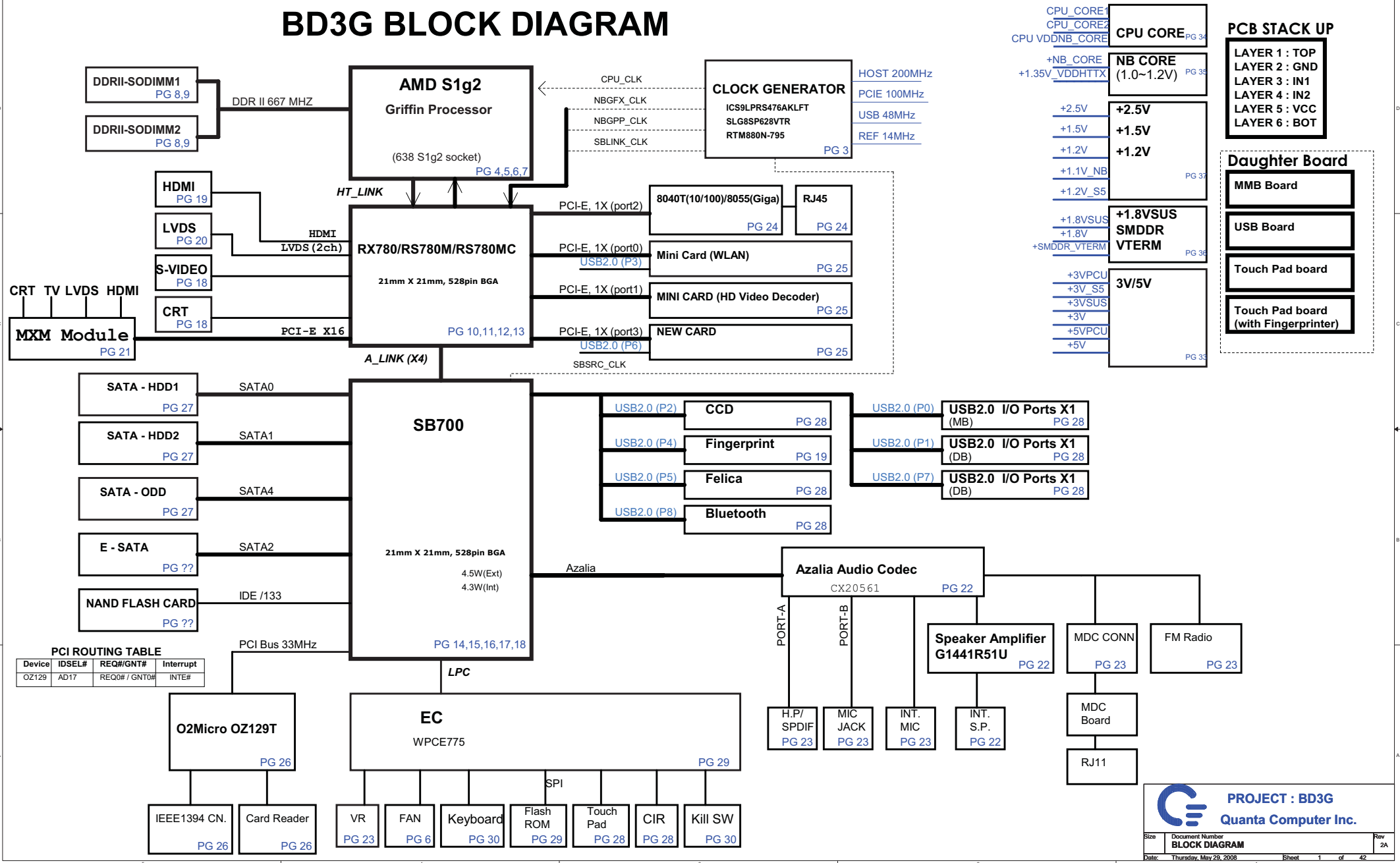
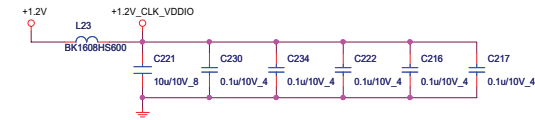


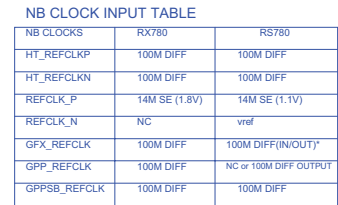
BD3G BLOCK DIAGRAM



03

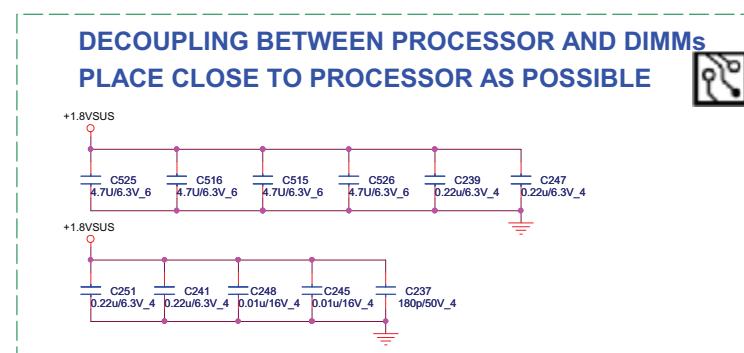
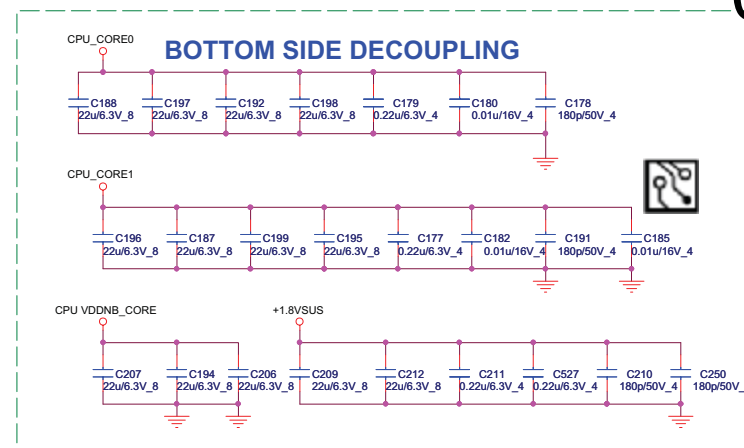
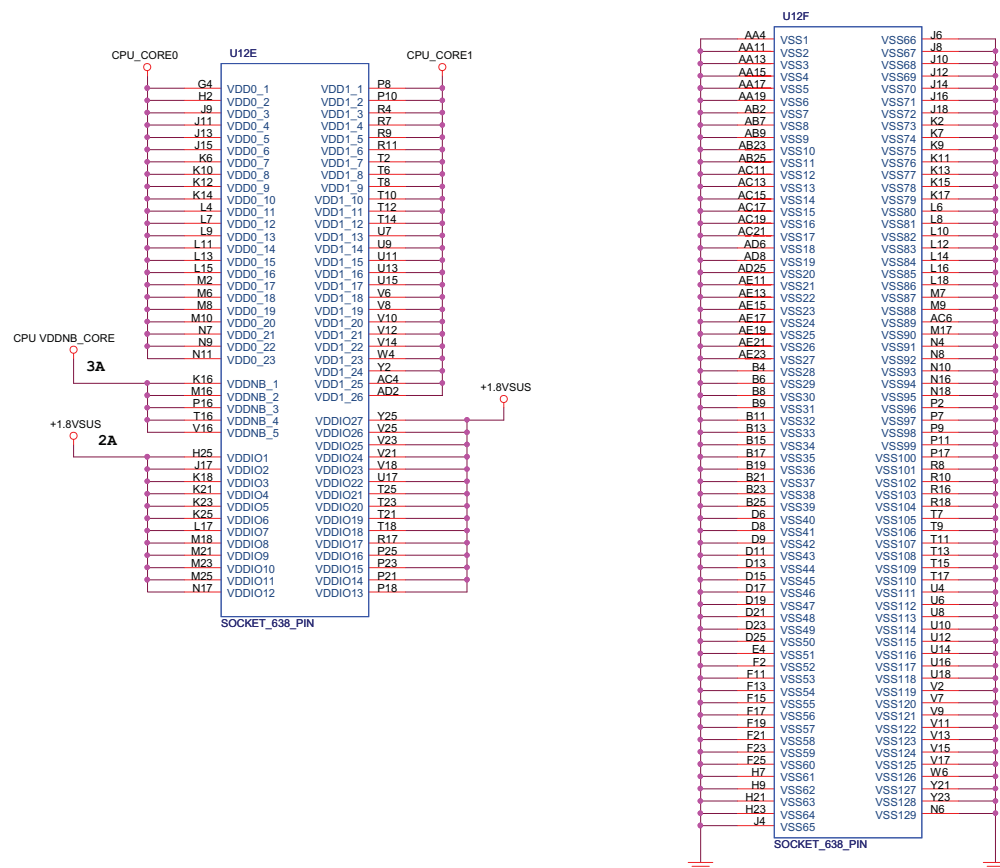


Clock chip has internal serial terminations for differential pairs, external resistors are reserved for debug purpose.



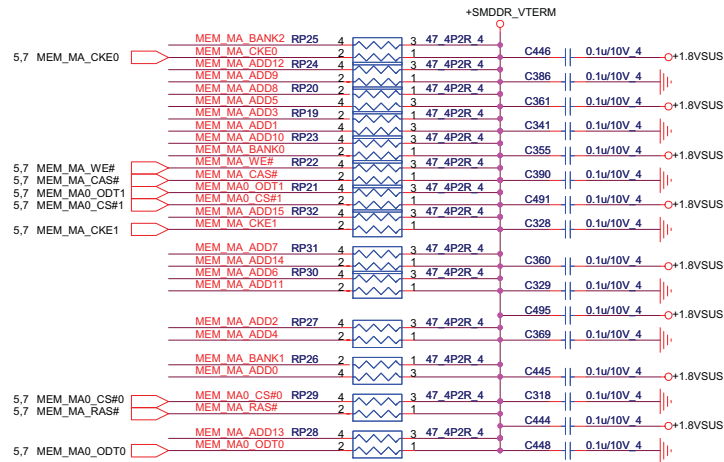
SEL_HTT66	1	66 MHz 3.3V single ended HTT clock
	0*	100 MHz differential HTT clock
SEL_SATA	1*	100 MHz non-spreading differential SRC clock
	0	100 MHz spreading differential SRC clock
SEL_27	1	27MHz and 27M SS outputs
	0*	100 MHz SRC clock



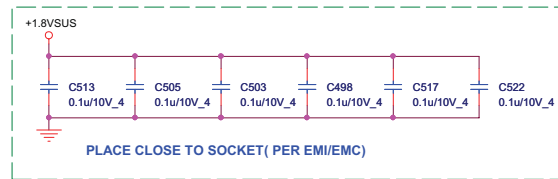


PROCESSOR POWER AND GROUND

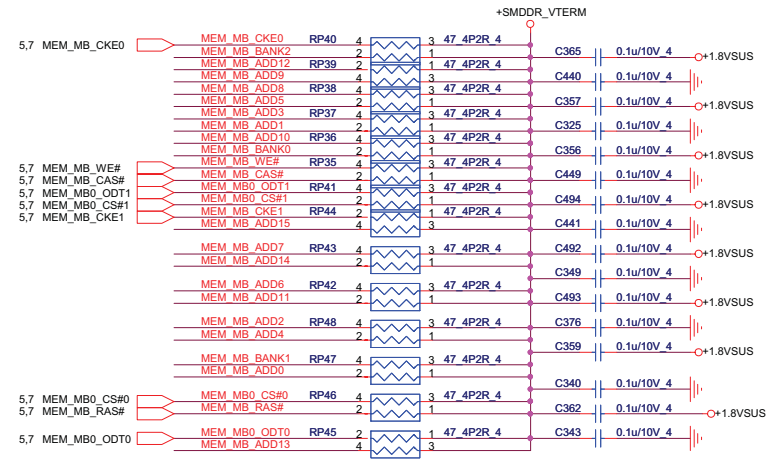
5,7 MEM_MA_ADD[0..15] MEM_MA_ADD[0..15]
5,7 MEM_MA_BANK[0..2] MEM_MA_BANK[0..2]



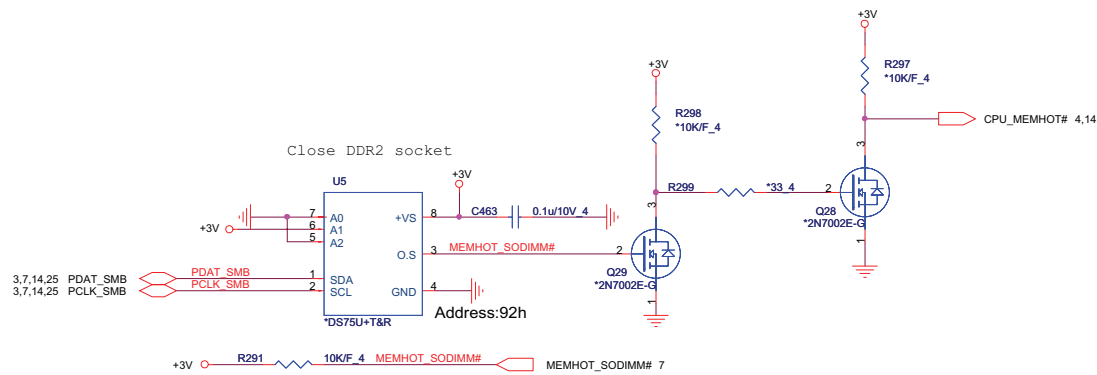
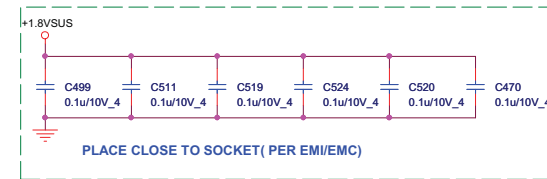
PLACE CLOSE TO PROCESSOR
WITHIN 1.5 INCH



5,7 MEM_MB_ADD[0..15] MEM_MB_ADD[0..15]
5,7 MEM_MB_BANK[0..2] MEM_MB_BANK[0..2]

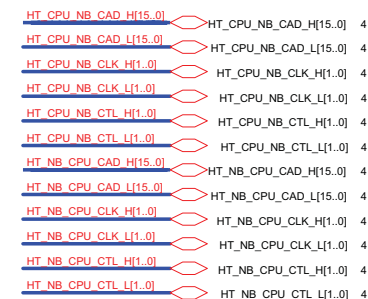
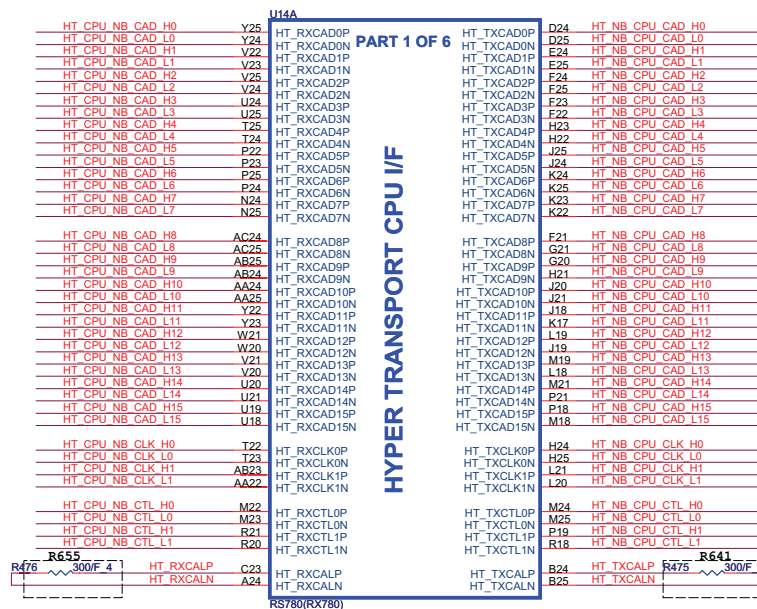


PLACE CLOSE TO PROCESSOR
WITHIN 1.5 INCH



PROJECT : BD3G
Quanta Computer Inc.

