

Model Name: 8I915P-MF

Revision 2.2

SHEET	TITLE
01	COVER SHEET
02	BLOCK DIAGRAM
03	BOM & PCB MODIFY HISTORY
04	P4_LGA775_A
05	P4_LGA775_B
06	P4_LGA775_C
07	P4_LGA775_D
08	VCORE POWER
09	GMCH-GRANTSDALE_HOST
10	GMCH-GARNTSDALE_DDR
11	GMCH-GRANTSDALE_PCI E, DMI
12	GMCH-GRANTSDALE_INT VGA
13	GMCH-GRANTSDALE_GND
14	GMCH-GRANTSDALE_PWR
15	DDR CHANNEL A
16	DDR CHANNEL B
17	DDR TERMINATION
18	PCI EXPRESS*16 SLOT
19	ICH6 PCI, USB, DMI, LAN
20	ICH6 IDE, GPIO, SATA, CTRL
21	ICH6 VCC, GND
22	CLK GEN

SHEET	TITLE
23	PCI SLOT 1
24	PCI EXPRESS*1 SLOT 1,2
25	ITE8712HX
26	HWMO/FAN/FWH BIOS
27	KB_MS/GAME
28	COM/LPT/FDD
29	(FRONT+REAR)USB/RING/IDE
30	AZALIA CODEC ALC880/CMI9880
31	AUDIO JACK
32	LAN RTL8110S/8100C
33	ATX POWER CONN.
34	ALL POWER
35	1394 TSB43AB23
36	FRONT PANEL/BZ

PCB VANDER: 育富(TB), 智恩(TA), 鴻達

	COMPONENT SIDE (1 oz. Copper)
	VCC SIDE (1 oz. Copper)
	GND SIDE (1 oz. Copper)
	SOLDER SIDE (1 oz. Copper)

GIGABYTE		
Title Cover Sheet		
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BLOCK DIAGRAM

INTEL Pentium4 LGA775

VCCORE = 1.75V / SLEEP: 1.3V
VCC3

PAGE 4, 5, 6, 7

CLOCK GENERATOR

CKVDD = 3.3V

PAGE 22

PWM/OTHER POWER

VCCORE = 1.75V (650-1100MHZ) / SLEEP: 1.3V
5VSB = 12V + 12V, VCC, VCC3, 3VDDUAL
VTT_DDR = 2.5VSTR

PAGE 8, 33, 34

GMCH GRANTS DALE

VCCORE = 1.75V / SLEEP: 1.3V
2.5VSTR = 2.5V(MEMORY,SUSPEND POWER)
VDDQ = 1.5V (AGP POWER 4X, HUBLINK)

PAGE 9, 10, 11, 12, 13, 14

CHANNEL A DDR SDRAM DIMM X 2

2.5VSTR = 2.5V(MEMORY,SUSPEND POWER)
VTT_DDR = 1.25V

PAGE 15

CHANNEL B DDR SDRAM DIMM X 2

2.5VSTR = 2.5V(MEMORY,SUSPEND POWER)
VTT_DDR = 1.25V

PAGE 16

PCI EXPRESS BY 16 PORTS

VDDQ = 1.5V (AGP POWER 4X)
VCC3 = 3.3V
+12V = 12V
3VDDUAL = 3.3V
VCC = 5V

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GAD0-31
ADSTB0, ADSTB0-
ADSTB1, ADSTB1-
SBA0-7
SBSTB, SBSTB-
GCBE0-3-
ST0-2


MAA0-14
MAA_CPC1-5
MAB_CPC1-5
MDD0-63
-DQSD0-7
DM0-7

AGPUSB+ / -

USB PORTS 0~7

VCC = 5V
5VSB = 5V
5VUSB = 5V

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HL0-10
CONTROL BUS  HUB LINK

ICH6

VCCDS = 2.5V(I/O, MEMORY, VLINK)
3VDDUAL = 3.3V(SUSPEND POWER)
VCC3 = 3.3V
RTVDD = 3.3V

PAGE 19, 20, 21

IDE Primary

VCC = 5V

PAGE 29

SERIAL ATA

VCC = 5V

PAGE 20

AMRUSB+ / -

AZALIA LINK

AC97/Azalia ALC880

+12V = 12V
VCC3 = 3.3V
VCC = 5V
AVDD = 5V

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AUDIO PORTS : FRONT AUDIO

LIN_OUT LINE_IN MIC
TELE CD_IN AUX_IN

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PCI BUS

PCI SLOT 1 PCI EXPRESS BY 1, 2 SLOT

+12 = 12V
+12 = 12V
VCC = 5V
VCC3 = 3.3V
3VDDUAL = 3V

PAGE 23, 24

LAN RTL8110S/8100C

PAGE 32

1394 IT TSB43AB23

PAGE 35

FRONT PANEL/BZ

VCC = 5V
5VSB = 5V
+12 = 12V
PVCC = 5V

PAGE 36

FWH/HWMO

VCC = 5V
VCC3 = 3V

PAGE 26

LPC BUS

LPC ITE8712HX

VCC = 5V
5VSB = 5V
VBAT = 3V

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I/O PORTS :

COMA COMB LPT PS2 IR FDD

PAGE 27, 28, 29

GIGABYTE			
BOM & PCB MODIFY HISTORY			
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Model Name: 8I915P-MF

Version: 2.2

Circuit or PCB layout change for next version

Component value change history

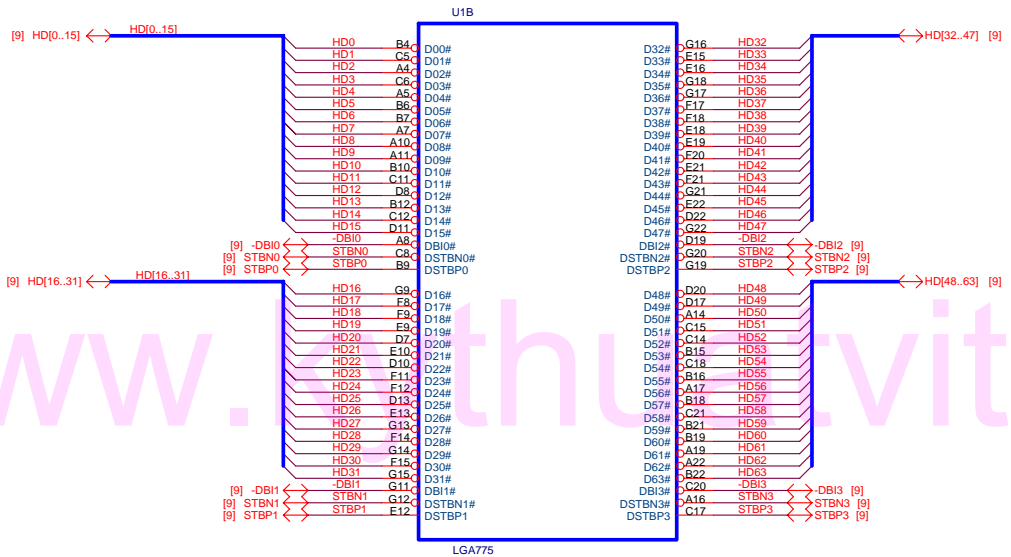
2004/12/02

Data	Change Item	Reason
12/11	REV 0.1進LAYOUT	
12/23	PM MODIFY SPEC PCIX2,PCIEX1	
12/24	IT8712/IX MODIFY	
12/25	DEL 1394 SIGNAL CHOKE/8P4R/SHT	
12/29	DDR POWER/FUSE FOR KB_MS	
01/05	ich6 add 1000 p 0402於-ichsync pin for A1	
01/07	MODIFY RN98-102 -->R0603 TYPE FOR LAYOUT	
	PWM FAN5019 ADD DIODE/CAP	
01/08	-SYS_RST ADD 0/6	
	1394 SCH NET DVDD-->DVDD1394	
01/09	ADD VCC/VCC3 CROSS CAP	
01/13	E-BOM :8DGMF-00-01	
02/13	E-BOM :8I915GMF-00-02	1.VCORE PWM LOAD LINE(PH2-->PH4) 2.GRANTSDALE/ICH6(A0/A0)-->(A2/A1) 3.VGA(HSYNC/VSYNC)-->74HCT32 4.BY ITE8212/IX(RESET/PWROK)-->DRIVE BY 74HC14 5.PCB MODEL NAME:8DGMF-->8I915G-MF 6.CAP COST DOWN BY MEASURE
02/25		1.IDE RESET
03/29	rev 0.3-->modify function	1.FRONT USB PWR(VCC/5VDUAL) 2.AZALIA CODEC FUNCTION 3.VCORE SP-CAP+MOSFET CHOKE/DIP
04/09	VCORE PWM CHANGE PLACEMENT	TOP(X3PHASE)+RIGHT(X1PHASE),PWM RIGHT DOWN
04/13	EMI ADD X12PCS (0402)CAP ON DDR	
04/21	AUDIO REARX6PORT+FRONTX2PORT	
04/30	BOM:8I915GMF-00-10A	1.MODIFY AUDIO 2.ADD CPU_FAN FOR SMART
05/03	BOM:8I915PMF-00-10A	1.MODIFY 915P CHIPSET 2.VGA/P-->COM/P
05/17	BOM:8I915PMF-00-10B	1.改DDRVTT造成POWER/ON-OFF當FF-->C256:100 2.CLK GEN X'TAL CAP:C176,C179-->22P/4/N/5

Data	Change Item	Reason
05/27	U22 4M MODIFY TO 2M ROM	
06/09	BOM:8I915PMF-00-10C	1.RN61-64,67:8.2K/8P4R-->2.2K/8P4R 2.Q259加替料P06P03 3.PCB加替料(育富):已經澄清為承認書製作錯誤,廠商改正
07/20	BOM:8I915PMF-00-20A	1.修改REV 2.0及1394 FUSE 5A及包材
08/17	BOM:8I915PMF-00-20B	1.修改F_USB POWER為VCC-->5VDUAL
10/07	BOM:8I915PMF-00-20D	1.VCORE CHOKE:DL2,3,4,5[11LC3-20500C-R1/R2/R3/R4] 2.ADD替料:ST1703LT4
10/26	BOM:8I915PMF-00-20E	1.解決Q189,MMBT2222A之Ib/Ic放大比率不足 R1136,R1139=8.2K/6 2.ADD替料Q45[10IF4-250420-01]
11/22	BOM:8I915PMF-00-22A	1.更改VCORE CHOKE;ICT TEST POINT;1066CPU FIX 800;INTEL MODIFY CIRCUIT
12/01	BOM:8I915PMF-00-22A-ECN	U9 915G/B1-->915P/B1
12/02	修改包材(刪除12CF1-1CM001-12)	

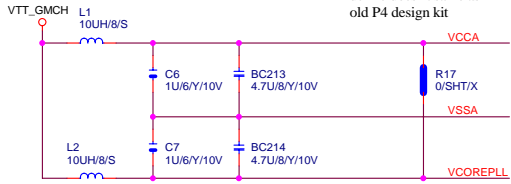
GIGABYTE

Title		BOM & PCB MODIFY HISTORY	
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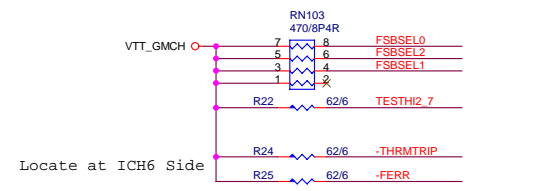
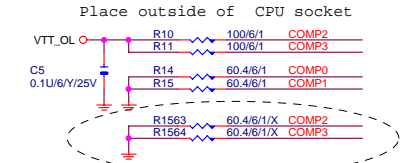
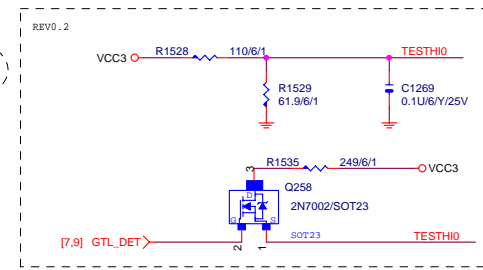
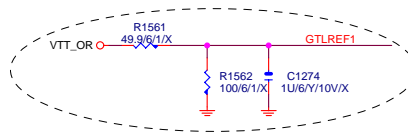


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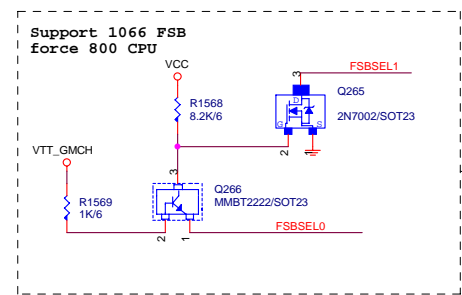
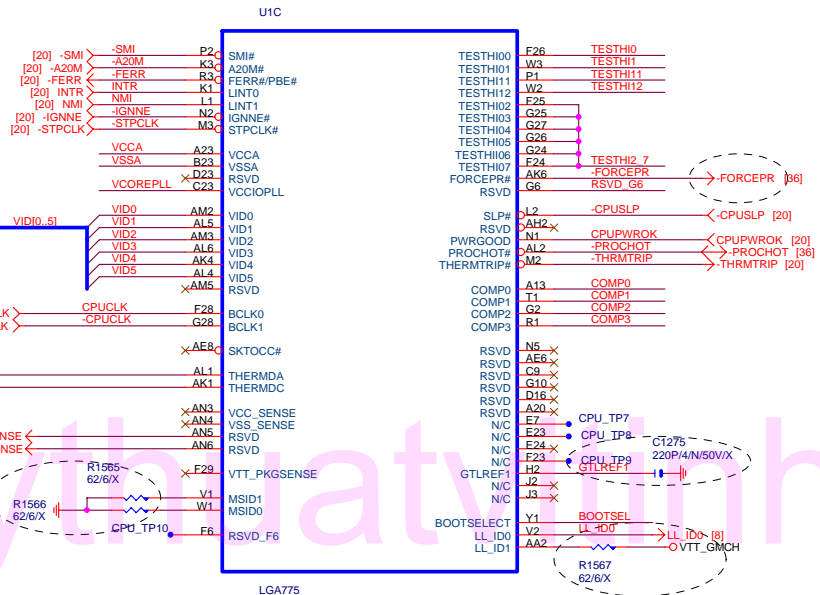
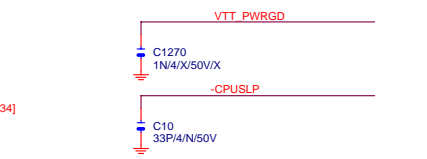
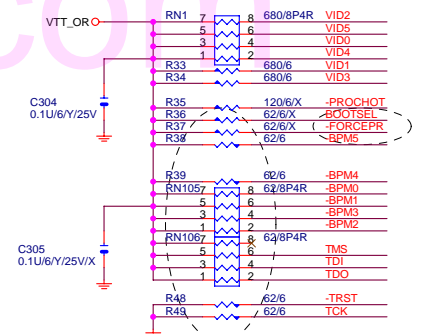
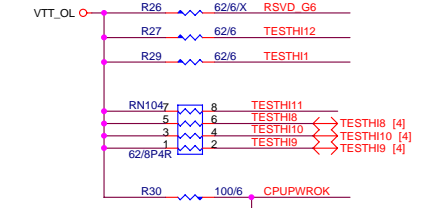
Note:
VCCA & VCOREPLL
define doesn't same as
old P4 design kit



As close as possible to
CPU socket

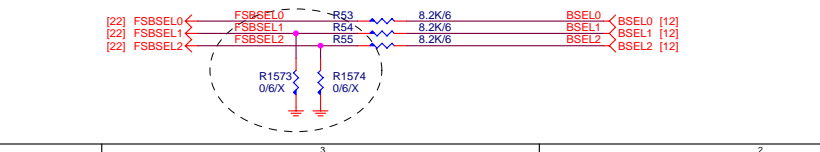
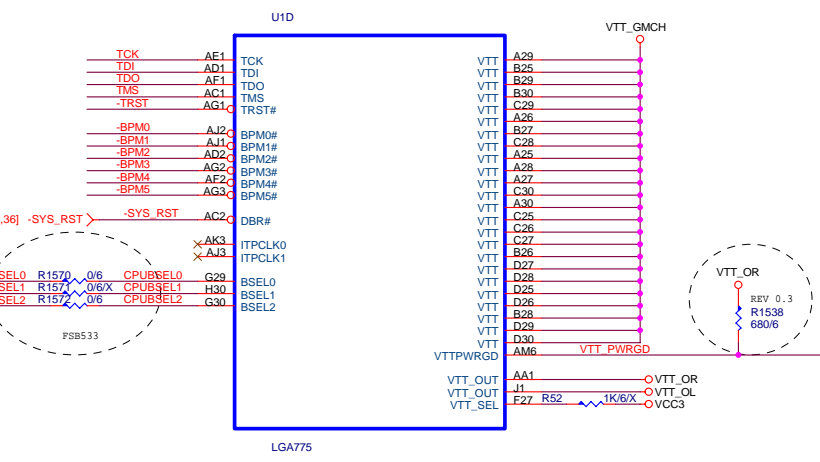


