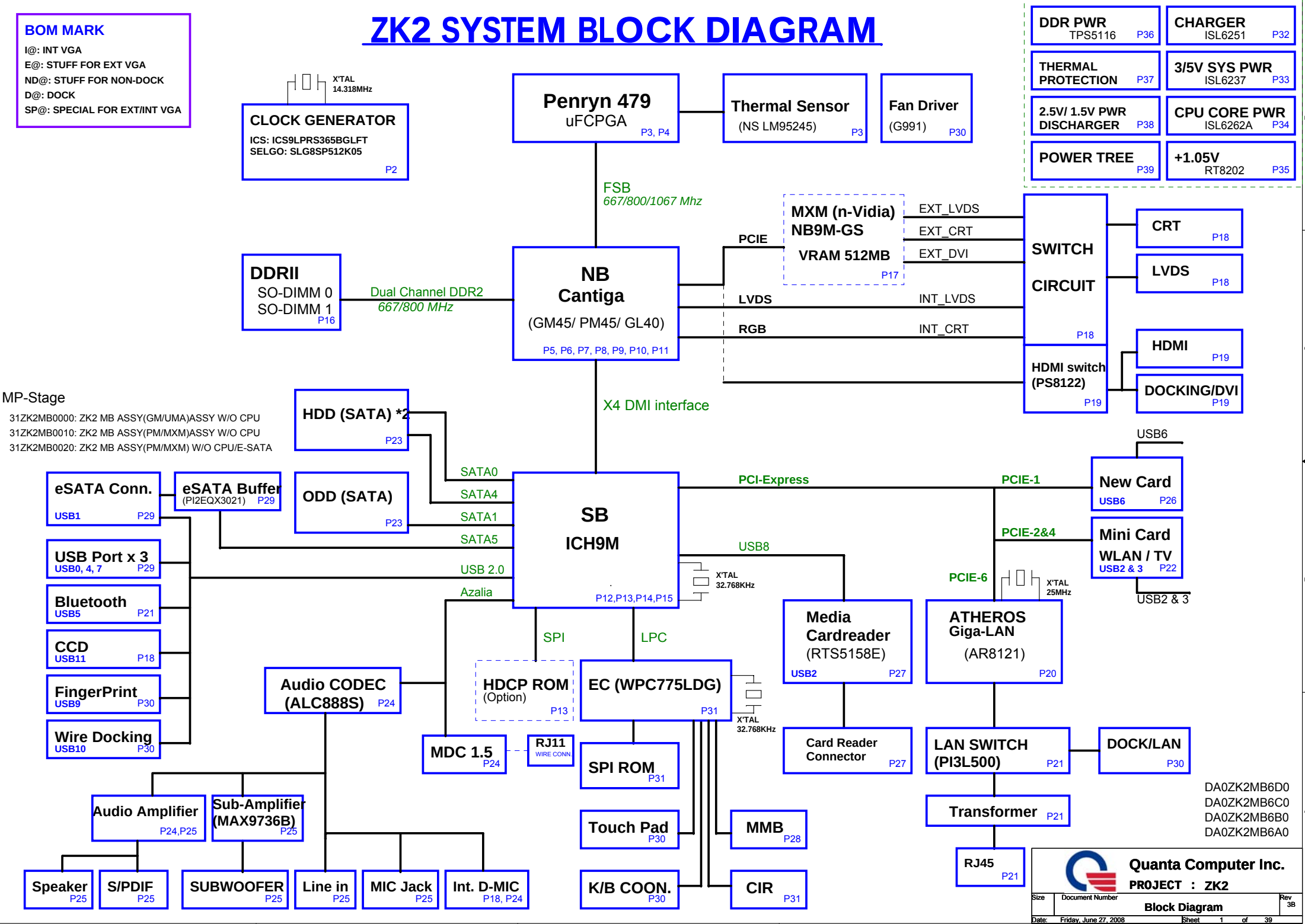


ZK2 SYSTEM BLOCK DIAGRAM

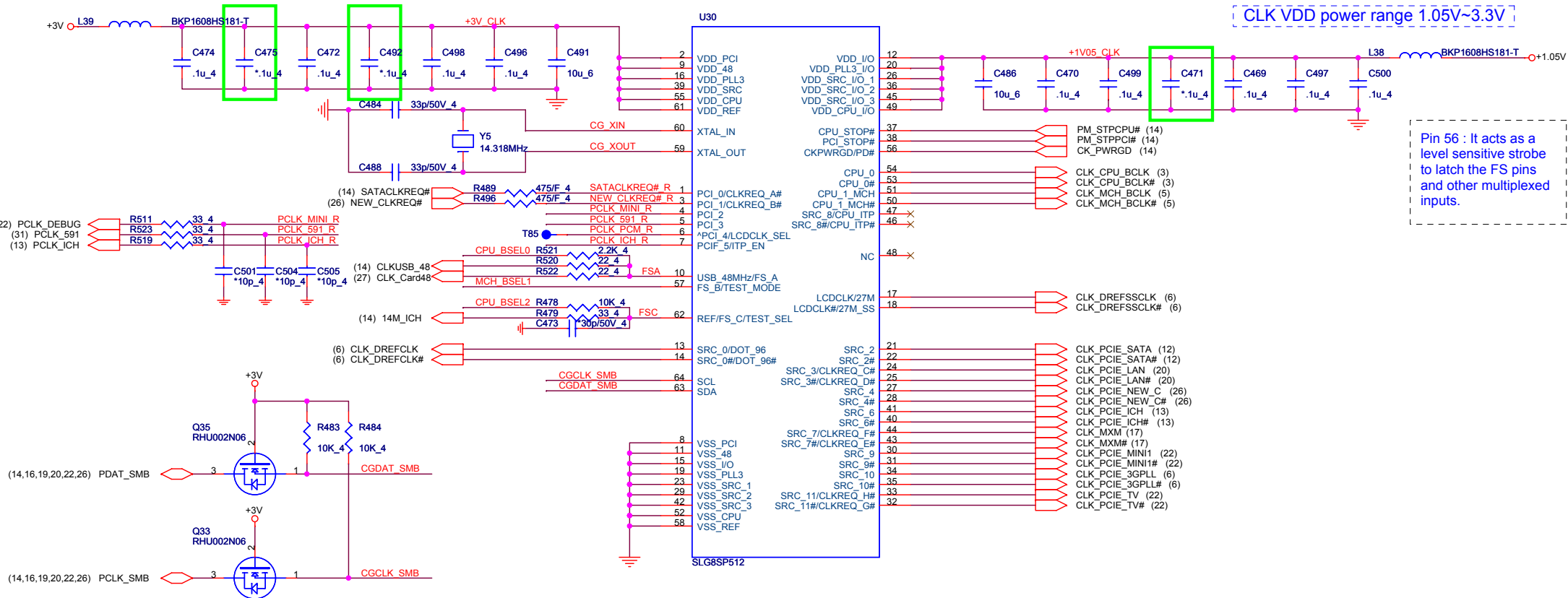
BOM MARK
I@: INT VGA
E@: STUFF FOR EXT VGA
ND@: STUFF FOR NON-DOCK
D@: DOCK
SP@: SPECIAL FOR EXT/INT VGA



MP-Stage
31ZK2MB0000: ZK2 MB ASSY(GM/UMA)ASSY W/O CPU
31ZK2MB0010: ZK2 MB ASSY(PM/MXM)ASSY W/O CPU
31ZK2MB0020: ZK2 MB ASSY(PM/MXM) W/O CPU/E-SATA

DA0ZK2MB6D0
DA0ZK2MB6C0
DA0ZK2MB6B0
DA0ZK2MB6A0

Clock Generator



CPU Clock select

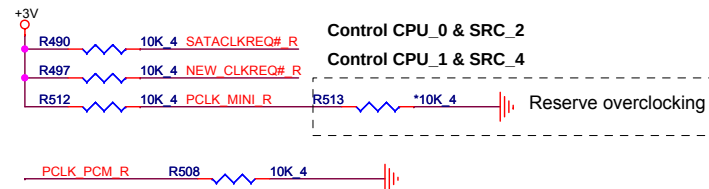
Pin 10/57/62 : For Pin CPU frequency selection



BSEL Frequency Select Table

FSC	FSB	FSA	Frequency
0	0	0	266Mhz
0	0	1	133Mhz
0	1	1	166Mhz
0	1	0	200Mhz
1	1	0	400Mhz
1	1	1	Reserved
1	0	1	100Mhz
1	0	0	333Mhz

Strap table



Pin 6 : For Pin 13/14 and 17/18 selection
0 = LCDCLK & DOT96 for internal graphic controller support
1 = 27M & 27M_SS&SRC_0 for external graphic controller support



Pin 7 : For Pin 46/47 selection
1 = CPU_ITP
0 = SRC_8

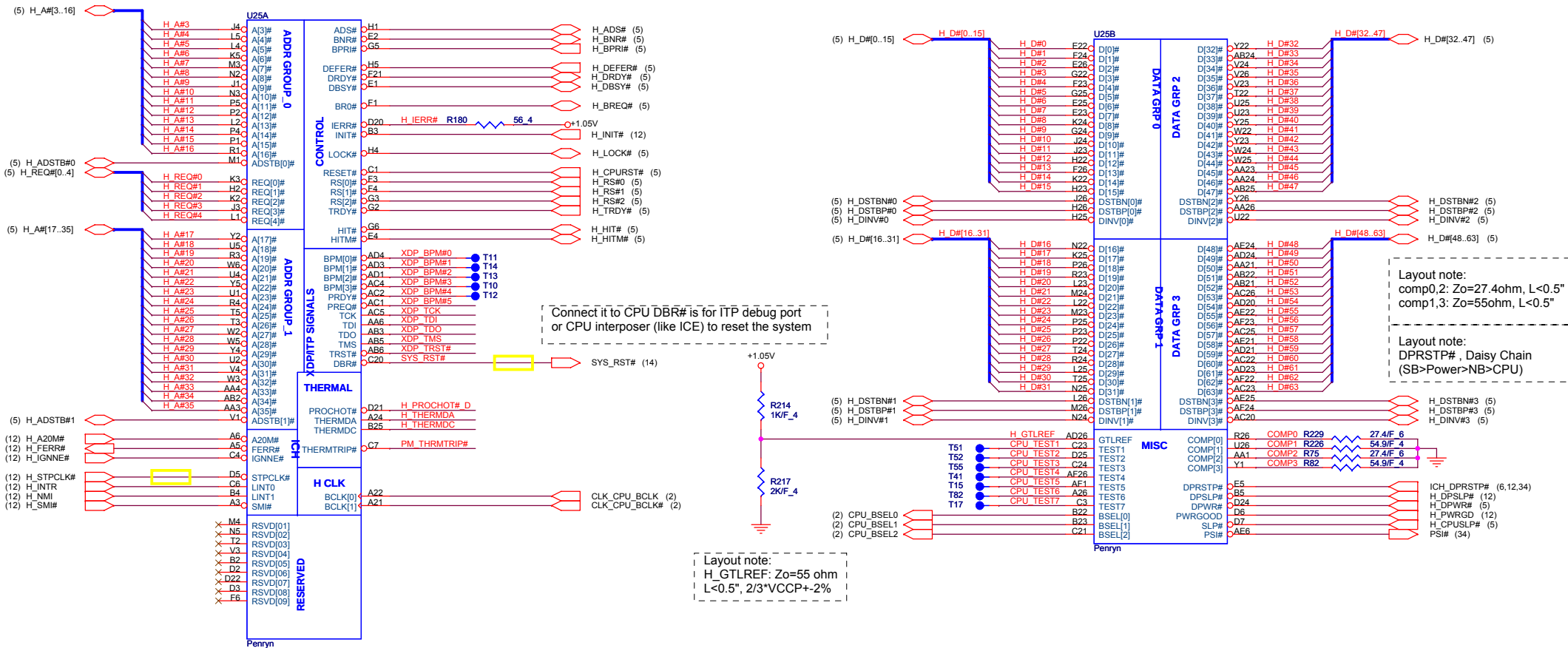


Quanta Computer Inc.
PROJECT : ZK2

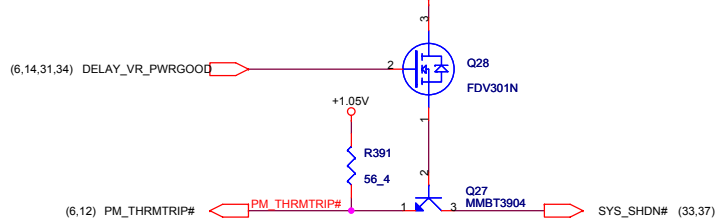
Size	Document Number	Rev
	CLOCK GENERATOR	3B
Date:	Wednesday, July 09, 2008	Sheet 2 of 39

CLOCK GENERATOR

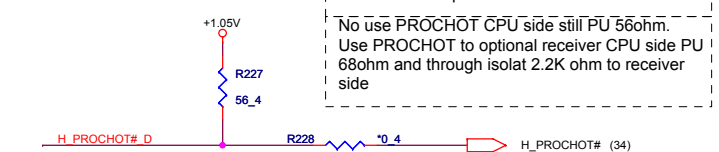
Date: Wednesday, July 09, 2008 Sheet 2 of 39



Thermal Trip

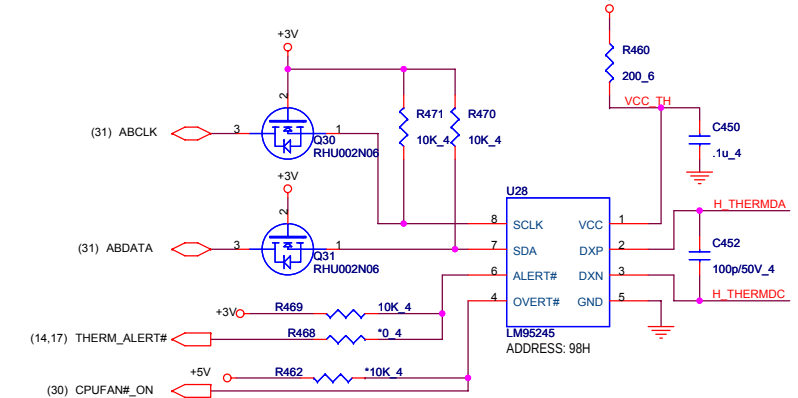


Processor hot



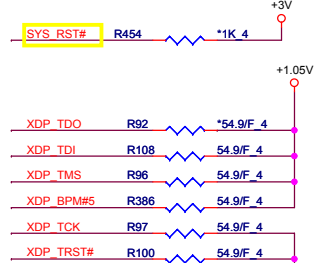
CPU 1/2

CPU Thermal monitor



NS	AL095245000
WINDBOND	AL831.771000

XDP PU/ID

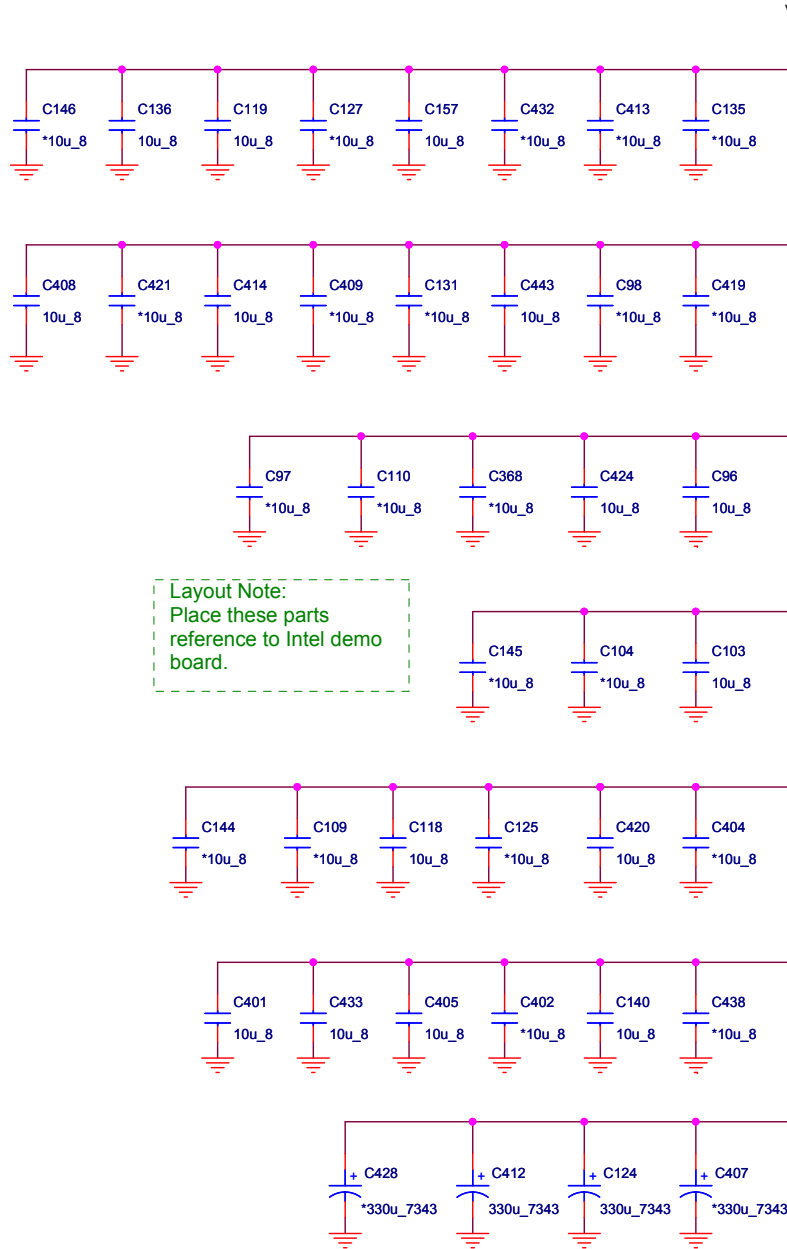
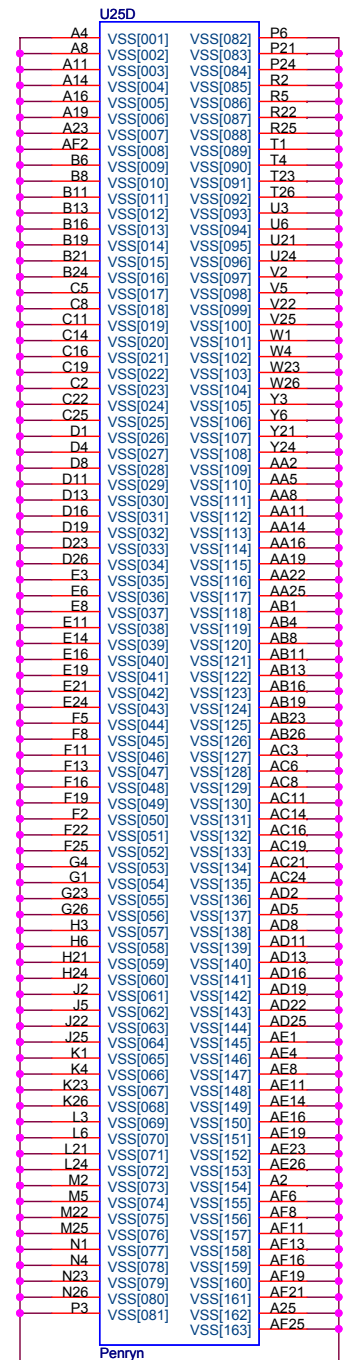


XDP_DBRESET# and XDP_TDO reserve for XDP



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PROJECT : ZK2

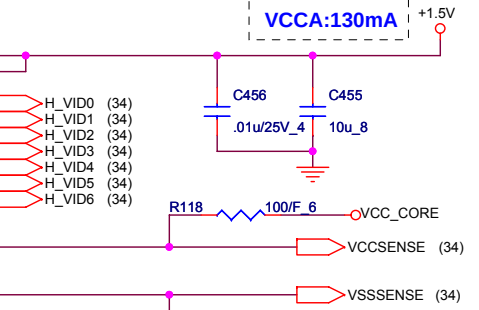
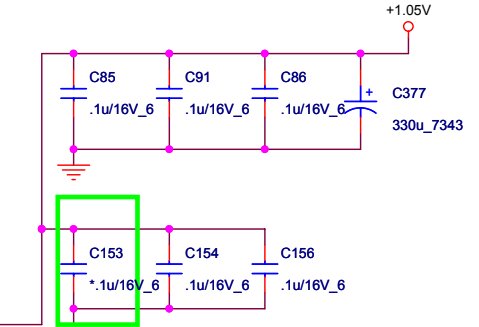
CPU 2/2



VCC:38A (Low power type)
VCC:47A (Standard type)

Layout Note:
Inside CPU center cavity in 2 rows

VCCP : 2.5A(Supply after VCC Stable)
4.5A(Supply before VCC Stable)



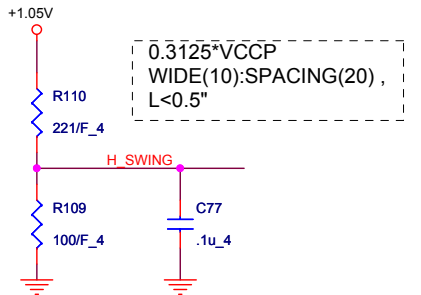
Montevina platform : Early Reference Board Schematics Feb 2007. Rev 1.0
stuff 22U*34, NC 22U*2
stuff 330U*2, NC330U*2



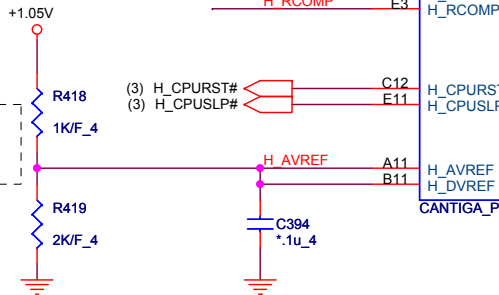
Quanta Computer Inc.
PROJECT : ZK2

Size	Document Number	Rev 3B
Date: Friday, June 27, 2008	CPU Power	
Sheet 4	of 39	

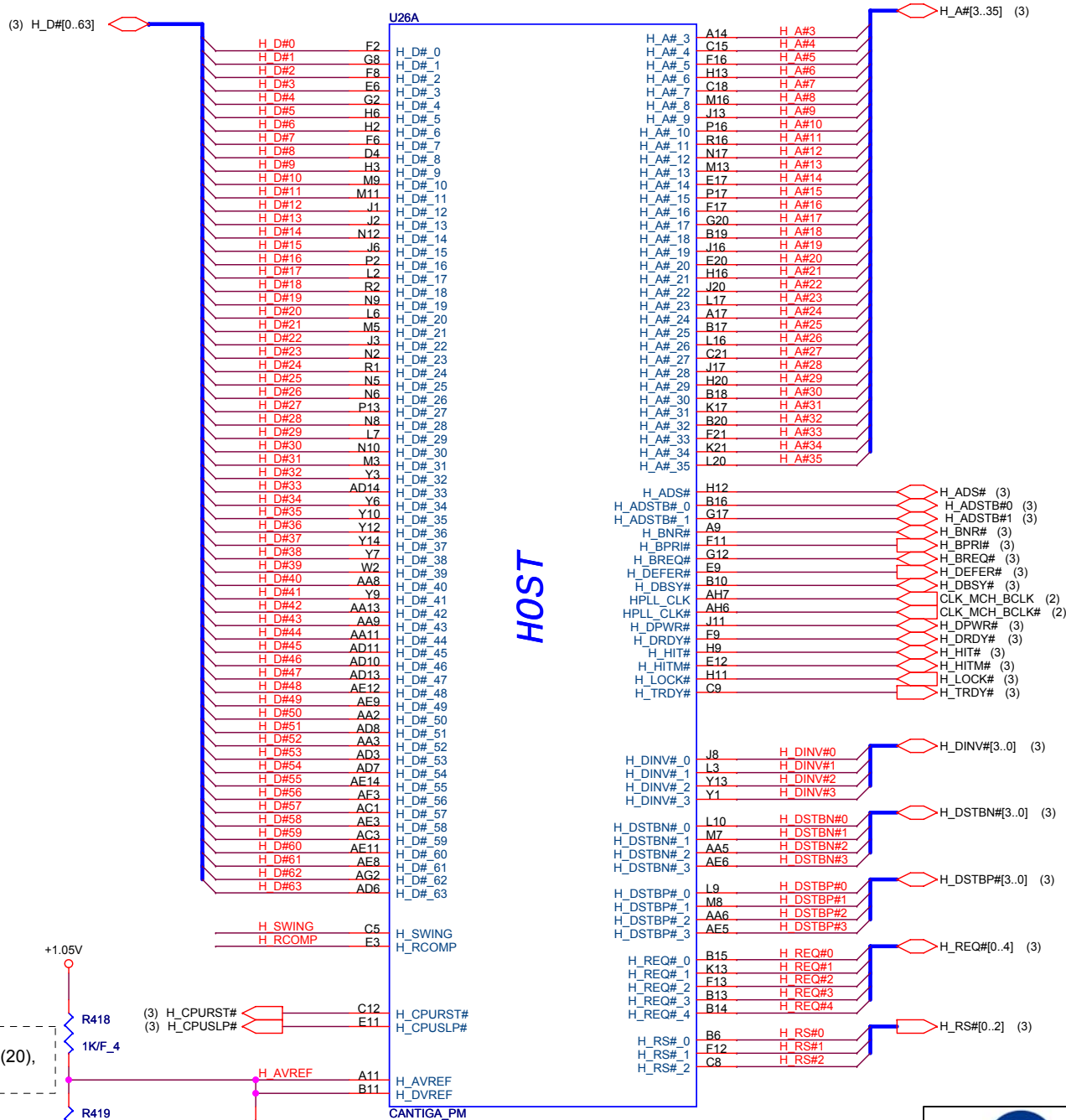
	QCI P/N
Intel Cantiga (G)M	AJSLB940T04
Intel Cantiga (P)M	AJSLB970T06



