MS-6530

Version 1.0
06/27/2001 Update

INTEL (R) Brookdale Chipset
Willamette/Northwood 478pin mPGA-B Processor Schematics

CPU:

Willamette/Northwood mPGA-478B Processor

System Brookdale Chipset:

INTEL MCH (North Bridge) +
INTEL ICH2 (South Bridge)

On Board Chipset:

BIOS -- FWH
AC'97 Codec -- AD1881/1885
LPC Super I/O -- W83627HF
Clock Generation -- CY28324
/ICS950208
LAN -- INTEL 82562ET/EM

Expansion Slots:

AGP2.0 SLOT * 1
PCI2.2 SLOT *3
CNR SLOT *0
ISA SLOT * 1 (Share PCI3)

Option :

A -> Without LAN
T -> Support CPU Thermstrip Function

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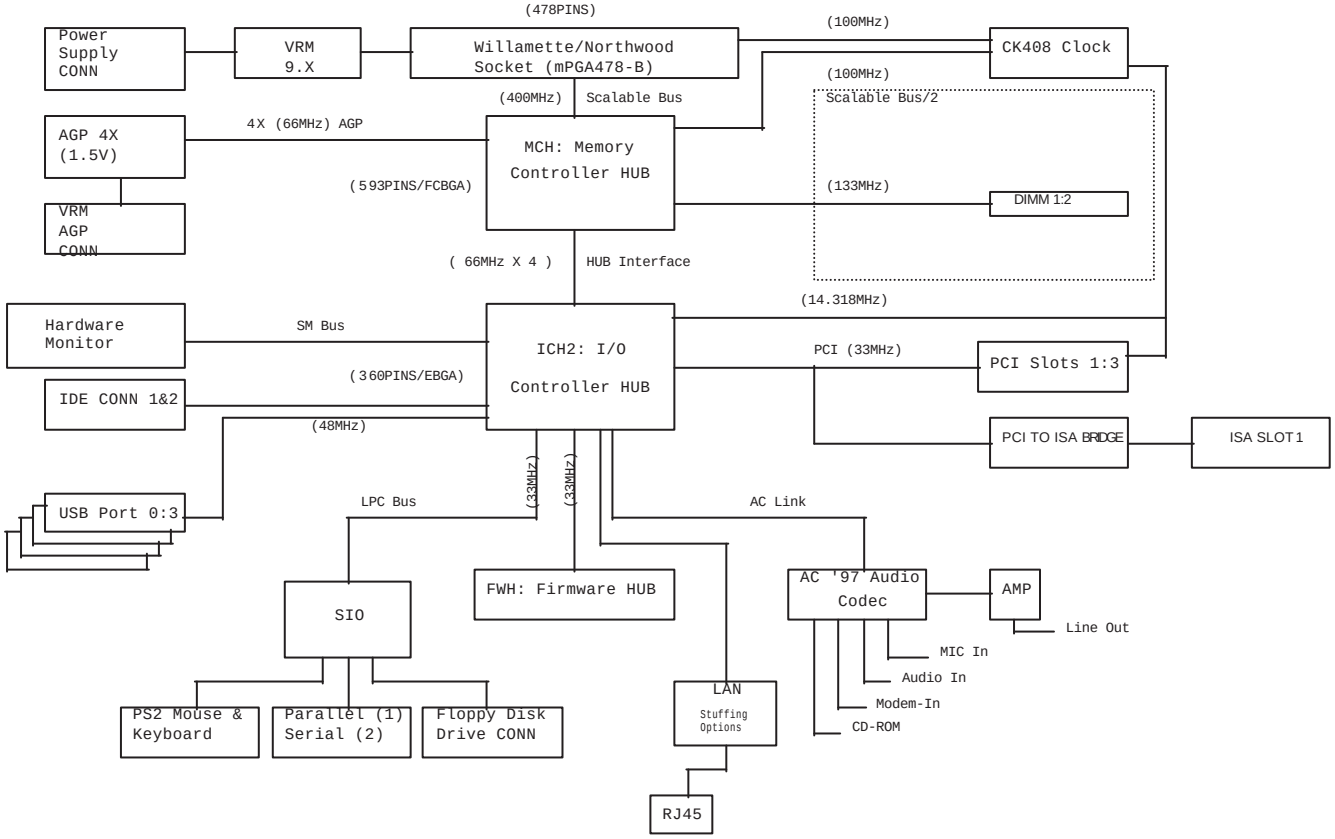

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General Purpose I/O Spec.

ICH2

GPIO Pin	PIN #	Type	Function
GPIO 0	M3	I	PCI TO ISA REQA#
GPIO 1	L3	I	Not Using (PREQ#5)
GPIO 2	N3	I	Not Using (INTE#)
GPIO 3	N2	I	Not Using (INTF#)
GPIO 4	N1	I	Not Using (INTG#)
GPIO 5	M4	I	Not Using (INTH#)
GPIO 6	Y11	I	Reserved for futuer
GPIO 7	AA11	I	Non Connect
GPIO 8	Y14	I	LAN Wake Up
GPIO 9	Y22	I	AC'97 Serial Data In 0
GPIO 10		I	Non Connect
GPIO 11	AB17	I	Not Using (SMB_ALERT)
GPIO 12	W14	I	External SMI
GPIO 13	AB15	I	LPC PME
GPIO 14~15		I	Not Implemented
GPIO 16	L2	O	PCI TO ISA GNTA#
GPIO 17	L4	O	Non Connect
GPIO 18	A15	O	Non Connect
GPIO 19	D14	O	Non Connect
GPIO 20	C14	O	Non Connect
GPIO 21	L1	O	PCI TO ISA NOGO
GPIO 22	B14	OD	Non Connect
GPIO 23	A14	O	BIOS Locked/Unlocked
GPIO 24	V21	O	Reserved for futuer
GPIO 25	W15	O	LAN Enable/Disable Detected
GPIO 26		O	Non Connect
GPIO 27	AB14	I/O	Non Connect
GPIO 28	AA14	I/O	LAN ENABLE/DISABLE
GPIO 29~31		I/O	Not Implemented

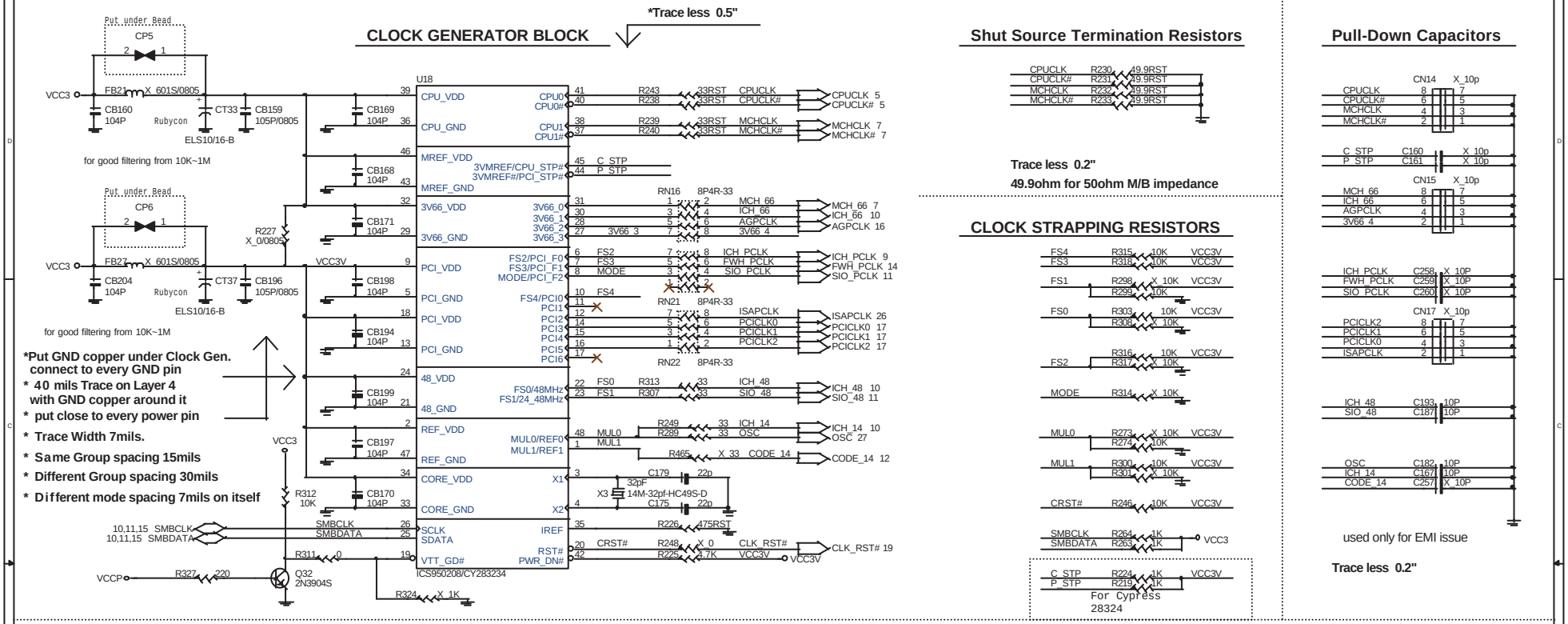
FWH

GPIO Pin	PIN #	Type	Function
GPI 0	6	I	ATA IDE 1 Detect
GPI 1	5	I	ATA IDE 2 Detect
GPI 2	4	I	Not Using
GPI 3	3	I	Not Using

SIO

GPIO Pin	PIN #	Type	Function
GP32	71	I/OD	Non Connect
GP24	89	I/OD	Non Connect
GP34	69	I/OD	Non Connect
GP33	70	I/OD	Non Connect

DEVICE	ICH INT Pin	IDSEL
PCI Slot 1	INTA# INTB# INTC# INTD#	AD16
PCI Slot 2	INTB# INTC# INTD# INTA#	AD17
PCI Slot 3	INTC# INTD# INTA# INTB#	AD18
ISA SLOT		AD22



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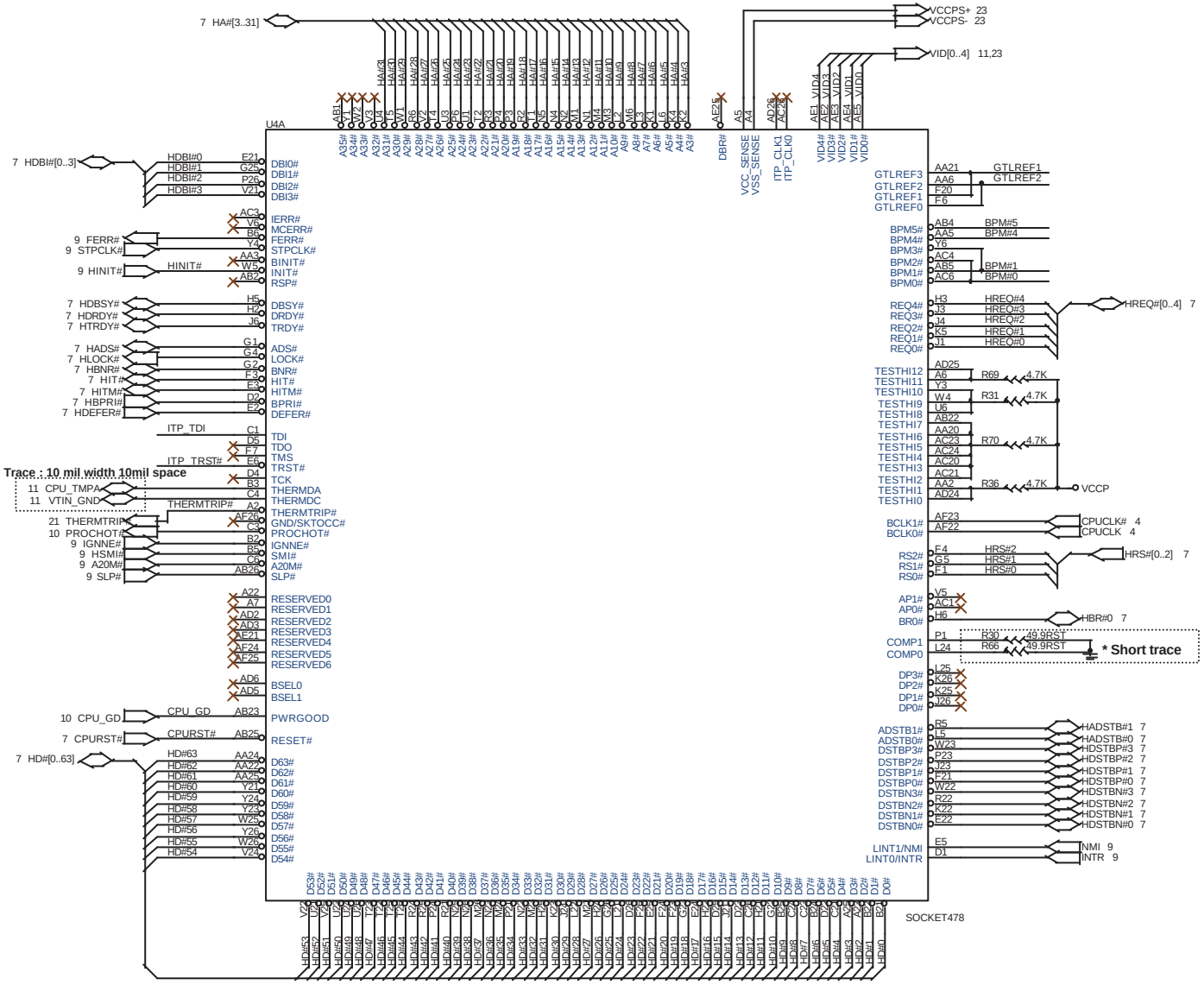
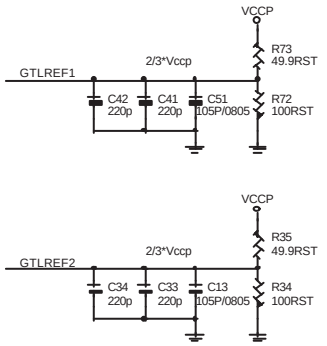
CPU SIGNAL BLOCK



CPU GTL REFERNCE VOLTAGE BLOCK

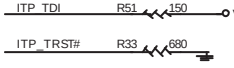


Every pin put one 220pF cap near it.

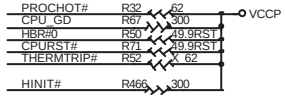
Trace Width 15mils, Space 15mils.

Keep the voltage dividers within 1.5 inches of the first GTLREF Pin

CPU STRAPPING RESISTORS



ALL COMPONENTS CLOSE TO CPU



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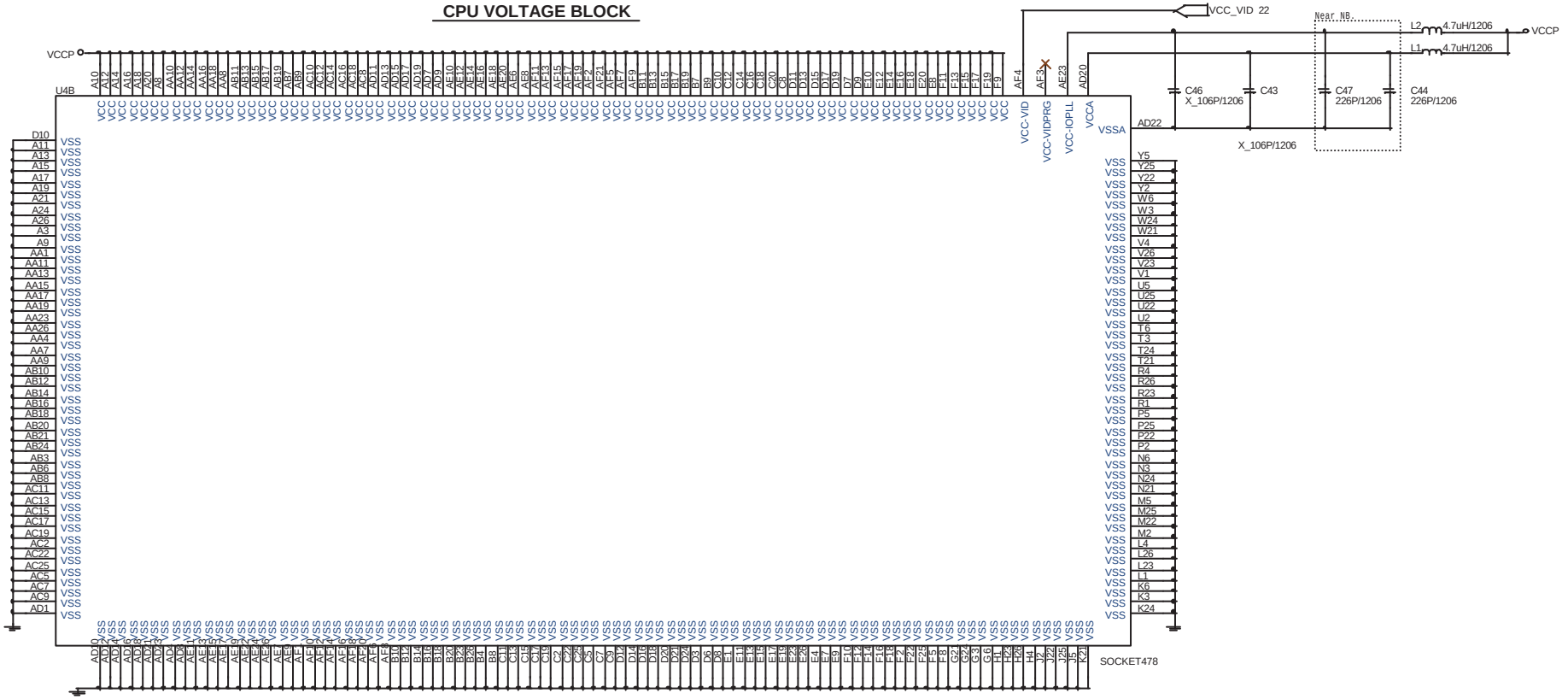
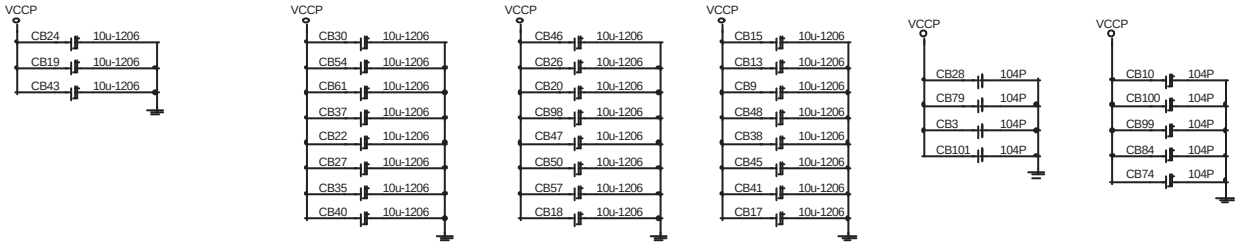
CPU VOLTAGE BLOCK

