

VM8M Block Diagram Intel UMA

VER :E3B

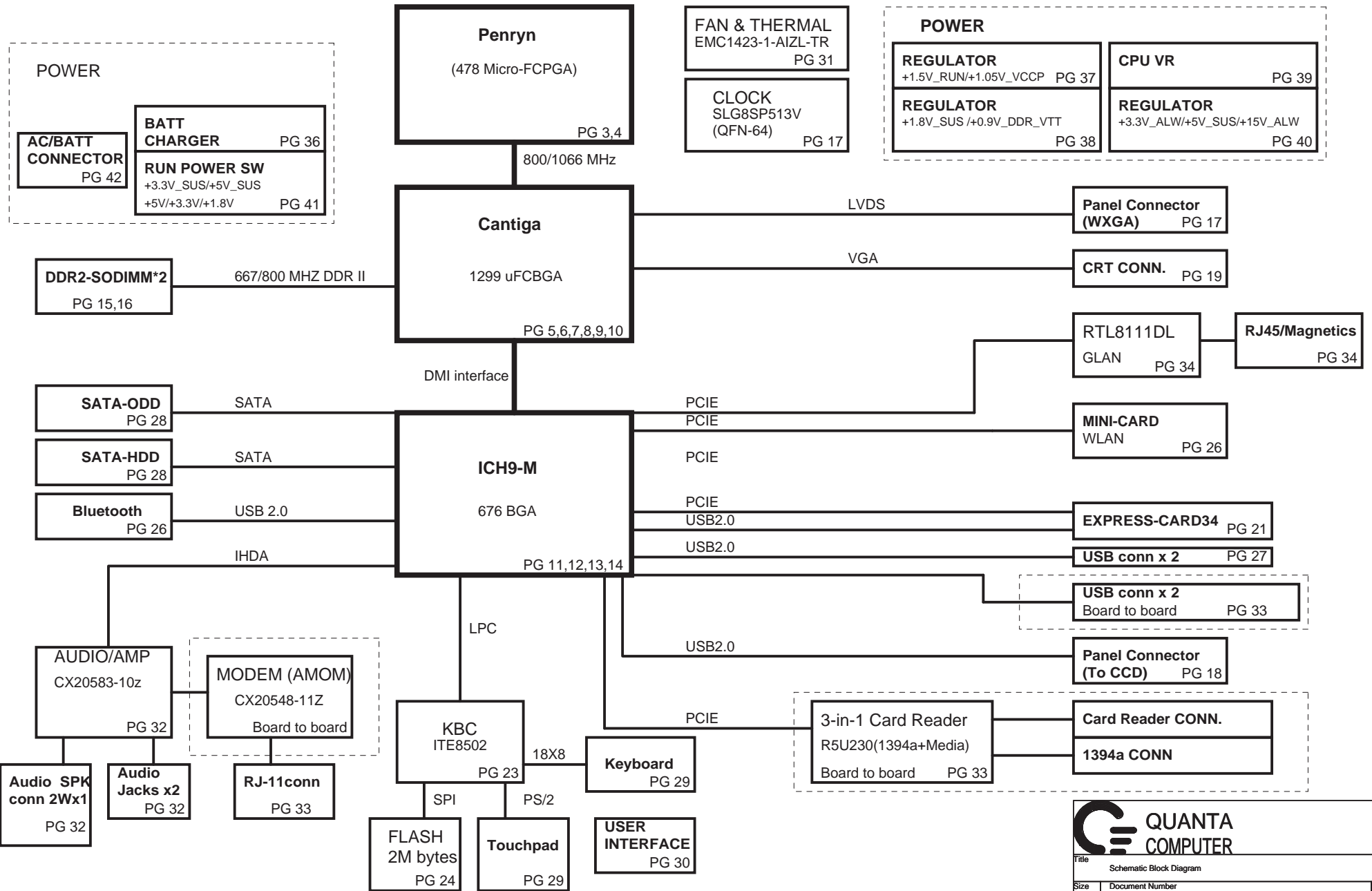




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Power States

POWER PLANE	VOLTAGE	PAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
+PWR_SRC	10V~+19V	4,18,24,36,37,3,8,39,40,44	MAIN POWER		S0-S5
+RTC_CELL	+3.0V~+3.3V	11,14,23,24	RTC		S0-S5
+3.3V_ALW	+3.3V	3,23,24,30,35,36,38,40,41,42,45	8051 POWER	ALWON	S0-S5
+5V_ALW2	+5V	37,38,40,41,42	LCD/CHARGE POWER	ALWON	S0-S5
+15V_ALW	+15V	11,18,40,41	LARGE POWER	+5V_ALW	S0-S5
+3.3V_LAN	+3.3V	34	LAN POWER		
+5V_SUS	+5V	14,27,30,39,40,41,44	SLP_S5# CTRLD POWER	SUS_ON	
+3.3V_SUS	+3.3V	3,11,12,13,14,18,25,30,37,39,41,45	SLP_S5# CTRLD POWER	3.3V_SUS_ON	
+1.8V_SUS	+1.8V	6,8,9,15,37,38,41	SODIMM POWER	DDR_ON	
+0.9V_DDR_VTT	+0.9V	16,38,41	SODIMM POWER	0.9V_DDR_VTT_ON	
+5V_RUN	+5V	14,18,19,21,25,28,29,30,31,32,41,44	SLP_S3# CTRLD POWER	RUN_ON	
+3.3V_RUN	+3.3V	3,6,8,9,11,12,13,14,15,17,30,31,32,34,18,19,20,21,23,25,26,28,41,44,45	SLP_S3# CTRLD POWER	3.3V_RUN_ON	
+1.5V_RUN	+1.5V	4,9,14,26,37,41,44	CALISTOGA/ICH8 POWER	1.5V_RUN_ON	
+1.05V_VCCP	+1.05V	3,4,6,8,9,11,14,37,44	CPU/CALISTOGA/ICH8 POWER	1.05V_RUN_ON	
+VCC_CORE	+0.7V~+1.77V	4,39	CPU CORE POWER	IMVP_VR_ON	
+LCDVCC	+3.3V	18	LCD Power	LCDVCC_TST_EN & ENVDD	
+5V_MOD	+5V	28	Module Power		
+5V_HDD	+5V	28	HDD Power		
+PBATT	+10V~+17V	42	MAIN BATTERY	CHG_PBATT	

GND PLANE	PAGE	DESCRIPTION
 GND	ALL	

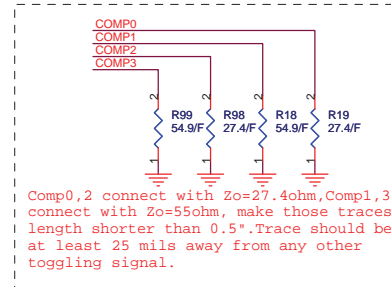
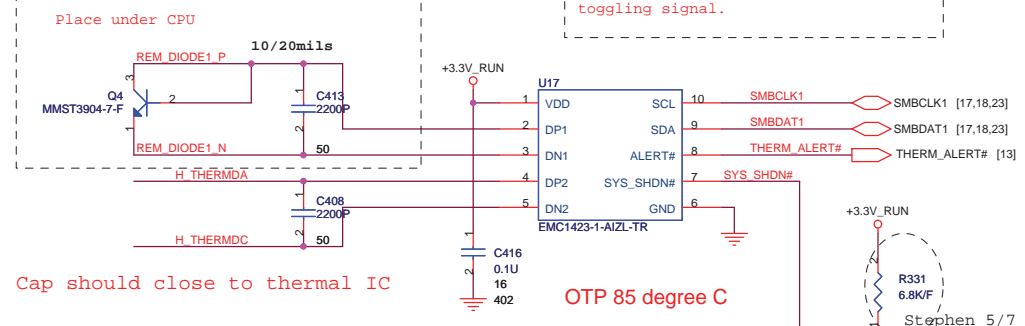
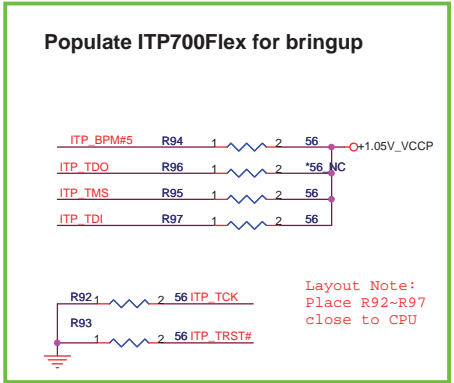
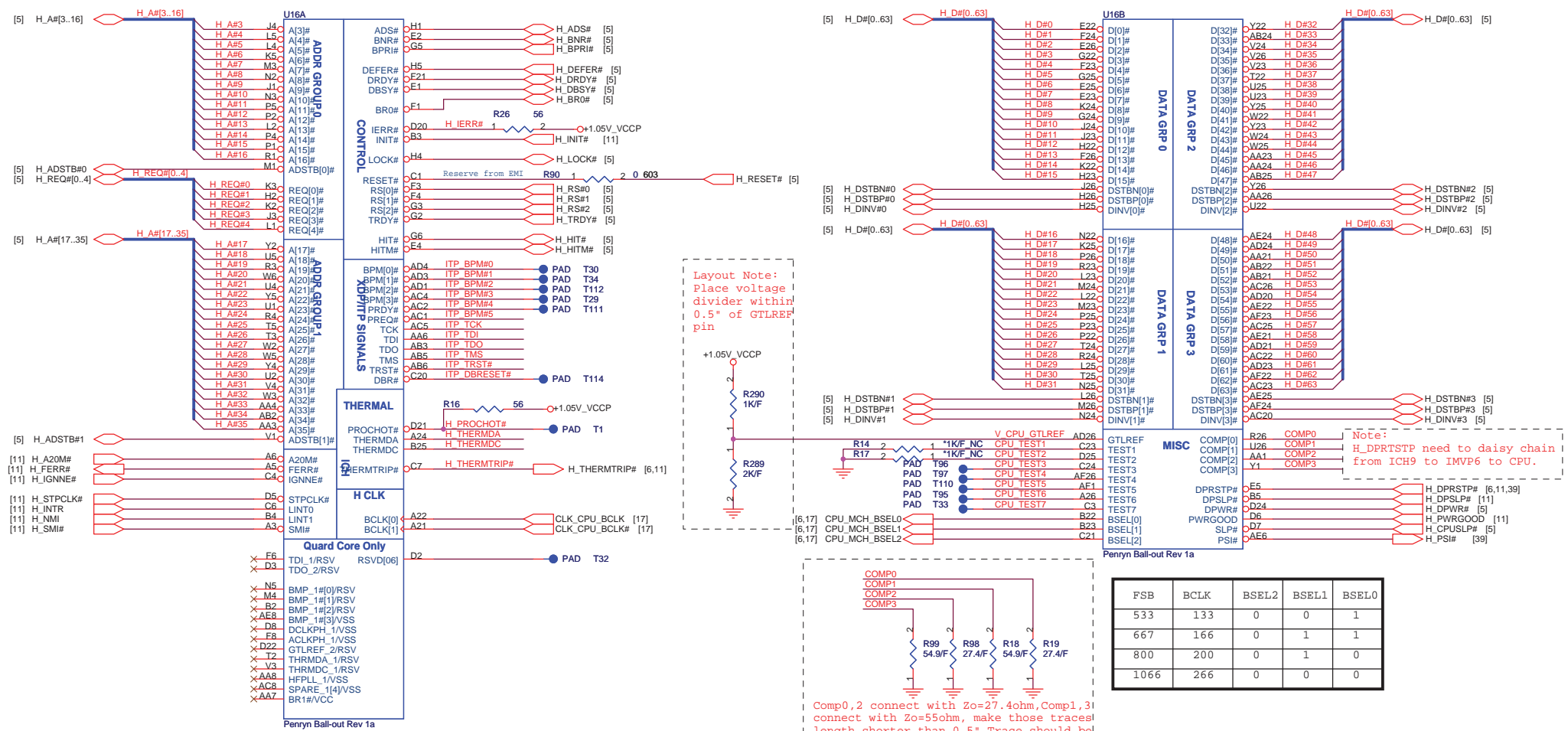


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Title: Index & Power Status

Size: Document Number VMMB Rev 1A

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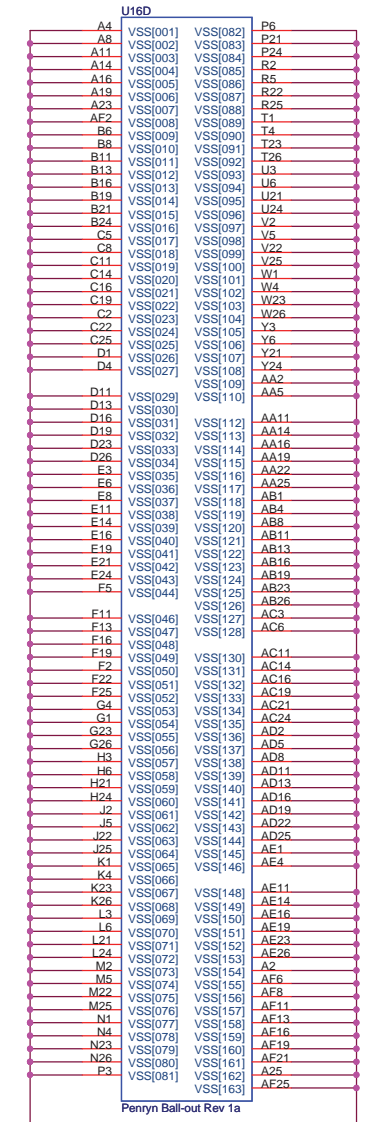
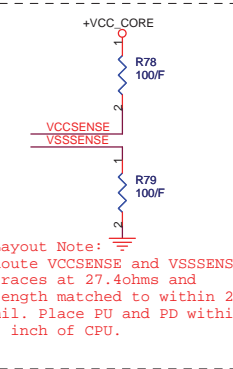
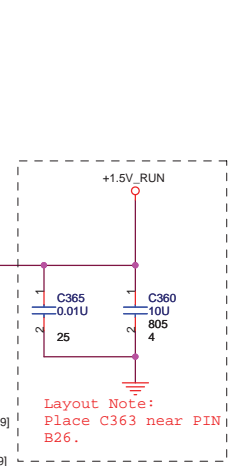
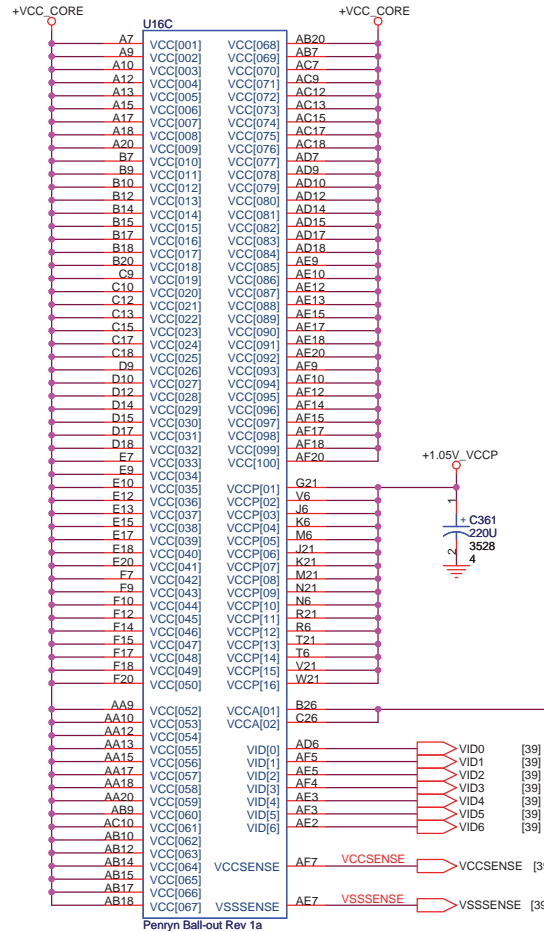
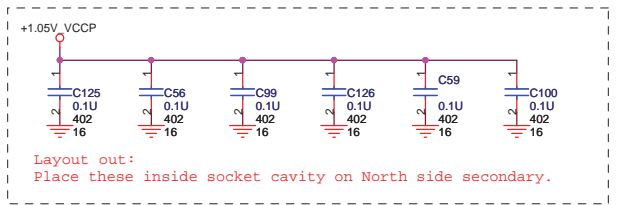
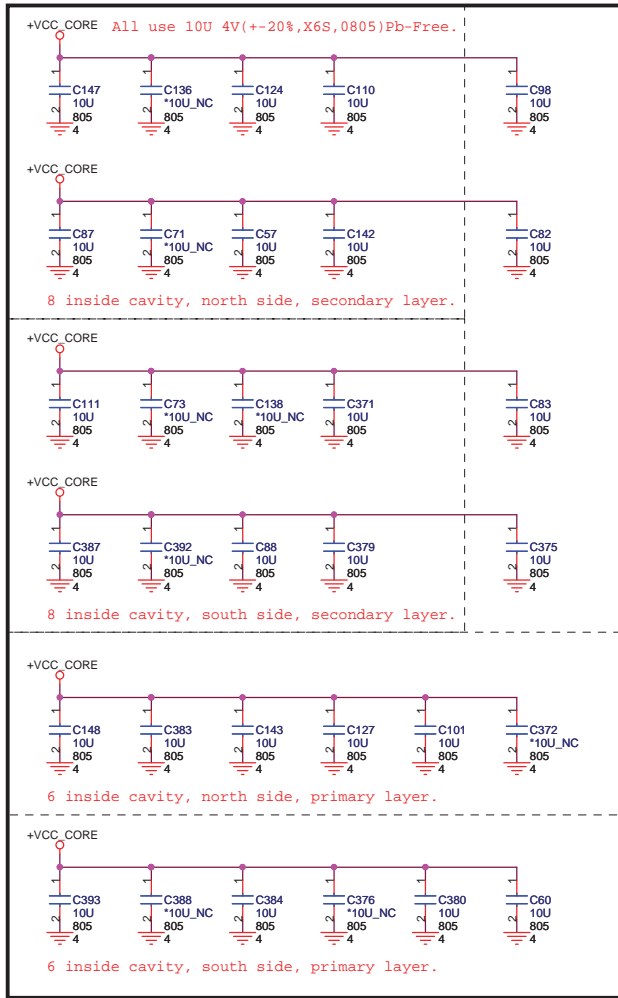


QUANTA COMPUTER

File: Penryn Processor (HOST BUS)

Size	Document Number	Rev
	VMBM	1A

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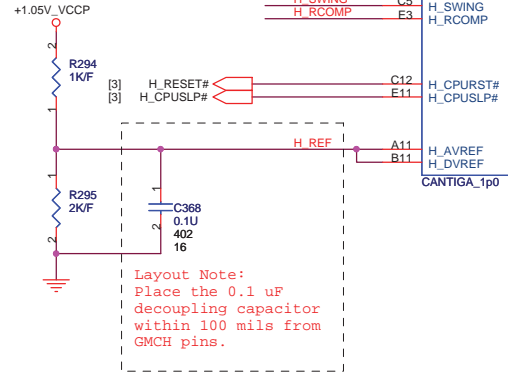
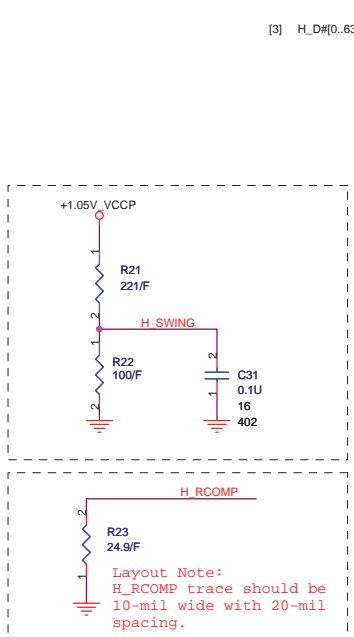


QUANTA COMPUTER

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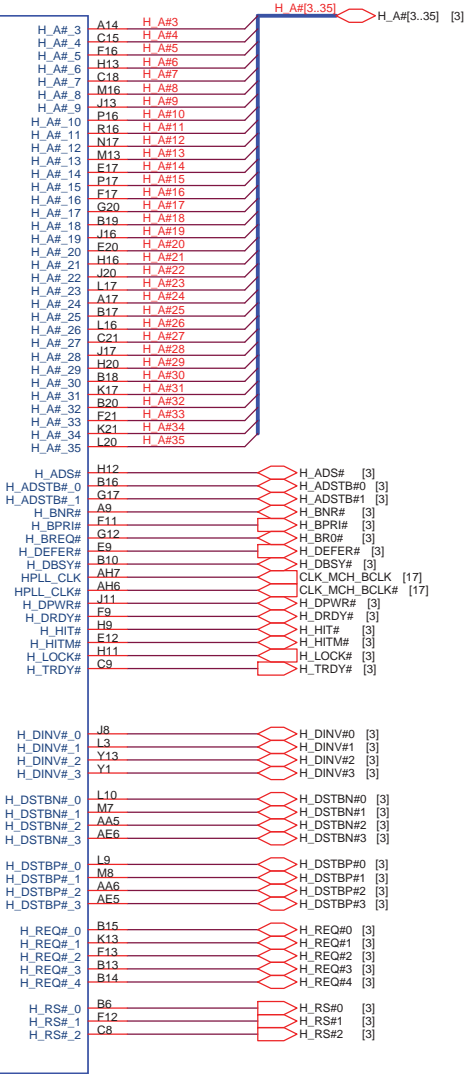
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U15A	
H_D#0	F2
H_D#1	G8
H_D#2	F8
H_D#3	E6
H_D#4	G2
H_D#5	H6
H_D#6	H2
H_D#7	F6
H_D#8	D4
H_D#9	H3
H_D#10	M9
H_D#11	M1
H_D#12	J1
H_D#13	J2
H_D#14	N12
H_D#15	J6
H_D#16	P2
H_D#17	L2
H_D#18	R2
H_D#19	N9
H_D#20	L6
H_D#21	M5
H_D#22	M3
H_D#23	N2
H_D#24	R1
H_D#25	N5
H_D#26	N6
H_D#27	P11
H_D#28	N6
H_D#29	L7
H_D#30	N10
H_D#31	M3
H_D#32	Y2
H_D#33	AD14
H_D#34	Y6
H_D#35	Y10
H_D#36	Y12
H_D#37	Y13
H_D#38	Y14
H_D#39	Y2
H_D#40	AA8
H_D#41	Y9
H_D#42	AA13
H_D#43	AA9
H_D#44	AA11
H_D#45	AD11
H_D#46	AD10
H_D#47	AD13
H_D#48	AE9
H_D#49	AE12
H_D#50	AA2
H_D#51	AD8
H_D#52	AA3
H_D#53	AD3
H_D#54	AD7
H_D#55	AE14
H_D#56	AE3
H_D#57	AC1
H_D#58	AE3
H_D#59	AC3
H_D#60	AE11
H_D#61	AE8
H_D#62	AG2
H_D#63	AD6

