

Model Name: 8I915P DUO PRO REV1.4

SHEET TITLE

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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-GRANTS DALE_HOST
10	GMCH-GARNTSDALE_DDR
11	GMCH-GRANTS DALE_PCI E, DMI
12	GMCH-GRANTS DALE_INT VGA
13	GMCH-GRANTS DALE_GND
14	GMCH-GRANTS DALE_PWR
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16	DDR CHANNEL B
17	DDR TERMINATION
18	PCI EXPRESS*16 SLOT
19	ICH6 PCI, USB, DMI, LAN
20	ICH6 IDE, GPIO, SATA, CTRL
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22	CLK GEN

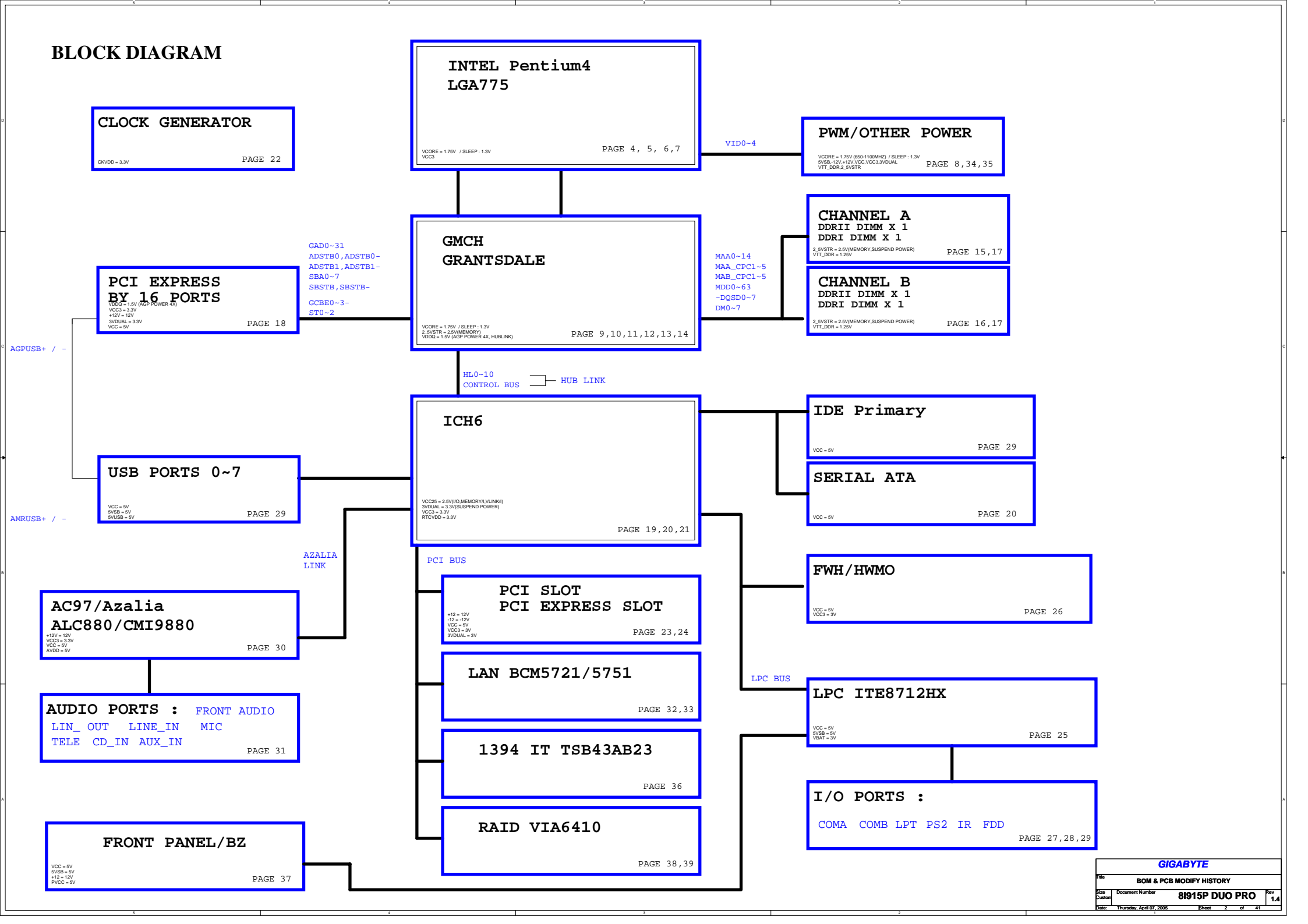
SHEET TITLE

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			
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BLOCK DIAGRAM



Version: 1.4

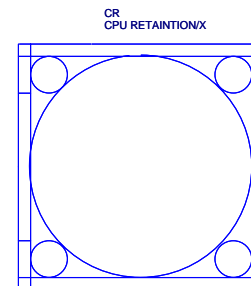
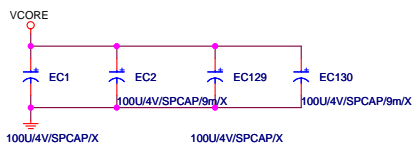
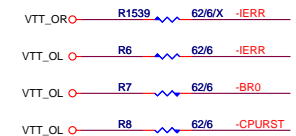
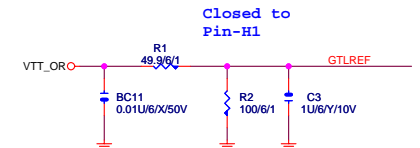
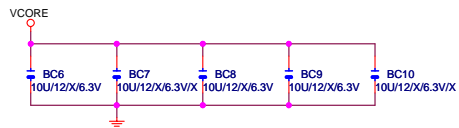
Component value change history

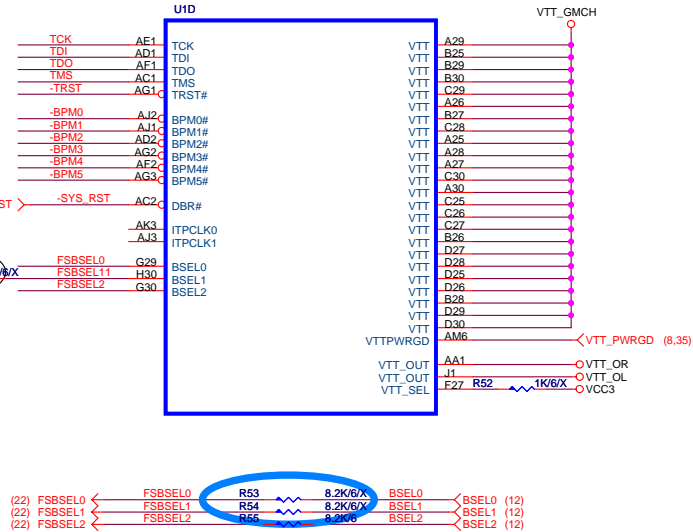
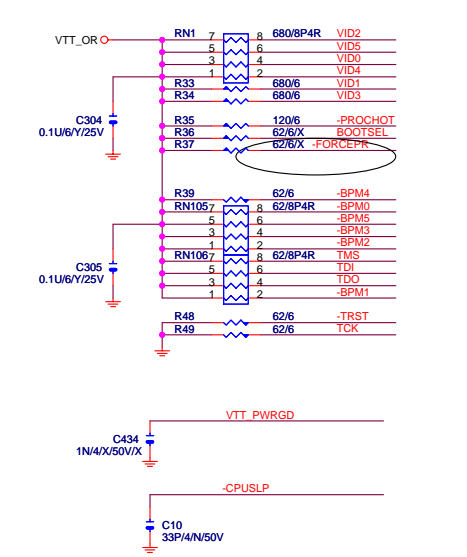
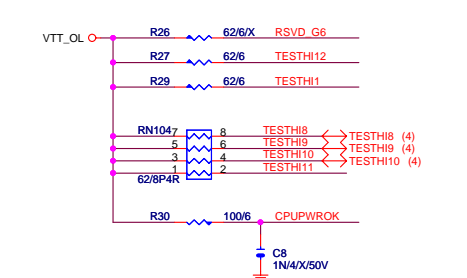
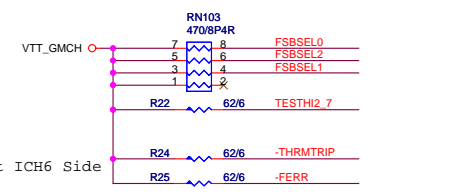
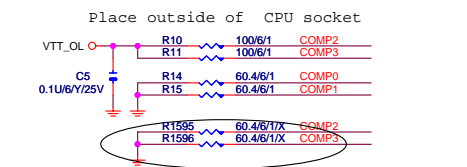
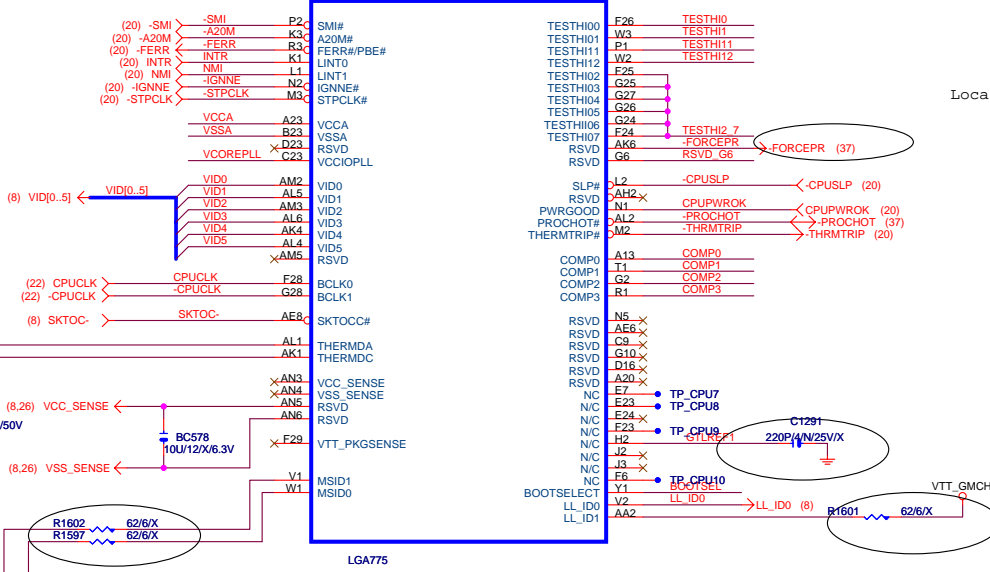
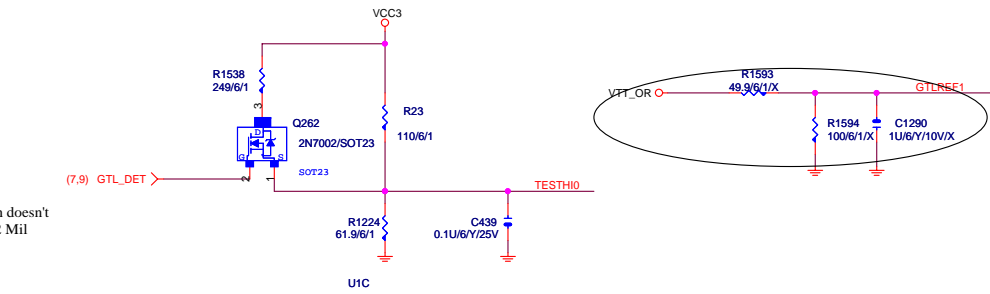
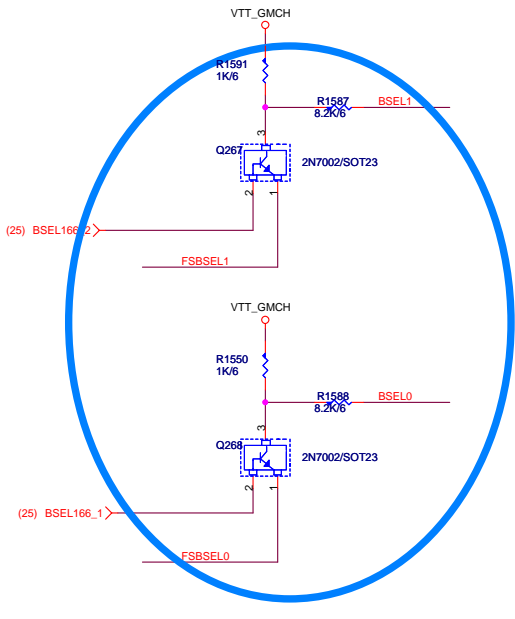
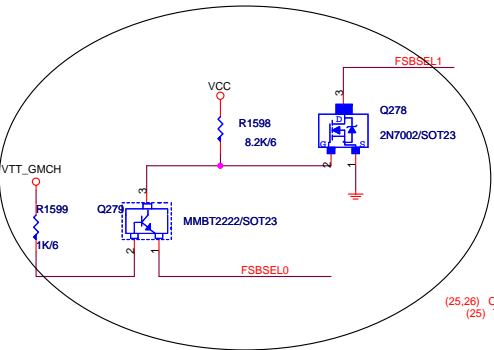
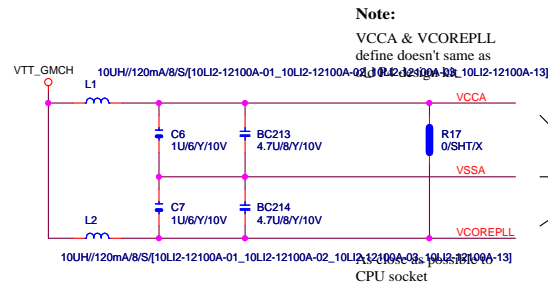
2004/05/19

