Model : P75/55IMx

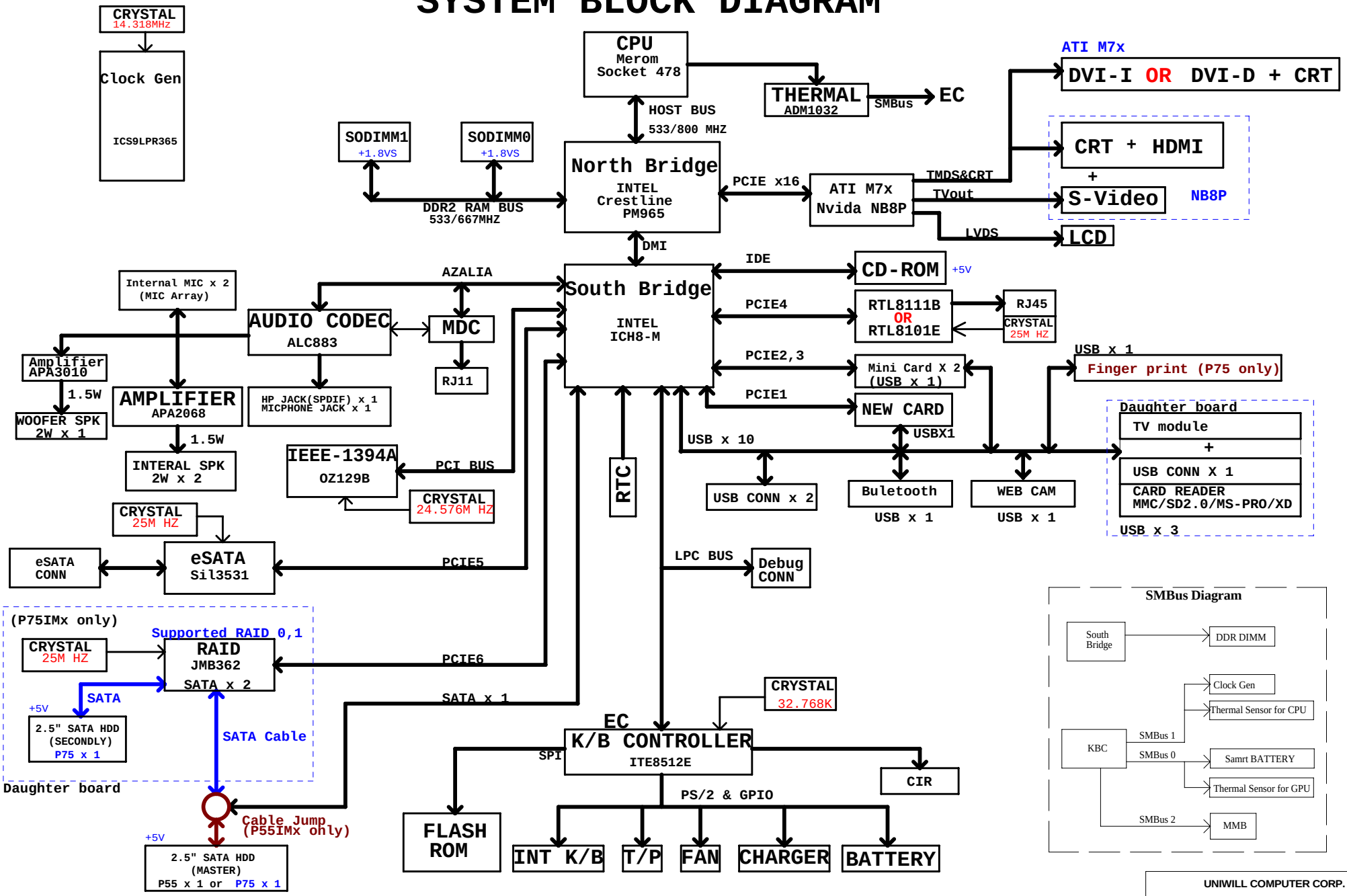
Intel Merom CPU + PM965 + ICH8-M Chipset
Santa Rosa plantfrom (No supported AMT)

Revision History	
08/2006	Initial Rev.RA
09/2006	Rev.A1
11/2006	Rev.A2
01/2007	Rev.B
03/2007	Rev.C

PCB P/N: 37GP55000-C0
PCBA P/N: 82GP55000-C0

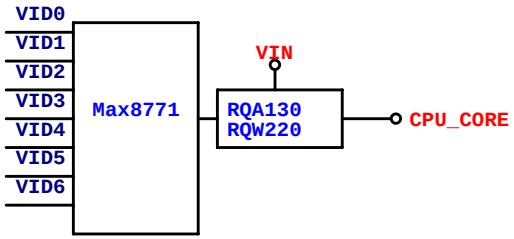
UNIWILL COMPUTER CORP.		
Title: P75/55IMx		
Size	Document Number: INDEX	Rev: C
	3581	
Date: Tuesday, March 13, 2007	Sheet 1 of 37	

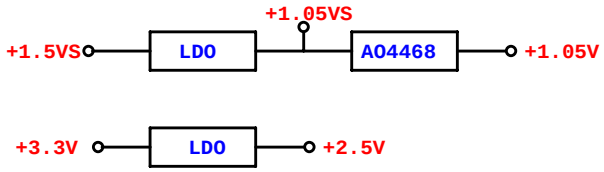
P75/55IMx
SYSTEM BLOCK DIAGRAM

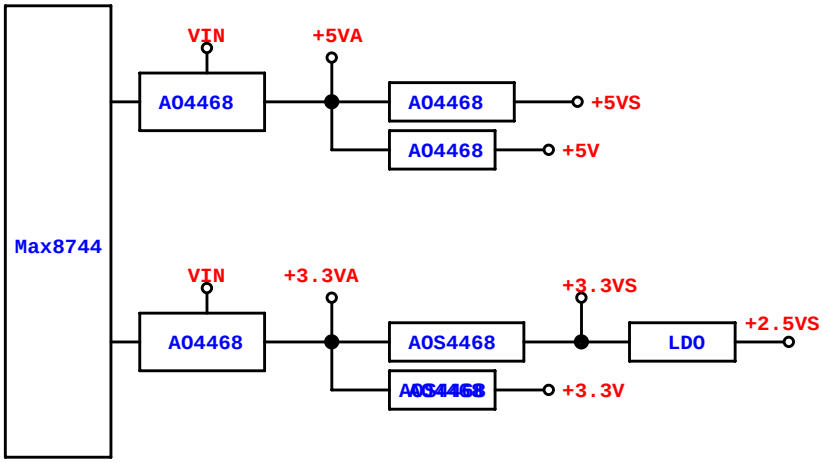


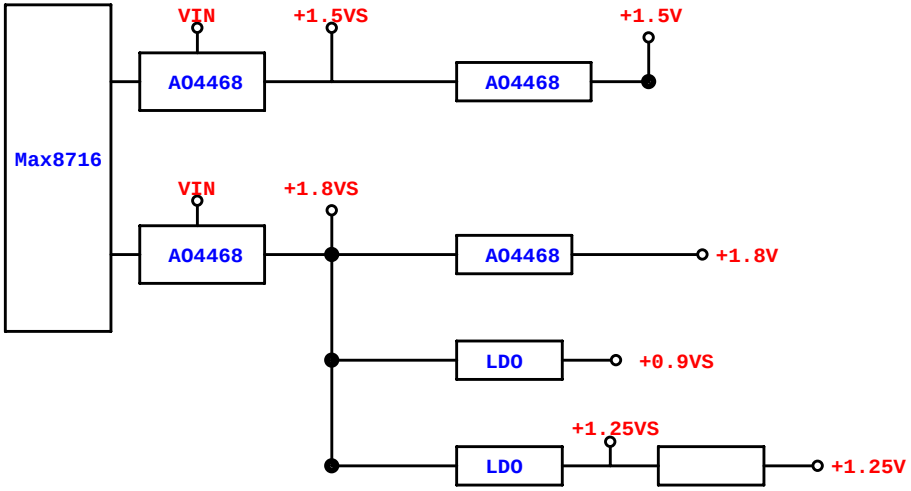
UNIWILL COMPUTER CORP.		
Title: P75/55IMx		
Size	Document Number: SYSTEM BLOCK DIAGRAM	Rev: C
Date: Tuesday, March 13, 2007	Sheet 2 of 37	

POWER BLOCK DIAGRAM

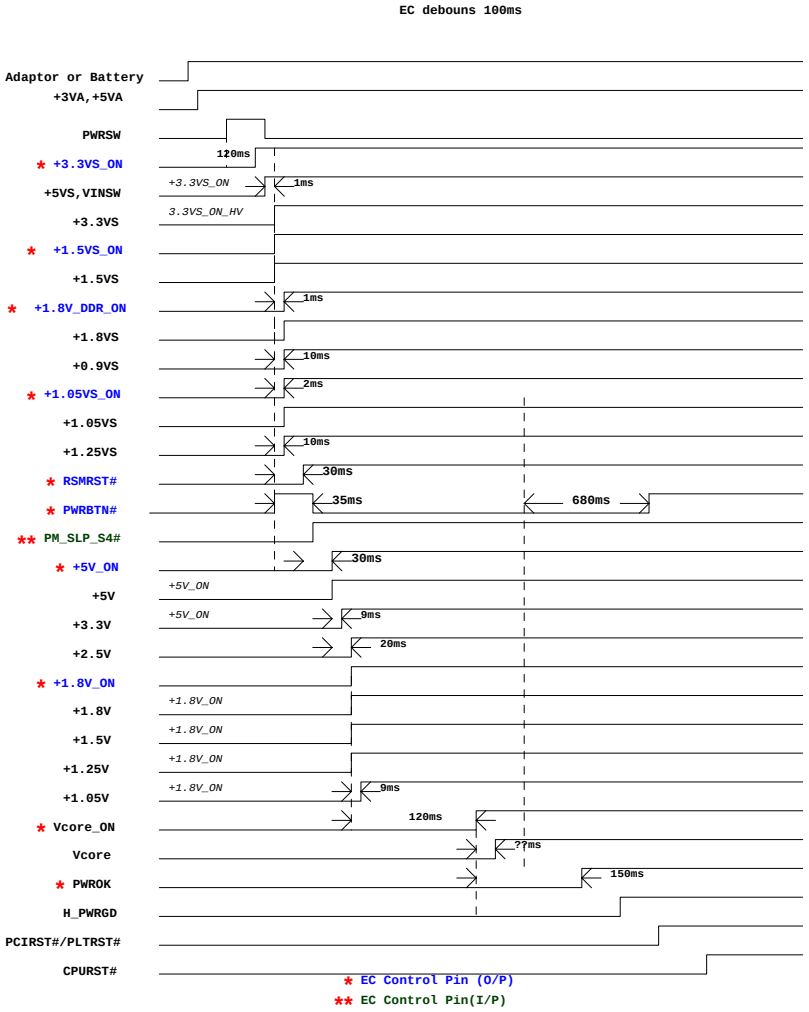








Poewr On Sequence



UNIWILL COMPUTER CORP.		
Title: P75/55IMx		
Size: Custom	Document Number: 3581 POWER DIAGRAM	Rev: C
Date: Tuesday, March 13, 2007	Sheet 3 of 37	

ICH8-M GPIO

GPIO0	PM_BM_BUSY#
GPIO1	EC_EXTSMI#
GPIO2	INT_PIRQE#
GPIO3	INT_PIRQF#
GPIO4	INT_PIRQG#
GPIO5	INT_PIRQH#
GPIO6	BIOS_REC
GPIO7	***N.C***(TACH3)
GPIO8	***N.C***
GPIO9	***N.C***(WOL_EN)
GPIO10	***N.C***(ALERT#)
GPIO11	SMB_ALERT#
GPIO12	LAN_PHYPC
GPIO13	***N.C***(GLAN_DOCK#)
GPIO14	***N.C***(NETDETECT)
GPIO15	PM_STPPCI#
GPIO17	***N.C***(TACH0)
GPIO18	***N.C***
GPIO19	SATA1GP
GPIO21	SATA0GP
GPIO22	***N.C***(SCLOCK)
GPIO23	LDRQ1#
GPIO24	CRB_SV_DET
GPIO25	PM_STPCPU#
GPIO26	PM_SLP_S4_STATE#
GPIO27	QRT_STATE0
GPIO28	QRT_STATE1
GPIO29	USB_OC#5
GPIO30	USB_OC#6
GPIO31	USB_OC#7
GPIO32	PM_CLKRUN#
GPIO33	HDA_DOCK_EN
GPIO34	***N.C***(HDA_DOCK_RST)
GPIO35	CLK_SATA_OE#
GPIO36	SATA2GP
GPIO37	SATA3GP
GPIO38	ODD_DET
GPIO39	ICH_GPIO39
GPIO40	USB_OC#1
GPIO41	USB_OC#2
GPIO42	USB_OC#3
GPIO43	USB_OC#4
GPIO48	MFG_MODE
GPIO49	H_PWRGD
GPIO50	PCI_REQ#1
GPIO51	PCI_GNT#1
GPIO52	PCI_REQ#2
GPIO53	PCI_GNT#2
GPIO54	PCI_REQ#3
GPIO55	PCI_GNT#3

ITE8512E GPIO

GPA0	PM_RSMRST#
GPA1	SUSPEND_LED
GPA2	SILENT_LED
GPA3	RF_LED
GPA4	CAPS_LED
GPA5	NUM_LED
GPA6	SCROLL/3G_LED
GPA7	EXTTS#0
GPB0	PM_SLP_S4#
GPB1	PM_SLP_S3#
GPB2	CMI_TX
GPB3	SMB_CLK0
GPB4	SMB_DAT0
GPB5	H_A20GATE
GPB6	H_RCIN#
GPB7	QRT_STATE
GPC0	CMI_RX
GPC1	SMB_CLK1
GPC2	SMB_DAT1
GPC3	KEY_OUT16
GPC4	RF_SW#
GPC5	KEY_OUT17
GPC6	BTL_BEEP
GPC7	SILENT#
GPD0	EC_PREST#
GPD1	PWRBTN#
GPD2	MUTE
GPD3	EC_EXTSMI#
GPD4	***N.C***
GPD5	SMP1_EN#
GPD6	CHG_ON
GPD7	LCDSW
GPE0	PWRSW
GPE1	SET_V
GPE2	PWROK
GPE3	BT_ON
GPE4	LID#
GPE5	CPPE#
GPE6	FAN_SPD#
GPE7	PCI_RST#
GPF0	EC_CPU_200MHz
GPF1	***N.C***
GPF2	CHG_G_LED
GPF3	CHG_R_LED
GPF4	TP_CLK
GPF5	TP_DATA
GPF6	***N.C***
GPF7	***N.C***
GPG0	SB_RTCRST
GPG1	EC_WDOG OK
GPG2	FLFRAME#
GPG6	MPWORK
GPH0	+1.8V_ON
GPH1	+1.8V_DDR_ON
GPH2	VCORE_ON
GPH3	+3.3VS_ON
GPH4	+5V_ON
GPH5	+1.05VS_ON
GPH6	+1.5VS_ON

ITE8512E GPIO

GPI0	BATT_TEMP
GPI1	ADAPTOR_I
GPI2	ADAP_IN
GPI3	BAT_CHG_I
GPI4	BAT_I
GPI5	***CPU_PWR***
GPI6	DDR2_TEMP
GPI7	VGA_TEMP
GPJ0	EC_BRGHT
GPJ1	CHG_I
GPJ2	FAN_CTRL0
GPJ3	BROWSER#
GPJ4	MAIL#
GPJ5	PM_THROTTING#

Merom CPU

	CPU CORE(V)	ICC(A)	W	TEMP(℃)
IMVP-6+	1.25	44.0	46.2	

Crestline

VCC	ICC(mA)	W	TEMP(℃)
+3.3V	320	1.056	105
+1.8VS	2860	5.148	
+1.5V	76	0.114	
+1.25V	1100	1.375	
+1.05	4140	4.347	

ICH8-M

VCC	ICC(mA)	mW	TEMP(℃)
+5V	2	10	70
+5VS	1	5	
+3.3V	556	1834.8	
+3.3VS	159	524.7	
+1.5V	2400	3600	
+1.25V	50	62.5	
+1.05V	1131	1187.55	

ITE8512E

VCC	ICC(mA)	mW	TEMP(℃)
+3.3V	100	330	70

CLOCK GENERATOR

VCC	ICC(mA)	mW	TEMP(℃)
+3.3V	270	891	70

AD1986A

VCC	ICC(mA)	mW	TEMP(℃)
+3.3V(DVDD)	52	171.6	70
+5V(AVDD)	73	365	

APA2068

VCC	ICC(mA)	mW	TEMP(℃)
+5V	20	100	85

ADM1032

VCC	ICC	mW	TEMP(℃)
+3.3V	170uA	0.56	150

OZ129B

VCC	ICC(mA)	mW	TEMP(℃)
+3.3V	50	165	70
+1.8V	50	90	

RTL8111B

VCC	ICC(mA)	mW	TEMP(℃)
+3.3VS	103	339.9	70
+1.8VS	198	356.4	
+1.5VS	367	550.5	

Sil3531

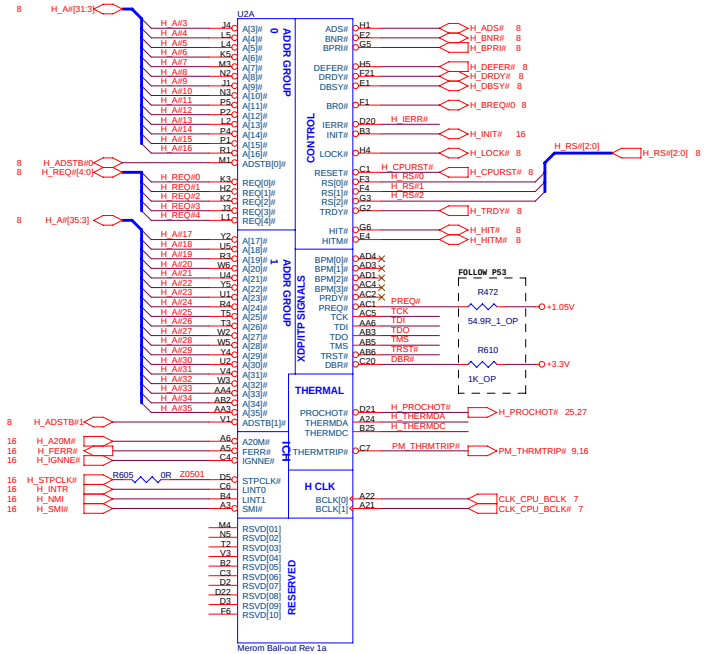
VCC	ICC(mA)	mW	TEMP(℃)
+3.3V	TBD		70
+1.8V	TBD		

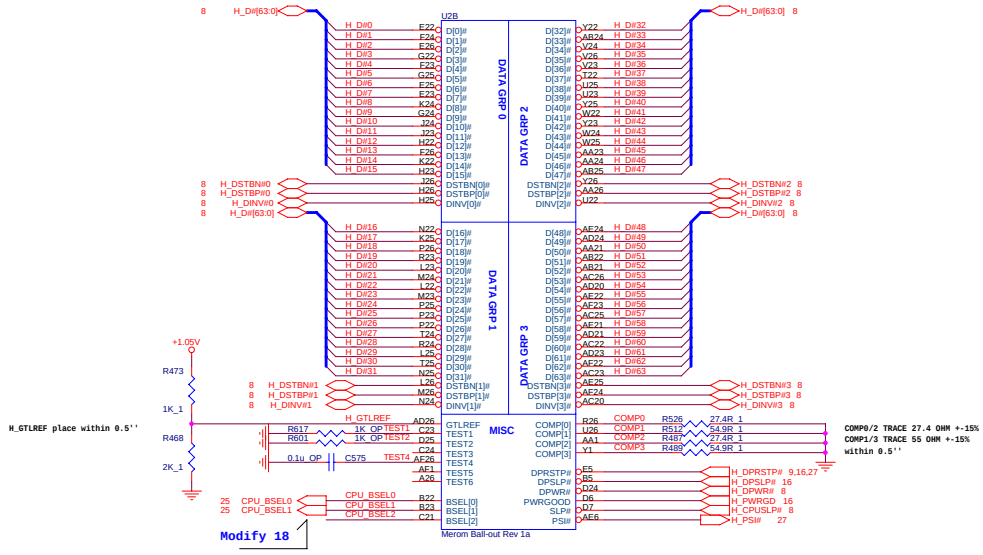
UNIWILL COMPUTER CORP.

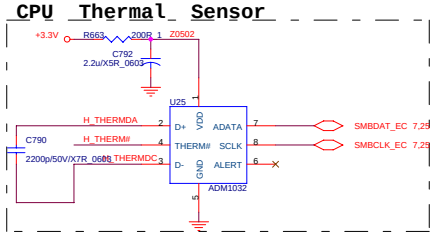
Title: P75/55IMx

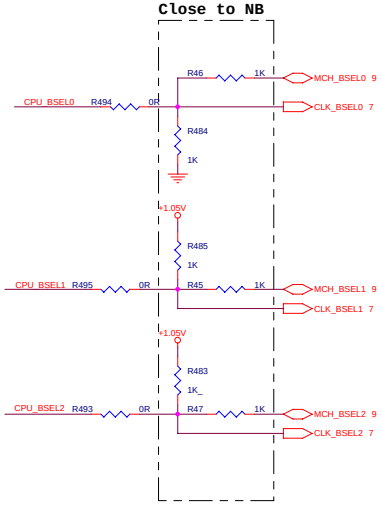
Size: Custom | Document Number: 3581 GPIO & POWER CONSU | Rev: C

Date: Tuesday, March 13, 2007 | Sheet 4 of 37

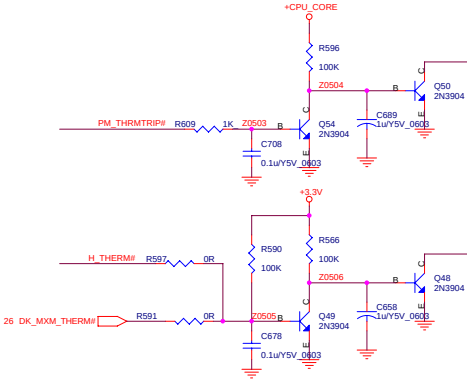


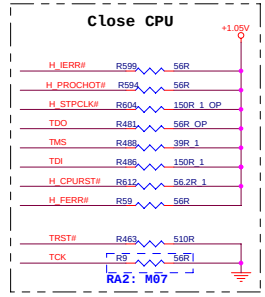






	BSEL2	BSEL1	BSEL0	MHZ
FSB800	0	1	0	200
FSB667	0	1	1	166
FSB533	0	0	1	133



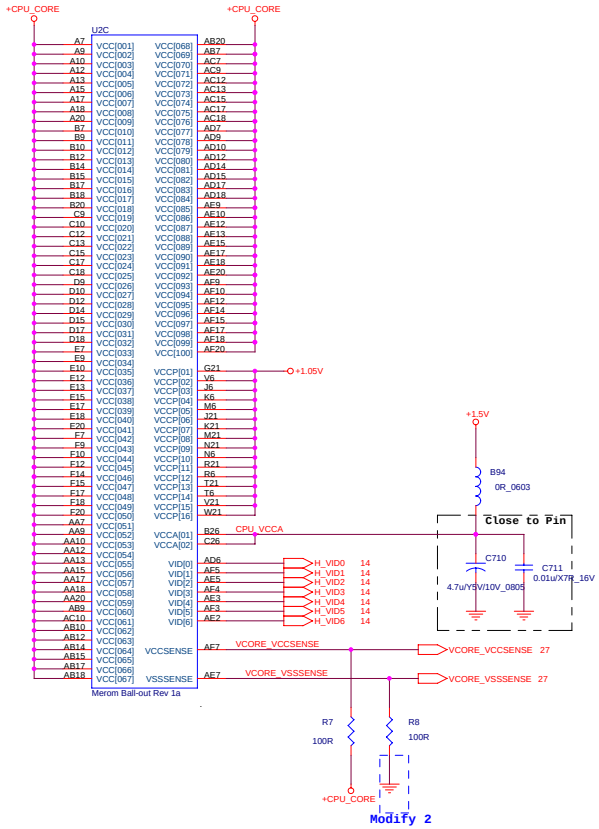


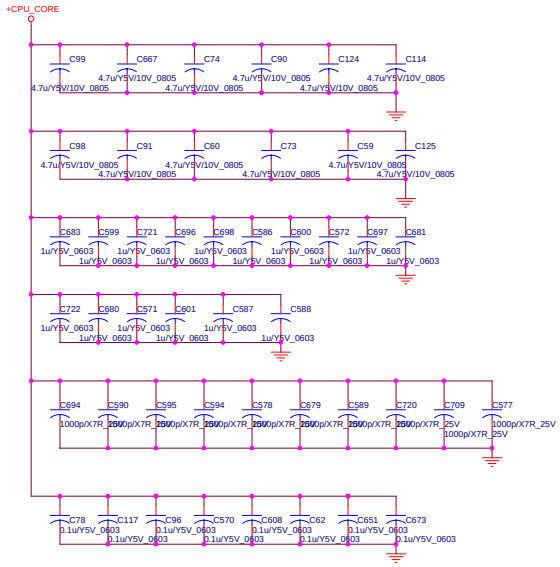
UNIWILL COMPUTER CORP.

