

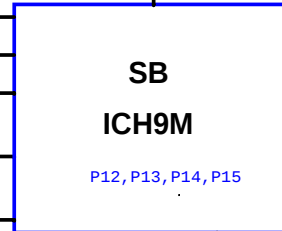
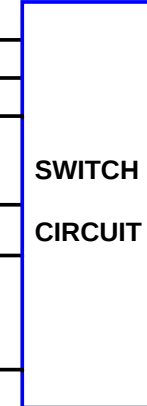
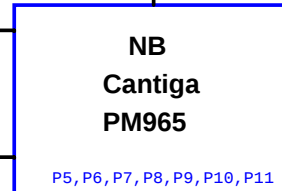
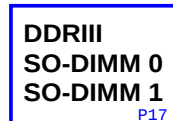
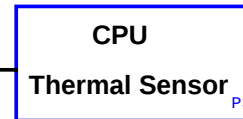
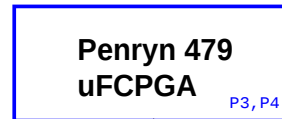
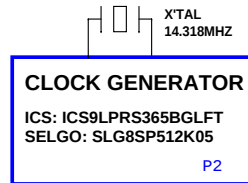
ZY2 SYSTEM BLOCK DIAGRAM

BOM MARK

E@ EXT VGA 要打
268@ AUDIO 268 要打
D@ DOCK
D2@ DDR2 要打
SP@ 特殊(EXT VGA OR DDR2)
LC@ LOW COST 要打
ED2@ EXT VGA & DDR2 要打
CB@ CARDBUS 要打
NSF@ Non ASF 要打

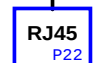
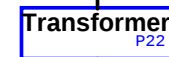
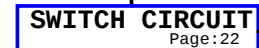
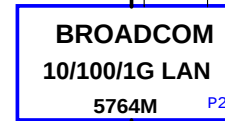
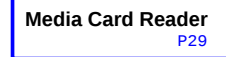
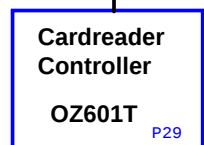
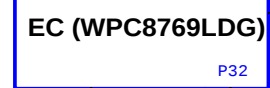
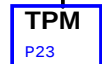
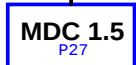
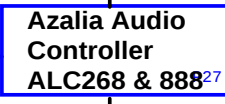
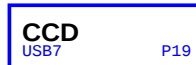
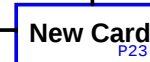
I@ INT VGA 要打
888@ AUDIO 888 要打
D3@ DDR3 要打
ND@ NON DOCK 要打
NLC@ NON LOW COST 要打
TPM@ INT TPM
ID2@ INT VGA & DDR2 要打
ED3@ EXT VGA & DDR3 要打
ID3@ INT VGA & DDR3 要打
ASF@ ASF 要打
NCB@ NON CARDBUS 要打

LOW COST
1. MINI CARD 1 SLOT
2. NON DOCK
3. NON CARDBUS
4. NON ASF
5. NON HDMI

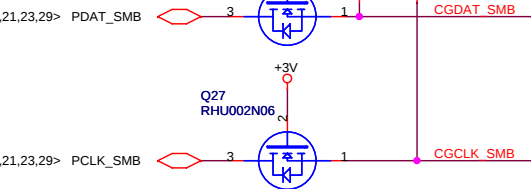
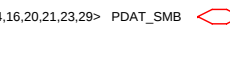


PCI-Express

PCI-E-1



Clock Gen I2C

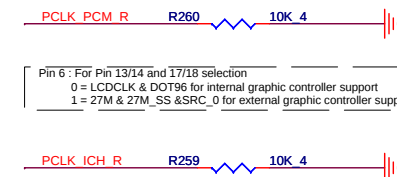


	QCI P/N
SLG8SP512	AL8SP512K05
ICS9LPRS365BGLFT	ALPRS365K13

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



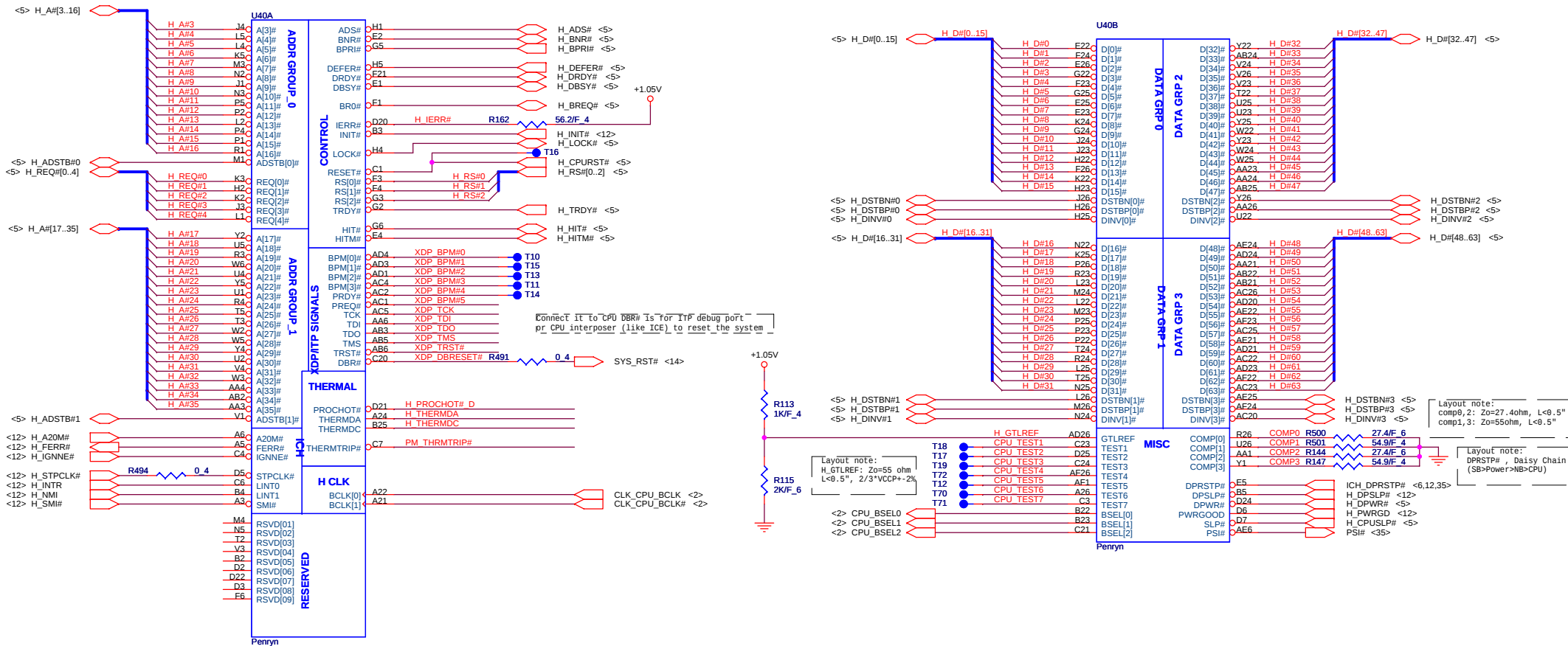
Pin 6 : For Pin 13/14 and 17/18 selection
0 = LCDCLK & DOT96 for internal graphic controller support
1 = 27M & 27M_SS&SRC_0 for external graphic controller support

Pin 7 : For Pin 46/47 selection
1 = CPU_ITP
0 = SRC 8

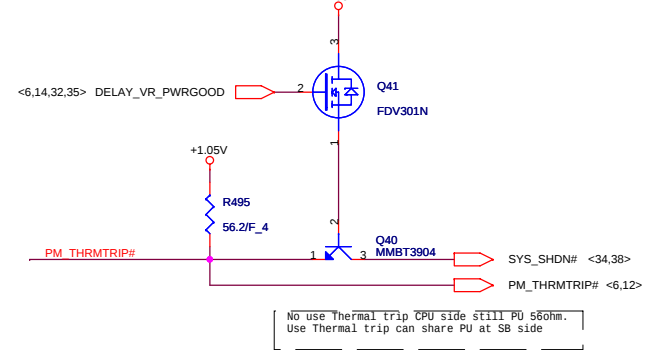


Quanta Computer Inc.
PROJECT : ZY2 & ZY6

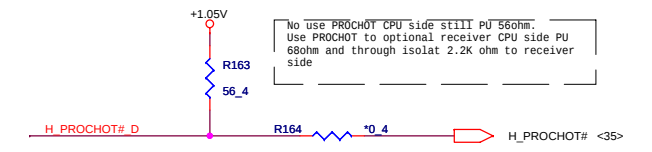
Size	Document Number CLOCK GENERATOR CK505 W/REGULATOR	Rev 1A
Date:	Tuesday, April 08, 2008	Sheet 2 of 40



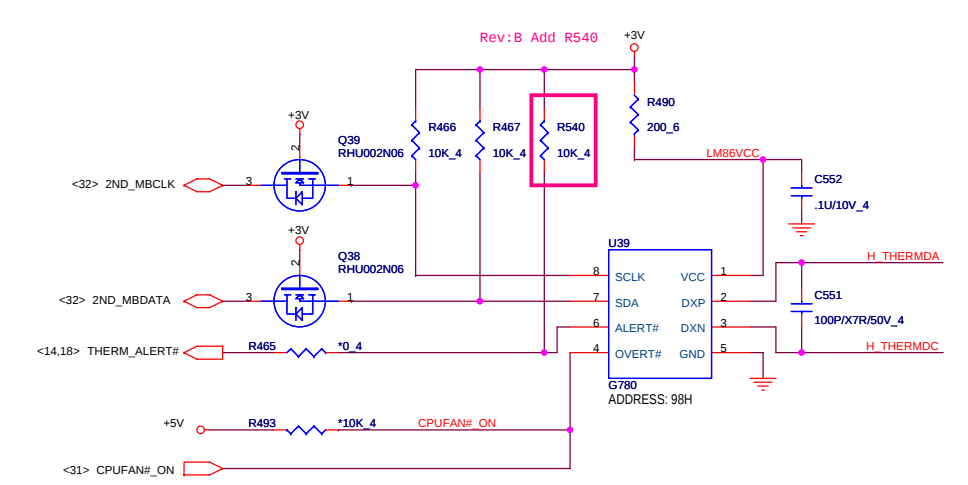
Thermal Trip



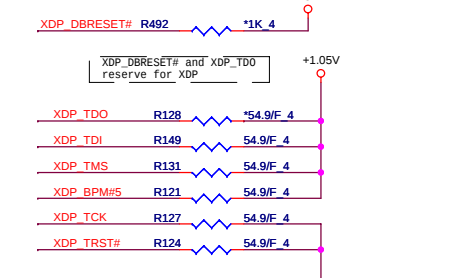
Processor hot

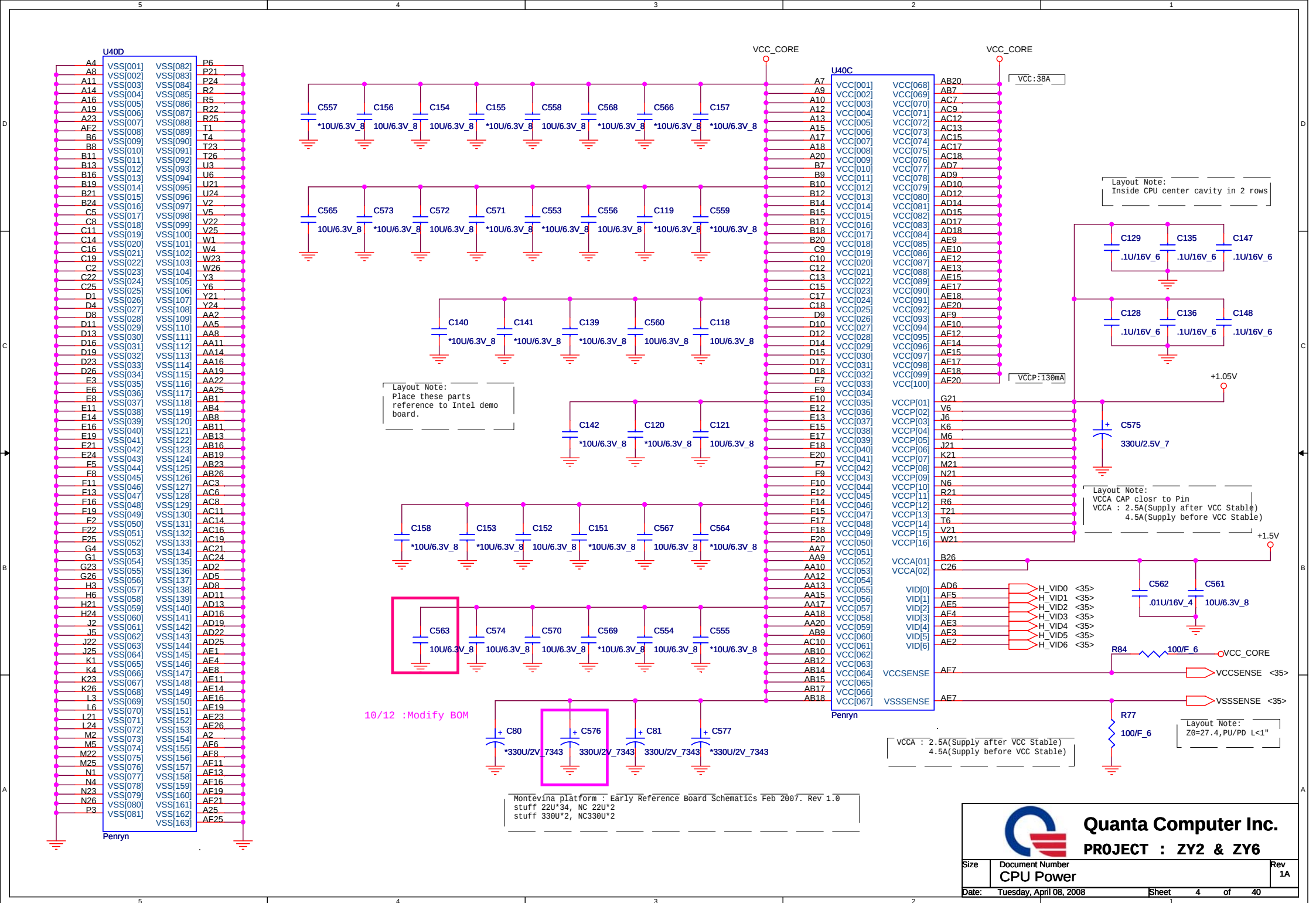


CPU Thermal monitor

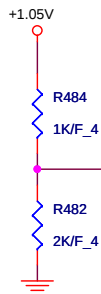
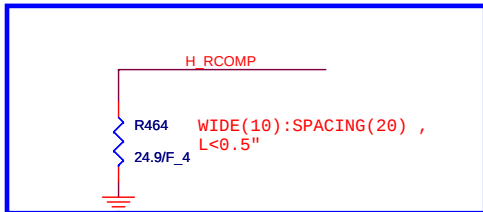
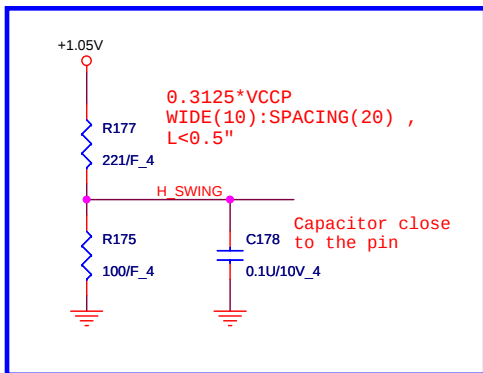


XDP PU/PD

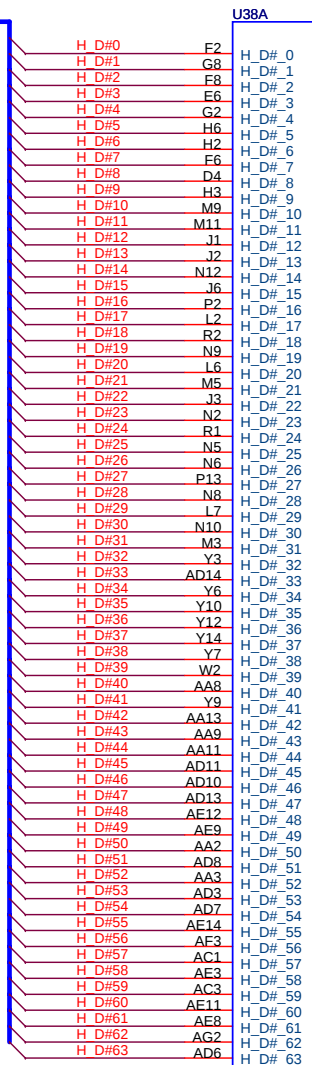




	QCI P/N
Intel Cantiga (G)M	AJ0QT620T01
Intel Cantiga (P)M	AJ0QT780T03



<3> H_D#[0..63]



HOST

H_ADS#
H_ADSTB#_0
H_ADSTB#_1
H_BNR#
H_BPR#
H_BREQ#
H_DEFER#
H_DBSY#
HPLL_CLK
HPLL_CLK#
H_DPWR#
H_DRDY#
H_HIT#
H_HITM#
H_LOCK#
H_TRDY#

H_DINV#_0
H_DINV#_1
H_DINV#_2
H_DINV#_3

H_DSTBN#_0
H_DSTBN#_1
H_DSTBN#_2
H_DSTBN#_3

H_DSTBP#_0
H_DSTBP#_1
H_DSTBP#_2
H_DSTBP#_3

H_REQ#_0
H_REQ#_1
H_REQ#_2
H_REQ#_3
H_REQ#_4

H_RS#_0
H_RS#_1
H_RS#_2

H12
B16
G17
A9
F11
G12
E9
B10
AH7
AH6
J11
F9
H9
E12
H11
C9

J8
L3
Y13
Y1

L10
M7
AA5
AE6

L9
M8
AA6
AE5

B15
K13
F13
B13
B14

B6
F12
C8

H12
B16
G17
A9
F11
G12
E9
B10
AH7
AH6
J11
F9
H9
E12
H11
C9

J8
L3
Y13
Y1

L10
M7
AA5
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L9
M8
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AE5

B15
K13
F13
B13
B14

B6
F12
C8

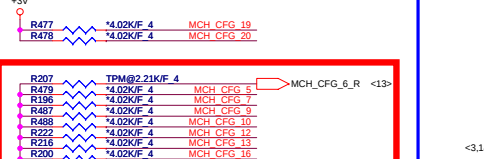


Quanta Computer Inc.
PROJECT : ZY2 & ZY6

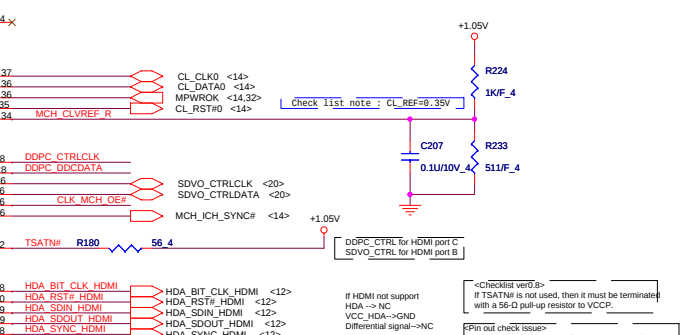
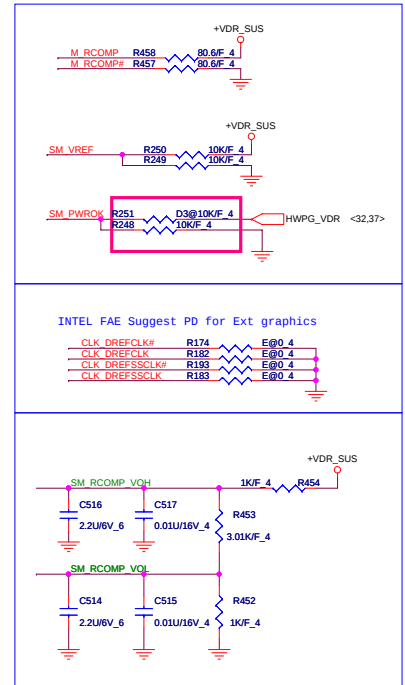
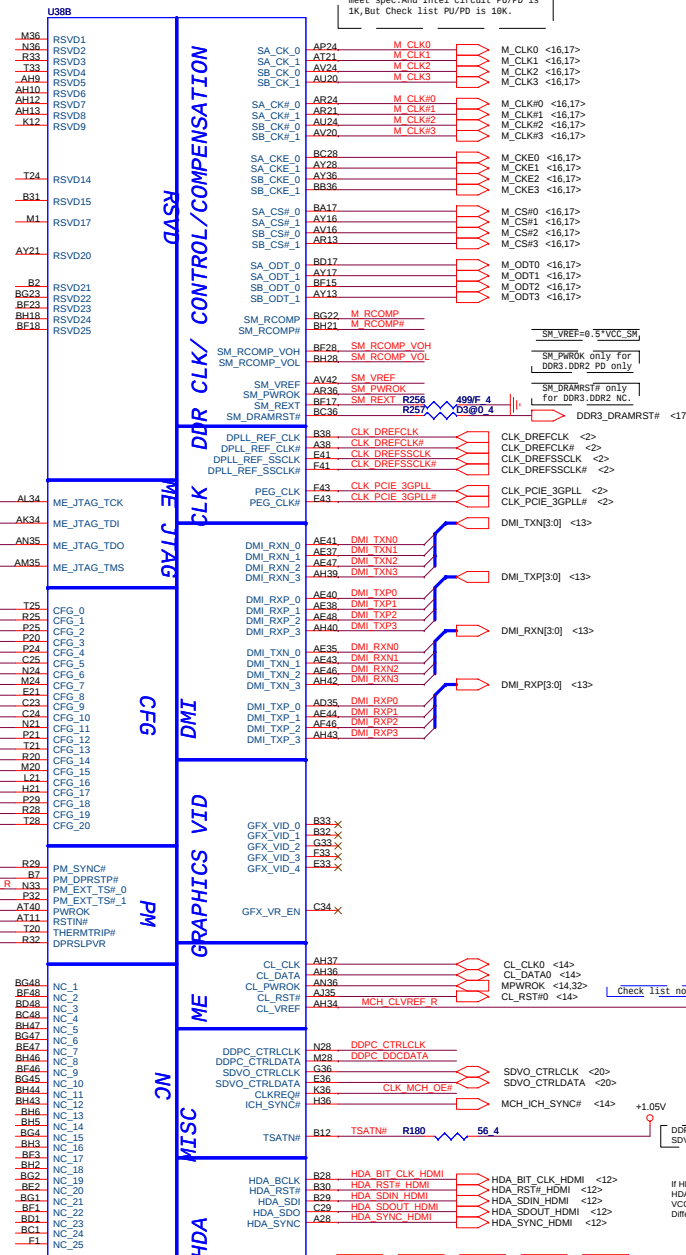
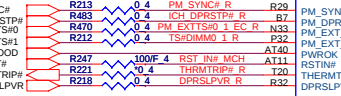
Size	Document Number	Rev
	GMCH HOST	1A
Date:	Tuesday, April 08, 2008	Sheet 5 of 40

