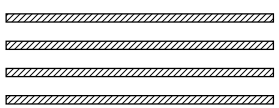
Model Name: 8I915P DUO
REV1.4

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

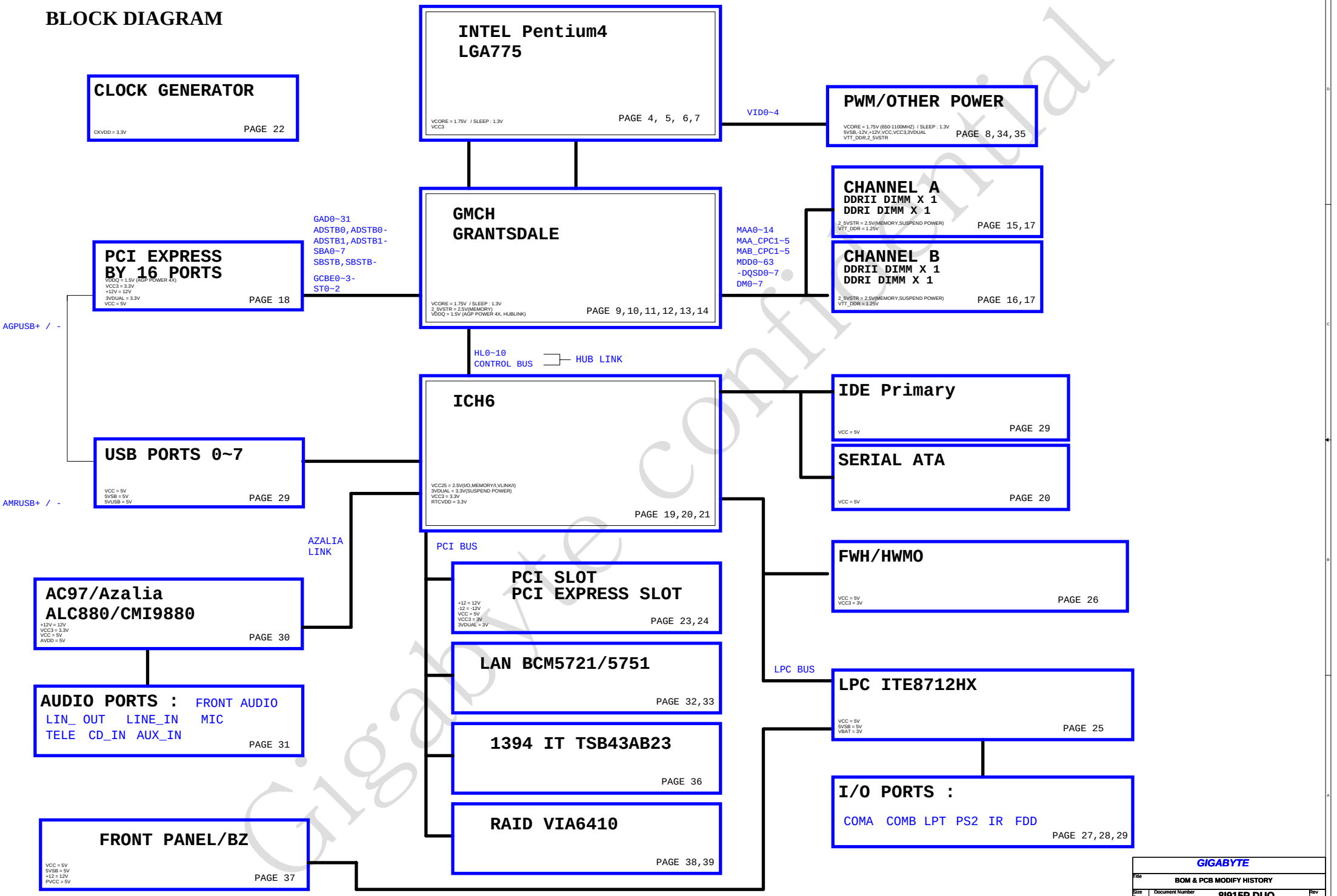
SHEET	TITLE
23	PCI SLOT
24	PCI EXPRESS*1 SLOT
25	ITE8712HX
26	HWMO/FAN/FWH BIOS
27	KB_MS/GAME
28	COM/LPT/FDD
29	(FRONT+REAR)USB/RING/IDE
30	AZALIA CODEC ALC880/CMI9880
31	AUDIO JACK
32	LAN BCM5705E/5751
33	LAN BCM5751
34	ATX POWER CONN.
35	ALL POWER
36	1394 TSB43AB23
37	FRONT PANEL/BZ
38	RAID VIA6410
39	RAID IDE CONNECTOR
40	GPIO TABLE
41	RESET TABLE



GIGABYTE

Title: Cover Sheet		
Size: Custom	Document Number: 8I915P DUO	Rev: 1.4
Date: Thursday, April 07, 2005	Sheet 1 of 41	

BLOCK DIAGRAM



GIGABYTE		
Title	BOM & PCB MODIFY HISTORY	
Size: Custom	Document Number: 8I915P DUO	Rev: 1.4
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Model Name: 8I915P DUO

Version: 1.4

Component value change history

2004/05/19

Data	Change Item	Reason
0317	ADD 2ND SOUSE *** 更換 *** 新舊線路中 元件值不同 ******** L10由 1UH/8/180mA/S(10LI2-07100B-01/10LI2-041001-04)變爲 1UH/8/180mA/S(10LI2-07100B-01/10LI2-041001-04/10LI2-07100B-11) L15由 1UH/8/180mA/S(10LI2-07100B-01/10LI2-041001-04)變爲 1UH/8/180mA/S(10LI2-07100B-01/10LI2-041001-04/10LI2-07100B-11) Q190由 SUD50N024-09P/APM2014N/IRLR3715/TO252變爲 10IF4-083918-01R_10IF4-492409-01R_10IF4-098880-10R/TO252 Q191由 SUD50N024-09P/APM2014N/IRLR3715/TO252變爲 10IF4-083918-01R_10IF4-492409-01R_10IF4-098880-10R/TO252 Q42由 SUD50N024-09P/TO252變爲 10IF4-083918-01R_10IF4-492409-01R_10IF4-098880-10R/TO252 Q44由 SUD50N024-09P/TO252變爲 10IF4-083918-01R_10IF4-492409-01R_10IF4-098880-10R/TO252	
	LIB CHANGE *** 更換 *** 新舊線路中 元件值不同 ******** DL2由 0.6uH/D/30A/5018/3PM/(TAI/EMC)變爲 0.6uH/TO-5018/40A/1P/[11LC5-40600C-D1] DL3由 0.6uH/D/30A/5018/3PM/(TAI/EMC)變爲 0.6uH/TO-5018/40A/1P/[11LC5-40600C-D1] DL4由 0.6uH/D/30A/5018/3PM/(TAI/EMC)變爲 0.6uH/TO-5018/40A/1P/[11LC5-40600C-D1] DL5由 0.6uH/D/30A/5018/3PM/(TAI/EMC)變爲 0.6uH/TO-5018/40A/1P/[11LC5-40600C-D1] L1由 10UH/8/100mA/S(10LI2-00100A-01/02/03)變爲 10UH//120mA/8/S/[10LI2-12100A-01_10LI2-12100A-02_10LI2-12100A-03_10LI2-12100A-13] L2由 10UH/8/100mA/S(10LI2-00100A-01/02/03)變爲 10UH//120mA/8/S/[10LI2-12100A-01_10LI2-12100A-02_10LI2-12100A-03_10LI2-12100A-13]	
0401	Q187 ADD 2ND SOURCE	10GL6-501085-01R
0407	N/B VERSION CHANGE TO C2	10HB1-032915-25

Circuit or PCB layout change for next version

PAGE	Change Item	Reason
0317	LIB CHANGE	

GIGABYTE

Title: BOM & PCB MODIFY HISTORY

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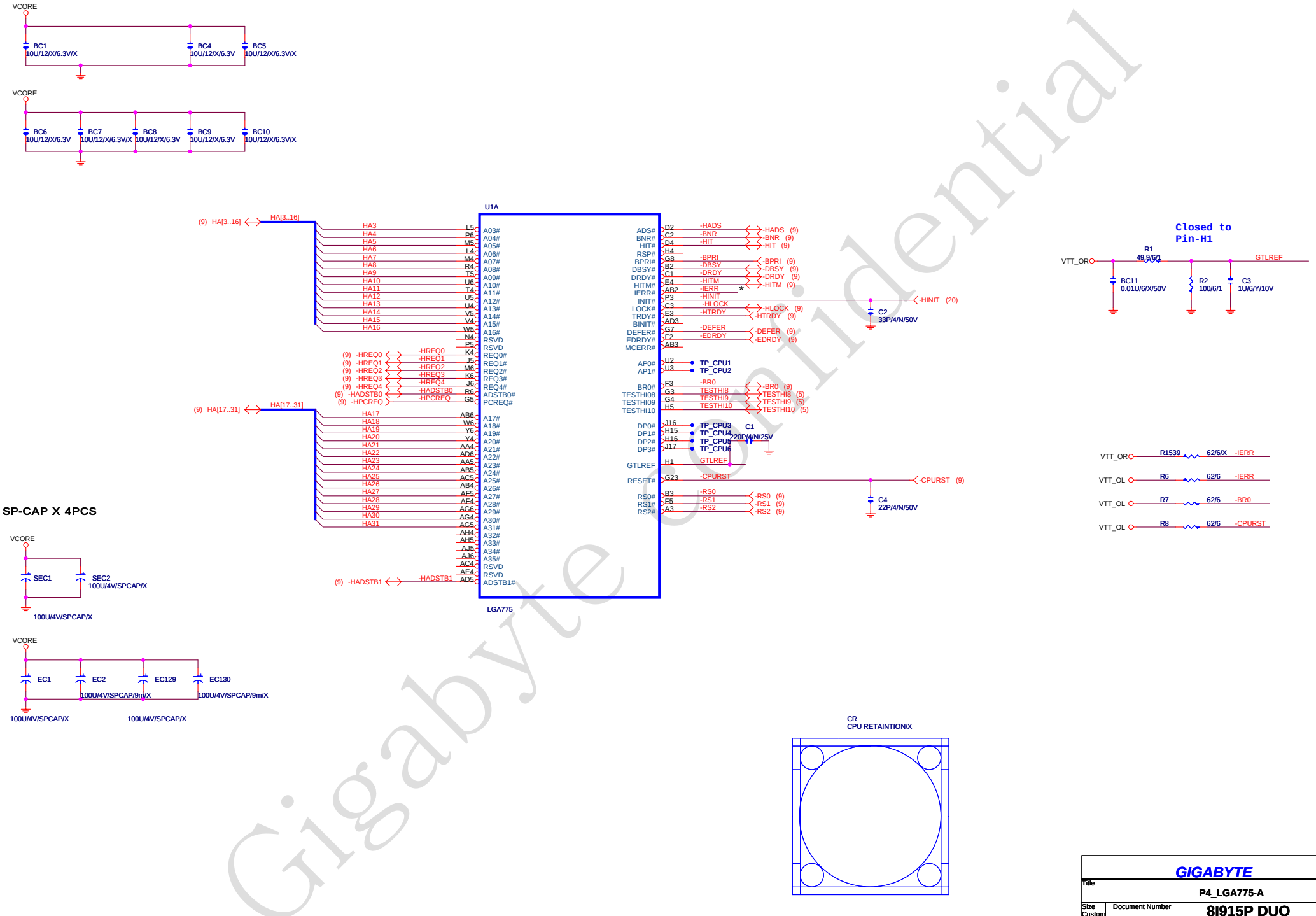
Date: Thursday, April 07, 2005 | Sheet 3 of 41



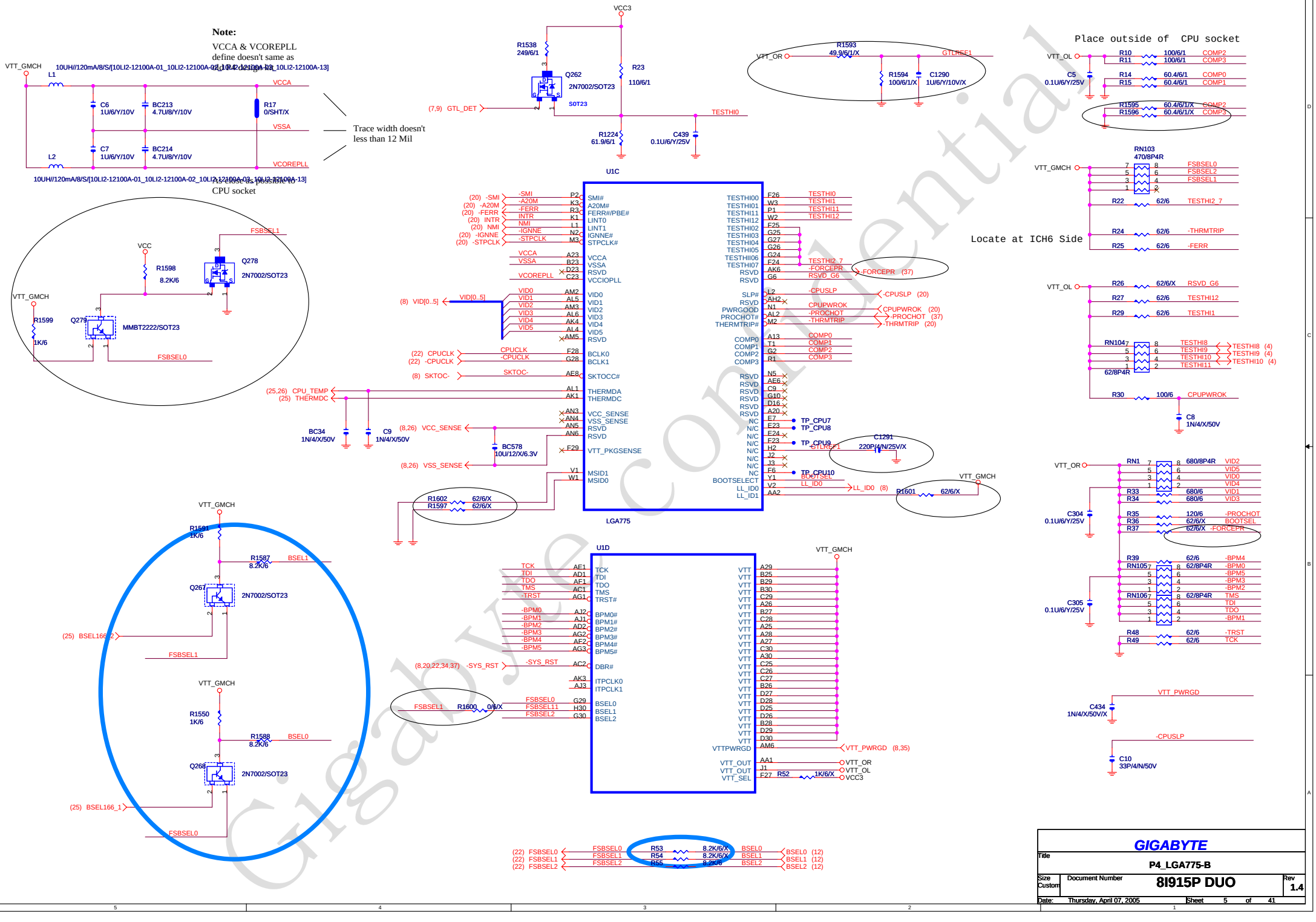
Note:

VCCA & VCOREPLL define doesn't same as CPU socket

Trace width doesn't less than 12 Mil

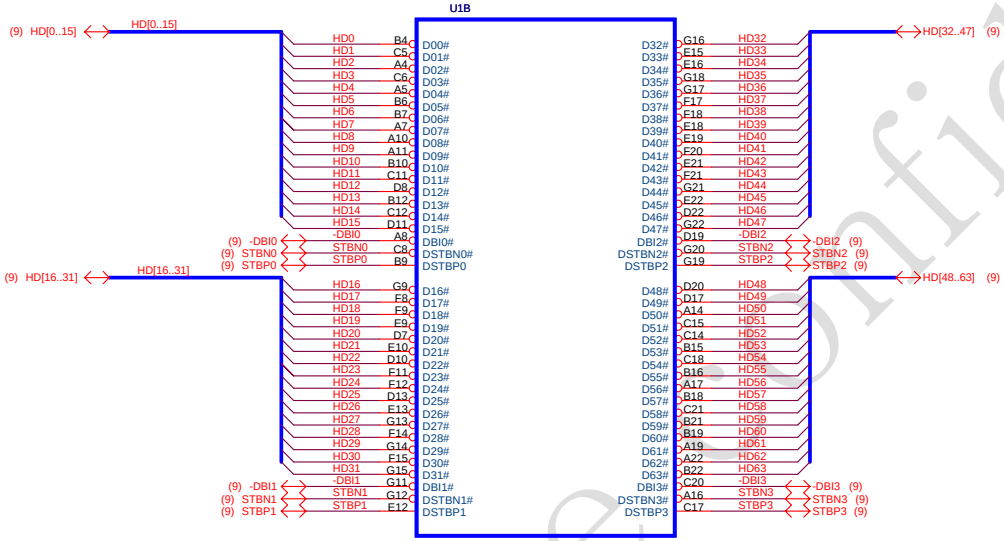
Place outside of CPU socket

Locate at ICH6 Side



GIGABYTE

Title	P4_LGA775-B	
Size: Custom	Document Number: 8I915P DUO	Rev: 1.4
Date: Thursday, April 07, 2005	Sheet 5 of 41	



GIGABYTE		
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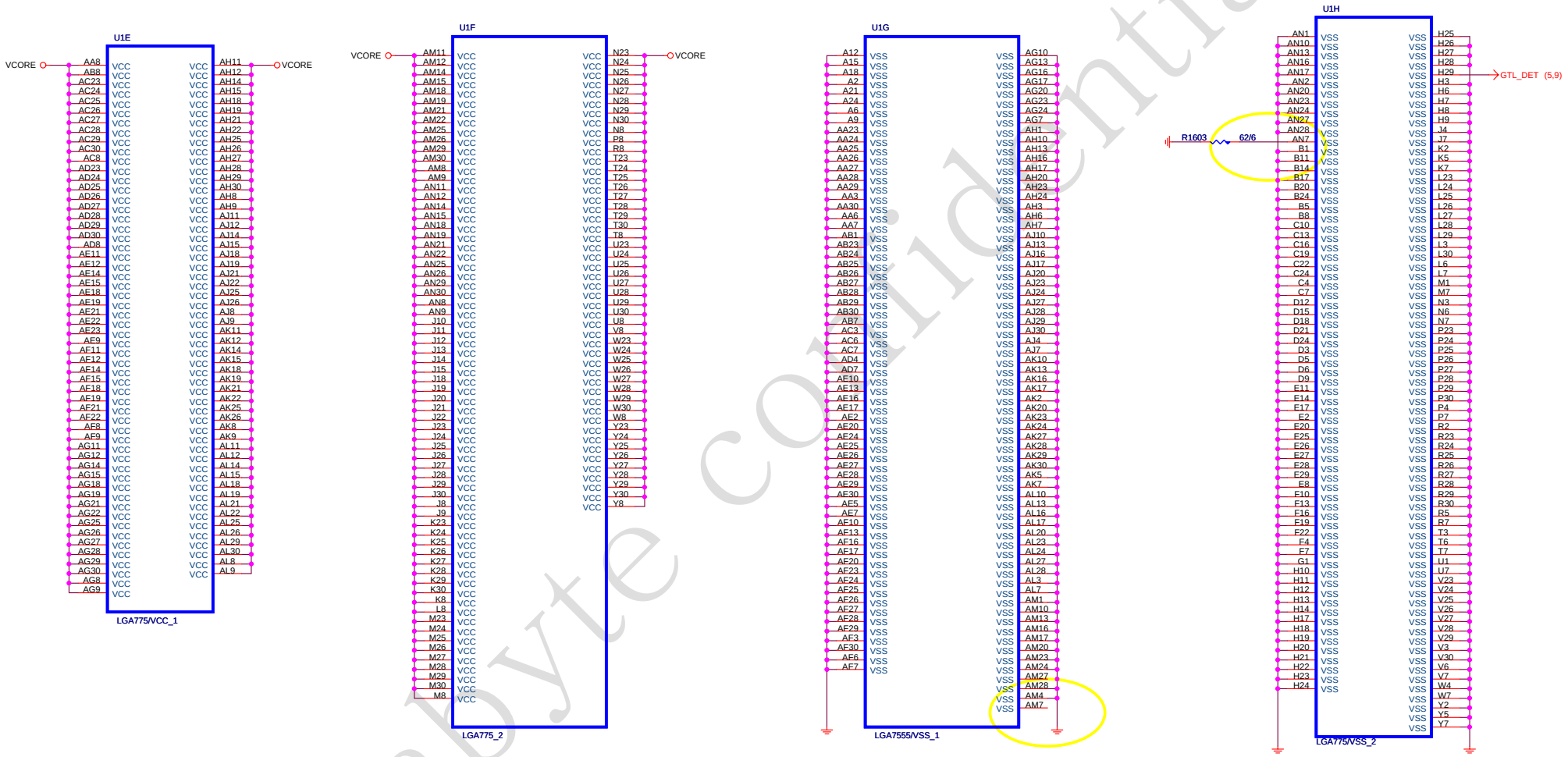
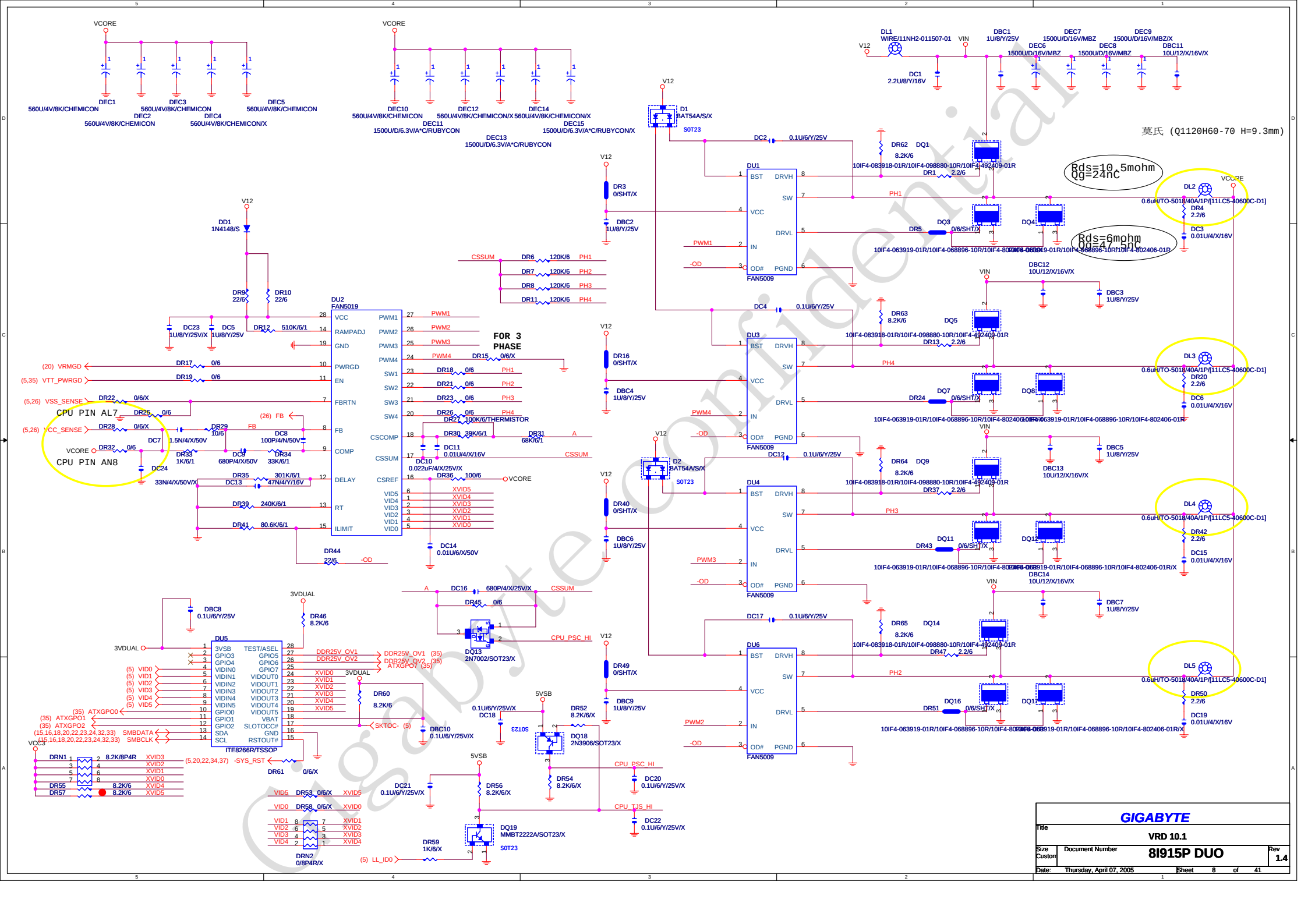
Size: Custom	Document Number: 8I915P DUO	Rev: 1.4
Date: Thursday, April 07, 2005	Sheet 6 of 41	



