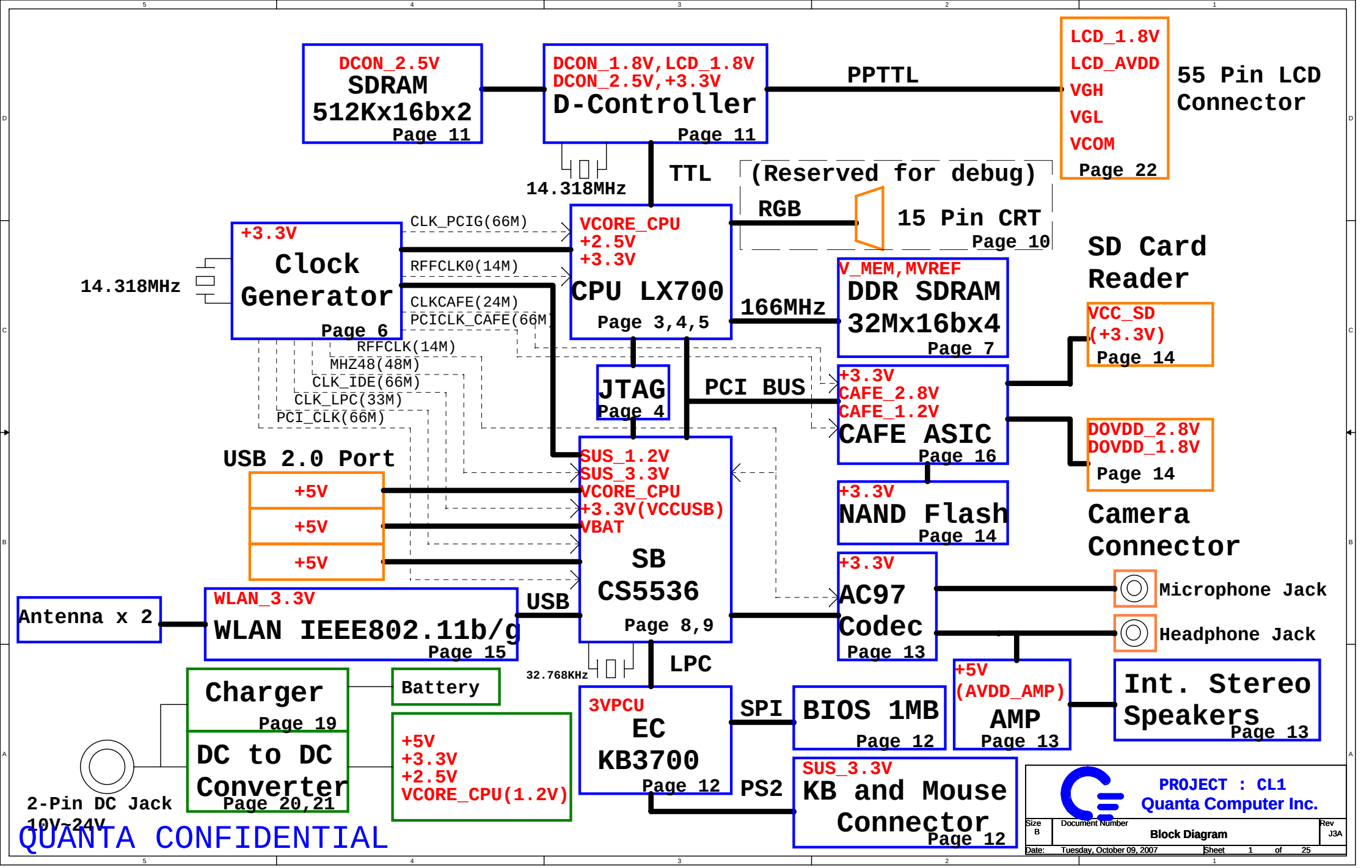
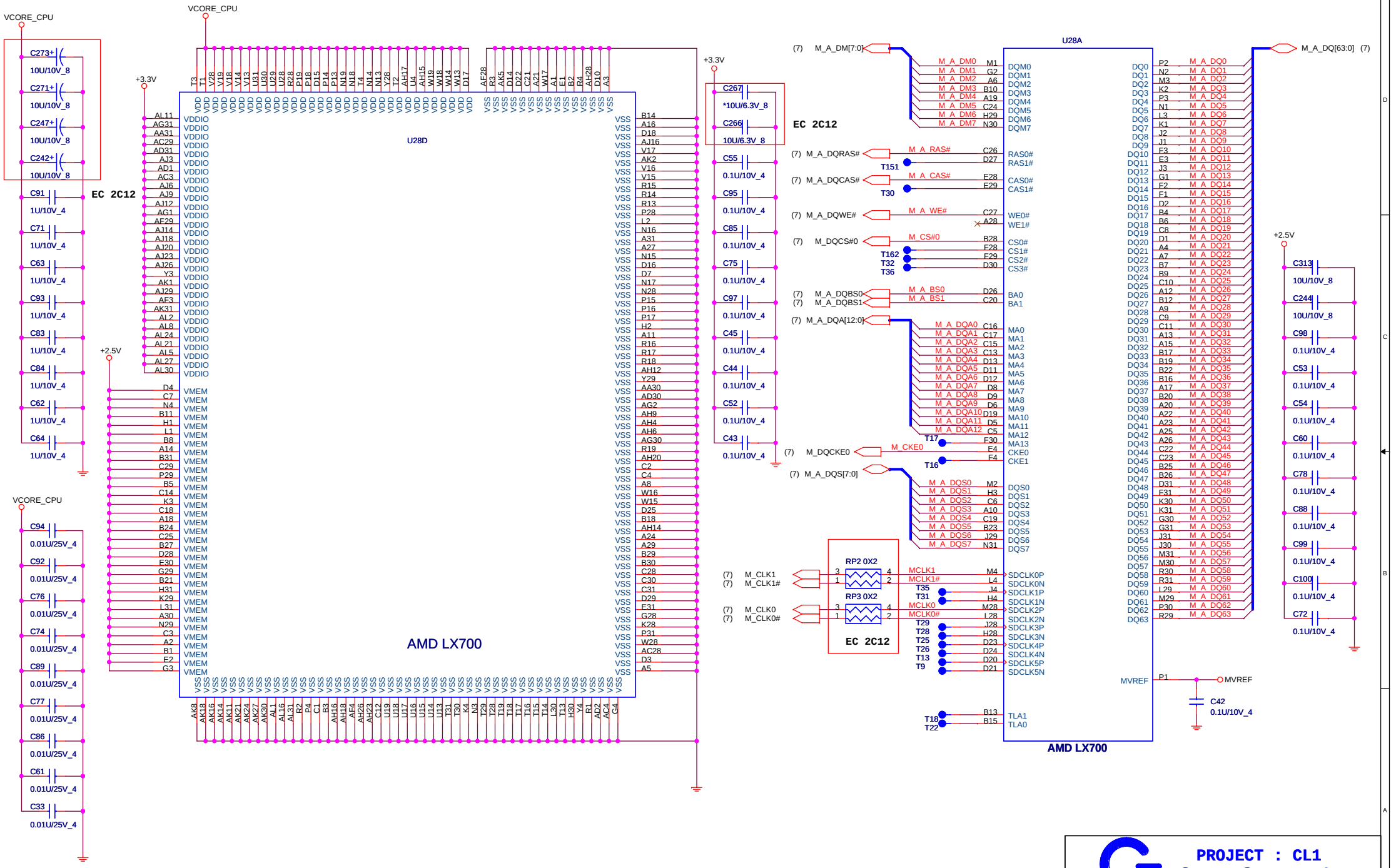

DCON_2.5V
SDRAM
512Kx16bx2
Page 11
DCON_1.8V,LCD_1.8V
DCON_2.5V,+3.3V
D-Controller
Page 11
PPTTL
LCD_1.8V
LCD_AVDD
VGH
VGL
VCOM
Page 22
55 Pin LCD Connector
14.318MHz
TTL
(Reserved for debug)
RGB
15 Pin CRT
Page 10
+3.3V
Clock Generator
Page 6
14.318MHz
CLK_PCIG(66M)
RFFCLK0(14M)
CLKCAFE(24M)
PCICLK_CAFE(66M)
RFFCLK(14M)
MHZ48(48M)
CLK_IDE(66M)
CLK_LPC(33M)
PCI_CLK(66M)
VCORE_CPU
+2.5V
+3.3V
CPU LX700
Page 3,4,5
166MHz
V_MEM,MVREF
DDR SDRAM
32Mx16bx4
Page 7
SD Card Reader
VCC_SD
(+3.3V)
Page 14
JTAG
Page 4
PCI BUS
+3.3V
CAFE_2.8V
CAFE_1.2V
CAFE ASIC
Page 16
DOVDD_2.8V
DOVDD_1.8V
Page 14
USB 2.0 Port
+5V
+5V
+5V
SUS_1.2V
SUS_3.3V
VCORE_CPU
+3.3V(VCCUSB)
VBAT
SB
CS5536
Page 8,9
+3.3V
NAND Flash
Page 14
Camera Connector
+3.3V
AC97
Codec
Page 13
Microphone Jack
Headphone Jack
Antenna x 2
WLAN_3.3V
WLAN IEEE802.11b/g
Page 15
USB
32.768KHz
LPC
Charger
Page 19
Battery
DC to DC Converter
Page 20,21
+5V
+3.3V
+2.5V
VCORE_CPU(1.2V)
2-Pin DC Jack
10V~24V
3VPCU
EC
KB3700
Page 12
SPI
BIOS 1MB
Page 12
+5V
(AVDD_AMP)
AMP
Page 13
Int. Stereo Speakers
Page 13
PS2
SUS_3.3V
KB and Mouse Connector
Page 12
PROJECT : CL1
Quanta Computer Inc.
Size B
Document Number
Block Diagram
Rev J3A
Date: Tuesday, October 09, 2007
Sheet 1 of 25
QUANTA CONFIDENTIAL

Voltage Rails	Voltage	S0	S3	S5	Power Source	Control Signal
VBAT	3V	ON	ON	ON	RTC-BATTERY	ALWAYS
3VPCU	3.3V	ON	ON	ON	VIN	ALWAYS
WLAN_3.3V	3.3V	ON	ON	ON	VIN	WLAN_EN
SUS_3.3V	3.3V	ON	ON	OFF	3VPCU	VR_ON#
SUS_1.2V	1.2V	ON	ON	OFF	SUS_3.3V	SUS_3.3V
V_MEM	2.5V	ON	ON	OFF	VIN	SUS_ON/MAIN_ON
MVREF	1.25V	ON	ON	OFF	V_MEM	V_MEM
+5V	5V	ON	OFF	OFF	VIN	PWR_ON
+3.3V	3.3V	ON	OFF	OFF	WLAN_3.3V	PWR_ON
+2.5V	2.5V	ON	OFF	OFF	V_MEM	PWR_ON
VCORE_CPU	1.2V	ON	OFF	OFF	VIN	MAIN_ON
~~VCORE_SB~~	~~1.2V~~	~~ON~~	~~OFF~~	~~OFF~~	~~VCORE_CPU~~	~~VCORE_CPU~~
VCCUSB	3.3V	ON	OFF	OFF	+3.3V	+3.3V
USBVDD	5V	ON	OFF	OFF	+5V	USB_PWR_EN1
LCD_1.8V	1.8V	ON	ON	OFF	DCON_1.8V	VDDEN
LCD_AVDD	9.6V	ON	ON	OFF	VIN	VDDEN
VGH	18V	ON	ON	OFF	VIN	VDDEN
VGL	-7V	ON	ON	OFF	VIN	VDDEN
VCOM	2.2V	ON	ON	OFF	LCD_AVDD	COLMODE
AVDD_AMP	5V	ON	OFF	OFF	+5V	+5V
VCC_SD	3.3V	ON	OFF	OFF	+3.3V	SD_ON
DCON_2.5V	2.5V	ON	ON	OFF	V_MEM	DCON_1.8V
DCON_1.8V	1.8V	ON	ON	OFF	DCON_2.5V	DCON_EN
LEDPWR	17.6V	ON	ON	OFF	VIN	BACKLIGHT
DVDD_1.8V	1.8V	ON	OFF	OFF	+3.3V	+3.3V
DOVDD_2.8V	2.8V	ON	OFF	OFF	+3.3V	Cam_GPIO2
CAFE_1.2V	1.2V	ON	OFF	OFF	VCORE_CPU	VCORE_CPU

PROJECT : CL1
Quanta Computer Inc.

Size	Document Number	Rev
B	POWER MANAGER	J3A

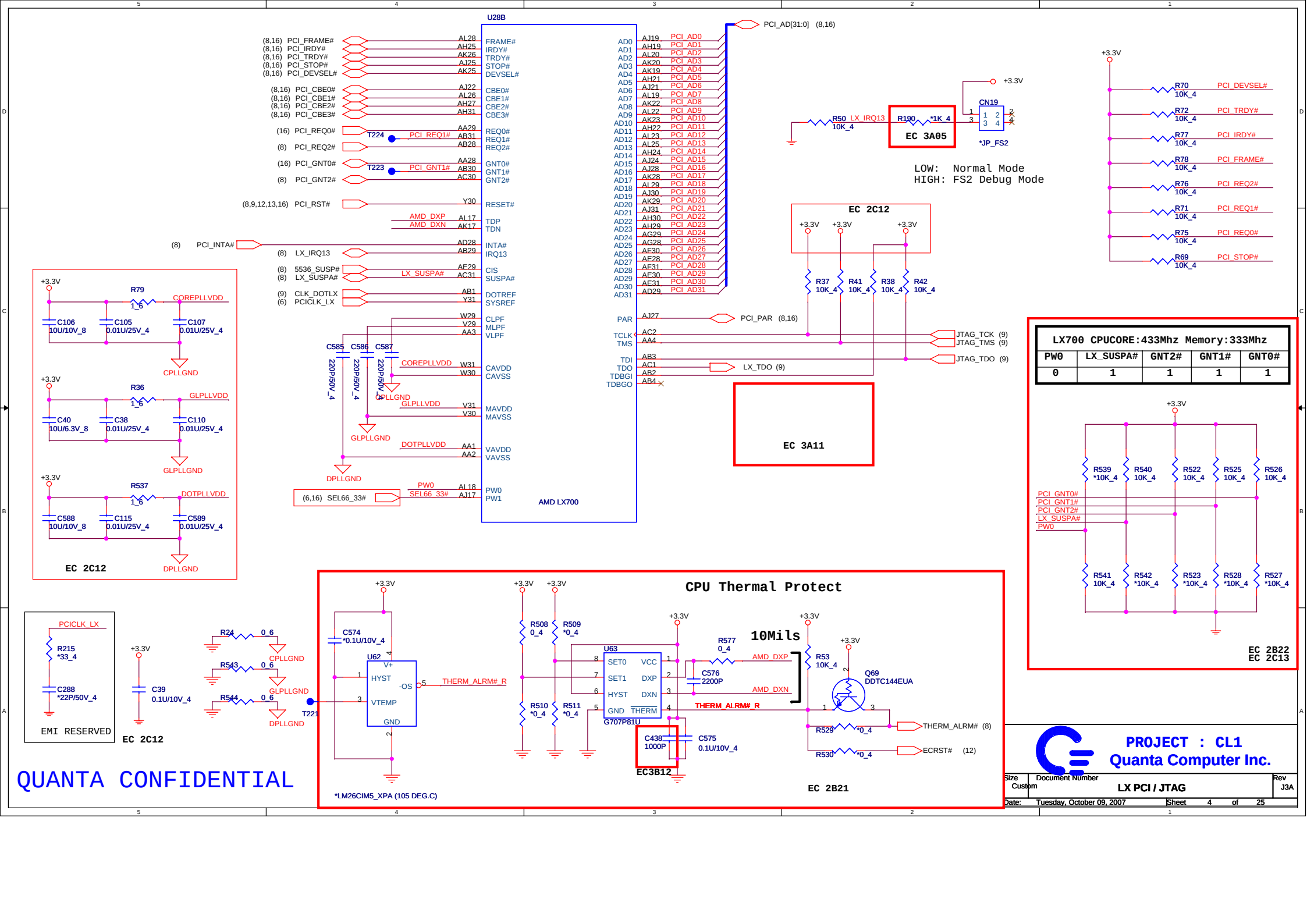
Date: Tuesday, October 09, 2007 Sheet 2 of 25