Layout Note:
WIDE(10):SPACING(20),
L<0.5"



GMCH (CANTIGA)





Quanta Computer Inc.
PROJECT : ZK2

Size	Document Number	Rev
		3B

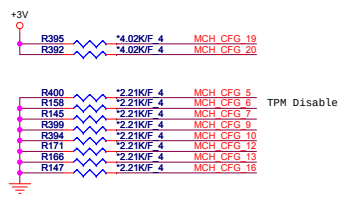
GMCH HOST

Date: Friday, June 27, 2008 Sheet 5 of 39

Strap table

Pin Name	Strap description	Configuration
CFG[2:0]	FSB Frequency Select	000= FSB 1066MHz 010 = FSB 800MHz 011 = FSB 667MHz
CFG[4:3]	Reserved	
CFG5	DMI X2 Select	0 = DMI X2 1 = DMI X4(Default)
CFG6	iTPM Host Interface	0 = iTPM Host Interface is enabled 1 = iTPM Host Interface is disabled(Default)
CFG7	ME TLS Confidentiality	0 = AMT Firmware will use TLS cipher suite with no confidentiality 1 = AMT Firmware will use TLS cipher suite with confidentiality(Default)
CFG8	Reserved	
CFG9	PCIe Graphics Lane Reversal	0 = Reverse Lanes 1 = Normal operation(Default)
CFG10	PCIe Loopback enable	0 = Enabled 1 = Disabled (Default)
CFG11	Reserved	
CFG12	ALLZ	0 = ALLZ mode enable 1 = disable(Default)
CFG13	XOR	0 = XOR mode enable 1 = disable(Default)
CFG[15:14]	Reserved	
CFG16	FSB Dynamic ODT	0 = Dynamic ODT disable 1 = Dynamic ODT Enable(Default)
CFG[18:17]	Reserved	
CFG19	DMI Lane Reversal	0 = Normal (Default) 1 = Lanes Reversed
CFG20	Digital Display Port (SDVO/DP/iHDMI) Concurrent with PCIe	0 = Only Digital Display port (SDVO/DP/iHDMI) or PCIe is operational (Default) 1 = Digital Display port (SDVO/DP/iHDMI) and PCIe are operating simultaneously via PEG port
SDVO_CTRLDATA	SDVO Present	0 = No SDVO/HDMI Device Present(Default) 1 = SDVO/HDMI Device present
DDPC_CTRLDATA	Digital Display Present	0 = Digital display(HDMI/DP) device absent(Default) 1 = Digital display(HDMI/DP) device present

Strap pin

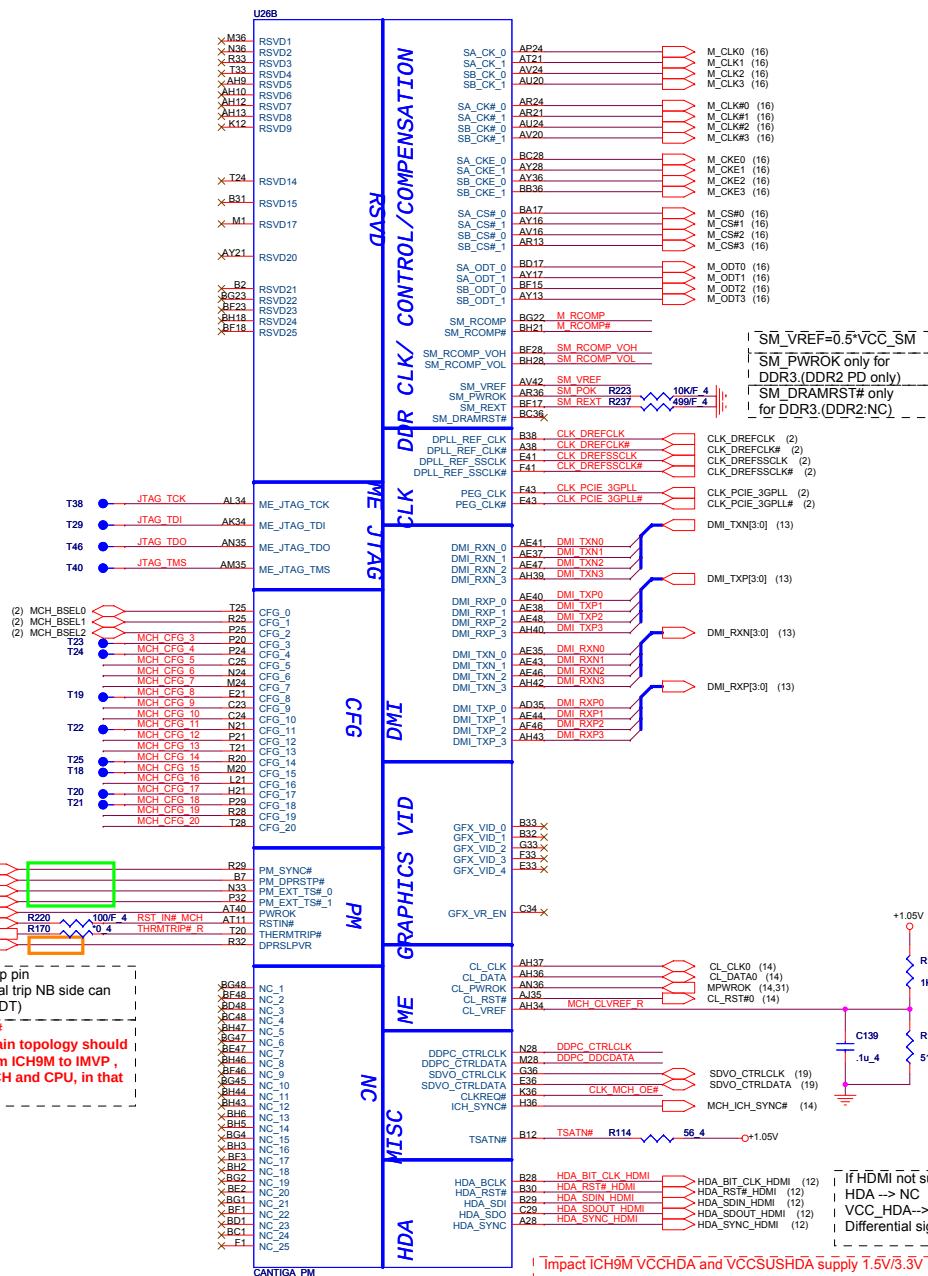


NB Thermal trip p

No use Thermal trip NB side can
NC.(NB has ODT)

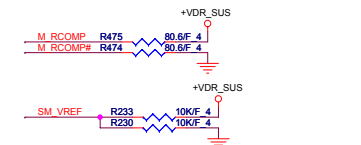
PM DPRSTP#

The Daisy chain topology should be routed from ICH9M to IMVP then to (G)MCH and CPU, in that order.



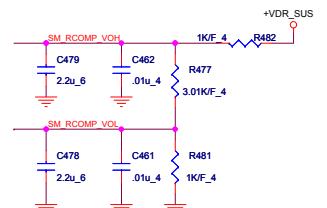
NOTE

If (G)MCH's HD Audio signals are connected to ICH9M for iHDMI, VCCHDA and VCCSUSHD to ICH9M should be only on 1.5V. These power pins on ICH9M can be supplied with 3.3V if and only if (G)MCH's HDA is not connected to ICH9M. Consequently, only 1.5V audio/modem codecs can be used on the platform.

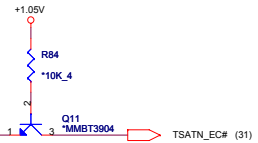


SM_VREF.Default use voltage divider for poor layout cause +SMDDR_VREF not meet spec.And Intel circuit PU/PD is 1K,But Check list PU/PD is 10K.

INTEL FAE Suggest PD for Ext graphics



NB Thermaltrip



Check list note : CL_VREF=0.35V

DDPC_CTRL for HDMI port C
SDVO_CTRL for HDMI port B

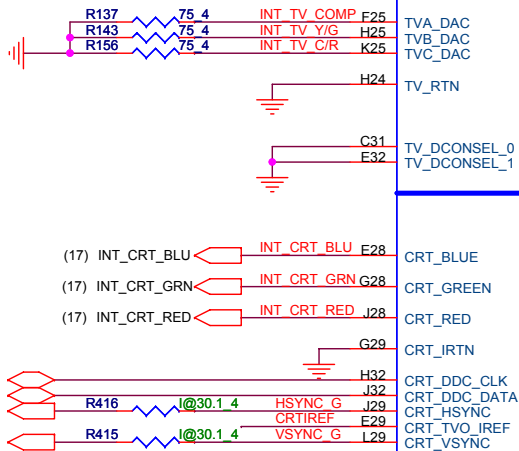
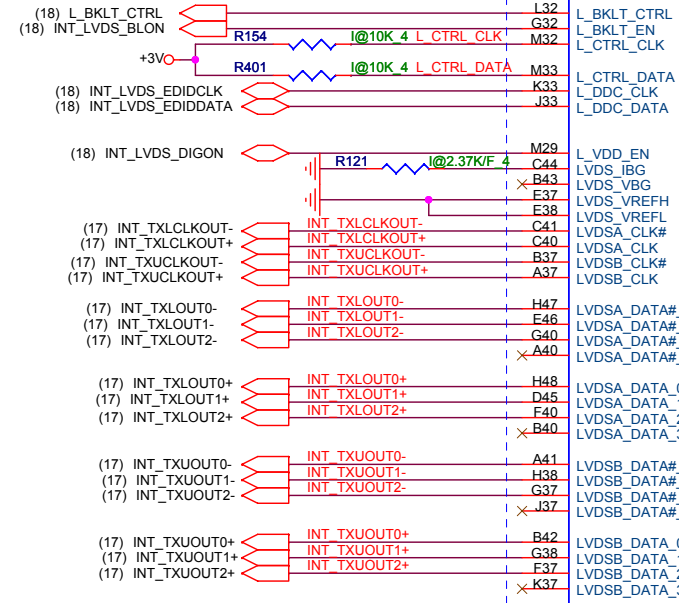
<Checklist ver0.8>
If TSATN# is not used, then it must be terminated with a 56-Ω pull-up resistor to VCCP.

<Pin out check issue>

IV@
EV@
SP@

IV&EV Dis/Enable setting

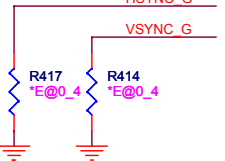
If LVDS no use,all signal can NC



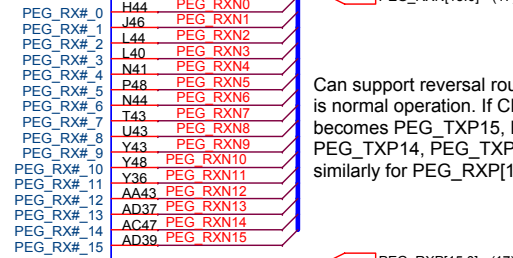
HSYNC/VSYNC serial R place close to NB

CRTIREF pull down
for IV cantiga 1.02k ohm/F

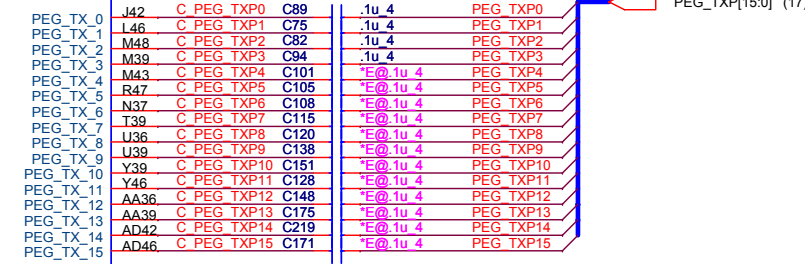
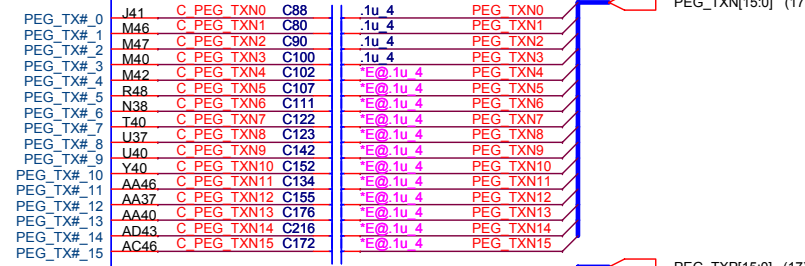
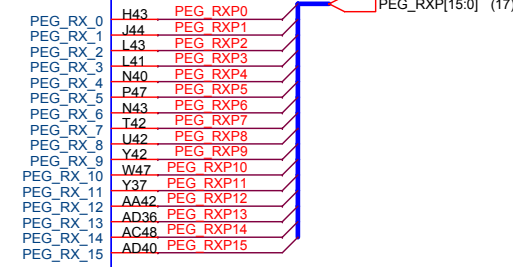
MXM STUFFED.



L<0.5", If PCIe not support
still connect to +VCC_PEG



Can support reversal routing.If CFG9=1, PCI Express
is normal operation. If CFG9=0, then PEG_TXP0
becomes PEG_TXP15, PEG_TXP1 becomes
PEG_TXP14, PEG_TXP2 becomes PEG_TXP13, etc.
similarly for PEG_RXP[15:0] and PEG_RXN[15:0]



IV&EV Dis/Enable setting

<5/31>Montevina_Schematics_Checklist_Rev0_8
a)For TVOUT Disabled, TV_DCONSEL[1:0] Connect to GND. But
design guide Rev0.7 show NC.What is correct.
b)For CRT DAC Disable, CRT_DDC_CLK, CRT_DDC_DATA,
CRT_HSYNC, CRT_VSYNCThese signals should be connected to
GND. But design guide Rev0.7 show NC, Intel suggest follow
Design guide.

<check list>

For EV@
CRT R/G/B 0ohm to GND
CRTIREF 0ohm to GND

<check list>

For IV@
CRT R/G/B 150ohm to GND
CRTIREF 1.02Kohm to GND

CRTIREF
For IV: 1.02Kohm
For EV:0ohm



SP@

CRT_R/G/B
For IV: 150ohm
For EV:0ohm



Quanta Computer Inc.

PROJECT : ZK2

GMCH VGA

Size Document Number

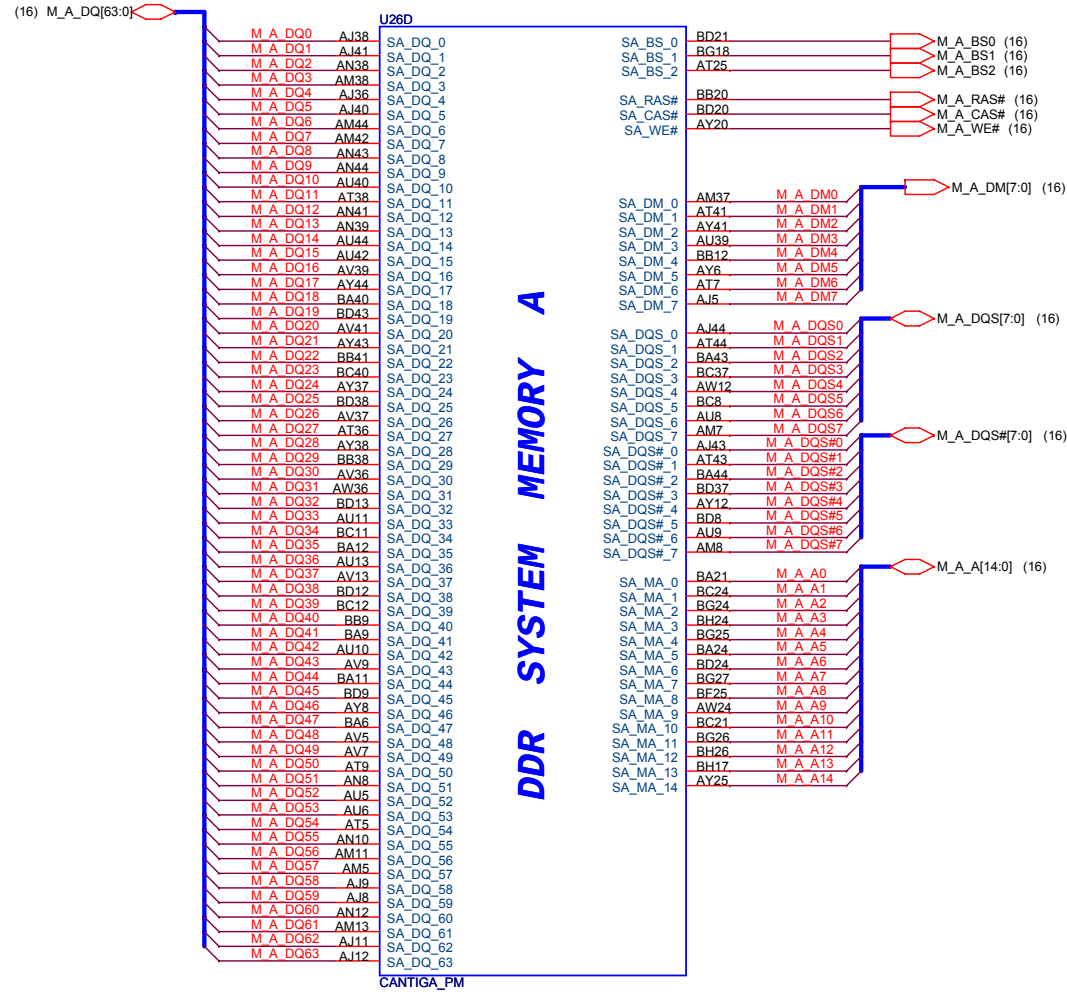
Date: Wednesday, July 09, 2008

Sheet 7 of 39

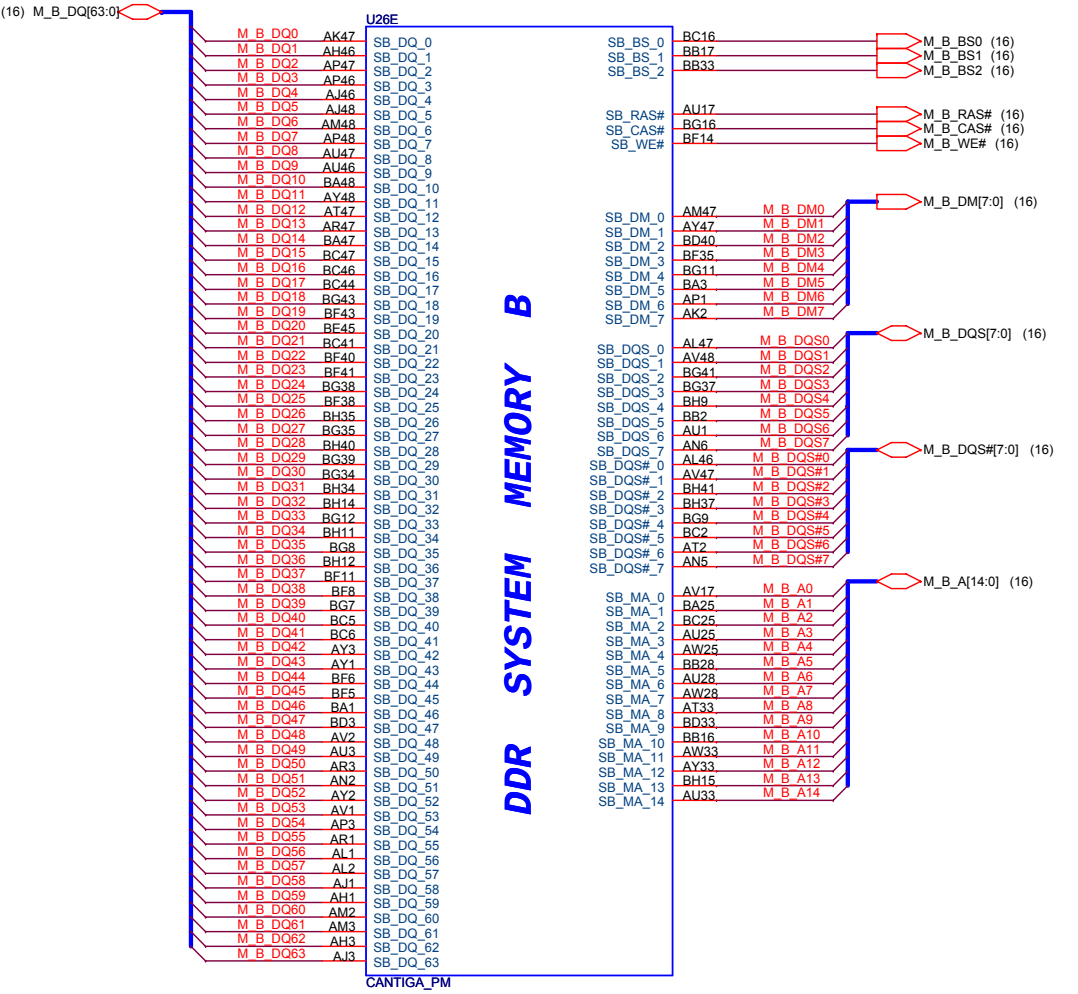
Rev 3B

GMCH (CANTIGA)

DDR SYSTEM MEMORY A



DDR SYSTEM MEMORY B



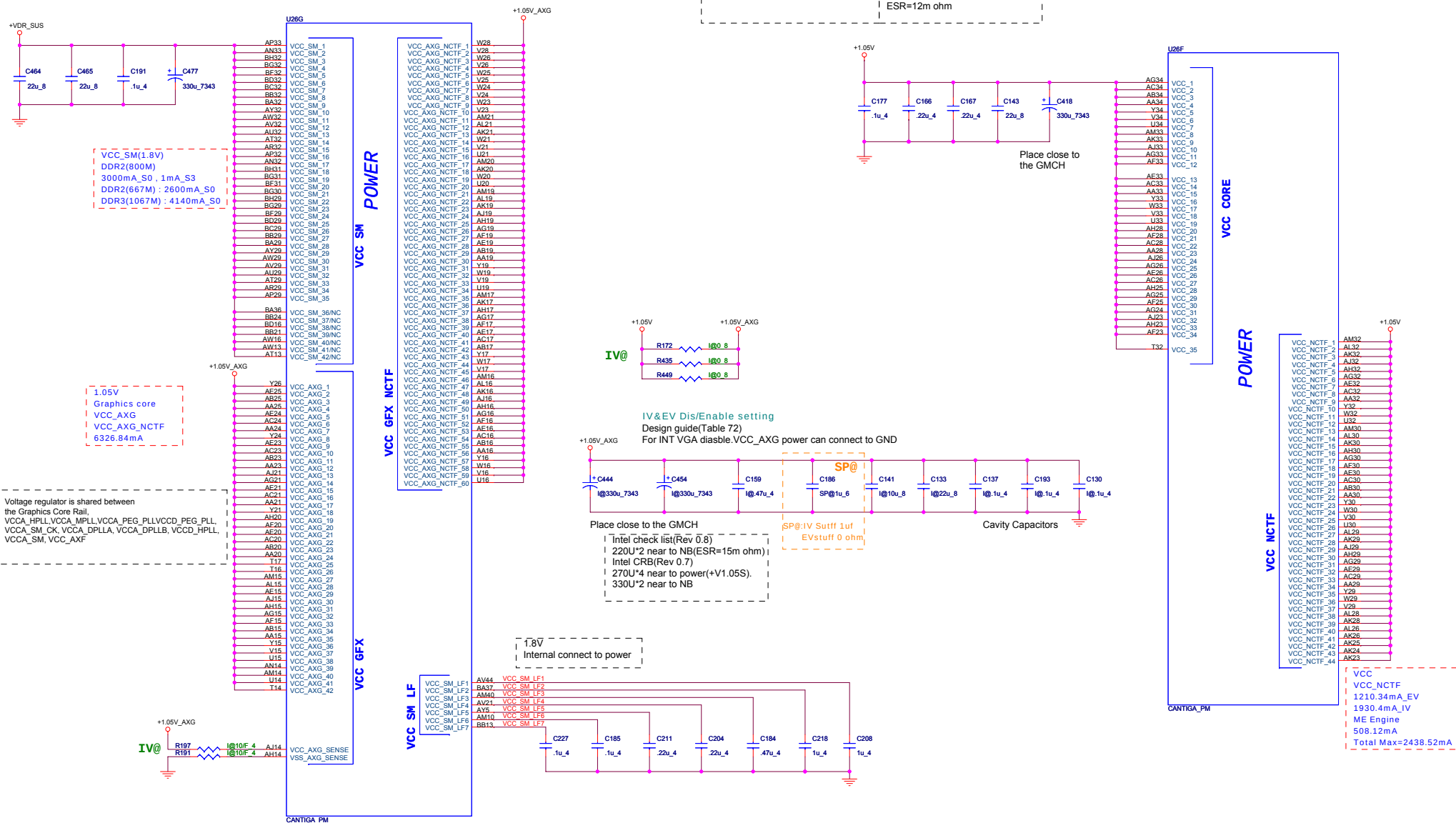
Power consumption reference to Intel
644135 Cantiga chipset EDS Volume1.
Section 10

