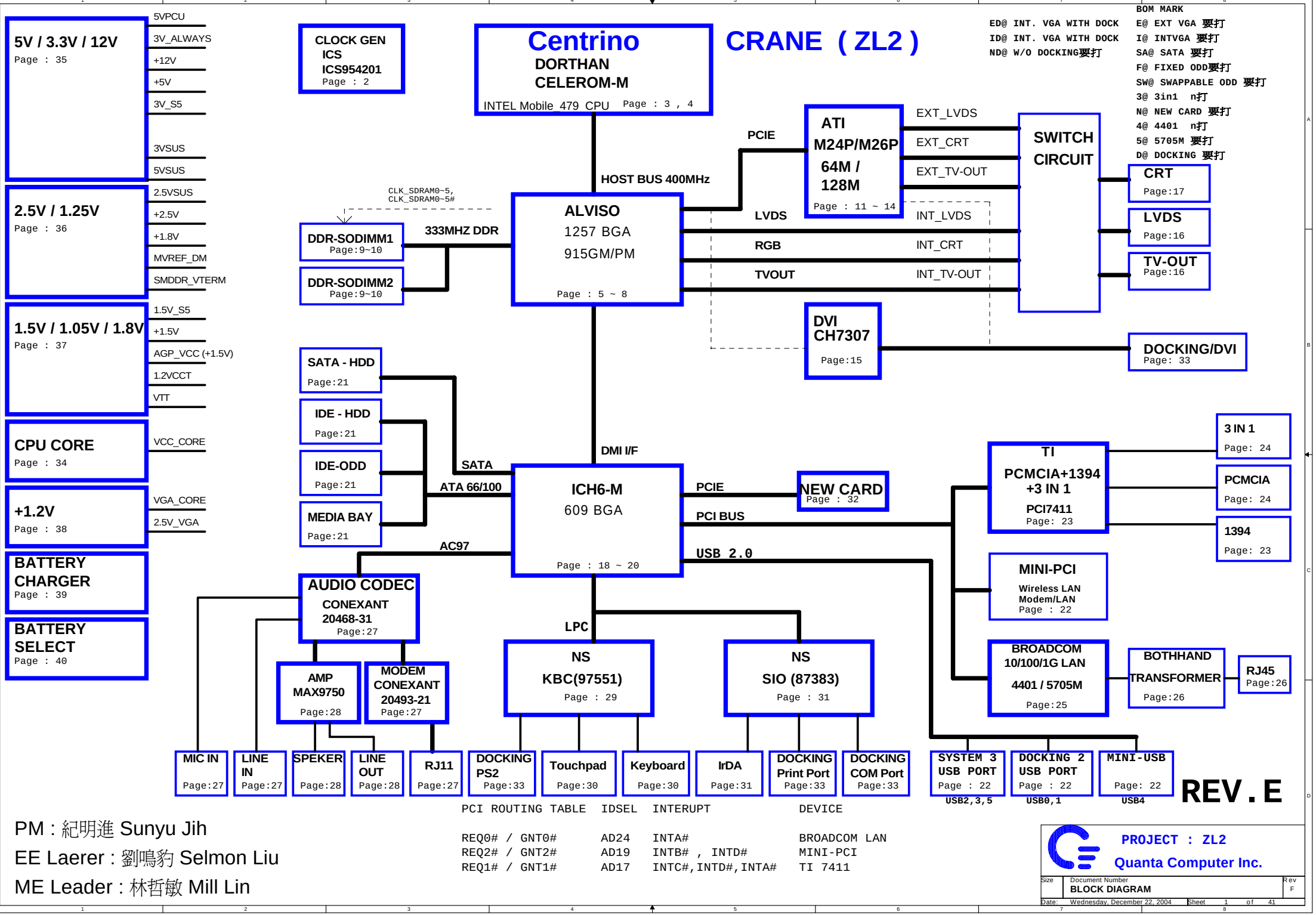

PCI ROUTING TABLE

IDSEL	INTERUPT	DEVICE
REQ0# / GNT0#	AD24	INTA#	BROADCOM LAN
REQ2# / GNT2#	AD19	INTB# , INTD#	MINI-PCI
REQ1# / GNT1#	AD17	INTC#,INTD#,INTA#	TI 7411

PM : 紀明進 Sunyu Jih
EE Laerer : 劉鳴豹 Selmon Liu
ME Leader : 林哲敏 Mill Lin

PROJECT : ZL2
Quanta Computer Inc.

Size	Document Number	Rev
	BLOCK DIAGRAM	F

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REVB: POP R203 R468 AND DEPOP R204, R470 FOR DOTHAN B

Place these termination to close CK410M.

B: DEPOP SSC COMPONENTS

E: R200/202 CHANGE TO 12ohm for EA pass

D: ADD EMI SOLUTION

E: CHANGE TO 10p

PEREQ1# - SRC0, 2, SATA

PEREQ2# - SRC1, 3, 4

DEFALT OFF

DEFALT OFF

B: DEPOP COMPONENTS FOR DIFFERENT SKUS

C: ADD PULLUPS

D: DEPOP R615

SMBus address D2

SMBUS ADDRESS: D2, D3

PULL HIGH TO SET PIN35,36 TO HOST CLK

B: DEPOP SSC COMPONENTS

SMBUS ADDRESS: D4, D5

B: DEPOP COMPONENTS FOR DIFFERENT SKUS

Place these termination to close CK410M.

	FSC	FSB	FSA	CPU	SRC	PCI
DOTHAN-A 400	1	0	1	100	100	33
DOTHAN-A 533	0	0	1	133	100	33
	0	1	1	166	100	33
	0	1	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

QUANTA COMPUTER

Title: CLOCK GENERATOR

Size: Document Number ZL2 Rev F

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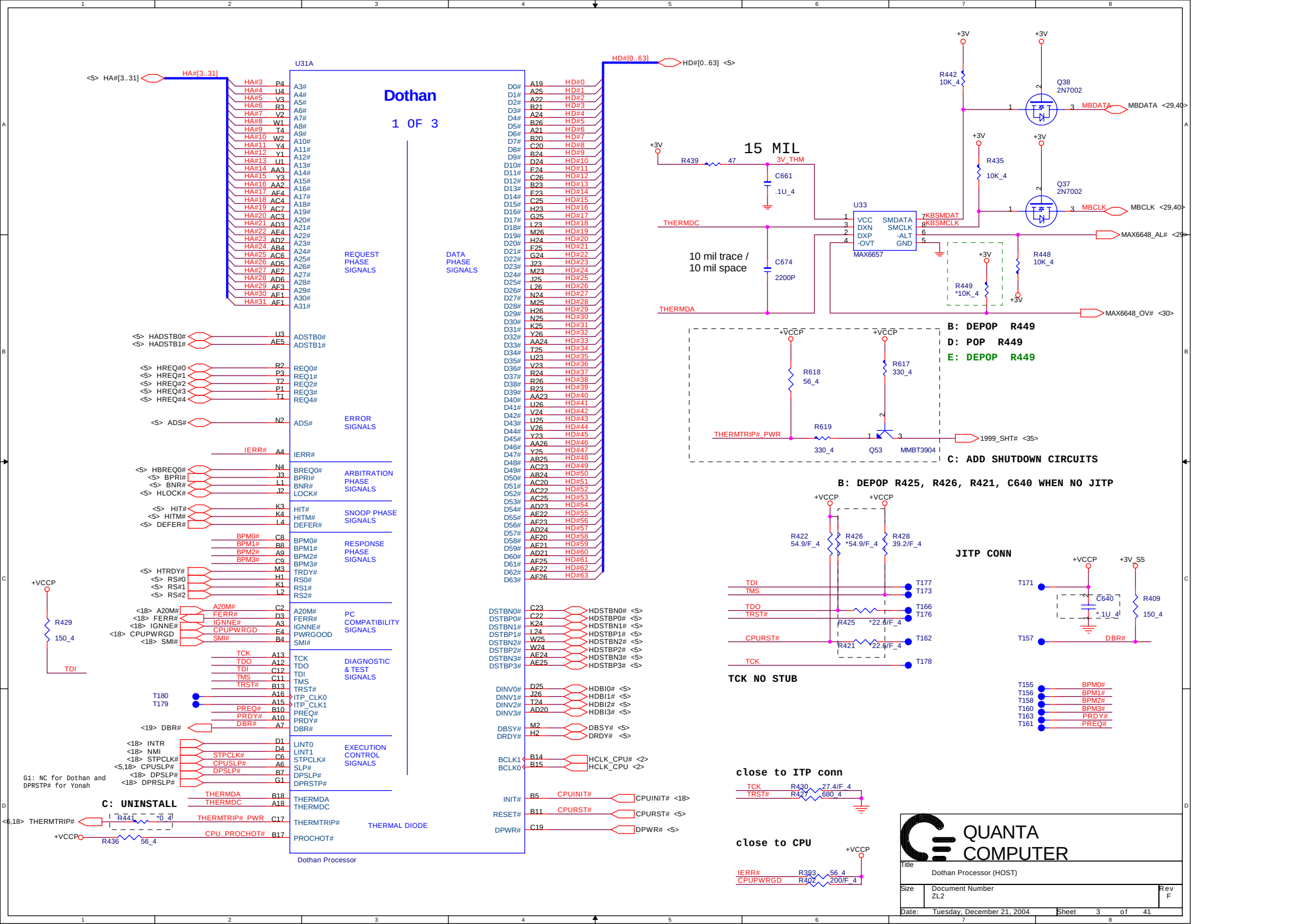
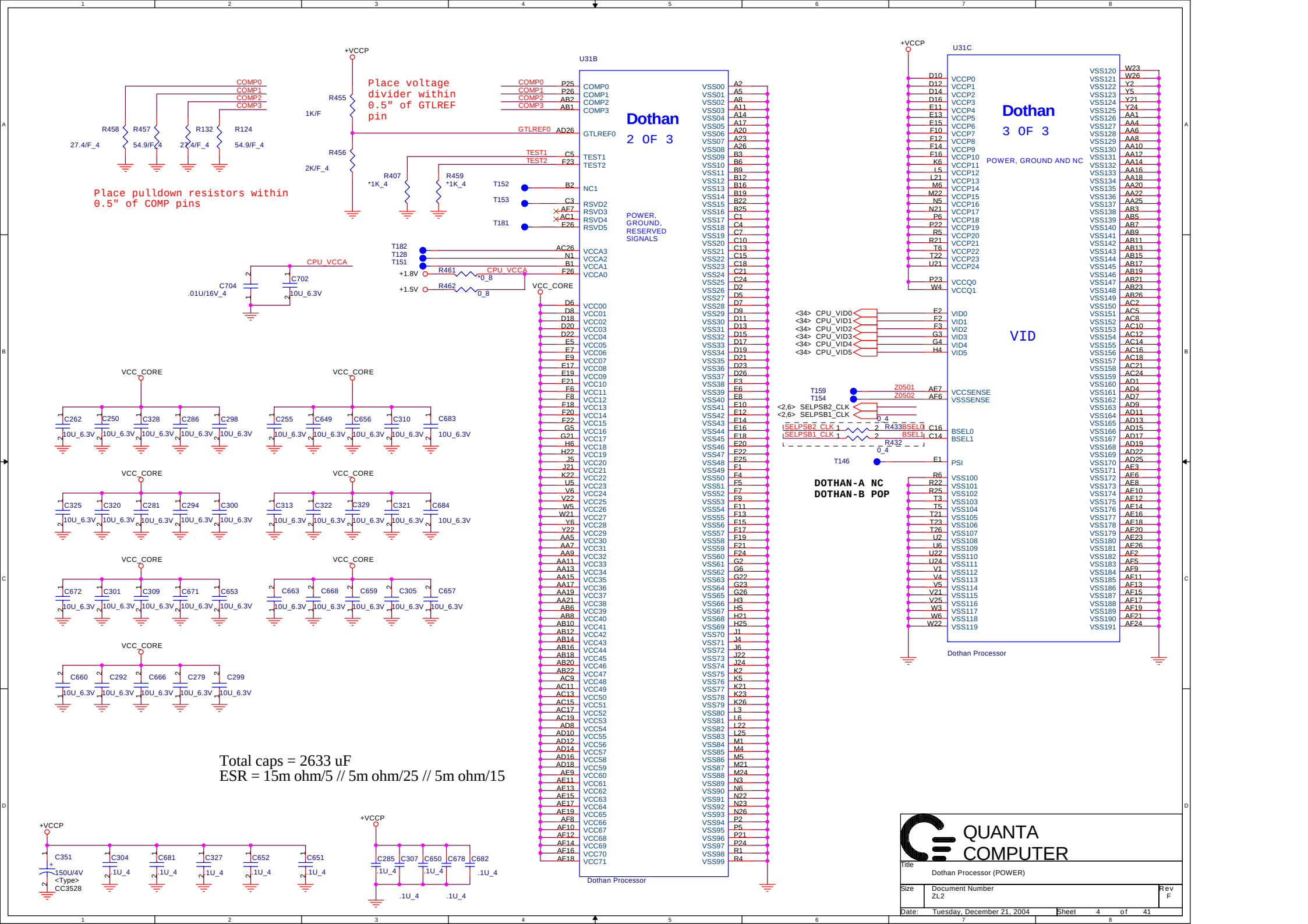
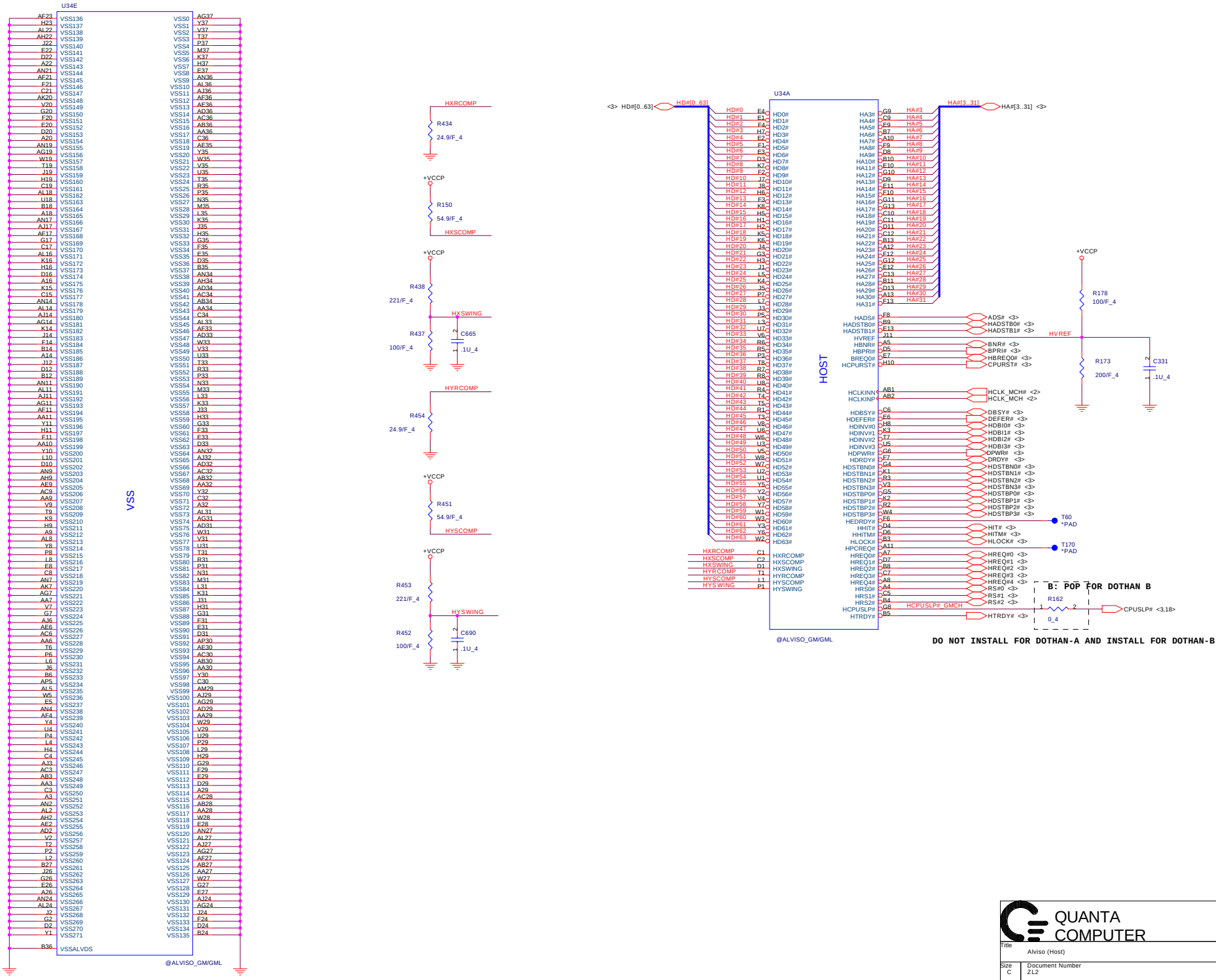

U31A
Dothan
1 OF 3
Dothan Processor
REQUEST PHASE SIGNALS
DATA PHASE SIGNALS
ERROR SIGNALS
ARBITRATION PHASE SIGNALS
SNOOP PHASE SIGNALS
RESPONSE PHASE SIGNALS
PC COMPATIBILITY SIGNALS
DIAGNOSTIC & TEST SIGNALS
EXECUTION CONTROL SIGNALS
THERMAL DIODE
HA#[3..31]
HD#[0..63]
15 MIL
3V_THM
C661
.1U_4
R439
47
THERMDC
THERMDA
10 mil trace / 10 mil space
C674
2200P
U33
MAX6657
SMDATA
SMCLK
-ALT
GND
KBSMDAT
KBSMCLK
MBDATA
MBCLK
MAX6648_AL# <29>
MAX6648_OV# <30>
B: DEPOP R449
D: POP R449
E: DEPOP R449
C: ADD SHUTDOWN CIRCUITS
THERMTRIP# PWR
1999_SHT# <35>
B: DEPOP R425, R426, R421, C640 WHEN NO JITP
TCK NO STUB
JITP CONN
close to ITP conn
close to CPU
C: UNINSTALL
G1: NC for Dothan and DPRSTP# for Yonah
QUANTA COMPUTER
Dothan Processor (HOST)
Tuesday, December 21, 2004
Sheet 3 of 41


Place voltage divider within 0.5" of GTLREF pin
Place pulldown resistors within 0.5" of COMP pins
U31B
Dothan
2 OF 3
POWER, GROUND, RESERVED SIGNALS
Dothan Processor
U31C
Dothan
3 OF 3
POWER, GROUND AND NC
VID
DOTHAN-A NC
DOTHAN-B POP
Dothan Processor
Total caps = 2633 uF
ESR = 15m ohm/5 // 5m ohm/25 // 5m ohm/15
QUANTA COMPUTER
Title
Dothan Processor (POWER)
Size
Document Number
ZL2
Rev
F
Date: Tuesday, December 21, 2004
Sheet 4 of 41



QUANTA COMPUTER		
Title	Alviso (Host)	
Size C	Document Number ZL2	Rev F
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CFG[0:2]=100 FOR FSB 533
CFG[0:2]=101 FOR FSB 400

CFG3 R168 *1K_4 FOR DDR533

CFG5 Low=DMIx2
High=DMIx4
CFG6 Low=DDR2
High=DDR

CFG9 Low=REVERSE LANE
High=NORMAL

CFG11 FOR CPU533

CFG[17:3] have internal pullup resistors.
CFG[19:18] have internal pulldown resistors

U34C

DMI
DDR MUXING
CFG/RSVD
PM
LCK
NC

U34F

MISC
TV
VGA
LVDS
PCI-EXPRESS GRAPHICS

B: POP ALWAYS

E: DEPOP

Route as short as possible.

It's point to point, 55ohm trace, keep as short as possible.

@ALVISO_GM/GML

D: DEPOP RP7

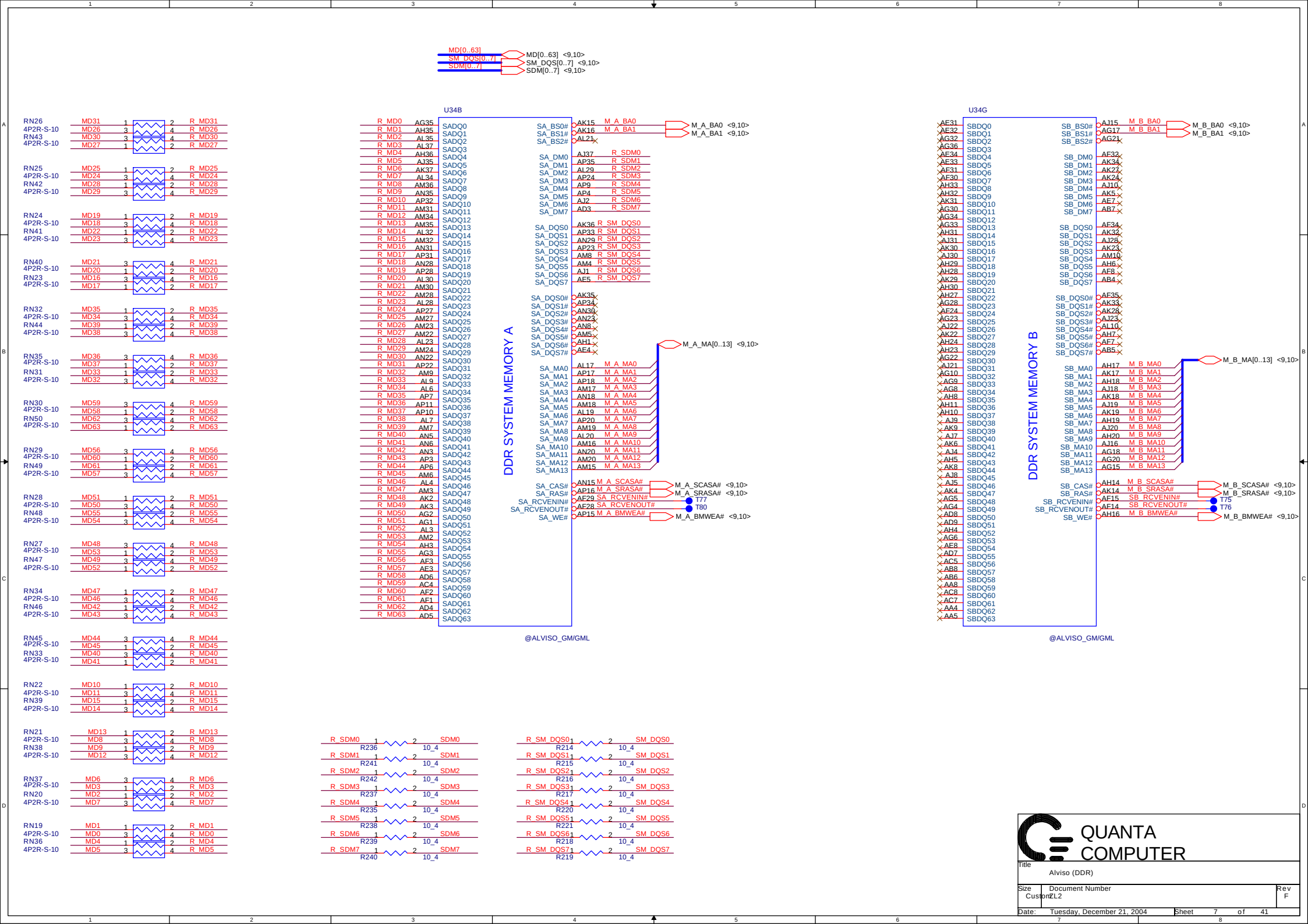
B: NO STUFF WHEN NO DOCKING

QUANTA COMPUTER

Title: Alviso (VGA,DMI)

