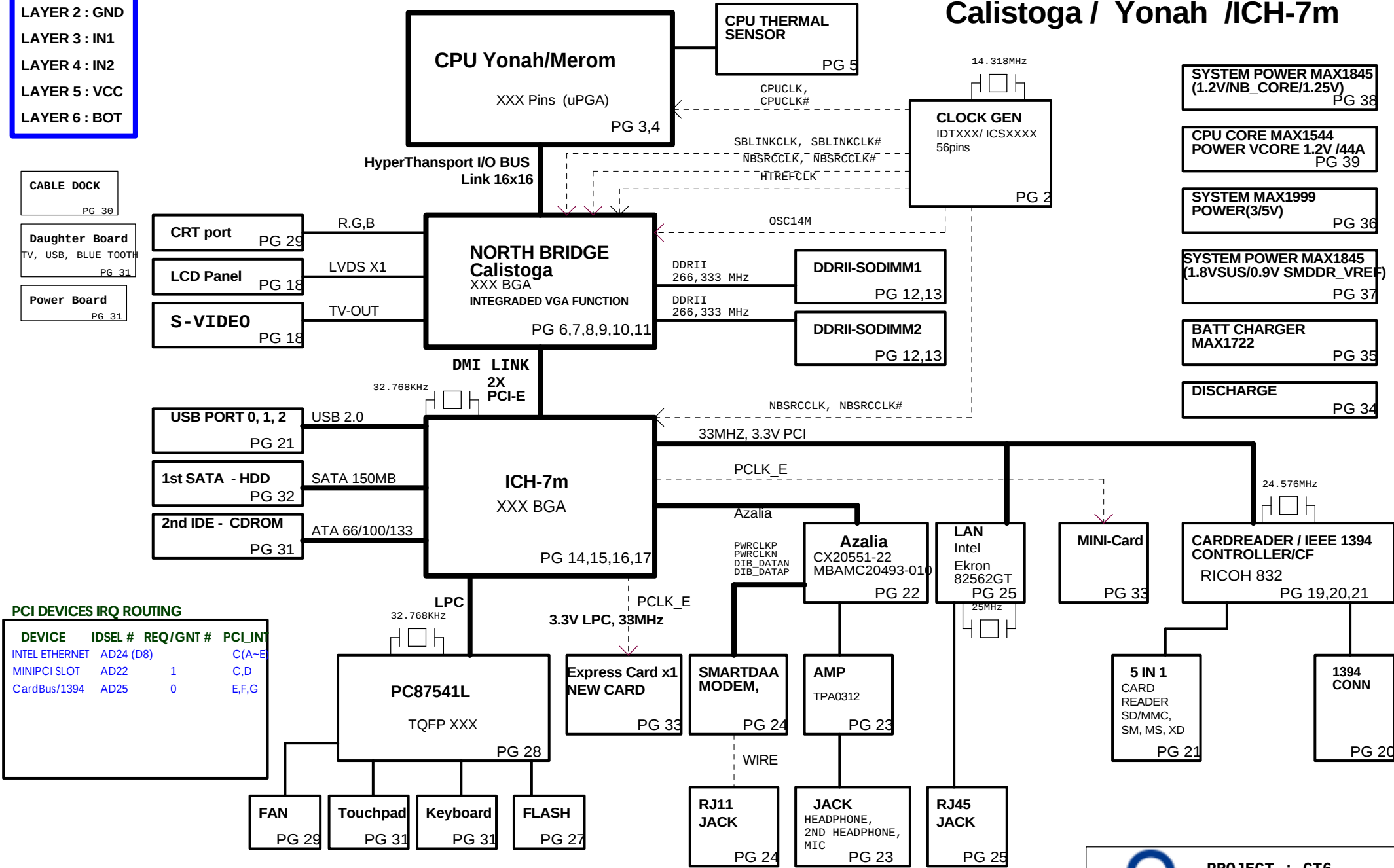


PCB STACK UP

- LAYER 1 : TOP
- LAYER 2 : GND
- LAYER 3 : IN1
- LAYER 4 : IN2
- LAYER 5 : VCC
- LAYER 6 : BOT

CT6 BLOCK DIAGRAM

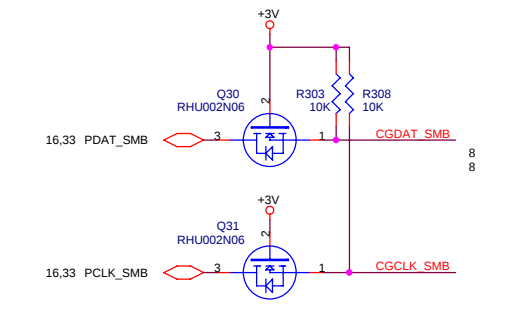
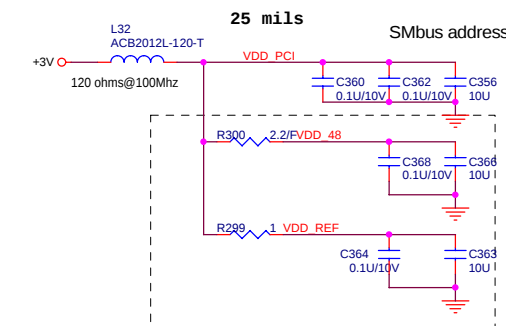
Calistoga / Yonah /ICH-7m



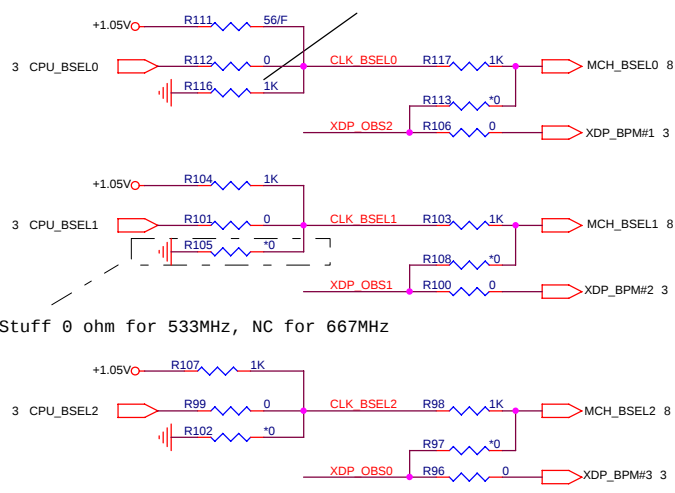
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	83
0	0	1	133	100	83
0	1	1	166	100	83
0	1	0	200	100	83
0	0	0	266	100	83
1	0	0	333	100	83
1	1	0	400	100	83
1	1	1	200	100	83

Default

5,9,13,14,15,16,17,18,22,23,26,28,29,30,31,32,33,34,36,39,41,42 +3V
14,17,38,42 +1.05V

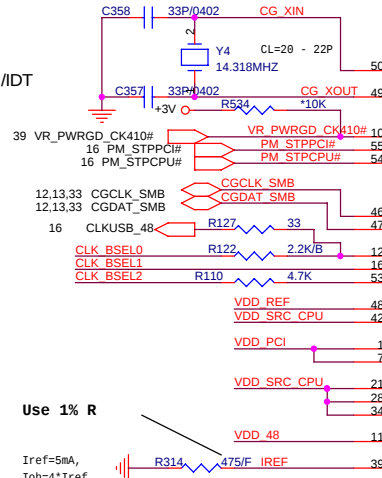


BSEL strappings need to be set for 533MHz Moby Dick (Intel7915GM - Calistoga Interposer) (if Calistoga is designed for 667MHz board).



Stuff 0 ohm for 533MHz, NC for 667MHz

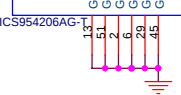
Close to IC <500mils



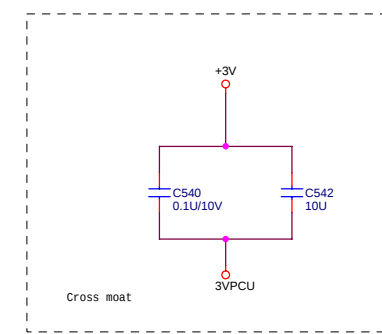
Use 1% R

Iref=5mA, Ioh=4*Iref

CK-410M



IDT CV140 /56pins
ICS954206AGT /56pins

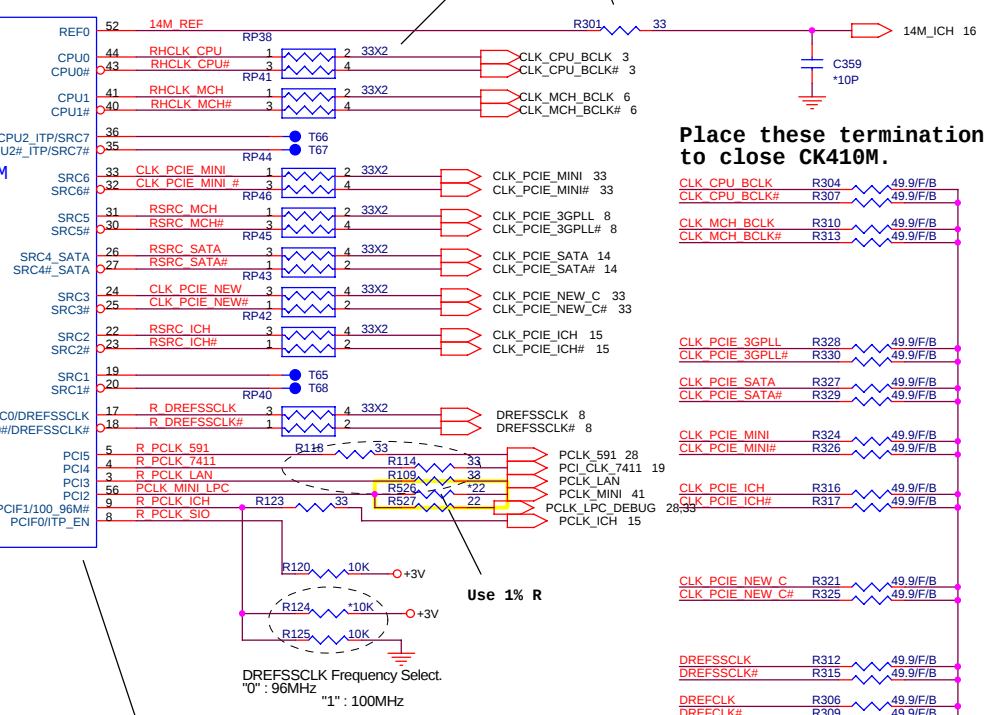


Check Intel

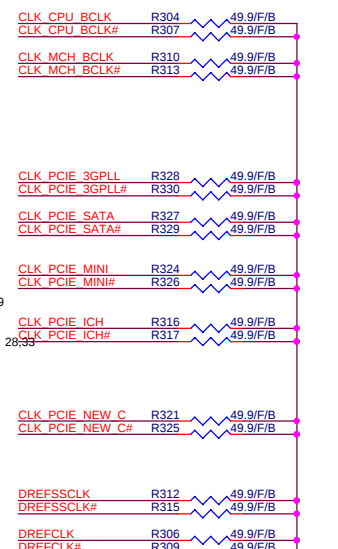
25 mils

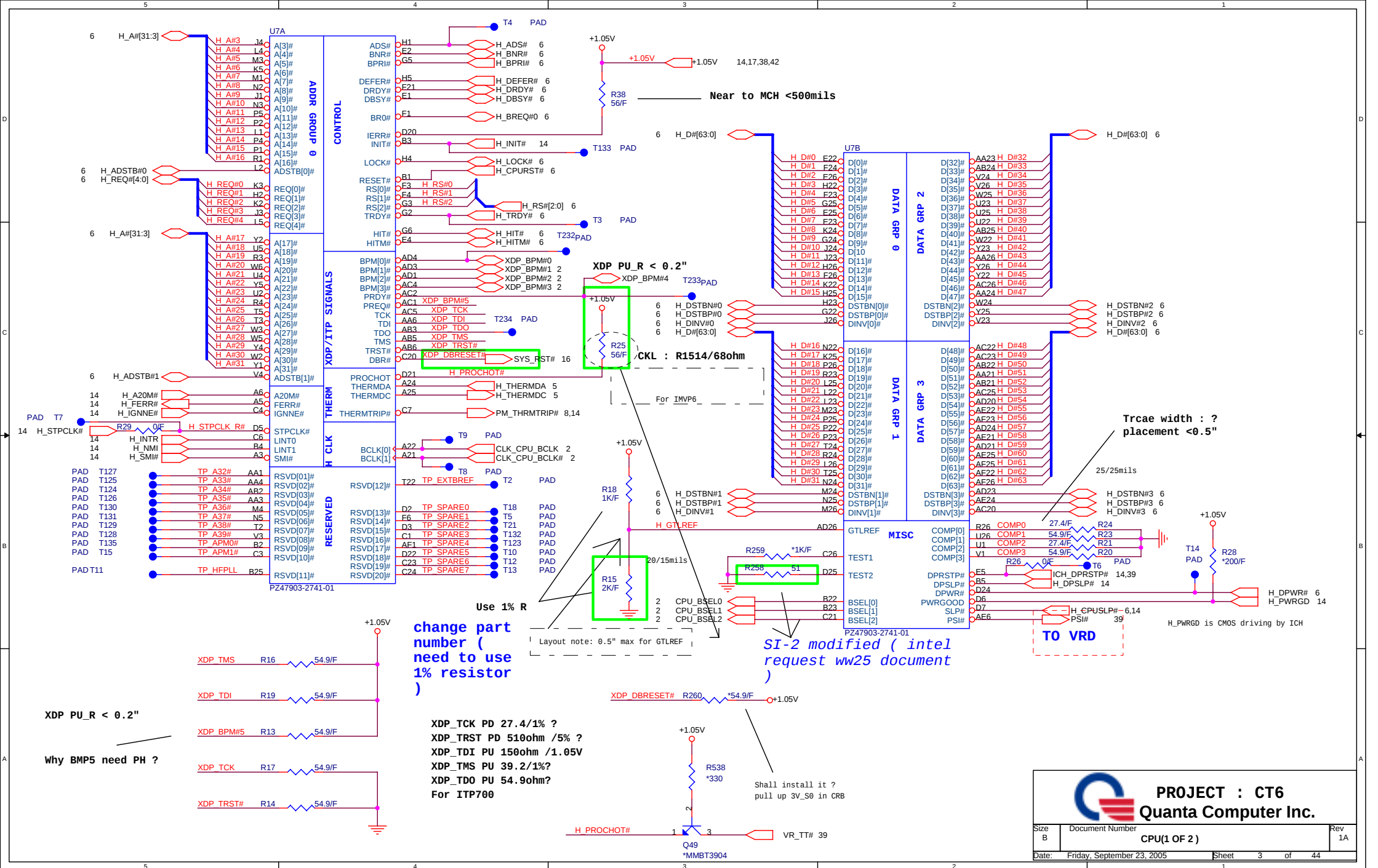
Place these termination to close CK410M.

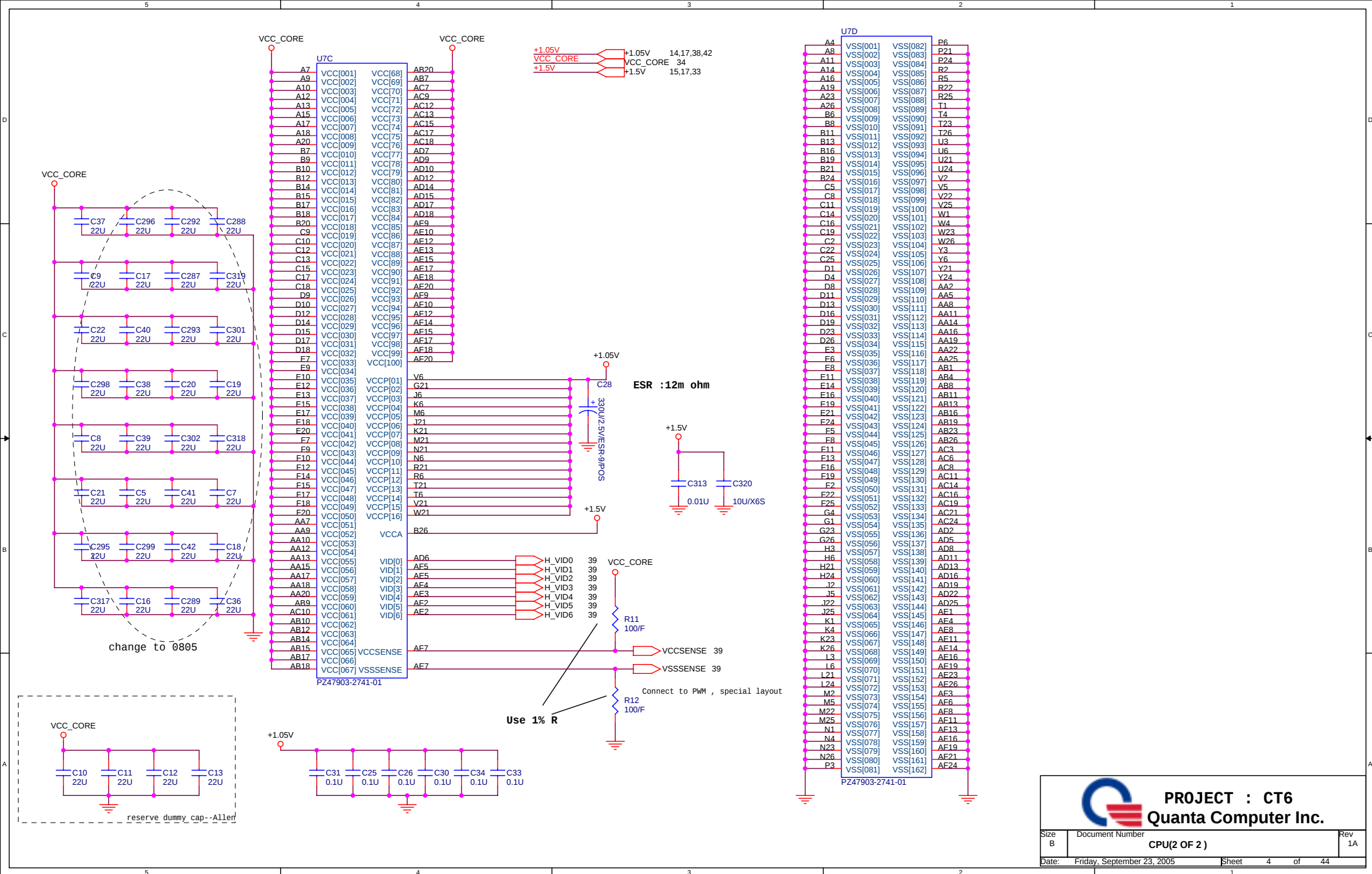
Use 33R/1%

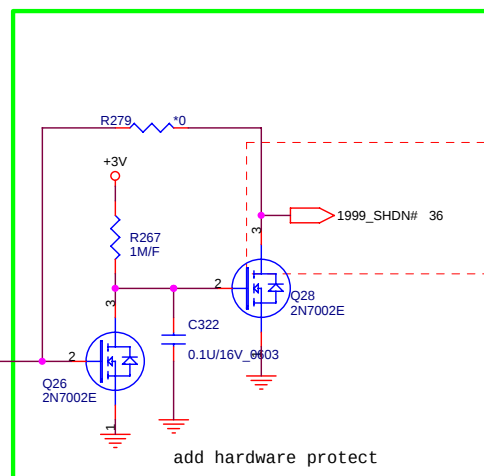


Place these termination to close CK410M.









