Model Name: 8GPNXP Duo

Revision 1.01 *05/10/2004*

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Date: 2009.10.23 06:51:04 +07'00'

Title	Cover Sheet	
Size: Custom	Document Number: 8GPNXP DUO	Rev: 1.01
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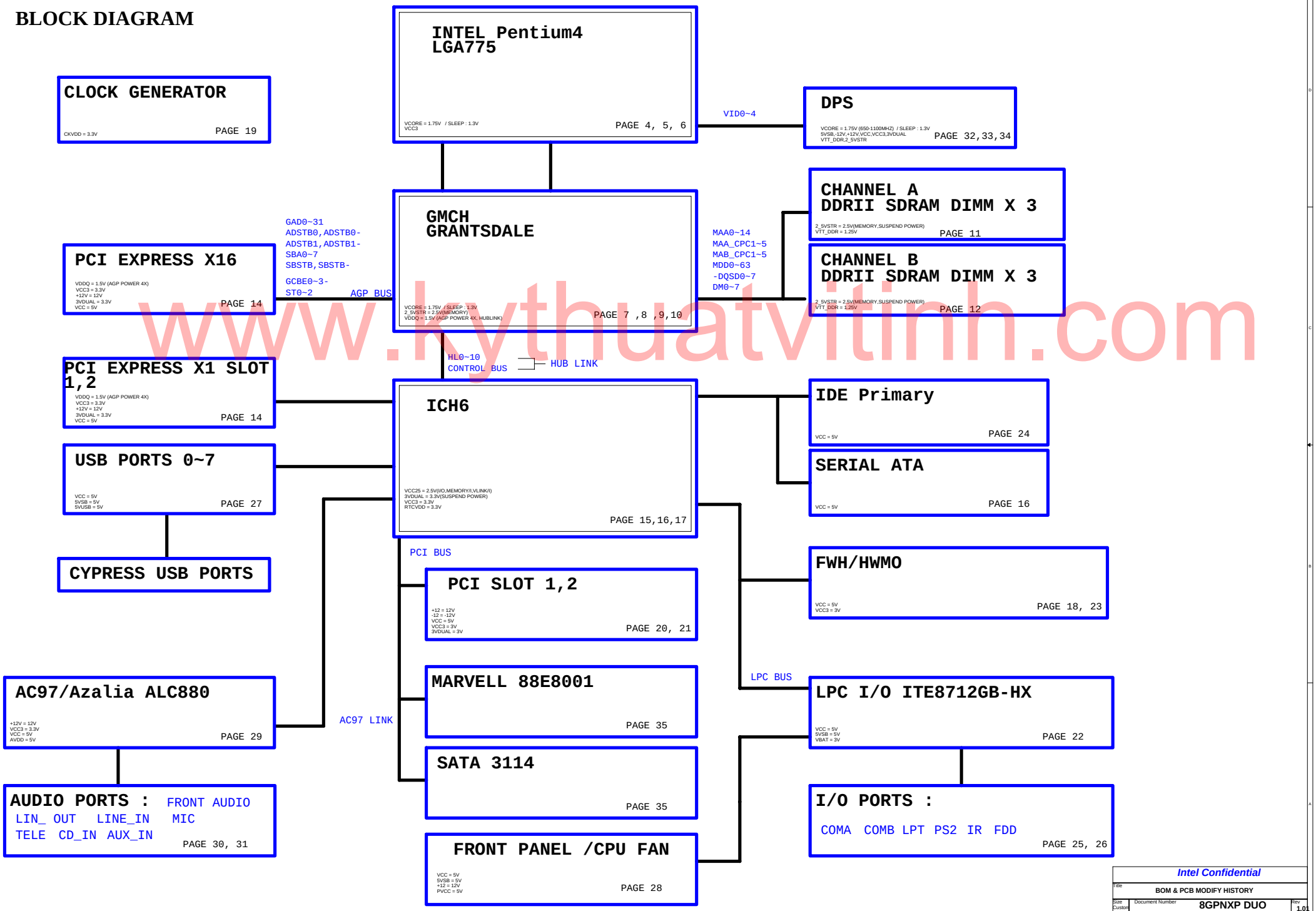
BLOCK DIAGRAM