GIGABYTE		
Title	P4_LGA775-D	
Size: Custom	Document Number: 8I915P DUO	Rev: 1.4
Date: Thursday, April 07, 2005	Sheet 7 of 41	


VCORE
DEC1 560U/4V/8K/CHEMICON
DEC2 560U/4V/8K/CHEMICON
DEC3 560U/4V/8K/CHEMICON
DEC4 560U/4V/8K/CHEMICON/X
DEC5 560U/4V/8K/CHEMICON
DEC10 560U/4V/8K/CHEMICON
DEC11 1500U/D/6.3V/A*C/RUBYCON
DEC12 560U/4V/8K/CHEMICON/X
DEC13 1500U/D/6.3V/A*C/RUBYCON
DEC14 560U/4V/8K/CHEMICON/X
DEC15 1500U/D/6.3V/A*C/RUBYCON/X
V12
DL1 WIRE/11NH2-011507-01
VIN
DBC1 1U/8/Y/25V
DEC6 1500U/D/16V/MBZ
DEC7 1500U/D/16V/MBZ
DEC8 1500U/D/16V/MBZ
DEC9 1500U/D/16V/MBZ/X
DBC11 10U/12/X/16V/X
DC1 2.2U/8/Y/16V
莫氏 (Q1120H60-70 H=9.3mm)
Rds=10.5mohm
Qg=24nc
Rds=6mohm
Qg=47 nc
D1 BAT54A/S/X
S0T23
DC2 0.1U/6/Y/25V
DR62 8.2K/6
DR1 2.2/6
DU1
FAN5009
BST DRVH SW VCC DRVL IN OD# PGND
PWM1 -OD PH1
DR3 0/SHT/X
DBC2 1U/8/Y/25V
DR5
DQ3 0/6/SHT/X
DQ4
DL2 0.6uH/TO-5018/40A/1P/[11LC5-40600C-D1]
DR4 2.2/6
DC3 0.01U/4/X/16V
DBC12 10U/12/X/16V/X
DBC3 1U/8/Y/25V
DC4 0.1U/6/Y/25V
DR63 8.2K/6
DR13 2.2/6
DQ5
DU3
PH4
DR16 0/SHT/X
DBC4 1U/8/Y/25V
DR24
DQ7 0/6/SHT/X
DQ8
DL3 0.6uH/TO-5018/40A/1P/[11LC5-40600C-D1]
DR20 2.2/6
DC6 0.01U/4/X/16V
DBC13 10U/12/X/16V/X
DBC5 1U/8/Y/25V
DC12 0.1U/6/Y/25V
DR64 8.2K/6
DR37 2.2/6
DQ9
DU4
PH3
DR40 0/SHT/X
DBC6 1U/8/Y/25V
DR43
DQ11 0/6/SHT/X
DQ12
DL4 0.6uH/TO-5018/40A/1P/[11LC5-40600C-D1]
DR42 2.2/6
DC15 0.01U/4/X/16V
DBC14 10U/12/X/16V/X
DBC7 1U/8/Y/25V
DC17 0.1U/6/Y/25V
DR65 8.2K/6
DR47 2.2/6
DQ14
DU6
PH2
DR49 0/SHT/X
DBC9 1U/8/Y/25V
DR51
DQ16 0/6/SHT/X
DQ17
DL5 0.6uH/TO-5018/40A/1P/[11LC5-40600C-D1]
DR50 2.2/6
DC19 0.01U/4/X/16V
10IF4-063919-01R/10IF4-068896-10R/10IF4-802406-01R
10IF4-083918-01R/10IF4-098880-10R/10IF4-492409-01R
DD1 1N4148/S
DR9 22/6
DR10 22/6
DU2 FAN5019
VCC RAMPADJ GND PWRGD EN FBRTN FB COMP DELAY RT ILIMIT
PWM1 PWM2 PWM3 PWM4 SW1 SW2 SW3 SW4 CSCOMP CSSUM CSREF VID5 VID4 VID3 VID2 VID1 VID0
FOR 3 PHASE
DC23 1U/8/Y/25V/X
DC5 1U/8/Y/25V
DR12 510K/6/1
CSSUM
DR6 120K/6 PH1
DR7 120K/6 PH2
DR8 120K/6 PH3
DR11 120K/6 PH4
(20) VRMGD
(5,35) VTT_PWRGD
(5,26) VSS_SENSE
(5,26) CC_SENSE
VCORE
CPU PIN AL7
CPU PIN AN8
DR17 0/6
DR19 0/6
DR22 0/6/X
DR25 0/6
DR28 0/6/X
DR32 0/6
DR15 0/6/X
DR18 0/6 PH1
DR21 0/6 PH2
DR23 0/6 PH3
DR26 0/6 PH4
DR27 100K/6/THERMISTOR
DR30 39K/6/1
DR31 68K/6/1
DC11 0.01U/4/X/16V
DC10 0.022uF/4/X/25V/X
DR36 100/6
DC14 0.01U/6/X/50V
DR44 22/6
-OD
(26) FB
DR29 10/6
DC7 1.5N/4/X/50V
DC8 100P/4/N/50V
DR33 1K/6/1
DC9 680P/4/X/50V
DR34 33K/6/1
DC24
DR35 301K/6/1
33N/4/X/50V/X
DC13 47N/4/Y/16V
DR39 240K/6/1
DR41 80.6K/6/1
XVID5 XVID4 XVID3 XVID2 XVID1 XVID0
DC16 680P/4/X/25V/X
DR45 0/6
DQ13 2N7002/SOT23/X
CPU_PSC_HI
3VDUAL
DBC8 0.1U/6/Y/25V
DR46 8.2K/6
DU5 ITE8266R/TSSOP
3VSB GPIO3 GPIO4 VIDIN0 VIDIN1 VIDIN2 VIDIN3 VIDIN4 VIDIN5 GPIO0 GPIO1 GPIO2 SDA SCL
TEST/ASEL GPIO5 GPIO6 GPIO7 VIDOUT0 VIDOUT1 VIDOUT2 VIDOUT3 VIDOUT4 VIDOUT5 VBAT SLOTOCC# GND RSTOUT#
DDR25V_OV1 DDR25V_OV2 ATXGPO1
(5) VID0 (5) VID1 (5) VID2 (5) VID3 (5) VID4 (5) VID5
(35) ATXGPO0
(35) ATXGPO1 (35) ATXGPO2
SMBDATA SMBCLK
(5,20,22,34,37) -SYS_RST
DR60 8.2K/6
SKTOC- (5)
DBC10 0.1U/6/Y/25V/X
DR61 0/6/X
VCC3
DRN1 8.2K/8P4R
DR55 8.2K/6
DR57 8.2K/6
DRN2 0/8P4R/X
VID5 DR53 0/6/X
VID0 DR58 0/6/X
VID1 VID2 VID3 VID4
5VSB
DC18 0.1U/6/Y/25V/X
DR52 8.2K/6/X
DQ18 2N3906/SOT23/X
DR54 8.2K/6/X
DC20 0.1U/6/Y/25V/X
DC21 0.1U/6/Y/25V/X
DR56 8.2K/6/X
CPU_TJS_HI
DC22 0.1U/6/Y/25V/X
DQ19 MMBT2222A/SOT23/X
DR59 1K/6/X
(5) LL_ID0
GIGABYTE
Title
VRD 10.1
Size Custom
Document Number
8I915P DUO
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Date: Thursday, April 07, 2005
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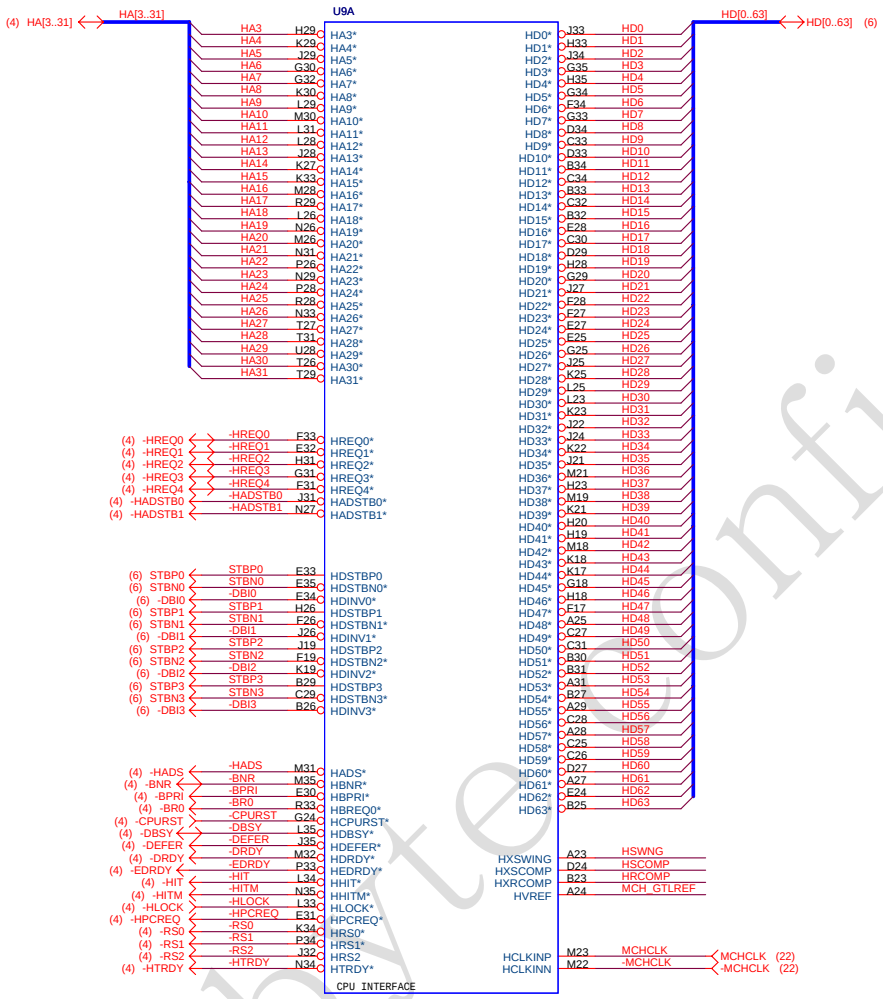
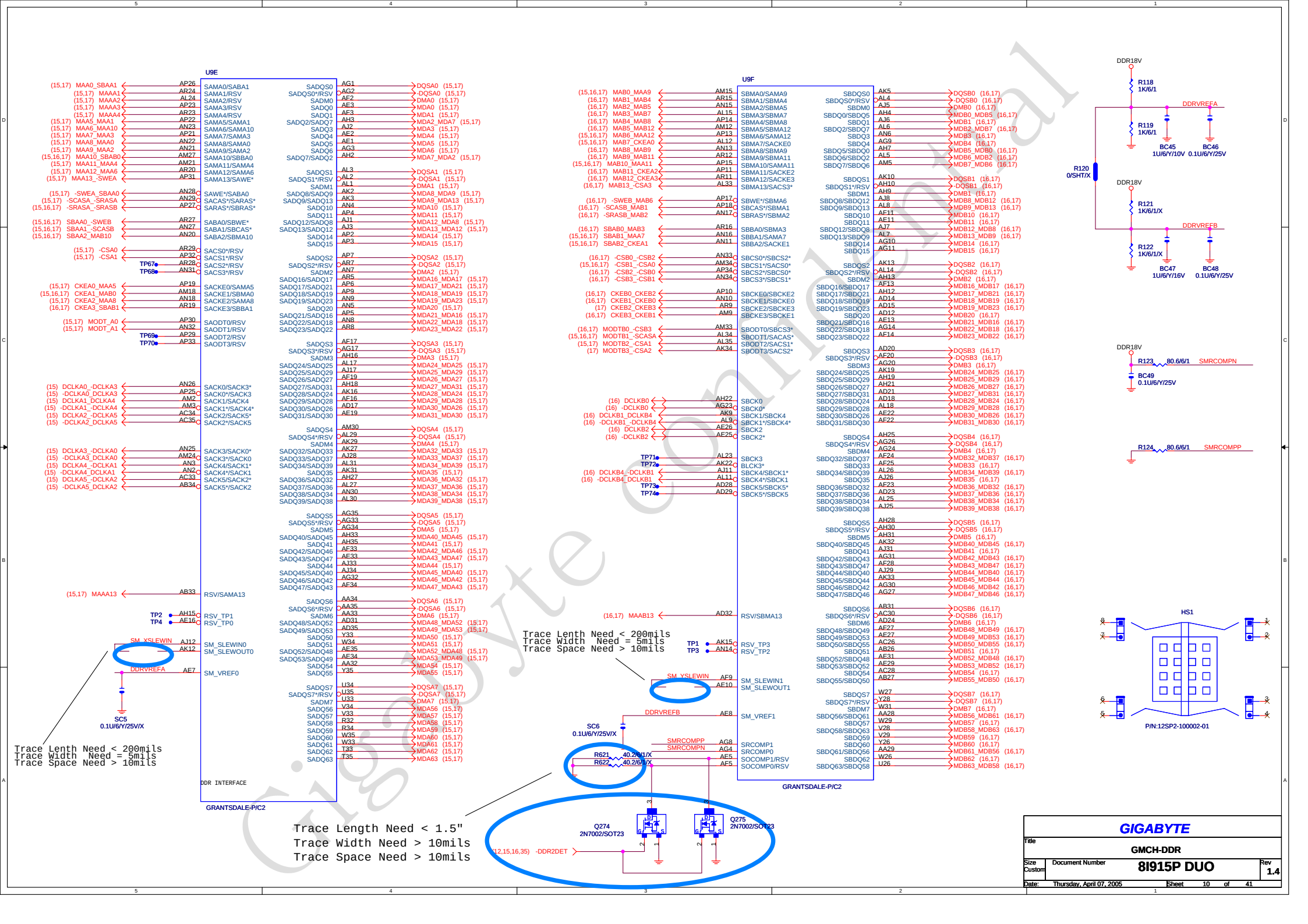
Gigabyte confidential

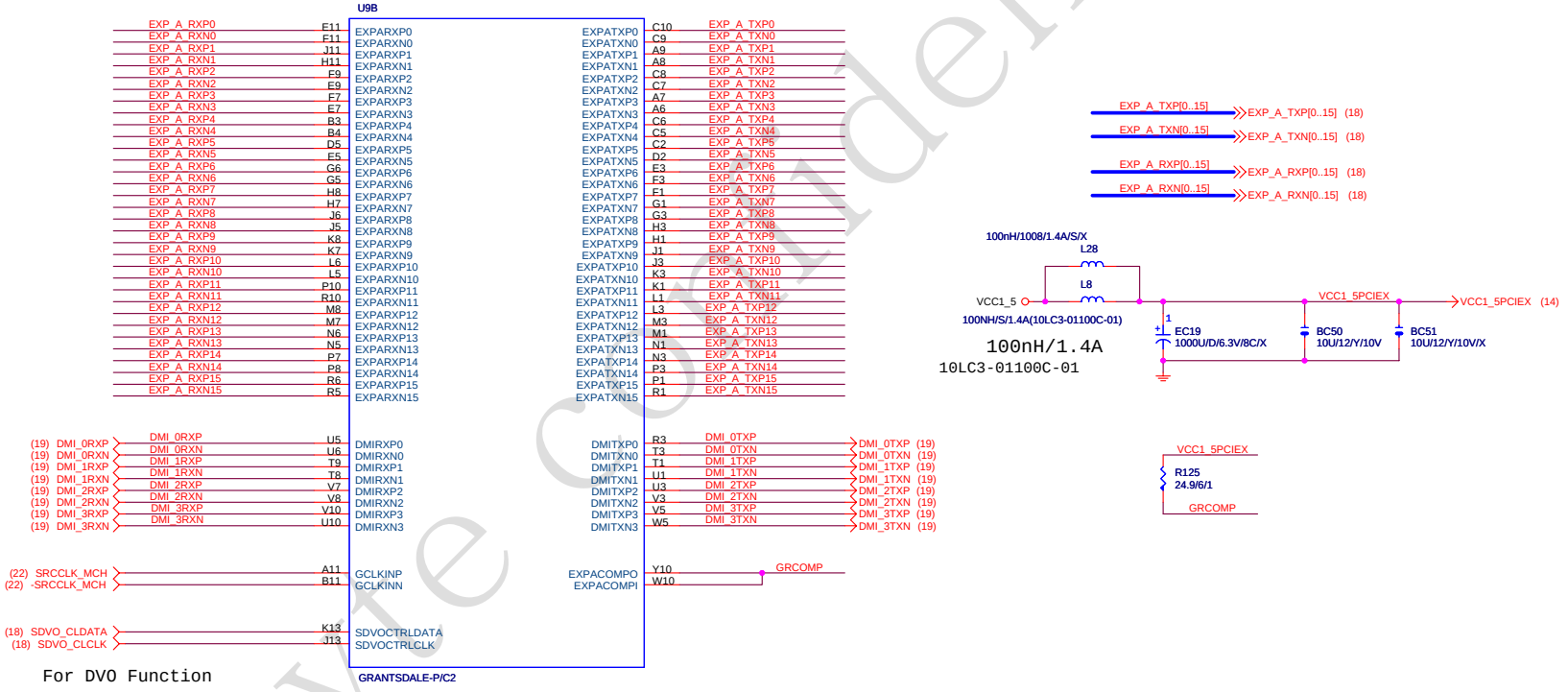


GIGABYTE

Title	GMCH-HOST	
Size: Custom	Document Number: 8I915P DUO	Rev: 1.4
Date: Thursday, April 07, 2005	Sheet 9 of 41	

