662T-M Rev: 1.2

Revision History :

Ver A: 1. First Realse

Ver 1.0: 1. Remove RTL8201CL Co-lay
2. Change PWM Spec
3. Single Fuse For Each USB Port
4. Add SLP_S5- Signal For DIMM Power Control
5. FIX GLED GPIO Selection To GPIO14
6. Reverse GPIO 11 For Lan-Phy AC131 Reset
7. Modify DIMM SPD Power BY VCC3
8. Change LAN ESD Part From BAV99 to SRV05
9. Modify ICSPR600 Vttpwr GD By ISL6312 PWGD and Spilit NB TESTMODE2 Circuit
10. Modify 3-Pin Fan Control Transistor To TO-251

Ver 1.1: For 662 FSB OC 1066 MHz

Ver 1.1A PCB : 15-Q73-011110
Ver 1.1A BOM : 89-206-Q73130 For 662 FSB 1066 MHz
Ver 1.1A BOM : 81-605-Q73131 For 662 FSB 800 MHz
Ver 1.1A BOM : 81-605-Q73132 For 662 OC 1066 MHz

Ver 1.2 PCB : 15-Q73-011200
Ver 1.2 BOM : 89-386-Q73140 For 662 FSB 1066 MHz
Ver 1.2 BOM : 89-386-Q73141 For 662 FSB 800 MHz
Ver 1.2 BOM : 89-206-Q73142 For 662 OC 1066 MHz

	SIGNATURE	DATE
DESIGNER	Jason	
LAYOUT	ECS Layout team	
CHECK	Jason	
APPROVAL		

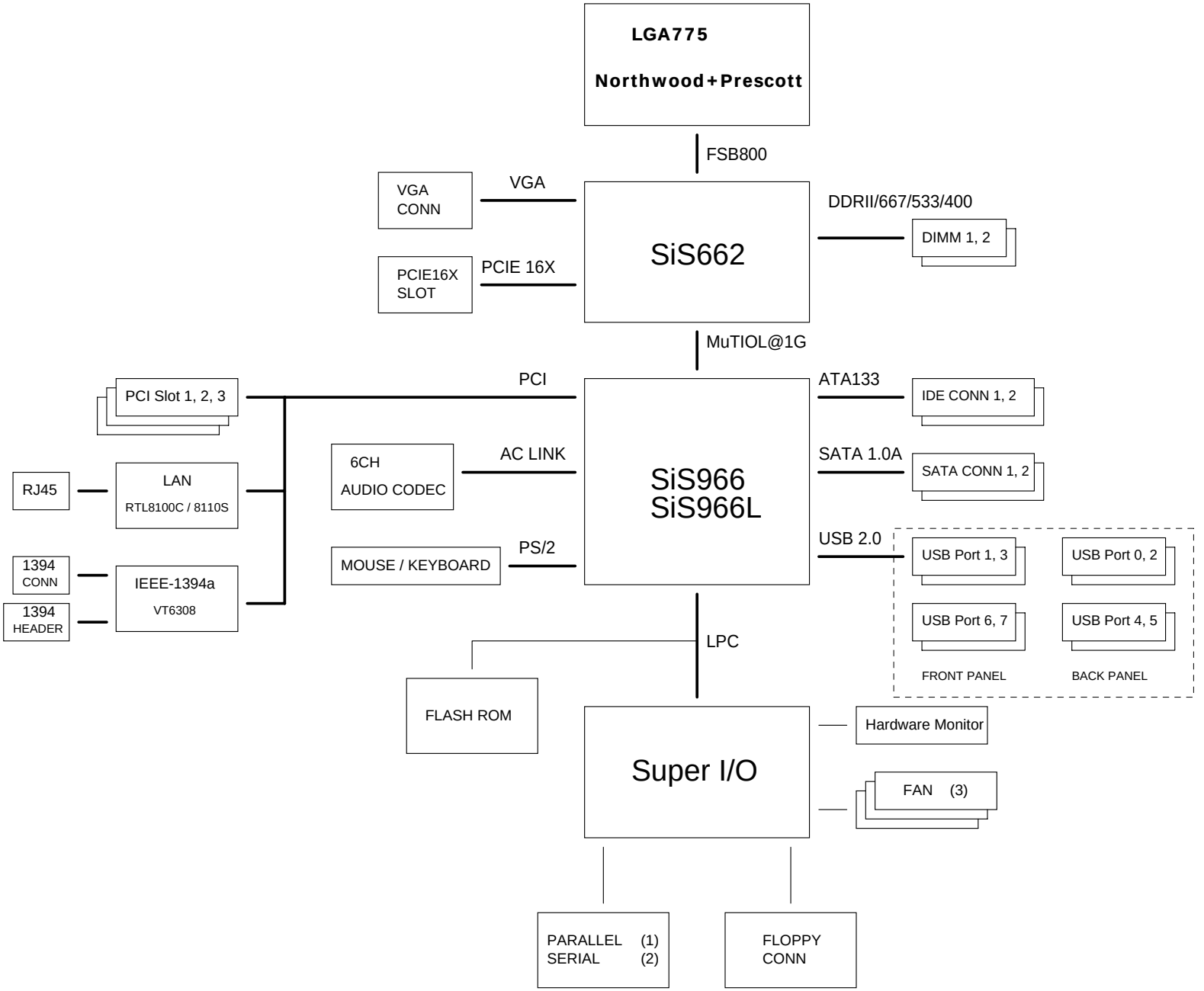
Page Index

Update note:

1. Page 5, modified R162 from 100 to 49.9.
2. Page 7, modified R126 from 14 to 10.
. Page 7, modified R117 from 100 to 120.
. Page 7, modified R756 from 619 to 261.
. Page 7, modified SR1 from 100 to 49.9.
. Page 7, modified SR4 from 169 to 100.
3. Page 15, modified R840, R841, and R842 from 1K to 4.7K. and R843, R844, and R845 from 4.7K to 1K.
4. Page7, modified R804 from 124 to 150.
5. Page7, modified R805 from 500 to 680.
6. Page 34, modified PWM.
7. Page 8, R810 pull high to Vcc3.
8. Page 12, delete 965 KB/MS controller.
. Page 12, modified R873, R874 from 1K to 4.7K.
9. Page 15, modified R73 from 22 to 33.
10. Page 15, modified C68 from 10p to 22p.
. Page 15, modified C101 from 10p to 22p.
11. Page 21, add U26~U29 four ESD IC.
. Page 21, add C1014 and C1016 for EMI.
12. Page 24, add D705~D708 four surge IC.
13. Page 26, add D703 and D704 for preventing pop noise.
14. Page 27, add C1018, C1019, and C1020 for EMI.
15. Page 27, add C1012(1U) to solve MIC issue.
16. Page 27, fine tune audio interface resistance and capacitance.
17. Page 28, changed ITE 8705 to ITE 8712.
18. Page 32, modified R288 from 200 to 187.
19. Page 33, use Q7 and Q8 to replace Vcc_Dual circuit.
20. Page 5, modified to support Smithfield.
21. Page 7, Add Q15,R257 (06.09.20)

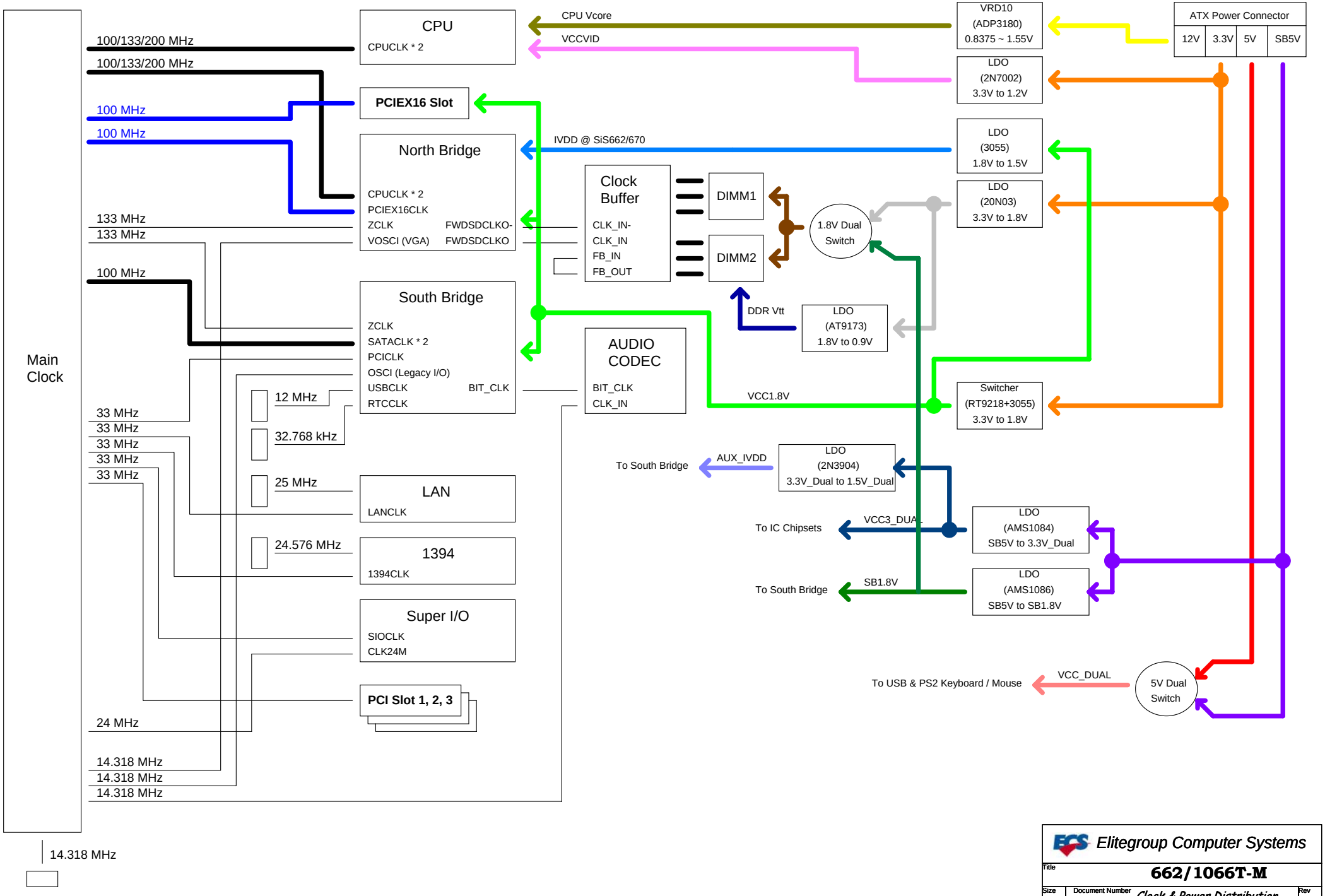
Elitegroup Computer Systems

Title	662/1066T-M	
Size: Custom	Document Number: Cover Sheet	Rev: 1.2
Date: Friday, October 27, 2006	Sheet 1 of 36	



Elitegroup Computer Systems

Title	662/1066T-M	
Size: Custom	Document Number: Block Diagram	Rev: 1.2
Date: Friday, October 27, 2006	Sheet 2 of 36	

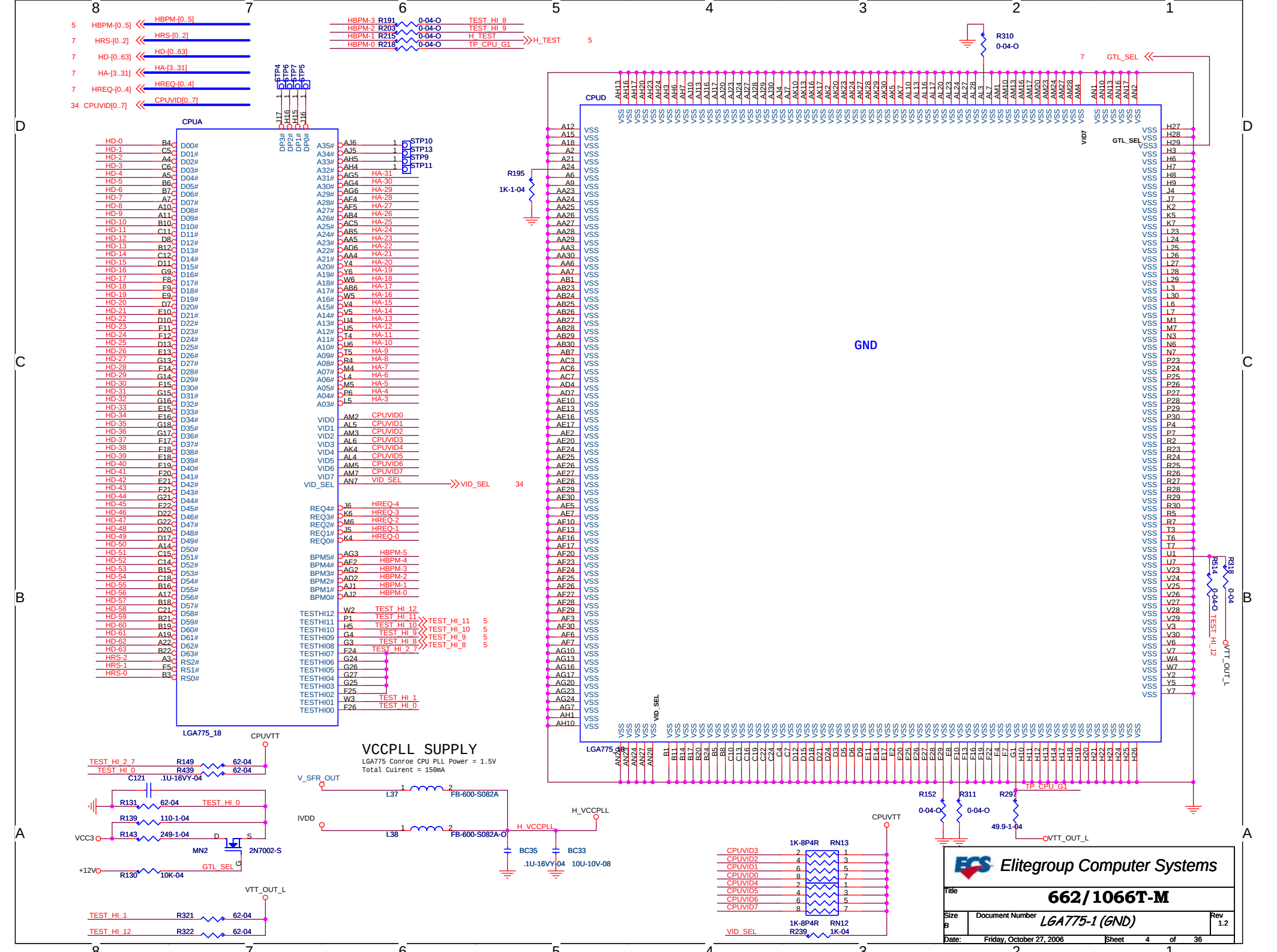


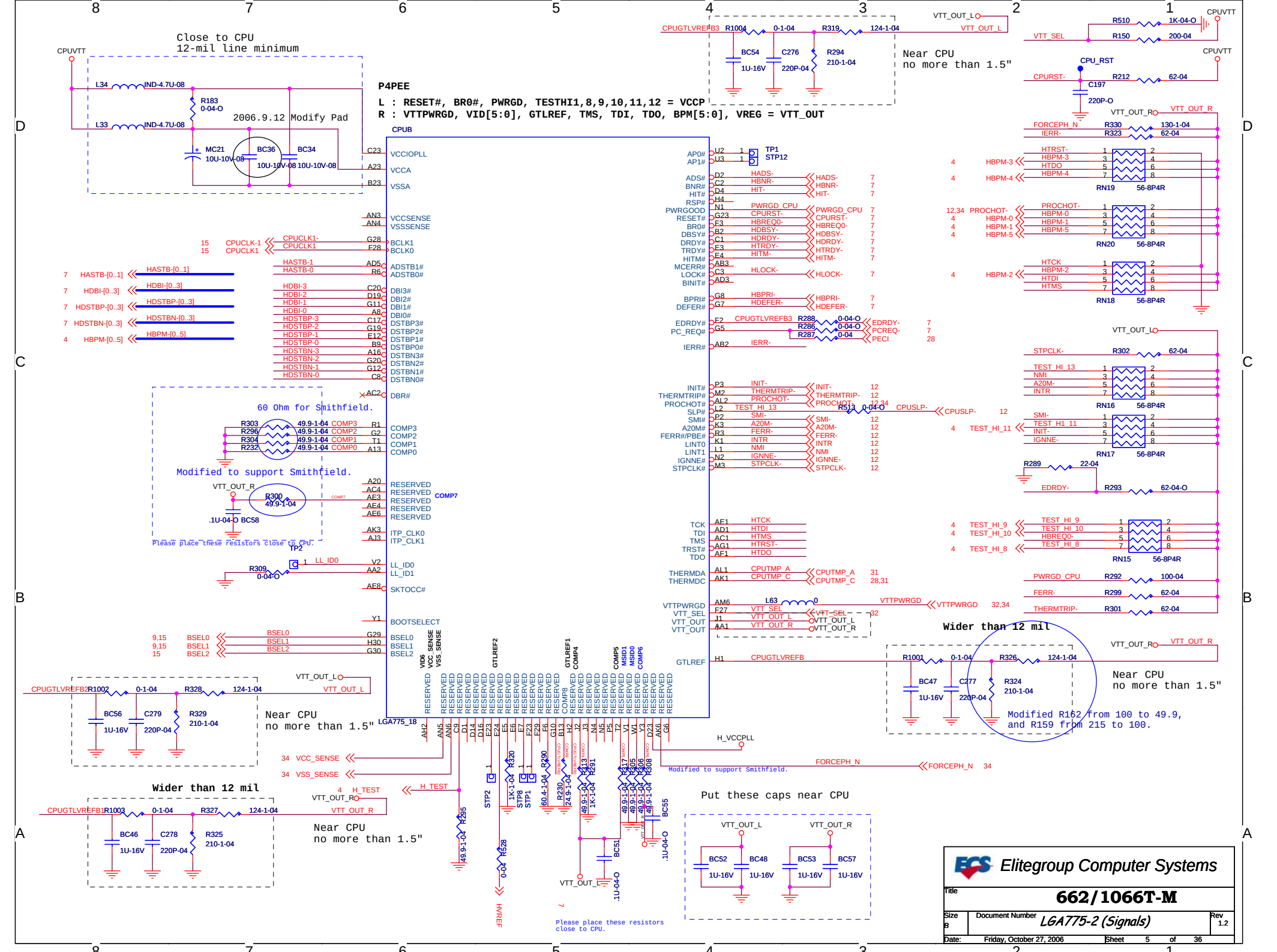
Elitegroup Computer Systems

Title: 662/1066T-M

Size: Custom | Document Number: Clock & Power Distribution | Rev: 1.2

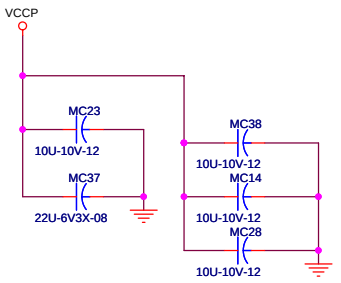
Date: Friday, October 27, 2006 | Sheet 3 of 36


CPUA
CPUD
LGA775_18
LGA775_GND
GND
VCCPLL SUPPLY
LGA775 Conroe CPU PLL Power = 1.5V
Total Cuirent = 150mA
Elitegroup Computer Systems
662/1066T-M
LGA775-1 (GND)
Friday, October 27, 2006
Sheet 4 of 36

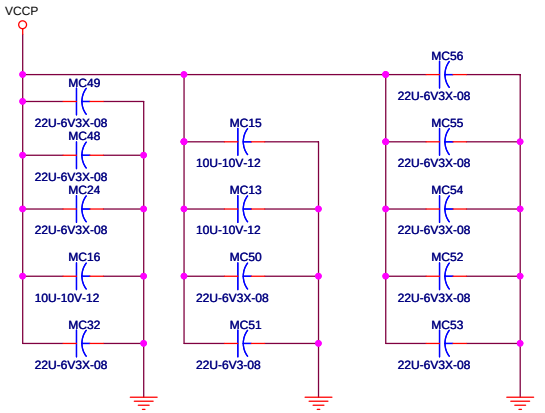

Close to CPU
12-mil line minimum
CPUVTT
L34 IND-4.7U-08
L33 IND-4.7U-08
R183 0-04-O
2006.9.12 Modify Pad
MC21 10U-10V-08
BC36 10U-10V-08
BC34 10U-10V-08
P4PEE
L : RESET#, BR0#, PWRGD, TESTHI1,8,9,10,11,12 = VCCP
R : VTTPWRGD, VID[5:0], GTLREF, TMS, TDI, TDO, BPM[5:0], VREG = VTT_OUT
CPUB
60 Ohm for Smithfield.
Modified to support Smithfield.
Please place these resistors close to CPU.
LGA775_18
Near CPU
no more than 1.5"
Wider than 12 mil
Modified R162 from 100 to 49.9,
and R159 from 215 to 100.
Put these caps near CPU
Please place these resistors close to CPU.
Elitegroup Computer Systems
662/1066T-M
LGA775-2 (Signals)
Friday, October 27, 2006

P.S. Choose X5R components instead of Y5V for all 22uF_1206 capacitors on this page.