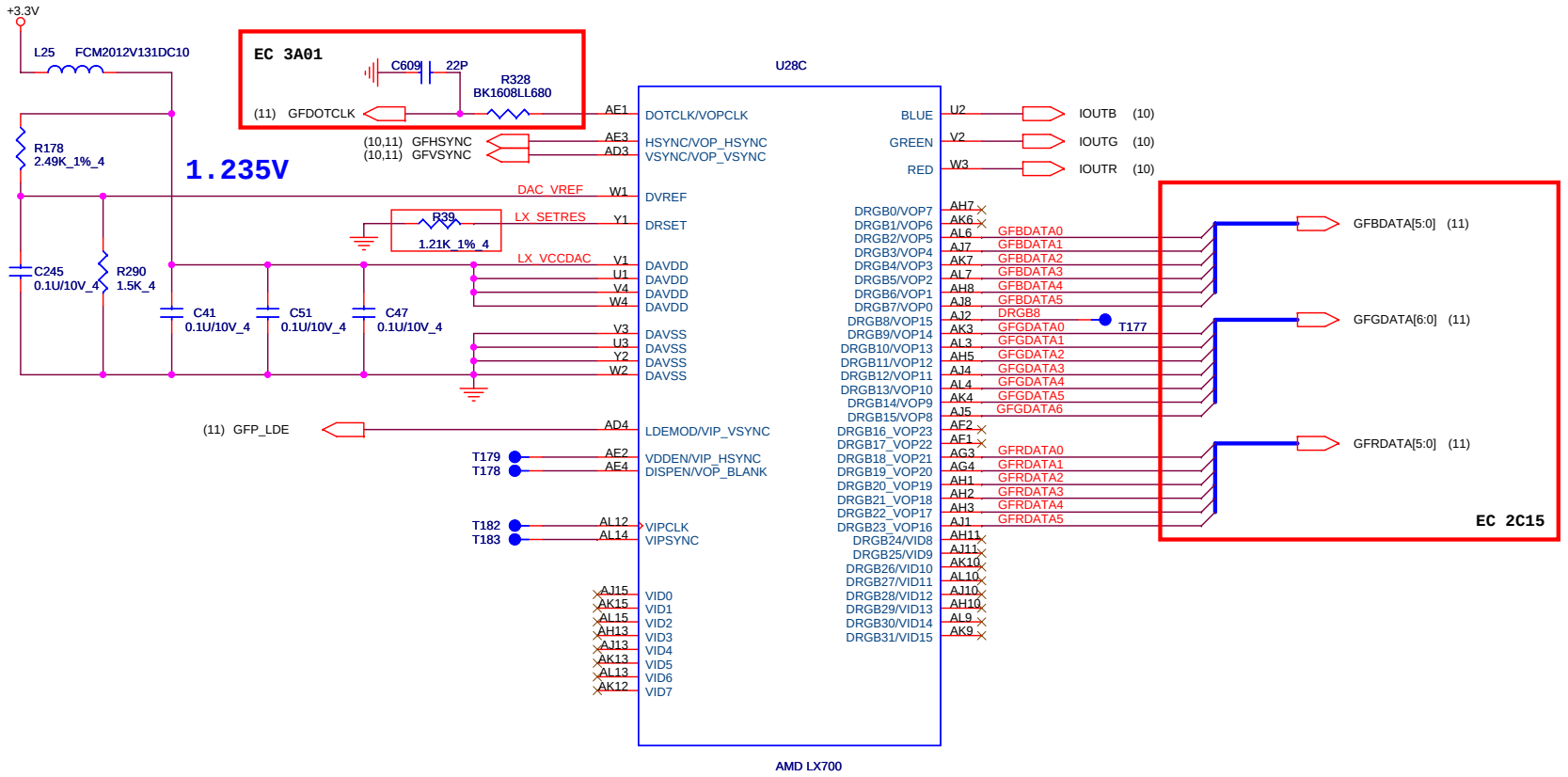


QUANTA CONFIDENTIAL

PROJECT : CL1
Quanta Computer Inc.

Size	Document Number	Rev
Custom	LX Processor / Memory	J3A
Date: Tuesday, October 09, 2007	Sheet 3 of 25	


U28B
AMD LX700
PCI_AD[31:0] (8,16)
PCI_PAR (8,16)
JTAG_TCK (9)
JTAG_TMS (9)
JTAG_TDO (9)
LX_TDO (9)
EC 3A11
EC 3A05
*JP_FS2
LOW: Normal Mode
HIGH: FS2 Debug Mode
EC 2C12
LX700 CPUCORE:433Mhz Memory:333Mhz
PW0 | LX_SUSPA# | GNT2# | GNT1# | GNT0#
0 | 1 | 1 | 1 | 1
EC 2B22
EC 2C13
CPU Thermal Protect
10Mils
*LM26CIM5_XPA (105 DEG.C)
EC 2B21
EC3B12
EMI RESERVED
QUANTA CONFIDENTIAL
PROJECT : CL1
Quanta Computer Inc.
LX PCI / JTAG
Tuesday, October 09, 2007
Sheet 4 of 25



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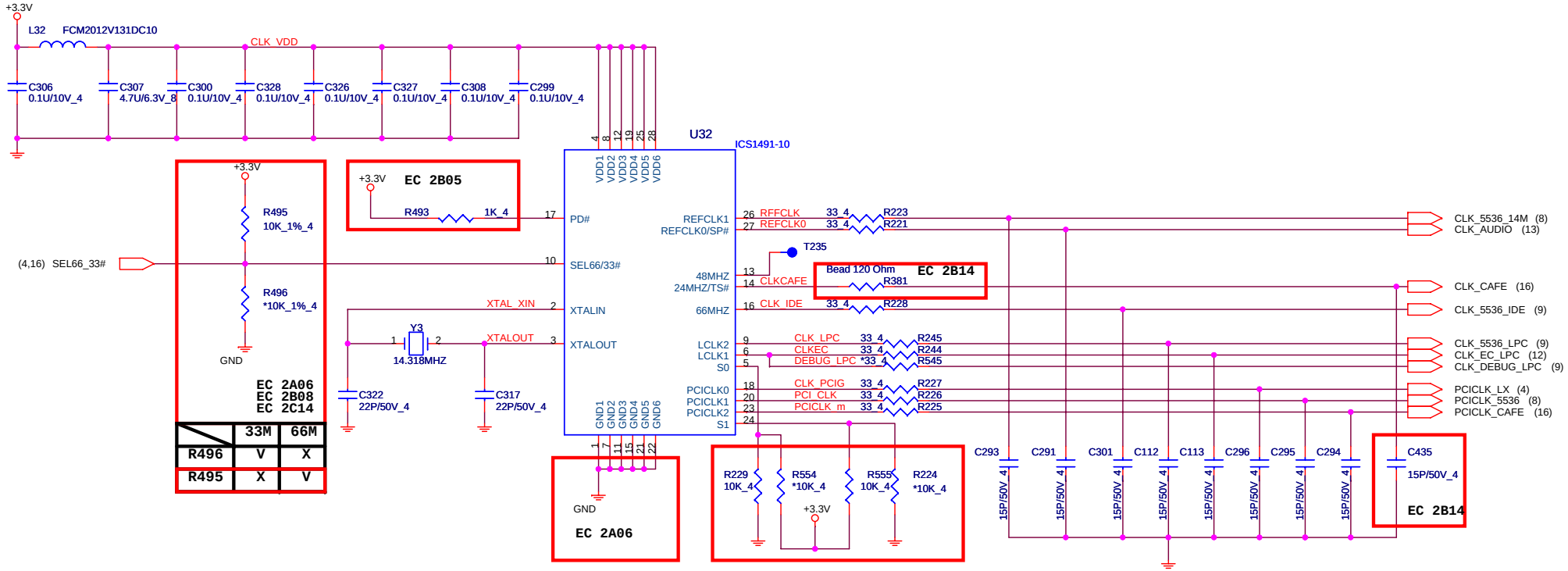
PROJECT : CL1
Quanta Computer Inc.

Size	Document Number	Rev
B	LX LCD / CRT	J3A

Date: Tuesday, October 09, 2007 Sheet 5 of 25

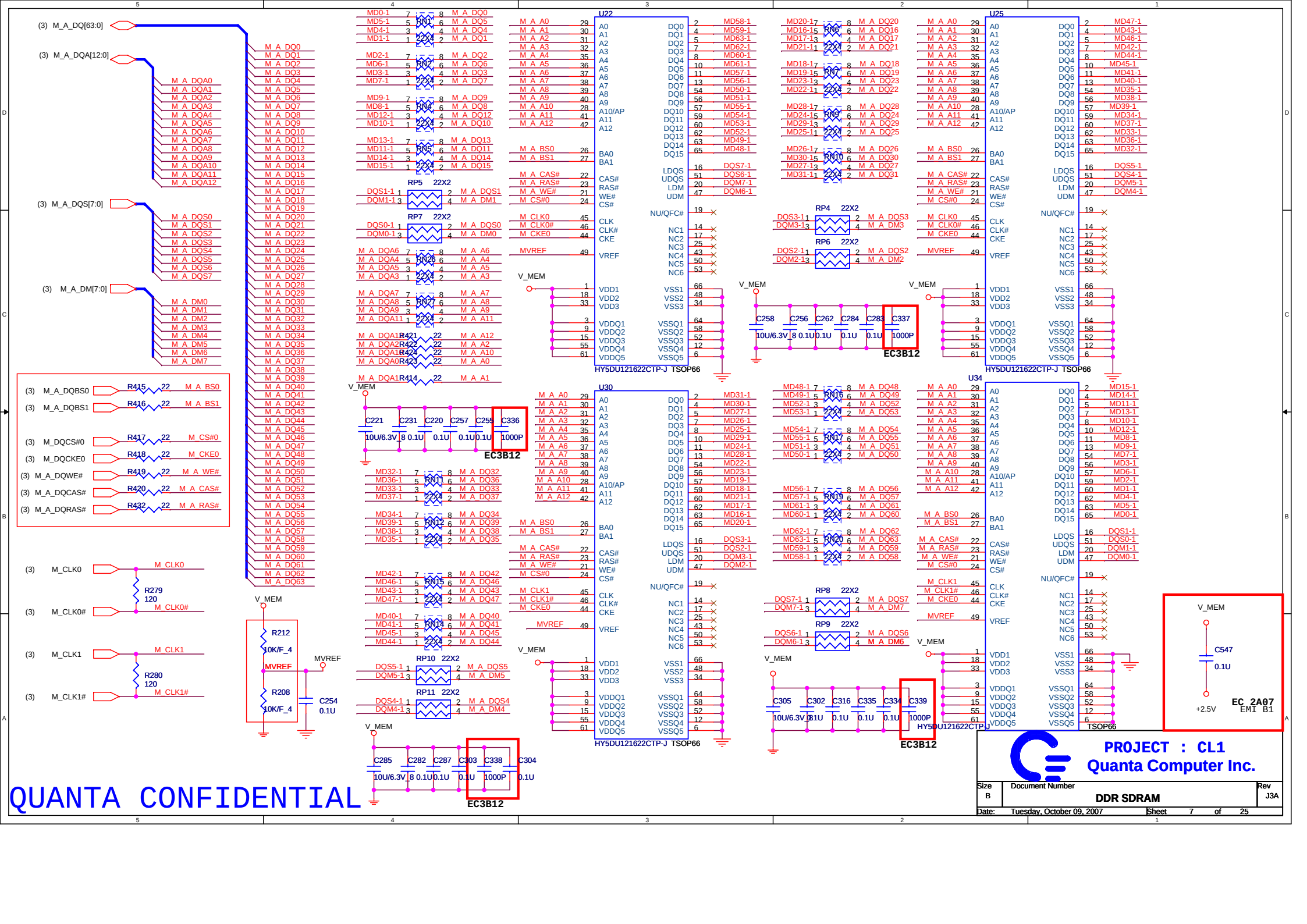


EMI SS	S1	S0
+/-0.5%,C	0	0
0%,Default	0	1
-1%,Down	1	0
-0.5%,Down	1	1

PROJECT : CL1
Quanta Computer Inc.

