

# Falcon2.2

00205-1

Project code : 91.44G01.001  
 PCB P/N = 48.41J01.001  
 REVISION : 1

### PCB LAYER

- L1: COMPONENT
- L2: GND
- L3: SIGNAL (CLK)
- L4: VCC
- L5: SIGNAL (CLK)
- L6: GND
- L7: SIGNAL
- L8: COMPONENT

### CHARGER & DC/DC

INPUTS	OUTPUTS
DCBATOUT	LAN_+3.3V
	+5V
	+3.3V
	+12V
	+5VSB
AD+	BT+

PAGE: 28 / 29 / 30

### CPU\_VCC

Switching Power

INPUTS	OUTPUTS
DCBATOUT	+1.35V
	+1.6V

PAGE: 5

### LCD Regulator

INPUTS	OUTPUTS
+5V	+1.5V(2.7A)
+3.3V	+2.5V(100mA)

PAGE: 7

**CLK GEN.**  
 CY2285-2  
 PAGE: 3

**SDRAM CLK BUFFER**  
 ICS-9112-17  
 PAGE: 3

**Mobile PIII**  
 Celeron  
 version : A2 or A3  
 PAGE: 4

**GEYSERVILLE**  
 Reserve  
 PAGE: 6

**DIMM\*2**  
 PAGE: 10

MEM BUS

**N/B**  
 M1621  
 PAGE: 8

HOST BUS

AGP BUS

**VGA**  
 ATI Mobility  
 -M  
 version: A25  
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**LCD**  
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**CRT**  
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PCI BUS

**POWER SW**  
 MIC2563  
 PAGE: 18

**LAN**  
 82559  
 PAGE: 22

**S/B**  
 M1535  
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**PRIMARY EIDE**  
**HDD**  
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**CARDBUS**  
 OZ6933  
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**CARDBUS**  
 SLOT A,B  
 PAGE: 18

**USB\*2**  
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**SECONDARY EIDE**  
**CDROM**  
 PAGE: 16

ISA BUS

**DEBUG**  
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**BIOS ROM**  
 AT29C040A-12  
 PAGE: 25

**KBC**  
 M38867  
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**FINGER PRINT**  
 PAGE: 26

**RTC**  
 BQ3285LF  
 PAGE: 25

**CMOS BAT**

**AC-Link**

INT. SPKR

LINE IN

OP AMP TPA0202  
 PAGE: 21

VR

AC'97 CODEC CS4299  
 PAGE: 19

MIC

MODEM Daughter Card  
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**FIR**  
 HP

**FLOPPY**  
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**PRINTER**  
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**SERIAL**  
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**TOUCH PAD**  
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**INT. KB**  
 PAGE: 23

**PS/2 CONN**  
 PAGE: 23

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Title: Block Diagram

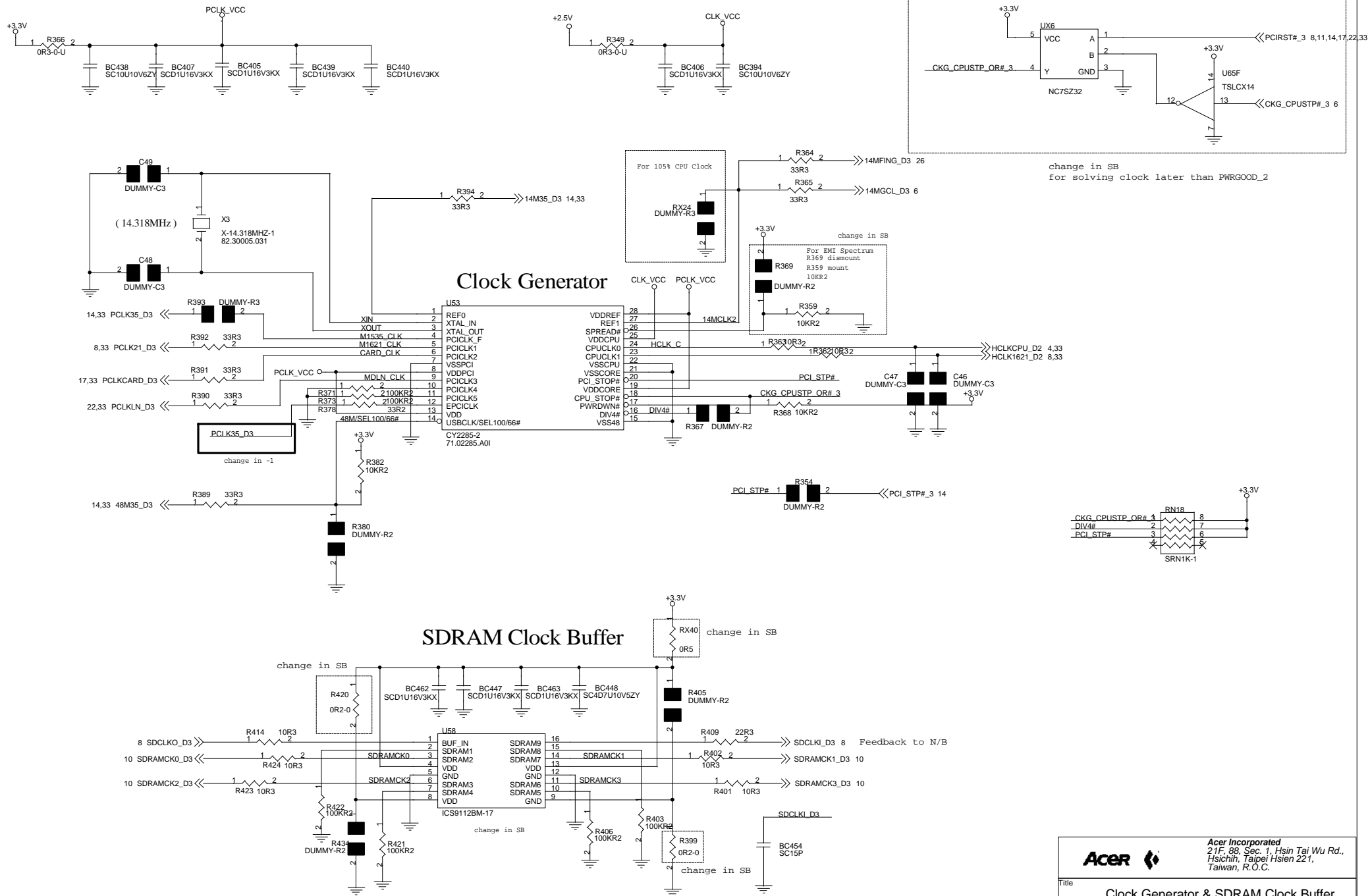
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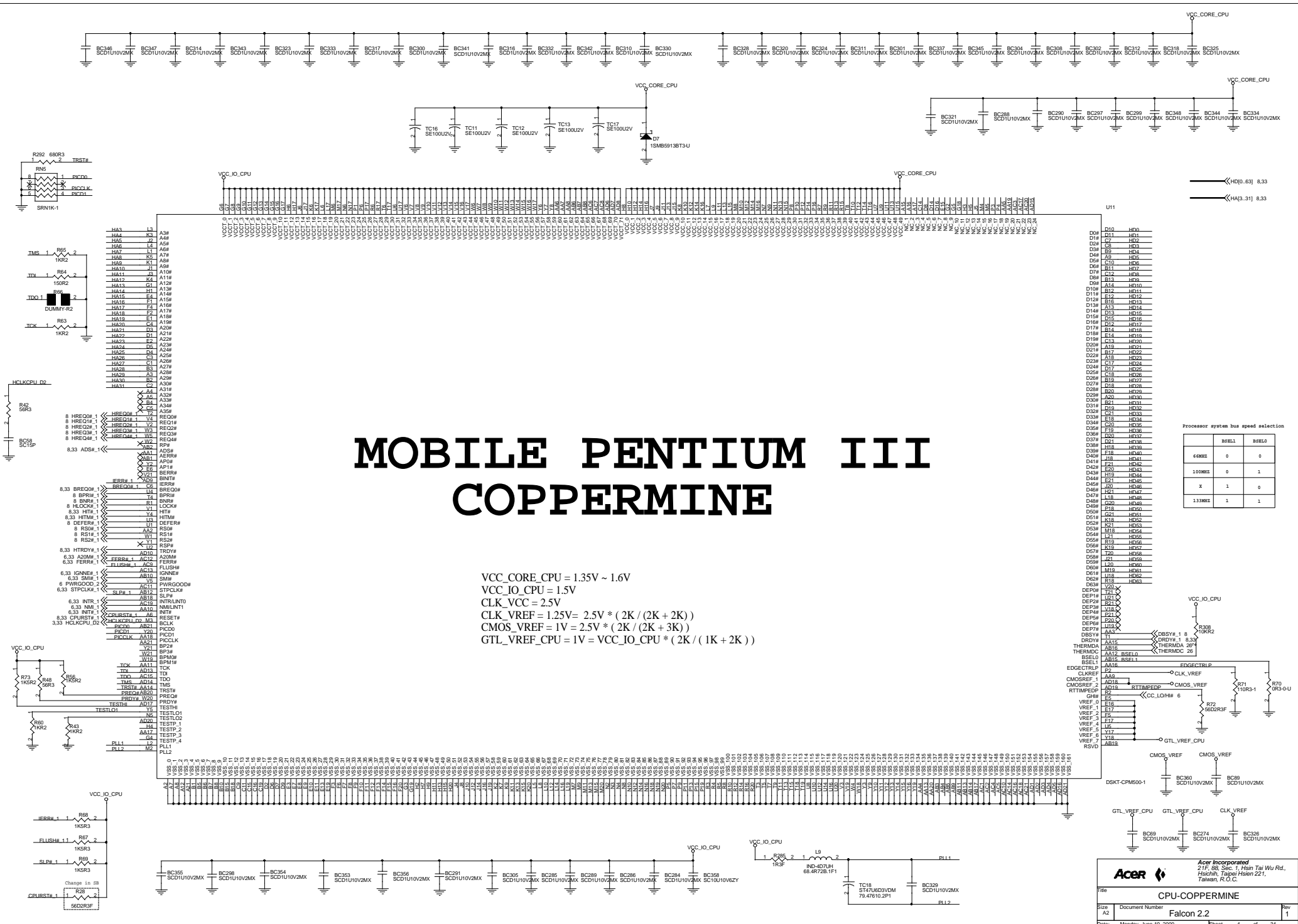
Date: Monday, June 19, 2000 Sheet: 1 of 34

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2	RevHistory	Sheet Index & Revision History
3	CLKGEN	Clock Generator ICS9248-61 & SDRAM Buffer ICS9112-17
4	CPU1	CPU - Mobile PIII / COPPERMINE
5	CPU2	CPU Regulator & Capacitors
6	CPU3	Geyserville
7	CPU4	CPU LDO Regulator
8	M1621	N/B ALLADDIN Pro II (M1621)
9	DIMM1	DIMM Selector, Capacitors & Resistors
10	DIMM2	DIMM Sockets & Damping Resistors
11	VGA	VGA Chip ATI Mobility - M
12	LCD	LCD Connector
13	CRT	CRT & LED/INVERTER Connector
14	M1535_1	S/B (M1535)
15	M1535_2	M1535 Pull Res & Bypass Cap.
16	IDE	HDD, CDROM Connector & USB Connectors
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18	CARDBUS2	Cardbus Connector & Power Switch MIC2563
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21	AUDIO3	AUDIO Power Amplifier TPA0202
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23	KBC	Internal Keyboard, TouchPad Connectors & KBC M38867
24	PORT	Serial & Parallel Ports
25	RTC	RTC (BQ3285LF) , BIOS (AT29C040A), FDD Connector, Golden Finger
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28	DC/DC	DC/DC GENERATOR (MAX 1632)
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30	CHARGER2	Battery Charger (MAX 745)
31	OEM	OEM Setting
32	NCGATES	GATES NOT USED & SCREW HOLES
33	TESTPOINT	TEST POINTS

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Title <b>INDEX</b>			
Size A4	Document Number <b>Falcon 2.2</b>		Rev <b>1</b>
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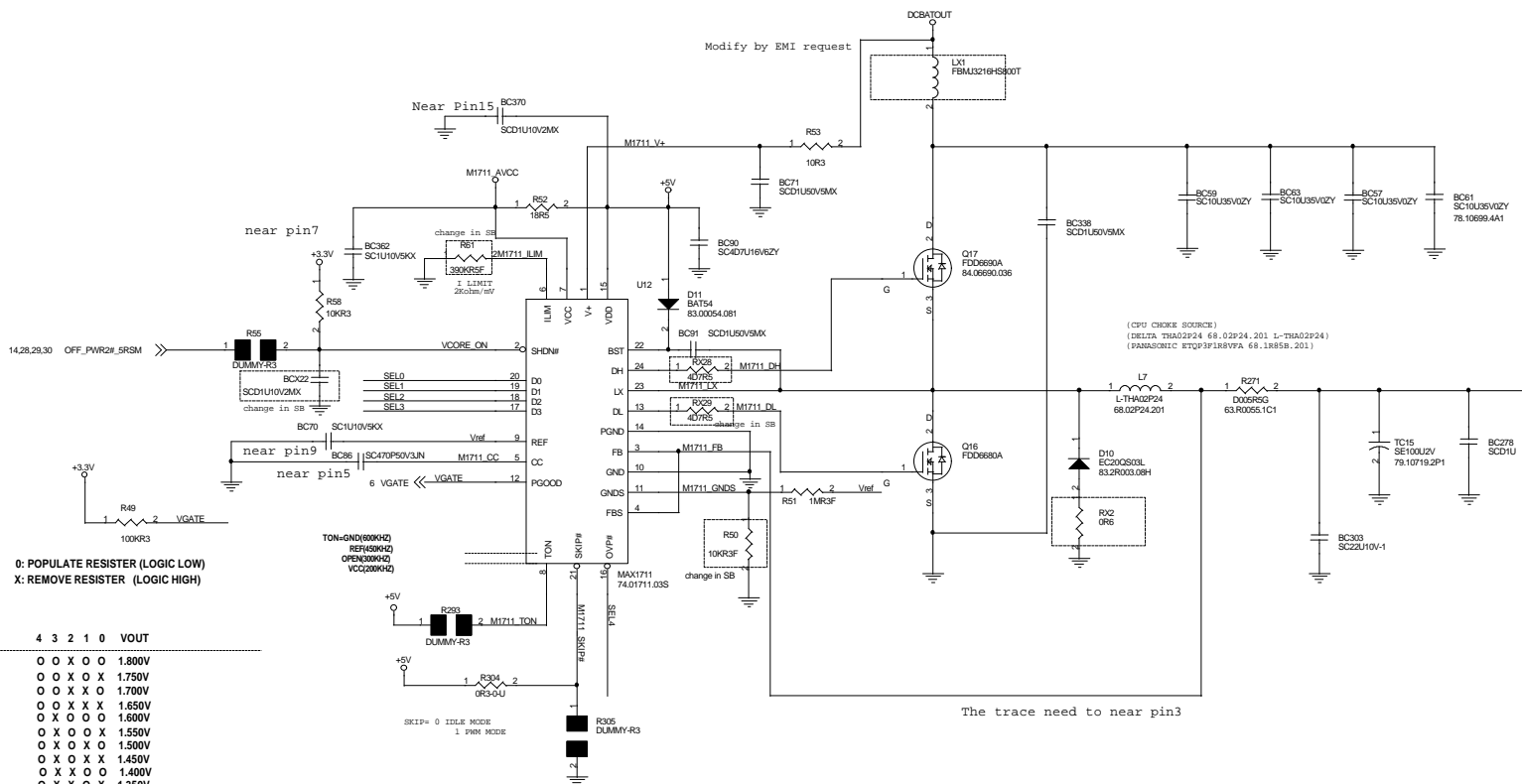
# MOBILE PENTIUM III COPPERMINE

VCC\_CORE\_CPU = 1.35V ~ 1.6V  
 VCC\_IO\_CPU = 1.5V  
 CLK\_VCC = 2.5V  
 CLK\_VREF = 1.25V = 2.5V \* (2K / (2K + 2K))  
 CMOS\_VREF = 1V = 2.5V \* (2K / (2K + 3K))  
 GTL\_VREF\_CPU = 1V = VCC\_IO\_CPU \* (2K / (1K + 2K))

Processor system bus speed selection

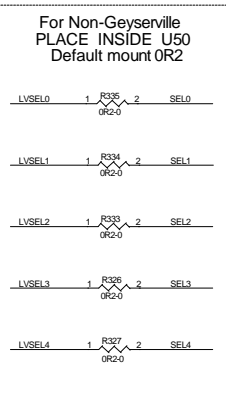
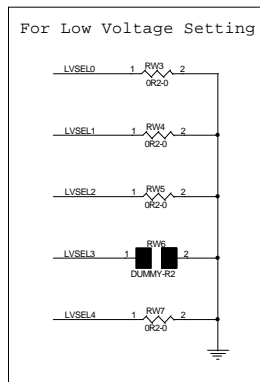
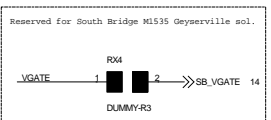
	BSEL1	BSEL2
66MHz	0	0
100MHz	0	1
X	1	0
133MHz	1	1

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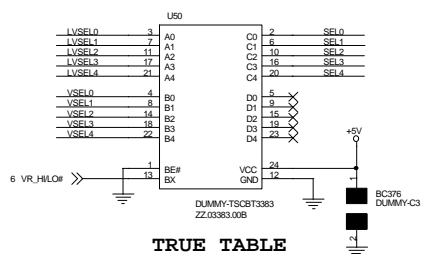


0: POPULATE RESISTOR (LOGIC LOW)  
X: REMOVE RESISTOR (LOGIC HIGH)

SEL	4	3	2	1	0	VOUT
O	X	O	O			1.800V
O	X	O	X			1.750V
O	X	X	O			1.700V
O	X	X	X			1.650V
O	X	O	O	X		1.600V
O	X	O	X	X		1.550V
O	X	O	X	O	X	1.500V
O	X	O	X	X	X	1.450V
O	X	O	X	O	O	1.400V
O	X	X	O	X		1.350V
O	X	X	X	O		1.300V
X	O	O	O			1.275V
X	O	O	X			1.250V
X	O	X	O			1.225V
X	O	X	X			1.200V



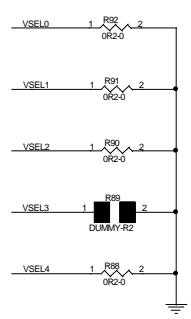
### CPU VOLTAGE SELECTOR

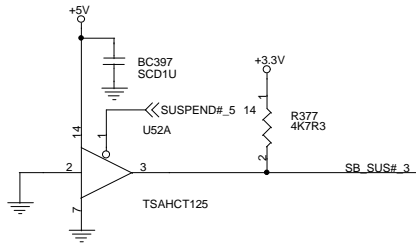


TRUE TABLE

BE#	BX	A0~A4	B0~B4
H	X	HIGH-Z	HIGH-Z
L	L	C0~C4	D0~D4
L	H	D0~D4	C0~C4

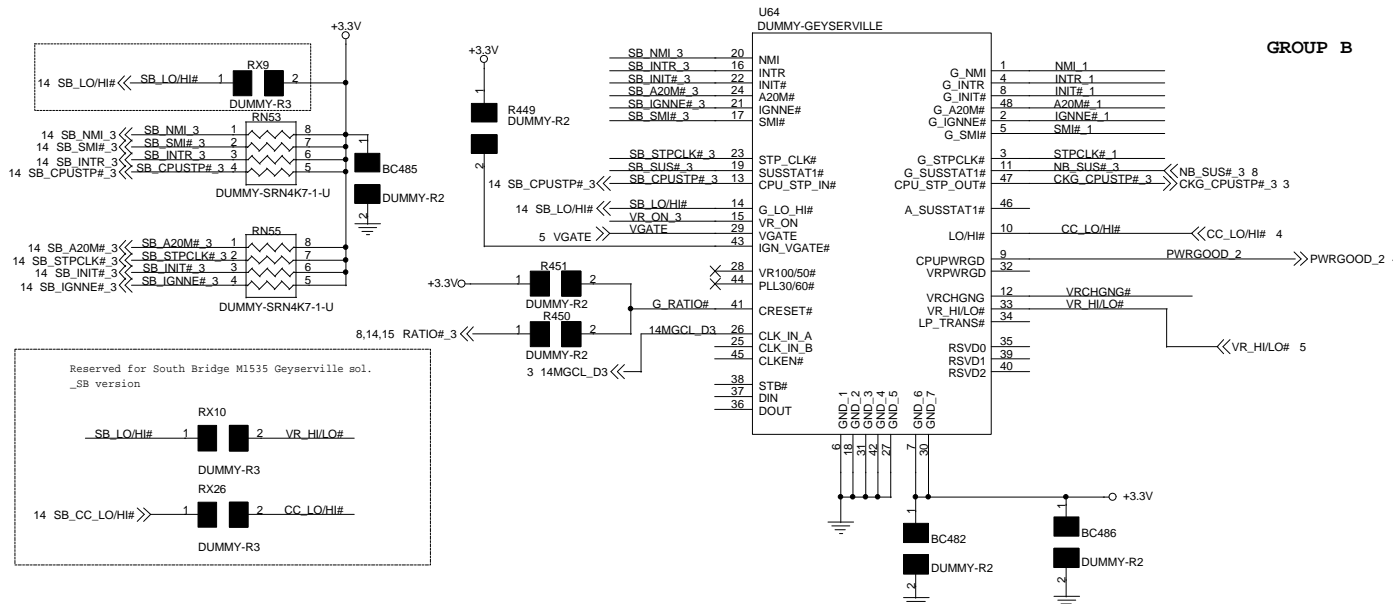
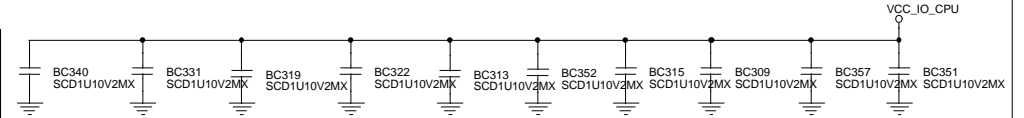
For High Voltage Setting