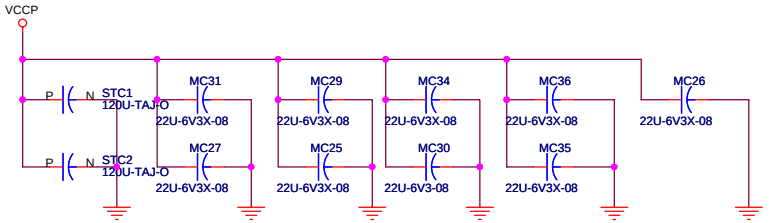
Put these capacitors at processor TOP SIDE

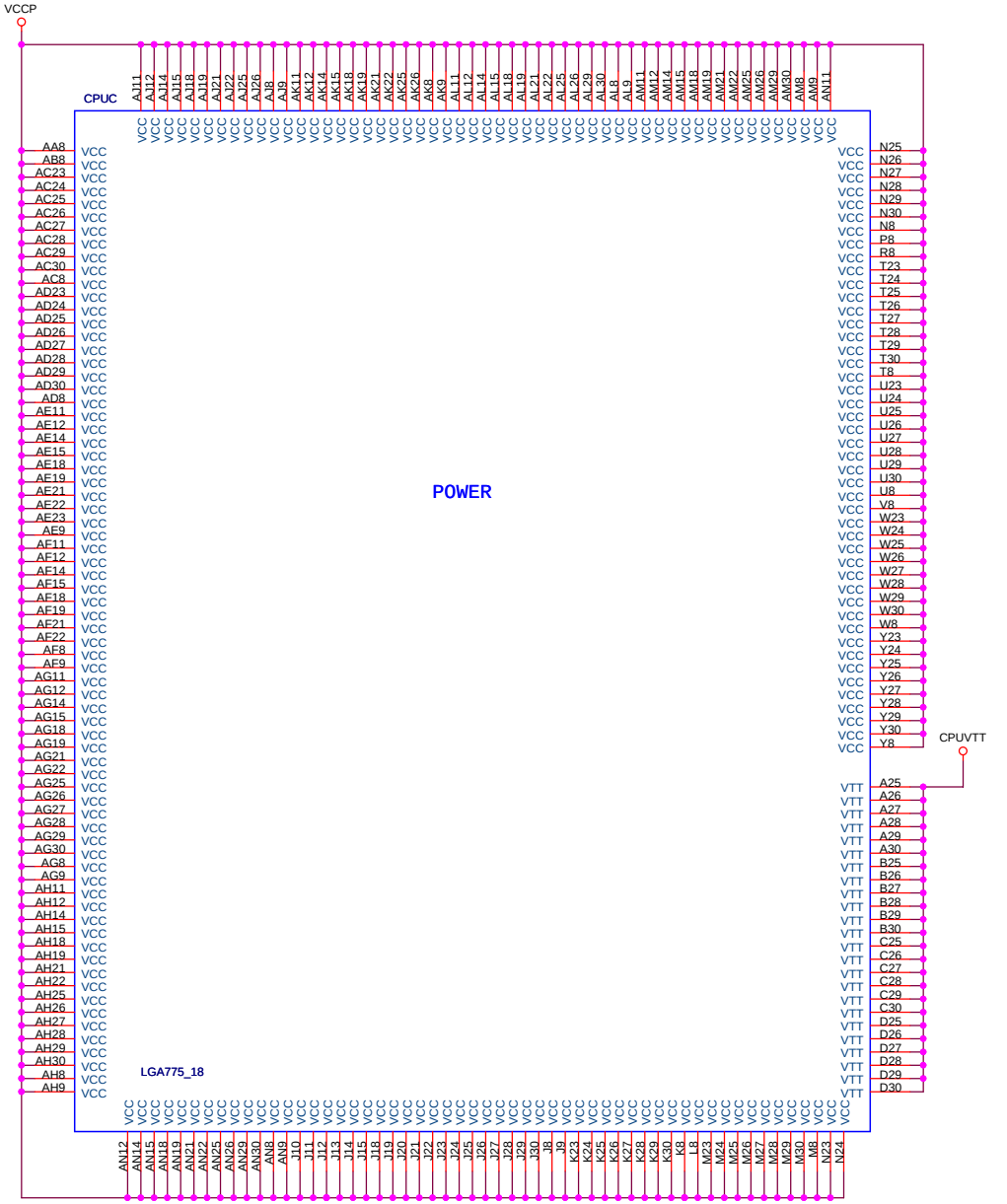


Put these capacitors at processor LEFT SIDE

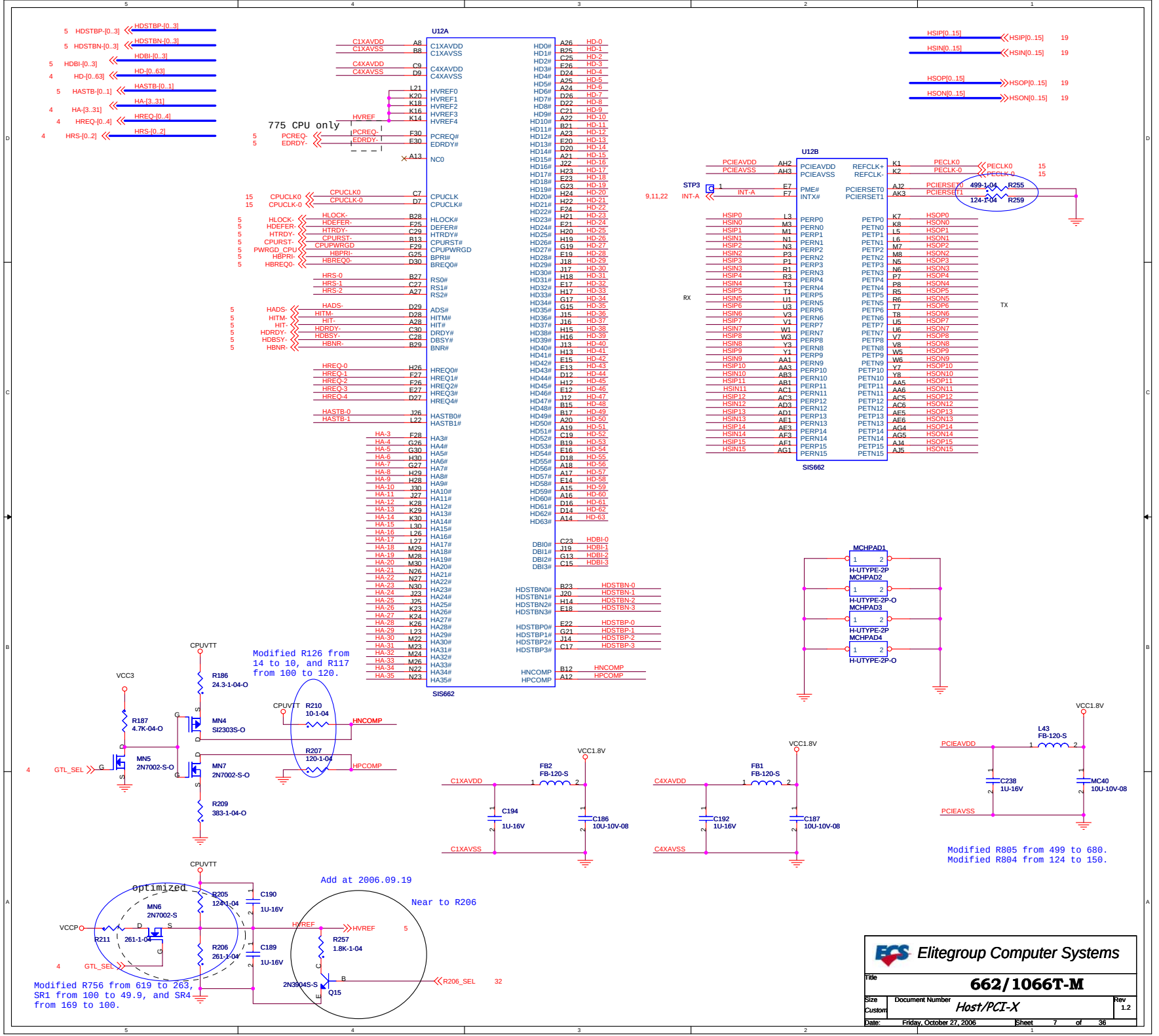


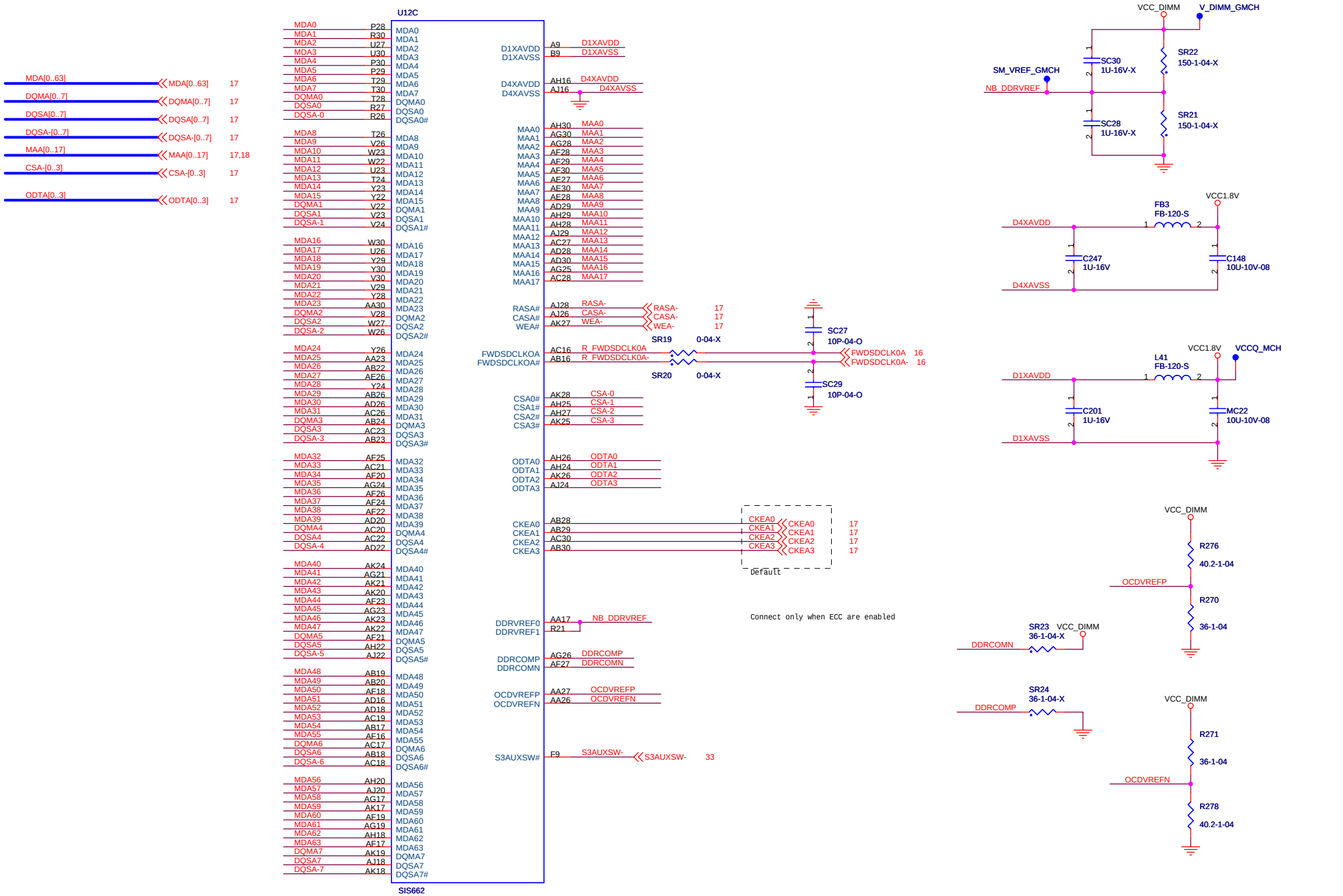
Put these capacitors INSIDE PROCESSOR CAVITY



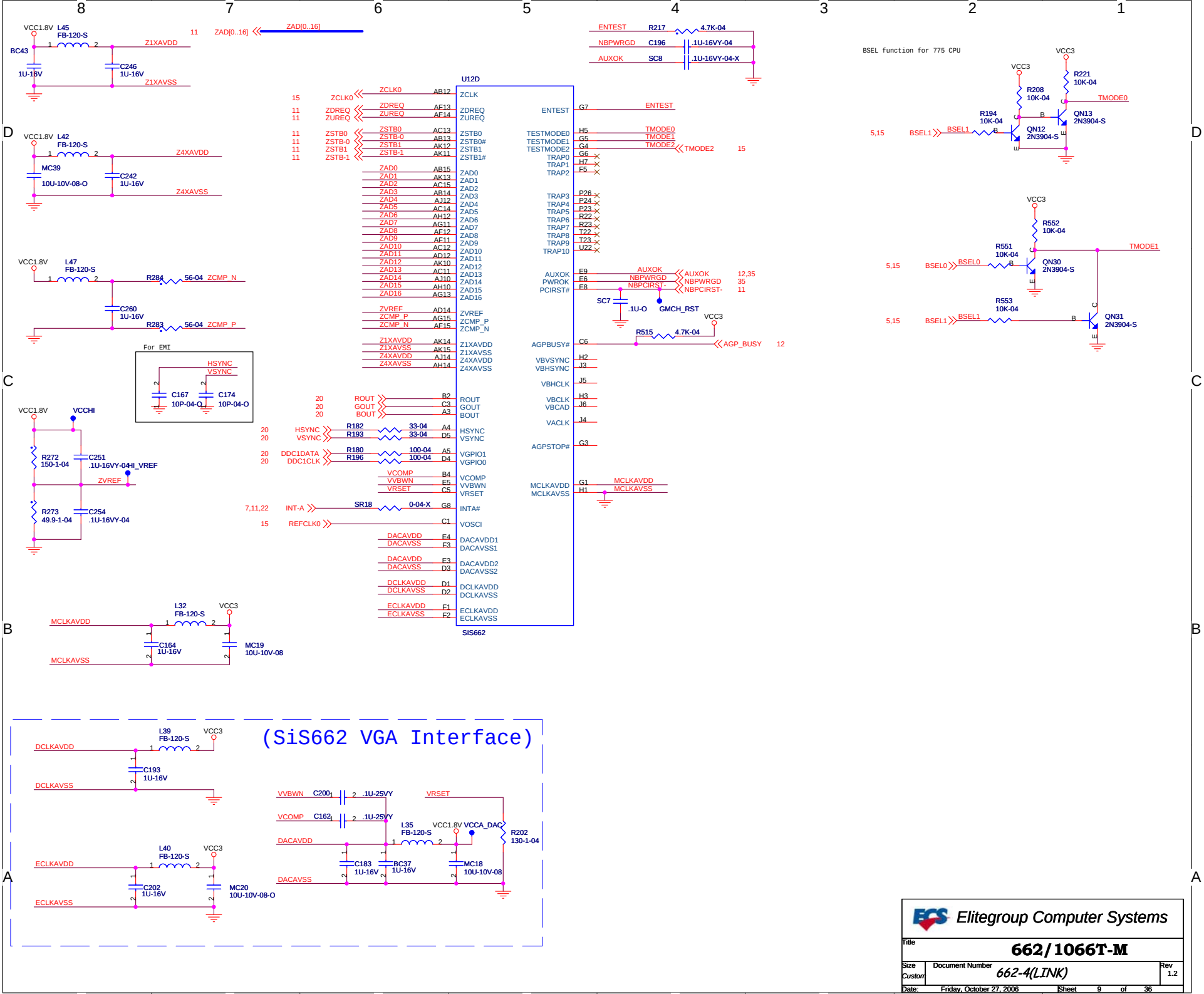


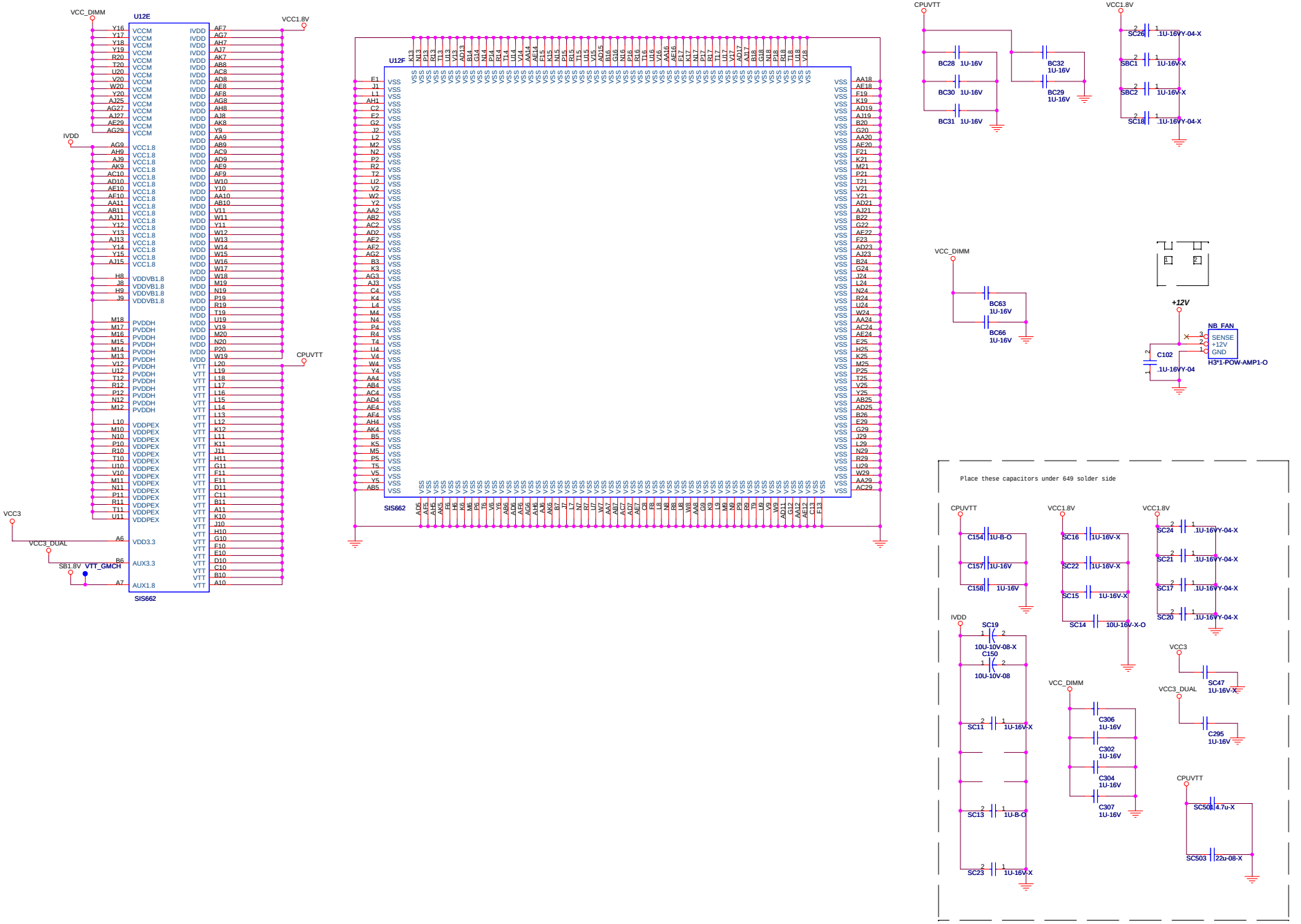
Elitegroup Computer Systems			
Title: 662/1066T-M			
Size: B	Document Number: LGA755-3 (Power)		Rev: 1.2
Date: Friday, October 27, 2006	Sheet 6 of 36		


U12A
SIS662
775 CPU only
U12B
SIS662
Modified R126 from 14 to 10, and R117 from 100 to 120.
Add at 2006.09.19
Near to R206
optimized
Modified R756 from 619 to 263, SR1 from 100 to 49.9, and SR4 from 169 to 100.
Modified R805 from 499 to 680.
Modified R804 from 124 to 150.
Elitegroup Computer Systems
662/1066T-M
Host/PCI-X
Friday, October 27, 2006

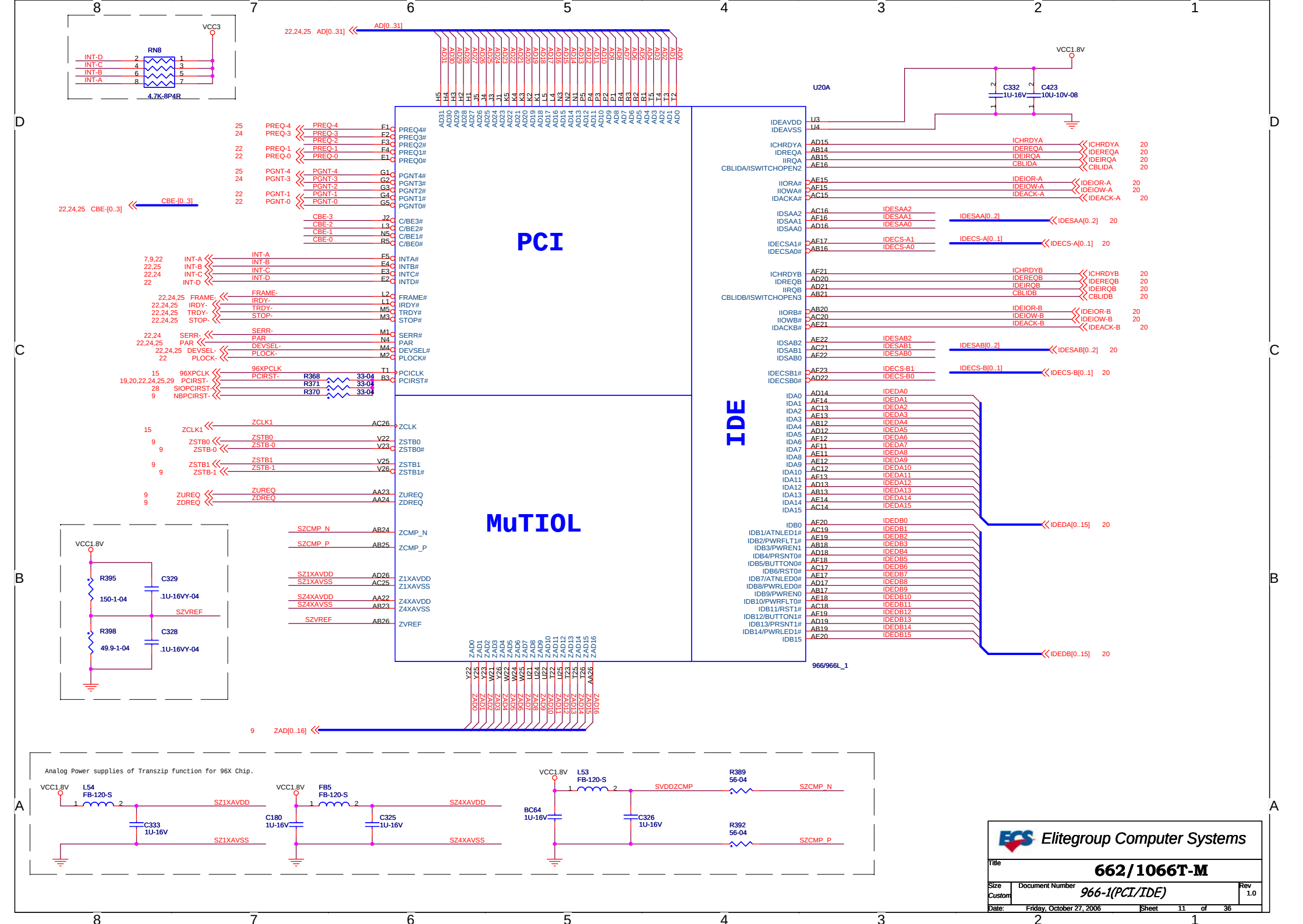


Elitegroup Computer Systems	
Title	662/1066T-M
Size: Custom	Document Number: 662-2(UMCA)
Rev: 1.2	
Date: Friday, October 27, 2006	Sheet 8 of 36