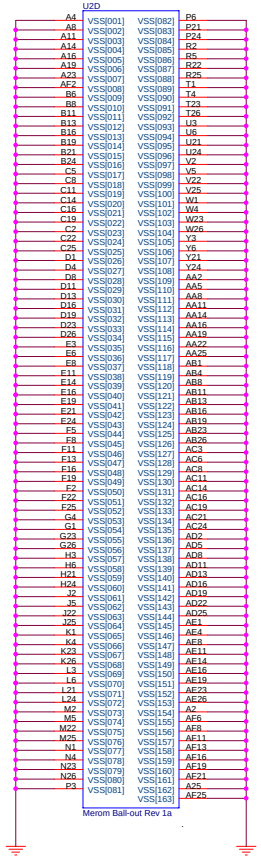
Title: P75/55IMx

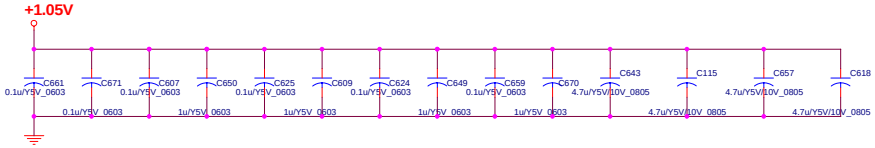
Size	Document Number	Rev
	CPU Merom-1/2	C
	3581	

Date: Tuesday, March 13, 2007 Sheet 5 of 37









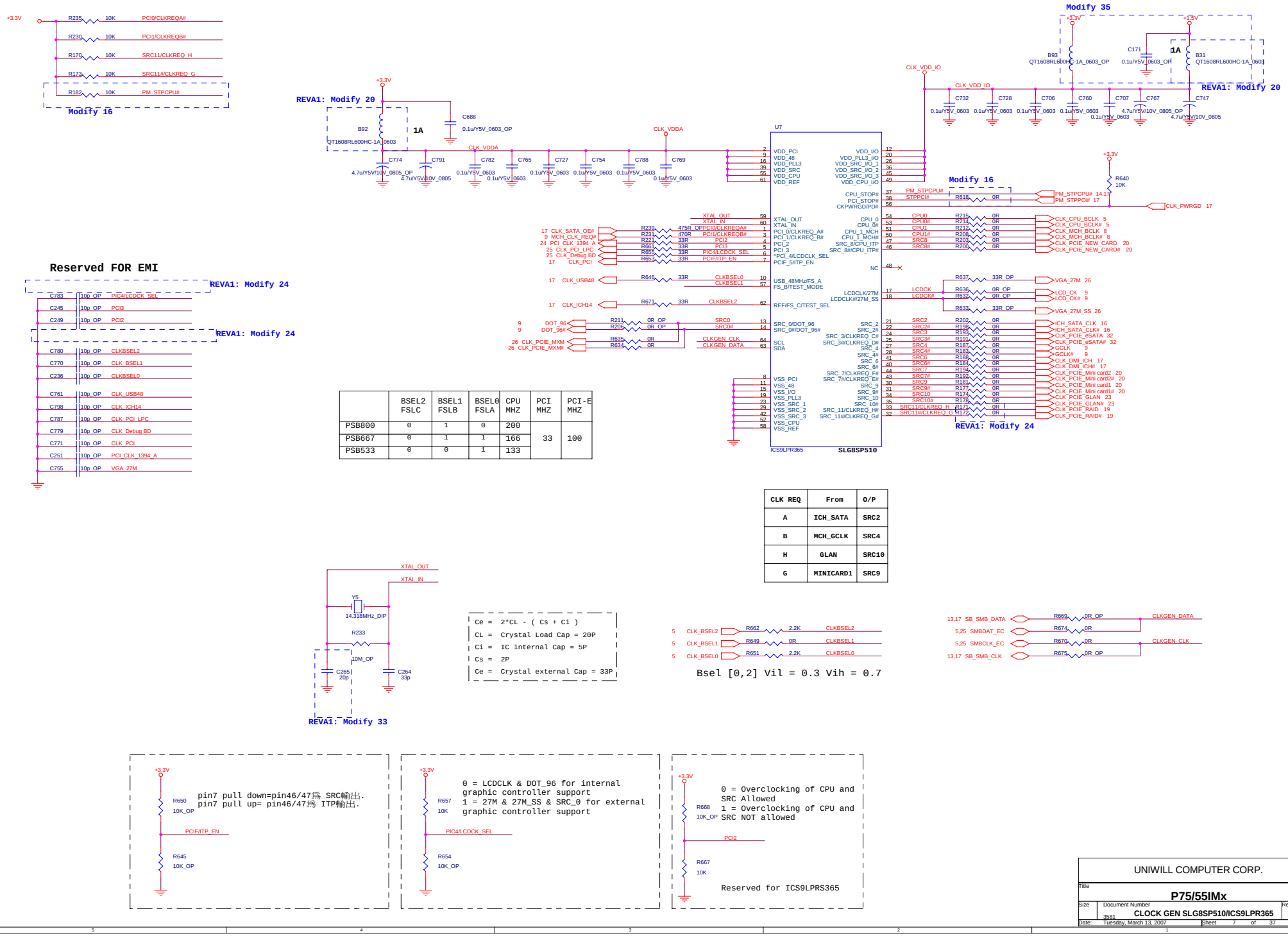
QT1608GRL600 = 200mA
QT1608RL120 = 200mA
QT1608RL600 = 200 mA
QT1608RL030 = 500mA
QT1608RL060 = 500mA

UNIWILL COMPUTER CORP.

Title: **P75/55IMx**

Size	Document Number	Rev
	CPU Merom-2/2	C
	3581	

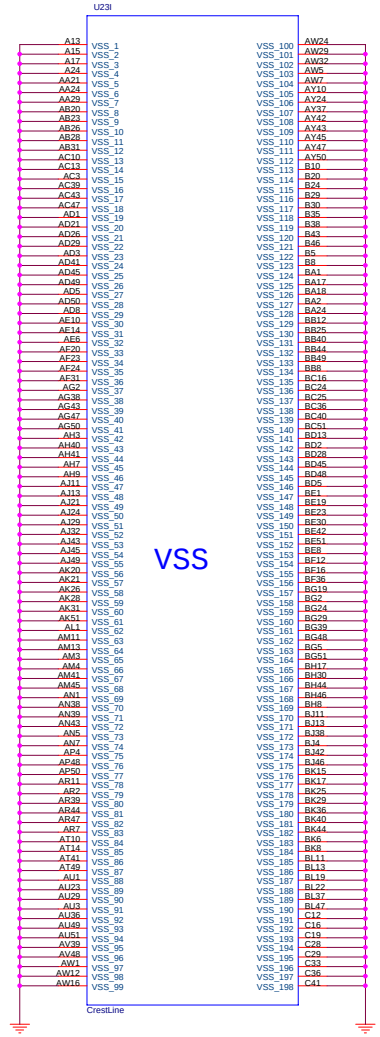
Date: Tuesday, March 13, 2007 Sheet 6 of 37



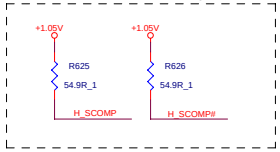
	BSEL2 FSLC	BSEL1 FSLB	BSEL0 FSLA	CPU MHZ	PCI MHZ	PCI-E MHZ
PSB800	0	1	0	200	33	100
PSB667	0	1	1	166		
PSB533	0	0	1	133		

CLK REQ	From	O/P
A	ICH_SATA	SRC2
B	MCH_GCLK	SRC4
H	GLAN	SRC10
G	MINICARD1	SRC9

Title	UNIWILL COMPUTER CORP.	
	P75/55IMx	
Size	Document Number: CLOCK GEN SLG8SP510/ICS9LPR365	Rev: C
	3581	
Date: Tuesday, March 13, 2007	Sheet 7 of 37	

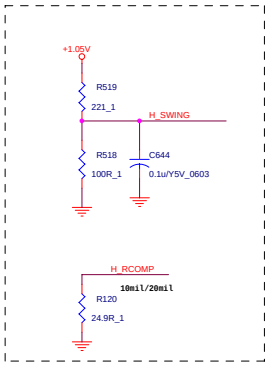


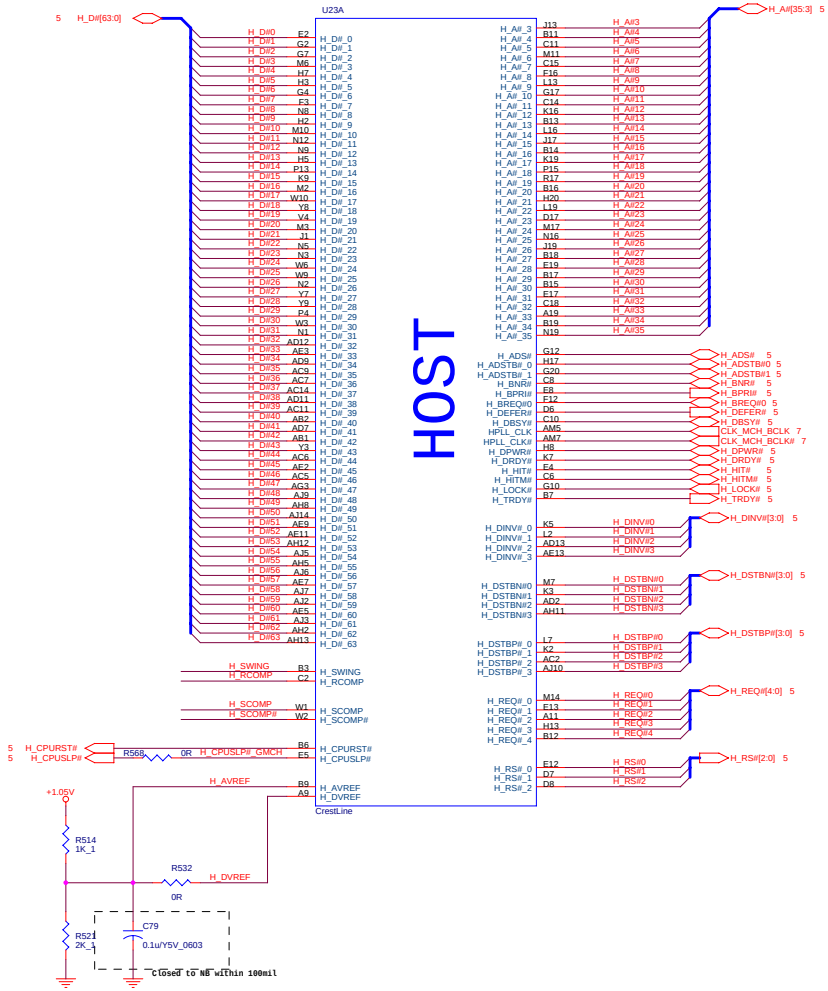
FSB I/O slew rate compensation



WHY????

Reference Voltage for RCOMP





UNIWILL COMPUTER CORP.	
Title	P75/55IMx
Size	Document Number: NB_PM965-1/5 — Rev: C
Date: Tuesday, March 13, 2007	Sheet 8 of 37
3581	

GCLK => PCI-E & DMI (100MHZ)
DREFCLK => Dispaly PLLA (nun- ss 96MHZ)
DRESSFCLK => Display LVDS PLLB (ss 100MHZ)

CFG0	CFG1	CFG2	Host Clock Frequency
0	1	0	800
1	1	0	667

U23B

RSVD MUXING

DDR

CLK

DMI

CFG

PM

GRAPHICS VID

ME

MISC

NC

GHCH integrated graphics busy

Checking

CLK_REQ:Asserted to control the raw PCI-E clock

SDVODATA has internal pull down
0= no DVO device
1= DVO device present

SDVOCLK has internal pull down .

RB1: M04

Colse to NB

Reserve for NB THRMTRIP# (O/D Vccp)

Checking

Mount for UMA

U23C

LVDS

TV

VGA

PCI-EXPRESS GRAPHICS

Modify 5

CrestLine

CFG20 (IPD) => 1= Only SDVO or PCI-E
0 = SDVO and PCI-E

CFG7 (IPU) => 1= Mobility CPU
0 = Reverse

RA2: M08

should be tied to GND

For MEN bus throttling

Check with S/W

REVA1: Modify 04

Those should be tied to GND

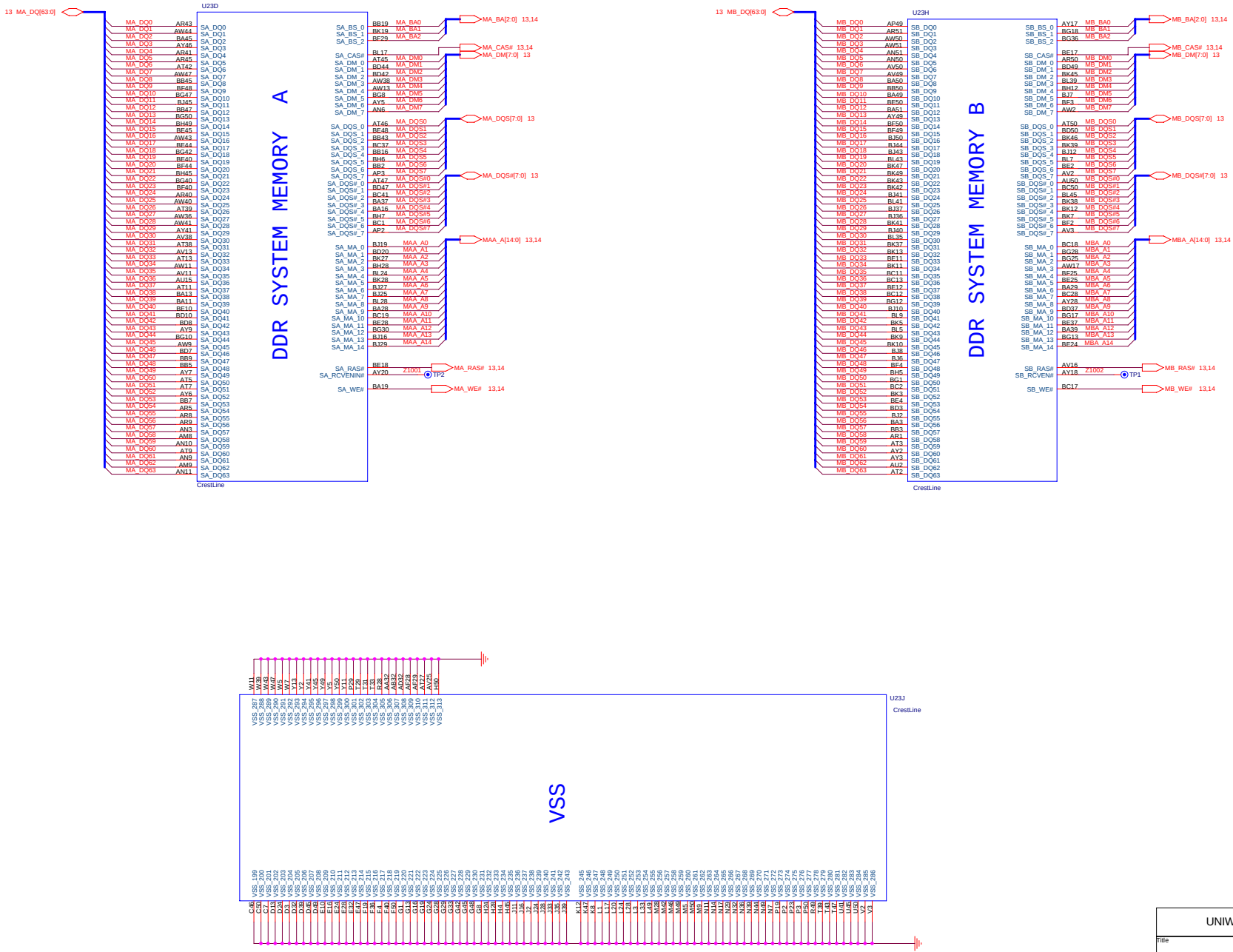
UNIWILL COMPUTER CORP.

Title: P75/55IMx

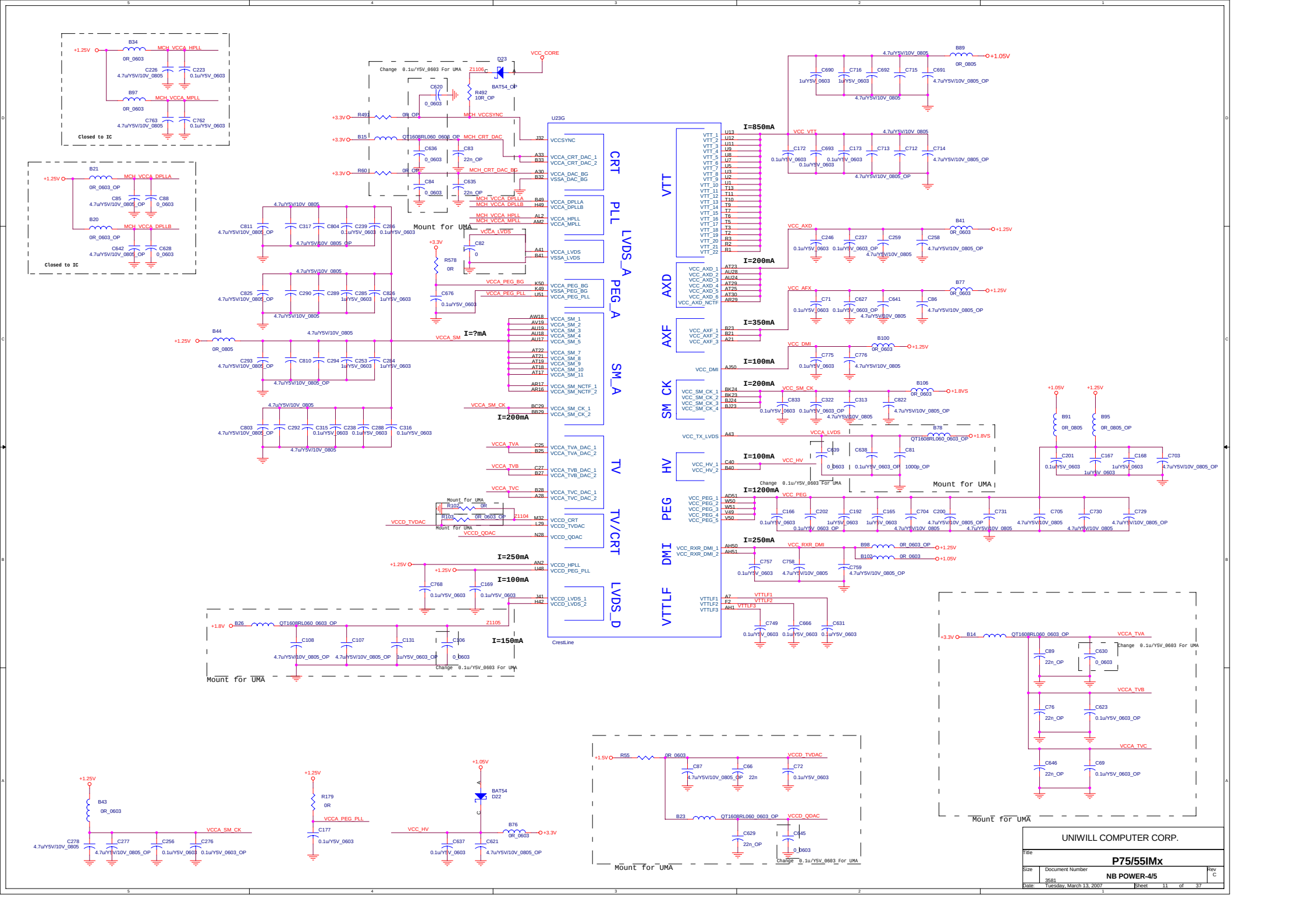
Size: | Document Number: NB NB DDRCLK_VGA_PCIEXPR-2/5 | Rev: C