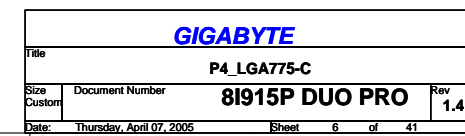
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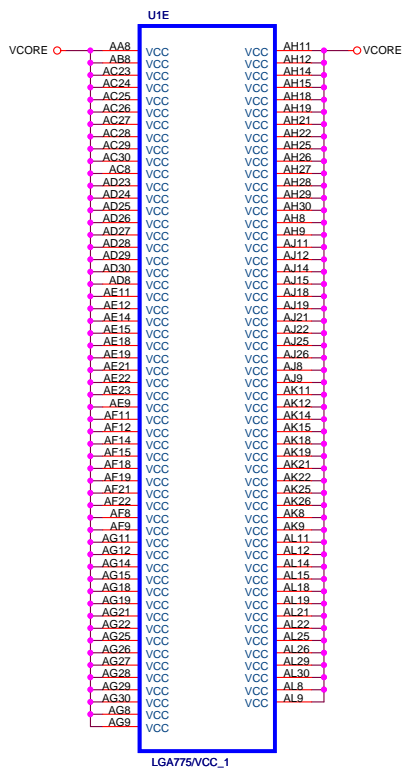
Circuit or PCB layout change
for next version

[illegible]

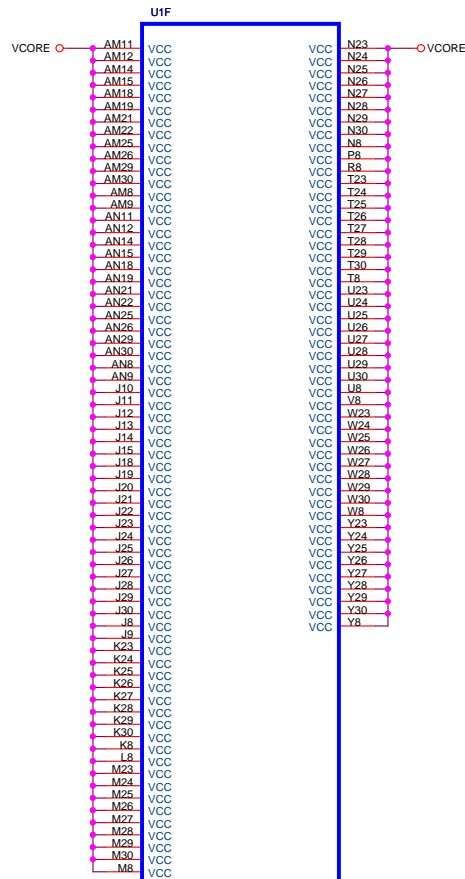




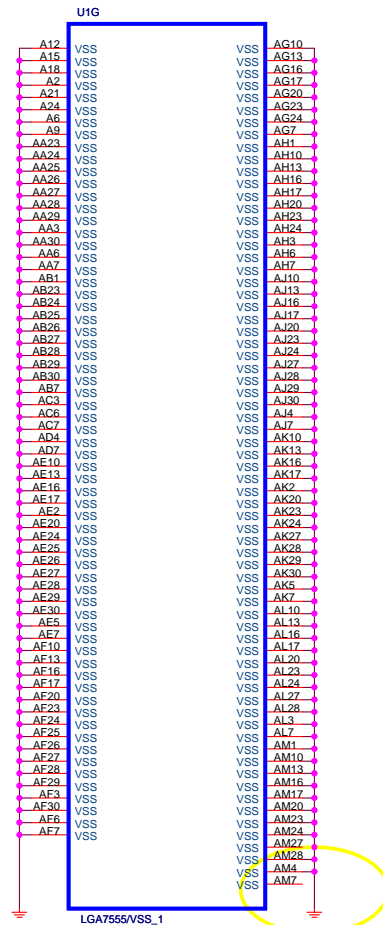




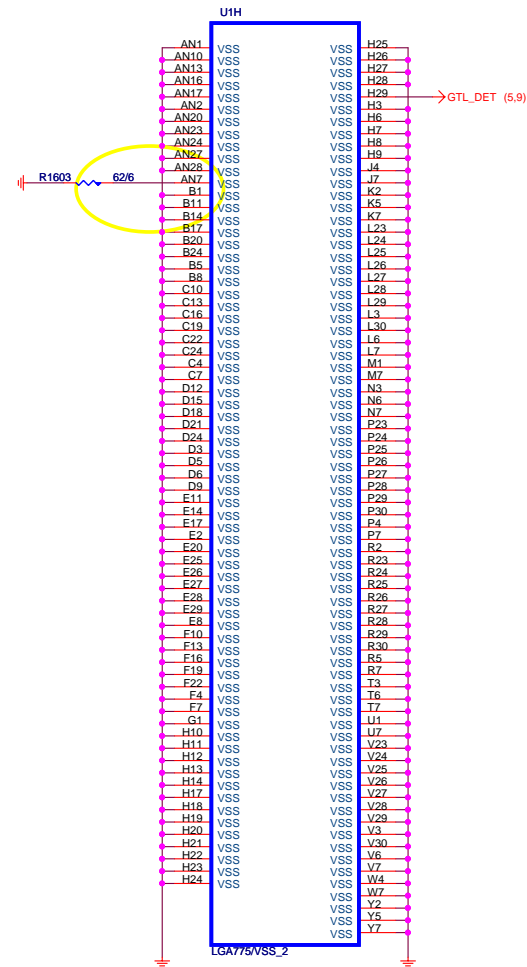
LGA775VCC_1



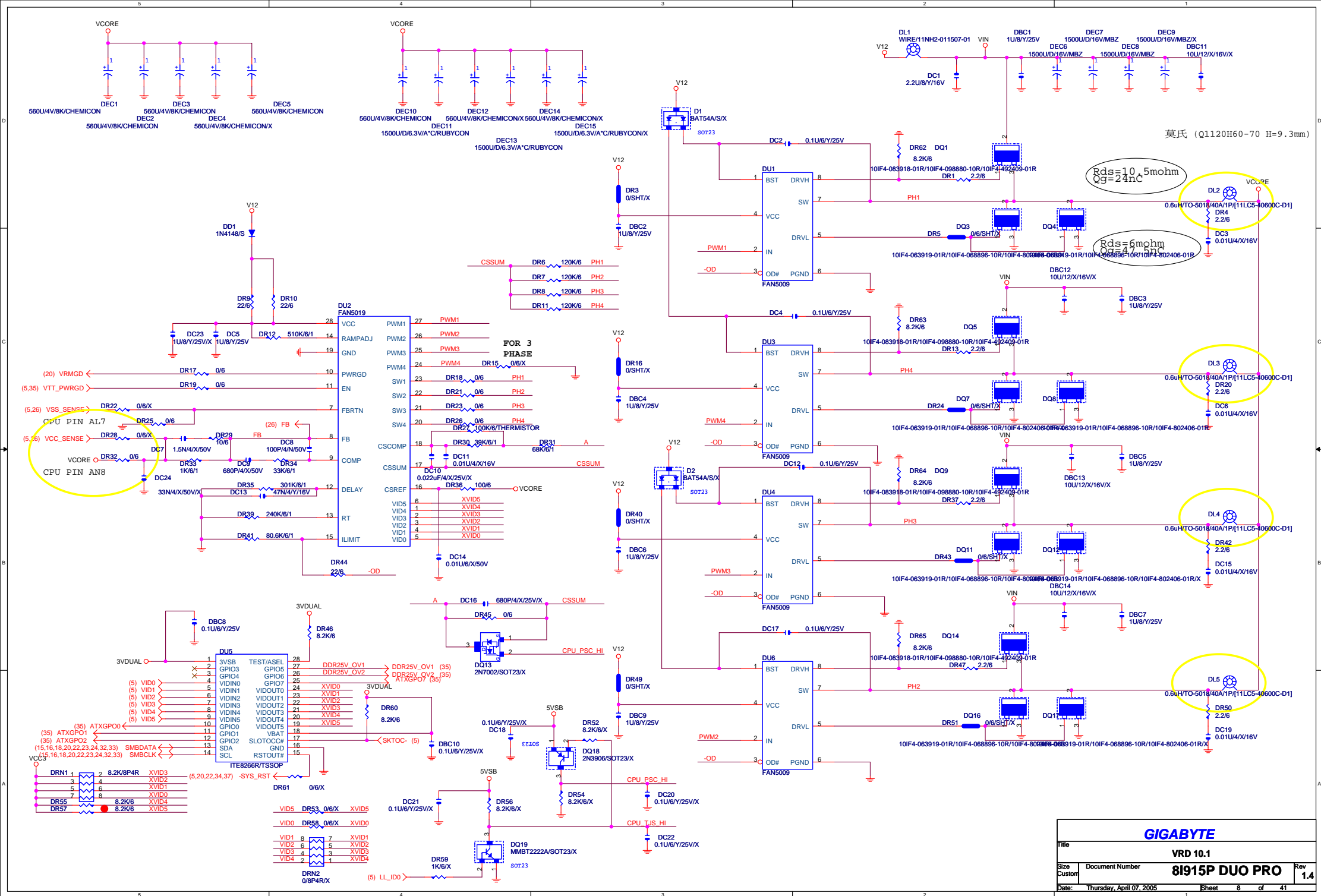
LGA775_2



LGA755VSS_1



LGA775VSS_2



莫氏 (Q1120H60-70 H=9.3mm)

$R_{ds}=10.5\text{mohm}$
 $Q_g=24\text{nC}$

$R_{ds}=6\text{mohm}$
 $Q_g=47.5\text{nC}$

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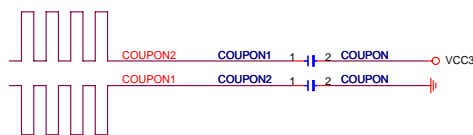
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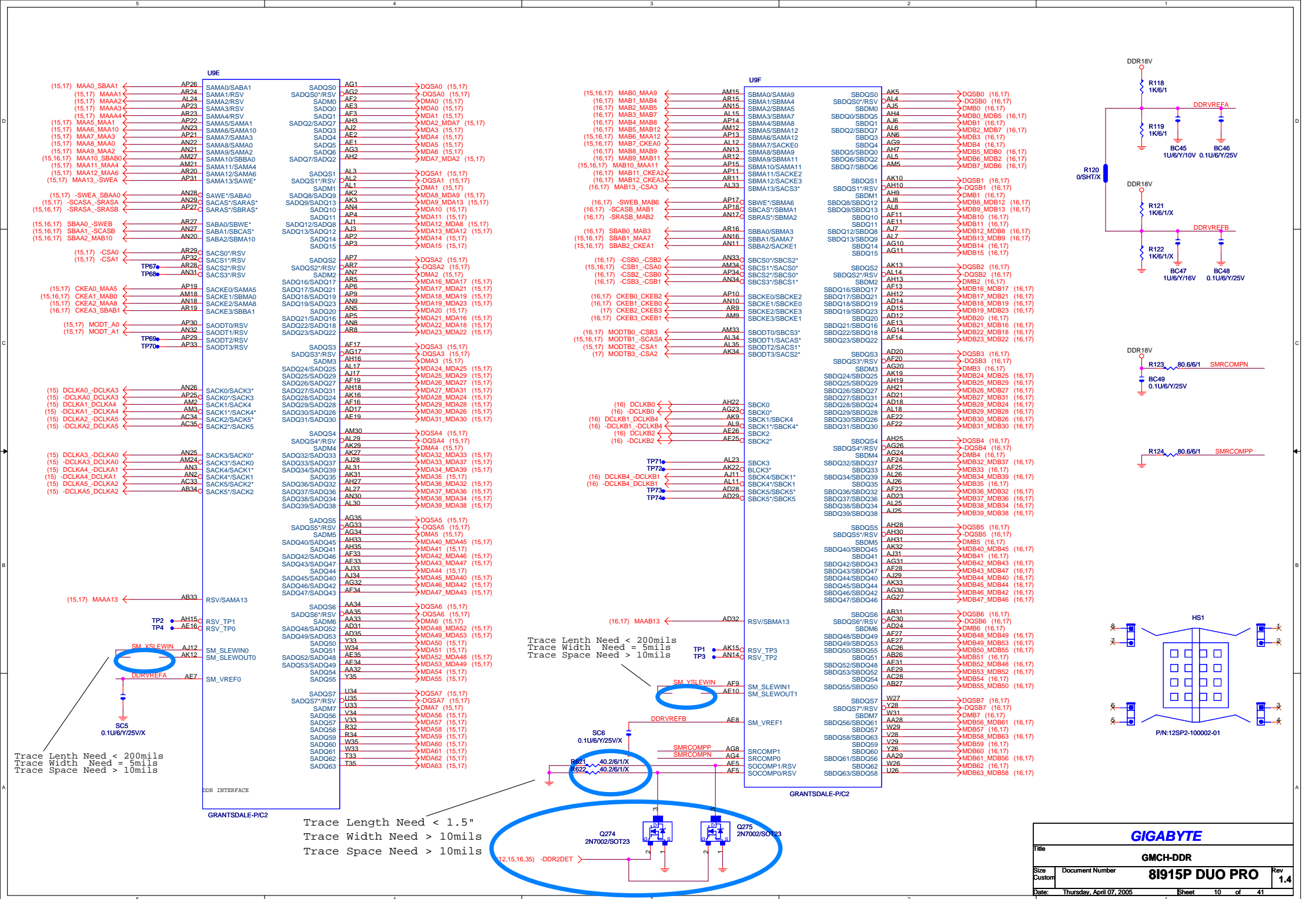
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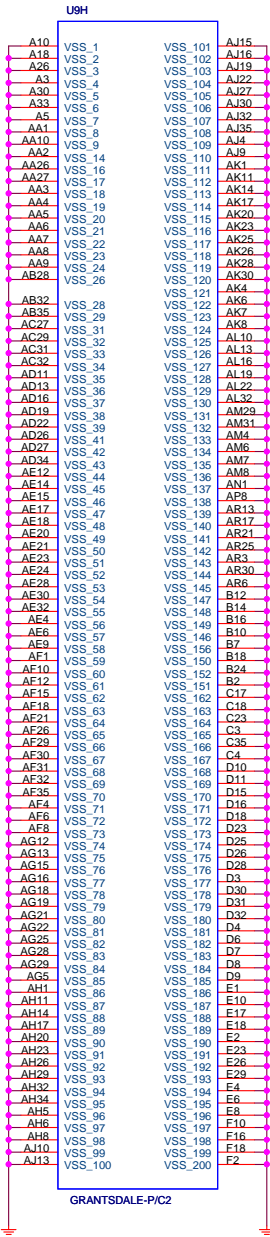
GIGABYTE