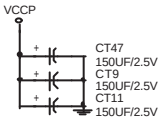


CPU DECOUPLING CAPACITOR



PLACE CAPS WITHIN CPU CAVITY

CPU DECOUPLING CAPACITORS



PLACE CAPS WITHIN CPU CAVITY SOLDER

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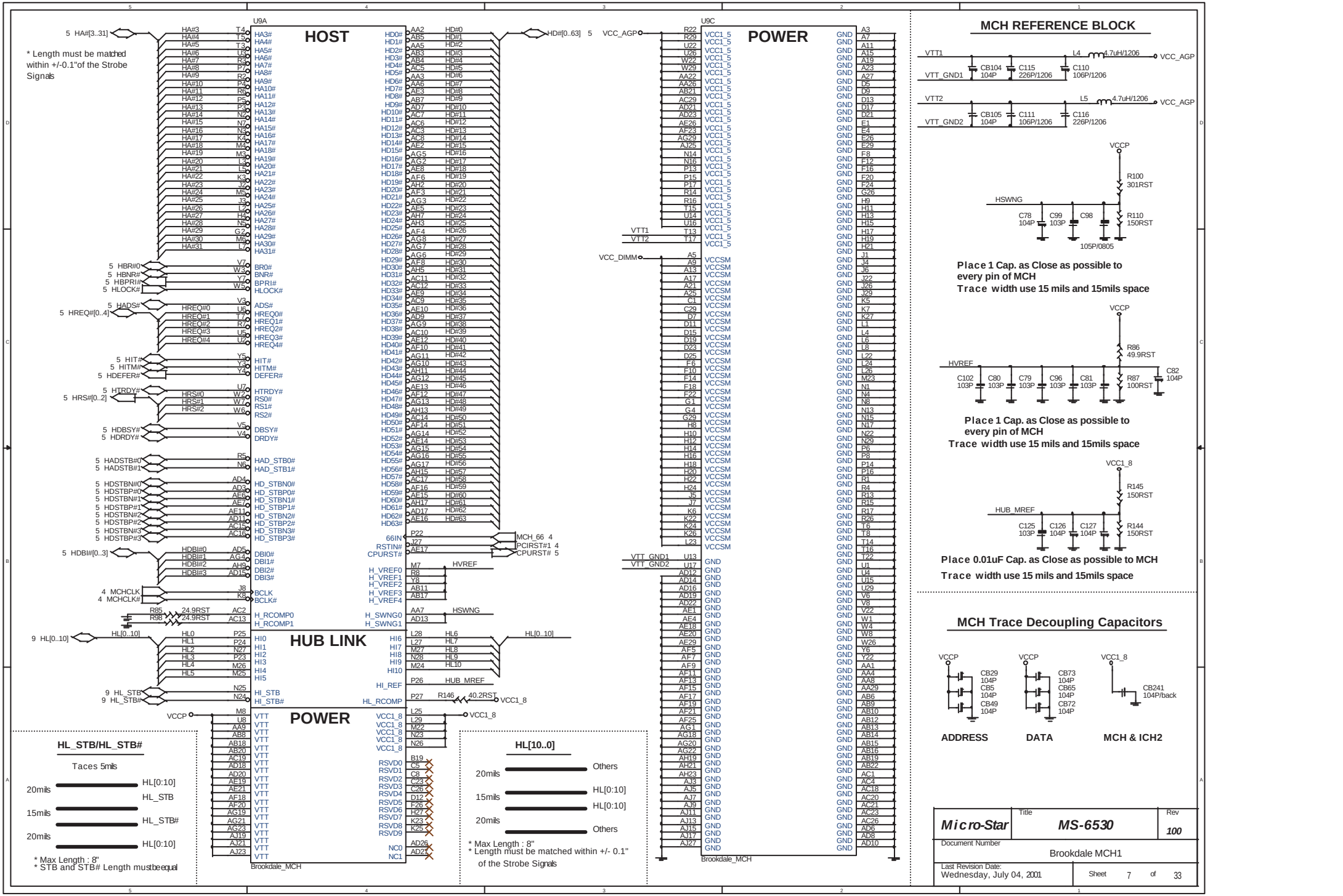
HOST
POWER
HUB LINK
POWER
U9A
U9C
* Length must be matched within +/-0.1"of the Strobe Signals
HL_STB/HL_STB#
Taces 5mils
20mils HL[0:10]
15mils HL_STB
20mils HL_STB#
20mils HL[0:10]
* Max Length : 8"
* STB and STB# Length must be equal
HL[10..0]
20mils Others
15mils HL[0:10]
20mils HL[0:10]
20mils Others
* Max Length : 8"
* Length must be matched within +/- 0.1" of the Strobe Signals
Brookdale_MCH
Brookdale_MCH
MCH REFERENCE BLOCK
VTT1
VTT_GND1
L4 4.7uH/1206
VCC_AGP
CB104 104P
C115 226P/1206
C110 106P/1206
VTT2
VTT_GND2
L5 4.7uH/1206
VCC_AGP
CB105 104P
C111 106P/1206
C116 226P/1206
VCCP
R100 301RST
HSWNG
C78 104P
C99 103P
C98
R110 150RST
105P/0805
Place 1 Cap. as Close as possible to every pin of MCH
Trace width use 15 mils and 15mils space
VCCP
R86 49.9RST
HVREF
C102 103P
C80 103P
C79 103P
C96 103P
C81 103P
R87 100RST
C82 104P
Place 1 Cap. as Close as possible to every pin of MCH
Trace width use 15 mils and 15mils space
VCC1_8
R145 150RST
HUB_MREF
C125 103P
C126 104P
C127 104P
R144 150RST
Place 0.01uF Cap. as Close as possible to MCH
Trace width use 15 mils and 15mils space
MCH Trace Decoupling Capacitors
VCCP
CB29 104P
CB5 104P
CB49 104P
ADDRESS
VCCP
CB73 104P
CB65 104P
CB72 104P
DATA
VCC1_8
CB241 104P/back
MCH & ICH2
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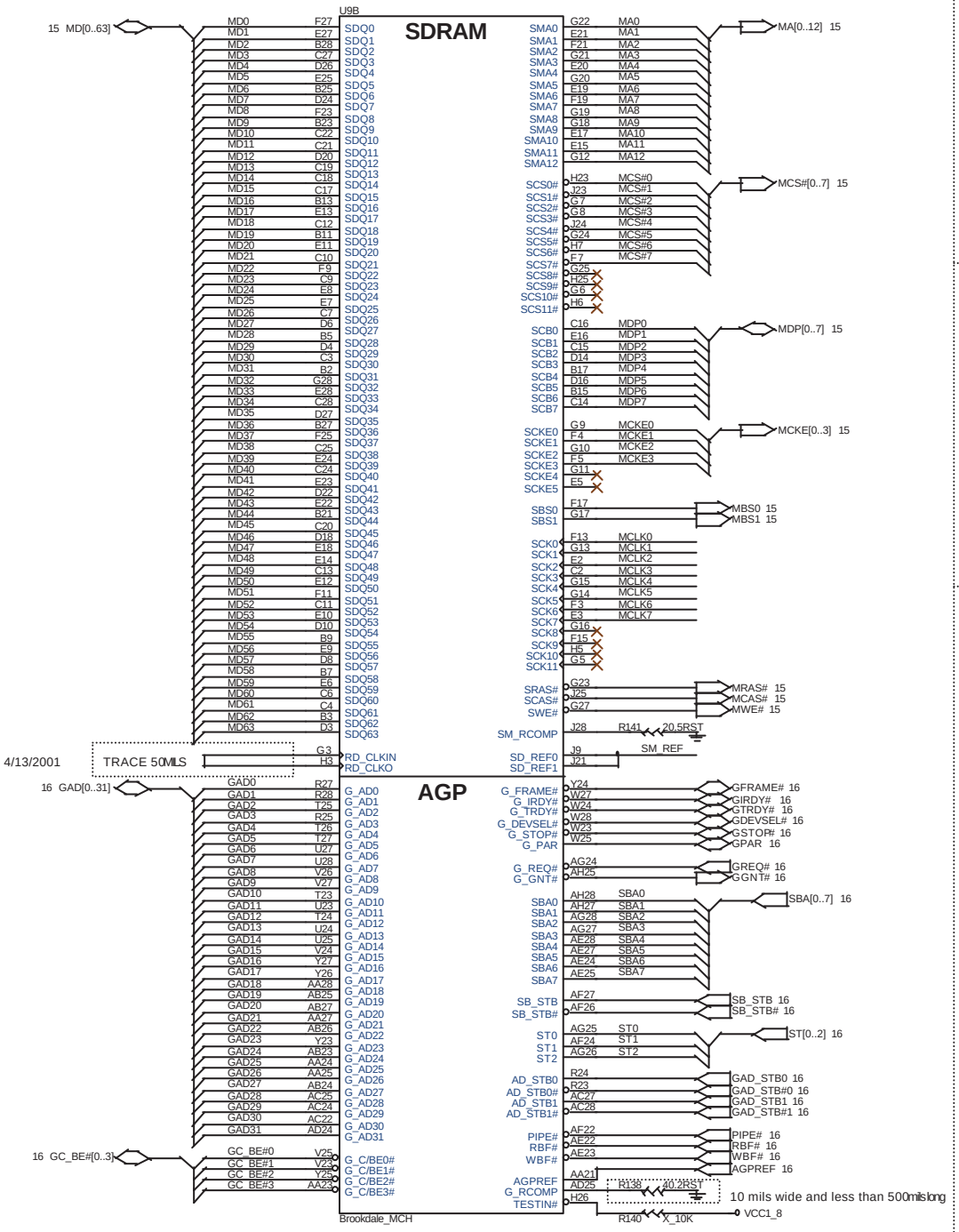
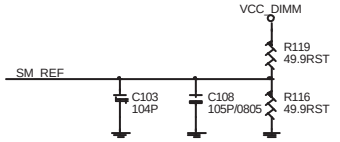
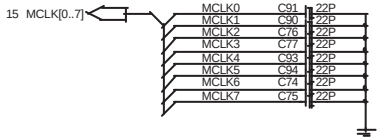


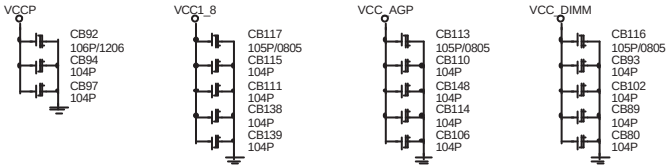
MCH REFERENCE VOLTAGE

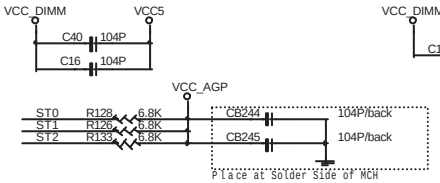


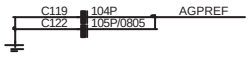
MCH MEMORY CLOCK RC CIRCUITS



MCH DECOUPLING CAPACITOR







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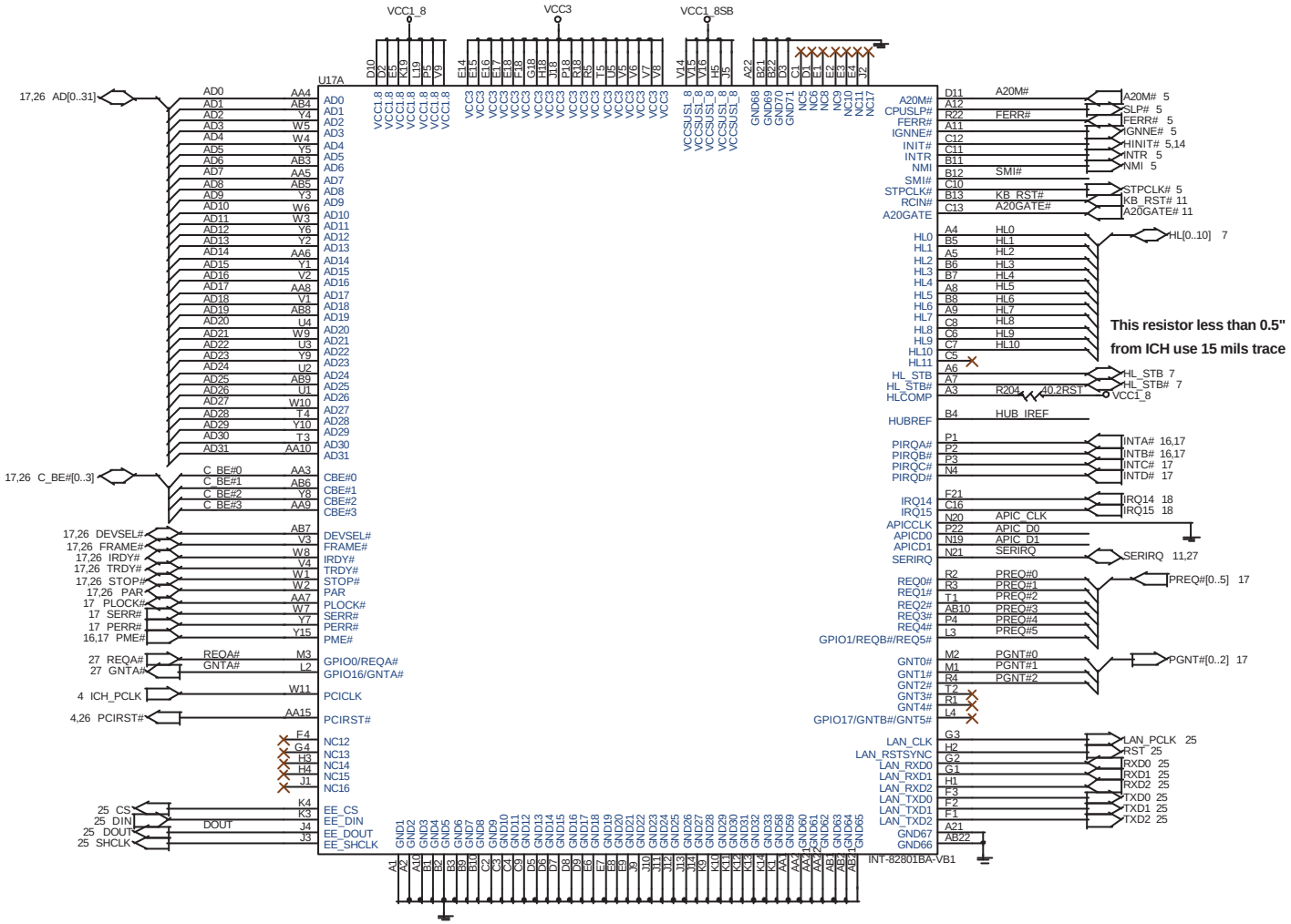
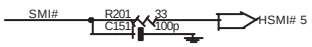
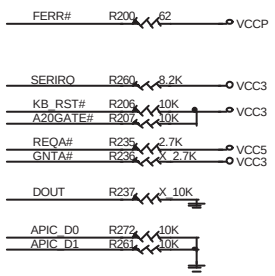
ICH2 PCI / HUB LINK / CPU / LAN / INTERRUPT SIGNALS



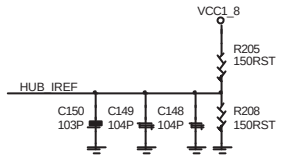
ICH2 SMI# SIGNAL



ICH2 STRAPPING RESISTORS



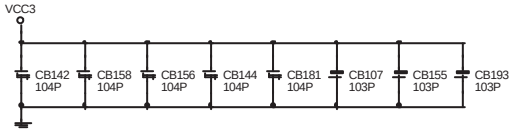
ICH2 REFERENCE VOLTAGE



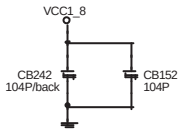
Place Cap. as Close as possible to ICH2

Trace width use 15 mils and 15mils space

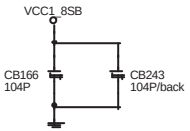
ICH2 DECOUPLING CAPACITORS



Place one 0.1U/0.01U pair in each corner and 2 on opposite sides close to ICH2 if it fit



