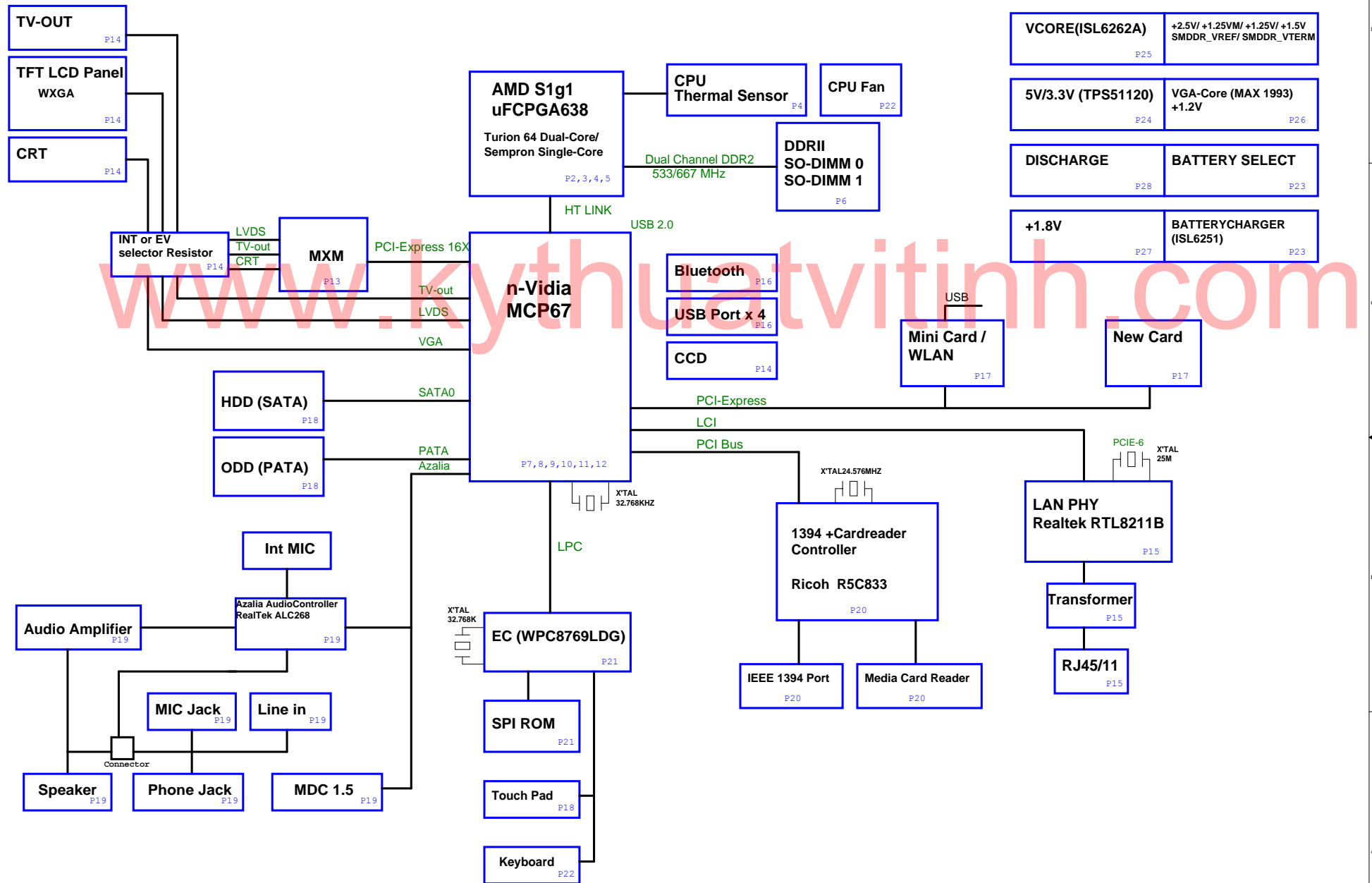
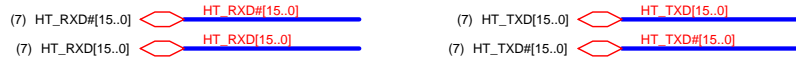


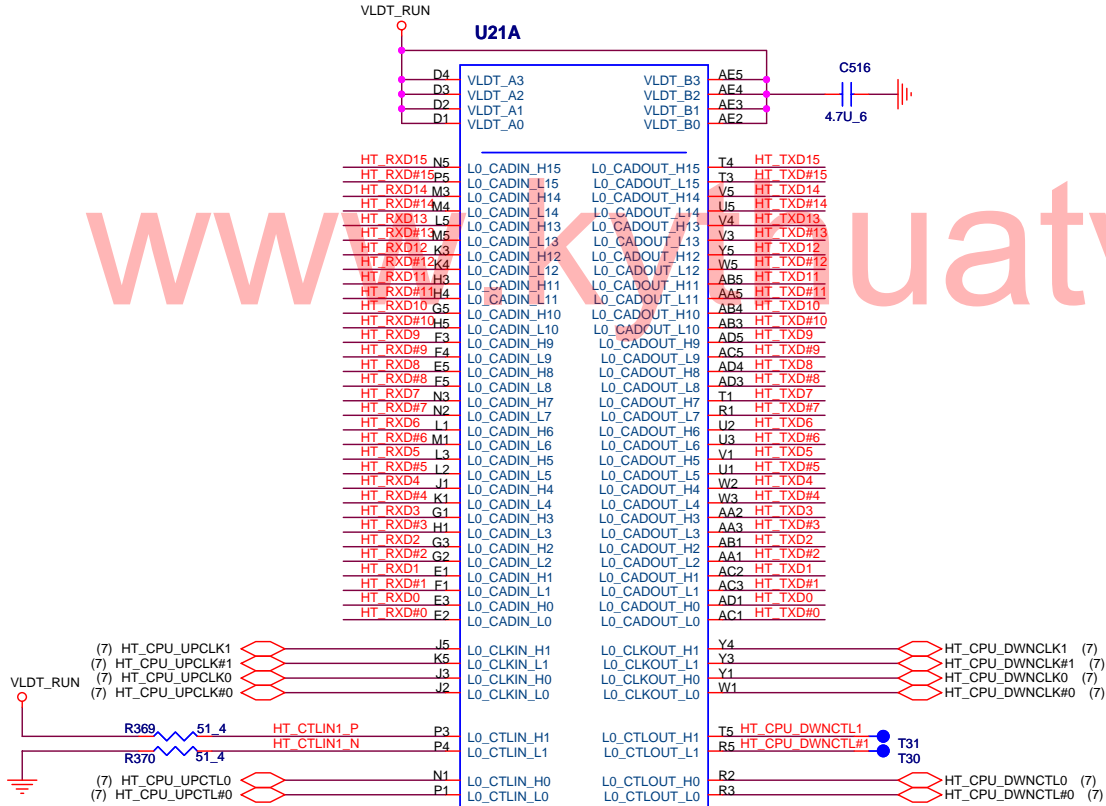
ZO3 SYSTEM BLOCK DIAGRAM



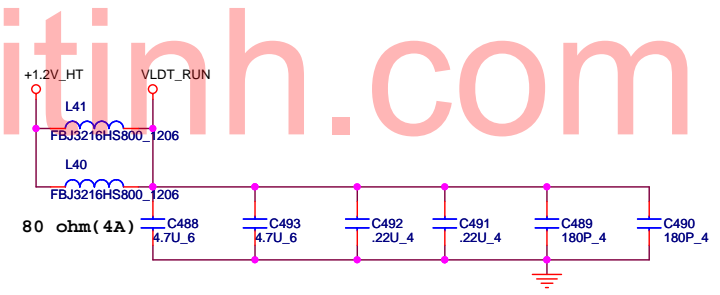


PROCESSOR HYPERTRANSPORT INTERFACE

VLDT_Ax AND VLDT_Bx ARE CONNECTED TO THE LDT_RUN POWER SUPPLY THROUGH THE PACKAGE OR ON THE DIE. IT IS ONLY CONNECTED ON THE BOARD TO DECOUPLING NEAR THE CPU PACKAGE



Athlon 64 S1 Processor Socket



LAYOUT: Place bypass cap on topside of board

NEAR HT POWER PINS THAT ARE NOT CONNECTED DIRECTLY TO DOWNSTREAM HT DEVICE, BUT CONNECTED INTERNALLY TO OTHER HT POWER PINS
 PLACE CLOSE TO VLDT0 POWER PINS

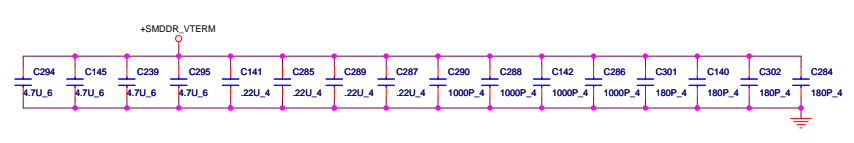
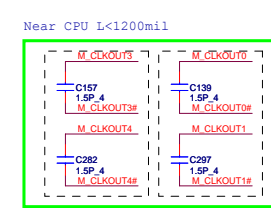
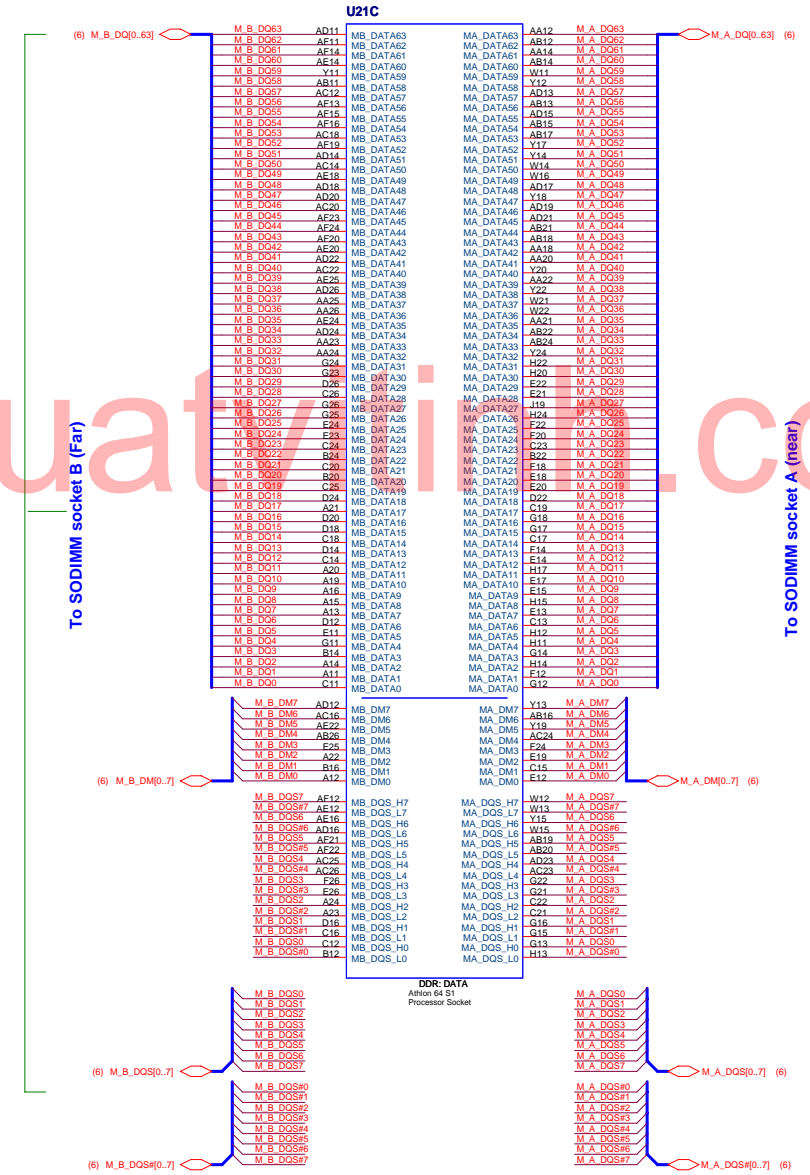
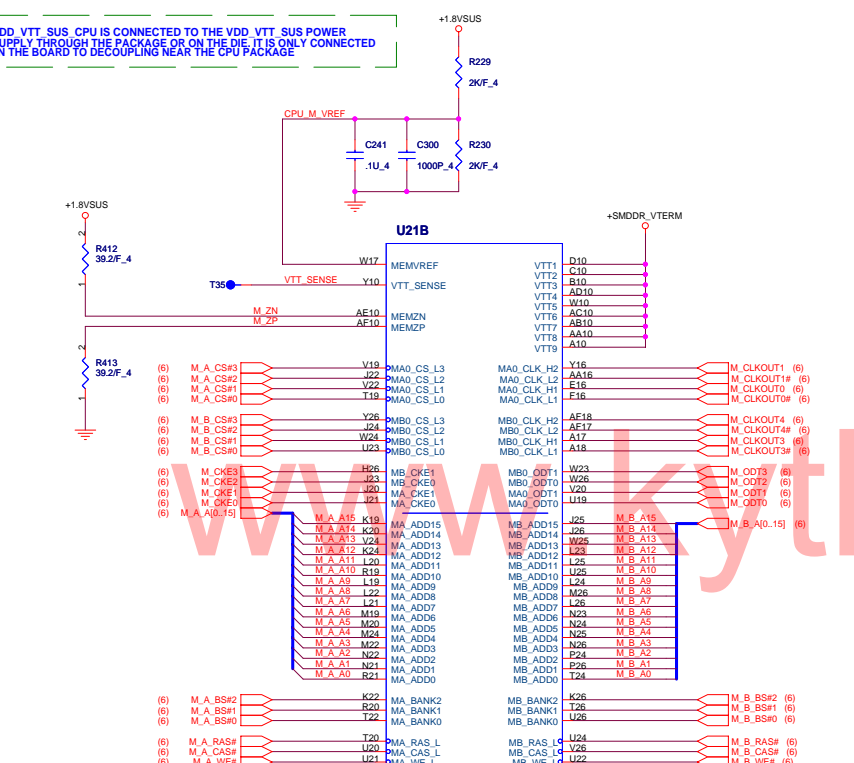
PROJECT : Z03
Quanta Computer Inc.

Size Document Number Rev 1A
ATHLON64 HT I/F

Date: Wednesday, April 25, 2007 Sheet 2 of 30

VDD_VTT_SUS_CPU IS CONNECTED TO THE VDD_VTT_SUS POWER SUPPLY THROUGH THE PACKAGE OR ON THE DIE. IT IS ONLY CONNECTED ON THE BOARD TO DECOUPLING NEAR THE CPU PACKAGE

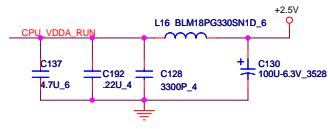
Processor DDR2 Memory Interface



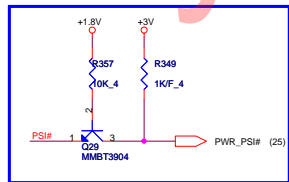
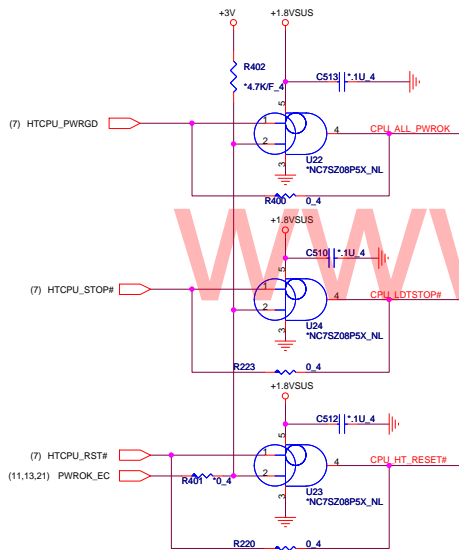
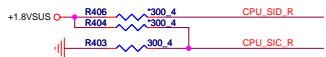
ATHLON Control and Debug

LAYOUT: ROUTE VDDA TRACE APPROX. 50 mils WIDE (USE 2x25 mil TRACES TO EXIT BALL FIELD) AND 500 mils LONG.

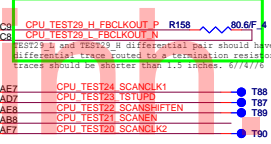
CPU_VDDA_RUN



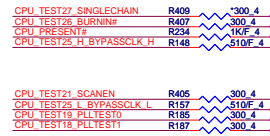
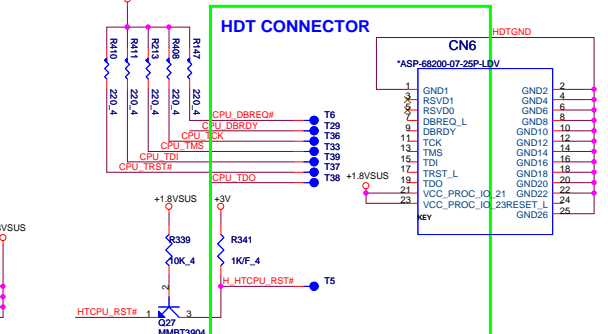
If AMD SI is not used, the SID pin can be left unconnected and SIC should have a 300-Ω (±5%) pulldown to VSS.



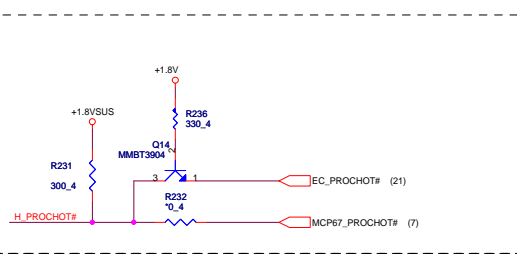
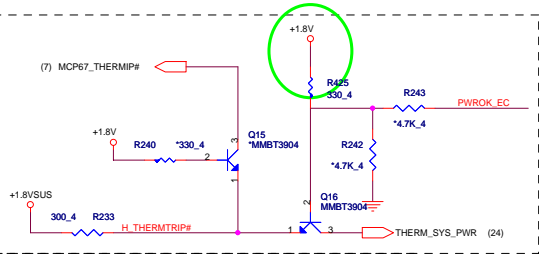
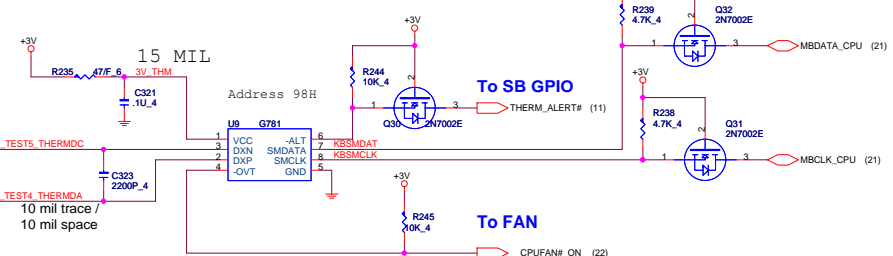
PSI_L is a Power Status Indicator signal. This signal is asserted when the processor is in a low power state. PSI_L should be connected to the power supply controller, if the controller supports "skippable" or "diode emulation mode". PSI_L is asserted by the processor during the C3 and S1 states.



