MS-7312 VER:0A

***AMD PGA 940 K8-AM2 (DDR2 800)**
***VIA K8M800**
***VIA VT8237RPLUS (AGP 8X / VLink 8X)**
***Winbond 83627EHG(DHG) LPC I/O**
***REALTEK RT8201CL 10/100 PHY**
***USB 2.0 support (integrated into VT8237R)**
***REALTEK ALC655 AC'97 CODEC**
***DDR2 DIMM * 2**
***AGP SLOT * 1 (8X)**
***PCI SLOT * 3**

Title	*Cover Sheet*	Rev 0A
Document Number	*MS-7312*	

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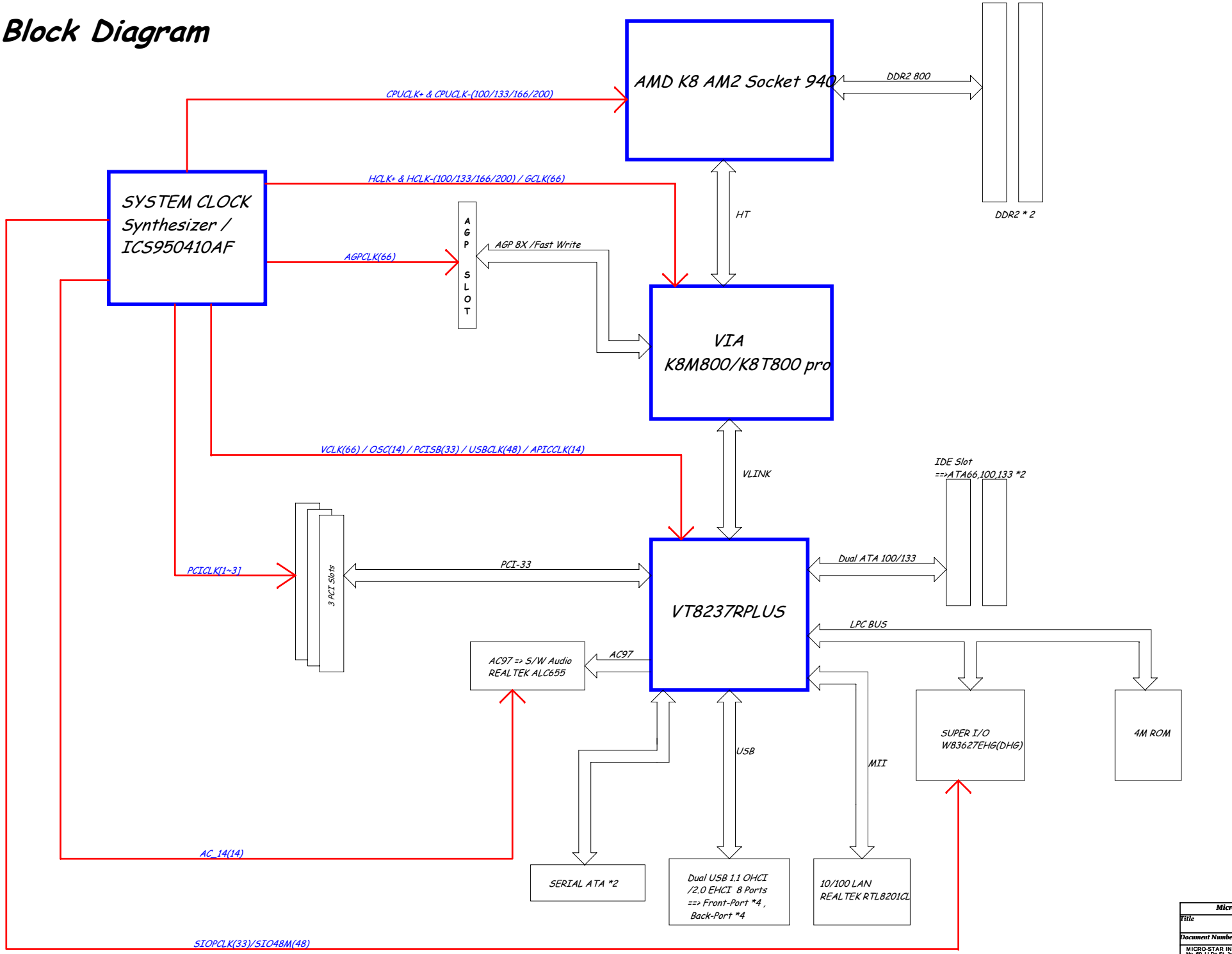
Block Diagram



Micro Star Restricted Secret		
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GPIO FUNCTION

	PIN NAME	Default Function	Function define
	GPO0 (VDDS)	GPO0	NA
	GPO1(VDDS)	GPO1	NA
	GPO2/SUSA# (VDDS)	SUSA#	4.7K ohm Pull up to 3VDUAL
	GPO3/SUSST#(VDDS)	SUSST#	SUSST# 4.7K ohm Pull up to 3VDUAL
	GPO4/SUSCLK(VDDS)	SUSCLK	4.7K ohm Pull up to 3VDUAL
	GPO5/CPUSTP#	CPUSTP#	4.7K ohm Pull up to VCC3
	GPO6/PCISTP#	PCISTP#	4.7K ohm Pull up to VCC3
	GPO7/GNT5	GPO7	2.7K ohm Pull up to VCC3
*	GPO8/GPI8/VGATE	GPI8	4.7K ohm Pull up to VCC3
*	GPO9/GPI9/UDPWREN	UDPWREN	NA
*	GPO10/GPI10/PICD0	GPI10	330 ohm Pull up to VCC3
*	GPO11/GPI11/PICD1	GPI11	330 ohm Pull up to VCC3
*	GPO12/GPI12/INTE#	GPI12	NA
*	GPO13/GPI13/INTF#	GPI13	NA
*	GPO14/GPI14/INTG#	GPI14	NA
*	GPO15/GPI15/INTH#	GPI15	INTH# 2.7K ohm Pull up to VCC3
	GPO20/GPI20 /ACSDIN2/PCS0#	GPI20/ACSDIN2	4.7K ohm Pull down
	GPO21/GPI21/ACSDIN3 /PCS1#/SLPBTN#	GPI21/ACSDIN3	4.7K ohm Pull down
	GPO22/GPI22/GHI#	GPI22	4.7K ohm Pull up to VCC3
	GPO23/GPI23/DPSLP	GPI23	4.7K ohm Pull up to VCC3
	GPO24/GPI24 /GPIOA	GPI24	4.7K ohm Pull down
	GPO25/GPI25 /GPIOB	GPI25	4.7K ohm Pull down
	GPO26/GPI26/SMBDT2 (VDDS)	SMBDT2	4.7K ohm Pull up to 3VDUAL
	GPO27/GPI27/SMBCK2 (VDDS)	SMBCK2	4.7K ohm Pull up to 3VDUAL
	GPO28/GPI28/VIDSEL	GPO28 /VIDSEL	SATA_LED
	GPO29/GPI29/VRDSLP	GPO29 /VRDSLP	4.7K ohm Pull down
	GPO30/GPI30 /GPIOC	GPI30	4.7K ohm Pull down
	GPO31/GPI31 /GPIOD	GPI31	4.7K ohm Pull down

	PIN NAME	Default Function	Function define
	GPI0 (VBAT)	GPI0	4.7K ohm Pull up to VBAT
	GPI1 (VSUS3)	GPI1	ATADET0=>Detect IDE1 ATA100/66
	GPI2/EXTSMI# (VSUS3)	EXTSMI#	4.7K ohm Pull up to 3VDUAL
	GPI3/RING# (VSUS3)	RING#	4.7K ohm Pull up to 3VDUAL
	GPI4/LID# (VSUS3)	LID#	ATADET1=>Detect IDE2 ATA100/66
	GPI5/BATLOW# (VDDS)	BATLOW#	4.7K ohm Pull up to 3VDUAL
	GPI6/AGPBZ	AGPBZ	4.7K ohm Pull up to VCC3
	GPI7/REQ5	GPI7	2.7K ohm Pull up to VCC3
*	GPI8/VGATE	GPI8	4.7K ohm Pull up to VCC3
*	GPI9/UDPWREN	UDPWREN	NA
*	GPI10/PICD0	GPI10	330 ohm Pull up to VCC3
*	GPI11/PICD1	GPI11	330 ohm Pull up to VCC3
*	GPI12/INTE#	GPI12	NA
*	GPI13/INTF#	GPI13	NA
*	GPI14/INTG#	GPI14	NA
*	GPI15/INTH#	GPI15	INTH# 2.7K ohm Pull up to VCC3
	GPI16/INTRUDER# (VBAT)	INTRUDER#	1M ohm Pull up to VBAT
	GPI17/CPUMISS	CPUMISS	4.7K ohm Pull up to 3VDUAL
	GPI18/AOLGP1/THRM#	AOLGP1	THRMS# 4.7K ohm Pull up to 3VDUAL
	GPI19/APICCLK	APICCLK	APICCLK

USB

	Port	DATA +/-	OC#
Rear	USB1	USB1- USB1+ USB0- USB0+	USB_OC#1 (OC#0~1)
	LAN_USB1	USB2- USB2+ USB3- USB3+	USB_OC#2 (OC#2~3)
Front	JUSB1	USB4- USB4+ USB5- USB5+	USB_OC#5 (OC#4~7)
	JUSB2	USB6- USB6+ USB7- USB7+	

PCI RESET DEVICE

Signals	Target
PCISLOTRST#	PCI slot 1-3
PCIDEVRST#	NB , Super I/O
HDDRST#	Primary, Scondary IDE
PCIRST#	AGP SLOT

DDR DIMM Config.

DEVICE	ADDRESS	CLOCK
DIMM 1	1010000XB	MEMCLK_H5/MEMCLK_L5 MEMCLK_H0/MEMCLK_L0 MEMCLK_H7/MEMCLK_L7
DIMM 2	1010001XB	MEMCLK_H4/MEMCLK_L4 MEMCLK_H1/MEMCLK_L1 MEMCLK_H6/MEMCLK_L6

PCI Config.

DEVICE	MCP1 INT Pin	REQ#/GNT#	IDSEL	CLOCK	CLK GEN PIN OUT
PCI Slot 1	INTA# INTB# INTC# INTD#	PREQ#0 PGNT#0	AD19	PCICLK1	22 (PCICLK5)
PCI Slot 2	INTB# INTC# INTD# INTA#	PREQ#1 PGNT#1	AD20	PCICLK2	23 (PCICLK6)
PCI Slot 3	INTC# INTD# INTA# INTB#	PREQ#2 PGNT#2	AD21	PCICLK3	21 (PCICLK4)

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Title: GPIO Spec. Rev: 0A

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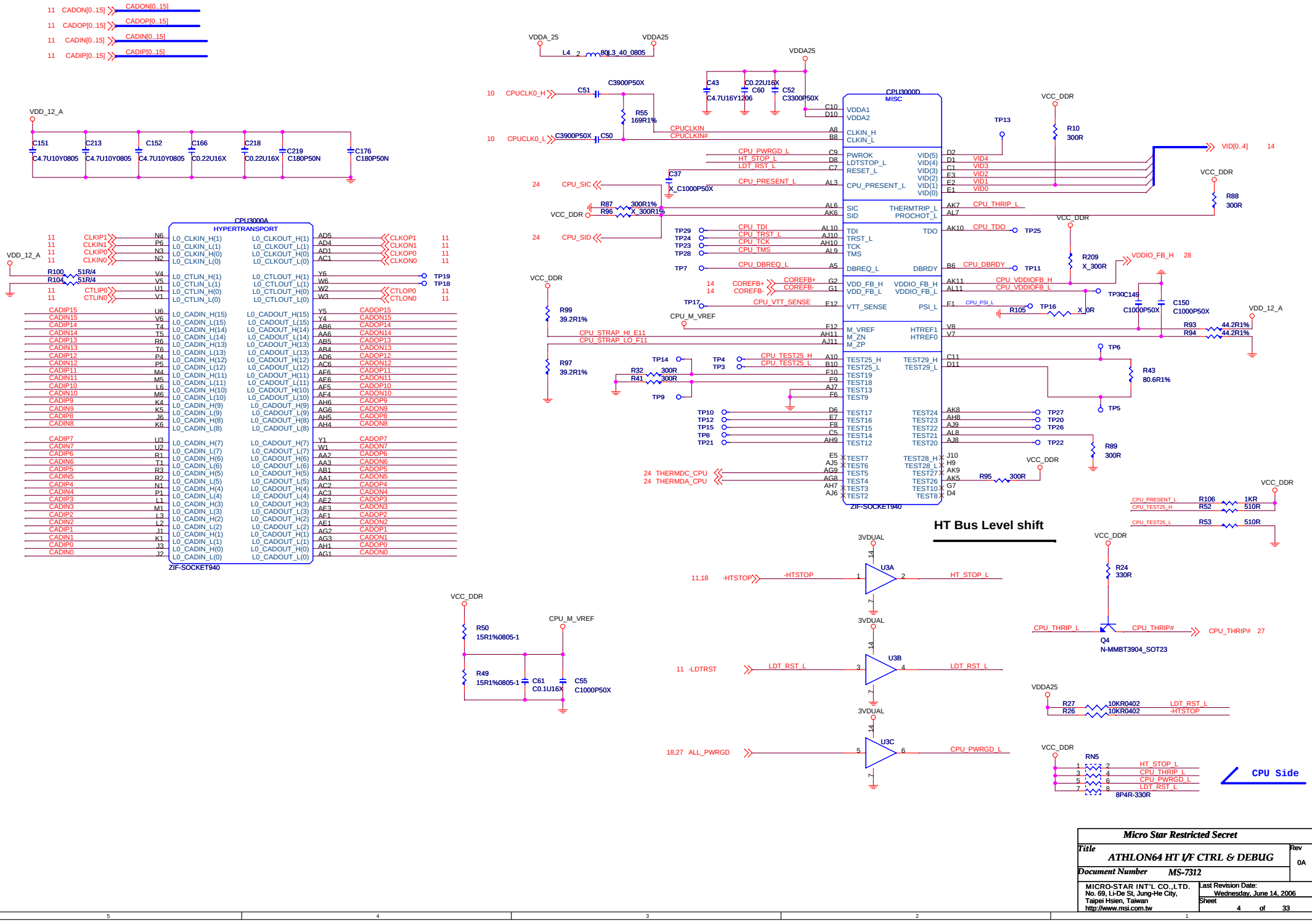

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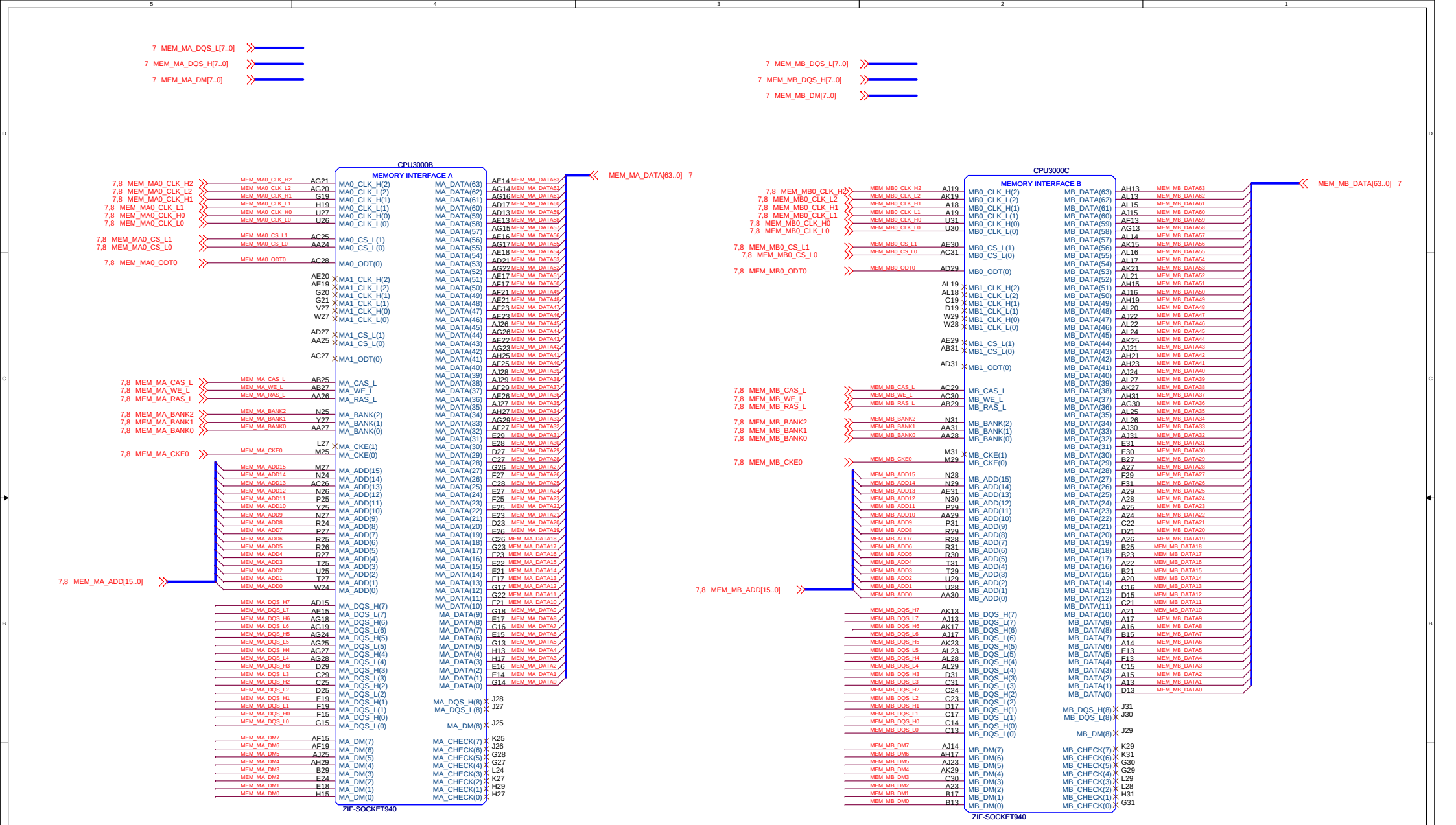