Size: Custom | Document Number: ZL2 | Rev: F

Date: Tuesday, December 21, 2004 | Sheet 6 of 41


MD[0..63]
SM_DQS[0..7]
SDM[0..7]
MD[0..63] <9,10>
SM_DQS[0..7] <9,10>
SDM[0..7] <9,10>
U34B
DDR SYSTEM MEMORY A
SADQ0
SADQ1
SADQ2
SADQ3
SADQ4
SADQ5
SADQ6
SADQ7
SADQ8
SADQ9
SADQ10
SADQ11
SADQ12
SADQ13
SADQ14
SADQ15
SADQ16
SADQ17
SADQ18
SADQ19
SADQ20
SADQ21
SADQ22
SADQ23
SADQ24
SADQ25
SADQ26
SADQ27
SADQ28
SADQ29
SADQ30
SADQ31
SADQ32
SADQ33
SADQ34
SADQ35
SADQ36
SADQ37
SADQ38
SADQ39
SADQ40
SADQ41
SADQ42
SADQ43
SADQ44
SADQ45
SADQ46
SADQ47
SADQ48
SADQ49
SADQ50
SADQ51
SADQ52
SADQ53
SADQ54
SADQ55
SADQ56
SADQ57
SADQ58
SADQ59
SADQ60
SADQ61
SADQ62
SADQ63
R_MD0 AG35
R_MD1 AH35
R_MD2 AL35
R_MD3 AL37
R_MD4 AH36
R_MD5 AJ35
R_MD6 AK37
R_MD7 AL34
R_MD8 AM36
R_MD9 AN35
R_MD10 AP32
R_MD11 AM31
R_MD12 AM34
R_MD13 AM35
R_MD14 AL32
R_MD15 AM32
R_MD16 AN31
R_MD17 AP31
R_MD18 AN28
R_MD19 AP28
R_MD20 AL30
R_MD21 AM30
R_MD22 AM28
R_MD23 AL28
R_MD24 AP27
R_MD25 AM27
R_MD26 AM23
R_MD27 AM22
R_MD28 AL23
R_MD29 AM24
R_MD30 AN22
R_MD31 AP22
R_MD32 AM9
R_MD33 AL9
R_MD34 AL6
R_MD35 AP7
R_MD36 AP11
R_MD37 AP10
R_MD38 AL7
R_MD39 AM7
R_MD40 AN5
R_MD41 AN6
R_MD42 AN3
R_MD43 AP3
R_MD44 AP6
R_MD45 AM6
R_MD46 AL4
R_MD47 AM3
R_MD48 AK2
R_MD49 AK3
R_MD50 AG2
R_MD51 AG1
R_MD52 AL3
R_MD53 AM2
R_MD54 AH3
R_MD55 AG3
R_MD56 AF3
R_MD57 AE3
R_MD58 AD6
R_MD59 AC4
R_MD60 AF2
R_MD61 AF1
R_MD62 AD4
R_MD63 AD5
SA_BS0# AK15
SA_BS1# AK16
SA_BS2# AL21
M_A_BA0
M_A_BA1
M_A_BA0 <9,10>
M_A_BA1 <9,10>
SA_DM0 AJ37
SA_DM1 AP35
SA_DM2 AL29
SA_DM3 AP24
SA_DM4 AP9
SA_DM5 AP4
SA_DM6 AJ2
SA_DM7 AD3
R_SDM0
R_SDM1
R_SDM2
R_SDM3
R_SDM4
R_SDM5
R_SDM6
R_SDM7
SA_DQS0 AK36
SA_DQS1 AP33
SA_DQS2 AN29
SA_DQS3 AP23
SA_DQS4 AM8
SA_DQS5 AM4
SA_DQS6 AJ1
SA_DQS7 AE5
R_SM_DQS0
R_SM_DQS1
R_SM_DQS2
R_SM_DQS3
R_SM_DQS4
R_SM_DQS5
R_SM_DQS6
R_SM_DQS7
SA_DQS0# AK35
SA_DQS1# AP34
SA_DQS2# AN30
SA_DQS3# AN23
SA_DQS4# AN8
SA_DQS5# AM5
SA_DQS6# AH1
SA_DQS7# AE4
M_A_MA[0..13] <9,10>
SA_MA0 AL17
SA_MA1 AP17
SA_MA2 AP18
SA_MA3 AM17
SA_MA4 AN18
SA_MA5 AM18
SA_MA6 AL19
SA_MA7 AP20
SA_MA8 AM19
SA_MA9 AL20
SA_MA10 AM16
SA_MA11 AN20
SA_MA12 AM20
SA_MA13 AM15
M_A_MA0
M_A_MA1
M_A_MA2
M_A_MA3
M_A_MA4
M_A_MA5
M_A_MA6
M_A_MA7
M_A_MA8
M_A_MA9
M_A_MA10
M_A_MA11
M_A_MA12
M_A_MA13
SA_CAS# AN15
SA_RAS# AP16
SA_RCVENIN# AF29
SA_RCVENOUT# AF28
SA_WE# AP15
M_A_SCASA#
M_A_SRASA#
SA_RCVENIN#
SA_RCVENOUT#
M_A_BMWEA#
M_A_SCASA# <9,10>
M_A_SRASA# <9,10>
T77
T80
M_A_BMWEA# <9,10>
@ALVISO_GM/GML
U34G
DDR SYSTEM MEMORY B
SBDQ0 AE31
SBDQ1 AE32
SBDQ2 AG32
SBDQ3 AG36
SBDQ4 AE34
SBDQ5 AE33
SBDQ6 AF31
SBDQ7 AE30
SBDQ8 AH33
SBDQ9 AH32
SBDQ10 AK31
SBDQ11 AG30
SBDQ12 AG34
SBDQ13 AG33
SBDQ14 AH31
SBDQ15 AJ31
SBDQ16 AK30
SBDQ17 AJ30
SBDQ18 AH29
SBDQ19 AH28
SBDQ20 AK29
SBDQ21 AH30
SBDQ22 AH27
SBDQ23 AG28
SBDQ24 AF24
SBDQ25 AG23
SBDQ26 AJ22
SBDQ27 AK22
SBDQ28 AH24
SBDQ29 AH23
SBDQ30 AG22
SBDQ31 AJ21
SBDQ32 AG10
SBDQ33 AG9
SBDQ34 AG8
SBDQ35 AH8
SBDQ36 AH11
SBDQ37 AH10
SBDQ38 AJ9
SBDQ39 AK9
SBDQ40 AJ7
SBDQ41 AK6
SBDQ42 AJ4
SBDQ43 AH5
SBDQ44 AK8
SBDQ45 AJ8
SBDQ46 AJ5
SBDQ47 AK4
SBDQ48 AG5
SBDQ49 AG4
SBDQ50 AD8
SBDQ51 AD9
SBDQ52 AH4
SBDQ53 AG6
SBDQ54 AE8
SBDQ55 AD7
SBDQ56 AC5
SBDQ57 AB8
SBDQ58 AB6
SBDQ59 AA8
SBDQ60 AC8
SBDQ61 AC7
SBDQ62 AA4
SBDQ63 AA5
SB_BS0# AJ15
SB_BS1# AG17
SB_BS2# AG21
M_B_BA0
M_B_BA1
M_B_BA0 <9,10>
M_B_BA1 <9,10>
SB_DM0 AF32
SB_DM1 AK34
SB_DM2 AK27
SB_DM3 AK24
SB_DM4 AJ10
SB_DM5 AK5
SB_DM6 AE7
SB_DM7 AB7
SB_DQS0 AF34
SB_DQS1 AK32
SB_DQS2 AJ28
SB_DQS3 AK23
SB_DQS4 AM10
SB_DQS5 AH6
SB_DQS6 AF8
SB_DQS7 AB4
SB_DQS0# AF35
SB_DQS1# AK33
SB_DQS2# AK28
SB_DQS3# AJ23
SB_DQS4# AL10
SB_DQS5# AH7
SB_DQS6# AE7
SB_DQS7# AB5
M_B_MA[0..13] <9,10>
SB_MA0 AH17
SB_MA1 AK17
SB_MA2 AH18
SB_MA3 AJ18
SB_MA4 AK18
SB_MA5 AJ19
SB_MA6 AK19
SB_MA7 AH19
SB_MA8 AJ20
SB_MA9 AH20
SB_MA10 AJ16
SB_MA11 AG18
SB_MA12 AG20
SB_MA13 AG15
M_B_MA0
M_B_MA1
M_B_MA2
M_B_MA3
M_B_MA4
M_B_MA5
M_B_MA6
M_B_MA7
M_B_MA8
M_B_MA9
M_B_MA10
M_B_MA11
M_B_MA12
M_B_MA13
SB_CAS# AH14
SB_RAS# AK14
SB_RCVENIN# AF15
SB_RCVENOUT# AF14
SB_WE# AH16
M_B_SCASA#
M_B_SRASA#
SB_RCVENIN#
SB_RCVENOUT#
M_B_BMWEA#
M_B_SCASA# <9,10>
M_B_SRASA# <9,10>
T75
T76
M_B_BMWEA# <9,10>
@ALVISO_GM/GML
RN26 4P2R-S-10
RN43 4P2R-S-10
MD31 MD26 MD30 MD27
R_MD31 R_MD26 R_MD30 R_MD27
RN25 4P2R-S-10
RN42 4P2R-S-10
MD25 MD24 MD28 MD29
R_MD25 R_MD24 R_MD28 R_MD29
RN24 4P2R-S-10
RN41 4P2R-S-10
MD19 MD18 MD22 MD23
R_MD19 R_MD18 R_MD22 R_MD23
RN40 4P2R-S-10
RN23 4P2R-S-10
MD21 MD20 MD16 MD17
R_MD21 R_MD20 R_MD16 R_MD17
RN32 4P2R-S-10
RN44 4P2R-S-10
MD35 MD34 MD39 MD38
R_MD35 R_MD34 R_MD39 R_MD38
RN35 4P2R-S-10
RN31 4P2R-S-10
MD36 MD37 MD33 MD32
R_MD36 R_MD37 R_MD33 R_MD32
RN30 4P2R-S-10
RN50 4P2R-S-10
MD59 MD58 MD62 MD63
R_MD59 R_MD58 R_MD62 R_MD63
RN29 4P2R-S-10
RN49 4P2R-S-10
MD56 MD60 MD61 MD57
R_MD56 R_MD60 R_MD61 R_MD57
RN28 4P2R-S-10
RN48 4P2R-S-10
MD51 MD50 MD55 MD54
R_MD51 R_MD50 R_MD55 R_MD54
RN27 4P2R-S-10
RN47 4P2R-S-10
MD48 MD53 MD49 MD52
R_MD48 R_MD53 R_MD49 R_MD52
RN34 4P2R-S-10
RN46 4P2R-S-10
MD47 MD46 MD42 MD43
R_MD47 R_MD46 R_MD42 R_MD43
RN45 4P2R-S-10
RN33 4P2R-S-10
MD44 MD45 MD40 MD41
R_MD44 R_MD45 R_MD40 R_MD41
RN22 4P2R-S-10
RN39 4P2R-S-10
MD10 MD11 MD15 MD14
R_MD10 R_MD11 R_MD15 R_MD14
RN21 4P2R-S-10
RN38 4P2R-S-10
MD13 MD8 MD9 MD12
R_MD13 R_MD8 R_MD9 R_MD12
RN37 4P2R-S-10
RN20 4P2R-S-10
MD6 MD3 MD2 MD7
R_MD6 R_MD3 R_MD2 R_MD7
RN19 4P2R-S-10
RN36 4P2R-S-10
MD1 MD0 MD4 MD5
R_MD1 R_MD0 R_MD4 R_MD5
R_SDM0 R236 10_4 SDM0
R_SDM1 R241 10_4 SDM1
R_SDM2 R242 10_4 SDM2
R_SDM3 R237 10_4 SDM3
R_SDM4 R235 10_4 SDM4
R_SDM5 R238 10_4 SDM5
R_SDM6 R239 10_4 SDM6
R_SDM7 R240 10_4 SDM7
R_SM_DQS0 R214 10_4 SM_DQS0
R_SM_DQS1 R215 10_4 SM_DQS1
R_SM_DQS2 R216 10_4 SM_DQS2
R_SM_DQS3 R217 10_4 SM_DQS3
R_SM_DQS4 R220 10_4 SM_DQS4
R_SM_DQS5 R221 10_4 SM_DQS5
R_SM_DQS6 R218 10_4 SM_DQS6
R_SM_DQS7 R219 10_4 SM_DQS7
QUANTA COMPUTER
Title
Alviso (DDR)
Size
Custom
Document Number
ZL2
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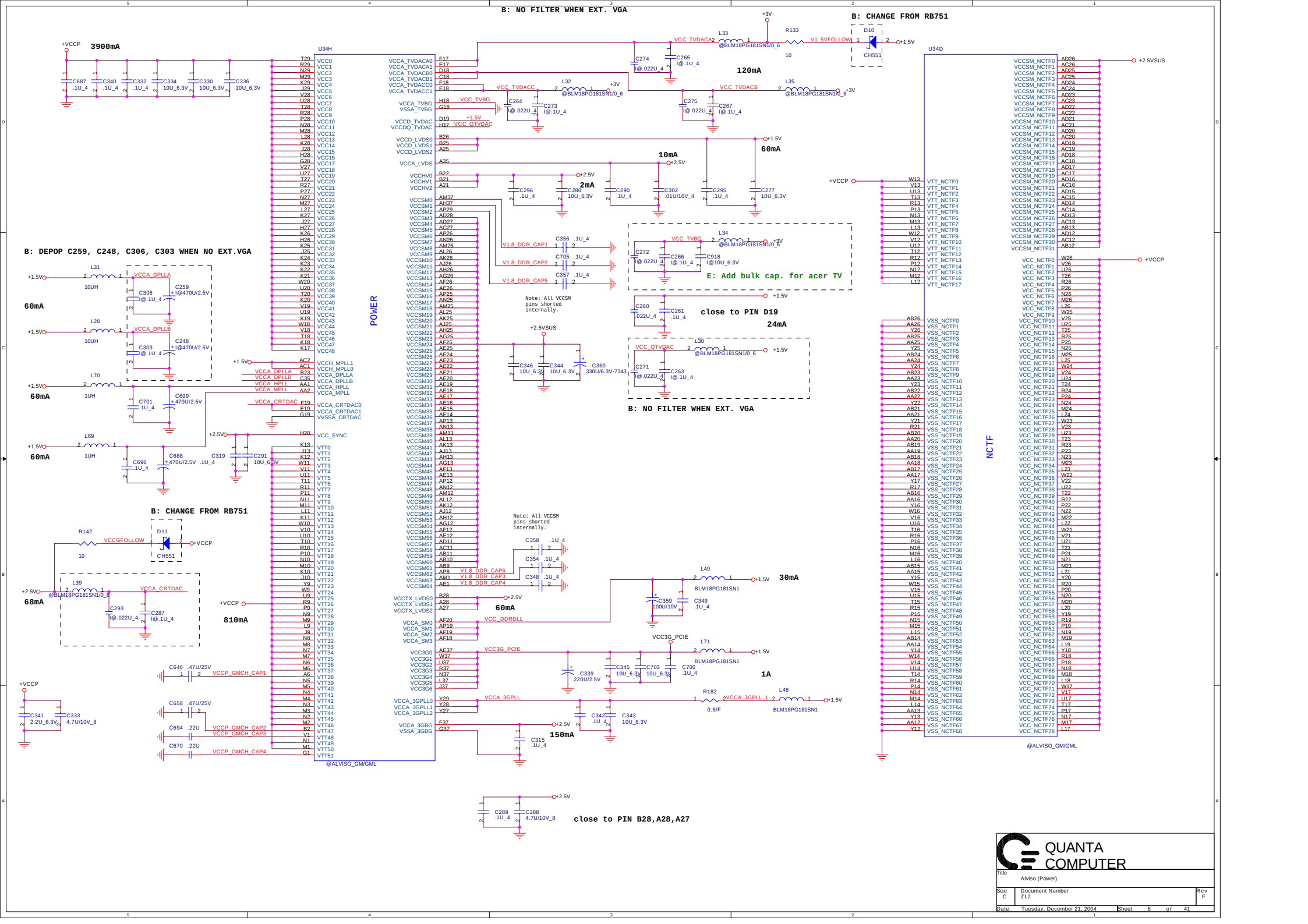
B: NO FILTER WHEN EXT. VGA
B: CHANGE FROM RB751
B: DEPOP C259, C248, C306, C303 WHEN NO EXT.VGA
B: CHANGE FROM RB751
B: NO FILTER WHEN EXT. VGA
E: Add bulk cap. for acer TV
close to PIN D19
close to PIN B28,A28,A27
Note: All VCCSM pins shorted internally.
Note: All VCCSM pins shorted internally.
POWER
NCTF
U34H
U34D
@ALVISO_GM/GML
@ALVISO_GM/GML
3900mA
120mA
10mA
60mA
2mA
24mA
30mA
1A
150mA
810mA
68mA
60mA
60mA
60mA
0.5/F
QUANTA COMPUTER
Title
Alviso (Power)
Size C
Document Number ZL2
Rev F
Date: Tuesday, December 21, 2004
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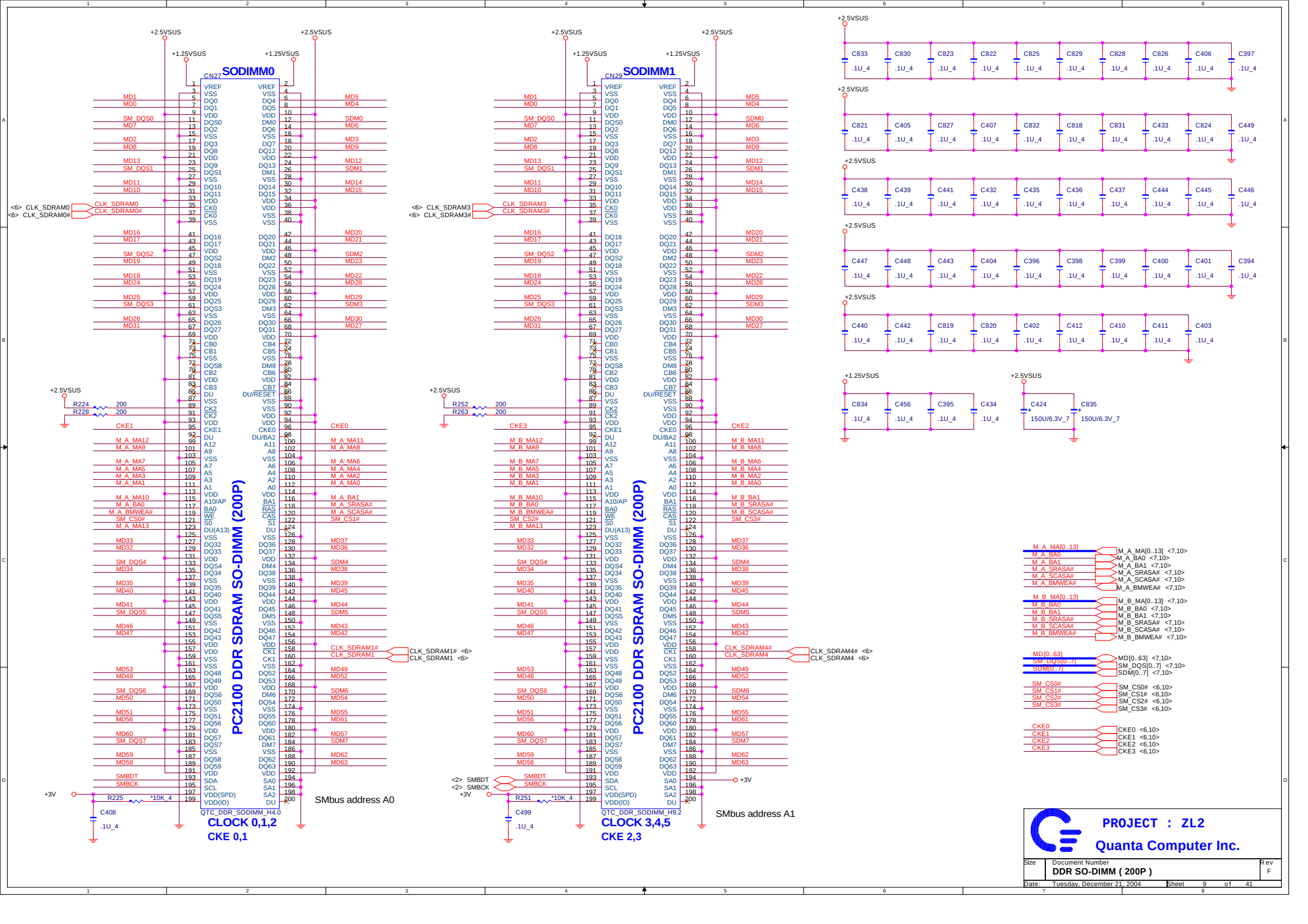
SODIMM0
CN27
PC2100 DDR SDRAM SO-DIMM (200P)
QTC_DDR_SODIMM_H4.0
CLOCK 0,1,2
CKE 0,1
SMbus address A0
SODIMM1
CN29
PC2100 DDR SDRAM SO-DIMM (200P)
QTC_DDR_SODIMM_H9.2
CLOCK 3,4,5
CKE 2,3
SMbus address A1
+2.5VSUS
+1.25VSUS
+3V
CLK_SDRAM0
CLK_SDRAM0#
CLK_SDRAM1#
CLK_SDRAM1
CLK_SDRAM3
CLK_SDRAM3#
CLK_SDRAM4#
CLK_SDRAM4
SMBDT
SMBCK
R224 200
R228 200
R225 *10K_4
R252 200
R263 200
R251 *10K_4
C408 .1U_4
C499 .1U_4
C833 C830 C823 C822 C825 C829 C828 C826 C406 C397 .1U_4
C821 C405 C827 C407 C832 C818 C831 C433 C824 C449 .1U_4
C438 C439 C441 C432 C435 C436 C437 C444 C445 C446 .1U_4
C447 C448 C443 C404 C396 C398 C399 C400 C401 C394 .1U_4
C440 C442 C819 C820 C402 C412 C410 C411 C403 .1U_4
C834 C456 C395 C434 .1U_4
C424 150U/6.3V_7
C835 150U/6.3V_7
M_A_MA[0..13]
M_A_BA0
M_A_BA1
M_A_SRASA#
M_A_SCASA#
M_A_BMWEA#
M_B_MA[0..13]
M_B_BA0
M_B_BA1
M_B_SRASA#
M_B_SCASA#
M_B_BMWEA#
MD[0..63]
SM_DQS[0..7]
SDM[0..7]
SM_CS0#
SM_CS1#
SM_CS2#
SM_CS3#
CKE0
CKE1
CKE2
CKE3
PROJECT : ZL2
Quanta Computer Inc.
Size
Document Number
DDR SO-DIMM (200P)
Rev
F
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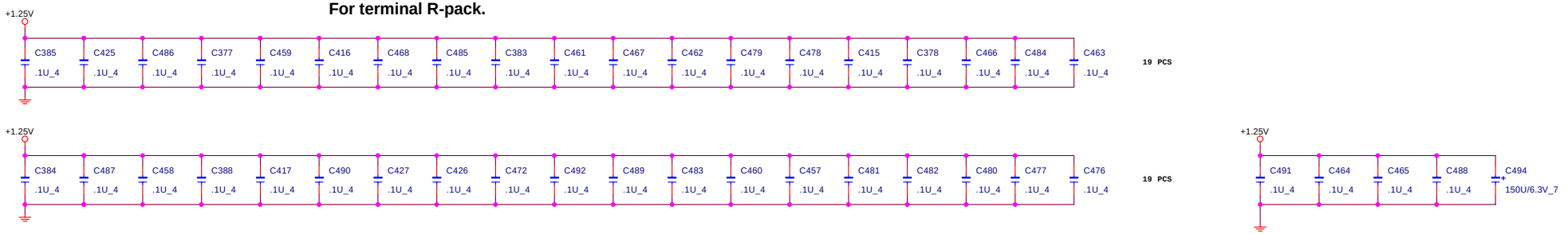
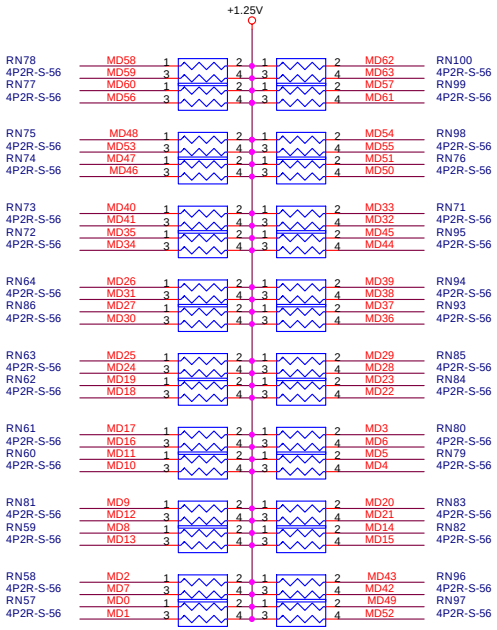
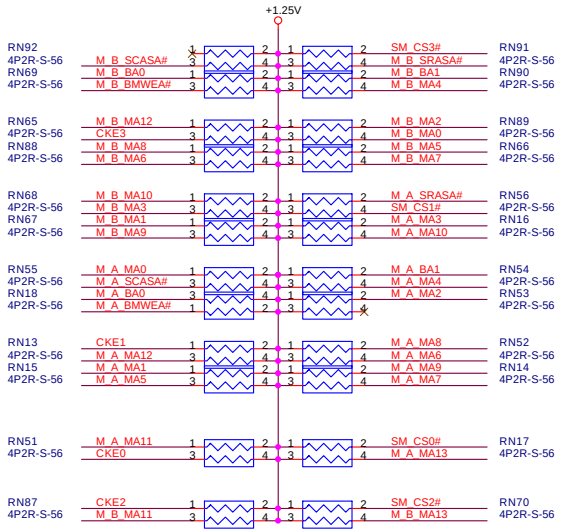
For terminal R-pack.







PROJECT : ZL2

Quanta Computer Inc.