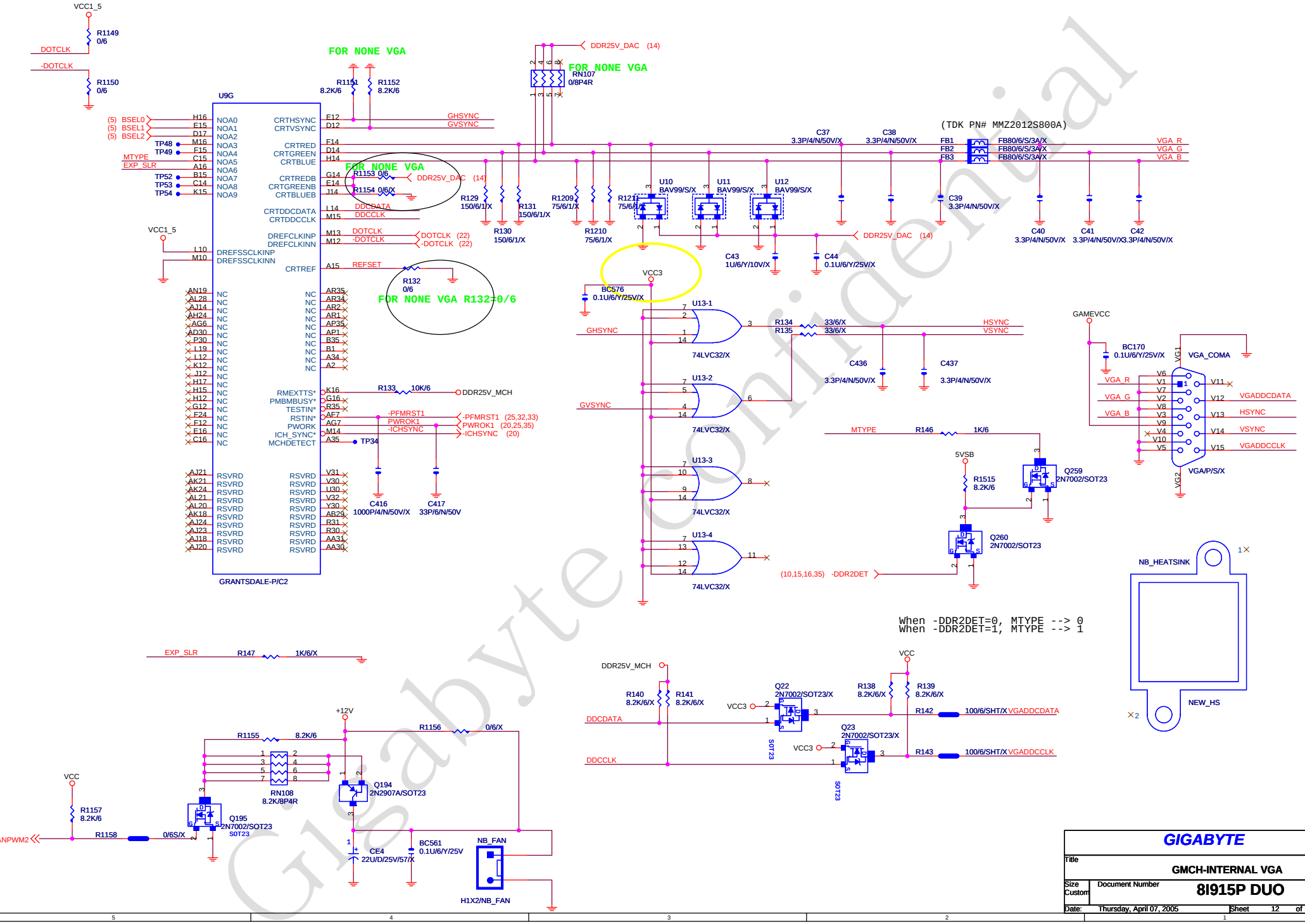


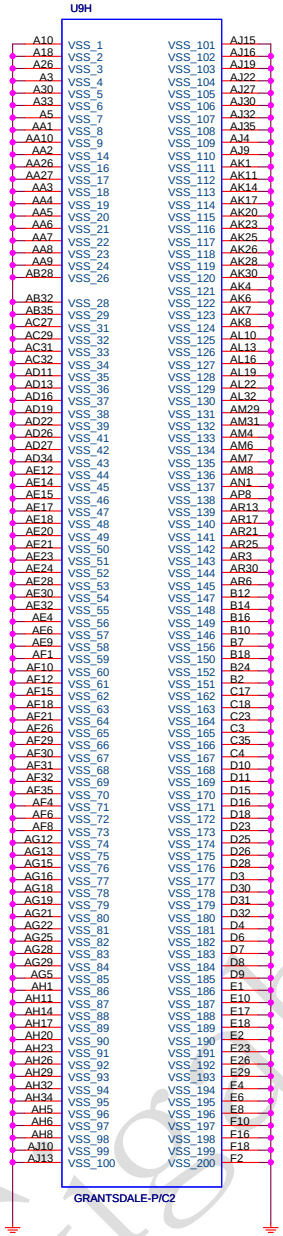
GIGABYTE			
Title	GMCH-DDR		
Size: Custom	Document Number: 8I915P DUO		Rev: 1.4
Date: Thursday, April 07, 2005	Sheet 10 of 41		

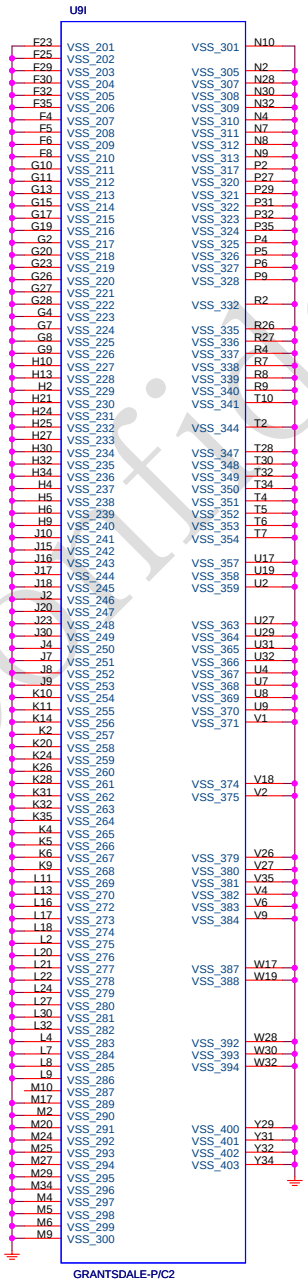


GIGABYTE

Title	GMCH-PCI E & DMI	
Size: Custom	Document Number: 8I915P DUO	Rev: 1.4
Date: Thursday, April 07, 2005	Sheet 11 of 41	







GIGABYTE

Title: GMCH-GND

Size: Custom | Document Number: 8I915P DUO | Rev: 1.4

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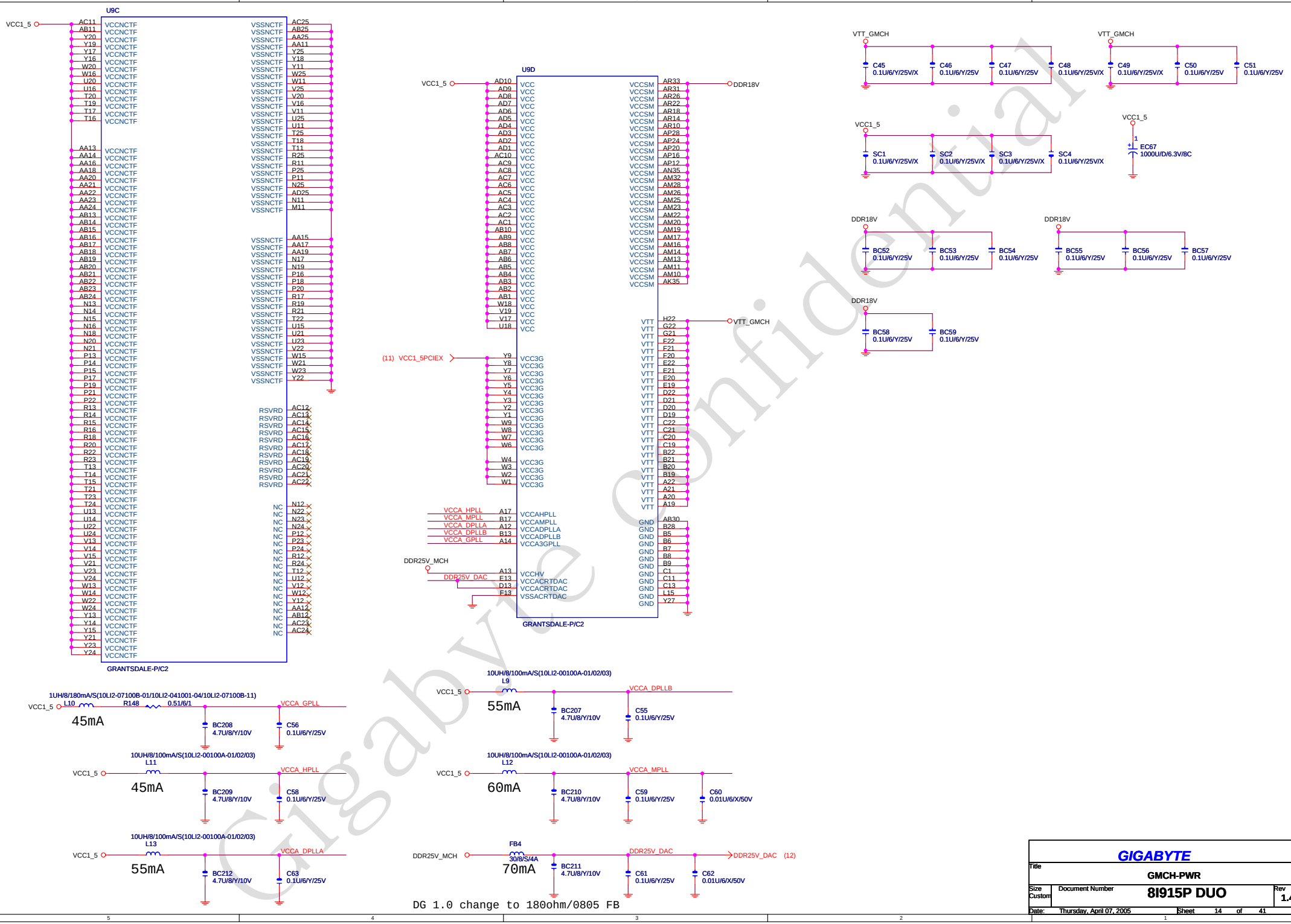

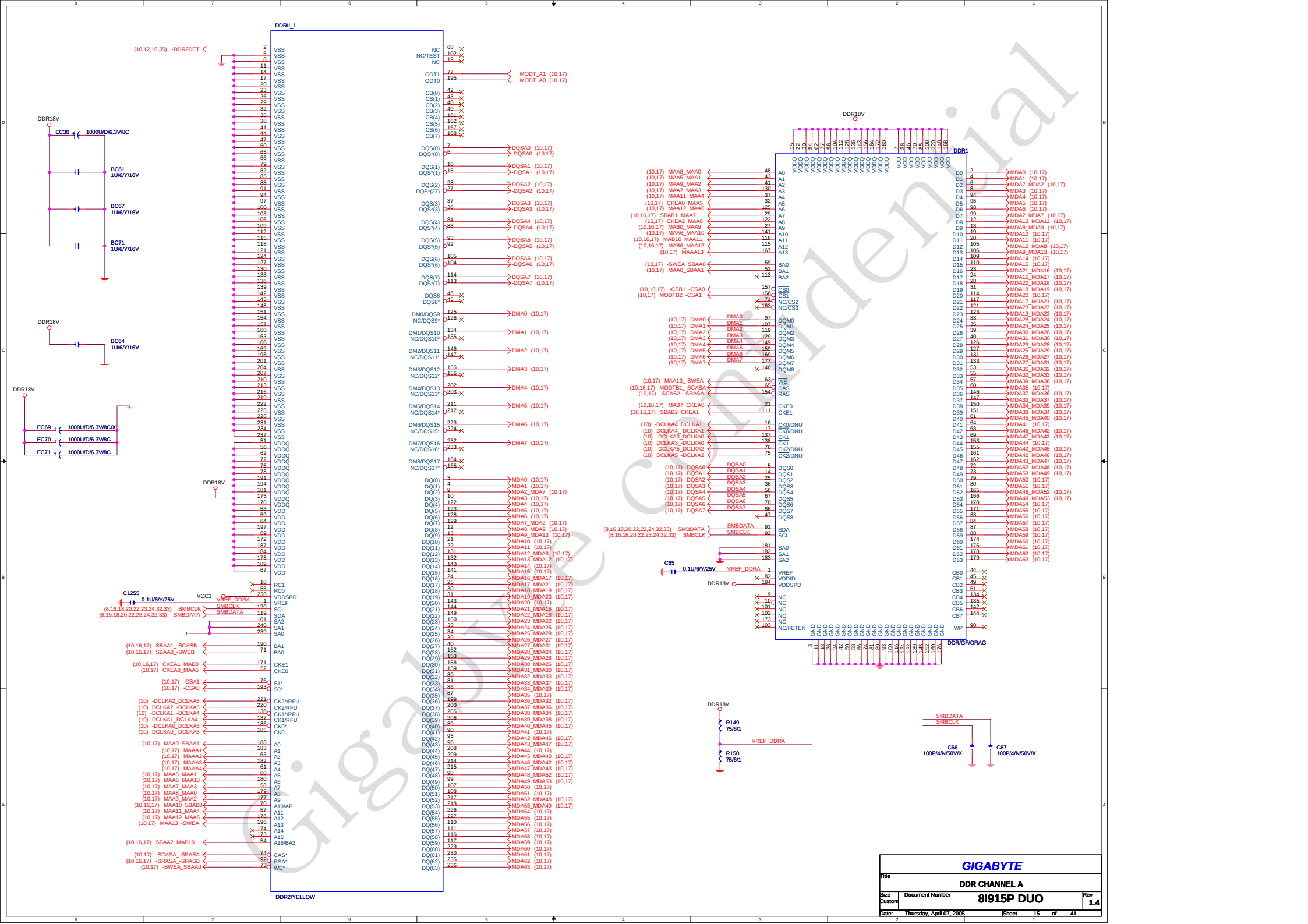
DDRII_1
DDR2/YELLOW
DDR18V
EC30 1000U/D/6.3V/8C
BC61 1U/6Y/16V
BC67 1U/6Y/16V
BC71 1U/6Y/16V
BC64 1U/6Y/16V
EC69 1000U/D/6.3V/8C/X
EC70 1000U/D/6.3V/8C
EC71 1000U/D/6.3V/8C
C1255 0.1U/6Y/25V
VCC3
VREF_DDRA
C65 0.1U/6Y/25V
R149 75/6/1
R150 75/6/1
C66 100P/4/N/50V/X
C67 100P/4/N/50V/X
SMBDATA
SMBCLK
DDR1
DDR/GF/ORAG
GIGABYTE
DDR CHANNEL A
8I915P DUO
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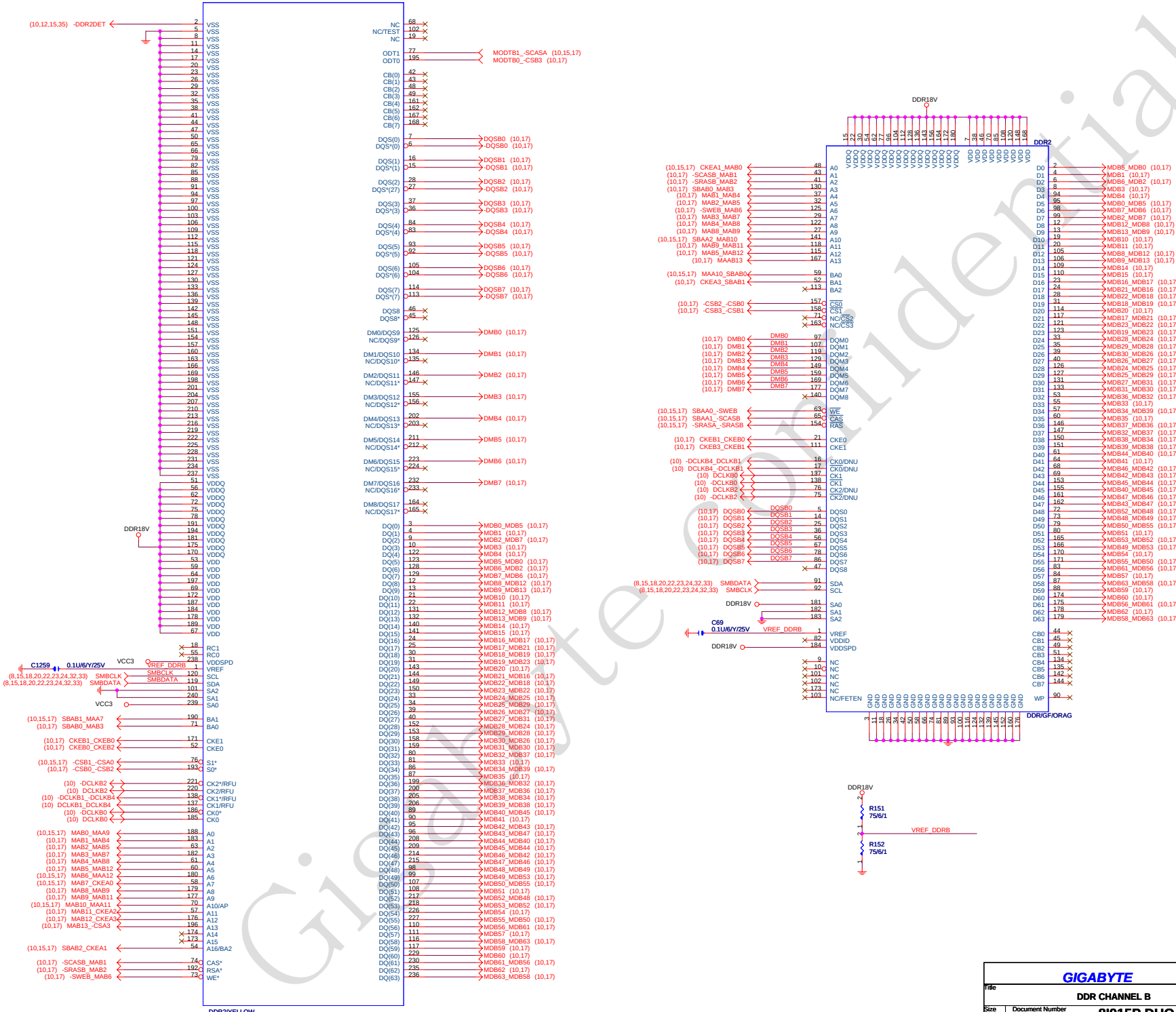
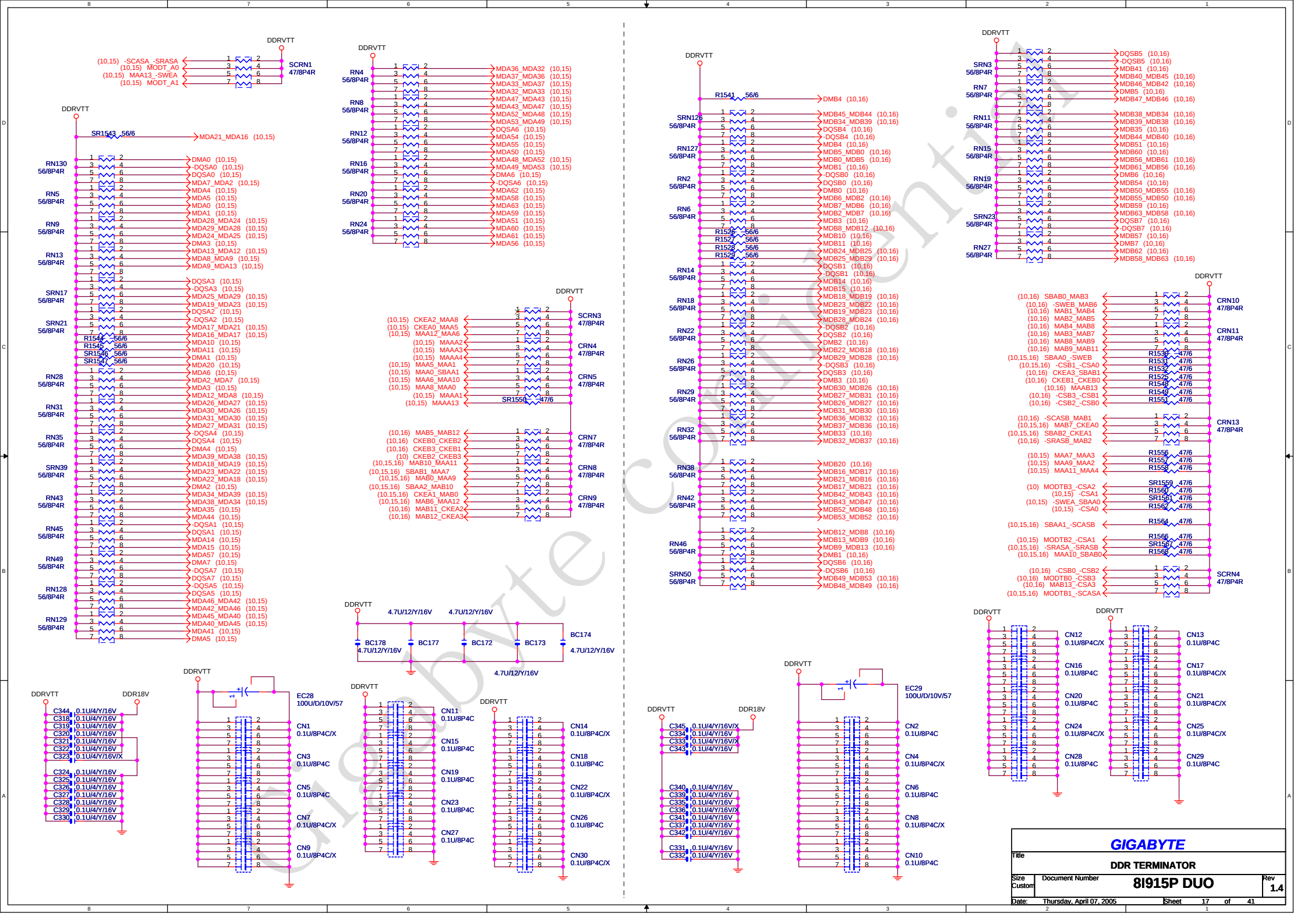
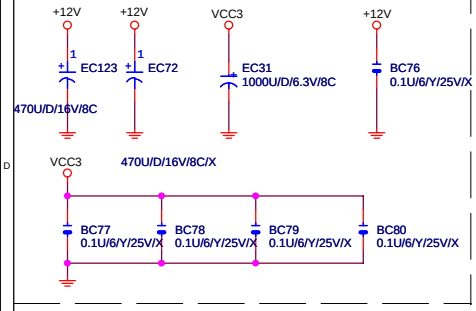
Gigabyte Confidential



