MS7301 Version:0A

CPU:

Intel LGA775

System Chipset:

PT890/P4M900 (North Bridge)
VT8237A (South Bridge)

On Board Chipset:

BIOS -- LPC ROM
Audio - ALC883
LPC Super I/O -- W83627EHG
LAN --VT6103L
CLOCK --ICS9LPR700AGLF

Main Memory:

single-channel --DDRII*2

Expansion Slots:

PCI Express X16 * 1
PCI Express X1 * 1
PCI 2.2Slot * 2

PWM(VRM11/FMB 05B):

Intersil 6312

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Title COVER SHEET	Rev 0A
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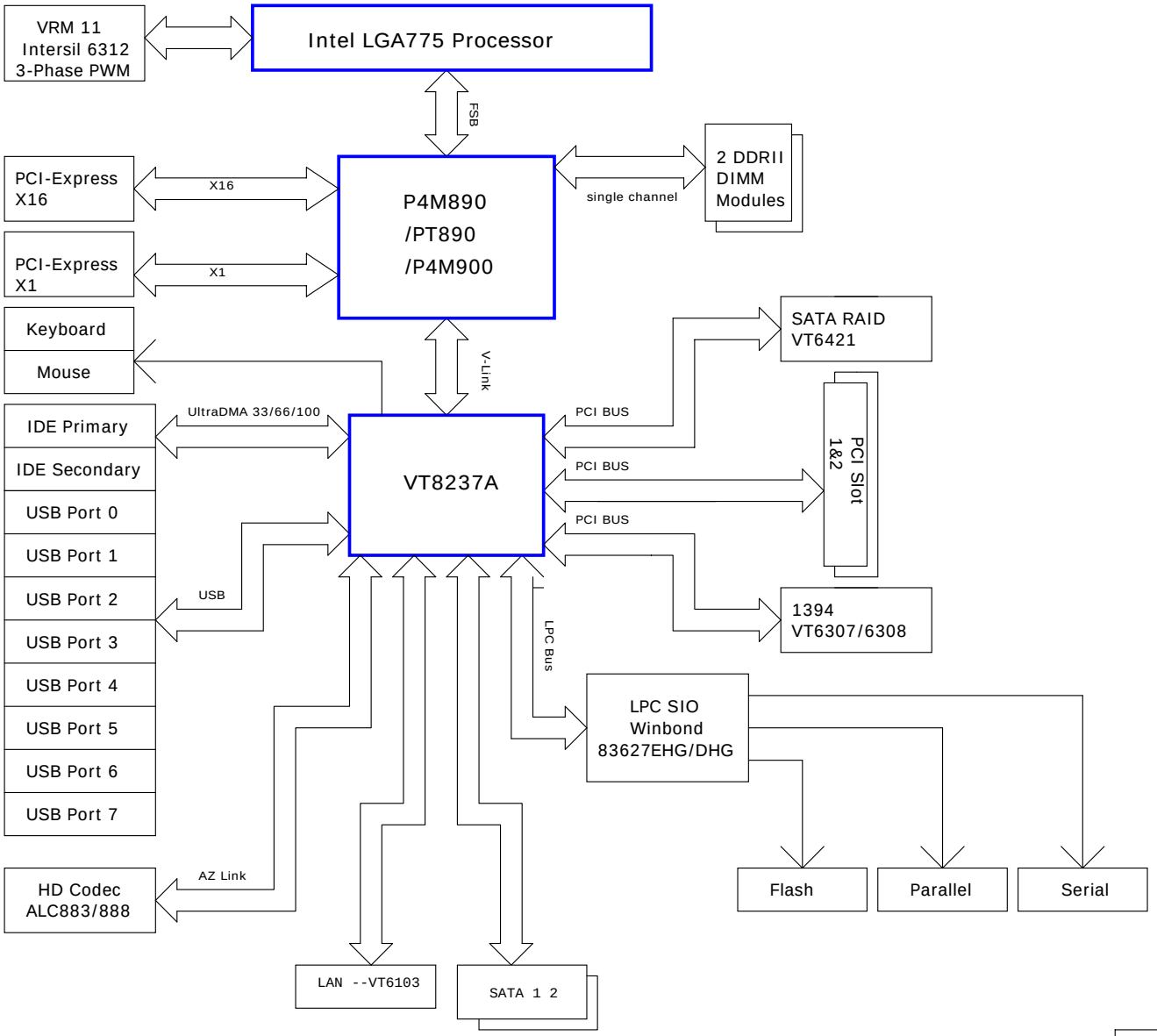
Block Diagram



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Title *BLOCK DIAGRAM*		Rev 0A
Document Number *MS-7301*		
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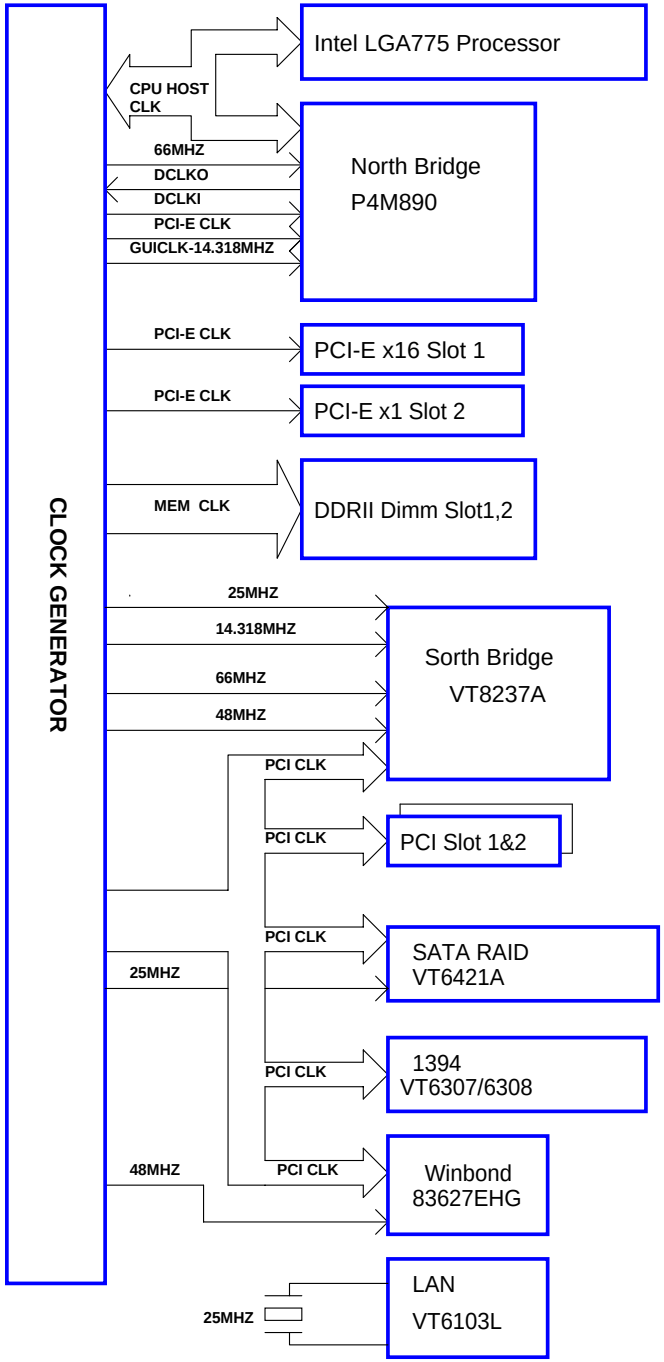
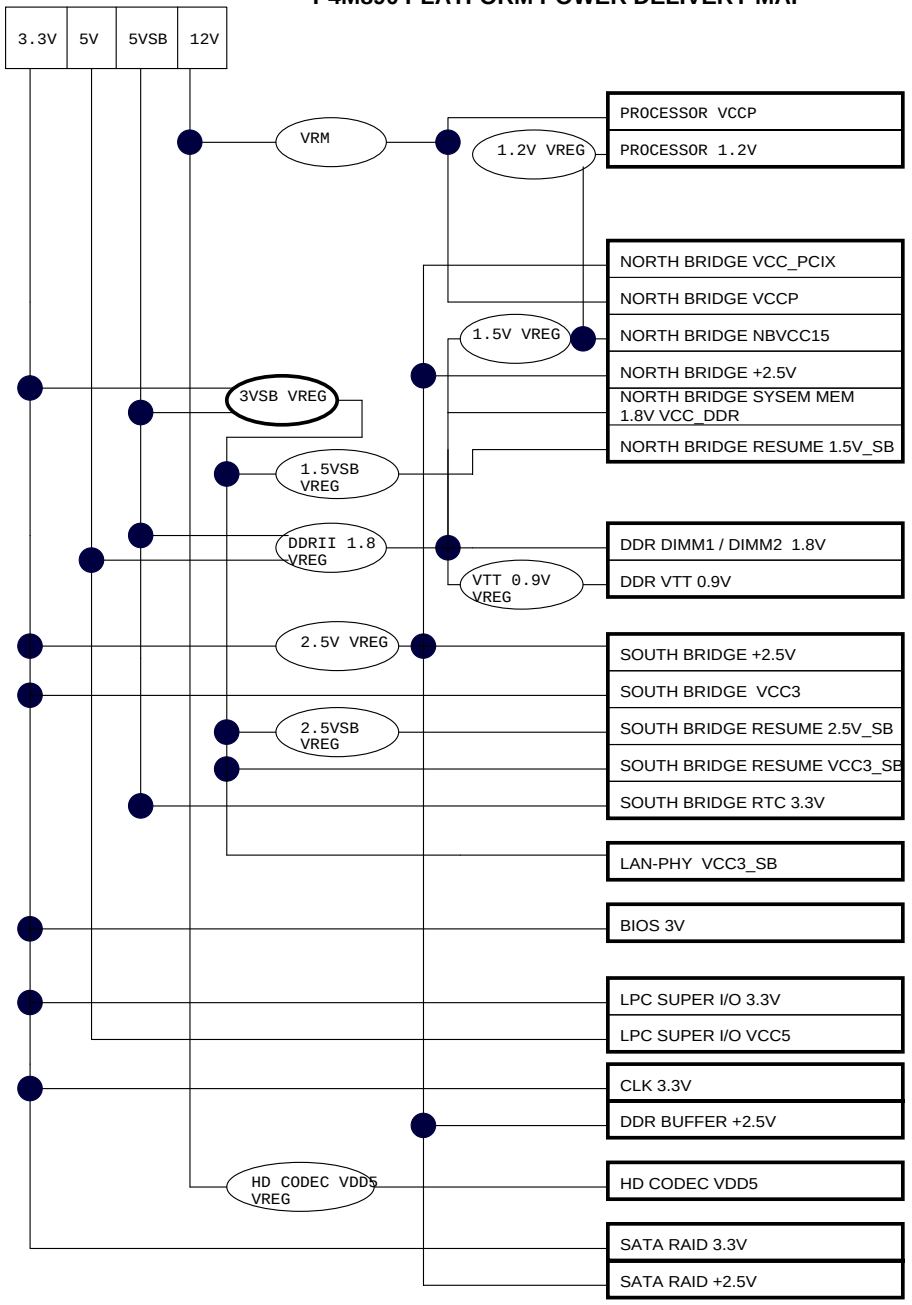
P4M890 PLATFORM CLOCK GENERATOR MAP



P4M890 PLATFORM POWER DELIVERY MAP



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Title	***PWR AND CLOCK MAP***
Rev	0A
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SB-VT8237A

GPIO Pin	Type	Function	Power well
GPI 0	I	GPI 0	RESUME
GPI 1	I	SB_THERMTRIP#	RESUME
GPO 0	O	FAN_CTRL1	RESUME
GPO 1	O	FAN_CTRL	RESUME
GPIO A	I/O	Vlink auto compensation	MAIN
GPIO B	I/O	IOQ Depth	MAIN
GPIO C	I/O	HOST CLOCK	MAIN
GPIO D	I/O	GTL pullup	MAIN

DDR DIMM Config.

DEVICE	ADDRESS	CLOCK
DIMM 1	1010000B	MDCLKA0/A#0 MDCLKA1/A#1 MDCLKA2/A#2
DIMM 2	1010001B	MDCLKB0/B#0 MDCLKB1/B#1 MDCLKB2/B#2

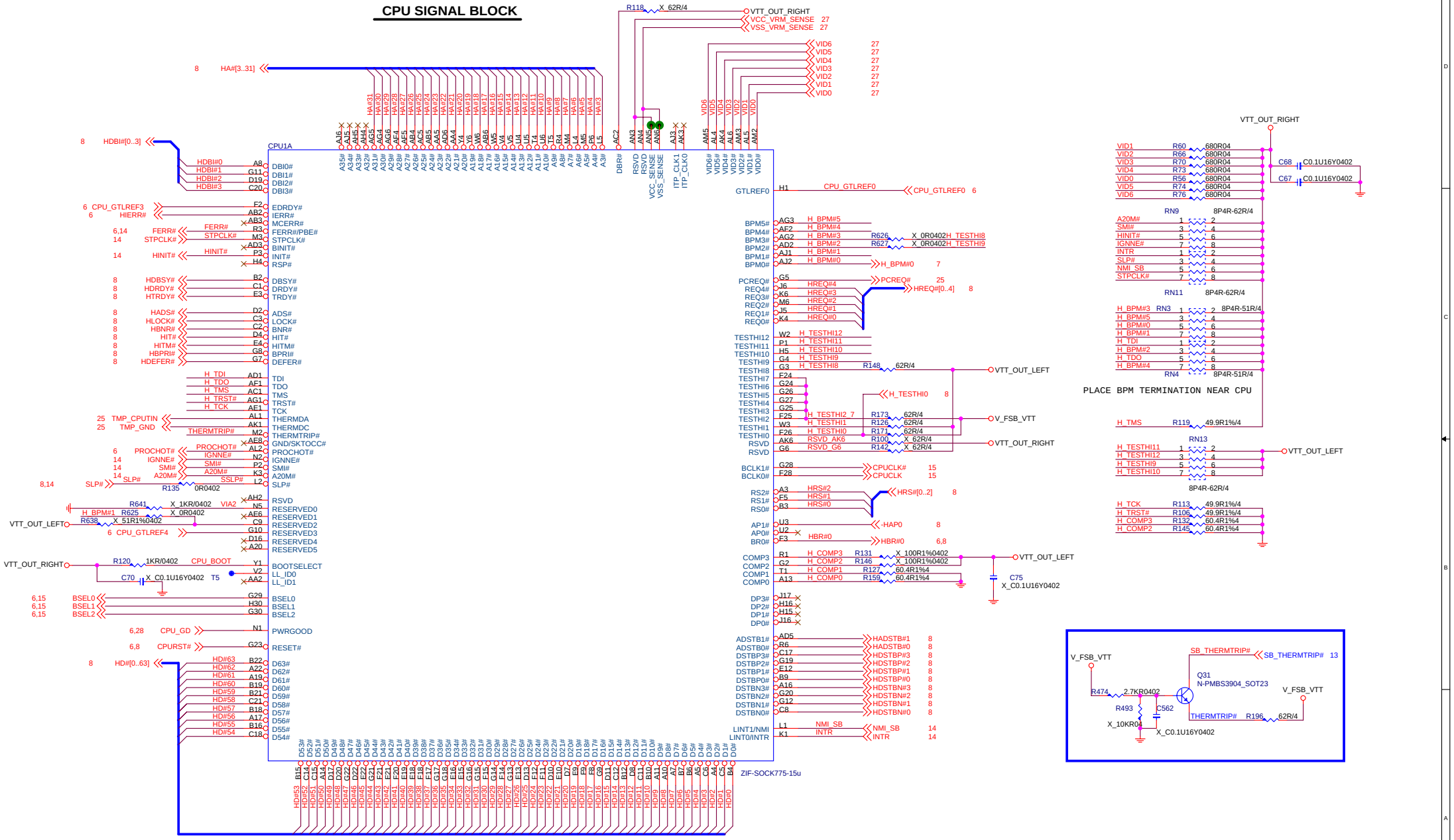
PCI Config.