Distribute near the 1.8V power pin of the ICH2



Distribute near the VCC1_8SB Power pin of the ICH2

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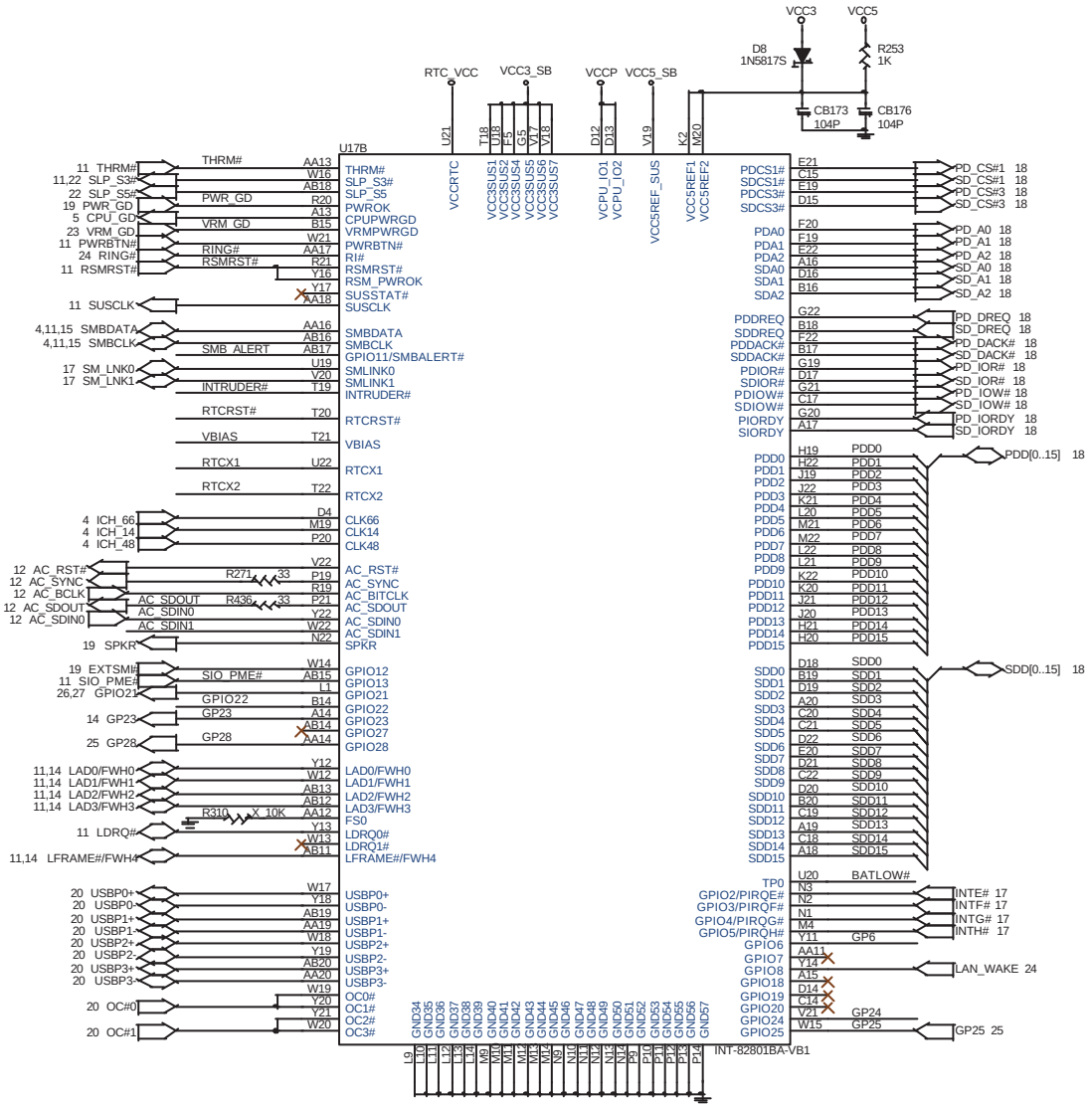
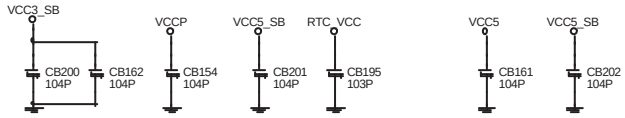
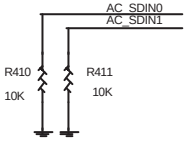
ICH2 ASIC / RTC / AC'97 / GPIO / LPC / USB / IDE SIGNALS



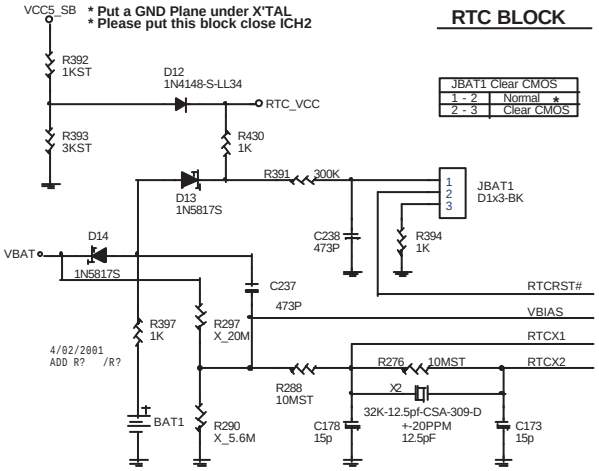
ICH2 DECOUPLING CAPACITOR



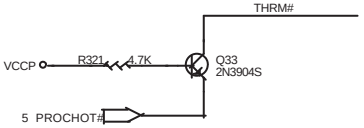
Distribute near the VCC3_SB power pin of the ICH



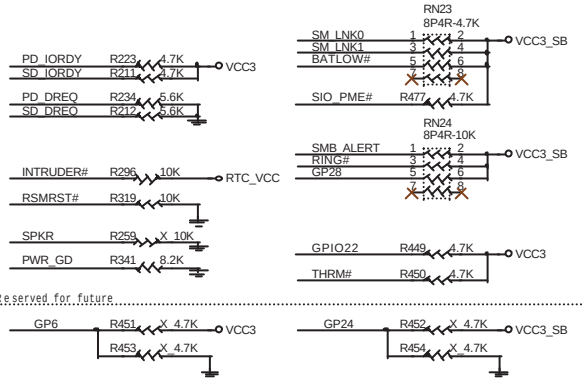
RTC BLOCK



PROCHOT BLOCK



ICH2 STRAPPING RESISTORS



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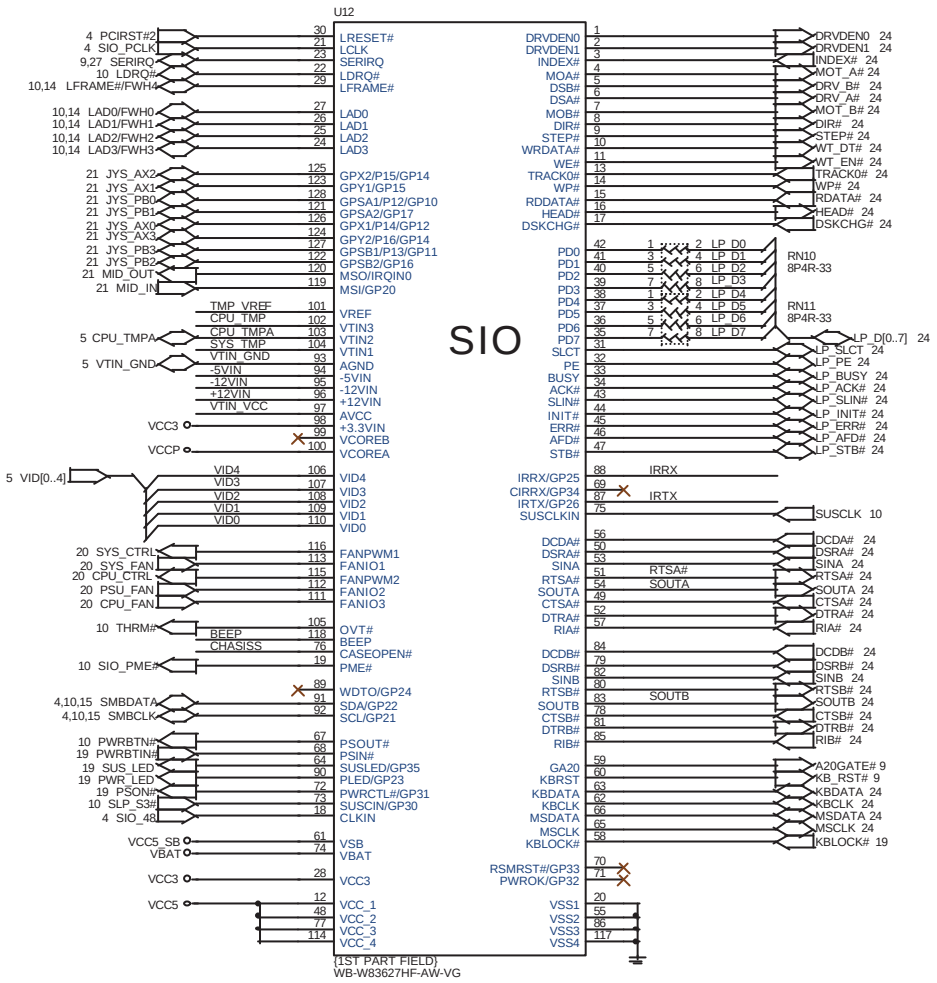
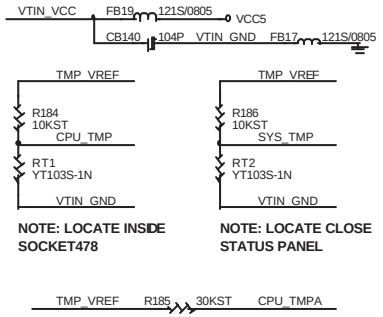
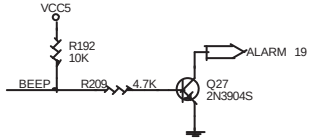
LPC SUPER I/O W83627HF



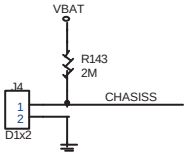
THERMAL RESISTOR BLOCK



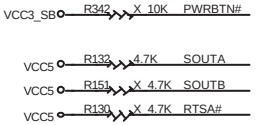
SPEAKER BLOCK



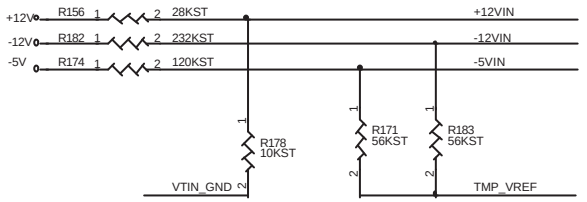
CHASSIS INTRUSION HEADER



SUPER I/O STRAPPING RESISTOR

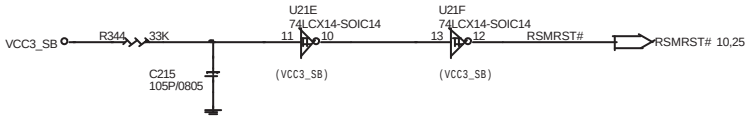


SOUTA	L: Disable KBC	H: Enable KBC
SOUTB	L: 24MHZ	H: 48MHZ
RTSA#	L: CFAD=2E	H: CFAD=4E
DTRA#	L: PNP Default	H: PNP no Default



RESUME RESET CIRCUIT BLOCK

Stuff all for D Version bug



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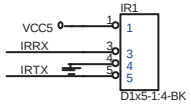
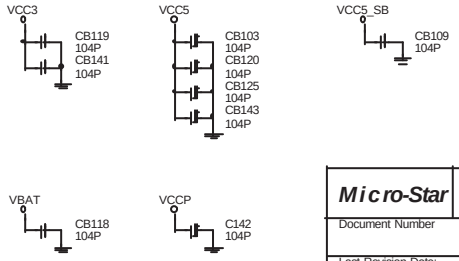


DECOUPLING CAPACITOR



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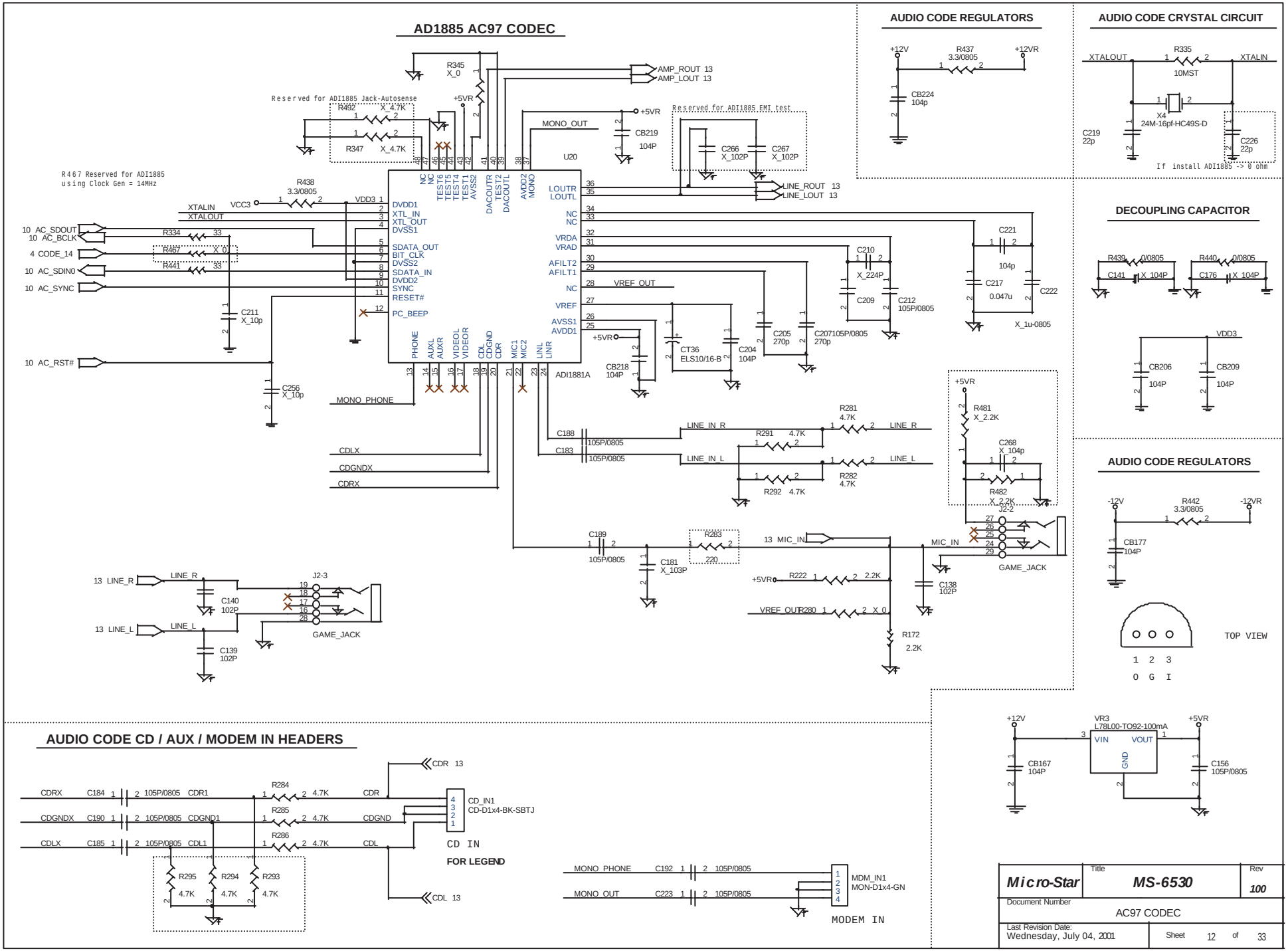
AD1885 AC97 CODEC
AUDIO CODE REGULATORS
AUDIO CODE CRYSTAL CIRCUIT
DECOUPLING CAPACITOR
AUDIO CODE REGULATORS
AUDIO CODE CD / AUX / MODEM IN HEADERS
ADI1881A
U20
GAME_JACK
J2-3
J2-2
CD IN
FOR LEGEND
MODEM IN
TOP VIEW
1 2 3
O G I
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AC97 CODEC
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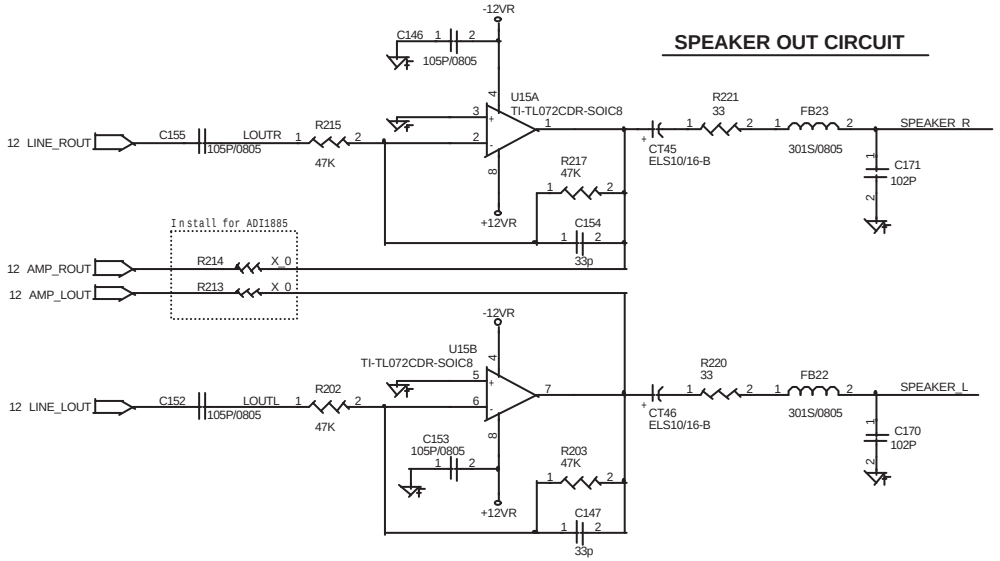
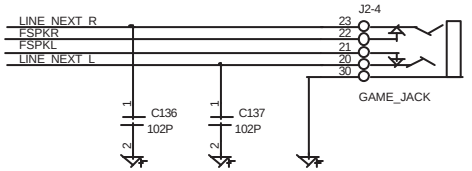
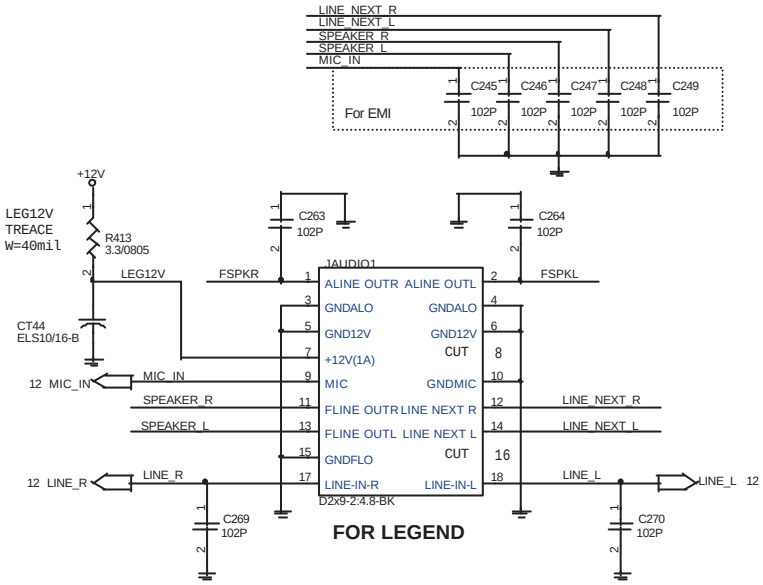
SPEAKER OUT CIRCUIT



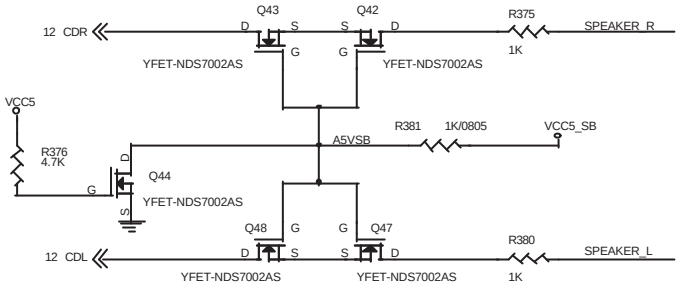
SPEAKER OUT JACK



FOR MSI INTERNAL HEADER



CD PANEL PLAY WITHOUT PC POWER_ON



Micro-Star	Title: MS-6530	Rev: 100
Document Number: Audio Amp TL072		
Last Revision Date: Wednesday, July 04, 2001	Sheet 13 of 33	

