

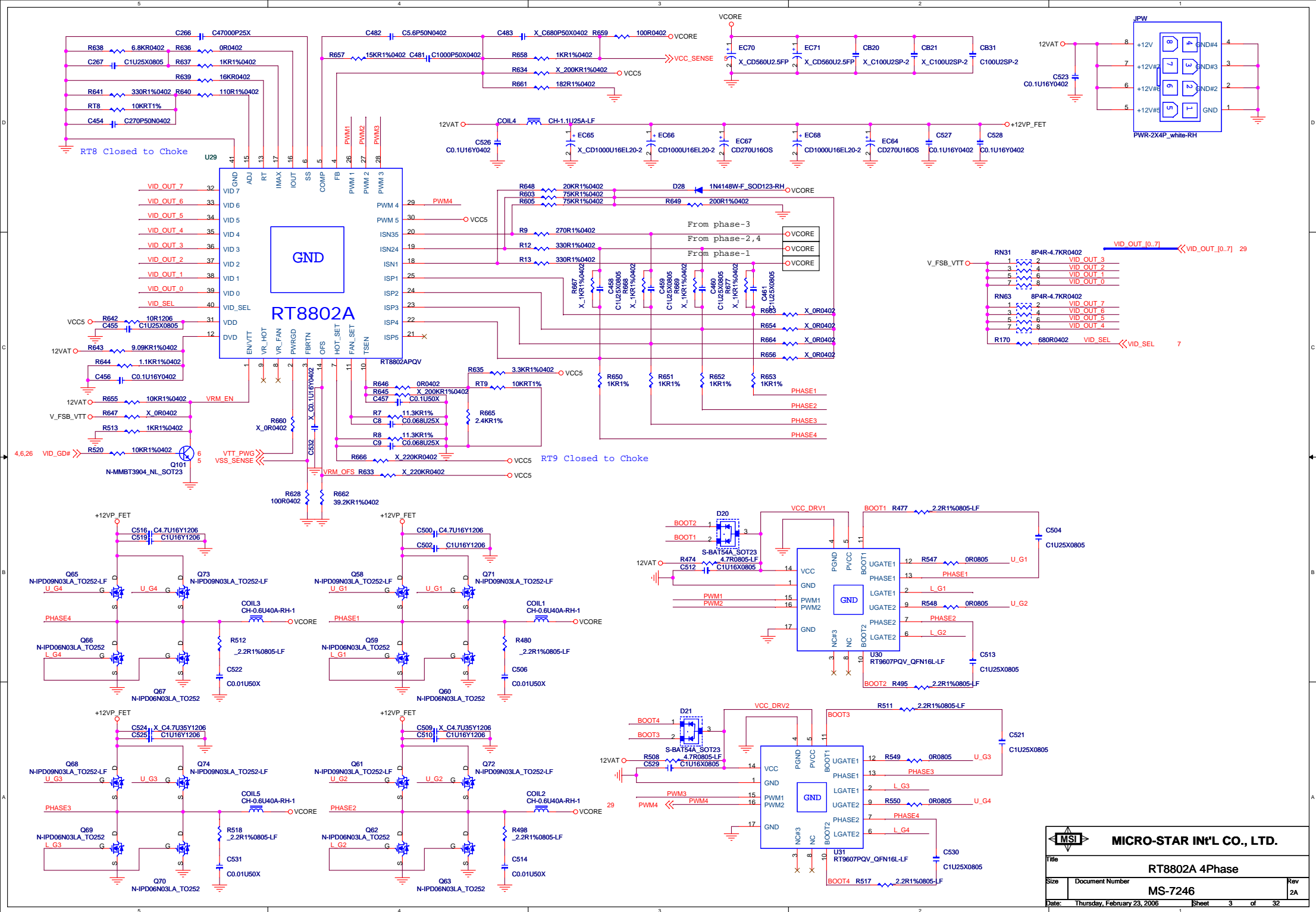


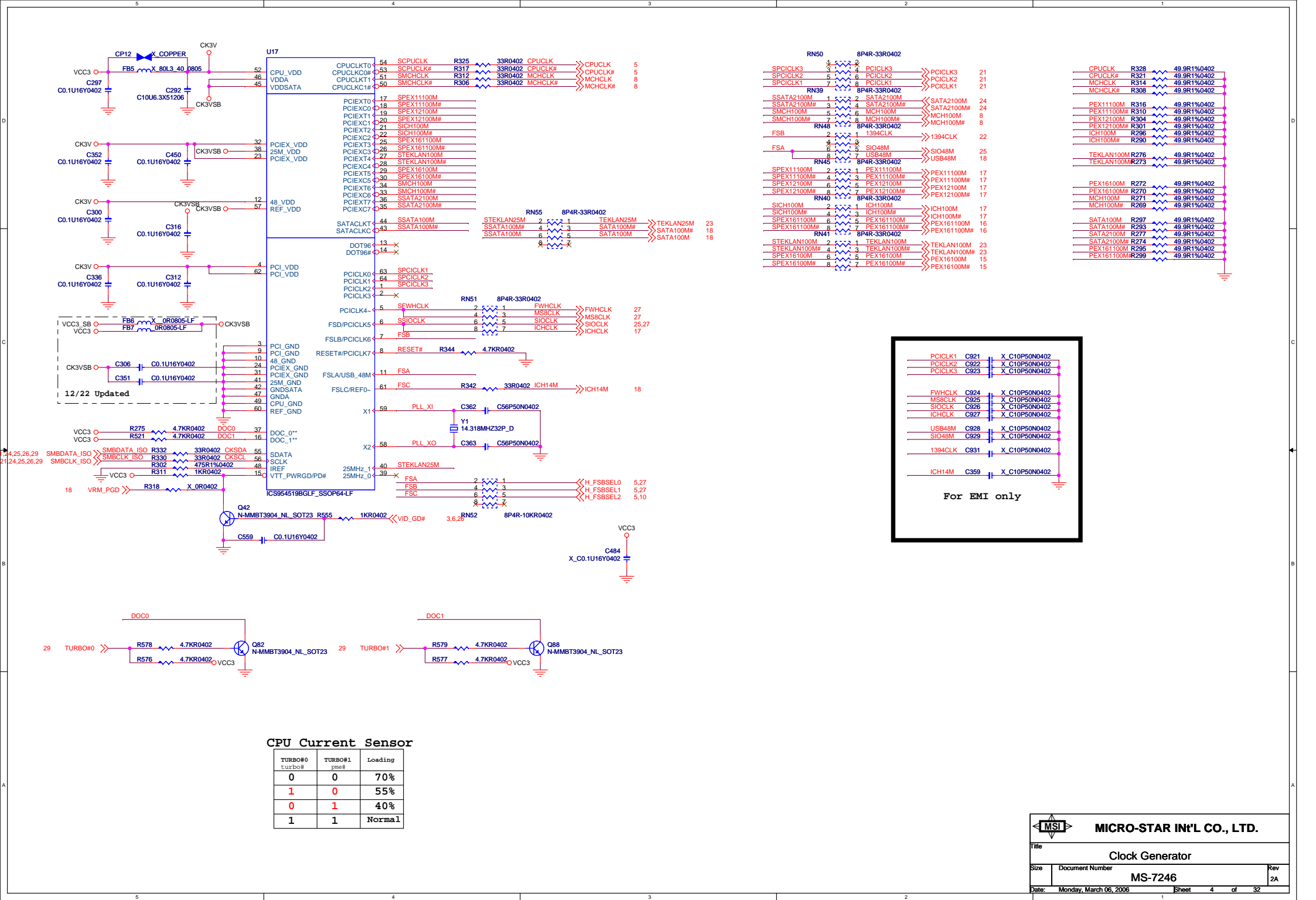
The diagram illustrates the system architecture centered around the Intel P4 Processor. The processor is connected to a VRM 10/11 and an MCH82975 memory controller via a double-headed arrow. The MCH82975 is connected to the processor via a double-headed arrow and to four DDR2 memory modules (DDR2-1, DDR2-2, DDR2-3, DDR2-4) via a double-headed arrow. The MCH82975 is also connected to two PCI Express X16 slots via a double-headed arrow, with the label 'SLI' positioned between them. The MCH82975 is connected to the ICH7R I/O controller via a double-headed arrow. The ICH7R is connected to various components: USB0~7, RealTek ALC883, ATA100/133 IDE, SPI ROM, LPC ROM/MS-8, and a Winbond W83627EHG Super I/O chip via double-headed arrows. The ICH7R is also connected to PCI Slot-1, PCI Slot-2, and IEEE 1394 via double-headed arrows. The ICH7R is connected to the FDD Connector, Print/COM, KB/MS, and H/W Monitor via double-headed arrows. The ICH7R is connected to PCI E1, PCI E2, Broadcom GbE, and JMicron 2S+1P via double-headed arrows.

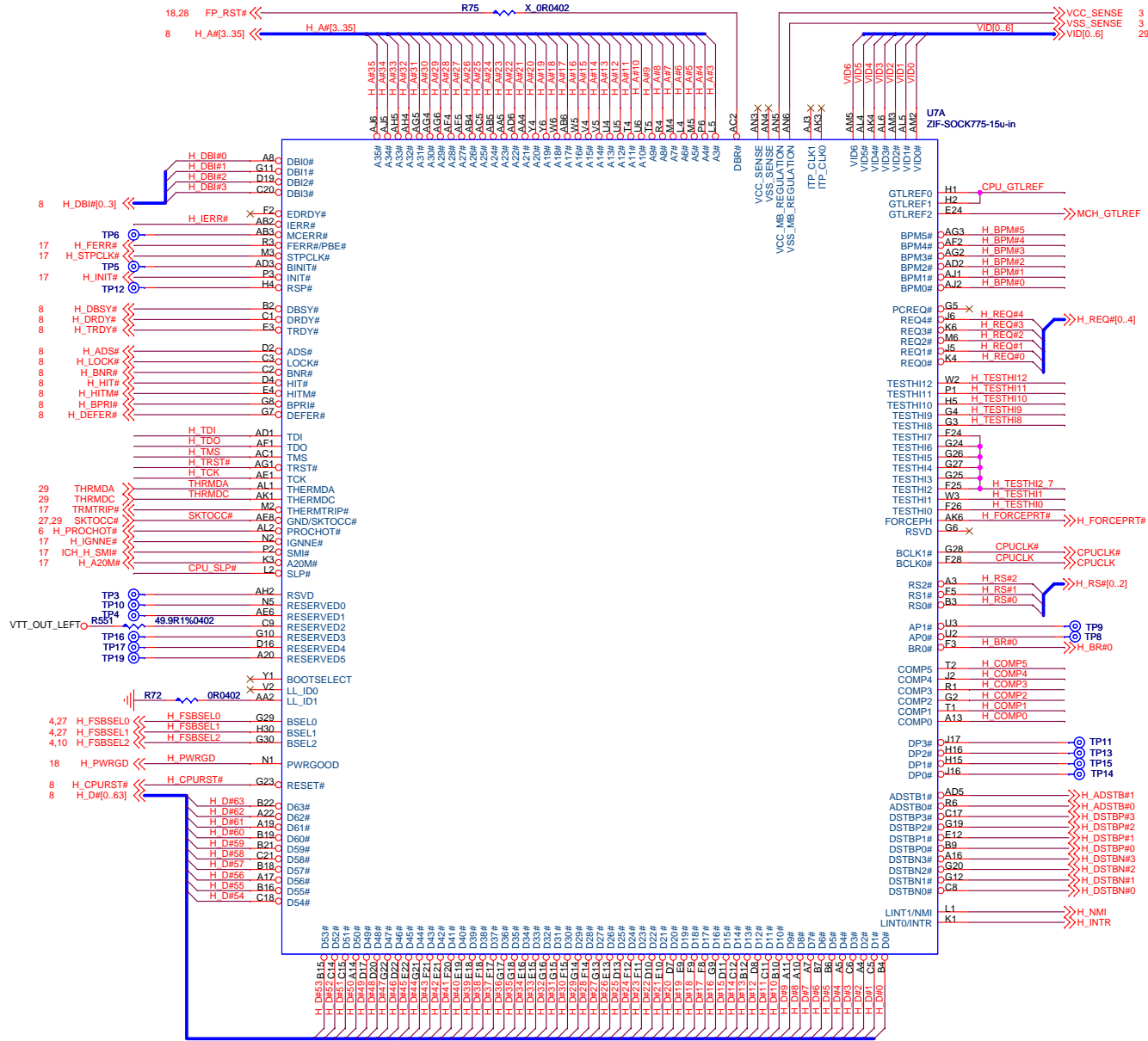
	MICRO-STAR INT'L CO., LTD.
Title Rev <div style="display: flex; justify-content: space-between; align-items: center; padding: 5px;"> <div style="flex-grow: 1;"> BLOCK DIAGRAM </div> <div> 2A </div> </div>	
Size	Document Number <div style="font-size: 1.2em; font-weight: bold; margin-top: 10px;">MS-7246</div>
Date:	Wednesday, February 22, 2006
Sheet	1 of 32

