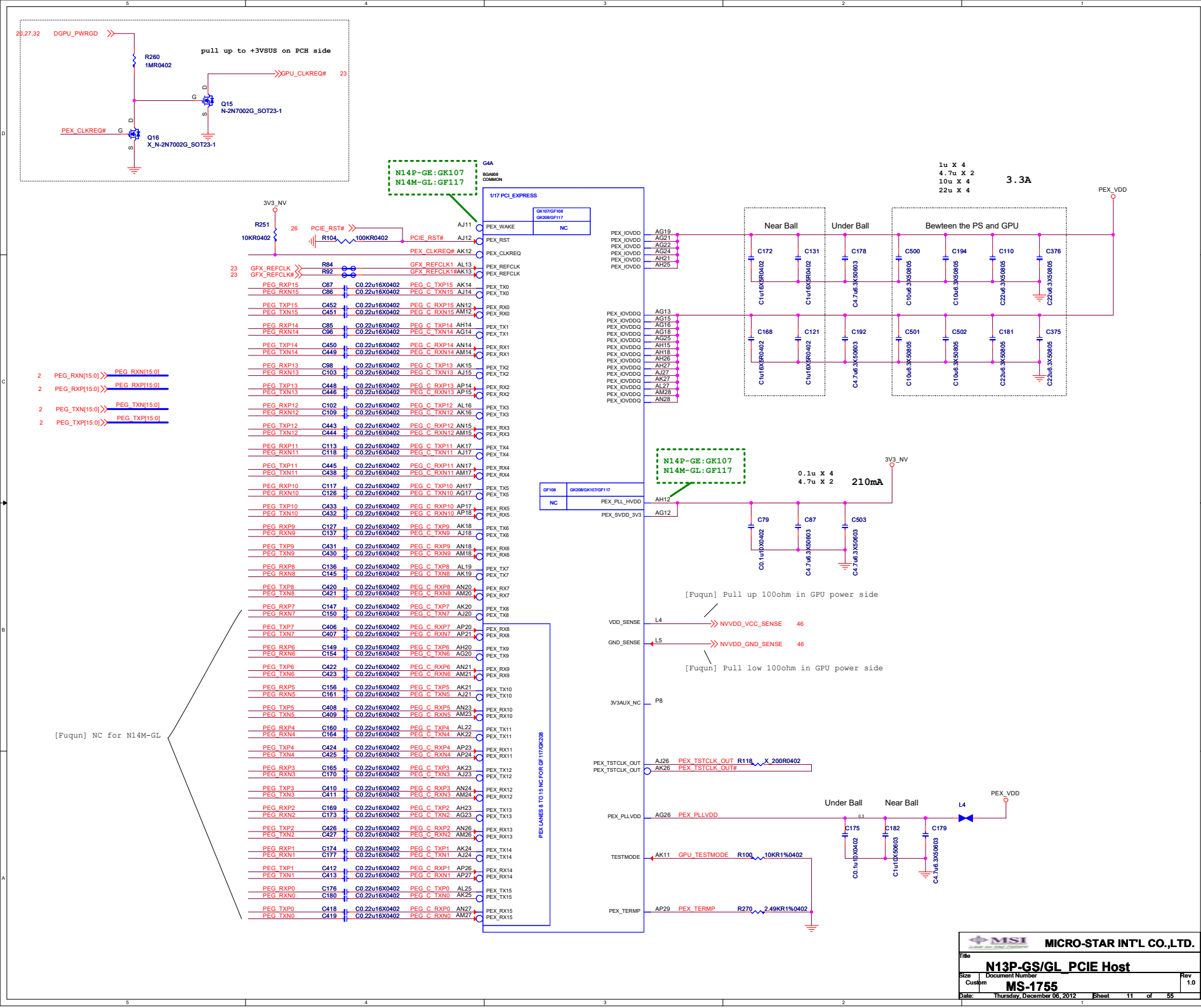
PROCESSOR-7 (RESERVE)		
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SODIMM#A



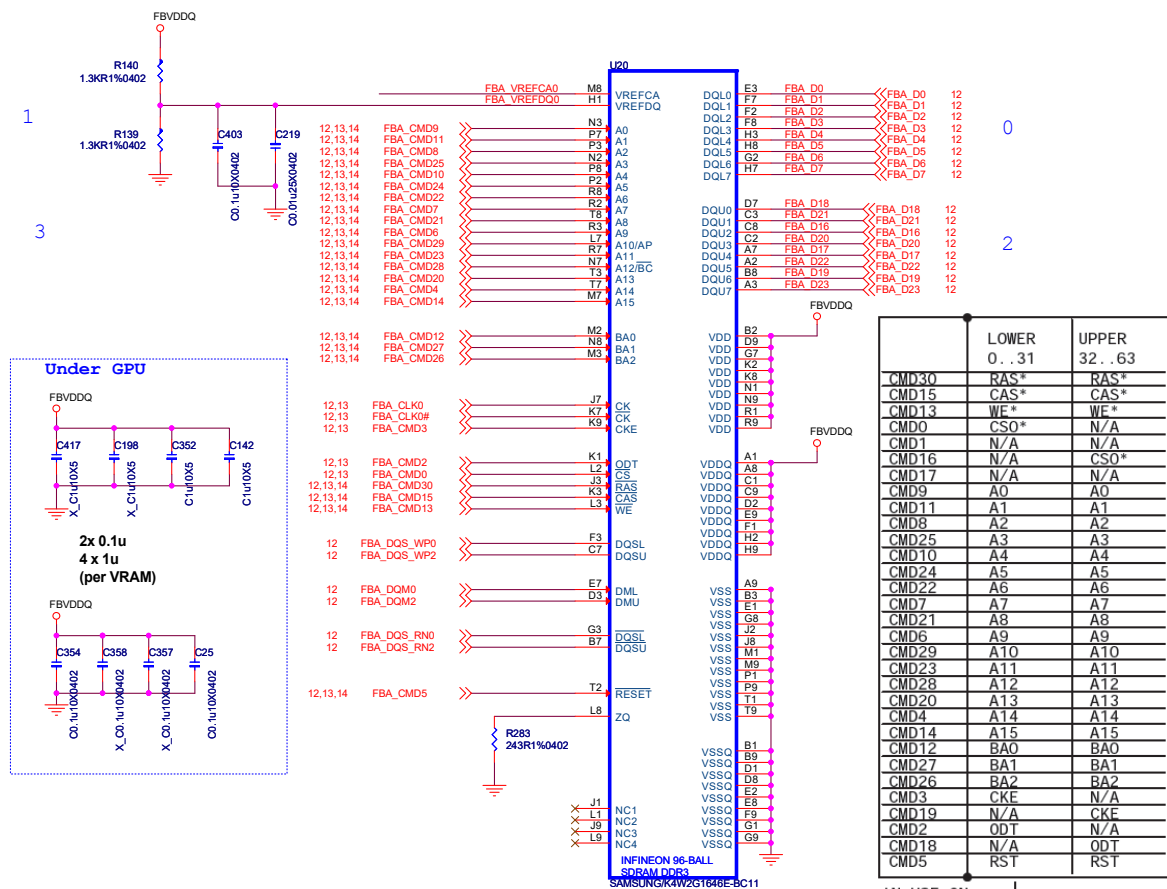
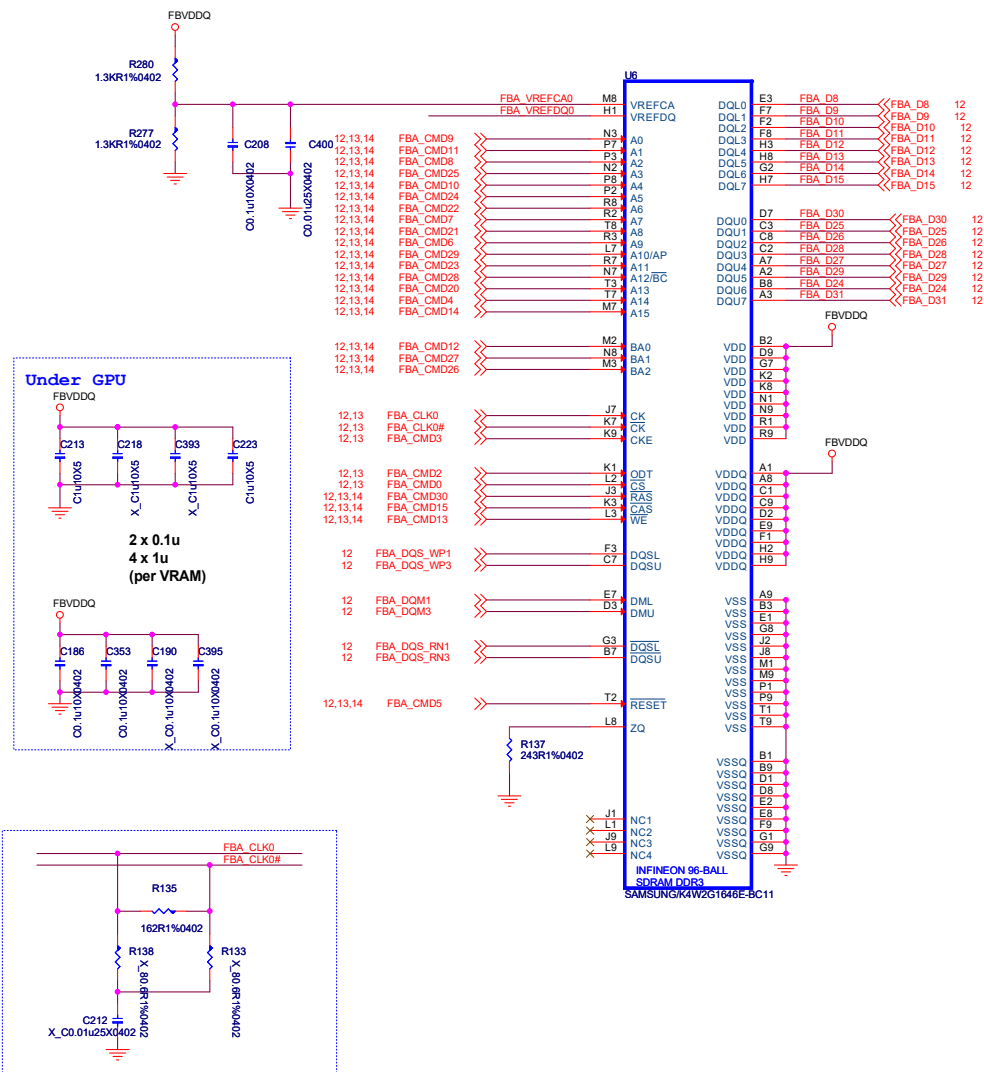
SODIMM#B





impedance???

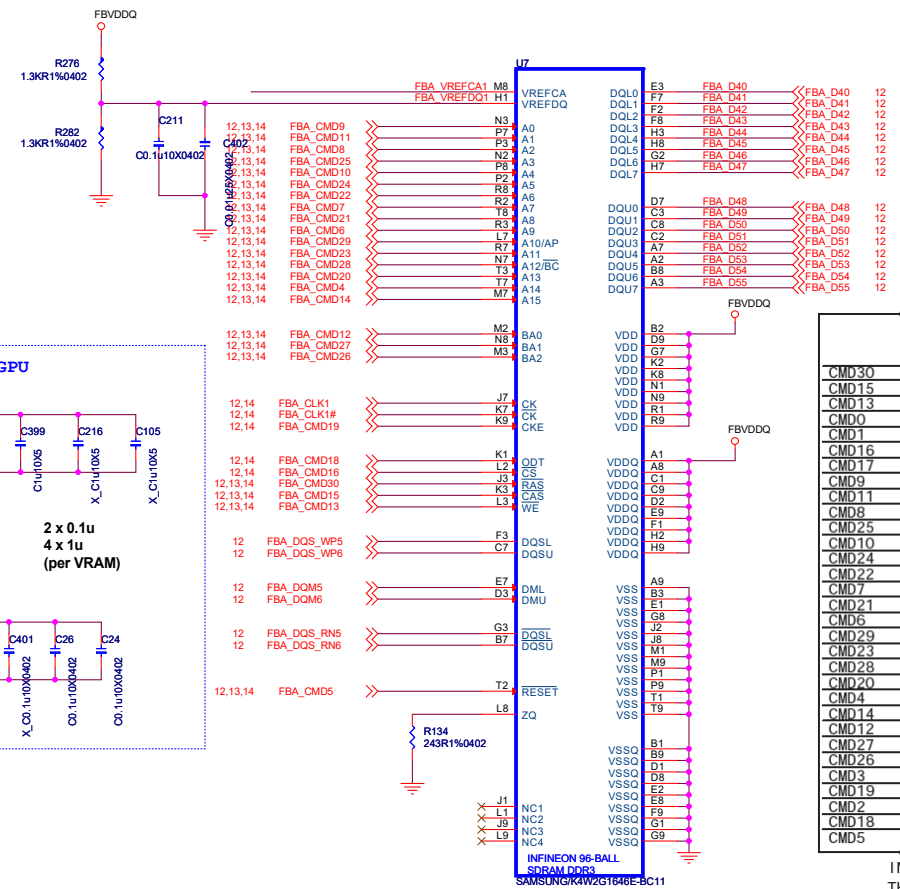
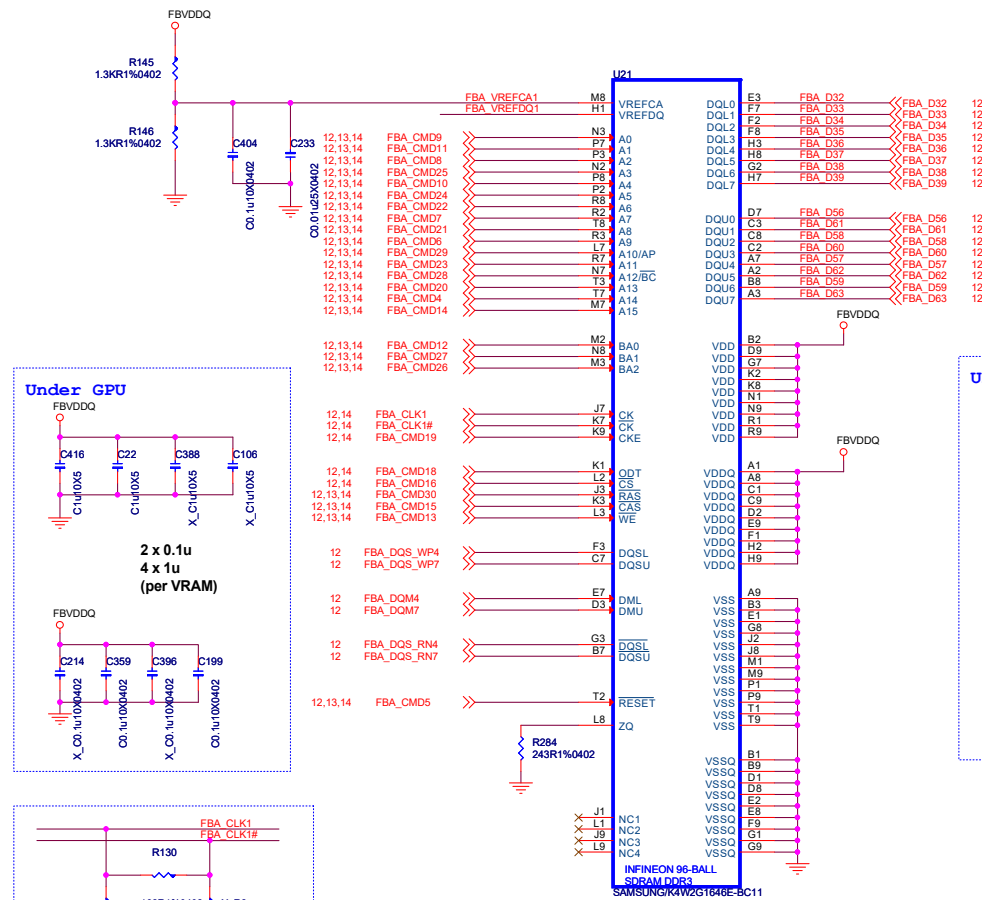
Memory Lower Partition A



	LOWER 0 . . 31	UPPER 32 . . 63
CMD30	RAS*	RAS*
CMD15	CAS*	CAS*
CMD13	WF*	WF*
CMD0	CSO*	N/A
CMD1	N/A	N/A
CMD16	N/A	CSO*
CMD17	N/A	N/A
CMD9	A0	A0
CMD11	A1	A1
CMD8	A2	A2
CMD25	A3	A3
CMD10	A4	A4
CMD24	A5	A5
CMD22	A6	A6
CMD7	A7	A7
CMD21	A8	A8
CMD6	A9	A9
CMD29	A10	A10
CMD23	A11	A11
CMD28	A12	A12
CMD20	A13	A13
CMD4	A14	A14
CMD14	A15	A15
CMD12	BA0	BA0
CMD27	BA1	BA1
CMD26	BA2	BA2
CMD3	CKE	N/A
CMD19	N/A	CKE
CMD2	ODT	N/A
CMD18	N/A	ODT
CMD5	RST	RST