GM	TDP	10.5~12W
GS	TDP	7~8W
PM	TDP	7W

```

Intel check list(Rev 0.8)
270U*1 near to power(+V1.05M).
270U*2 near to NB
Intel CRB(Rev 0.7)
270U*3 near to power(+V1.05M).
270U*1 near to NB
ESR=12m ohm

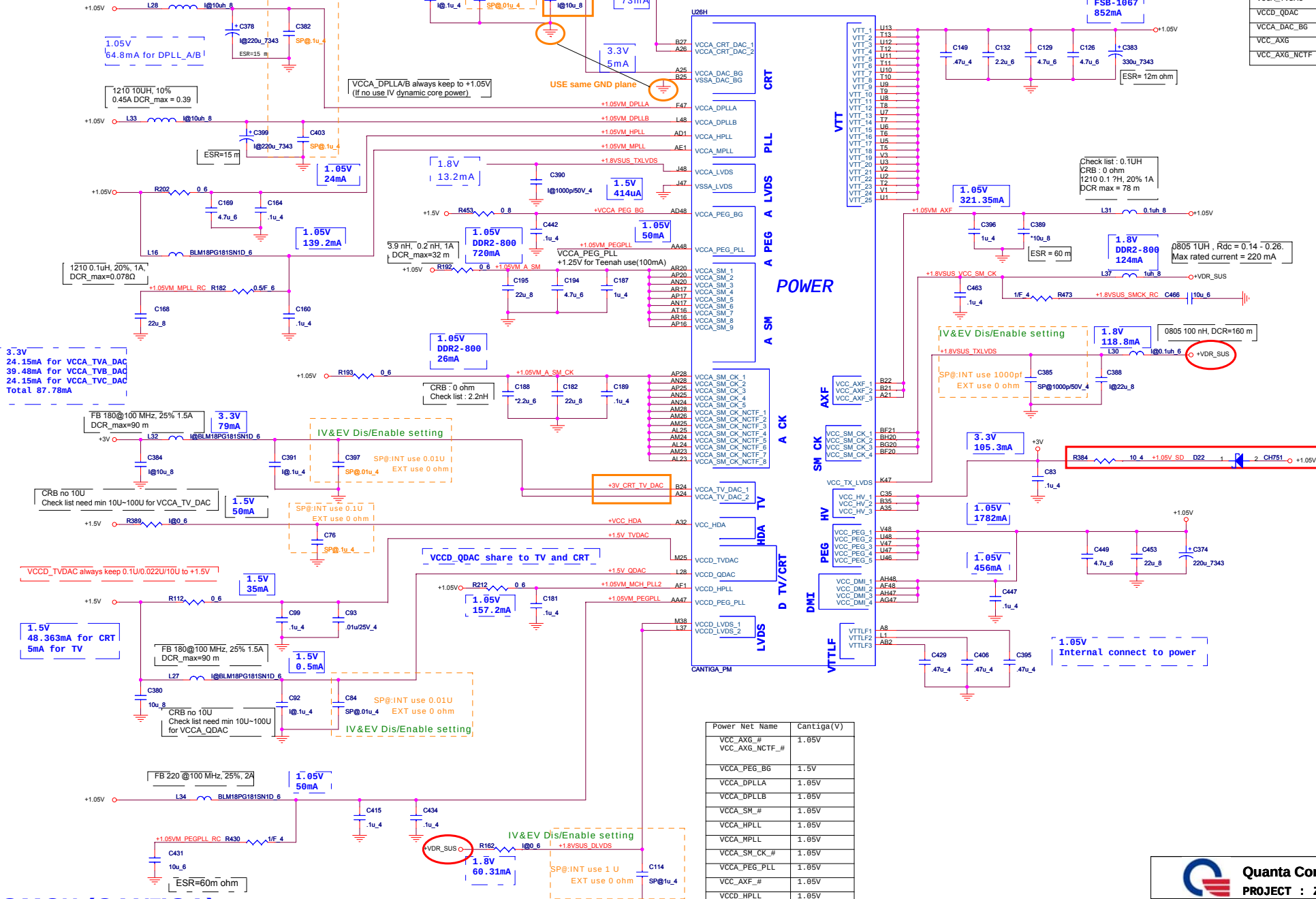
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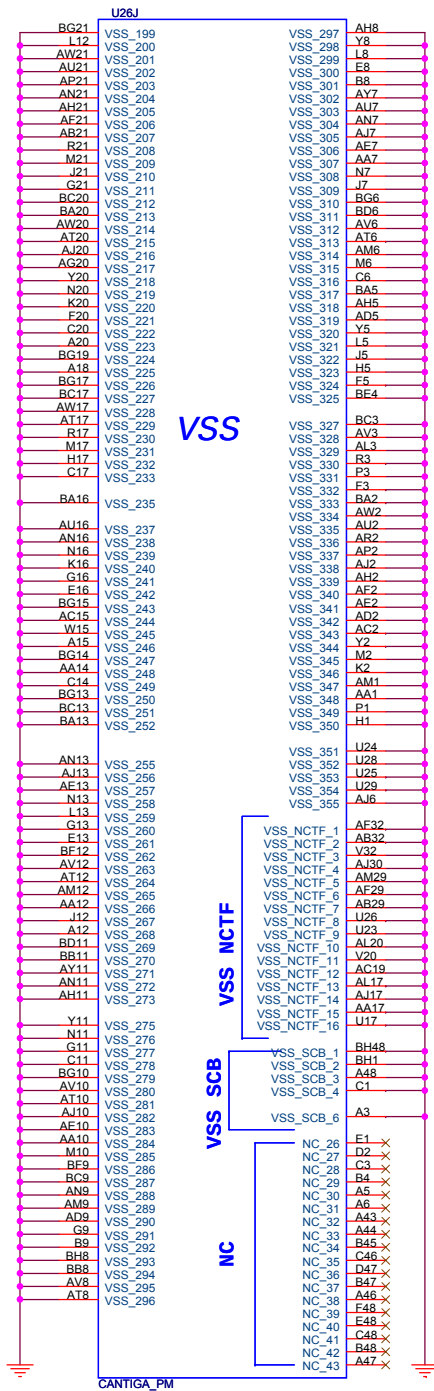
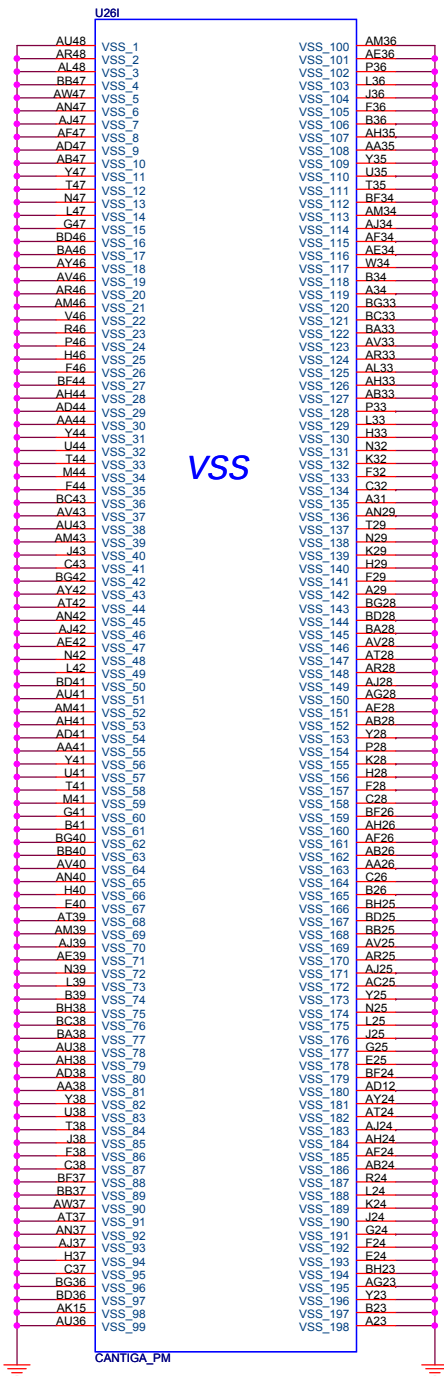
 Quanta Computer Inc. PROJECT : ZK2		Rev 3E
Size	Document Number	
GMCH VCC,NCTF		
Date:	Friday, June 27, 2008	Sheet 9 of 39

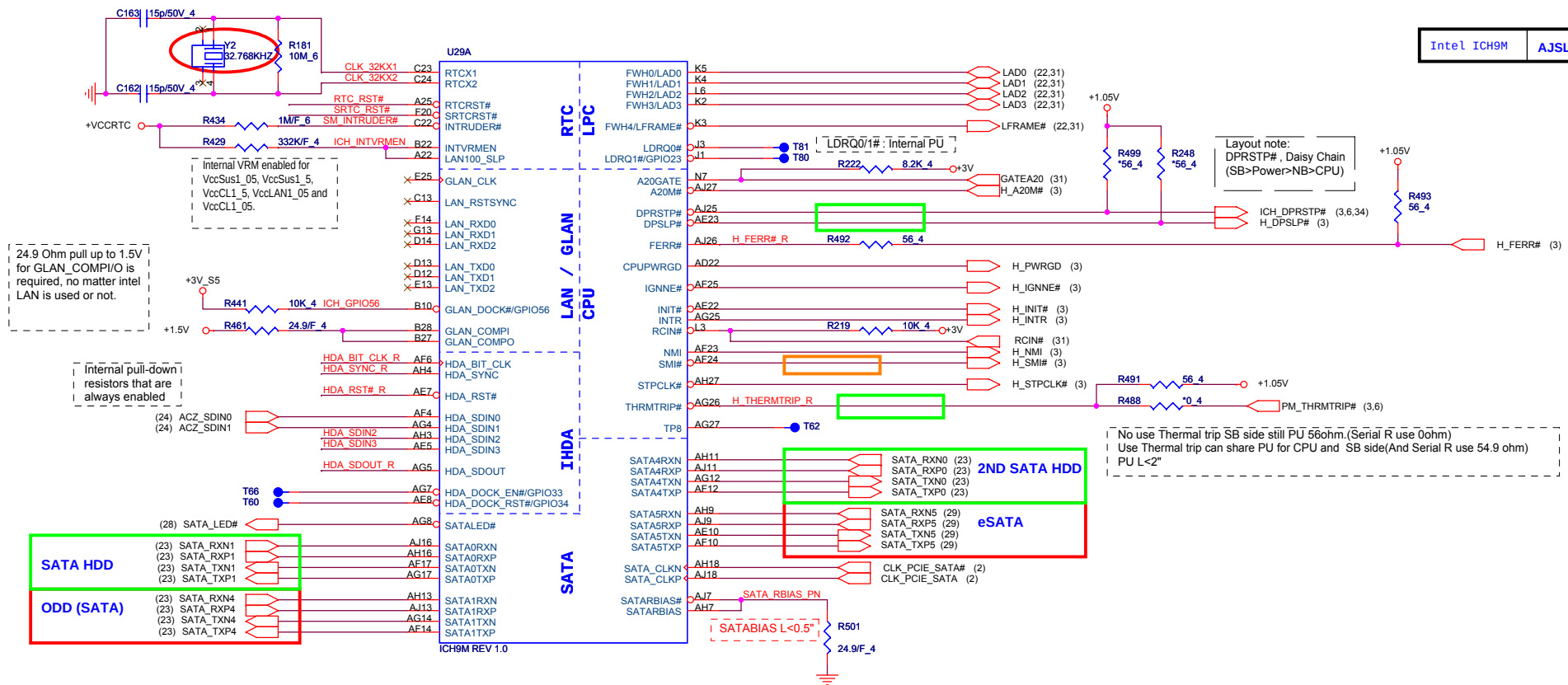
VCCSYNC_CRT	GND
VCCA_CRT_DAC	GND
VCCB_LVDS	GND
VCC_TX_LVDS	GND
VCCA_LVDS	GND
VCCA_TV_DAC	GND
VCCD_QDAC	GND
VCCA_DAC_BG	GND
VCC_AXG	GND
VCC_AXG_NCTF	GND

IV@
EV@
SP@

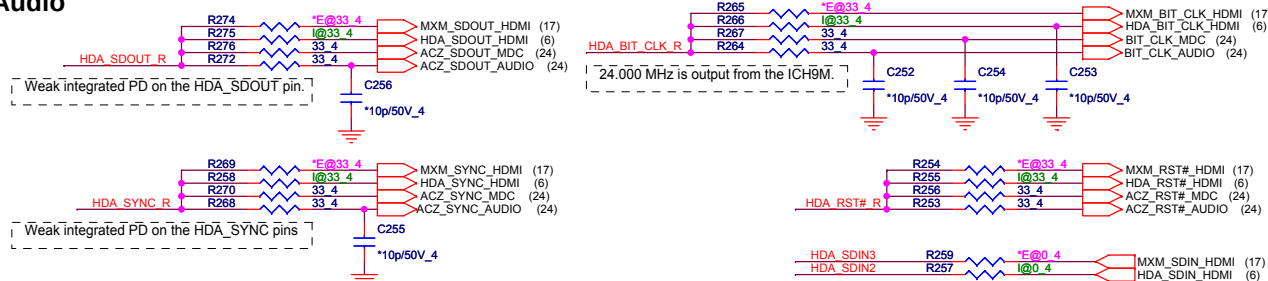


GMCH (CANTIGA)





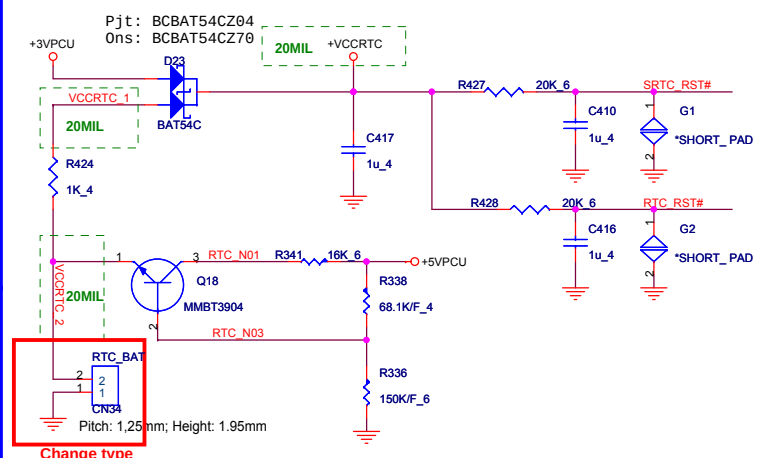
HD Audio

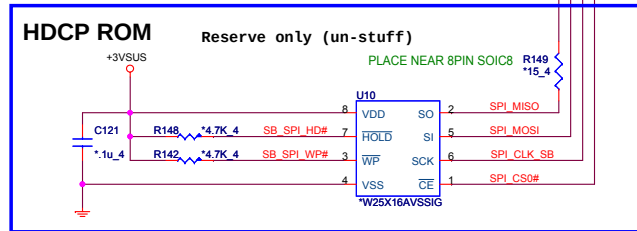


South Bridge Strap Pin (1/3)

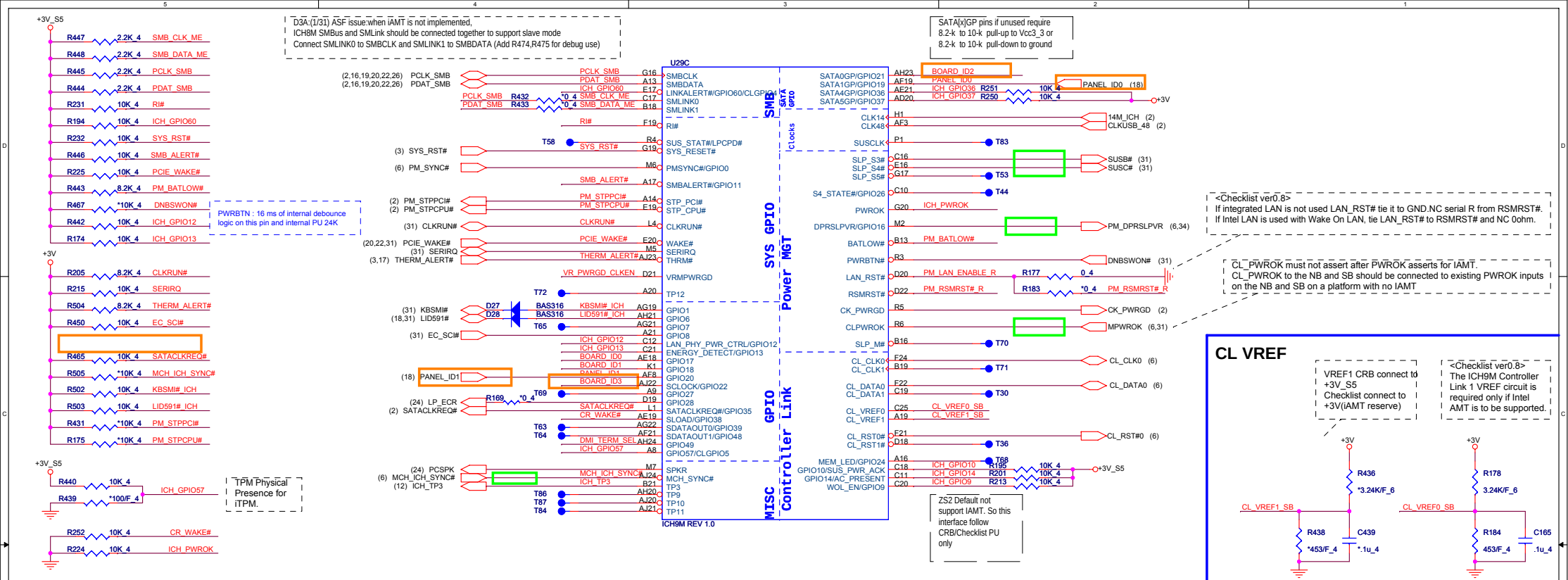
Pin Name	Strap description	Sampled	Configuration	PU/ID
HDA_DOCK_EN/ GPIO33	Flash Descriptor Security Override Strap	PWROK	0 = The Flash Descriptor Security will be overridden. 1 = The security measures defined in the Flash Descriptor will be in effect	This strap should only be enabled in manufacturing environments using an external pull-up resistor.
SATALED#	PCI Express Lane Reversal (Lanes 1-4)	PWROK	Internal PU	
TP3	XOR Chain Entrance	PWROK	ICH_TP3 HDA_SDOUR 0 0 0 1 RSVD 1 0 Enter XOR Chain 1 1 Normal operation(Default) 1 1 Set PCIe port config bit 1	(14) ICH_TP3 ICH_TP3 R451 *1K_4
HDA_SDOUR	XOR Chain Entrance /PCI Express* Port Config 1 bit 1(Port 1-4)	PWROK		HDA_SDOUR R273 *1K_4 +3V

RTC





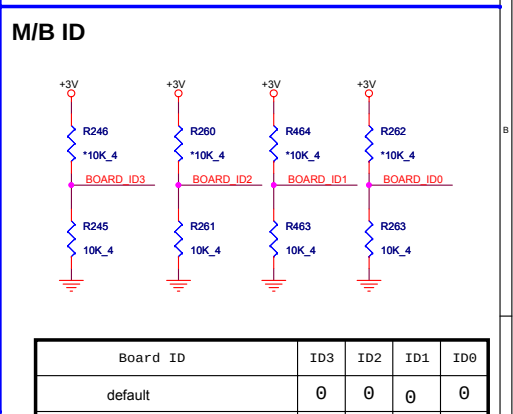
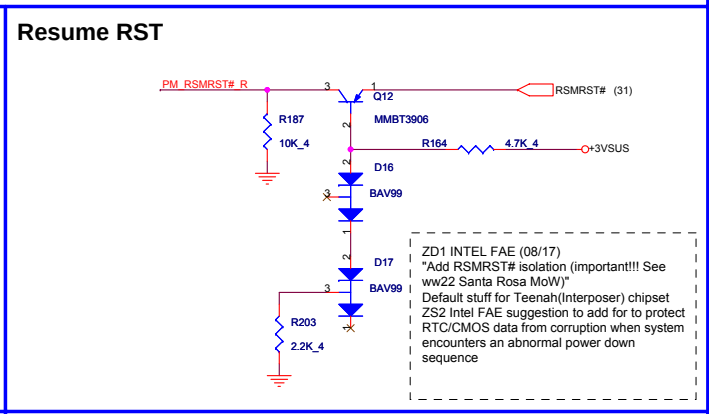
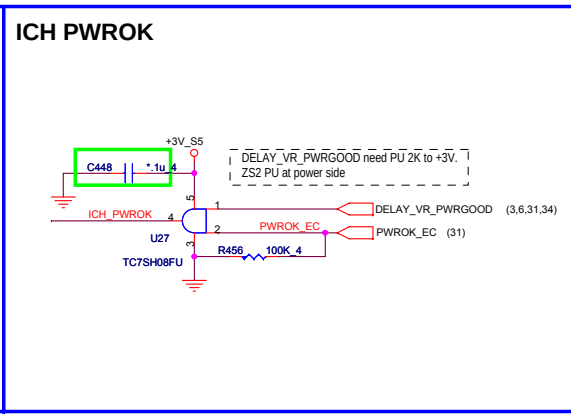
Pin Name	Strap description	Sampled	Configuration			PU/PD
HDA_SYNC	PCI Express Port Config 1 bit 0 (Port 1-4)	PWROK	0 = Default 1 = Setting bit 0			
GNT2# / GPIO53	PCI Express Port Config 2 bit 2 (Port 5-6)	PWROK	0 = Setting bit 2 1 = Default			
GNT1# / GPIO51	ESI Strap(Server Only)	PWROK	0 = DMI for ESI-compatible 1 = Default			
GNT3# / GPIO55	Top-Block Swap Override	PWROK	0 = "top-block swap" mode 1 = Default			
SPI_MOSI	Integrated TPM Enable	CLPWROK	0 = INT TPM disable(Default) 1 = INT TPM enable			
GNT0#	Boot BIOS Selection 0	PWROK	PCI_GNT#0	SPI_CS#1	Boot Location	
			0	1	SPI	
SPI_CS1# / GPIO58 / CLGPIO6	Boot BIOS Selection 1	CLPWROK	1	0	PCI	
			1	1	LPC(Default)	



Panel ID (UMA only)

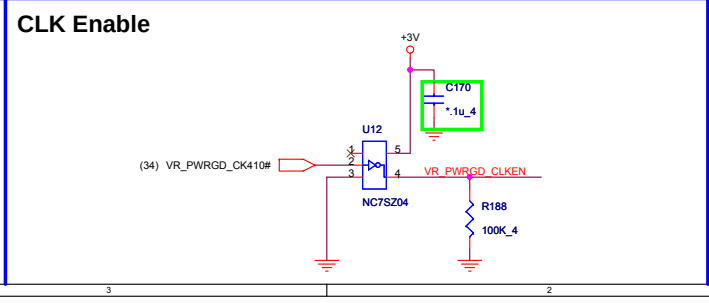
Close to LCD connector (CN3)

P_ID1 (GPIO20)	P_ID0 (GPIO19)	Resolution
0	0	1366x768
0	1	1920x1080
1	0	Reserved
1	1	Reserved



South Bridge Strap Pin (3/3)

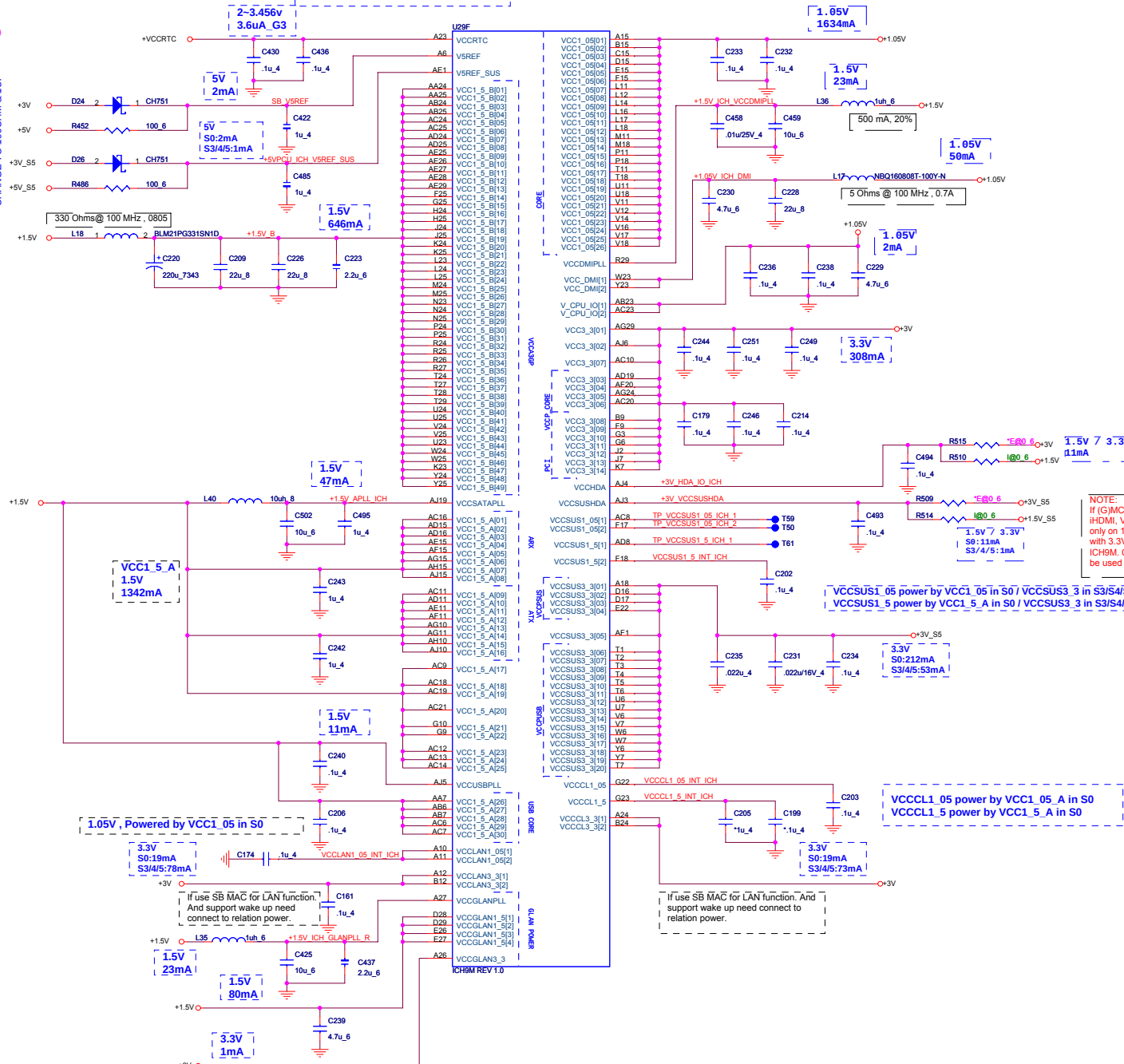
Pin Name	Strap description	Sampled	Configuration	PU/PD
GPIO20	Reserved	PWROK		
SPKR	No Reboot	PWROK	0 = Default 1 = No Reboot mode	PCSPK R236 *1K 4 +3V
GPIO49	DMI Termination Voltage	PWROK	0 = for desktop applications 1 = for mobile applications Internal PU	DMI_TERM_SEL R507 *1K 4



IV@
EV@

Power consumption reference to
Intel ICH9 Family EDS Rev 1.6

PER INTEL SUGGESTION:
CHANGE TO 100OHM & 1UF



Impact ICH9M VCCCHDA and
VCCSUSHDA supply 1.5V/3.3V

Support INT HDMI HDA
interface. These power
only support 1.5V Device
must to meet.

NOTE:
If (G)MCH's HD Audio signals are connected to ICH9M for
HDMI, VCCCHDA and VCCSUSHDA on ICH9M should be
only on 1.5V. These power pins on ICH9M can be supplied
with 3.3V if and only if (G)MCH's HDA is not connected to
ICH9M. Consequently, only 1.5V audio/modem codecs can
be used on the platform.

VCCSUS1_05 power by VCC1_05 in S0/ VCCSUS3_3 in S3/S4/S5
VCCSUS1_5 power by VCC1_5 A in S0/ VCCSUS3_3 in S3/S4/S5

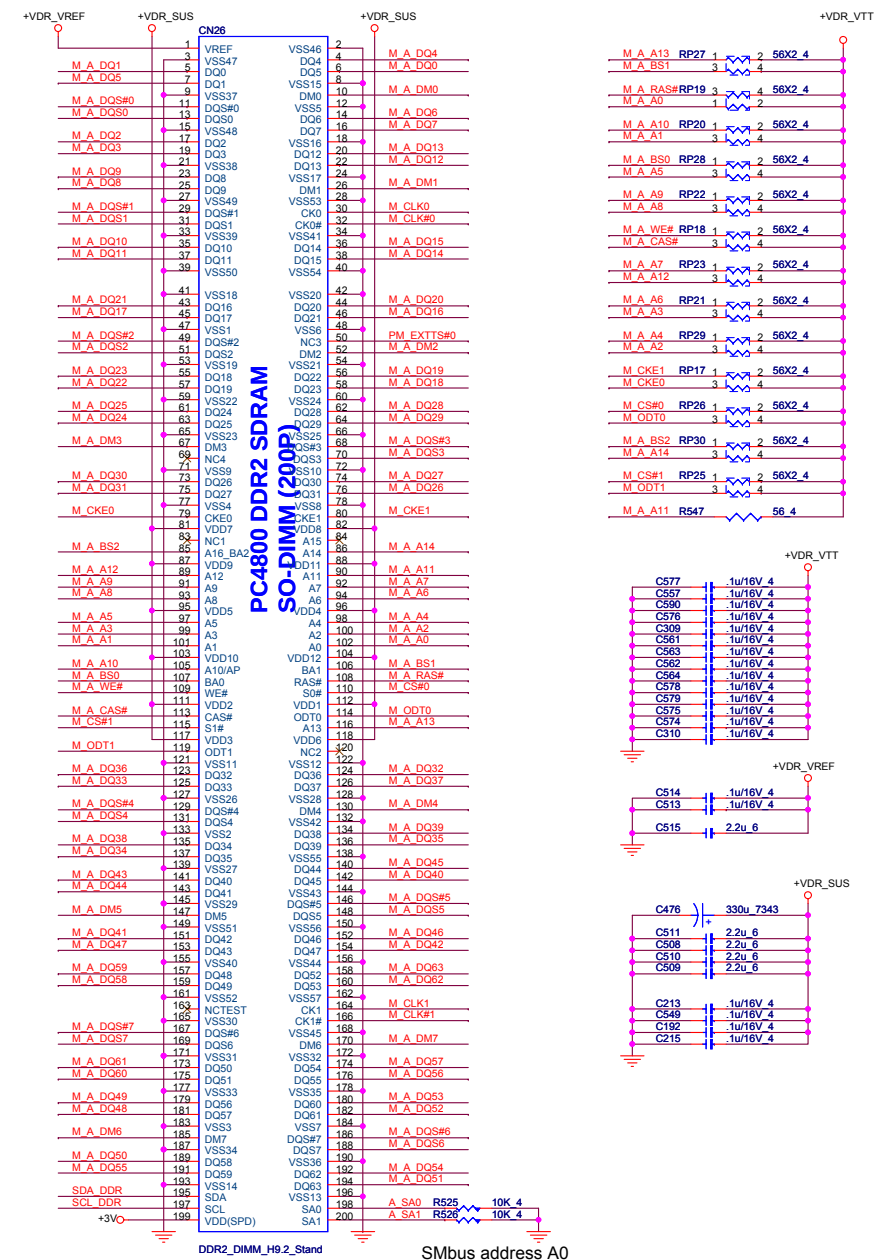
VCCCL1_05 power by VCC1_05 A in S0
VCCCL1_5 power by VCC1_5 A in S0