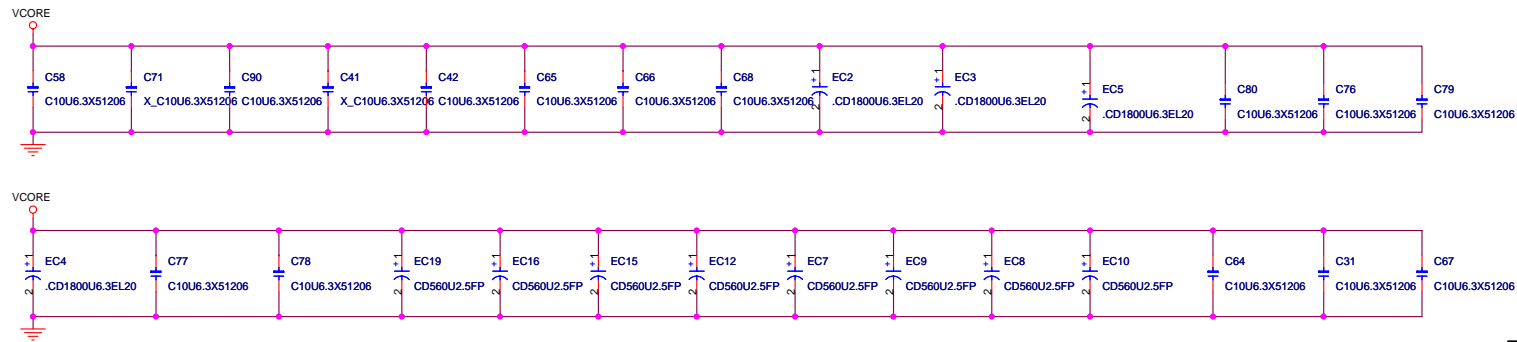
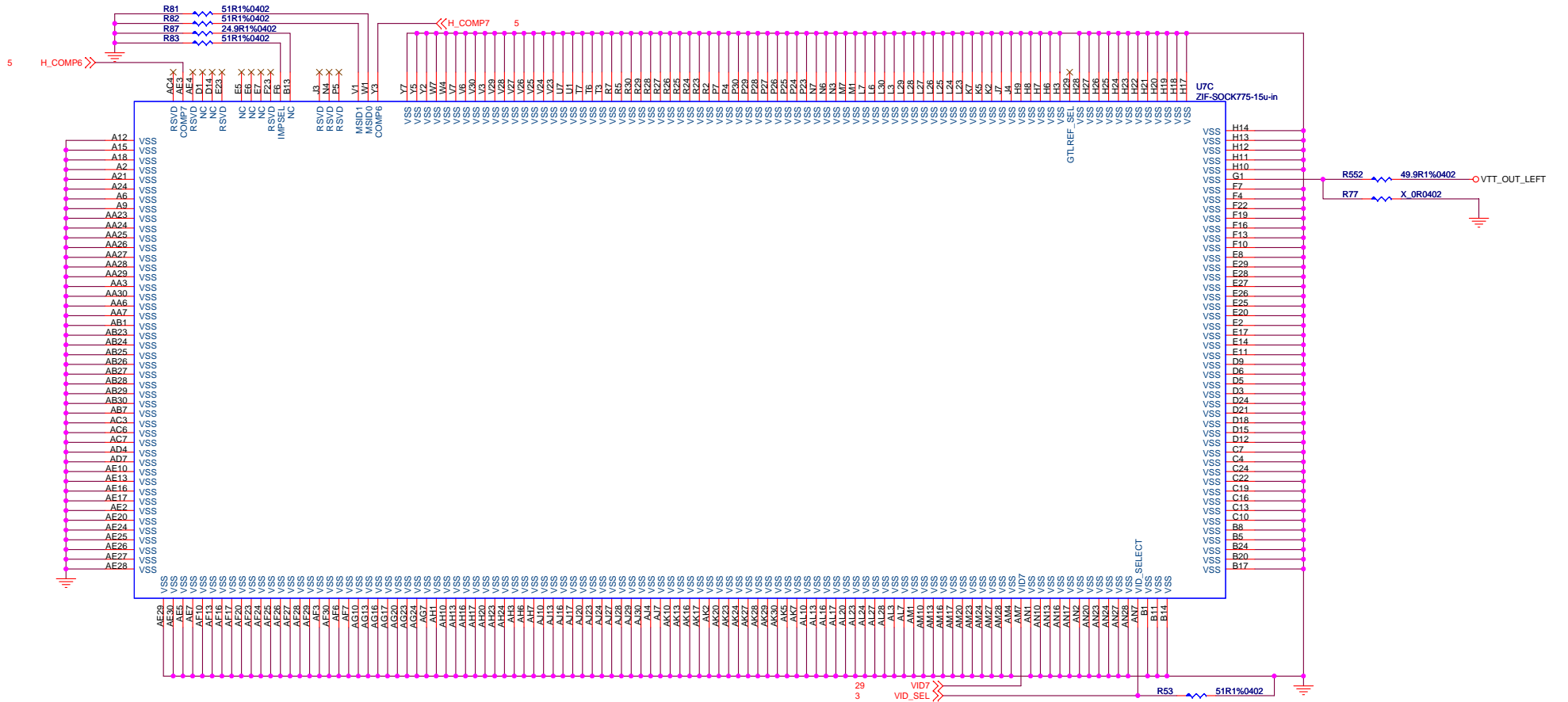
5	4	3	2	1
D				D
C				C
B				B
A				A
5	4	3	2	1

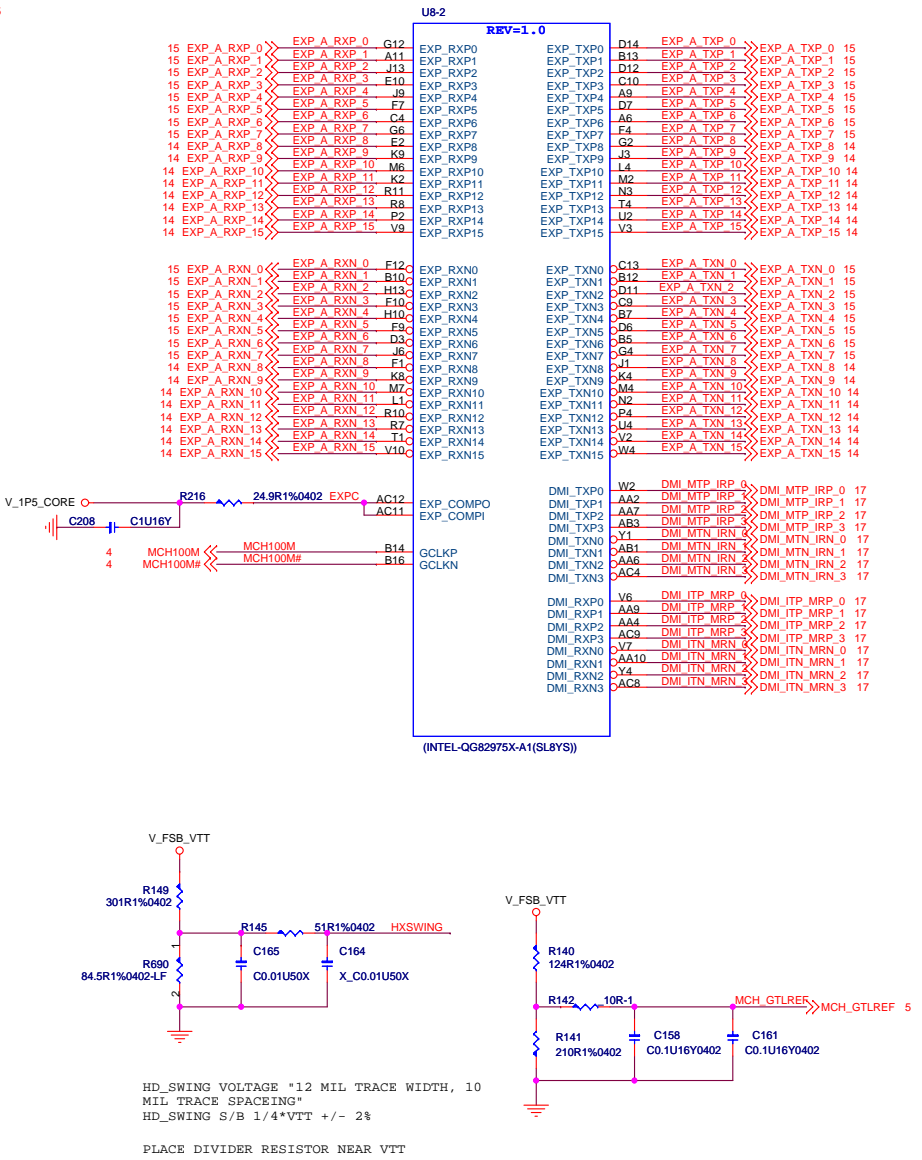
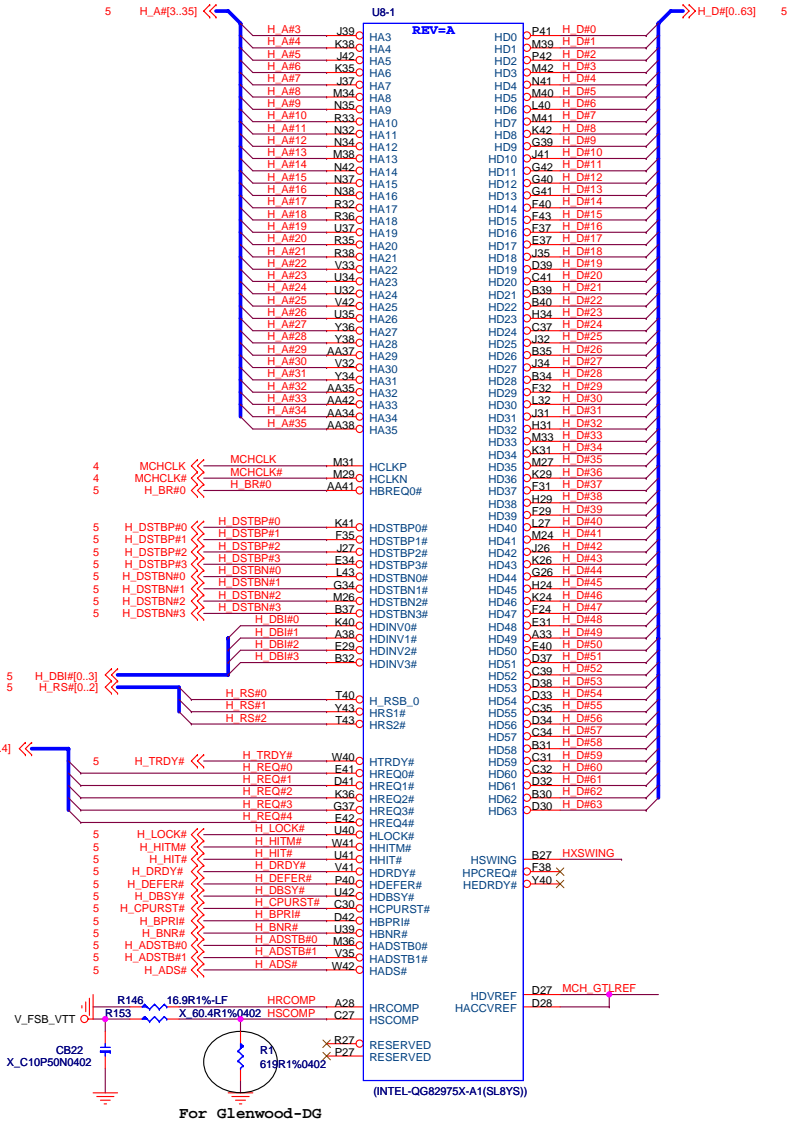
		MICRO-STAR INT'L CO., LTD.		
Title		Power Delivery		
Size	Document Number			Rev
	MS-7246			2A
Date:	Wednesday, February 22, 2006		Sheet	2 of 32