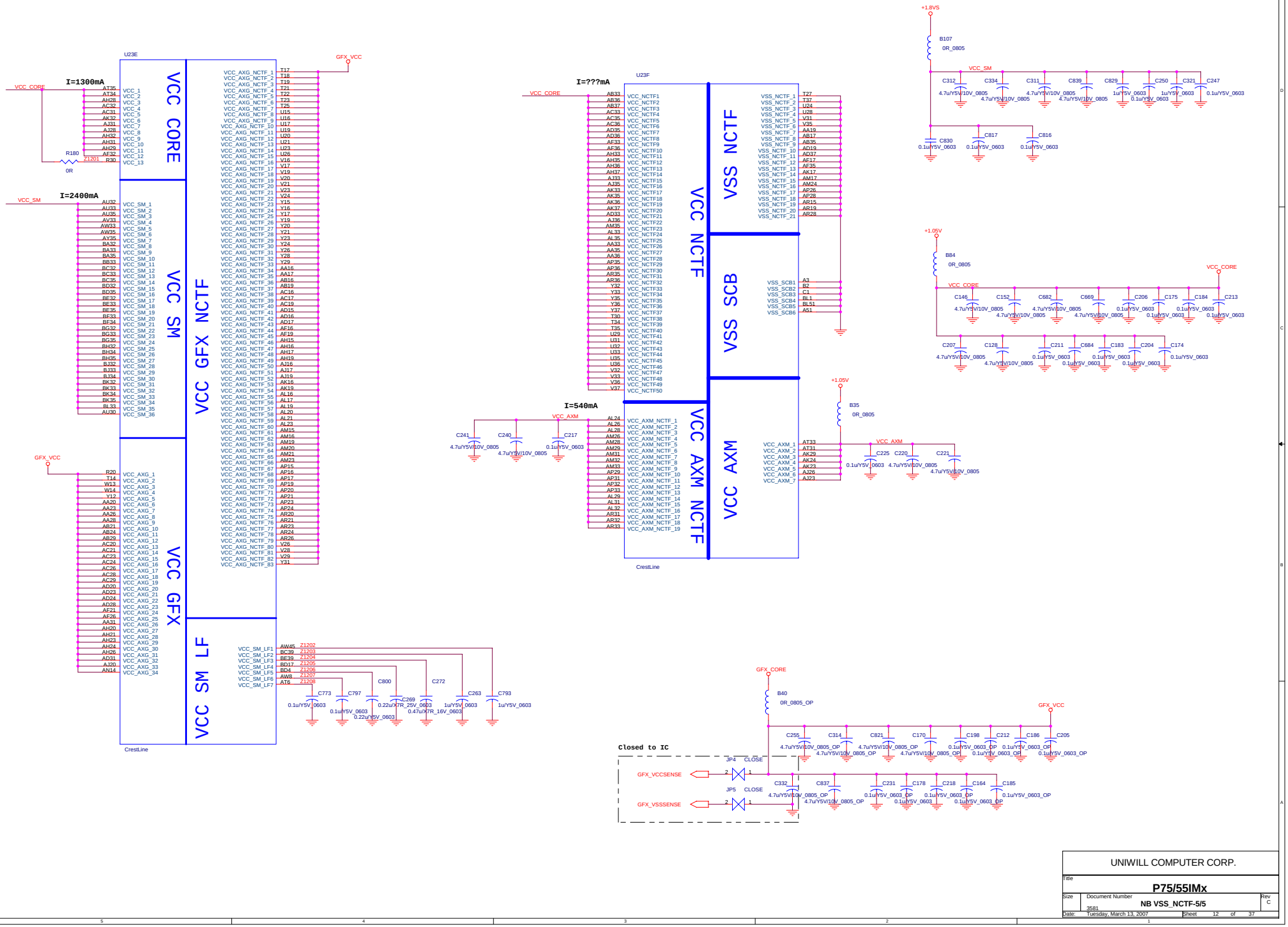
3581

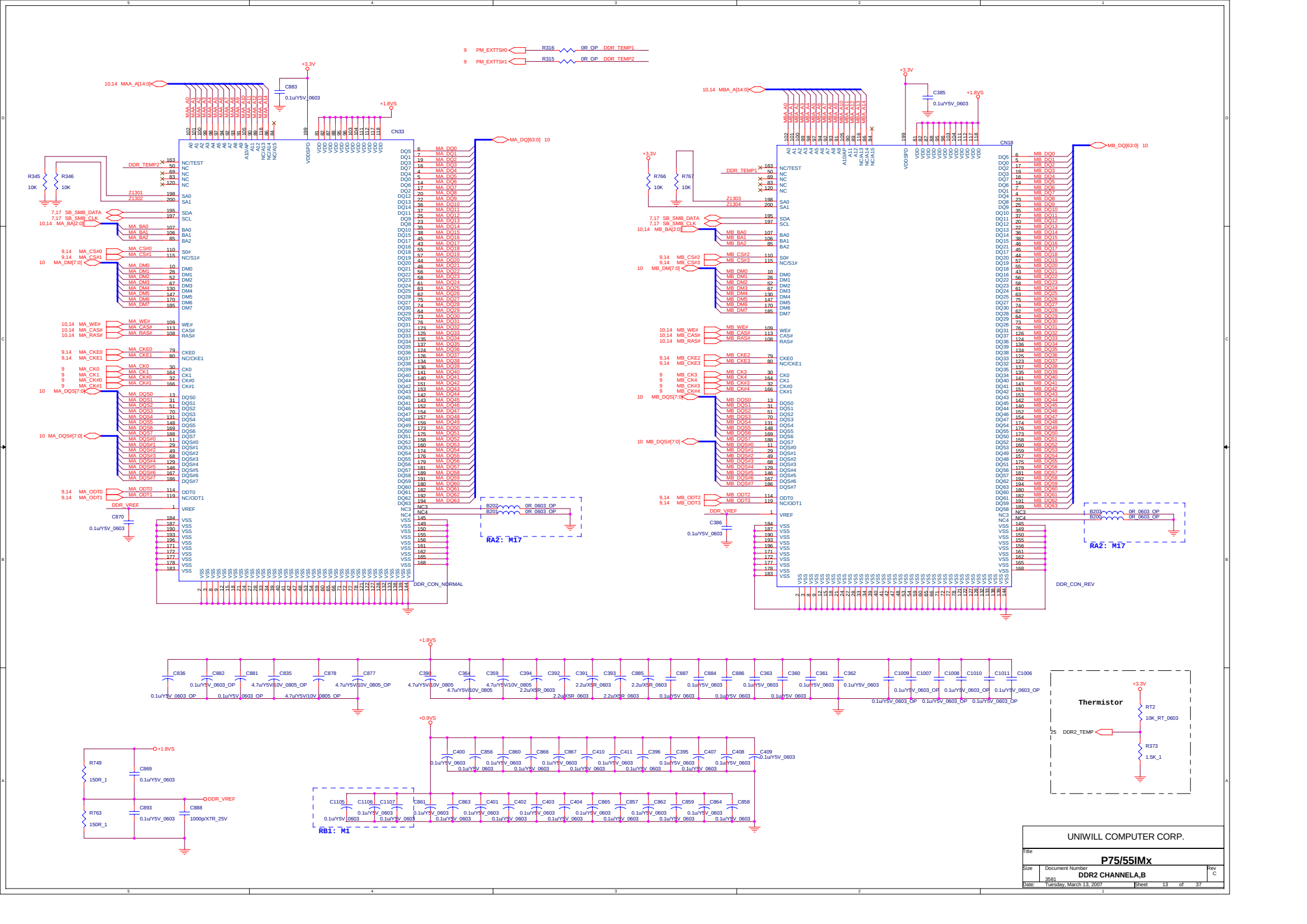
Date: Tuesday, March 13, 2007 | Sheet 9 of 37



UNIWILL COMPUTER CORP.	
Title	P75/55IMx
Size	Document Number: NB DDR_MEM SYSTEM-3/5
Rev	C
Date: Tuesday, March 13, 2007	Sheet 10 of 37
3581	

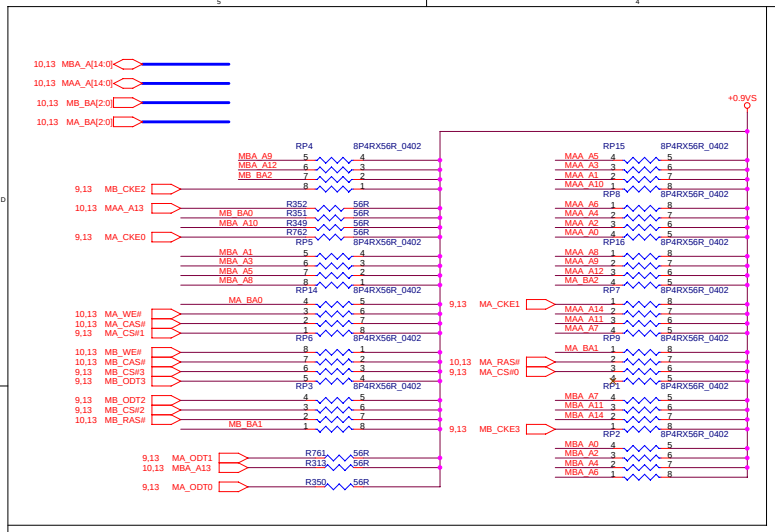

CRT
PLL
LVDS_A
PEG_A
SM_A
TV
TV/CRT
LVDS_D
VTT
AXD
AXF
SM_CK
HV
PEG
DMI
VTTLF
U23G
CrestLine
VCC_CORE
I=850mA
I=200mA
I=350mA
I=100mA
I=200mA
I=?mA
I=200mA
I=100mA
I=1200mA
I=250mA
I=250mA
I=100mA
I=150mA
Mount for UMA
Mount for UMA
Mount for UMA
Mount for UMA
Mount for UMA
Closed to IC
Closed to IC
UNIWILL COMPUTER CORP.
P75/55IMx
NB POWER-4/5
3581
Tuesday, March 13, 2007
Sheet 11 of 37

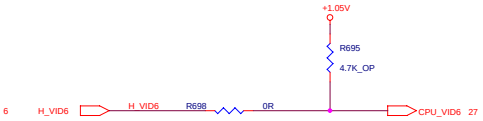

U23E
VCC_CORE
I=1300mA
VCC_SM
I=2400mA
GFX_VCC
R180
0R
Z1201
VCC CORE
VCC SM
VCC GFX NCTF
VCC GFX
VCC SM LF
CrestLine
U23F
I=???mA
I=540mA
VCC_AXM
VCC NCTF
VCC AXM NCTF
VSS NCTF
VSS SCB
+1.8VS
B107
0R_0805
+1.05V
B84
B35
B40
0R_0805_OP
GFX_CORE
Closed to IC
JP4 CLOSE
JP5 CLOSE
GFX_VCCSENSE
GFX_VSSSENSE
UNIWILL COMPUTER CORP.
P75/55IMx
NB VSS_NCTF-5/5
Tuesday, March 13, 2007
Sheet 12 of 37

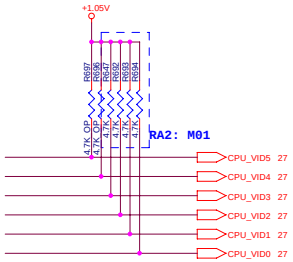

9 PM_EXTTS#0
R316 0R_OP_DDR_TEMP1
9 PM_EXTTS#1
R315 0R_OP_DDR_TEMP2
10,14 MAA_A[14:0]
+3.3V
C883 0.1u/Y5V_0603
+1.8VS
CN33
MA_DQ[63:0] 10
R345 10K
R346 10K
DDR_TEMP2
NC/TEST
SA0
SA1
7,17 SB_SMB_DATA
7,17 SB_SMB_CLK
SDA
SCL
10,14 MA_BA[2:0]
MA_BA0
MA_BA1
MA_BA2
BA0
BA1
BA2
9,14 MA_CS#0
9,14 MA_CS#1
10 MA_DM[7:0]
SI#
NC/S1#
MA_DM0
MA_DM1
MA_DM2
MA_DM3
MA_DM4
MA_DM5
MA_DM6
MA_DM7
DM0
DM1
DM2
DM3
DM4
DM5
DM6
DM7
10,14 MA_WE#
10,14 MA_CAS#
10,14 MA_RAS#
WE#
CAS#
RAS#
9,14 MA_CKE0
9,14 MA_CKE1
CKE0
NC/CKE1
9 MA_CK0
9 MA_CK1
9 MA_CK#0
9 MA_CK#1
CK0
CK1
CK#0
CK#1
10 MA_DQS[7:0]
MA_DQS0
MA_DQS1
MA_DQS2
MA_DQS3
MA_DQS4
MA_DQS5
MA_DQS6
MA_DQS7
DQS0
DQS1
DQS2
DQS3
DQS4
DQS5
DQS6
DQS7
10 MA_DQS#[7:0]
MA_DQS#0
MA_DQS#1
MA_DQS#2
MA_DQS#3
MA_DQS#4
MA_DQS#5
MA_DQS#6
MA_DQS#7
DQS#0
DQS#1
DQS#2
DQS#3
DQS#4
DQS#5
DQS#6
DQS#7
9,14 MA_ODT0
9,14 MA_ODT1
ODT0
NC/ODT1
DDR_VREF
VREF
C870 0.1u/Y5V_0603
VSS
NC3
NC4
B202 0R_0603_OP
B201 0R_0603_OP
RA2: M17
DDR_CON_NORMAL
10,14 MBA_A[14:0]
+3.3V
C385 0.1u/Y5V_0603
+1.8VS
CN18
MB_DQ[63:0] 10
R766 10K
R767 10K
DDR_TEMP1
Z1303
Z1304
7,17 SB_SMB_DATA
7,17 SB_SMB_CLK
10,14 MB_BA[2:0]
MB_BA0
MB_BA1
MB_BA2
9,14 MB_CS#2
9,14 MB_CS#3
10 MB_DM[7:0]
MB_DM0
MB_DM1
MB_DM2
MB_DM3
MB_DM4
MB_DM5
MB_DM6
MB_DM7
10,14 MB_WE#
10,14 MB_CAS#
10,14 MB_RAS#
9,14 MB_CKE2
9,14 MB_CKE3
9 MB_CK3
9 MB_CK4
9 MB_CK#3
9 MB_CK#4
10 MB_DQS[7:0]
MB_DQS0
MB_DQS1
MB_DQS2
MB_DQS3
MB_DQS4
MB_DQS5
MB_DQS6
MB_DQS7
10 MB_DQS#[7:0]
MB_DQS#0
MB_DQS#1
MB_DQS#2
MB_DQS#3
MB_DQS#4
MB_DQS#5
MB_DQS#6
MB_DQS#7
9,14 MB_ODT2
9,14 MB_ODT3
DDR_VREF
C386 0.1u/Y5V_0603
B203 0R_0603_OP
B200 0R_0603_OP
RA2: M17
DDR_CON_REV
C836 0.1u/Y5V_0603_OP
C882 0.1u/Y5V_0603_OP
C881 4.7u/Y5V10V_0805_OP
C835 4.7u/Y5V10V_0805_OP
C878 4.7u/Y5V10V_0805_OP
C877
C390 4.7u/Y5V10V_0805
C364 4.7u/Y5V10V_0805
C359 4.7u/Y5V10V_0805
C394 2.2u/X5R_0603
C392 2.2u/X5R_0603
C391 2.2u/X5R_0603
C393 2.2u/X5R_0603
C885 2.2u/X5R_0603
C887 0.1u/Y5V_0603
C884 0.1u/Y5V_0603
C886 0.1u/Y5V_0603
C363 0.1u/Y5V_0603
C360 0.1u/Y5V_0603
C361 0.1u/Y5V_0603
C362 0.1u/Y5V_0603
C1009 0.1u/Y5V_0603_OP
C1007 0.1u/Y5V_0603_OP
C1008 0.1u/Y5V_0603_OP
C1010 0.1u/Y5V_0603_OP
C1011 0.1u/Y5V_0603_OP
C1006
+0.9VS
C400 0.1u/Y5V_0603
C856 0.1u/Y5V_0603
C860 0.1u/Y5V_0603
C866 0.1u/Y5V_0603
C867 0.1u/Y5V_0603
C410 0.1u/Y5V_0603
C411 0.1u/Y5V_0603
C396 0.1u/Y5V_0603
C395 0.1u/Y5V_0603
C407 0.1u/Y5V_0603
C408 0.1u/Y5V_0603
C409 0.1u/Y5V_0603
C1105 0.1u/Y5V_0603
C1106 0.1u/Y5V_0603
C1107 0.1u/Y5V_0603
C861 0.1u/Y5V_0603
C863 0.1u/Y5V_0603
C401 0.1u/Y5V_0603
C402 0.1u/Y5V_0603
C403 0.1u/Y5V_0603
C404 0.1u/Y5V_0603
C865 0.1u/Y5V_0603
C857 0.1u/Y5V_0603
C862 0.1u/Y5V_0603
C859 0.1u/Y5V_0603
C864 0.1u/Y5V_0603
C858
RB1: M1
+1.8VS
R749 150R_1
C869 0.1u/Y5V_0603
R763 150R_1
C893 0.1u/Y5V_0603
DDR_VREF
C888 1000p/X7R_25V
Thermistor
+3.3V
RT2 10K_RT_0603
25 DDR2_TEMP
R373 1.5K_1
UNIWILL COMPUTER CORP.
Title
P75/55IMx
Size
Document Number
DDR2 CHANNELA,B
Rev C
3581
Date: Tuesday, March 13, 2007
Sheet 13 of 37

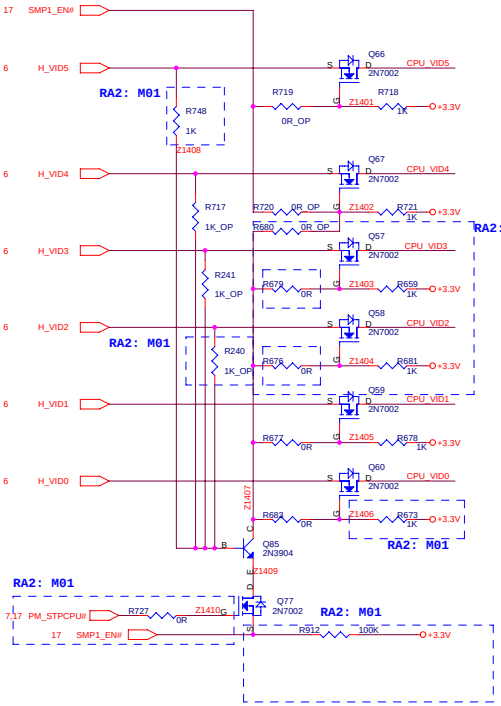
SMART POWER

VID6	VID5	VID4	VID3	VID2	VID1	VID0	VCORE	+_mV
0	0	0	0	0	0	0	1.5000	-0mV
0	0	0	0	0	0	1	1.4875	-2.5mV
0	0	0	0	0	1	0	1.4750	-5mV
0	0	0	0	1	0	0	1.4500	-50mV
0	0	0	1	0	0	0	1.4000	-100mV
0	0	1	0	0	0	0	1.3000	-200mV
0	1	0	0	0	0	0	1.1000	-400mV
1	0	0	0	0	0	0	0.7000	-800mV
0	0	1	1	0	1	1	1.1625	
0	0	1	0	0	0	1		
0	0	1	0	0	1	0		
0	0	0	1	0	1	0		
0	0	0	1	0	0	1		
0	0	1	1	0	0	1		
0	0	1	1	0	1	0		

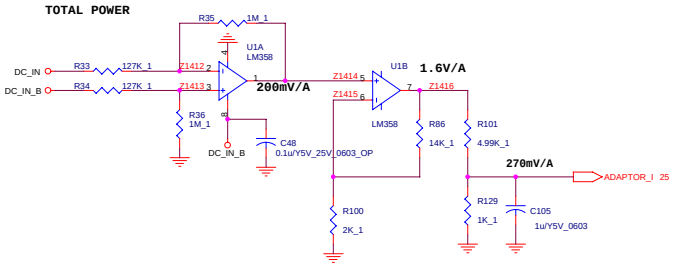


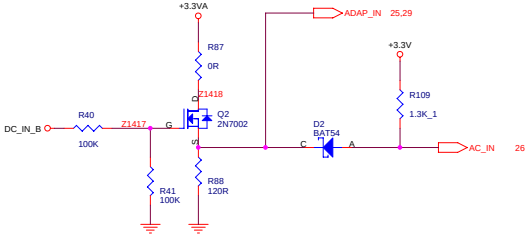




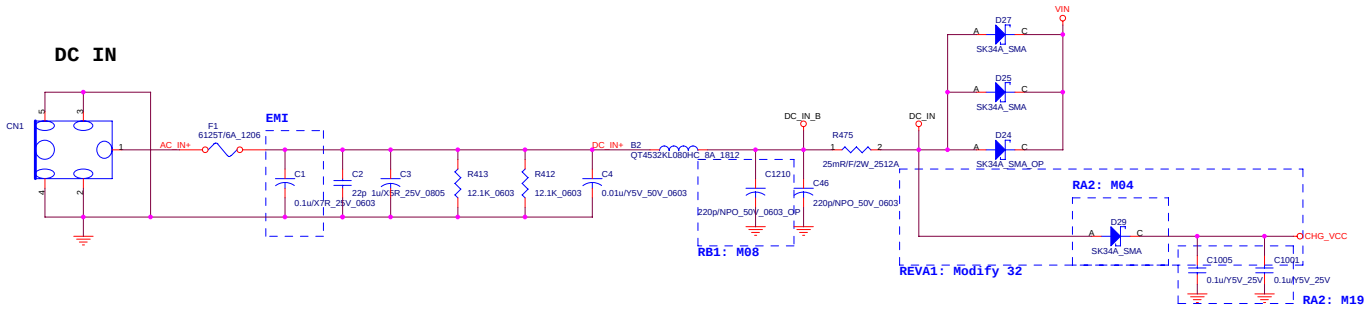


TOTAL POWER





DC IN

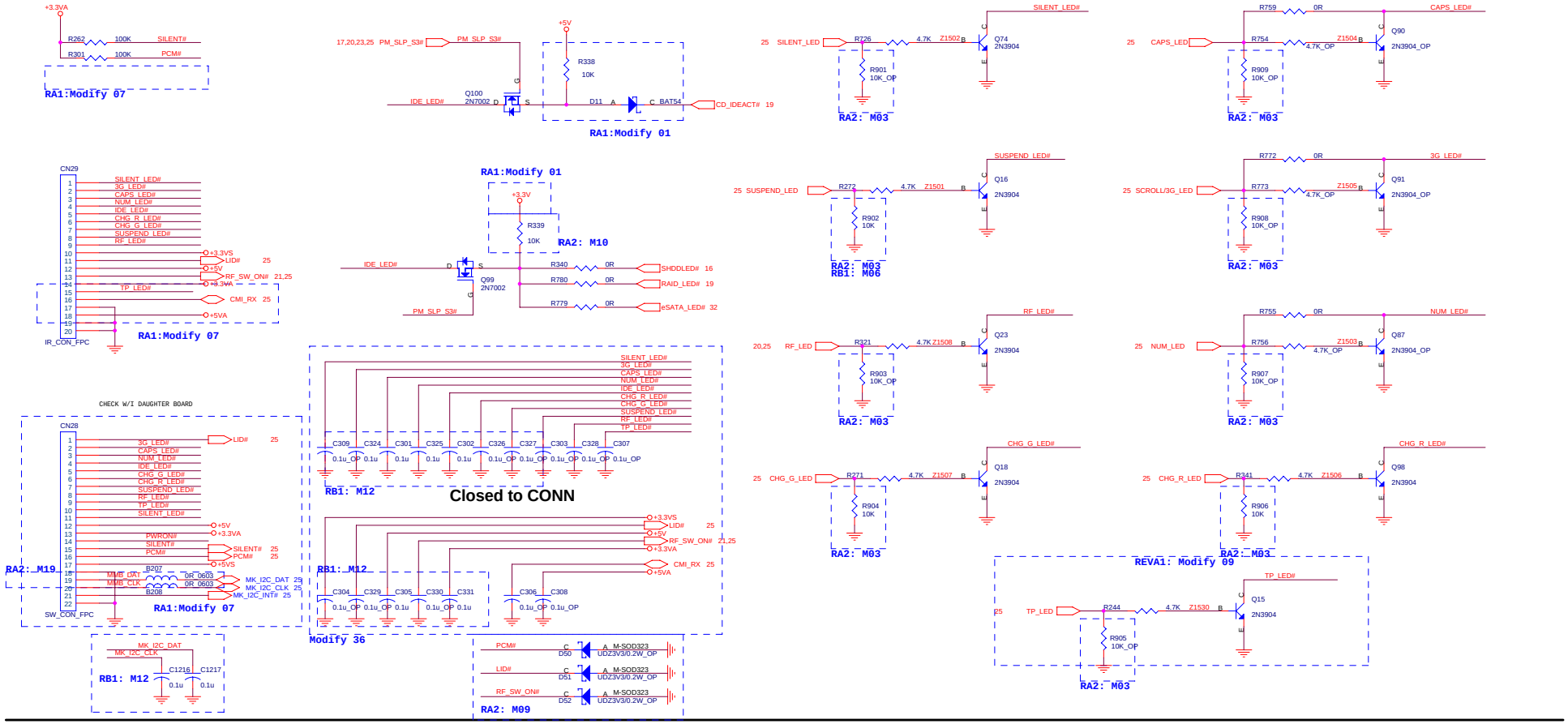


UNIWILL COMPUTER CORP.