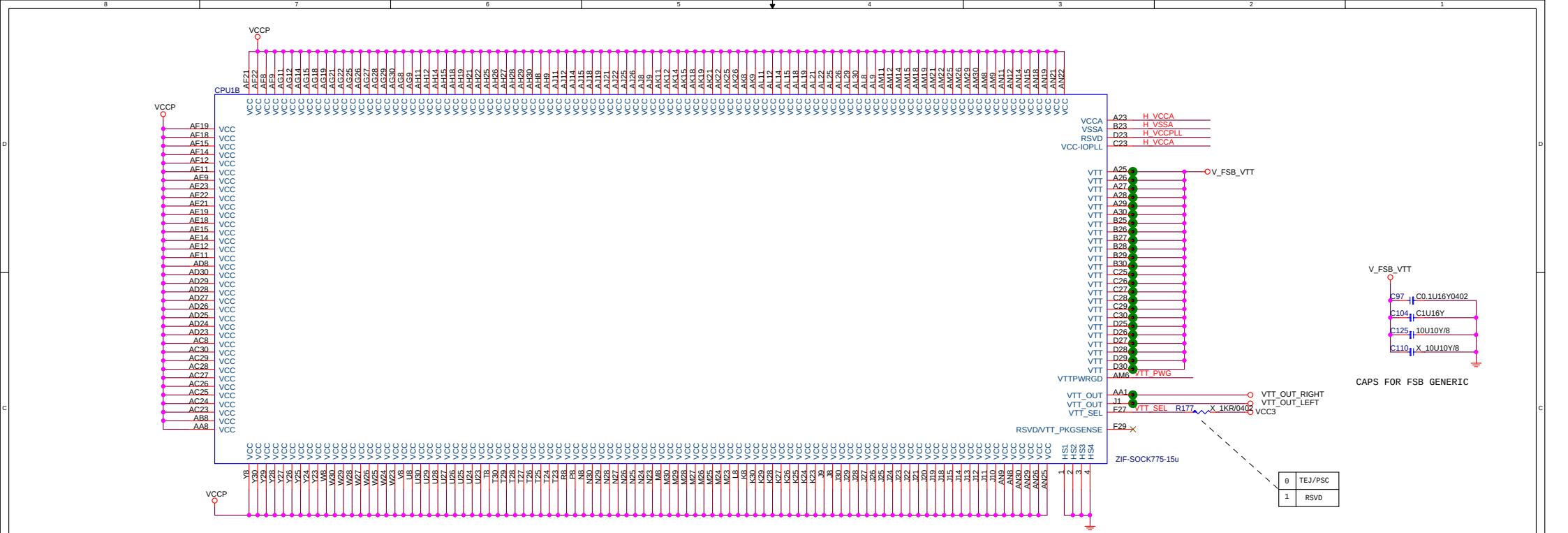
DEVICE	MCP1 INT Pin	REQ#/GNT#	IDSEL	CLOCK	CLK GEN PIN OUT
PCI Slot 1	PIRQ#A PIRQ#B PIRQ#C PIRQ#D	PREQ#0 PGNT#0	AD20	PCICLK1	5 (PCI_CLK2)
PCI Slot 2	PIRQ#B PIRQ#C PIRQ#D PIRQ#A	PREQ#1 PGNT#1	AD21	PCICLK2	6 (PCI_CLK3)
SATA RAID	PIRQ#E	PREQ#2 PGNT#2	AD22	SATA_PCLK	7 (PCI_CLK4)
1394	PIRQ#F	PREQ#3 PGNT#3	AD19	1394_PCLK	1 (PCI_CLK1)

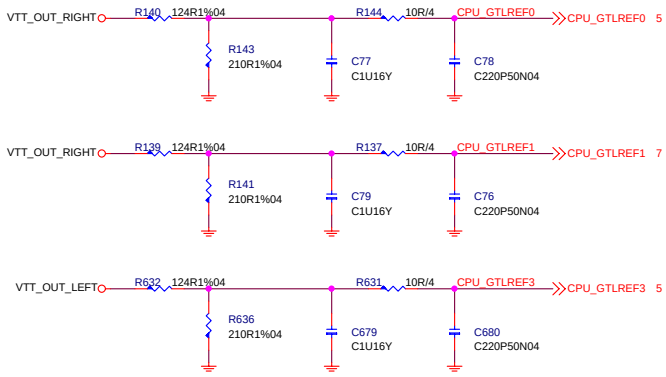
PCI RESET DEVICE

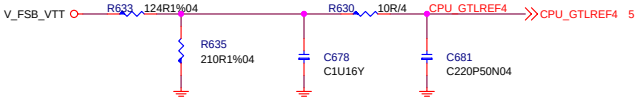
Signals	Source	Target
PCIRST#	SB	MS7
PCIRST#1	MS7	NB & SATA RAID &1394 & SPIO & BIOS
PCIRST#2	MS7	PCI slot 1-2 & PCIE 1-2
HDRST#	MS7	Primary, Scondary IDE

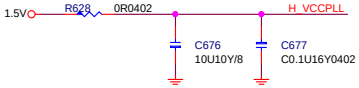
CPU SIGNAL BLOCK



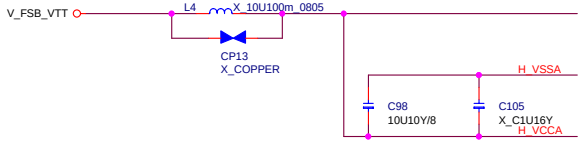




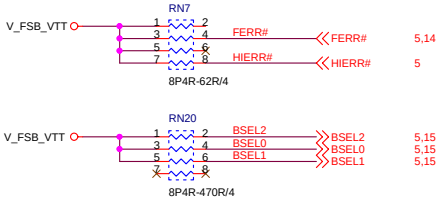


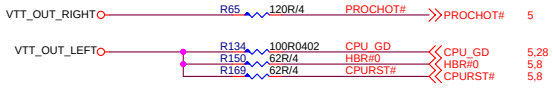


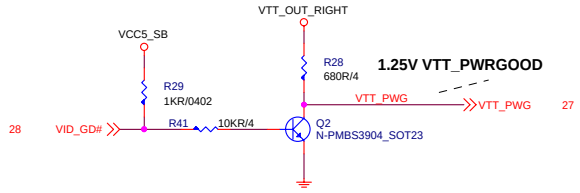
PLACE COMPONENTS AS CLOSE AS POSSIBLE TO PROCESSOR SOCKET
TRACE WIDTH TO CAPS MUST BE SMALLER THAN 12MILS



FSBSEL RESISTOR CAN BE REMOVED IF ONLY TEJAS
AND CEDAR MILL ARE SUPPORTED







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Title	*Intel LGA775 CPU - Power*
Rev	0A
Document Number	*MS-7301*
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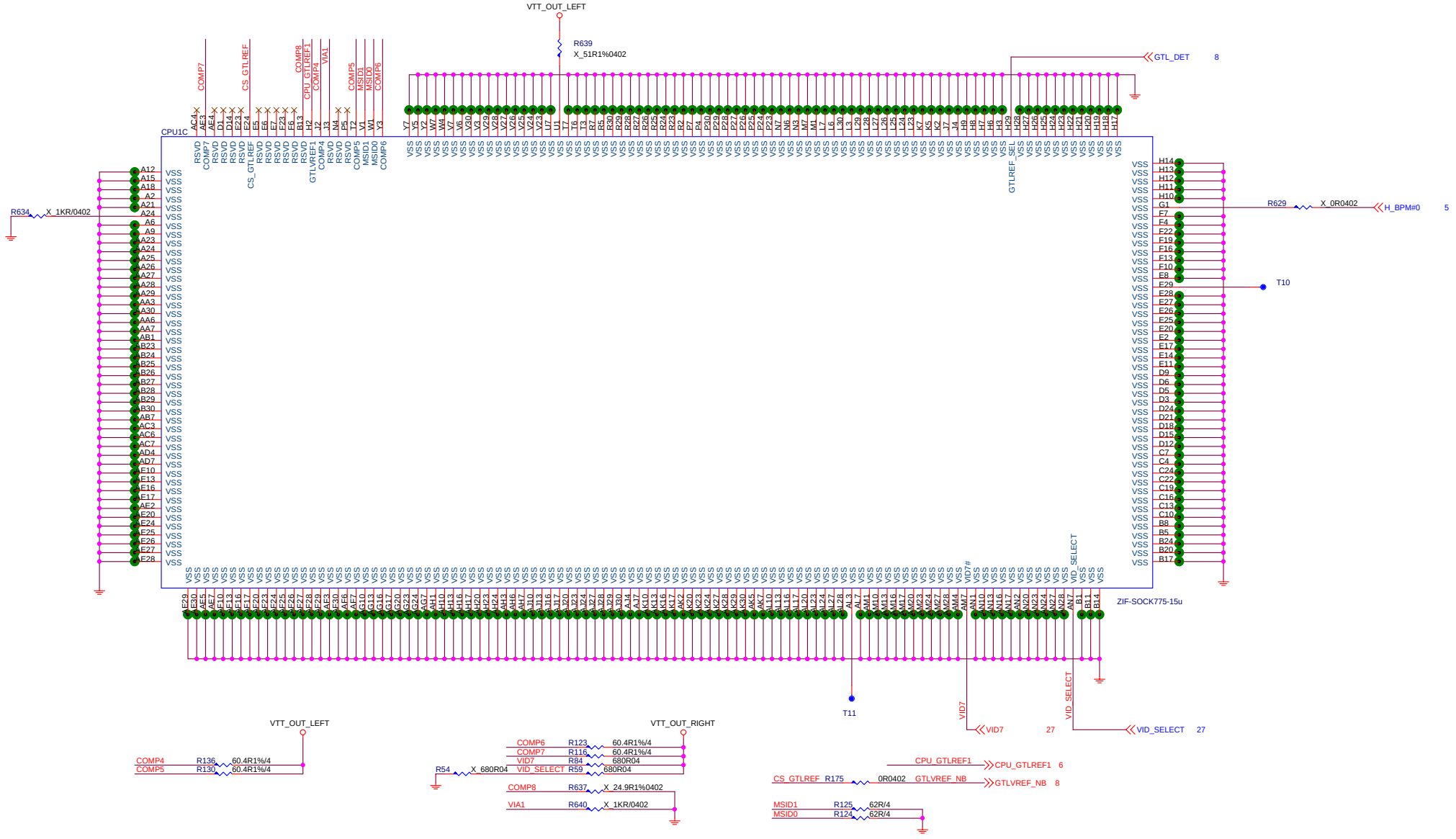

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Rev	0A

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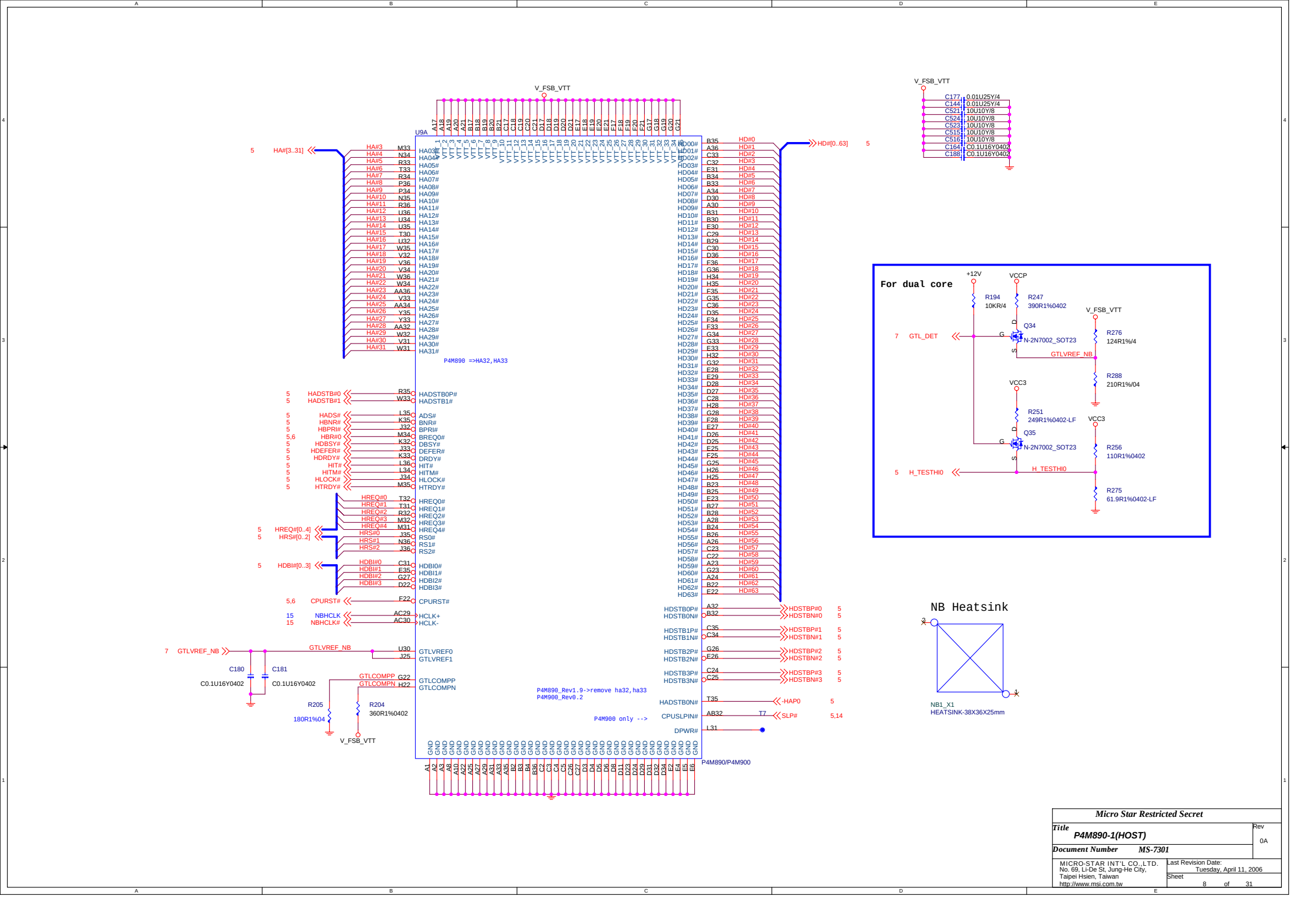