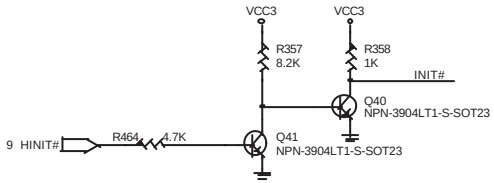
Not used

U24C
DM7407-SOIC14
5 6
(VCC5_SB)

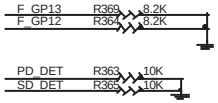
VCC3_SB

C242
104P

FWH INIT Signal Voltage Translation Block

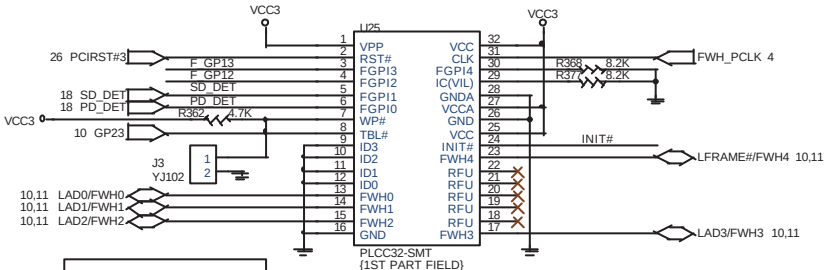


FWH RESISTORS



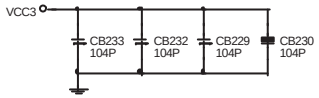
4/12/2001

Firware Hub (FWH)



J3 BIOS Update	
SHORT	Locked
* OPEN	Unlocked

FWH DECOUPLING CAPACITORS



Micro-Star	Title: MS-6530	Rev: 100
Document Number: FWH		
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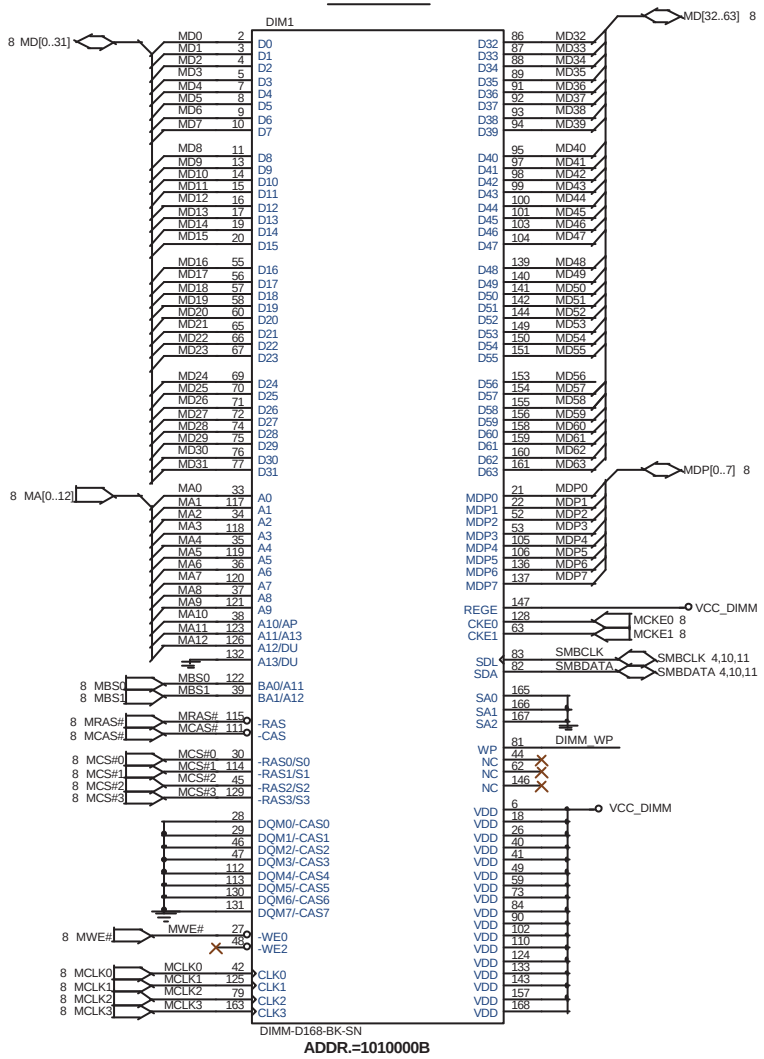
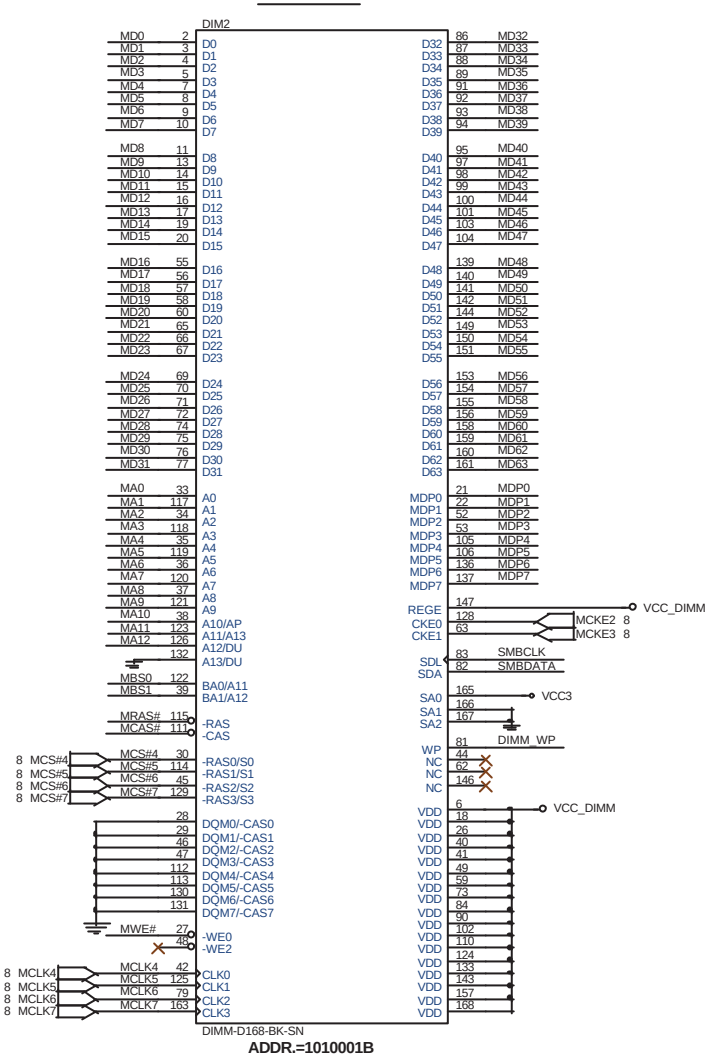
DIMM1



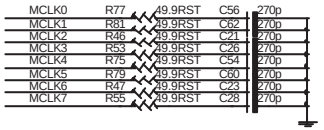
ADDR.=1010000B

DIMM2

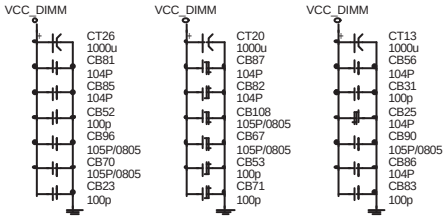


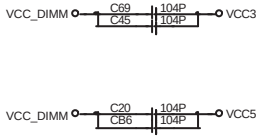
ADDR.=1010001B

DIMM CLOCK



DECOUPLING CAPACITORS





DIMM SPD WE BLOCK

Micro-Star	Title: MS-6530	Rev: 100
Document Number: DIMM 1 & 2		
Last Revision Date: Wednesday, July 04, 2001	Sheet 15 of 33	

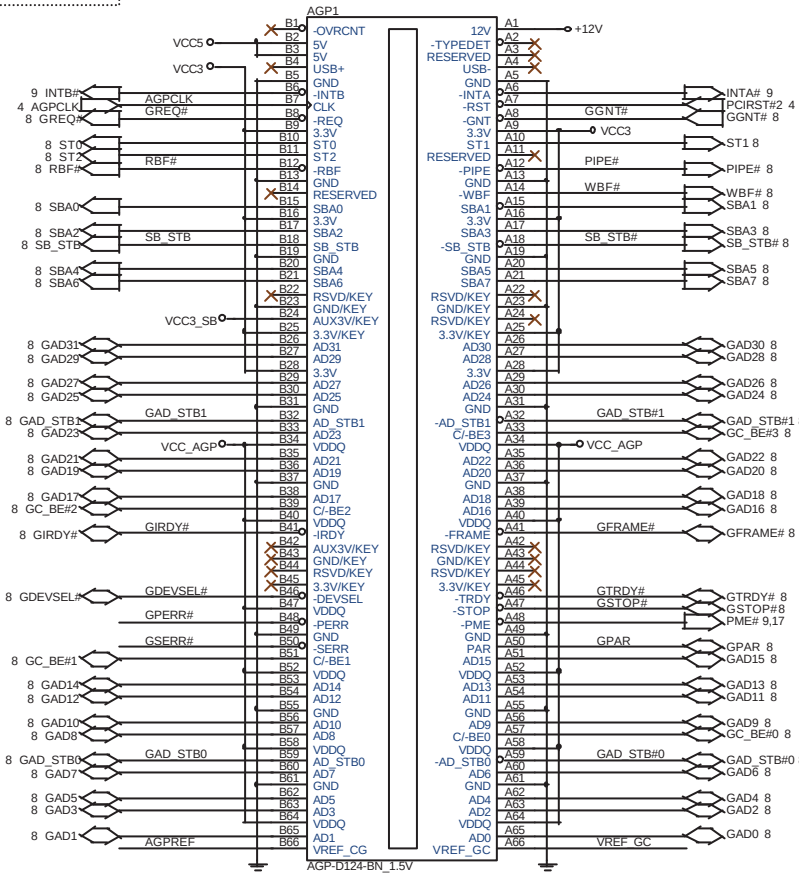
AGP UNIVERSAL 2X/4X SLOT(AGP VER:2.0 COMPLY)

VCC5 = 60mils trace / 15 mils space

AGP Slot Imax

VCC_AGP 8.0A
VCC3 6.0A
VCC12 1.0A
VCC5 2.0A

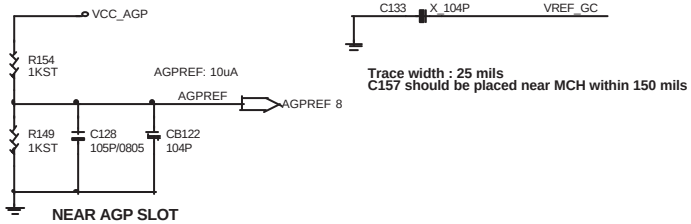
INTA#
INTB#



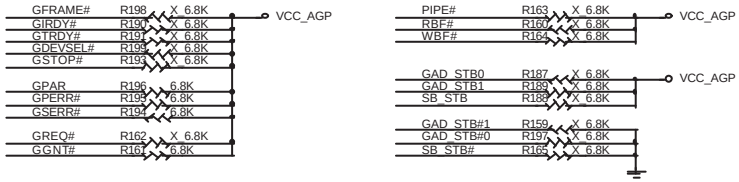
1X Timing group	2X/4X Timing group
AGPCLK PIPE# RBF# WBF# ST[2..0] GFRAME# GIRDY# GTRDY# GSTOP# GDEVSEL# GREQ# GGNT# GPAR	SET#1 GAD[15..0] GC_BE#[1..0] GAD_STB0 GAD_STB0# SET#2 GAD[31..16] GC_BE#[3..2] GAD_STB1 GAD_STB1# SET#3 SBA[7..0] SB_STB SB_STB#

SIGNALS	Maximum Length	Width	Space	Dismatch Length	Relative to
1X Timing group	7.5"	5 mil	5 mil	X	X
2X/4X Timing group SET#1	7.25"	5 mil	20 mil	+/- 0.125"	GAD_STB0 GAD_STB0#
2X/4X Timing group SET#2	7.25"	5 mil	20 mil	+/- 0.125"	GAD_STB1 GAD_STB1#
2X/4X Timing group SET#3	7.25"	5 mil	20 mil	+/- 0.125"	SB_STB SB_STB#
2X/4X Timing group SET#1	6"	5 mil	15 mil	+/- 0.25"	GAD_STB0 GAD_STB0#
2X/4X Timing group SET#2	6"	5 mil	15 mil	+/- 0.25"	GAD_STB1 GAD_STB1#
2X/4X Timing group SET#3	6"	5 mil	15 mil	+/- 0.25"	SB_STB SB_STB#

AGP SIGNAL REFERENCE CIRCUIT



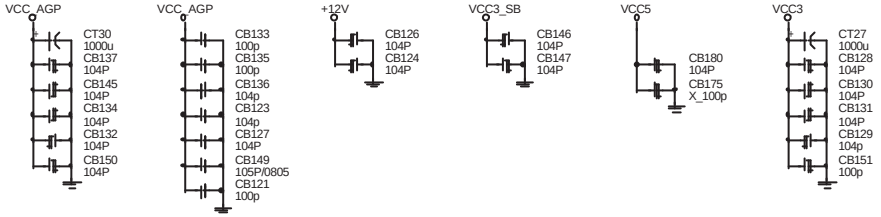
AGP TERMINATION RESISTORS

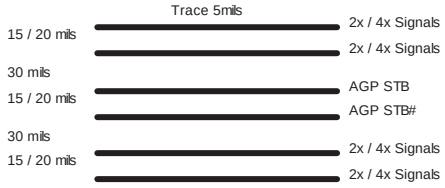


LESS 100MILS STUB TRACE LENGTH MUST BE FOLLOWING.

Place these resistors between PCI and AGP slot

AGP SLOT DECOUPLING CAPACITORS





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Document Number: AGP Slot			
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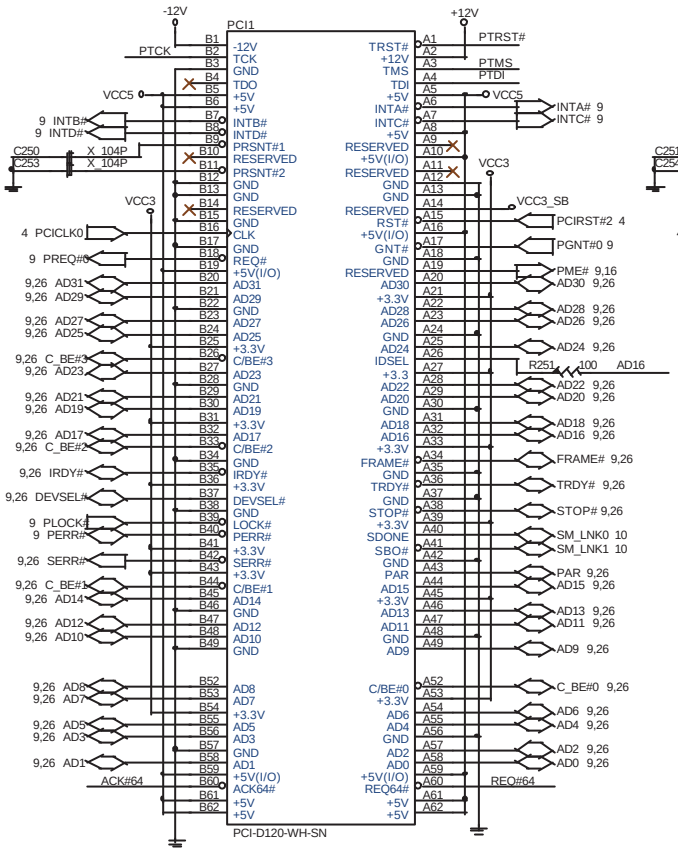
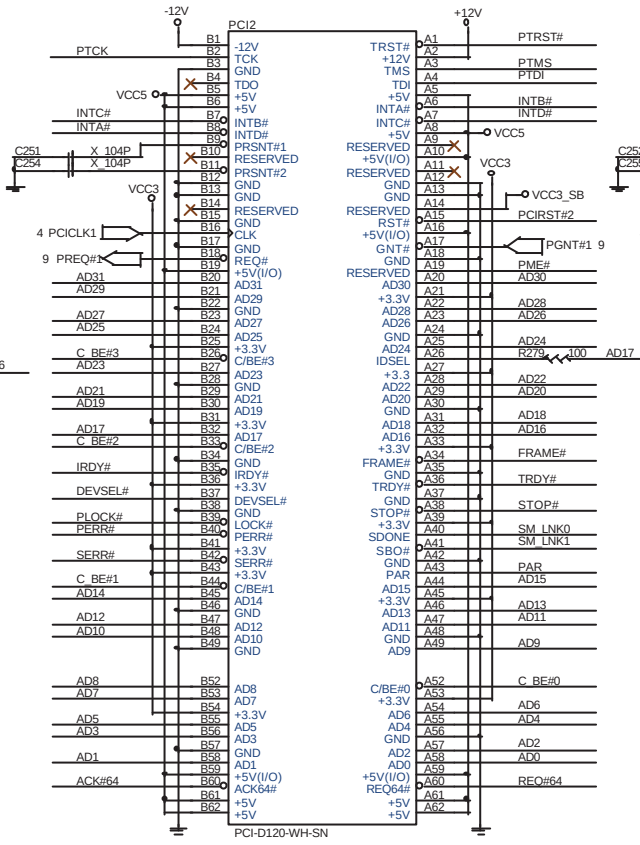
PCI SLOT 1 (PCI VER: 2.2 COMPLY)