U12D
SIS662
ZAD[0..16]
ENTEST
TMODE0
TMODE1
TMODE2
AUXOK
NBPWRGD
NBPCIRST-
GMCH_RST
AGP_BUSY
HSYNC
VSYNC
ROUT
GOUT
BOUT
DDC1DATA
DDC1CLK
INT-A
REFCLK0
VCOMP
VVBWN
VRSET
MCLKAVDD
MCLKAVSS
ZCMP_N
ZCMP_P
ZVREF
VCCHI
VCC1.8V
VCC3
BSEL function for 775 CPU
(SiS662 VGA Interface)
VCCA_DAC
DACAVDD
DACAVSS
DCLKAVDD
DCLKAVSS
ECLKAVDD
ECLKAVSS
Elitegroup Computer Systems
662/1066T-M
Document Number
662-4(LINK)
Friday, October 27, 2006



Elitegroup Computer Systems			
Title: 662/1066T-M			
Size: Custom	Document Number: 662-4(Power)		Rev: 1.2
Date: Friday, October 27, 2006	Sheet 10 of 36		


PCI
MuTIOL
IDE
RN8
4.7K-8P4R
VCC3
INT-D
INT-C
INT-B
INT-A
AD[0..31]
CBE-[0..3]
PREQ-4
PREQ-3
PREQ-2
PREQ-1
PREQ-0
PGNT-4
PGNT-3
PGNT-2
PGNT-1
PGNT-0
CBE-3
CBE-2
CBE-1
CBE-0
FRAME-
IRDY-
TRDY-
STOP-
SERR-
PAR
DEVSEL-
PLOCK-
96XPCLK
PCIRST-
R368
R371
R370
33-04
ZCLK1
ZSTB0
ZSTB-0
ZSTB1
ZSTB-1
ZUREQ
ZDREQ
SZCMP_N
SZCMP_P
SZ1XAVDD
SZ1XAVSS
SZ4XAVDD
SZ4XAVSS
SZVREF
ZAD[0..16]
U20A
966/966L_1
VCC1.8V
C332
1U-16V
C423
10U-10V-08
IDEAVDD
IDEAVSS
ICHRDYA
IDREQA
IIRQA
CBLIDA/ISWITCHOPEN2
IIORA#
IIOWA#
IDACKA#
IDSAA2
IDSAA1
IDSAA0
IDECSA1#
IDECSA0#
ICHRDYB
IDREQB
IIRQB
CBLIDB/ISWITCHOPEN3
IIORB#
IIOWB#
IDACKB#
IDSAB2
IDSAB1
IDSAB0
IDECSB1#
IDECSB0#
IDA0
IDA1
IDA2
IDA3
IDA4
IDA5
IDA6
IDA7
IDA8
IDA9
IDA10
IDA11
IDA12
IDA13
IDA14
IDA15
IDB0
IDB1/ATNLED1#
IDB2/PWRFLT1#
IDB3/PWREN1
IDB4/PRSNT0#
IDB5/BUTTON0#
IDB6/RST0#
IDB7/ATNLED0#
IDB8/PWRLED0#
IDB9/PWREN0
IDB10/PWRFLT0#
IDB11/RST1#
IDB12/BUTTON1#
IDB13/PRSNT1#
IDB14/PWRLED1#
IDB15
IDESAA[0..2]
IDECS-A[0..1]
IDESAB[0..2]
IDECS-B[0..1]
IDEDA[0..15]
IDEDB[0..15]
R395
150-1-04
C329
.1U-16VY-04
R398
49.9-1-04
C328
.1U-16VY-04
Analog Power supplies of Transzip function for 96X Chip.
L54
FB-120-S
C333
1U-16V
FB5
C180
C325
L53
BC64
C326
SVDDZCMP
R389
56-04
R392
Elitegroup Computer Systems
662/1066T-M
966-1(PCI/IDE)
Friday, October 27, 2006
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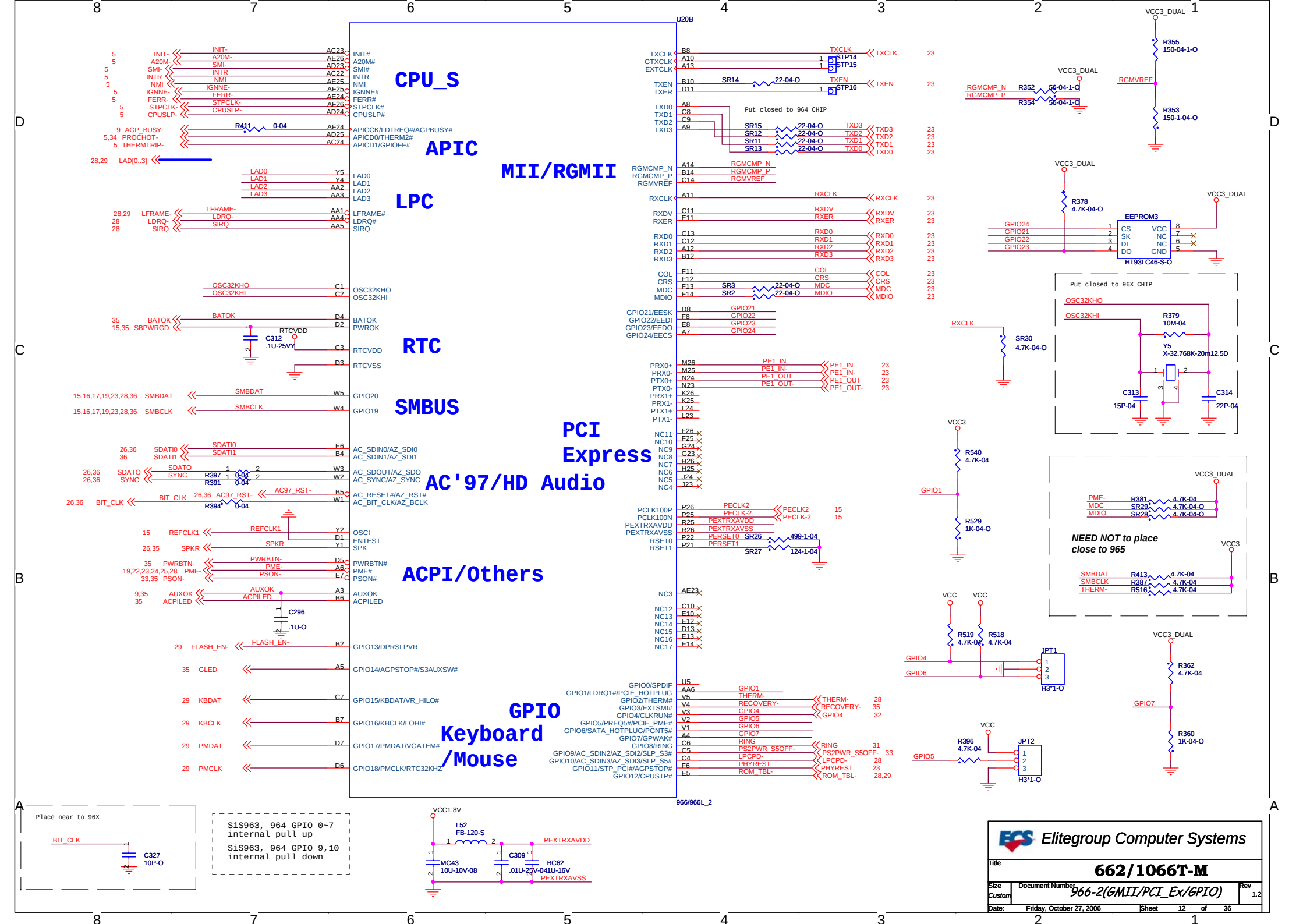
U20B
CPU_S
APIC
LPC
RTC
SMBUS
PCI Express
AC'97/HD Audio
ACPI/Others
GPIO Keyboard /Mouse
MII/RGMII
INIT#
A20M#
SMI#
INTR
NMI
IGNNE#
FERR#
STPCLK#
CPUSLP#
APICCK/LDTREQ#/AGPBUSY#
APICD0/THERM2#
APICD1/GPIOFF#
LAD0
LAD1
LAD2
LAD3
LFRAME#
LDRQ#
SIRQ
OSC32KHO
OSC32KHI
BATOK
PWROK
RTCVDD
RTCVSS
GPIO20
GPIO19
AC_SDIN0/AZ_SDI0
AC_SDIN1/AZ_SDI1
AC_SDOUT/AZ_SDO
AC_SYNC/AZ_SYNC
AC_RESET#/AZ_RST#
AC_BIT_CLK/AZ_BCLK
OSCI
ENTEST
SPK
PWRBTN#
PME#
PSON#
AUXOK
ACPILED
GPIO13/DPRSLPVR
GPIO14/AGPSTOP#/S3AUXSW#
GPIO15/KBDAT/VR_HILO#
GPIO16/KBCLK/LOHI#
GPIO17/PMDAT/VGATEM#
GPIO18/PMCLK/RTC32KHZ
TXCLK
TXEN
TXD0
TXD1
TXD2
TXD3
RGMCMP_N
RGMCMP_P
RGMVREF
RXCLK
RXDV
RXER
RXD0
RXD1
RXD2
RXD3
COL
CRS
MDC
MDIO
GPIO21/EESK
GPIO22/EEDI
GPIO23/EEDO
GPIO24/EECS
PRX0+
PRX0-
PTX0+
PTX0-
PRX1+
PRX1-
PTX1+
PTX1-
NC11
NC10
NC9
NC8
NC7
NC6
NC5
NC4
PCLK100P
PCLK100N
PEXTRXAVDD
PEXTRXAVSS
RSET0
RSET1
NC3
NC12
NC13
NC14
NC15
NC16
NC17
GPIO0/SPDIF
GPIO1/LDRQ1#/PCIE_HOTPLUG
GPIO2/THERM#
GPIO3/EXTSMI#
GPIO4/CLKRUN#
GPIO5/PREQ5#/PCIE_PME#
GPIO6/SATA_HOTPLUG/PGNT5#
GPIO7/GPWAK#
GPIO8/RING
GPIO9/AC_SDIN2/AZ_SDI2/SLP_S3#
GPIO10/AC_SDIN3/AZ_SDI3/SLP_S5#
GPIO11/STP_PCI#/AGPSTOP#
GPIO12/CPUSTP#
966/966L_2
Put closed to 964 CHIP
Put closed to 96X CHIP
EEPROM3
HT93LC46-S-O
NEED NOT to place close to 965
Place near to 96X
SiS963, 964 GPIO 0~7 internal pull up
SiS963, 964 GPIO 9,10 internal pull down
VCC1.8V
L52
FB-120-S
MC43
10U-10V-08
C309
.01U-25V-041U-16V
BC62
PEXTRXAVDD
PEXTRXAVSS
VCC3_DUAL
VCC3
VCC
H3*1-O
JPT1
JPT2
Elitegroup Computer Systems
662/1066T-M
966-2(GMII/PCI_Ex/GPIO)
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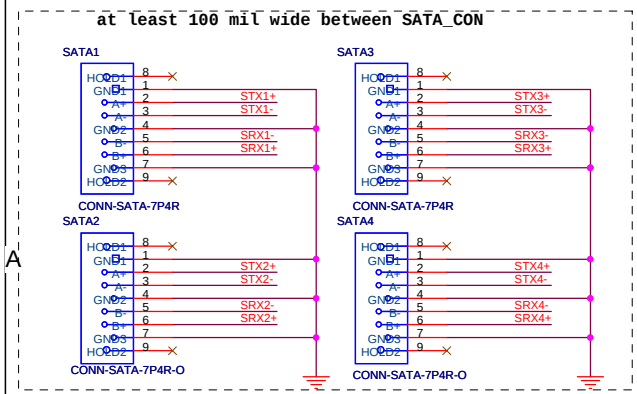
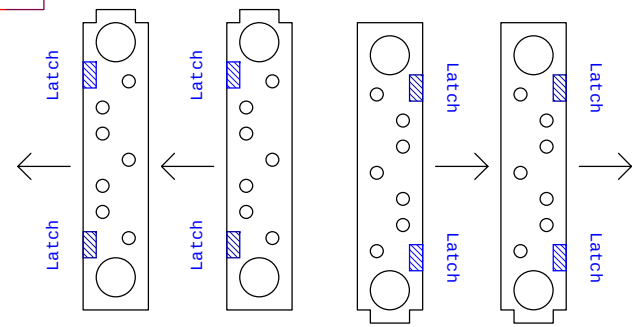
Sheet 12 of 36

USB

SATA





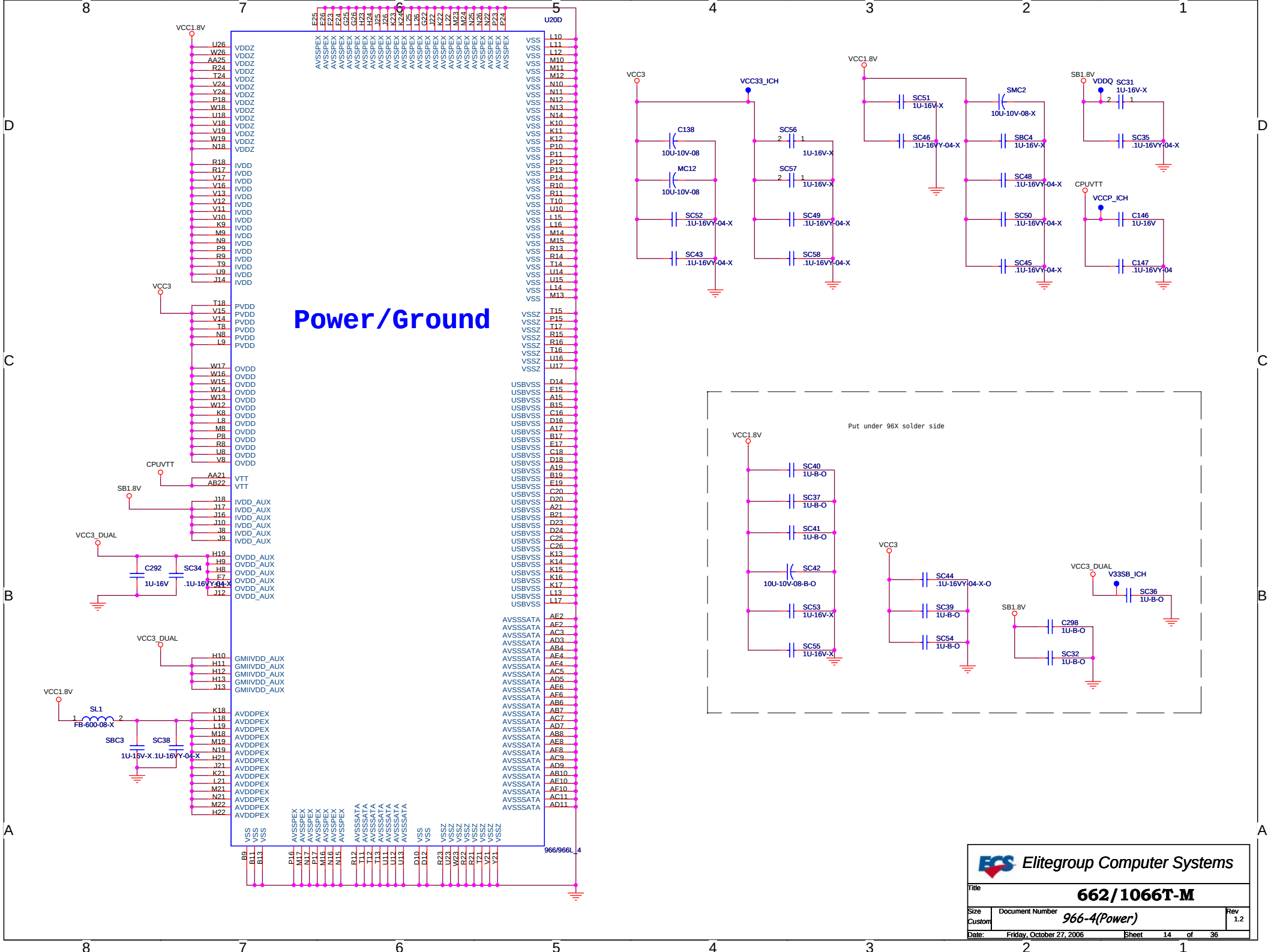
	0	1	Default	
				internal pull-low (30~50K Ohm)
SPKR(First Flash Memory cycle type selection)	LPC Memory Cycle	Firmware Memory Cycle	0	Yes
SDAT0(Trap from)	ROM	PCI AD	0	Yes
OC45-(SB debug mode)	enable	disable	1	No

Elitegroup Computer Systems

Title: 662/1066T-M

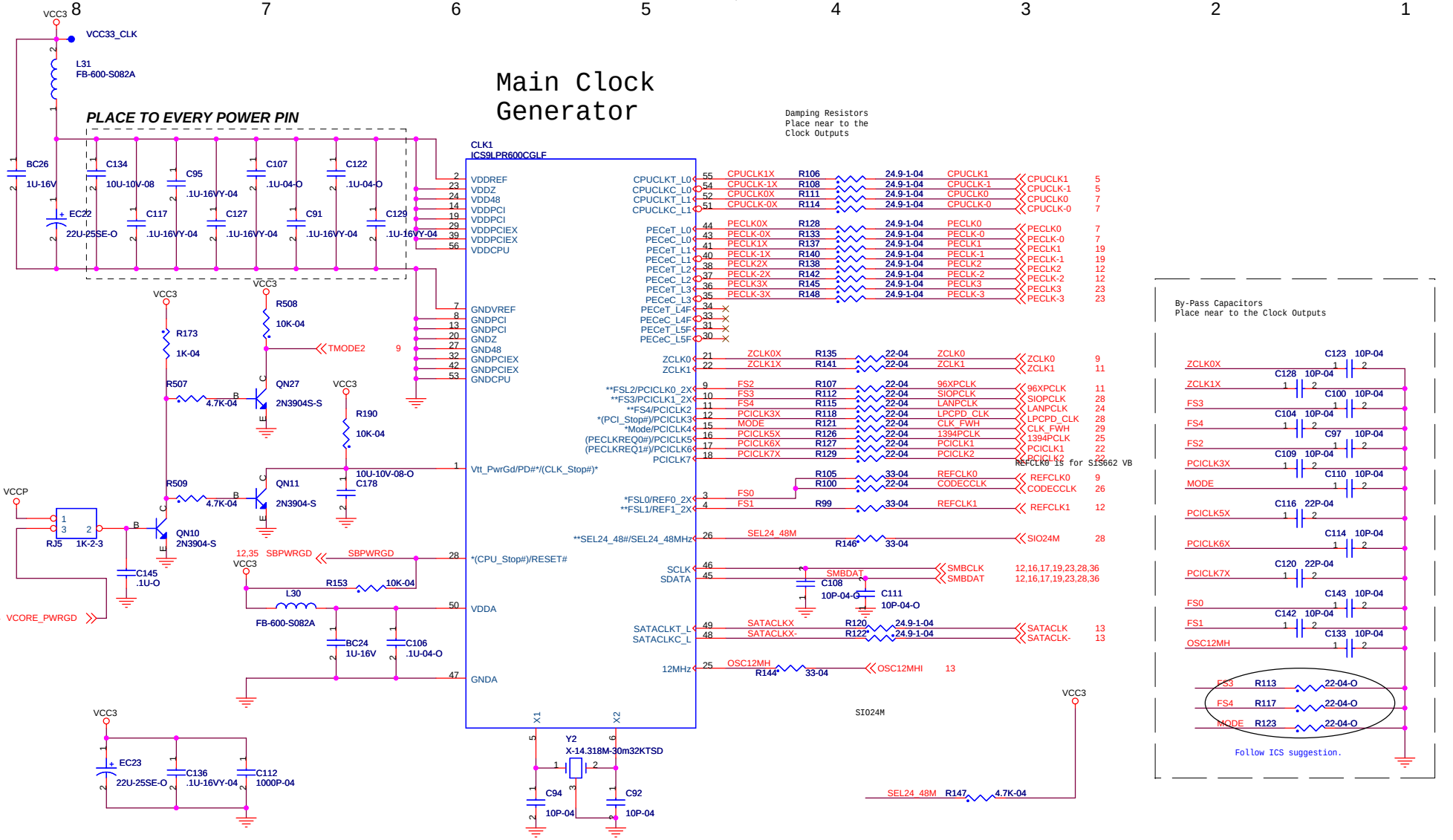
Size: Custom | Document Number: 966-3(USB/SATA) | Rev: 1.2

Date: Friday, October 27, 2006 | Sheet 13 of 36



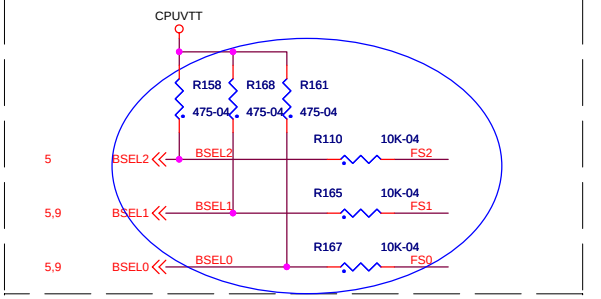
Company	Elitegroup Computer Systems
Title	662/1066T-M
Size	Custom
Document Number	966-4(Power)
Rev	1.2
Date:	Friday, October 27, 2006
Sheet	14 of 36

Main Clock Generator



Clock Generator Table / Hardware Traping	FS4 / Low	FS3 / Low	FS2 / BSEL2	FS1 / BSEL1	FS0 / BSEL0
CPU=100 (BSEL[2:0]=101)	0	0	1	0	1
CPU=133 (BSEL[2:0]=001)	0	0	0	0	1
CPU=166 (BSEL[2:0]=011)	0	0	0	1	1
CPU=200 (BSEL[2:0]=010)	0	0	0	1	0
CPU=266 (BSEL[2:0]=000)	0	0	0	0	0
CPU=333 (BSEL[2:0]=100)	0	0	1	0	0
CPU=400 (BSEL[2:0]=110)	0	0	1	1	0

Frequency Selection



Modified R840, R841, and R842 from 1K to 4.7K, and R843, R844, and R845 from 4.7K to 1K.