IN USE ON
THIS PAGE —

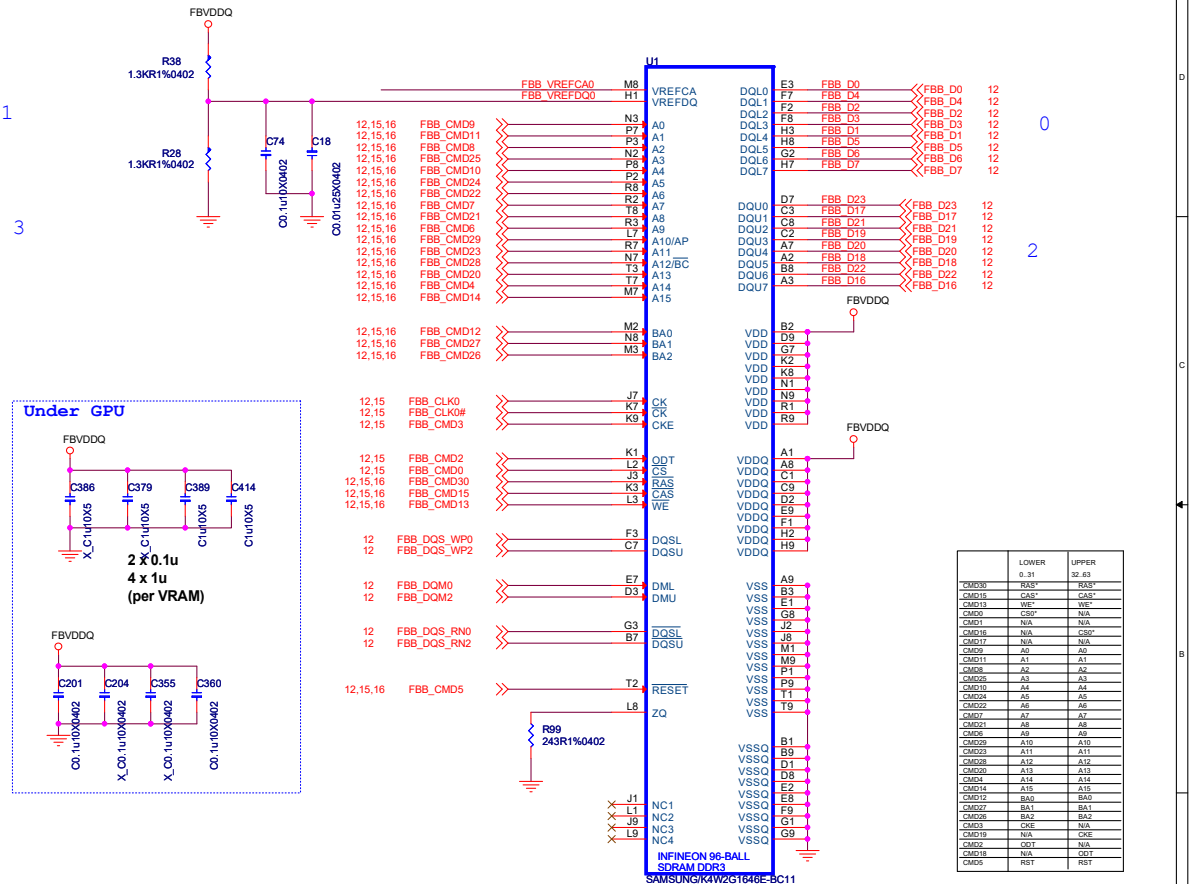
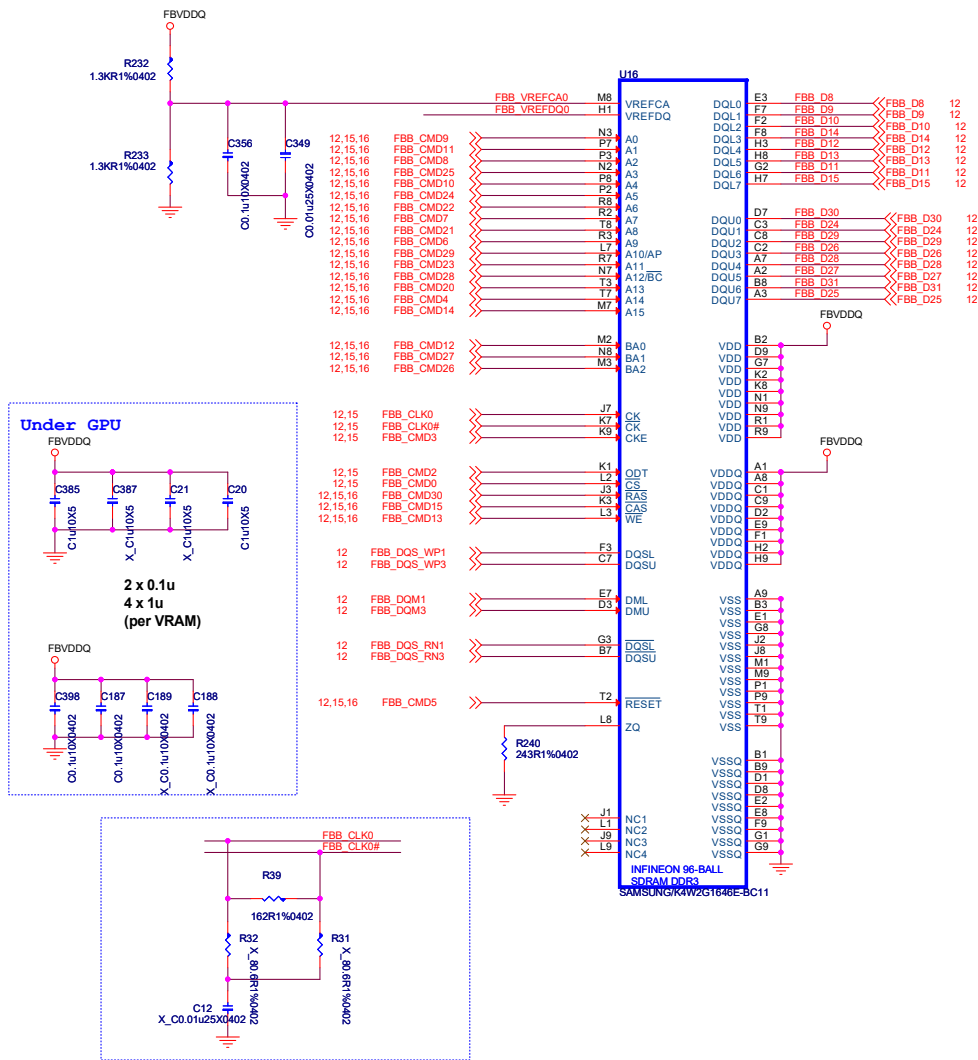
Memory Upper Partition A



	LOWER 0..31	UPPER 32..63
CMD30	RAS*	RAS*
CMD15	CAS*	CAS*
CMD13	WE*	WE*
CMD0	CSO*	N/A
CMD1	N/A	N/A
CMD16	N/A	CSO*
CMD17	N/A	N/A
CMD9	A0	A0
CMD11	A1	A1
CMD8	A2	A2
CMD25	A3	A3
CMD10	A4	A4
CMD24	A5	A5
CMD22	A6	A6
CMD7	A7	A7
CMD21	A8	A8
CMD6	A9	A9
CMD29	A10	A10
CMD23	A11	A11
CMD28	A12	A12
CMD20	A13	A13
CMD4	A14	A14
CMD14	A15	A15
CMD12	BA0	BA0
CMD27	BA1	BA1
CMD26	BA2	BA2
CMD3	CKE	N/A
CMD19	N/A	CKE
CMD2	ODT	N/A
CMD18	N/A	ODT
CMD5	RST	RST

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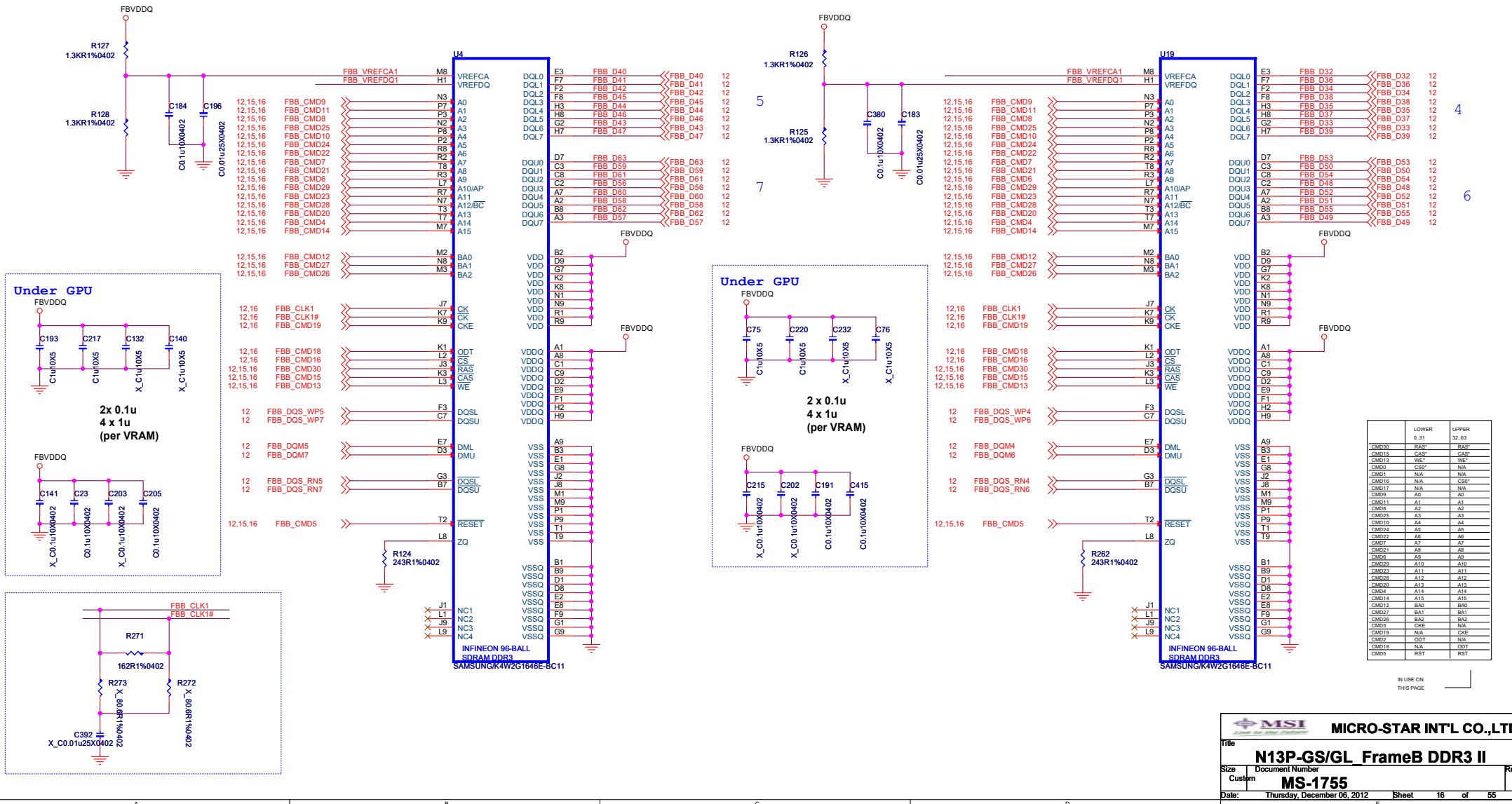
Memory Lower Partition B



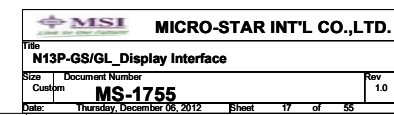
	LOWER	UPPER
CMDB0	N/A	N/A
CMDB1	N/A	N/A
CMDB2	N/A	N/A
CMDB3	N/A	N/A
CMDB4	N/A	N/A
CMDB5	N/A	N/A
CMDB6	N/A	N/A
CMDB7	N/A	N/A
CMDB8	N/A	N/A
CMDB9	N/A	N/A
CMDB10	N/A	N/A
CMDB11	N/A	N/A
CMDB12	N/A	N/A
CMDB13	N/A	N/A
CMDB14	N/A	N/A
CMDB15	N/A	N/A
CMDB16	N/A	N/A
CMDB17	N/A	N/A
CMDB18	N/A	N/A
CMDB19	N/A	N/A
CMDB20	N/A	N/A
CMDB21	N/A	N/A
CMDB22	N/A	N/A
CMDB23	N/A	N/A
CMDB24	N/A	N/A
CMDB25	N/A	N/A
CMDB26	N/A	N/A
CMDB27	N/A	N/A
CMDB28	N/A	N/A
CMDB29	N/A	N/A
CMDB30	N/A	N/A
CMDB31	N/A	N/A
CMDB32	N/A	N/A
CMDB33	N/A	N/A
CMDB34	N/A	N/A
CMDB35	N/A	N/A
CMDB36	N/A	N/A
CMDB37	N/A	N/A
CMDB38	N/A	N/A
CMDB39	N/A	N/A
CMDB40	N/A	N/A
CMDB41	N/A	N/A
CMDB42	N/A	N/A
CMDB43	N/A	N/A
CMDB44	N/A	N/A
CMDB45	N/A	N/A
CMDB46	N/A	N/A
CMDB47	N/A	N/A
CMDB48	N/A	N/A
CMDB49	N/A	N/A
CMDB50	N/A	N/A
CMDB51	N/A	N/A
CMDB52	N/A	N/A
CMDB53	N/A	N/A
CMDB54	N/A	N/A
CMDB55	N/A	N/A
CMDB56	N/A	N/A
CMDB57	N/A	N/A
CMDB58	N/A	N/A
CMDB59	N/A	N/A
CMDB60	N/A	N/A
CMDB61	N/A	N/A
CMDB62	N/A	N/A
CMDB63	N/A	N/A
CMDB64	N/A	N/A
CMDB65	N/A	N/A
CMDB66	N/A	N/A
CMDB67	N/A	N/A
CMDB68	N/A	N/A
CMDB69	N/A	N/A
CMDB70	N/A	N/A
CMDB71	N/A	N/A
CMDB72	N/A	N/A
CMDB73	N/A	N/A
CMDB74	N/A	N/A
CMDB75	N/A	N/A
CMDB76	N/A	N/A
CMDB77	N/A	N/A
CMDB78	N/A	N/A
CMDB79	N/A	N/A
CMDB80	N/A	N/A
CMDB81	N/A	N/A
CMDB82	N/A	N/A
CMDB83	N/A	N/A
CMDB84	N/A	N/A
CMDB85	N/A	N/A
CMDB86	N/A	N/A
CMDB87	N/A	N/A
CMDB88	N/A	N/A
CMDB89	N/A	N/A
CMDB90	N/A	N/A
CMDB91	N/A	N/A
CMDB92	N/A	N/A
CMDB93	N/A	N/A
CMDB94	N/A	N/A
CMDB95	N/A	N/A
CMDB96	N/A	N/A
CMDB97	N/A	N/A
CMDB98	N/A	N/A
CMDB99	N/A	N/A
CMDB100	N/A	N/A

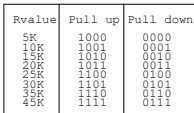
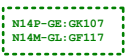
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Memory Upper Partition B



G4J

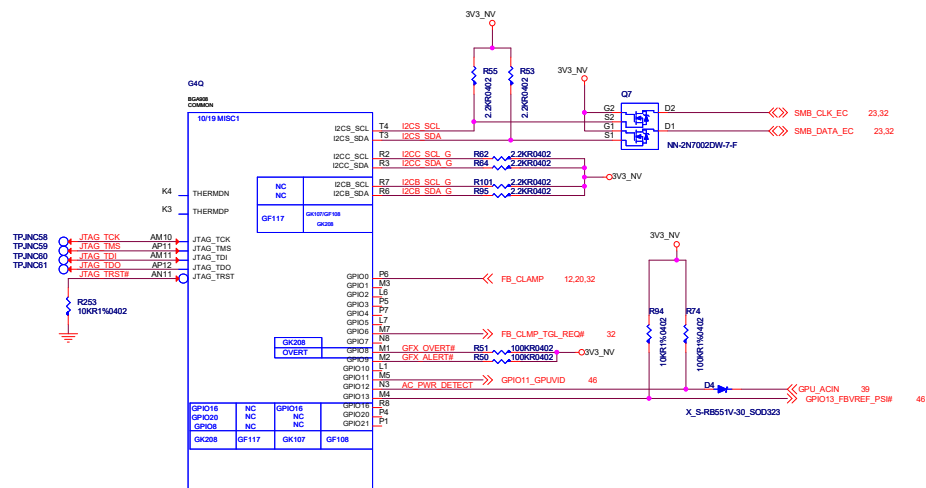


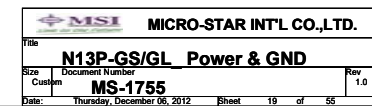
N14P-GE

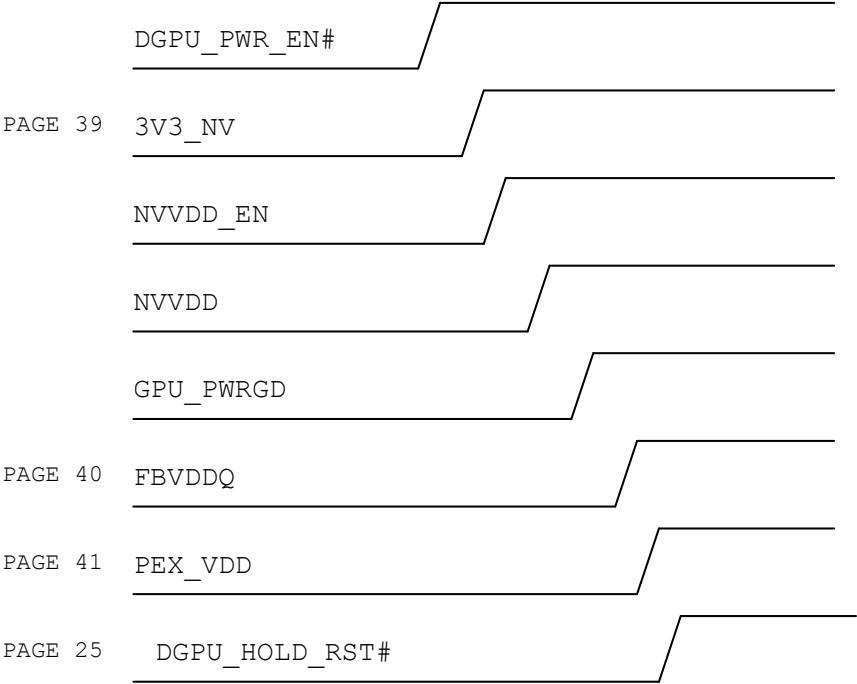
Strap Pin	strapping bit3	strapping bit2	strapping bit1	strapping bit0
ROM_SCLK	PCI_DEVID[4]	SUB_VENDOR	PCI_DEVID[5]	PEX_PLL_EN_TERM
	0	0(Share SBIOS)	1	0(Default)
ROM_SI	RAM_CFG[3]	RAM_CFG[2]	RAM_CFG[1]	RAM_CFG[0]
0111 (0x7-Samsung)	0	1	1	1
ROM_SO	FB[1]	FB[0]	SMB_ALT_ADDR	VGA_DEVICE
	1(Default)	0(Default)	0(Default)	0(Primary Display)
STRAP0	USER[3]	USER[2]	USER[1]	USER[0]
1111 (EDID is used)	1	1	1	1
STRAP1	SGIO_FAD_CFG_ADR[3]	SGIO_FAD_CFG_ADR[2]	SGIO_FAD_CFG_ADR[1]	SGIO_FAD_CFG_ADR[0]
0000 (Gen3)	0	0(Gen3)	0(Gen3)	0
STRAP2	PCI_DEVID[3]	PCI_DEVID[2]	PCI_DEVID[1]	PCI_DEVID[0]
0x0001 (Device ID)	0	0	0	1
STRAP3	SOR3_EXPOSED	SOR2_EXPOSED	SOR1_EXPOSED	SOR0_EXPOSED
	0	0	0	0
STRAP4	RESERVED	PCIE_SPEED_CHANGE_GEN3	PCIE_MAX_SPEED	DP_PLL_VDD33V
	0	1(Enable Gen3)	1(Gen2/Gen3)	1(Default)