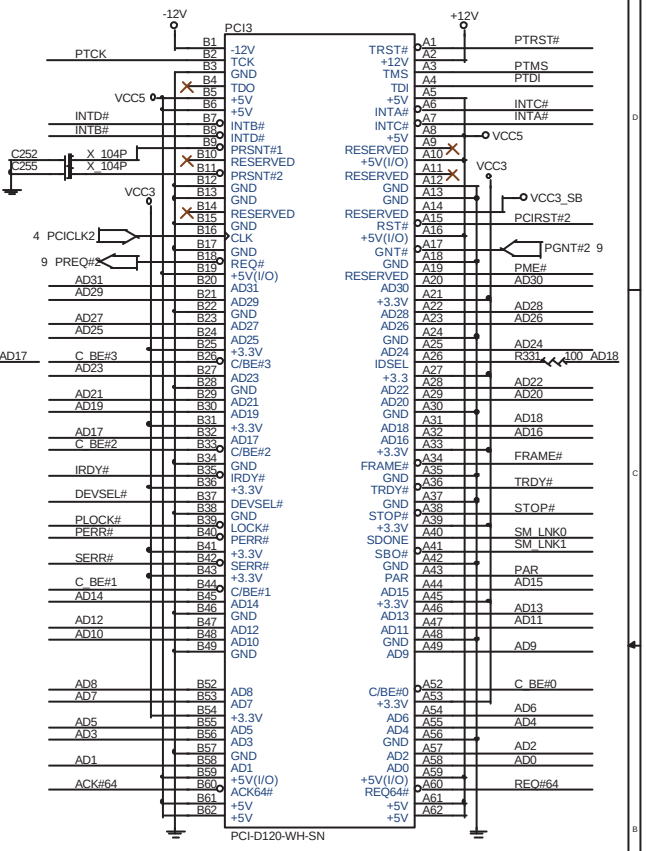
IDSEL = AD16
MASTER = PREQ0
INTA#

PCI SLOT 2 (PCI VER: 2.2 COMPLY)



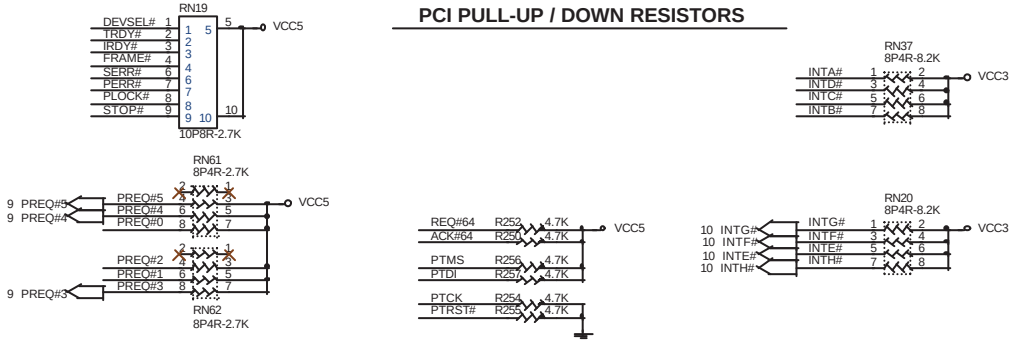
IDSEL = AD17
MASTER = PREQ1
INTB#

PCI SLOT 3 (PCI VER: 2.2 COMPLY)

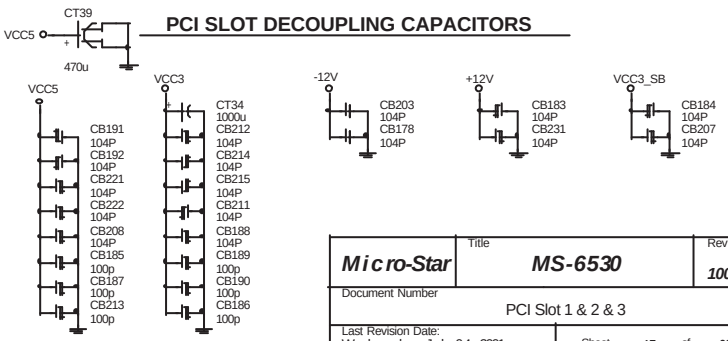


IDSEL = AD18
MASTER = PREQ2
INTC#

PCI PULL-UP / DOWN RESISTORS



PCI SLOT DECOUPLING CAPACITORS



Micro-Star	Title: MS-6530	Rev: 100
Document Number: PCI Slot 1 & 2 & 3		
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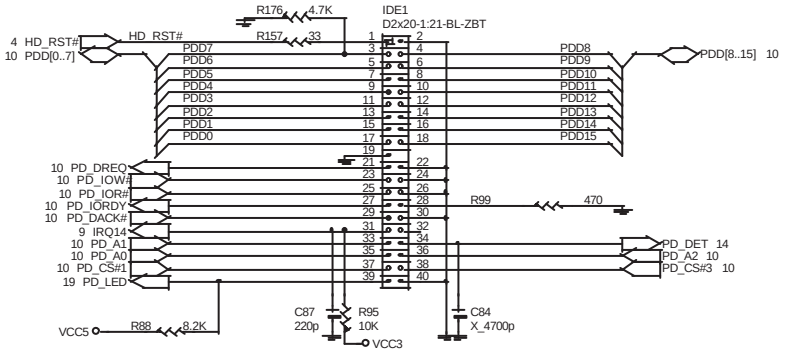
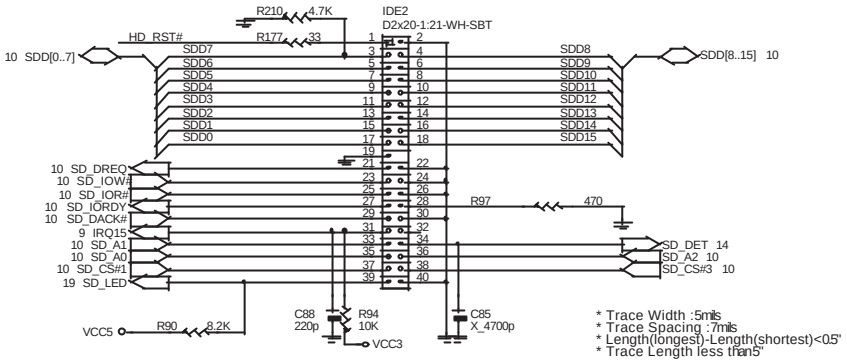
ATA100 IDE CONNECTORS

PRIMARY IDE BLOCK

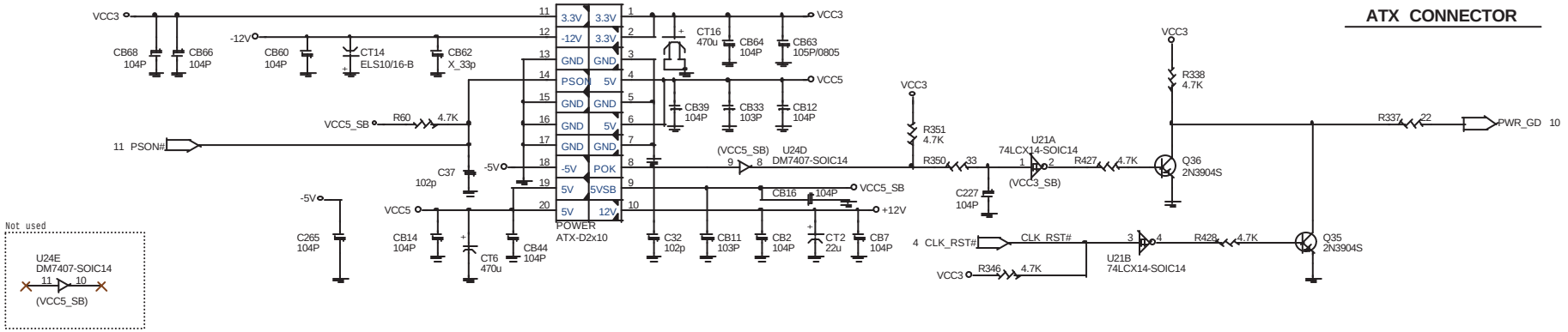


SECONDARY IDE BLOCK

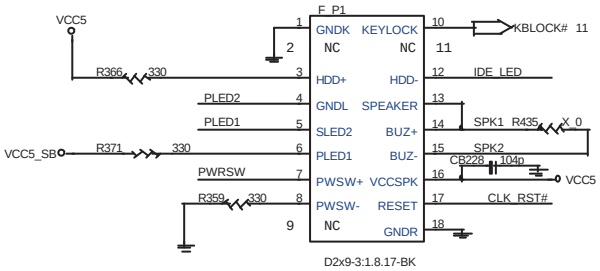


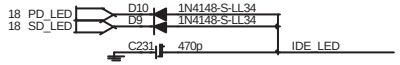
Micro-Star	Title: MS-6530	Rev: 100
Document Number: ATA100 IDE CONNECTORS		
Last Revision Date: Wednesday, July 04, 2001	Sheet 18 of 33	

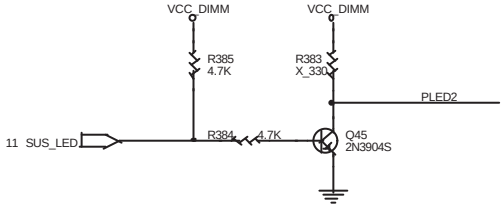
ATX CONNECTOR

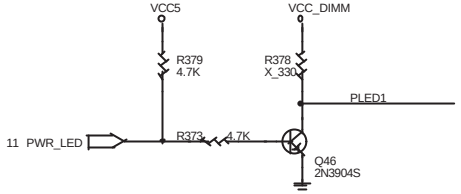


Brookdale FRONT PANEL-M



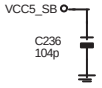


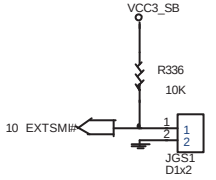




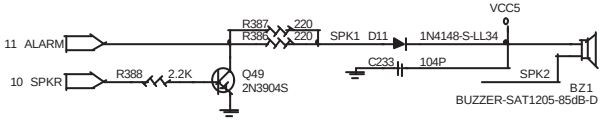
Front Panel LED Circuit component selection

	LEGEND	MSI
R371	ON	OFF
R373	ON	OFF
R378	OFF	OFF
R379	ON	OFF
R382	ON	OFF
R383	OFF	ON
R384	ON	ON
R385	4.7K	330
RN33	ON	OFF
RN35	OFF	ON
Q45	ON	ON
Q46	ON	OFF
JGL1	OFF	ON
JGLED1	ON	OFF

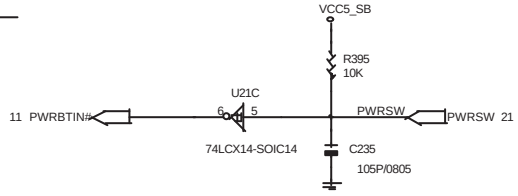




SPEAKER



POWER BUTTON



Micro-Star	Title: MS-6530	Rev: 100
Document Number: Front Panel & Connector		
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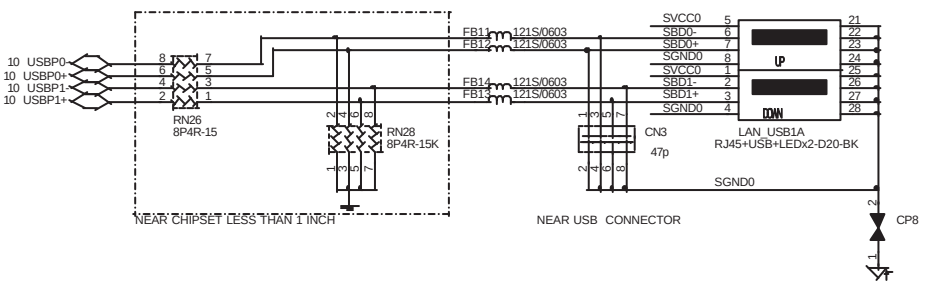
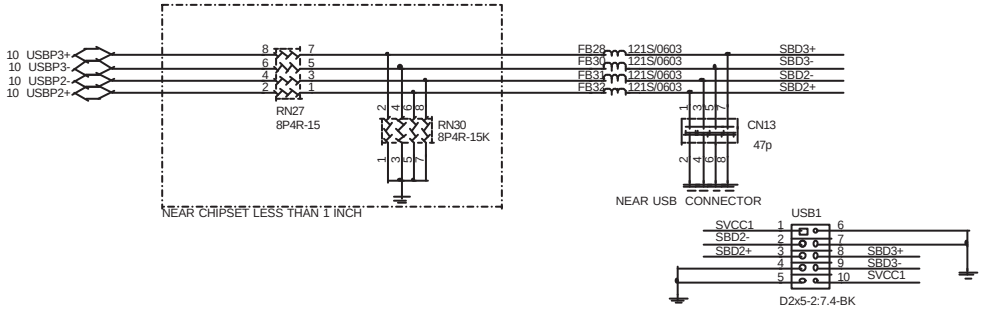
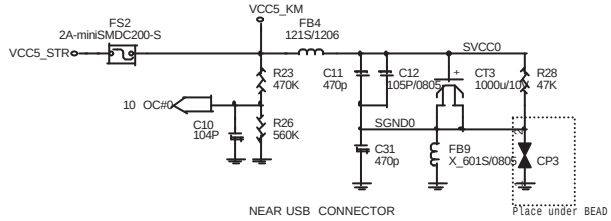
BACK PANEL USB CONNECTOR FOR USB PORT 0,1



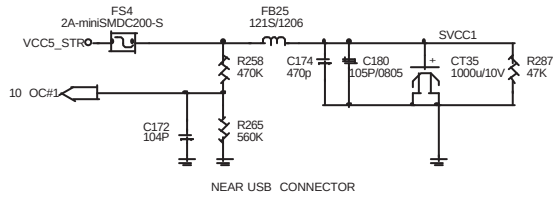
FRONT PANEL USB CONNECTOR FOR USB PORT 2,3



POWER CIRCUIT FOR USB PORT 0,1

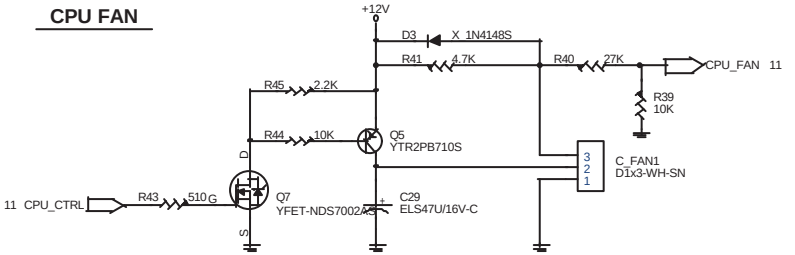


POWER CIRCUIT FOR USB PORT 2, 3

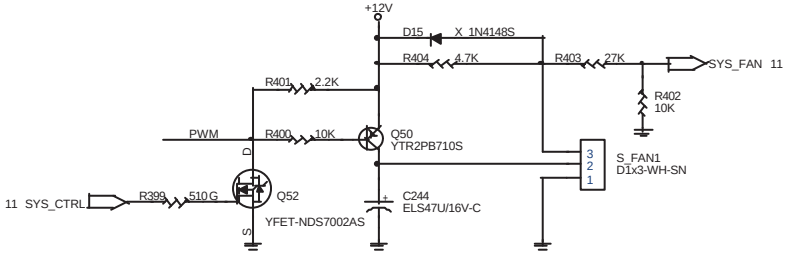


- *** USB Trace width : 9 mils**
- *** USB Trace Spacing : 25 mils**
- *** Differential USB Signlas Trace Spacing : 18 mils**
- *** USB Power Trace must be 40mils width**

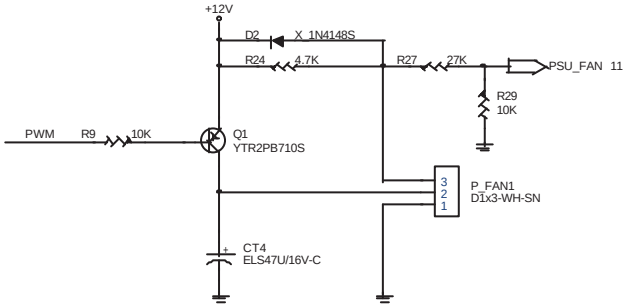
CPU FAN



SYSTEM FAN

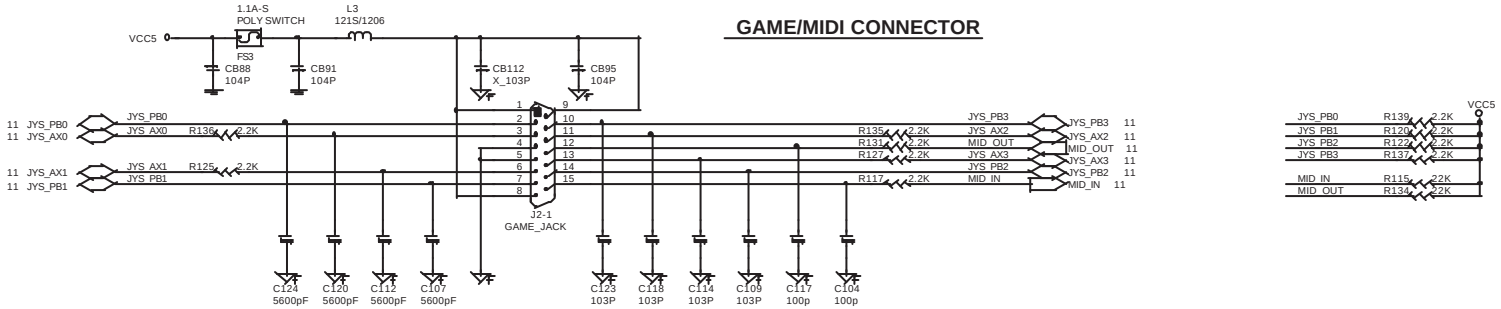


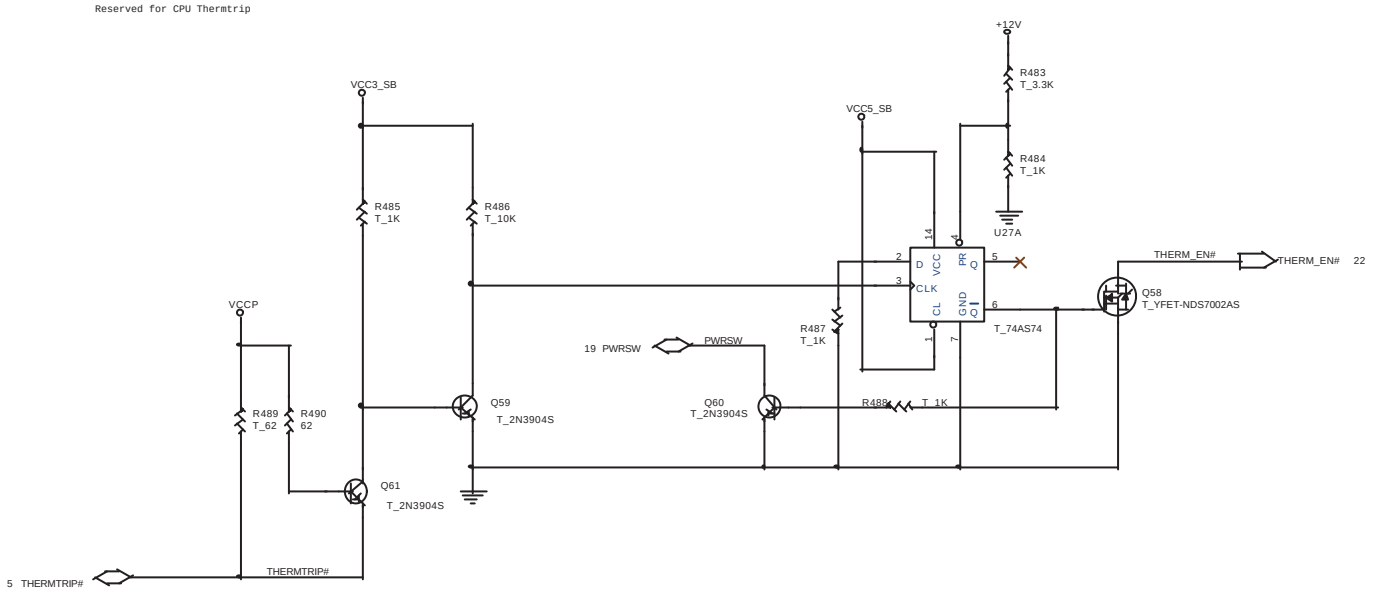
ATX PSU FAN ON/OFF CONTROL



Micro-Star	Title: MS-6530	Rev: 100
Document Number: USB & FAN Connectors		
Last Revision Date: Wednesday, July 04, 2001	Sheet 20 of 33	