Elitegroup Computer Systems

Title: 662/1066T-M

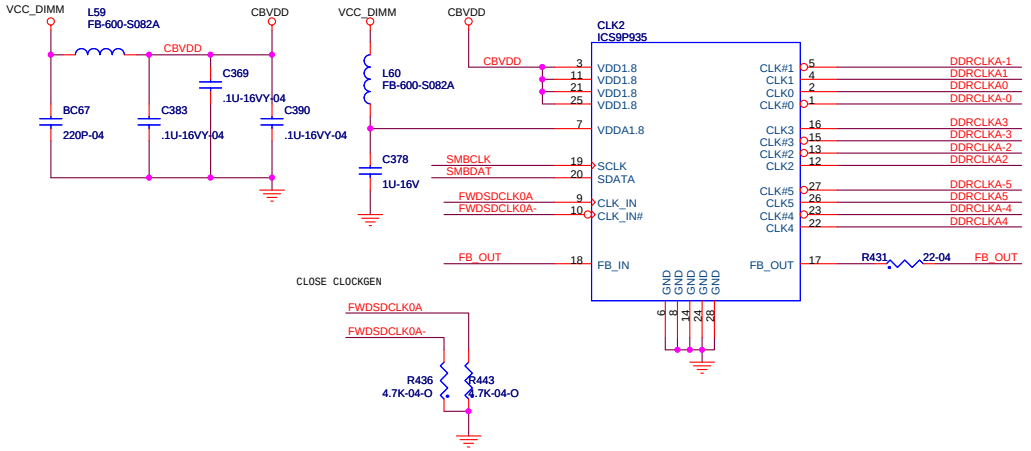
Size: B | Document Number: Clock Generator | Rev: 1.2

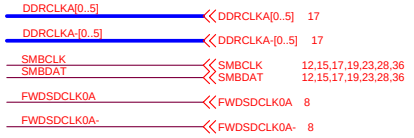
Date: Friday, October 27, 2006 | Sheet 15 of 36

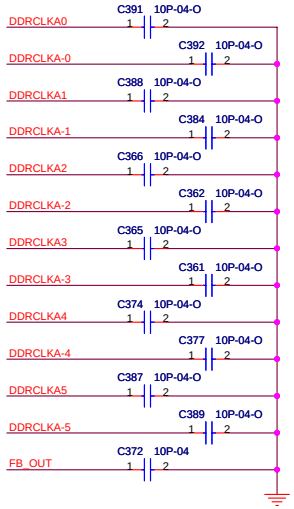
Clock Buffer (DDRII)

(5 OPTIONS)
1: (ICS) ICS93716
2: (Winbond)
3: (ICWorks)
4: (IMI)
5: (AMI)

By-Pass Capacitors
Place near to the Clock Buffer

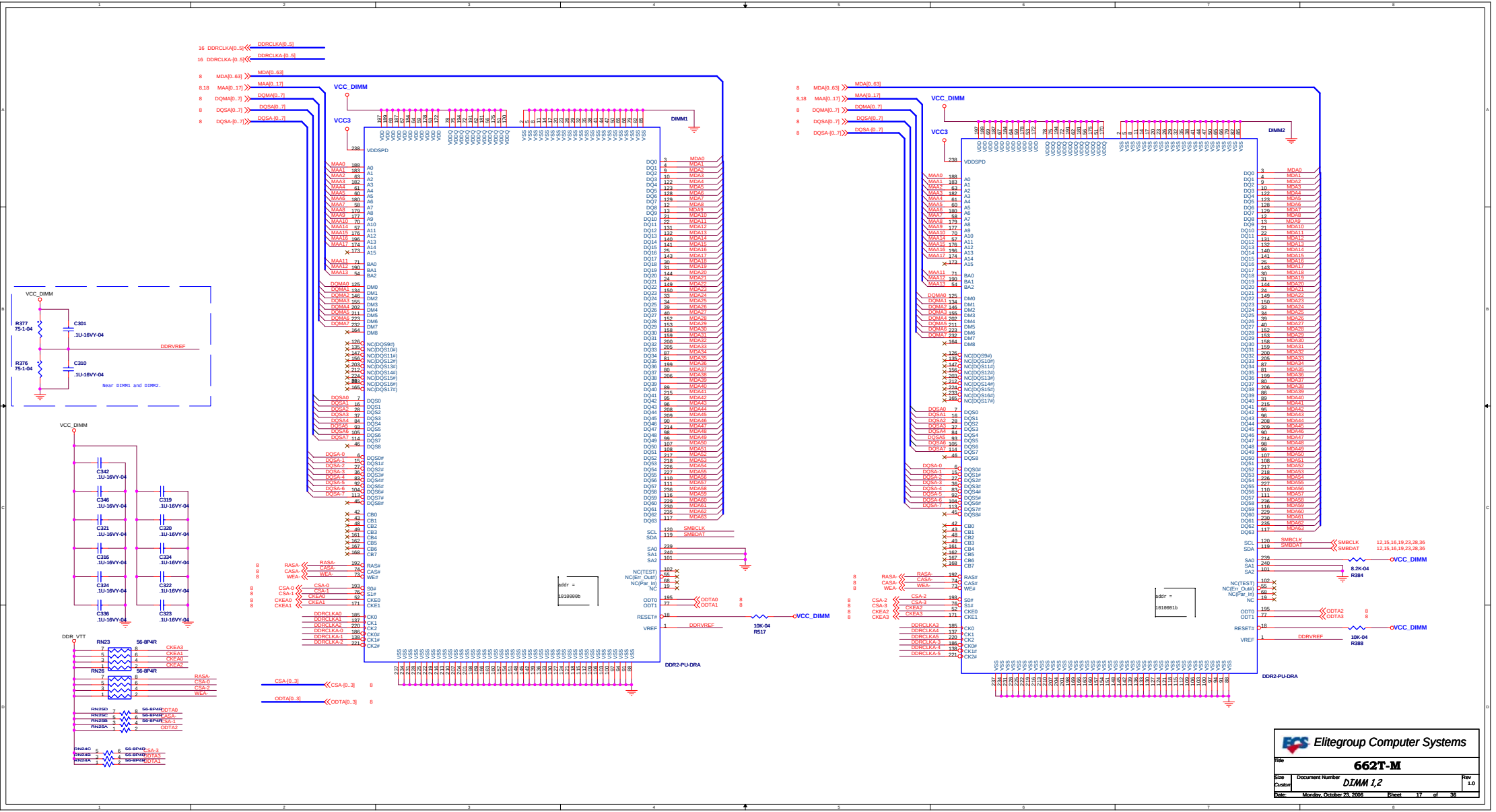






Elitegroup Computer Systems

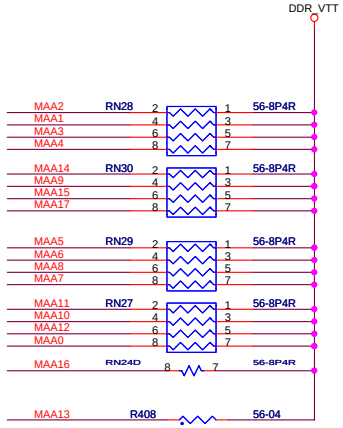
Title	662/1066T-M	
Size: Custom	Document Number: Clock Buffer	Rev: 1.2
Date: Friday, October 27, 2006	Sheet 16 of 36	


VCC_DIMM
R377 75-1-04
R376 75-1-04
C301 .1U-16VY-04
C310 .1U-16VY-04
DDRVREF
Near DIMM1 and DIMM2.
C342 .1U-16VY-04
C346 .1U-16VY-04
C321 .1U-16VY-04
C316 .1U-16VY-04
C324 .1U-16VY-04
C336 .1U-16VY-04
C319 .1U-16VY-04
C320 .1U-16VY-04
C334 .1U-16VY-04
C322 .1U-16VY-04
C323 .1U-16VY-04
DDR_VTT
RN23 56-8P4R
RN26 56-8P4R
DDRCLKA[0..5]
MDA[0..63]
MAA[0..17]
DQMA[0..7]
DQSA[0..7]
DQSA-[0..7]
VCC_DIMM
VCC3
VDDSPD
DIMM1
SMBCLK
SMBDAT
SA0
SA1
SA2
RASA-
CASA-
WEA-
CSA[0..3]
ODTA[0..3]
DDR2-PU-DRA
10K-04 RS17
DIMM2
8.2K-04 R384
10K-04 R388
Elitegroup Computer Systems
662T-M
DIMM 1,2
Monday, October 23, 2006
Sheet 17 of 36
Rev 1.0

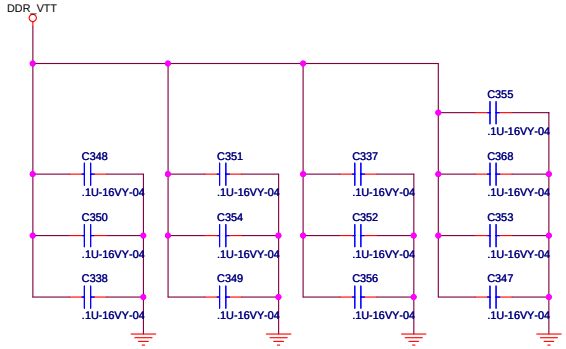
SSTL-2 Termination Resistors

	SDR		DDR		
		Rs		Rs	Rtt
MD/DQM(/DQS)	LV-CMOS	0/10/-	SSTL-2	10	93
MA/Control	LV-CMOS	10	SSTL-2	0	93
CS	LV-CMOS	0	SSTL-2	0	47
CKE	OD 3.3V		OD 2.5V		

MAA[0..17] MAA[0..17] 8,17

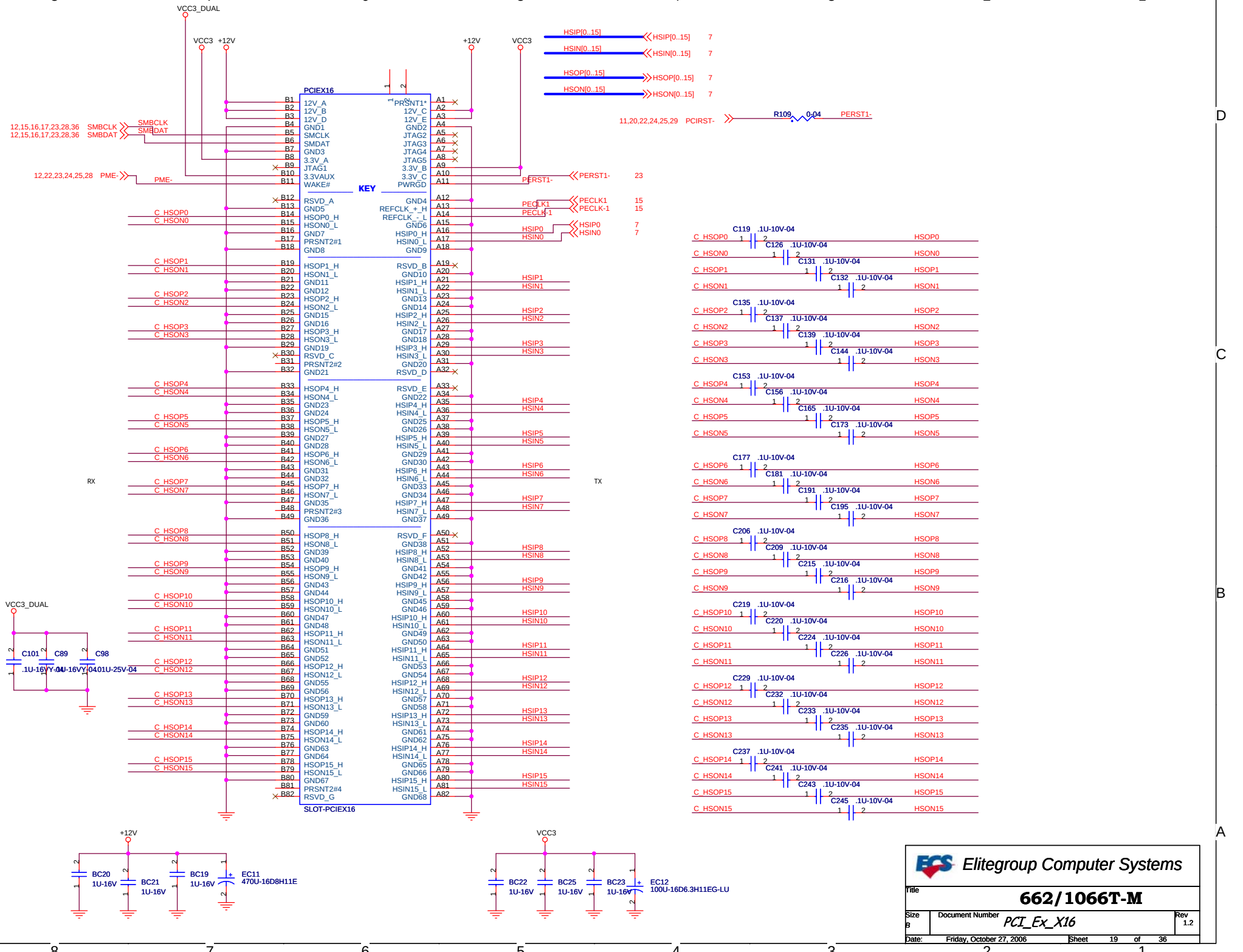


DECOUPLING CAPACITOR FOR SSTL-2 END TERMIANTION VTT ISLAND
0603 Package placed within 200mils of VTT Termination R-packs



Elitegroup Computer Systems

Title	662/1066T-M	
Size: Custom	Document Number: DDRII Termination	Rev: 1.2
Date: Friday, October 27, 2006	Sheet 18 of 36	


PCIEX16
SLOT-PCIEX16
KEY
RX
TX
VCC3_DUAL
VCC3
+12V
SMBCLK
SMBDAT
PME-
PERST1-
PECLK1
PECLK-1
HSIP[0..15]
HSIN[0..15]
HSOP[0..15]
HSON[0..15]
PCIRST-
R109 0-04
C101 C89 C98
.1U-16V
10U-16V
1U-25V-04
BC20 1U-16V
BC21 1U-16V
BC19 1U-16V
EC11 470U-16D8H11E
BC22 1U-16V
BC25 1U-16V
BC23 1U-16V
EC12 100U-16D6.3H11EG-LU
.1U-10V-04
Elitegroup Computer Systems
662/1066T-M
PCI_Ex_X16
Size B
Document Number
Rev 1.2
Date: Friday, October 27, 2006
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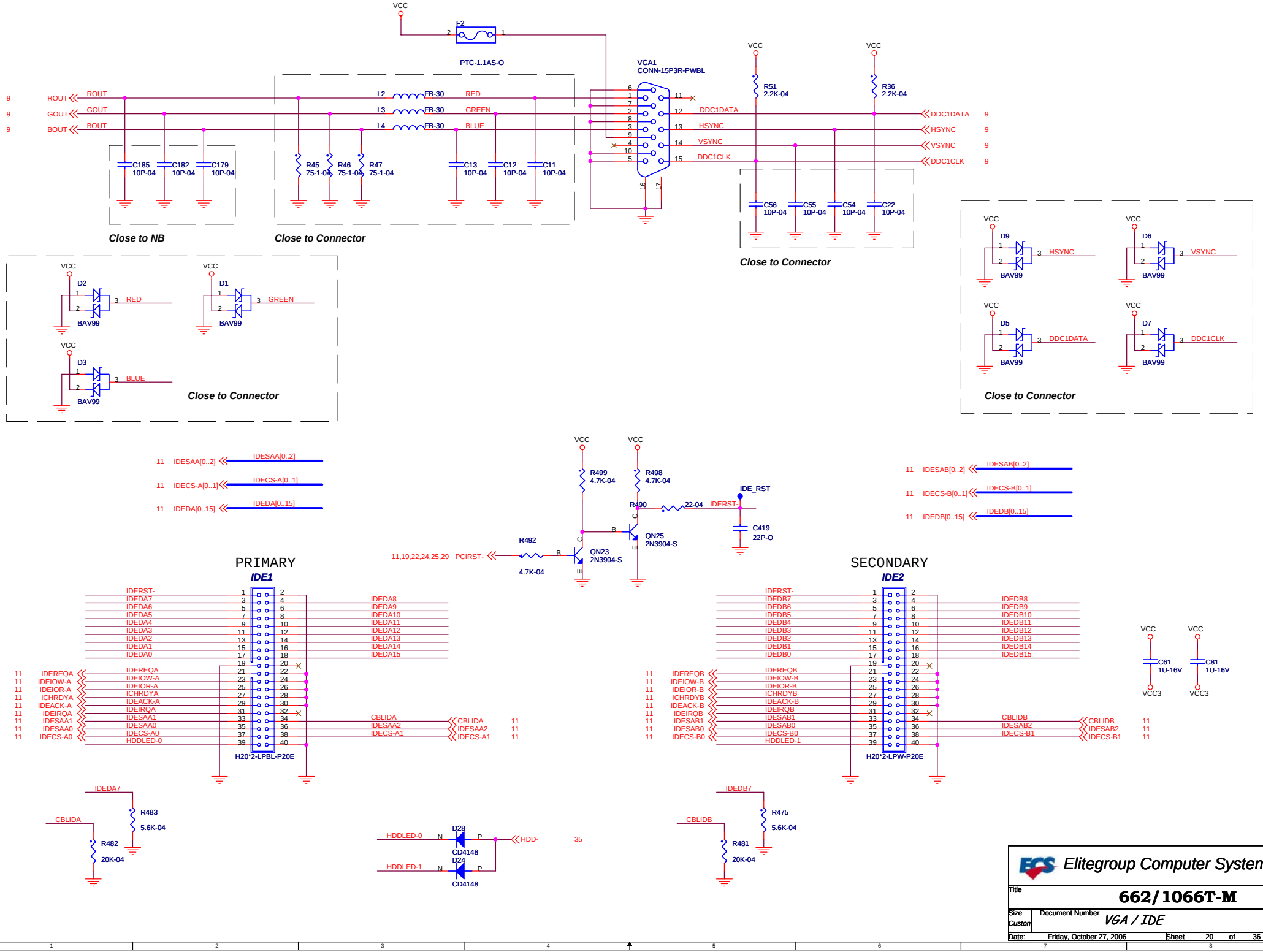
VCC
F2
PTC-1.1AS-O
VGA1
CONN-15P3R-PWBL
ROUT
GOUT
BOUT
L2 FB-30 RED
L3 FB-30 GREEN
L4 FB-30 BLUE
C185 10P-04
C182 10P-04
C179 10P-04
R45 75-1-04
R46 75-1-04
R47 75-1-04
C13 10P-04
C12 10P-04
C11 10P-04
R51 2.2K-04
R36 2.2K-04
DDC1DATA
HSYNC
VSYNC
DDC1CLK
C56 10P-04
C55 10P-04
C54 10P-04
C22 10P-04
Close to NB
Close to Connector
Close to Connector
D2
D1
D3
BAV99
RED
GREEN
BLUE
Close to Connector
D9
D6
D5
D7
Close to Connector
IDESAA[0..2]
IDECS-A[0..1]
IDEDA[0..15]
R499 4.7K-04
R498 4.7K-04
R490 22-04
IDERST-
IDE_RST
C419 22P-O
QN25 2N3904-S
QN23 2N3904-S
R492 4.7K-04
PCIRST-
IDESAB[0..2]
IDECS-B[0..1]
IDEDB[0..15]
PRIMARY
IDE1
SECONDARY
IDE2
IDEREQA
IDEIOW-A
IDEIOR-A
ICHRDYA
IDEACK-A
IDEIRQA
IDESAA1
IDESAA0
IDECS-A0
HDDLED-0
CBLIDA
IDESAA2
IDECS-A1
H20*2-LPBL-P20E
IDEREQB
IDEIOW-B
IDEIOR-B
ICHRDYB
IDEACK-B
IDEIRQB
IDESAB1
IDESAB0
IDECS-B0
HDDLED-1
CBLIDB
IDESAB2
IDECS-B1
H20*2-LPW-P20E
C61 1U-16V
C81 1U-16V
VCC3
R483 5.6K-04
R482 20K-04
R475 5.6K-04
R481 20K-04
D28 CD4148
D24 CD4148
HDD-
Elitegroup Computer Systems
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VGA / IDE
Rev 1.2
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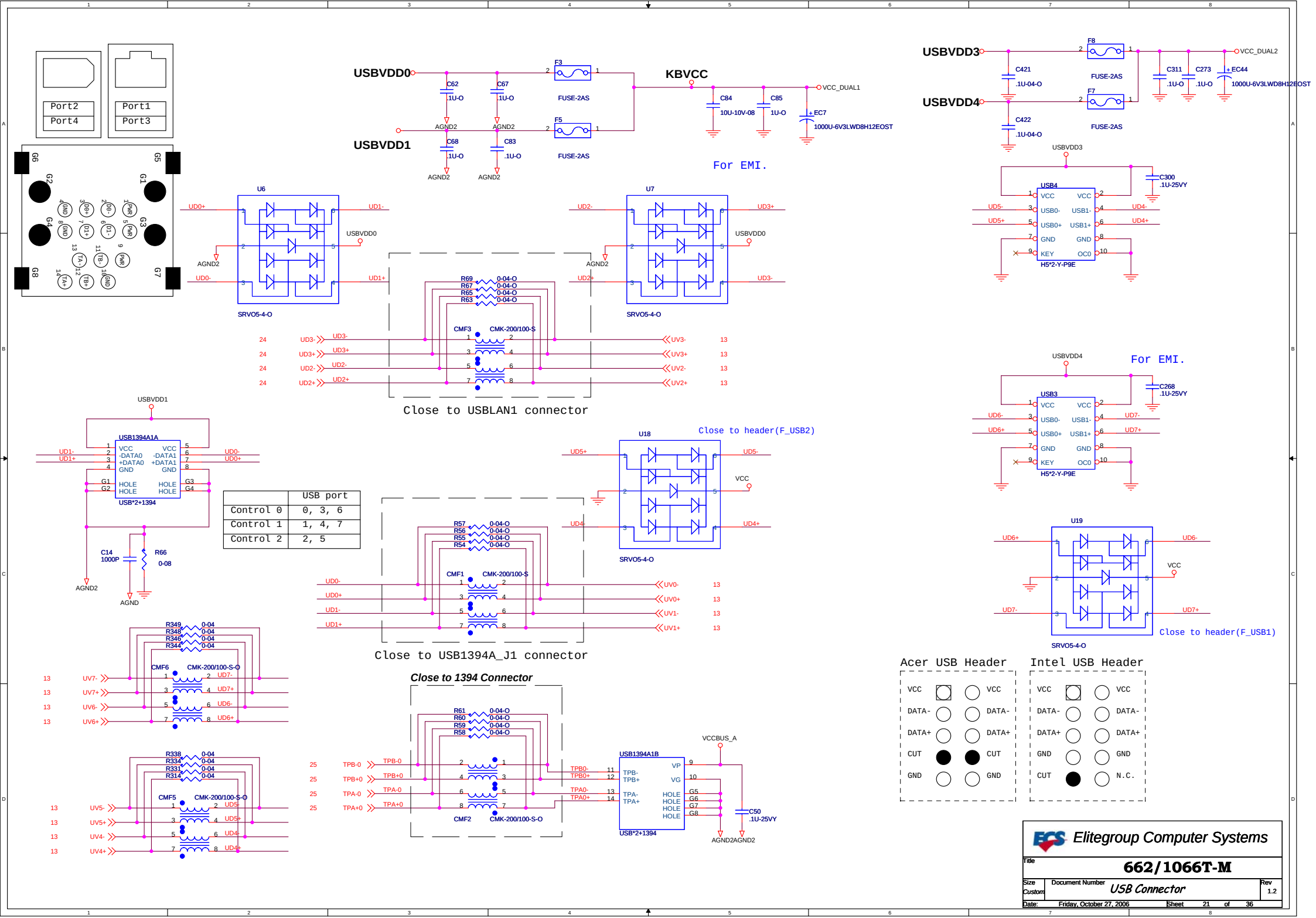