Strap pin

Line	Signal	Pin	Function
T30	JTAG TCK	AL34	ME_JTAG
T28	JTAG TDI	AK34	ME_JTAG
T31	JTAG TDO	AN35	ME_JTAG
T29	JTAG TMS	AM35	ME_JTAG
LBSEL0		T25	CFG 0
LBSEL1		R25	CFG 1
LBSEL2		P25	CFG 2
T27	MCH CFG 3	C25	CFG 3
	MCH CFG 4	P24	CFG 4
	MCH CFG 5	C24	CFG 5
	MCH CFG 6	N24	CFG 6
	MCH CFG 7	M24	CFG 7
T24	MCH CFG 8	C23	CFG 8
	MCH CFG 9	N23	CFG 9
	MCH CFG 10	C24	CFG 10
	MCH CFG 11	P23	CFG 11
	MCH CFG 12	P21	CFG 12
	MCH CFG 13	T21	CFG 13
T26	MCH CFG 14	M21	CFG 14
	MCH CFG 15	M20	CFG 15
	MCH CFG 17	L21	CFG 17
T22	MCH CFG 18	H21	CFG 18
	MCH CFG 19	P22	CFG 19
T23	MCH CFG 20	R22	CFG 20
	MCH CFG 21	C22	CFG 21

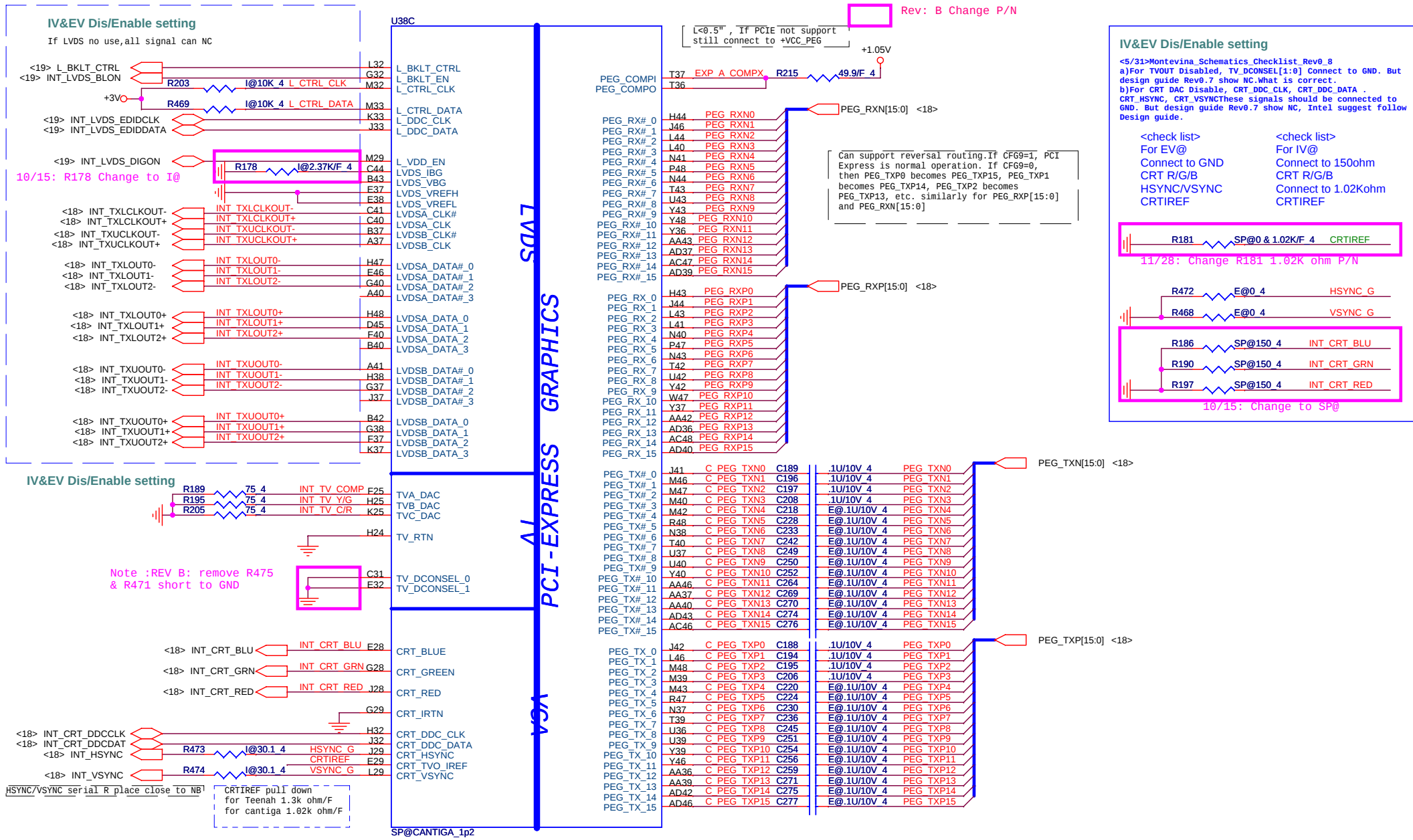


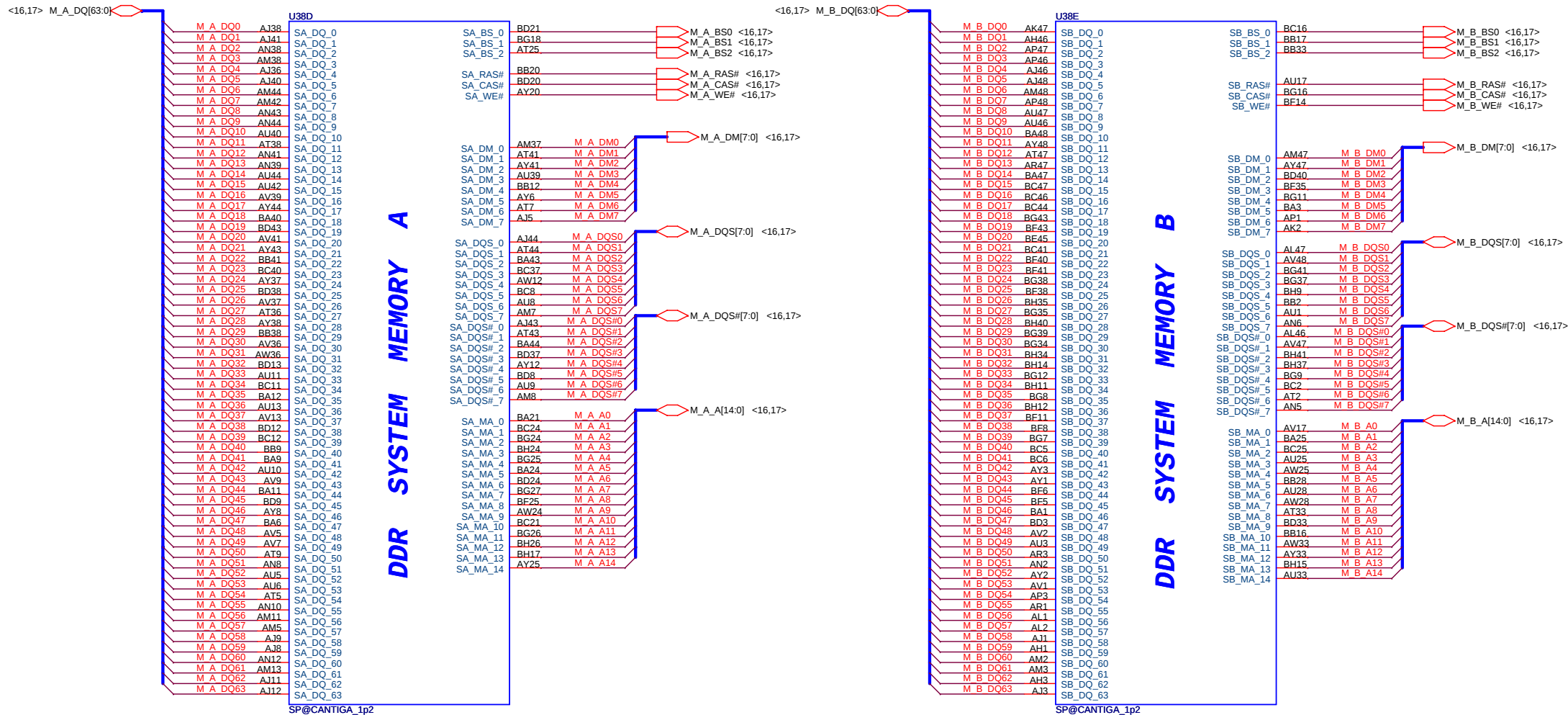
NB Thermal trip pin
No use Thermal trip NB side can
NC.(NB has ODT)



Impact ICH9M VCCHDA and VCCSUSHDA supply 1.5V/3.3V

NOTE:
If (G)MCH's HD Audio signals are connected to ICH9M for iHDMI, VCCHDA and VCCSUSDA 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.



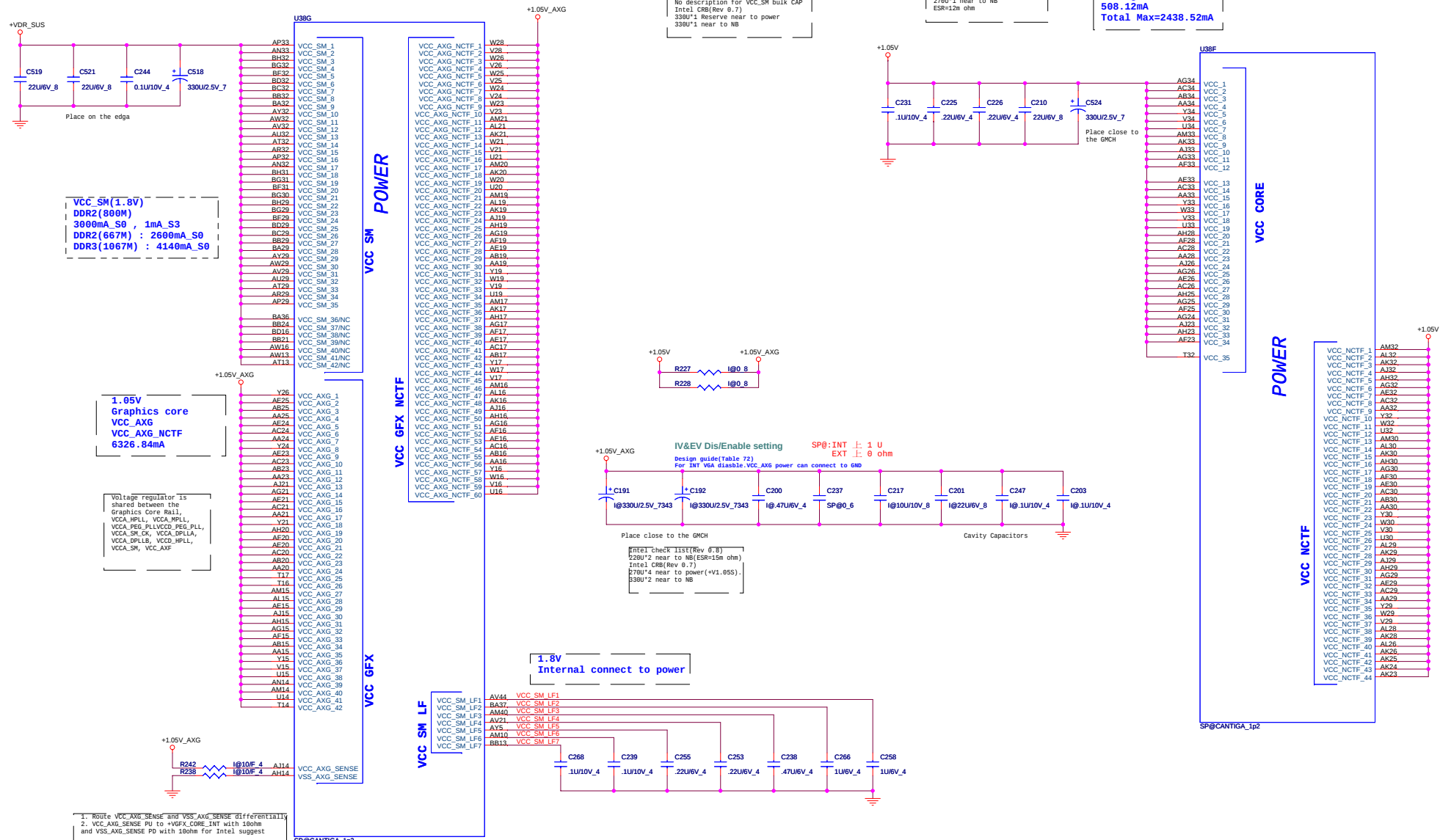


GM	TDP	10.5~12W
GS	TDP	7~8W
PM	TDP	7W

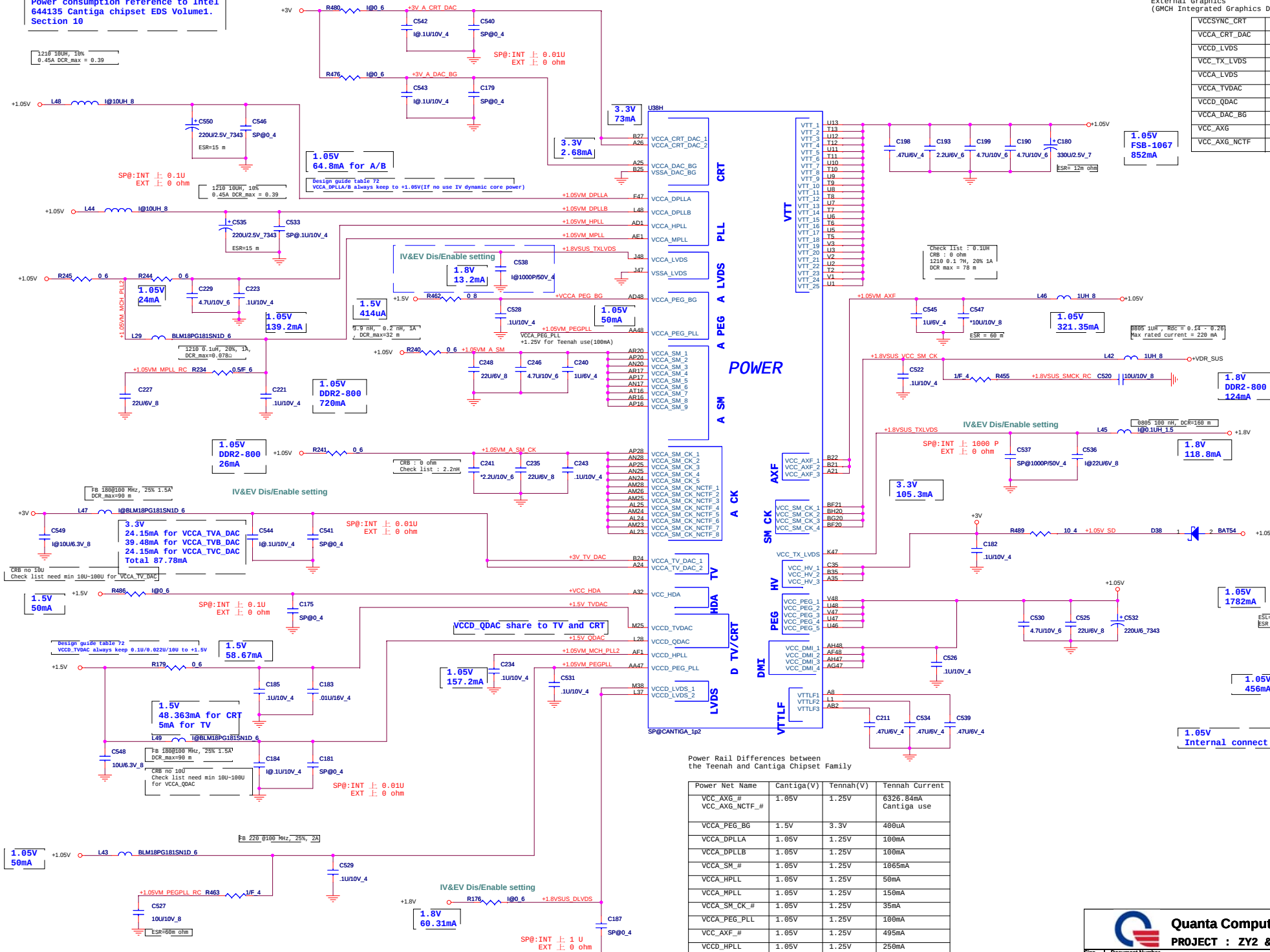
```
Intel check list(Rev 0.8)
No description for VCC_SM
Intel CRB(Rev 0.7)
330U*1 Reserve near to power
330U*1 near to NB
```

```
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
```

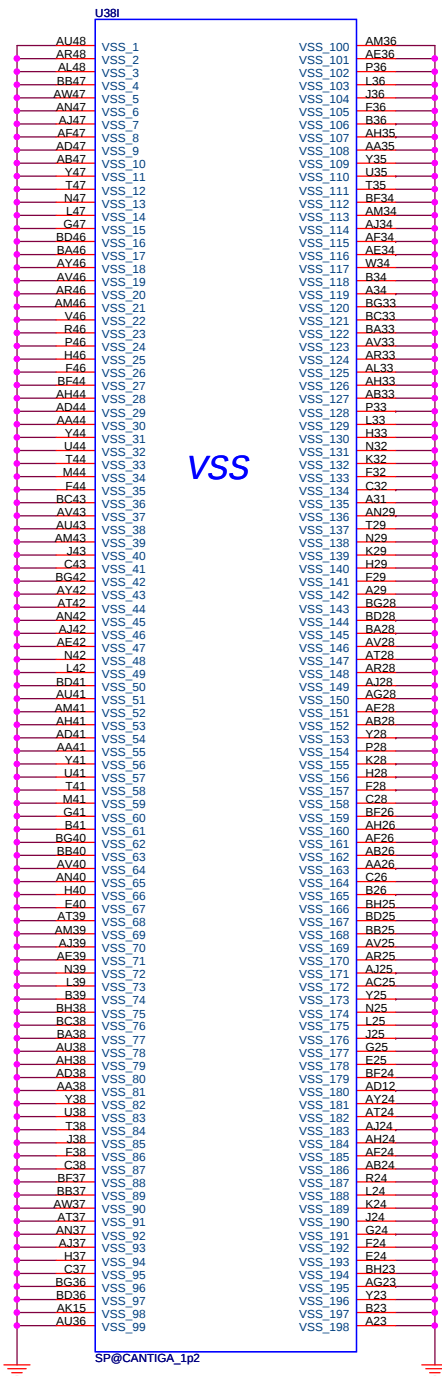
VCC
VCC_NCTF
1210.34mA_EV
1930.4mA_IV
ME Engine
508.12mA
Total Max=2438.52mA



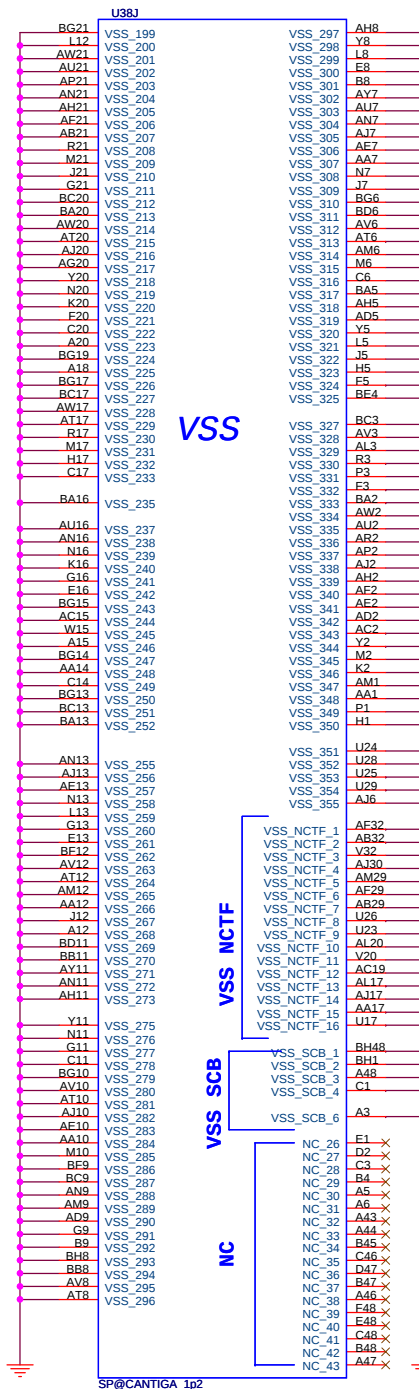
VCCSYNC_CRT	GND
VCCA_CRT_DAC	GND
VCCD_LVDS	GND
VCC_TX_LVDS	GND
VCCA_LVDS	GND
VCCA_TVDAC	GND
VCCD_QDAC	GND
VCCA_DAC_BG	GND
VCC_AXG	GND
VCC_AXG_NCTF	GND



Power Net Name	Cantiga(V)	Tennah(V)	Tennah Current
VCC_A0G_# VCC_A0G_NCTF_#	1.05V	1.25V	6326.84mA Cantiga use
VCCA_PEG_B6	1.5V	3.3V	480uA
VCCA_DPLLA	1.05V	1.25V	100mA
VCCA_DPLLB	1.05V	1.25V	100mA
VCCA_SM_#	1.05V	1.25V	1065mA
VCCA_HPLL	1.05V	1.25V	50mA
VCCA_MPLL	1.05V	1.25V	150mA
VCCA_SM_CK_#	1.05V	1.25V	35mA
VCCA_PEG_PLL	1.05V	1.25V	100mA
VCC_A0F_#	1.05V	1.25V	495mA
VCCD_HPLL	1.05V	1.25V	250mA
VCCD_PEG_PLL	1.05V	1.25V	100mA