Size	Document Number	Rev
	DDR2 SODIMMS TERMINATIONS	1A
Date:	Thursday, May 29, 2008	Sheet 8 of 42



11/4 modify

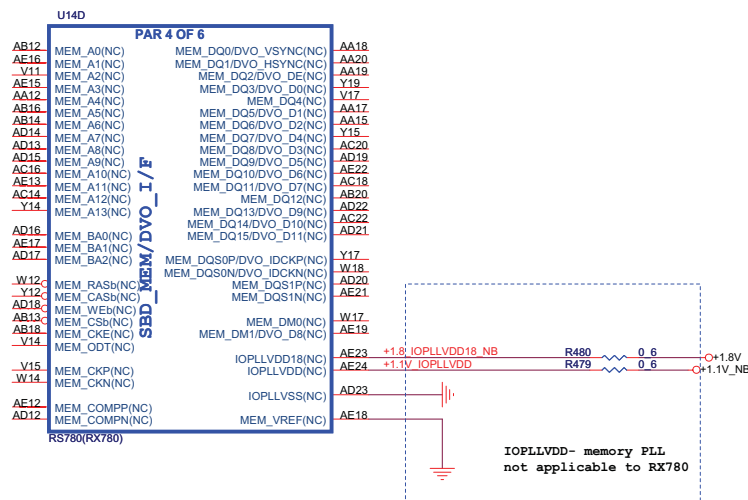
signals	RS780	RX780
HT_TXCALP	R641 300 ohm 1%	R641 1.21k ohm 1%
HT_TXCALN		
HT_RXCALP	R655 300 ohm 1%	R655 1.21k ohm 1%
HT_RXCALN		

RES CHIP 1.21K 1/16W +-1% (0402)
P/N : CS21212FB18RES CHIP 300 1/16W +-1% (0402)
P/N : CS13002FB00

This block is for UMA RS780 only , RX780 can
remove all component

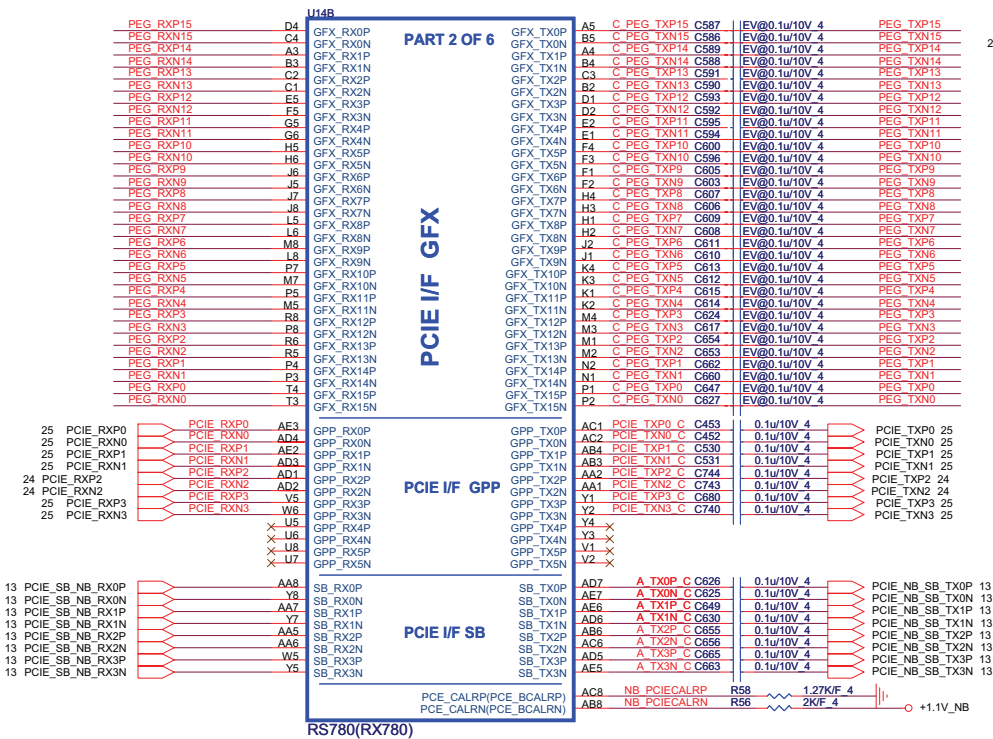
A12 version
RS780M AJ067400T05 100-CK2612 (216-0674008-00)
RS780MC AJ067400T06 100-CK2613 (216-0674010-00)
RX781 AJ067400T10 100-CK2642 (215-0674024)
SB700 AJA12FG0T18 100-CK2614 (218S7EALA12FG)

A13 version
RS780M AJ067400T18 100-CK2699 (216-0674022)
RS780MC AJ067400T20 100-CK2704 (216-0674024)
RX781 AJ067400T21 100-CK2706 (215-0674034)
A12 version
SB700 AJA12FG0T18



PROJECT : BD3G
Quanta Computer Inc.

Size	Document Number	Rev
	RS740/RS780-HT LINK I/F 1/5	1A
Date:	Thursday, May 29, 2008	Sheet 9 of 42

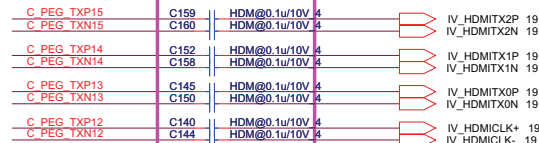


21 PEG_RXN[15:0] PEG_RXN[15:0]

21 PEG_RXP[15:0] PEG_RXP[15:0]

BTO

Close to North Bridge



To HDMI CONN



TO WLAN

TO MINI CARD

TO PCIE-LAN

TO EPRESS CARD

NOTE :
RS780MC no support Graphic / HDMI

11/4 modify RX780/RS740/RS780 difference table (PCIE LINK)

	RS740	RX780/RS780
NB_PCIECALRP	362R (GND)	1.27K (GND)
GPP4	NC	GPP4
GPP5	NC	GPP5

RS780 Display Port Support (muxed on GFX)

DP0	GFX_TX0,TX1,TX2 and TX3 AUX0 and HPD0
DP1	GFX_TX4,TX5,TX6 and TX7 AUX1 and HPD1



PROJECT : BD3G
Quanta Computer Inc.

Size	Document Number	Rev
	RS740/RS780-PCIE I/F 2/5	1A
Date:	Thursday, May 29, 2008	Sheet 10 of 42

RX780/RS780 POWER DIFFERENCE TABLE

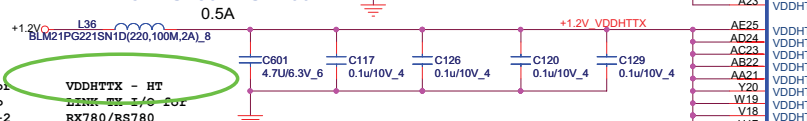
PIN NAME	RX780	RS780	PIN NAME	RX780	RS780
VDDHT	+1.1V	+1.1V	IOPLLVD	NC	+1.1V
VDDHTRX	+1.1V	+1.1V	AVDD	NC	+3.3V
VDDHTTX	+1.2V	+1.2V	AVDDDI	NC	+1.8V
VDDA18PCIE	+1.8V	+1.8V	AVDDQ	NC	+1.8V
VDDG18	+1.8V	+1.8V	PLLVD	NC	+1.1V
VDD18_MEM	NC	+1.8V	PLLVD18	NC	+1.8V
VDDPCIE	+1.1V	+1.1V	VDDA18PCIEPLL	+1.8V	+1.8V
VDDC	+1.1V	+1.1V	VDDA18HTPLL	+1.8V	+1.8V
VDD_MEM	NC	+1.8V/1.5V	VDDLTP18	NC	+1.8V
VDDG33	NC	+3.3V	VDDL18	NC	+1.8V
IOPLLVD18	NC	+1.8V	VDDL33	NC	NC

GROUND

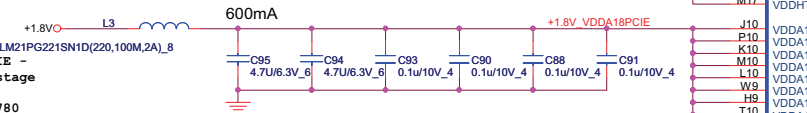
+1.1V 2A for RS780M



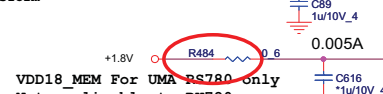
+1.2V 2A for RS780M+SB700



+1.8V 1A for RS780M+SB700



VDD18 - RS780 I/O transform



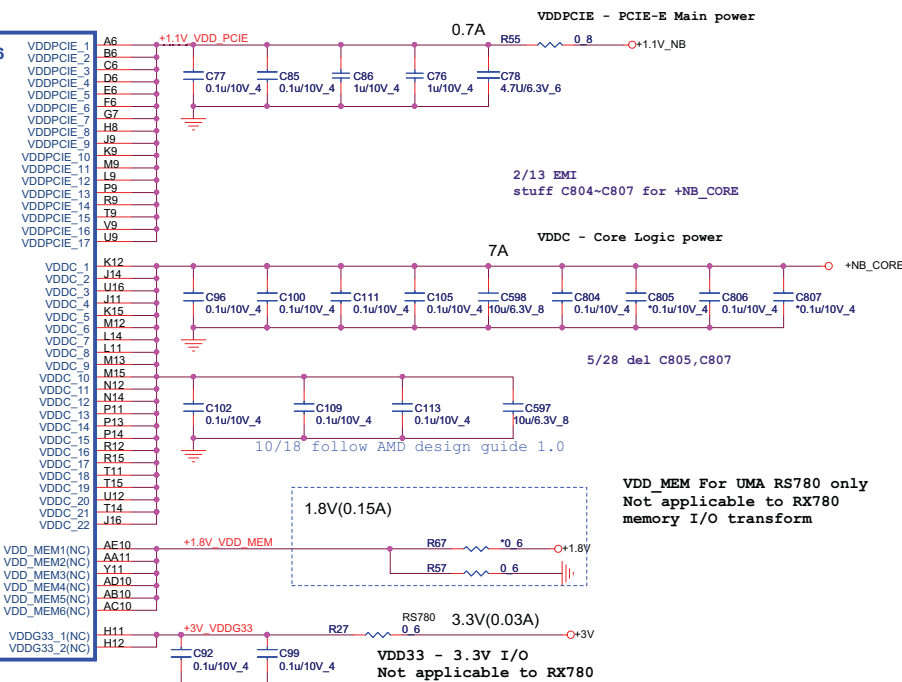
VDD18_MEM For UMA RS780 only
Not applicable to RX780
memory I/O transform

1/17 RX781 no stuff them
R484

1/17 RX781 connect to GND
C616 change to CS00002JB38

PART 5/6

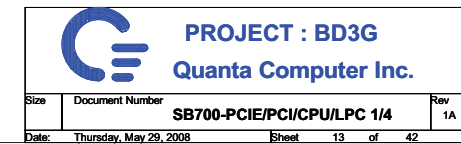
POWER



VDD_MEM For UMA RS780 only
Not applicable to RX780
memory I/O transform



PROJECT : BD3G
Quanta Computer Inc.



43V S5
R249 *2.2K 4 SB_TEST0
R258 *2.2K 4 SB_TEST1
R255 *2.2K 4 SB_TEST2

11/01 chagne +3VSUS to +3V_S5

+3V_S5
R253 *10K/F 4 SW#

10/31 add newcard DET#

+3V SCL0/SDATA0 is 3V tolerance
AMD datasheet define it
R186 2.2K 4 PCLK_SMB
R167 2.2K 4 PDAT_SMB

Clock gen
/DDR2 /MINI CARD/NEW CARD

+3V S5
SCL1/SDATA1 is 3V/S5 tolerance
AMD datasheet define it
R362 2.2K 4 SB_SMBCLK1
R361 2.2K 4 SB_SMBDATA1

+3V S5
SCL2/SDATA2 is 3V/S5 tolerance
AMD datasheet define it
R261 2.2K 4 SB_SCLK2
R263 2.2K 4 SB_SDATA2

+3V S5
R719 10K 4 USB_OC5#

4/16 pull up USB_OC5# R719

1/31 NEW_DET# change from GEVEN5# to GPM1#

12/7 add D57,D58 to avoid voltage leakage

+3V
R358 4.7K 4 SUS_STAT#

G2
2
1
SYS_RST#
*SHORT_PAD1

To Azalia

ACZ_SDOUT R364 33 4 ACZ_SDOUT_AUDIO 22
C501 *10p/50V 4

ACZ_SYNC R239 33 4 ACZ_SYNC_AUDIO 22
C286 *10p/50V 4

ACZ_BCLK R241 BK1005HM121-T-4 BIT_CLK_AUDIO 22
C309 22P/50V 4

ACZ_RST# R357 33 4 ACZ_RST#_AUDIO 22

ACZ_SDOIN_R R243 0 4 ACZ_SDOIN 22

+3V
R233 10K 4
LOW_DET LOW_DET 28

+3V
R292 10K 4
FM_DET FM_DET 28

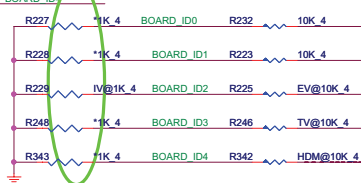
High : Main Strem
Low : Low Cost

High : W/O FM
Low : W FM

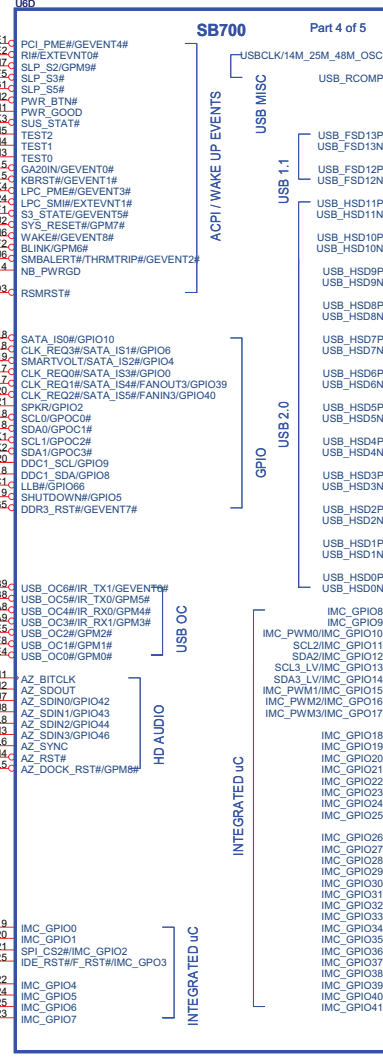
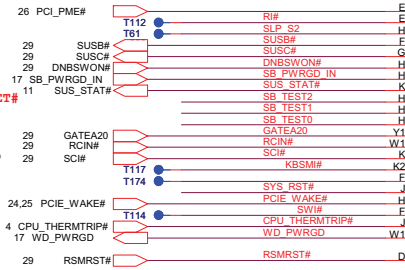
1/31 voltage leakage
BOARD_ID4 change from GPIO66 to GPIO3

12/21EMI
change R241from 33 to BK1005HM121-T
stiff C309 22p

MB ID



12/4 change PD from 10K to 1K



MB ID Selection Table

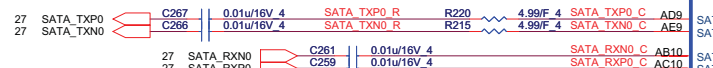
Board ID	ID4	ID3	ID2	ID1	ID0
NEW CARD CARD BUS					H L
CCFL Panel LED Panel				H L	
W/ MXM W/O MXM			H L		
W/ S-VIDEO W/O S-VIDEO		H L			
W/ HDMI W/O HDMI	H L				

PROJECT : BD3G
Quanta Computer Inc.

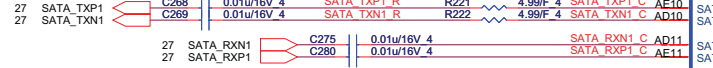
SATA PORT 0,1,2,3
can support AHCI
mode

PLACE SATA AC COUPLING
CAPS CLOSE TO SB700

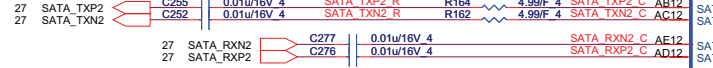
SATA1



SATA2



E-SATA



2/22 change SATA ODD from port3 to port4 (solve ODD
post detect fail)

ODD

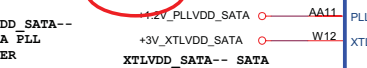


SATA PORT 4,5 are
only support IDE
mode

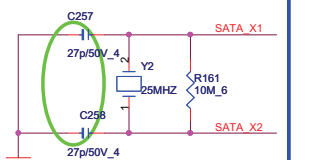


PLACE SATA CAL
RES VERY CLOSE
TO BALL OF SB700

NOTE:
R361 IS 1K 1% FOR 25MHz
XTAL, 4.99K 1% FOR 100MHz
INTERNAL CLOCK



12/8 change from 10p to 27p



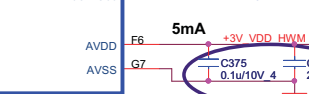
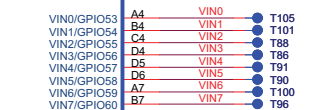
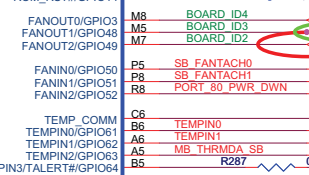
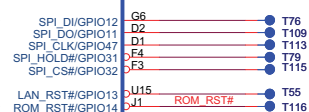
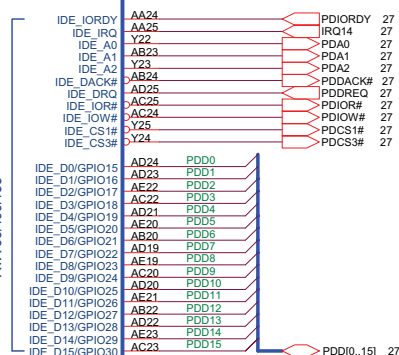
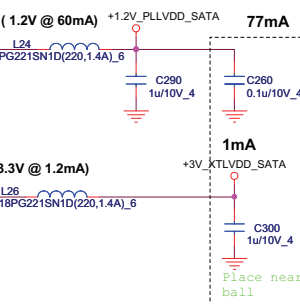
U68

SB700
Part 2 of 5

SERIAL ATA

SATA PWR

HW MONITOR



12/4 change BOARD ID3 from GEVENT7 to GPIO48

11/02 modify it

10/18 AMD suggest to connect to GND

2/13 EMI
stuff C375, C366 for SB HW MONITOR



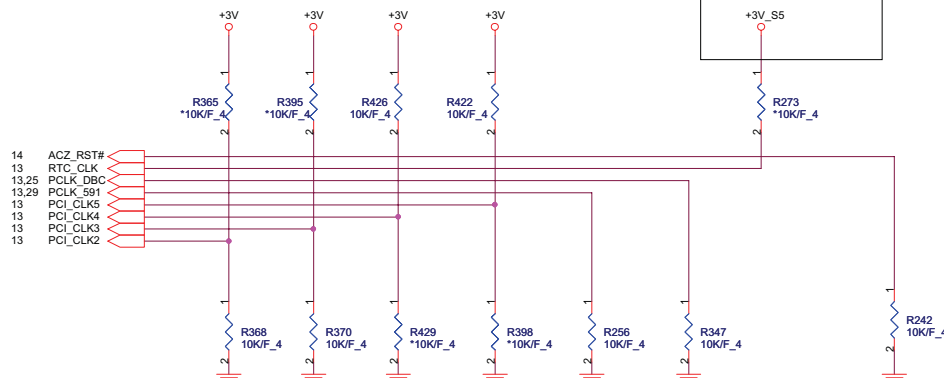
PROJECT : BD3G
Quanta Computer Inc.