HOST



For EA test use

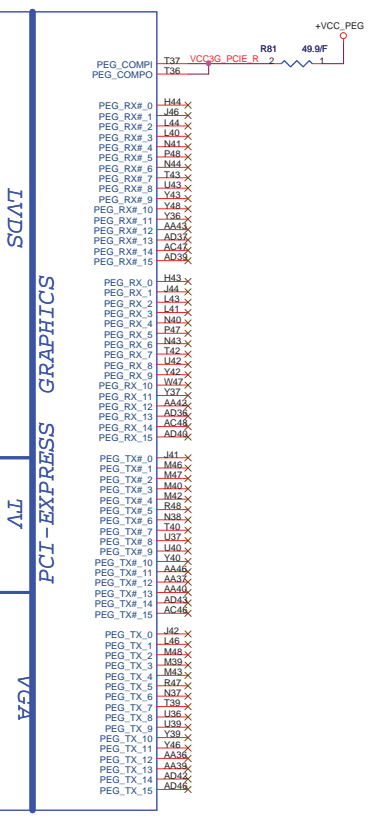
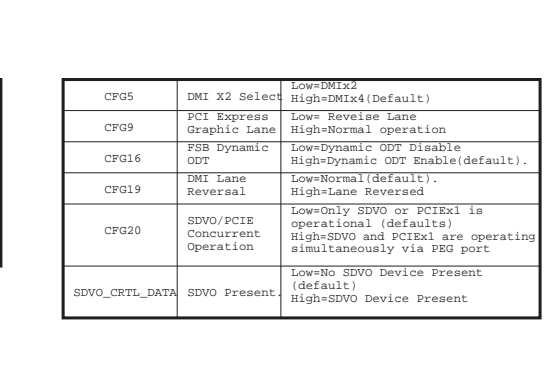
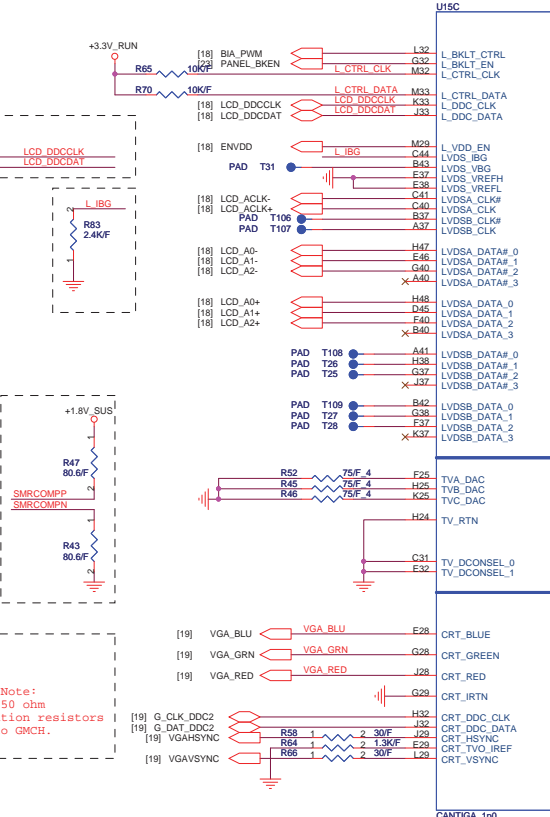
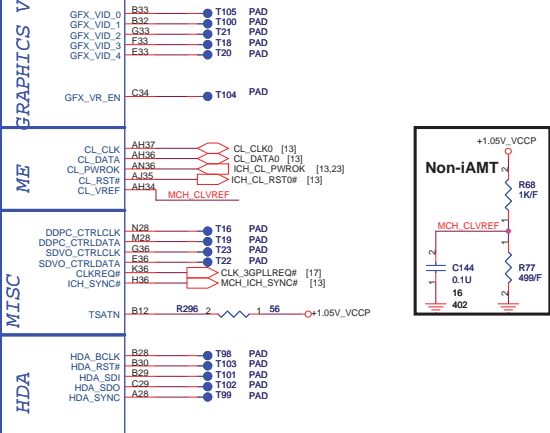
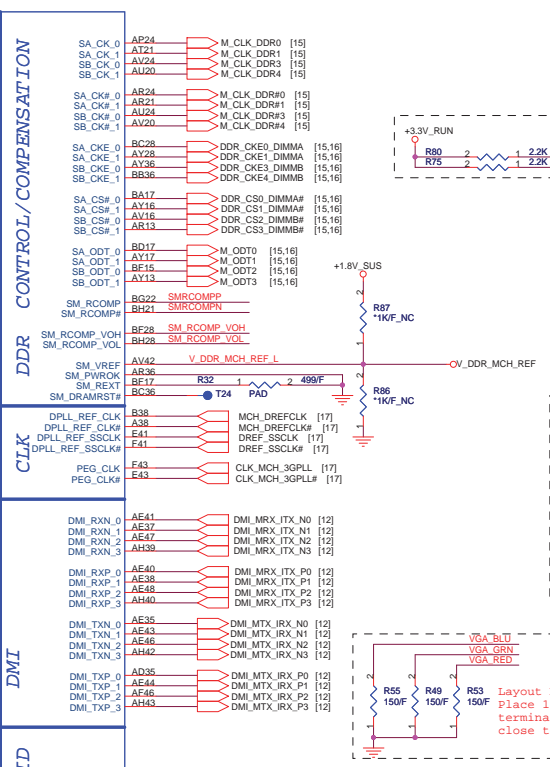
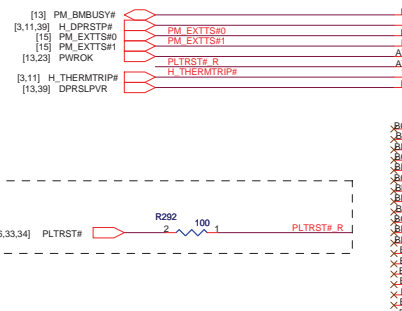
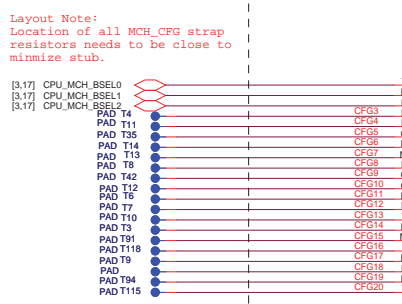
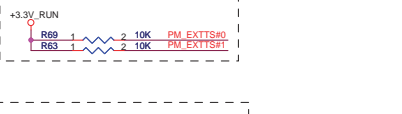
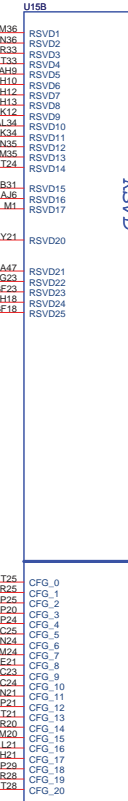
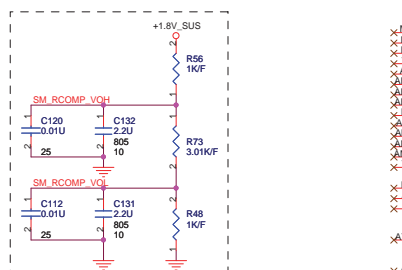
- ET10 1 H_DSTBP#0
- ET2 1 H_D#7
- ET14 1 H_D#12
- ET9 1 H_DSTBN#1
- ET8 1 H_DSTBP#1
- ET13 1 H_D#9
- ET3 1 H_D#21
- ET16 1 H_D#32

**QUANTA
COMPUTER**

File: Caniga (HOST)

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	VMM	1A

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CFG	Feature	Default
CFG5	DMI X2 Select	Low=DMiX2 High=DMiX4(Default)
CFG9	PCI Express Graphic Lane	Low= Reverse Lane High=Normal operation
CFG16	FSB Dynamic ODT	Low=Dynamic ODT Disable High=Dynamic ODT Enable(default).
CFG19	DMI Lane Reversal	Low=Normal(default). High=Lane Reversed
CFG20	SDVO/PCIE Concurrent Operation	Low=Only SDVO or PCIeI1 is operational (defaults). High=SDVO and PCIeI1 are operating simultaneously via PEG port
SDVO_CTRL_DATA	SDVO Present.	Low=No SDVO Device Present (default). High=SDVO Device Present

[15] DDR_A_D[0..63]

DDR A D0	AJ38	SA_DO_0
DDR A D1	AJ41	SA_DO_1
DDR A D2	AN38	SA_DO_2
DDR A D3	AM38	SA_DO_3
DDR A D4	AJ36	SA_DO_4
DDR A D5	AJ40	SA_DO_5
DDR A D6	AM44	SA_DO_6
DDR A D7	AM42	SA_DO_7
DDR A D8	AN43	SA_DO_8
DDR A D9	AN44	SA_DO_9
DDR A D10	AJ40	SA_DO_10
DDR A D11	AT38	SA_DO_11
DDR A D12	AN41	SA_DO_12
DDR A D13	AN39	SA_DO_13
DDR A D14	AJ44	SA_DO_14
DDR A D15	AJ42	SA_DO_15
DDR A D16	AV35	SA_DO_16
DDR A D17	AY44	SA_DO_17
DDR A D18	BA40	SA_DO_18
DDR A D19	BD43	SA_DO_19
DDR A D20	AV41	SA_DO_20
DDR A D21	AY43	SA_DO_21
DDR A D22	BB41	SA_DO_22
DDR A D23	BC40	SA_DO_23
DDR A D24	AY37	SA_DO_24
DDR A D25	BD38	SA_DO_25
DDR A D26	AV37	SA_DO_26
DDR A D27	AT36	SA_DO_27
DDR A D28	AY38	SA_DO_28
DDR A D29	BB38	SA_DO_29
DDR A D30	AV36	SA_DO_30
DDR A D31	AW36	SA_DO_31
DDR A D32	BD13	SA_DO_32
DDR A D33	AJ11	SA_DO_33
DDR A D34	BC11	SA_DO_34
DDR A D35	BA12	SA_DO_35
DDR A D36	AJ13	SA_DO_36
DDR A D37	AV13	SA_DO_37
DDR A D38	BD12	SA_DO_38
DDR A D39	BC12	SA_DO_39
DDR A D40	BB9	SA_DO_40
DDR A D41	BA9	SA_DO_41
DDR A D42	AJ10	SA_DO_42
DDR A D43	AV9	SA_DO_43
DDR A D44	BA11	SA_DO_44
DDR A D45	BD9	SA_DO_45
DDR A D46	AY8	SA_DO_46
DDR A D47	BA6	SA_DO_47
DDR A D48	AV5	SA_DO_48
DDR A D49	AV7	SA_DO_49
DDR A D50	AT9	SA_DO_50
DDR A D51	AN8	SA_DO_51
DDR A D52	AJ5	SA_DO_52
DDR A D53	AJ6	SA_DO_53
DDR A D54	AT5	SA_DO_54
DDR A D55	AN10	SA_DO_55
DDR A D56	AM11	SA_DO_56
DDR A D57	AM5	SA_DO_57
DDR A D58	AJ9	SA_DO_58
DDR A D59	AJ8	SA_DO_59
DDR A D60	AM12	SA_DO_60
DDR A D61	AM13	SA_DO_61
DDR A D62	AJ11	SA_DO_62
DDR A D63	AJ12	SA_DO_63

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DDR SYSTEM MEMORY A

SA_BS_0	BD21	DDR A BS0
SA_BS_1	RG18	DDR A BS1
SA_BS_2	AT25	DDR A BS2
SA_RAS#	BB20	DDR A RAS#
SA_CAS#	BD20	DDR A CAS#
SA_WE#	AY20	DDR A WE#
SA_DM_0	AM37	DDR A DM0
SA_DM_1	AT41	DDR A DM1
SA_DM_2	AY41	DDR A DM2
SA_DM_3	AU39	DDR A DM3
SA_DM_4	BB12	DDR A DM4
SA_DM_5	AY6	DDR A DM5
SA_DM_6	AT7	DDR A DM6
SA_DM_7	AJ5	DDR A DM7
SA_DQS_0	AJ44	DDR A DQS0
SA_DQS_1	AT44	DDR A DQS1
SA_DQS_2	BA43	DDR A DQS2
SA_DQS_3	BC37	DDR A DQS3
SA_DQS_4	AW12	DDR A DQS4
SA_DQS_5	BC8	DDR A DQS5
SA_DQS_6	AJ8	DDR A DQS6
SA_DQS_7	AM7	DDR A DQS7
SA_DQS#_0	AJ43	DDR A DQS#0
SA_DQS#_1	AT43	DDR A DQS#1
SA_DQS#_2	BA44	DDR A DQS#2
SA_DQS#_3	RD37	DDR A DQS#3
SA_DQS#_4	AY42	DDR A DQS#4
SA_DQS#_5	BD9	DDR A DQS#5
SA_DQS#_6	AJ9	DDR A DQS#6
SA_DQS#_7	AM8	DDR A DQS#7
SA_MA_0	BA21	DDR A MA0
SA_MA_1	BC24	DDR A MA2
SA_MA_2	BD24	DDR A MA3
SA_MA_3	RG25	DDR A MA4
SA_MA_4	BA24	DDR A MA5
SA_MA_5	RD24	DDR A MA6
SA_MA_6	BG27	DDR A MA7
SA_MA_7	BF25	DDR A MA8
SA_MA_8	AW24	DDR A MA9
SA_MA_9	RC21	DDR A MA10
SA_MA_10	RG26	DDR A MA11
SA_MA_11	BH26	DDR A MA12
SA_MA_12	BH17	DDR A MA13
SA_MA_13	AY25	DDR A MA14
SA_MA_14		

[15] DDR_B_D[0..63]

DDR B D0	AK47	SB_DO_0
DDR B D1	AH46	SB_DO_1
DDR B D2	AP47	SB_DO_2
DDR B D3	AP46	SB_DO_3
DDR B D4	AJ46	SB_DO_4
DDR B D5	AJ48	SB_DO_5
DDR B D6	AM48	SB_DO_6
DDR B D7	AP48	SB_DO_7
DDR B D8	AJ47	SB_DO_8
DDR B D9	AJ46	SB_DO_9
DDR B D10	AA48	SB_DO_10
DDR B D11	AY48	SB_DO_11
DDR B D12	AT47	SB_DO_12
DDR B D13	AA47	SB_DO_13
DDR B D14	BA47	SB_DO_14
DDR B D15	BC47	SB_DO_15
DDR B D16	BC46	SB_DO_16
DDR B D17	BC44	SB_DO_17
DDR B D18	BG43	SB_DO_18
DDR B D19	BF43	SB_DO_19
DDR B D20	BE46	SB_DO_20
DDR B D21	BC41	SB_DO_21
DDR B D22	BE40	SB_DO_22
DDR B D23	BE41	SB_DO_23
DDR B D24	BG38	SB_DO_24
DDR B D25	BF38	SB_DO_25
DDR B D26	BH35	SB_DO_26
DDR B D27	RG35	SB_DO_27
DDR B D28	BH40	SB_DO_28
DDR B D29	BG39	SB_DO_29
DDR B D30	BG34	SB_DO_30
DDR B D31	BH34	SB_DO_31
DDR B D32	BH14	SB_DO_32
DDR B D33	BH11	SB_DO_33
DDR B D34	BH11	SB_DO_34
DDR B D35	BH12	SB_DO_35
DDR B D36	BH18	SB_DO_36
DDR B D37	BF11	SB_DO_37
DDR B D38	BF8	SB_DO_38
DDR B D39	BG7	SB_DO_39
DDR B D40	BC5	SB_DO_40
DDR B D41	BC6	SB_DO_41
DDR B D42	AY3	SB_DO_42
DDR B D43	AY11	SB_DO_43
DDR B D44	BF6	SB_DO_44
DDR B D45	BF5	SB_DO_45
DDR B D46	BA1	SB_DO_46
DDR B D47	BD3	SB_DO_47
DDR B D48	AV2	SB_DO_48
DDR B D49	AJ13	SB_DO_49
DDR B D50	AN2	SB_DO_50
DDR B D51	AN3	SB_DO_51
DDR B D52	AY2	SB_DO_52
DDR B D53	AV1	SB_DO_53
DDR B D54	AP3	SB_DO_54
DDR B D55	AR1	SB_DO_55
DDR B D56	AL1	SB_DO_56
DDR B D57	AL2	SB_DO_57
DDR B D58	AJ1	SB_DO_58
DDR B D59	AH1	SB_DO_59
DDR B D60	AM2	SB_DO_60
DDR B D61	AM3	SB_DO_61
DDR B D62	AH3	SB_DO_62
DDR B D63	AJ3	SB_DO_63

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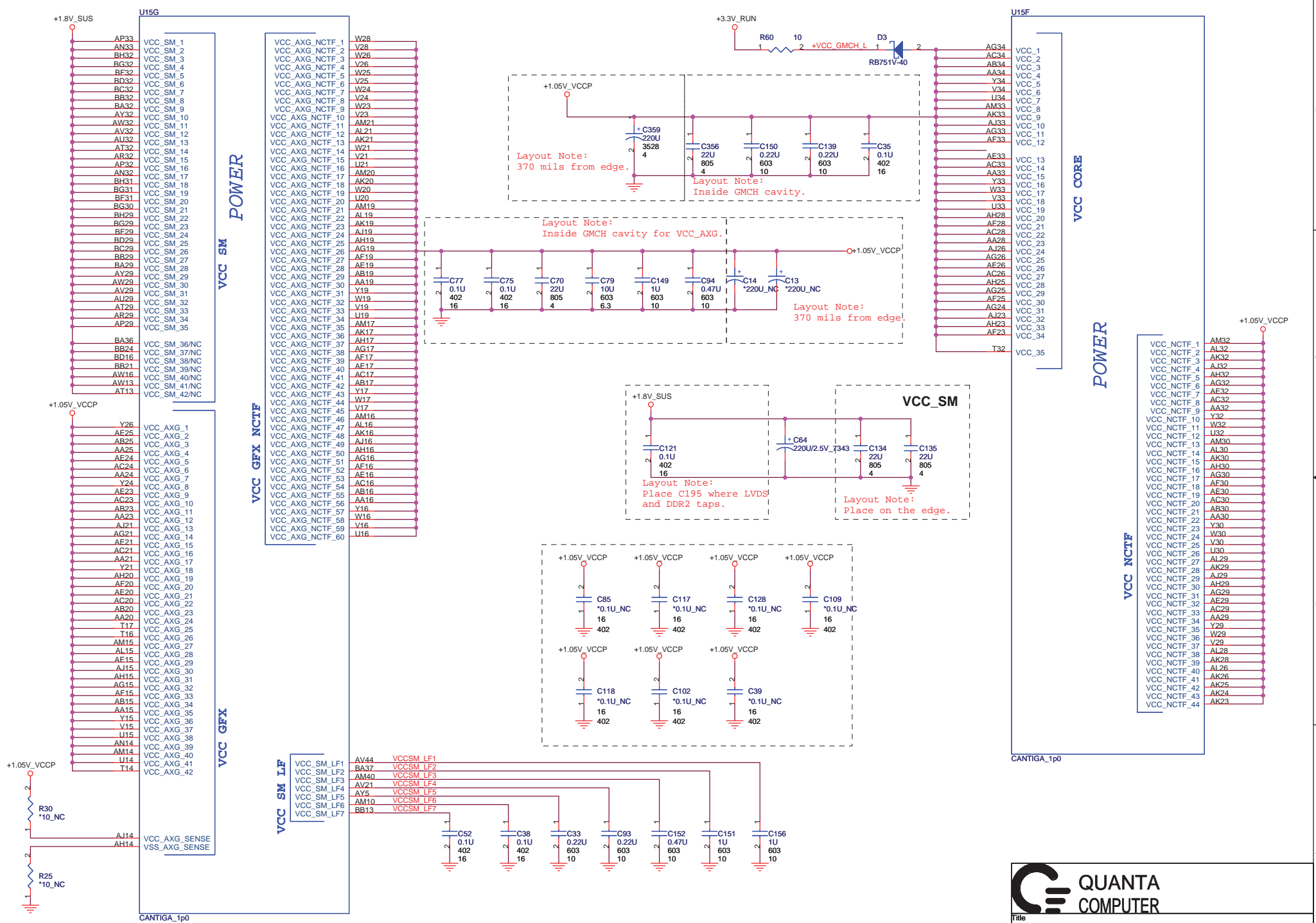
DDR SYSTEM MEMORY B

SB_BS_0	BC16	DDR B BS0
SB_BS_1	BB17	DDR B BS1
SB_BS_2	BB33	DDR B BS2
SB_RAS#	AJ17	DDR B RAS#
SB_CAS#	BG16	DDR B CAS#
SB_WE#	BF14	DDR B WE#
SB_DM_0	AM47	DDR B DM0
SB_DM_1	AY47	DDR B DM1
SB_DM_2	BD40	DDR B DM2
SB_DM_3	BF35	DDR B DM3
SB_DM_4	RG11	DDR B DM4
SB_DM_5	BA3	DDR B DM5
SB_DM_6	AP1	DDR B DM6
SB_DM_7	AK2	DDR B DM7
SB_DQS_0	AL47	DDR B DQS0
SB_DQS_1	AV48	DDR B DQS1
SB_DQS_2	BG41	DDR B DQS2
SB_DQS_3	BG37	DDR B DQS3
SB_DQS_4	BH9	DDR B DQS4
SB_DQS_5	BB2	DDR B DQS5
SB_DQS_6	AJ11	DDR B DQS6
SB_DQS_7	AN6	DDR B DQS7
SB_DQS#_0	AL46	DDR B DQS#0
SB_DQS#_1	AV47	DDR B DQS#1
SB_DQS#_2	BH41	DDR B DQS#2
SB_DQS#_3	BH37	DDR B DQS#3
SB_DQS#_4	BC2	DDR B DQS#4
SB_DQS#_5	AT2	DDR B DQS#5
SB_DQS#_6	AN5	DDR B DQS#6
SB_DQS#_7	AN5	DDR B DQS#7
SB_MA_0	AV17	DDR B MA0
SB_MA_1	BA25	DDR B MA1
SB_MA_2	BC25	DDR B MA2
SB_MA_3	AU25	DDR B MA3
SB_MA_4	AW25	DDR B MA4
SB_MA_5	BB28	DDR B MA5
SB_MA_6	AL28	DDR B MA6
SB_MA_7	AW28	DDR B MA7
SB_MA_8	AT33	DDR B MA8
SB_MA_9	BD33	DDR B MA9
SB_MA_10	BB16	DDR B MA10
SB_MA_11	AW33	DDR B MA11
SB_MA_12	AY33	DDR B MA12
SB_MA_13	BH15	DDR B MA13
SB_MA_14	AU33	DDR B MA14



File				Rev
Cantiga (DDR2)				1A
Size	Document Number			
	VMMB			
Date:	Tuesday, June 02, 2009	Sheet	7 of 46	