Size	Document Number	Rev
	DDR TERMINATION	F

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B: POP R369

MEMORY CLOCK SPREAD SPECTRUM

SRS= 1 DOWN -2.5%
0 DOWN -1.8%
M DOWN -0.6%

F: NEW ADD PWR PLAY
Hi: 1.0V
Lo: 1.2V

B: CHANGE FROM 27M_O TO 27M_IN

PLACE CLOSE TO ASIC

B: POP R76

F: NEW ADD 1K PULLDOWN

15 MIL

10 mil trace /
10 mil space

Close to pin ASIC

B: DEPOP WHEN NO DOCKING

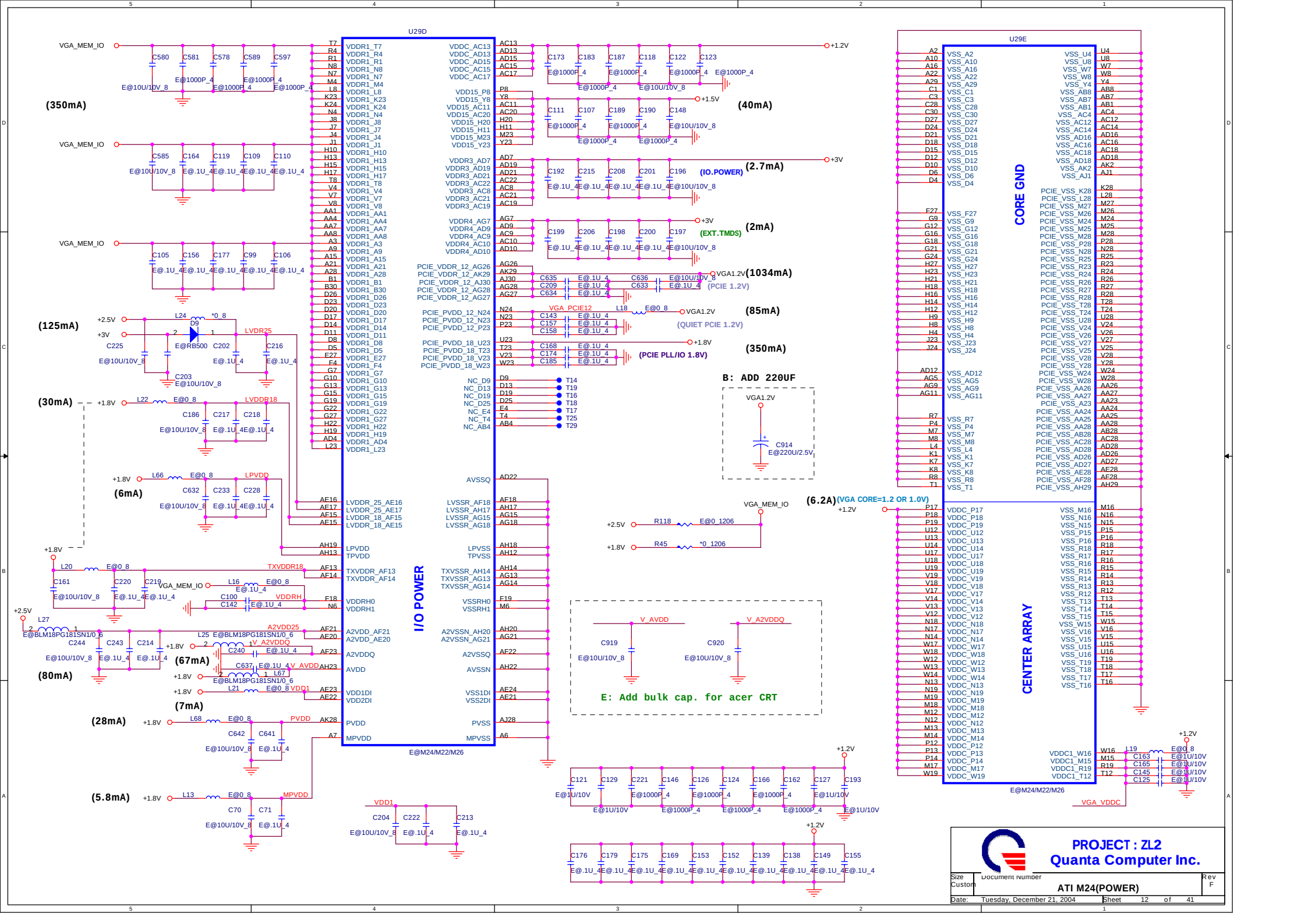
M26

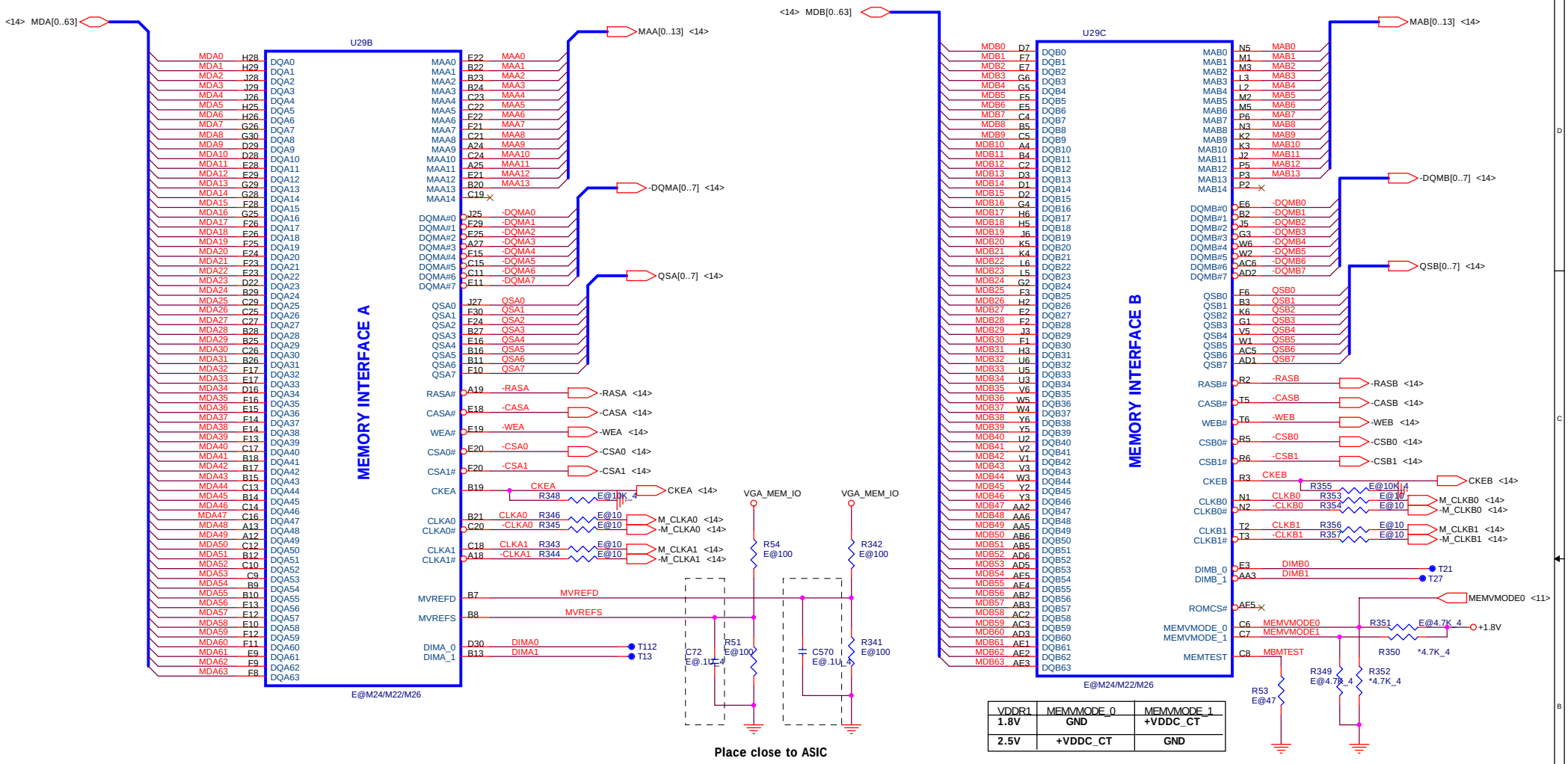
PROJECT : ZL2
Quanta Computer Inc.

VGA HOST(ATI M24)

Size: Custom | Document Number | Rev: F

Date: Tuesday, December 21, 2004 | Sheet 11 of 41


U29D
I/O POWER
E@M24/M22/M26
U29E
CORE GND
CENTER ARRAY
E@M24/M22/M26
(350mA)
(125mA)
(30mA)
(6mA)
(80mA)
(67mA)
(7mA)
(28mA)
(5.8mA)
(40mA)
(2.7mA)
(2mA)
(1034mA)
(85mA)
(350mA)
(6.2A)
(VGA CORE=1.2 OR 1.0V)
B: ADD 220UF
E: Add bulk cap. for acer CRT
(IO.POWER)
(EXT.TMDS)
(PCIE 1.2V)
(QUIET PCIE 1.2V)
(PCIE PLL/IO 1.8V)
PROJECT : ZL2
Quanta Computer Inc.
ATI M24(POWER)
Tuesday, December 21, 2004
Sheet 12 of 41

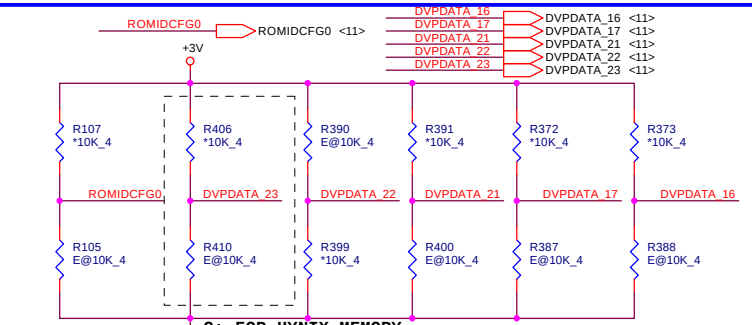


VDDR1	MEMVMODE_0	MEMVMODE_1
1.8V	GND	+VDDC_CT
2.5V	+VDDC_CT	GND

STRAPS PIN

GPIO_0	PCI-Express Current Calibration Bandgap Backup **0: use reference voltage from Bandgap** 1: use reference voltage from resistor divider
GPIO_1	PCI-Express PLL Calibration force enable **0: Disable PLL force calibration** 1: Enable PLL force calibration
GPIO_(3,2)	**00: PCI Express 1.0 mode** 01: RESERVED 10: PCI Express 1.0 mode 11: RESERVED
GPIO_4	Turn off PCI-Express impedance / strength calibration **0: enable** 1: disable
GPIO_5	Bypass PCI-Express PLL

GPIO_6	PCI-Express transmitter current compensation **0: Normal** 1: Inject extra current for output buffer switching
GPIO_8	Strap to set the debug muxes to bting out DEBUG signals even if registers are inaccessible
GPIO(9,13:11) INT P/D	ROMIDCFG **0x0x: No ROM, CHG_ID=0** 0x1x: No Rom, CHG_ID=1 1000: Parallel ROM, Chip ID'S from ROM 1000: Parallel ROM, Chip ID'S from ROM
DVPDATA_21~23 MEM TYPE	DVPDATA_21: 0=4Mx32 1=8Mx32 DVPDATA_22: 0=128M 1=64M DVPDATA_23: 0=Hynix 1=Samsung

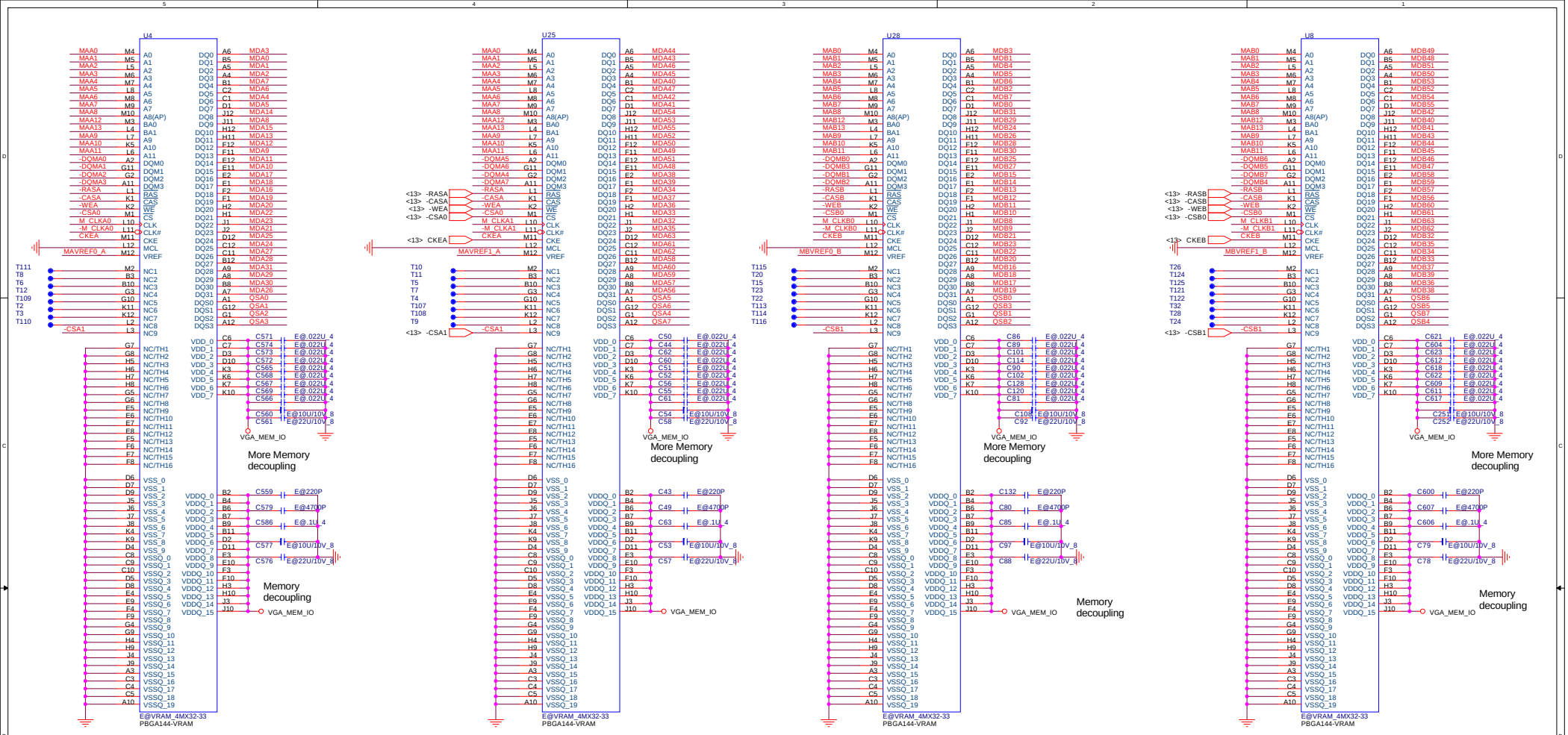


FOR M26P ONLY
0: 128M
1: 256M

C: FOR HYNIX MEMORY

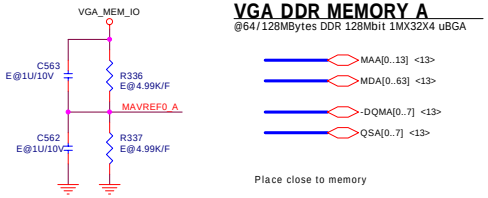
PROJECT :ZL2
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ATI M24 MEM/STRAPS PIN	F
Date: Tuesday, December 21, 2004	Sheet 13 of 41	



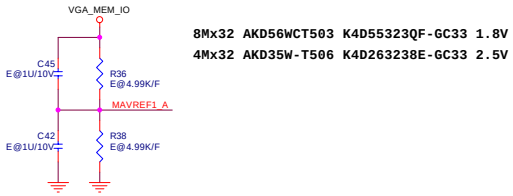
VGA DDR MEMORY A

@64/128MBytes DDR 128Mbit 1MX32X4 uBGA



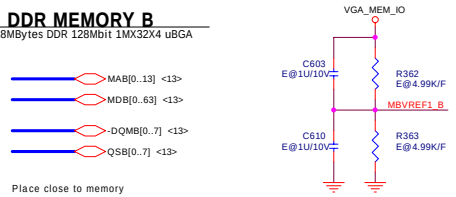
8Mx32 AKD56WCT503 K4D55323QF-GC33 1.8V

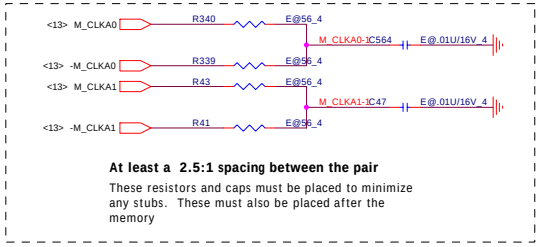
4Mx32 AKD35W-T506 K4D263238E-GC33 2.5V



VGA DDR MEMORY B

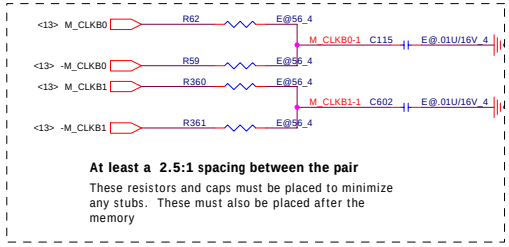
@64/128MBytes DDR 128Mbit 1MX32X4 uBGA





At least a 2.5:1 spacing between the pair

These resistors and caps must be placed to minimize any stubs. These must also be placed after the memory



At least a 2.5:1 spacing between the pair

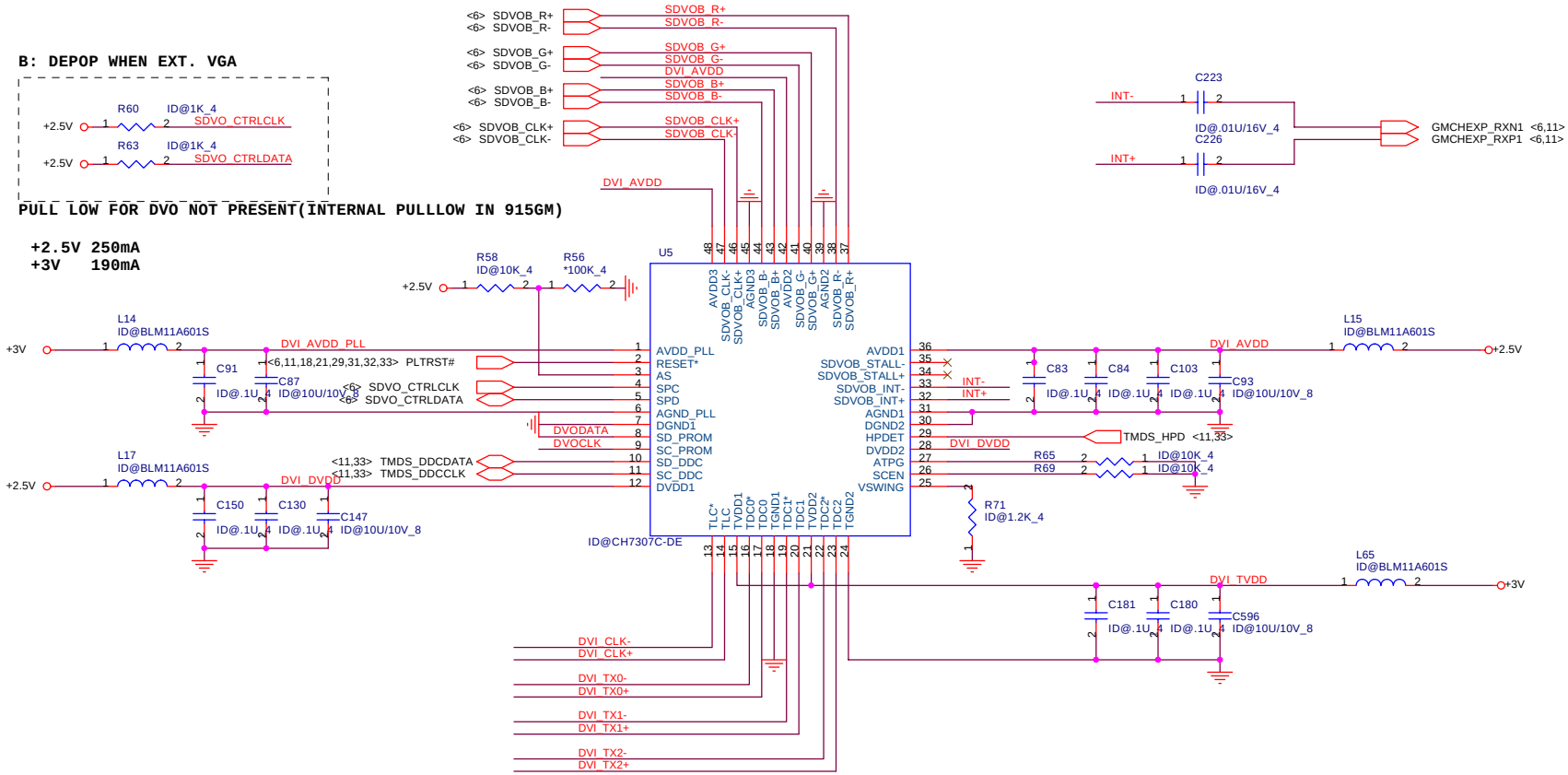
These resistors and caps must be placed to minimize any stubs. These must also be placed after the memory

PROJECT : ZL2

Quanta Computer Inc.

Size	Document Number	Rev
C	VGA DDR VRAM-A CANNEL	F

Date: Tuesday, December 21, 2004 Sheet 14 of 41


B: DEPOP WHEN EXT. VGA
R60 ID@1K_4
+2.5V
SDVO_CTRLCLK
R63 ID@1K_4
+2.5V
SDVO_CTRLDATA
PULL LOW FOR DVO NOT PRESENT(INTERNAL PULLLOW IN 915GM)
+2.5V 250mA
+3V 190mA
<6> SDVOB_R+
<6> SDVOB_R-
SDVOB_R+
SDVOB_R-
<6> SDVOB_G+
<6> SDVOB_G-
SDVOB_G+
SDVOB_G-
DVI_AVDD
<6> SDVOB_B+
<6> SDVOB_B-
SDVOB_B+
SDVOB_B-
<6> SDVOB_CLK+
<6> SDVOB_CLK-
SDVOB_CLK+
SDVOB_CLK-
C223
INT-
ID@.01U/16V_4
C226
INT+
ID@.01U/16V_4
GMCHEXP_RXN1 <6,11>
GMCHEXP_RXP1 <6,11>
R58 ID@10K_4
R56 *100K_4
U5
AVDD3
SDVOB_CLK-
SDVOB_CLK+
AGND3
SDVOB_B-
SDVOB_B+
AVDD2
SDVOB_G-
SDVOB_G+
AGND2
SDVOB_R-
SDVOB_R+
AVDD_PLL
RESET*
AS
SPC
SPD
AGND_PLL
DGND1
SD_PROM
SC_PROM
SD_DDC
SC_DDC
DVDD1
AVDD1
SDVOB_STALL-
SDVOB_STALL+
SDVOB_INT-
SDVOB_INT+
AGND1
DGND2
HPDET
DVDD2
ATPG
SCEN
VSWING
TLC*
TLC
TVDD1
TDO*
TDO
TGND1
TDC1*
TDC1
TVDD2
TDC2*
TDC2
TGND2
ID@CH7307C-DE
L14 ID@BLM11A601S
+3V
DVI_AVDD_PLL
<6,11,18,21,29,31,32,33> PLTRST#
C91 ID@.1U_4
C87 ID@10U/10V_8
<6> SDVO_CTRLCLK
<6> SDVO_CTRLDATA
DVODATA
DVOCLK
L17 ID@BLM11A601S
+2.5V
DVI_DVDD
C150 ID@.1U_4
C130 ID@.1U_4
C147 ID@10U/10V_8
<11,33> TMDS_DDCDATA
<11,33> TMDS_DDCCLK
C83 ID@.1U_4
C84 ID@.1U_4
C103 ID@.1U_4
C93 ID@10U/10V_8
DVI_AVDD
L15 ID@BLM11A601S
+2.5V
TMDS_HPD <11,33>
R65 ID@10K_4
R69 ID@10K_4
R71 ID@1.2K_4
L65 ID@BLM11A601S
+3V
DVI_TVDD
C181 ID@.1U_4
C180 ID@.1U_4
C596 ID@10U/10V_8
DVI_CLK-
DVI_CLK+
DVI_TX0-
DVI_TX0+
DVI_TX1-
DVI_TX1+
DVI_TX2-
DVI_TX2+
B: ALWAYS NOT ON, TEST ONLY
U7
DVOCLK
DVODATA
SCL
SDA
A0
A1
A2
WP
VCC
GND
*AT24C16
+3V
C170 *.1U_4
R359 *1K_4
DVOCLK
R358 *1K_4
DVODATA
DVI_CLK- R78 ID@0_4 CLK-
DVI_CLK+ R79 ID@0_4 CLK+
CLK- <11,33>
CLK+ <11,33>
DVI_TX0- R80 ID@0_4 TX0-
DVI_TX0+ R81 ID@0_4 TX0+
TX0- <11,33>
TX0+ <11,33>
DVI_TX1- R82 ID@0_4 TX1-
DVI_TX1+ R83 ID@0_4 TX1+
TX1- <11,33>
TX1+ <11,33>
DVI_TX2- R84 ID@0_4 TX2-
DVI_TX2+ R85 ID@0_4 TX2+
TX2- <11,33>
TX2+ <11,33>
QUANTA COMPUTER
Title
CH7306/7
Size
Custom
Document Number
ZL2
Rev
F
Date: Tuesday, December 21, 2004
Sheet 15 of 41

