AW3 Block Diagram

Dothan+Alviso(915PM)+ICH6-M

Intel Dothan/Yonah 27W/31W 478 PIN micro FC-BGA PG 4,5

CPU Thermal Sensor MAX6642ATT98-T PG 4

ICS954201 PG 3

FSB 400/533MHz

VRAM 64MB/128MB/256MB PG 19,20

LCD Panel PG 20 — LVDS

CRT Port PG 21 — R,G,B

S-Video PG 21 — TV

HDTV PG 21

VGA Chip ATI M24 708 BGA PG 14~19

Spread Spectrum PG 14

PCIE x 16 2.5Gb/s

MCH Memory Control Hub Alviso 915PM 1257 Pin BGA PG 6~9

Channel A

DDR2 INTERFACE, 400/533MHz

Channel B

DDR-SODIMM1 PG 10

DDR-SODIMM2 PG 10

DMIx4

ODD PG 12

HDD-1 PG 12

PATA 66/100

HDD-2 PG 29

PATA

Marvell 88SA8040 PG 29

SATA

ICH6-M I/O Control Hub 82801FBM 609 BGA PG 11,12,13

33MHZ, 3.3V PCI BUS

CARDBUS TI7411 PG 22,23

MINI-PCI PG 26

LAN BCM4401 BCM5788 PG 24

RJ45 PG 25

Express Card PG 22

USB 2.0

USB PORT 0,1,2,3 USB Conn. PG 30

USB PORT 4 IR Receiver PG 30

USB PORT 5 TV MODULE PG 30

USB PORT 6 Finger Printer PG 30

Azalia

3.3V LPC 33MHz

MDC PG 26

Audio Codec ALC260 PG 27

EC/KBC PC87591 176 Pins LQFP PG 31

FAN PG 27

RJ11 PG 25

Amp PG 27

MIC PG 27

Amp PG 28

TouchPAD PG 30

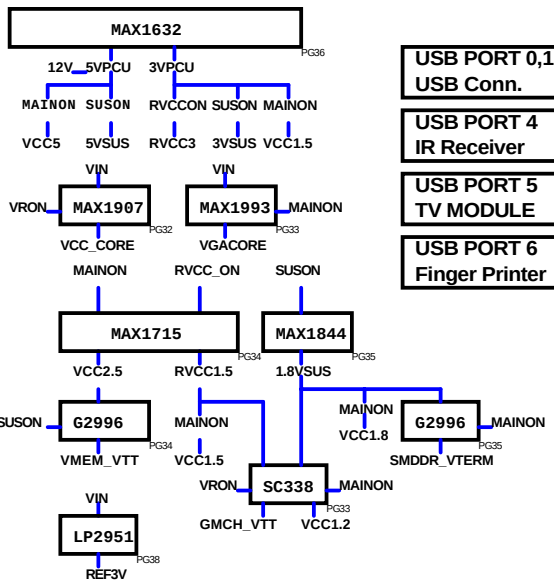
Keyboard PG 30

Flash BOM PG 31

HP PG 27

Int SPK PG 28

POWER Block Diagram



QUANTA COMPUTER

Title: System Block Diagram

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Voltage Rails

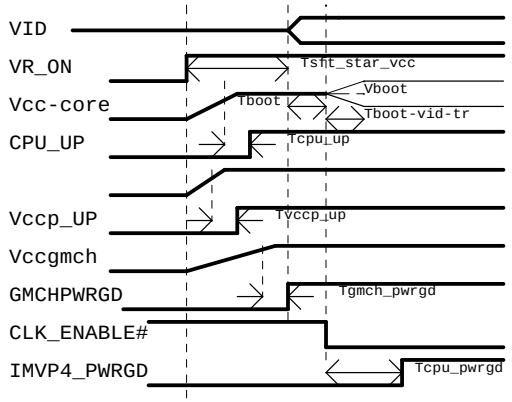
Voltage Rails		ON S0~S2	ON S3	ON S4/S5	G3	Ctl Signal
VCC_CORE	Core voltage for Processor	X				VR_ON
GMCH_VTT	Core voltage for CPU / NB	X				VR_ON
SMDDR_VREF	0.9V for DDR2 Termination voltage	X				MAINON
VMEM_VTT	1.25V for VRAM Termination voltage	X				MAINON
VGA_CORE	VGA CORE (powerplay 1.0V to 1.2V)	X				MAINON
RVCC1.5		X	X	X		RVCC_ON
RVCC3		X	X	X		RVCCD
VCC1.2		X				VGA_P_REF
VCC1.5		X				MAINON
VCC1.8		X				MAINON
VCC2.5		X				MAINON
VCC3		X				MAIND
VCC5		X				MAIND
1.8VSUS		X	X			SUSON
3VSUS		X	X			SUSD
5VSUS		X	X			SUSD
3VPCU		X	X	X	X	VL
5VPCU		X	X	X	X	VL
9VPCU		X	X	X	X	5VPCU

Board Stack up Description

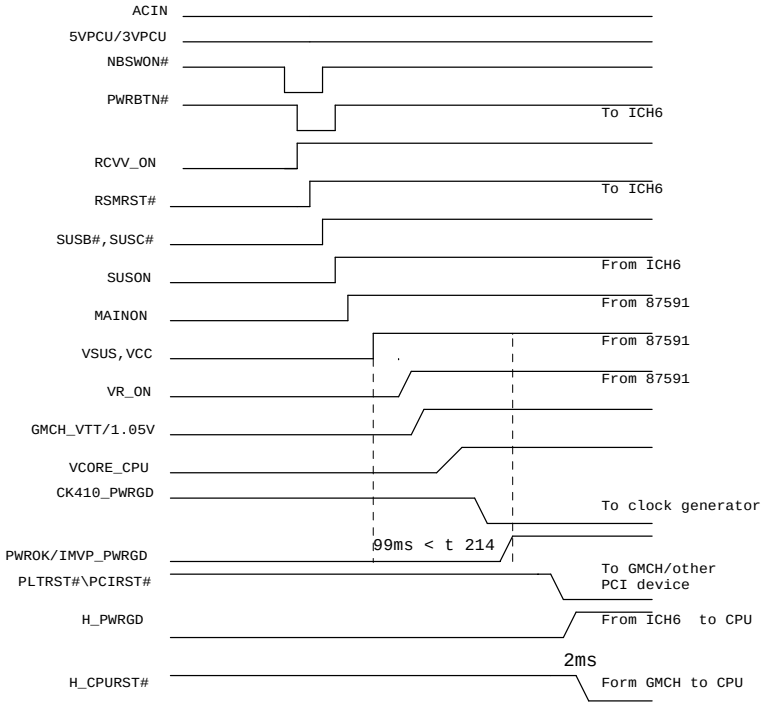
PCB Layers

Layer 1		TOP(FSB,DDR2,CLK,PCIE Component)
Layer 2		Ground Plane
Layer 3		IN1(FSB,CLOCK,DDR2,PEG,CLK)
Layer 4		IN2(PCI,IDE,LPC)
Layer 5		Power Plane
Layer 6		BOTTOM, (Component,Other)

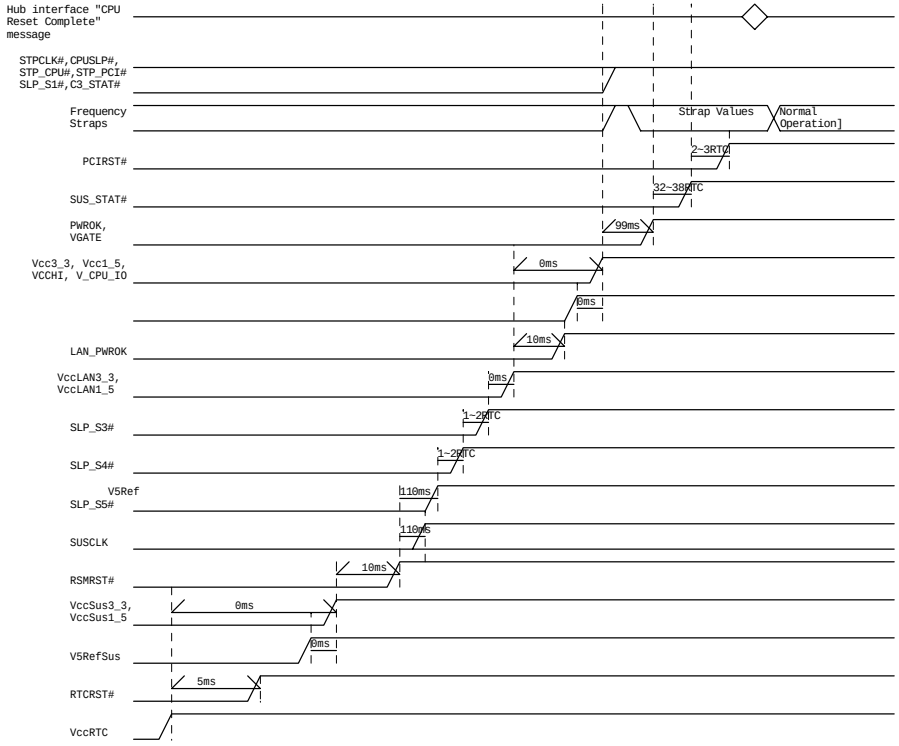
Power On Sequencing Timing Diagram



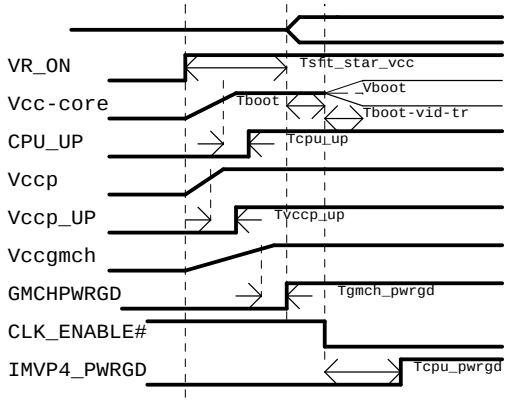
ACIN POWER ON TIMING



Power Sequencing and Reset Signal Timings



CPU Power On Sequence



QUANTA COMPUTER

Title	System Block Diagram	
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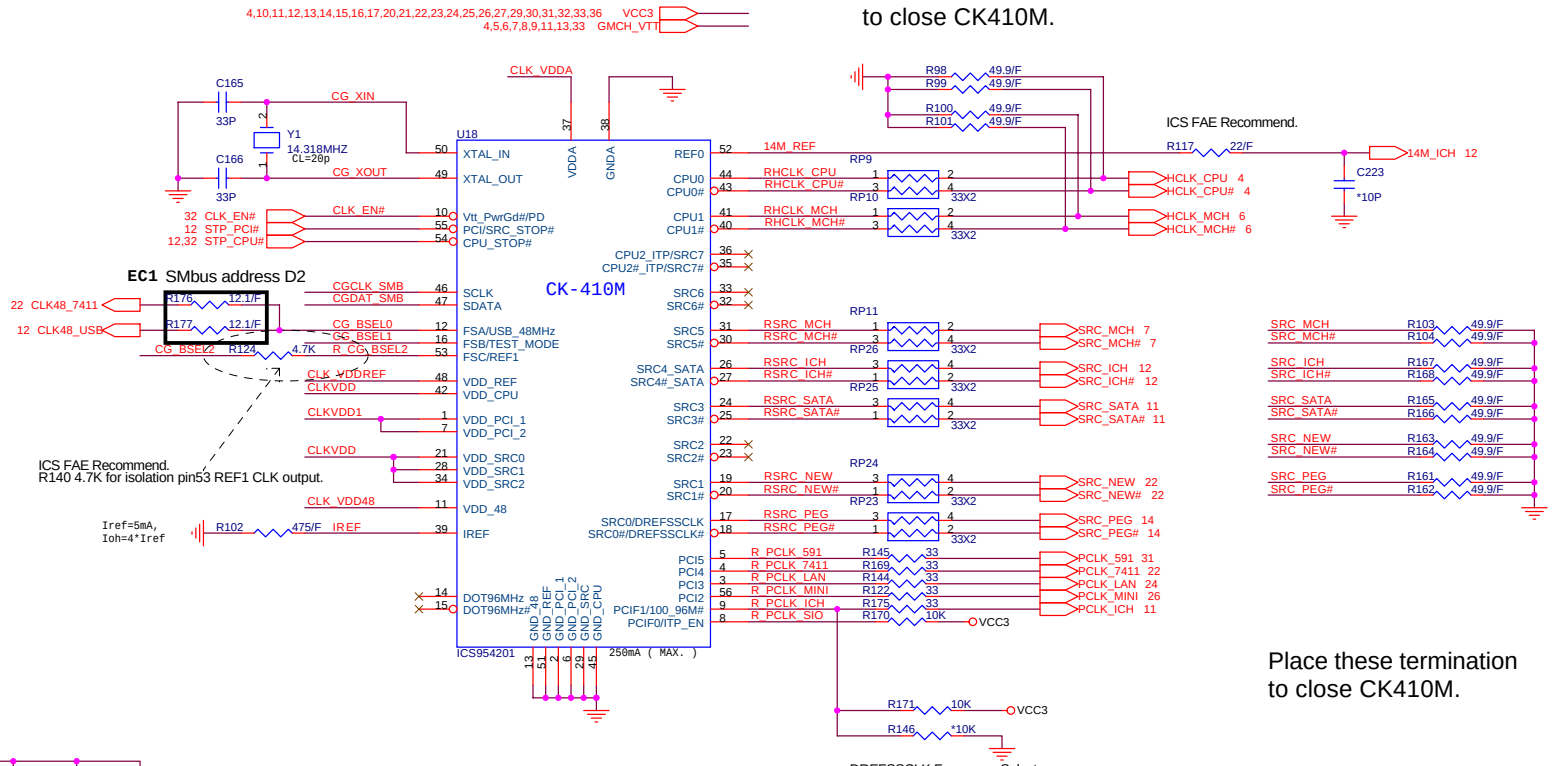
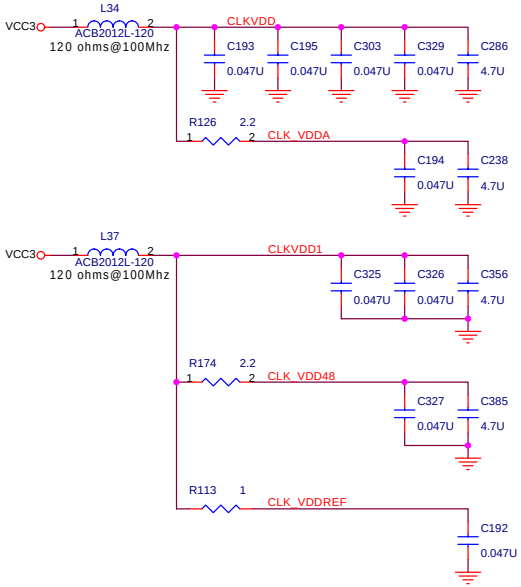
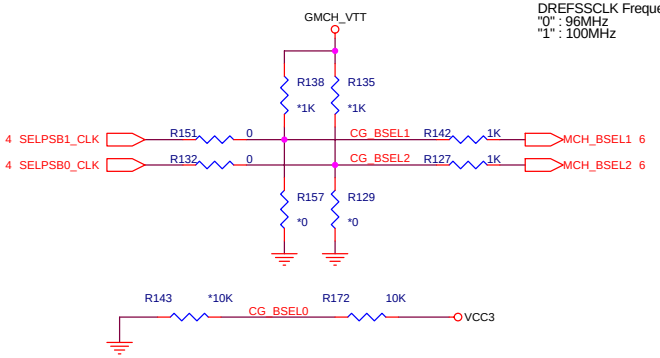
FSC	FSB	FSA	CPU	SRC	PCI	
1	0	1	100	100	33	
0	0	1	133	100	33	Default
0	1	1	166	100	33	
0	1	0	200	100	33	
0	0	0	266	100	33	
1	0	0	333	100	33	
1	1	0	400	100	33	
1	1	1	RESERVED			

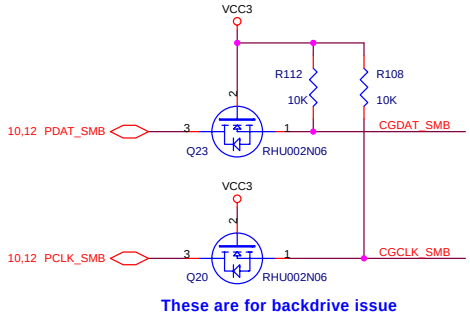
Place these termination to close CK410M.



Place these termination to close CK410M.







These are for backdrive issue

CPU Type	R132	R129	R151	R157
Dothan-A PSB400	X	X	X	V
Dothan-A PSB533	X	V	X	V
Dothan-B (Default) Pentium M 730-770	V	X	V	X

QUANTA COMPUTER

Title: System Block Diagram

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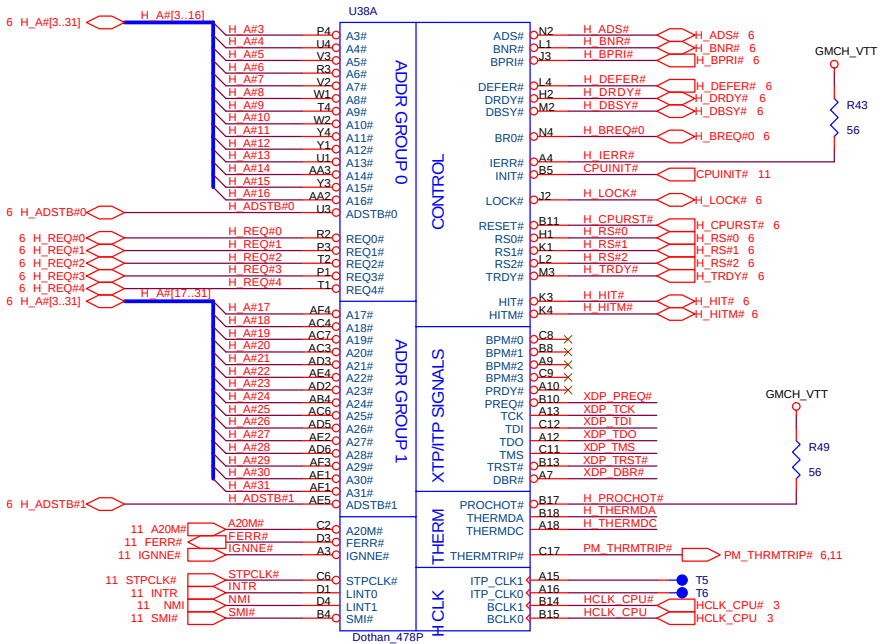