VRD 10.1

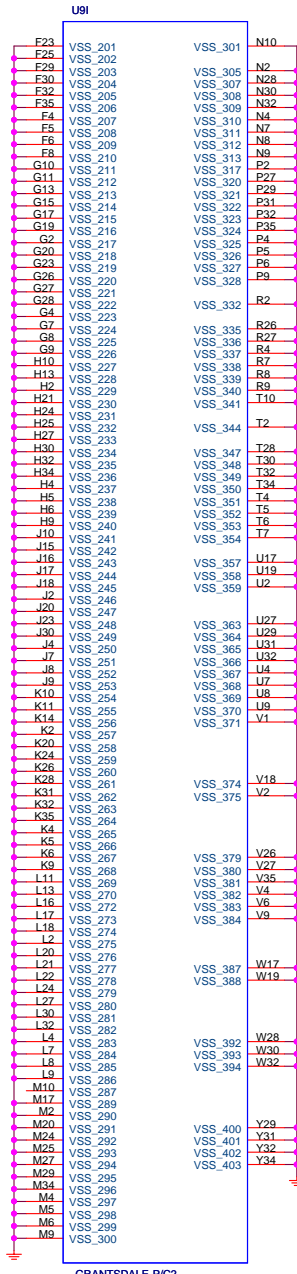
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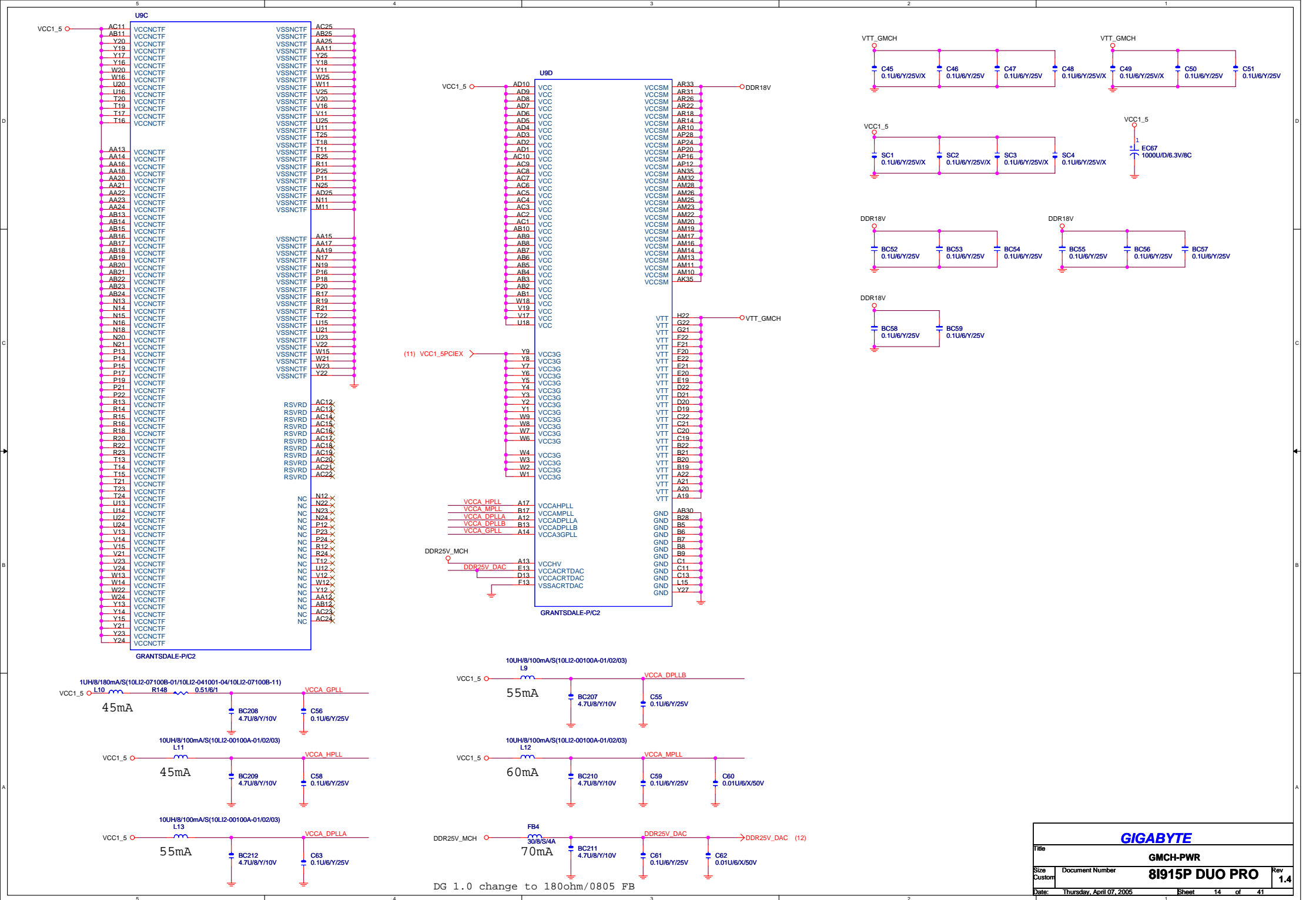


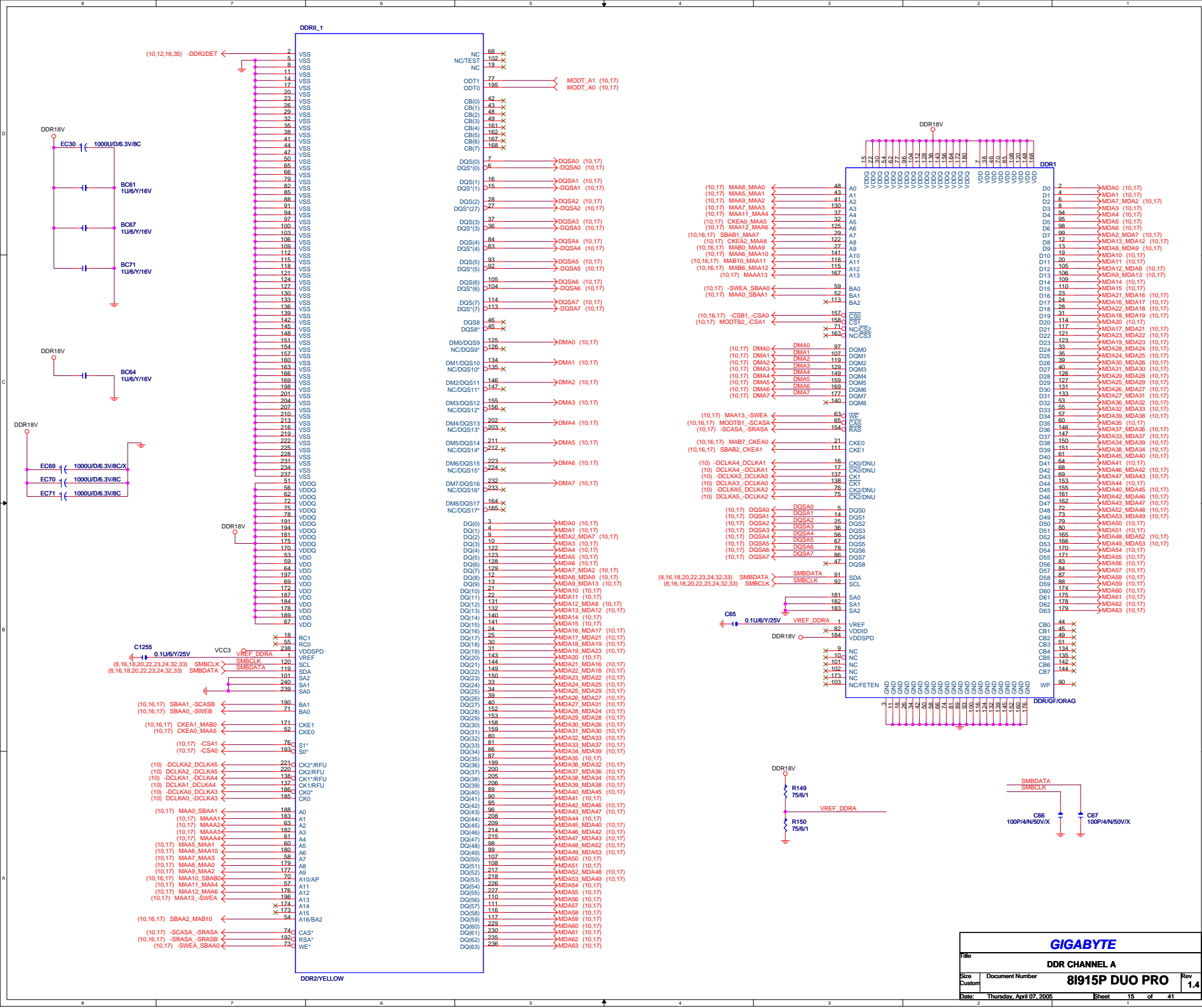
GRANTSDALE-PC2

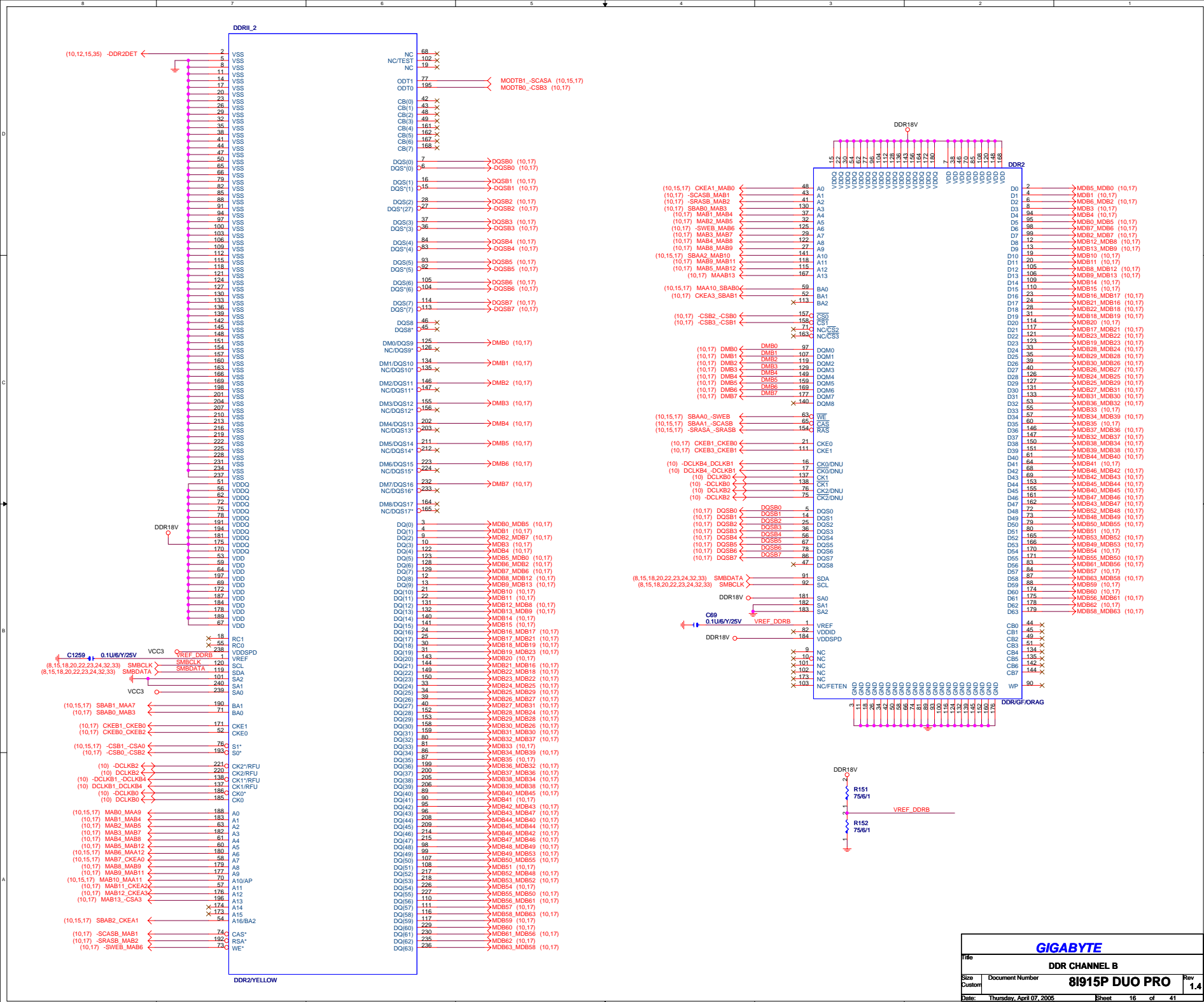


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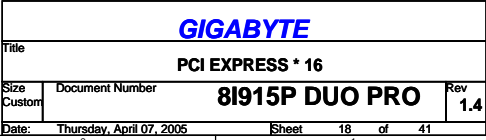
GIGABYTE			
Title			
GMCH-GND			
Size	Document Number	8I915P DUO PRO	Rev
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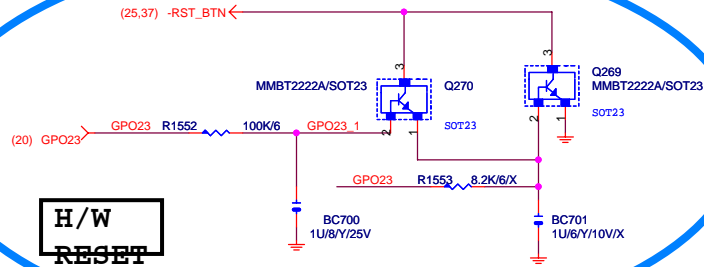