VSS

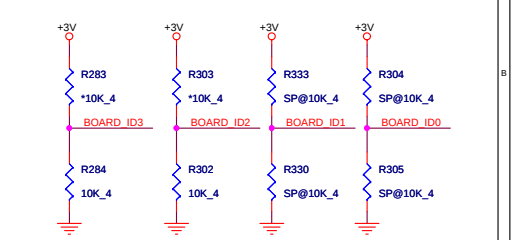
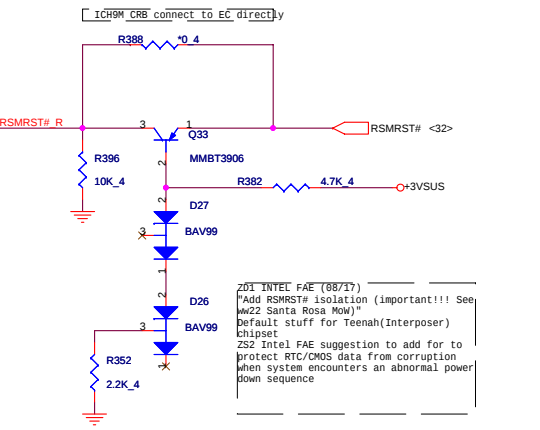
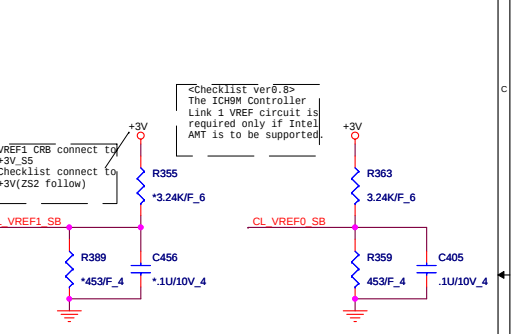
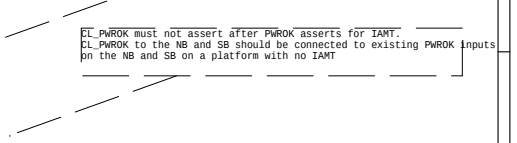
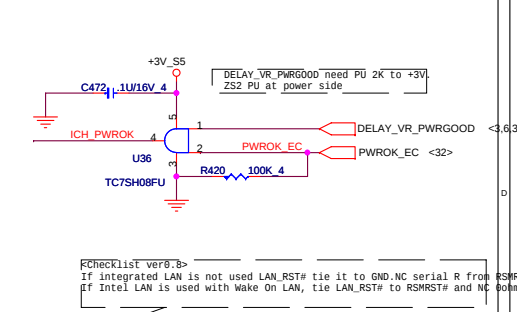
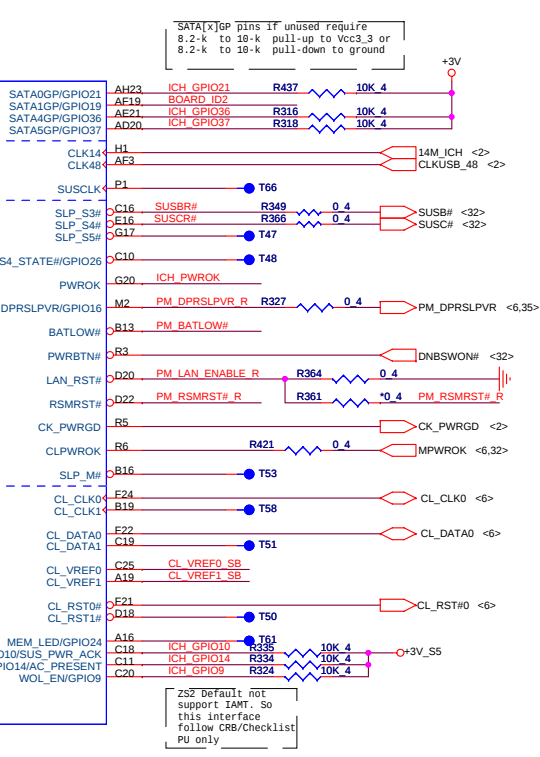
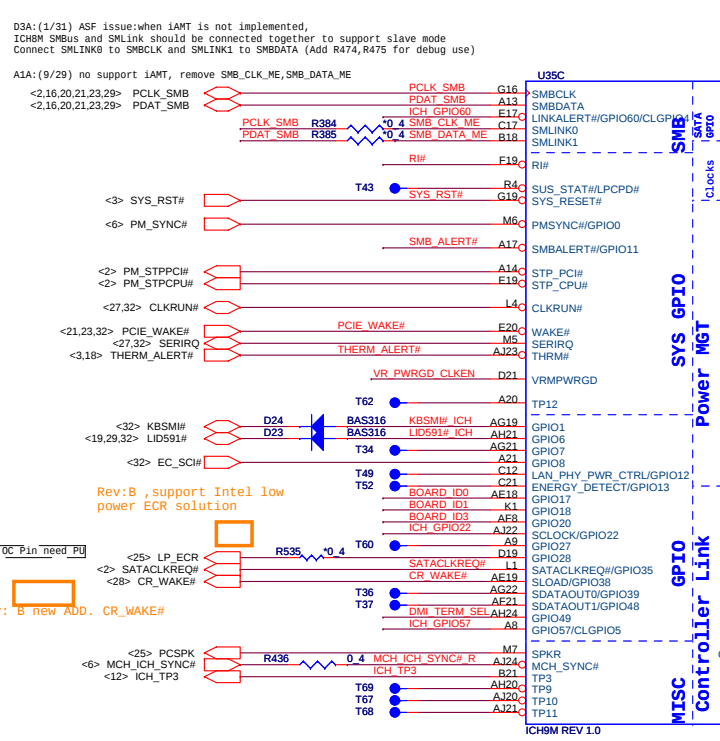
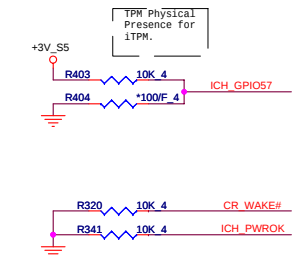
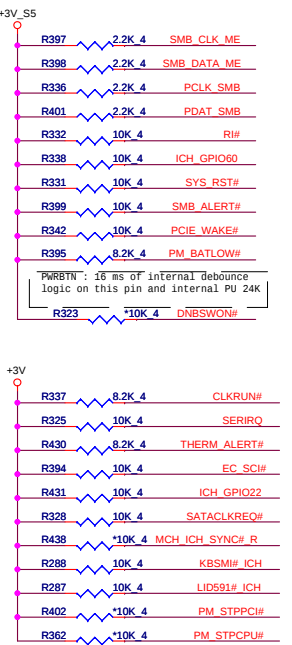


VSS

VSS NCTF

VSS SCB

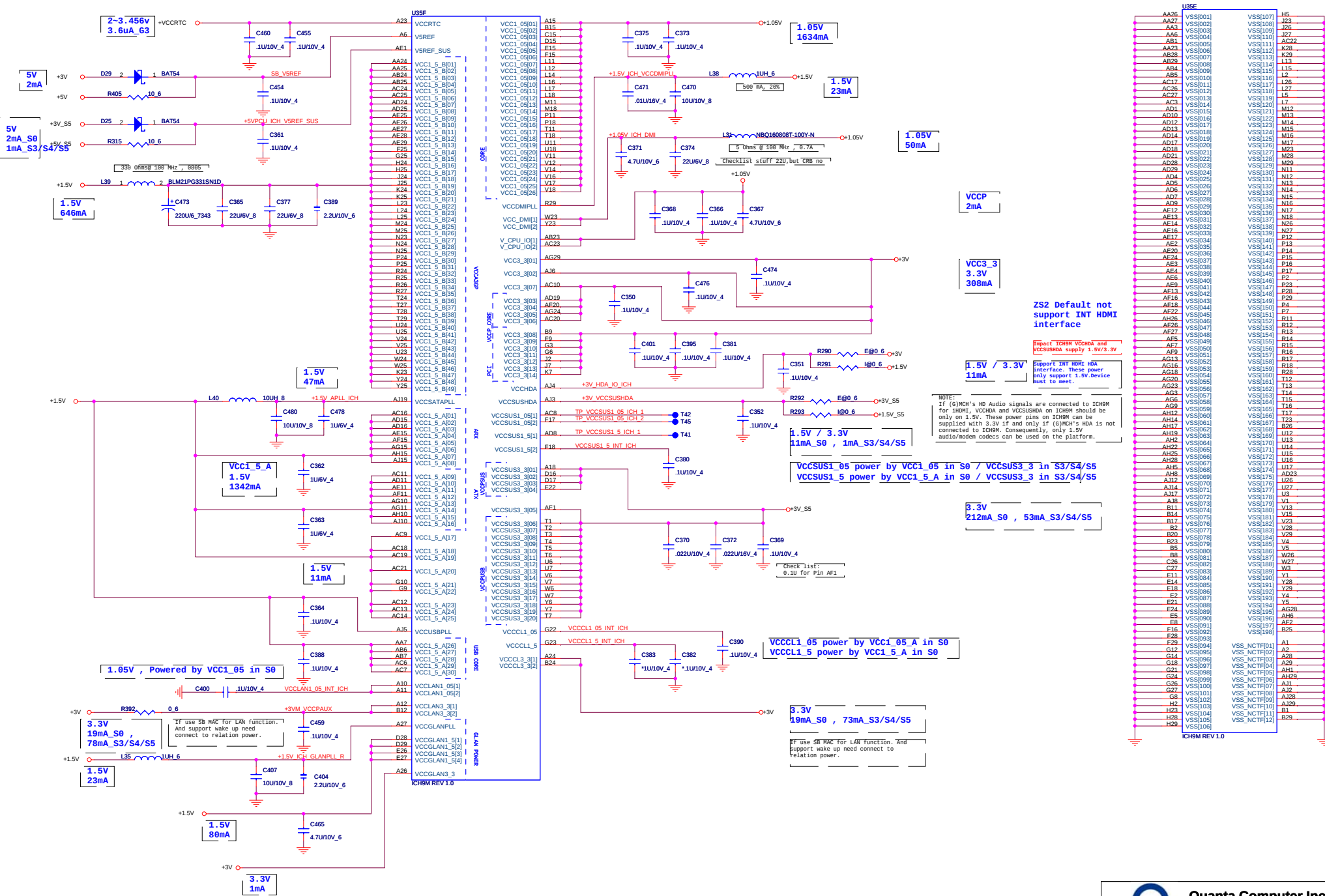
NC

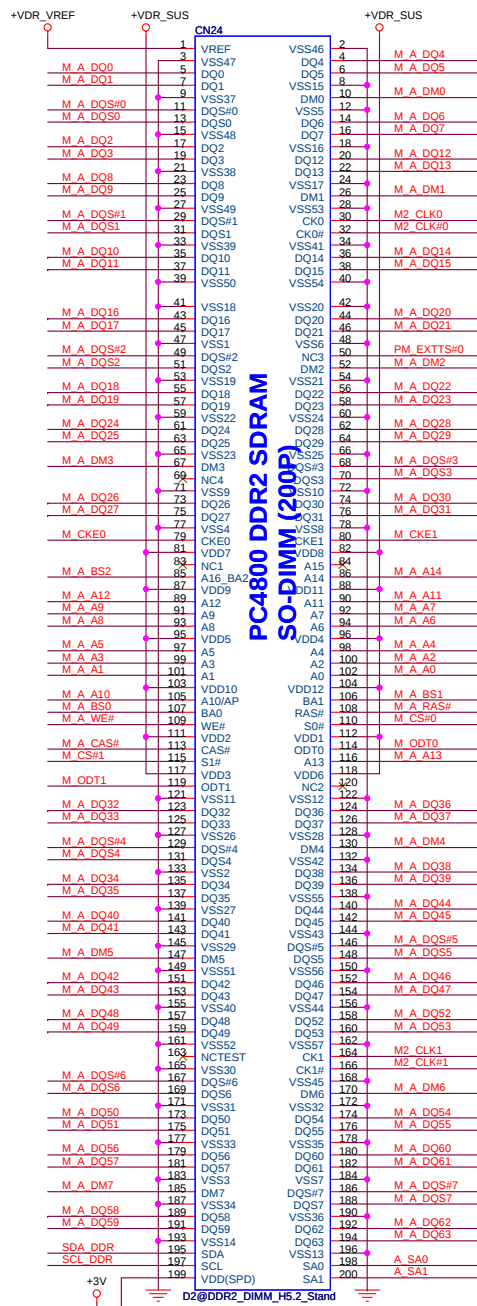


South Bridge Strap Pin (3/3)

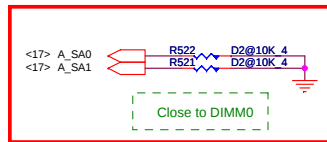
Pin Name	Strap description	Sampled	Configuration	PU/PD
GPIO20	Reserved	PWROK		
SPKR	No Reboot	PWROK	0 = Default 1 = No Reboot mode	PCSPK R346 ~1K 4 +3V
GPIO49	DMI Termination Voltage	PWROK	0 = for desktop applications 1 = for mobile applications Internal PU	DMI_TERM_SEL R400 ~1K 4

Board ID	ID3	ID2	ID1	ID0
ZY2	0	0	0	0
LOW COST	0	0	0	1
ZY6	0	0	1	0
	0	0	1	1
	0	1	0	0



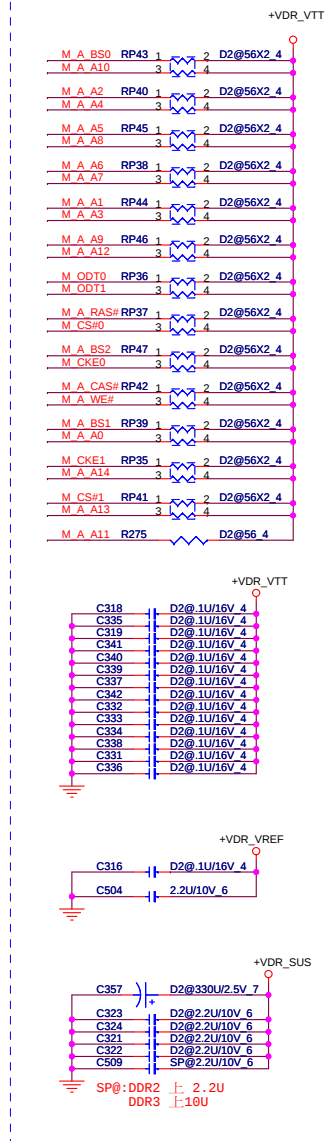


SO-DIMM0

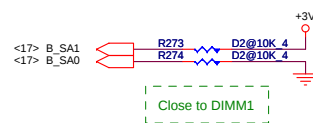


16/16: Change to D2@

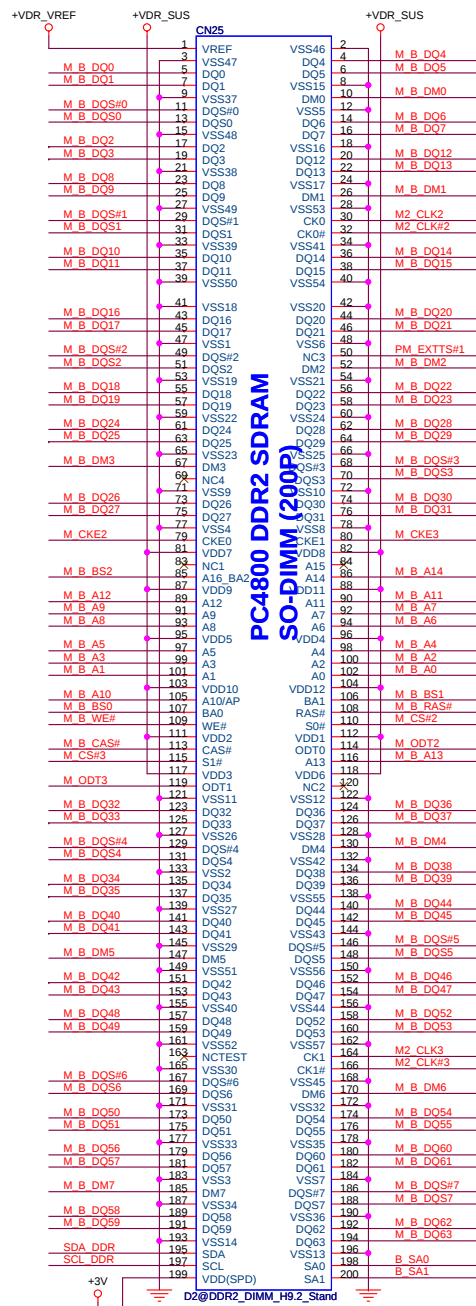
NOTE: Place one cap close to every 2 pull-up resistors terminated to +SMDDR_VTERM



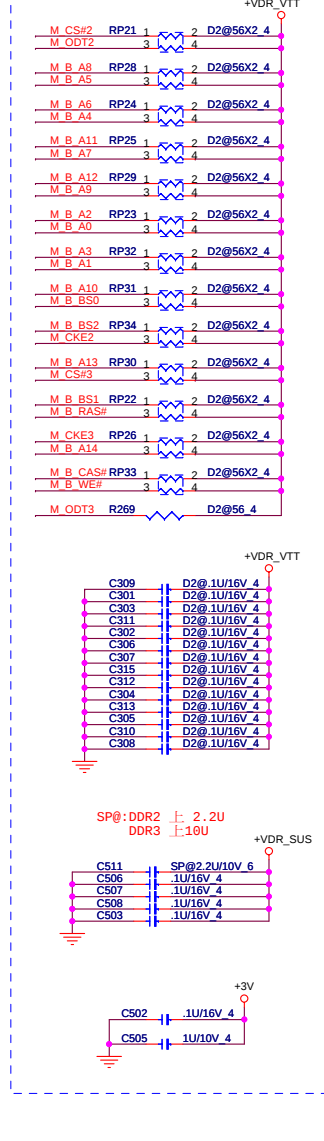
SO-DIMM1



16/16: Change to D2@

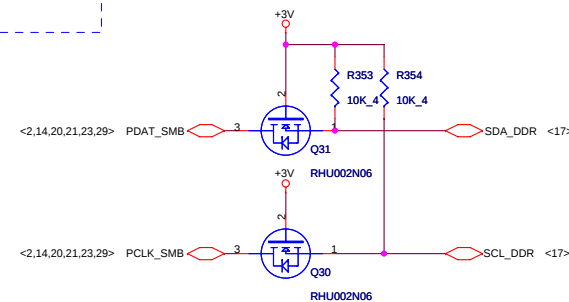
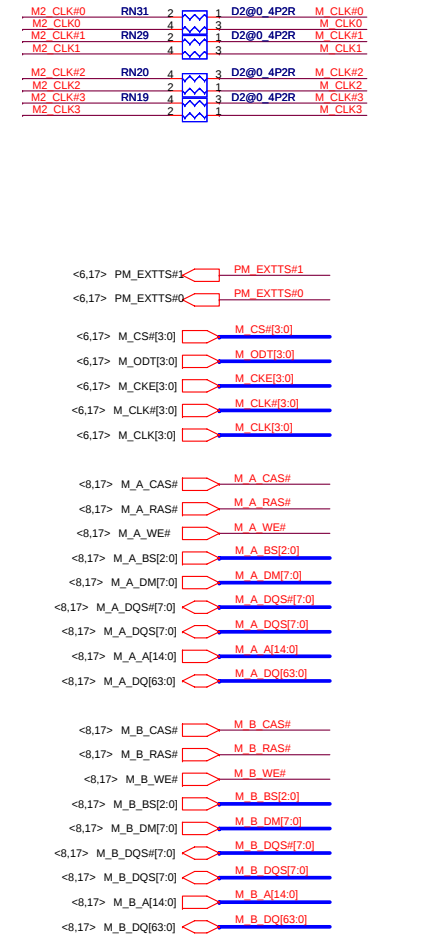