Size	Document Number	Rev
	SB700-SATA/IDE/HWM/SPI 3/4	1A
Date:	Thursday, May 29, 2008	Sheet 15 of 42



OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.

It must ready
before RSMRST#



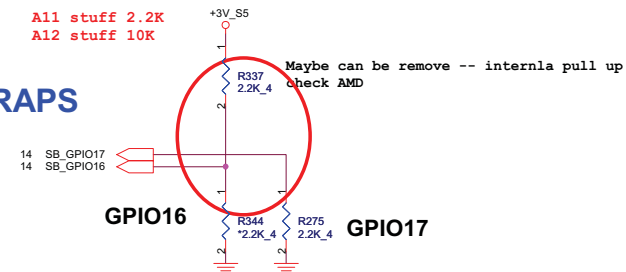
	PCI_CLK2	PCI_CLK3	PCI_CLK4	PCI_CLK5	LPC_CLK0	LPC_CLK1	RTC_CLK	AZ_RST#
PULL HIGH	BOOTFAIL TIMER ENABLED	USE DEBUG STRAPS	RESERVED	RESERVED	ENABLE PCI MEM BOOT	CLKGEN ENABLED	INTERNAL RTC DEFAULT	EC ENABLED
PULL LOW	BOOTFAIL TIMER DISABLED DEFAULT	IGNORE DEBUG STRAPS DEFAULT			DISABLE PCI MEM BOOT DEFAULT	CLKGEN DISABLED DEFAULT	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK)	EC DISABLED DEFAULT

EC
ENABLED

ENABLE PCI
MEM BOOT

REQUIRED STRAPS

All stuff 2.2K
A12 stuff 10K



GPIO16

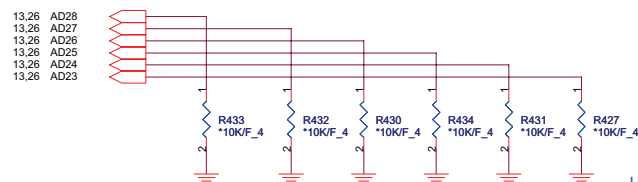
GPIO17

TYPE	GPIO16	GPIO17
FWH	L : 2.2K pull down	L : 2.2K pull down
LPC	NC	L : 2.2K pull down
SPI	L : 2.2K pull down	NC
RSVD	NC	NC

NB_PWRGD_IN:
RS780/RX780 = 1.8V; RS740 = 3.3V
Do NOT share it with SB_PWRGD when use Internal Clk Gen
(Need SB PLL initialize firstly)

DEBUG STRAPS

SB700 HAS 15K INTERNAL PU FOR PCI_AD[28:23]



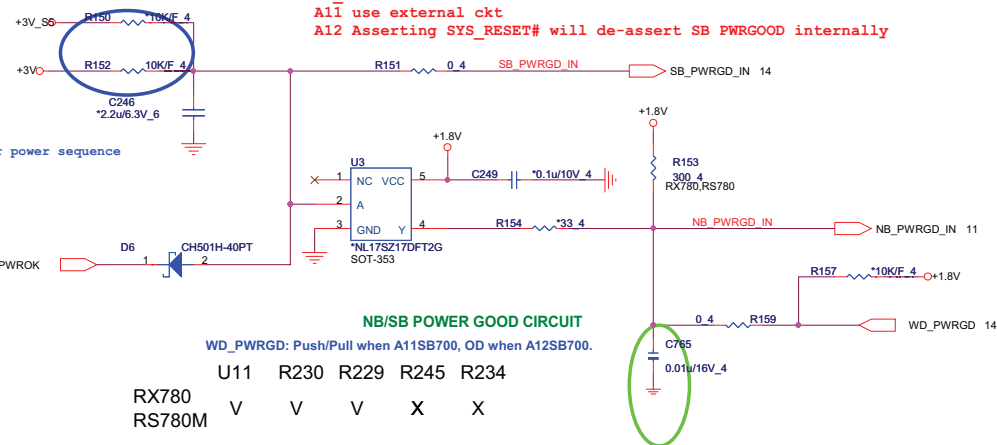
4/10 change R150 to R152 for power sequence

Use 2.2K PD.

	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE LONG RESET DEFAULT	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	RESERVED
PULL LOW	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	

SB_PWRGD

All use external ckt
A12 Asserting SYS_RESET# will de-assert SB_PWRGOOD internally



NB/SB POWER GOOD CIRCUIT

WD_PWRGD: Push/Pull when A11SB700, OD when A12SB700.

U11 R230 R229 R245 R234

RX780 V V V X X
RS780M

AL17SZ17000 IC(5P) NL17SZ17DFT2G(SOT-353)

ALUC1G17000 IC OTHER(5P) SN74AUC1G17DBVR(SOT23-5)

SOT-353

SOT23-5

4/24 stuff C765 10nf to meet power sequence



PROJECT : BD3G
Quanta Computer Inc.

Size	Document Number	Rev
	SB700-STRAPS	1A
Date:	Thursday, May 29, 2008	Sheet 17 of 42

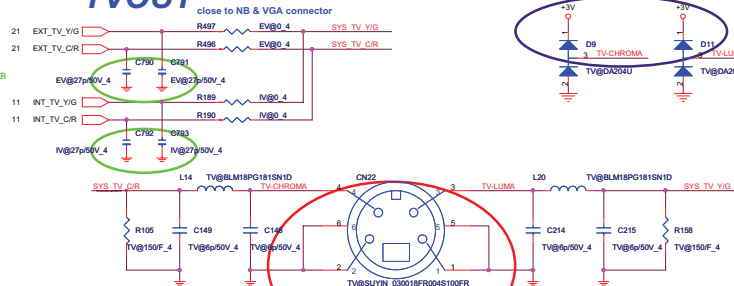
TVOUT

BTO

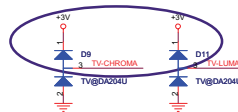
5/8 stuff D9,D11 for S-VIDEO

TVOUT

12/21 EMI
add 27p for TV_X/G , TV_C/R



BTO



10/24 modify it to 4 pin BOI request
10/30 modify footprint to SV-030018FR004S100FR-RVS-4P-H
12/12 update p/n to DPM04FR006
4/16 update footprint to sv-030018fr004s100fr-4p-h-b15m

CRT PORT

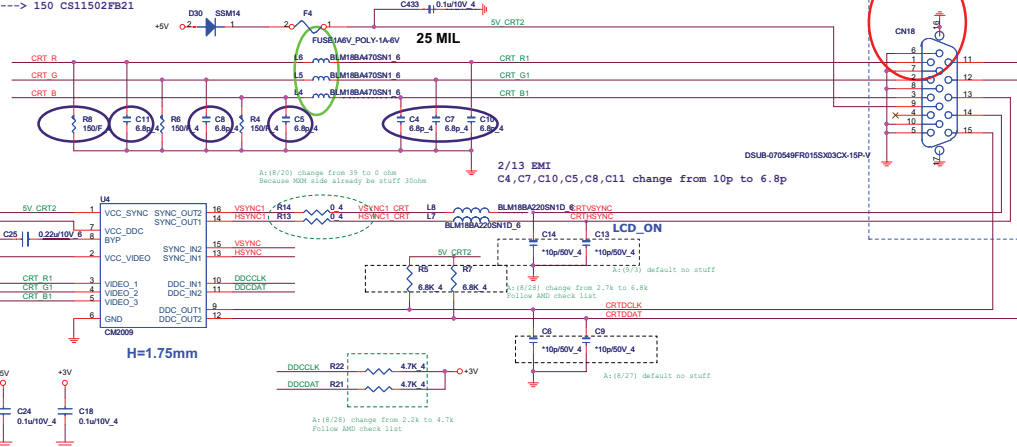
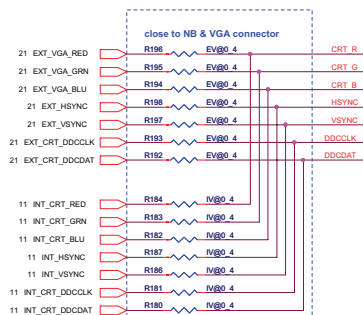
2/1
RS780M A13 R8 ---> 140 CS11402FB19
MOM R8 ---> 150 CS11502FB21

1/31 EMI Change L4,L5,L6 from CX0HM121008 to CX8BA470003

10/12 fix CRT connect error

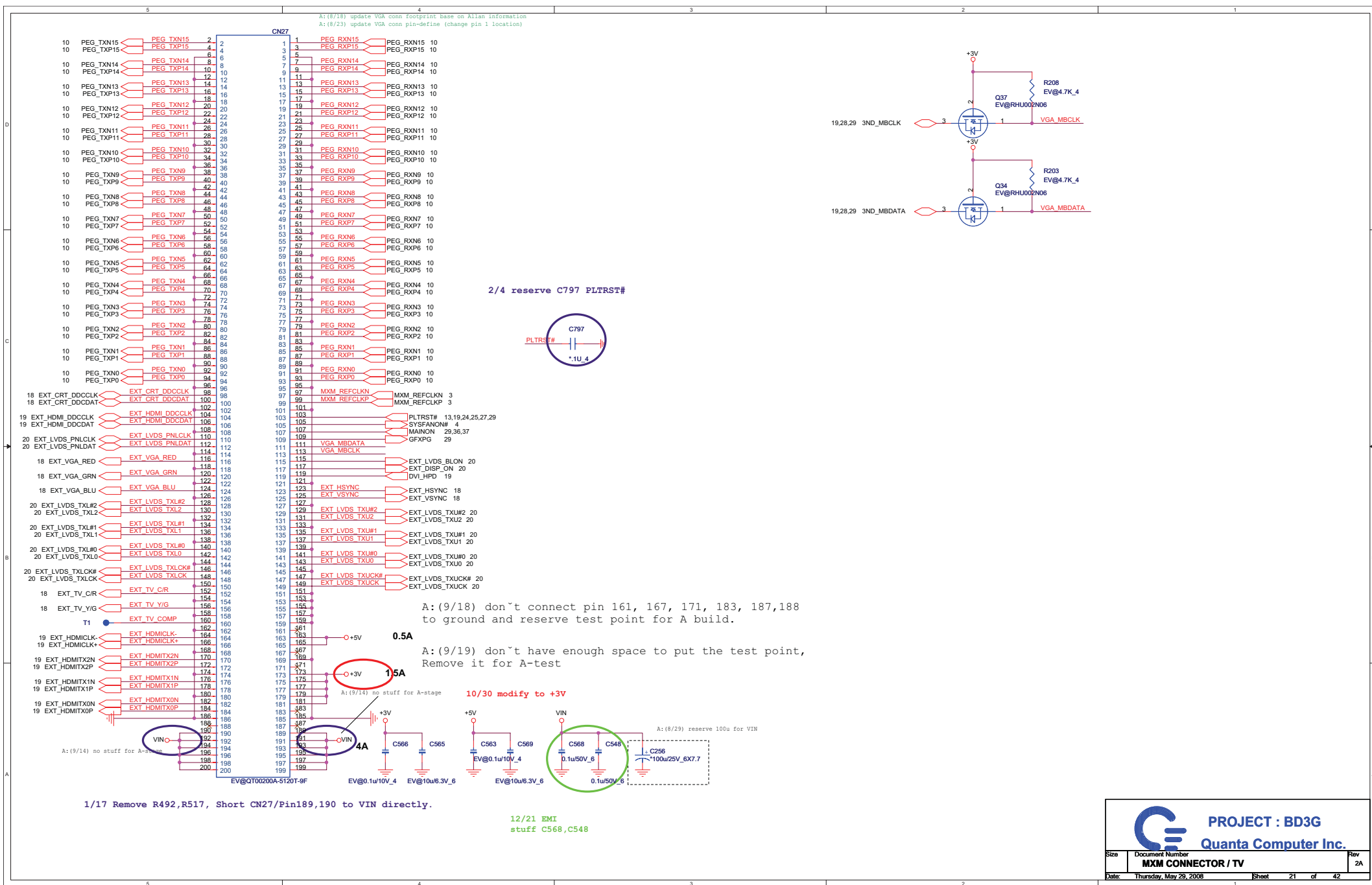
2/10 DEL D4,D5 footprint and DEL
CRT_SENSE# net