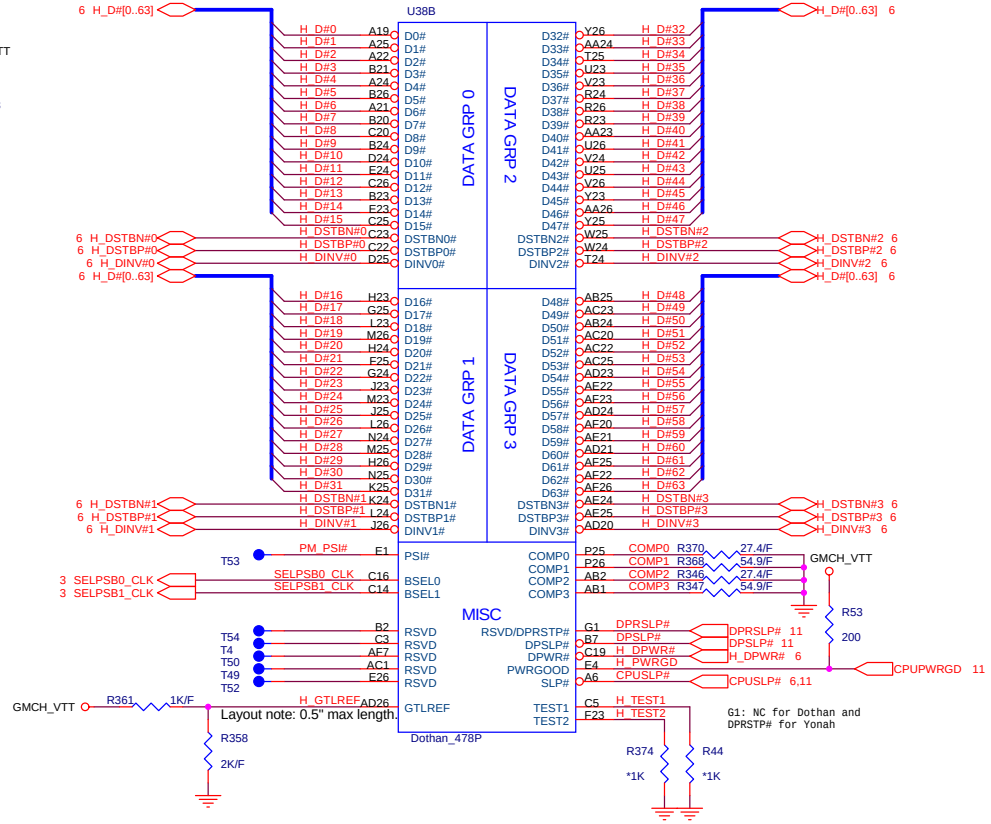

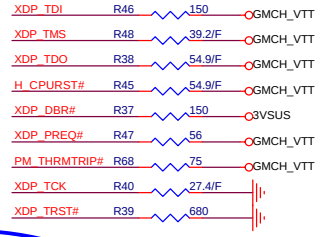

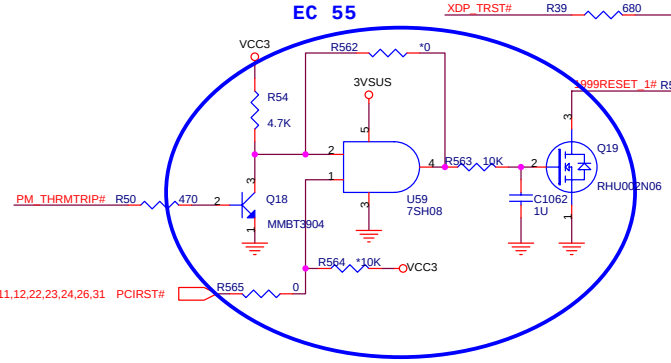

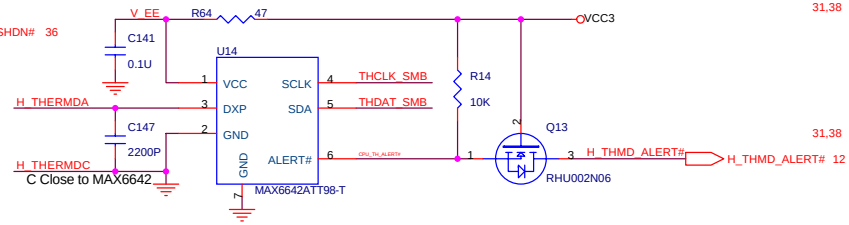

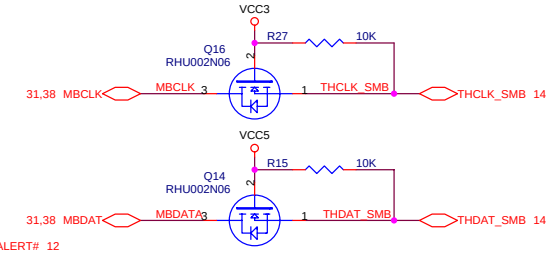

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Title: System Block Diagram		
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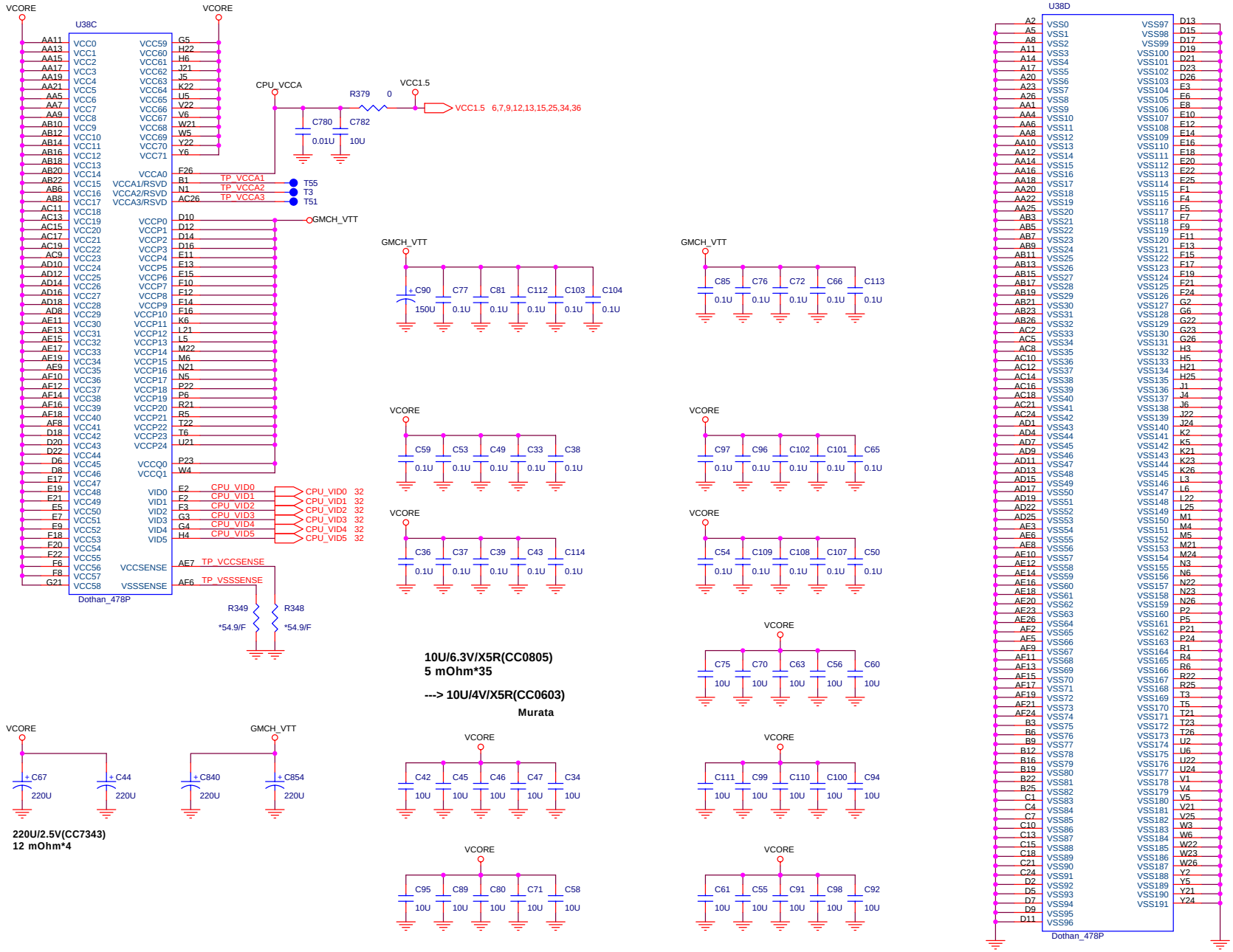

QUANTA COMPUTER

Title: System Block Diagram

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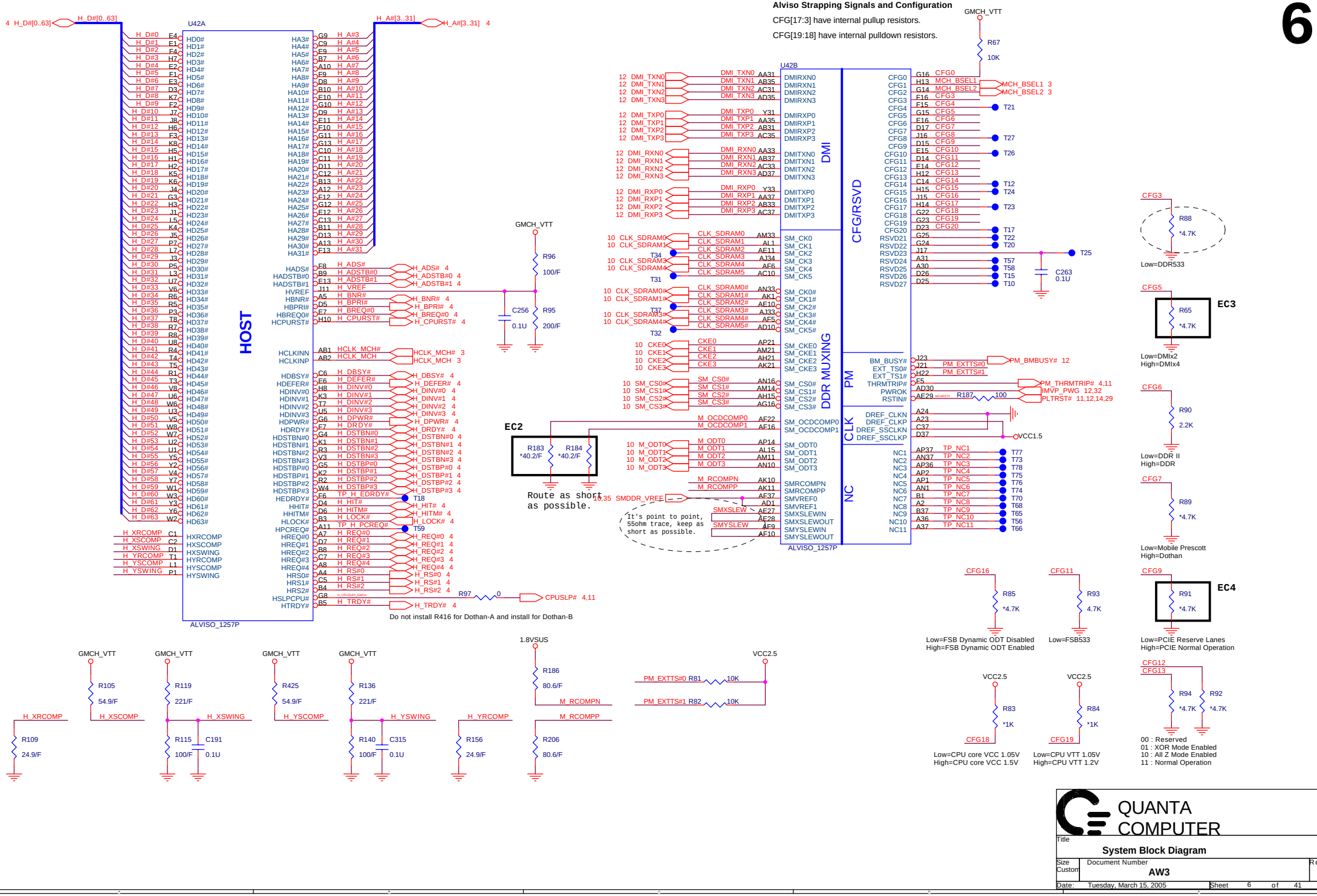
Alviso Strapping Signals and Configuration

CFG[17:3] have internal pullup resistors.

CFG[19:18] have internal pulldown resistors.



Title	System Block Diagram		
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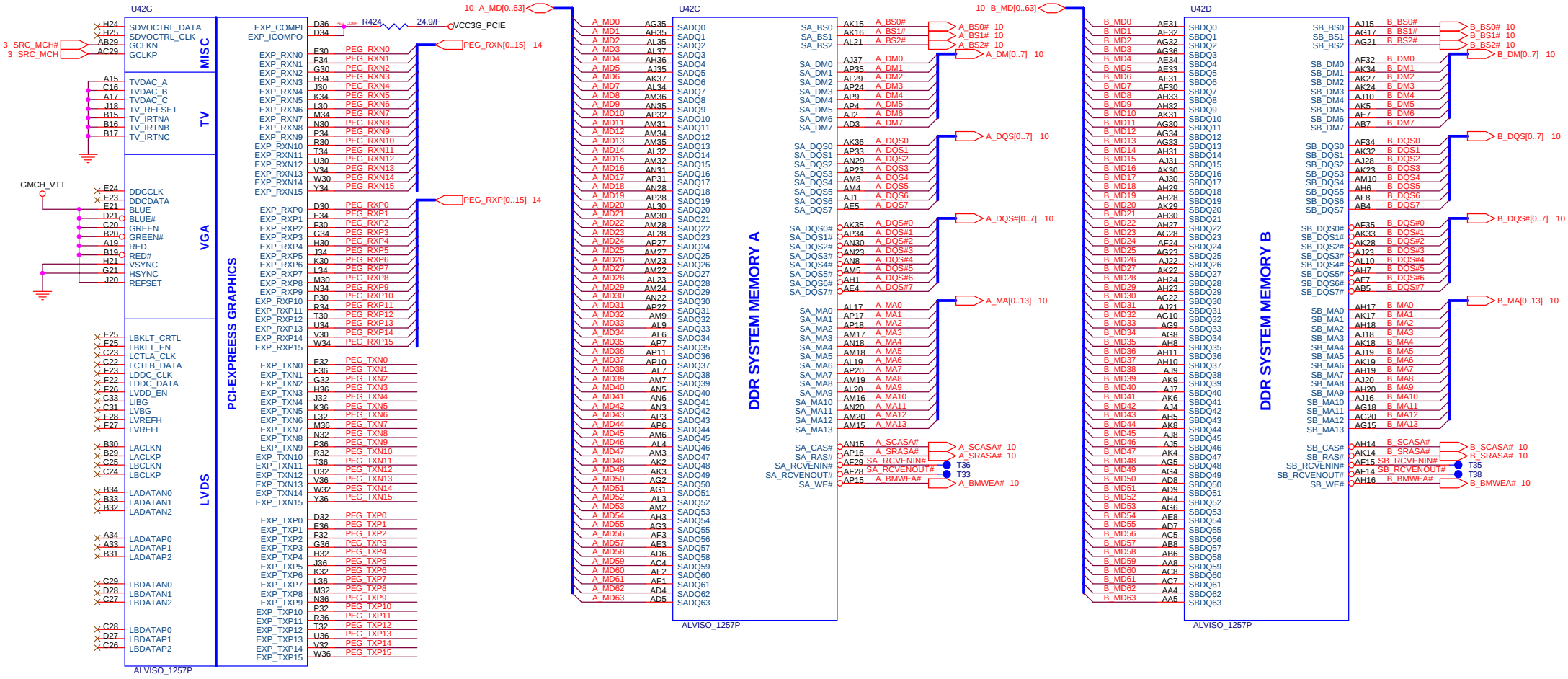

PCIE x16 AC Coupling CAP.

PEG_TXN0	C820	0.1U	PEG_TXN_C0	PEG_TXP0	C816	0.1U	PEG_TXP_C0
PEG_TXN1	C821	0.1U	PEG_TXN_C1	PEG_TXP1	C817	0.1U	PEG_TXP_C1
PEG_TXN2	C829	0.1U	PEG_TXN_C2	PEG_TXP2	C826	0.1U	PEG_TXP_C2
PEG_TXN3	C831	0.1U	PEG_TXN_C3	PEG_TXP3	C827	0.1U	PEG_TXP_C3
PEG_TXN4	C837	0.1U	PEG_TXN_C4	PEG_TXP4	C833	0.1U	PEG_TXP_C4
PEG_TXN5	C838	0.1U	PEG_TXN_C5	PEG_TXP5	C835	0.1U	PEG_TXP_C5
PEG_TXN6	C843	0.1U	PEG_TXN_C6	PEG_TXP6	C841	0.1U	PEG_TXP_C6
PEG_TXN7	C845	0.1U	PEG_TXN_C7	PEG_TXP7	C842	0.1U	PEG_TXP_C7
PEG_TXN8	C853	0.1U	PEG_TXN_C8	PEG_TXP8	C847	0.1U	PEG_TXP_C8
PEG_TXN9	C855	0.1U	PEG_TXN_C9	PEG_TXP9	C852	0.1U	PEG_TXP_C9
PEG_TXN10	C861	0.1U	PEG_TXN_C10	PEG_TXP10	C857	0.1U	PEG_TXP_C10
PEG_TXN11	C862	0.1U	PEG_TXN_C11	PEG_TXP11	C858	0.1U	PEG_TXP_C11
PEG_TXN12	C867	0.1U	PEG_TXN_C12	PEG_TXP12	C863	0.1U	PEG_TXP_C12
PEG_TXN13	C868	0.1U	PEG_TXN_C13	PEG_TXP13	C865	0.1U	PEG_TXP_C13
PEG_TXN14	C874	0.1U	PEG_TXN_C14	PEG_TXP14	C872	0.1U	PEG_TXP_C14
PEG_TXN15	C876	0.1U	PEG_TXN_C15	PEG_TXP15	C873	0.1U	PEG_TXP_C15

PEG_TXN_C[0..15] 14

PEG_TXP_C[0..15] 14

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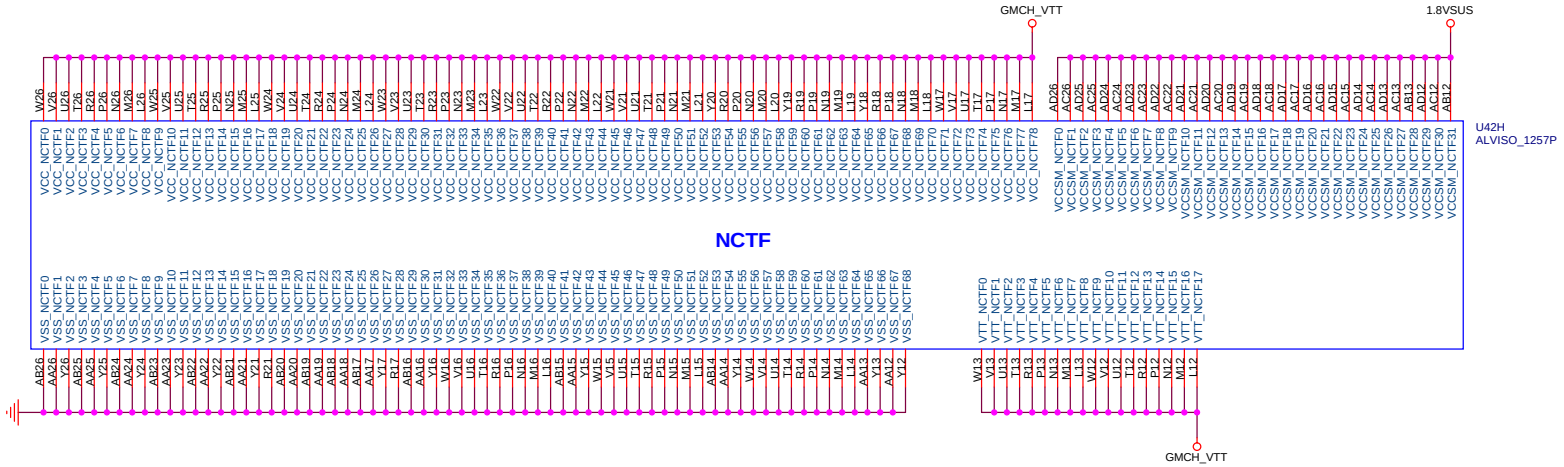

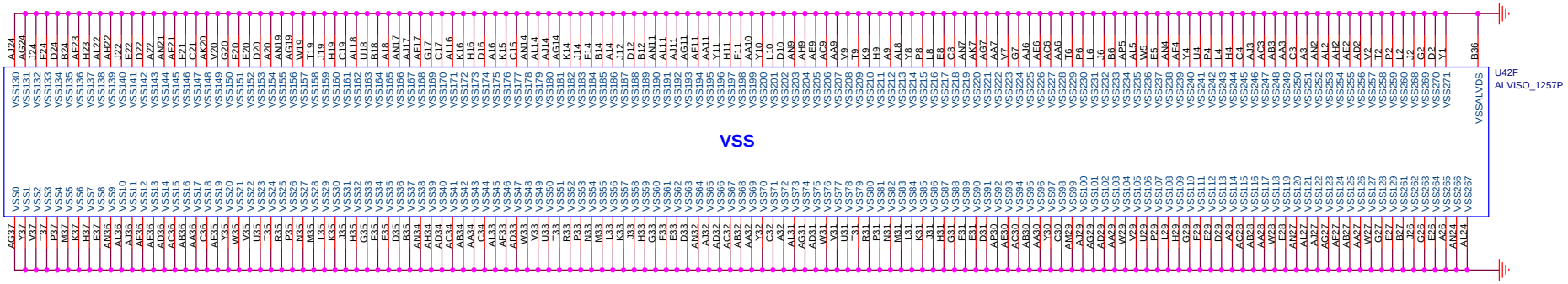

QUANTA COMPUTER			
Title: System Block Diagram			
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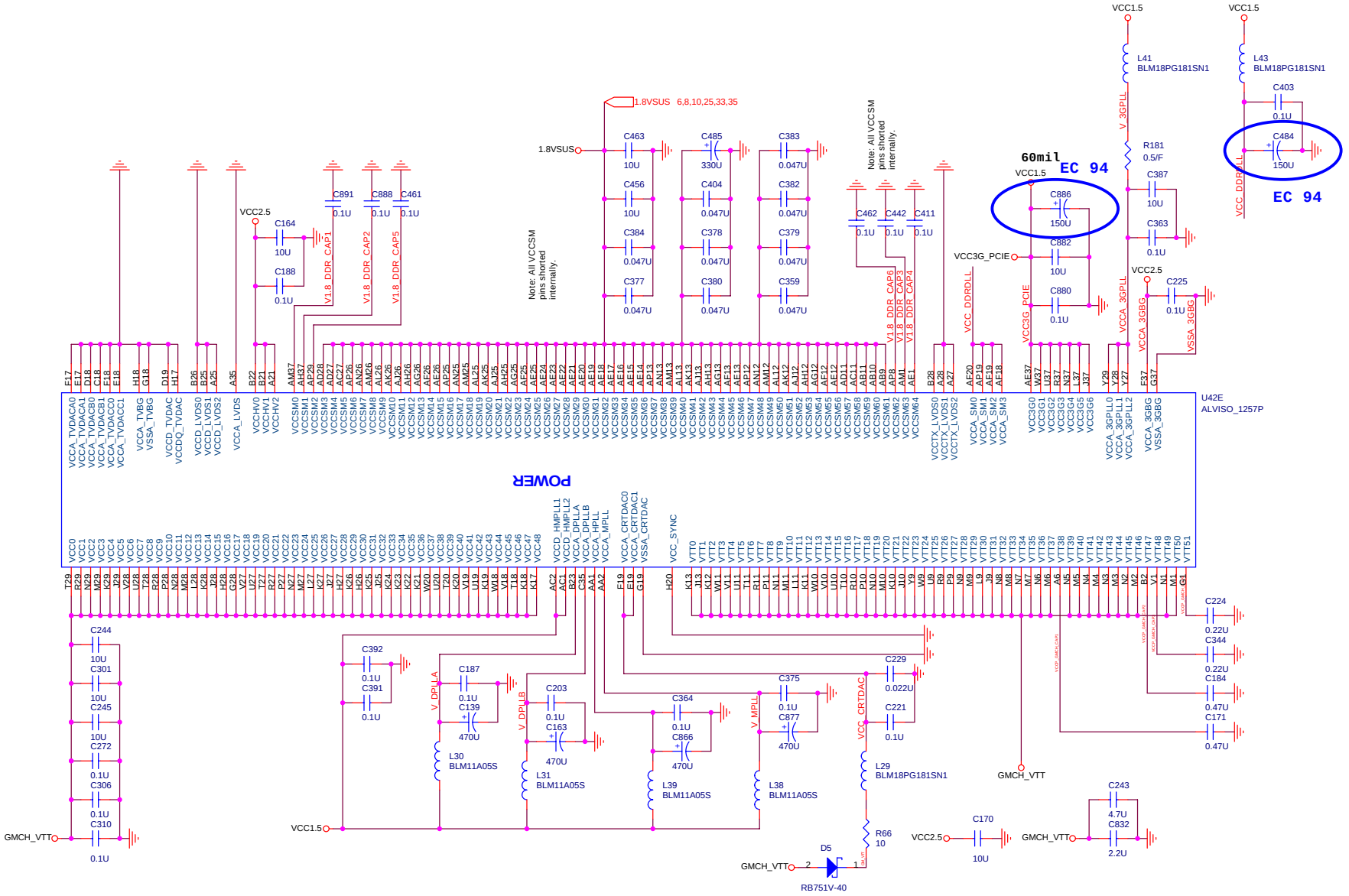

QUANTA COMPUTER	
Title	System Block Diagram
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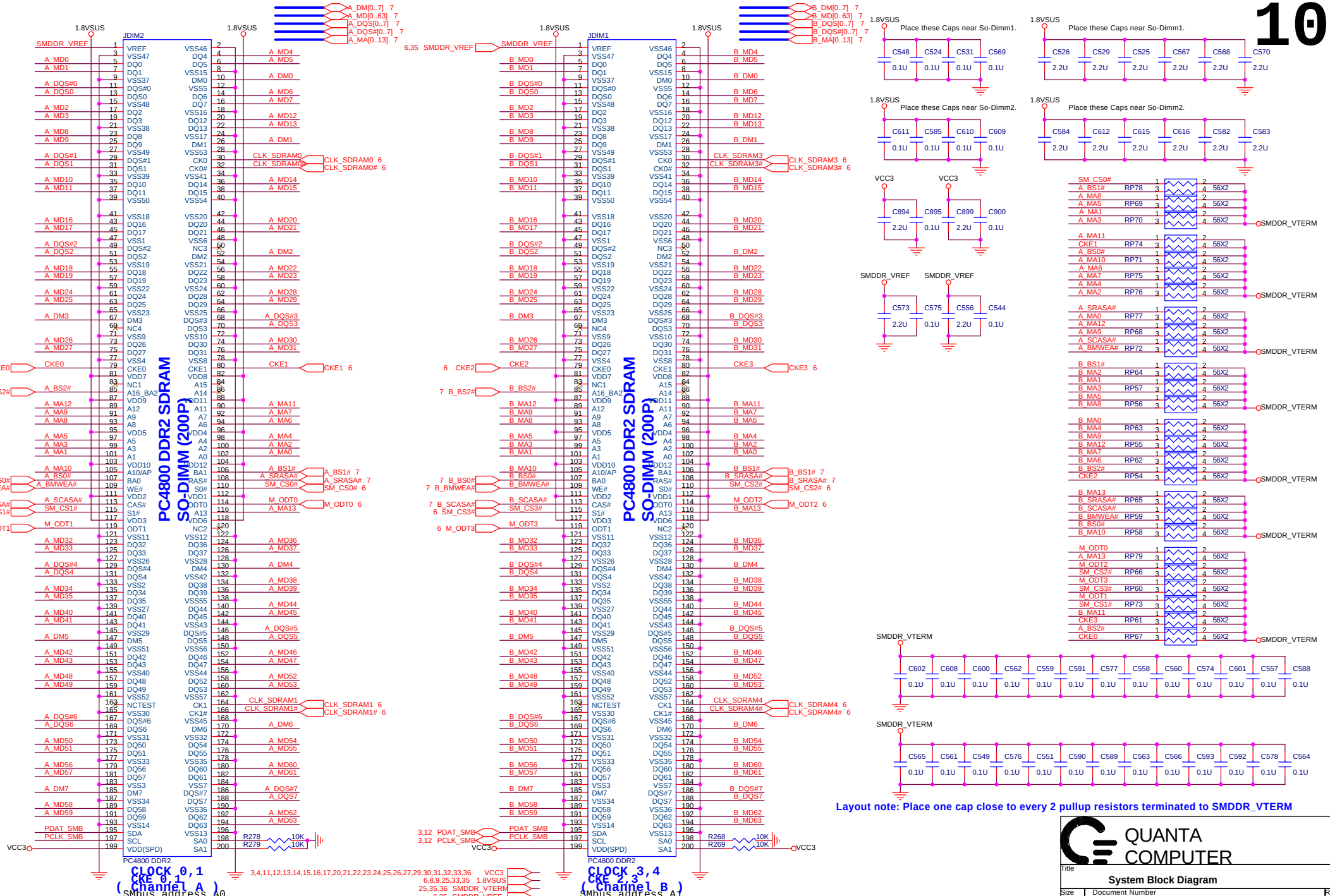