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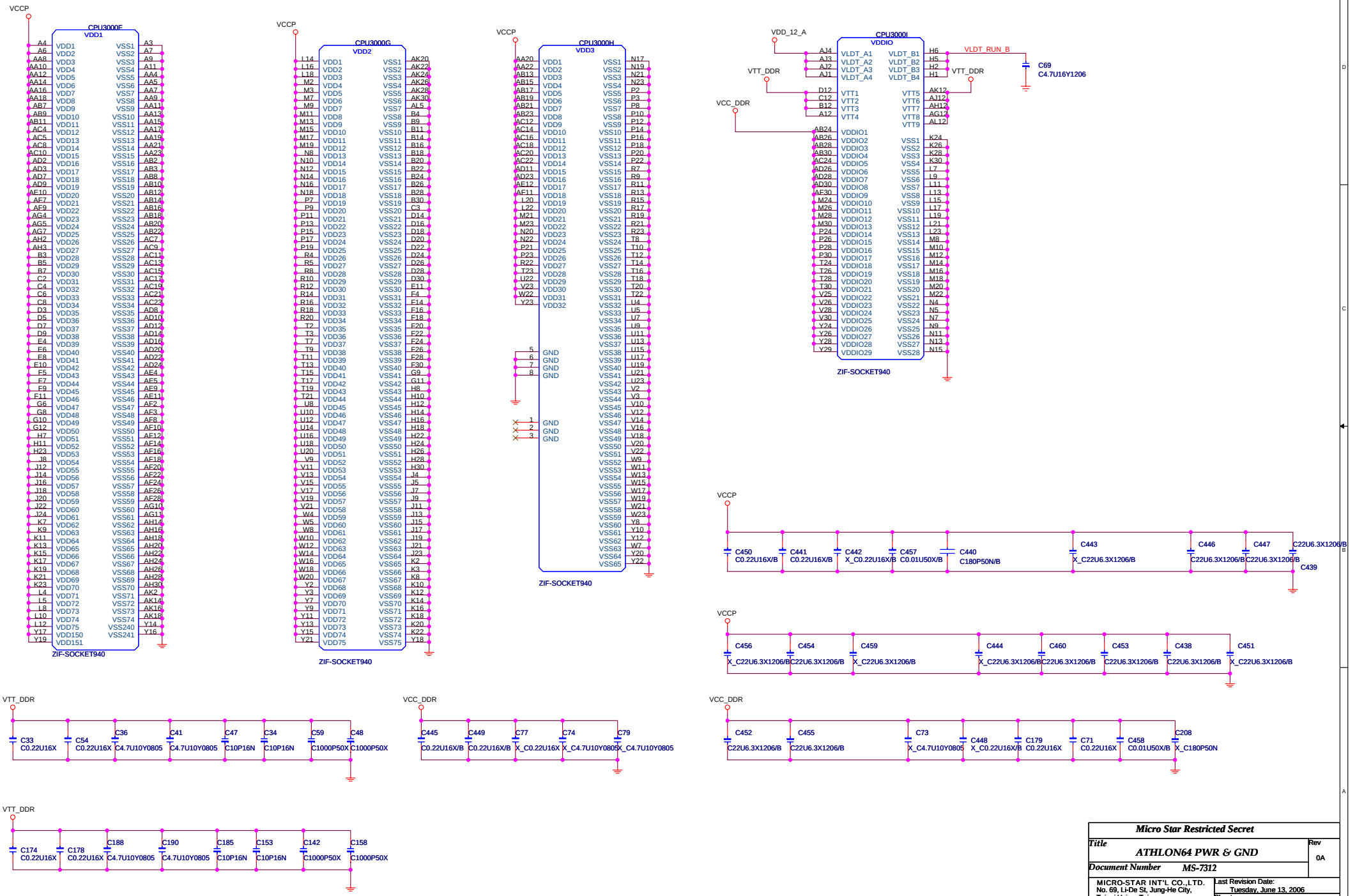

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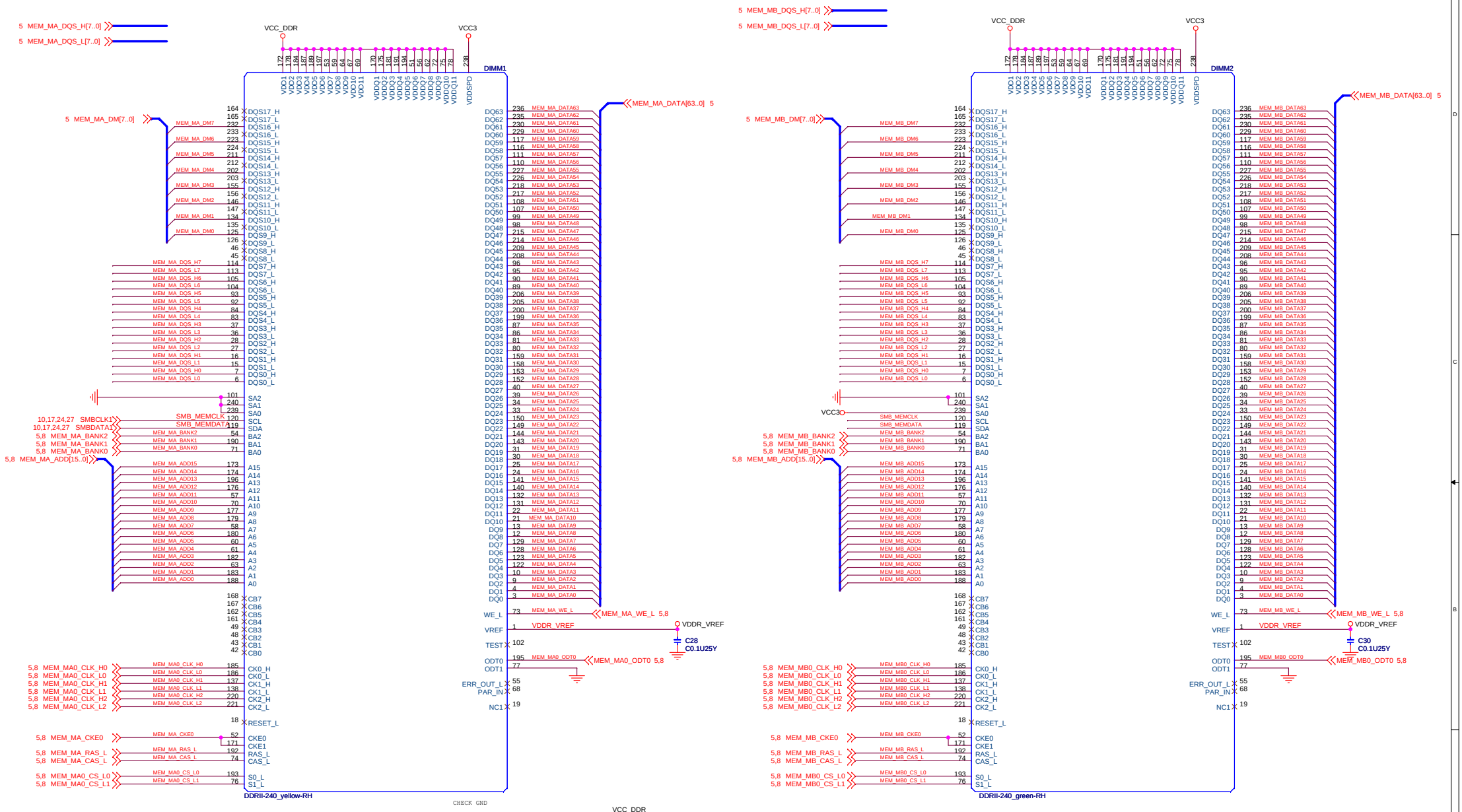

Micro Star Restricted Secret	
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Document Number: MS-7312	
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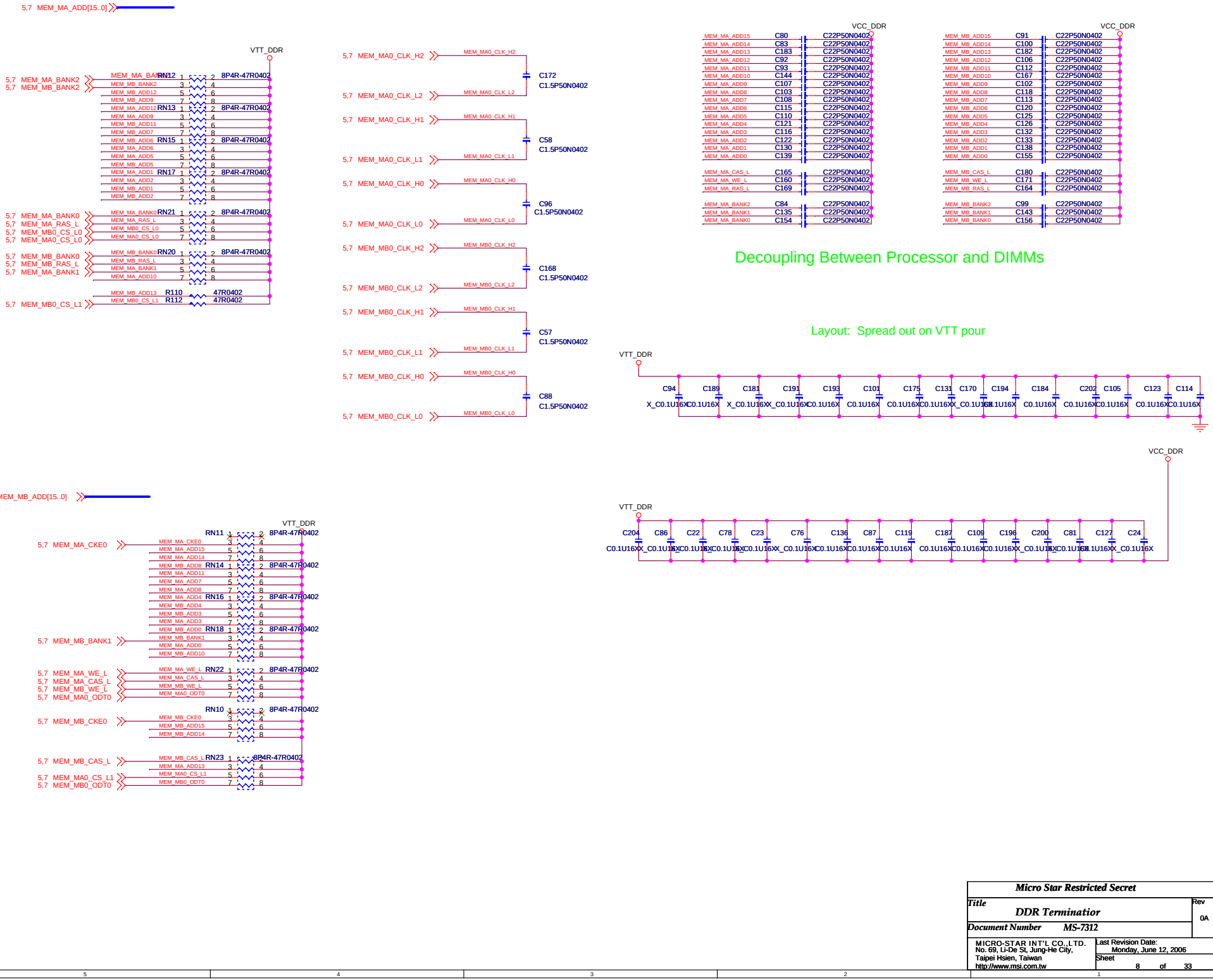

Micro Star Restricted Secret	
Title: DDR Terminatior	Rev: 0A
Document Number: MS-7312	
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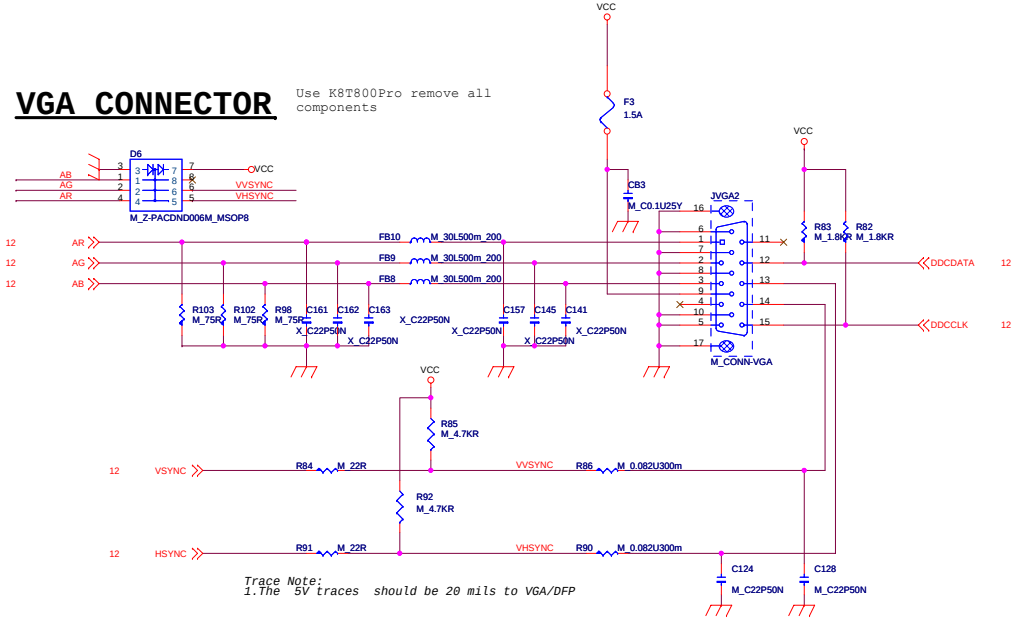
VGA CONNECTOR

Use K8T800Pro remove all components



Trace Note:
1.The 5V traces should be 20 mils to VGA/DFP

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Title	*SECOND LOGICAL DDR DIMM*	Rev 0A
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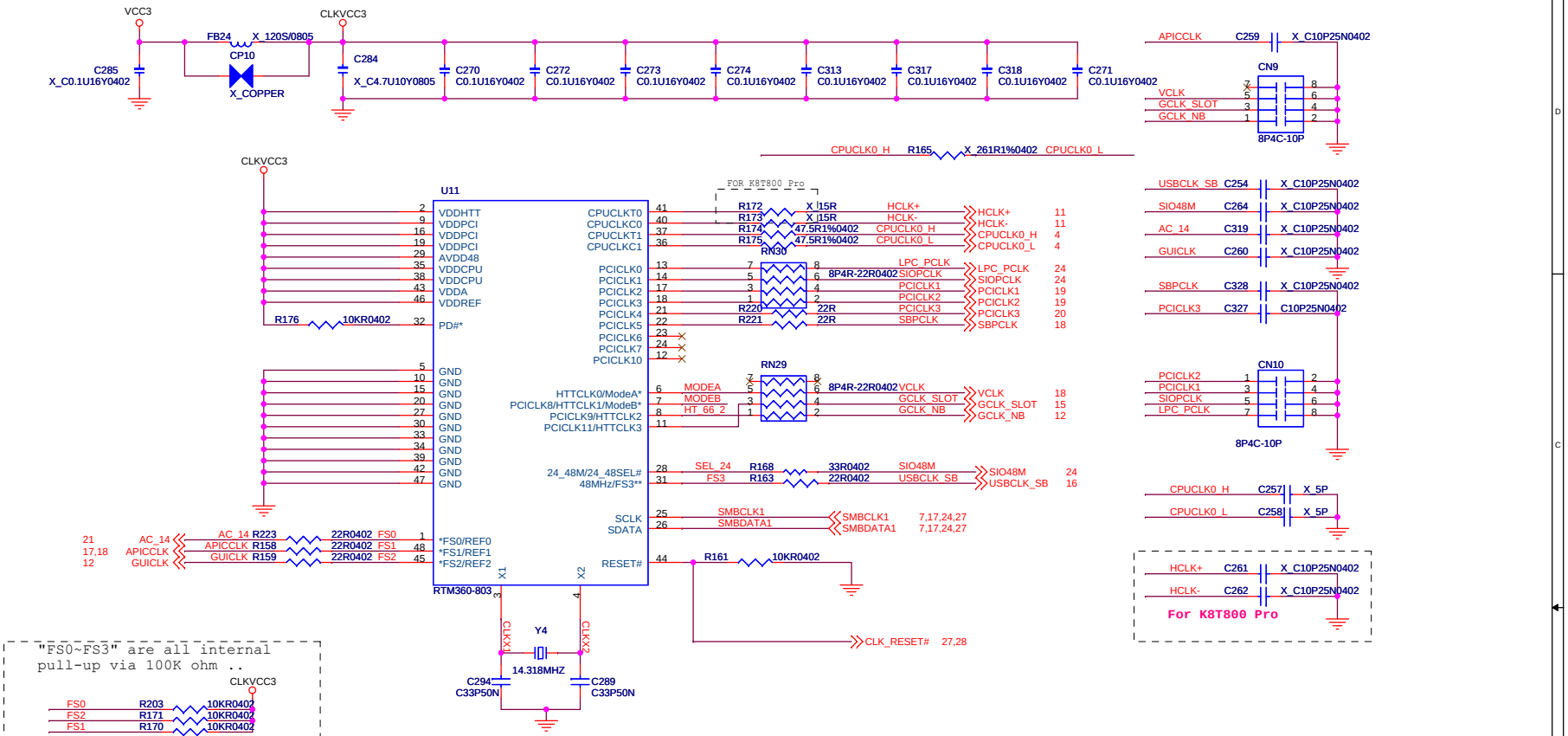
Clock Synthesizer