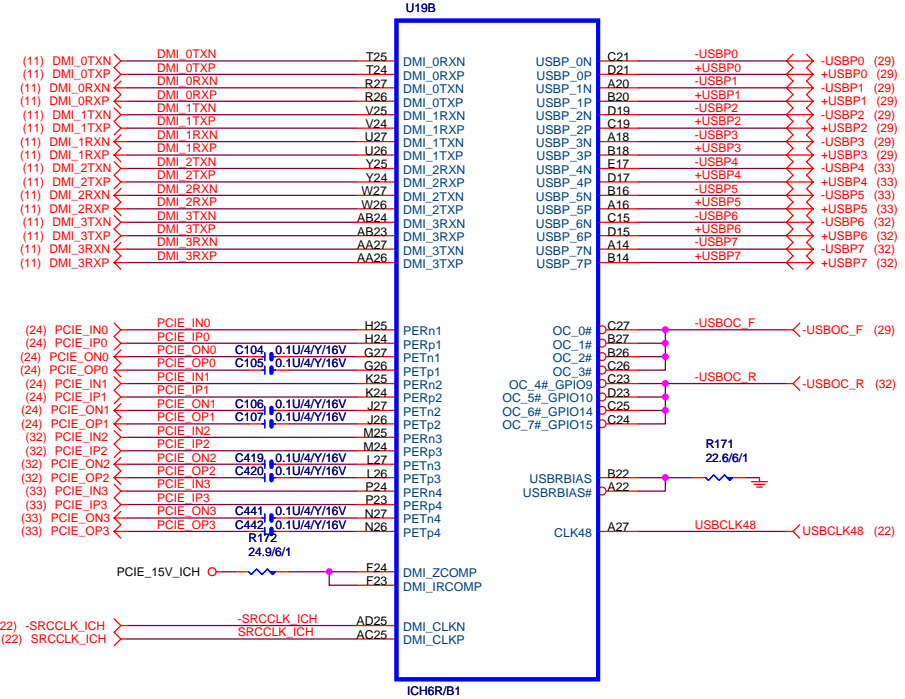
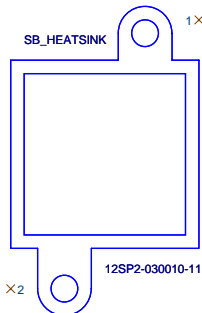
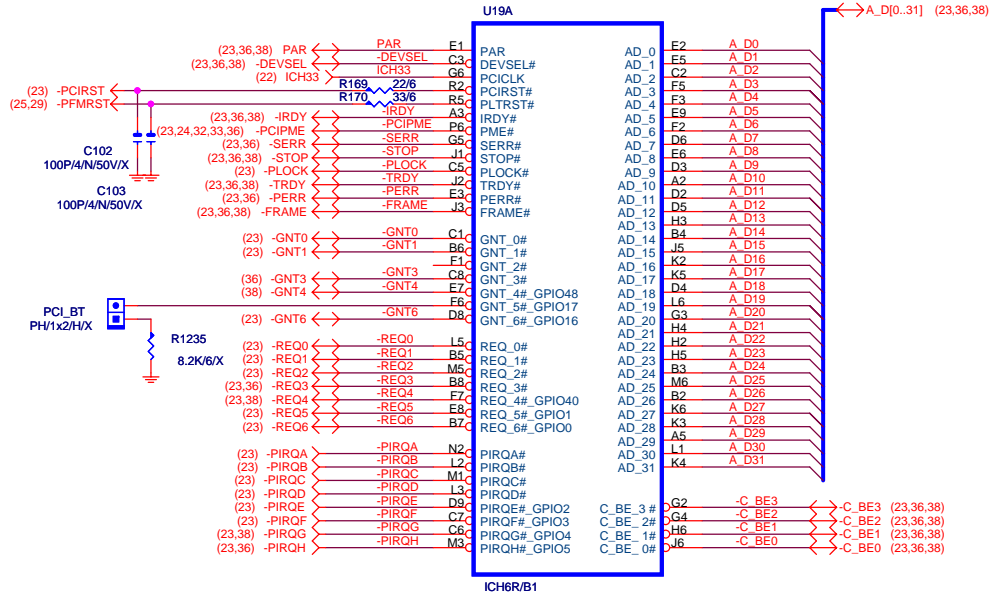


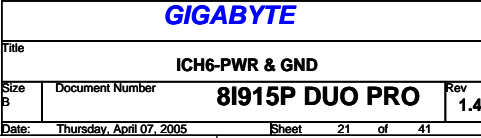


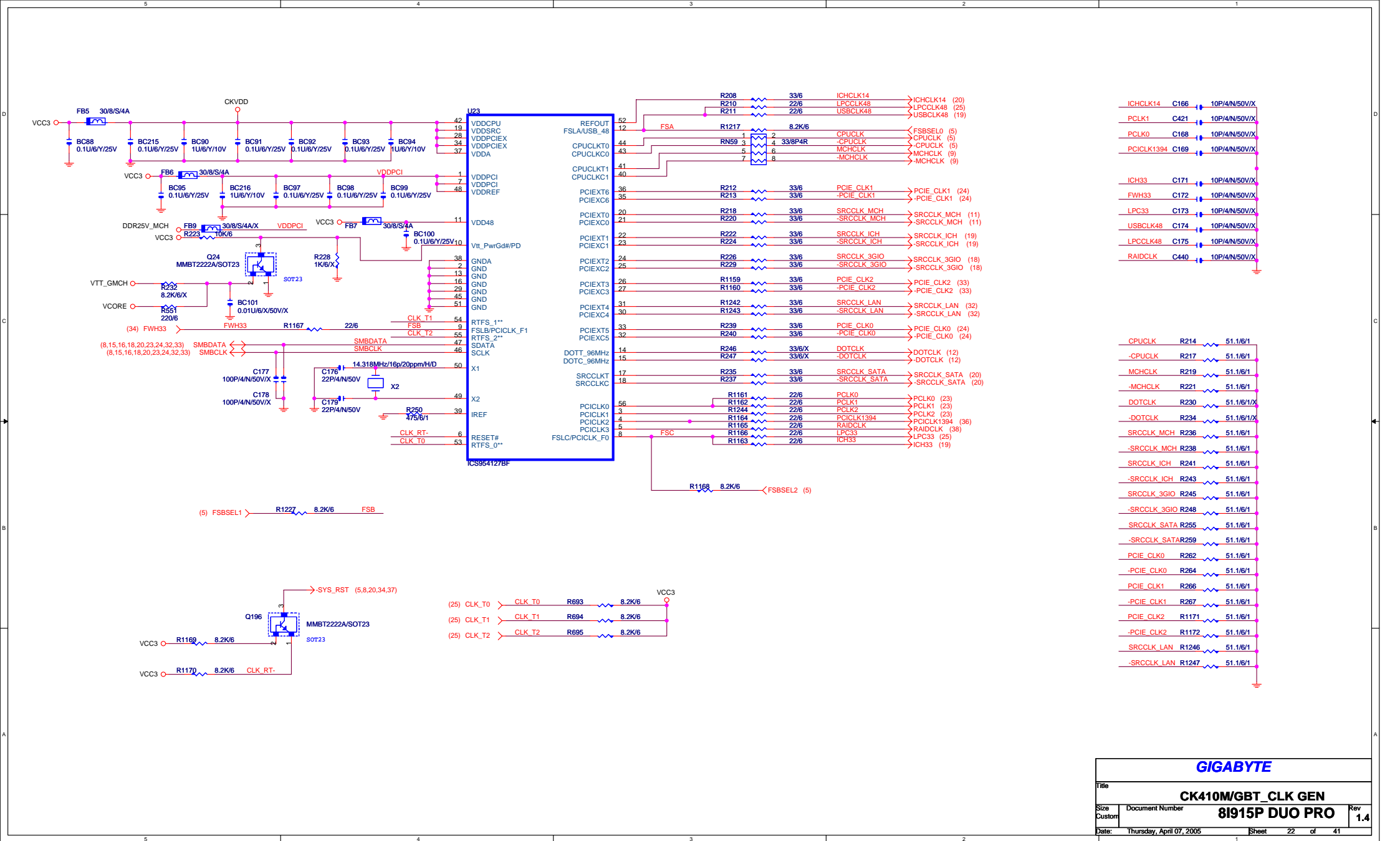


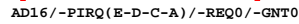


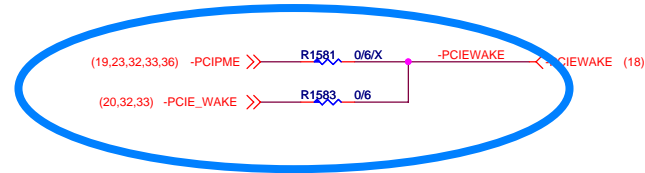
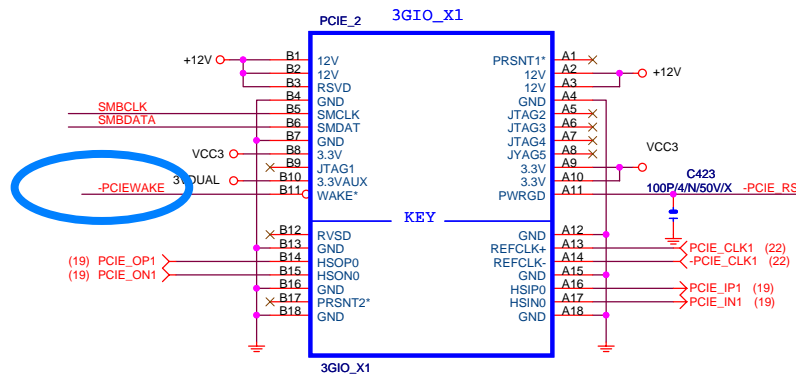
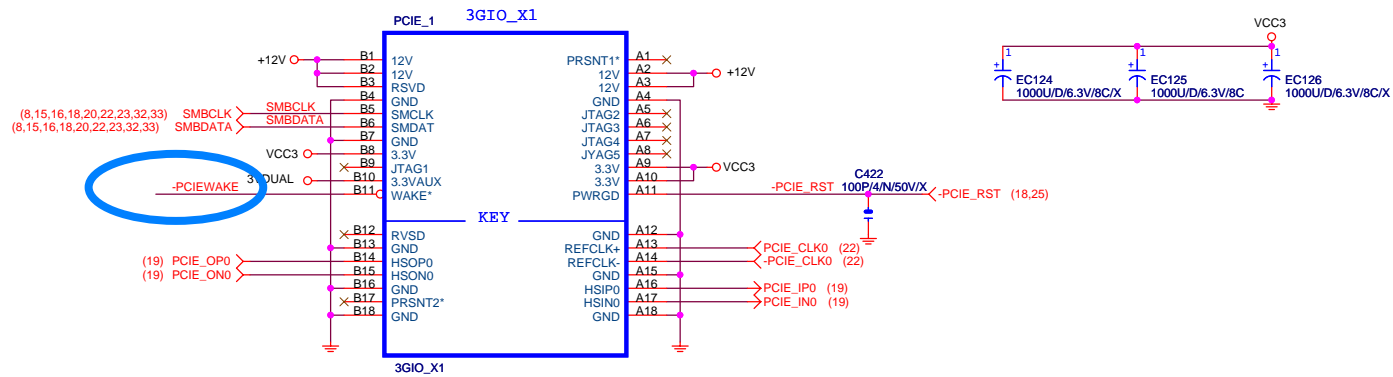
DMI Connection Note
GMCH TX Pin Need Connect to ICH6 RX Pin
ICH6 TX Pin Need Connect to GMCH RX Pin