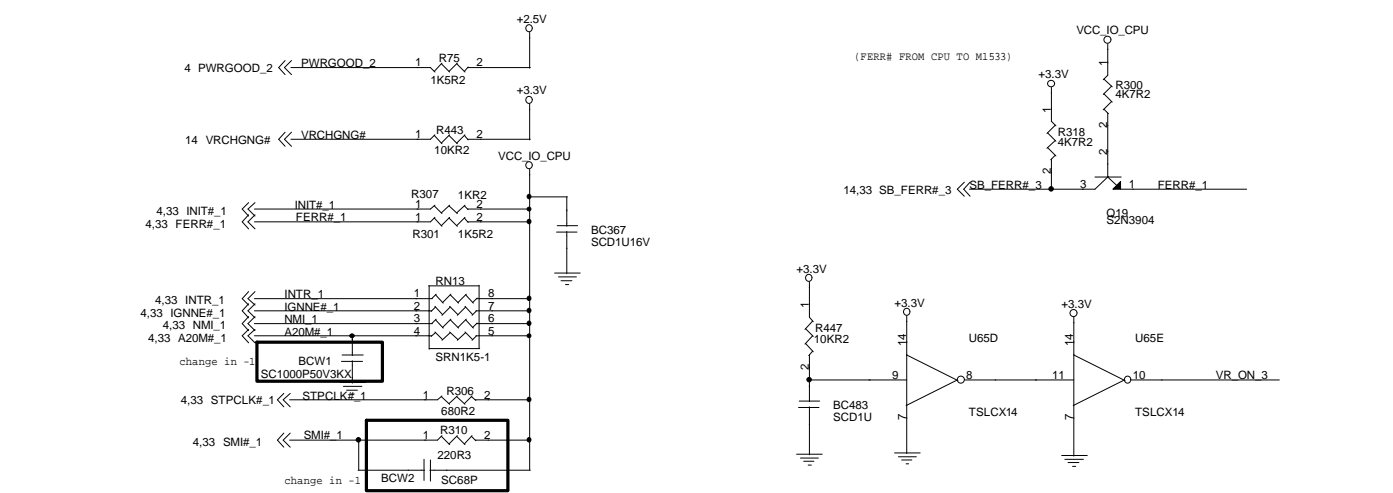
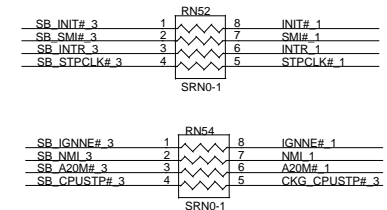
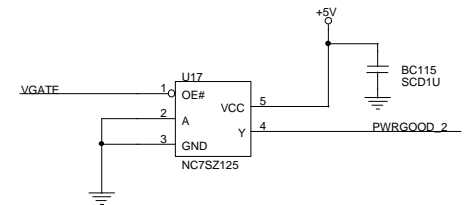
DEFAULT

	Group A	Group B
W/ Gerserville	No Mounting	Mounting
W/O Gerserville	Mounting	No Mounting



GROUP B

GROUP A



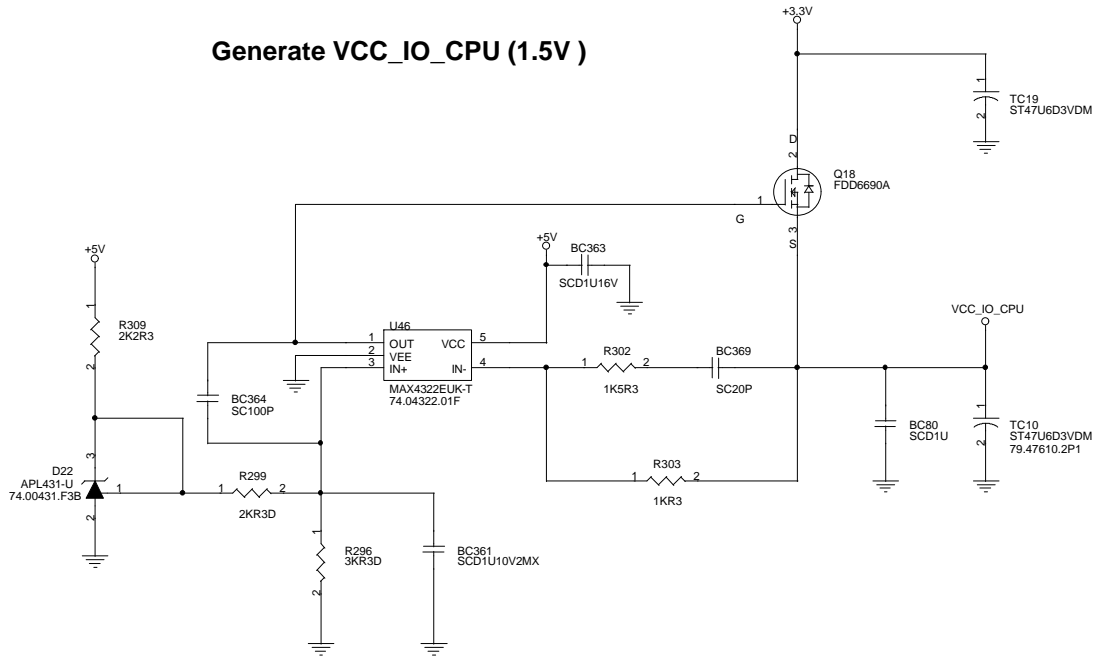
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Title: **GEYSERVILLE & CPU THERMAL SENSOR**

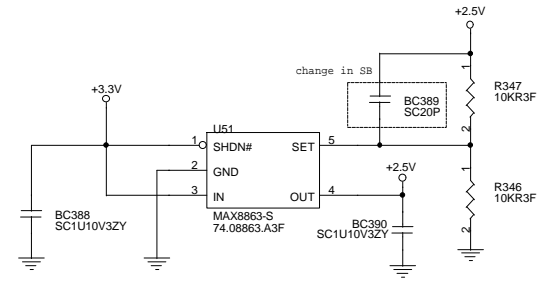
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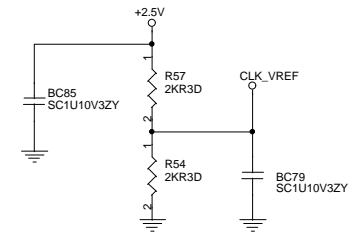
### Generate VCC\_IO\_CPU (1.5V)



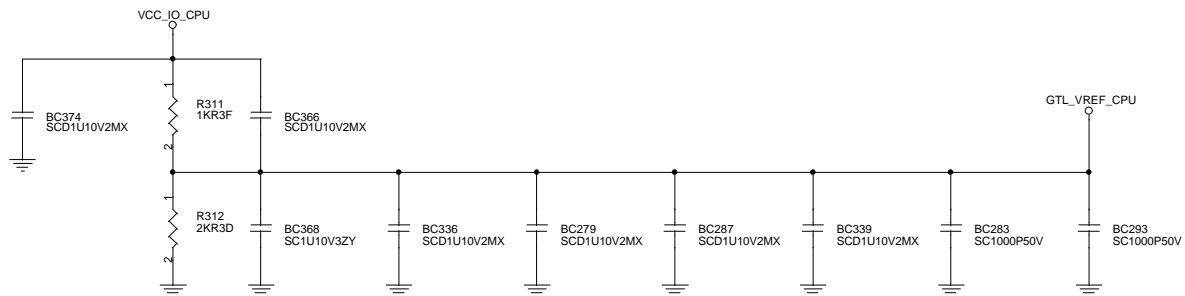
### Generate CLK\_VCC ( 2.5V )



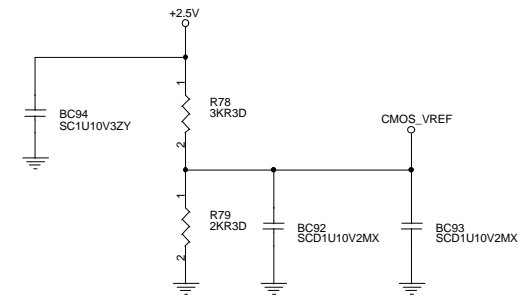
### Generate CLK\_VREF (1.25V)



### Generate GTL\_VREF\_CPU (1V)

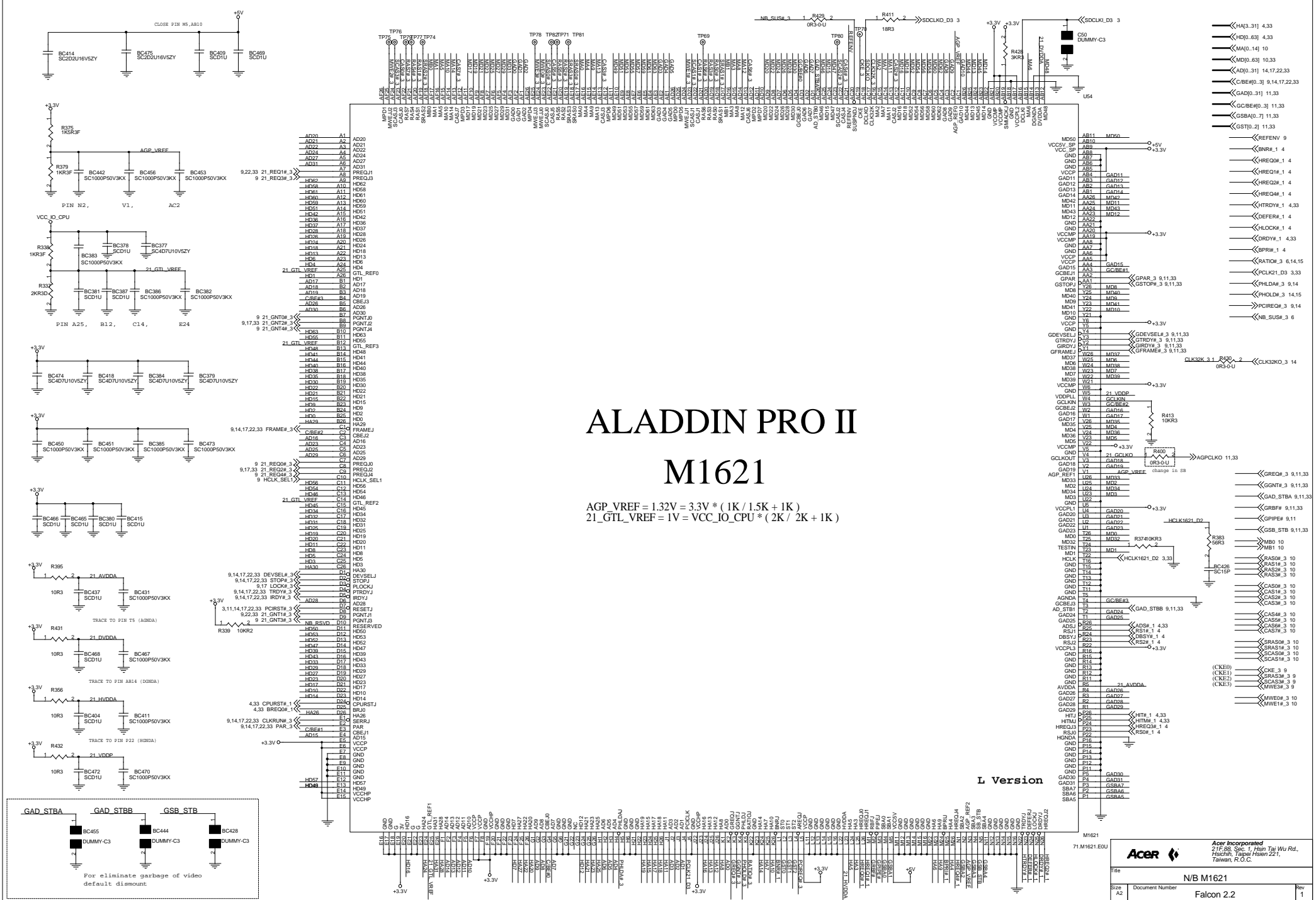


### Generate CMOS\_VREF (1V)

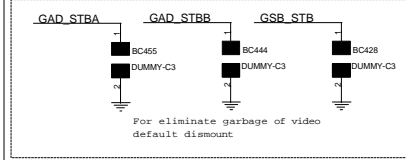


# ALADDIN PRO II M1621

AGP\_VREF = 1.32V = 3.3V \* (1K / 1.5K + 1K)  
 21\_GTL\_VREF = 1V = VCC\_IO\_CPU \* (2K / 2K + 1K)

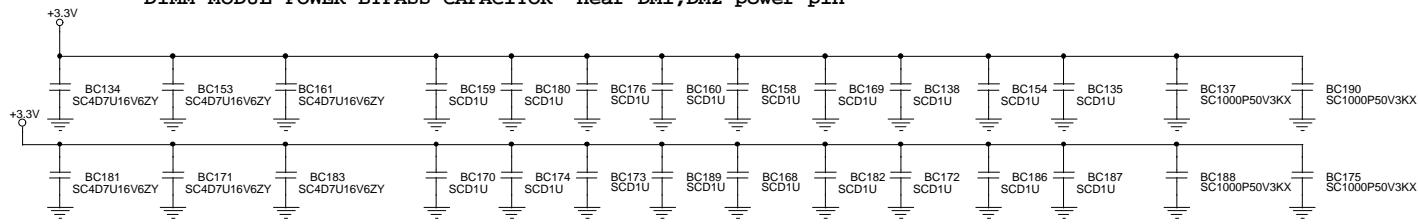


L Version

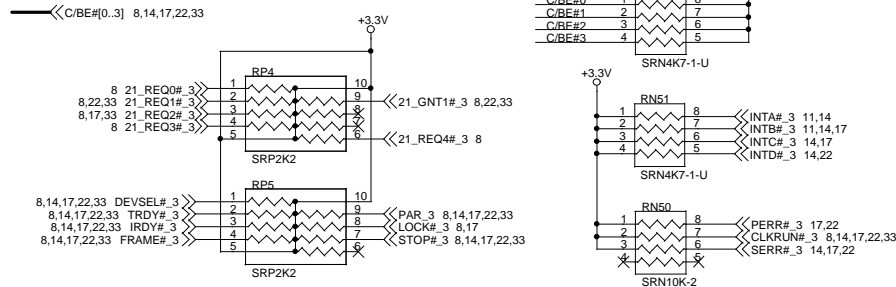




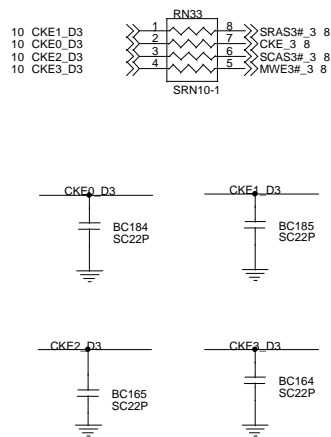
**DIMM MODUL POWER BYPASS CAPACITOR near DM1,DM2 power pin**



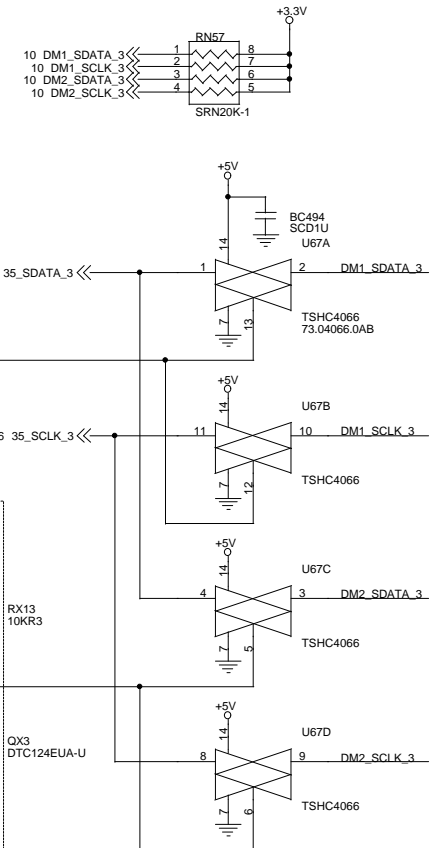
**PCI PULL RESISTORS**



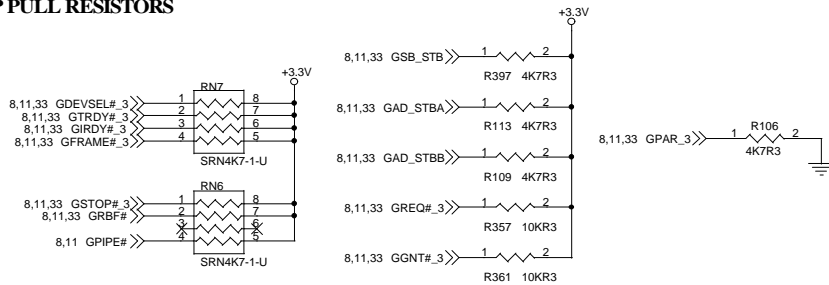
**MEMORY DAMPING RES.**



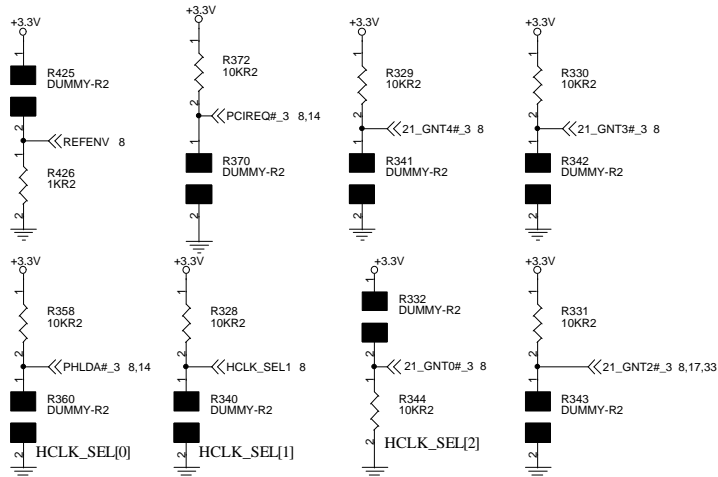
**DIMM SMBUS EEPROM SELECTOR**



**AGP PULL RESISTORS**



**M1621 HARDWARE SETTING**



Description	Pull up	Pull down
REFENV	GTL pad delay line	
PCIREQ#_3	Host PLL enable	Enable
GNT4#_3	Host Clock Time	Enable
GTN3#_3	AGP PLL Enable	Lead
GTN2#_3	AGP Block State	Lag

Machine Clock Select				
HCLK_SEL[2]	HCLK_SEL[1]	HCLK_SEL[0]	HCLK DELAY TIME	
1	1	1	0 ns	
1	1	0	0.4 ns	
1	0	1	0.8 ns	
1	0	0	1.2 ns	
0	1	1	1.6 ns	
0	1	0	2.0 ns	
0	0	1	2.4 ns	
0	0	0	2.8 ns	

S/B GPIO pin not enough, so add these circuits.