Locate at ICH6 Side

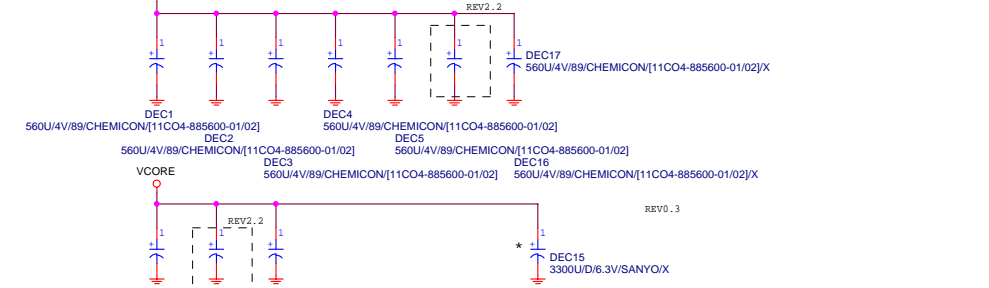


Support 1066 FSB
force 800 CPU

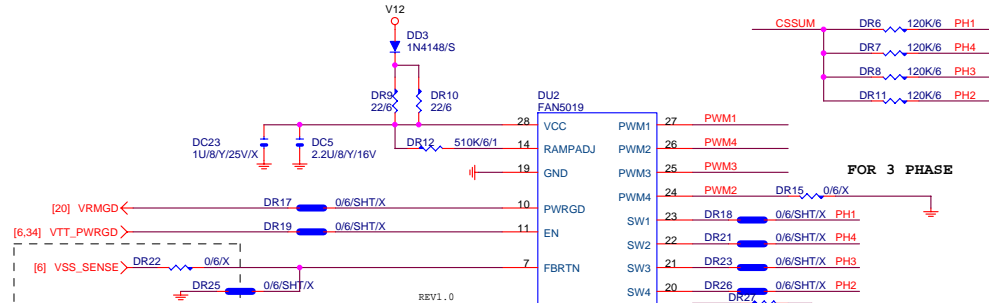
走solder side



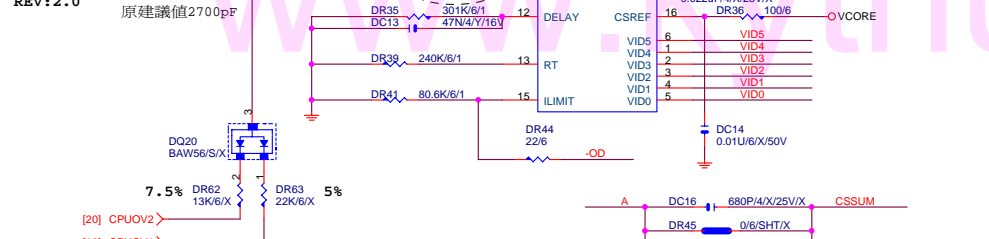
DEFAULT POP (560Ux7; 3300UFx3) MOSFET改成上一下四相



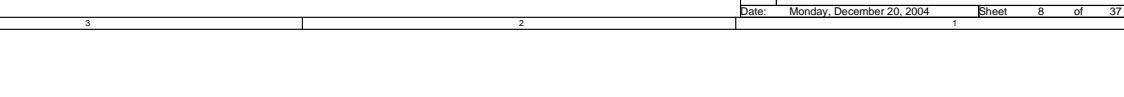
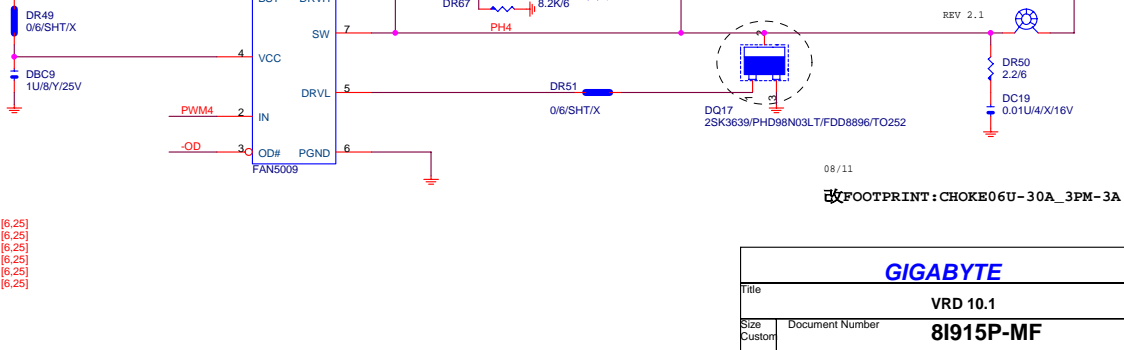
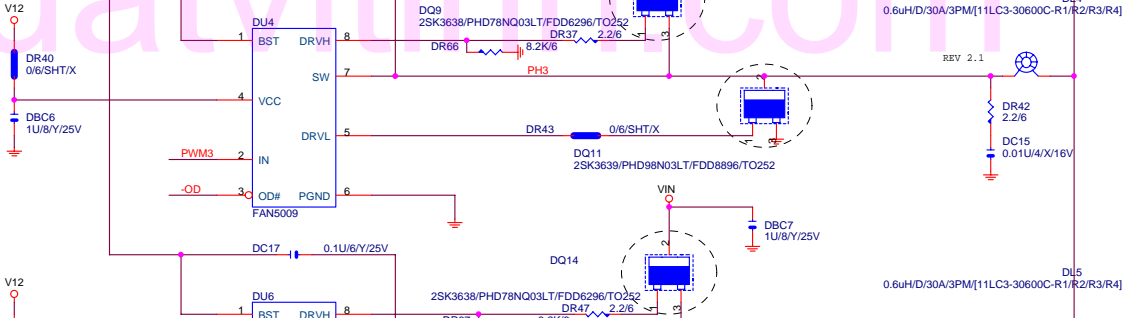
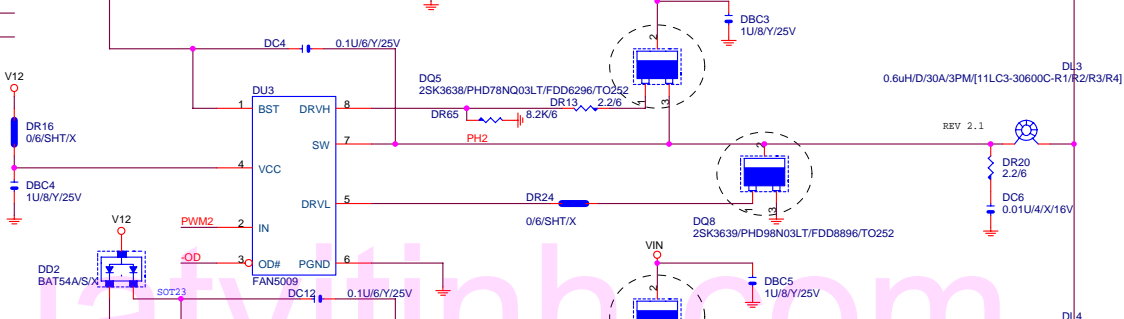
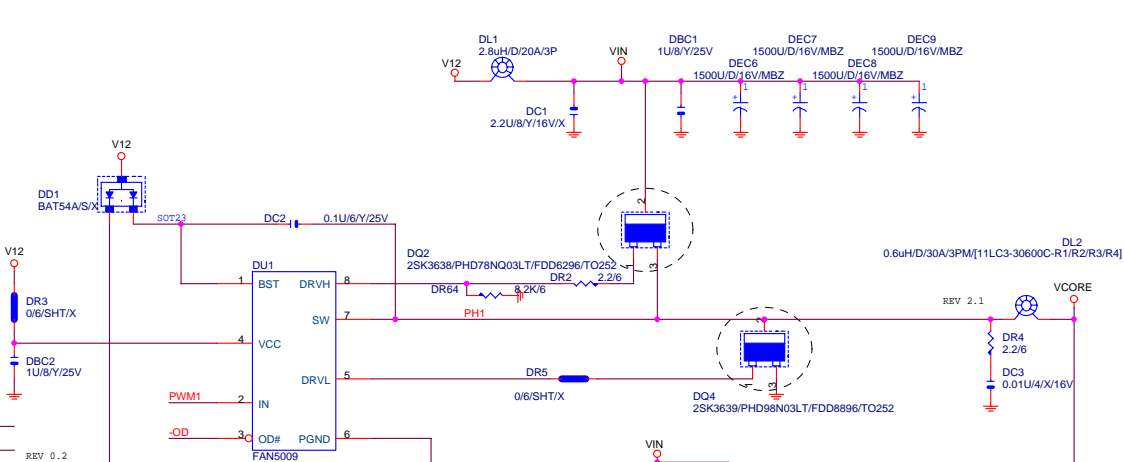
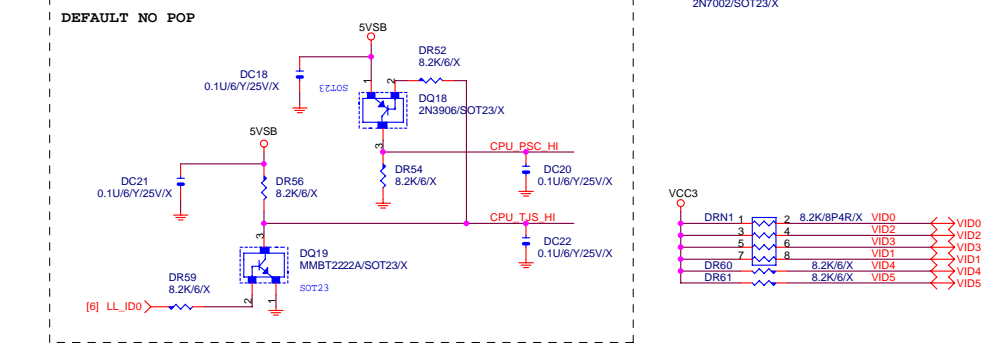
REMOVE DEC13 FOR FAN 機構
 3300U/D/6.3V/SANYO
 DEC12 560U/4V/89/CHEMICON[11CO4-885600-01/02]
 DEC11 560U/4V/89/CHEMICON[11CO4-885600-01/02]
 DEC10 560U/4V/89/CHEMICON[11CO4-885600-01/02]



FOR 3 PHASE
 DR6 120K/6 PH1
 DR7 120K/6 PH4
 DR8 120K/6 PH3
 DR11 120K/6 PH2

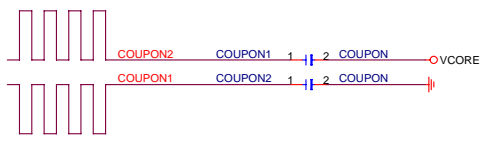
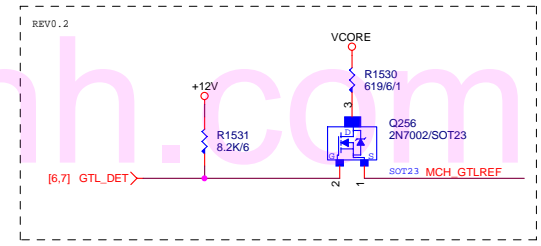
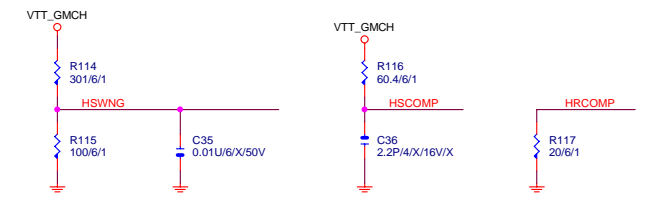
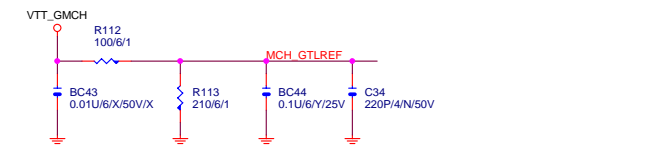
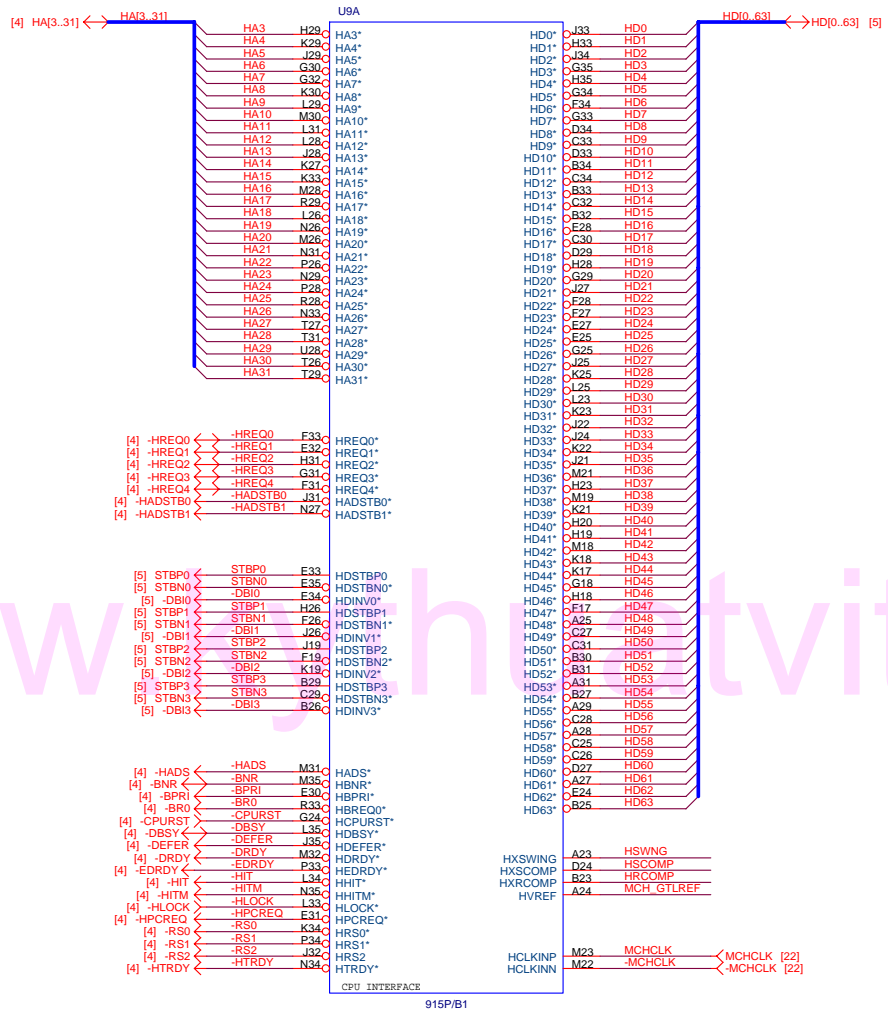


REV: 2.0
 原建議值2700pF
 DR17 0/6/SHT/X
 DR19 0/6/SHT/X
 DR22 0/6/X
 DR25 0/6/SHT/X
 DR28 0/6/X
 DR32 0/6/SHT/X
 DR35 1K/6/1
 DR38 240K/6/1
 DR41 80.6K/6/1
 DR44 22/6
 DR45 0/6/SHT/X
 DR62 13K/6/X
 DR63 22K/6/X