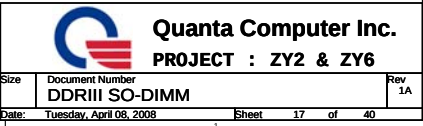
SMbus address A2

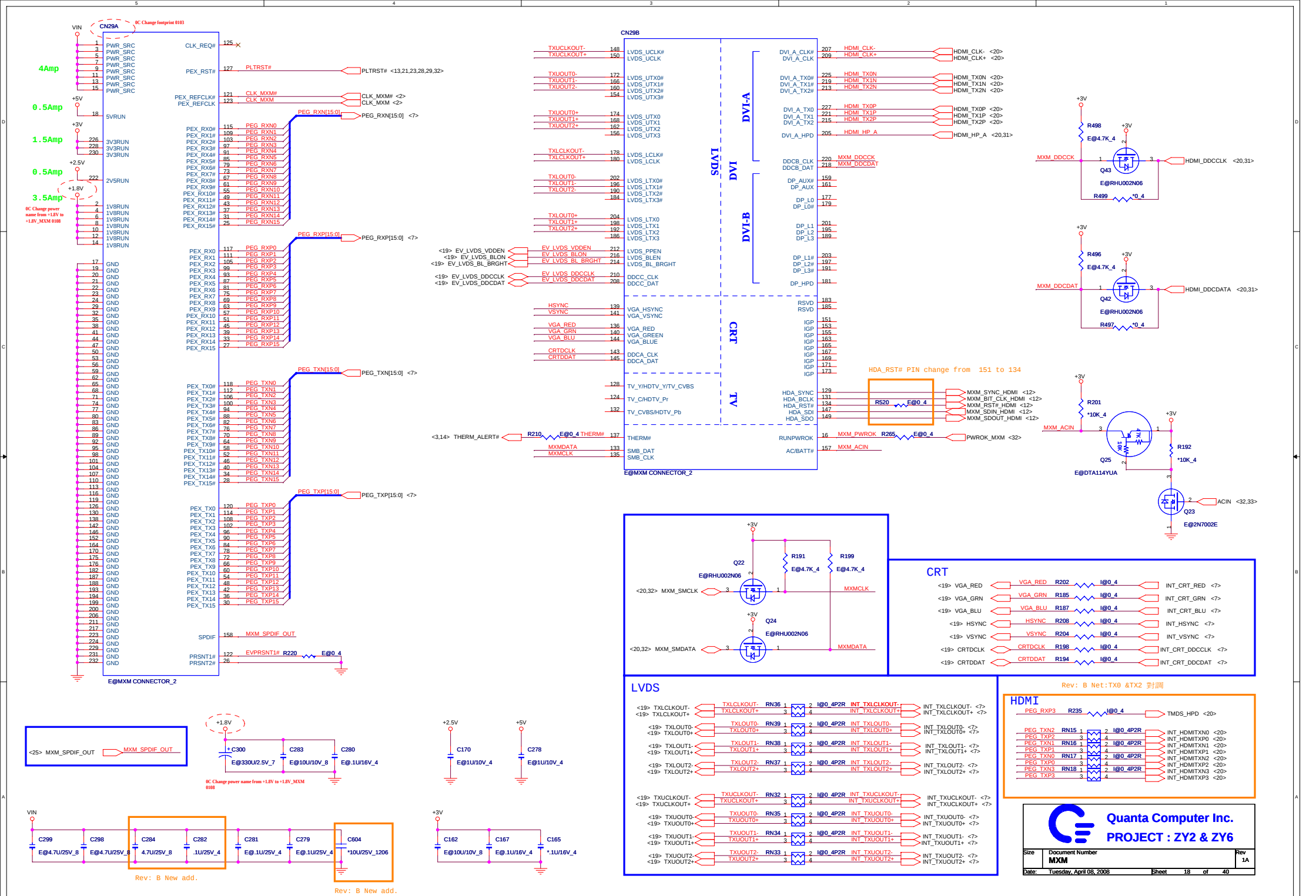


SMbus address A2

FOR DDR2

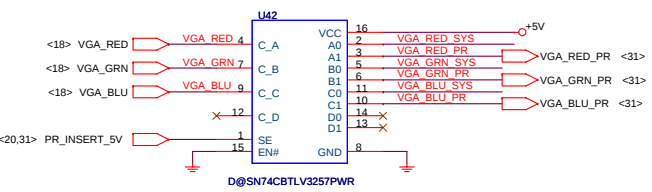




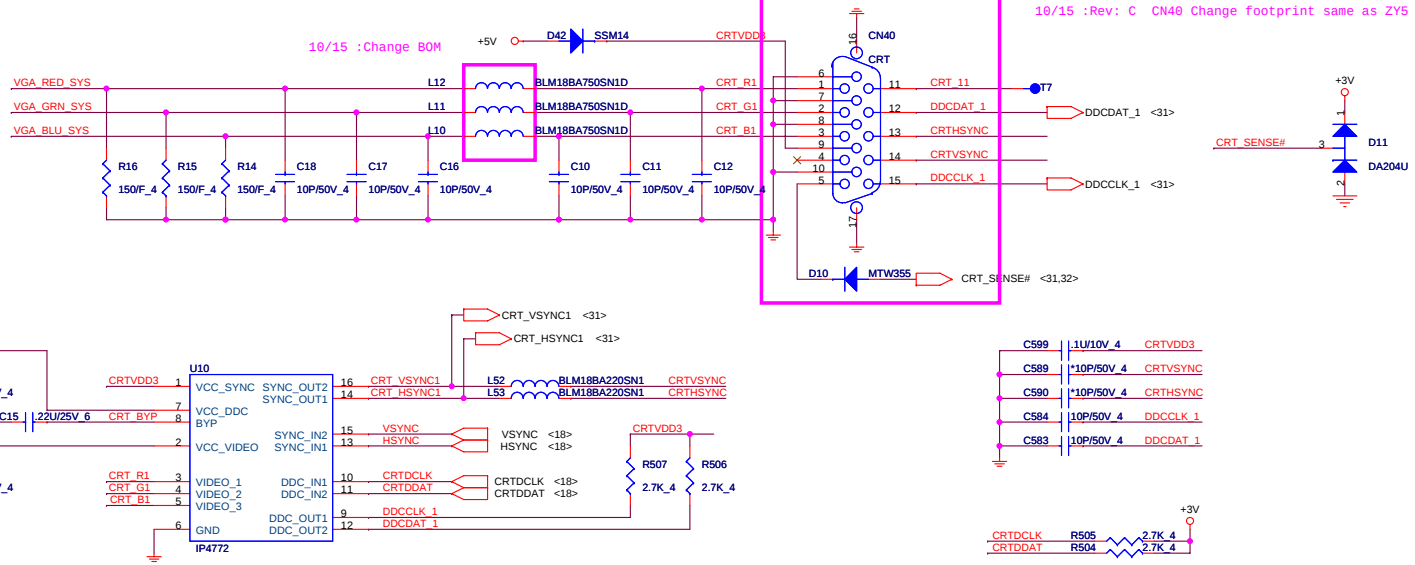


CRT Select

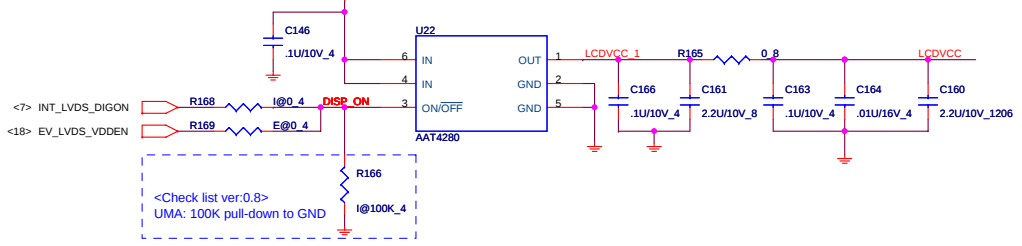
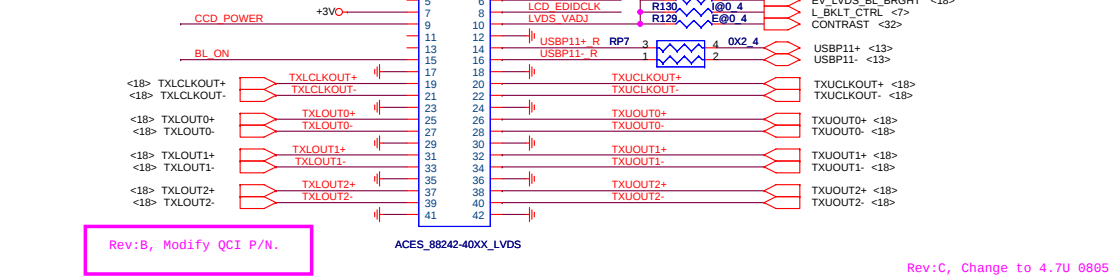
CRT SWITCH



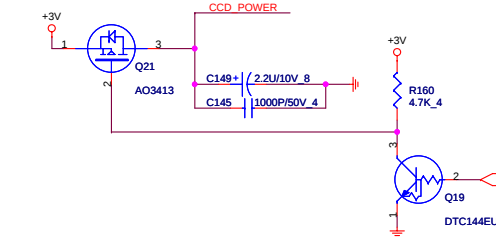
CRT CONNECTOR AND ESD



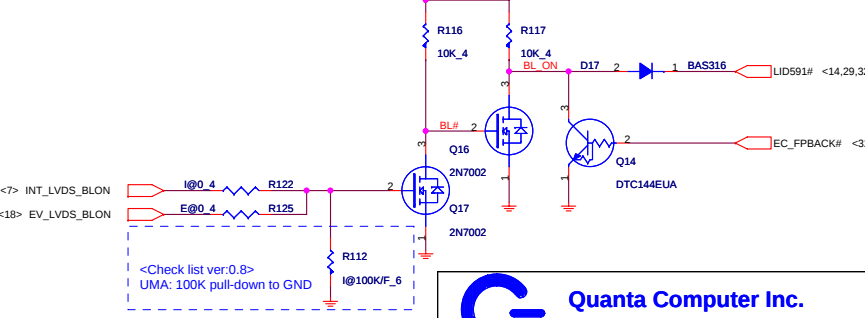
LVDS



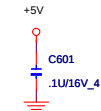
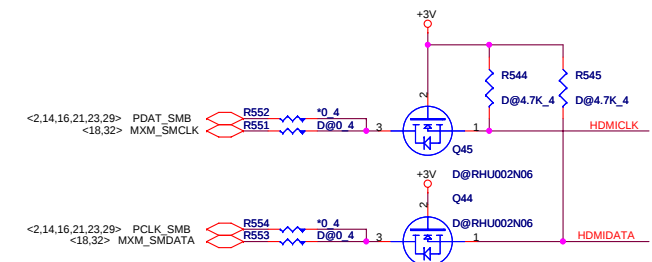
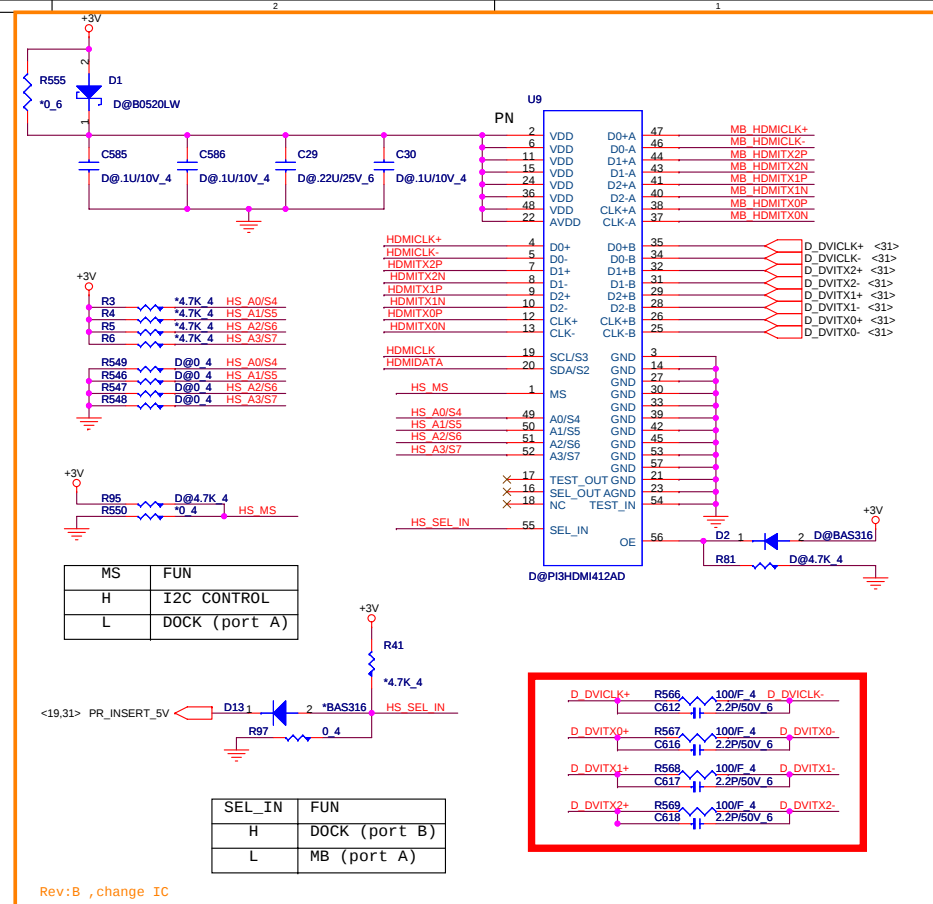
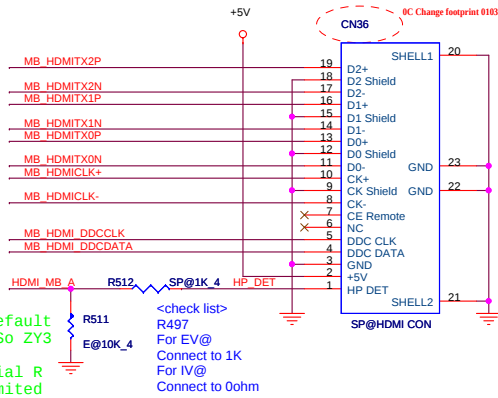
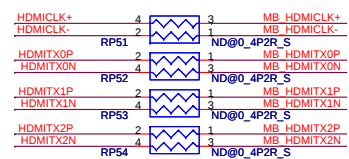
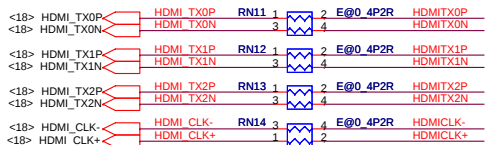
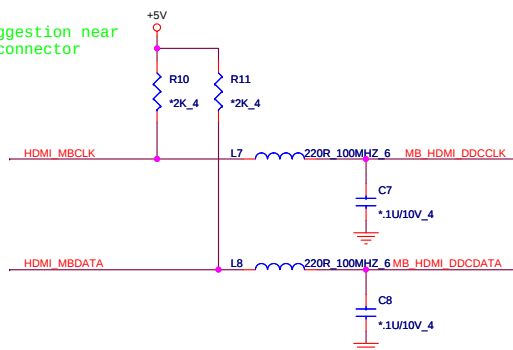
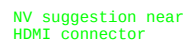
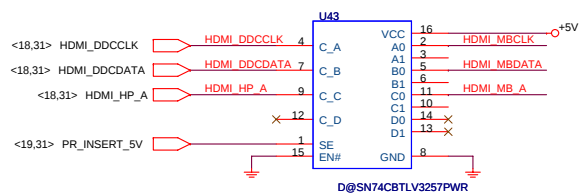
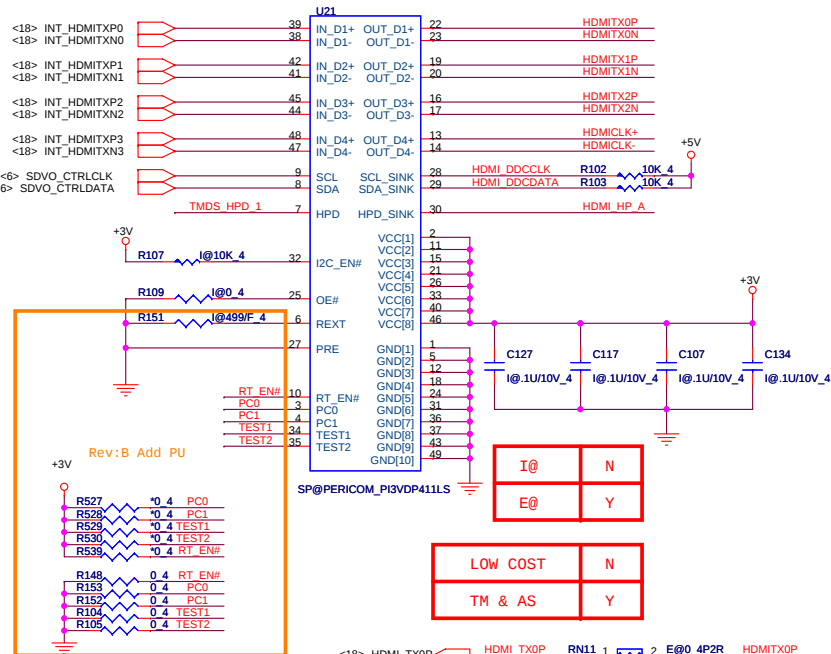
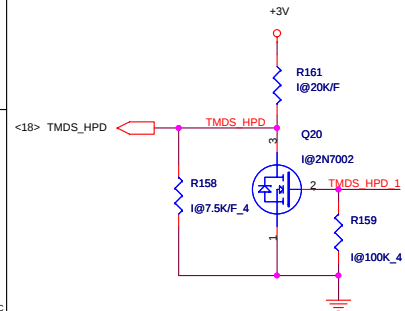
CAMERA MODULE CONNECTOR



Backlight Control



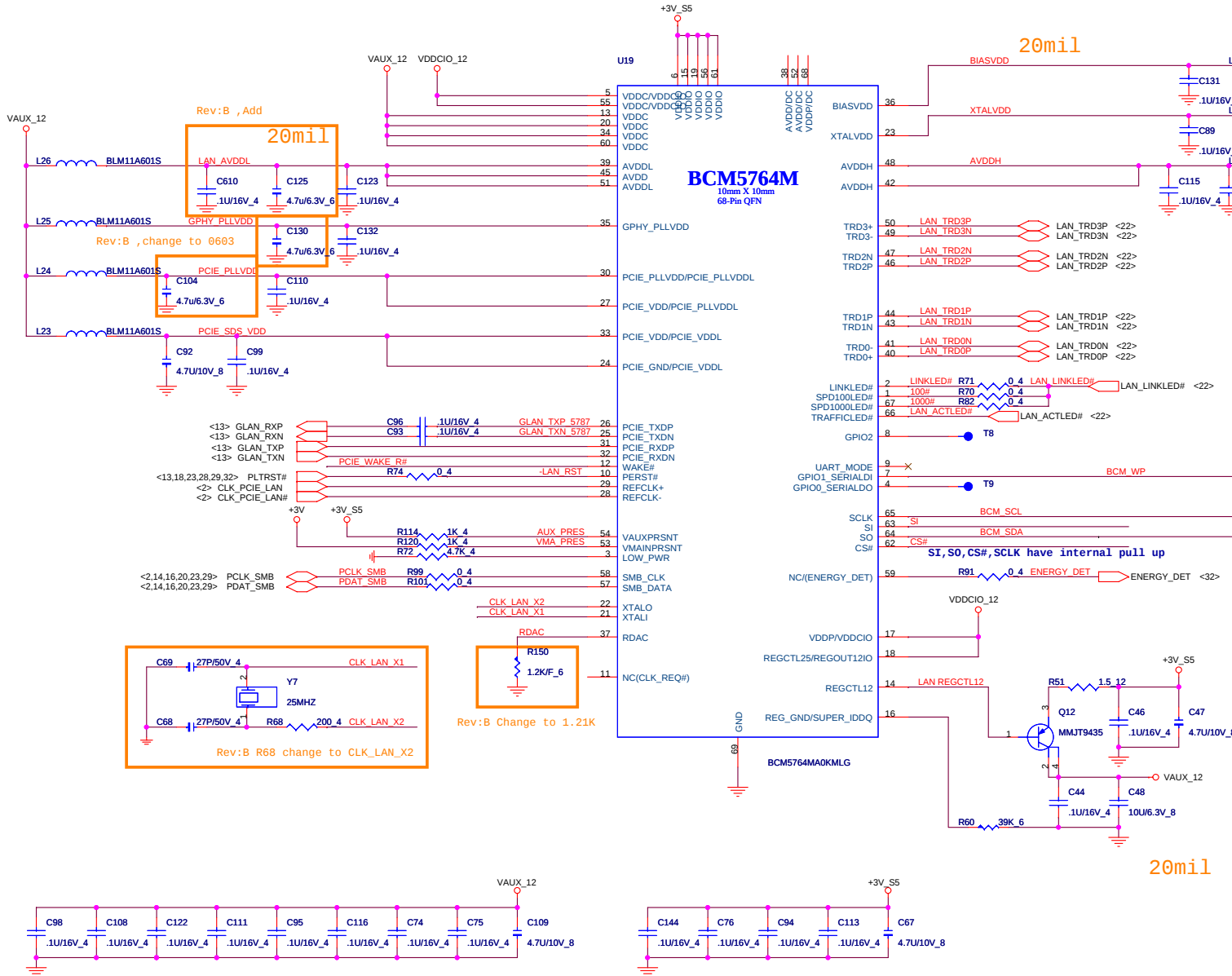
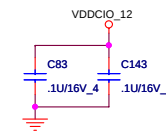
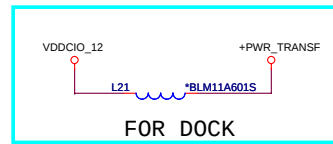
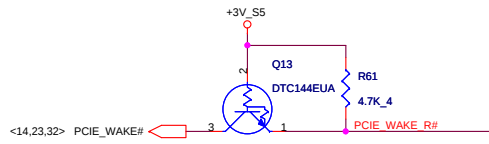
	QCI P/N
PI3VDP411LS	ALP411LS000
Ch7318A	AL007318000
PS8101	



Quanta Computer Inc.
PROJECT : ZY2 & ZY6

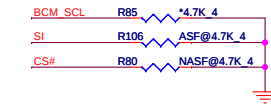
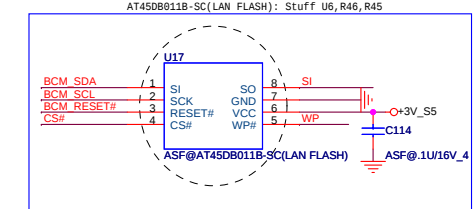
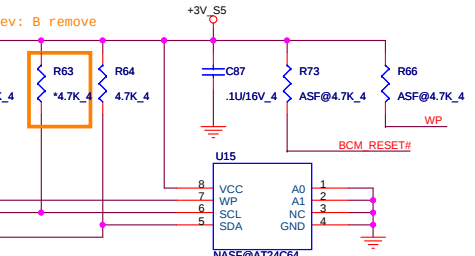
Size	Document Number LVDS/HDMI/CAMERA/LID	Rev 1A
Date:	Wednesday, April 09, 2008	Sheet 20 of 40

LAN



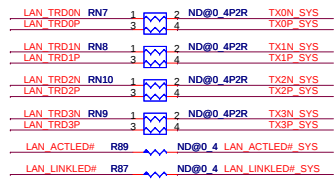
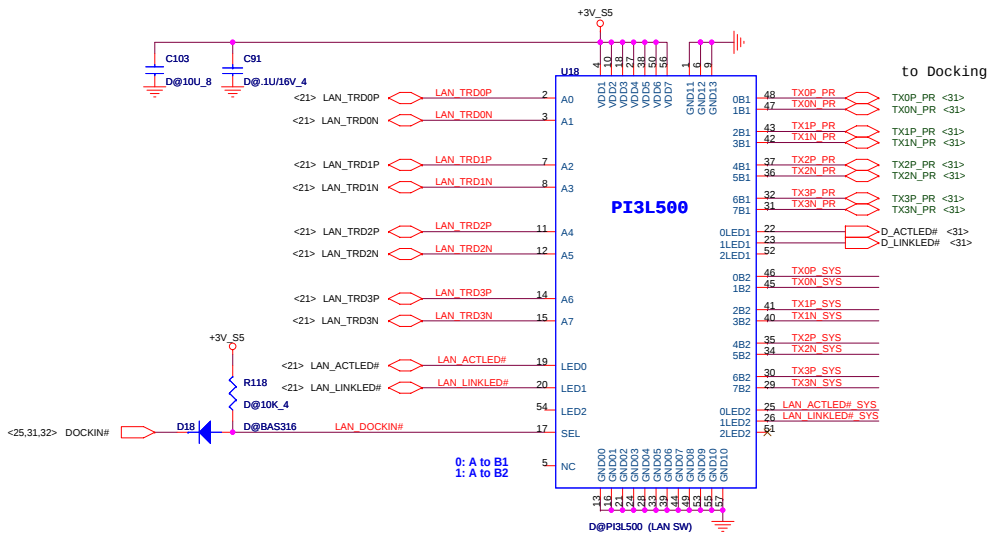
EEPROM Strapping

	SO	SI	CS#	SCLK
24c64	1	1	0	1
AT45DB011B	1	0	1	1

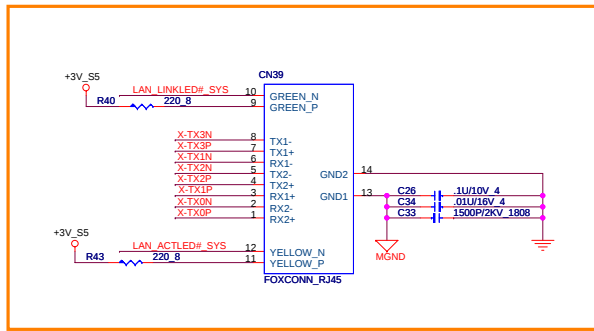


Low is normal, H->Turn Off 1.2V,
H(>0.7V <2.5V) ->L will internal
reset

LAN SWITCH



RJ45-11



```
9/29: change footprint
11/27 :change footprint
11/28 : R43 & R40 Change to 0805
1/31 :Rev: C change PIN define about 9,10,11 & 12
```

Transformer

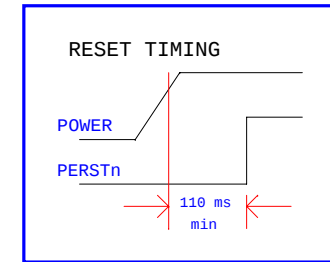
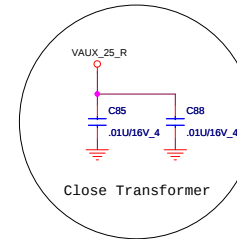
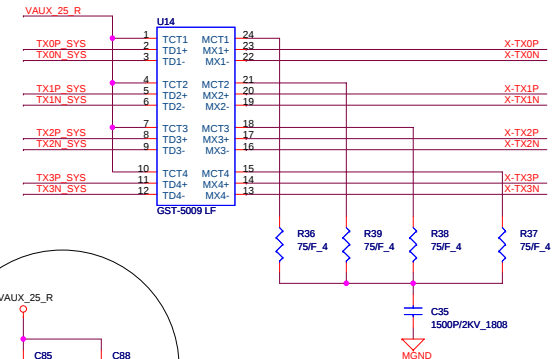
Source 1: DELTA LFE9249