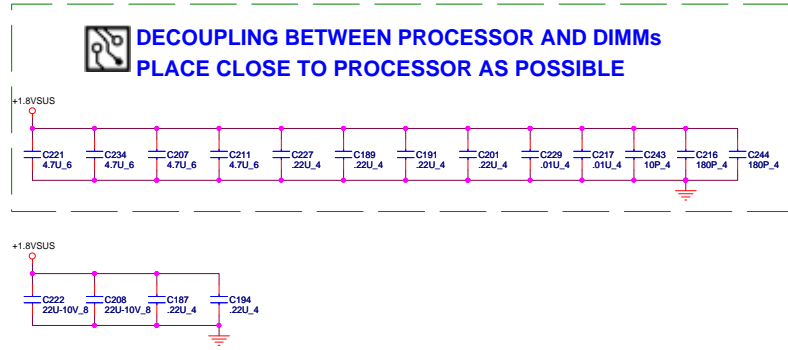
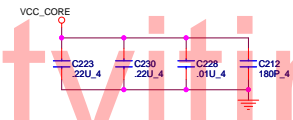
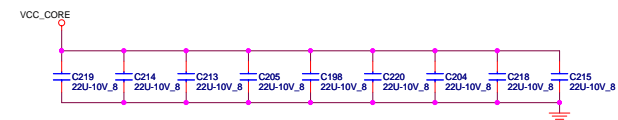
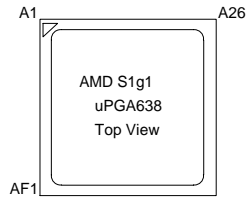
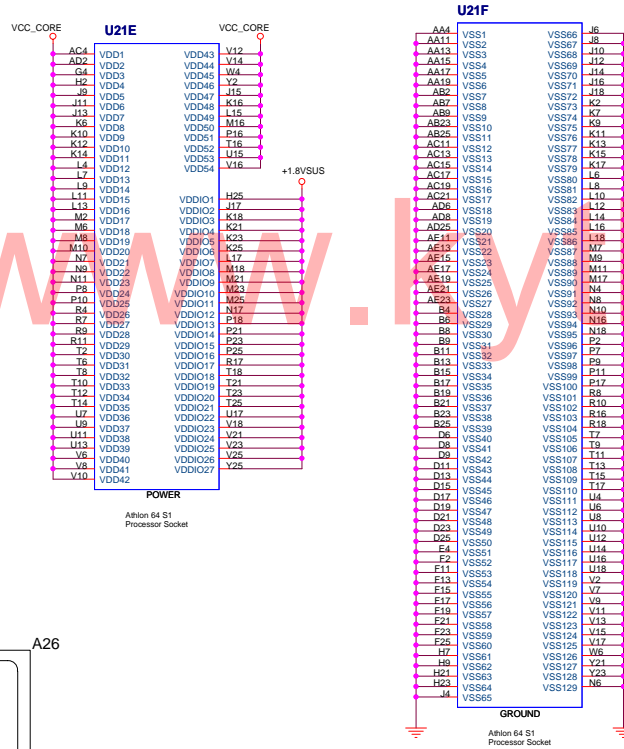
TEST29_H and TEST29_L differential pair should have a 60-ohm differential cross coupled to a termination resistor. These traces should be shorter than 1.5-inches. 6/17/77

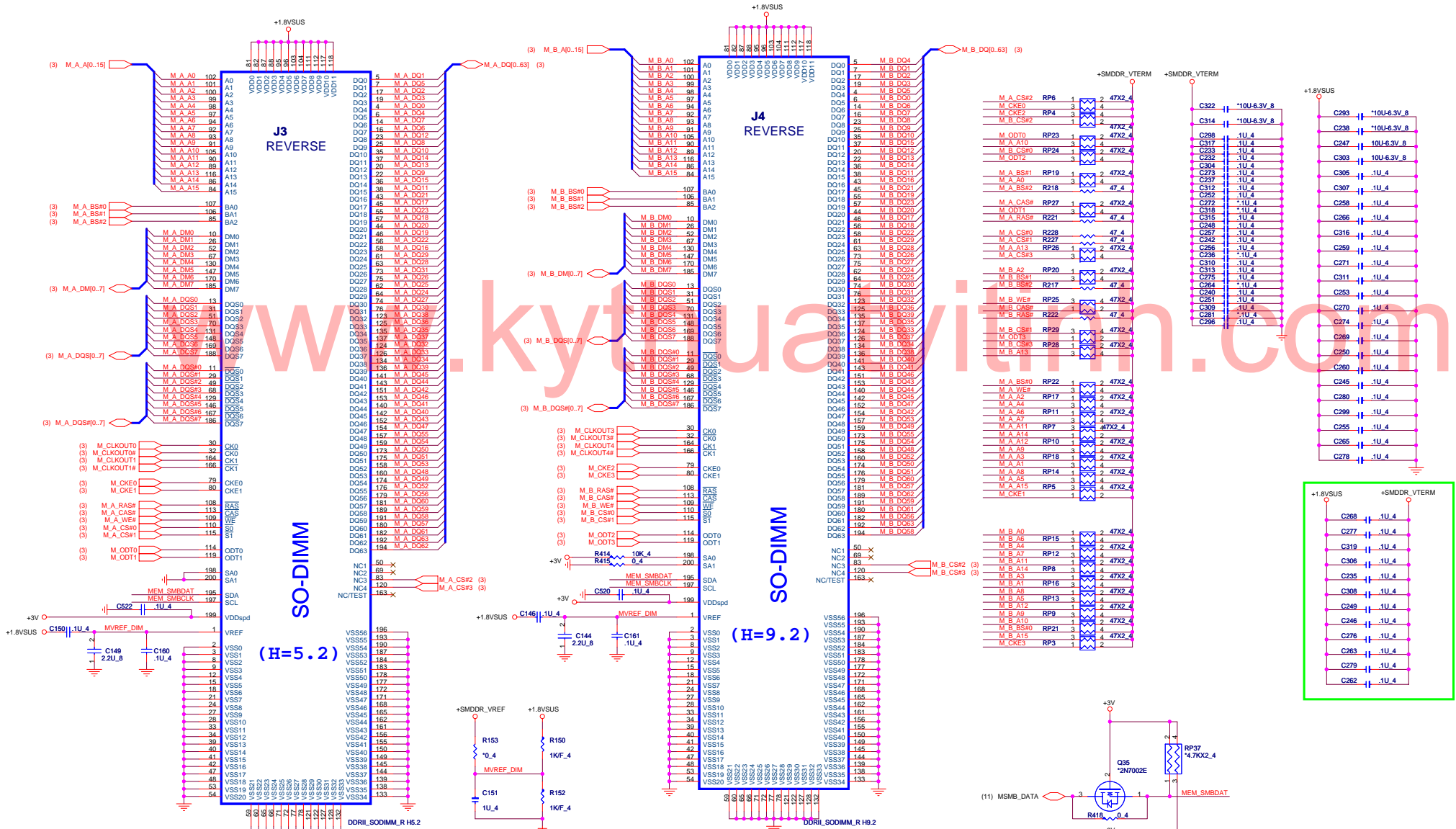


CPU H/W MONITOR



PROCESSOR POWER AND GROUND



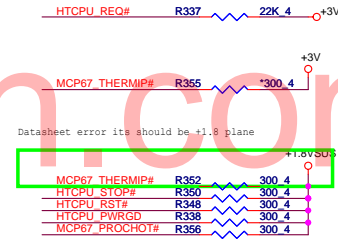
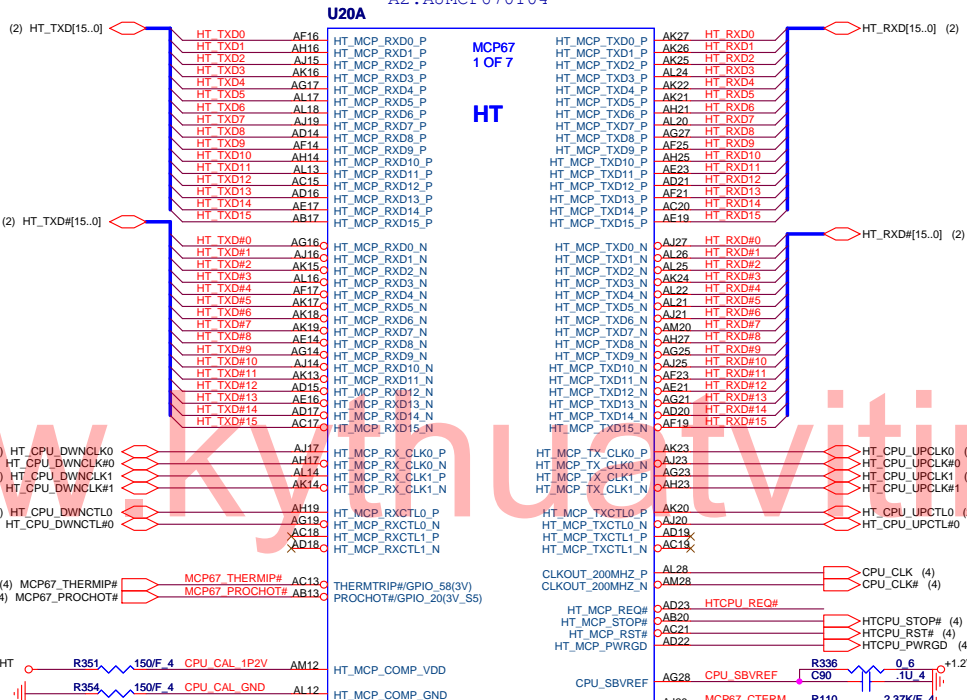


A1:AJMCP670T00

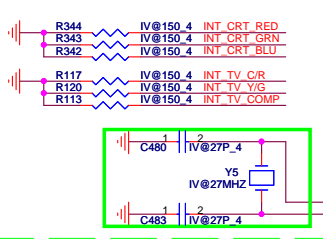
A2:AJMCP670T04

MCP67 Used UMA Only	
MCP67 Signal Name	Component
RGB_DAC_RSET	STUFF
RGB_DAC_VREF	STUFF
DDC_DATA0	*10K LEAVE NC
TV_DAC_RSET	STUFF
TV_DAC_VREF	STUFF
IFPAB_RST	STUFF
IFPAB_VPROBE	STUFF
DDC_DATA2	*10K LEAVE NC
HPLUG_DET3	22K PULLDOWN
HDMI_RSET	STUFF
HDMI_VPROBE	STUFF
DDC_DATA3_R	10K PULLHIGH
HDCP_ROM_SDATA	10K PULLHIGH
HPLUG_DET2_R	6.2K PULLDOWN

MCP67 Unused UMA Only	
MCP67 Signal Name	Component
RGB_DAC_RSET	STUFF
RGB_DAC_VREF	STUFF
DDC_DATA0	10K PULLHIGH
TV_DAC_RSET	STUFF
TV_DAC_VREF	STUFF
IFPAB_RST	STUFF
IFPAB_VPROBE	STUFF
DDC_DATA2	10K PULLHIGH
HPLUG_DET3	22K PULLDOWN
HDMI_RSET	STUFF
HDMI_VPROBE	STUFF
DDC_DATA3_R	10K PULLHIGH
HDCP_ROM_SDATA	10K PULLHIGH
HPLUG_DET2_R	6.2K PULLDOWN



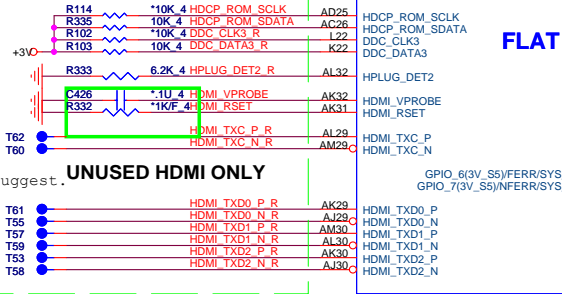
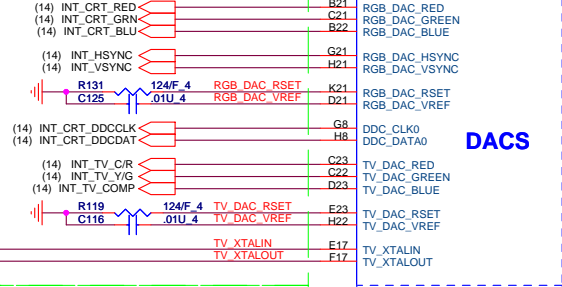
FOR UMA ONLY



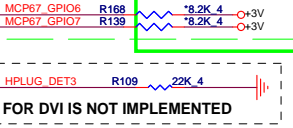
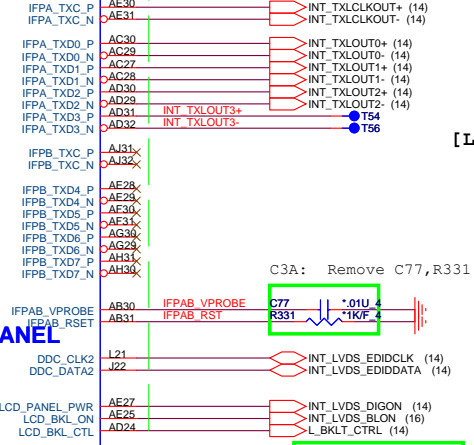
B2B: changed CAP value



C3A: Remove C426, R332 for Nvidia suggest.



FLAT PANEL



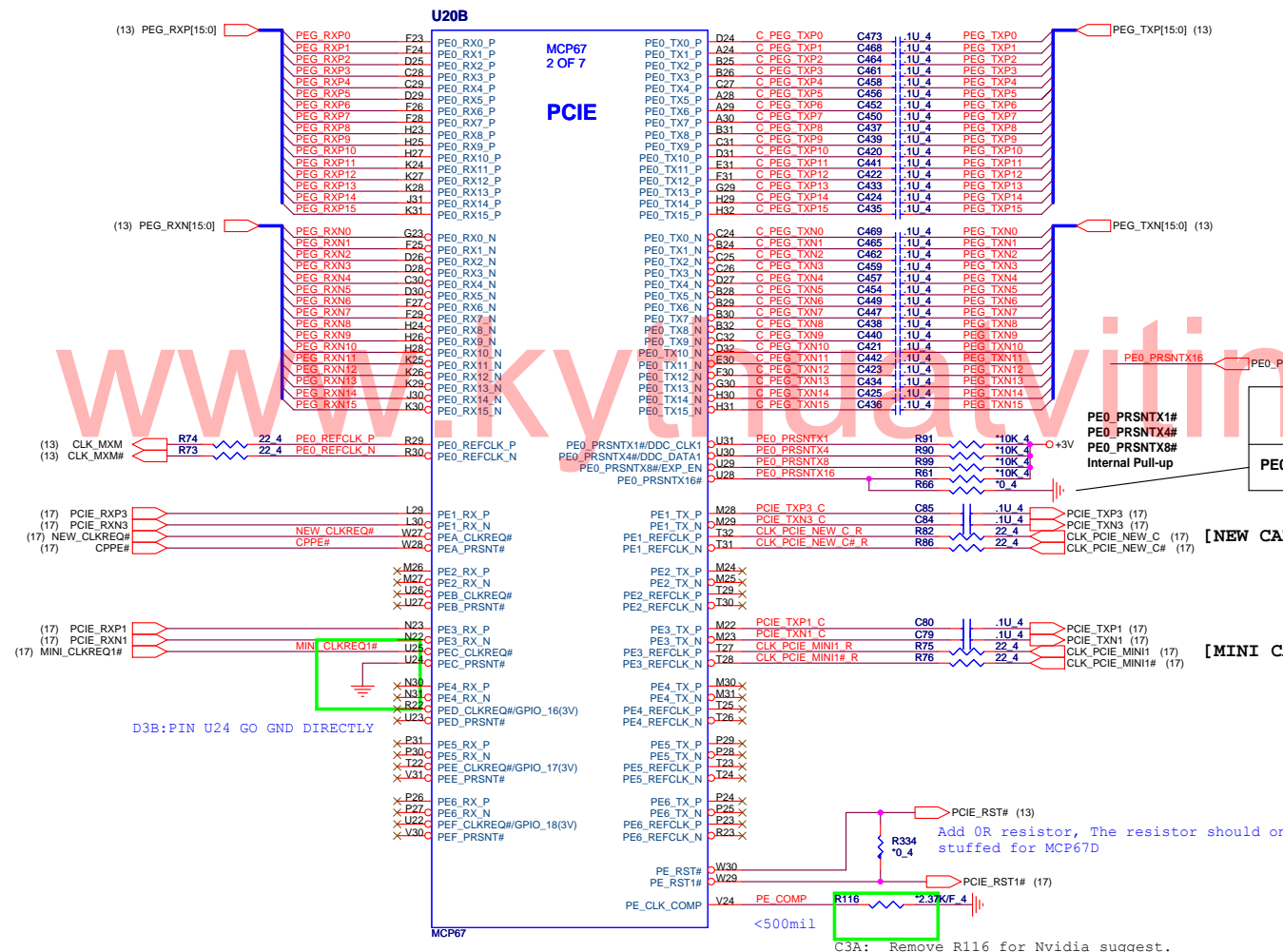
FOR DVI IS NOT IMPLEMENTED

[LVDS]

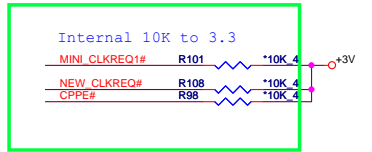
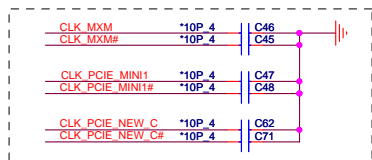
C3A: Remove C77, R331 for Nvidia suggest.