PULL HIGH TO +3V_S5 AT PAGE19

D: FOOTPRINT CHANGED

Lid Switch

E: ADD LEVEL SHIFT FOR EDID

TRACE 80MIL

C: DEPOP C558

B: CHANGE FILTERS' VALUES

S-VIDEO

C: ADD CIRCUITS WHEN NO DOCKING

D@SN74LVC1G3157DCKR

PROJECT :	ZL2
Quanta Computer Inc.	
Size	Document Number: DVO CH7011A & RJ45-11 CON
Rev	F
Date:	Tuesday, December 21, 2004
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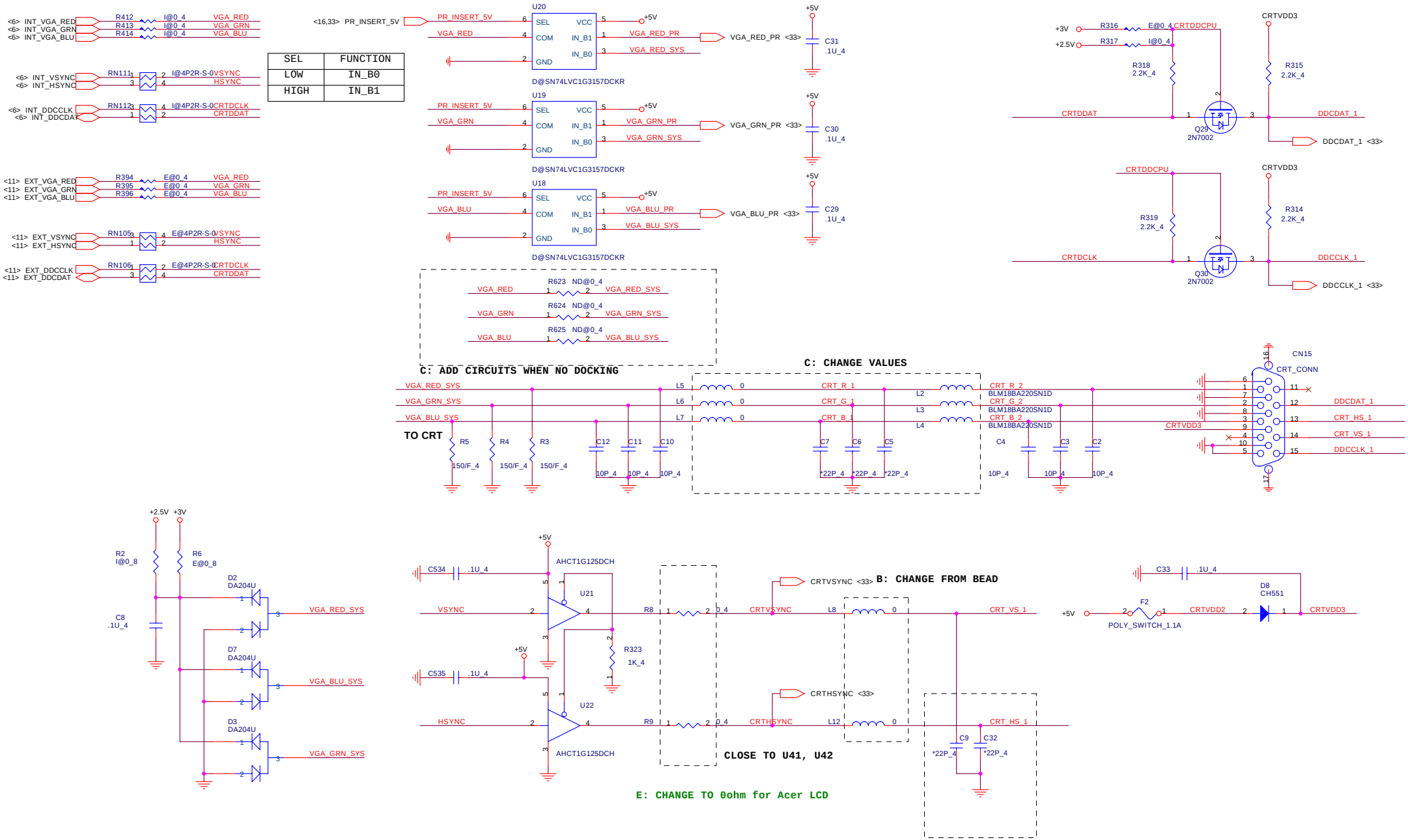
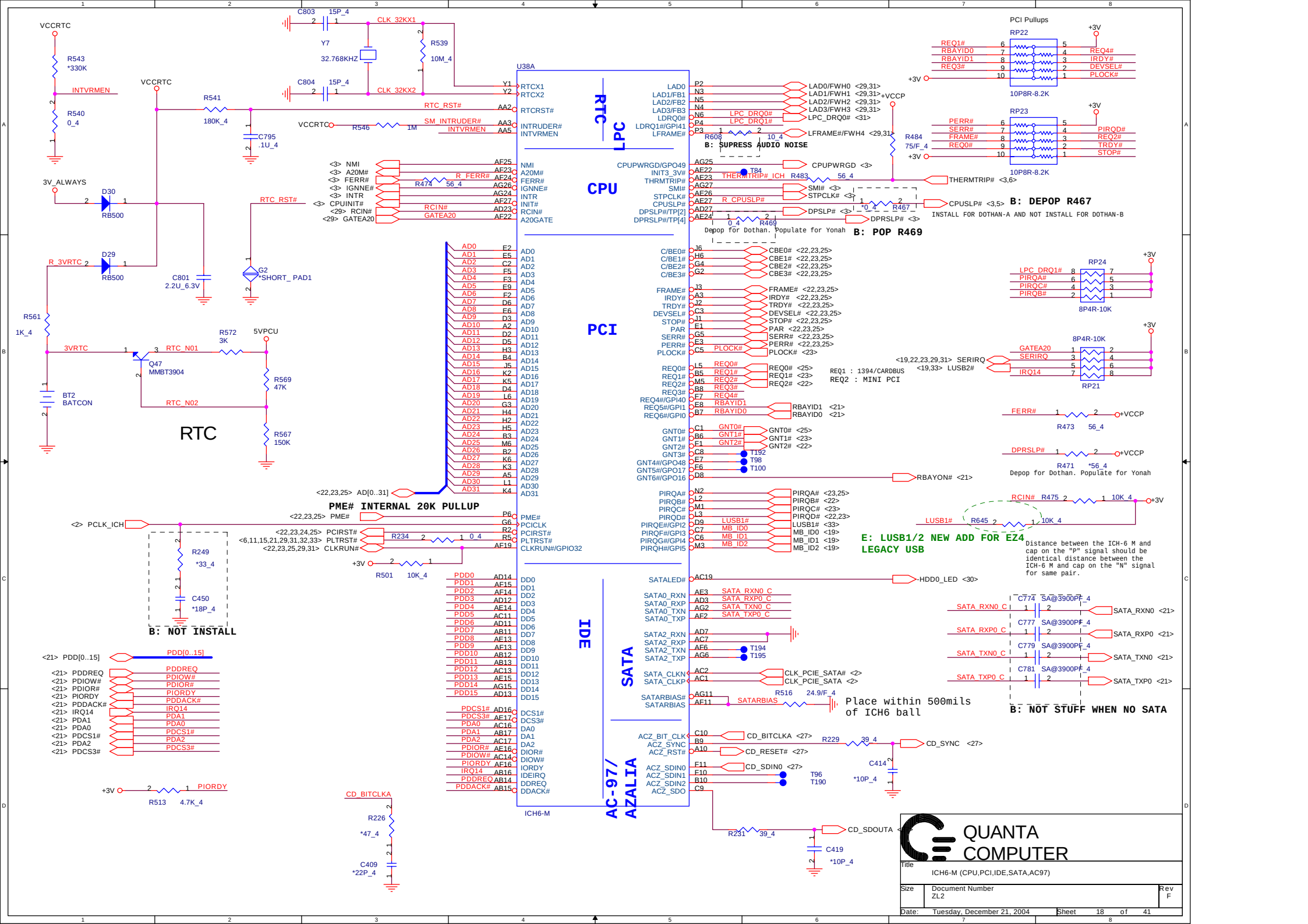


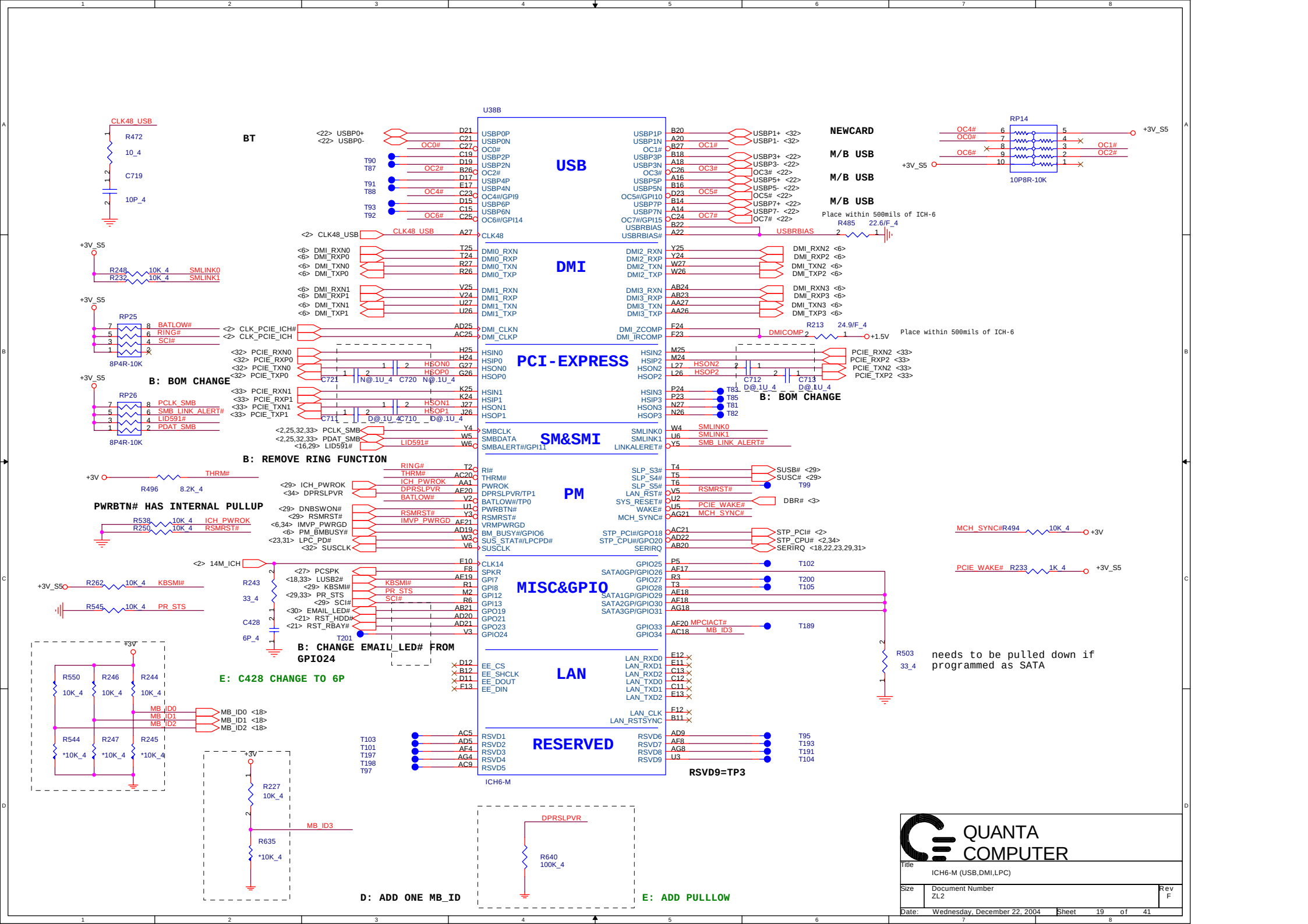
PROJECT : ZL2

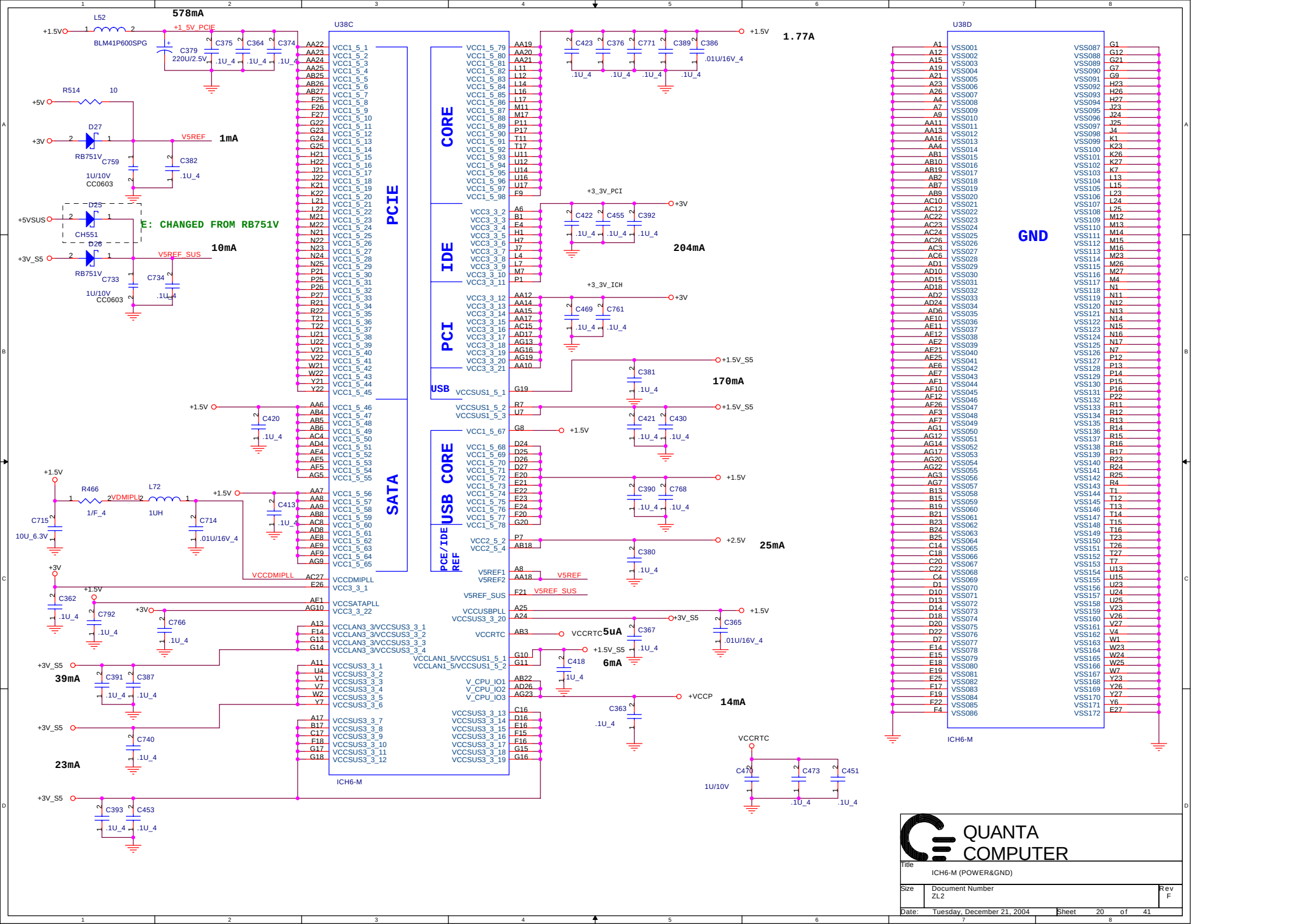
Quanta Computer Inc.

Size	Document Number	Rev
	CRT & S-VIDEO	F

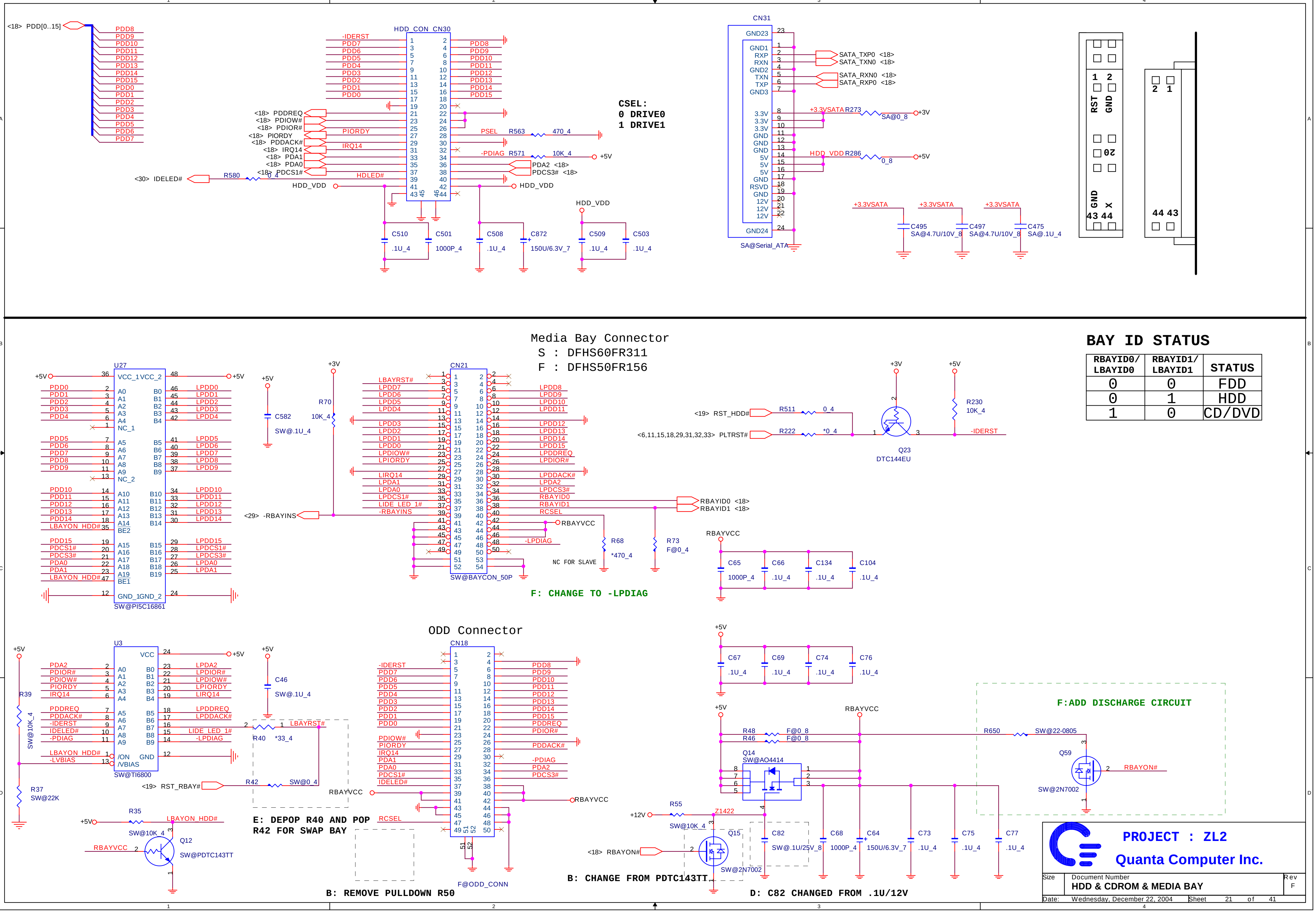
Date: Tuesday, December 21, 2004 Sheet 17 of 41


U38A
RTC
LPC
CPU
PCI
IDE
SATA
AC-97/
AZALIA
ICH6-M
RTC
PME# INTERNAL 20K PULLUP
B: NOT INSTALL
B: SUPRESS AUDIO NOISE
B: DEPOP R467
INSTALL FOR DOTHAN-A AND NOT INSTALL FOR DOTHAN-B
Depop for Dothan. Populate for Yonah
B: POP R469
PCI Pullups
REQ1 : 1394/CARDBUS
REQ2 : MINI PCI
E: LUSB1/2 NEW ADD FOR EZ4
LEGACY USB
Distance between the ICH-6 M and cap on the "P" signal should be identical distance between the ICH-6 M and cap on the "N" signal for same pair.
Place within 500mils of ICH6 ball
B: NOT STUFF WHEN NO SATA
QUANTA COMPUTER
Title
ICH6-M (CPU,PCI,IDE,SATA,AC97)
Size
Document Number
ZL2
Rev
F
Date: Tuesday, December 21, 2004
Sheet 18 of 41


U38B
USB
DMI
PCI-EXPRESS
SM&SMI
PM
MISC&GPIO
LAN
RESERVED
ICH6-M
BT
NEWCARD
M/B USB
M/B USB
M/B USB
B: BOM CHANGE
B: REMOVE RING FUNCTION
PWRBTN# HAS INTERNAL PULLUP
B: CHANGE EMAIL_LED# FROM GPIO24
E: C428 CHANGE TO 6P
D: ADD ONE MB_ID
E: ADD PULLLOW
RSVD9=TP3
needs to be pulled down if programmed as SATA
QUANTA COMPUTER
ICH6-M (USB,DMI,LPC)
Document Number ZL2
Rev F
Wednesday, December 22, 2004
Sheet 19 of 41



Title	ICH6-M (POWER&GND)		
Size	Document Number ZL2		Rev F
Date:	Tuesday, December 21, 2004	Sheet 20 of 41	


HDD_CON CN30
CN31
SA@Serial_ATA
CSEL:
0 DRIVE0
1 DRIVE1
Media Bay Connector
S : DFHS60FR311
F : DFHS50FR156
U27
SW@PI5C16861
CN21
SW@BAYCON_50P
F: CHANGE TO -LPDIAG
NC FOR SLAVE
Q23
DTC144EU
ODD Connector
U3
SW@TI6800
CN18
F@ODD_CONN
E: DEPOP R40 AND POP
R42 FOR SWAP BAY
B: REMOVE PULLDOWN R50
B: CHANGE FROM PDTC143TT
D: C82 CHANGED FROM .1U/12V
F:ADD DISCHARGE CIRCUIT
Q14
SW@AO4414
Q59
SW@2N7002
Q15
Q12
SW@PDTC143TT

BAY ID STATUS

RBAYID0/ LBAYID0	RBAYID1/ LBAYID1	STATUS
0	0	FDD
0	1	HDD
1	0	CD/DVD

PROJECT : ZL2

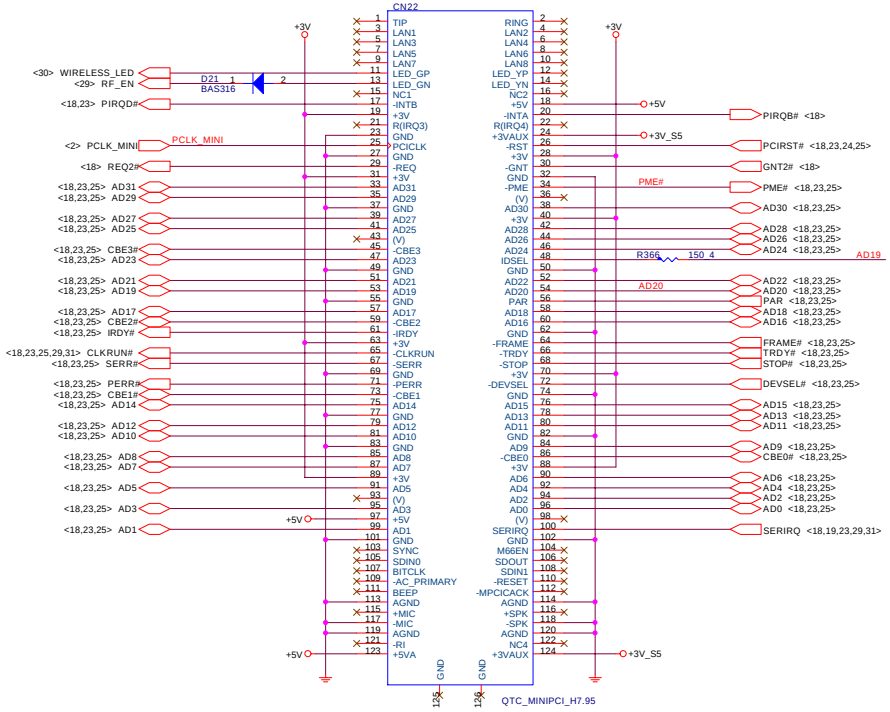
Quanta Computer Inc.

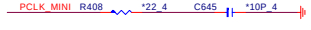
Size	Document Number	Rev
	HDD & CDROM & MEDIA BAY	F

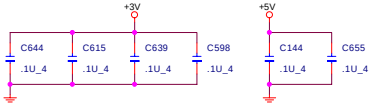
Date: Wednesday, December 22, 2004 Sheet 21 of 41

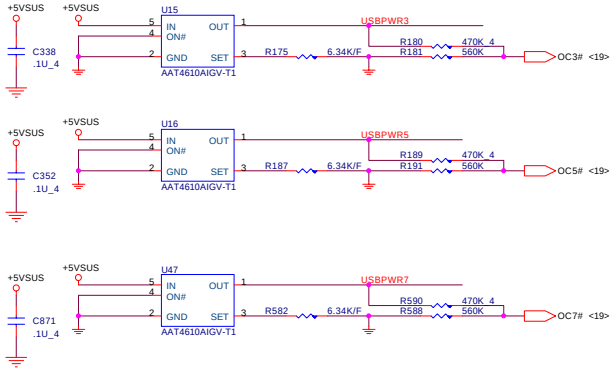
ID Select : AD20
Interrupt Pin : INTB# , INTC#
Request Indicate : REQ1#
Grant Indicate : GNT1#

MINI-PCI

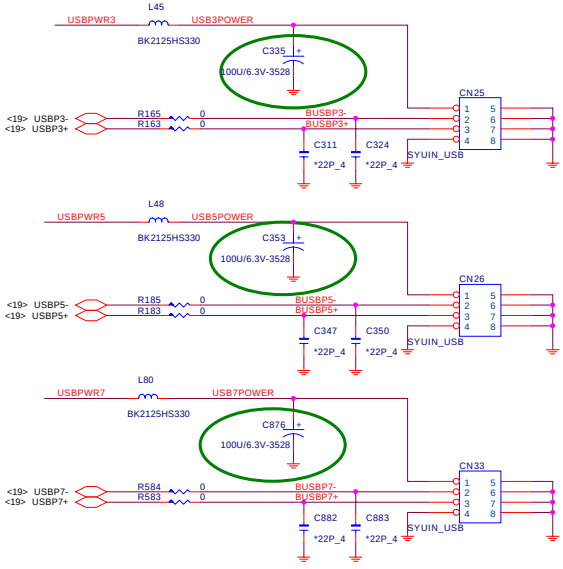




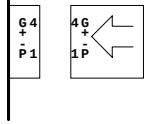




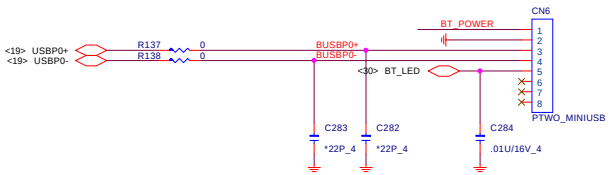
F: CHANGE TO 100UF

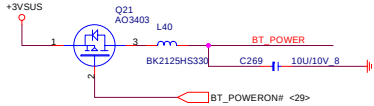


BOT



B: REMOVE CHOKE PADS





PROJECT : ZL2
Quanta Computer Inc.