28,35 MBDATA

Q27
RHU002N06

+3V

3 1

LM86 SMD

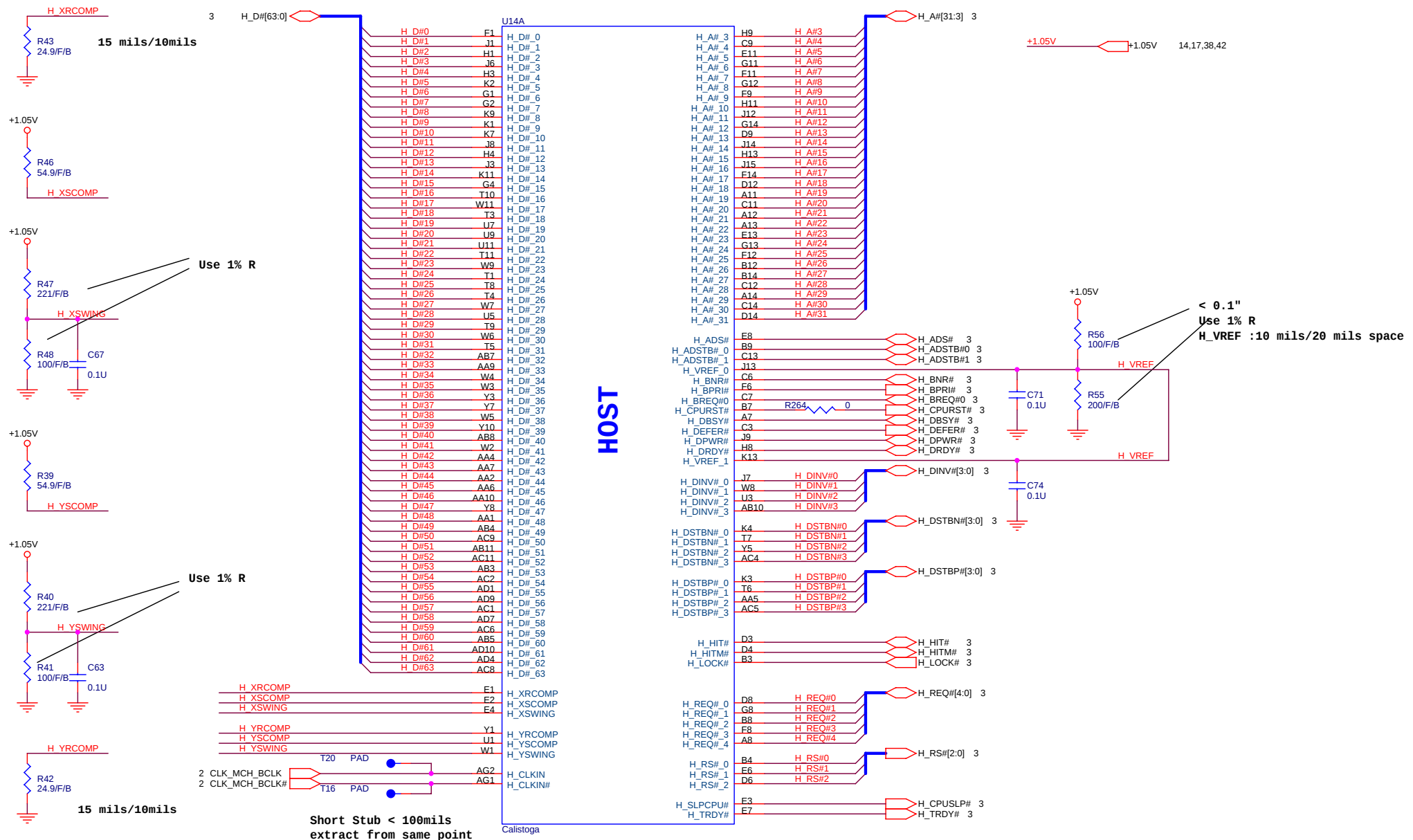
28,35 MBCLK

Q29
RHU002N06

+3V

3 1

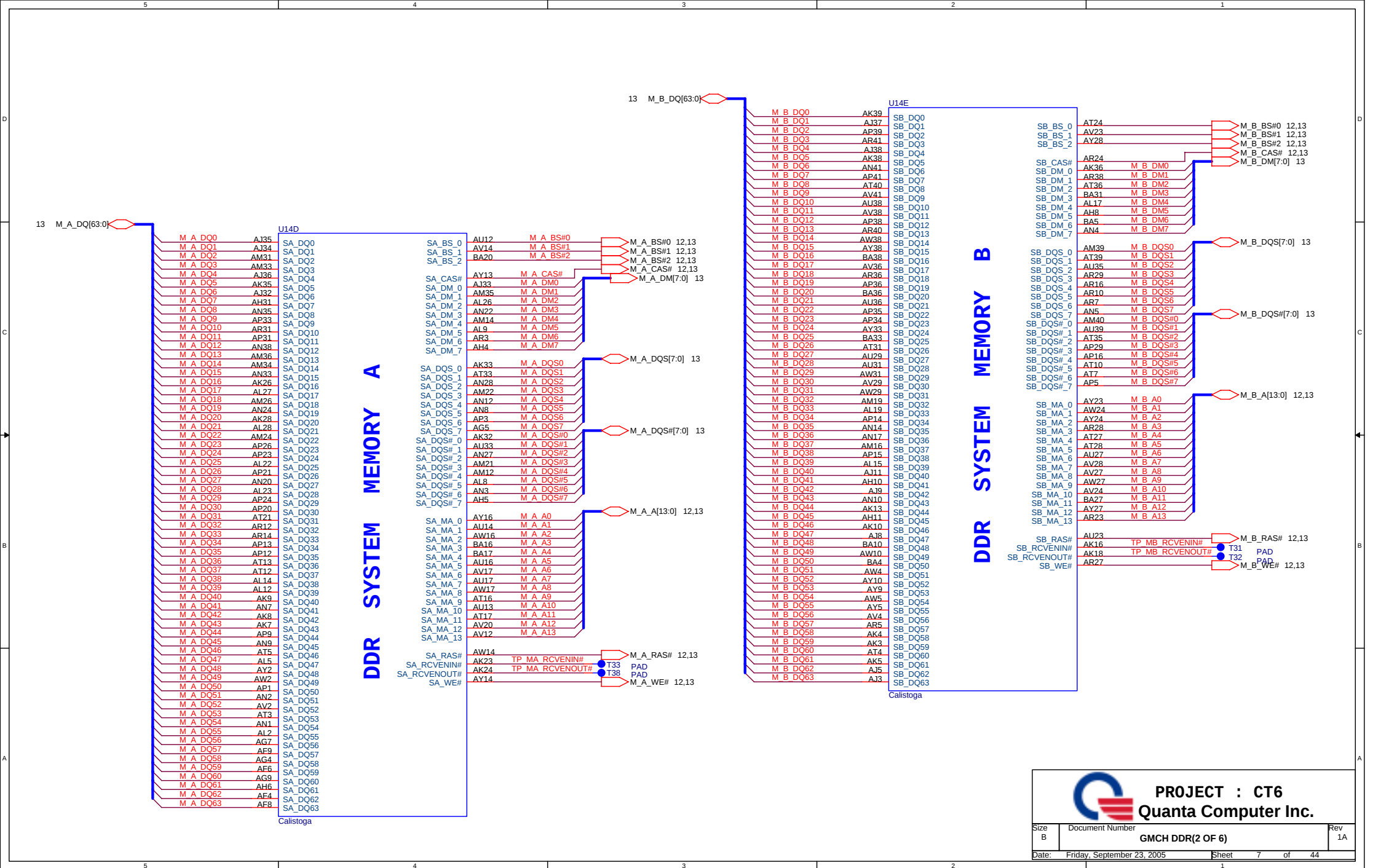
LM86 SMC



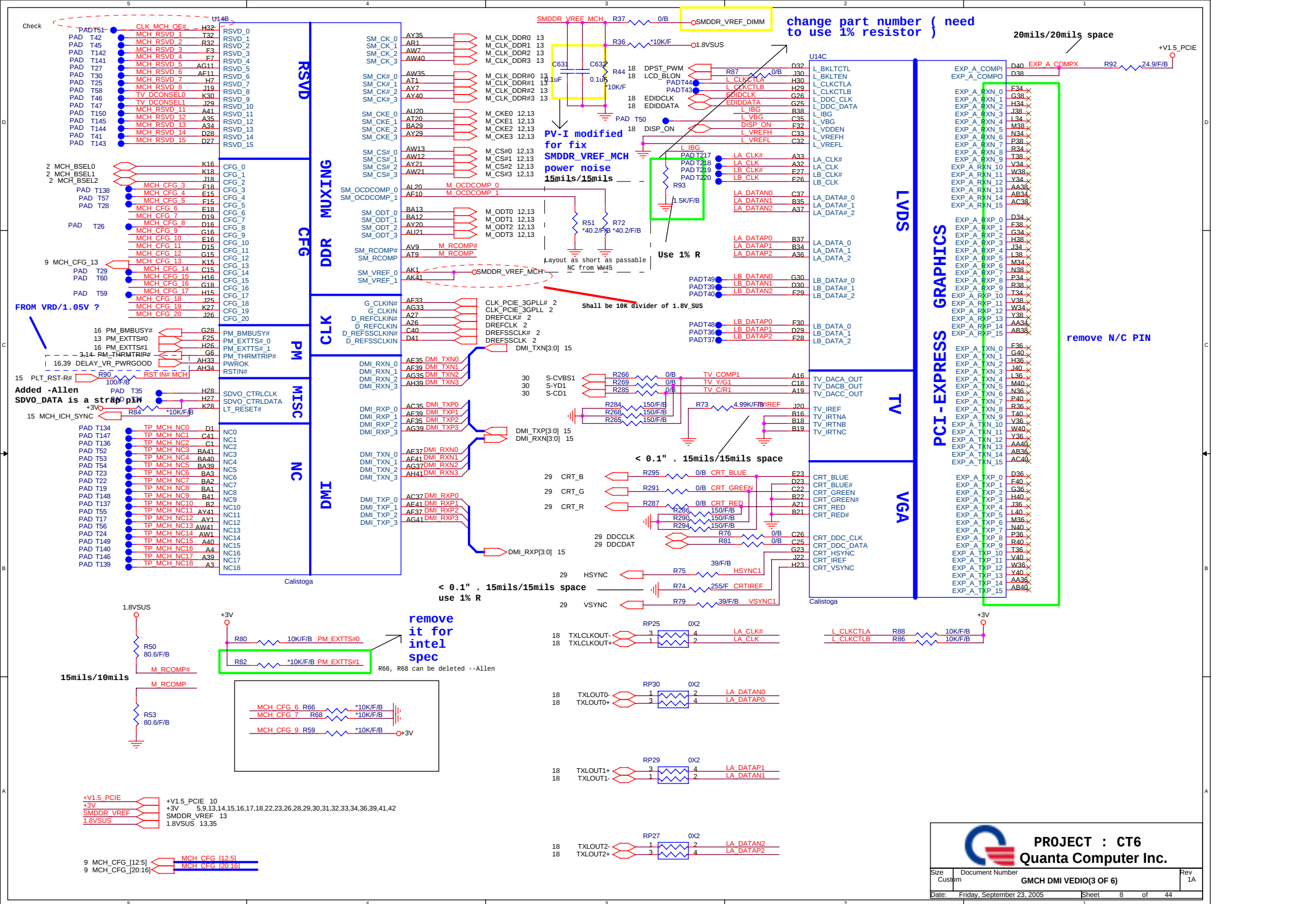
PROJECT : CT6
Quanta Computer Inc.

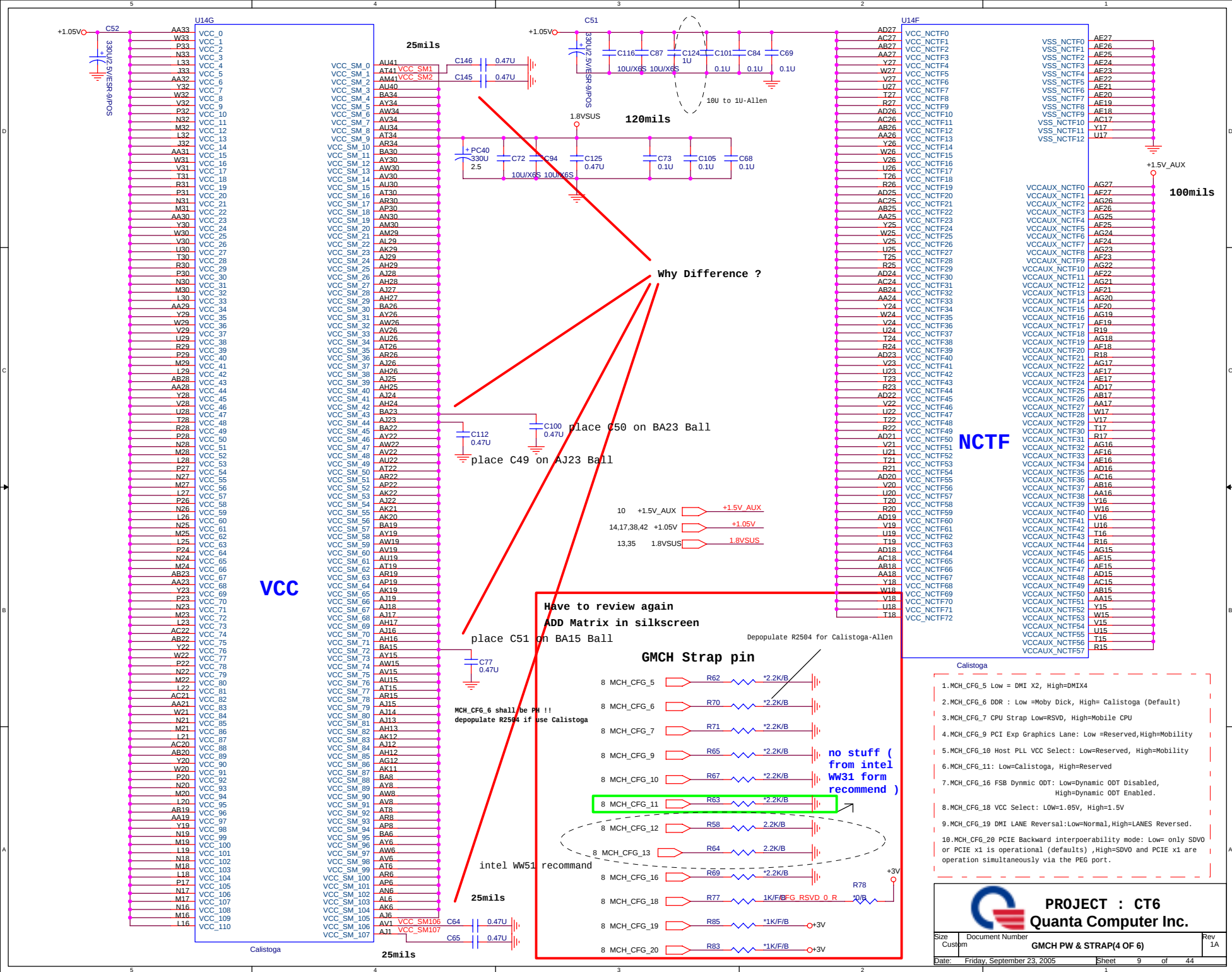
Size	Document Number	Rev
B	GMCH HOST(1 OF 6)	1A

