P4M8P-M7A

P4M800 PRO + VT8237R

VER : 1.2

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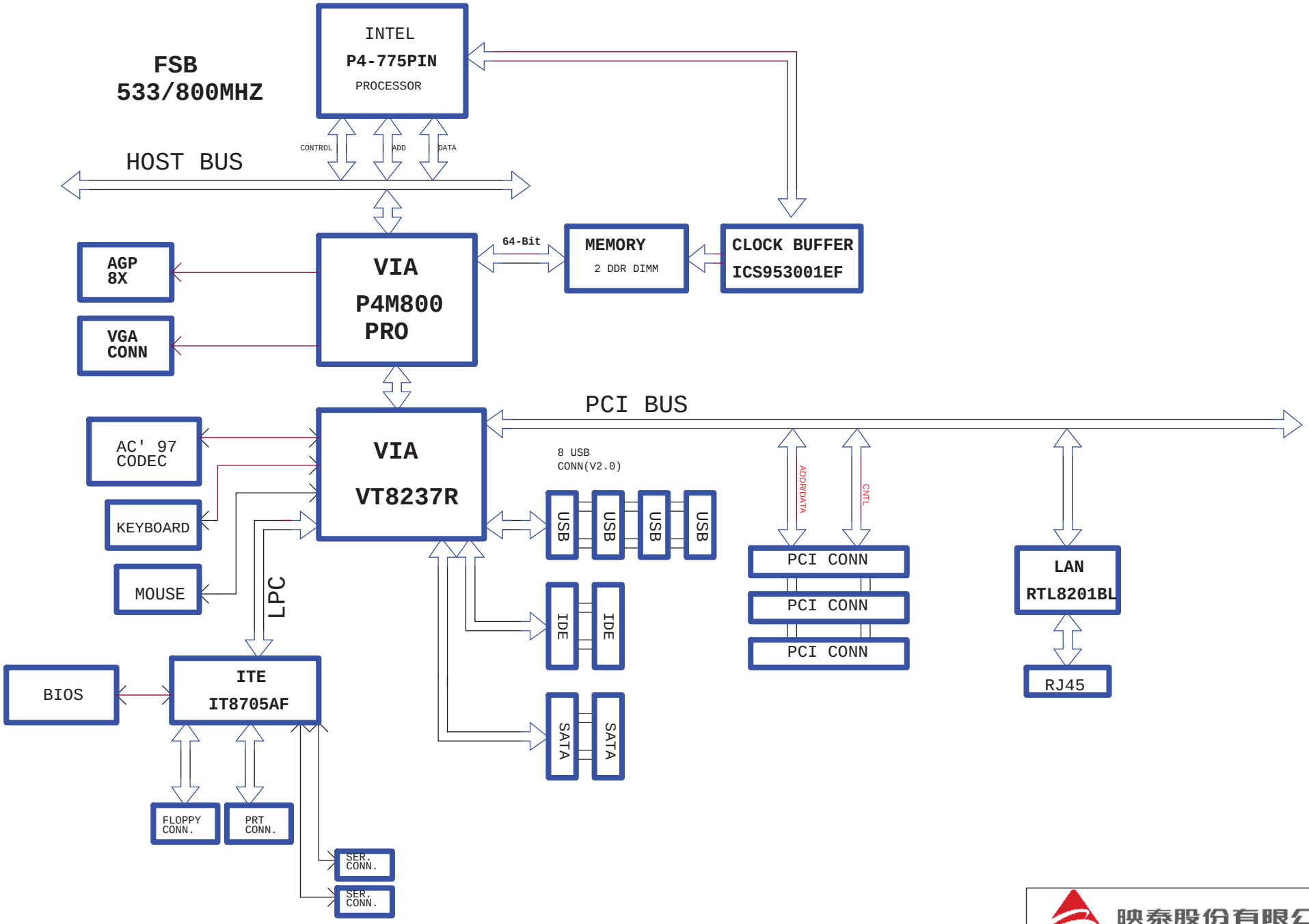
Title: COVER SHEET

Size: Custom | Document Number: P4M8P-M7A | Rev: 1.2

Date: Tuesday, April 18, 2006 | Sheet 1 of 36



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Title	BLOCK DIAGRAM	
Size: Custom	Document Number: P4M8P-M7A	Rev: 1.2
Date: Tuesday, April 18, 2006	Sheet 2 of 36	

PCI Solt	IDE SEL	INT#	GNT#	REQ#	CLOCK
1	19	A	0	0	PCLK5
2	20	B	1	1	PCLK0
3	21	C	2	2	PCLK1
4					
5					
6					

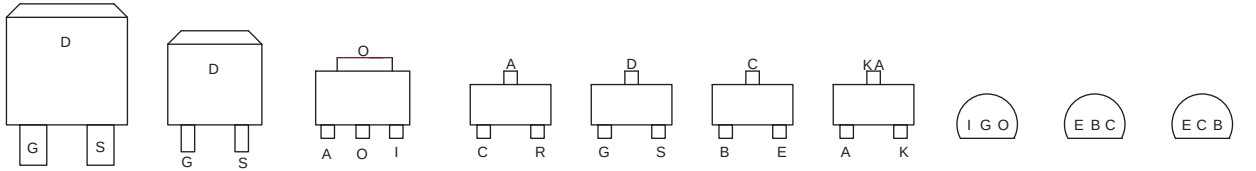
Chips	IDE SEL	INT#	GNT#	REQ#	CLOCK
LPC I/O					PCLK3
LAN					
RAID					
S ATA					
WIRE LESS					
CARD READER					
S / B					SPCLK
AT123S					

SLOT	GPIO	PRI.	SEC.
AMR			
CNR			
ACR			
H/W SOUND			

P4M80-M7

1. CPU --- INTEL P4 Socket 775(3-Phase Power)
2. CHIPSET --- VIA P4M800 CE PRO+ VT8237R
3. MEMORY --- 2 DDR SDRAM(Max. 2GB)
4. SLOTS --- AGP(8X)x1, PCIx3, CNRx1
5. CODEC --- Realtek ALC655 6-Channel Audio
6. LAN --- VT6103L
7. PCB Size --- 2438.4Mmx201.68mm, 4-Layer

22U/25DE	5*7 mm
100U/16DE	6.3*11 mm
220U/10DE	6.3*11 mm
470U/16DE	8*11 mm
1000U/10DE	8*14 mm
1500U/16DE	10*25 mm
3300U/25DE	10*25 mm



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Title: GENERAL SPEC

Size: Custom | Document Number: P4M8P-M7A | Rev: 1.2

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CPU1A 1 OF 7 — LGA775 DIP

CPU1B 2 OF 7 — LGA775 DIP

CPU1C 3 OF 7 — LGA775 DIP

CPU1D 4 OF 7 — LGA775 DIP

Trace 5mil,Space 7mil,Max 1500mil(TESTI[0:12])

Trace 5mil,Space 7mil,Max 1500mil(TESTI[0:12])

Trace 15mil,Space 7mil,Max 1200mil(COMP[0:5])

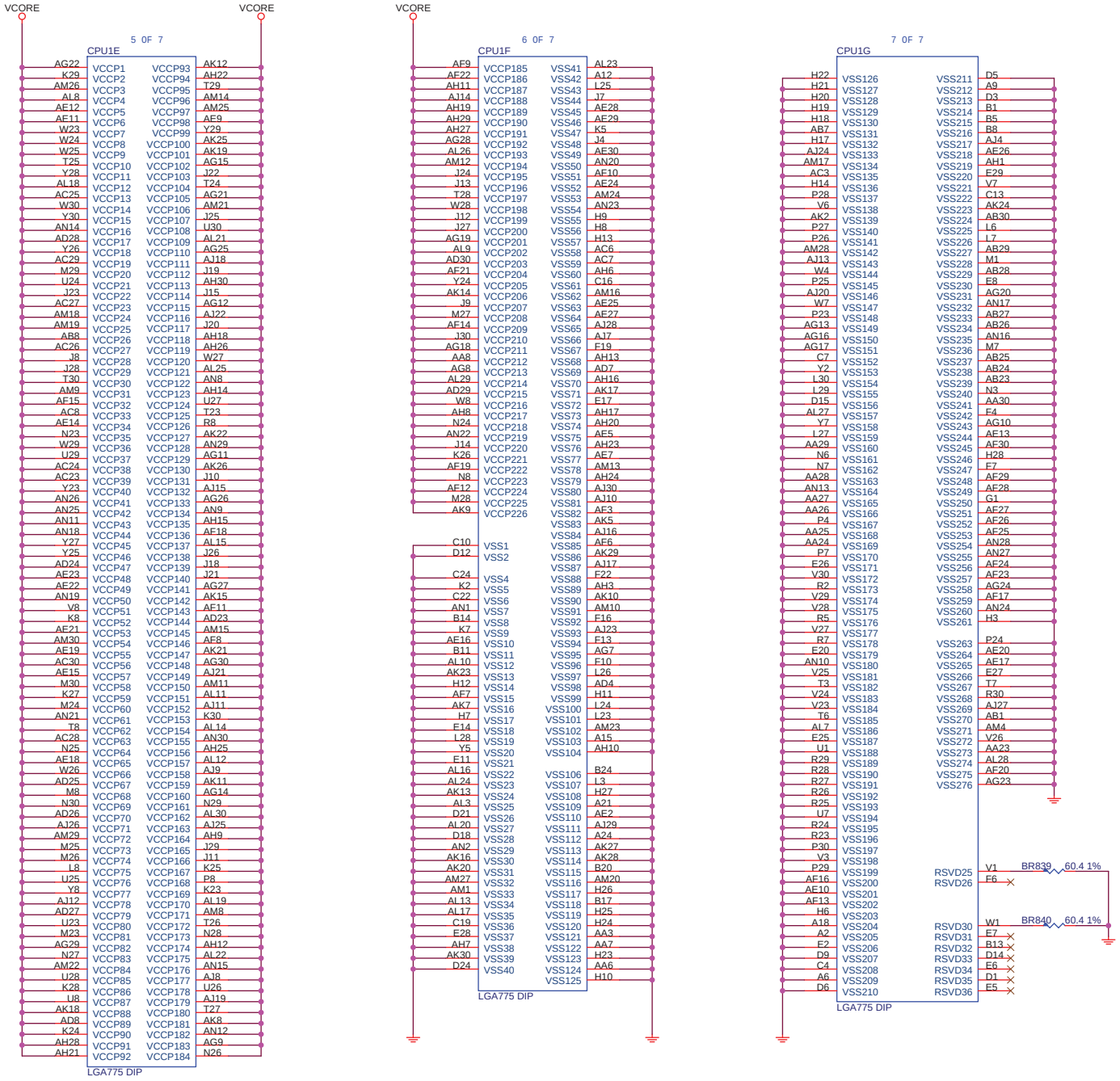
The LGA775 ball pitch is 1.09 mm x 1.17 mm.
For motherboards designed using the English system, pad pitch of 43 mils x 46 mils should be used.

SEL0	SEL1	
1	0	133MHZ
0	1	200MHZ
0	0	Reserved
1	1	Reserved

Title: PROCESSOR SOCKET775

Size: Custom | Document Number: P4M8P-M7A | Rev: 1.2

Date: Wednesday, April 19, 2006 | Sheet 5 of 36



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Title	PROCESSOR SOCKET775		
Size: Custom	Document Number: P4M8P-M7A		Rev: 1.2
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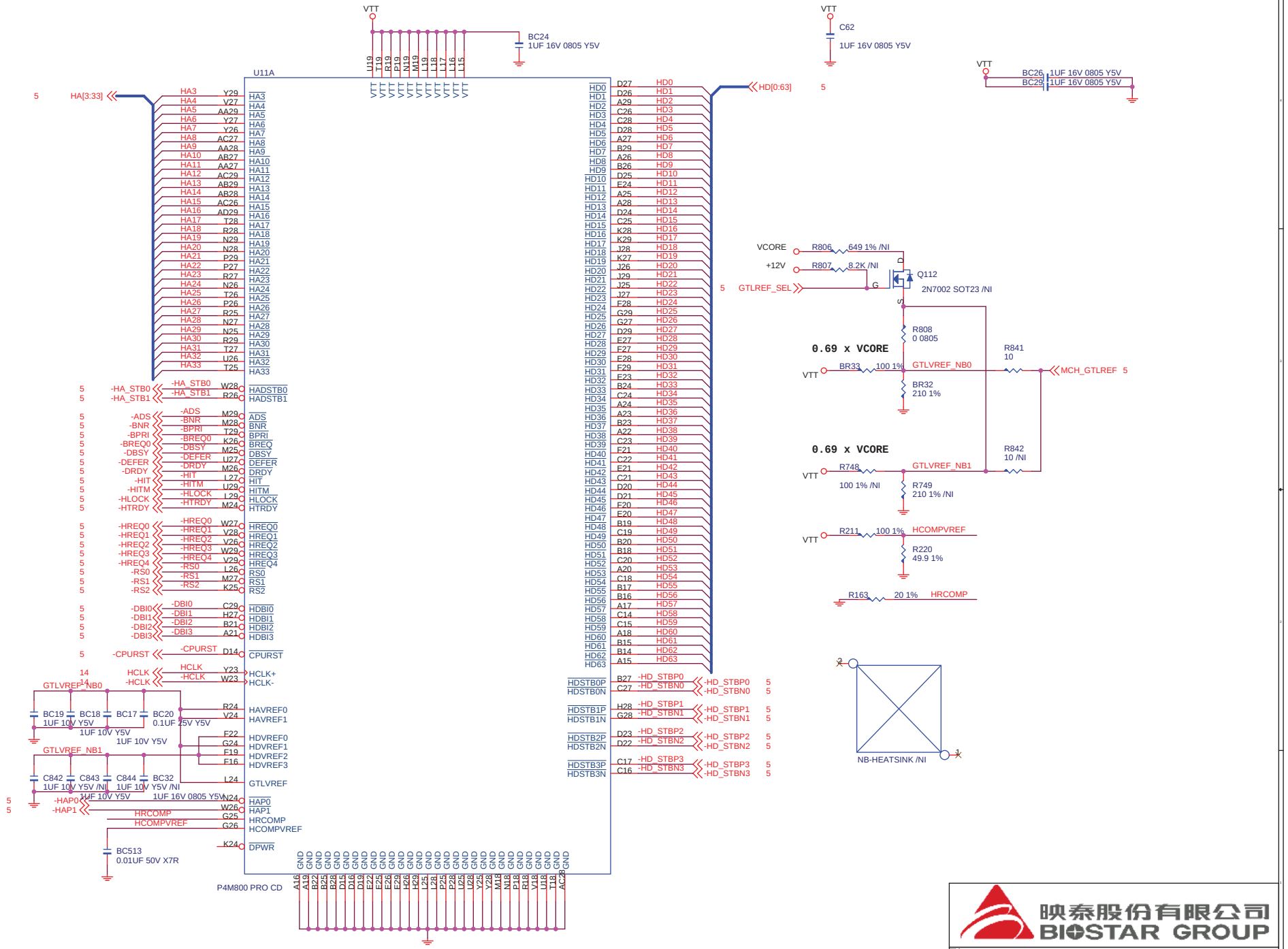