N14M-GL

ROM_SCLK	SMS_ALT_ADDR 0
ROM_SI	SUB_VENDER 0
ROM_SO	VGA-DEVICE 0
STRAP0	RAM_CFG[0] 1
STRAP1	RAM_CFG[1] 0
STRAP2	RAM_CFG[2] 1
STRAP3	RAM_CFG[3] 0
STRAP4	PCIE_MAX_SPEED





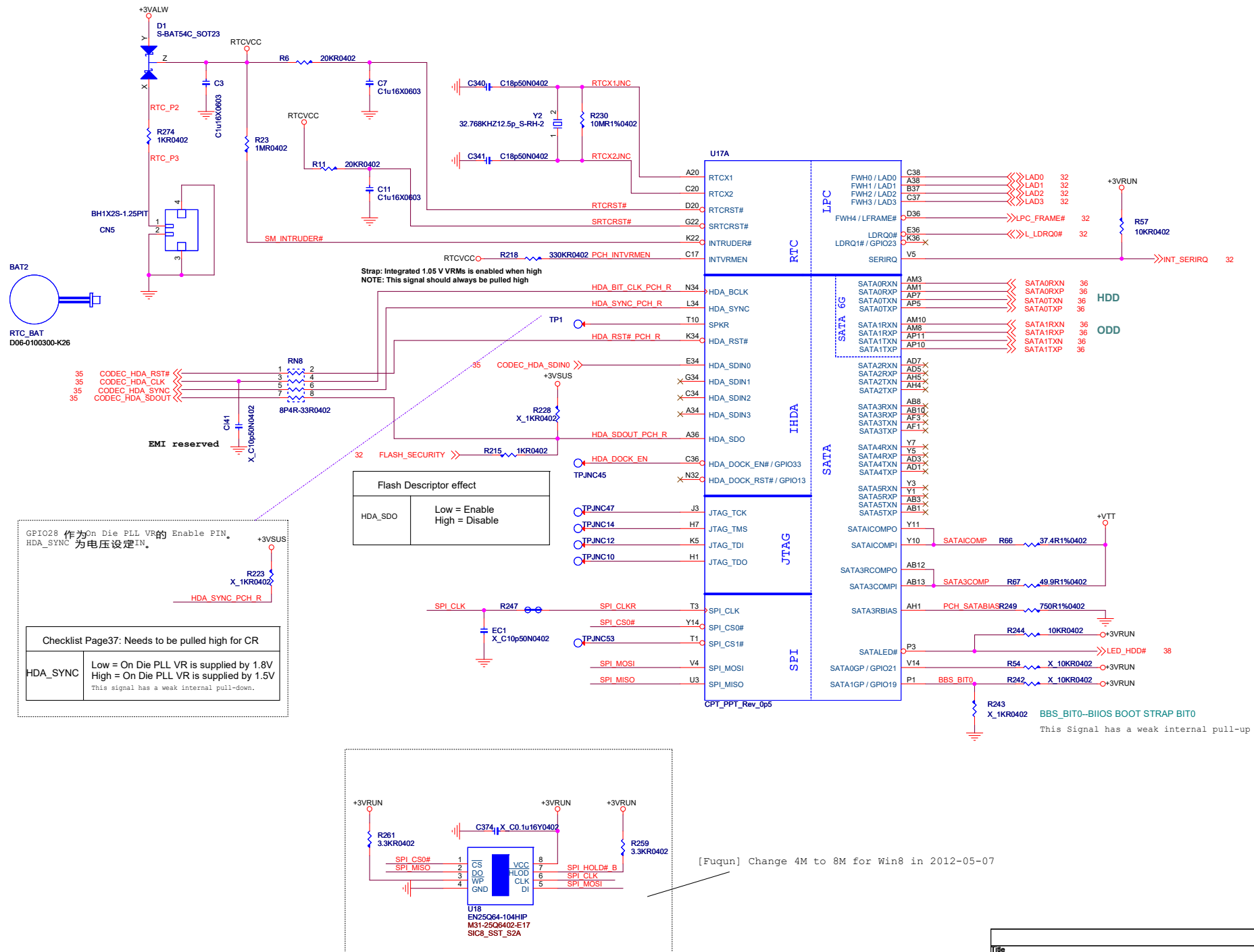


GPU Power Sequence

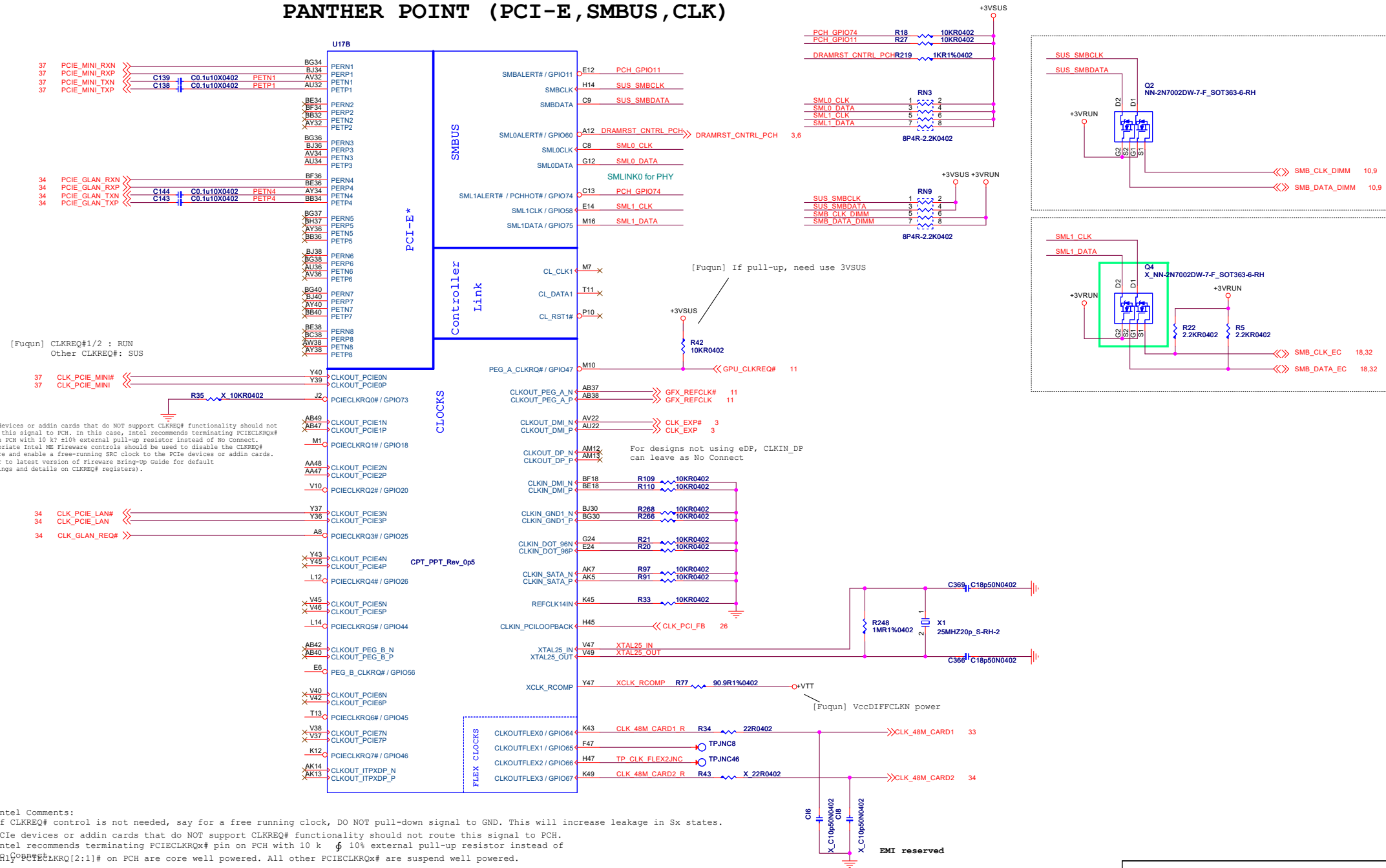
[Fuuqn] The total time of all power on should be within 6ms

[Fuuqn] The total time of all power off should be within 10ms

PANTHER POINT (HDA, JTAG, SATA)

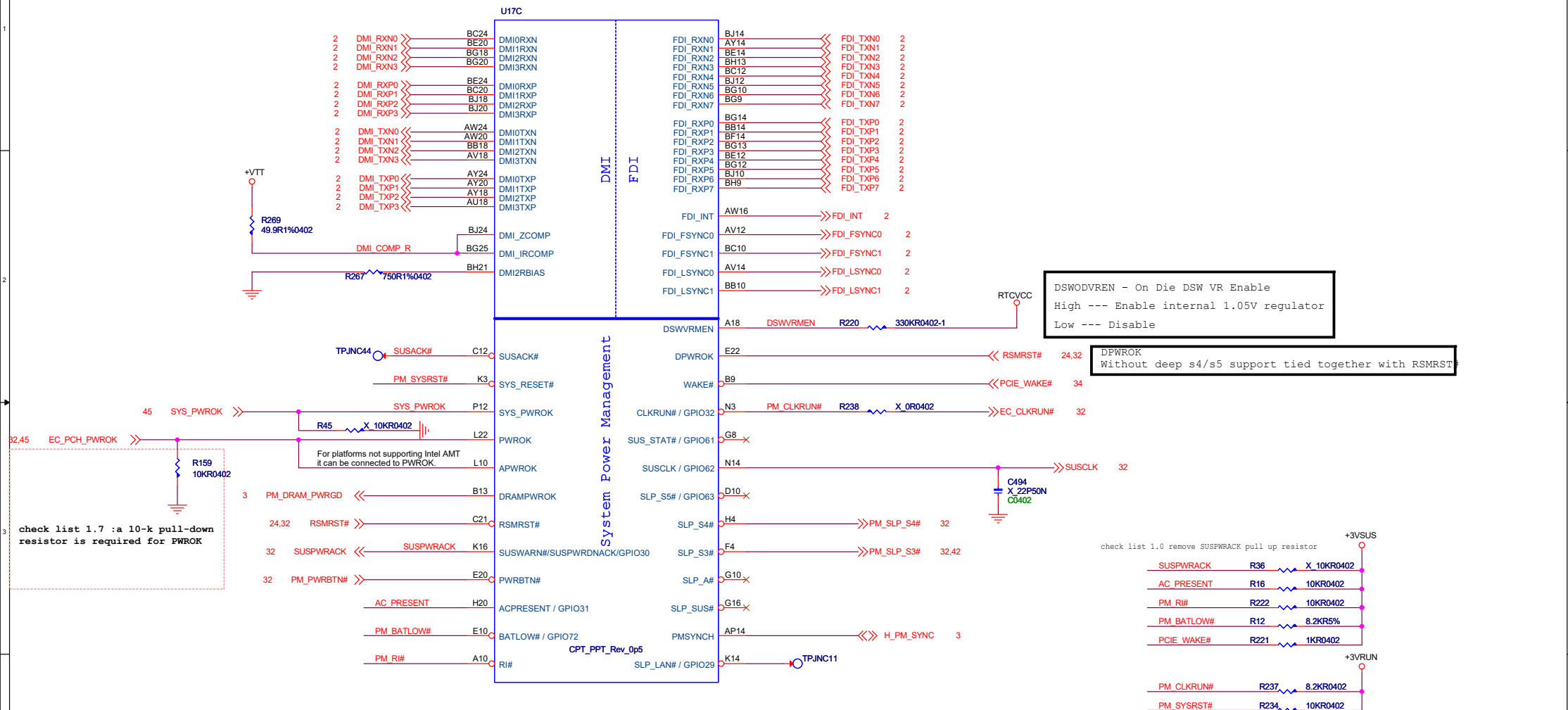


PANTHER POINT (PCI-E, SMBUS, CLK)