<http://laptop-motherboard-schematic.blogspot.com/>



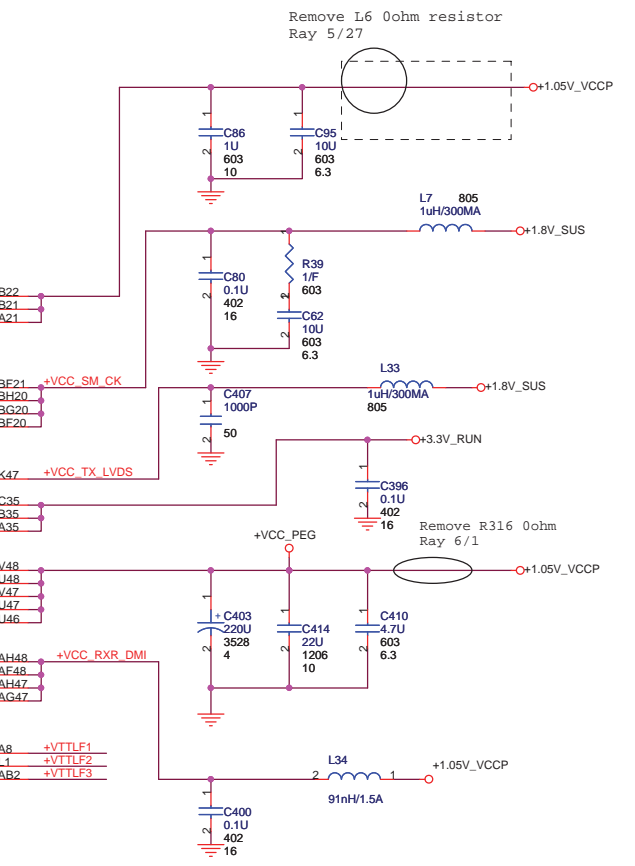
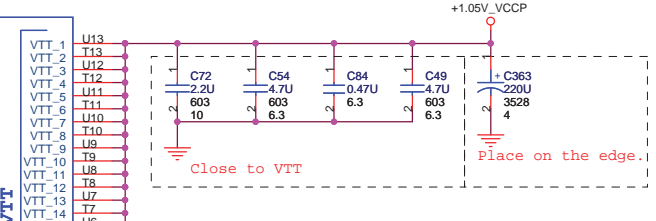
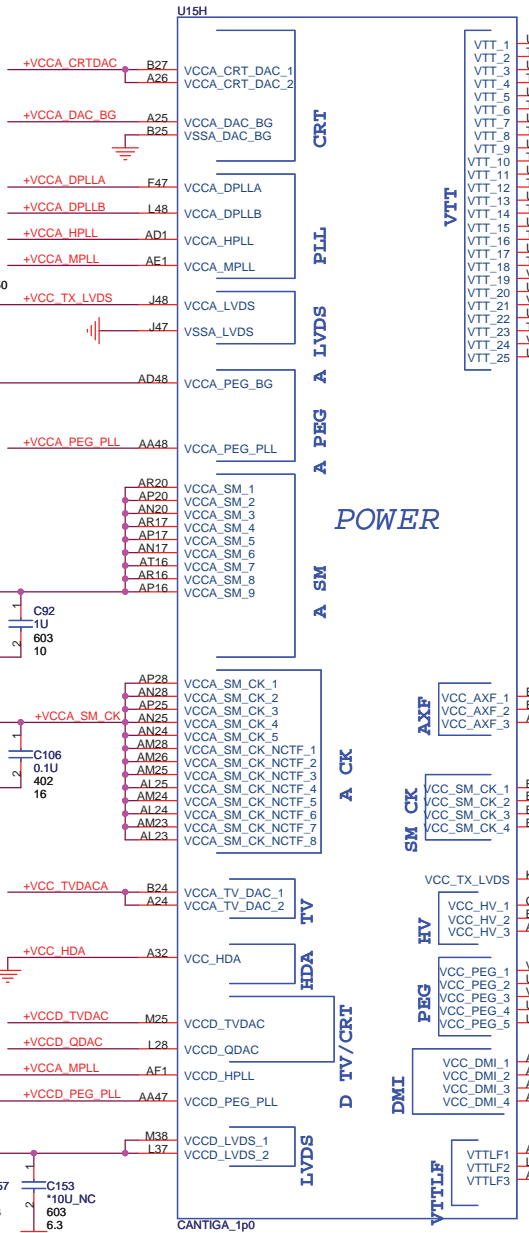
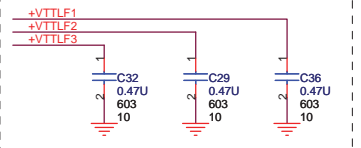
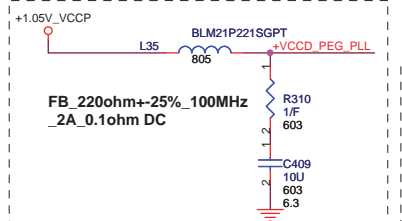
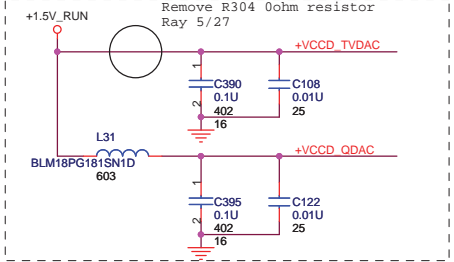
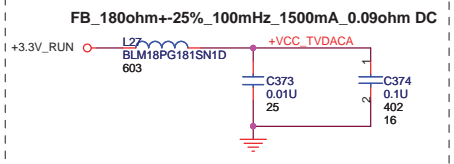
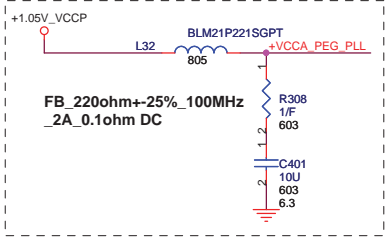
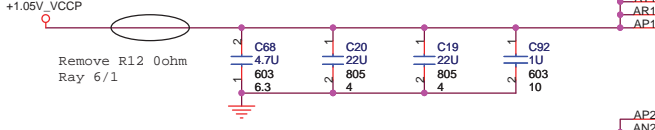
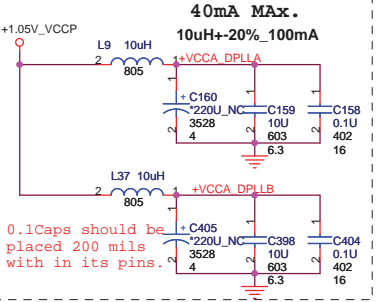
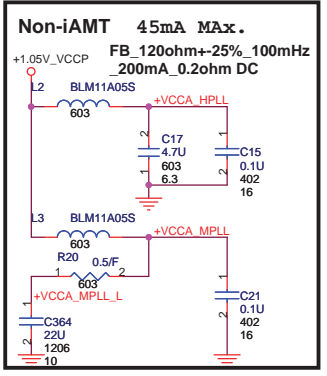
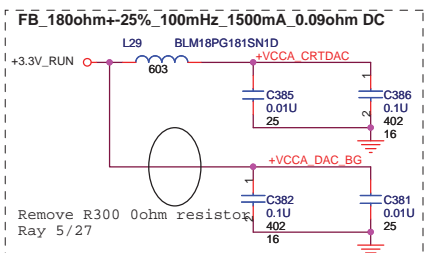
QUANTA COMPUTER

File: Cantiga (VCC,NCTF)

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	VMBM	1A

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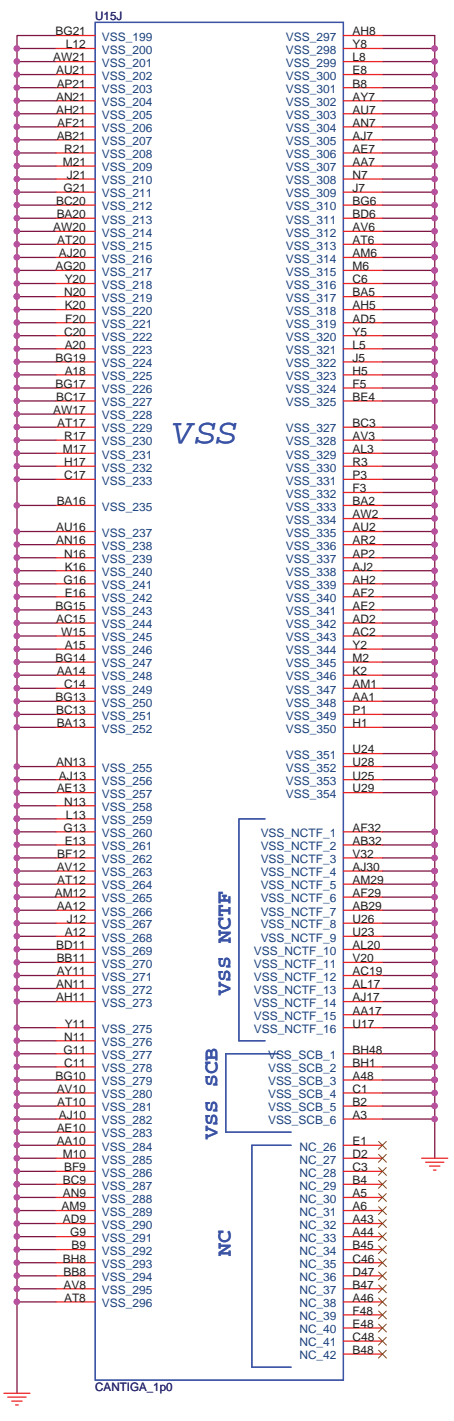
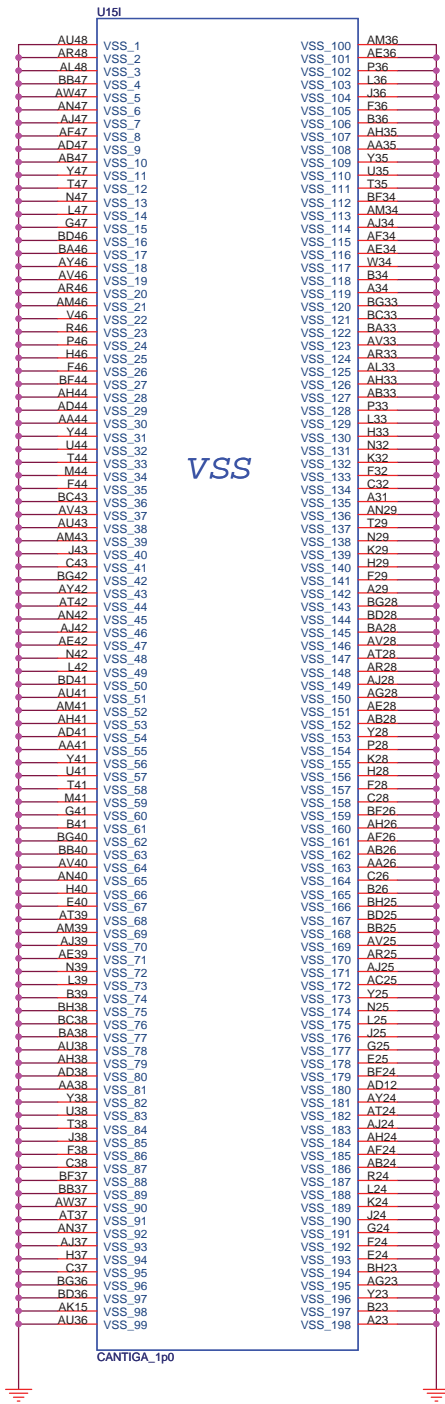

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QUANTA COMPUTER

File: Cantiga (POWER)

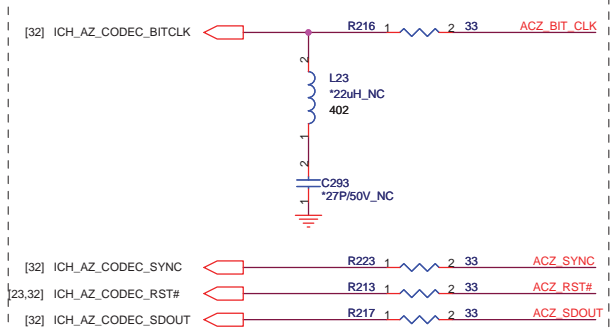
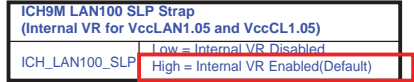
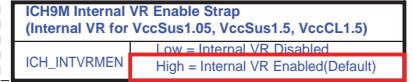
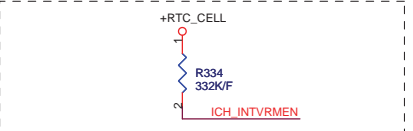
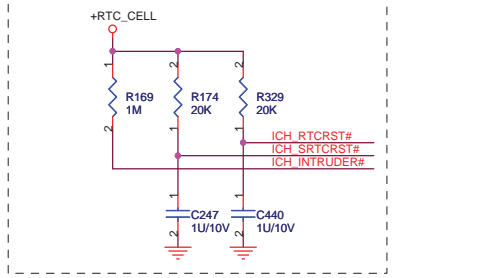
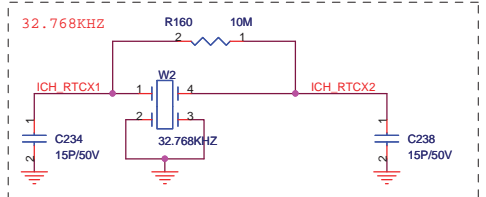
Size	Document Number VM8M	Rev 1A
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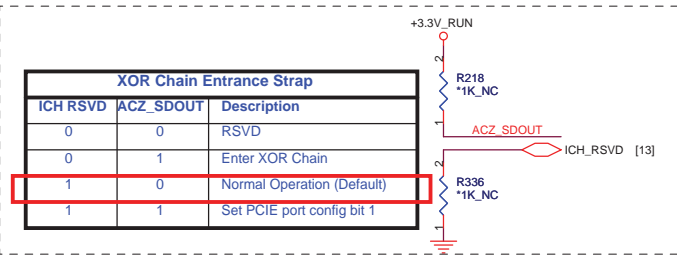
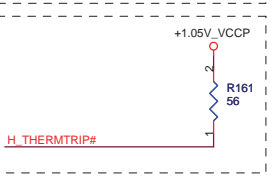
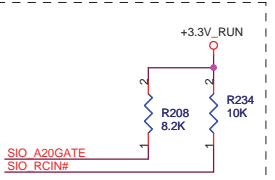
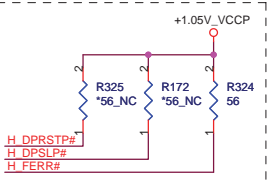
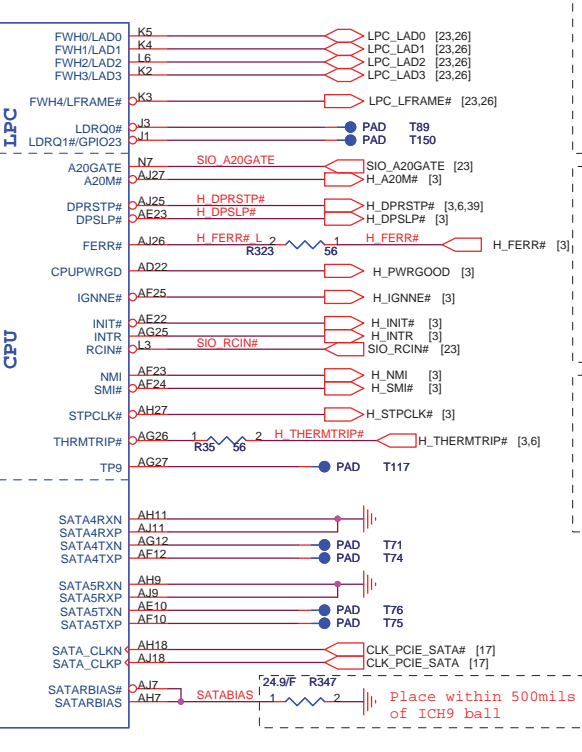
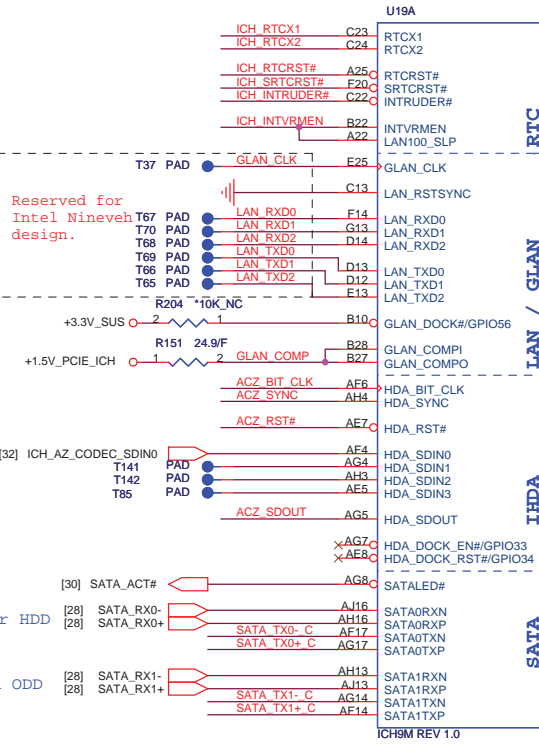
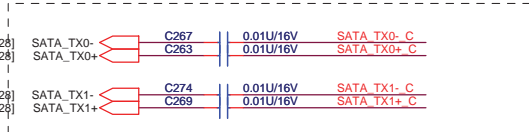
**QUANTA
COMPUTER**

File		Cantiga (VSS)	
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Place all series terms close to ICH9 except for SDIN input lines, which should be close to source.

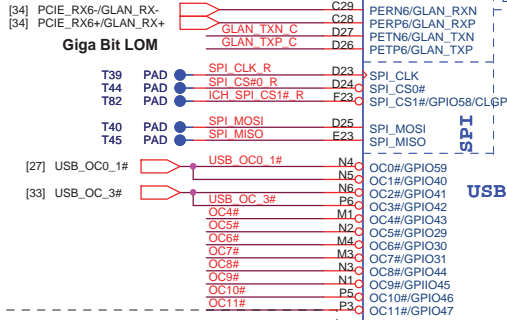
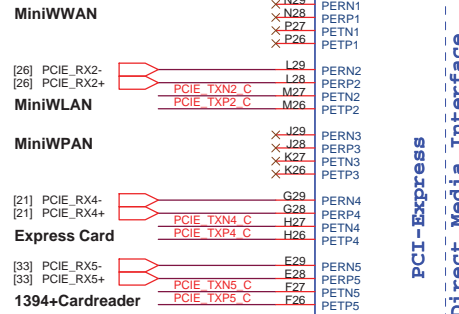
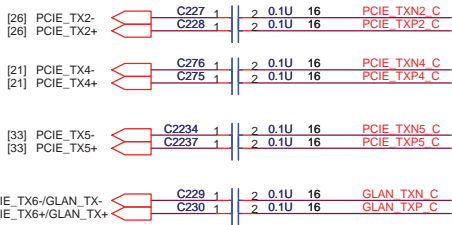


QUANTA COMPUTER

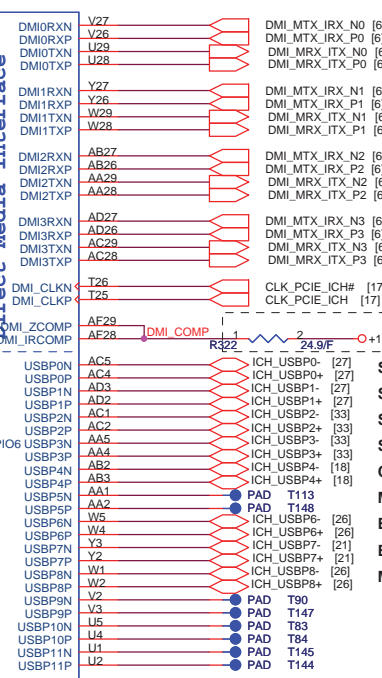
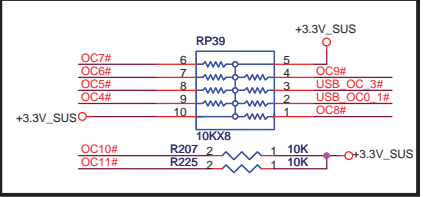
File: ICH9-M (CPU,SATA,LPC,LAN,CODEC)

Size	Document Number VM8M	Rev	1A
Date:	Tuesday, June 02, 2009	Sheet	11 of 46

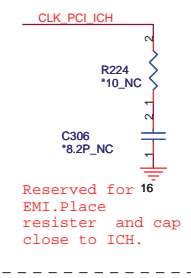
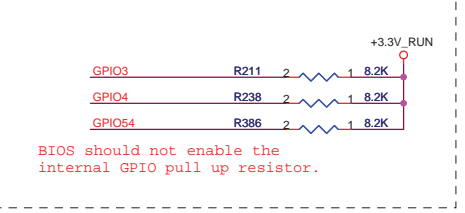
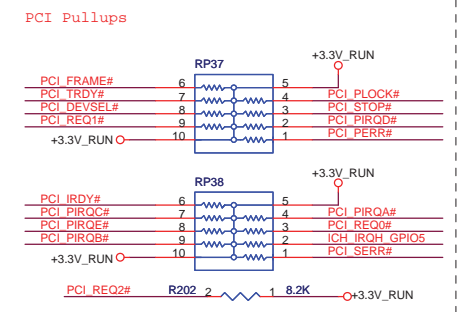
Place TX DC blocking caps close ICH9.