FOR UMA ONLY

B2A: Remove R168, R139



NET NAME	MCP67D (DISCRETE)	MCP67M (GPU)
PE0_PRSNTX16	LOW	N/A



[MXM]

[NEW CARD]

[TV]

[MINI CARD]

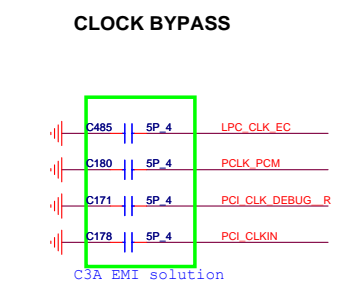
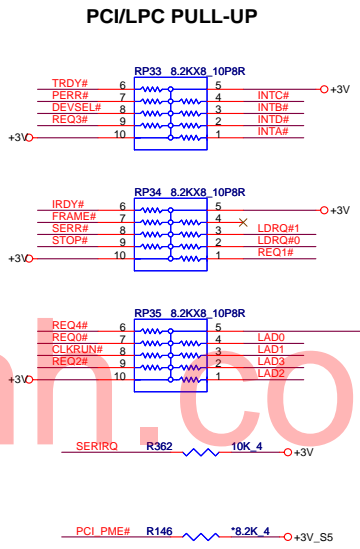
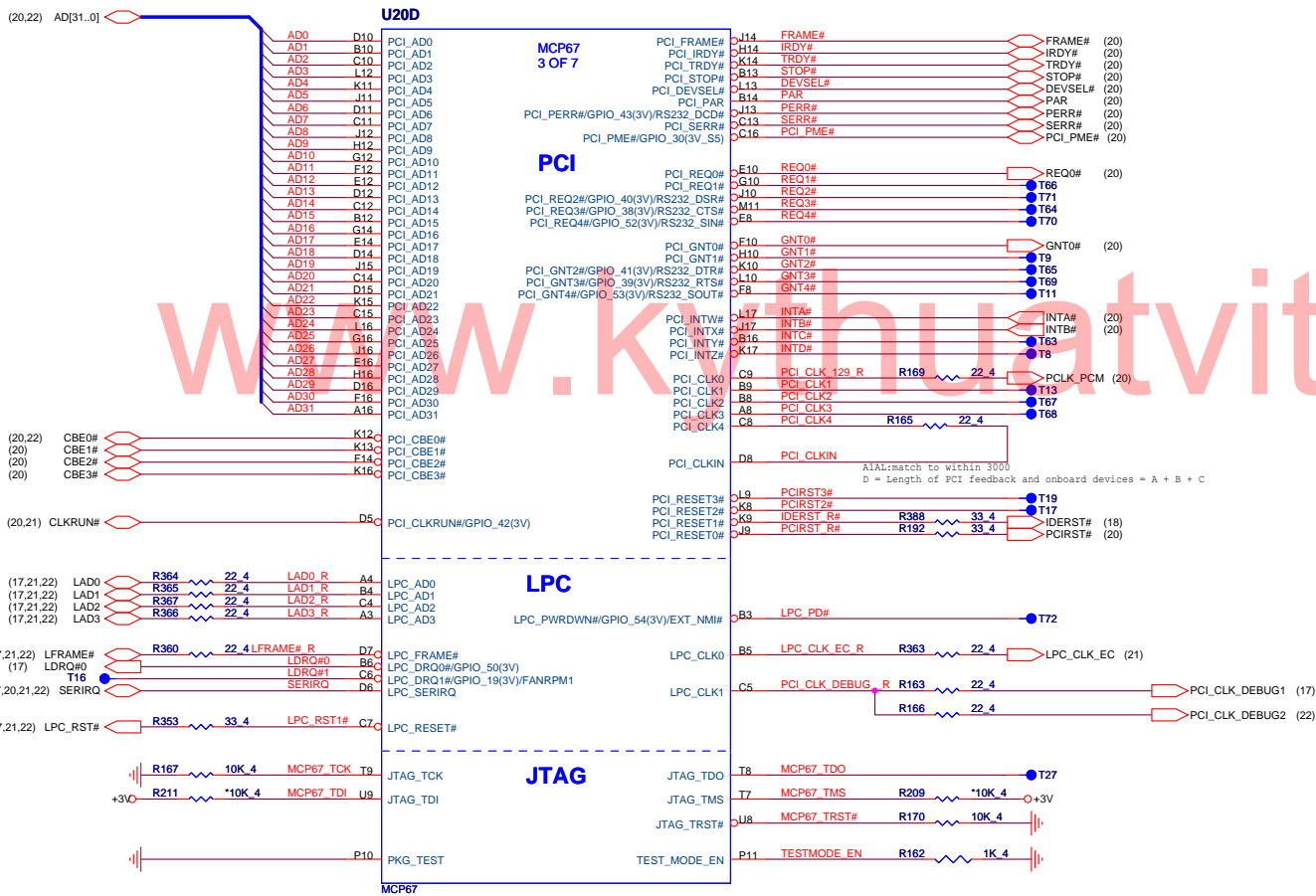
[NEW CARD]

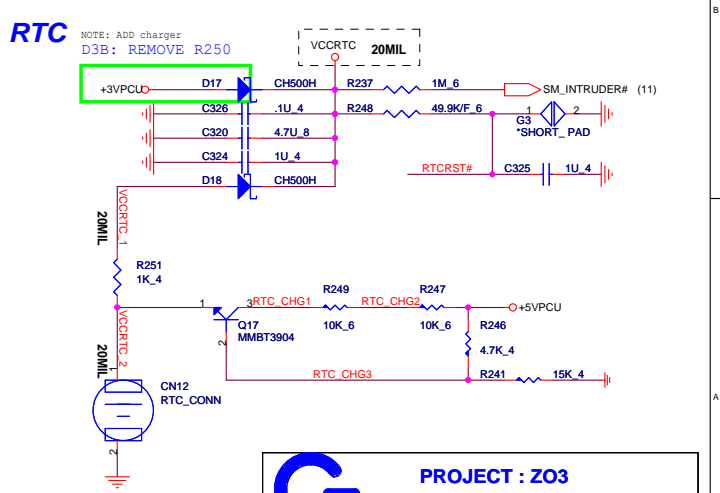
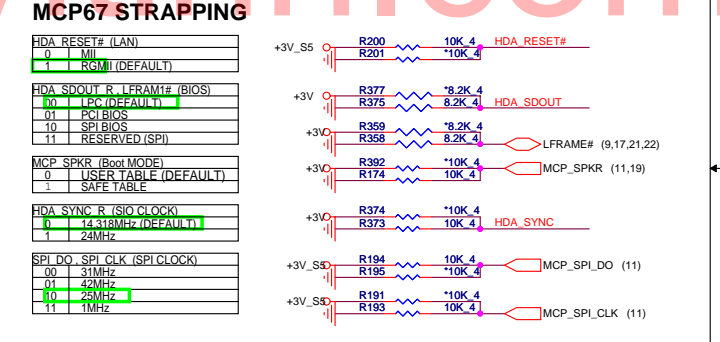
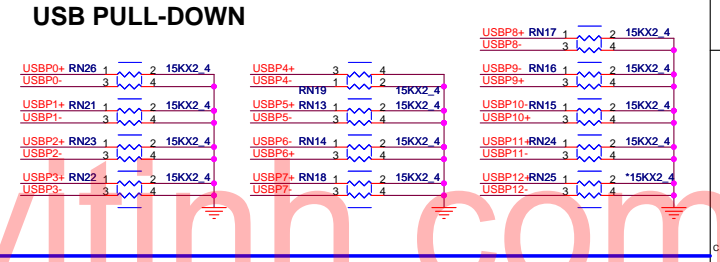
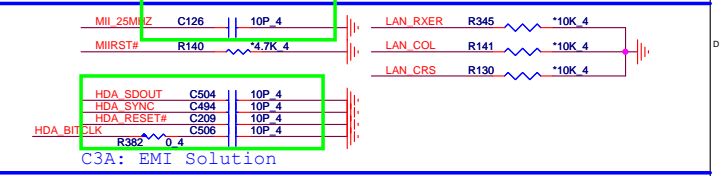
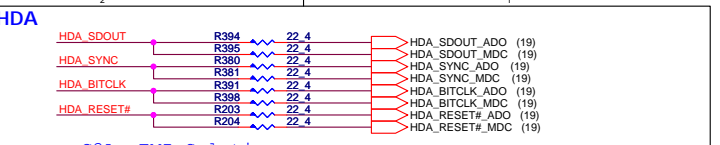
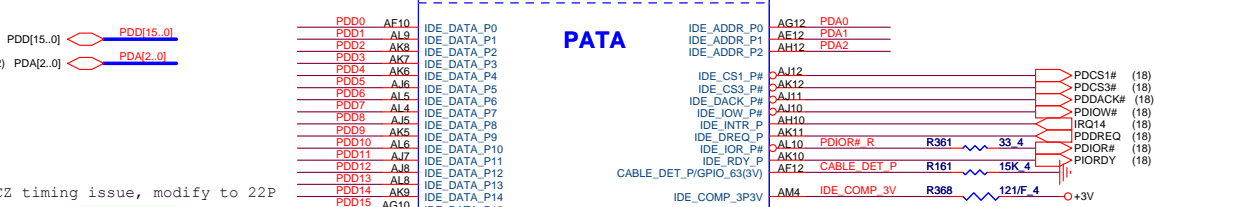
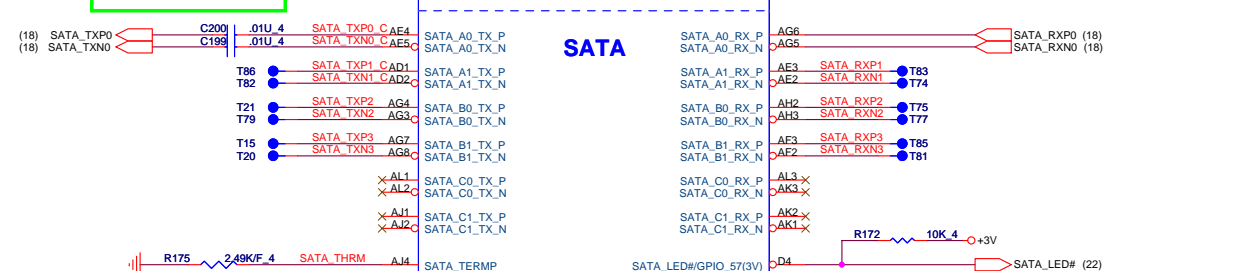
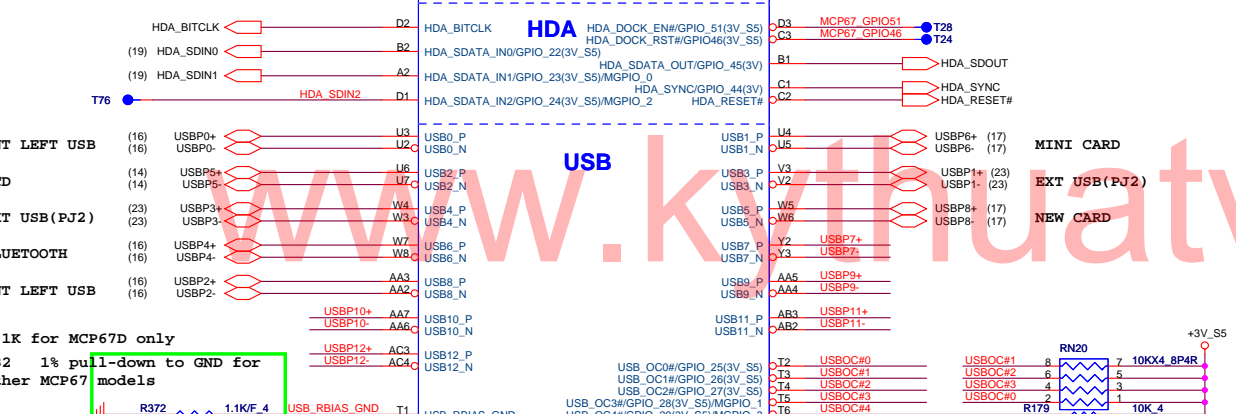
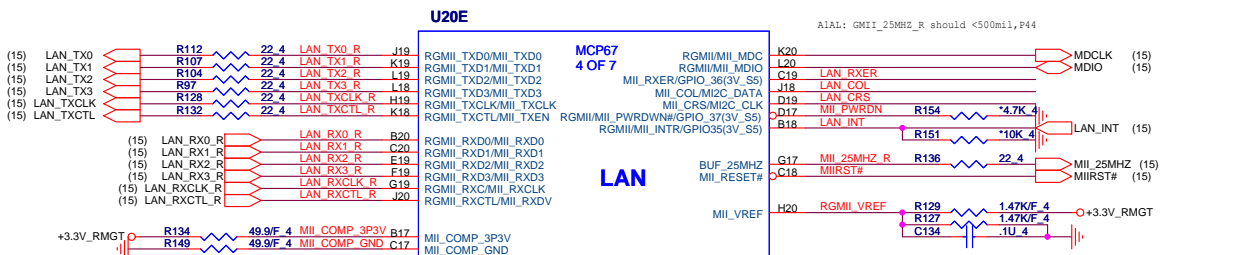
[MINI CARD]

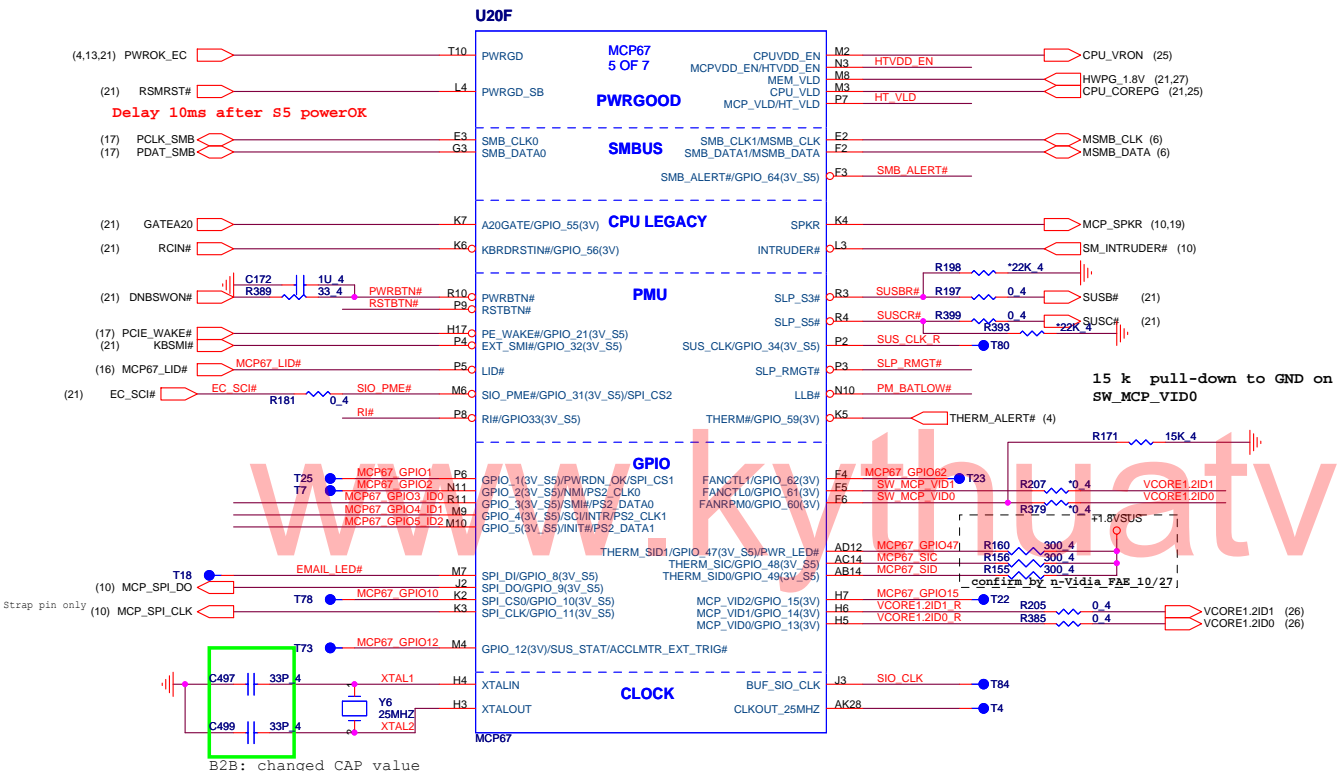
D3B:PIN U24 GO GND DIRECTLY

Add 0R resistor, The resistor should only be stuffed for MCP67D

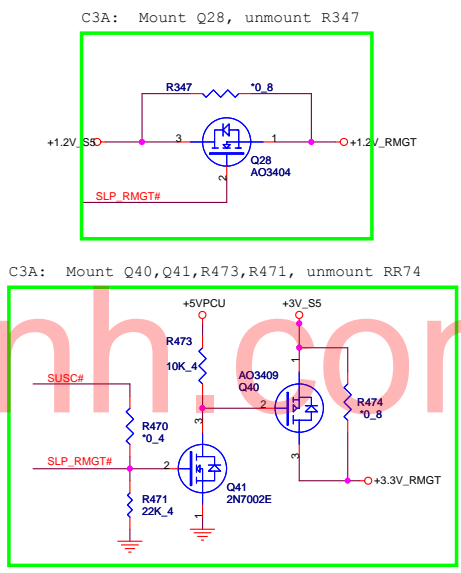
C3A: Remove R116 for Nvidia suggest.