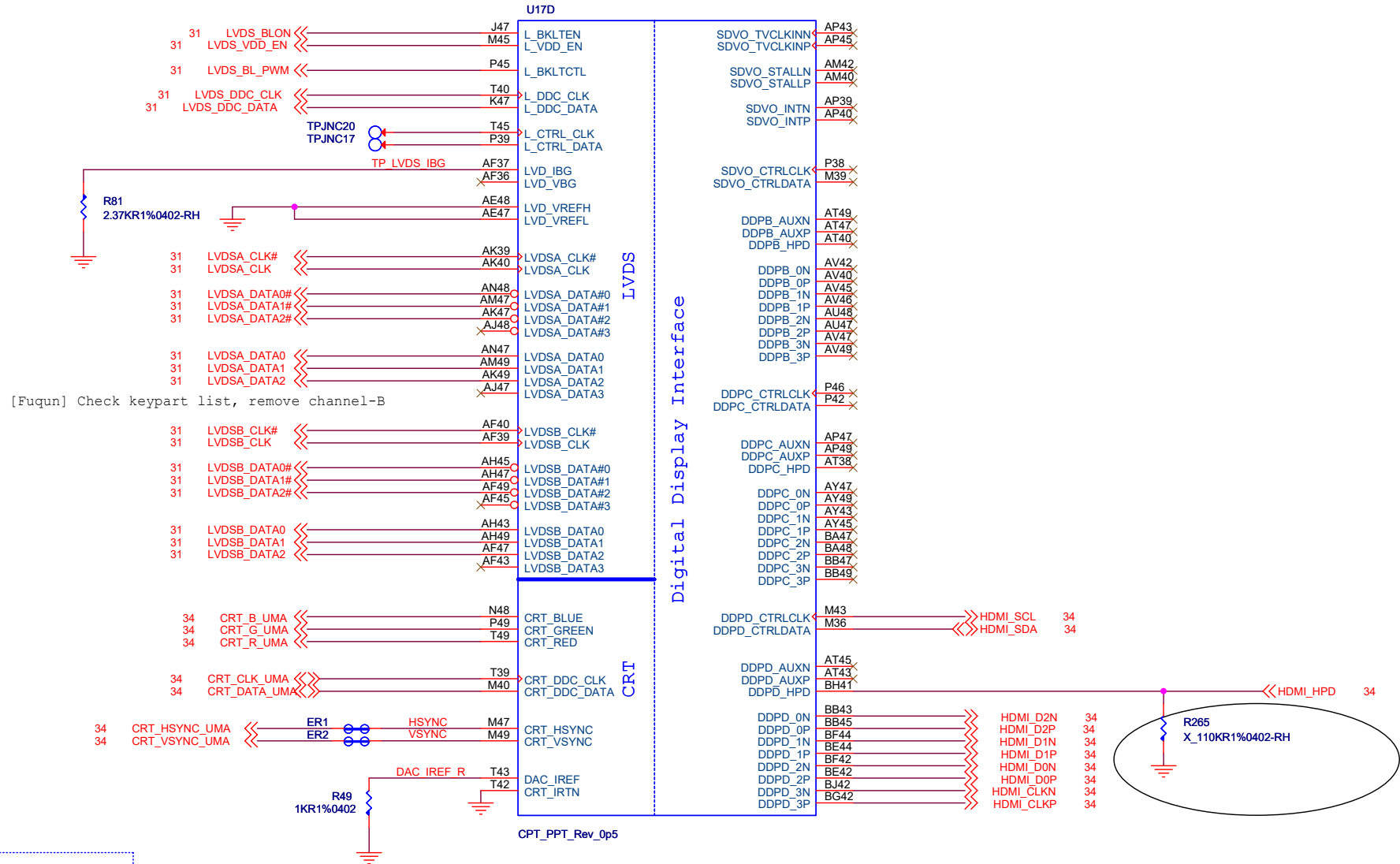


Title		
PCH-2 (PCI-E/SMBUS/CLK)		
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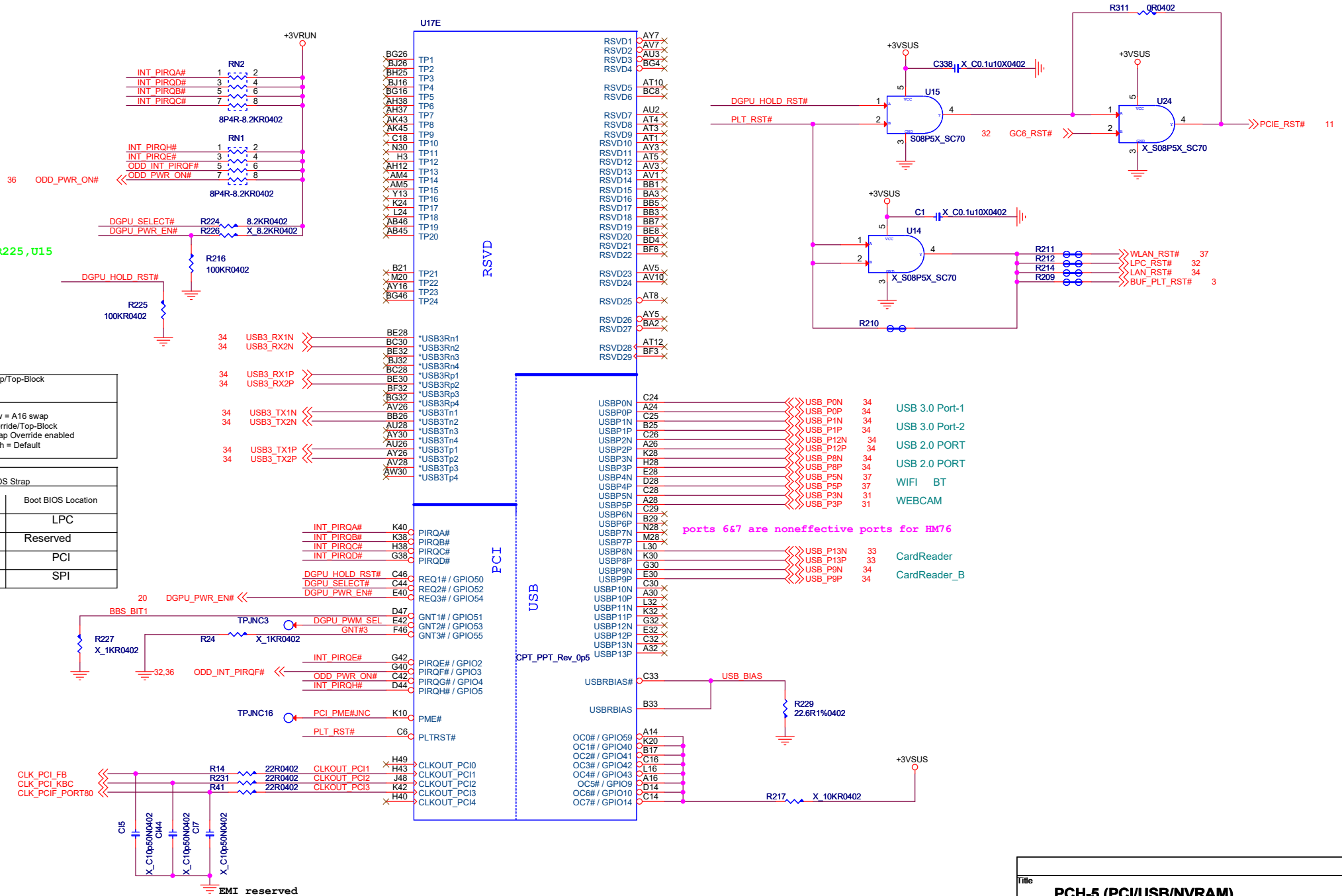
PANTHER POINT (DMI, FDI, GPIO)



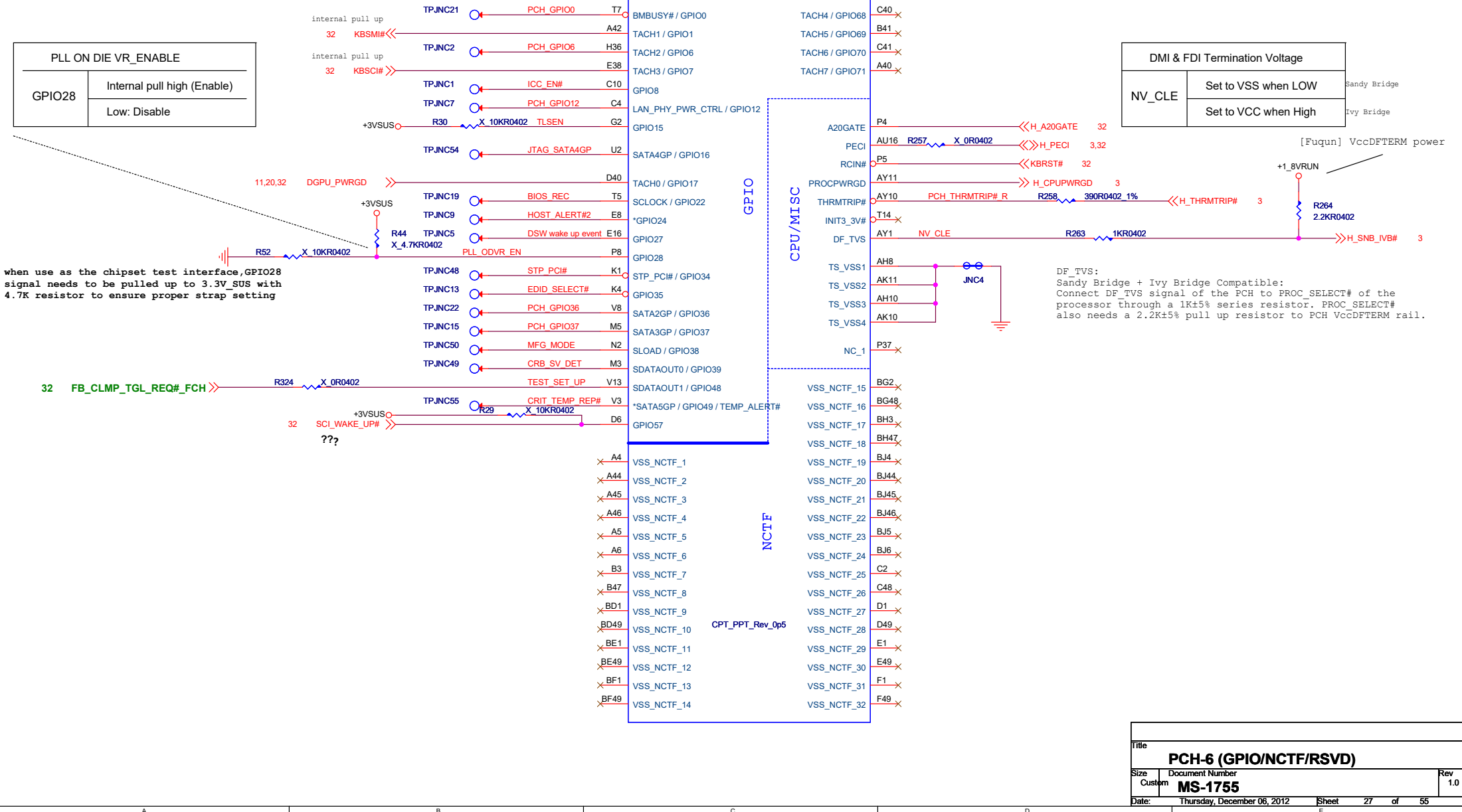
PANTHER POINT (LVDS, DDI)



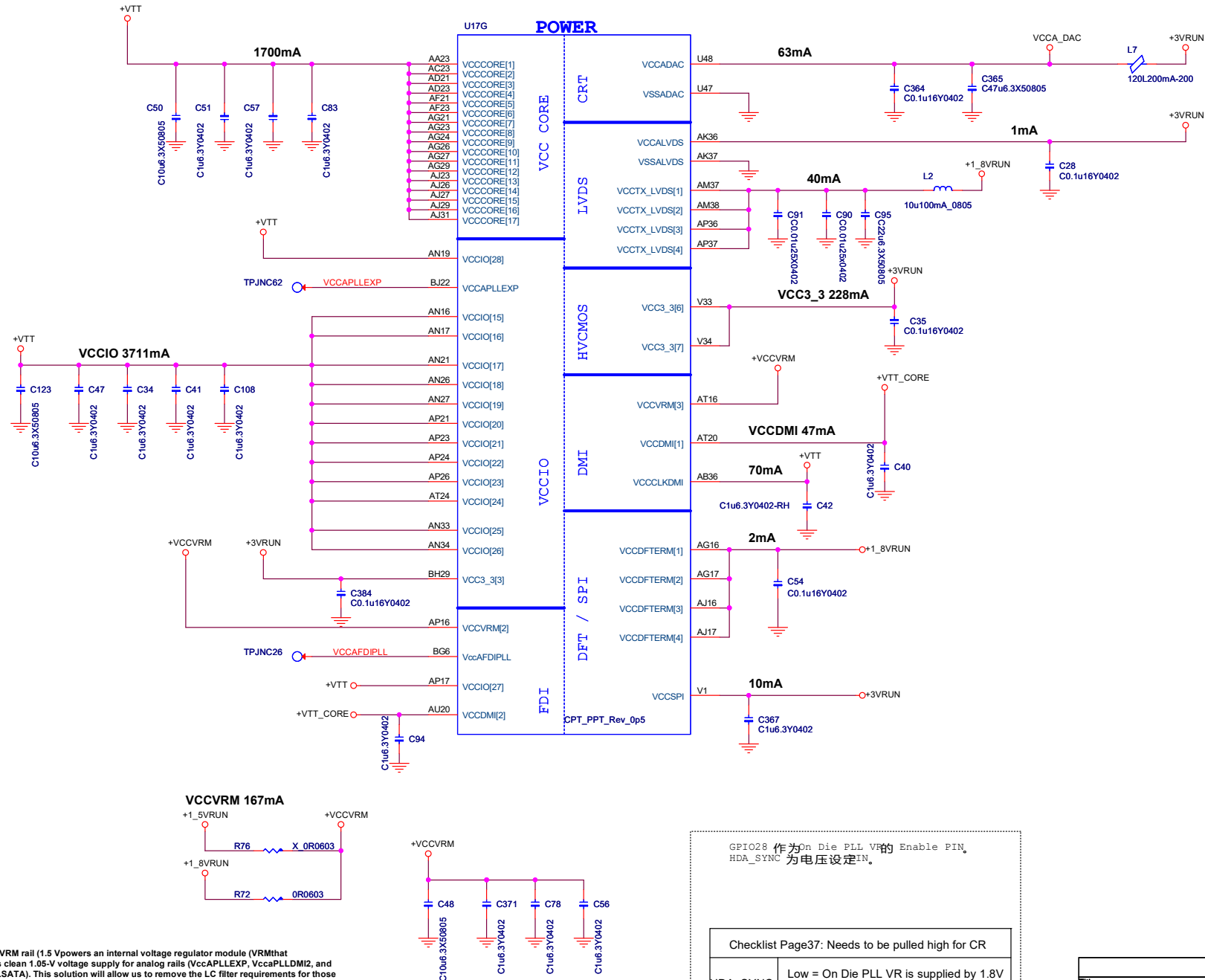
PANTHER POINT (PCI,USB,NVRAM)



PANTHER POINT (GPIO,VSS_NCTF,RSVD)



PANTHER POINT (POWER)



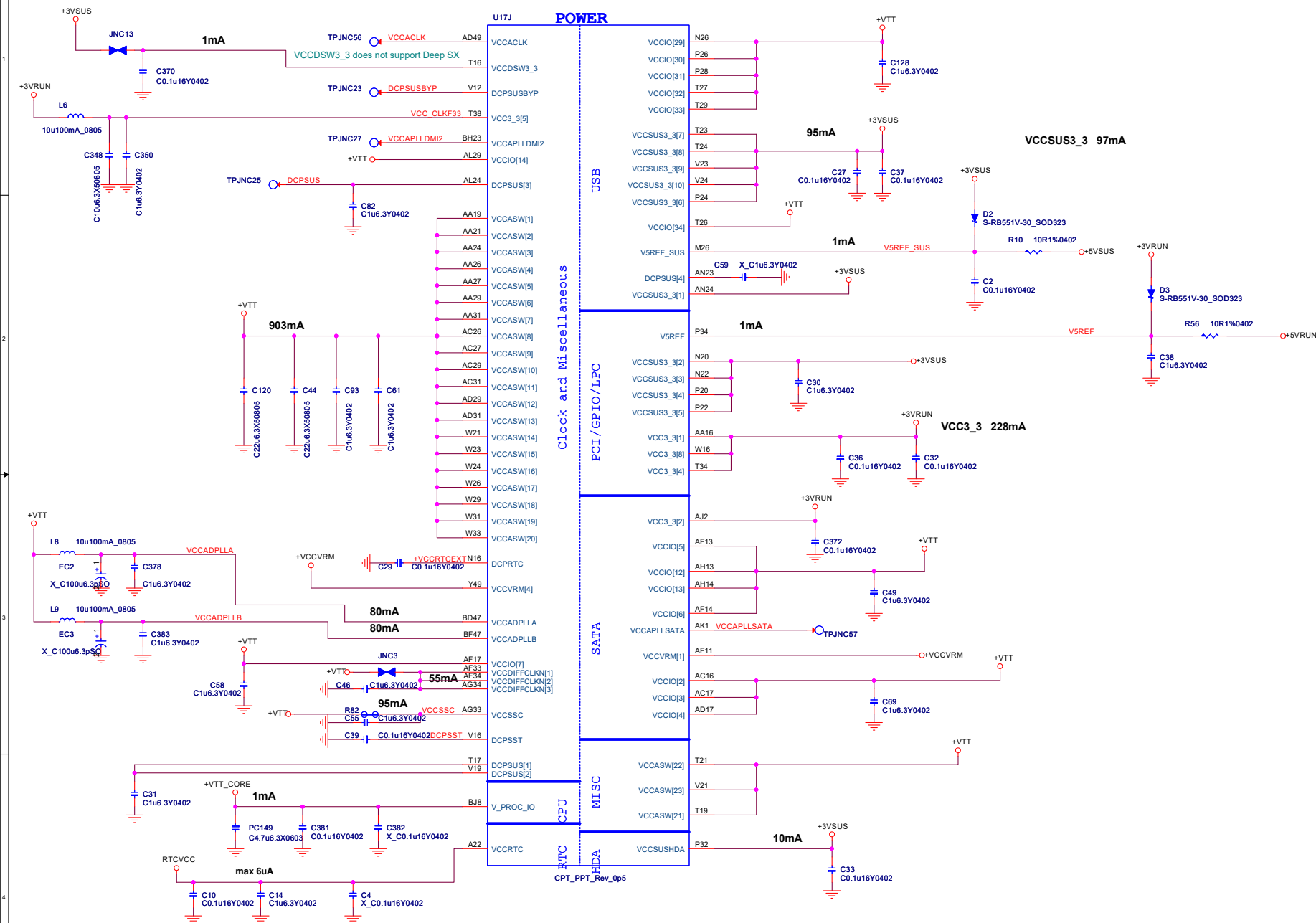
GPIO28 作为 On Die PLL VR 的 Enable PIN,
HDA_SYNC 为电压设定.