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Document Number: MS-7301	
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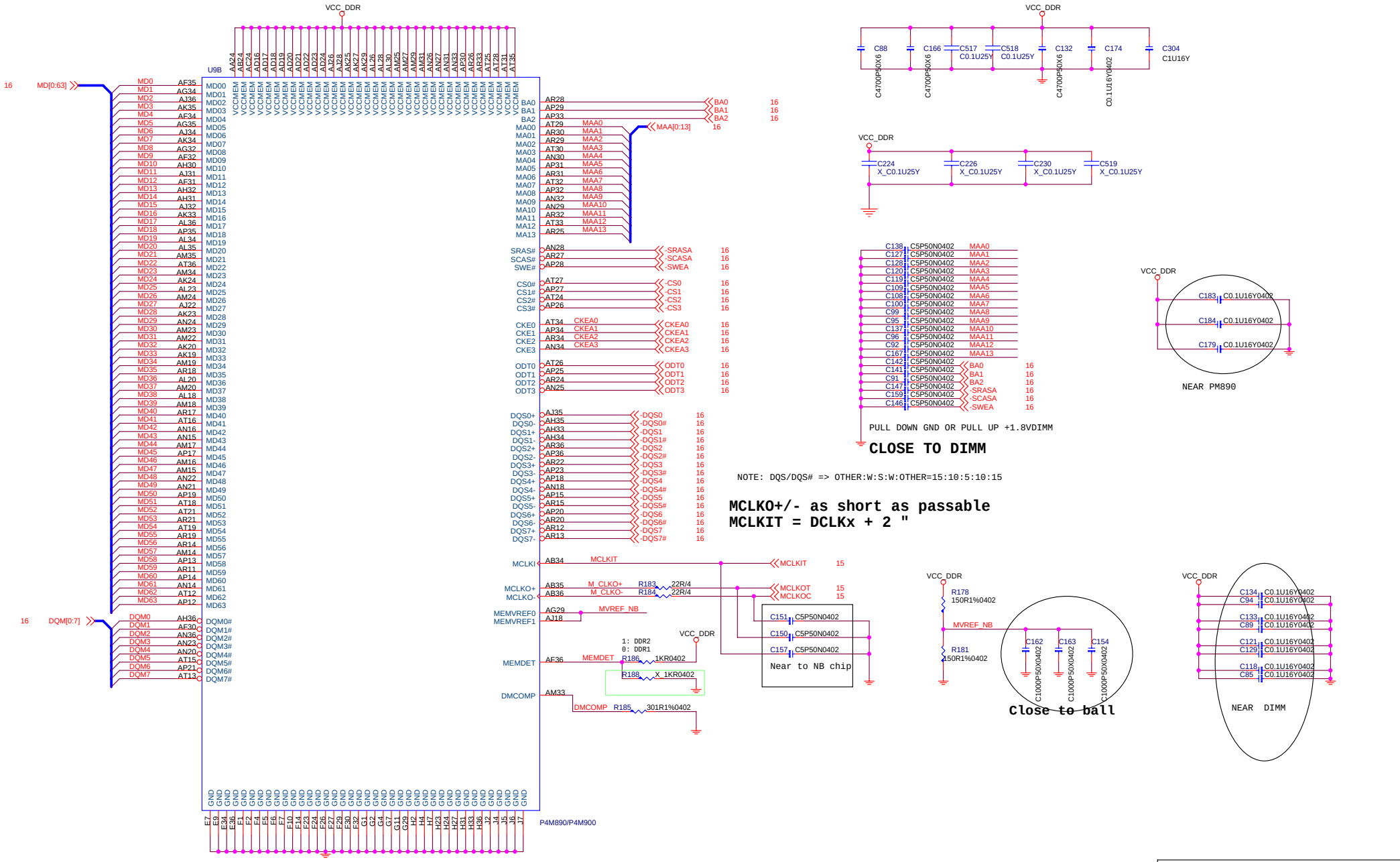

Micro Star Restricted Secret	
Title: P4M890-2(MEM)	Rev: 0A
Document Number: MS-7301	
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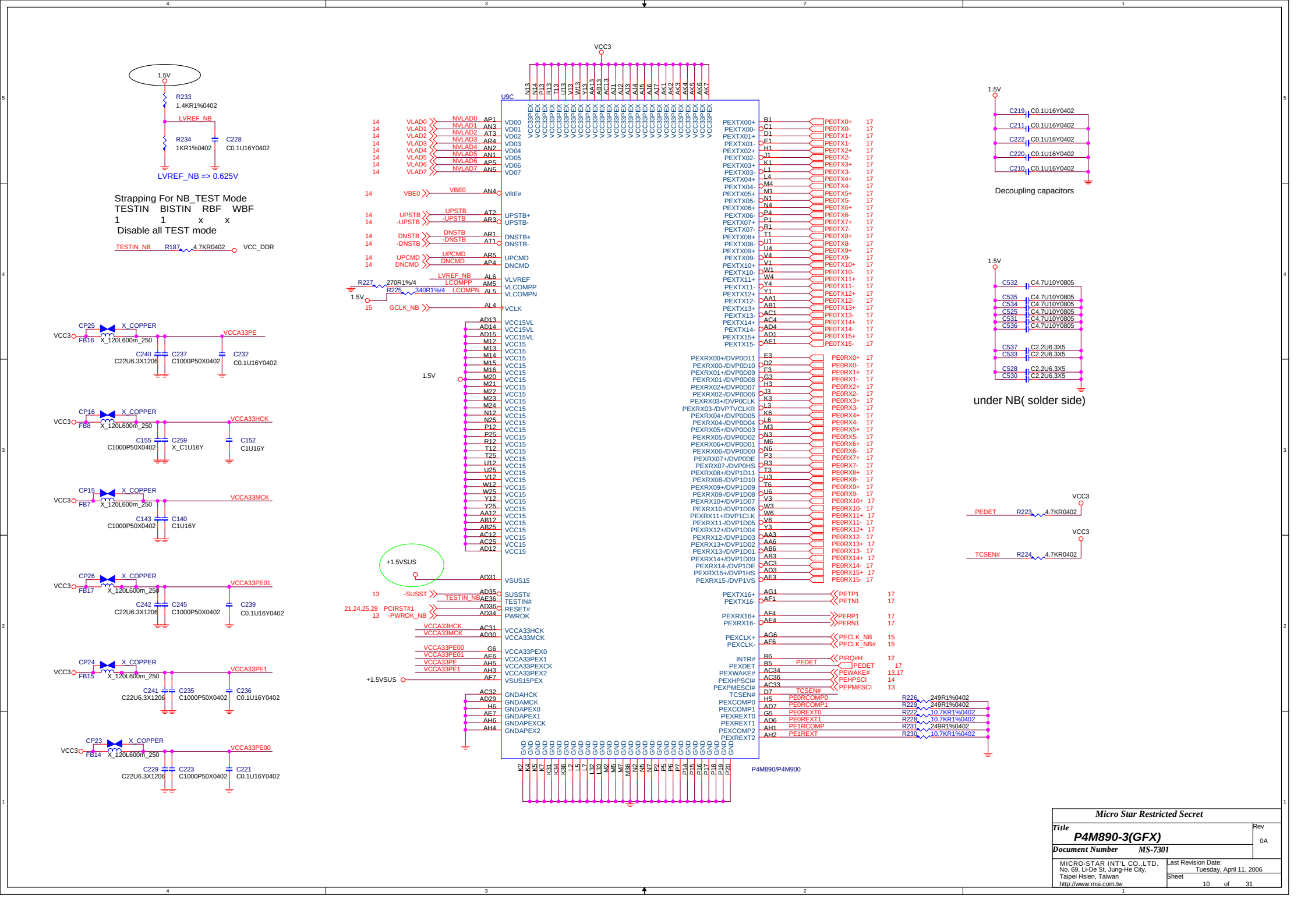

Micro Star Restricted Secret	
Title: P4M890-3(GFX)	Rev: 0A
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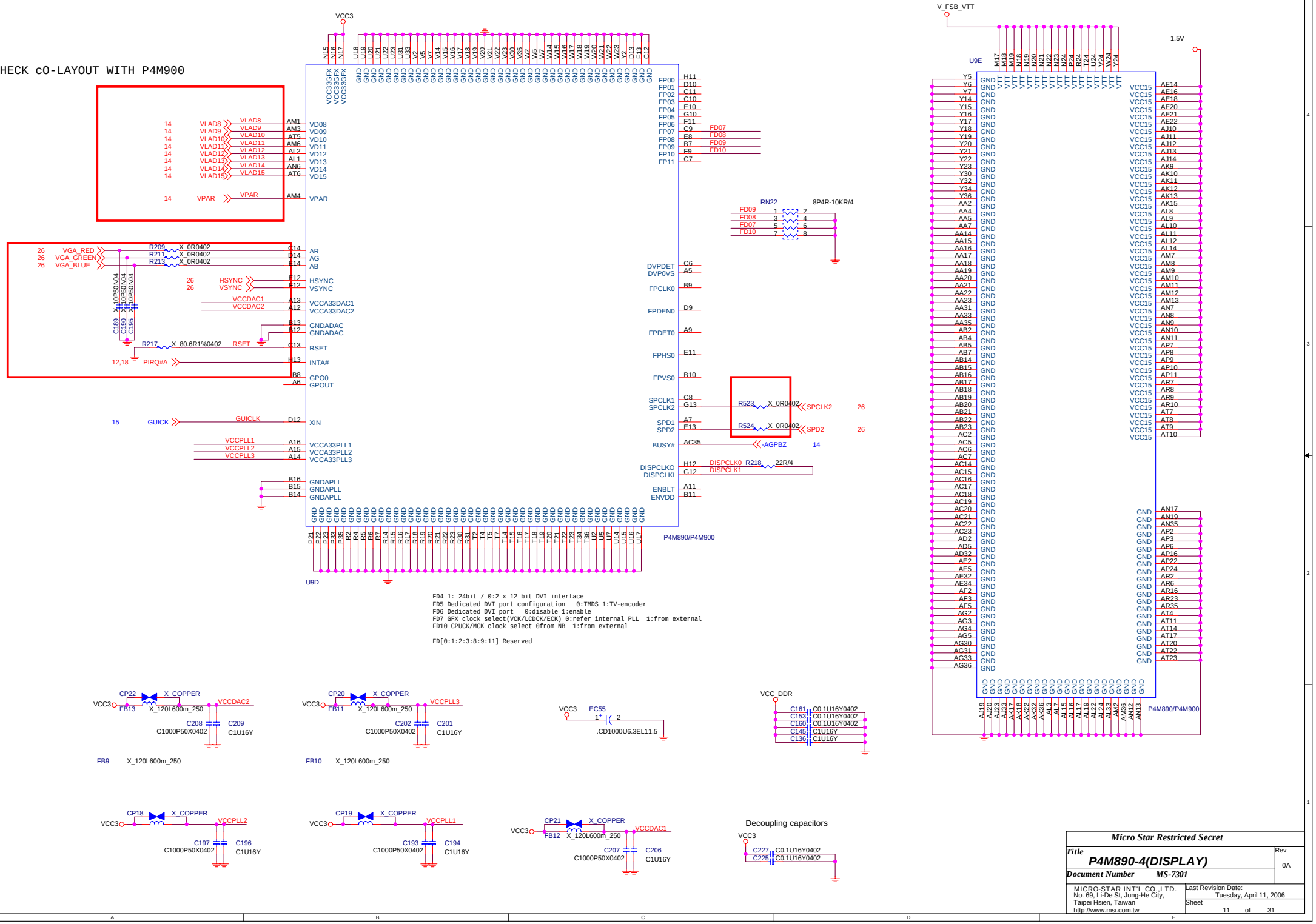
CHECK cO-LAYOUT WITH P4M900



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Title: P4M890-4(DISPLAY)	Rev: 0A
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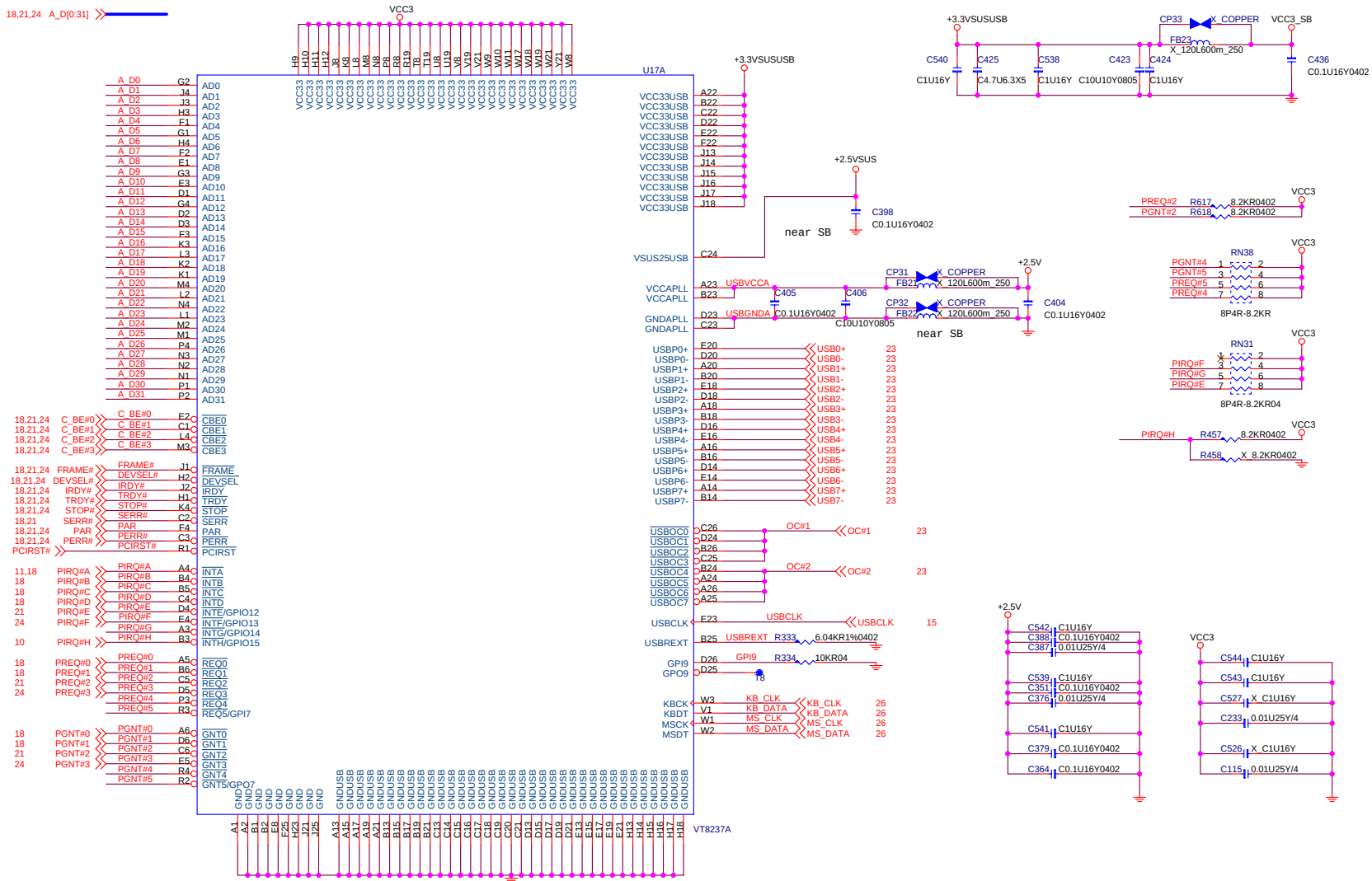