Size	Document Number	Rev
B	System Clock	J3A

Date: Tuesday, October 09, 2007 Sheet 6 of 25


(3) M_A_DQ[63:0]
(3) M_A_DQA[12:0]
(3) M_A_DQS[7:0]
(3) M_A_DM[7:0]
(3) M_A_DQBS0
(3) M_A_DQBS1
(3) M_DQCS#0
(3) M_DQCKE0
(3) M_A_DQWE#
(3) M_A_DQCAS#
(3) M_A_DQRAS#
(3) M_CLK0
(3) M_CLK0#
(3) M_CLK1
(3) M_CLK1#
R279 120
R280 120
R212 10K/F_4
R208 10K/F_4
MVREF
C254 0.1U
V_MEM
U22
U25
U30
U34
HY5DU121622CTP-J TSOP66
HY5DU121622CTP-J
TSOP66
EC3B12
C221 C231 C220 C257 C255 C336
C258 C256 C262 C284 C283 C337
C285 C282 C287 C303 C338 C304
C305 C302 C316 C335 C334 C339
10U/6.3V 0.1U 0.1U 1000P
C547 0.1U
+2.5V
EC_2A07
EMI B1
PROJECT : CL1
Quanta Computer Inc.
DDR SDRAM
Size B
Document Number
Rev J3A
Date: Tuesday, October 09, 2007
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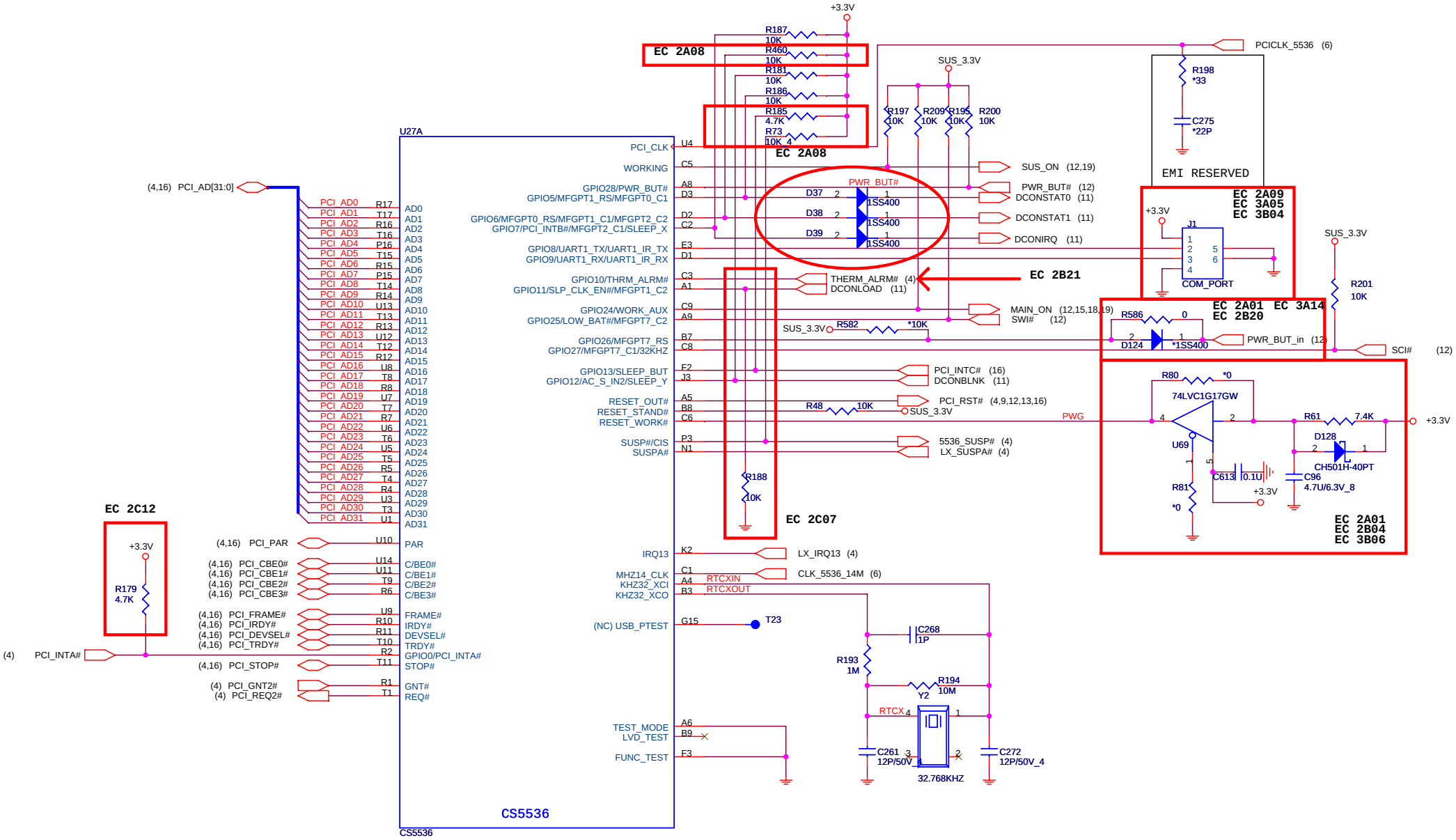
QUANTA CONFIDENTIAL

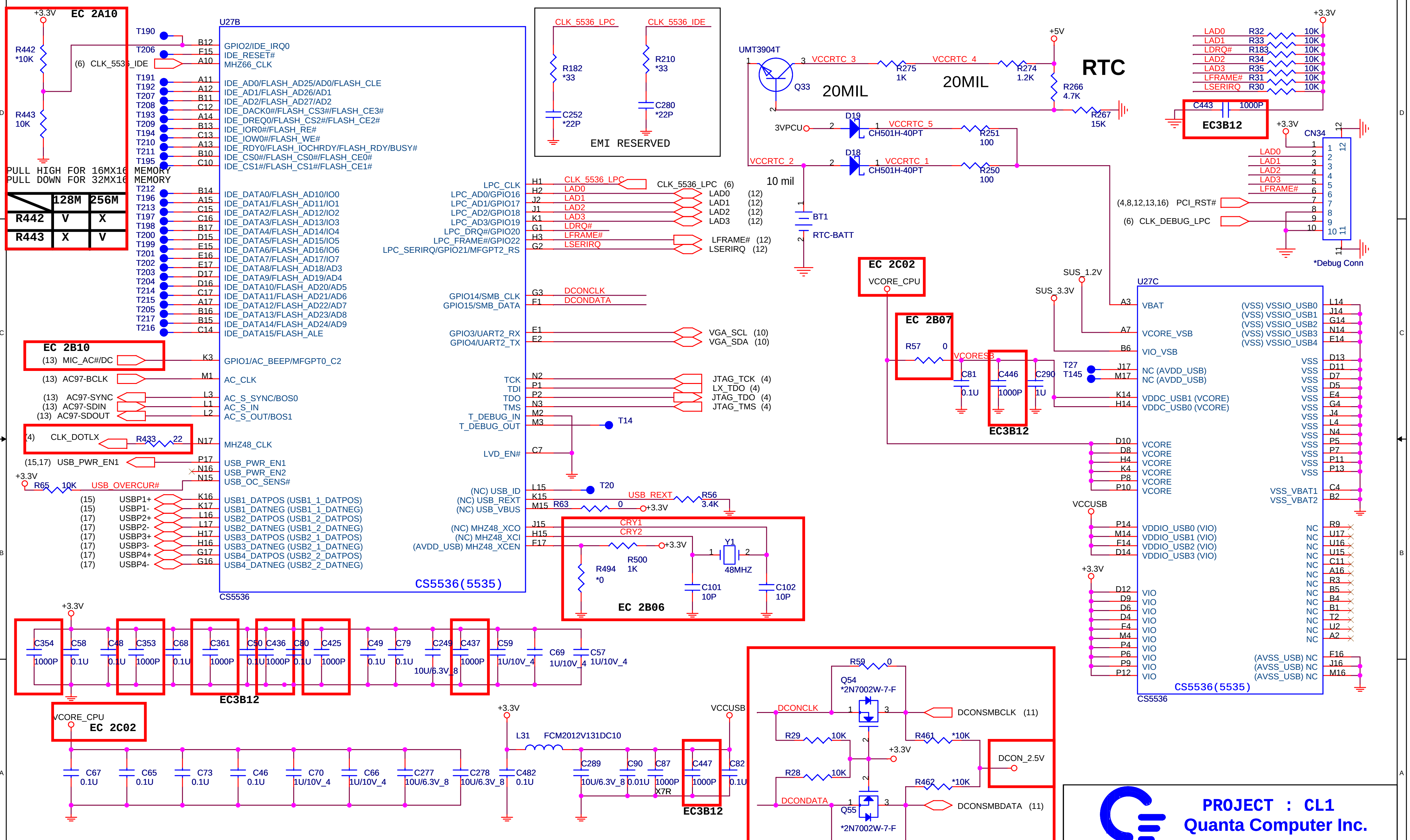


QUANTA CONFIDENTIAL

PROJECT : CL1
Quanta Computer Inc.

Size	Document Number	Rev
B	CS5536 PCI / Crystal	J3A

Date: Tuesday, October 09, 2007 Sheet 8 of 25

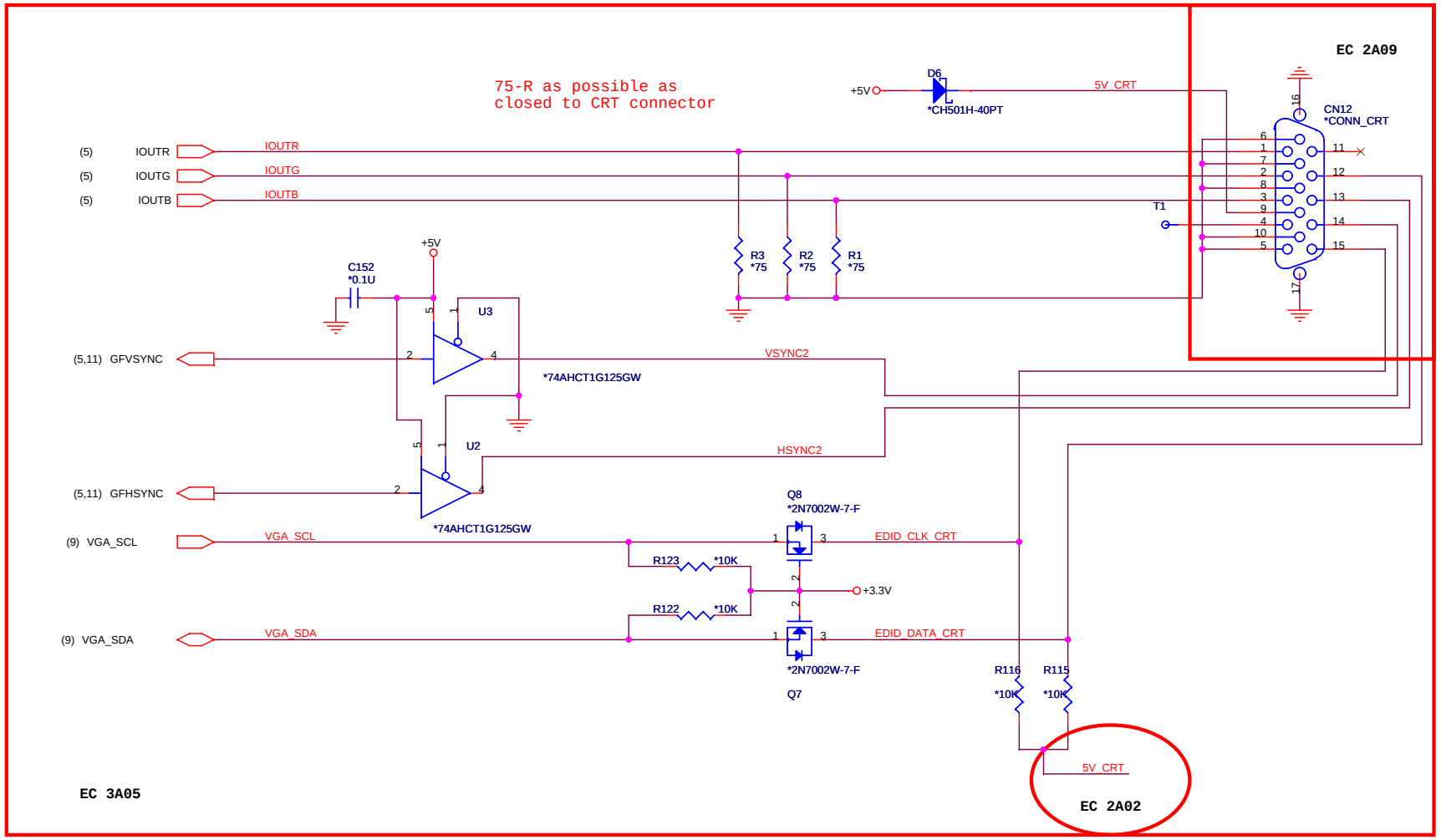


QUANTA CONFIDENTIAL

PROJECT : CL1
Quanta Computer Inc.

Size	Document Number	Rev
B	CS5536 Power / IDE / USB	J3A

Date: Tuesday, October 09, 2007 Sheet 9 of 25



QUANTA CONFIDENTIAL

PROJECT : CL1
Quanta Computer Inc.

Size	Document Number	Rev
B	CRT	J3A

Date: Tuesday, October 09, 2007 Sheet 10 of 25

Power control signal

	Net name	Power plane	Note
1	COLMODE	DCON_2.5V	VCOM select: High for VCOM-T and low for VCOM-R.
2	BACKLIGHT	DCON_2.5V	Pannel LED power control: High is enable.
3	DBC	DCON_2.5V	Pannel backlight control: PWM signal, F=200Hz
4	VDDEN	DCON_2.5V	LCD power control: High for turn on LCD_1.8V/VGL/LCD_AVDD/VCOM
5	VGH_EN	DCON_2.5V	VGH power control: High is enable.
6	XAO	LCD_1.8V	LCD gate discharge control

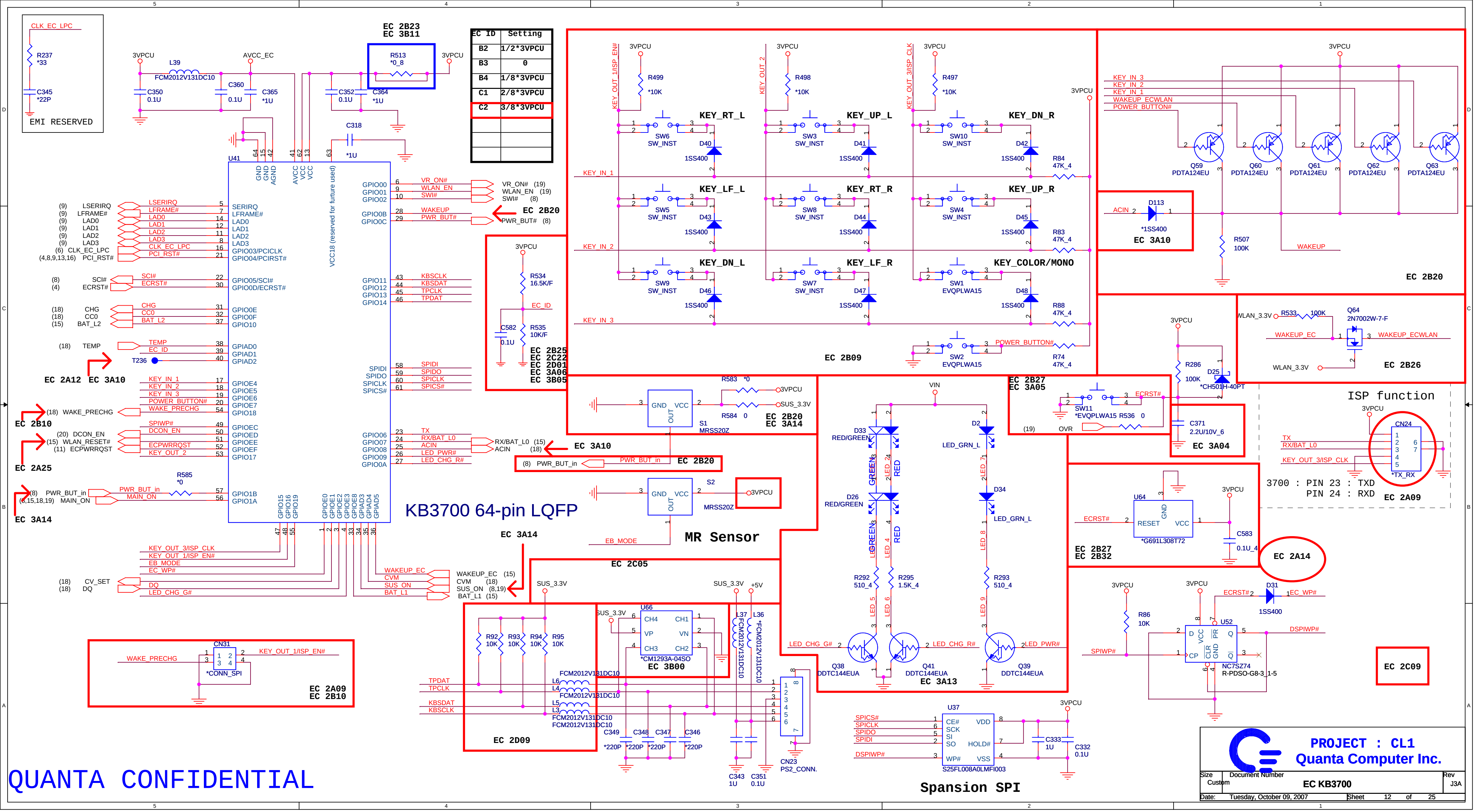
DCON power plane

	Power name	Note	Power status
1	DCON_2.5V	SDRAM power	S3
2	DCON_1.8V	DCON core power	S3
3	LCD_1.8V	LCD power	S3
4	+3.3V	System power	S0