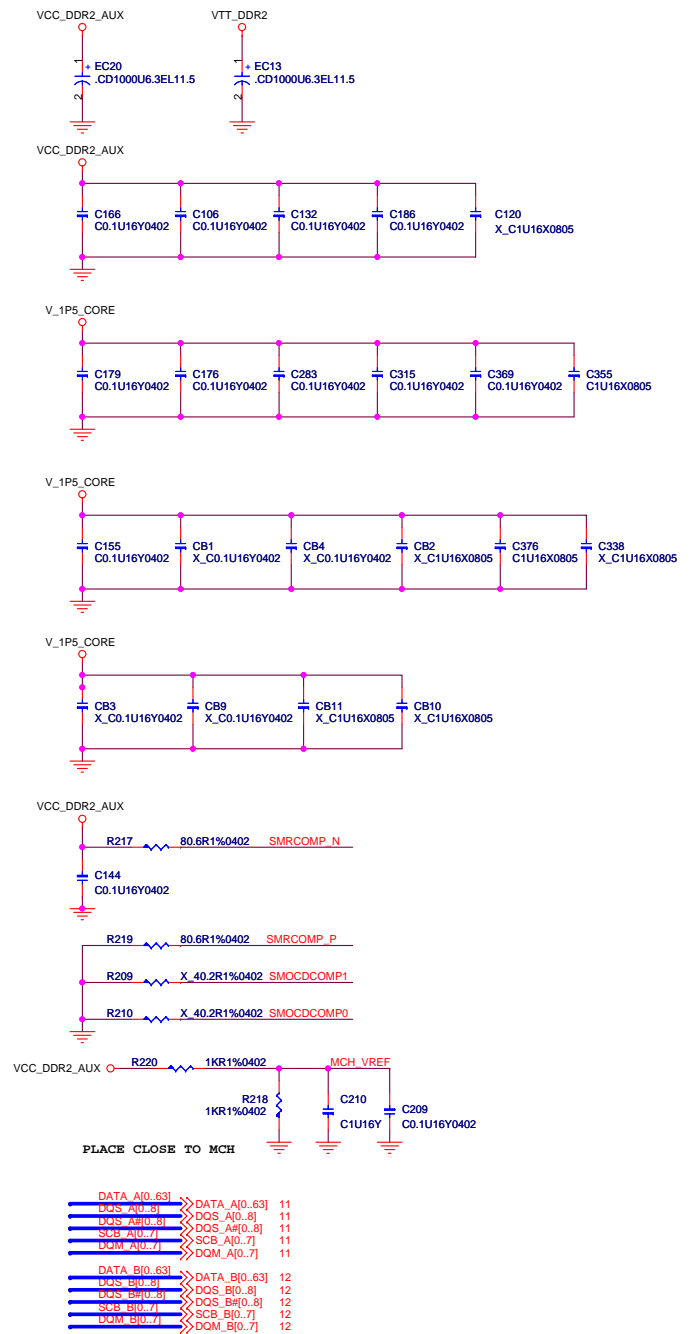
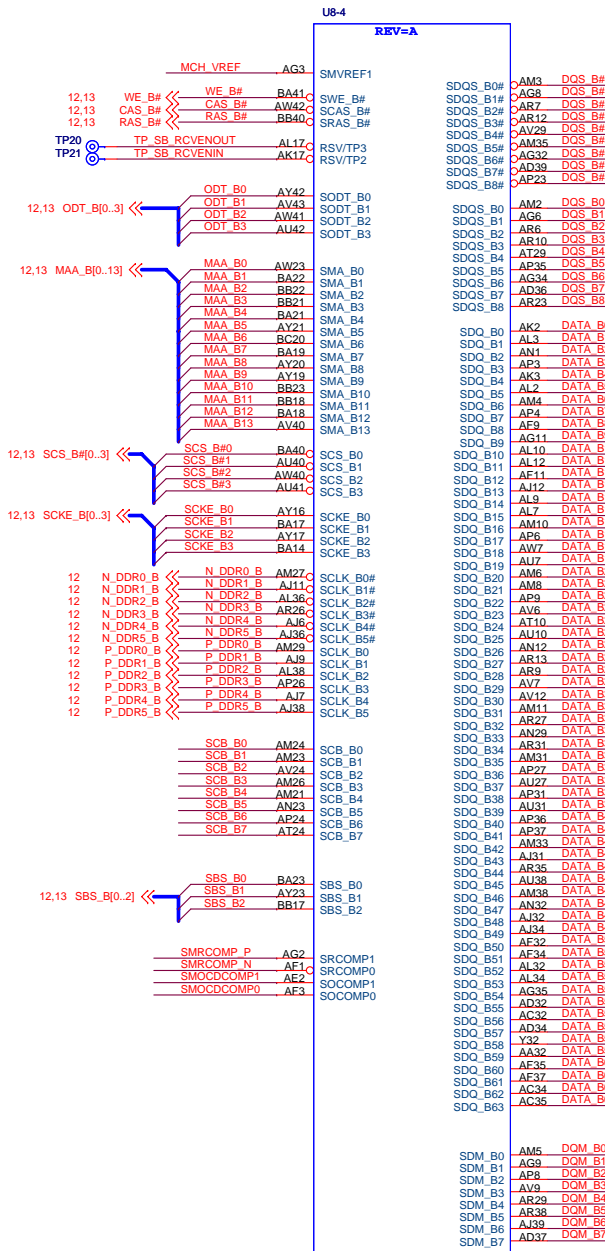
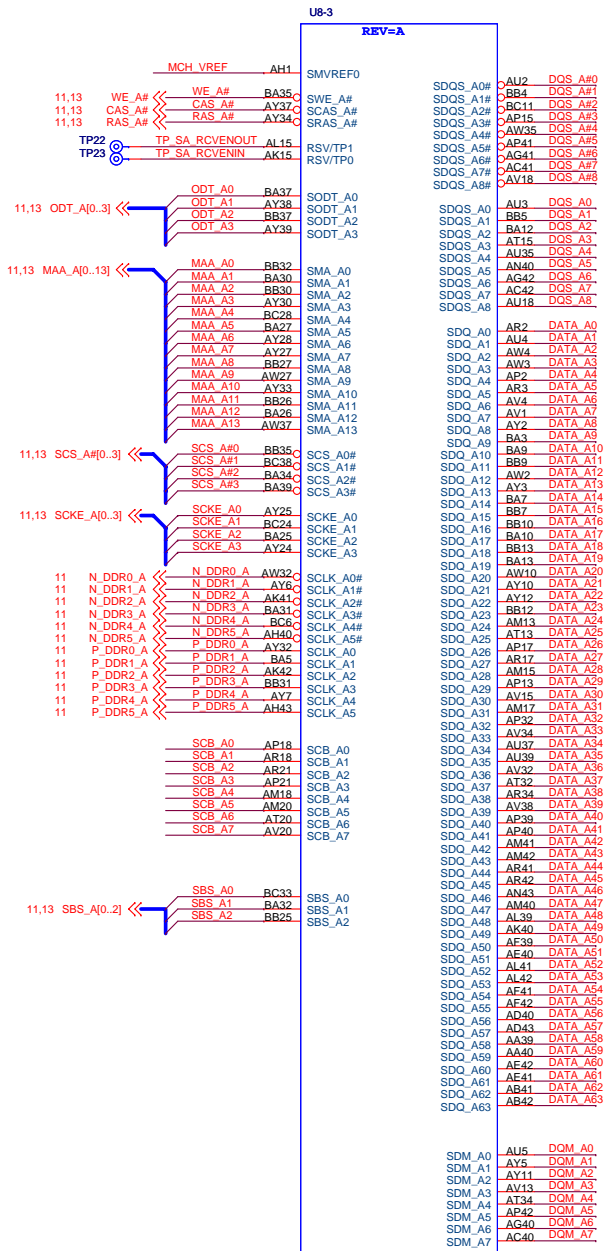