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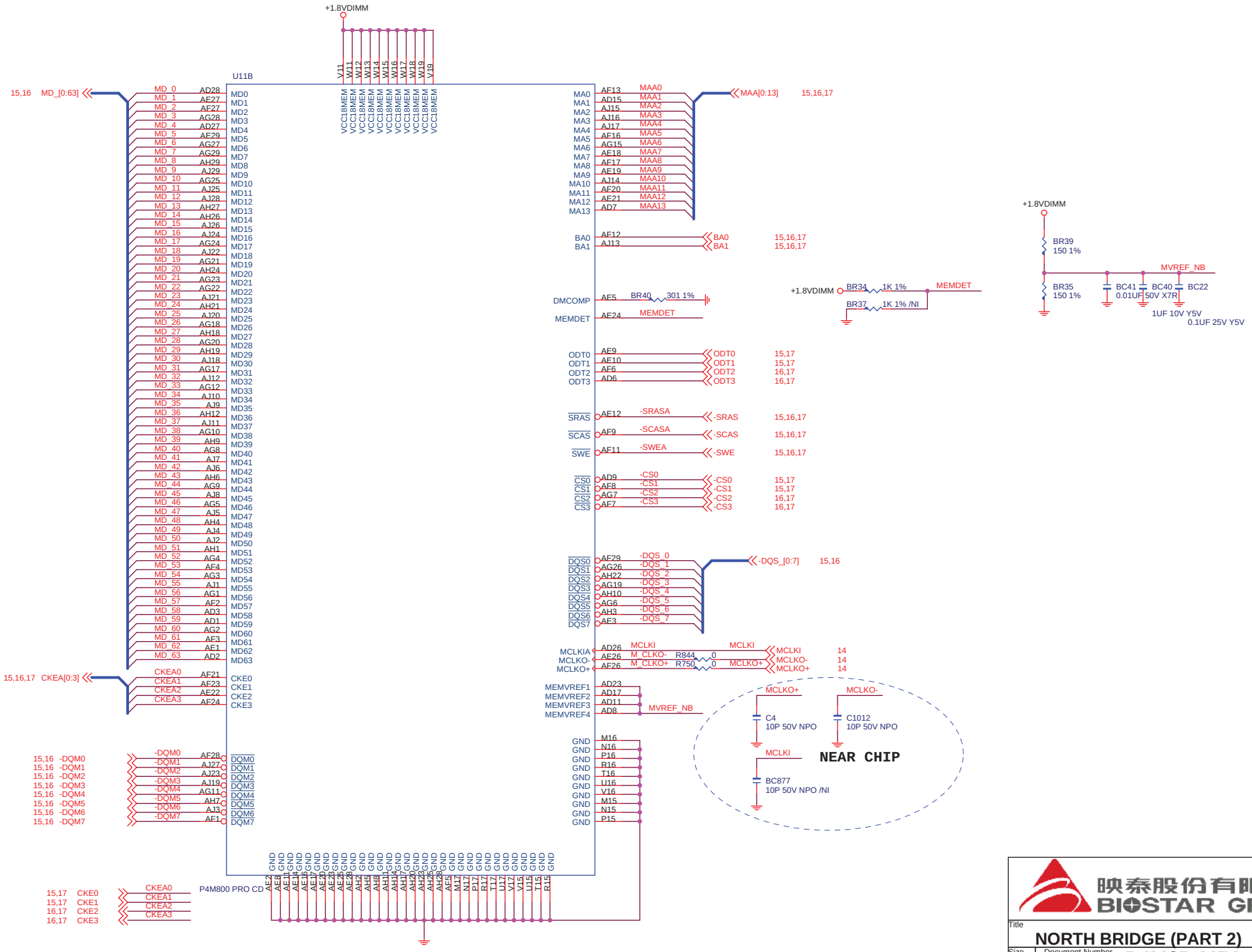
Title	NORTH BRIDGE (PART 1)		
Size: Custom	Document Number: P4M8P-M7A		Rev: 1.2
Date: Wednesday, April 19, 2006	Sheet 7 of 36		



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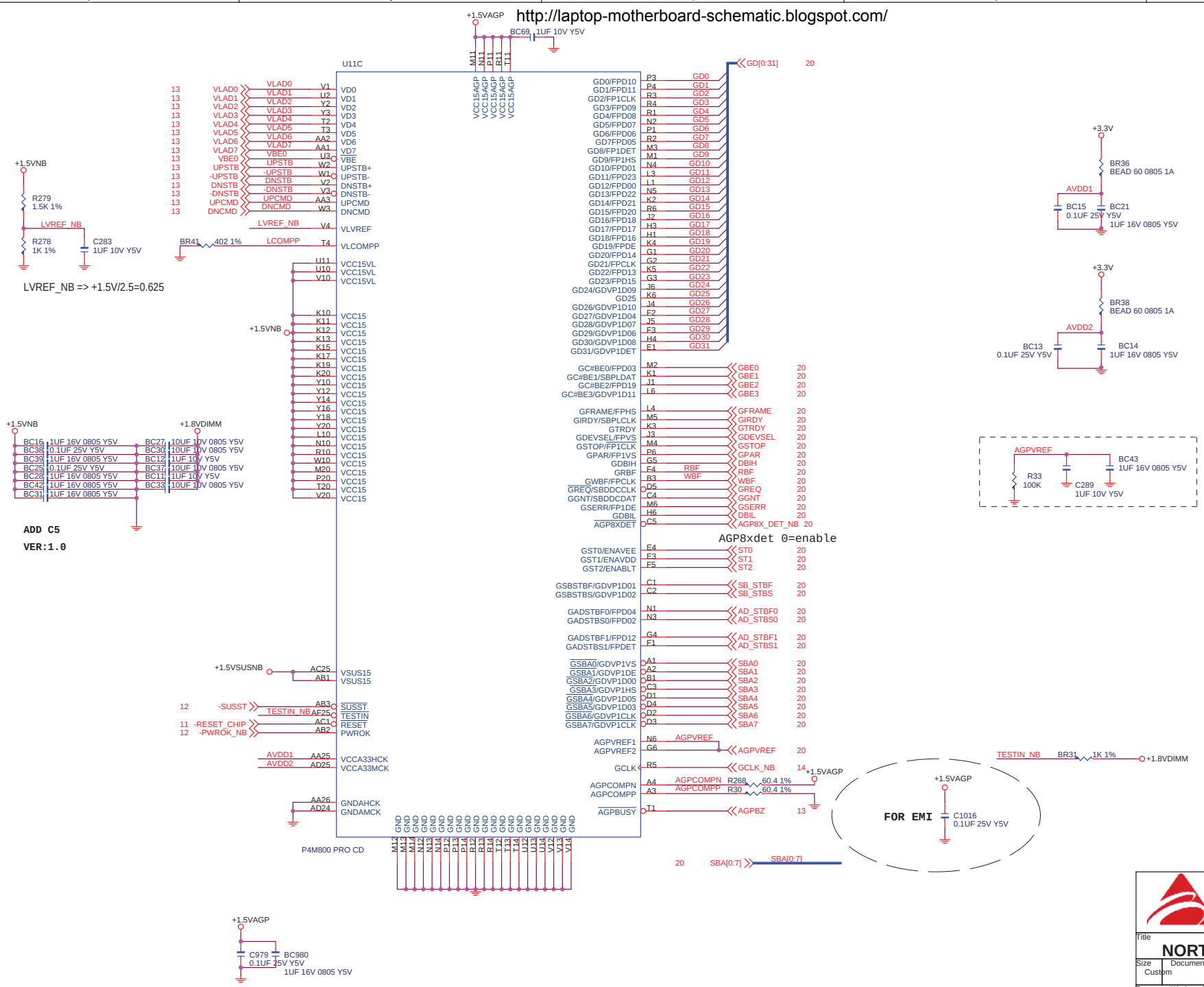
Title: NORTH BRIDGE (PART 2)

Size: Custom | Document Number: P4M8P-M7A | Rev: 1.2

Date: Wednesday, April 19, 2006 | Sheet 8 of 36



Title	NORTH BRIDGE (PART 3)
Size	Custom
Document Number	P4M8P-M7A
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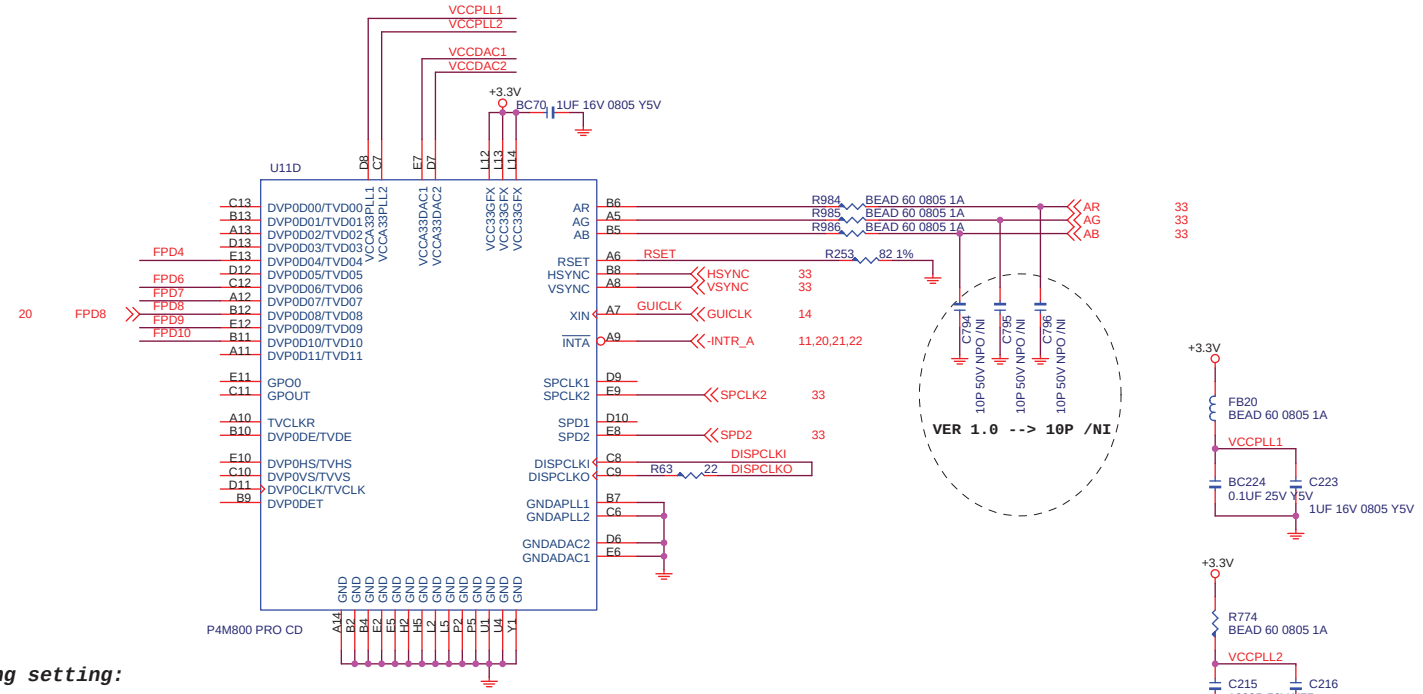

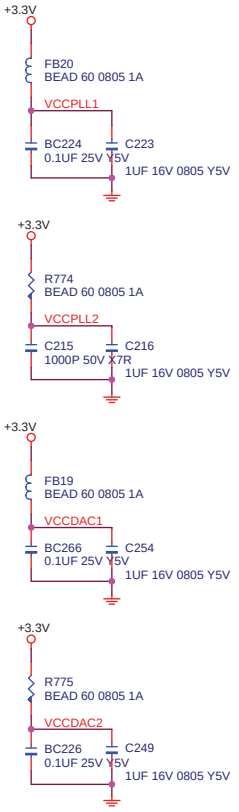

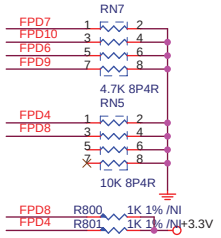

GFX power up strapping setting:

TVD4/DVP0D4 =>AGP Port Muxing

0: Two 12-bit DVI interface
1: One 24-bit Panel interface

TVD8/DVP0D8 =>External AGP Function Enable

0: External
1: Internal

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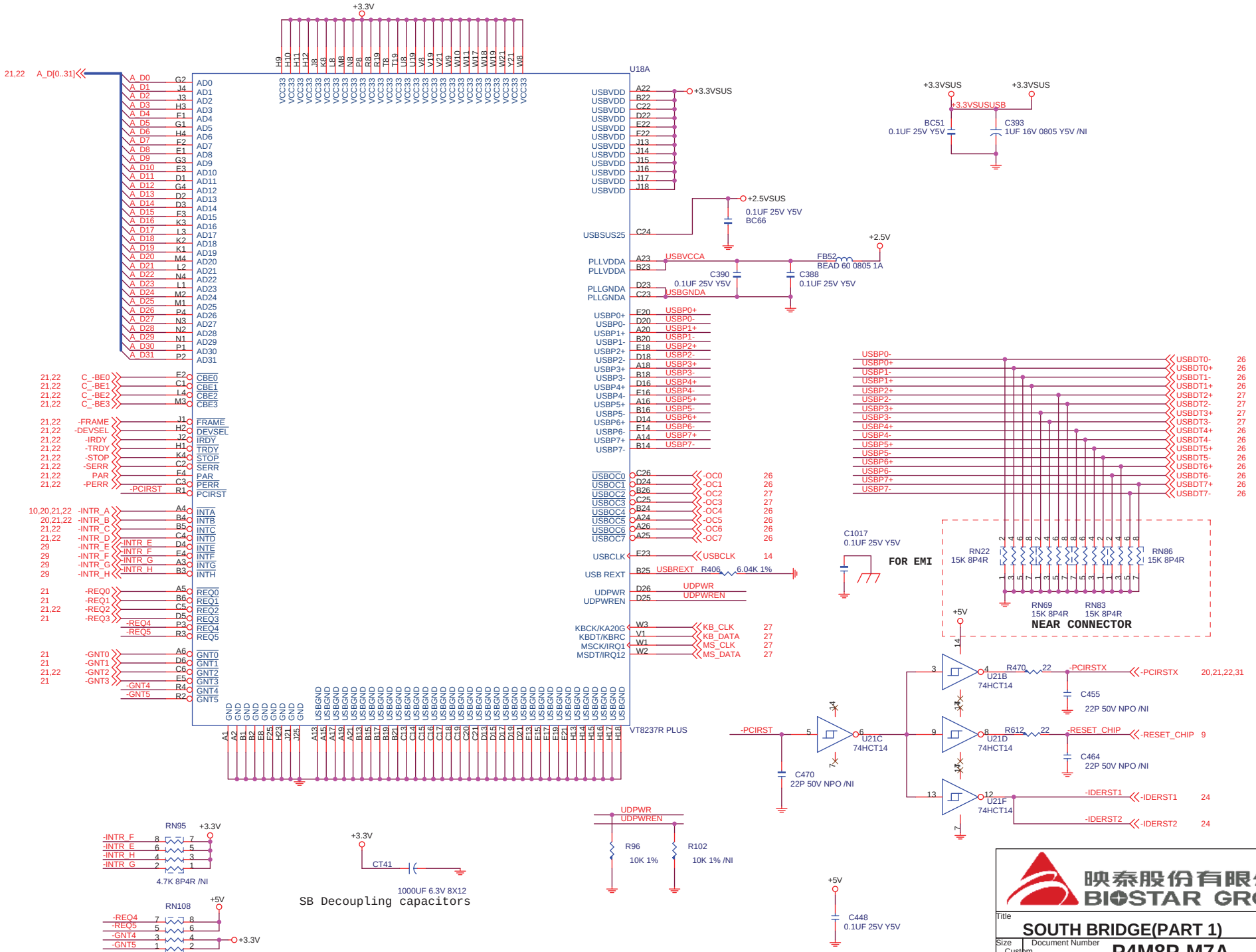
Title: NORTH BRIDGE (PART 4)		
Size: Custom	Document Number: P4M8P-M7A	Rev: 1.2
Date: Wednesday, April 19, 2006	Sheet 10 of 36	



Title	SOUTH BRIDGE(PART 1)
Size	Custom
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PD_A0	GPIOA	GPIOC	Host Clock
0	0	0	100Mhz
0	0	1	133Mhz
0	1	1	166Mhz
0	1	0	200Mhz
1	0	0	266Mhz
1	1	1	AUTO Mode

GPIOB	IOQ Depth
0	12 Level
1	1 Level

GPIOD	GTL pullup
0	Enable
1	Disable

0/1:Enable/Disable auto reboot for VT8237

0/1:Enable/Disable LPC FWH command for VT8237

0/1:Disable/Enable LPC shadow EEPROM

0/1:Enable/Disable CPU FREQ strapping

0/1 : Enable/Disable 100MHz VLink clock

0/1 : Enable/Disable External SATA PHY

0/1 : Enable/Disable SATA Master/Slave mode

SMBCK2 LOW 有S3

SMBCK2 HIGH 無S3

SMBDT2 LOW P4M800 Pro

SMBCK2 HIGH P4M800

near chipset

FOR EMI

SOUTH BRIDGE(PART 2)

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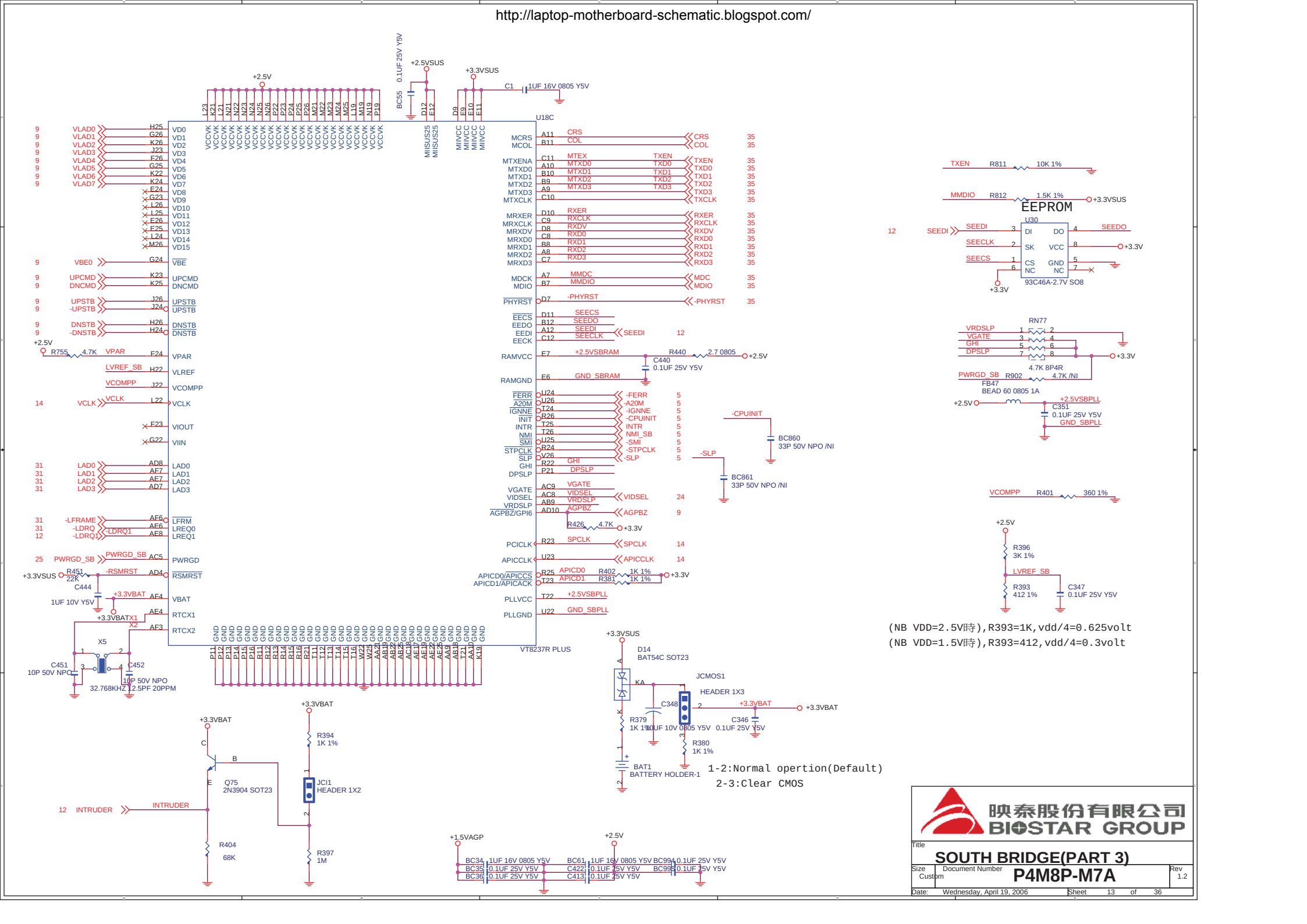