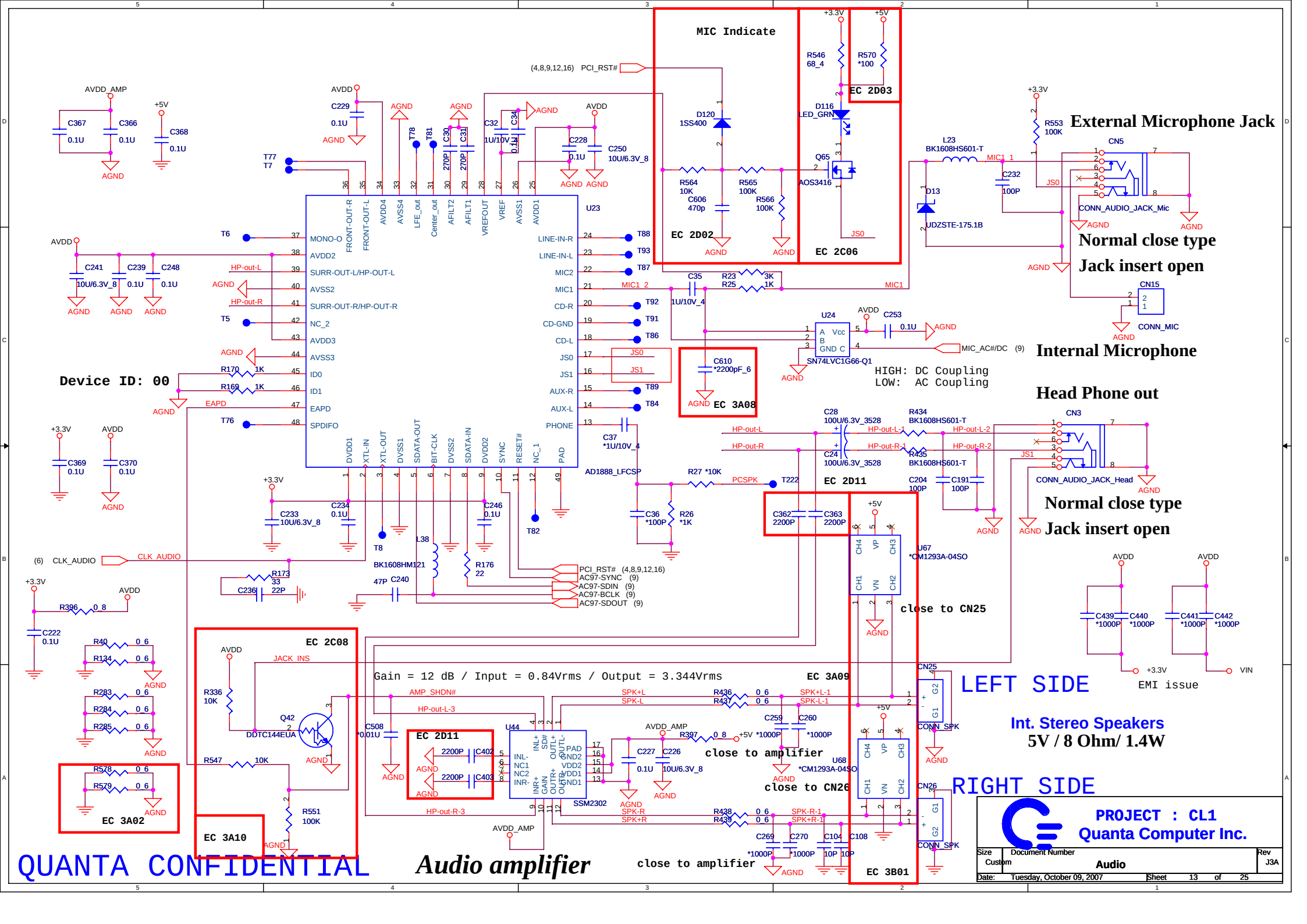
QUANTA CONFIDENTIAL

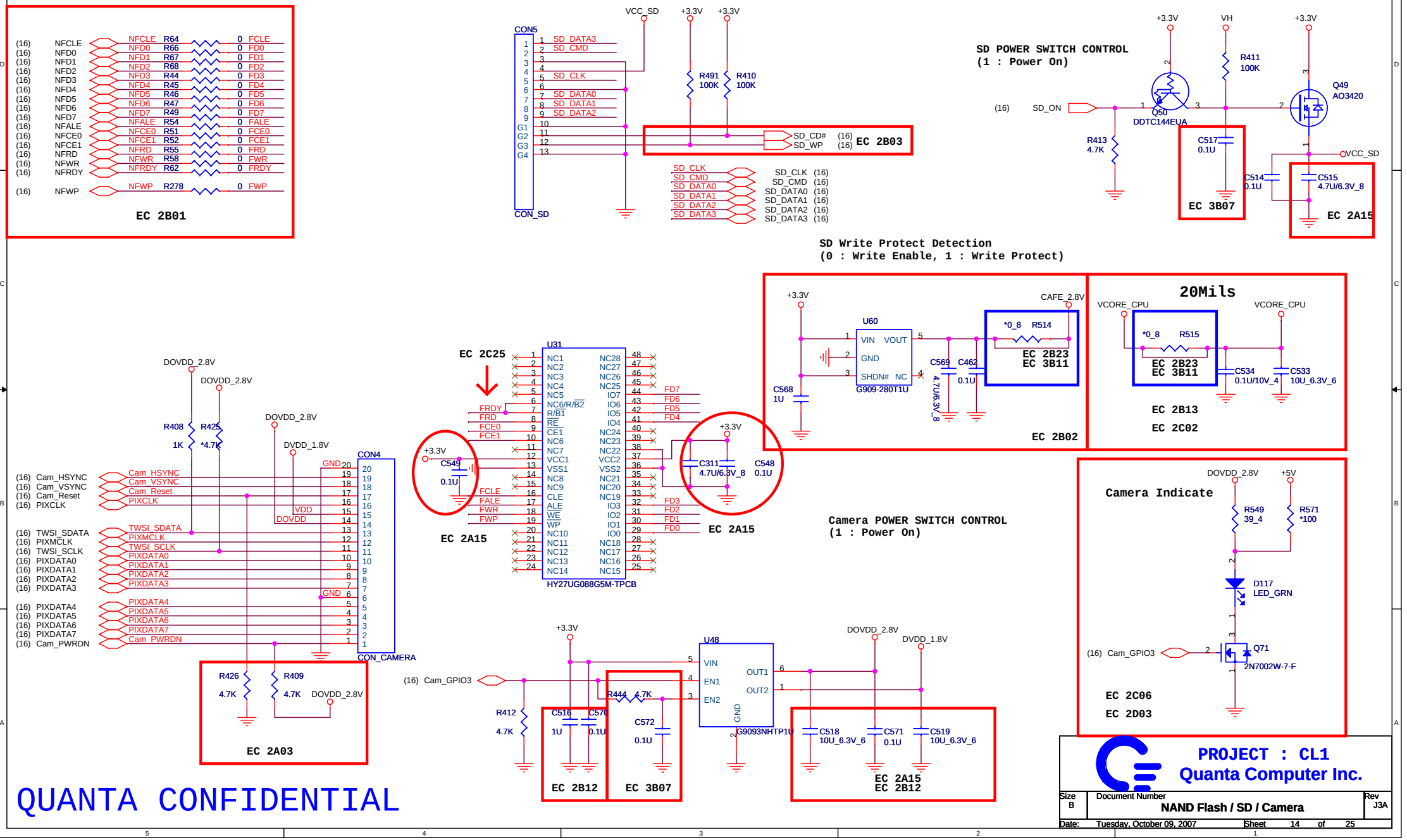
PROJECT : CL1
Quanta Computer Inc.

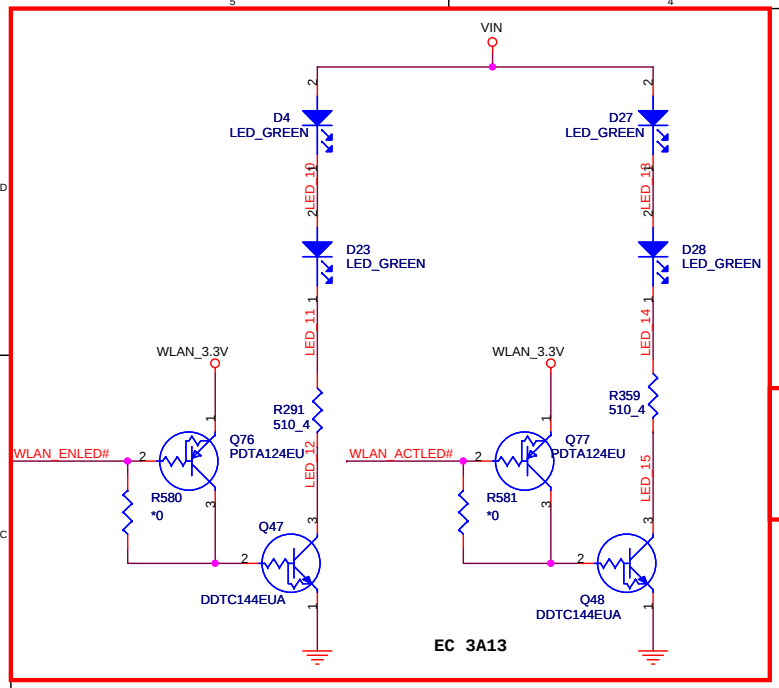
Size	Document Number	Rev
B	LCD	J3A
Date: Tuesday, October 09, 2007	Sheet 11 of 25	