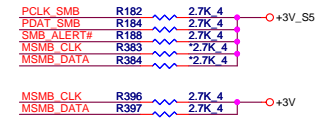
FOR SLEEP MODE CORE POWER CIRCUIT



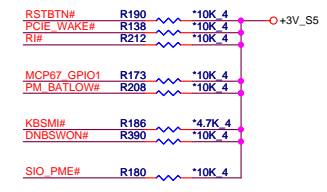
CPU LEGACY PULL-UP



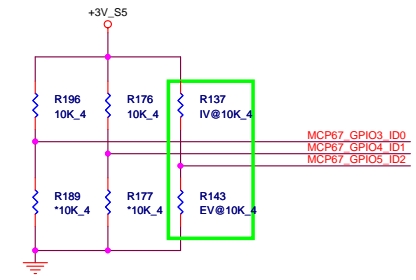
SMB/I2C PULL-UP



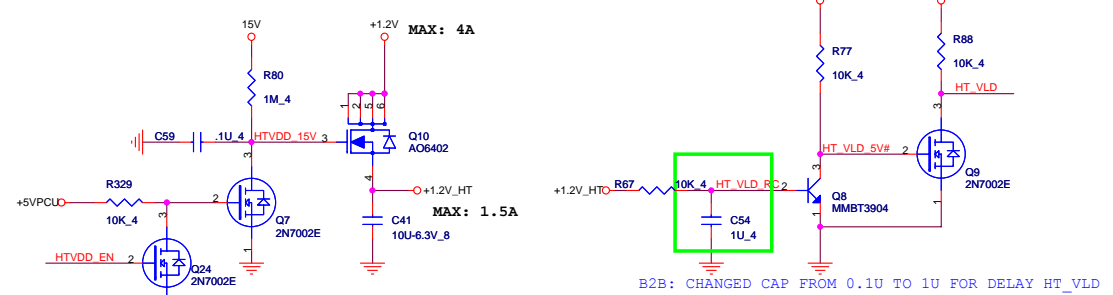
PMU PULL-UP



M/B ID for 14"/15"/17"



HyperTransport Link 1.2 V_HT Power Valid

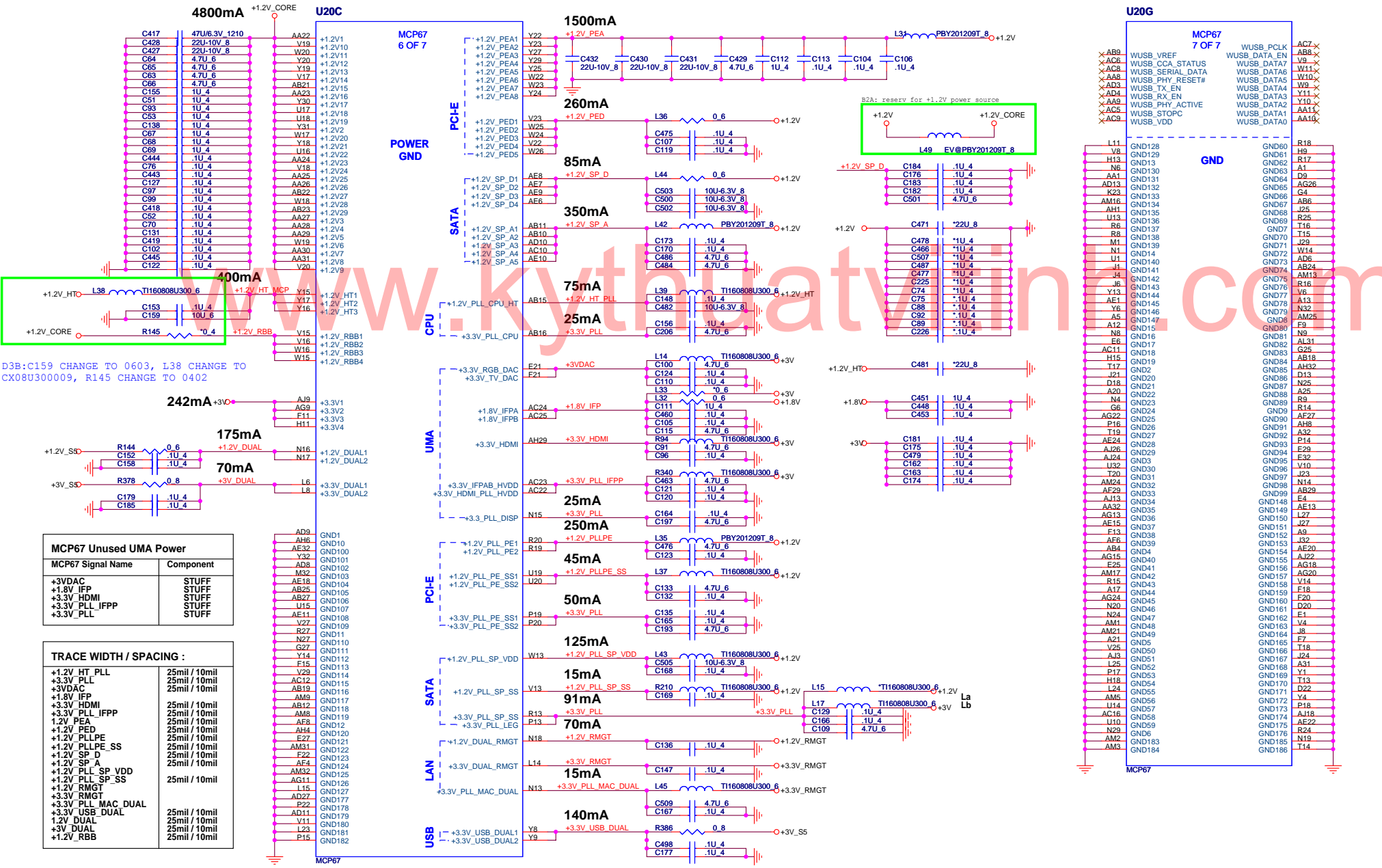


ID0	ID1	ID2	M/B
0	0	0	17" D
0	0	1	X
0	1	0	15" D
1	0	0	15" U
1	0	1	X
1	1	0	14" D
1	1	1	14" U

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	MCP67(SMB/GPIO/CLK/PMU)	1A
Date:	Wednesday, April 25, 2007	Sheet 11 of 30


MCP67 POWER PLANE/GND & BYPASS



D3B:C159 CHANGE TO 0603, L38 CHANGE TO CX080300009, R145 CHANGE TO 0402

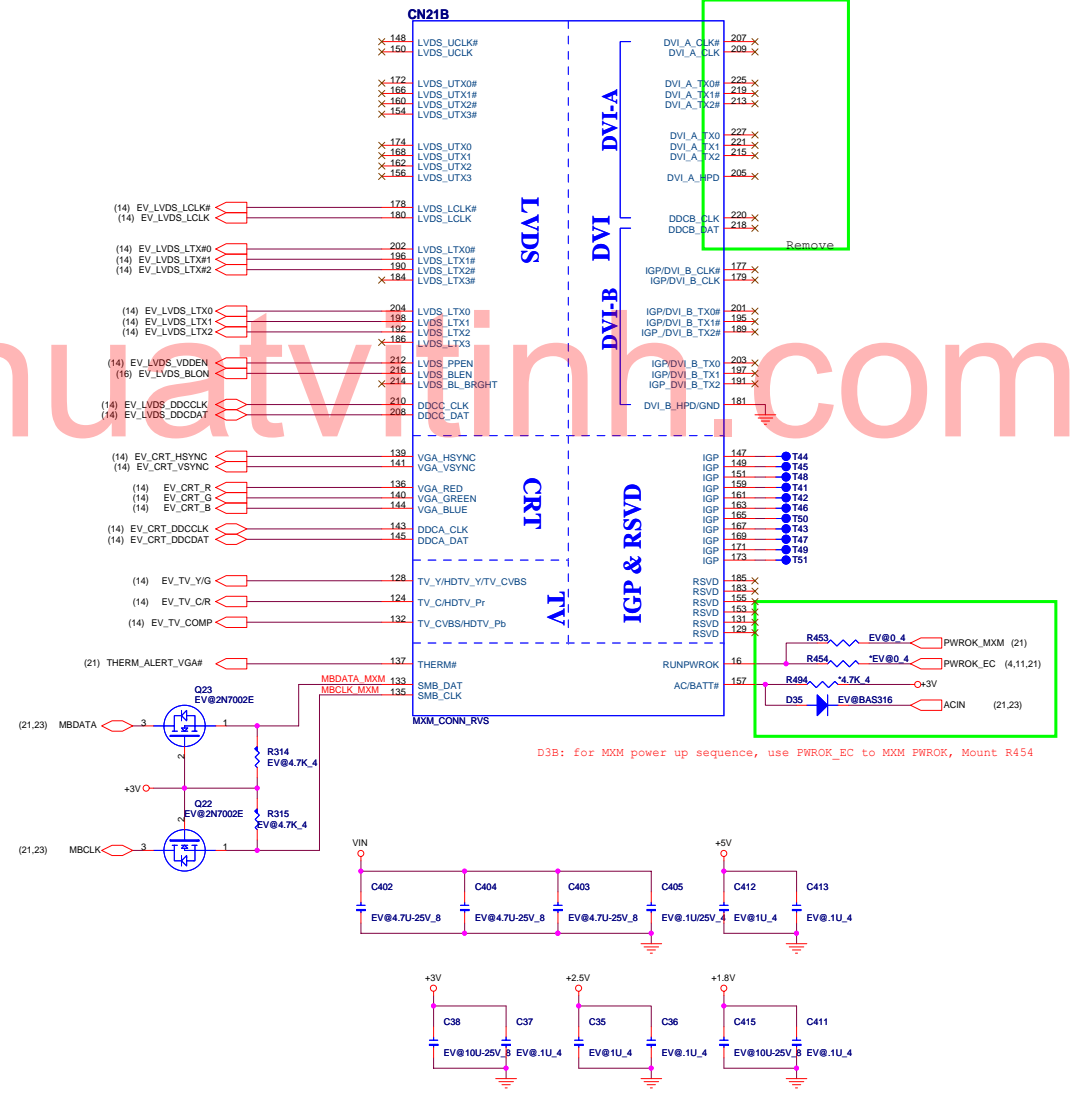
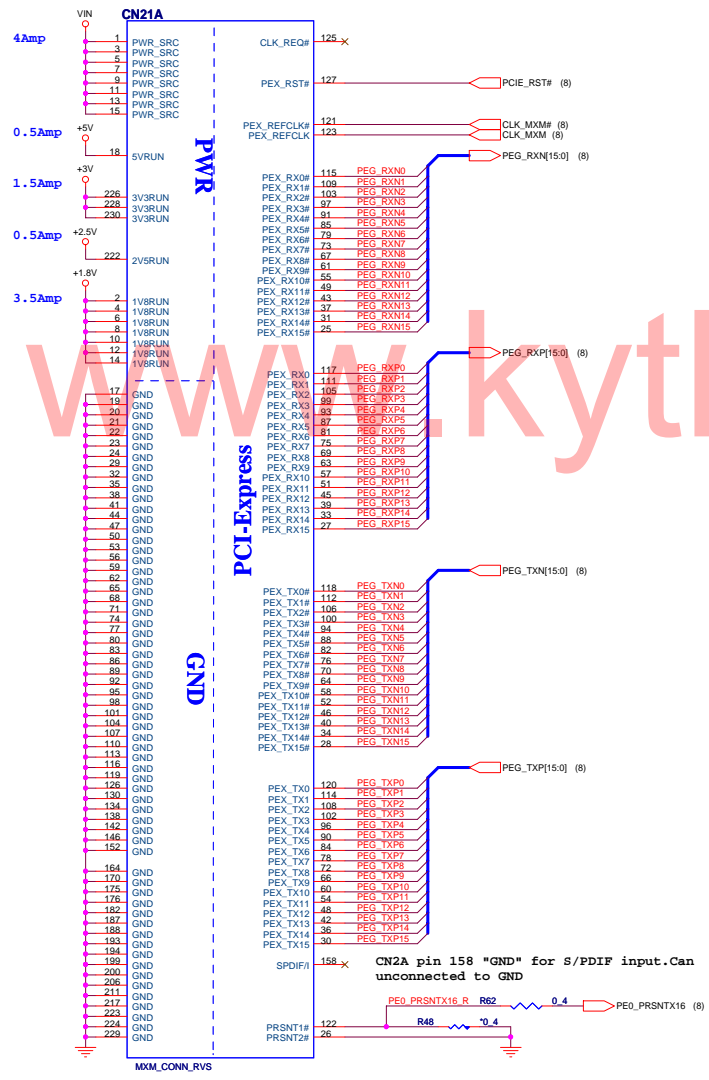
MCP67 Unused UMA Power	
MCP67 Signal Name	Component
+3VDAC	STUFF
+1.8V_IFP	STUFF
+3.3V_HDMI	STUFF
+3.3V_PLL_IFPP	STUFF
+3.3V_PLL	STUFF

TRACE WIDTH / SPACING :	
+1.2V_HT_PLL	25mil / 10mil
+3.3V_PLL	25mil / 10mil
+3VDAC	25mil / 10mil
+1.8V_IFP	25mil / 10mil
+3.3V_HDMI	25mil / 10mil
+3.3V_PLL_IFPP	25mil / 10mil
1.2V_PEA	25mil / 10mil
+1.2V_PED	25mil / 10mil
+1.2V_PLLPE	25mil / 10mil
+1.2V_PLLPE_SS	25mil / 10mil
+1.2V_SP_D	25mil / 10mil
+1.2V_SP_A	25mil / 10mil
+1.2V_PLL_SP_VDD	25mil / 10mil
+1.2V_PLL_SP_SS	25mil / 10mil
+3.3V_RMGT	25mil / 10mil
+3.3V_PLL_MAC_DUAL	25mil / 10mil
+3.3V_USB_DUAL	25mil / 10mil
1.2V_DUAL	25mil / 10mil
+3V_DUAL	25mil / 10mil
+1.2V_RBB	25mil / 10mil



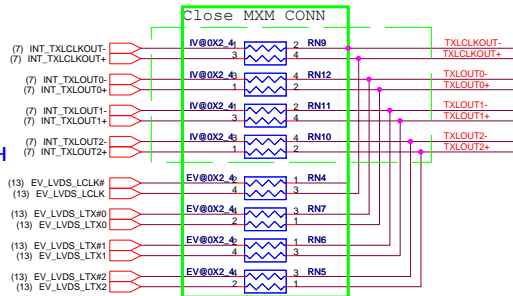
PROJECT : Z03
Quanta Computer Inc.

Size	Document Number	Rev
	MCP67(POWER/GND)	1A
Date:	Wednesday, April 25, 2007	Sheet 12 of 30

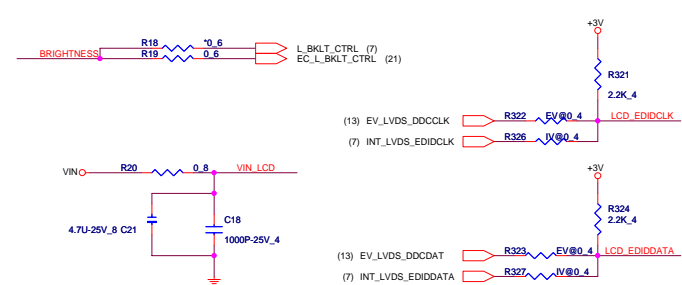
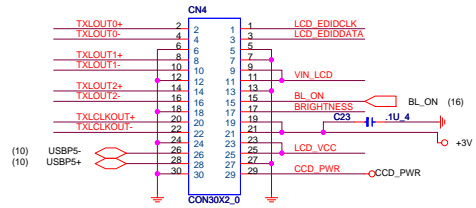


LVDS

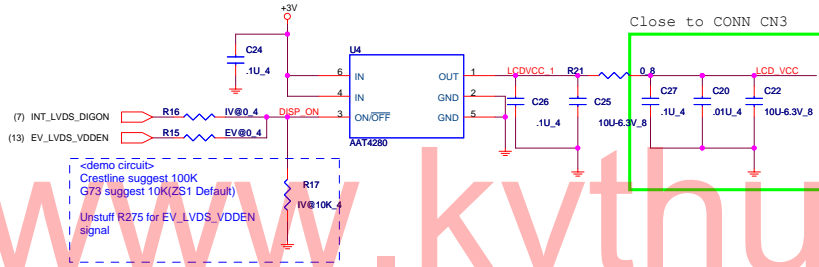
SINGLE_CH



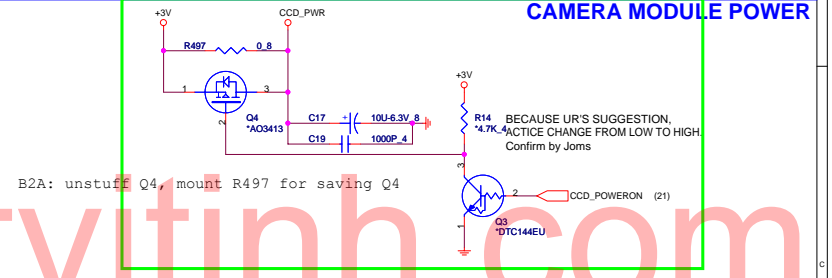
Edison-- 1025 Modify the LVDS pin definition



LCD POWER

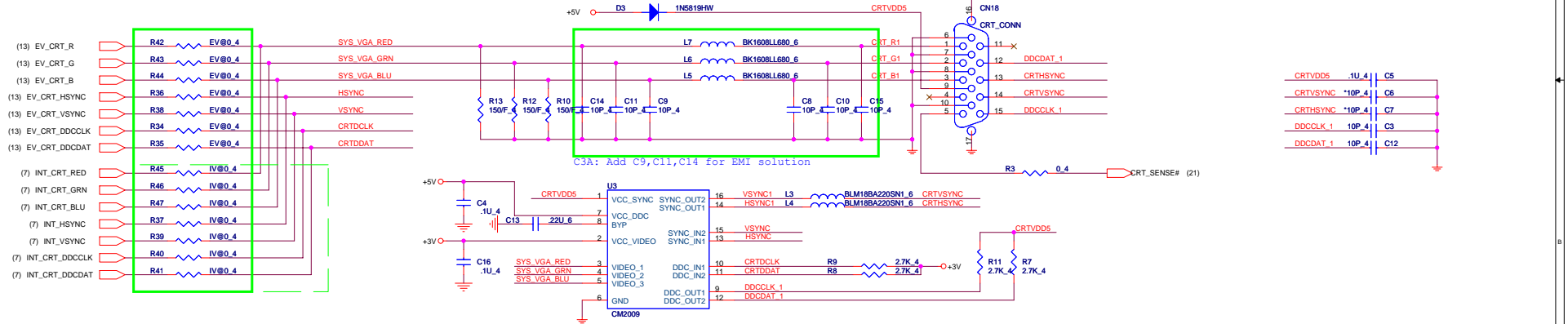


CAMERA MODULE POWER

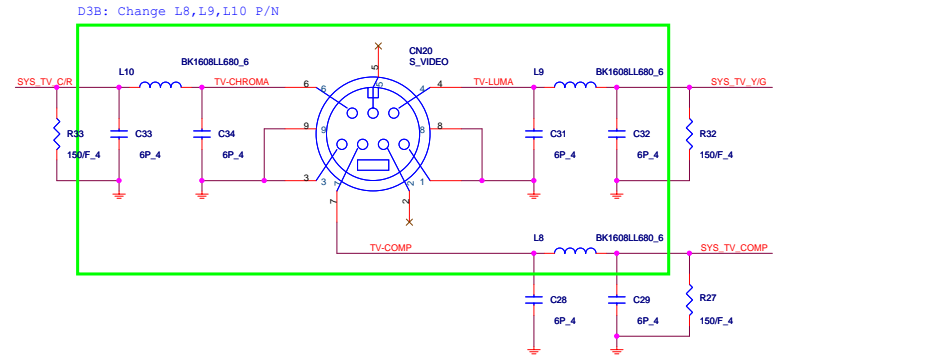
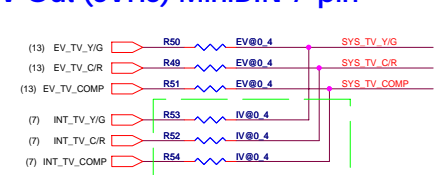