10/25 no use sense

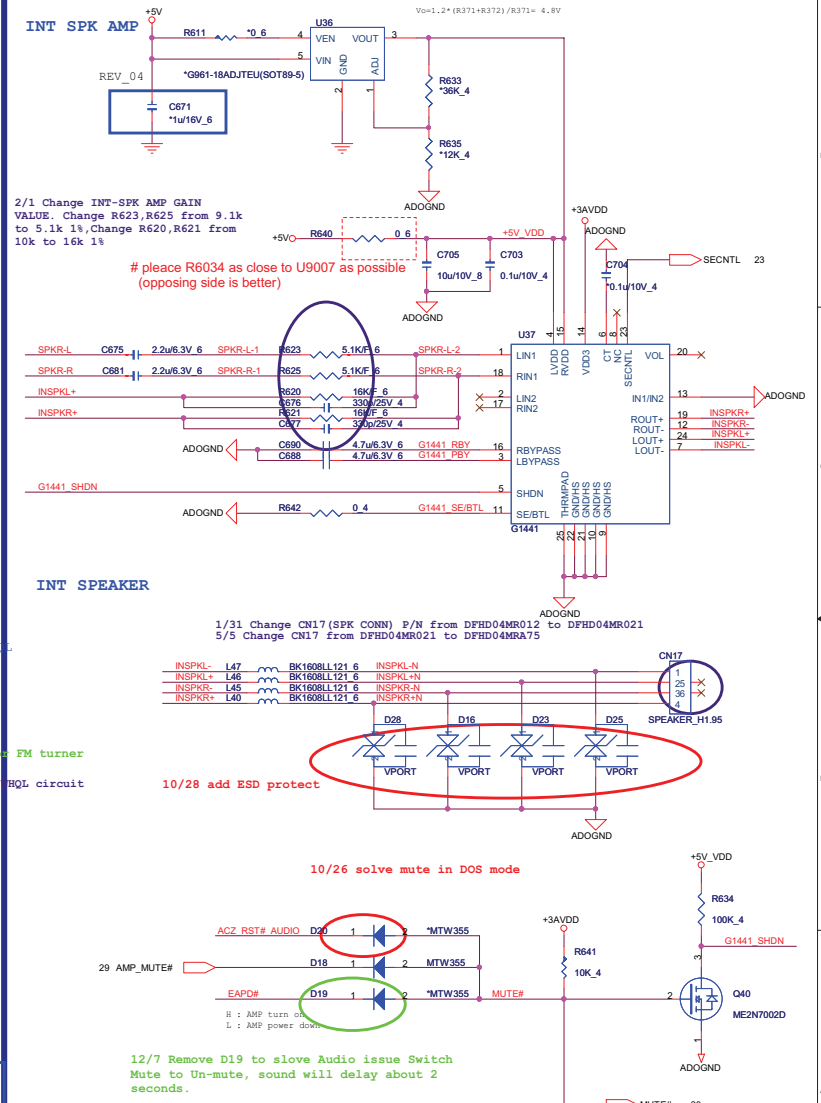
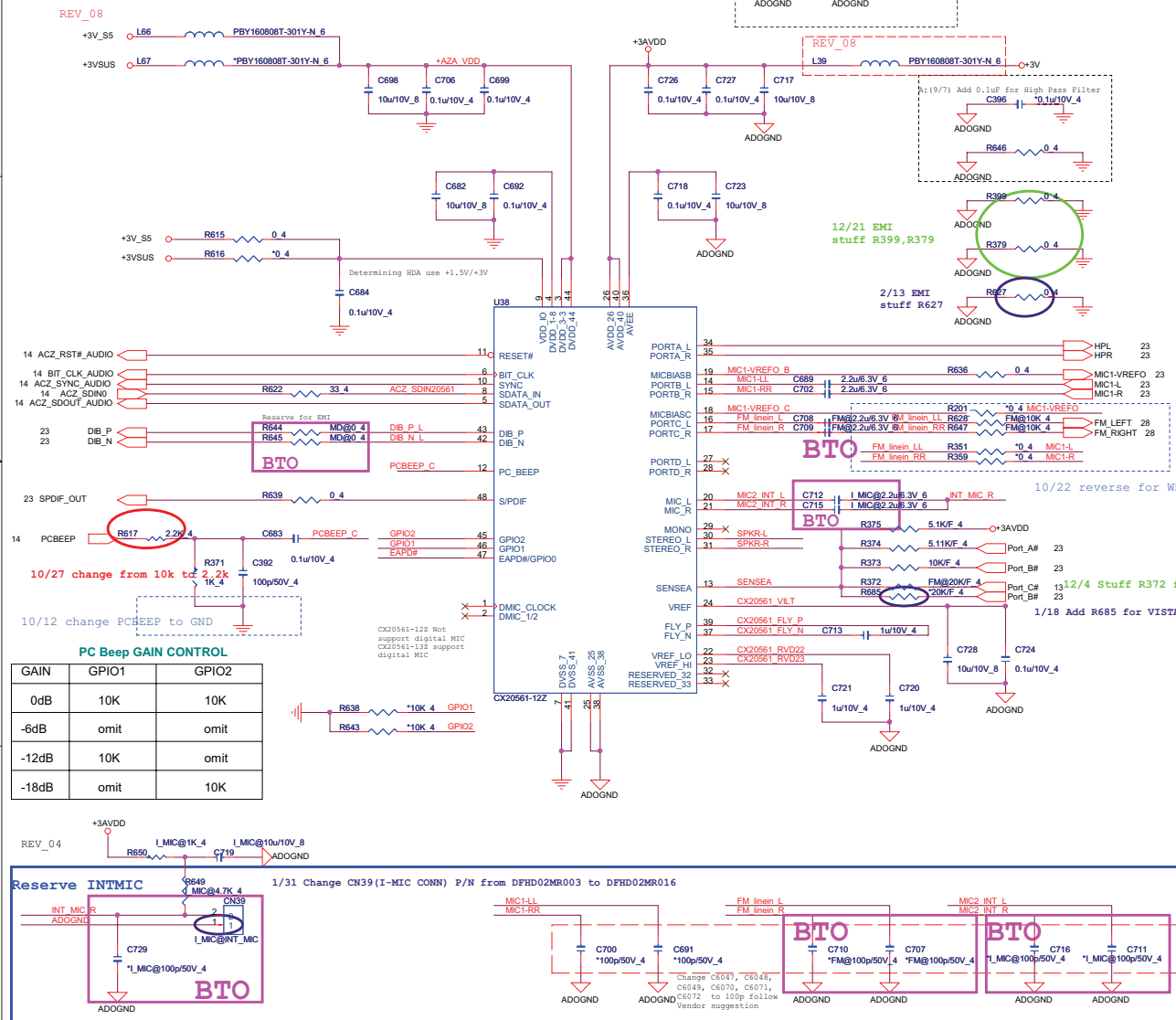


PROJECT : BD3G
Quanta Computer Inc.

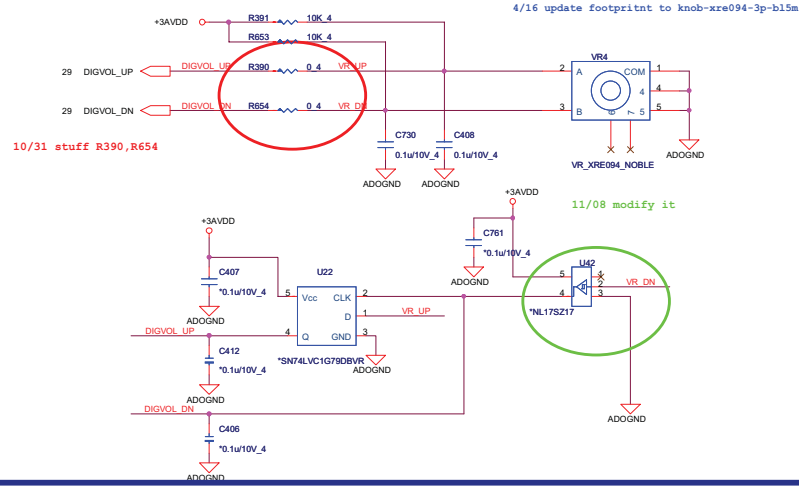
Size	Document Number	Rev
	SB600 STRAPS/TV/CRT	2A
Date	Thursday, May 28, 2008	Sheet 18 of 42



Codec (CX20561)



VR

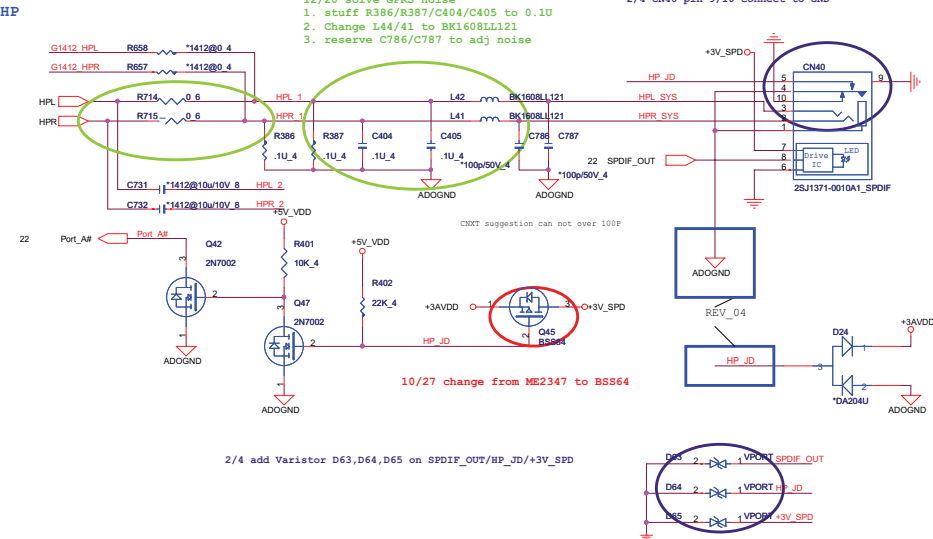


12/07 Solve Audio issue: When plug in-out headphone, headphone has no sound.
1. Change R652&R651 to C763, C764 (100/6.3V 0603)

2/5 Change R714, R715 from 10uF to 0 ohm (Audio HP circuit)

12/20 solve GPRS noise
1. stuff R386/R387/C404/C405 to 0.1u
2. Change L44/41 to BK1608LL121
3. reserve C786/C787 to adj noise

2/4 CN40 pin 9/10 connect to GND

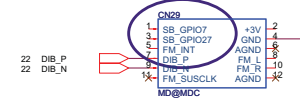


MDC

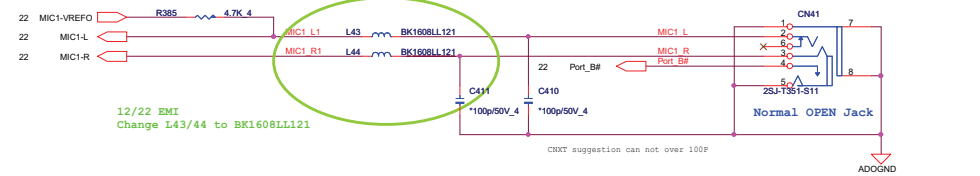
REV_04

1/18 Change CN43 footprint from MDC-1-179373-2-12P-RUV to MDC-1-179373-2-12P-RUV-BD3A (SMT open issue)

BTO

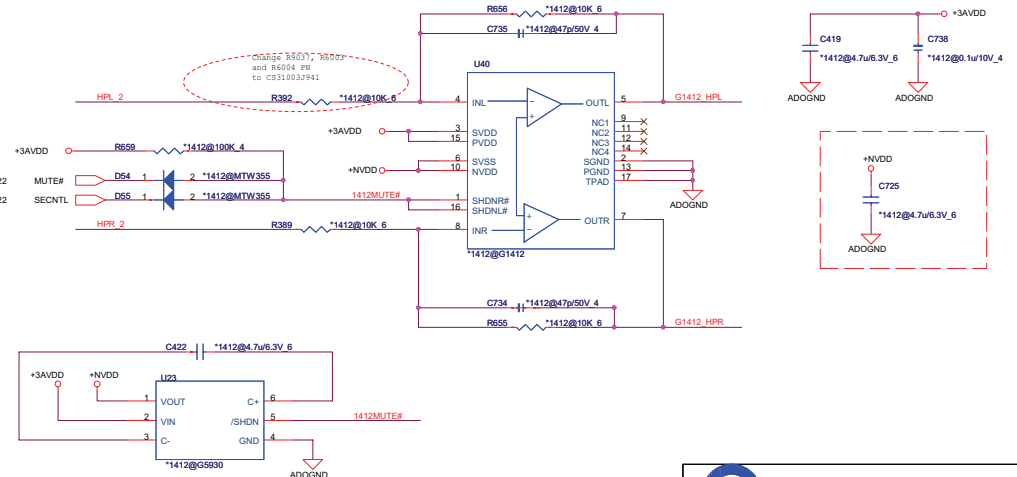


SYSTEM MIC

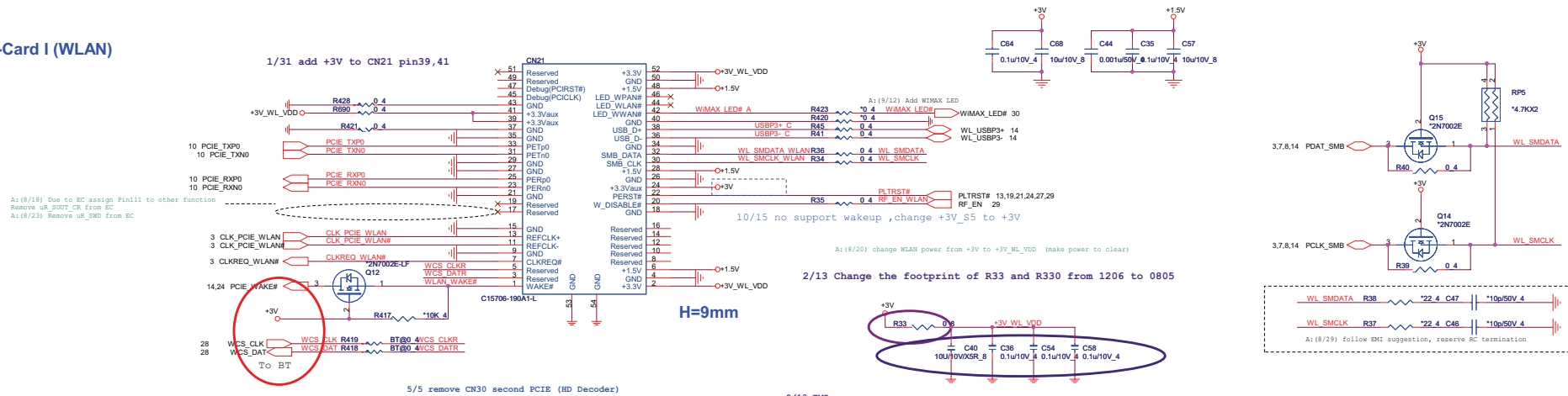


HP Amplifier

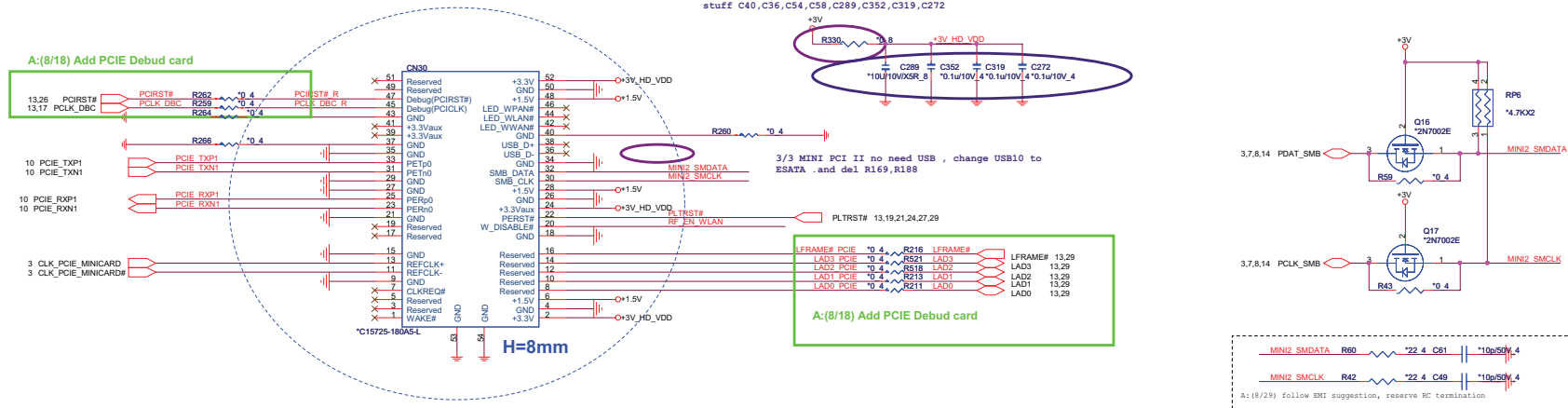
REV_05



MINI-Card I (WLAN)



MINI-Card II (HD Decoder)



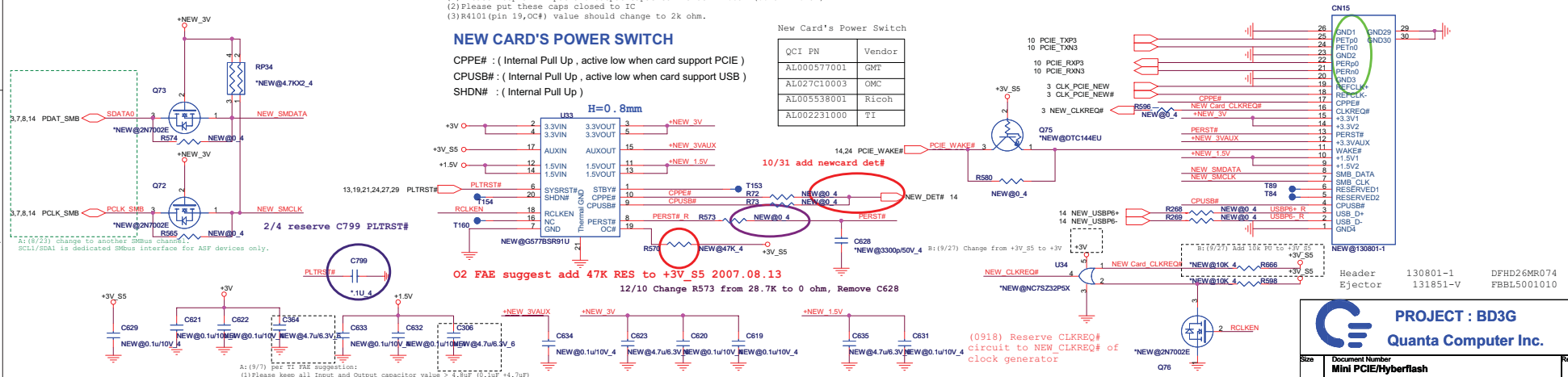
A: (9/7) per TI FAE suggestion:
 (1) Please keep all Input and Output capacitor value > 4.8uF (0.1uF +4.7uF)
 (2) Please put these caps closed to IC
 (3) R4101(pin 19,OC#) value should change to 2k ohm.

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)

QCI PN	Vendor
AL000577001	GMT
AL027C10003	OMC
AL005538001	Ricoh
AL002231000	TI

12/10 Change New card footprint to NCARD-13180151-T-26P-L-BL56 **New card**



MMC

Reserve EMI

Change Pulled-up Resistor on the South Bridge side.