Boot BIOS Strap			
		GNT0#	SPI_CS1#
LPC	11	No stuff	No stuff
PCI	10	No stuff	Stuff
SPI	01	Stuff	No stuff



- Side Pair Left
- Side Pair Left
- Side Pair Right
- Side Pair Right
- Camera
- Mini Card (WWAN)
- Bluetooth
- Express Card
- Mini Card (WLAN)



QUANTA COMPUTER

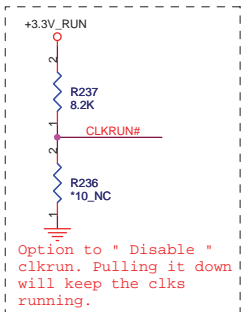
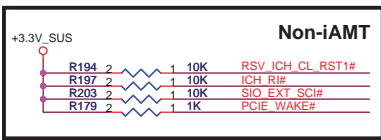
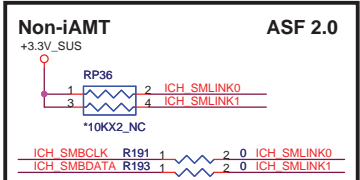
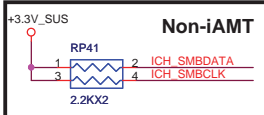
Title: ICH9-M (USB,DMI,PCI,E)C

Size: Document Number VMMB

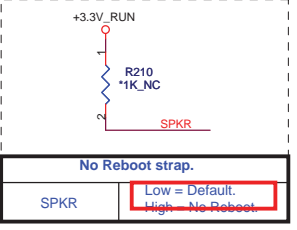
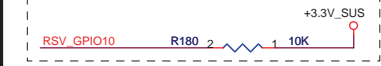
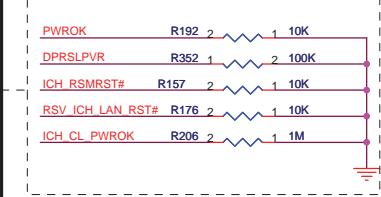
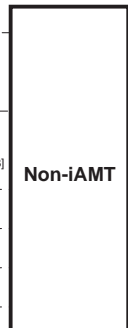
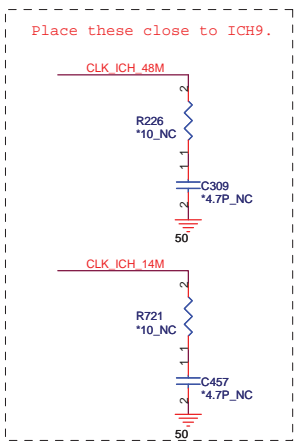
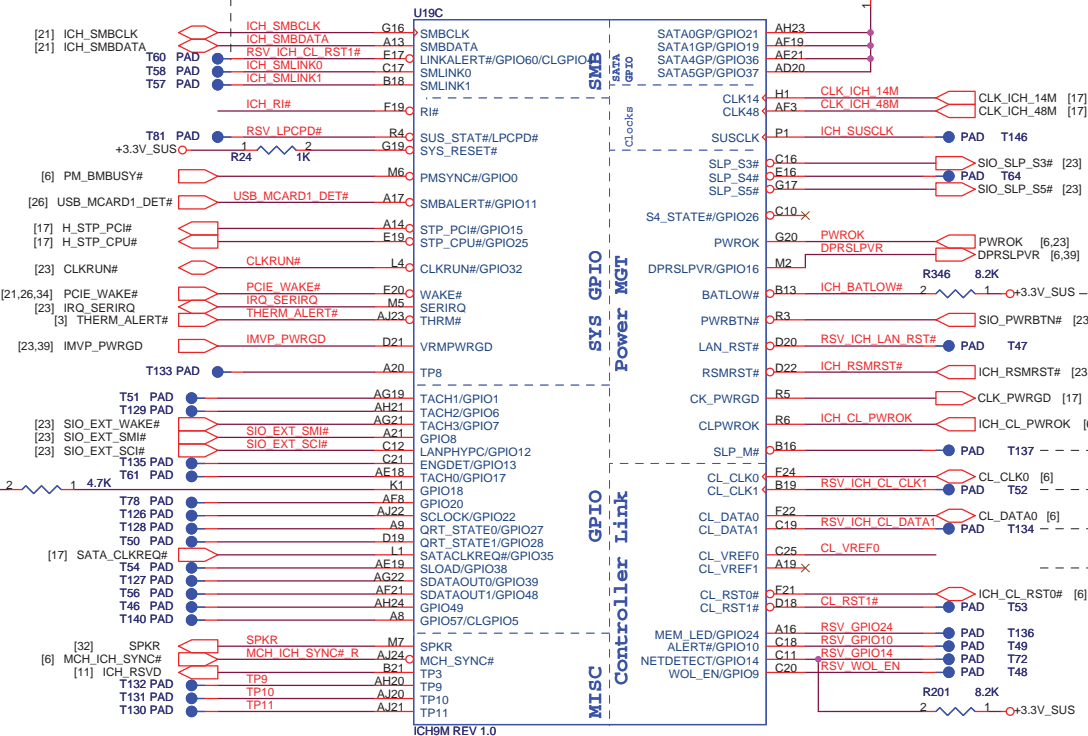
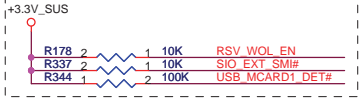
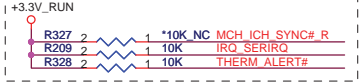
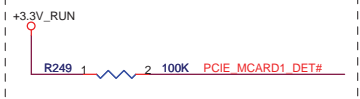
Date: Tuesday, June 02, 2009

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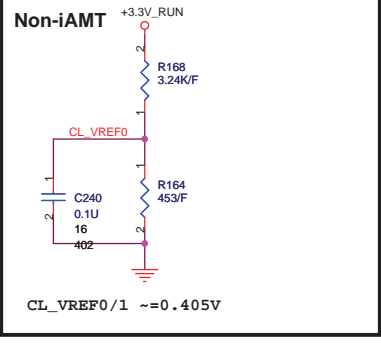
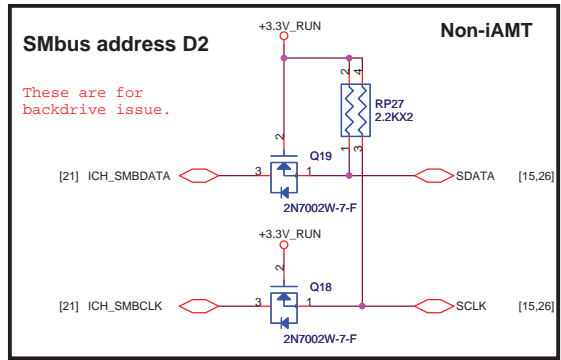
Rev 1A



Option to "Disable" clkrun. Pulling it down will keep the clks running.



No Reboot strap.
SPKR Low = Default, High = No Reboot.

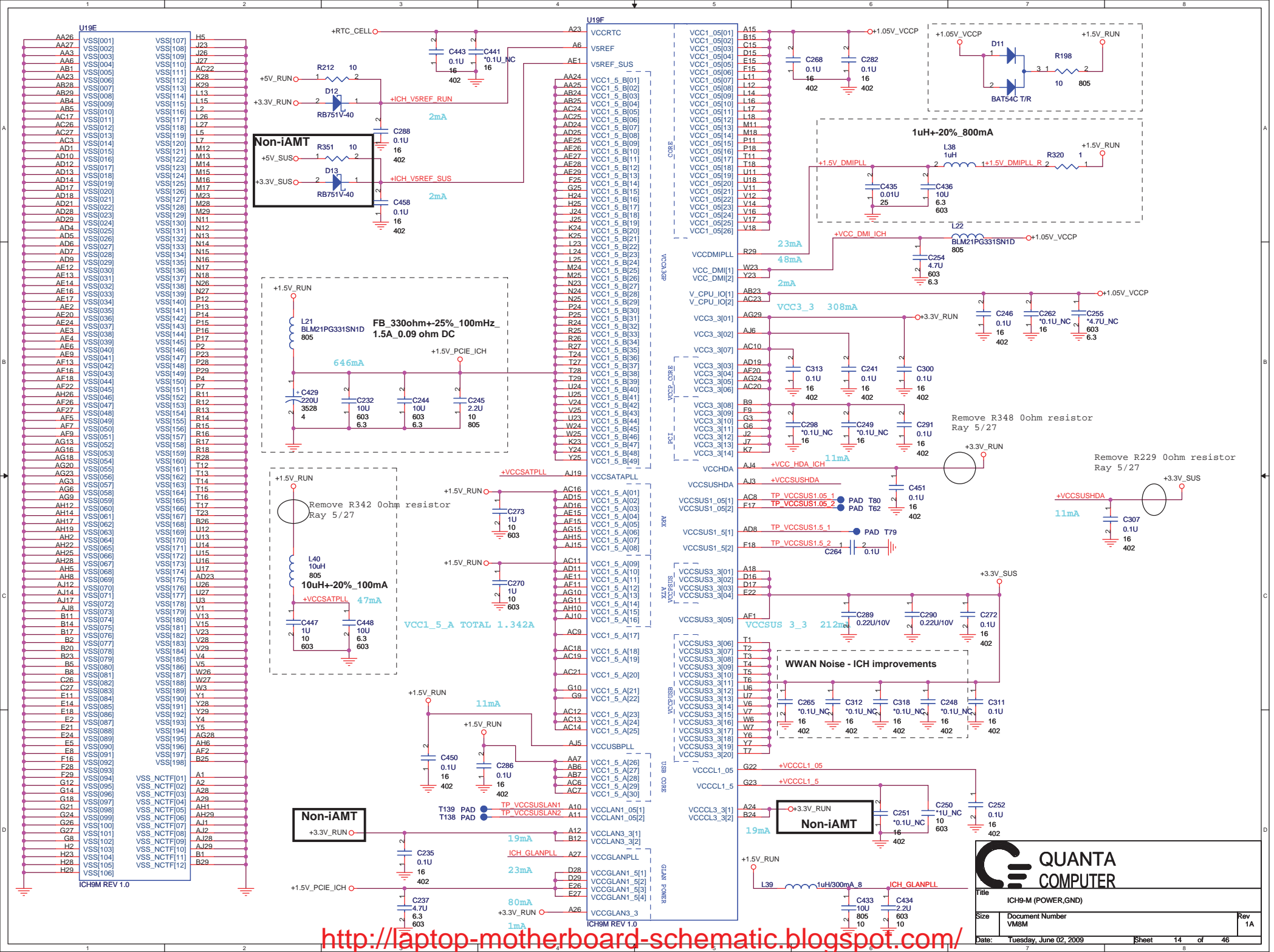


QUANTA COMPUTER

File: ICH9-M (PM,GPIO,SMB,CL)

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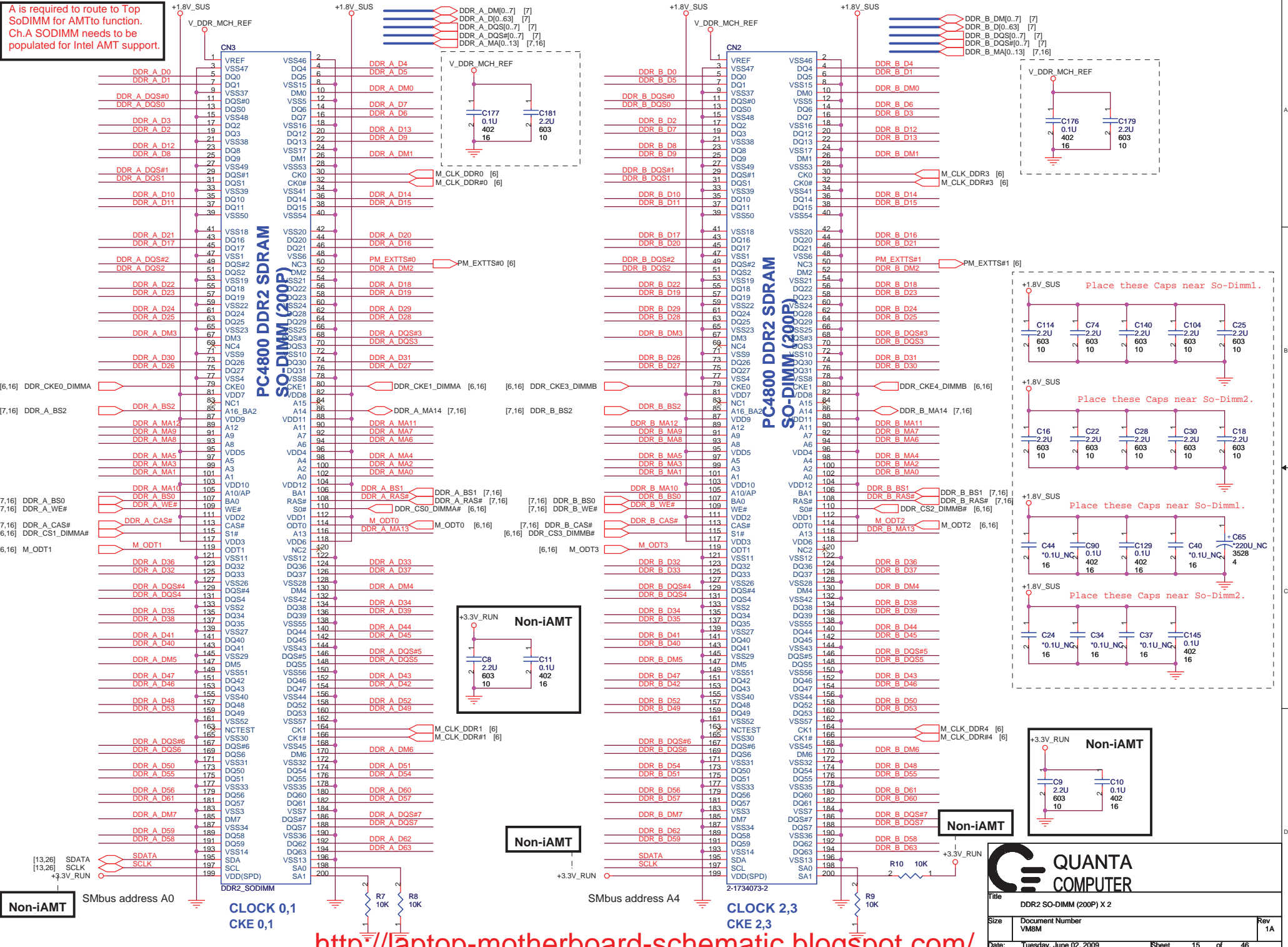
QUANTA COMPUTER

ICH9-M (POWER,GND)

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	VMBM	1A

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A is required to route to Top SoDIMM for AMT to function. Ch.A SODIMM needs to be populated for Intel AMT support.

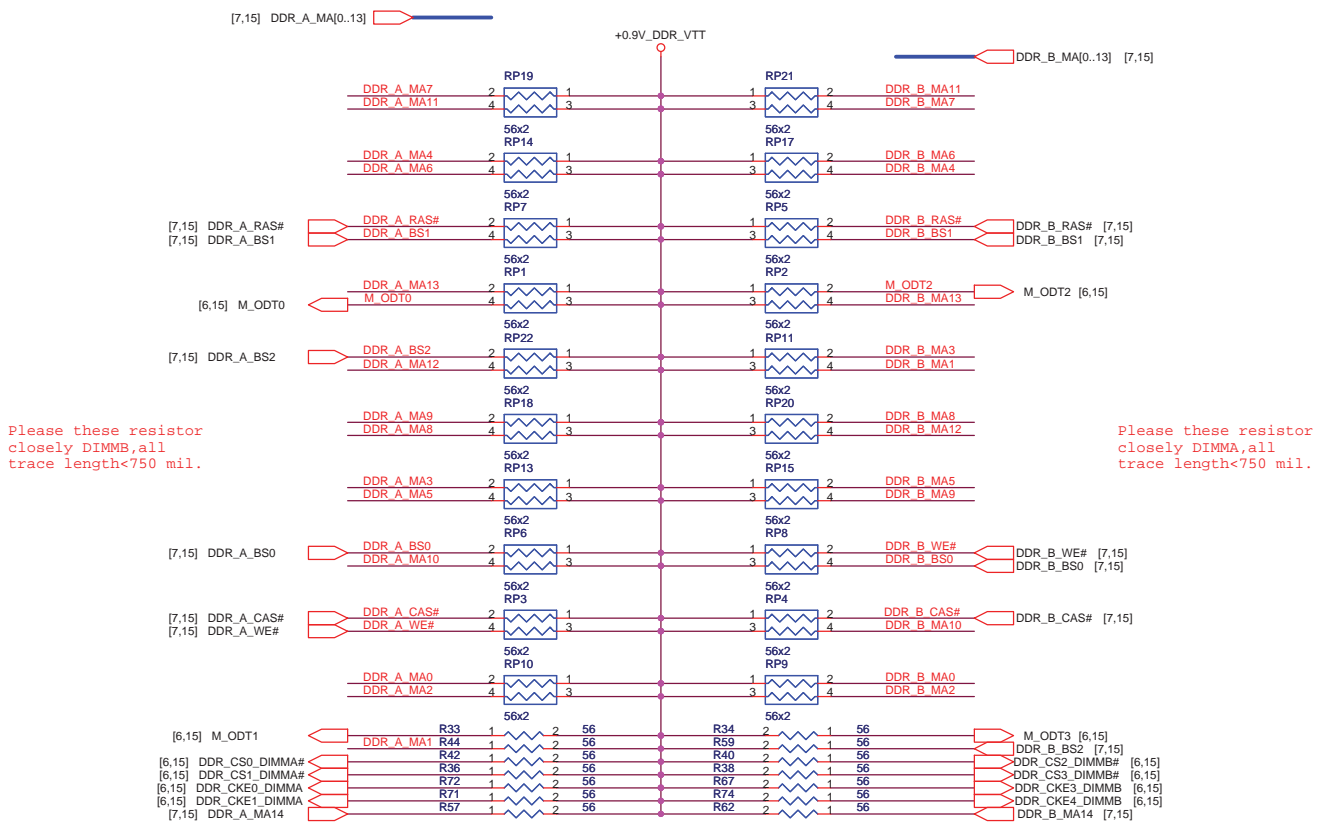
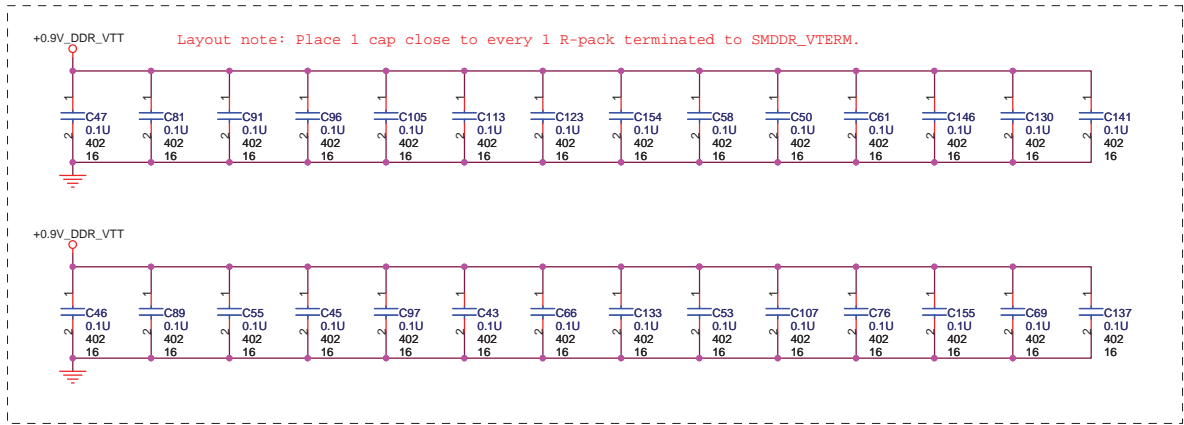


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QUANTA COMPUTER

File: DDR2 SO-DIMM (200P) X 2

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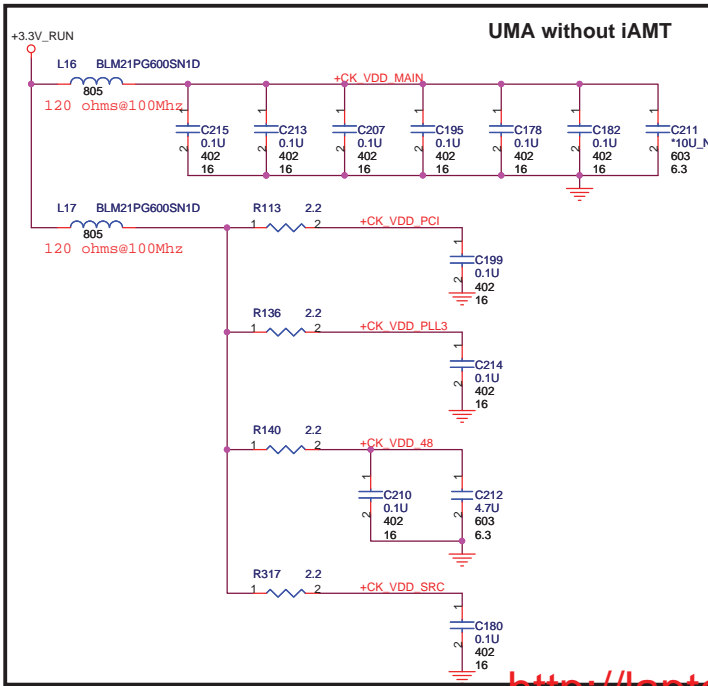
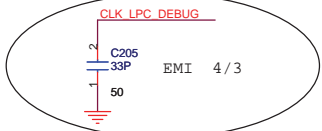
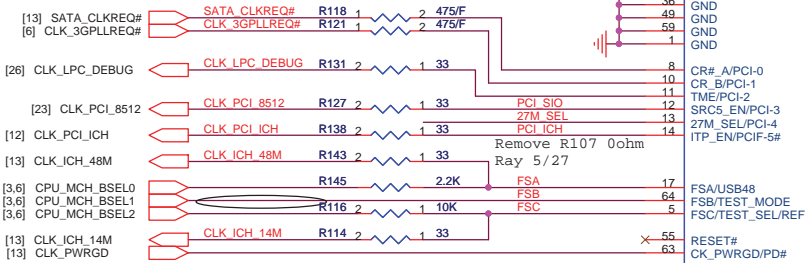
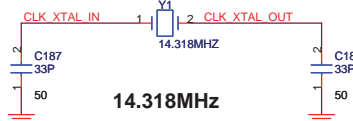
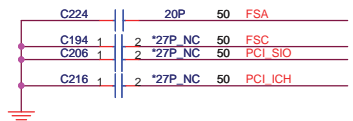
**QUANTA
COMPUTER**

File: **DDR2 RES ARRAY**

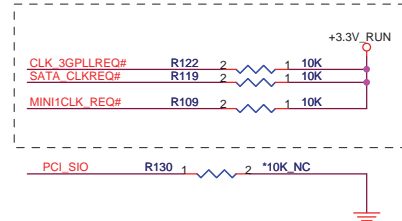
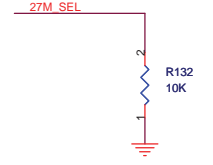
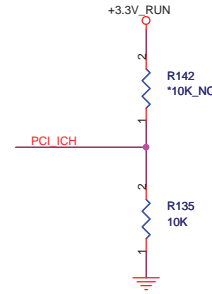
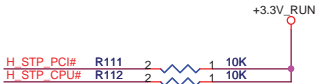
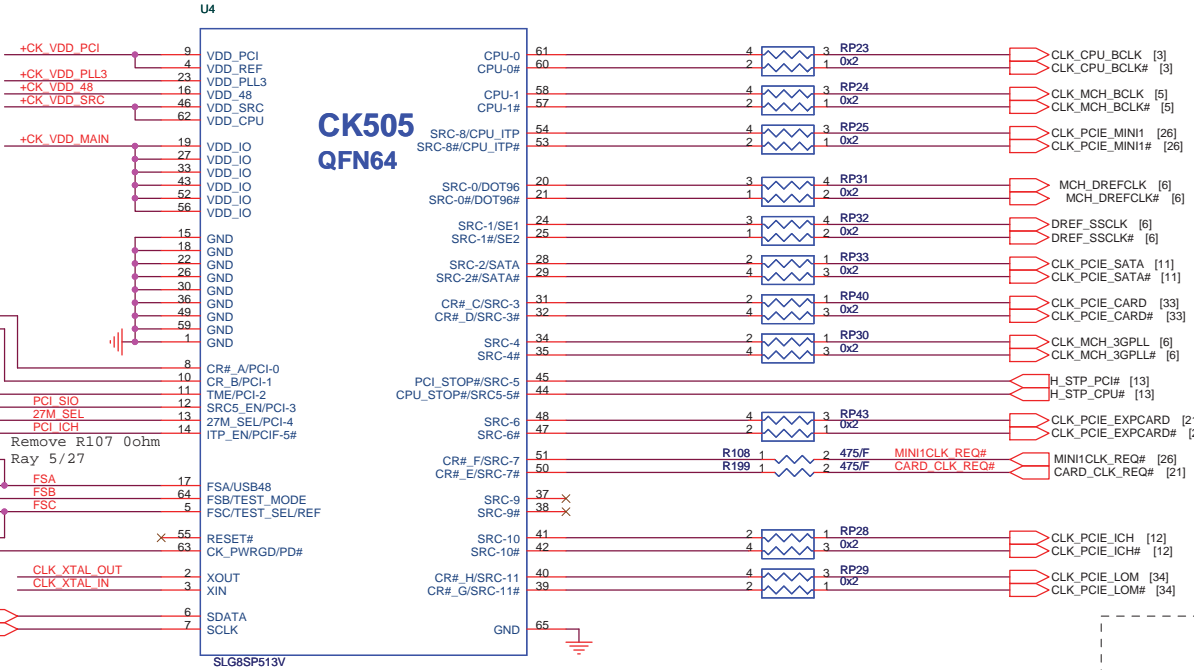
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Add capacitor pads for improving WWAN.