CRT

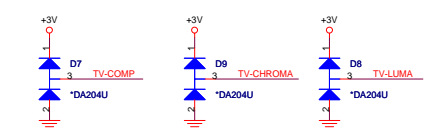
Close MXM CONN



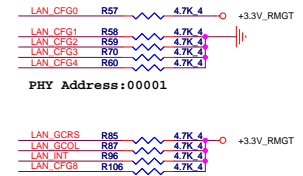
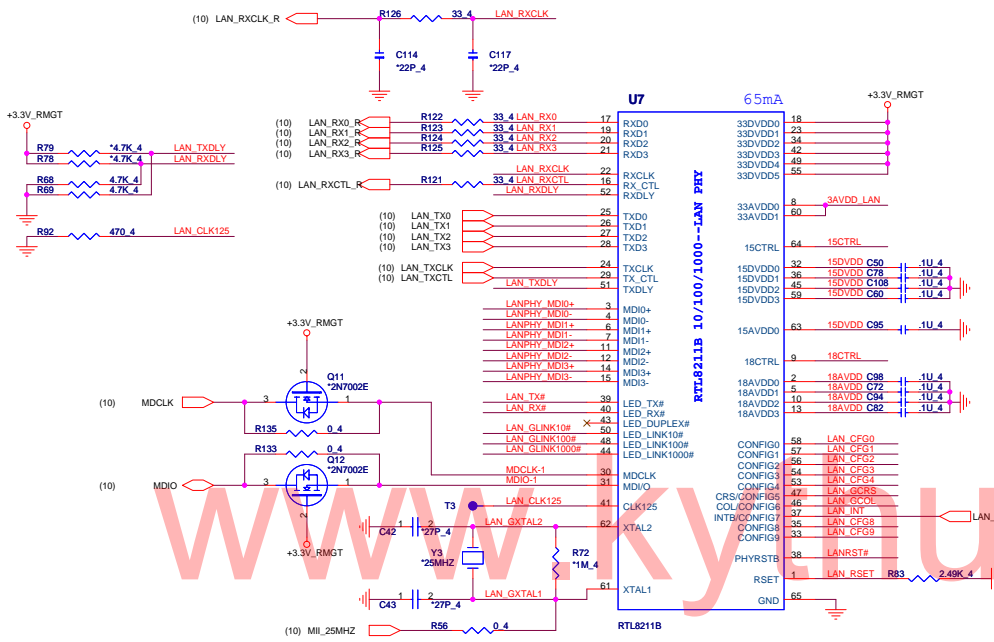
TV Out (SVHS) MiniDIN 7-pin



ESD Protect

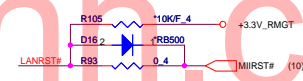
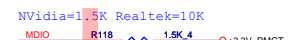
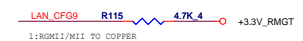


Remove HDMI



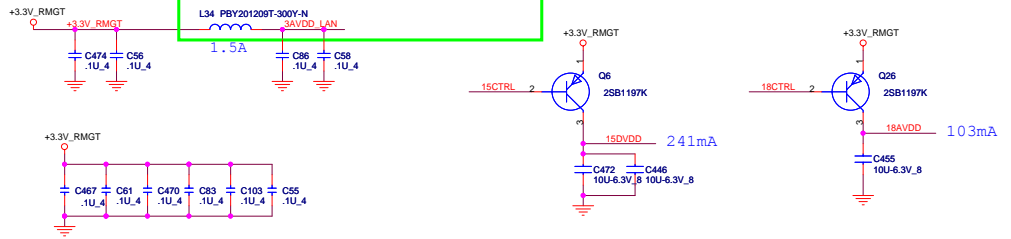
LAN_CFG0	R57	4.7K	+3.3V_RMGTT
LAN_CFG1	R58	4.7K	
LAN_CFG2	R59	4.7K	
LAN_CFG3	R70	4.7K	
LAN_CFG4	R60	4.7K	

LAN_GCRS	R85	4.7K	+3.3V_RMGTT
LAN_GCOL	R87	4.7K	
LAN_INT	R96	4.7K	
LAN_CFG8	R106	4.7K	

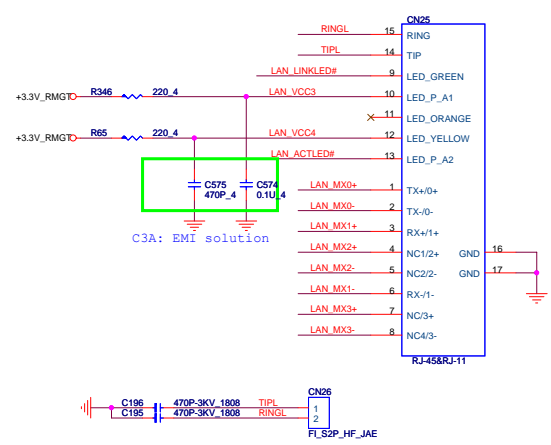


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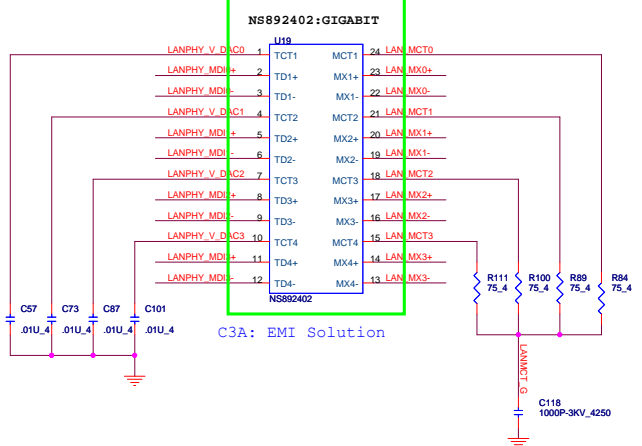
D3B:L34 CHANGE TO PBY201209T-300Y-N, (0805)



RJ45-11

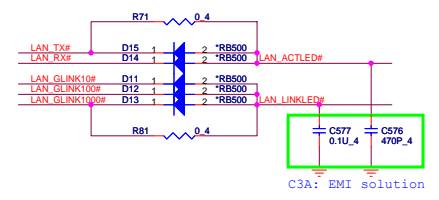


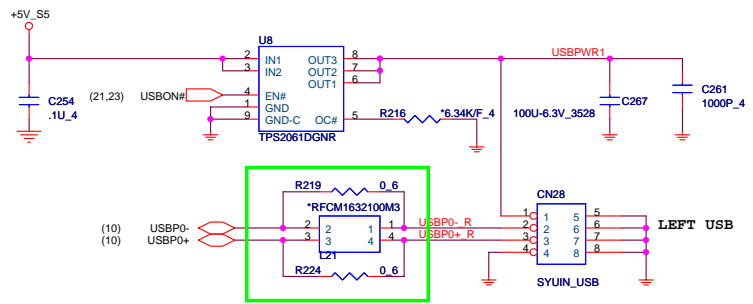
Transformer



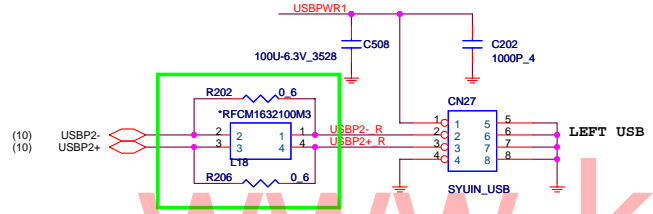
LED Configuration

LED_LINK1000	LOW=LINK UP (ANY SPEED)
LED_TX	BLINKING=TRANSMITTING OR RECEIVING

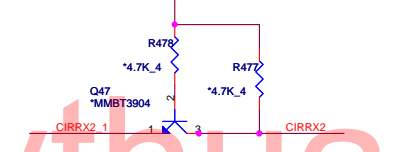
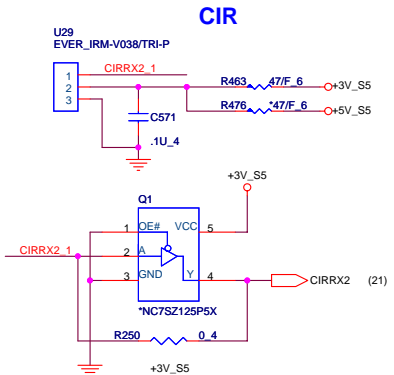




C3A: Changed to 0603



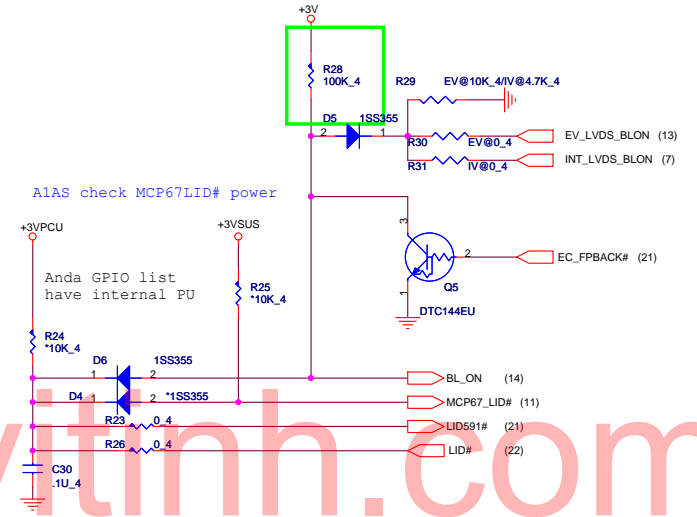
USB MB port



CIR

LID SWITCH

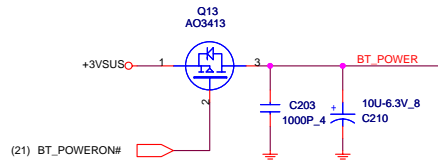
C3A: H/W Solution



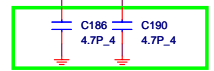
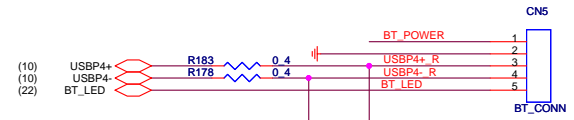
Alas check MCP67LID# power

And a GPIO list have internal PU

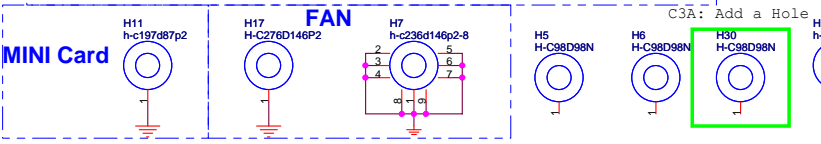
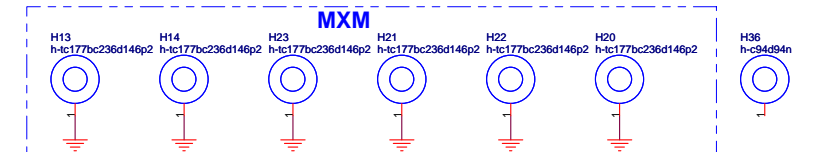
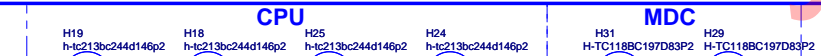
BLUETOOTH MODULE CONNECTOR



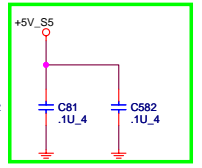
(21) BT_POWERON#



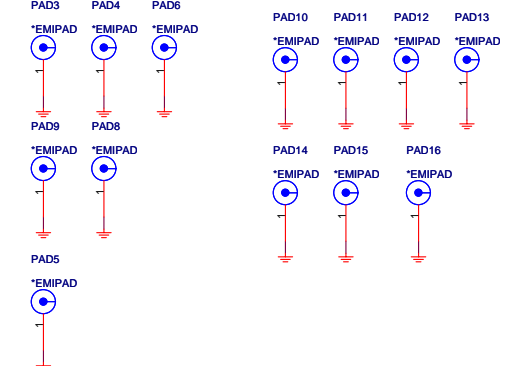
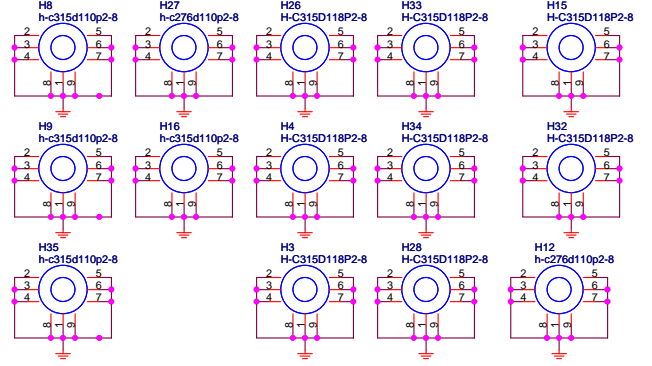
C3A: Mount EMI solution



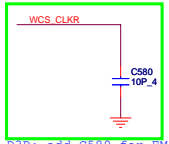
C3A: Add a Hole



C3A: Add EMI solution

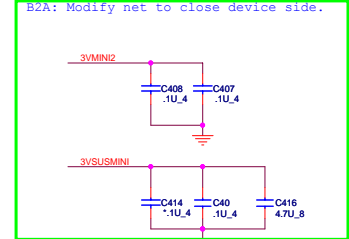
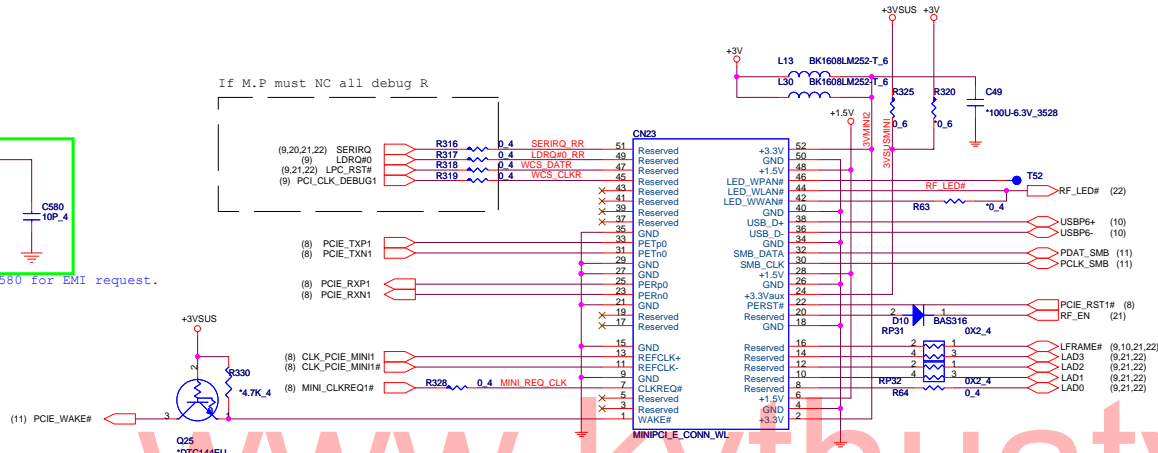


MINI-Card



D3B: add C580 for EMI request.

If M.P must NC all debug R



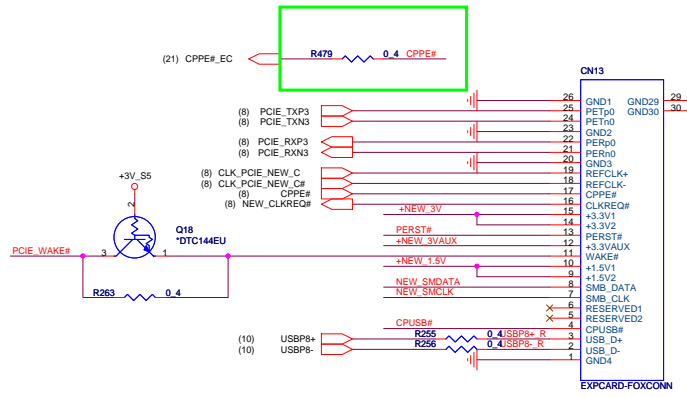
B2A: Modify net to close device side.

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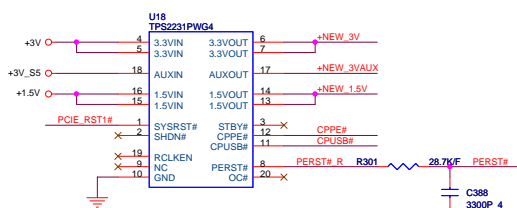
Need reserve 3G pin define
Check Footprint

New card

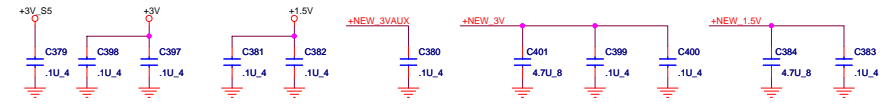
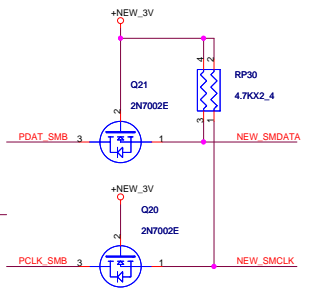
D3B: Add R479 for NEW card CPPE#



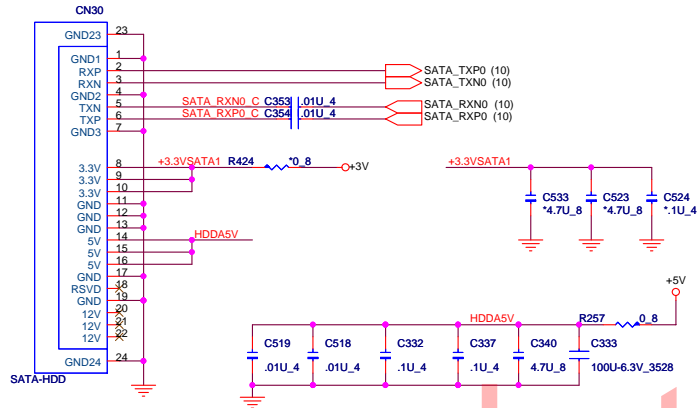
NEW CARD'S POWER SWITCH



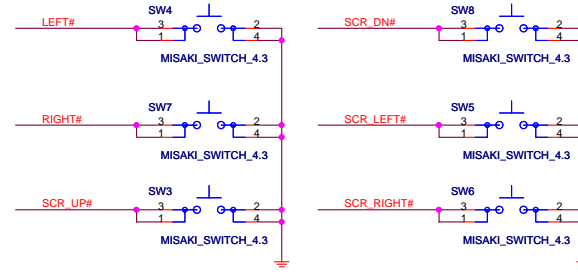
CPPE# : (Internal Pull Up , active low when card support PCIE)
CPUSB# : (Internal Pull Up , active low when card support USB)
SHDN# : (Internal Pull Up)