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Title VT8237A-1(USB & PCI)	Rev 0A
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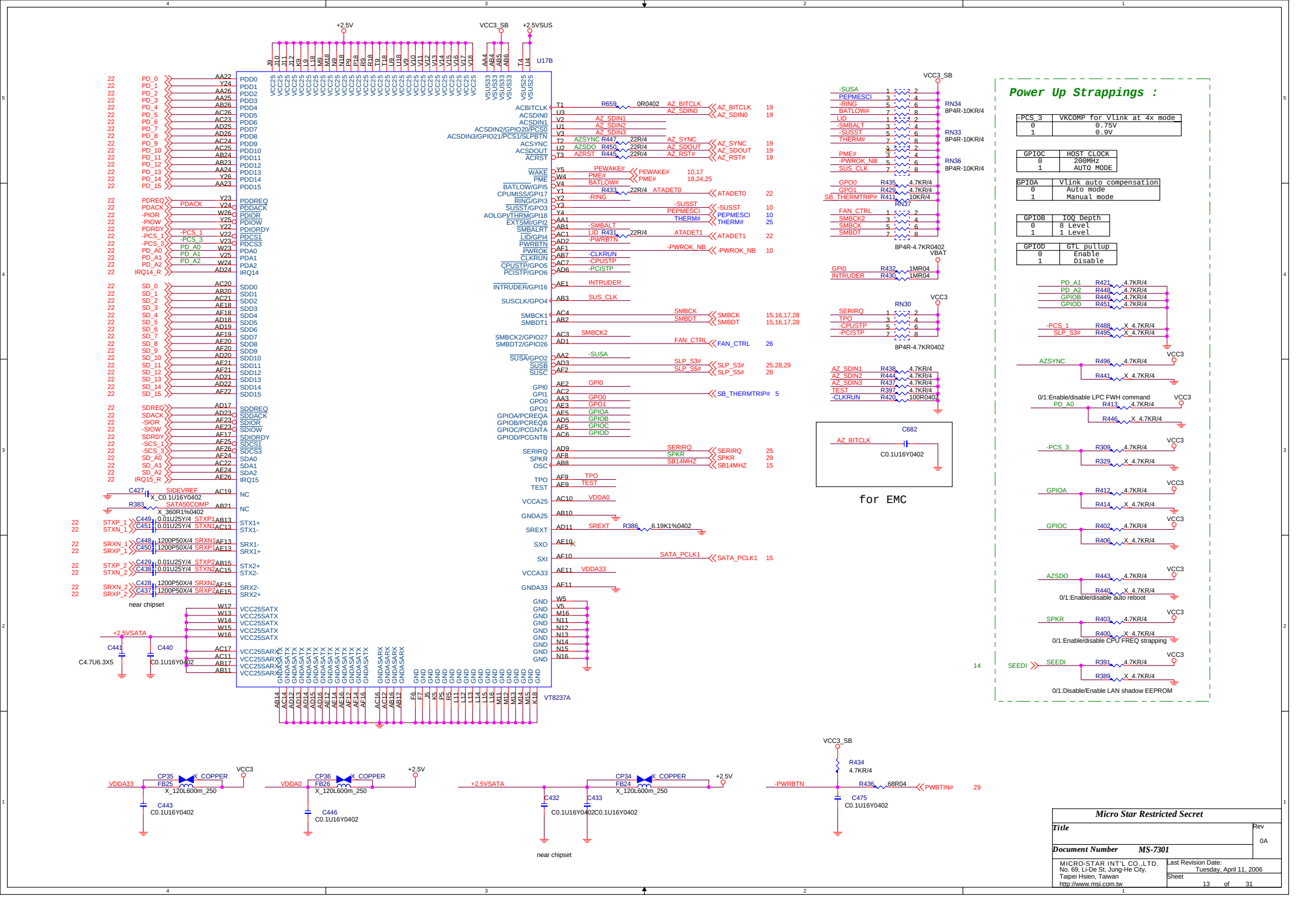
+2.5V
VCC3_SB
+2.5VSUS
U17B
VT8237A
PD_0
PD_1
PD_2
PD_3
PD_4
PD_5
PD_6
PD_7
PD_8
PD_9
PD_10
PD_11
PD_12
PD_13
PD_14
PD_15
PDREQ
PDACK
-PIOR
-PIOW
PDRDY
-PCS_1
-PCS_3
PD_A0
PD_A1
PD_A2
IRQ14_R
SD_0
SD_1
SD_2
SD_3
SD_4
SD_5
SD_6
SD_7
SD_8
SD_9
SD_10
SD_11
SD_12
SD_13
SD_14
SD_15
SDREQ
SDACK
-SIOR
-SIOW
SDRDY
-SCS_1
-SCS_3
SD_A0
SD_A1
SD_A2
IRQ15_R
SIDEVREF
SATA5OCOMP
STXP_1
STXN_1
SRXN_1
SRXP_1
STXP_2
STXN_2
SRXN_2
SRXP_2
near chipset
+2.5VSATA
C441
C4.7U6.3X5
C440
C0.1U16Y0402
ACBITCLK
ACSDIN0
ACSDIN1
ACSDIN2/GPIO20/PCS0
ACSDIN3/GPIO21/PCS1/SLPBTN
ACSYNC
ACSDOUT
ACRST
WAKE
PME
BATLOW/GPI5
CPUMISS/GPI17
RING/GPI3
SUSST/GPO3
AOLGPI/THRMGPI18
EXTSMI/GPI2
SMBALRT
LID/GPI4
PWRBTN
PWROK
CLKRUN
CPUSTP/GPO5
PCISTP/GPO6
INTRUDER/GPI16
SUSCLK/GPO4
SMBCK1
SMBDT1
SMBCK2/GPIO27
SMBDT2/GPIO26
SUSA/GPO2
SUSB
SUSC
GPI0
GPI1
GPO0
GPO1
GPIOA/PCREQA
GPIOB/PCREQB
GPIOC/PCGNTA
GPIOD/PCGNTB
SERIRQ
SPKR
OSC
TPO
TEST
VCCA25
GNDA25
SREXT
SXO
SXI
VCC33
GNDA33
GND
R659
0R0402
AZ_BITCLK
AZ_SDIN0
AZ_SDIN1
AZ_SDIN2
AZ_SDIN3
AZSYNC R447
AZSDO R450
AZRST R445
AZ_SYNC
AZ_SDOUT
AZ_RST#
PEWAKE#
PME#
BATLOW#
R433
ATADET0
-RING
-SUSST
PEPMESCI
THERM#
-SMBALT
LID R431
ATADET1
-PWRBTN
-PWROK_NB
-CLKRUN
-CPUSTP
-PCISTP
INTRUDER
SUS_CLK
SMBCK
SMBDT
SMBCK2
FAN_CTRL
-SUSA
SLP_S3#
SLP_S5#
GPO0
GPO1
SB_THERMTRIP#
SERIRQ
SPKR
SB14MHZ
TEST
VDDA0
SREXT
R386
6.19K1%0402
SATA_PCLK1
VDDA33
VCC25SATX
VCC25SARX
GNDASATX
GNDASARX
C427
X_C0.1U16Y0402
R383
X_360R1%0402
C449
C451
C448
C450
C429
C438
C428
C437
0.01U25Y/4
1200P50X/4
VCC3
VDDA33
CP35
FB25
X_COPPER
X_120L600m_250
C443
C0.1U16Y0402
VDDA0
CP36
FB26
C446
+2.5V
+2.5VSATA
CP34
FB24
C432
C433
near chipset
-PWRBTN
R434
4.7KR/4
R436
68R04
PWBTIN#
C475
29
RN34
RN33
RN36
RN37
8P4R-10KR/4
8P4R-4.7KR0402
VBAT
GPI0
INTRUDER
R432
R430
1MR04
RN30
SERIRQ
TPO
-CPUSTP
-PCISTP
AZ_SDIN1
AZ_SDIN2
AZ_SDIN3
TEST
-CLKRUN
R438
R444
R437
R397
R420
4.7KR/4
100R0402
C682
AZ_BITCLK
C0.1U16Y0402
for EMC
14
Power Up Strappings :
-PCS_3 | VKCOMP for Vlink at 4x mode
0 | 0.75V
1 | 0.9V
GPIOC | HOST CLOCK
0 | 200MHz
1 | AUTO MODE
GPIOA | Vlink auto compensation
0 | Auto mode
1 | Manual mode
GPIOB | IOQ Depth
0 | 8 Level
1 | 1 Level
GPIOD | GTL pullup
0 | Enable
1 | Disable
PD_A1
PD_A2
GPIOB
GPIOD
R421
R448
R449
R451
-PCS_1
SLP_S3#
R488
R495
AZSYNC
R496
R441
0/1:Enable/disable LPC FWH command
PD_A0
R413
R446
-PCS_3
R309
R329
GPIOA
R412
R414
GPIOC
R402
R406
AZSDO
R443
R440
0/1:Enable/disable auto reboot
SPKR
R403
R400
0/1:Enable/disable CPU FREQ strapping
SEEDI
R391
R389
0/1:Disable/Enable LAN shadow EEPROM
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Title
Rev
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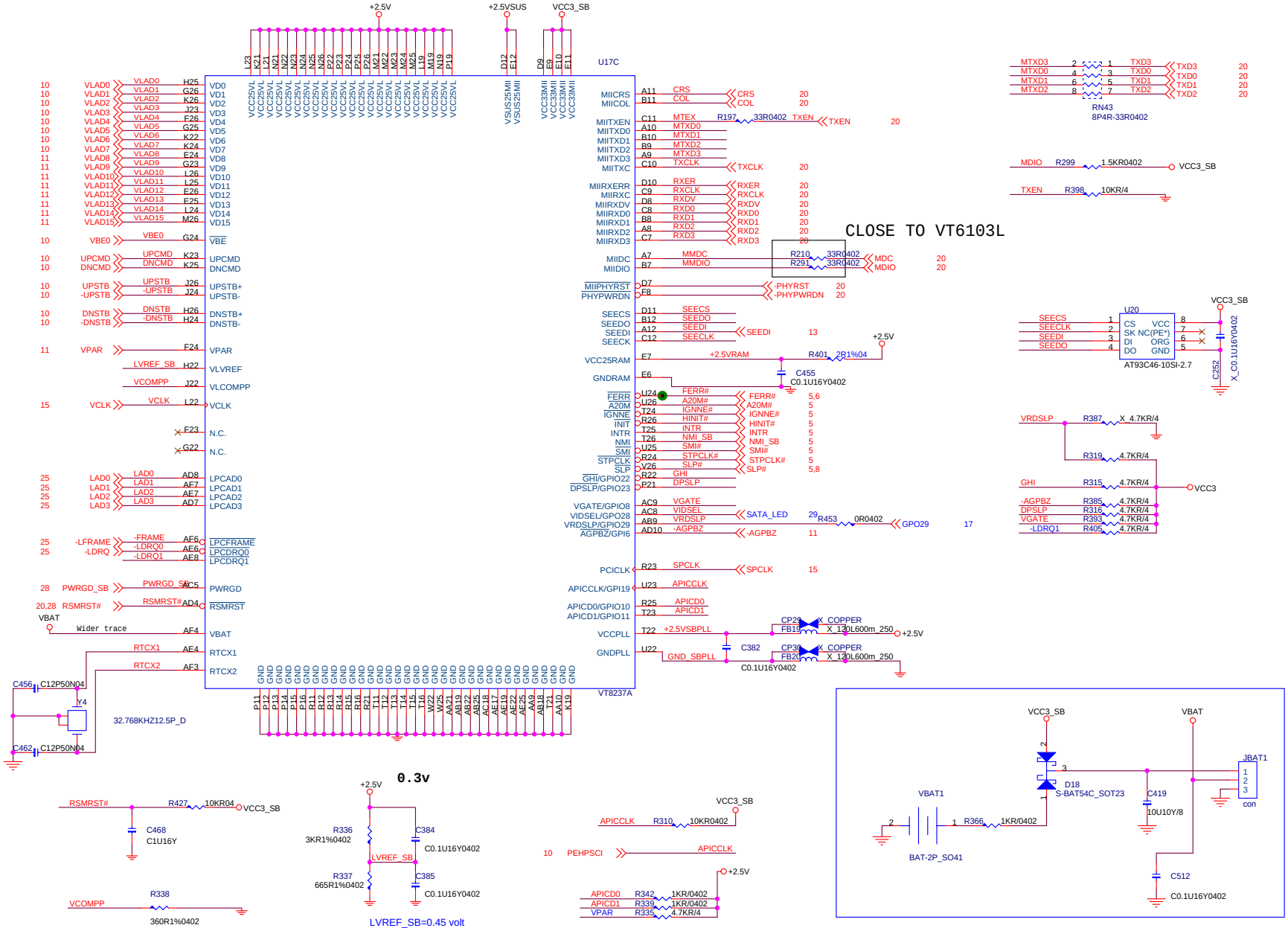