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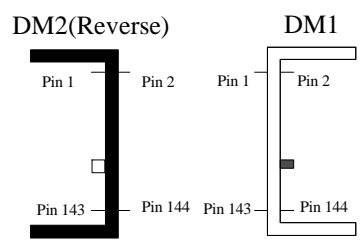
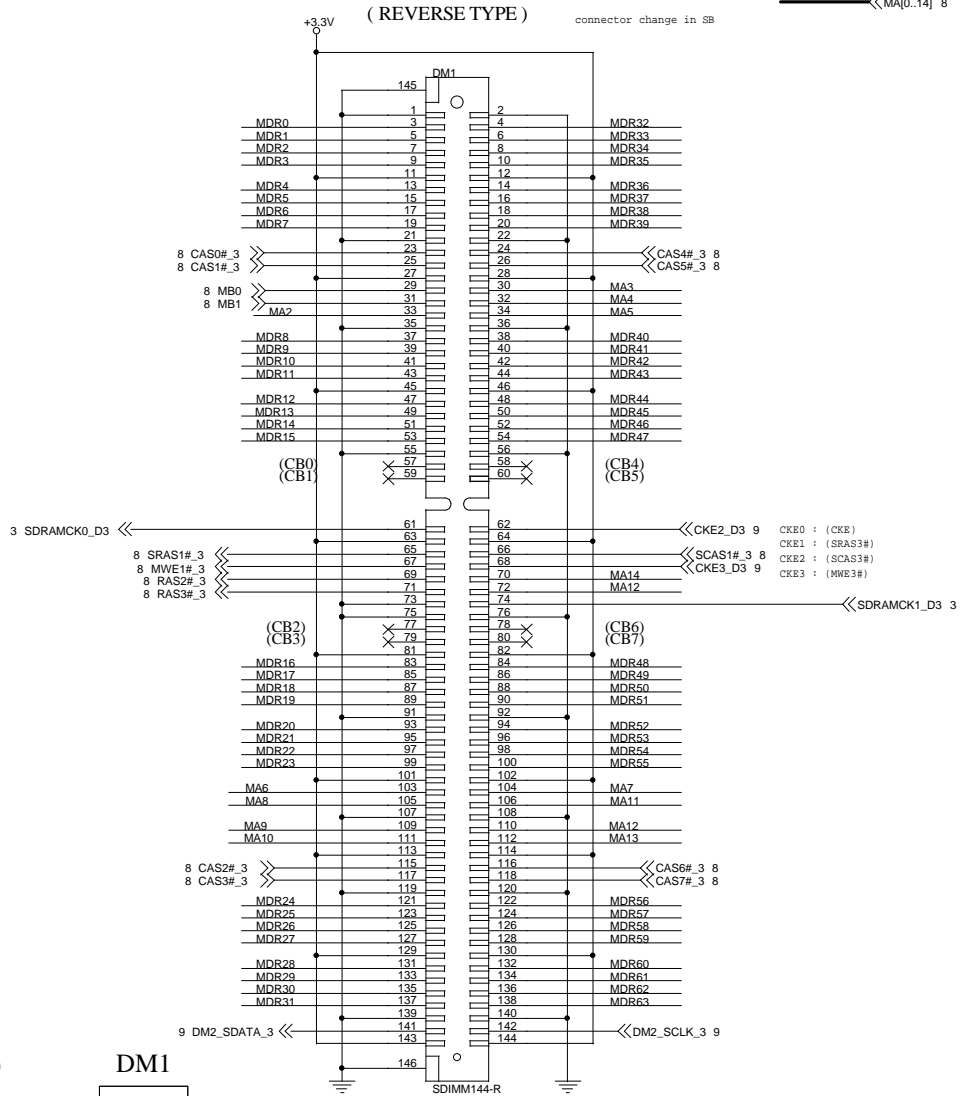
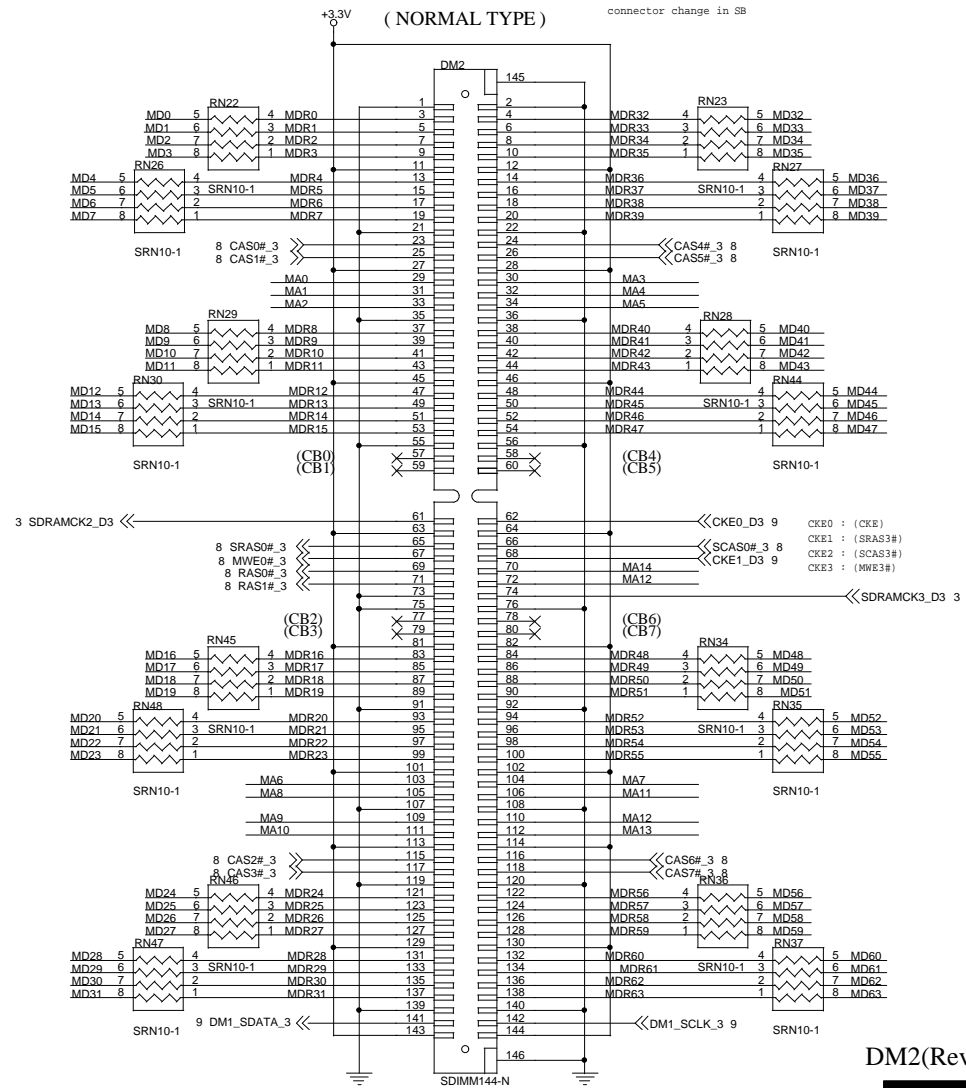
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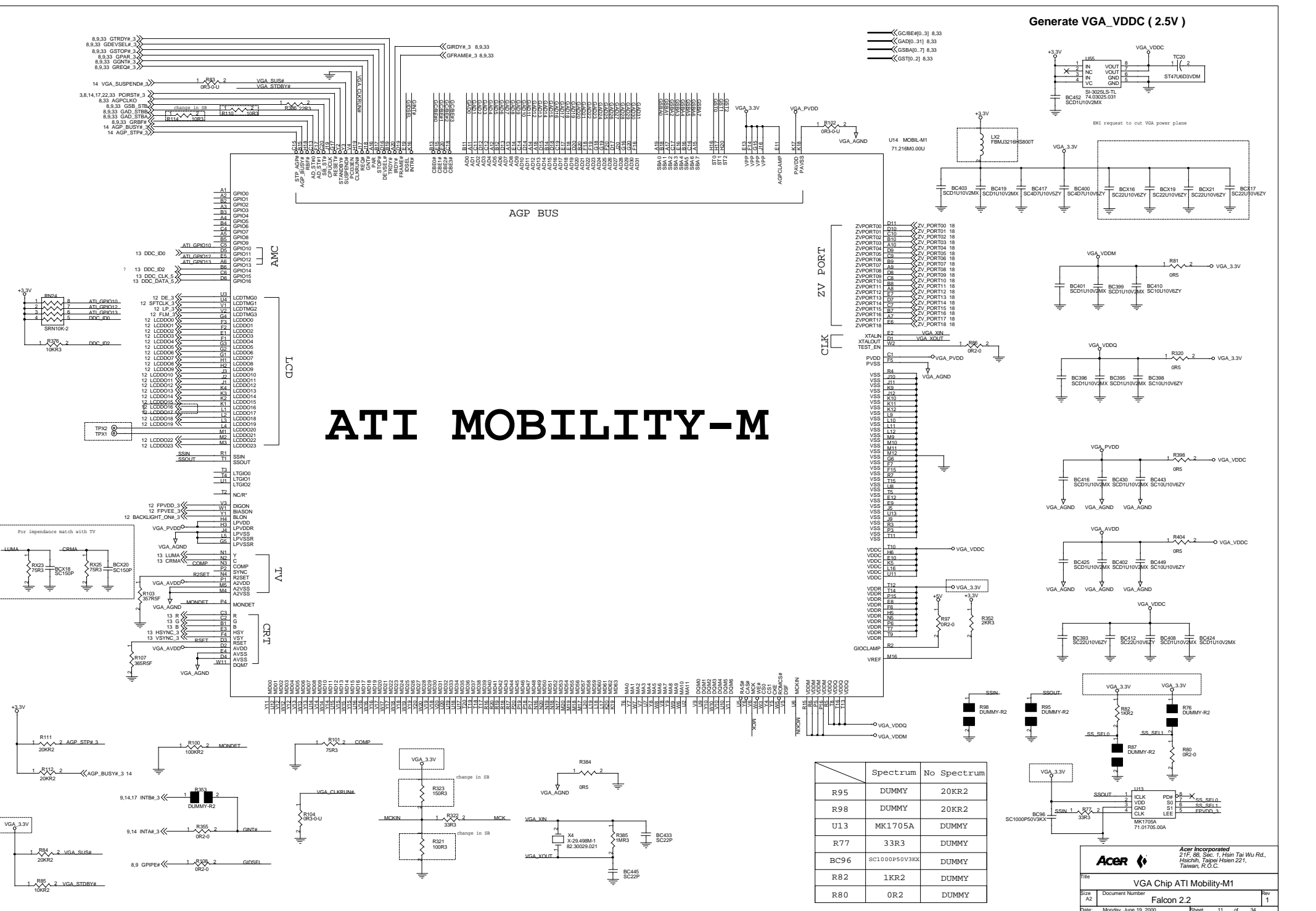
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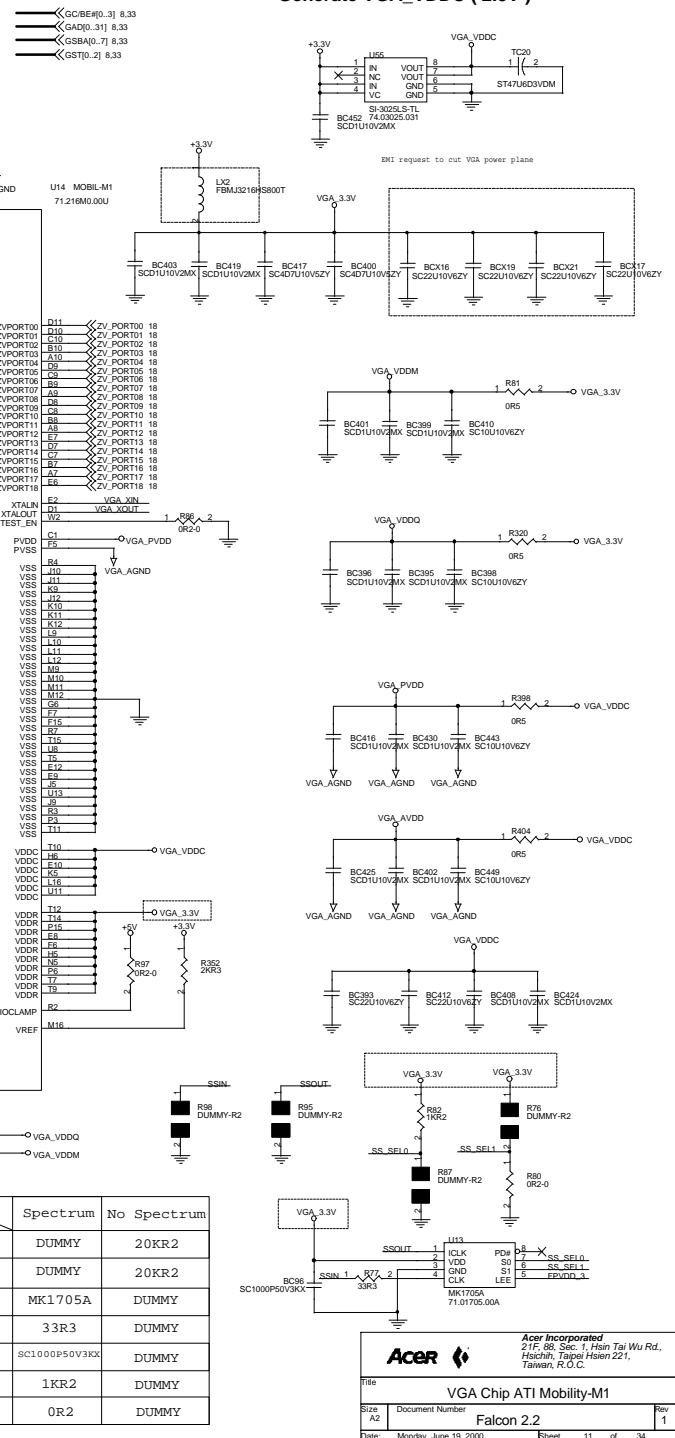
◀ MA[0..14] 8





# ATI MOBILITY-M

## Generate VGA\_VDDC (2.5V)



Part	Spectrum	No Spectrum
R95	DUMMY	20KR2
R98	DUMMY	20KR2
U13	MK1705A	DUMMY
R77	33R3	DUMMY
BC96	SC1000P50V3KX	DUMMY
R82	1KR2	DUMMY
R80	0R2	DUMMY

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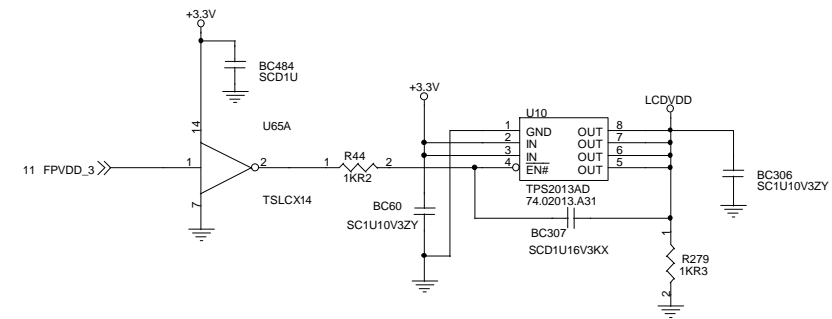
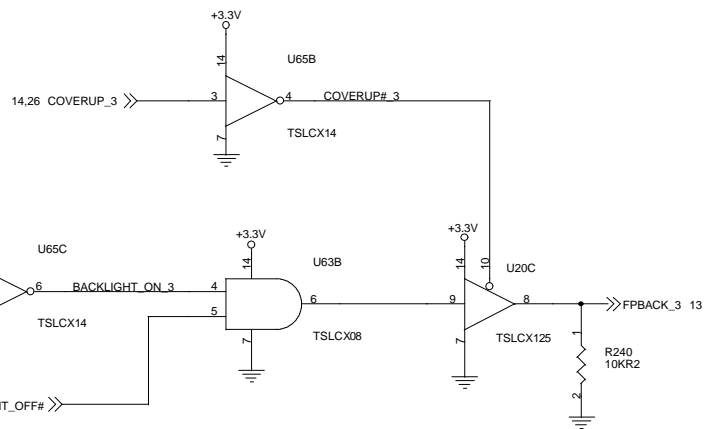
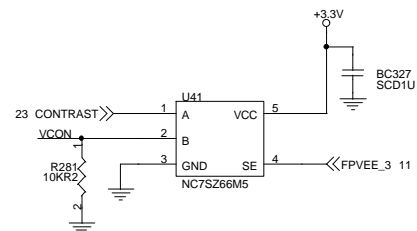
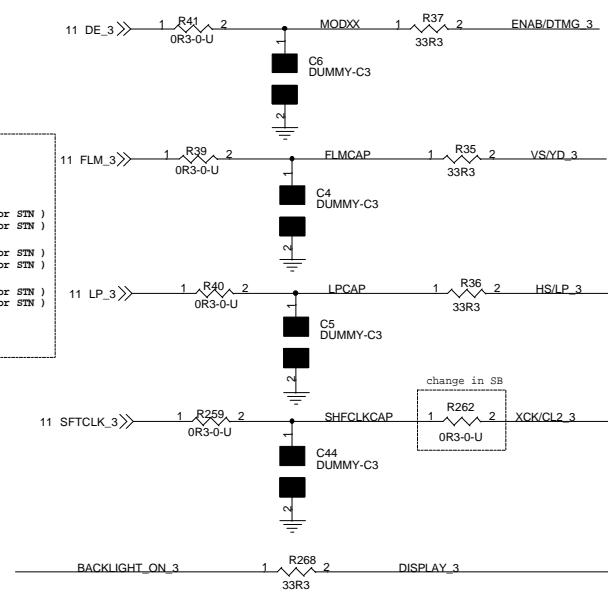
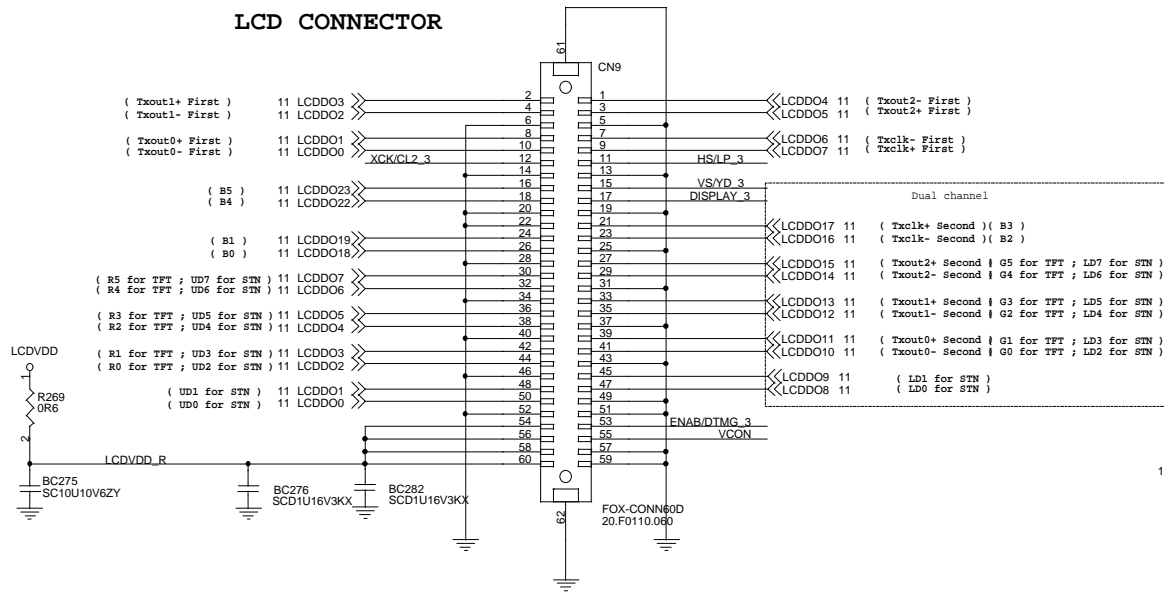
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Title: **VGA Chip ATI Mobility-M1**

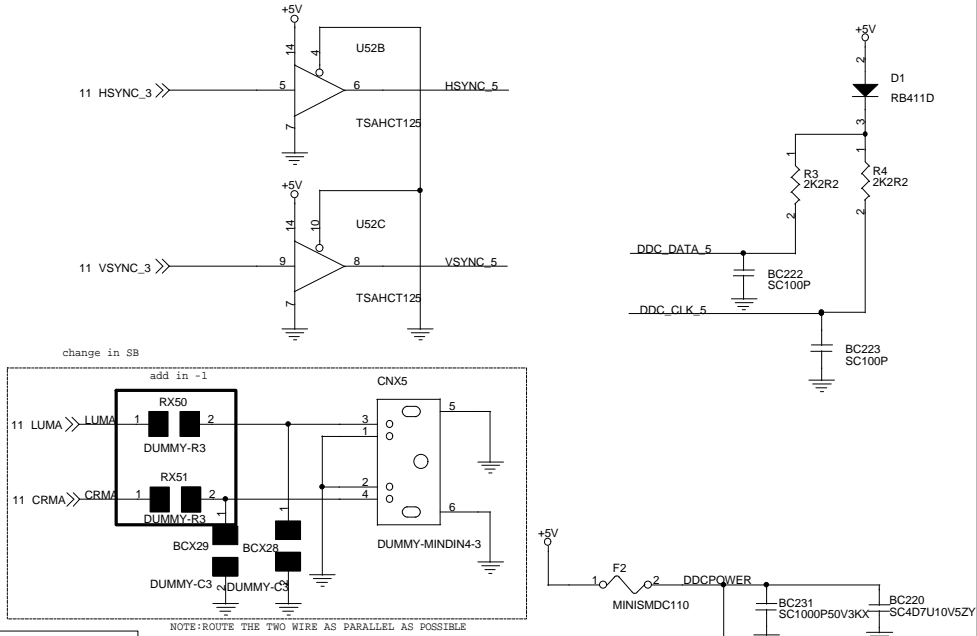
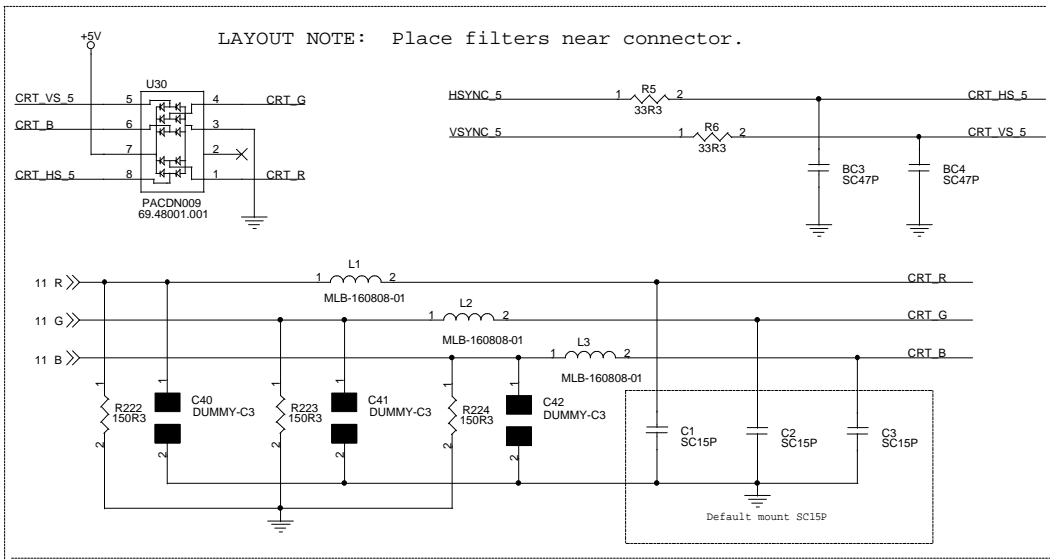
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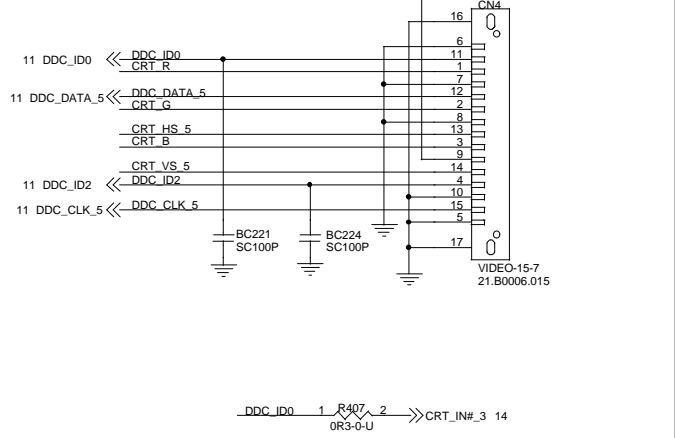
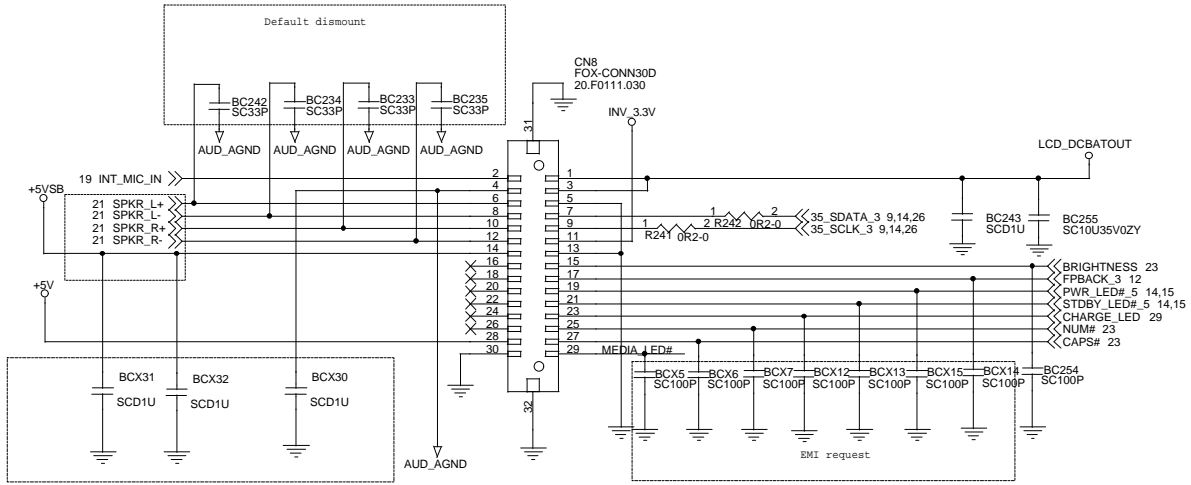
# LCD CONNECTOR



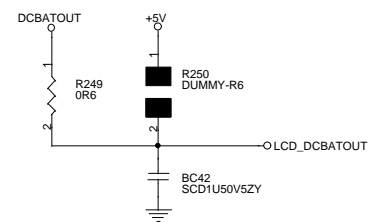
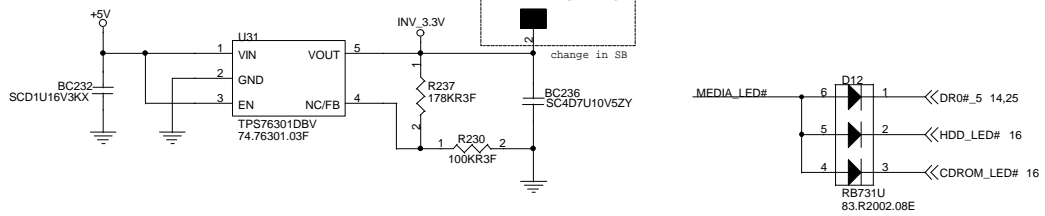
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Title LCD Connector		
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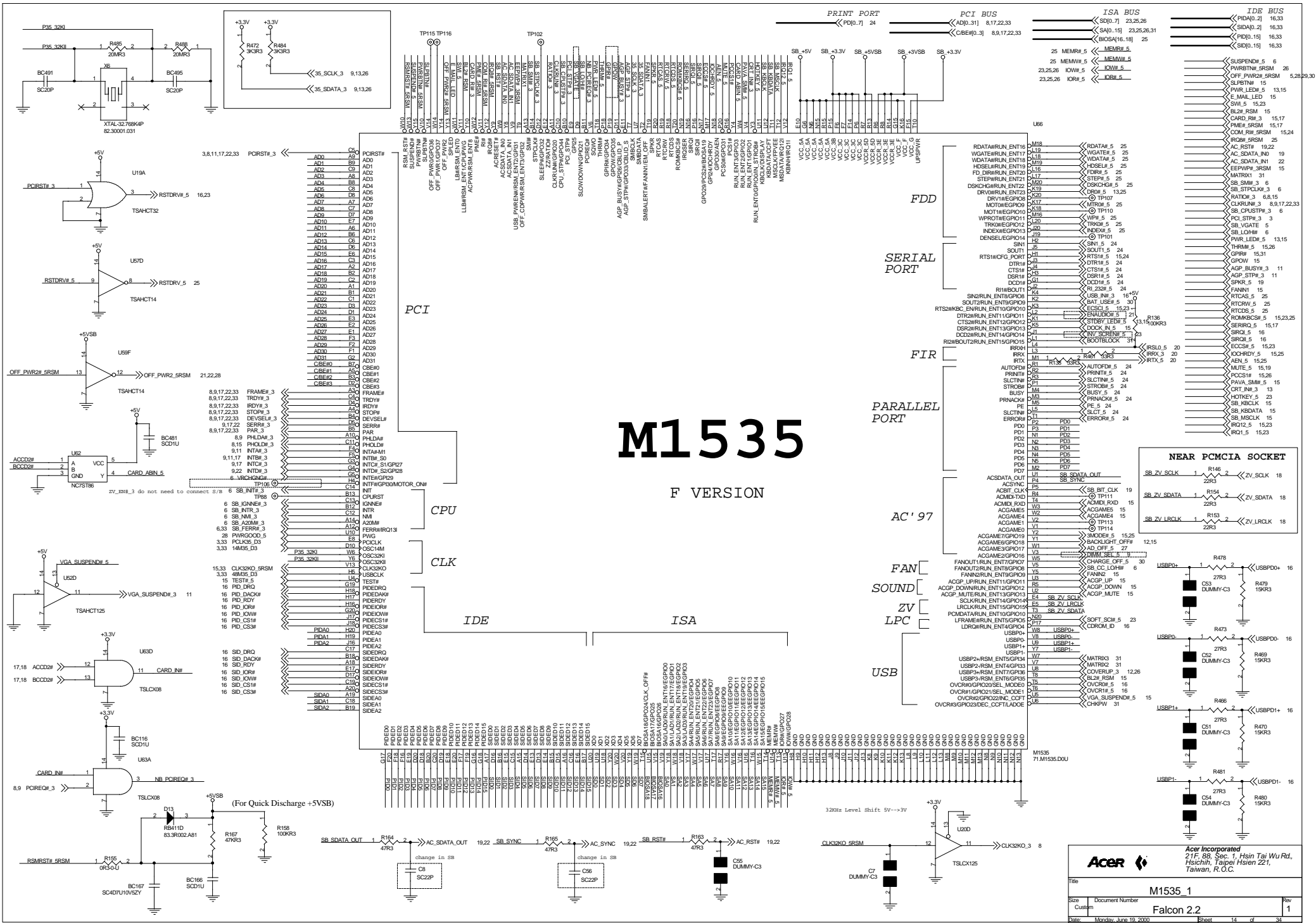
**LED + INVERTER CONNECTOR**



