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43.	Schematic Change List
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46-50.	REFDES Page Index

NEEDS TO BE UPDATED

POWER MODES

Power Mode	Voltage	Page	Source	ON	OFF
RBAT	7.2V	32, 36		Always	
PBATT+	17V-13V	36, 37, CB - 3		Always	
SBATT+	17V-13V	36, 37, CB - 3		Always	
DOCK_DC_IN	20V	29, 36		Always	
DC_IN	20V	29, 36, CB - 2, 3		Always	
SDC_IN	20V	CB - 2, 3		Always	
V_CHG	15V-17.5V	CB - 2		Note 1	
PWR_SRC	7.2V-20V	8, 11, 29, 36, 38, 39, 40, 41		Always	
RTCSRC	7.2V-20V	36, 39		Always	
3VSUS	3.3V	4, 6, 10-16, 18, 21-25, 27, 30-31, 35, 38-41		S1-S3	S4-S5
RTC_PWR	5V	36, 38, 39, 41, 42		Always	
5VSUS	5V	8, 11, 16, 18-19, 22, 25, 29, 33-35, 38-42		S1-S3	S4-S5
2.5VSUS	2.5V	8-10, 39		S1-S3	S4-S5
VCC_CORE	0.6V-1.75V	4, 5-9, 16, 23, 38-40		S1-S2	S3-S5
12V	12V	3, 11, 25, 29, 33, 36, 38, 41		S1-S2	S3-S5
DOCK_PWR_SRC	13V-20V	29		Docked ALW	
3VRUN	3.3V	3, 4, 6, 11, 13-14, 16-17, 19, 21-23, 26-28, 30-31, 33, 35, 38		S1-S2	S3-S5
VALUX	3.3V	27		Note 2	Note 2
1.8VSUS	1.8V	16, 38-39		S1-S3	S4-S5
1.8VRUN	1.8V	7, 8, 9, 13, 16, 38		S1-S2	S3-S5
5VRUN	5V	6, 11-12, 16-17, 20, 27-28, 30, 32-35, 38, 42		S1-S2	S3-S5
5VHDD	5V	17, 38		S1-S2	S3-S5
5VMOD	5V	17, 38		S1-S2	S3-S5
1.5VRUN	1.5V	7, 9, 11, 38-39		S1-S2	S3-S5
STRB- 5V	5V	29, 34, 38		S1-S2	S3-S5
VREFCG	0.7V	11		S1-S2	S3-S5
V_1P25V_DDR_VTT	1.25V	8, 10, 11, 38, 39		S1-S2	S3-S5
CRT_VCC	5V	12		S1-S2	S3-S5
5V_QDOCK	5V	28, 30		S1-S2	S3-S5
5VFDDPP	5V	17, 31, 38		S1-S2	S3-S5
5VSUS_DOCKED	5V	29		Docked S1-S3	Docked S4-S5
USB_PWR_0/4	5V	18		S1-S2	S3-S5
VDDA	4.65V	19, 20		S1-S2	S3-S5
VDDA2	2.2V	19, 20		S1-S2	S3-S5
1.2V_VCCVID	1.2V	4, 40		S1-S3	S4-S5
5VALW	5V	11, 29, 30-32, 35-37, 39, 41		Note 4	Note 4
3.3VRTC	3.3V	16, 31, 36, 39, 41		Always	
3VALW	3.3V	6, 17, 30-32, 35, 36, 39, 41		Note 4	Note 4
VCC_RTC	3.3V	14, 16		Always	
ICH_VBIAS	3.3V	14, 16		S1-S2	S3-S5
3VPHYD	3.3V	26		S1-S2	S3-S5
3VPHYA	3.3V	26		S1-S2	S3-S5
CK_VDD_MAIN	3.3V	3		S1-S2	S3-S5
CK_VDD_CORE	3.3V	3		S1-S2	S3-S5
V_3P3_LAN	3.3V	21, 22		S1-S3	S4-S5
V_3P3_LAN_VDDTX	3.3V	21		S1-S3	S4-S5
V_3P3_LAN_VDDR_X	3.3V	21		S1-S3	S4-S5
V_MCH_GTLREF	0.67xVCC_CORE	8		S1-S2	S3-S5
S1_VPP	0V-12V Note A	25		S1-S3	S4-S5
S2_VPP	0V-12V Note A	25		S1-S3	S4-S5
S1_VCC	0V-5V Note A	24, 25		S1-S3	S4-S5
S2_VCC	0V-5V Note A	24, 25		S1-S3	S4-S5
S1_VCCF	0V-5V Note A	24, 25		S1-S3	S4-S5
S2_VCCF	0V-5V Note A	24, 25		S1-S3	S4-S5
HL_REF	0.9V	8, 13		S1-S2	S3-S5
H_VCCA	1.2V	4		S1-S3	S4-S5
H_VCCIOPLL	1.2V	4		S1-S3	S4-S5
H_GTLREF	0.67xVCC_CORE	4		S1-S2	S3-S5
H_VSSA	1.2V	4		S1-S3	S4-S5
V_DDR_MCH_REF	1.25V	8, 10, 39		S1-S3	S4-S5

Note A Voltage delivered to these pins is determined from the type card inserted to the PCMCIA controller.

Note 1 Rail is available anytime AC and BATTERY are both present, and the BIOS is not inhibiting charge

Note 2	NB powered by AC	VALUX	S1-S3	S4 - S5
	NB powered by BATT	VALUX	S1-S2	S3 - S5

Note 3 Rail is available anytime the HEADPHONE jack is occupied


Note 4	NB powered by AC	3VALW	Always	
	NB powered by BATT	3VALW	S1-S3	S4 - S5
	NB powered by AC	5VALW	Always	
	NB powered by BATT	5VALW	S1-S3	S4 - S5

PCI TABLE

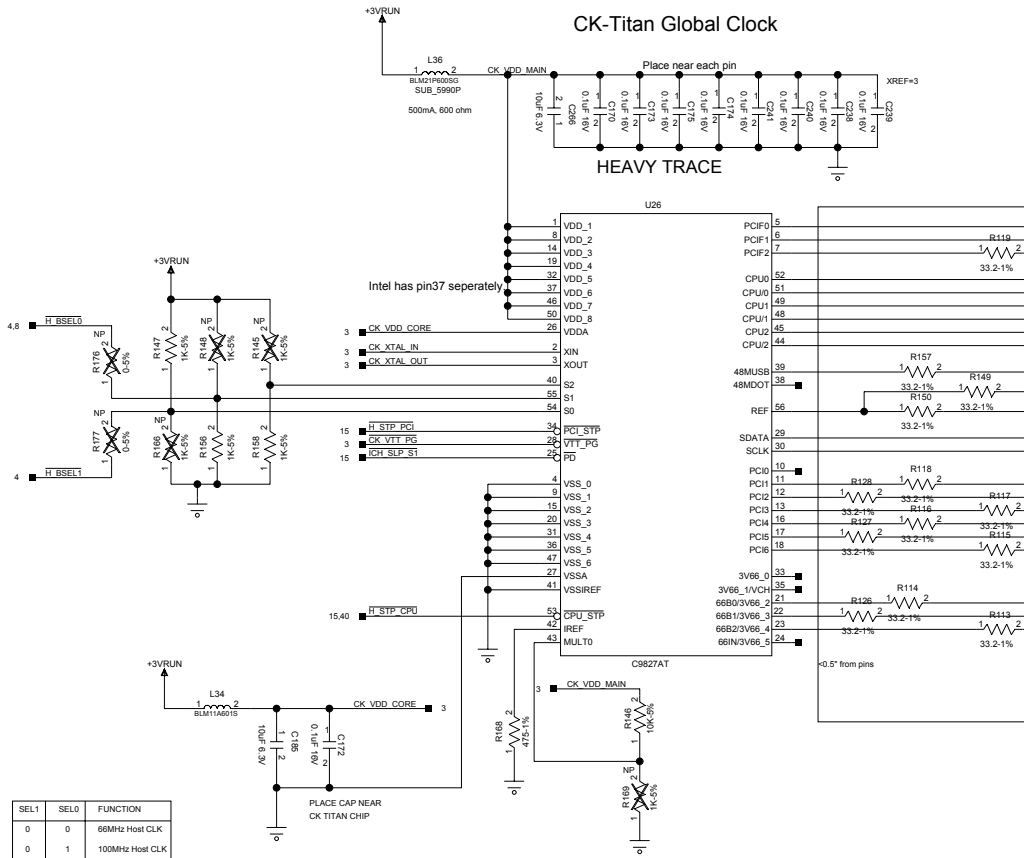
DEVICE	IDSEL	IRQ	REQ/GNT	DREQ/DGNT
DOCK	AD24	PIRQC*		REQ0*/GNT0*
3COM	AD16	PIRQC*		REQ4*/GNT4*
VIDEO	IDSEL	PIRQA* PIRQB*		
PC14451	AD17	PIRQD*	REQB*/GNTB*	REQ1*/GNT1*
M3i	AD18	PIRQA*	REQA*/GNTA*	REQ2*/GNT2*
MINIPCI	AD19	PIROB* PIRQD*		REQ3*/GNT3*

BOM BUILD OPTIONS	
Option	Description
0	Base Build
1	FDD PP

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		COMPUTER CORPORATION AUSTIN, TEXAS
TITLE <b>SCHEM,PLN,MN,CABN</b> SCHEMATIC INFORMATION		
DWG NO.	1F473	REV. X03-00
DATE	10/4/01	SHEET 2 OF 51

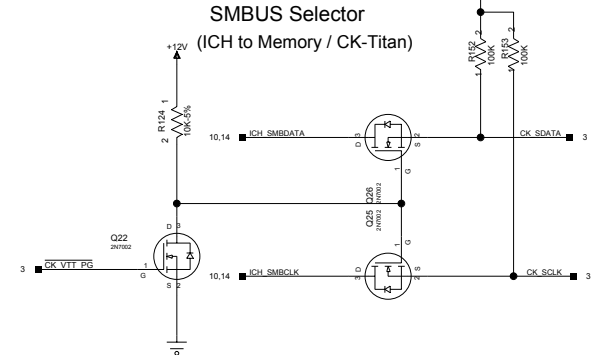
### CK-Titan Global Clock



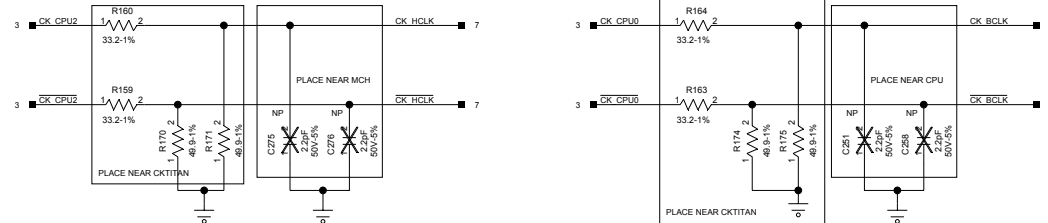
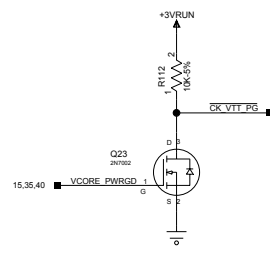
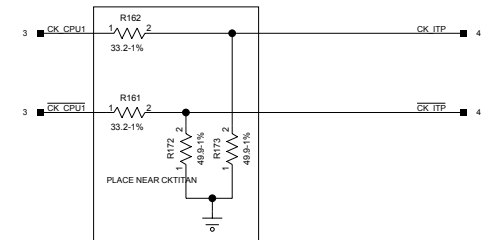
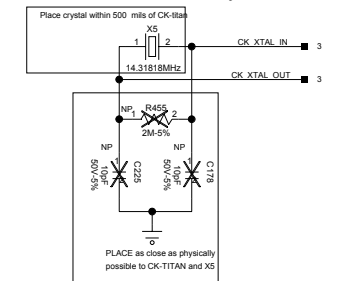
SEL1	SEL0	FUNCTION
0	0	66MHz Host CLK
0	1	100MHz Host CLK
1	0	200MHz Host CLK
1	1	133MHz Host CLK

MULT	IREF	CLOCK SWING
1	475	0.7 Volts
0	221	1.0 Volts

### SMBUS Selector

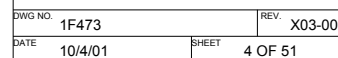


### CK-Titan Crystal

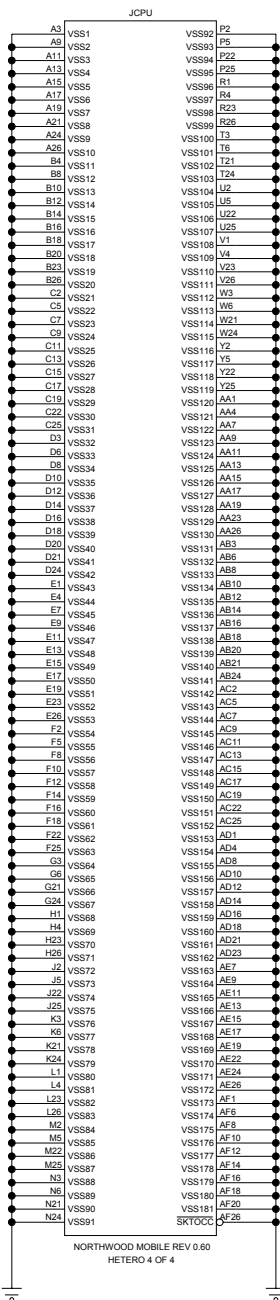


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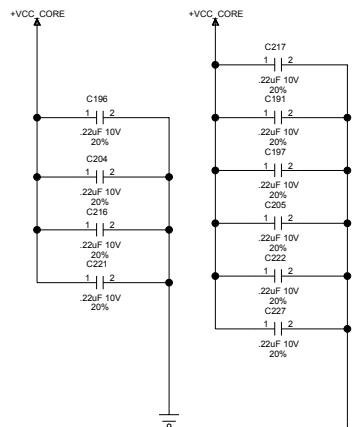
<b>DELL</b> COMPUTER CORPORATION AUSTIN, TEXAS	
TITLE <b>SCHEM,PLN,MN,CABN CK408 CLOCK CHIP</b>	
DWG NO. <b>1F473</b>	REV. <b>X03-00</b>
DATE <b>10/4/01</b>	SHEET <b>3 OF 51</b>