FS(3:0)	CPU	HTT	PCI
0000	100.90	67.27	33.63
0001	133.90	66.95	33.48
0010	168.00	67.20	33.60
0011	202.00	67.33	33.67
0100	100.20	66.80	33.40
0101	133.50	66.75	33.38
0110	166.70	66.68	33.34
0111	200.40	66.80	33.40
1000	150.00	60.00	30.00
1001	180.00	60.00	30.00
1010	210.00	70.00	35.00
1011	240.00	60.00	30.00
1100	270.00	67.50	33.75
1101	233.33	66.67	33.33
1110	266.67	66.67	33.33
1111	300.00	75.00	37.50

MODE A	MODE B	PIN7	PIN8	PIN11
0	0	HTTCLK1	HTTCLK2	PCICLK11
0	1	HTTCLK1	HTTCLK2	HTTCLK3
1	0	PCICLK8	PCICLK9	PCICLK11
1	1	HTTCLK1	PCICLK9	PCICLK11

SEL_24	PIN28
0	48M
1	24M

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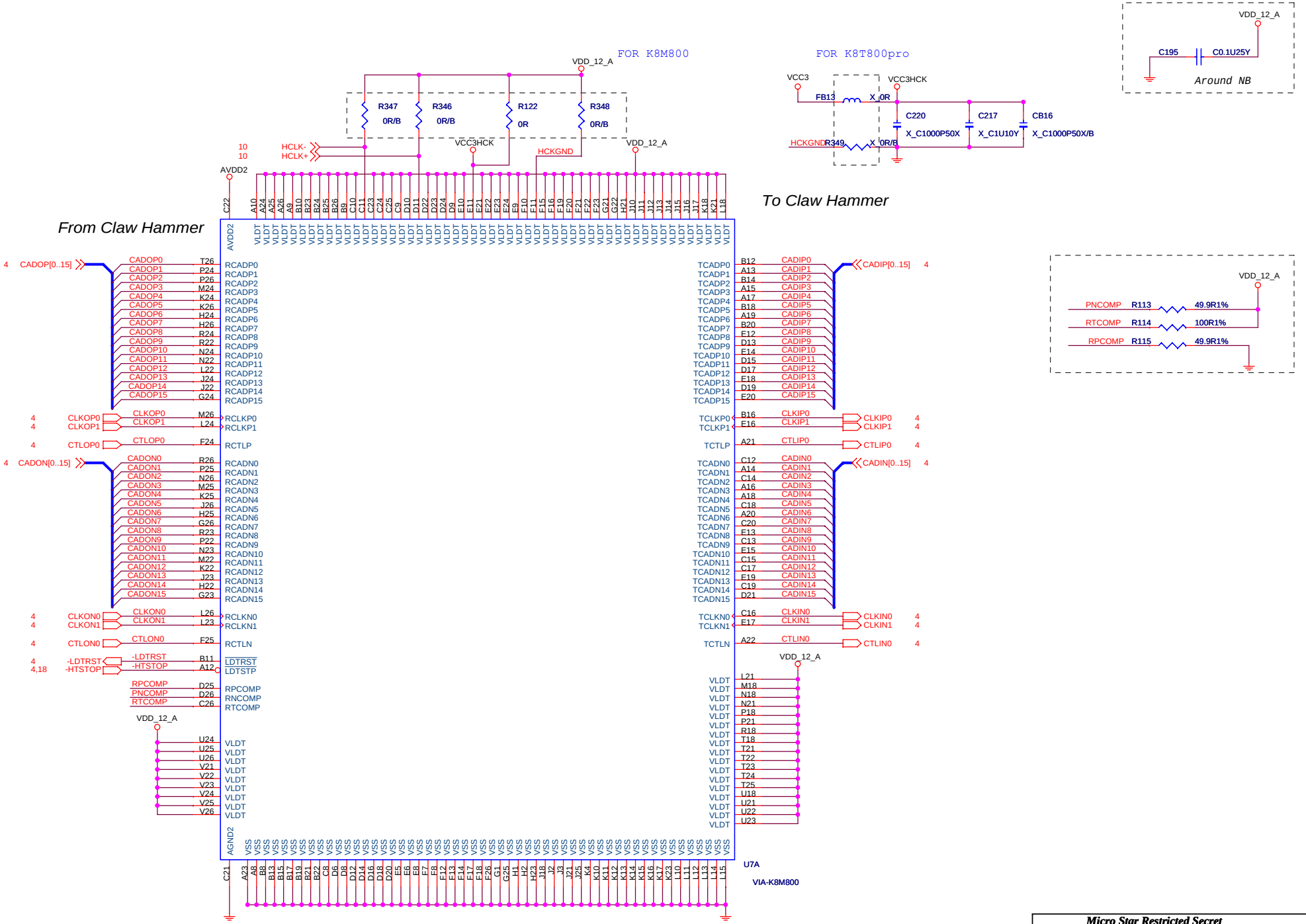

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Document Number: MS-7312	
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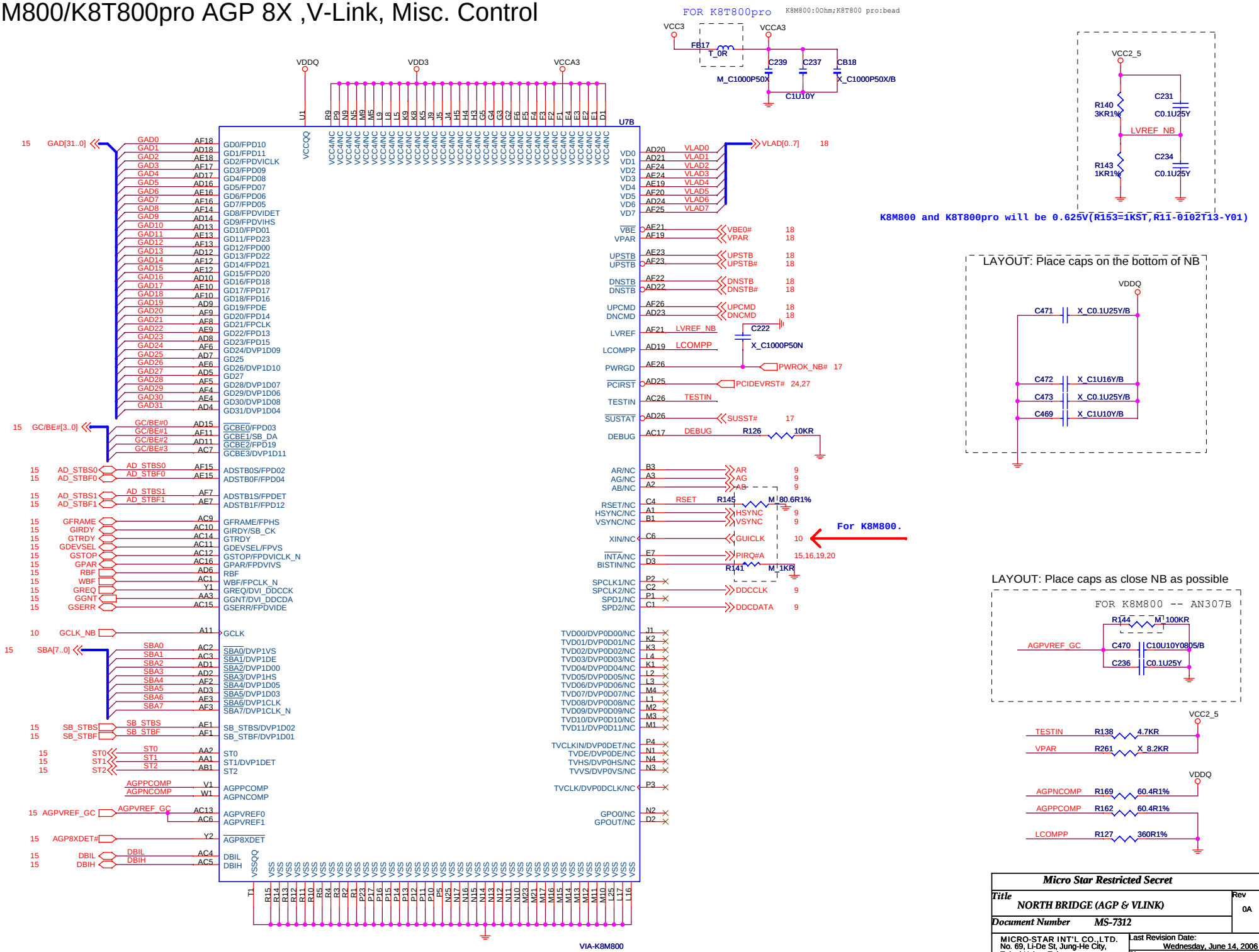
K8M800/K8T800pro AGP 8X ,V-Link, Misc. Control



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Title: NORTH BRIDGE (AGP & VLINK)	Rev: 0A
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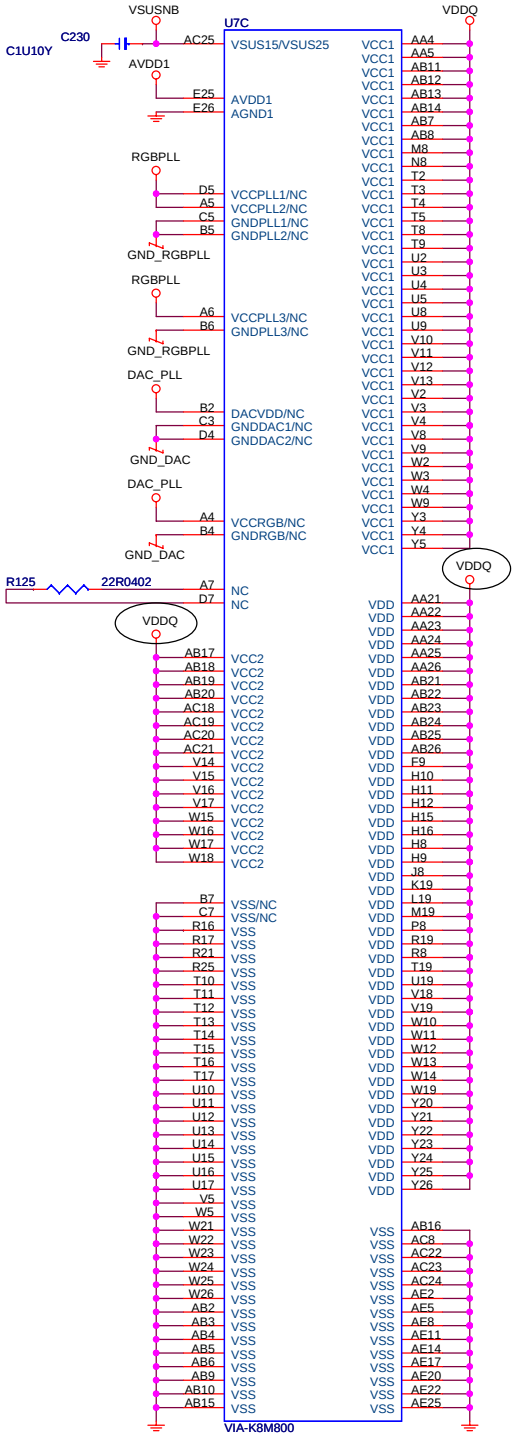
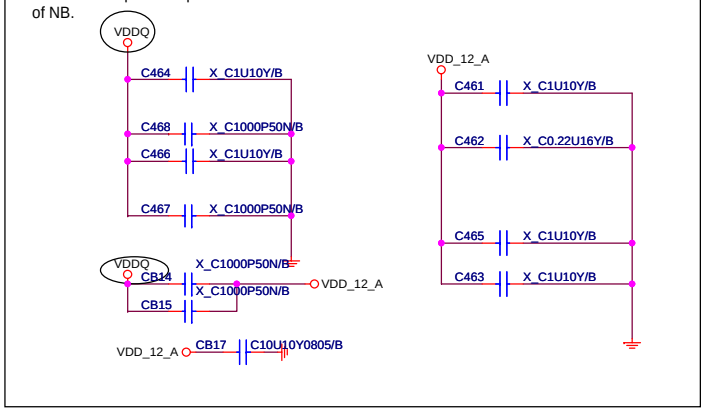
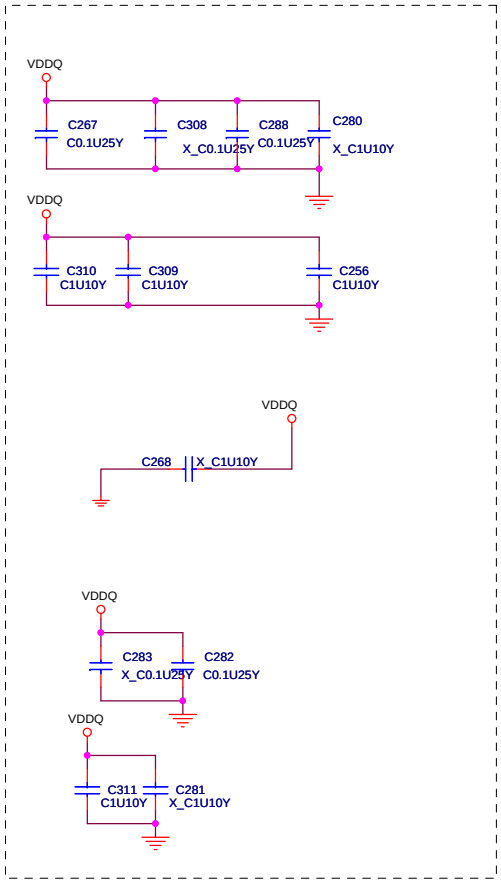
Power and Ground Connections

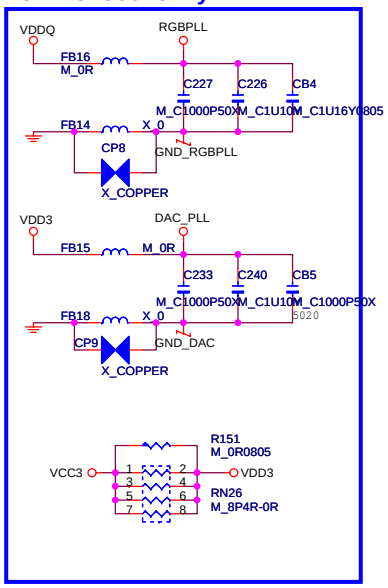


LAYOUT : Popualte caps on the bottom side of NB.



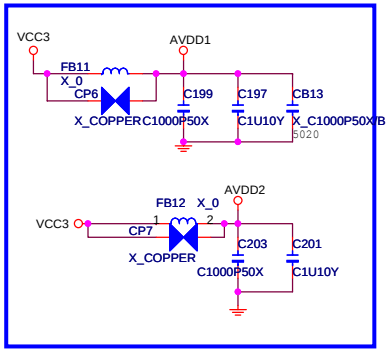


For K8M800 Only



Note: When use K8T800, these power circuit for GFX analog power should be NOPOPed.