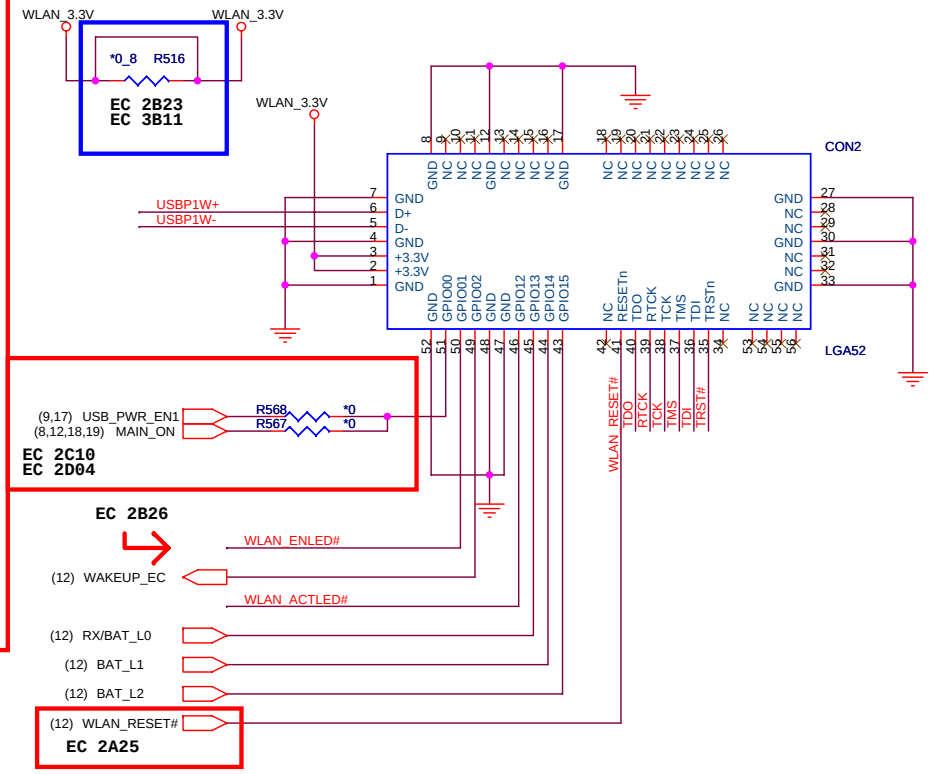


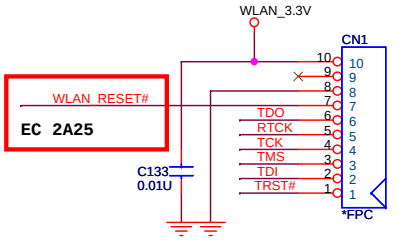
EMI RESERVED
CLK_EC_LPC
R237 *33
C345 *22P
3VPCU
L39 FCM2012V131DC10
AVCC_EC
C350 0.1U
C360 0.1U
C365 *1U
C352 0.1U
C364 *1U
C318 *1U
EC 2B23
EC 3B11
R513 *0_8
EC ID | Setting
B2 | 1/2*3VPCU
B3 | 0
B4 | 1/8*3VPCU
C1 | 2/8*3VPCU
C2 | 3/8*3VPCU
U41
KB3700 64-pin LQFP
VCC18 (reserved for future used)
SERIRQ
LFRAME#
LAD0
LAD1
LAD2
LAD3
GPIO03/PCICLK
GPIO04/PCIRST#
GPIO05/SCI#
GPIO0D/ECRST#
GPIO0E
GPIO0F
GPIO10
GPIAD0
GPIAD1
GPIAD2
GPIOE4
GPIOE5
GPIOE6
GPIOE7
GPIO18
GPIOEC
GPIOED
GPIOEE
GPIOEF
GPIO17
GPIO1B
GPIO1A
GPIO00
GPIO01
GPIO02
GPIO0B
GPIO0C
GPIO11
GPIO12
GPIO13
GPIO14
SPIDI
SPIDO
SPICLK
SPICS#
GPIO06
GPIO07
GPIO08
GPIO09
GPIO0A
VR_ON#
WLAN_EN
SWI#
WAKEUP
PWR_BUT#
KBSCLK
KBSDAT
TPCLK
TPDAT
TX
RX/BAT_L0
ACIN
LED_PWR#
LED_CHG_R#
EC 2B20
EC 3A10
EC 2A12
EC 2B10
EC 2A25
EC 3A14
WAKE_PRECHG
DCON_EN
WLAN_RESET#
ECPWRRQST
KEY_OUT_2
PWR_BUT_in
MAIN_ON
R585 *0
T236
TEMP
EC_ID
KEY_IN_1
KEY_IN_2
KEY_IN_3
POWER_BUTTON#
SPIWP#
KEY_OUT_3/ISP_CLK
KEY_OUT_1/ISP_EN#
EB_MODE
EC_WP#
DQ
LED_CHG_G#
CV_SET
WAKEUP_EC
CVM
SUS_ON
BAT_L1
R534 16.5K/F
R535 10K/F
C582 0.1U
EC 2B25
EC 2C22
EC 2D01
EC 3A06
EC 3B05
KEY_RT_L
KEY_UP_L
KEY_DN_R
KEY_LF_L
KEY_RT_R
KEY_UP_R
KEY_DN_L
KEY_LF_R
KEY_COLOR/MONO
R499 *10K
R498 *10K
R497 *10K
SW6 SW_INST
SW3 SW_INST
SW10 SW_INST
SW5 SW_INST
SW8 SW_INST
SW4 SW_INST
SW9 SW_INST
SW7 SW_INST
SW1 EVQPLWA15
SW2 EVQPLWA15
1SS400
R84 47K_4
R83 47K_4
R88 47K_4
R74 47K_4
EC 2B09
Q59 PDTA124EU
Q60 PDTA124EU
Q61 PDTA124EU
Q62 PDTA124EU
Q63 PDTA124EU
KEY_IN_3
KEY_IN_2
KEY_IN_1
WAKEUP_ECWLAN
POWER_BUTTON#
ACIN
D113 *1SS400
R507 100K
WAKEUP
WLAN_3.3V
R533 100K
Q64 2N7002W-7-F
WAKEUP_EC
WAKEUP_ECWLAN
EC 2B26
R286 100K
D25 *CH501H-40PT
C371 2.2U/10V_6
EC 3A04
ISP function
CN24 *TX_RX
KEY_OUT_3/ISP_CLK
3700 : PIN 23 : TXD
PIN 24 : RXD
EC 2A09
R583 *0
R584 0
S1 MRSS20Z
S2 MRSS20Z
SUS_3.3V
EC 2B20
EC 3A14
MR Sensor
EB_MODE
SW11 *EVQPLWA15
R536 0
ECRST#
OVR
EC 2B27
EC 3A05
VIN
D33 RED/GREEN
D26 RED/GREEN
D2 LED_GRN_L
D34 LED_GRN_L
R292 510_4
R295 1.5K_4
R293 510_4
Q38 DDTC144EUA
Q41 DDTC144EUA
Q39 DDTC144EUA
LED_CHG_G#
LED_CHG_R#
LED_PWR#
EC 3A13
U64 *G691L308T72
RESET
C583 0.1U_4
EC 2B27
EC 2B32
EC 2A14
R86 10K
SPIWP#
D31 1SS400
EC_WP#
U52 NC7SZ74 R-PDSO-G8-3_1-5
DSPIWP#
EC 2C09
EC 2C05
SUS_3.3V
+5V
U66 *CM1293A-04SO
EC 3B00
R92 10K
R93 10K
R94 10K
R95 10K
TPDAT
TPCLK
KBSDAT
KBSCLK
L6 L4 L5 L3 FCM2012V131DC10
L37 L36 FCM2012V131DC10
C349 C348 C347 C346 *220P
C343 1U
C351 0.1U
CN23 PS2_CONN.
EC 2D09
CN31 *CONN_SPI
EC 2A09
EC 2B10
U37 S25FL008A0LMFI003
C333 1U
C332 0.1U
SPICS#
SPICLK
SPIDO
SPIDI
Spansion SPI
QUANTA CONFIDENTIAL
PROJECT : CL1
Quanta Computer Inc.
Size Custom
Document Number EC KB3700
Rev J3A
Date: Tuesday, October 09, 2007
Sheet 12 of 25

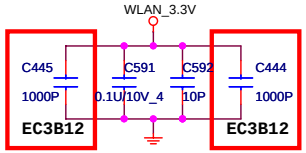

MIC Indicate
External Microphone Jack
Normal close type
Jack insert open
Internal Microphone
HIGH: DC Coupling
LOW: AC Coupling
Head Phone out
Normal close type
Jack insert open
Device ID: 00
Gain = 12 dB / Input = 0.84Vrms / Output = 3.344Vrms
close to CN25
close to amplifier
close to CN26
close to amplifier
LEFT SIDE
Int. Stereo Speakers
5V / 8 Ohm/ 1.4W
RIGHT SIDE
EMI issue
QUANTA CONFIDENTIAL
Audio amplifier
PROJECT : CL1
Quanta Computer Inc.
Audio
Tuesday, October 09, 2007


EC 2B01
EC 2B03
SD POWER SWITCH CONTROL
(1 : Power On)
EC 3B07
EC 2A15
SD Write Protect Detection
(0 : Write Enable, 1 : Write Protect)
EC 2B02
EC 2B13
EC 2C02
EC 2C25
EC 2A15
HY27UG088G5M-TPCB
Camera POWER SWITCH CONTROL
(1 : Power On)
EC 2A03
EC 2B12
EC 3B07
EC 2A15
EC 2B12
Camera Indicate
EC 2C06
EC 2D03
PROJECT : CL1
Quanta Computer Inc.
NAND Flash / SD / Camera
Tuesday, October 09, 2007
Sheet 14 of 25
QUANTA CONFIDENTIAL

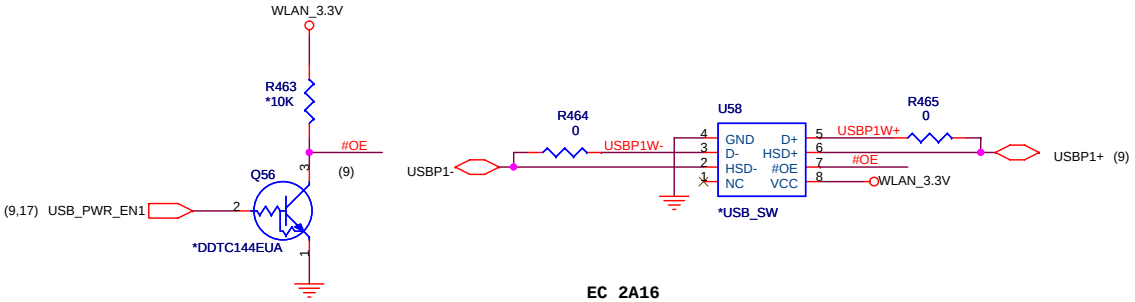








EC 2A04
EC 2C10



EC 2A16
EC 2C04/2C11

QUANTA CONFIDENTIAL

PROJECT : CL1
Quanta Computer Inc.

Size	Document Number	Rev
B	WLAN 88W8388	J3A

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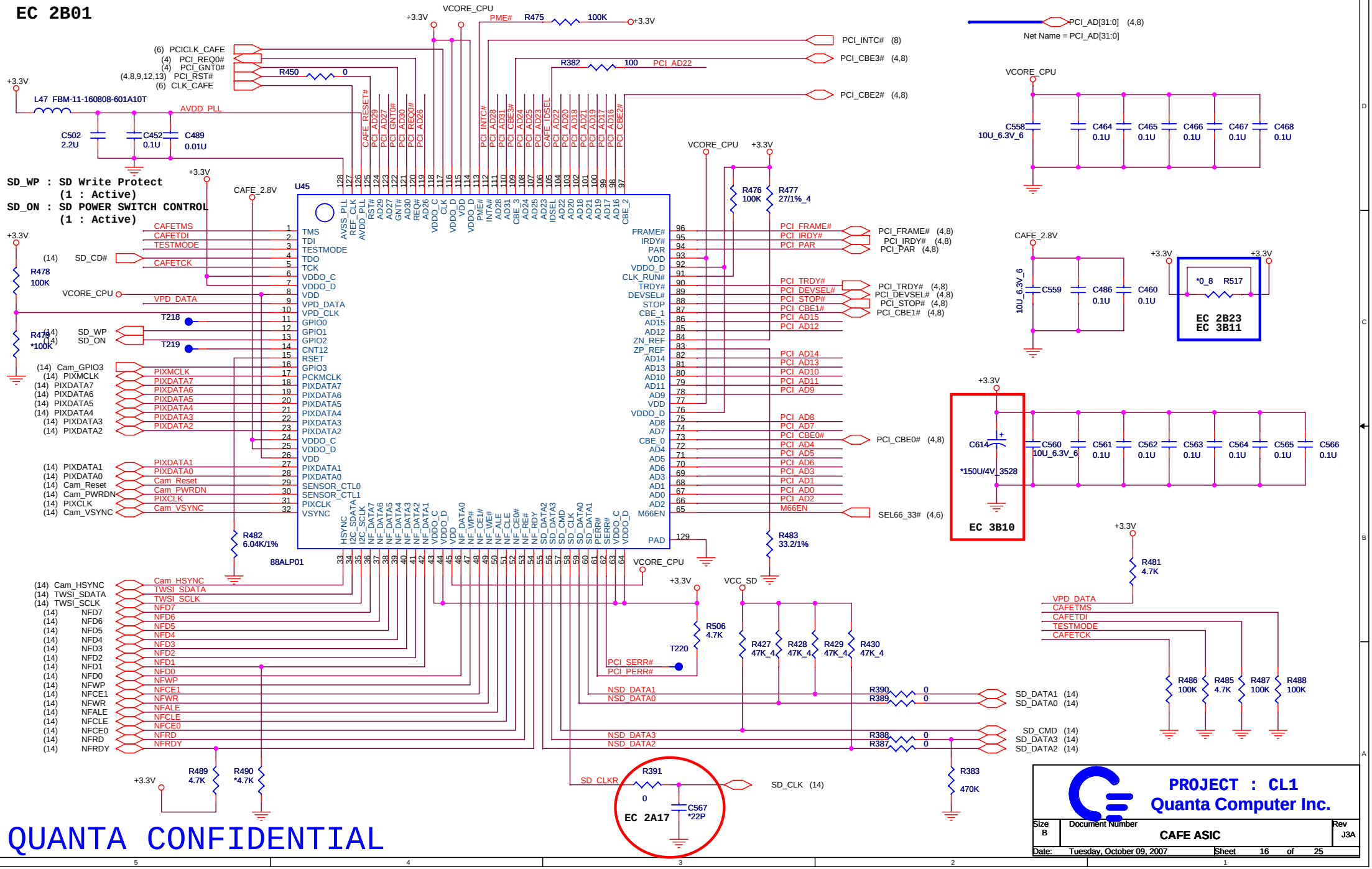
EC 2B01


SD_WP : SD Write Protect
(1 : Active)
SD_ON : SD POWER SWITCH CONTROL
(1 : Active)
U45
88ALP01
L47 FBM-11-160808-601A10T
AVDD_PLL
C502 2.2U
C452 0.1U
C489 0.01U
R450 0
R382 100 PCI_AD22
R475 100K
R476 100K
R477 27/1%_4
R478 100K
R479 *100K
R482 6.04K/1%
R483 33.2/1%
R481 4.7K
R506 4.7K
R427 47K_4
R428 47K_4
R429 47K_4
R430 47K_4
R489 4.7K
R490 *4.7K
R391 0
R383 470K
R390 0
R389 0
R388 0
R387 0
T218
T219
T220
EC 2A17
C567 *22P
EC 3B10
C614 *150U/4V_3528
EC 2B23
EC 3B11
*0_8 R517
C558 10U_6.3V_6
C559 10U_6.3V_6
C560 10U_6.3V_6
C464 0.1U
C465 0.1U
C466 0.1U
C467 0.1U
C468 0.1U
C486 0.1U
C460 0.1U
C561 0.1U
C562 0.1U
C563 0.1U
C564 0.1U
C565 0.1U
C566 0.1U
R486 100K
R485 4.7K
R487 100K
R488 100K
PCI_AD[31:0] (4,8)
Net Name = PCI_AD[31:0]
PCI_INTC# (8)
PCI_CBE3# (4,8)
PCI_CBE2# (4,8)
PCI_FRAME# (4,8)
PCI_IRDY# (4,8)
PCI_PAR (4,8)
PCI_TRDY# (4,8)
PCI_DEVSEL# (4,8)
PCI_STOP# (4,8)
PCI_CBE1# (4,8)
PCI_CBE0# (4,8)
SEL66_33# (4,6)
SD_DATA1 (14)
SD_DATA0 (14)
SD_CMD (14)
SD_DATA3 (14)
SD_DATA2 (14)
SD_CLK (14)
(6) PCICLK_CAFE
(4) PCI_REQ0#
(4) PCI_GNT0#
(4,8,9,12,13) PCI_RST#
(6) CLK_CAFE
(14) SD_CD#
(14) SD_WP
(14) SD_ON
(14) Cam_GPIO3
(14) PIXMCLK
(14) PIXDATA7
(14) PIXDATA6
(14) PIXDATA5
(14) PIXDATA4
(14) PIXDATA3
(14) PIXDATA2
(14) PIXDATA1
(14) PIXDATA0
(14) Cam_Reset
(14) Cam_PWRDN
(14) PIXCLK
(14) Cam_VSYNC
(14) Cam_HSYNC
(14) TWSI_SDATA
(14) TWSI_SCLK
(14) NFD7
(14) NFD6
(14) NFD5
(14) NFD4
(14) NFD3
(14) NFD2
(14) NFD1
(14) NFD0
(14) NFWP
(14) NFCE1
(14) NFWR
(14) NFALE
(14) NFCLE
(14) NFCE0
(14) NFRD
(14) NFRDY
VCORE_CPU
+3.3V
CAFE_2.8V
VCC_SD
VPD_DATA
CAFETMS
CAFETDI
TESTMODE
CAFETCK
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Quanta Computer Inc.
Size B
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CAFE ASIC
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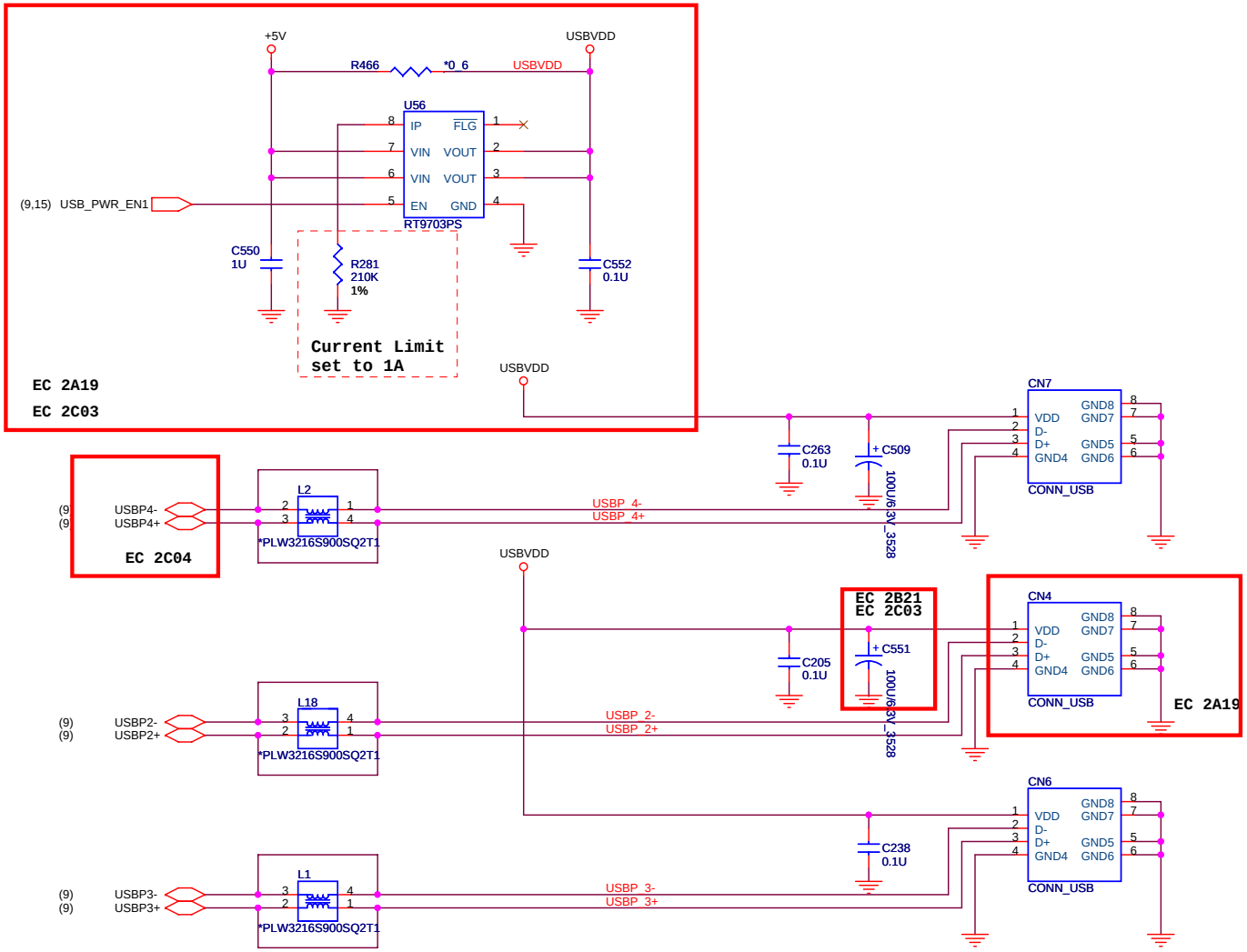