**Avoid of LCD Flicker**



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<b>CRT &amp; LED/INVERTER CONN</b>			
Size A3	Document Number <b>Falcon 2.2</b>	Rev <b>1</b>	
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# M1535

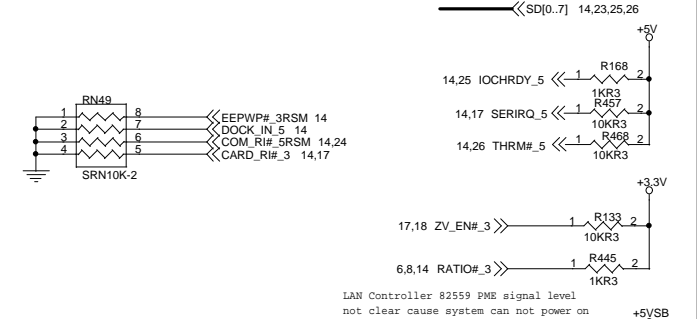
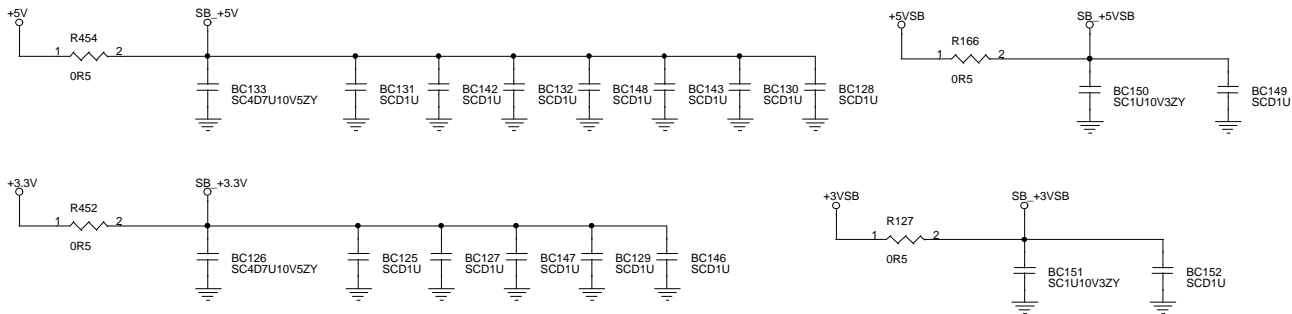
## F VERSION

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 Taiwan, R.O.C.

File: **M1535\_1**

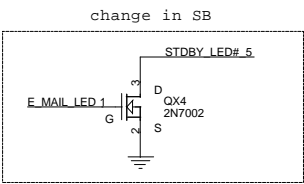
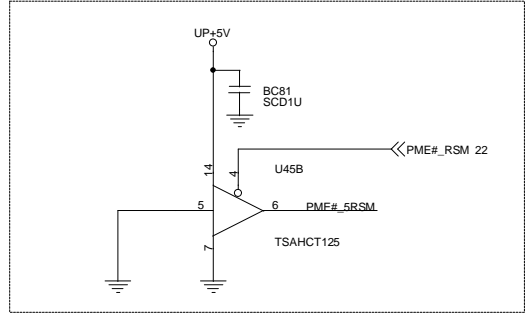
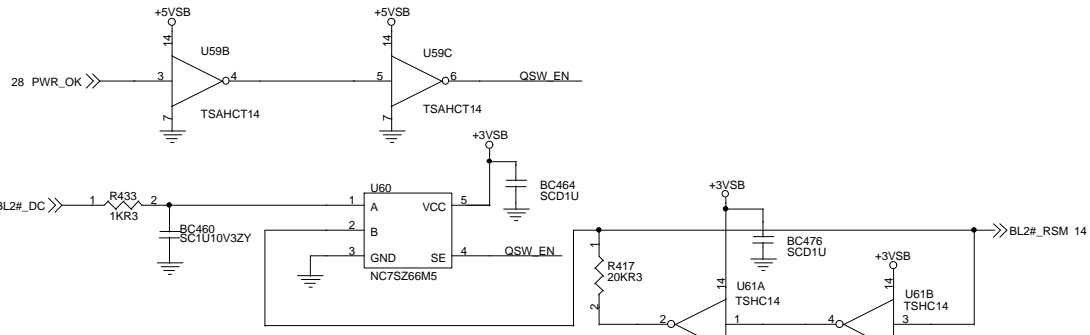
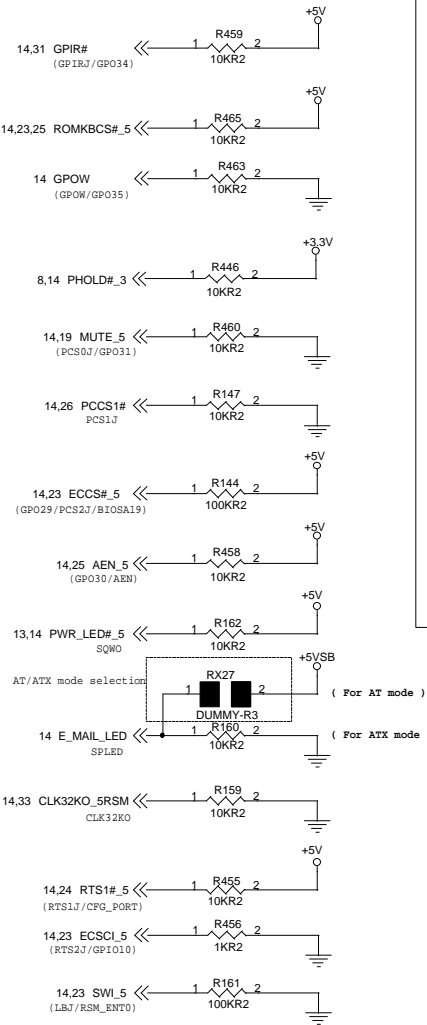
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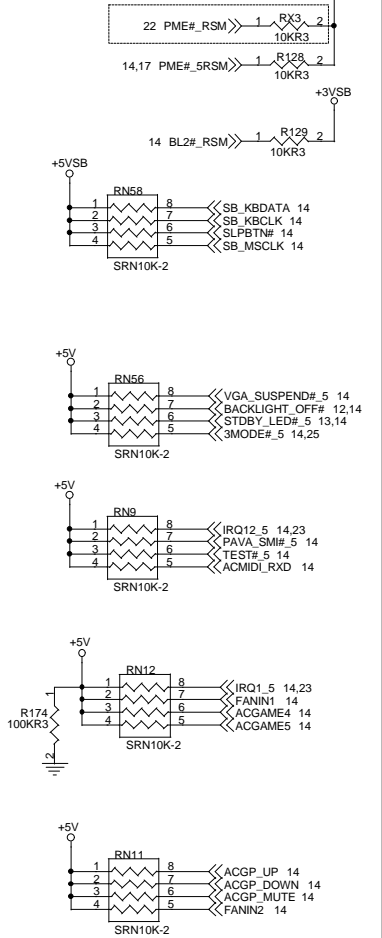


LAN Controller 82559 PMB signal level not clear cause system can not power on

### SB HARDWARE SETTING

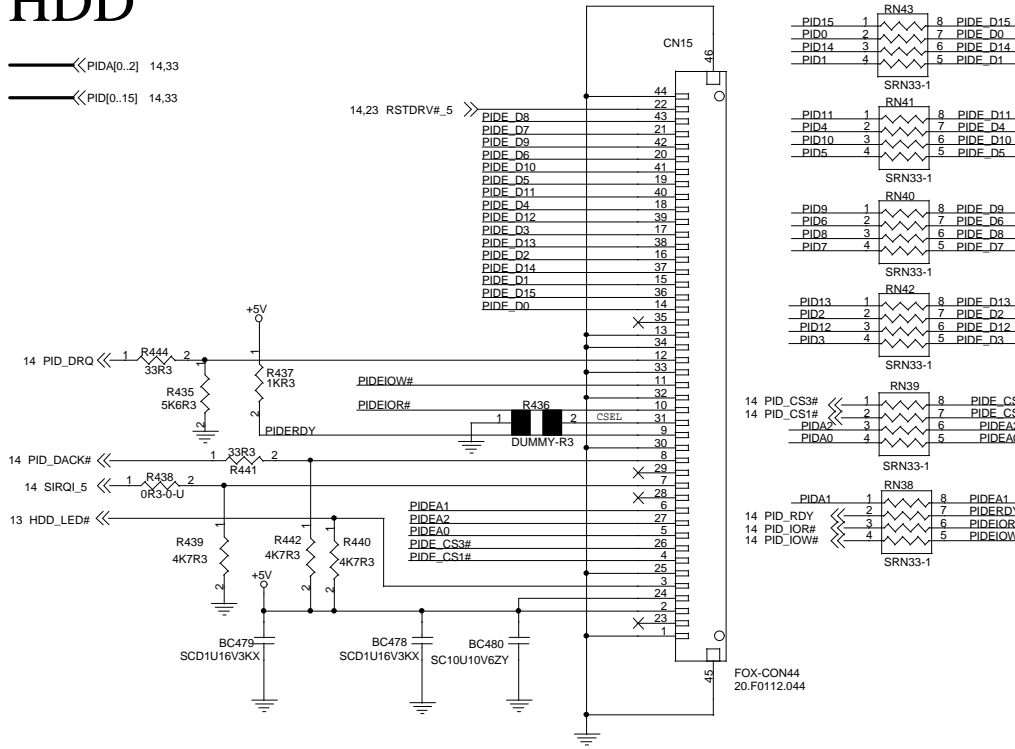


Signal	Setting	Operation
GPIR#	PULL HIGH	NORMAL OPERATION
ROMKBCS#_5	PULL HIGH	NORMAL OPERATION
GPO35	PULL LOW	NORMAL OPERATION
PHOLD#	PULL HIGH	NORMAL OPERATION
PCS0J	PULL LOW	Enable 4Mb Flash Rom Size Function
PCS1J	PULL LOW	FOR IOCHRDY DEFAULT
GPO29	PULL HIGH	NORMAL OPERATION
GPO30	PULL HIGH	NORMAL OPERATION
SQWO	PULL HIGH	Pentium II CPU -> CPURST Low Active Reset
SPLD	PULL LOW	ATX Mode
CLK32KO	PULL LOW	NORMAL OPERATION
RTS1J	PULL HIGH	Base Address of Configuration for SIO: 0x3F0h
RTS2J	PULL LOW	Disable Internal Keyboard Controller
LBJ	PULL LOW	OFF_PWR2 Low Active to Power Off Power Source



# HDD

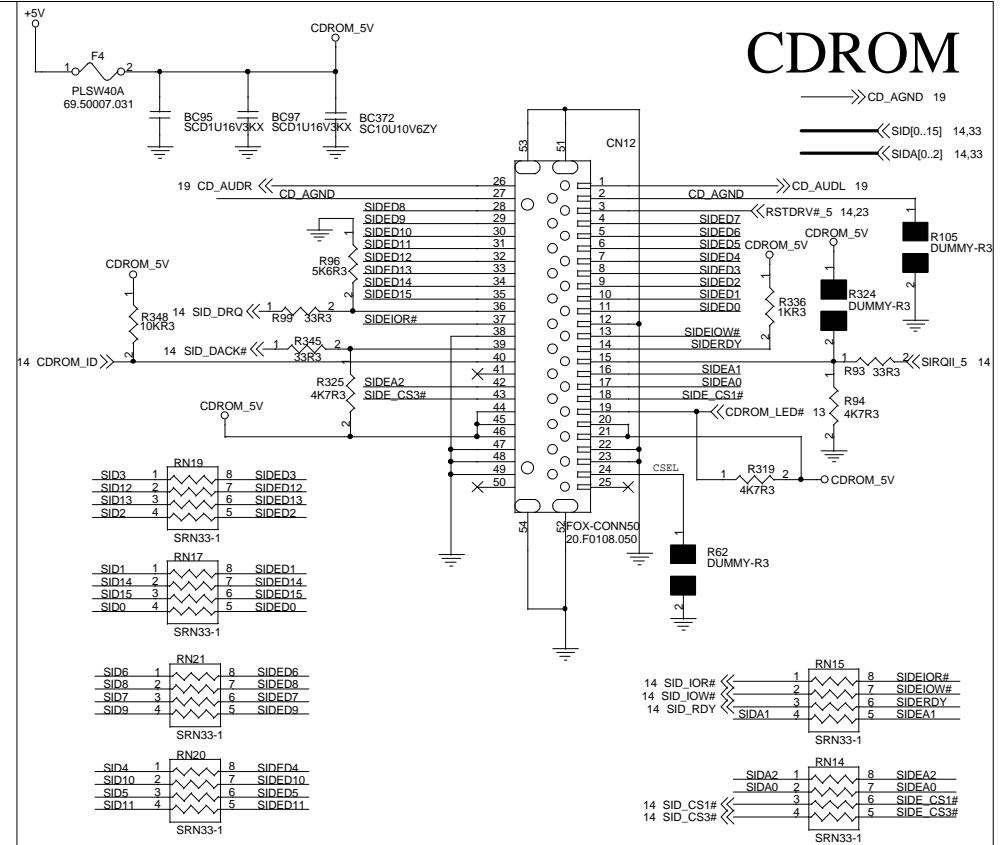
$\llcorner$  PIDA[0..2] 14,33  
 $\llcorner$  PID[0..15] 14,33



FOX-CON44  
20.F0112.044

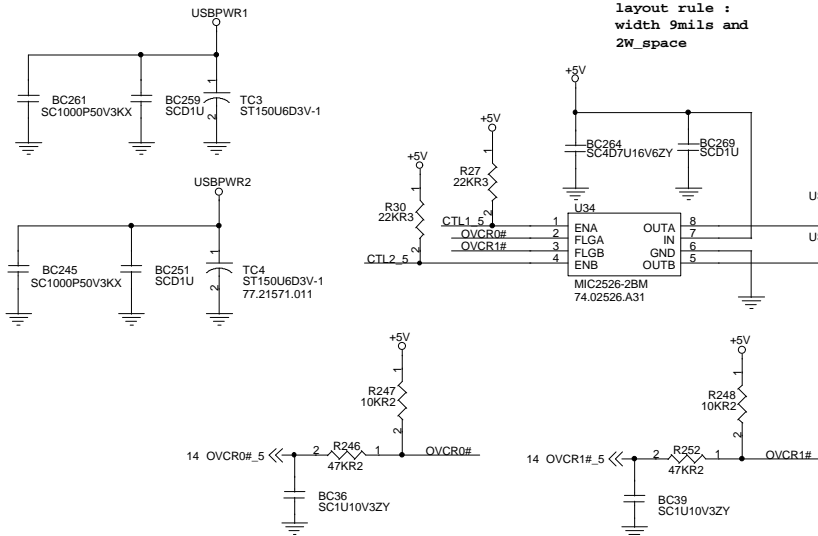
# CDROM

$\llcorner$  CD\_AGN\_D 19  
 $\llcorner$  SID[0..15] 14,33  
 $\llcorner$  SIDA[0..2] 14,33

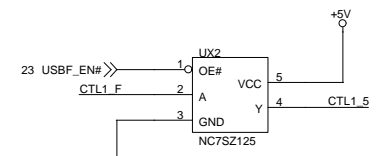
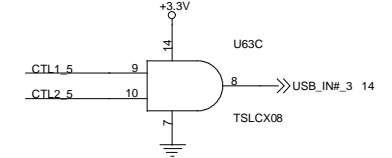
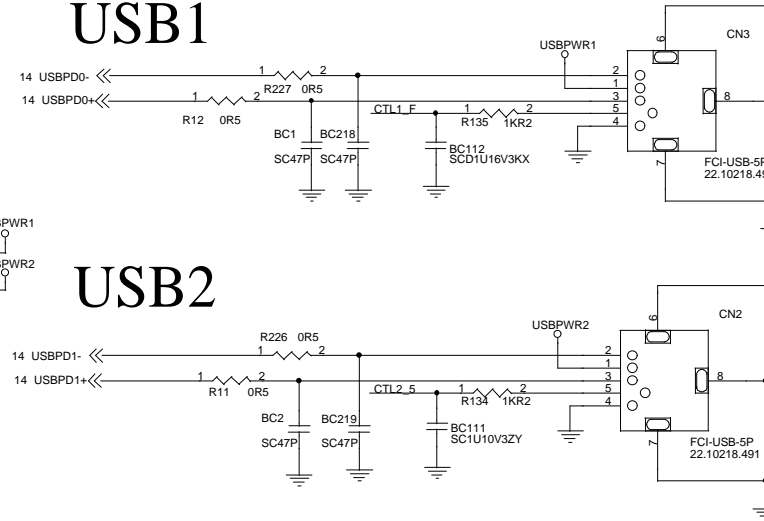


# USB1

**USBP00/USBP01 USB**  
**Differential Signal**  
**layout rule :**  
**width 9mils and**  
**2W\_space**



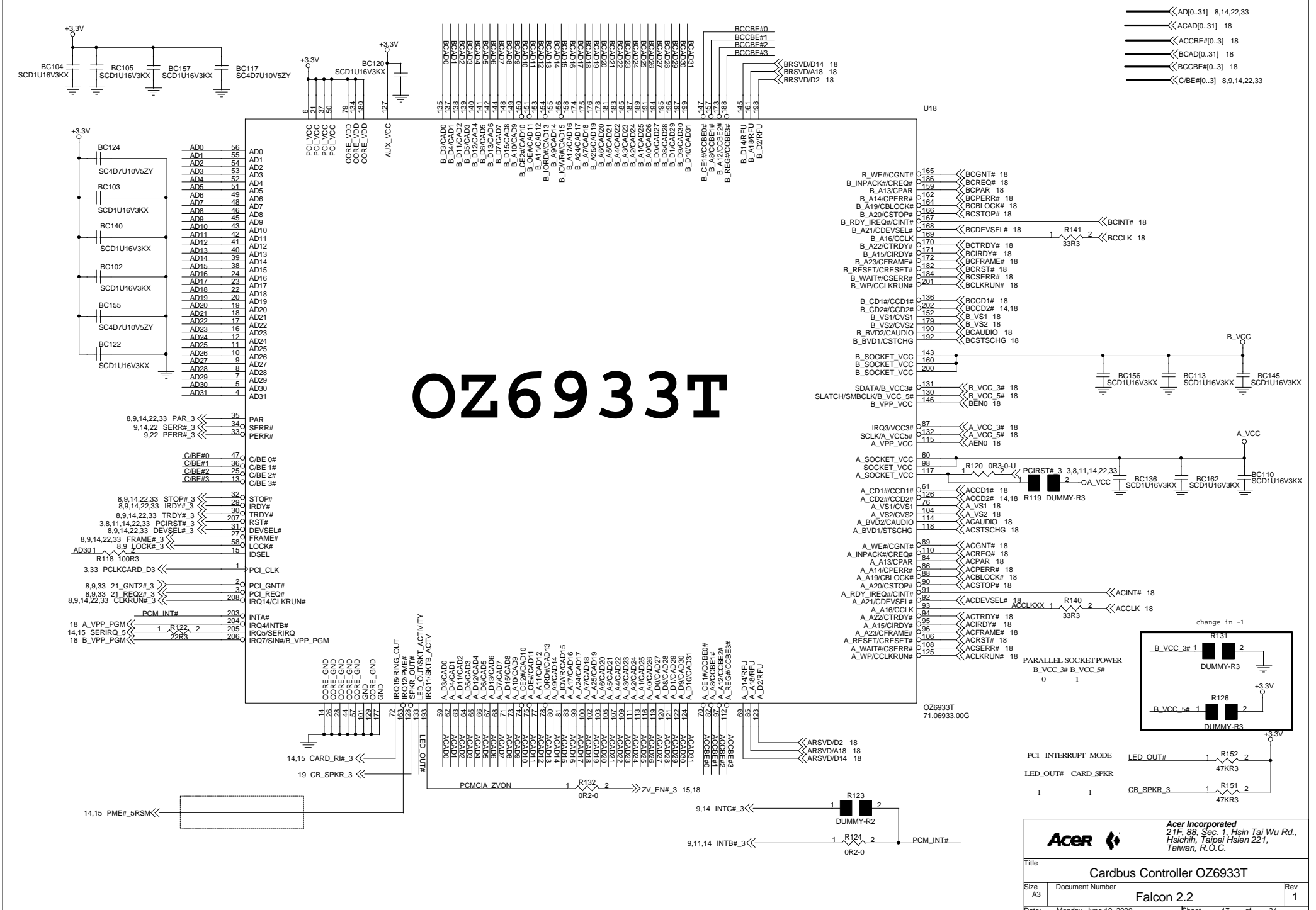
# USB2



<b>Acer</b>			Acer Incorporated 21F, 8B, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title <b>HDD, CDROM, USB</b>					
Size A3	Document Number <b>Falcon 2.2</b>				Rev 1
Date: Monday, June 19, 2000	Sheet 16 of 34				



# OZ6933T



- AD[0..31] 8,14,22,33
- ACAD[0..31] 18
- ACCBE#[0..3] 18
- BCAD[0..31] 18
- BCCBE#[0..3] 18
- C/BE#[0..3] 8,9,14,22,33

**Acer**

Acer Incorporated  
21F, 8B, Sec. 1, Hsin Tai Wu Rd.,  
Hsichih, Taipei Hsien 221,  
Taiwan, R.O.C.