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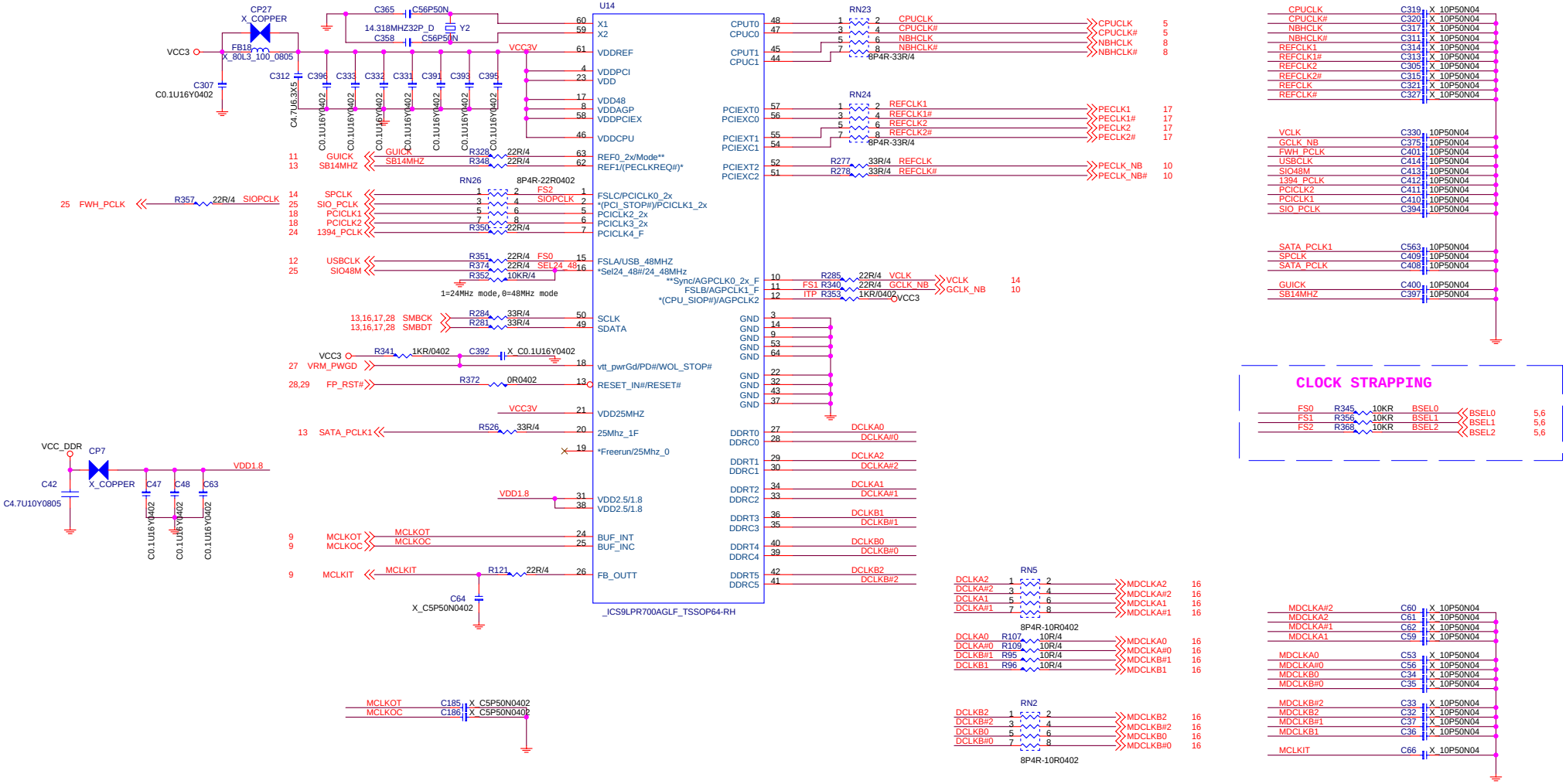
U14
_ICS9LPR700AGLF_TSSOP64-RH
CP27
X_COPPER
CP7
X_COPPER
14.318MHZ32P_D
Y2
C56P50N
C358
C365
FB18
X_80L3_100_0805
VCC3
VCC3V
VCC_DDR
VDD1.8
C307
C0.1U16Y0402
C4.7U6.3X5
C312
C396
C333
C332
C331
C391
C393
C395
C42
C4.7U10Y0805
C47
C48
C63
C64
X_C5P50N0402
C392
X_C0.1U16Y0402
R341
1KR/0402
R372
0R0402
R526
33R/4
R284
R281
R328
R348
22R/4
R357
SIOPCLK
R351
R374
R352
10KR/4
FS0
SEL24_48
FS2
R277
R278
R285
R340
R353
VCLK
GCLK_NB
RN26
8P4R-22R0402
RN23
RN24
8P4R-33R/4
RN5
RN2
8P4R-10R0402
R345
R356
R368
10KR
BSEL0
BSEL1
BSEL2
CLOCK STRAPPING
R107
R109
R95
R96
10R/4
R121
C185
C186
X_C5P50N0402
GUICK
SB14MHZ
SPCLK
SIO_PCLK
PCICLK1
PCICLK2
1394_PCLK
SMBCK
SMBDT
VRM_PWGD
FP_RST#
SATA_PCLK1
MCLKOT
MCLKOC
MCLKIT
FWH_PCLK
USBCLK
SIO48M
1=24MHz mode,0=48MHz mode
CPUCLK
CPUCLK#
NBHCLK
NBHCLK#
REFCLK1
REFCLK1#
REFCLK2
REFCLK2#
REFCLK
REFCLK#
PECLK1
PECLK1#
PECLK2
PECLK2#
PECLK_NB
PECLK_NB#
VCLK
GCLK_NB
FWH_PCLK
USBCLK
SIO48M
1394_PCLK
PCICLK2
PCICLK1
SIO_PCLK
SATA_PCLK1
SPCLK
SATA_PCLK
GUICK
SB14MHZ
MDCLKA2
MDCLKA#2
MDCLKA1
MDCLKA#1
MDCLKA0
MDCLKA#0
MDCLKB0
MDCLKB#0
MDCLKB2
MDCLKB#2
MDCLKB1
MDCLKB#1
MCLKIT
C319
C320
C317
C311
C314
C313
C305
C315
C321
C327
C330
C375
C401
C414
C413
C412
C411
C410
C394
C563
C409
C408
C400
C397
C60
C61
C62
C59
C53
C56
C34
C35
C33
C32
C37
C36
C66
X_10P50N04
10P50N04
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Title
CLOCK GEN & BUFFER
Rev
0A
Document Number
MS-7301
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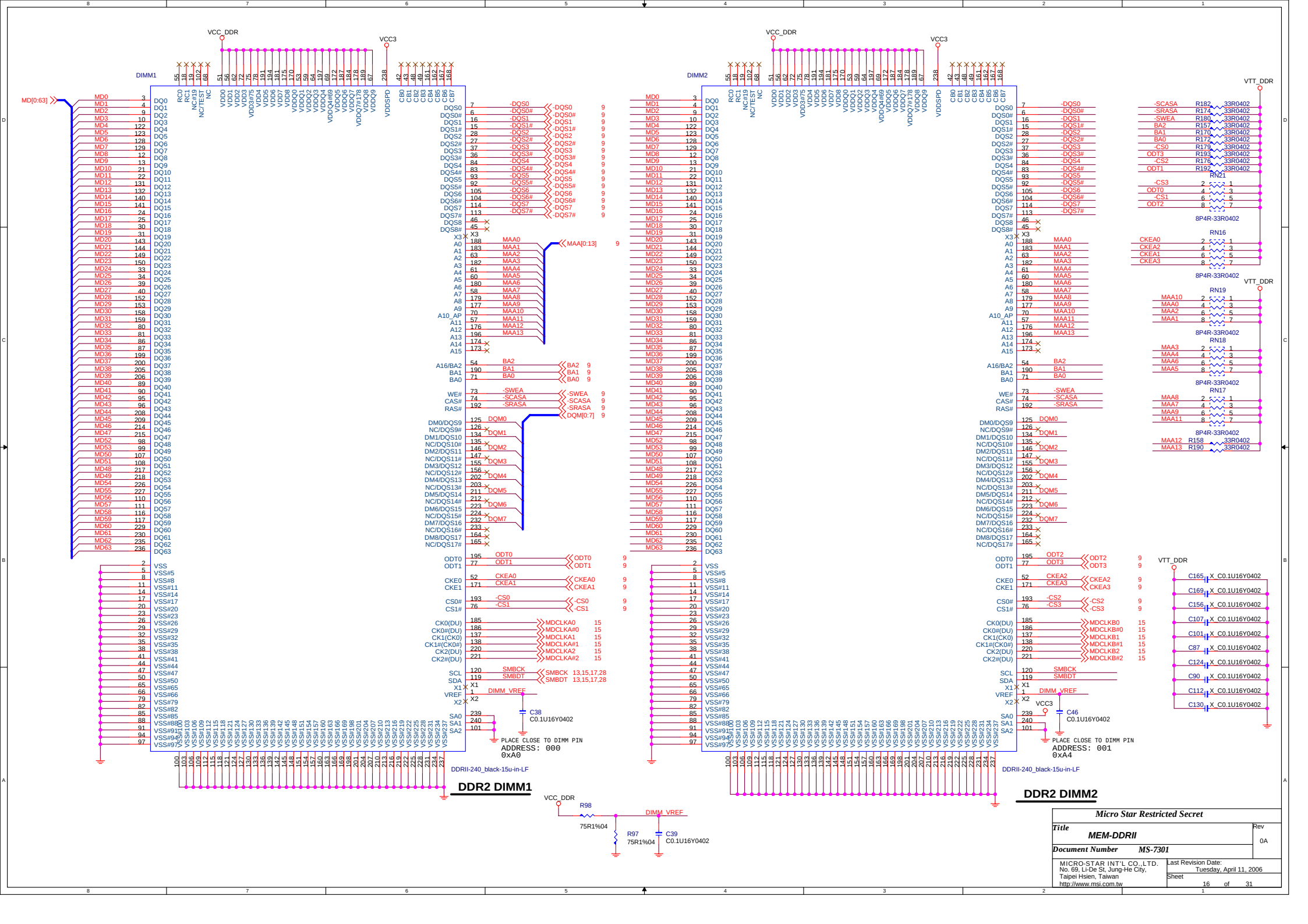

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Document Number: MS-7301	
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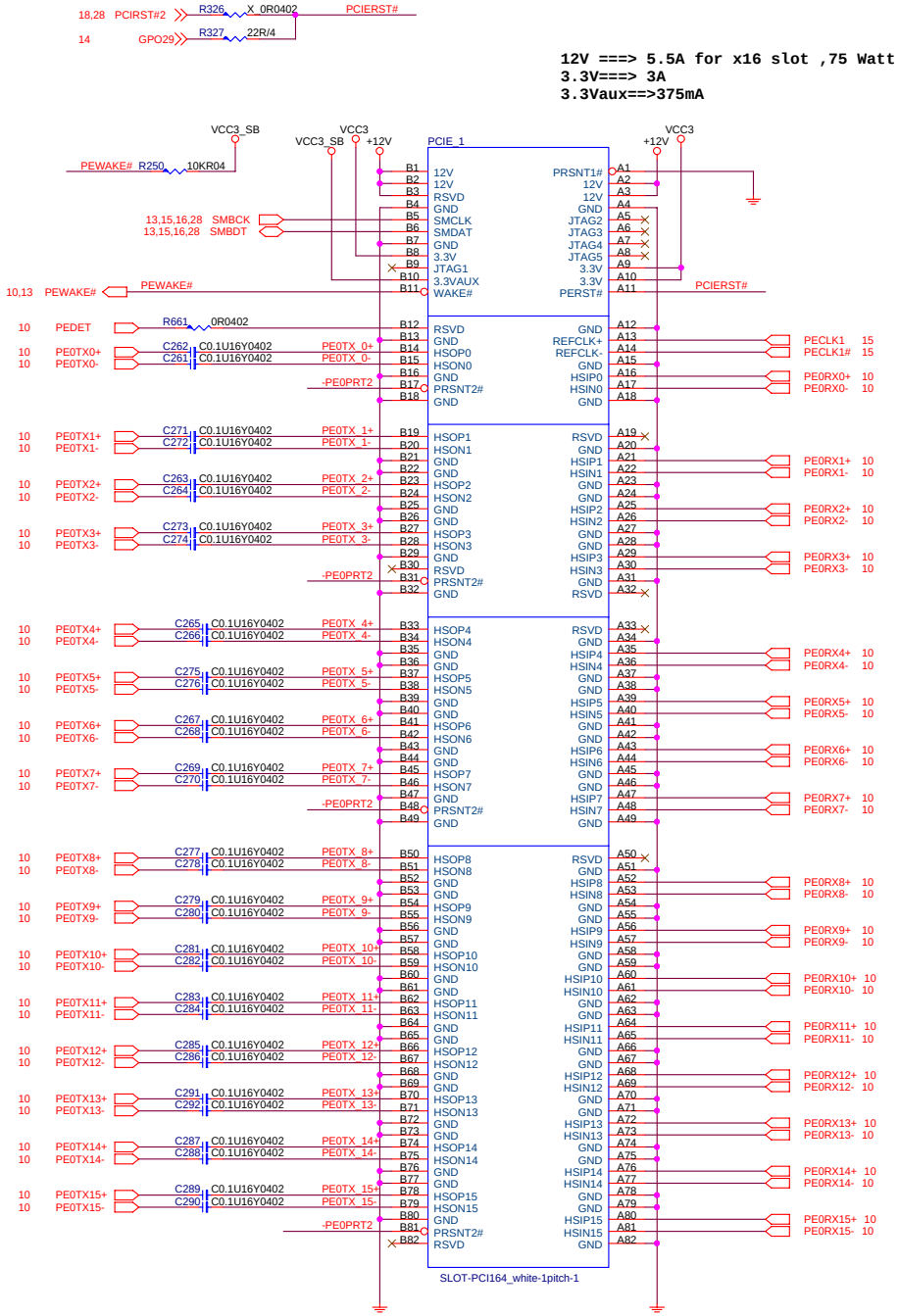
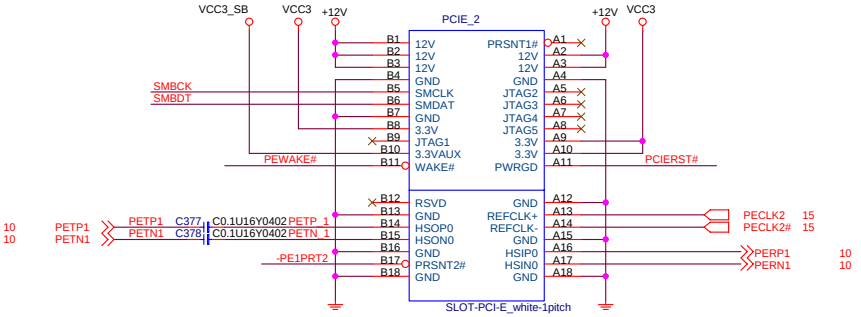


PCI EXPRESS 1-PORT 2



near PEG x16 slot

The system board designer determines the pull-up voltage

Micro Star Restricted Secret		
Title *PCI-EXPRESS SLOT X16 & X1*		Rev 0A
Document Number *MS-7301*		
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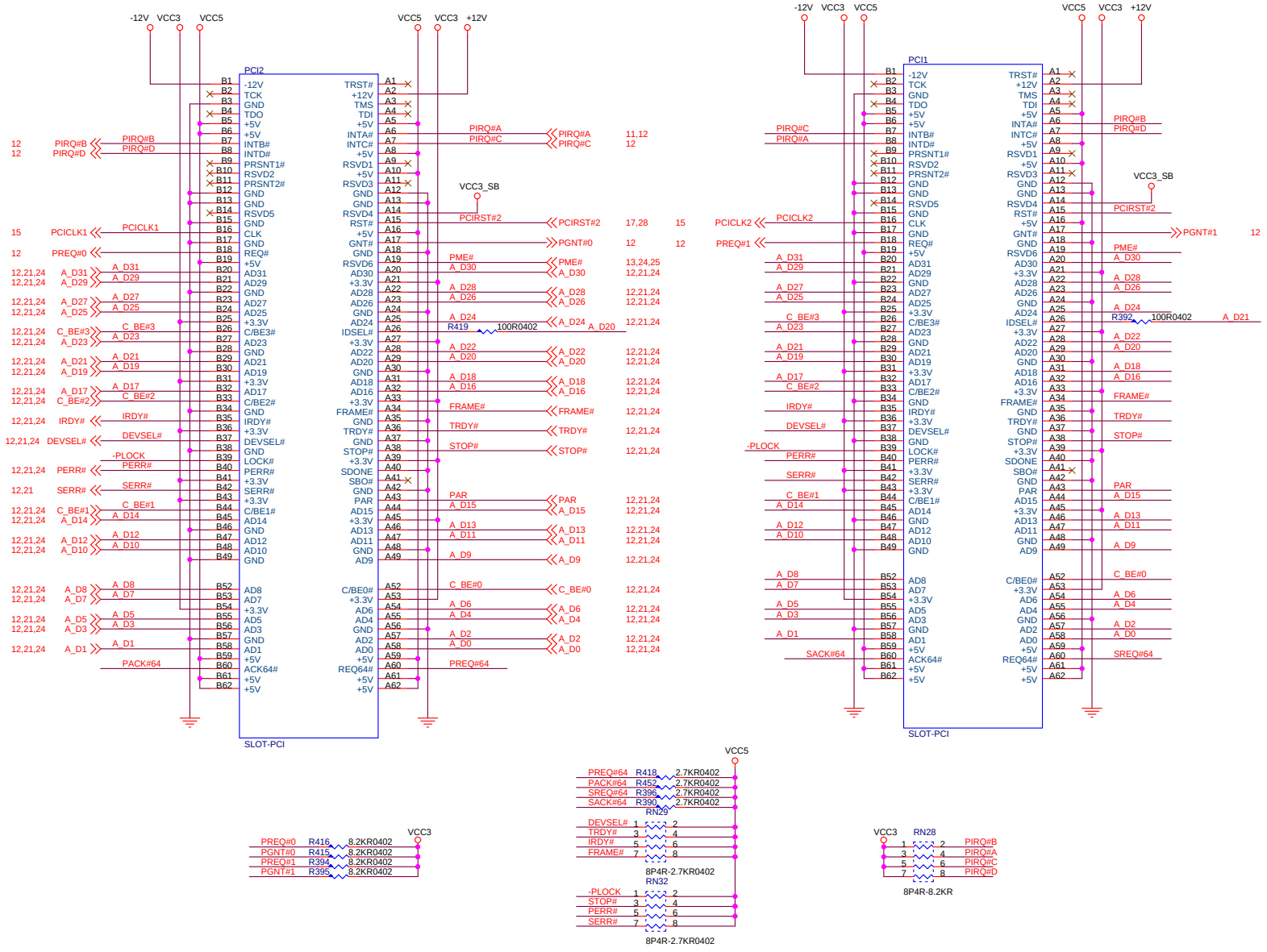
PCI Connectors