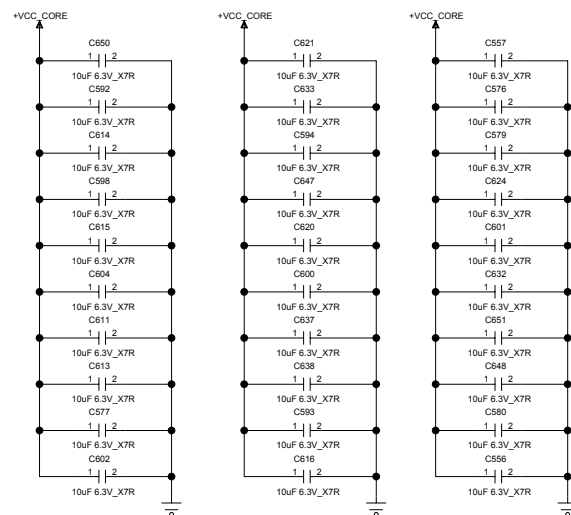
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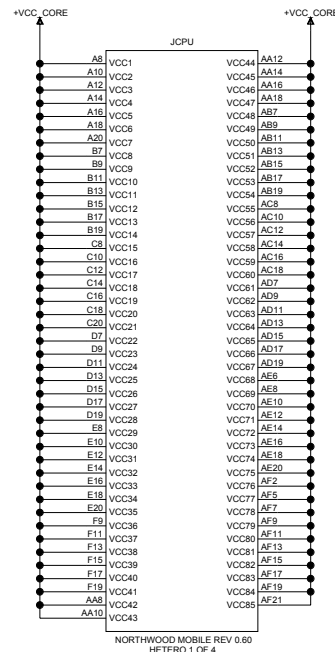
## CPU High Frequency Decoupling



## CPU Bulk Decoupling

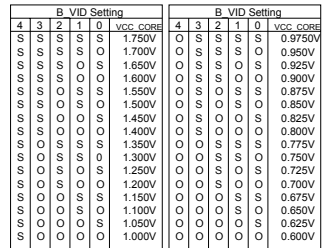


Place caps close to JCPU  
ALL CAPS NEED TO BE PLACED  
DIRECTLY UNDER JCPU, WHEN  
POSSIBLE USE TWO VIAS/PAD

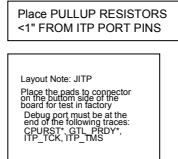


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TITLE SCHEM,PLN,MN,CABN		
DWG NO.	1F473	REV. X03-00
DATE	10/4/01	SHEET 5 OF 51



Ref. Des.	ITP Used	ITP Not Used
R264	510 ohms	1.5k
R255	pop	no pop
R257	pop	no pop
R265	no pop	1k pull-down
R258	pop	no pop
R140 (p.7)	pop	no pop
R249	pop	no pop
R248	pop	no pop
R280	no pop	no pop
R281	pop	no pop
R279	pop	no pop
R278	pop	no pop
R283	pop	no pop
R275	pop	no pop
R273	pop	no pop
R256	39 ohms	1k
R251	no pop	pop
R271	pop	no pop
R263	pop	no pop
R272	pop	pop



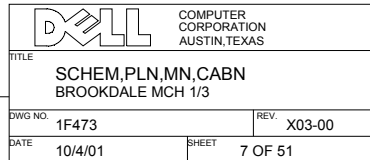
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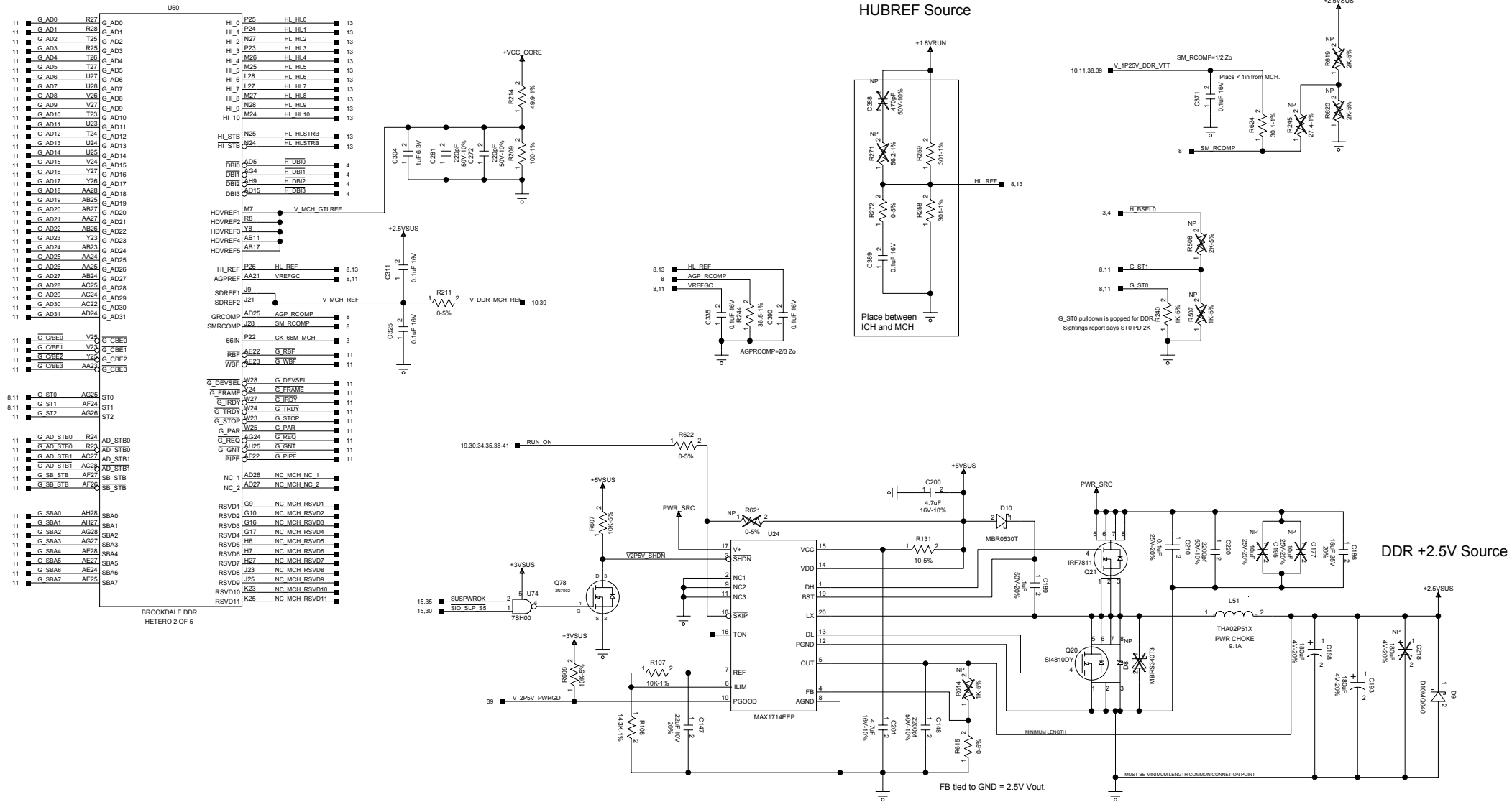
TITLE  
SCHEM,PLN,MN,CABN  
VOLTAGE ID, ITP, CPU TEMPERATURE

DWG NO.	REV.
15173	X02.00

DATE	10/4/01	SHEET	6 OF 51
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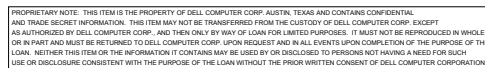


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BROOKDALE MCH 2/3

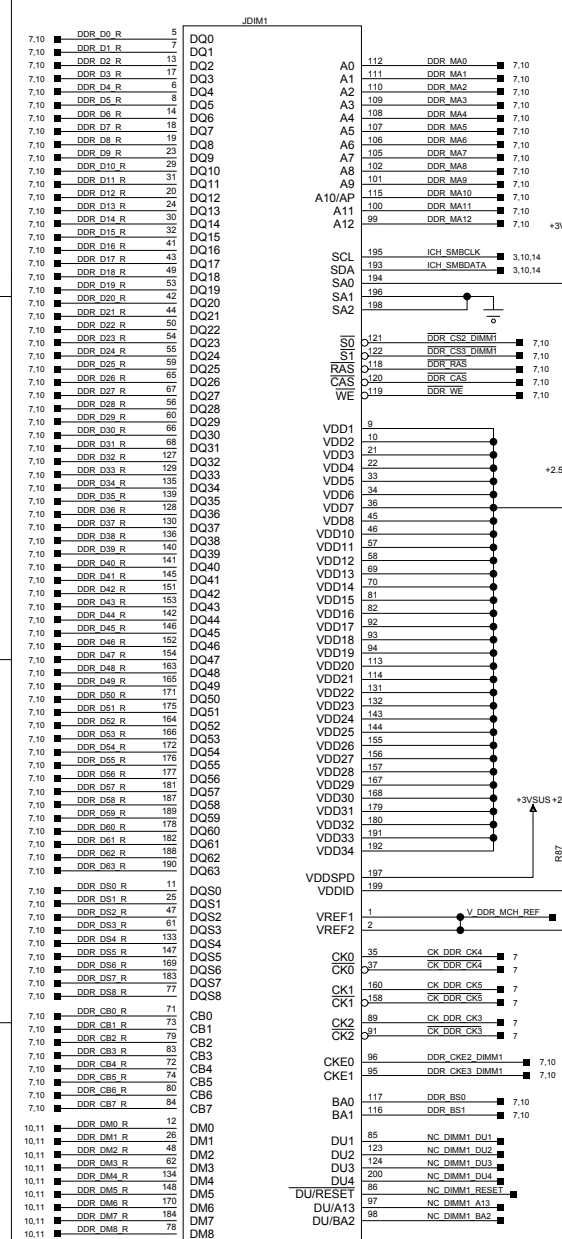
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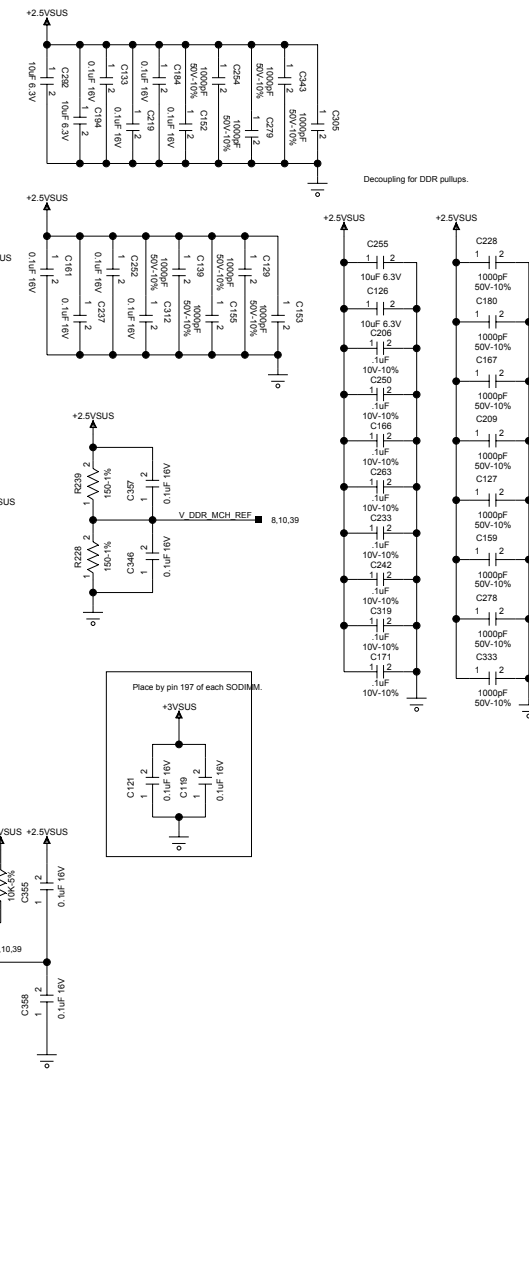
A

DIMM1 LOW PROFILE, REVERSE KEY



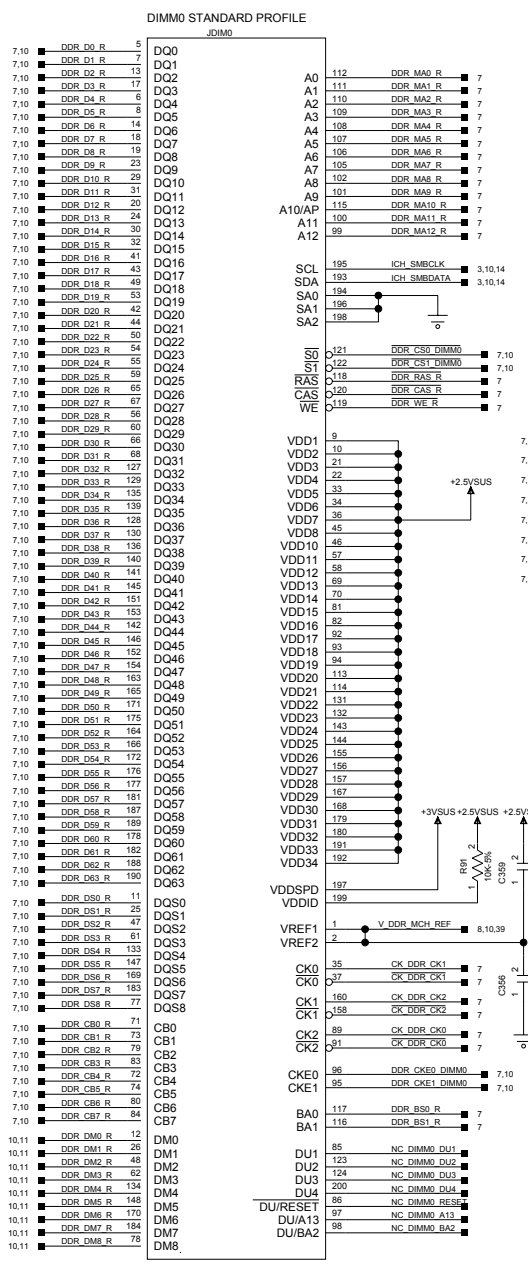
PC2100 DDR SO-DIMM SKT REVERSE KEY

B



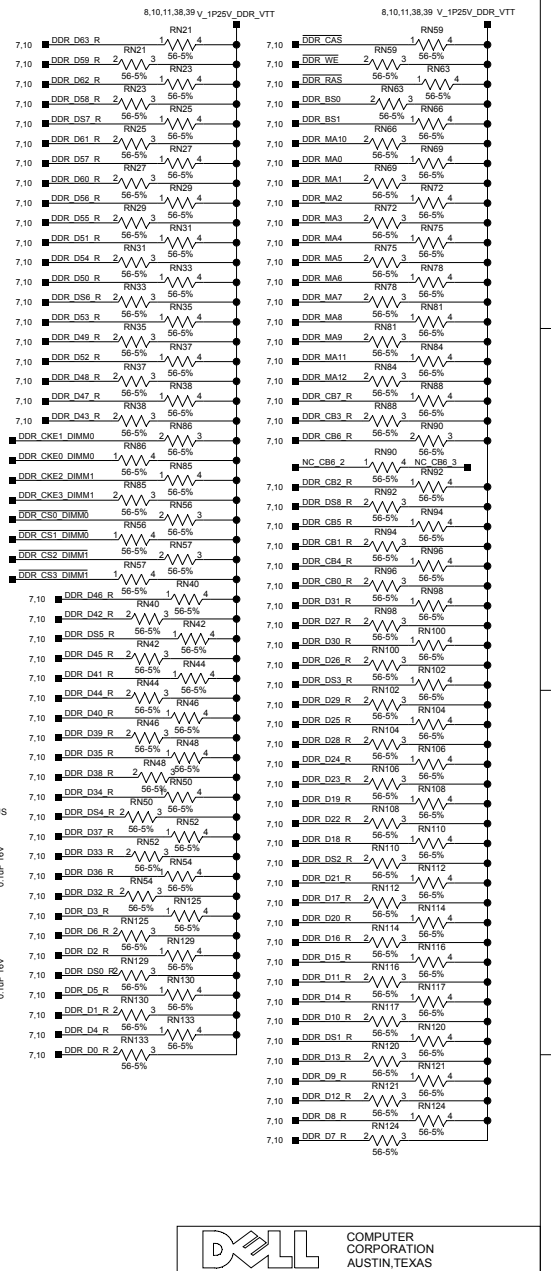
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C