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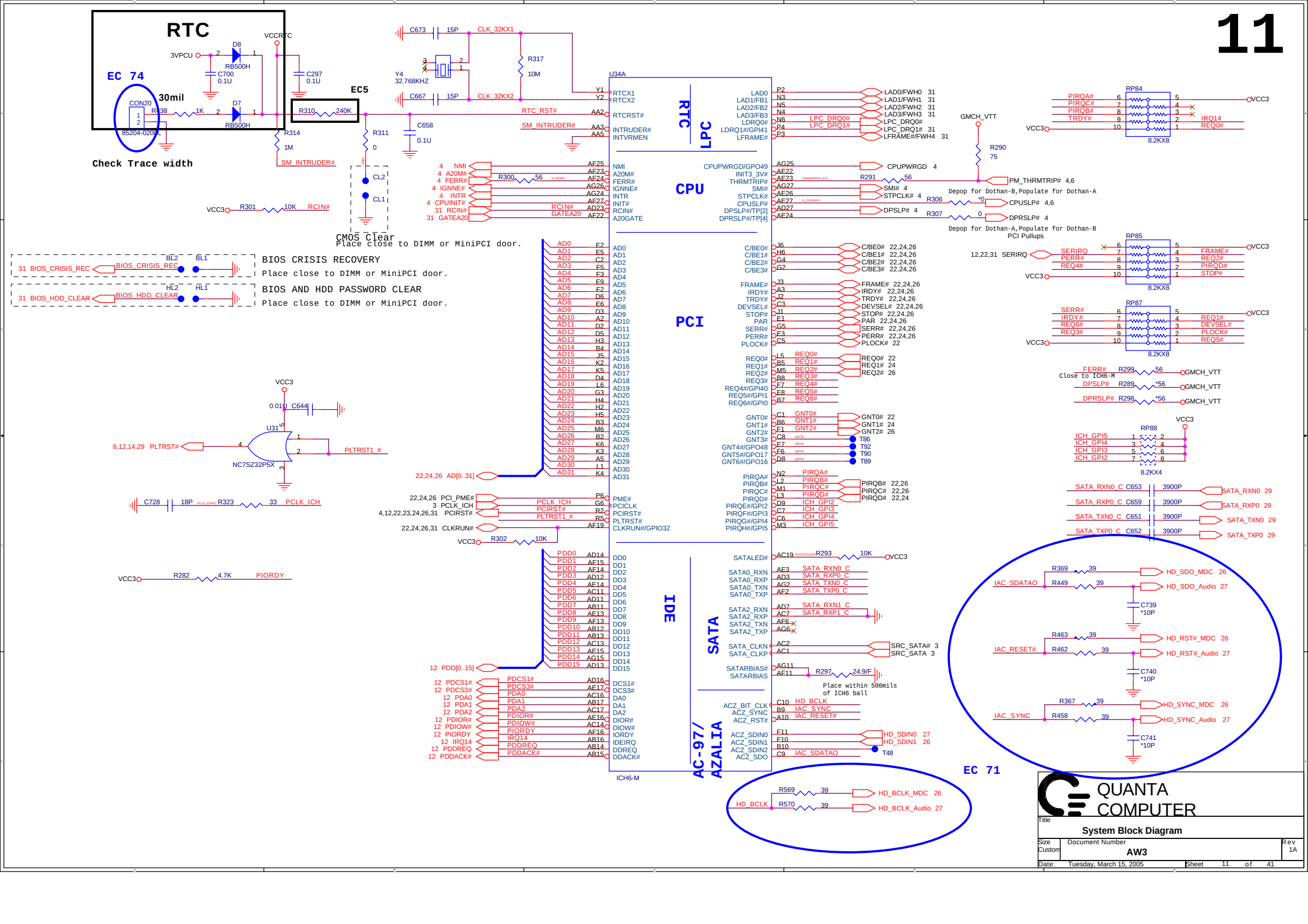
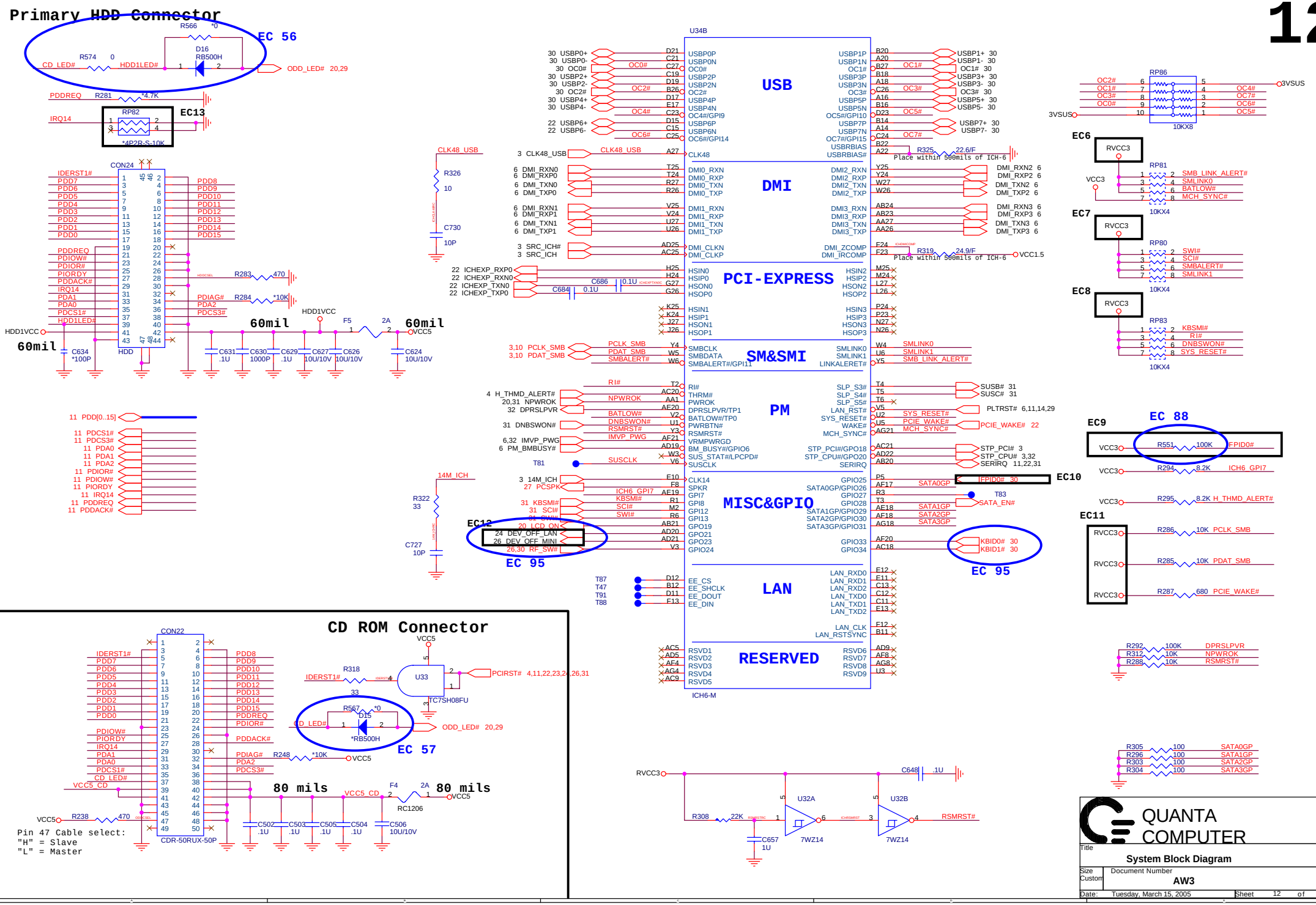

RTC
EC 74
30mil
CON20
85204-0200L
Check Trace width
EC5
CMOS Clear
Place close to DIMM or MiniPCI door.
BIOS CRISIS RECOVERY
Place close to DIMM or MiniPCI door.
BIOS AND HDD PASSWORD CLEAR
Place close to DIMM or MiniPCI door.
U34A
RTC
LPC
CPU
PCI
IDE
SATA
AC-97/ AZALIA
ICH6-M
Depop for Dothan-B,Populate for Dothan-A
Depop for Dothan-A,Populate for Dothan-B
PCI Pullups
Place within 500mils of ICH6 ball
EC 71
QUANTA COMPUTER
System Block Diagram
AW3
Tuesday, March 15, 2005

Primary HDD Connector



Title	System Block Diagram
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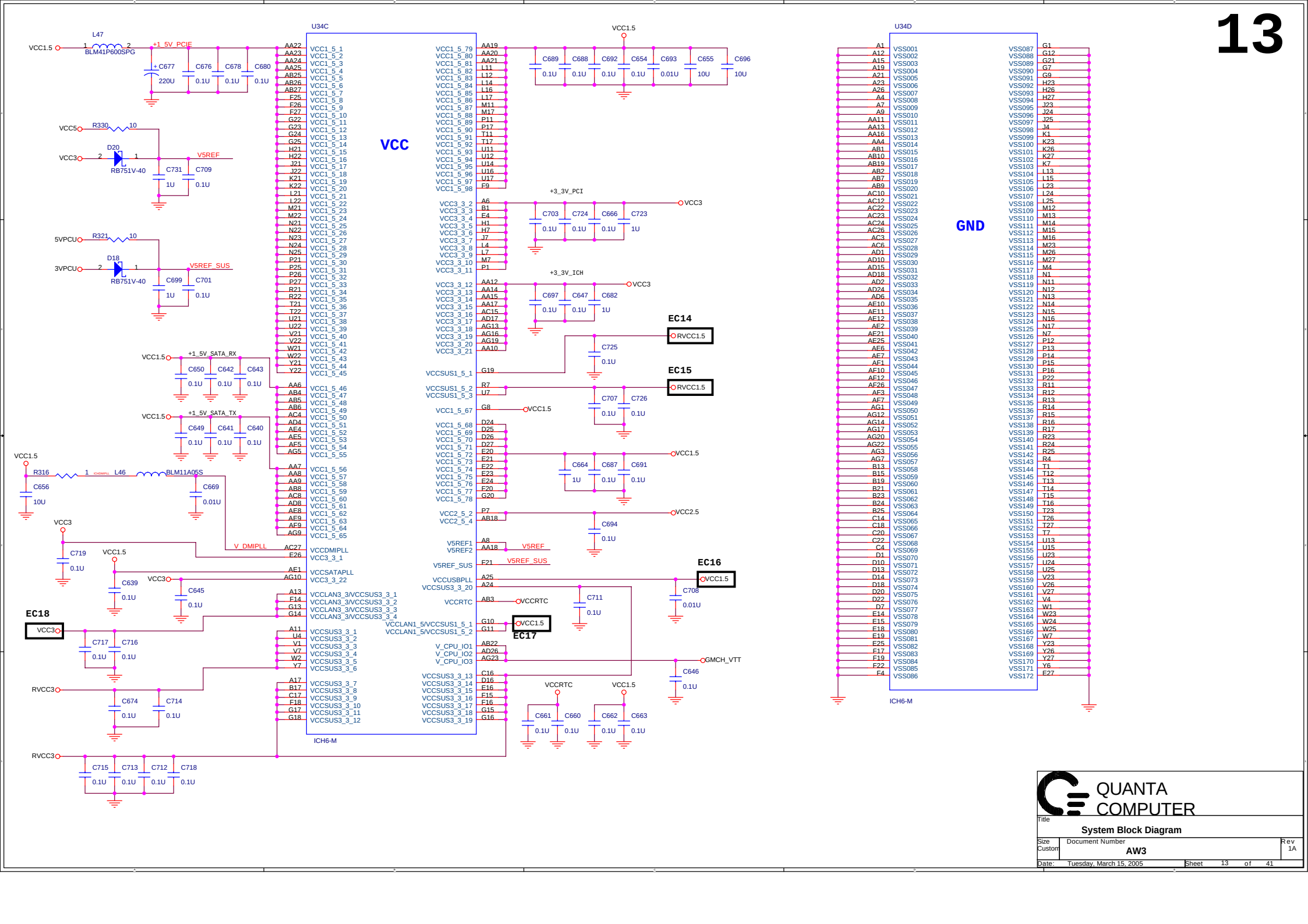

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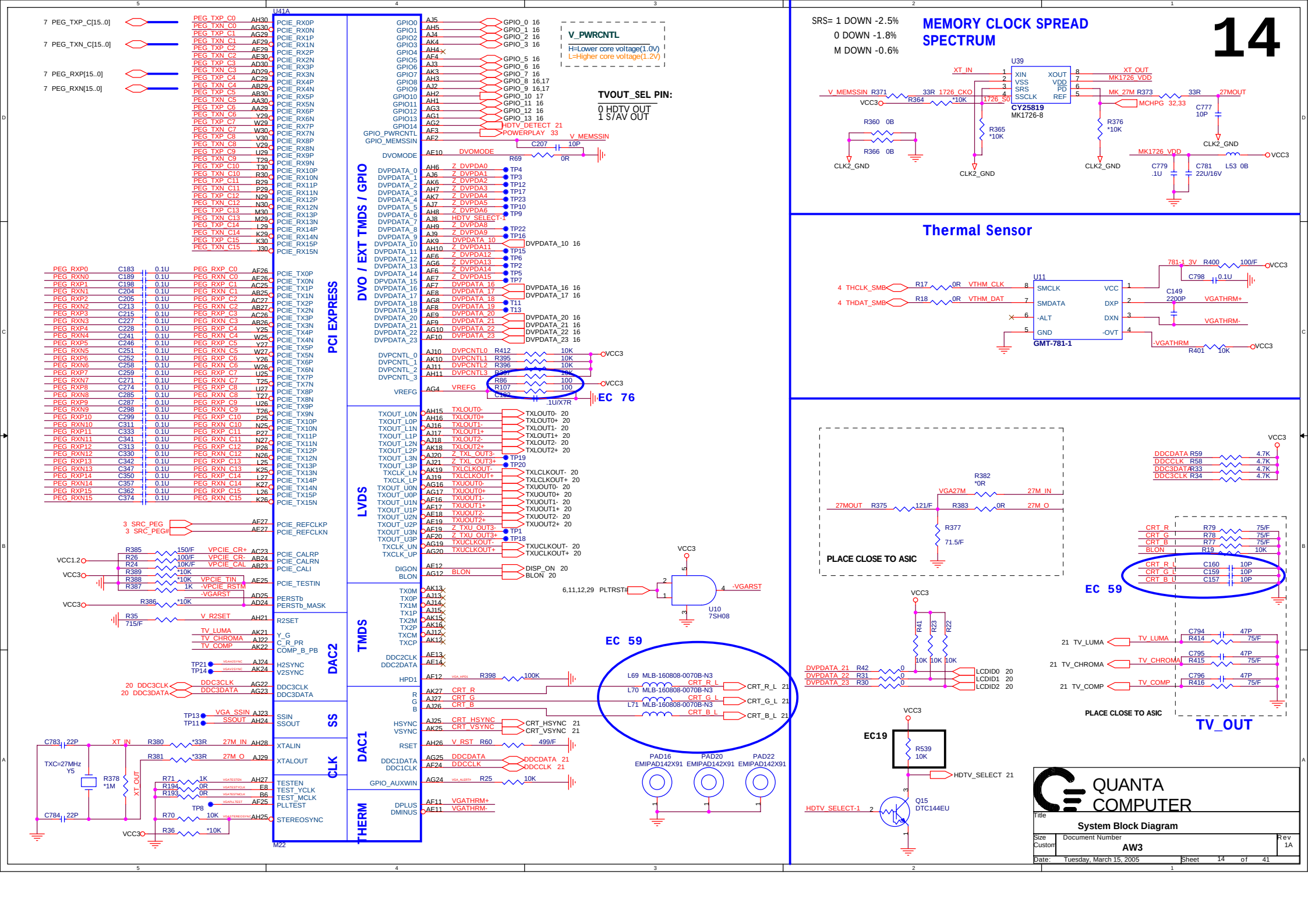
14
MEMORY CLOCK SPREAD SPECTRUM
SRS= 1 DOWN -2.5%
0 DOWN -1.8%
M DOWN -0.6%
Thermal Sensor
U41A
PCI EXPRESS
DVO / EXT TMDS / GPIO
LVDS
TMDS
DAC2
SS
CLK
DAC1
THERM
V_PWRCNTL
H=Lower core voltage(1.0V)
L=Higher core voltage(1.2V)
TVOUT_SEL PIN:
0 HDTV OUT
1 S/AV OUT
U39
CY25819
MK1726-8
U11
GMT-781-1
U10
7SH08
Q15
DTC144EU
EC 76
EC 59
EC19
PLACE CLOSE TO ASIC
TV_OUT
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System Block Diagram
AW3
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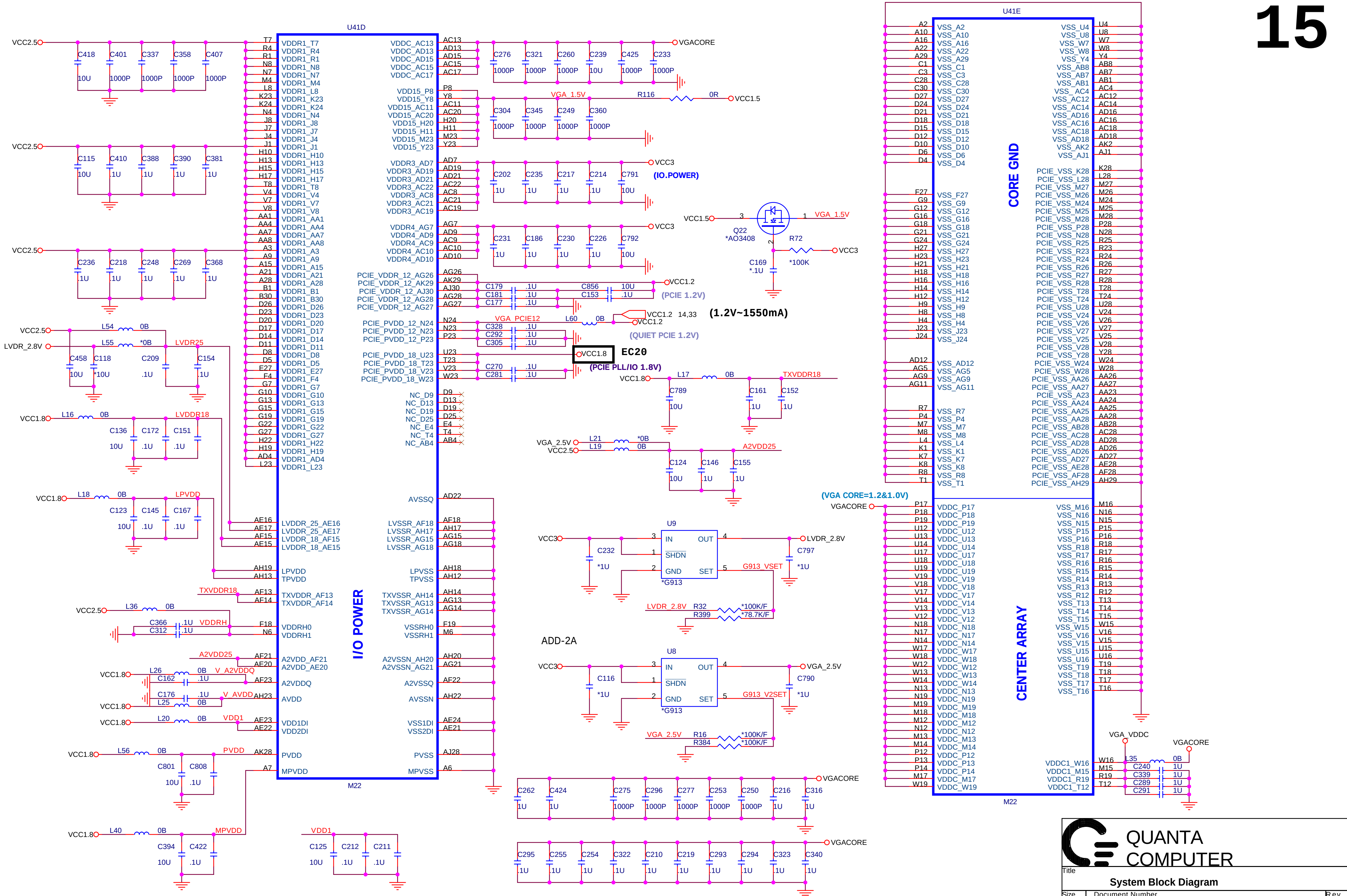