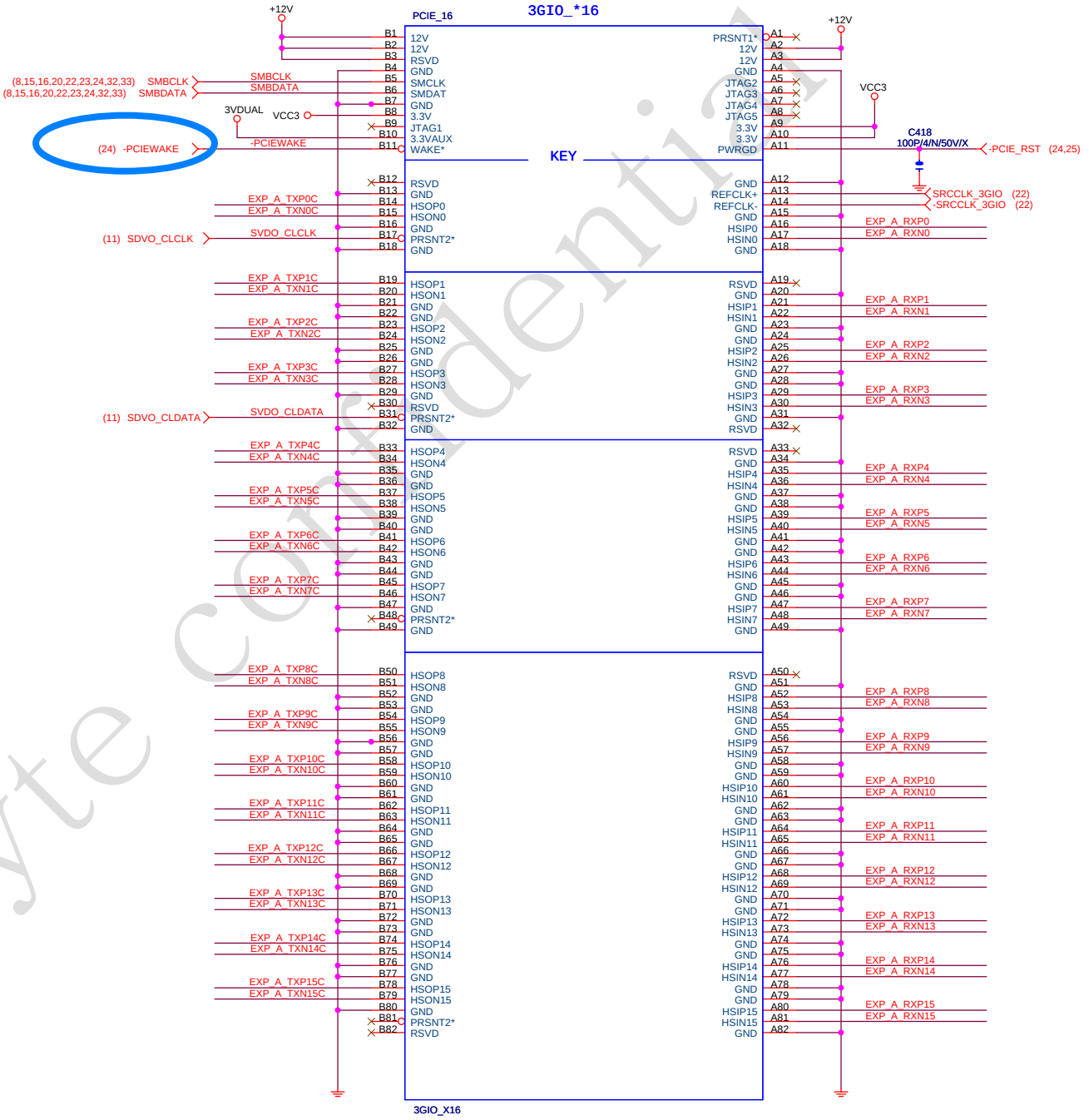




EXP_A_RXP[0..15] >> EXP_A_RXP[0..15] (11)
EXP_A_RXN[0..15] >> EXP_A_RXN[0..15] (11)

EXP_A_TXP[0..15] >> EXP_A_TXP[0..15] (11)
EXP_A_TXN[0..15] >> EXP_A_TXN[0..15] (11)

EXP_A_TXP0	C70	0.1U/6/Y/25V	EXP_A_TXP0C
EXP_A_TXN0	C71	0.1U/6/Y/25V	EXP_A_TXN0C
EXP_A_TXP1	C72	0.1U/6/Y/25V	EXP_A_TXP1C
EXP_A_TXN1	C73	0.1U/6/Y/25V	EXP_A_TXN1C
EXP_A_TXP2	C74	0.1U/6/Y/25V	EXP_A_TXP2C
EXP_A_TXN2	C75	0.1U/6/Y/25V	EXP_A_TXN2C
EXP_A_TXP3	C76	0.1U/6/Y/25V	EXP_A_TXP3C
EXP_A_TXN3	C77	0.1U/6/Y/25V	EXP_A_TXN3C
EXP_A_TXP4	C78	0.1U/6/Y/25V	EXP_A_TXP4C
EXP_A_TXN4	C79	0.1U/6/Y/25V	EXP_A_TXN4C
EXP_A_TXP5	C80	0.1U/6/Y/25V	EXP_A_TXP5C
EXP_A_TXN5	C81	0.1U/6/Y/25V	EXP_A_TXN5C
EXP_A_TXP6	C82	0.1U/6/Y/25V	EXP_A_TXP6C
EXP_A_TXN6	C83	0.1U/6/Y/25V	EXP_A_TXN6C
EXP_A_TXP7	C84	0.1U/6/Y/25V	EXP_A_TXP7C
EXP_A_TXN7	C85	0.1U/6/Y/25V	EXP_A_TXN7C
EXP_A_TXP8	C86	0.1U/6/Y/25V	EXP_A_TXP8C
EXP_A_TXN8	C87	0.1U/6/Y/25V	EXP_A_TXN8C
EXP_A_TXP9	C88	0.1U/6/Y/25V	EXP_A_TXP9C
EXP_A_TXN9	C89	0.1U/6/Y/25V	EXP_A_TXN9C
EXP_A_TXP10	C90	0.1U/6/Y/25V	EXP_A_TXP10C
EXP_A_TXN10	C91	0.1U/6/Y/25V	EXP_A_TXN10C
EXP_A_TXP11	C92	0.1U/6/Y/25V	EXP_A_TXP11C
EXP_A_TXN11	C93	0.1U/6/Y/25V	EXP_A_TXN11C
EXP_A_TXP12	C94	0.1U/6/Y/25V	EXP_A_TXP12C
EXP_A_TXN12	C95	0.1U/6/Y/25V	EXP_A_TXN12C
EXP_A_TXP13	C96	0.1U/6/Y/25V	EXP_A_TXP13C
EXP_A_TXN13	C97	0.1U/6/Y/25V	EXP_A_TXN13C
EXP_A_TXP14	C98	0.1U/6/Y/25V	EXP_A_TXP14C
EXP_A_TXN14	C99	0.1U/6/Y/25V	EXP_A_TXN14C
EXP_A_TXP15	C100	0.1U/6/Y/25V	EXP_A_TXP15C
EXP_A_TXN15	C101	0.1U/6/Y/25V	EXP_A_TXN15C



Title	PCI EXPRESS * 16	
Size: Custom	Document Number: 8I915P DUO	Rev: 1.4
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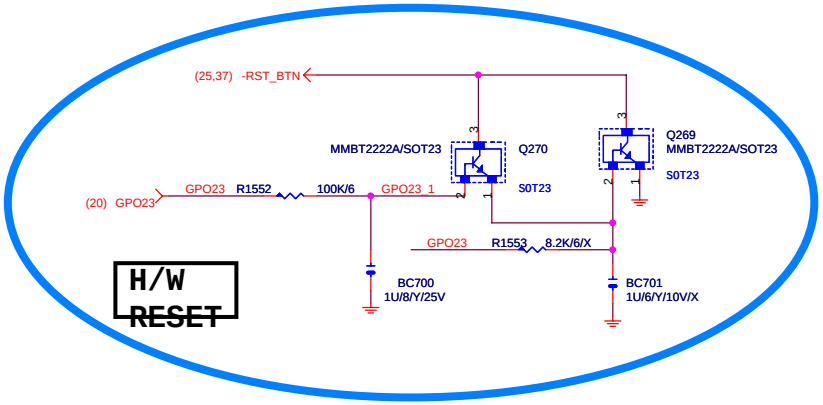
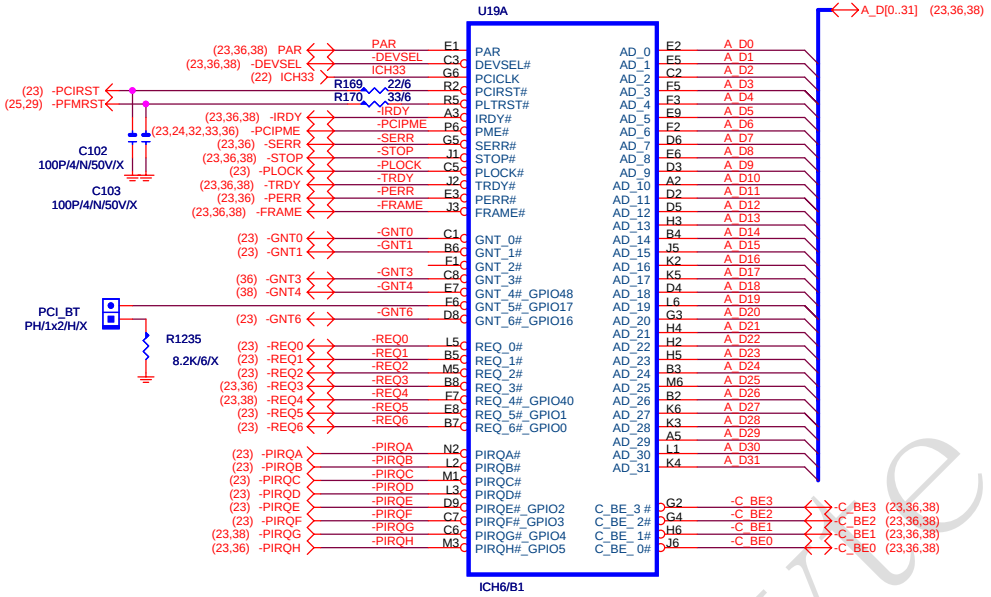
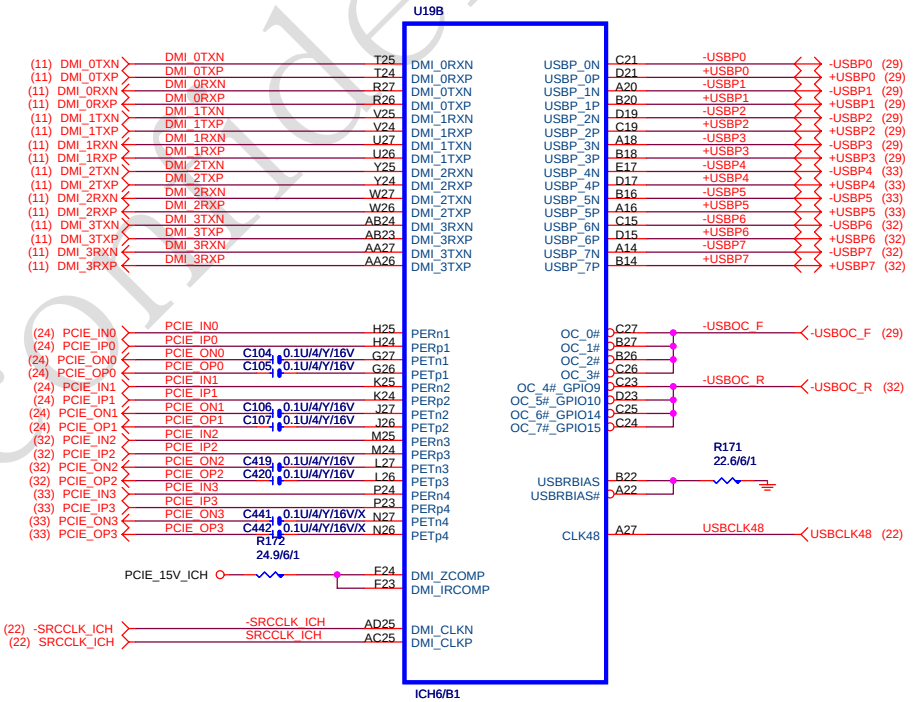


DMI Connection Note
GMCH TX Pin Need Connect to ICH6 RX Pin
ICH6 TX Pin Need Connect to GMCH RX Pin





GIGABYTE		
Title	ICH6-PCI, DMI, LAN, USB	
Size B	Document Number 8I915P DUO	Rev 1.4
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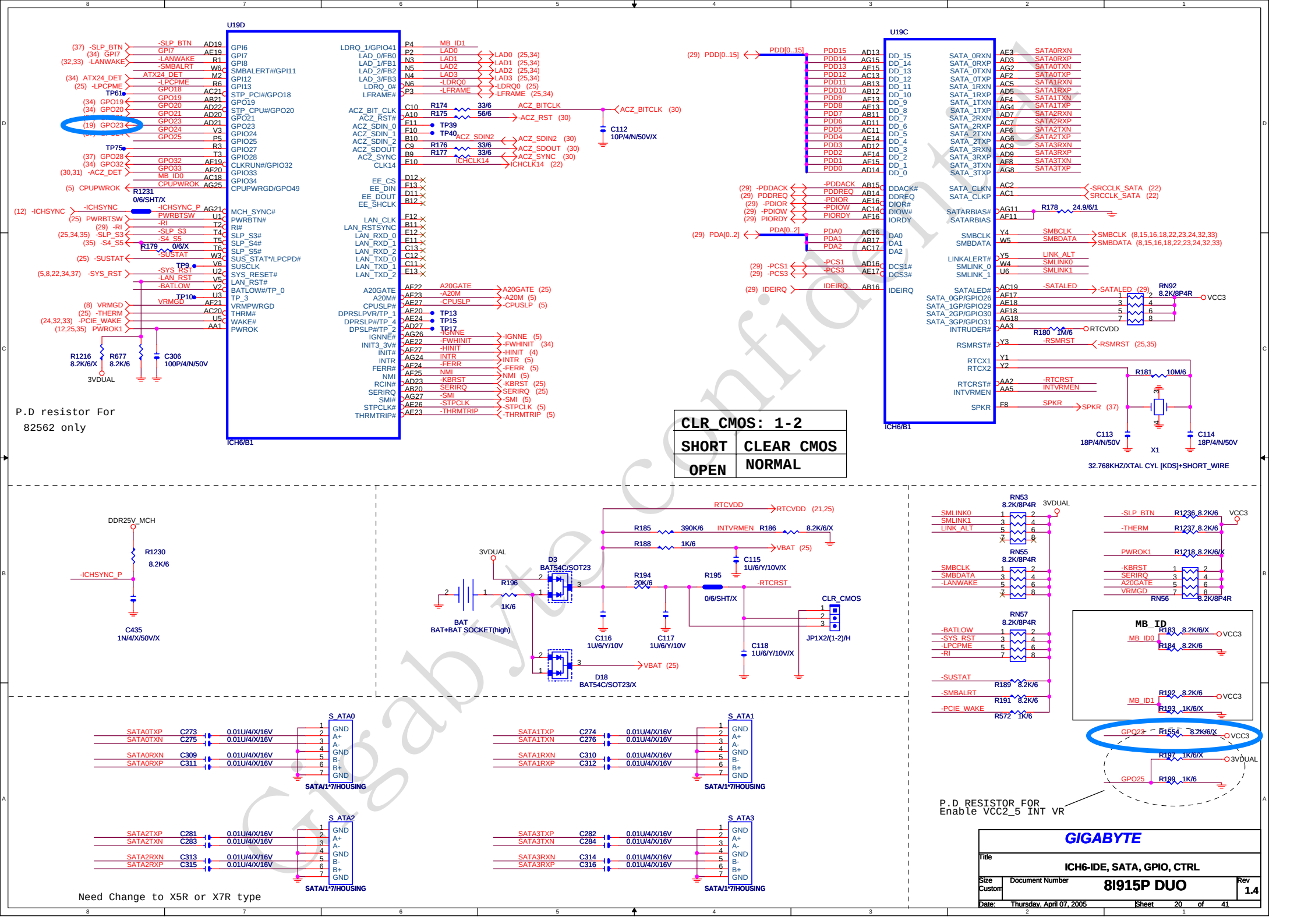