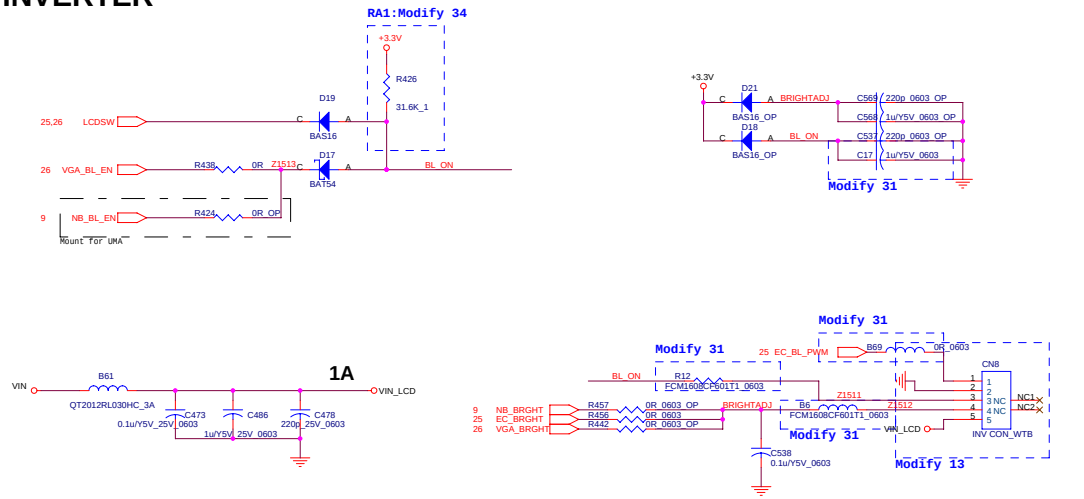
Title: P75/55IMx

Size: 3581 | Document Number: Termination / Smart Power/DC IN | Rev: C

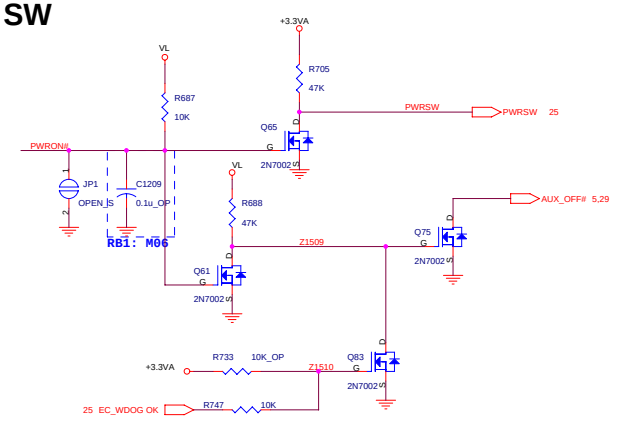
Date: Tuesday, March 13, 2007 | Sheet 14 of 37



INVERTER



PWR SW

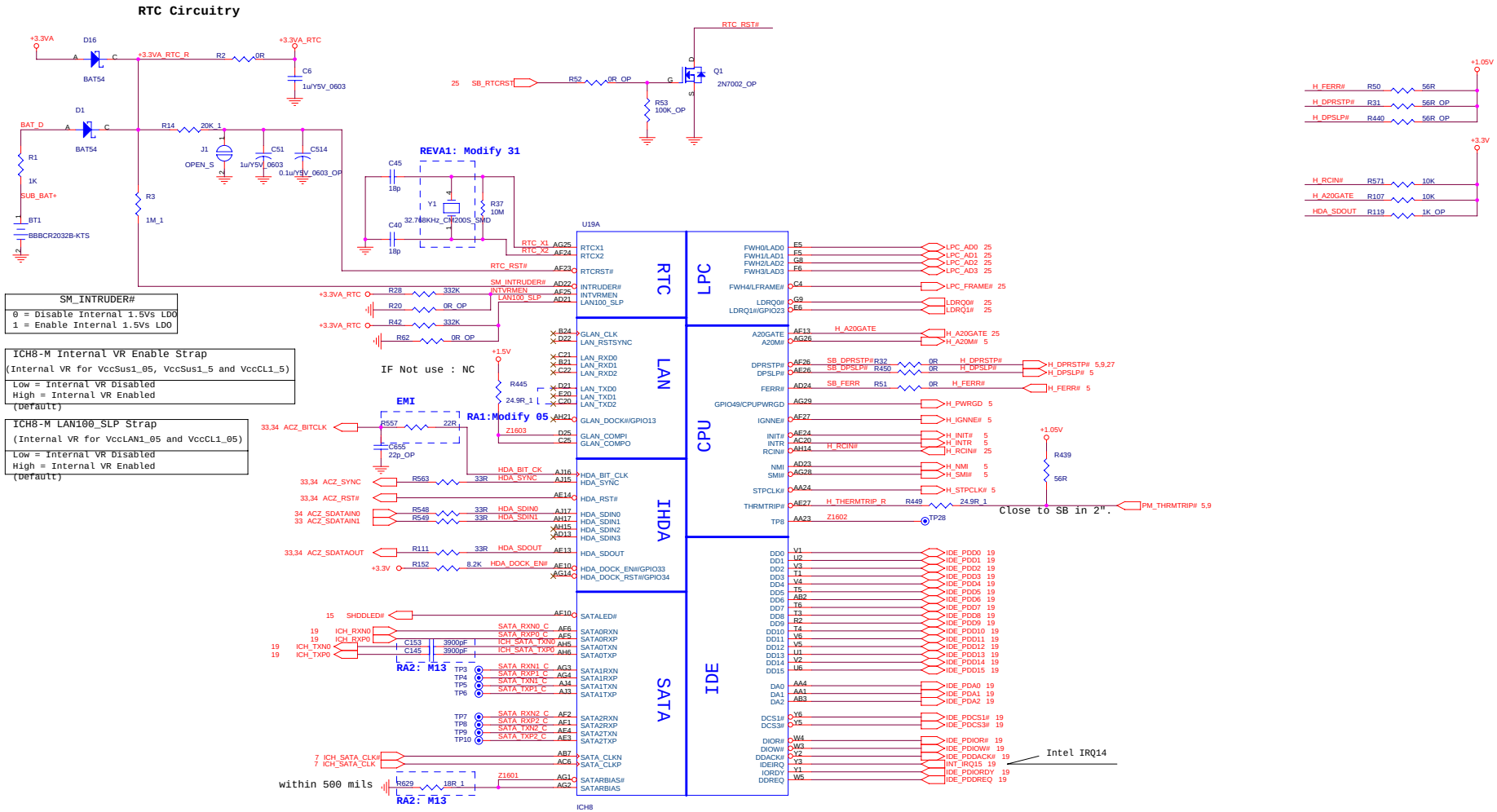


UNIWILL COMPUTER CORP.

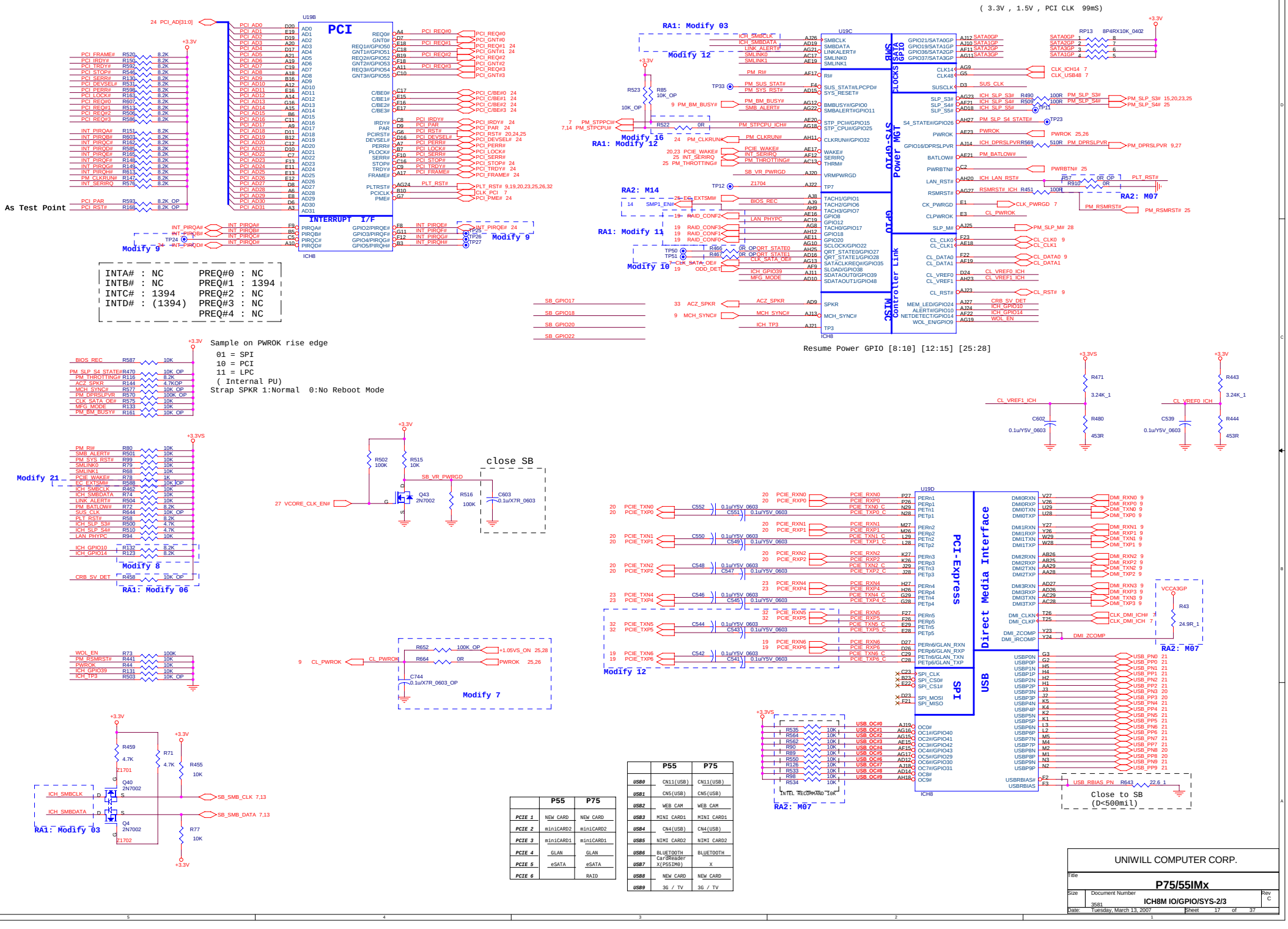
Title: P75/55IMx

Size: 3581 | Document Number: PWR SW & LED CONN&INVERTER | Rev: C

Date: Tuesday, March 13, 2007 | Sheet 15 of 37


RTC Circuitry
REVA1: Modify 31
RA1:Modify 05
RA2: M13
RA2: M13
EMI
IF Not use : NC
within 500 mils
Close to SB in 2".
Intel IRQ14
SM_INTRUDER#
0 = Disable Internal 1.5Vs LDO
1 = Enable Internal 1.5Vs LDO
ICH8-M Internal VR Enable Strap
(Internal VR for VccSus1_05, VccSus1_5 and VccCL1_5)
Low = Internal VR Disabled
High = Internal VR Enabled
(Default)
ICH8-M LAN100_SLP Strap
(Internal VR for VccLAN1_05 and VccCL1_05)
Low = Internal VR Disabled
High = Internal VR Enabled
(Default)
RTC
LAN
IHDA
SATA
LPC
CPU
IDE
ICH8
U19A
UNIWILL COMPUTER CORP.
P75/55IMx
SB ICH8M SATA/IDE/RTC - 1/3
3581
Tuesday, March 13, 2007
Sheet 16 of 37

(3.3V , 1.5V , PCI CLK 99mS)



	P55	P75
USB0	CN11(USB)	CN11(USB)
USB1	CN5(USB)	CN5(USB)
USB2	WEB CAM	WEB CAM
USB3	MINI CARD1	MINI CARD1
USB4	CN4(USB)	CN4(USB)
USB5	NIMI CARD2	NIMI CARD2
USB6	BLUETOOTH CardReader X(P55IM9)	BLUETOOTH X
USB7		
USB8	NEW CARD	NEW CARD
USB9	3G / TV	3G / TV

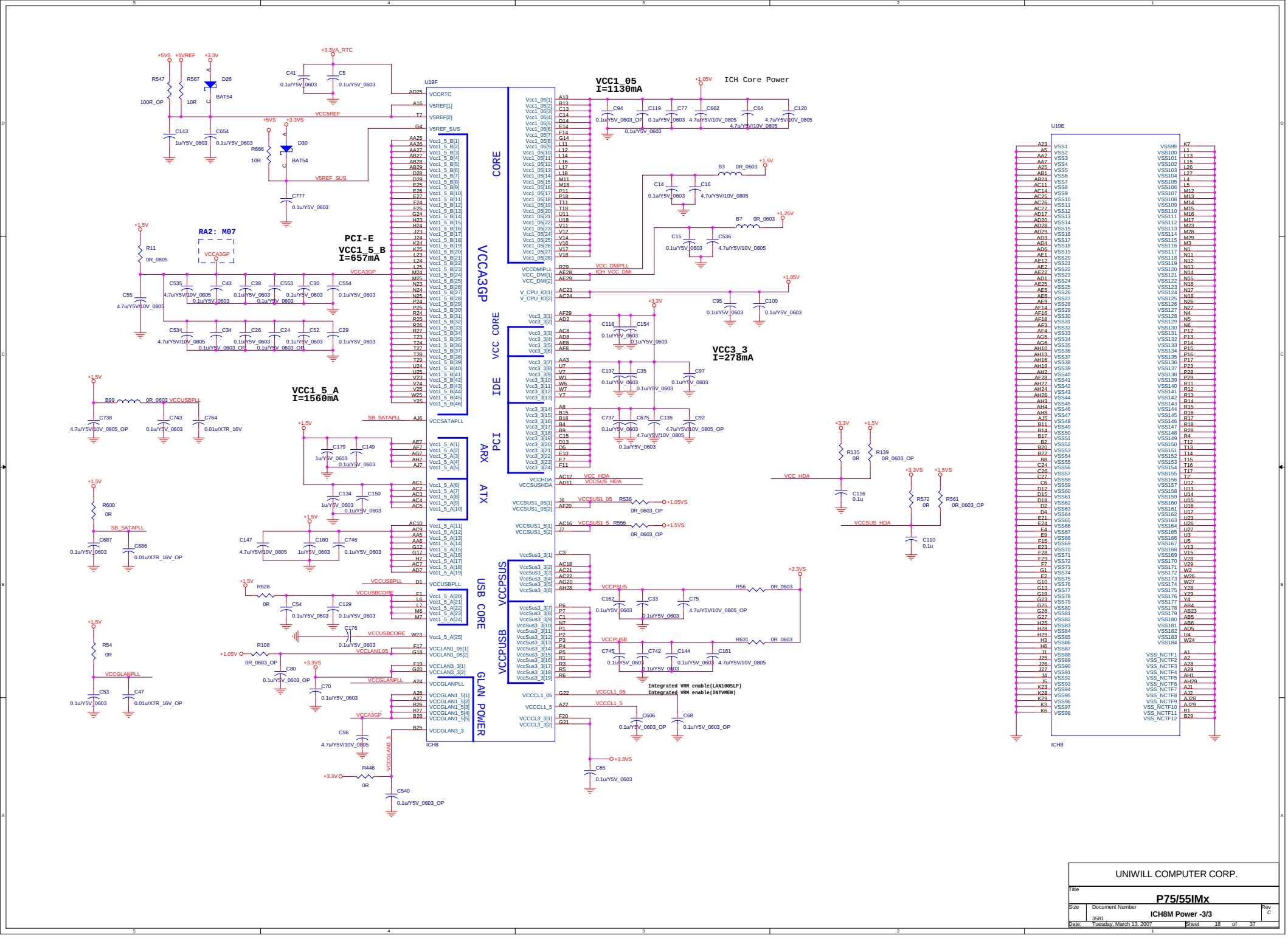
	P55	P75
PCIE 1	NEW CARD	NEW CARD
PCIE 2	miniCARD2	miniCARD2
PCIE 3	miniCARD1	miniCARD1
PCIE 4	GLAN	GLAN
PCIE 5	eSATA	eSATA
PCIE 6		RAID

UNIWILL COMPUTER CORP.

Title: P75/55IMx

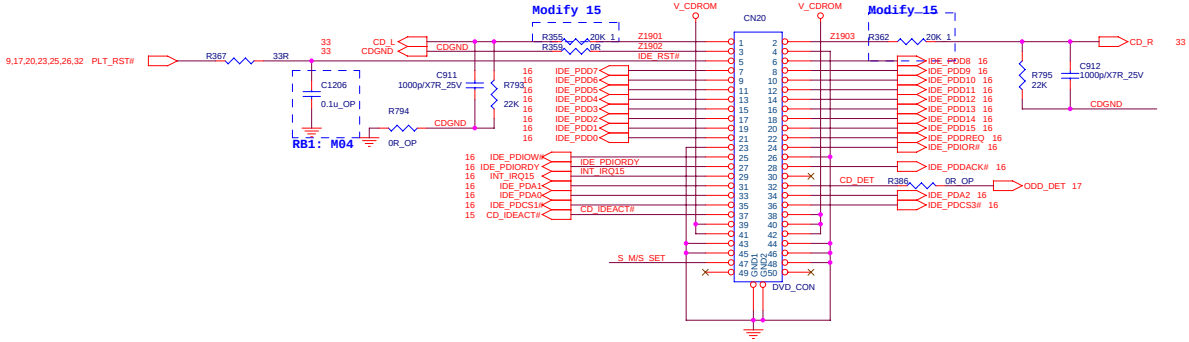
Size: | Document Number: ICH8M IO/GPIO/SYS-2/3 | Rev: C

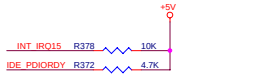
Date: Tuesday, March 13, 2007 | Sheet 17 of 37

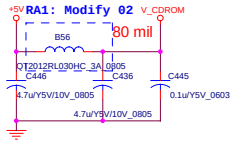


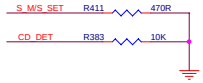
UNIWILL COMPUTER CORP.		
Title: P75/55IMx		
Size	Document Number: ICH8M Power -3/3	Rev: C
Date: Tuesday, March 13, 2007	Sheet 18 of 37	

CR-ROM



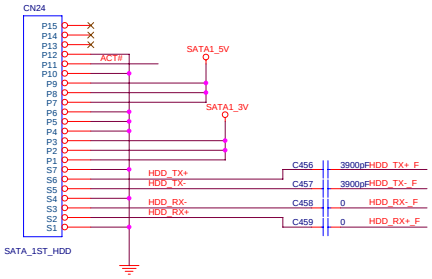


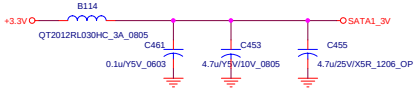


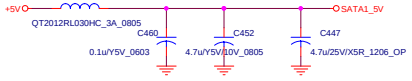


CSEL : Master = 0 / Slave = 1

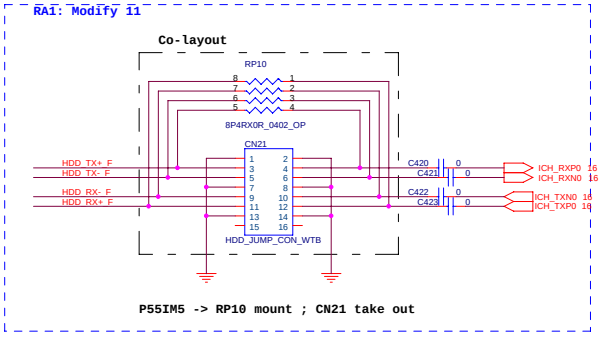
MASTER HDD

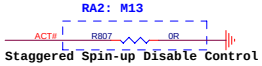




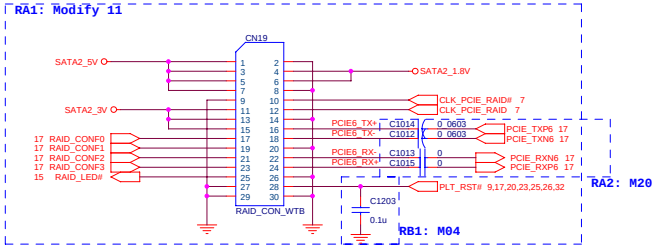


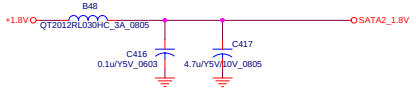
Cable Jump CONN

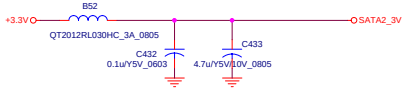


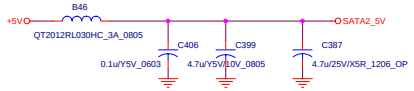


RAID CONN







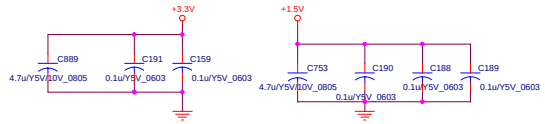


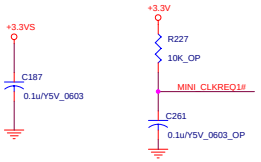
UNIWILL COMPUTER CORP.		
Title: P75/55IMx		
Size	Document Number: HDD / CD-ROM CONN (3581)	Rev: C
Date: Tuesday, March 13, 2007	Sheet 19 of 37	