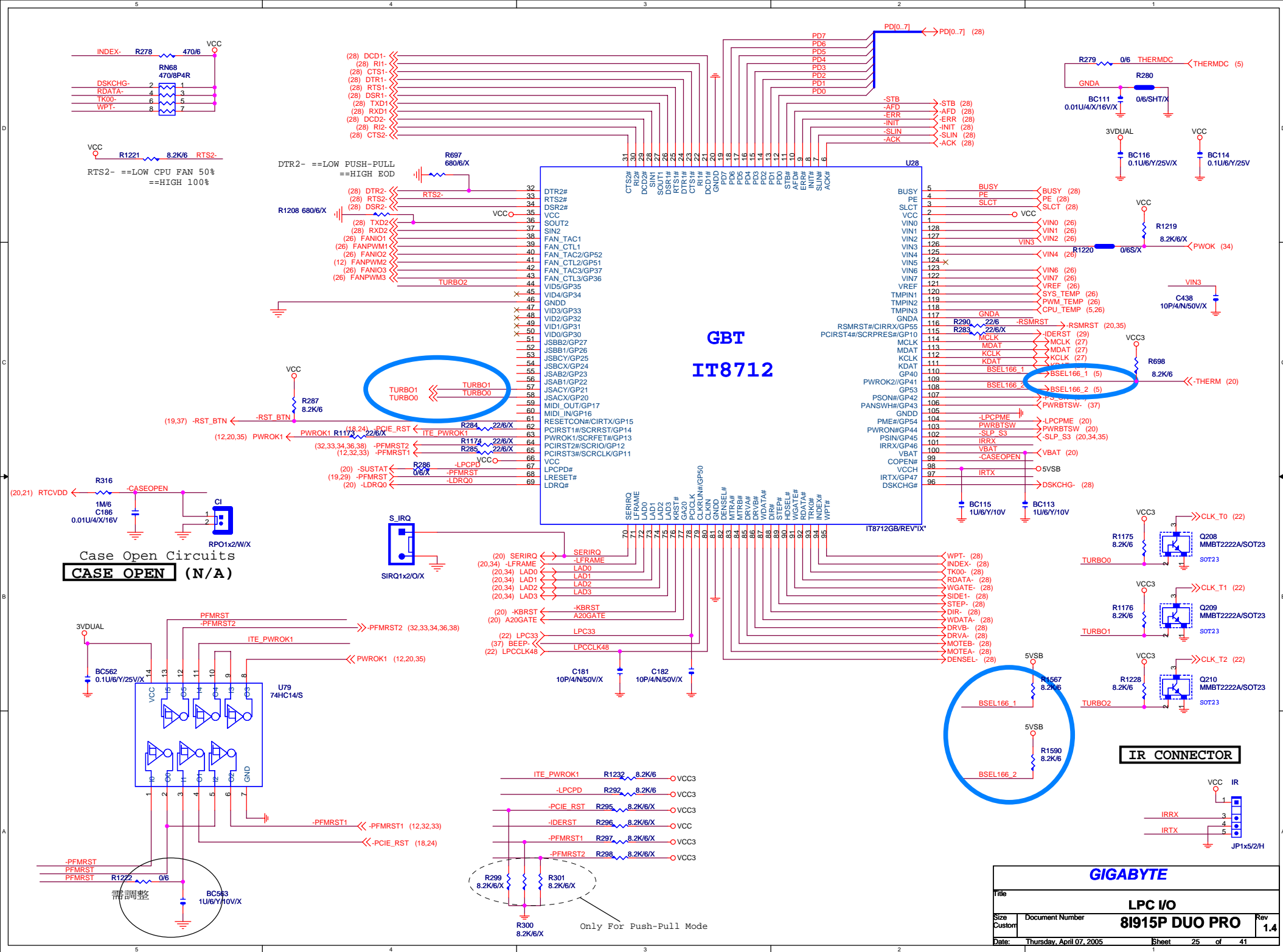




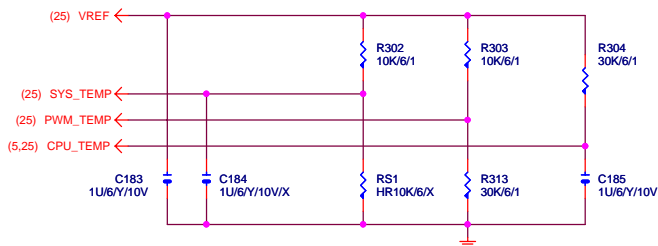








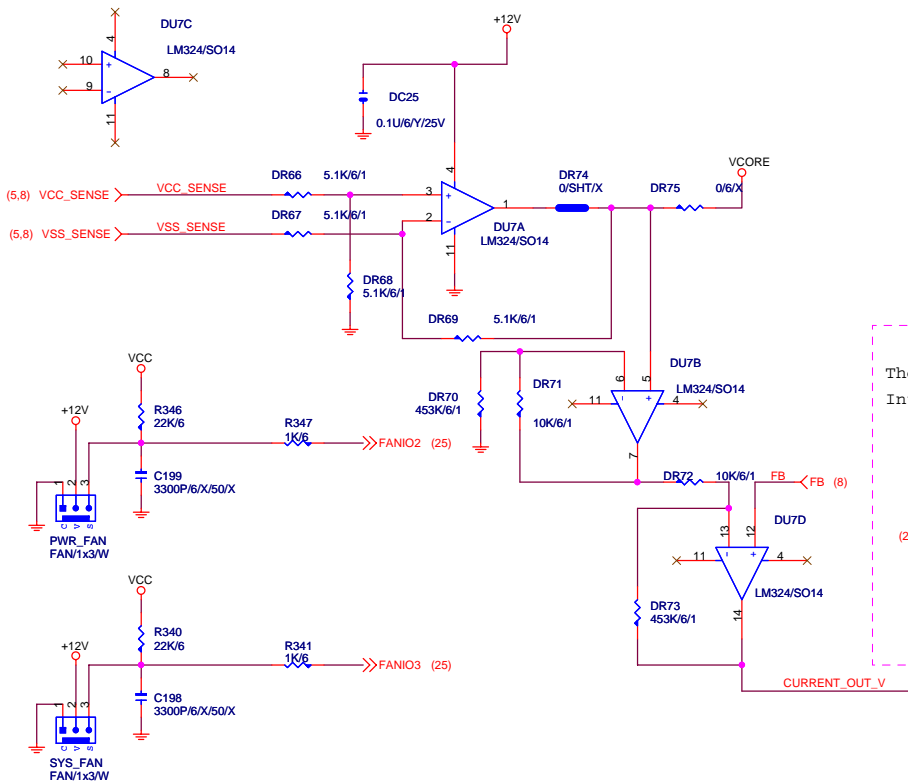
VOLTAGE SENSE



CPU/SYS FAN

If use PBSS5240 1pcs : (with airflow)

```
CPUFAN_VCC=12V: Temp=33 deg
CPUFAN_VCC=11V: Temp=62 deg
CPUFAN_VCC=10V: Temp=86 deg
CPUFAN_VCC= 9V: Temp=117 deg
CPUFAN_VCC= 8V: Temp>122 deg
```



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

(25) FANPWM1

+12V不需預留330uF電容

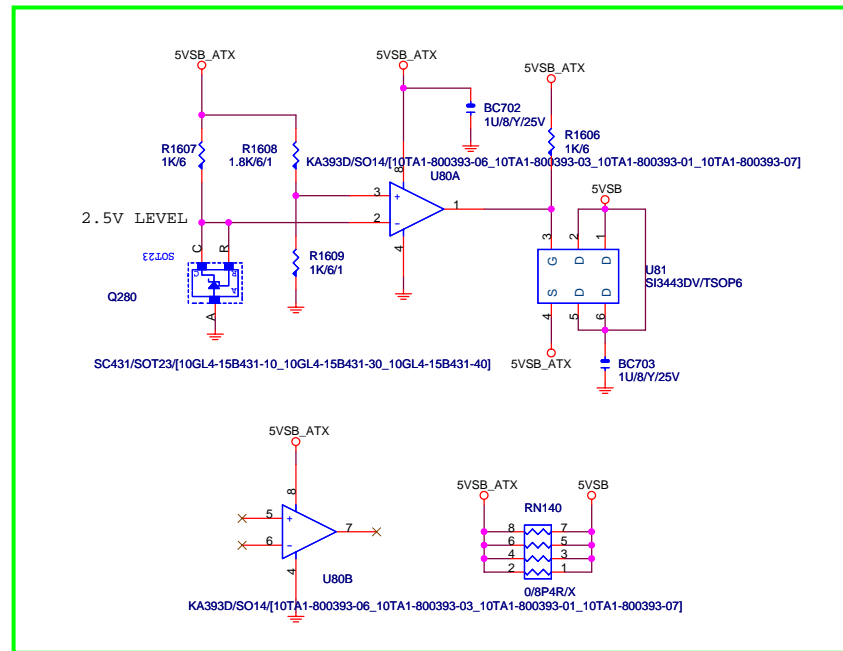
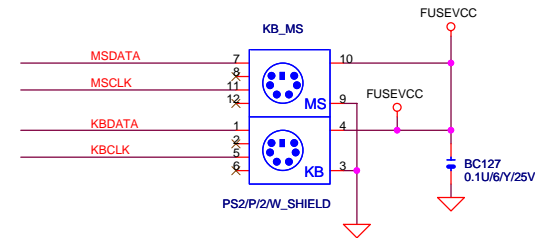
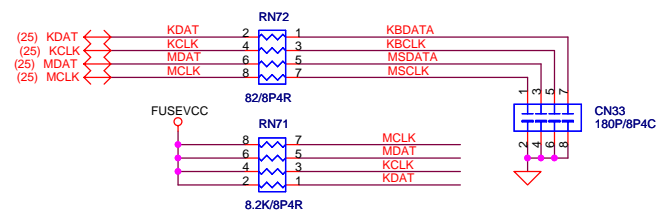
TO252 & SOT23 Co-Layout

(25) FANPWM3

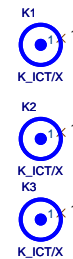
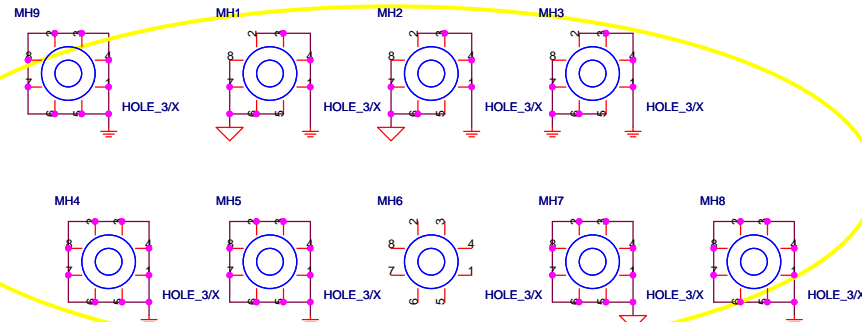
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GIGABYTE

Title			
HWM/FAN/CI/BIOS			
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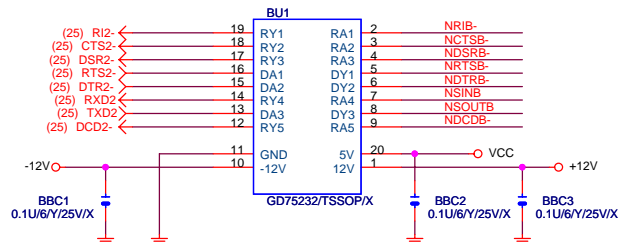
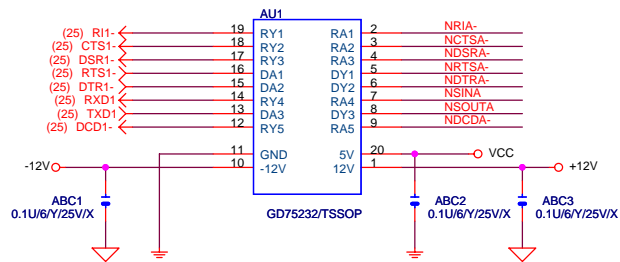
Stand by power
regulator protection



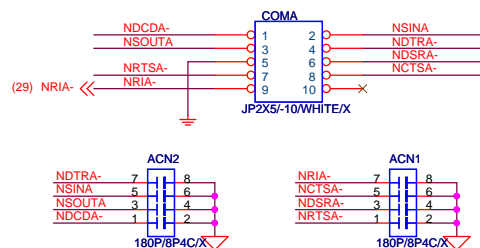
GIGABYTE

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PS/2 KB & MS			
Size B	Document Number	8I915P DUO PRO	Rev 1.4
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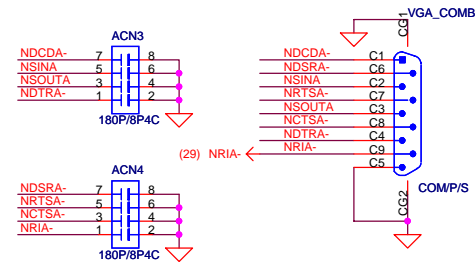
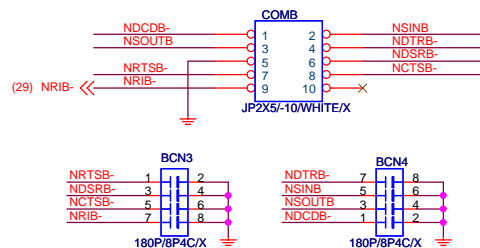
COMA/COMB



INTERNAL COMA

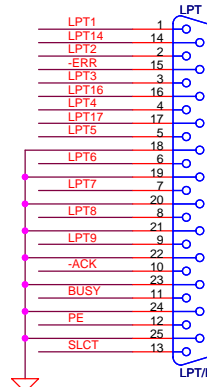
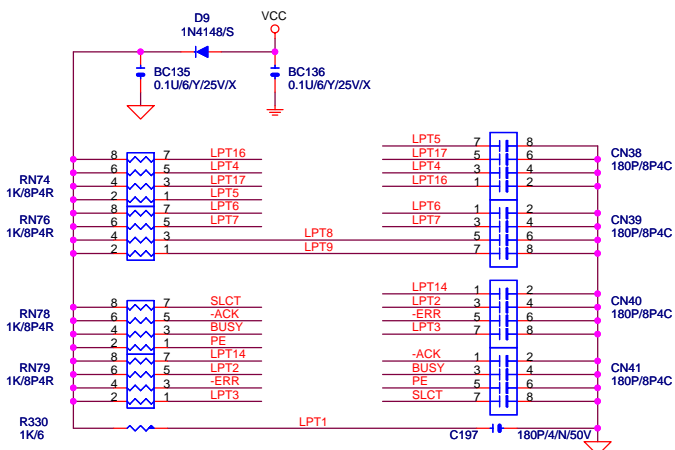
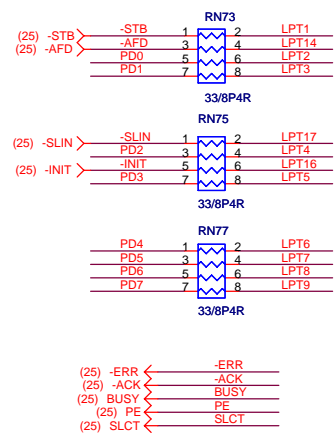