Size	Document Number	Rev
	MINI PCI,USB	F

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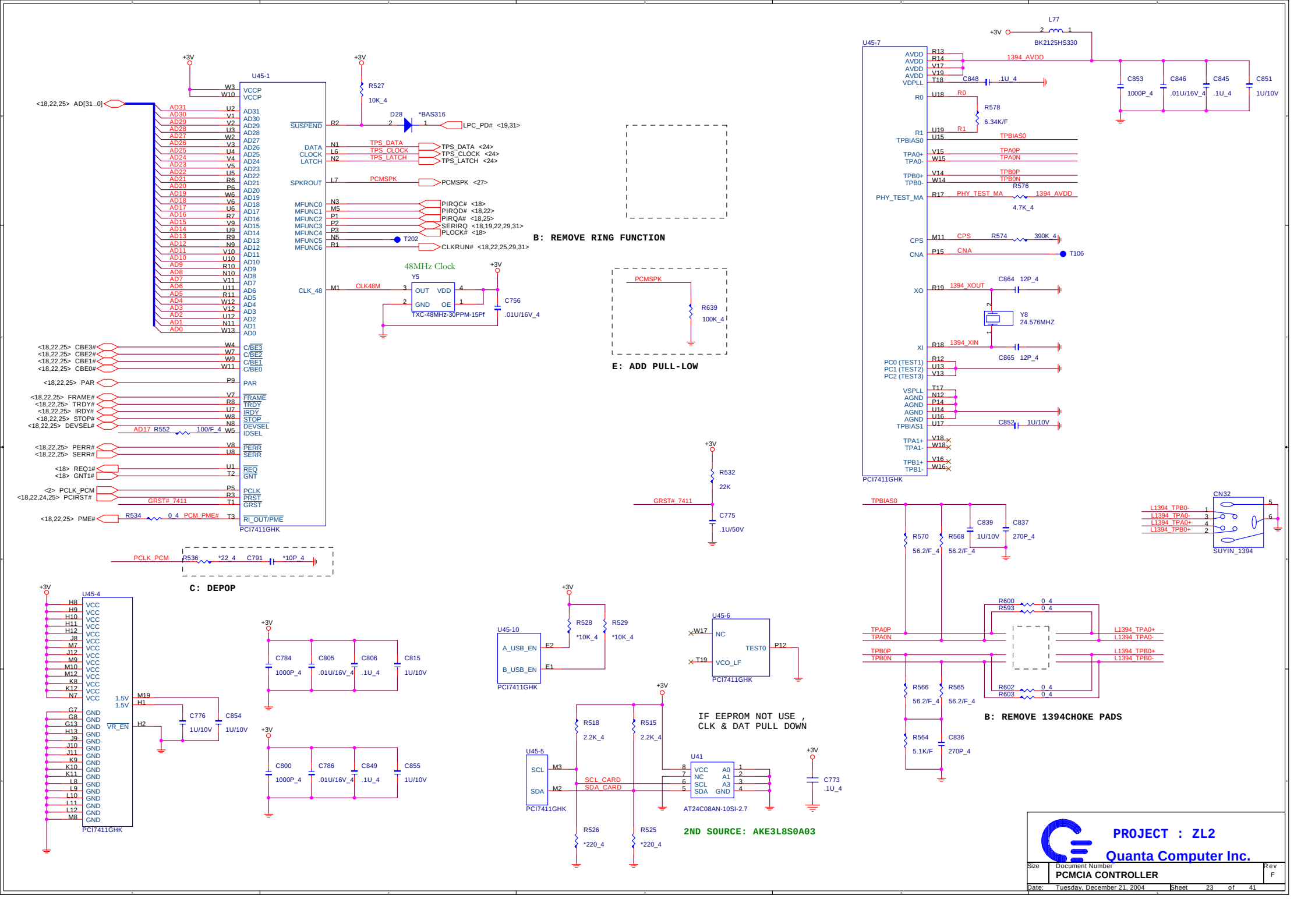
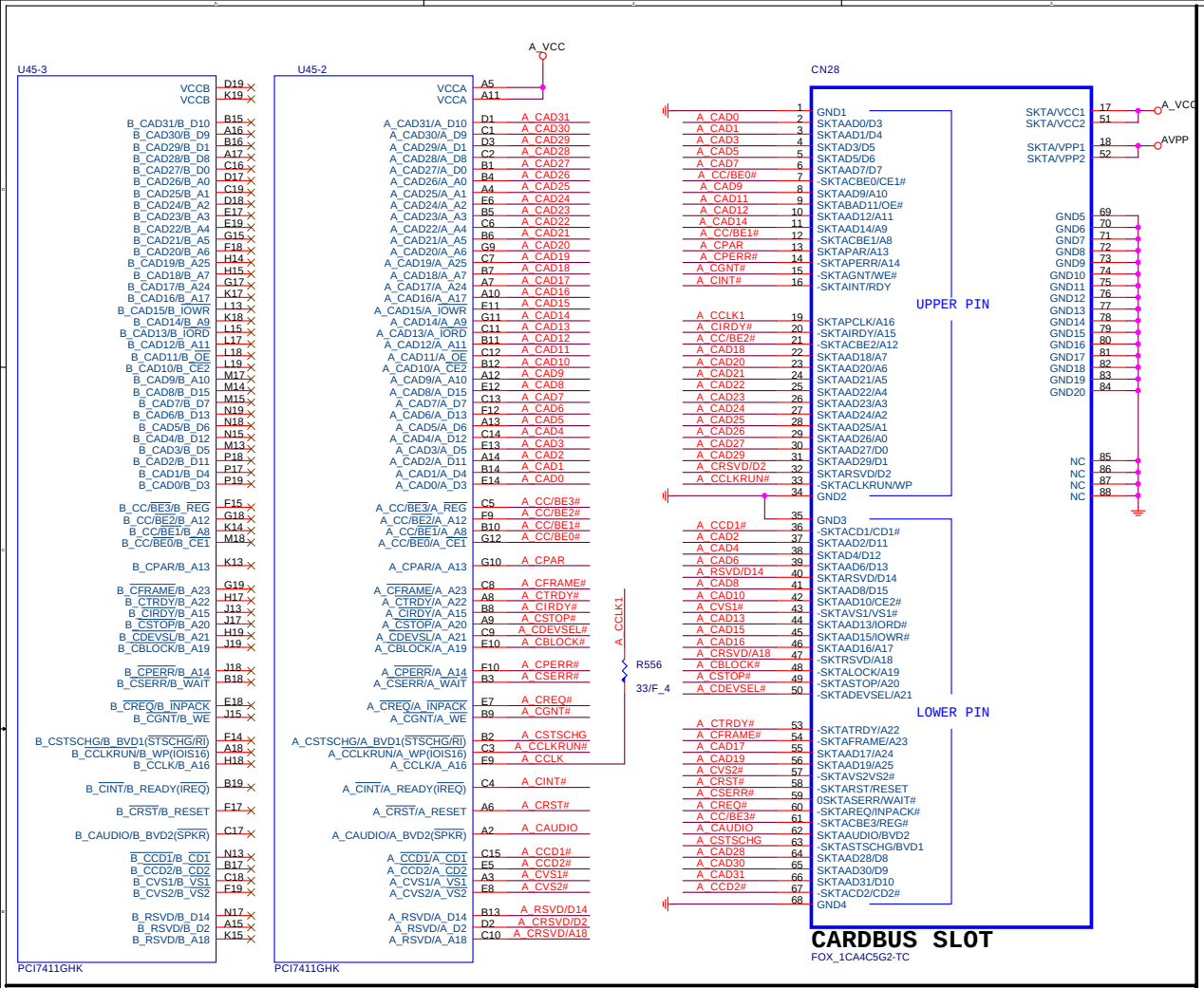
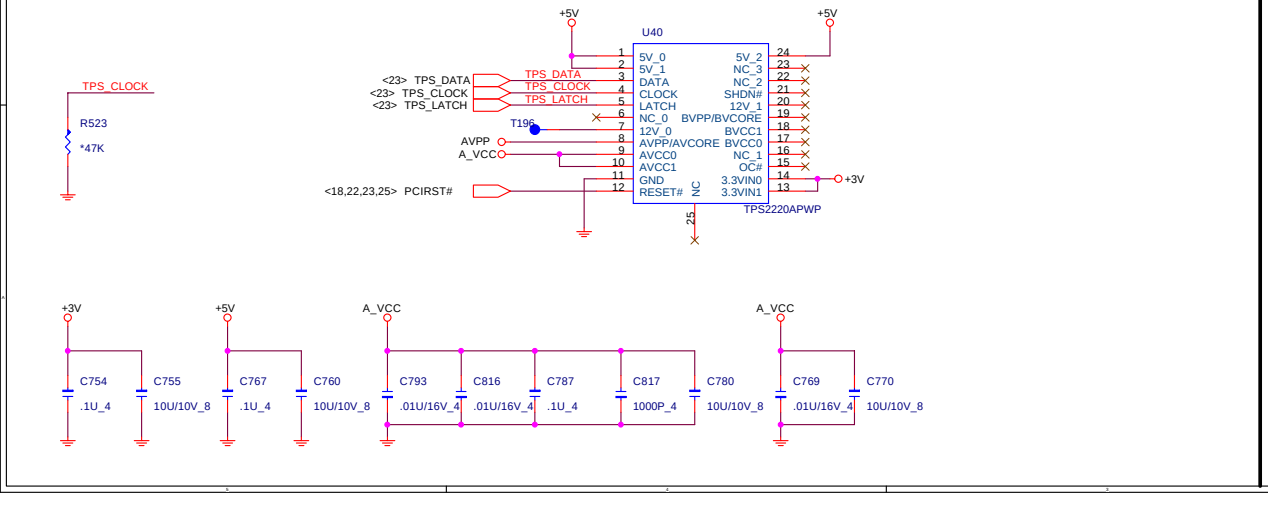
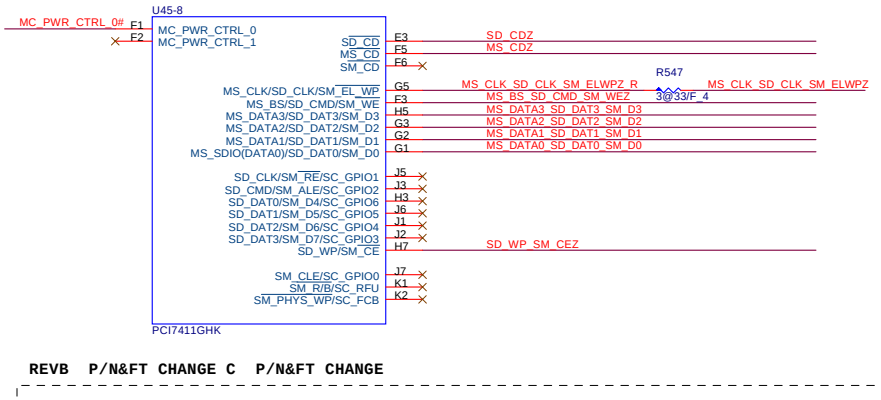
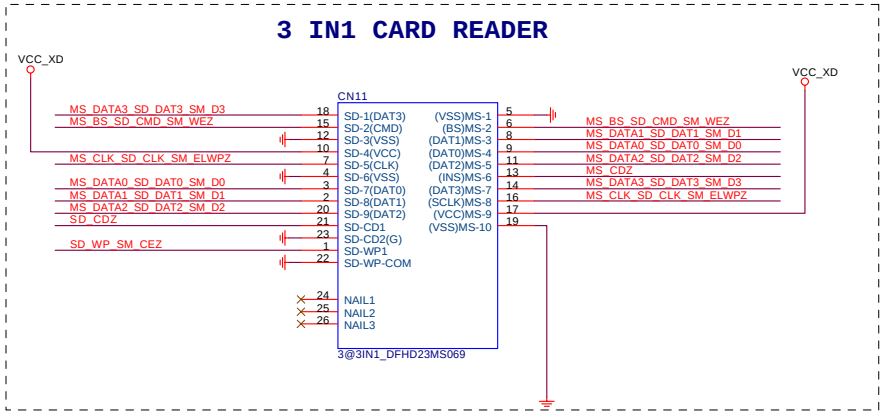

U45-1
PCI7411GHK
<18,22,25> AD[31..0]
SUSPEND
LPC_PD# <19,31>
DATA
CLOCK
LATCH
TPS_DATA
TPS_CLOCK
TPS_LATCH
SPKROUT
PCMSPK
MFUNC0
MFUNC1
MFUNC2
MFUNC3
MFUNC4
MFUNC5
MFUNC6
PIRQC# <18>
PIRQD# <18,22>
PIRQA# <18,25>
SERIRQ <18,19,22,29,31>
PLOCK# <18>
CLKRUN# <18,22,25,29,31>
48MHz Clock
CLK_48
TXC-48MHz-30PPM-15Pf
B: REMOVE RING FUNCTION
E: ADD PULL-LOW
C: DEPOP
U45-7
PCI7411GHK
1394_AVDD
BK2125HS330
TPBIAS0
TPA0P
TPA0N
TPB0P
TPB0N
PHY_TEST_MA
CPS
CNA
XO
XI
1394_XOUT
1394_XIN
Y8
24.576MHZ
VSPLL
TPBIAS1
TPA1+
TPA1-
TPB1+
TPB1-
CN32
SUYIN_1394
B: REMOVE 1394CHOKE PADS
U45-4
U45-10
U45-6
U45-5
U41
AT24C08AN-10SI-2.7
IF EEPROM NOT USE ,
CLK & DAT PULL DOWN
2ND SOURCE: AKE3L8S0A03
PROJECT : ZL2
Quanta Computer Inc.
PCMCIA CONTROLLER
Size
Document Number
Rev
F
Date: Tuesday, December 21, 2004
Sheet 23 of 41

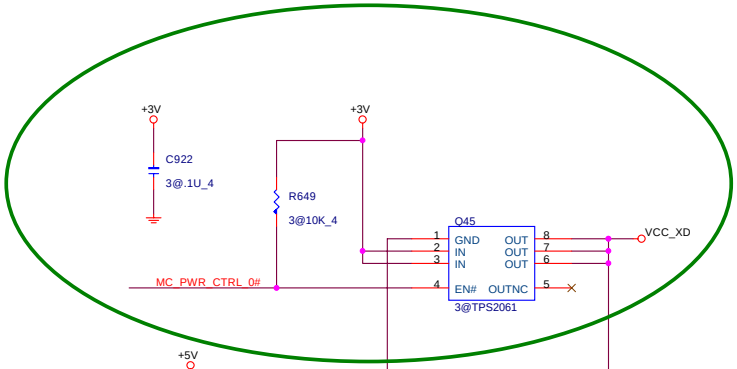


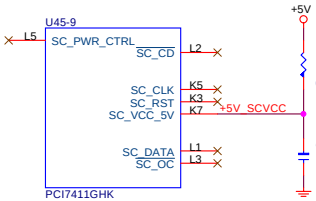




REVB P/N&FT CHANGE C P/N&FT CHANGE







CLOSE TO XD SOCKET

PROJECT : ZL2

Quanta Computer Inc.

Size	Document Number	Rev
	PCMCIA & 3 IN 1	F
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FOR 10/100
FOR GIGA

B: CHANGE SIZE OF C796 FOR ME

Voltage Rail	4401	5702	5705M
VDDIO_PCI	3V_S5	+3V	+3V
+3V_2.5V_LAN	3.3V	2.5V	2.5V
+1.8V_1.2V_LAN	1.8V	1.2V	1.2V

15mm x 15mm
BGA196

@BCM4401/5788

10mils

C: CHANGED FROM 200OHM

B: ALWAYS USE -100MBPS

C: CHANGED FROM 1.24K OHM FOR 5788
4401 1.27K

B: CORRECT PIN B11, C11 SHORT
40mils 2.5V@88mA 0.564W

40mils 1.2V@618mA 0.803W

1.5" AWAY FROM CHIP
Use Philips BCP69-16, hfe=75~275

BCM4401 is for 10/100(1.8)
BCM5702 is for giga
BCM5705M is for giga cost-down(12)

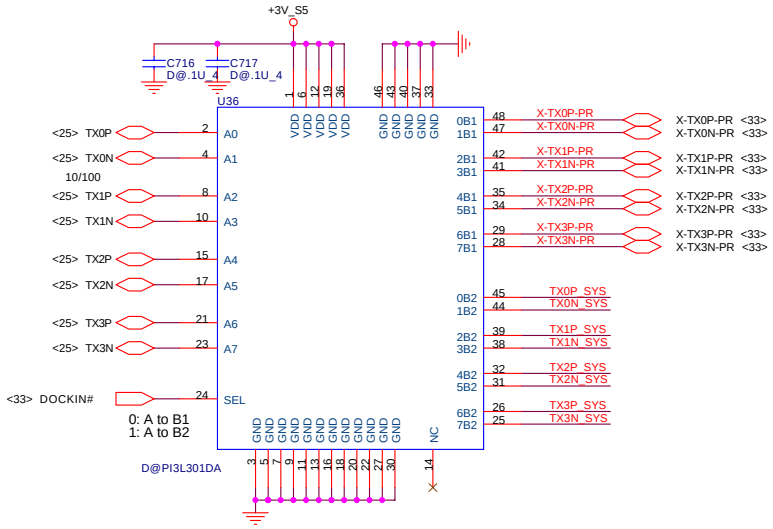
C: DEPOP

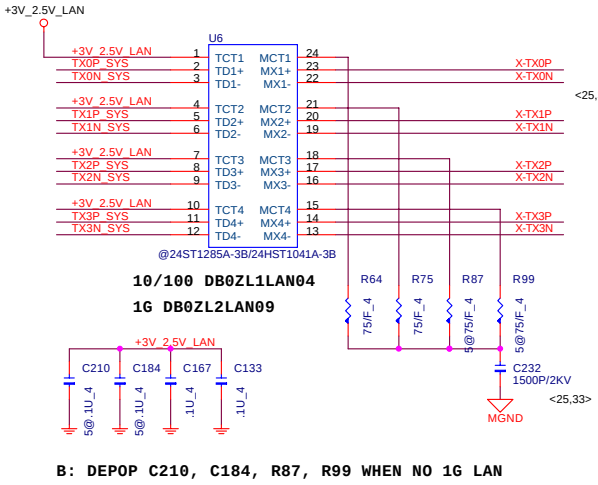
B: CHANGE SIZE OF C741 FOR ME

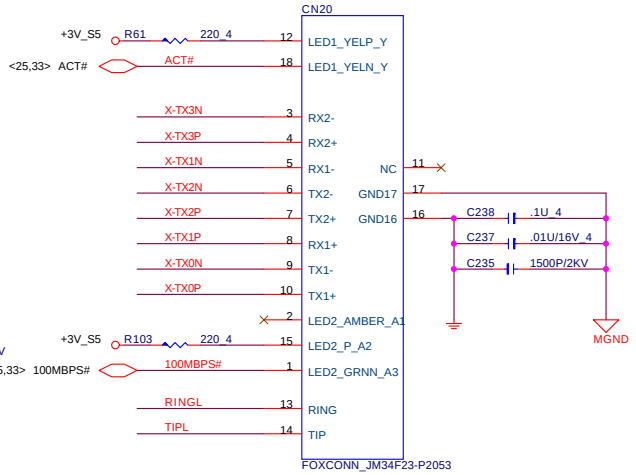
PROJECT : ZL2
Quanta Computer Inc.

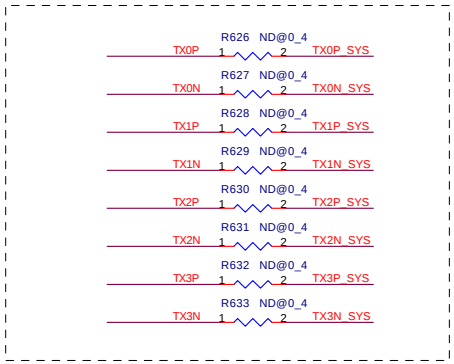
Size	Document Number	Rev
	BCM4401/5705M LAN	F

Date: Tuesday, December 21, 2004 Sheet 25 of 41





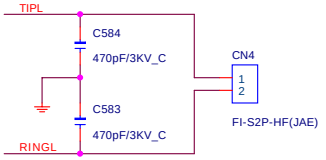




C: ADD CIRCUITS WHEN NO DOCKING

B: DEPOP C210, C184, R87, R99 WHEN NO 1G LAN

E: ADD FOR EMI REQUEST

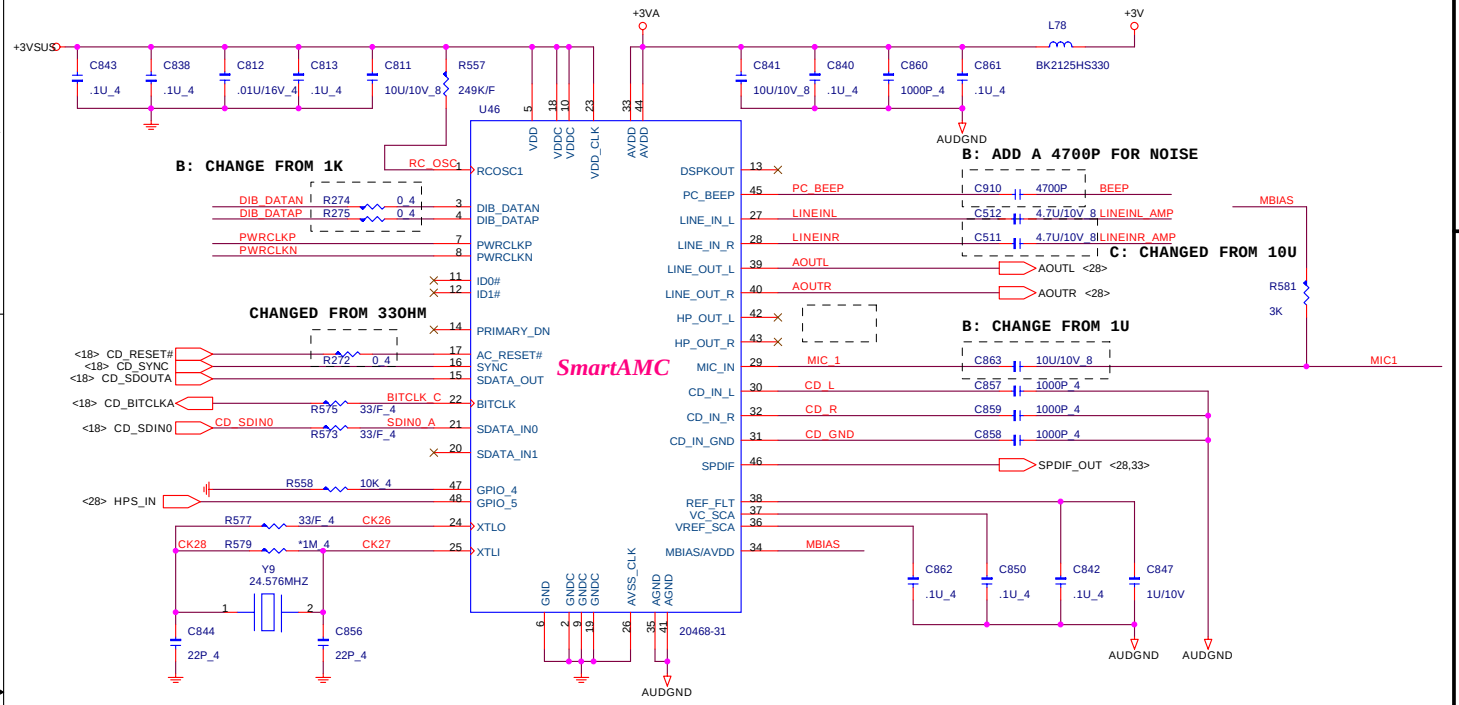


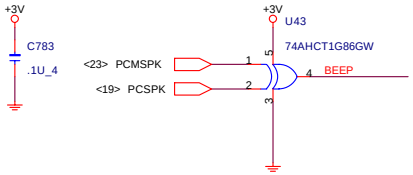
PROJECT : ZL2

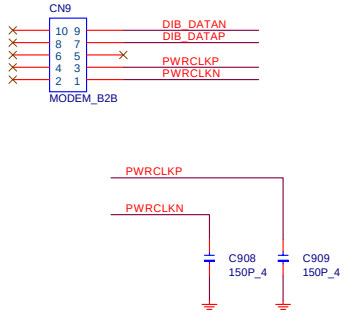
Quanta Computer Inc.

Size	Document Number	Rev
	DVO CH7011A & RJ45-11 CON	F
Date: Tuesday, December 21, 2004	Sheet 26 of 41	

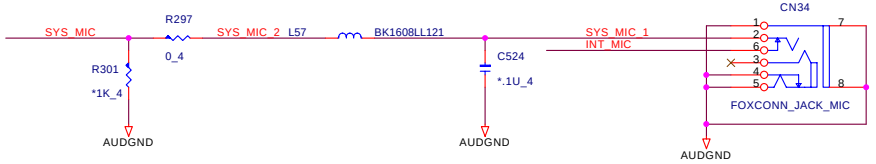
The AMC20463-004 modem is used for mother board family MBAMC20463-004.

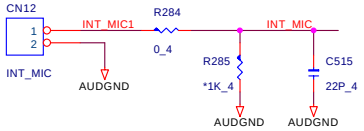


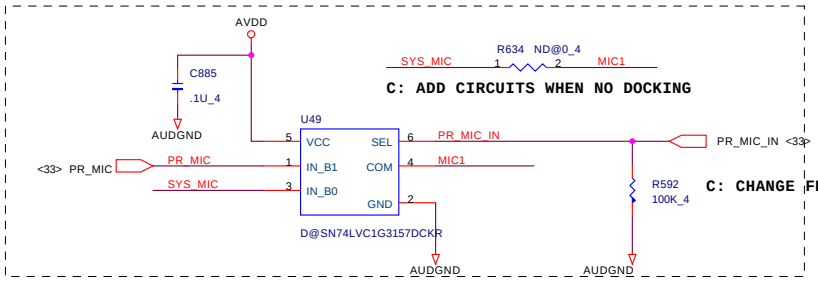




MIC

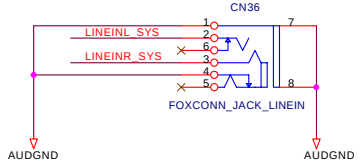


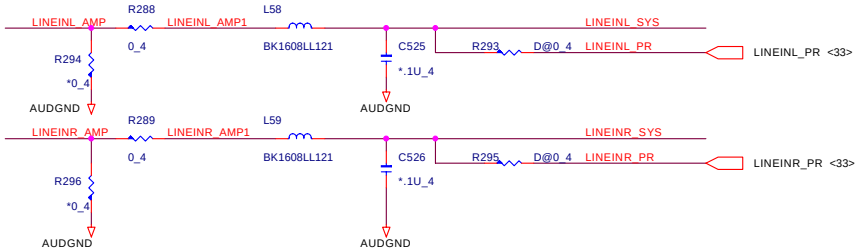




SEL	FUNCTION
LOW	IN_B0
HIGH	IN_B1

LINE IN





PROJECT : ZL2

Quanta Computer Inc.