QUANTA COMPUTER

Title

System Block Diagram

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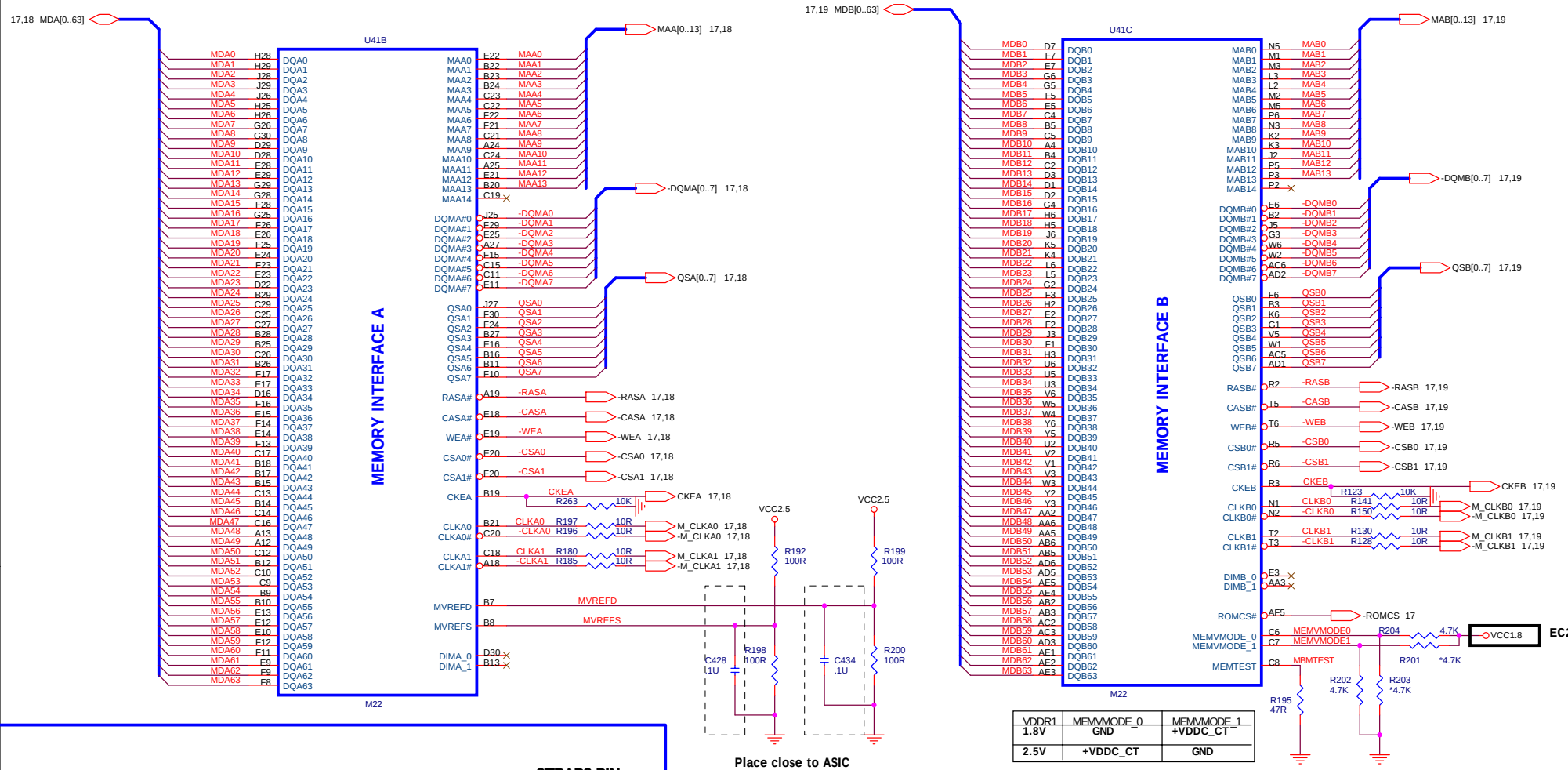


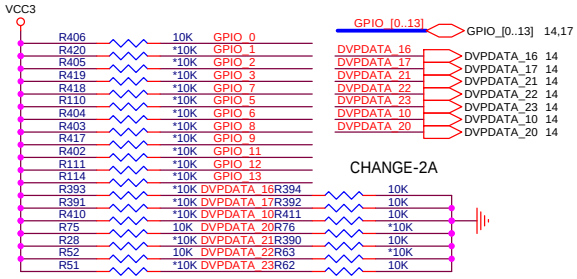
VDDR1	MEMVMODE_0	MEMVMODE_1
1.8V	GND	+VDDC_CT
2.5V	+VDDC_CT	GND

Place close to ASIC

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 **1011 - Serial M25P10 ROM (ST), chip IDis from ROM** 1100 - Serial M25P05 ROM (ST), chip IDis from ROM
DVPDATA_15, 20,21~23	DATA23 Vendor, DATA22 Voltage, DATA21 CS, DATA20 MEM SIZE, DATA10 MEM TYPE X X X X X 0 4MX32 X X X X X 1 8MX32 MEM TYPE X X X X 0 X 128M(M22), 256M(M24) X X X X 1 X 64M(M22),128M(M24) X X 0 X X CS x1 X X 1 X X CS x2 X 0 X X X 1.8V X 1 X X X 2.5V 0 X X X X Hynix 1 X X X X Samsung M24-256M 10001 M24-128M 01010 M22-64M 01010



GPIO6,GPIO7 STRAPPING

1 : pop R418 -- Hynix 8M x 32 --128MB
0 : no-pop R418 -- Hynix 4M x 32 -- 64MB

pop R418,R404--Hynix 8M x 32--128M(NEW)

QUANTA COMPUTER

Title: System Block Diagram

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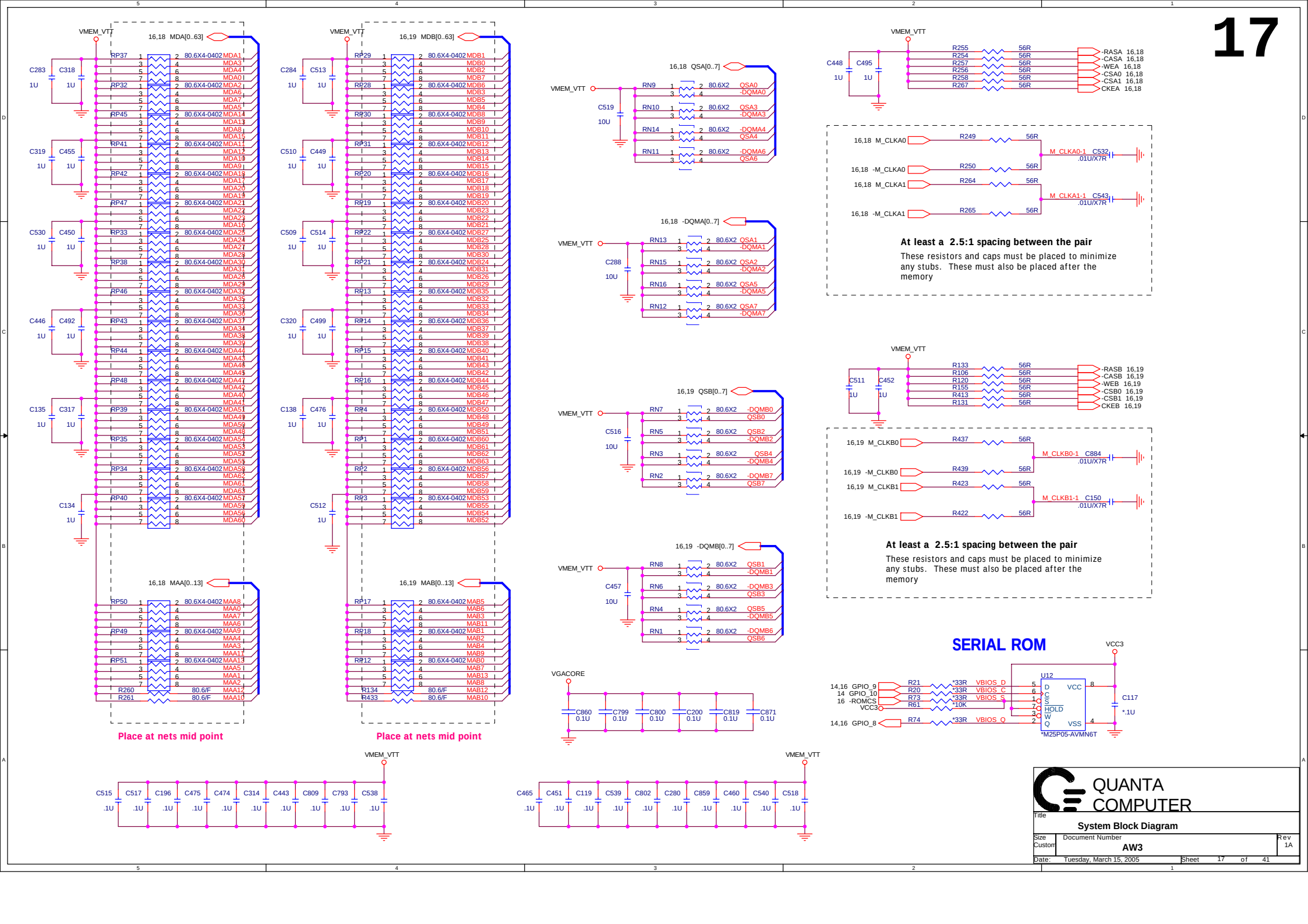

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Title	System Block Diagram	
Size: Custom	Document Number: AW3	Rev: 1A
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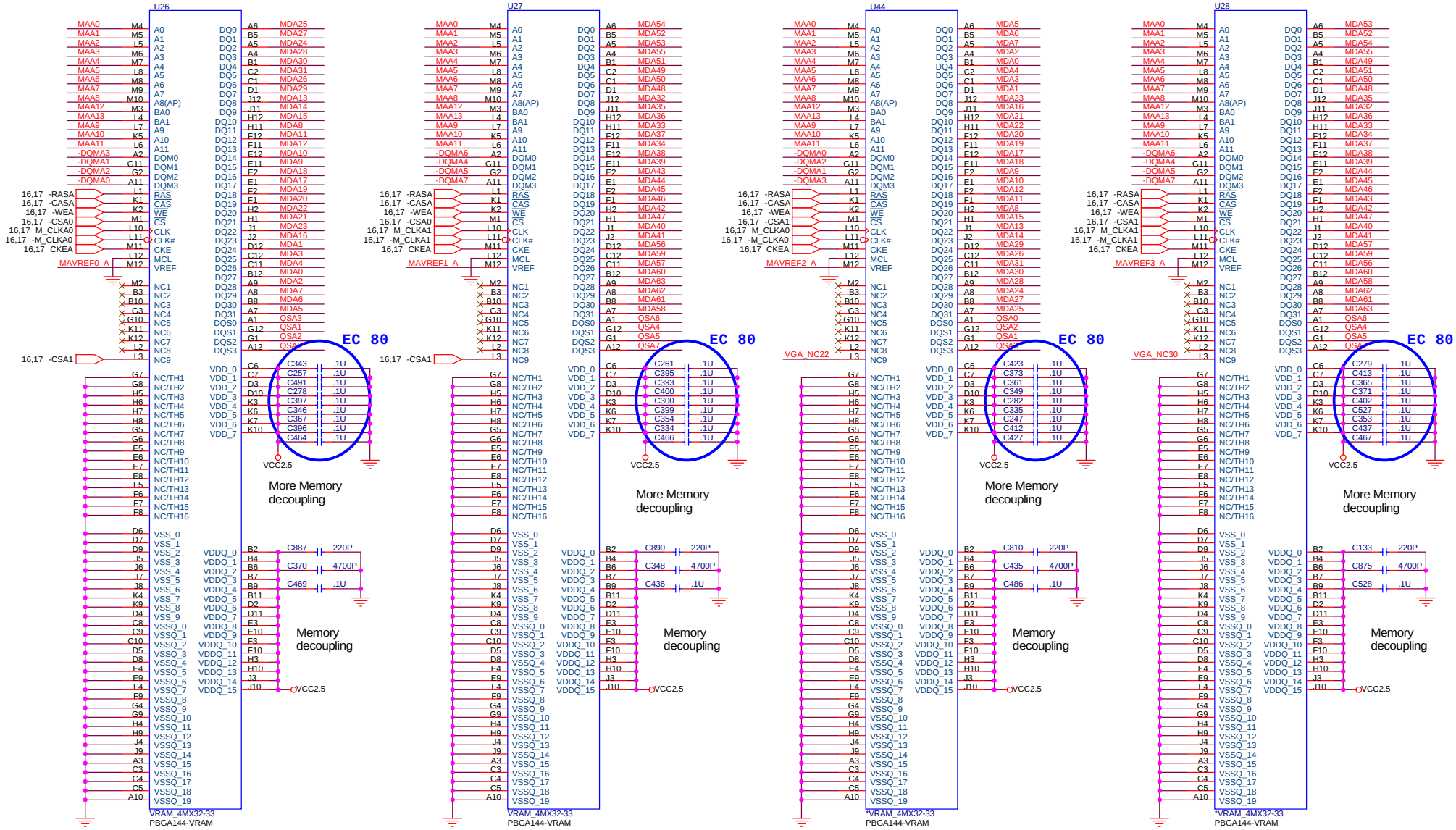

VGA DDR MEMORY A

@64/128MBytes DDR 128Mbit 1MX32X4 uBGA

MAA[0..13] 16,17
MDA[0..63] 16,17
-DQMA[0..7] 16,17
QSA[0..7] 16,17

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Title: System Block Diagram		
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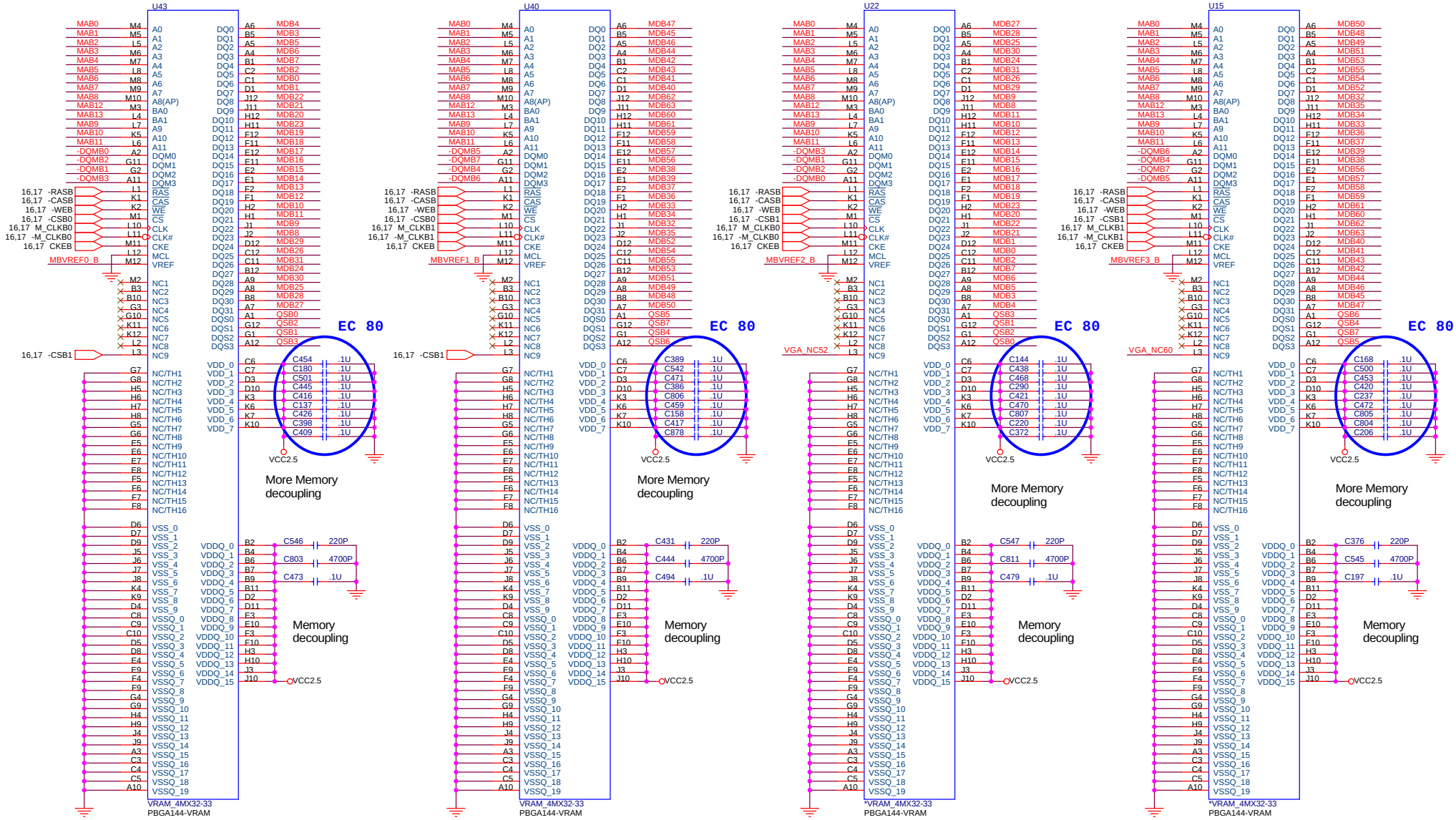

VGA DDR MEMORY B

@64/128MBytes DDR 128Mbit 1MX32X4 uBGA

MAB[0..13] 16,17
MDB[0..63] 16,17
-DQMB[0..7] 16,17
QSB[0..7] 16,17

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Title: System Block Diagram		
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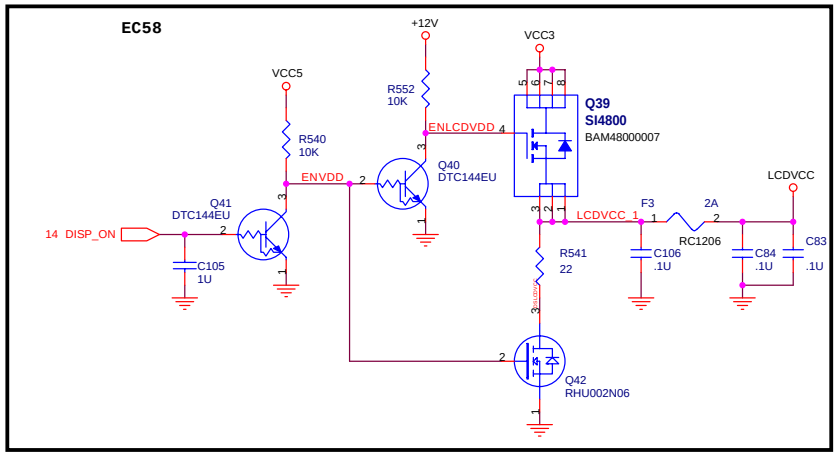
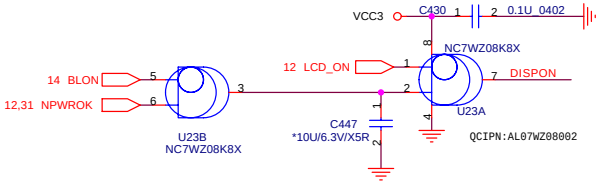
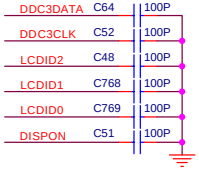
PANEL VCC CONTROL