5 IN 1 CARD READER

CARDREADER POWER

30mils

12/21 EMI
R308-R329 0ohm(CS00002JB38) change to 33ohm(CS03302JB29)

1/31 hange CN33(5 in 1 card CONN) P/N from DFHS38FR003 to DFHS38FR005

A1(8/29) change from 33 to 0 ohm
connect the socket and chip by wire directly, and keep same length of these signals.
but if these signal over 15~cm, please consider to add these damping resistors.

12/21 EMI
Don't stuff RN34, RN35 (CJ000042N12)
Add L68, L69 (CX0900JT005)

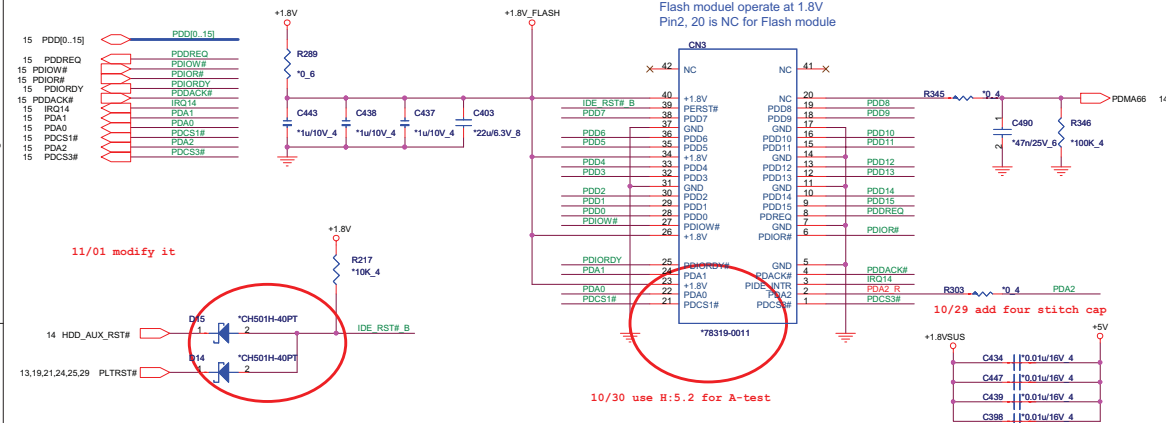
These 1394 signals are high speed differential pairs and must be kept equal length with a differential impedance (Z0) of 110ohms.



PROJECT : BD3G
Quanta Computer Inc.

Size Document Number
OZ129T (Card Reader/1394)
Date: Thursday, May 29, 2008 Sheet 26 of 42 Rev 2A

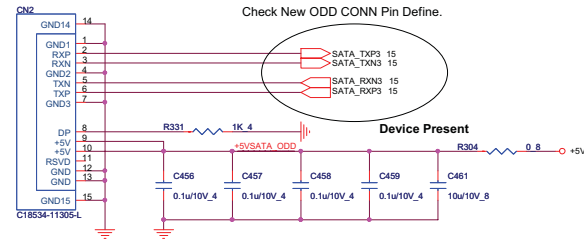
FLASH



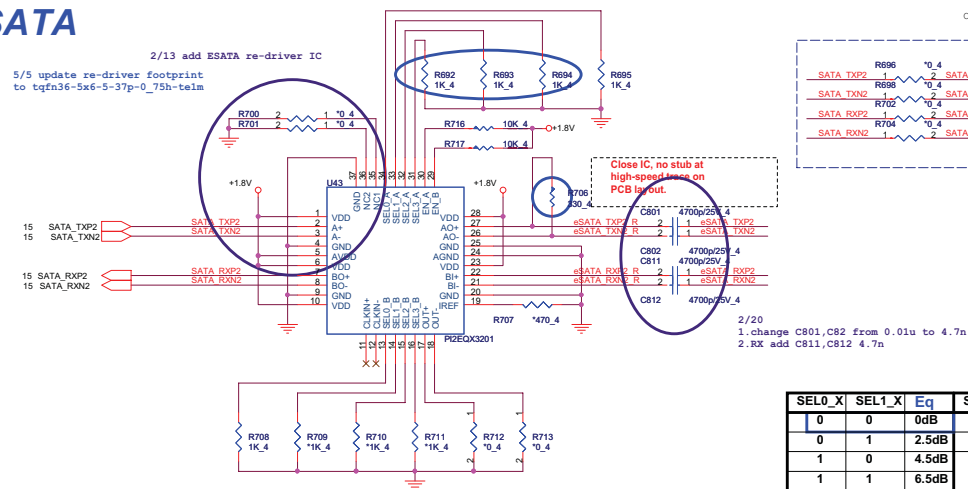
SATA ODD

9/28 change to SATA ODD conn to BD3G use

10/22 update footprint to SATA-C18534-11305-13P-R

**ESATA**

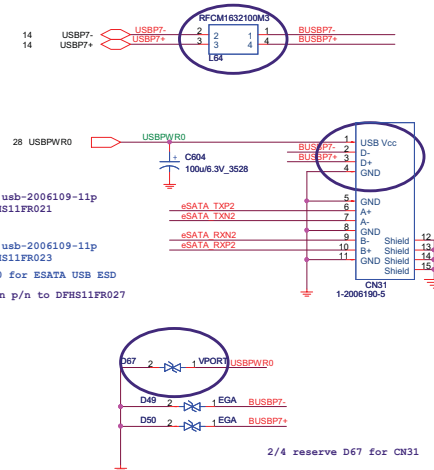
2/13 add ESATA re-driver IC
5/5 update re-driver footprint
to tqfn36-5x6-5-37p-0 75h-te1m



Option SB to ESATA directly

2/29 del R572,R569

Co-lay ESATA footprint



2/26 change ESATA conn usb-2006109-11p
update p/n to DFHS11FR021

4/10 change ESATA conn usb-2006109-11p
update p/n to DFHS11FR023

4/10 add D67,D49,D50 for ESATA USB ESD
5/29 change ESATA conn p/n to DFHS11ER02

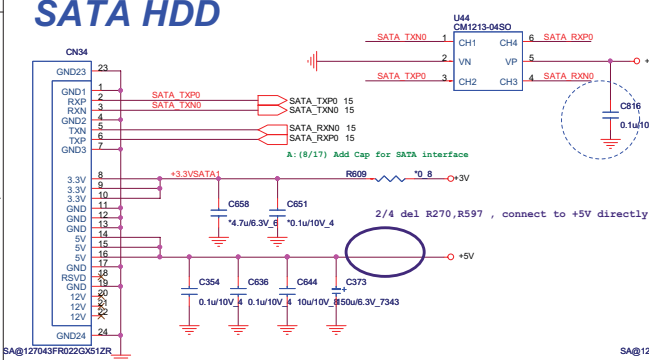
Figure 6

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				

4/17 remove D77~D81 for CN34 , change to U44 CM1213-04SO

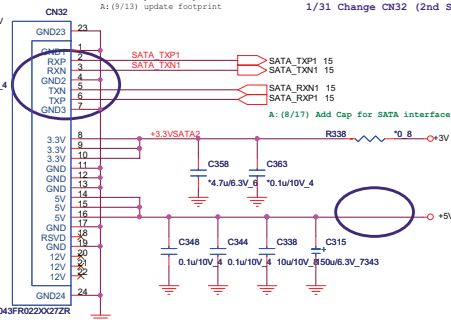
5/5 add C816 0.01u to U44 +5V for ESD

SATA HDD



2'nd SATA HDD

A: (9/5) update footprint
A: (9/13) update footprint



1/17 Change CN32 (2nd SATA CONN) from DFHS22FR064 to DFHS22FR094

1/17 Change CN32 footprint from SATA-127043FR022XX27ZR-22P-L-H to SATA-127043FR022G285ZR-22P-L

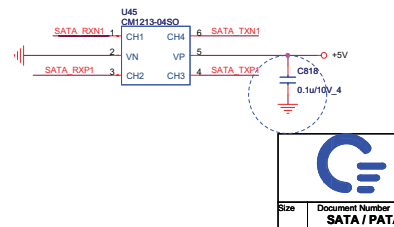
1/31 Change CN34 (1st SATA) P/N from DFHS22FR063 to DFHS22FR082

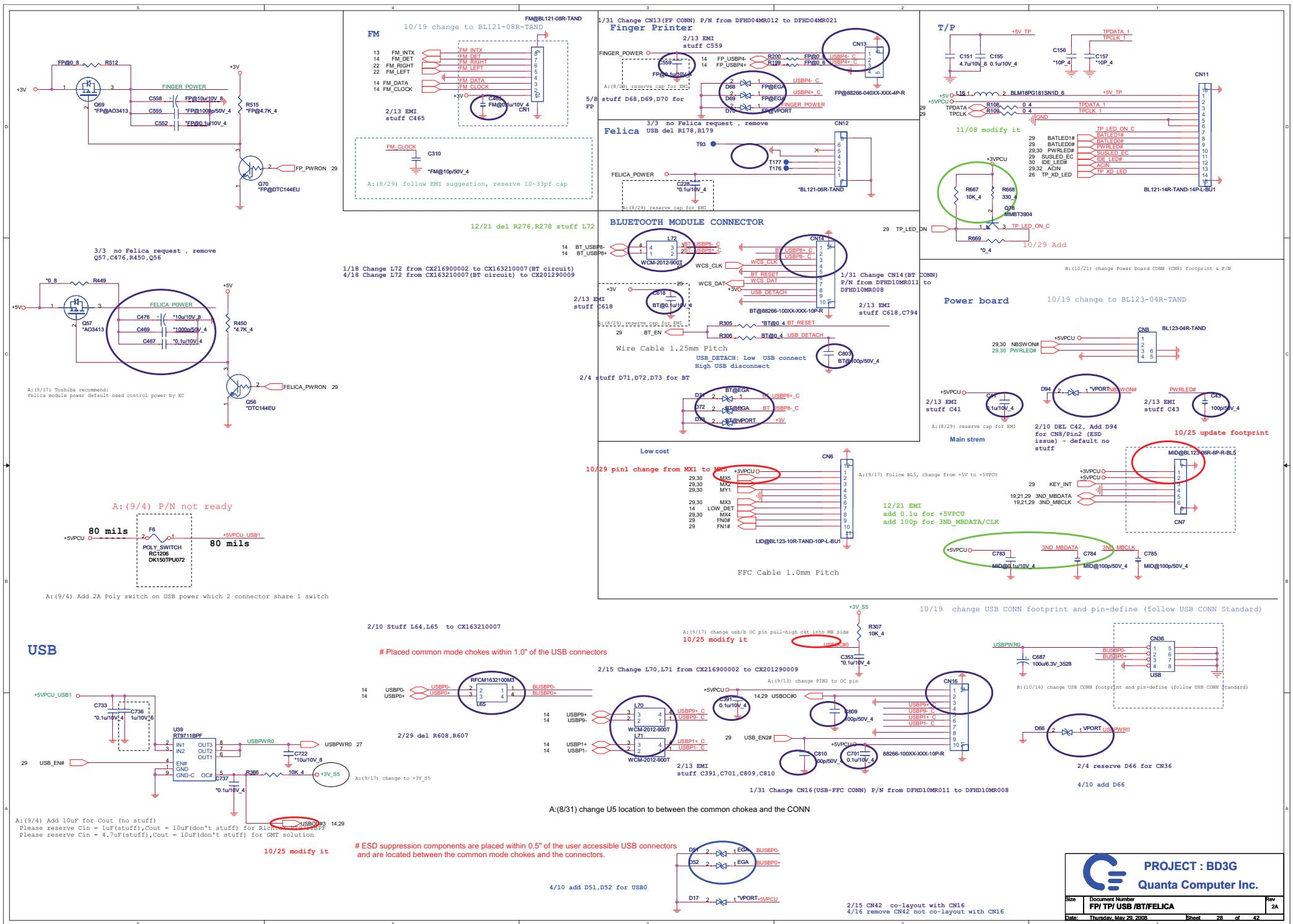
1/31 Change CN32 (2nd SATA) P/N from DFHS22FR094 to DFHS22FR083

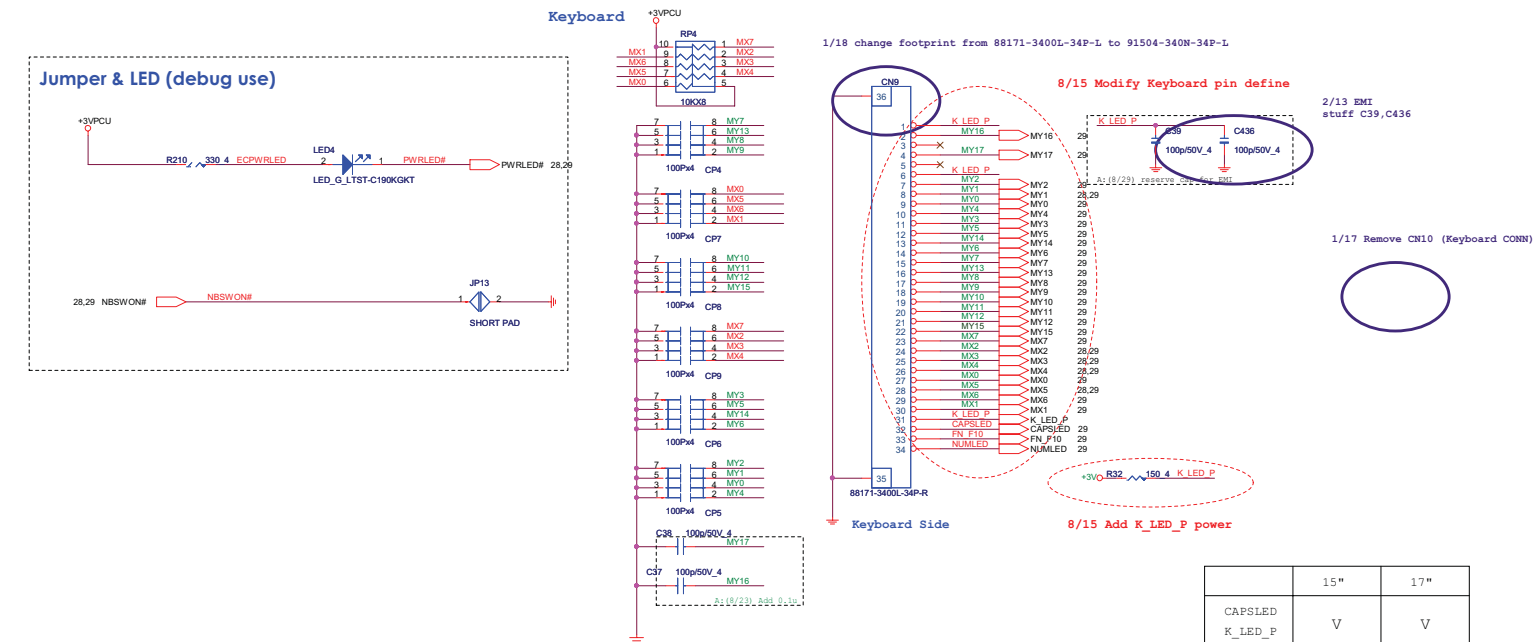
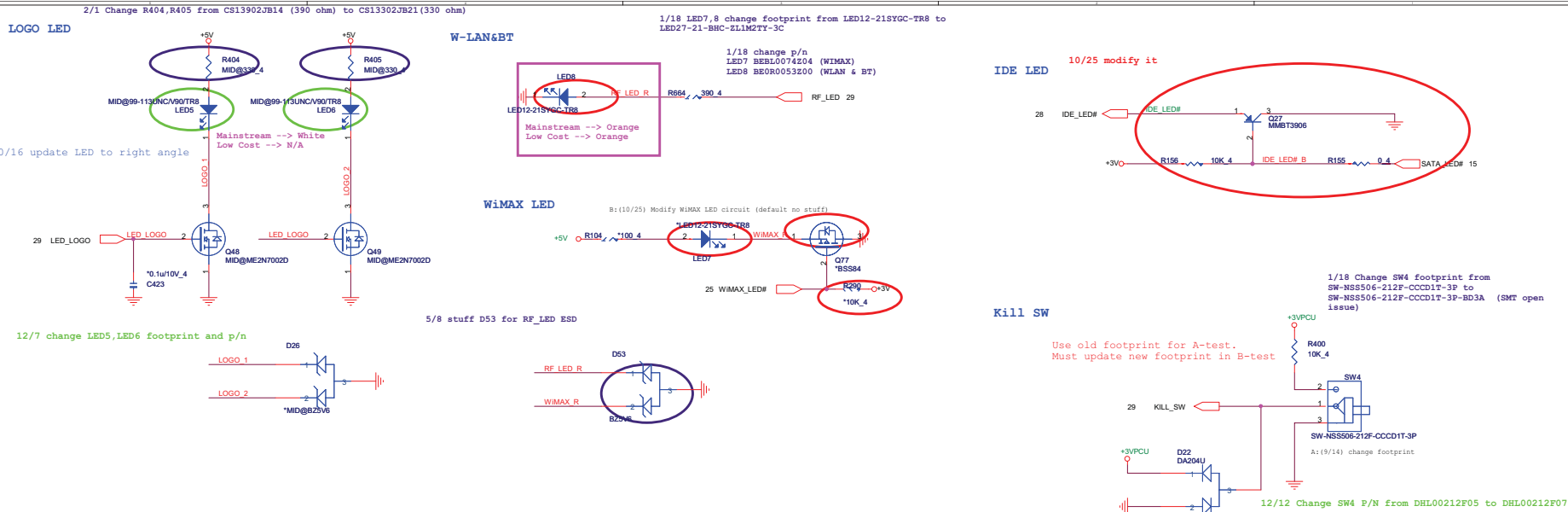
2/4 reserve D82~D86 for CN32 (2ND HDD)