INTERNAL COMB

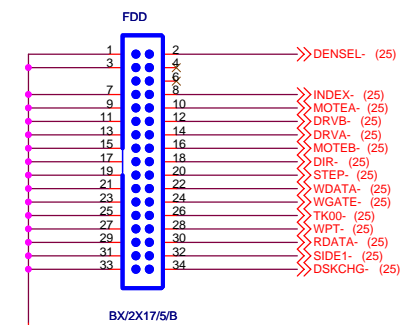


PLACE NEAR VGA_COM CONNECTOR

LPT

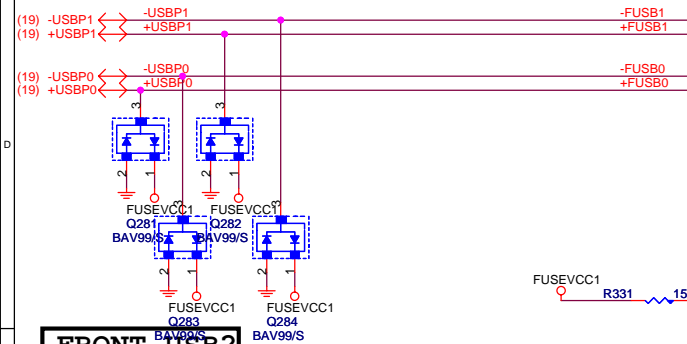


FLOPPY

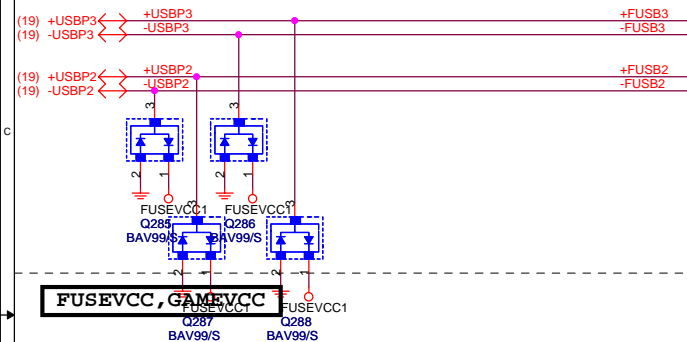
**GIGABYTE**

Title			
COM, LPT, FDD			
Size B	Document Number 8I915P DUO PRO	Rev 1.4	
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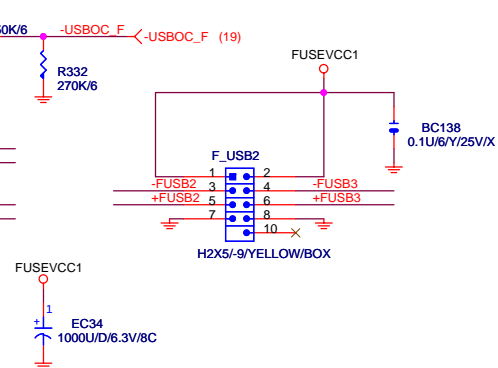
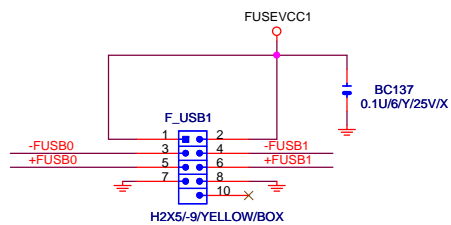
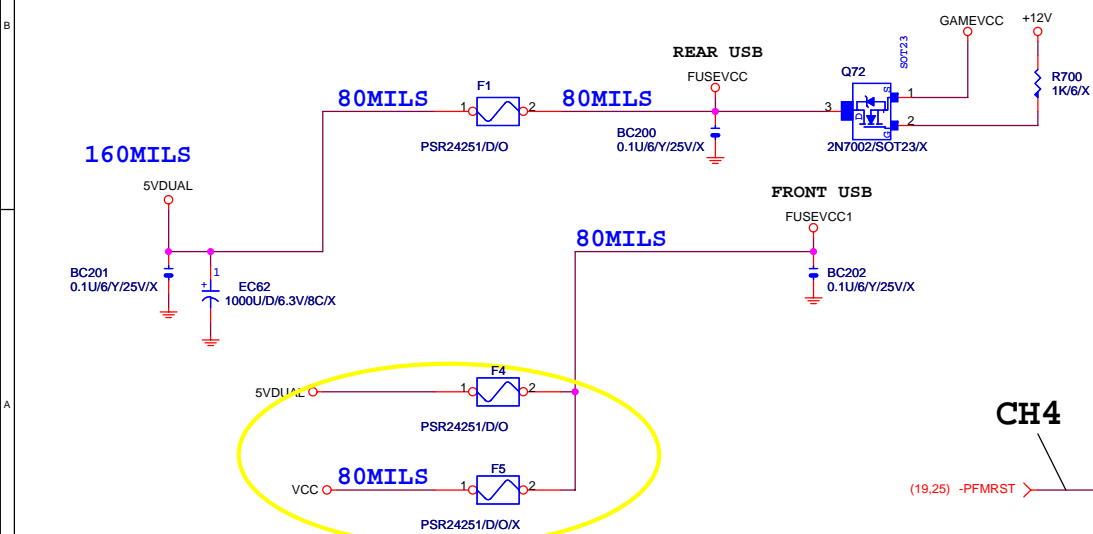
FRONT USB1



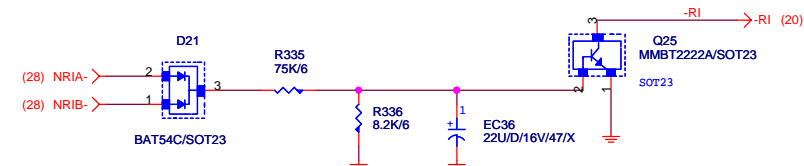
FRONT USB2



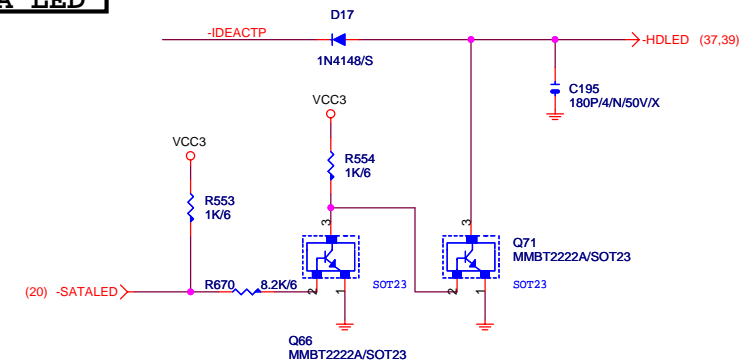
FUSEVCC, GAMEVCC



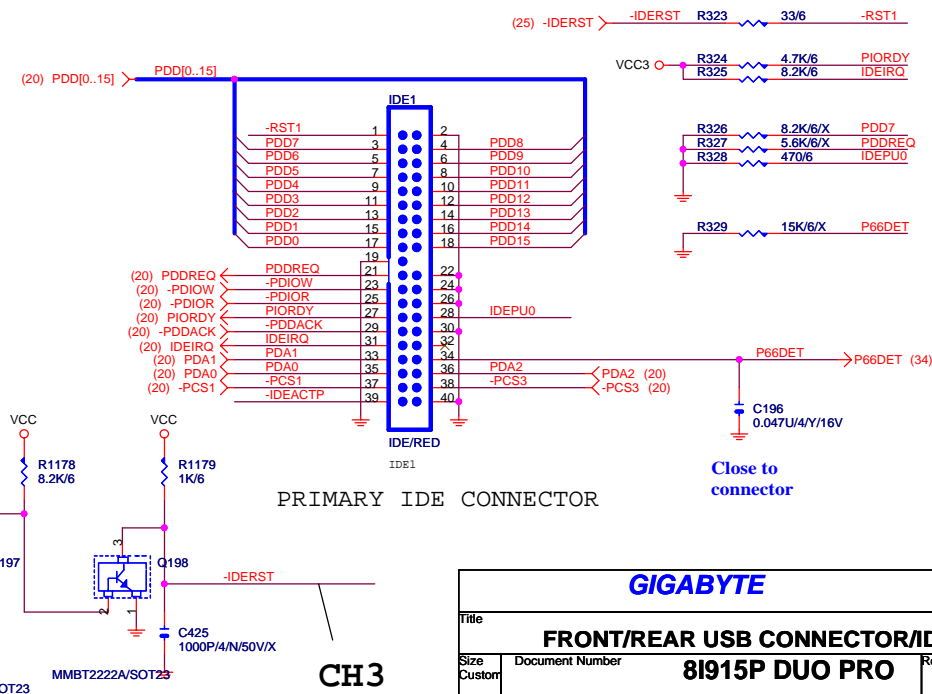
RING IN



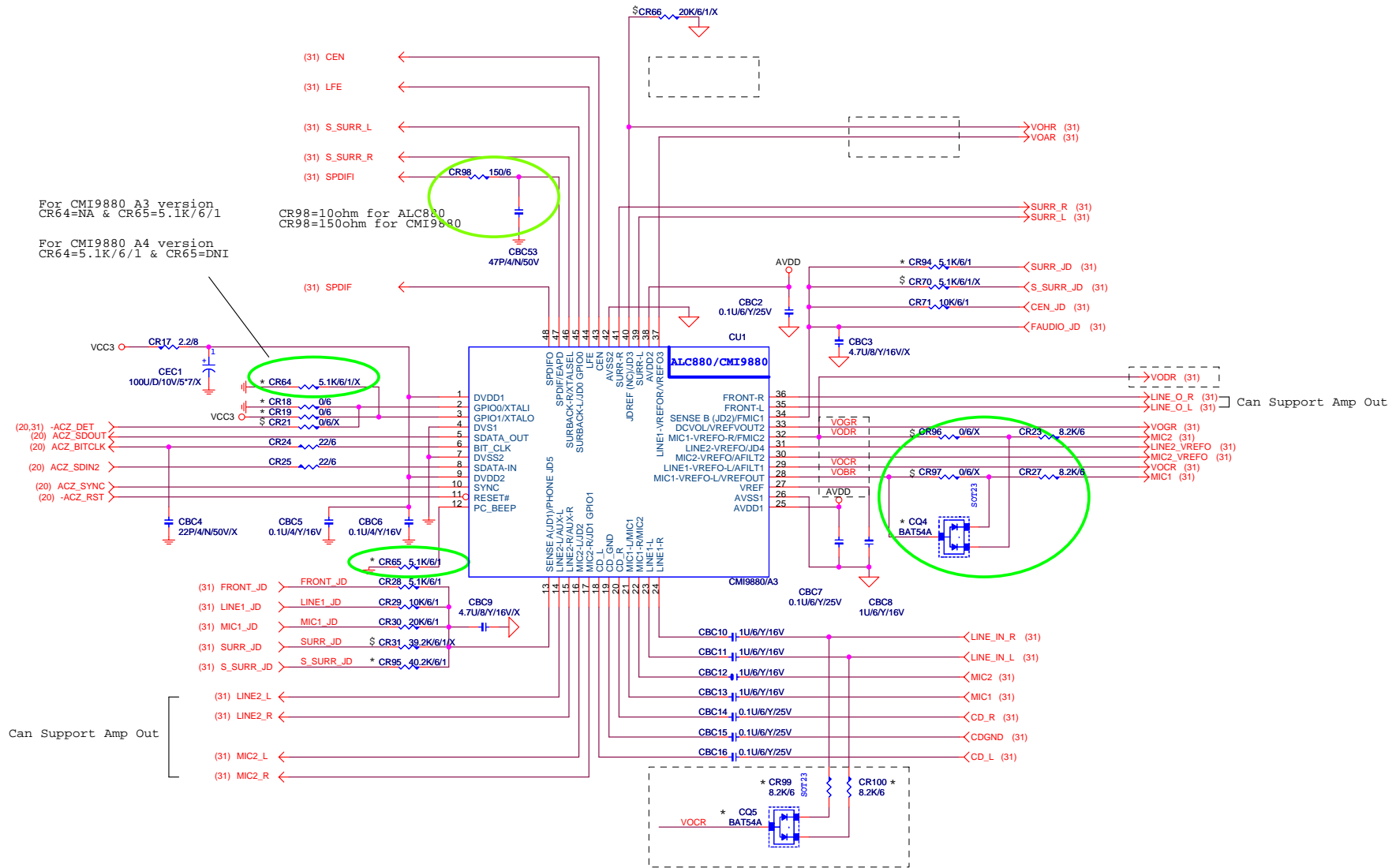
IDE/SATA LED



IDE

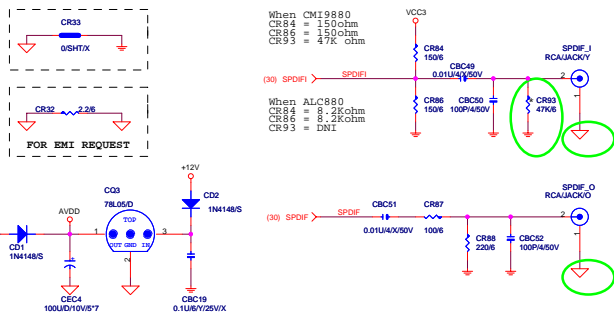


"\$" means for ALC880 only
 "*" means for CMI9880 only

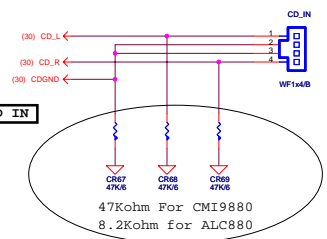


GIGABYTE

Title			AC97 CMI9880
Size	Document Number	8I915P DUO PRO	
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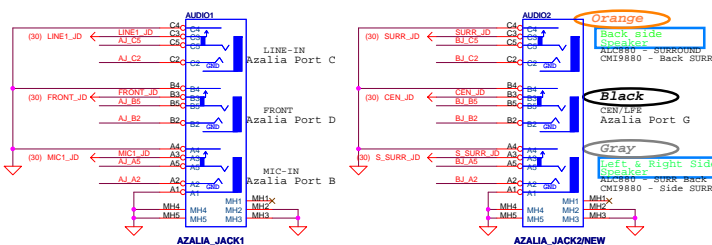