Checklist Page37: Needs to be pulled high for CR

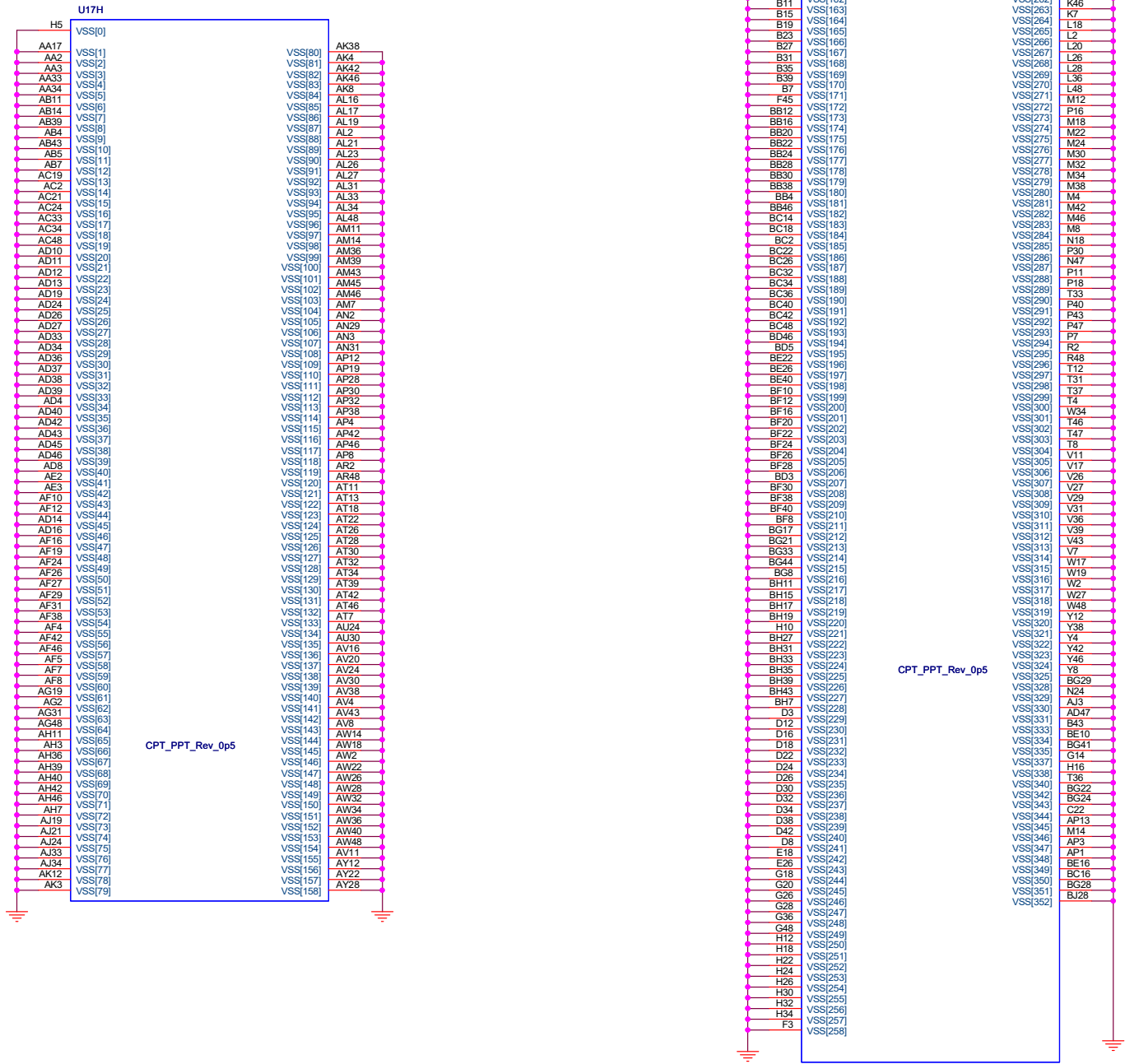
HDA_SYNC	Low = On Die PLL VR is supplied by 1.8V High = On Die PLL VR is supplied by 1.5V This signal has a weak internal pull-down.
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Title PCH-7 (POWER)		
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PANTHER POINT (POWER)

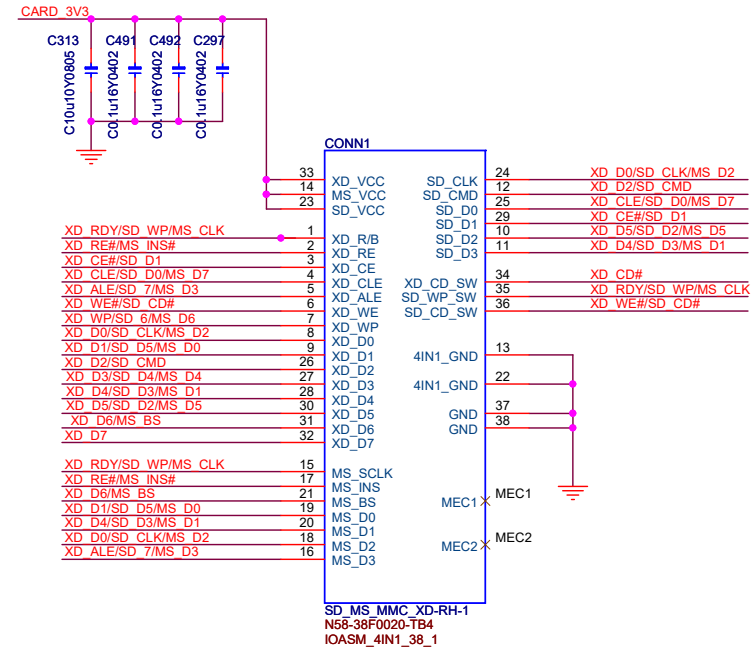
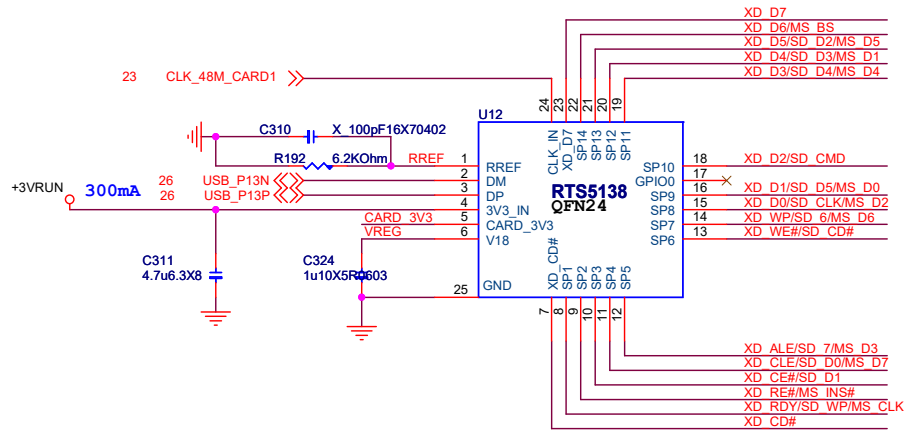


PANTHER Point (GND)

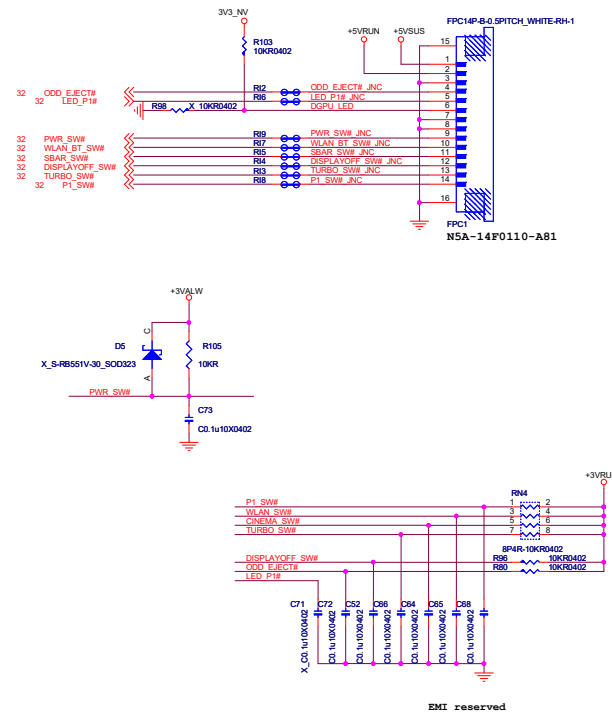


Card Reader controller RTS5138

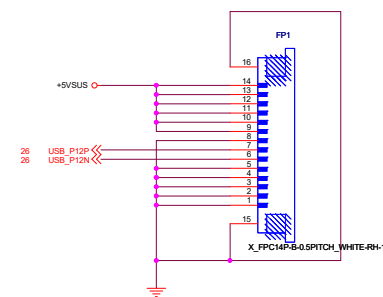
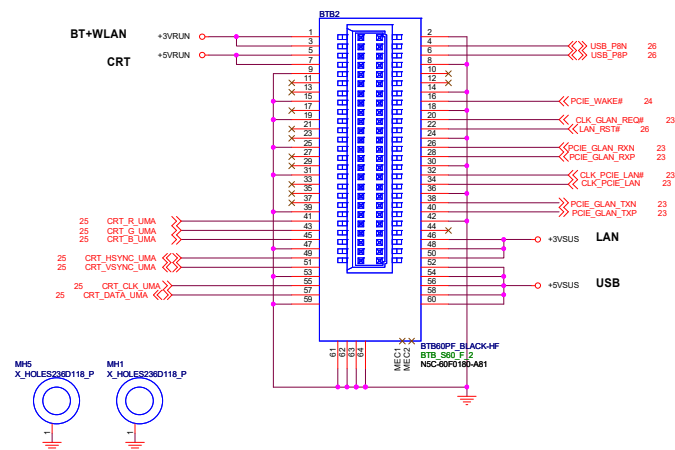
CFG for 16GX



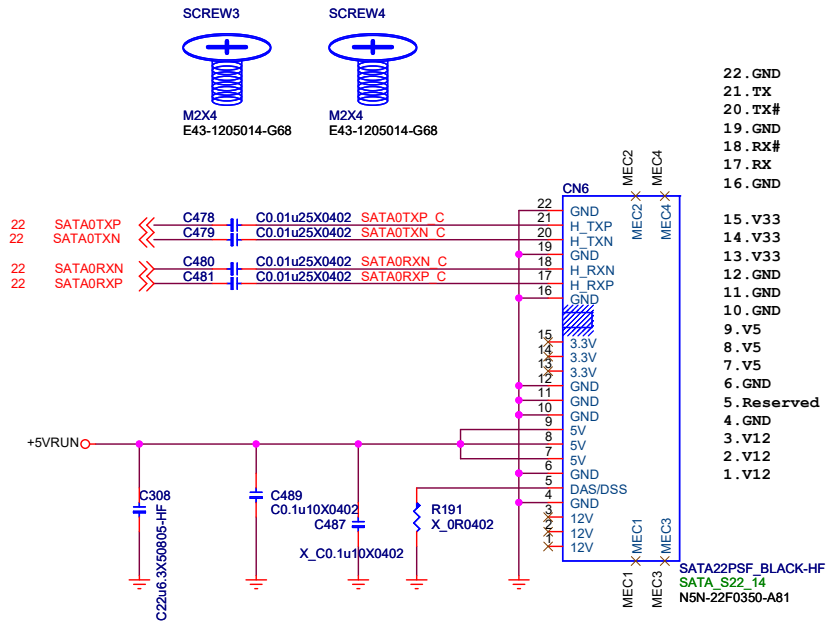
[C] board



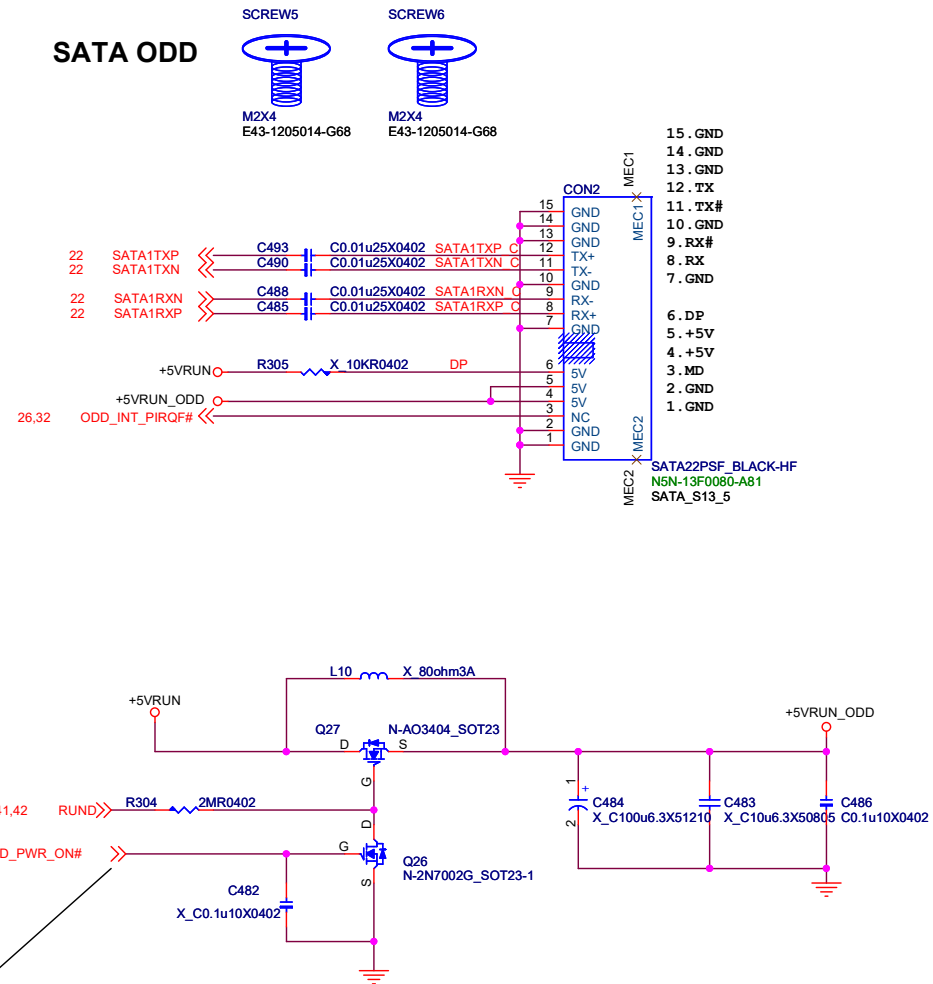
For 175X [E] board



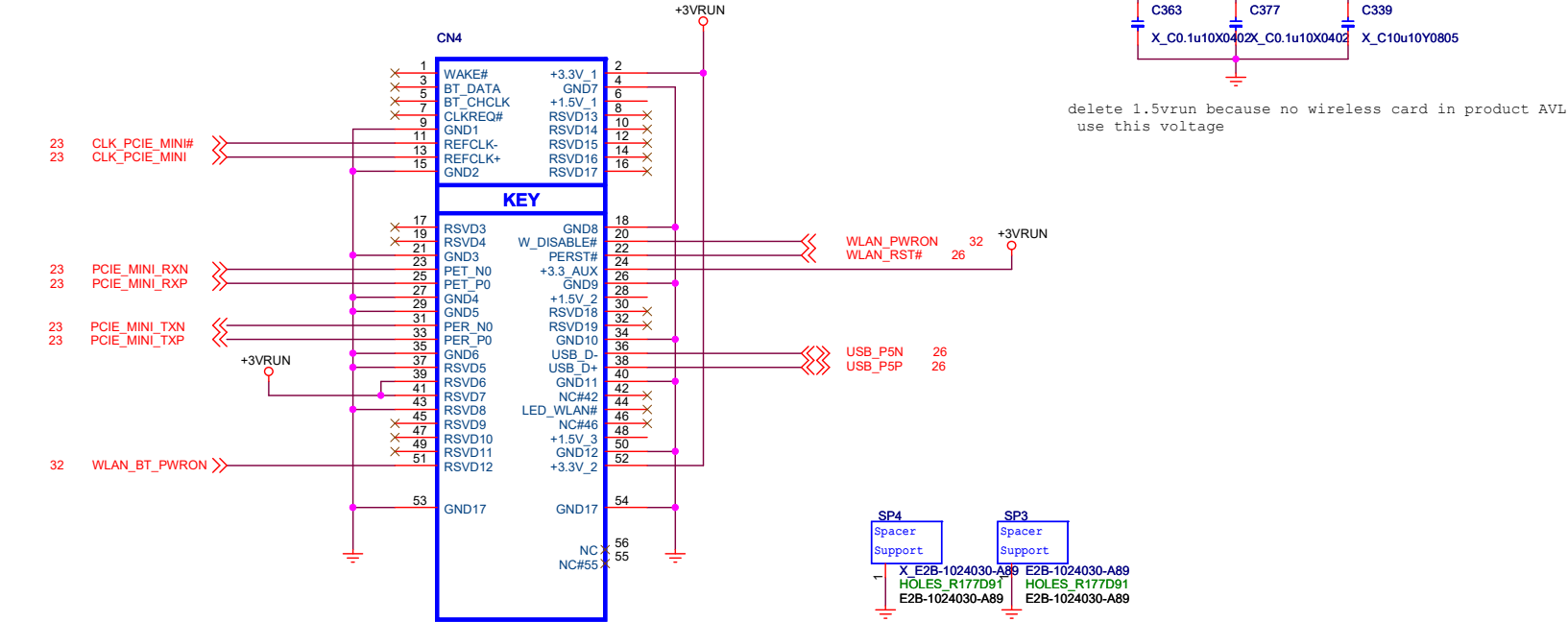
SATA HDD



SATA ODD



WLAN

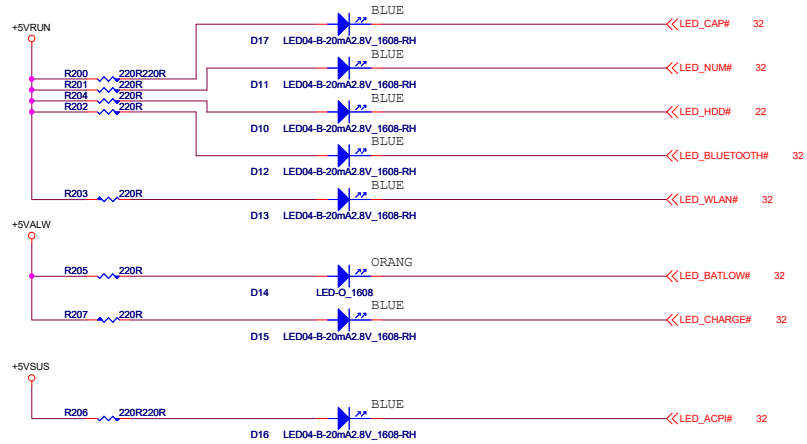


PIN51 for intel N130 BT control &AW-NB087H BT control;
PIN5 for AW-NB041H BT control;
AW-NB087H BT do not use USB interface,it only share PCIE interface.