---

Title **Cardbus Controller OZ6933T**

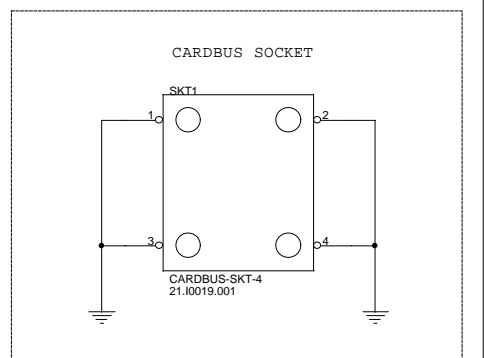
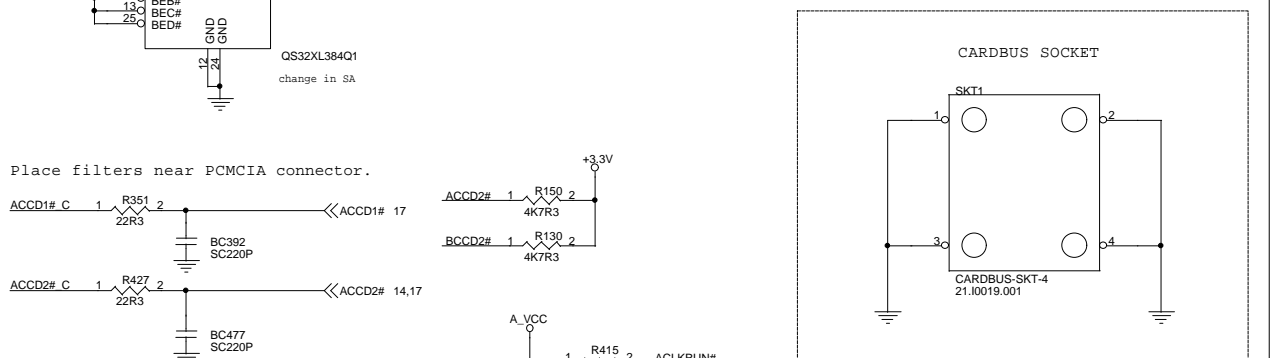
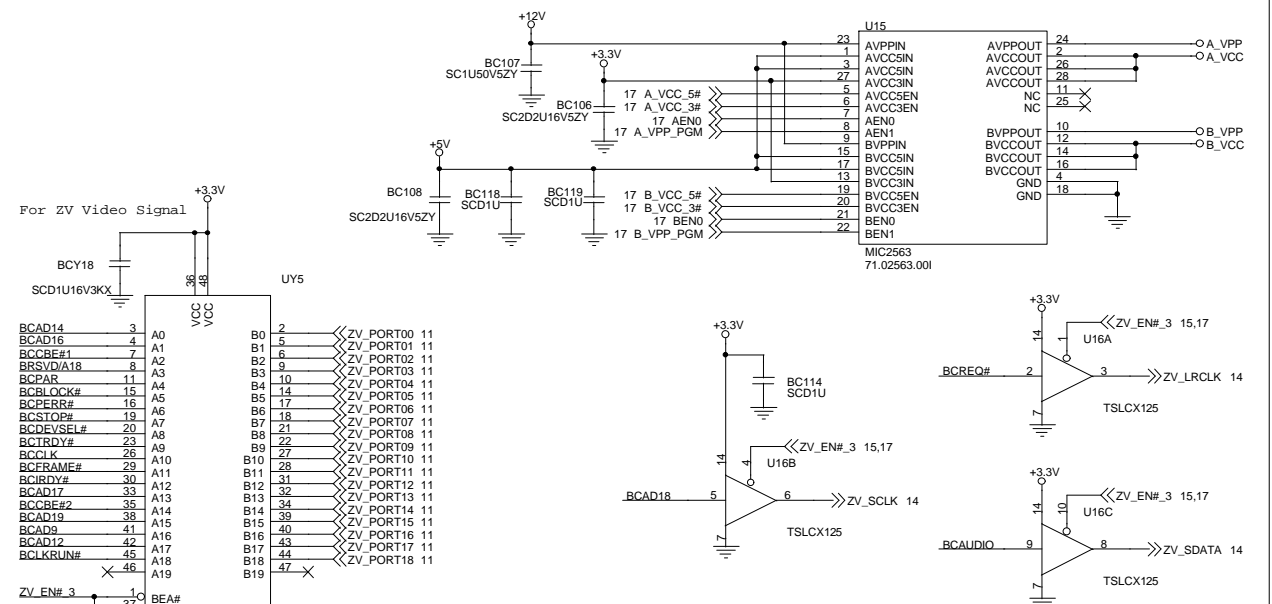
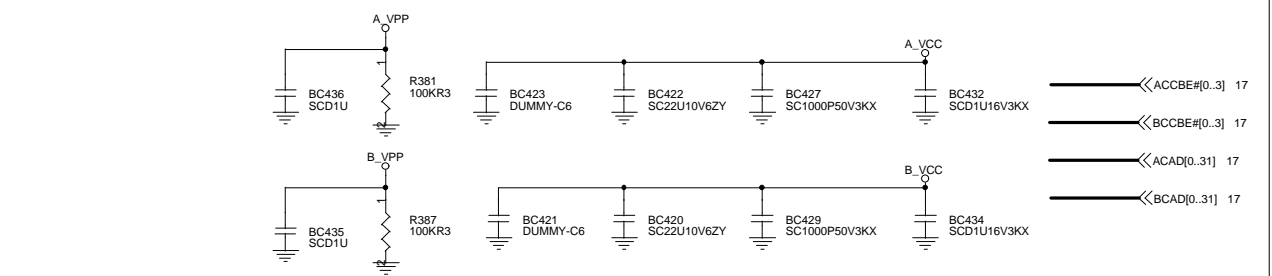
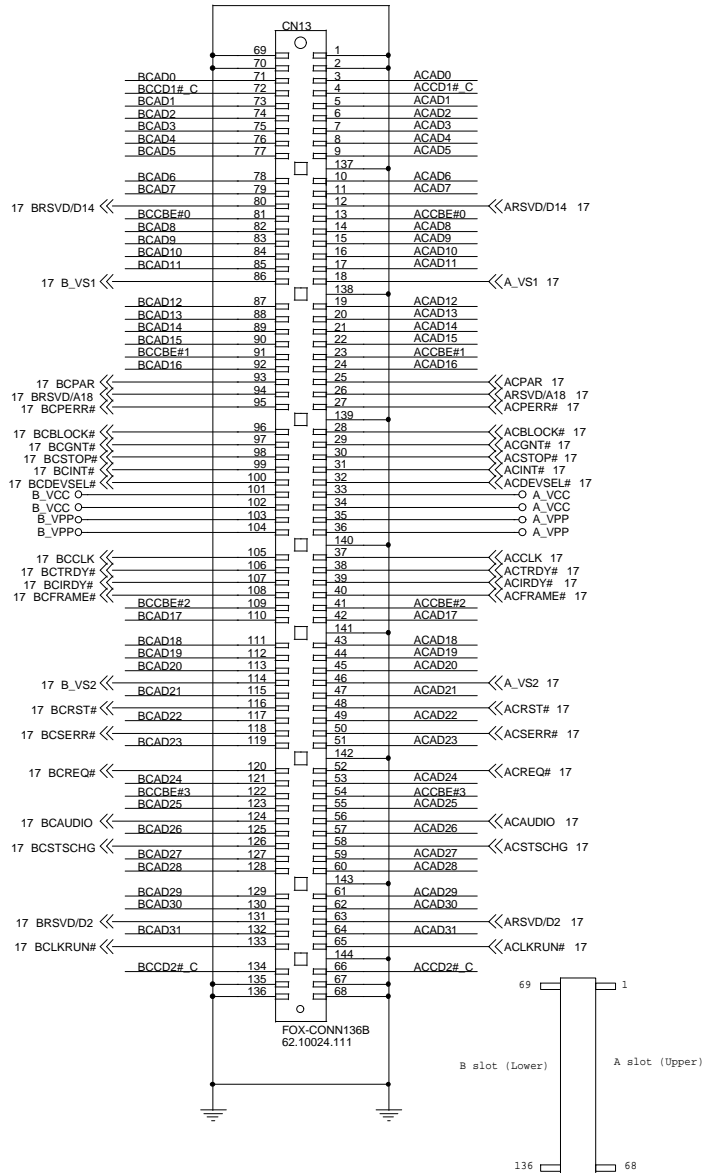
Size A3	Document Number <b>Falcon 2.2</b>	Rev 1
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Date: Monday, June 19, 2000      Sheet 17 of 34

# CARDBUS CONNECTOR

Upper = Slot0 / Signal A

Lower = Slot1 / Signal B (Support ZV function)

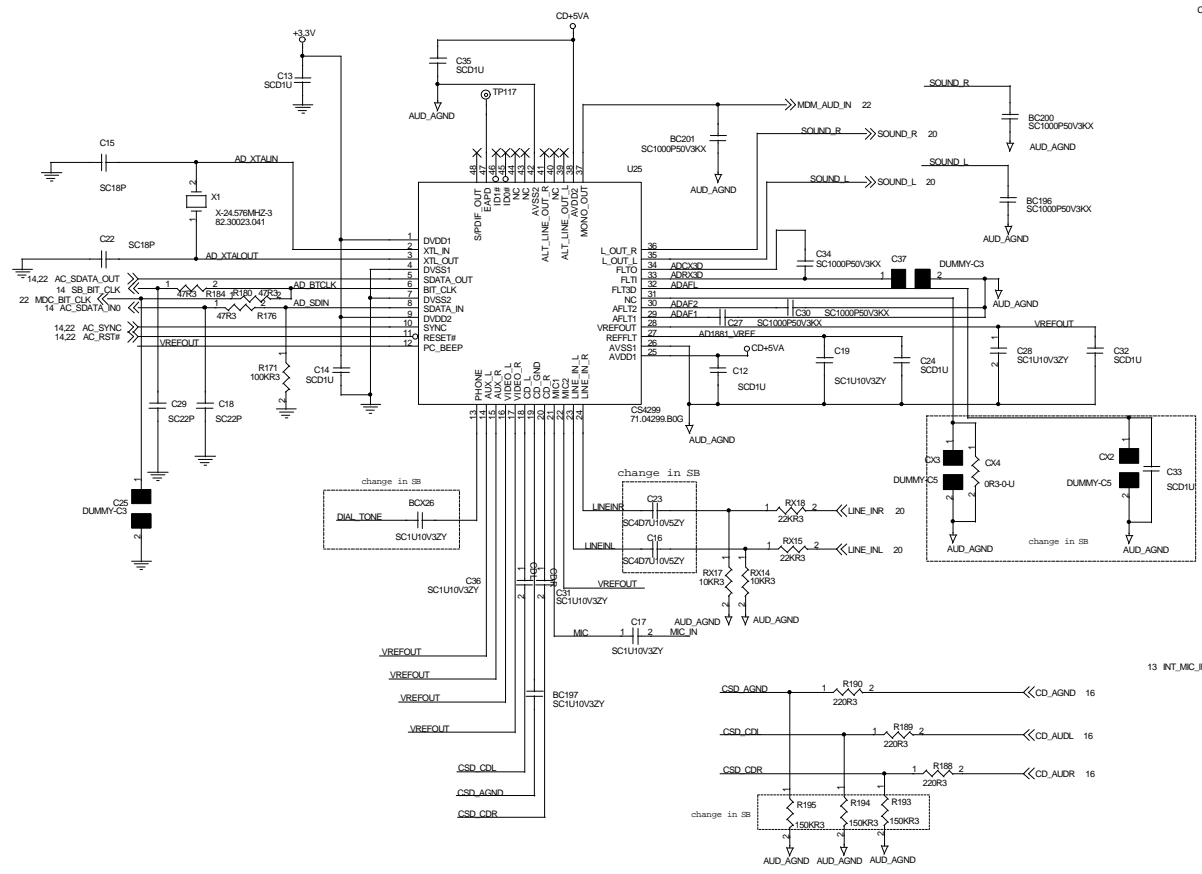
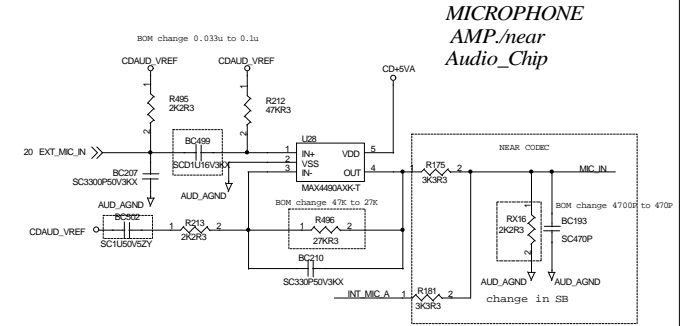
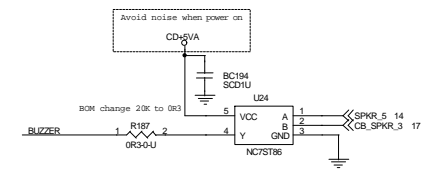
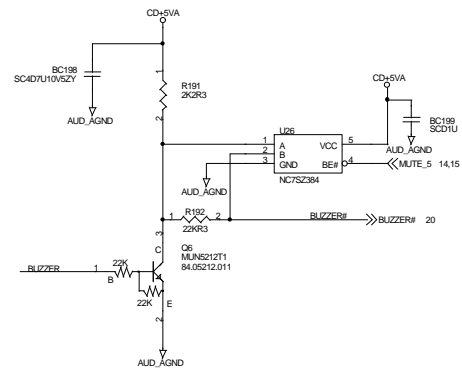
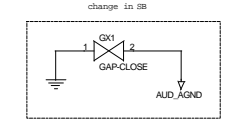
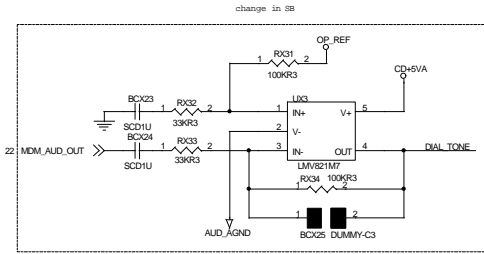


**Acer Incorporated**  
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 Hsichih, Taipei Hsien 221,  
 Taiwan, R.O.C.

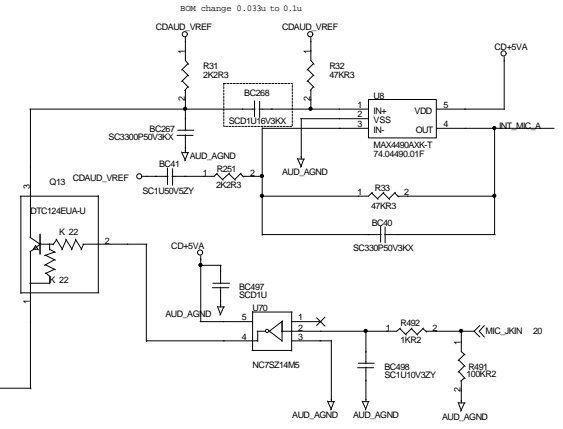
**Cardbus Connector**

Size A3 | Document Number Falcon 2.2 | Rev 1

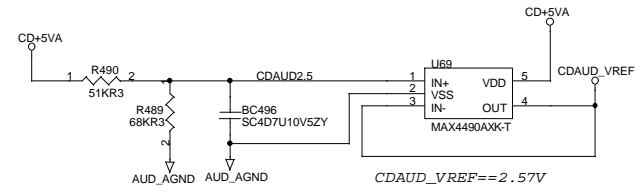
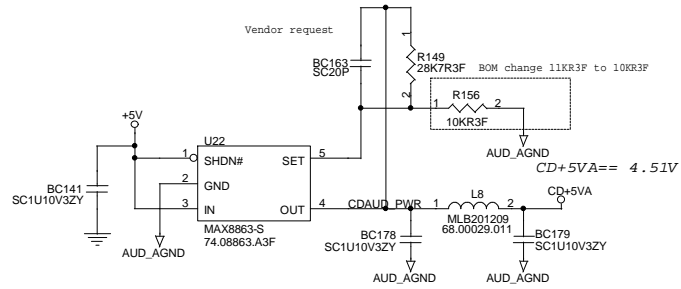
Date: Monday, June 19, 2000 | Sheet 18 of 34



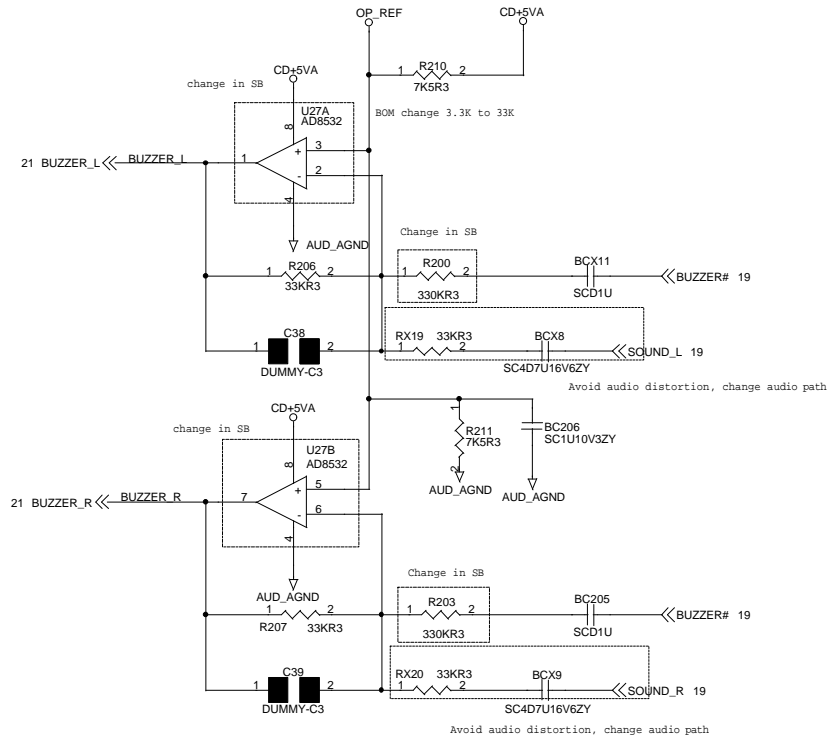
Internal Microphone Pre\_Amp /near CN4



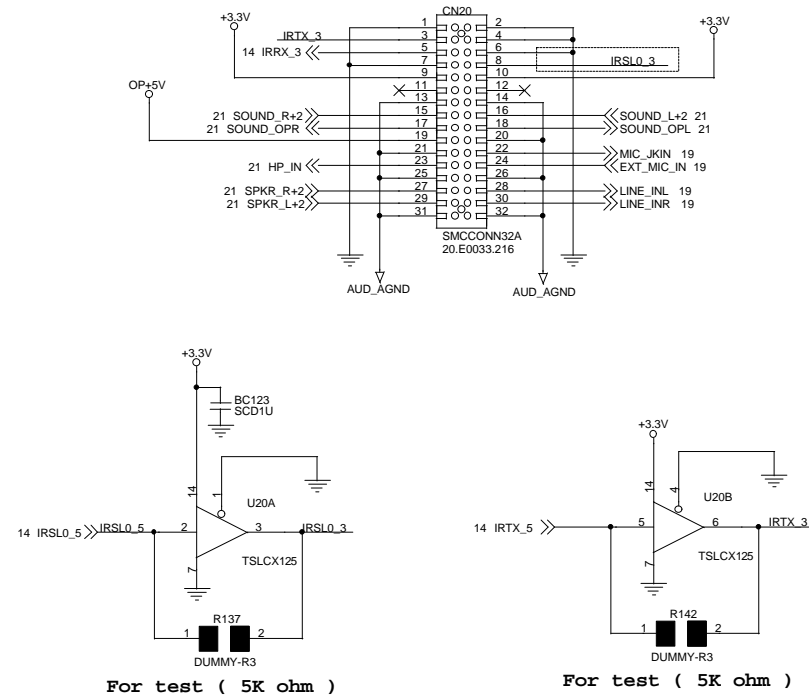
**Generate CD+5VA**



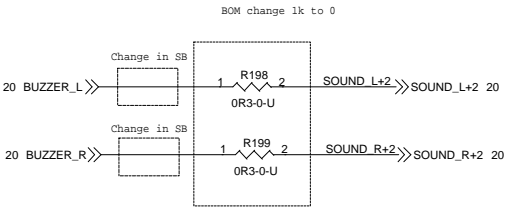
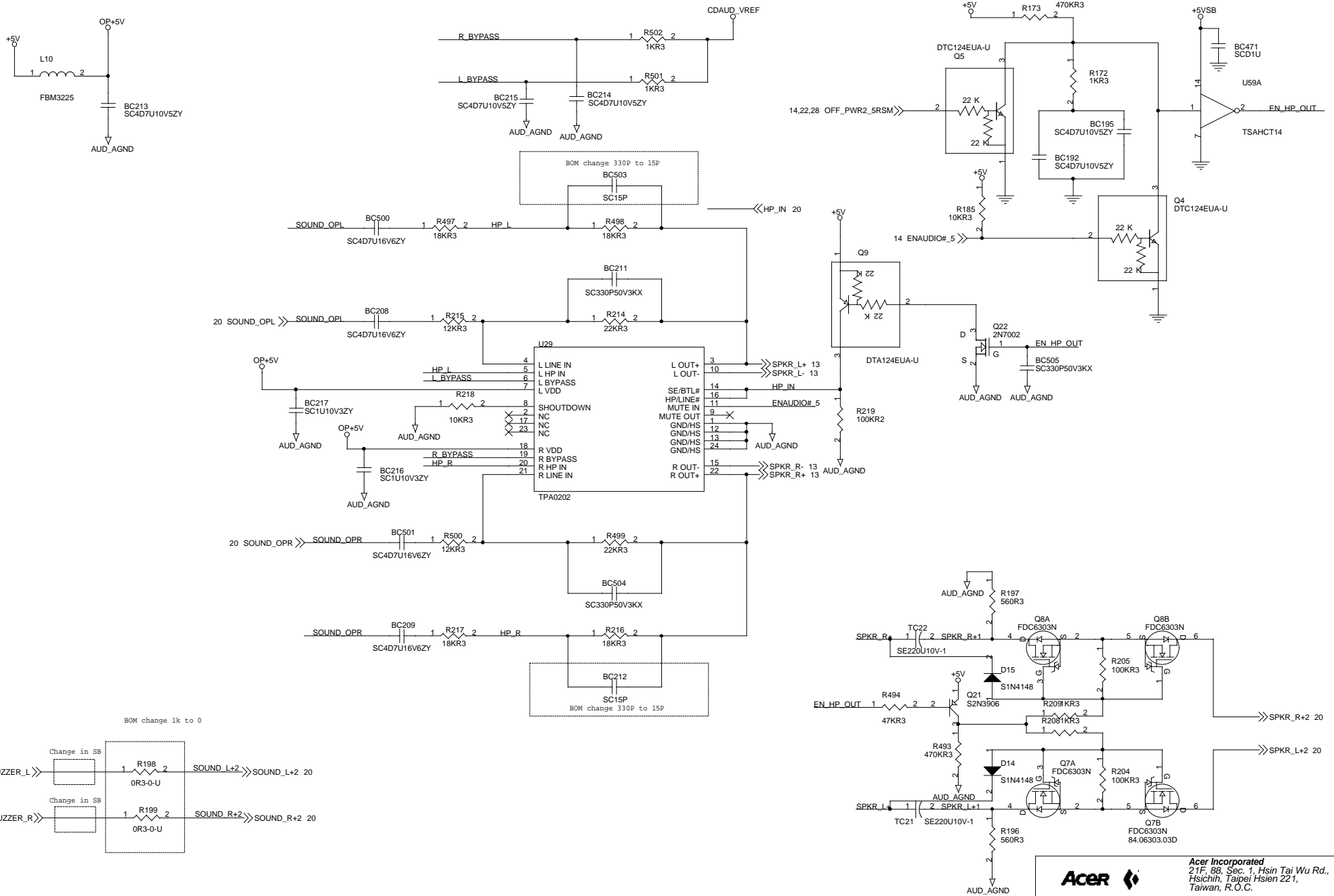
**Combine Buzzer and Dial tone**