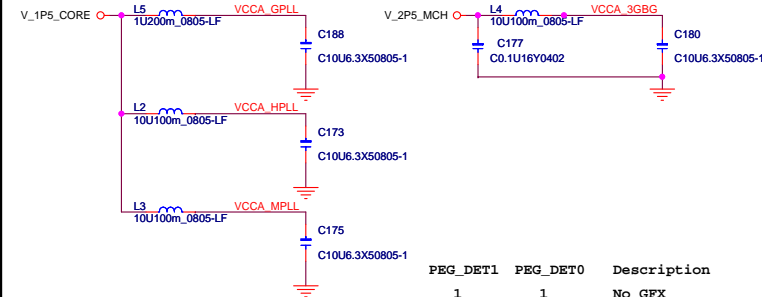
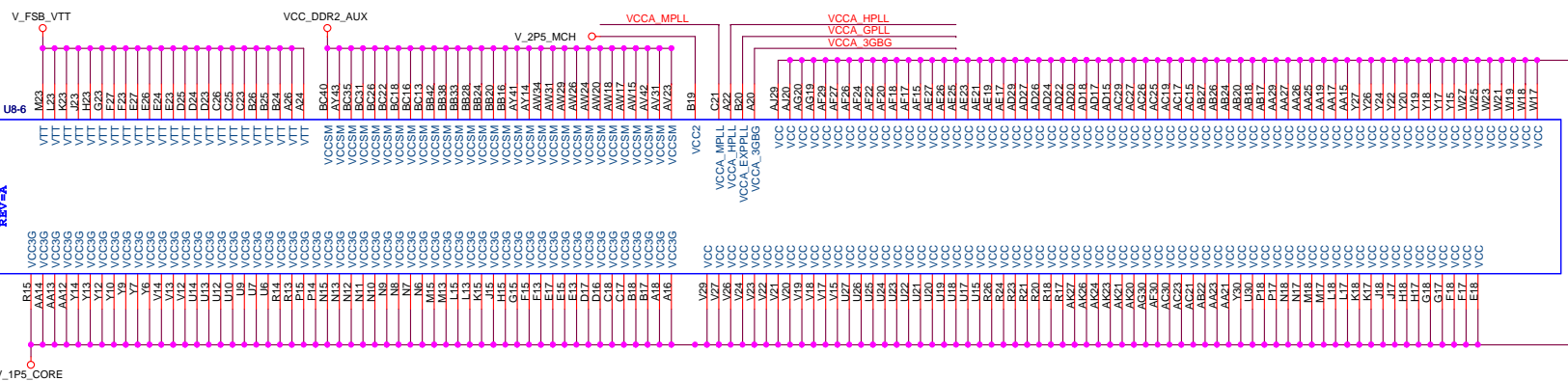
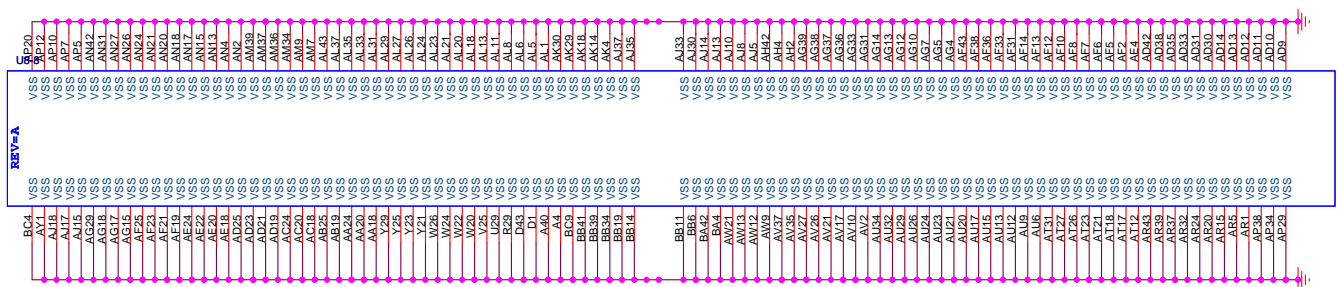
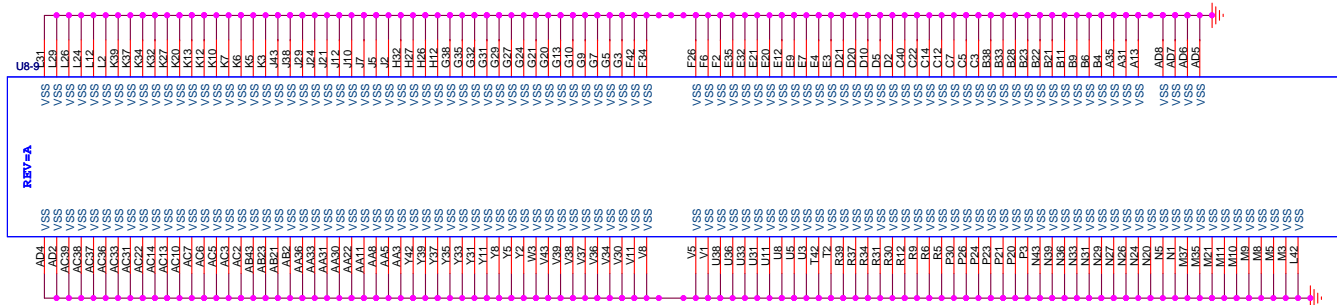




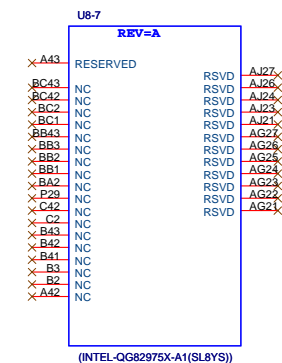
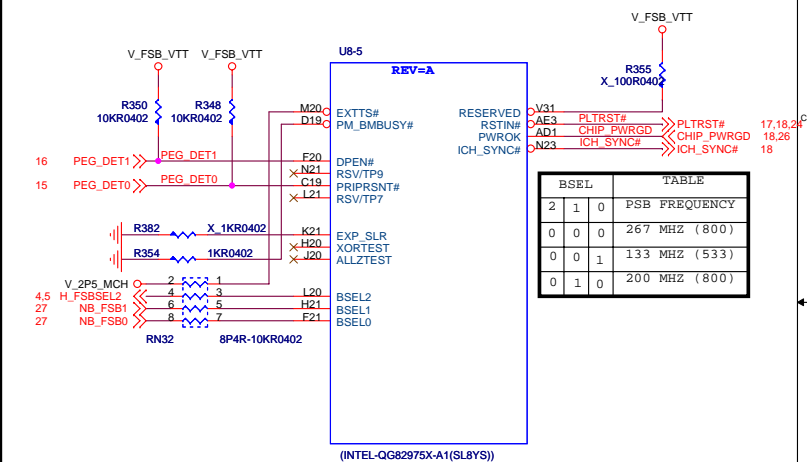


MICRO-STAR INT'L CO., LTD.

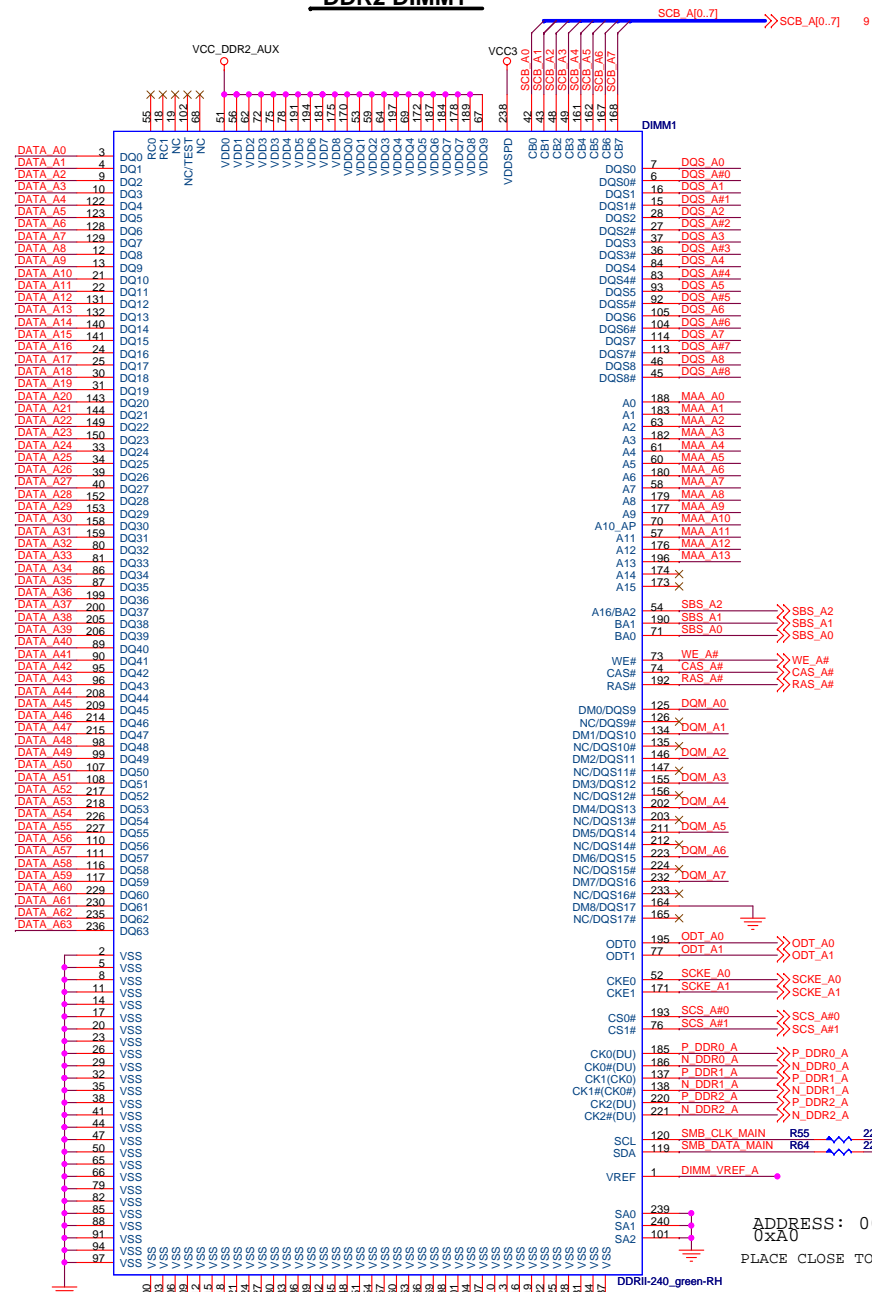
Title		
MCH82975 Memory Signal		
Size	Document Number	Rev
	MS-7246	2A
Date:	Monday, March 06, 2006	Sheet 9 of 32



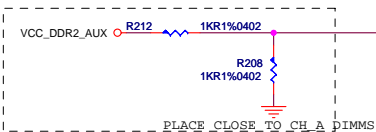
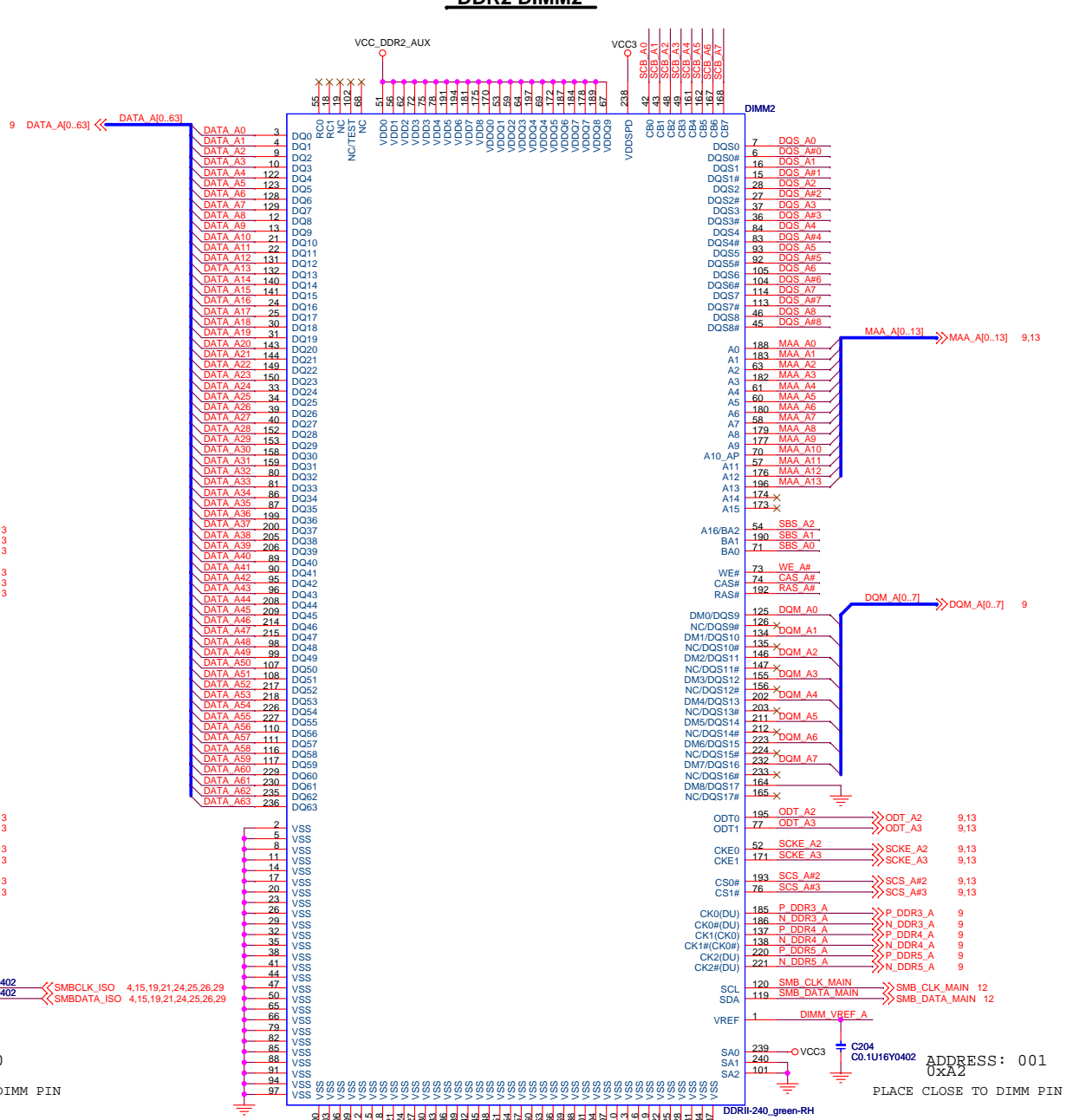
PEG_DET1	PEG_DET0	Description
1	1	No GFX
1	0	Pri-GFX
0	1	N/A
0	0	Sec-GFX