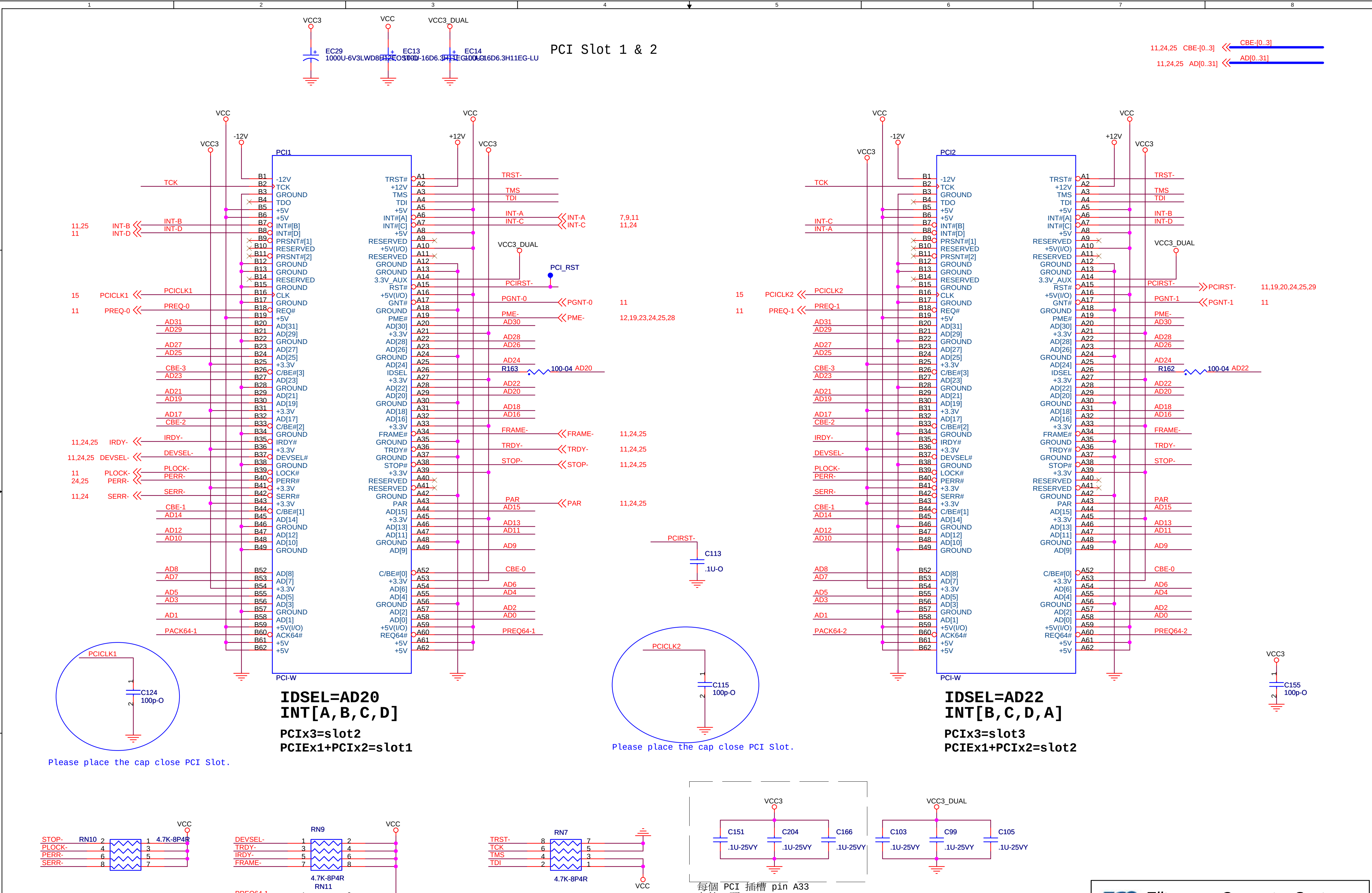
	USB port
Control 0	0, 3, 6
Control 1	1, 4, 7
Control 2	2, 5

Elitegroup Computer Systems

Title: 662/1066T-M

Size: Custom | Document Number: USB Connector | Rev: 1.2

Date: Friday, October 27, 2006 | Sheet 21 of 36



Elitegroup Computer Systems

Title: 662/1066T-M

Size: Custom | Document Number: PCI Slot1,2 | Rev: 1.2

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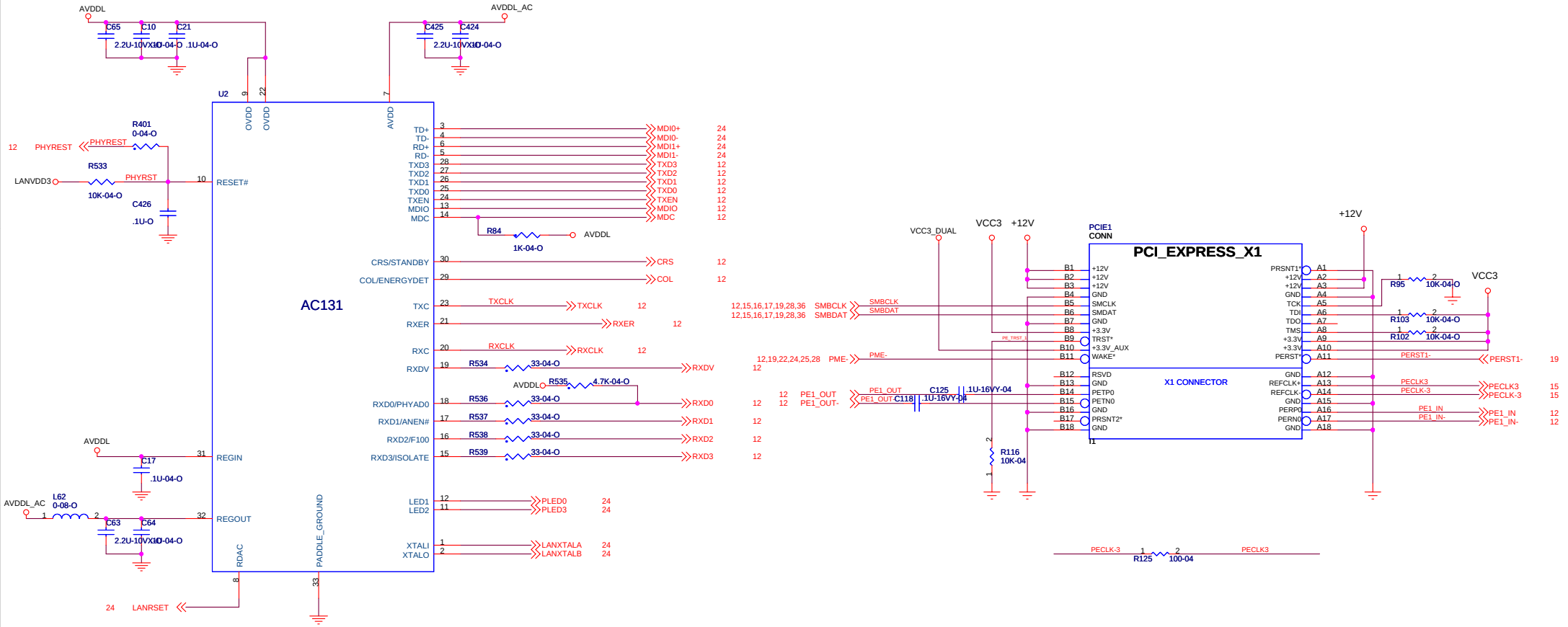
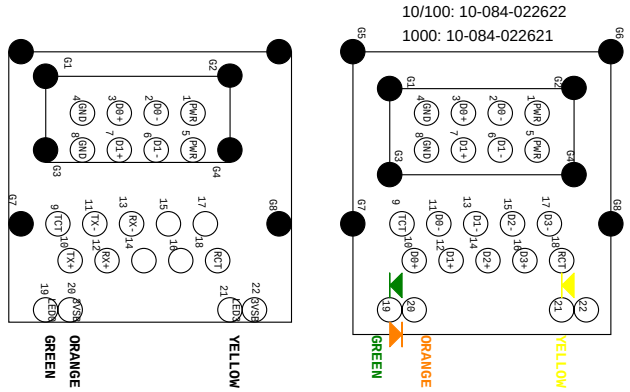
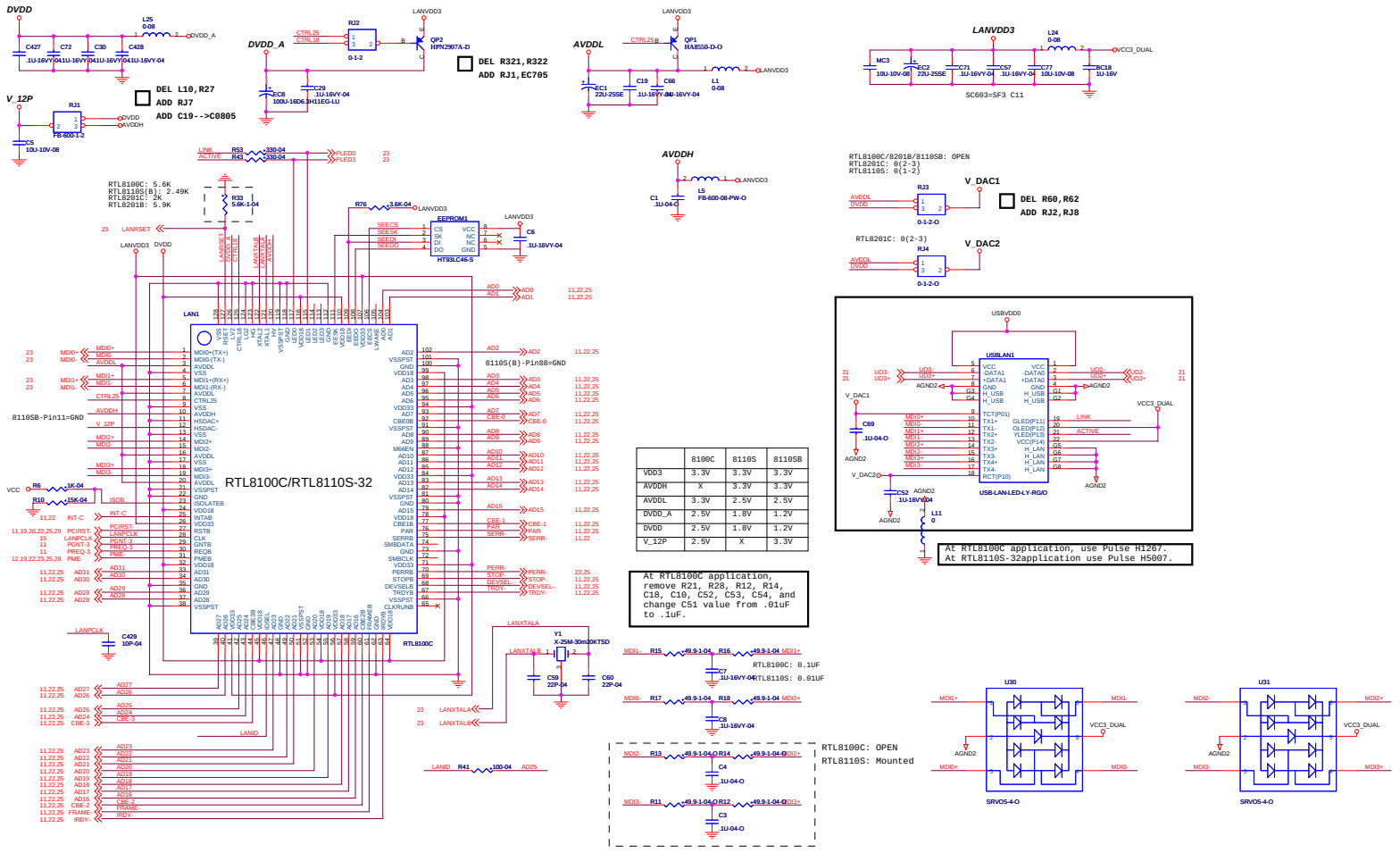




Elitegroup Computer Systems		
Title: 662/1066T-M		
Size: Custom	Document Number: PCI Slot1 / LANPHY	Rev: 1.2
Date: Friday, October 27, 2006	Sheet 23 of 36	



	8100C	8110S	8110SB
VDD3	3.3V	3.3V	3.3V
AVDDH	X	3.3V	3.3V
AVDDL	3.3V	2.5V	2.5V
DVDD_A	2.5V	1.8V	1.2V
DVDD	2.5V	1.8V	1.2V
V_12P	2.5V	X	3.3V