Micro Star Restricted Secret	
Title: PCI Connector 1 & 2	Rev: 0A
Document Number: MS-7301	
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, April 11, 2006
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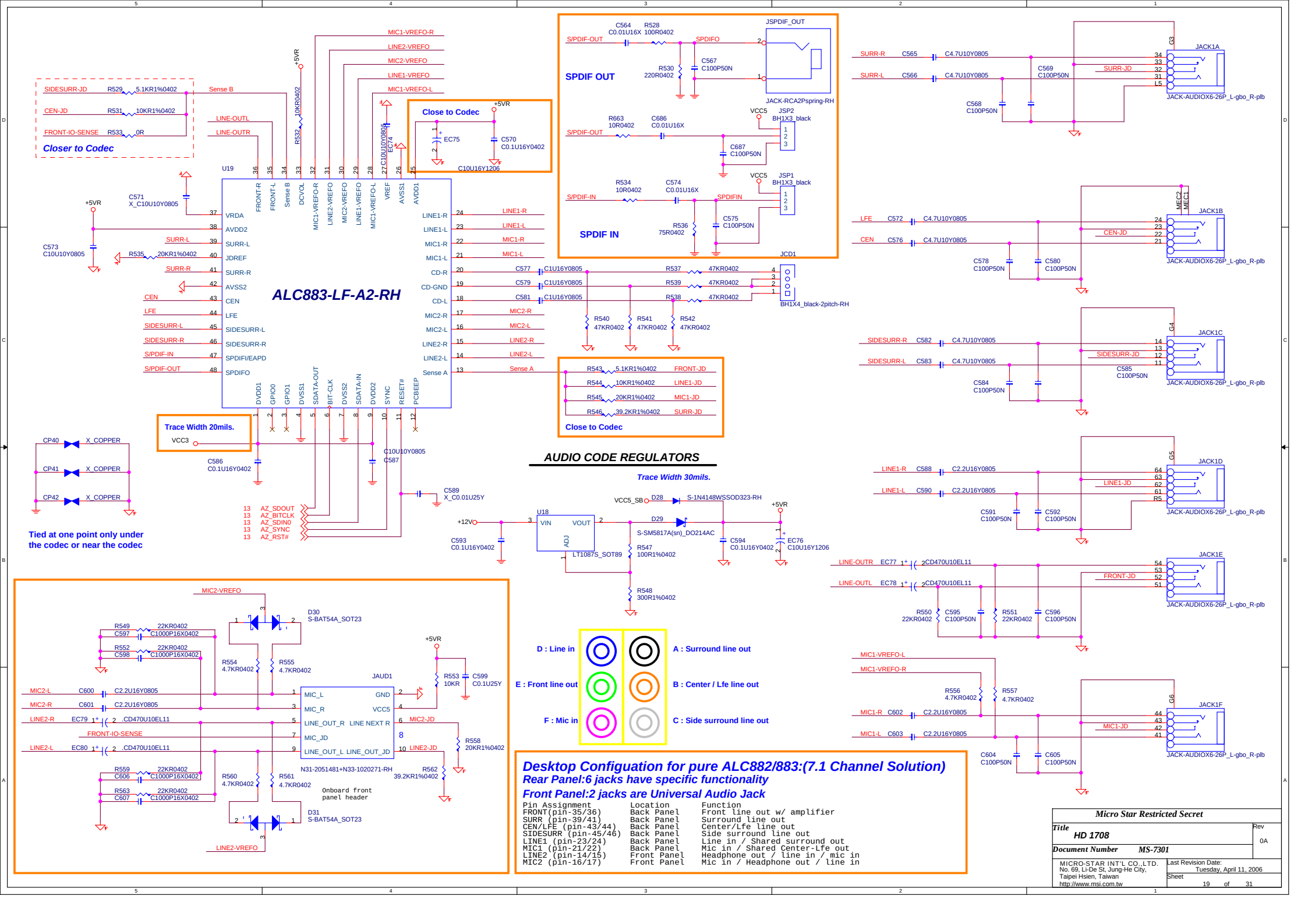
ALC883-LF-A2-RH
SPDIF OUT
SPDIF IN
Close to Codec
Closer to Codec
Trace Width 20mils.
Trace Width 30mils.
AUDIO CODE REGULATORS
Tied at one point only under the codec or near the codec
D : Line in
A : Surround line out
E : Front line out
B : Center / Lfe line out
F : Mic in
C : Side surround line out
Desktop Configuation for pure ALC882/883:(7.1 Channel Solution)
Rear Panel:6 jacks have specific functionality
Front Panel:2 jacks are Universal Audio Jack
Pin Assignment Location Function
FRONT(pin-35/36) Back Panel Front line out w/ amplifier
SURR (pin-39/41) Back Panel Surround line out
CEN/LFE (pin-43/44) Back Panel Center/Lfe line out
SIDESURR (pin-45/46) Back Panel Side surround line out
LINE1 (pin-23/24) Back Panel Line in / Shared surround out
MIC1 (pin-21/22) Back Panel Mic in / Shared Center-Lfe out
LINE2 (pin-14/15) Front Panel Headphone out / line in / mic in
MIC2 (pin-16/17) Front Panel Mic in / Headphone out / line in
Micro Star Restricted Secret
Title HD 1708
Rev 0A
Document Number MS-7301
MICRO-STAR INT'L CO., LTD.
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Taipei Hsien, Taiwan
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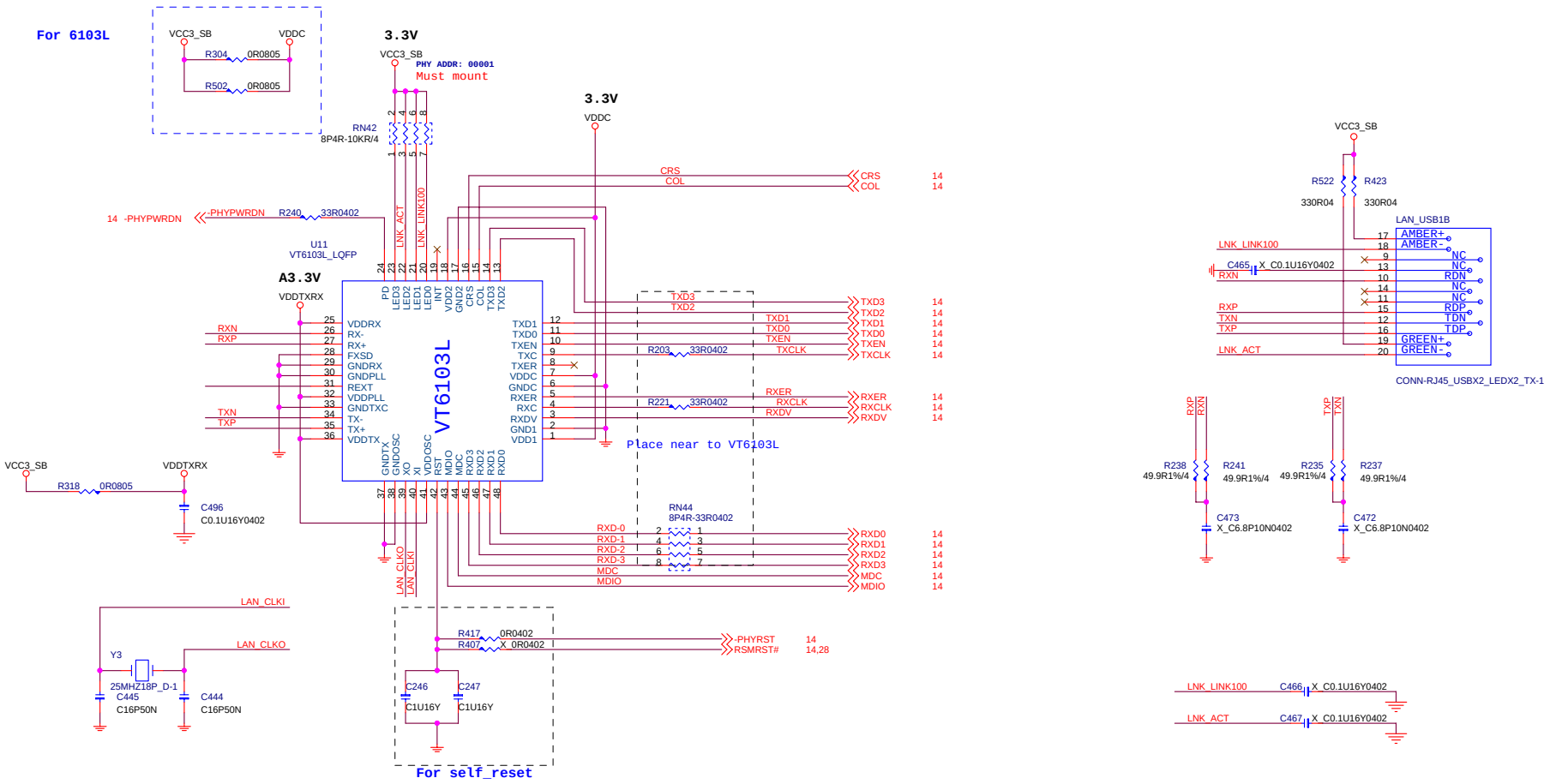
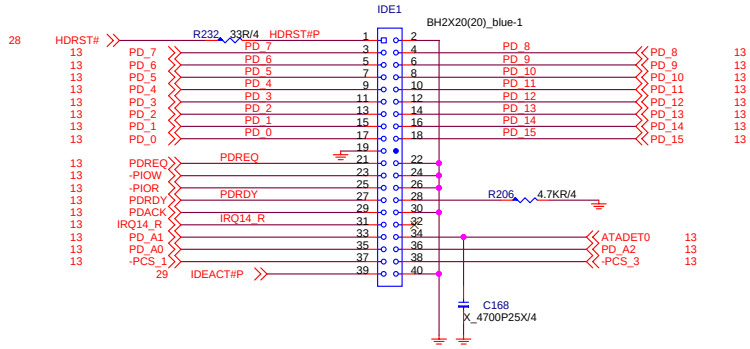
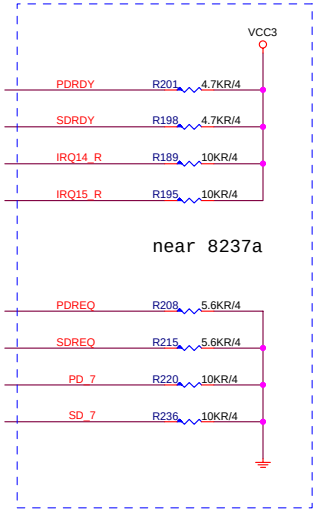


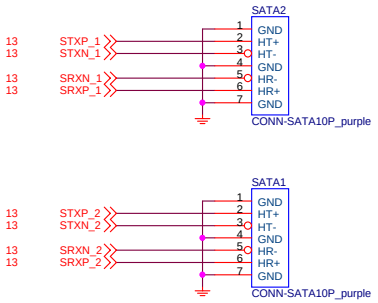
Micro Star Restricted Secret		
Title *LAN VT6103*		Rev 0A
Document Number *MS-7301*		
MICRO-STAR INT'L CO., LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Tuesday, April 11, 2006	Sheet 20 of 31

PRIMARY IDE BLOCK

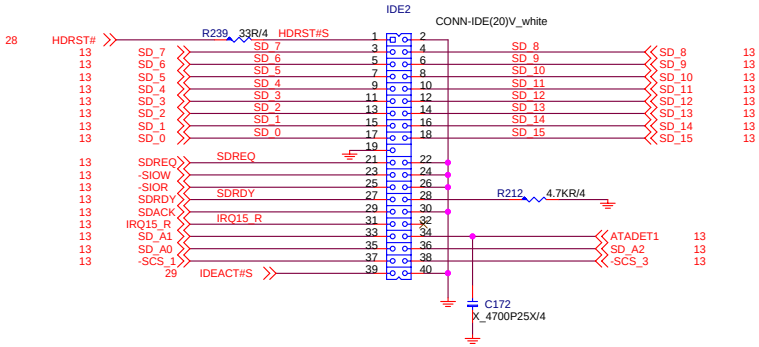




SERIAL ATA CONNECTOR BLOCK



SECONDARY IDE BLOCK



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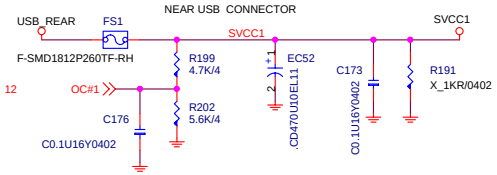
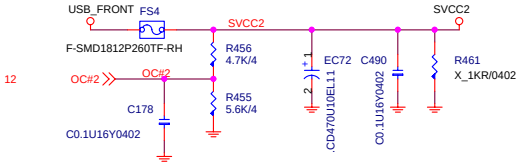
Title	*IDE & SATA*	Rev 0A
Document Number	*MS-7301*	
MICRO-STAR INT'L CO.,LTD. No. 69, Li-De St, Jung-He City, Taipei Hsien, Taiwan http://www.msi.com.tw	Last Revision Date: Tuesday, April 11, 2006 Sheet 22 of 31	

POWER CIRCUIT FOR USB PORT 0,1,2,3 (REAR)

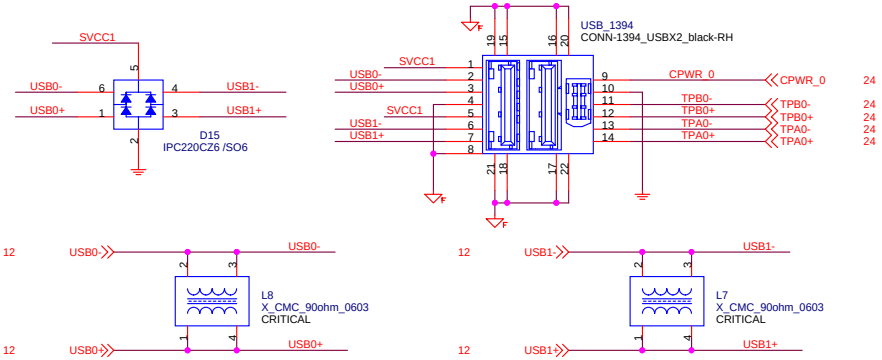


POWER CIRCUIT FOR USB PORT 4,5,6,7 (FRONT)