08/11
 FOOTPRINT: CHOKE06U-30A_3PM-3A

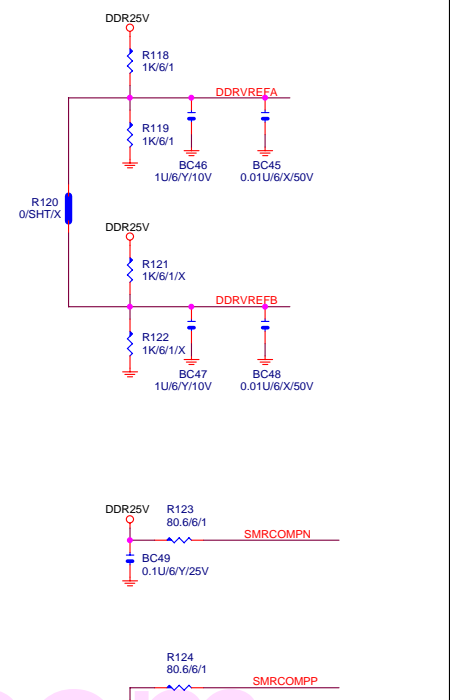
GIGABYTE	
VRD 10.1	
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GIGABYTE		
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U9E		U9F	
MAAA0 AN22	SAMA0	SADQ50	AG1 DQSA0
MAAA1 AP22	SAMA1	RSV	AG2 DMA0
MAAA2 AN21	SAMA2	SADQ0	AE3 MDA0
MAAA3 AP21	SAMA3	SADQ1	AE2 MDA1
MAAA4 AP21	SAMA4	SADQ2	AJ2 MDA2
MAAA5 AR20	SAMA5	SADQ3	AE2 MDA3
MAAA6 AR20	SAMA6	SADQ4	AE1 MDA4
MAAA7 AN16	SAMA7	SADQ5	AE1 MDA5
MAAA8 AN15	SAMA8	SADQ6	AG3 MDA6
MAAA9 AN15	SAMA9	SADQ7	AH3 MDA7
MAAA10 AN23	SAMA10		
MAAA11 AP15	SAMA11	SADQ51	AL3 DQSA1
MAAA12 AP13	SAMA12	RSV	AL2 DMA1
	RSV	SADQ52	AL1 MDA8
[15,17] -SWEA <-SWEA AP31C	SAWE*	SADQ53	AK2 MDA9
[15,17] -SCASA <-SCASA AL34C	SACAS*	SADQ54	AN4 MDA10
[15,17] -SRASA <-SRASA AN29C	SARAS*	SADQ55	AP4 MDA11
		SADQ56	AJ3 MDA12
[15,17] SBAA0 <-SBAA0 AN28	SABA0	SADQ57	AK3 MDA13
[15,17] SBAA1 <-SBAA1 AP26	SABA1	SADQ58	AP2 MDA14
	RSV	SADQ59	AP3 MDA15
		SADQ60	AP7 DQSA2
[15,17] CSA0 <-CSA0 AM34C	SACS0*	RSV	AN7 DMA2
[15,17] CSA1 <-CSA1 AL35C	SACS1*	SADM2	AP6 MDA16
[15,17] CSA2 <-CSA2 AK34C	SACS2*	SADQ16	AR5 MDA17
[15,17] CSA3 <-CSA3 AL33C	SACS3*	SADQ17	AN8 MDA18
		SADQ18	AP9 MDA19
[15,17] CKEA0 <-CKEA0 AL12	SACKE0	SADQ19	AN5 MDA20
[15,17] CKEA1 <-CKEA1 AN11	SACKE1	SADQ20	AP6 MDA21
[15,17] CKEA2 <-CKEA2 AP11	SACKE2	SADQ21	AR8 MDA22
[15,17] CKEA3 <-CKEA3 AR11	SACKE3	SADQ22	AN9 MDA23
		SADQ23	AN9 MDA23
		SADQ24	AL17 DQSA3
		SADQ25	AG17 DMA3
		SADQ26	AH16 DMA3
		SADQ27	AK16 MDA24
		SADQ28	AL17 MDA25
		SADQ29	AD17 MDA26
		SADQ30	AF19 MDA27
		SADQ31	AF17 MDA28
		SADQ32	AJ17 MDA29
		SADQ33	AE19 MDA30
		SADQ34	AH18 MDA31
		SADQ35	AH18 MDA31
		SADQ36	AM30 DQSA4
		SADQ37	AL29 DMA4
		SADQ38	AK29 DMA4
		SADQ39	AK29 DMA4
		SADQ40	AK29 DMA4
		SADQ41	AK29 DMA4
		SADQ42	AK29 DMA4
		SADQ43	AK29 DMA4
		SADQ44	AK29 DMA4
		SADQ45	AK29 DMA4
		SADQ46	AK29 DMA4
		SADQ47	AK29 DMA4
		SADQ48	AK29 DMA4
		SADQ49	AK29 DMA4
		SADQ50	AK29 DMA4
		SADQ51	AK29 DMA4
		SADQ52	AK29 DMA4
		SADQ53	AK29 DMA4
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		SADQ56	AK29 DMA4
		SADQ57	AK29 DMA4
		SADQ58	AK29 DMA4
		SADQ59	AK29 DMA4
		SADQ60	AK29 DMA4
		SADQ61	AK29 DMA4
		SADQ62	AK29 DMA4
		SADQ63	AK29 DMA4
		SADQ64	AK29 DMA4
		SADQ65	AK29 DMA4
		SADQ66	AK29 DMA4
		SADQ67	AK29 DMA4
		SADQ68	AK29 DMA4
		SADQ69	AK29 DMA4
		SADQ70	AK29 DMA4
		SADQ71	AK29 DMA4
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		SADQ74	AK29 DMA4
		SADQ75	AK29 DMA4
		SADQ76	AK29 DMA4
		SADQ77	AK29 DMA4
		SADQ78	AK29 DMA4
		SADQ79	AK29 DMA4
		SADQ80	AK29 DMA4
		SADQ81	AK29 DMA4
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		SADQ86	AK29 DMA4
		SADQ87	AK29 DMA4
		SADQ88	AK29 DMA4
		SADQ89	AK29 DMA4
		SADQ90	AK29 DMA4
		SADQ91	AK29 DMA4
		SADQ92	AK29 DMA4
		SADQ93	AK29 DMA4
		SADQ94	AK29 DMA4
		SADQ95	AK29 DMA4
		SADQ96	AK29 DMA4
		SADQ97	AK29 DMA4
		SADQ98	AK29 DMA4
		SADQ99	AK29 DMA4
		SADQ100	AK29 DMA4

U9E		U9F	
MAAA0 AN22	SAMA0	SADQ50	AG1 DQSA0
MAAA1 AP22	SAMA1	RSV	AG2 DMA0
MAAA2 AN21	SAMA2	SADQ0	AE3 MDA0
MAAA3 AP21	SAMA3	SADQ1	AE2 MDA1
MAAA4 AP21	SAMA4	SADQ2	AJ2 MDA2
MAAA5 AR20	SAMA5	SADQ3	AE2 MDA3
MAAA6 AR20	SAMA6	SADQ4	AE1 MDA4
MAAA7 AN16	SAMA7	SADQ5	AE1 MDA5
MAAA8 AN15	SAMA8	SADQ6	AG3 MDA6
MAAA9 AN15	SAMA9	SADQ7	AH3 MDA7
MAAA10 AN23	SAMA10		
MAAA11 AP15	SAMA11	SADQ51	AL3 DQSA1
MAAA12 AP13	SAMA12	RSV	AL2 DMA1
	RSV	SADQ52	AL1 MDA8
[15,17] -SWEA <-SWEA AP31C	SAWE*	SADQ53	AK2 MDA9
[15,17] -SCASA <-SCASA AL34C	SACAS*	SADQ54	AN4 MDA10
[15,17] -SRASA <-SRASA AN29C	SARAS*	SADQ55	AP4 MDA11
		SADQ56	AJ3 MDA12
[15,17] SBAA0 <-SBAA0 AN28	SABA0	SADQ57	AK3 MDA13
[15,17] SBAA1 <-SBAA1 AP26	SABA1	SADQ58	AP2 MDA14
	RSV	SADQ59	AP3 MDA15
		SADQ60	AP7 DQSA2
[15,17] CSA0 <-CSA0 AM34C	SACS0*	RSV	AN7 DMA2
[15,17] CSA1 <-CSA1 AL35C	SACS1*	SADM2	AP6 MDA16
[15,17] CSA2 <-CSA2 AK34C	SACS2*	SADQ16	AR5 MDA17
[15,17] CSA3 <-CSA3 AL33C	SACS3*	SADQ17	AN8 MDA18
		SADQ18	AP9 MDA19
[15,17] CKEA0 <-CKEA0 AL12	SACKE0	SADQ19	AN5 MDA20
[15,17] CKEA1 <-CKEA1 AN11	SACKE1	SADQ20	AP6 MDA21
[15,17] CKEA2 <-CKEA2 AP11	SACKE2	SADQ21	AR8 MDA22
[15,17] CKEA3 <-CKEA3 AR11	SACKE3	SADQ22	AN9 MDA23
		SADQ23	AN9 MDA23
		SADQ24	AL17 DQSA3
		SADQ25	AG17 DMA3
		SADQ26	AH16 DMA3
		SADQ27	AK16 MDA24
		SADQ28	AL17 MDA25
		SADQ29	AD17 MDA26
		SADQ30	AF19 MDA27
		SADQ31	AF17 MDA28
		SADQ32	AJ17 MDA29
		SADQ33	AE19 MDA30
		SADQ34	AH18 MDA31
		SADQ35	AH18 MDA31
		SADQ36	AM30 DQSA4
		SADQ37	AL29 DMA4
		SADQ38	AK29 DMA4
		SADQ39	AK29 DMA4
		SADQ40	AK29 DMA4
		SADQ41	AK29 DMA4
		SADQ42	AK29 DMA4
		SADQ43	AK29 DMA4
		SADQ44	AK29 DMA4
		SADQ45	AK29 DMA4
		SADQ46	AK29 DMA4
		SADQ47	AK29 DMA4
		SADQ48	AK29 DMA4
		SADQ49	AK29 DMA4
		SADQ50	AK29 DMA4
		SADQ51	AK29 DMA4
		SADQ52	AK29 DMA4
		SADQ53	AK29 DMA4
		SADQ54	AK29 DMA4
		SADQ55	AK29 DMA4
		SADQ56	AK29 DMA4
		SADQ57	AK29 DMA4
		SADQ58	AK29 DMA4
		SADQ59	AK29 DMA4
		SADQ60	AK29 DMA4
		SADQ61	AK29 DMA4
		SADQ62	AK29 DMA4
		SADQ63	AK29 DMA4
		SADQ64	AK29 DMA4
		SADQ65	AK29 DMA4
		SADQ66	AK29 DMA4
		SADQ67	AK29 DMA4
		SADQ68	AK29 DMA4
		SADQ69	AK29 DMA4
		SADQ70	AK29 DMA4
		SADQ71	AK29 DMA4
		SADQ72	AK29 DMA4
		SADQ73	AK29 DMA4
		SADQ74	AK29 DMA4
		SADQ75	AK29 DMA4
		SADQ76	AK29 DMA4
		SADQ77	AK29 DMA4
		SADQ78	AK29 DMA4
		SADQ79	AK29 DMA4
		SADQ80	AK29 DMA4
		SADQ81	AK29 DMA4
		SADQ82	AK29 DMA4
		SADQ83	AK29 DMA4
		SADQ84	AK29 DMA4
		SADQ85	AK29 DMA4
		SADQ86	AK29 DMA4
		SADQ87	AK29 DMA4
		SADQ88	AK29 DMA4
		SADQ89	AK29 DMA4
		SADQ90	AK29 DMA4
		SADQ91	AK29 DMA4
		SADQ92	AK29 DMA4
		SADQ93	AK29 DMA4
		SADQ94	AK29 DMA4
		SADQ95	AK29 DMA4
		SADQ96	AK29 DMA4
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		SADQ98	AK29 DMA4
		SADQ99	AK29 DMA4
		SADQ100	AK29 DMA4



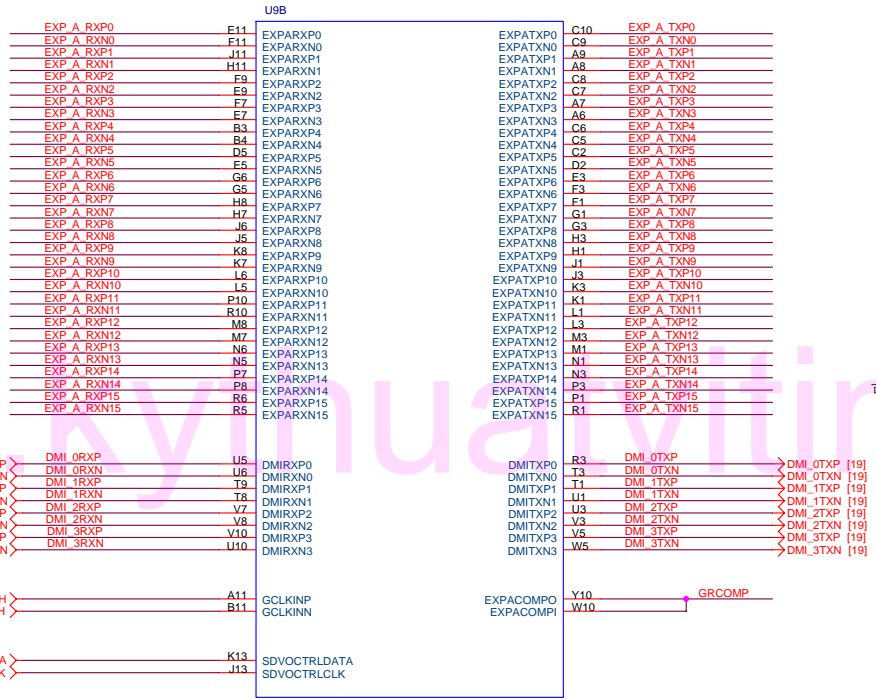
- [16,17] MAA[B].0.13 <-> MAA[B].13I
- [16,17] DM[B].0.7 <-> DM[B].7I
- [16,17] MD[B].0.63 <-> MD[B].63I
- [16,17] DQSB[.0.7] <-> DQSB[.7I
- [15,17] MAA[A].0.13 <-> MAA[A].13I
- [15,17] DMA[.0.7] <-> DMA[.7I
- [15,17] MDA[.0.63] <-> MDA[.63I
- [15,17] DQSA[.0.7] <-> DQSA[.7I

GIGABYTE

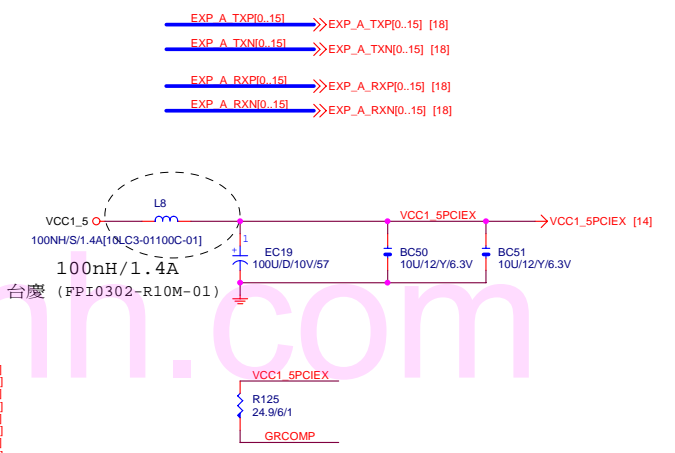
Title: **GMCH-DDR**

Size Custom Document Number: **81915P-MF** Rev: **2.2**

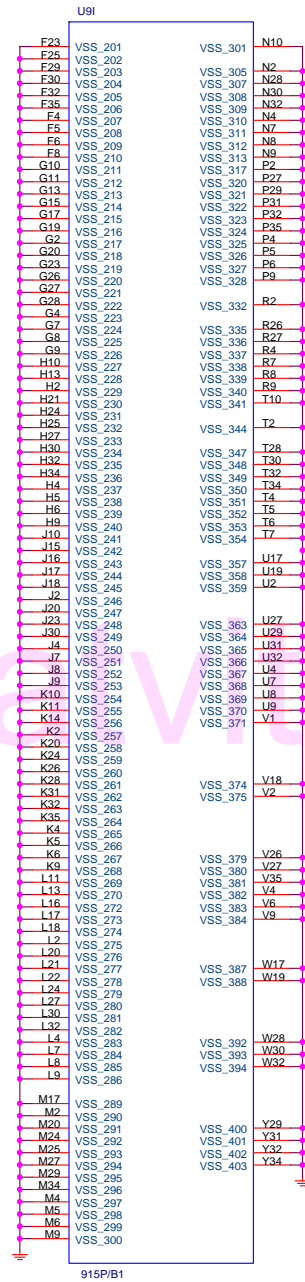
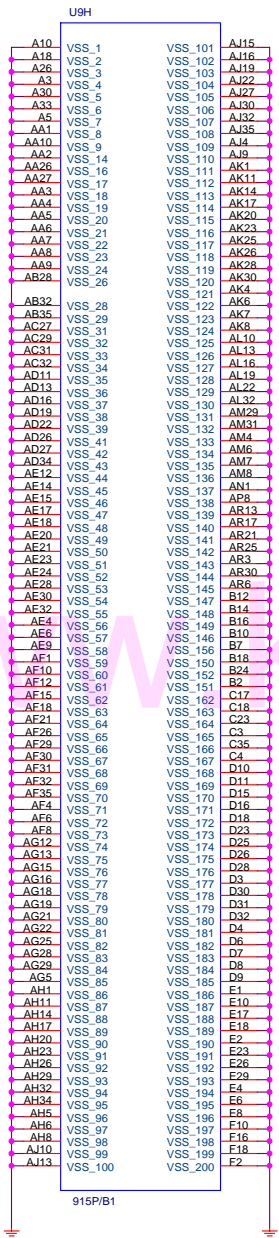
Date: Monday, December 20, 2004 Sheet 10 of 37



For DVO Function 915P/B1



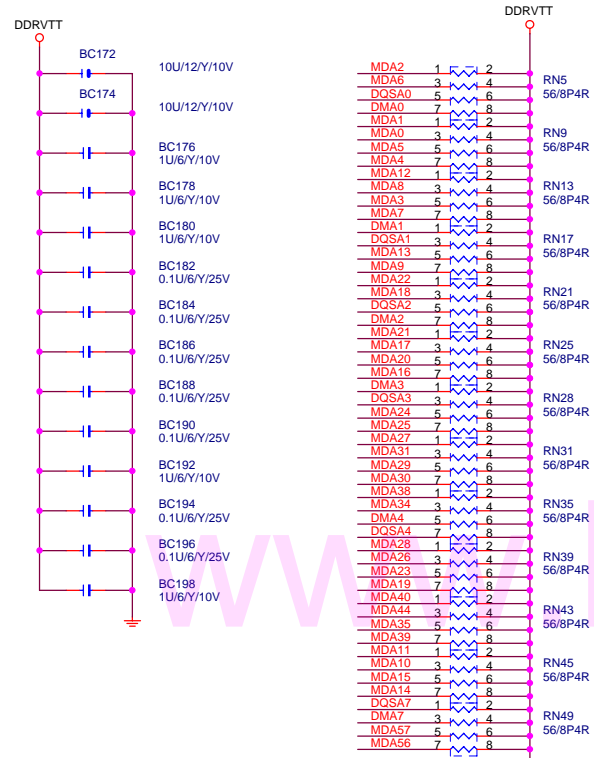
GIGABYTE		
Title GMCH-PCI E & DMI		
Size Custom	Document Number 8I915P-MF	Rev 2.2
Date: Monday, December 20, 2004	Sheet 11	of 37