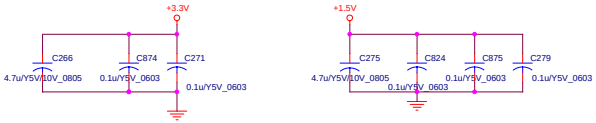
MINI CARD CONN

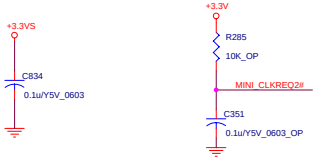
Intel PRO/Wireless 2100 LAN

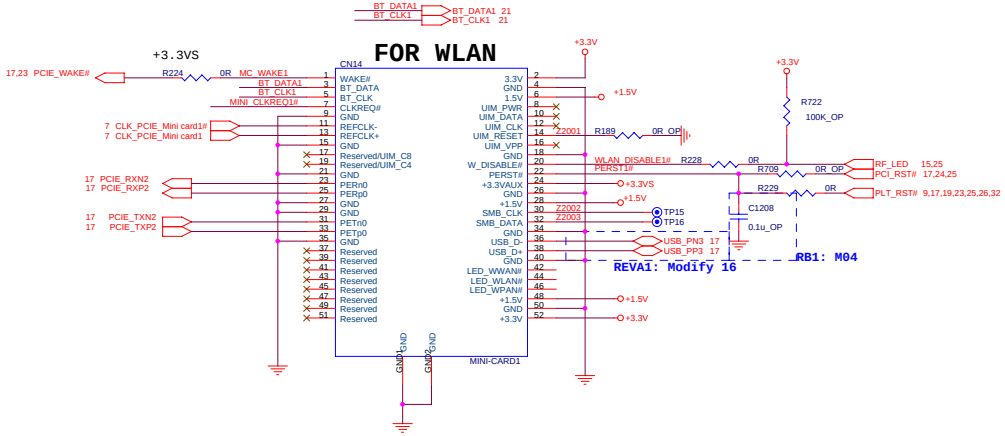
PIN11	LED_WLAN_LINK	HI(3.3V)	Solid ON	Associated AP
			1 flash/3 sec	Not Associated with an AP
		Low(0V)	LED OFF	Power OFF or RF_Kill active
PIN12	LED_WLAN_ACT	HI(3.3V)	Rapid Blinking	Passing data traffic to AP
			Slow Blinking	Beacon traffic to Ap
		Low(0V)	LED OFF	Power OFF or not activity or RF_Kill active
PIN13	HW_RadioXMIT_OFF#	HI(3.3V)	Enable	Radio transmitter is ON
		Low(0V)	Disable	Radio transmitter turn off

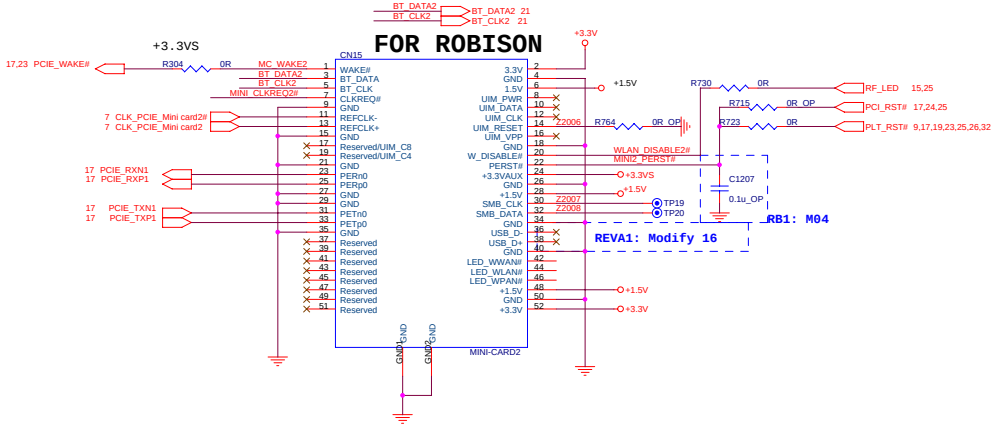






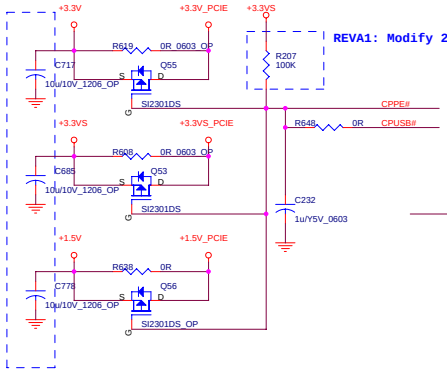


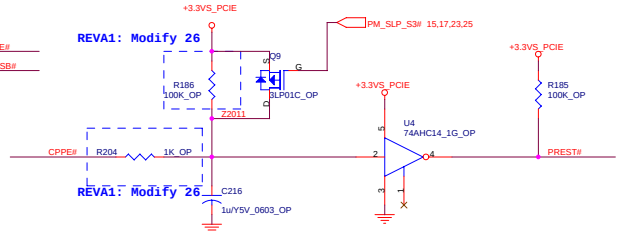


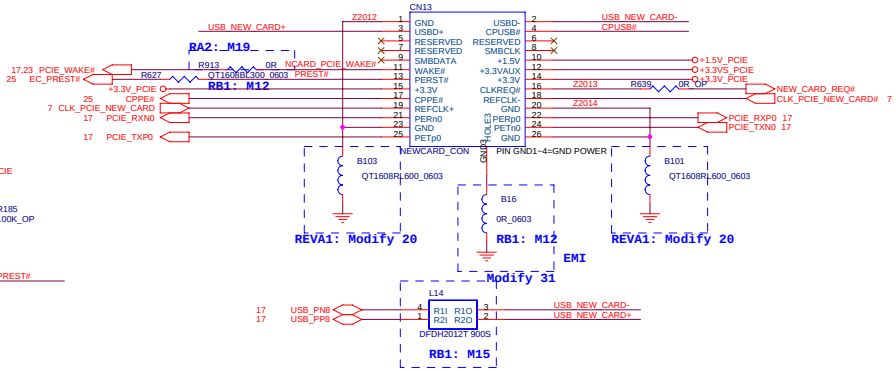


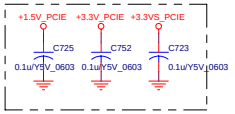
NEW CARD Socket

REVA1: Modify 26









UNIWILL COMPUTER CORP.

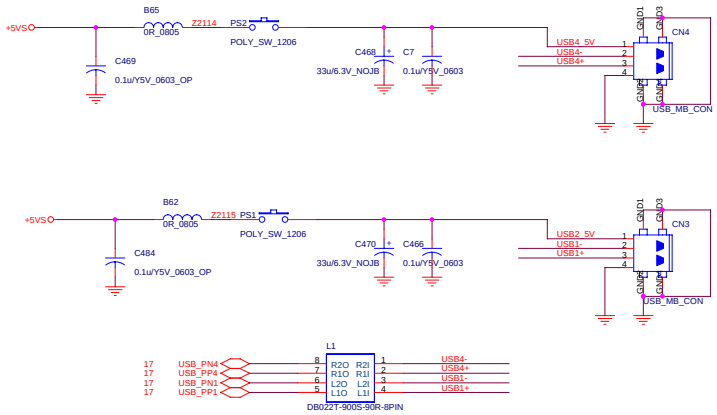
Title: P75/55IMx

Size: Document Number: Mini Card / New Card — Rev: C

3581

Date: Tuesday, March 13, 2007 — Sheet 20 of 37

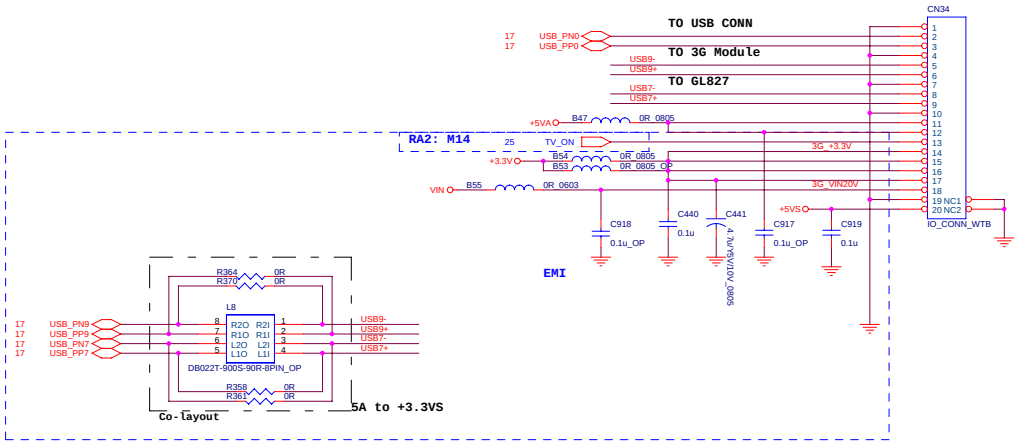
USB PORT CONN



USB CONN change from 3 ports to 2 ports @ REVA2

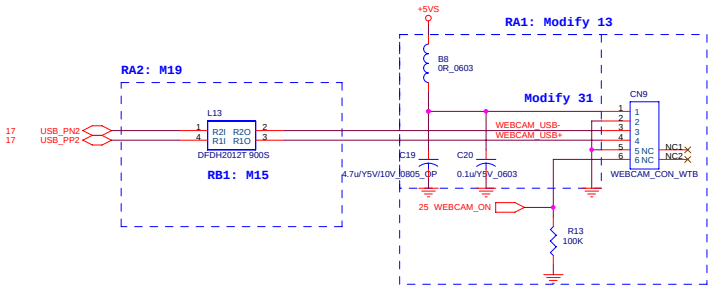
One USB ports W/I charger remove to daughter board and add eSATA port@ REVA2

IO PORT CONN

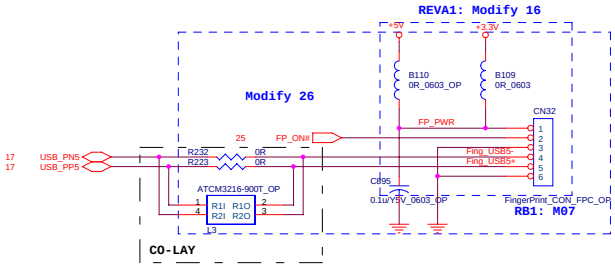


WEBCAM CONN

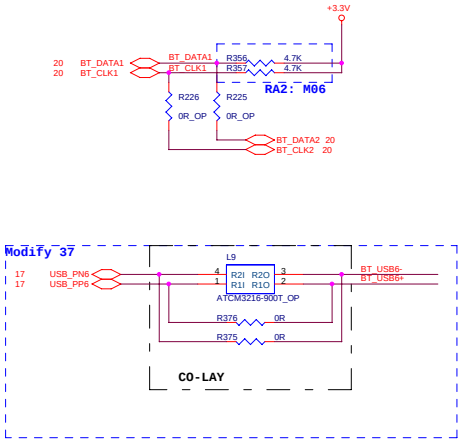
Imax = 200mA

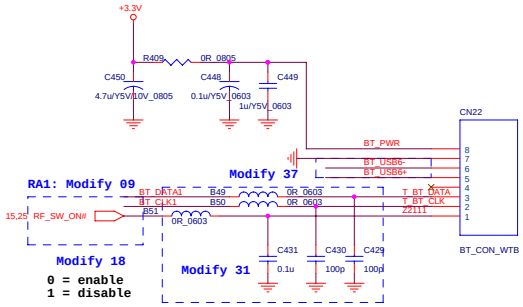


Finger print CONN (P75 only)



BLUETOOTH CONN





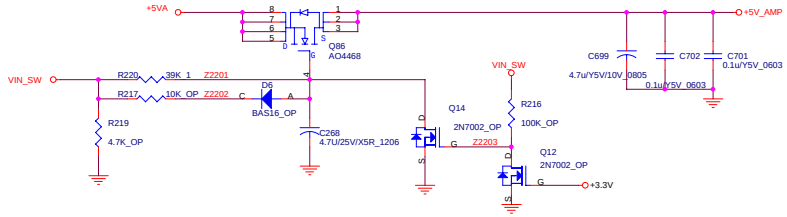
UNIWILL COMPUTER CORP.

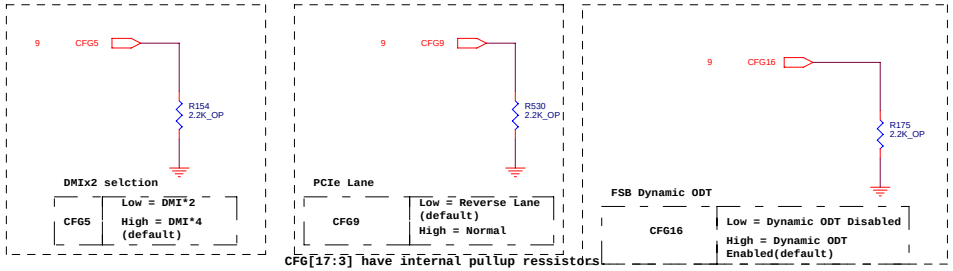
Title: P75/55IMx

Size: | Document Number: 3581 | USB/ IO/BT/ FP/WCAM CONN | Rev: C

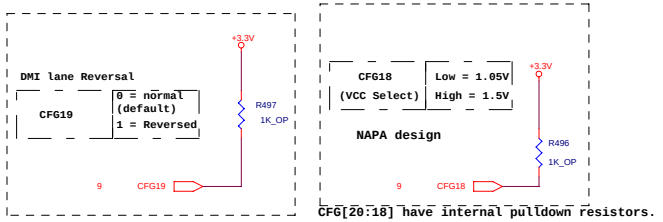
Date: Tuesday, March 13, 2007 | Sheet 21 of 37

AMP VDD

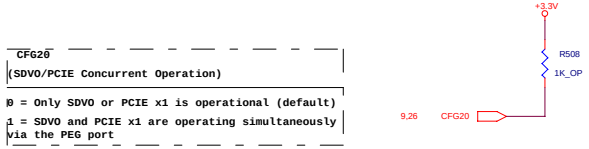




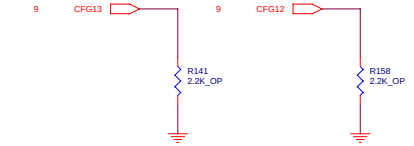
CFG[17:3] have internal pullup ressistors



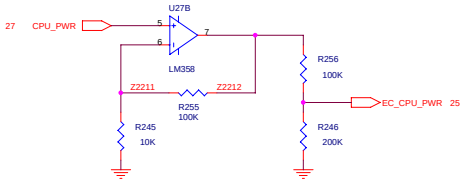
CFG[20:18] have internal pulldown resistors.



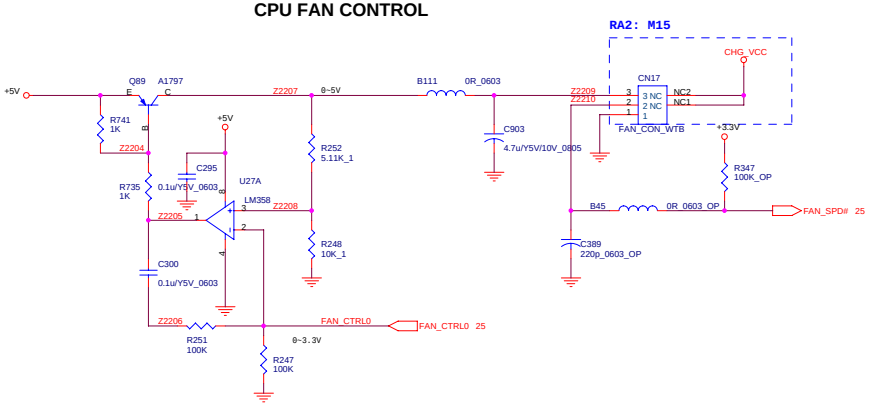
XOR / ALLZ / Clock Un-gating		
CFG12	CFG13	Configuration
0	0	Clock Gating Disabled
0	1	XOR Mode Enabled
1	0	All-Z Mode Enabled
1	1	Normal Operation (Default)

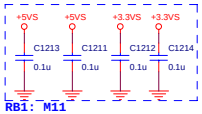


CPU POWER MONITOR

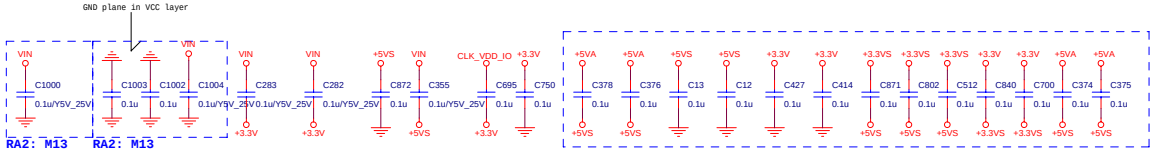


CPU FAN CONTROL

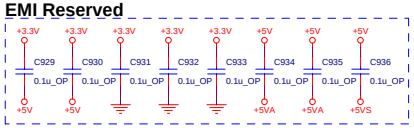




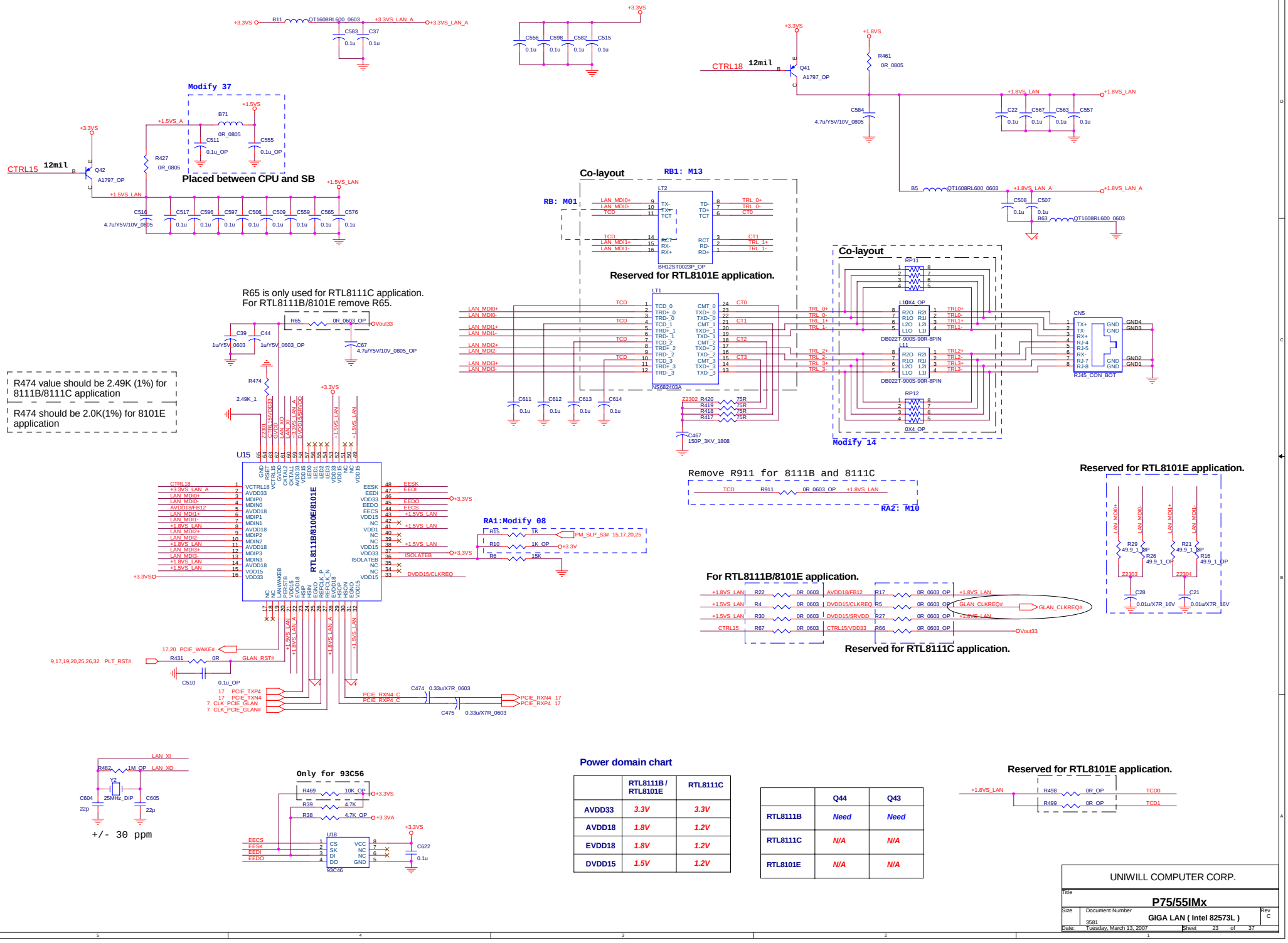
High speed current return path Capactor



EMI Reserved



UNIWILL COMPUTER CORP.	
Title	P75/55IMx
Size	Document Number: AUD PWR / FAN CTL/ HSCRP Cap (3581) — Rev: C
Date: Tuesday, March 13, 2007	Sheet 22 of 37



	RTL8111B / RTL8101E	RTL8111C
AVDD33	3.3V	3.3V
AVDD18	1.8V	1.2V
EVDD18	1.8V	1.2V
DVDD15	1.5V	1.2V

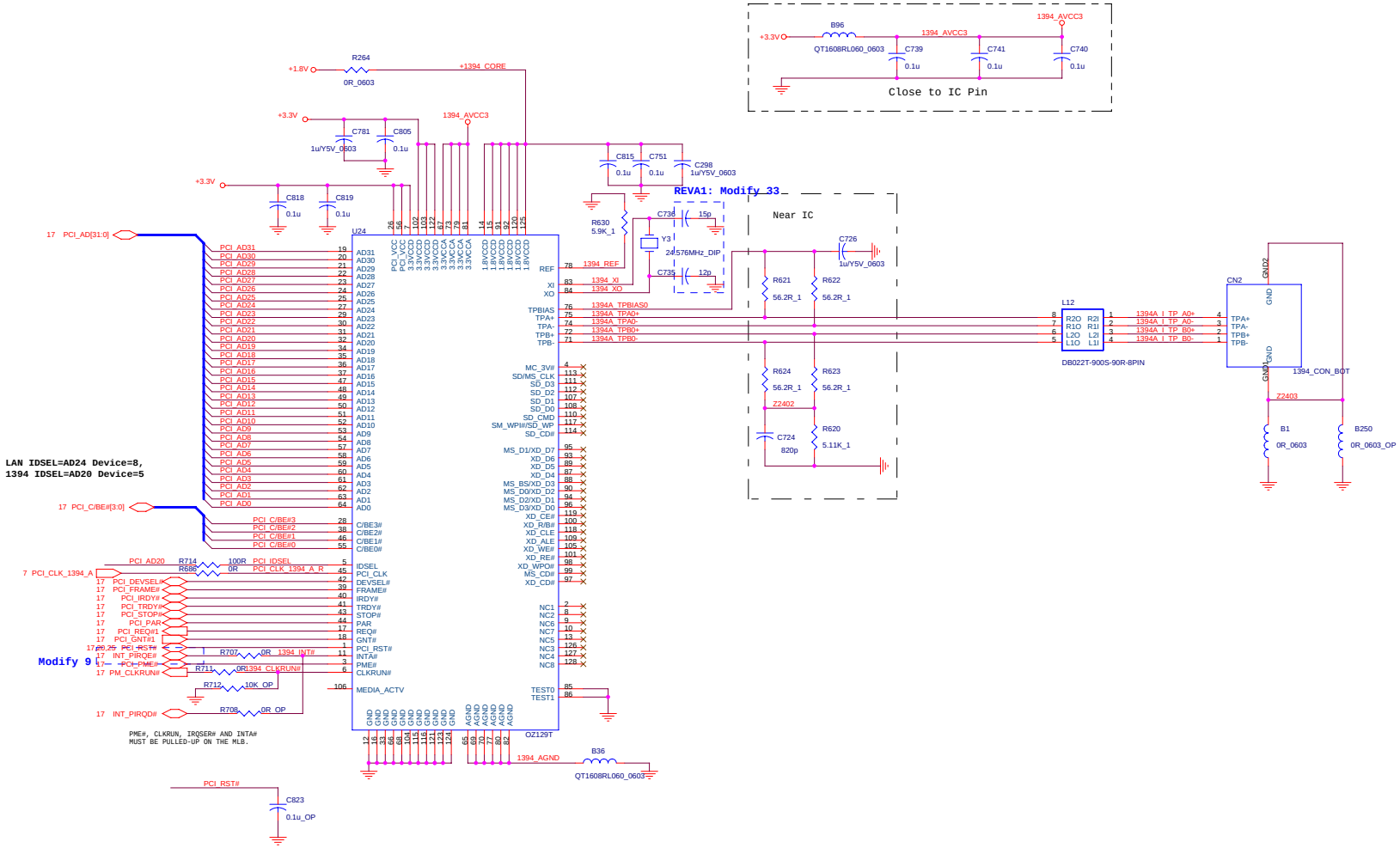
	Q44	Q43
RTL8111B	Need	Need
RTL8111C	N/A	N/A
RTL8101E	N/A	N/A

UNIWILL COMPUTER CORP.