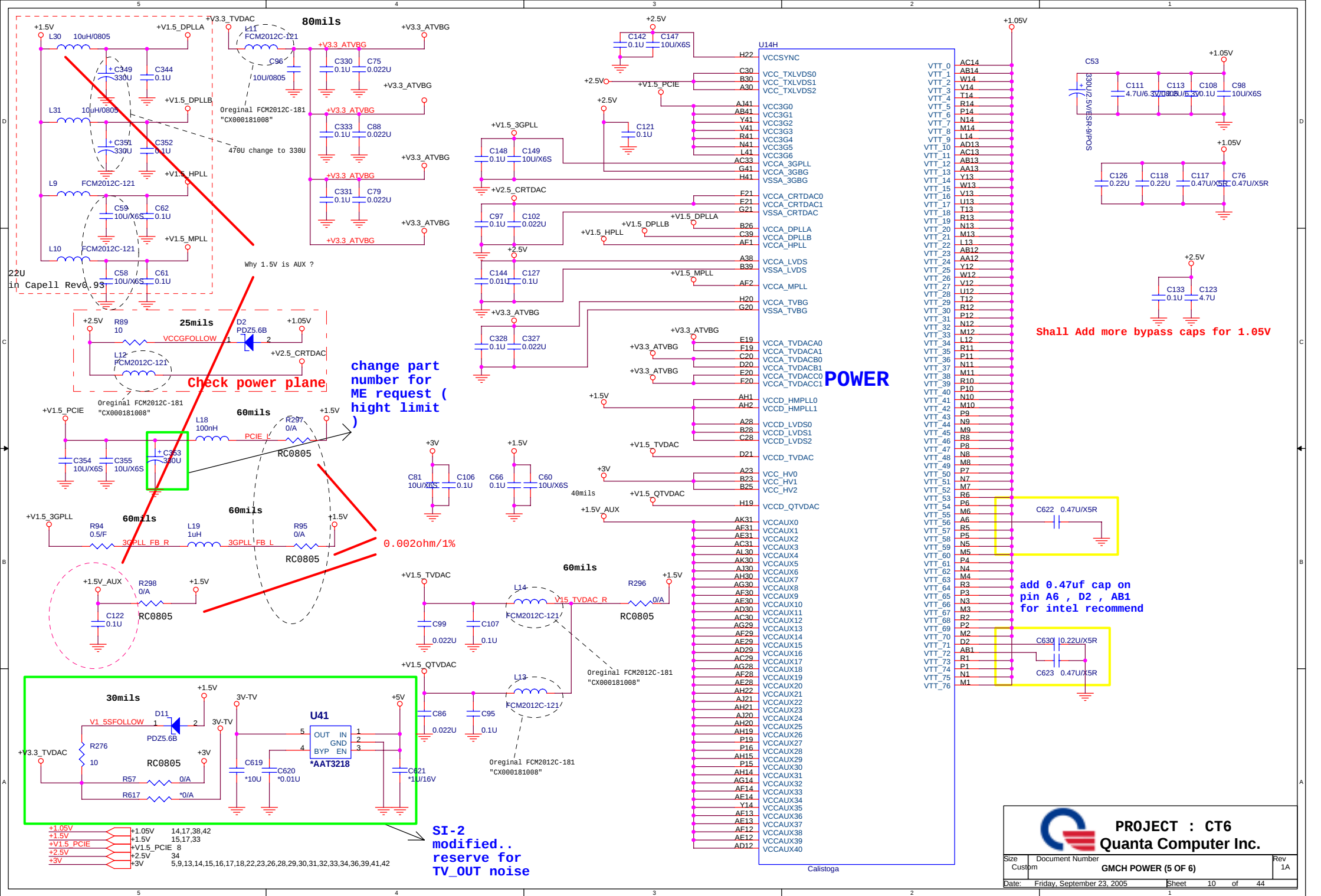
Date: Friday, September 23, 2005 Sheet 6 of 44

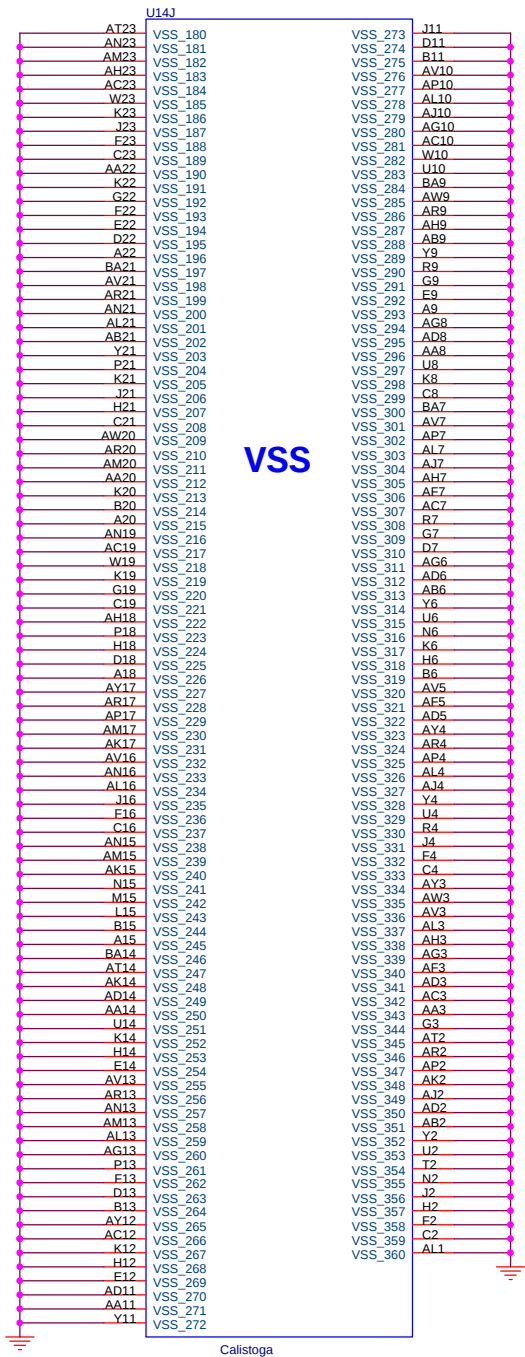
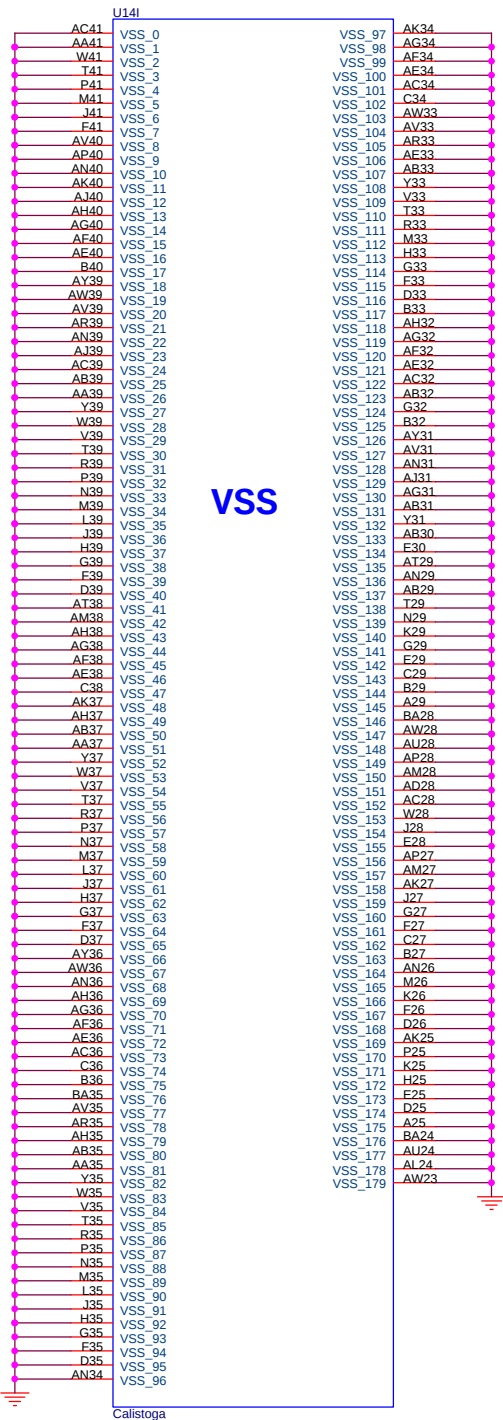


PROJECT : CT6
Quanta Computer Inc.



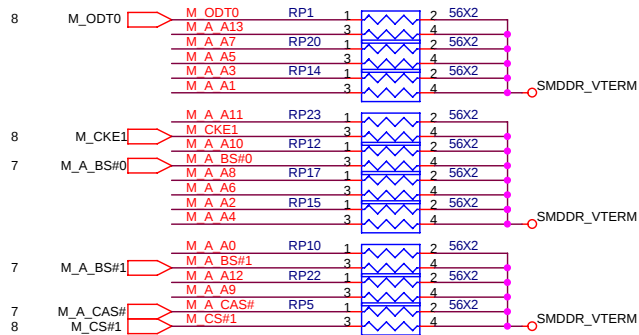
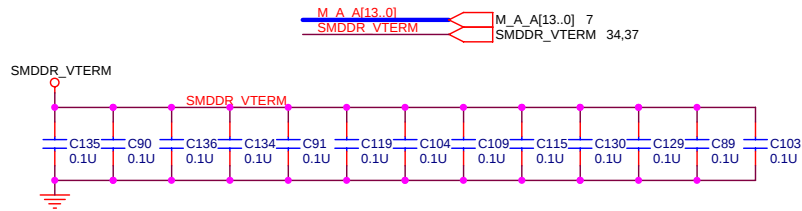




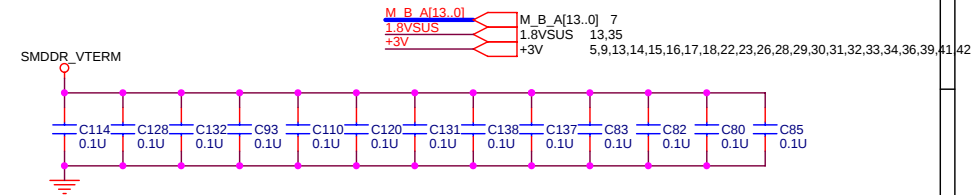


DDRII DUAL CHANNEL A, B.

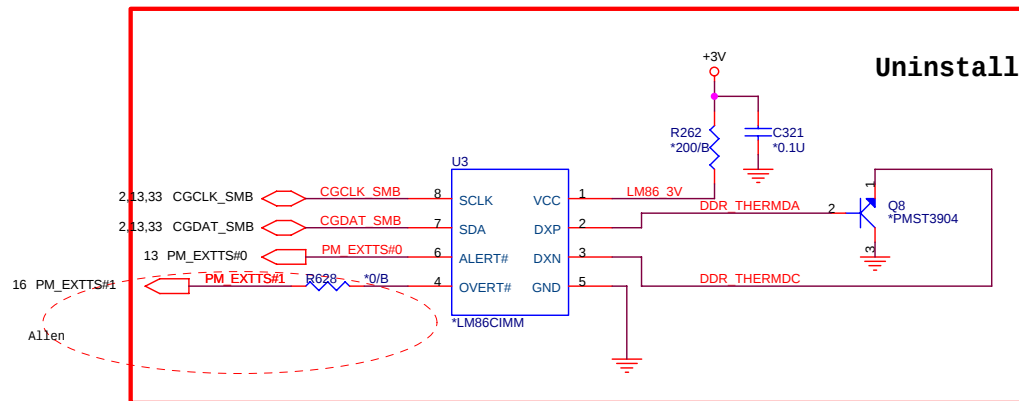
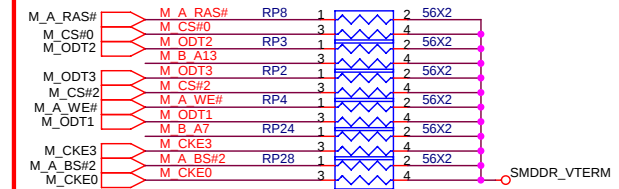
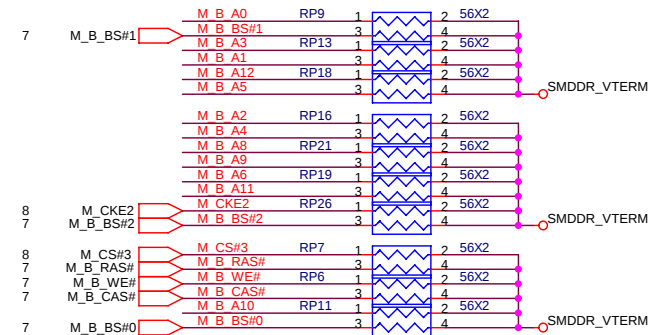
DDRII A CHANNEL

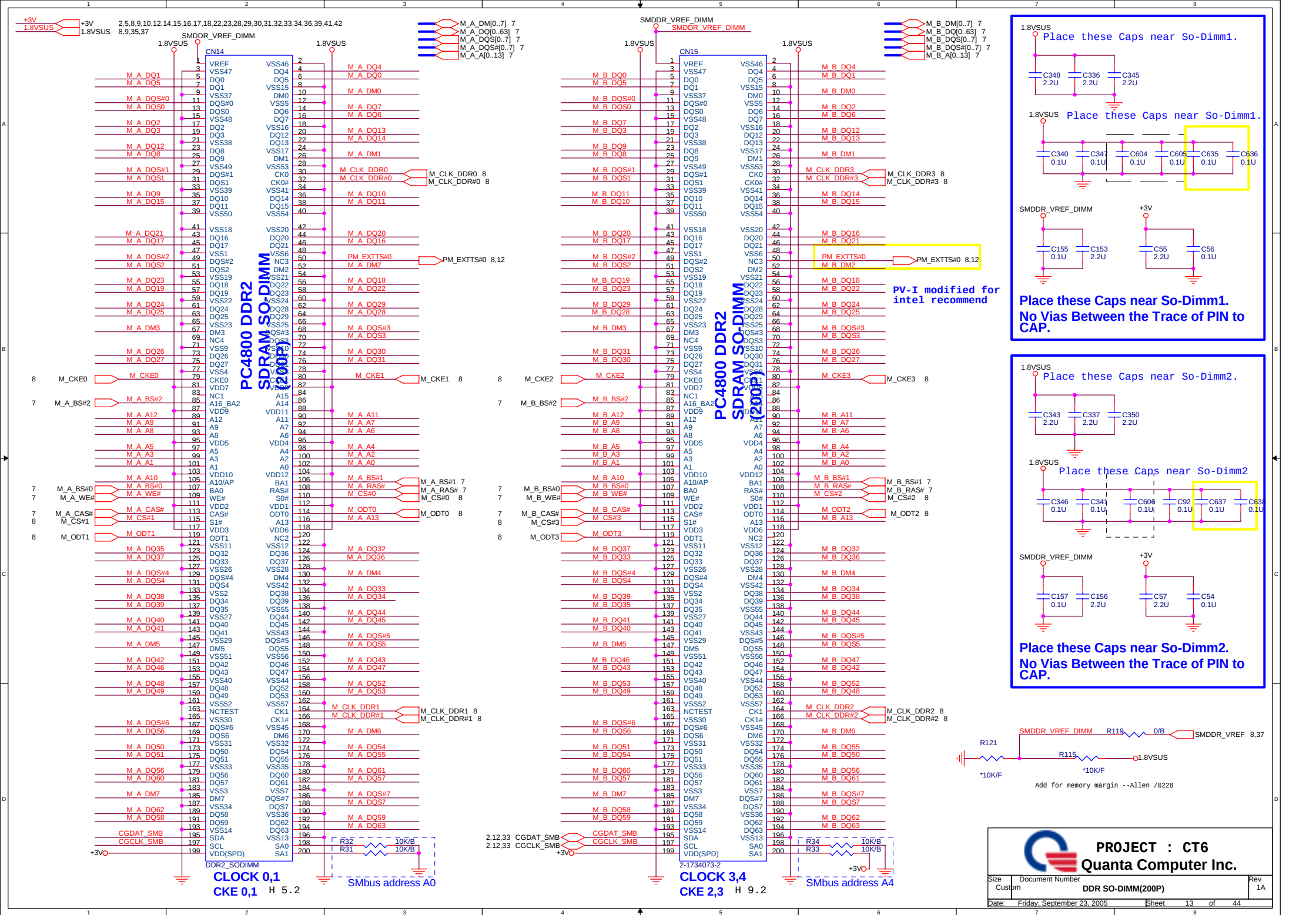


DDRII B CHANNEL

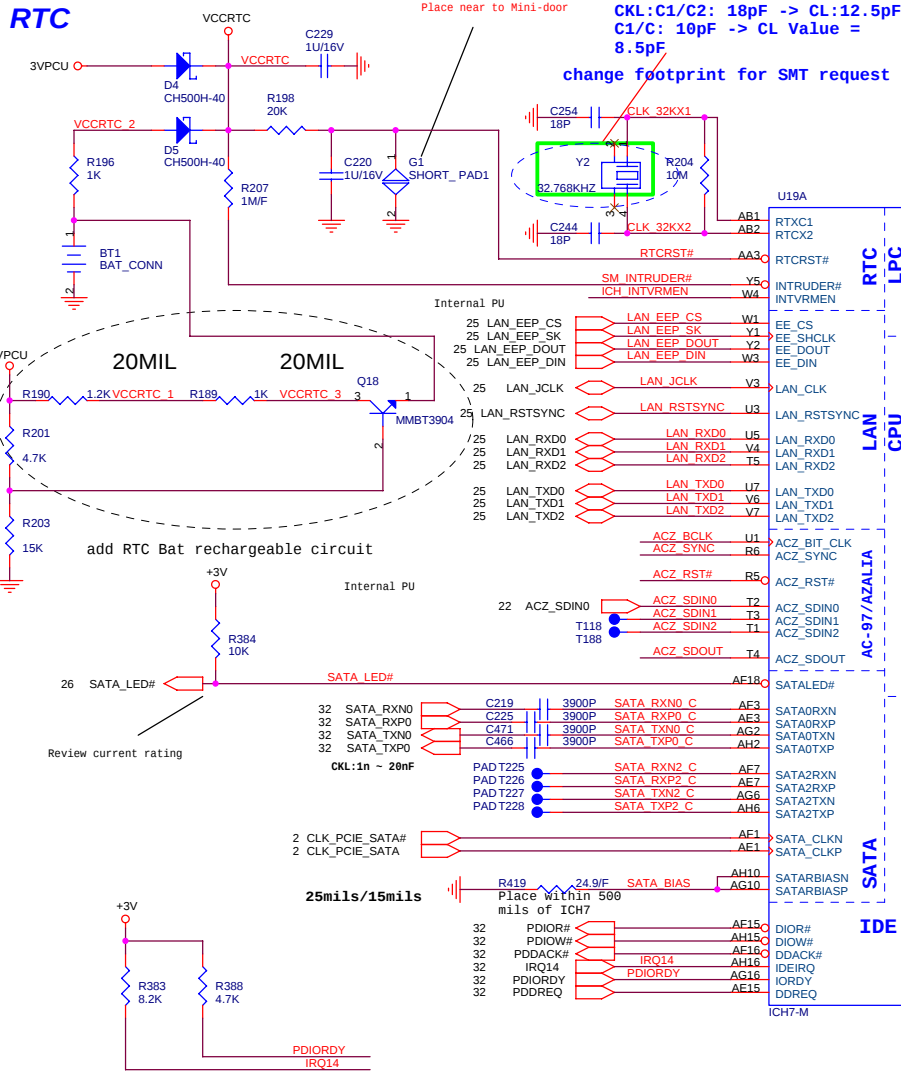


Layout note: Place one cap close to every 2 pullup resistors terminated to SMDR_VTERM