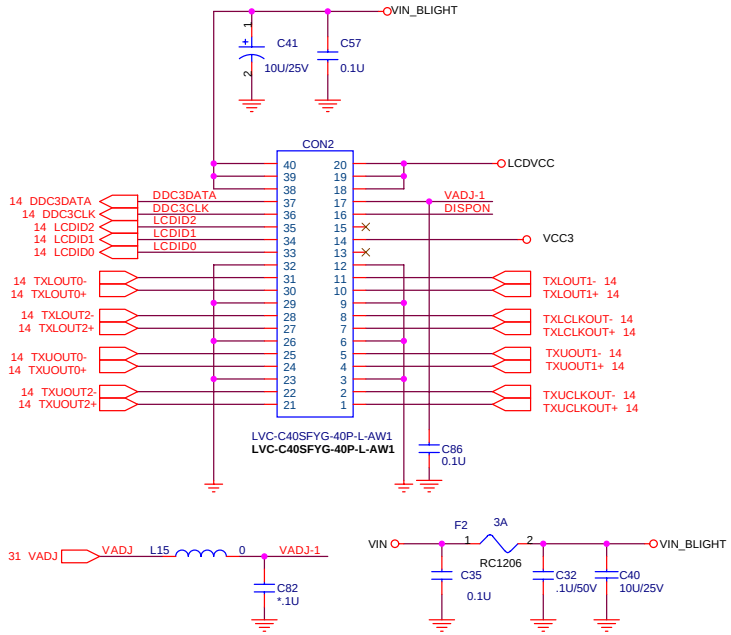


BACKLIGHT CONTROL

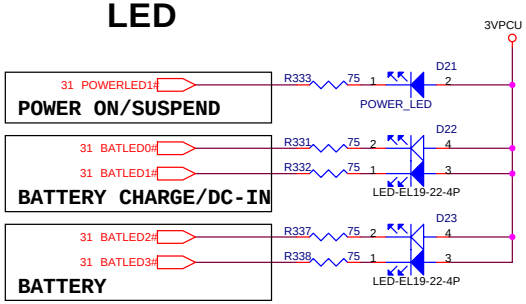


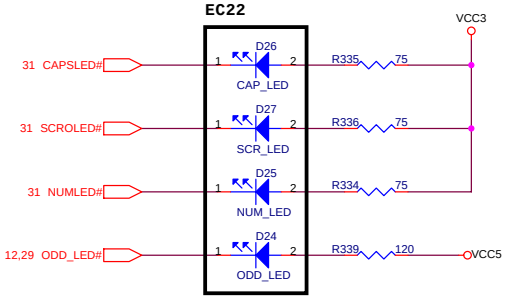
LCD CONNECTOR

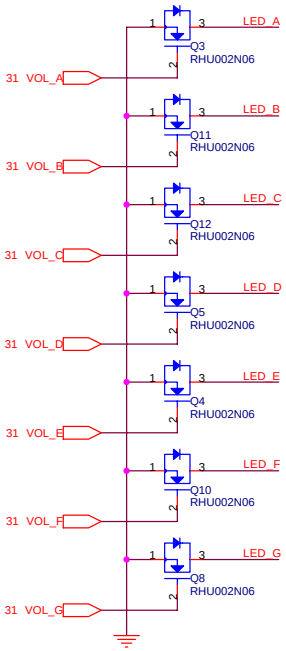




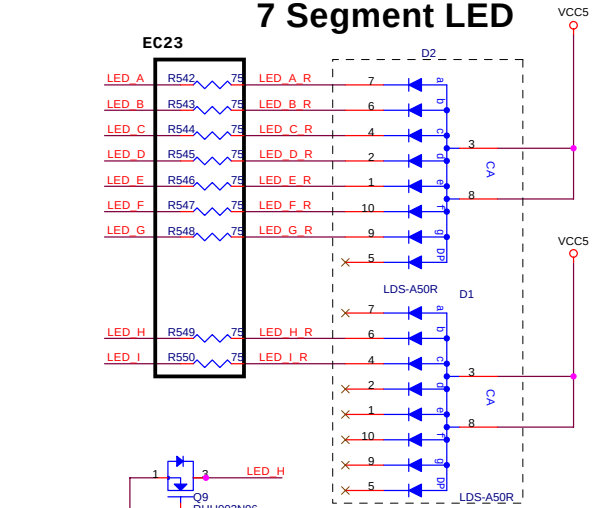
LED

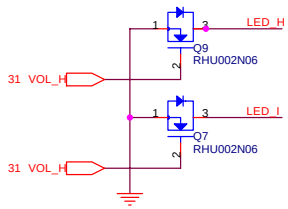




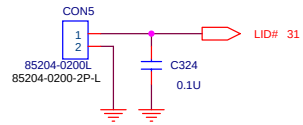


7 Segment LED





LID



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HDTV

S-VIDEO

EC100

EC101

EC102

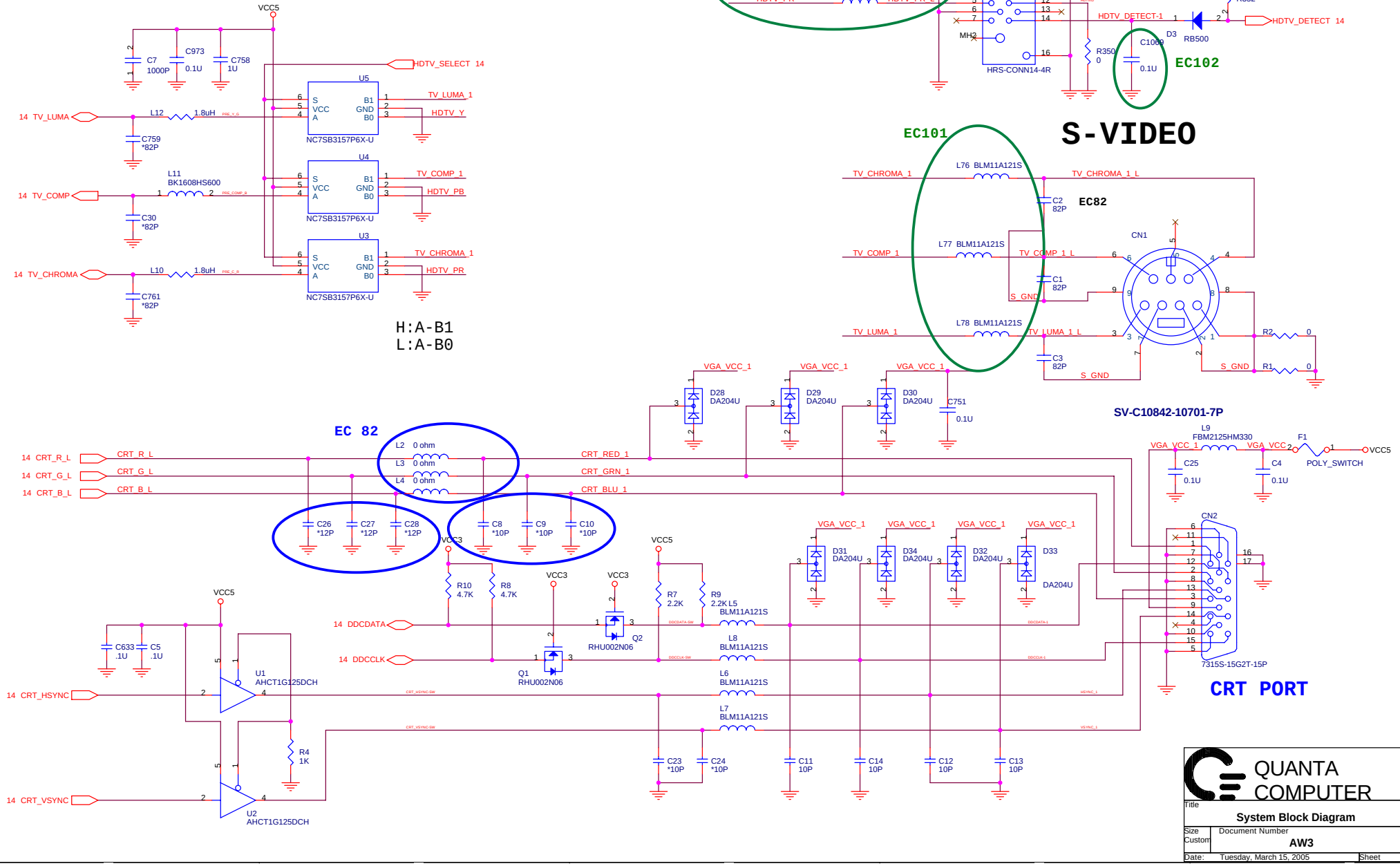
EC82

EC 82

H:A-B1
L:A-B0

SV-C10842-10701-7P

CRT PORT



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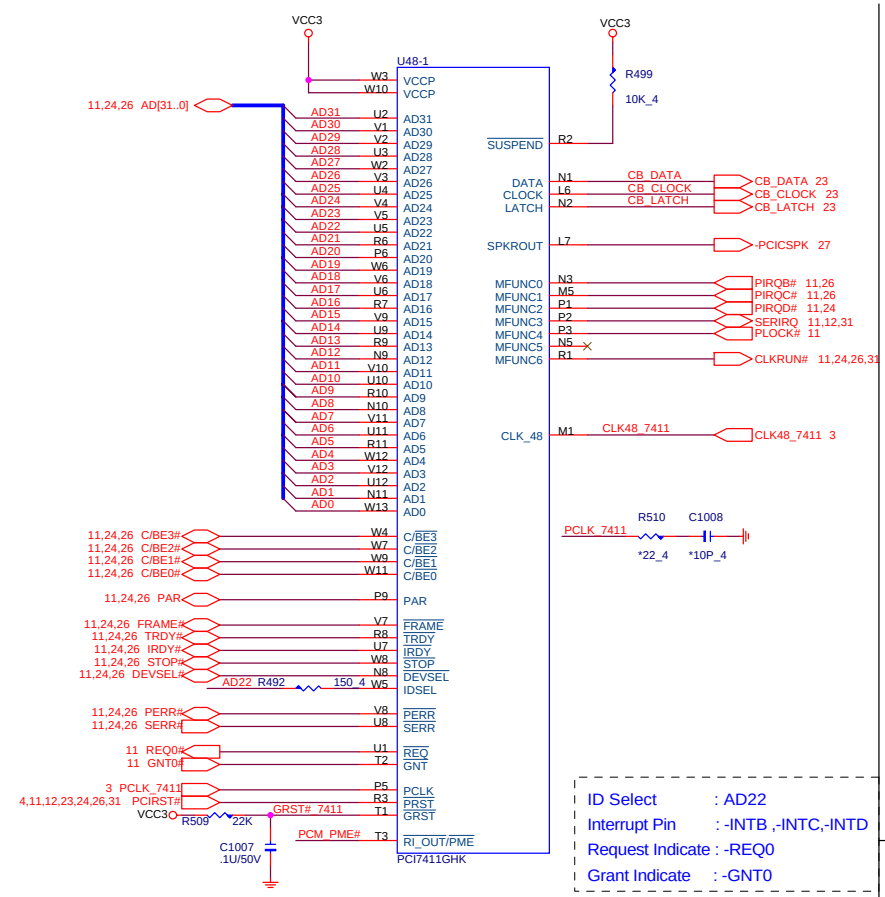
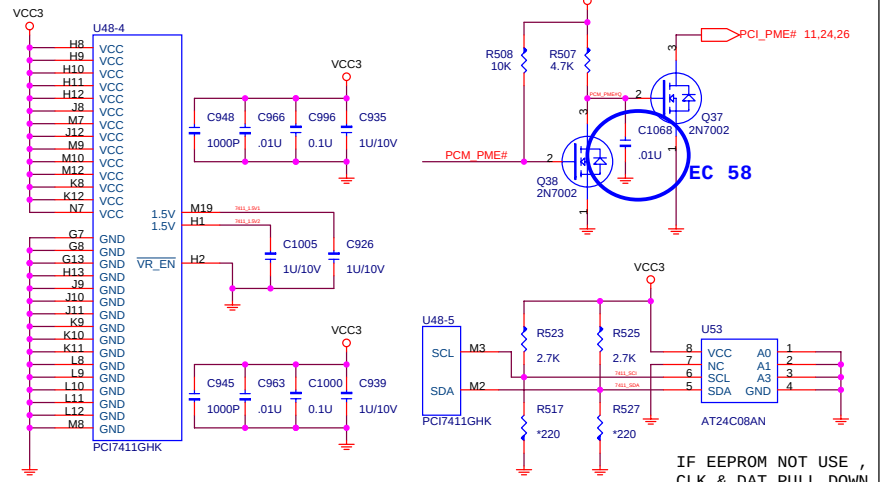
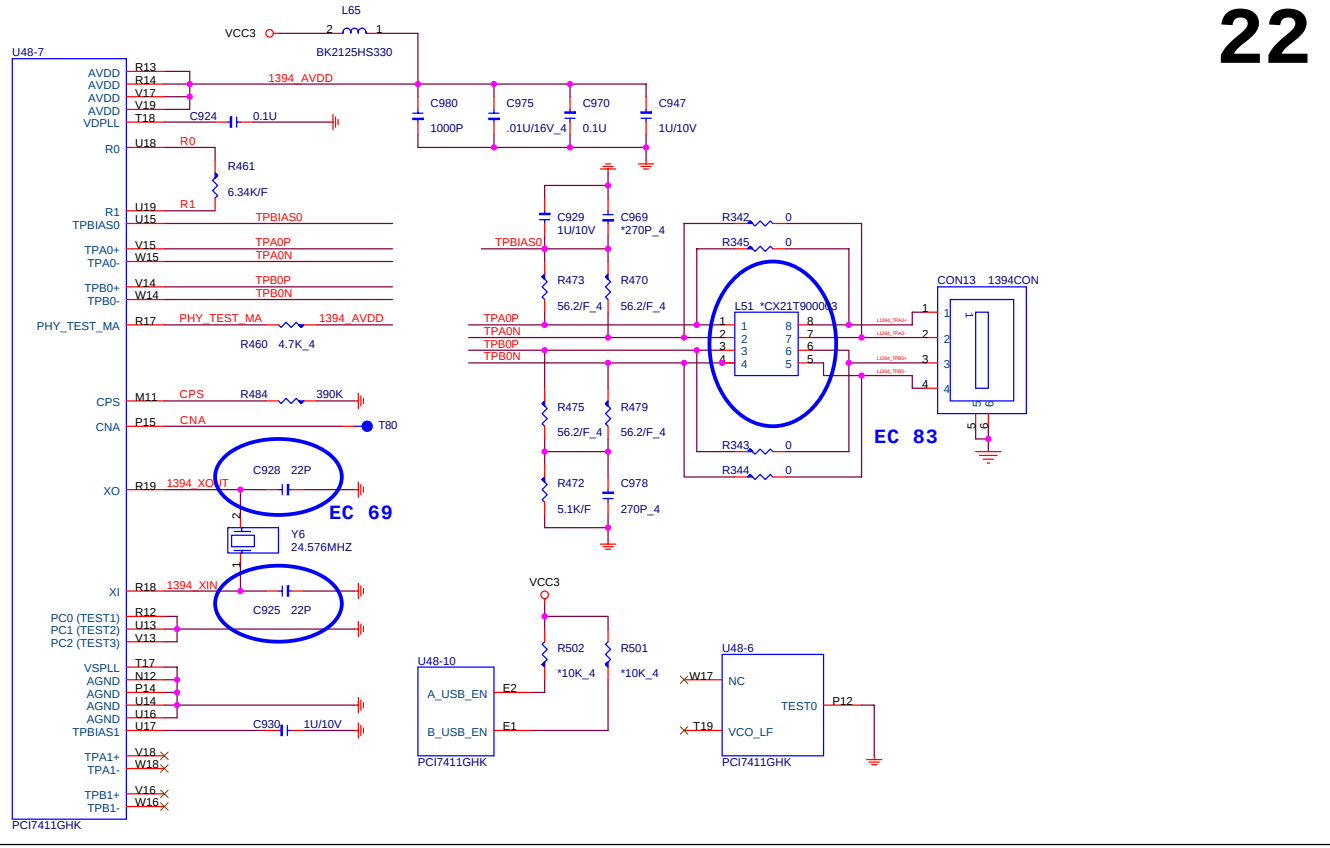
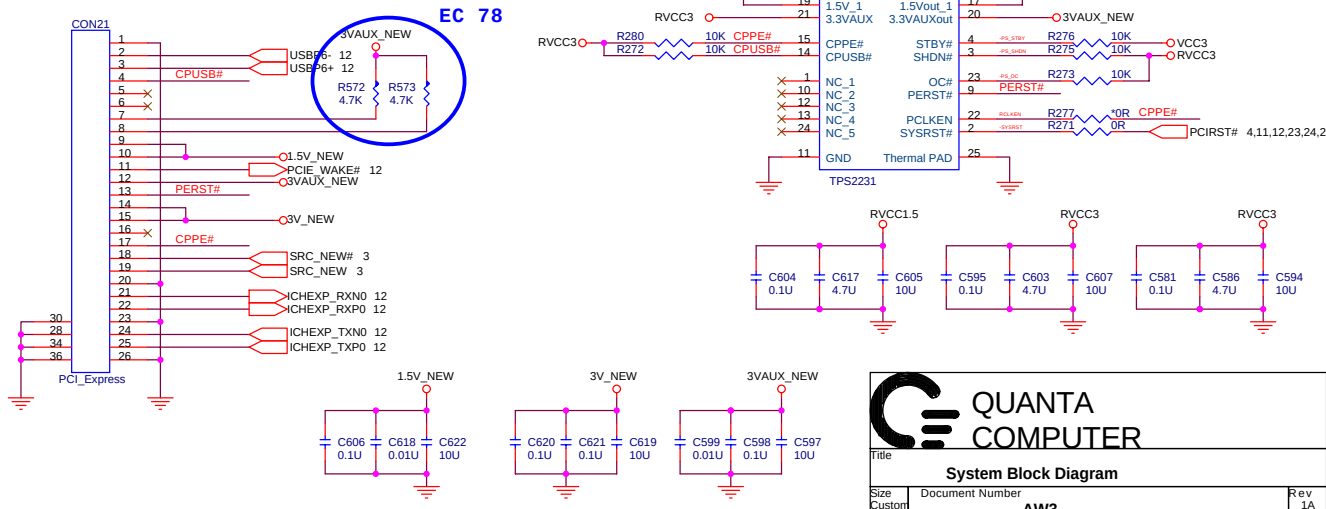






PCI-Express Card Power SW



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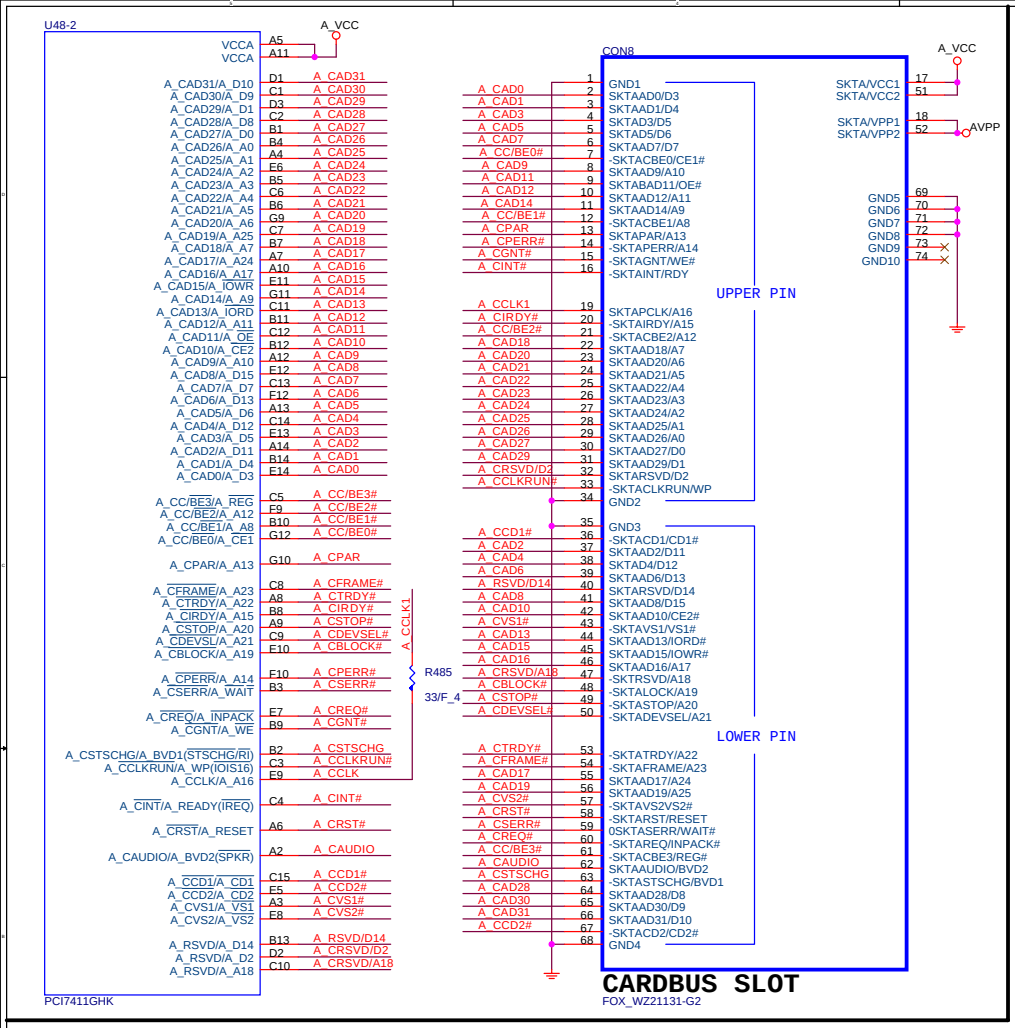
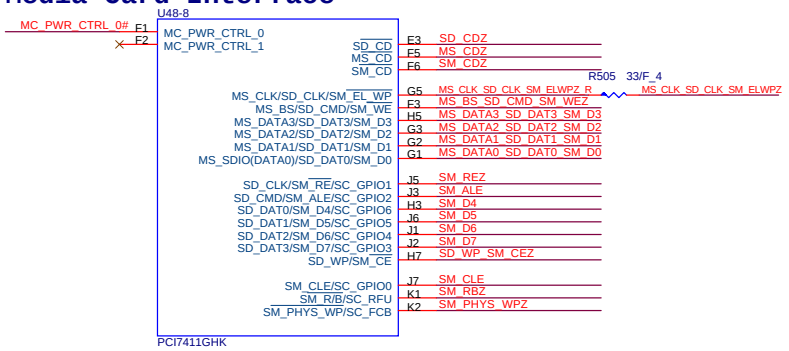
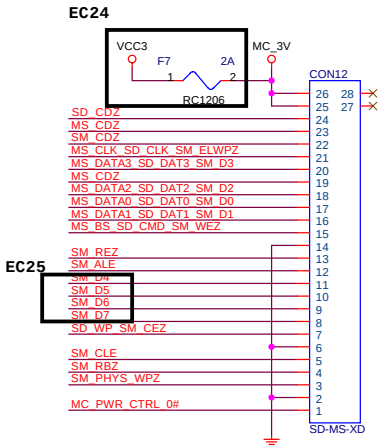
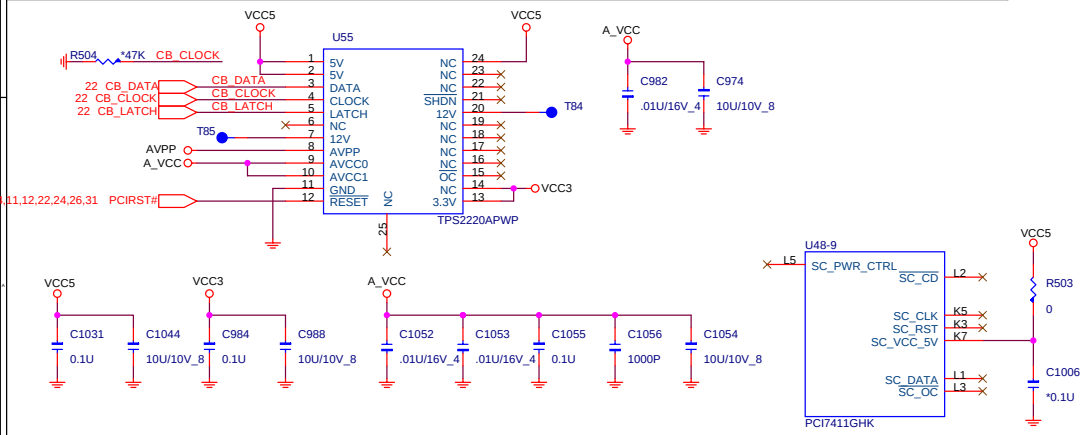


Media Card Interface







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LAN-BCM5788(10/100/GIGA)

BCM4401--10/100
BCM5788--10/100/GIGA

FOR 5788--VCC3
FOR 4401--RVCC3

ID Select : AD21
Interrupt Pin : INTD#
Request indicates : REQ2#
Grant indicates : GNT2#

15mm x 15mm
BGA196

U16
BCM5788

GIGA LAN USED.

FOR 5788--VCC3
FOR 4401--3VSUS

200 mil length .

FOR 5788--1.24K/F
FOR 4401--1.27K/F

U20
4*AT93C46

FOR 5788--FM24C64
FOR 4401--AT93C46

FOR 5788--Stuff R158, R159, R160
FOR 4401-- No Stuff R158, R159, R160

FM24C64FLM8X

FOR 5788--Stuff Q21, Q24
FOR 4401--No Stuff Q21, Q24

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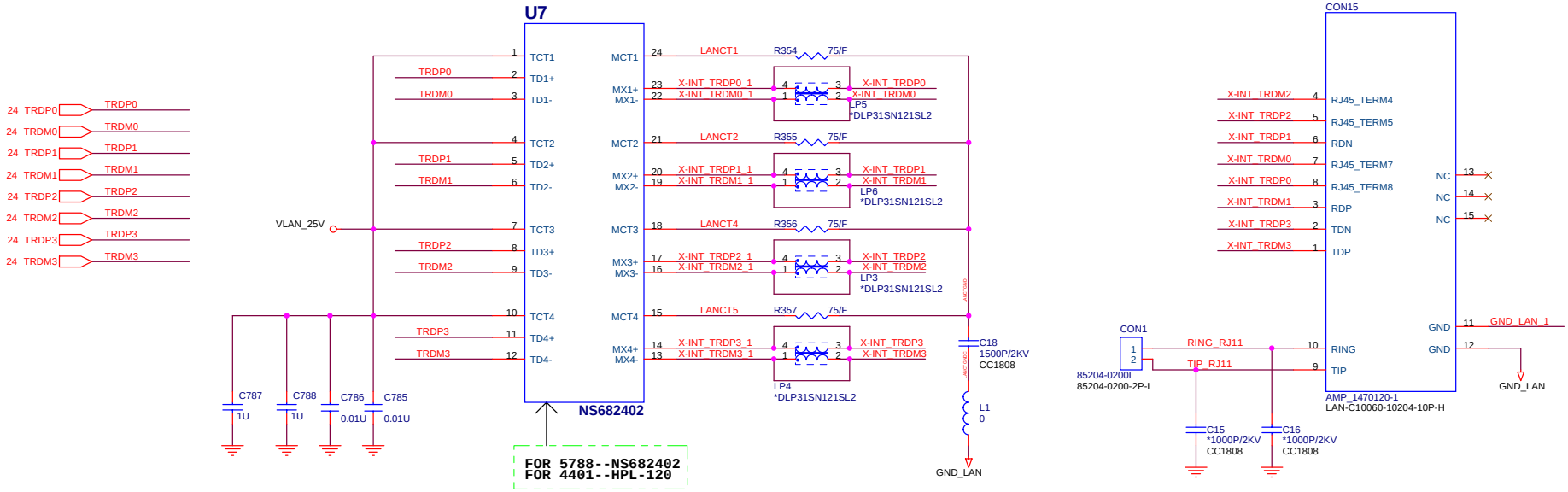
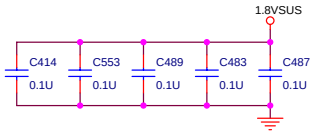
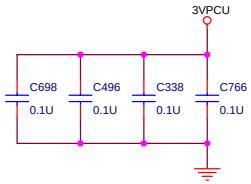
LAN TR & CONNECTOR