If use SB MAC for LAN function, And
support wake up need connect to
relation power.

AA26	VSS001	VSS107	H5
AA27	VSS002	VSS108	J23
AA28	VSS003	VSS109	J26
AA29	VSS004	VSS110	J27
AA30	VSS005	VSS111	AC22
AA31	VSS006	VSS112	K28
AA32	VSS007	VSS113	K29
AA33	VSS008	VSS114	L13
AA34	VSS009	VSS115	L15
AA35	VSS010	VSS116	L16
AA36	VSS011	VSS117	L17
AA37	VSS012	VSS118	L18
AA38	VSS013	VSS119	L19
AA39	VSS014	VSS120	L20
AA40	VSS015	VSS121	M12
AA41	VSS016	VSS122	M14
AA42	VSS017	VSS123	M15
AA43	VSS018	VSS124	M16
AA44	VSS019	VSS125	M17
AA45	VSS020	VSS126	M18
AA46	VSS021	VSS127	M23
AA47	VSS022	VSS128	M29
AA48	VSS023	VSS129	M32
AA49	VSS024	VSS130	N11
AA50	VSS025	VSS131	N13
AA51	VSS026	VSS132	N14
AA52	VSS027	VSS133	N15
AA53	VSS028	VSS134	N16
AA54	VSS029	VSS135	N17
AA55	VSS030	VSS136	N18
AA56	VSS031	VSS137	N28
AA57	VSS032	VSS138	P12
AA58	VSS033	VSS139	P13
AA59	VSS034	VSS140	P14
AA60	VSS035	VSS141	P15
AA61	VSS036	VSS142	P16
AA62	VSS037	VSS143	P17
AA63	VSS038	VSS144	P22
AA64	VSS039	VSS145	P23
AA65	VSS040	VSS146	P24
AA66	VSS041	VSS147	P25
AA67	VSS042	VSS148	P26
AA68	VSS043	VSS149	P27
AA69	VSS044	VSS150	R11
AA70	VSS045	VSS151	R12
AA71	VSS046	VSS152	R13
AA72	VSS047	VSS153	R14
AA73	VSS048	VSS154	R15
AA74	VSS049	VSS155	R16
AA75	VSS050	VSS156	R17
AA76	VSS051	VSS157	R18
AA77	VSS052	VSS158	R19
AA78	VSS053	VSS159	R20
AA79	VSS054	VSS160	R21
AA80	VSS055	VSS161	R22
AA81	VSS056	VSS162	R23
AA82	VSS057	VSS163	R24
AA83	VSS058	VSS164	R25
AA84	VSS059	VSS165	R26
AA85	VSS060	VSS166	R27
AA86	VSS061	VSS167	R28
AA87	VSS062	VSS168	R29
AA88	VSS063	VSS169	R30
AA89	VSS064	VSS170	R31
AA90	VSS065	VSS171	R32
AA91	VSS066	VSS172	R33
AA92	VSS067	VSS173	R34
AA93	VSS068	VSS174	R35
AA94	VSS069	VSS175	R36
AA95	VSS070	VSS176	R37
AA96	VSS071	VSS177	R38
AA97	VSS072	VSS178	R39
AA98	VSS073	VSS179	R40
AA99	VSS074	VSS180	R41
AA100	VSS075	VSS181	R42
AA101	VSS076	VSS182	R43
AA102	VSS077	VSS183	R44
AA103	VSS078	VSS184	R45
AA104	VSS079	VSS185	R46
AA105	VSS080	VSS186	R47
AA106	VSS081	VSS187	R48
AA107	VSS082	VSS188	R49
AA108	VSS083	VSS189	R50
AA109	VSS084	VSS190	R51
AA110	VSS085	VSS191	R52
AA111	VSS086	VSS192	R53
AA112	VSS087	VSS193	R54
AA113	VSS088	VSS194	R55
AA114	VSS089	VSS195	R56
AA115	VSS090	VSS196	R57
AA116	VSS091	VSS197	R58
AA117	VSS092	VSS198	R59
AA118	VSS093	VSS199	R60
AA119	VSS094	VSS200	R61
AA120	VSS095	VSS201	R62
AA121	VSS096	VSS202	R63
AA122	VSS097	VSS203	R64
AA123	VSS098	VSS204	R65
AA124	VSS099	VSS205	R66
AA125	VSS100	VSS206	R67
AA126	VSS101	VSS207	R68
AA127	VSS102	VSS208	R69
AA128	VSS103	VSS209	R70
AA129	VSS104	VSS210	R71
AA130	VSS105	VSS211	R72
AA131	VSS106	VSS212	R73

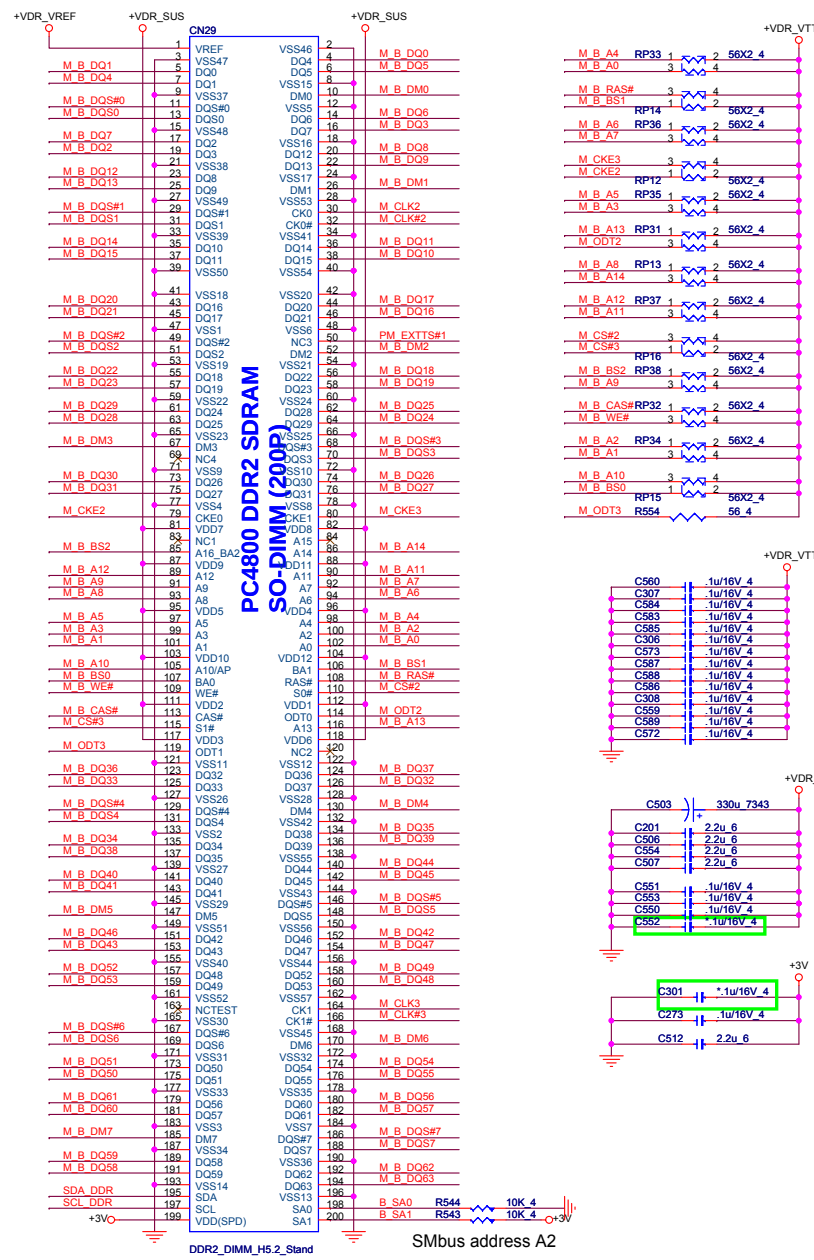
ICH9M REV 1.0

DDR2 Module

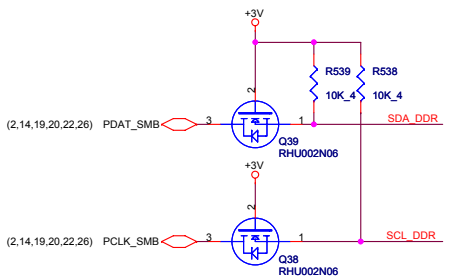


IN2-Layer
CLOCK 0,1

NOTE: Place one cap close to every 2 pull-up resistors terminated to +SMDDR_VTERM

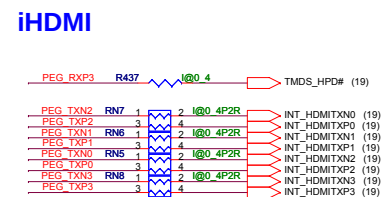
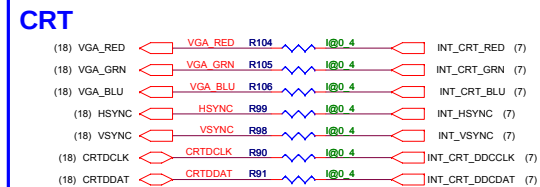
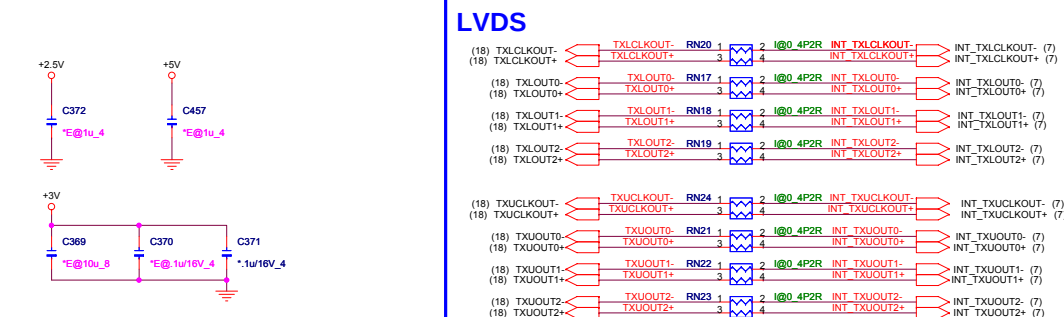
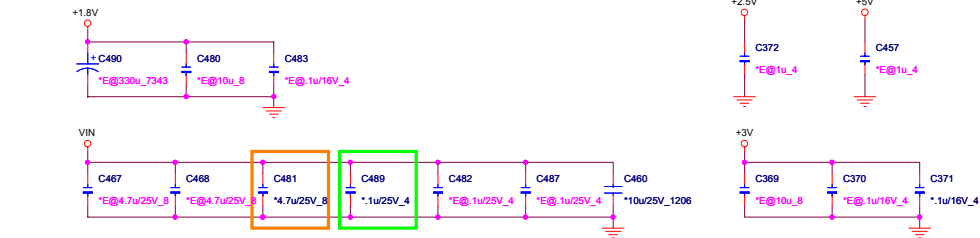


IN1-Layer
CLOCK 2,3



- (6) PM_EXTSTS#1  PM_EXTSTS#1
- (6) PM_EXTSTS#0  PM_EXTSTS#0
- (6) M_CS#[3:0]  M_CS#[3:0]
- (6) M_ODT[3:0]  M_ODT[3:0]
- (6) M_CKE[3:0]  M_CKE[3:0]
- (6) M_CLKW#[3:0]  M_CLKW#[3:0]
- (6) M_CLK[3:0]  M_CLK[3:0]
- (8) M_A_CAS#  M_A_CAS#
- (8) M_A_RAS#  M_A_RAS#
- (8) M_A_WE#  M_A_WE#
- (8) M_A_BS[2:0]  M_A_BS[2:0]
- (8) M_A_DM[7:0]  M_A_DM[7:0]
- (8) M_A_DQS#[7:0]  M_A_DQS#[7:0]
- (8) M_A_DQS[7:0]  M_A_DQS[7:0]
- (8) M_A_A[14:0]  M_A_A[14:0]
- (8) M_A_DQ[63:0]  M_A_DQ[63:0]
- (8) M_B_CAS#  M_B_CAS#
- (8) M_B_RAS#  M_B_RAS#
- (8) M_B_WE#  M_B_WE#
- (8) M_B_BS[2:0]  M_B_BS[2:0]
- (8) M_B_DM[7:0]  M_B_DM[7:0]
- (8) M_B_DQS#[7:0]  M_B_DQS#[7:0]
- (8) M_B_DQS[7:0]  M_B_DQS[7:0]
- (8) M_B_A[14:0]  M_B_A[14:0]
- (8) M_B_DQ[63:0]  M_B_DQ[63:0]

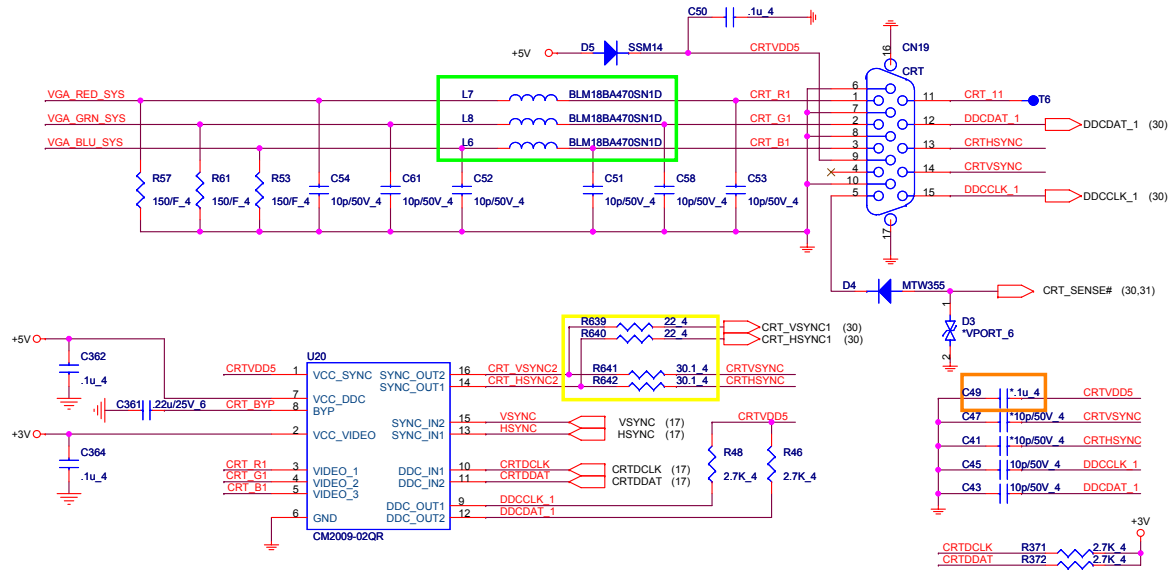