For K8M800/K8T800 Pro Only



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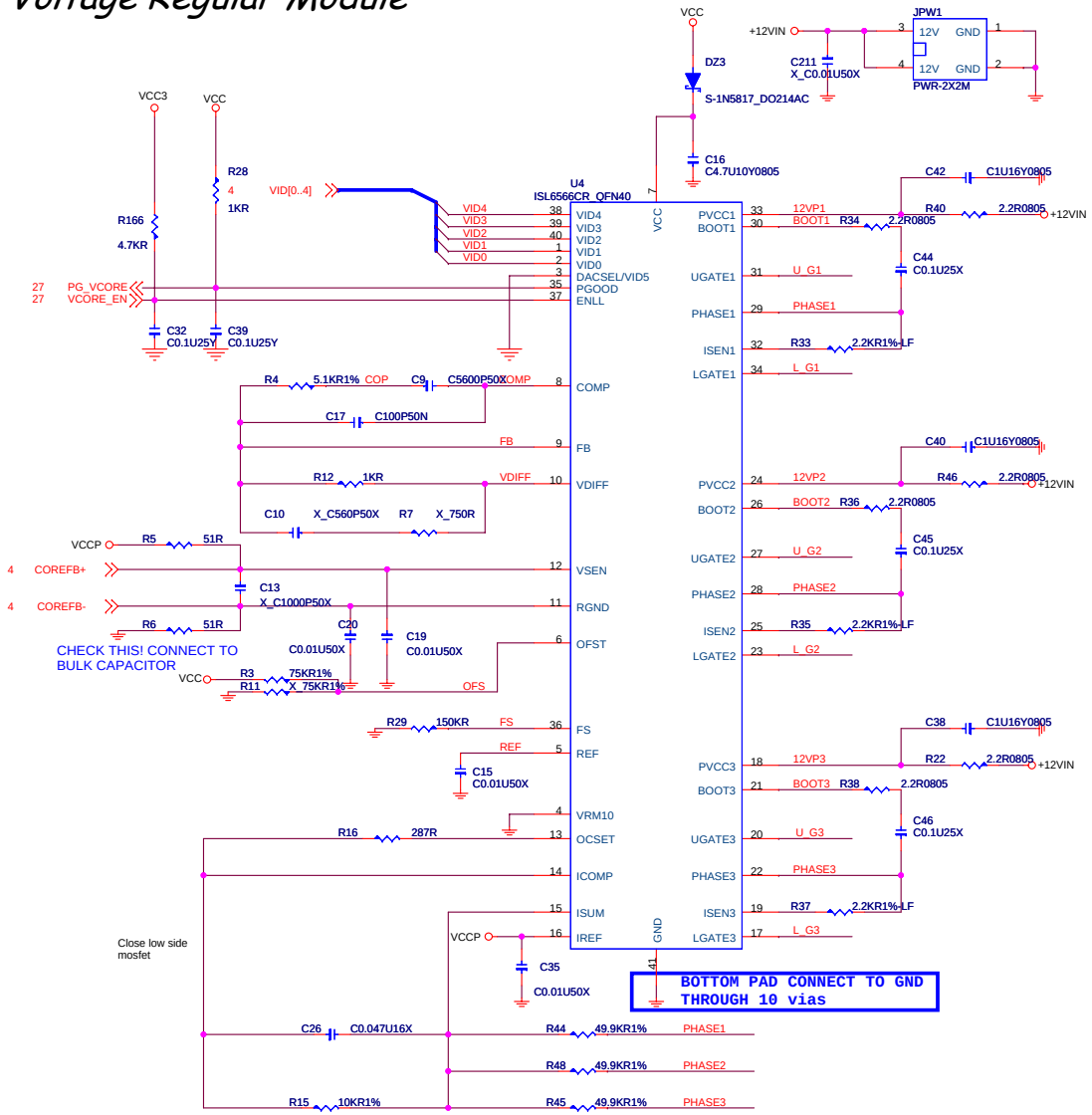
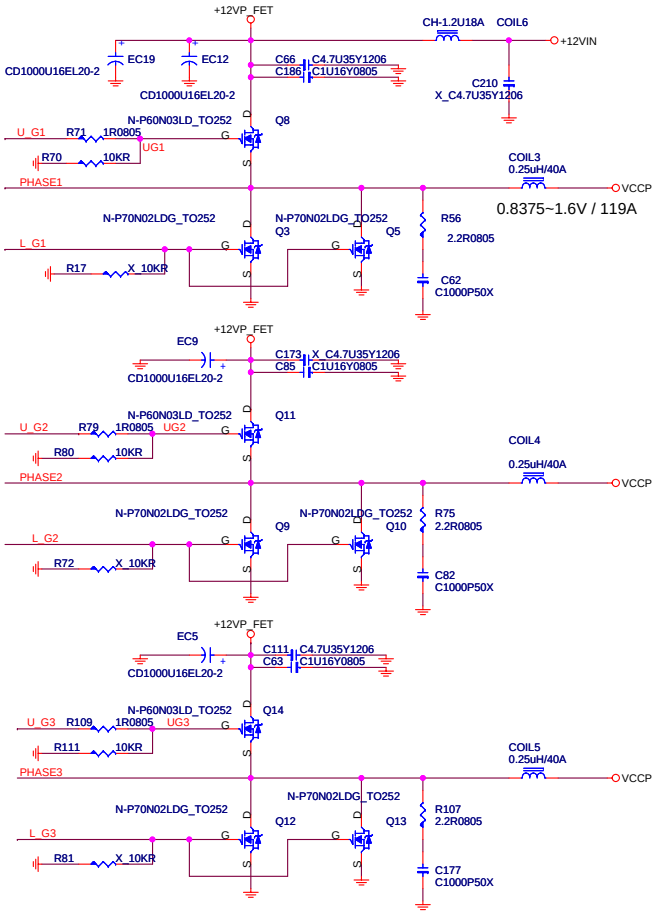
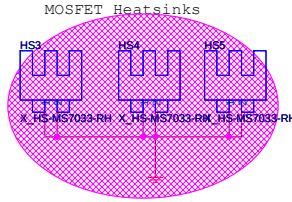
Voltage Regular Module



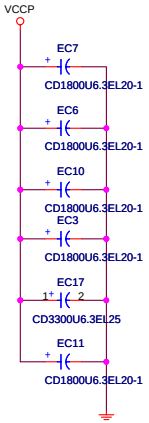
TDP = 115 W
VR_TDC = 101 A
Icc(max) = 119 A
Tejas Tcase = [P x 0.213] + 43.3
Prescott Tcase = [P x 0.25] + 43.3



MOSFET Heatsinks



EL Capacitors



IPF06N03LA	Rds(on)=8.7mΩ(@4.5V,30A),Vgs(on)=1.2~2V,Id=50A,Ciss=3110pf,Qg=10nC,Vds=25V,Vgs=±20V
C100U2SP	ESR<13mΩ,Ripple cur.<2.7A,LC<12uA,105C
.CD3300U6.3EL25	ESR<12mΩ,Ripplecur.<2800mA,105C,longlife3000hrs,KZGSeries
560u_2.5V	ESR=6mΩ,Ripplecur.=4400mA,Lc.<500uA,105C/2000hrs
1800UF/6.3V	ESR<12mΩ, Ripplecur<2350mA,105C, longlife change from 2000hrs to 3000hrs ,KZJ series
0.6uH/40A	0.6u/20%, Isat=40A,Rdc=1.2m ohm,PEW wire
CH-1.2U18A	1.2u/20%,Dip-2/vertical7.5mm,1.2ψ/5.5turns,18A

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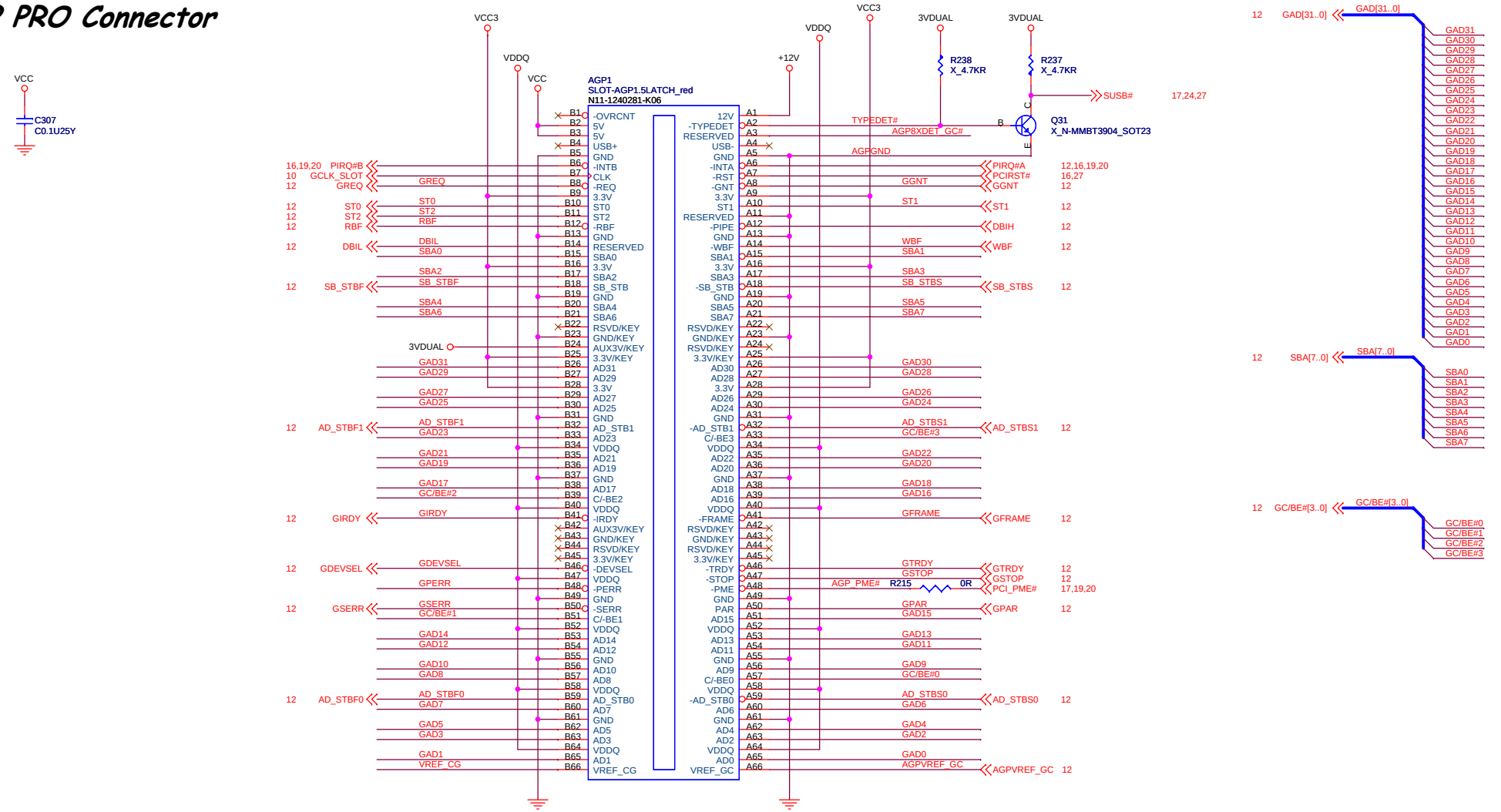
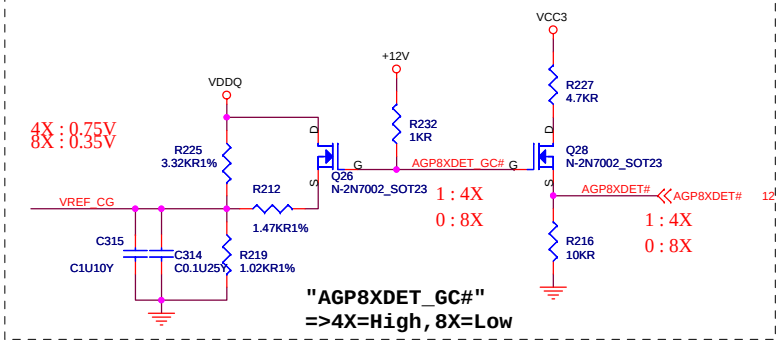
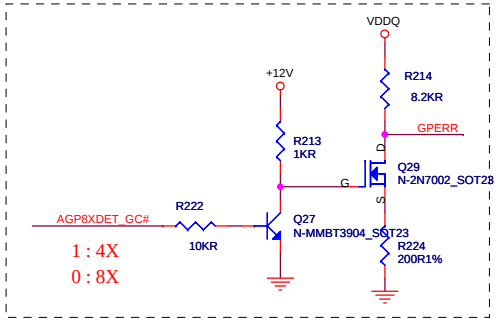
AGP PRO Connector



AGP "Vref" => 4X : 0.5*1.5V=0.75 Volt ,
8X : 0.23*1.5 =0.345 Volt





Add-in Card Power

	Imax	V_Min	V_Max	Units
VDDQ	2.0A	1.425	1.575	V
VCC3	6.0A	3.15	3.45	V
3VDUAL	0.75A	3.15	3.45	V
VCC5	2.0A	4.75	5.25	V
VCC12	1.0A	11.4	12.6	V