PC2100 DDR SO-DIMM SKT

D



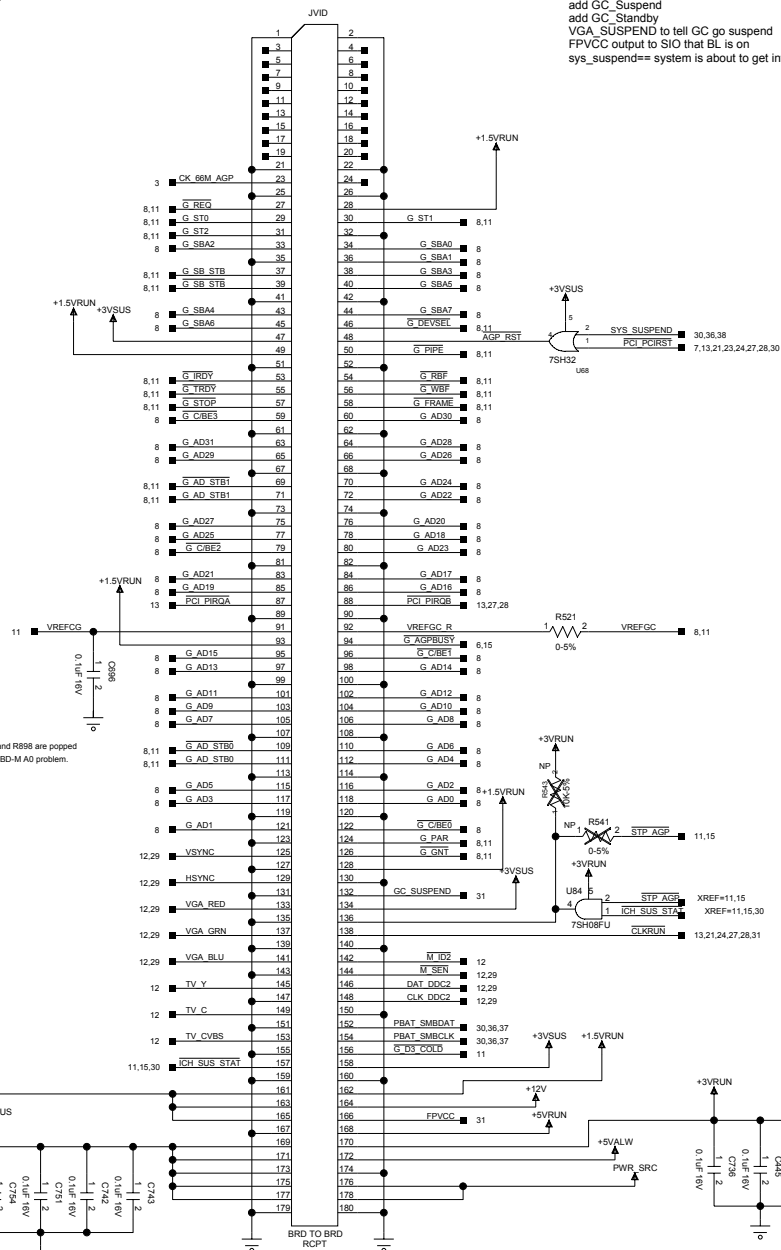
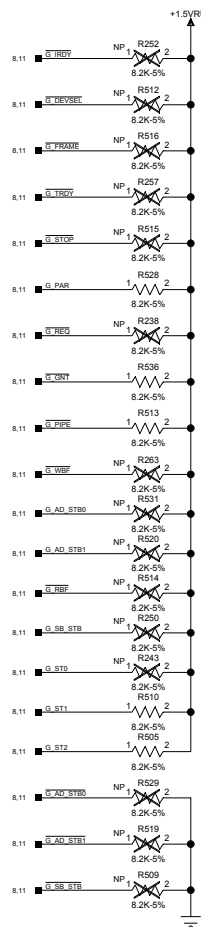
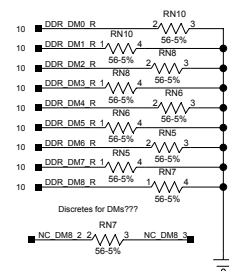
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AUSTIN, TEXAS

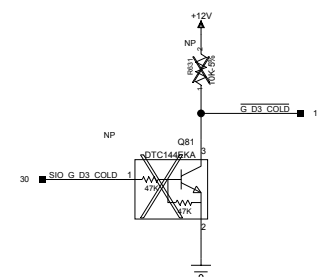
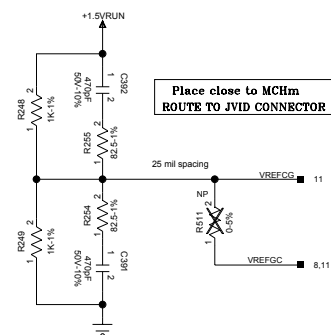
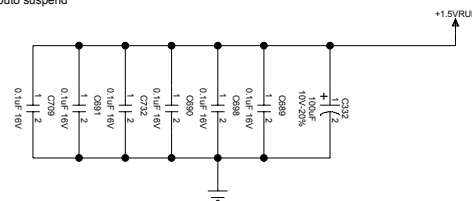
TITLE  
SCHEM,PLN,MN,CABN  
DDR SODIMM SOCKETS

DWG NO. 1F473  
DATE 10/4/01

REV. X03-00  
SHEET 10 OF 51



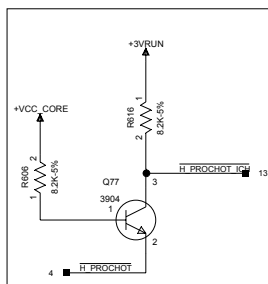
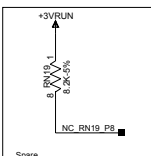
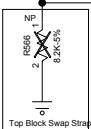
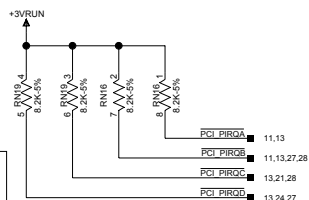
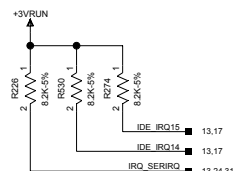
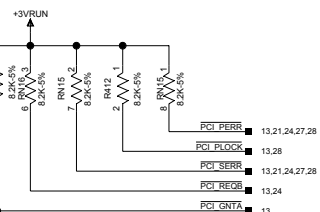
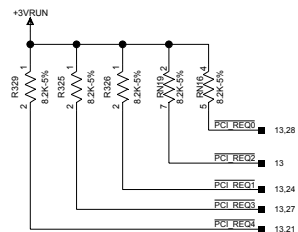
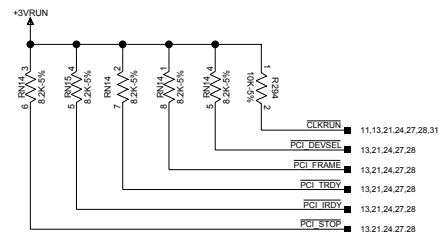
```
vga-off==vga_suspend
v_vga== comes from 3VSUS and 5vSus
add GC_Suspend
add GC_Standby
VGA_SUSPEND to tell GC go suspend
FPVCC output to SIO that BL is on
sys_suspend== system is about to get into /outo suspend
```



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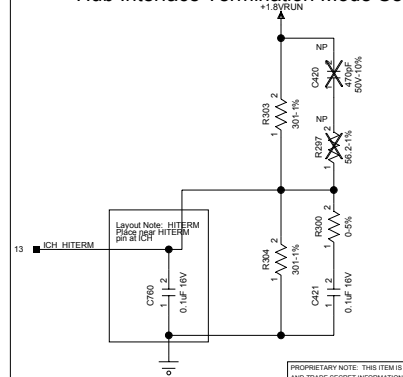


## PCI Bus Pull-Ups

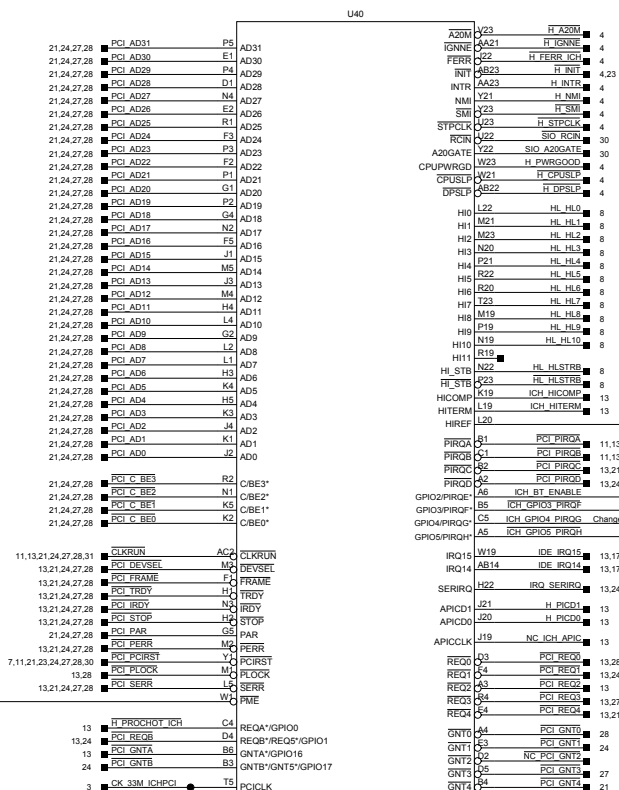


Level Shifter for PROCHOT#

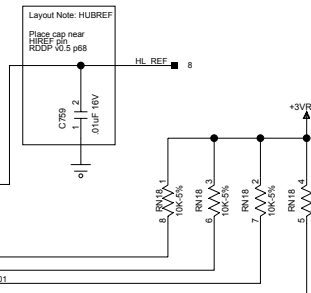
## Hub Interface Termination Mode Select



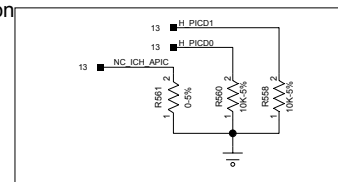
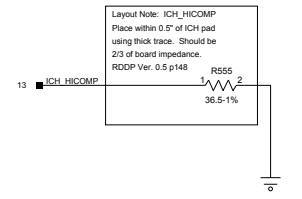
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ICH3-M (1/4)  
PCI/CPU/Hublink Interface

HUB INTERFACE LAYOUT:  
ROUTE SIGNALS WITH 5/20 TRACE/SPACE.  
SIGNALS MUST MATCH +/-0.1" OF HL\_STB/STB\* SIGNALS.  
RDDP Ver. 0.5 p148



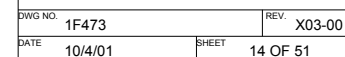
## Hub Interface Buffer Compensation

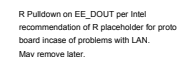


COMPUTER CORPORATION  
AUSTIN, TEXAS

SCHEM,PLN,MN,CABN  
ICH3M 1/4

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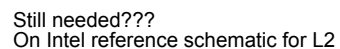




NP now per BIOS (kw).  
Removal of this part moves us  
toward Intel recommendation  
for power management.  
May remove later.

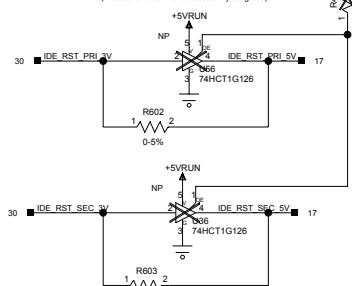






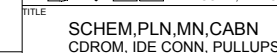
Series resistance is now embedded in ICH3  
Changing to 0 ohm

Level shifting is required in order to support Toshiba DVD-ROM drive with  $V_{IH}=3.5V$  (Resistor allows in-circuit testability for gates)



The schematic diagram illustrates the T9 RCPT RA NOTEMODULE, a rectangular component with a central JHDO header. The module is connected to various power and signal lines as follows:

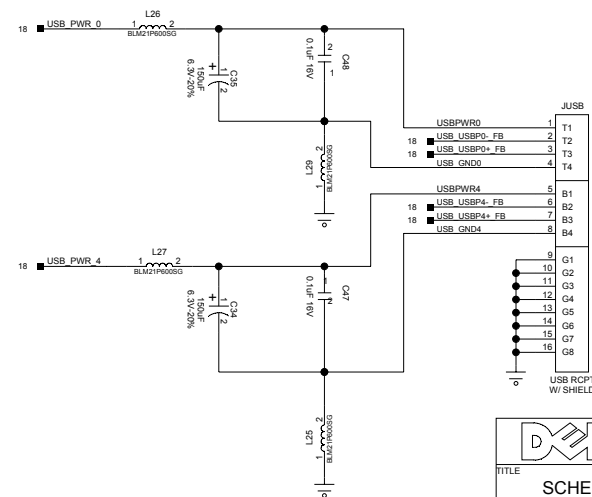
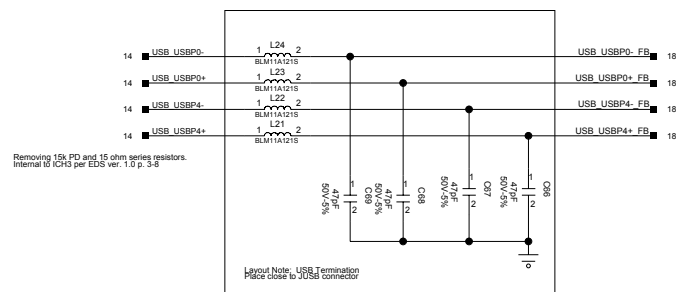
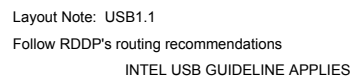
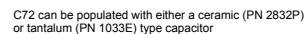
- Power Connections:**
  - +5VRUN:** Connected to pin 27 via a 10kΩ pull-up resistor.
  - +5VDD:** Connected to pin 43.
  - +5VDD:** Connected to pin 44.
  - +5VDD:** Connected to pin 45.
  - +5VDD:** Connected to pin 46.
  - +5VDD:** Connected to pin 47.
  - +5VDD:** Connected to pin 48.
  - +5VDD:** Connected to pin 49.
  - +5VDD:** Connected to pin 50.
  - +5VDD:** Connected to pin 51.
  - +5VDD:** Connected to pin 52.
  - +5VDD:** Connected to pin 53.
  - +5VDD:** Connected to pin 54.
  - +5VDD:** Connected to pin 55.
  - +5VDD:** Connected to pin 56.
  - +5VDD:** Connected to pin 57.
  - +5VDD:** Connected to pin 58.
  - +5VDD:** Connected to pin 59.
  - +5VDD:** Connected to pin 60.
  - +5VDD:** Connected to pin 61.
  - +5VDD:** Connected to pin 62.
  - +5VDD:** Connected to pin 63.
  - +5VDD:** Connected to pin 64.
  - +5VDD:** Connected to pin 65.
  - +5VDD:** Connected to pin 66.
  - +5VDD:** Connected to pin 67.
  - +5VDD:** Connected to pin 68.
  - +5VDD:** Connected to pin 69.
  - +5VDD:** Connected to pin 70.
  - +5VDD:** Connected to pin 71.
  - +5VDD:** Connected to pin 72.
  - +5VDD:** Connected to pin 73.
  - +5VDD:** Connected to pin 74.
  - +5VDD:** Connected to pin 75.
  - +5VDD:** Connected to pin 76.
  - +5VDD:** Connected to pin 77.
  - +5VDD:** Connected to pin 78.
  - +5VDD:** Connected to pin 79.
  - +5VDD:** Connected to pin 80.
  - +5VDD:** Connected to pin 81.
  - +5VDD:** Connected to pin 82.
  - +5VDD:** Connected to pin 83.
  - +5VDD:** Connected to pin 84.
  - +5VDD:** Connected to pin 85.
  - +5VDD:** Connected to pin 86.
  - +5VDD:** Connected to pin 87.
  - +5VDD:** Connected to pin 88.
  - +5VDD:** Connected to pin 89.
  - +5VDD:** Connected to pin 90.
  - +5VDD:** Connected to pin 91.
  - +5VDD:** Connected to pin 92.
  - +5VDD:** Connected to pin 93.
  - +5VDD:** Connected to pin 94.
  - +5VDD:** Connected to pin 95.
  - +5VDD:** Connected to pin 96.
  - +5VDD:** Connected to pin 97.
  - +5VDD:** Connected to pin 98.
  - +5VDD:** Connected to pin 99.
  - +5VDD:** Connected to pin 100.
- Signal Connections:**
  - IDE\_RST\_PRI\_BV:** Connected to pin 1.
  - IDE\_P008:** Connected to pin 2.
  - IDE\_P009:** Connected to pin 3.
  - IDE\_P010:** Connected to pin 4.
  - IDE\_P011:** Connected to pin 5.
  - IDE\_P012:** Connected to pin 6.
  - IDE\_P013:** Connected to pin 7.
  - IDE\_P014:** Connected to pin 8.
  - IDE\_P015:** Connected to pin 9.
  - IDE\_P016:** Connected to pin 10.
  - IDE\_P017:** Connected to pin 11.
  - IDE\_P018:** Connected to pin 12.
  - IDE\_P019:** Connected to pin 13.
  - IDE\_P020:** Connected to pin 14.
  - IDE\_P021:** Connected to pin 15.
  - IDE\_P022:** Connected to pin 16.
  - IDE\_P023:** Connected to pin 17.
  - IDE\_P024:** Connected to pin 18.
  - IDE\_P025:** Connected to pin 19.
  - IDE\_P026:** Connected to pin 20.
  - IDE\_P027:** Connected to pin 21.
  - IDE\_P028:** Connected to pin 22.
  - IDE\_P029:** Connected to pin 23.
  - IDE\_P030:** Connected to pin 24.
  - IDE\_P031:** Connected to pin 25.
  - IDE\_P032:** Connected to pin 26.
  - IDE\_P033:** Connected to pin 27.
  - IDE\_P034:** Connected to pin 28.
  - IDE\_P035:** Connected to pin 29.
  - IDE\_P036:** Connected to pin 30.
  - IDE\_P037:** Connected to pin 31.
  - IDE\_P038:** Connected to pin 32.
  - IDE\_P039:** Connected to pin 33.
  - IDE\_P040:** Connected to pin 34.
  - IDE\_P041:** Connected to pin 35.
  - IDE\_P042:** Connected to pin 36.
  - IDE\_P043:** Connected to pin 37.
  - IDE\_P044:** Connected to pin 38.
  - IDE\_P045:** Connected to pin 39.
  - IDE\_P046:** Connected to pin 40.
  - IDE\_P047:** Connected to pin 41.
  - IDE\_P048:** Connected to pin 42.
  - IDE\_P049:** Connected to pin 43.
  - IDE\_P050:** Connected to pin 44.
  - IDE\_P051:** Connected to pin 45.
  - IDE\_P052:** Connected to pin 46.
  - IDE\_P053:** Connected to pin 47.
  - IDE\_P054:** Connected to pin 48.
  - IDE\_P055:** Connected to pin 49.
  - IDE\_P056:** Connected to pin 50.
  - IDE\_P057:** Connected to pin 51.
  - IDE\_P058:** Connected to pin 52.
  - IDE\_P059:** Connected to pin 53.
  - IDE\_P060:** Connected to pin 54.
  - IDE\_P061:** Connected to pin 55.
  - IDE\_P062:** Connected to pin 56.
  - IDE\_P063:** Connected to pin 57.
  - IDE\_P064:** Connected to pin 58.
  - IDE\_P065:** Connected to pin 59.
  - IDE\_P066:** Connected to pin 60.
  - IDE\_P067:** Connected to pin 61.
  - IDE\_P068:** Connected to pin 62.
  - IDE\_P069:** Connected to pin 63.
  - IDE\_P070:** Connected to pin 64.
  - IDE\_P071:** Connected to pin 65.
  - IDE\_P072:** Connected to pin 66.
  - IDE\_P073:** Connected to pin 67.
  - IDE\_P074:** Connected to pin 68.
  - IDE\_P075:** Connected to pin 69.
  - IDE\_P076:** Connected to pin 70.
  - IDE\_P077:** Connected to pin 71.
  - IDE\_P078:** Connected to pin 72.
  - IDE\_P079:** Connected to pin 73.
  - IDE\_P080:** Connected to pin 74.
  - IDE\_P081:** Connected to pin 75.
  - IDE\_P082:** Connected to pin 76.
  - IDE\_P083:** Connected to pin 77.
  - IDE\_P084:** Connected to pin 78.
  - IDE\_P085:** Connected to pin 79.
  - IDE\_P086:** Connected to pin 80.
  - IDE\_P087:** Connected to pin 81.
  - IDE\_P088:** Connected to pin 82.
  - IDE\_P089:** Connected to pin 83.
  - IDE\_P090:** Connected to pin 84.
  - IDE\_P091:** Connected to pin 85.
  - IDE\_P092:** Connected to pin 86.
  - IDE\_P093:** Connected to pin 87.
  - IDE\_P094:** Connected to pin 88.
  - IDE\_P095:** Connected to pin 89.
  - IDE\_P096:** Connected to pin 90.
  - IDE\_P097:** Connected to pin 91.
  - IDE\_P098:** Connected to pin 92.
  - IDE\_P099:** Connected to pin 93.
  - IDE\_P100:** Connected to pin 94.
  - IDE\_P101:** Connected to pin 95.
  - IDE\_P102:** Connected to pin 96.
  - IDE\_P103:** Connected to pin 97.
  - IDE\_P104:** Connected to pin 98.
  - IDE\_P105:** Connected to pin 99.
  - IDE\_P106:** Connected to pin 100.
- Other Components:**
  - T9 RCPT RA NOTEMODULE:** The main component being connected.
  - IDE\_RST\_PRI\_BV:** A signal line connected to pin 1.
  - IDE\_P008:** A signal line connected to pin 2.
  - IDE\_P009:** A signal line connected to pin 3.
  - IDE\_P010:** A signal line connected to pin 4.
  - IDE\_P011:** A signal line connected to pin 5.
  - IDE\_P012:** A signal line connected to pin 6.
  - IDE\_P013:** A signal line connected to pin 7.
  - IDE\_P014:** A signal line connected to pin 8.
  - IDE\_P015:** A signal line connected to pin 9.
  - IDE\_P016:** A signal line connected to pin 10.
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  - IDE\_P018:** A signal line connected to pin 12.
  - IDE\_P019:** A signal line connected to pin 13.
  - IDE\_P020:** A signal line connected to pin 14.
  - IDE\_P021:** A signal line connected to pin 15.
  - IDE\_P022:** A signal line connected to pin 16.
  - IDE\_P023:** A signal line connected to pin 17.
  - IDE\_P024:** A signal line connected to pin 18.
  - IDE\_P025:** A signal line connected to pin 19.
  - IDE\_P026:** A signal line connected to pin 20.
  - IDE\_P027:** A signal line connected to pin 21.
  - IDE\_P028:** A signal line connected to pin 22.
  - IDE\_P029:** A

[illegible]

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DATE	10/4/01	SHEET	17 OF 51
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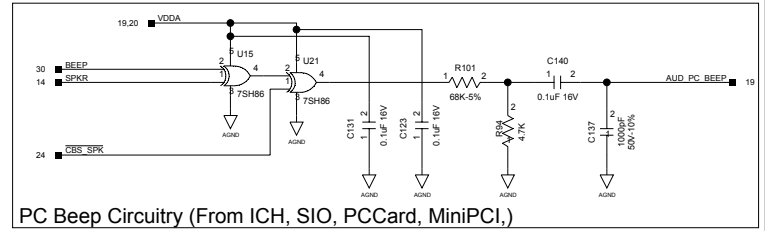
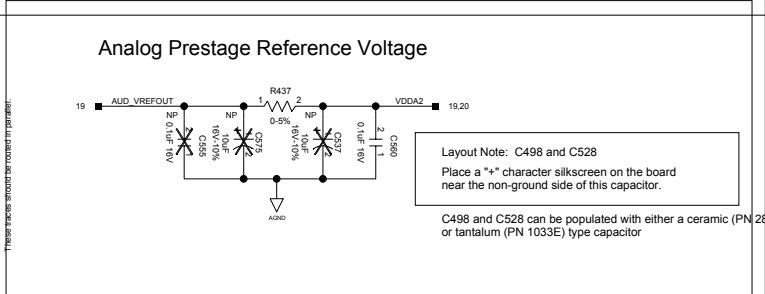
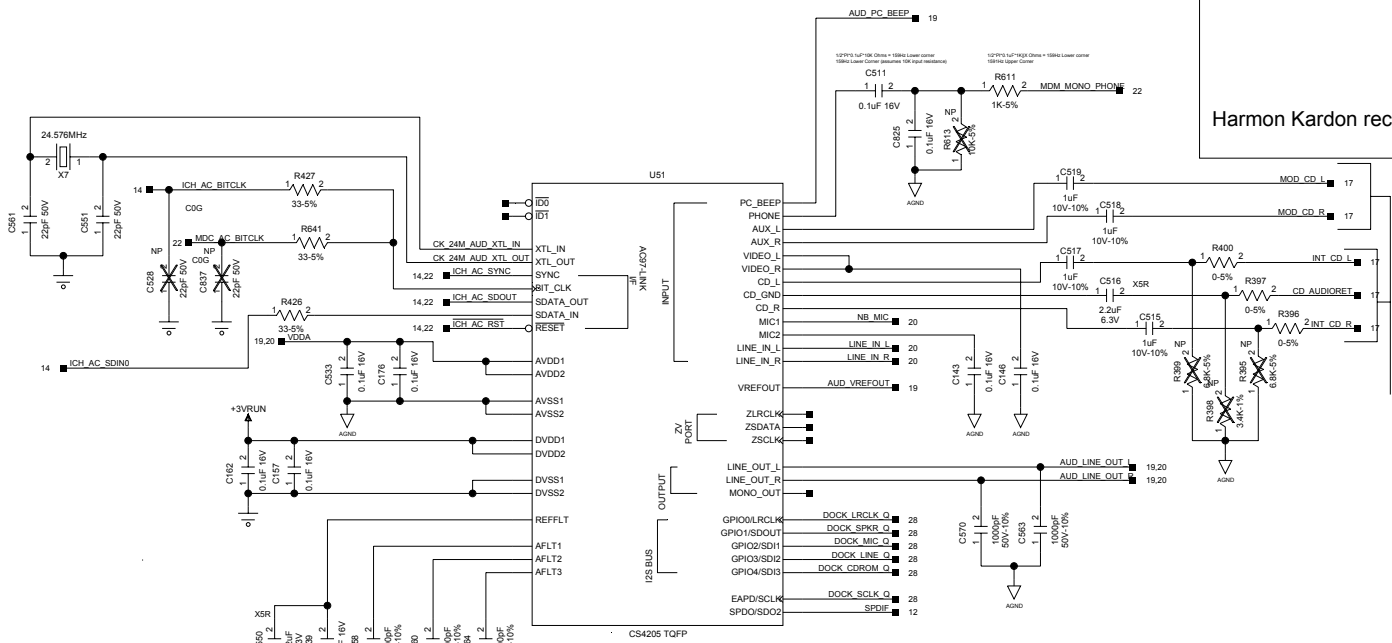
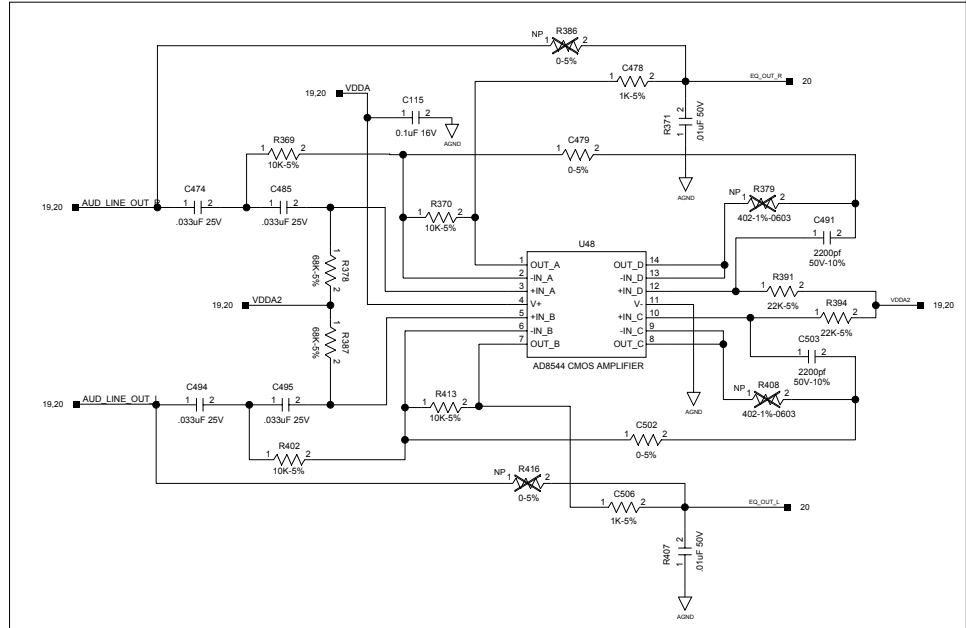
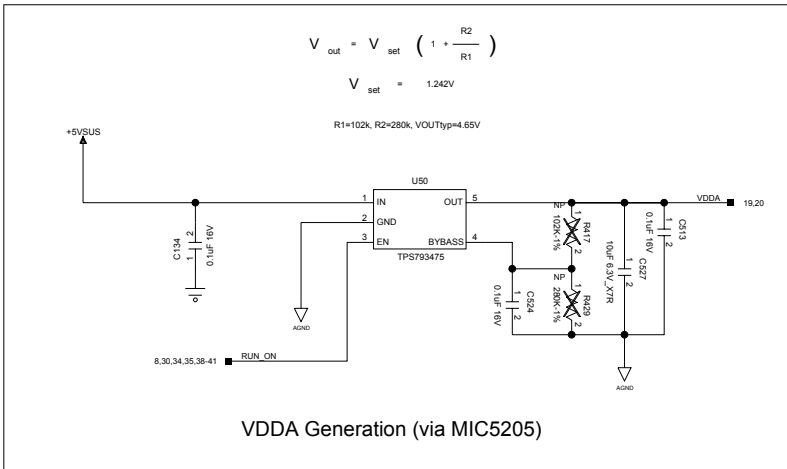
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A