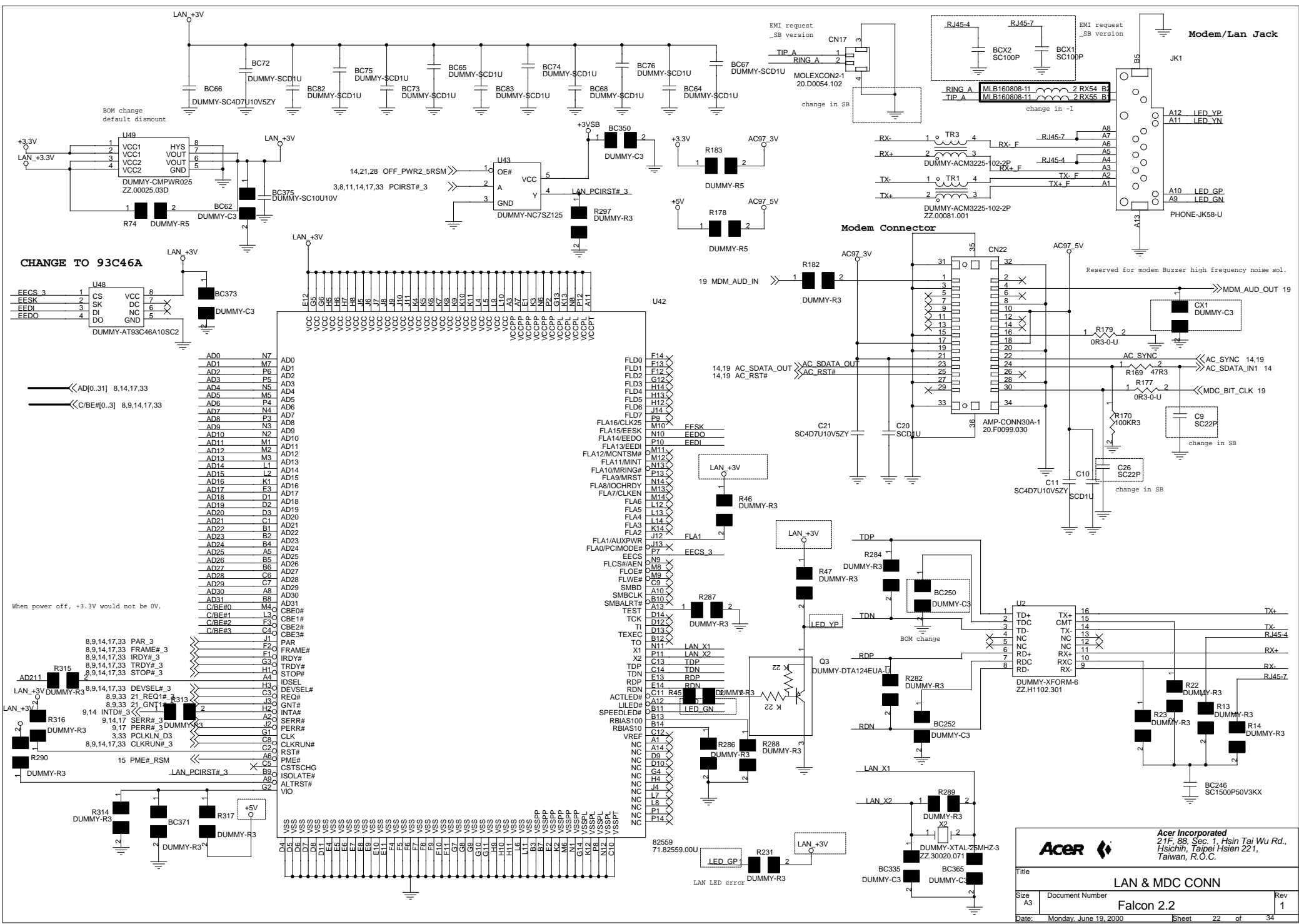
**Audio Board Connector**



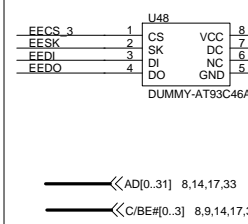
<b>ACER</b>		Acer Incorporated 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>CD AUDIO SWITCH</b>			
Size A3	Document Number <b>Falcon 2.2</b>	Rev <b>1</b>	
Date: Monday, June 19, 2000		Sheet 20 of 34	



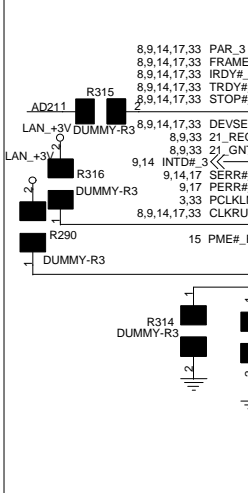
<b>Acer</b>			<i>Acer Incorporated</i> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title <b>LINE_IN, LINE_OUT, MIC</b>						
Size A3	Document Number <b>Falcon 2.2</b>				Rev <b>1</b>	
Date: Monday, June 19, 2000	Sheet			21	of	34



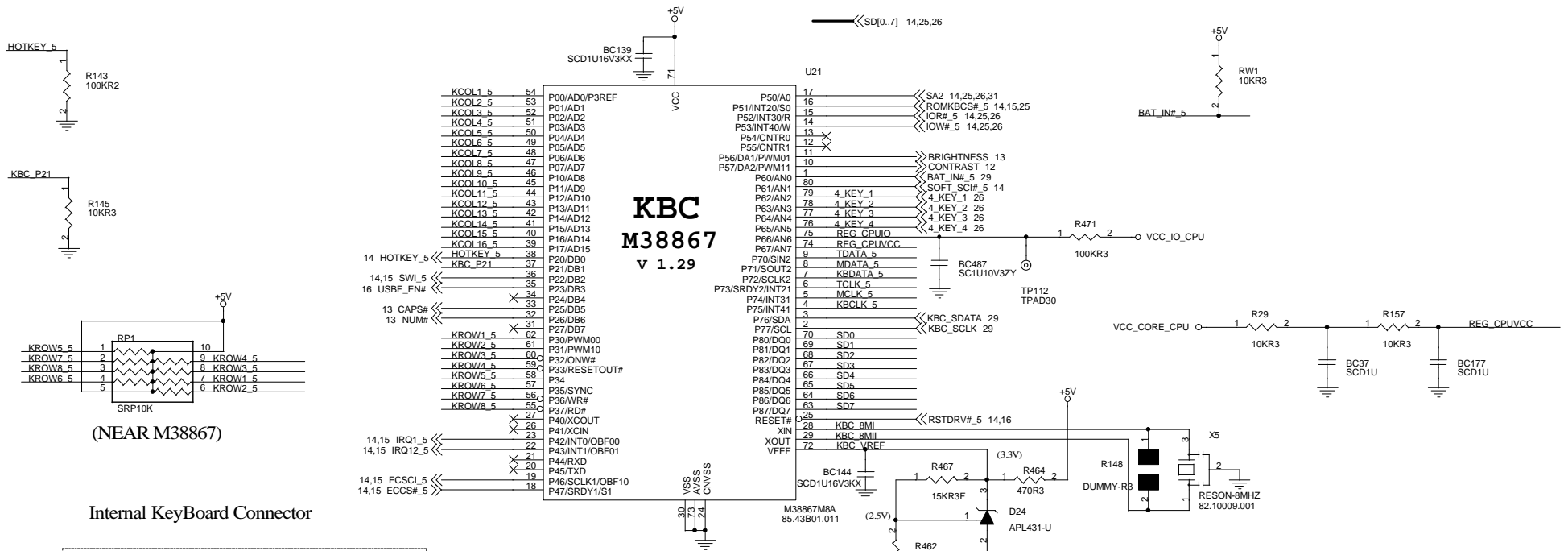
CHANGE TO 93C46A



When power off, +3.3V would not be 0V.

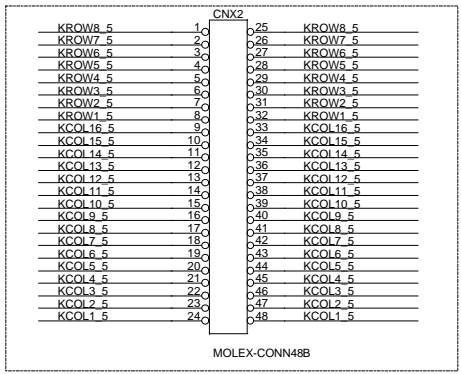


<b>Acer</b>		Acer Incorporated 2/F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>LAN &amp; MDC CONN</b>			
Size A3	Document Number Falcon 2.2	Rev 1	
Date: Monday, June 19, 2000	Sheet 22	of 34	



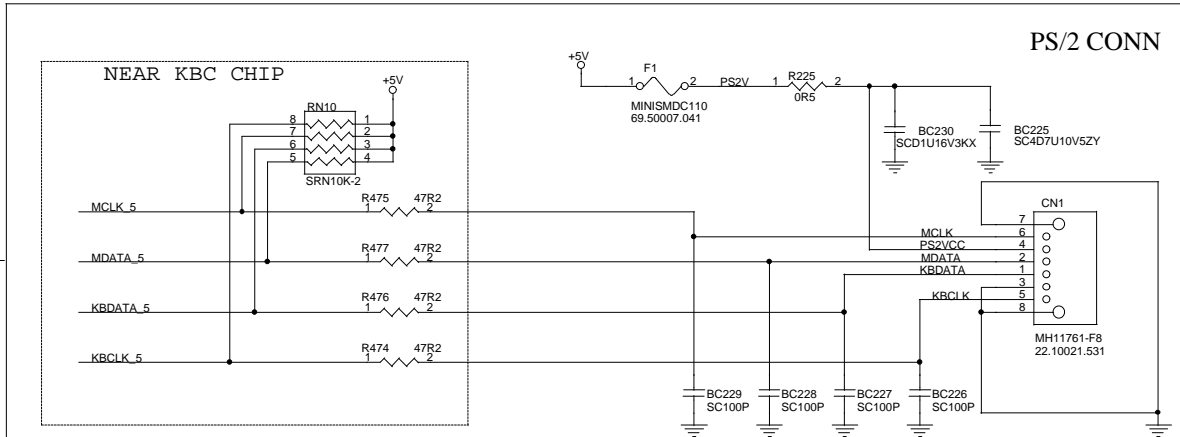
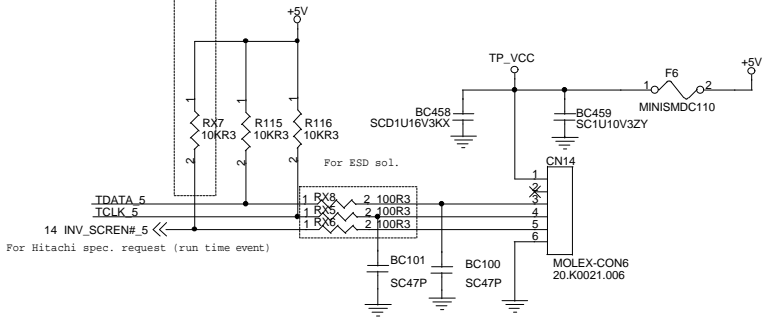
(NEAR M38867)

Internal Keyboard Connector



??Component vendor change

TouchPad Connector



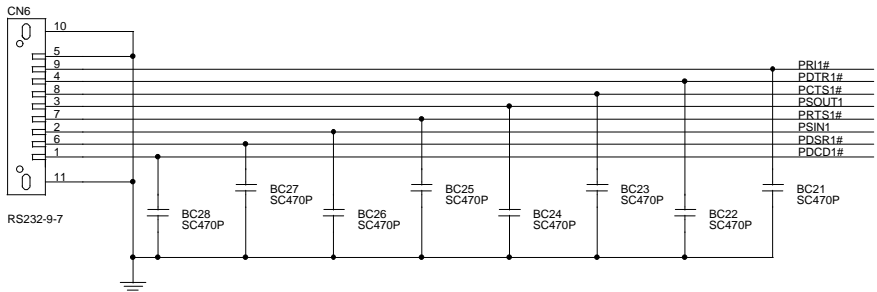
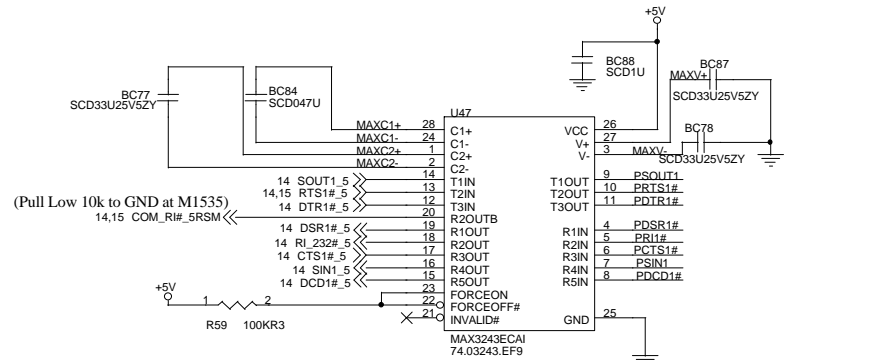
**Acer** Incorporated  
 2/F, 88, Sec. 1, Hsin Tai Wu Rd.,  
 Hsichih, Taipei Hsien 221,  
 Taiwan, R.O.C.

Title: Keyboard, TouchPad Connectors, KBC 38867

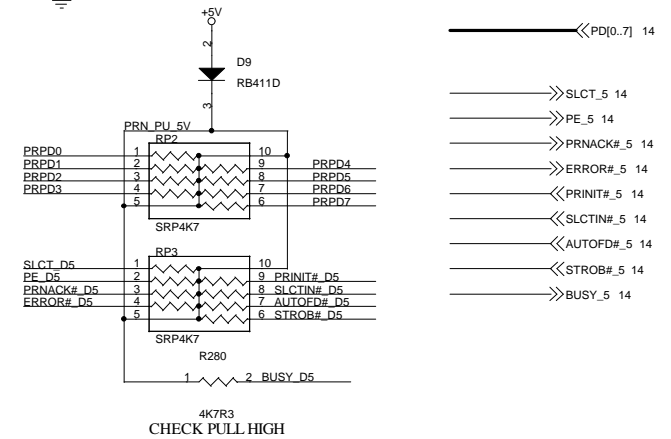
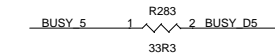
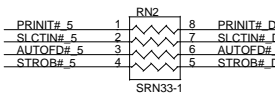
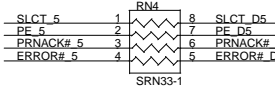
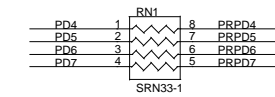
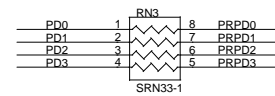
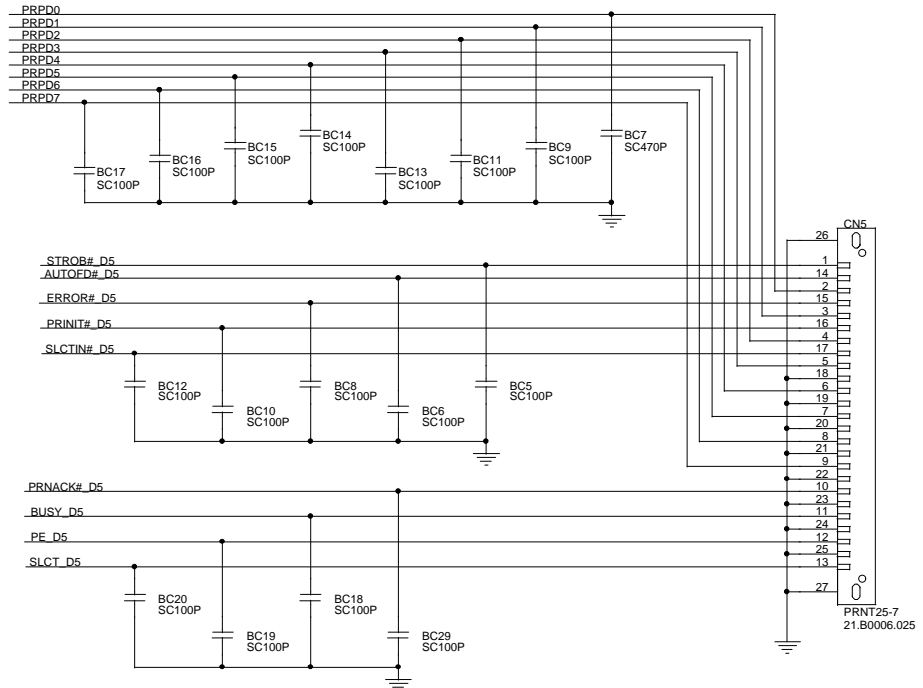
Size: A3 Document Number: Falcon 2.2 Rev: 1

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# SERIAL PORT



# PRINTER PORT

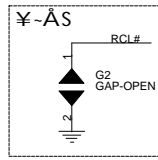
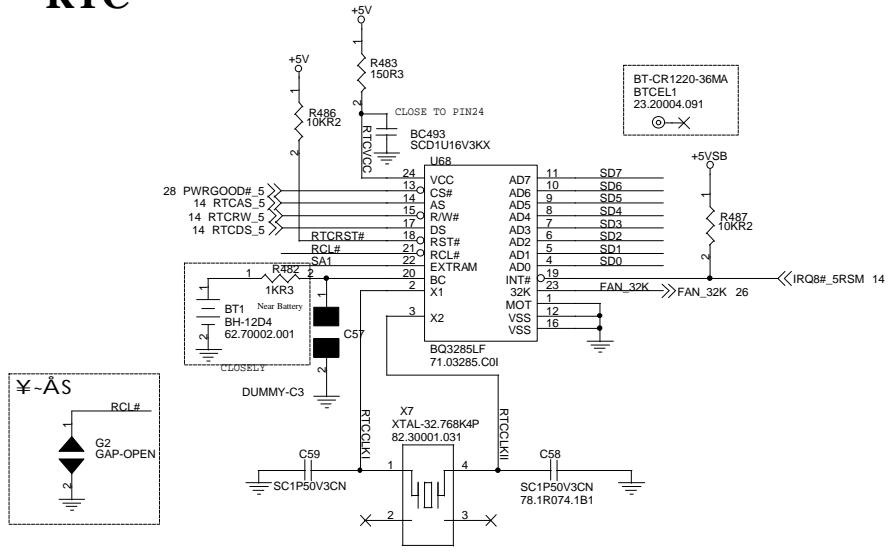


<b>Acer</b>		<i>Acer Incorporated</i> 21/F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>Serial, Parallel Port</b>			
Size A3	Document Number <b>Falcon 2.2</b>		Rev <b>1</b>
Date:	Monday, June 19, 2000	Sheet	24 of 34

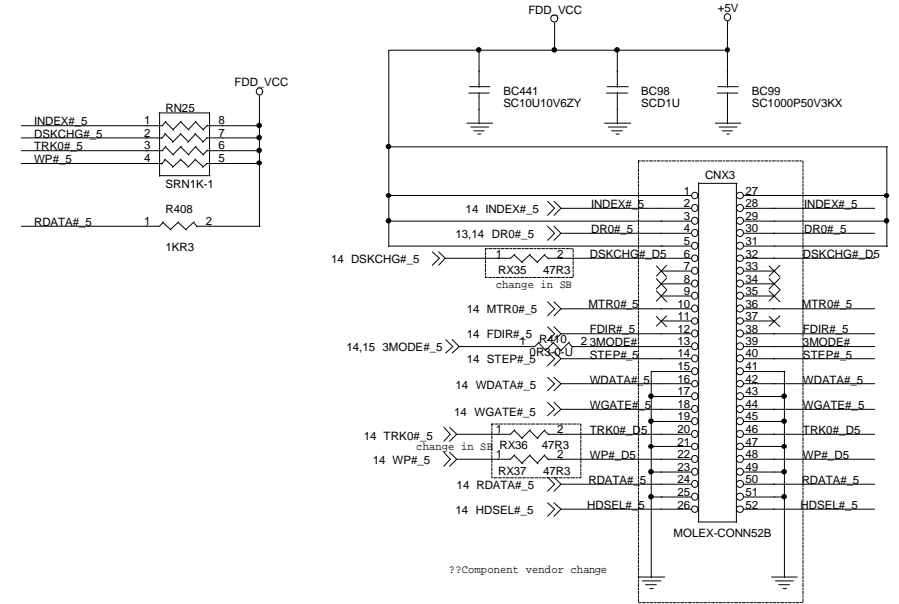


# RTC

SD[0..7] 14,23,26

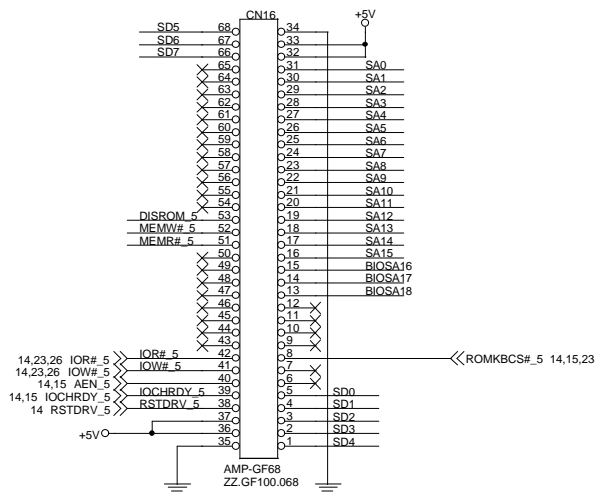


# FDD CONNECTOR



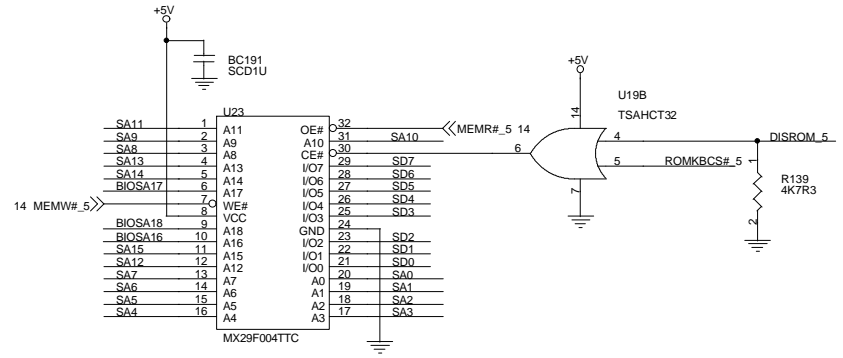
# GOLDEN FINGER

SA[0..15] 14,23,26,31



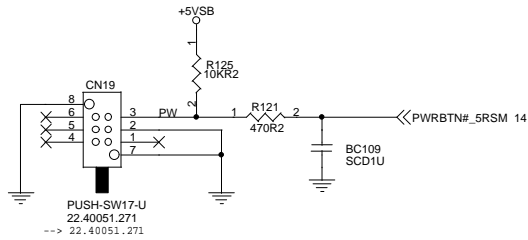
# FLASH ROM

BIOSA[16..18] 14

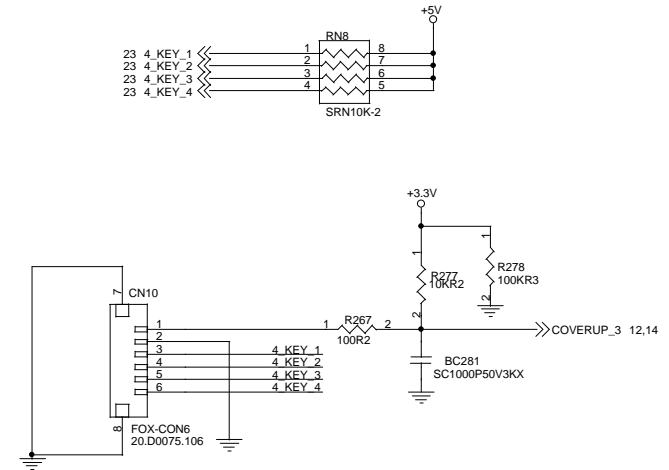


<b>Acer</b>		Acer Incorporated 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>RTC, GOLDEN FINGER &amp; FAN</b>			
Size A3	Document Number <b>Falcon 2.2</b>	Rev <b>1</b>	
Date: Monday, June 19, 2000	Sheet 25 of 34		