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B	USB	J3A

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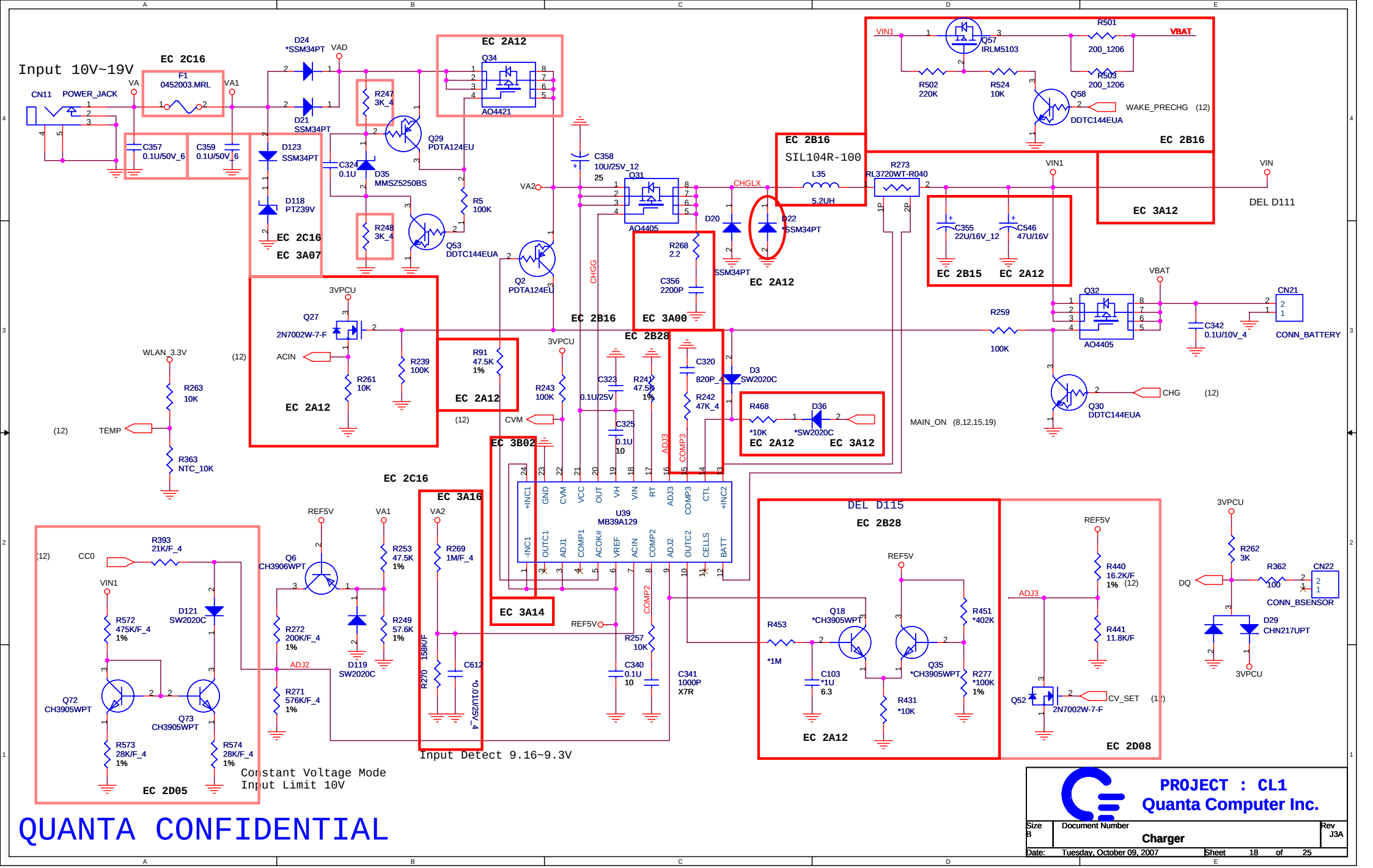

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B	Charger	J3A
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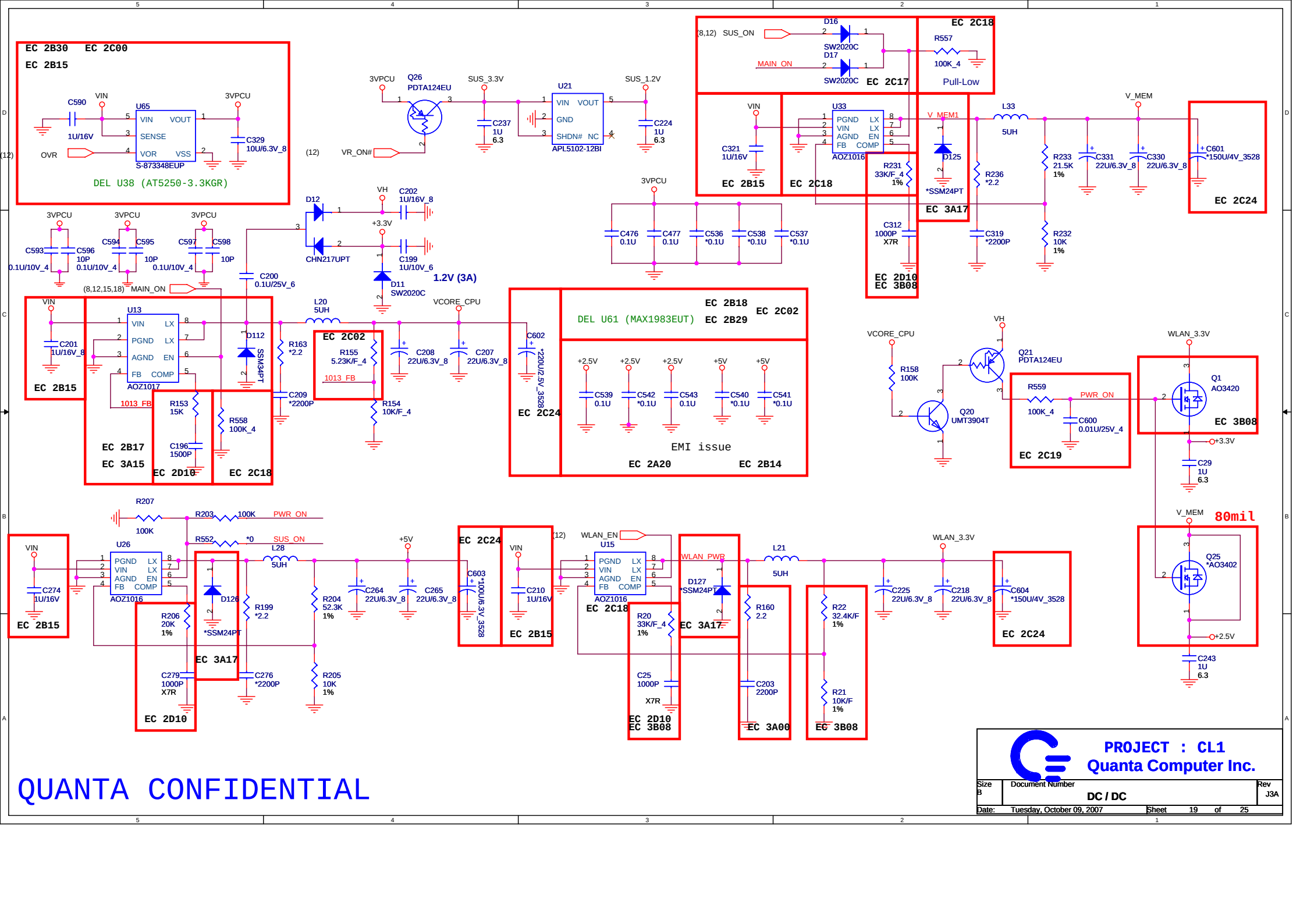
EC 2B30 EC 2C00
EC 2B15
C590
1U/16V
VIN
U65
VIN VOUT
SENSE
VOR VSS
S-873348EUP
3VPCU
C329
10U/6.3V_8
(12) OVR
DEL U38 (AT5250-3.3KGR)
3VPCU
Q26
PDTA124EU
SUS_3.3V
C237
1U
6.3
U21
VIN VOUT
GND
SHDN# NC
APL5102-12BI
SUS_1.2V
C224
1U
6.3
(12) VR_ON#
(8,12) SUS_ON
D16
SW2020C
MAIN_ON
D17
SW2020C
EC 2C17
EC 2C18
R557
100K_4
Pull-Low
VIN
C321
1U/16V
EC 2B15
U33
PGND LX
VIN LX
AGND EN
FB COMP
AOZ1016
EC 2C18
V_MEM1
L33
5UH
V_MEM
D125
*SSM24PT
EC 3A17
R231
33K/F_4
1%
R236
*2.2
R233
21.5K
1%
C331
22U/6.3V_8
C330
22U/6.3V_8
C601
*150U/4V_3528
EC 2C24
C312
1000P
X7R
C319
*2200P
R232
10K
1%
EC 2D10
EC 3B08
3VPCU
C476
0.1U
C477
0.1U
C536
*0.1U
C538
*0.1U
C537
*0.1U
3VPCU
C593
C596
10P
0.1U/10V_4
C594
C595
10P
0.1U/10V_4
3VPCU
C597
C598
10P
0.1U/10V_4
(8,12,15,18) MAIN_ON
C200
0.1U/25V_6
D12
CHN217UPT
VH
C202
1U/16V_8
+3.3V
C199
1U/10V_6
D11
SW2020C
1.2V (3A)
VIN
C201
1U/16V_8
EC 2B15
U13
VIN LX
PGND LX
AGND EN
FB COMP
AOZ1017
D112
SSM34PT
L20
5UH
VCORE_CPU
R163
*2.2
EC 2C02
R155
5.23K/F_4
1013_FB
R154
10K/F_4
C208
22U/6.3V_8
C207
22U/6.3V_8
C602
*220U/2.5V_3528
EC 2C24
EC 2B18
EC 2B29
EC 2C02
DEL U61 (MAX1983EUT)
+2.5V
+2.5V
+2.5V
+5V
+5V
C539
0.1U
C542
*0.1U
C543
0.1U
C540
*0.1U
C541
*0.1U
EMI issue
EC 2A20
EC 2B14
1013_FB
R153
15K
C196
1500P
R558
100K_4
EC 2B17
EC 3A15
EC 2D10
EC 2C18
C209
*2200P
VCORE_CPU
R158
100K
VH
Q21
PDTA124EU
Q20
UMT3904T
R559
100K_4
PWR_ON
C600
0.01U/25V_4
EC 2C19
WLAN_3.3V
Q1
AO3420
EC 3B08
+3.3V
C29
1U
6.3
R207
100K
R203
100K
PWR_ON
R552
*0
SUS_ON
L28
5UH
+5V
U26
PGND LX
VIN LX
AGND EN
FB COMP
AOZ1016
VIN
C274
1U/16V
EC 2B15
D126
*SSM24PT
EC 3A17
R206
20K
1%
C279
1000P
X7R
EC 2D10
C276
*2200P
R199
*2.2
R204
52.3K
1%
R205
10K
1%
C264
22U/6.3V_8
C265
22U/6.3V_8
EC 2C24
C603
*100U/6.3V_3528
VIN
C210
1U/16V
EC 2B15
(12) WLAN_EN
U15
PGND LX
VIN LX
AGND EN
FB COMP
AOZ1016
EC 2C18
R20
33K/F_4
1%
C25
1000P
X7R
EC 2D10
EC 3B08
WLAN_PWR
D127
*SSM24PT
EC 3A17
L21
5UH
R160
2.2
C203
2200P
EC 3A00
R22
32.4K/F
1%
R21
10K/F
1%
EC 3B08
WLAN_3.3V
C225
22U/6.3V_8
C218
22U/6.3V_8
C604
*150U/4V_3528
EC 2C24
V_MEM
80mil
Q25
*AO3402
+2.5V
C243
1U
6.3
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Quanta Computer Inc.
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DC / DC
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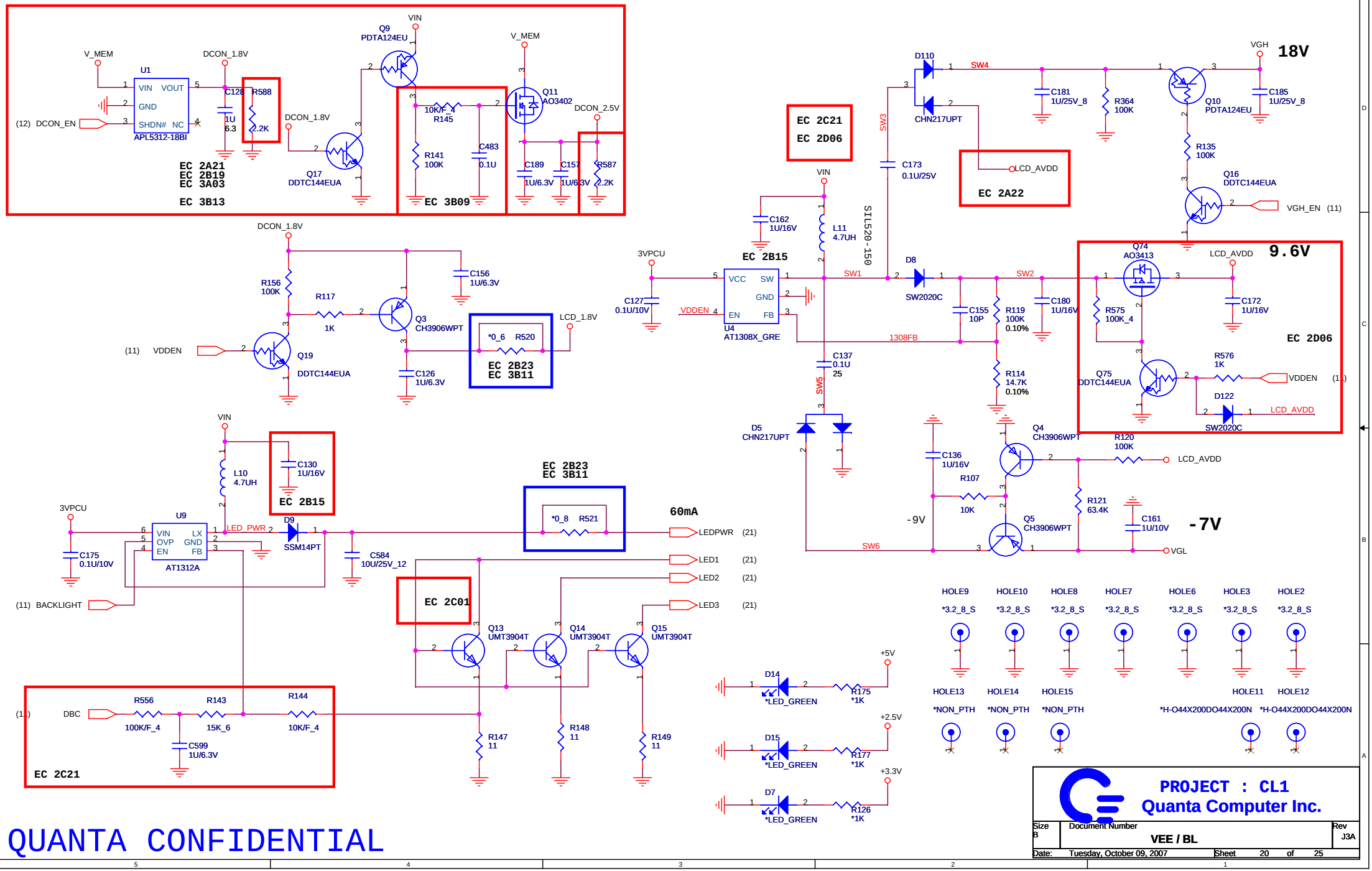