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Size: Custom	Document Number: Rtl8100C/8110SC
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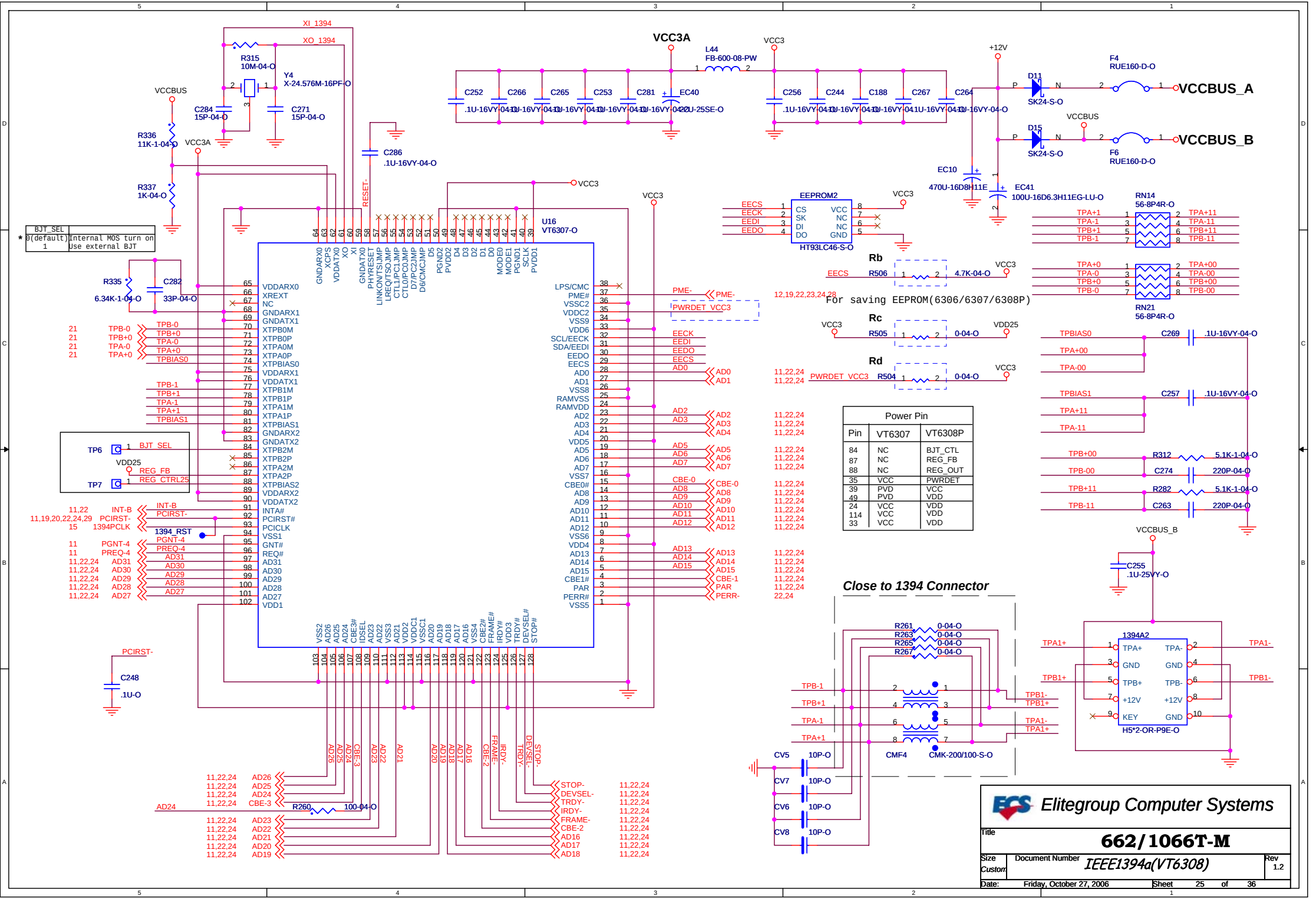
XI_1394
XO_1394
R315
10M-04-O
Y4
X-24.576M-16PF-O
C284
15P-04-O
C271
15P-04-O
VCCBUS
R336
11K-1-04-O
VCC3A
R337
1K-04-O
C286
.1U-16VY-04-O
RESET-
VCC3A
L44
FB-600-08-PW
VCC3
C252
.1U-16VY-04-O
C266
.1U-16VY-04-O
C265
.1U-16VY-04-O
C253
.1U-16VY-04-O
C281
.1U-16VY-04-O
EC40
220U-25SE-O
C256
.1U-16VY-04-O
C244
.1U-16VY-04-O
C188
.1U-16VY-04-O
C267
.1U-16VY-04-O
C264
.1U-16VY-04-O
+12V
D11
SK24-S-O
F4
RUE160-D-O
VCCBUS_A
VCCBUS
D15
SK24-S-O
F6
RUE160-D-O
VCCBUS_B
EC10
470U-16D8H11E
EC41
100U-16D6.3H11EG-LU-O
BJT_SEL
0(default) Internal MOS turn on
1 Use external BJT
R335
6.34K-1-04-O
C282
33P-04-O
U16
VT6307-O
VDDARX0
XREXT
NC
GNDARX1
GNDATX1
XTPB0M
XTPB0P
XTPA0M
XTPA0P
XTPBIAS0
VDDARX1
VDDATX1
XTPB1M
XTPB1P
XTPA1M
XTPA1P
XTPBIAS1
GNDARX2
GNDATX2
XTPB2M
XTPB2P
XTPA2M
XTPA2P
XTPBIAS2
VDDARX2
VDDATX2
INTA#
PCIRST#
PCICLK
VSS1
GNT#
REQ#
AD31
AD30
AD29
AD28
AD27
VDD1
GNDARX0
XCPS
VDDATX0
XO
XI
GNDATX0
PHYRESET
LINKON/TSJMP
LREQ/TSOJMP
CTL1/PC1JMP
CTL0/PC0JMP
D7/PC2JMP
D6/CMCJMP
D5
PGND2
PVDD2
D4
D3
D2
D1
D0
MODE0
MODE1
PGND1
SCLK
PVDD1
LPS/CMC
PME#
VSSC2
VDDC2
VSS9
VDD6
SCL/EECK
SDA/EEDI
EEDO
EECS
AD0
AD1
VSS8
RAMVSS
RAMVDD
AD2
AD3
AD4
VDD5
AD5
AD6
AD7
VSS7
CBE0#
AD8
AD9
AD10
AD11
AD12
VSS6
VDD4
AD13
AD14
AD15
CBE1#
PAR
PERR#
VSS5
VSS2
AD26
AD25
AD24
CBE3#
IDSEL
AD23
AD22
VSS3
AD21
VDD2
VDDC1
VSSC1
AD20
AD19
AD18
AD17
AD16
VSS4
CBE2#
FRAME#
IRDY#
VDD3
TRDY#
DEVSEL#
STOP#
EEPROM2
HT93LC46-S-O
EECS
EECK
EEDI
EEDO
Rb
R506
4.7K-04-O
Rc
R505
0-04-O
Rd
R504
0-04-O
PWRDET_VCC3
For saving EEPROM(6306/6307/6308P)
Power Pin
Pin | VT6307 | VT6308P
84 | NC | BJT_CTL
87 | NC | REG_FB
88 | NC | REG_OUT
35 | VCC | PWRDET
39 49 | PVD PVD | VCC VDD
24 114 | VCC VCC | VDD VDD
33 | VCC | VDD
RN14
56-8P4R-O
RN21
56-8P4R-O
TPA+1
TPA-1
TPB+1
TPB-1
TPA+0
TPA-0
TPB+0
TPB-0
TPA+11
TPA-11
TPB+11
TPB-11
TPA+00
TPA-00
TPB+00
TPB-00
TPBIAS0
TPBIAS1
C269
C257
.1U-16VY-04-O
R312
5.1K-1-04-O
C274
220P-04-O
R282
5.1K-1-04-O
C263
220P-04-O
TP6
TP7
BJT_SEL
REG_FB
REG_CTRL25
VDD25
INT-B
PCIRST-
1394_RST
PGNT-4
PREQ-4
1394PCLK
C248
.1U-0
Close to 1394 Connector
R261
R263
R265
R267
0-04-O
CMF4
CMK-200/100-S-O
CV5
CV7
CV6
CV8
10P-O
1394A2
H5*2-OR-P9E-O
C255
.1U-25VY-O
R260
100-04-O
Elitegroup Computer Systems
Title
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Size Custom
Document Number IEEE1394a(VT6308)
Rev 1.2
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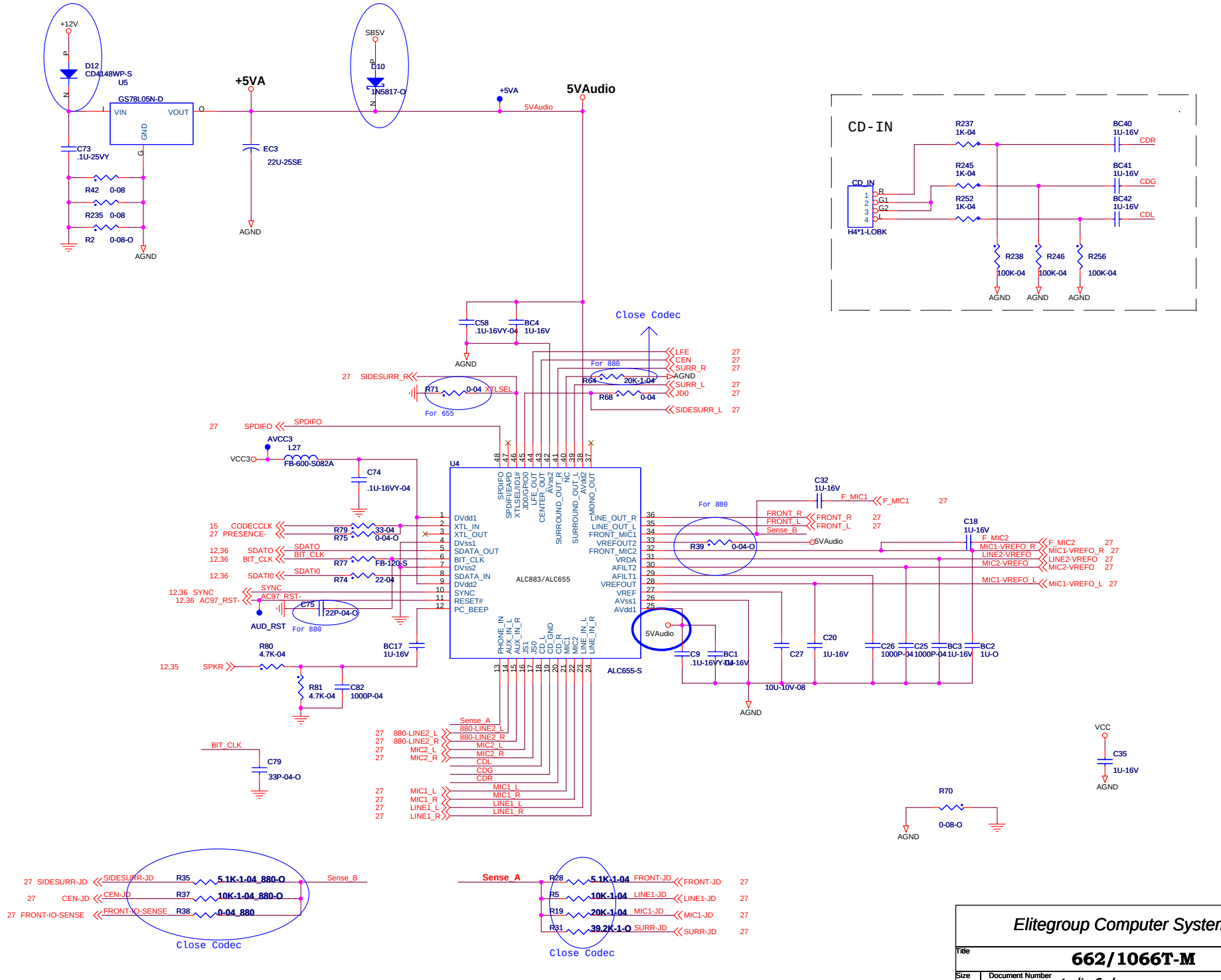

Elitegroup Computer Systems

Title: 662/1066T-M

Size: Custom | Document Number: Audio Codec | Rev: 1.2

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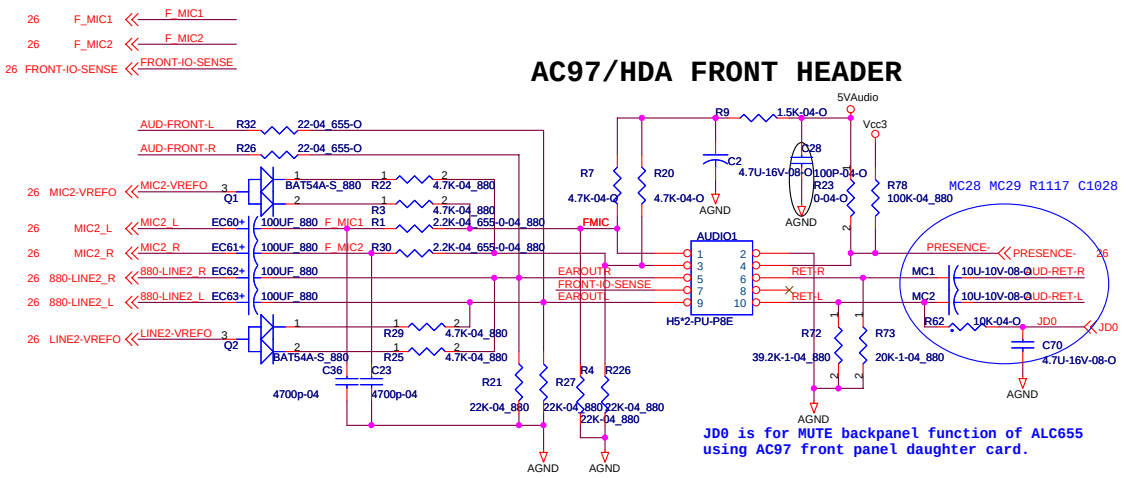
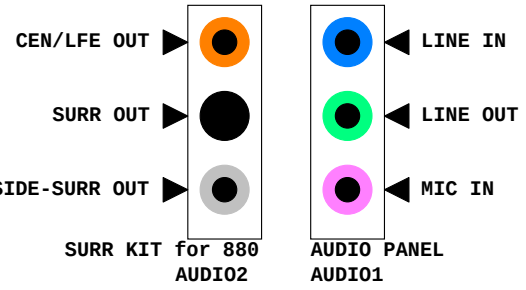
AC97/HDA FRONT HEADER

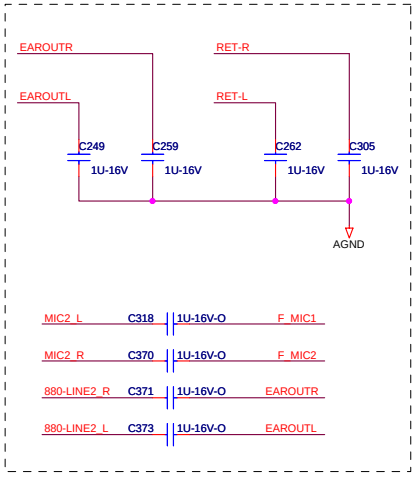


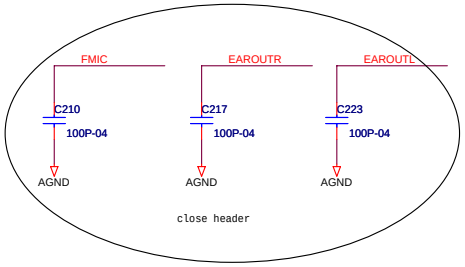
MC28 MC29 R1117 C1028 FOR AC97JD. ALC880 needs to NC.

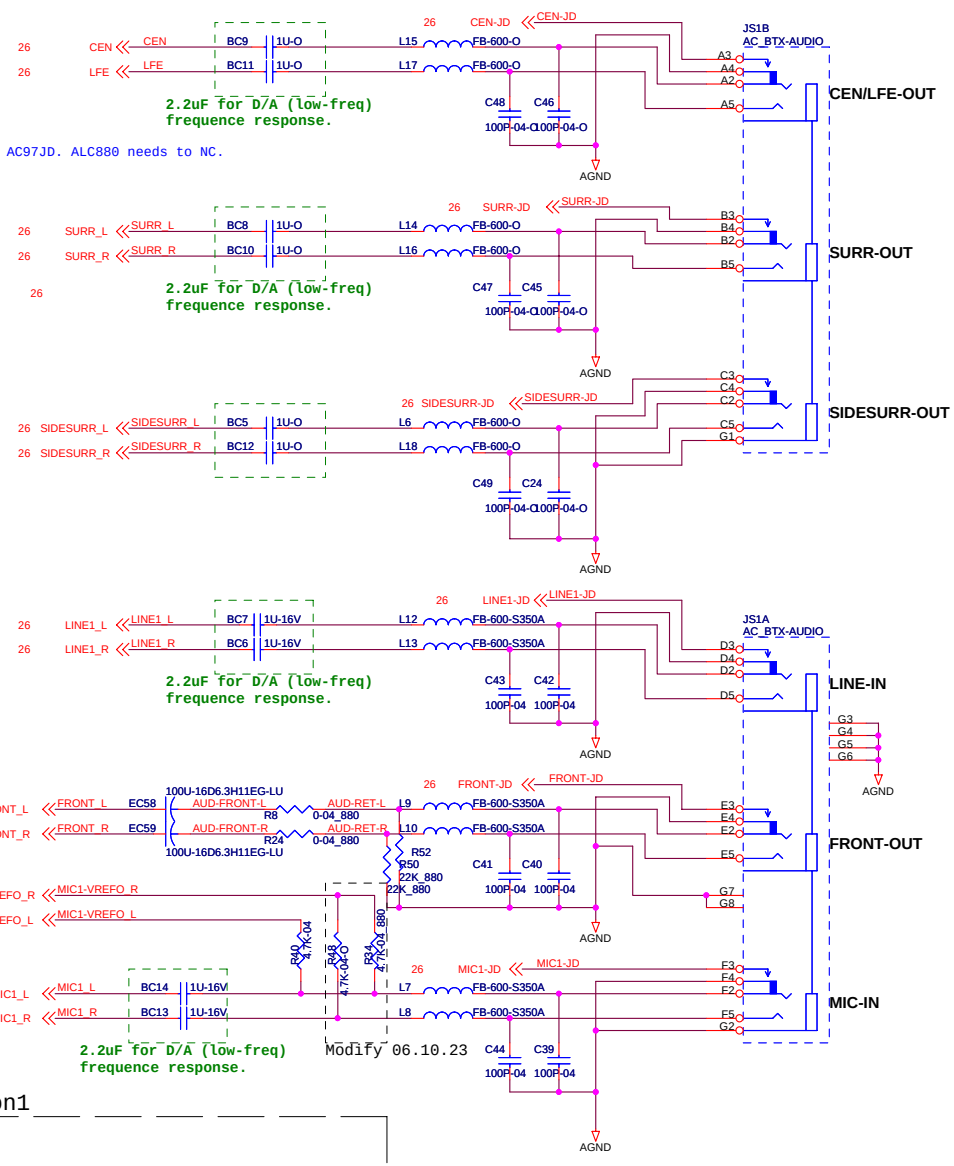
JD0 is for MUTE backpanel function of ALC655 using AC97 front panel daughter card.

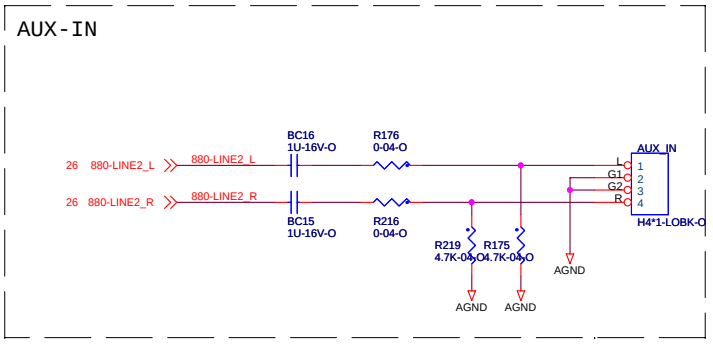


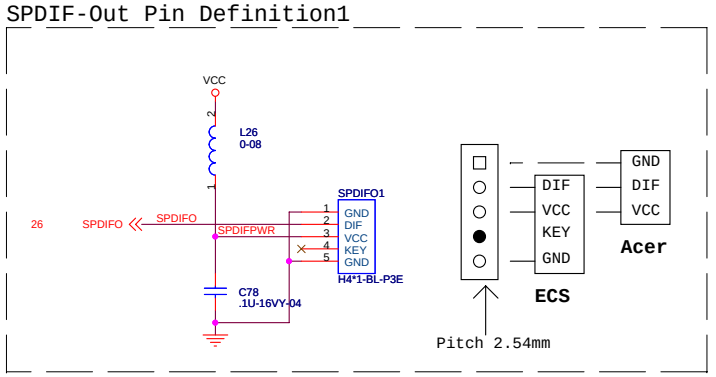
Add 06.10.22



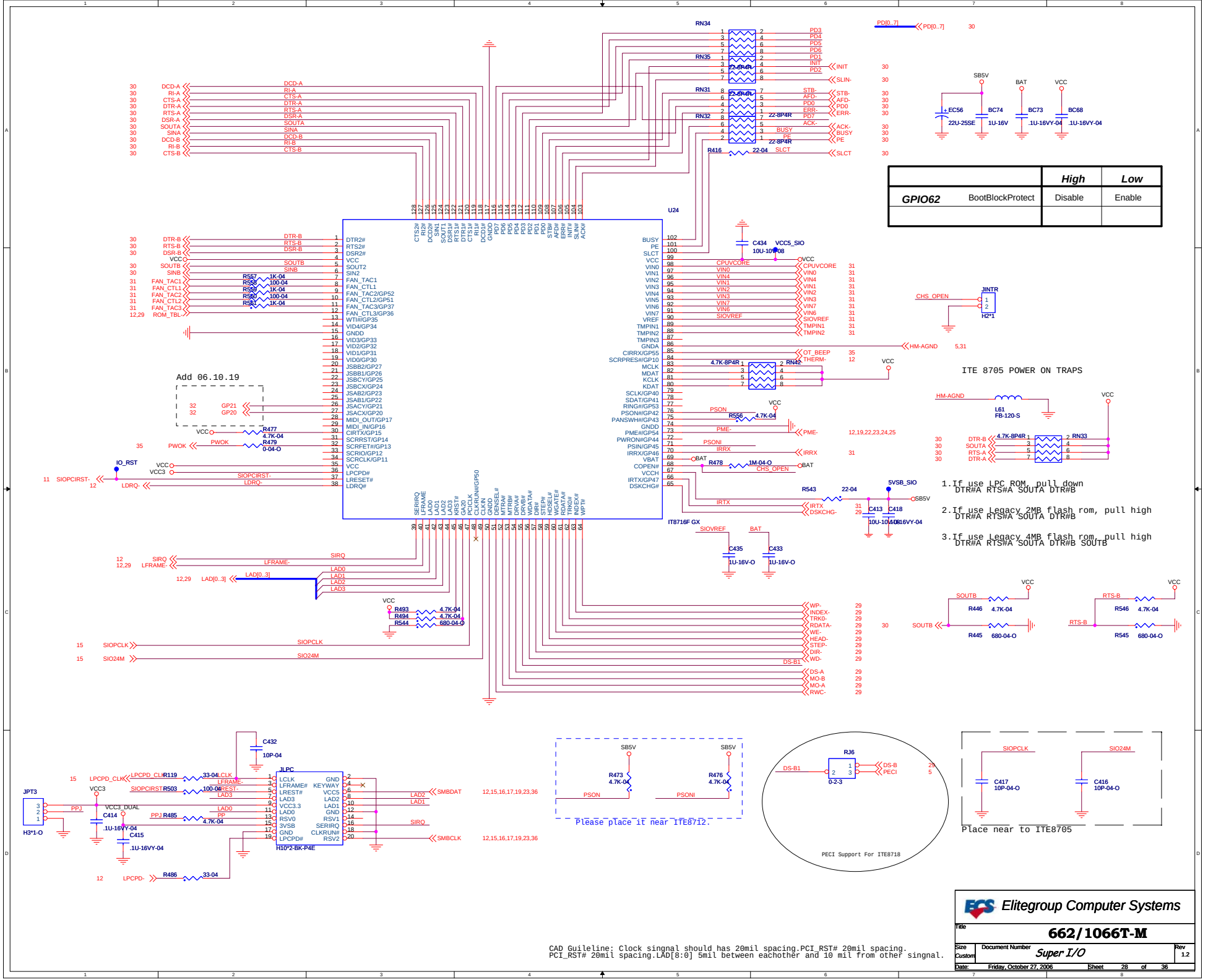








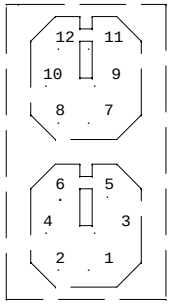
Elitegroup Computer Systems			
Title: 662/1066T-M			
Size: Custom	Document Number: Audio Interface		Rev: 1.2
Date: Friday, October 27, 2006		Sheet 27 of 36	



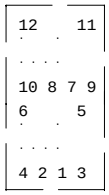
		High	Low
GPIO62	BootBlockProtect	Disable	Enable

CAD Guileline: Clock singnal should has 20mil spacing.PCI_RST# 20mil spacing.
PCI_RST# 20mil spacing.LAD[8:0] 5mil between eachother and 10 mil from other singnal.