LFE9249

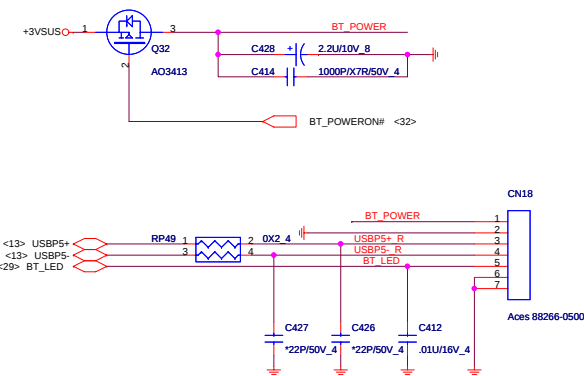
DB0ZR1LAN11

Source 2: Bothand GST5009

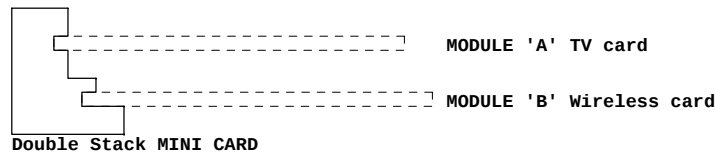
DBKN1NLAN03



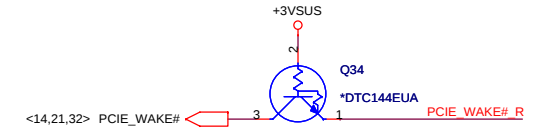
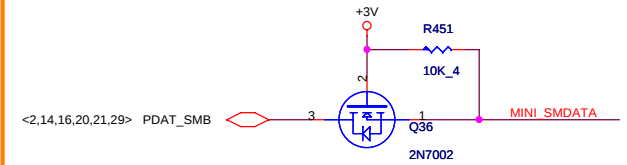
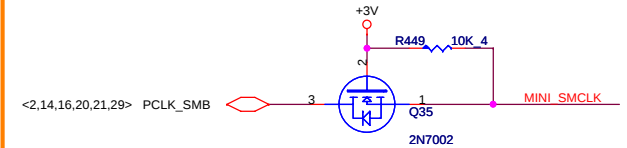
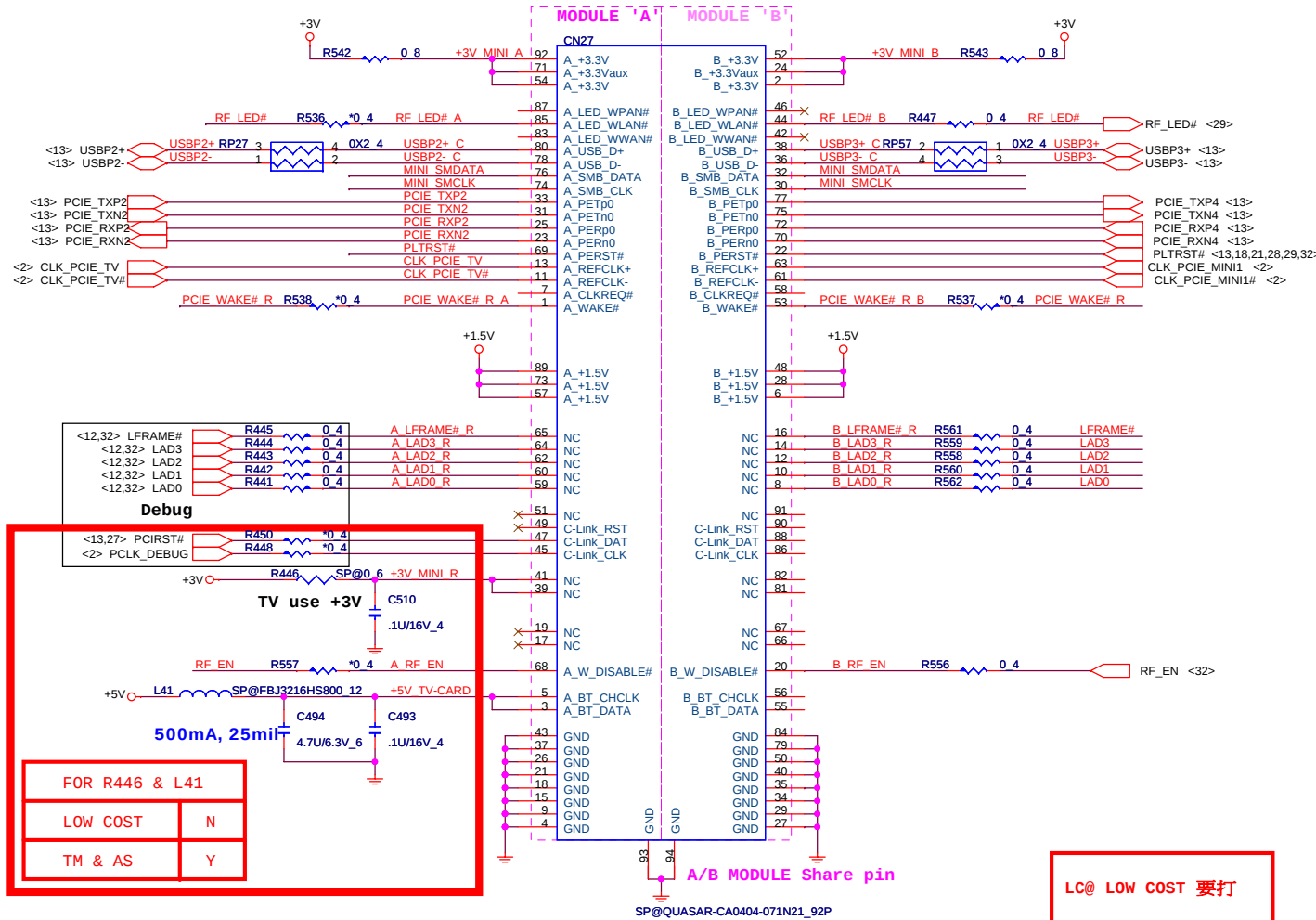
BLUETOOTH MODULE CONNECTOR



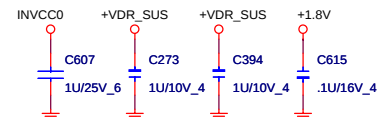
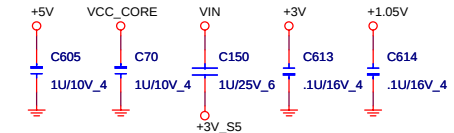
MINI-CARD



Rev:B PIN36,38 Add USB3
PIN69 Add R536
PIN1, 53 Add R537 & R538

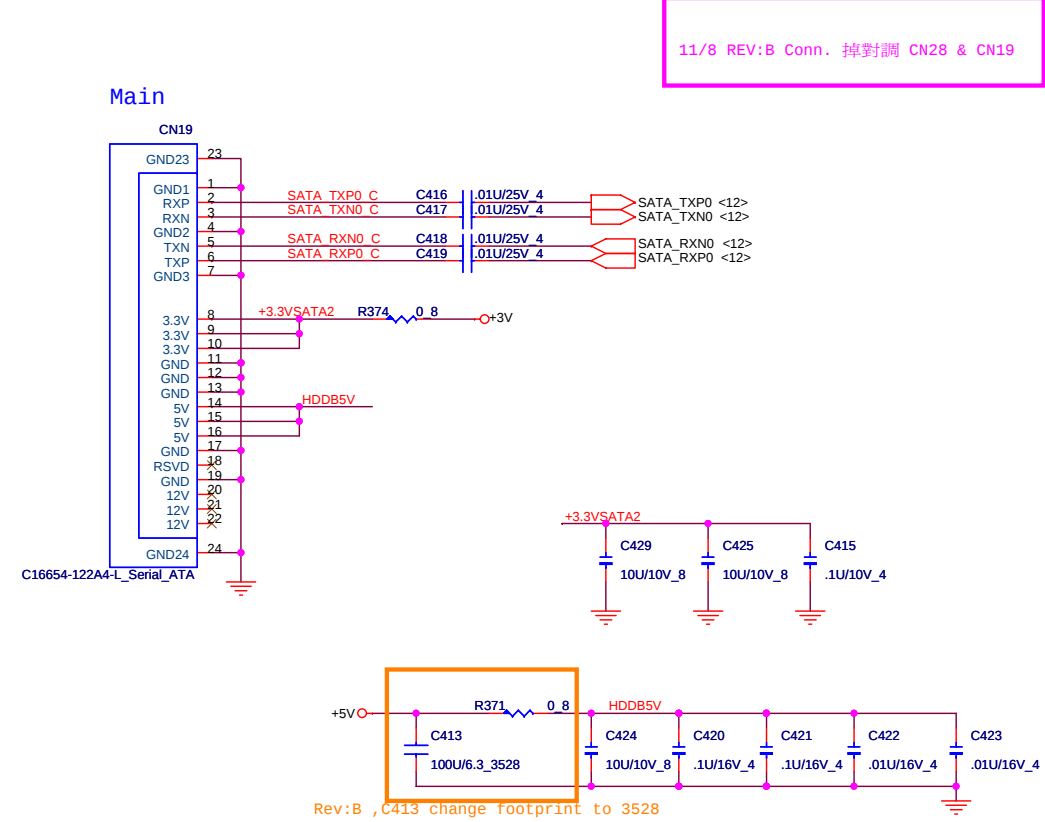


FOR EMI

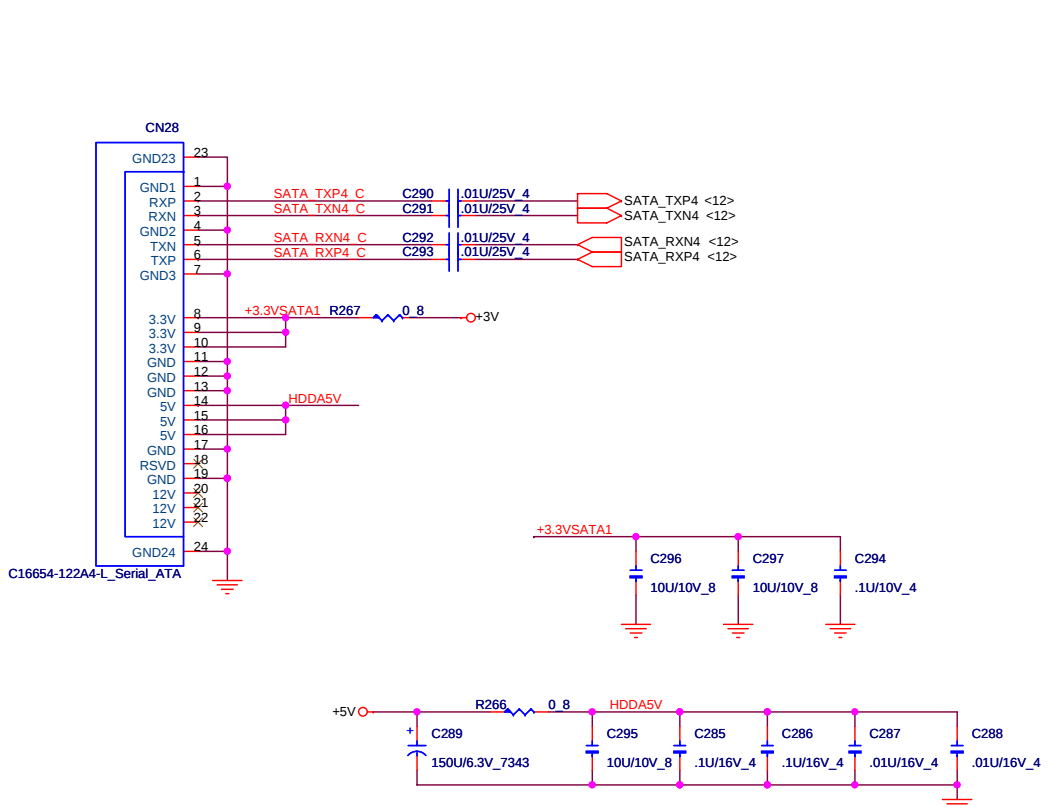


Quanta Computer Inc.
PROJECT : ZY2 & ZY6

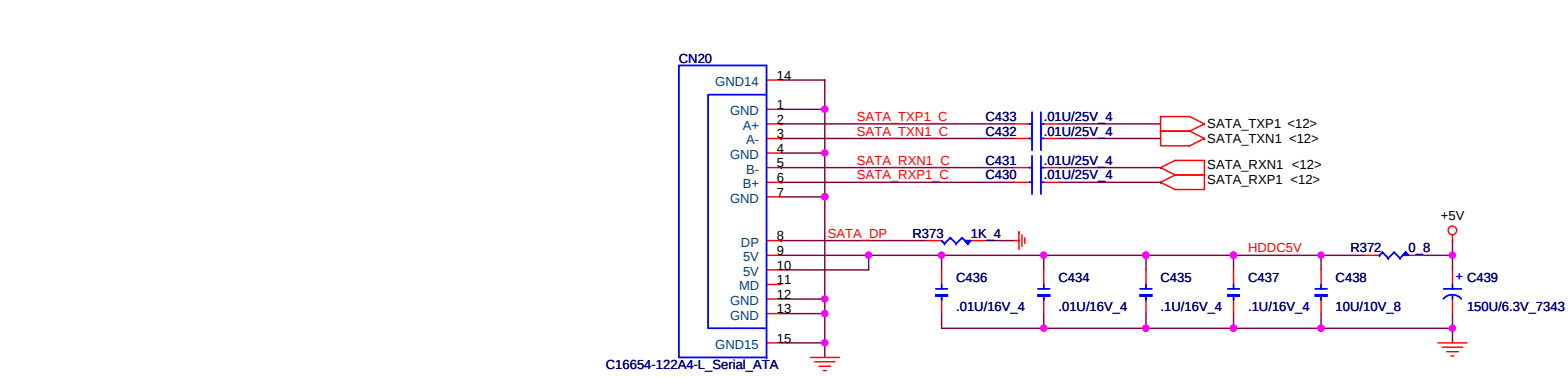
SATA HDD



2ND SATA HDD



ODD (SATA)



Gain = $-(R_f/R_i)$

0C Change size to 0603 0111

TM	N
AS & LOW COST	Y

<32> DIGVOL_UP DIGVOL_UP 2

<32> DIGVOL_DN DIGVOL_DN 3

SP@VR_XRE094_NOBLE

MDC

<12> ACZ_SDOUT_MDC
 <12> ACZ_SYNC_MDC
 <12> ACZ_SDI_N1
 <12> ACZ_RST#_MDC

ACZ_SDOUT_MDC
 ACZ_SYNC_MDC
 R386 22 4 MDC_SDI_N1
 MDC_RST#_MDC

C449
 *10P/50V_4

CN16
 GND
 AC_SDO
 GND
 AC_SYNC
 AC_SDI
 AC_RST#
 GND
 MDC

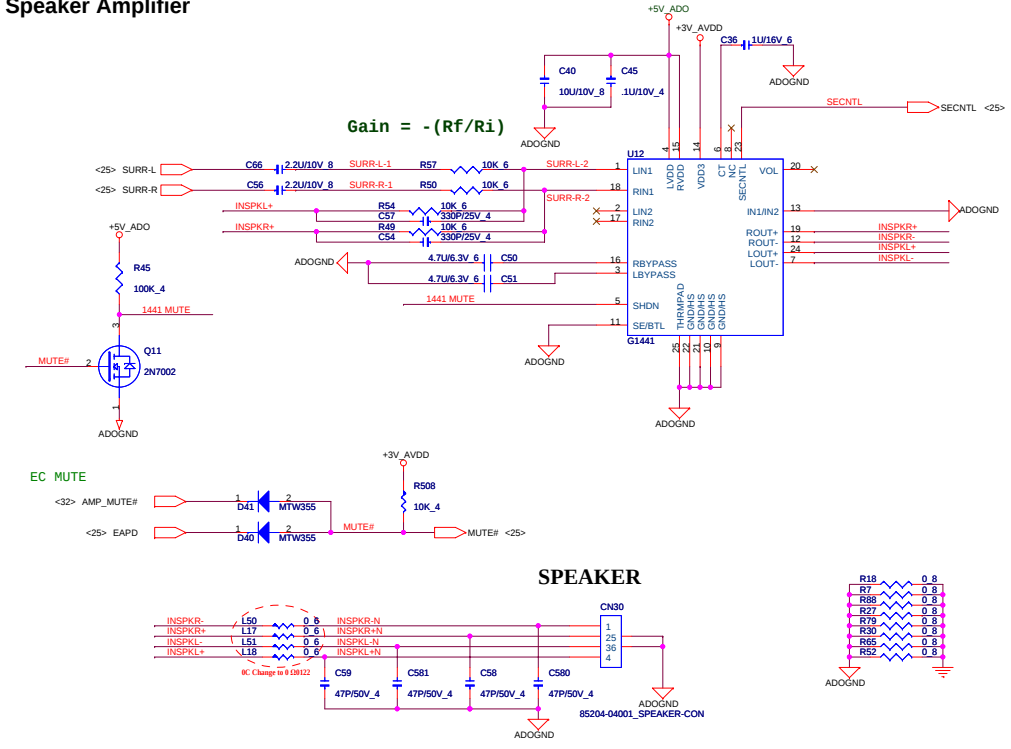
RSV
 RSV
 3.3V
 GND
 GND
 AC_BCLK
 GND

R377
 +3V_S5
 E@0_6
 R383
 +1.5V_S5
 I@0_6
 C452
 .1U/10V_4
 +3V_S5
 C443
 .1U/10V_4
 BIT_CLK_MDC <12>

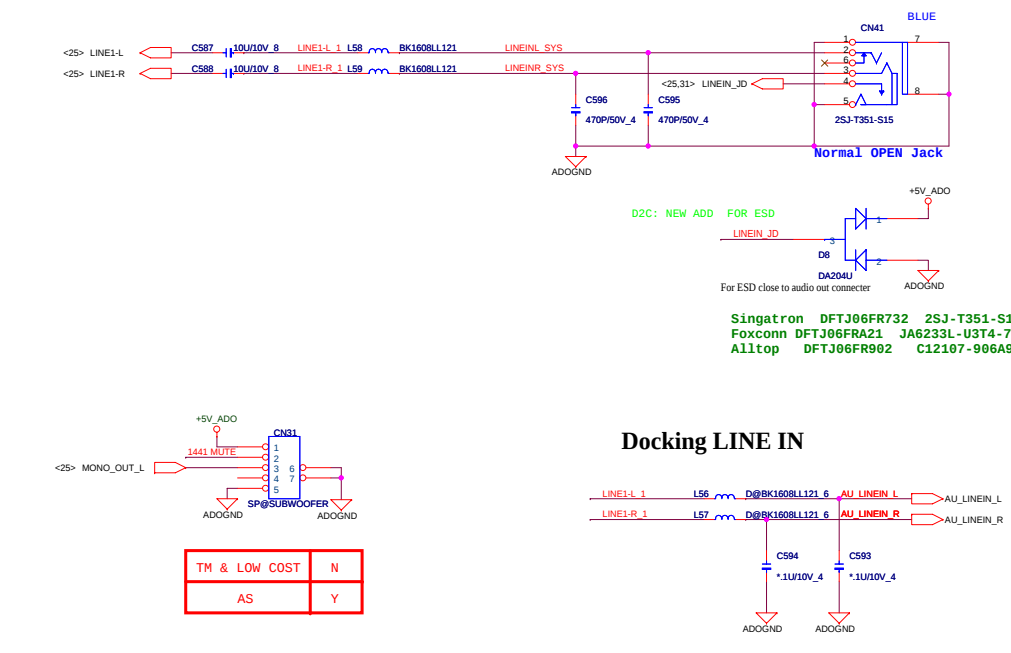
R358
 *22_4
 C403
 *10P/50V_4

QC Change power from +3V to +3v_S5 to slave wake on ring issue 0111

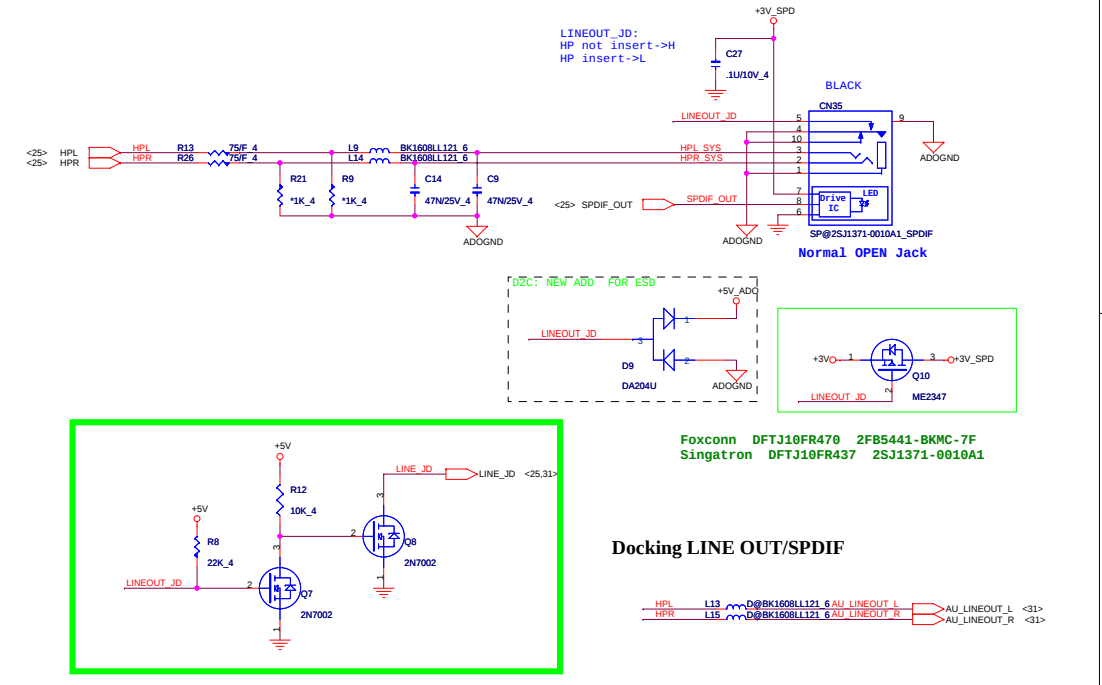
Speaker Amplifier



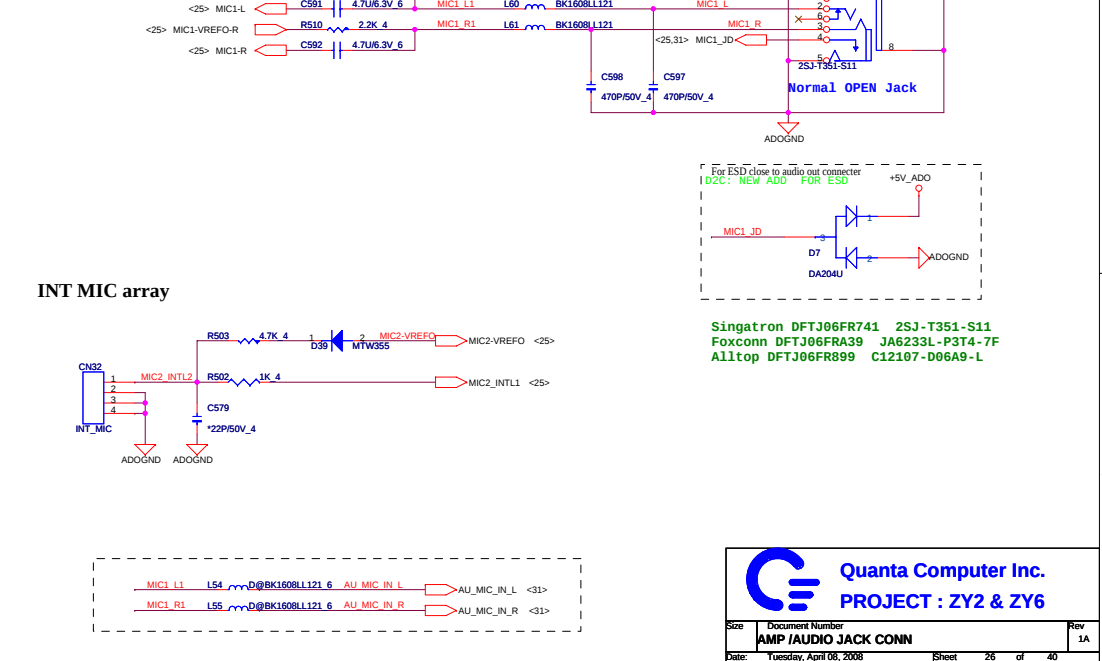
SYSTEM LINE IN/SUBWOOFER



SYSTEM LINE OUT/SPDIF



MIC



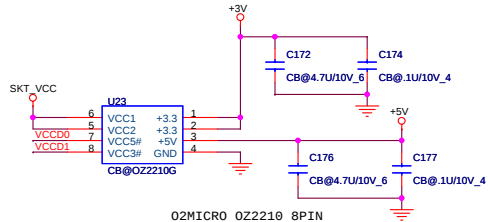
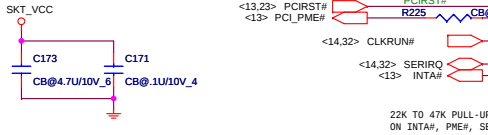
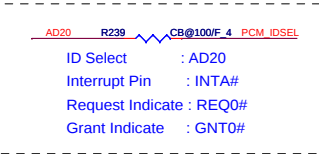
NOTE: IDSEL SELECTION!