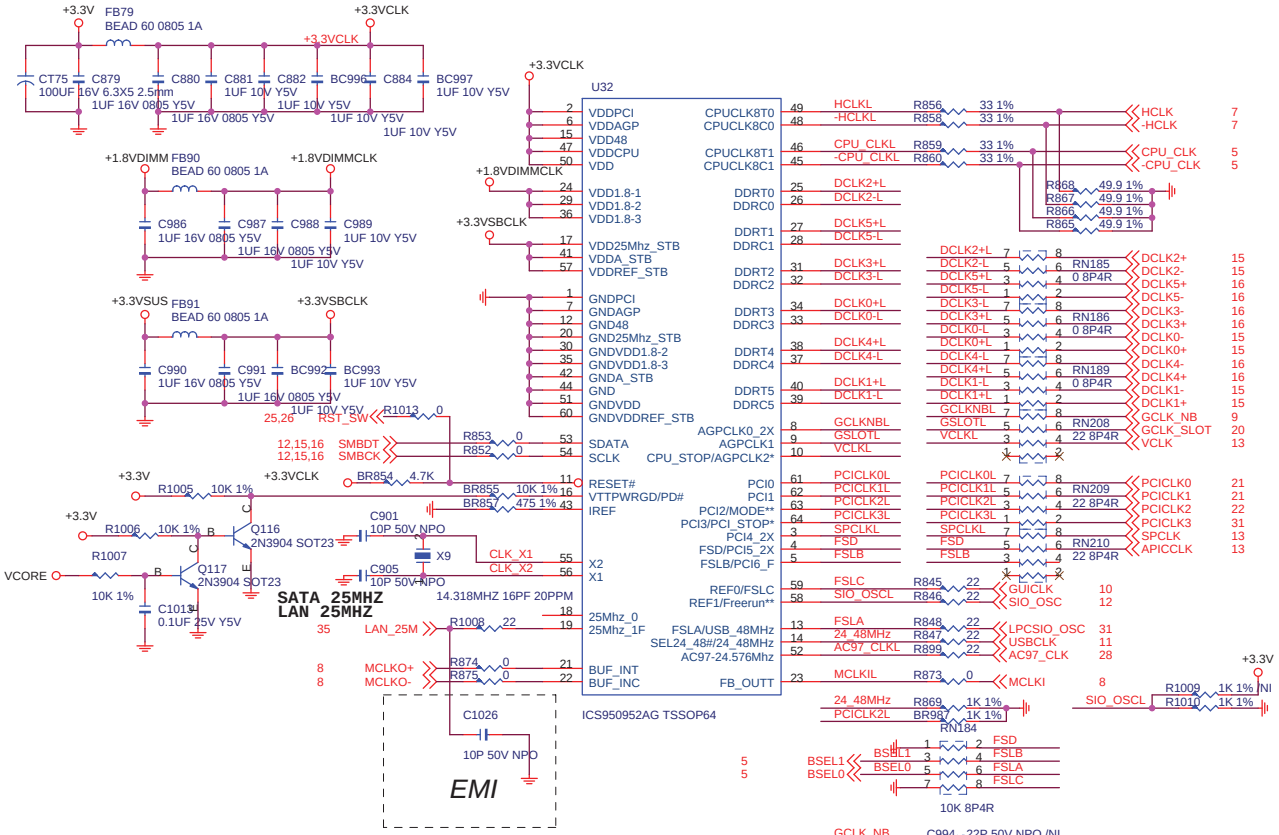

FSD	FSLC	FSLB	FSLA	CPU	PCI
0	0	0	0	266	33
0	0	0	1	133	33
0	0	1	0	200	33
0	0	1	1	166	33
0	1	0	0	333	33

ICS950952

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Title	CLK GEN	
Size: Custom	Document Number: P4M8P-M7A	Rev: 1.2
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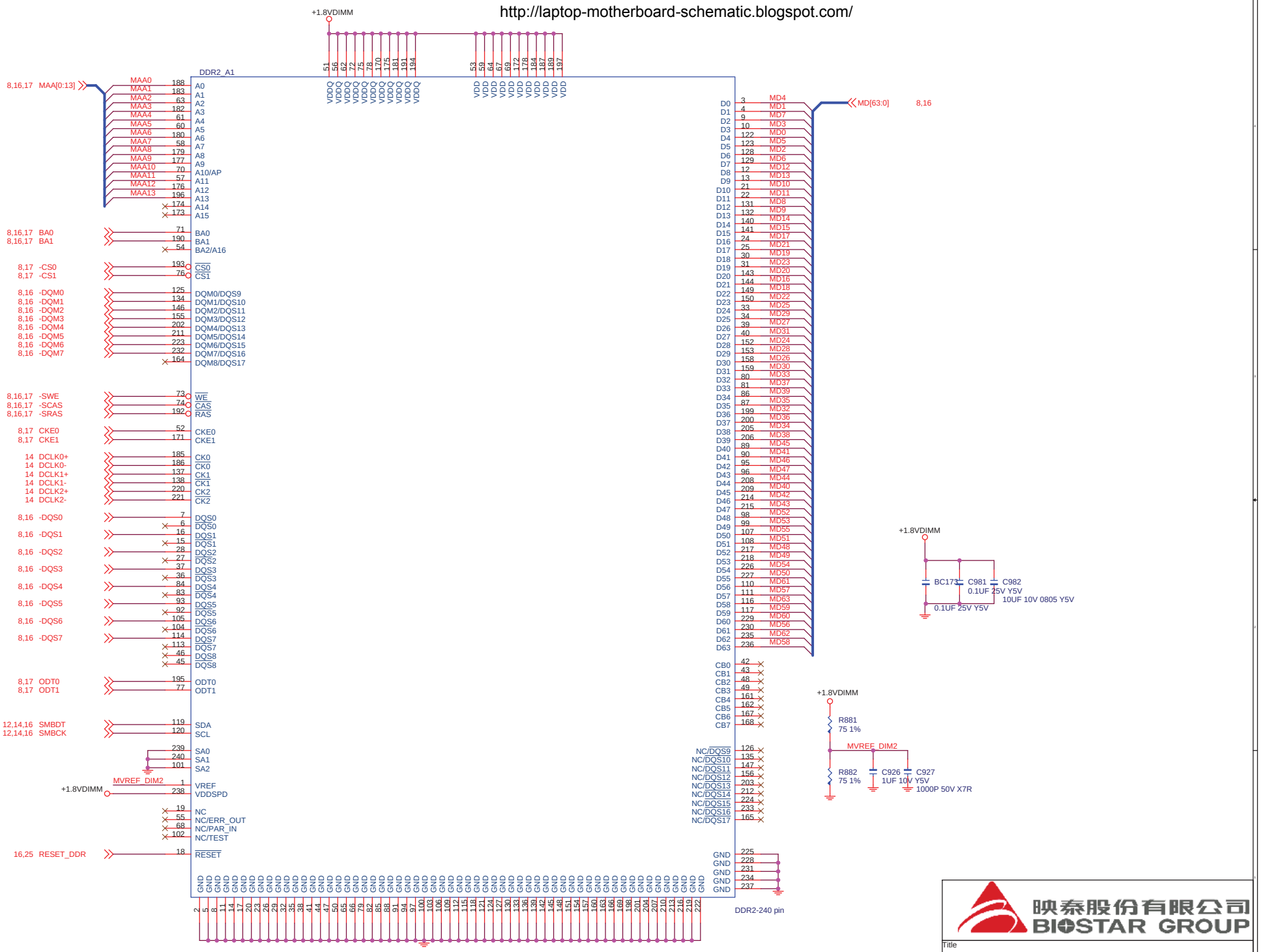

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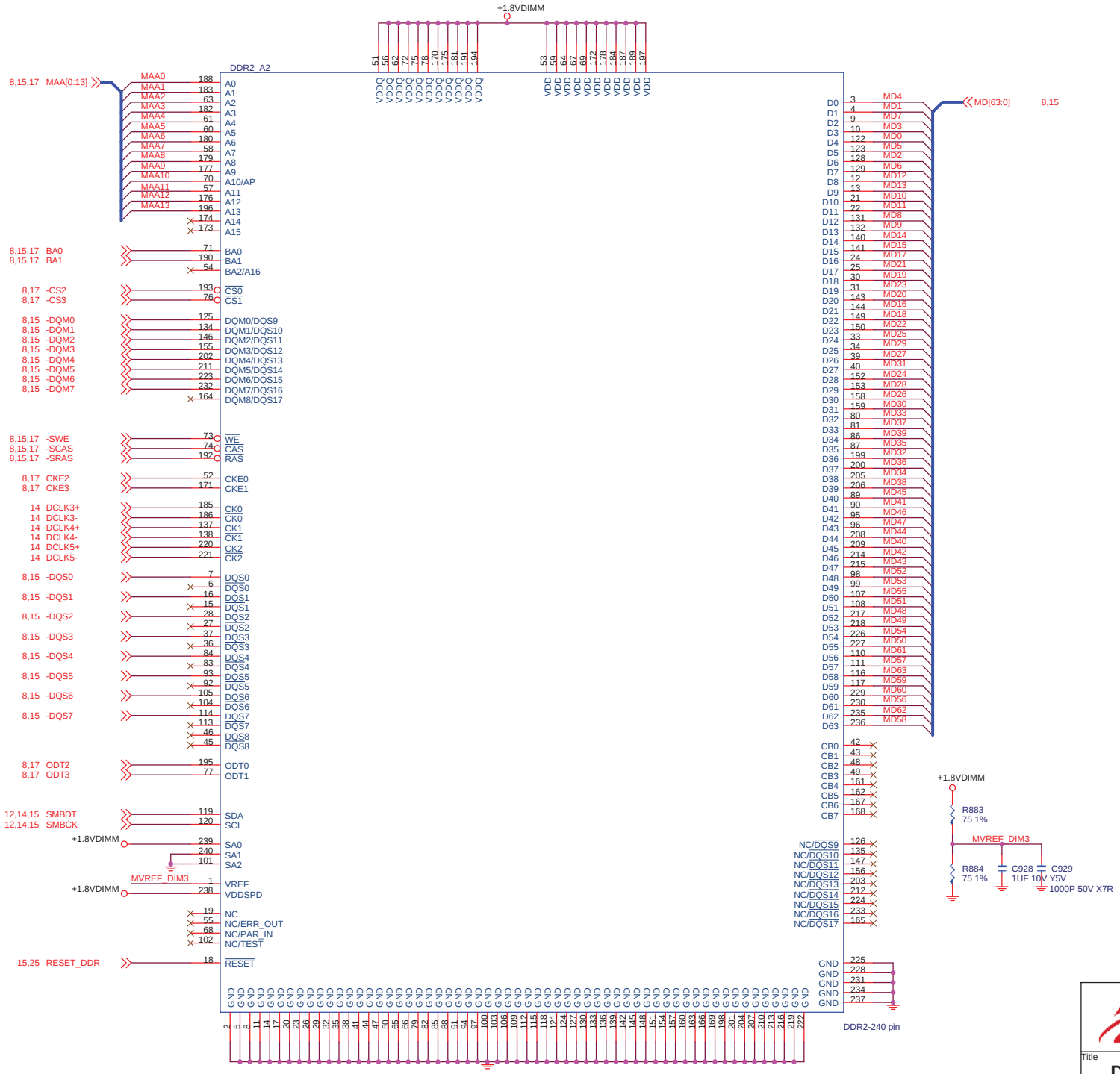
Title	DDR2-DIMM1	
Size: Custom	Document Number: P4M8P-M7A	Rev: 1.2
Date: Wednesday, April 19, 2006	Sheet 15 of 36	



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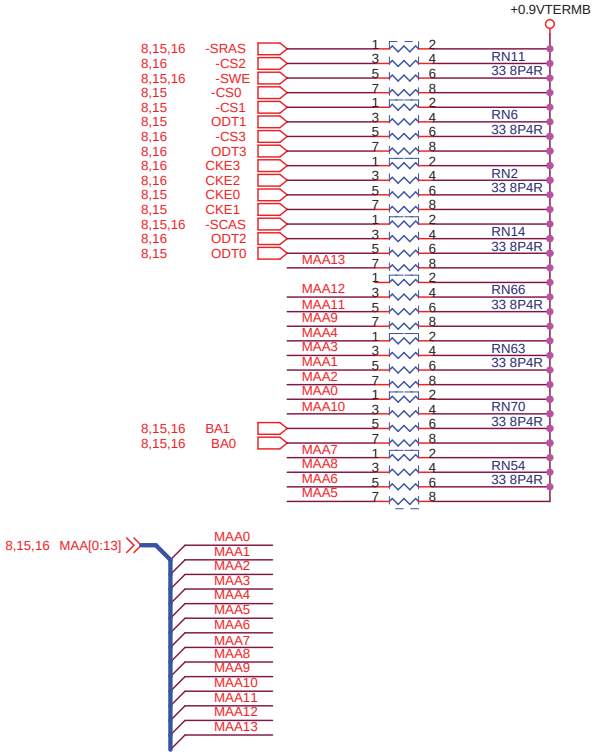
Title	DIMM2		
Size: Custom	Document Number: P4M8P-M7A		Rev: 1.2
Date: Wednesday, April 19, 2006	Sheet 16 of 36		



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Title: DDR TERMINATION

Size	Document Number	Rev
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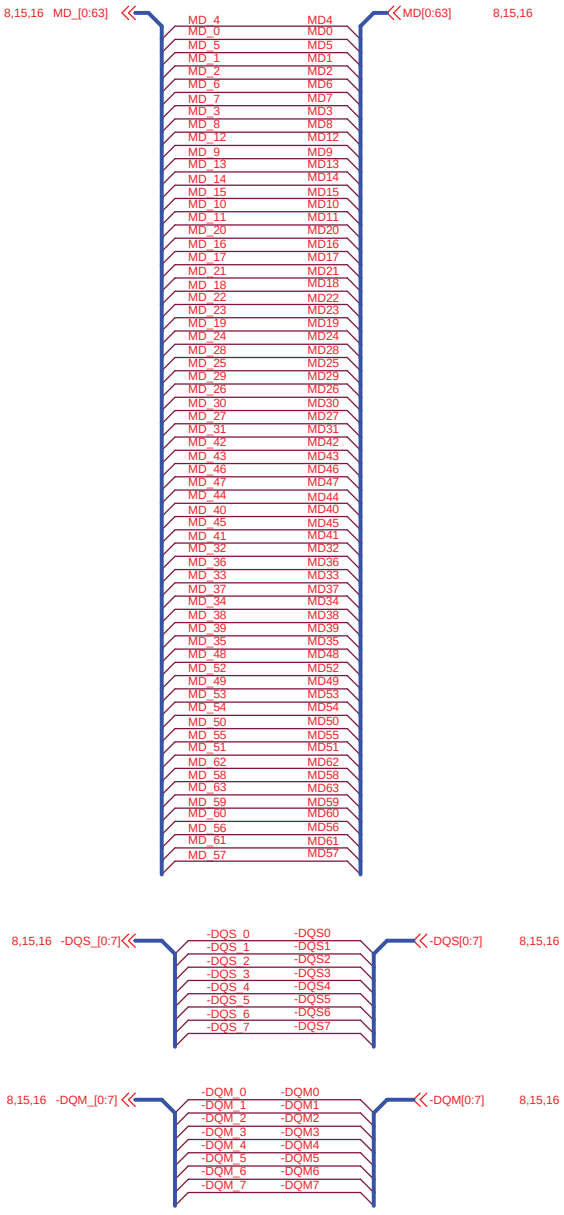

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Title
DDR DAMPING

Size	Document Number	Rev
Custom	P4M8P-M7A	1.2

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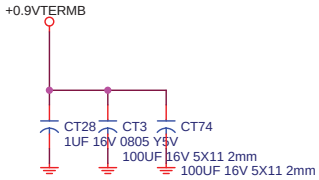