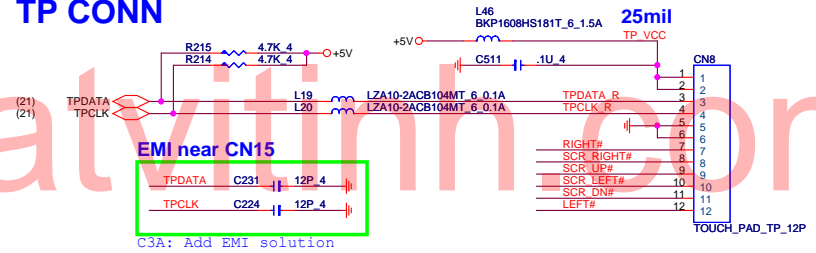
SATA HDD1



TP SWITCH

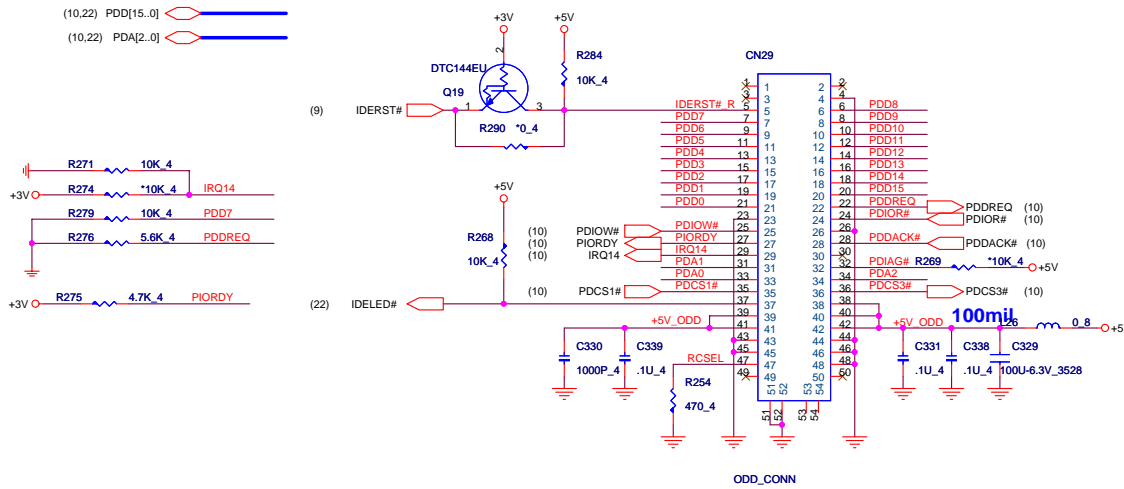


TP CONN

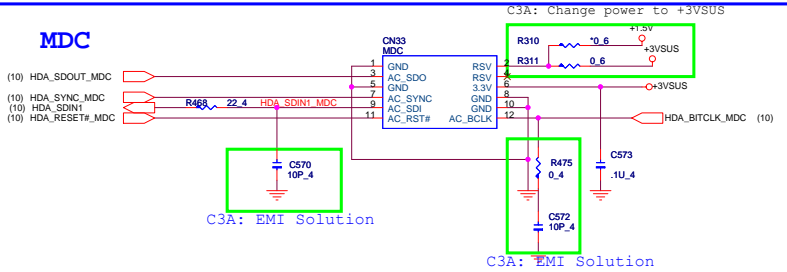
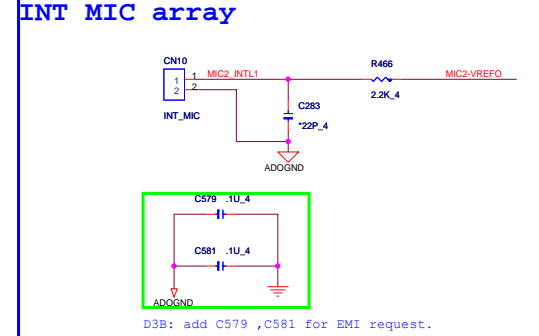
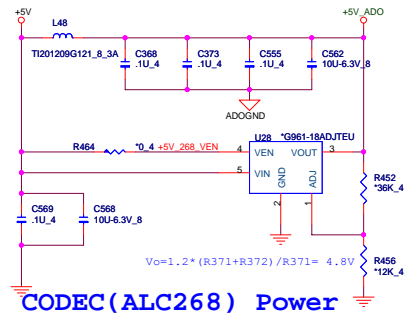
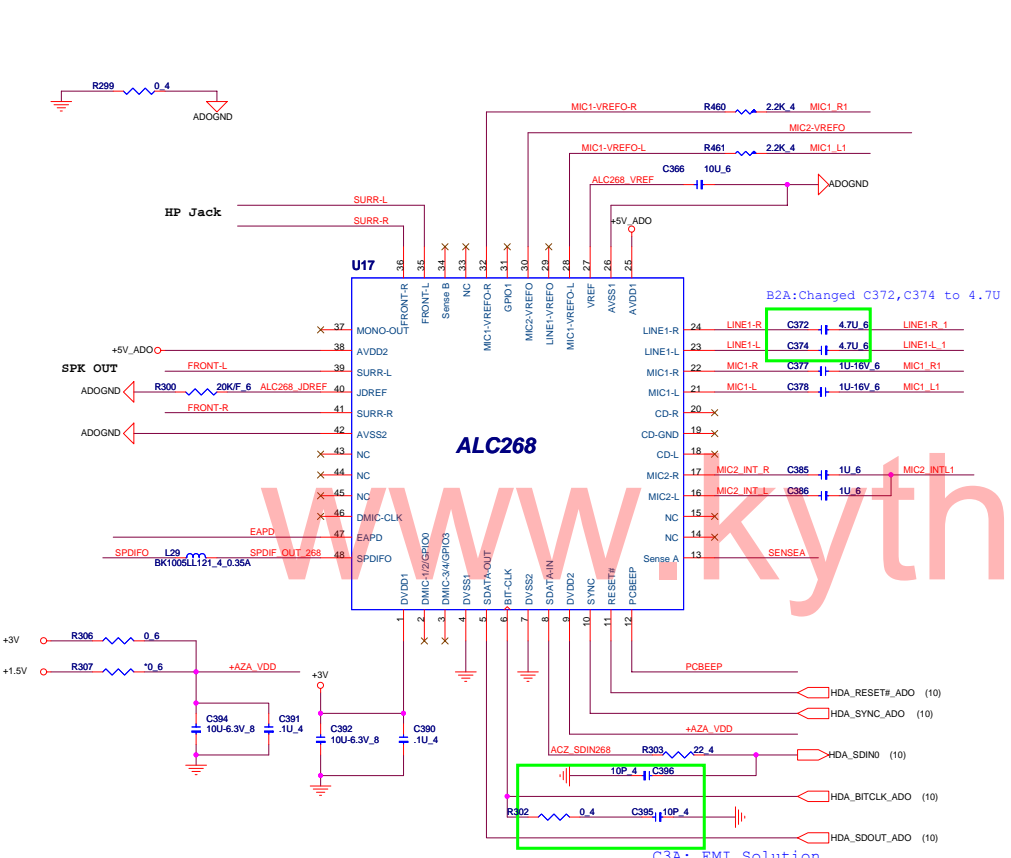


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ODD (PATA)



CODEC (ALC268)



SP_STBY ON/OFF & HP_STBY ON/OFF

SP_STBY1 (33 pin)	SP_STBY2 (34 pin)	SP_STBY ON/OFF
LOW	LOW	ON
LOW	HI	OFF
HI	LOW	OFF
HI	HI	OFF

HP_STBY1 (35 pin)	HP_STBY2 (36 pin)	HP_STBY ON/OFF
LOW	LOW	ON
LOW	HI	OFF
HI	LOW	OFF
HI	HI	OFF

AGC-attack-time selection

AGC_Attack (4 pin)	Attack time
LOW	3 ms
HI	2 ms

AGC ON/OFF selection

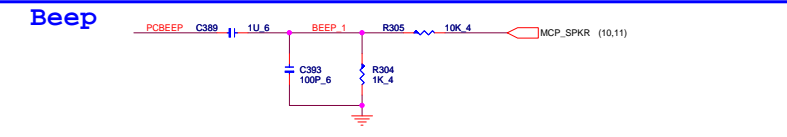
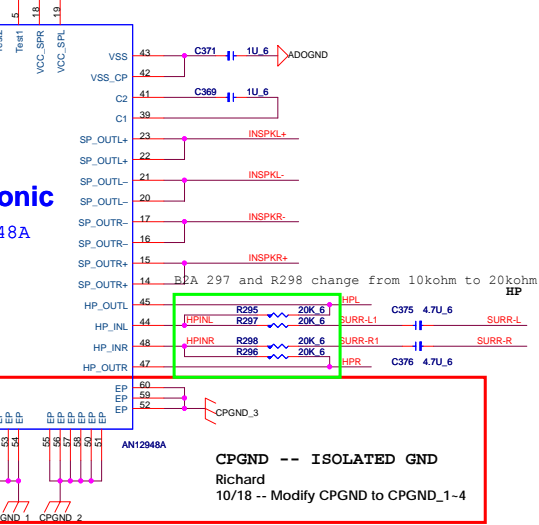
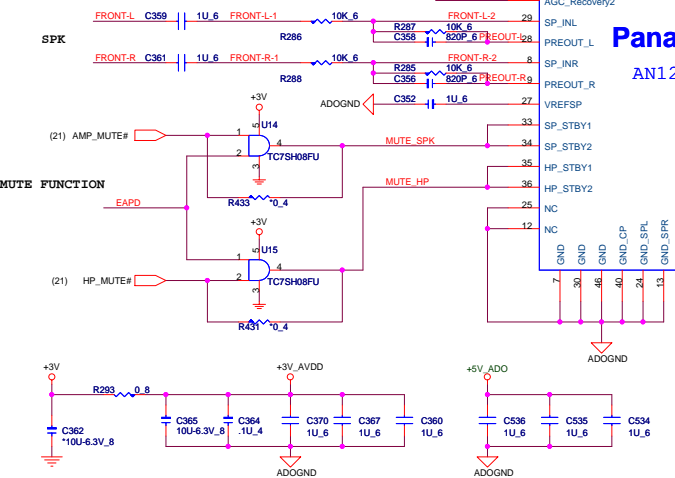
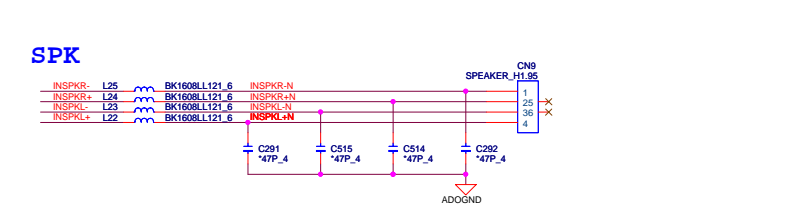
AGC_ON/OFF (6 pin)	AGC ON/OFF
LOW	ON
HI	OFF

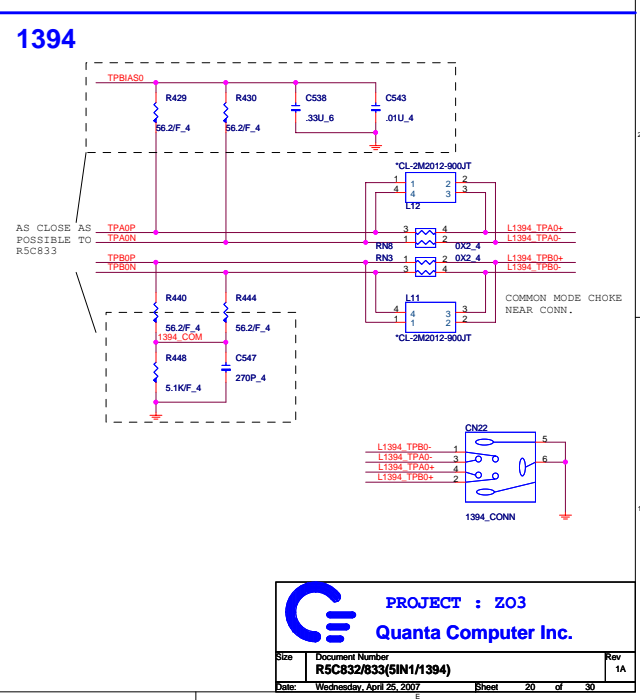
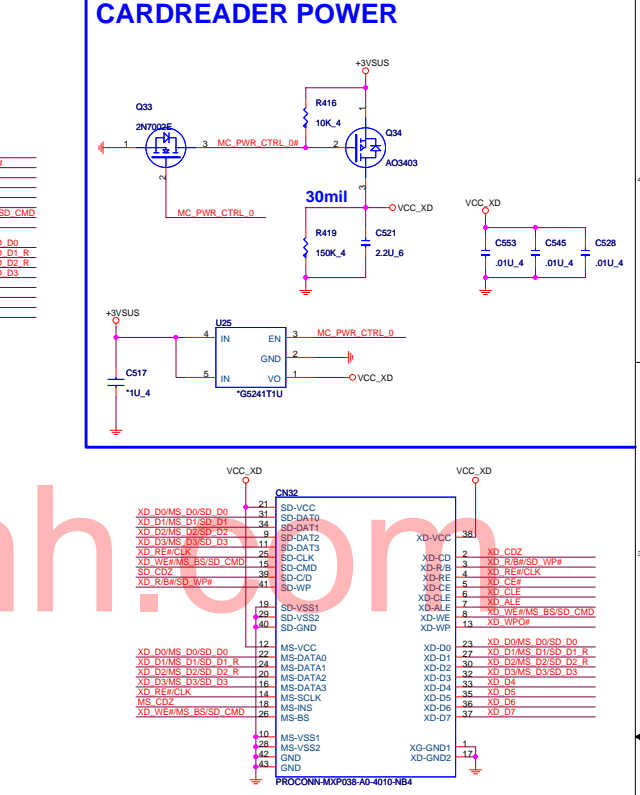
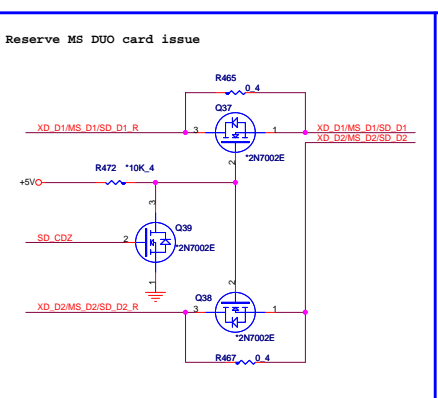
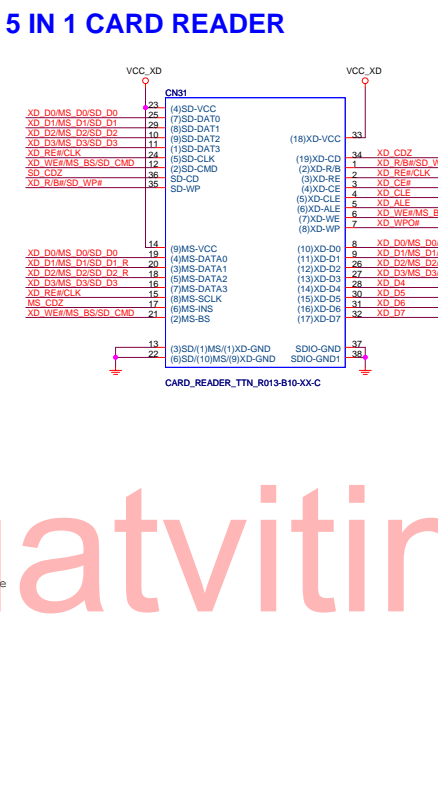
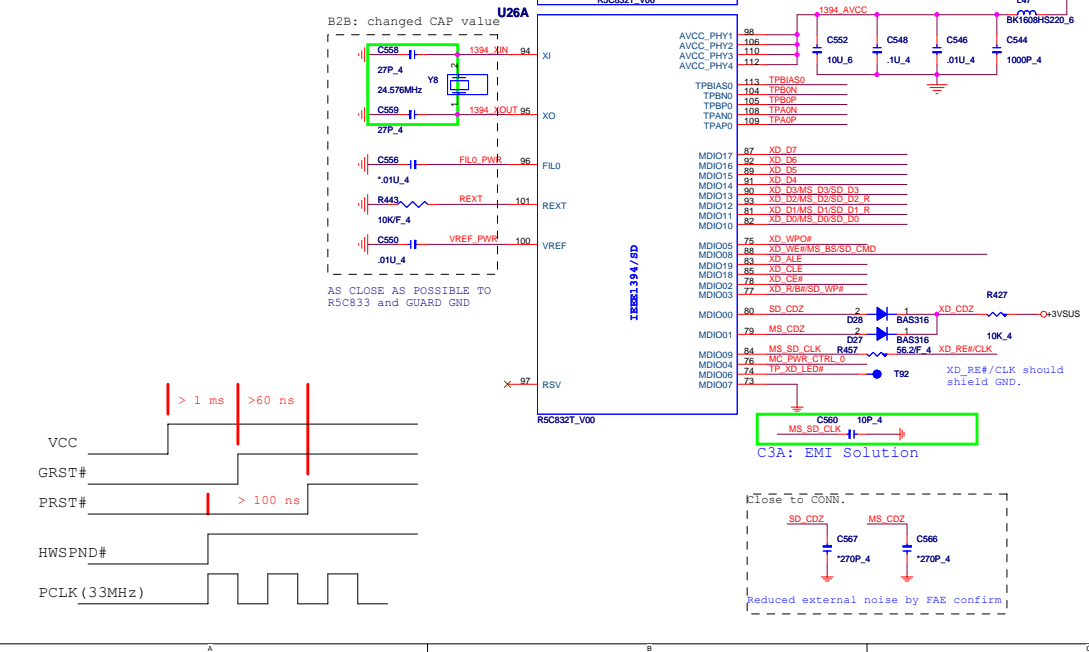
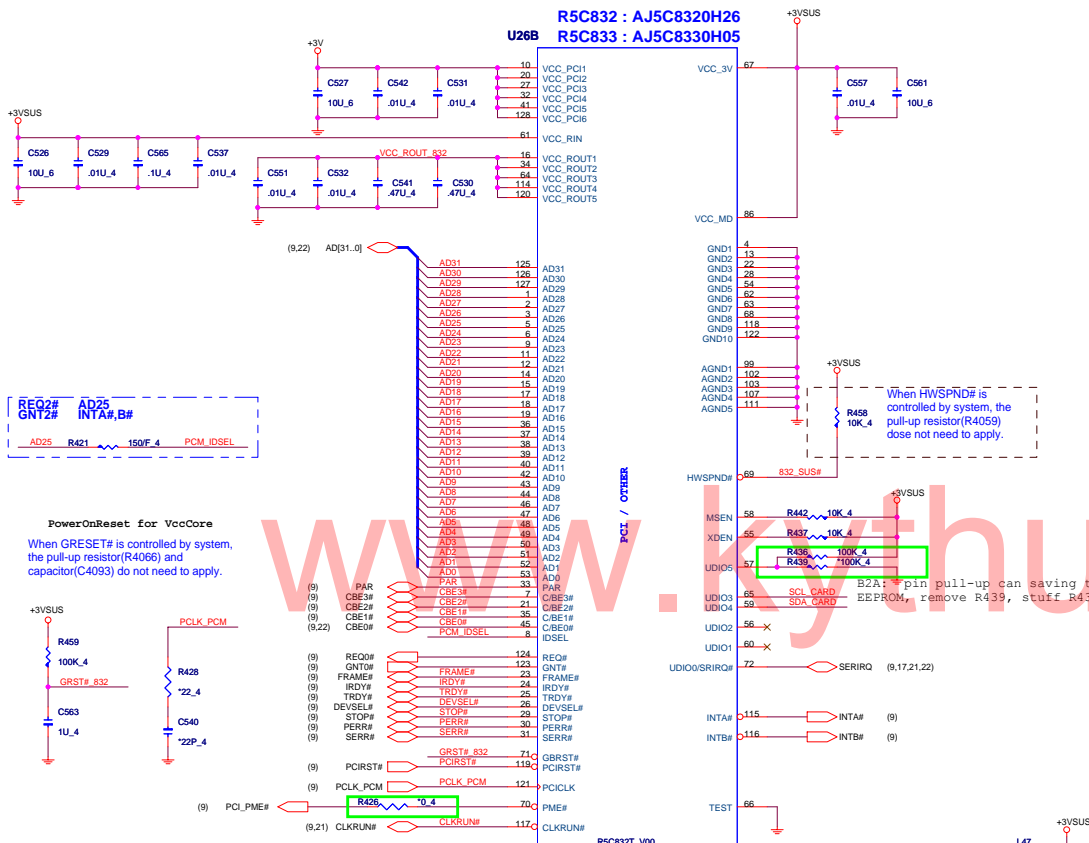
AGC-recovery-time selection