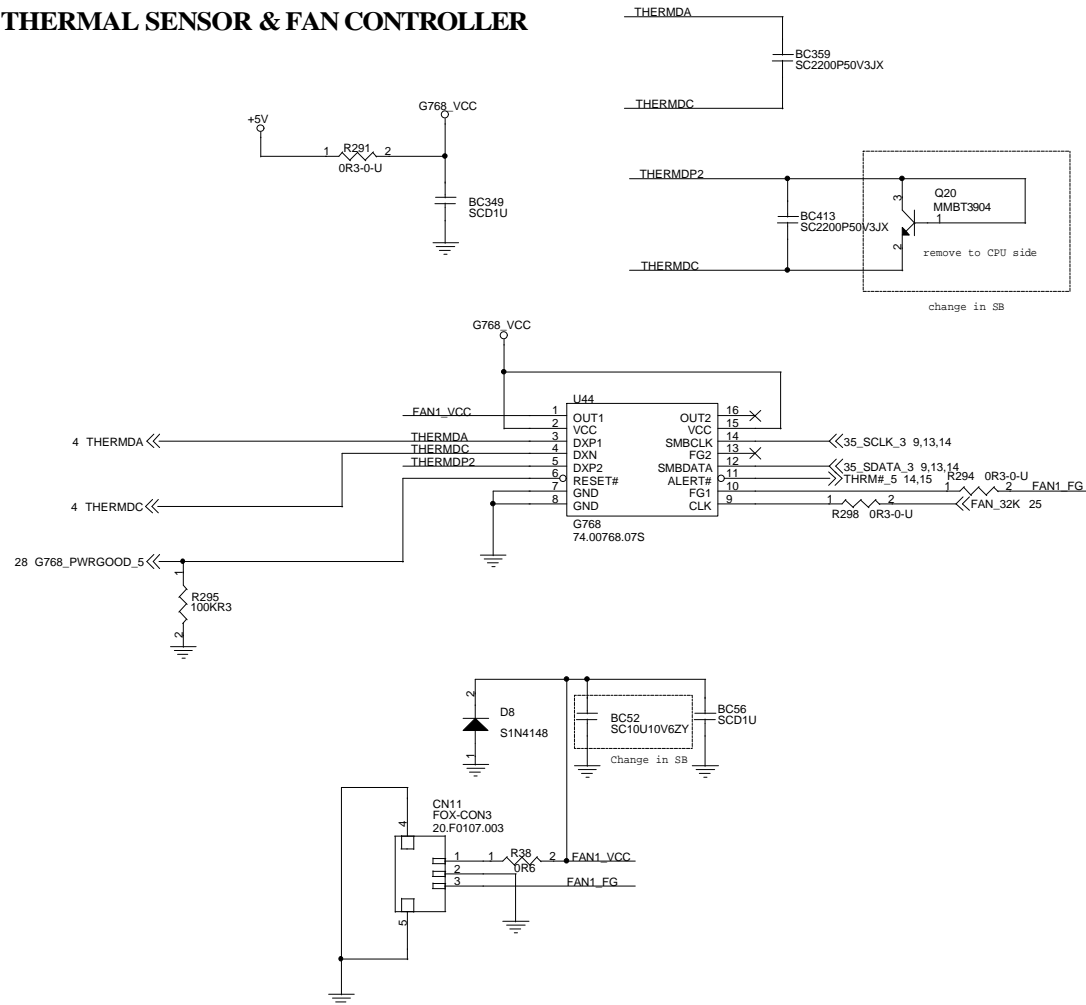
## POWER SWITCH



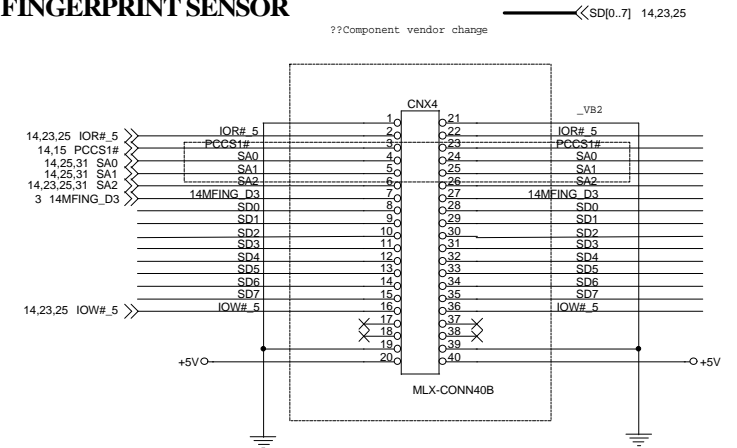
## COVER SWITCH

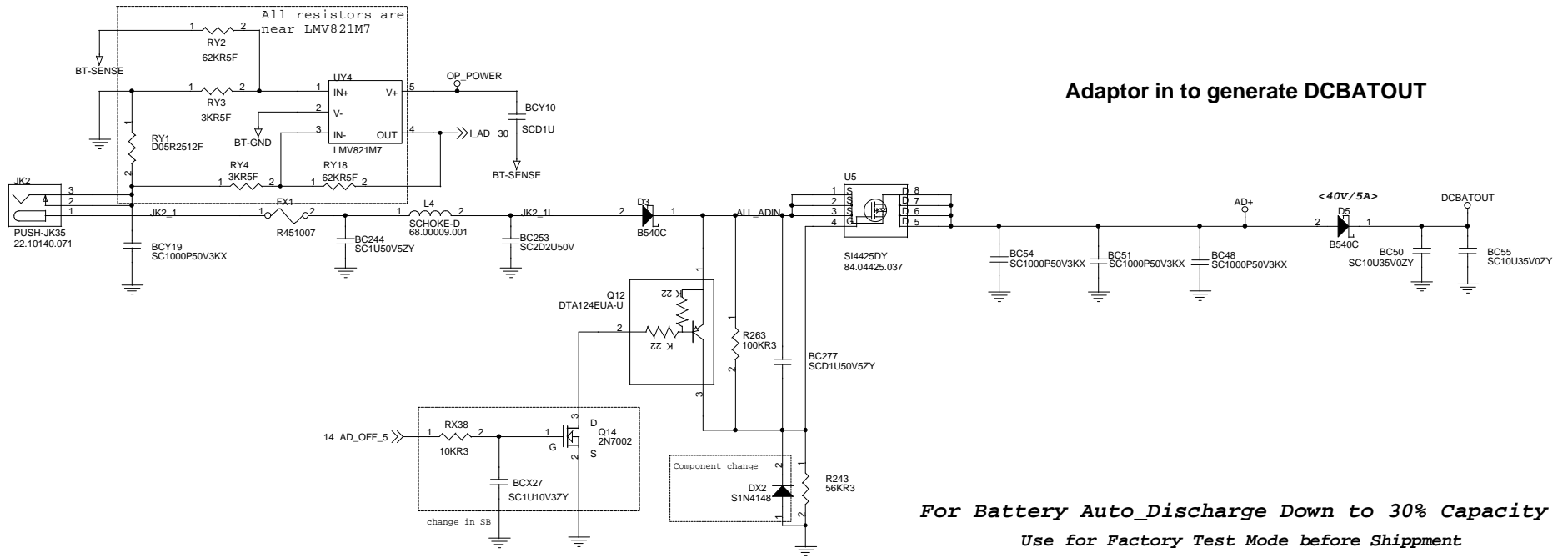


## THERMAL SENSOR & FAN CONTROLLER



## DIGITAL FINGERPRINT SENSOR



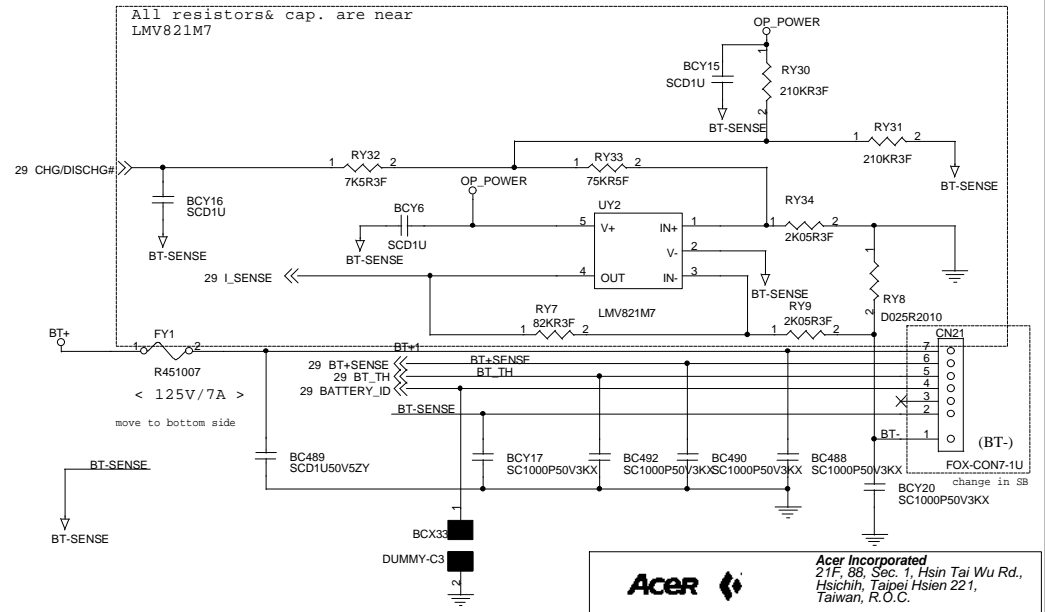
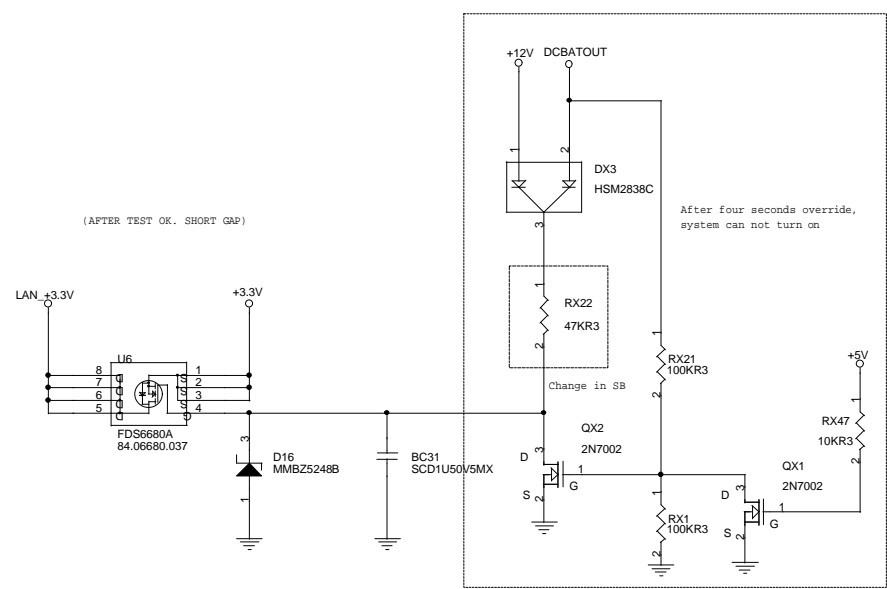


**Adaptor in to generate DCBATOUT**

*For Battery Auto\_Discharge Down to 30% Capacity  
Use for Factory Test Mode before Shipment*

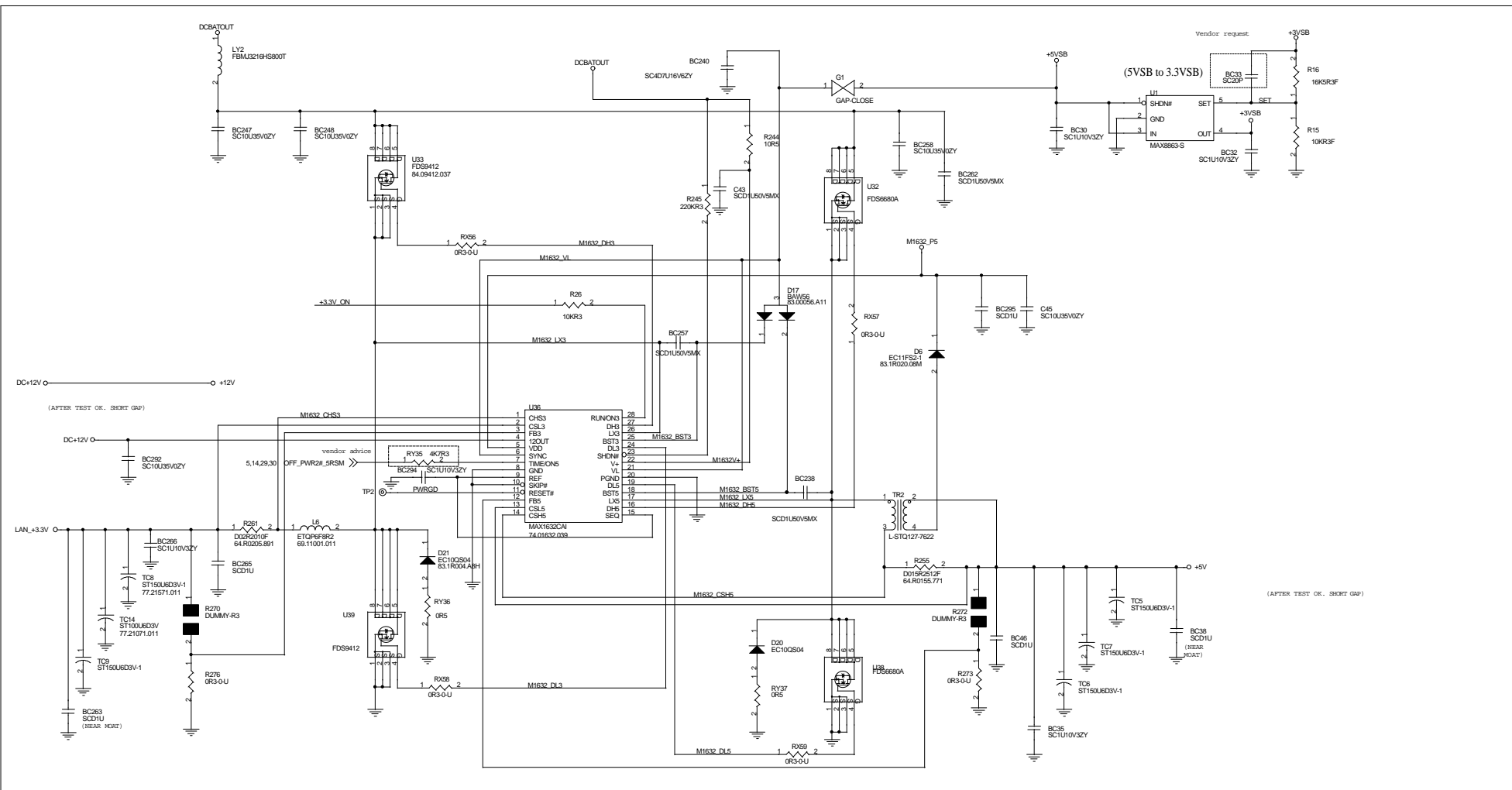
**WHEN POWER ON**

**TURN LAN\_+3VSB TO +3.3V**

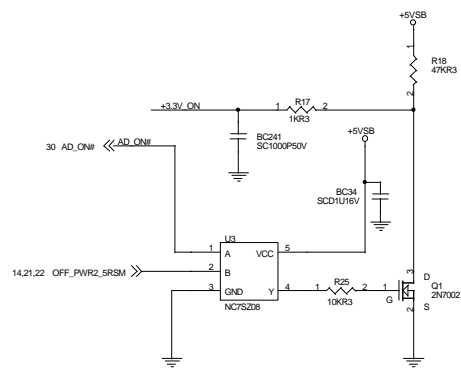


**BATTERY CONNECTOR**

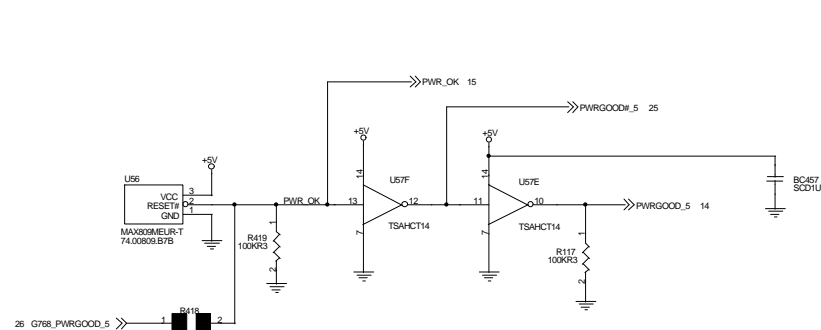
<b>Acer</b>		<i>Acer Incorporated 21F, 3B, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</i>	
Title		Power2	
Size	Document Number	Falcon 2.2	
A3		Rev 1	
Date:	Monday, June 19, 2000	Sheet	27 of 34

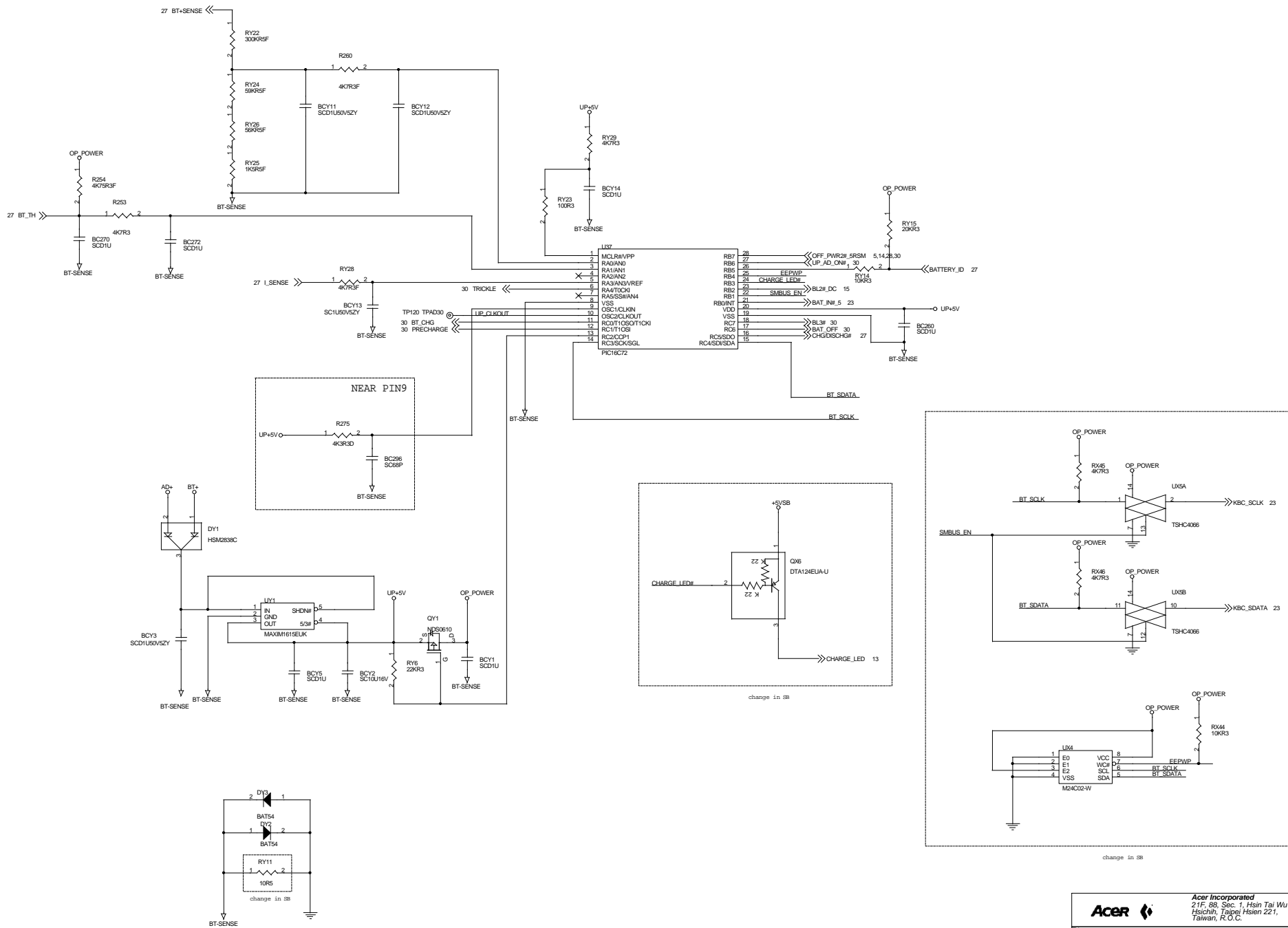


### GENERATE +3.3V\_ON SIGNAL

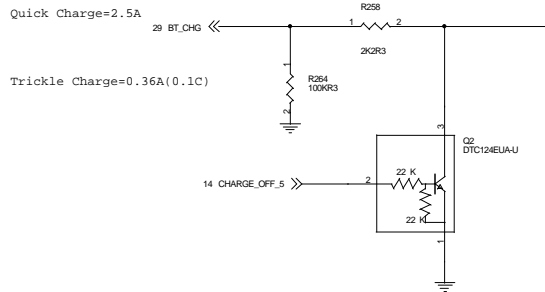
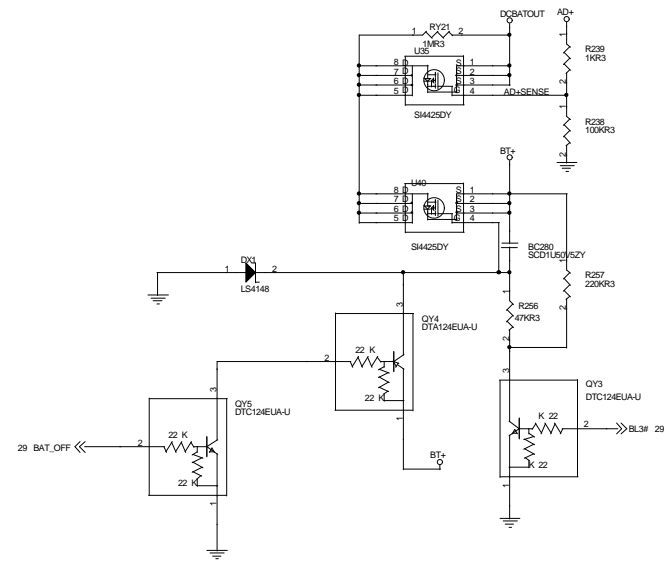
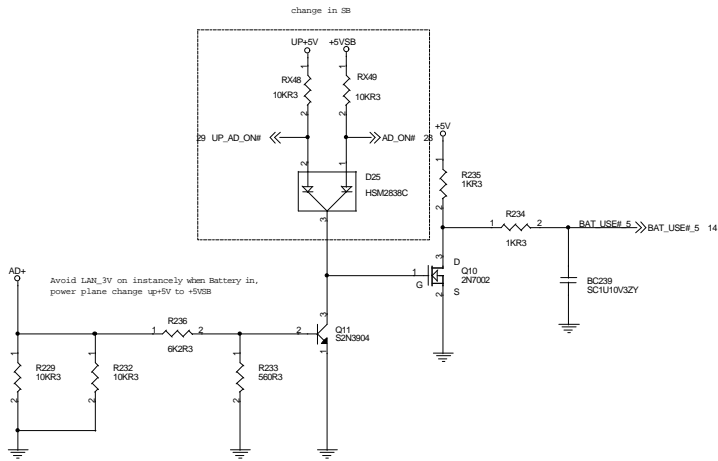