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Title	AGP PRO Slot	Rev 0A
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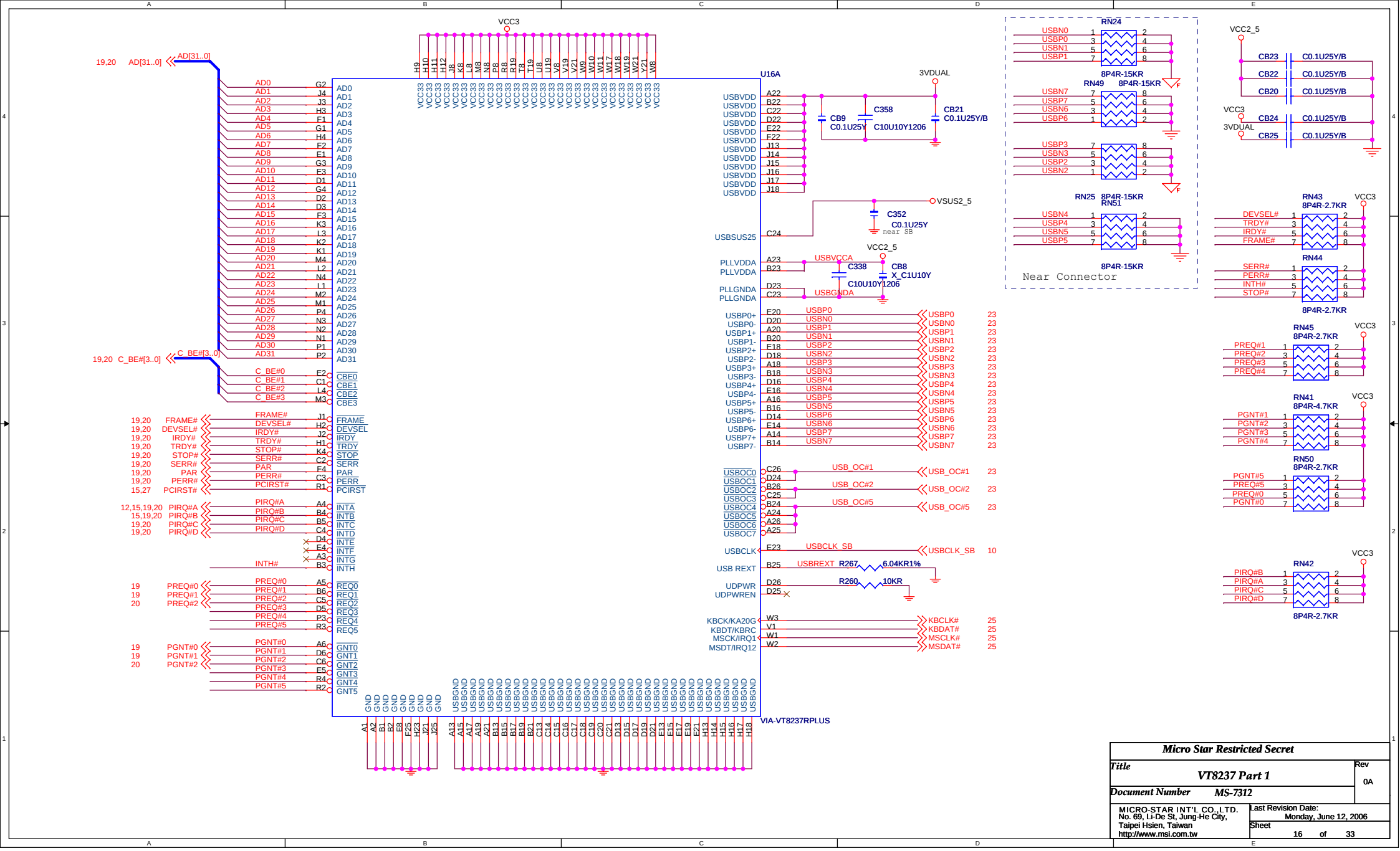
VIA-VT8237RPLUS
U16A
Near Connector
RN24
RN49
RN25
RN51
RN43
RN44
RN45
RN41
RN50
RN42
8P4R-15KR
8P4R-2.7KR
8P4R-4.7KR
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Title
VT8237 Part 1
Rev
0A
Document Number
MS-7312
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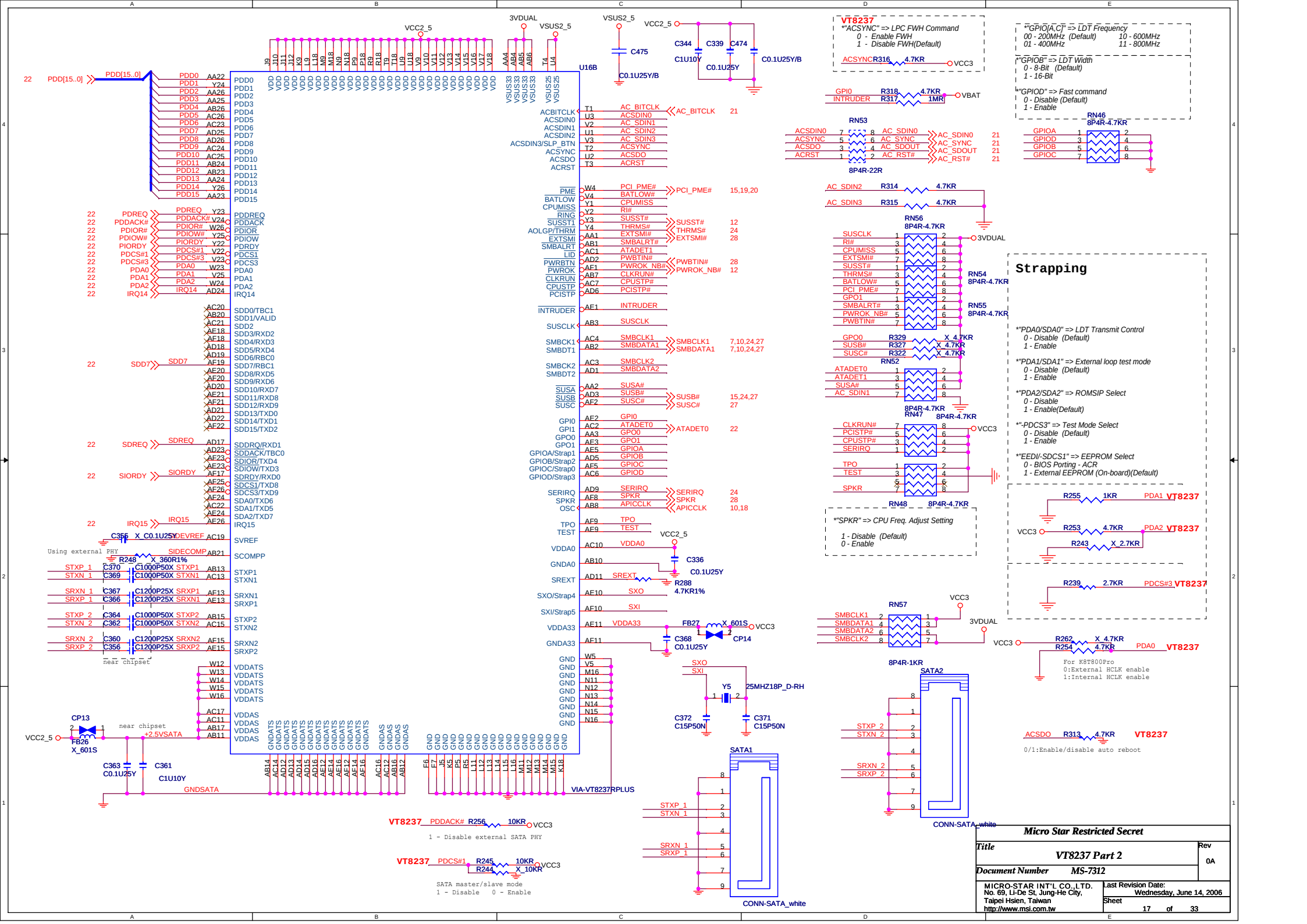
U16B
VT8237
*"ACSYNC" => LPC FWH Command
0 - Enable FWH
1 - Disable FWH(Default)
*"GPIO[A,C]" => LDT Frequency
00 - 200MHz (Default)
01 - 400MHz
10 - 600MHz
11 - 800MHz
*"GPIOB" => LDT Width
0 - 8-Bit (Default)
1 - 16-Bit
*"GPIOD" => Fast command
0 - Disable (Default)
1 - Enable
Strapping
*"PDA0/SDA0" => LDT Transmit Control
0 - Disable (Default)
1 - Enable
*"PDA1/SDA1" => External loop test mode
0 - Disable (Default)
1 - Enable
*"PDA2/SDA2" => ROMSIP Select
0 - Disable
1 - Enable(Default)
*"-PDCS3" => Test Mode Select
0 - Disable (Default)
1 - Enable
*"EEDI/-SDCS1" => EEPROM Select
0 - BIOS Porting - ACR
1 - External EEPROM (On-board)(Default)
*"SPKR" => CPU Freq. Adjust Setting
1 - Disable (Default)
0 - Enable
Using external PHY
near chipset
SATA1
SATA2
CONN-SATA_white
VIA-VT8237RPLUS
VT8237 PDDACK# R256 10KR VCC3
1 - Disable external SATA PHY
VT8237 PDCS#1 R245 10KR R244 X_10KR VCC3
SATA master/slave mode
1 - Disable 0 - Enable
ACSDO R313 4.7KR VT8237
0/1:Enable/disable auto reboot
For K8T800Pro
0:External HCLK enable
1:Internal HCLK enable
Micro Star Restricted Secret
Title
VT8237 Part 2
Rev
0A
Document Number
MS-7312
MICRO-STAR INT'L CO.,LTD.
No. 69, Li-De St, Jung-He City,
Taipei Hsien, Taiwan
http://www.msi.com.tw
Last Revision Date:
Wednesday, June 14, 2006
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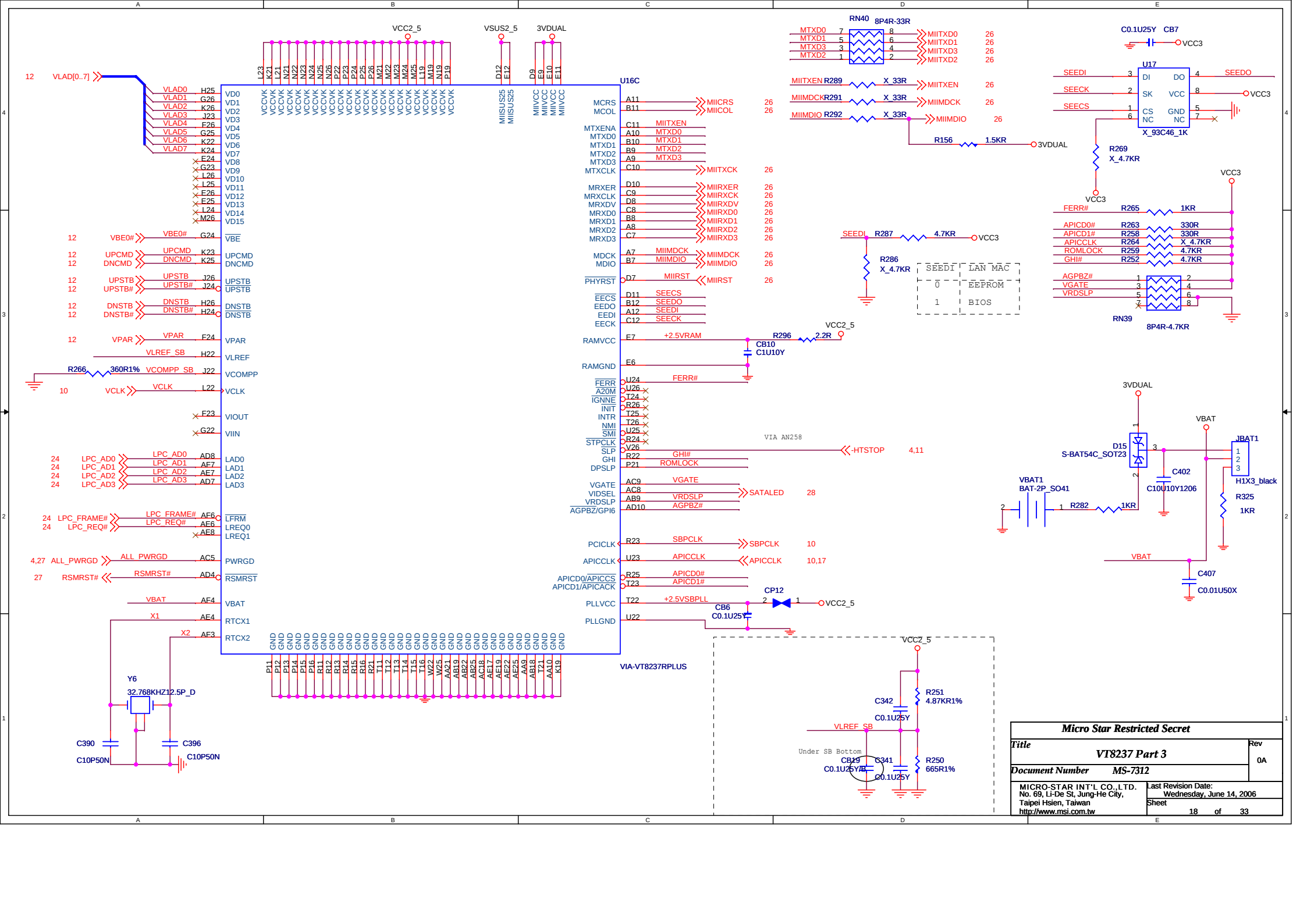
17 of 33


VIA-VT8237RPLUS
U16C
RN40 8P4R-33R
RN39 8P4R-4.7KR
U17 X_93C46_1K
JBAT1 H1X3_black
D15 S-BAT54C_SOT23
CP12
Y6 32.768KHZ12.5P_D
Under SB Bottom
Micro Star Restricted Secret
Title VT8237 Part 3
Rev 0A
Document Number MS-7312
MICRO-STAR INT'L CO.,LTD.
No. 69, Li-De St, Jung-He City,
Taipei Hsien, Taiwan
http://www.msi.com.tw
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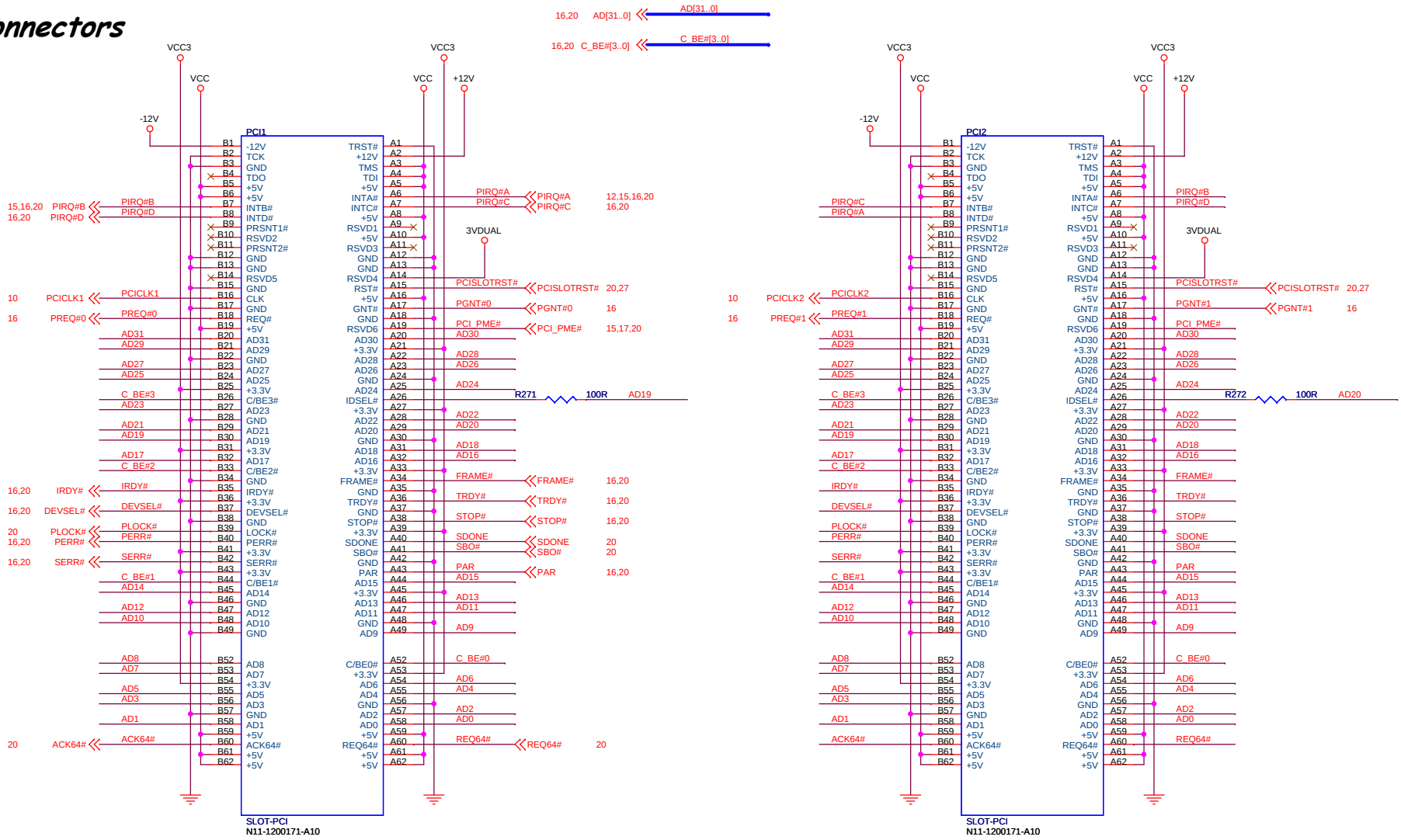
PCI Connectors

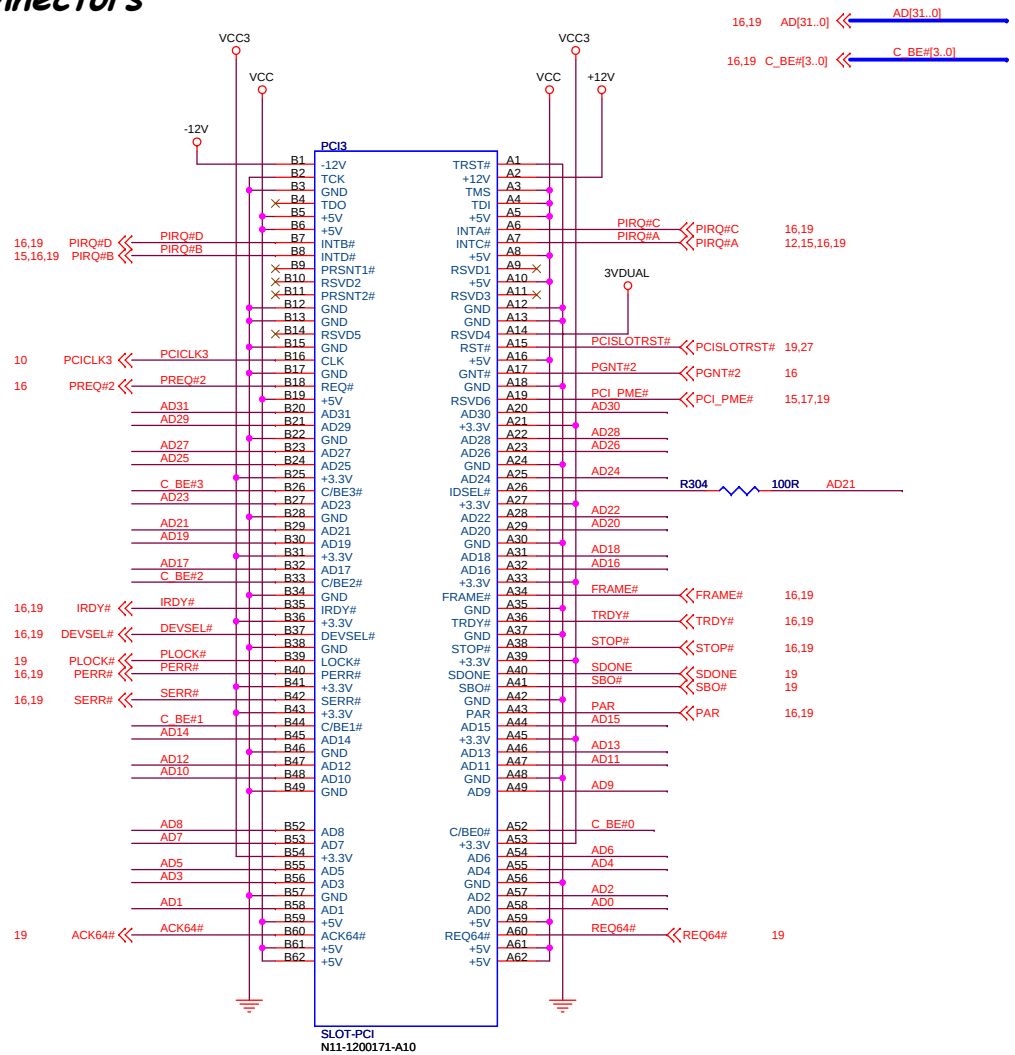


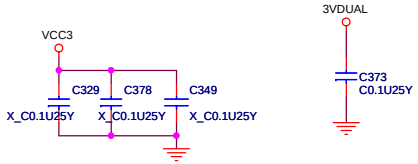
IDSEL#=AD19
INT#=A,B,C,D

IDSEL#=AD20
INT#=B,C,D,A

Micro Star Restricted Secret		
Title: PCI Connector 1 & 2		Rev: 0A
Document Number: MS-7312		
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Wednesday, June 14, 2006	Sheet 19 of 33