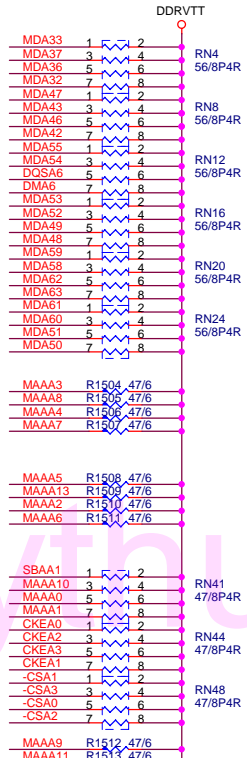
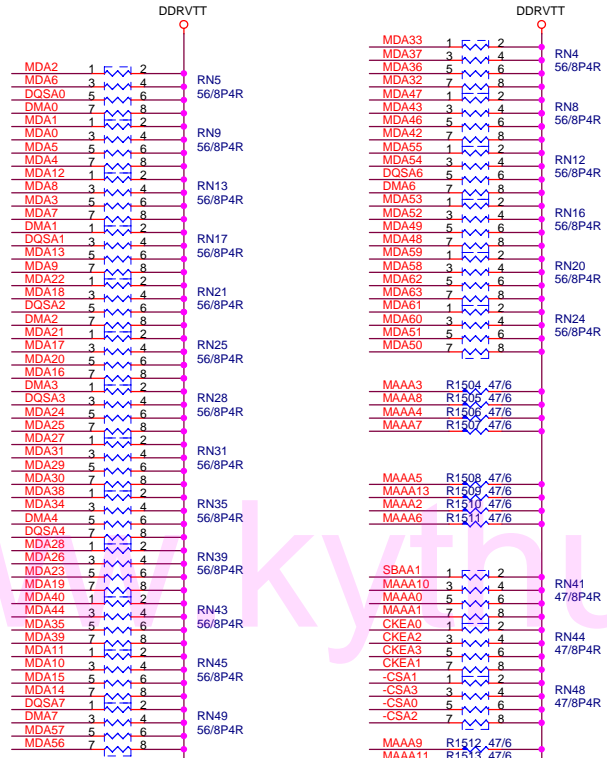
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GIGABYTE		
Title GMCH-GND		
Size Custom	Document Number 81915P-MF	Rev 2.2
Date: Monday, December 20, 2004	Sheet 13	of 37

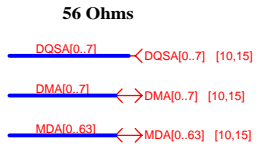
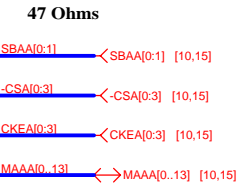
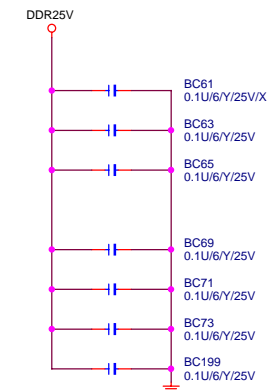
DDRVTT Decouple



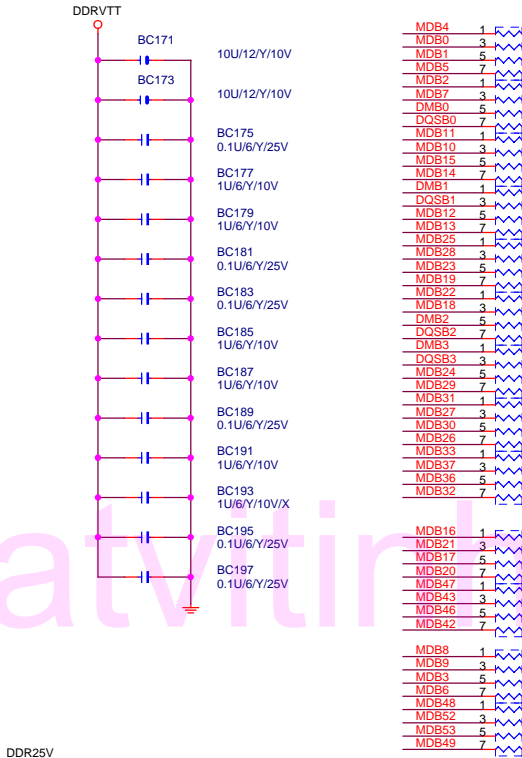
DDR TERMINATION
CHANNEL A



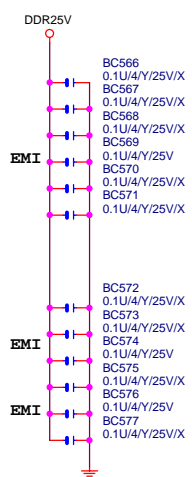
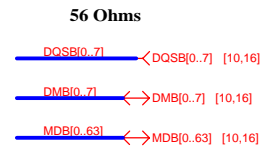
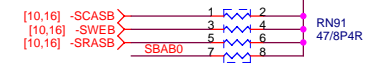
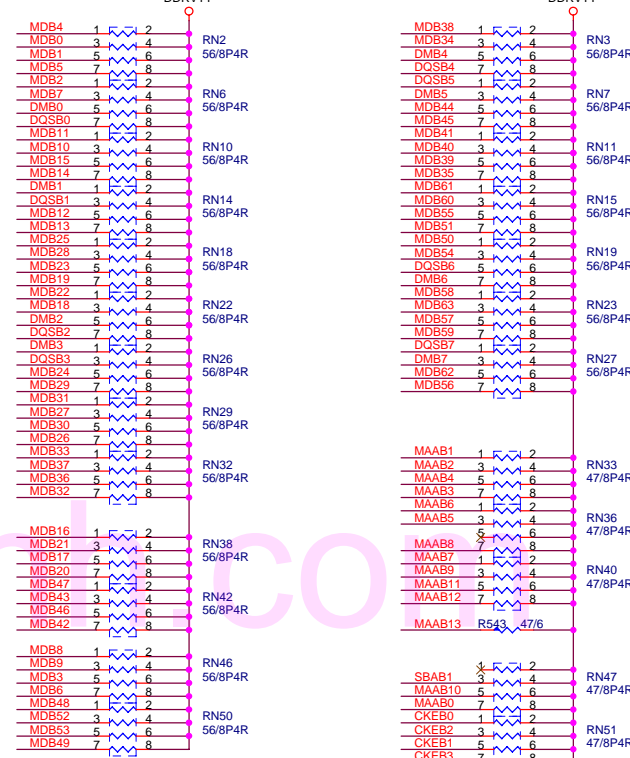
DDR25V Decouple



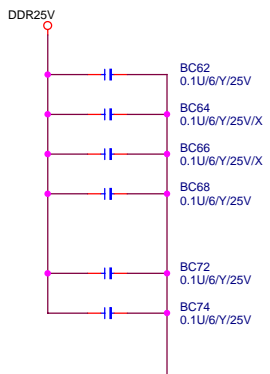
DDRVTT Decouple



DDR TERMINATION
CHANNEL B

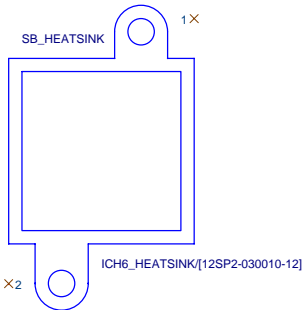
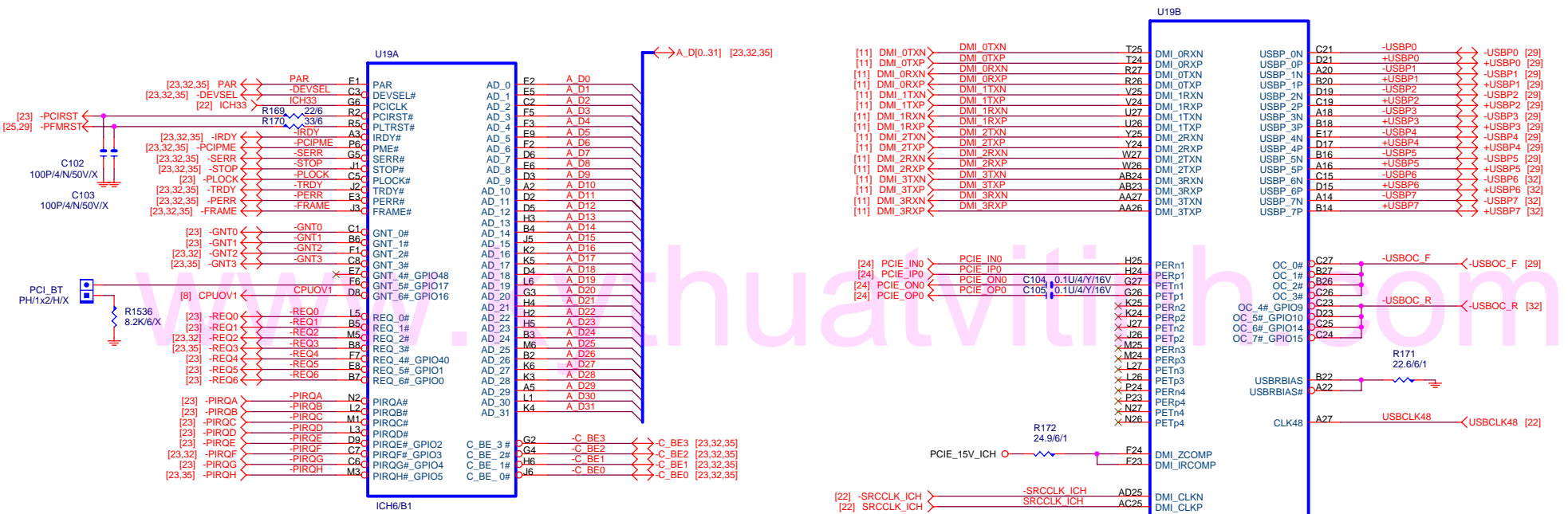


DDR25V Decouple

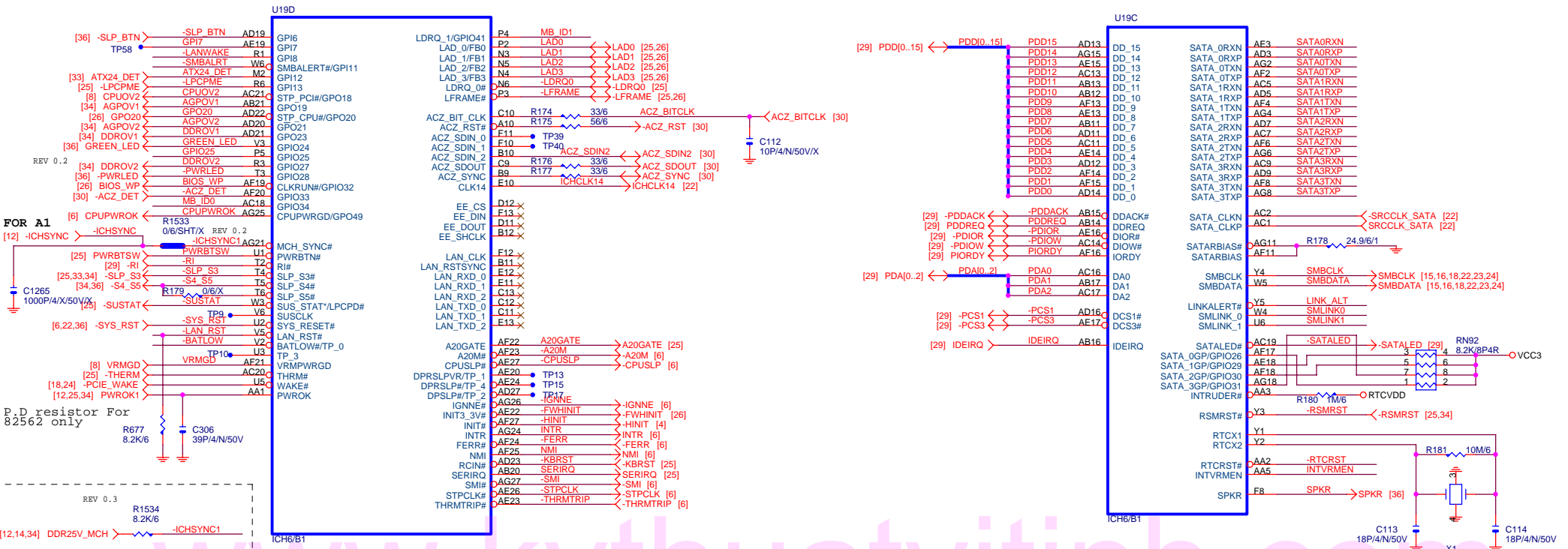


GIGABYTE		
DDR TERMINATOR		
Size B	Document Number	Rev 2.2
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DMI Connection Note
 GMCH TX Pin Need Connect to ICH6 RX Pin
 ICH6 TX Pin Need Connect to GMCH RX Pin

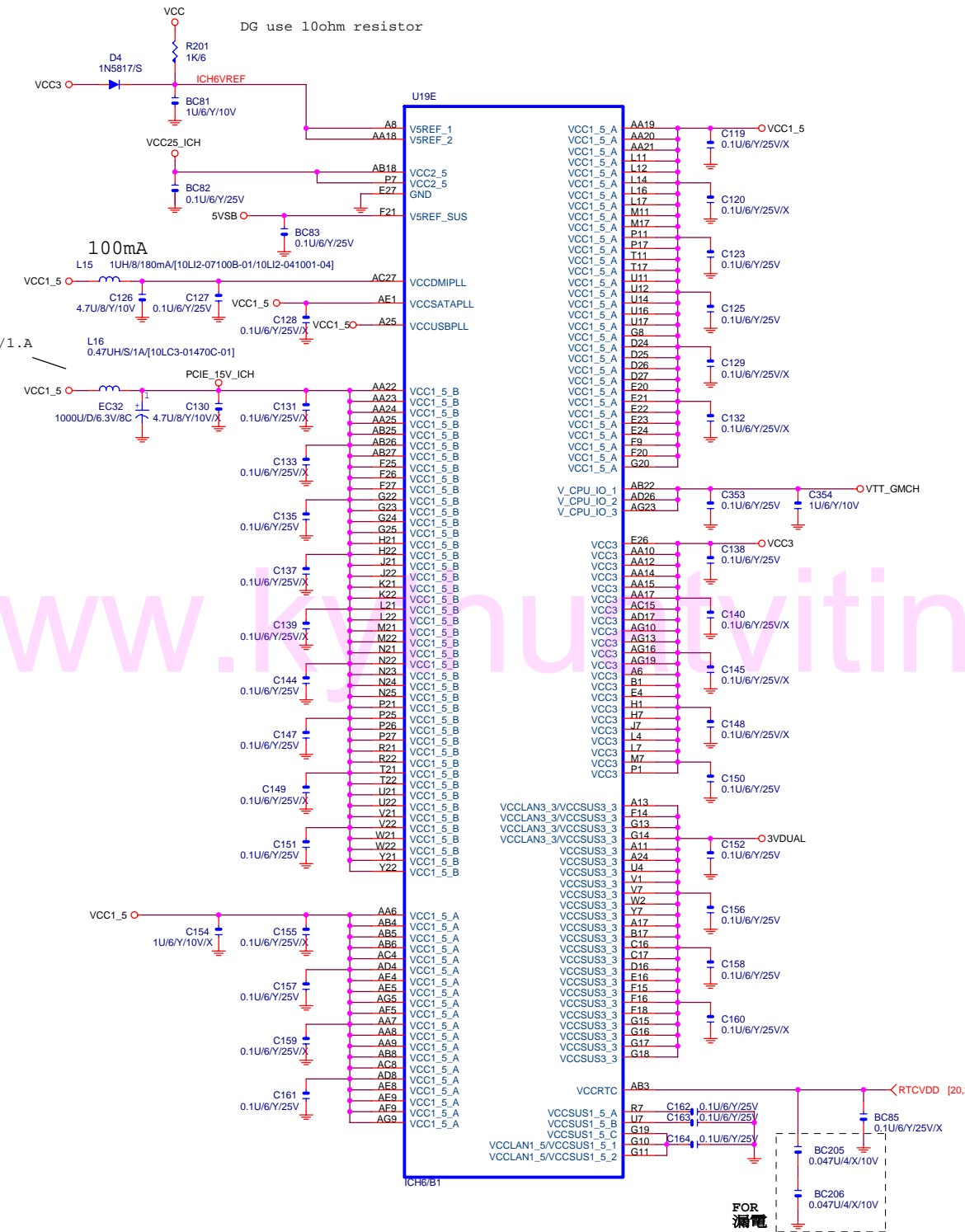


GIGABYTE		
Title		
ICH6-PCI, DMI, LAN, USB		
Size	Document Number	Rev
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台慶 0.47uH/1.A



A1	VSS1	G21
A12	VSS2	G7
A15	VSS3	VSS88
A19	VSS4	VSS89
A21	VSS5	VSS90
A23	VSS6	H26
A26	VSS7	H22
A4	VSS8	VSS91
A7	VSS9	VSS92
A9	VSS10	VSS93
AA11	VSS11	VSS94
AA13	VSS12	VSS95
AA4	VSS13	VSS96
AA4	VSS14	VSS97
AB1	VSS15	VSS98
AB10	VSS16	VSS99
AB19	VSS17	VSS100
AB2	VSS18	VSS101
AB7	VSS19	VSS102
AB9	VSS20	VSS103
AC10	VSS21	VSS104
AC12	VSS22	VSS105
AC22	VSS23	VSS106
AC23	VSS24	VSS107
AC24	VSS25	VSS108
AC6	VSS26	VSS109
AC6	VSS27	VSS110
AD1	VSS28	VSS111
AD10	VSS29	VSS112
AD15	VSS30	VSS113
AD18	VSS31	VSS114
AD2	VSS32	VSS115
AD2	VSS33	VSS116
AD24	VSS34	VSS117
AD6	VSS35	VSS118
AE10	VSS36	VSS119
AE11	VSS37	VSS120
AE12	VSS38	VSS121
AE2	VSS39	VSS122
AE21	VSS40	VSS123
AE25	VSS41	VSS124
AE6	VSS42	VSS125
AE7	VSS43	VSS126
AF1	VSS44	VSS127
AF12	VSS45	VSS128
AF26	VSS46	VSS129
AF3	VSS47	VSS130
AF7	VSS48	VSS131
AG1	VSS49	VSS132
AG14	VSS50	VSS133
AG17	VSS51	VSS134
AG20	VSS52	VSS135
AG22	VSS53	VSS136
AG3	VSS54	VSS137
AG7	VSS55	VSS138
B13	VSS56	VSS139
B15	VSS57	VSS140
B19	VSS58	VSS141
B21	VSS59	VSS142
B23	VSS60	VSS143
B25	VSS61	VSS144
C14	VSS62	VSS145
C18	VSS63	VSS146
C20	VSS64	VSS147
C22	VSS65	VSS148
C4	VSS66	VSS149
D1	VSS67	VSS150
D10	VSS68	VSS151
D13	VSS69	VSS152
D14	VSS70	VSS153
D18	VSS71	VSS154
D20	VSS72	VSS155
D22	VSS73	VSS156
D7	VSS74	VSS157
E14	VSS75	VSS158
E15	VSS76	VSS159
E18	VSS77	VSS160
E25	VSS78	VSS161
F17	VSS79	VSS162
F19	VSS80	VSS163
F22	VSS81	VSS164
F4	VSS82	VSS165
G1	VSS83	VSS166
G12	VSS84	VSS167
	VSS85	VSS168
	VSS86	VSS169
	VSS87	VSS170
	VSS88	VSS171