### GENERATE PWRGOOD SIGNAL

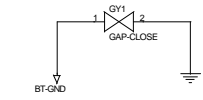




**GENERATE UP\_AD\_ON# AND BAT\_USE#\_5 SIGNALS**



The GAP is near MAX745 Pin16



Charge Voltage setting

$$V_{batt} = 3 * (V_{ref} + (V_{adj} - 1/2 V_{ref}) / 9.523)$$

$$V_{adj} = V_{ref} = 4.2V$$

$$V_{batt} = 15.8V$$

Charge Current setting

$$I_{cs} = 195mv / R_{sense} = 3.7A$$

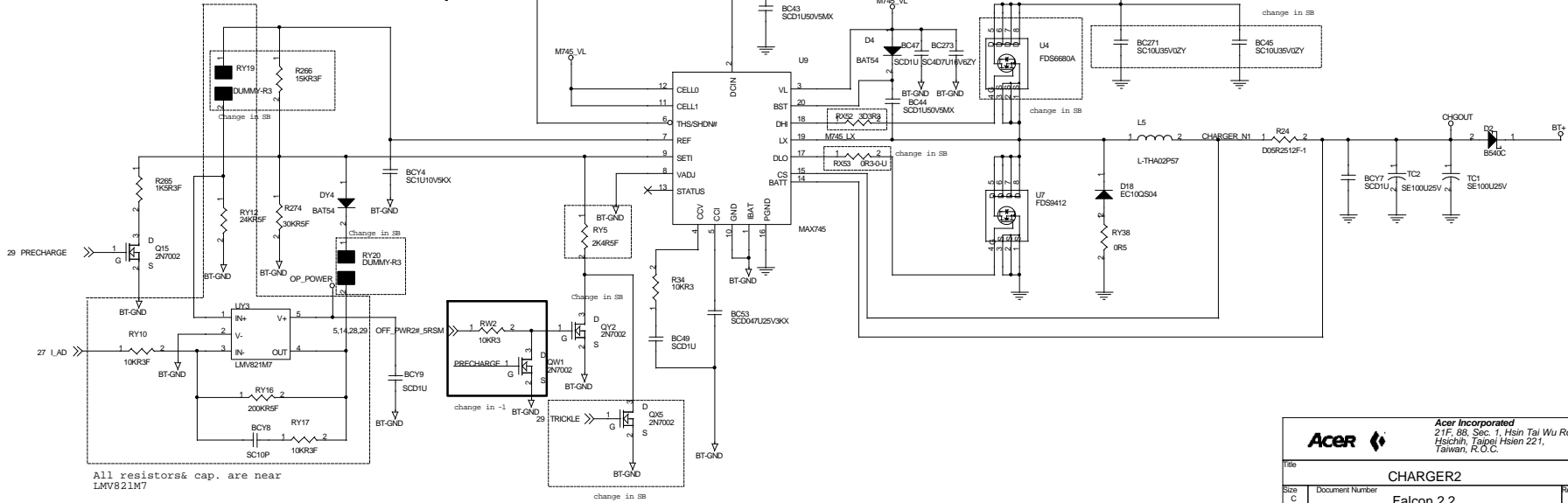
$$I_{chg} = I_{cs} * (V_{set1} / V_{ref})$$

$$V_{set1} = 2.84V$$

$$V_{ref} = 3.3126V$$

$$I_{chg} = 2.5A (\text{quick charge})$$

$$I_{pre} = 0.36A$$



Keyboard matrix

	US	Jap	Europe	US international
SW1-1	OFF	ON	OFF	OFF
SW1-2	OFF	OFF	ON	OFF
SW1-3	X	X	X	X

OEM Logo setting

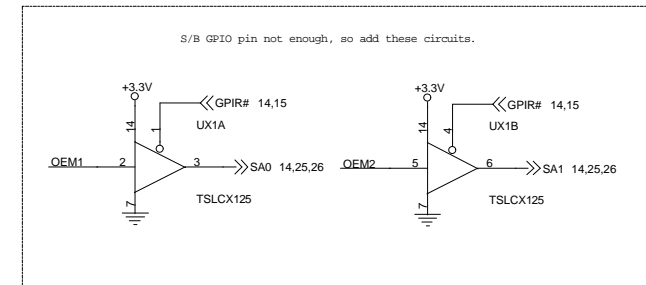
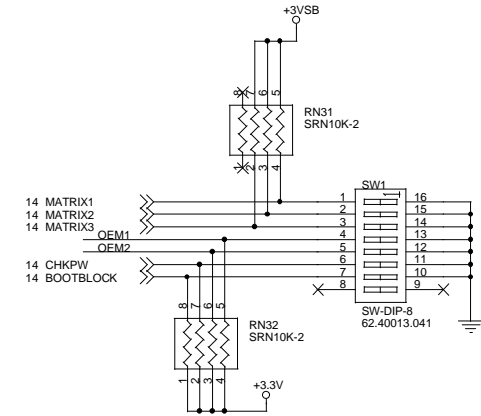
	ACER	HITACHI	OEM2	OEM3
SW1-4	OFF	ON	OFF	ON
SW1-5	OFF	OFF	ON	ON

CHKPW

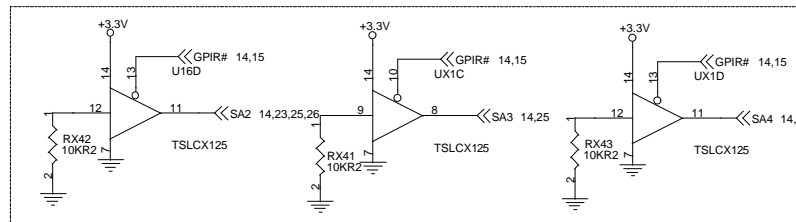
	Enable	Disable
SW1-6	ON	OFF

BIOS Bootblock erasable

	Enable	Disable
SW1-7	ON	OFF

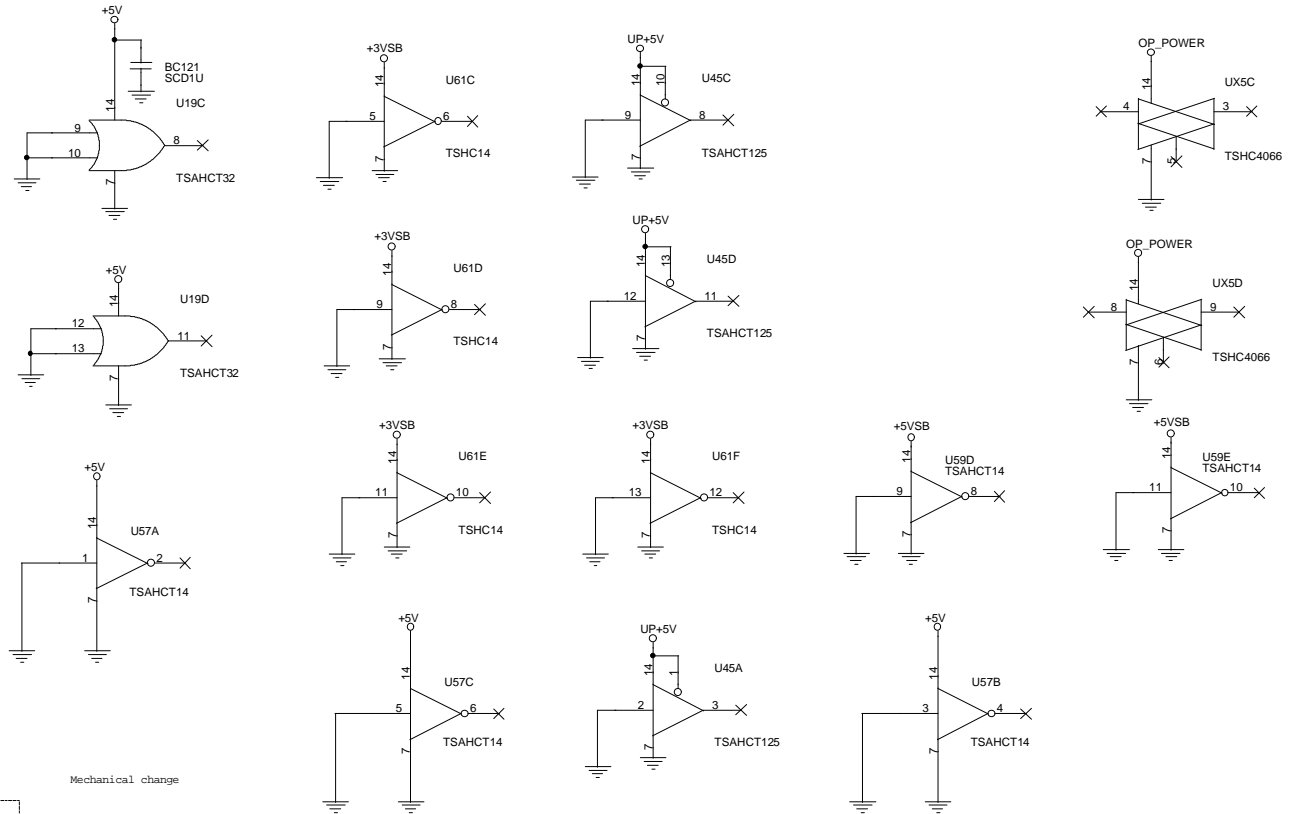


change in SB



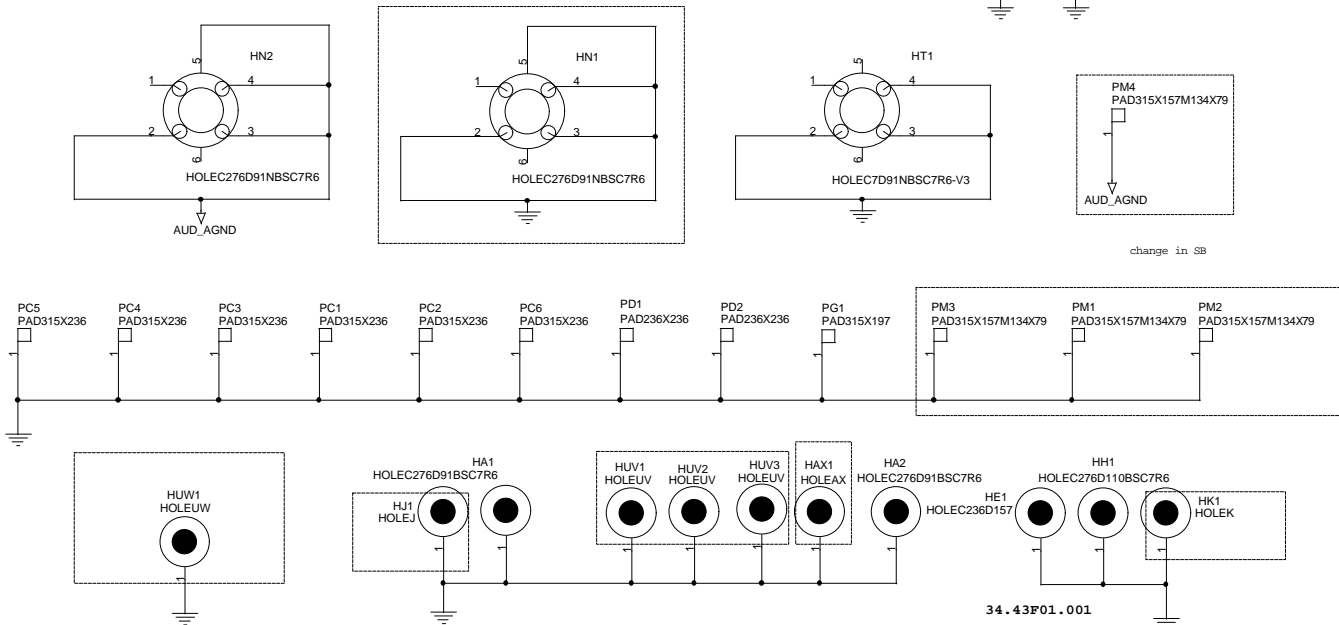
# Signal Voltage Level Label Name Rule

VOLTAGE	SIGNAL LABEL	EXPLANATION
+1.6V	XXX_1 HA[3..31] HD[0..63]	CPU GTL CPU ADDRESS CPU DATA
+2.5V	XXX_2	CPU I/O
+3.3V	XXX_3 MA[0..13] MD [0..63] AD[0..31] GAD[0..31] LCDDO[0..23]	PCI CONTROL , etc.. MEMORY ADDRESS MEMORY DATA PCI AD BUS AGP AD BUS LCD LOGIC DATA
+5V	XXX_5 SA[0..19] SD[0..15]	ISA CONTROL , etc.. ISA ADDRESS ISA DATA
+5VSB	XXX_5RSM	RESUME WELL SIGNAL
	XXX_DX	AFTER DAMPING RESISTER



Mechanical change

change in SB



34.43F01.001

<b>Acer</b>		<i>Acer Incorporated</i> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>NO USE GATES</b>			
Size A3	Document Number <b>Falcon 2.2</b>	Rev <b>1</b>	
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### (Near CPU)

- TP121 Ⓞ PCLKCPU\_D2 3,4
- TP123 Ⓞ HTRDY#\_1 4,8
- TP122 Ⓞ DRDY#\_1 4,8
- TP128 Ⓞ INIT#\_1 4,6
- TP19 Ⓞ IGNE#\_1 4,6
- TP129 Ⓞ SMI#\_1 4,6
- TP16 Ⓞ INTR\_1 4,6
- TP125 Ⓞ HITM#\_1 4,8
- TP20 Ⓞ A20M#\_1 4,6
- TP1 Ⓞ CPURST#\_1 4,8
- TP127 Ⓞ STPCLK#\_1 4,6
- TP18 Ⓞ NMI\_1 4,6
- TP119 Ⓞ HD0 4,8
- TP3 Ⓞ HD57 4,8
- TP126 Ⓞ FERR#\_1 4,6
- TP124 Ⓞ HIT#\_1 4,8
- TP118 Ⓞ BREQ0#\_1 4,8

### (Near N/B)

- TP52 Ⓞ PCLK21\_D3 3,8
- TP34 Ⓞ 21\_REQ2#\_3 8,9,17
- TP42 Ⓞ PAR\_3 8,9,14,17,22
- TP36 Ⓞ STOP#\_3 8,9,14,17,22
- TP131 Ⓞ DEVSEL#\_3 8,9,14,17,22
- TP41 Ⓞ IRDY#\_3 8,9,14,17,22
- TP37 Ⓞ TRDY#\_3 8,9,14,17,22
- TP39 Ⓞ FRAME#\_3 8,9,14,17,22
- TP46 Ⓞ C/BE#0 8,9,14,17,22
- TP30 Ⓞ PCIRST#\_3 3,8,11,14,17,22
- TP51 Ⓞ AD0 8,14,17,22
- TP31 Ⓞ AD25 8,14,17,22
- TP32 Ⓞ 21\_REQ1#\_3 8,9,22
- TP59 Ⓞ MD0 8,10
- TP73 Ⓞ MD57 8,10
- TP62 Ⓞ HCLK1621\_D2 3,8
- TP61 Ⓞ ADS#\_1 4,8
- TP49 Ⓞ HA3 4,8
- TP47 Ⓞ HA25 4,8
- TP29 Ⓞ HD0 4,8
- TP40 Ⓞ HD57 4,8
- TP72 Ⓞ GAD\_STBA 8,9,11
- TP63 Ⓞ GAD\_STBB 8,9,11
- TP54 Ⓞ GSB\_STB 8,9,11
- TP57 Ⓞ GRBF# 8,9,11
- TP55 Ⓞ GSBA0 8,11
- TP58 Ⓞ GSBA7 8,11

### (Near VGA)

- TP43 Ⓞ AGPCLKO 8,11
- TP50 Ⓞ GGNT#\_3 8,9,11
- TP44 Ⓞ GREQ#\_3 8,9,11
- TP56 Ⓞ GPAR\_3 8,9,11
- TP45 Ⓞ GSTOP#\_3 8,9,11
- TP60 Ⓞ GDEVSEL#\_3 8,9,11
- TP65 Ⓞ GIRDY#\_3 8,9,11
- TP66 Ⓞ GTRDY#\_3 8,9,11
- TP64 Ⓞ GFRAME#\_3 8,9,11
- TP68 Ⓞ GC/BE#0 8,11
- TP21 Ⓞ PCIRST#\_3 3,8,11,14,17,22
- TP67 Ⓞ GAD0 8,11
- TP53 Ⓞ GAD25 8,11
- TP35 Ⓞ GST0 8,11
- TP38 Ⓞ GST1 8,11
- TP48 Ⓞ GST2 8,11

### (Near S/B)

- TP104 Ⓞ PCLK35\_D3 3,14
- TP94 Ⓞ CLKRUN#\_3 8,9,14,17,22
- TP91 Ⓞ AD0 8,14,17,22
- TP98 Ⓞ AD25 8,14,17,22
- TP85 Ⓞ STOP#\_3 8,9,14,17,22
- TP86 Ⓞ DEVSEL#\_3 8,9,14,17,22
- TP97 Ⓞ IRDY#\_3 8,9,14,17,22
- TP96 Ⓞ TRDY#\_3 8,9,14,17,22
- TP90 Ⓞ FRAME#\_3 8,9,14,17,22
- TP92 Ⓞ C/BE#0 8,9,14,17,22
- TP95 Ⓞ PCIRST#\_3 3,8,11,14,17,22
- TP83 Ⓞ PAR\_3 8,9,14,17,22
- TP103 Ⓞ 14M35\_D3 3,14
- TP109 Ⓞ 48M35\_D3 3,14
- TP105 Ⓞ CLK32KO\_5RSM 14,15
- TP108 Ⓞ PIDA0 14,16
- TP100 Ⓞ PID0 14,16
- TP89 Ⓞ SIDA0 14,16
- TP93 Ⓞ SID0 14,16
- TP87 Ⓞ SB\_FERR#\_3 6,14

### (Near CARDBUS)

- TP130 Ⓞ PCLKCARD\_D3 3,17
- TP6 Ⓞ 21\_GNT2#\_3 8,9,17
- TP4 Ⓞ AD0 8,14,17,22
- TP9 Ⓞ AD25 8,14,17,22
- TP15 Ⓞ STOP#\_3 8,9,14,17,22
- TP13 Ⓞ DEVSEL#\_3 8,9,14,17,22
- TP14 Ⓞ IRDY#\_3 8,9,14,17,22
- TP10 Ⓞ TRDY#\_3 8,9,14,17,22
- TP11 Ⓞ FRAME#\_3 8,9,14,17,22
- TP8 Ⓞ C/BE#0 8,9,14,17,22
- TP7 Ⓞ PCIRST#\_3 3,8,11,14,17,22
- TP12 Ⓞ PAR\_3 8,9,14,17,22

### (Near LAN)

- TP17 Ⓞ PCLKLN\_D3 3,22
- TP24 Ⓞ 21\_GNT1#\_3 8,9,22
- TP84 Ⓞ AD0 8,14,17,22
- TP99 Ⓞ AD25 8,14,17,22
- TP26 Ⓞ STOP#\_3 8,9,14,17,22
- TP27 Ⓞ DEVSEL#\_3 8,9,14,17,22
- TP33 Ⓞ IRDY#\_3 8,9,14,17,22
- TP22 Ⓞ TRDY#\_3 8,9,14,17,22
- TP28 Ⓞ FRAME#\_3 8,9,14,17,22
- TP23 Ⓞ C/BE#0 8,9,14,17,22
- TP5 Ⓞ PCIRST#\_3 3,8,11,14,17,22
- TP25 Ⓞ PAR\_3 8,9,14,17,22


# Revision History

## Rev. SA

1. modify CPU power DCBATOUT for EMI(p.5)
2. uninstall R119,install R120 0 Ohm(p.17)
3. add a switch UY5 for ZV video signal(p.18)
4. install C18,C29 22P for EMI (p.19)
5. add RY35(p.28)
6. add LY1,LY2,RX36,RX37 for EMI(p.28)
7. add LY3,RX38 for EMI (p.30)

## Rev. SB

1. add UX6, U65F for HCLKCPU sequence(p.3)
2. mount R359, dismount R369 for speed spectrum(p.3)
3. change R420, R399 from 1K to 0 ohm(p.3)
4. change U58 to ICS9112-17(p.3)
5. change R28 to 56.2 ohm(p.4)
6. add RX28.RX29 for damping(p.5)
7. change DIMM socket change to AMP(p.10)
8. mout R323 150 ohm, R321 100 ohm(p.11)
9. change R110,R114 to 10 ohm(p.11)
10. change R262 to 0 ohm (p.12)
11. add CNX5, RX50, RX51, BCX28, BCX29 for S-Video(p.13)
12. mount C8,C56 22p(p.14)
13. add QX4 for E-Mail LED(p.15)
14. add UX2 for factory test flow(p.16)
15. add UX3 for modem tone pre-amp (p.17)
16. add GX1 for digital and Audio ground
17. change R200,R203 to 330K lower down Buzzer sound(p.20)
18. add RX54,RX55,BCX33,BCX34 to JK1 for EMI(p.22)
19. CN17 pin3,pin4 connect to GND(p.22)
20. remove FDD fuse F5(p.25)
21. add damping resistor RX35,RX36,RX37(p.25)
22. remove Q20 to CPU bottom side (p.26)
23. change BC52 to 10UF(p.26)
24. add RX38,BCX27 for AD\_OFF\_5(p.27)
25. add DX3 (p.27)
26. change RX22 from 100K to 47K ohm
27. add RX56,RX57,RX58,RX59 for DC/DC damping(p.28)
28. add QX6 for reverse charge led polarity(p.29)
29. add UX4,UX5 for charge EEPROM(p.29)
30. add D25 (p.30)
31. add RX52,RX53 for charger damping(p.30)
32. dismount RY19,RX20, mount RY5 (p.30)
33. add QX5 for trickle charge(p.30)
34. add U16D,UX1C,UX1D for OEM setting(p.31)

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