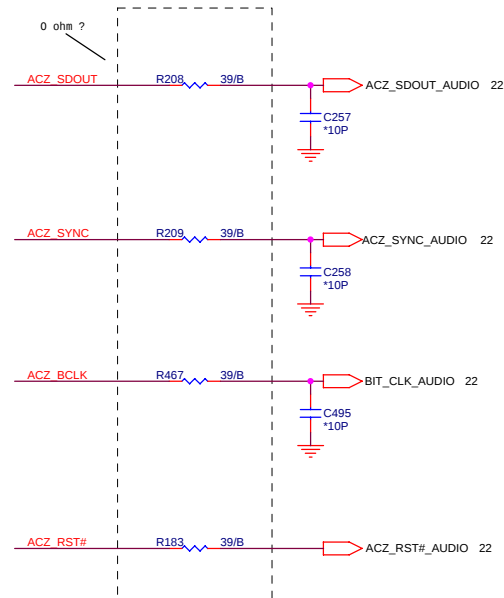
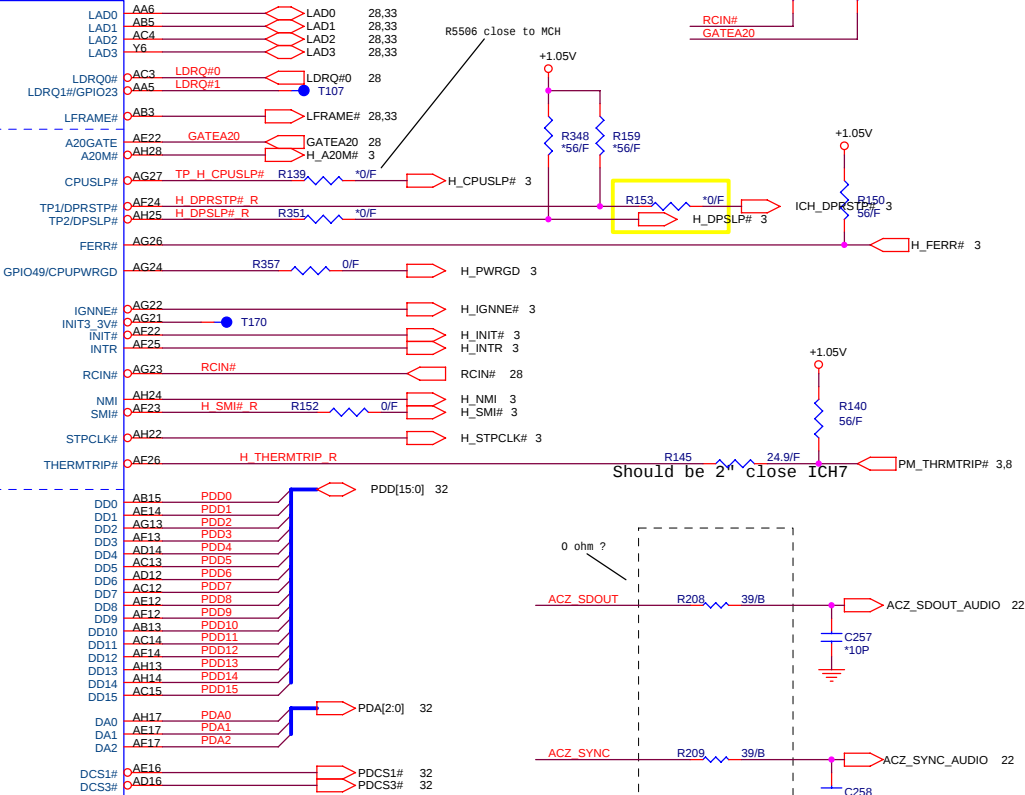
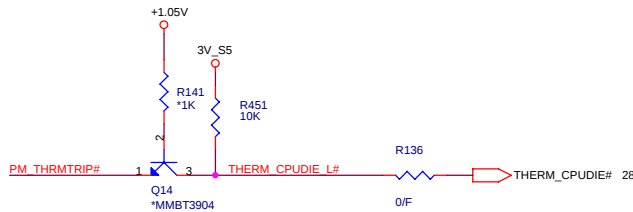
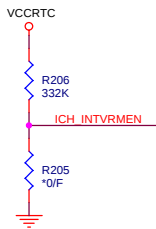


RTC



ICH7 internal VR enable strap

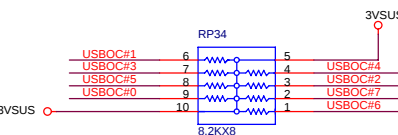
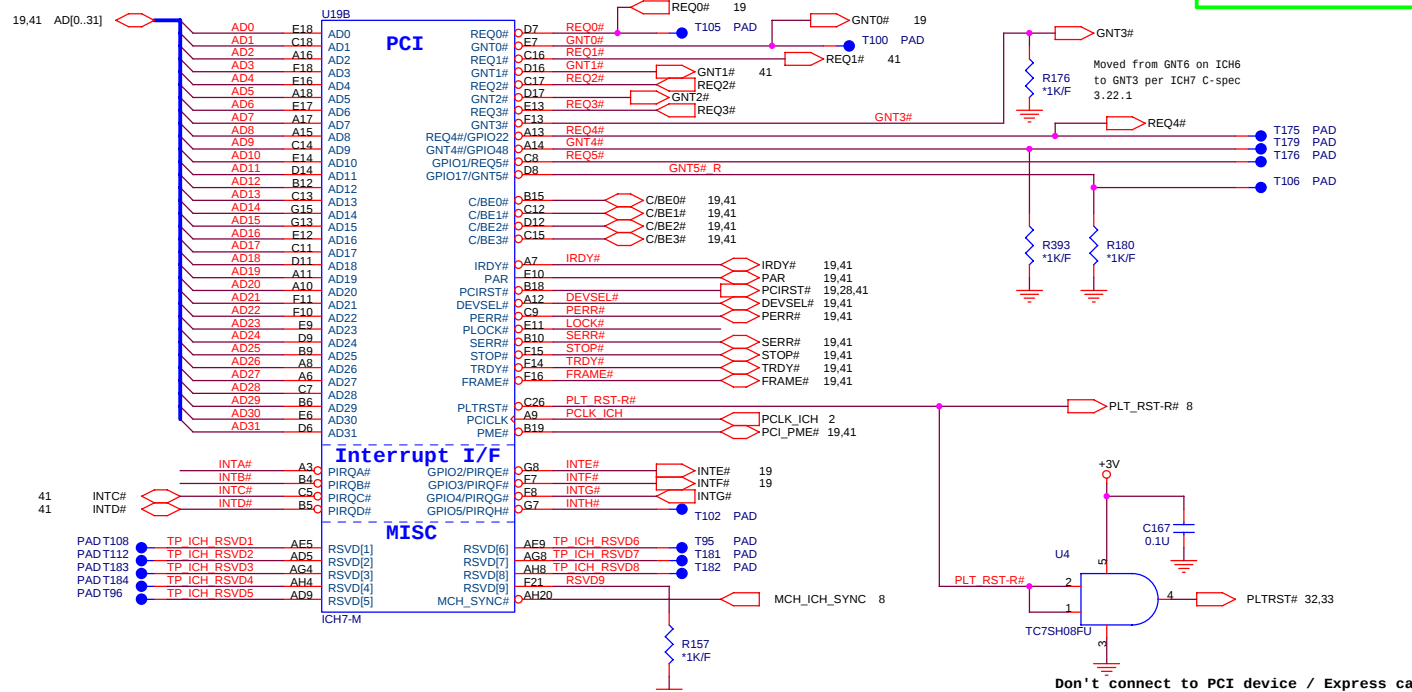
	INTVRMEN
Enable (default)	1
Disable	0



PROJECT : CT6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH7-M HOST (1 OF 4)	1A
Date:	Friday, September 23, 2005	Sheet 14 of 44

EXPRESS CARD (NEW CARD)



add camara solution



ICH7 Boot BIOS select

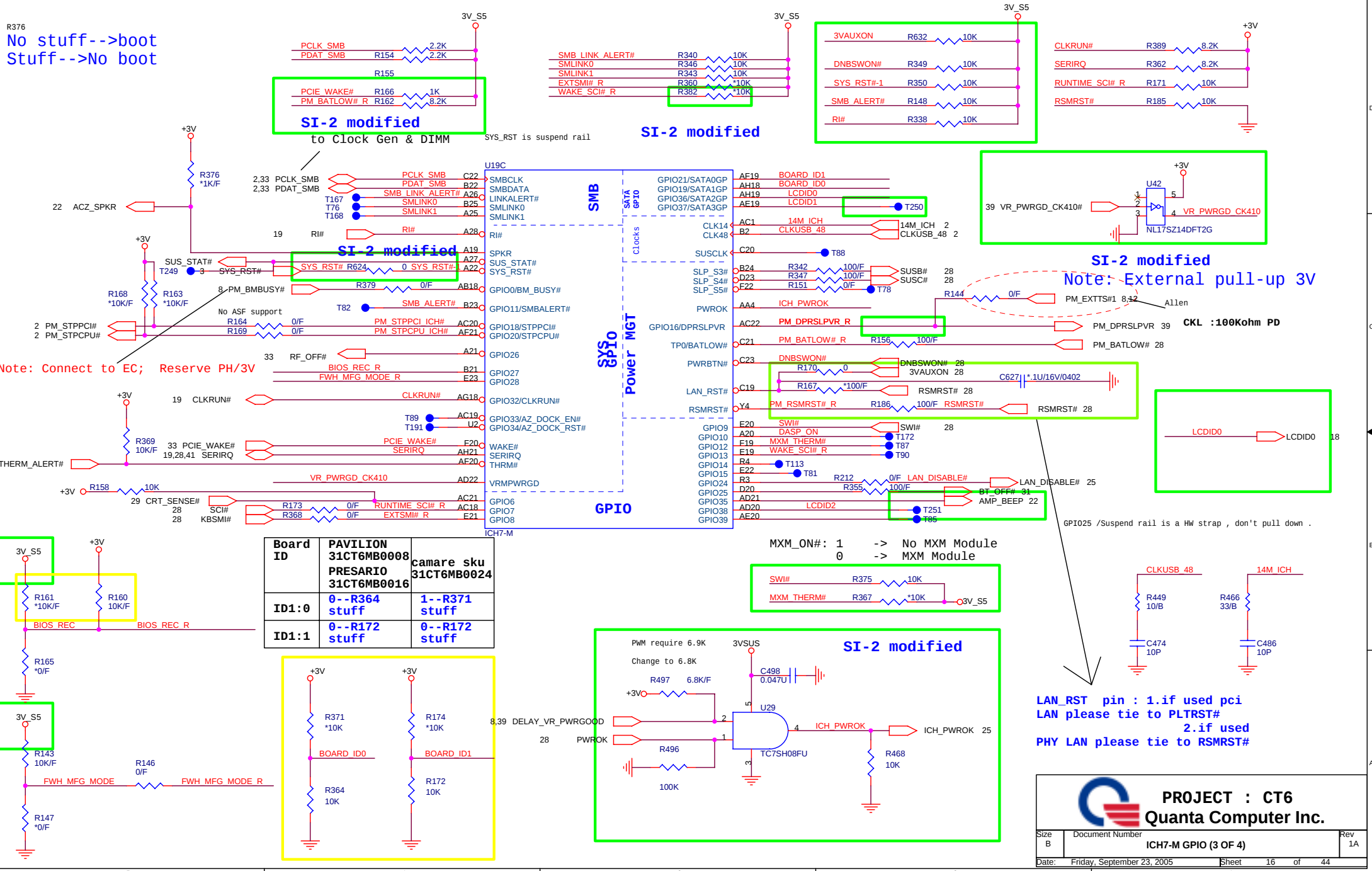
	STRAP	GNT5# R1	GNT4# R2
LPC (default)	11	UNSTUFF	UNSTUFF
PCI	10	UNSTUFF	STUFF
SPI	01	STUFF	UNSTUFF

PCI DEVICE	IDSEL#	REQ# / GNT#	Interrupt#
PCI7411	AD25	REQ3# / GNT3#	INT B/C#
Relteck Lan	AD16	REQ2# / GNT2#	INT C#

 PROJECT : CT6 Quanta Computer Inc.		Rev 1
Size Custom	Document Number ICH7-M PCI E (2 OF 4)	
Date:	Friday, September 23, 2005	Sheet 15 of 44

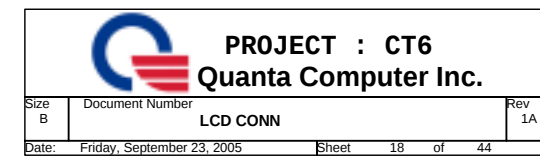
R376

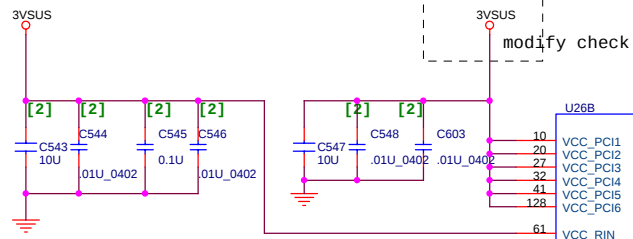
No stuff-->boot
Stuff-->No boot



```
LAN_RST pin : 1.if used pci
LAN please tie to PLTRST#
                2.if used
PHY LAN please tie to RSMRST#
```

 PROJECT : CT6 Quanta Computer Inc.			
Size B	Document Number	ICH7-M GPIO (3 OF 4)	Rev 1A
Date:	Friday, September 23, 2005	Sheet	16 of 44

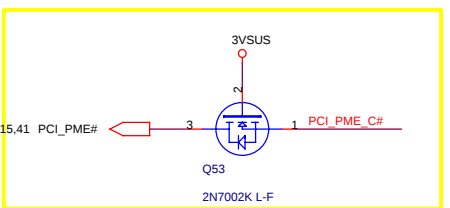




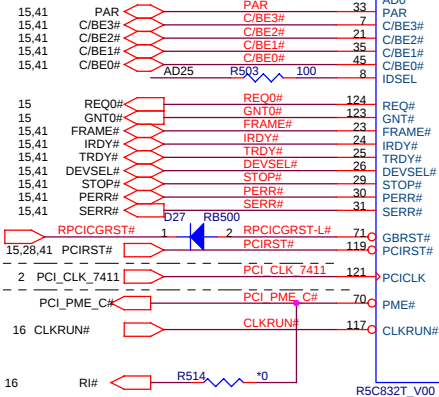
PCI Bus

PowerOnReset for VccCore

When GRESET# is controlled by system, the pull-up resistor(R3) and capacitor(C13) do not need to apply.

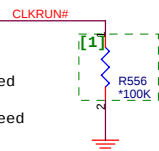


PV-1 modified to fix S5 WAKE-UP-LAN ISSUE (CH7M has leakage power to card reader)

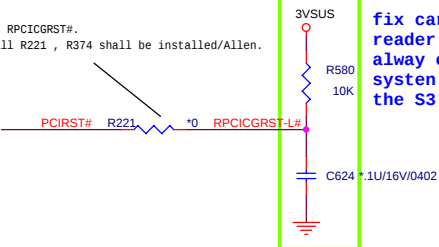


CoreLogic CLOCKRUN#

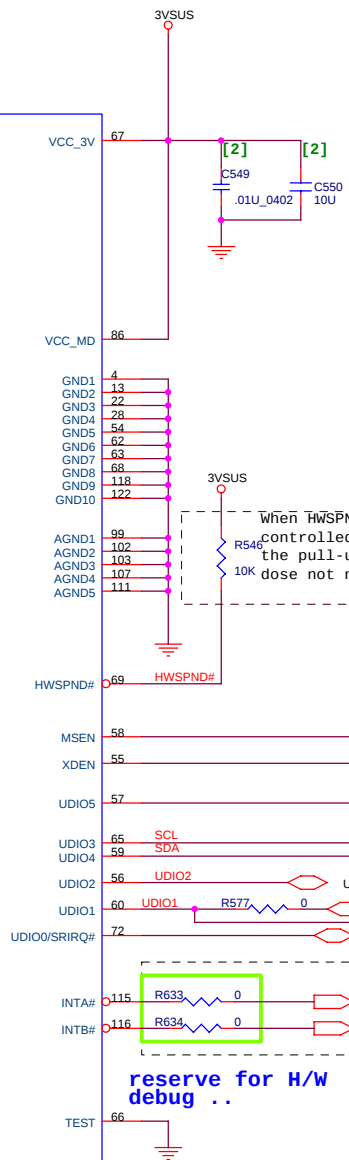
When CLKRUN# is controlled by system, the pull-down resistor(R14) dose not need to apply.