CD IN

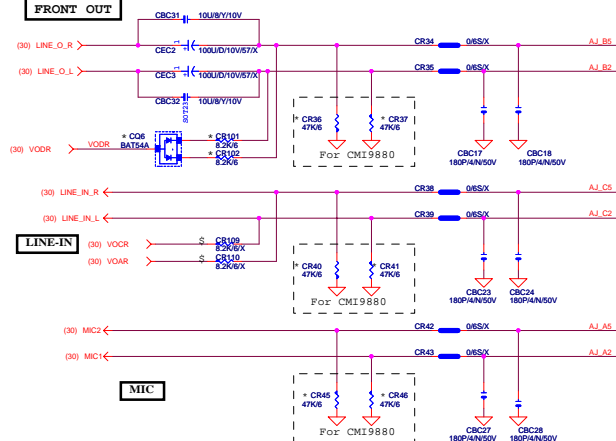


Azalia Jack
Normal --> pin4/pin3 open
Plug jack --> pin4/pin3 close

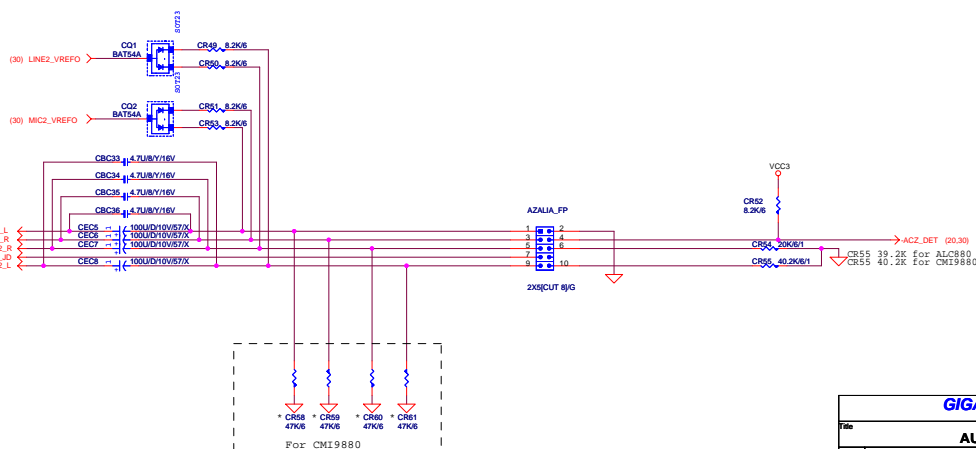
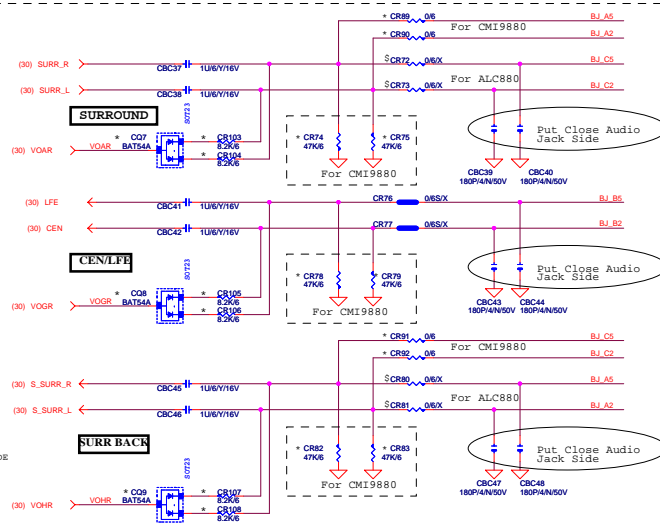
CMI9880 Port A is Side SURROUND, Port H is Back SURROUND
ALC880 Port A is SURROUND, Port H is SIDE

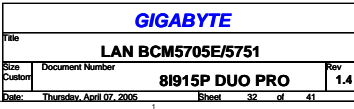


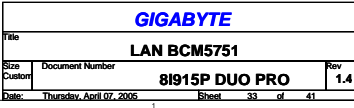
LINE OUT FRONT OUT



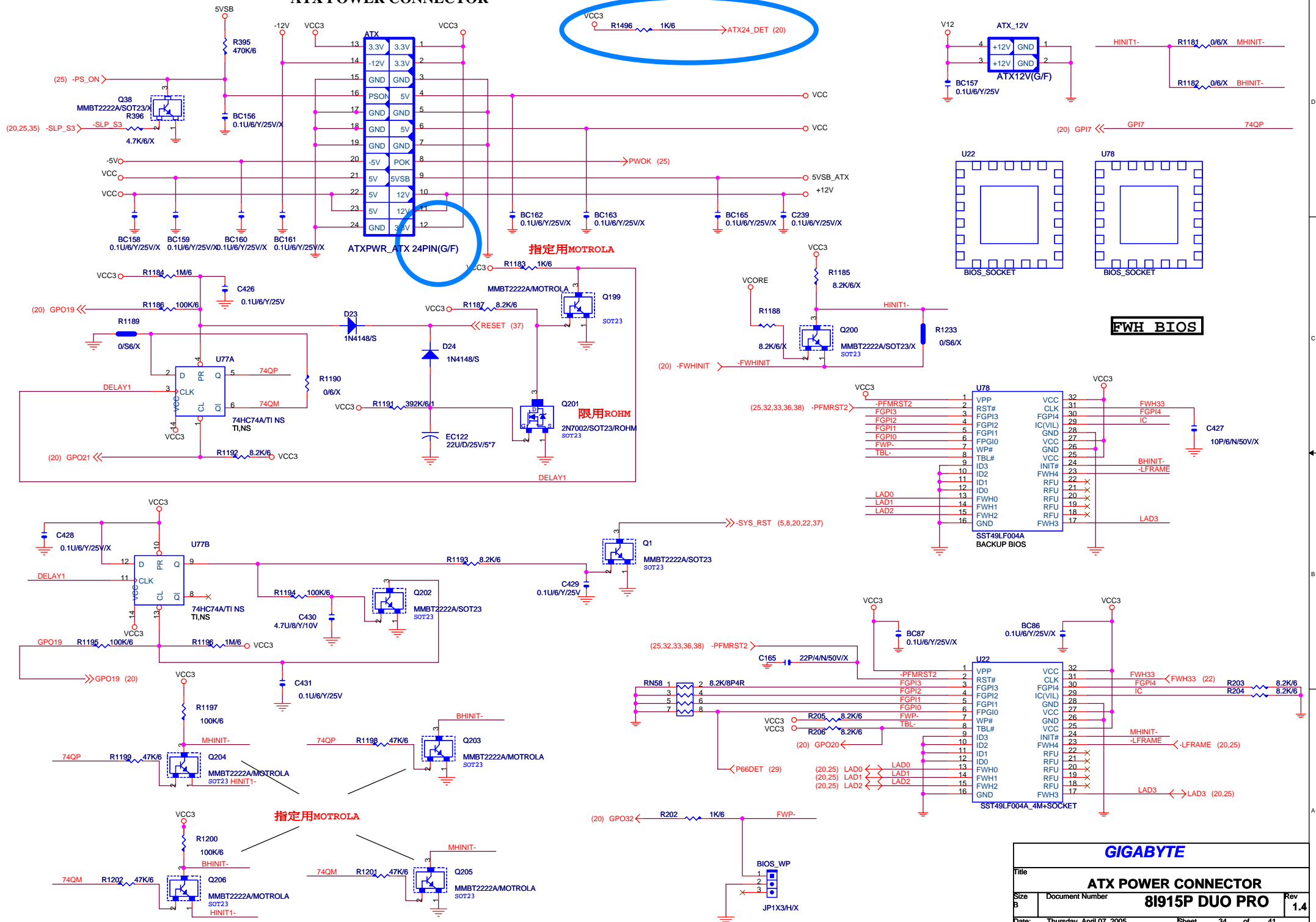
SURROUND





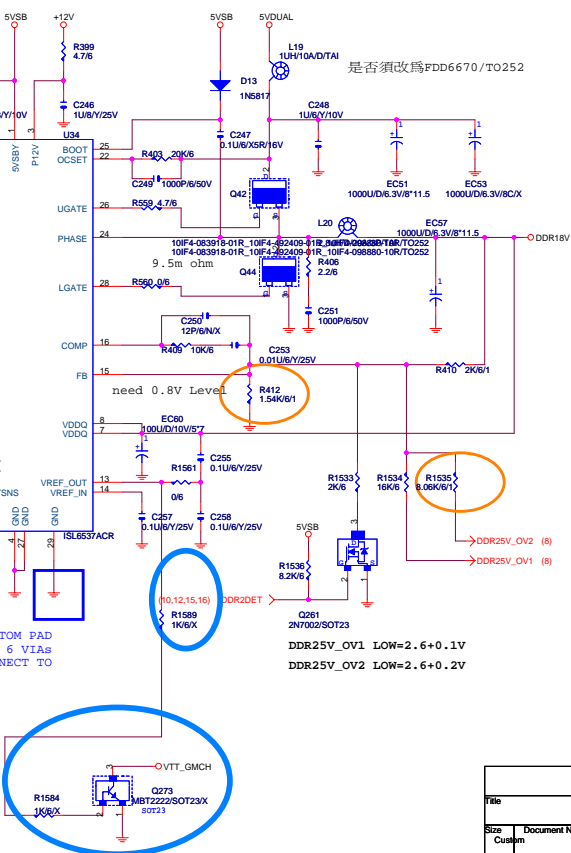
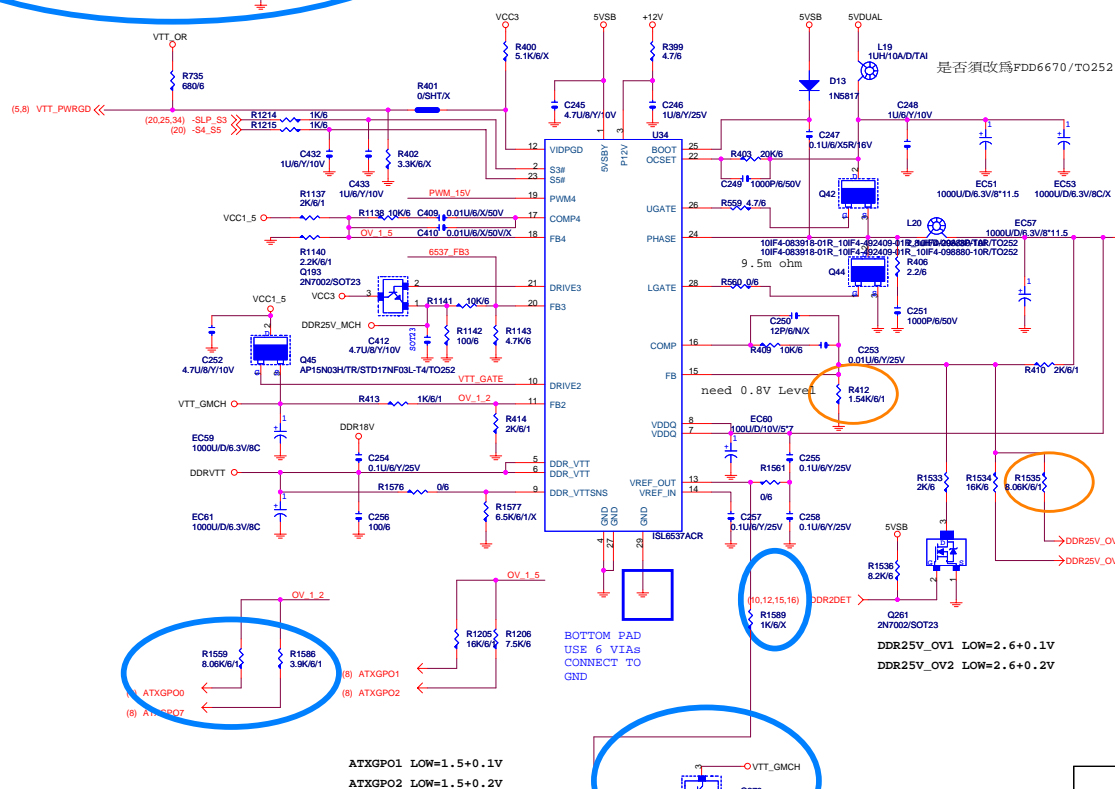
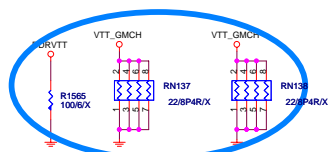
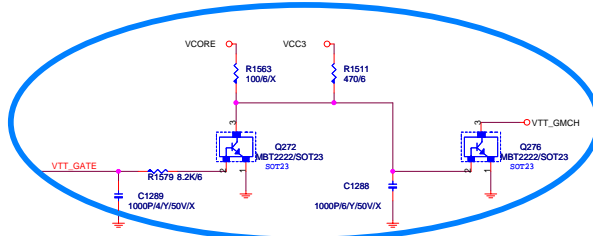
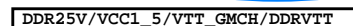