PCI Connectors





Micro Star Restricted Secret

Title	PCI Connector 3
Rev	0A
Document Number	MS-7312
Last Revision Date:	Wednesday, June 14, 2006
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MICRO-STAR INT'L CO.,LTD.
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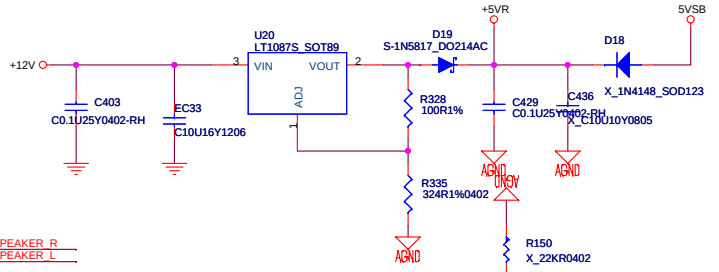
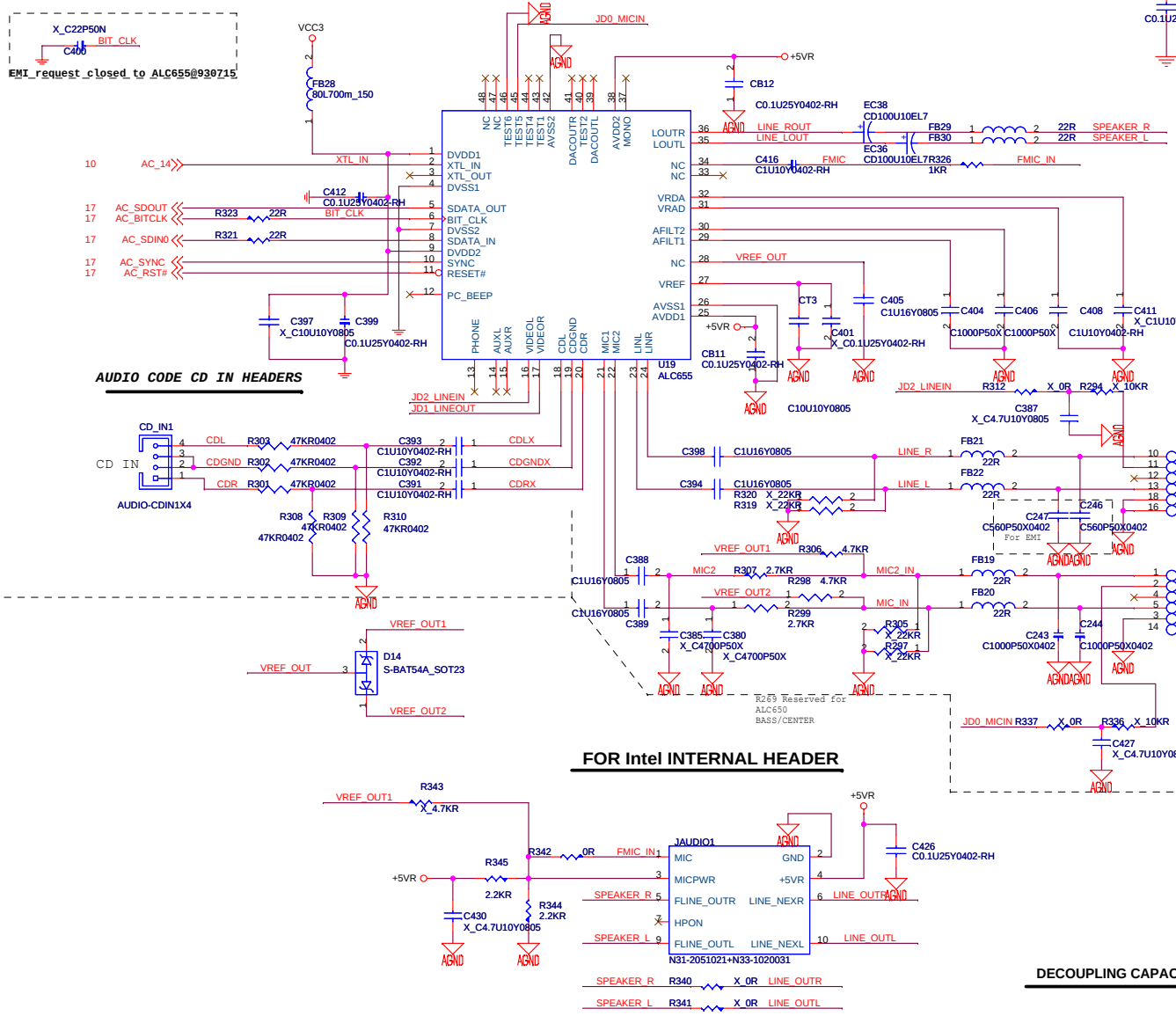
http://www.msi.com.tw

AUDIO CODE REGULATORS

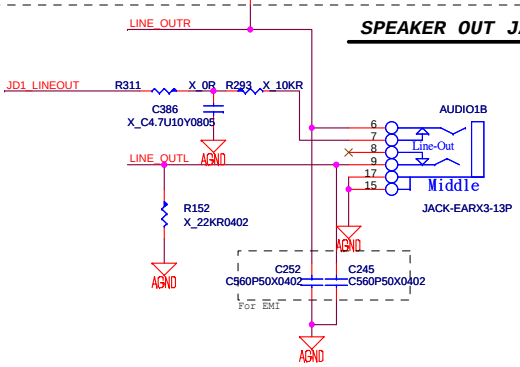


AC655 AC97 CODEC



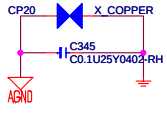
AUDIO CODE CD IN HEADERS

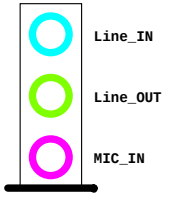
SPEAKER OUT JACK

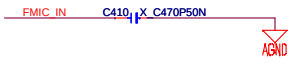


FOR Intel INTERNAL HEADER

DECOUPLING CAPACITOR







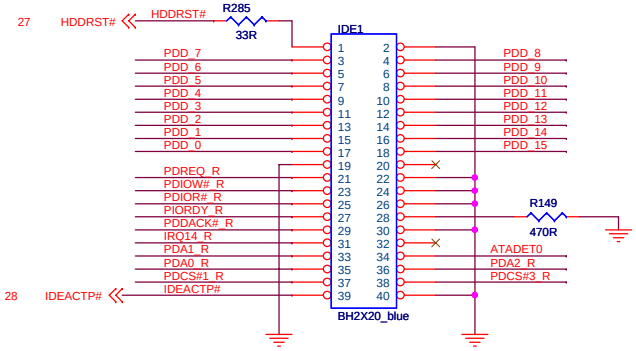
Micro Star Restricted Secret	
Title: PCI Connector 3	Rev: 0A
Document Number: MS-7312	
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Wednesday, June 14, 2006
	Sheet 21 of 33

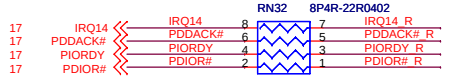
ATA 33/66/100 Connector

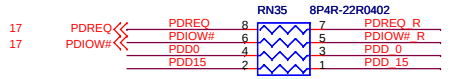
17 PDD[15..0] PDD[15..0]

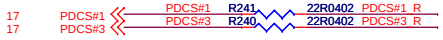
NEAR S.B SIDE

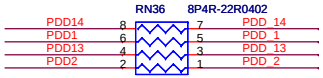
PRIMARY IDE CONN.

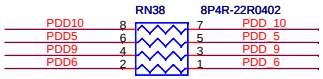


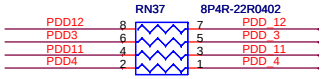


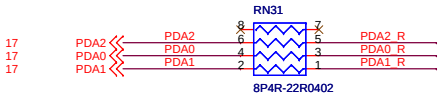






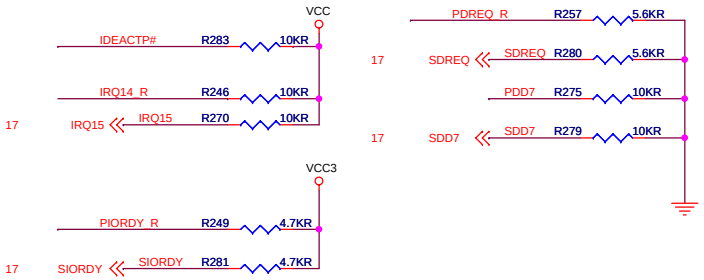






Near SB < 1" (or Damping Rs)

17 ATADET0 ATADET0



Micro Star Restricted Secret	
Title: ATA 66/100/133 Connector	Rev: 0A
Document Number: MS-7312	
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Wednesday, June 14, 2006
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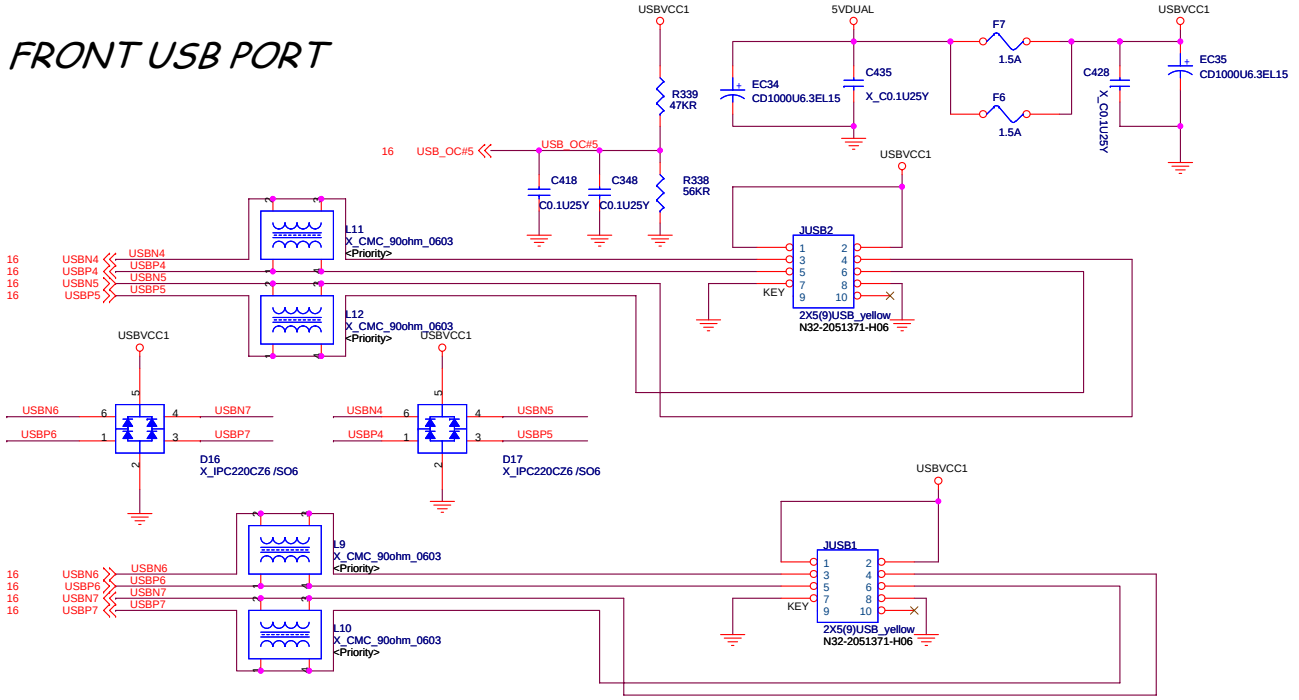
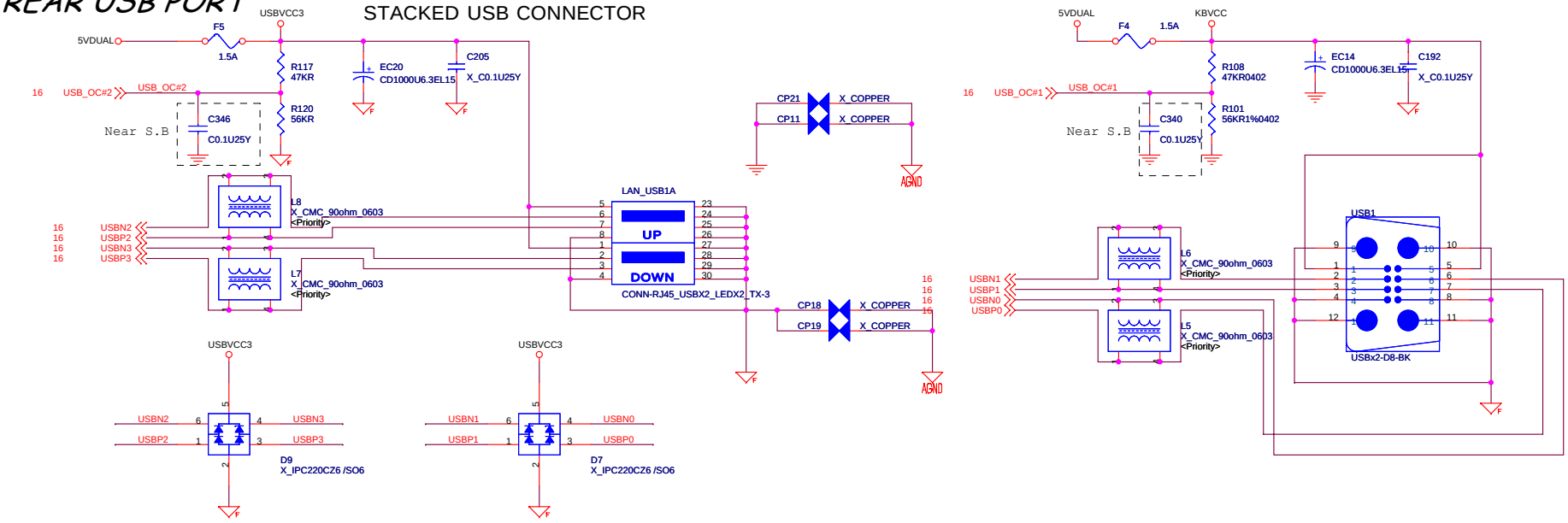
FRONT USB PORT

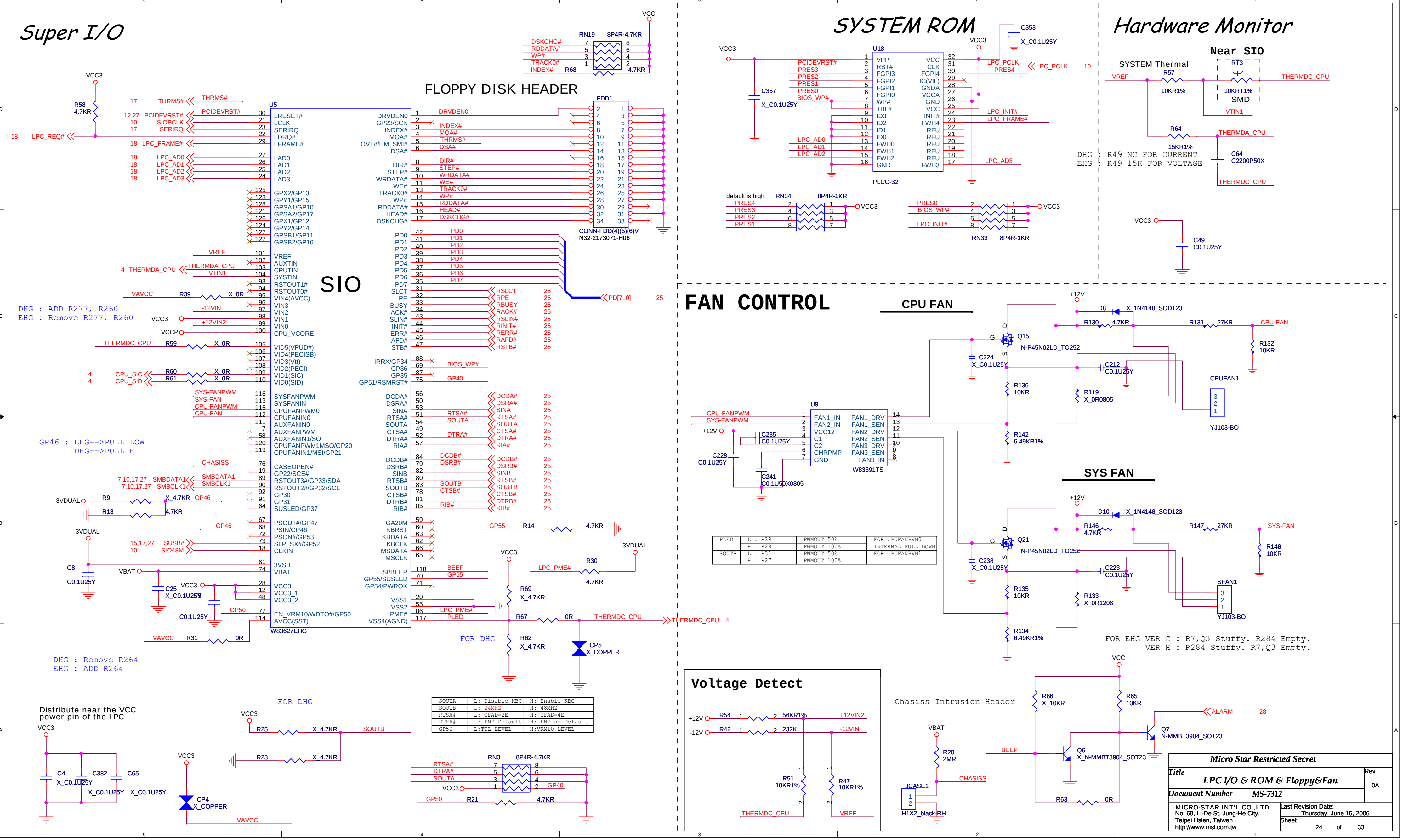


REAR USB PORT

STACKED USB CONNECTOR



Micro Star Restricted Secret		
Title	***USB Port***	Rev 0A
Document Number	***MS-7312***	
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Wednesday, June 14, 2006	Sheet 23 of 33



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
GP50	L:TTL LEVEL	H:VRM10 LEVEL

PLED	L : R29	PWMOUT 50%	FOR CPUFANPWM0
	H : R28	PWMOUT 100%	INTERNAL PULL DOWN
SOUTB	L : R31	PWMOUT 50%	FOR CPUFANPWM1
	H : R27	PWMOUT 100%	