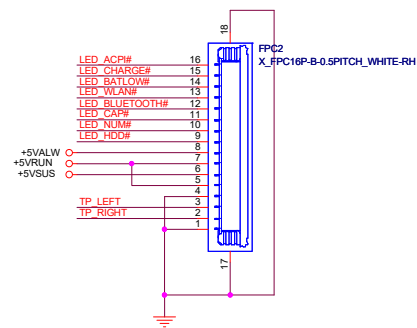
below WLAN cards are have been checked which can be used :
Intel N130/N135;
AW-NB100H/NE785H/NE139H;

LED

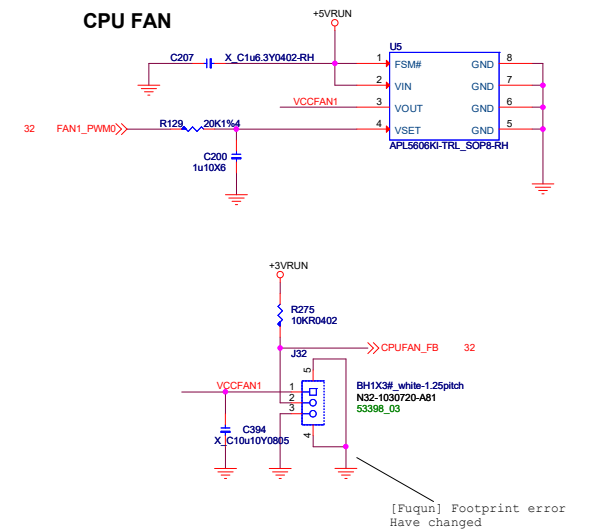
For 16GX



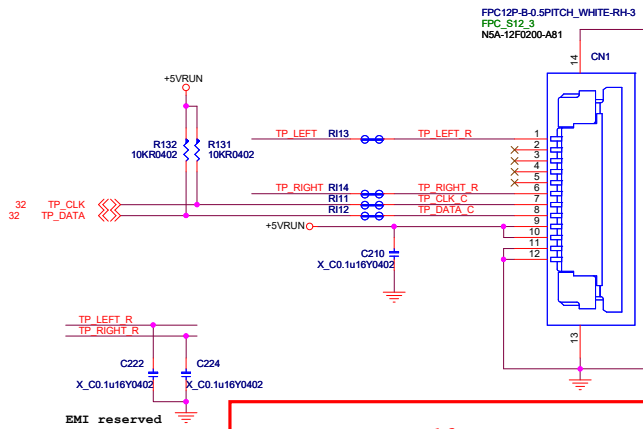
For 175X [D] board



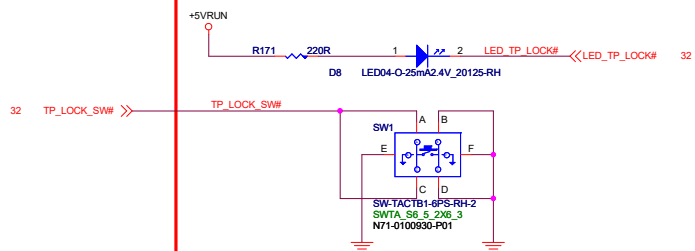
CPU FAN



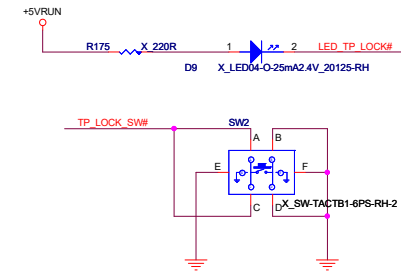
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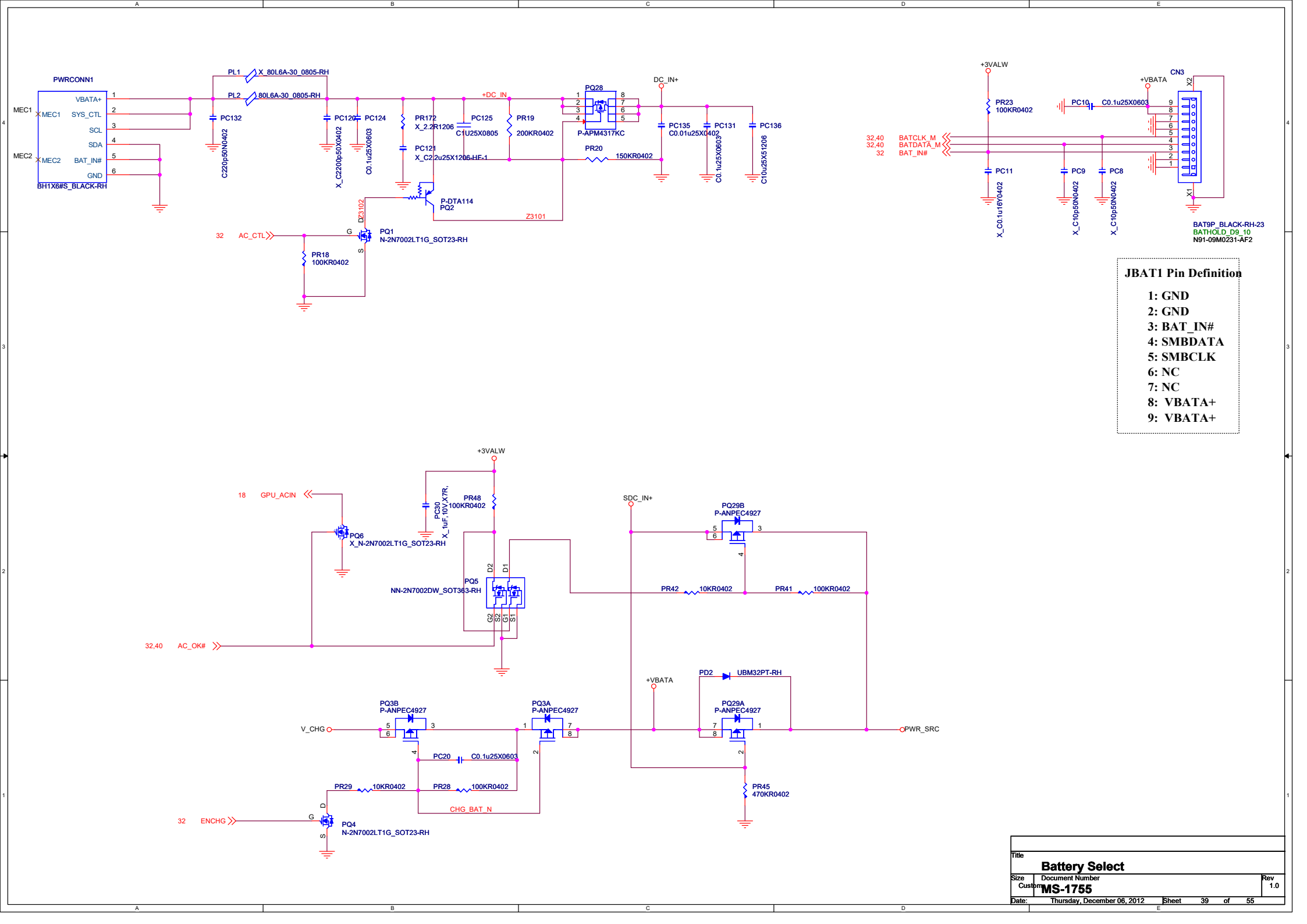


For 16GX

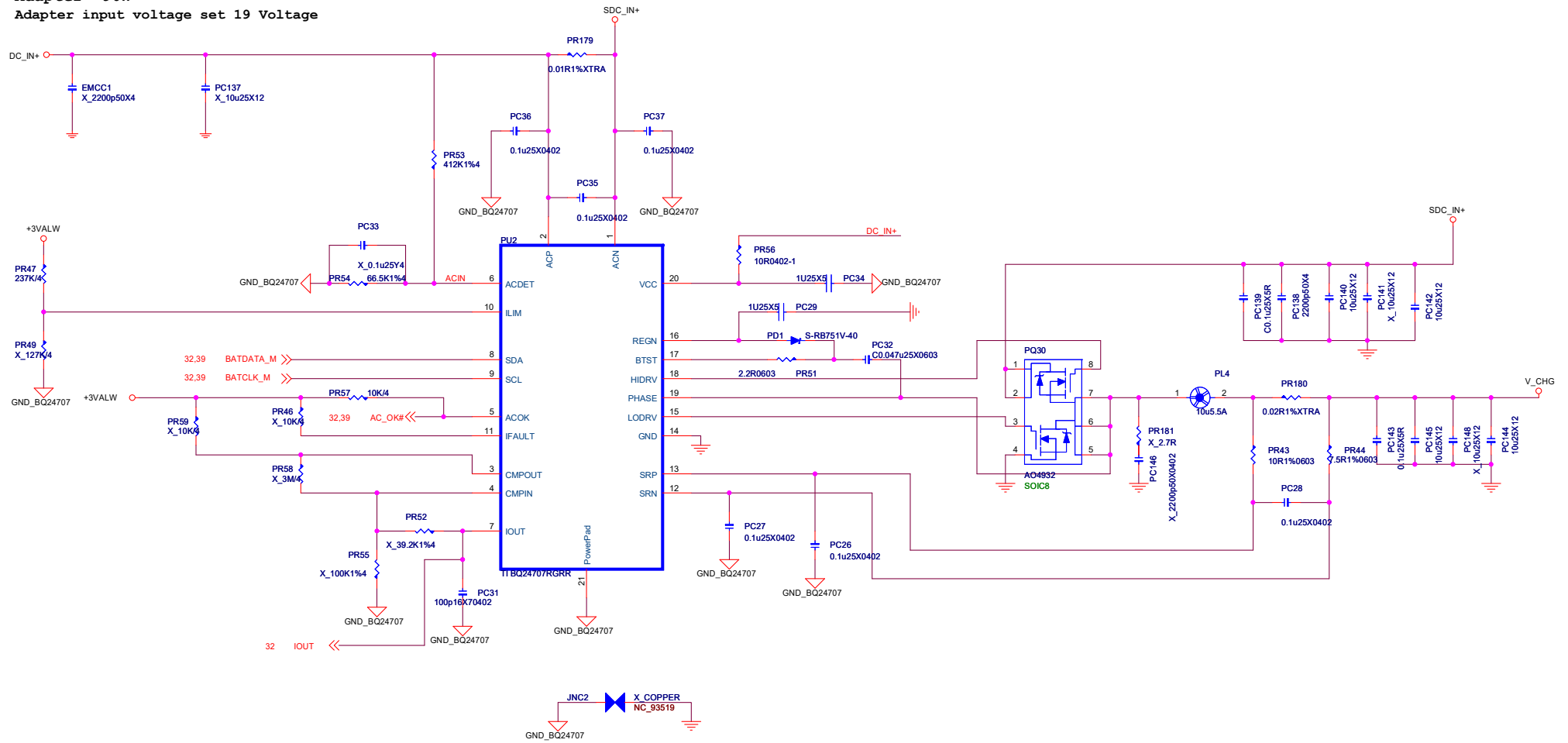


For 175X

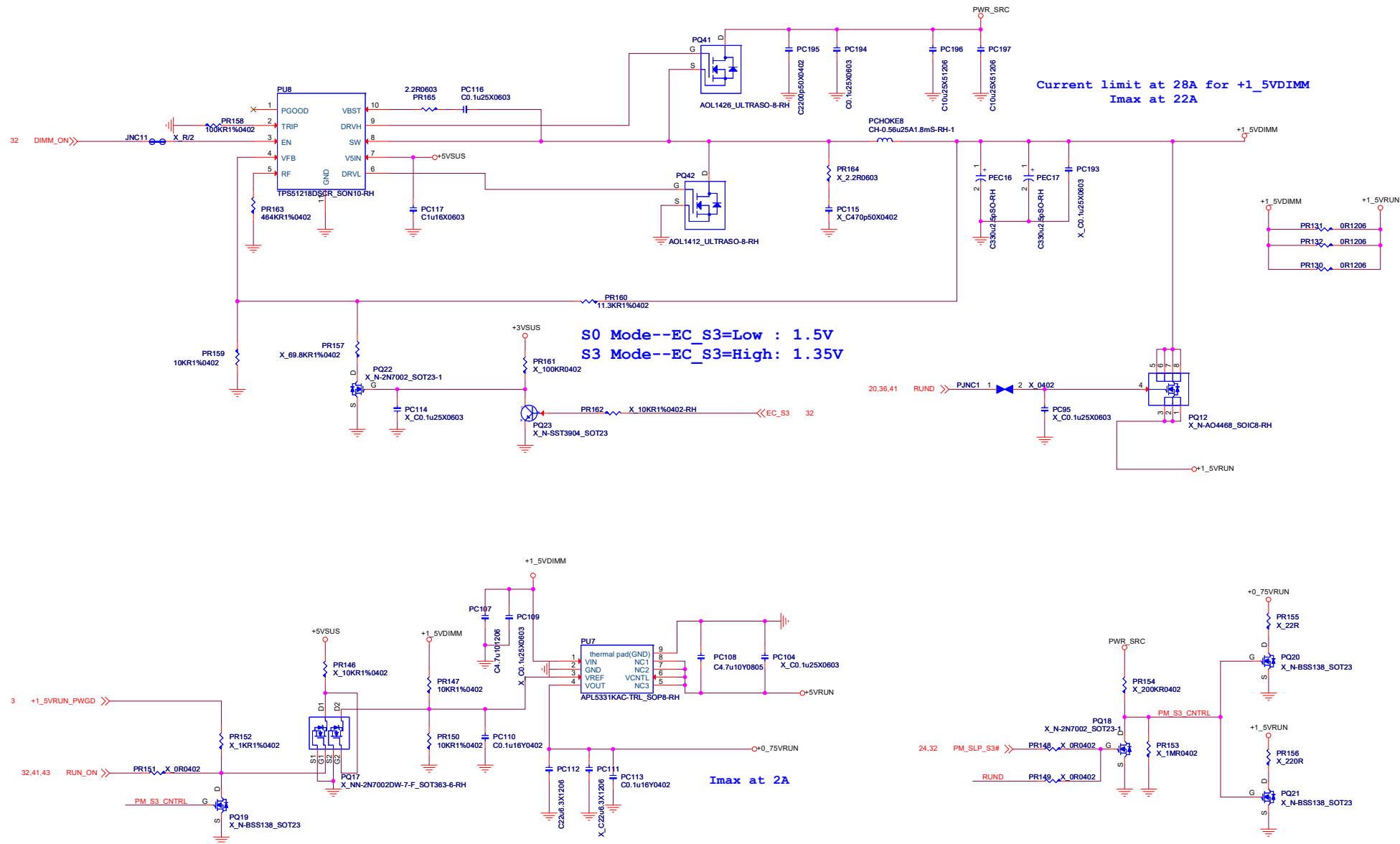




Adapter= 90W
Adapter input voltage set 19 Voltage

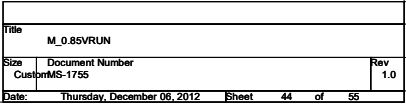


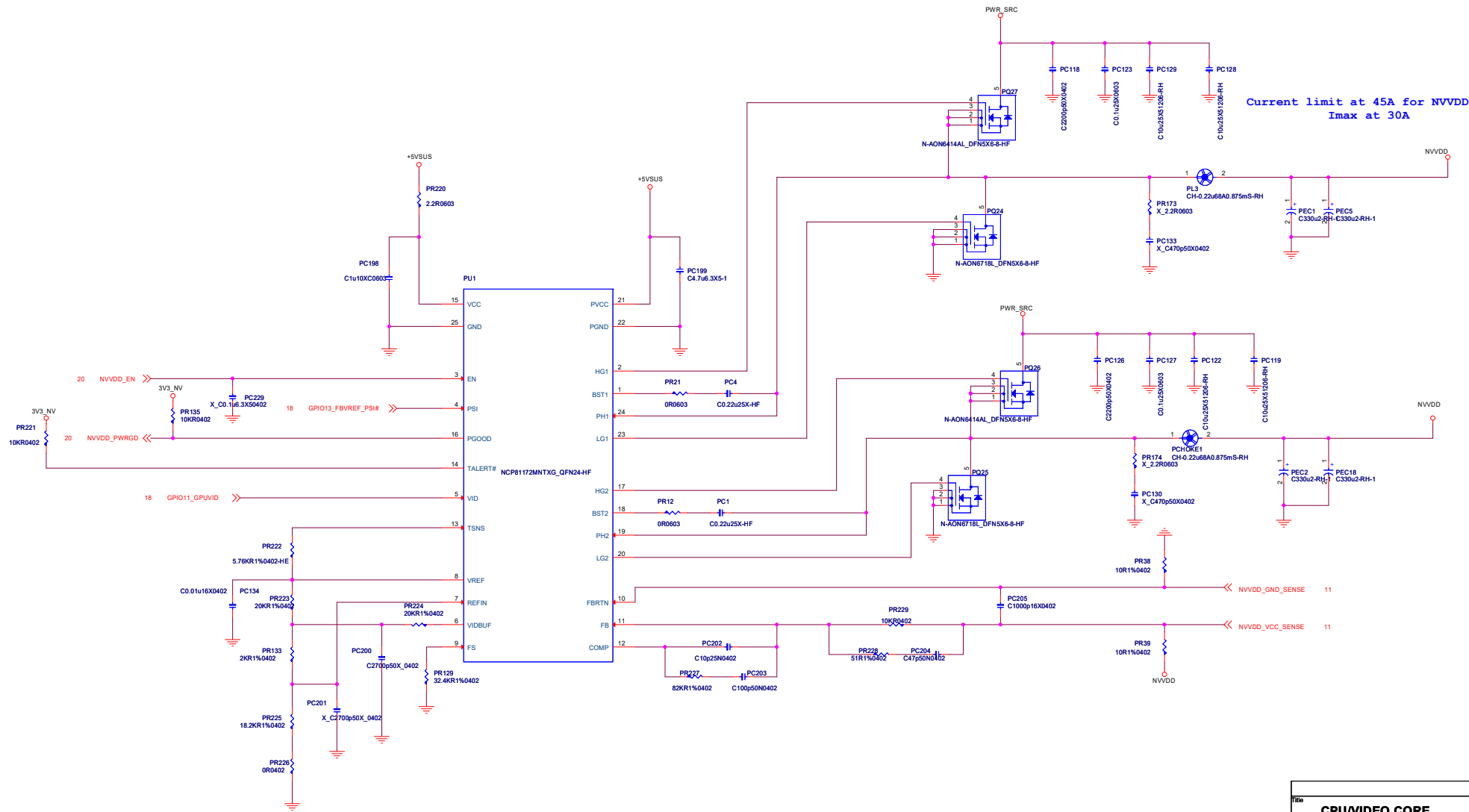
MSI MICRO-STAR INT'L CO.,LTD.			
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Charger			
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DIMM 1.5VRUN		
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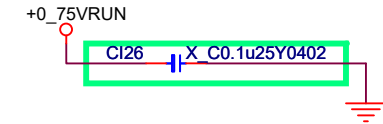
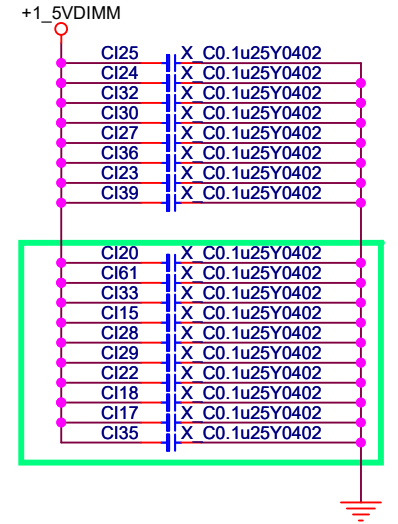
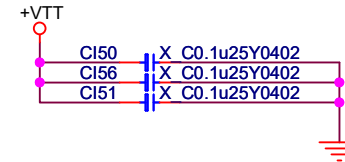
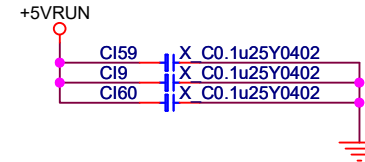
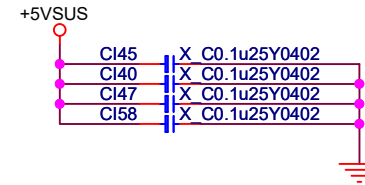
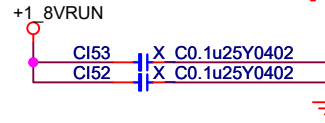
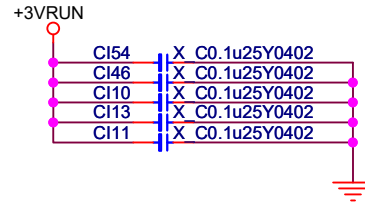
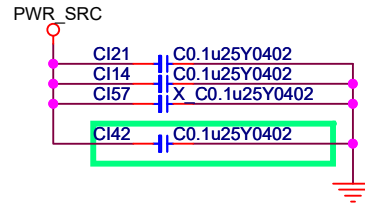
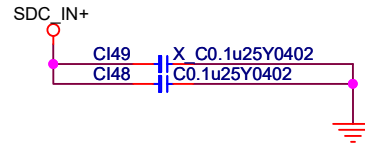
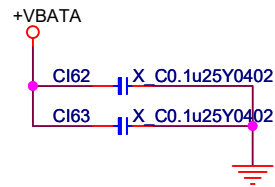
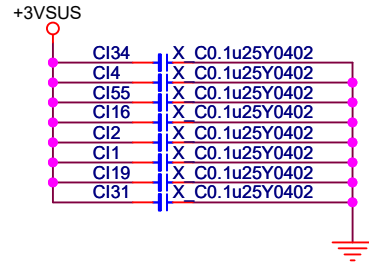
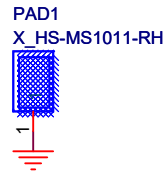
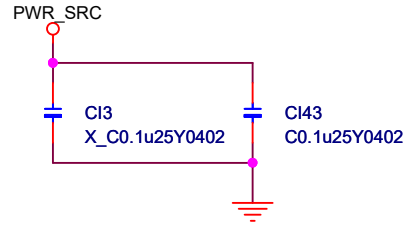
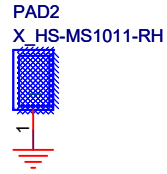
Rev 1.0