GAME/MIDI CONNECTOR





Micro-Star	Title: MS-6530	Rev: 100
Document Number: GAME PORT		
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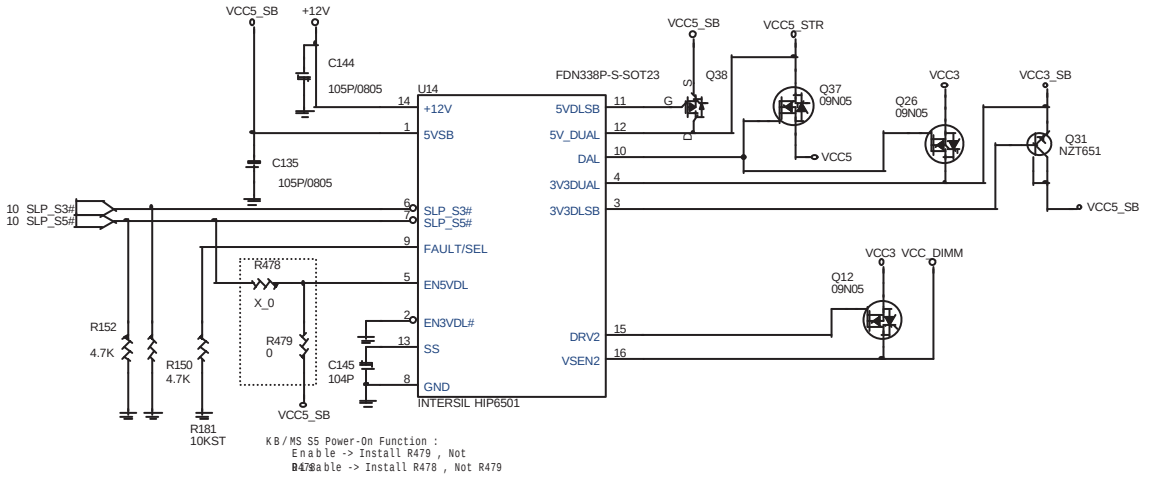
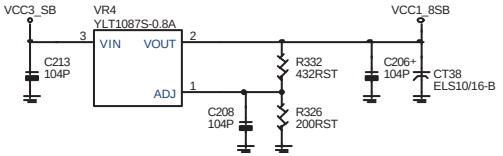
POWER TRANSLATOR

Power	S0	S3	S5
VCC3_SB	Main	Standby	Standby
VCC5_STR	Main	Standby	0V
VCC_DIMM	Main	Standby	0V



1.8V STANDBY POWER TRANSLATOR

(40mils trace / 20 mils space)



POWER CONSUMPTION

	VCCP	VCC_AGP	VCC1_8	VCC3_DIMM	VCC3	VCC5	VCC5_SB	+12V	-12V
CPU	69.0A	0	0	0	0	0	0	NOTE4	0
MCH	2.4A	NOTE1	0.2A	2.0A	0	0	0	0	0
ICH2	0	0	NOTE3	0	NOTE3	0	NOTE3	0	0
CY28324	0	0	0	0	0	0	0	0	0
AD1881A	0	0	0	0	0		0	0	0
FWH -SST	0	0	0	0			0		
W83627HF	0	0	0	0	0		0	0	0
HIP6301		0	0	0	0		0	0	0
HIP6602A		0	0	0			0	0	0
HIP6601A	0	0	0	0	0	0	0	0	0
SC1547	0	0	0	0	0	0			0
DIMM	0	0	0	NOTE2	0		NOTE2	0	0
AGP	0	8.0A	0	0	6.0A	2.0A	?	1.0A	0
PCI	0	0	0	0		0	0	0	0
USB	0		0	0		0			0
USB HUB	0	0	0	0	0	0	0	0	0
FAN	0	0	0	0	0	0	0	0	0
TTL	0	0	0	0	0	0	0	0	0
AMPLIFIER	0	0	0	0			0	0	0
OTHER	0	0	0	0	0		0		

NOTE1 --- MCH
VCC_AGP = VCC1_5 (1.5A) + VCC_AGP (0.37A)

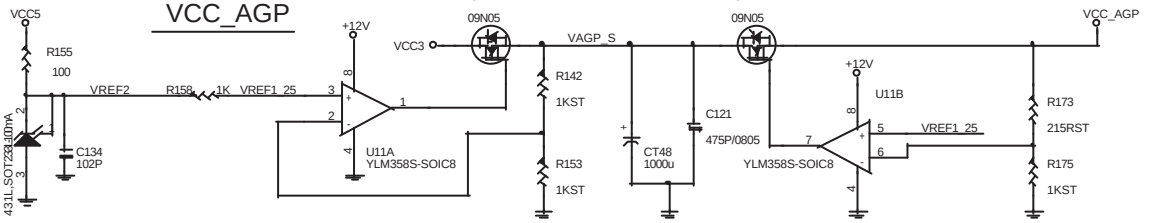
NOTE2 --- DIMM
S0 STATE --- 2.0A * 3 = 6.0A ---> VCC3
S1/S3 STATE --- 200mA * 3 = 600mA ---> VCC3_SB
VCC3_SB --> 600mA*3.3V/5V=396mA --> VCC5_SB

NOTE3 --- ICH2

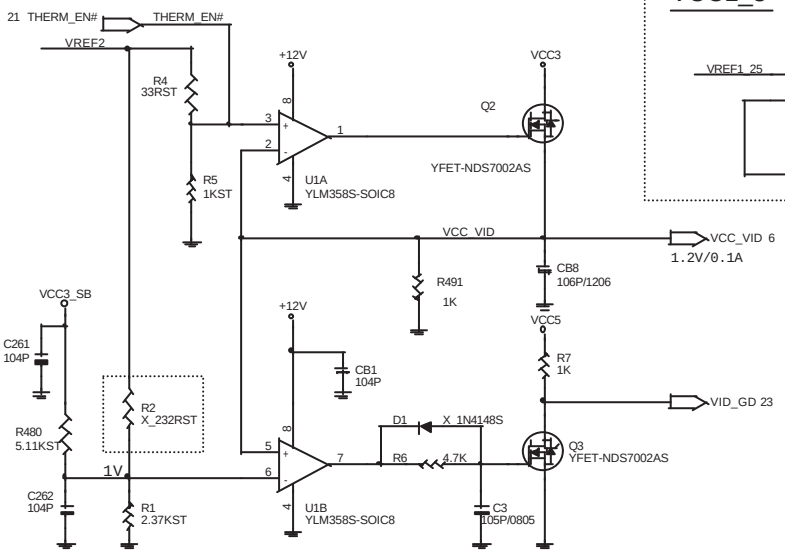
Power	S0	S1	S3/S4/S5
1.8V	300mA	100mA	N/A
1.8V_LAN	36mA	28mA	N/A
VCC1_8SB	45mA	30mA	7mA
VCC3	410mA	5mA	N/A
VCC3+562ET	230mA	210mA	N/A
VCC3_SB	25mA	0.6mA	N/A

VCC3_SB =
VCC1_8SB =
VCC5_SB = VCC3_SB + VCC1_8SB

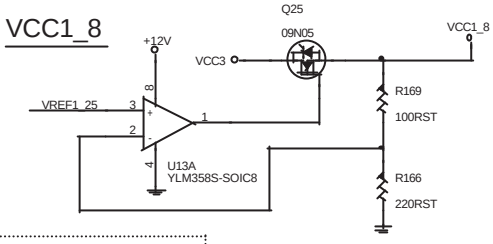
VCC_AGP



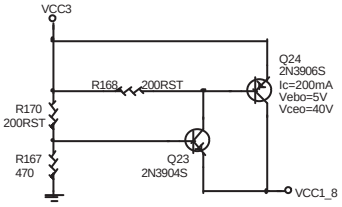
VCC_VID / VID_GOOD



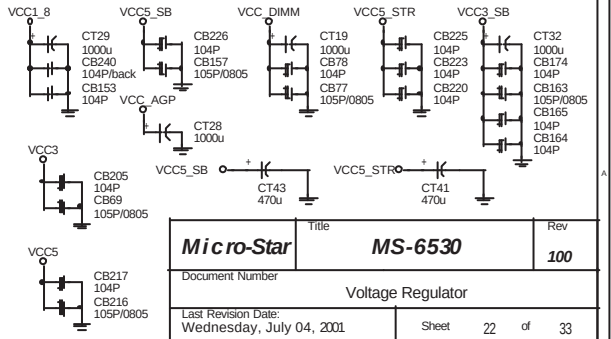
VCC1_8



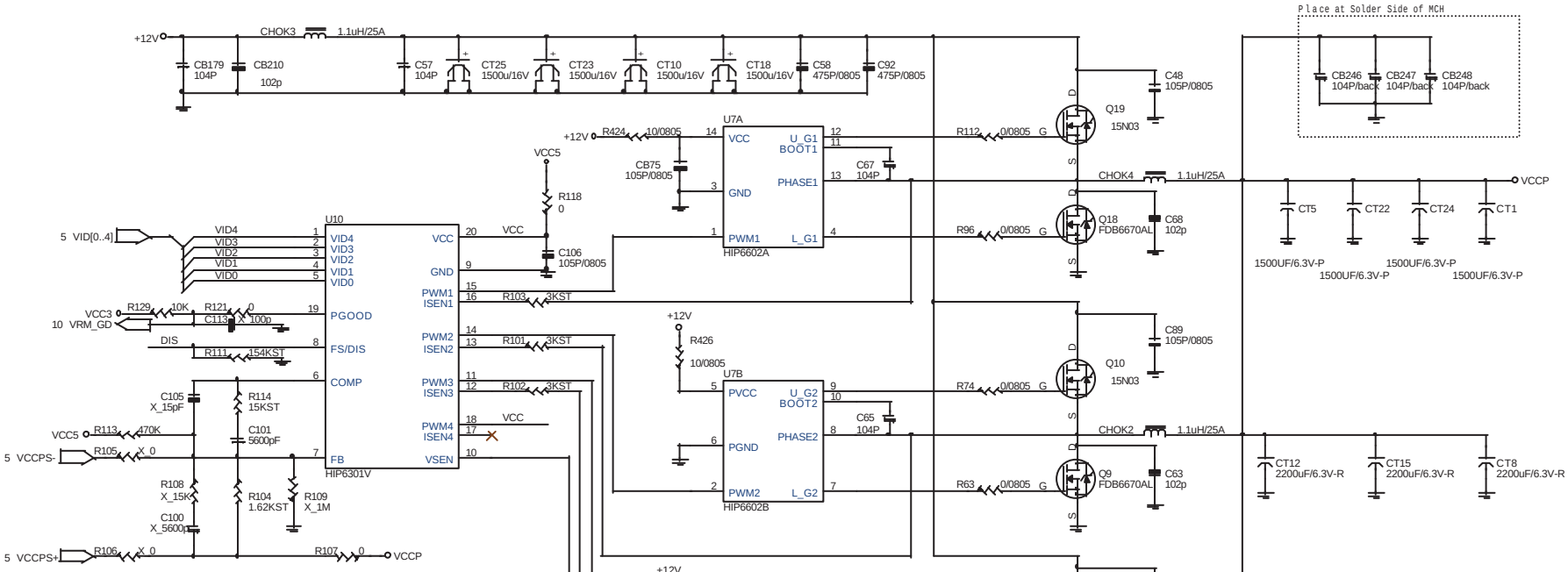
1.8V/3.3V SEQUENCE CIRCUIT



REGULATORS OUTPUT DECOUPLING CAPACITORS



Micro-Star	Title: MS-6530	Rev: 100
Document Number: Voltage Regulator		
Last Revision Date: Wednesday, July 04, 2001	Sheet 22 of 33	

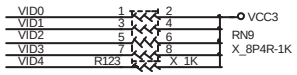


VID4	VID3	VID2	VID1	VID0	VDC(V)
1	1	1	1	0	1.100
1	1	1	0	1	1.125
1	1	1	0	0	1.150
1	1	0	1	1	1.175
1	1	0	1	0	1.200
1	1	0	0	1	1.225
1	1	0	0	0	1.250
1	0	1	1	1	1.275
1	0	1	1	0	1.300
1	0	1	0	1	1.325
1	0	1	0	0	1.350
1	0	0	1	1	1.375
1	0	0	1	0	1.400
1	0	0	0	1	1.425
1	0	0	0	0	1.450
0	1	1	1	1	1.475

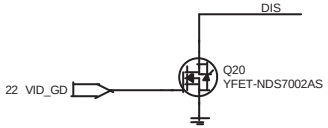
VID4	VID3	VID2	VID1	VID0	VDC(V)
0	1	1	1	0	1.500
0	1	1	0	1	1.525
0	1	1	0	0	1.550
0	1	0	1	1	1.575
0	1	0	1	0	1.600
0	1	0	0	1	1.625
0	1	0	0	0	1.650
0	0	1	1	1	1.675
0	0	1	1	0	1.700
0	0	1	0	1	1.725
0	0	1	0	0	1.750
0	0	0	1	1	1.775
0	0	0	1	0	1.800
0	0	0	0	1	1.825
0	0	0	0	0	1.850
1	1	1	1	1	OFF

VID PULL-UP RESISTORS

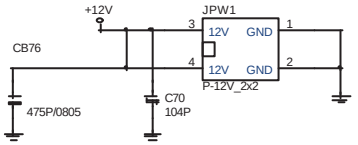
HIP6301V DON'T NEED PULL HIGH
HIP6301 NEED PULL HIGH



PWM GOOD

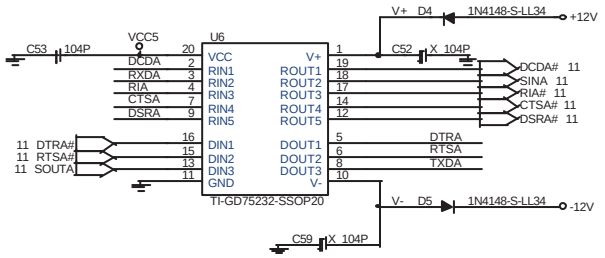


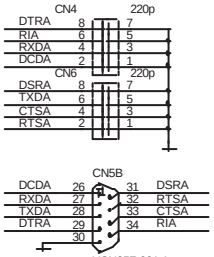
ATX12V POWER CONNECTOR



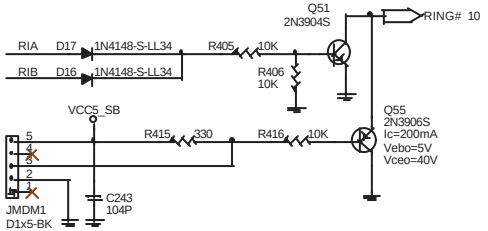
Micro-Star	Title: MS-6530	Rev: 100
Document Number: VRM 9.X		
Last Revision Date: Wednesday, July 04, 2001	Sheet 23 of 33	