DDR2 DIMM1



DDR2 DIMM2

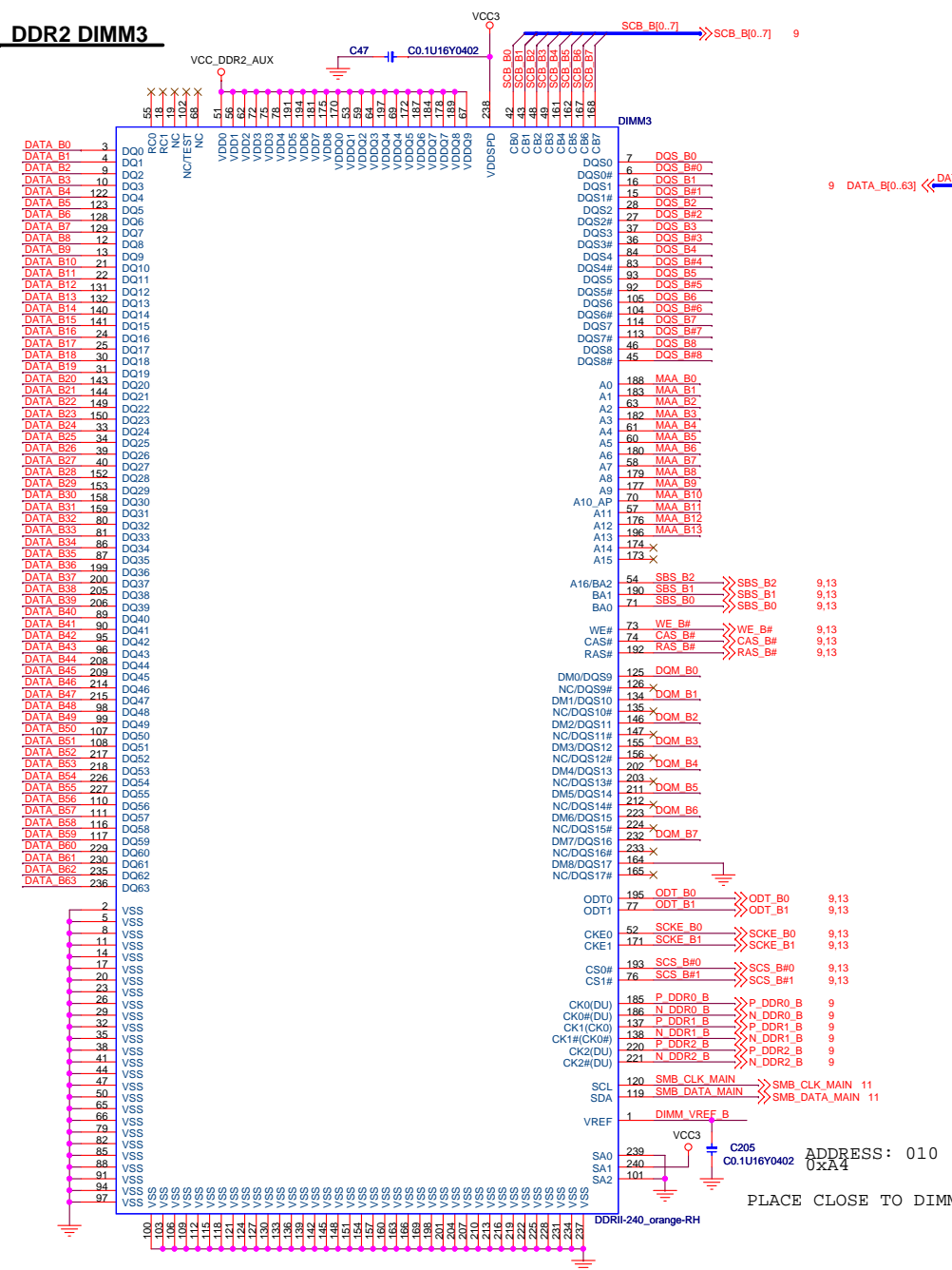


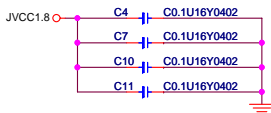
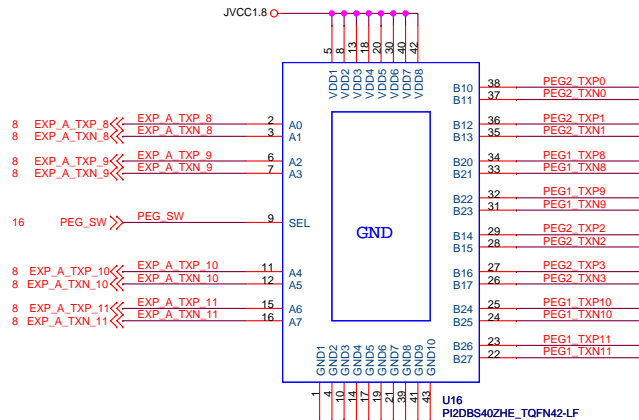
PLACE 0.1UF CAP CLOSE TO
RESISTOR DIVIDER

DQS A[0..8] → DQS_A[0..8] 9
DQS A#0..8 → DQS_A#0..8 9

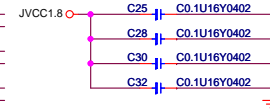
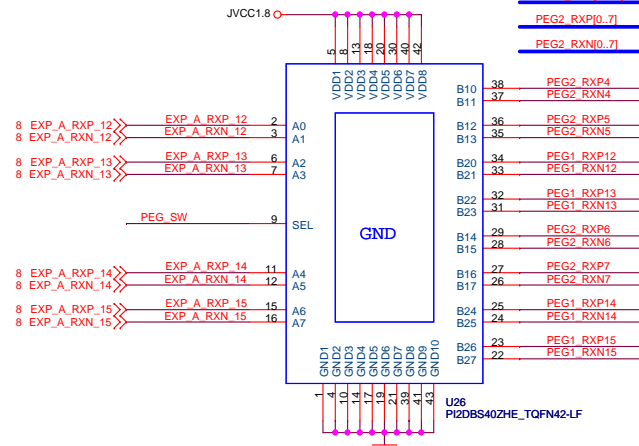
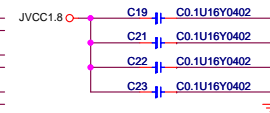
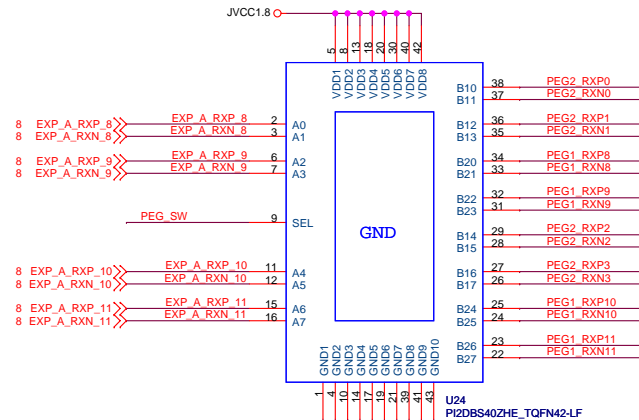
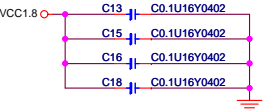
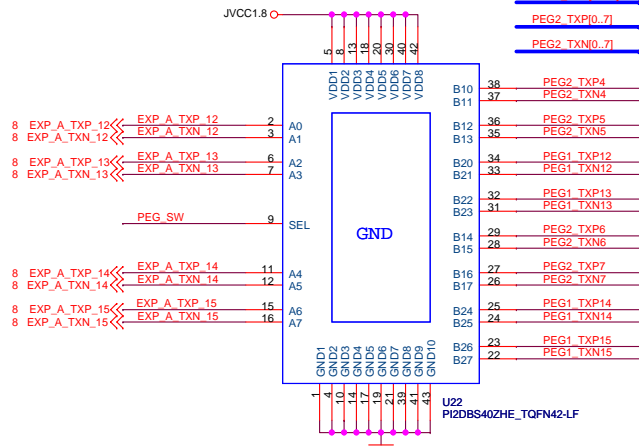
MSI MICRO-STAR INT'L CO., LTD.		
Title: DDR II DIMM 1 & 2		
Size: Document Number	Rev: 2A	
MS-7246		
Date: Monday, February 27, 2006	Sheet: 11	of 32