CK505 QFN64



FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	0	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

27M_SEL

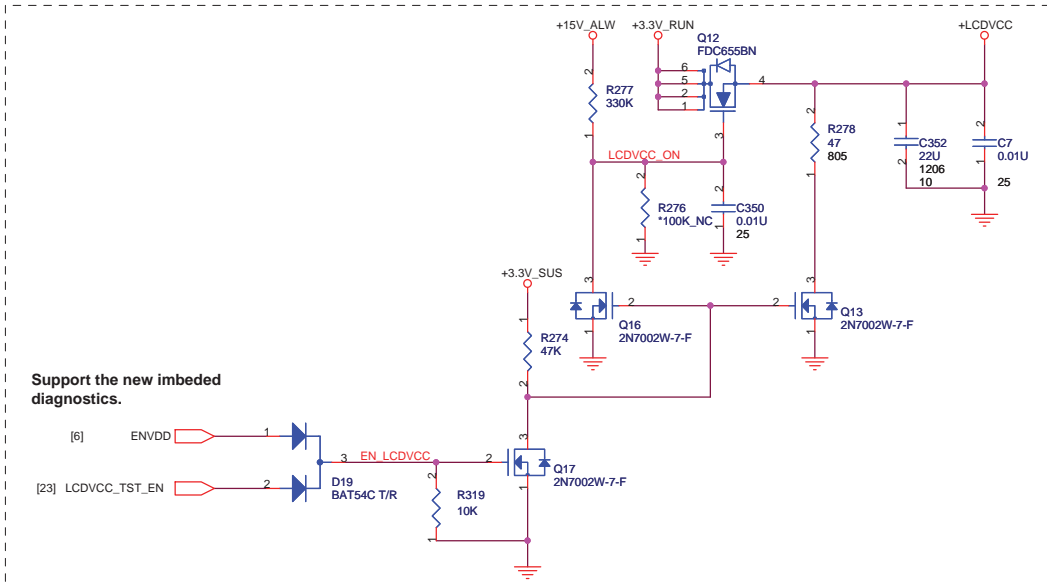
27M_SEL (PIN13)	PIN20	PIN21	PIN24	PIN25
0=UMA	DOT96T	DOT96C	96/100M_T	96/100M_C
1 = Disc. GRFX down	SRCT0	SRCC0	27Mout	27MSSout

QUANTA COMPUTER

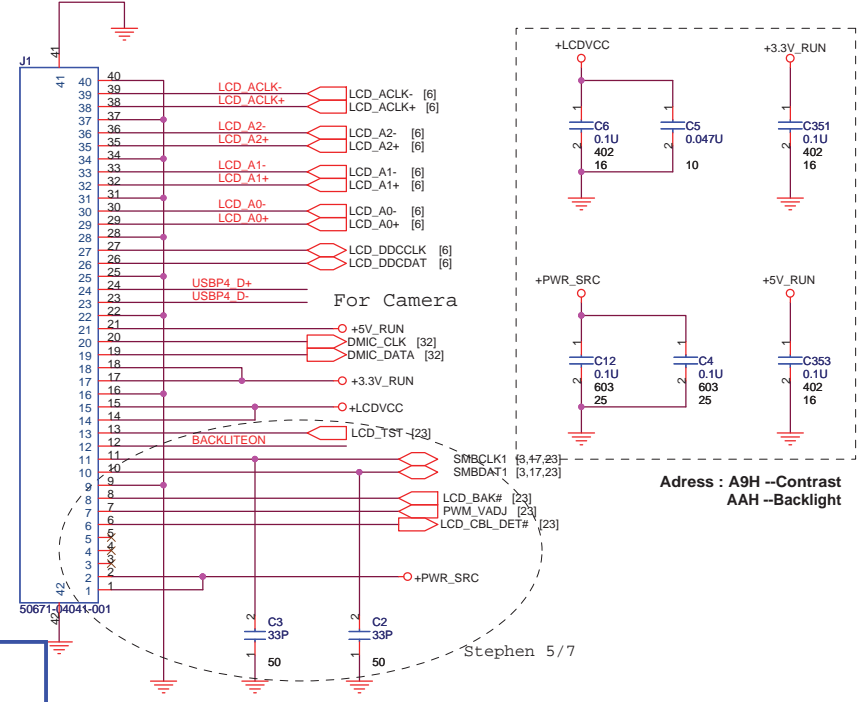
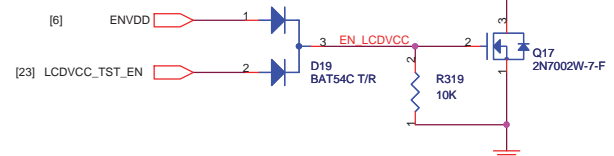
File: CLOCK GENERATOR

Size: Document Number VM8M Rev 1A

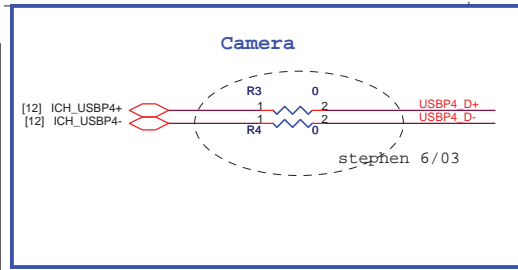
Date: Saturday, June 06, 2009 Sheet 17 of 46



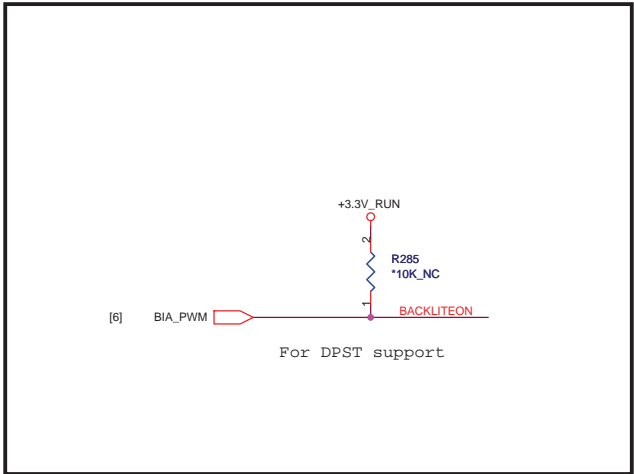
Support the new imbedded diagnostics.



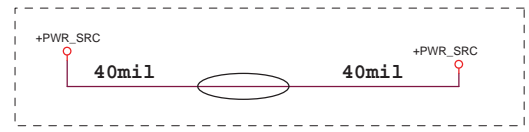
Address : A9H --Contrast
AAH --Backlight



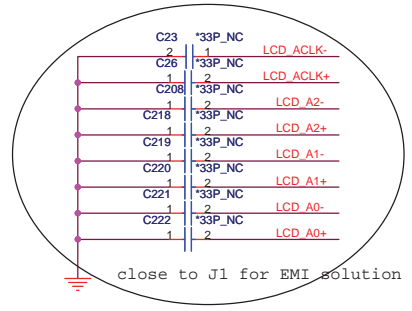
stephen 6/03



For DPST support



Remove R11 0ohm
Ray 6/1

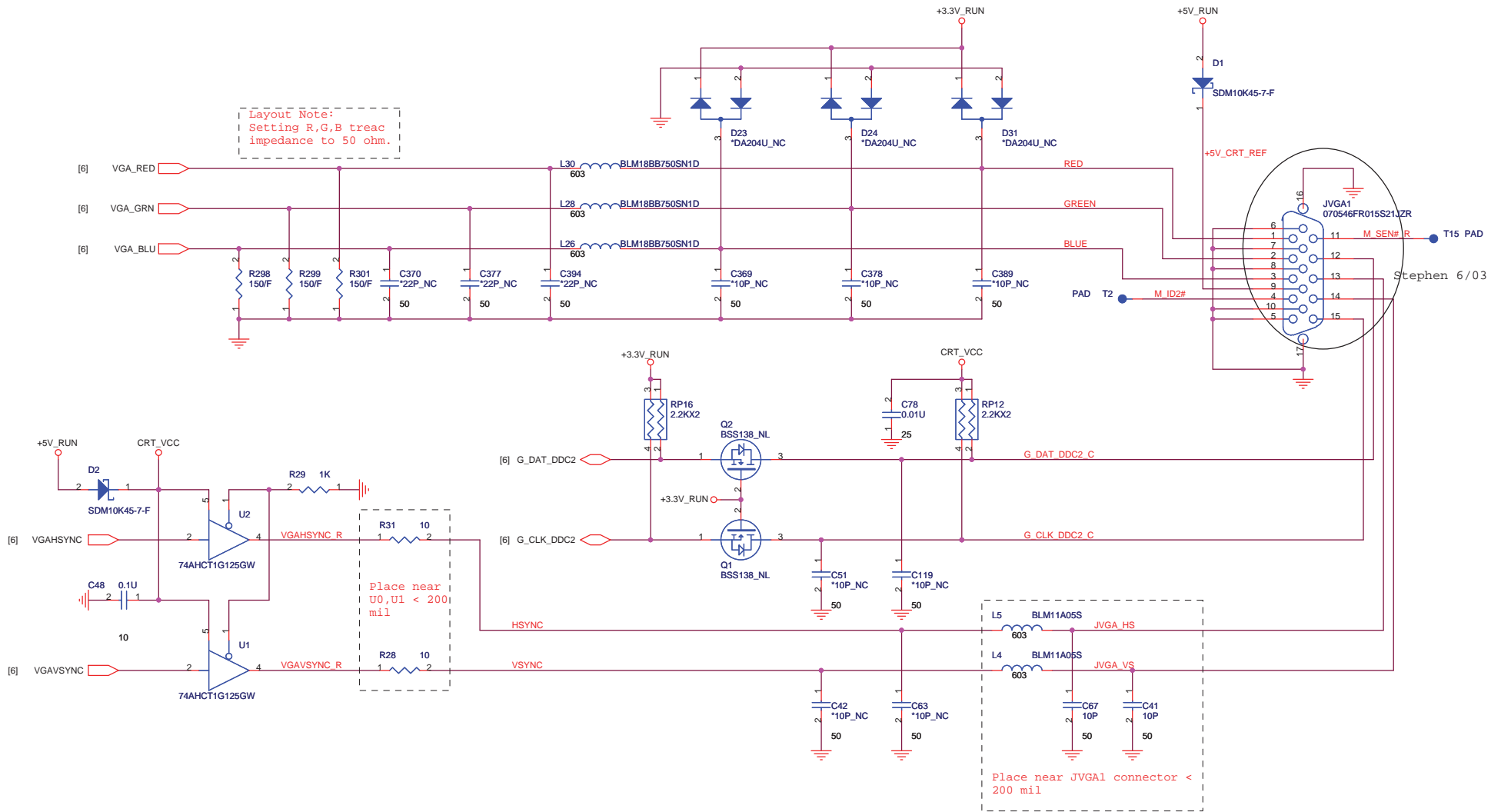



QUANTA COMPUTER


File: LCD CONN & CK-SSCD

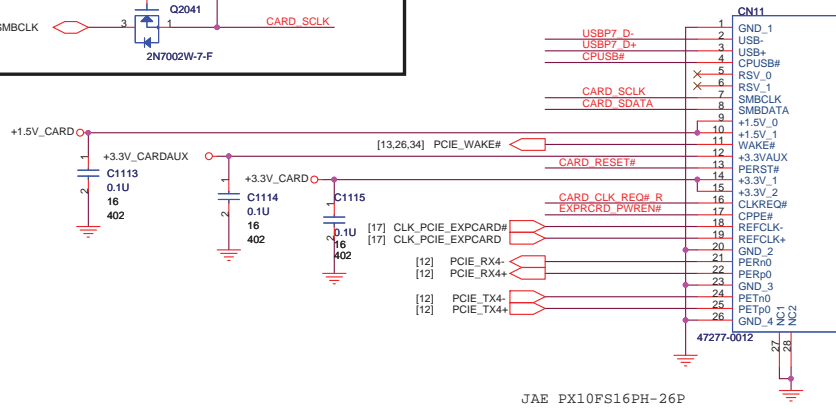
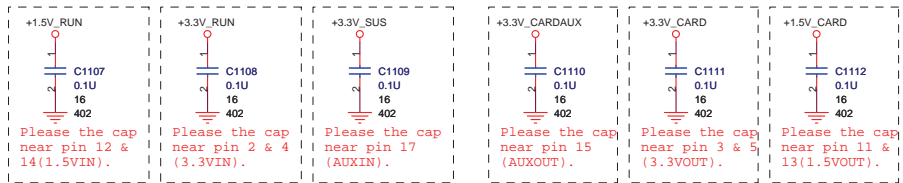
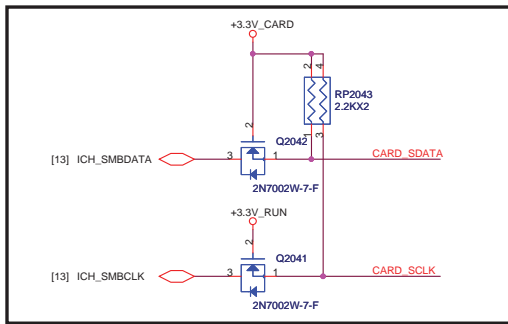
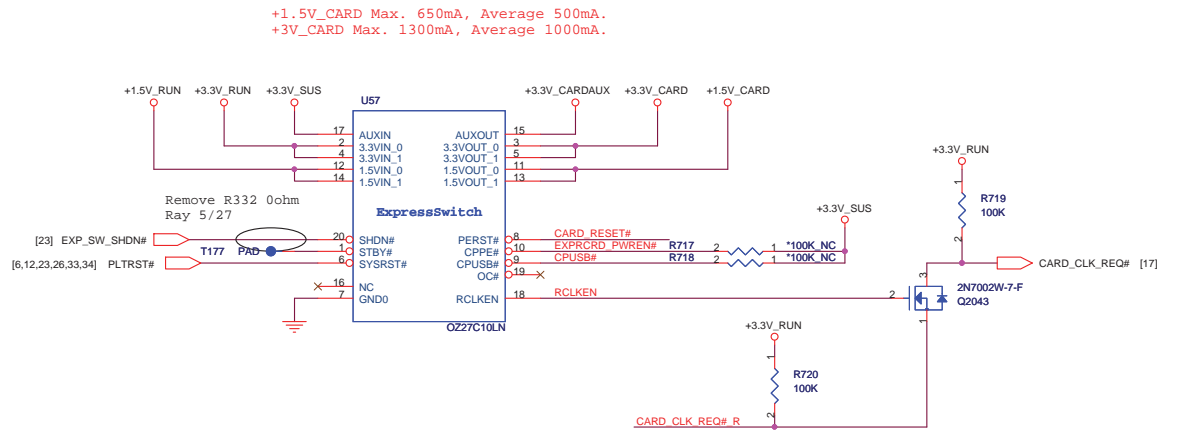
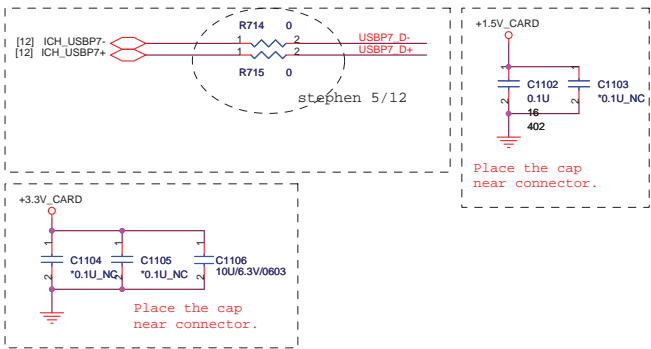
Size: Document Number VMM8 Rev 1A

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Express Card




QUANTA COMPUTER

Title: Express Card

Size: VM8M Document Number: Rev 1A

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Title		black	
Size	Document Number	Rev	
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[29] KSO[0..16]

[29] KSI[0..7]

ITE8502E LQFP-128L

KSO17/GPC5 57
KSO16/GPC3 56
KSO15 55
KSO14 54
KSO13 53
KSO12/SLCT 52
KSO11 51
KSO10 48L
KSO9 45
KSO8 44
KSO7 43
KSO6 42
KSO5 41
KSO4 40
KSO3 39
KSO2 38
KSO1 37
KSO0 36

KSI7 65
KSI6 64
KSI5 63
KSI4 62
KSI3 61
KSI2 60
KSI1 59
KSI0 58

KEYBOARD

ADC/DAC

PWM

LPC

IR/UART

SMBUS

PS/2

GPIO

ADC0/GPI0 66
ADC1/GPI1 67
ADC2/GPI2 68
ADC3/GPI3 69
ADC4/GPI4 70
ADC5/GPI5 71
ADC6/GPI6 72
ADC7/GPI7 73

DAC0/GPJ0 76
DAC1/GPJ1 77
DAC2/GPJ2 78
DAC3/GPJ3 79
DAC4/GPJ4 80
DAC5/GPJ5 81

PWM0/GPA0 24
PWM1/GPA1 25
PWM2/GPA2 26
PWM3/GPA3 27
PWM4/GPA4 28
PWM5/GPA5 29
PWM6/GPA6 30
PWM7/GPA7 31

TACH0/GPD6 47
TACH1/GPD7 48

TMRI0/WUI2/GPC4 120
TMRI1/WUI3/GPC6 124

RXD/GPB0 108
TXD/GPB1 109
CRX0/GPC0 123
CTX0/GPB2 94
CRX1/GPH1/D1 94
CTX1/GPH2/D2 95

FLFRAME/GPG2/LF 100
FLRST/GPG0/TM 106
FLAD3/GPG6 104
FLAD2/SO 103
FLAD1/SI 102
FLAD0/SCE 101
FLAD3/GPG6 105

EGAD/GPE1 82
EGCS/GPE2 83
EGCLK/GPE3 84

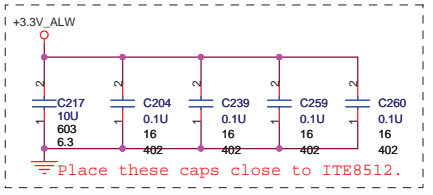
GPH3/ID3 96
GPH4/ID4 97
GPH5/ID5 98
GPH6/ID6 99
GPG1/ID7 107

R1/WUI0/GPD0 18
R2/WUI1/GPD1 21
WUI5/GPE5 35

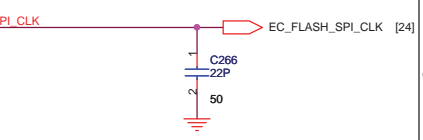
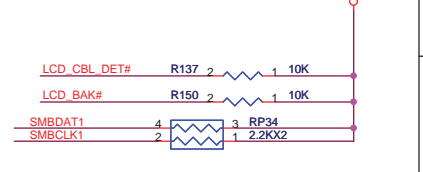
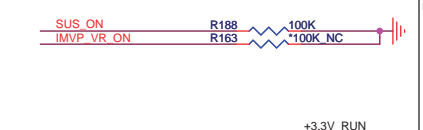
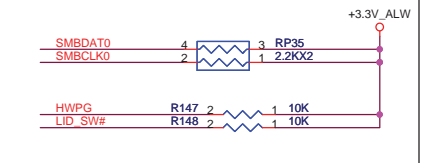
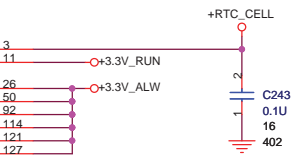
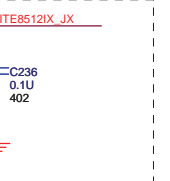
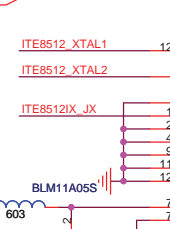
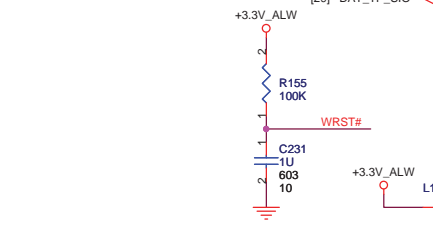
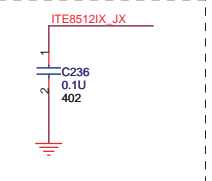
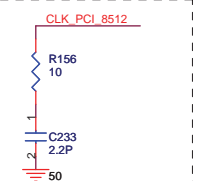
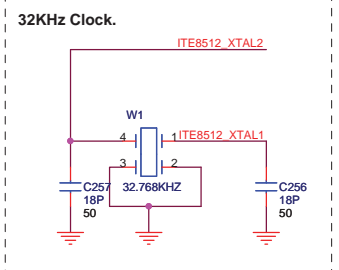
RING/PWRFAIL/LPCRST/GPB7 112

PWRSW/GPE4 125
GINT/GPD5 33

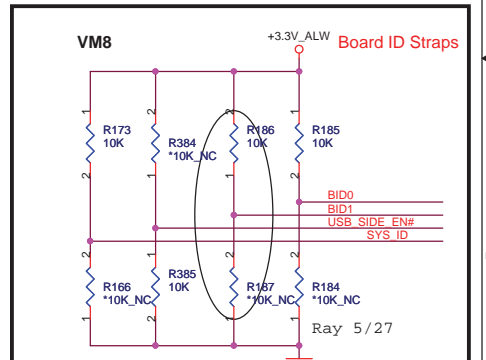
ITE8502E
LQFP128-16X16-4-FX2



Charge and BAT
CLK, LCD and Thermal
G_Thermal



Place these RC close to ITE8512



VM8 Board ID Straps

BOM
Sys_ID
VM8 = R173
VM9 = R166

USB_SIDE_EN#
1 = Discrete Gfx.
0 = UMA.