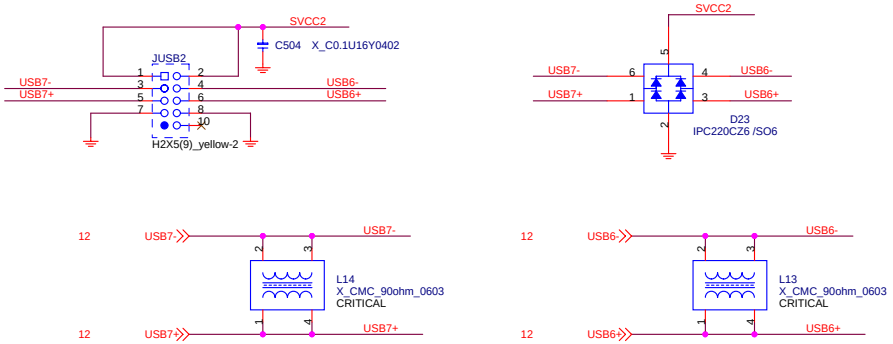


REAR PANEL USB CONNECTOR FOR USB PORT 0,1 & 1394 PORT

USB Interface
Diff. Trace width 7.5 mils & 7.5 mils space.
Diff. & other space 20 mils.
Length matching: < 150 mils
Ttrace length 0" to 17"

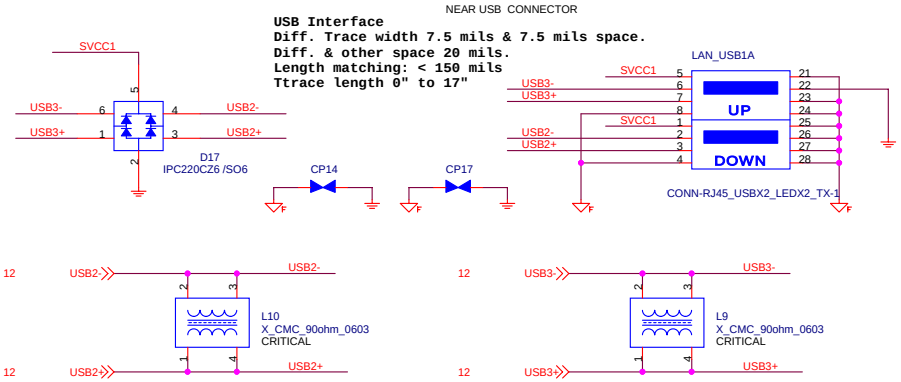


FRONT PANEL USB CONNECTOR FOR USB PORT 6,7

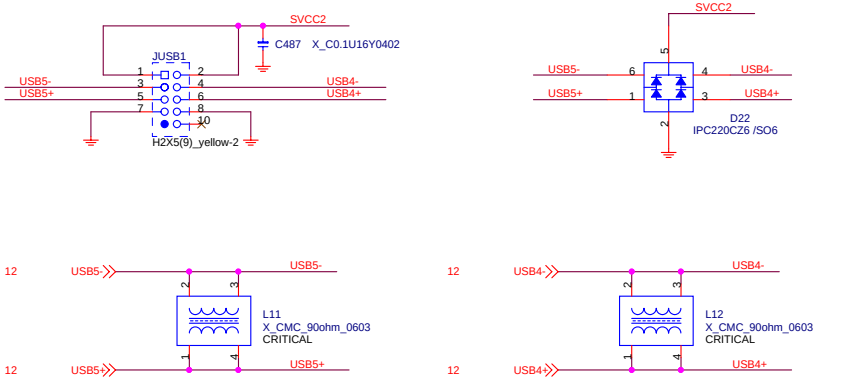


REAR PANEL USB CONNECTOR FOR USB PORT 2,3

USB Interface
Diff. Trace width 7.5 mils & 7.5 mils space.
Diff. & other space 20 mils.
Length matching: < 150 mils
Ttrace length 0" to 17"



FRONT PANEL USB CONNECTOR FOR USB PORT 4,5



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Title	***USB-REAR & FRONT***	Rev 0A
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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, April 11, 2006	
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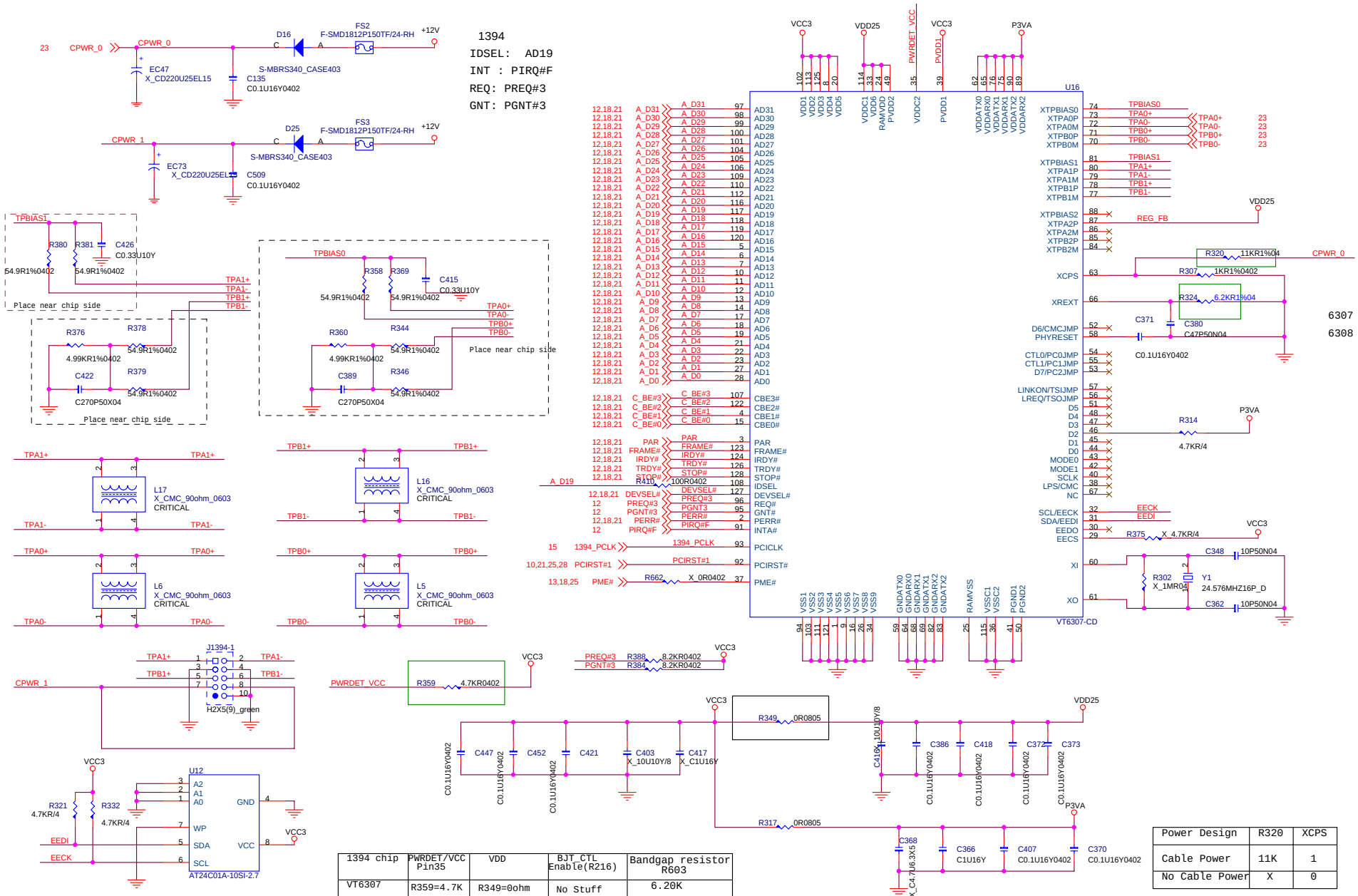
1394
IDSEL: AD19
INT : PIRQ#F
REQ: PREQ#3
GNT: PGNT#3
U16
VT6307-CD
VT6307
VT6308
CPWR_0
CPWR_1
TPBIAS1
TPBIAS0
REG_FB
XCPS
XREXT
PWRDET_VCC
PCICLK
PCIRST#
PME#
1394_PCLK
EECK
EEDI
Place near chip side
H2X5(9)_green
AT24C01A-10SI-2.7
Power Design | R320 | XCPS
Cable Power | 11K | 1
No Cable Power | X | 0
1394 chip | PWRDET/VCC Pin35 | VDD | BJT_CTL Enable(R216) | Bandgap resistor R603
VT6307 | R359=4.7K | R349=0ohm | No Stuff | 6.20K
VT6308P | R359=0ohm | r349 no stuff | No Stuff | 6.20K
Micro Star Restricted Secret
Title
1394-VT6307 COLAY VT6308P
Rev
0A
Document Number
MS-7301
MICRO-STAR INT'L CO., LTD.
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Last Revision Date:
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83627EHG/DHG

LPC I/O STRAPPING RESISTOR

SOUTA	L: Disable KBC	H: Enable KBC
GP50	L: TTL LEVEL	H: VRM10 LEVEL
RTSA#	L: CFAD=2E	H: CFAD=4E
DTRA#	L: PNP Default	H: PNP no Default

U3

W83627EHG-H-RH

FOR DHG

FOR DHG

REMOVE FOR DHG

for EMC

ADD FOR DHG

REMOVE FOR DHG

SERIAL PORT 1

U4

GD75232_SSOP20

CONN-COM_green-RH

JCOM2 H2X5(10)_black

CN1 8P4C-180P50N

CN2 8P4C-180P50N

PARALLAL PORT

CN4 8P4C-180P50N

CN3 8P4C-180P50N

CN7 8P4C-180P50N

CN8 8P4C-180P50N

RN10 8P4R-2.2KR

RN8 8P4R-2.2KR

RN12 8P4R-2.2KR

RN15 8P4R-2.2KR

If for SAMSUNG,turn 2.2KR to 2KR

LPT1

CONN-D-SUB25F-10u-in

Temperature Sensing

W83627EHF VREF=2.048V

NOTE: LOCATE CLOSE STATUS PANEL

FROM CPU'S THERM DIODE

buzzer control

N-MMBT3904_NL_SOT23

FIRMWARE HUB (FWH)

PLCC_23

FWH RESISTORS

RN35 8P4R-4.7KR/4

RN40 8P4R-4.7KR/4

Chassis Intrusion

H1X2_black-RH

Micro Star Restricted Secret

Title	*LPC IO-W83627EHG & BIOS*	Rev 0A
Document Number	*MS-7301*	

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Last Revision Date: Tuesday, April 11, 2006

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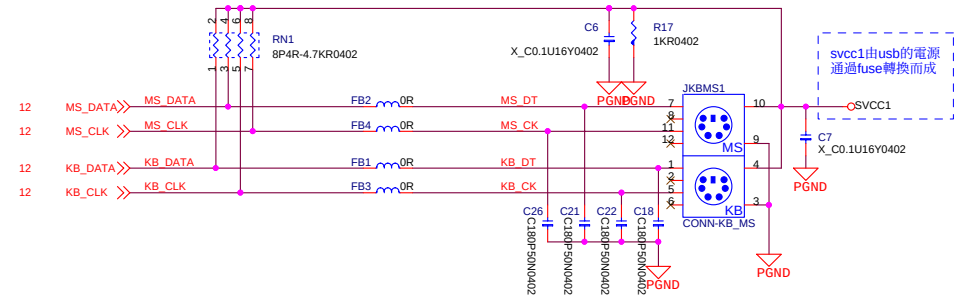
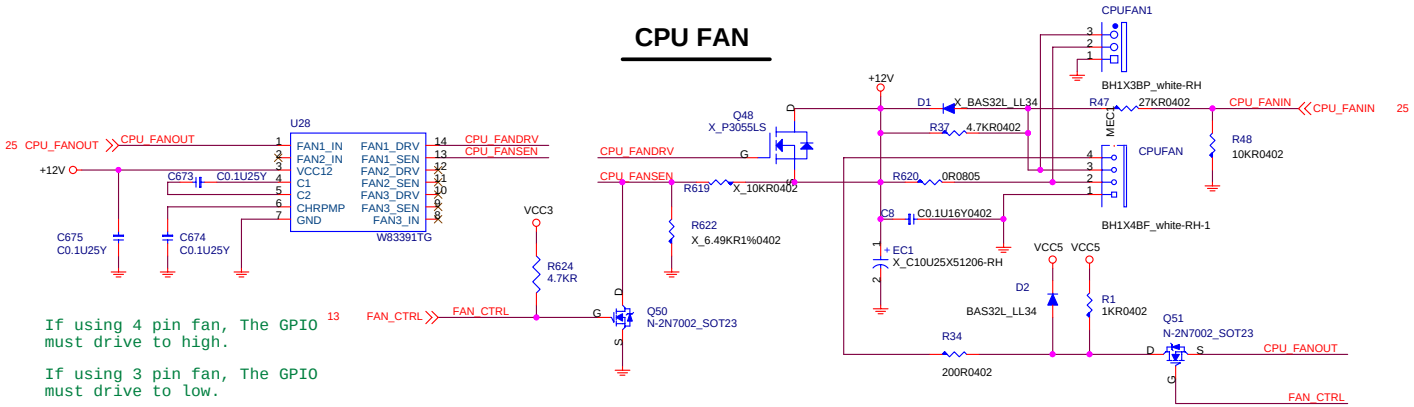
PS2 KEYBOARD & MOUSE CONNECTOR

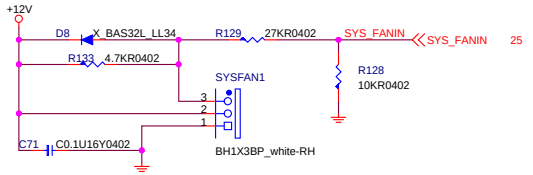
Fan	Description
Pin 1	GND
Pin 2	POWER
Pin 3	Taco
Pin 4	PWM