SERIAL PORT 1

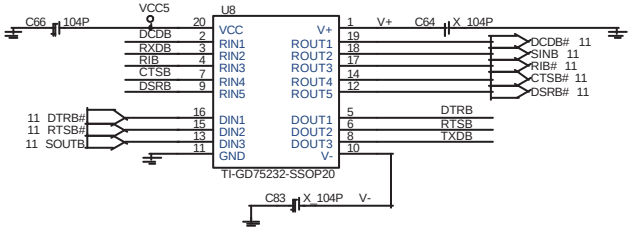


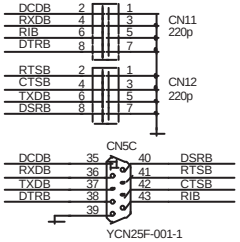


MODEM RING BLOCK

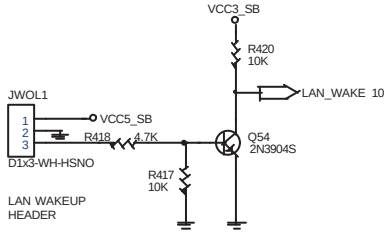


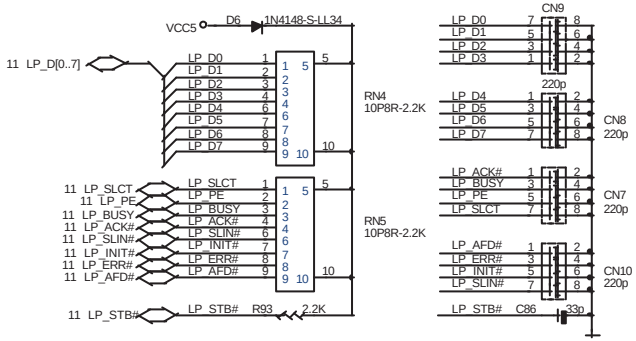
SERIAL PORT 2



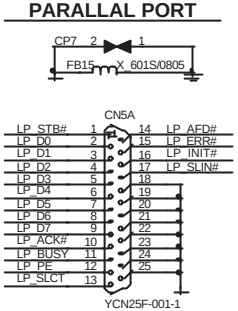


LAN WAKEUP BLOCK

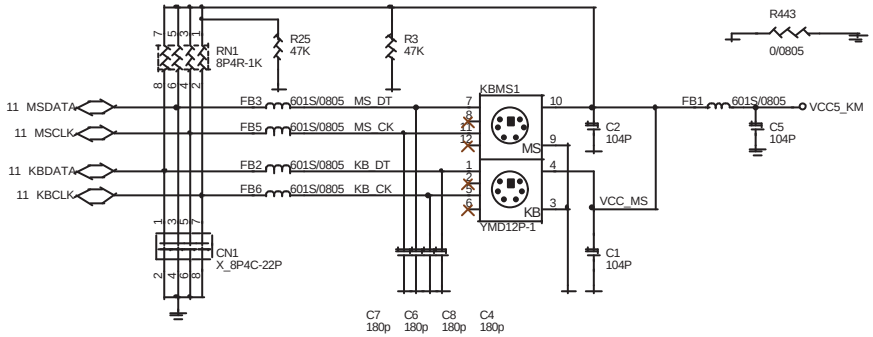




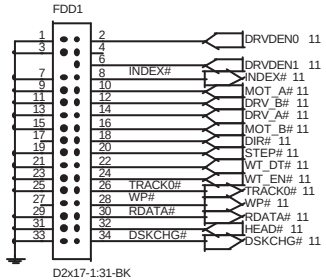
PARALLAL PORT



PS2 KEYBOARD & MOUSE CONNECTOR



FLOPPY CONNECTOR



Micro-Star	Title: MS-6530	Rev: 100
Document Number: IO Connector		
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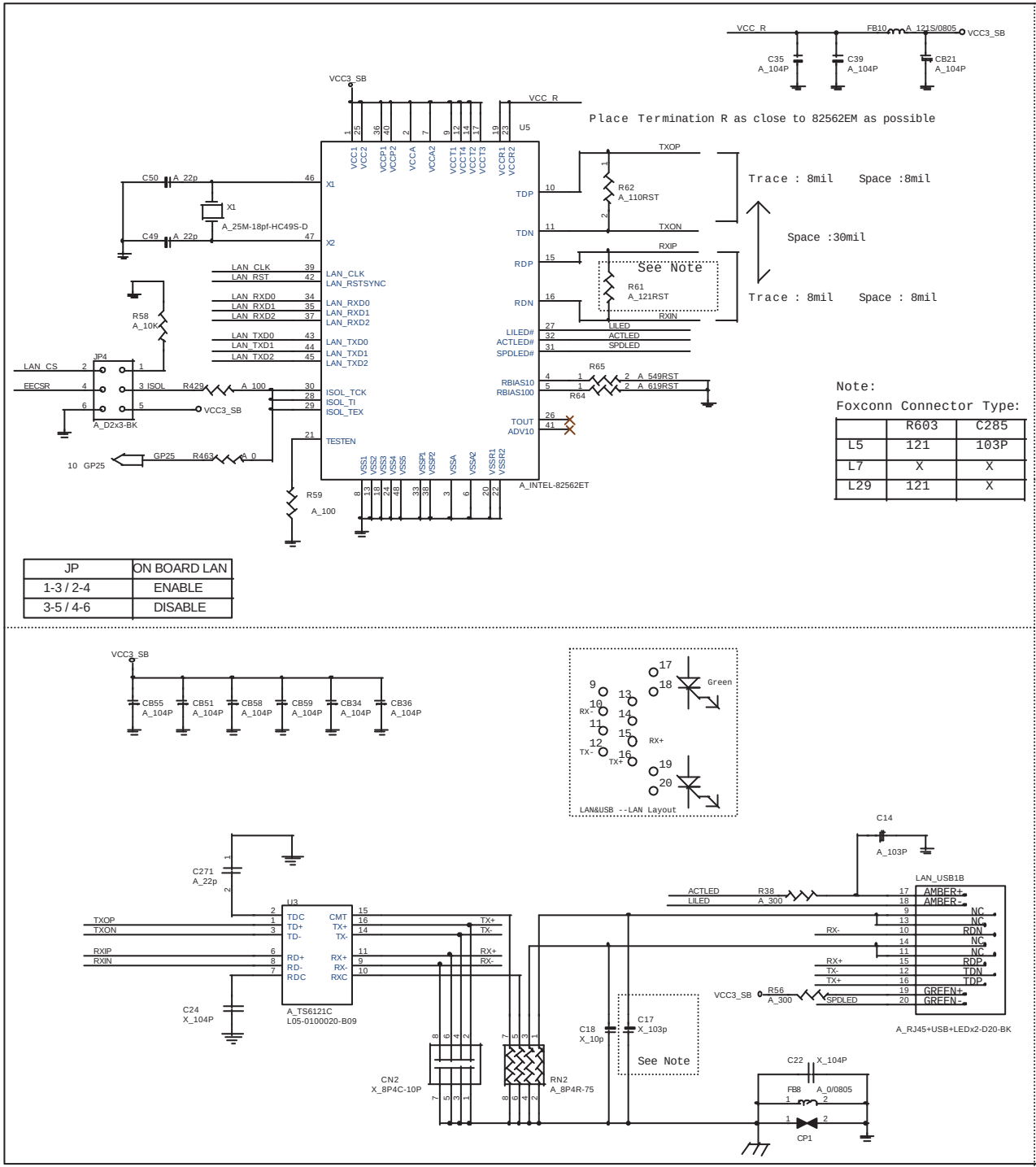
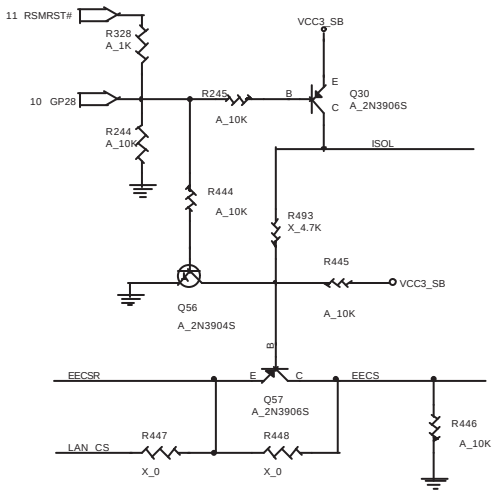


JP	ON BOARD LAN
1-3 / 2-4	ENABLE
3-5 / 4-6	DISABLE

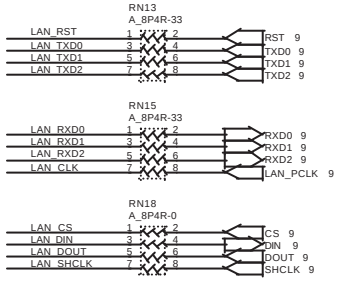
Note:
Foxconn Connector Type:

	R603	C285
L5	121	103P
L7	X	X
L29	121	X

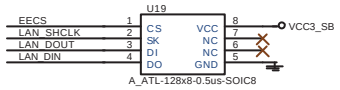
LAN DISABLE



LAN OPTION RESISTORS



LAN EEPROM



Remark:
82562EM with 93C66:M33-26N0103-A26
82562ET with 93C46:M33-15O0203-A26 *

Micro-Star	Title: MS-6530		Rev: 100
Document Number: LAN INTEL 82562EM/ET			
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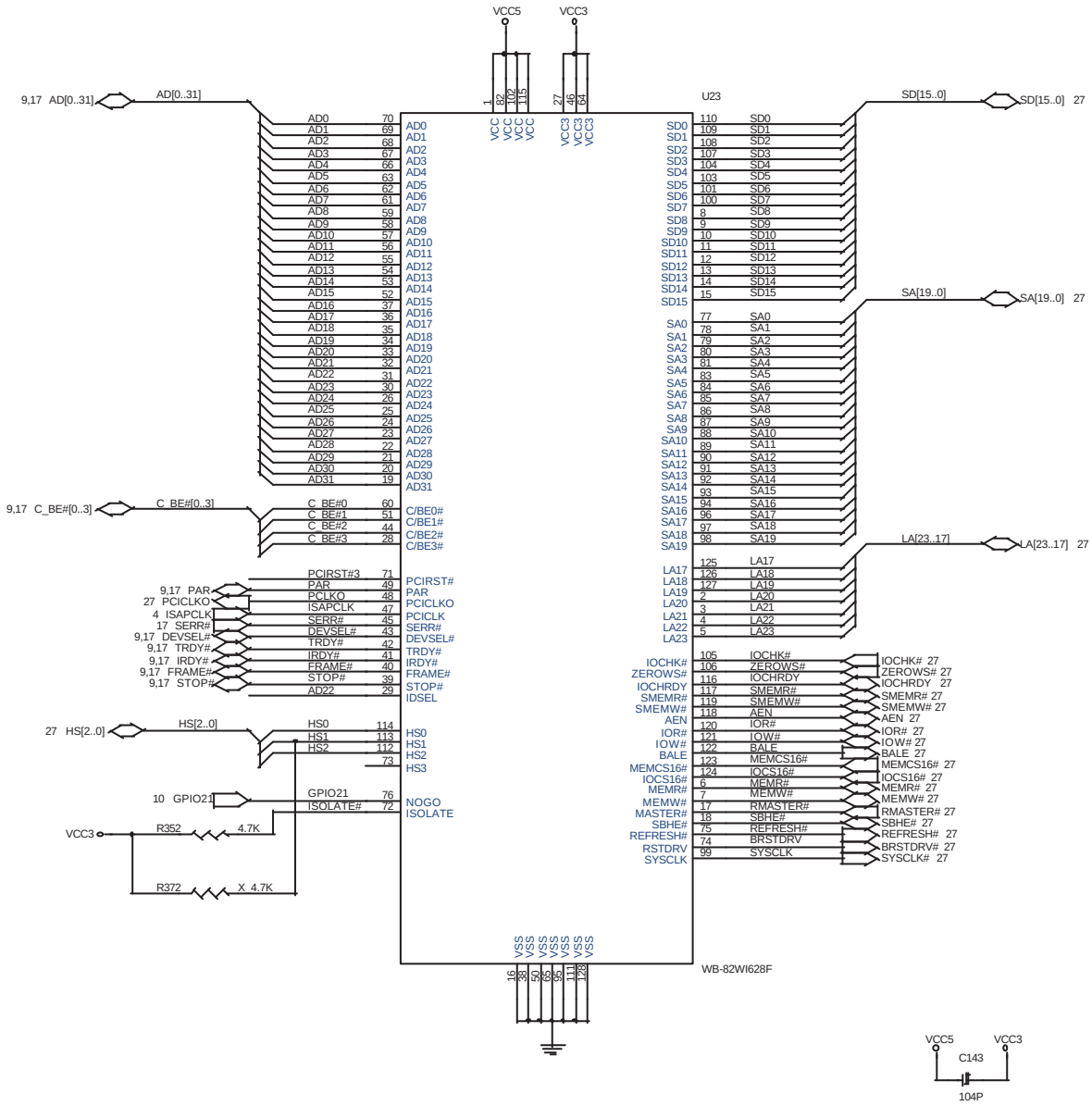
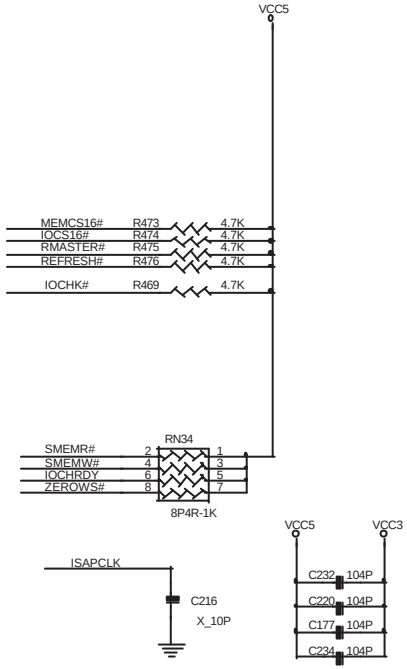
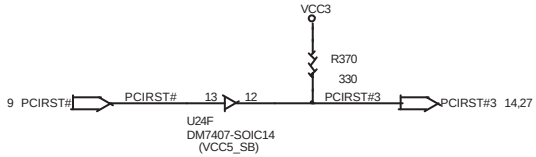
PCI To ISA Bridge, Part 1



PCI to ISA Bridge Pull Up / Low



PCI to ISA Bridge Reset



Micro-Star	Title: MS-6530	Rev: 100
Document Number: ISA Bridge Part 1		
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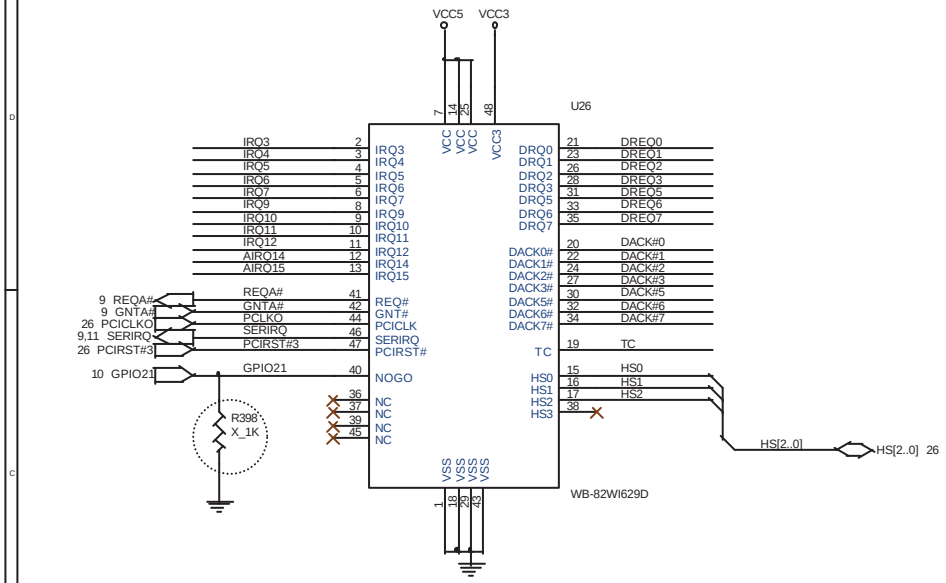
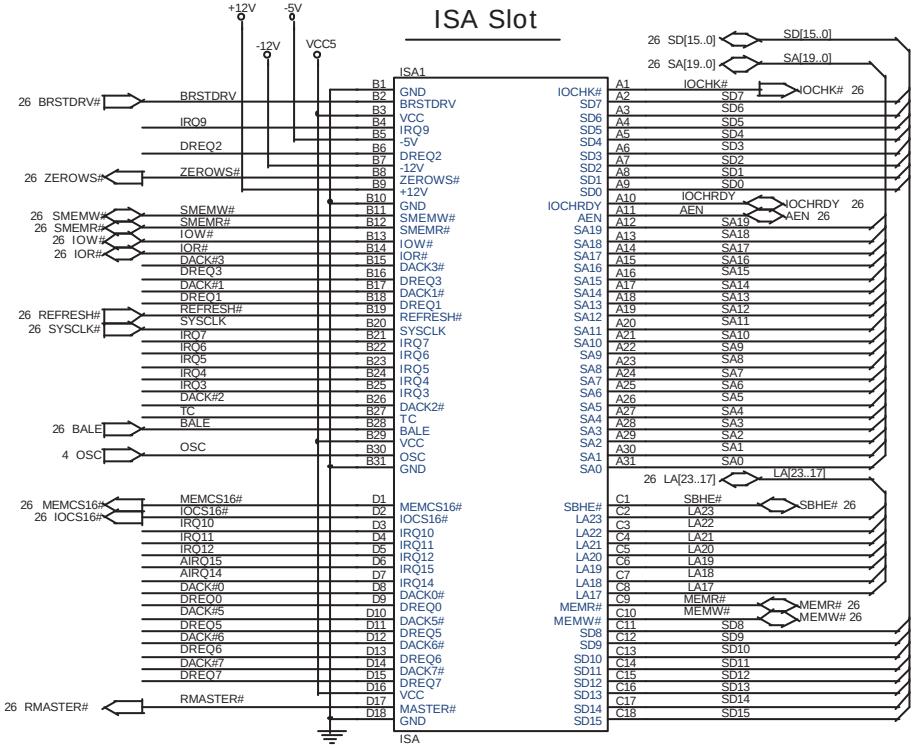
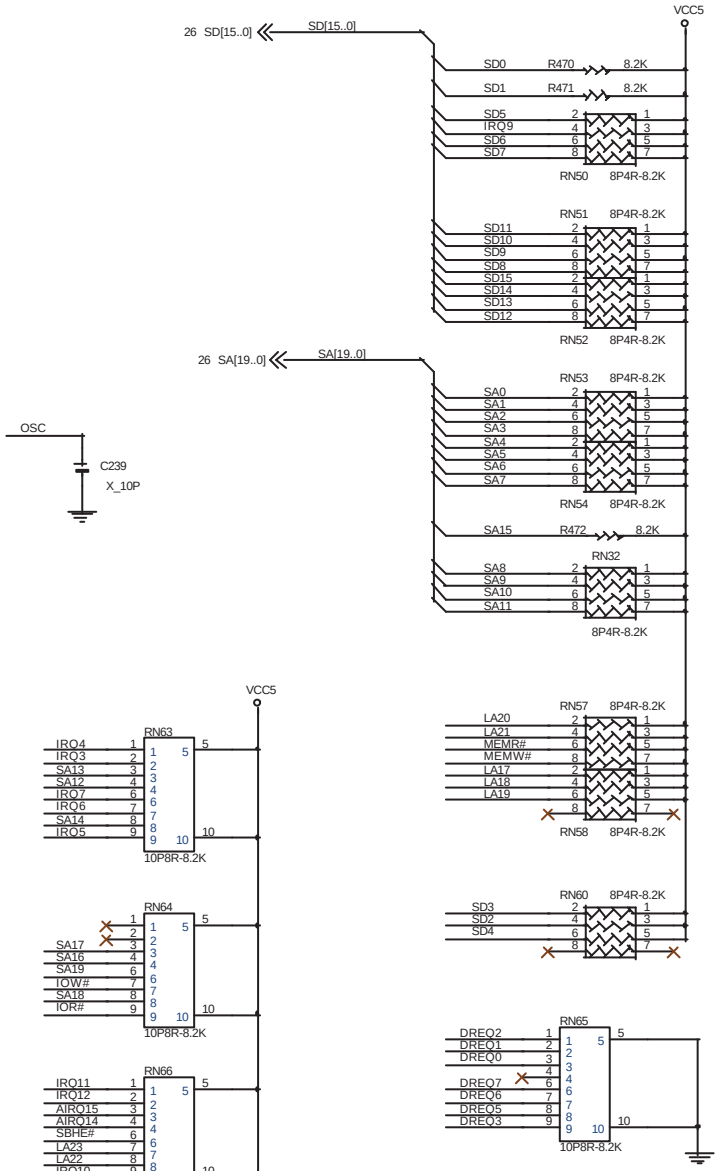
PCI To ISA Bridge, Part 2