B

C


D



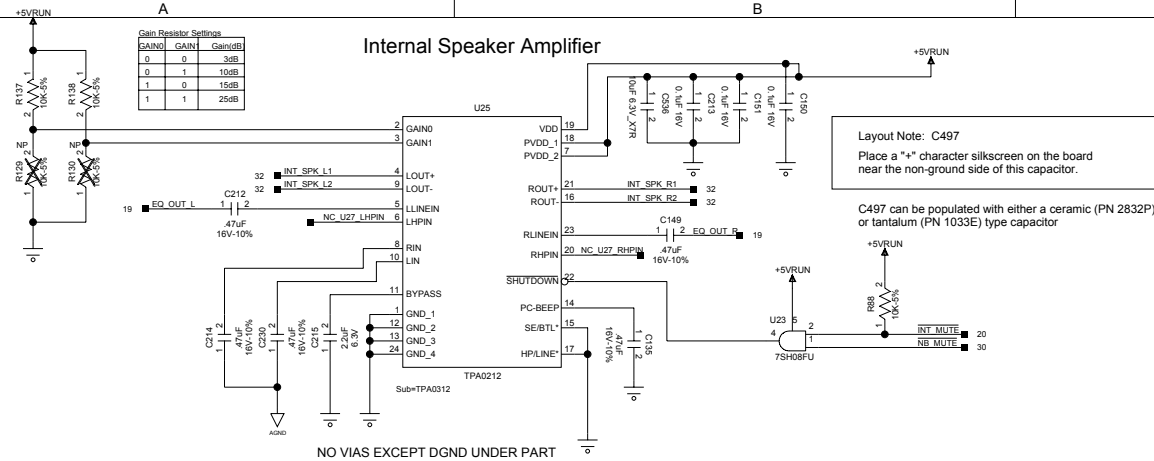
NOTE: ECAD MUST  
CONNECT AGND  
TO GND (VIA DRAWBRIDGE)!!  
60 MIL TRACE AT ONE POINT  
ONLY UNDER THE CODEC

CRYSTAL 4205 AUDIO CODEC

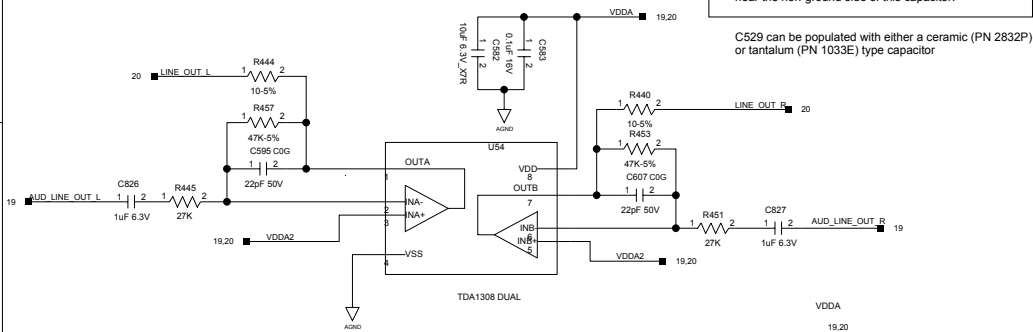
PROPRIETARY NOTE: THIS ITEM IS THE PROPERTY OF DELL COMPUTER CORP. AUSTIN, TEXAS AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS ITEM MAY NOT BE TRANSFERRED FROM THE CUSTODY OF DELL COMPUTER CORP. EXCEPT AS AUTHORIZED BY DELL COMPUTER CORP. AND THEN ONLY BY WAY OF LOAN FOR LIMITED PURPOSES. IT MUST NOT BE REPRODUCED IN WHOLE OR IN PART AND MUST BE RETURNED TO DELL COMPUTER CORP. UPON REQUEST AND IN ALL EVENTS UPON COMPLETION OF THE PURPOSE OF THE LOAN. NEITHER THIS ITEM OR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO PERSONS NOT HAVING A NEED FOR SUCH USE OR DISCLOSURE CONSISTENT WITH THE PURPOSE OF THE LOAN WITHOUT THE PRIOR WRITTEN CONSENT OF DELL COMPUTER CORPORATION.

		COMPUTER CORPORATION AUSTIN, TEXAS	
TITLE SCHEM,PLN,MN,CABN AUDIO - CRYSTAL 4205			
DWG NO. 1F473		REV. X03-00	
DATE 10/4/01		SHEET 19 OF 51	

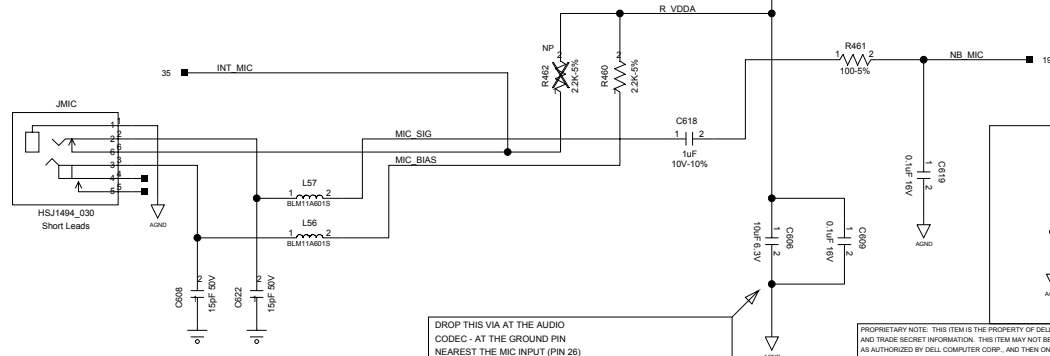
## Internal Speaker Amplifier



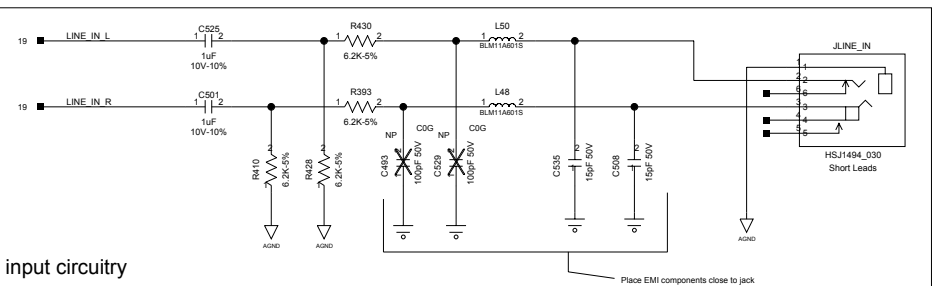
## Headphone/Line Out Amplifier



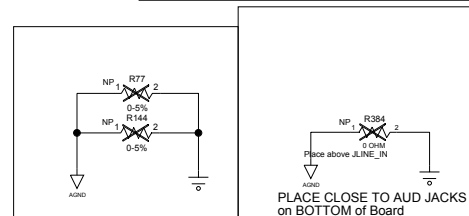
## Microphone Input Circuit



## Line output circuitry



## Line input circuitry



NOTE: ECAD MUST  
CONNECT AGND  
TO GND (VIA DRAWBRIDGE)!!!  
60 MIL TRACE AT ONE POINT  
ONLY UNDER THE CODEC

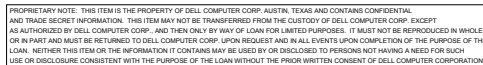
**DELL** COMPUTER CORPORATION  
AUSTIN, TEXAS

TITLE  
SCHEM,PLN,MN,CABN  
AUDIO 2 - CONNS

DWG NO. 1F473 REV. X03-00

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PLACE RX TERMINATION NEAR ASIC




### AC97 Bit Clock Buffer

NIC ESD DIODE ARRAY

### LAN CONNECTOR (MB TO RJ-45)

## Soft Modem MDC Connector

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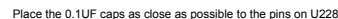
		COMPUTER CORPORATION AUSTIN, TEXAS	
TITLE  <div style="text-align: center;"> <b>SCHEM, PLN, MN, CABN</b>  <b>MDC AND LAN CONNECTORS</b> </div>			
DWG NO. 1F473		REV. X03-00	
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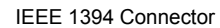


### PC Card Slot Voltage Selector



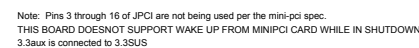
	10/4/01	25 C
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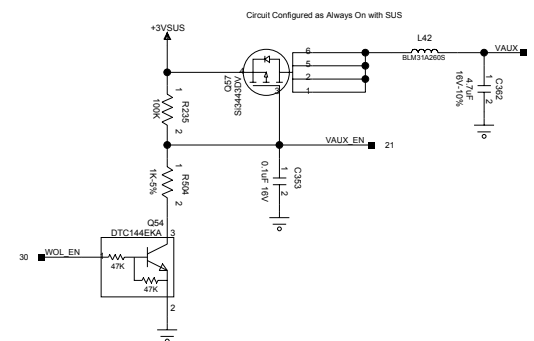


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C699 can be populated with either a ceramic (PN 2832P) or tantalum (PN 1033E) type capacitor



VAUX Source



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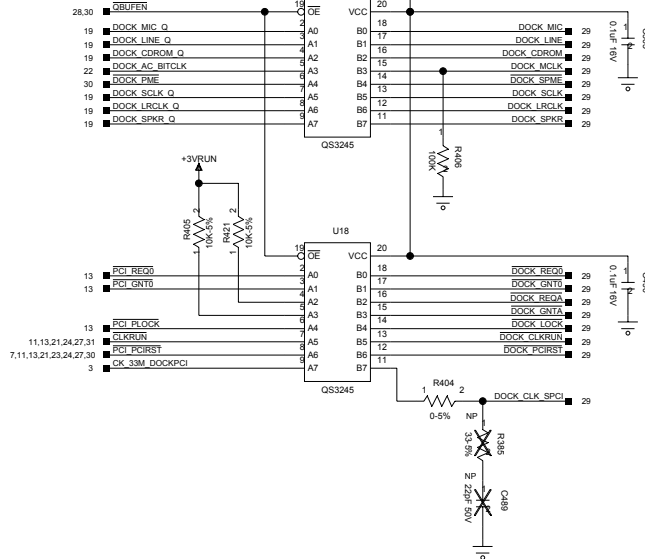
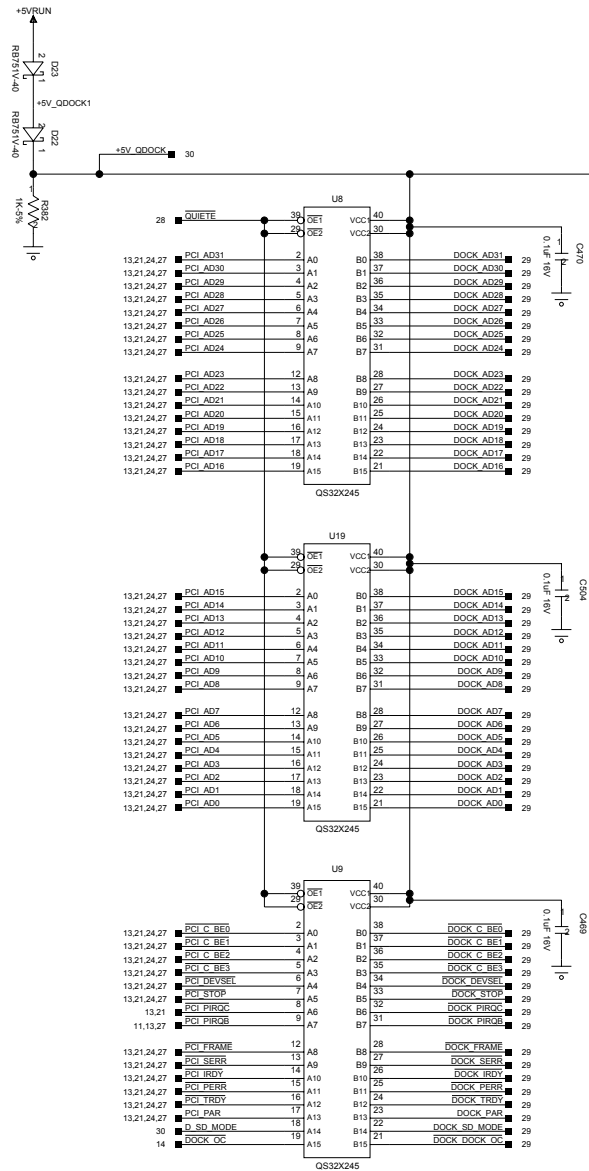