Title	BOM & PCB MODIFY HISTORY	
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Model Name: 8GPNXP DUO

Version: 1.01

Component value change history

Data	Change Item	Reason
10A-->10B 2004/05/7	AUDIO2 connector change color Orange/Black/Gray	Meet RD rule
	AZALIA_FP connector change to Green Color	Meet RD rule
	CBC31 & CBC32 chnage to 10uF/0805	Fxied Audio precision issue
	Add MIC BIAS circuit for Each	Support 8port Stereo Mic support
	Remove SPDIF & SPDIF IN spring	Meet RD rule
	ICH6R version chnage to B1 915P version change to B1	Version Change
	DPS moudle change to Orange	Meet RD rule
	Remove COMB connector	Meet RD rule
	DPS circuit remove	Verison change
	Remove PCB Back side SMD cap	Meet RD rule
10B-->10C 2004/05/14	DPS BOM update	
	X2 cap. 20P=>22P	
	Vcore 560u Cap. 8pcs=>10pcs	
10C-->10D 2004/05/17	C256==>100/6	6537 on_off issue
10D ECN 2004/05/18	VGA_COM 改料號	
10D-->10E 2004/05/20	Remove DR219 DQ43	CPU loadline
2004/05/26	BOM 修改DC7 DC17	電容耐壓值不合
2004/05/28	REMOVE DR45	VCC1_5 超頻線路
10E-->10F 2004/06/10	PROCHOT BOM update	
	PCI VCC pull high 8.2K==>2.2K	Meet PCI Spec
10F-->10G 2004/07/06	C46,C48,C49,C50,C51 =>22/6 C47 0.1U/6/Y/25V==>1U/6/Y/16V	Fixed P4 775 Extrem CPU

Circuit or PCB layout change for next version

PAGE	Change Item	Reason

Title: BOM & PCB MODIFY HISTORY

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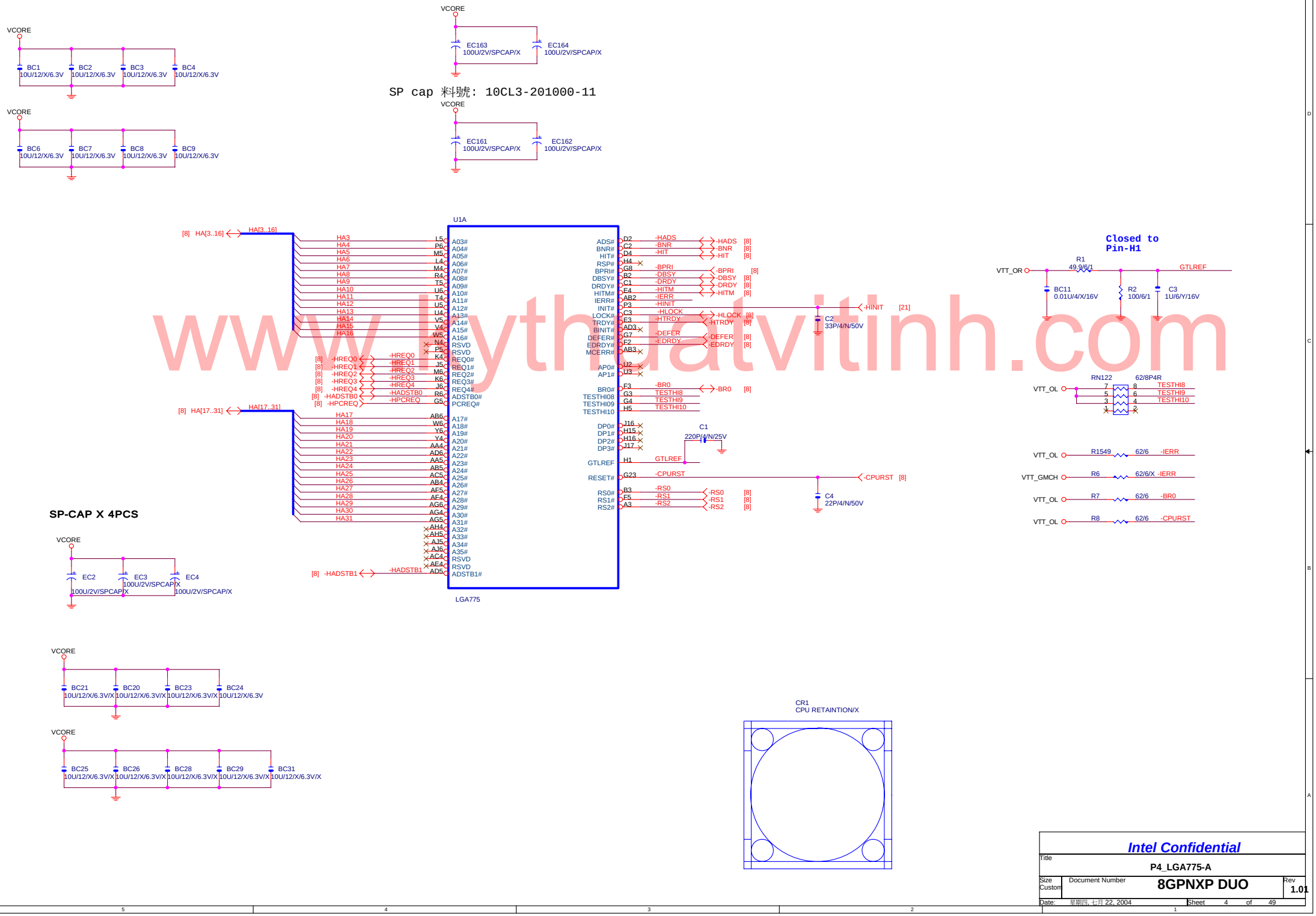