THIS DEVICE UTILIZES A "SELECTABLE IDSEL" SCHEME. IDSEL CAN BE CONNECTED INTERNALLY TO ONE OF THREE PCI AD LINES OR EXTERNAL IDSEL SIGNAL.

22K TO 47K PULL-UP & PULL-DOWN RESISTORS ARE REQUIRED TO BE CONNECTED TO PINS 123 & 124 TO SELECT ONE OF THE 4 POSSIBLE IDSEL CONNECTIONS. THE TABLE BELOW SHOWS THE 4 POSSIBLE COMBINATIONS.

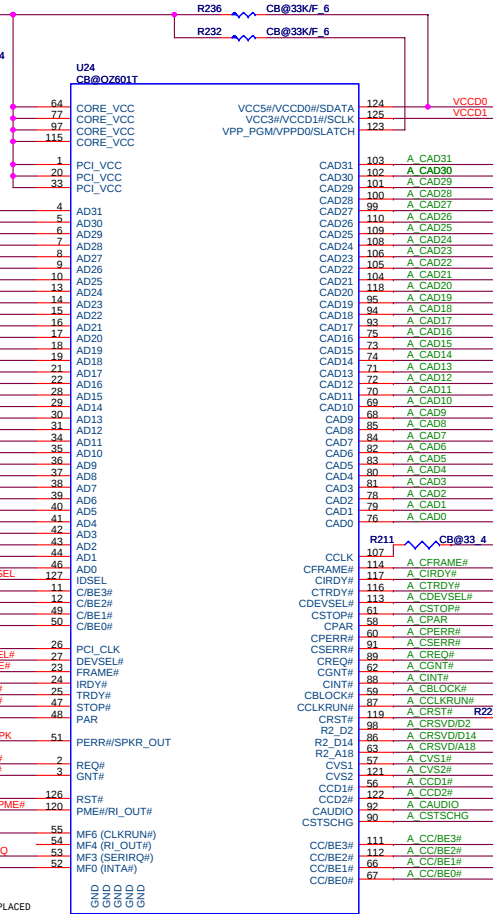
CONFIGURING IDSEL TO BE INTERNALLY CONNECTED ALLOWS FOR A FULL PARALLEL POWER MODE. IF AN EXTERNALLY CONNECTED IDSEL IS REQUIRED THEN AN INVERTER MUST BE CONNECTED TO VPP_PGM TO CREATE VPP_VCC.

VCC5# (124)	VPP_PGM (123)	IDSEL SELECT
DOWN	DOWN	AD18
DOWN	UP	AD20
UP	DOWN	AD25
UP	UP	PIN 127

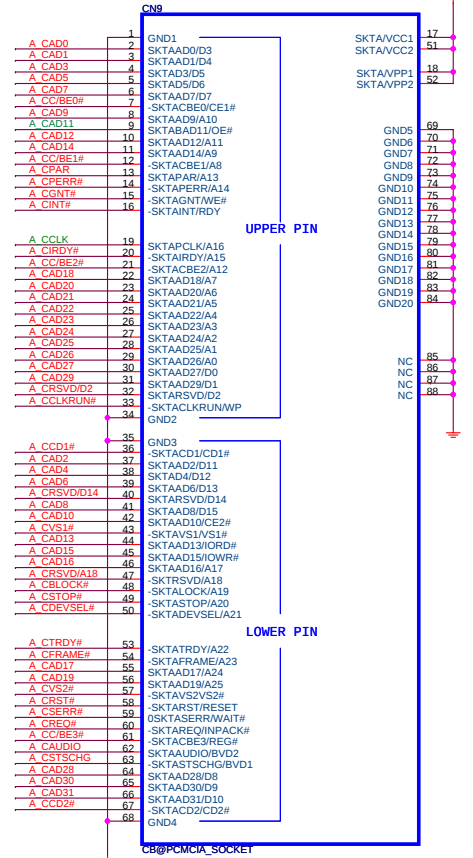


02MICRO 0Z2210 8PIN
SINGLE SLOT PARALLEL
POWER SWITCH

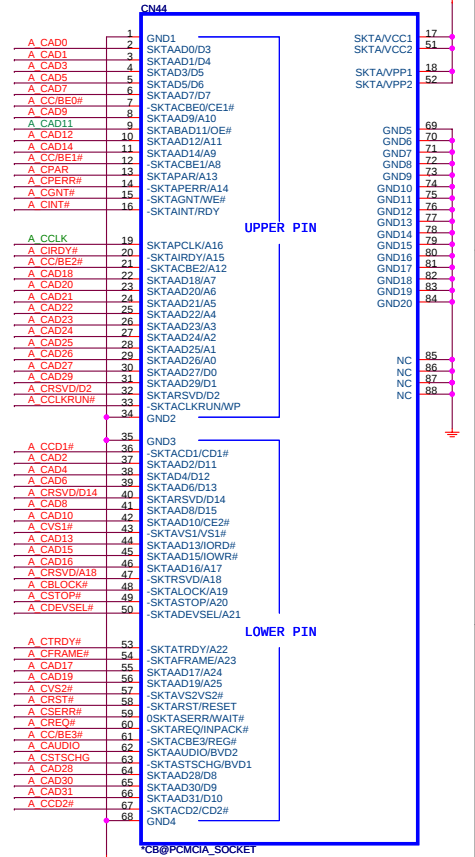
IDSEL SELECT POWER-ON-STRAPPING
(SEE NOTE & TABLE FOR OPTIONS)



PCMCIA SOCKET



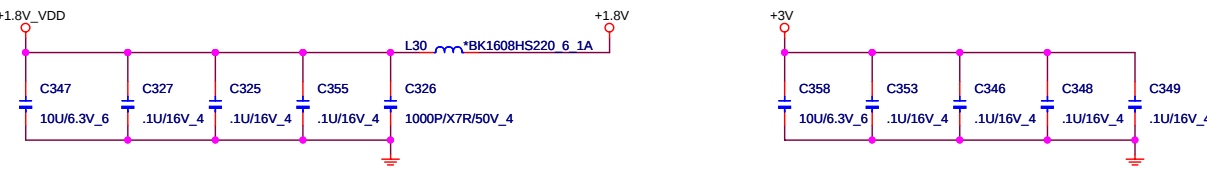
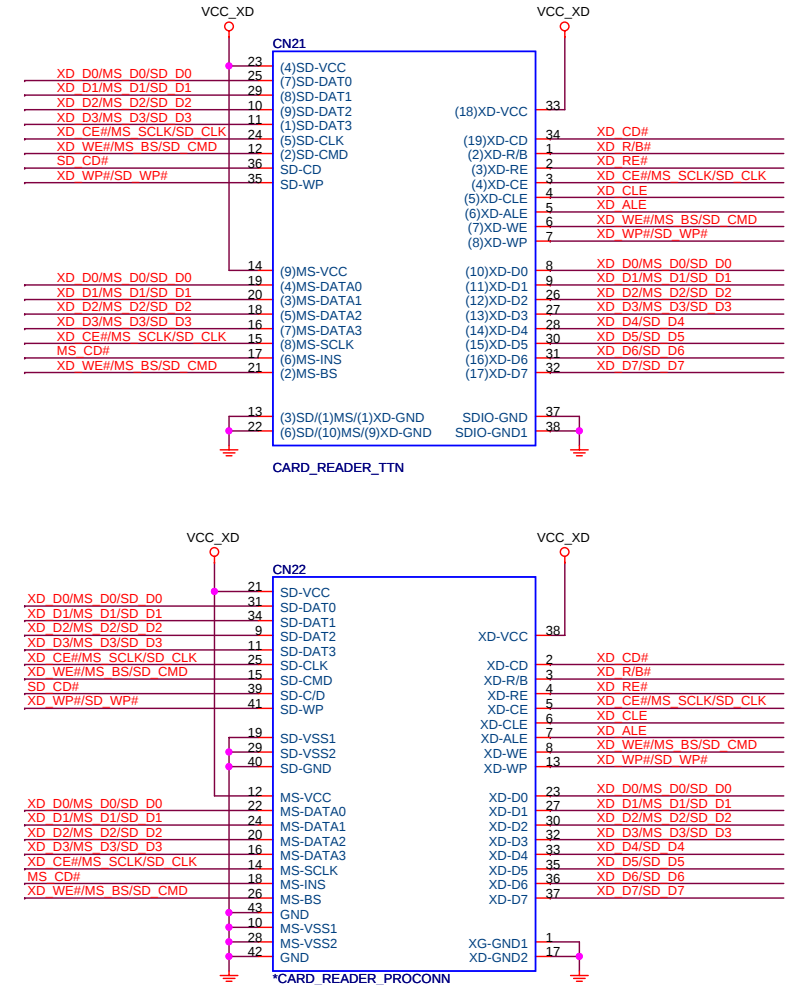
PCMCIA SOCKET



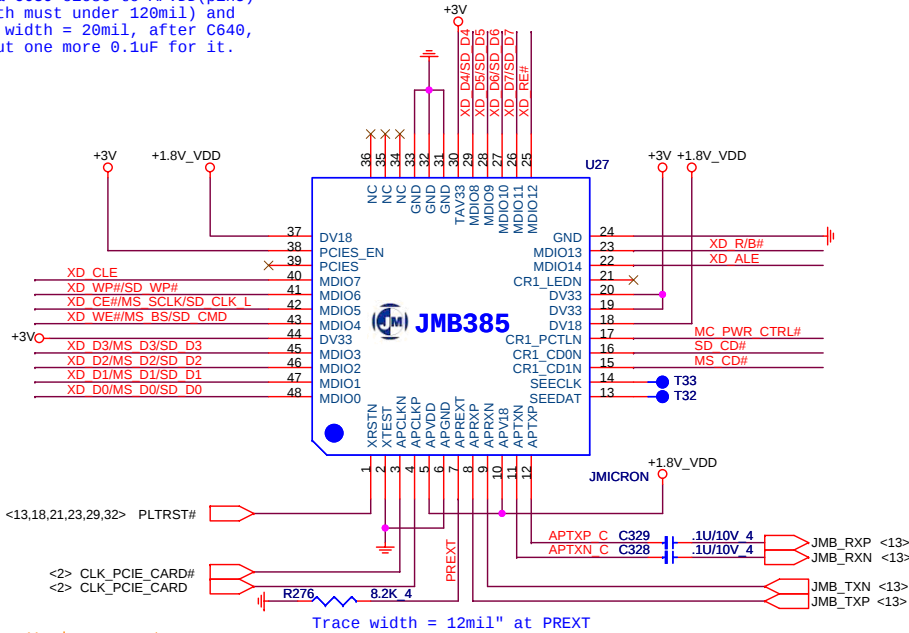
Quanta Computer Inc.
PROJECT : ZY2 & ZY6

Size	Document Number	Rev
	PCMCIA(0Z601)	1A
Date:	Tuesday, April 08, 2008	Sheet 27 of 40

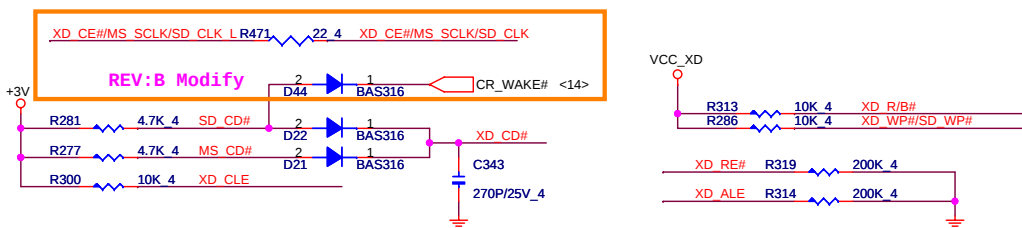
7 IN 1 CARD READER



C640 & C639 close to APVDD(pin5)
(length must under 120mil) and
trace width = 20mil, after C640,
pls put one more 0.1uF for it.

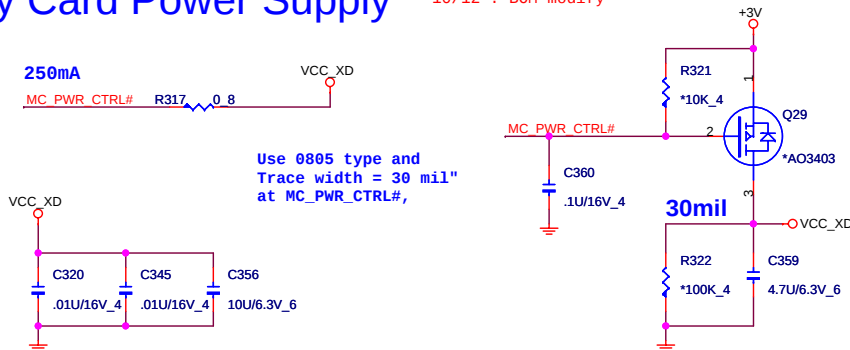


Rev: B Add. for Vendor request



Memory Card Power Supply

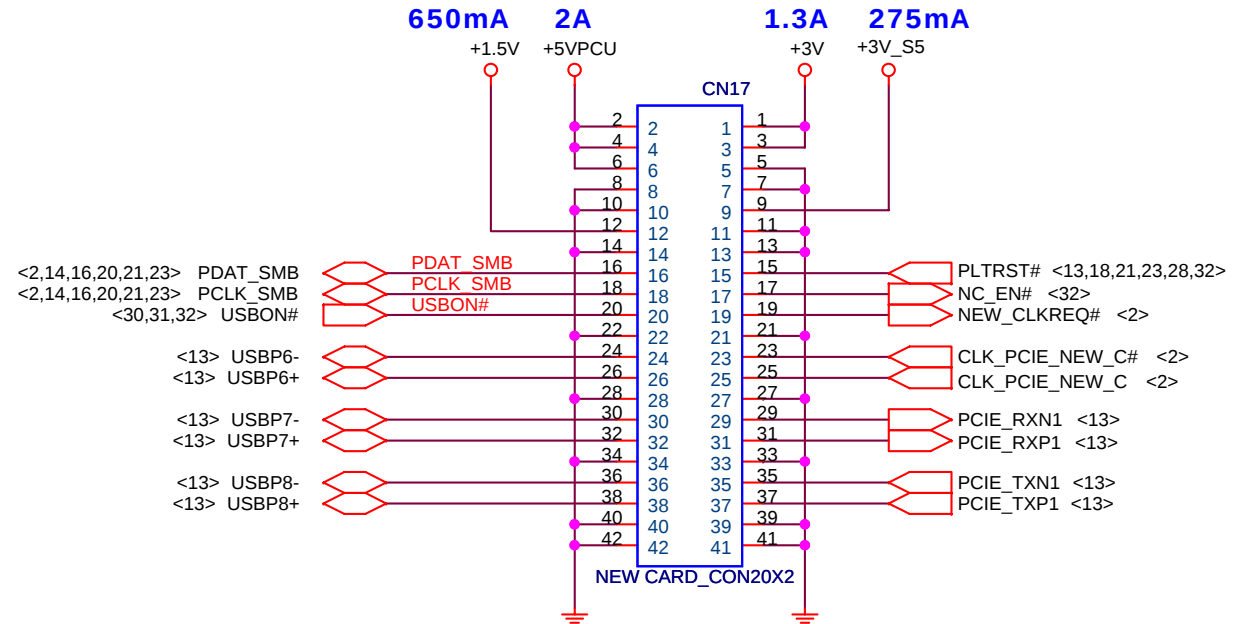
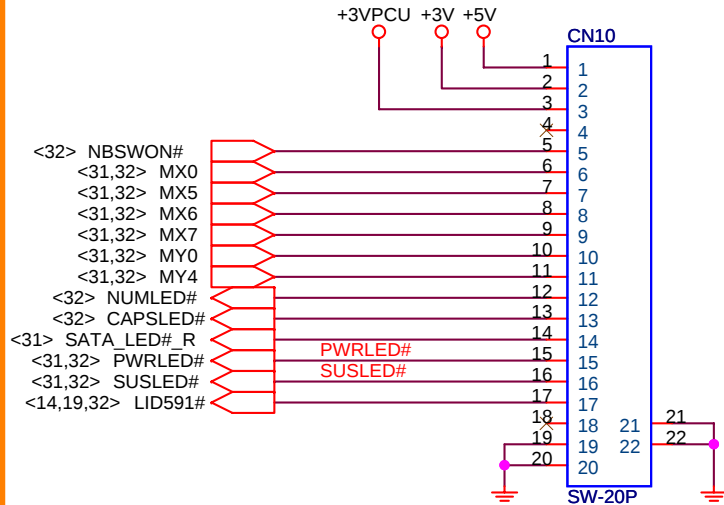
10/12 : BOM modify



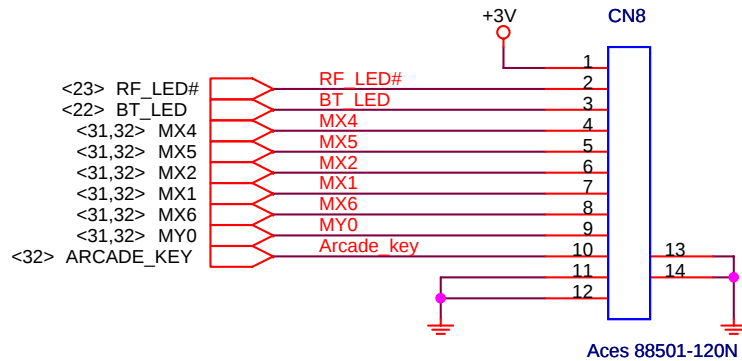
Use 0805 type and
Trace width = 30 mil"
at MC_PWR_CTRL#.

To NEW-CARD & EXT. USB

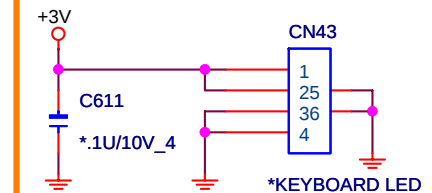
REV:B, CN10 change footprint



REV:B, Please change PIN define.same as ZY5
CN8 change footprint



Fncion	Keyboard Matrix
E-KEY	MX0/ MY0
E-Mail	MX1/ MY0
E-WWW	MX2/ MY0
3G/TV	MX3/ MY0
Wireless	MX4/ MY0
BlueTooth	MX5/ MY0
P-KEY	MX6/ MY0
Presentation	MX5/ MY4
Lock	MX6/ MY4
Sync	MX7/ MY4



Rev:B Add CN43 For backlight KB

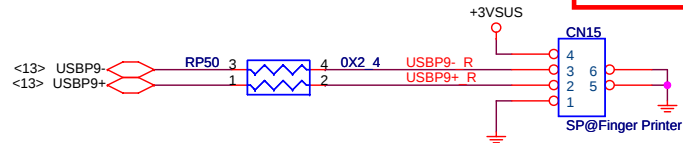
Rev:B Change to 圖 to 方PAD
C255, C234, C221, C199, R217, C198, R183,
R182, R174, R257, R324, R335, R334, R349, C395



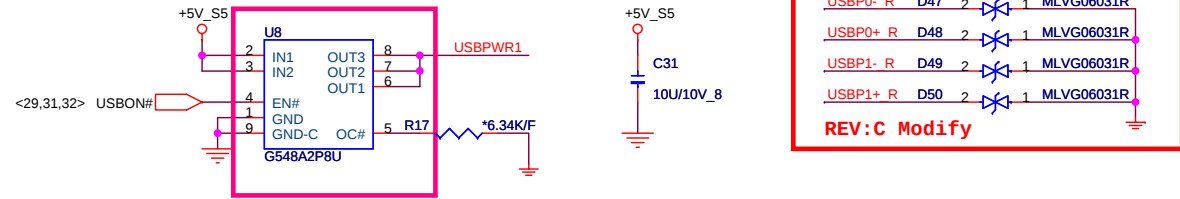
Quanta Computer Inc.
PROJECT : ZY2 & ZY6

Finger Printer

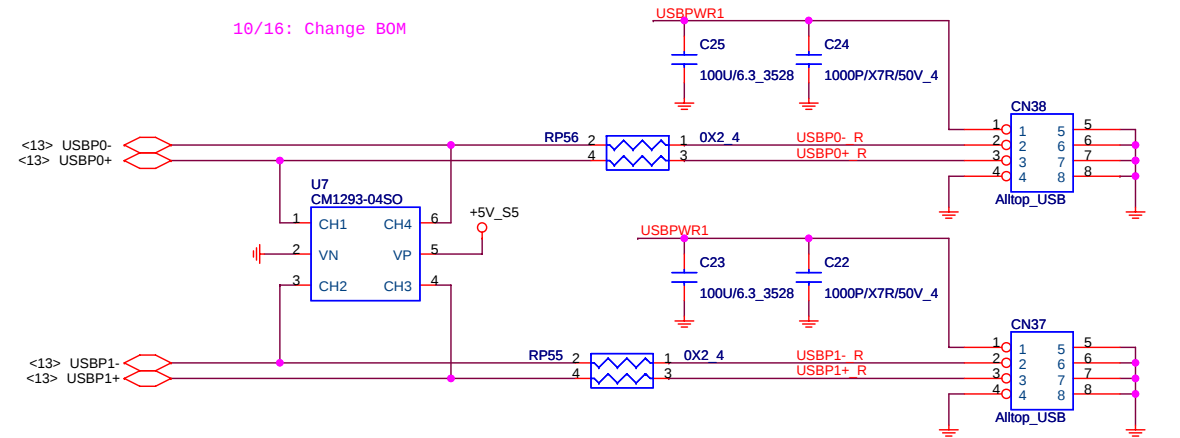
TM & AS	Y
LOW COST	N



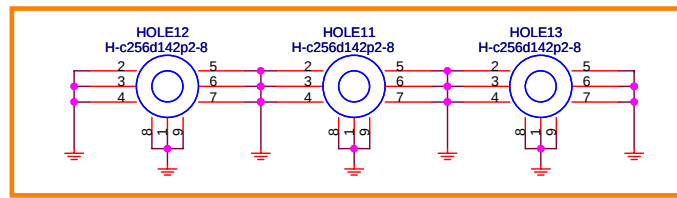
USB



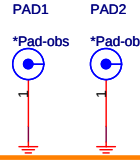
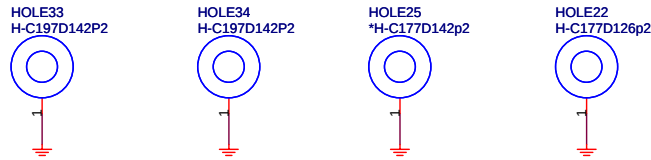
10/16: Change BOM