TITLE SCHEM,PLN,MN,CABN  
MINIPCI CONNECTOR

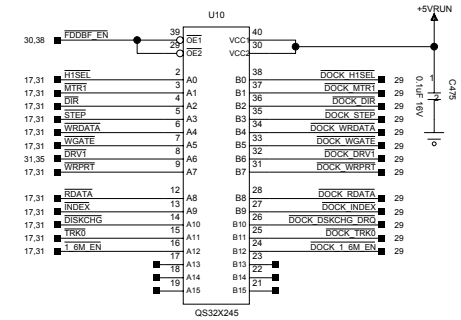
DWG NO.	1F473	REV.	X03-00
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DATE	10/4/01	SHEET	27 OF 51
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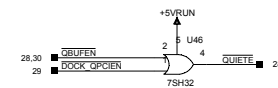
## Dock PCI Bus Buffers



## Dock FD Buffer



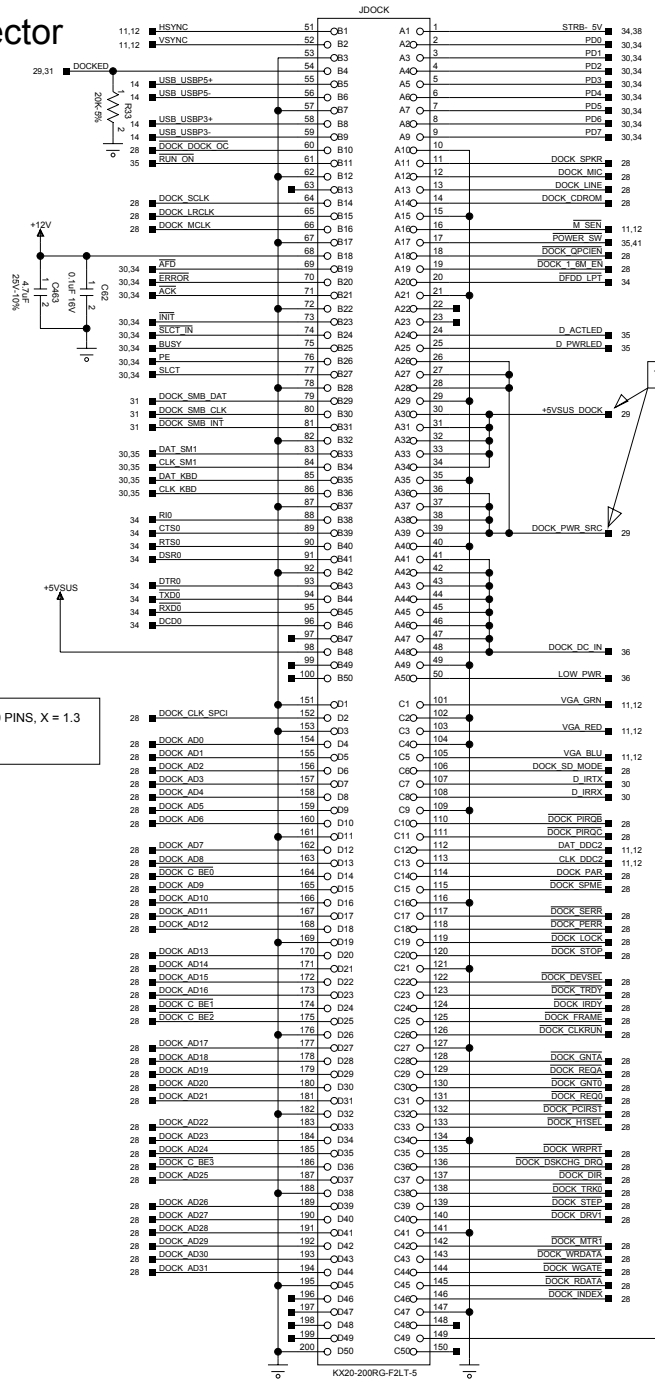
## Dock Buffer Enable



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		COMPUTER CORPORATION AUSTIN, TEXAS	
		TITLE <b>SCHEM,PLN,MN,CABN PCI DOCK BUFFERS</b>	
DWG NO. 1F473		REV. X03-00	
DATE 10/4/01		SHEET 28 OF 51	

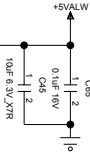
# Dock Connector



FOR 102,149,151,152,199,200 PINS, X = 1.3  
FOR 101,150 PINS, X = 2.9  
OTHER PINS, X = 2.1

TRACE 100 MILS OR GREATER

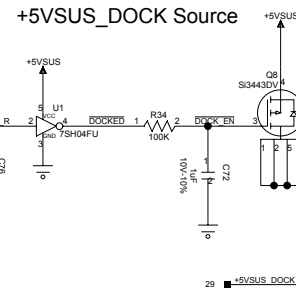
Disconnect REQA\* and GRNTA\* for PCPIC issue



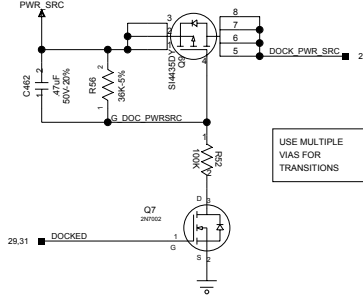
Layout Note: C62  
Place a "\*" character silkscreen on the board  
near the non-ground side of this capacitor.

C62 can be populated with either a ceramic (PN 2832P)  
or tantalum (PN 1033E) type capacitor

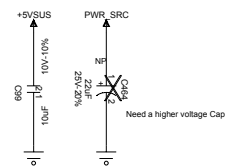
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OR IN PART AND MUST BE RETURNED TO DELL COMPUTER CORP. UPON REQUEST AND IN ALL EVENTS UPON COMPLETION OF THE PURPOSE OF THE  
LOAN. NEITHER THIS ITEM OR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO PERSONS NOT HAVING A NEED FOR SUCH  
USE OR DISCLOSURE CONSISTENT WITH THE PURPOSE OF THE LOAN WITHOUT THE PRIOR WRITTEN CONSENT OF DELL COMPUTER CORPORATION.




## DOCK\_PWR\_SRC Source

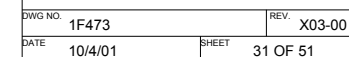
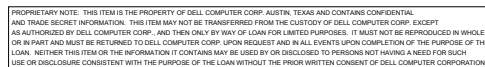


USE MULTIPLE  
VIAS FOR  
TRANSITIONS



		COMPUTER CORPORATION AUSTIN, TEXAS	
TITLE SCHEM, PLN, MN, CABN DOCK CONNECTOR			
DWG NO. 1F473		REV. X03-00	
DATE 10/4/01	SHEET 29 OF 51		







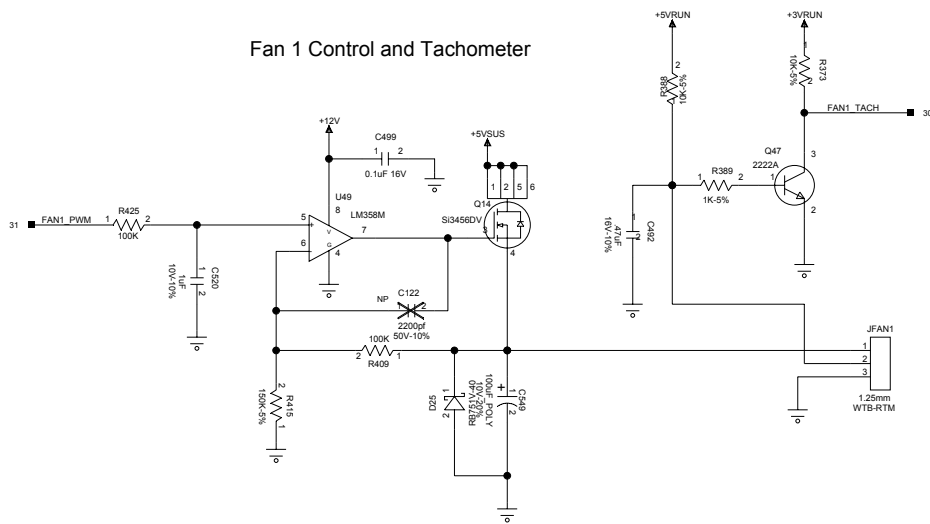
Layout Note: EMI Caps  
Place near J10VBRD

□

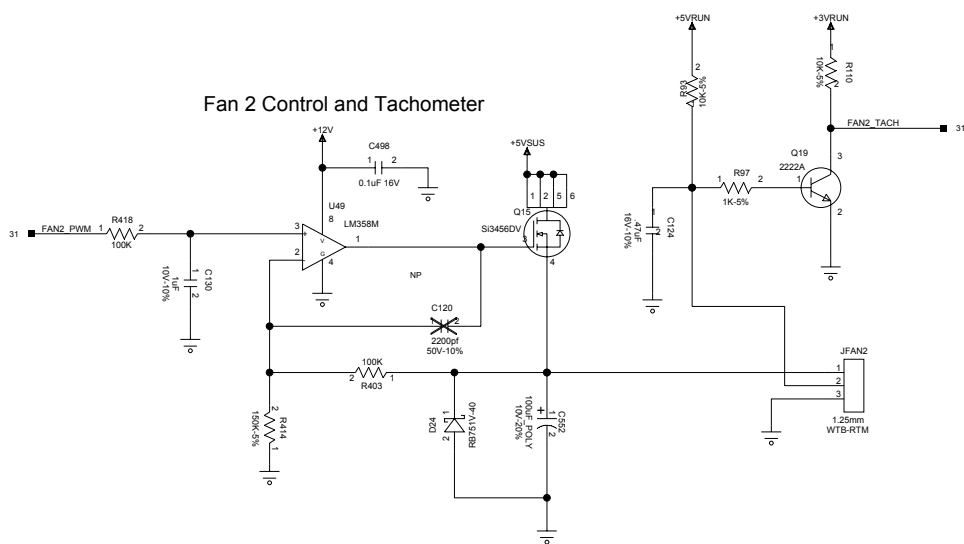


# Fan Control Circuit

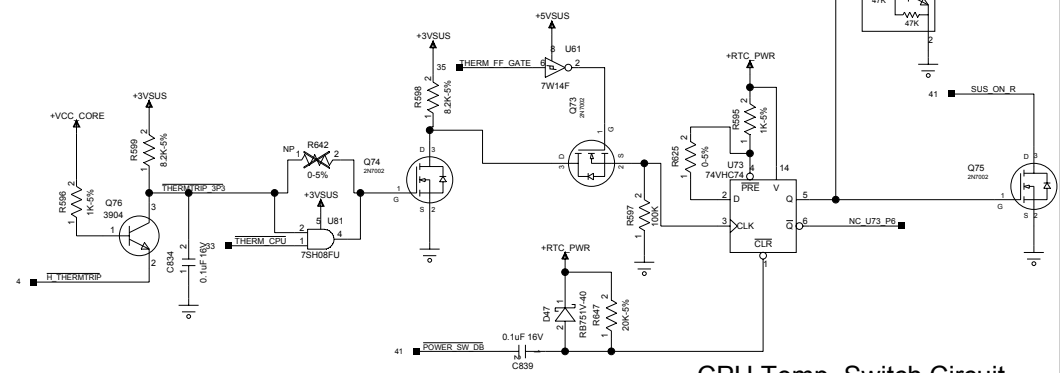
## Fan 1 Control and Tachometer



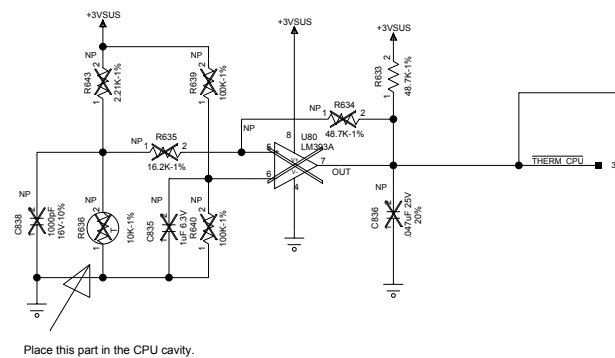
## Fan 2 Control and Tachometer



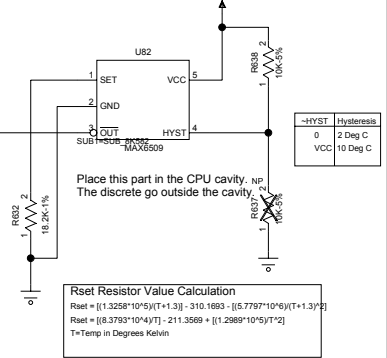
## Thermtrip Power Down Circuit




## CPU Thermistor Circuit



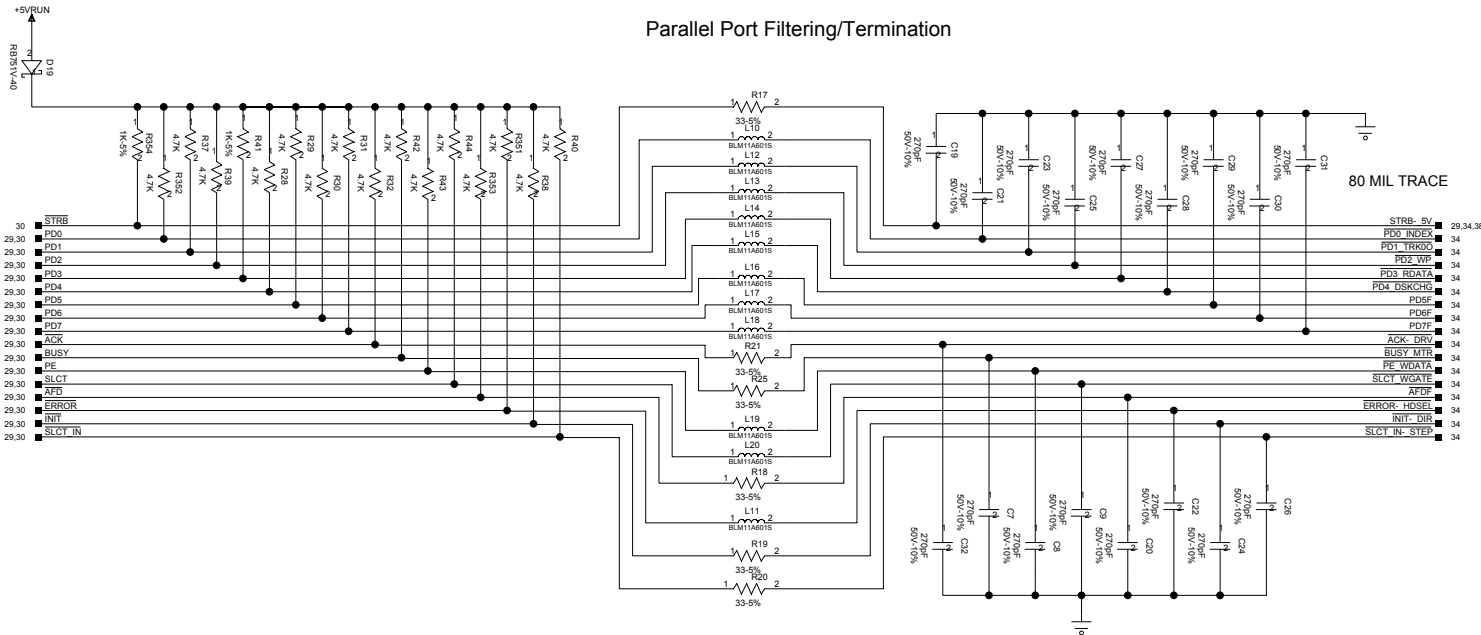
## CPU Temp. Switch Circuit



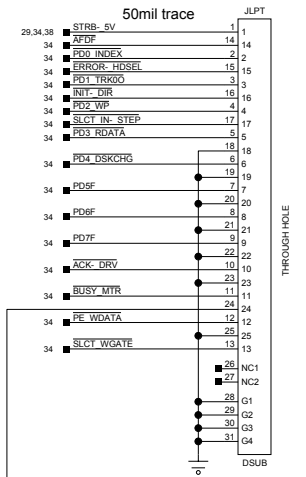
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		COMPUTER CORPORATION AUSTIN, TEXAS	
TITLE SCHEM,PLN,MN,CABN FAN CONTROLS			
DWG NO. 1F473		REV. X03-00	
DATE 10/4/01		SHEET 33 OF 51	