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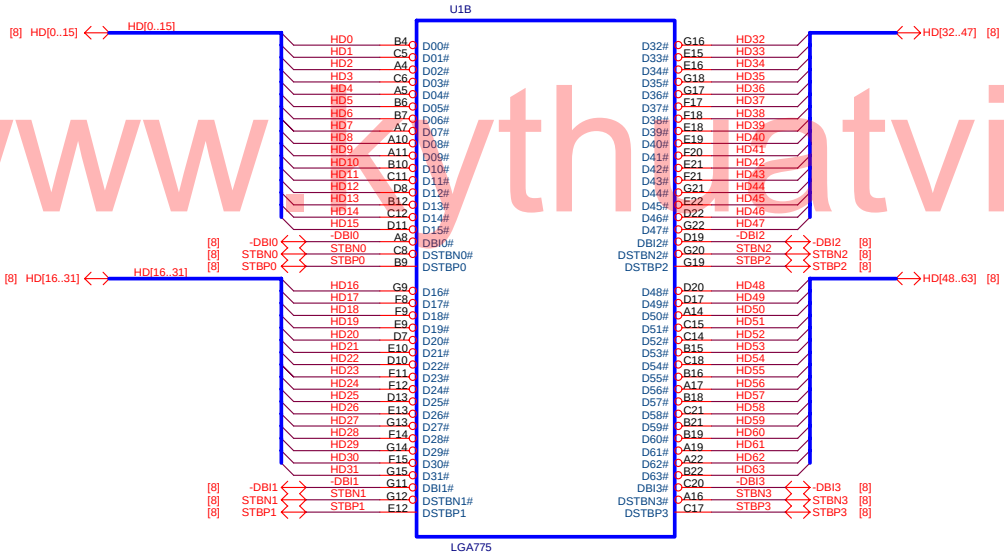
Title	P4_LGA775-A	
Size: Custom	Document Number: 8GPNXP DUO	Rev: 1.01
Date: 星期四, 七月 22, 2004	Sheet 4 of 49	



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Title	P4_LGA775-C	
Size: Custom	Document Number: 8GPNXP DUO	Rev: 1.01
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Note:

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

Trace width doesn't less than 12 Mil

As close as possible to CPU socket

Place outside of CPU socket

改排阻

U1C

LGA775

U1D

LGA775

Please inside CPU socekt

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Title	P4_LGA775-B
Size: Custom	Document Number: 8GPNXP DUO
Rev	1.01
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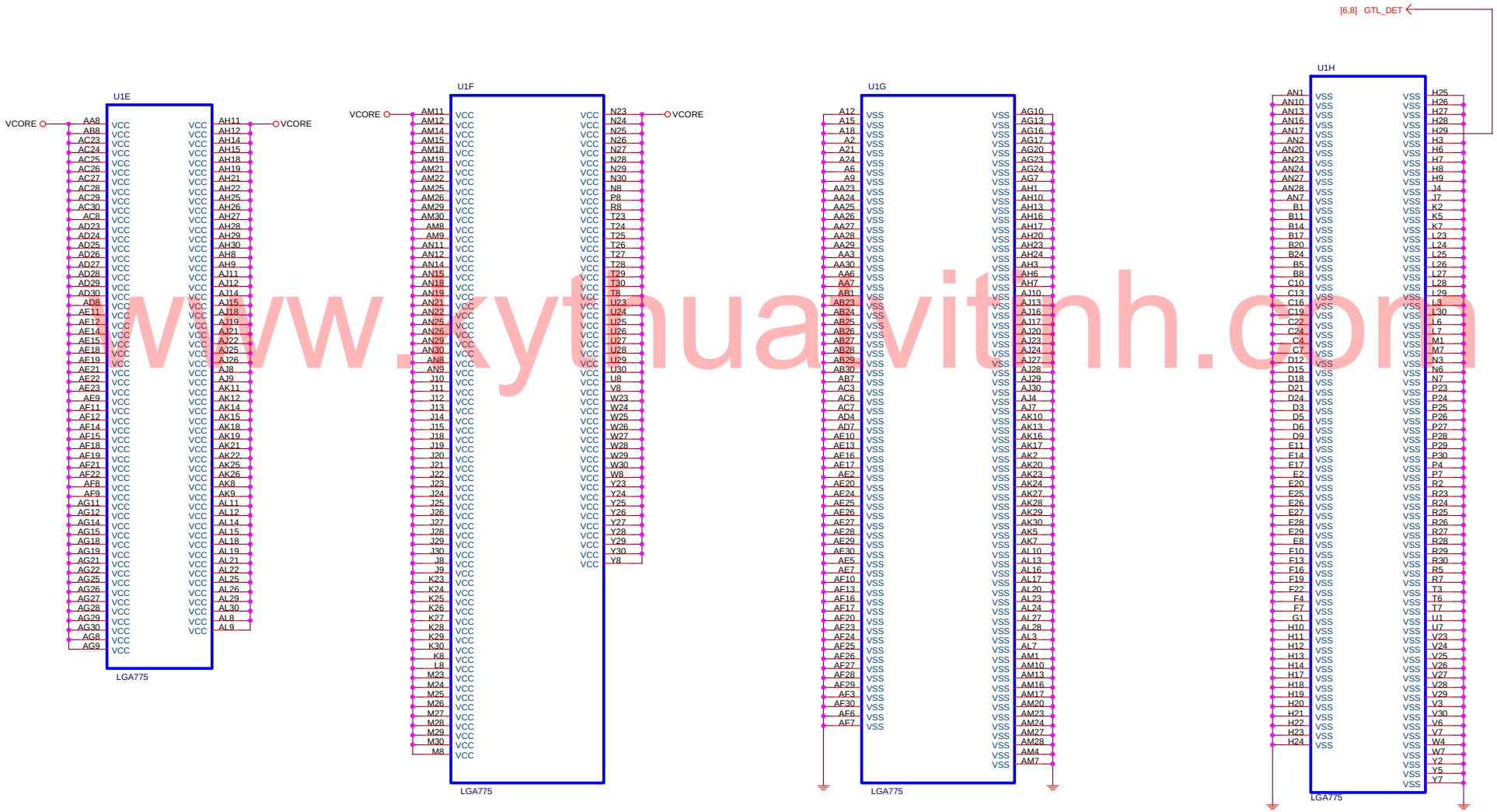