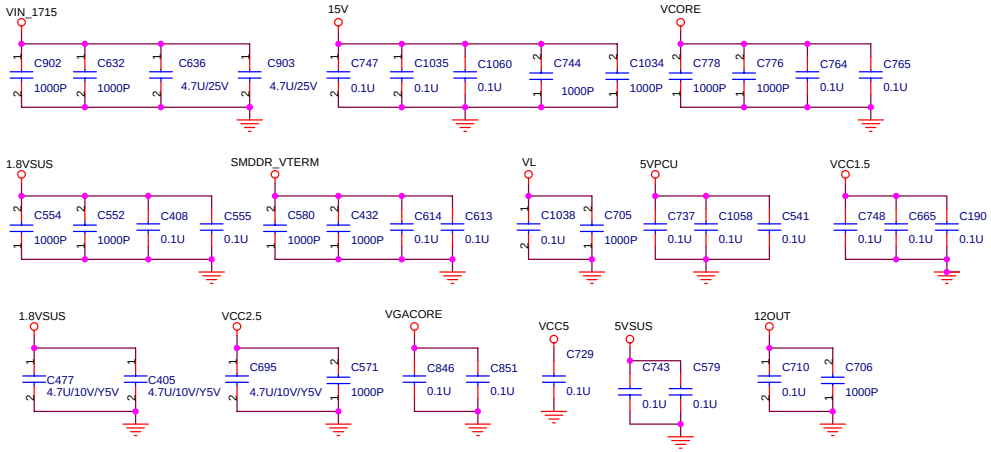


GND_LAN_1 R5 0

For EMI







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MDC V1.5 12Pin (Askey)
Azalia MDC interface

```
ID Select          : AD20
Interrupt Pin      : -INTB, -INTC
Request indicates  : -REQ1
Grant indicates    : -GNT1
```

```
LED_GP :LED WLEN LINK
Output Current : 7mA
Blink rate : 1 flash per every 3 sec.
```

```
WLSW:
Low : disable the radio.
High : Enable the radio.
```

MINIPCI-AMP(440073-124)

CON27

CON4

MDC1.5

H=3.0

EC10 EC41 EC 84 EC 60 EC 73 EC103 EC26 EC104

Q28 2N7002E

U35 TC7SH08FU

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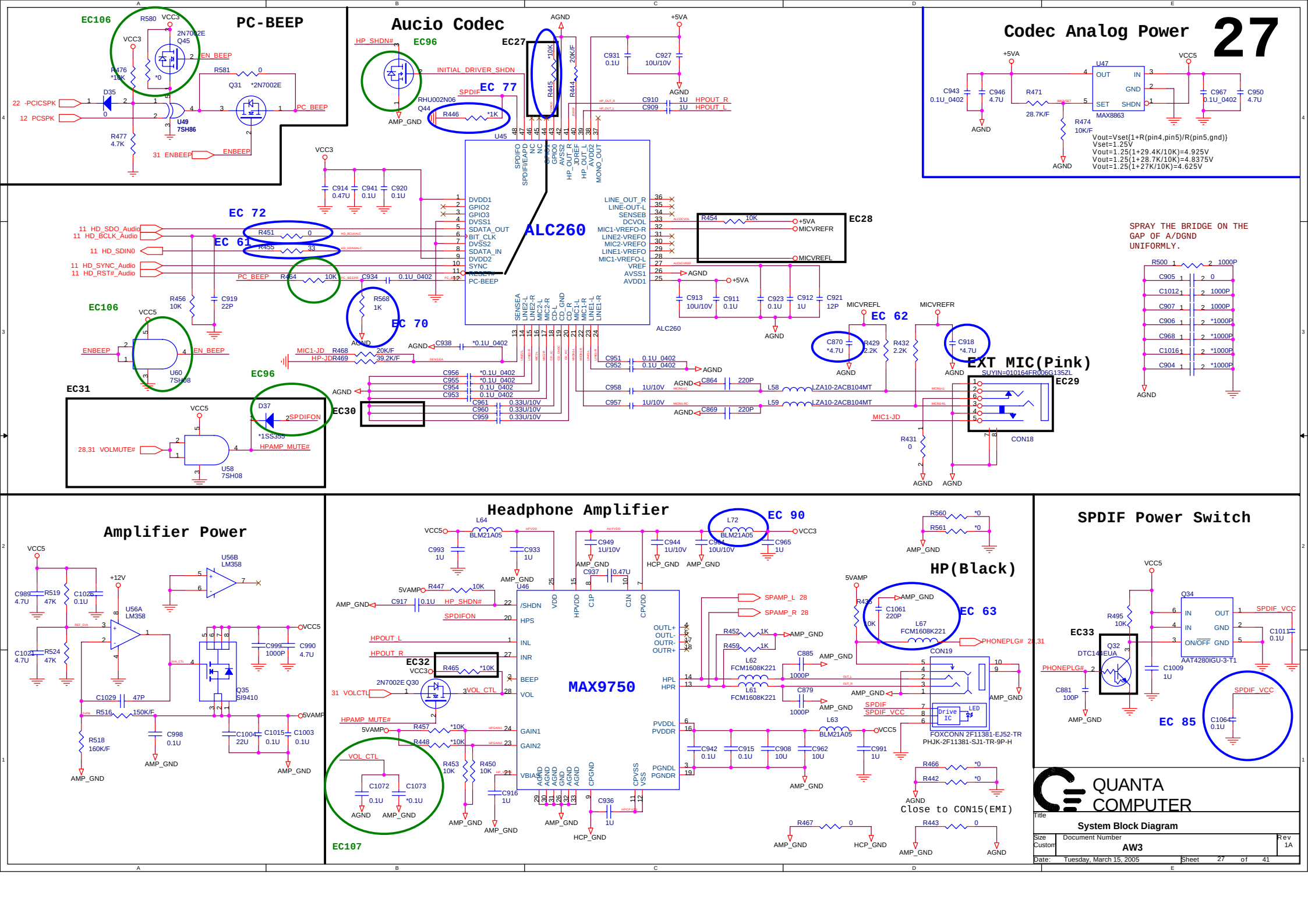
PC-BEEP
Aucio Codec
Codec Analog Power
27
ALC260
MAX8863
Vout=Vset{1+R(pin4,pin5)/R(pin5,gnd)}
Vset=1.25V
Vout=1.25(1+29.4K/10K)=4.925V
Vout=1.25(1+28.7K/10K)=4.8375V
Vout=1.25(1+27K/10K)=4.625V
SPRAY THE BRIDGE ON THE GAP OF A/DGND UNIFORMLY.
EXT MIC(Pink)
SUYIN=010164FR006G135ZL
CON18
Amplifier Power
Headphone Amplifier
MAX9750
HP(Black)
SPDIF Power Switch
FOXCONN 2F11381-EJ52-TR
PHJK-2F11381-SJ1-TR-9P-H
Close to CON15(EMI)
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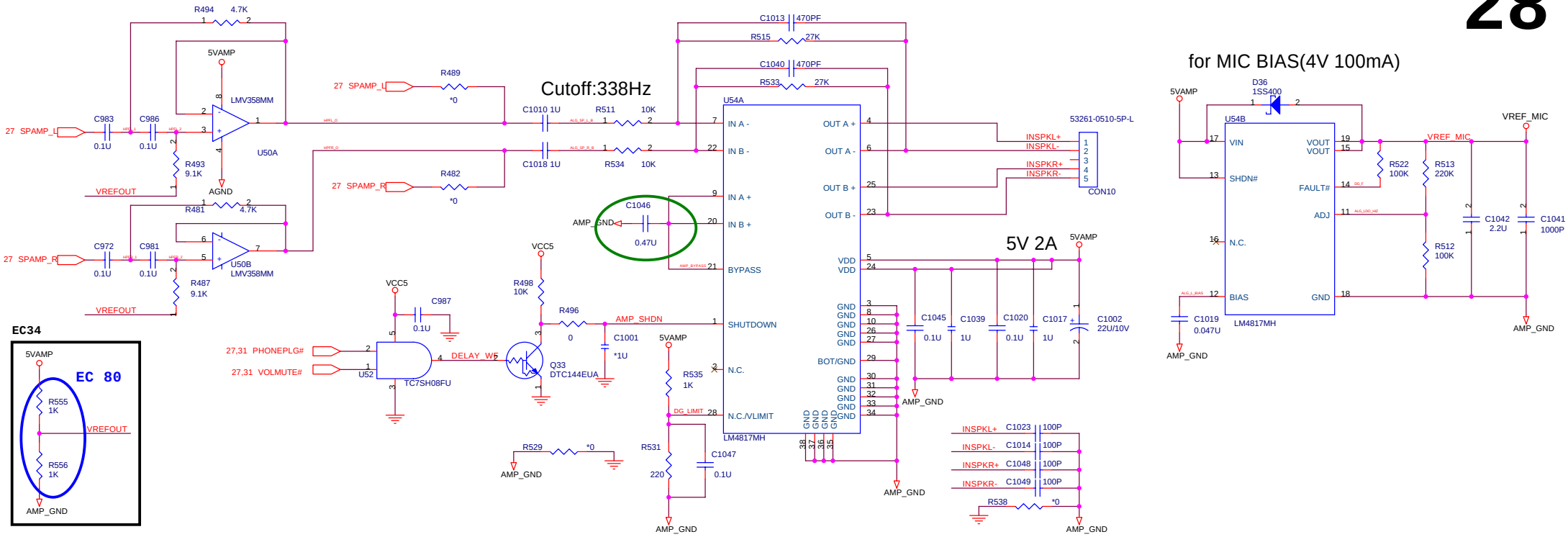

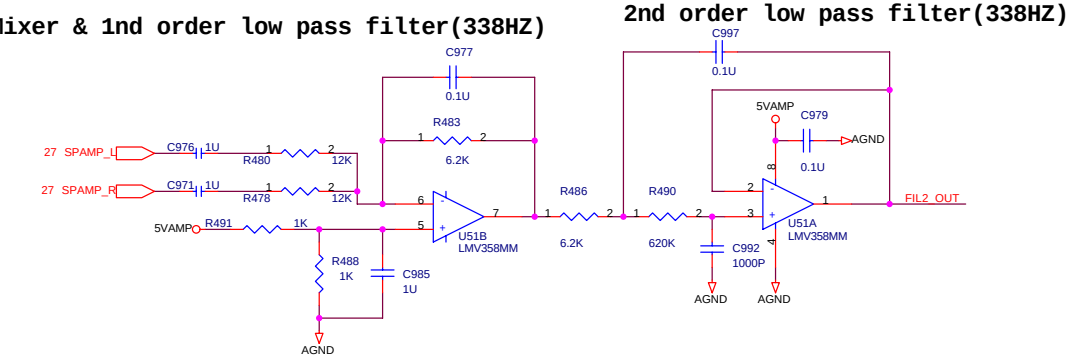

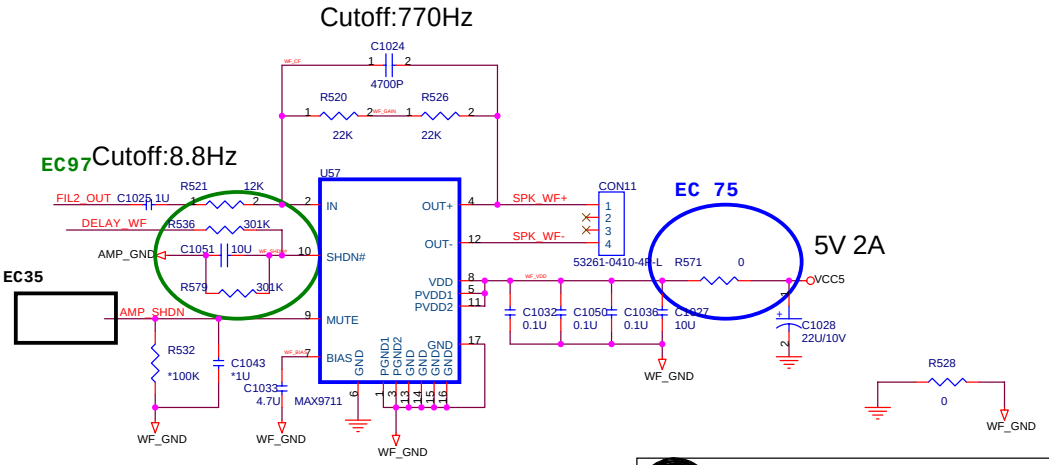

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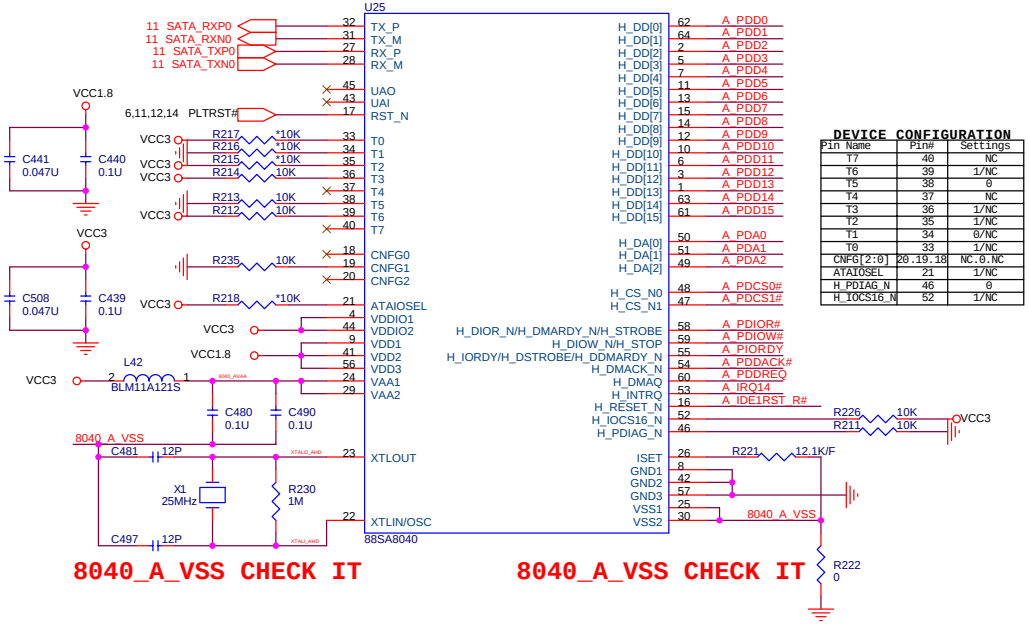
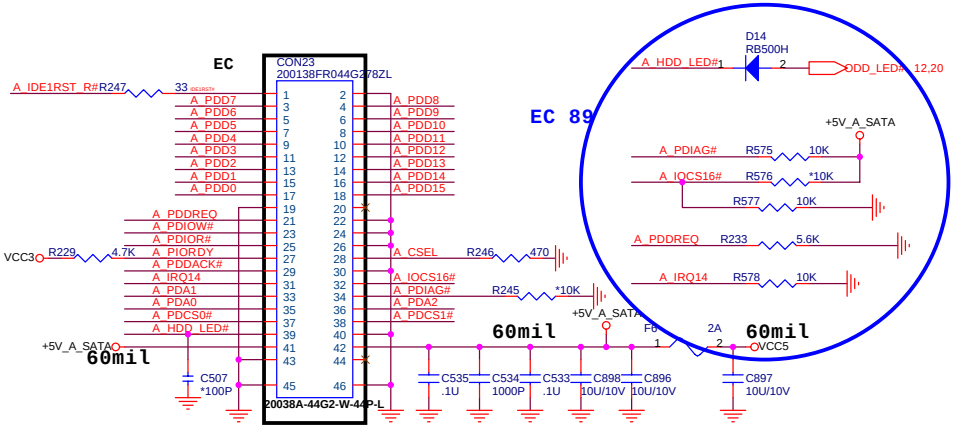
Primary SATA to PATA



DEVICE CONFIGURATION

Pin Name	Pin#	Settings
T7	40	NC
T6	39	1/NC
T5	38	0
T4	37	NC
T3	36	1/NC
T2	35	1/NC
T1	34	0/NC
T0	33	1/NC
CNFG[2:0]	20.19.18	NC.0.NC
ATAIOSEL	21	1/NC
H_PDIAG_N	46	0
H_IOCS16_N	52	1/NC

Secondary HDD



Reserve

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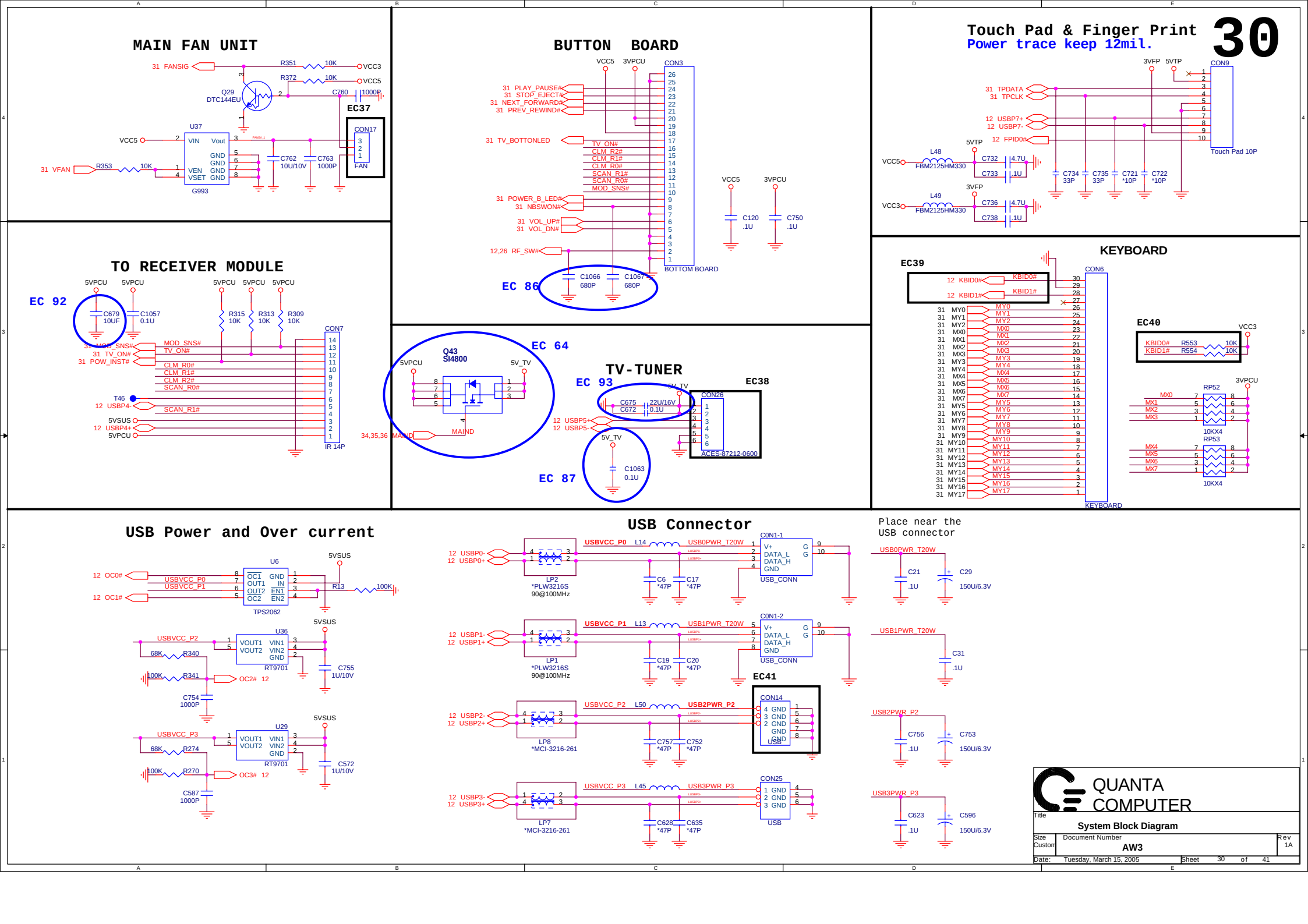
MAIN FAN UNIT
31 FANSIG
R351 10K
VCC3
R372 10K
VCC5
Q29
DTC144EU
C760 1000P
EC37
CON17
U37
VCC5
VIN Vout
GND
GND
VEN GND
VSET GND
G993
C762 10U/10V
C763 1000P
FAN
31 VFAN
R353 10K
BUTTON BOARD
VCC5 3VPCU
CON3
31 PLAY_PAUSE#
31 STOP_EJECT#
31 NEXT_FORWARD#
31 PREV_REWIND#
31 TV_BOTTONLED
TV_ON#
CLM_R2#
CLM_R1#
CLM_R0#
SCAN_R1#
SCAN_R0#
MOD_SNS#
31 POWER_B_LED#
31 NBSWON#
31 VOL_UP#
31 VOL_DN#
12,26 RF_SW#
BOTTOM BOARD
C120 .1U
C750 .1U
EC 86
C1066 680P
C1067 680P
Touch Pad & Finger Print
Power trace keep 12mil.
30
3VFP 5VTP
CON9
31 TPDATA
31 TPCLK
12 USBP7+
12 USBP7-
12 FPID0#
Touch Pad 10P
5VTP
L48
VCC5
FBM2125HM330
C732 4.7U
C733 .1U
C734 33P
C735 33P
C721 *10P
C722 *10P
3VFP
L49
VCC3
FBM2125HM330
C736 4.7U
C738 .1U
TO RECEIVER MODULE
EC 92
5VPCU
C679 10UF
C1057 0.1U
R315 10K
R313 10K
R309 10K
CON7
MOD_SNS#
TV_ON#
POW_INST#
CLM_R0#
CLM_R1#
CLM_R2#
SCAN_R0#
T46
12 USBP4-
SCAN_R1#
5VSUS
12 USBP4+
5VPCU
IR 14P
EC 64
Q43
SI4800
5VPCU
5V_TV
MAIND
34,35,36 MAIND
TV-TUNER
EC 93
EC38
C675 22U/16V
C672 0.1U
12 USBP5+
12 USBP5-
CON26
ACES-87212-0600
EC 87
C1063 0.1U
KEYBOARD
EC39
12 KBID0#
12 KBID1#
KBID0#
KBID1#
CON6
31 MY0
31 MY1
31 MY2
31 MX0
31 MX1
31 MX2
31 MX3
31 MY3
31 MY4
31 MX4
31 MX5
31 MX6
31 MX7
31 MY5
31 MY6
31 MY7
31 MY8
31 MY9
31 MY10
31 MY11
31 MY12
31 MY13
31 MY14
31 MY15
31 MY16
31 MY17
KEYBOARD
EC40
VCC3
KBID0# R553 10K
KBID1# R554 10K
3VPCU
RP52
MX0
MX1
MX2
MX3
10KX4
RP53
MX4
MX5
MX6
MX7
10KX4
USB Power and Over current
U6
12 OC0#
12 OC1#
USBVCC_P0
USBVCC_P1
OC1 GND
OUT1 IN
OUT2 EN1
OC2 EN2
TPS2062
5VSUS
R13 100K
U36
USBVCC_P2
68K R340
100K R341
OC2# 12
VOUT1 VIN1
VOUT2 VIN2
GND
RT9701
C754 1000P
C755 1U/10V
U29
USBVCC_P3
68K R274
100K R270
OC3# 12
RT9701
C587 1000P
C572 1U/10V
USB Connector
Place near the
USB connector
12 USBP0-
12 USBP0+
USBVCC_P0
L14
USB0PWR_T20W
CON1-1
V+
DATA_L
DATA_H
GND
USB_CONN
LP2
*PLW3216S
90@100MHz
C6 *47P
C17 *47P
C21 .1U
C29 150U/6.3V
12 USBP1-
12 USBP1+
USBVCC_P1
L13
USB1PWR_T20W
CON1-2
LP1
*PLW3216S
90@100MHz
C19 *47P
C20 *47P
C31 .1U
EC41
12 USBP2-
12 USBP2+
USBVCC_P2
L50
USB2PWR_P2
CON14
LP8
*MCI-3216-261
C757 *47P
C752 *47P
C756 .1U
C753 150U/6.3V
12 USBP3-
12 USBP3+
USBVCC_P3
L45
USB3PWR_P3
CON25
LP7
*MCI-3216-261
C628 *47P
C635 *47P
C623 .1U
C596 150U/6.3V
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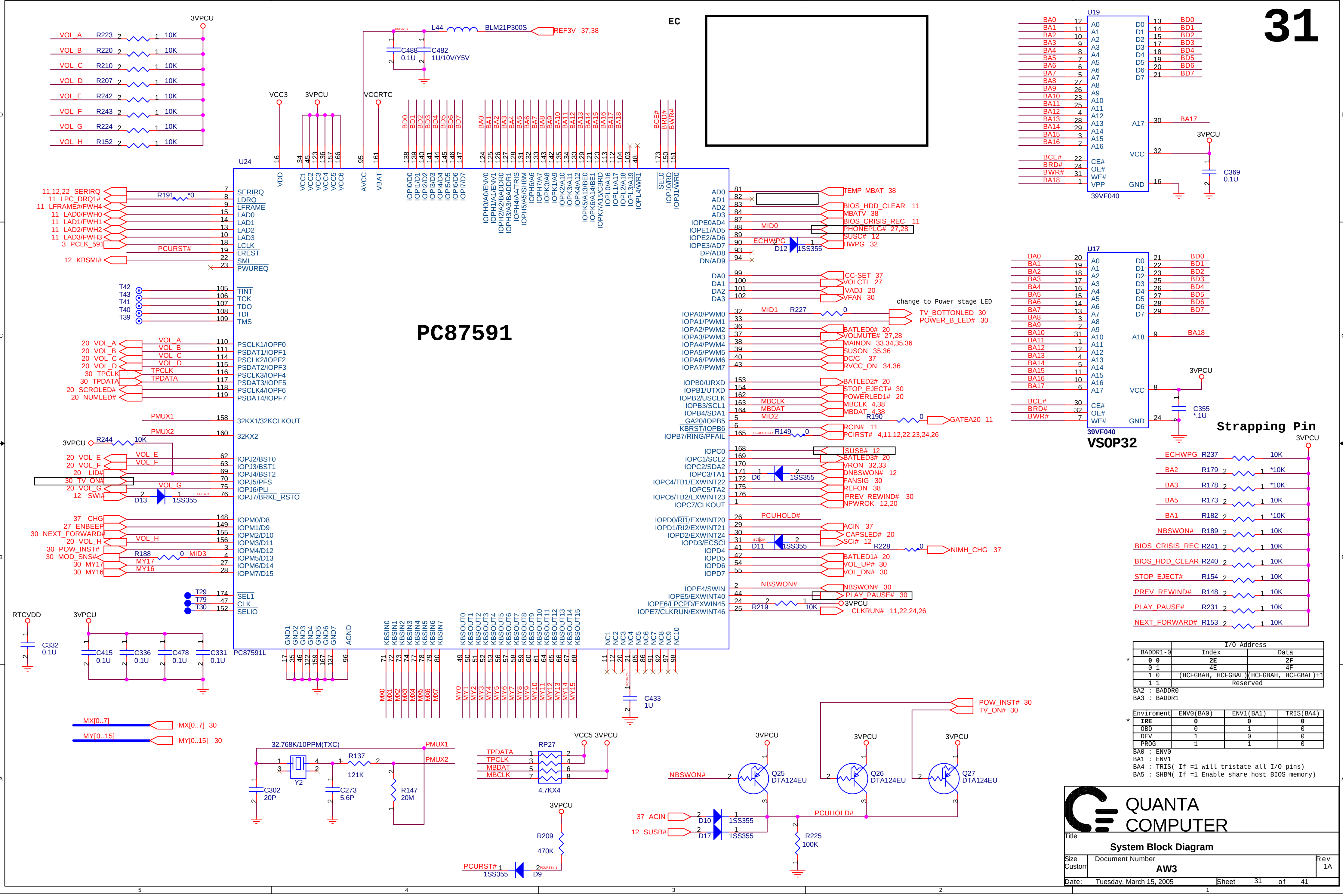