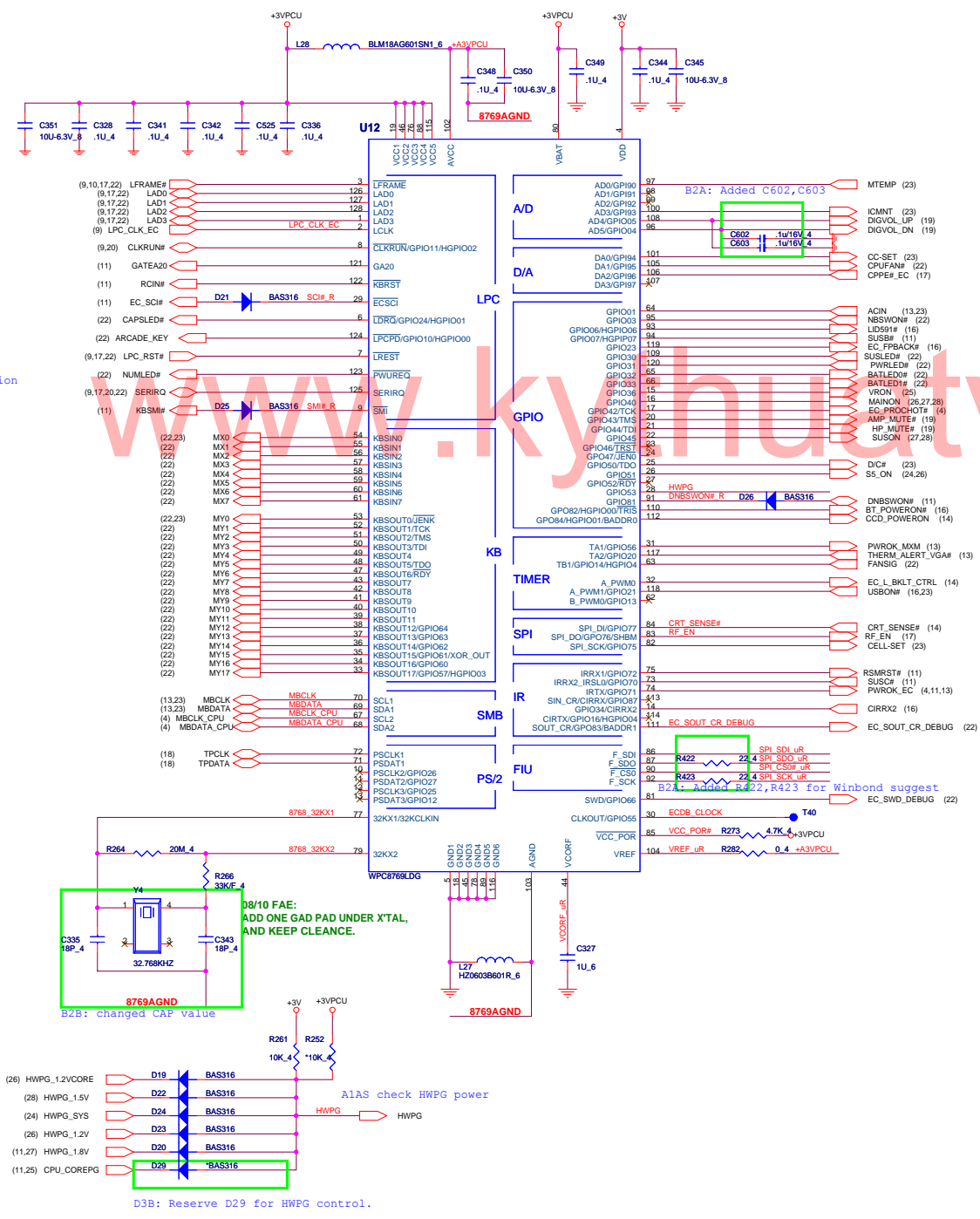
AGC_Recovery1 (10 pin)	AGC_Recovery2 (11 pin)	Recovery Time
LOW	LOW	1.0%
LOW	HI	2.0%
HI	LOW	4.0%
HI	HI	8.0%

AGC-on-level selection

AGC_Lv1 (2 pin)	AGC_Lv2 (3 pin)	AGC ON Level	Output Po (RL=8 ohm)
LOW	LOW	9.0dBV	1.2 W
LOW	HI	9.0dBV	1.0 W
HI	LOW	8.1dBV	0.8 W
HI	HI	6.0dBV	0.5 W



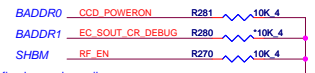




I/O ADDRESS SETTING

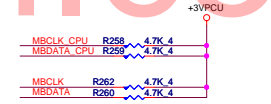
I/O Address		
BADDR1-0	Index	Data
0 0	XOR TREE TEST MODE	
0 1	CORE DEFINED	
1 0	2Eh	2Fh
1 1	164Eh	164Fh

SHBM=0: Enable shared memory with host BIOS

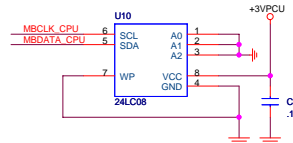


1/13 Confirm by vendor mail :
Disabled (*) if using FW device on LPC.
Enabled (0) if using SPI flash for both system BIOS and EC firmware

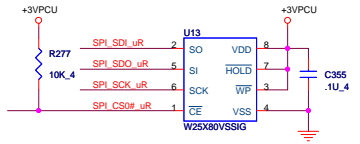
SMBUS PULL-UP



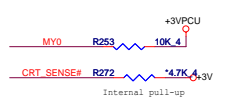
ACER ID



SPI FLASH



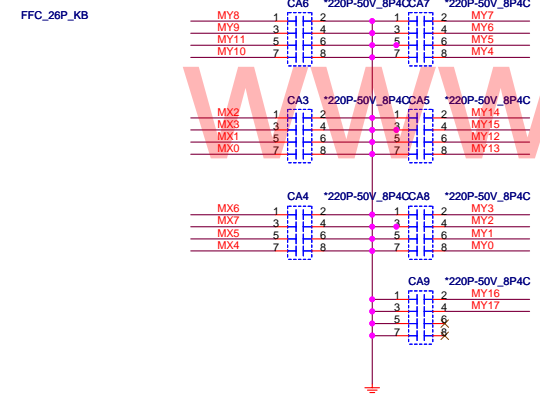
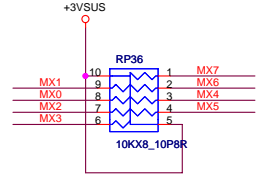
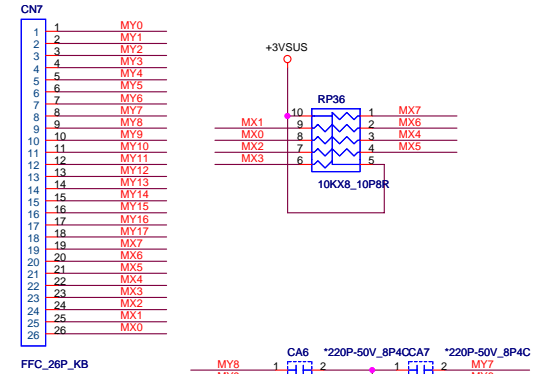
INTERNAL KEYBOARD STRIP SET



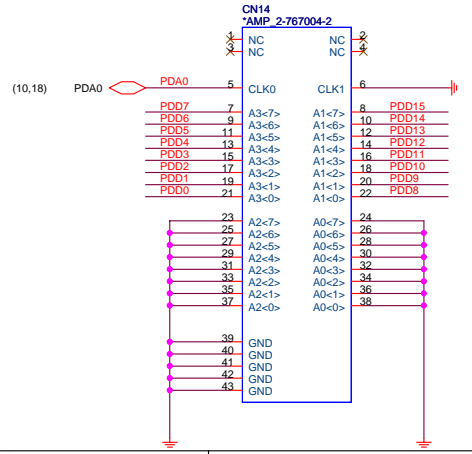
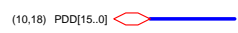
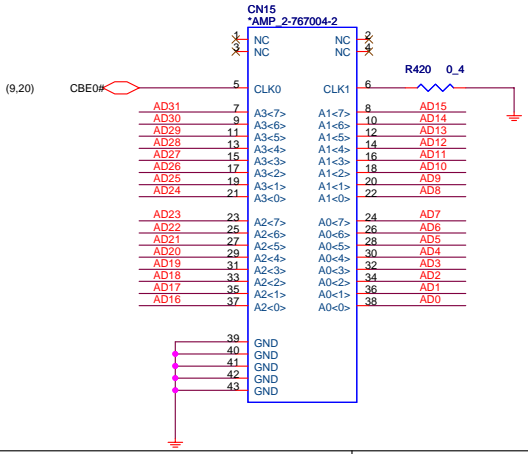
PROJECT : Z03
Quanta Computer Inc.

Size	Document Number	Rev
	PC8769L & FLASH	1A
Date:	Wednesday, April 25, 2007	Sheet 21 of 30

INT K/B

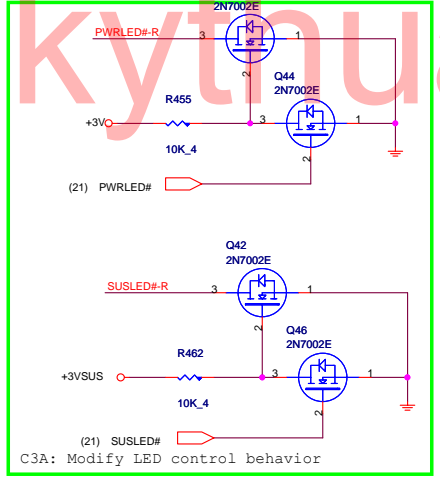
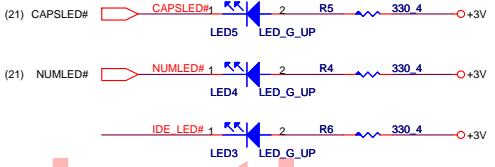
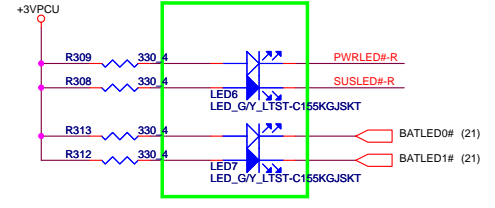


Debug



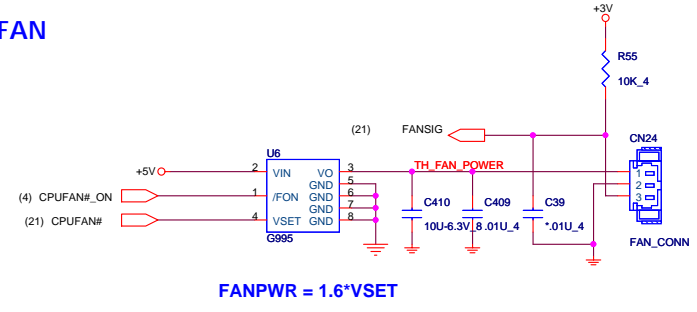
LED

10/16:Changed. Follow BL3 LED



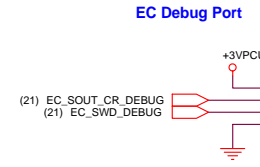
C3A: Modify LED control behavior

CPU FAN

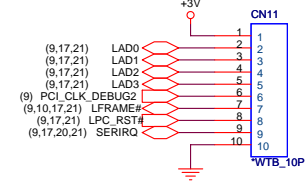


FANPWR = 1.6 * VSET

DEBUG PORT



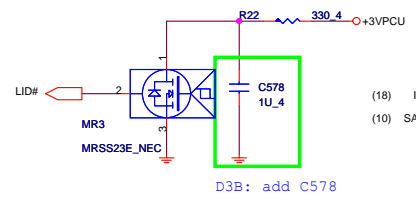
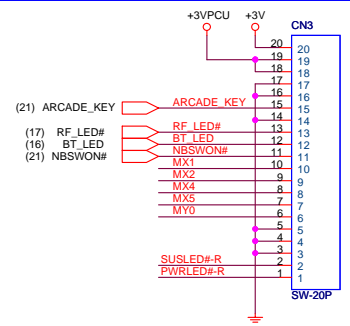
Reserved for LPC debug card



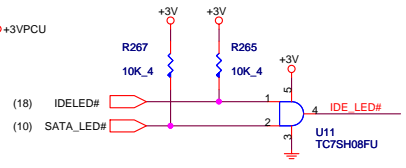
Button

BUTTON MATRIX

	MY0
MX1	MAIL
MX2	WWW
MX4	WIRELESS
MX5	BLUETOOTH

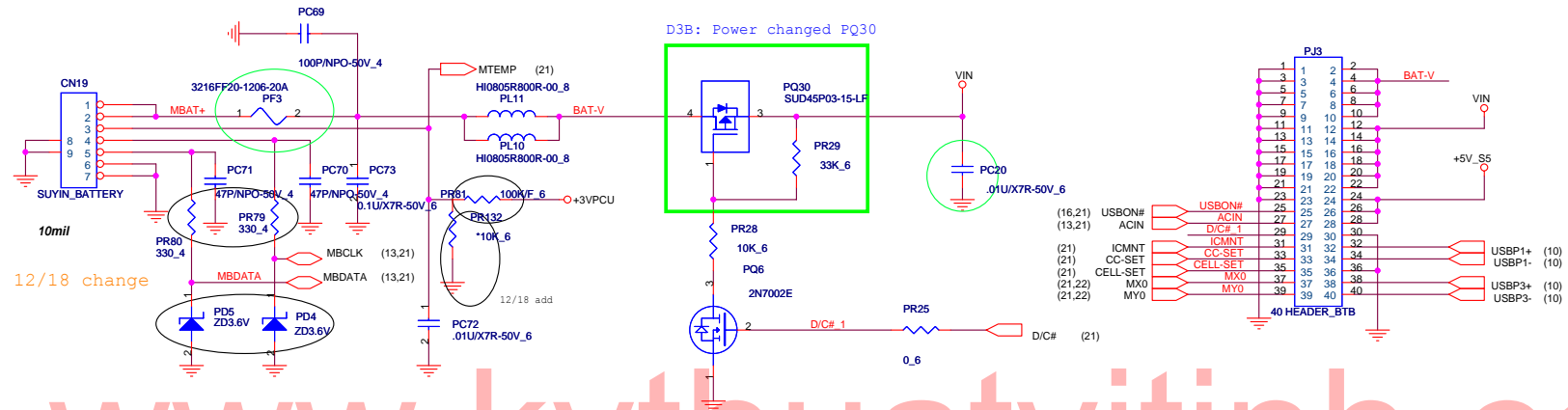


D3B: add C578




PROJECT : ZO3
Quanta Computer Inc.