Check EC's RPCICGRST#. If uninstalls R221, R374 shall be installed/Allen.



PCI / OTHER



When HwSPND# is controlled by system, the pull-up resistor(R2) dose not need to apply.

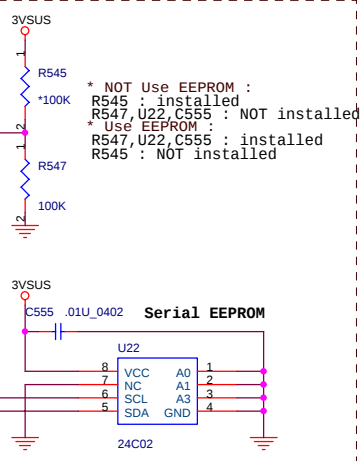
reserve for H/W debug ..

SI-2 modified

fix card reader LED always on when system into the S3

* NOT Use EEPROM : R545 : installed
* Use EEPROM : R547, U22, C555 : NOT installed
R545 : NOT installed

Serial EEPROM

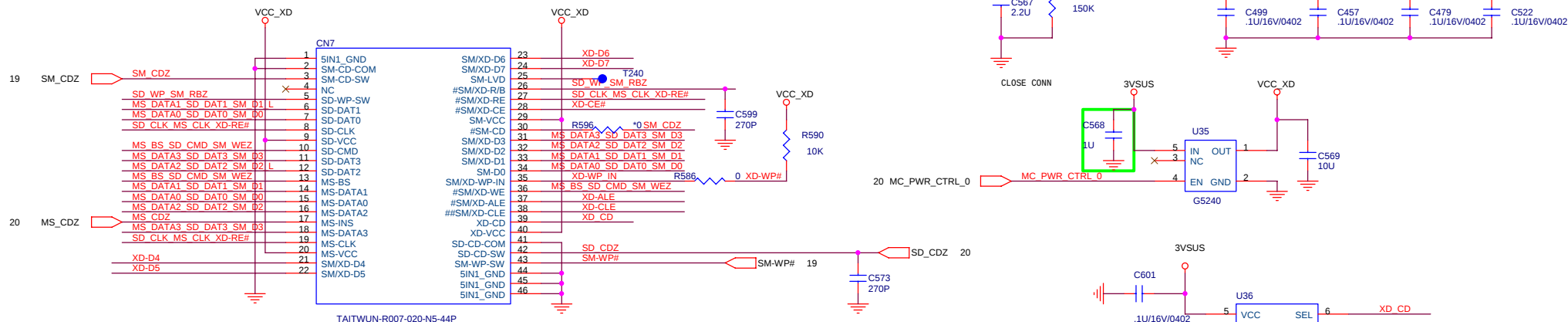


- [1] NOT INSTALLED
- [2] AS CLOSE AS POSSIBLE TO DEVICE TERMINALS
- [3] CLK LINE : SHIELDED BY GND. (RECOMMENDED)

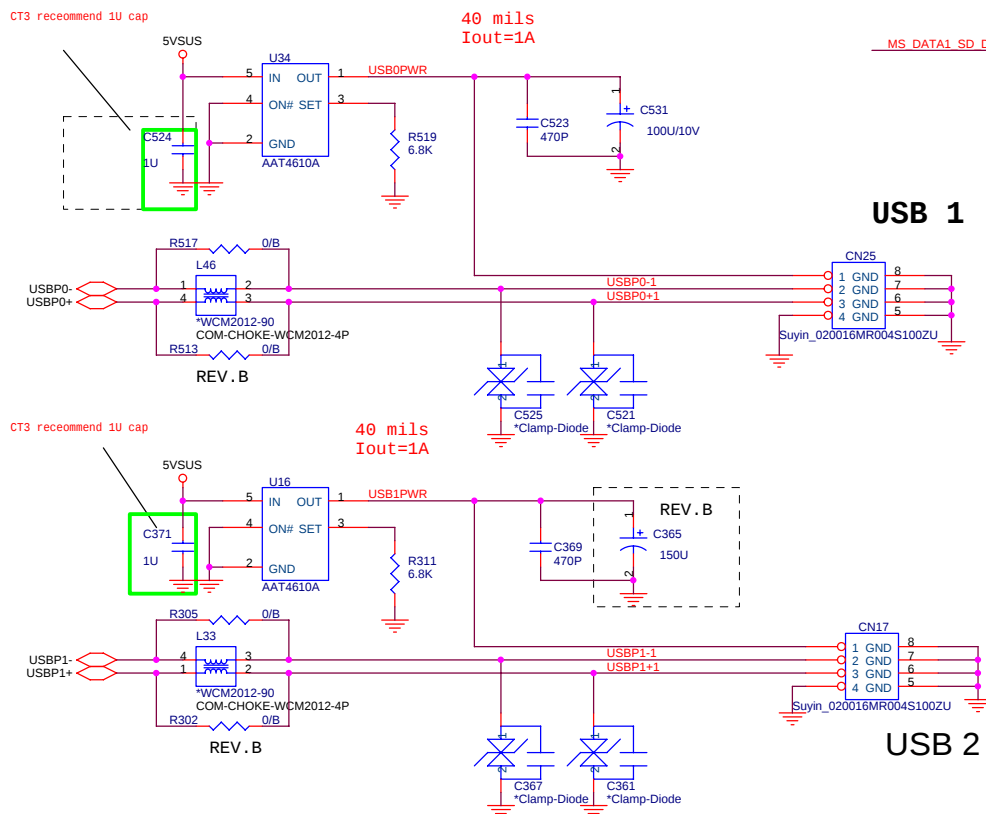


PROJECT : CT6
Quanta Computer Inc.

DO NOT INSERT SD/MMC, MEMORYSTICK AND XD SIMULTANEOUSLY.



5 IN1 CARD READER



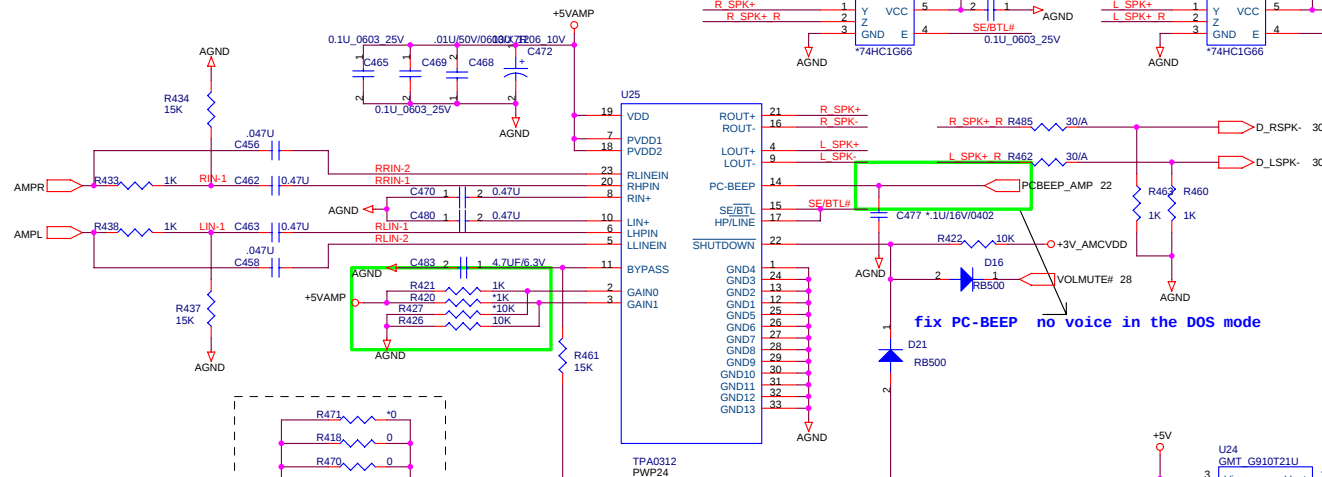
20	MDIO03	R587	56	SD WP SM RBZ
20	MDIO17	R200	56	XD-D7
20	MDIO16	R202	56	XD-D6
20	MDIO15	R210	56	XD-D5
20	MDIO14	R216	56	XD-D4
20	MDIO13	R191	56	MS DATA3 SD DAT3 SM D3
20	MDIO12	R187	56	MS DATA2 SD DAT2 SM D2
20	MDIO11	R184	56	MS DATA1 SD DAT1 SM D1
20	MDIO10	R182	56	MS DATA0 SD DAT0 SM D0
20	MDIO08	R181	56	MS BS SD CMD SM WEZ
20	MDIO05	R197	56	XD-WP#
20	MDIO19	R563	56	XD-ALE
20	MDIO18	R564	56	XD-CLE
20	MDIO02	R220	56	XD-CE#
20	MDIO09	R222	56	SD CLK MS CLK XD-RE#

change from 0 ohm to 56 ohm (from vendor recommend)



PROJECT : CT6
Quanta Computer Inc.

AUDIO AMPLIFIER

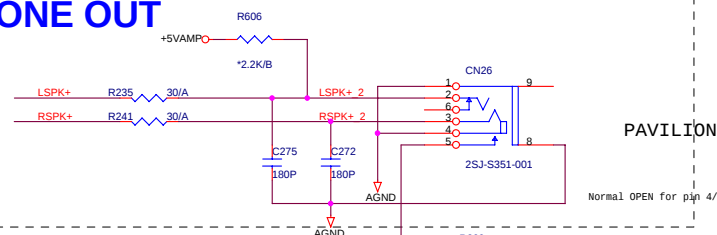


0312 Gain Table

GAIN0	GAIN1	SE/BTL	AV(inv)
0	0	0	6 dB
0	1	0	10 dB
1	0	0	15.6 dB
1	1	0	21.6 dB
X	X	1	4.1 dB

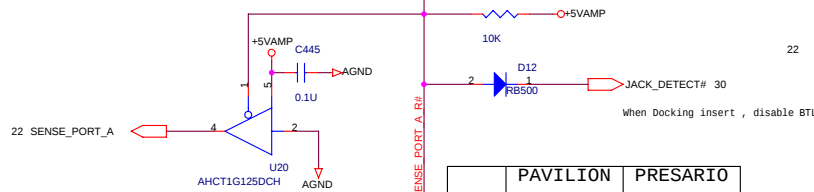
Placement ?

2ND HEADPHONE OUT



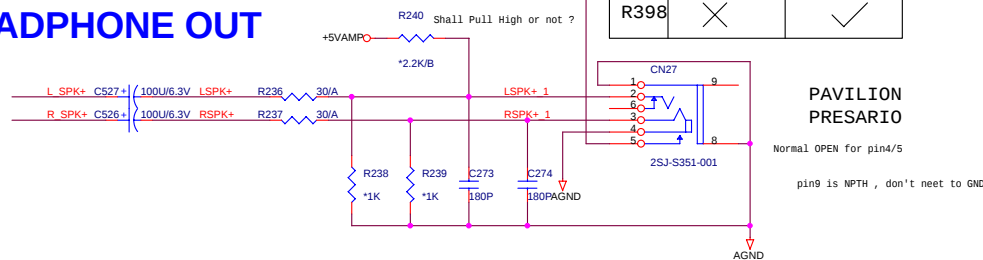
PAVILION

Normal OPEN for pin 4/



When Docking insert , disable BT

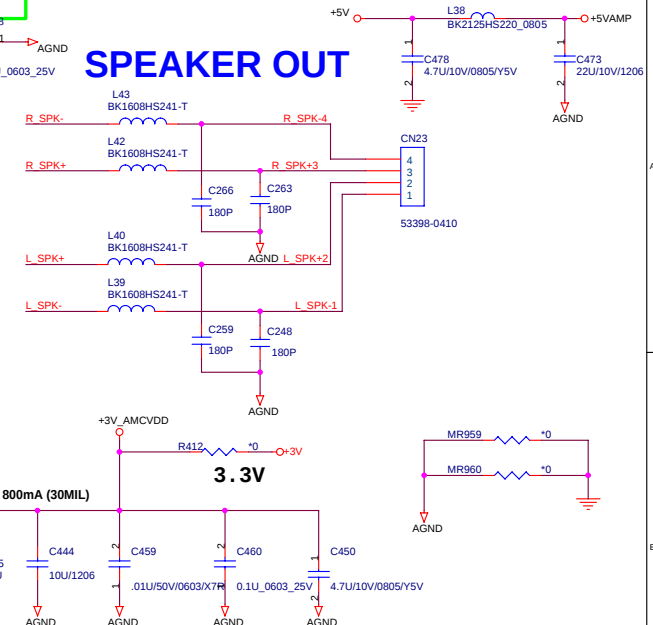
HEADPHONE OUT

PAVILION
PRESARIO

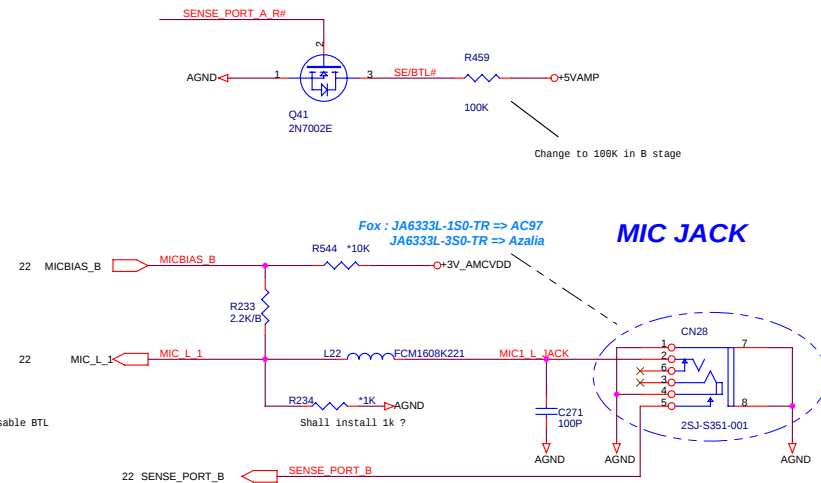
Normal OPEN for pin4/5

pin9 is NPTH , don't need to GND

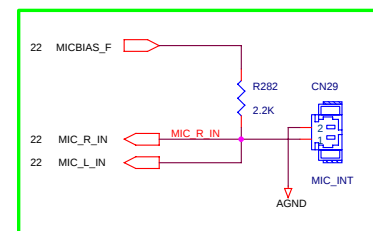
SPEAKER OUT



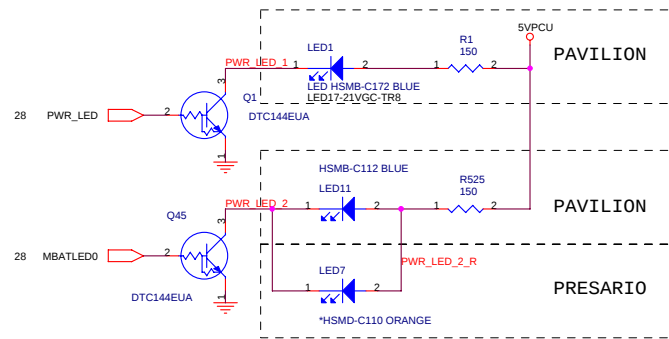
MIC JACK



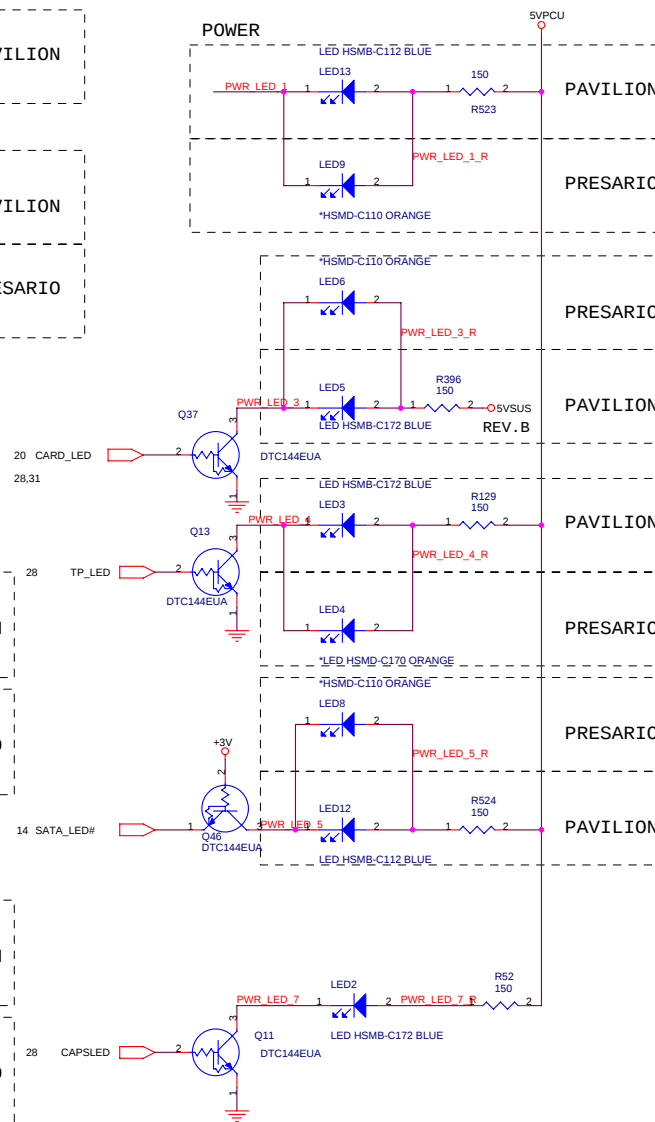
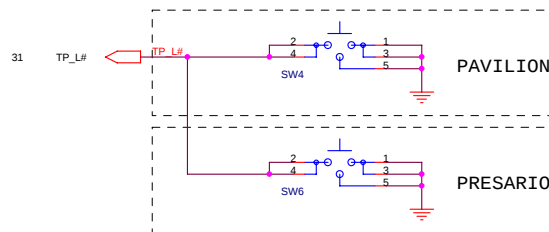
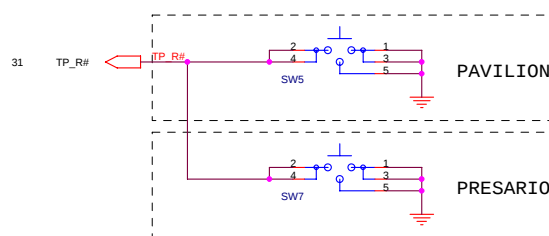
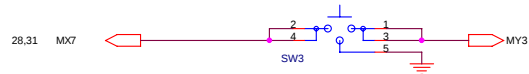
Change to 100K in B stage