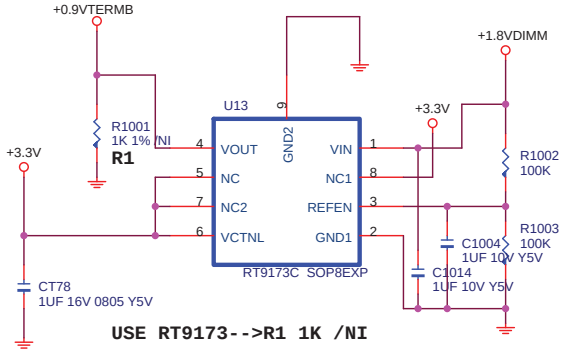

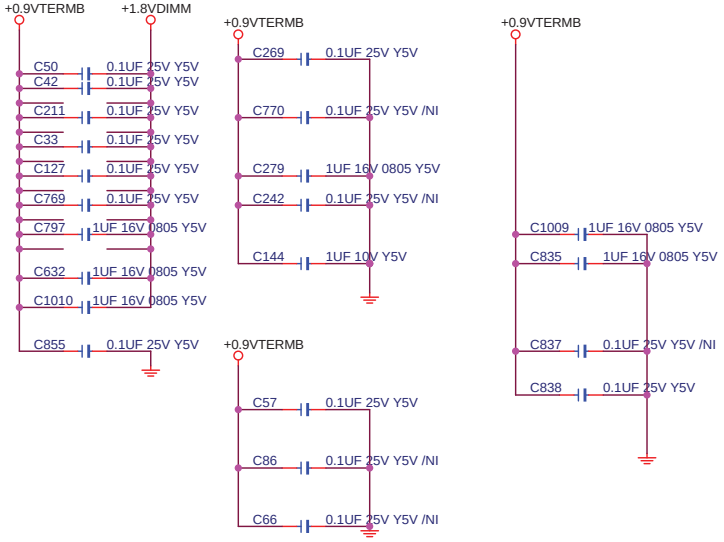

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Title: DDR VTT		
Size: B	Document Number: P4M8P-M7A	Rev: 1.2
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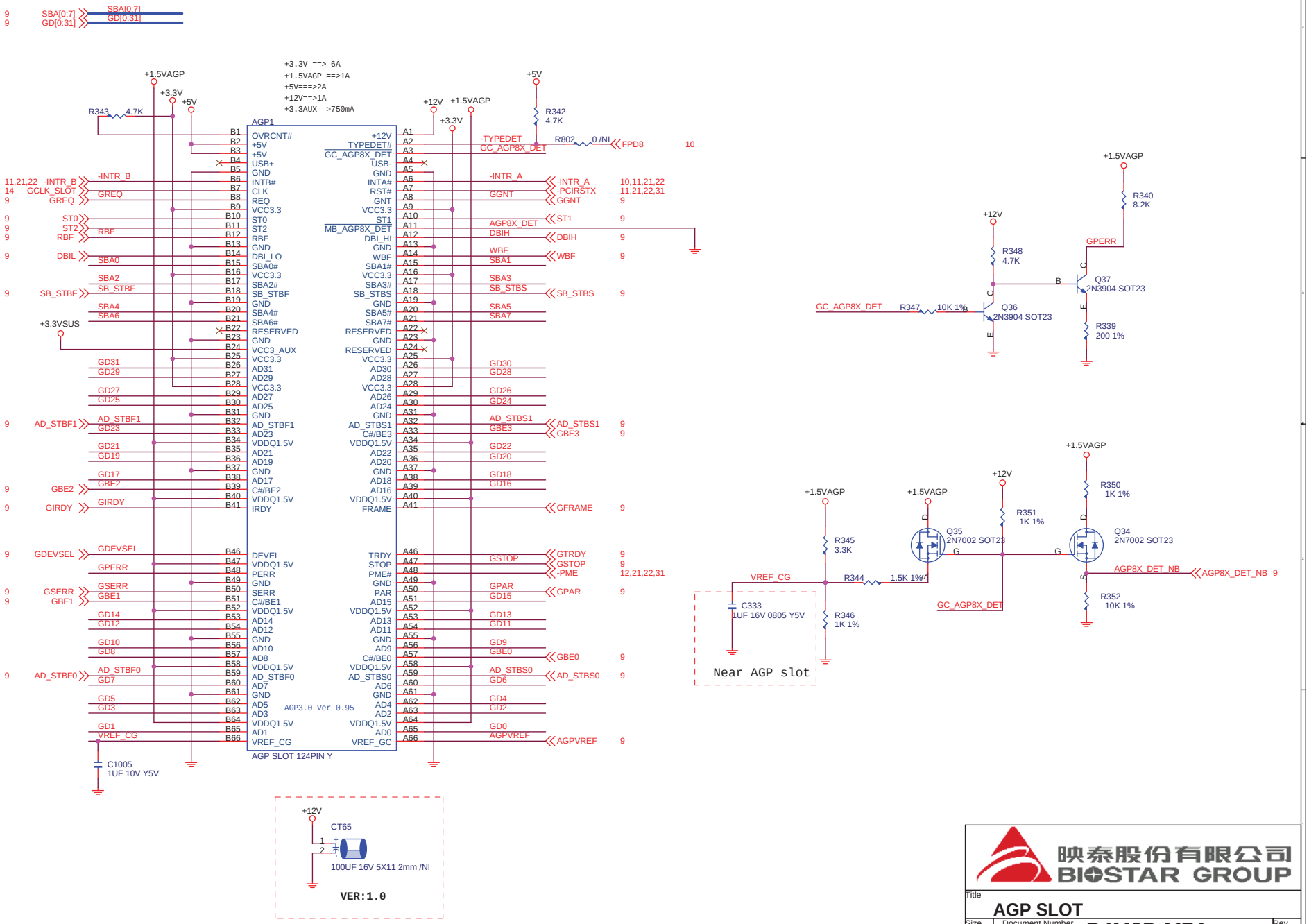

Title	AGP SLOT
Size	Custom
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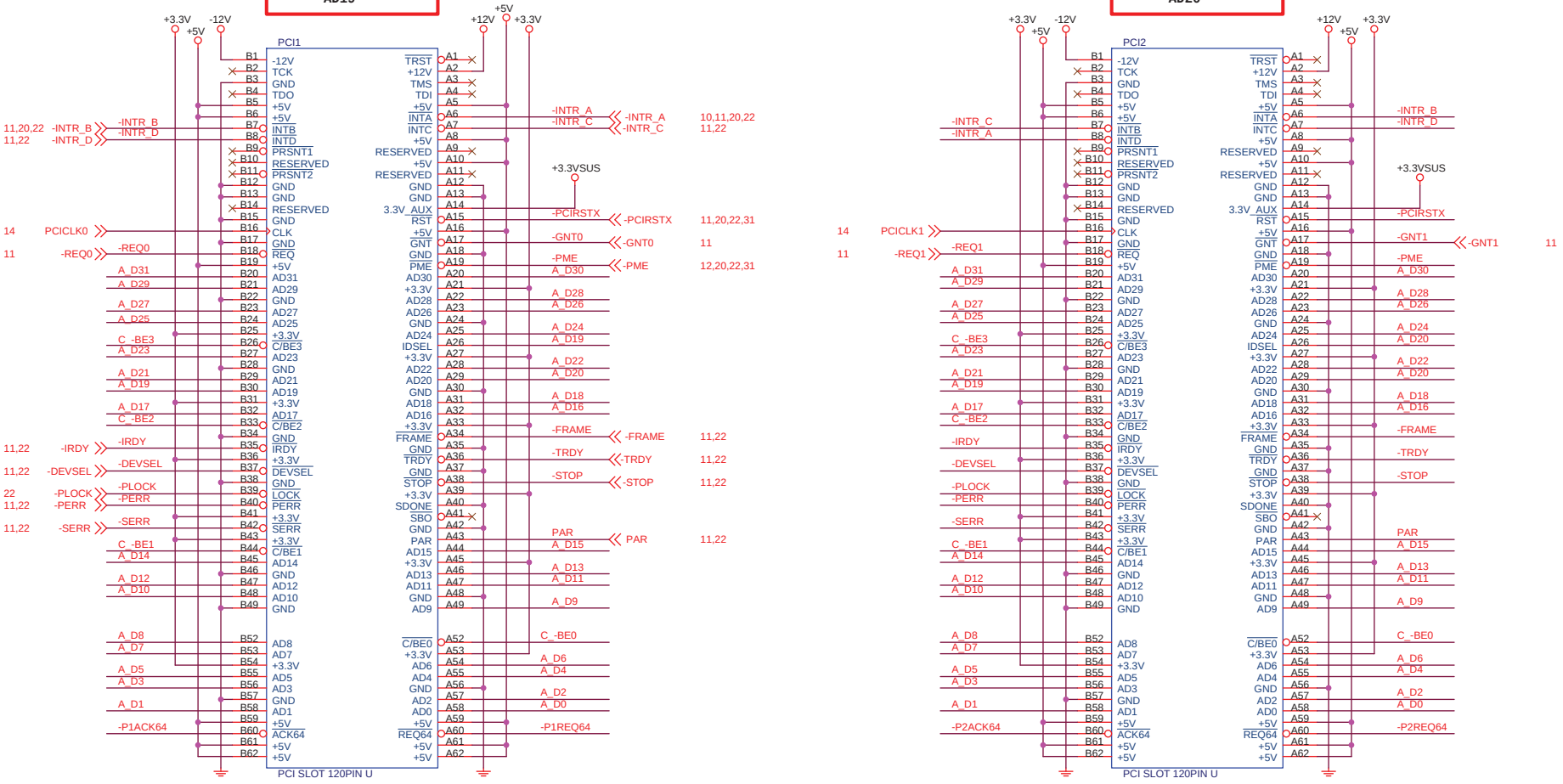
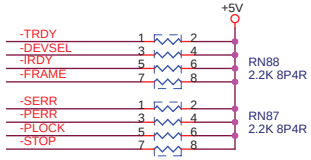
PCICLK0
INT-A
REQ-0 / GNT-0
AD19

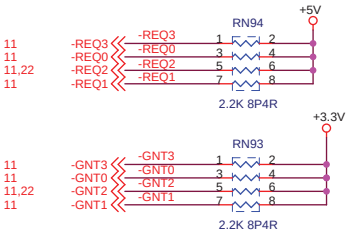
PCICLK1
INT-B
REQ-1 / GNT-1
AD20

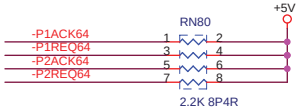


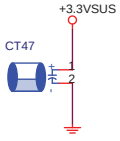
11,22 A_D[0..31]

11,22 C_-BE[0..3]









100UF 16V 5X11 2mm

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Title: **PCI 1&2**

Size	Document Number	Rev
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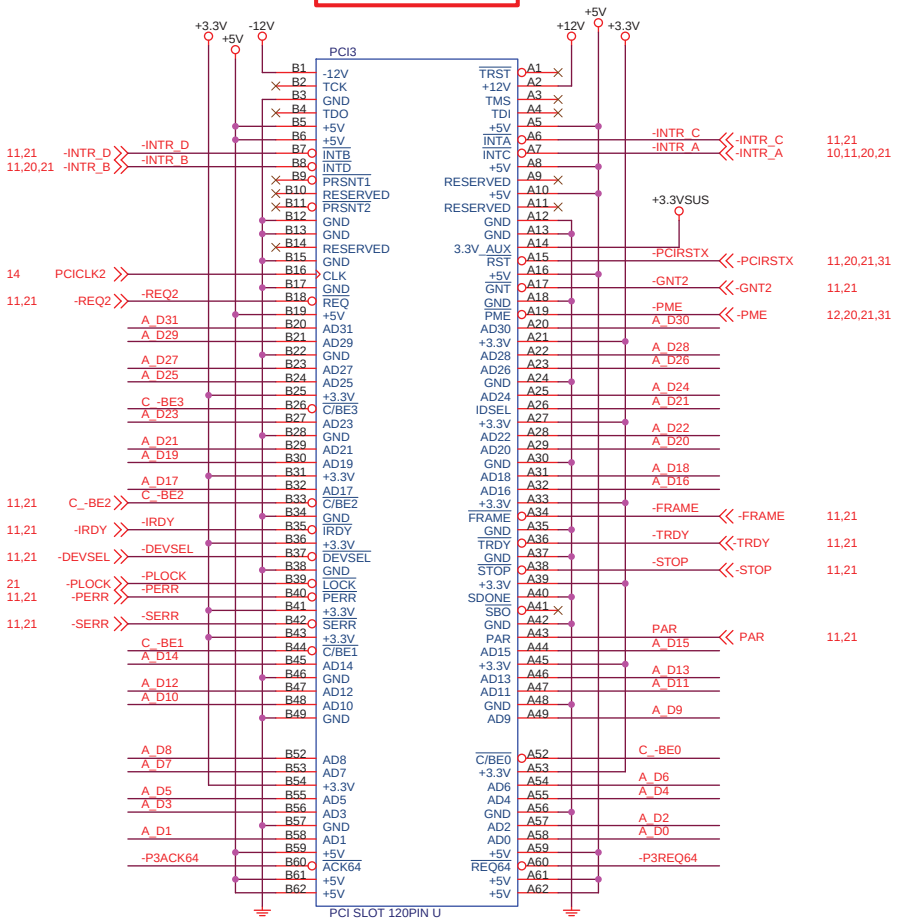
PCICLK2
INT-C
REQ-2 / GNT-2
AD21



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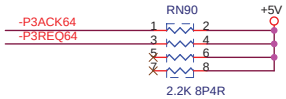
11,21 C_-BE[0..3]



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Title	PCI 3	
Size: Custom	Document Number: P4M8P-M7A	Rev: 1.2
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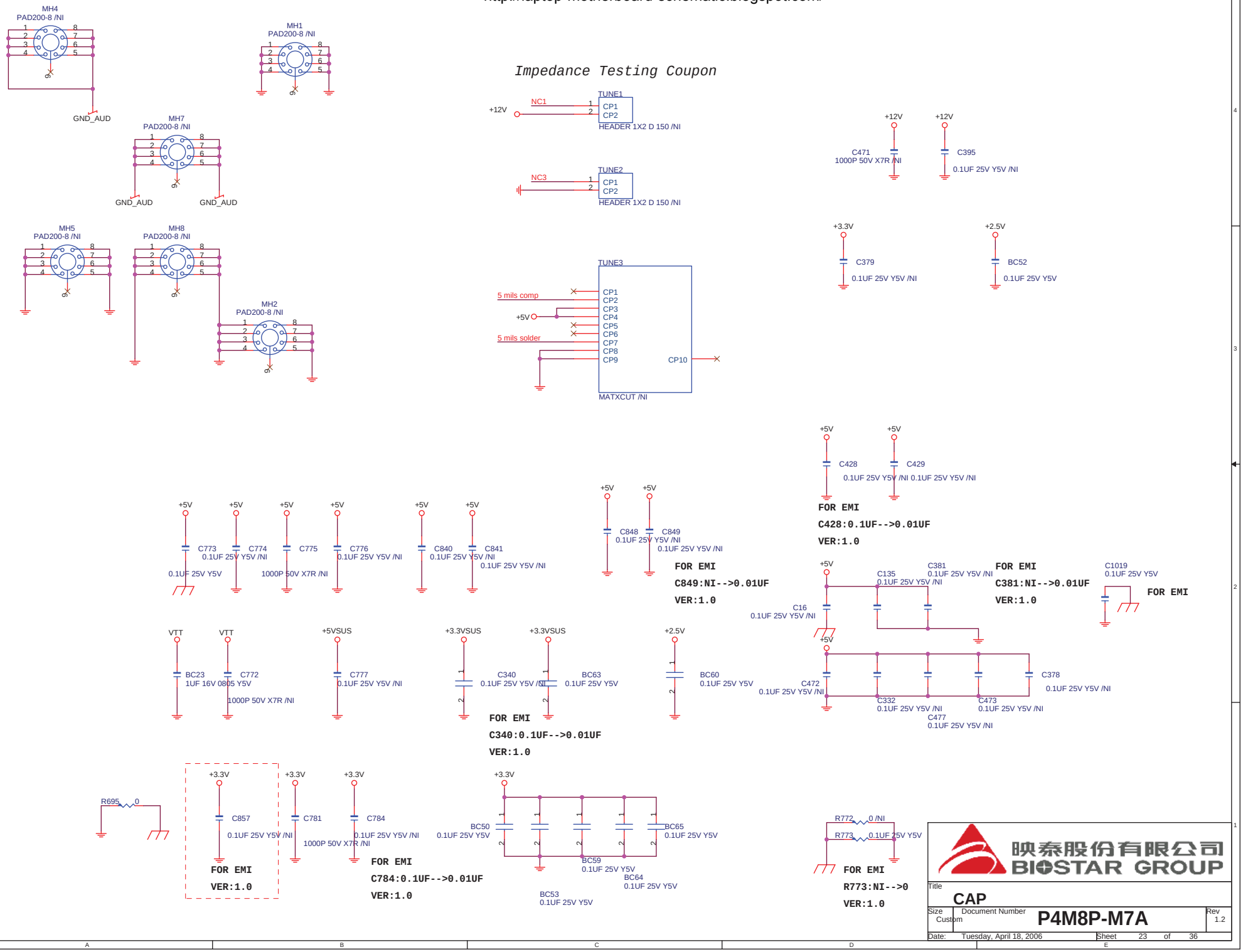