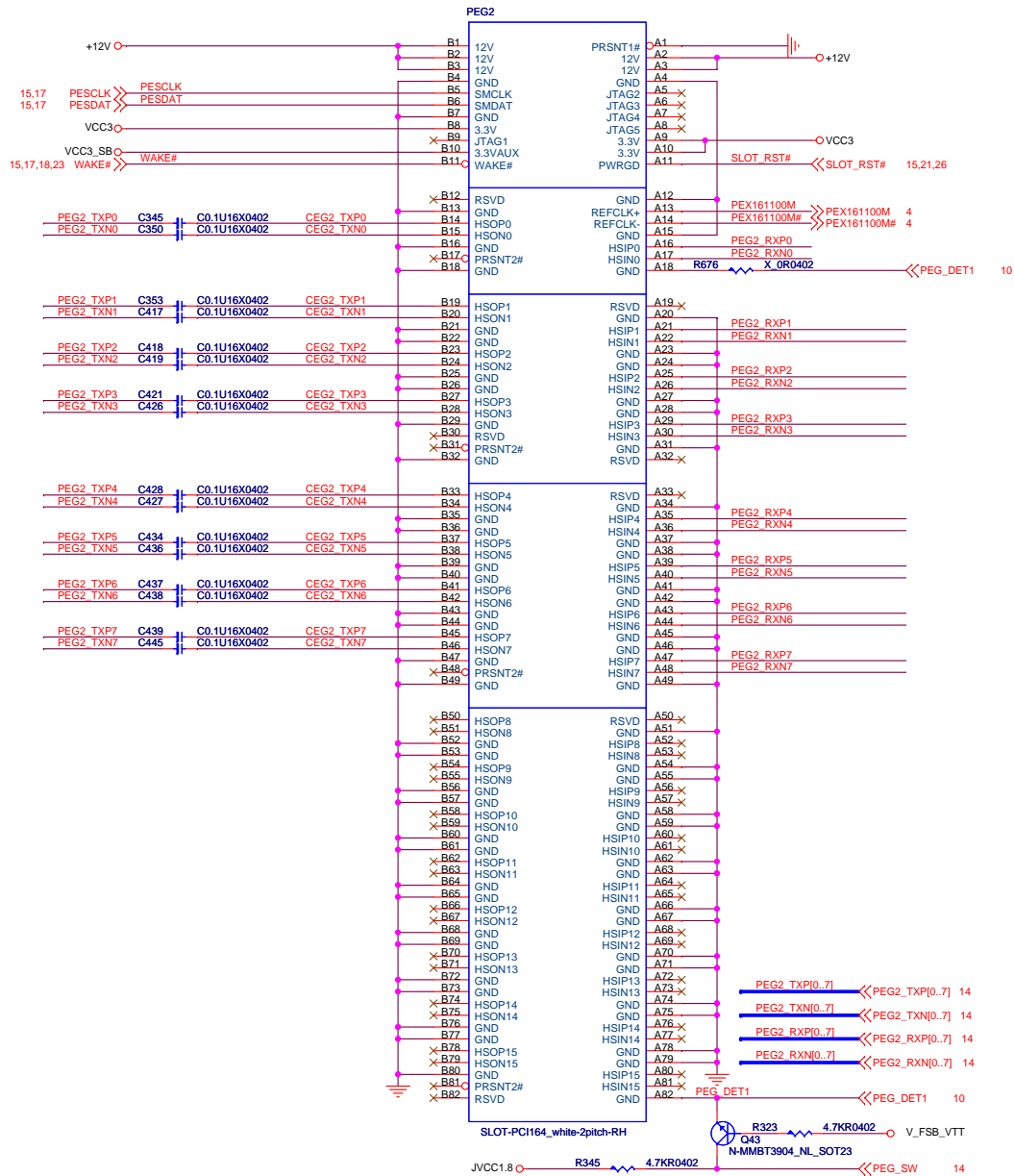
DDR2 DIMM3

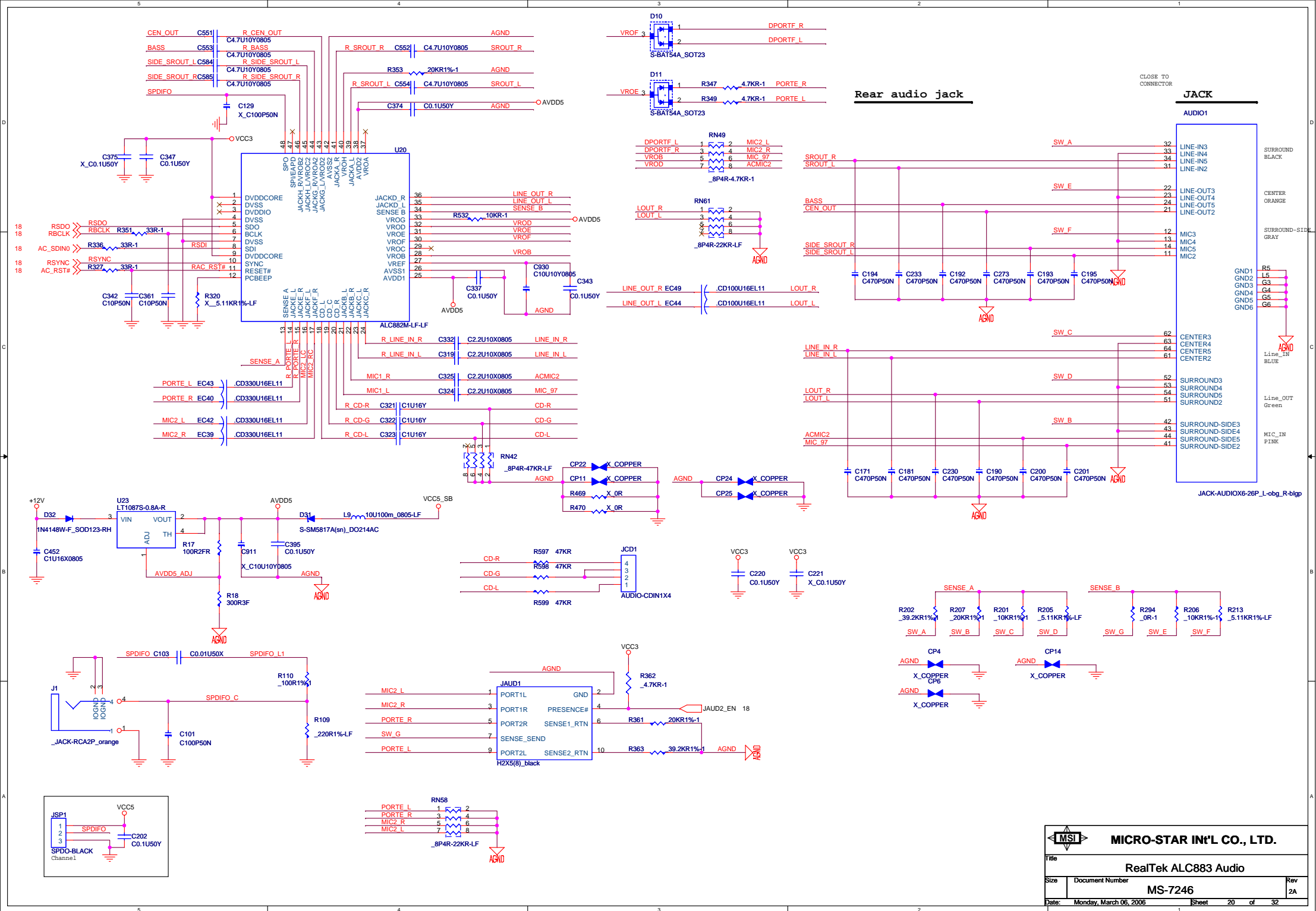




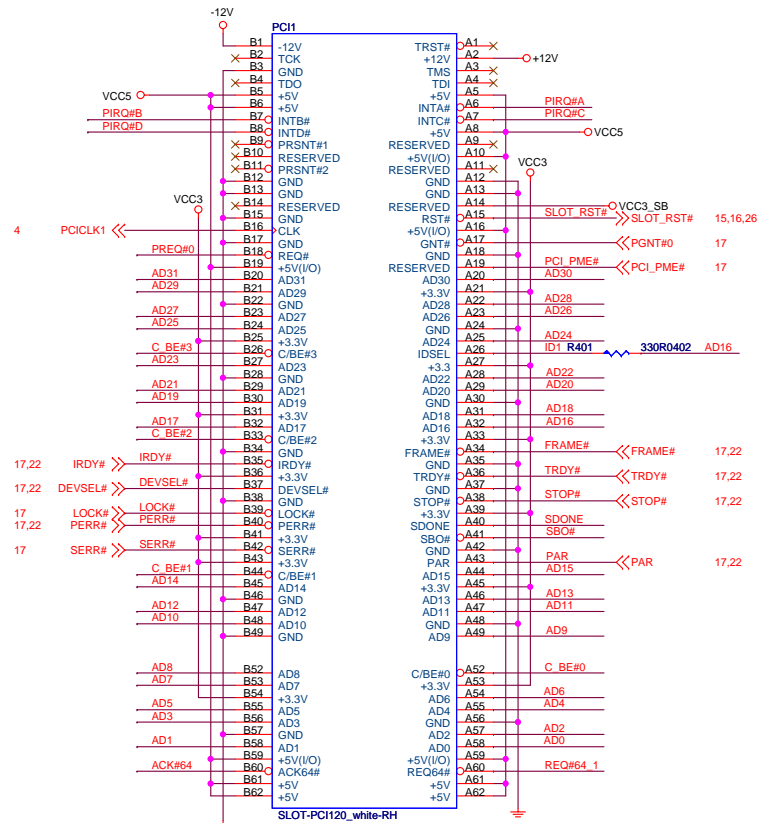
PE_SLI_DET#	FUNCTION
H	An to B2n
L	An to B1n





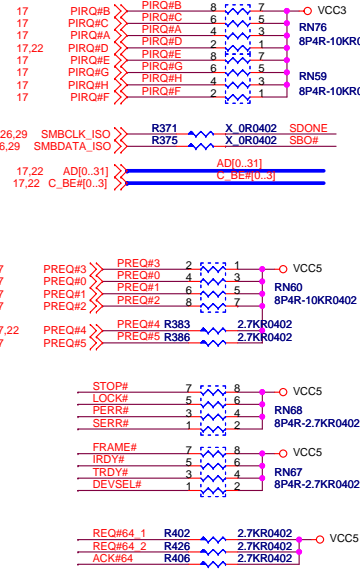


PCI SLOT 1 (PCI VER: 2.2 COMPLY)

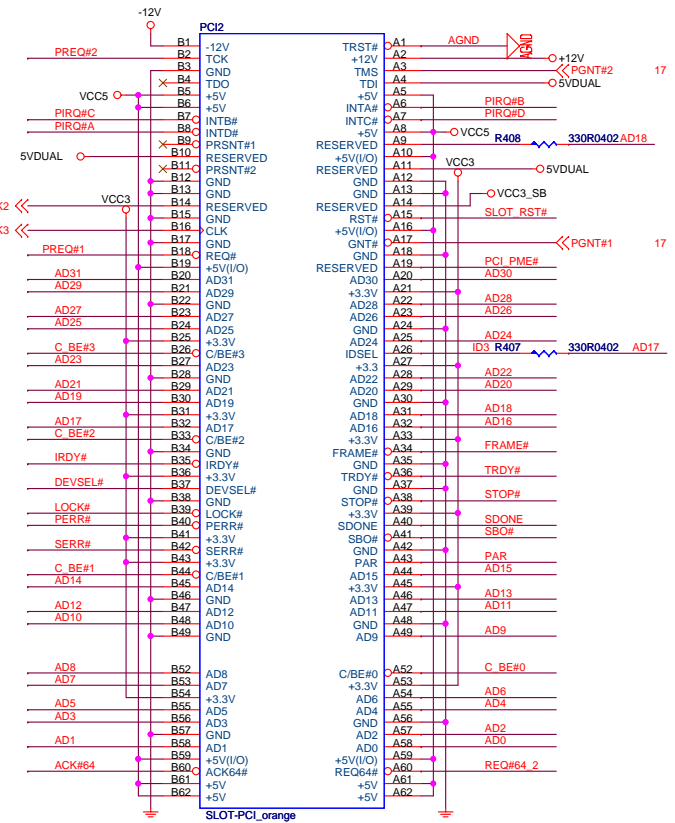


IDSEL = AD16
MASTER = PREQ#1
PIRQ#A

PCI PULL-UP / DOWN RESISTORS

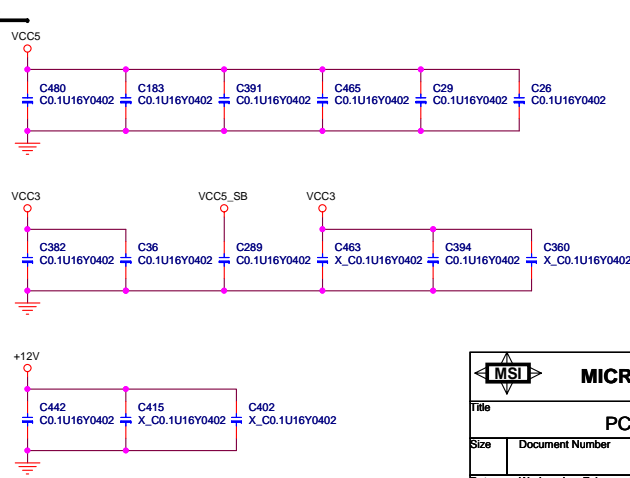
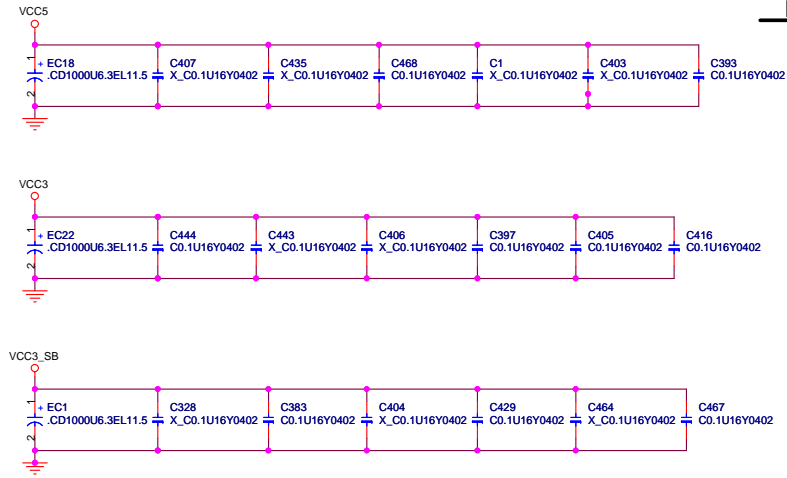