Size	Document Number	Rev
	AUDIO	F

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GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0

AVDD
R587
*1K_4
GAIN1
R589
1K_4
AUDGND

AMP POWER

+5V
R279
*100K
D14
*BAS316
+12V
U17A
*LM358ADR
R276
*3.3M
C505
*1U/10V
R277
*10_4
C504
*100P_4
R278
*100K
+5V
C513
.1U/16V_4
C517
10U/10V_8
Q27
*AO4414
TO AUDIO
R292
0_8
R302
0_8
AVDD
C514
.1U/16V_4
C518
10U/10V_8
C516
10U/10V_8
U17B
*LM358ADR
AUDGND

C519 .01U/16V_4
C529 1000P_4
C520 .01U/16V_4
C528 1000P_4
C530 100P_4
C527 100P_4
AUDGND

R290 0
R291 0
R287 0
AUDGND

F: RESTORE PAD26 FOR EMI REQUEST
E: REMOVE PAD26, AND PAD35 CHANGE LOCATION
B: ADD SPRING FOR MODEM CABLE

PAD26 *EMIPAD142X91
PAD34 EMIPAD142X91
PAD35 EMIPAD142X91
PAD36 *EMIPAD142X91
PAD37 EMIPAD142X91

AVDD
AUDGND
R282
100K
R283 1K_4
<27> AOUTL
<27> AOUTR
C867 1U/10V
C873 1U/10V
R281 1K_4
R280
100K
C875
.1U_4
C874
1U/10V
C866
.1U_4
U48
MAX9755AETI
INL
INR
NC
NC
GAIN_SEL
GND
/SHDN
VBIAS
VDD
HPVDD
C1P
C1N
CPVDD
CPGND
CPVSS
VSS
HPS
HPL
HPR
OUTL+
OUTL-
OUTR-
OUTR+
PVDDL
PGNDL
PVDDR
PGNDR
R591
10K_4
GAIN1
MUTE
<29> AMP_MUTE#
D32
BAS316
Q28
*2N7002
HPSENCE_PR
C888
1U/10V
C877
1U/10V
D33
BAS316
HPS_PLUGIN
HPS
SPKL
SPKR
INSPKL+
INSPKL-
INSPKR-
INSPKR+
U50
SN74AHC1G32DCKR
R601
100K
SPKPLG
HPSENCE_PR <33>
R594
100K
C886
.1U_4
C884
10U/10V_8
C868
.1U_4
C869
10U/10V_8
C890
.1U_4

B: CHANGE EZ4'S HEADPHONE SOURCE

R312 0
R313 0
R311 0
AUDGND

SPEAKER CON.

INSPKR+ L56 BK1608LL121 INSPKR+N
INSPKR- L55 BK1608LL121 INSPKR-N
INSPKL+ L54 BK1608LL121 INSPKL+N
INSPKL- L53 BK1608LL121 INSPKL-N
C878 *.1U_4
C879 *.1U_4
C881 *.1U_4
C880 *.1U_4
CN13
R_L_SPEAKERS
REV:B MODIFY FOR EMI
R586 0
R585 0
C887 .1U_4
C870 1000P_4

SPKL R303 470_4
SPKL1 L61 BK1608LL121
SPKL_SYS
SPKL_SYS <33>
R299 1K_4
C522 470P_4
SPKR R300 470_4
SPKR1 L60 BK1608LL121
SPKR_SYS
SPKR_SYS <33>
R298 1K_4
C523 470P_4

D: CHANGE TO SPDIF CONN

LINE OUT&SPDIF

CN35
SPKPLG-
SPKL_SYS
SPKR_SYS
SPDIF
Drive IC
LED
FOX=2F11381-TJ1-TR
C916 .1U_4

B: CHANGE EZ4'S HEADPHONE SOURCE

SPKPLG
R637 100K
Q54 2N7002
SPKPLG-
D34 DA204U
+5V

+3V
R646 10K_4
+5V
R647 1K_4
<27,33> SPDIF_OUT
Q57 MMBT3904
C917 *.1U_4
SPKPLG-
Q58 DTC144EU

F: NEW ADD FOR ESD CLOSE TO CN35

+3V
R555 100K
D31
<27> HPS_IN
HPS_IN
HPS_PLUGIN
BAS316

F:TURN OFF LED WHEN NO PLUG

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Quanta Computer Inc.

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	AUDIO AMP	F
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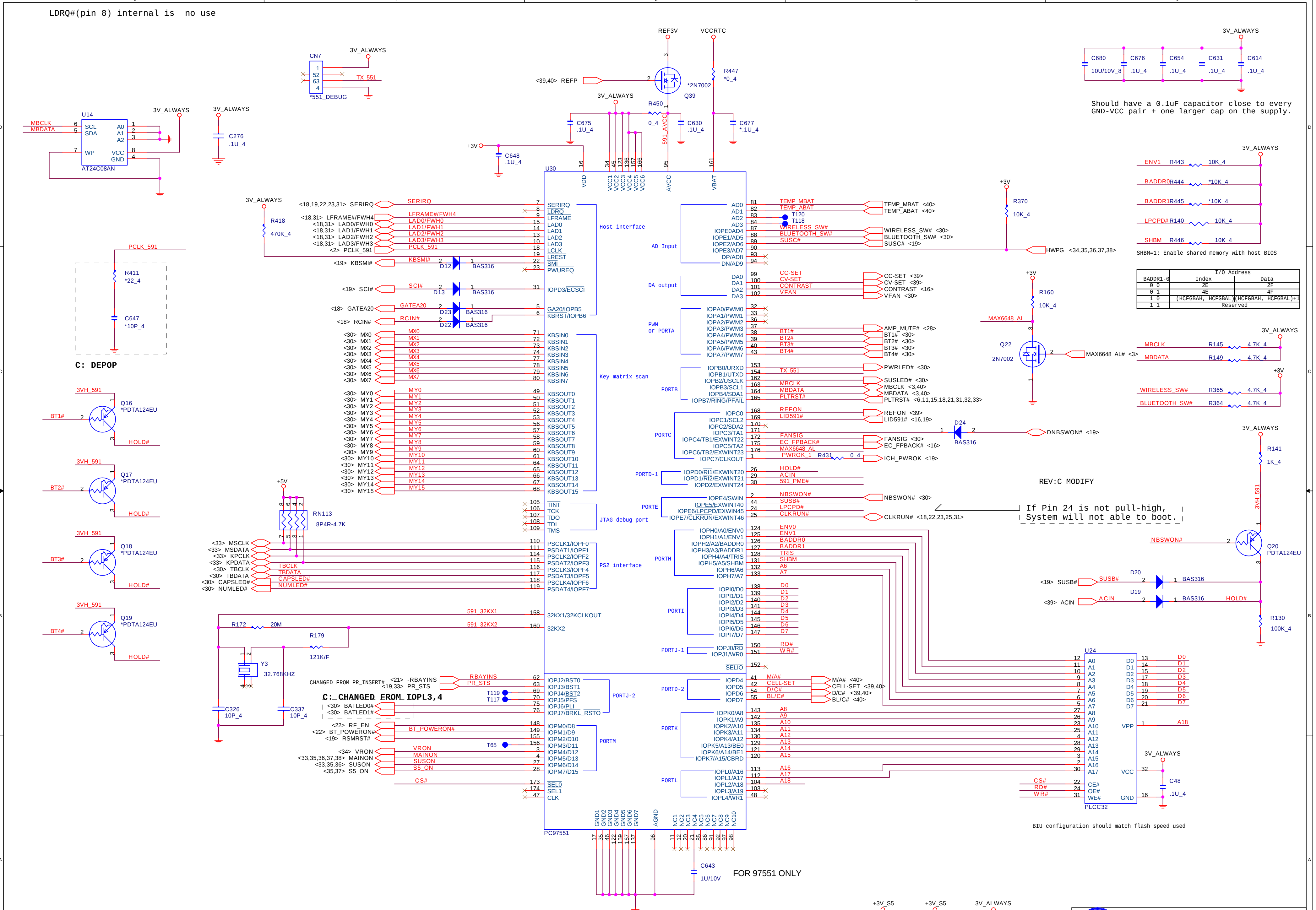
LDRQ#(pin 8) internal is no use
Should have a 0.1uF capacitor close to every GND-VCC pair + one larger cap on the supply.
SHBM=1: Enable shared memory with host BIOS
C: DEPOP
REV:C MODIFY
If Pin 24 is not pulled-high, System will not able to boot.
CHANGED FROM PR_INSERT#
C: CHANGED FROM IOPL3,4
BIU configuration should match flash speed used
FOR 97551 ONLY
INTERNAL PULLUP IN SB
U30
PC97551
U24
PLCC32
U14
AT24C08AN
CN7
*551_DEBUG
Q39
*2N7002
Q22
2N7002
Q16
Q17
Q18
Q19
*PDTA124EU
Q20
PDTA124EU
Q35
PDTC143TT
Y3
32.768KHZ
RN113
8P4R-4.7K
Host interface
Key matrix scan
JTAG debug port
PS2 interface
AD Input
DA output
PWM or PORTA
PORTB
PORTC
PORTD-1
PORTE
PORTH
PORTI
PORTJ-1
PORTJ-2
PORTD-2
PORTK
PORTL
PORTM

BADDR1-0	I/O Address Index	Data
0 0	2E	2F
0 1	4E	4F
1 0	(HCFGBAH, HCFGBAL)	(HCFGBAH, HCFGBAL)+1
1 1	Reserved	

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Quanta Computer Inc.

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	97551 & FLASH	F

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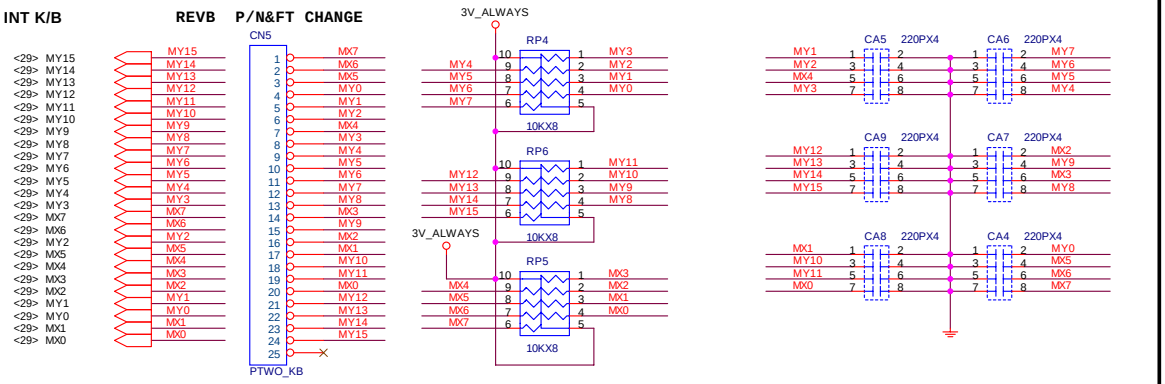
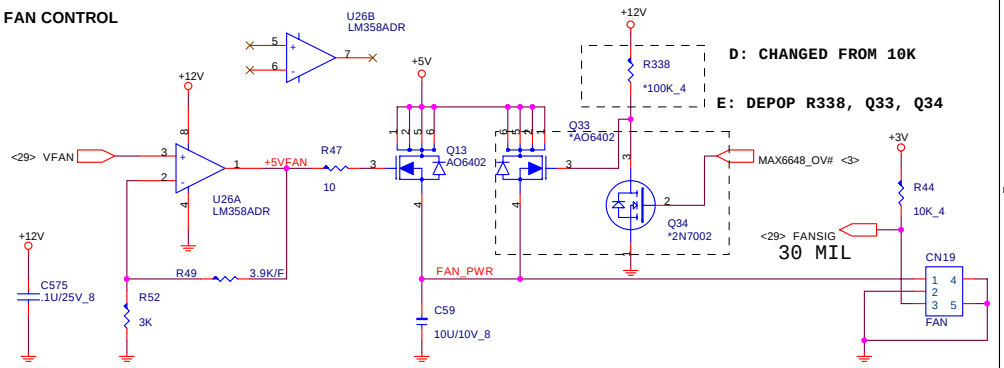
INT K/B

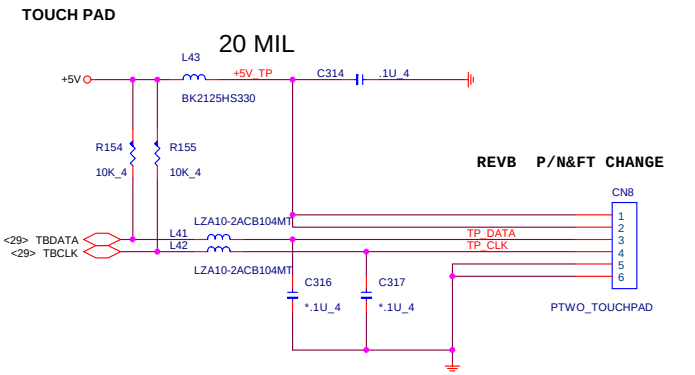
REVB P/N&FT CHANGE



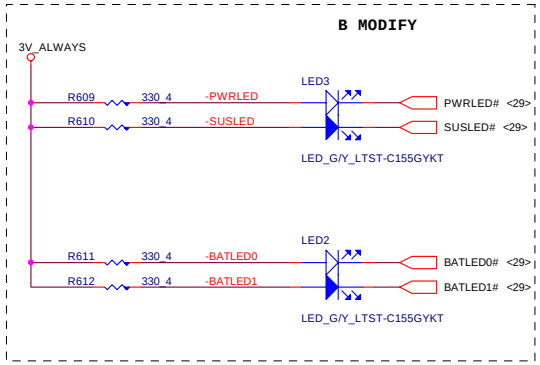
FAN CONTROL



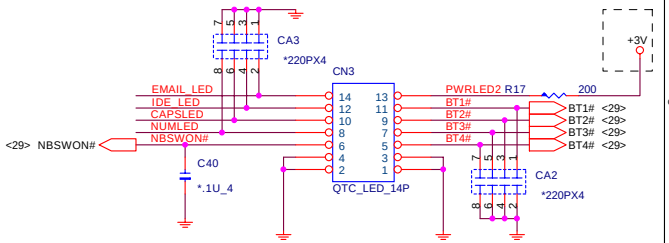
TOUCH PAD

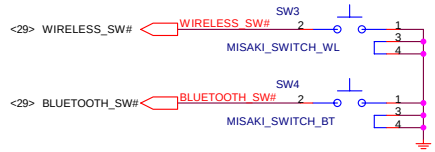


B MODIFY

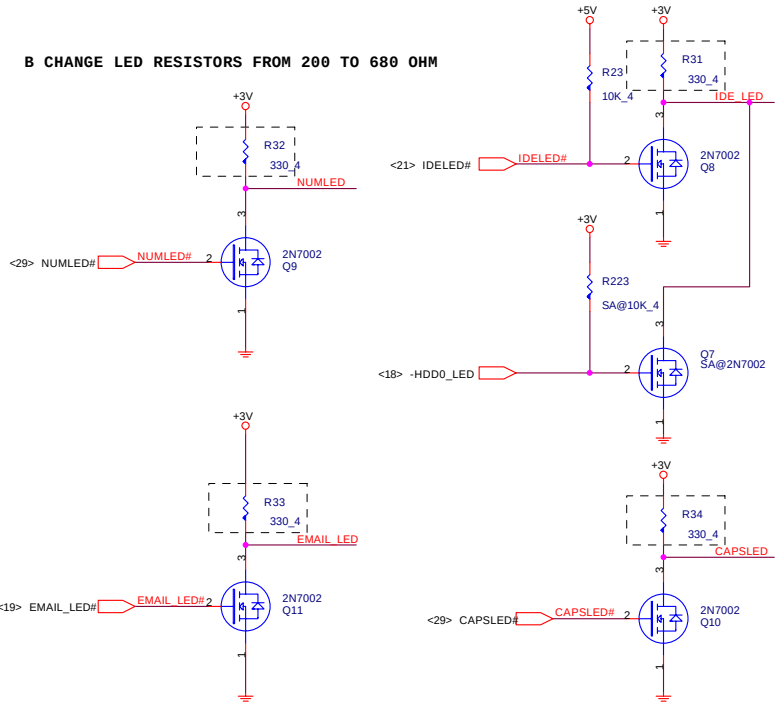


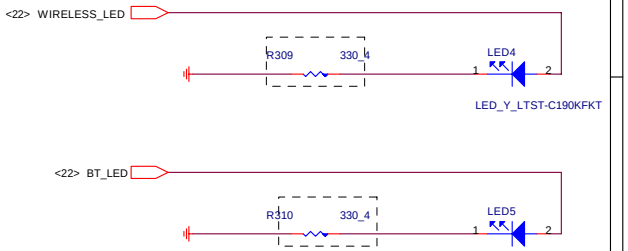
B: CHANGE FROM +3VSUS





B CHANGE LED RESISTORS FROM 200 TO 680 OHM





PROJECT : ZL2

Quanta Computer Inc.