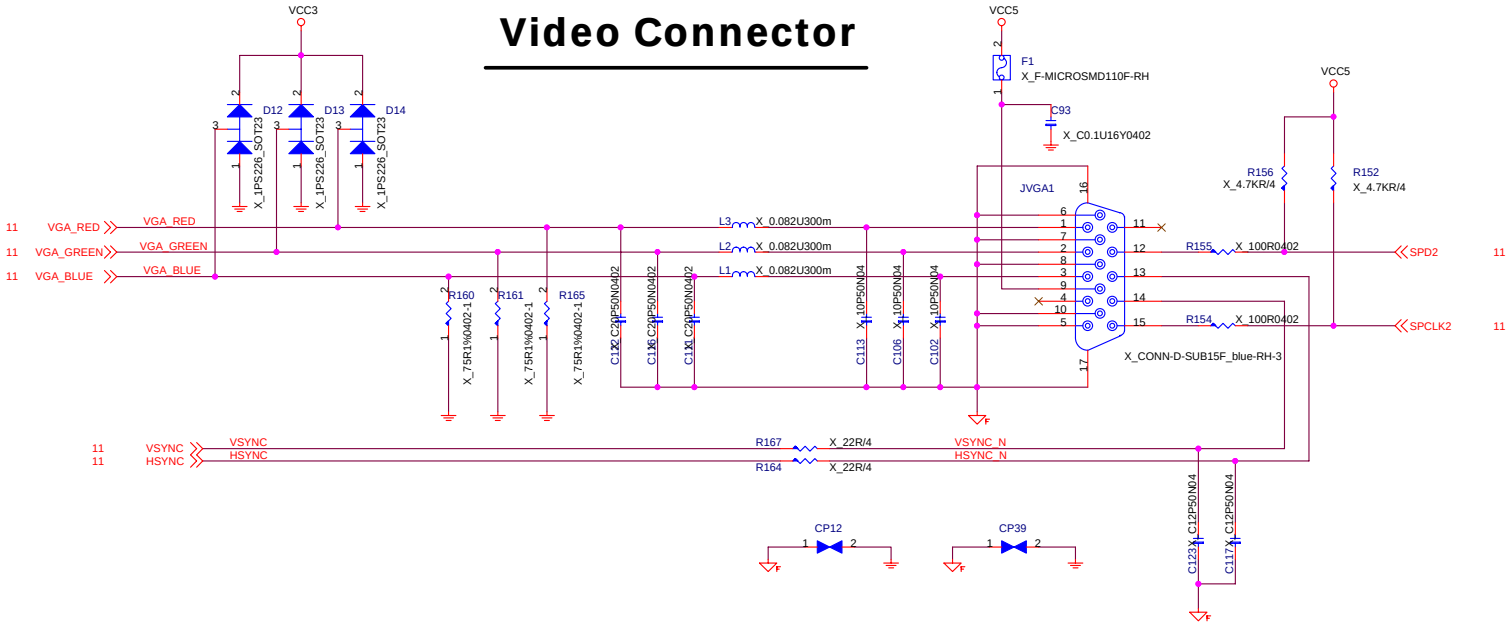
CPU FAN

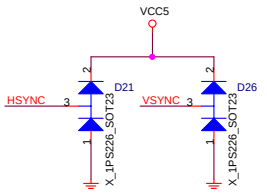


SYSTEM FAN



Video Connector





Micro Star Restricted Secret	
Title: KB/MS & FAN & VGA	Rev: 0A
Document Number: MS-7301	
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, April 11, 2006
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CP1,CP2,CP3,CP4,
CP5,CP6 PLACE ON
THE SOLDER SIDE,
CLOSE INDUCTOR

OUTPUT INDUCTOR

U27 ISL6312CRZ_QFN48-RH

PGOOD, EN, VID7, VID6, VID5, VID4, VID3, VID2, VID1, VID0, VRSEL
PVCC1_2, BOOT1, UGATE1, PHASE1, LGATE1, BOOT2, UGATE2, PHASE2, LGATE2, BOOT3, UGATE3, PHASE3, LGATE3
ISEN1+, ISEN1-, ISEN2+, ISEN2-, ISEN3+, ISEN3-, ISEN4+, ISEN4-
PWM4, EN_PH4
COMP, FB, IDROOP, VDIFF, VSEN, RGND, OFS, DRSEL, OVPSEL, REF, FS, SS, GND

VRM_PWGD, VTT_PWG, VID_SELECT

VCC3, 5VIN, VCC5, +12VIN, VCCP, +12VP_FET

R575 X_1KR
R576 2.2R
R577 2.2R0805
C627 C4.7U10Y0805
C629 C0.1U16Y0402
C628 C0.1U25X
C630 C1U25X0805

R578 1R0805
R594 1R0805
R614 1R0805
UG1, UG2, UG3
Q36, Q37, Q38, Q39, Q40, Q41, Q42, Q43, Q44, Q45, Q46, Q47
N-P60N03LDG_TO252-3-RH
X_N-P60N03LDG_TO252-3-RH
N-P70N02LDG_TO252-3-RH
C625 C4.7U16Y1206
C626 C10U16Y1206
C639 C4.7U16Y1206
C640 C10U16Y1206
C658 C4.7U16Y1206
C659 C10U16Y1206
Near MOS

PHASE1, PHASE2, PHASE3
U_G1, L_G1, U_G2, L_G2, U_G3, L_G3
COIL1 CH-0.25U40A-RH-1
COIL2 CH-0.25U40A-RH-1
COIL3 CH-0.25U40A-RH-1
0.5V~1.6V/125A
R580 2.2R0805
R601 2.2R0805
R615 2.2R0805
CP47 X_COPPER
CP46 X_COPPER
CP48 X_COPPER
CP49 X_COPPER
CP50 X_COPPER
CP51 X_COPPER
PHS1, PHS2, PHS3
ISEN1, ISEN2, ISEN3
C632 C1000P50X0402
C651 C1000P50X0402
C669 C1000P50X0402

OS-CON
EC81 EC82 EC83 EC84 EC85 EC86 EC87 EC88 EC89 EC90 CD560U4OS-2
EC91 C100U2SP-LF
SP-CON
Ceramic
C654 C655 C656 C657 C660 C661 C662 C663 C665 C666 C667 C668 C22U6.3X1206

R583 3KR1%
R584 20KR1%
C634 C1500P50X
C633 C12P50N
RT2 X_4.7KRT
R587 0R
R588 X_1.6KR
C637 X_C680P16X
R597 X_750R1%

R595 100R
R598 0R
R600 0R
C647 X_C0.1U25X
R602 100R
C648 X_C0.1U25X
C649 C0.1U25X
5 VCC_VRM_SENSE
5 VSS_VRM_SENSE

R607 100KR0402-1
R608 X_5KR
R609 X_1KR
R610 X_100KR
R612 0R
C664 C0.01U16X
R613 120KR

R579 2.2R0805
R585 2.2R0805
R593 2.2R0805
R599 2.2R0805
C642 C0.1U25X
C646 C0.1U25X
C645 C1U25X0805
C631 X_C2200P16X
C638 X_C2200P16X
C650 X_C2200P16X
R596 0R
R581 470R1%
R582 4.7KR1%
C643 C0.1U16X
R589 0R
R590 470R1%
R591 4.7KR1%
C644 C0.1U16X
R604 0R
R605 470R1%
R603 4.7KR1%
C653 C0.1U16X
C635 X_4.7KR1%
C641 X_4.7KR1%
C652 X_4.7KR1%
R611 0R

BOTTOM PAD CONNECT
TO GND Through 8 VIAs

HS1 X_HS_7050
HS2 X_HS_7050
HS3 X_HS_7050

ATX12V Power Connector
JPW1
+12V, 12V, GND, PWR-2X2M_white-4.2pitch-RH
C671 X_C0.01U16X0402

CHOKE4 CH-1.2U18A
C672 C0.1U16Y0402
C670 C0.1U16Y0402
EC92 EC93 EC94 EC95 CD270U16OS

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Title: VRM-RT8802A+9607+9619	Rev: 0A
Document Number: MS-7301	
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, April 11, 2006
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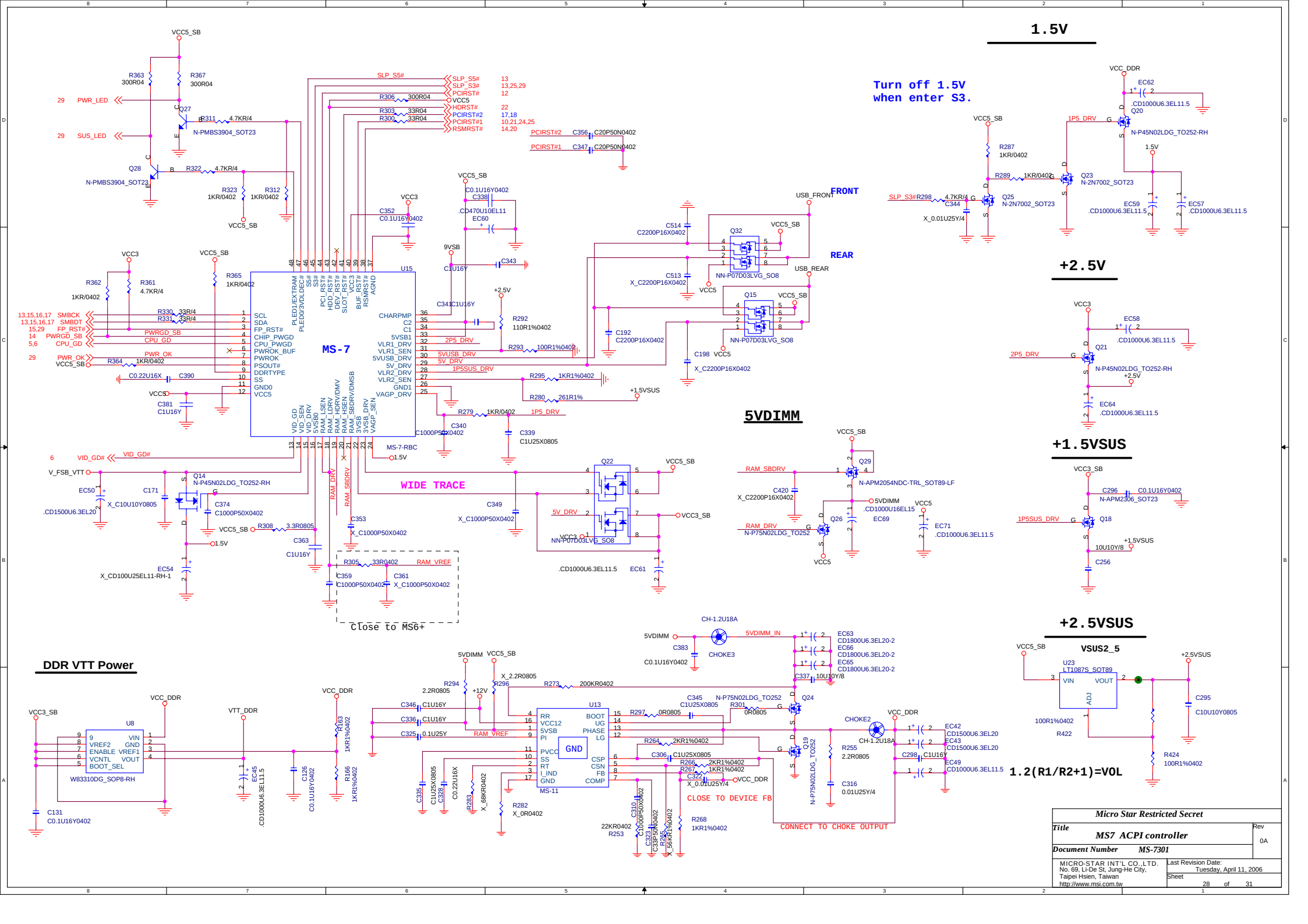
1.5V
Turn off 1.5V
when enter S3.
+2.5V
+1.5VSUS
+2.5VSUS
5VDIMM
DDR VTT Power
MS-7
WIDE TRACE
Close to MS6+
CLOSE TO DEVICE FB
CONNECT TO CHOKE OUTPUT
FRONT
REAR
1.2(R1/R2+1)=V0L
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MS7 ACPI controller
MS-7301
0A
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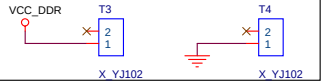
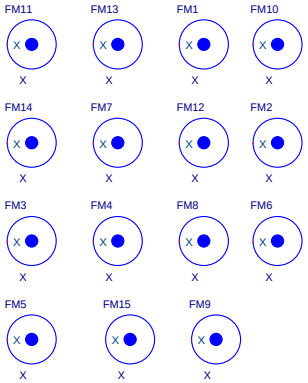
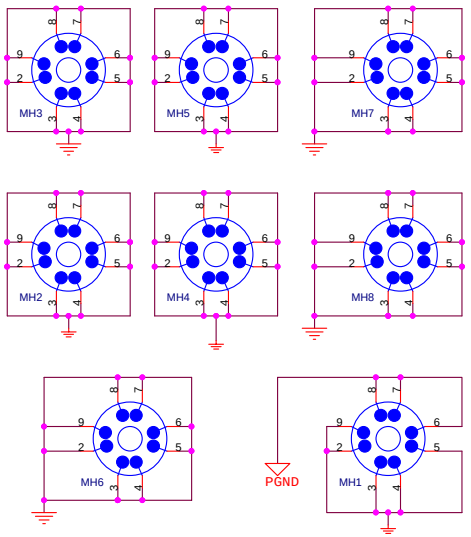
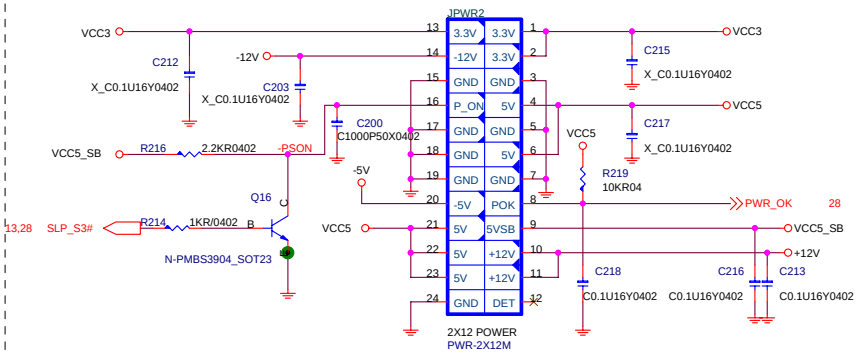
Impedance Test



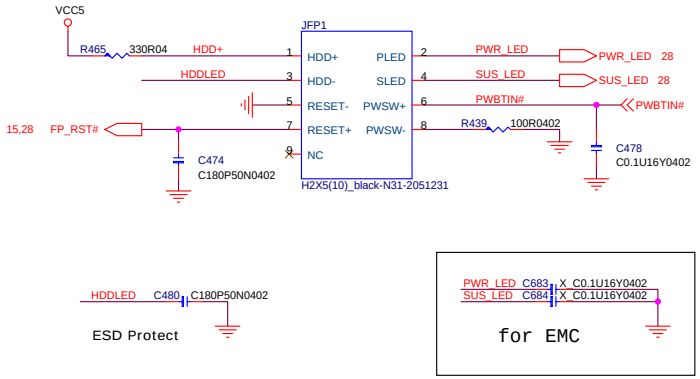




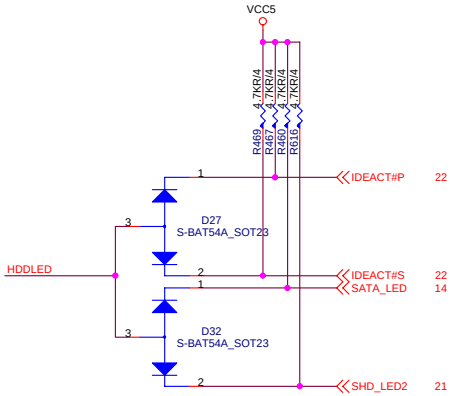
ATX Connector



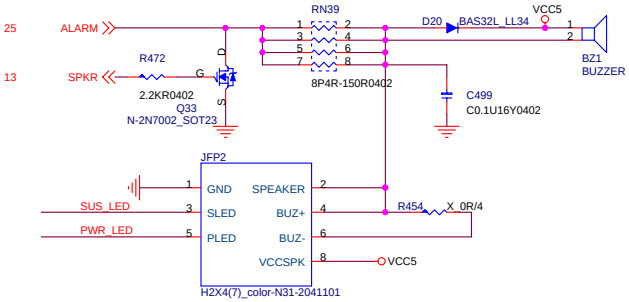
For MSI / Intel Front Panel



IDE LED & SERIAL ATA LED



BUZZER



For EMI

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Title **COVER SHEET**	Rev 0A
Document Number *MS-7301*	
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Micro Star Restricted Secret

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