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Quanta Computer Inc.

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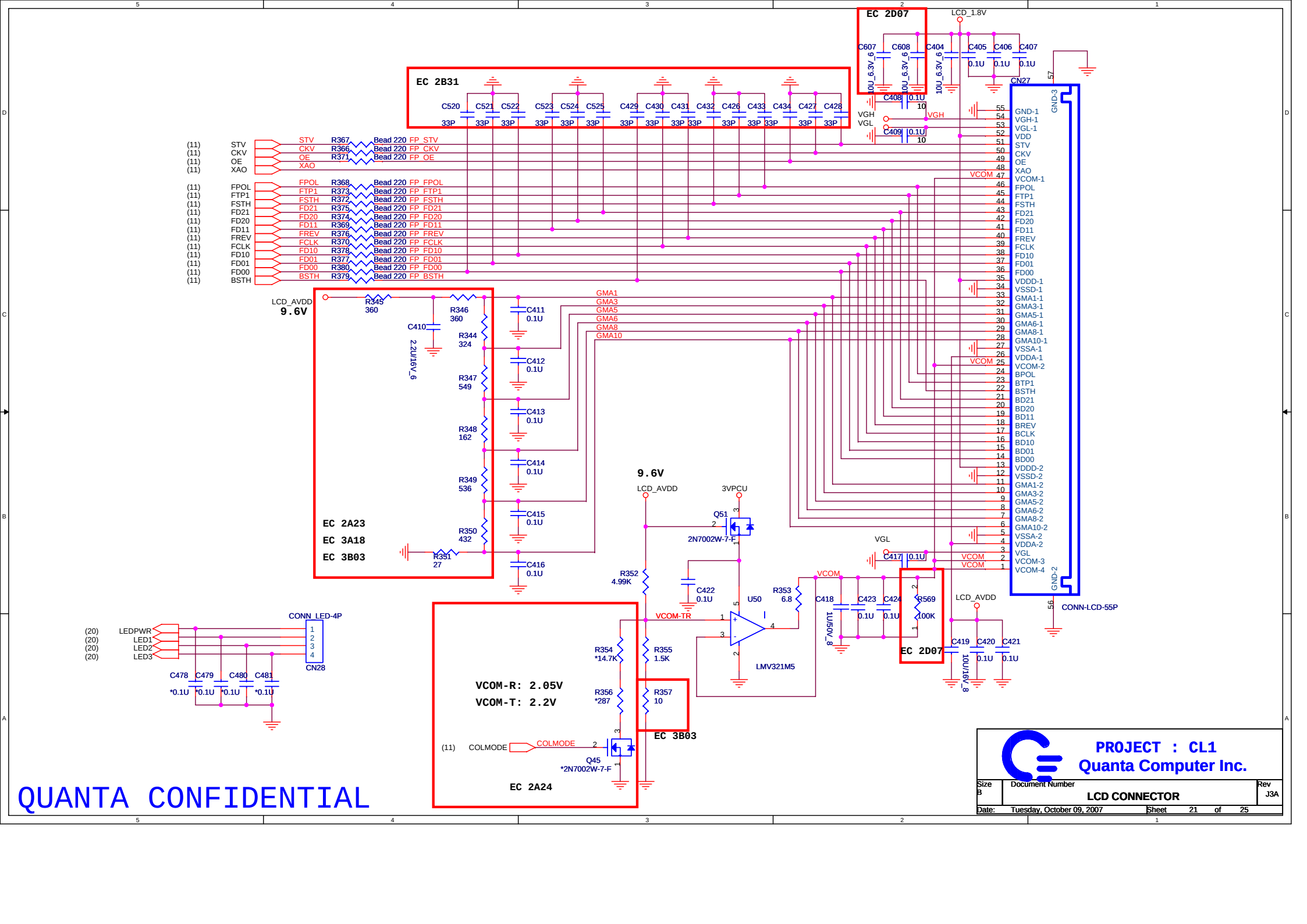
EC 2D07
LCD_1.8V
C607 10U_6.3V_6
C608 10U_6.3V_6
C404 10U_6.3V_6
C405 0.1U
C406 0.1U
C407 0.1U
CN27
EC 2B31
C520 33P
C521 33P
C522 33P
C523 33P
C524 33P
C525 33P
C429 33P
C430 33P
C431 33P
C432 33P
C426 33P
C433 33P
C434 33P
C427 33P
C428 33P
C408 0.1U 10
C409 0.1U 10
VGH
VGL
(11) STV R367 Bead 220 FP_STV
(11) CKV R366 Bead 220 FP_CKV
(11) OE R371 Bead 220 FP_OE
(11) XAO
(11) FPOL R368 Bead 220 FP_FPOL
(11) FTP1 R373 Bead 220 FP_FTP1
(11) FSTH R372 Bead 220 FP_FSTH
(11) FD21 R375 Bead 220 FP_FD21
(11) FD20 R374 Bead 220 FP_FD20
(11) FD11 R369 Bead 220 FP_FD11
(11) FREV R376 Bead 220 FP_FREV
(11) FCLK R370 Bead 220 FP_FCLK
(11) FD10 R378 Bead 220 FP_FD10
(11) FD01 R377 Bead 220 FP_FD01
(11) FD00 R380 Bead 220 FP_FD00
(11) BSTH R379 Bead 220 FP_BSTH
LCD_AVDD 9.6V
R345 360
R346 360
R344 324
R347 549
R348 162
R349 536
R350 432
R351 27
C410 2.2U/16V_6
C411 0.1U
C412 0.1U
C413 0.1U
C414 0.1U
C415 0.1U
C416 0.1U
GMA1
GMA3
GMA5
GMA6
GMA8
GMA10
EC 2A23
EC 3A18
EC 3B03
9.6V
LCD_AVDD
3VPCU
Q51
2N7002W-7-F
R352 4.99K
C422 0.1U
U50
LMV321M5
VCOM-TR
R353 6.8
VCOM
C418 1U/50V_8
C423 0.1U
C424 0.1U
R569 100K
VGL
C417 0.1U
EC 2D07
LCD_AVDD
C419 10U/16V_8
C420 0.1U
C421 0.1U
R354 *14.7K
R355 1.5K
R356 *287
R357 10
EC 3B03
VCOM-R: 2.05V
VCOM-T: 2.2V
(11) COLMODE
COLMODE
Q45
*2N7002W-7-F
EC 2A24
CONN_LED-4P
(20) LEDPWR
(20) LED1
(20) LED2
(20) LED3
CN28
C478 *0.1U
C479 *0.1U
C480 *0.1U
C481 *0.1U
CONN-LCD-55P
GND-3
GND-2
55 GND-1
54 VGH-1
53 VGL-1
52 VDD
51 STV
50 CKV
49 OE
48 XAO
47 VCOM
46 VCOM-1
45 FPOL
44 FTP1
43 FSTH
42 FD21
41 FD20
40 FD11
39 FREV
38 FCLK
37 FD10
36 FD01
35 FD00
34 VDDD-1
33 VSSD-1
32 GMA1-1
31 GMA3-1
30 GMA5-1
29 GMA6-1
28 GMA8-1
27 GMA10-1
26 VSSA-1
25 VCOM
24 VDDA-1
23 VCOM-2
22 BPOL
21 BTP1
20 BSTH
19 BD21
18 BD20
17 BD11
16 BREV
15 BCLK
14 BD10
13 BD01
12 BD00
11 VDDD-2
10 VSSD-2
9 GMA1-2
8 GMA3-2
7 GMA5-2
6 GMA6-2
5 GMA8-2
4 GMA10-2
3 VSSA-2
2 VDDA-2
1 VGL
VCOM-3
VCOM-4
57
56
PROJECT : CL1
Quanta Computer Inc.
Size B
Document Number
LCD CONNECTOR
Rev J3A
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CL1 Schematic EC Tracking Record A (for [PreB] --> [B1])Oct. 17, 2006

EC #/Page/Description

EC 2A01/Page 8,16/Add buffer logic IC U55 and Delete D32,R449 and R450 pop 0 Ohm ,De-pop R43,C56 for CAFE Reset circuit.
EC 2A02/Page 10/Change R115,R116 pull up to 5V_CRT for current leakage.
EC 2A03/Page 14/Modify Camera PWDN/RESET pull up/down resistor R409,R426 4.7KOhm.
EC 2A04/Page 15/Delete U54, Add R452 10K Ohm for wireless wake up control circuit.
EC 2A05/Page 17/Change R402 from 10K to 100K Ohm for CAFE DOWN.
EC 2A06/Page 06/Seperate CLK_GND and GND. Add R454,R455 0Ohm.
EC 2A07/Page 07/Add C547 0.1uF for EMI.
EC 2A08/Page 08,09/Add R460/R461/R462 10K,D37/D38/D39 1SS400, Q54/Q55 2N7002 for DCON leakage.
EC 2A09/Page 08,10,12,17/De-pop J1/CN2/CN31/CN24/CN34 for build.
EC 2A10/Page 9/POP R442 for DDR 128MB, POP R443 for DDR 256MB.
EC 2A11/Page 11/Add R470 1MOhm,R471 0Ohm. Change C379/C381 to 22pF for DCON XTAL circuit. Add R456(DE-POP)/R457(POP) 10K Ohm for DCON seting.
EC 2A12/Page 12,19/Modify charger circuit.
EC 2A13/Page 12/Left switch SW3/SW5/SW6/SW9 change to PAD.
EC 2A14/Page 12/Add D33,D34. Change R295/R407 to 1K Ohm. Delete CN29/C436/C437/C438 for Power/Charge LED.
EC 2A15/Page 14/Add C548/C549 0.1uF,Change C311/C515/C518/C519 to 4.7uF for backup capacitor.
EC 2A16/Page 15/Add U58,Q56 DTC144EU,R463 10K Ohm for wireless USB switch.
EC 2A17/Page 16/Change R391 to 0 Ohm,De-pop C483.
EC 2A18/Page 17/Delete C460/C462/C452/C486/C489/C501/C504/C505.
EC 2A19/Page 18/Add U56/U57/C550/C553/C554/C551 for separate USB power. CN4 change connector part.
EC 2A20/Page 20/Separate power plant capacitor .
EC 2A21/Page 21/Pop R459 0 Ohm, De-pop U1 for DCON1.8V connect to DCON_2.5V
EC 2A22/Page 21/Change circuit for panel leakage
EC 2A23/Page 23/Change R345-R351 value for display gamma.
EC 2A24/Page 23/De-pop R354,R356,Q45 for Disable Color Mode control circuit
EC 2A25/Page 12,15/EC pin51 connect to wireless module pin 41 RESET# for reset wireless.