4/17 remove D82~D86 for CN32 , change to U45 CM1213-04SO

5/5 add C818 0.01u to U45 +5V for ESD







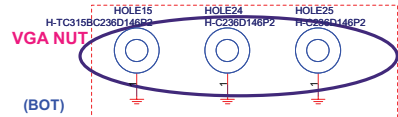
A:(8/27) Confirm with EC FAE,
MY no need External PU resistor

	15"	17"
CAPSLED K_LED_P (Pin 31)	V	V
FN_F10 K_LED_P (Pin 6)	V	
NUMLED K_LED_P (Pin 1)	V	V

HOLE

Take care NUT P/N base on IV/EV sku

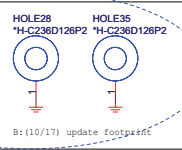
1/18 HOLE 17,18,23 FBBL5004010
change to FBBL5002010



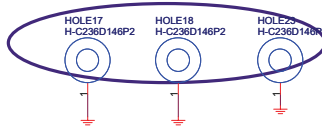
MDC NUT (BOT)



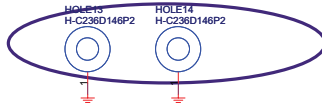
Mini-PCI-A NUT (BOT)



CPU NUT (BOT)



Mini-PCI-B NUT (BOT)



2/18 HOLE 13,14 FBBL5008010
change to FBBL5051010

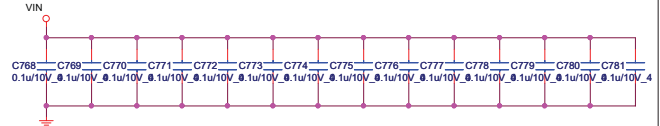
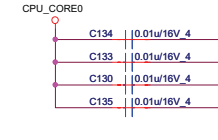
For fix HyperTransport nets
across plane splits

4/17 update HOLE13,14 footprint to H-C236D146P2

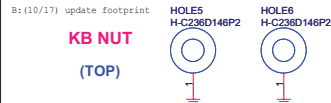
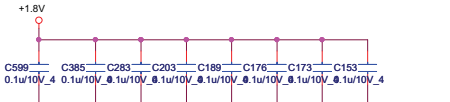
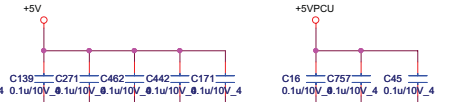
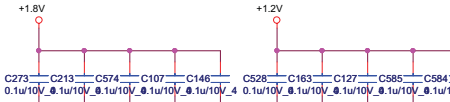
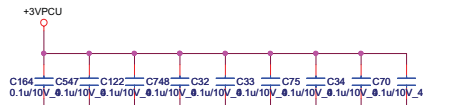
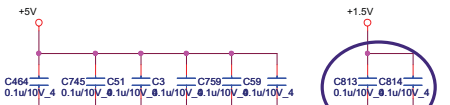
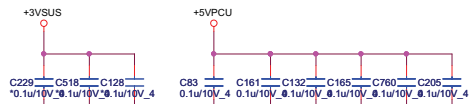
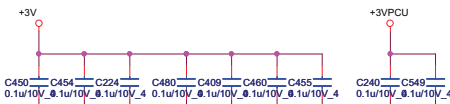
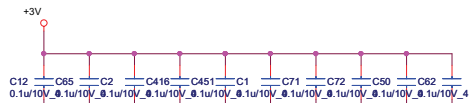
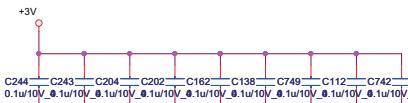
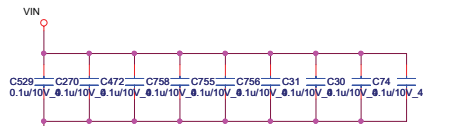
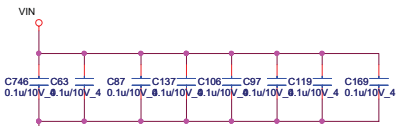
NUT P/N Control Table

	UMA sku	EV sku
HOLE15	FBBL5002010	FBBD3021010
HOLE24	FBBL5002010	FBBD3021010
HOLE25	FBBL5002010	FBBD3021010

Stitch CAP



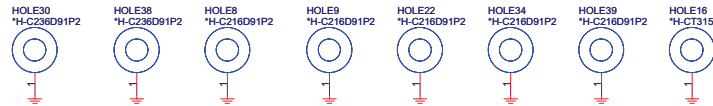
EMI CAP.



E-SATA NUT (BOT)



4/21 remove Hole31,37



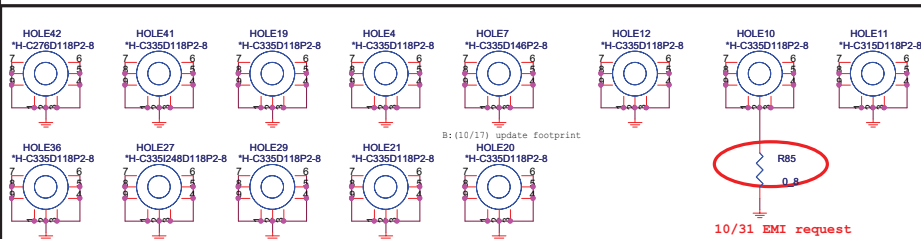
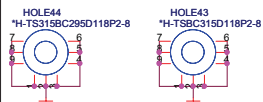
A: (9/17) Base ON EMI mail (9/13) Item5



A: (9/12) Base ON EMI mail (9/13) Item1

10/24 update footprint

B: (10/17) update footprint

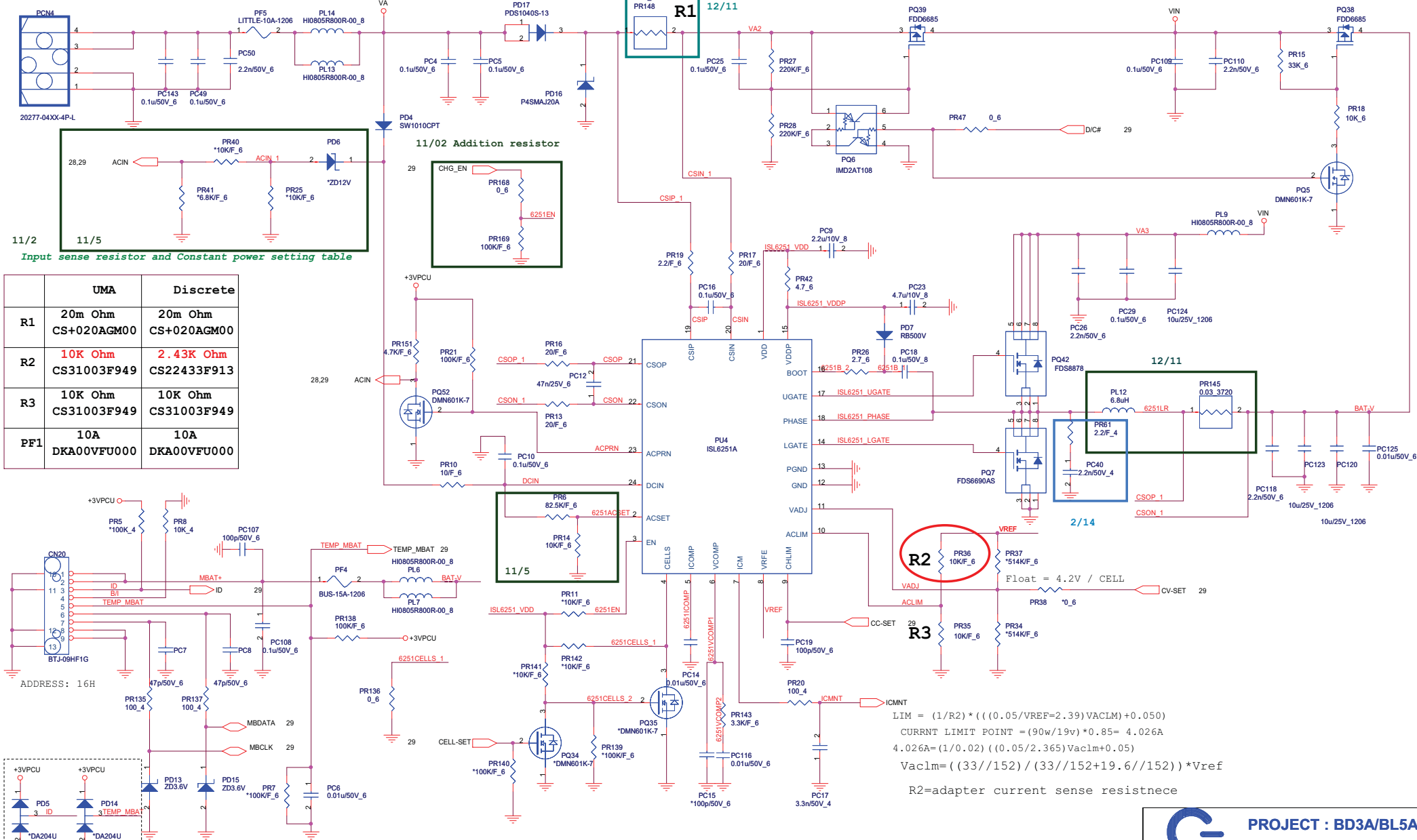


B: (10/17) update footprint



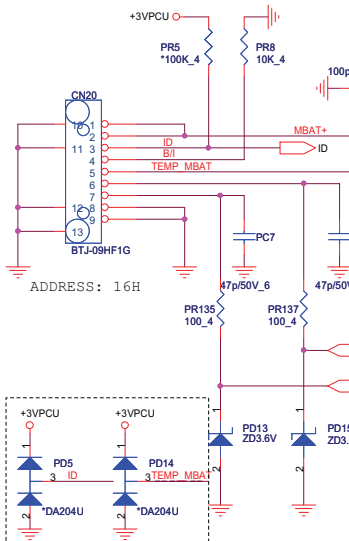
10/31 EMI request

RAMP: (1/16) Follow BL5, update Hole footprint (13pcs)



11/2 Input sense resistor and Constant power setting table

	UMA	Discrete
R1	20m Ohm CS+020AGM00	20m Ohm CS+020AGM00
R2	10K Ohm CS31003F949	2.43K Ohm CS22433F913
R3	10K Ohm CS31003F949	10K Ohm CS31003F949
PF1	10A DKA00VFU000	10A DKA00VFU000



A: (9/7) Add ESD diode base on EC FAE suggestion

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

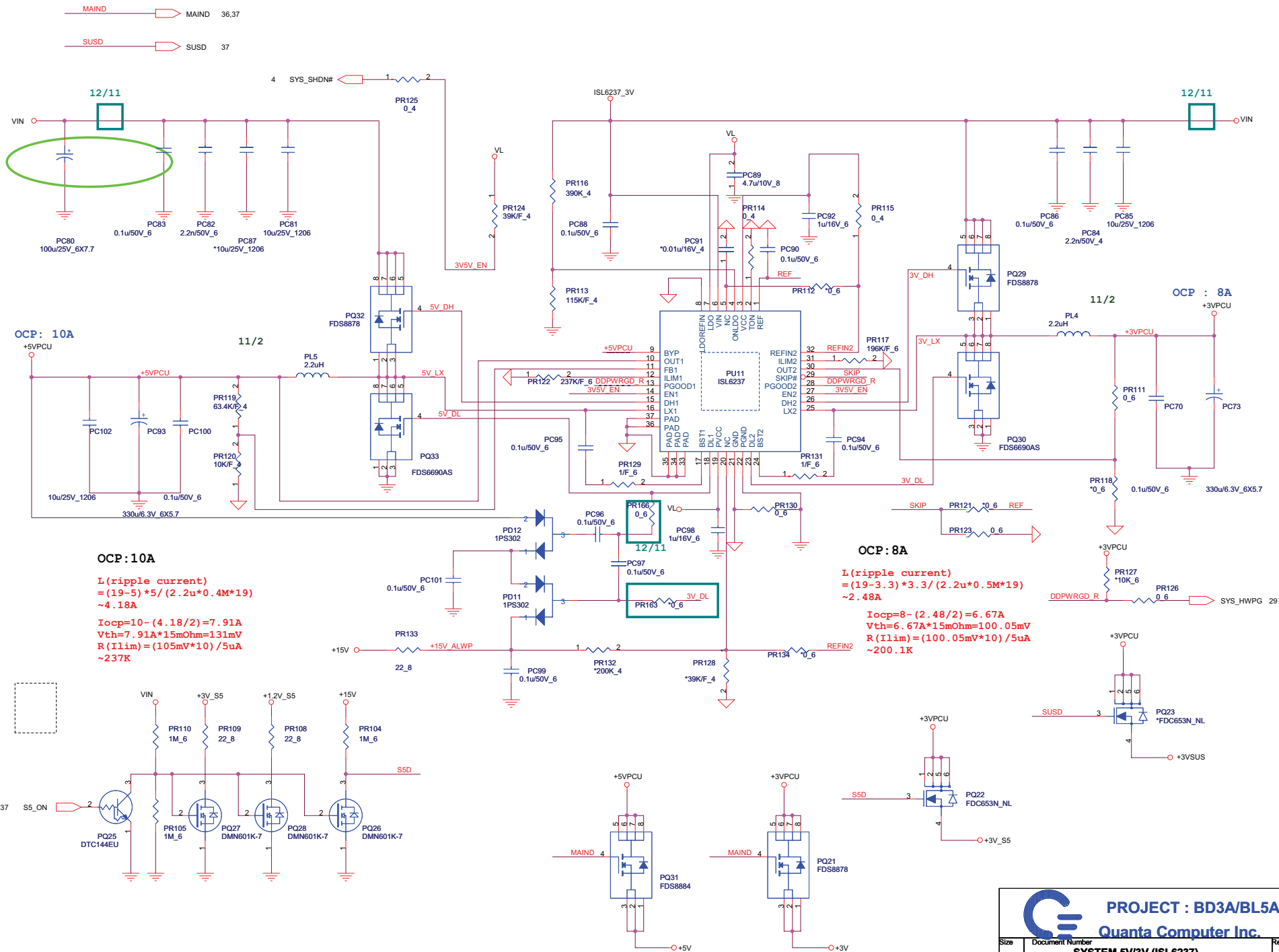
$$LIM = (1/R2) * (((0.05/VREF=2.39)VACLIM)+0.050)$$

$$CURRNT LIMIT POINT = (90w/19v) * 0.85 = 4.026A$$

$$4.026A = (1/0.02) * ((0.05/2.365)VACLIM+0.05)$$

$$VACLIM = ((33/(152)) / ((33/(152)+19.6/(152))) * Vref$$

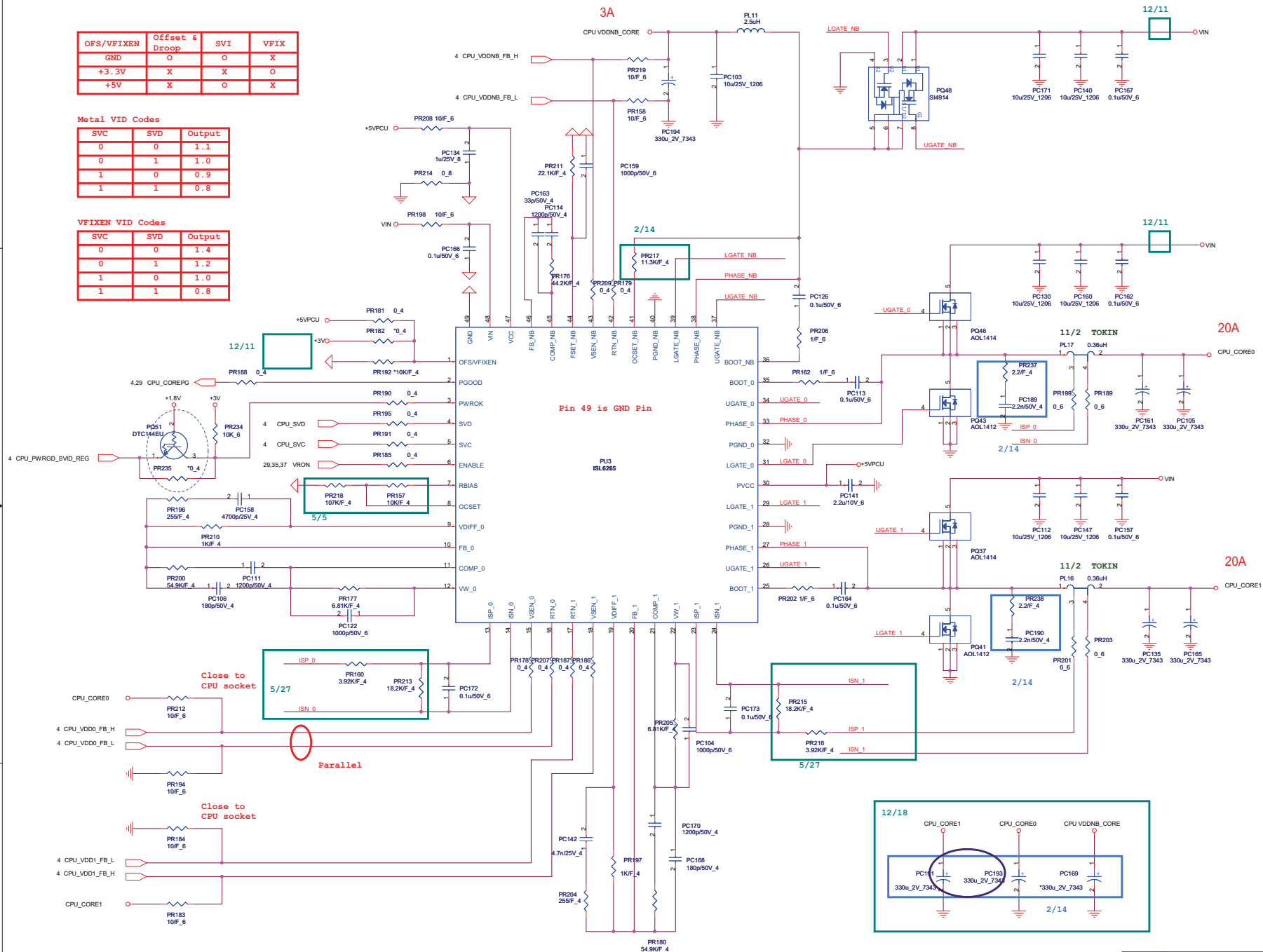
$$R2 = \text{adapter current sense resistnece}$$