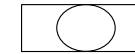
Internal MIC



Touchpad control



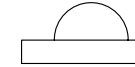
LED HSMD-C170 ORANGE



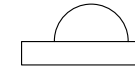
LED HSMB-C172 BLUE



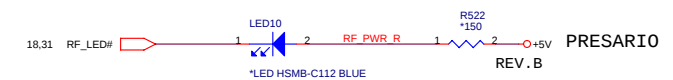
LED HSMD-C110 ORANGE



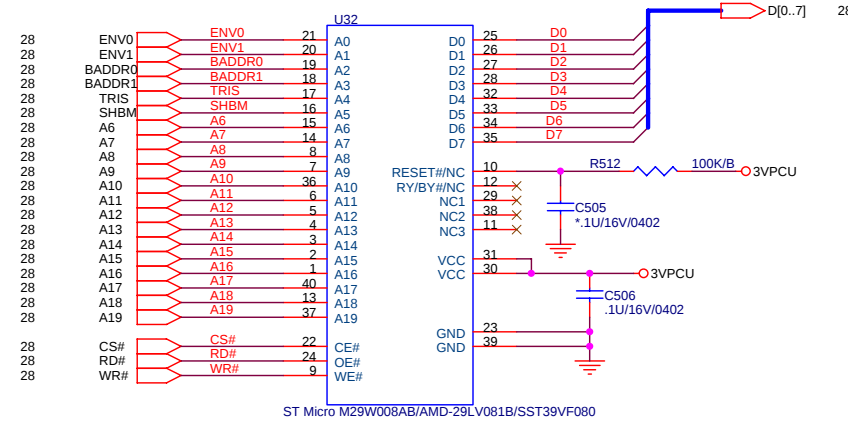
LED HSMD-C112 BLUE



REV.B: LED7 AND LED8 SWAP



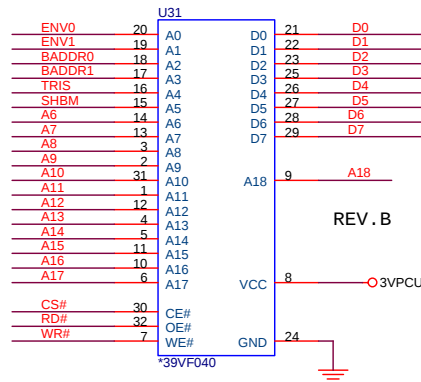
8Mbit (1M Byte), TSSOP40



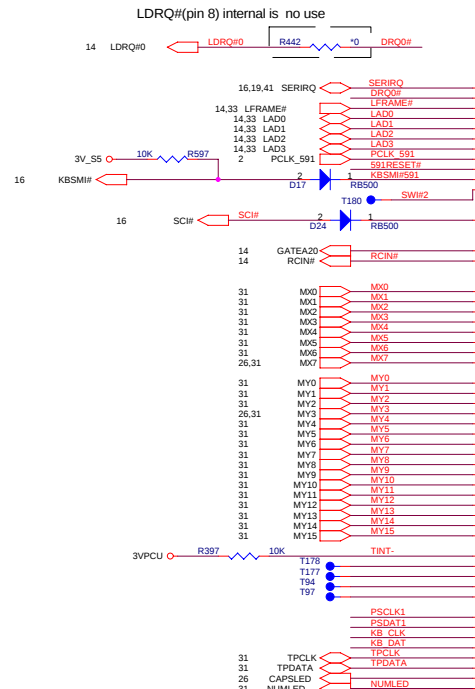
AMD :Pin 10 is RESET# ; Pin12 is RY/BY#
SST :Pin10,12 are NC

- 1.AMD-29LV081B require MAX 500nS Tready for it's hardware reset.And MAX6326_UR29 has >100mS reset timing.So we can tie it's reset# pin to +3VALW directly.
- 2.SIO has internal 20 mS delay of VCC1_PWROK

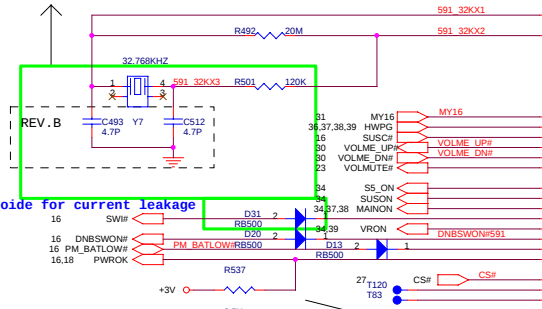
4Mbit (512k Byte), TSSOP32



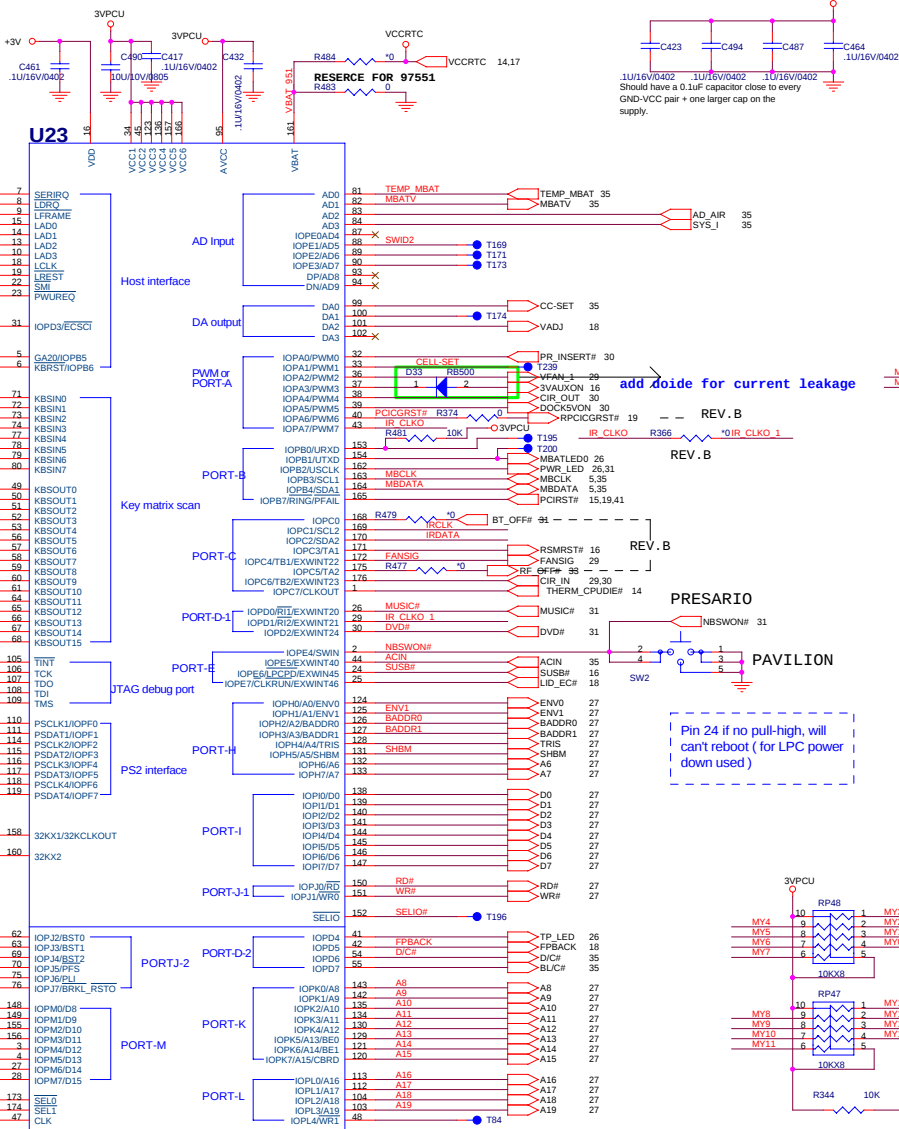
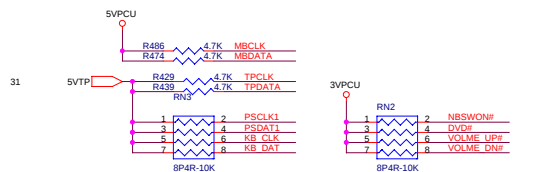
KBC-NS87541L



change footprint for SMT request

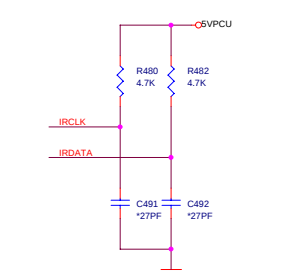
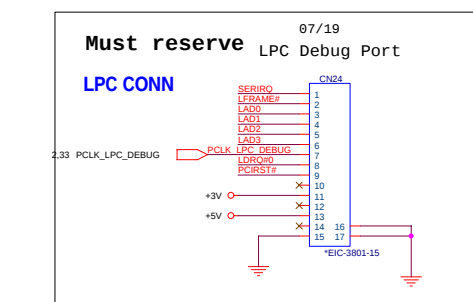
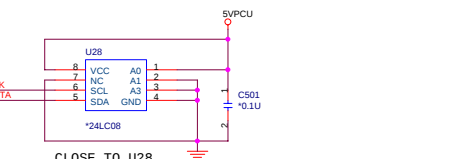
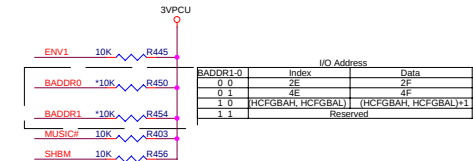
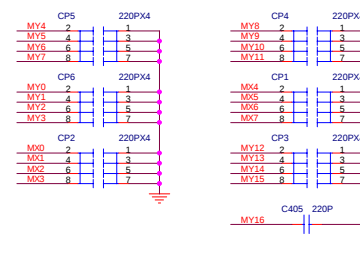


REV.B 1. Remove R468.
2. Add a Diode D20 on BATLOW#.
3. R470 no stuff.



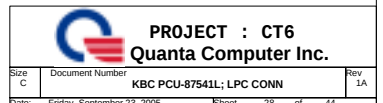
541L

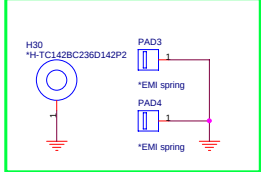
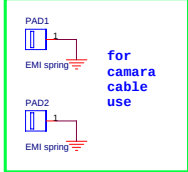
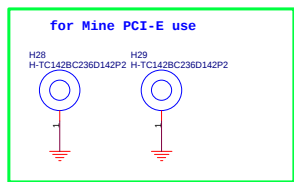
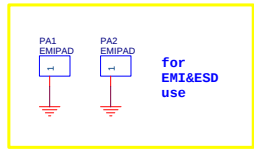
Pin 103 internal is "A19", Can't use to GPIO



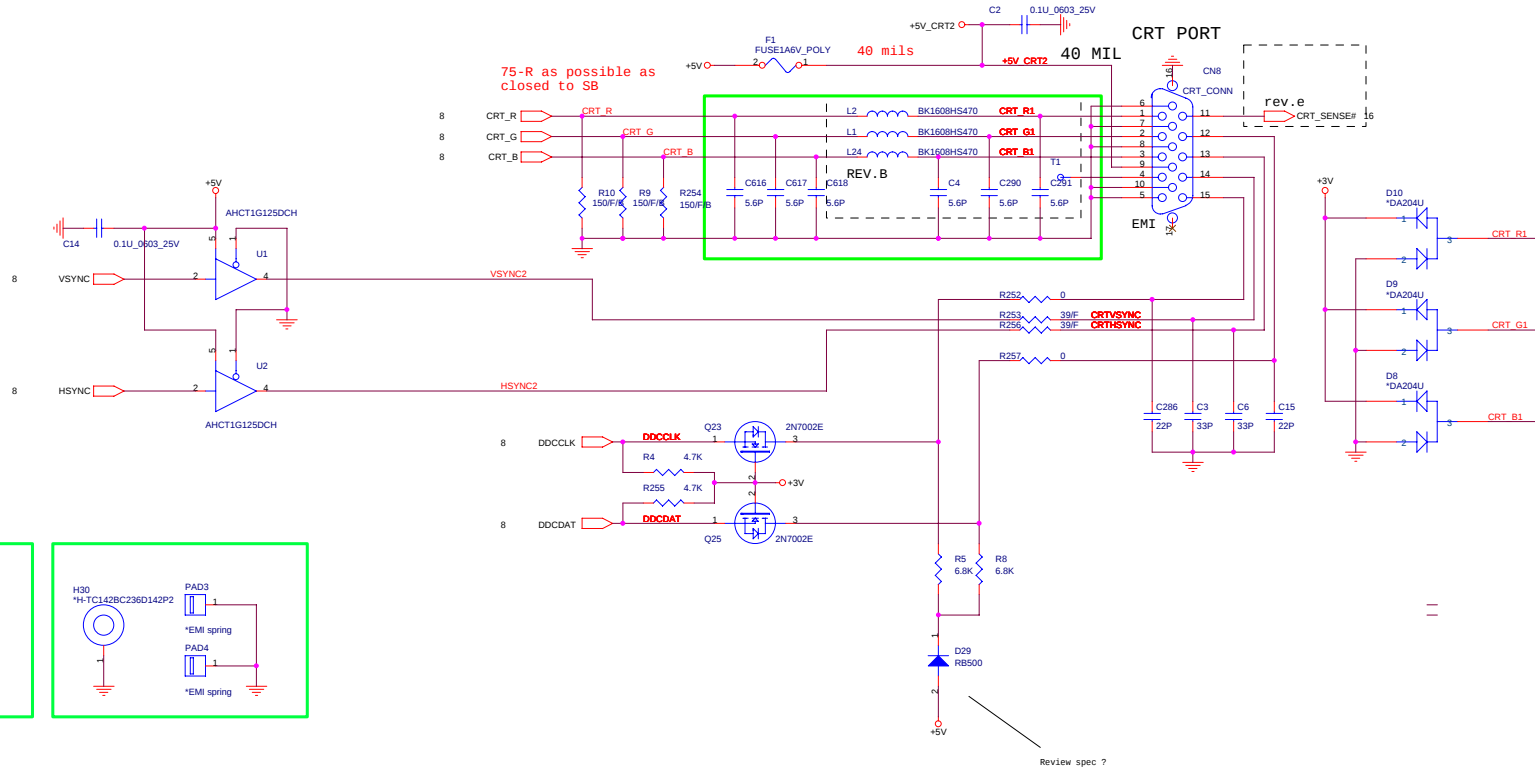
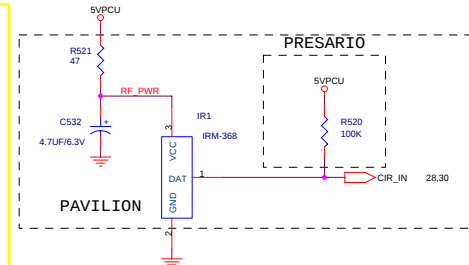
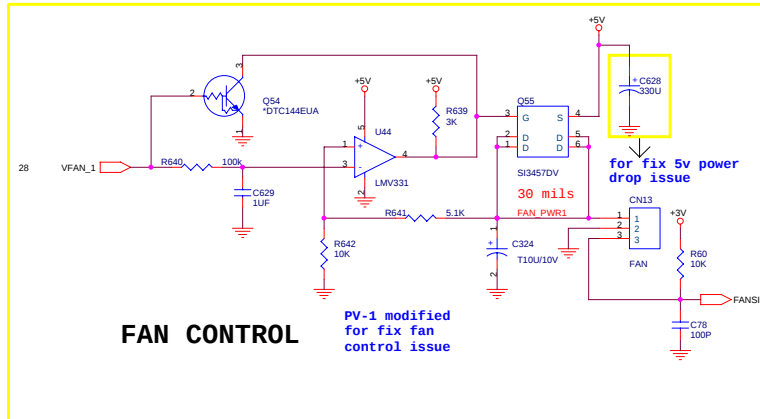
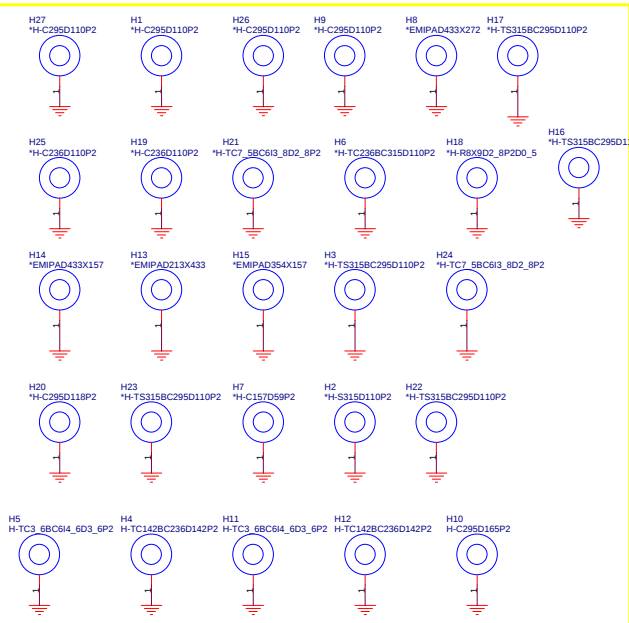
remove debug port