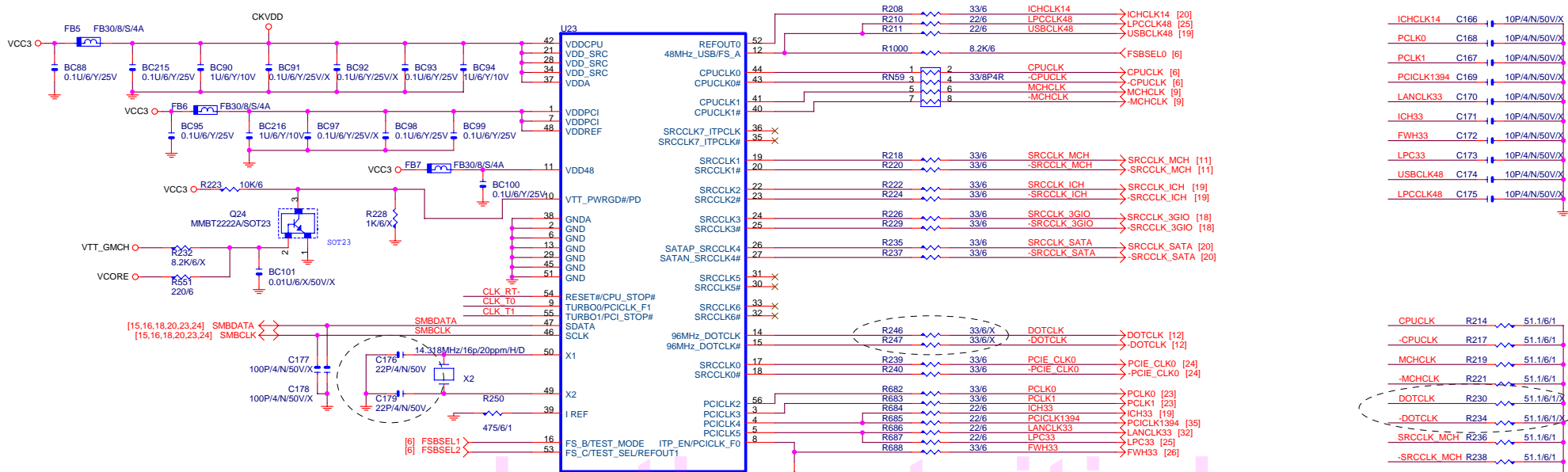
GIGABYTE

Title: ICH6-PWR & GND

Size B Document Number **81915P-MF** Rev **2.2**

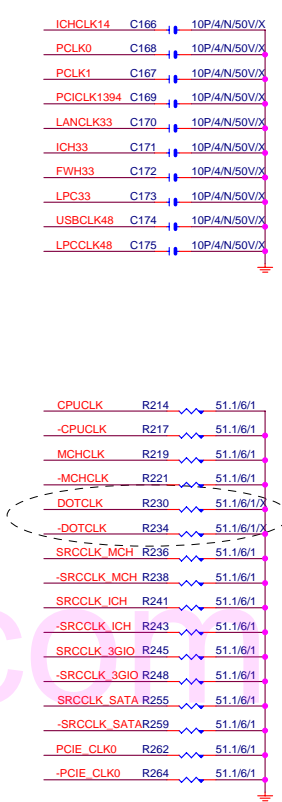
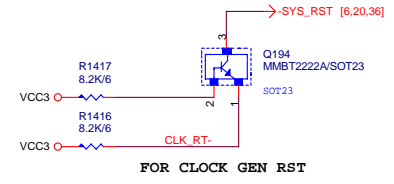
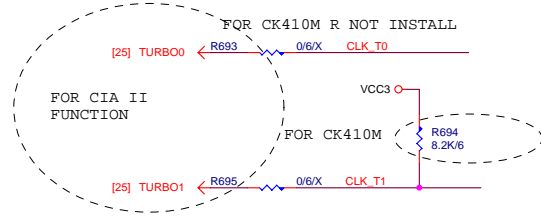
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FOR 漏電



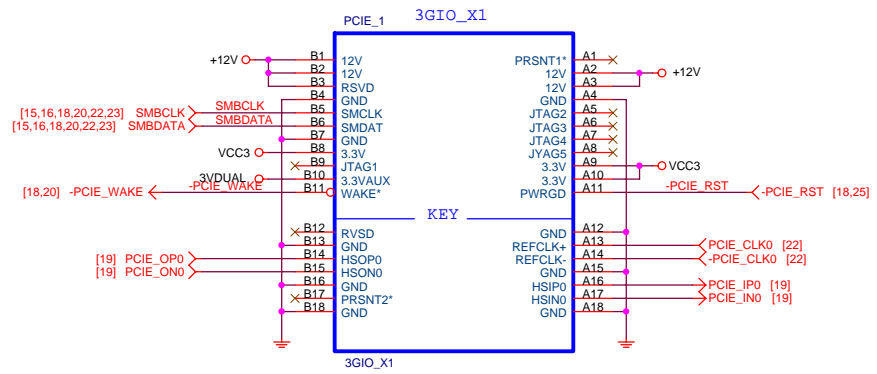
PIN9 (CLK_T0) : ICS954206
PULL-UP: 100MHZ (POP R693)

P.D --> PIN35/36 for SRCCLK7



GIGABYTE

Title			CK410M/GBT_CLK_GEN		
Size	Document Number		Rev		
Custom			81915P-MF	2.2	
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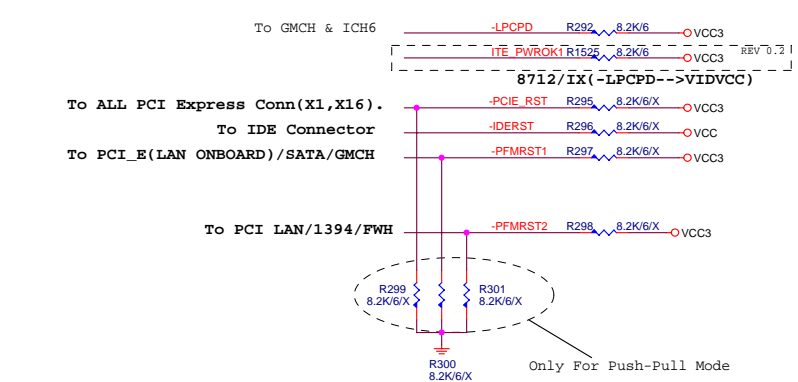
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GIGABYTE			
Title			
PCI E SLOT 1			
Size	Document Number	8I915P-MF	Rev
B			2.2
Date:	Monday, December 20, 2004	Sheet	24 of 37
	2		1

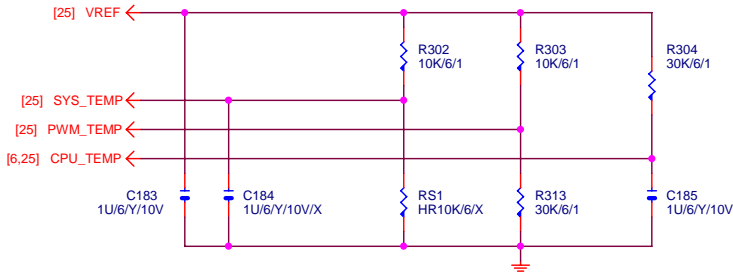
IT8712F/IX + Grantsdale schematic
 使用VID0-5 注意事項,也就是說SOUT(680 Ohm pull down)選擇 VID threshold 0.8/0.4

8712/IX(-LPCPD-->VIDVCC)-->FOR VID OUTPUT LEVEL USED(BUT VID OUTPUT會衝突CPU/PWM,目前不建議使用OUT,PULL-UP VCC3)

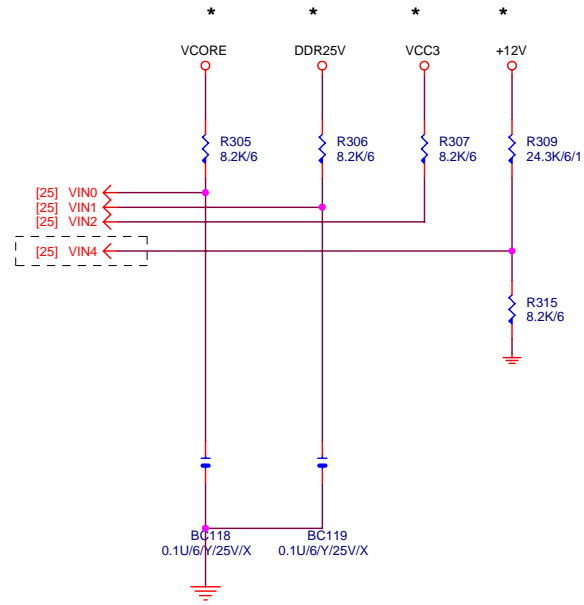
-PFMRST-> ICH6 TO IT8712/-IDERST INPUT
 PWROK1-> GMCH/ICH6/5VDUAL S.W



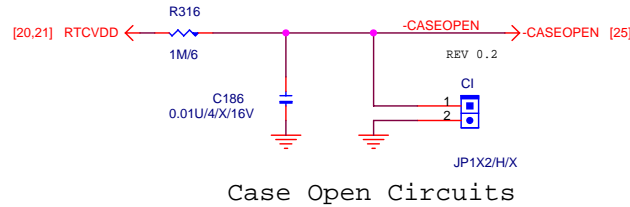
TEMP. SENSE



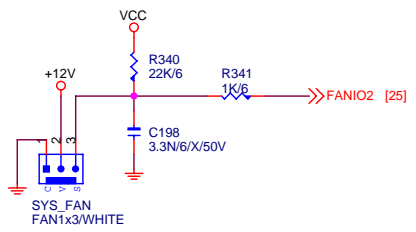
VOLTAGE SENSE



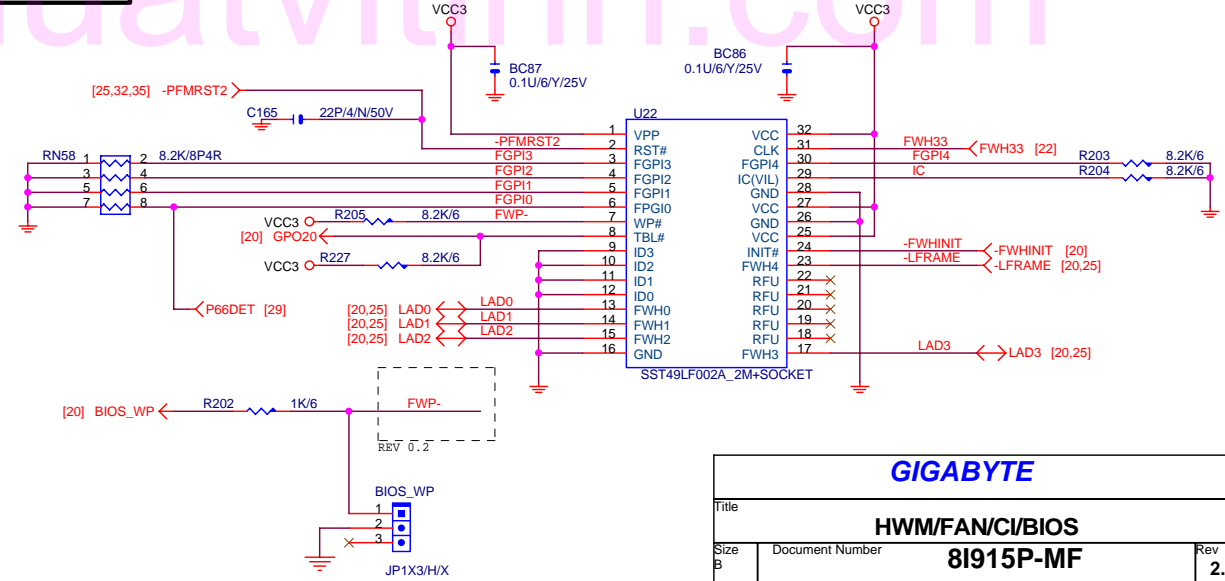
CASE OPEN (N/A)



SYS FAN

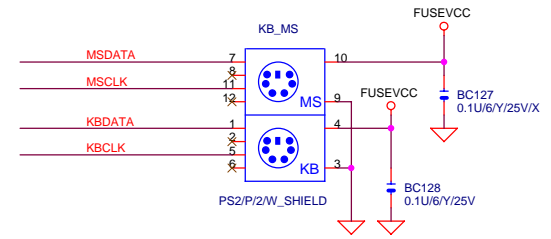
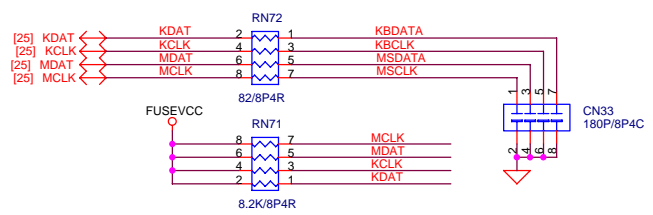


FWH BIOS



GIGABYTE		
Title		
HWM/FAN/CI/BIOS		
Size	Document Number	Rev
B	8I915P-MF	2.2
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KB/MS

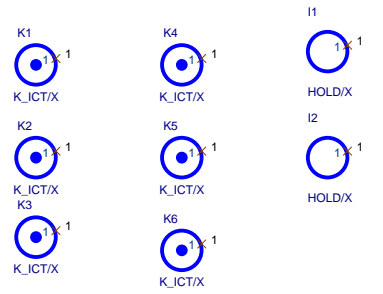
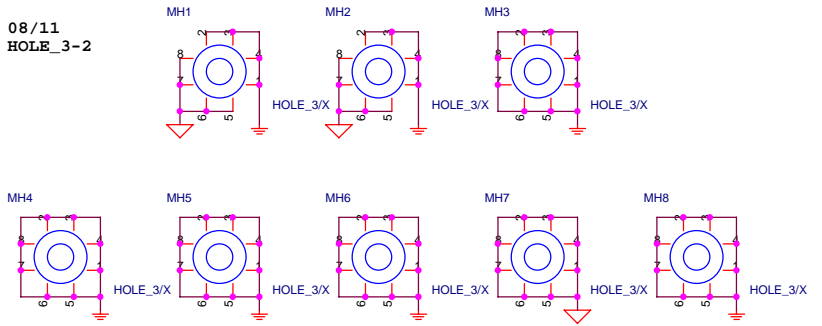


GAME PORT (N/A)

rev 0.4

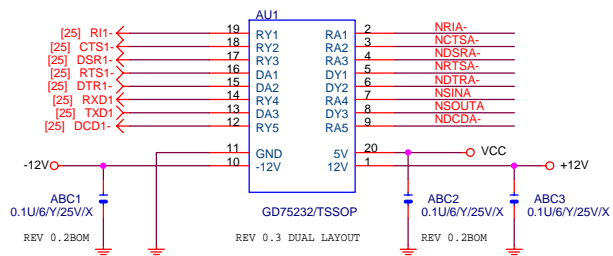
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08/11
HOLE_3-2

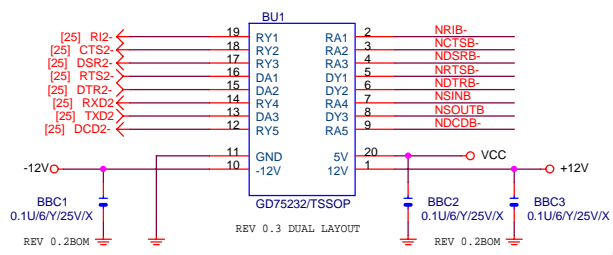


GIGABYTE		
Title		
PS/2 KB & MS		
Size	Document Number	Rev
B	8I915P-MF	2.2
Date:	Monday, December 20, 2004	Sheet 27 of 37