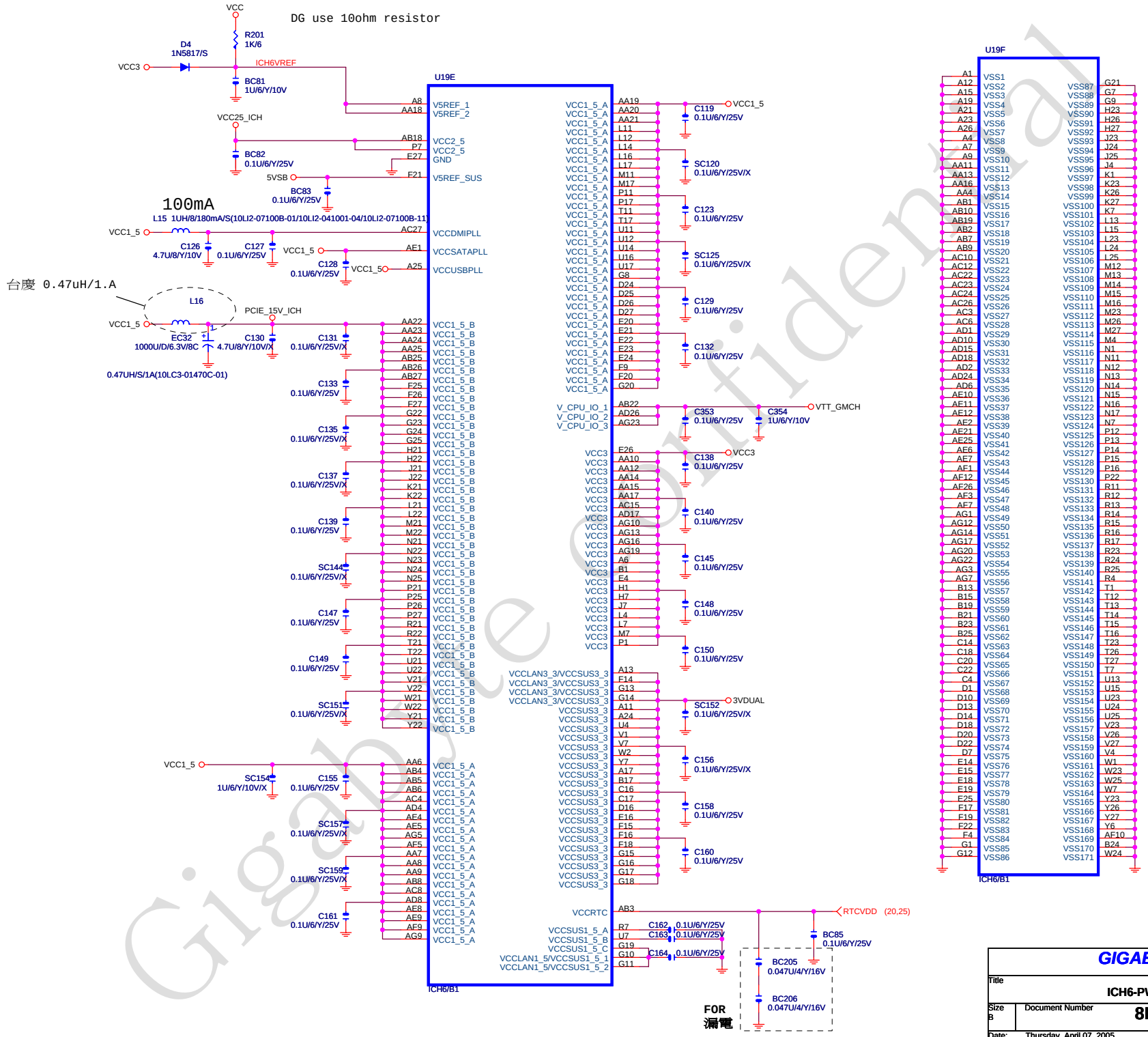

GIGABYTE

Title	ICH6-PWR & GND	
Size: B	Document Number: 8I915P DUO	Rev: 1.4
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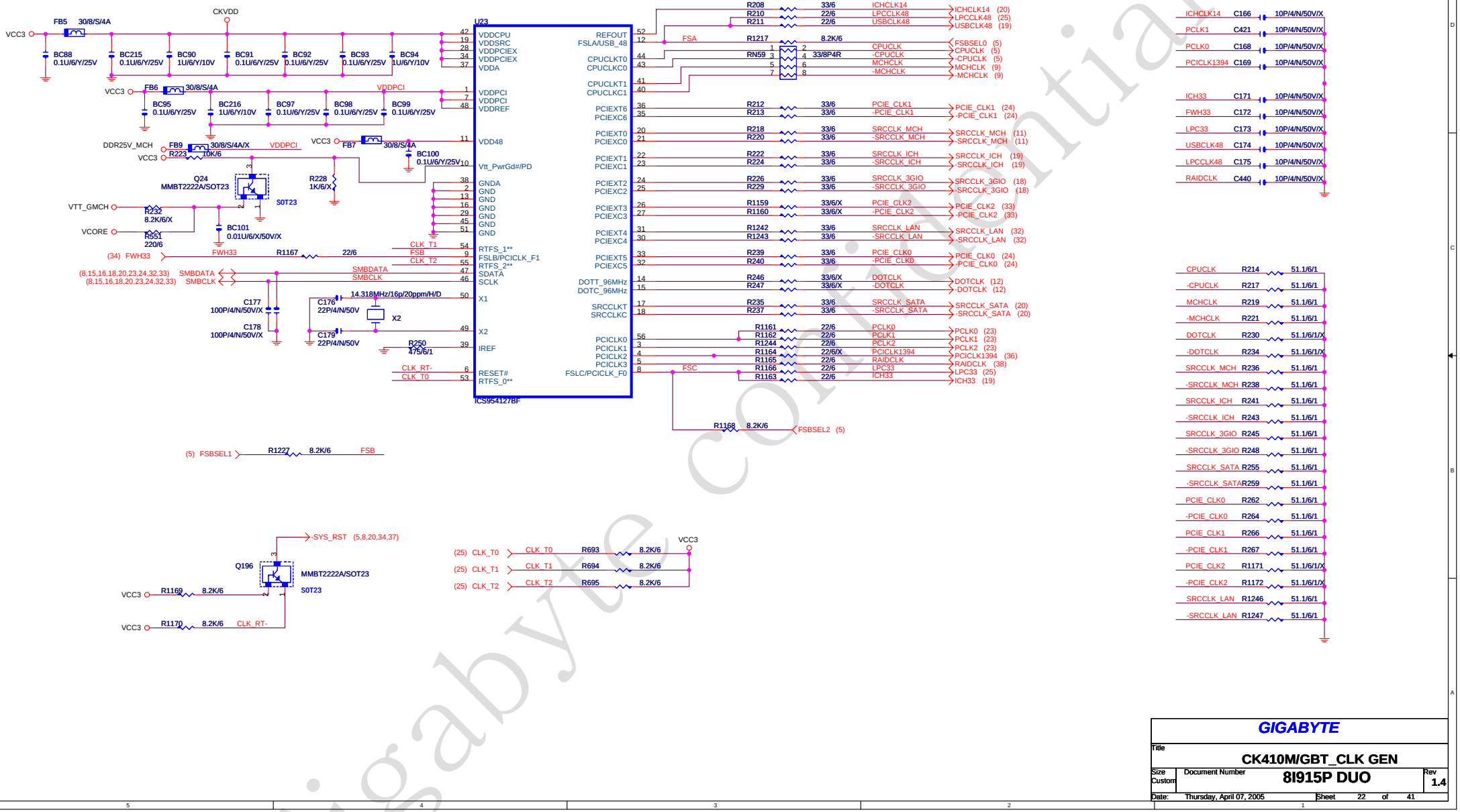

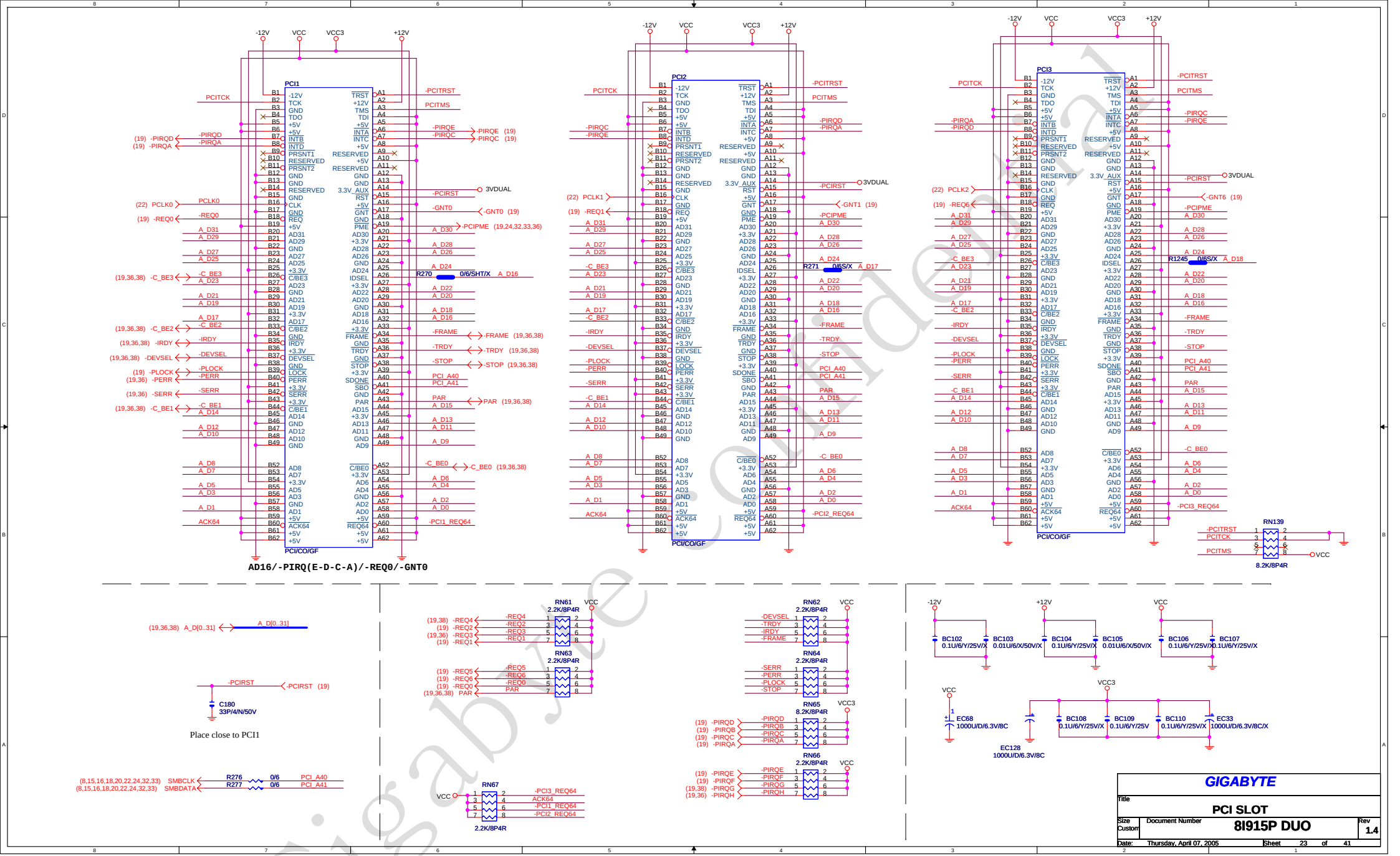

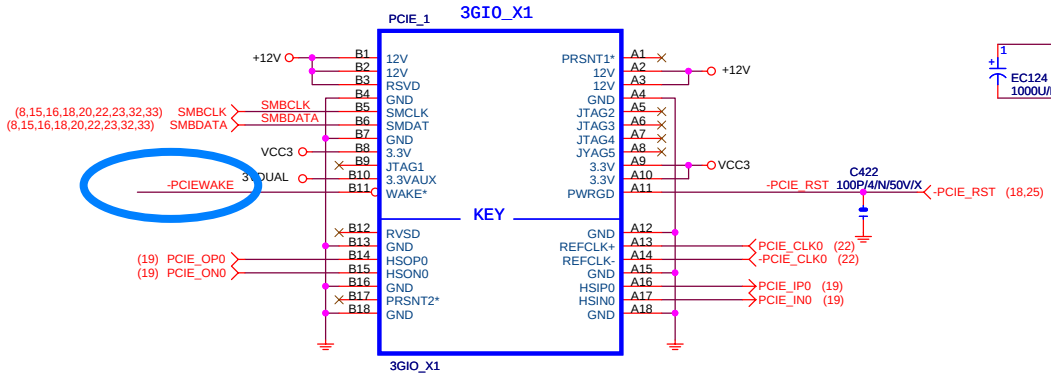

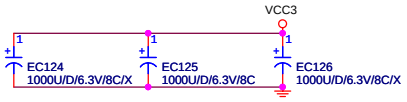

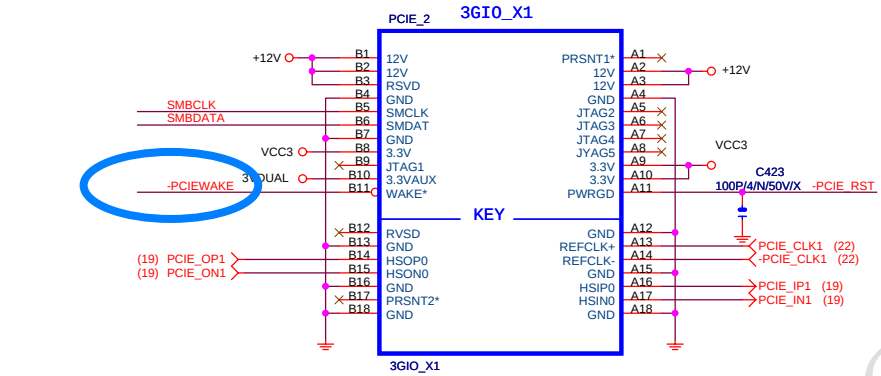

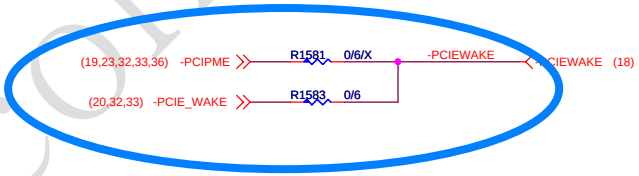

GIGABYTE

Title: PCI E SLOT

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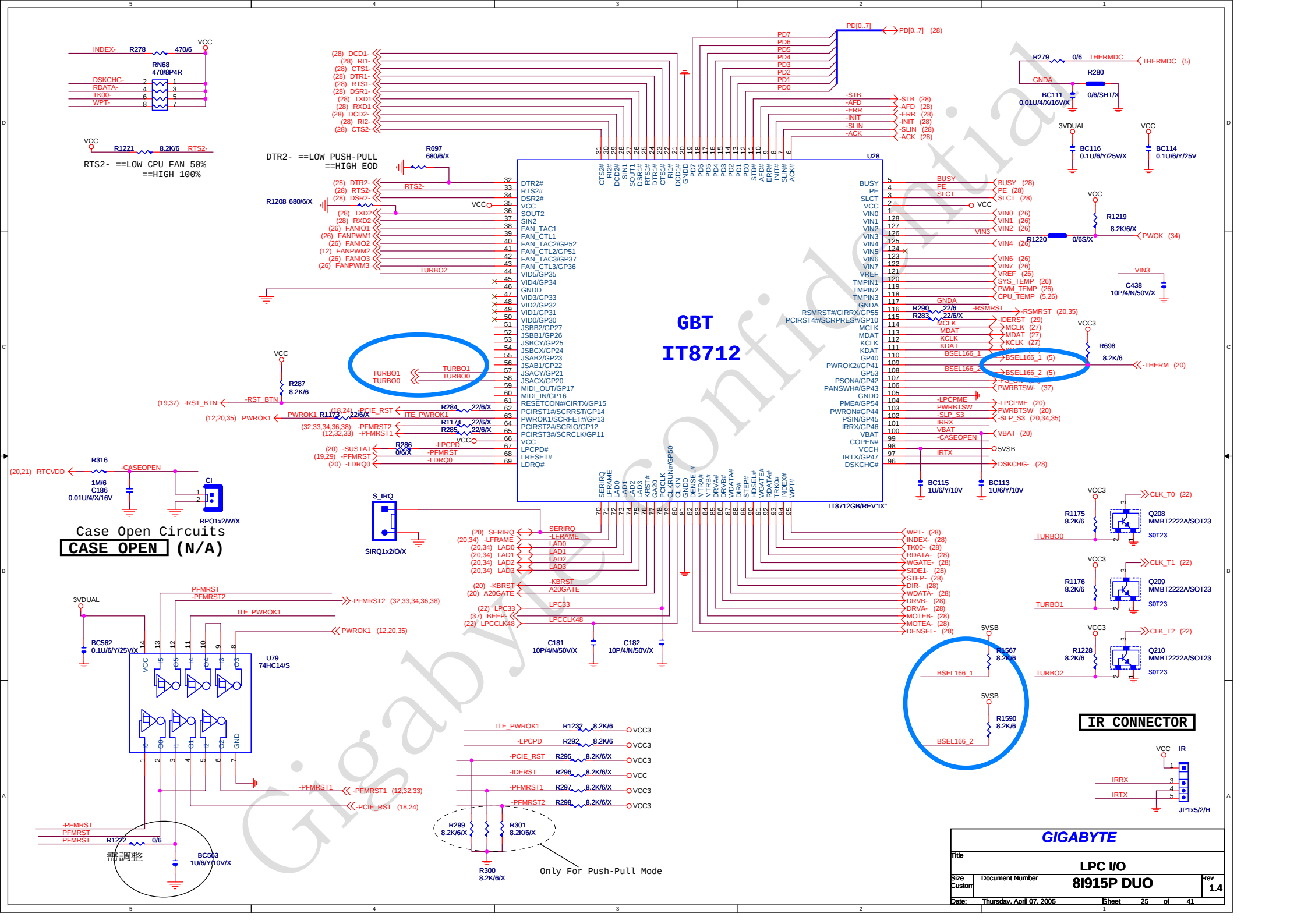
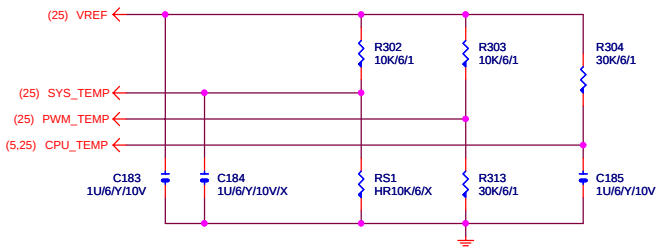
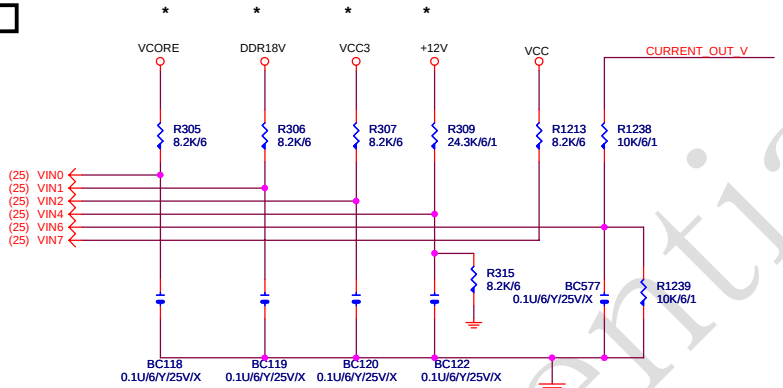


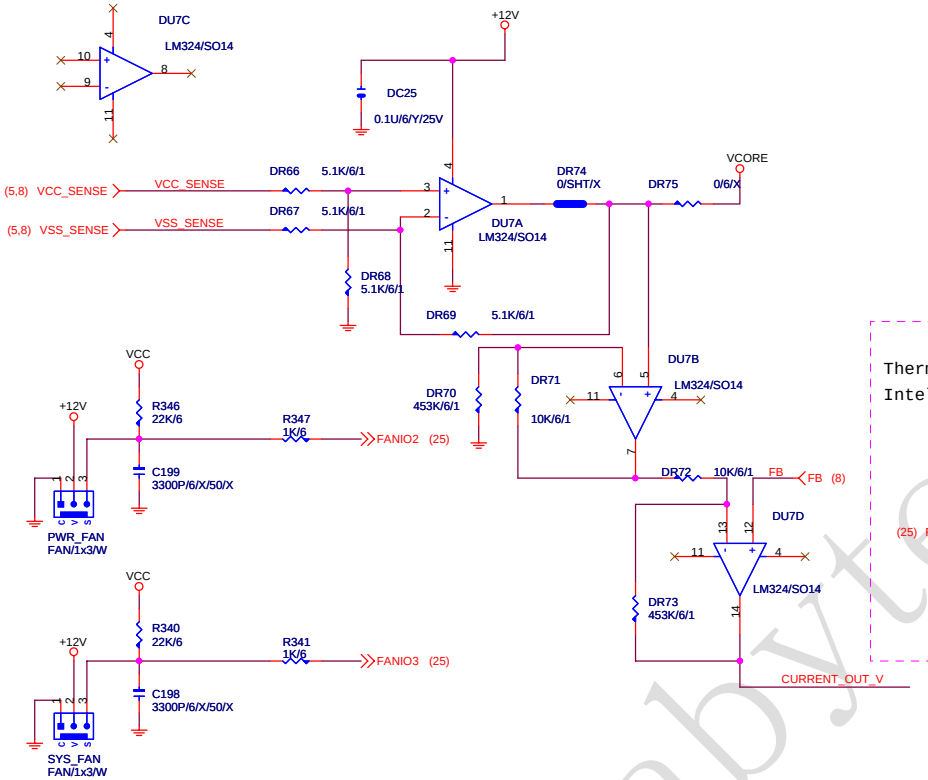
TEMP. SENSE



VOLTAGE SENSE



DUAL POWER

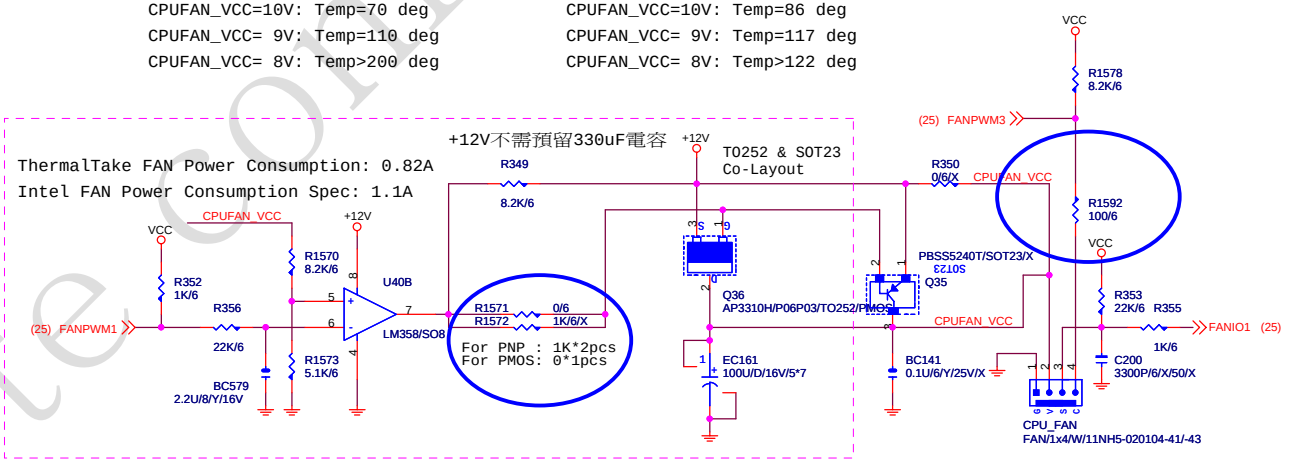


CPU/SYS FAN

If use PBSS5240 1pcs : (non airflow)	If use PBSS5240 1pcs : (with airflow)
CPUFAN_VCC=12V: Temp=40 deg	CPUFAN_VCC=12V: Temp=33 deg
CPUFAN_VCC=11V: Temp=82 deg	CPUFAN_VCC=11V: Temp=62 deg
CPUFAN_VCC=10V: Temp=70 deg	CPUFAN_VCC=10V: Temp=86 deg
CPUFAN_VCC= 9V: Temp=110 deg	CPUFAN_VCC= 9V: Temp=117 deg
CPUFAN_VCC= 8V: Temp>200 deg	CPUFAN_VCC= 8V: Temp>122 deg