BADDR1-0	I/O Address Index	Data
* 0 0	2E	2F
0 1	4E	4F
1 0	(HCFGBAH, HCFGBAL)	(HCFGBAH, HCFGBAL)+1
1 1	Reserved	

BA2 : BADDR0
BA3 : BADDR1

Enviroment	ENV0(BA0)	ENV1(BA1)	TRIS(BA4)
* IRE	0	0	0
OBD	0	1	0
DEV	1	0	0
PROG	1	1	0

BA0 : ENV0
BA1 : ENV1
BA4 : TRIS(If =1 will tristate all I/O pins)
BA5 : SHBM(If =1 Enable share host BIOS memory)

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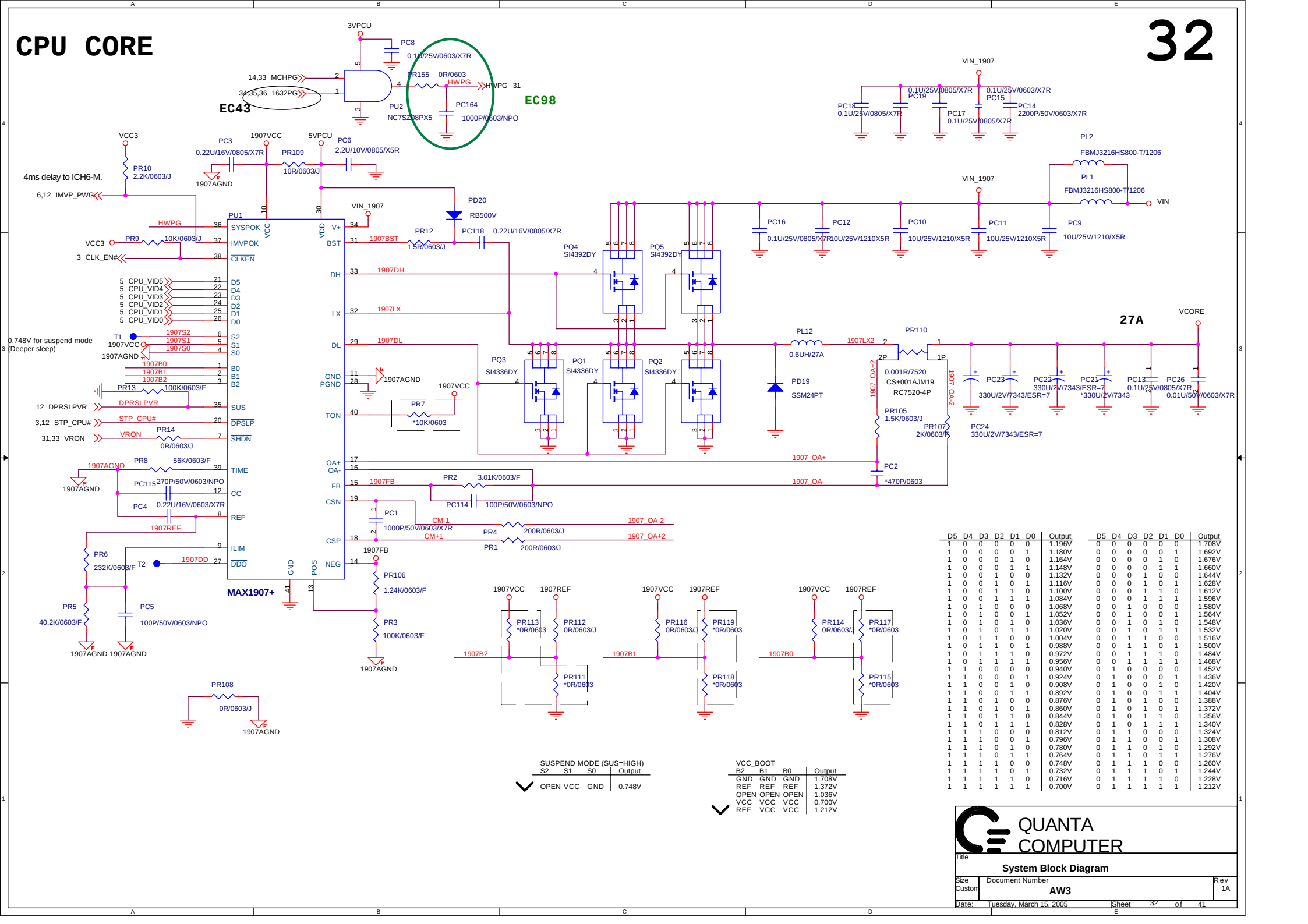
CPU CORE



D5	D4	D3	D2	D1	D0	Output
1	0	0	0	0	0	1.196V
1	0	0	0	0	1	1.180V
1	0	0	0	1	0	1.164V
1	0	0	0	1	1	1.148V
1	0	0	1	0	0	1.132V
1	0	0	1	0	1	1.116V
1	0	0	1	1	0	1.100V
1	0	0	1	1	1	1.084V
1	0	1	0	0	0	1.068V
1	0	1	0	0	1	1.052V
1	0	1	0	1	0	1.036V
1	0	1	0	1	1	1.020V
1	0	1	1	0	0	1.004V
1	0	1	1	0	1	0.988V
1	0	1	1	1	0	0.972V
1	0	1	1	1	1	0.956V
1	1	0	0	0	0	0.940V
1	1	0	0	0	1	0.924V
1	1	0	0	1	0	0.908V
1	1	0	0	1	1	0.892V
1	1	0	1	0	0	0.876V
1	1	0	1	0	1	0.860V
1	1	0	1	1	0	0.844V
1	1	0	1	1	1	0.828V
1	1	1	0	0	0	0.812V
1	1	1	0	0	1	0.796V
1	1	1	0	1	0	0.780V
1	1	1	0	1	1	0.764V
1	1	1	1	0	0	0.748V
1	1	1	1	0	1	0.732V
1	1	1	1	1	0	0.716V
1	1	1	1	1	1	0.700V

D5	D4	D3	D2	D1	D0	Output
0	0	0	0	0	0	1.708V
0	0	0	0	0	1	1.692V
0	0	0	0	1	0	1.676V
0	0	0	0	1	1	1.660V
0	0	0	1	0	0	1.644V
0	0	0	1	0	1	1.628V
0	0	0	1	1	0	1.612V
0	0	0	1	1	1	1.596V
0	0	1	0	0	0	1.580V
0	0	1	0	0	1	1.564V
0	0	1	0	1	0	1.548V
0	0	1	0	1	1	1.532V
0	0	1	1	0	0	1.516V
0	0	1	1	0	1	1.500V
0	0	1	1	1	0	1.484V
0	0	1	1	1	1	1.468V
0	1	0	0	0	0	1.452V
0	1	0	0	0	1	1.436V
0	1	0	0	1	0	1.420V
0	1	0	0	1	1	1.404V
0	1	0	1	0	0	1.388V
0	1	0	1	0	1	1.372V
0	1	0	1	1	0	1.356V
0	1	0	1	1	1	1.340V
0	1	1	0	0	0	1.324V
0	1	1	0	0	1	1.308V
0	1	1	0	1	0	1.292V
0	1	1	0	1	1	1.276V
0	1	1	1	0	0	1.260V
0	1	1	1	0	1	1.244V
0	1	1	1	1	0	1.228V
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

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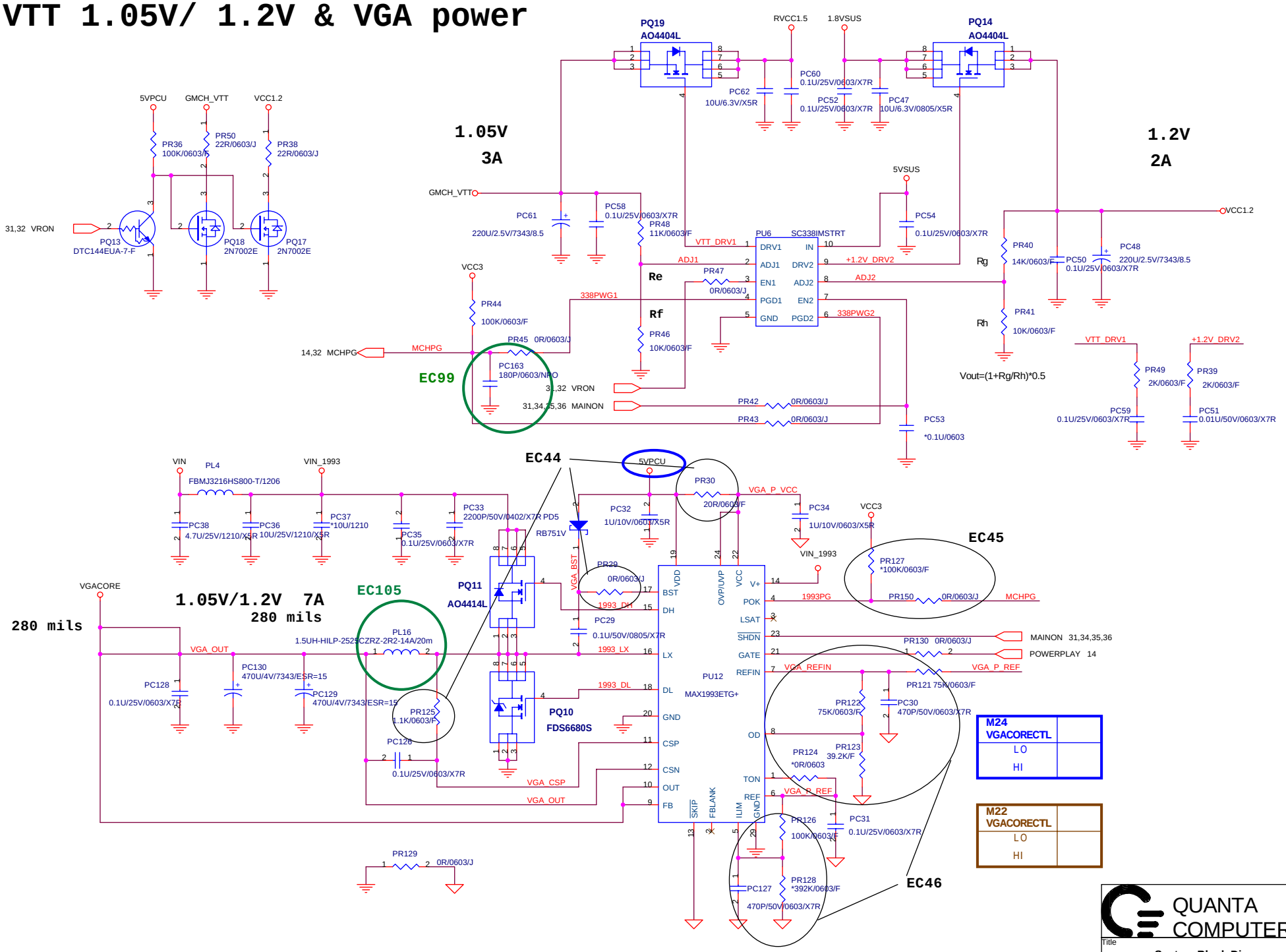
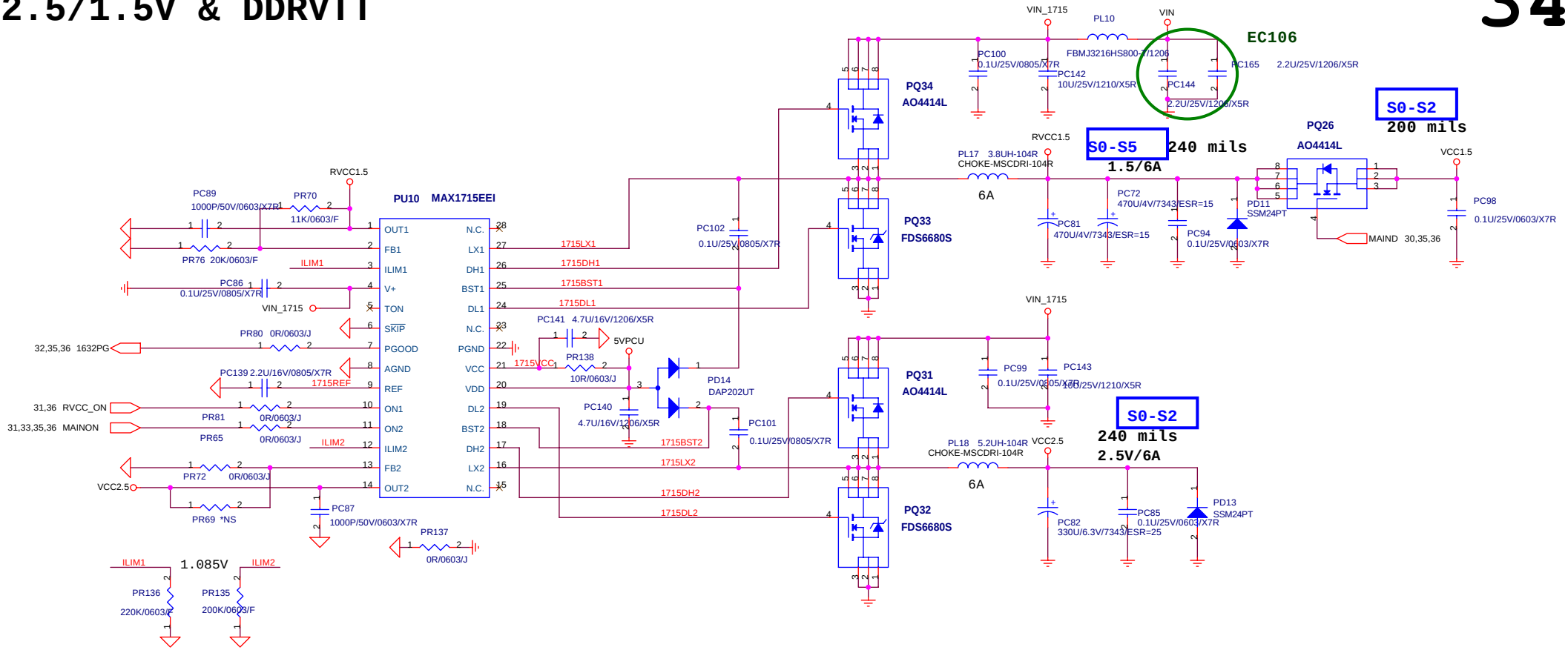
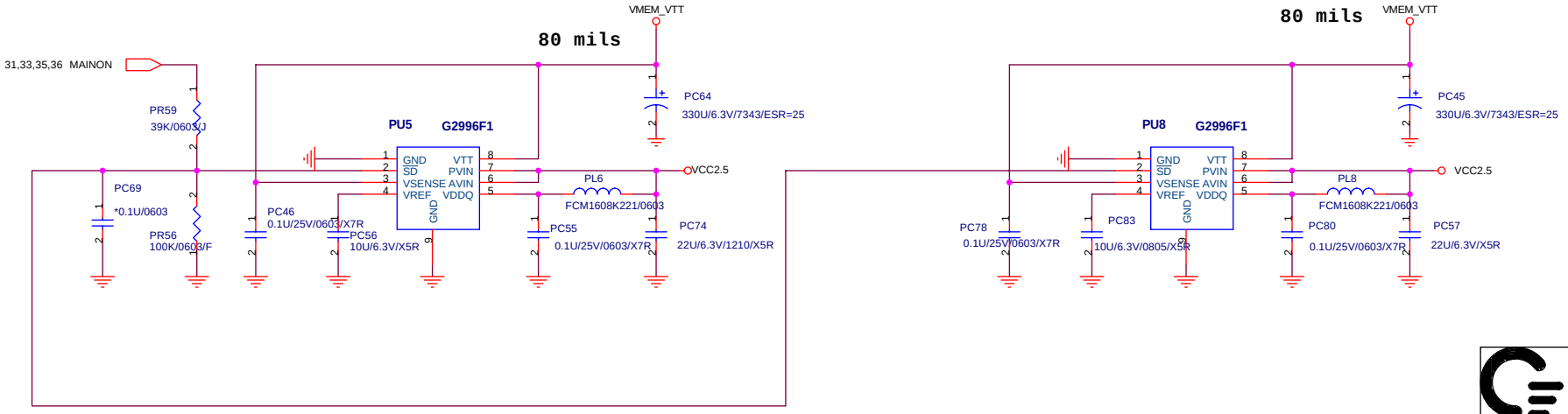
VTT 1.05V/ 1.2V & VGA power



2.5/1.5V & DDRVTT





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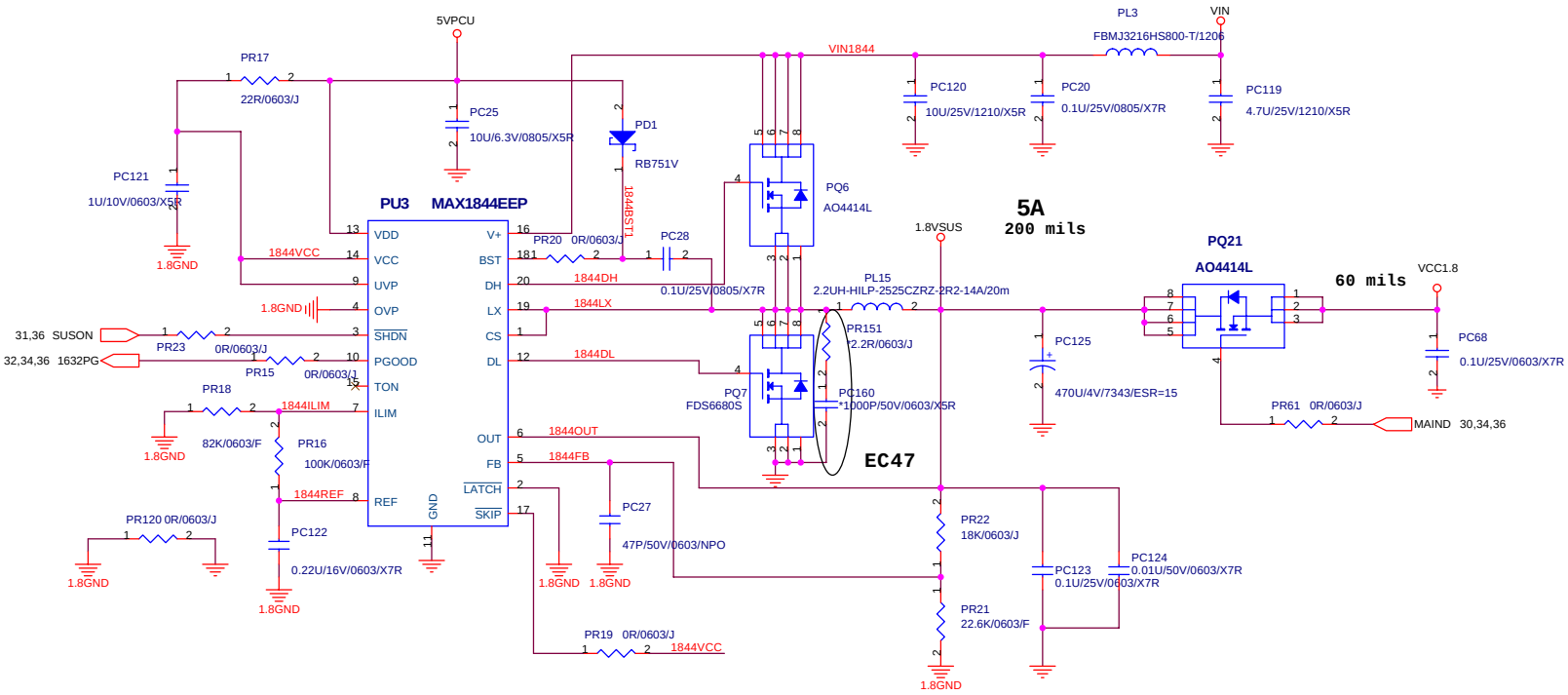