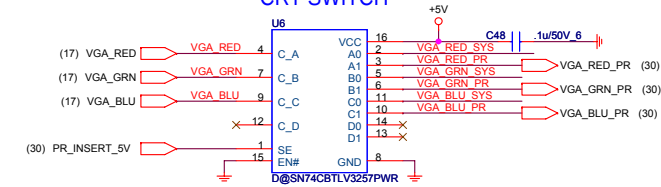
IV@
EV@



CRT

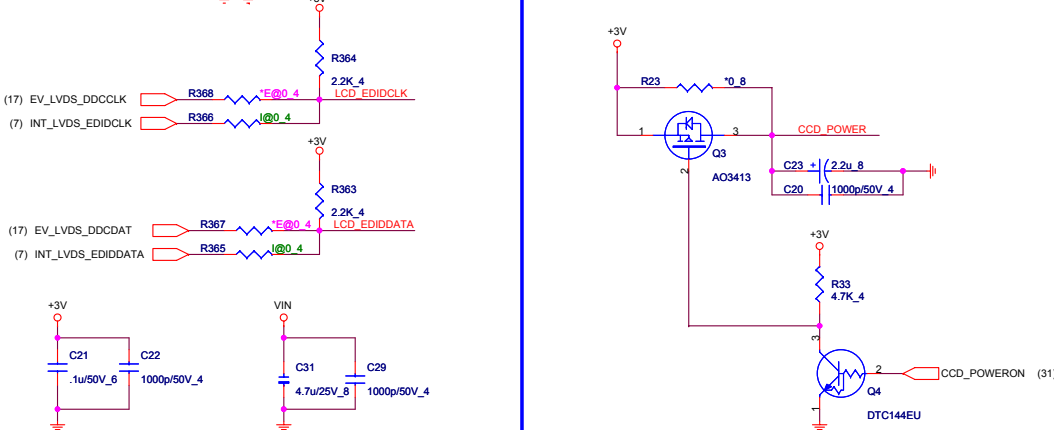
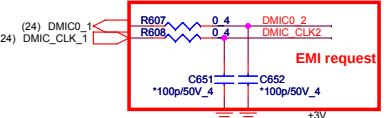
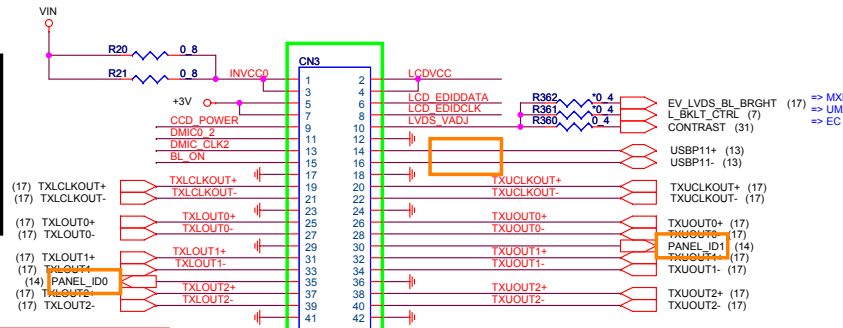
IV@
EV@

CRT SWITCH

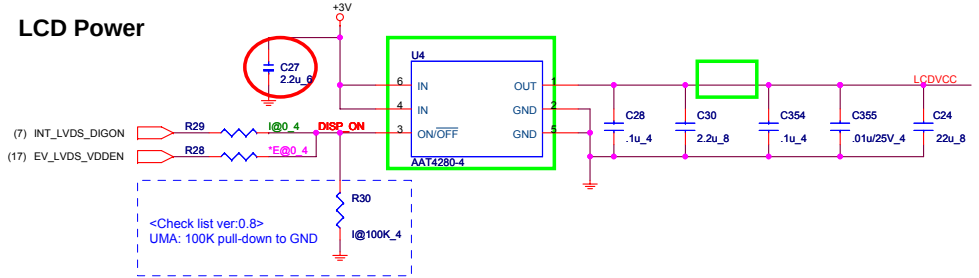


LVDS

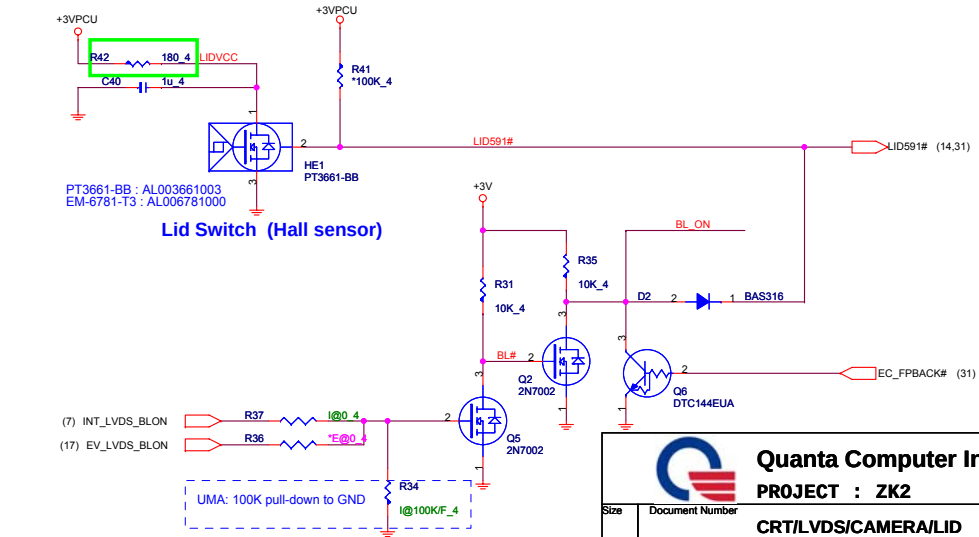
P_ID1	P_ID0	Resolution
0	0	1366x768
0	1	1920x1080
1	0	Reserved
1	1	Reserved



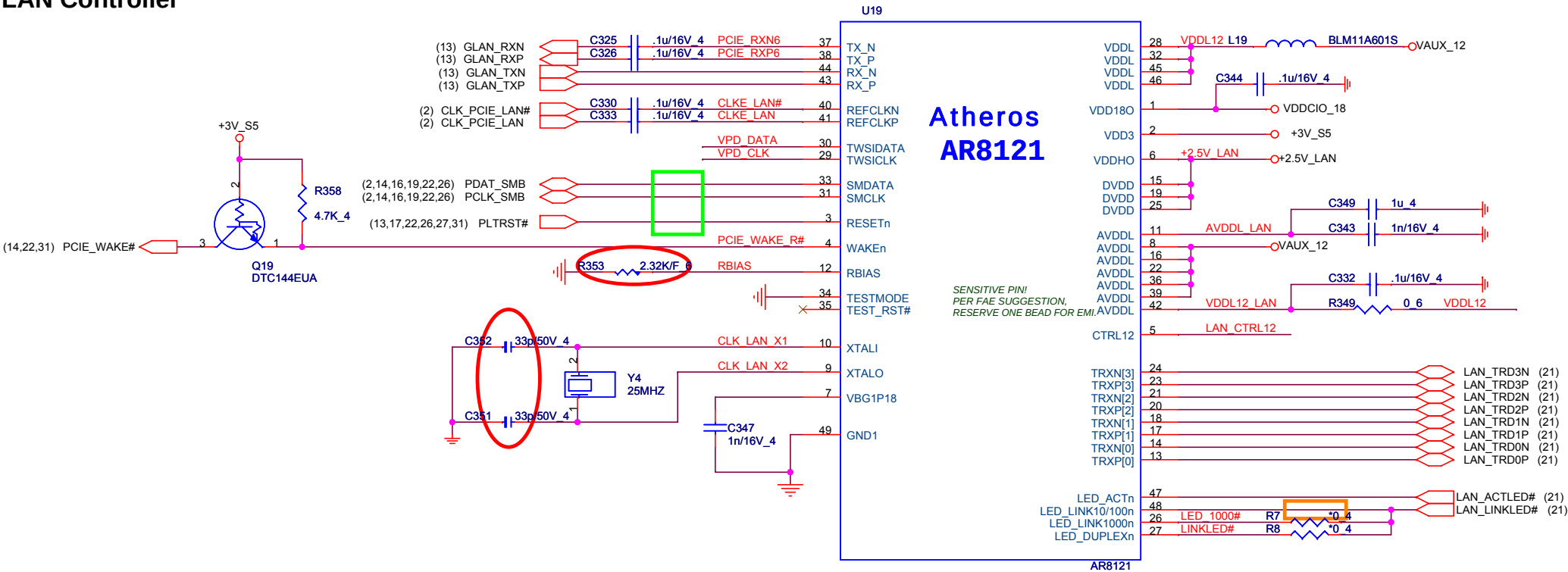
LCD Power



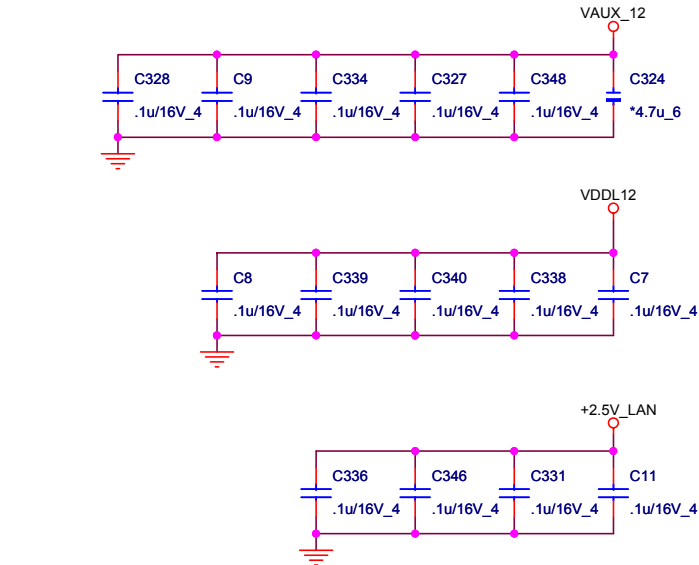
Backlight Control & LID



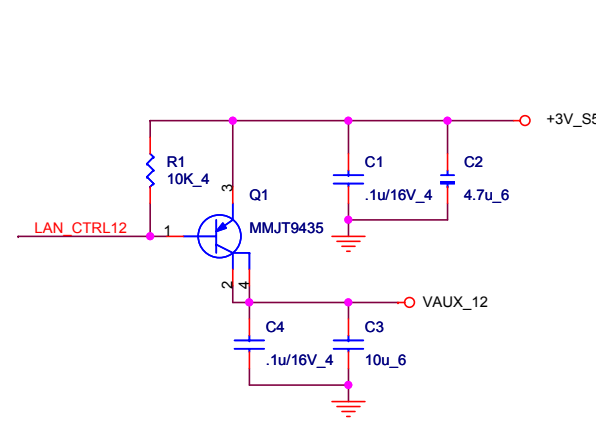
LAN Controller



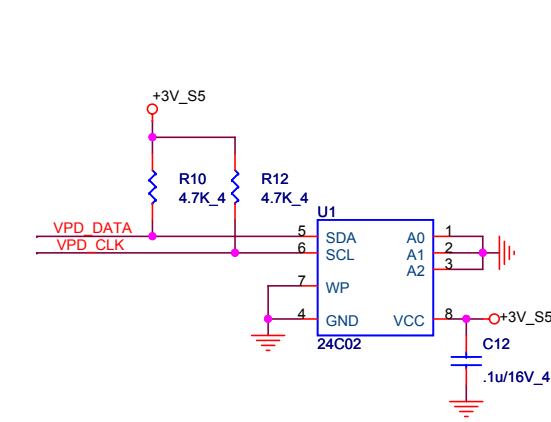
Decoupling CAP



Regulator(1.2V)

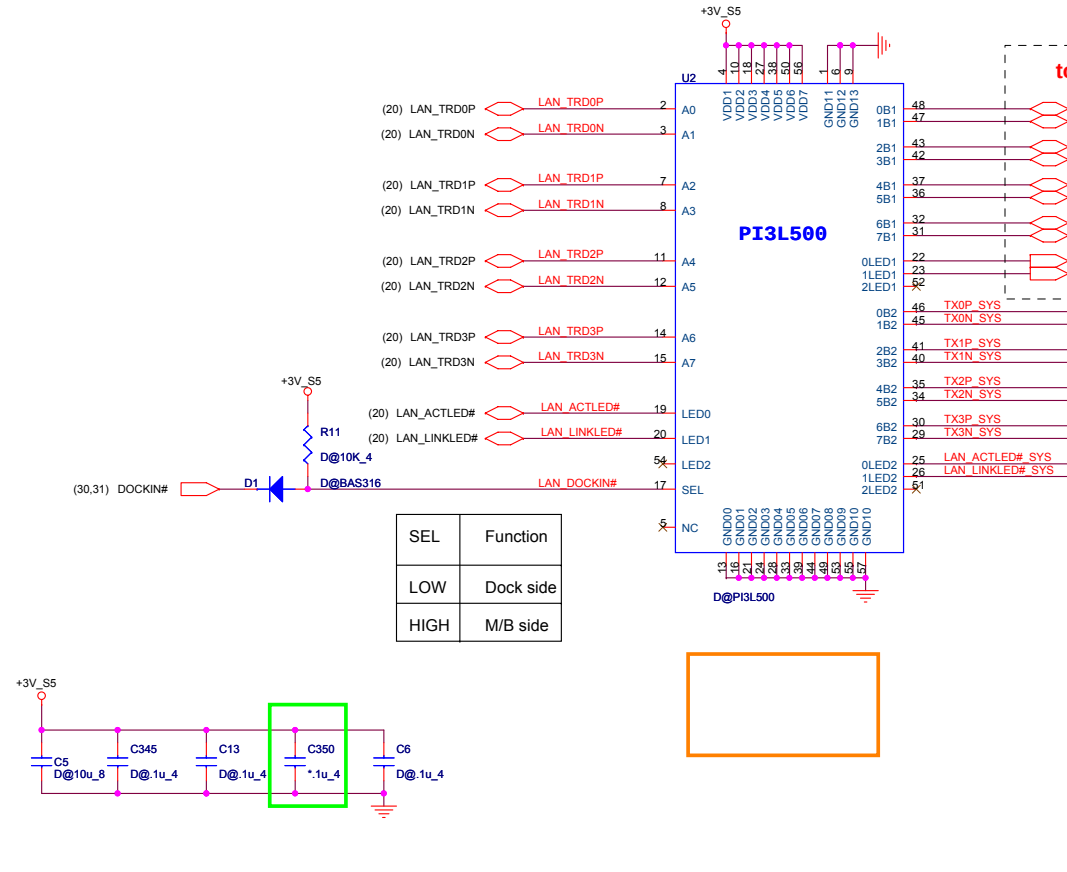


EEPROM

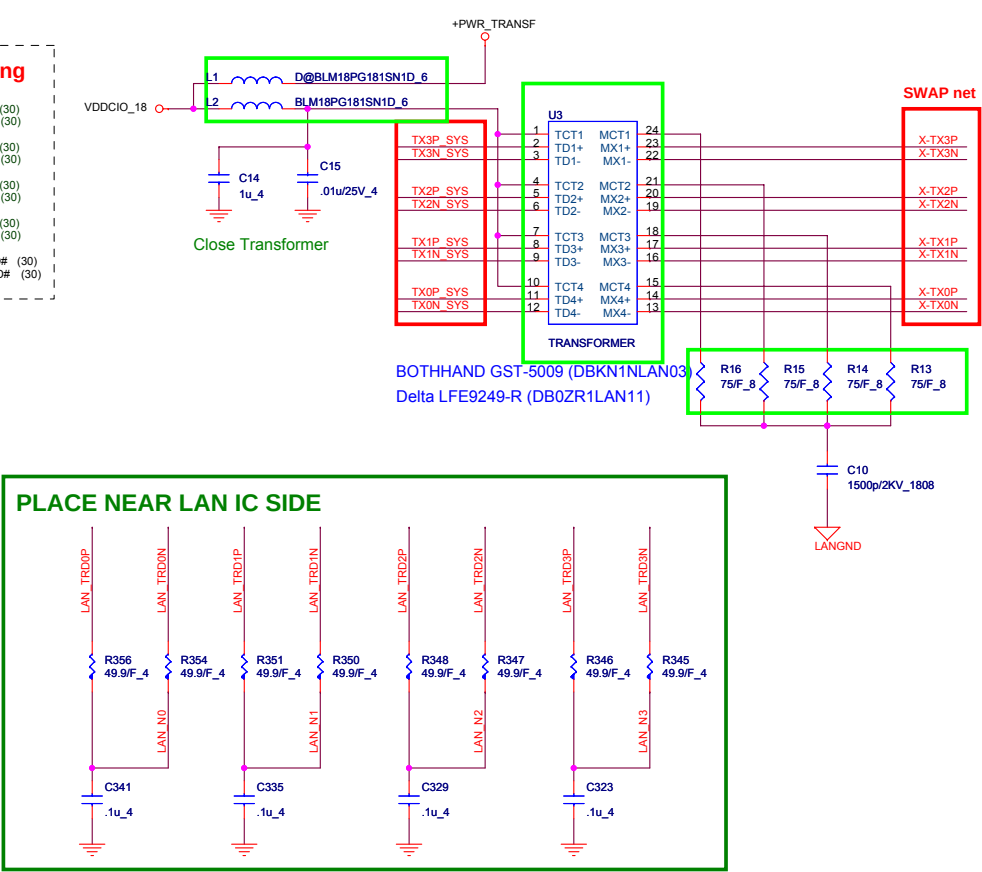


Quanta Computer Inc.
PROJECT : ZK2

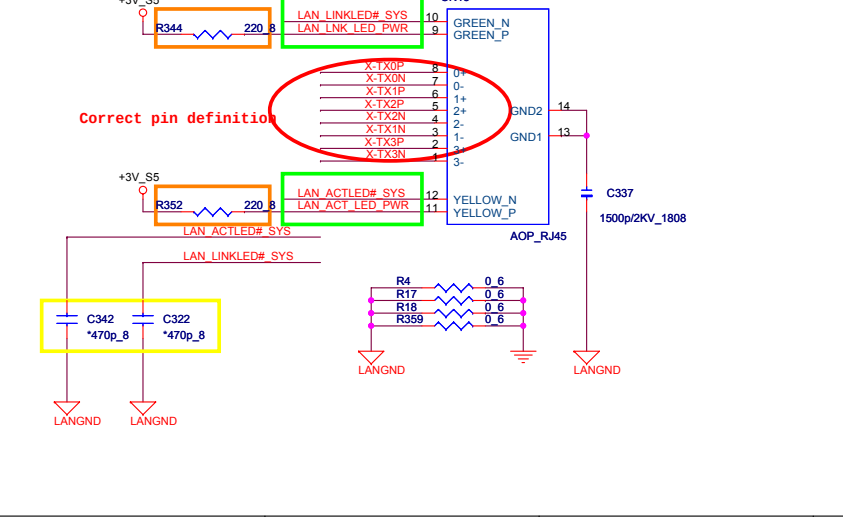
LAN SWITCH



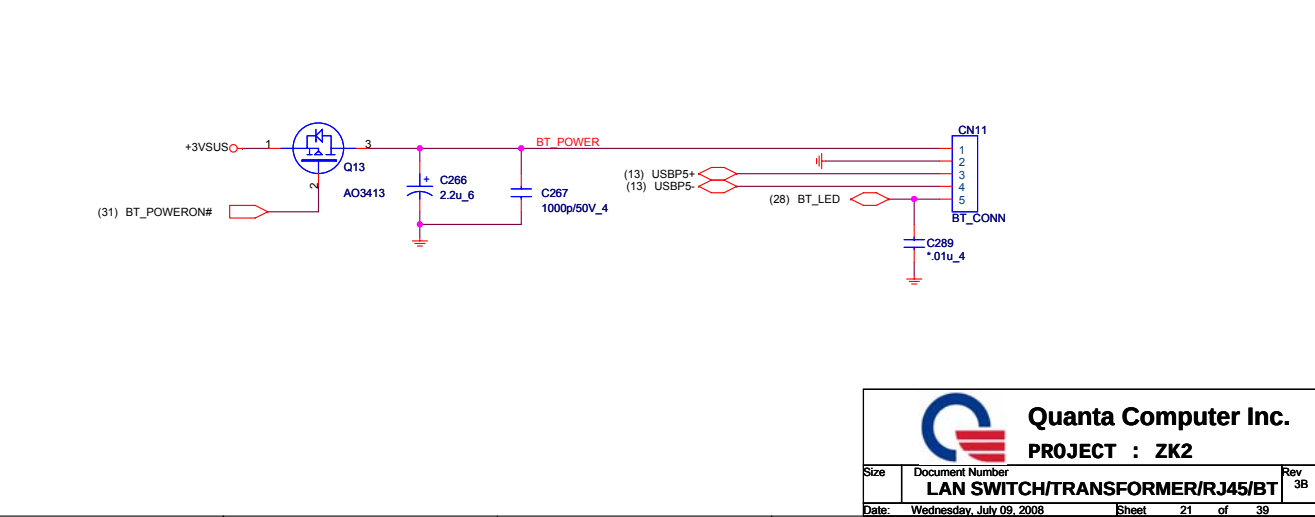
TRANSFORMER



RJ45

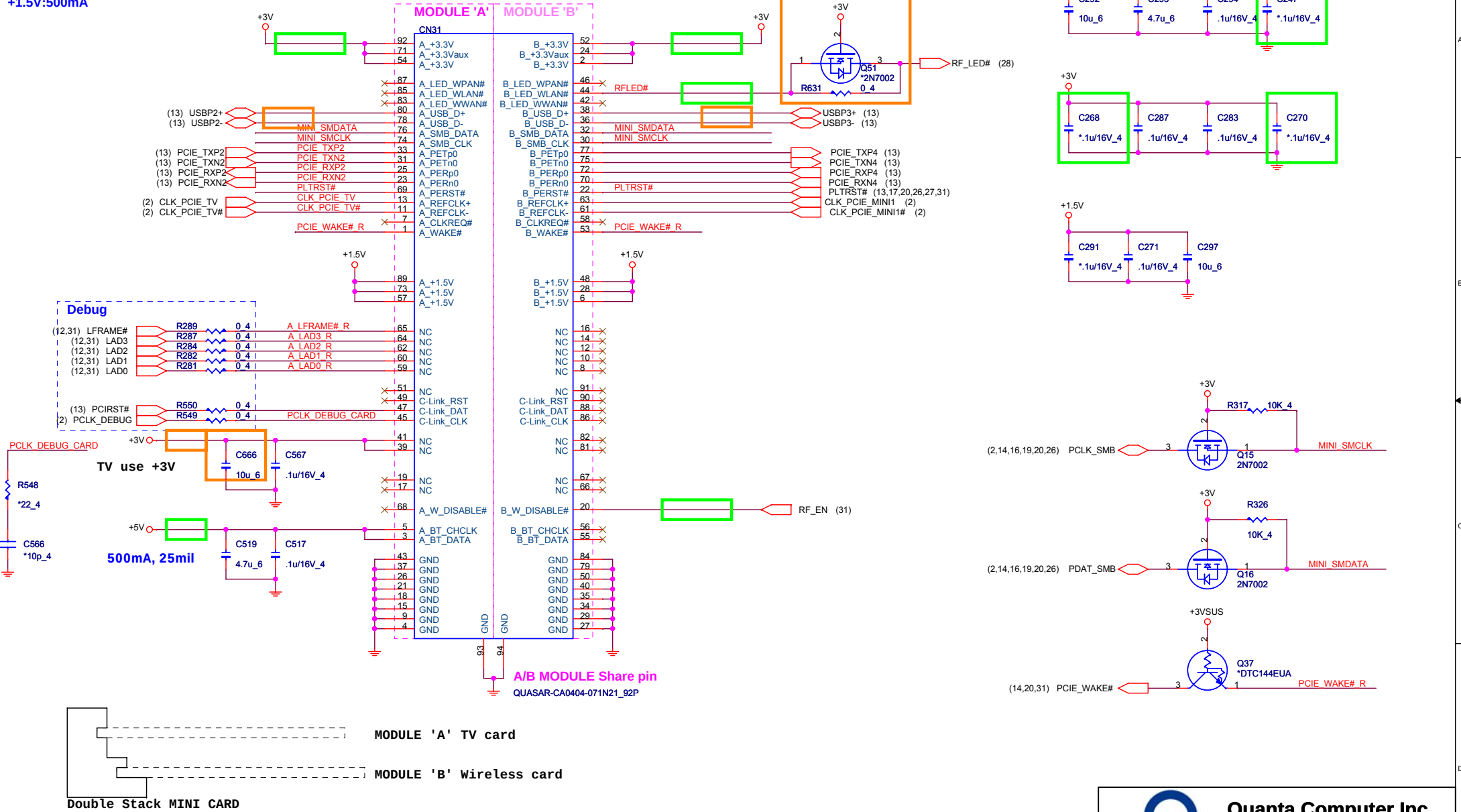


BLUETOOTH CONNECTOR



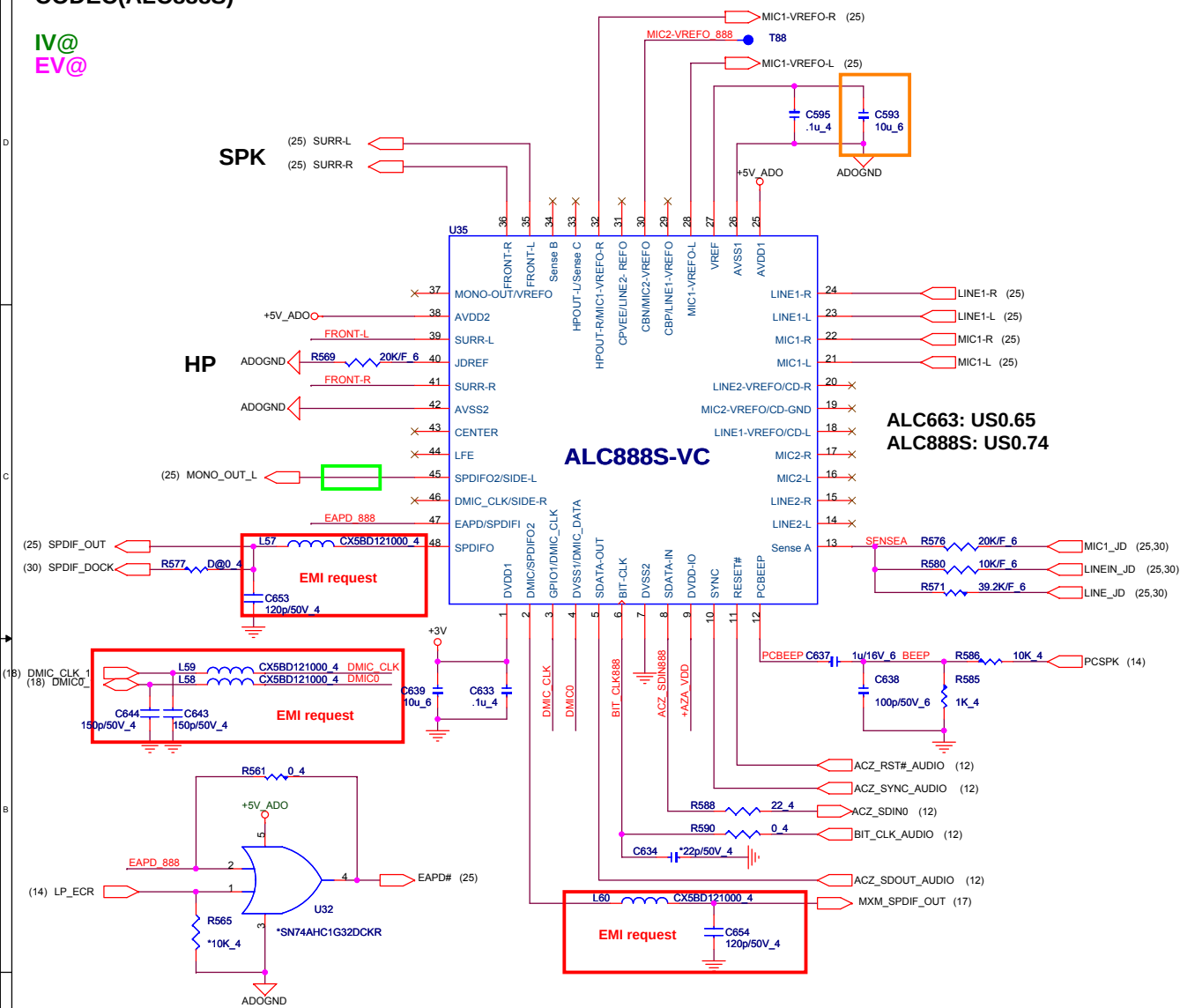
MINI-CARD

+3.3V: 1000mA
+3.3Vaux: 330mA
+1.5V: 500mA

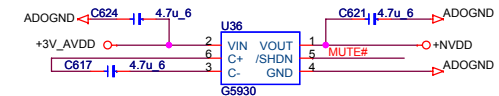
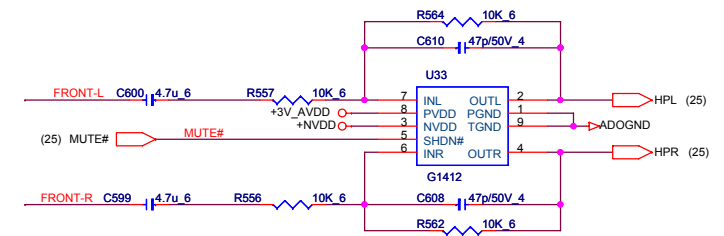


 Quanta Computer Inc. PROJECT : ZK2		Rev
		3B
Size	Document Number	MINI PCI-E card/TV
Date:	Friday, June 27, 2008	Sheet 22 of 39

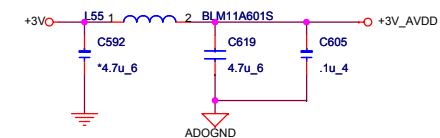
IV@
EV@



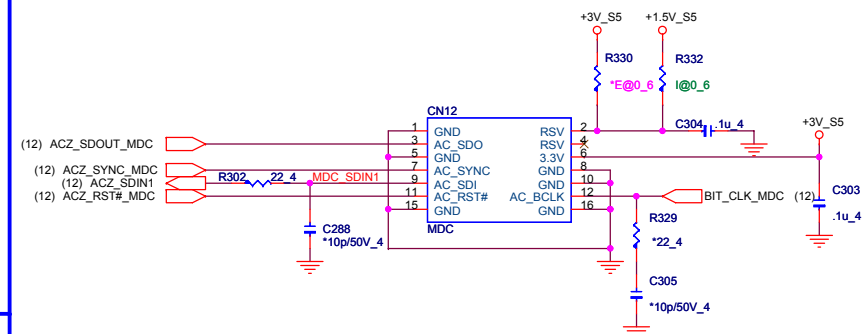
LINE-Out Amplifier



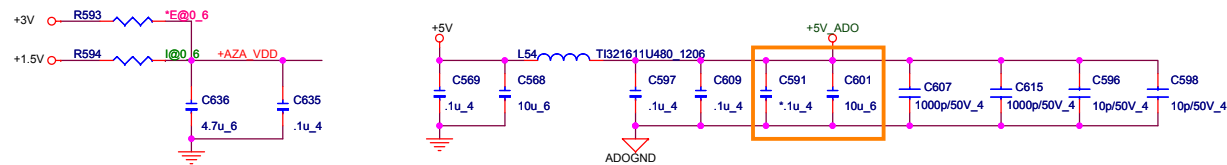
LINE-Out Amplifier Power



MDC



Codec Power



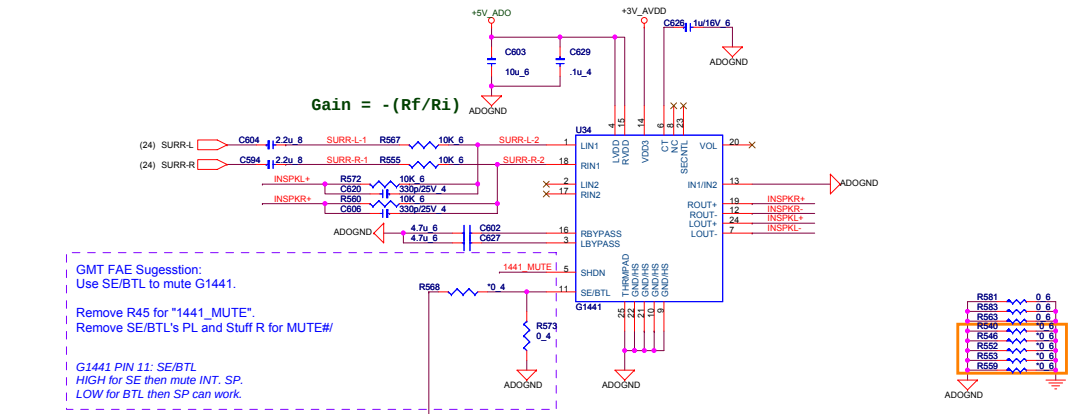
CODEC & MDC



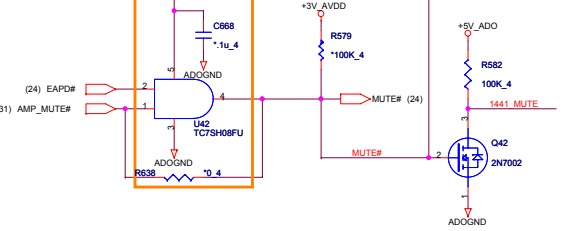
Quanta Computer Inc.
PROJECT : ZK2

Size	Document Number	Rev
	REALTEK ALC663&888/MDC	3B
Date:	Friday, June 27, 2008	Sheet 24 of 39

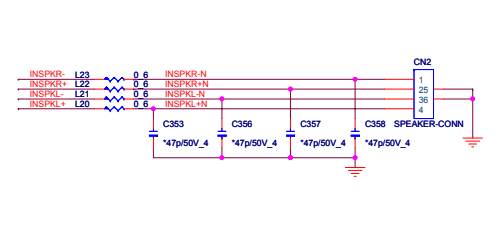
SPEAKER AMP.



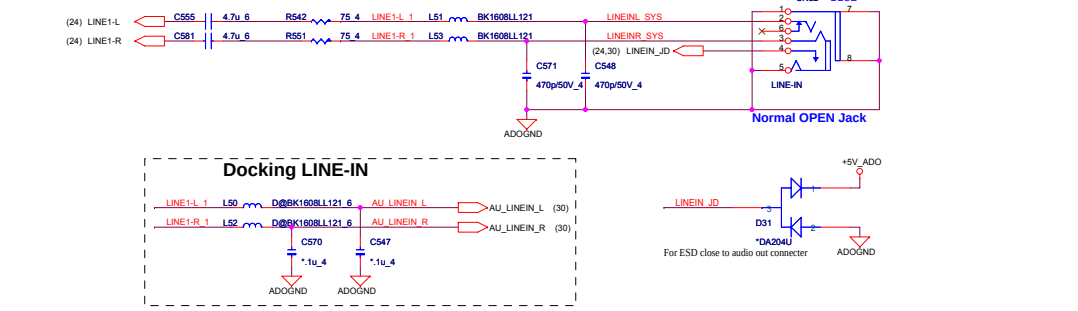
MUTE



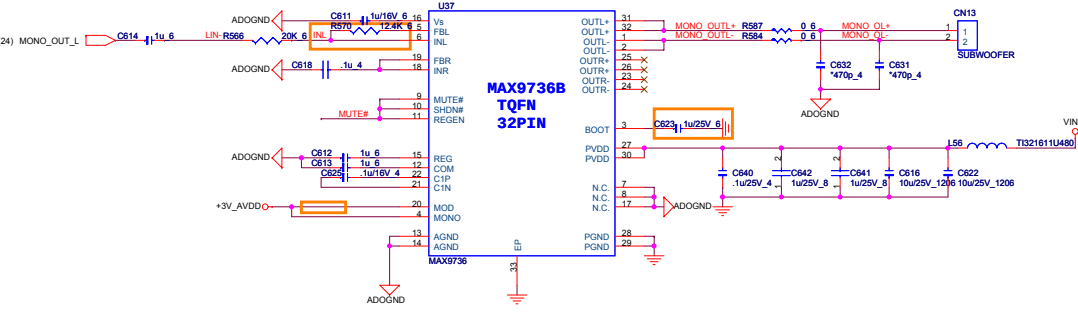
SPEAKER



LINE IN

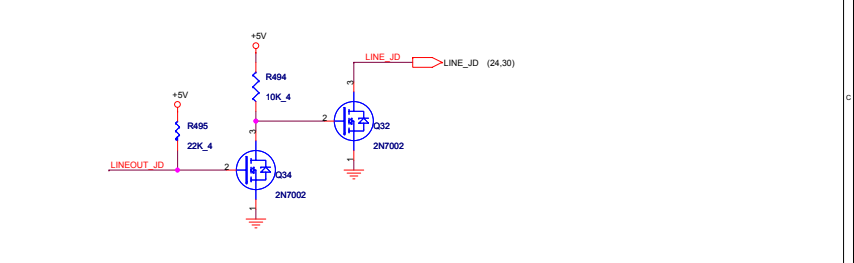
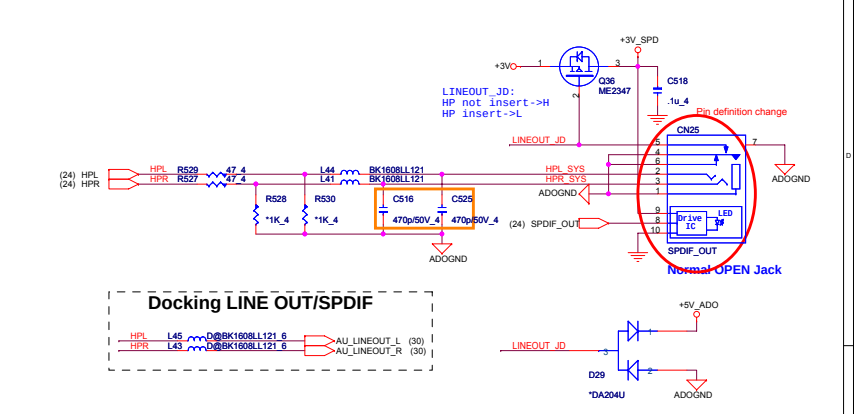


SUBWOOFER

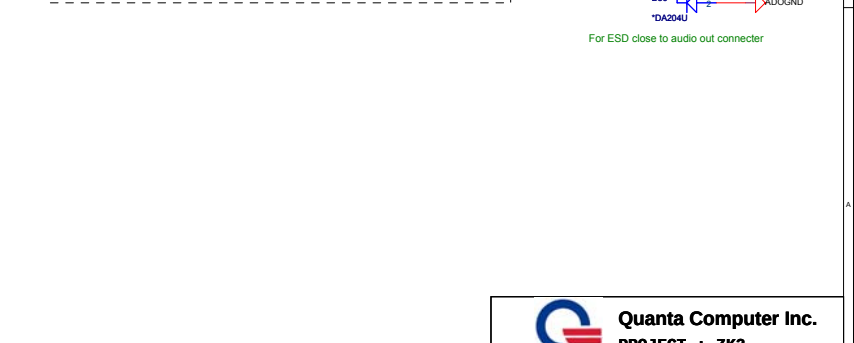
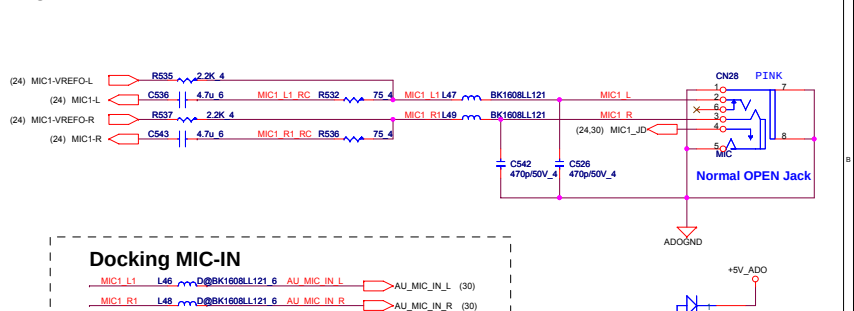


AMP & PHONE JACK & SUBWOOFER

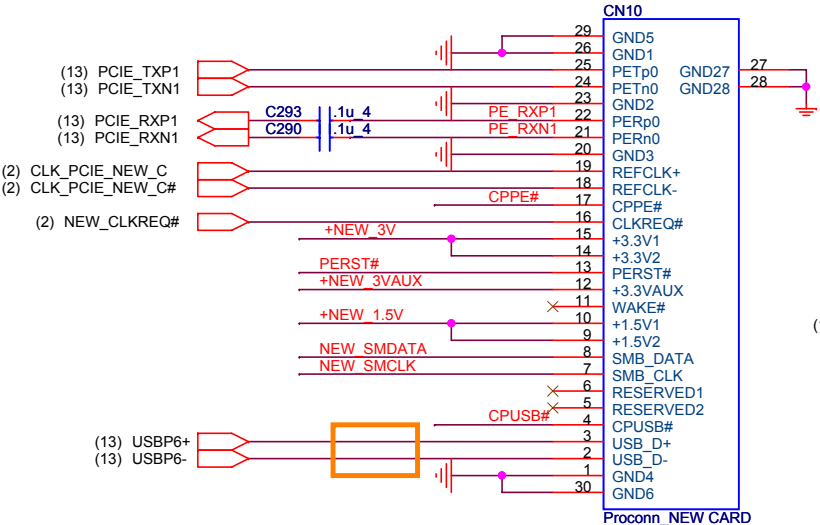
LINE-OUT/SPDIFO



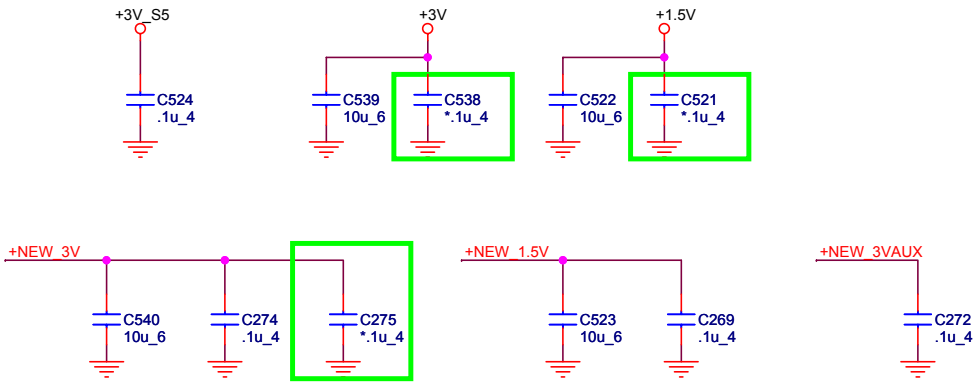
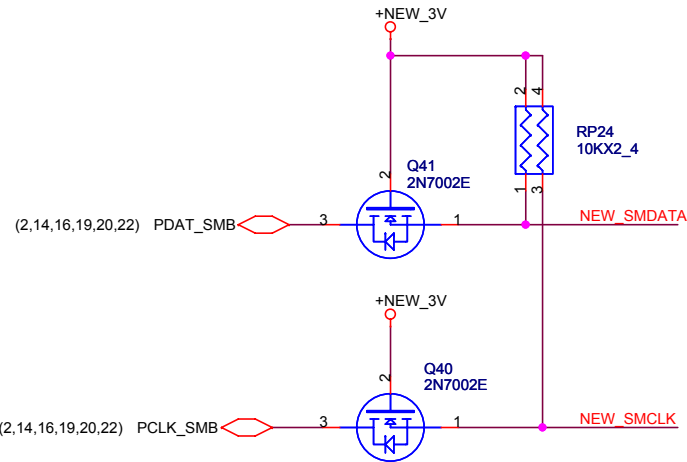
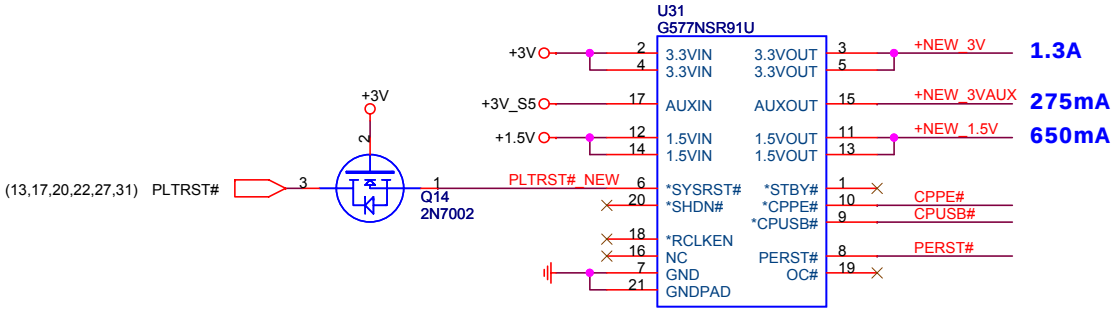
MIC



NEW CARD



NEW CARD'S POWER SWITCH
TI: AL002231000
GMT: AL000577002

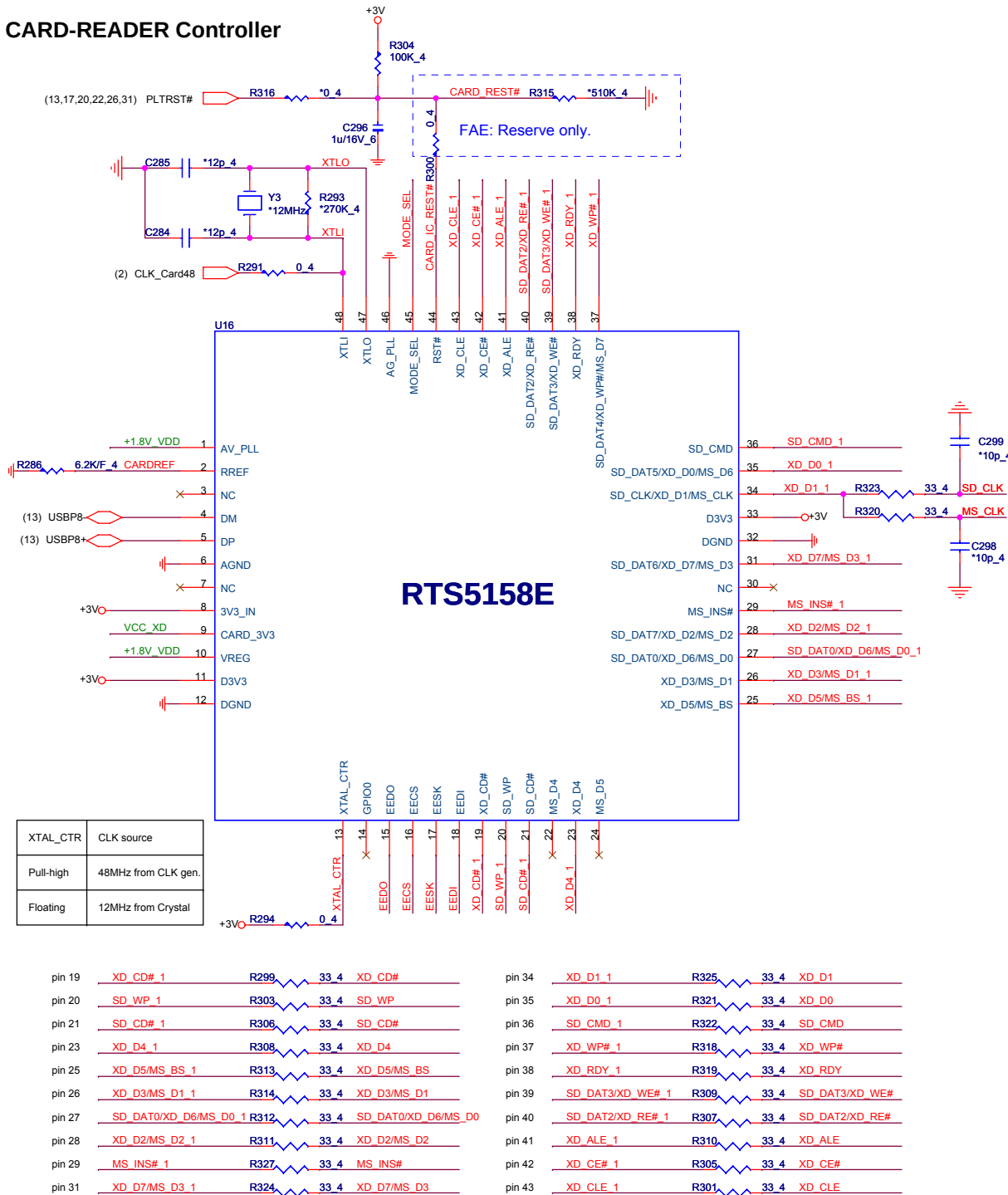




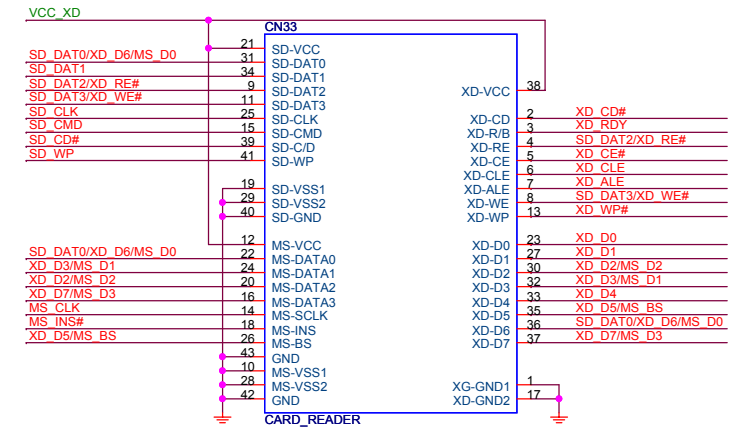
Quanta Computer Inc.
PROJECT : ZK2

Size	Document Number	Rev 3B
NEW CARD		
Date: Friday, June 27, 2008	Sheet 26 of 39	

CARD-READER Controller

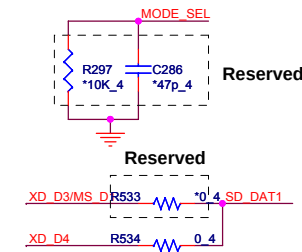


4 IN 1 CARD READER

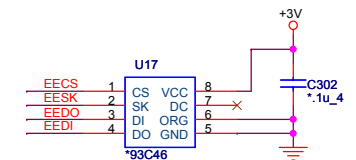


Model_Select

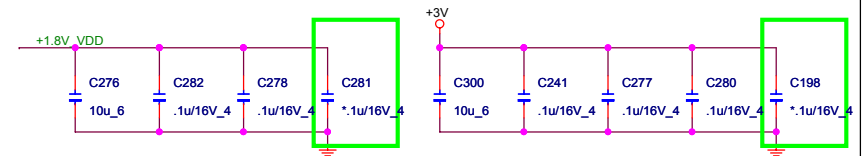
R6256/C860=NC/NC (R6258:ON)=> SD_D1 from pin23
R6256/C860=10K/47pF(R6257:ON)=>SD_D1 from pin26



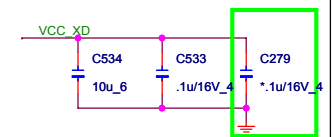
EEPROM(Reserved)



Decoupling CAP



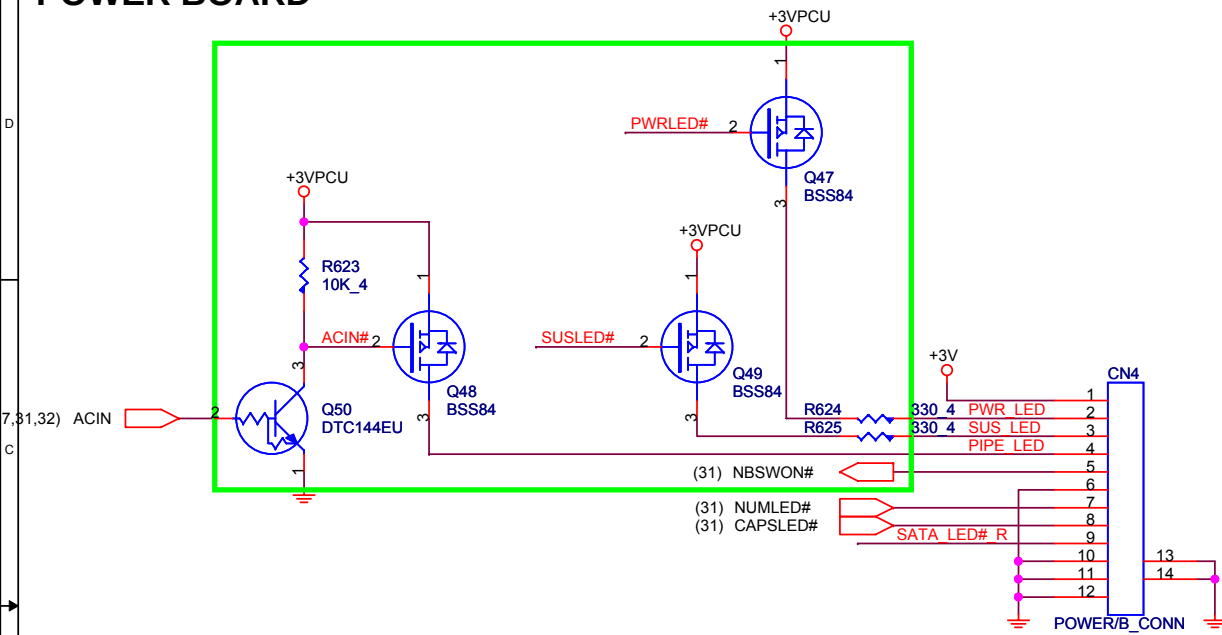
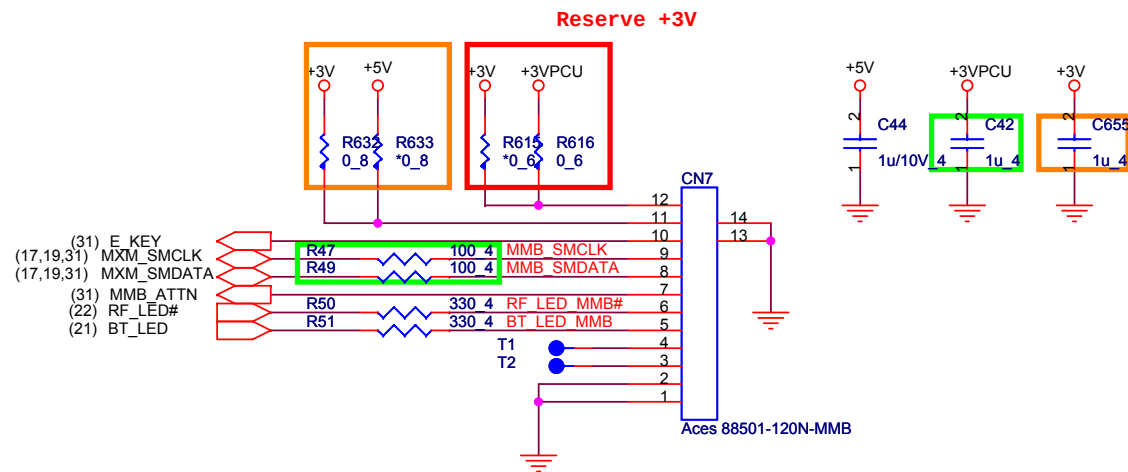
	SD/MMC	MS	XD
		XD CD#	
SP1			
SP2	SD WP		
SP3	SD CD#		
SP4		XD D4	
SP5		XD D5	MS B5
SP6		XD D3	MS D1
SP7	SD DAT0	XD D6	MS D0
SP8	SD DAT7	XD D2	MS D2
SP9			MS INS#
SP10	SD DAT6	XD D7	MS D3
SP11		XD D1	
SP12	SD DAT5	XD D0	MS D6
SP13	SD DAT4	XD WP#	MS D7
SP14		XD RDY	
SP15	SD DAT3	XD WE#	
SP16	SD DAT2	XD RE#	
SP17		XD ALE	
SP18		XD CE#	
SP19		XD CLE	
			MS D4
			MS D5



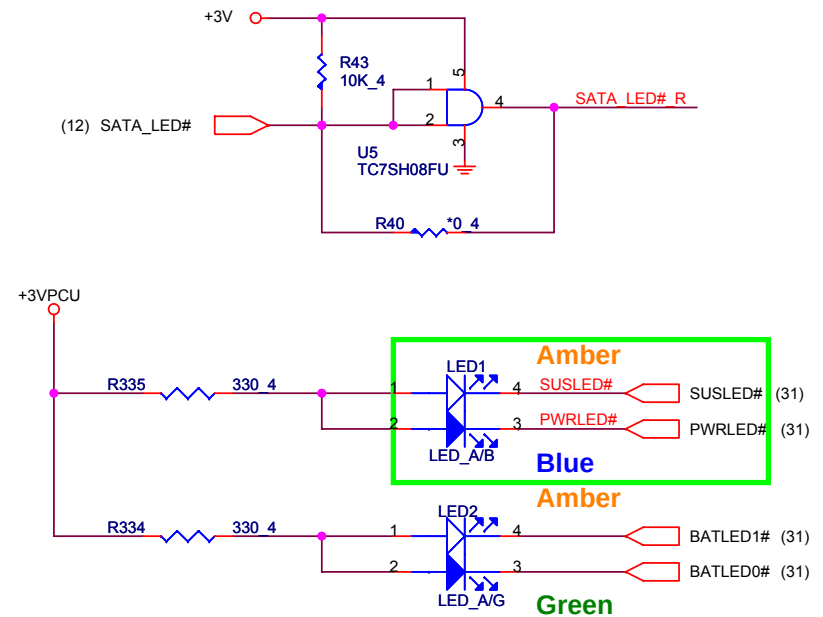
Quanta Computer Inc.
PROJECT : ZK2

CARD READER RTS5158E

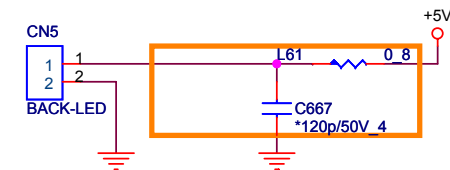
POWER BOARD

**MMB**

LED



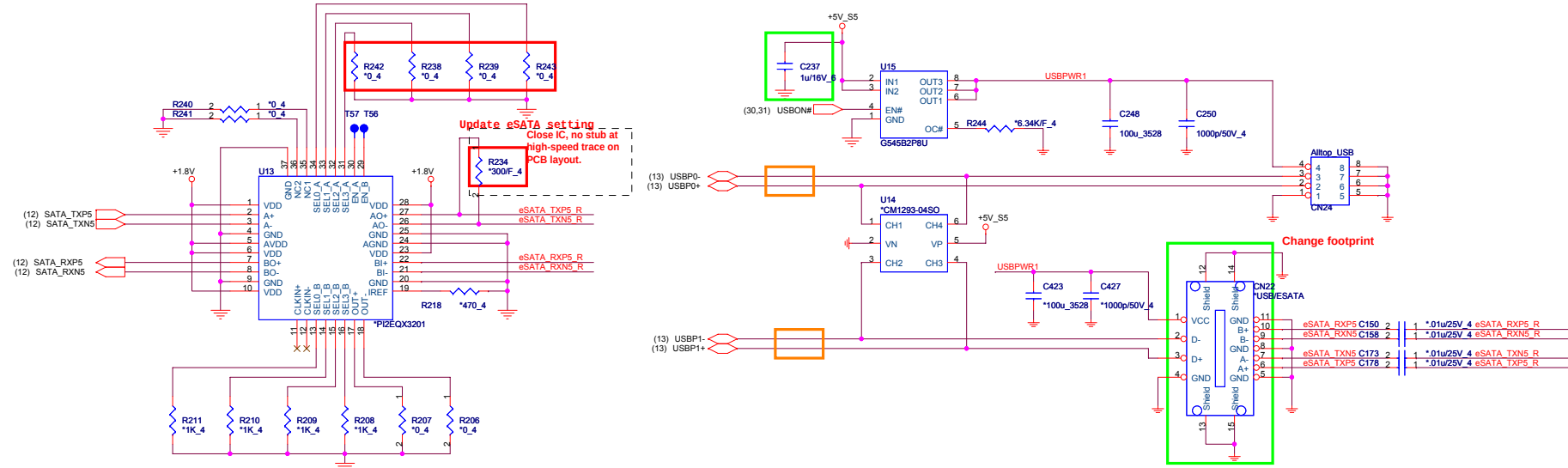
Backlight Logo LED



Quanta Computer Inc.
PROJECT : ZK2

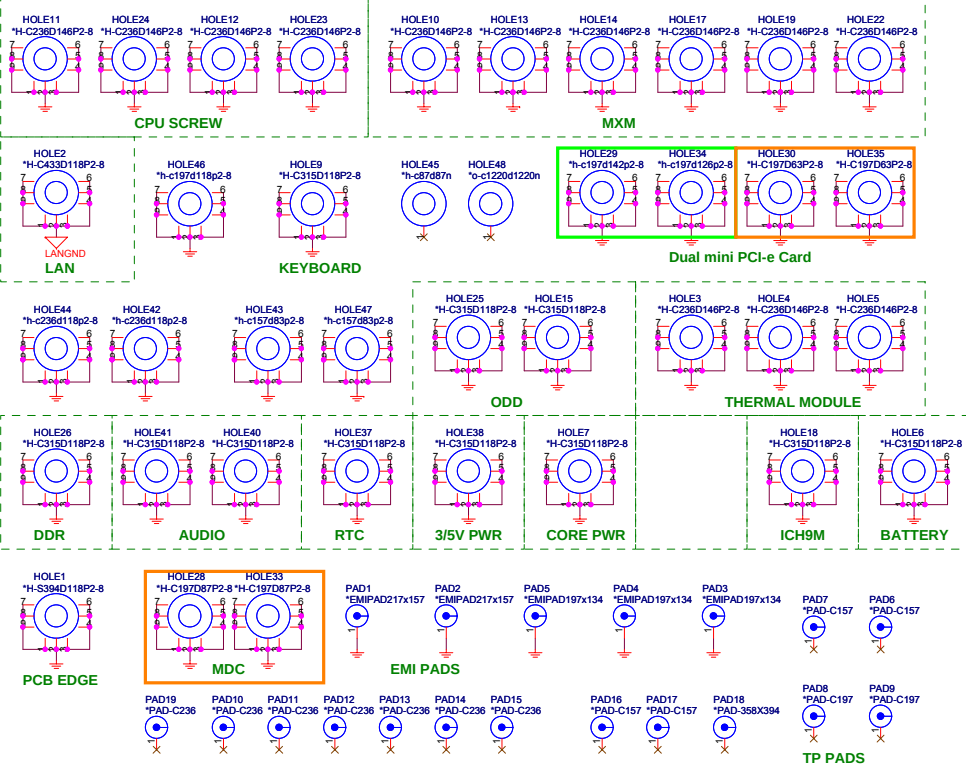
Size	Document Number	Rev
	POWER/MMB/LAUNCH/LED	3B
Date:	Friday, June 27, 2008	Sheet 28 of 39

USB & eSATA