ATX POWER CONNECTOR

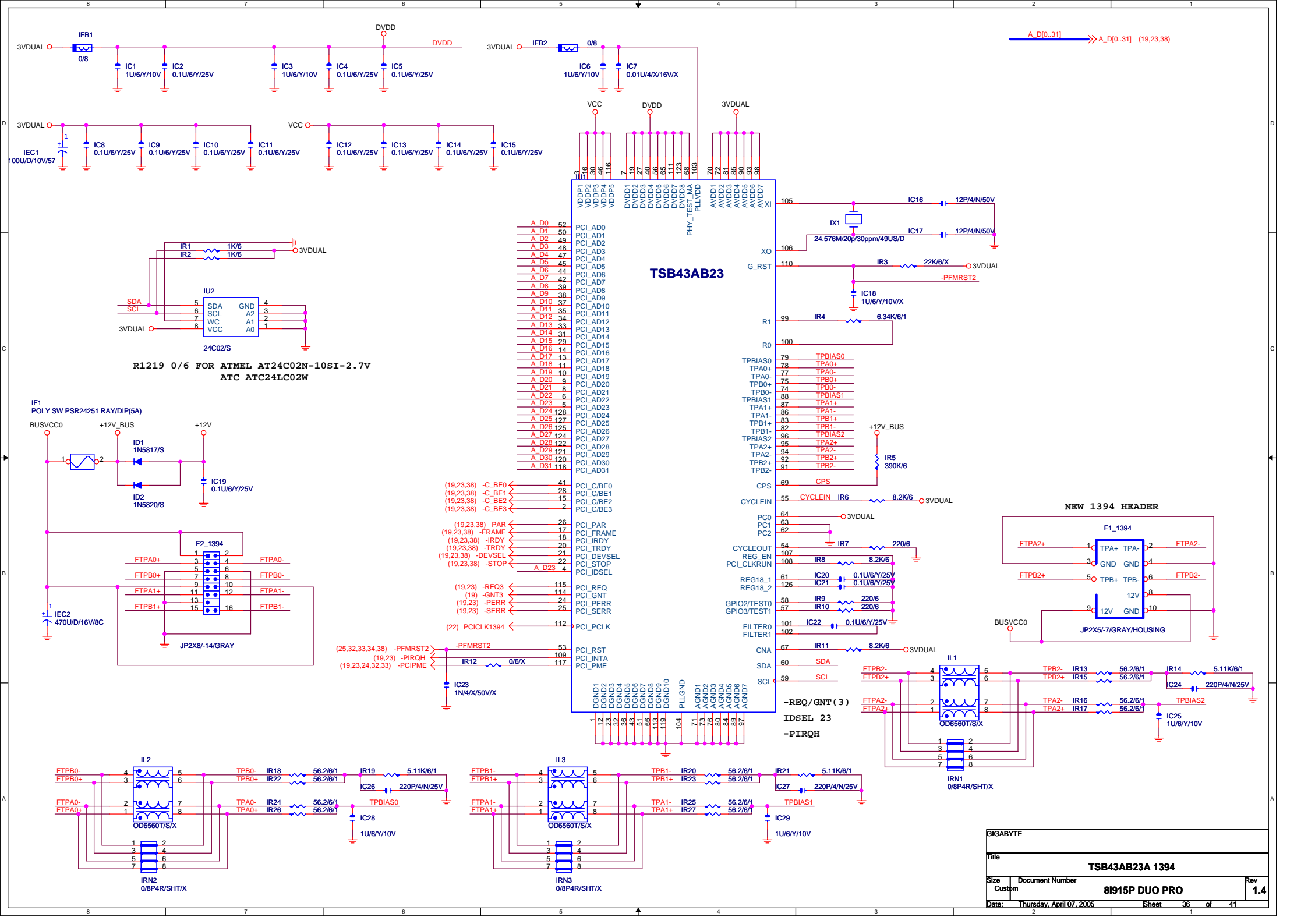


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Title			
ATX POWER CONNECTOR			
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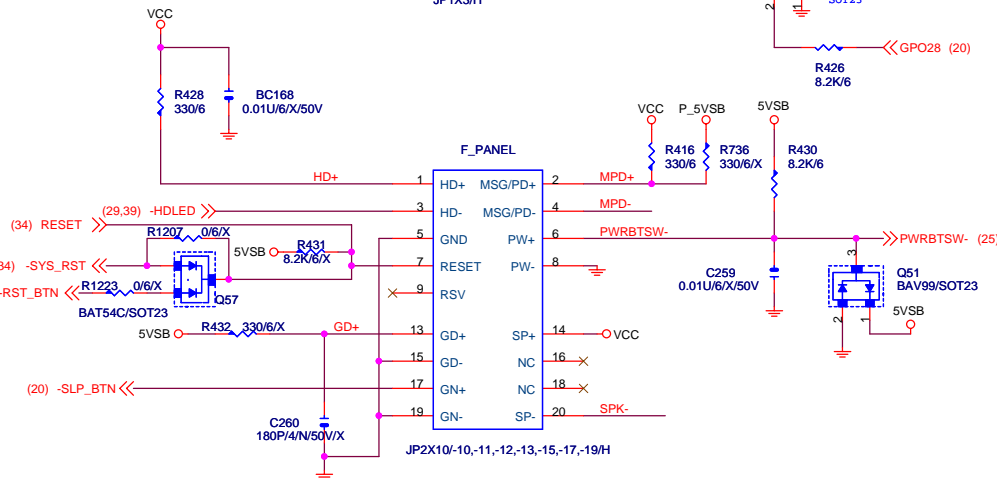
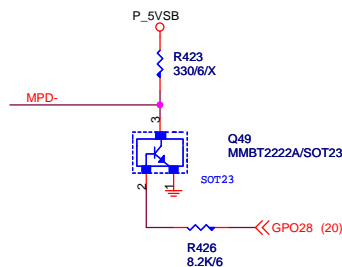
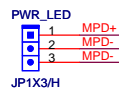


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INTEL FRONT PANEL

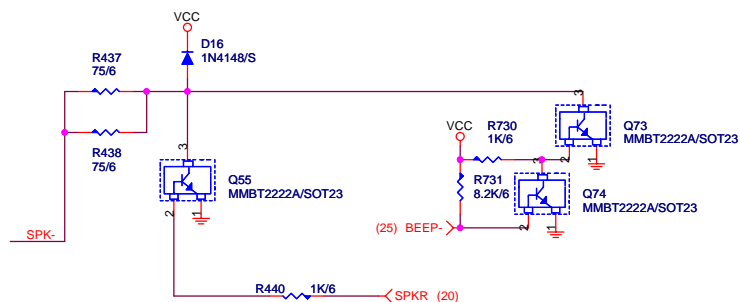
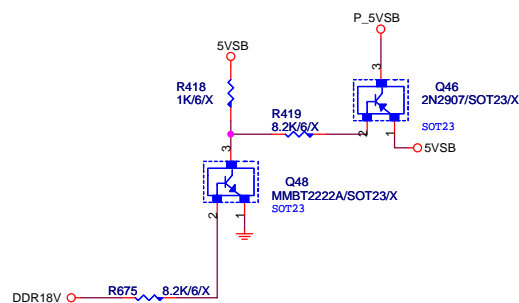
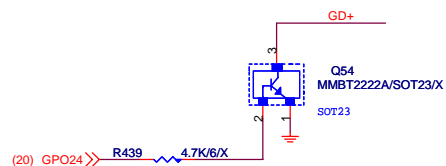
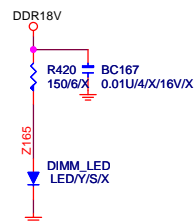
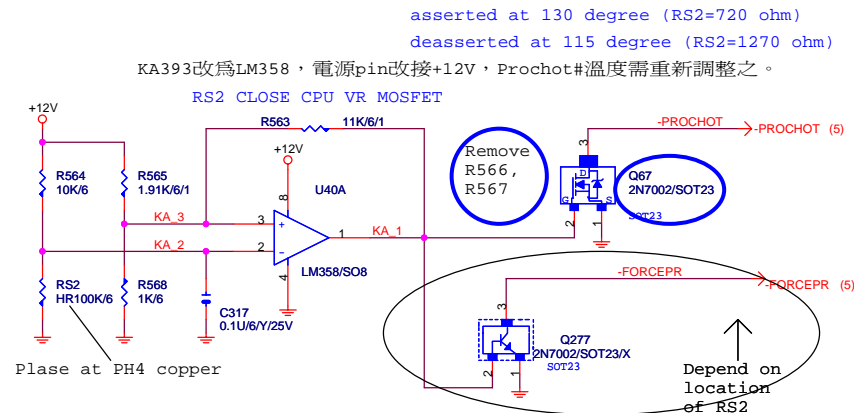
3 PIN POWER LED
LAYOUT PLACE CLOSE
TO F_PANEL



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。



States for green LED NO1 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

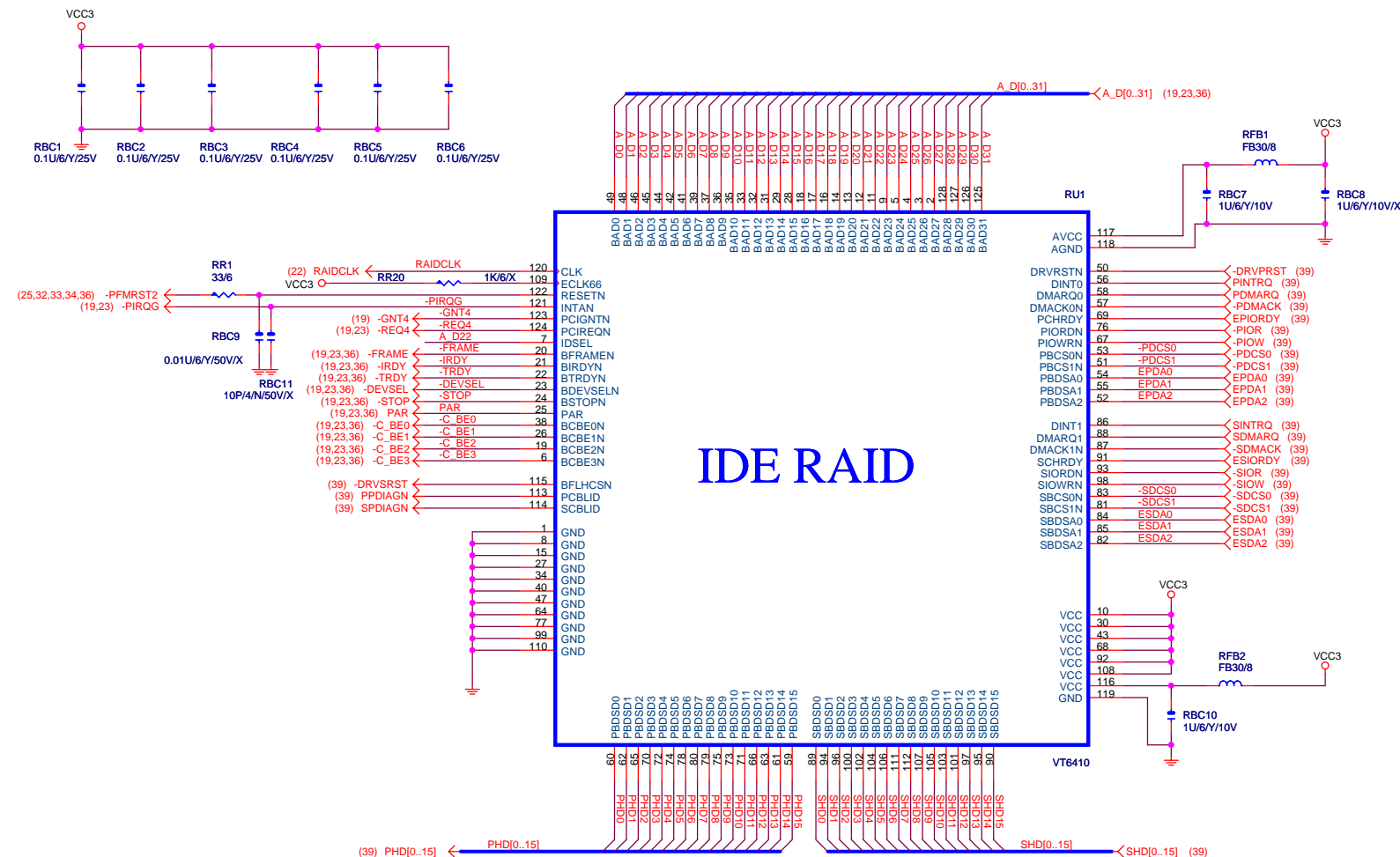
LED States	ACPI States	GPO25	GPO27	GPO24
OFF	S1,S3,S5	1	1	NO1
Steady Green	S0	1	1	1
Blinking Green	S0(message waiting)	1	B	1

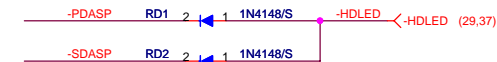
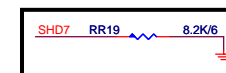
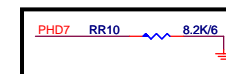
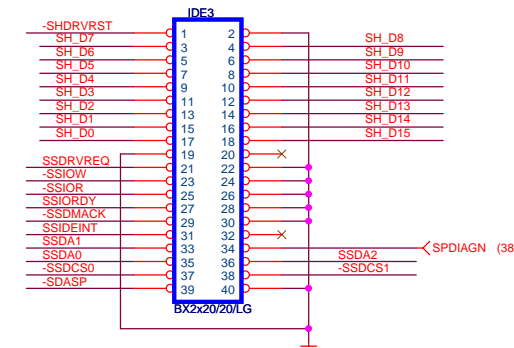
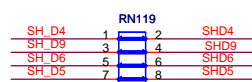
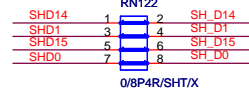
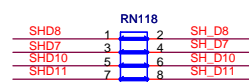
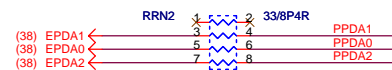
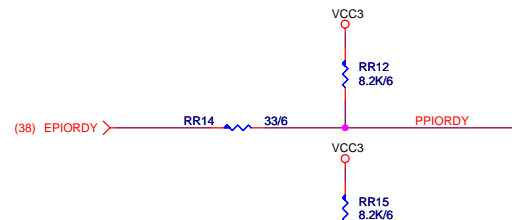
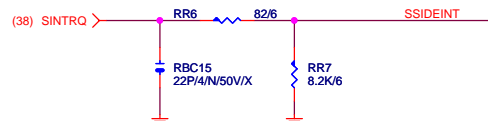
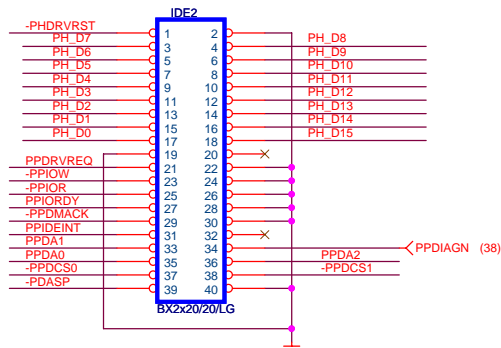
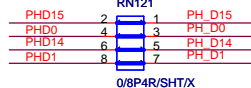
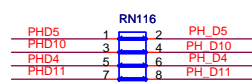
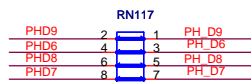
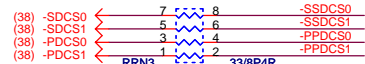
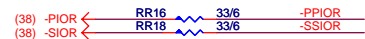
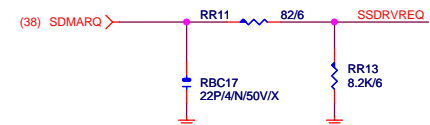
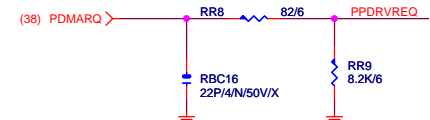
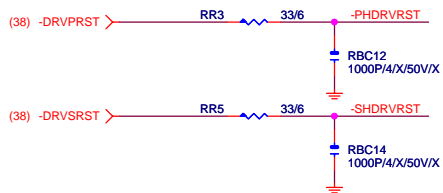
LED States	ACPI States	GPO25	GPO27	GPO22
OFF	S5	1	1	X
Steady Green	S0	1	1	1
Blinking Green	S0(message waiting)	1	B	1
Steady Yellow	S1,S3	1	0	NO1
Blinking Yellow	S1,S3(message waiting)	1	B	NO1

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ALL INPUT PIN MUST HAVE 0.1 CAPACITOR





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			
GPI024	3VDAUL	GREEN LED			
GPI025	3VDAUL	DDR OV1			
GPI26	VCC3	SATA GP0			
GPI027	3VDAUL	+PWRLED			
GPI028	3VDAUL	-PWRLED			
GPI29	VCC3	SATA GP1			
GPI30	VCC3	SATA GP2			
GPI31	VCC3	SATA GP3			
GPI032	VCC3	BIOS WP			
GPI033	VCC3	AZALIA DET			
GPI034	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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