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Title	CAP	
Size: Custom	Document Number: P4M8P-M7A	Rev: 1.2
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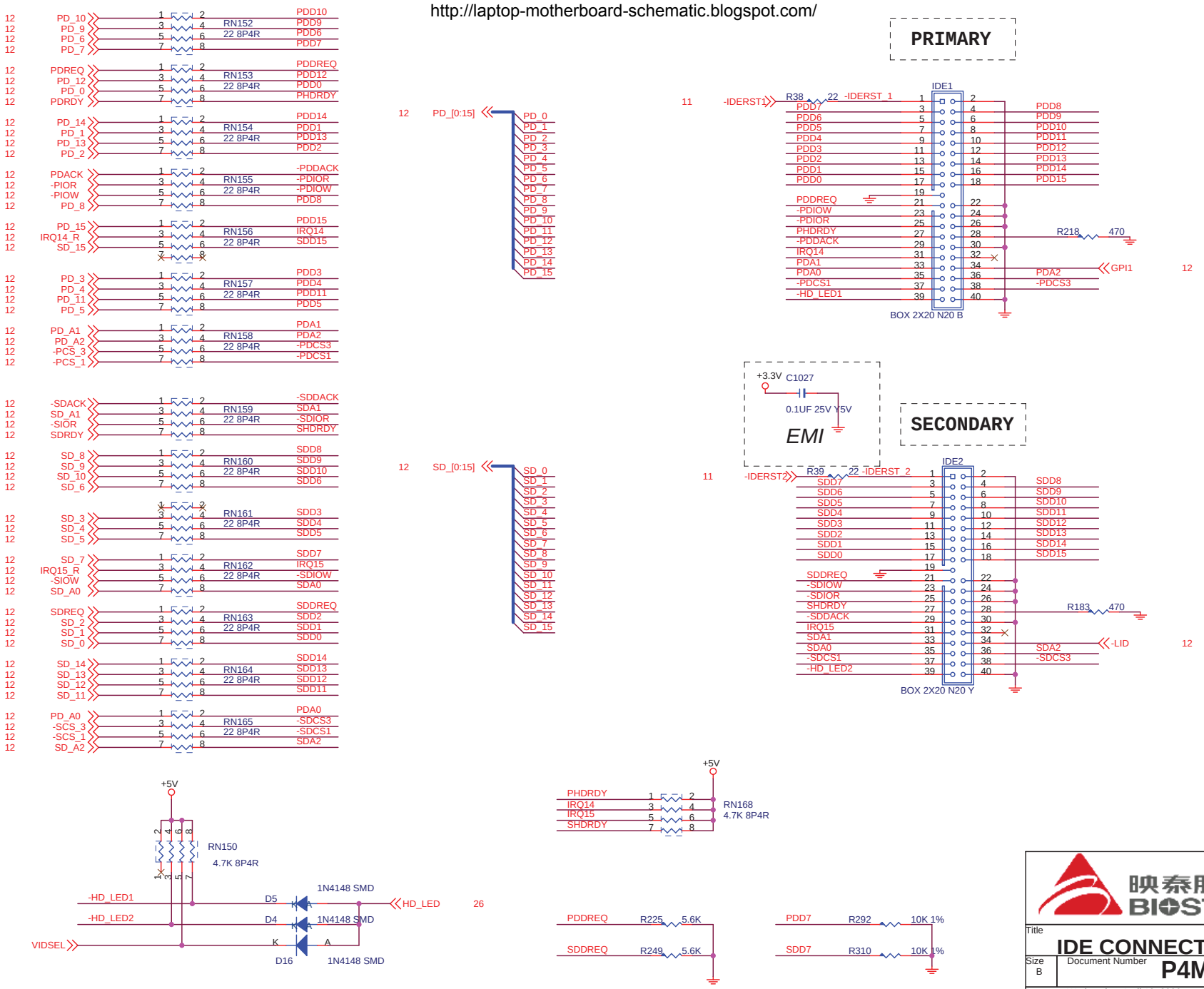

Title: IDE CONNECTOERS

Size	Document Number	Rev
B	P4M8P-M7A	1.2

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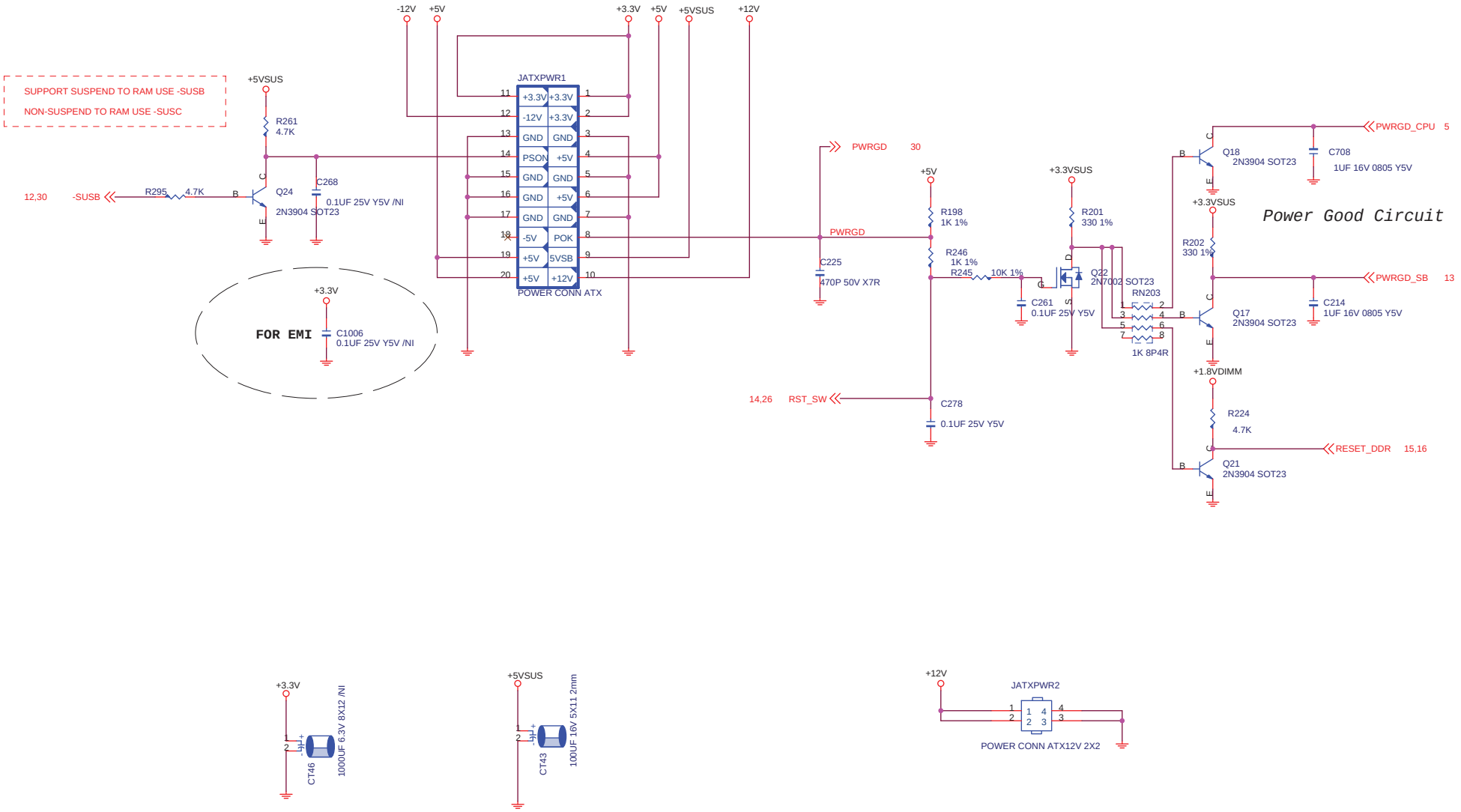

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Title	ATX POWER CONN	
Size: Custom	Document Number: P4M8P-M7A	Rev: 1.2
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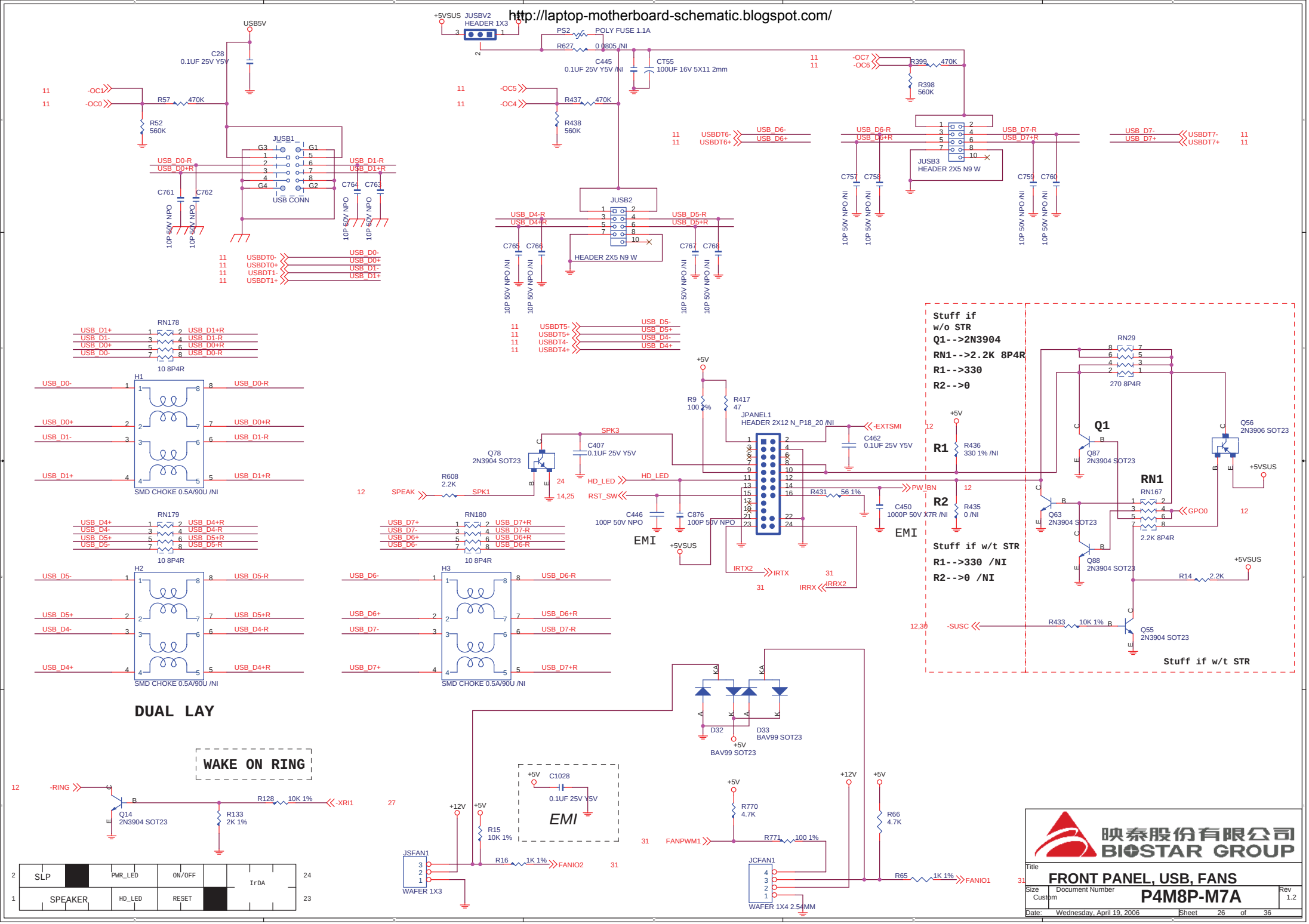

Title	FRONT PANEL, USB, FANS		
Size: Custom	Document Number: P4M8P-M7A		Rev: 1.2
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PS2

USB5V
C2 0.1UF 25V Y5V
C793 0.1UF 25V Y5V
RN1 4.7K 8P4R
JKBMS1A
KB_DATA
KB_CLK
KB_DT
KB_CK
RN176 10 8P4R
C749 100P 50V NPO
C750 100P 50V NPO
MINI DIN CONN PC99
JKBMS1B
MS_DATA
MS_CLK
MS_DT
MS_CK
C753 100P 50V NPO
C754 100P 50V NPO
MINI DIN CONN PC99
FOR EMI
+5V
C1021 0.1UF 25V Y5V