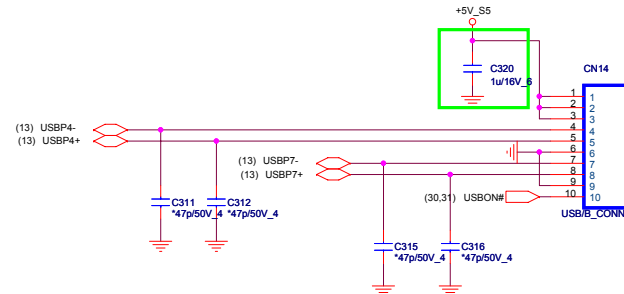


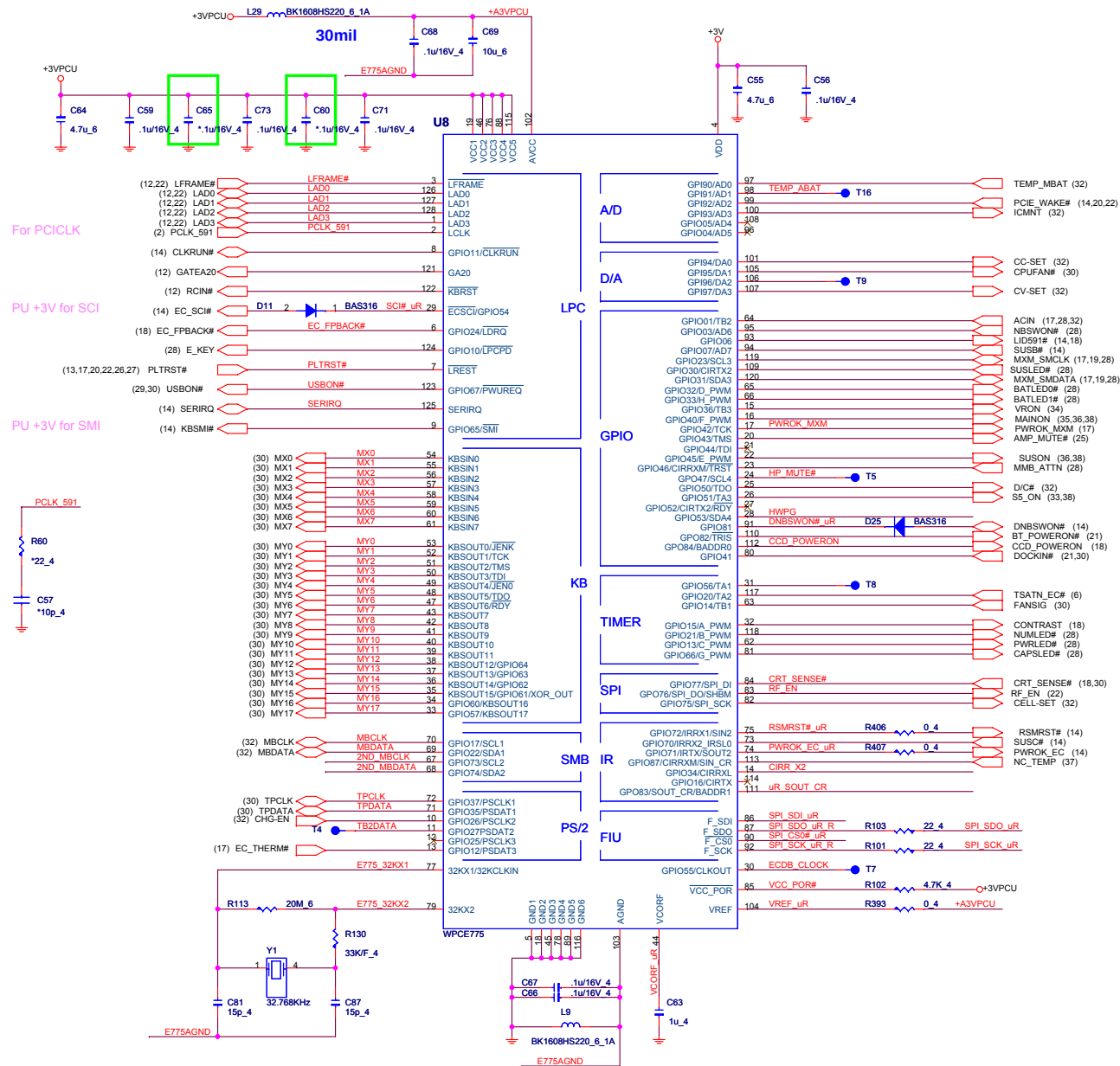
SEL0_X	SEL1_X	E _q	SEL2_X	Swing	SEL3_X	De-Emphasis
0	0	0dB	0	1.0X	0	0dB
0	1	2.5dB	1	1.2X	1	-3.5dB
1	0	4.5dB				
1	1	6.5dB				

HOLES



USB/B





I/O ADDRESS SETTING

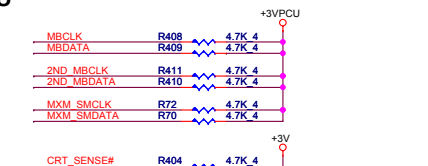
I/O Address	
BADDR1-0	Index Data
0 0	XOR TREE TEST MODE
0 1	CORE DEFINED
1 0	2Eh 2Fh
1 1	164Eh 164Fh

SHBM=0: Enable shared memory with host BIOS

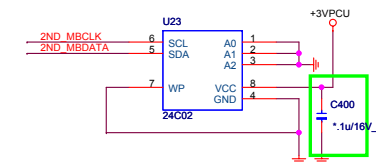
Pin	Signal	Resistor	Value
BADDR0	CCD_POWERON	R383	10K_4
BADDR1	uR_SOUT_CR	R387	*10K_4
SHBM	RF_EN	R405	10K_4

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

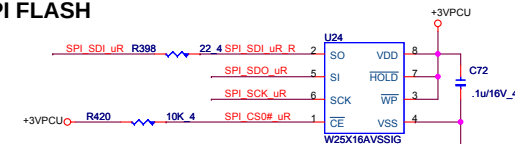
SM BUS PU



ACER ID

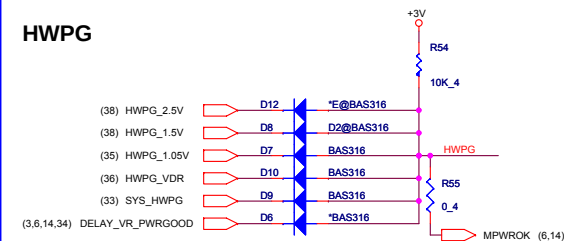


SPI FLASH

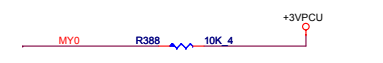


1/13 Confirm by vendor mail :
If the Southbridge enables 'Long Wait Abort' by default, the flash device should be 50MHz (or faster)

HWPG



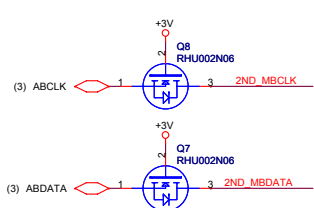
INTERNAL KEYBOARD STRIP SET



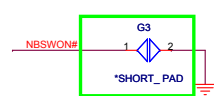
Quanta Computer Inc.
PROJECT : ZK2

Size	Document Number	Rev
	WPCE775C_0DG & FLASH	3E
Date:	Friday, June 27, 2008	Sheet 31 of 39

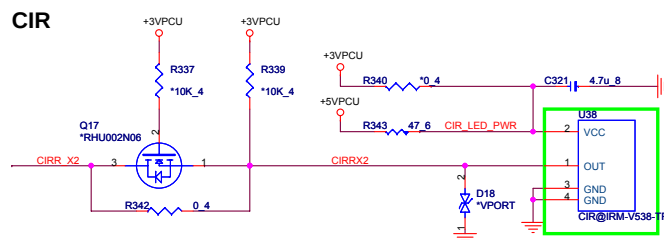
SMBus

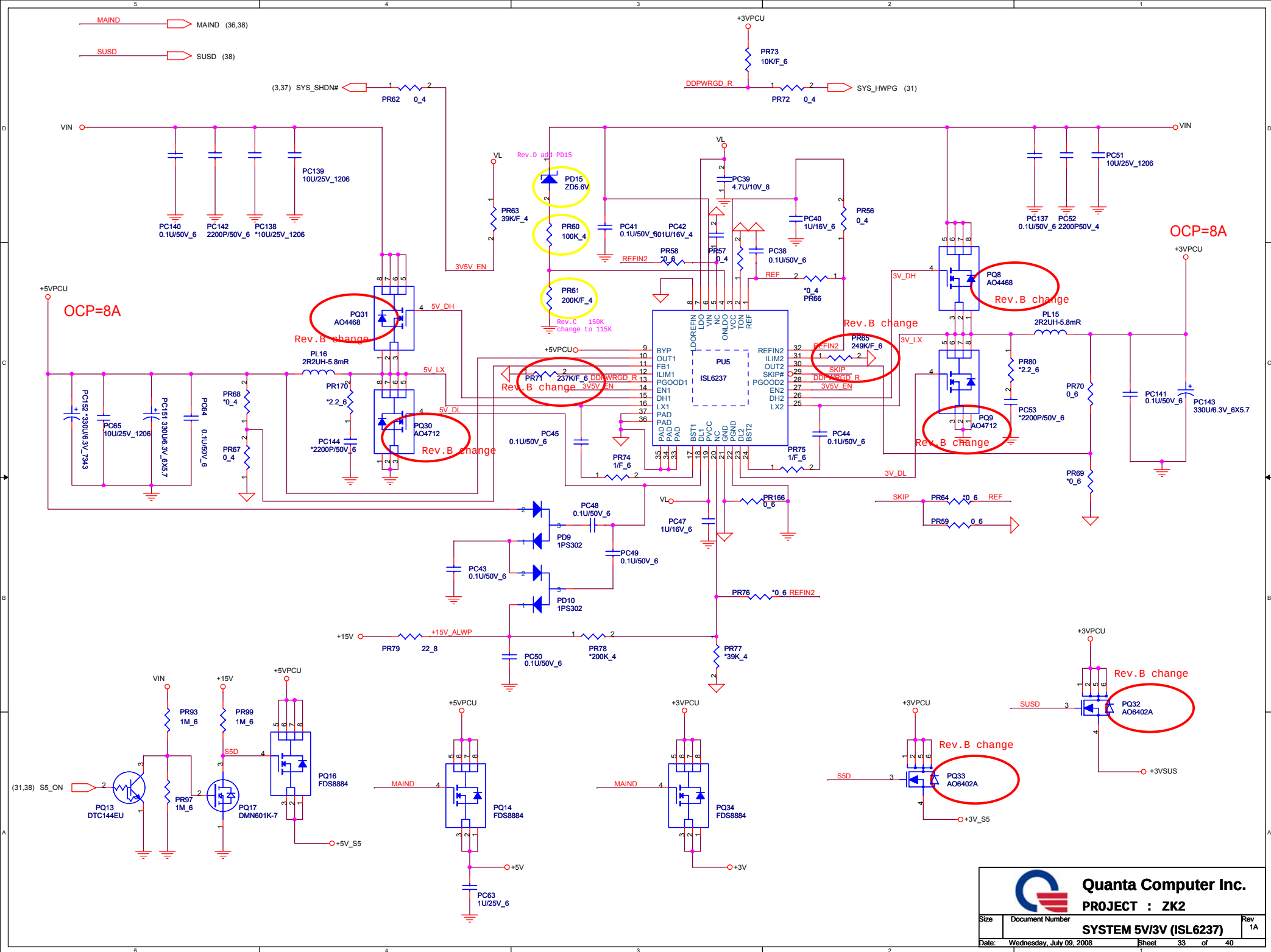


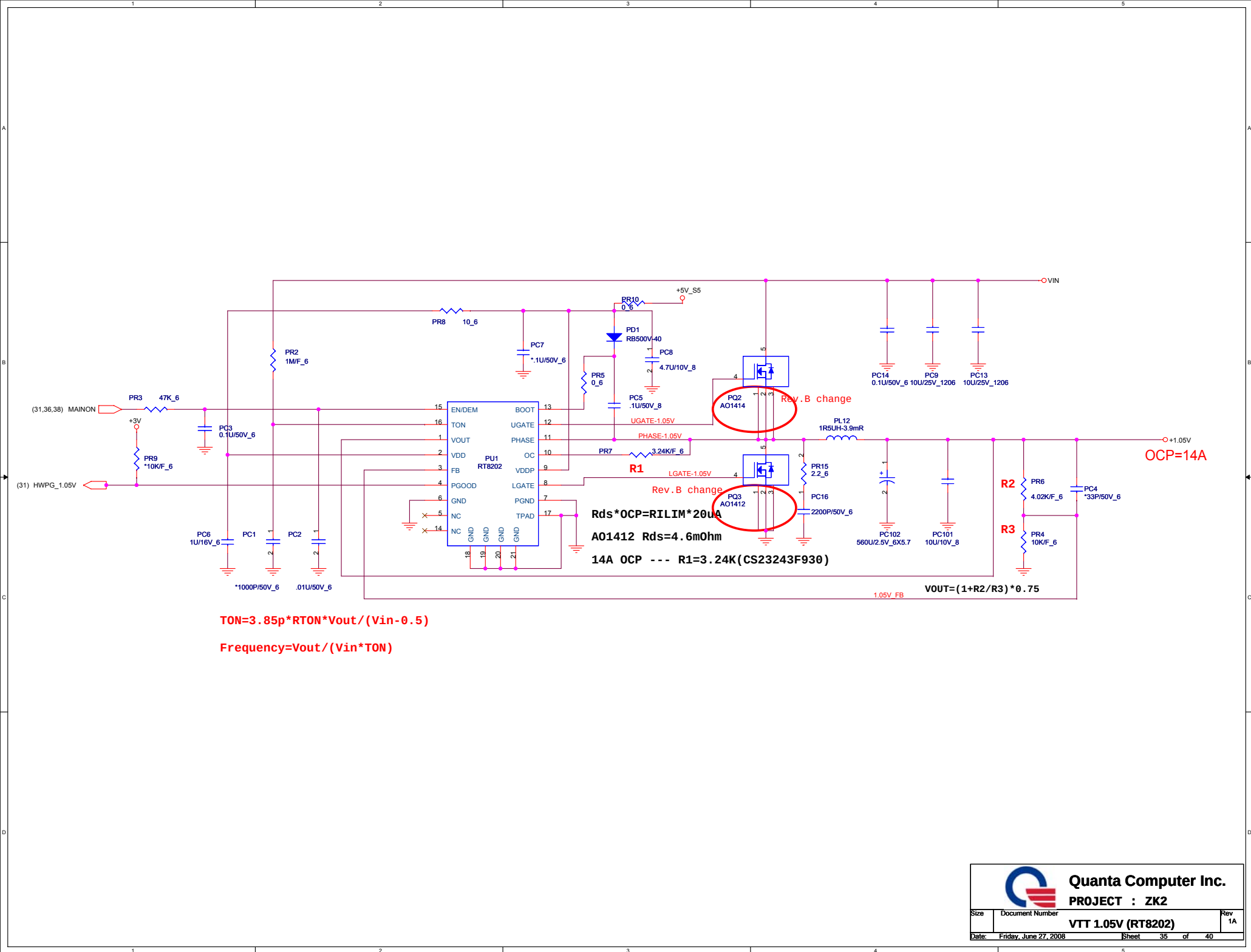
POWER-ON PAD

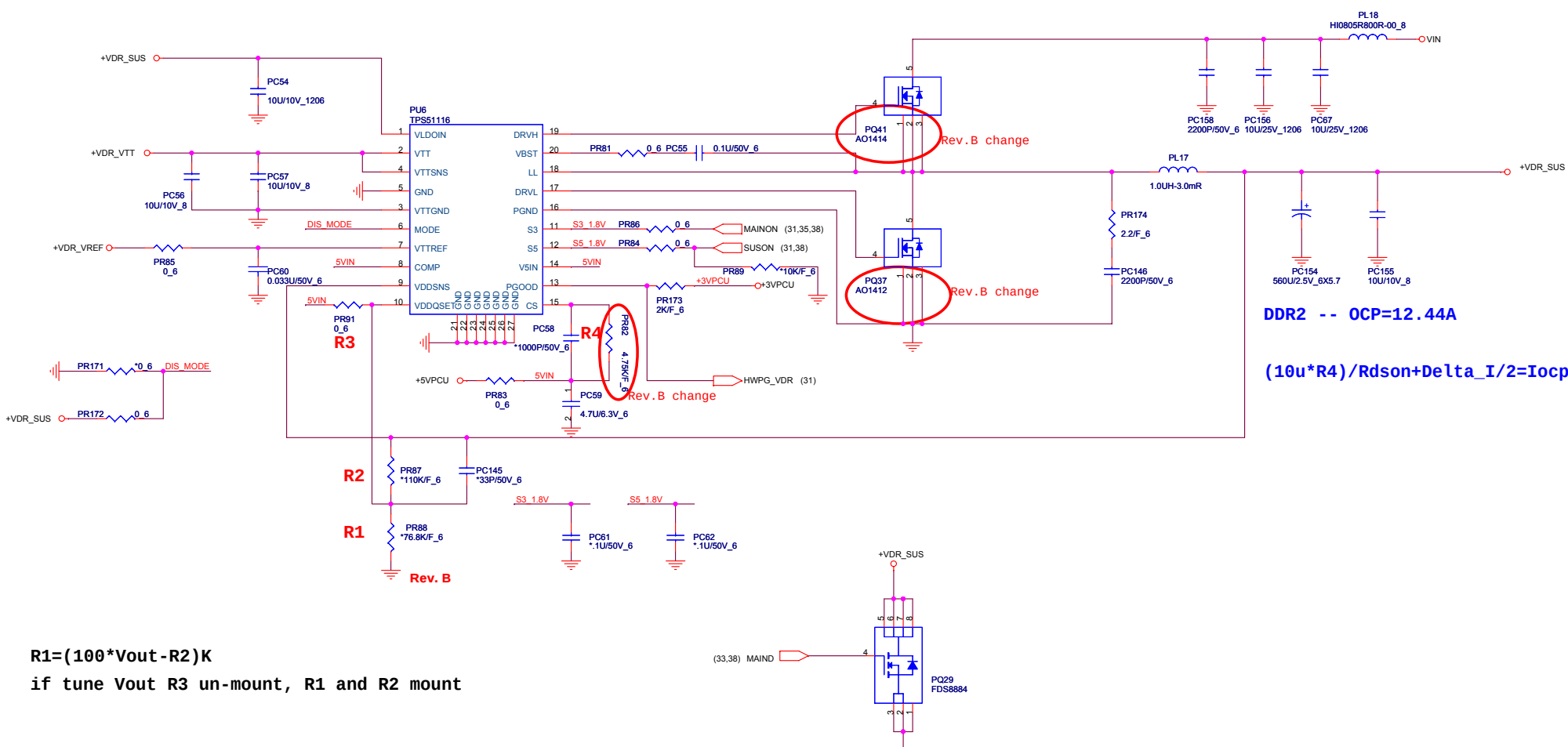


CIR





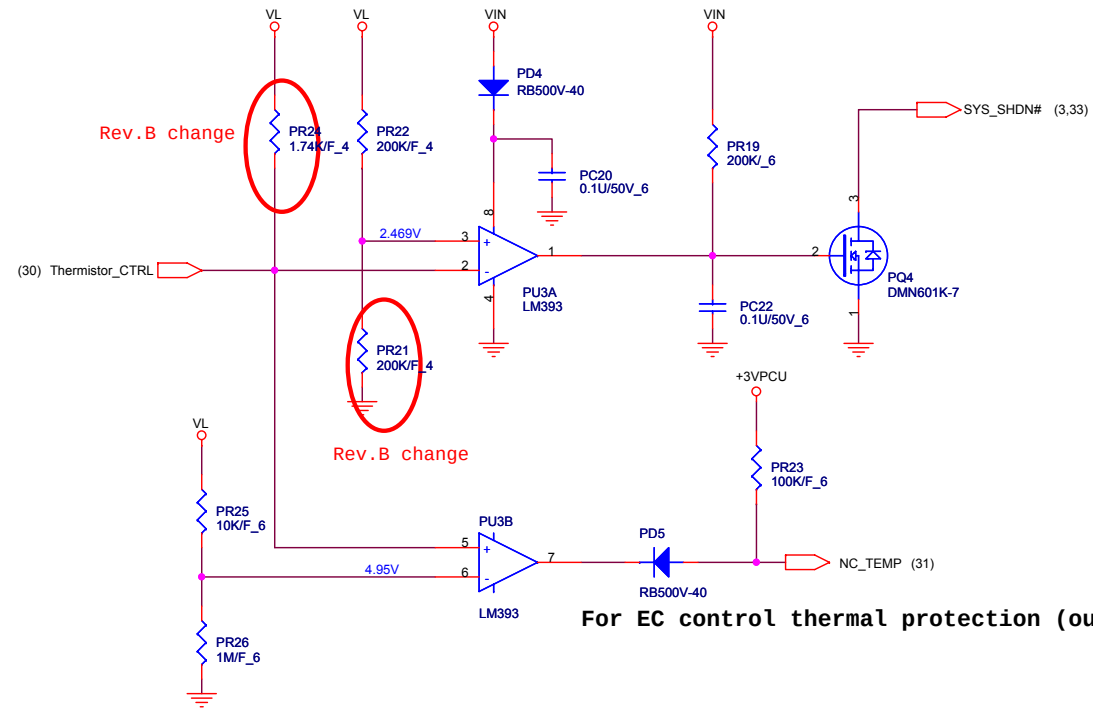




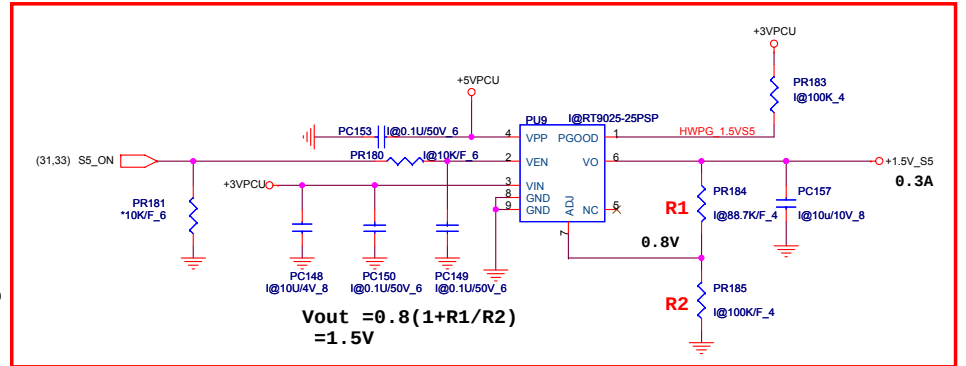
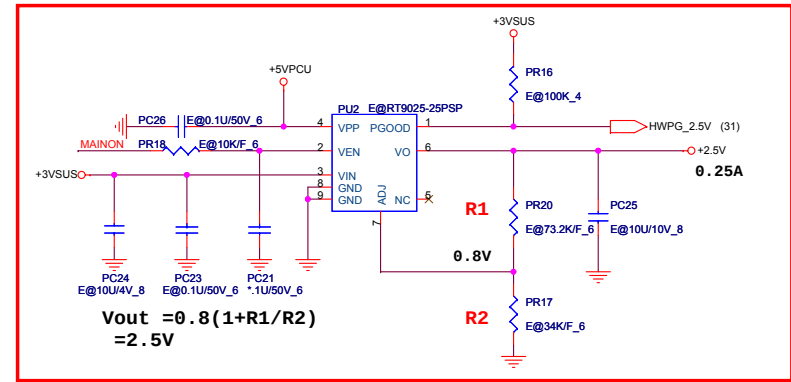
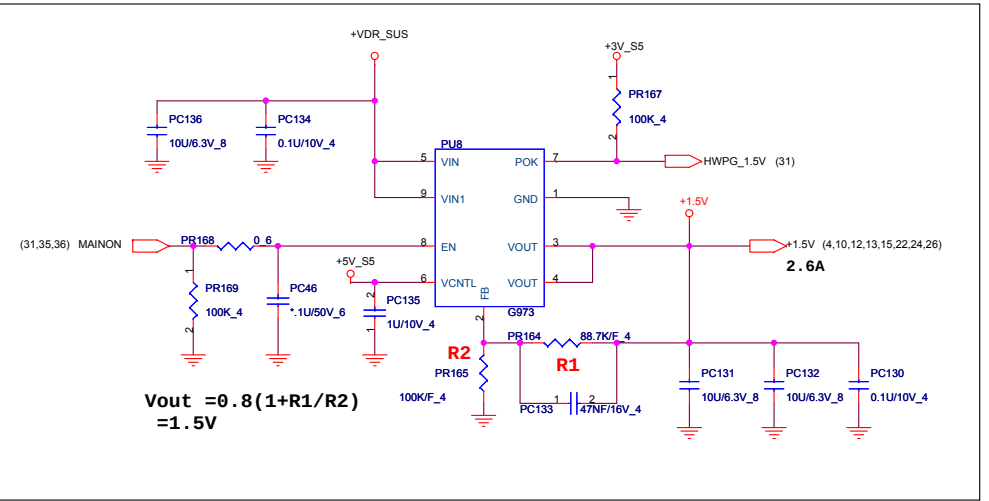
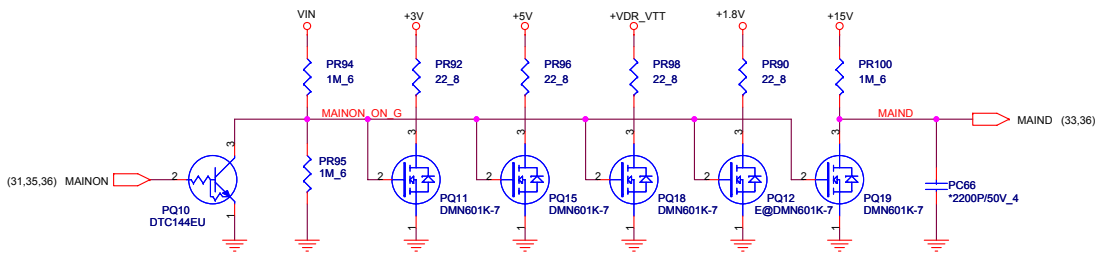
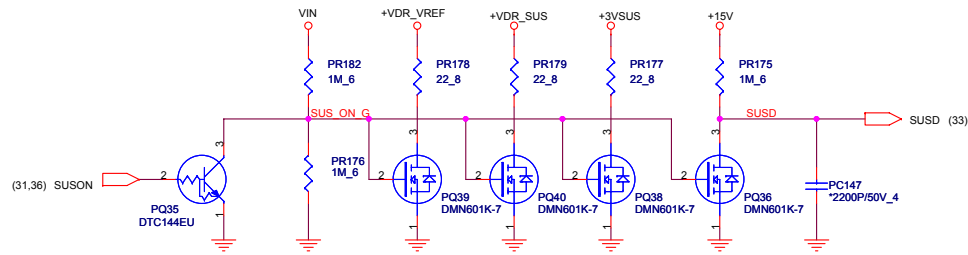
DDR2 -- OCP=12.44A

$(10u * R4) / R_{dson} + \Delta I / 2 = I_{ocp}$

thermal protection



For EC control thermal protection (output 3.3V)



Model	REV	CHANGE LIST	MODEL	ZK2	
ZK2 MB	1A	FIRST RELEASED: E200803-5424 (PCB: DA0ZK2MB6A0)		FROM	To
				X	1A
				X	1A
				1A	2A
				1A	2A
				1A	2A
				1A	2A
				1A	2A
				1A	2A
				1A	2A
2A		Page10 : Correct LVDS power of Northbridge to +VDD_SUS Change 357kOhm (v2) to normal type (M1.5) Change LCD battery connector type (R313) to DFWD02MB311 Swap SATA port between port-4 (00d) and port-4 (2ND HDD) Page17 : Change LCD power input capacitor (C27) to 2.2uF Page18 : Change array resistor (RP1) to two resistors (R617/R618) for EMI Page19 : Change all HDMI switch solution to Parade (PS3122), and connector type to QFP type Page20 : Correct LAN LED (R550) for 6 pins to improve performance and signal quality Page21 : Correct X-tal capacitor (C361/C362) to 33pF for 25MHz Page22 : Change L22 to 0ohm resistor Page23 : Add two 0.1uF return-path capacitor (C660/C661) for HDMI switch Page24 : Change L66 to 100uF for SPDIF and DMIC EMI issue Page25 : Correct SWP (C663) pin definition Page26 : Change power/B power source to +3V only Page27 : Reserve +3V power source for M/E function Page29 : Modify eSATA controller (U13) swing/EQ/de-emphasis setting for signal quality, and correct eSATA connector type Page29 : Move USB power switch to USB2 Page29 : Change finger-printer power source to +3VSUS		1A	2A
		Power change items		1A	2A
		Page32 : [PMS3] 6.1kOhm (CS26103F020) for MXM (00W ADP) 71.5kOhm (CS37133F017) for UMA (00W ADP)		1A	2A
		Page33 : 1. Change PQ31/PQ8 from FDS8878 (BAM88780020) to A04468 (BAM44680003) 2. Change PQ30/PQ9 from FDS6600AS (BAM66000022) to A04712 (BAM47120000) 3. Change PQ32/PQ33 from FDC655 (BAMS300203) to A06402A (BAM64020000) 4. Change PR61 from 150K/F.4 (CS41502F018) to 150K/K.4 (CS41502J010) 5. Change PR71 from 178K/F.6 (CS41783F018) to 237K/F.6 (CS42373F011) 6. Change PR85 from 196K/F.6 (CS41963F016) to 249K/F.6 (CS42493F014)		1A	2A