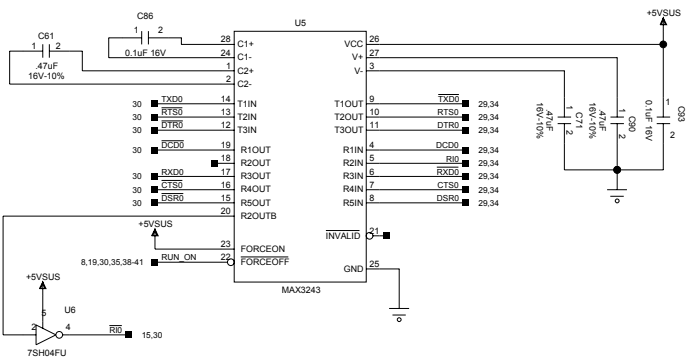
## Parallel Port Filtering/Termination



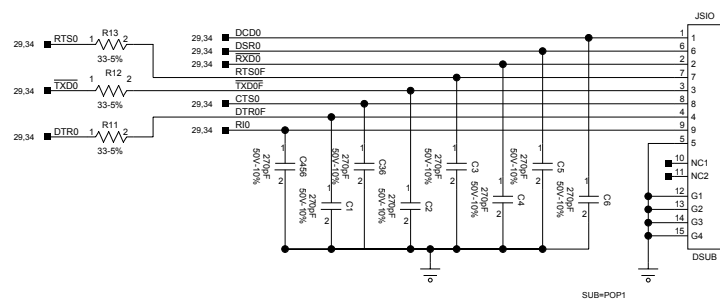
## Parallel Port Connector



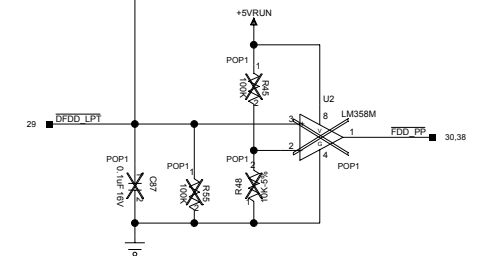
## Serial Port Transceiver



## Serial Port Connector



## REMOVE THIS Parallel Port Floppy Detection



COMPUTER  
CORPORATION  
AUSTIN, TEXAS

TITLE  
SCHEM,PLN,MN,CABN  
LPT AND SIO

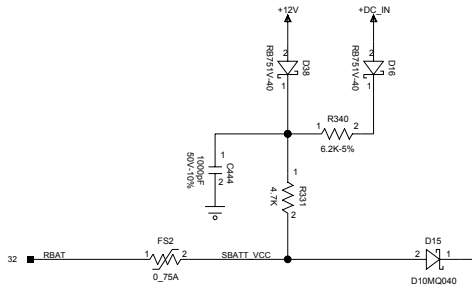
DWG NO. 1F473 REV. X03-00

DATE 10/4/01 SHEET 34 OF 51

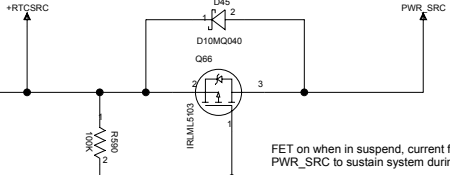
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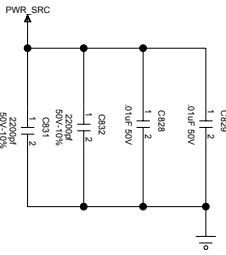
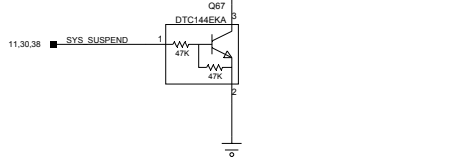
### Rbat Charger



### +RTCSRC Source

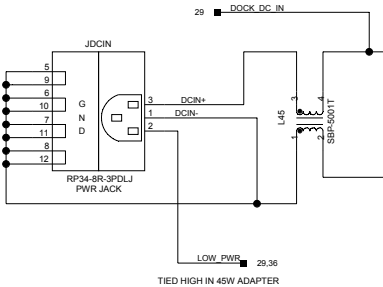


### Rbat to PWR\_SRC Enable

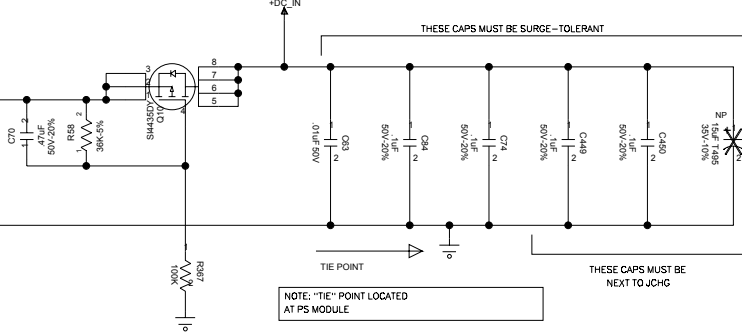


SAFETY SAYS OK  
FOR REMOVING THE FUSE

### AC Adaptor Connector

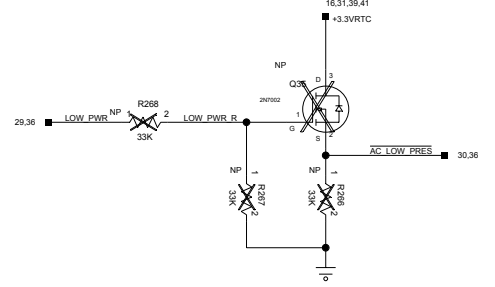


### +DC\_IN Source



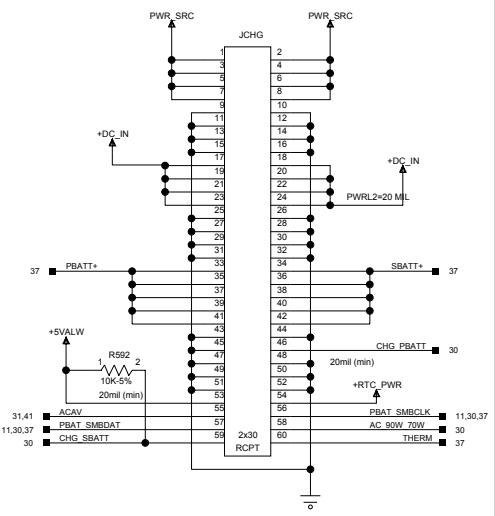
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### Low-Power Adapter Detection



LOW_PWR	AC_LOW_PRES#	AC_LOW_PRES2#
0V	0	0
FLOAT	0	1
20V	1	1

### Charger Board Connector

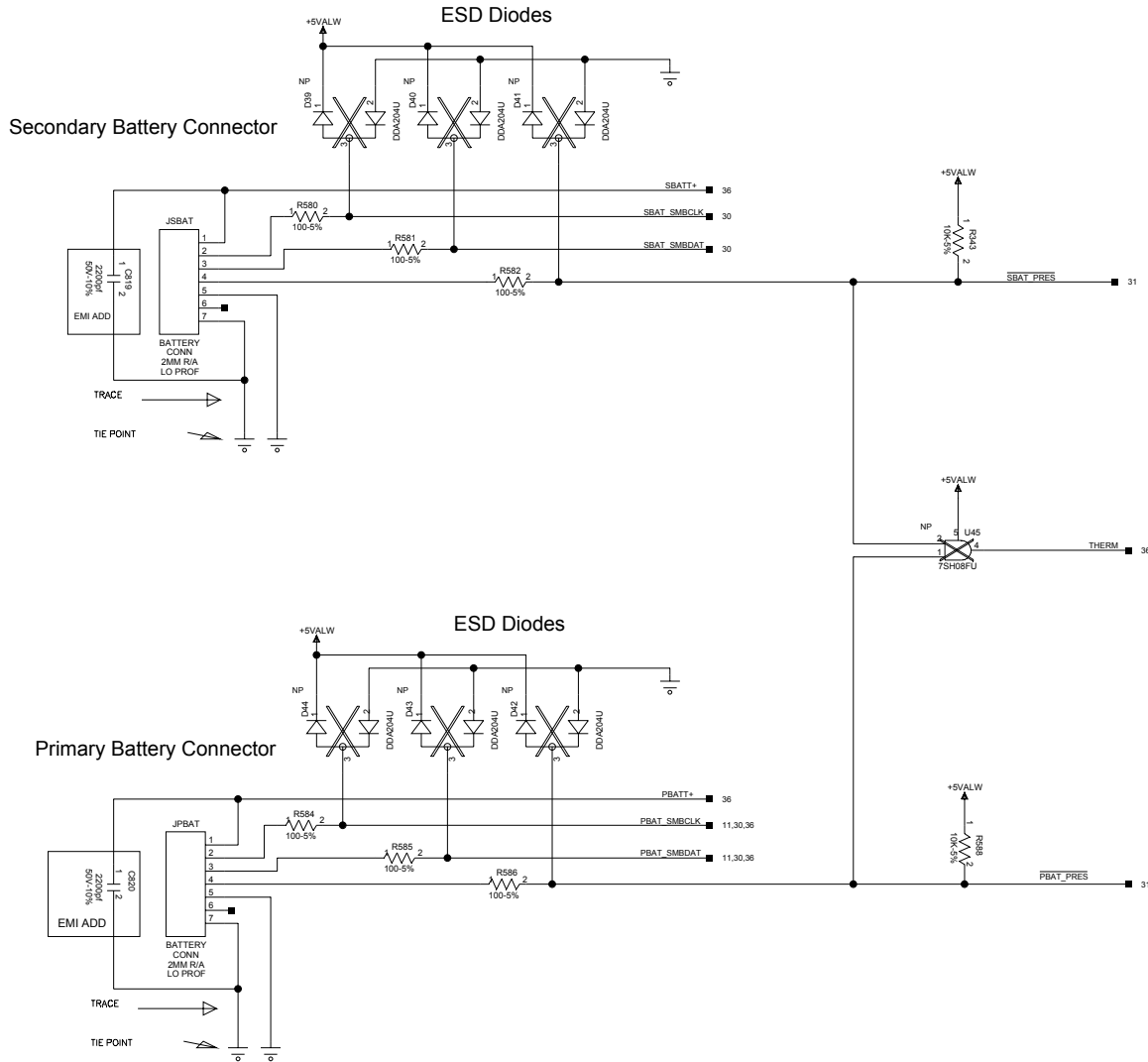


COMPUTER CORPORATION  
AUSTIN, TEXAS


TITLE  
**SCHEM, PLN, MN, CABN  
DC IN, CHARGER BOARD CONNECTOR**

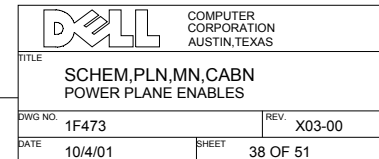
DWG NO. 1F473 REV. X03-00

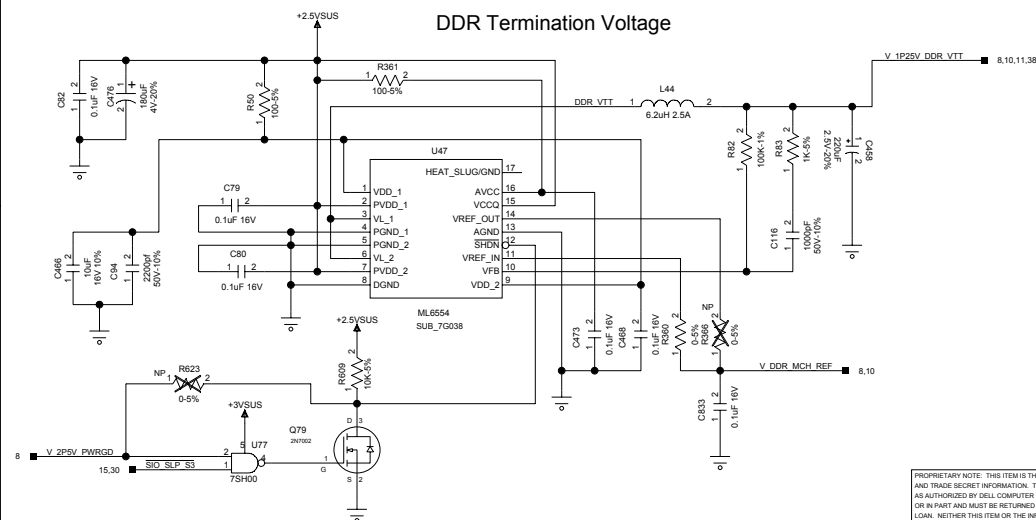
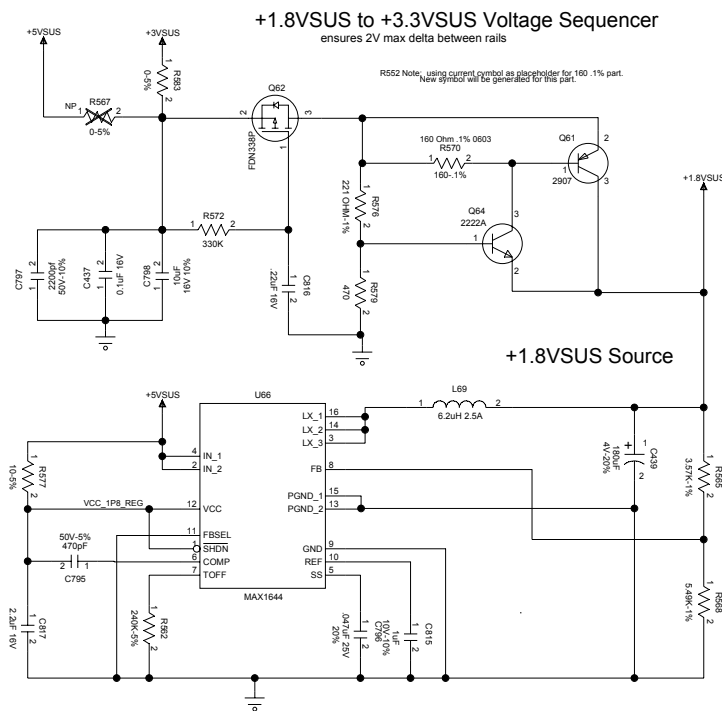
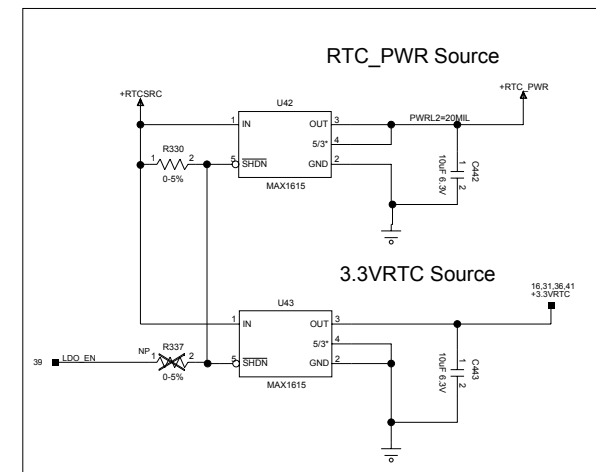
DATE 10/4/01 SHEET 36 OF 51