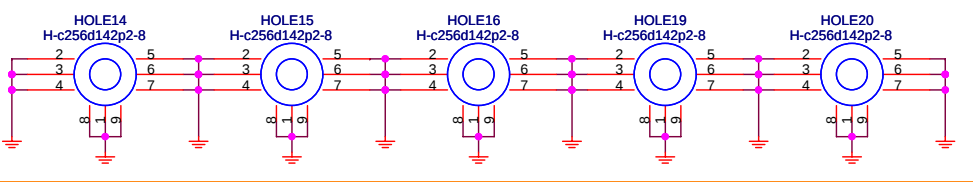
HOLES CPU NUT (BOT)



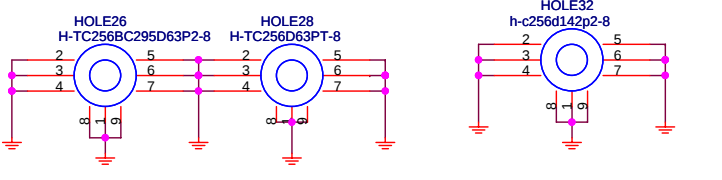
Rev : B Add MINI NUT



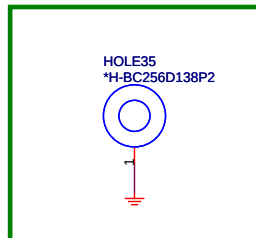
MXM NUT (BOT)



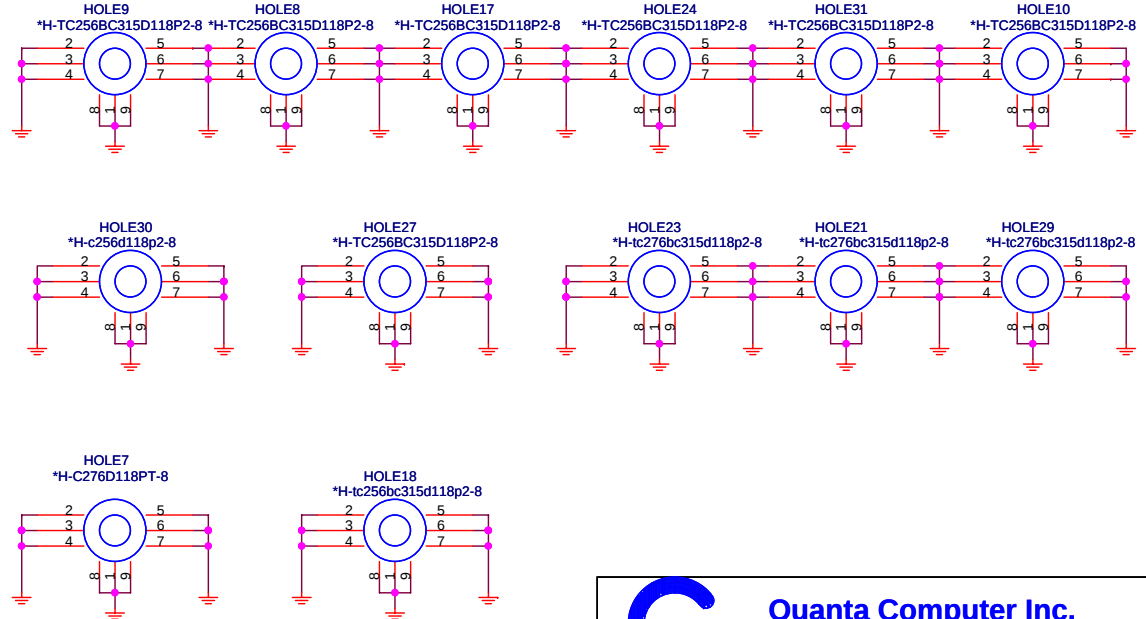
MDC NUT (TOP)



Rev:B New add HOLE32
HOLE26 & 28 Change footprint



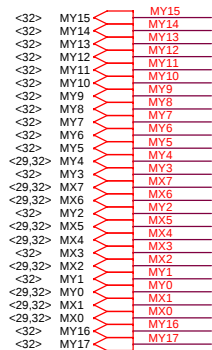
HOLE35 要搬到BOT去



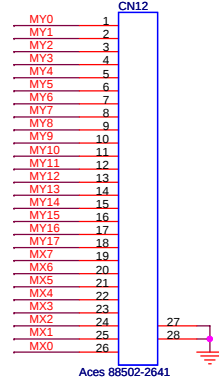
Quanta Computer Inc.
PROJECT : ZY2 & ZY6

Size	Document Number	Rev
	USB/FINGER PRINTER	1A
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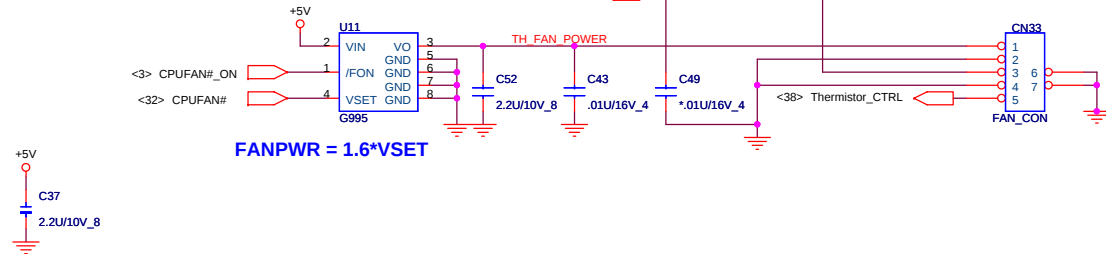
INT K/B