Title: LPC I/O & ROM & Floppy&Fan		Rev 0A
Document Number: MS-7312		
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Thursday, June 15, 2006	
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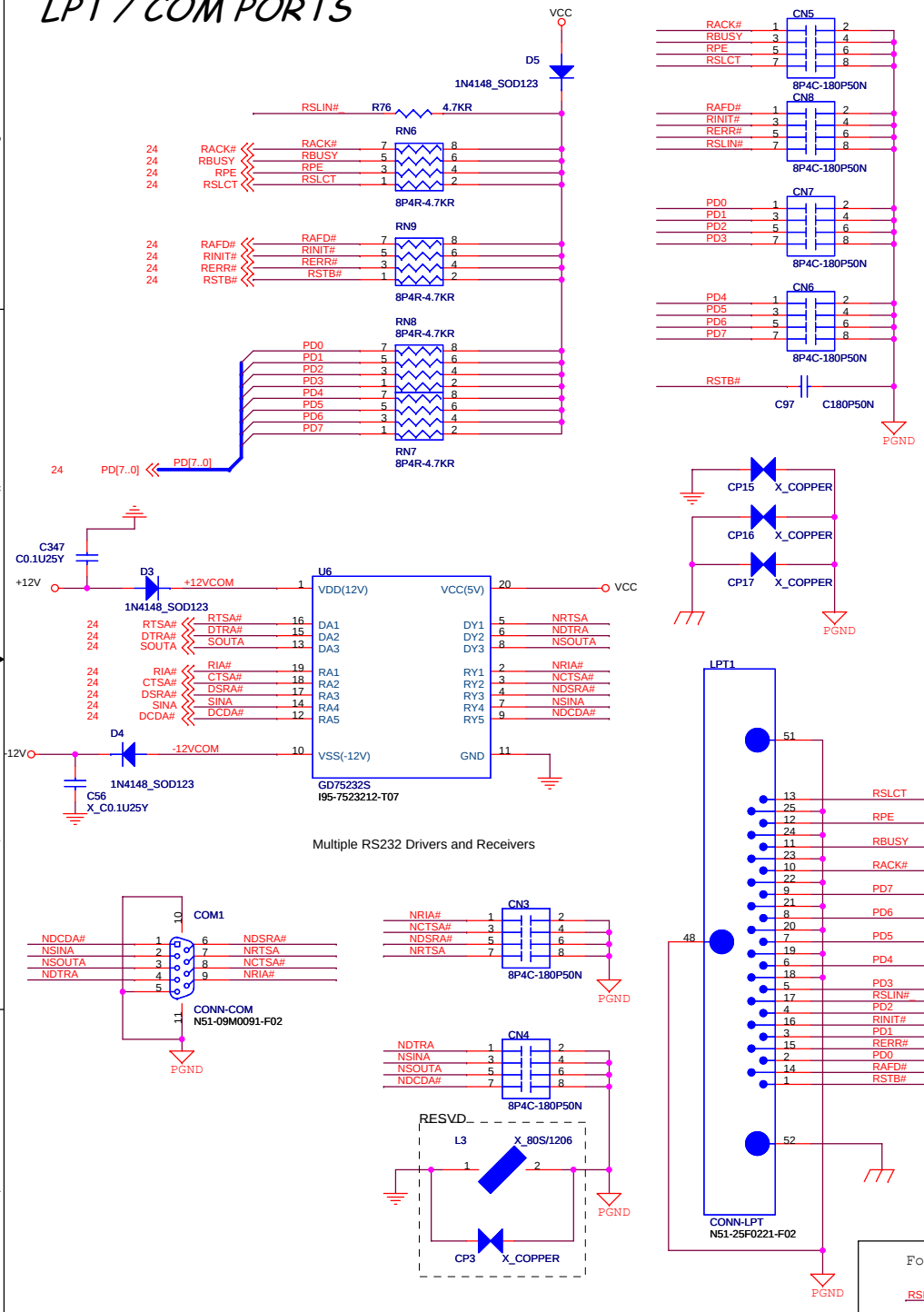
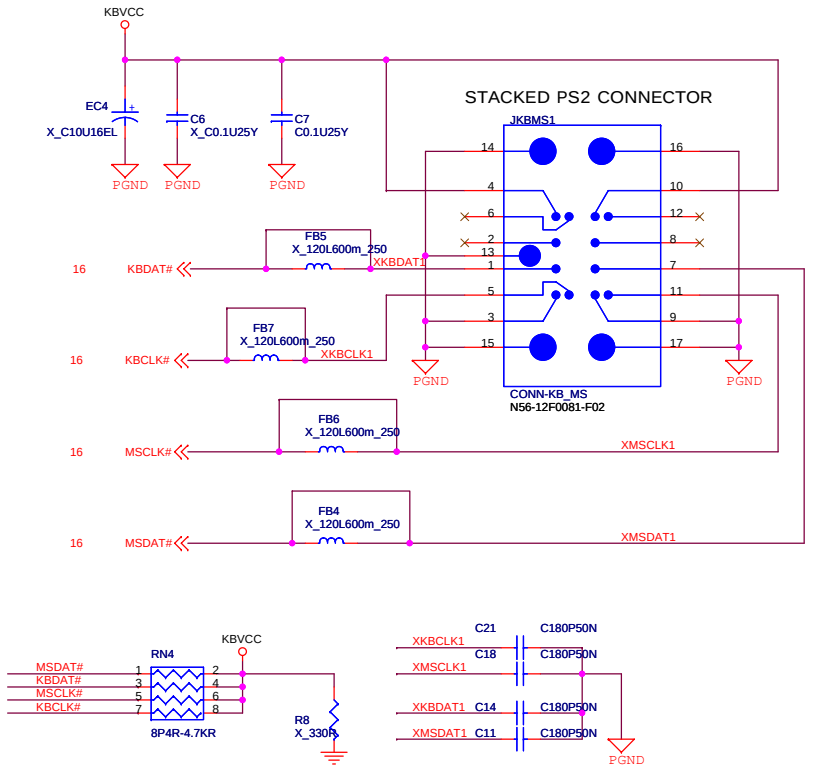
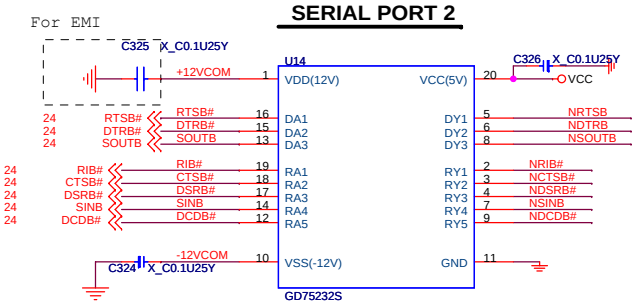
LPT / COM PORTS

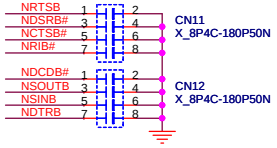


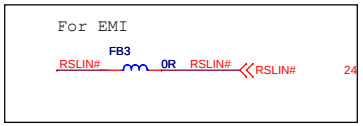
Keyboard/Mouse Ports



SERIAL PORT 2







Micro Star Restricted Secret	
Title: KeyBoard/Mouse/LPT/COM	Rev: 0A
Document Number: MS-7312	
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Wednesday, June 14, 2006
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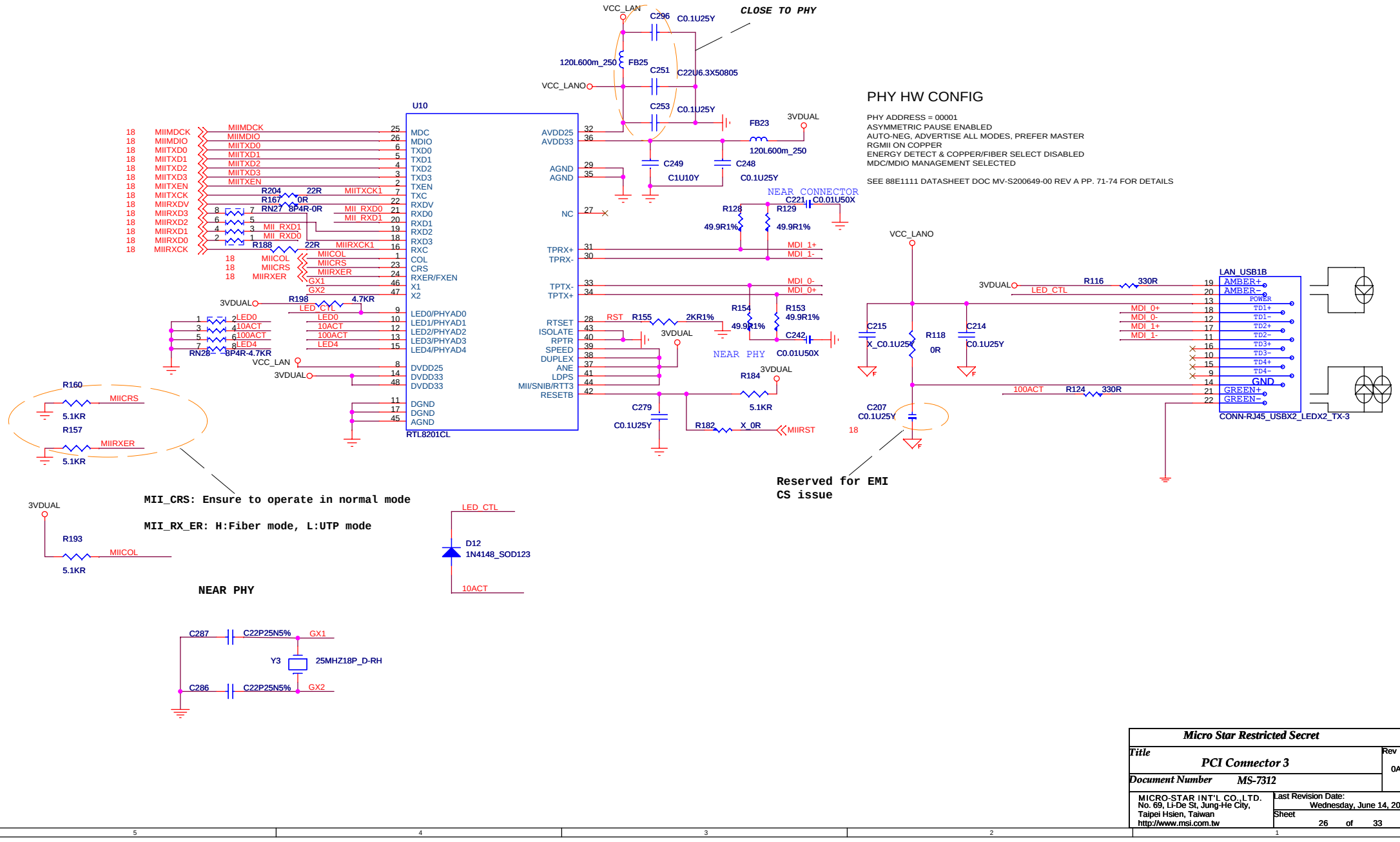

Micro Star Restricted Secret	
Title: PCI Connector 3	Rev: 0A
Document Number: MS-7312	
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Wednesday, June 14, 2006
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LINEAR MODE

THESE OUTPUT AND INPUT PIN MUST BE PULL HIGH

ALL_PWRGD 4,18 — CHIP PWR_GD OUTPUT
SMBCLK1 7,10,17,24 — I2C BUS
SMBDATA1 7,10,17,24 — I2C BUS
RSMRST# 18 — CONNECT TO SOUTH BRIDGE RSMRST# SIGNAL
SUSC# 17 — SOUTH BRIDGE POWER CONTROL(SLP_S4# OR SUSB#) SIGNAL
SUSB# 15,17,24 — SOUTH BRIDGE POWER CONTROL(SLP_S3# OR SUSC#) SIGNAL
PW_OK 28 — ATX POWER OK INPUT

VDIMM LINEAR OR PWM SELECT

VDIMM MODE	EXTRAM
LINEAR REGULATOR	PULL LOW
PWM REGULATOR	PULL HIGH

FRONT PANEL RESET BUTTON
PCIRST# INPUT

PCIRST# BUFFER OUTPUT

PCI SOLT PCIRST# BUFFER OUTPUT

CHARGE PUMP VOLTAGE OUTPUT

CONNECT TO CPU

Low RDS ON MOSFET

CLOSE TO CHIP

CONNECT TO SOUTH BRIDGE SUSB# SIGNAL

WATCHING DOG TIMER SELECT

WD_DET	TIMER
PULL LOW	OFF
PULL HIGH	ON

THE TWO MODE ONLY ONE MODE PRESENT

SINGLE MODE — THIS MODE SELECT BY PIN 47 PULL HIGH 5VSB

DUAL MODE — THIS MODE SELECT BY PIN 47 PULL LOW

THE TWO BLOCK CHOICE ONE SUPPORT SYSTEM POWER CONTROL

THE VDIMM_HSEN IN LINEAR MODE

DDRTYPE	VDIMM_HSEN VREF
DDR	2.0V
DDR II	1.7V

3VSB REGULATE BY 5VSB AND VCC3

DDR AND DDR II VOLT SELECT

DDRTYPE	VDIMM
PULL LOW	2.5V
PULL HIGH	1.8V

DDR TERMINATION

U8 W83310DS_SOIC8 — VREF2, ENABLE, VCNTL, BOOT_SEL, VIN, GND, VREF1, VOUT

U12 — FP_RST#, PCIRST#, HDD_RST#, DEV_RST#, VDD_GD, VDD_EN, 1.25VREF, VCC5, SLOT_RST#, VCC3, 2.5VDDA, AGND0; PLED1/EXTRAM, PLED0/3VDLDEC#, CPU_PWGD, CHIP_PWGD, I2C_CLK, I2C_DATA, RSMRST#, SS#, SUSB#, PWR_OK, 5VSB, GND; C1, C2, CHRPMP, AGND1, 5VUSB_DRV, 5V_DRV, VAGP_DRV, VAGP_SEN, WD_DET, 1.2VLDT_DRV, 1.2VLDT_SEN, TMP_FAULT#; PSIN#, PSOUT#, MEMBT, SS, 5VSB, DDRTYPE, VDIMM_LSEN, VDIMM_LDRV, VDIMM_HSEN, VDIMM_HDRV, 3VSB_SEN, 3VSB_DRV

Micro Star Restricted Secret

Title	Rev
ACPI POWER CONTOLLER (MS-6)	0A
Document Number MS-7312	

MICRO-STAR INT'L CO.,LTD.
No. 69, Li-De St, Jung-He City,
Taipei Hsien, Taiwan
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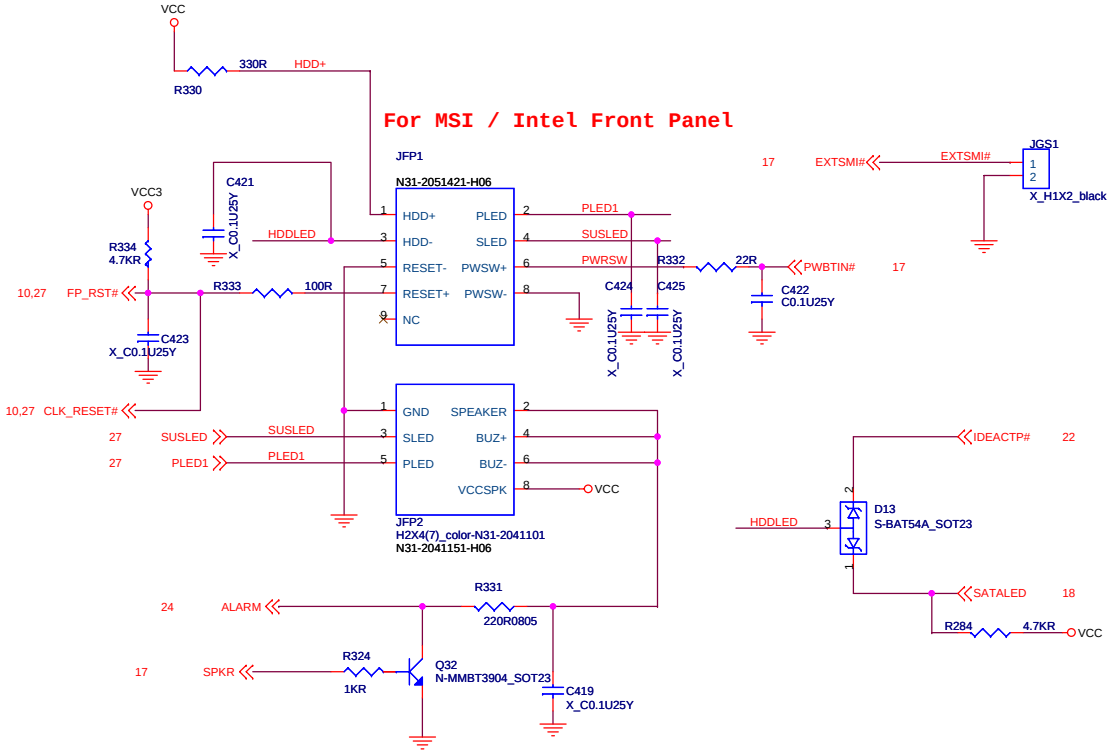
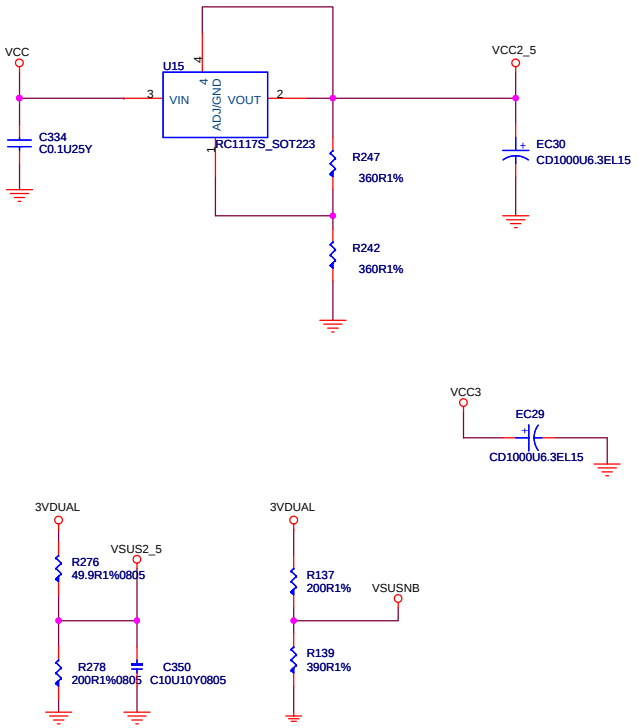
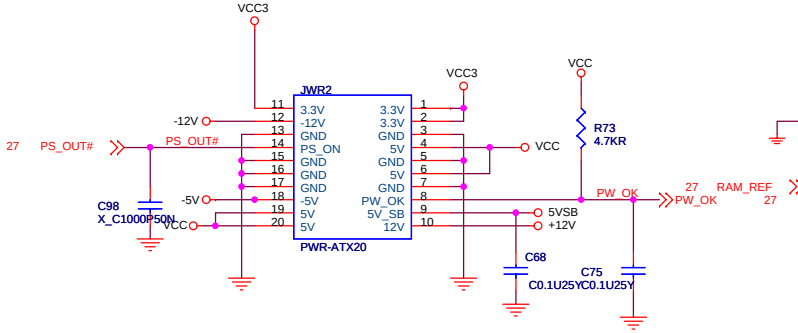
FRONT PANEL