BID0	BID1	VM8x/VM9x
0	0	SSI (X00)
0	1	PT (X01)
1	0	ST (X02)
1	1	Q1 (X00)
0	0	(A01)

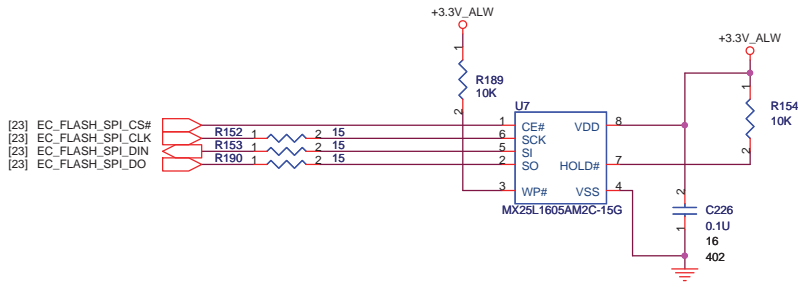
QUANTA COMPUTER

File: Ultra I/O ITE8502

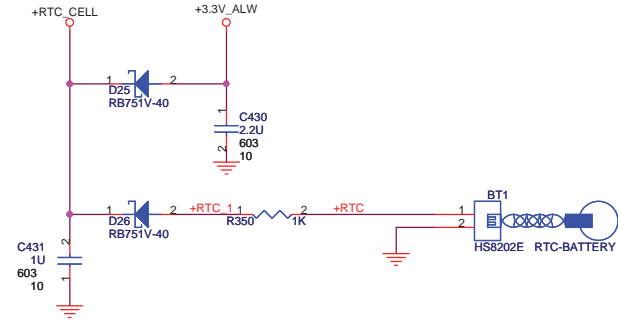
Size: Document Number VMBM Rev 1A


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16Mbit (2M Byte), SPI




RTC BATTERY



 QUANTA COMPUTER		
File: Ultra I/O Controller ECE5028		
Size: VM8M	Document Number: VM8M	Rev: 1A
Date: Tuesday, June 02, 2009	Sheet: 24	of 46



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		QUANTA COMPUTER	
Title		Black	
Size	Document Number	Rev	
	VMBM	1A	
Date:	Tuesday, June 02, 2009	Sheet	25 of 46

External USB PORT hookup reference. Your design may need more or less external ports and may be mapped differently



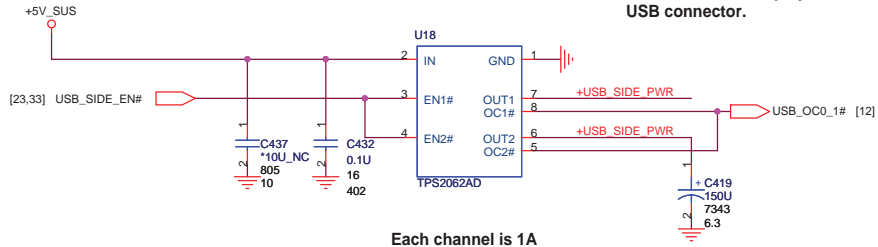
stephen 5/12



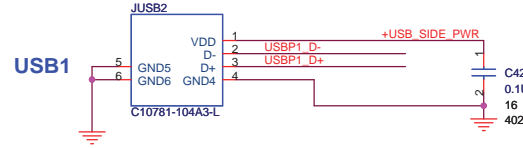
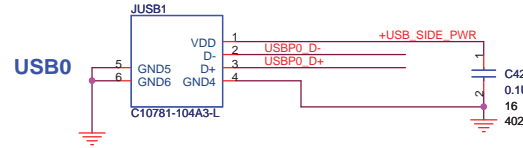
stephen 5/12

Platforms should put in PADS for the USB chokes if they have the room. Chokes should be NOPOP.

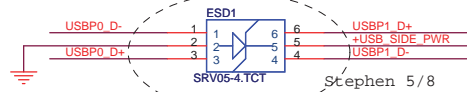
Place one 150uF cap by each USB connector.



Each channel is 1A

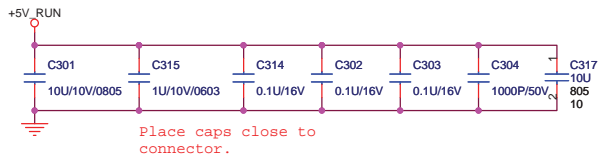
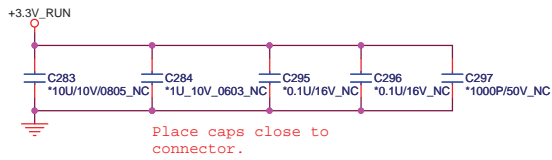
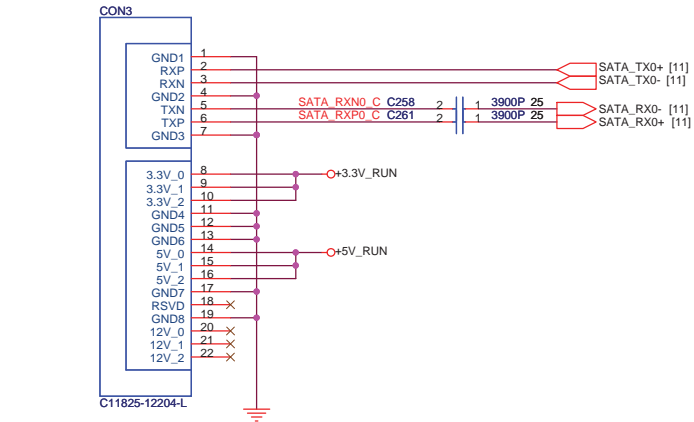


Place ESD diodes as close as USB connector.

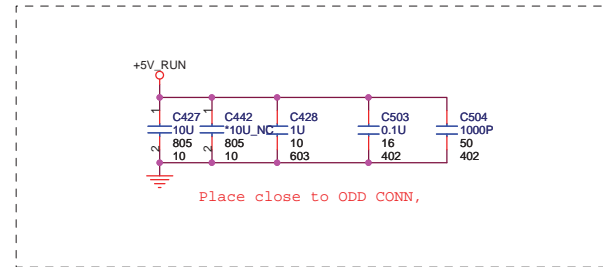
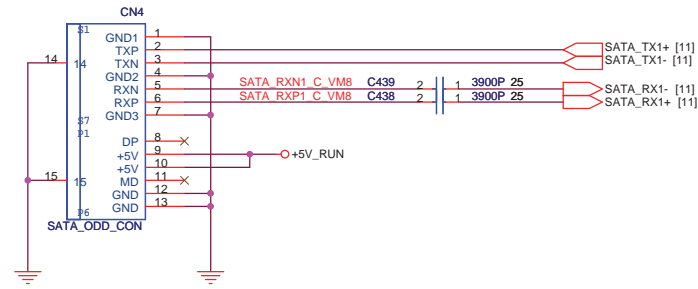



Stephen 5/8

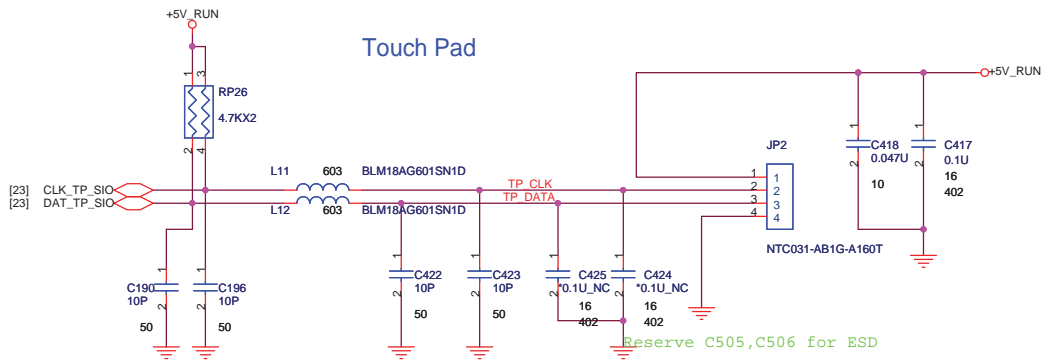
SATA HDD Connector.



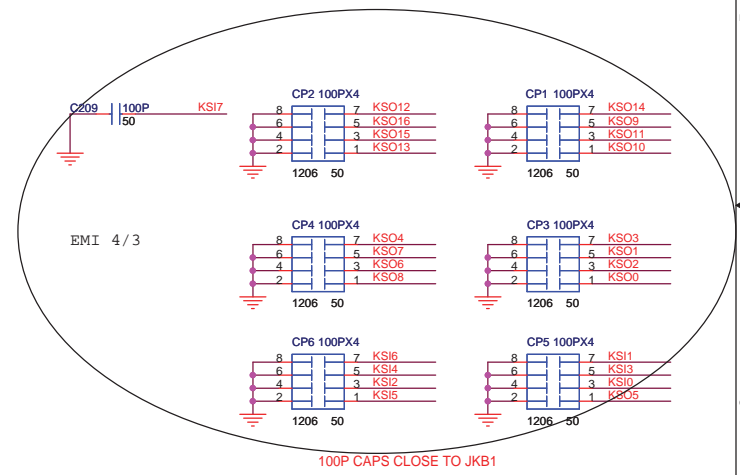
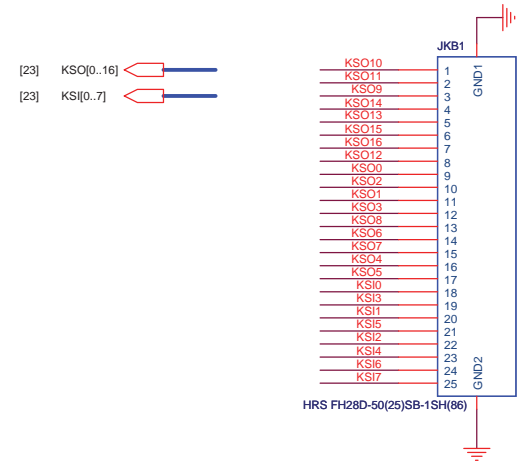
SATA ODD Connector.



 QUANTA COMPUTER		
File: SATA (HDD&CD_ROM)		
Size: VMM	Document Number: VMM	Rev: 1A
Date: Tuesday, June 02, 2009	Sheet: 28	of 46



KEYBOARD CONNECTOR



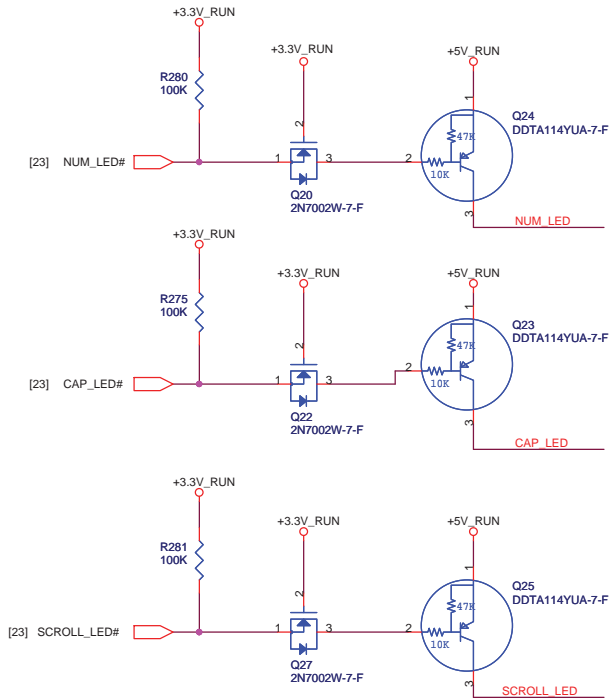
QUANTA COMPUTER

File: TOUCH PAD, BULE TOOTH & FIR

Size: Document Number VMMB Rev 1A

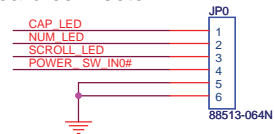
Date: Tuesday, June 02, 2009 Sheet 29 of 46

Keyboard LED

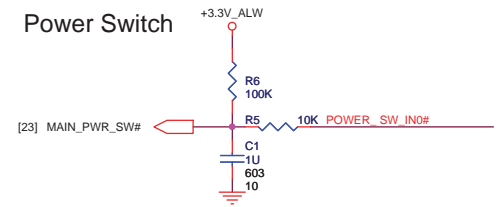


Dash board connector

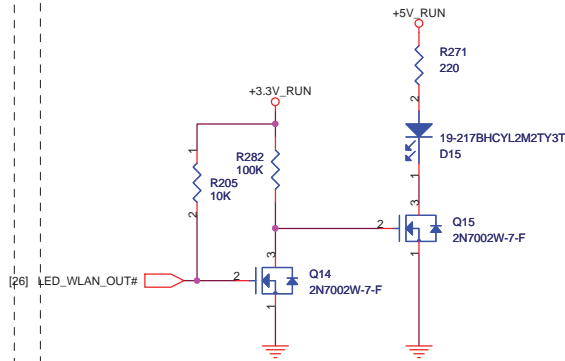
Keyboard LED



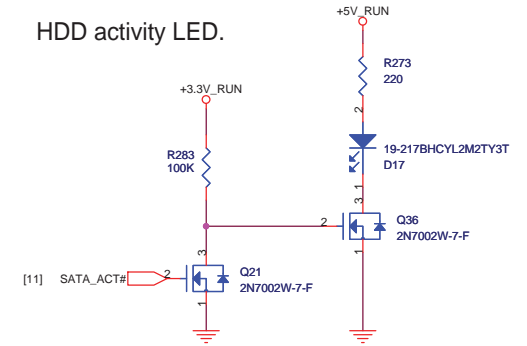
Power Switch



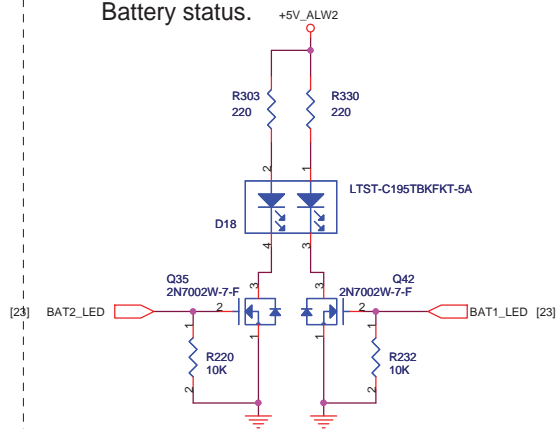
WLAN



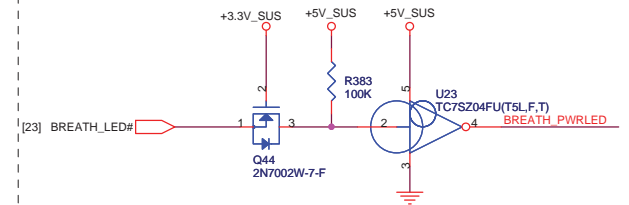
HDD activity LED.



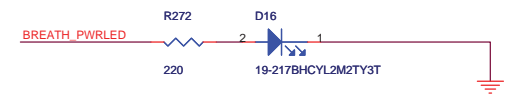
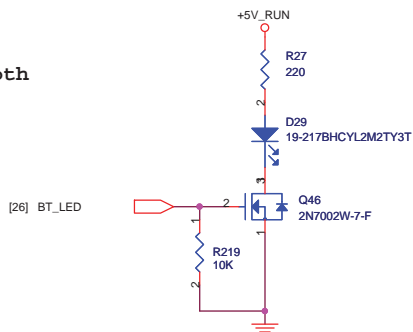
Battery status.



Power & Suspend.



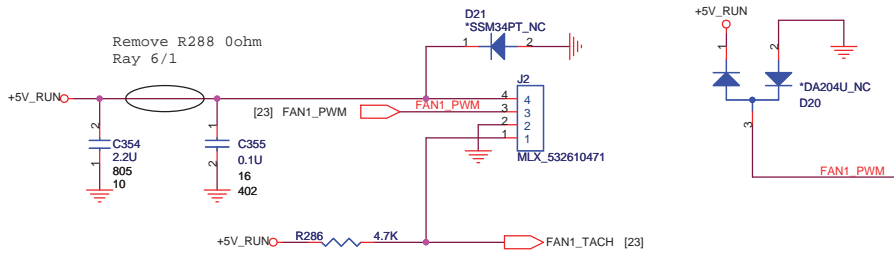
Bluetooth




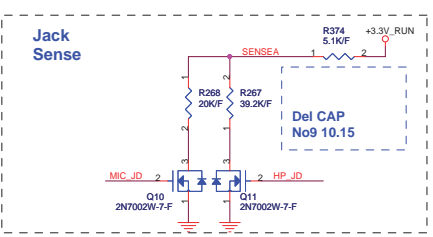
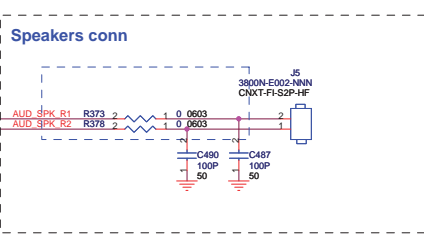
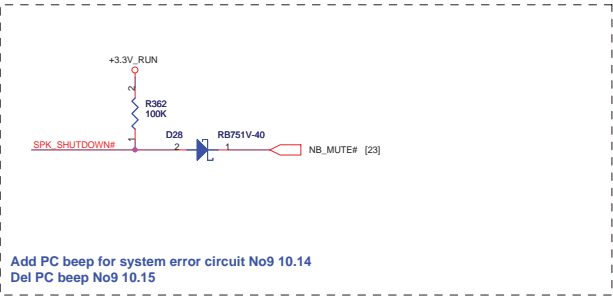
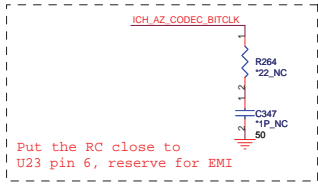
File SWITCH, KEYBOARD & LED

Size Document Number VMMB Rev 1A

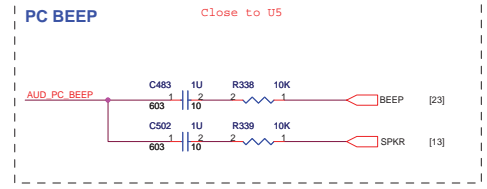
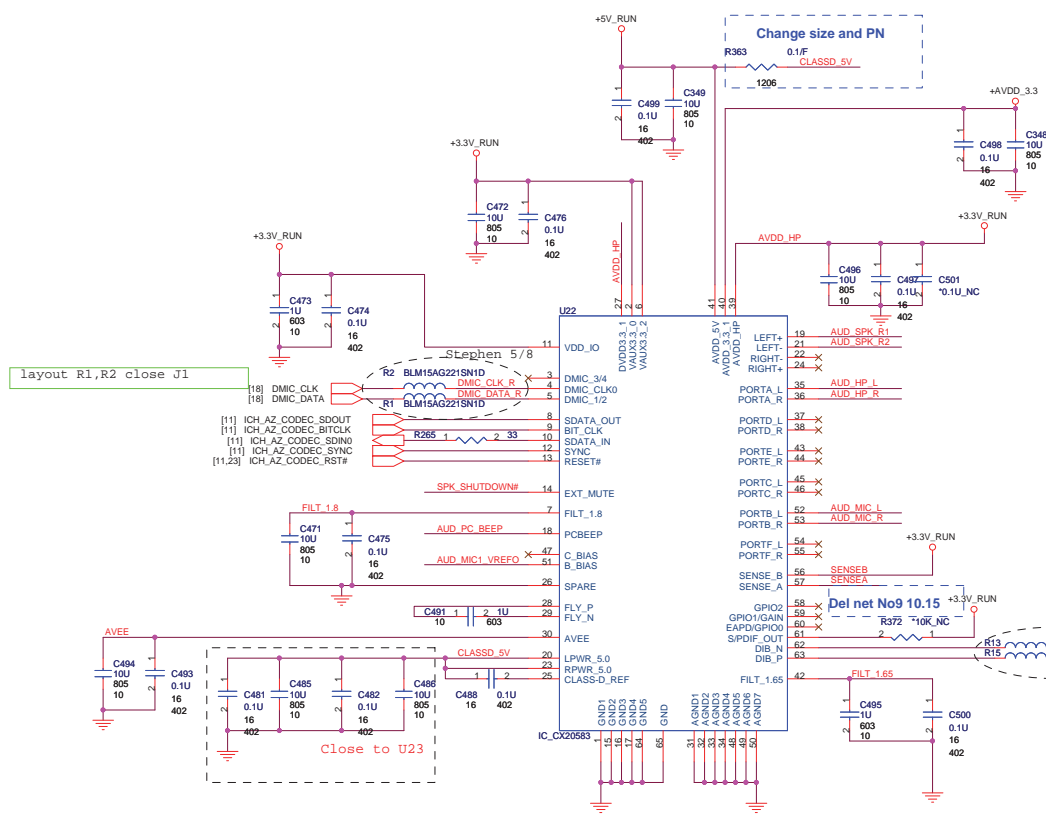
Date: Tuesday, June 02, 2009 Sheet 30 of 46



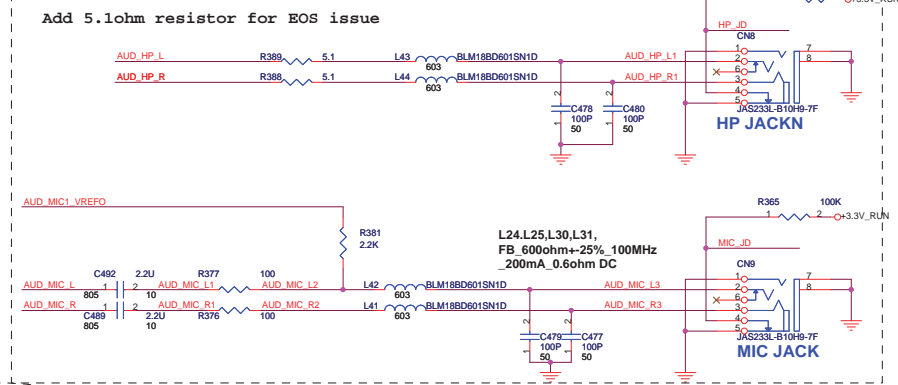
 QUANTA COMPUTER		
Title FAN & THERMAL		
Size	Document Number VMBM	Rev 1A
Date:	Tuesday, June 02, 2009	Sheet 31 of 46



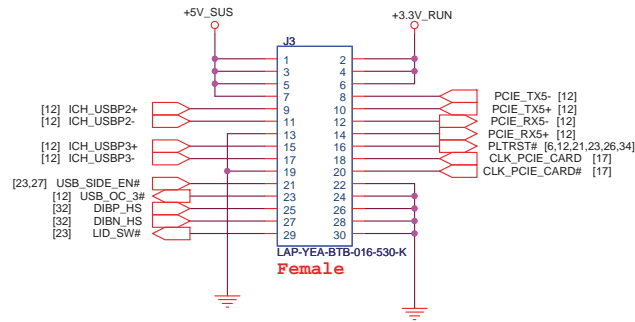
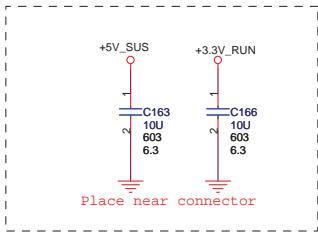
AUDIO CODEC