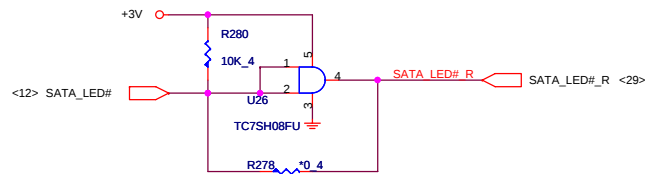
Rev:B change footprint



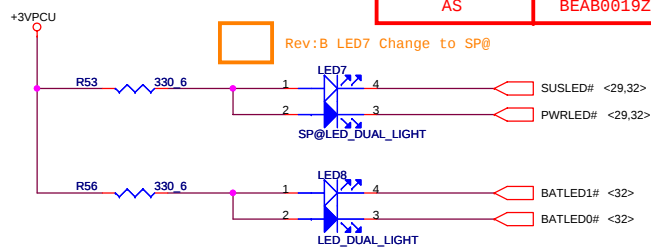
CPU FAN



LED

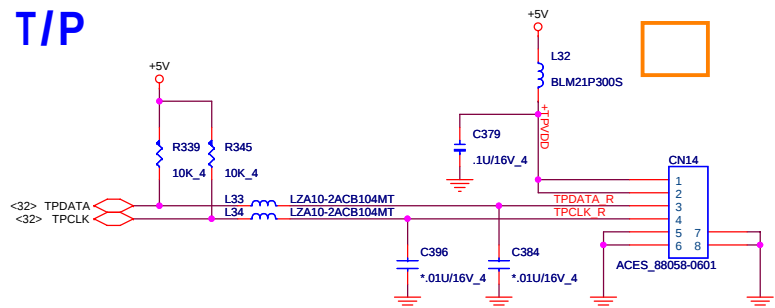


TM & LOW COST	BEGA0017ZA0
AS	BEAB0019ZA0



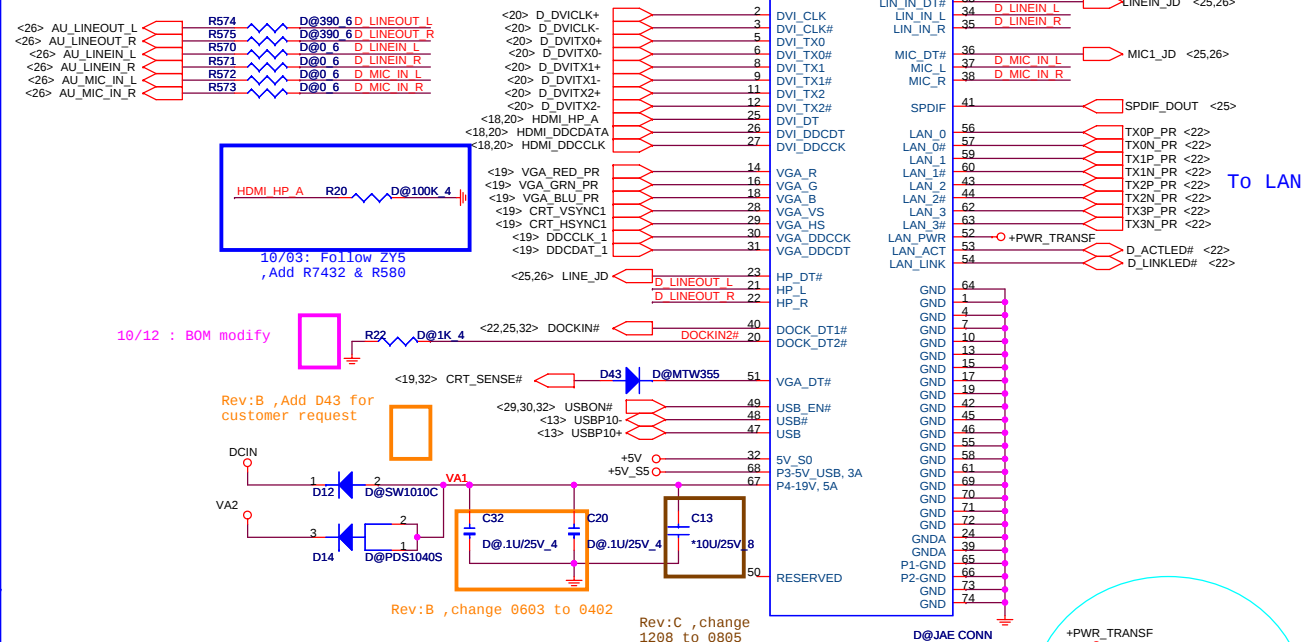
Rev:B LED7 Change to SP@

T/P



REV:B, CN14 change footprint

CABLE DOCK

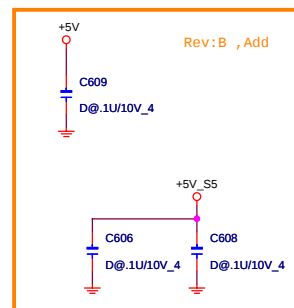


10/12 : BOM modify

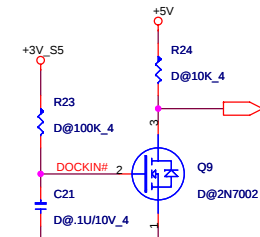
Rev:B, Add D43 for customer request

Rev:B , change 0603 to 0402

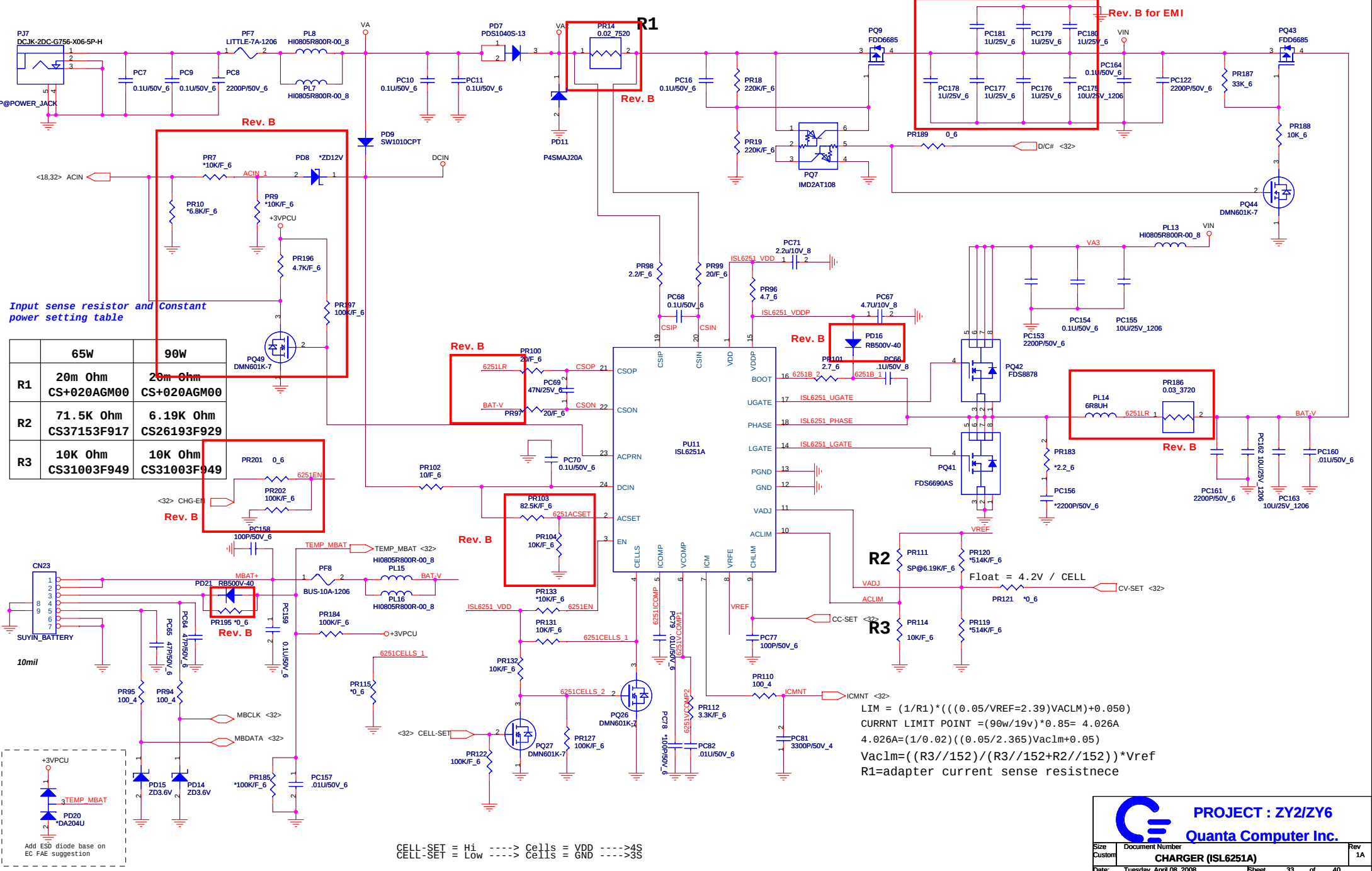
Rev:C , change 1208 to 0805

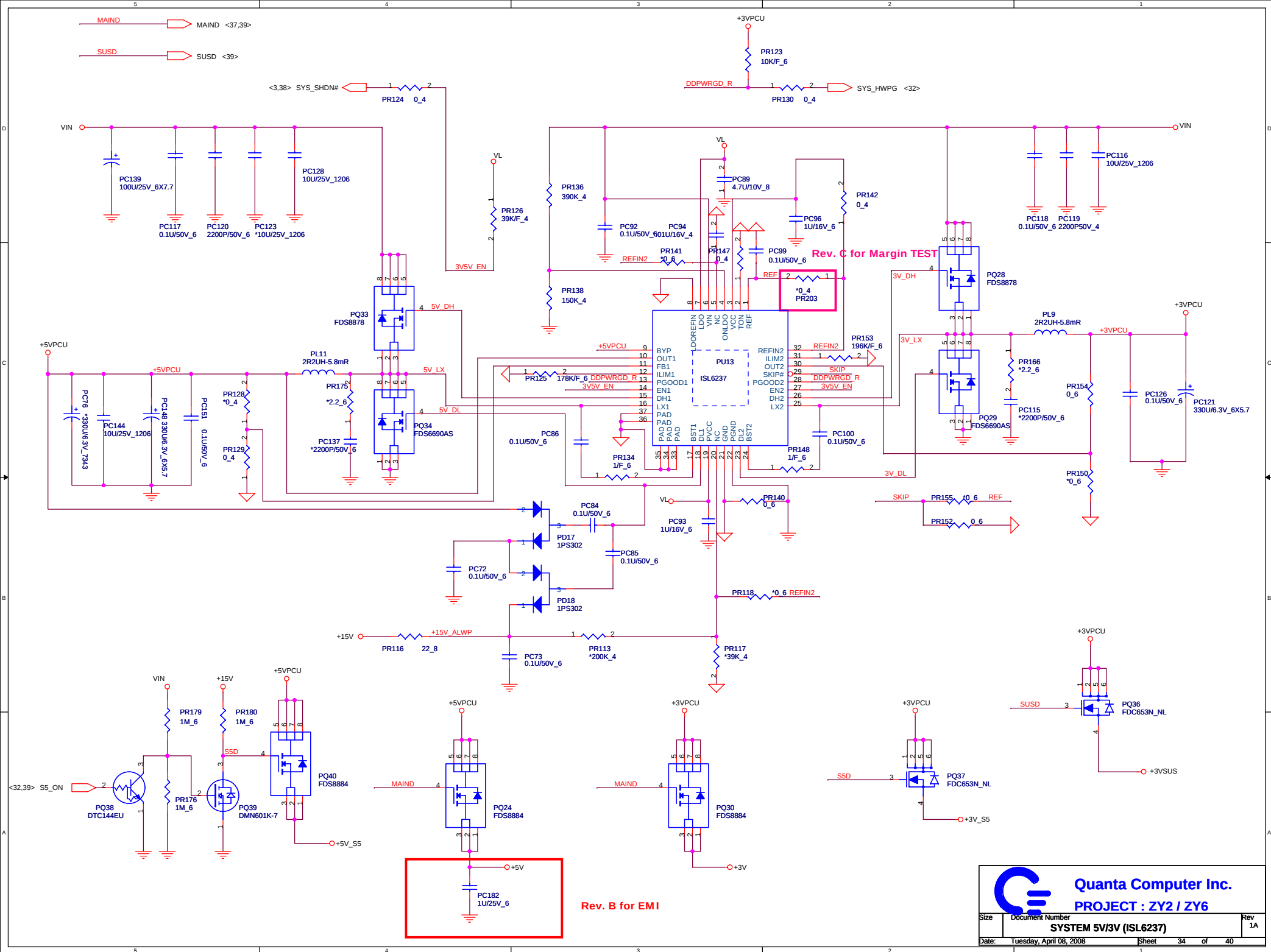


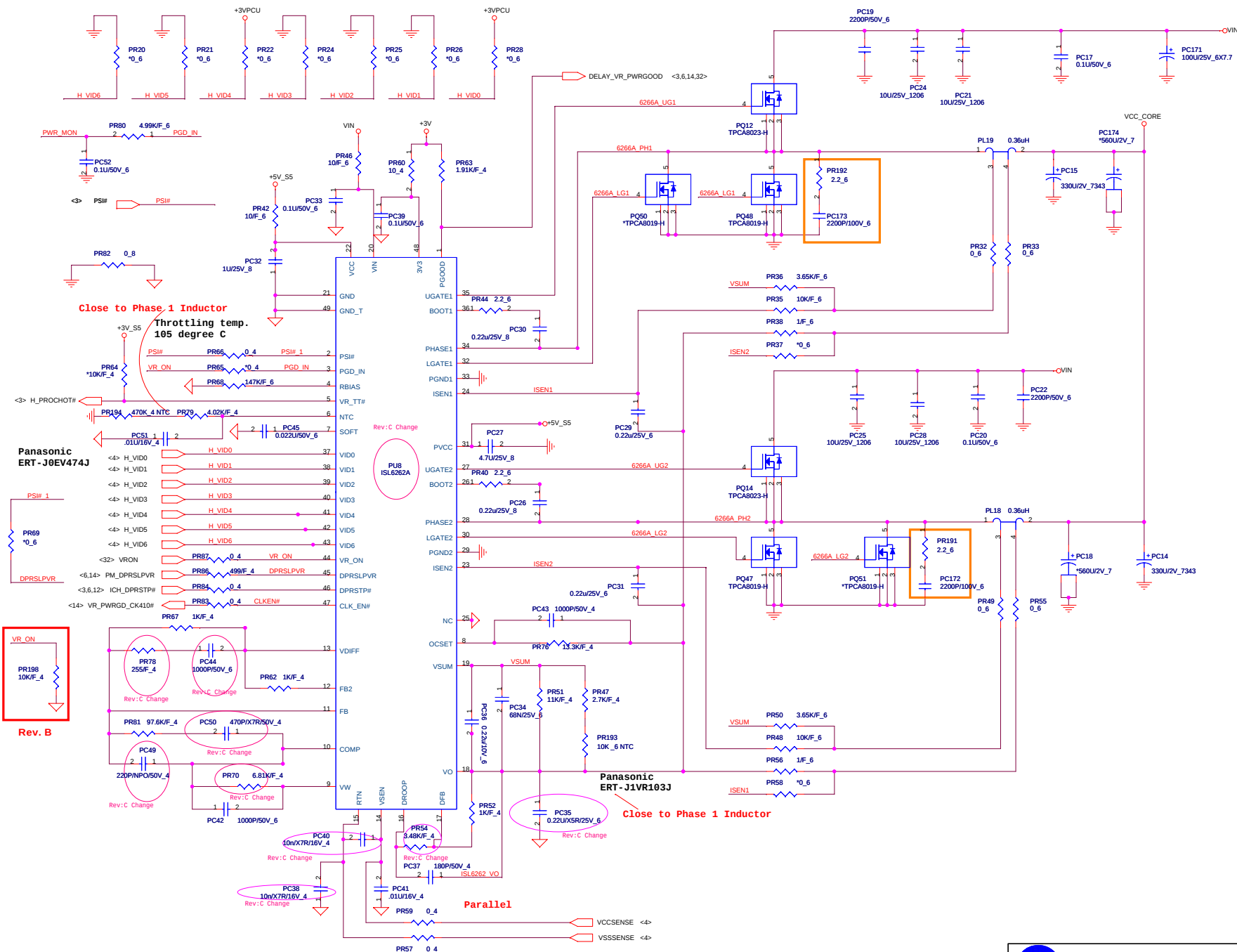
Rev:B , Add

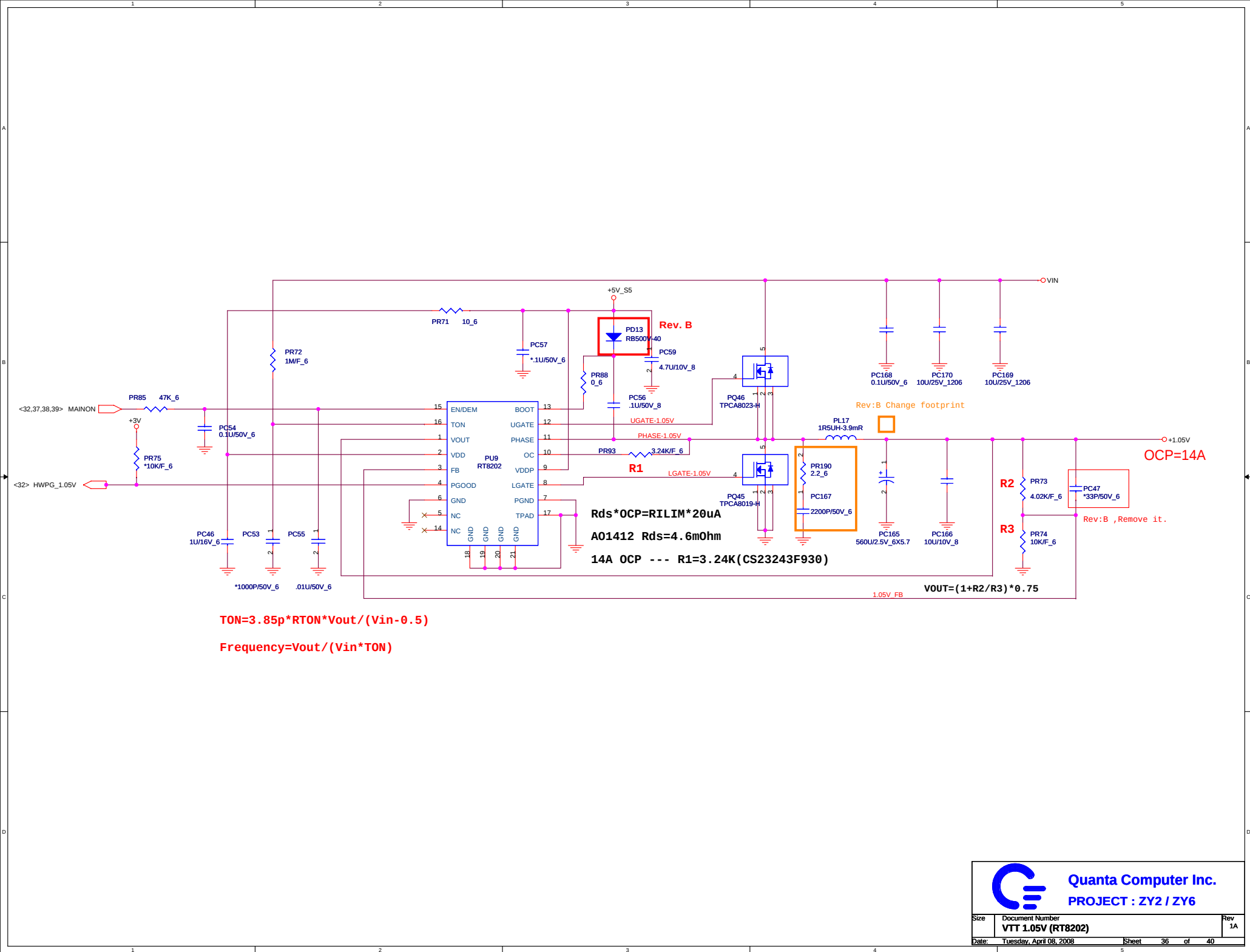


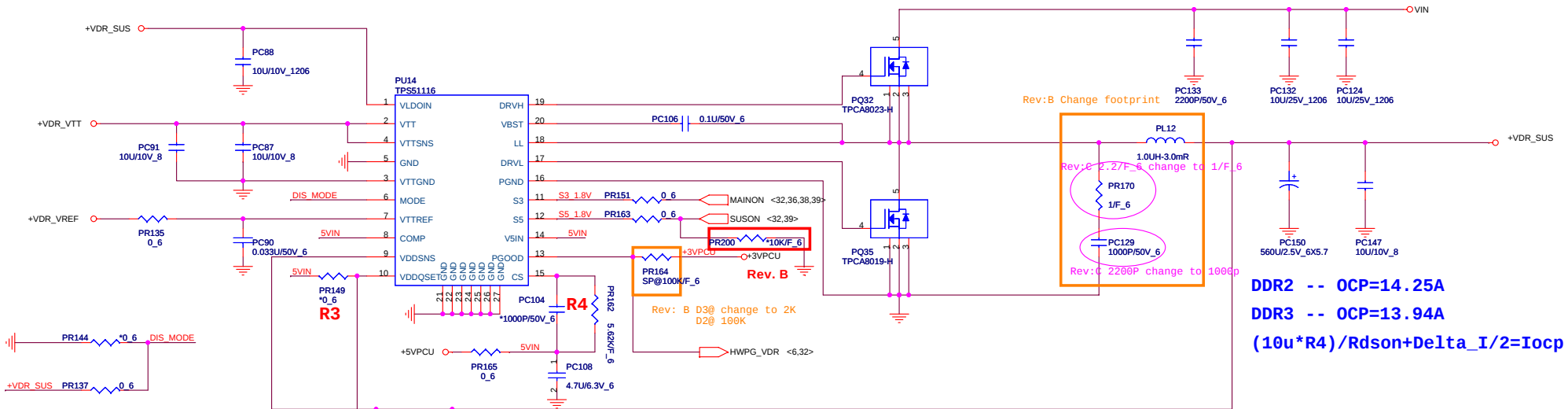
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PROJECT : ZY2 & ZY6







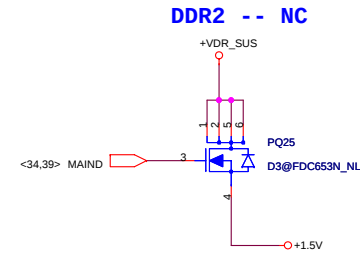
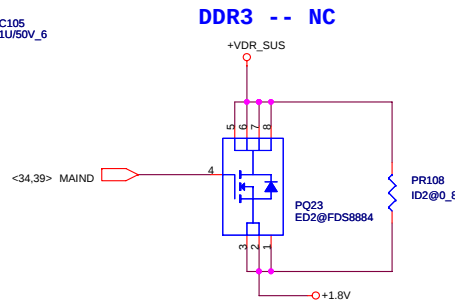


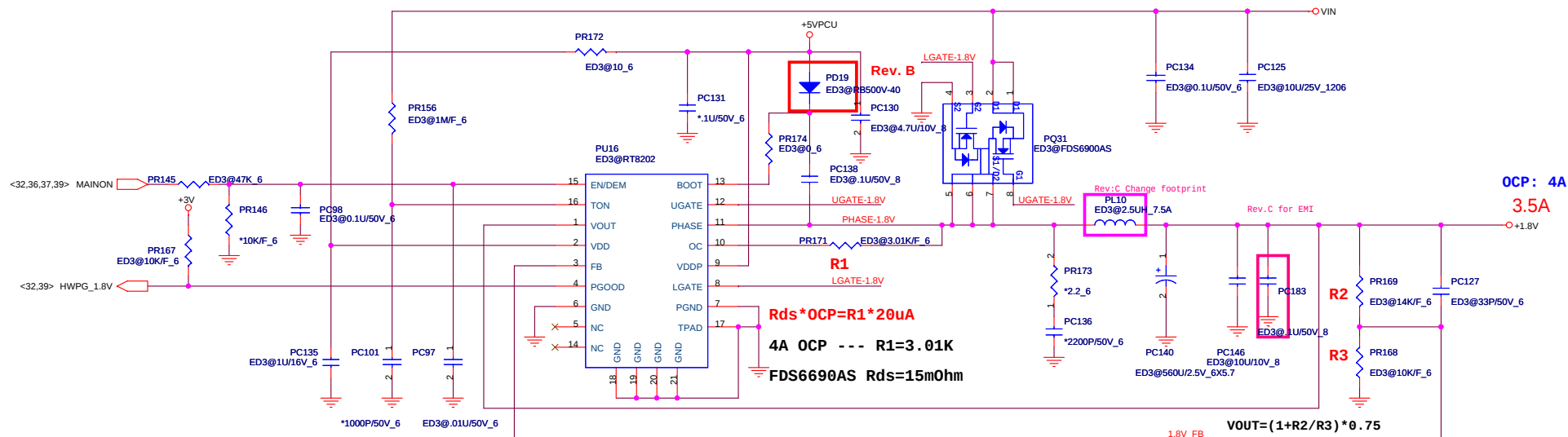


	DDR2(1.8V)	DDR3(1.5V)
R1	76.8K CS37683F927	75K CS37503F919
R2	110K CS41103F910	76.8K CS37683F927

$$R1 = (100 * V_{out} - R2) / K$$

if tune Vout R3 un-mount, R1 and R2 mount

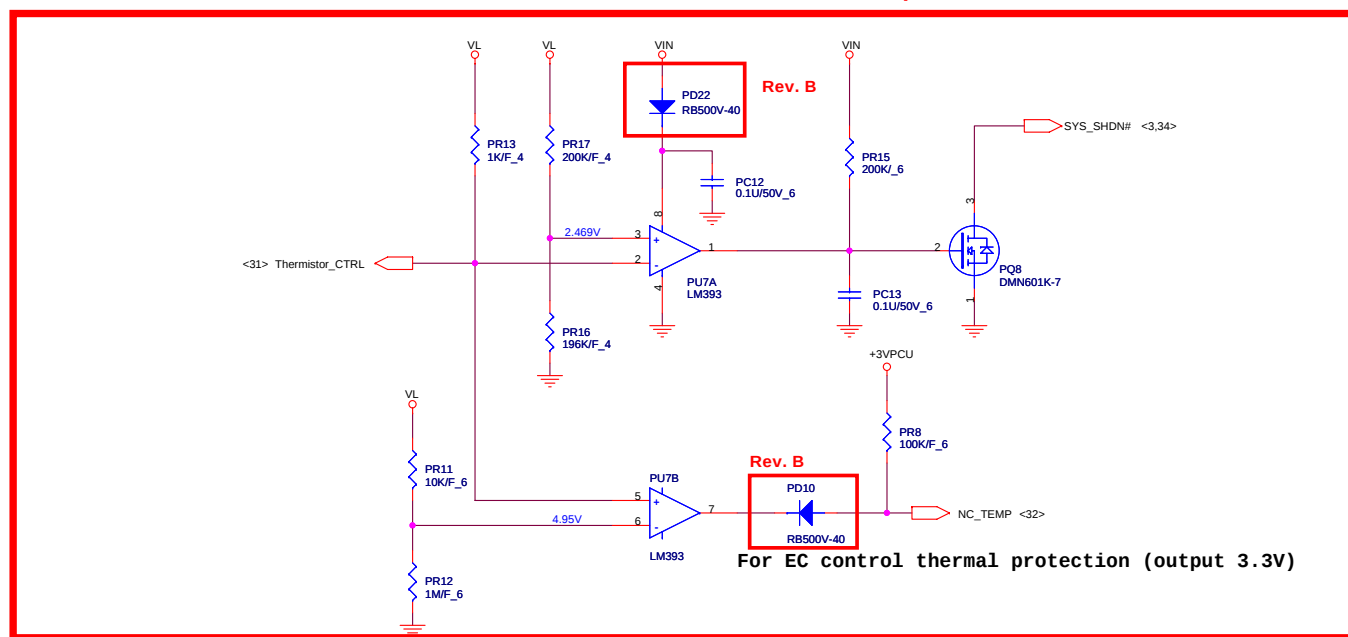




$$T_{ON} = 3.85p \cdot R_{TON} \cdot V_{out} / (V_{in} - 0.5)$$

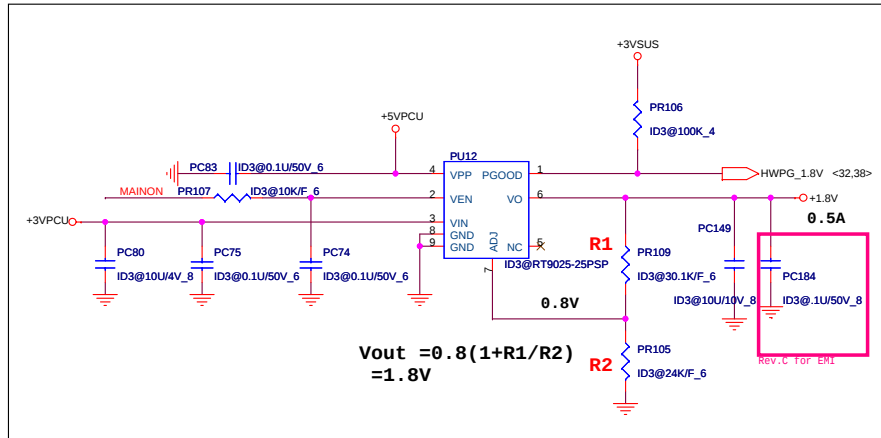
$$Frequency = V_{out} / (V_{in} \cdot T_{ON})$$

thermal protection --0928

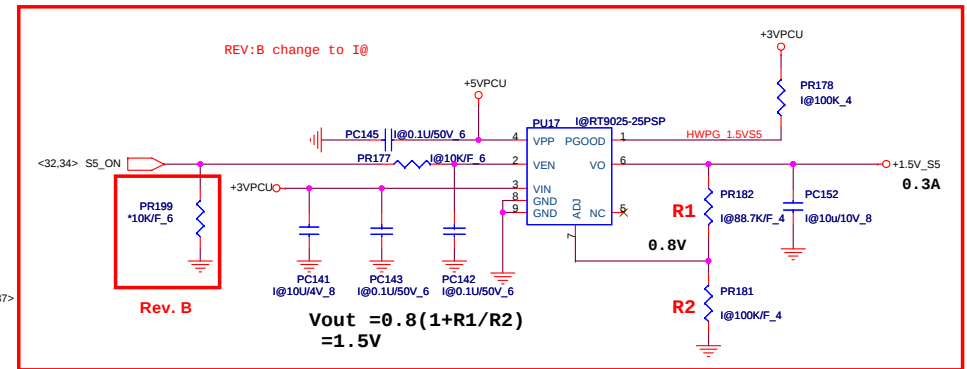
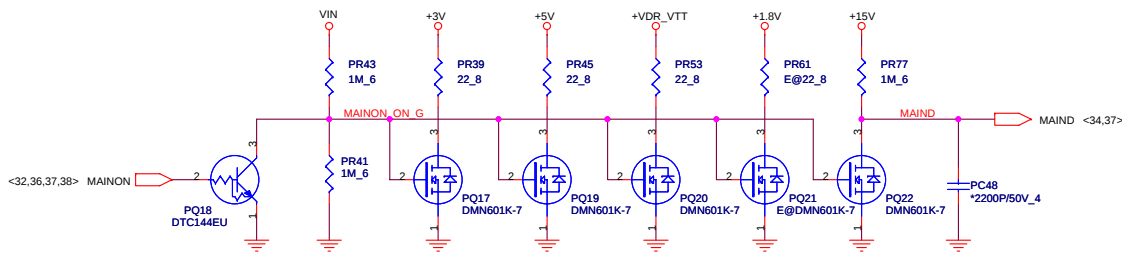
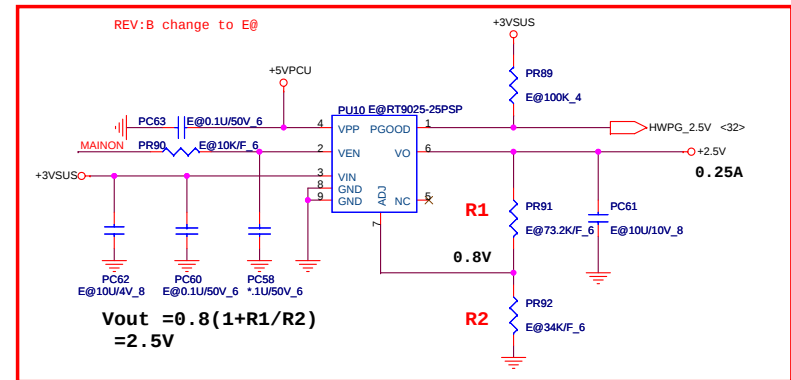
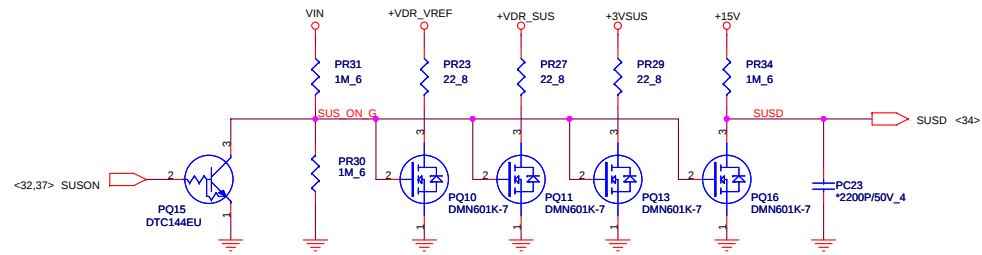
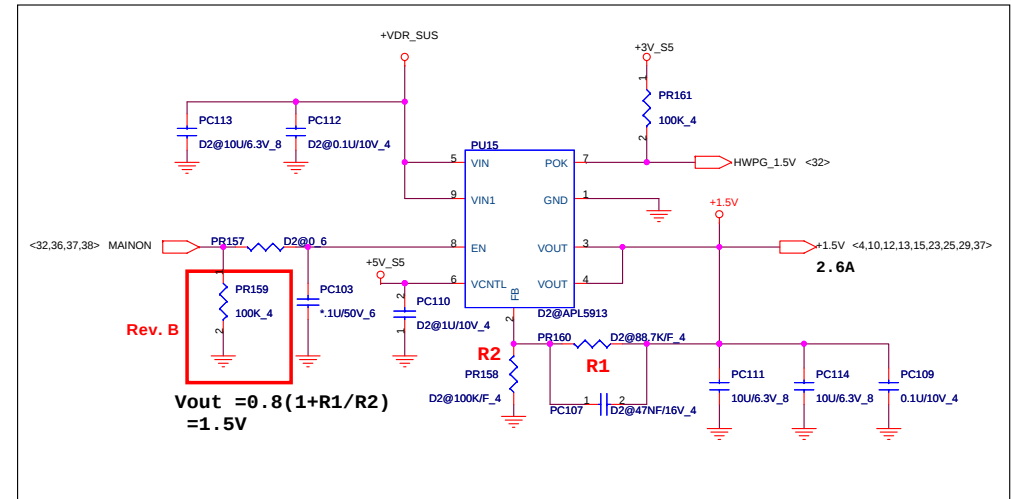


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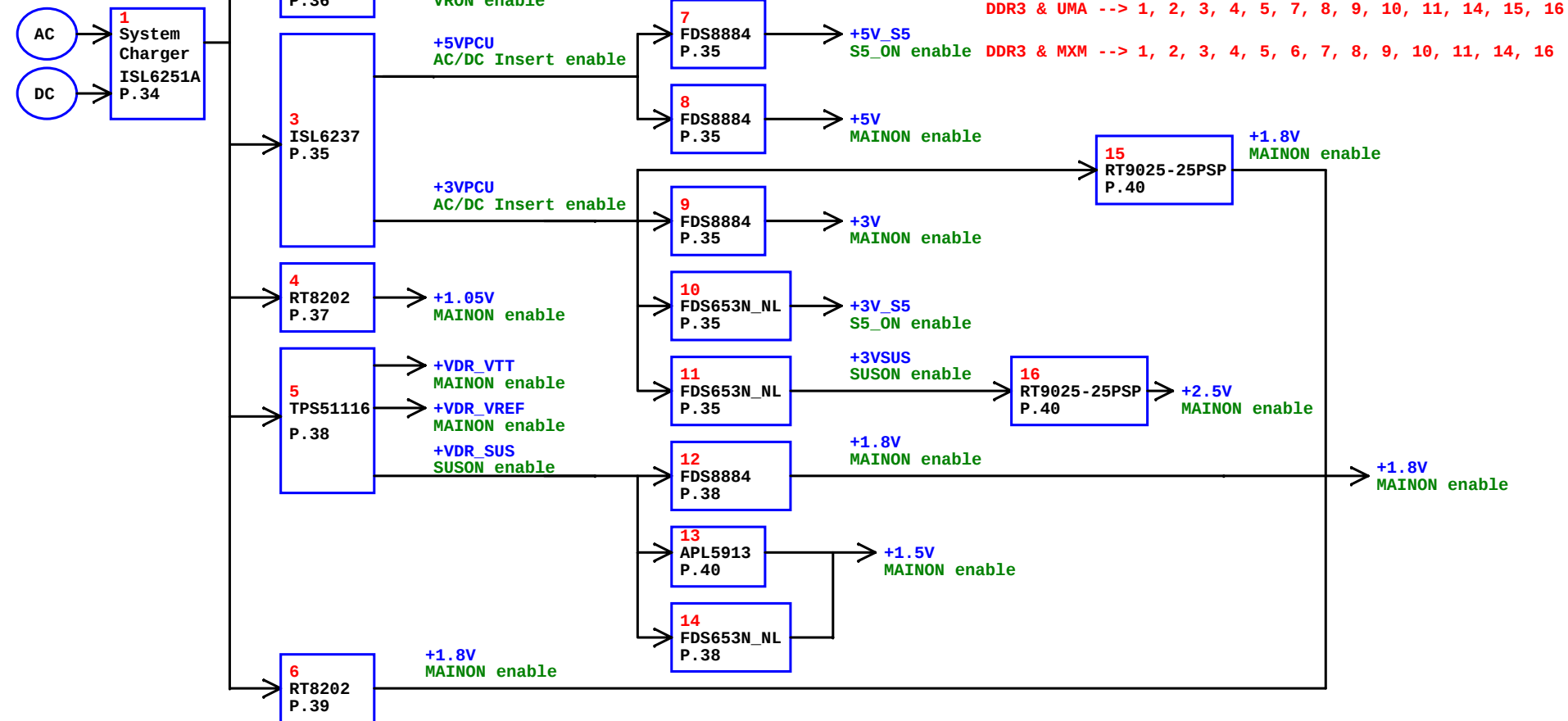
for DDR3 and UMA



DDR3 -- NC



Power Tree Table



Power Distribution List

Power	Distribution
VCC_CORE	CPU
+5VPCU	ICH8M, RJ45/USB /B, USB/eSATA, Satellite LED, CIR
+3VPCU	RTC, HALL SENSOR, KB, TP/FP/LED /B, Power /B, Kill SW, EC, ID, SPI Flash, CIR
+1.5V	CPU, GMCH, ICH9M, Mini Card, New Card
+VDR_SUS	GMCH, DDR
+VDR_VREF	GMCH, DDR
+VDR_VTT	DDR
+1.05V	CPU, CLK, Thermal Trip, GMCH, ICH8M
+5V_S5	ICH8M, G-SENSOR, Felica, USB/eSATA
+5V	CPU, ICH8M, VGA, Camera, CRT, HDMI, SATA HDD, PATA ODD, PCMCIA, TP/FP/LED /B, EC, Speaker, Headphone
+3V	CLK, CPU Thermal Monitor, FAN, GMCH, DDR, ICH8M, VGA, LCD/LED Panel, HALL SENSOR, CRT, HDMI, SATA HDD, PATA ODD, PCMCIA, Cardreader (OZ129)
+3V_S5	ICH8M, Mini Card, RJ45/USB /B, New Card
+3VSUS	ICH8M, FP
+1.8V	Cardreader
+2.5V	MXM