		Page34 : 1. Change PQ27/PQ22 from TPCA8023-H (BAM80230000) to A01414 (BAM14140001) 2. Change PQ28/PQ23 from TPCA8019-H (BAM80190000) to A01412 (BAM14120000) 3. Change PC111 from 0.0220/50V.5 (CH3226K1901) to 0.0330/50V.6 (CH3336J1900) Page35 : 1. Change PQ2 from TPCA8023-H (BAM80230000) to A01414 (BAM14140001) 2. Change PQ3 from TPCA8019-H (BAM80190000) to A01412 (BAM14120000) Page36 : 1. Change PQ41 from TPCA8023-H (BAM80230000) to A01414 (BAM14140001) 2. Change PQ37 from TPCA8019-H (BAM80190000) to A01412 (BAM14120000) 3. Change PR82 from 5.62K/F.6 (CS2623F014) to 4.75K/F.6 (CS24753F018) Page37 : 1. Change PR21 from 106K/F.4 (CS41062F001) to 200K/F.4 (CS42002F012) 2. Change PR24 from 1.43K/F.4 (CS21432F000) to 1.74K/F.4 (CS21742F000)		1A	2A
				2A	3A
		Page2 : no mount 0.1uF (C475/C492/C471) Page10 : remove 0 ohm (R188/R190/R402/R193), and connect them directly Page12 : remove 0 ohm (R408/R240/R487), and connect them directly Swap Main HDD to port-0, and 2nd HDD to port-4 Page13 : remove 0 ohm (R193), and connect them directly Swap USB port2 to external USB, and port-7 to Cardreader Page14 : remove 0 ohm (R186/R185/R466/R235/R506), and connect them directly. no mount 0.1uF (C170/C448) Page16 : Reserve 0 ohm (R628) from MXM to EC (EC.THERM#) no mount 0.1uF (C489) Page18 : no mount Q21/Q24 and bypass from 0ohm (R378/R381), pull-up 2K ohm to +3V for MXM sku Change L677/8 to BLM188A4705N10 Change U4 to AL004280001 (AAT4280-4) part Remove 0 ohm (R22), and connect directly Change CN3 to DFWF40MR000 for SMT request Page19 : Change R42 from 330 ohm to 180 ohm (CS11802J015) Use 10u ohm (R519/R620/R621/R622) and 1uF (C650) /C657/C658/C650) for HDMI EMI request Reserve C662/Q43/Q44/R119/R126, and bypass 0ohm (R627/R628) Page20 : remove 0ohm (R6/R9/R357) and connect directly Page21 : Change L1/L2 (BLM188A4705N10) to increase current rating Change transformer to GST-5009 Change R13-R16 from 75ohm 0402 to 0805 size no mount 0.1uF (C656) Swap LAN LED color connect (green: linking/orange:active) Page22 : Remove R296/R292/R328/L42/R298 and connect directly no mount 0.1uF (C247/C270/C268) Page23 : Change main (CN27) and 2nd (CN30) HDD footprint for M/E request no mount 0.1uF (CS52/CS35/C260/C261/C440/C441) Change 0.1uF to 0.33uF (C630/C347/C317/C46/C661/C663/C313/C314/C556/C373/C451/C100) Page24 : remove 0ohm (R674) and connect directly Page25 : no mount 0.1uF (C281/C188/C278) Page26 : Add AC-IN LED-on function (Q40/Q50) Page28 : Add PWMLED/SUSLED function on Power/B (Q47/Q49/R624/R625) Change R47/R49 from 0ohm to 100ohm for synaptic MMB Page29 : Change L53/L500/R68/R609/R610/R611/R612/R613/R614/R615/R616/R617/R618/R619/R620/R621/R622/R623/R624/R625/R626/R627/R628/R629/R630/R631/R632/R633/R634/R635/R636/R637/R638/R639/R640/R641/R642/R643/R644/R645/R646/R647/R648/R649/R650/R651/R652/R653/R654/R655/R656/R657/R658/R659/R660/R661/R662/R663/R664/R665/R666/R667/R668/R669/R670/R671/R672/R673/R674/R675/R676/R677/R678/R679/R680/R681/R682/R683/R684/R685/R686/R687/R688/R689/R690/R691/R692/R693/R694/R695/R696/R697/R698/R699/R700/R701/R702/R703/R704/R705/R706/R707/R708/R709/R710/R711/R712/R713/R714/R715/R716/R717/R718/R719/R720/R721/R722/R723/R724/R725/R726/R727/R728/R729/R730/R731/R732/R733/R734/R735/R736/R737/R738/R739/R740/R741/R742/R743/R744/R745/R746/R747/R748/R749/R750/R751/R752/R753/R754/R755/R756/R757/R758/R759/R760/R761/R762/R763/R764/R765/R766/R767/R768/R769/R770/R771/R772/R773/R774/R775/R776/R777/R778/R779/R780/R781/R782/R783/R784/R785/R786/R787/R788/R789/R790/R791/R792/R793/R794/R795/R796/R797/R798/R799/R800/R801/R802/R803/R804/R805/R806/R807/R808/R809/R810/R811/R812/R813/R814/R815/R816/R817/R818/R819/R820/R821/R822/R823/R824/R825/R826/R827/R828/R829/R830/R831/R832/R833/R834/R835/R836/R837/R838/R839/R840/R841/R842/R843/R844/R845/R846/R847/R848/R849/R850/R851/R852/R853/R854/R855/R856/R857/R858/R859/R860/R861/R862/R863/R864