ISA Slot



PCI to ISA Bridge Pull Up / Low



Micro-Star	Title: MS-6530	Rev: 100
Document Number: ISA Bridge Part 2 / ISA SLOT		
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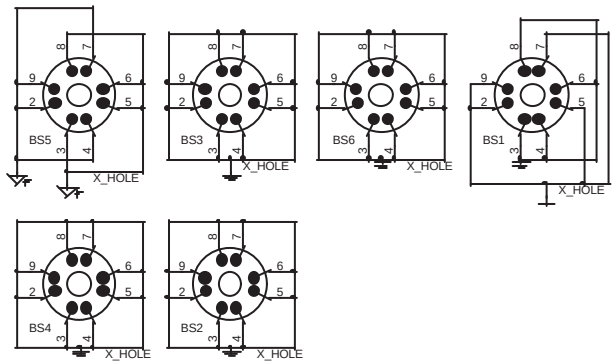
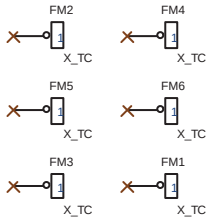
Jumper Setting & Connector Setting

Jumper	Description
J3	BIOS Protection function Open = Unlocked Short = Locked
J4	CHASISS INTRUSION HEADER Low = Enable Hi = Disable
JBAT1	CLEAR CMOS 1-2 NORMAL (Default) 2-3 CLEAR CMOS
JP4	H/W Control On Board LAN Function Enable = Short 1-3 , 2-4 Disable = Short 3-5 ,4-6
JGS1	EXTSMI#

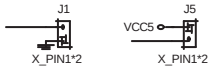
Connector	Description
U4	INTEL mPGA478-B CPU
IDE1	Primary
IDE2	Secondary
FDD1	Floopy
DIM1	SDRAM DIMM1
DIM2	SDRAM DIMM2
AGP1	AGP Slot
PCI1	PCI Slot1
PCI2	PCI Slot2
PCI3	PCI Slot3
COM1	Serial Port
COM2	Serial Port
LPT	Parallel Port
JMDM1	MODEM RING HEADER
JWOL1	LAN WAKEUP HEADER
KBMS1	PS/2 Keyboard and PS/2 mouse
USB1	USB REAR CONNECTOR
USB2	USB INTERNAL HEADER
F_P1	Front Panel
IR1	IR HEADER
POWER	ATX Power
JPW1	ATX12V Power
C_FAN1	CPU FAN HEADER
S_FAN1	SYS FAN HEADER
P_FAN1	ATX FAN HEADER
J2	AUDIO REAR PHONE JACK (LINE_IN, LINE_OUT, MIC_IN)
JAUDIO1	AUDIO HEADER FOR LEGEND
CD_IN1	CD IN HEADER
MDM_IN1	MODEM_IN HEADER

PCB OTHER COMPONENT





SIMULATION TRACE



JBAT1 Clear CMOS	
1 - 2	Normal *
2 - 3	Clear CMOS

JBAT1(1-2)
YJUMPER-MG

LEGEND AUDIO

JAUDIO1(11-14)
JC-D2x2-GN

BAT SOCKET

BAT1[A]
YSKTBT

J7 BIOS Update	
SHORT	Locked
OPEN	Unlocked *

J3(1)
YJUMPER-MG

BIOS

U25[1]
SST49LF002A

F_P1(14-15)
YJUMPER-MG

JP4	ON BOARD LAN
1-3 / 2-4	ENABLE
3-5 / 4-6	DISABLE

JP4(13/24)
JC-D2x2-GN

MS6530 PCB

PCB
MS-6530-100

COM1
YCN9M-1

COM2
YCN9M-1

X_U9-A
845-MCH-PIN

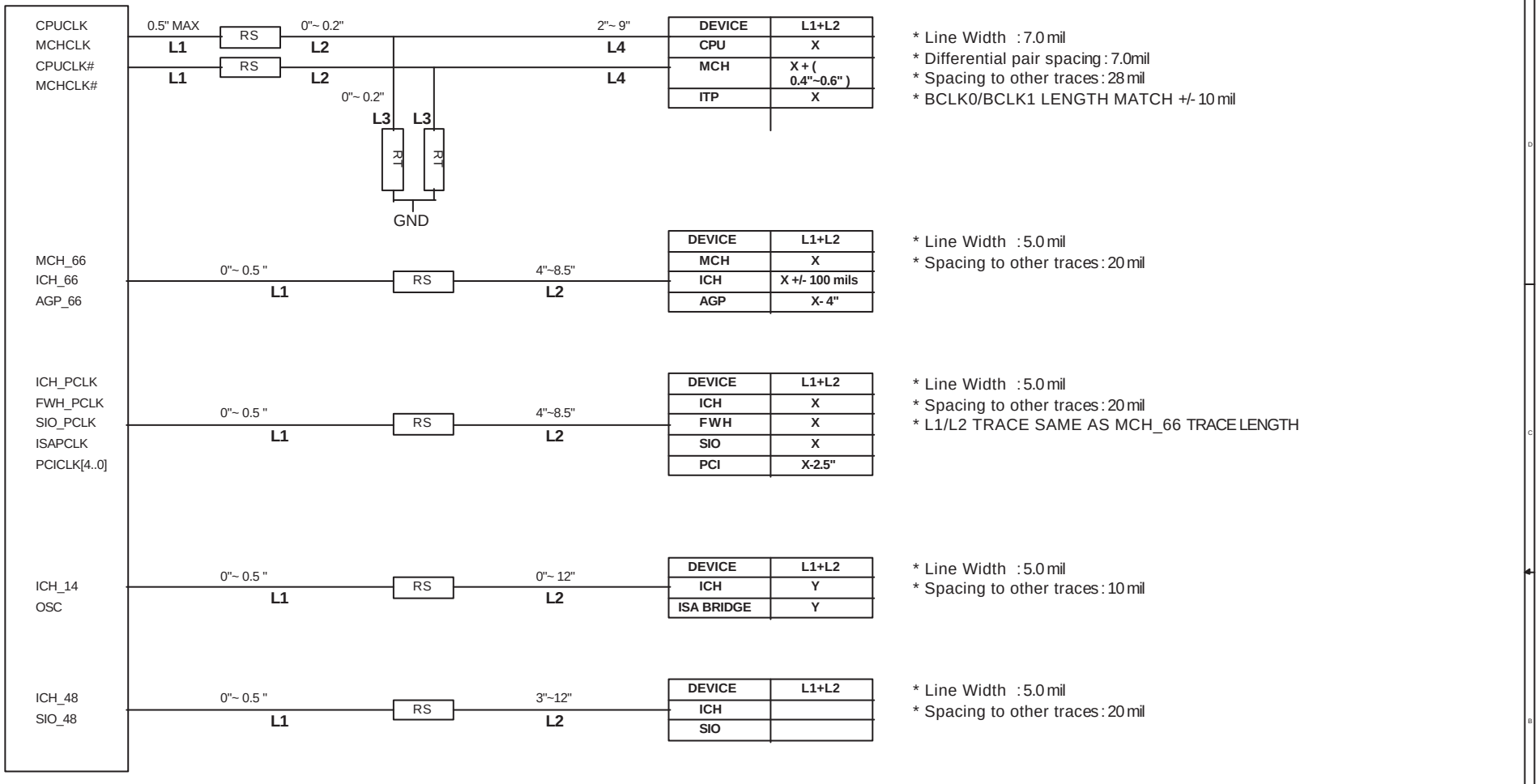
X_U9-B
845-MCH-PIN

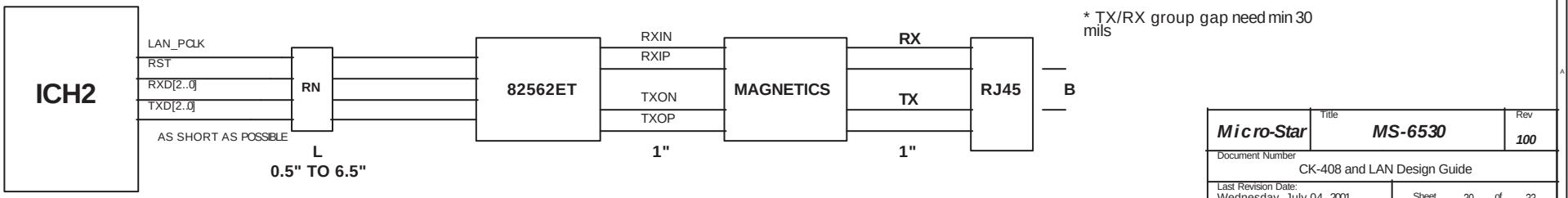
X_U9-C
845-MCH-PIN

X_U9-D
845-MCH-PIN

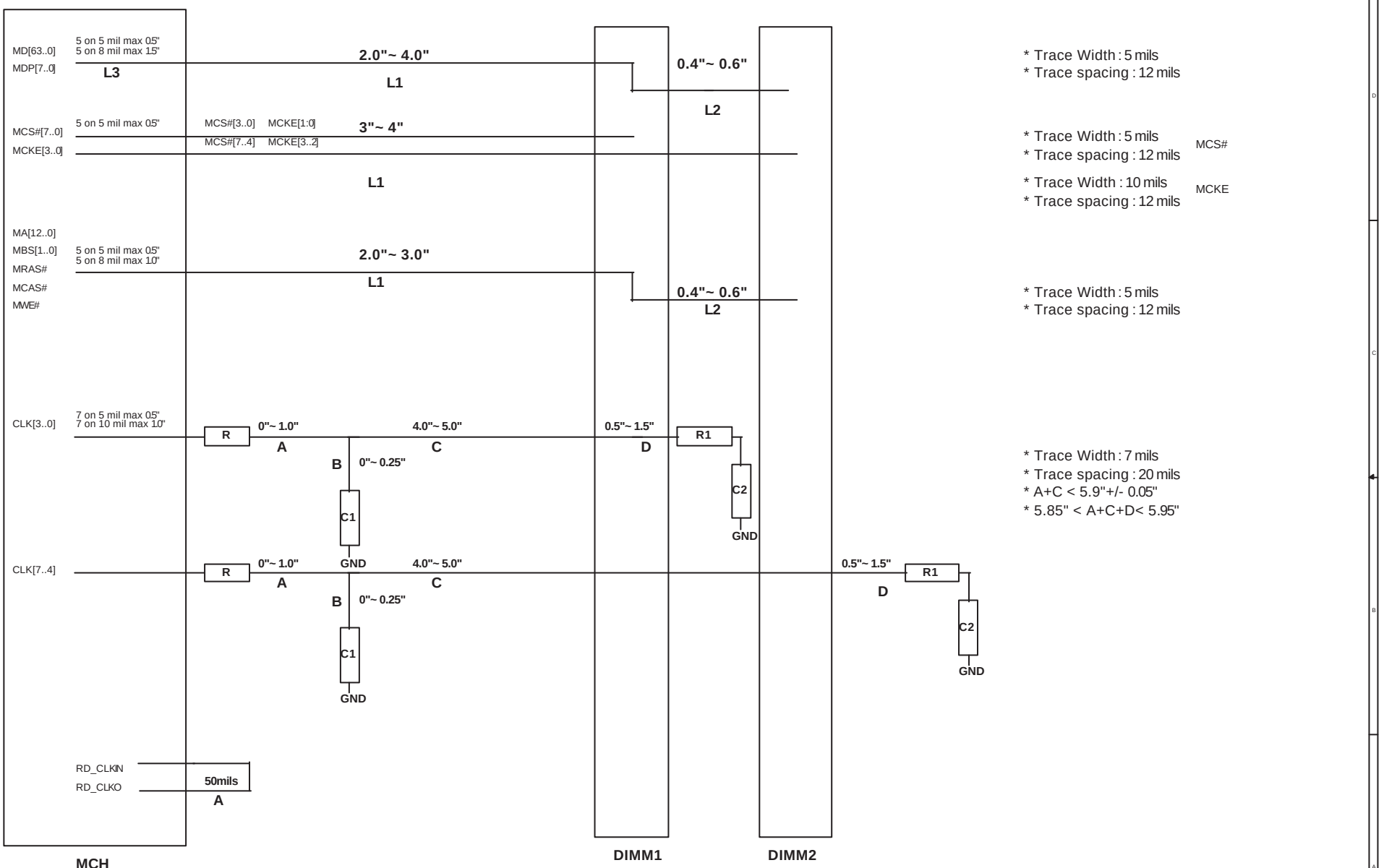
X_U9
845-MCH-H

Micro-Star	Title: MS-6530	Rev: 100
	Document Number: MANUAL	
	Last Revision Date: Wednesday, July 04, 2001	Sheet 29 of 33



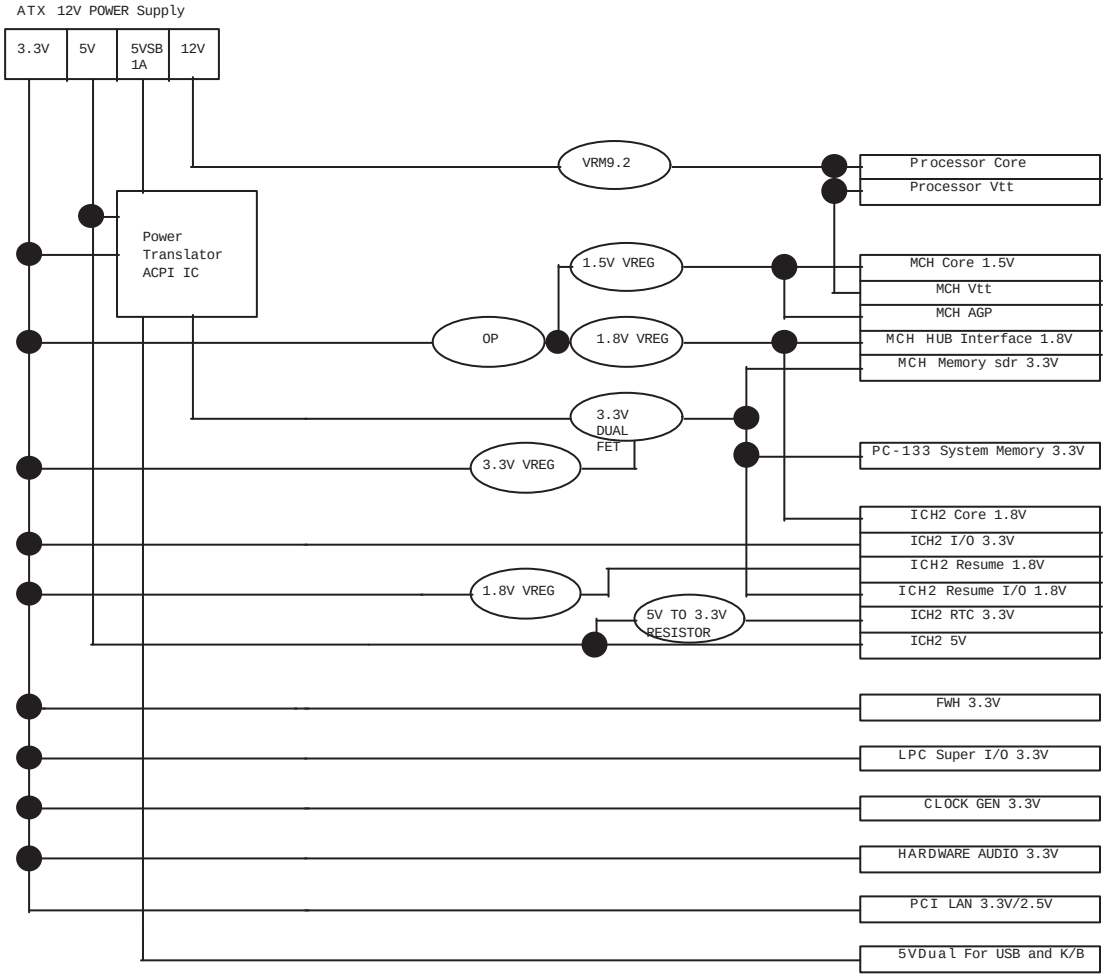


Micro-Star	Title: MS-6530		Rev: 100
Document Number: CK-408 and LAN Design Guide			
Last Revision Date: Wednesday, July 04, 2001		Sheet 30 of 33	



Micro-Star	Title: MS-6530	Rev: 100
Document Number: PC133 DIMM DG		
Last Revision Date: Wednesday, July 04, 2001	Sheet 31 of 33	

Power Delivery Map



Micro-Star	Title: MS-6530	Rev: 100
Document Number: Power Delivery Map		
Last Revision Date: Wednesday, July 04, 2001	Sheet 32 of 33	

Revision	Date	Page	Description
0A	05/17/2001		Creat new schematics
1.0	07/03/2001	12	Add R462 for Modem-In (MONO_OUT) function . (Reserved for codec ADI1885)
			For audio PC2001 test : Delete CT40 , change C221 0.047uF->104pF and C217 104pF->0.047uF , add(reserved) R481 and R482 and C268 .
			Connect U20/pin41 to R214 , U20/pin39 to R213 for supporting ADI1885 phone-out function (ADI1885 integrated with apmlifier) .
			Add C269 , C270 , C266 , C267 for EMI issue .
		21	Add Intel CPU Thermal-stript circuit for future using .
		19	Connect F_P1/pin17 to "CLK_RST#" for solving H/W- reset issue .
		22	Add CT48 (1000uF/6.3V) at "VAGP_S" for "VCC_AGP" power stability .
		23	For "VCCP" stability change R104: 4.7k ->1.62KST ohm , add R113 = 470K ohm , delete R109 .
		25	Add R493 for auto(BIOS)-enable/disable LAN function . (Reserved)
			Add C271 for LAN EMI issue .
		8,23	For system stability add CB244 & CB245 at MCH's solder-side for "VCC_AGP" power , add CB246 & CB247 & CB248 at MCH's solder-side for "VCCP" power .

Micro-Star	Title: MS-6530	Rev: 100
Document Number: Revision History - 1		
Last Revision Date: Wednesday, July 04, 2001	Sheet 33 of 33	