CONNECTOR VIEW



TOP VIEW

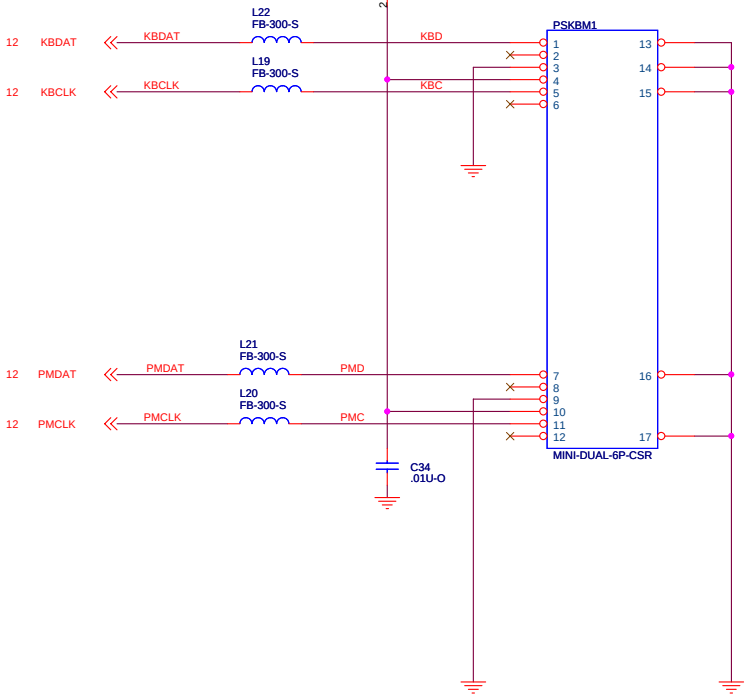


JP3	BIOS PROTECT
OPEN	DISABLE
SHORT	ENABLE

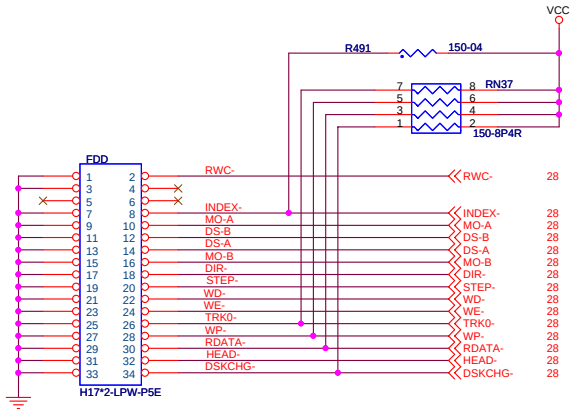
LPC INTERFACE ROM

JP3	BIOS PROTECT
OPEN	DISABLE
SHORT	ENABLE

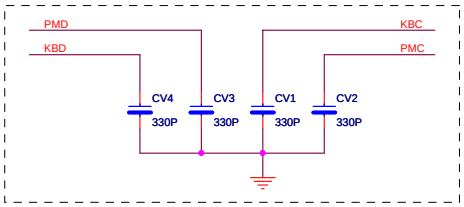
LPC INTERFACE ROM



FDC



PLACE NEAR CONNECTOR



Elitegroup Computer Systems

Title	662/1066T-M	
Size: Custom	Document Number: KB/MS/ROM/FDC/IR	Rev: 1.2
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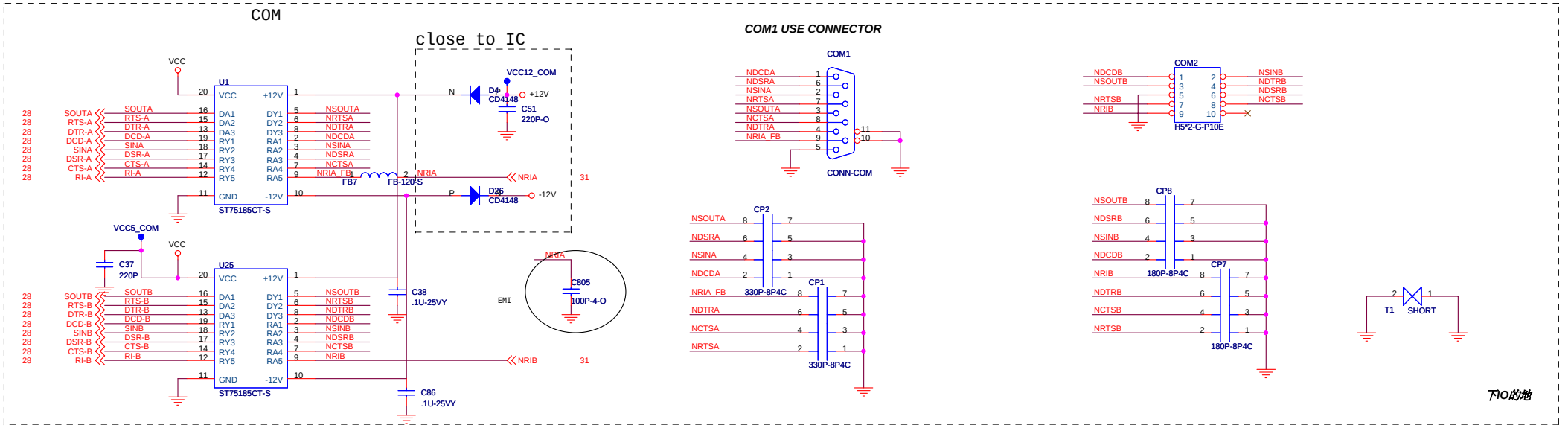

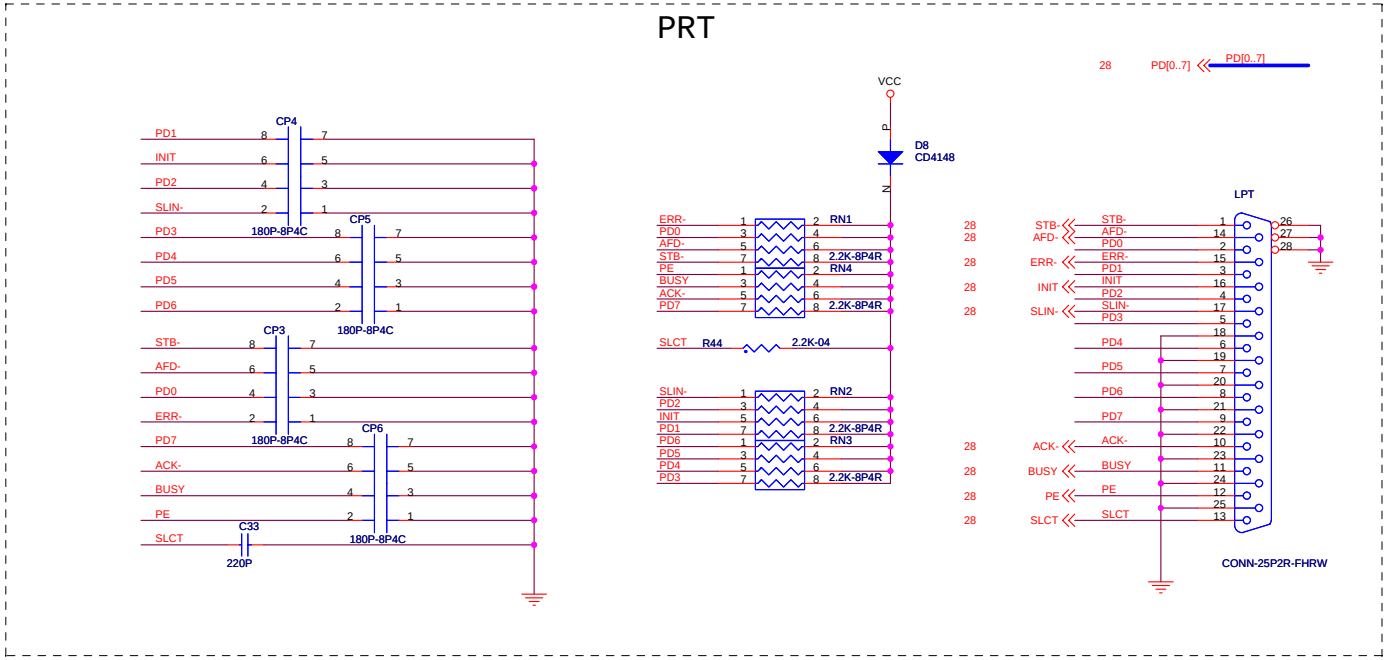

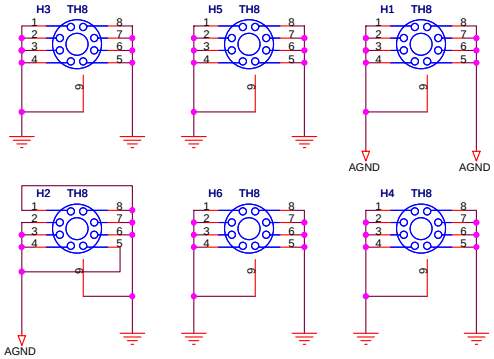

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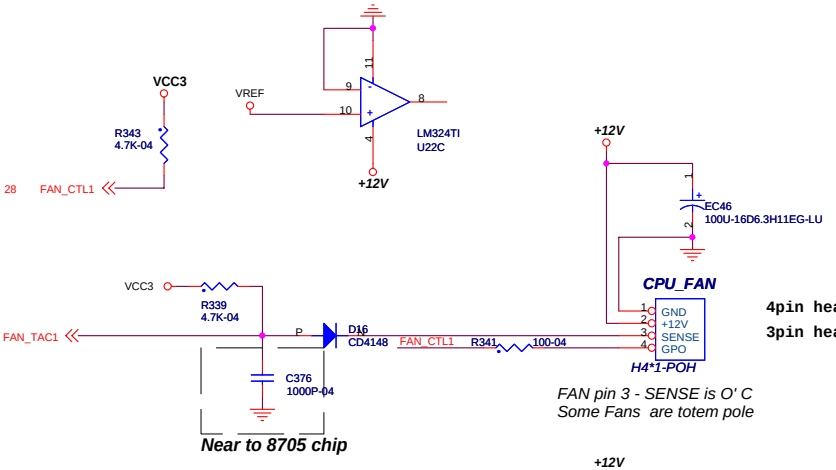
Title	662/1066T-M	
Size: Custom	Document Number: COM 1,2 / LPT	Rev: 1.2
Date: Friday, October 27, 2006	Sheet 30 of 36	

Layout :

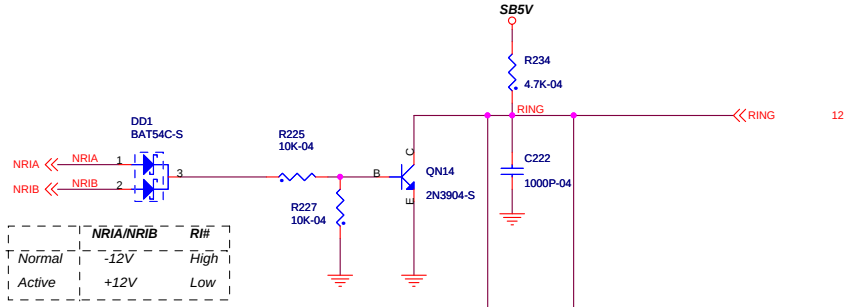
Power Signals : CPUFAN, CASEFAN, PWRFAN trace width should > 20 mil with current 200 mA .

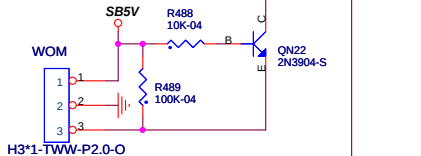
ADD R223, EC46, R323, R324, R219, R216, R225, Q5, QN704

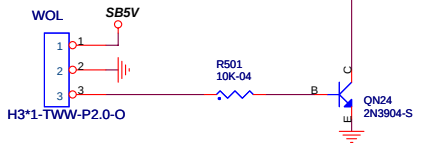


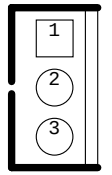
4pin header: QN17, R341=100ohm, R345=0ohm-0805

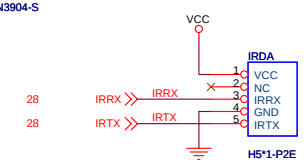
3pin header: R223, EC46, R216, R219, Q5, R324, QN704, R323

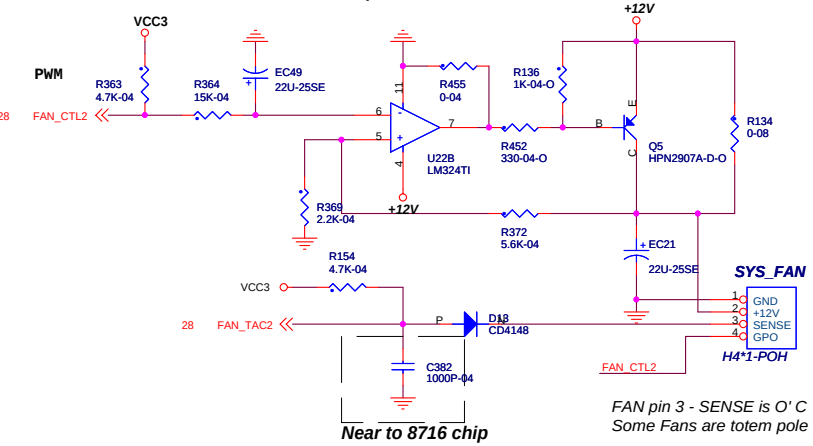


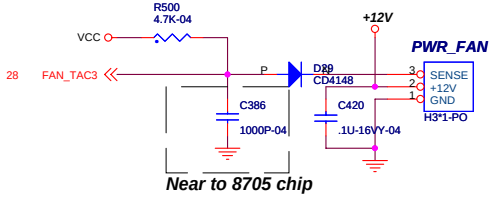




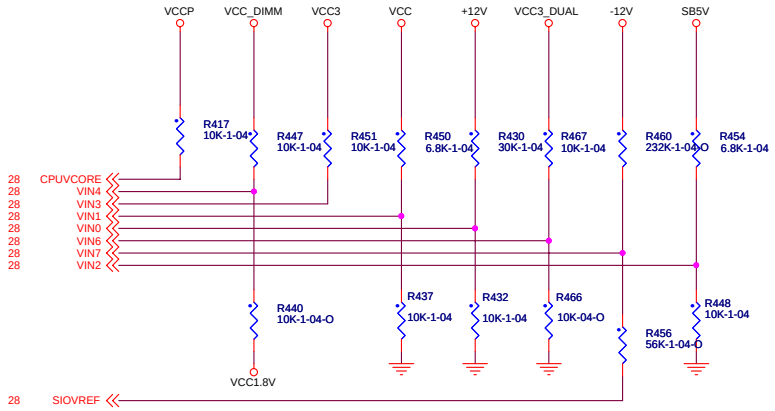






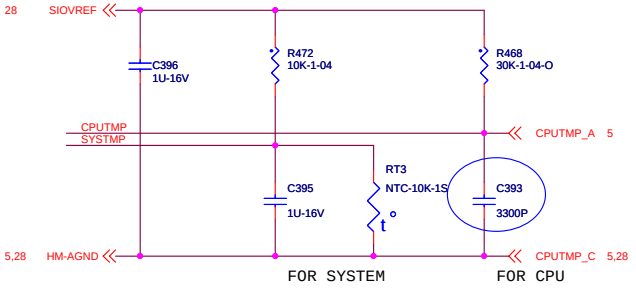


Voltage Monitor



Temperature Monitor

Choosing method of measuring temperature by either thermistor or diode



FOR SYSTEM FOR CPU

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Title	662/1066T-M	
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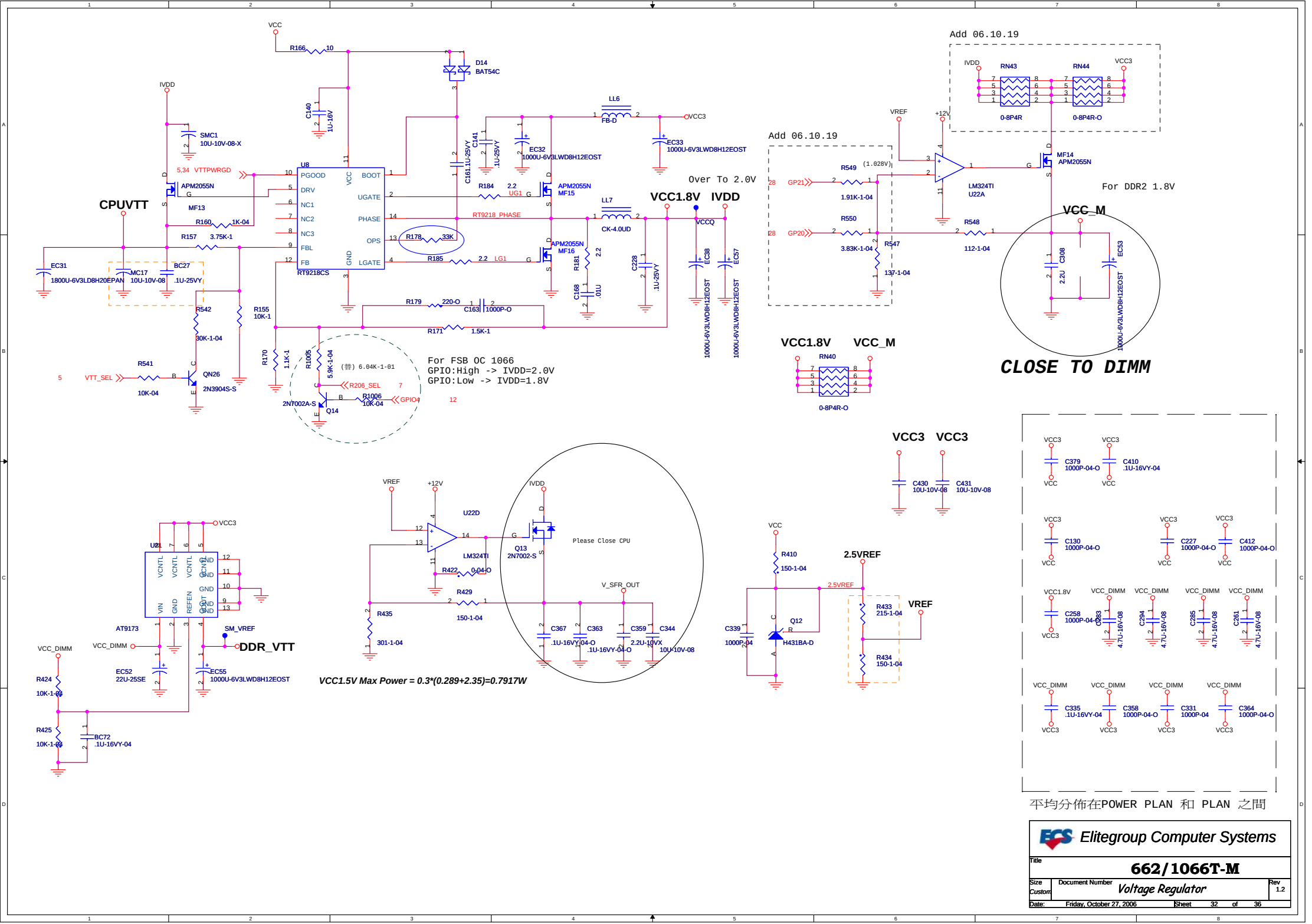
VCC
R166 10
D14 BAT54C
IVDD
SMC1 10U-10V-08-X
C140 1U-16V
C141 1U-25VY
EC32 1000U-6V3LWD8H12EOST
LL6 FB-D
VCC3
EC33 1000U-6V3LWD8H12EOST
U8
RT9218CS
PGOOD
DRV
NC1
NC2
NC3
FBL
FB
VCC
GND
BOOT
UGATE
PHASE
OPS
LGATE
5,34 VTTPWRGD
APM2055N MF13
CPUVTT
R160 1K-04
R157 3.75K-1
EC31 1800U-6V3LD8H20EPAN
MC17 10U-10V-08
BC27 .1U-25VY
R542 30K-1-04
R541 10K-04
VTT_SEL
QN26 2N3904S-S
R155 10K-1
R170 1.1K-1
R1005 5.9K-1-04
(替) 6.04K-1-01
R206_SEL
R1006 10K-04
GPIO4
2N7002A-S Q14
R184 2.2 UG1
APM2055N MF15
R178 33K
RT9218_PHASE
R185 2.2 LG1
APM2055N MF16
R181 2.2
C168 .01U
C228 .1U-25VY
LL7 CK-4.0UD
Over To 2.0V
VCC1.8V
IVDD
VCCQ
EC38 1000U-6V3LWD8H12EOST
EC57 1000U-6V3LWD8H12EOST
R179 220-O
C163 1000P-O
R171 1.5K-1
For FSB OC 1066
GPIO:High -> IVDD=2.0V
GPIO:Low -> IVDD=1.8V
Add 06.10.19
IVDD
RN43
RN44
VCC3
0-8P4R
0-8P4R-O
VREF
+12V
R549 (1.028V)
1.91K-1-04
GP21
R550
3.83K-1-04
GP20
R547 137-1-04
LM324TI U22A
MF14 APM2055N
R548 112-1-04
For DDR2 1.8V
VCC_M
C308 2.2U
EC53 1000U-6V3LWD8H12EOST
CLOSE TO DIMM
VCC1.8V
VCC_M
RN40
0-8P4R-O
VCC3
VCC3
C430 10U-10V-08
C431 10U-10V-08
U21
AT9173
VCNTL
GND
REFEN
VIN
SM_VREF
DDR_VTT
VCC_DIMM
EC52 22U-25SE
EC55 1000U-6V3LWD8H12EOST
R424 10K-1-04
R425 10K-1-04
BC72 .1U-16VY-04
U22D
LM324TI
Q13 2N7002-S
Please Close CPU
V_SFR_OUT
R422 0-04-O
R429 150-1-04
R435 301-1-04
C367 .1U-16VY-04-O
C363 .1U-16VY-04-O
C359 2.2U-10VX
C344 10U-10V-08
VCC1.5V Max Power = 0.3*(0.289+2.35)=0.7917W
R410 150-1-04
2.5VREF
Q12 R H431BA-D
C339 1000P-04
R433 215-1-04
R434 150-1-04
VREF
C379 1000P-04-O
C410 .1U-16VY-04
C130 1000P-04-O
C227 1000P-04-O
C412 1000P-04-O
VCC1.8V
C258 1000P-04-O
VCC_DIMM
C283 4.7U-16V-08
C294 4.7U-16V-08
C285 4.7U-16V-08
C261 4.7U-16V-08
C335 .1U-16VY-04
C358 1000P-04-O
C331 1000P-04
C364 1000P-04-O
平均分佈在POWER PLAN 和 PLAN 之間
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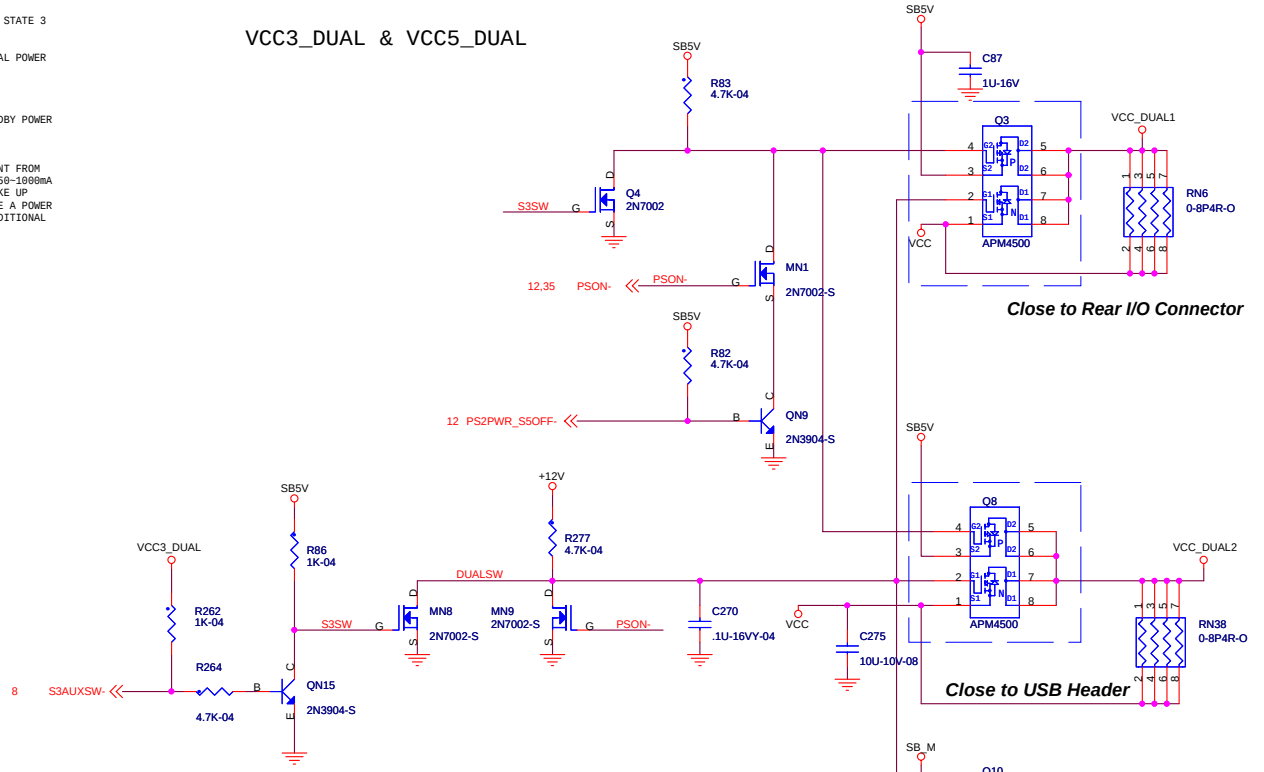
AUTO VOLTAGE SWITCH FOR ACPI STATE 3