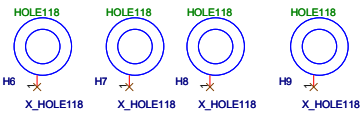
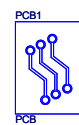
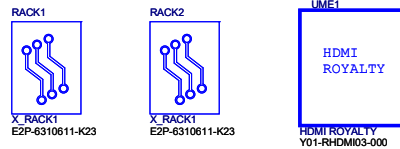
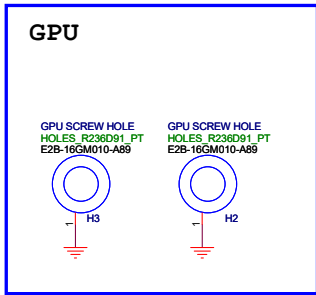
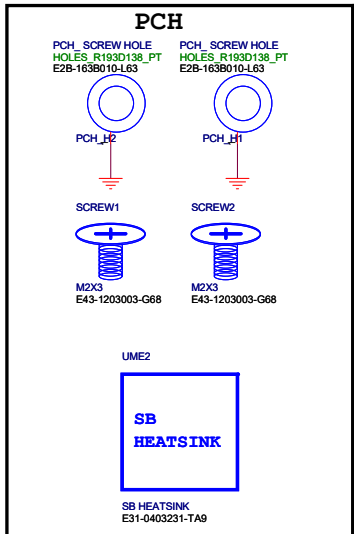
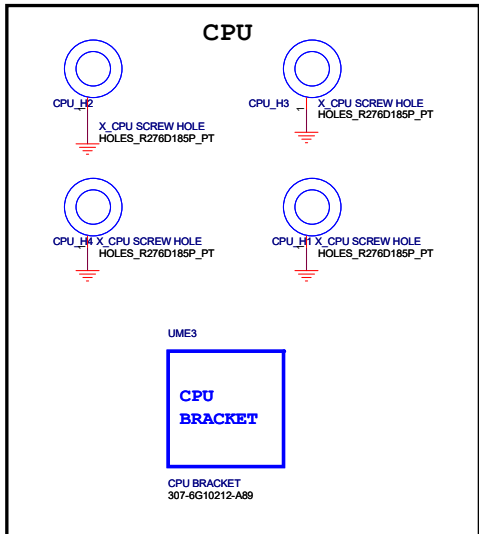
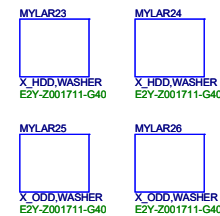
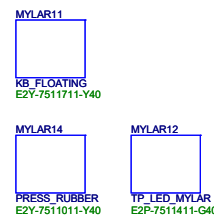
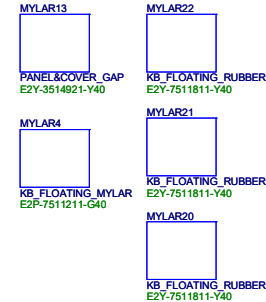
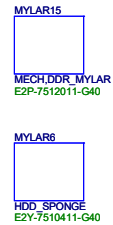
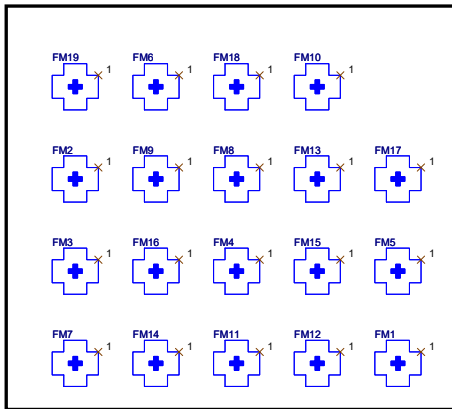
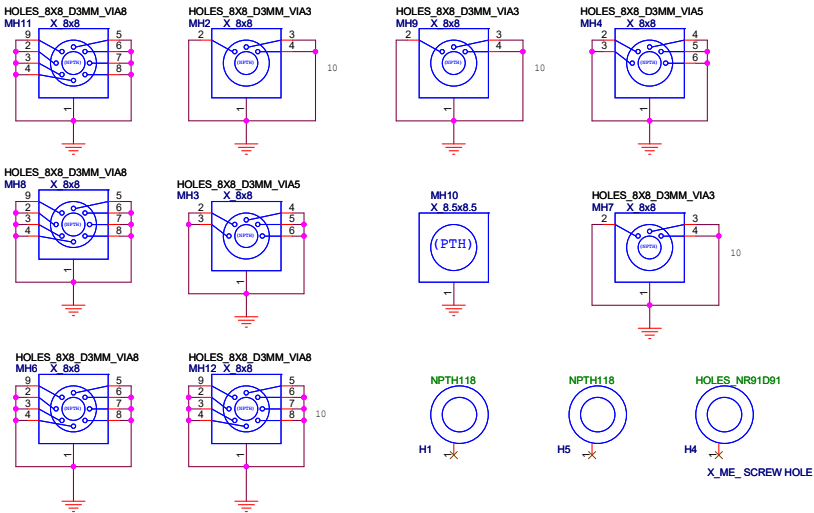


File			
CPU/VIDEO CORE			
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BOT SPRING

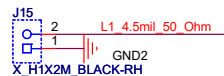
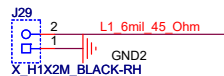


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Title	
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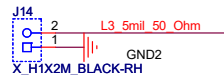
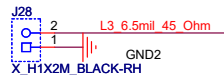
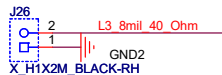


Single-end

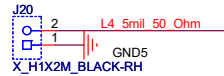
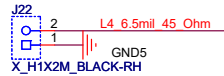
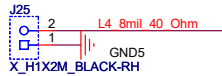
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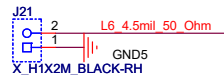
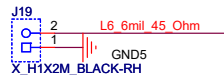
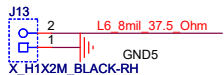
IN3



IN4

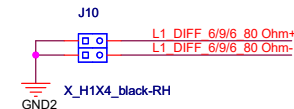
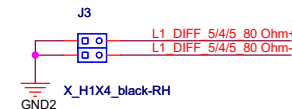
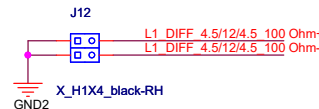
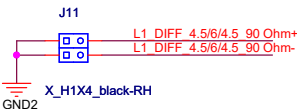
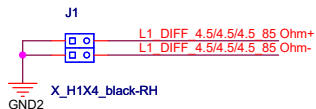


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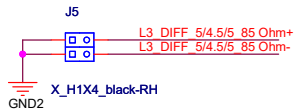
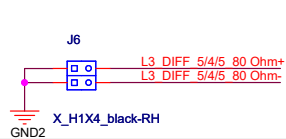


Differential signal

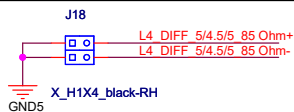
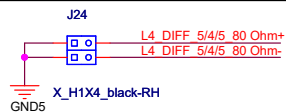
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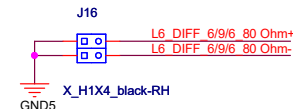
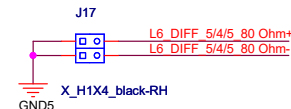
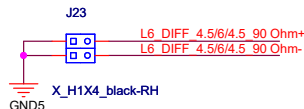
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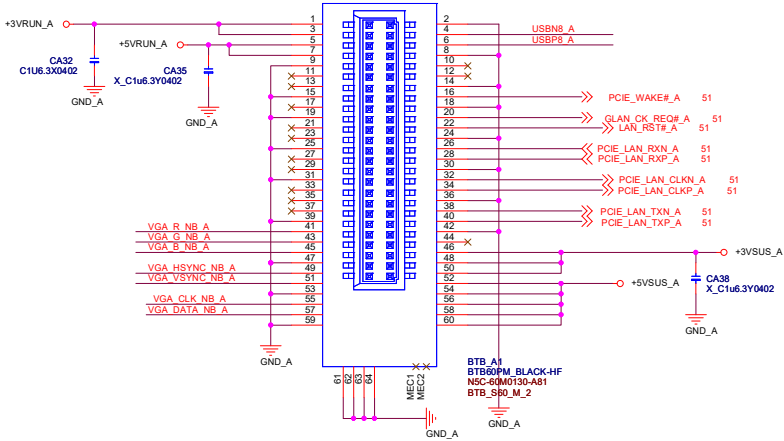


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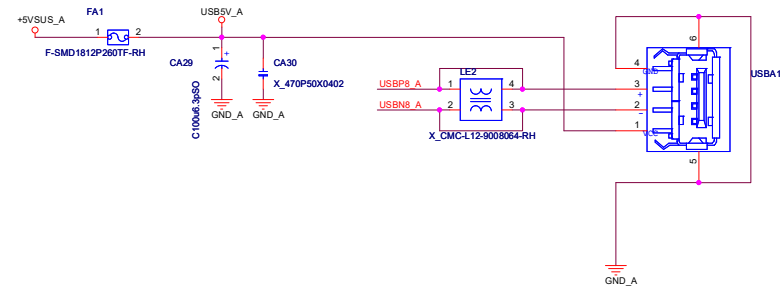


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Impedance			
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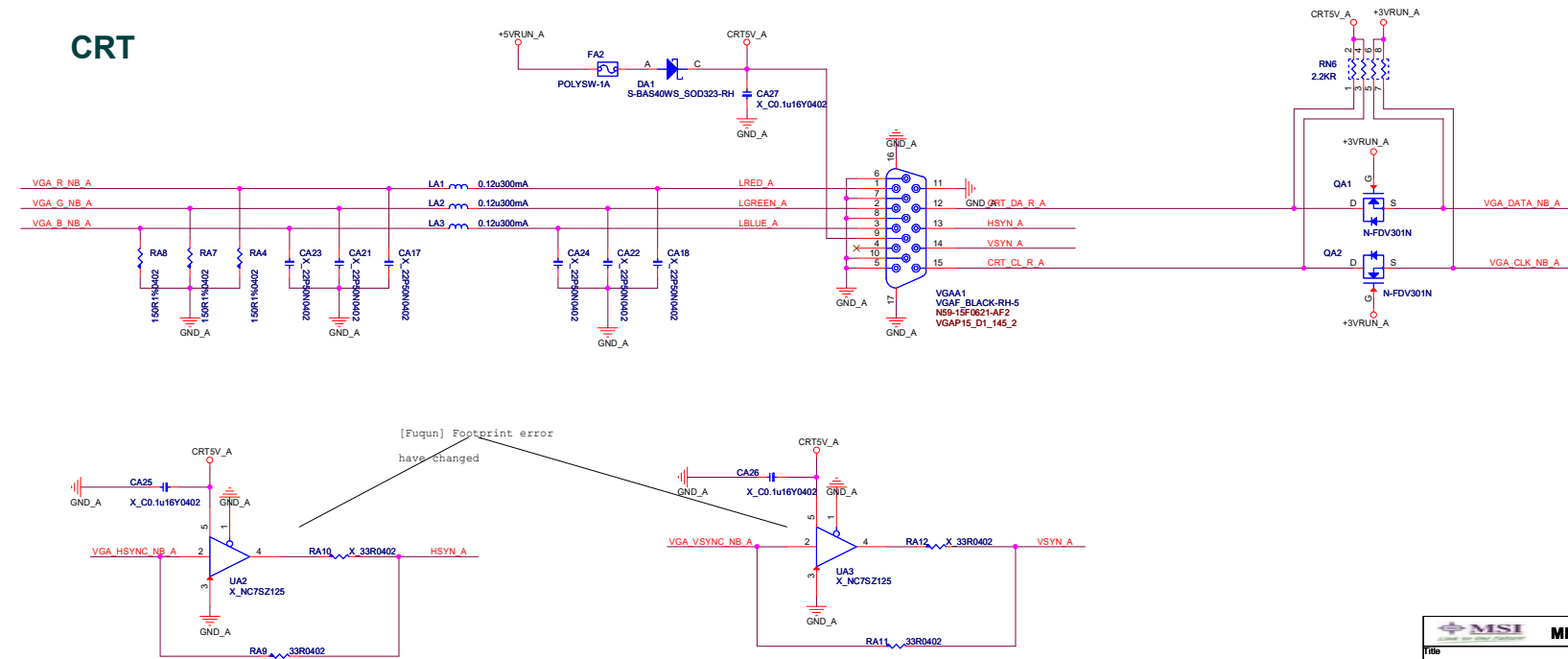
60PIN BTB I/O Connector(VGA, LAN, USB)