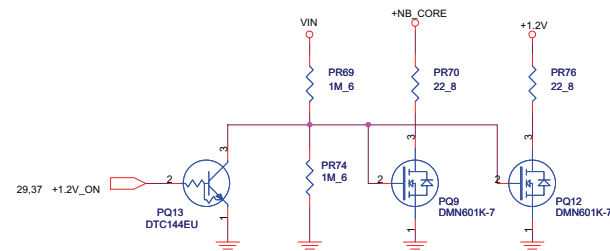
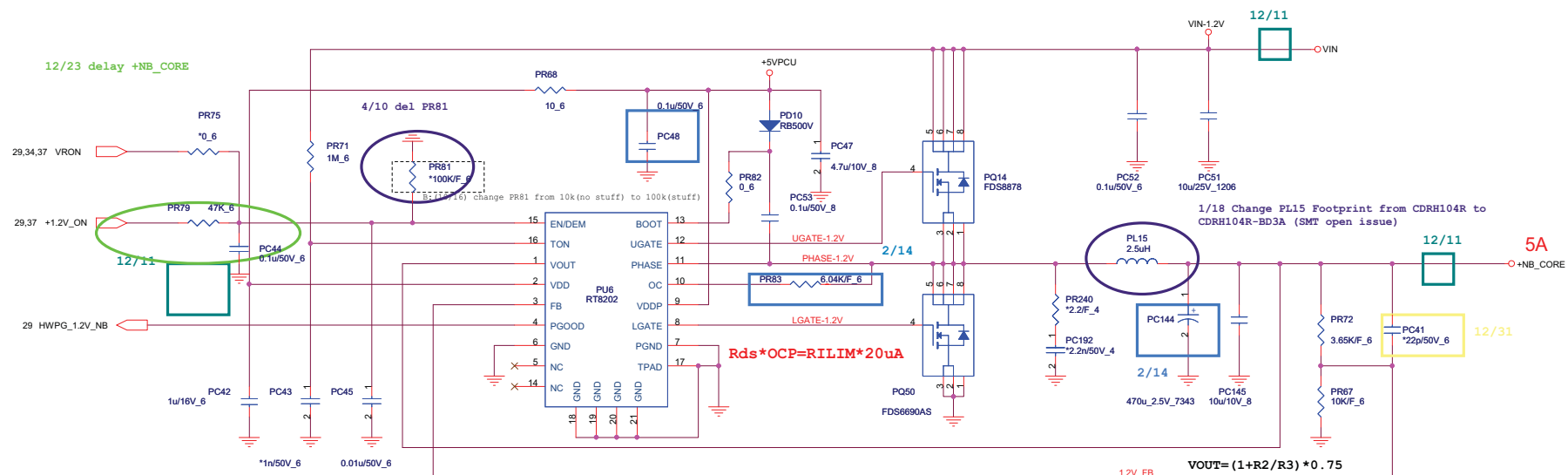
OFS/VFIXEN	Offset & Droop	SVC	VFIX
GND	O	O	X
+3.3V	X	X	O
+5V	X	O	X

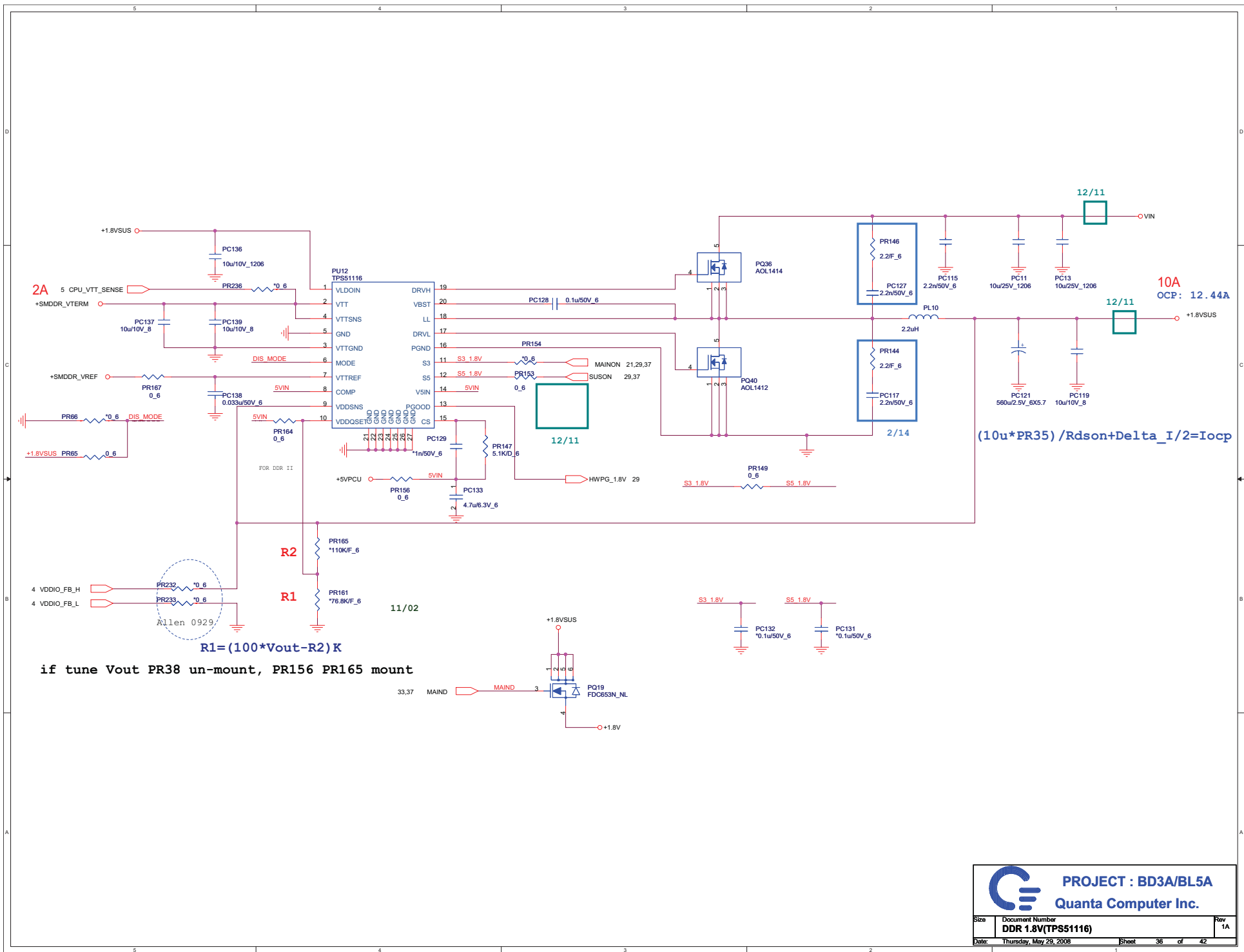
SVC	SVD	Output
0	0	1.1
0	1	1.0
1	0	0.9
1	1	0.8

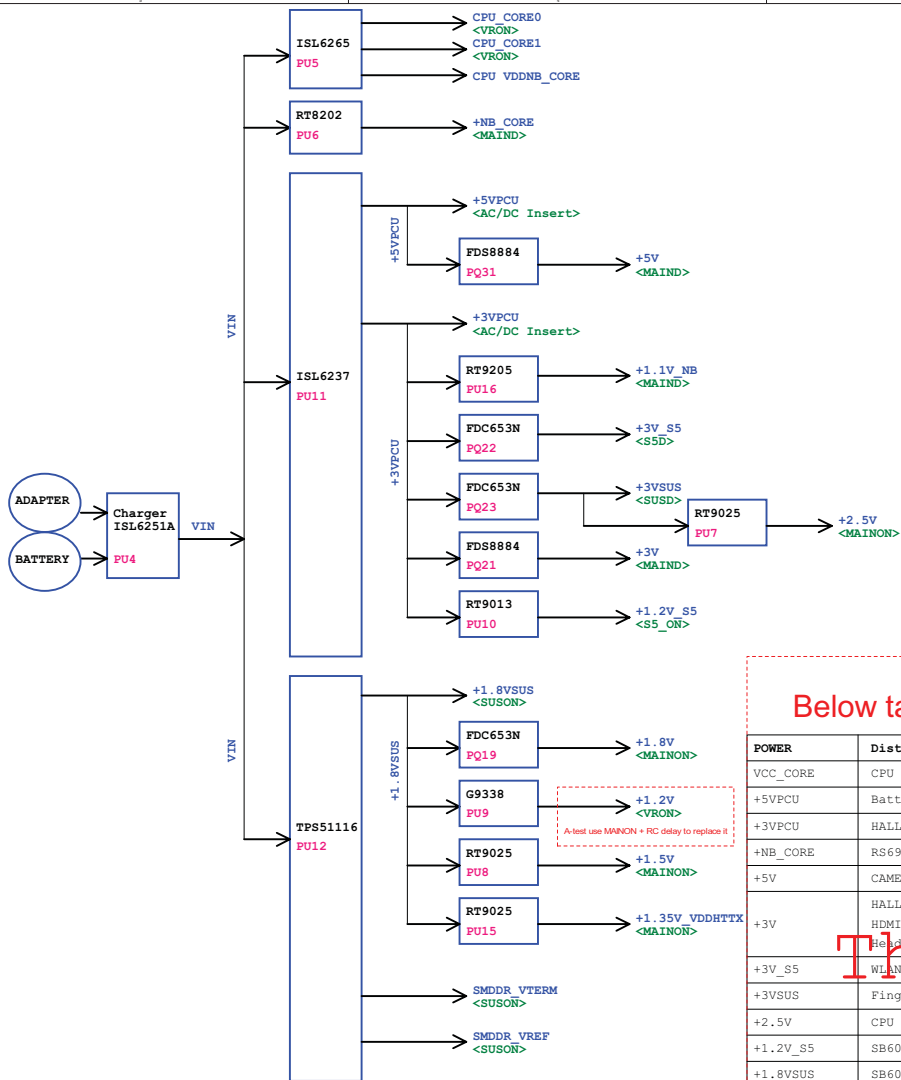
SVC	SVD	Output
0	0	1.4
0	1	1.2
1	0	1.0
1	1	0.8



4/10 add PC191,PC193







Below table need be modify (waiting other schematic ready)

POWER	Distribution
VCC_CORE	CPU
+5VPCU	Battery LED , Power LED , USB , CIR , RTC
+3VPCU	HALL SENSOR , Battery LED , RF LED , kill SW , Jumper LED , KB , Power Board , EC , ID , SPI Flash , CIR
+NB_CORE	RS690M
+5V	CAMERA , Card Reader LED , ODD/HDD LED , Felica , T/P , T/sensor , CRT , HDMI , SB600 , CPU FAN , MXM , Headphone , EC , INT SPK AMP
+3V	HALL SENSOR , LCD PANEL , LVDS , WLAN , HD Decoder , NEW CARD , KB , KB LED , XD LED , Blue tooth , Touch sensor , Card Reader (OZ129) , ODD/HDD , HDMI , CRT , TVOUT , REQUIRED STRAPS , DEBUG STRAPS , SB600 , RS690M , DDR , CPU Thermal monitor , CPU FAN , CLK , MXM , VR , FM Tuner MDC , Headphone , EC , LAN , Modem (CX 20561)
+3V_S5	WLAN , NEW CARD , SB600 , MXM , LAN
+3VSUS	Finger print , SB600
+2.5V	CPU
+1.2V_S5	SB600
+1.8VSUS	SB600 , DDR , CPU , HDT
+1.8V	SB600 , LCD , LVDS , RS690M
+1.2V	SB600 , RS690M , CPU , WLAN , HD Decoder , NEW CARD
+SMDDR_VTERM	DDR , CPU
+SMDDR_VREF	DDR
+5V_S5	