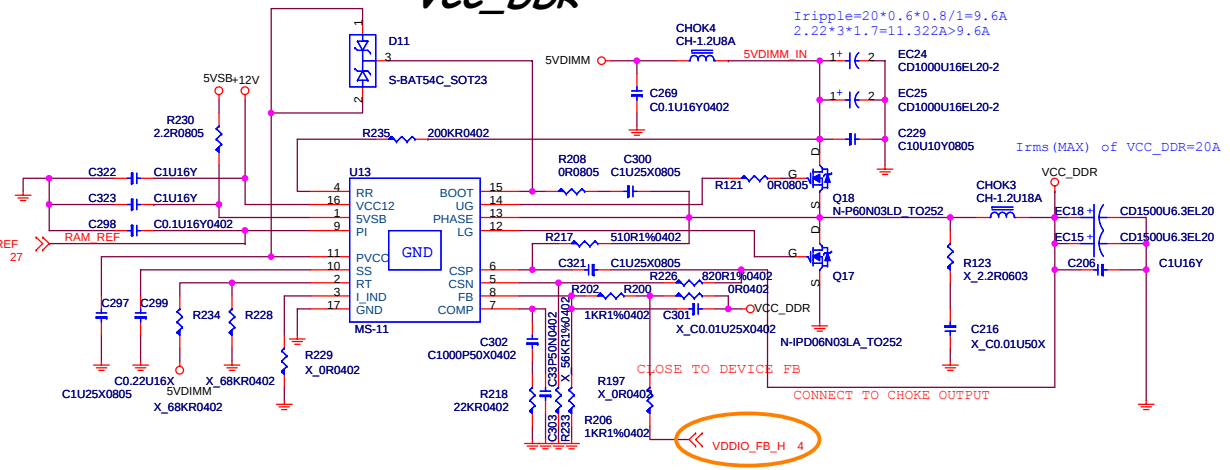
System Voltage Regulator



ATX Power Connector



VCC_DDR



Micro Star Restricted Secret	
Title: System Regulator&Front Panel	Rev: 0A
Document Number: MS-7312	
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Wednesday, June 14, 2006
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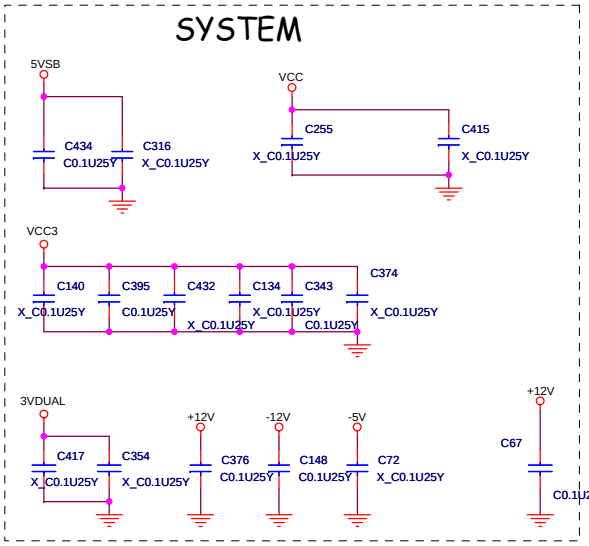
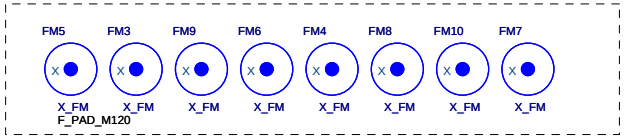
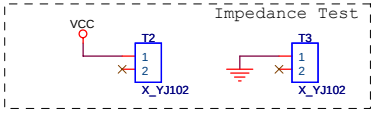
BULK / Decopuling

Place on CPU Solder side

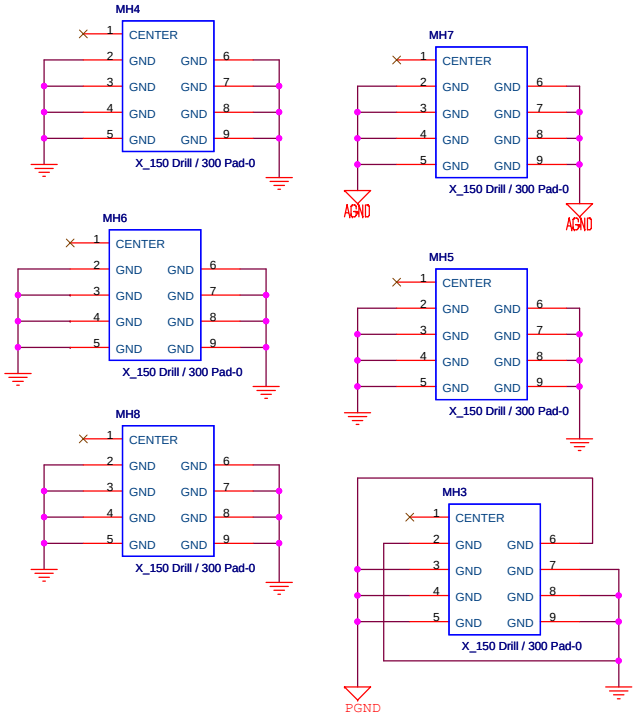
SYSTEM







ATX VIA-Hole * 9



Micro Star Restricted Secret		
Title: BULK / Decopuling		Rev: 0A
Document Number: MS-7312		
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Tuesday, June 13, 2006 Sheet 29 of 33	

K8 AM2 CPU Power

CPU Side

- K8 Vcore -> "VCORE" (95A)
- VDDA_2.5 Power -> "VDDA_25" (0.11A)
- HT Power -> "VDD_12_A" (0.5A)

DDR Side

- DDR Power -> "VCC_DDR(1.8V)" (9.4A)
- DDR-VTT Power -> "VTT_DDR(0.9V)" (1.2A)

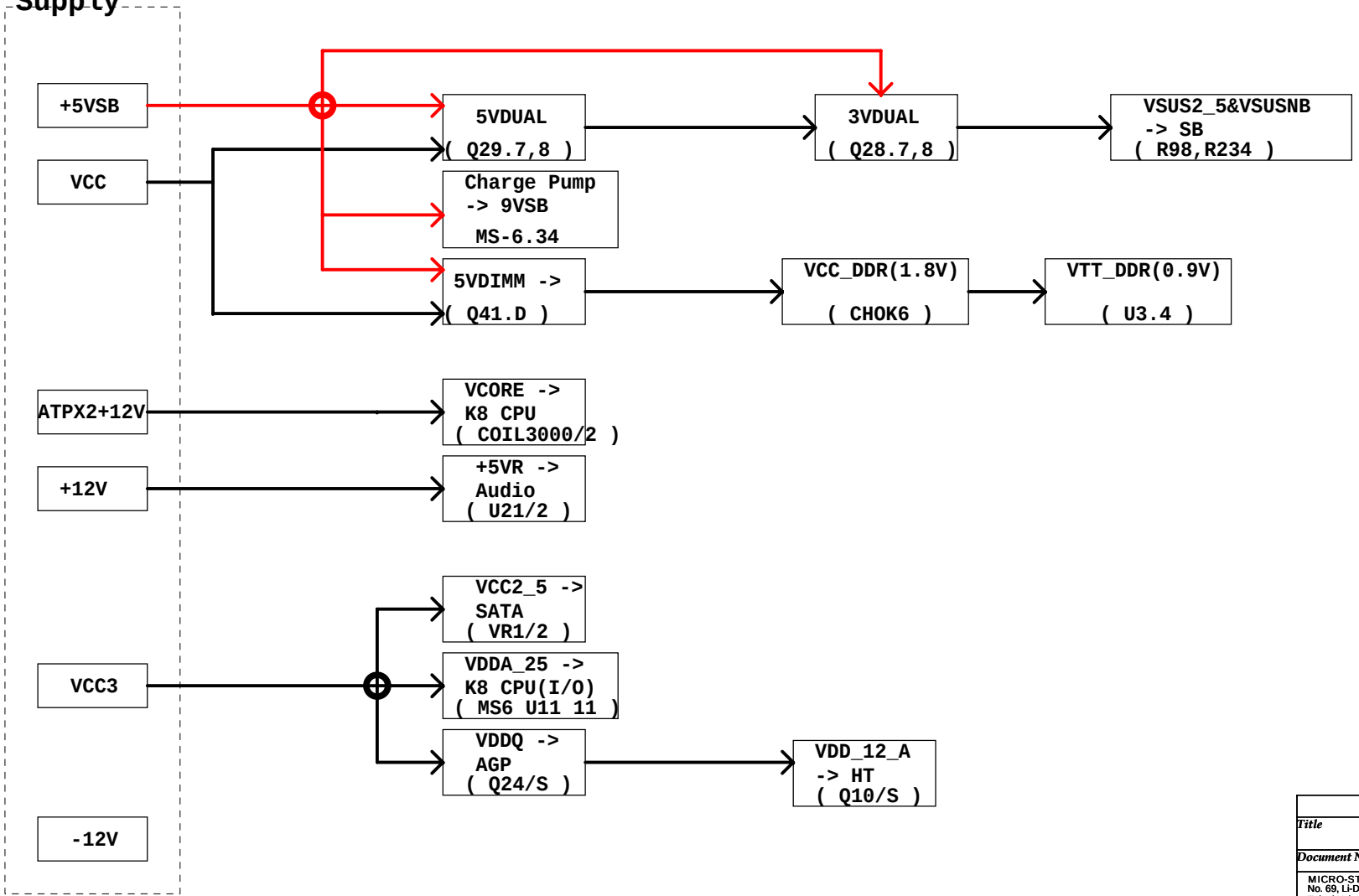
NB & SB Power

- NB VLDT-Power -> "VDD_12_A" (0.15A)
- NB VDD&VAGP -> "VDDQ" (1.5A)
- SB VLINK&VCORE-Power -> "VCC2_5" (0.576A)
- SB VSUS-Power -> "VSUS2_5&VSUSNB" (0.0675A)

Other Power

- 5VDUL
- 3VDUL
- 9VSB

ATX Power Supply



Micro Star Restricted Secret	
Title: Power Generation	Rev: 0A
Document Number: MS-7312	
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Tuesday, June 06, 2006
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Ver. 0A

Copy from 7094

2004/11/25

Change R275 from 100ohm to 22ohm(Front Panel)

Add D2 and remove R13 for PWM leakage voltage(VRM)

2004/11/26

Change R124,R125 from 1Kohm to 100ohm for ear phone(Codec)

Swap smbclk1 and smbdata1 of clock gen for H/W issue(CLOCK Gen)

Pop EC25 for MS6 power(ACPI)

Change the footprint of R194,R196,C372 from 0402 to 0603

2004/11/29

Change F3 from 24V to 6V

2004/11/30

Add R296,R297,R298,R299,R300,R301.But don't pop them for VIA recommend(Codec).

Change JUSB1 and JUSB2 PN from N31-2051131-H06 to N31-2051341-H06(USB)

2004/12/02

Don't pop R135(clock gen) and R27(SIO)==>Change SIO clock from 48MHz to 24MHz(SIO and Clock Gen)

2004/12/03

Pop U17,C425,R261,R271 and remove R262 for AC97 Power(Codec)

Swap CPU_TMP and THERMDA_CPU of SIO for smart fan control(SIO)

2004/12/07

Change R98 to R11-0391T23-W08 for BOM error(Voltage Regulator)

Change R95 to 200ohm for VSUSNB from1.1V to 1.5V(Voltage Regulator)

2004/12/08

Move EC36 and ADD EC37 for USB voltage droop(USB)

Change R110 from 90.9ohm to 80.6ohm for RGB level from 0.66 to 0.71V(VGA)

Pop CB2(VCC),C273(VCCA3),C147(VCC) for VGA water-wave(VGA)

2004/12/09

Change R70,R71 from 44.2 ohm to 15 ohm for MEMORY(CPU)

Add R302,R303,R304,R305 to 10K ohm for ISL AP note(VRM)

Change R61,R68 from 10K ohm to 1.8K ohm for VGA I2C(VGA)

2004/12/10

Delete R51 for OVT function(SIO)

2004/12/13

Change C279 from 0.01u to 0.1u for LAN Rise/Fall sym fail(LAN)

Change C31 from X_10p to 330p for Chock noise(VRM)

Change C330,C327 from 10p to 33p for Clock Crystal(Clock Gen)

Remove EC33(VCC),EC7(VTT_DDR) for cost

Change EC20(VDD_12_A),EC23(VTT_DDR_SUS) new PN(and footprint) for best Layout

Pop CN8,CN9,C356 for slow rise/fall time

2004/12/14

Pull R193(PIORDY_R),R209(SIORDY_R) from VCC to VCC3

2004/12/16

Change C154,C128,Cc149,C180,C132,C135,C211,C248 footprint from 0603 to 0402 for EMI

Ver. 10

2005/01/03

Pop R257 for AC97 Strap

2005/01/05

Add C543-C551 for EMI

Non-pop C170,C177,C181 for RGB rise/fall time issue

2005/01/24

Pop C407 for G3-S5

2005/02/02

Change R11 from 24K to 11.3K for higher Vcore

Pop EC9,EC14,C470.C473,C477 for better Vcore

Ver. 1A

2005/02/02

Non-pop Flash-ROM Soicket for MP

2005/02/03

Change USB Fuse(F4,F5,F6) from 1.1A to 1.5A for better USB Voltage

Pop C21,C122,C550,C548,C472,C476 to 100P(C11-1011013-W08) for EMI

2006/02/28

Pop EC26 for protect Q5 (power team report)

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No. 69, Li-De St, Jung-He City,
Taipei Hsien, Taiwan
http://www.msi.com.tw

Last Revision Date: Wednesday, May 24, 2006

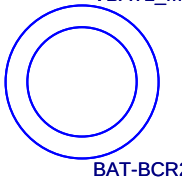
NB FAN/HEAT-SINK

PCB1

7312-0A

P80-073120A-D05

VBAT1_M



BAT-BCR2032P

D06-0100101-P01

U7-F

X_NB-HEATSINK-W/Fan

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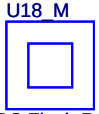
U7-H

NB-HEATSINK-W/O Fan

E31-0401520-E25

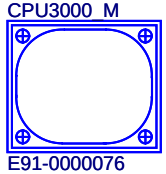
U18_M



LPC Flash ROM-4M

BIOS FLASH ROM

CPU3000_M



E91-0000076

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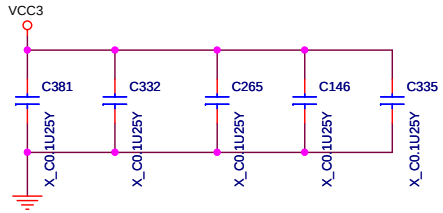

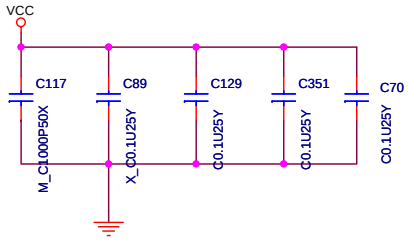

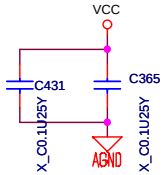

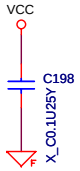

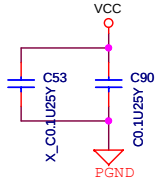

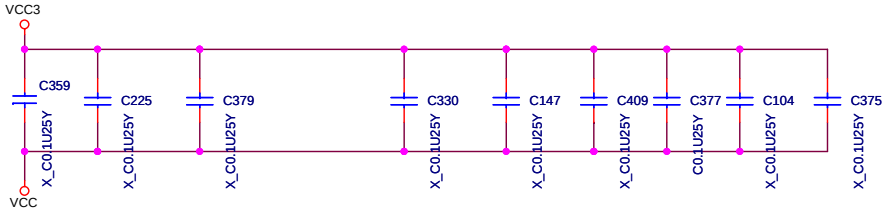

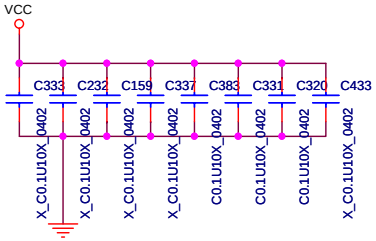

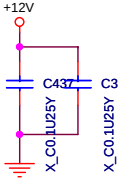

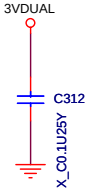

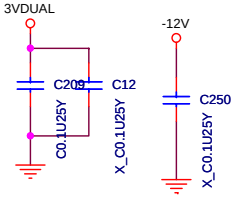

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