1.IN S0,S1
THIS CIRCUIT PASSES THE NORMAL POWER

2.IN S3,S4,S5
THIS CIRCUIT PASSES THE STANDBY POWER

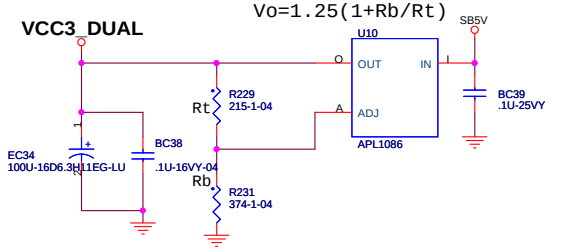
NOTE:
BECAUSE OF THE MAXIMUM CURRENT FROM POWER SUPPLY IS ONLY ABOUT 750~1000mA SO IF YOU WANT TO SUPPORT WAKE UP FROM S3 BY USB, YOU MUST HAVE A POWER SUPPLY WITH LARGER POWER.(ADDITIONAL 500mA PER USB PORT)

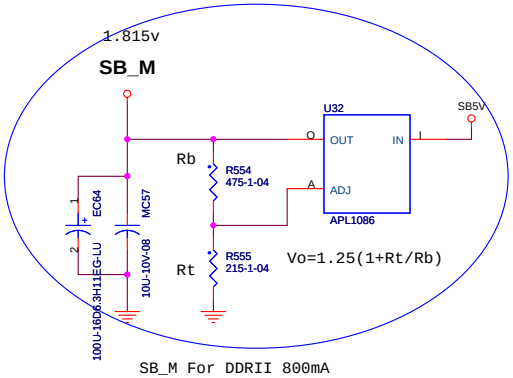
VCC3_DUAL & VCC5_DUAL



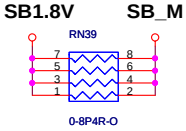
Memory Power Output Control

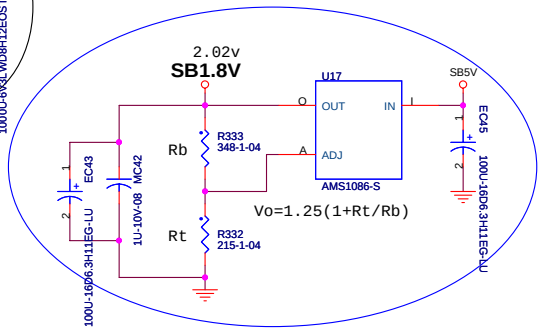
	S3AUXSW-	PSON-	PWOK-	SLP_S5-
S0	1	0	0	1
S1	1	0	0	1
S3	0	1	1	1
S4	1	1	1	0
S5	1	1	1	0





SB_M For DDRII 800mA





SB1.8V For SB 800mA

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Title	662/1066T-M		
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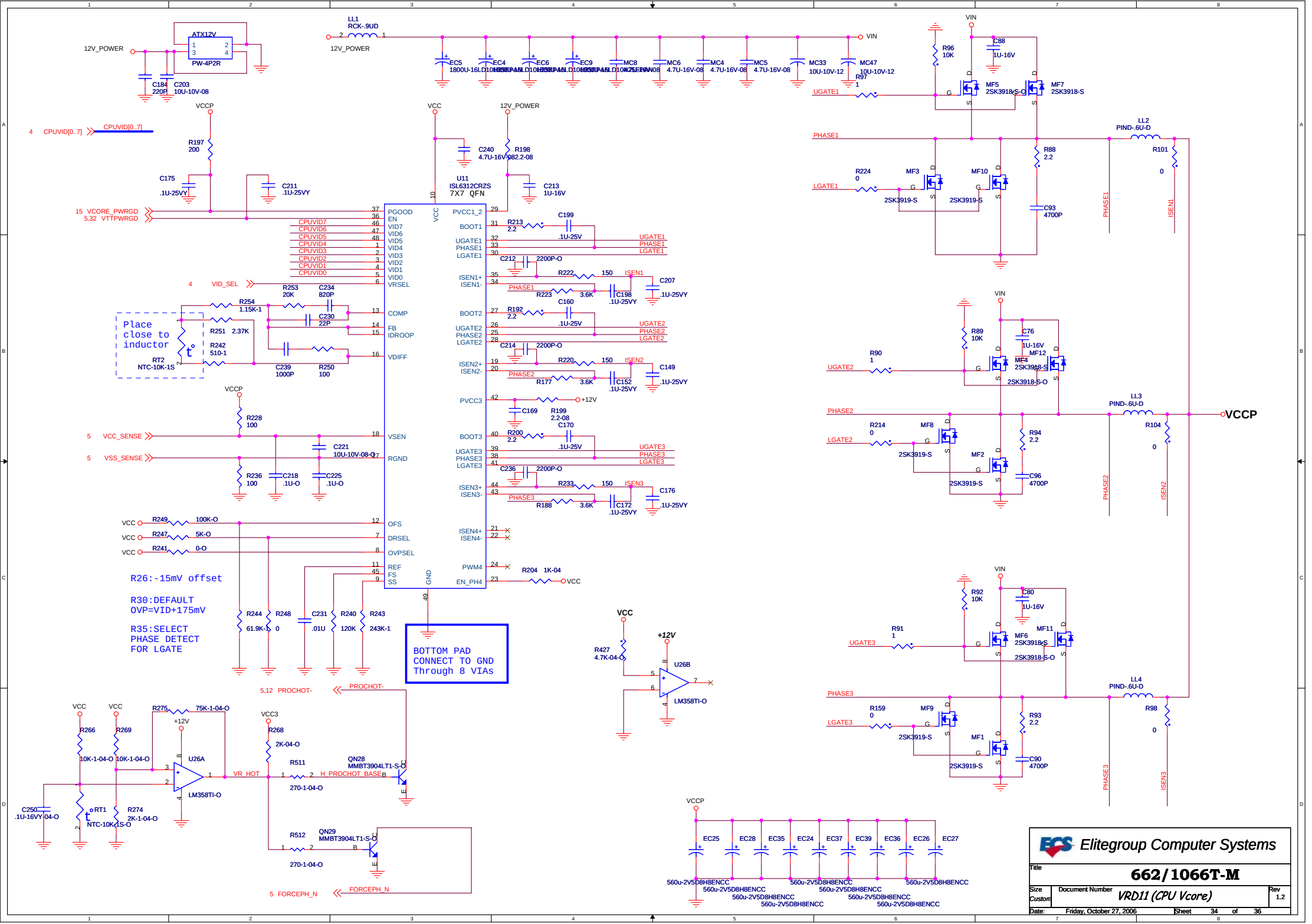
12V_POWER
ATX12V
PW-4P2R
C184 220P
C203 10U-10V-08
LL1 RCK-.9UD
VIN
EC5 1800U-16L
EC4
EC6
EC9
MC8
MC6 4.7U-16V-08
MC4 4.7U-16V-08
MC5 4.7U-16V-08
MC33 10U-10V-12
MC47 10U-10V-12
R97 1
UGATE1
R96 10K
C88 1U-16V
MF5 2SK3918-S-O
MF7 2SK3918-S
PHASE1
LL2 PIND-.6U-D
R88 2.2
R101 0
R224 0
LGATE1
MF3 2SK3919-S
MF10 2SK3919-S
C93 4700P
PHASE1
ISEN1
VCCP
CPUVID[0..7]
4 CPUVID[0..7]
R197 200
C175 .1U-25VY
C211 .1U-25VY
VCC
12V_POWER
C240 4.7U-16V
R198 82.2-08
U11 ISL6312CRZS 7X7 QFN
C213 1U-16V
15 VCORE_PWRGD
5,32 VTTPWRGD
PGOOD
EN
VID7
VID6
VID5
VID4
VID3
VID2
VID1
VID0
VRSEL
CPUVID7
CPUVID6
CPUVID5
CPUVID4
CPUVID3
CPUVID2
CPUVID1
CPUVID0
4 VID_SEL
PVCC1_2
BOOT1
UGATE1
PHASE1
LGATE1
C199 .1U-25V
R213 2.2
C212 2200P-O
ISEN1+
ISEN1-
R222 150
R223 3.6K
C198 .1U-25VY
C207 .1U-25VY
BOOT2
UGATE2
PHASE2
LGATE2
C160 .1U-25V
R192 2.2
C214 2200P-O
ISEN2+
ISEN2-
R220 150
R177 3.6K
C152 .1U-25VY
C149 .1U-25VY
PVCC3
+12V
C169
R199 2.2-08
C170
BOOT3
UGATE3
PHASE3
LGATE3
R200 2.2
C236 2200P-O
ISEN3+
ISEN3-
R233 150
R188 3.6K
C172 .1U-25VY
C176 .1U-25VY
ISEN4+
ISEN4-
PWM4
EN_PH4
R204 1K-04
R253 20K
C234 820P
R254 1.15K-1
C230 22P
R251 2.37K
R242 510-1
RT2 NTC-10K-1S
Place close to inductor
C239 1000P
R250 100
COMP
FB
IDROOP
VDIFF
R228 100
5 VCC_SENSE
5 VSS_SENSE
C221 10U-10V-08-O
R236 100
C218 .1U-O
C225 .1U-O
VSEN
RGND
R249 100K-O
R247 5K-O
R241 0-O
OFS
DRSEL
OVPSEL
REF
FS
SS
GND
R26:-15mV offset
R30:DEFAULT OVP=VID+175mV
R35:SELECT PHASE DETECT FOR LGATE
R244 61.9K-1
R248 0
C231 .01U
R240 120K
R243 243K-1
BOTTOM PAD CONNECT TO GND Through 8 VIAs
5,12 PROCHOT-
PROCHOT-
R427 4.7K-04-O
U26B
LM358TI-O
R275 75K-1-04-O
R266 10K-1-04-O
R269 10K-1-04-O
U26A
LM358TI-O
VR_HOT
R268 2K-04-O
R511 270-1-04-O
QN28 MMBT3904LT1-S-O
H_PROCHOT_BASE
C250 .1U-16VY-04-O
RT1 NTC-10K-1S-O
R274 2K-1-04-O
R512 270-1-04-O
QN29 MMBT3904LT1-S-O
5 FORCEPH_N
FORCEPH_N
UGATE2
R89 10K
C76 1U-16V
MF4 2SK3918-S-O
MF12 2SK3918-S-O
R90 1
R214 0
MF8 2SK3919-S
MF2 2SK3919-S
R94 2.2
C96 4700P
LL3 PIND-.6U-D
R104 0
VCCP
PHASE2
ISEN2
UGATE3
R92 10K
C80 1U-16V
MF6 2SK3918-S
MF11 2SK3918-S-O
R91 1
R159 0
MF9 2SK3919-S
MF1 2SK3919-S
R93 2.2
C90 4700P
LL4 PIND-.6U-D
R98 0
PHASE3
ISEN3
EC25
EC28
EC35
EC24
EC37
EC39
EC36
EC26
EC27
560u-2V5D8H8ENCC
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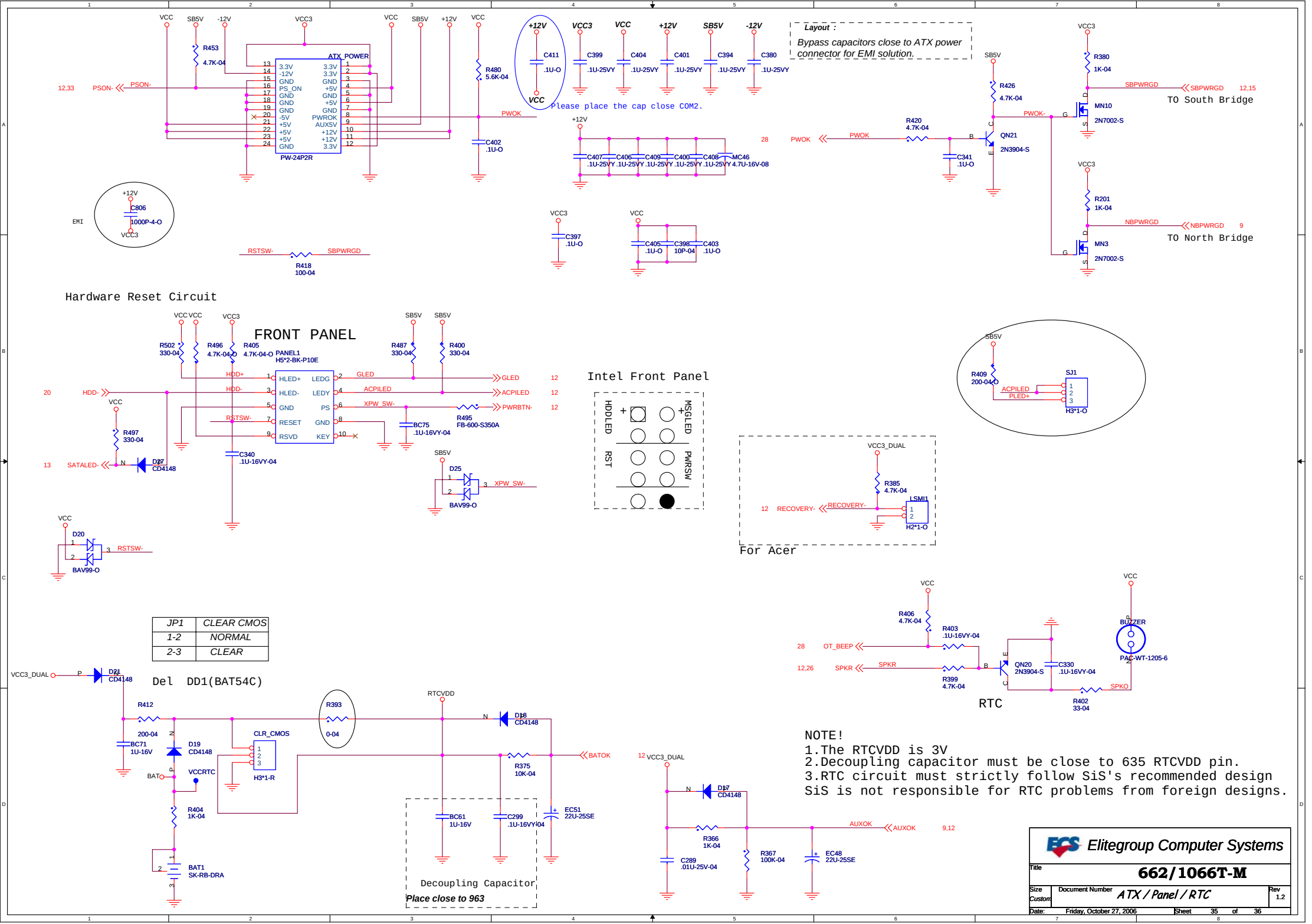
ATX_POWER
PW-24P2R
R453 4.7K-04
R480 5.6K-04
C402 .1U-O
C411 .1U-O
C399 .1U-25VY
C404 .1U-25VY
C401 .1U-25VY
C394 .1U-25VY
C380 .1U-25VY
Layout :
Bypass capacitors close to ATX power connector for EMI solution.
Please place the cap close COM2.
C407 .1U-25VY
C406 .1U-25VY
C409 .1U-25VY
C400 .1U-25VY
C408 .1U-25VY
MC46 4.7U-16V-08
C806 1000P-4-O
EMI
R418 100-04
C397 .1U-O
C405 .1U-O
C398 10P-04
C403 .1U-O
R426 4.7K-04
R420 4.7K-04
C341 .1U-O
QN21 2N3904-S
R380 1K-04
MN10 2N7002-S
R201 1K-04
MN3 2N7002-S
TO South Bridge
TO North Bridge
Hardware Reset Circuit
FRONT PANEL
PANEL1 H5*2-BK-P10E
R502 330-04
R496 4.7K-04
R405 4.7K-04
R487 330-04
R400 330-04
R497 330-04
C340 .1U-16VY-04
BC75 .1U-16VY-04
R495 FB-600-S350A
D27 CD4148
D25 BAV99-O
D20 BAV99-O
Intel Front Panel
HDDLED
MSGLED
RST
PWRSW
R409 200-04-O
SJ1 H3*1-O
For Acer
R385 4.7K-04
LSMI1 H2*1-O
R406 4.7K-04
R403 .1U-16VY-04
R399 4.7K-04
QN20 2N3904-S
C330 .1U-16VY-04
BUZZER PAC-WT-1205-6
R402 33-04
RTC
JP1 CLEAR CMOS
1-2 NORMAL
2-3 CLEAR
Del DD1(BAT54C)
D21 CD4148
R412 200-04
BC71 1U-16V
D19 CD4148
CLR_CMOS H3*1-R
R393 0-04
D18 CD4148
R375 10K-04
R404 1K-04
BAT1 SK-RB-DRA
BC61 1U-16V
C299 .1U-16VY-04
EC51 22U-25SE
Decoupling Capacitor
Place close to 963
D17 CD4148
R366 1K-04
C289 .01U-25V-04
R367 100K-04
EC48 22U-25SE
NOTE!
1.The RTCVDD is 3V
2.Decoupling capacitor must be close to 635 RTCVDD pin.
3.RTC circuit must strictly follow SiS's recommended design
SiS is not responsible for RTC problems from foreign designs.
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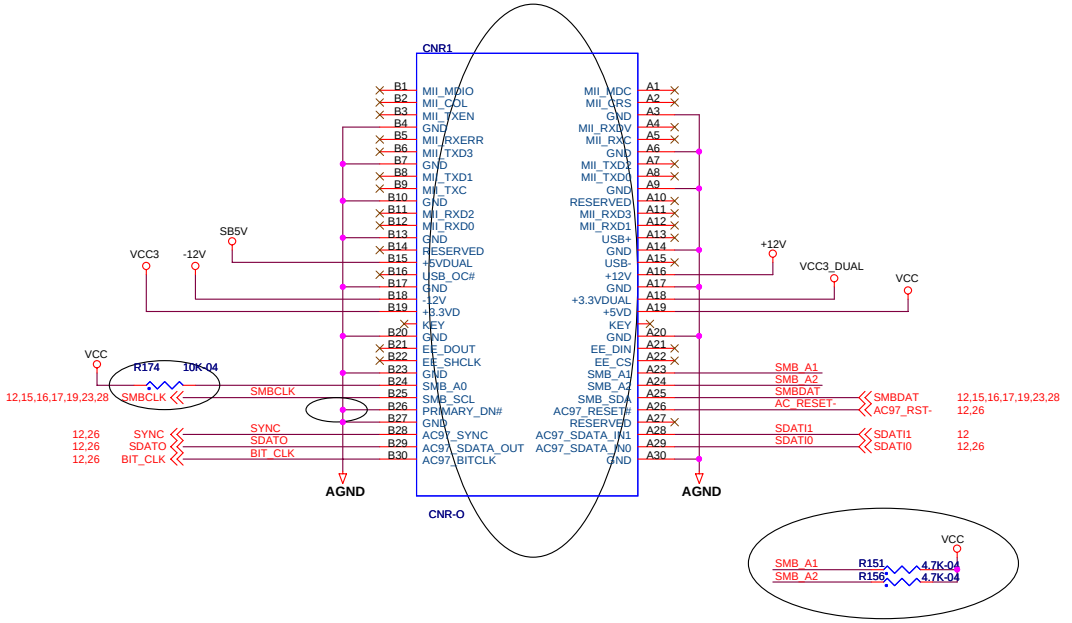
R1,R2,R3,R4 depend on the address selection.

ADD0	ADD1	ADDRESS
GND	GND	0x48
OPEN	GND	0x49
VCC	GND	0x4A
GND	OPEN	0x4B
OPEN	OPEN	0x4C
VCC	OPEN	0x4D
GND	VCC	0x4E
OPEN	VCC	0x4F
VCC	VCC	0x50



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