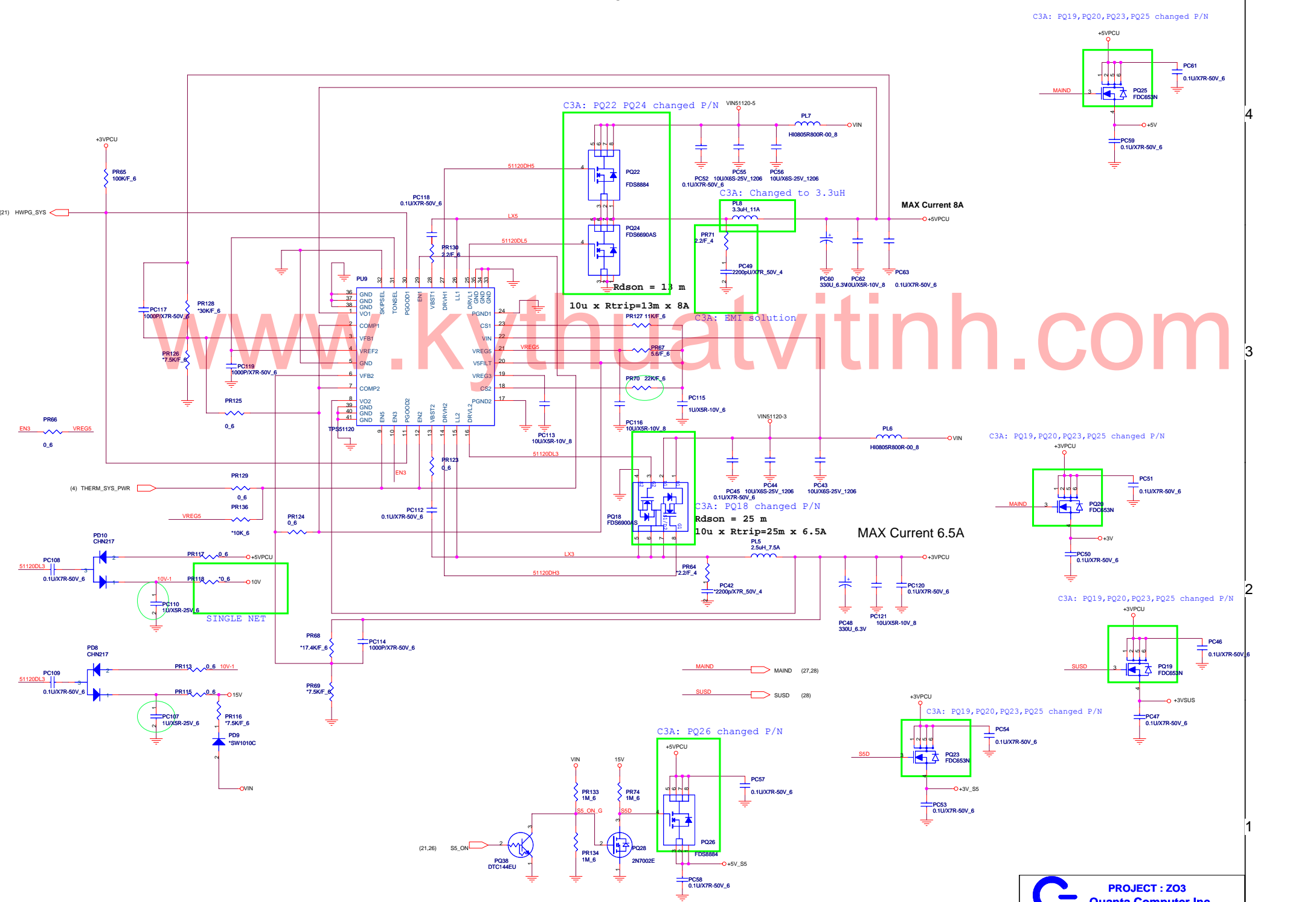
Size	Document Number	Rev
	FAN,SWITCH,LED,KB,DEBUG PORT,TP	1A
Date:	Wednesday, April 25, 2007	Sheet 22 of 30



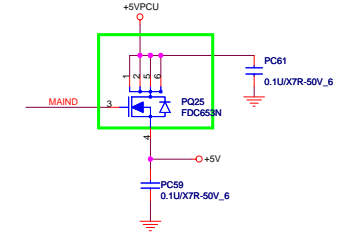
CELL-SET = Hi ----> Cells = VDD ---->4S
 CELL-SET = Low ----> Cells = GND ---->3S

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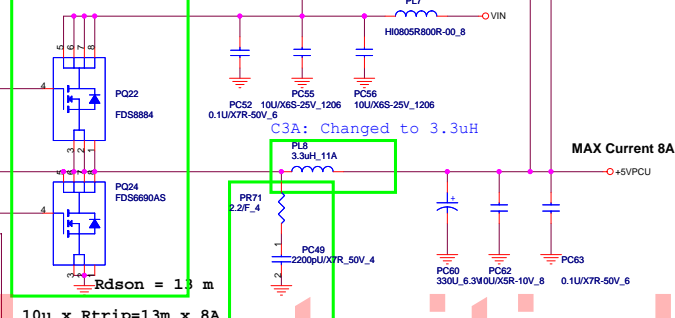
		PROJECT : Z03 Quanta Computer Inc.	
		Size Custom Document Number ISL6251 CHARGER	Rev A
Date: Wednesday, April 25, 2007		Sheet 23	of 30



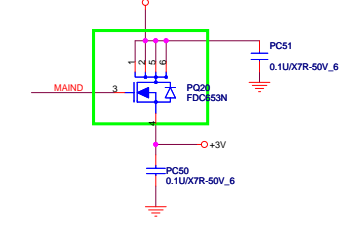
C3A: PQ19, PQ20, PQ23, PQ25 changed P/N



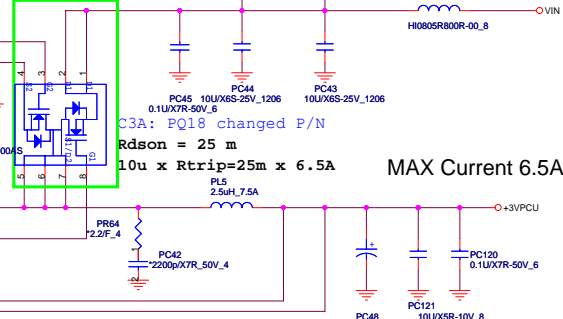
C3A: PQ22 PQ24 changed P/N



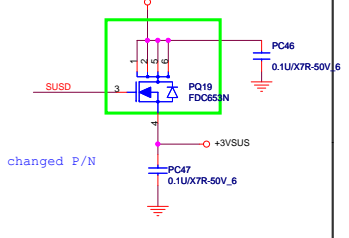
C3A: PQ19, PQ20, PQ23, PQ25 changed P/N



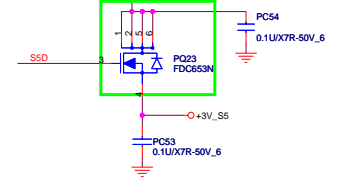
C3A: PQ18 changed P/N
Rdson = 25 m



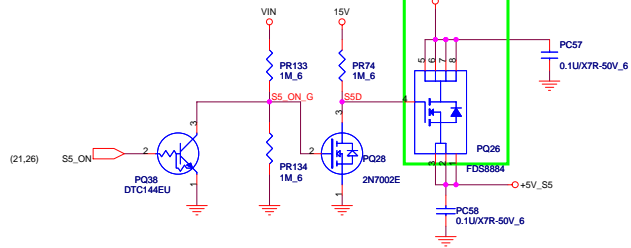
C3A: PQ19, PQ20, PQ23, PQ25 changed P/N

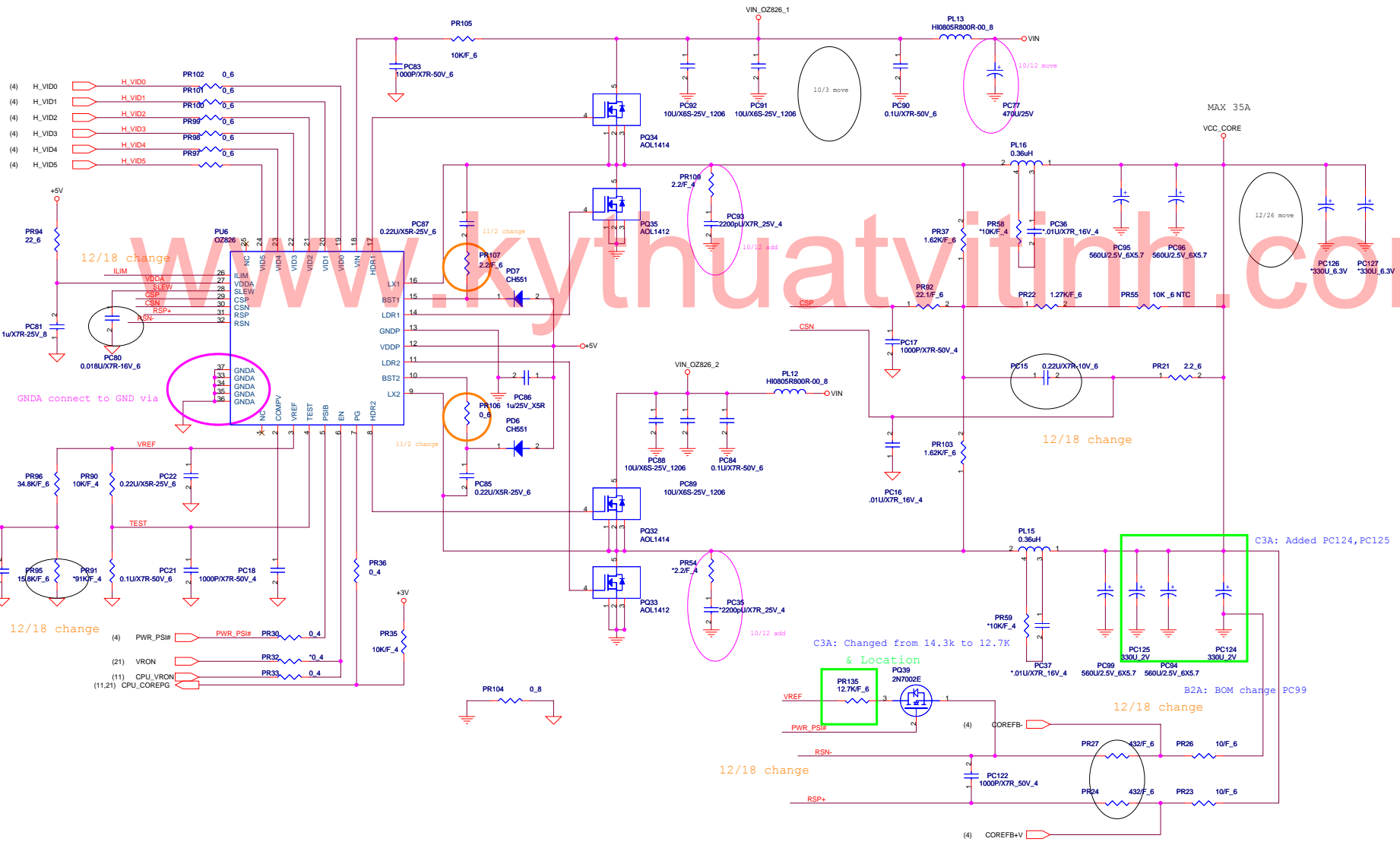


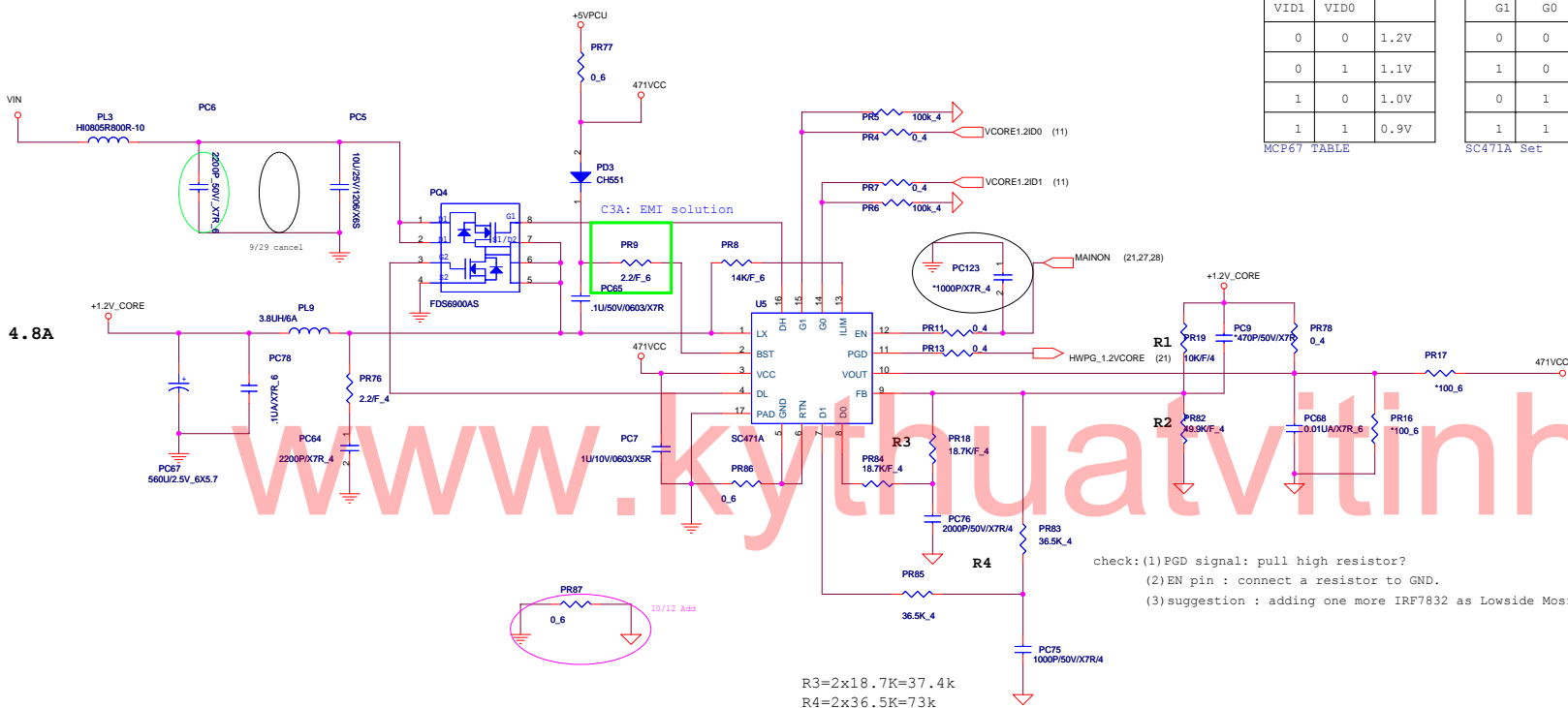
C3A: PQ19, PQ20, PQ23, PQ25 changed P/N



C3A: PQ26 changed P/N







VID[1:0]		
VID1	VID0	
0	0	1.2V
0	1	1.1V
1	0	1.0V
1	1	0.9V

INPUTS		OUTPUTS			VOUT1
G1	G0	OD1	OD2	OD3	
0	0	0.75x(1+R1/R2+R1/R3+R1/R4)			1.2V
1	0	0.75x(1+R1/R2+R1/R3)			1.1V
0	1	0.75x(1+R1/R2+R1/R4)			1.0V
1	1	0.75x(1+R1/R2)			0.9V

MCP67 TABLE

SC471A Set

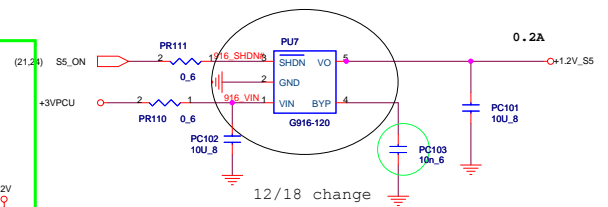
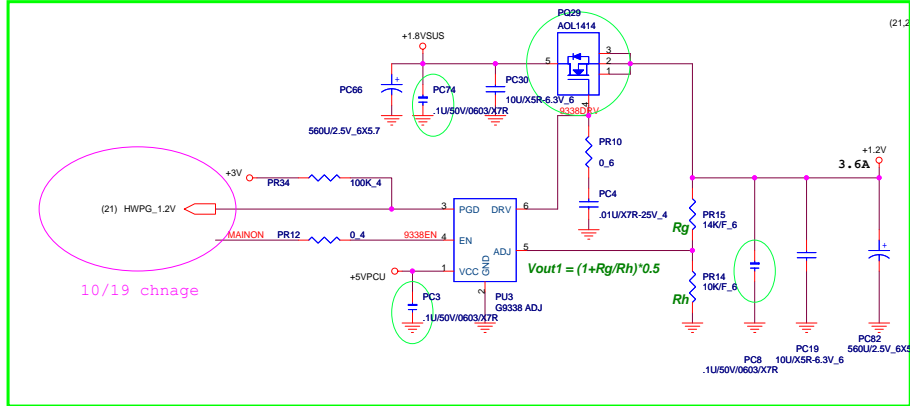
4.8A

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- check: (1) PGD signal: pull high resistor?
- (2) EN pin : connect a resistor to GND.
- (3) suggestion : adding one more IRF7832 as Lowside Mosfet.

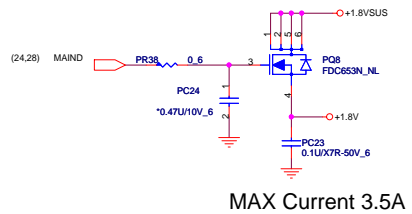
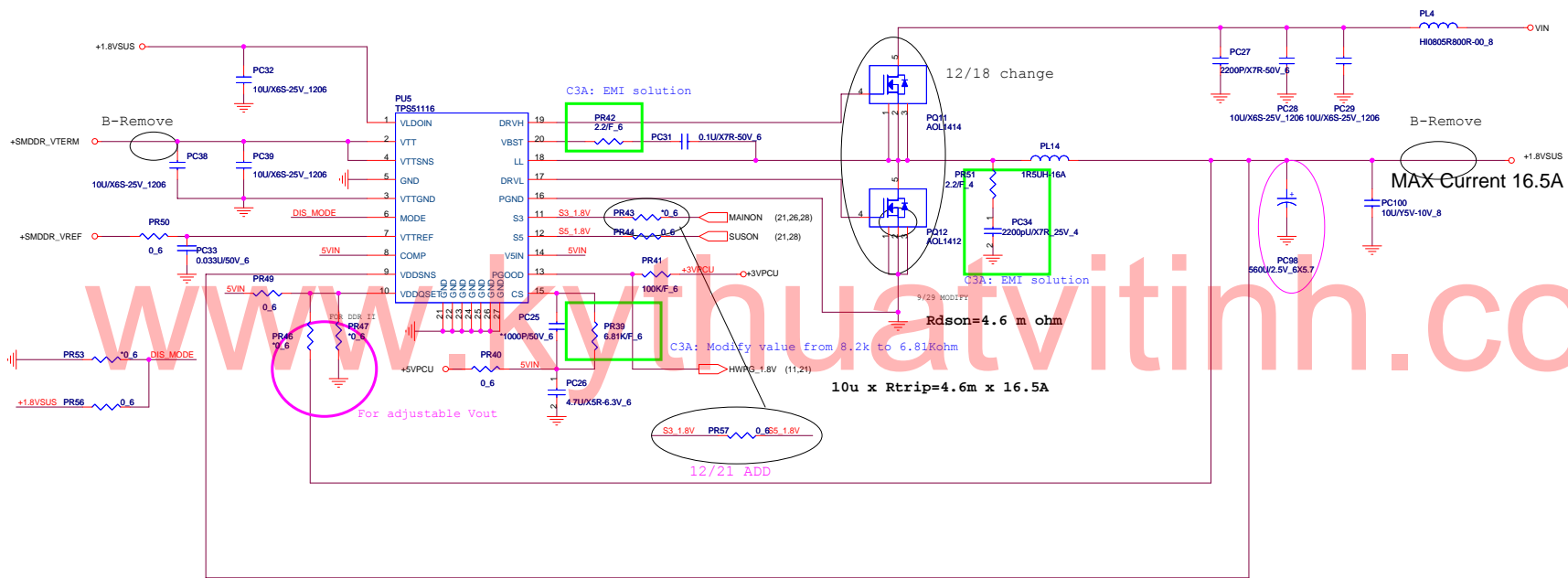
R3=2x18.7k=37.4k
R4=2x36.5k=73k

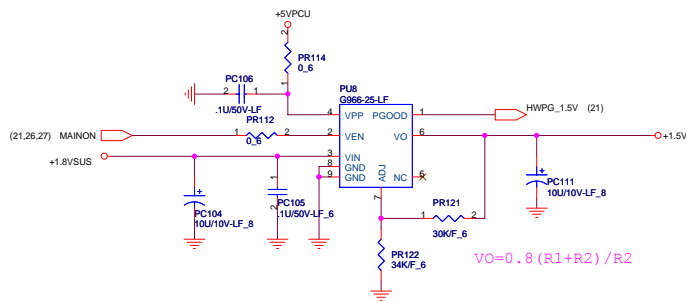
B2B: FOR UMA ONLY



10/19 chnagne

12/18 change





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