The Table NOT READY

Model	REV	DATE	CHANGE LIST	NOTE
BD3G	A1A	2007	FIRST RELEASED : Import BOM ECN	ECN Release
		20071008	PAGE23:Reverse U42,C761 for VR	Circuit modify
	B2A	20071008	PAGE28:Add R667,R668,Q78 for TP_LED	Circuit modify
		20071204	PAGE04:Reverse C762 for AMD engineer CPU use	Circuit modify
		20071204	PAGE19:update CN25 HDMI footprint to HDMI-C12816-119A5-L-19P-V-BL5-1	Circuit modify
		20071204	PAGE15:change BOARD ID3 from GEVENT7 to GPIO48	Circuit modify
		20071204	PAGE14:change BOARD ID PD value from 10K to 1K(R227,R228,R229,R248,R343,R236)	Circuit modify
		20071204	PAGE29:Stuff R510, no-stuff R509 (slope BT module can't bring up issue)	Circuit modify
		20071204	PAGE20: modify display on ckt to avoid flash when into S3/S4/S5 (add Q78,Q80,R670,del Q41,R388)	Circuit modify
		20071207	PAGE19:update CN25 HDMI footprint to HDMI-C12816-119A5-L-19P-H-BD3	Circuit modify
		20071207	PAGE32:update ACIN design	Circuit modify
		20071207	PAGE24:Change R449(0 ohm) to D56(Diode) for leakage issue (3VPCU to 3V_S5)	Circuit modify
		20071207	PAGE23: Slove Audio issue:When plug in-out headphone, headphone has bo sound. 1. Change R652&R651 to C763,C764(10U/6.3V 0603)	Circuit modify
		20071207	PAGE22: Remove D19 to slove Audio issue Switch Mute to Un-mute, sound will delay about 2 seconds.	Circuit modify
		20071207	PAGE14: add D57,D58 to avoid voltage leakage	Circuit modify
		20071207	PAGE30:update LED5,LED6 footprint and PN	Circuit modify
		20071207	PAGE04:add R671~R679 for AMD request	Circuit modify
		20071208	PAGE03:change C223 C225 from 10p to 33p PAGE15:change C257 C258 from 10p to 27p PAGE26:change C380 C381 from 22p to 18p	
		20071210	PAGE25:Change New card footprint to NCARD-13180151-T-26P-L-BL5S	
		20071210	PAGE22:stuff R372 for FM	
		20071211	update power	
		20071212	PAGE29: Change U41(CIR) from BEBK0081D00 to BEBK0081D01	
		20071212	PAGE18: Change CN22(S-Video) from DFMD04FR296(Yellow Color) to DFMD04FR006(Black Color)	
		20071212	PAGE30: Change SW4 P/N from DHL00212F05 to DHL00212F07	
		20071212	PAGE31: Update Hole43 H-TSBC315D118P2, Hole 44 H-TS315BC295D118P2	
		20071212	PAGE29: pull down 100k R680 for ECPWROK	
		20071212	A11 to A12 implemen PAGE12: Del L15 stuff L36 PAGE16: Del R234 stuff R235 PAGE35: Del PU15,PC180,PC182,PC179PR227,PR226,PR225, Change PR73 from 8.25K to 35.7K	
		20071220	PAGE23: Slove GPRS noise 1. stuff R386/R387/C404/C405 to 0.1u 2. Change L44/41 to BK1608LL121	
		20071220	PAGE29: avoid leakage reserve D59/D60 to CLKRUN#/PLTRST#	
		20071221	PAGE18:add 27p(C790~C793) for TV_Y/G , TV_C/R	
		EMI	PAGE21:stuff C568,C548 PAGE22:stuff R399,R379 PAGE23:Change L43/44 to BK1608LL121 PAGE24:add L74,C766,C767,C789,C788 for +2.5V_1.8V_LAN,add L73 for +1.2V_LAN PAGE26:add 0 ohm and 22p for SD/MS CLK , R308~R329 0ohm(CS00002JB38) change to 33ohm(CS03302JB29), remove RN34,RN35, stuff L68,L69 for 1394 PAGE28:del R276,R278 stuff L72 , del R613,R612,R624,R626 stuff L70,L71 , add 0.1u for +5VPCU add 100p for 3ND_MBDATA/CLK PAGE31:stuff all 0.1 cap	
		20071221	update power	
		20071222	PAGE11: stuff R48 2.2K for power play	
		20071222	PAGE24: Per cost down remove LAN eeprom,stuff R381,remove U21,R380,R378	
	C3A	20080102	PAGE14: NEW_DET# change from Geven3# to GPM1#	
		20080117	Update RX781	
		20080117	PAGE13:Modify RTC circuit. R301,R302 change from 8.66k to 2k. R332 change from 4.7K to 6.8K	
		20080117	PAGE13:Change RTC Battery from VARTA (AHL03001441) to MATSUSHITA (AHL03002005)	
		20080117	PAGE19:Change back HDMI connector(CN25) footprint from HDMI-C12816-119A5-L-19P-H-BD3 to HDMI-C12816-119A5-L-19P-H-BL5(SMT open issue)	
		20080117	PAGE20:for engery star add R684 connect to EC pin27	
		20080117	PAGE24:Change CN28 (RJ45 CONN) from DFTJ12FR024 to DFTJ12FR035	
		20080117	PAGE27:Change CN32(2nd SATA CONN) from DFHS22FR064 to DFHS22FR094	
		20080117	PAGE27:Change CN32 footprint from SATA-127043FR022XX27ZR-22P-L-H to SATA-127043FR022G285ZR-22P-L	
		20080117	PAGE30:Remove CN10 (Keyboard CONN)	
		20080117	PAGE21:Remove R492,R517, Short CN27/Pin189,190 to VIN directly.	
		20080118	PAGE28:Change L72 from CX216900002 to CX163210007(BT circuit)	
		20080118	PAGE08:Change CN19 footprint from DDR-C-292564-200P to DDR-C-292564-200P-BD3A (SMT open issue)	
		20080118	PAGE08:Change CN23 footprint from DDR-C-1734071-200P to DDR-C-1734071-200P-BD3A (SMT open issue)	
		20080118	PAGE30:Change SW4 footprint from SW-NSS506-212F-CCCD1T-3P to SW-NSS506-212F-CCCD1T-3P-BD3A (SMT open issue)	
		20080118	PAGE23:Change CN43 footprint from MDC-1-179373-2-12P-RUV to MDC-1-179373-2-12P-RUV-BD3A (SMT open issue)	
		20080118	PAGE35:Change PL15 Footprint from CDRH104R to CDRH104R-BD3A (SMT open issue)	
		20080118	PAGE22:Add R685 for VISTA WHQL circuit	
		20080118	PAGE24: Change RJ45 footprint from LAN-100073FR012G101ZL-12P to rj45-c100s7-10806-I-12P	
		20080118	PAGE31:HOLE 17,18,23 FBBL5004010 change to FBBL5002010	

Model	REV	DATE	CHANGE LIST	NOTE
BD3G	C3A	20080118	PAGE30:change footprint from 88171-3400L-34P-L to 91504-340N-34P-L	Circuit modify
		20080118	PAGE30:LED7,8 change footprint from LED12-21SYGC-TR8 to LED27-21-BHC-ZL1M2TY-3C	Circuit modify
		20080118	PAGE30:change p/n LED7 BEBL0074Z04 (WIMAX),LED8 BE0R0053Z00 (WLAN & BT)	Circuit modify
		20080131	PAGE31:update HOLE42,41,19,4,7,12,10,11,36,27,29,21,20,43,44	Circuit modify
		20080131	voltage leakage issue	Circuit modify
			PAGE04:modify CPU_PROCHOT# ckt (add R687, no stuff R686,R425), CPU_LDT_REQ#_CPU ,CPU_PWRGD connect to +1.8V	Circuit modify
			PAGE11:remove Q5,Q3,R83,R80,R97,stuff R88,R77	Circuit modify
			PAGE14:BOARD_ID4 change from GPIO66 to GPIO3	Circuit modify
		20080131	PAGE14:NEW CARD hot plug issue ,NEW_DET# change from GEVEN5# to GPM1# (SB700 A12 Errata)	Circuit modify
		20080131	PAGE19: DEL L56,L57,L58,L59,R465,R474,R493,R495,R486,R488,R478,R483,C226,C227 for HDMI circuit	Circuit modify
		20080131	PAGE25: add +3V to CN21 pin39,41	Circuit modify
		20080131	PAGE18: Change L4,L5,L6 to CX8BA470003 to meet CRT spec	Circuit modify
		20080131	PAGE19: Change U11 from ARBL5SV0000 to ARBL5MV0000	Circuit modify
		20080131	PAGE28:According to customer request, we can't stuff C782 (22pF) in SD/MS_CLK	Circuit modify
		20080131	PAGE25: Change R573 from 28.7K to 0 ohm, Remove C628 for NEW card some device can't work normal	Circuit modify
		20080131	PAGE14: Change R350 from 1K to 0 ohm (Slove VCCRTC can't reach 0V when clear CMOS.)	Circuit modify
		20080131	PAGE26: Change CN33(5 in 1 card CONN) P/N from DFHS38FR003 to DFHS38FR005	Circuit modify
		20080131	PAGE27: Change CN34 (1st SATA) P/N from DFHS22FR063 to DFHS22FR082	Circuit modify
		20080131	PAGE27: Change CN32 (2nd SATA) P/N from DFHS22FR094 to DFHS22FR083	Circuit modify
		20080131	PAGE20: Change CN5 (I-MIC)P/N from DFHD02MR003 to DFHD02MR016	Circuit modify
		20080131	PAGE22: Change CN39(I-MIC CONN) P/N from DFHD02MR003 to DFHD02MR016	Circuit modify
		20080131	PAGE22: Change CN17(SPK CONN) P/N from DFHD04MR012 to DFHD04MR021	Circuit modify
		20080131	PAGE28: Change CN16(USB-FFC CONN) P/N from DFHD10MR011 to DFHD10MR008	Circuit modify
		20080131	PAGE28: Change CN13(FP CONN) P/N from DFHD04MR012 to DFHD04MR021	Circuit modify
		20080131	PAGE28: Change CN14(BT CONN) P/N from DFHD10MR011 to DFHD10MR008	Circuit modify
		20080201	PAGE22: Change INT-SPK AMP GAIN VALUE. Change R623,R625 from 9.1k to 5.1k 1%,Change R620,R621 from 10k to 16k 1%	Circuit modify
		20080201	PAGE30: Change R404,R405 from CS13902JB14 (390 ohm) to CS13302JB21(330 ohm)	Circuit modify
		20080201	RS780M A13 Errata	Circuit modify
			PAGE11:change R103 from 150 to 140 CS11402FB01	Circuit modify
			PAGE18:RS780M A13 R8 ----> 140 CS11402FB19,MXM R8 ----> 150 CS11502FB21	Circuit modify
		20080201	PAGE19: change HDMI SCL/SDA pull res R168,R171,R163,R170 to 4.7K ,change R1,R2 to 6.8K	Circuit modify
		20080201	PAGE20: change Panel SDA/SDC pull res R412,R410 from 39K to 4.7K	Circuit modify
		20080204	ESD solution	Circuit modify
			PAGE23: add Varistor D63,D64,D65 on SPDIF_OUT/HP_JD/+3V_SPD	Circuit modify
			PAGE28: reserve D66 for CN36 , reserve D68,D69,D70 for FP , stuff D71,D72,D73 for BT	Circuit modify
			PAGE20:reserve D74,D75,D76 for CCD ,stuff D87 for LID switch	Circuit modify
			PAGE27:del R270,R597 , connect to +5V directly ,reserve D77~D81 for CN34(1ND HDD) ,reserve D82~D86 for CN32(2ND HDD) ,reserve D67 for CN31	Circuit modify
			PAGE26:reserve D88~D91 for 1394	Circuit modify
			PAGE04:reserve D92,D93 for FAN , reserve C795,C796 change R122 to 0 0603	Circuit modify
			PAGE13,19,21,25:reserve C797~800 for PLTRST#	Circuit modify
		20080204	PAGE04: pull up R691 CPU_BDREQ# to avoid noise cause system shut down	Circuit modify
		20080205	PAGE23:Change R714,R715 from 10uF to 0 ohm (Audio HP circuit)	Circuit modify
		20080210	PAGE18,29: DEL D4,D5 footprint and DEL CRT_SENSE# net, No stuff R218	Circuit modify
		20080210	PAGE28: DEL C42, Add D94 for CN8/Pin2 (ESD issue) - default no stuff	Circuit modify
		20080210	PAGE28: Change L70,L71 from CX216900002 to CX163210007	Circuit modify
		20080210	PAGE28: Stuff L64,L65 to CX163210007	Circuit modify
		20080213	PAGE27: Add ESATA re-driver IC	Circuit modify
		20080213	PAGE25: Change the footprint of R33 and R330 from 1206 to 0805	Circuit modify
		20080213	EMI solution	Circuit modify
			PAGE18: C4,C7,C10,C5,C8,C11 change from 10p to 6.8p	Circuit modify
			PAGE28: stuff C391,C701, C559 ,C228,C465,C618,C41,C43, C618,C794,C809,C810	Circuit modify
			PAGE20: stuff C427~C432	Circuit modify
			PAGE30: stuff C39,C346	Circuit modify
			PAGE29: stuff C577,C578,C560	Circuit modify
			PAGE12: stuff C804~C807 for +NB_CORE	Circuit modify
			PAGE25: stuff C40,C36,C54,C58,C289,C352,C319,C272 for WL	Circuit modify
			PAGE19: stuff C808 for HDMI	Circuit modify
			PAGE15: stuff C375,C366 for SB HW MONITOR	Circuit modify
			PAGE22: stuff R627	Circuit modify
			PAGE26: change R683 from 0 to 33 ohm	Circuit modify
		20080214	UPDATE POWER	Circuit modify
		20080215	PAGE28: CN42 co-layout with CN16	Circuit modify
		20080215	PAGE31: Remove R98,R145,R118 Hole15,17,18	Circuit modify
		20080215	PAGE28: Change L70,L71 from CX216900002 to CX201290009	Circuit modify
		20080218	PAGE31: HOLE 15,24,25 FBBD3017010 change to FBBD3021010	Circuit modify
		20080218	PAGE31: HOLE 28,35 FBBL5007010 change to FBBL5050010 , HOLE 13,14 FBBL5008010 change to FBBL5051010	Circuit modify

Model	REV	DATE	CHANGE LIST	NOTE
BD3G	C3A	20080218	PAGE04: G781 reverse R718 0 ohm for Griffin CPU	Circuit modify
		20080219	PAGE04: change G781 to G786P81U	Circuit modify
		20080220	PAGE27:1.change C801,C82 from 0.01u to 4.7n, 2.RX add C811,C812 4.7n	Circuit modify
		20080222	PAGE15:change SATA ODD from port3 to port4 (solve ODD post detect fail)	Circuit modify
		20080226	PAGE27:change ESATA conn usb-2006109-11p,update p/n to DFHS11FR021	Circuit modify
		20080227	update power include EMI	Circuit modify
		20080229	del co-layout parts	Circuit modify
			RN34,RN35,R608,R607,R572,R569	Circuit modify
		20080303	PAGE14: del Mini card USB10,Felica USB5 , change BT to port5 , ESATA to port 10	Circuit modify
		20080303	PAGE25: MINI PCI II no need USB , change USB10 to ESATA .and del R169,R188	Circuit modify
		20080303	PAGE28: no Felica request , remove USB del R178,R179,remove Q57,C476,R450,Q56	Circuit modify
		20080303	PAGE31: EMI request add C813,C814	Circuit modify
		20080410	PAGE17: change R150 to R152 for power sequence	Circuit modify
		20080410	PAGE26: add D88~D91 for 1394 ESD	Circuit modify
		20080410	PAGE27: change ESATA conn usb-2006109-11p update p/n to DFHS11FR023	Circuit modify
		20080410	PAGE27: add D67,D49,D50 for ESATA USB ESD	Circuit modify
		20080410	PAGE28: add D51,D52, D66 for USB0	Circuit modify
		20080410	PAGE34: add PC191,PC193 for CPU core	Circuit modify
		20080410	PAGE35: del PR81	Circuit modify
		20080410	PAGE27: remove Flash card ckt	Circuit modify
		20080416	PAGE13: change RTC pad location to G1	Circuit modify
		20080416	PAGE14: pull up USB_OC5# R719	Circuit modify
		20080416	PAGE18: update footprint to sv-030018fr004s100fr-4p-h-bl5m	Circuit modify
		20080416	PAGE23: update footprint to knob-xre094-3p-bl5m	Circuit modify
		20080416	PAGE28: remove CN42 not co-layout with CN16	Circuit modify
		20080416	PAGE31: update HOLE13,14 footprint to H-C236D146P2	Circuit modify
		20080417	PAGE27: remove D77~D81 for CN34 , change to U44 CM1213-04SO(AL001213001) ,remove D82~D86 for CN32 , change to U45 CM1213-04SO	Circuit modify
		20080418	PAGE28: Change L72 from CX163210007(BT circuit) to CX201290009	Circuit modify
		20080421	PAGE31: remove Hole31,37	Circuit modify
		20080421	no stuff +3VSUS component	Circuit modify
			PAGE31: no stuff C229,C518,C128	Circuit modify
			PAGE33: no stuff PQ23	Circuit modify
			PAGE37: no stuff PR95,PQ20	Circuit modify
		20080424	PAGE16: IDE/FLASH not use ,remove C287,C288,C297,C293,C294	Circuit modify
		20080424	PAGE16: internal clk not use ,remove C332,C330,C327,C331, change L28 to 0 ohm	Circuit modify
			To meet ESATA SI	Circuit modify
		20080424	PAGE27: change R706 from 0 ohm to 330 , stuff R692,R693,R694	Circuit modify
		20080424	PAGE16: remove C762 to meet PWRGD timing spec	Circuit modify
		20080424	PAGE9: stuff R480,R479 to meet AMD spec	Circuit modify
		20080424	PAGE17: stuff C765 10nf to meet power sequence	Circuit modify
		20080505	PAGE34: intersil recommand to set OCP to 30A	Circuit modify
			Change PR218 from CS32052FB21 to CS41072FB11,Change PR157 from CS41002FB28 to CS31002FB26,Change PR160 PR216 from CS31622FB27 to CS23652FB08	Circuit modify
		20080505	PAGE22: Change CN17 from DFHD04MR021 to DFHD04MRA75	Circuit modify
		20080505	PAGE27: update re-driver footprint to tqfn36-5x6-5-37p-0_75h-te1m	Circuit modify
		20080505	PAGE20: reserve R720,R721 for cost down	Circuit modify
		20080505	PAGE27: add C816 0.1u to U44 +5V for ESD , add C818 0.1u to U45 +5V for ESD	Circuit modify
		20080505	PAGE25: remove CN30 second PCIE (HD Decoder)	Circuit modify
		20080505	PAGE31: remove HOLE28,35 (HD Decoder)	Circuit modify
		20080507	PAGE20: stuff D74,D75,D76 for CCD	Circuit modify
		20080508	PAGE20: reserve CM1293 U46,C819 for CCD ESD protect	Circuit modify
		20080508	PAGE28: stuff D68,D69,D70 for FP	Circuit modify
		20080508	PAGE30: stuff D53 for RF_LED ESD	Circuit modify
		20080509	PAGE26: 5/9 for card reader MS DUO adapter short issue	Circuit modify
			reserve R723,724,722 ,Q82,Q81,Q83,Q84	Circuit modify
		20080513	PAGE4: follow AMD design guide 1.03 stuff R675	Circuit modify
		20080527	PAGE26: some 1394 device can't boot normal	Circuit modify
			change L38 to BK1608HS220_6	Circuit modify
		20080527	PAGE34: CPU core adj	Circuit modify
			1.PR160,PR216 change to 3.92K/F_4	Circuit modify
			2.PR213,PR215 change to 18.2K/F_4	Circuit modify
		20080527	PAGE33: solve system hang up , when plug adp quickly	Circuit modify
			change PR113 from 150K_4 to 115K/F_4	Circuit modify
		20080527	PAGE33: avoid right side USB voltage drop	Circuit modify
			change PR119 to 63.4K , PR120 to 10K	Circuit modify
		20080528	PAGE12: del C805,C807	Circuit modify
		20080529	PAGE27: change ESATA conn p/n to DFHS11FR027	Circuit modify



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