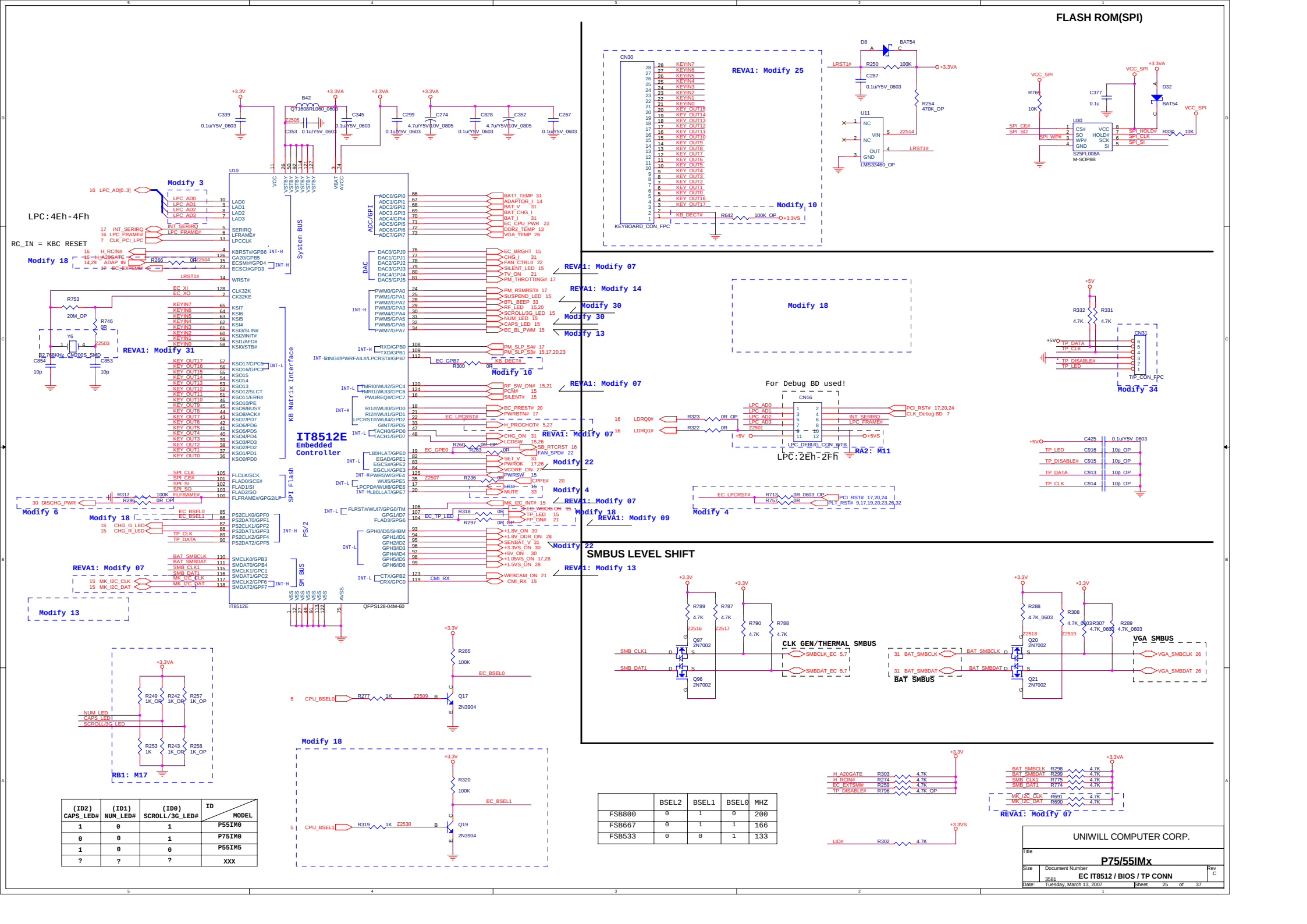
Title: P75/55IMx

Size: | Document Number: 3581 | GIGA LAN (Intel 82573L) | Rev: C

Date: Tuesday, March 13, 2007 | Sheet 23 of 37

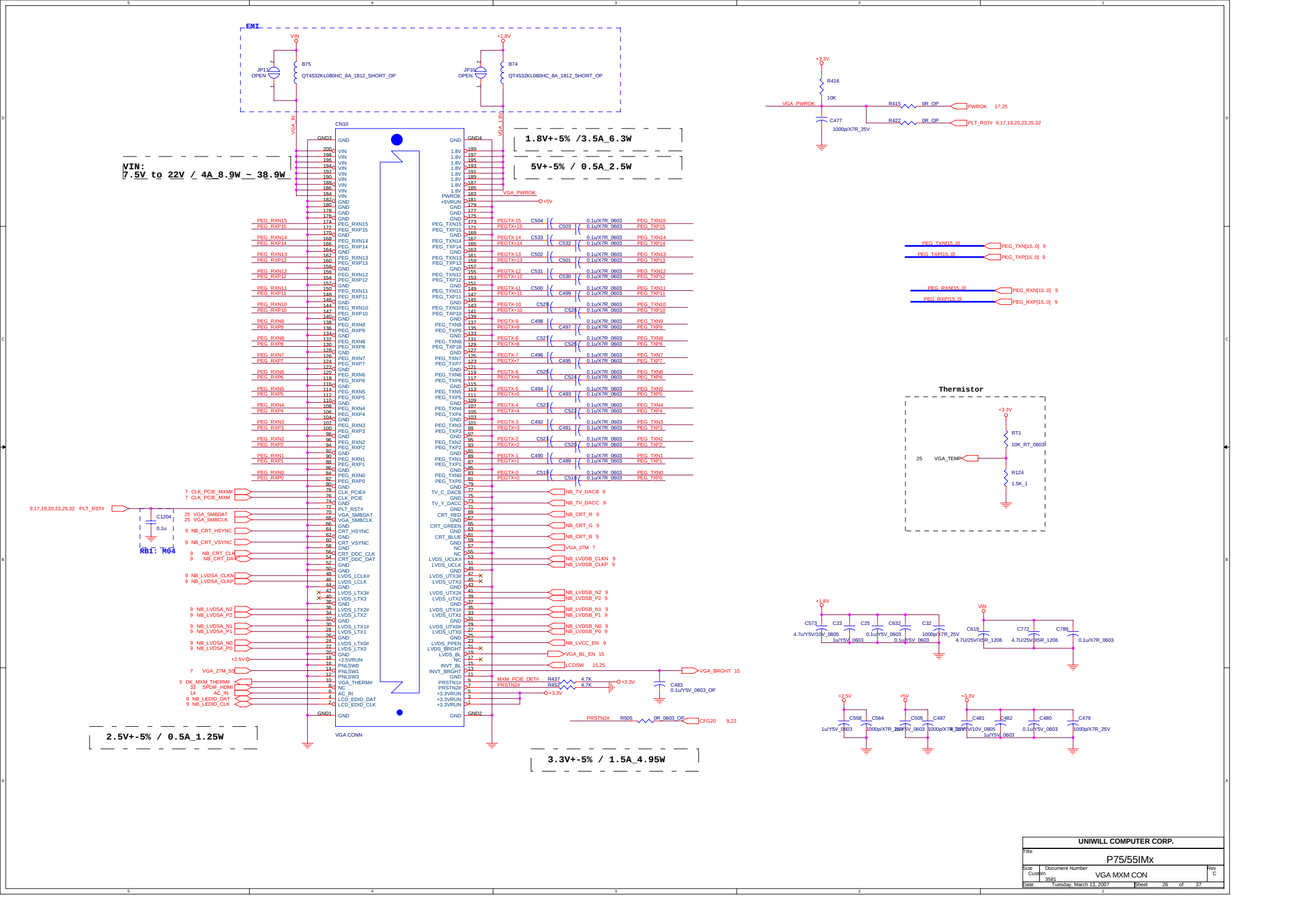


Unwill International Corp.			
Title: IEEE1394A			
Size	Document Number: P75/55IMx		Rev: C
	3581		
Date: Tuesday, March 13, 2007	Sheet 24 of 37		

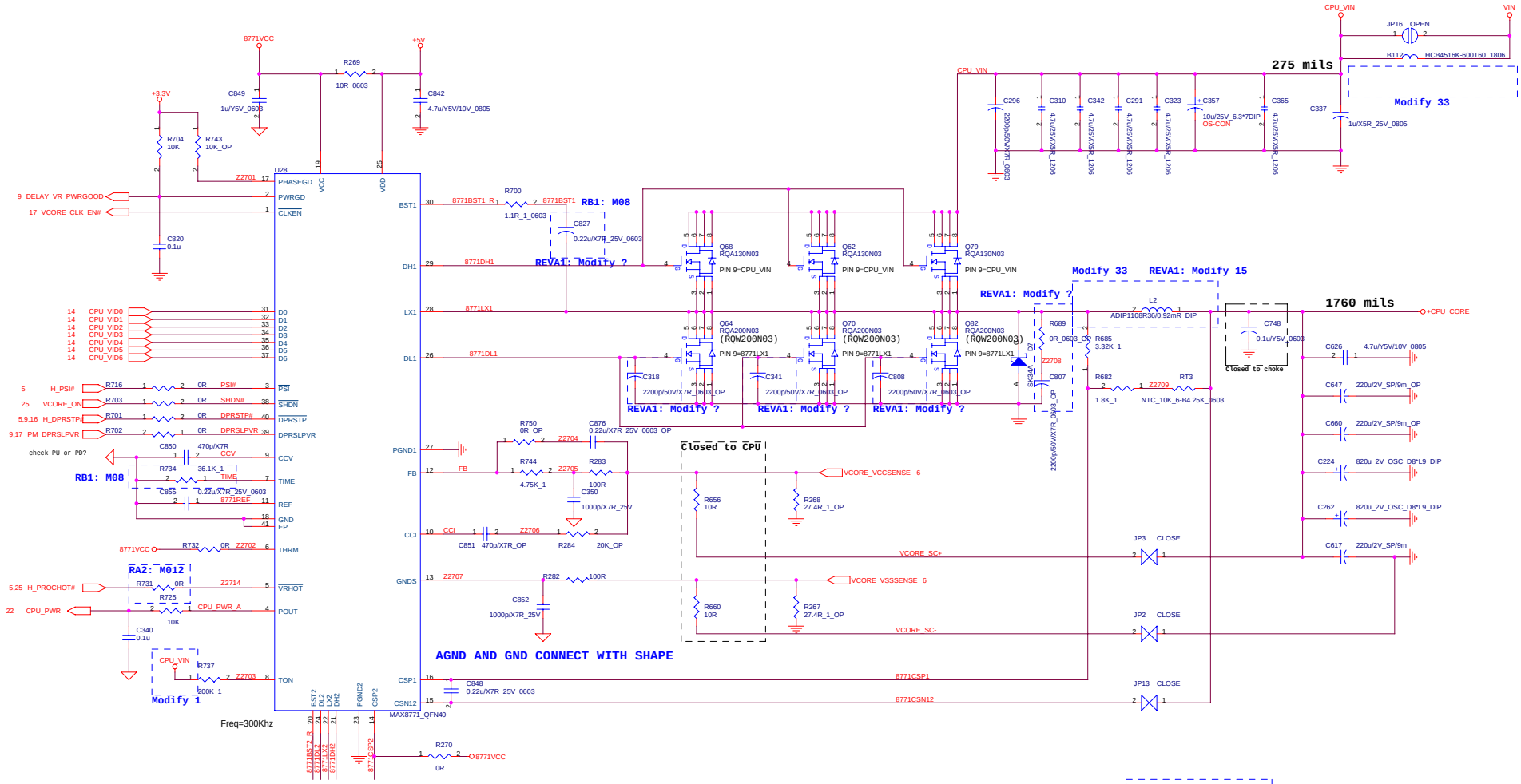


(ID2) CAPS_LED#	(ID1) NUM_LED#	(ID0) SCROLL/3G_LED#	ID / MODEL
1	0	1	P55IM0
0	0	1	P75IM0
1	0	0	P55IM5
?	?	?	XXX

	BSEL2	BSEL1	BSEL0	MHZ
FSB800	0	1	0	200
FSB667	0	1	1	166
FSB533	0	0	1	133

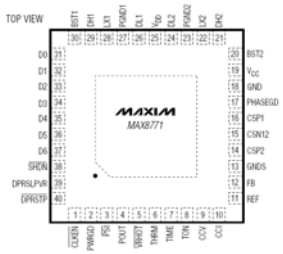


Title	
UNIWILL COMPUTER CORP.	
P75/55IMx	
Size: Custom	Document Number: 3581 — VGA MXM CON
Rev: C	
Date: Tuesday, March 13, 2007	Sheet 26 of 37



VID TABLE

6	5	4	3	2	1	0	Vcore	Status
0	0	1	0	0	0	1	1.2875	(HFM)
0	0	1	1	0	0	0	1.2000	Boot Vout
0	0	1	1	1	0	0	1.1500	Merom(HFM)
0	1	1	0	1	0	1	0.8375	Y&M(LFM)
0	1	1	1	0	1	1	0.7625	Y&M(Deeper Sleep)
1	1	1	1	1	1	1	0.0000	Shut down



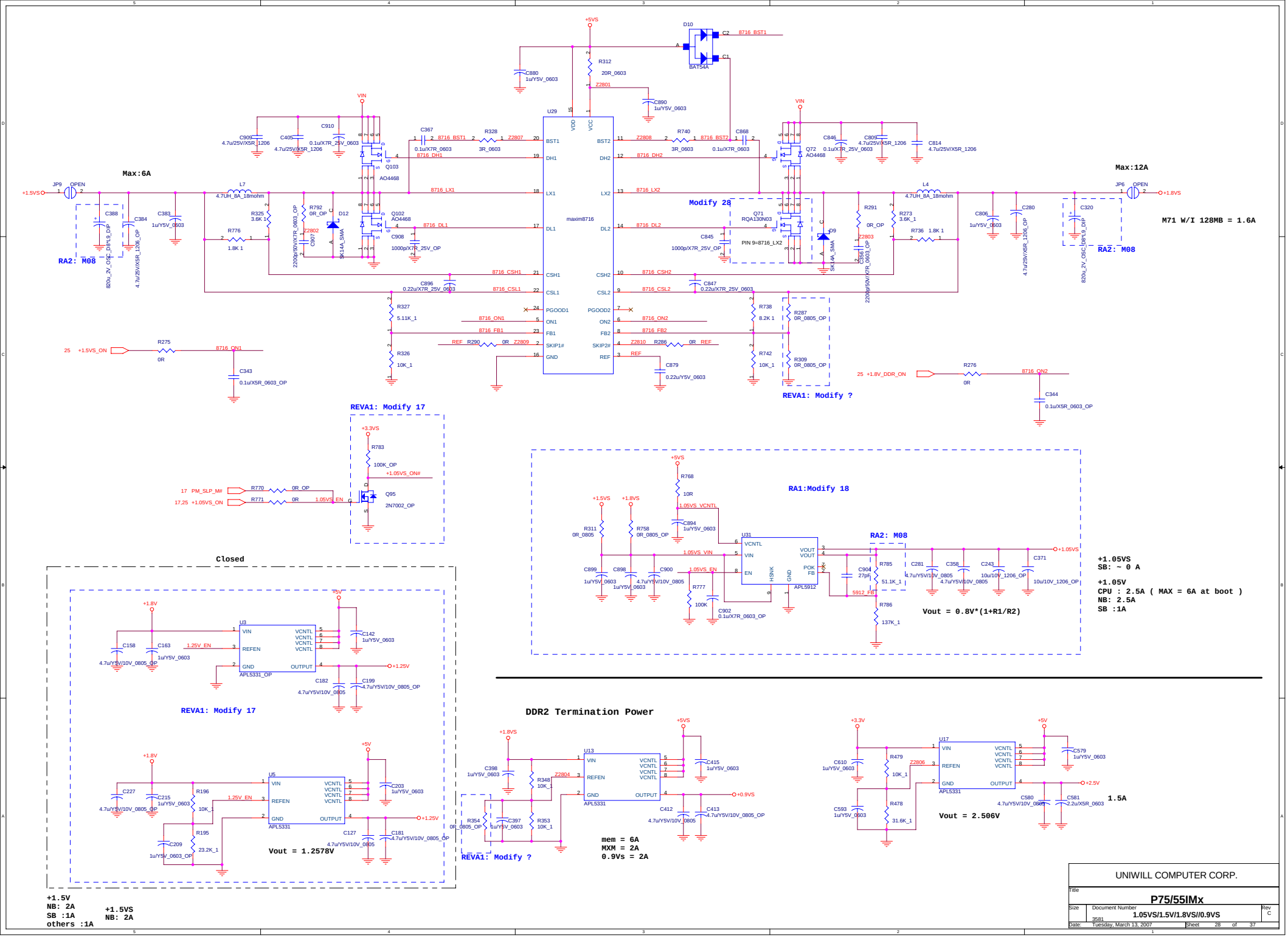
UNIWILL COMPUTER CORP.

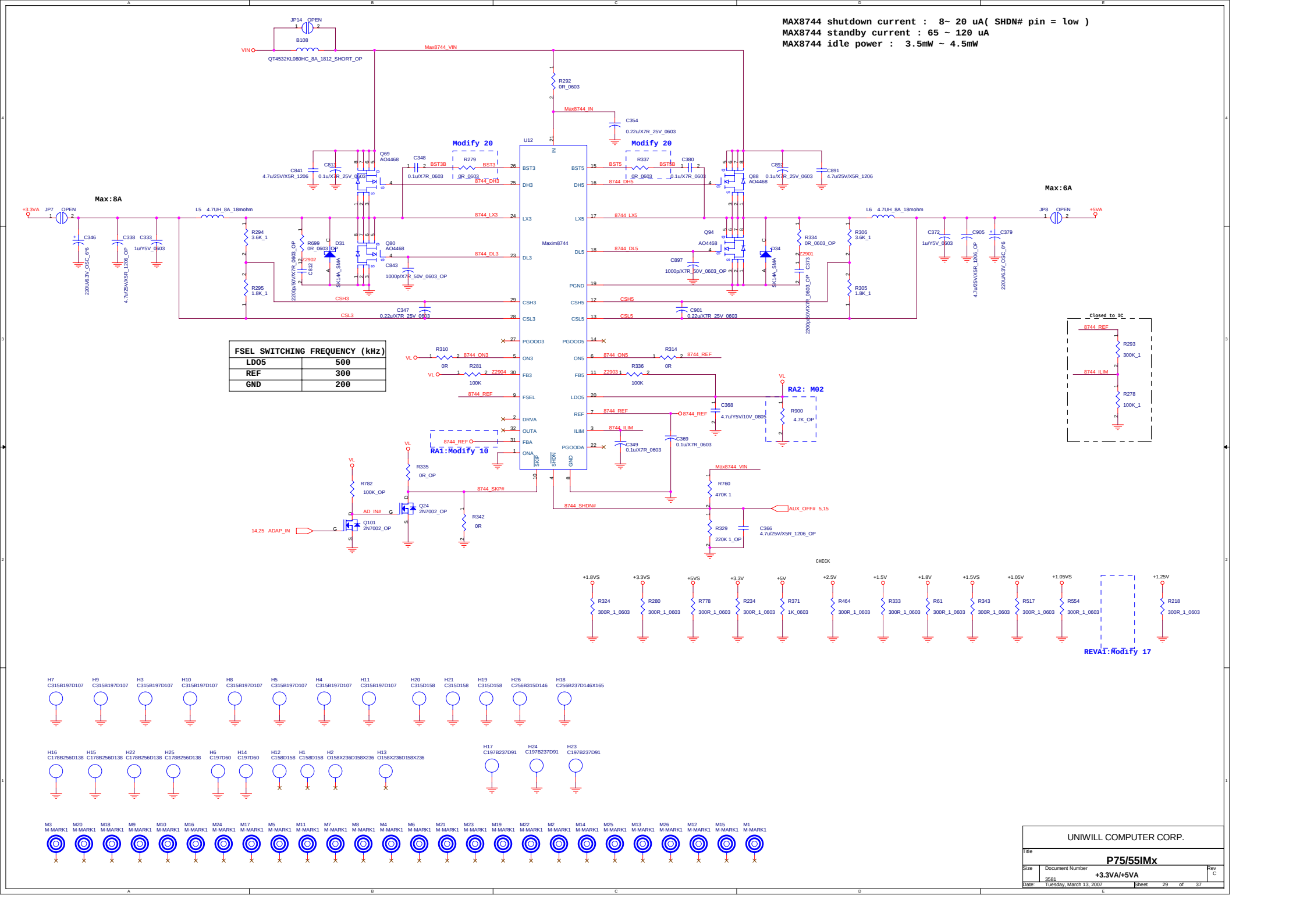
Title: P75/55IMx

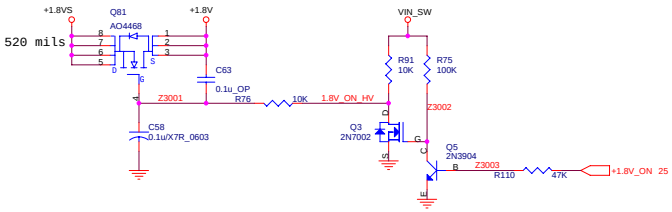
Size: | Document Number: CPU_CORE | Rev: C

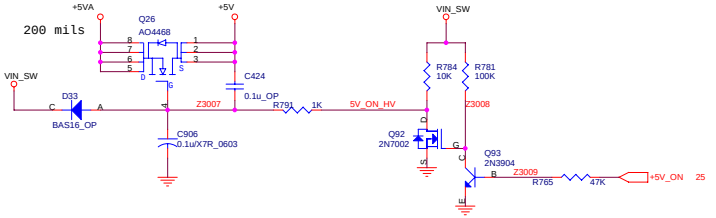
3581

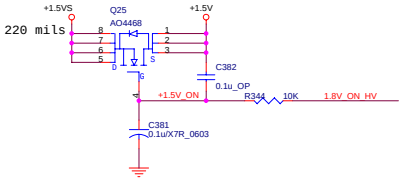
Date: Tuesday, March 13, 2007 | Sheet 27 of 37