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

+12V不需預留330uF電容



GIGABYTE			
Title: HWM/FAN/CI/BIOS			
Size: Custom	Document Number: 8I915P DUO		Rev: 1.4
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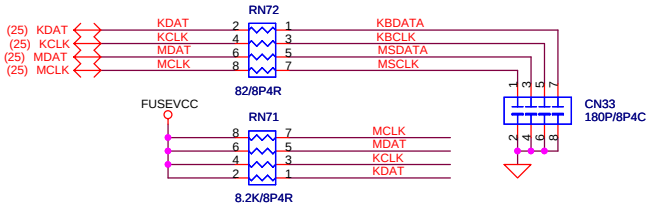
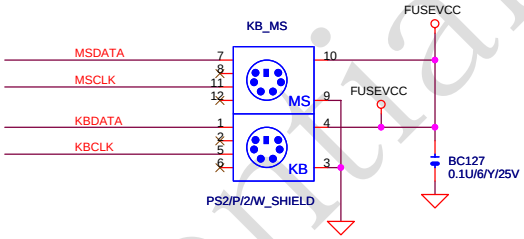
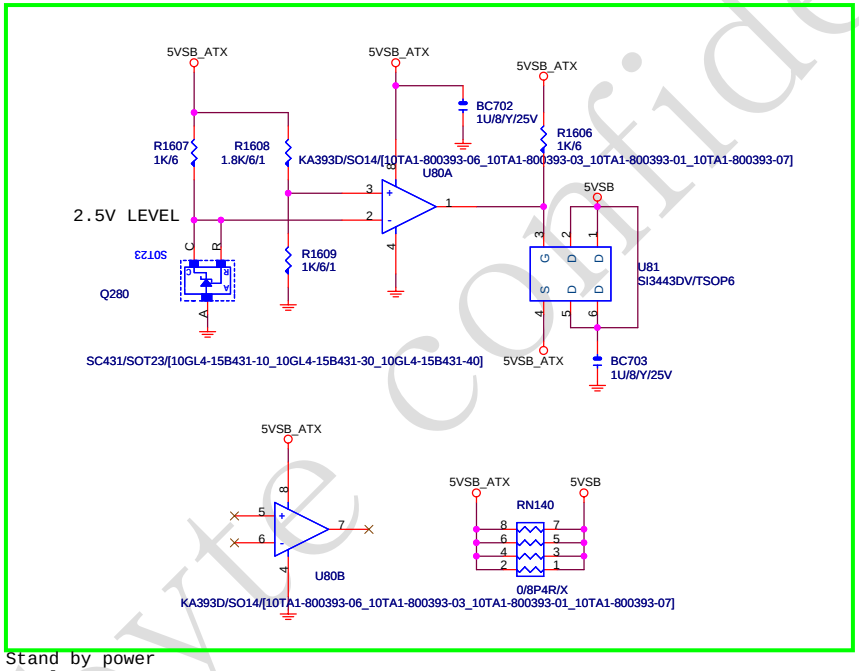
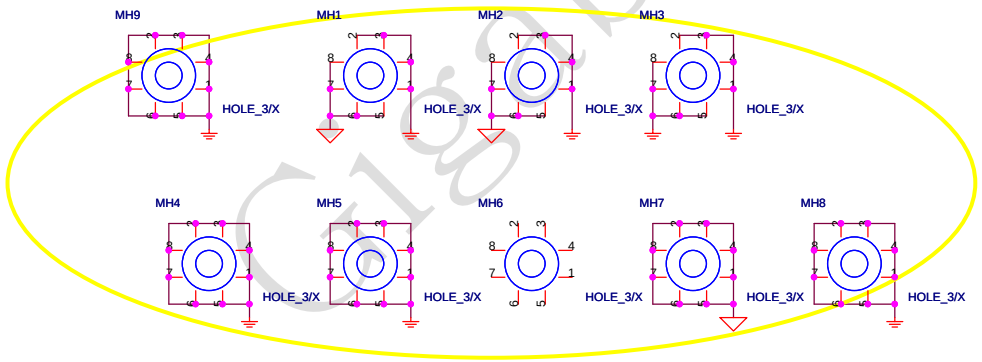
KB/MS

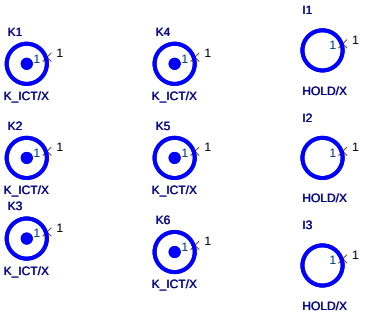






Stand by power regulator protection





GIGABYTE

Title: PS/2 KB & MS

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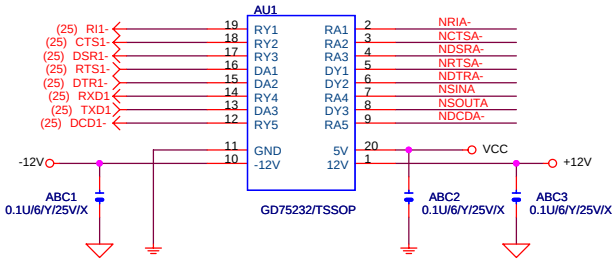
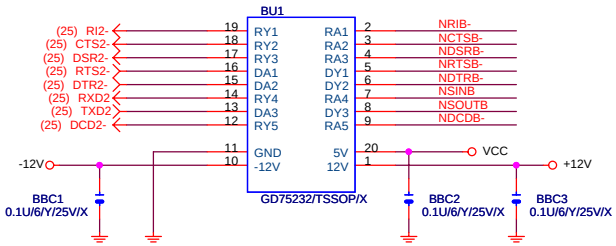
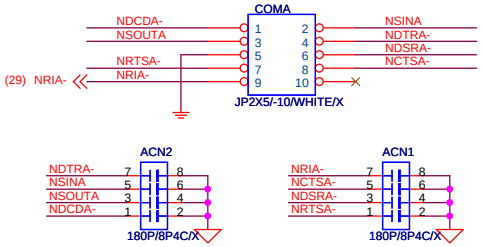
COMA/COMB

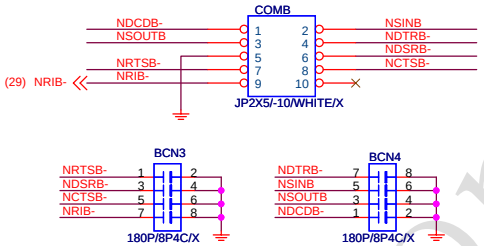


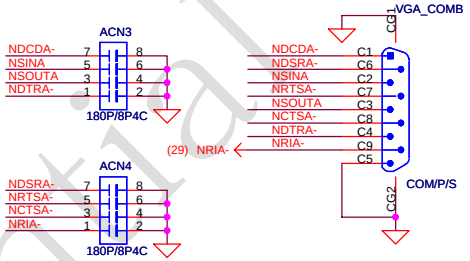


INTERNAL COMA



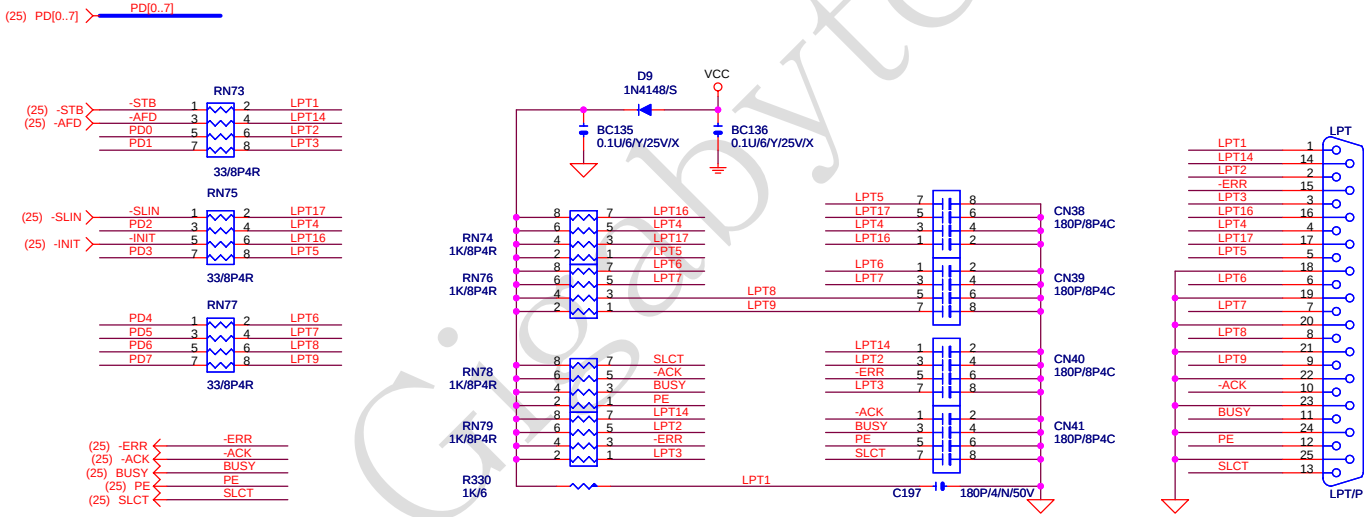
INTERNAL COMB



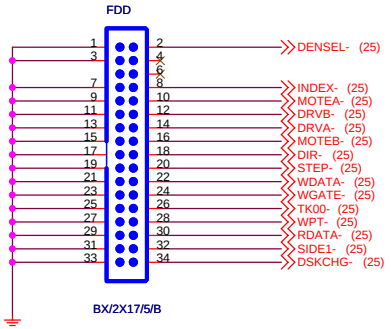


PLACE NEAR VGA_COM CONNECTOR

LPT



FLOPPY



GIGABYTE

Title: COM, LPT, FDD

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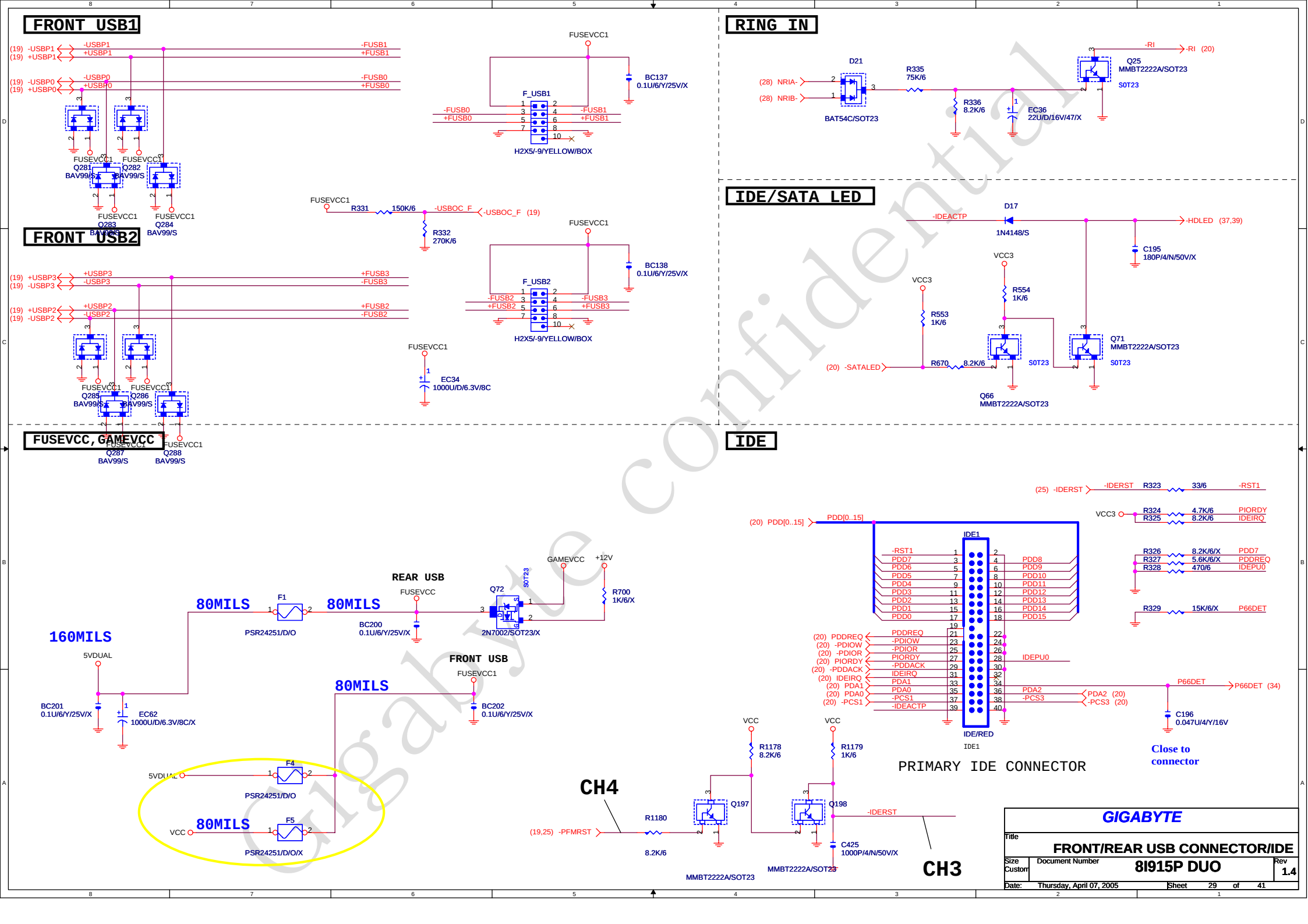
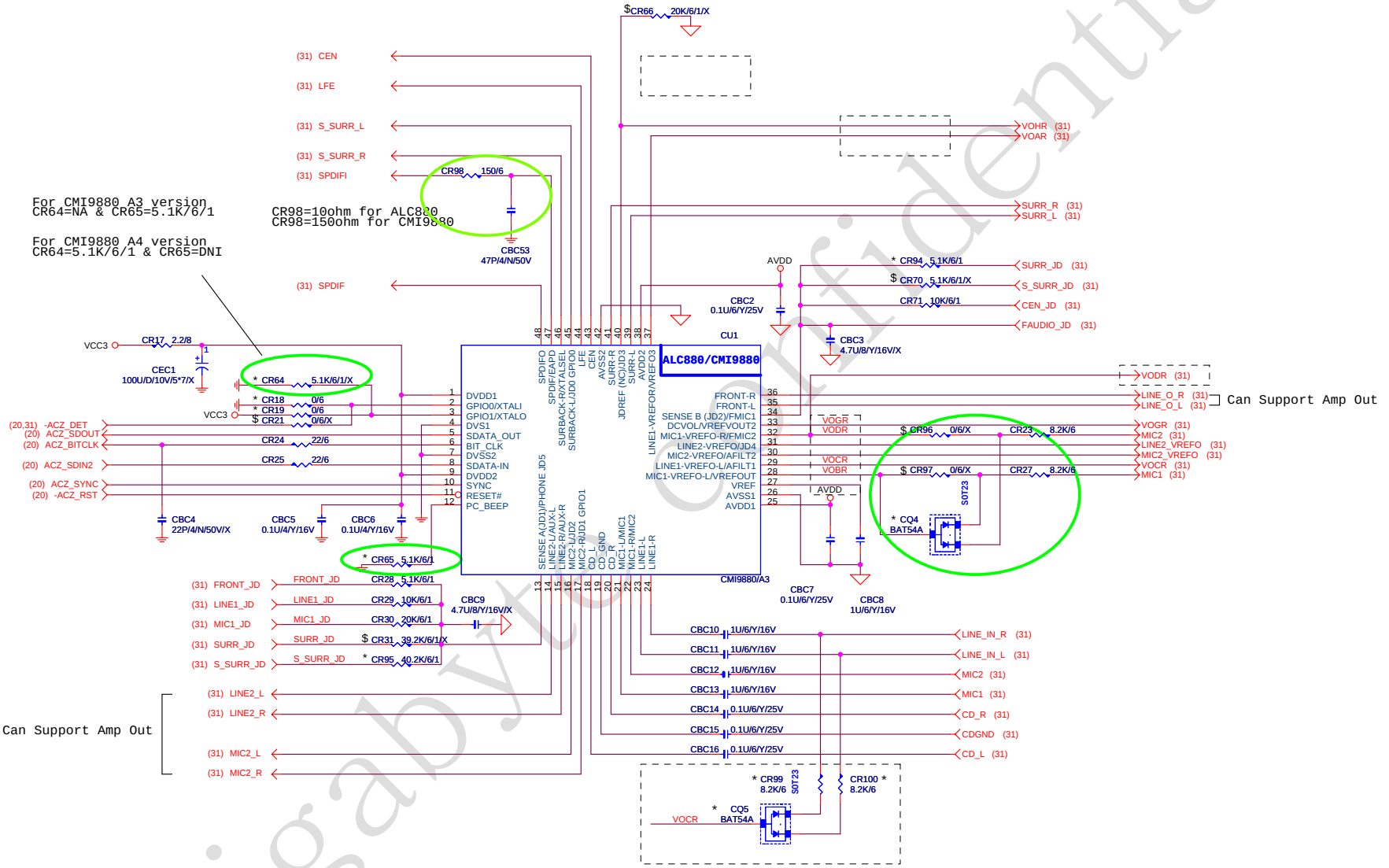