Audio Jacks

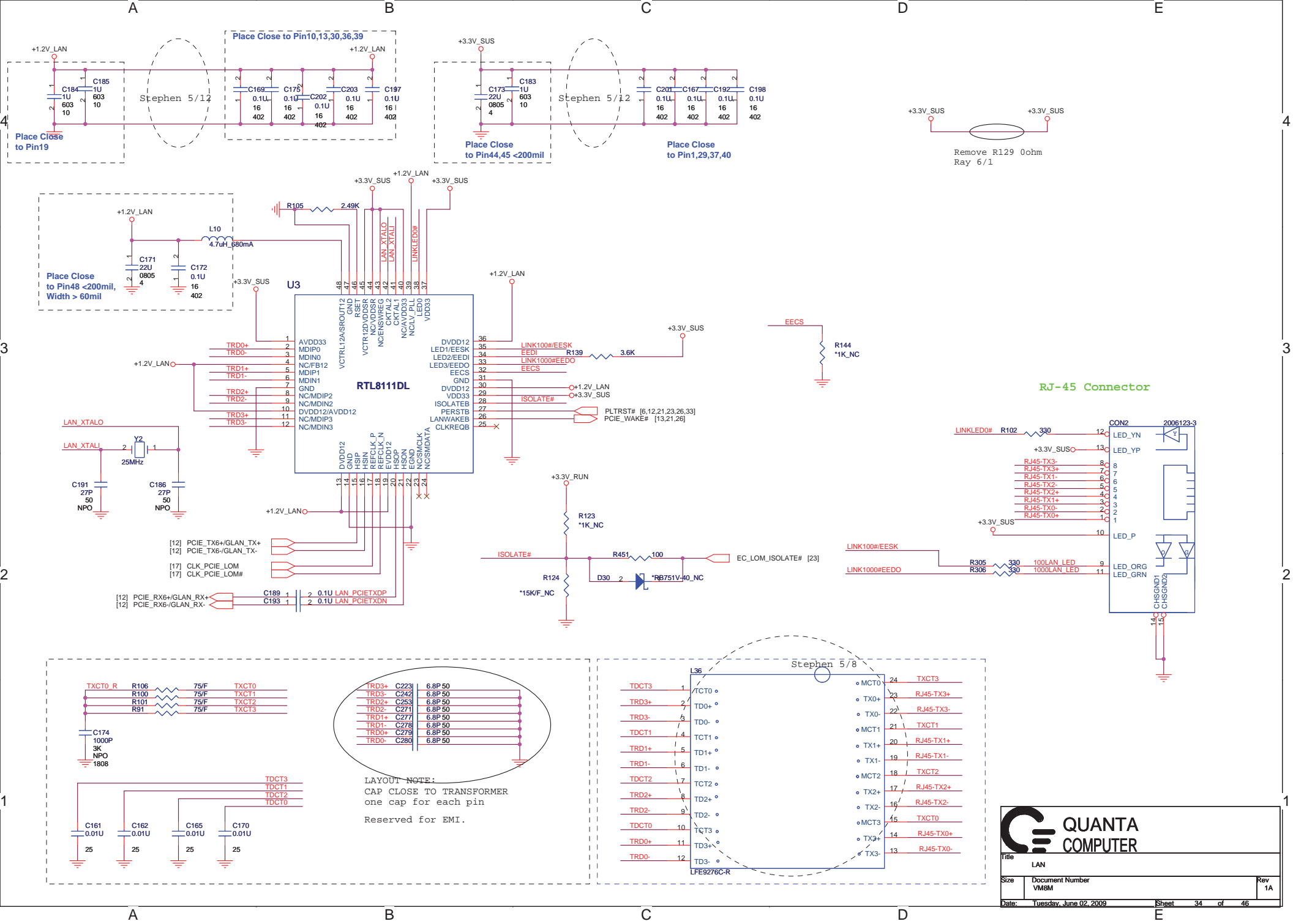


Title		
Size	Document Number VM8M	Rev 1A
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Board to board connector (Modem Card + Cardreader+1394a+ 2 USB Port)

 QUANTA COMPUTER		
Title		
Size	Document Number	Rev
	VM8M	1A
Date:	Tuesday, June 02, 2009	Sheet 33 of 46



QUANTA COMPUTER


Title: LAN

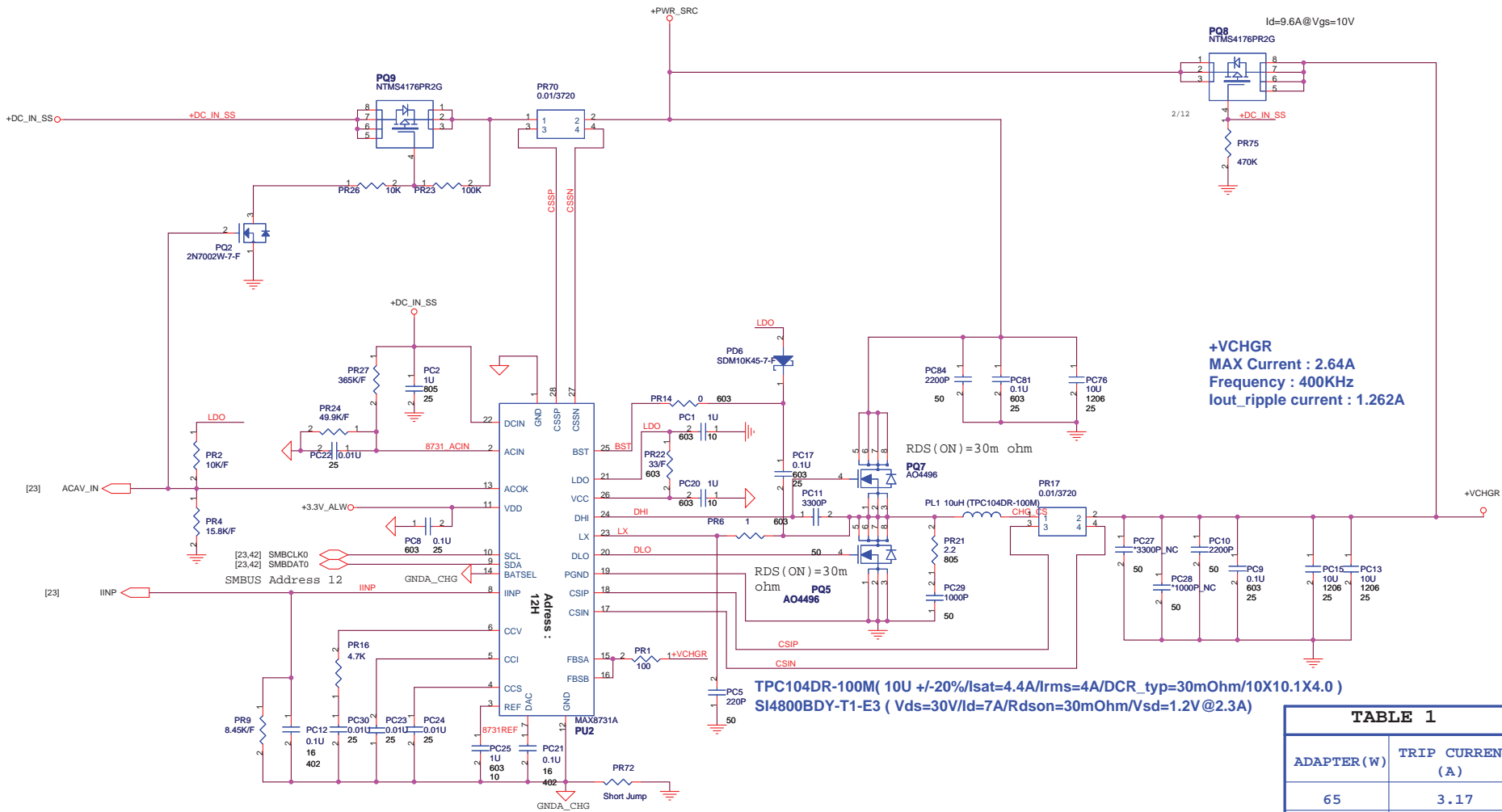
Size: Document Number VM8M Rev 1A


Date: Tuesday, June 02, 2009 Sheet 34 of 46



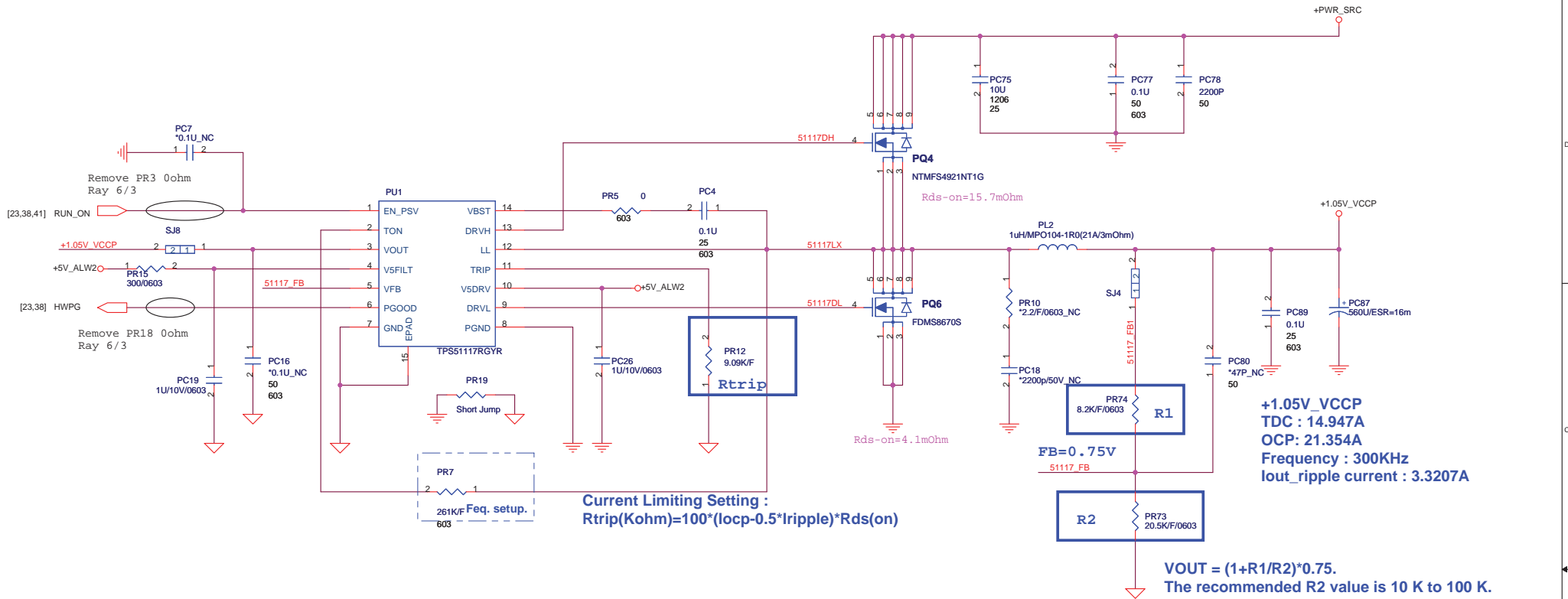
<http://laptop-motherboard-schematic.blogspot.com/>

		QUANTA COMPUTER
Title: System Reset Circuit		
Size:	Document Number: VMBM	Rev: 1A
Date:	Tuesday, June 02, 2009	Sheet 35 of 46

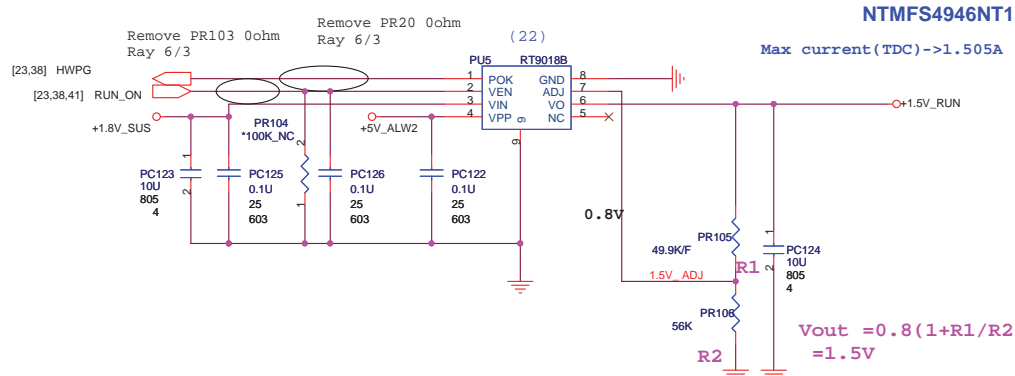



QUANTA COMPUTER

Title: Charger (MAX8731A)
 Size: VM8M
 Date: Tuesday, June 02, 2009
 Sheet: 36 of 46
 Rev: 1A

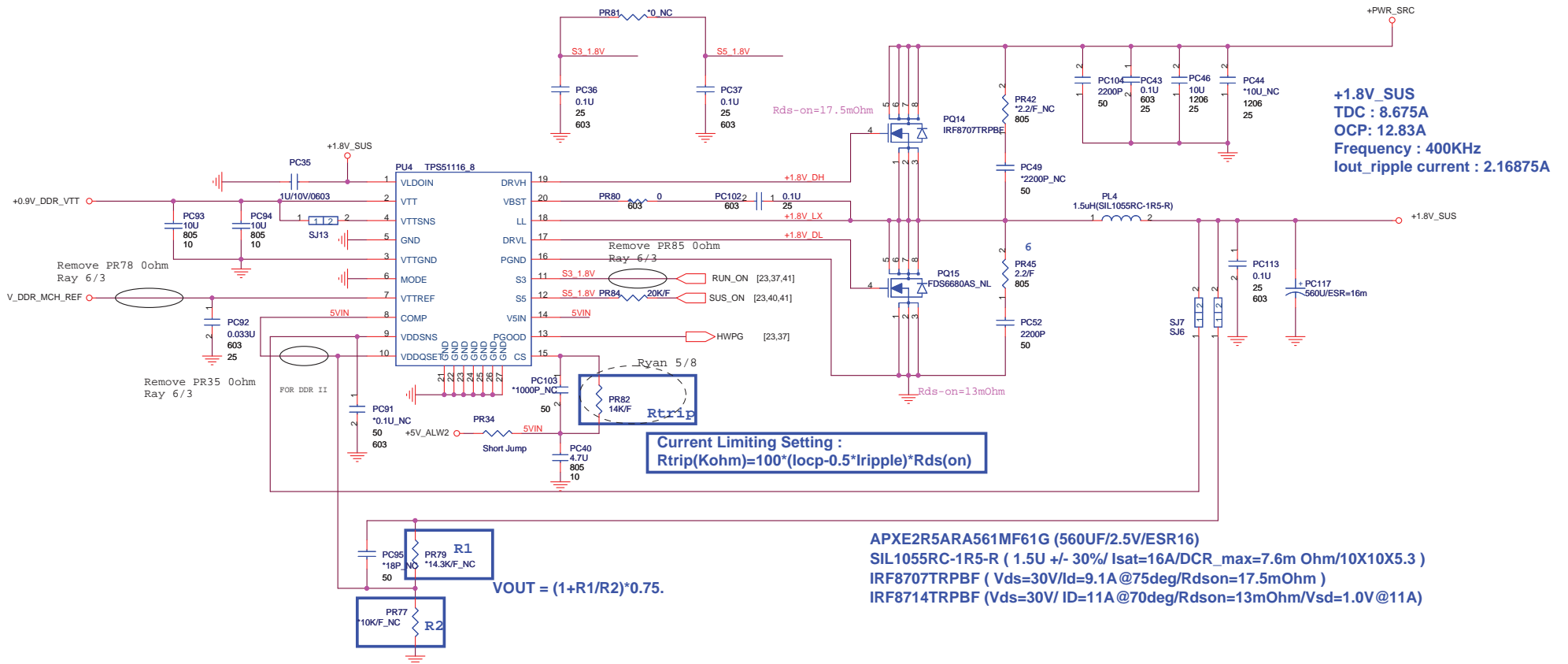


APXE2R5ARA561MF61G (560UF/2.5V/ESR16)
 MPO104-1R0 (1.0U +/- 20% / Isat=30A/DCR_max=3m Ohm/11.5X10X4)
 NTMFS4921NT1G (Vds=30V/Id=10.2A@85deg/Rdson=10.5mOhm)
 NTMFS4946NT1G (Vds=30V/ ID=14.6A@85deg/Rdson=5.1mOhm/Vsd=1.0V@30A)

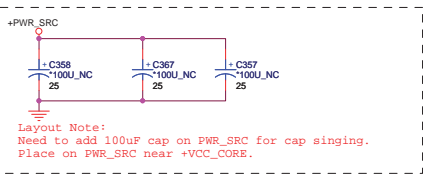


QUANTA COMPUTER

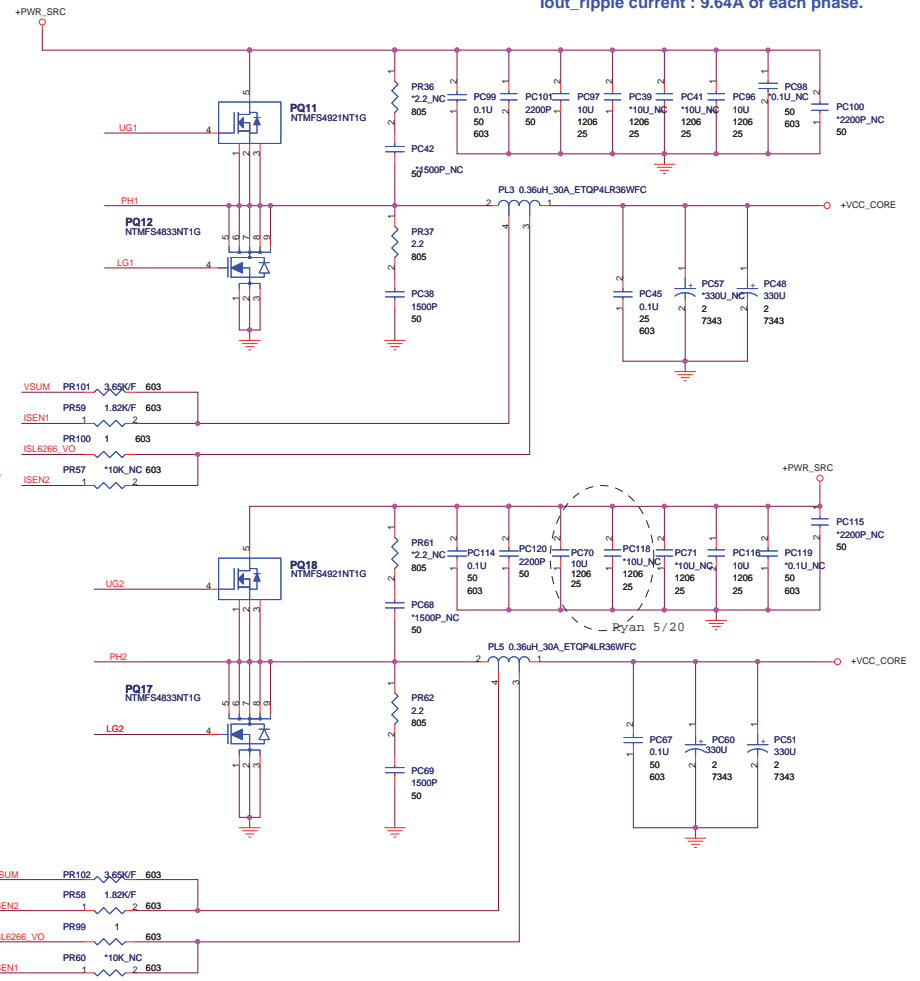
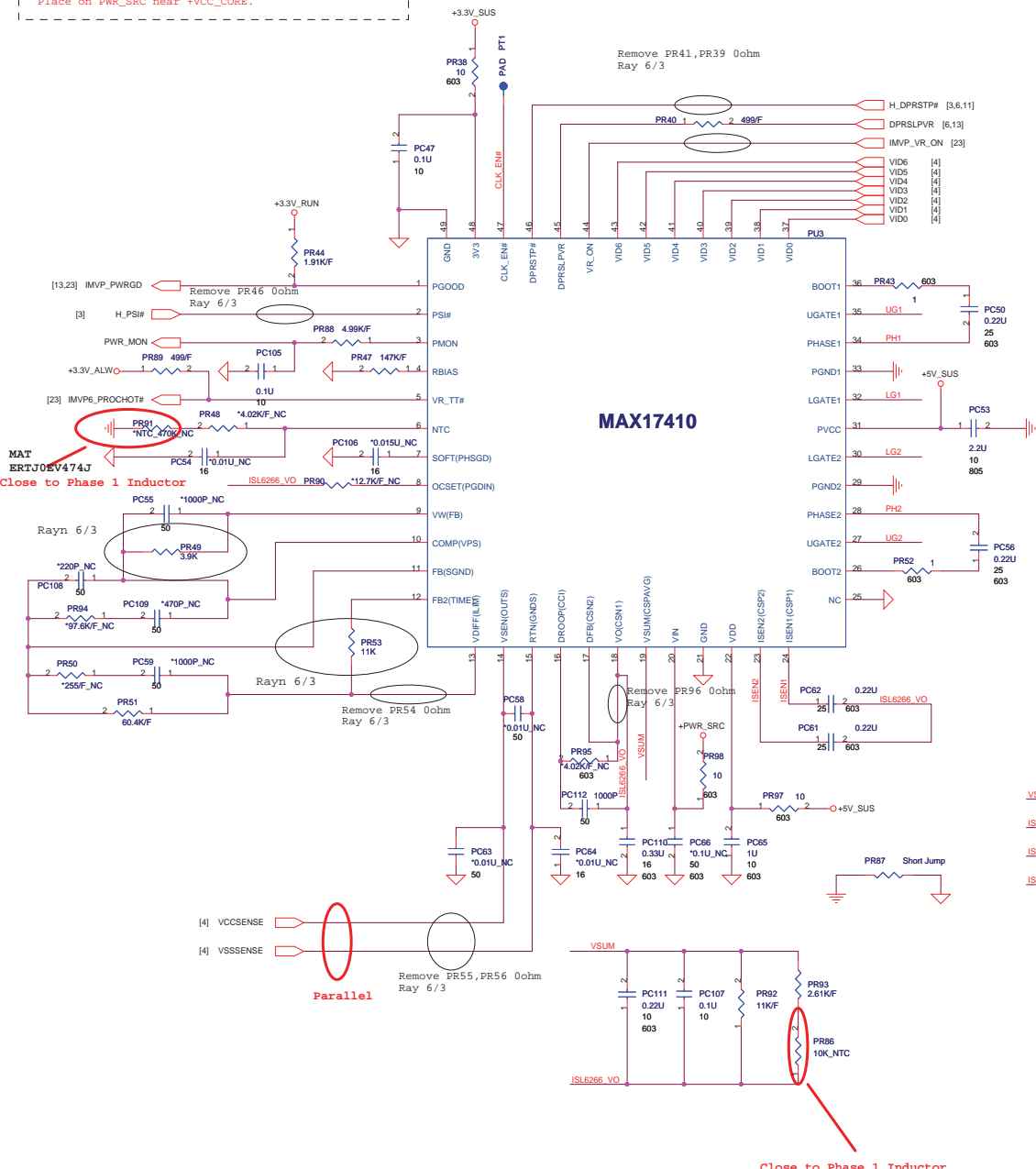
File: 1.05_VCCP & 1.5V_RUN(TPS5117)		
Size	Document Number VM8M	Rev 1A
Date:	Wednesday, June 03, 2009	Sheet 37 of 46



<http://laptop-motherboard-schematic.blogspot.com/>



+VCC_CORE
TDC : 35A
MAX:47A
Frequency : 300KHz
Iout_ripple current : 9.64A of each phase.