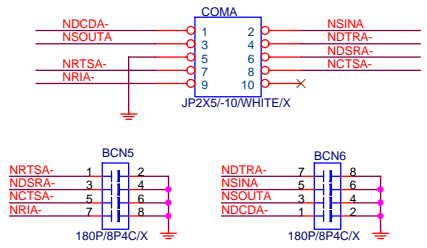
COMA / COMB



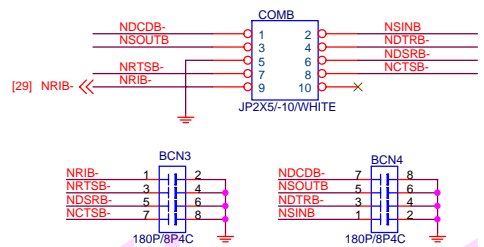
Foot Print Change



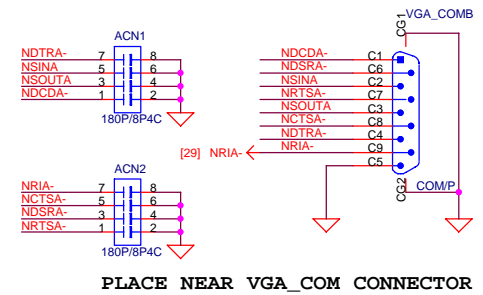
INTERNAL COMA rev 0.4



INTERNAL COMB



REAR COMA rev 0.4

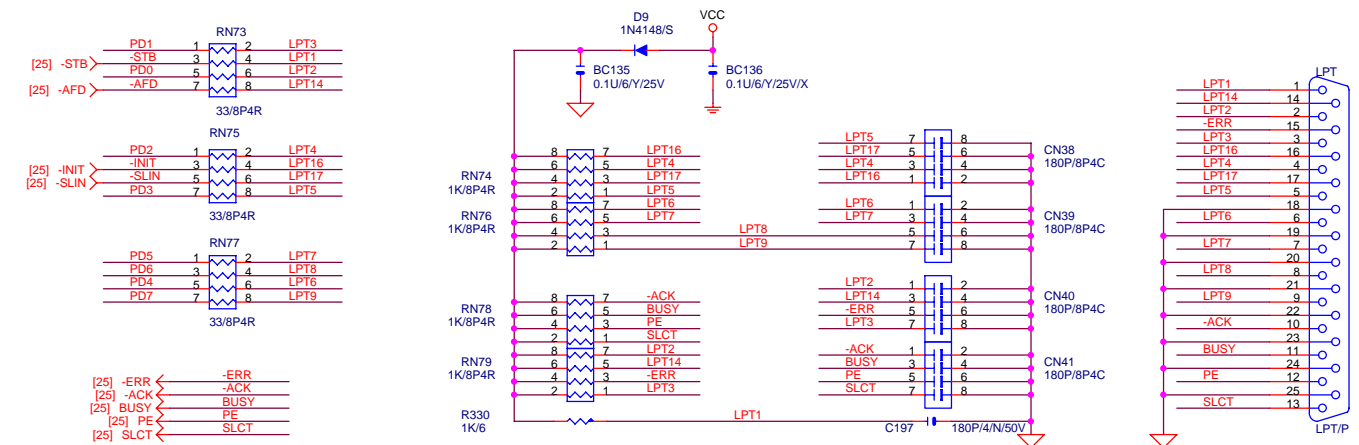


PLACE NEAR VGA_COM CONNECTOR

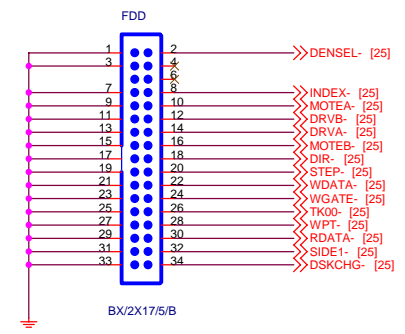
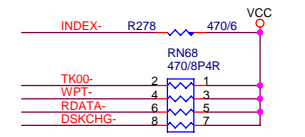
凡ATX系列 (含 NXP, PRO, Ultra, 戰鬥版, both 915P or 915G...) 只support 一個COM port.
 凡uATX系列 (含915P or 915G) 需support 兩個COM port

LPT

[25] PD[0..7] → PDI0..7

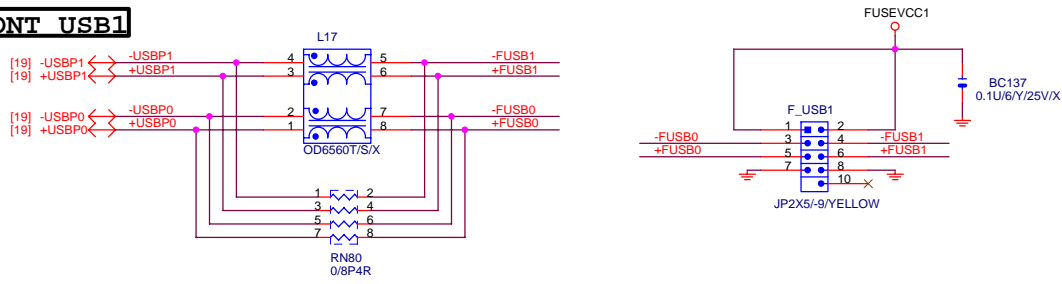


FLOPPY

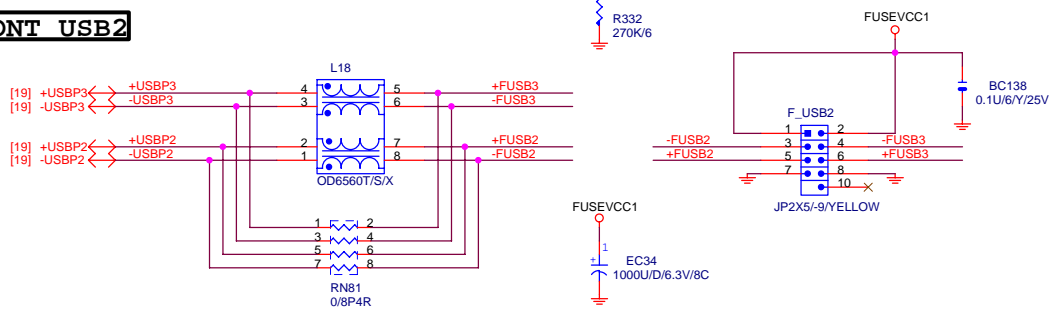


GIGABYTE		
Title COM, LPT, FDD		
Size B	Document Number 81915P-MF	Rev 2.2
Date: Monday, December 20, 2004	Sheet 28	of 37

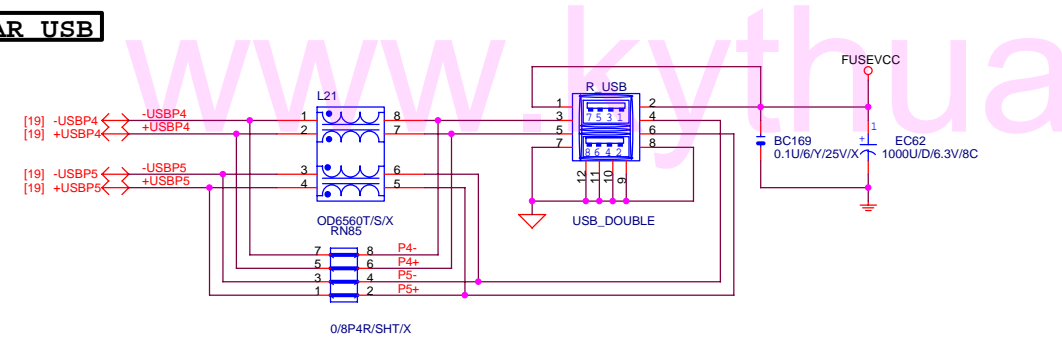
FRONT USB1



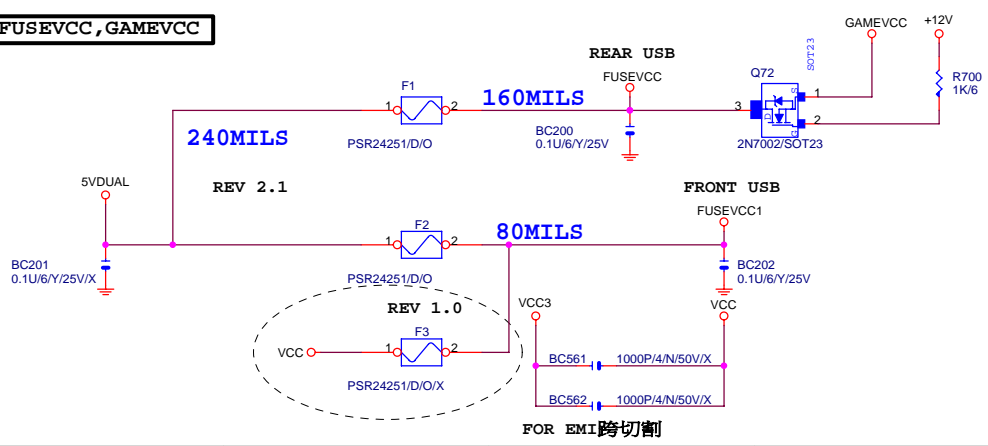
FRONT USB2



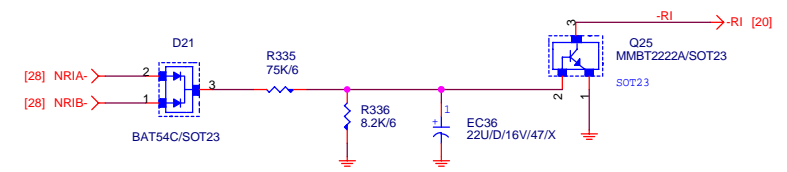
REAR USB



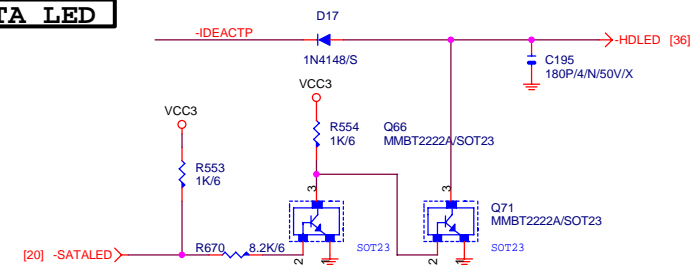
FUSEVCC, GAMEVCC



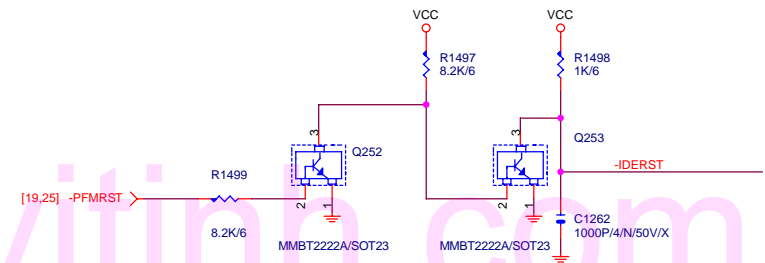
RING IN



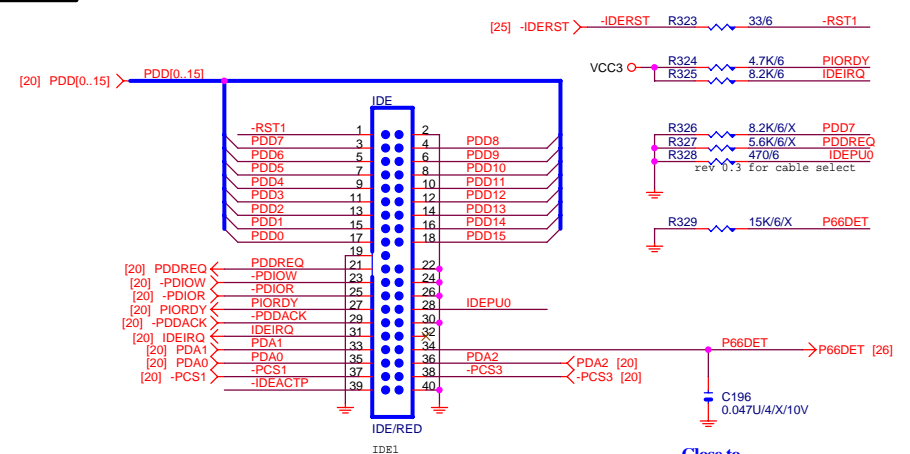
IDE/SATA LED



IDE RESET



IDE



PRIMARY IDE CONNECTOR

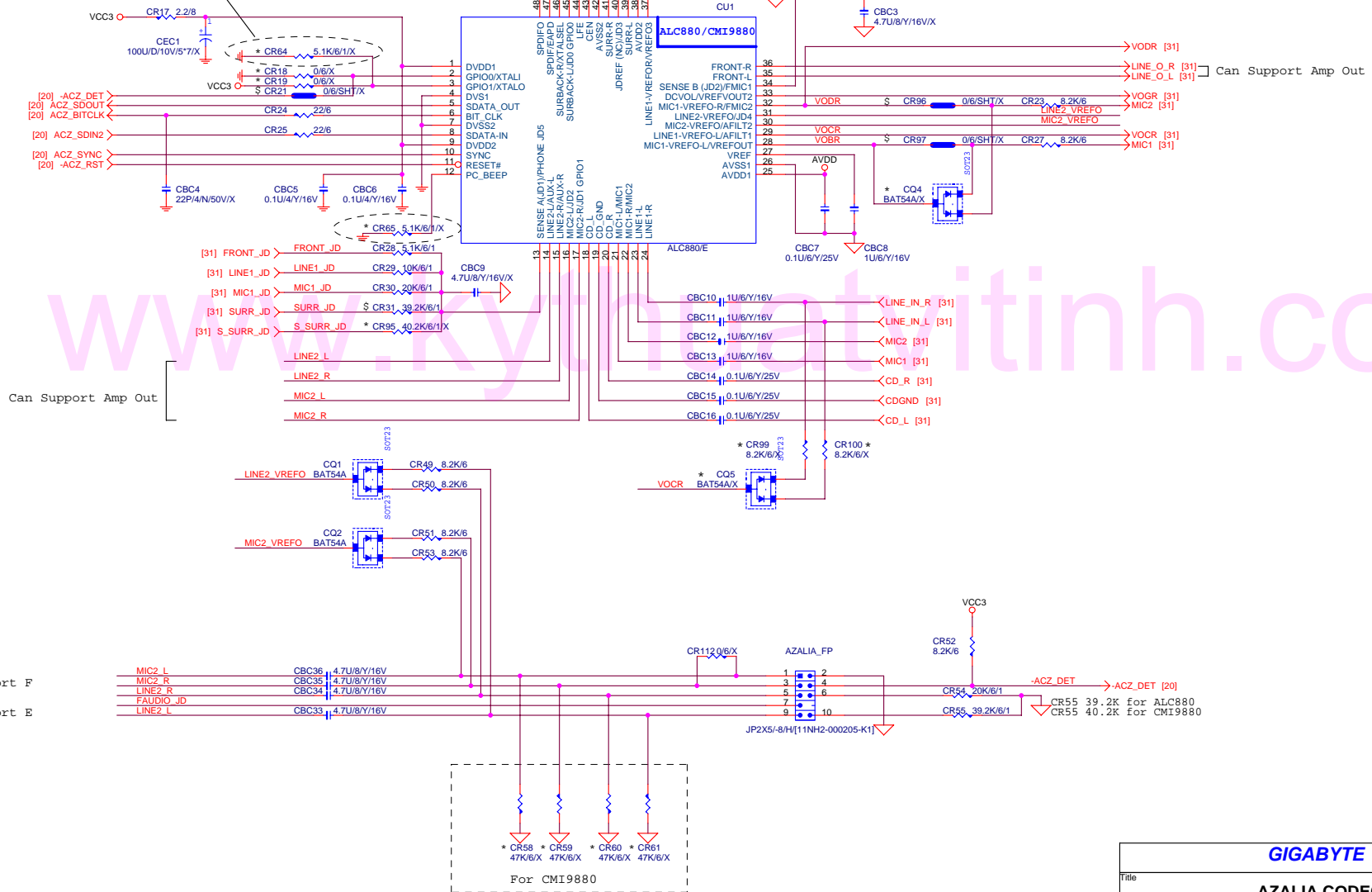
GIGABYTE		
Title FRONT/REAR USB CONNECTOR/IDE		
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FOR EMI 跨切割

"\$" means for ALC880 only
"*" means for CMI9880 only

For CMI9880 A3 version
CR64=N/A & CR65=5.1K/6/1
For ACM9880 A4 version
CR64=5.1K/6/1 & CR65=DNI

CR98=10ohm for ALC880
CR98=150ohm for CMI9880



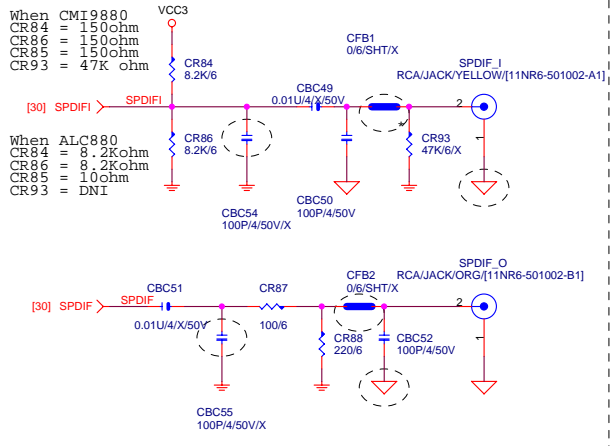
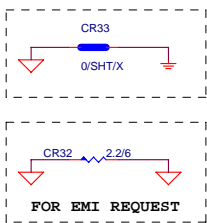
Azalia Port F
Azalia Port E