"$" means for ALC880 only
"*" means for CMI9880 only



GIGABYTE			
Title	AC97 CMI9880		
Size: Custom	Document Number: 8I915P DUO		Rev: 1.4
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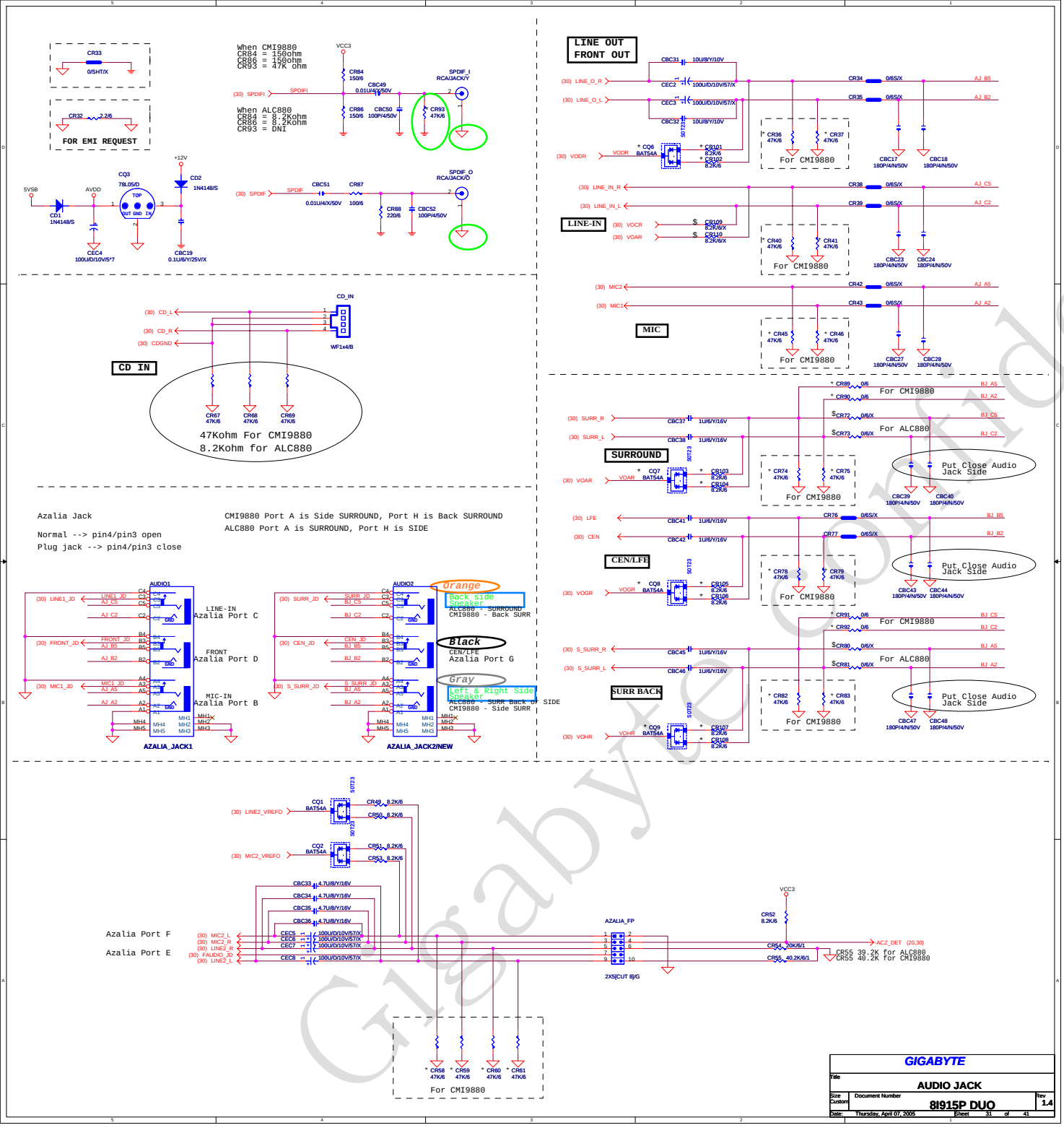
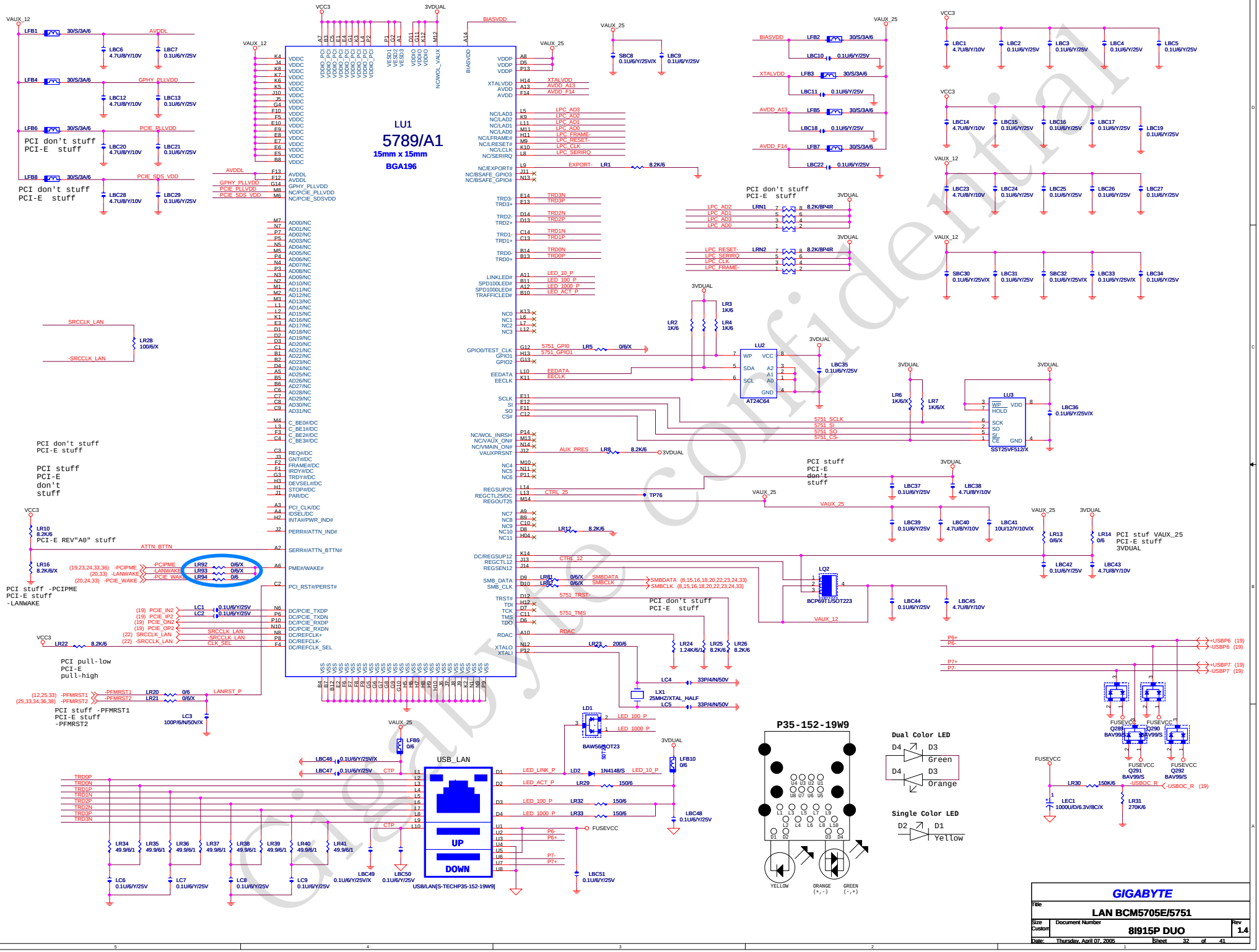
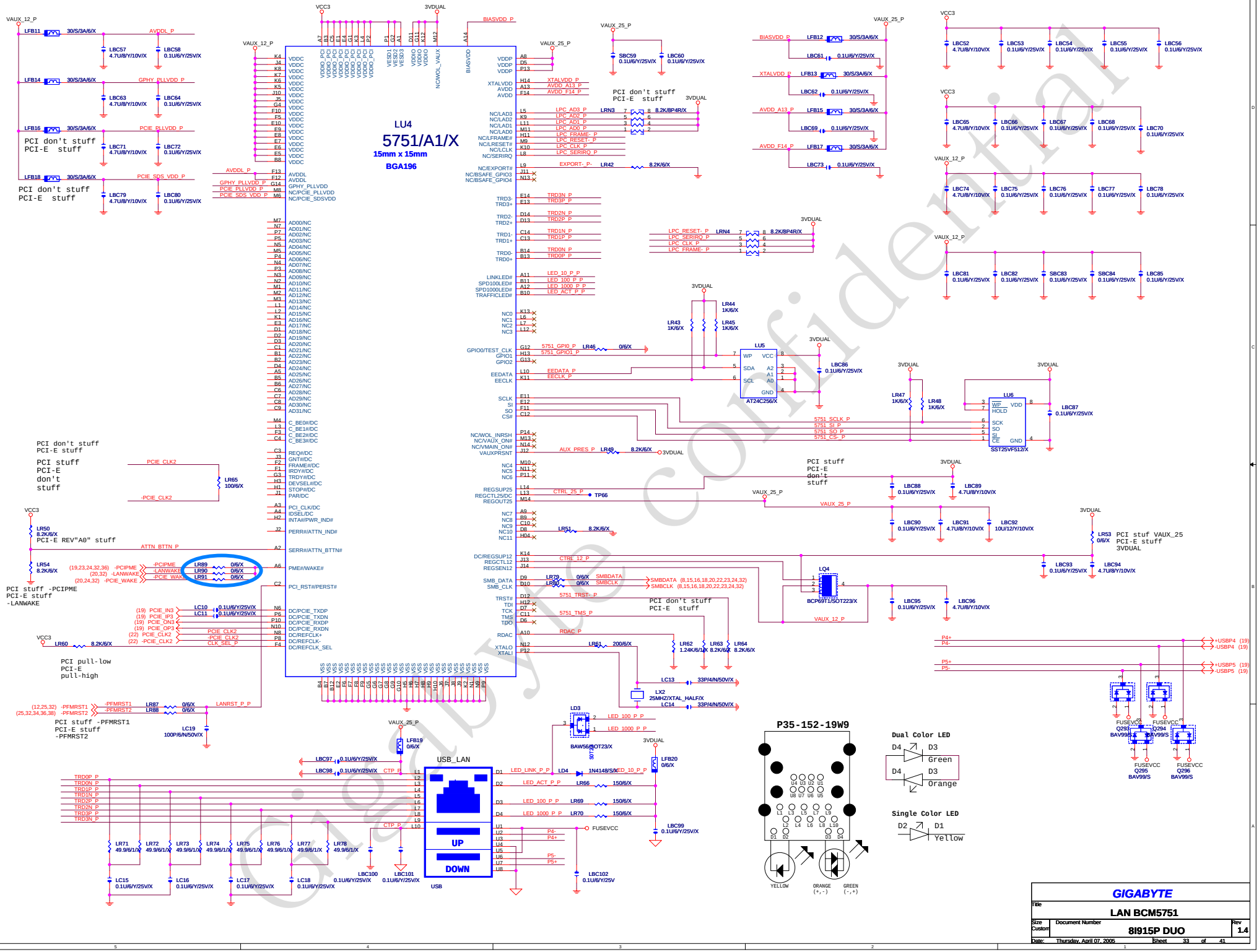
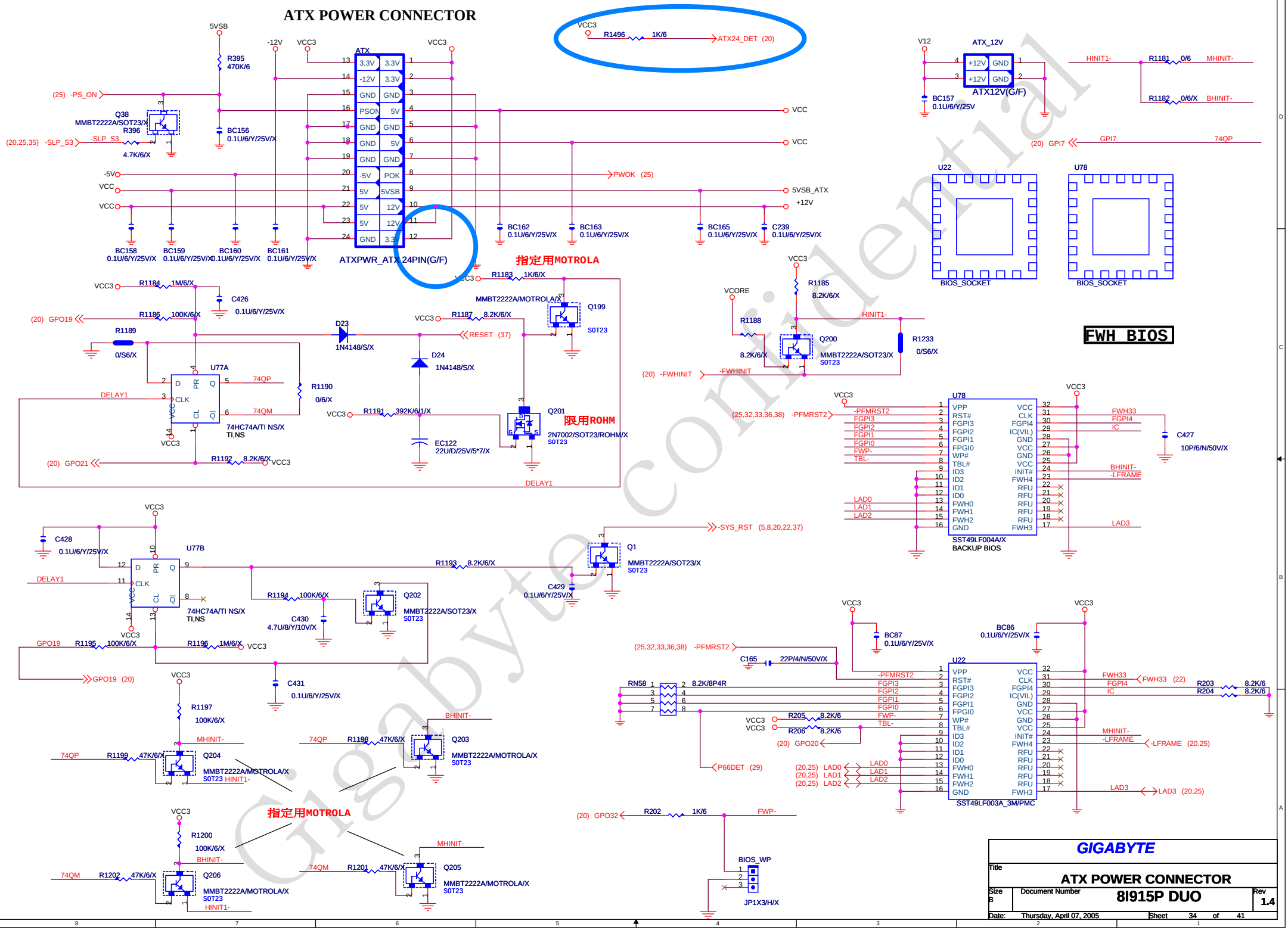






ATX POWER CONNECTOR



GIGABYTE

Title	ATX POWER CONNECTOR	
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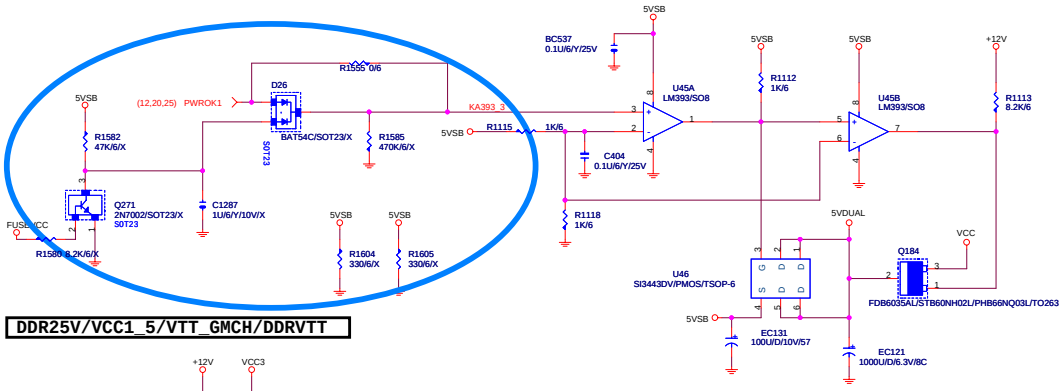
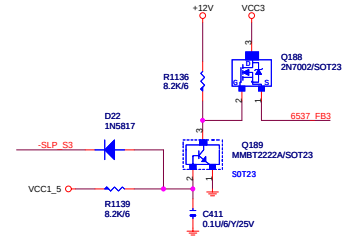
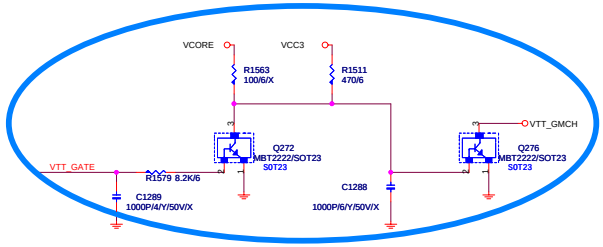
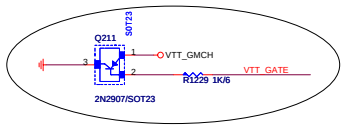
5VDUAL CIRCUIT