D6	D5	D4	D3	D2	D1	D0	Output
0	0	0	0	0	0	0	1.500V
0	0	0	0	0	0	1	1.4875
0	0	0	0	0	1	0	1.4375
0	0	0	0	1	1	1	1.4125
0	0	0	1	0	0	0	1.4000
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	1	0	0	0	0	0	1.0000
0	1	0	0	1	0	0	0.9625
0	1	1	0	0	0	0	0.7500
1	0	0	0	0	0	0	0.6500
1	0	0	0	0	0	1	0.5000
1	1	0	0	0	0	0	0.3000

ETQP4LR36WFC (0.36u +/- 20%/ Isat=24A/DCR_max=1.1m Ohm/11.5X10X4)
NTMFS4921NT1G (Vds=30V/Id=10.2A @85deg/Rdson=10.5mOhm)
NTMFS4946NT1G (Vds=30V/ ID=14.6A @85deg/Rdson=5.1mOhm/Vsd=1.0V @30A)
EEFSX0D331YR (330UF/2V/ESR9)

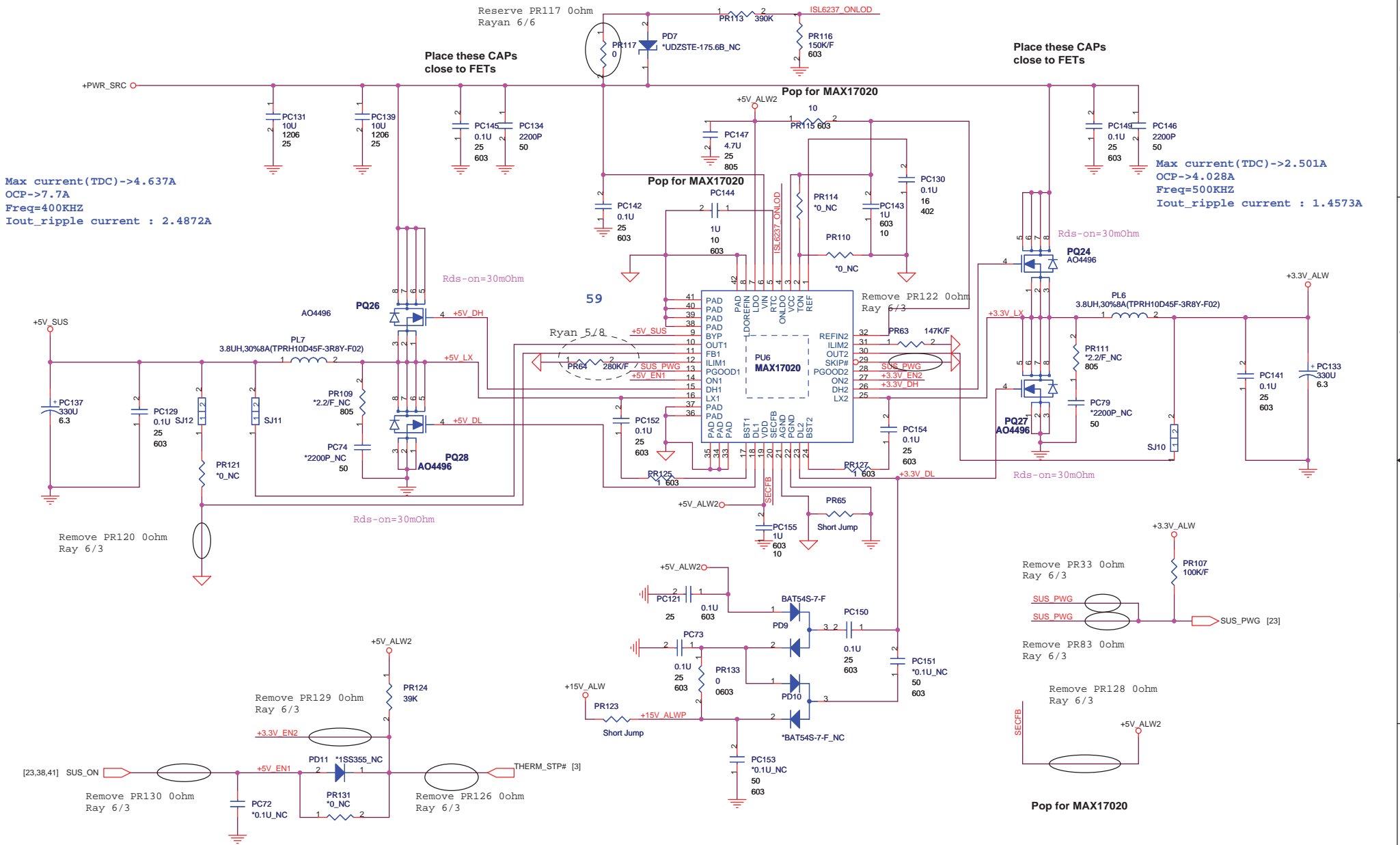
QUANTA COMPUTER

Title: CPU_Core_2Phase (MAX17410)

Size: VM8M Document Number: Rev 1A

Date: Saturday, June 06, 2009 Sheet: 39 of 46

DC/DC +3V_ALW/+5V_SUS/+5V_ALW /+15V_ALW



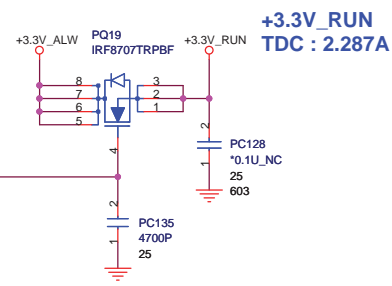
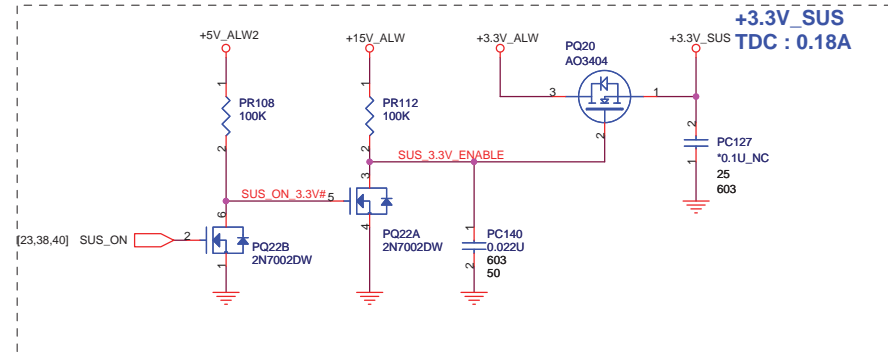
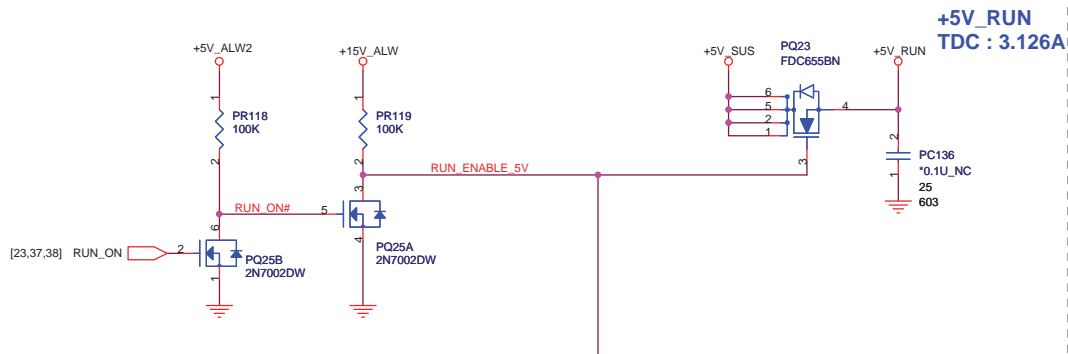
Max current(TDC)->4.637A
 OCP->7.7A
 Freq=400KHZ
 Iout_ripple current : 2.4872A

Max current(TDC)->2.501A
 OCP->4.028A
 Freq=500KHZ
 Iout_ripple current : 1.4573A

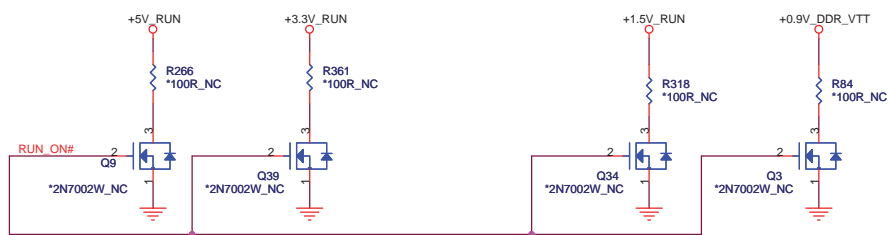
APXE6R3ARA331MF61G (330UF/6.3V/ESR17)
TPC104DR-3R8Y(3.8U +/- 30%/ Isat=6A/DCR_max=12m Ohm/10X10X4)
SI4800BDY-T1-E3 (Vds=30V/Id=7A/Rdson=30mOhm/Vsd=1.2V@2.3A)

<http://laptop-motherboard-schematic.blogspot.com/>

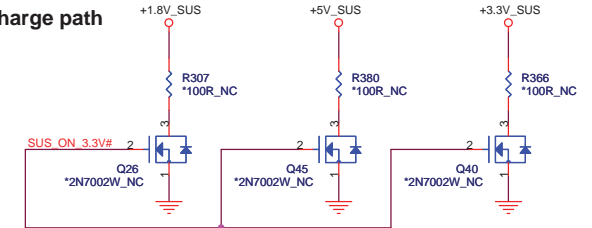
QUANTA COMPUTER		
File:	3VALW,5V,(MAX17020)	
Size:	Document Number VM8M	Rev 1A
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Reserve discharge path



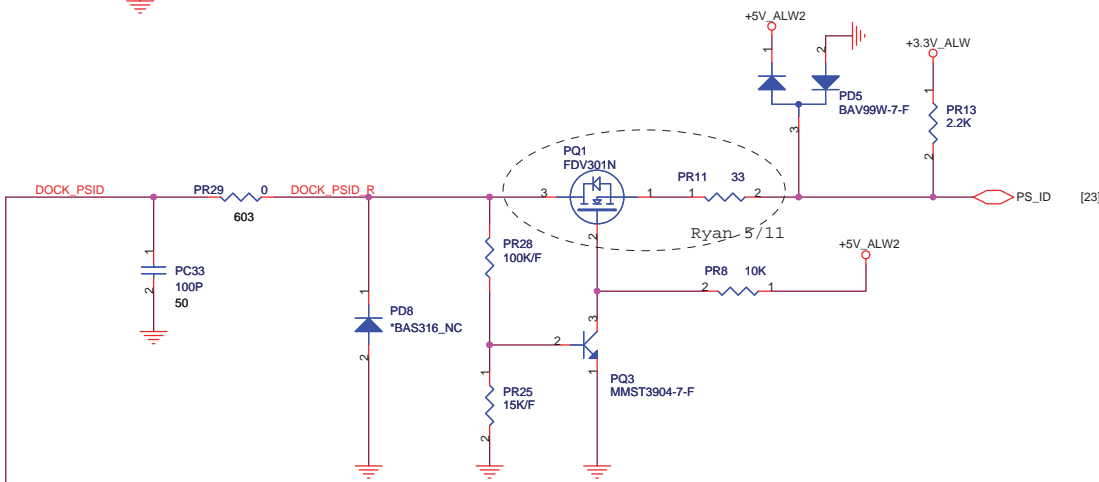
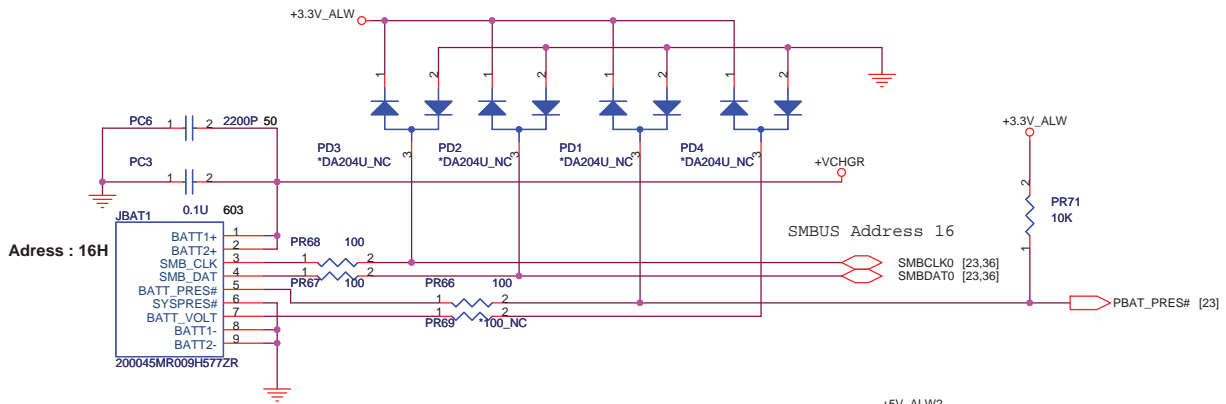
Reserve discharge path



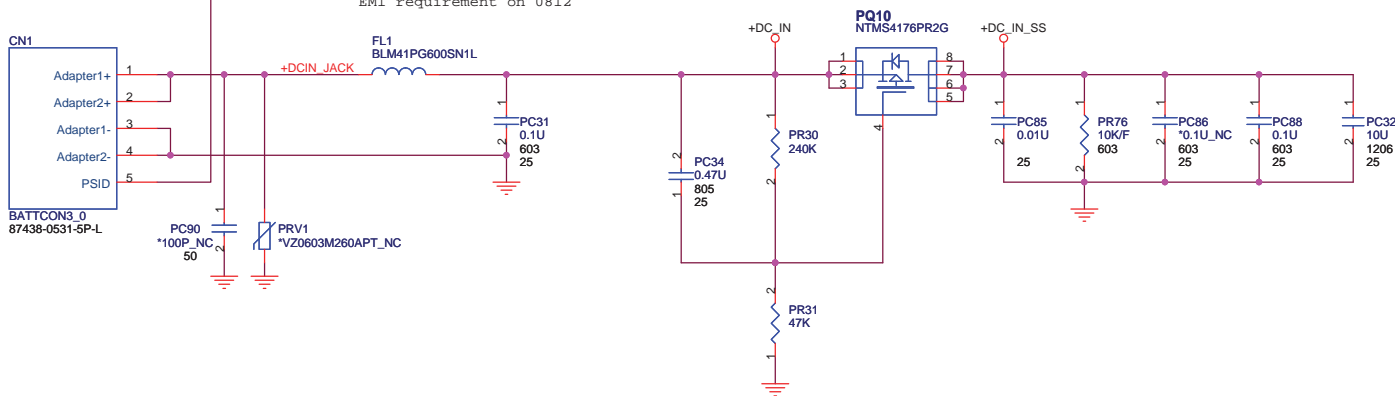
QUANTA COMPUTER

File: RUN POWER SW

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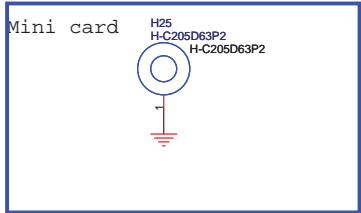
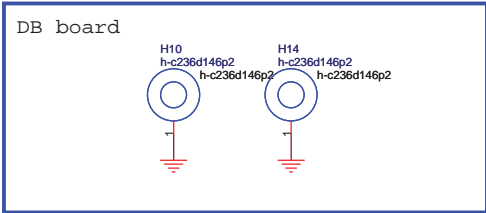
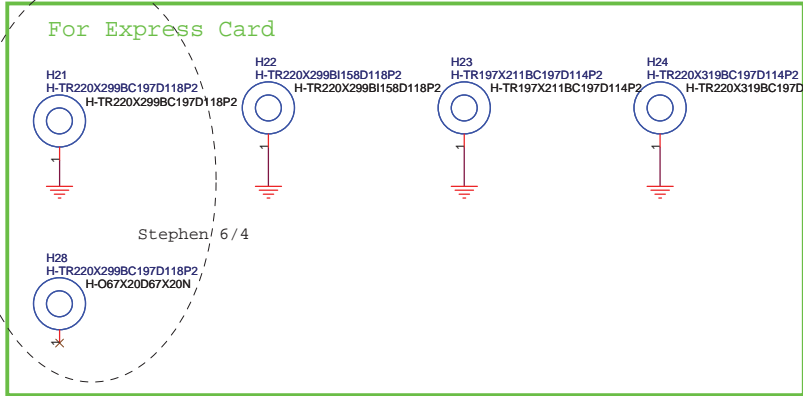
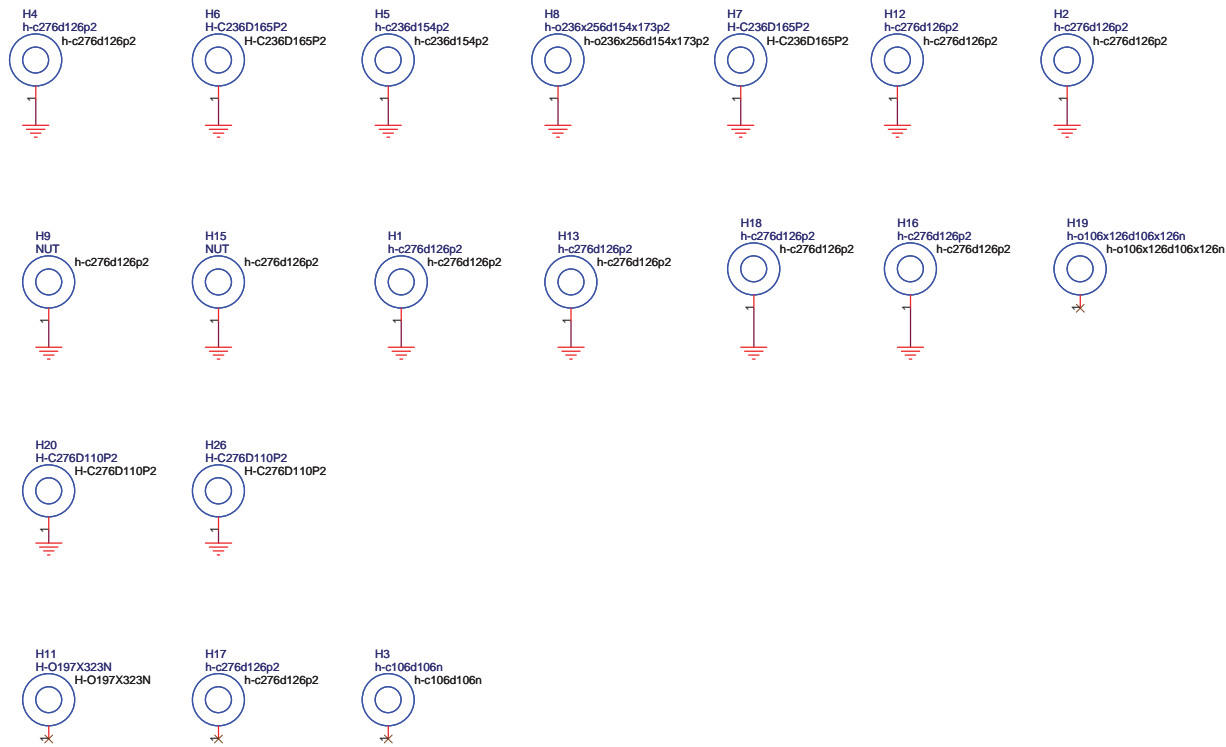


Change Value per GG updated
EMI requirement on 0812



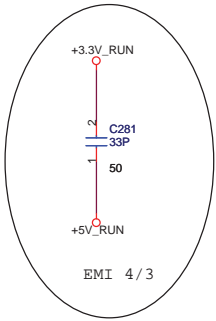
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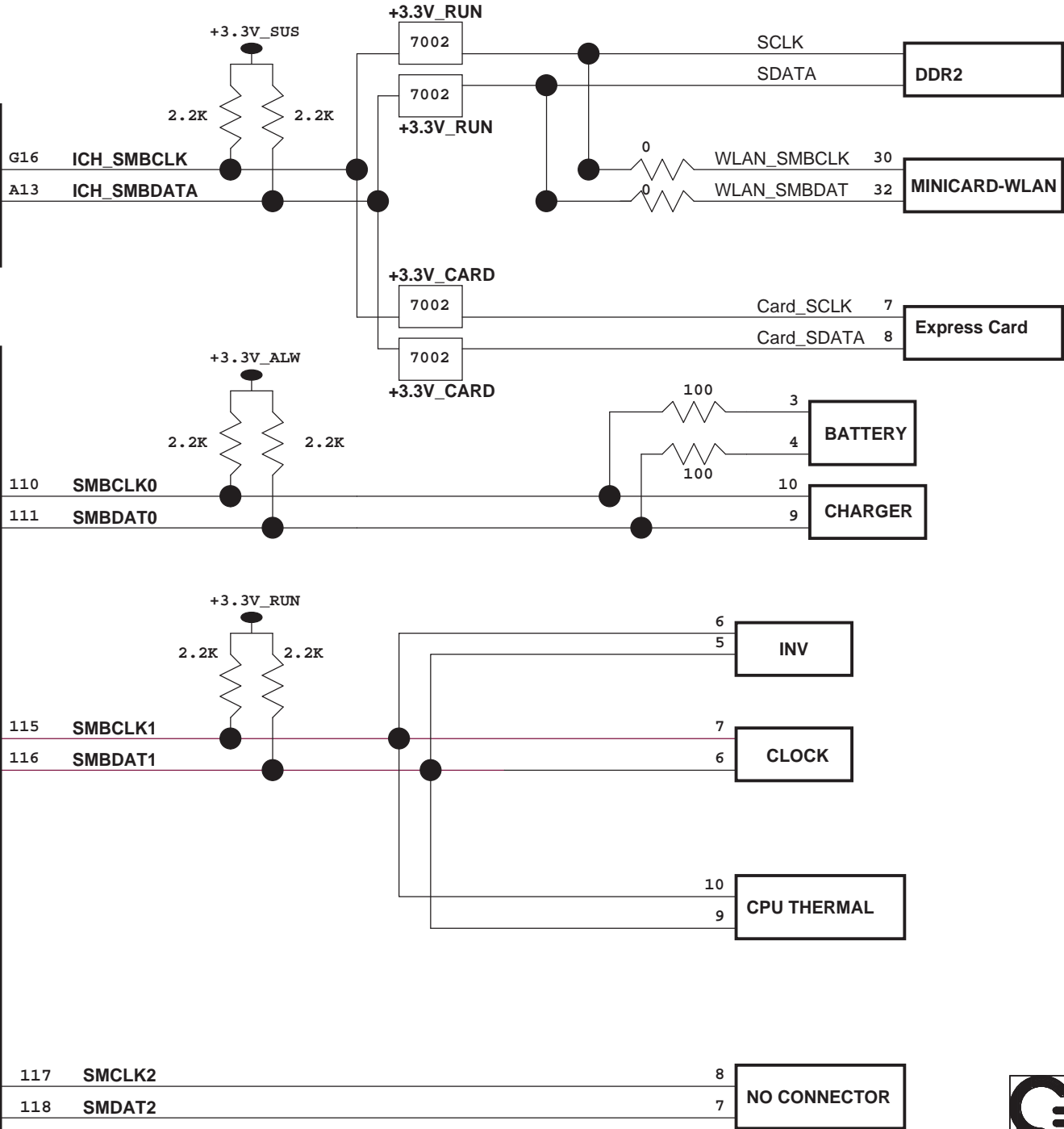
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