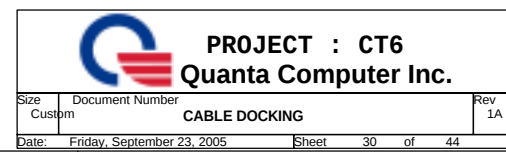
SI-2 modified

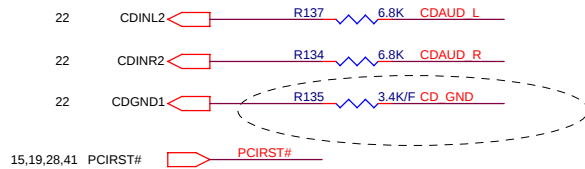
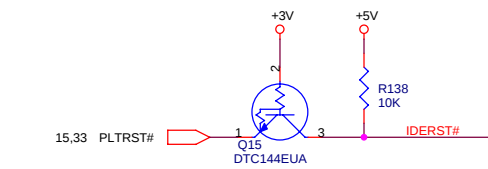




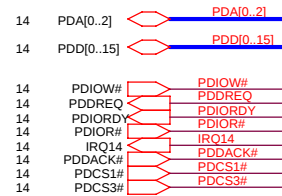
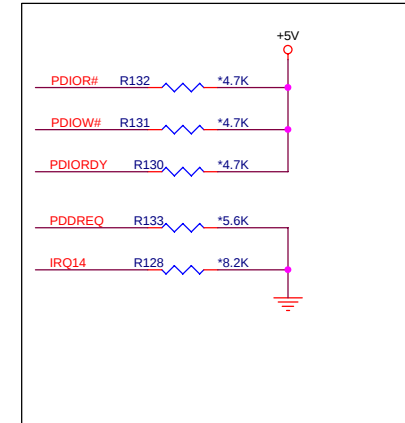
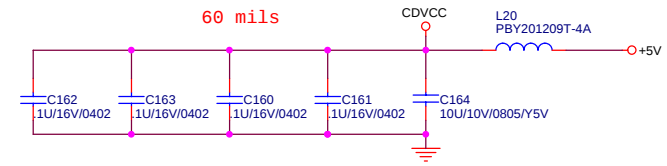
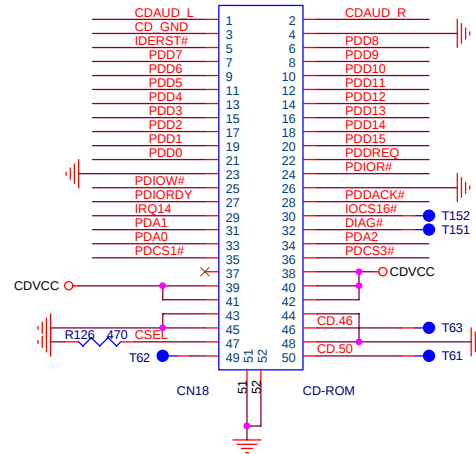
Area of Hole



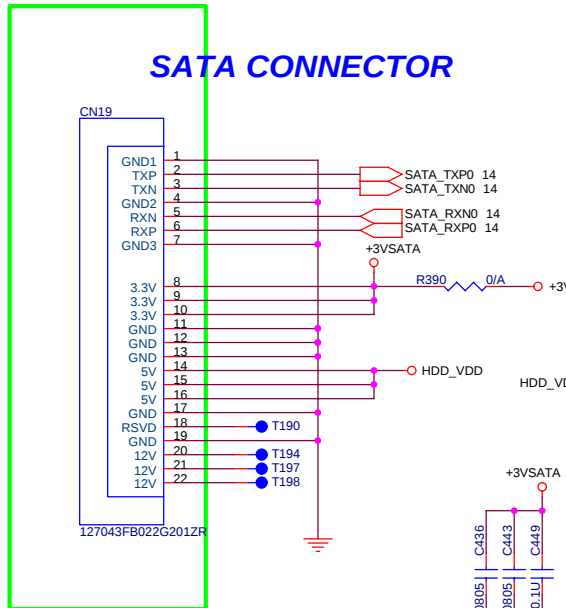




CD-ROM

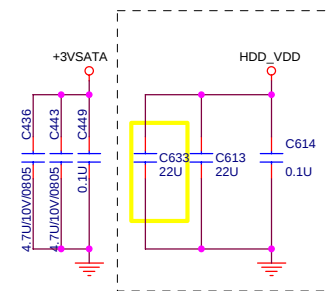


SATA CONNECTOR



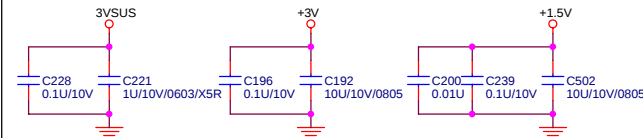
change footprint for SMT request(
add 防呆 pin)

BOM P/N:DFHD07MS159

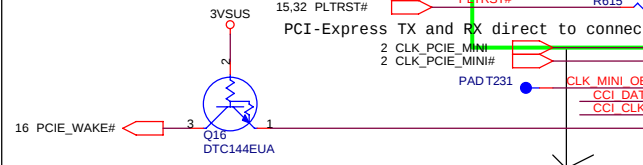


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Mini PCI-E Card

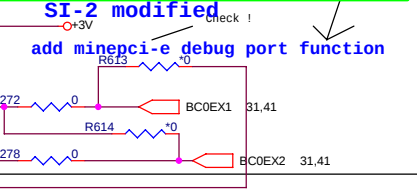
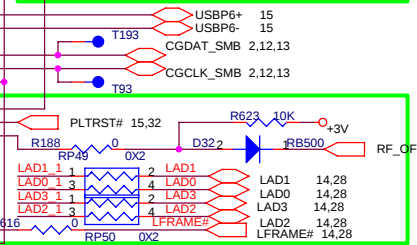
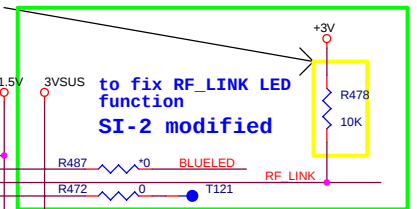


PV-I modified (mini PCI-E card internal has a serial cap,change component from 0.1u cap to 0 ohm)

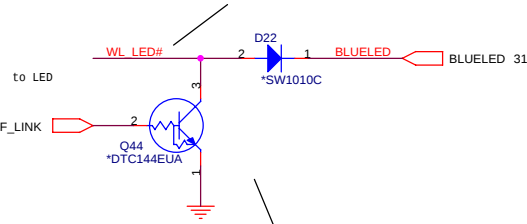


SI-2 modified
add minepci-e debug port function

PV-1 modified (R478 need to stuff for fix wireless LED always on when wireless lan card and bluetooth module not inser)

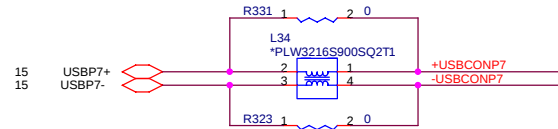


Need one more wireless LED /mini card on MB ? currently , No LED here



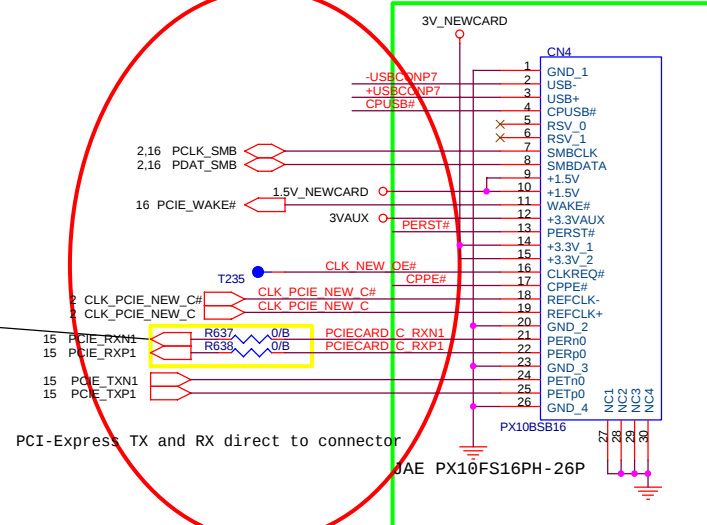
RF_LINK# , check with KN1

NEWCARD (PCIEXPRESS*1 + USB*1)

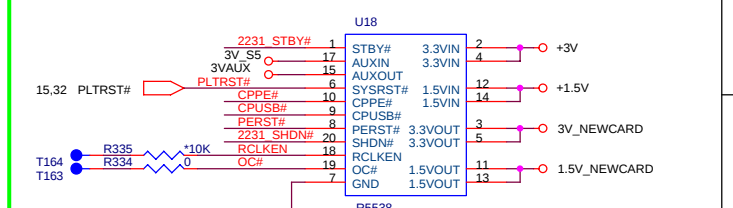
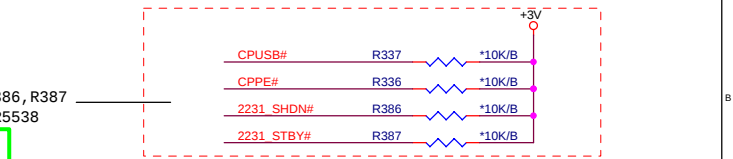
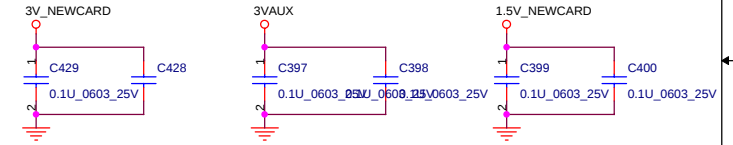


UNISTALL R337 ,R336,R386,R387 due to internal R of R5538

PV-I modified (Epress card internal has a serial cap,change component from 0.1uf to 0 ohm)

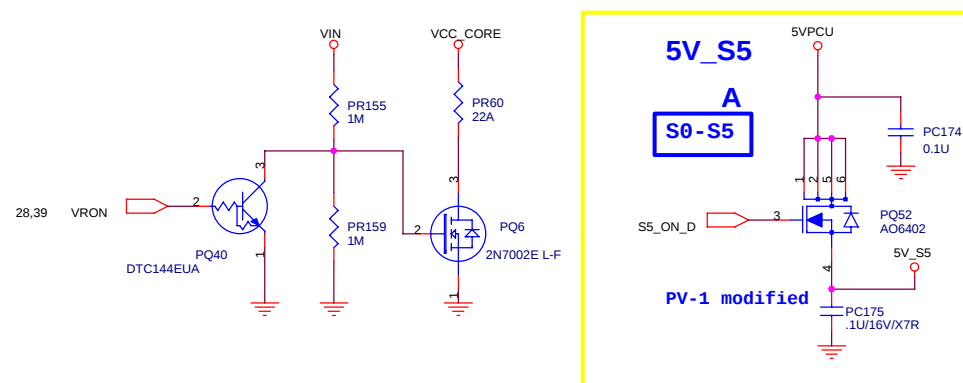
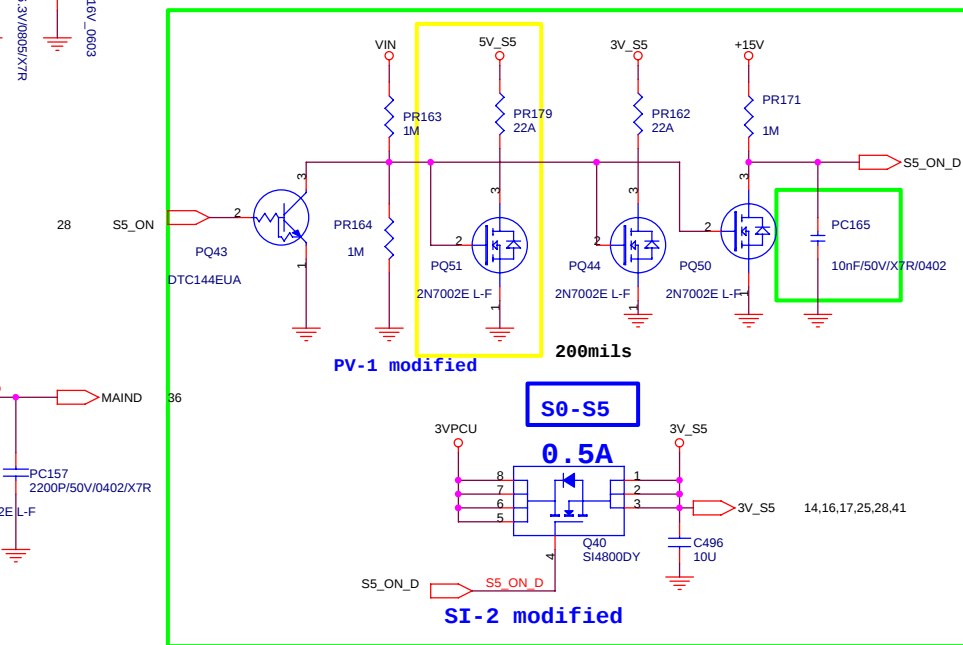
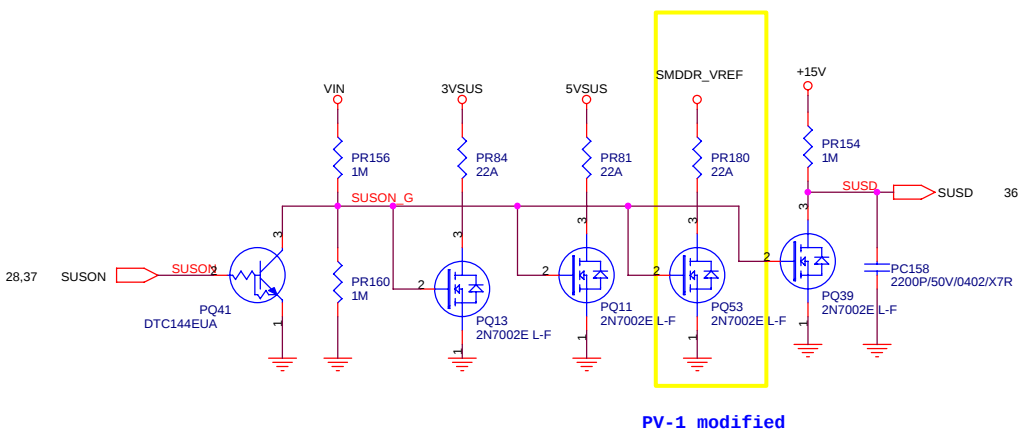
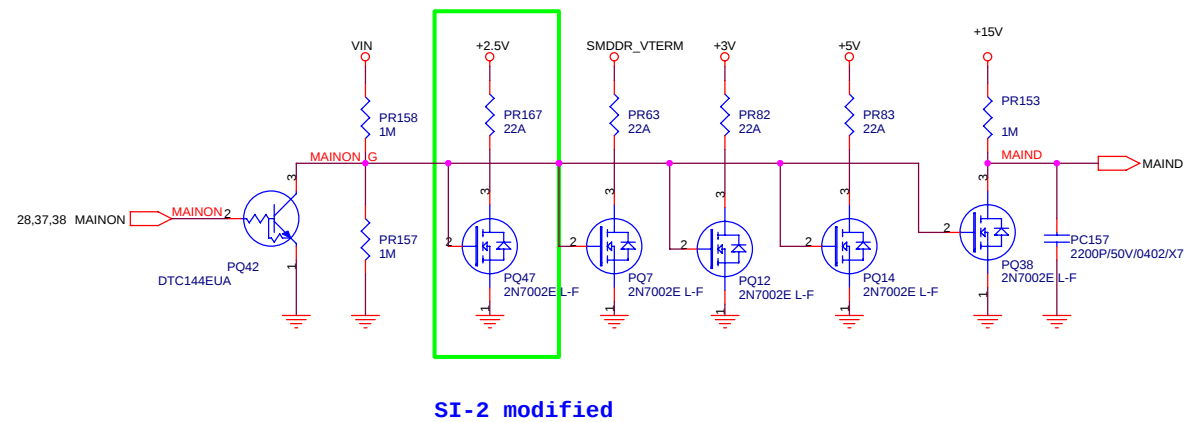
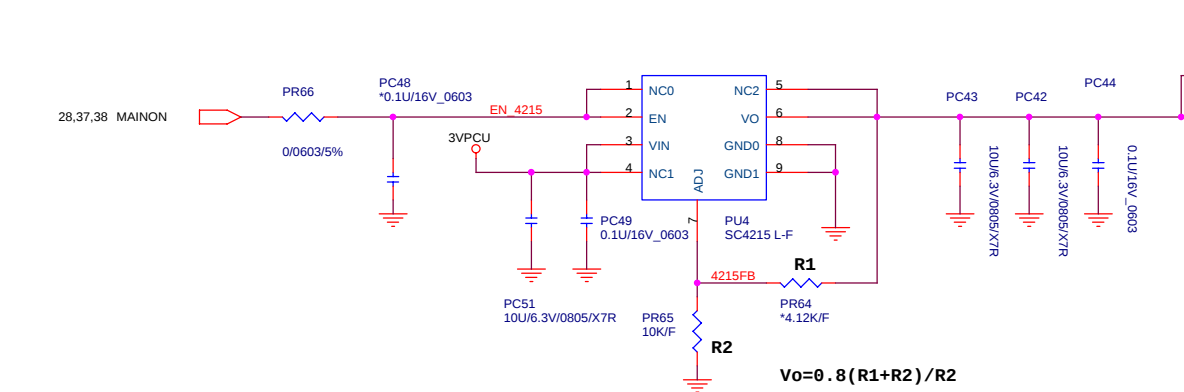