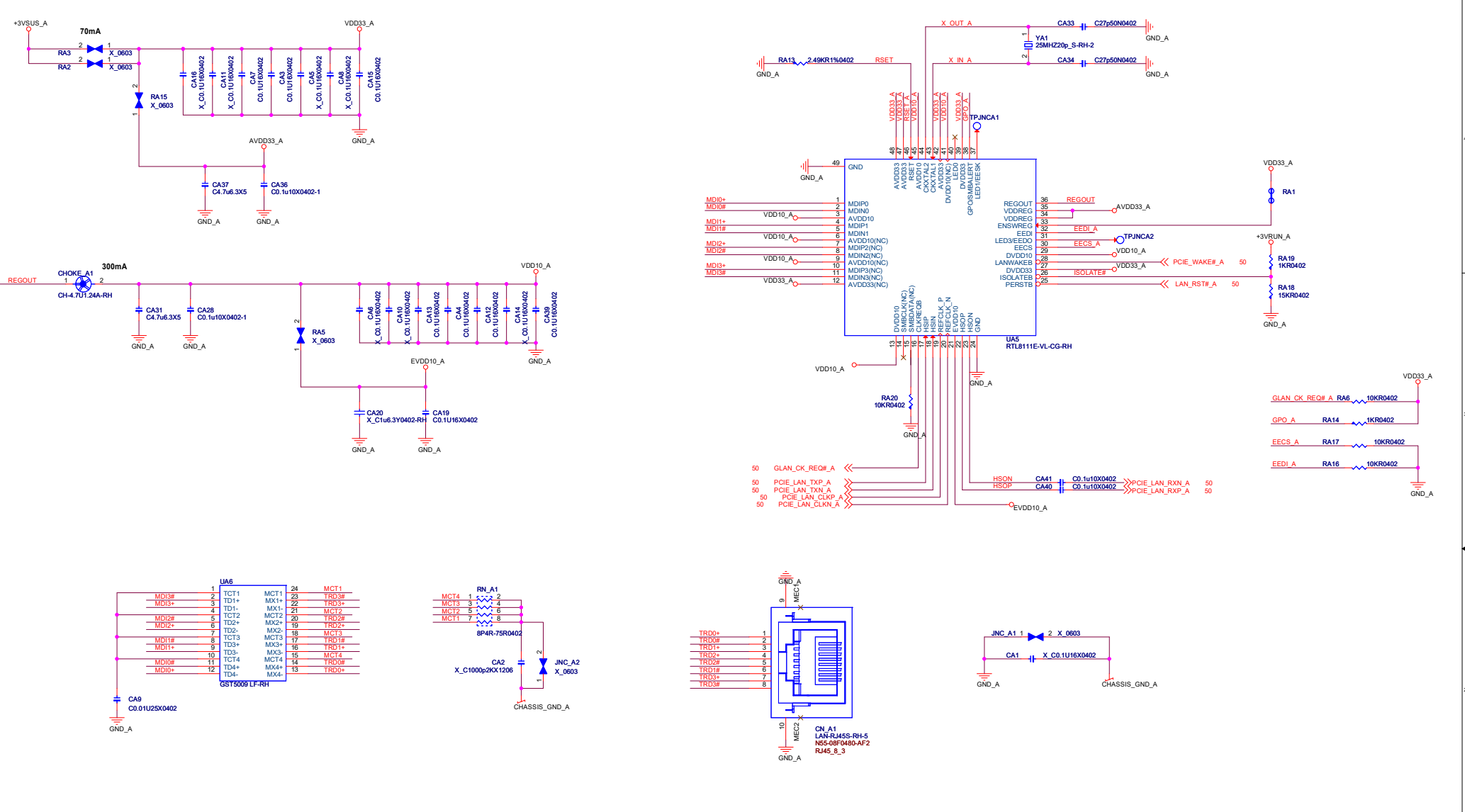


USB



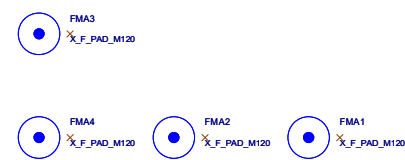
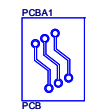
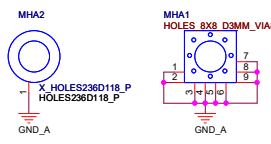
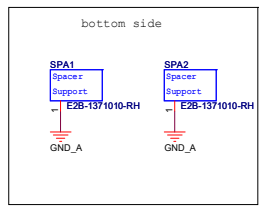
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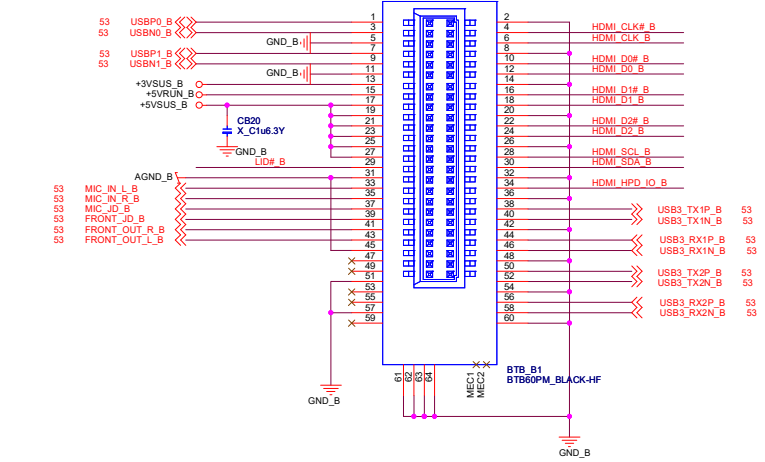


BTB STANDOFF

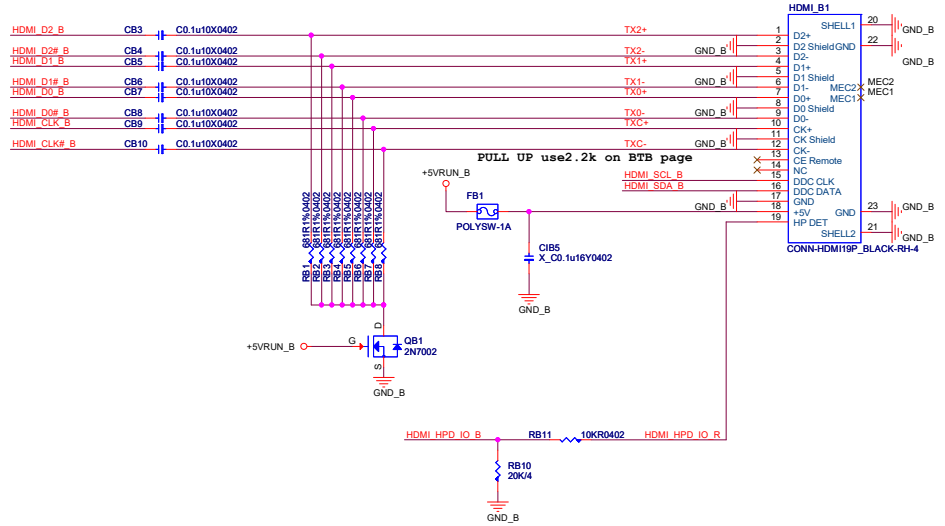
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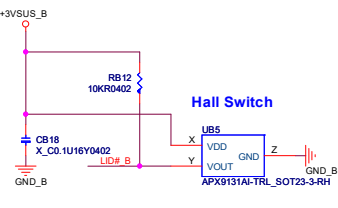
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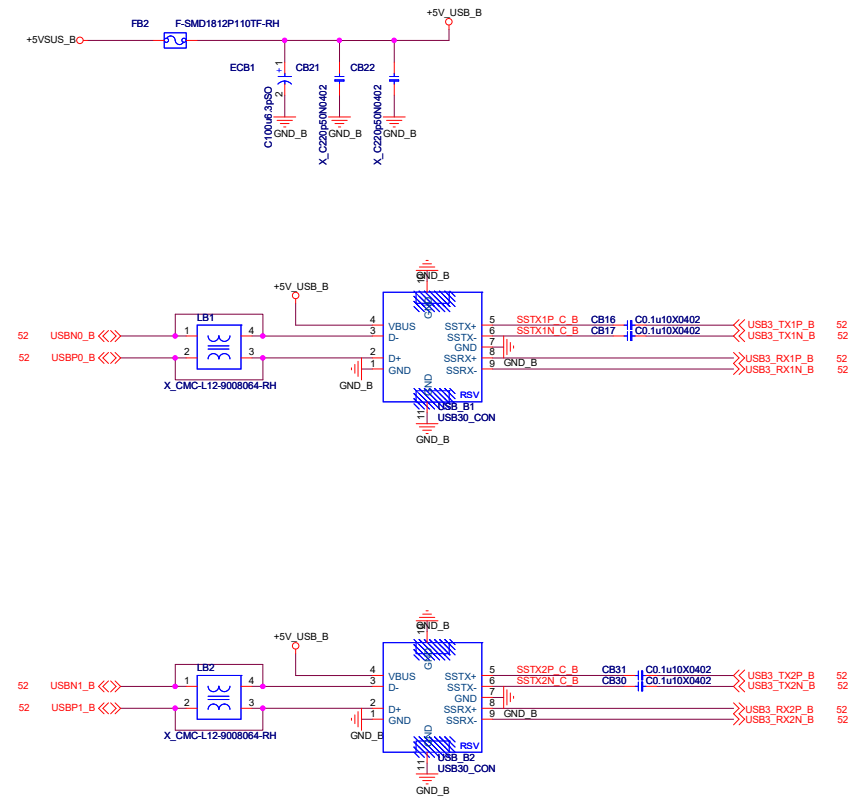
HDMI



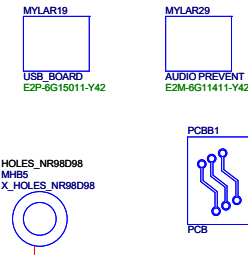
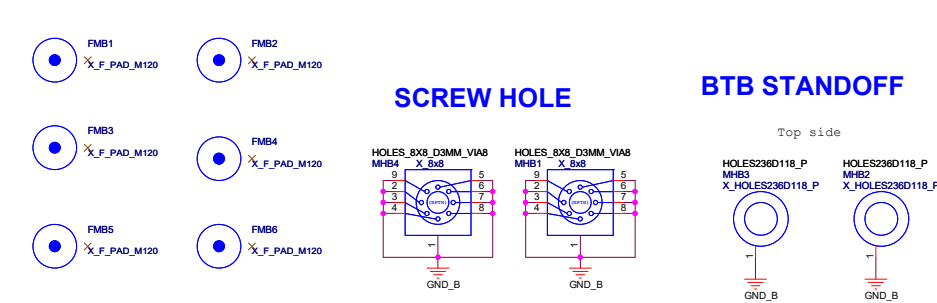
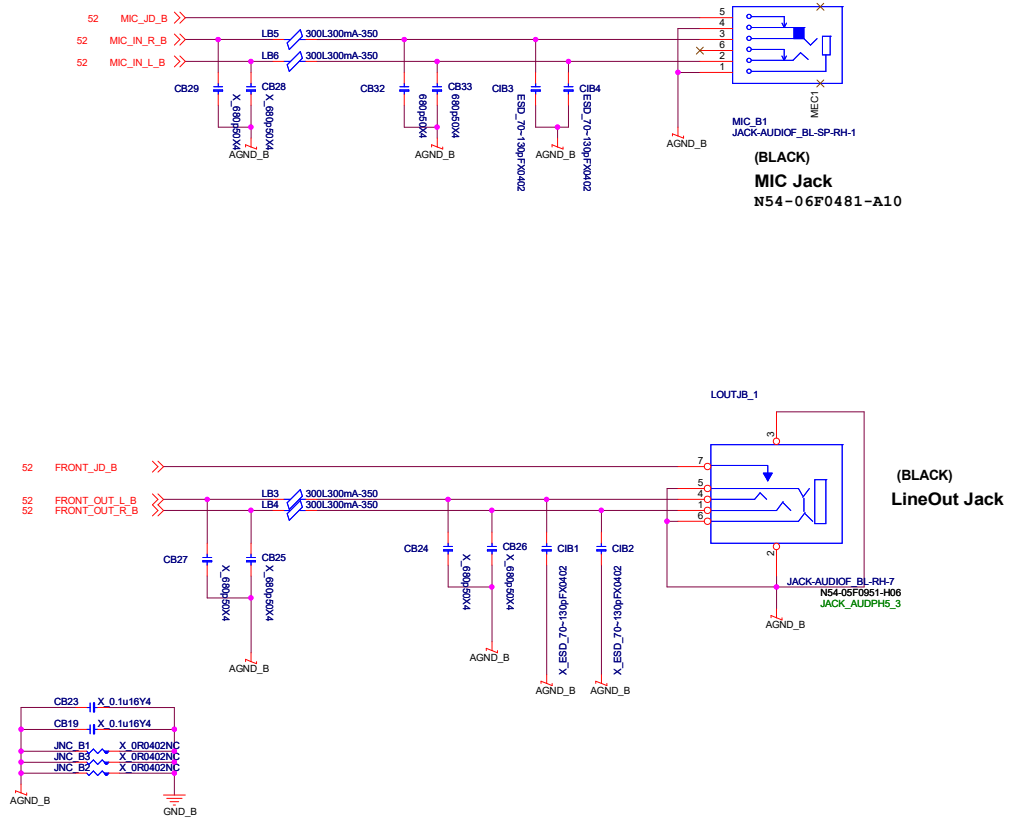
LID



USB

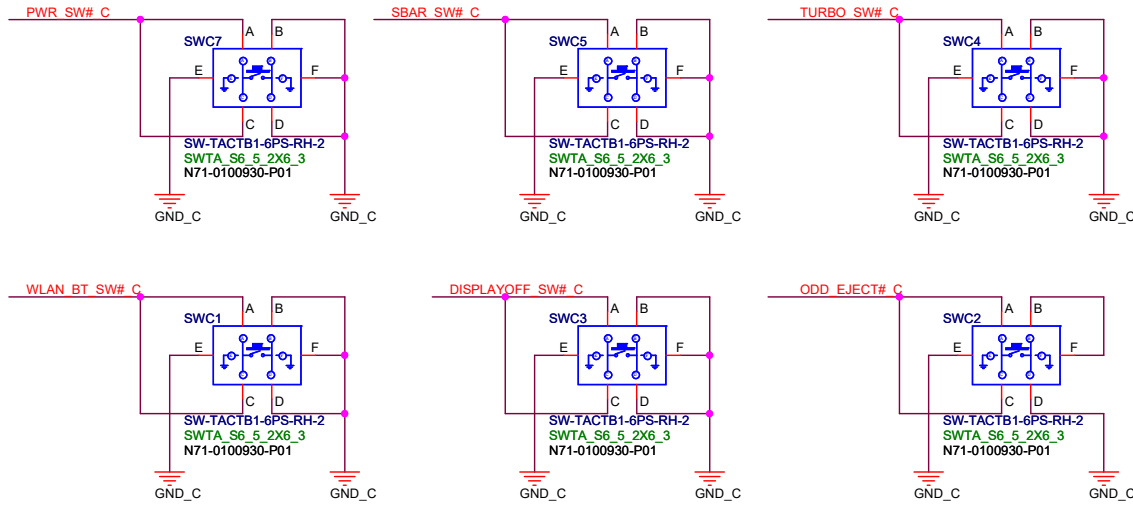
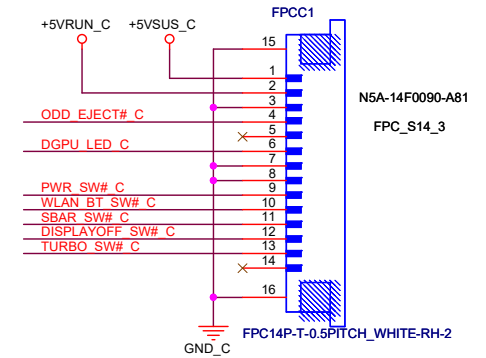
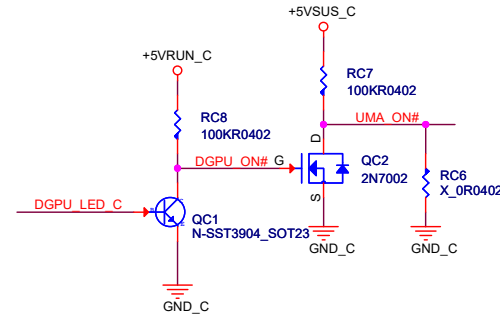
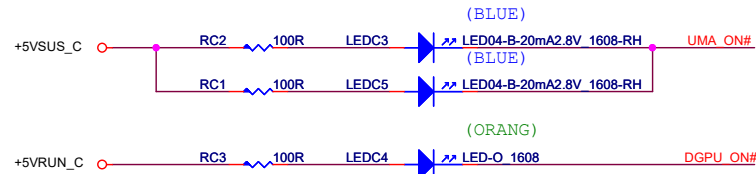


Audio Jack

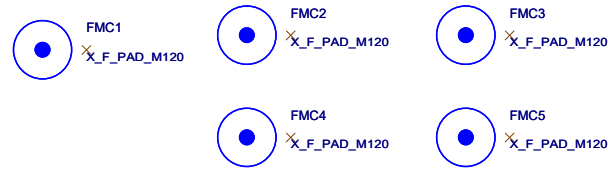
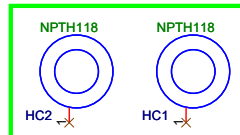
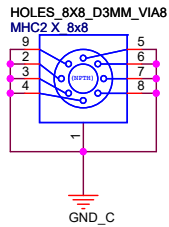
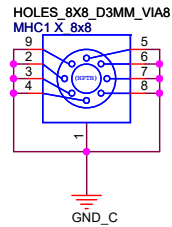
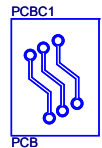



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RC7 connection change from
+5VRUN_C to +5VSUS_C in 0B Ver .

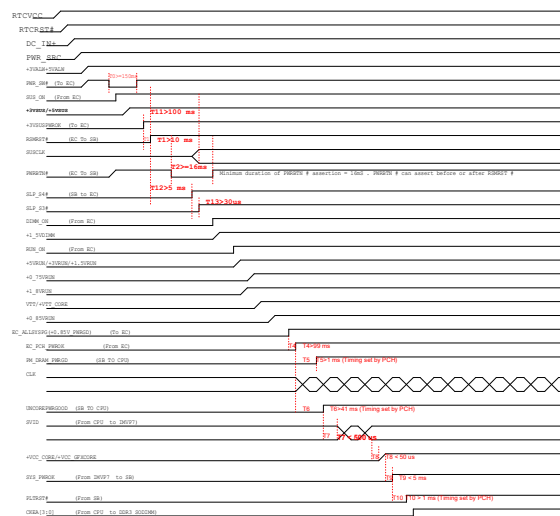


MYLAR34
POWER BOARD
E2P-6G16211-Y42



 MSI <i>Link for the Future</i>		MICRO-STAR INT'L CO.,LTD.	
Title			
[C] PWR SW /LED Launch Board			
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Intel Chief River timing SPEC



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0705:
1  LOUTJB_3000
2  CHOKE_A3000
3  FWERCONN3000
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Intel chief River timing SPEC