USB

DEFAULT : 1-2 CLOSE
+5VSUS
JUSBV1 HEADER 1X3
+5V
PS1 POLY FUSE 1.1A
R626 0 0805 /NI
FOR EMI
C1020 0.1UF 25V Y5V
-OC3
-OC2
R285 470K
R293 560K
USB5V
C293 1UF 10V Y5V /NI
JUSBLAN1A
VCC0
DATA0-
DATA0+
GND0
VCC1
DATA1-
DATA1+
GND1
GND2
GND3
GND4
GND5
RJ45USBA CONN
RN181 10 8P4R
USB_D3+
USB_D3-
USB_D2+
USB_D2-
H4
SMD CHOKE 0.5A/90U /NI
C751 10P 50V NPO
C752 10P 50V NPO
C755 10P 50V NPO
C756 10P 50V NPO
C127 100UF 16V 5X11 2mm
DUAL LAY
USBDT2-
USBDT2+
USBDT3-
USBDT3+

COM1

+5V
+12V
C449 0.1UF 25V Y5V
C453 0.1UF 25V Y5V
U7
VCC
ROUT1
ROUT2
ROUT3
DIN1
DIN2
ROUT4
DIN3
ROUT5
GND
V+
RIN1
RIN2
RIN3
DOUT1
DOUT2
RIN4
DOUT3
RIN5
V-
ST75185CTR TSSOP
JCOM1
D CONN 9PIN PC99
COM PORT
-DCDA
-DSRA
SINA
-RTSA
SOUTA
-CTSA
-DTRA
-RIA
-XRI1
C187 0.1UF 25V Y5V
-12V
-XRI1

LPT

RN134 22 8P4R
RN135 22 8P4R
RN130 22 8P4R
P_-SLIN
P_PRD3
P_PRD2
P_-INIT
P_PRD1
P_PRD0
P_-AFD
P_-STB
P_PRD7
P_PRD6
P_PRD5
P_PRD4
R67 1UF 16V 0805 Y5V
R548 2.2K
RN129 2.2K 8P4R
RN131 2.2K 8P4R
RN132 2.2K 8P4R
RN133 2.2K 8P4R
D17 1N4148 SMD
C1022 0.1UF 25V Y5V
FOR EMI
JPRNT1A
D CON 25PIN HIGH RISE PC99
P_-ERR
P_-ACK
P_BUSY
P_PE
P_SLCT
-STB
AFD
-INIT
-SLIN
FOR EMI
C1023 0.1UF 25V Y5V

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Title	COM / LPT , PS2 , USB	
Size: Custom	Document Number: P4M8P-M7A	Rev: 1.2
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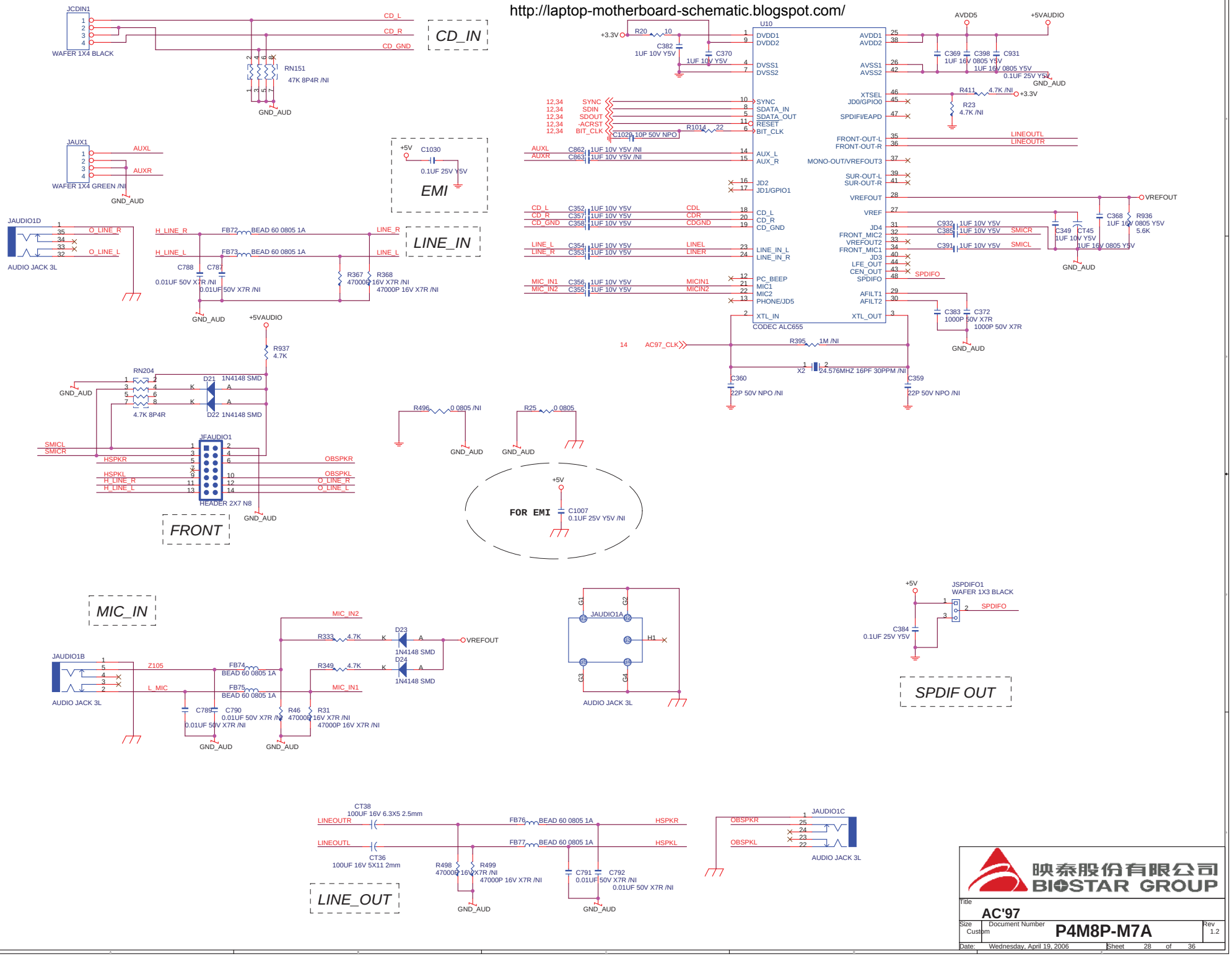

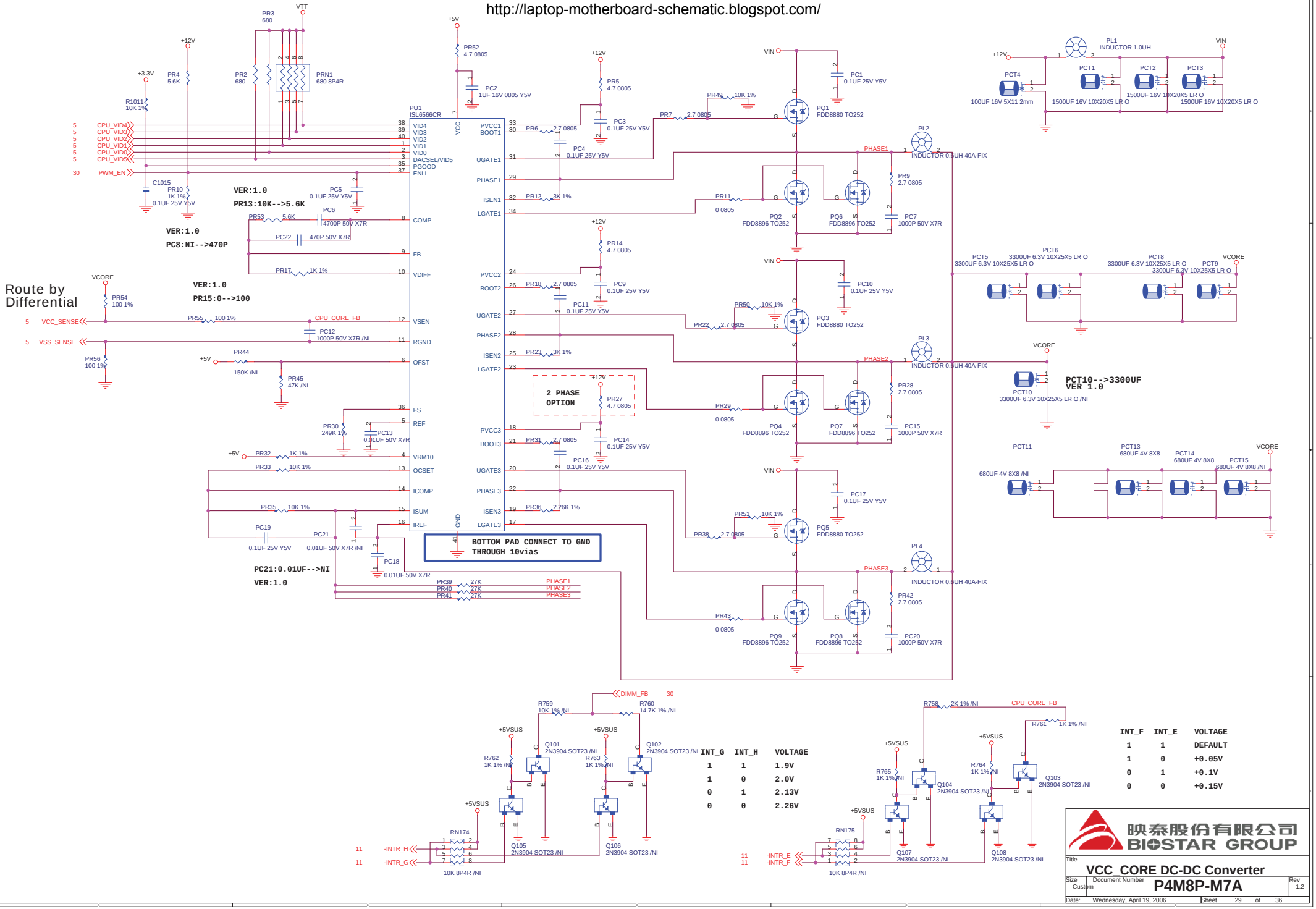

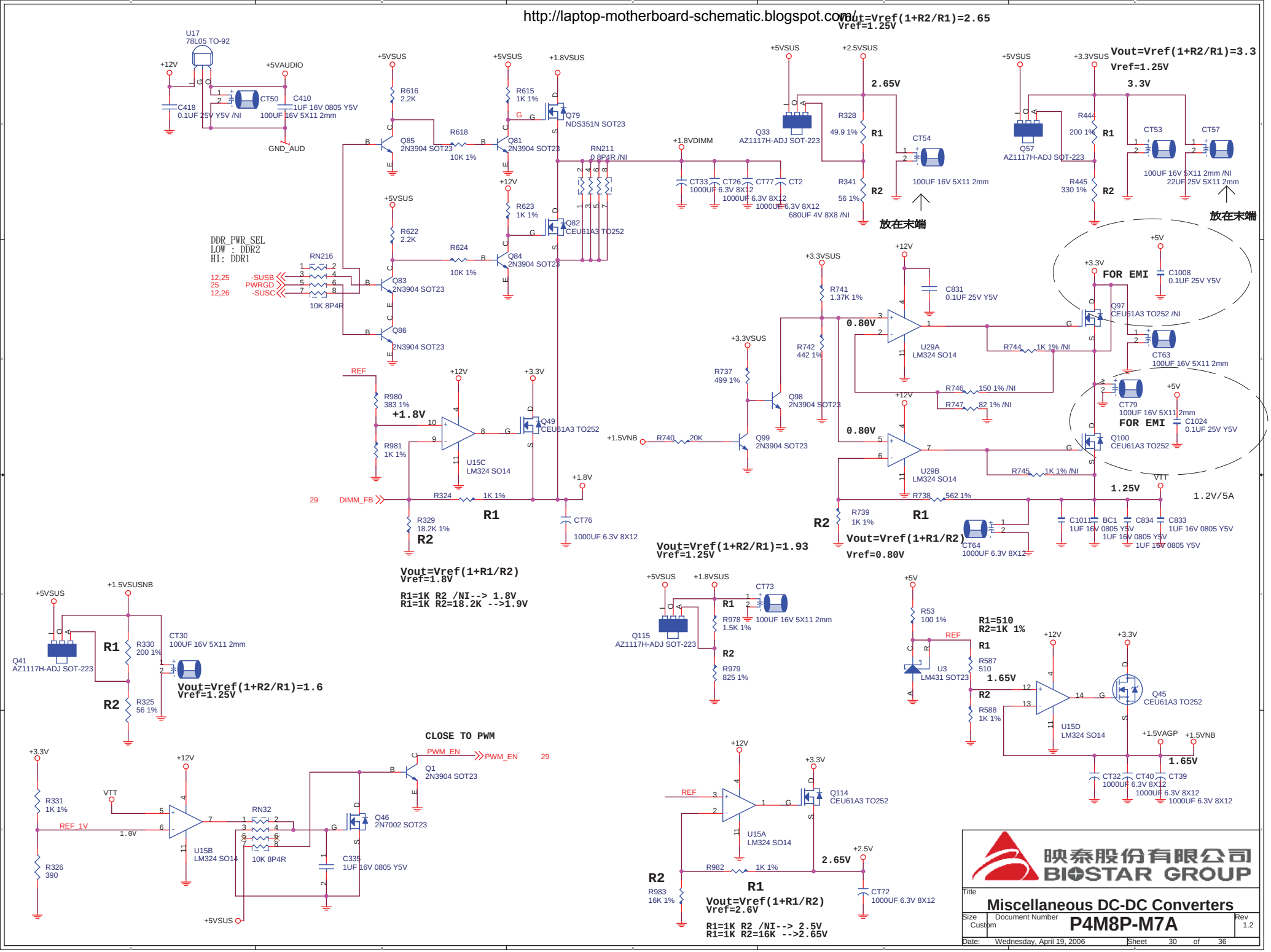

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Title	Miscellaneous DC-DC Converters		
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R91	R92