/R865/R866/R867/R868/R869/R870/R871/R872/R873/R874/R875/R876/R877/R878/R879/R880/R881/R882/R883/R884/R885/R886/R887/R888/R889/R890/R891/R892/R893/R894/R895/R896/R897/R898/R899/R900/R901/R902/R903/R904/R905/R906/R907/R908/R909/R910/R911/R912/R913/R914/R915/R916/R917/R918/R919/R920/R921/R922/R923/R924/R925/R926/R927/R928/R929/R930/R931/R932/R933/R934/R935/R936/R937/R938/R939/R940/R941/R942/R943/R944/R945/R946/R947/R948/R949/R950/R951/R952/R953/R954/R955/R956/R957/R958/R959/R960/R961/R962/R963/R964/R965/R966/R967/R968/R969/R970/R971/R972/R973/R974/R975/R976/R977/R978/R979/R980/R981/R982/R983/R984/R985/R986/R987/R988/R989/R990/R991/R992/R993/R994/R995/R996/R997/R998/R999/R1000/R1001/R1002/R1003/R1004/R1005/R1006/R1007/R1008/R1009/R1010/R1011/R1012/R1013/R1014/R1015/R1016/R1017/R1018/R1019/R1020/R1021/R1022/R1023/R1024/R1025/R1026/R1027/R1028/R1029/R1030/R1031/R1032/R1033/R1034/R1035/R1036/R1037/R1038/R1039/R1040/R1041/R1042/R1043/R1044/R1045/R1046/R1047/R1048/R1049/R1050/R1051/R1052/R1053/R1054/R1055/R1056/R1057/R1058/R1059/R1060/R1061/R1062/R1063/R1064/R1065/R1066/R1067/R1068/R1069/R1070/R1071/R1072/R1073/R1074/R1075/R1076/R1077/R1078/R1079/R1080/R1081/R1082/R1083/R1084/R1085/R1086/R1087/R1088/R1089/R1090/R1091/R1092/R1093/R1094/R1095/R1096/R1097/R1098/R1099/R1100/R1101/R1102/R1103/R1104/R1105/R1106/R1107/R1108/R1109/R1110/R1111/R1112/R1113/R1114/R1115/R1116/R1117/R1118/R1119/R1120/R1121/R1122/R1123/R1124/R1125/R1126/R1127/R1128/R1129/R1130/R1131/R1132/R1133/R1134/R1135/R1136/R1137/R1138/R1139/R1140/R1141/R1142/R1143/R1144/R1145/R1146/R1147/R1148/R1149/R1150/R1151/R1152/R1153/R1154/R1155/R1156/R1157/R1158/R1159/R1160/R1161/R1162/R1163/R1164/R1165/R1166/R1167/R1168/R1169/R1170/R1171/R1172/R1173/R1174/R1175/R1176/R1177/R1178/R1179/R1180/R1181/R1182/R1183/R1184/R1185/R1186/R1187/R1188/R1189/R1190/R1191/R1192/R1193/R1194/R1195/R1196/R1197/R1198/R1199/R1200/R1201/R1202/R1203/R1204/R1205/R1206/R1207/R1208/R1209/R1210/R1211/R1212/R1213/R1214/R1215/R1216/R1217/R1218/R1219/R1220/R1221/R1222/R1223/R1224/R1225/R1226/R1227/R1228/R1229/R1230/R1231/R1232/R1233/R1234/R1235/R1236/R1237/R1238/R1239/R1240/R1241/R1242/R1243/R1244/R1245/R1246/R1247/R1248/R1249/R1250/R1251/R1252/R1253/R1254/R1255/R1256/R1257/R1258/R1259/R1260/R1261/R1262/R1263/R1264/R1265/R1266/R1267/R1268/R1269/R1270/R1271/R1272/R1273/R1274/R1275/R1276/R1277/R1278/R1279/R1280/R1281/R1282/R1283/R1284/R1285/R1286/R1287/R1288/R1289/R1290/R1291/R1292/R1293/R1294/R1295/R1296/R1297/R1298/R1299/R1300/R1301/R1302/R1303/R1304/R1305/R1306/R1307/R1308/R1309/R1310/R1311/R1312/R1313/R1314/R1315/R1316/R1317/R1318/R1319/R1320/R1321/R1322/R1323/R1324/R1325/R1326/R1327/R1328/R1329/R1330/R1331/R1332/R1333/R1334/R1335/R1336/R1337/R1338/R1339/R1340/R1341/R1342/R1343/R1344/R1345/R1346/R1347/R1348/R1349/R1350/R1351/R1352/R1353/R1354/R1355/R1356/R1357/R1358/R1359/R1360/R1361/R1362/R1363/R1364/R1365/R1366/R1367/R1368/R1369/R1370/R1371/R1372/R1373/R1374/R1375/R1376/R1377/R1378/R1379/R1380/R1381/R1382/R1383/R1384/R1385/R1386/R1387/R1388/R1389/R1390/R1391/R1392/R1393/R1394/R1395/R1396/R1397/R1398/R1399/R1400/R1401/R1402/R1403/R1404/R1405/R1406/R1407/R1408/R1409/R1410/R1411/R1412/R1413/R1414/R1415/R1416/R1417/R1418/R1419/R1420/R1421/R1422/R1423/R1424/R1425/R1426/R1427/R1428/R1429/R1430/R1431/R1432/R1433/R1434/R1435/R1436/R1437/R1438/R1439/R1440/R1441/R1442/R1443/R1444/R1445/R1446/R1447/R1448/R1449/R1450/R1451/R1452/R1453/R1454/R1455/R1456/R1457/R1458/R1459/R1460/R1461/R1462/R1463/R1464/R1465/R1466/R1467/R1468/R1469/R1470/R1471/R1472/R1473/R1474/R1475/R1476/R1477/R1478/R1479/R1480/R1481/R1482/R1483/R1484/R1485/R1486/R1487/R1488/R1489/R1490/R1491/R1492/R1493/R1494/R1495/R1496/R1497/R1498/R1499/R1500/R1501/R1502/R1503/R1504/R1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