GIGABYTE

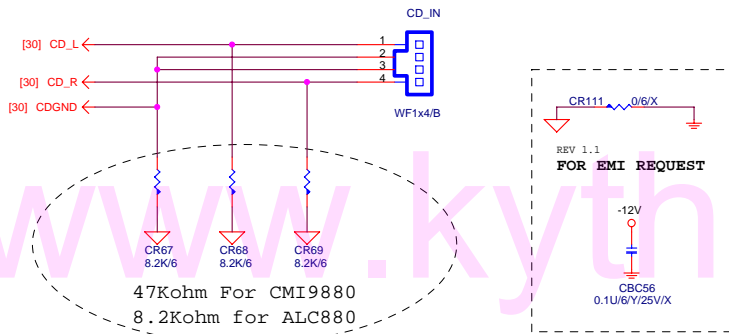
AZALIA CODEC

81915P-MF

Rev 2.2



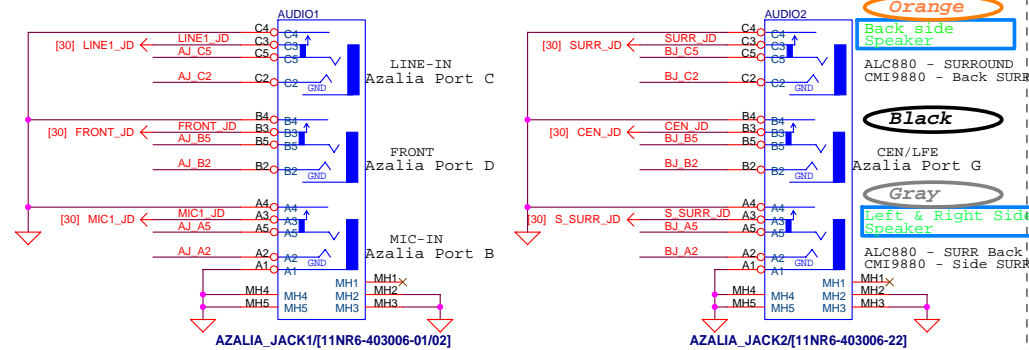
CD IN



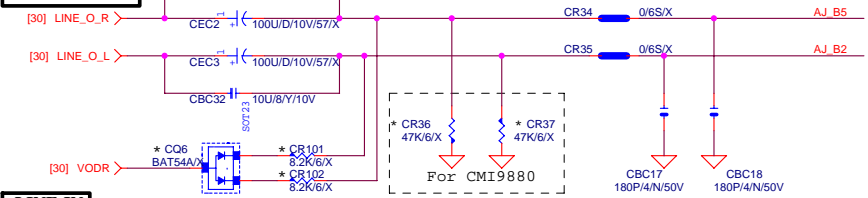
Azalia Jack

Normal ---> pin4/pin3 open
Plug jack ---> pin4/pin3 close

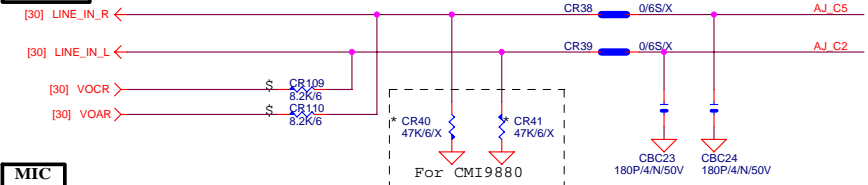
CMI9880 Port A is Side SURROUND, Port H is Back SURROUND
ALC880 Port A is SURROUND, Port H is SIDE



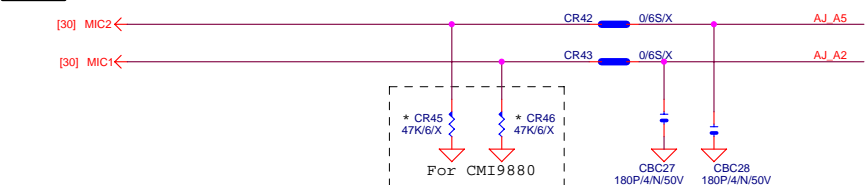
LINE OUT FRONT OUT



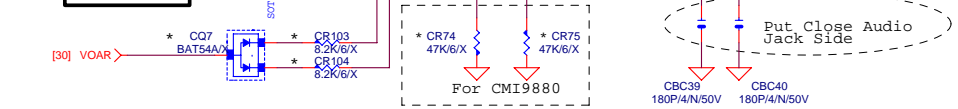
LINE-IN



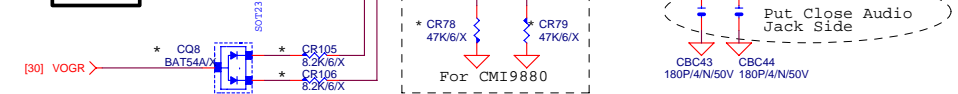
MIC



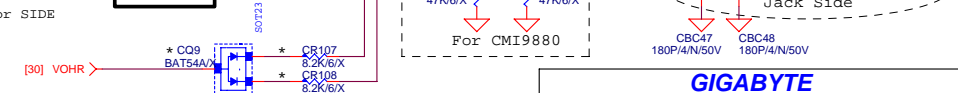
SURROUND



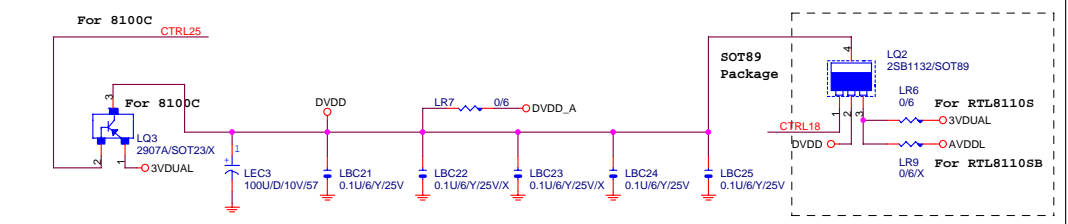
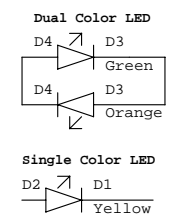
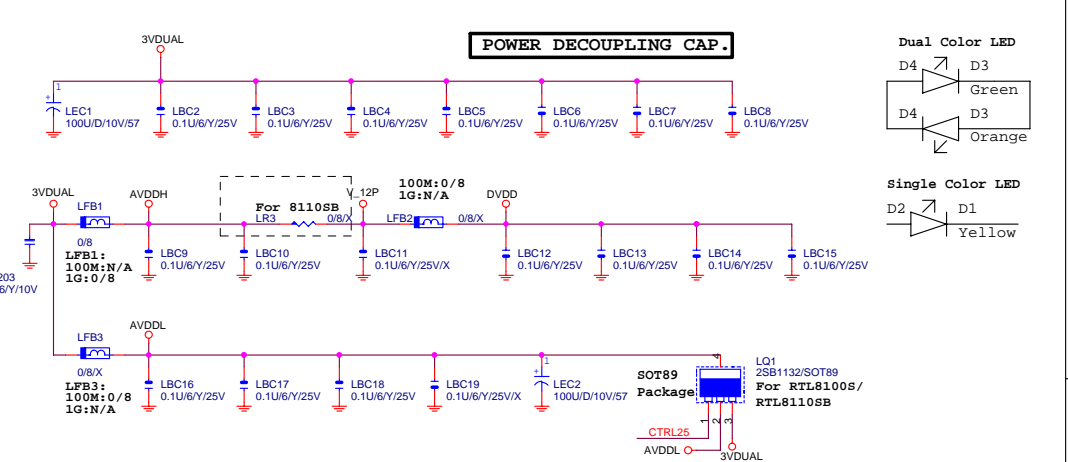
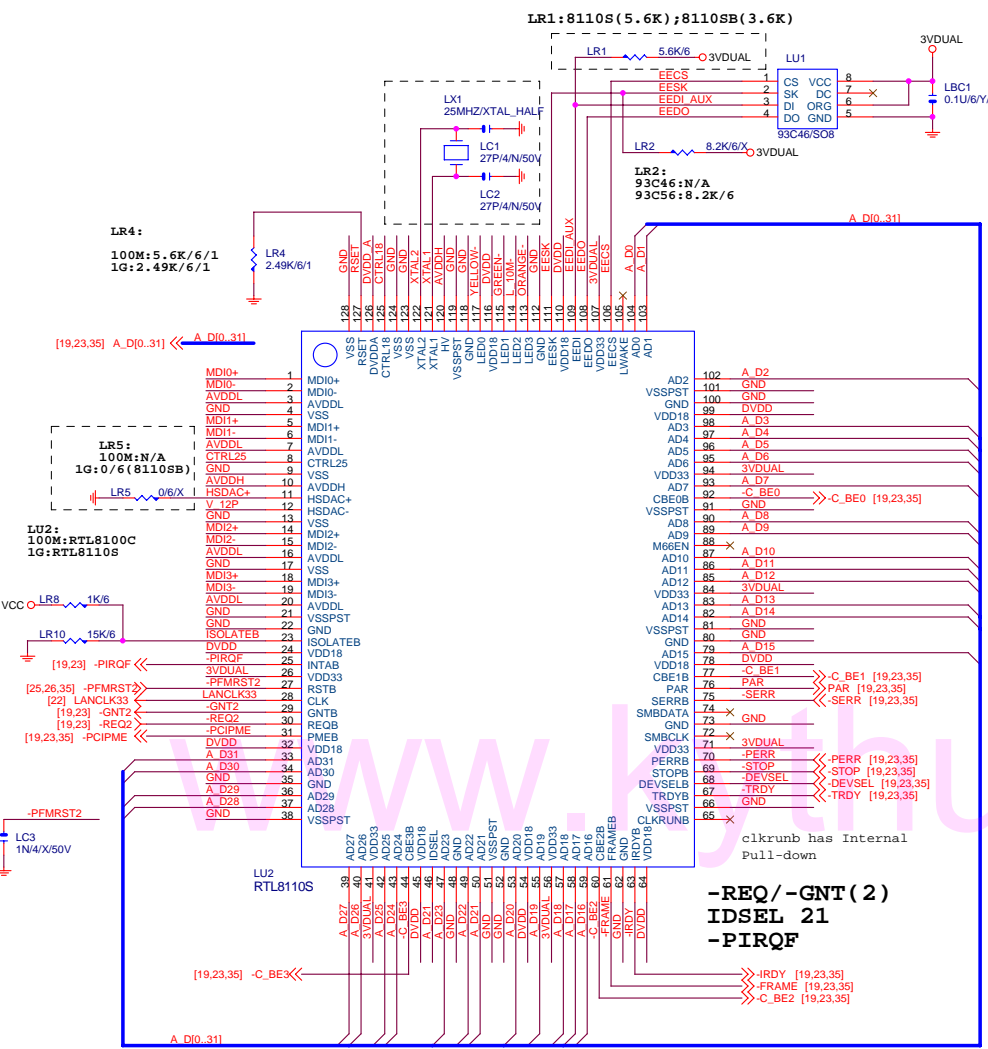
CEN/LFE



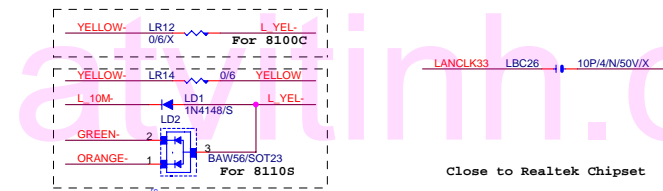
SURR BACK



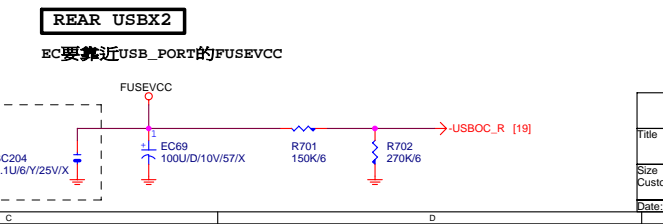
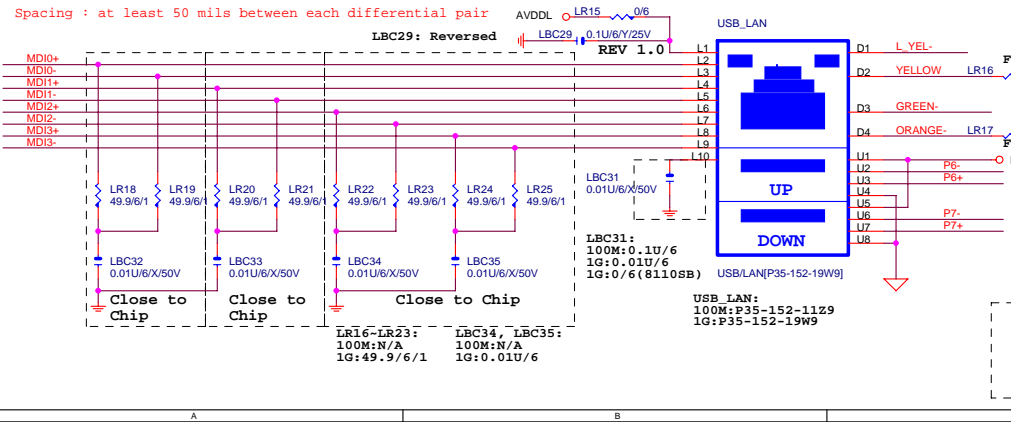
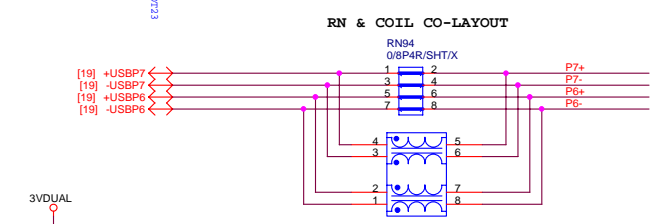
GIGABYTE		
AUDIO JACK		
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RTL8100C		Dual Color LED		
LINK	Speed	Yellow	Green	Orange
LINK	100Mb	ON		
	100Mb	ON		
ACTIVE	100Mb	Blink		
	100Mb	Blink		

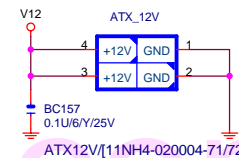
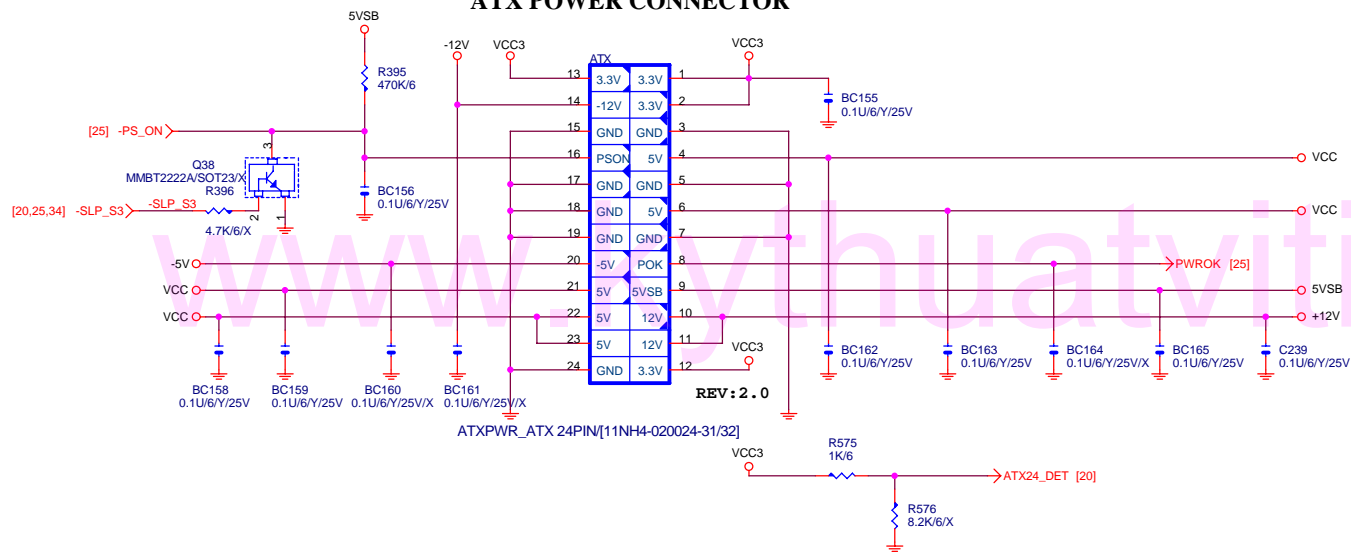


RTL8110S		Dual Color LED		
LINK/SPEED	Speed	Yellow	Green	Orange
LINK	100Mb	ON		
	100Mb	ON	ON	
ACTIVE	100Mb	Blink		
	100Mb	Blink		ON



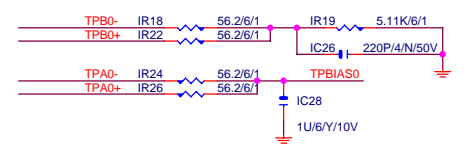
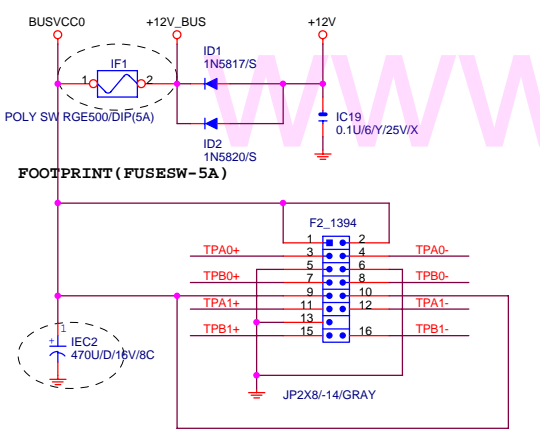
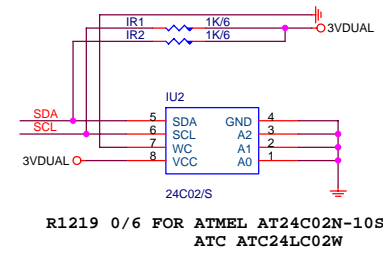
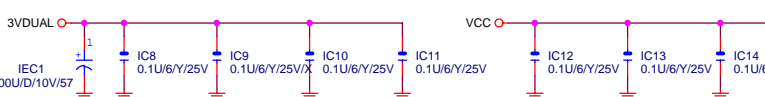
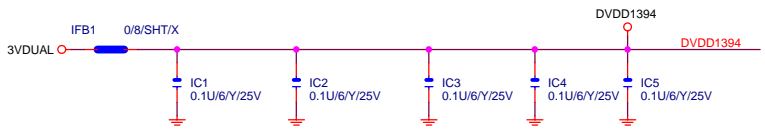
	10/100	Giga	Giga
	8100C	8110S	8110SB
AVDDH	N/A	3.3V	3.3V
V_12P	2.5V	N/A	3.3V
AVDDL	3.3V	2.5V	2.5V
V_DAC	N/A	2.5V	2.5V
DVDD	2.5V	1.8V	1.3V
DVDD_A	2.5V	1.8V	1.3V