CL1 Schematic EC Tracking Record B (for [B1] --> [B2])Dec. 7, 2006

EC #/Page/Description/Ticket#/(ECO#)

EC 2B01/Page 14,16/Change CAFE FPGA to ASIC Design and NAND Flash damping change to 0Ohm.
EC 2B02/Page 14/Add U60,C568,C569,C462 for CAFE ASIC 2.8V power plant
EC 2B03/Page 14/Change SD card CD# and WP# pin define.
EC 2B04/Page 8/Remove U55,R432,C545 for CAFE ASIC. Pop R43 1K Ohm, C56 2200pF.
EC 2B05/Page 6/Add R493 1K pull up for Clock GEN PWD#, control by +3.3V rail.
EC 2B06/Page 9/Change 48MHz circuit for AMD required.
EC 2B07/Page 9/Change R57 from 4.7Ohm to 0Ohm for AMD required.
EC 2B08/Page 6/Add R495,R496 and pop R495 for enable PCI CLK to 66MHz.
EC 2B09/Page 12/Add D40,D41,D42,D43,D44,D45,D46,D47,D48,AND pull high resister R497,R498,R499 to prevent gamepad ghost key.
EC 2B10/Page 8,12/Move MIC_AC#/DC signal from EC to SB ,add WAKE_PRECHG signal control battery switchfor fix battery low can't boot.
EC 2B11/Page 11/Remove U59,R472,R473,R474,C556 for DCON OSC circuit.
EC 2B12/Page 14/Change C518,C519 to 10uF. Add C570,C571 for improve camera power noise.
EC 2B13/Page 14/Change CAFE 1.2V LDO suport 300mA.
EC 2B14/Page 6,20/Change R381 to 120Ohm bead, pop C435 15pF,C539,C543 0.1uF for EMI solution.
EC 2B15/Page 19,20,21/Change C546,C355,C339,C321,C201,C274,C210,C162,C130 voltage rating to 16V.
EC 2B16/Page 19/Modify Power/Charger circuit.
EC 2B17/Page 20/Change U13 source to AOZ1013 and add D112 for add CPU Core power power consumption.
EC 2B18/Page 20/Change SB 1.2V power circuit.
EC 2B19/Page 21/Pop U1 and De-pop R459 recover DCON_1.8V.
EC 2B20/Page 8,12/Add wakup circuit for EC wakeup.
EC 2B21/Page 4/Add CPU thermal protect circuit
EC 2B22/Page 4/Add R522,R523 for M/B ID select.
EC 2B23/Page 11,12,14,15,16,21/Add R512 ~ R521 for current measure resistor.
EC 2B24/Page 11/Add L48,L49,L50,C577,C578,C579 for EMI solution.
EC 2B25/Page 12/Add R534,R535 and C582 for go to pin AD1 of EC for EC ID Pin .(ECO-CL1-HW-00001)
EC 2B26/Page 12/Add Q64,R533 to avoid EC can't entry stop mode when system in power off and WLAN no power.(ECO-CL1-HW-00001)
EC 2B27/Page 12/Change EC Reset solution to Reset IC U64 from RC avoid EC Hang up when battery voltage too low even AC plug in .(ECO-CL1-HW-00001)
EC 2B28/Page 19/Add D115 between U39 pin8 and pin15,change C320 from 680pF to 820p to reduce VIN overshoot
when battery chargering and remove the battery.(ECO-CL1-HW-00001)
EC 2B29/Page 20/Change U61 VBIAS source from VH for +5V unstable when turn on theUSB Power switch .(ECO-CL1-HW-00001)
EC 2B30/Page 20/Reserved U65 when Battery Voltage below 4.8V will turn off the 3VPCU Power output.
Avoid EC Hang up when battery voltage below 3.0V (EC Operating Voltage 3.0 ~ 3.6v).(ECO-CL1-HW-00001)
EC 2B31/Page 22/Change LCD interface for EMI apacitor C426 ~ C434,C520 ~ C525 from 47pF to 22pF for fix display garbage on B2 new panel.(ECO-CL1-HW-00002)
EC 2B32/Page 20/Remove U64 EC reset IC for avoid assert ECRST# when 3VPCU unstable.(ECO-CL1-HW-00003)

CL1 Schematic EC Tracking Record C (for [B2] --> [B3])April. 27, 2007)

EC #/Page/Description/#Ticket/(ECO#)

EC 2C00/Page 20/Remove U38 for improve 3VPCU voltage and add OVR for EC reset# / #543/(ECO-CL1-HW-00005)
EC 2C01/Page 21/Remove Q12 for avoid ESD damage./(ECO-CL1-HW-00005)
EC 2C02/Page 9,14,20/VCORE_CPU change to 1.2V for LX700, delete VCORE_SB power plant and connect to VCORE_CPU, delete CAFE_1.2V power plant and connect to VCORE_CPU./(E
EC 2C03/Page 18/Change U56 USB PWR SW for reduce inrush current./(ECO-CL1-HW-00005)
EC 2C04/Page 15,18/Swap USB1 and USB4 signal./ #1095/(ECO-CL1-HW-00005)
EC 2C05/Page 12/Change PS/2 power plant to 3VSUS for KB/TP S3 wakeup function./ #1094/(ECO-CL1-HW-00005)
EC 2C06/Page 13,14/Add Mic/Camera indicate LED/(ECO-CL1-HW-00005)
EC 2C07/Page 8/Change R188 to pull down for DCON S3 function/ #947/(ECO-CL1-HW-00005)
EC 2C08/Page 13/Add a mosfet control AMP_SD# for pop noise/ #640,#977/(ECO-CL1-HW-00005)
EC 2C09/Page 12/Remove Q46,R395,R358,CN30 for delete keyboard light function/(ECO-CL1-HW-00005)
EC 2C10/Page 15/Remove CN33,R452,R365,C544 for delete WLAN wakeup enable switch function/(ECO-CL1-HW-00005)
EC 2C11/Page 15/Remove U58 USB analog switch for cost down./ #1085/(ECO-CL1-HW-00005)
EC 2C12/Page 3,4,5/change CPU from GX500 to LX700/(ECO-CL1-HW-00005)
EC 2C13/Page 4/Add R526,R525,R522,R540,R541 for CPU and Memory frequency hardware boot strap/(ECO-CL1-HW-00005)
EC 2C14/Page 4/Add R184,R538 for PCI bus frequency hardware boot strap/(ECO-CL1-HW-00005)
EC 2C15/Page 5/Rewire RGB TTL signal use MSB-aligned instead of LSB-aligned./ #336/(ECO-CL1-HW-00005)
EC 2C16/Page 19/Add 4A fuse and zener diode for DC input high surge voltage protect/(ECO-CL1-HW-00005)
EC 2C17/Page 20/Add D16/D17 for modify V_MEM power sequency same as 3.3V/(ECO-CL1-HW-00006)
EC 2C18/Page 20/Change AOZ1010 to AOZ1016 and add pull down resistor on pin6 EN pin/(ECO-CL1-HW-00006)
EC 2C19/Page 20/Add 100K/0.1uF RC for fix WLAN_3.3V voltage dip/(ECO-CL1-HW-00006)
EC 2C20/Page 21/Add LCD_AVDD short protect circuit/(ECO-CL1-HW-00006)
EC 2C21/Page 21/Add RC for analog control LCD backlight for fix choice noise/(ECO-CL1-HW-00006)
EC 2C22/Page 12/Setting EC_ID to 0 for B3 version/(ECO-CL1-HW-00006)
EC 2C23/Page 4/Add Q69 for voltage leakage from SB THERM_ALRM# in S3 mode/(ECO-CL1-HW-00006)
EC 2C24/Page 20/Add C601,C602,C603,C604 for reduce power plant voltage translation noise/(ECO-CL1-HW-00006)
EC 2C25/Page 14/Hynix/Micron is 2 die chip and Samsung/ST is 1 die chip, pin 6 define is diffeent. Hynix/Micron need to connect pin 6 to pin 7/(ECO-CL1-HW-00007)

CL1 Schematic EC Tracking Record D (for [B3] --> [B4])April. 27, 2007)

EC #/Page/Description/#Ticket/(ECO#)

EC 2D00/Page 11/LCD_1.8V have power noise in DCON power pin.Relocate C375,C376,C377 for each DCON power pin./(ECO-CL1-HW-00008)
EC 2D01/Page 12/Change EC_ID 1/8 X 3VPCU for B4 M/B ID. /(ECO-CL1-HW-00008)
EC 2D02/Page 13/Add control circuit in VREFOUT to control Microphone LED turn On/Off for Microphone LED indicate blink when suspen/resume./(ECO-CL1-HW-00008)
EC 2D03/Page 13,14/Reserve option for 5V higher luminous LED for Microphone/Camera LED indicate light./(ECO-CL1-HW-00008)
EC 2D04/Page 15/Reserve MAIN_ON and USB_PWR_EN1 signals to WLAN GPIO00 for isolate USB interface when S3 for voltage leakage./(ECO-CL1-HW-00008)
EC 2D05/Page 19/Modfiy battery charger current limit to dynamic mode for power consumption limit circuit from constant current to constant watt./(ECO-CL1-HW-00008)
EC 2D06/Page 21/Modify LCD_AVDD voltage short protect circuit, remove current limit circuit and add turn off LCD_AVDD control circuit./(ECO-CL1-HW-00008)
EC 2D07/Page 22/Power sequence modify add C607/C608 10uF for keep LCD_1.8V longer and add R569 100K to GND in VCOM power plant
for discharge quickly /(ECO-CL1-HW-00008)
EC 2D08/Page 20/Modify charger IC CV setting circuit for VIN have overshoot(around 15V) with 19V Adapter IN./(ECO-CL1-HW-00008)
EC 2D09/Page 12/Move PS2 interface pull up resritors to the other side of the bead for RFI issue./(ECO-CL1-HW-00008)
EC 2D10/Page 20/Change U33,U26,U15,U13 PWM IC COMP R C value for improve power plant transient response./(ECO-CL1-HW-00008)
EC 2D11/Page 13/Change Audio Amplify Cin(C362,C363,C402,C403) value to 2200pF for setting high-pass frequency to 480Hz.
/(ECO-CL1-HW-00008)
EC 2D12/Page 20/U13 AOZ1017 latch up function error, it'll change back to AOZ1013 and mount C602./(ECO-CL1-HW-00008)

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CL1 Schematic EC Tracking Record E (for [B4] --> [C1])July 16, 2007)
EC #/Page/Description/#Ticket/(ECO#)

EC 3A00/Page 18,19/Populate R268/R160 2.2Ohm and C356/C203 2200pF for EMI solution./(ECO-CL1-HW-00009)
EC 3A01/Page 5,11/Move R328 near U28 and change to bead BK1608LL680 and add C609/22pF. Populate R332 33Ohm/C390 22pF for EMI solution./(ECO-CL1-HW-00009)
EC 3A02/Page 13/Add R578,R579 0Ohm resistors between AGND and GND for EMI solution./(ECO-CL1-HW-00009)
EC 3A03/Page 20/Modify DCON power sequence to DCON_1.8V lead DCON_2.5V power plant./(ECO-CL1-HW-00009)
EC 3A04/Page 12/Change C371 from 1uF to 2.2uF for EC Reset timing worst case issue./(ECO-CL1-HW-00009)
EC 3A05/Page 4,8,10/Depopulate R190,J1,SW11 and all of CRT page 10 parts for cost down./(ECO-CL1-HW-00009)
EC 3A06/Page 12/Change R534 to 30K_1% for change M/B ID to reversion C1./(ECO-CL1-HW-00009)
EC 3A07/Page 18/Add D123 serial with D118 39V zenor diode for adapter IN high voltage range protect./(ECO-CL1-HW-00009)
EC 3A08/Page 13/Add C610 6800pF between R25 and C35 to AGND for providing an antialiasing filter at the input to the A/D./(ECO-CL1-HW-00009)
EC 3A09/Page 13/Depopulate C510,C511,C512,C513 for the click in the speakers upon suspend/resume issue/ #1735/(ECO-CL1-HW-00009)
EC 3A10/Page 12,13/Change ACIN signal to EC GPIO8 and delete EC_EAPD signal and depopulate D113 for EC wake up function./(ECO-CL1-HW-00009)
EC 3A11/Page 4/Remove CPU JTAG Port connector CN16 for EMI solution./(ECO-CL1-HW-00009)
EC 3A12/Page 18/Depopulate D36,R468 and delete R252 and short VIN1 and VIN for eliminate the ability to measure the system current./(ECO-CL1-HW-00009)
EC 3A13/Page 12,15/Rewire the indicator LEDs for conserve power./(ECO-CL1-HW-00009)
EC 3A14/Page 12,18/Eliminating ISYS signal, move SUS_ON to EC GPAD3(pin34) and wire PWR_BUT_in to EC GPIO 1B(pin57) and populate R584,R586 for EC lid
open/closed wake up function./(ECO-CL1-HW-00009)
EC 3A15/Page 19/Change U13 from AOZ1013 to AOZ1017 for disable latch function./(ECO-CL1-HW-00009)
EC 3A16/Page 18/Wire R269 to VA2 and change R269 and R270 to 1M and 158K, remove D1 and reserve C612/0.1uF for plugging in an XO with a low battery causes
immediate poweroff and EC lockup/#2182/(ECO-CL1-HW-00009)
EC 3A17/Page 20/Reserved D125,D126,D127 for U33,U26,U15 AOZ1016 PWM 2nd source/(ECO-CL1-HW-00009).
EC 3A18/Page 22/Change R344 ~ R351 LCD gamma resistors value for reduce power consumption/(ECO-CL1-HW-00009).

CL1 Schematic EC Tracking Record F (for [C1] --> [C2])Aug 21, 2007)
EC #/Page/Description/#Ticket/(ECO#)

EC 3B00/Page 12/Reserved ESD protect diode on PS/2 interface.(ECO-CL1-HW-00011).
EC 3B01/Page 13/Reserved ESD protect diode on Speaker Out.(ECO-CL1-HW-00011).
EC 3B02/Page 18/Connect U39 charger IC pin 1&24 to REF5V for supplier suggest for unused pin.(ECO-CL1-HW-00011).
EC 3B03/Page 21/Change R345,R346,R347,R349,R350,R351,R357 for new LCD gamma value. (ECO-CL1-HW-00011).
EC 3B04/Page 8/Pop back J1 console port connector. (ECO-CL1-HW-00011).
EC 3B05/Page 12/Change R534 to 16.5K_1% for change M/B ID to reversion C2(ECO-CL1-HW-00011).
EC 3B06/Page 8 /Remove R43 and C56, Add U69 74LVC1G17GW,C96 4.7u ,R61 7.4K, C613 0.1u, D128 CH501H-40PT ,for South Bridge reset delay.
EC 3B07/Page 14/Change Q49 to AO3420 Add C517 0.1u for SD card power soft start ,Add R444 4.7K ,C572 0.1u for separate Camera 1.8V
and 2.8V power-on sequence,to reduce inrush current .
EC 3B08/Page 19/Change Q1 to AO3420 for reduce +3.3V RDSon ,change R22 to 32.4K 1% for adjust +3.3V to 3.36V,
Change R20 and R231 to 33K 1% for improve the transience response.
EC 3B09/Page 20/Add R145 10K,C483 0.1u for DCON power soft start.(ECO-CL1-HW-00011).
EC 3B10/Page 16/Reserved C614 150u for improve +3.3V quality.
EC 3B11/Page 11,12,14,15,16,21 /remove Q25 and ,R512,R513,R514,R515,R516,R517,R520,R521 (EC 2B23) current measure resister
EC 3B12/Page 4,7,9,11,15/Add 1000P cap on DCON_2.5V: C281,C286,C292,C297 LCD_1.8V: C298 DCON_1.8V :C309,C310,C314 VMEM: C315,C336,C337,C338,C339
+3.3V C344,C353,C354,C361,C425,C436,C437,C438,C443 WLAN_3.3V: C444,C445,VCORE_SB: C446 VCCUSB:C447.

EC 3B13/Page 20 /Add R587,588 2.2K resister for discharge DCON 1.8V,2.5V power.

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