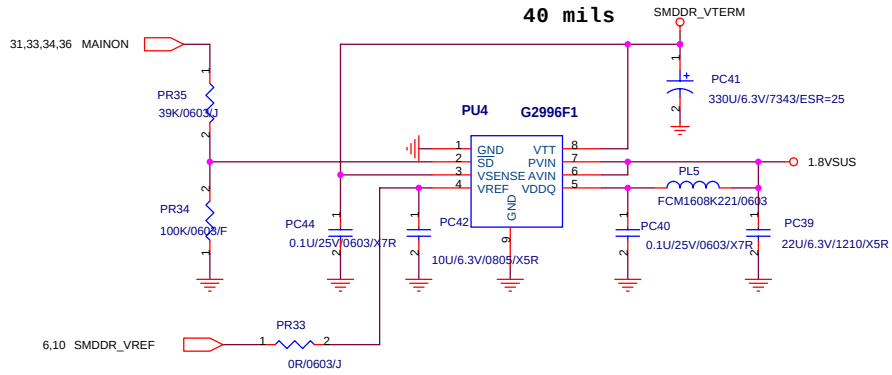

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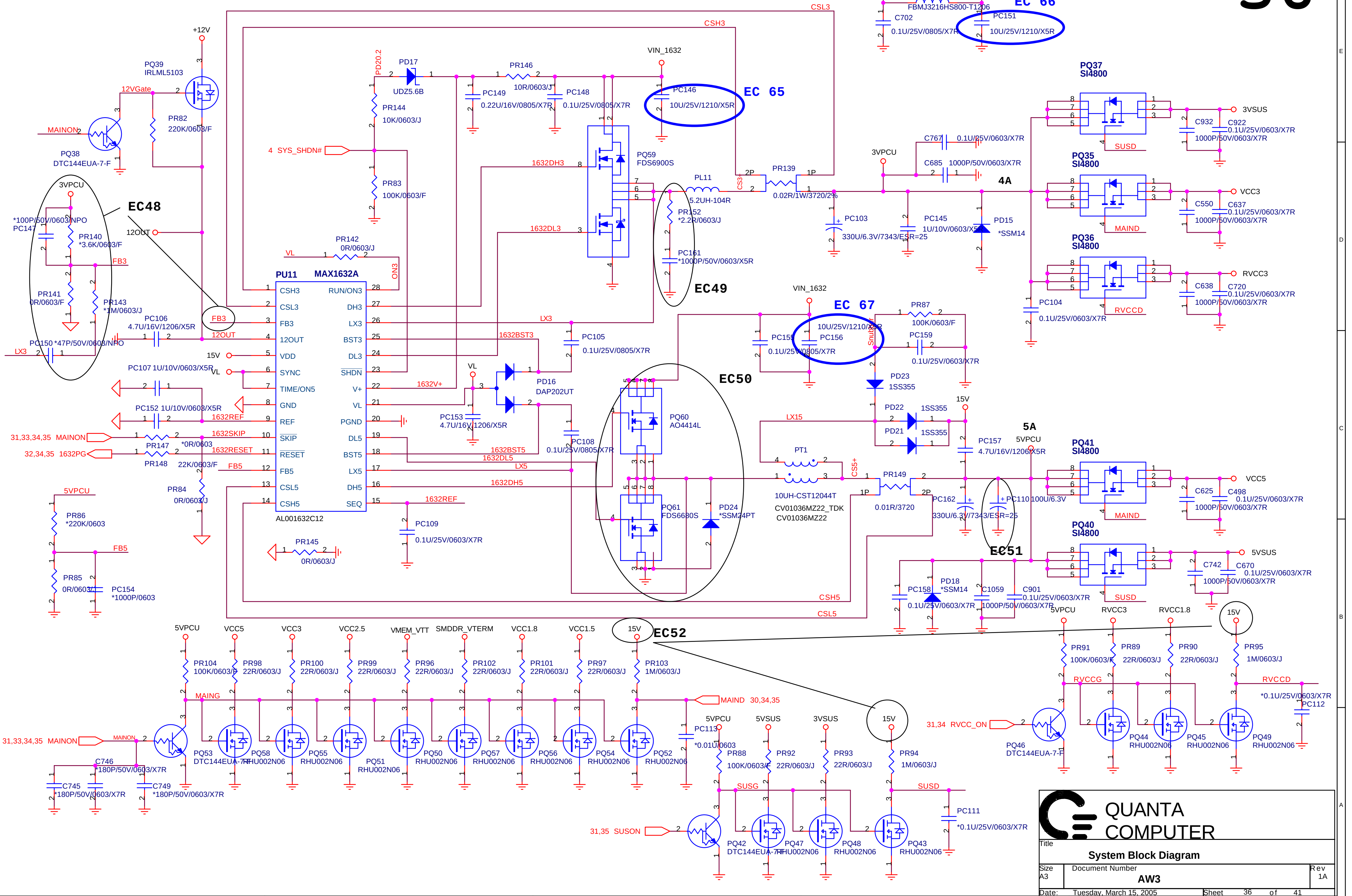
DC/DC 3.3V&5V



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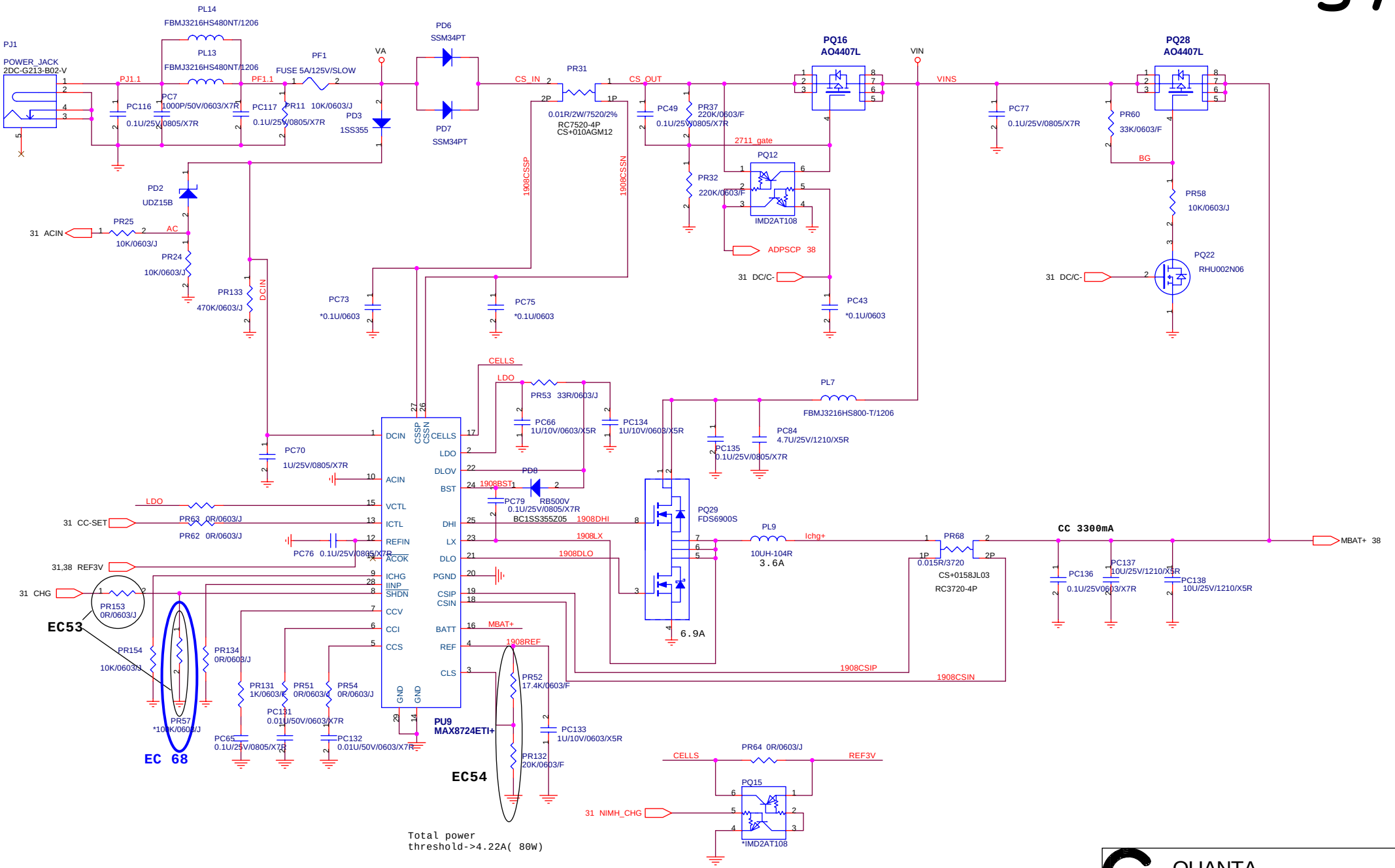
Battery Charger

80W/ 19V/ 4.22A



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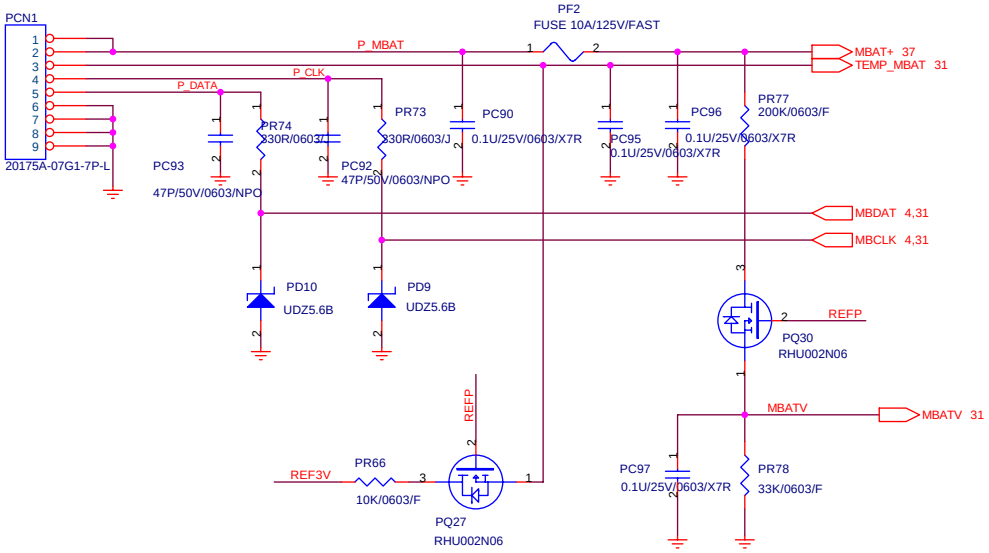
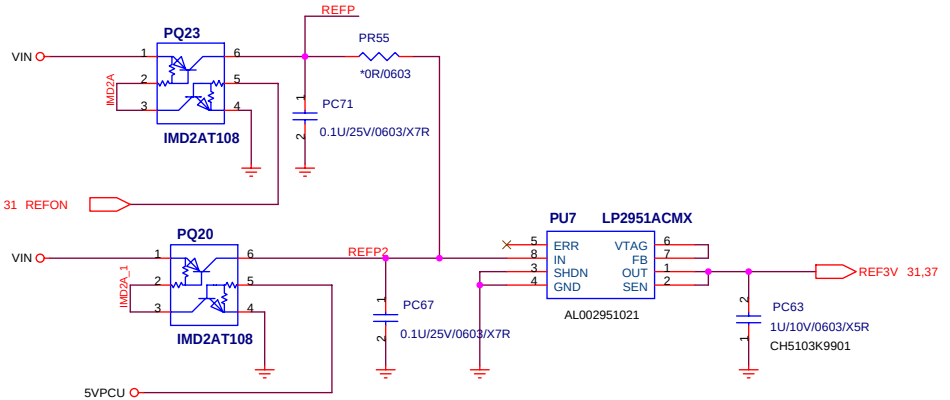
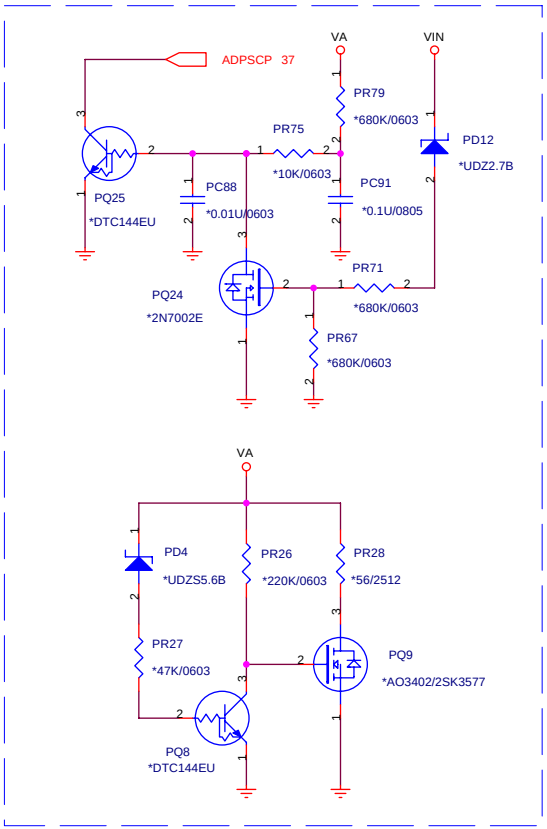
Battery Connector





SCP CKT



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EC LIST -- A to B test :

EC1-- Page 3 -- Change R176, R177 footprint to 0402 -- Fix footprint error in A PCBA
EC2-- Page 6 -- R183,R184 change to no-pop -- Intel suggest to improve S3
EC3-- Page 6 -- R65 change to no-pop to set DMI x 4-- A design error
EC4-- Page 6 -- R91 change to no-pop -- Set PCIE to normal operation
EC5-- Page 11 -- Change R310 to 240K -- Improve RTC reset timing
EC6-- Page 12 -- Change RP81 pull high power rail to RVCC3 and VCC3 -- A circuit design error
EC7-- Page 12 -- Change RP80 pul high power rail to RVCC3 -- A circuit design error
EC8-- Page 12 -- Change RP83 pul high power rail to RVCC3 -- A circuit design error
EC9-- Page 12 -- Add R551 and pull high to VCC3 -- For fingerprint detect high level supply
EC10-- Page 12 -- Connect IFPID to SB GPIO25 -- For fingerprint detect
EC11-- Page 12 -- Change R286,R285,R287 pull high power rail to RVCC3 -- A circuit design error
EC12-- Page 12 -- Connect KBID0#,KBID1# to SB GPIO19,GPIO21 -- For Keyboard ID detection
EC13-- Page 12 -- Change RP82 to no-pop -- IRQ14 should be pull high to VCC3
EC14-- Page 13 -- U34 G19 change connection to from 1.5VSUS to RVCC1.5 -- A circuit design error
EC15-- Page 13 -- U34 R7,U7 change connection from 1.5VSUS to RVCC1.5 --A circuit design error
EC16-- Page 13 -- U34 A25 change connect from 1.5VSUS to VCC1.5 -- A circuit design error
EC17-- Page 13 -- U34 G10,G11 change connection from 1.5VSUS to VCC1.5 -- A circuit design error
EC18-- Page 18 -- U34 A13,F14,G13,G14 change connection from RVCC3 to VCC3 -- A circuit design error
EC19-- Page 14 -- Add R539 pull high to VCC3 -- Fix S-Video can not be detected
EC20-- page 15 -- Change U41 AG26,AK29,AJ30,AG28,AG27 connection from 1.8V to VCC1.8 -- A circuit typo
EC21-- Page 16 -- Change R204,R201 connection from 1.8V to VCC1.8 -- A circuit typo
EC22-- Page 20 -- Change D26,D27,D25,D24 footprint -- A footprint error
EC23-- Page 20 -- Add R542 - R550 -- Seperate current limit resistor to one by one
EC24-- Page 23 -- Add F7 -- Protect MC_3V overcurrent
EC25-- Page 23 -- Change CON12 pin 9,10,11,12 connection to SM_D7,6,5,4 -- Fix XD card can not be detected
EC26-- Page 26 -- H11 change footprint -- Mechanical requirement
EC27-- Page 27 -- Add R445 --Fujitsu suggestion
EC28-- Page 27 -- Remove VREFOUT from U45 pin30 -- Decrease noise from internal speaker
EC29-- Page 27 -- Change CON18 footprint -- Fix footprint define error
EC30-- Page 27 -- Connect C961,C960,C959 to AGND -- Fujitsu suggestion
EC31-- Page 31 -- Add U58 -- Level up VOLMUTE# high voltage
EC32-- Page 27 -- R465 change to no-pop -- Prevent voltage level divide by R465
EC33-- Page 27 -- Change Q32 to DTC144EUA -- Fix PHONEPLG# be pull down by MMBT3904
EC34-- Page 28 -- Change VREFOUT to 5VAMP/2 --Solve big noise from internal speaker
EC35-- Page 28 -- Change U57 pin9 to AMP_SHDN
EC36-- Page 29 -- Change CON23 footprint -- A footprint error
EC37-- Page 30 -- Change CON17 pin define -- Pin define error
EC38-- Page 30 -- Change CON26 pin define -- A pin define error
EC39-- Page 30 -- Add ID pin on CON6 -- Add Keyboard ID detection
EC40-- Page 30 -- Add R553,R554 -- Provide pull high to KBID0#,KBID1#
EC41-- Page 30 -- Change CON41 footprint -- Change connector to short type
EC42-- Page 31 -- Remove SW1 -- Change to Keyboard ID
EC43-- Page 32 -- 1999PG change to 1632PG -- A circuit design error
EC44-- Page 33 -- Change PR20,PR30,PR125 footprint to 0603 -- Fix footprint error in A PCBA
EC45-- Page 33 -- Change PR150 connection to MCHPG -- A circuit design error
EC46-- Page 33 -- Change PR121,PR122,PR123,PR124,PR126,PR128,PC30,PC127 footprint to 0603 -- Fix footprint error in A PCBA
EC47-- Page 35 -- Backup PR151,PC160 -- Decrease ripple
EC48-- Page 36 -- Change FB3 connection to GND -- A circuit design error
EC49-- Page 36 -- Backup PR152,PC161 -- Decrease ripple
EC50-- Page 36 -- Change PQ60 to PQ60&PQ61 -- A circuit design error
EC51-- Page 36 -- Add PC162 -- Decrease ripple
EC52-- Page 36 -- 12V change to 15V -- A circuit design error
EC53-- Page 37 -- Add PR153&PR154 connection to CHG -- A circuit design error
EC54-- Page 37 -- PR52 change to 17.4K and PR132 change to 20K -- Fix total power current

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EC LIST -- B to C test :

EC55-- Page 04 -- Add thermaltrip circuit -- Solve system can not power on
EC56-- Page 12 -- Add R566 location and R574 -- Solve HDD and ODD can not be detected issue
EC57-- Page 12 -- Add R567 location-- Solve HDD and ODD can not be detected issue
EC58-- Page 22 -- Add C1068 -- Prevent timing error on PCI_PME#
EC59-- Page 14 -- Add L69, L70, L71 and pop C160,C159,C157 -- EMI request
EC60-- Page 26 -- R363 change to 33 ohm -- Azalia spec.
EC61-- Page 27 -- R455 change to 33 ohm -- Azalia spec.
EC62-- Page 27 -- C870 and C918 change to NO-POP -- To meet impedance requirement
EC63-- Page 27 -- Remove R559 and change to L67; change C1061location -- EMI request
EC64-- Page 30 -- Add Q43 -- Change TV tuner power plane to 5V_TV
EC65-- Page 36 -- PC146 change to 10U/25V -- Improve ripple noise
EC66-- Page 36 -- PC151 change to 10U/25V -- Improve ripple noise
EC67-- Page 36 -- PC156 change to 10U/25V -- Improve ripple noise
EC68-- Page 37 -- PR57 change to NO-POP -- B design error
EC69-- Page 22 -- C928, C925 change to 22pF -- Improve 24.576MHz clock quality
EC70-- Page 27 -- Add R568 -- Improve PC-Beep waveform
EC71-- Page 11 -- Change R369,R449,R463,R462,R367,R458 location and add R569,R570 -- Correct Azalia layout
EC72-- Page 27 -- Change R451 to 0 ohm -- For EMI debug use
EC73-- Page 27 -- Change R362 to 0 ohm -- For EMI debug use
EC74-- Page 11 -- Change CON20 footprint and location-- Improve assembly
EC75-- Page 28 -- Add R571 0 ohm -- Solve Woofer sound no good
EC76-- Page 14 -- R86 and R107 change to 100 ohm -- ATI suggestion
EC77-- Page 27 -- R445, R446 change to no-pop -- Meet driver requirement
EC78-- Page 22 -- Add R572,R573 -- Remove SMBUS and add pull high
EC79-- Page 28 -- R555, R556 change to 1K ohm -- Fujitsu suggestion
EC80-- Page 18 -- Change VRAM VDD bypass capacitor to 0.1uF -- ATI suggestion
EC81-- Page 19 -- Change VRAM VDD bypass capacitor to 0.1uF -- ATI suggestion
EC82-- Page 21 -- L2,L3,L4 change to 0 ohm; C26,C27,C28,C8,C9,C10 change to no pop -- EMI request
EC83-- Page 22 -- remove L52 and change L51 footprint -- EMI request
EC84-- Page 26 -- Add L68, C1065 location-- EMI request
EC85-- Page 27 -- Add C1064 -- EMI request
EC86-- Page 30 -- Add C1066, C1067 -- EMI request
EC87-- Page 30 -- Add C1063 -- EMI request
EC88-- Page 12 -- Change R551 to 100K -- Fujitsu suggestion
EC89-- Page 29 -- Add R575, R576; R233 change to 5.6K -- Solve Toshiba HDD CRC error
EC90-- Page 27 -- Add L72-- Improve U46 power quality
EC91-- Page 33 -- Change PU12 power source to 5VPCU-- Improve PU12 power sequence
EC92-- Page 30 -- Change C679 to 10UF -- Improve IR receiver power quality
EC93-- Page 30 -- Change C672 to 0603 footprint and move C675,C672 location-- Improve TVtuner power quality
EC94-- Page 09 -- Change C484 and C886 to 150uF -- Improve 1.5V power quality
EC95-- Page 09 -- Change DEV_OFF_LAN and DEV_OFF_MINI to GPO21,GPO23; change KBID0#,KBID1# to GPIO33,GPIO34 -- Design error

EC LIST -- C to C+ test :

EC96-- Page 27 -- Add Q44 and D37 -- To solve Headphone POP noise.
EC97-- Page 28 -- Add R536 and R579 -- To solve Internal speaker and Woofer speaker sound unsynchronism when remove Headphone.
EC98-- Page 32 -- Add PC164 1000P -- Filter out noise on HWPG signal
EC99-- Page 33 -- Add PC163 180P -- Filter out noise on MCHPG signal
EC100-- Page 21 -- Add L73,L74,L75 -- EMI solution
EC101-- Page 21 -- Add L76,L77,L78 -- EMI solution
EC102-- Page 21 -- Add C1069 0.1uF 0402 -- EMI solution
EC103-- Page 26 -- Add C1070 0.1uF 0402 -- EMI solution
EC104-- Page 26 -- Add C1071 0.1uF 0402 -- EMI solution
EC105-- Page 33 -- PL16 change to 1.5UH/14A/20m -- solve VGA core over current issue(Already implement on C unit)
EC105-- Page 33 -- ADD PC165 2.2U 1206 and PC144 change to 2.2U 1206 -- machine height limited
EC106-- Page 27 -- Add U60,Q45,R581 and Del Q31--To solve leak the sound when mute PCBEEP .
EC107-- Page 27 -- Add C1072--To solve some volum level noise.

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