change footprint for ME request



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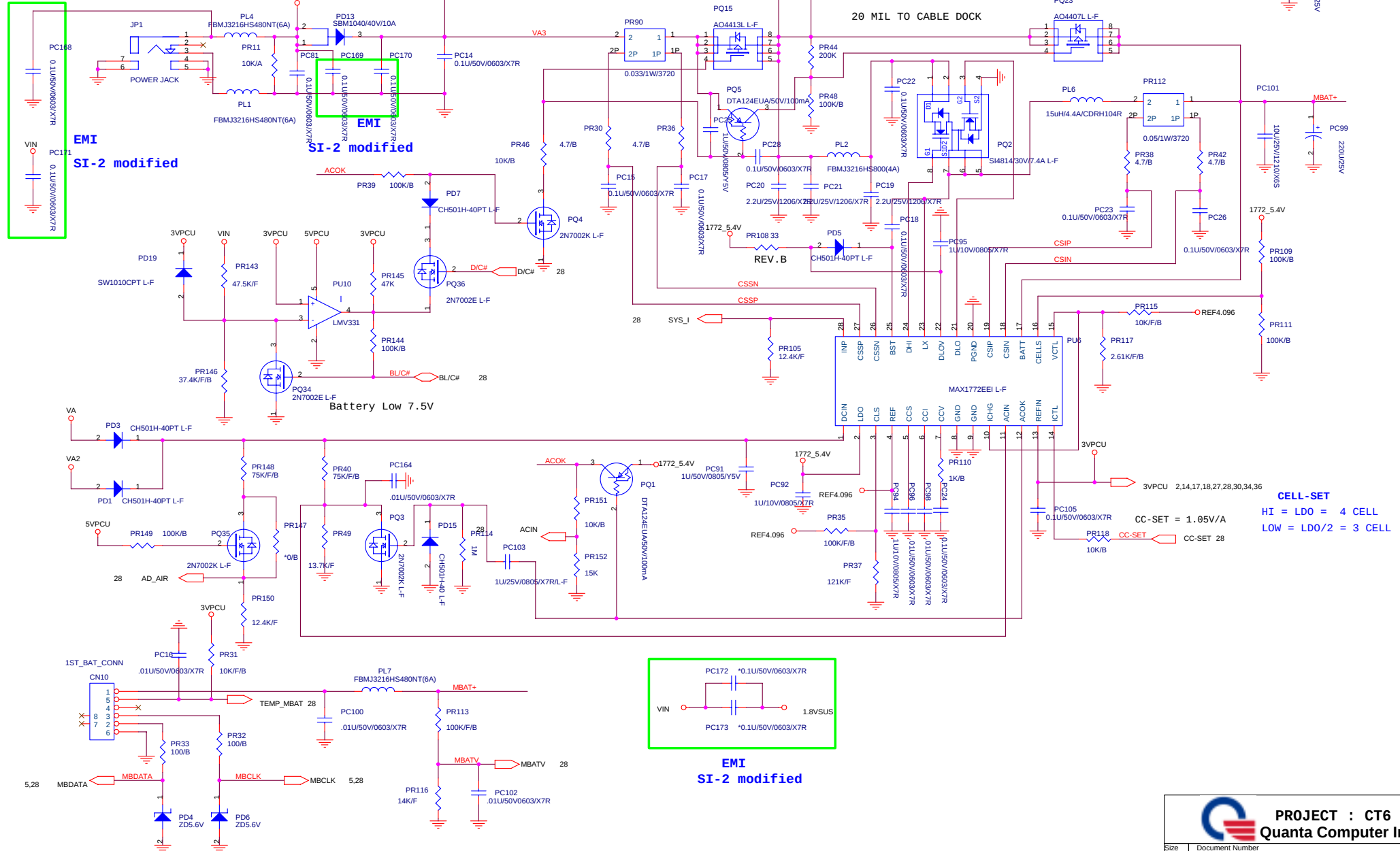
Size	Document Number	Rev
Custom	NEW CARD, MINI CARD	1A
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BATTERY CHARGER

ADAPTER 18.5V 65W 3.51A

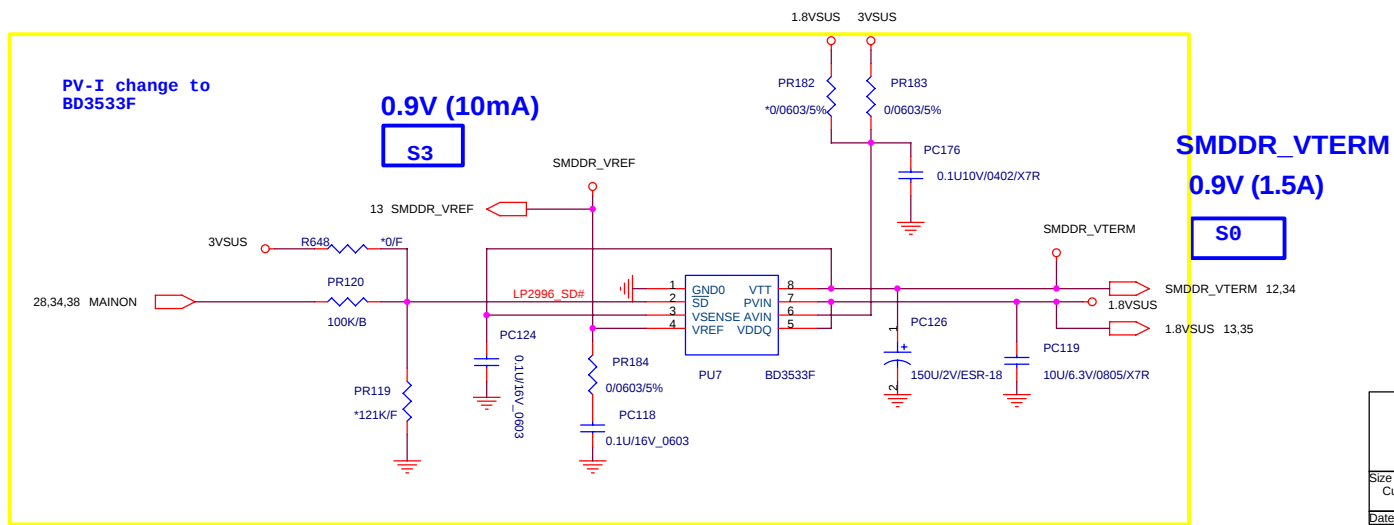
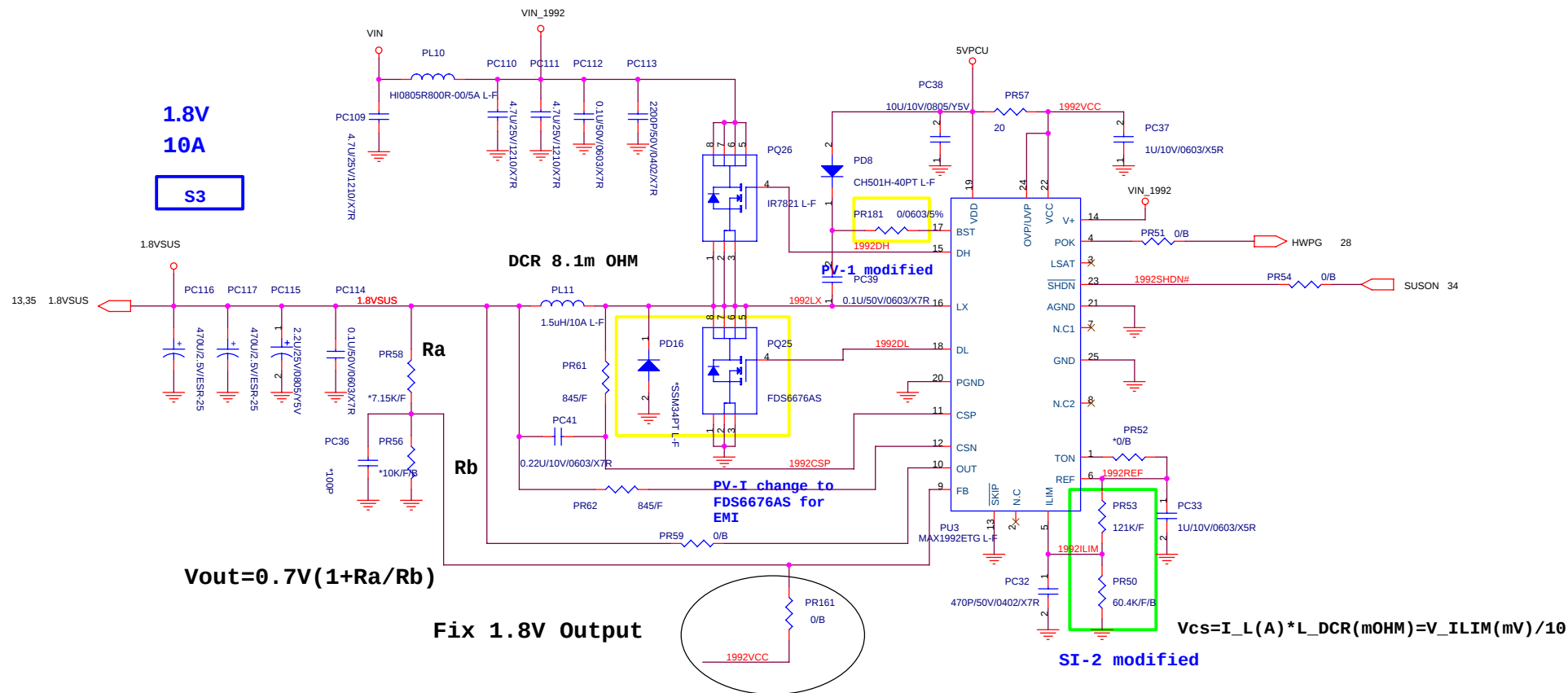
Second: B6M66790014

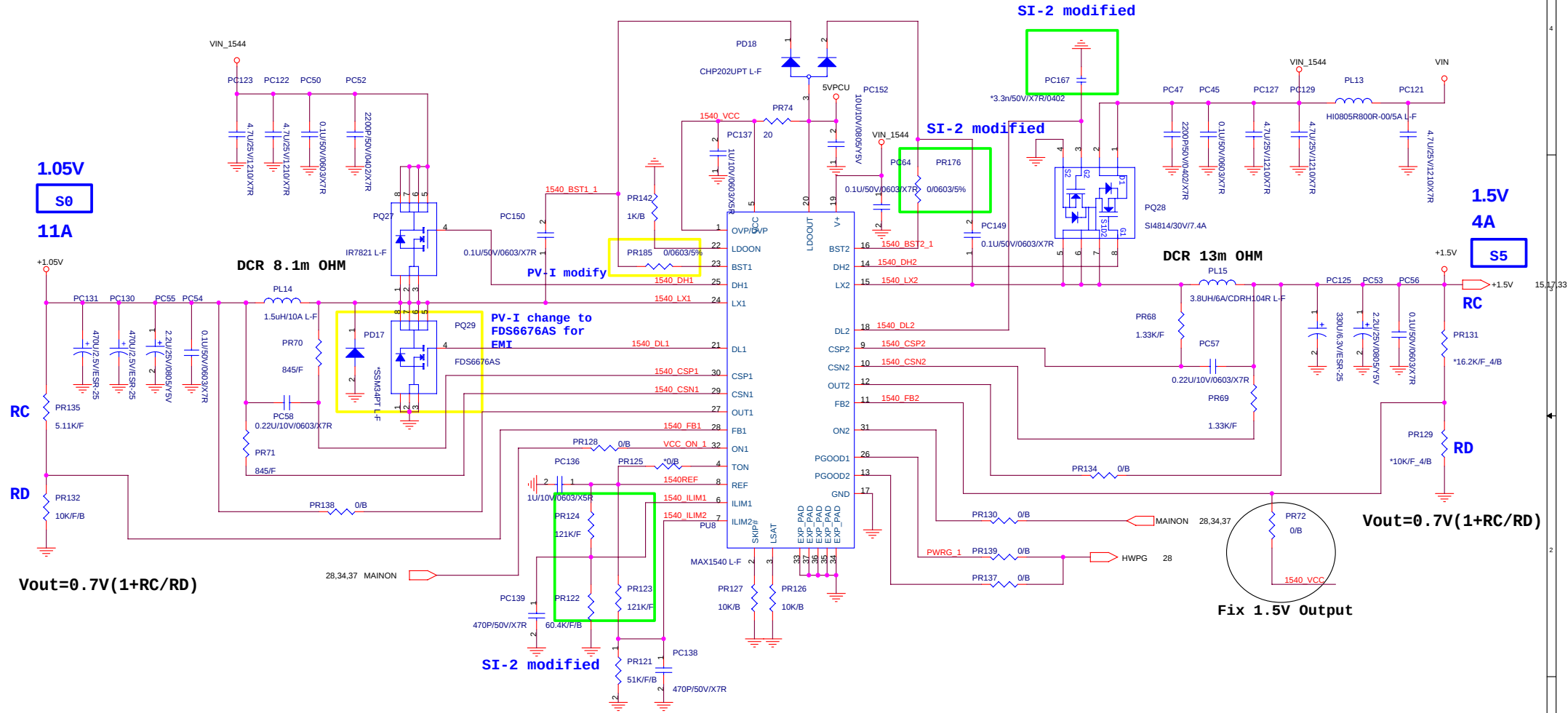


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Custpm	CHARGER MAX1772	1A
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0.9V (0.1A)





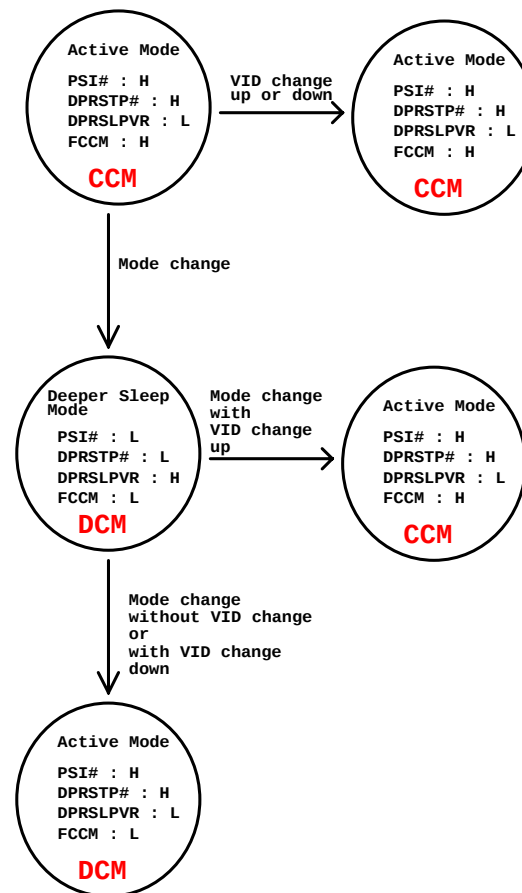
IMVP Spec. Rev. 0.8

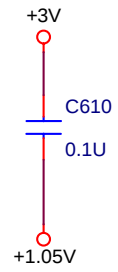
(Nom.)	Yonah-2M	Meron
HFM	1.2875 V	1.1500 V
LFM	0.8375 V	0.8375 V
Deeper	0.7625 V	0.7625 V
VBOOT	1.2000 V	1.2000 V
SLOPE	-2.1 mV/A	-2.1 mV/A

(Max.)	Yonah-2M	Meron
HFM	36 A	44 A
LFM	9.5 A	12.5 A
Deeper	3.5 A	5.5 A
Dynamic	27 A	34.5 A
TDC	26 A	32 A

Vo	VID6	VID5	VID4	VID3	VID2	VID1	VID0
1.5000	0	0	0	0	0	0	0
1.4375	0	0	0	0	1	0	1
1.4000	0	0	0	1	0	0	0
1.3000	0	0	1	0	0	0	0
1.2875	0	0	1	0	0	0	1
1.2000	0	0	1	1	0	0	0
1.1500	0	0	1	1	1	0	0
1.1000	0	1	0	0	0	0	0
1.0000	0	1	0	1	0	0	0
0.9625	0	1	0	1	0	1	1
0.9000	0	1	1	0	0	0	0
0.8375	0	1	1	0	1	0	1
0.8000	0	1	1	1	0	0	0
0.7625	0	1	1	1	0	1	1
0.7500	0	1	1	1	1	0	0
0.7000	1	0	0	0	0	0	0
0.6000	1	0	0	1	0	0	0
0.5000	1	0	1	0	0	0	0
0.3000	1	1	0	0	0	0	0

CCM : Continuous Conduction Mode
DCM : Dis-Continuous Mode

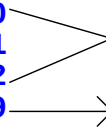




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[illegible]

5	4	3	2	1
	description	31 BOM difference list (base on 31CT6MB0008 BOM)		
D	31CT6MB0008	Pavilion FF		D
	31CT6MB0024	Pavilion FF+Camera/Mic	ADD : 1.CN30 2.CN31 3.CN32 4.CN29  for camera connector for internal MIC connector	
C	31CT6MB0016	Presario FF	ADD: LED 9 -- PWR_LED LED 8 --SATA_LED LED 7 --MBATLED LED4 --TP_LED LED2 --CAPD_LED LED6 --CARD_LED SW7 -- TP_R SWITCH SW6 -- TP_L SWITCH REMOVE: IR1--- IR component LED13--PWR_LED LED12 --SATA_LED LED11 --MBAT_LED C532 -- IR R521 -- IR CN22 -- AV BOARD CN26 -- 2ND H/P CON LED5 -- CARD LED LED3 -- TP_LED LED2 -- CAPS_LED LED1 -- PWR_LED C267 -- AV BOARD EMI C264 -- AV BOARD EMI C260 -- AV BOARD EMI C275 -- 2ND H/P EMI C272 -- 2ND H/P EMI R241 --2ND H/P damp res R235 --2ND H/P damp res R1 -- PWR RES SW5 -TP_R SWITCH SW4 -- TP_L SWITCH SW2-NBWON# SWITCH	C
B				B
A				A
5	4	3	2	1



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