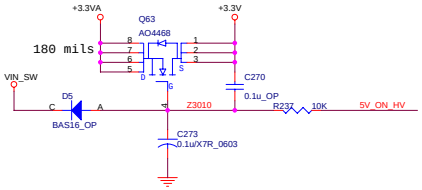

Max:6A
Max:12A
M71 W/I 128MB = 1.6A
RA2: M08
Modify 28
maxim8716
REVA1: Modify 17
REVA1: Modify ?
RA1:Modify 18
Vout = 0.8V*(1+R1/R2)
+1.05VS
SB: ~ 0 A
+1.05V
CPU : 2.5A (MAX = 6A at boot)
NB: 2.5A
SB :1A
Closed
Vout = 1.2578V
+1.5V
NB: 2A
SB :1A
others :1A
+1.5VS
NB: 2A
DDR2 Termination Power
mem = 6A
MXM = 2A
0.9Vs = 2A
Vout = 2.506V
1.5A
UNIWILL COMPUTER CORP.
P75/55IMx
1.05VS/1.5V/1.8VS//0.9VS
3581
Tuesday, March 13, 2007
Sheet 28 of 37


MAX8744 shutdown current : 8~ 20 uA(SHDN# pin = low)
MAX8744 standby current : 65 ~ 120 uA
MAX8744 idle power : 3.5mW ~ 4.5mW
Max:8A
Max:6A
Maxim8744
Modify 20
Modify 20
RA2: M02
RA1:Modify 10
REVA1:Modify 17
Closed to IC
CHECK
FSEL SWITCHING FREQUENCY (kHz)
LDO5 500
REF 300
GND 200
VIN
Max8744_VIN
Max8744_IN
+3.3VA
+5VA
VL
JP14 OPEN
B108
QT4532KL080HC_8A_1812_SHORT_OP
R292 0R_0603
C354 0.22u/X7R_25V_0603
JP7 OPEN
JP8 OPEN
L5 4.7UH_8A_18mohm
L6 4.7UH_8A_18mohm
C346
C338
C333 1u/Y5V_0603
R294 3.6K_1
R295 1.8K_1
R699 0R_0603_OP
D31
Z2902
C812
SK14A_SMA
Q69 AO4468
Q80 AO4468
Q94 AO4468
Q88 AO4468
C841 4.7u/25V/X5R_1206
C811 0.1u/X7R_25V_0603
C348 0.1u/X7R_0603
R279 0R_0603
C843 1000p/X7R_50V_0603_OP
C347 0.22u/X7R_25V_0603
R337 0R_0603
C380 0.1u/X7R_0603
C892 0.1u/X7R_25V_0603
C891 4.7u/25V/X5R_1206
C897 1000p/X7R_50V_0603_OP
C901 0.22u/X7R_25V_0603
R334 0R_0603_OP
D34
Z2901
C373
R306 3.6K_1
R305 1.8K_1
C372 1u/Y5V_0603
C905
C379
R310 0R
R281 100K
Z2904
R314 0R
R336 100K
Z2903
C368 4.7u/Y5V/10V_0805
R900 4.7K_OP
C369 0.1u/X7R_0603
C349 0.1u/X7R_0603
R335 0R_OP
R782 100K_OP
Q24 2N7002_OP
Q101 2N7002_OP
R342 0R
R760 470K 1
R329 220K 1_OP
C366 4.7u/25V/X5R_1206_OP
AUX_OFF# 5,15
14,25 ADAP_IN
U12
BST3
DH3
LX3
DL3
CSH3
CSL3
PGOOD3
ON3
FB3
FSEL
DRVA
OUTA
FBA
ONA
BST5
DH5
LX5
DL5
PGND
CSH5
CSL5
PGOOD5
ON5
FB5
LDO5
REF
ILIM
PGOODA
IN
SKIP
SHDN
GND
8744_DH3
8744_LX3
8744_DL3
8744_DH5
8744_LX5
8744_DL5
8744_ON3
8744_ON5
8744_REF
8744_ILIM
8744_SKP#
8744_SHDN#
CSH5
CSL5
+1.8VS
+3.3VS
+5VS
+3.3V
+5V
+2.5V
+1.5V
+1.8V
+1.5VS
+1.05V
+1.05VS
+1.25V
R324 300R_1_0603
R280 300R_1_0603
R778 300R_1_0603
R234 300R_1_0603
R371 1K_0603
R464 300R_1_0603
R333 300R_1_0603
R61 300R_1_0603
R343 300R_1_0603
R517 300R_1_0603
R554 300R_1_0603
R218 300R_1_0603
R293 300K_1
R278 100K_1
8744_REF
8744_ILIM
H7 C315B197D107
H9 C315B197D107
H3 C315B197D107
H10 C315B197D107
H8 C315B197D107
H5 C315B197D107
H4 C315B197D107
H11 C315B197D107
H20 C315D158
H21 C315D158
H19 C315D158
H26 C256B315D146
H18 C256B237D146X165
H16 C178B256D138
H15 C178B256D138
H22 C178B256D138
H25 C178B256D138
H6 C197D60
H14 C197D60
H12 C158D158
H1 C158D158
H2 O158X236D158X236
H13 O158X236D158X236
H17 C197B237D91
H24 C197B237D91
H23 C197B237D91
M3 M-MARK1
M20 M-MARK1
M18 M-MARK1
M9 M-MARK1
M10 M-MARK1
M16 M-MARK1
M24 M-MARK1
M17 M-MARK1
M5 M-MARK1
M11 M-MARK1
M7 M-MARK1
M8 M-MARK1
M4 M-MARK1
M6 M-MARK1
M21 M-MARK1
M23 M-MARK1
M19 M-MARK1
M22 M-MARK1
M2 M-MARK1
M14 M-MARK1
M25 M-MARK1
M13 M-MARK1
M26 M-MARK1
M12 M-MARK1
M15 M-MARK1
M1 M-MARK1
UNIWILL COMPUTER CORP.
Title
P75/55IMx
Size
Document Number
3581
+3.3VA/+5VA
Rev C
Date: Tuesday, March 13, 2007
Sheet 29 of 37

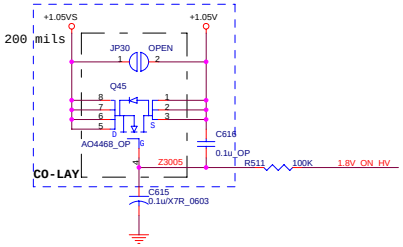


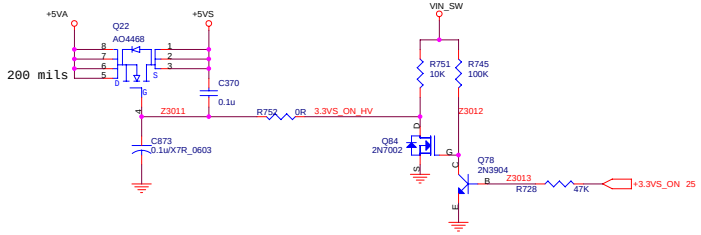




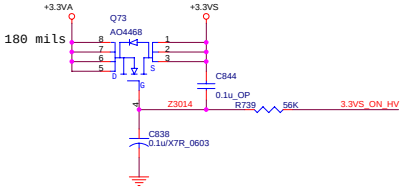


RB1: M02

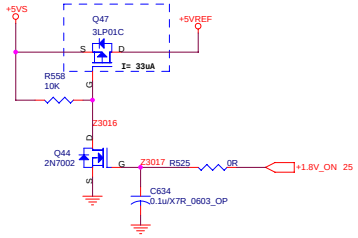




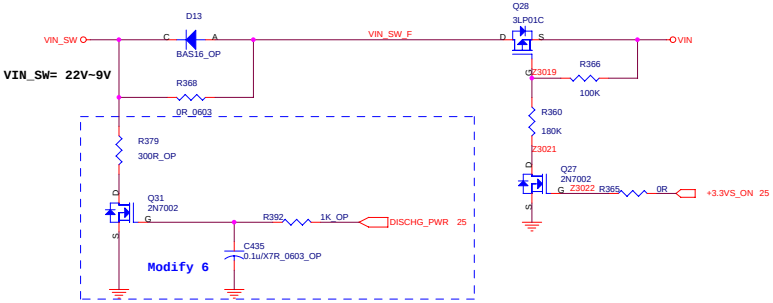
REVA1:Modify 17



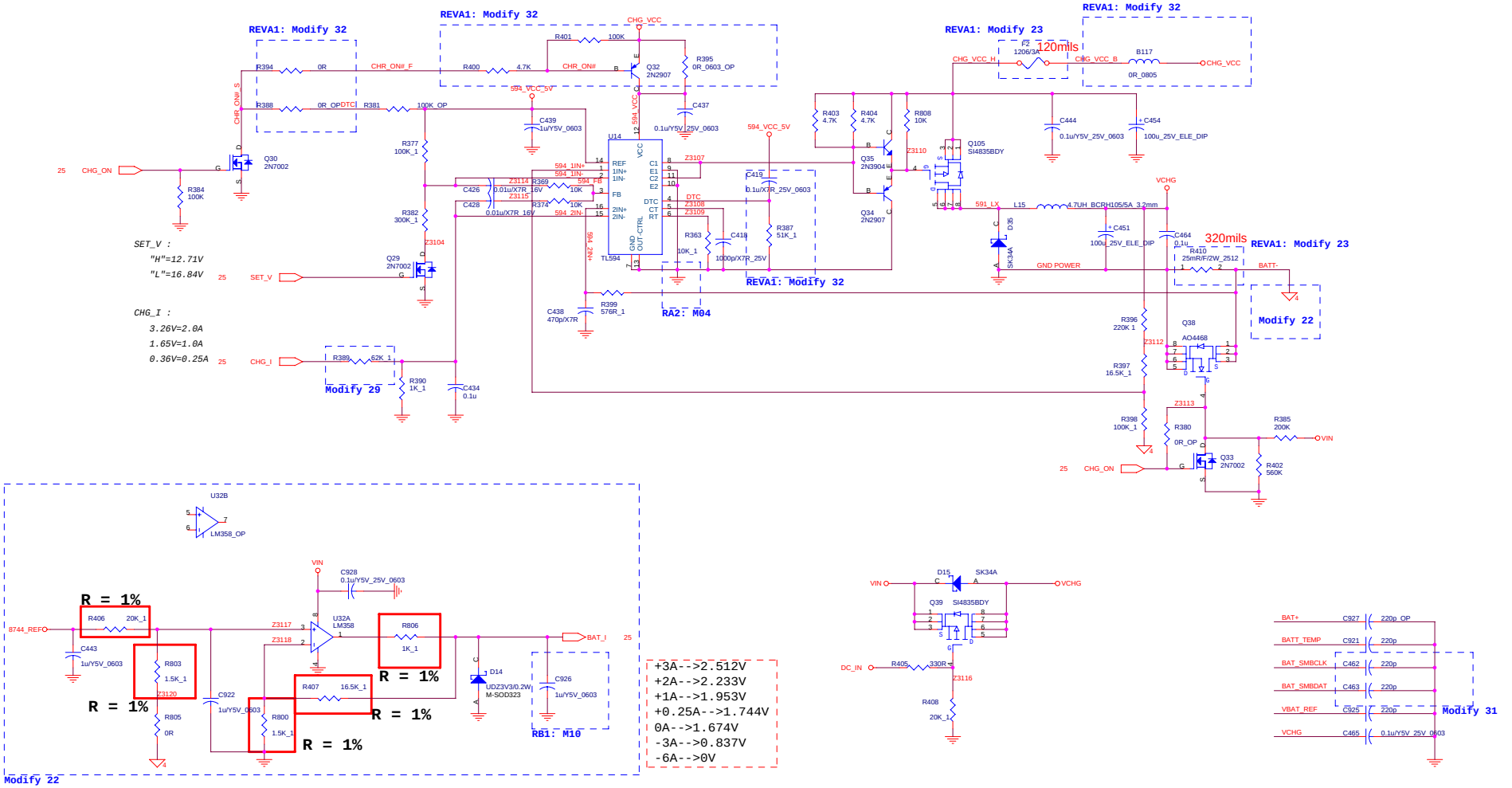
REVA1:Modify 19



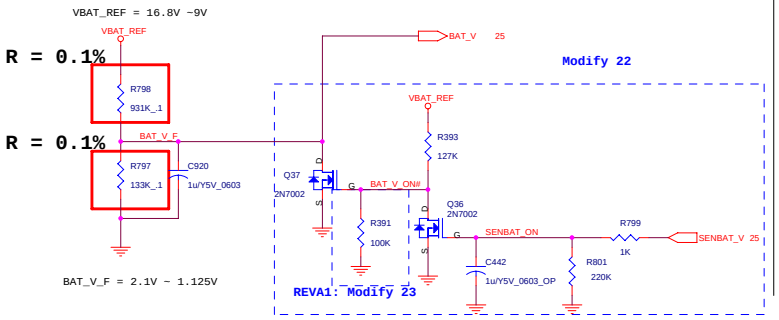
3LP01C VGS=+-10V



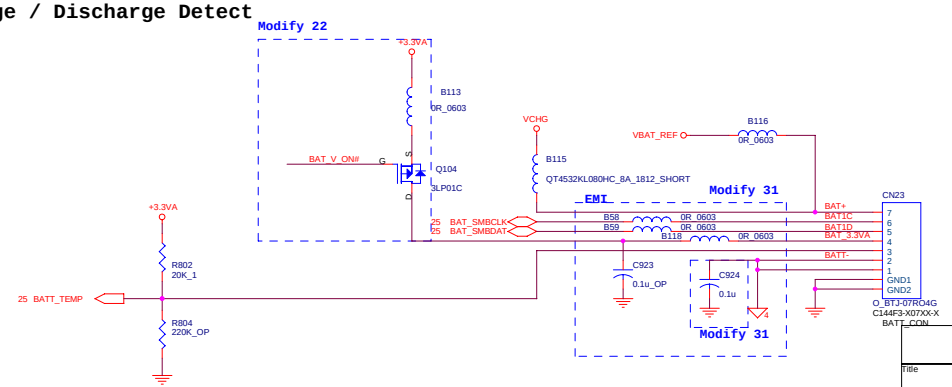
UNIWILL COMPUTER CORP.		
Title: P75/55IMx		
Size: Custom	Document Number: P75/55IMx 3581	Rev: C
VCC SW/ VINSW		
Date: Tuesday, March 13, 2007	Sheet 30 of 37	



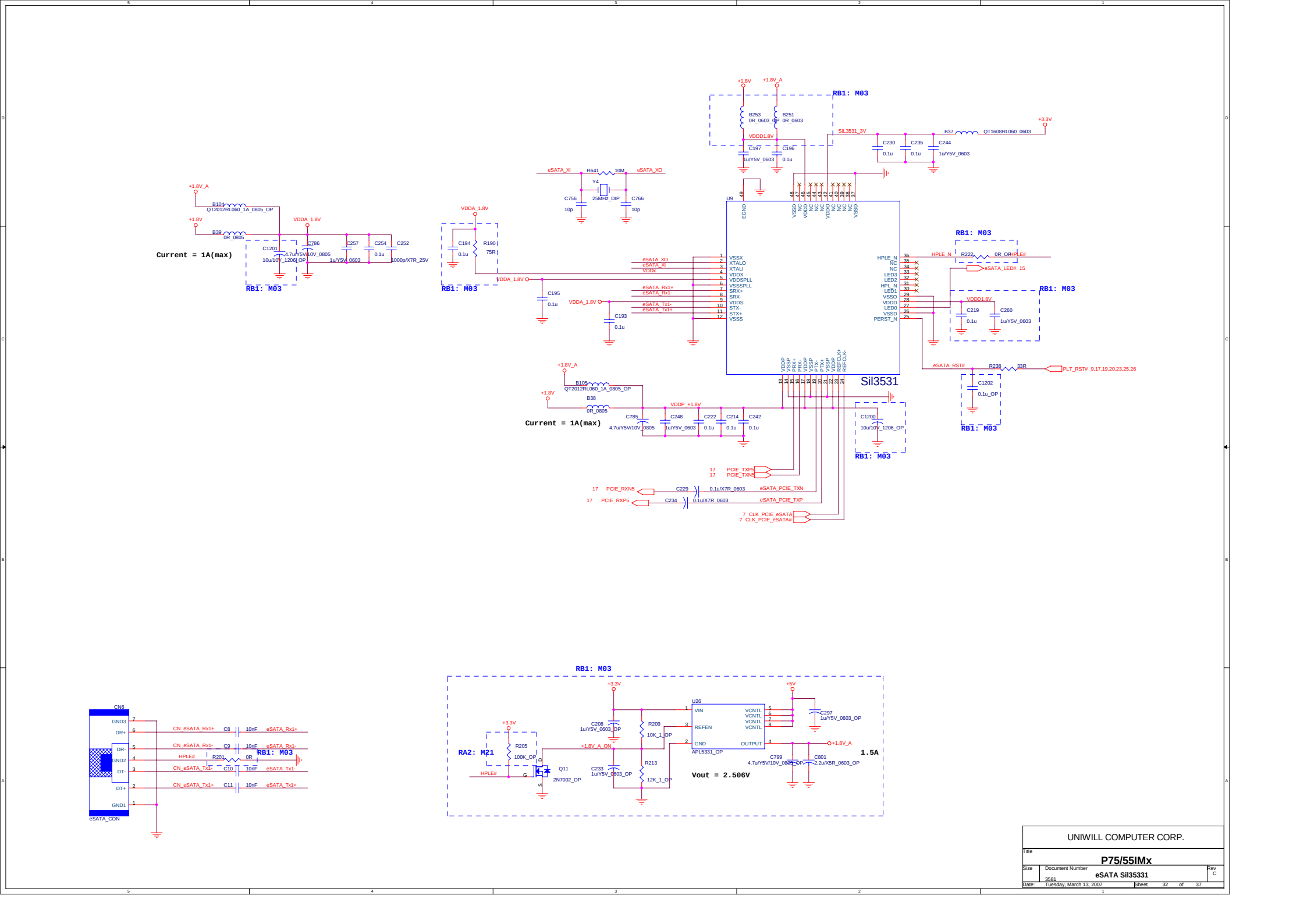
Battery voltage Detect



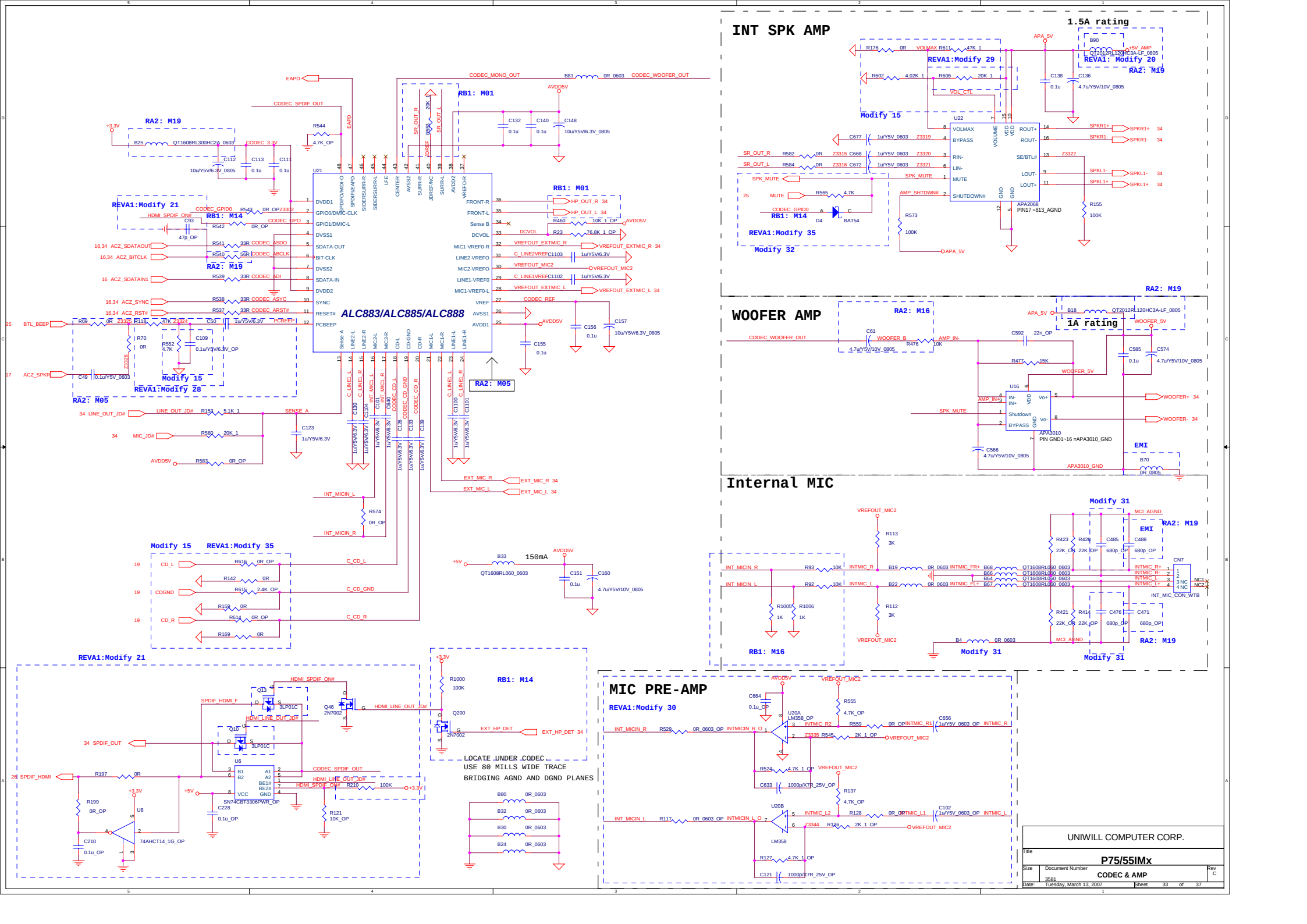
Charge / Discharge Detect



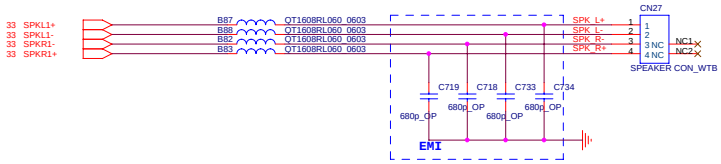
UNIWILL COMPUTER CORP.	
Title	P75/55IMx
Size	Document Number: 3581 — BATT IN / Charger — Rev C
Date: Tuesday, March 13, 2007	Sheet 31 of 37



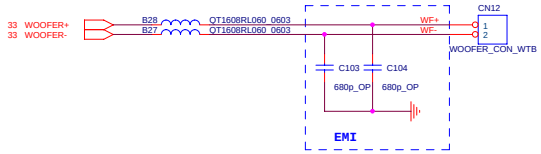
UNIWILL COMPUTER CORP.		
Title: P75/55IMx		
Size	Document Number: eSATA Sil35331	Rev: C
Date: Tuesday, March 13, 2007	Sheet 32 of 37	