ATX POWER CONNECTOR



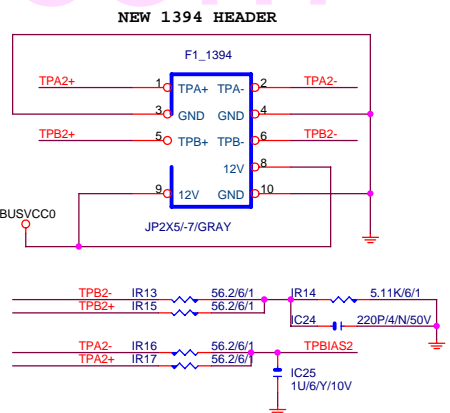
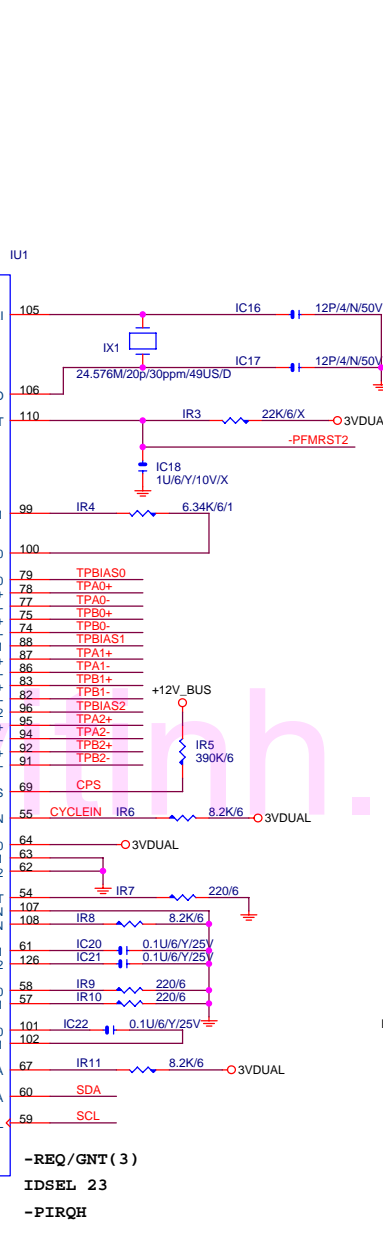
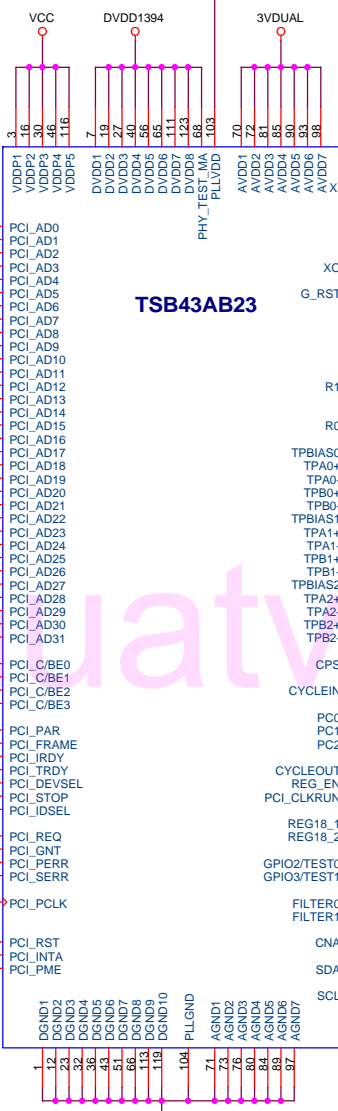
GIGABYTE

Title		
ATX POWER CONNECTOR		
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A D0	52	PCI_AD0
A D1	50	PCI_AD1
A D2	49	PCI_AD2
A D3	48	PCI_AD3
A D4	47	PCI_AD4
A D5	45	PCI_AD5
A D6	44	PCI_AD6
A D7	42	PCI_AD7
A D8	39	PCI_AD8
A D9	38	PCI_AD9
A D10	37	PCI_AD10
A D11	35	PCI_AD11
A D12	34	PCI_AD12
A D13	33	PCI_AD13
A D14	31	PCI_AD14
A D15	29	PCI_AD15
A D16	14	PCI_AD16
A D17	13	PCI_AD17
A D18	11	PCI_AD18
A D19	10	PCI_AD19
A D20	9	PCI_AD20
A D21	8	PCI_AD21
A D22	6	PCI_AD22
A D23	5	PCI_AD23
A D24	128	PCI_AD24
A D25	127	PCI_AD25
A D26	125	PCI_AD26
A D27	124	PCI_AD27
A D28	122	PCI_AD28
A D29	121	PCI_AD29
A D30	120	PCI_AD30
A D31	118	PCI_AD31
[19,23,32] -C_BE0	41	PCI_CBE0
[19,23,32] -C_BE1	28	PCI_CBE1
[19,23,32] -C_BE2	15	PCI_CBE2
[19,23,32] -C_BE3	2	PCI_CBE3
[19,23,32] PAR	26	PCI_PAR
[19,23,32] -FRAME	17	PCI_FRAME
[19,23,32] -IRDY	18	PCI_IRDY
[19,23,32] -TRDY	20	PCI_TRDY
[19,23,32] -DEVSEL	21	PCI_DEVSEL
[19,23,32] -STOP	22	PCI_STOP
A D23	4	PCI_IDSEL
[19,23] -REQ3	115	PCI_REQ
[19,23] -GNT3	114	PCI_GNT
[19,23,32] -PERR	24	PCI_PERR
[19,23,32] -SERR	25	PCI_SERR
[22] PCICLK1394	112	PCI_PCLK
PCI_RST	53	PCI_RST
PCI_INTA	109	PCI_INTA
PCI_PME	117	PCI_PME
DGND1	12	AGND1
DGND2	23	AGND2
DGND3	36	AGND3
DGND5	43	AGND5
DGND7	51	AGND7
DGND9	66	AGND9
DGND10	113	AGND10
PL LGND	104	
AGND1	71	AGND1
AGND2	72	AGND2
AGND3	80	AGND3
AGND4	84	AGND4
AGND6	89	AGND6
AGND7	97	AGND7

TSB43AB23

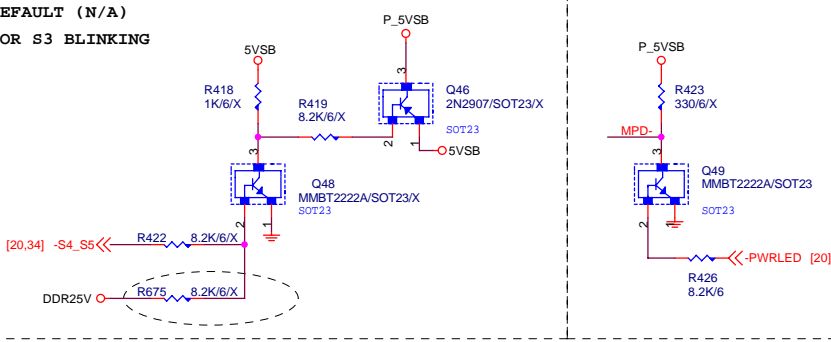
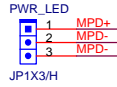


GIGABYTE		
Title		
TSB43AB23A 1394		
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INTEL FRONT PANEL

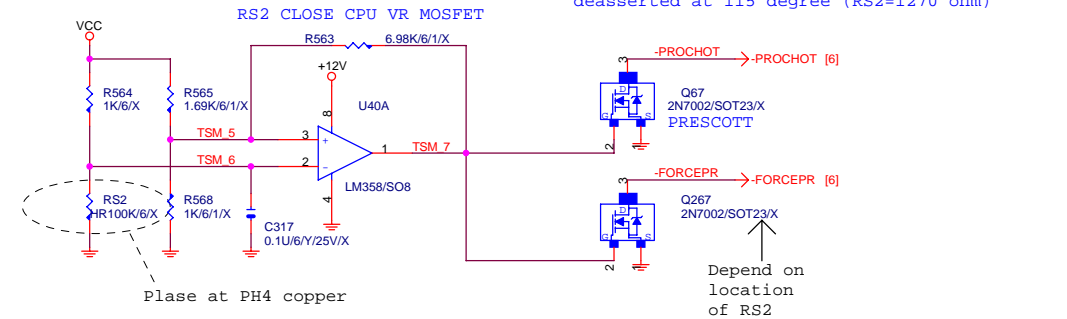
DEFAULT (N/A)
FOR S3 BLINKING

3 PIN POWER LED
LAYOUT PLACE CLOSE
TO F_PANEL

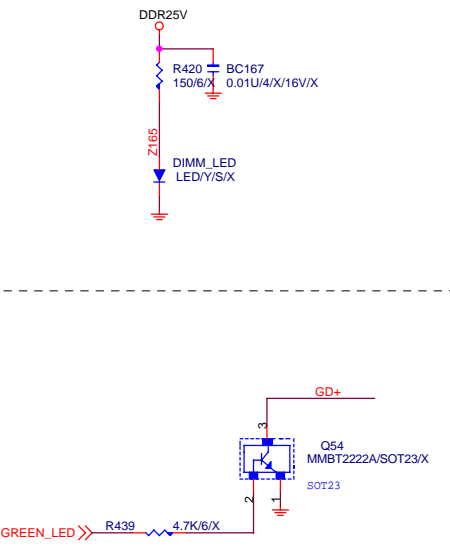
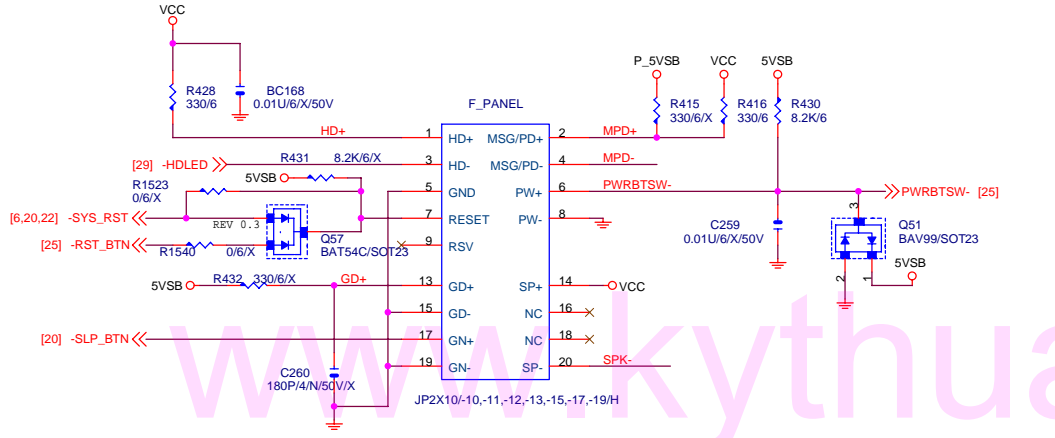
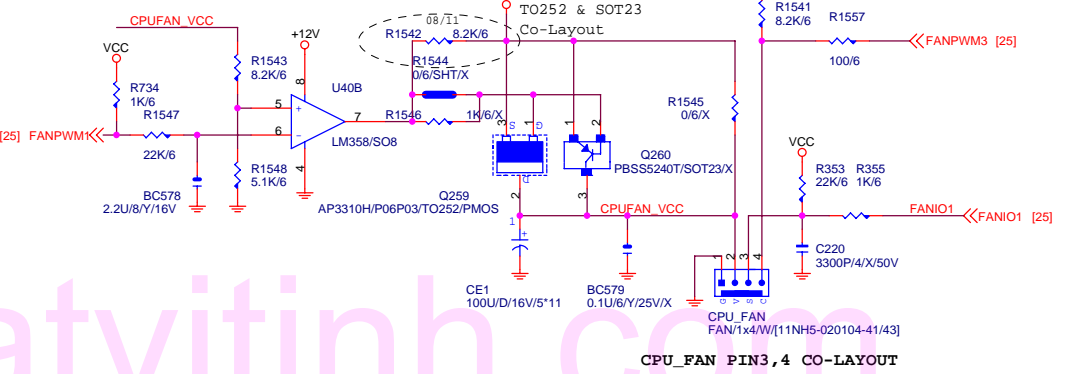


PROCESSOR HOT

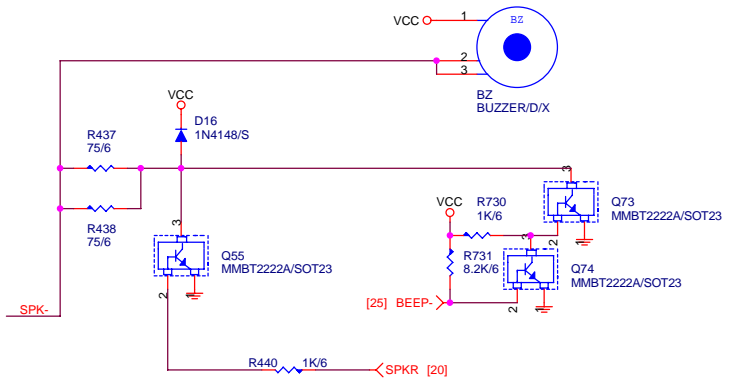
U-ATX PROCESSOR HOT NO POP asserted at 130 degree (RS2=720 ohm)
deasserted at 115 degree (RS2=1270 ohm)



ThermalTake FAN Power Consumption: 0.82A
Intel FAN Power Consumption Spec: 1.1A



BUZZER



States for green LED NO1 GPO22 only S1 PROGRAMMING LOW

LED States	ACPI States	GPIO28
ON	S1,S3	0
OFF	S0,S5	1

(GPIO22 DEFAULT HIGH, main power)

States for a single-color power LED

LED States	ACPI States	GPIO25	GPIO27	GPIO24
OFF	S1,S3,S5	1	1	NO1
Steady Green	S0	1	1	1
Blinking Green	S0(message waiting)	1	B	1

LED States	ACPI States	GPIO25	GPIO27	GPIO22
OFF	S5	1	1	X
Steady Green	S0	1	1	1
Blinking Green	S0(message waiting)	1	B	1
Steady Yellow	S1,S3	1	0	NO1
Blinking Yellow	S1,S3(message waiting)	1	B	NO1

GIGABYTE

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ICH6 GPIO Table:

NAME	PWR LANE	USAGE	NAME	PWR LANE	USAGE
GPI0	V5REF	M/B ID (-REQ6)	GPI41	VCC3	M/B ID1
GPI1	V5REF	-REQ5	GPO48	VCC3	-GNT4(TP)
GPI2	V5REF	-PIRQE	GPO49	V-CPUIO	CPUPWOK
GPI3	V5REF	-PIRQF			
GPI4	V5REF	-PIRQG			
GPI5	V5REF	-PIRQH			
GPI6	VCC3	-SLP_BTN			
GPI7	VCC3	DUAL BIOS(TP)			
GPI8	3VDAUL	-LANWAKE			
GPI9	3VDAUL	-USBOC4			
GPI10	3VDAUL	-USBOC5			
GPI11	3VDAUL	-SMBALT			
GPI12	VCC3	ATX_DET			
GPI13	3VDAUL	-LPCPME			
GPI14	3VDAUL	-USBOC6			
GPI15	3VDAUL	-USBOC7			
GPO16	VCC3	CPU OV1 (-GNT6)			
GPO17	VCC3	-GNT5(TP)			
GPO18	VCC3	CPU OV2			
GPO19	VCC3	DUAL BIOS(AGPOV1)			
GPO20	VCC3	BIOS T-BLOCK			
GPO21	VCC3	DUAL BIOS(AGPOV2)			
GPO23	VCC3	DDR OV1			
GPIO24	3VDAUL	GREEN_LED			
GPIO25	3VDAUL	2.5V REGULATOR(P.D)			
GPI26	VCC3	SATA_GP0			
GPIO27	3VDAUL	DDR OV2			
GPIO28	3VDAUL	-PWRLED			
GPI29	VCC3	SATA_GP1			
GPI30	VCC3	SATA_GP2			
GPI31	VCC3	SATA_GP3			
GPIO32	VCC3	BIOS_WP			
GPIO33	VCC3	AZALIA_DET			
GPIO34	VCC3	PWRLED(MB_ID0)			
GPI40	V5REF	-REQ4			

PWROK/RESET Table:

ITE8712BHX PIN	NET NAME	TARGET
PIN62/-PCIRST1	-PCIE_RST	1. PCI-E * 1 Slot1 2. PCI-E * 16 Slot
PIN64/-PCIRST2	-PFMRST2	1. Onboard PCI Lan 2. Onboard 1394 Chip 3. OnBoard FWH
PIN65/-PCIRST3	-PFMRST1	1. GMCH
PIN115/-PCIRST4	-IDERST	Reserved For IDE
PIN63/PWROK1	PWROK1	1. GMCH 2. ICH6
PIN109/PWROK2	-THERM	1. ICH6

GIGABYTE THCHNOLOGIES , INC.

Title			GPIO/RESET TABLE		
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