PCI SLOT 2 (PCI VER: 2.2 COMPLY)

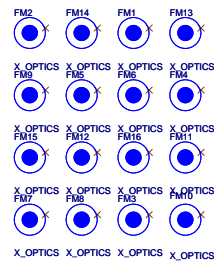


IDSEL = AD17 IDSEL = AD18
MASTER = PREQ#1 MASTER = PREQ#2
PIRQ#B

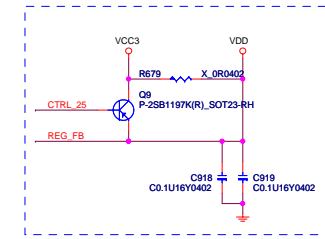
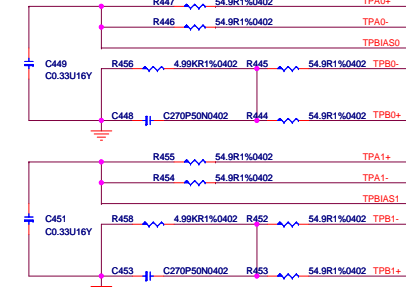
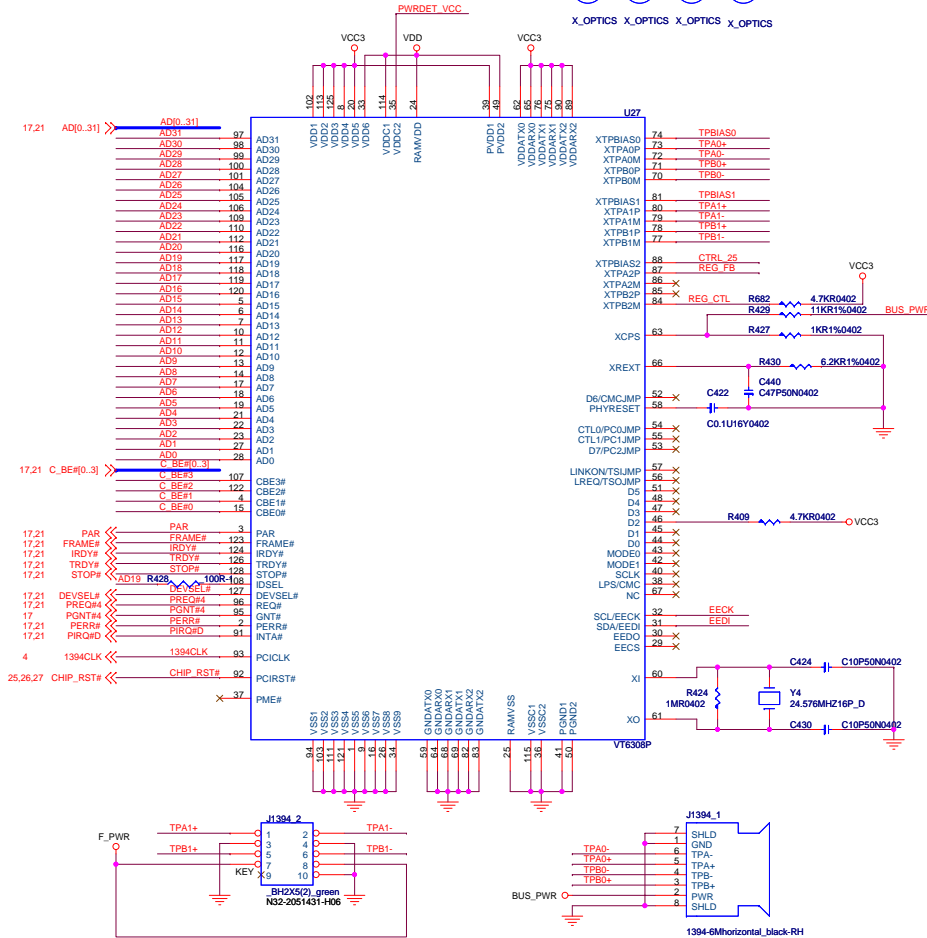
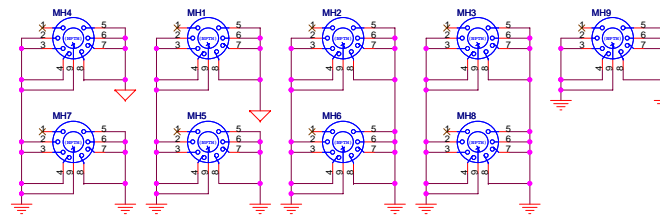
PCI SLOT DECOUPLING CAPACITORS



Optics Orientation Holes

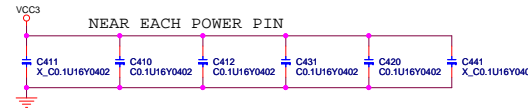
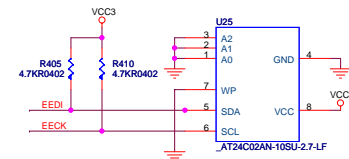


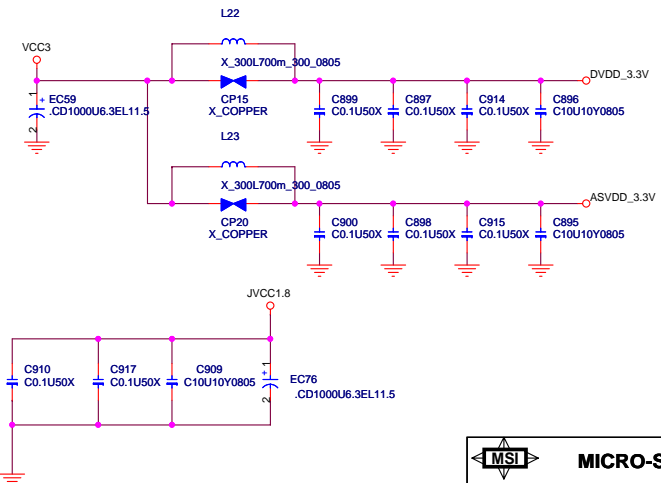
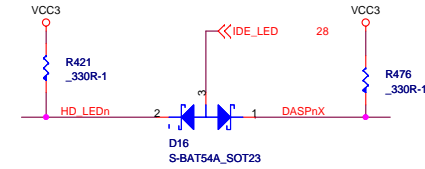
Mounting Holes



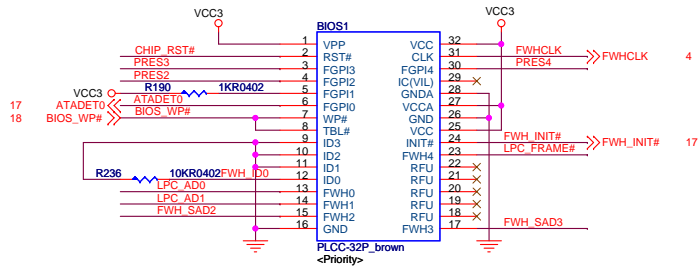
1394 CHIP	PWRDET_VCC	REG_CTL	VDD POWER
VT6307	R681	X	R679
VT6308P	R680	R682	Q9

POWER Pin		
Pin	VT6307	VT6308P
84	NC	REG_CTL
87	NC	REG_FB
88	NC	CTRL_25
35	VCC	PWRDET_VCC
39	PVD	VCC
49	PVD	VDD
24	VCC	VDD
114	VCC	VDD
33	VCC	VDD



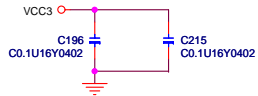


Firmware Hub (FWH)

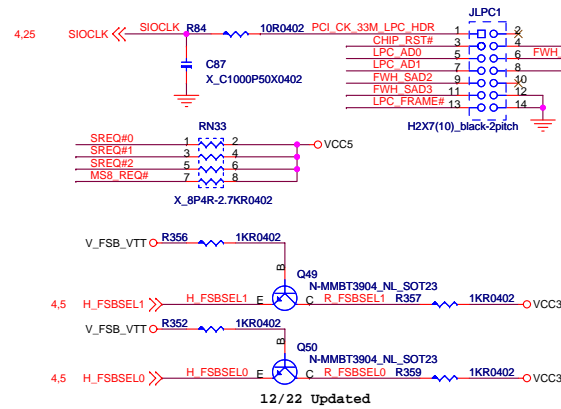
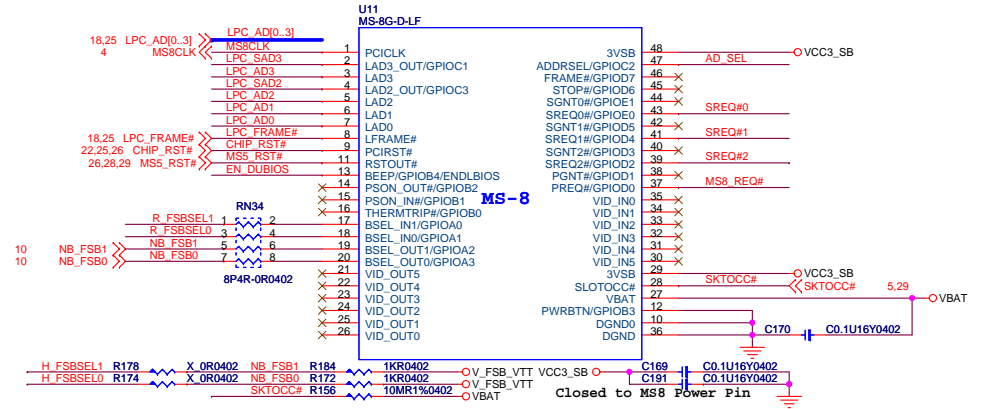
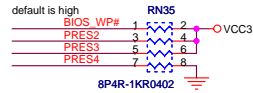


FWH DECOUPLING CAPACITORS

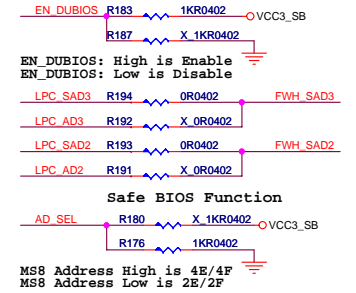
Place Cap. as Close to FWH< 350 mil



FWH Resistors



If you place the jumper very close to FWH bios socket, please use the same clock with FWH. But if you can not place it so close, please use another clock to support it.