INT SPK AMP
1.5A rating
REVA1:Modify 29
REVA1: Modify 20
RA2: M19
Modify 15
Modify 32
REVA1:Modify 35
RB1: M14
APA2068
PIN17 =813_AGND
WOOFER AMP
RA2: M16
RA2: M19
1A rating
APA3010
PIN GND1~16 =APA3010_GND
EMI
Internal MIC
Modify 31
RB1: M16
MIC PRE-AMP
REVA1:Modify 30
ALC883/ALC885/ALC888
RA2: M05
RB1: M01
REVA1:Modify 21
REVA1:Modify 28
Modify 15
REVA1:Modify 35
RB1: M14
LOCATE UNDER CODEC
USE 80 MILLS WIDE TRACE
BRIDGING AGND AND DGND PLANES
UNIWILL COMPUTER CORP.
P75/55IMx
CODEC & AMP
3581
Tuesday, March 13, 2007
Sheet 33 of 37

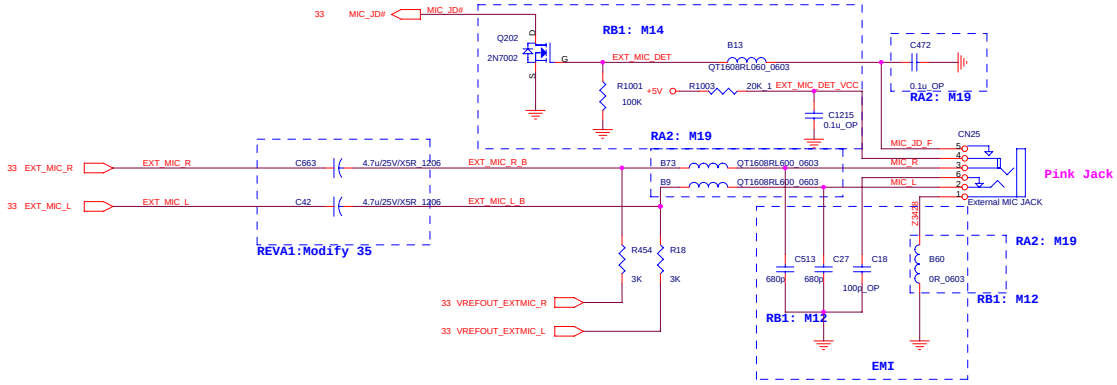
Internal SPK



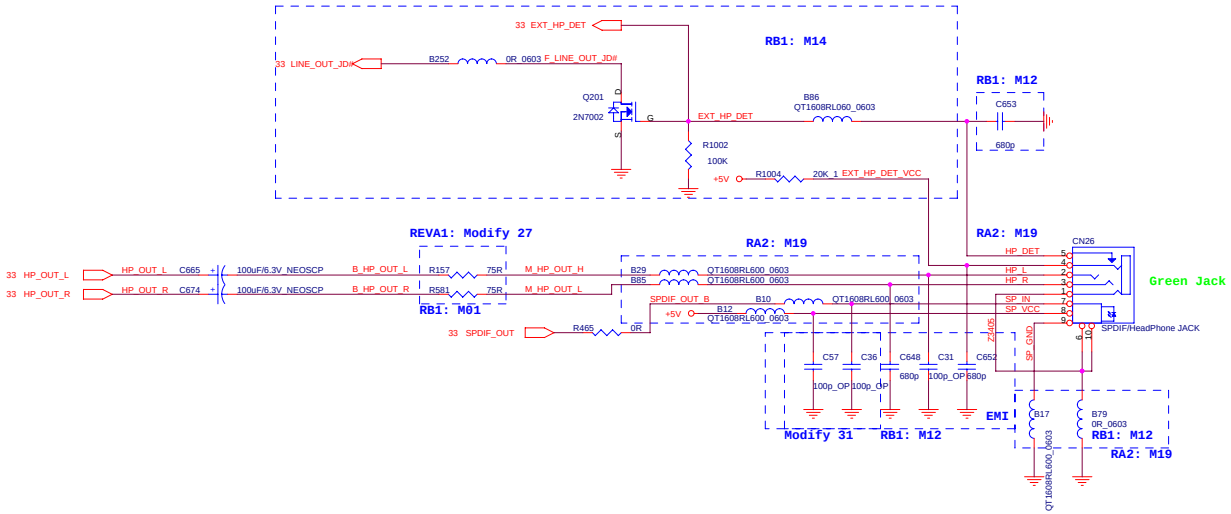
Woofer



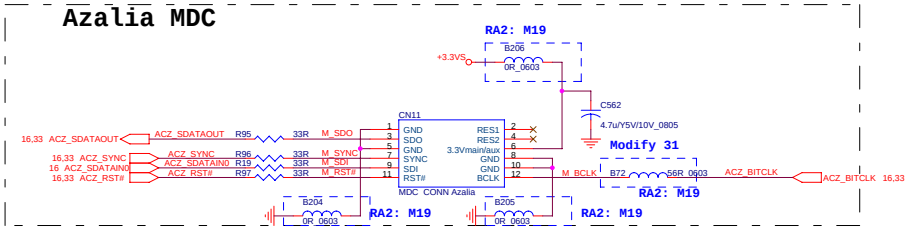
External Mic



SPDIF/HeadPhone



Azalia MDC



UNIWILL COMPUTER CORP.	
Title: P75/55IMx	
Size:	Document Number: 3581 PHONE JACK & CONN & MDC — Rev: C
Date: Tuesday, March 13, 2007	Sheet 34 of 37

RA change list:

Symbol	What change	Page	Why change	Note
Modify 1	Add jump JP19 to conect AGND and GND	27	Presenting from other project mistake	
Modify 2	R8 from +CPU_CORE change to GND	6	Mistake net	
Modify 3	LPC AD0 ~ AD3 mistake	25	Mistake net	
Modify 4	PLT_RST# and MUTE swap	25	Follow older version and pin assingment	
Modify 5	+1.5V changed to +1.05V	9	Mistake net	
Modify 6	Add Q200, R900 and changed EC's MPWORK to DISCHG_PWR	25&30	VIN_SW discharge circuit	
Modify 7	Take out R669, C713 and mount R682 and changed MPWORK to PWROK	17	Follow Intel recommend	
Modify 8	Add R901,R900 and net: ICH_GPIO10, ICH_GPIO14	17	Follow Intel recommend (AMT didn't supported AMT)	
Modify 9	U32(1394) change IRQ form INT_PRIQC# to INT_PIRQE#	17&24	For blance IRQ routing	
Modify 10	Add R903 100K_OP, TP50, TP51, and change from QRT_STATE to KB_DECT	17&25	For P75 K/B automatic detect.	
Modify 12	U8 form JMB363 change to JMB362 and other	17&32	cost down solution and form PCIE6 change to PCIE5 by SW required	
Modify 13	Add C1000(0.1u_0603) and C1005(4.7u_0805)	21	Reserved for power bypass and EMI	
Modify 14	Add RP20, RP21 0 ohm and take out L10&L11	23	Reserved for replace com-choke	
Modify 15	Add R910 and change R347,R351(24.9->29K), R137,R151(4.7K->0R), R167(49.9K->0R) and take out R131,R152 ,R568, R142	19&33	Adjust Audio gain	
Modify 16	Change R170 to pull high +3.3V and take off R554(0R)	07&17	Solving for C3 hand up	
Modify 17	Del R487/R492(0R_OP), JP1, R36 and swap net:M358+/- net ; CN11 change type	21	Delete reservedcircuit and swap wrong net ; CN11 by ME requred	
Modify 18	Add R904(100K), R905(1K), Q201, net: BSEL1 tired to GPF1 and net:ADAP_IN from GPF1 to GPD4 ;	05&25	For support CPU of FSB 533	
Modify 19	C49&C50 from DIP change to SMD; Mount,Q6,Q52,Q8,Q53,Q12,R165/R176, R640,R189,R194,C709 ; take out R161,R179	05&25	For ME limit and POP nose / Head phone POP nose	
Modify 20	Add R911,R912(0R_0603)	29	Resistor reserved for fine tune	
Modify 21	Take out R618(10K)	17	Pull high wrong power plane	
Modify 22	Delete R837 and JP17; R412,R409,R416,R407,R831,R835,R834,R411, U47 and R832,R836,R840 Change R406(127K->20K_1), R410(127K->1.5K_1), R414(1M->0R_0603), R404(1M->16.5K),R830(1K->1.5K), C898(0.1u->1u_0603) C900(0.1u->OP), and add D50	31	For dumb bettery	
Modify 23	Add R914,R913(0R) , C1007(0.1u), C1008(4.7u), C1006(0.1u), CN37	20&21	Reserved for support P75 TV and 3G together	
Modify 24	Max8776 change to OZ811	35	Delete GXF power(965GM) and Add +1.05VS power	
Modify 25	Delete Q91, Q84, Q83, Q90, R774, R725, R726, C817, C324,C308, C294, C776, C826, C214, RT4	27	Delete reserced power circuit	
Modify 26	Add R916, R915(0R), R917,R918(0R_OP) and CN38	20	Reserved for P75 function of Figer print	
Modify 27	L14 from FRC1394 change to ATCM3216 and Add L20	21	CN5 and CN11(USB) split, cause of ME change location	
Modify 28	Change U43 package from MOS-8 to PMOS-8 and U40 mount	28	For support to supply higher curent (1.8V:10A ; 1.05V :2.1A max)	
Modify 29	R387 change from 5% to 1%	31	For improve accurate charger currect	
Modify 30	CAPS_LED and SCROLL/3G net swap	25	EC required	
Modify 31	Deleted R95 and add B102 ; Deleted R14 and add B103 ; Deleted R10/R11 and add B101 / B104 ; C1000 Deleted R382,R383,R384 and add C1013,C1014,C1015 ,B105 ,B106, B107 Add C895,C896, C899 ; deleted R838,R839, and addB108,B109,B112,B113	15&21 & 34&31 &20	EMI required	
Modify 32	Add Q209, D53	33	For sus-woofer can't mute by codec issue	
Modify 33	Add L21 and delete JP15,B86	27	Co-layout reversed for improve Vocre effect	
Modify 34	CN35 change footprint from 0.5mm to 1.0mm pinch	25	ME required!	
Modify 35	Add B110 to +1.5V and take out B67	7	CLK_GEN power saving	
Modify 36	Add C1018,C1031,C1028,C1022,C1024,C1026,C1029,C1023,C1027, C1030,C1016,C1020,C1019,C1025,C1017,C1021,C1032	15	EMI required	
Modify 37	Add L22_OP and RP22 co-layot and change USB pair ; Add C1033,C1034(OP) and B111	21	EMI required (B111 for +1.5VS cross CLK_GEN)	

RA2 modify list:

Symbol	What change	Page	Why change	Note
RA2: M18	Add C1002/C1003 0.1u Add C1004 0.1u_25V	36	For PCIE6 pair current return path For USB0 pair current return path(remove trace to improve)	
RA2: M19	Add C1005/C1001 0.1u/Y5V_25V Mount L13 DFBW2012T-900S_DINTECH ; take out R430/R429 0R Add B204/B205/B206 0R_0603 Take out C472/B60/B79/C471/C488/C653 B25 from AMC1608Q600NT change to QT1608RL300HC2A R551 from 0R change to 100R B90/B18 from 0R_0805 change to QT2012RL120HC3A-LF_0805 B72/B54 from 33R change to 56R B17 from 0R_0603 change to QT1608RL600_0603 B10/B12 from QT1608RL060 change to QT1608RL600_0603 Add R913 0R Add B207/B208 0R_0603 Add C1006~C1011 0.1uF_0603_OP B29/B85/B73/B9 change to 0R_0603	14 21 33&34 20 15 13 33&34	Reserced for EMI required	EMI memo 2.0
RA2: M20	Add C1012/C1014 0R_0603 ; C1013/C1015 0R_0402	15	Reserced for RAID unstable issue	
RA2: M21	R205 mount 100K	32	eSATA CONN detect pull high	
RB: M01	LT2.3/LT6.6 change to tie to TCD	23		

Uniwill International Corp.

Title: Appendix A. Ver.AtoA1 History

Size: | Document Number: P75/55IMx | Rev: C

3581

Date: Tuesday, March 13, 2007 | Sheet 35 of 37

RA1 change list:

Symbol	What change	Page	Why change	Note
RA1: Modify 01	Add D60 BAT54 between ODD and LED	15	Solving ODD detect fail within HDD issue(BIOS can't detect ODD master or slave)	
RA1: Modify 02	B42 change from QT1608RL060_0603 to QT2012RL030_3A_0805	19	Reserved for more power consumption ODD as HD-DVD	
RA1: Modify 03	Net changed SMBCLK and SMBDAT to ICH_SMBCLK and ICH_SMDATA	17	Net disconnect from SB to CLK GEN	
RA1: Modify 04	R449,R450,R451	9	Intel recommend	
RA1: Modify 05	U24.F20(LAN_TX1-) change to U24.E20	16	update library	
RA1: Modify 06	Net: CRB_SV_DET pull high from +3.3V to 3.3VS	17	Pull high power wrong	
RA1: Modify 07	Change CN26 to 20 pin and add net: MK_I2C_DAT/CLK/INT# to KBC and LED signal Change Net:Mail# to SB_RTCRST to MK_I2C_INT# and SMP1_EN# to H_PROCHOT to MK_I2C_DAT Net: BROWSER# rename to PCM#	15 & 25	For multimedia bottom function used ; Reserved to P75 LED BD	
RA1: Modify 08	Take out R12(1K) and mount R17(1K)	23	Solving +3.3V leakage during power on and S3	
RA1: Modify 09	Net: BT_ON# change to FP_ON# and BT ONchanged to RF_SW#	15/2125	KBC change GPIO to FP_ON# (Finger print ON)	
RA1: Modify 10	Max8744 pin31 tied to net change from VL to 8744REF	29	FAE recommend(voltage rating of FB pin is VLDO+0.3V only)	
RA1: Modify 11	Add net: RAID_CONF0~3 and CN36/CN41	17 & 19	Reserved for P75 H/W RAID configuration setting and CONN	
RA1: Modify 12	Mount R554	17	Implement STP_CPU(NB CLK set Free run)	
RA1: Modify 13	CN9 4P->6P, add net: WEBCAM_ON to EC, deleted +5V power	21 & 25	Implement WEBCAM ON/OFF function	
RA1: Modify 14	Net: Silent LED and BEEP swap	25	BEEP should be generated by EC's PWM	
RA1: Modify 15	Delete L21	27	Delete reserve function	
RA1: Modify 16	USB pair change USB3 to USB5 and CN38 4P->6P and add net:FP_ON#	20 & 21	Implement Finger print ON/OFF function	
RA1: Modify 17	U3/U5 VIN change from +1.8VS to +1.8V and deleted enable; Delete Q46, C598, R543,C596	28 & 30	+1.25VS LDO power change to +1.25V	
RA1: Modify 18	U40 Change from APL5331(2A) to APL5912(5A) and delete U10	28	APL5912 rating(5A) and dropout (200mV) better than APL5331	
RA1: Modify 19	Q47 change from SI2301 to 3LP01	30	Cost saving (VINSW current = 44uA)	
RA1: Modify 20	Add B203 0R_0805, B79/B80 QT1608RL600_0603 ; B66/B110 QT1608RL600HC-1A_0603	7/20/33	EMI requirement	
RA1: Modify 21	Add U50_OP and U4.7 change net to HDMI_SPDIF_ON#	33	U50 reserved for SPDIF buffer ; Could be controlled be codec	
RA1: Modify 22	Add net: MUTE	34	MUTE to controlled HP POP issue	
RA1: Modify 23	F2 0603->1206 ; R413 40mR->25mR ; R387 39K-> ??K ; Add R1003 100K / R925 100K->127K	31	F2 co-layout poly switch; combine with DC1	
RA1: Modify 24	Delete C148/C247 ; SRC11 change to RAID CLK	7	SPEC changed	
RA1: Modify 25	U32 from 24PIN to 28 PIN and deleted CN29	25	New K/B supported	
RA1: Modify 26	Add Cap reserved to power by pass ; change pull high power plane	20	Reserved for imporvement power drop ; the circuit wrong	
RA1: Modify 27	Add R between HP R/L line	34	Reserved for HP amplitude requirememt	
RA1: Modify 28	Take out R and C	33	Imporing background noise	
RA1: Modify 29	Add R between HP R/L line	33	Reduce amplitude to meet requirement	
RA1: Modify 30	Take out some component	33	Taking out reserved function	
RA1: Modify 31	Crystal change to SMD	16 & 25	Manufactory required	
RA1: Modify 32	Modify Charger circuit	14 & 31	Reference DC1 circuit and hope to improve yield	
RA1: Modify 33	Modify Cap value	07 & 24	Fine tune crystal precision	
RA1: Modify 34	R change from 100K to 31.6K	15	PWM inverter sink current higher	
RA1: Modify 35	CD tired to GND ; MUTE function ; LINE IN Cap	33 & 34	Vista not support anlog ; ADI can't lost ; AP measure fail	

RA2 modify list:

Symbol	What change	Page	Why change	Note
RA2: M01	Mount R647/R692/R693/R694 4.7K; R673/R748/ 1K; R676/R679/R727 0R; R240 1K_OP Deleted Q76_OP; Add R912 100K	14	For implement smart power function	
RA2: M02	Add R900 4.7K_OP	29	Reserved for AC fast plug in/out fail issue	From DC1 recommend
RA2: M03	Add R904/R906 10K, R902/R903//R905/R907/R908R909 10K_OP Mount R339 10K	15	Solving LED flash when main power insert first For RAID LED pull high	
RA2: M04	Mounting D29 and deleted JP12 ; TL594.9 tried to GND	14 & 31	D29_OP made leakage ; mistake net.	
RA2: M05	C50 remove colse to IC ; R106 pull high form 3.3V change to APA_5V U21 package from LQFP48/QFN change to QFN48	33 & 34	Solving POP noise Manufactory requisition	
RA2: M06	Mounting R356/R357 4.7K	21	Implement WLAN and Buletooth coexistence function	
RA2: M07	R9 from 24.9R_1 change to 56R R57 from 0R change to 0R_OP and add R910 0R DMI_ZCOMP pull high power from +1.5V change to VCCA3GP R535/R564/R562/R90/R89/R550/R126/R533/R98/R534 from 0R change to 10K R672 changed form 1K_1 to 392R_1	05 17 09	Intel recommend	
RA2: M08	Mounting C320 820uF/2.5V and delete C319 220uF/6.3V C388 from 220uF/6.3V_SMT change 820uF/2.5V_DIP R785 from 43.2K_1 change to 51.1K_1	28	Manufactory requisition (don't co-lay) and cost saving Cost saving Increasing +1.05VS to +1.1VS, prevent voltage drop on the end	
RA2: M09	Add D50~D51 UDZ3V3/0.2W_OP	15	Reserved for FPC cable shift and made EOS issue	
RA2: M10	Add R911 0R_0603_OP	23	Reserved for RTL8101E	
RA2: M11	CN16.11 power from +5VS cahnge to +5V and add pin12 to +5VS	25	LPC is used to normal 5V power plane	
RA2: M12	R731 mount 0R	27	Correcting schematic (VRHOT# is OD INPUT)	
RA2: M13	C153/C145 from 3900pF_0603 change to 0402 R629 from 24.9R_1 change to 18R_1 Add C1000 0.1uF/25V R807 mount 0R	16 22 19	For share the same component on BOM Increasing SATA driving stream to meet eye pattern measure For SATA current return path For SATA spec requirement	
RA2: M14	EC_GPJ4 from SMP1_EN#(SB_RTCRST#) change to TV_ON EC_GPE6 cahnge to FAN_SPD#(SB_RTCRST) SMP1_EN# from EC_GPJ4 changr to ICH_GPIO2	21 & 25 25 19 & 25	Add TV ON function	
RA2: M15	CN17 from Vertial change to right angle (88267-0300)	22	Reserved for support VGA type III	
RA2: M16	C61 100uF_DIP change 4.7uF/6.3V_0805	33	Solving POP noise	
RA2: M17	Add B200~B203 0R_0603_OP	13	Reseved for EMI	

*Note: After item of RA2: M18, please seem appendix A

Uniwill International Corp.

Title: Appendix A. Ver.AtoA1 History

Size: | Document Number: P75/55IMx 3581 | Rev: C

Date: Tuesday, March 13, 2007 | Sheet 36 of 37

*** Rev.B to B1 whcih was changed Codec from ADI1986A to ALC883 ***

RB1 modify list:

Symbol	What change	Page	Why change	Note
RB1: M01	Add R553 20K_1 ; HP_R/L SWAP ; R157/R581 0R->75R Net: SR_OUT_R/L changed channel from sidesurround to surround	33 & 34	The codec's sense resistor miss ; tried wrong net ; AP measure Following up L50II0 pin definition	
RB1: M02	Add JP30 co-lay with Q45 and take out Q45	28 & 30	Power on sequence to simplfy and improved MOS Rds(ON) lose and cost saving.	EC change "+1.05VS_ON" sequence to follow "+1.8V_ON"
RB1: M03	Mount U26 APL5331, C208/C297/C233 1uF_0603, R209 100K_1, R213 120K_1, C799 4.7uF_0805 and R222 0R/ R205 100K take out and mount R201 0R Add C1200/C1201 10uF_1206_OP and C1202 0.1uF_OP and B251 0R_0603 and C194 cahnge net form _VDDx to VDDA_1.8V	32	Solving PCIe unstable and auto reset issue Resversed for improve power ripple and platform reset nose and Vendor recommend improved for IC's power	
RB1: M04	Add C1203/C1204 0.1uF, C1205/C1206/C1207/C1208 0.1uF_OP			
RB1: M05	Swap net: PWRSW, LID#, FAN_SPD# and update project ID table	25	For support wake up function and sort PCBA REV.B or REV.C	
RB1: M06	R902 mount 10K and add C1209 0.1uF_OP	15	Solving suspend LED flash when first plug-in power and resversed ESD issue	
RB1: M07	Take out CN32	21	FP CONN take out	
RB1: M08	C827 package change form 0805 to 0603 R734 change form 71.5K to 36.1K_1; R744 change form 4.75K to 6.89K_1	27	0.22u/X7R_25V_603 package is public C827 package change form 0805 to 0603	
RB1: M09	Add C1201 0.1uF_0603_OP	14	Resversed for EMI	
RB1: M10	C926 change form 0.1uF_OP to 1uF_0603	31	Improved for BAT_I signal	
RB1: M11	Add C1211~C1214	22	EMI required	
RB1: M12	C325, C301, C324, C302, C331, C305 mount 0.1 u C648, C653, C652, C513,C27 mount 680p; B60, B79 mount 0R B16 QT1608RL600 0603 -> 0R_0603, R627 0R->QT1608BL300_0603 Add C1216/C1217 0.1uF	15 34 20 15	EMI required (EMI memo 2.2) EMI required (EMI memo 3.3)	
RB1: M13	RT2 roatae 180 degree(library modify)	23	Improvement 10/100 LAN signal	
RB1: M14	Add Q200~Q202 2N7002, R1000~R1002 100K, R1003/R1004 20K_1, C1215 0.1uF_OP, B252 0R_0603 and add net: CODEC_GPID0	33 & 34	Realtek recommend circuit	
RB1: M15	L13/L14 change layout footprint and delete R429/R430 0R_OP	20 & 21	Improvement SMT	
RB1: M16	R92/R93 0R-> 10K , Add R1005/R1006 1K	33	Improvement MIC quality	
RB1: M17	R258 1K->OP, R242 1K->OP, R249 1K->OP, R253 mount 1K	25	For support wake up function and sort PCBA REV.B or REV.C	