Size	Document Number	Rev
	T/P,FAN,SWITCH,LED,K/B	F

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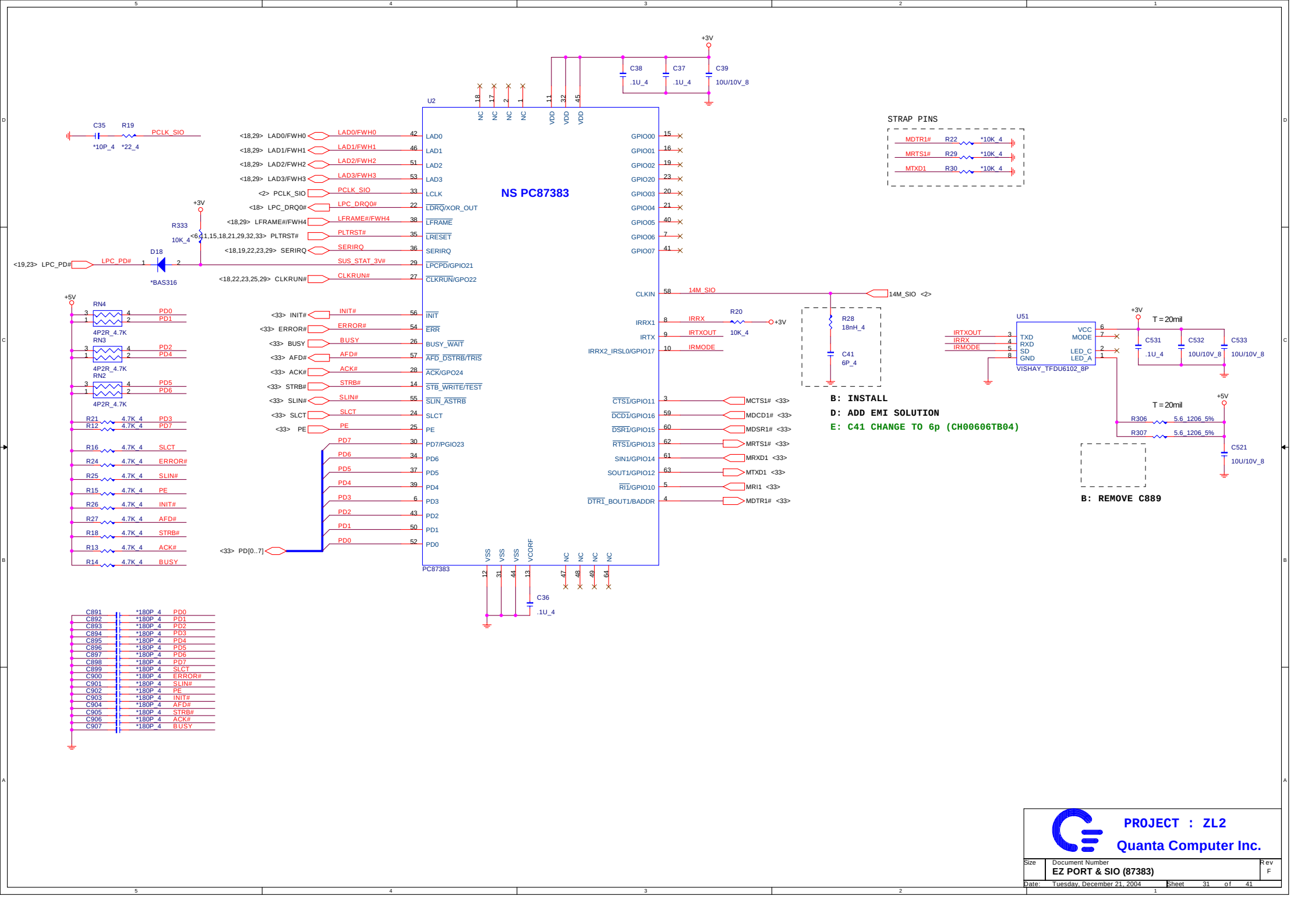
NS PC87383
U2
PC87383
STRAP PINS
MDTR1# R22 *10K_4
MRTS1# R29 *10K_4
MTXD1 R30 *10K_4
B: INSTALL
D: ADD EMI SOLUTION
E: C41 CHANGE TO 6p (CH00606TB04)
B: REMOVE C889
VISHAY_TFDU6102_8P
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Quanta Computer Inc.
EZ PORT & SIO (87383)
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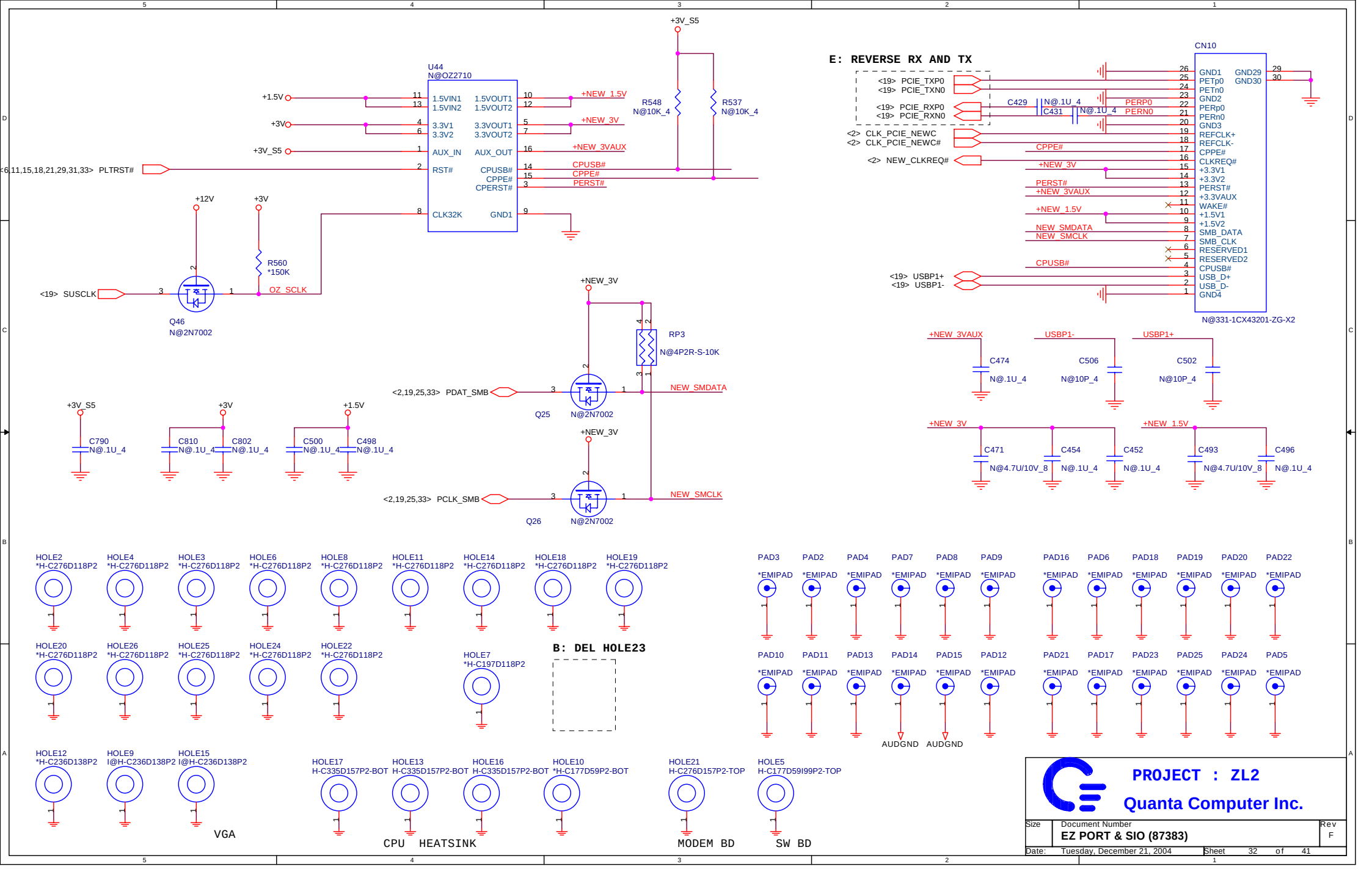
U44
N@OZ2710
1.5VIN1
1.5VIN2
3.3V1
3.3V2
AUX_IN
RST#
CLK32K
1.5VOUT1
1.5VOUT2
3.3VOUT1
3.3VOUT2
AUX_OUT
CPUSB#
CPPE#
CPERST#
GND1
+1.5V
+3V
+3V_S5
+NEW_1.5V
+NEW_3V
+NEW_3VAUX
CPUSB#
CPPE#
PERST#
R548
N@10K_4
R537
N@10K_4
<6,11,15,18,21,29,31,33> PLTRST#
+12V
R560
*150K
OZ_SCLK
<19> SUSCLK
Q46
N@2N7002
+NEW_3V
RP3
N@4P2R-S-10K
<2,19,25,33> PDAT_SMB
NEW_SMDATA
Q25
N@2N7002
<2,19,25,33> PCLK_SMB
NEW_SMCLK
Q26
N@2N7002
C790
N@.1U_4
C810
N@.1U_4
C802
N@.1U_4
C500
N@.1U_4
C498
N@.1U_4
E: REVERSE RX AND TX
CN10
<19> PCIE_TXP0
<19> PCIE_TXN0
<19> PCIE_RXP0
<19> PCIE_RXN0
C429
N@.1U_4
C431
N@.1U_4
PERP0
PERN0
<2> CLK_PCIE_NEWC
<2> CLK_PCIE_NEWC#
<2> NEW_CLKREQ#
CPPE#
+NEW_3V
PERST#
+NEW_3VAUX
+NEW_1.5V
NEW_SMDATA
NEW_SMCLK
CPUSB#
<19> USBP1+
<19> USBP1-
GND1
PETp0
PETn0
GND2
PERp0
PERn0
GND3
REFCLK+
REFCLK-
CPPE#
CLKREQ#
+3.3V1
+3.3V2
PERST#
+3.3VAUX
WAKE#
+1.5V1
+1.5V2
SMB_DATA
SMB_CLK
RESERVED1
RESERVED2
CPUSB#
USB_D+
USB_D-
GND4
GND29
GND30
N@331-1CX43201-ZG-X2
+NEW_3VAUX
USBP1-
USBP1+
C474
N@.1U_4
C506
N@10P_4
C502
N@10P_4
+NEW_3V
+NEW_1.5V
C471
N@4.7U/10V_8
C454
N@.1U_4
C452
N@.1U_4
C493
N@4.7U/10V_8
C496
N@.1U_4
HOLE2 *H-C276D118P2
HOLE4 *H-C276D118P2
HOLE3 *H-C276D118P2
HOLE6 *H-C276D118P2
HOLE8 *H-C276D118P2
HOLE11 *H-C276D118P2
HOLE14 *H-C276D118P2
HOLE18 *H-C276D118P2
HOLE19 *H-C276D118P2
HOLE20 *H-C276D118P2
HOLE26 *H-C276D118P2
HOLE25 *H-C276D118P2
HOLE24 *H-C276D118P2
HOLE22 *H-C276D118P2
HOLE7 *H-C197D118P2
B: DEL HOLE23
PAD3 *EMIPAD
PAD2 *EMIPAD
PAD4 *EMIPAD
PAD7 *EMIPAD
PAD8 *EMIPAD
PAD9 *EMIPAD
PAD16 *EMIPAD
PAD6 *EMIPAD
PAD18 *EMIPAD
PAD19 *EMIPAD
PAD20 *EMIPAD
PAD22 *EMIPAD
PAD10 *EMIPAD
PAD11 *EMIPAD
PAD13 *EMIPAD
PAD14 *EMIPAD
PAD15 *EMIPAD
PAD12 *EMIPAD
PAD21 *EMIPAD
PAD17 *EMIPAD
PAD23 *EMIPAD
PAD25 *EMIPAD
PAD24 *EMIPAD
PAD5 *EMIPAD
AUDGND
AUDGND
HOLE12 *H-C236D138P2
HOLE9 I@H-C236D138P2
HOLE15 I@H-C236D138P2
VGA
HOLE17 H-C335D157P2-BOT
HOLE13 H-C335D157P2-BOT
HOLE16 H-C335D157P2-BOT
HOLE10 *H-C177D59P2-BOT
CPU HEATSINK
HOLE21 H-C276D157P2-TOP
MODEM BD
HOLE5 H-C177D59I99P2-TOP
SW BD
PROJECT : ZL2
Quanta Computer Inc.
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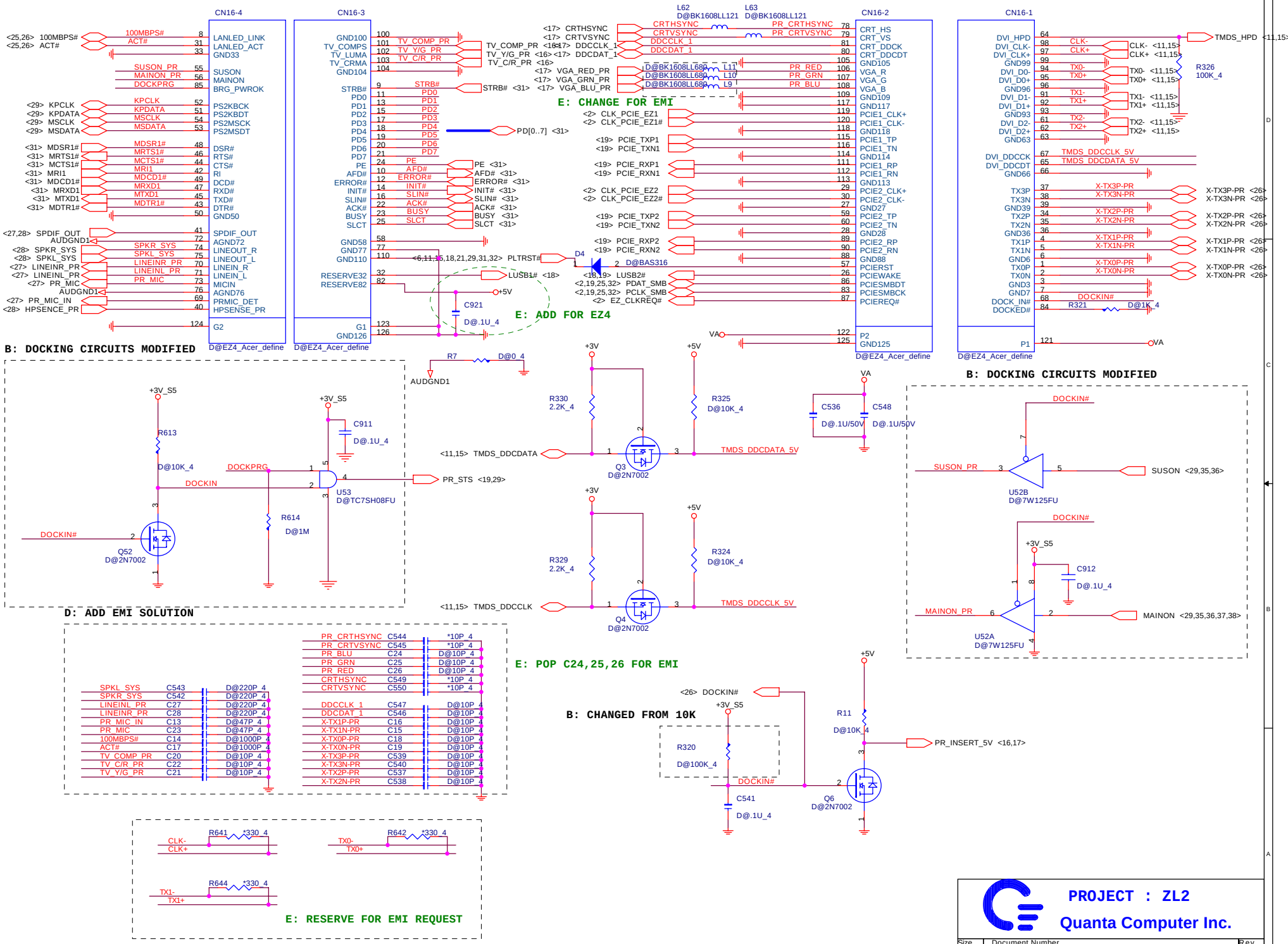
CN16-4
CN16-3
CN16-2
CN16-1
L62 D@BK1608LL121
L63 D@BK1608LL121
D@EZ4_Acer_define
B: DOCKING CIRCUITS MODIFIED
E: CHANGE FOR EMI
E: ADD FOR EZ4
D: ADD EMI SOLUTION
E: POP C24,25,26 FOR EMI
B: CHANGED FROM 10K
E: RESERVE FOR EMI REQUEST
PROJECT : ZL2
Quanta Computer Inc.
EZ PORT & SIO (87383)
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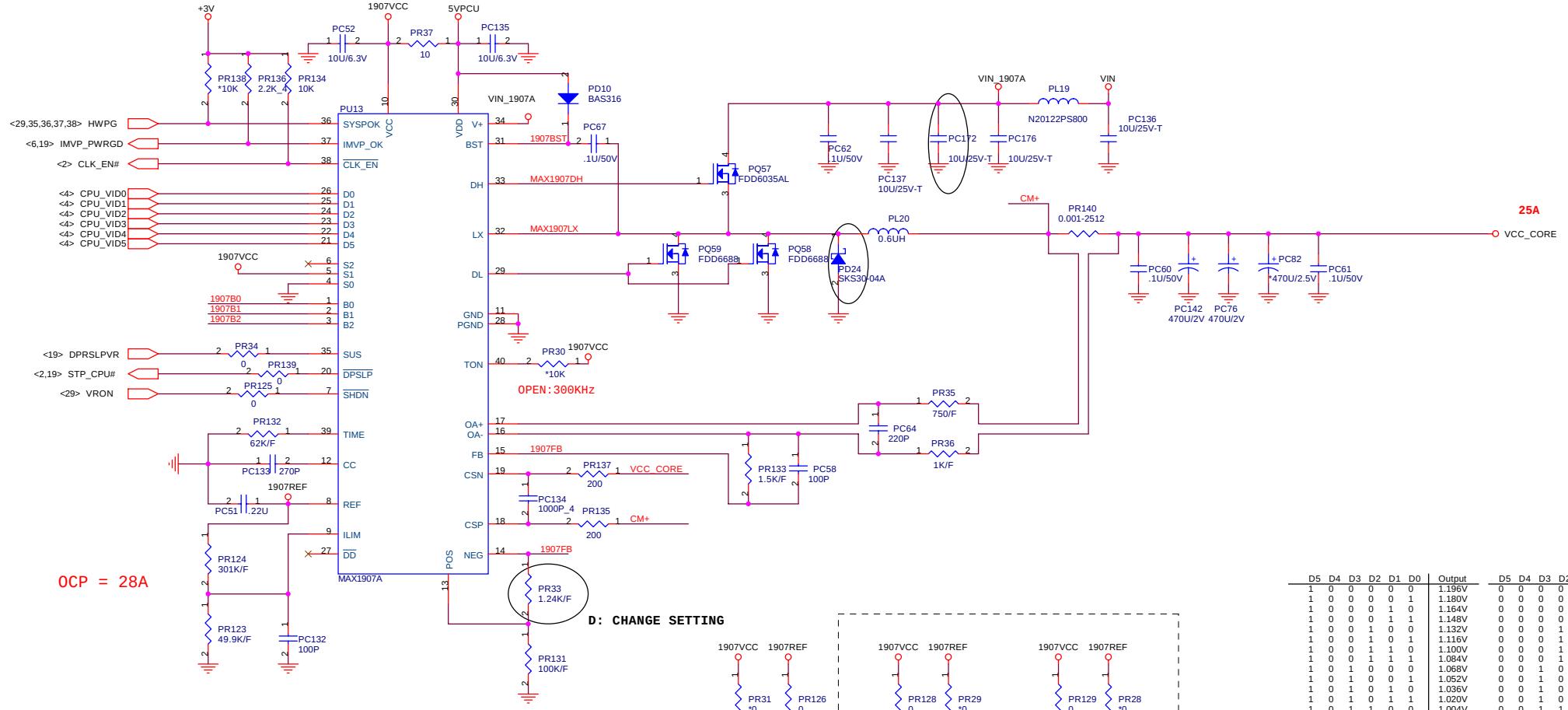

D5	D4	D3	D2	D1	D0	Output	D5	D4	D3	D2	D1	D0	Output
1	0	0	0	0	0	1.196V	0	0	0	0	0	0	1.708V
1	0	0	0	0	1	1.180V	0	0	0	0	0	1	1.692V
1	0	0	0	1	0	1.164V	0	0	0	0	1	0	1.676V
1	0	0	0	1	1	1.148V	0	0	0	0	1	1	1.660V
1	0	0	1	0	0	1.132V	0	0	0	1	0	0	1.644V
1	0	0	1	0	1	1.116V	0	0	0	1	0	1	1.628V
1	0	0	1	1	0	1.100V	0	0	0	1	1	0	1.612V
1	0	0	1	1	1	1.084V	0	0	0	1	1	1	1.596V
1	0	1	0	0	0	1.068V	0	0	1	0	0	0	1.580V
1	0	1	0	0	1	1.052V	0	0	1	0	0	1	1.564V
1	0	1	0	1	0	1.036V	0	0	1	0	1	0	1.548V
1	0	1	0	1	1	1.020V	0	0	1	0	1	1	1.532V
1	0	1	1	0	0	1.004V	0	0	1	1	0	0	1.516V
1	0	1	1	0	1	0.988V	0	0	1	1	0	1	1.500V
1	0	1	1	1	0	0.972V	0	0	1	1	1	0	1.484V
1	0	1	1	1	1	0.956V	0	0	1	1	1	1	1.468V
1	1	0	0	0	0	0.940V	0	1	0	0	0	0	1.452V
1	1	0	0	0	1	0.924V	0	1	0	0	0	1	1.436V
1	1	0	0	1	0	0.908V	0	1	0	0	1	0	1.420V
1	1	0	0	1	1	0.892V	0	1	0	0	1	1	1.404V
1	1	0	1	0	0	0.876V	0	1	0	1	0	0	1.388V
1	1	0	1	0	1	0.860V	0	1	0	1	0	1	1.372V
1	1	0	1	1	0	0.844V	0	1	0	1	1	0	1.356V
1	1	0	1	1	1	0.828V	0	1	0	1	1	1	1.340V
1	1	1	0	0	0	0.812V	0	1	1	0	0	0	1.324V
1	1	1	0	0	1	0.796V	0	1	1	0	0	1	1.308V
1	1	1	0	1	0	0.780V	0	1	1	0	1	0	1.292V
1	1	1	0	1	1	0.764V	0	1	1	0	1	1	1.276V
1	1	1	1	0	0	0.748V	0	1	1	1	0	0	1.260V
1	1	1	1	0	1	0.732V	0	1	1	1	0	1	1.244V
1	1	1	1	1	0	0.716V	0	1	1	1	1	0	1.228V
1	1	1	1	1	1	0.700V	0	1	1	1	1	1	1.212V

SUSPEND MODE (SUS=HIGH)

S2	S1	S0	Output
OPEN	VCC	GND	0.748V

VCC_BOOT

B2	B1	B0	Output
GND	GND	GND	1.708V
REF	REF	REF	1.372V
OPEN	OPEN	OPEN	1.036V
VCC	VCC	VCC	0.700V
REF	VCC	VCC	1.212V

PROJECT : ZL2

Quanta Computer Inc.

Size	Document Number	Rev
	CPU CORE (MAX1907)	F

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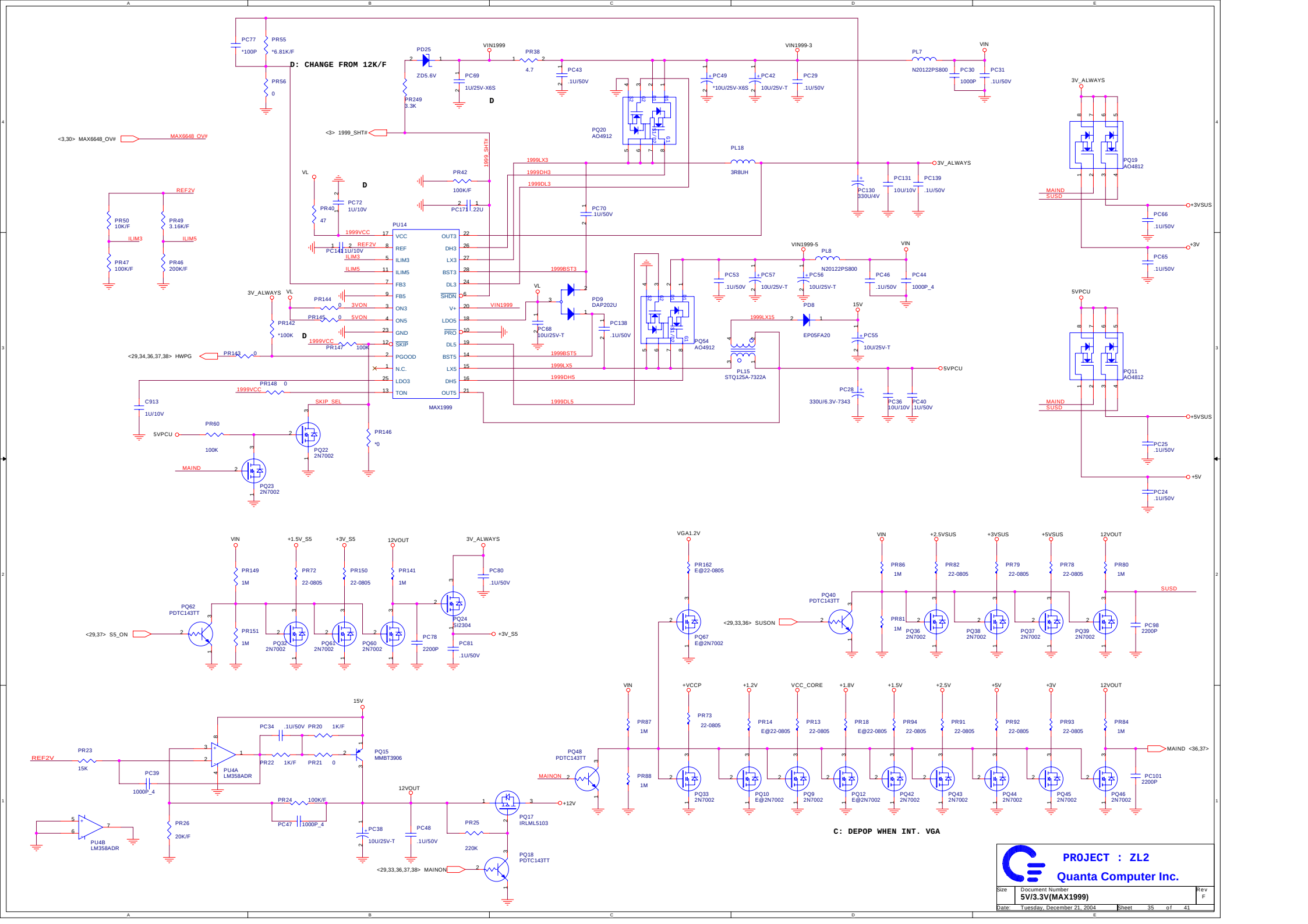
D: CHANGE FROM 12K/F
C: DEPOP WHEN INT. VGA
MAX1999
PROJECT : ZL2
Quanta Computer Inc.
5V/3.3V(MAX1999)
Tuesday, December 21, 2004
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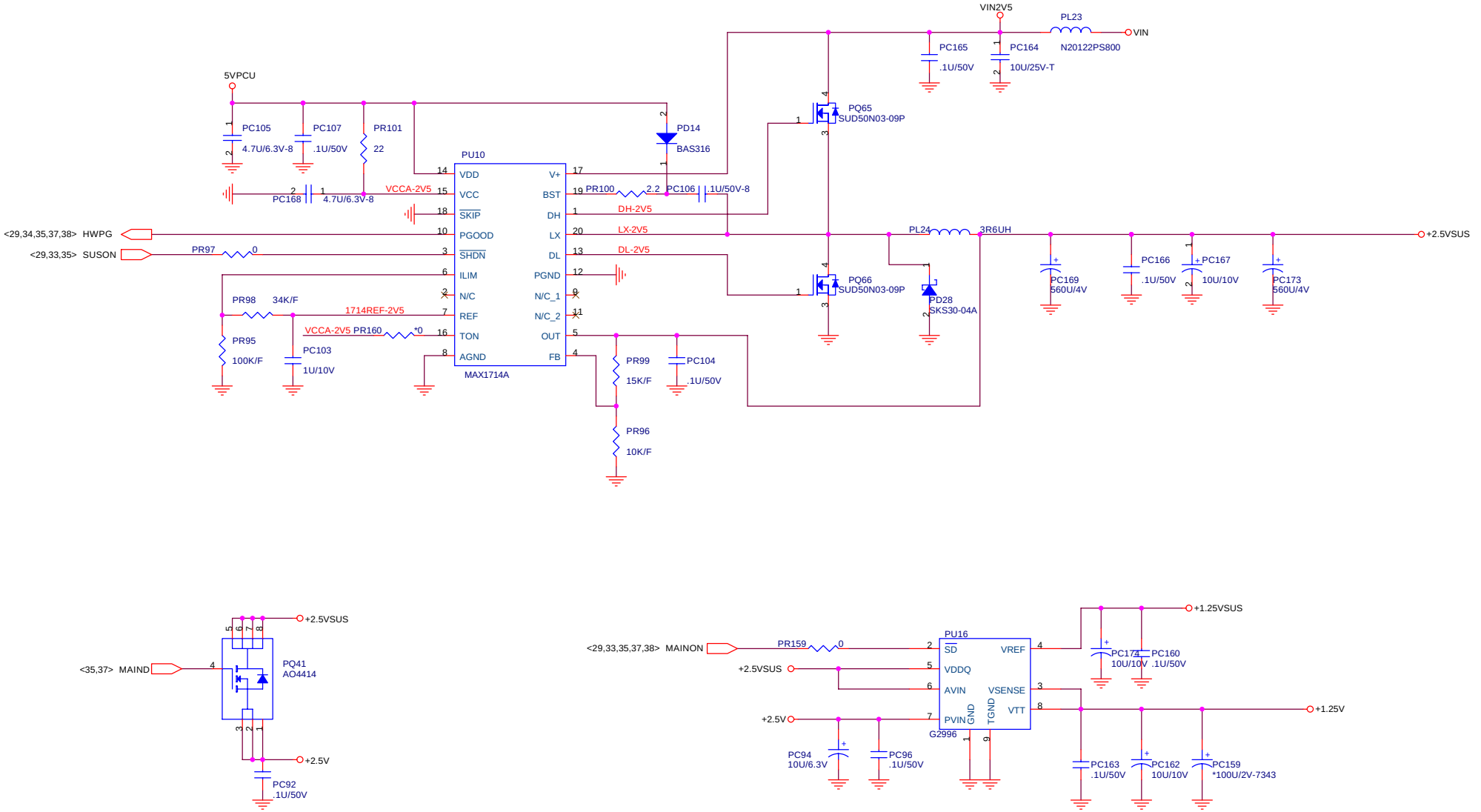
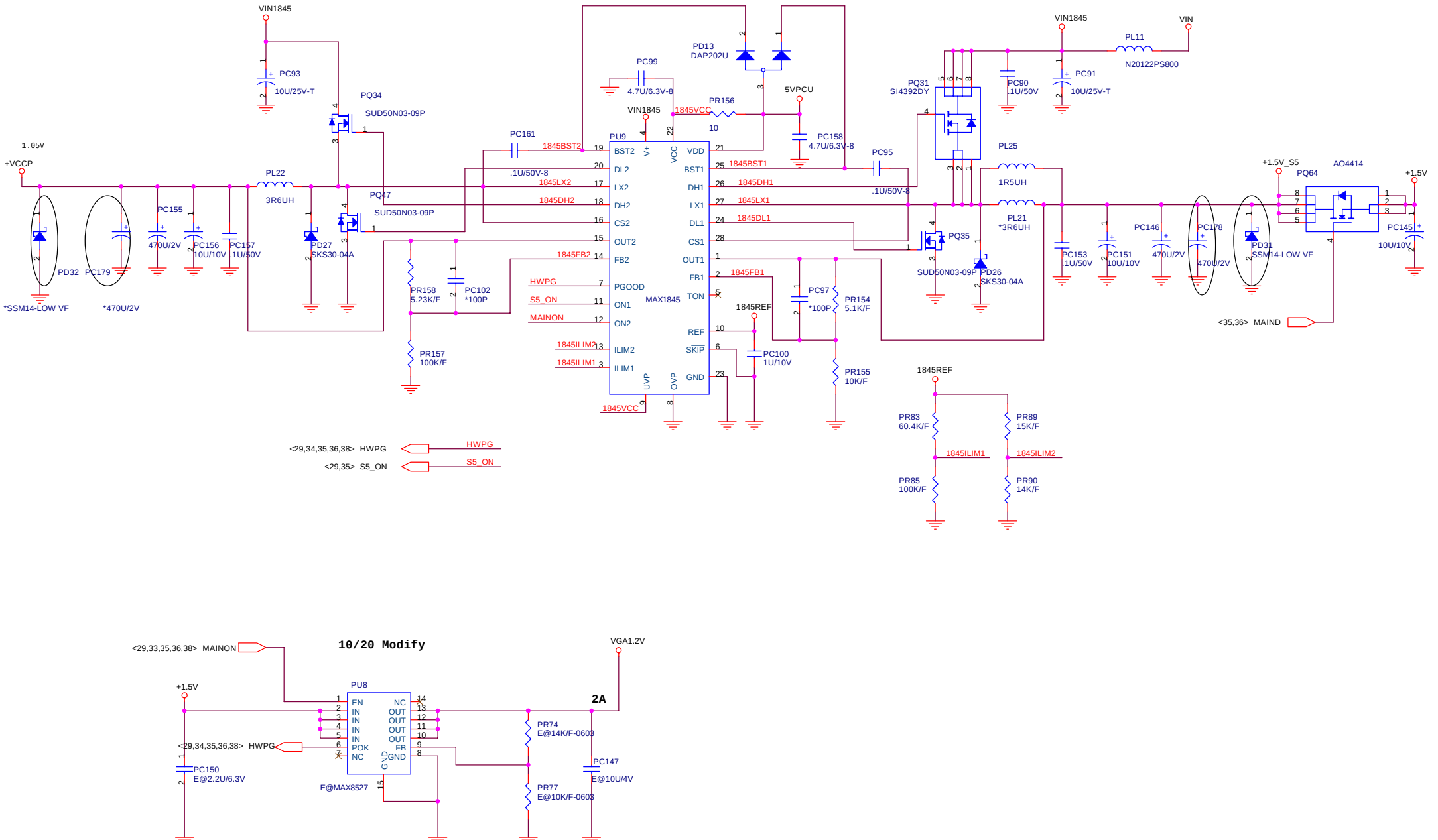


PROJECT : ZL2

Quanta Computer Inc.

Size	Document Number	Rev
	2.5VSUS / +1.25TERM	F
Date: Tuesday, December 21, 2004	Sheet 36 of 41	



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Quanta Computer Inc.