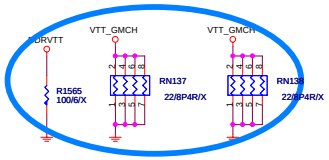


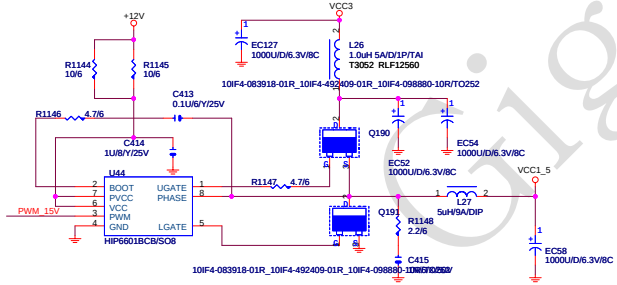
DDR25V/VCC1_5/VTT_GMCH/DDRVTT

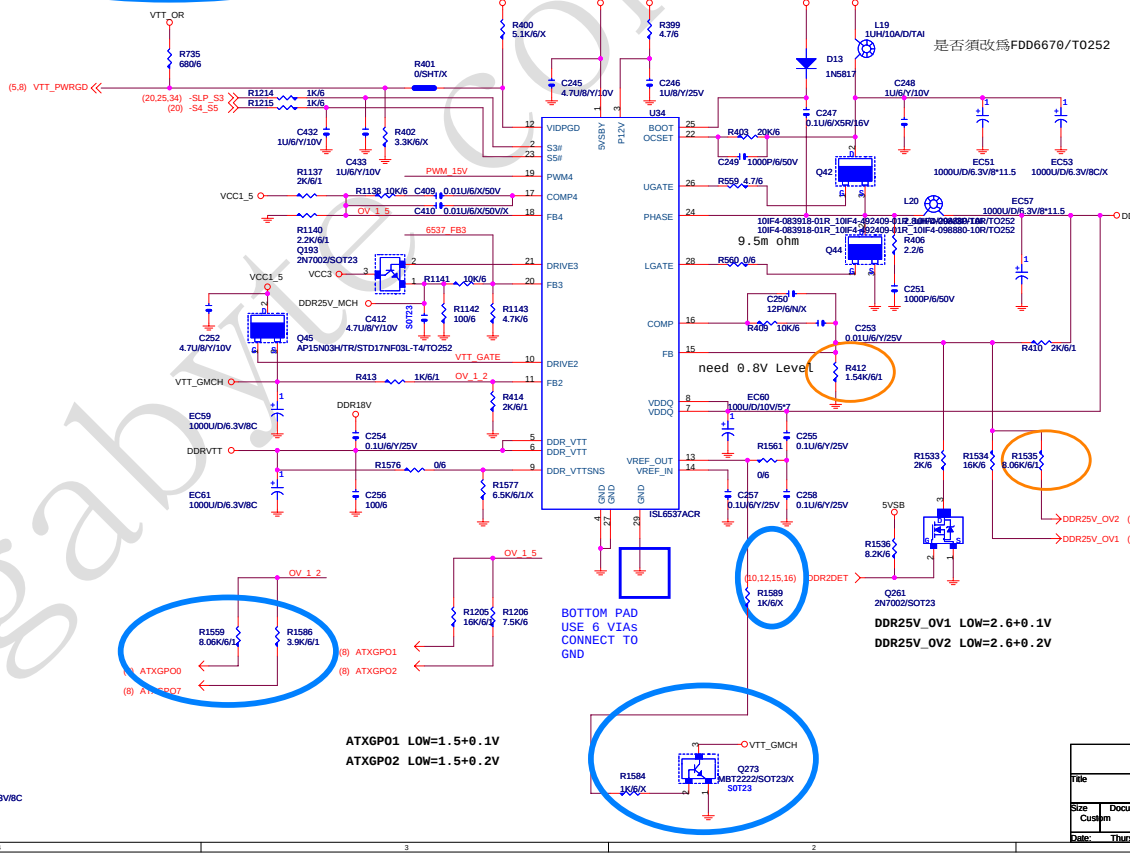




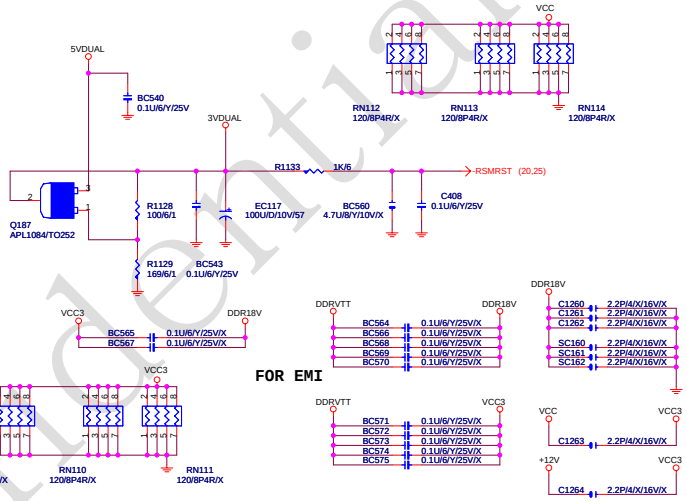








3VDUAL CIRCUIT



FOR EMI

Title	Discrete Power		
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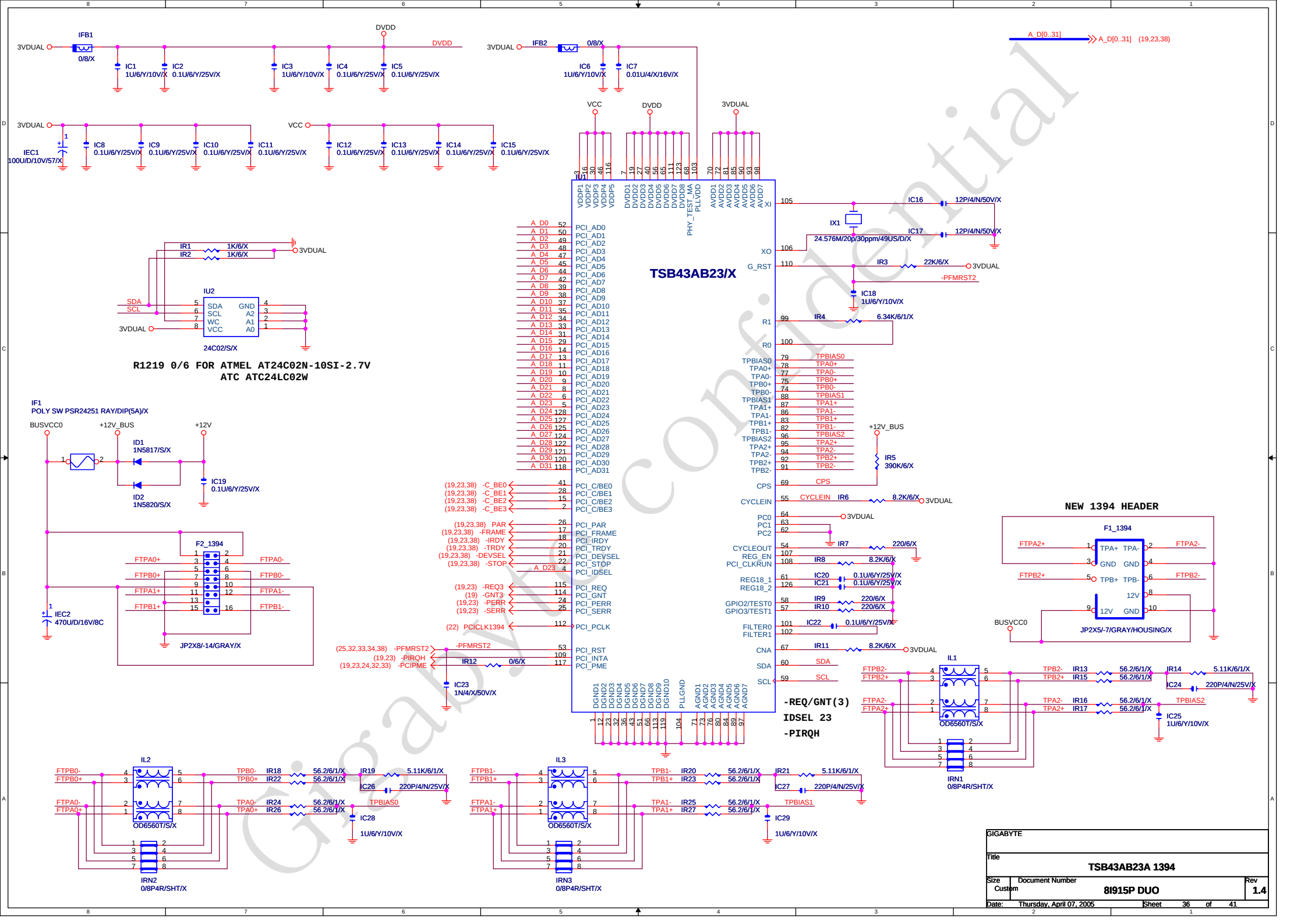
TSB43AB23/X
R1219 0/6 FOR ATMEL AT24C02N-10SI-2.7V
ATC ATC24LC02W
NEW 1394 HEADER
-REQ/GNT(3)
IDSEL 23
-PIRQH
A_D[0..31]
A_D[0..31] (19,23,38)
3VDUAL
DVDD
VCC
IFB1
IFB2
0/8/X
IC1 1U/6/Y/10V/X
IC2 0.1U/6/Y/25V/X
IC3 1U/6/Y/10V/X
IC4 0.1U/6/Y/25V/X
IC5 0.1U/6/Y/25V/X
IC6 1U/6/Y/10V/X
IC7 0.01U/4/X/16V/X
IEC1 100U/D/10V/57/X
IC8 0.1U/6/Y/25V/X
IC9 0.1U/6/Y/25V/X
IC10 0.1U/6/Y/25V/X
IC11 0.1U/6/Y/25V/X
IC12 0.1U/6/Y/25V/X
IC13 0.1U/6/Y/25V/X
IC14 0.1U/6/Y/25V/X
IC15 0.1U/6/Y/25V/X
IR1 1K/6/X
IR2 1K/6/X
IU2
SDA
SCL
WC
VCC
A0
A1
A2
GND
24C02/S/X
IF1
POLY SW PSR24251 RAY/DIP(5A)/X
BUSVCC0
+12V_BUS
+12V
ID1 1N5817/S/X
ID2 1N5820/S/X
IC19 0.1U/6/Y/25V/X
IEC2 470U/D/16V/8C
F2_1394
JP2X8/-14/GRAY/X
IX1
24.576M/20p/30ppm/49US/D/X
IC16 12P/4/N/50V/X
IC17 12P/4/N/50V/X
IR3 22K/6/X
-PFMRST2
IC18 1U/6/Y/10V/X
IR4 6.34K/6/1/X
IR5 390K/6/X
IR6 8.2K/6/X
IR7 220/6/X
IR8 8.2K/6/X
IC20 0.1U/6/Y/25V/X
IC21 0.1U/6/Y/25V/X
IR9 220/6/X
IR10 220/6/X
IC22 0.1U/6/Y/25V/X
IR11 8.2K/6/X
IR12 0/6/X
IC23 1N/4/X/50V/X
F1_1394
JP2X5/-7/GRAY/HOUSING/X
IL1
OD6560T/S/X
IRN1
0/8P4R/SHT/X
IR13 56.2/6/1/X
IR14 5.11K/6/1/X
IR15 56.2/6/1/X
IC24 220P/4/N/25V/X
IR16 56.2/6/1/X
IR17 56.2/6/1/X
IC25 1U/6/Y/10V/X
IL2
IRN2
0/8P4R/SHT/X
IR18 56.2/6/1/X
IR19 5.11K/6/1/X
IR22 56.2/6/1/X
IC26 220P/4/N/25V/X
IR24 56.2/6/1/X
IR26 56.2/6/1/X
IC28 1U/6/Y/10V/X
IL3
IRN3
0/8P4R/SHT/X
IR20 56.2/6/1/X
IR21 5.11K/6/1/X
IR23 56.2/6/1/X
IC27 220P/4/N/25V/X
IR25 56.2/6/1/X
IC29 1U/6/Y/10V/X
GIGABYTE
Title
TSB43AB23A 1394
Size Custom
Document Number
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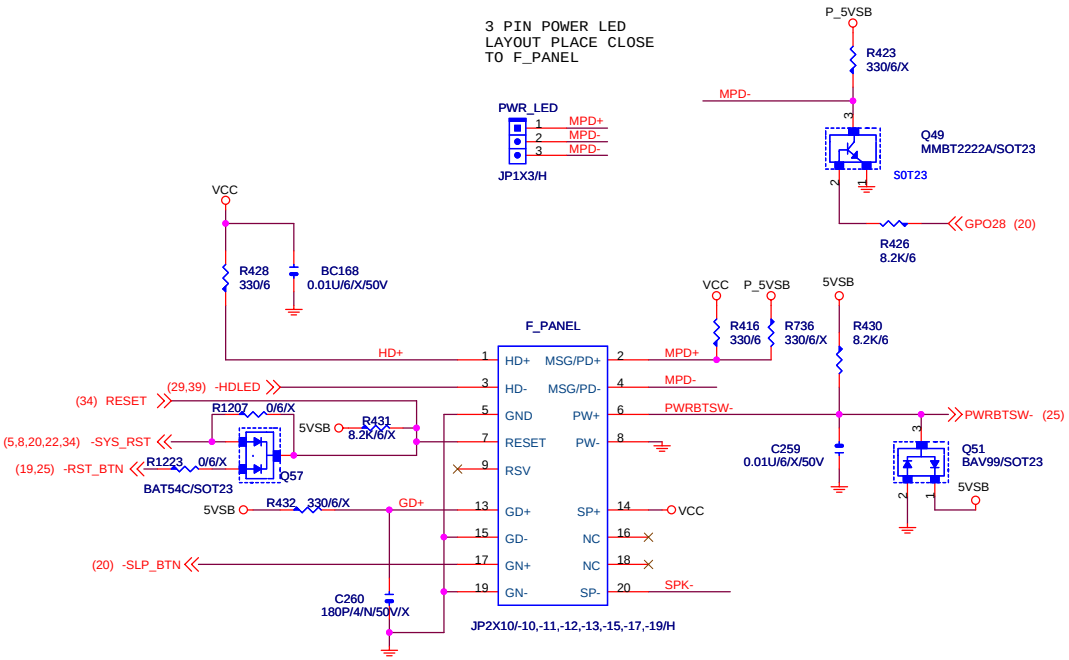
Gigabyte confidential

INTEL FRONT PANEL



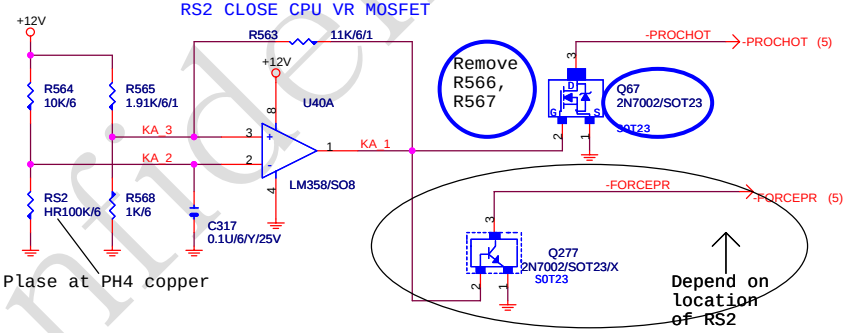
PROCESSOR HOT (N/A)

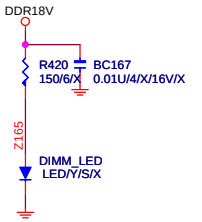
如果要用2N7002需注意OP output
Hi時的電壓是否遠大於2V。

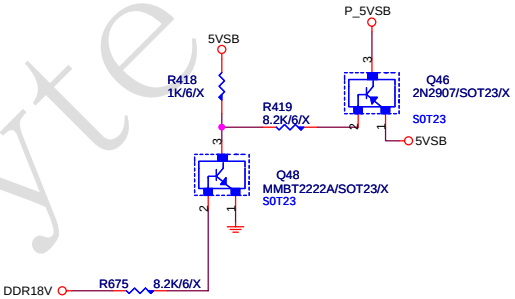
asserted at 130 degree (RS2=720 ohm)
deasserted at 115 degree (RS2=1270 ohm)

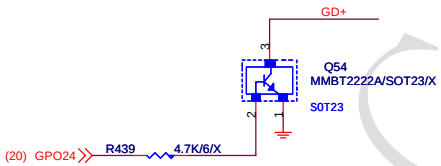
KA393改爲LM358，電源pin改接+12V，Prochot#溫度需重新調整之。

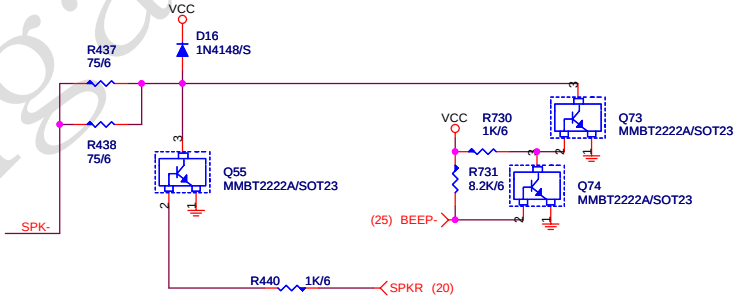
RS2 CLOSE CPU VR MOSFET











States for green LED N01 GPO22 only S1 PROGRAMMING LOW

LED States	ACPI States	GPO28
ON	S1,S3	0
OFF	S0,S5	1

(GPO22 DEFAULT HIGH, main power)

States for a single-color power LED

LED States	ACPI States	GPO25	GPO27	GPO24
OFF	S1,S3,S5	1	1	N01
Steady Green	S0	1	1	1
Blinking Green	S0(message waiting)	1	B	1

LED States	ACPI States	GPO25	GPO27	GPO22
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	N01
Blinking Yellow	S1,S3(message waiting)	1	B	N01

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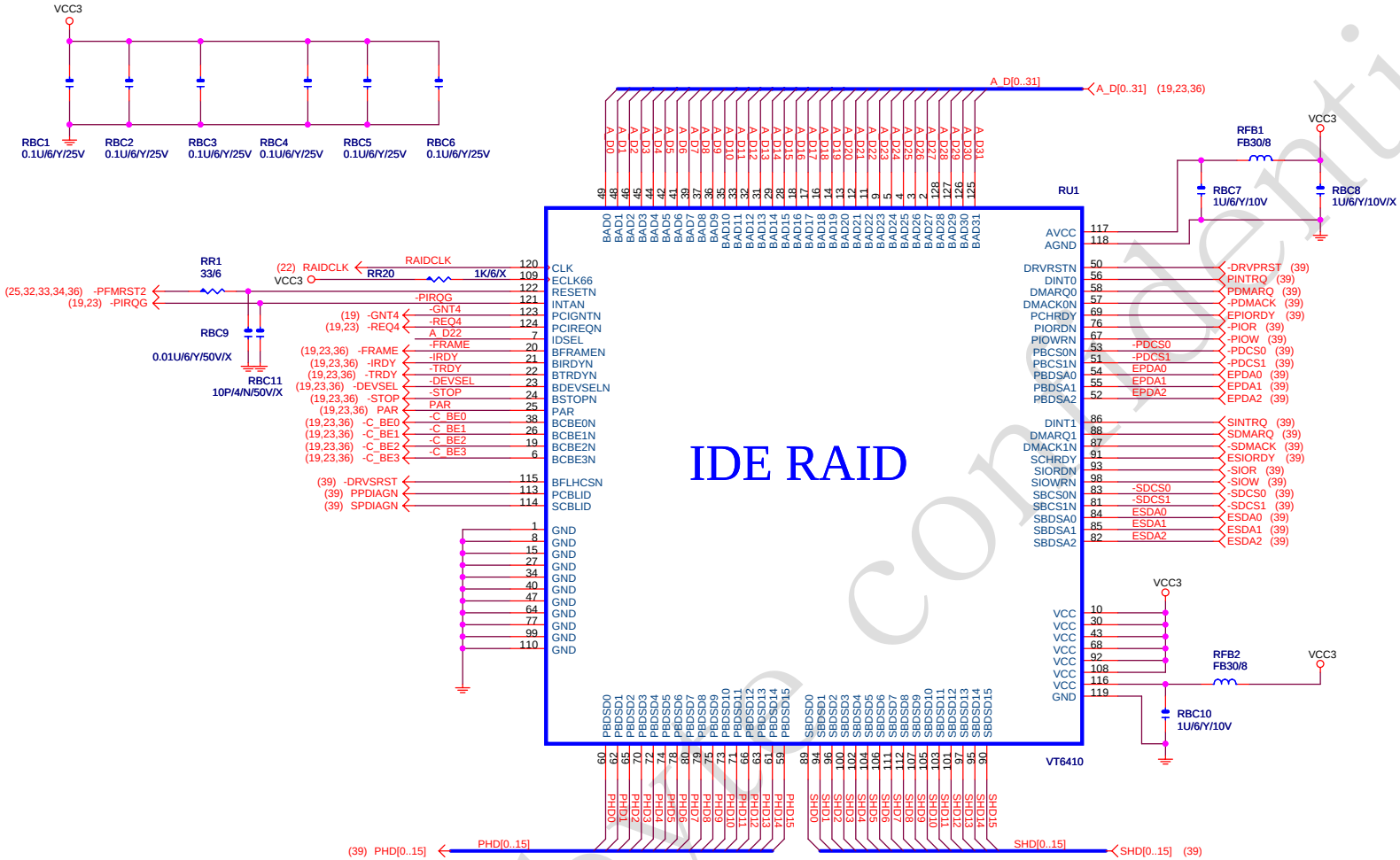
ALL INPUT PIN MUST HAVE 0.1 CAPACITOR



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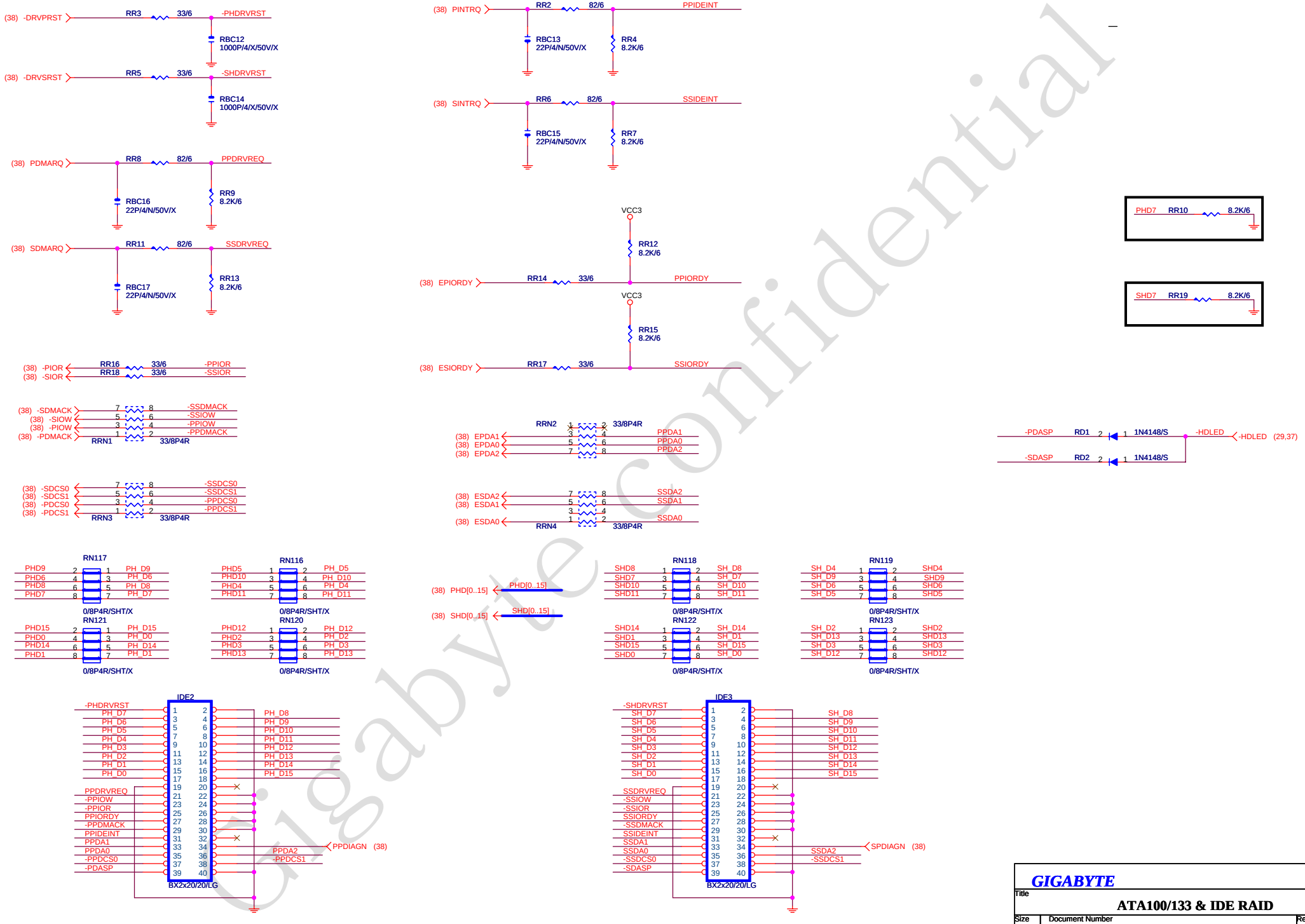

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GPI26

INTEL ICH6 GPIO Implementation

紅字表示CPI/O 同PIN

GPI PIN

Pin Name	Pin Type	Power Well			GPIO Application
GPI[0]	Input	V5REF	-REQ[6]	(P.U VCC)	-REQ[6]
GPI[1]	Input	V5REF	-REQ[5]	(P.U VCC)	Reserved
GPI[5:2]	Input	V5REF	-PIRQ[H:E]	(P.U VCC)	PCI/LAN/NA/1394
GPI[6]	Input	VCC3	GPI[6]	(P.U VCC3)	-SLP_BTN
GPI[7]	Input	VCC3	GPI[7]	(NA)	DUALBIOS_INPUT
GPI[8]	Input	3VDUAL	GPI[8]	(P.U 3VDUAL)	-LANWAKE
GPI[10:9]	Input	3VDUAL	0C_4/5	(P.U 5VDUAL分壓)	-USBOC_R
GPI[11]	Input	3VDUAL	-SMBALERT	(P.U 3VDUAL)	-SMBALRT
GPI[12]	Input	VCC3	GPI[12]	(P.U VCC3)	ATX24_DET
GPI[13]	Input	3VDUAL	GPI[13]	(P.U 3VDUAL)	-LPCPME
GPI[15:14]	Input	3VDUAL	0C_6/7	(P.U 5VDUAL分壓)	-USBOC_R
GPO[16]	OUTPUT	VCC3	-GNT[6]	(integrated VCC3)	Reserved
GPO[17]	OUTPUT	VCC3	-GNT[5]	(integrated VCC3)	Reserved
GPO[18]	OUTPUT	VCC3	GPO[18]	(P.U VCC3)	LANRST-
GPO[19]	OUTPUT	VCC3	GPO[19]	(P.U VCC3)	DUAL_BIOS_OUTPUT
GPO[20]	OUTPUT	VCC3	GPO[20]	(P.U VCC3)	TBL-
GPO[21]	OUTPUT	VCC3	GPO[21]	(P.U VCC3)	DUAL_BIOS_OUTPUT
GPO[22]	Not Implemented		Not Implemented		Not Implemented
GPO[23]	OUTPUT	VCC3	GPO[23]	(P.U VCC3)	LANRST-
GPO[24]	IN/OUT	3VDUAL	GPO[24]	(NA)	GREEN_LED
GPO[25]	IN/OUT	3VDUAL	vcc_25vregulator	(NA)	Reserved
GPI[26]	Input	VCC3	SATA[0]GP	(P.U VCC3)	SATA[0]GP
GPIO[27]	IN/OUT	3VDUAL	GPIO[27]	(NA)	Reserved
GPIO[28]	IN/OUT	3VDUAL	GPO[28]	(NA)	PWD_LED
GPI[29]	Input	VCC3	SATA_1GP	(P.U VCC3)	SATA_1GP
GPI[30]	Input	VCC3	SATA_2GP	(P.U VCC3)	SATA_2GP
GPI[31]	Input	VCC3	SATA_3GP	(P.U VCC3)	SATA_3GP
GPIO[32]	IN/OUT	VCC3	GPO[32]	(NA)	FWP-
GPIO[33]	IN/OUT	VCC3	GPI[33]	(P.U VCC3)	-ACZ_DET
GPIO[34]	IN/OUT	VCC3	GPIO[34]	(P.U VCC3)	MB_ID0
GPI[40]	Input	V5REF	-REQ[4]	(P.U VCC)	-REQ[4]
GPI[41]	Input	VCC3	GPI[41]	(P.U VCC3)	MB_ID1
GPO[48]	OUTPUT	VCC3	-GNT[4]	(integrated VCC3)	Reserved
GPO[49]	OD O	V_CPU_IO	CPUPWROK	(P.U VTT_OR)	CPUPWROK
GP1O[35-39,42-47]	NOT IMPLEMENTED		NOT IMPLEMENTED		

GPO PIN

Pin Name	Pin Number	Power Well	Pin Type			GPIO Application

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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 ID
GPI1	V5REF	-REQ5	GPO48	VCC3	-GNT4
GPI2	V5REF	-PIRQE	GPO49	V-CPUIO	CPUPWOK
GPI3	V5REF	-PIRQF			
GPI4	V5REF	-PIRQG			
GPI5	V5REF	-PIRQH			
GPI6	VCC3	-SLP BTN			
GPI7	VCC3	DUAL BIOS			
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			
GPO18	VCC3	CPU OV2			
GPO19	VCC3	DUAL BIOS			
GPO20	VCC3	BIOS T-BLOCK			
GPO21	VCC3	DUAL BIOS			
GPO23	VCC3	DDR OV0			
GPIO24	3VDAUL	GREEN LED			
GPIO25	3VDAUL	DDR OV1			
GPI26	VCC3	SATA_GP0			
GPIO27	3VDAUL	+PWRLED			
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	M/B ID			
GPI40	V5REF	-REQ4			

PWROK/RESET Table:

ITE8712BHX PIN	NET NAME	TARGET
PIN62/-PCIRST1	-PCIE_RST	1. PCI-E * 1 Slot1 2. PCI-E * 1 Slot2 3. PCI-E * 1 Slot3 4. PCI-E * 16 Slot
PIN64/-PCIRST2	-PFMRST2	1. Onboard PCI Lan 2. Onboard 1394 Chip 3. OnBoard FWH
PIN65/-PCIRST3	-PFMRST1	1. Onboard PCI-E Lan 2. Onboard SATA Chip 3. GMCH
PIN115/-PCIRST4	-PFMRST_ -IDERST	Reserved For IDE
PIN63/PWROK1	PWROK1	1. GMCH 2. ICH6 3. 5VDUAL SWITCH 4. DPS CONTROL
PIN109/PWROK2	-THERM	1. ICH6

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Title: GPIO/RESET TABLE

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