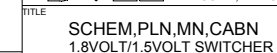
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		COMPUTER CORPORATION AUSTIN, TEXAS	
TITLE SCHEM,PLN,MN,CABN BATTERY CONNECTOR, NIMH SUPPORT			
DWG NO. 1F473		REV. X03-00	
DATE 10/4/01		SHEET 37 OF 51	





Layout Note: C694  
Place a "+" character silkscreen on the board near the non-ground side of this capacitor.



DWG NO.	1F473	REV.	X03-00
DATE	10/4/01	SHEET	39 OF 51







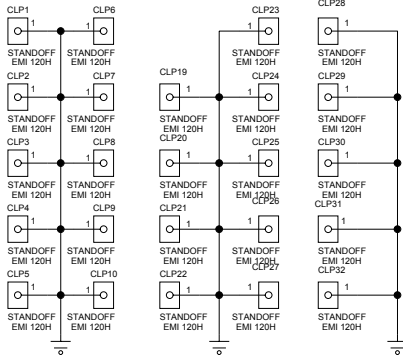
A

B

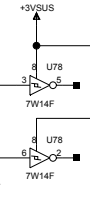
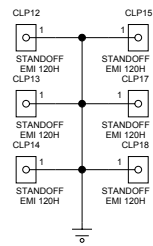
C

D

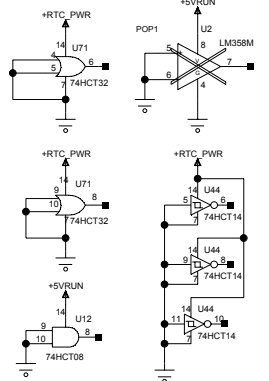
### Memory Door EMI Clips



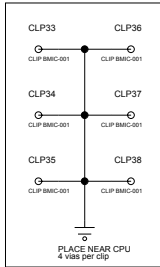
### Mini-PCI Door EMI Clips



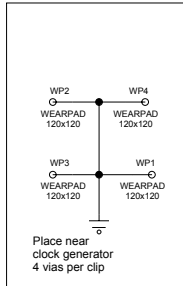
### Spares



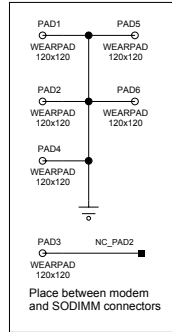
### CPU EMI Clips



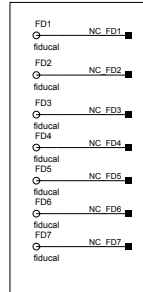
### Clock Generator EMI Clips



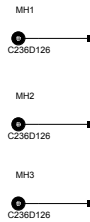
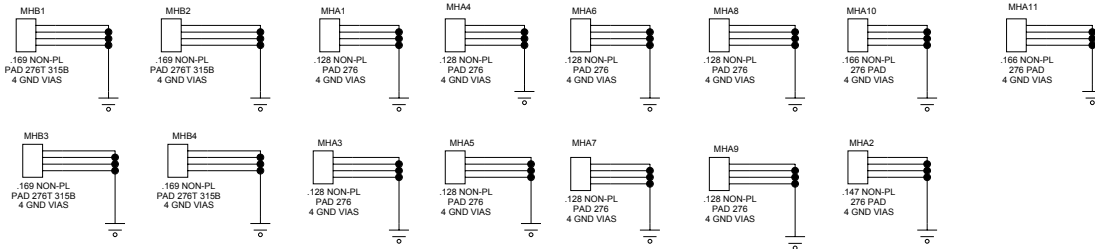
### Modem Fence Pads



Fiducial mark



### Mounting Holes



Xibom requires ADD attributes to be attached to an instance of a symbol (prefix I in the wire file). You may "not" rename the attributes. The required order is: ADD, ADD1, ADD2, ...

ADD=ADD\_3F195\_PWB  
ADD1=ADD\_1F473\_SCHEM  
ADD2=ADD\_0F681\_ASSYDWG  
ADD3=ADD\_42750\_BARCODE\_REVLEVEL Label, REV, LEVEL, BARCODE, PWA  
ADD4=ADD\_42810\_BARCODE\_IDLABEL Label, LBL\_ID, BARCODE, PWA  
PWA 2F219

<b>DELL</b> COMPUTER CORPORATION AUSTIN, TEXAS	
TITLE <b>SCHEM, PLN, MN, CABN MOUNTING HOLES AND EMI CLIPS</b>	
DWG NO. <b>1F473</b>	REV. <b>X03-00</b>
DATE <b>10/4/01</b>	SHEET <b>42 OF 51</b>

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Schematic Change List

X00 Change List

04/03/01  
-Changed SMBus selector to SO Dimms. (pg 3)  
-Added 0 Ohm resistors between SMLINK and SMBUS (pg 14)

04/12/01  
-changed USB power port ferrite/capacitor circuit (pg 18)  
-changed audio internal speaker amp to remove the hook to use it for the headphone port.(pg 20)


X01 Change List

Added Filter for Phone Line (pg 19)  
Added DC decoupling caps for Headphone amp (pg 20)  
Added Split PME circuit  
Added PROC\_HOT voltage translator and connected output to SIO IN1 pin  
  
Connected IR mux select to LGPIO74 of SIO. Disconnected the QUITE# signal from Dock  
  
Changed Audio Amp from TPA0212 to TPA0312 (same package)  
Changed TPA0312 Audio Amp Gain resistor positions (R137, R130)  
Changed L35 and L38 to DPN 7H671 due to current capability. (Page 4)  
Changed DPRSLP shorting pads to a 0 ohm resistor. (Page 6)  
Connected R494 to 3VRUN instead of 3VALW. (Page 6)  
NP'd R317. (Page 6)  
Turn on of 2.5VSUS regulator changed. (Page 8)  
Added circuitry to power sequencing to assure power and clocks are stable at CPU before ICH3 gets powerok. (Page 35)  
Populated AC adapter detection circuitry. (Page 36)  
Changed 1.25V regulator turn on to guarantee it comes after 2.5VSUS. (Page 39)  
Changed R419 and R420 to .001 ohm. (Page 40)  
Added C824 to VCCCORE (Page 40)  
Changed connections for C89 and C77 on VCCCORE regulator. (Page 40)  
Changed R522 to .011 ohm. (Page 41)  
Changed to fix compal DFX issues: JUSB pg 18, JPS2 pg 35, JDCIN pg 36, JCD pg 17, JSVID pg 12, JHDD pg 17, JDock pg 29, JMOD pg 17, JBAT pg 37

X02 Change List

pg 35: changed ThERM\_PWRDOWN pin on U73 from Q# to Q

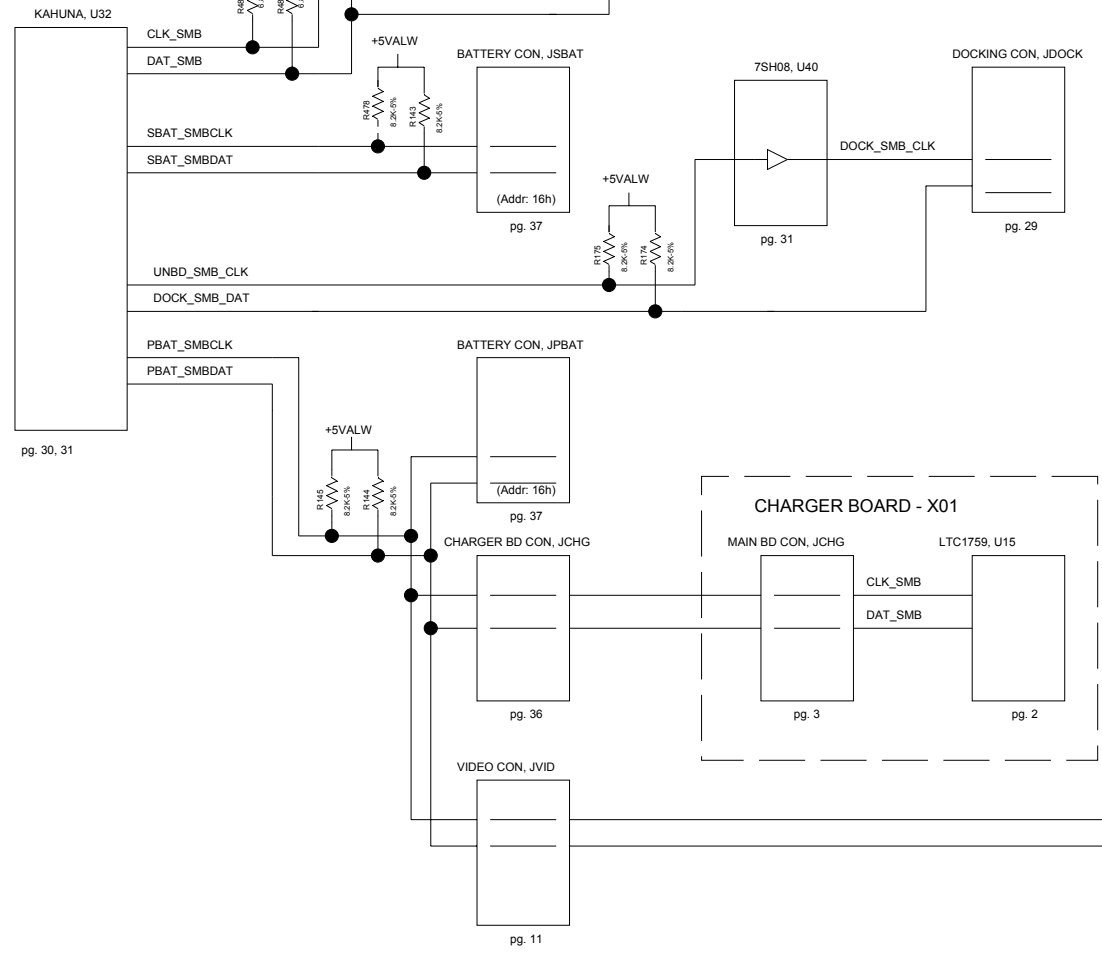
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		COMPUTER CORPORATION AUSTIN, TEXAS
TITLE SCHEM,PLN,MN,CABN REVISION HISTORY		
DWG NO.	1F473	REV. X03-00
DATE	10/4/01	SHEET 43 OF 51

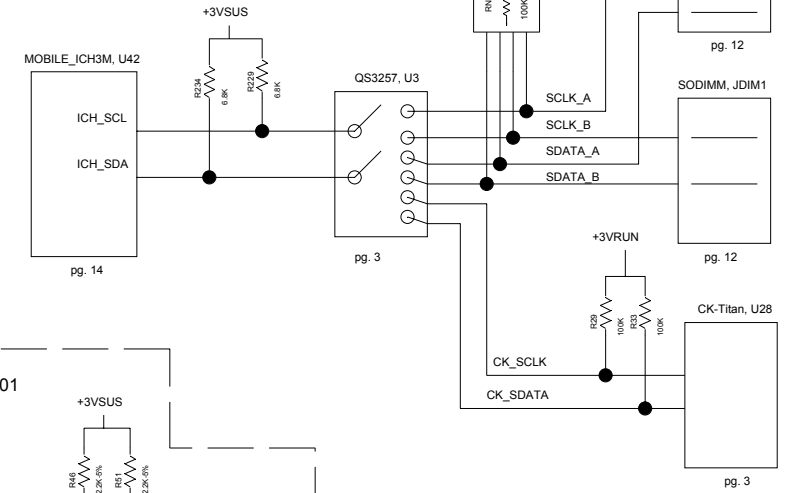


MAIN BOARD - X00

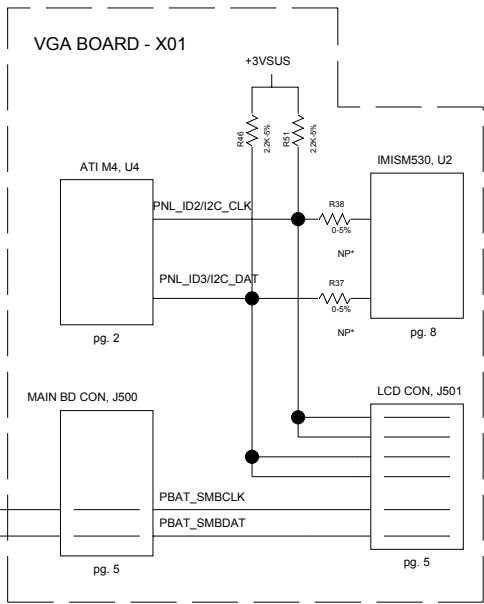
Kahuna SMBUS



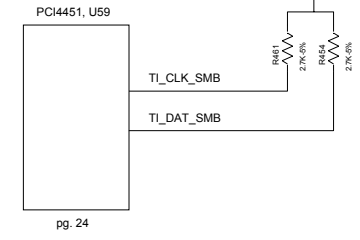
ICH SMBUS




VGA BOARD - X01



PCI4451 SMBUS




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		COMPUTER CORPORATION AUSTIN, TEXAS	
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