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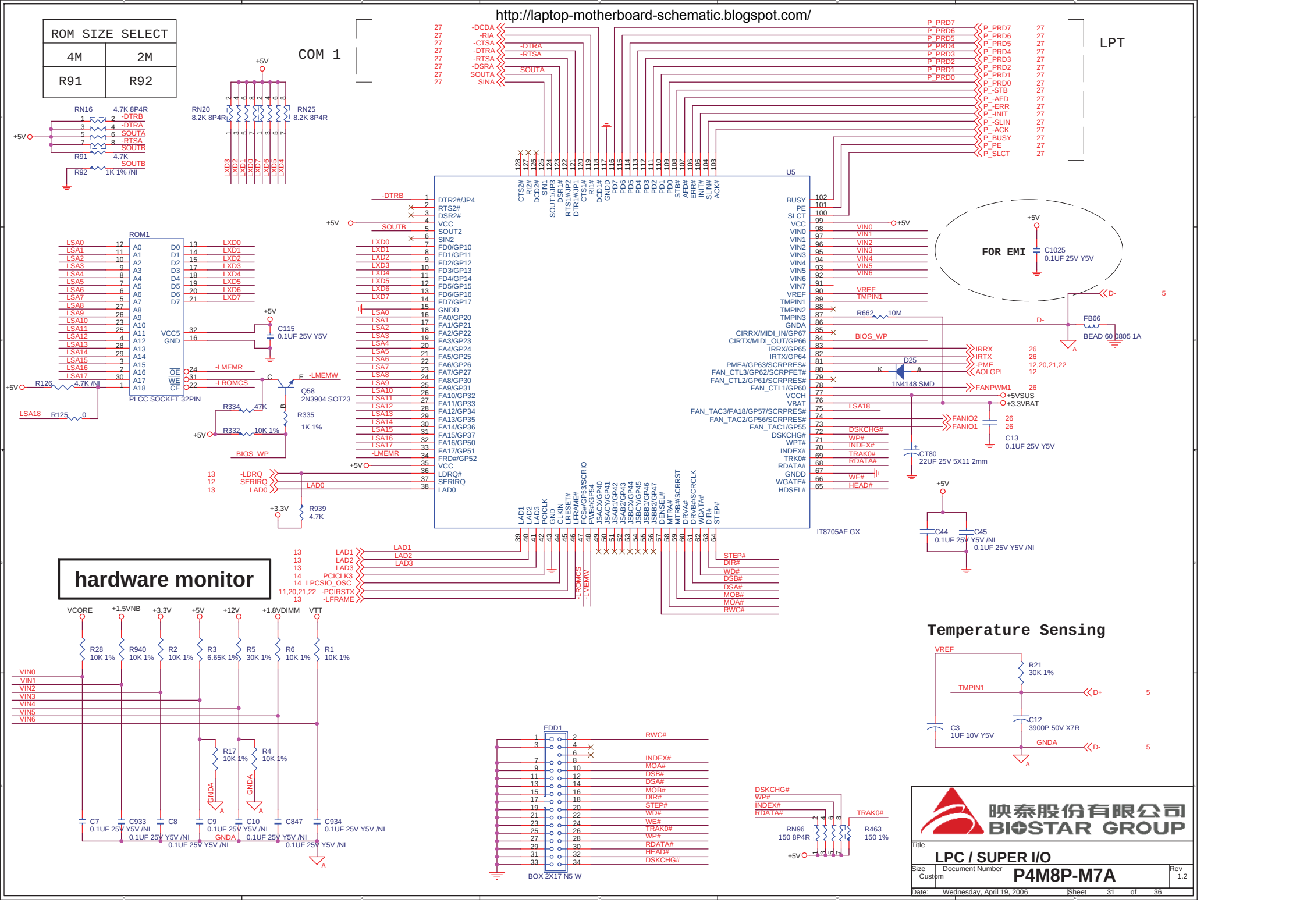
LPT



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Size	Custom
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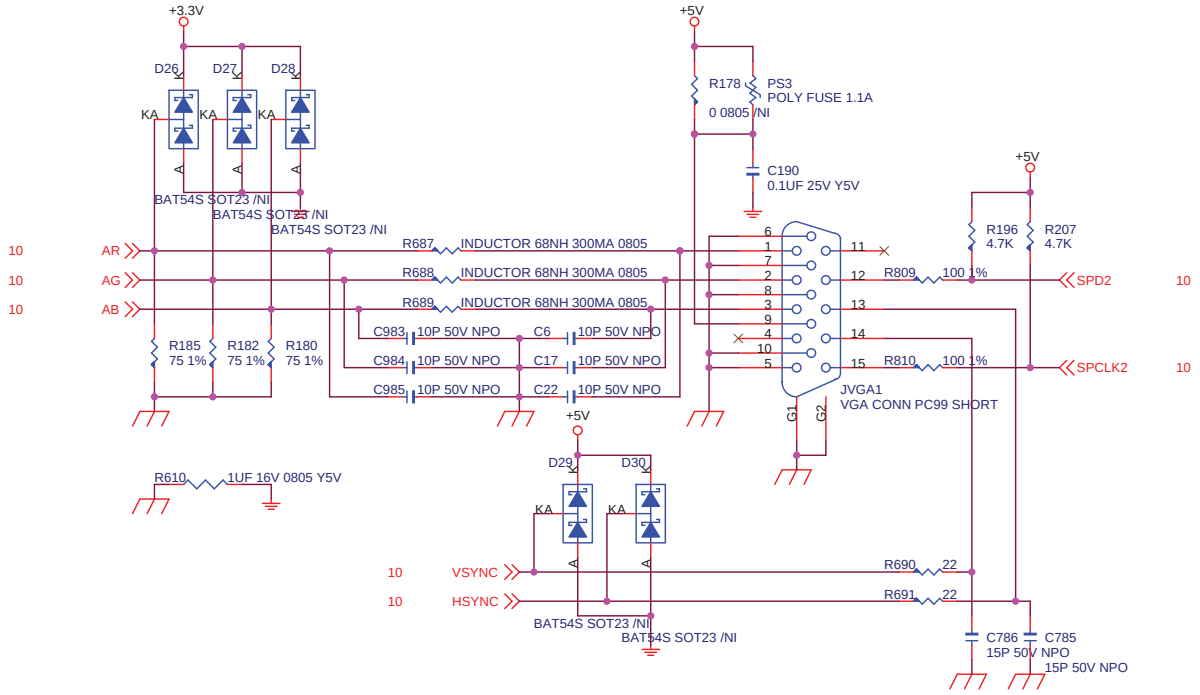

Title	VGA CONNECTOR	
Size B	Document Number P4M8P-M7A	Rev 1.2
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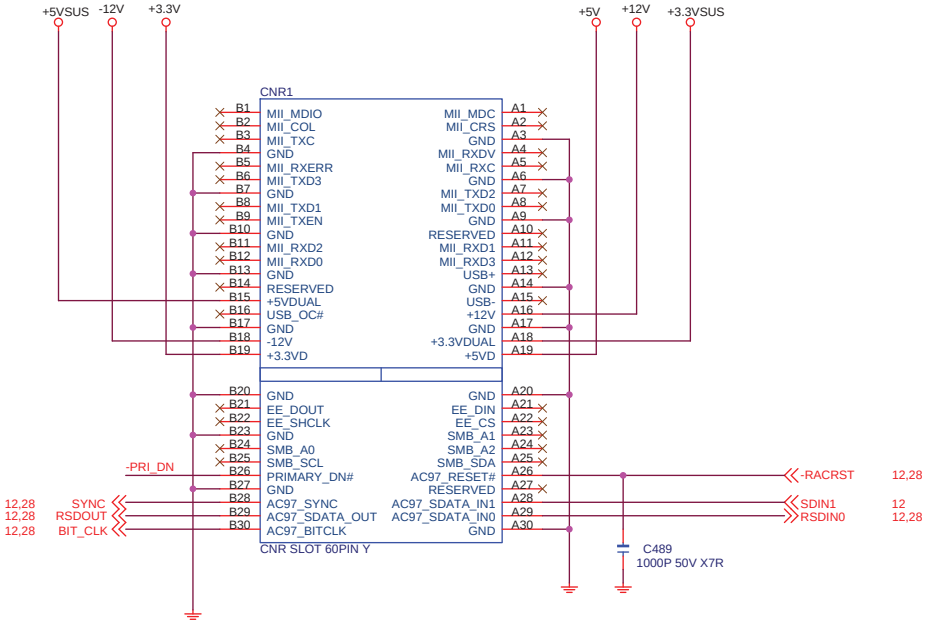

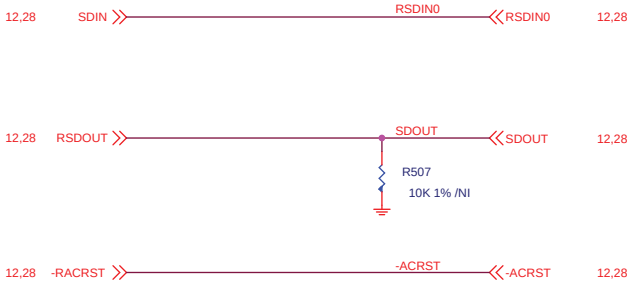

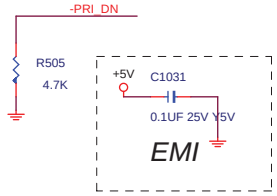

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Title	CNR SLOT	
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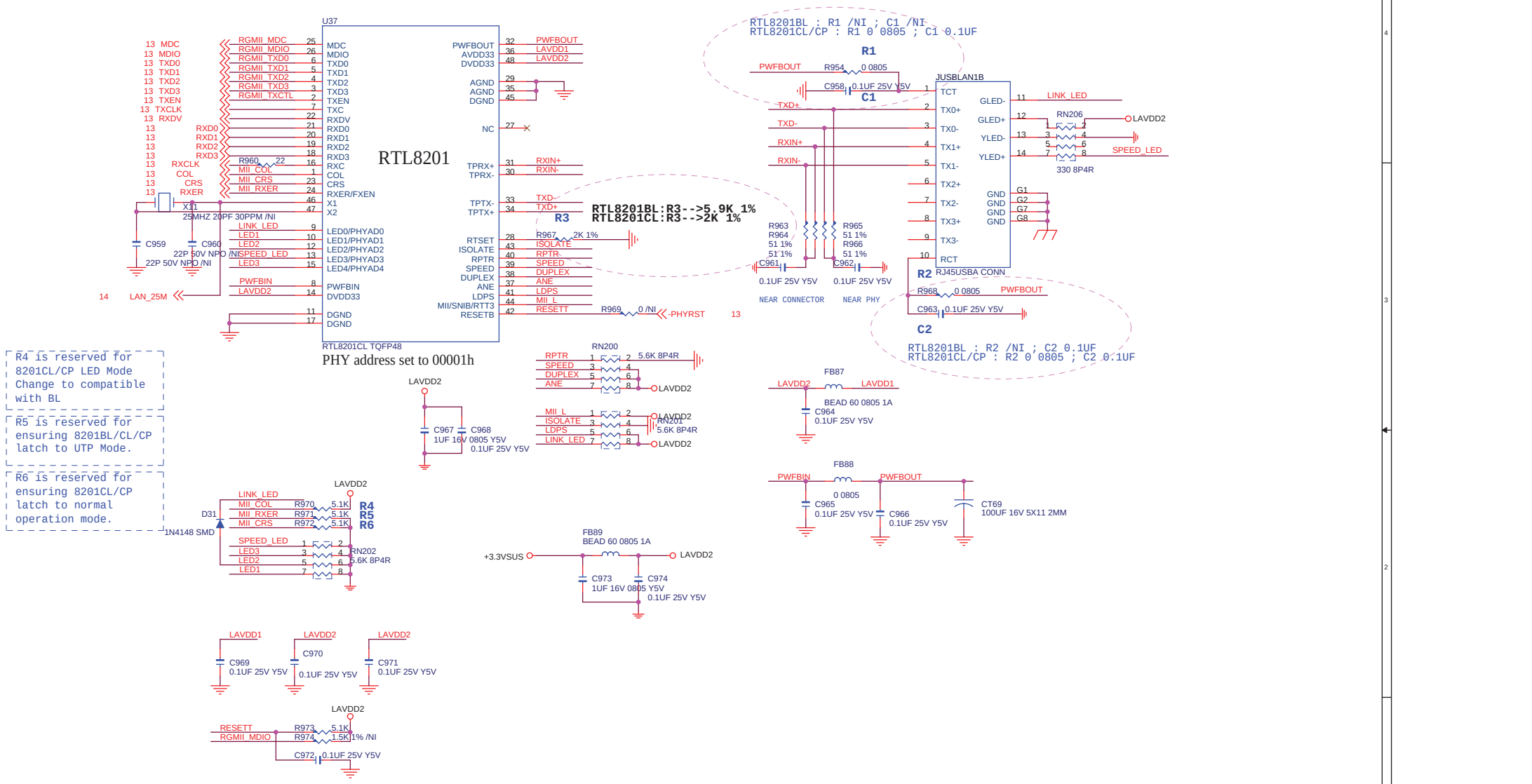

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Title	LAN-RTL8201	
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JUMPER 2P R

JUSBV2(1_2)
JUMPER 2P R

JFAUDIO1(5_6)
JUMPER 2P B

JFAUDIO1(9_10)
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PCB
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(PCB)
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3V BATTERY SONY

(ROM1)
FLASH ROM
PLCC ISA 4M

(U11)
北橋散熱片
SBNP-S

(U18)
南橋散熱片
SBLV /NI

New JPANEL1 不含IR
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JPANEL1(13_15)
JPANEL1(9_11)
HLED
RST_3

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Title
BOM

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