H_FSBSEL0	H_FSBSEL1	BSEL_CT0	BSEL_CT1	NB_FSB0	NB_FSB1	BS_Change
0	0	0	0	1	1	133Mhz
0	1	0	0	1	0	200Mhz
1	0	0	0	0	1	266Mhz
1	1	0	0	0	0	200Mhz
0	0	0	1	1	0	133Mhz
0	1	0	1	1	1	266Mhz
1	0	0	1	0	0	200Mhz
1	1	0	1	0	1	266Mhz
0	0	1	0	0	1	200Mhz
0	1	1	0	0	0	266Mhz
1	0	1	0	1	1	133Mhz
1	1	1	0	1	0	200Mhz
0	0	1	1	0	0	266Mhz
0	1	1	1	0	1	200Mhz
1	0	1	1	1	0	133Mhz
1	1	1	1	1	1	266Mhz

CK410 Specification		
NB_FSB0	NB_FSB1	NB_FSB_OUT
0	0	266Mhz
0	1	200Mhz
1	1	133Mhz

MSI			MICRO-STAR INT'L CO., LTD.		
Title: MS-8 & FirmwareHub					
Size:	Document Number: MS-7246				Rev: 2A
Date:	Tuesday, February 28, 2006				
	Sheet	27	of	32	

[illegible]

USB Connector

5VDUAL FS3 F-MINISMD150

OC#2

C473 C0.1U16Y0402

R465 4.7KR0402

R467 1KR0402

JUSB1

USBN7_C

USBP7_C

USBN6_C

USBP6_C

OC#2

H2X5(9)_yellow-2.6pitch-RH-1

C475 X_C0.1U16Y0402

C476 C0.1U16Y0402

EC53 CD1000U6.3EL11.5

SVCC3

EC27 CD1000U6.3EL11.5

C137 C0.1U16Y0402

R127 1KR0402

SVCC1

LAN_USB1A

USBNT_C

USBP1_C

USBNT_C

USBP0_C

CONN-RJ45_USBX2_LEDX2_TX-RH

N58-2ZF0181-S42

R391 4.7KR0402

R388 5.6KR0402

C400 C0.1U16Y0402

OC#1

5VDUAL FS2 F-MINISMD150

JUSB2

USBN5_C

USBP5_C

USBN4_C

USBP4_C

OC#2

H2X5(9)_yellow-2.6pitch-RH-1

C466 X_C0.1U16Y0402

EC54 CD1000U6.3EL11.5

SVCC2

CONN-USB2_black-RH

LAN_USB2A

SVCC1

USBNT_C

USBP2_C

USBNT_C

USBP3_C

USBP3_C

USBP3_C

CP8 X COPPER

USBNT_C

USBP2_C

USBNT_C

USBP0_C

USBNT_C

USBP1_C

USBNT_C

USBP3_C

USBNT_C

USBP4_C

USBNT_C

USBP5_C

USBNT_C

USBP6_C

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USBP149_C

USBNT_C

USBP150_C

USBNT_C

USBP151_C

USBNT_C

USBP152_C

USBNT_C

USBP153_C

USBNT_C

USBP154_C

USBNT_C

USBP155_C

USBNT_C

USBP156_C

USBNT_C

USBP157_C

USBNT_C

USBP158_C

USBNT_C

USBP159_C

USBNT_C

USBP160_C

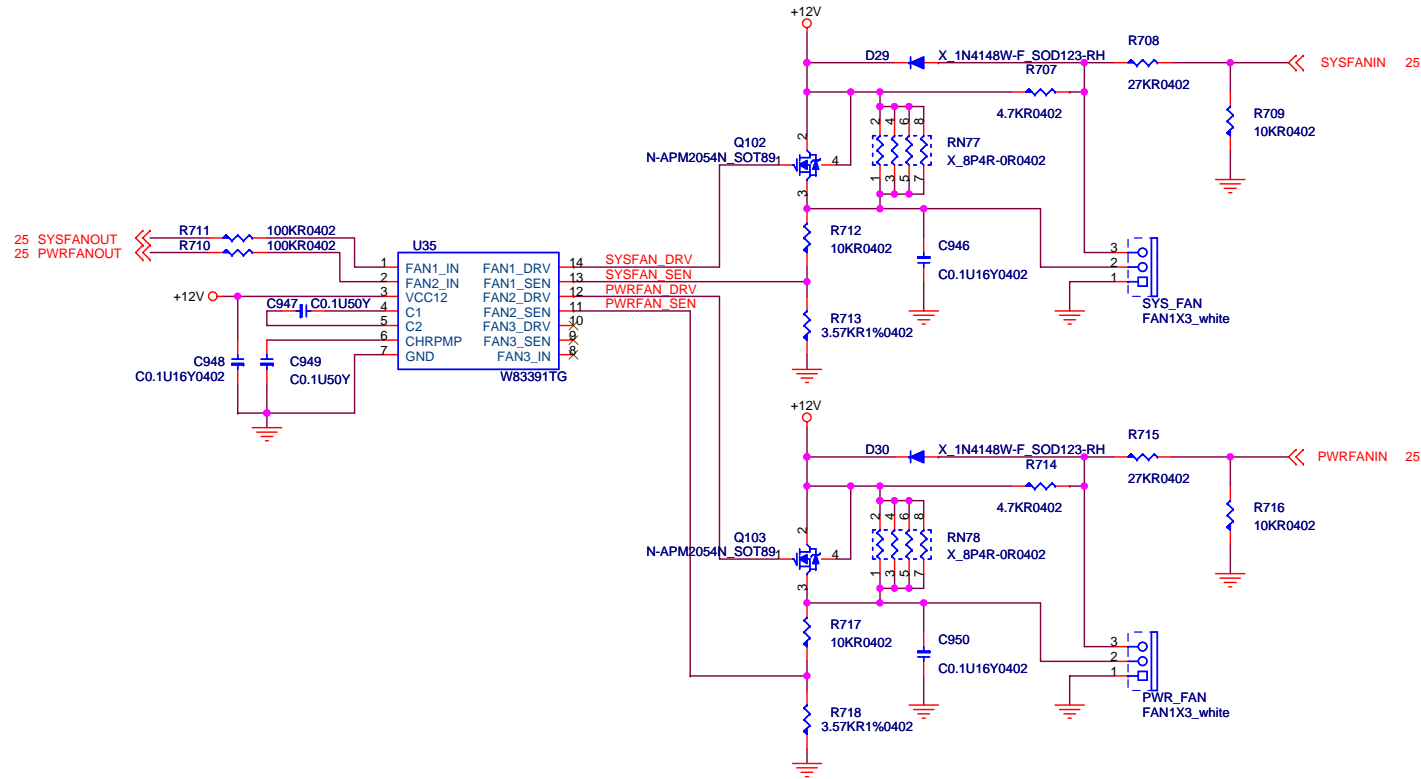
USBNT_C

USBP161_C

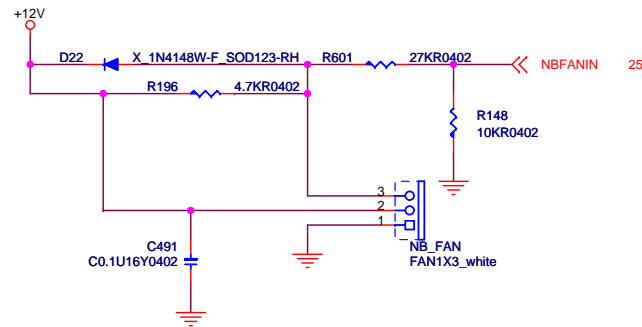
USBNT

Fan Control Circuit

SYS FAN & PWR FAN



NB FAN

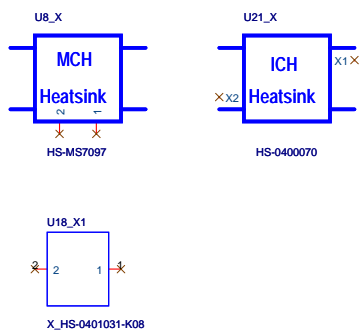


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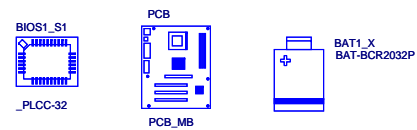
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Size	Document Number			Rev
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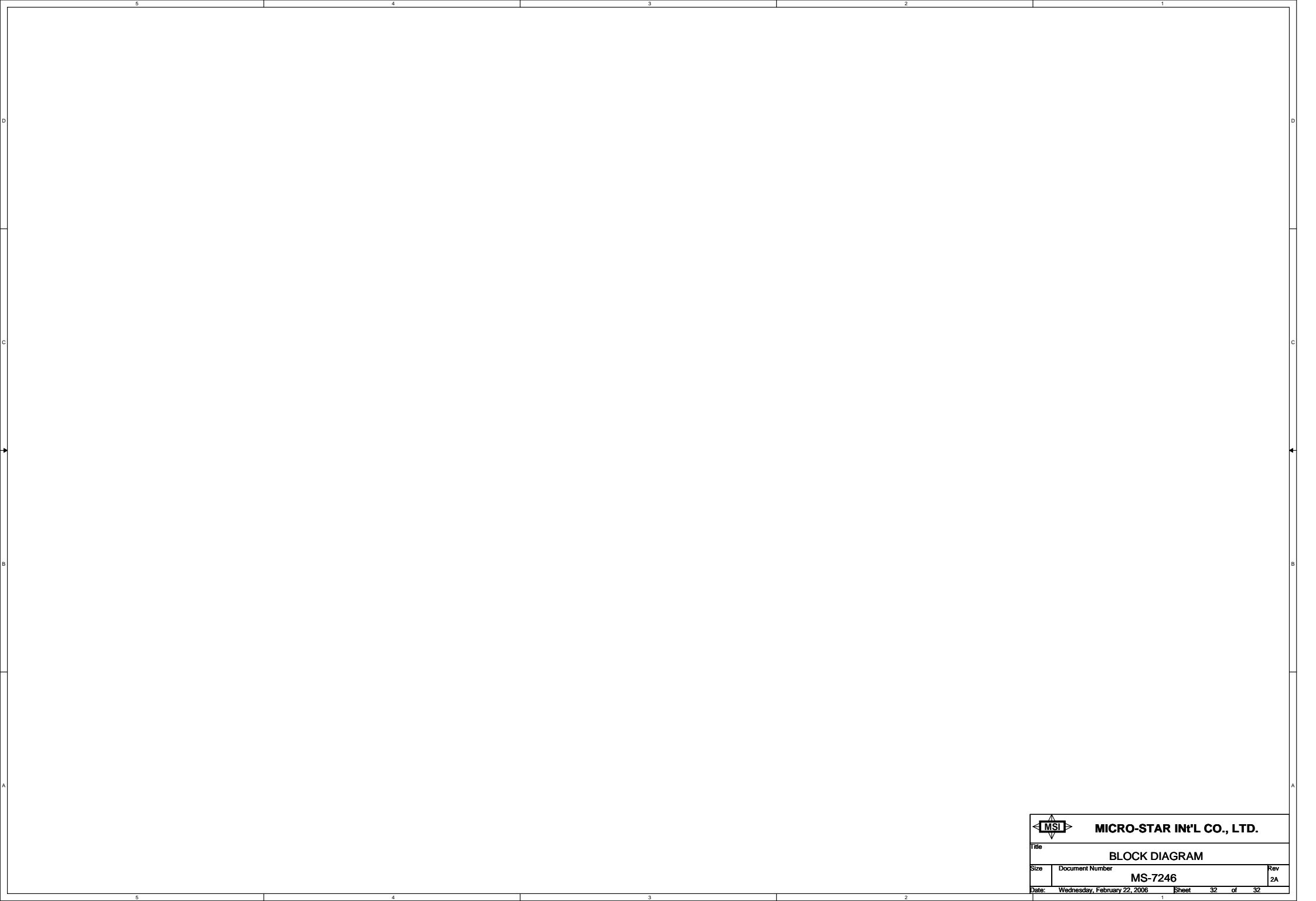
Auto-BOM Manual Parts


HEAT SINK



MANUAL PART





		MICRO-STAR INT'L CO., LTD.	
Title BLOCK DIAGRAM			
Size	Document Number MS-7246		Rev 2A
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