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	+1.5 / CPUIO	F
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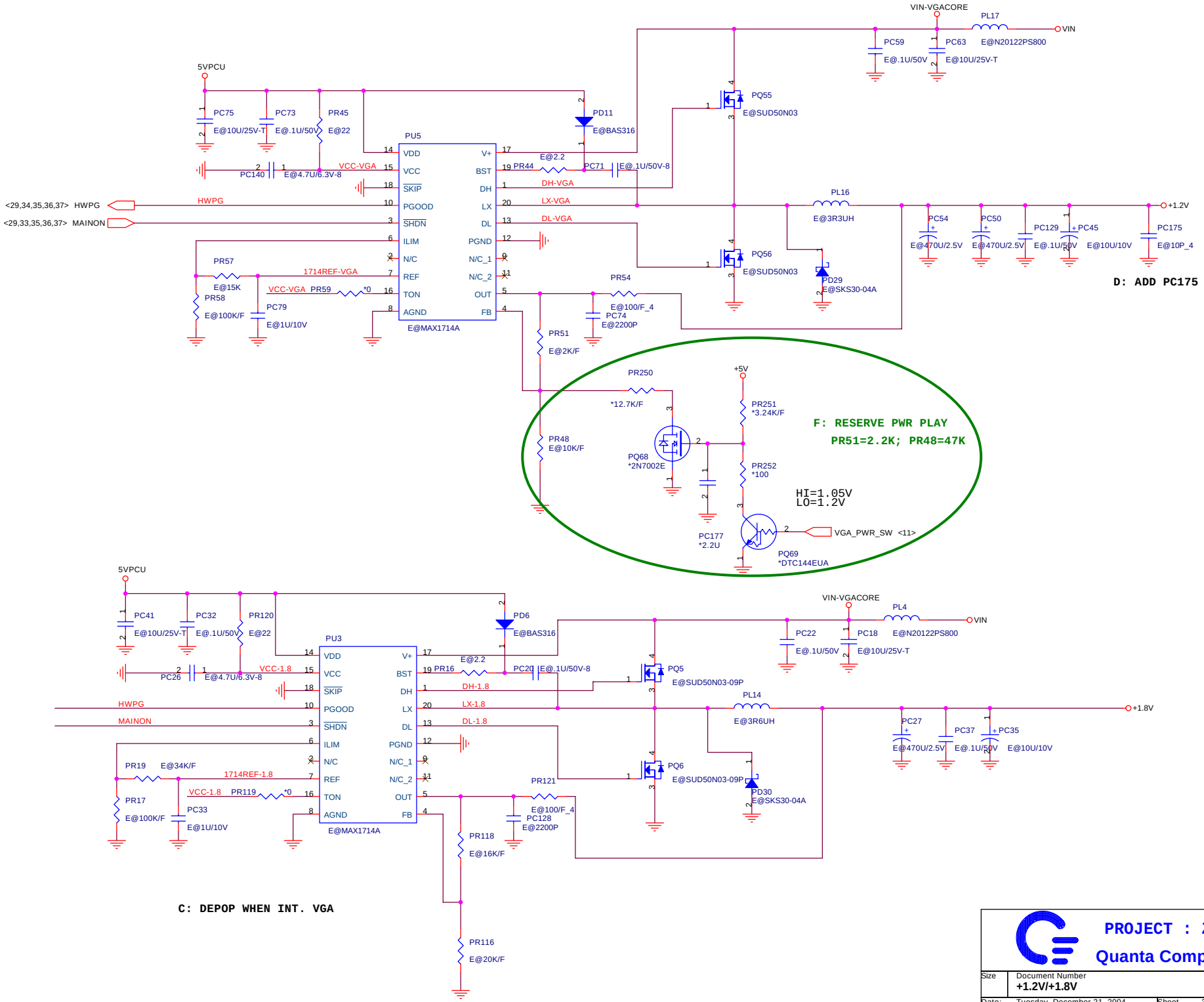
VIN-VGACORE
PL17
VIN
PC59
E@.1U/50V
PC63
E@10U/25V-T
E@N20122PS800
5VPCU
PC75
E@10U/25V-T
PC73
E@.1U/50V
PR45
E@22
PU5
PD11
E@BAS316
PQ55
E@SUD50N03
VDD
VCC
SKIP
PGOOD
SHDN
ILIM
N/C
REF
TON
AGND
V+
BST
DH
LX
DL
PGND
N/C_1
N/C_2
OUT
FB
E@MAX1714A
VCC-VGA
PC140
E@4.7U/6.3V-8
E@2.2
PR44
PC71
E@.1U/50V-8
DH-VGA
LX-VGA
DL-VGA
<29,34,35,36,37> HWPG
<29,33,35,36,37> MAINON
HWPG
PR57
E@15K
PR58
E@100K/F
1714REF-VGA
VCC-VGA
PR59
*0
PC79
E@1U/10V
PR54
E@100/F_4
PC74
E@2200P
PR51
E@2K/F
PL16
E@3R3UH
PQ56
E@SUD50N03
PD29
E@SKS30-04A
PC54
E@470U/2.5V
PC50
E@470U/2.5V
PC129
E@.1U/50V
PC45
E@10U/10V
PC175
E@10P_4
+1.2V
D: ADD PC175
PR250
*12.7K/F
+5V
PR251
*3.24K/F
PR48
E@10K/F
PQ68
*2N7002E
PR252
*100
F: RESERVE PWR PLAY
PR51=2.2K; PR48=47K
HI=1.05V
LO=1.2V
PC177
*2.2U
VGA_PWR_SW <11>
PQ69
*DTC144EUA
5VPCU
PC41
E@10U/25V-T
PC32
E@.1U/50V
PR120
E@22
PU3
PD6
E@BAS316
VIN-VGACORE
PL4
VIN
PC22
E@.1U/50V
PC18
E@10U/25V-T
E@N20122PS800
PC26
E@4.7U/6.3V-8
VCC-1.8
E@2.2
PR16
PC20
E@.1U/50V-8
PQ5
E@SUD50N03-09P
DH-1.8
LX-1.8
DL-1.8
HWPG
MAINON
PL14
E@3R6UH
+1.8V
PC27
E@470U/2.5V
PC37
E@.1U/50V
PC35
E@10U/10V
PR19
E@34K/F
1714REF-1.8
VCC-1.8
PR119
*0
PR17
E@100K/F
PC33
E@1U/10V
PQ6
E@SUD50N03-09P
PD30
E@SKS30-04A
PR121
E@100/F_4
PC128
E@2200P
PR118
E@16K/F
PR116
E@20K/F
C: DEPOP WHEN INT. VGA
PROJECT : ZL2
Quanta Computer Inc.
Size
Document Number
+1.2V/+1.8V
Rev
F
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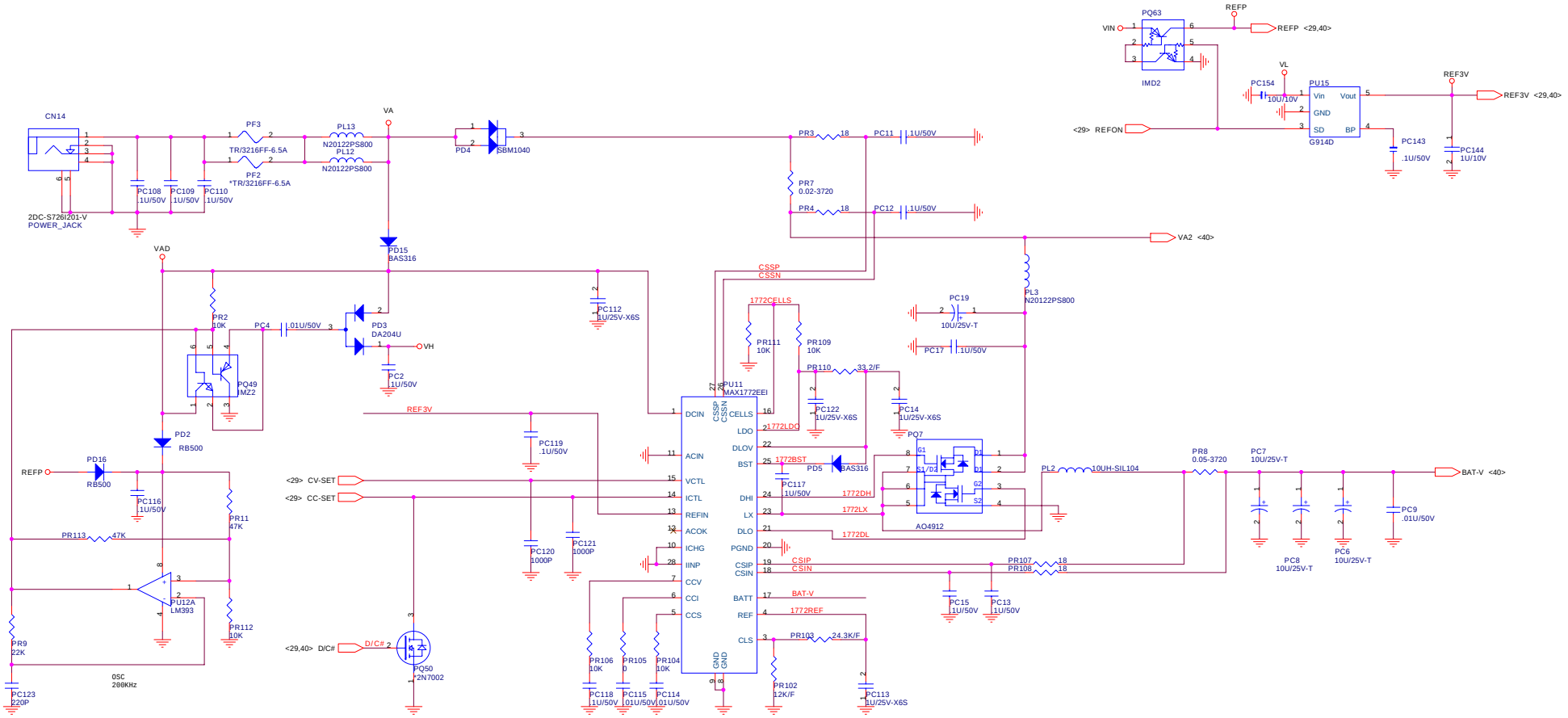
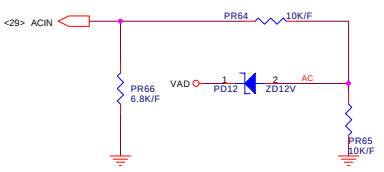
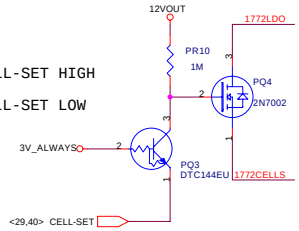


FOR 120W 6.2A



FOR 4S3P CELL-SET HIGH

FOR 3S3P CELL-SET LOW



PROJECT : ZL2

Quanta Computer Inc.

Size	Document Number	Rev
	BATTERY CHARGER	F

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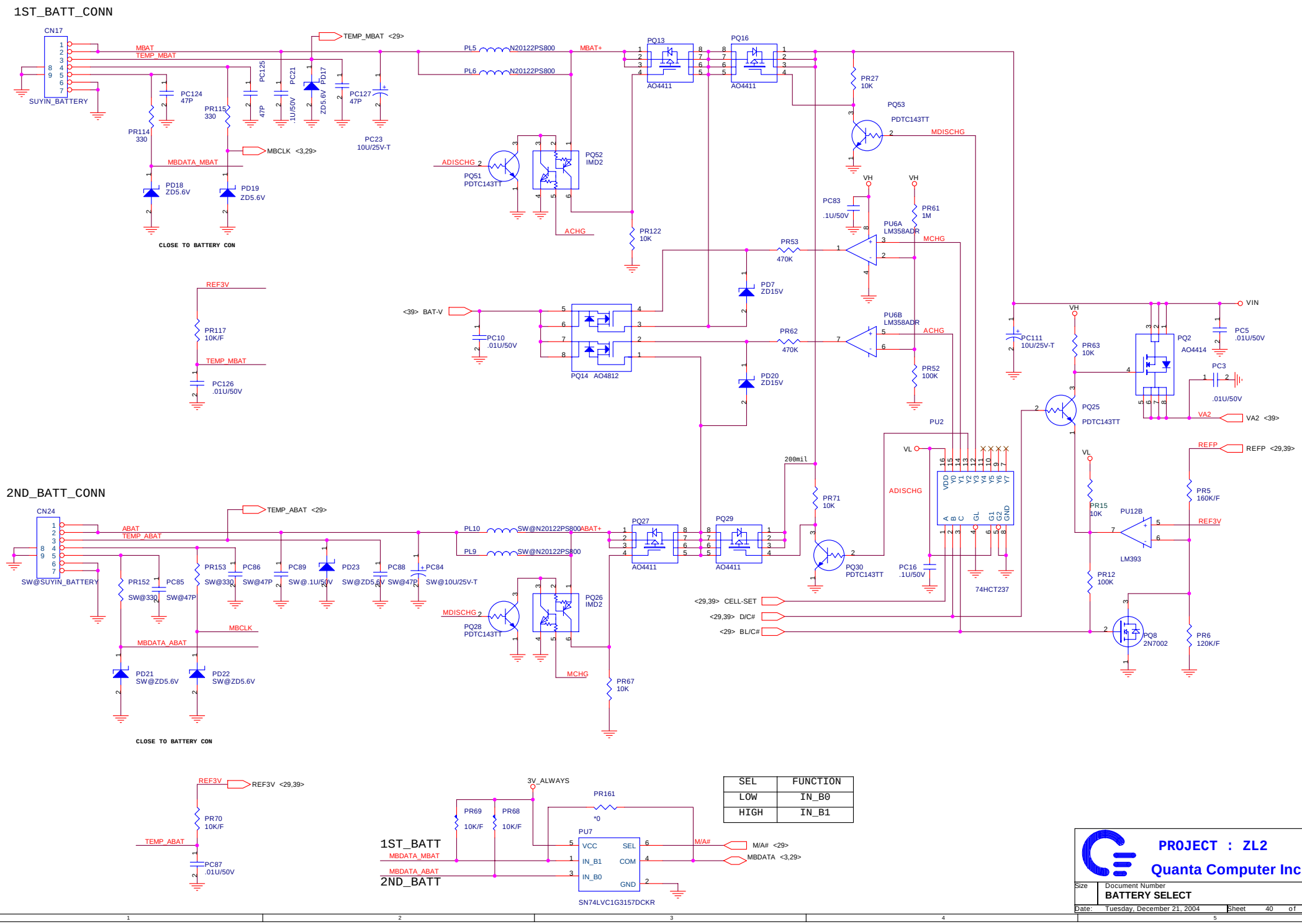
1ST_BATT_CONN
CN17
SUYIN_BATTERY
MBAT
TEMP_MBAT
TEMP_MBAT <29>
PC124 47P
PR115 330
PR114 330
PC125 47P
PC21 .1U/50V
PD17 ZD5.6V
PC127 47P
PC23 10U/25V-T
MBCLK <3,29>
MBDATA_MBAT
PD18 ZD5.6V
PD19 ZD5.6V
CLOSE TO BATTERY CON
PL5 N20122PS800
PL6 N20122PS800
MBAT+
PQ13 AO4411
PQ16 AO4411
PR27 10K
PQ53 PDTC143TT
MDISCHG
ADISCHG
PQ51 PDTC143TT
PQ52 IMD2
ACHG
PR122 10K
VH
PC83 .1U/50V
PU6A LM358ADR
PR61 1M
MCHG
PR53 470K
PD7 ZD15V
<39> BAT-V
PC10 .01U/50V
PQ14 AO4812
PR62 470K
PD20 ZD15V
PU6B LM358ADR
PR52 100K
REF3V
PR117 10K/F
TEMP_MBAT
PC126 .01U/50V
PC111 10U/25V-T
PR63 10K
PQ2 AO4414
PC5 .01U/50V
PC3 .01U/50V
VIN
VA2
VA2 <39>
PQ25 PDTC143TT
PU2
VL
200mil
PR71 10K
ADISCHG
PQ30 PDTC143TT
PC16 .1U/50V
74HCT237
REFP
REFP <29,39>
PR5 160K/F
REF3V
PR15 10K
PU12B
LM393
PR12 100K
PQ8 2N7002
PR6 120K/F
<29,39> CELL-SET
<29,39> D/C#
<29> BL/C#
2ND_BATT_CONN
CN24
SW@SUYIN_BATTERY
ABAT
TEMP_ABAT
TEMP_ABAT <29>
PR152 SW@330
PC85 SW@47P
PR153 SW@330
PC86 SW@47P
PC89 SW@.1U/50V
PD23 SW@ZD5.6V
PC88 SW@47P
PC84 SW@10U/25V-T
MBCLK
MBDATA_ABAT
PD21 SW@ZD5.6V
PD22 SW@ZD5.6V
CLOSE TO BATTERY CON
PL10 SW@N20122PS800
PL9 SW@N20122PS800
ABAT+
PQ27 AO4411
PQ29 AO4411
MDISCHG
PQ28 PDTC143TT
PQ26 IMD2
MCHG
PR67 10K
REF3V
REF3V <29,39>
PR70 10K/F
TEMP_ABAT
PC87 .01U/50V
3V_ALWAYS
PR161 *0
PR69 10K/F
PR68 10K/F
PU7
1ST_BATT
MBDATA_MBAT
MBDATA_ABAT
2ND_BATT
VCC
IN_B1
IN_B0
SEL
COM
GND
M/A#
M/A# <29>
MBDATA <3,29>
SN74LVC1G3157DCKR
SEL | FUNCTION
LOW | IN_B0
HIGH | IN_B1
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Quanta Computer Inc.
Size
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BATTERY SELECT
Rev F
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MODEL:	REV:	CHANGE LIST:	PAGE	FROM	TO
ZL2 MotherBoard	B	PAGE2 1. CHANGE FREQ. SETTINGS FOR DOTHANB 2. UNSTUFF SSC COMPONENTS 3. UNSTUFF COMPONENTS FOR DIFFERENT SKUS	1		
		PAGE3 1. REMOVE R449, PULL HIGH AT POWER SIDE 2. UNSTUFF ITP COMPONENTS 3. STUFF R441 FOR THEMTRIP#	2		
		PAGE4 1. STUFF R432, R433 FOR AUTO-SELECT	3		
		PAGE5 1. STUFF R162 FOR DOTHAN-B	4		
		PAGE6 1. STUFF R147, R148, R151, R143, R152, R159 ALWAYS 2. NOT STUFF DVO COMPONENTS WHEN NO DOCKING	5		
		PAGE8 1. NOT STUFF FILTER COMPONENTS WHEN EXT. VGA 2. CHANGE D10, D11 TO CH551	6		
		PAGE9 1. STUFF R76, PCIE_TESTIN PULL LOW 2. STUFF R369, GPIO0 PULL HIGH 3. CHANGE CLK OUTPUT TO XTALIN 4. NOT STUFF DVI COMPONENTS WHEN NO DOCKING	7		
		PAGE12 1. ADD 220UF IN VGA1.2V	8		
		PAGE15 1. NOT STUFF R60, R63 WHEN NO DVO DEVICE 2. NOT STUFF DVO COMPONENTS WHEN NO DOCKING	9		
		PAGE16 1. CHANGE TV-OUT LC VALUES	10		
		PAGE18 1. ADD DAMPING ON LFRAME# FOR AUDIO NOISE 2. STUFF R469 AND UNSTUFF R467 FOR DOTHAN-B 3. NOT STUFF COMPONENTS FOR SATA WHEN NO SATA 4. NOT STUFF AC TERMINATION FOR PCLK_ICH	11		
		PAGE19 1. NOT STUFF PCIE COMPONENTS WHEN NO PCIE DEVICES 2. CHANGE EMAIL LED GPIO 3. CHANGE MB_ID SETTING	12		
		PAGE21 1. REMOVE R50 2. CHANGE Q15 FROM BJT TO 2N7002	13		
		PAGE23 1. REMOVE RING FUNCTION 1. REMOVE 1394 CHOKE PADS	14		
		PAGE24 1. CHANGE 3IN1 CONNECTOR	15		
		PAGE25 1. CHANGE LED CONNECTION FOR 1G LAN 2. CORRECT U42 PIN.B11 PIN.C11 SHORT 3. CHANGE C741 AND C792'S SIZE FOR ME	16		
		PAGE26 1. UNINSTALL C210, C184, R87, R99 WHEN 10-100	17		
		PAGE27 1. INSERT 4700P IN BEEP SIGNALS 2. REMOVE SPK_PR FROM CODEC 3. CHANGE C863 TO 10U 4. REVERSE MIC-SELECT 5. CHANGE R272 TO 0 OHM	18		
		PAGE28 1. CHANGE CONNECTION FOR SPKL-R TO EZ4 2. ADD SPRINGS FOR MODEM CABLE	19		
		PAGE29 1. CHANGE PR_INSERT# TO PR_STS	20		
		PAGE30 1. CHANGE KB AND TP'S CONNECTOR 2. CHANGE LED CIRCUITS	21		
		PAGE31 1. REMOVE C889 2. STUFF AC TERMINATIONS FOR 14M_SIO	22		
		PAGE33 1. MODIFY EZ4 INTERFACE	23		
		PAGE 35 1. INCREASE CAPACITOR PC171 NEAR PR422. CHANGE COMPONENT PR38 SERIAL NUMBER FROM 0603 TO 1206 3. TAKE OFF PR39 PR43 PQ21 AND CHANGE NET NAME TO MAX6648_OV#	24		
		PAGE 35 3. INCREASE CAPACITOR C913 4. ADD DISCHARGE FOR VGA1.2V	25		
		PAGE 40 1. INCREASE RESISTOR PR161 NEAR PU7	26		
		PAGE 22 1. REMOVE CHOKE PADS	27		
		PAGE 39 1. TAKE OFF PQ50	28		
		PAGE 37 1. CHANGE PU8 NET NAME TO +2.5V	29		
		PAGE 17 1. CHANGE HSYNC& VSYNC'S BEADS TO 0 OHM	30		
	C	DA0ZL2MB8C3	31		
		PAGE2 1. ADD PULLUPS ON CLKREQ PINS	32		
		PAGE3 1. ADD THEMAL SHUTDOWN CIURCUITS	33		
		PAGE13 1. CHANGE OPTIONS TO HYNIX MEMORY	34		
		PAGE16 1. DEPOP C558	35		
		PAGE17 1. CHANGE LC VALUES FOR RGB			
		PAGE16, 17, 26 ADD 0 OHM RESISTORS TO SUBSTITUE SWITCHES WHEN NO DOCKING			
		PAGE25 1. CHANGE R531 TO 0 OHM 1. CHANGE R519 TO 1.2K/F			
		PAGE27 1. CHANGE C512, C511 TO .7UF 1. CHANGE R592 TO 100K			
		PAGE28 1. DEPOP Q28			
		PAGE29 1. CHANGE BATLED0,1# PINS TO IOPJ6,7			
		PAGE24 1. CHANGE 3-IN-1 CONNECTOR			
		PAGE 34 1. INCREASE CAPACITOR PC172 10U/25V IN VIN_1907A 2. INCREASE SCHOTTKY DIODE PD24 SKS30-04A IN MAX1907LX .			
		PAGE 35 1. INCREASE ZENER DIODE PD25 ZD5.6V SERIES WITH VIN1999 AND PR249 2. CHANGE NET NAME TO 1999_CHT#			
		PAGE 36 1. CHANGE MOSFET SUD50N03-09P TO PQ65 PQ66 2. INCREASE CAPACITOR PC173 560U/4V IN +2.5VSUS 3. INCREASE CAPACITOR PC174 10U/10V IN +1.25VSUS 4. INSERT PR250 BETWEEN PU16 PIN2 AND PIN 5 .			
		PAGE 37 1. CHANGE MOSFET SUD50N03-09P TO PQ34 PQ47 AND PQ35 2. TAKE OFF JUMP 3.CHANGE CAPACITOR PC155 PC146 TO 560U/4V			
		PAGE 38 1. CHANGE MOSFET SUD50N03-09P TO PQ5 PQ6 PQ55 AND PQ56 2. TAKE OFF JUMP 3. CHANGE CHOKE PL16 TO 3R3UH 4.CHANGE CAPACITOR PC27 TO E@470U/2.5V			
		PAGE 39 1. EXCHANGE NET NAME 3V_ALWAYS AND CELL-SET			
		PAGE 23,25,29,31 1. DEPOP RC FILTERS ON PCI CLOCKS			
	D	PAGE2 1. DEPOP R615 2. ADD 47P ON 14M_SIO			
		PAGE3 1. POP R449			
		PAGE6 1. DEPOP RP7			
		PAGE16 1. LID SW FOOTPRINT CHANGED			
		PAGE19 1. ADD MB_ID3			
		PAGE21 1. CHANGE C82'S RATING TO 25V			
		PAGE28 1. PHONE JACK CHANGED TO SPDIF			
		PAGE30 1. CHANGE R338 TO 100K			
		PAGE31 1. CHANGE R28 AND C41'S VALUE			
		PAGE33 1. ADD EMI CAPS			
		PAGE34 1. ADD CAP PC176			
		PAGE35 1. CHANGE CAP PC69 COMPONENT 2. CHANGE CAP PC72 CONNECT POINT 3. CHANGE RESISTOR PR147 COMPONENT			
	E	PAGE2 Change R200, R202, C915 value to pass EA			
		PAGE3,30 DEPOP COMPONENTS FOR MAX6648_OV#			
		PAGE6 1. DEPOP R186, R184			
		PAGE8 Add C918 to solve TV issue			
		PAGE12 Add C919,920, change L25,27,67			
		PAGE16 1. ADD LEVEL SHIFT FOR EDID			
		PAGE16 Change R8, R9 remove C9, C32 for pass Acer LCD			
		PAGE19 ADD 100K PULLLOW ON DPRSLPVR, change C428			
		PAGE21 1. CHANGE SWAP-ODD RESET			
		PAGE23 1. ADD PULL-LOW ON PCMSPK			
		PAGE24 1. ADD 33OHM CURRENT LIMIT ON VCC_XD			
		PAGE32 1. REVERSE RX AND TX			
		PAGE18 Change GPIO pin define, add R645			
		PAGE20 D25 change to CH551			
		PAGE31 Change C41 to 6pF			
		PAGE33 Modify EZ4 pin define, add R641, 642, 644 for EMI			
		PAGE 35 1. CHANGE PC68 COMPONENT.			
		PAGE 36 1. CHANGE PR99 PD28 COMPONENT.			
		PAGE 37 1. CHANGE PD26 PD27 COMPONENT. 2. CHANGE PR74 PR77 PU8 PC147 PC150 COMPONENT.			
		PAGE 38 1. CHANGE PR51 COMPONENT. 2. CHANGE PD29 PD30 COMPONENT.			
		PAGE 39 1. CHANGE PQ7 COMPONENT.			

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	CHANGE LIST	F
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PROJECT : ZL2	APPROVE BY: SELMON LIU	DRAWING BY:JOE LIN	REV
MB ASSY'S P/N : 31ZL1MB0004	PROJECT LEADER: SELMON LIU	DOCUMENT NO:	DATE :2004/06/01

COVER SHEET 1 OF 1