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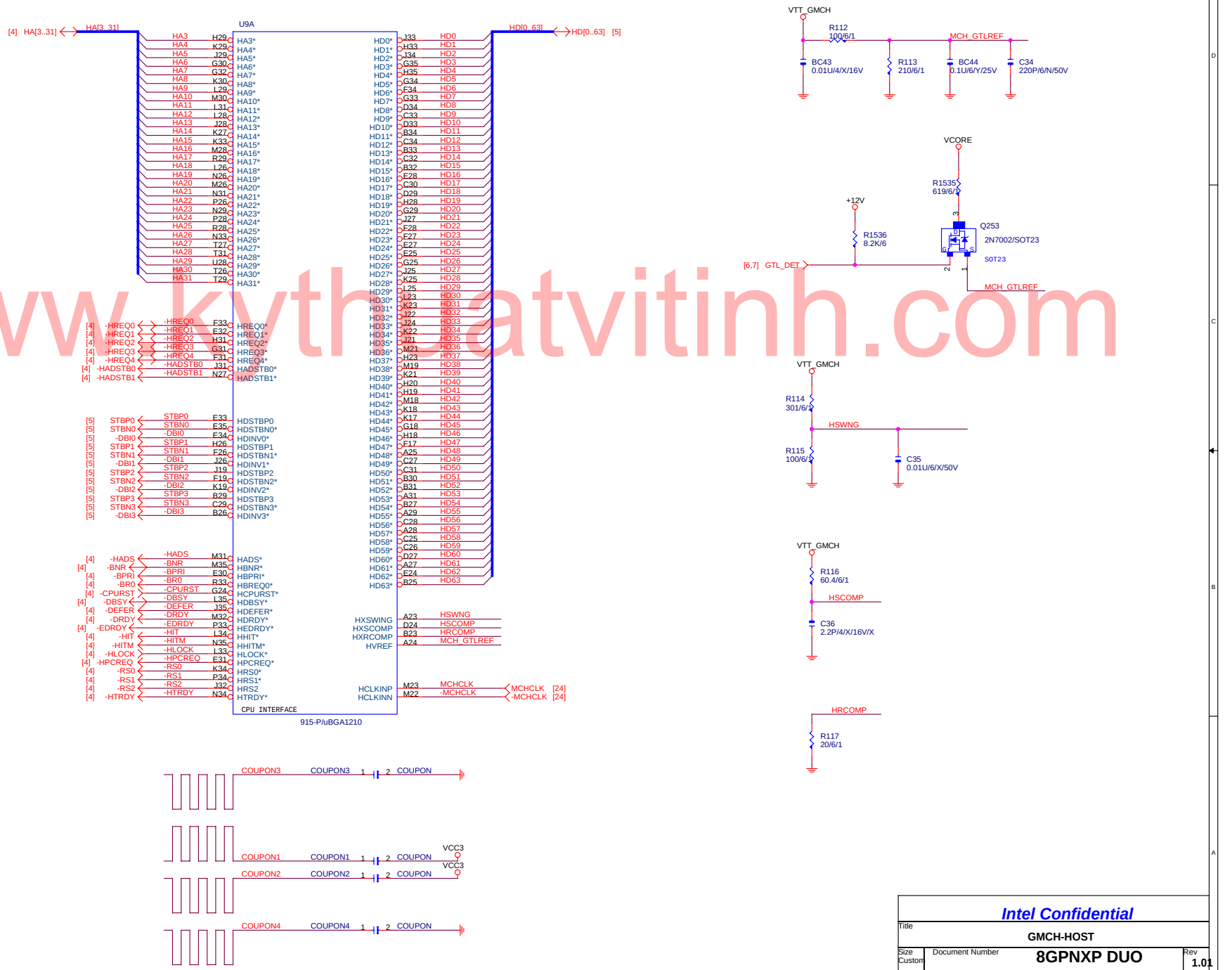
Title	P4_LGA775-D	
Size: Custom	Document Number: 8GPNXP DUO	Rev: 1.01
Date: 星期四, 七月 22, 2004	Sheet 7 of 49	



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Size: Custom	Document Number: 8GPNXP DUO		Rev: 1.01
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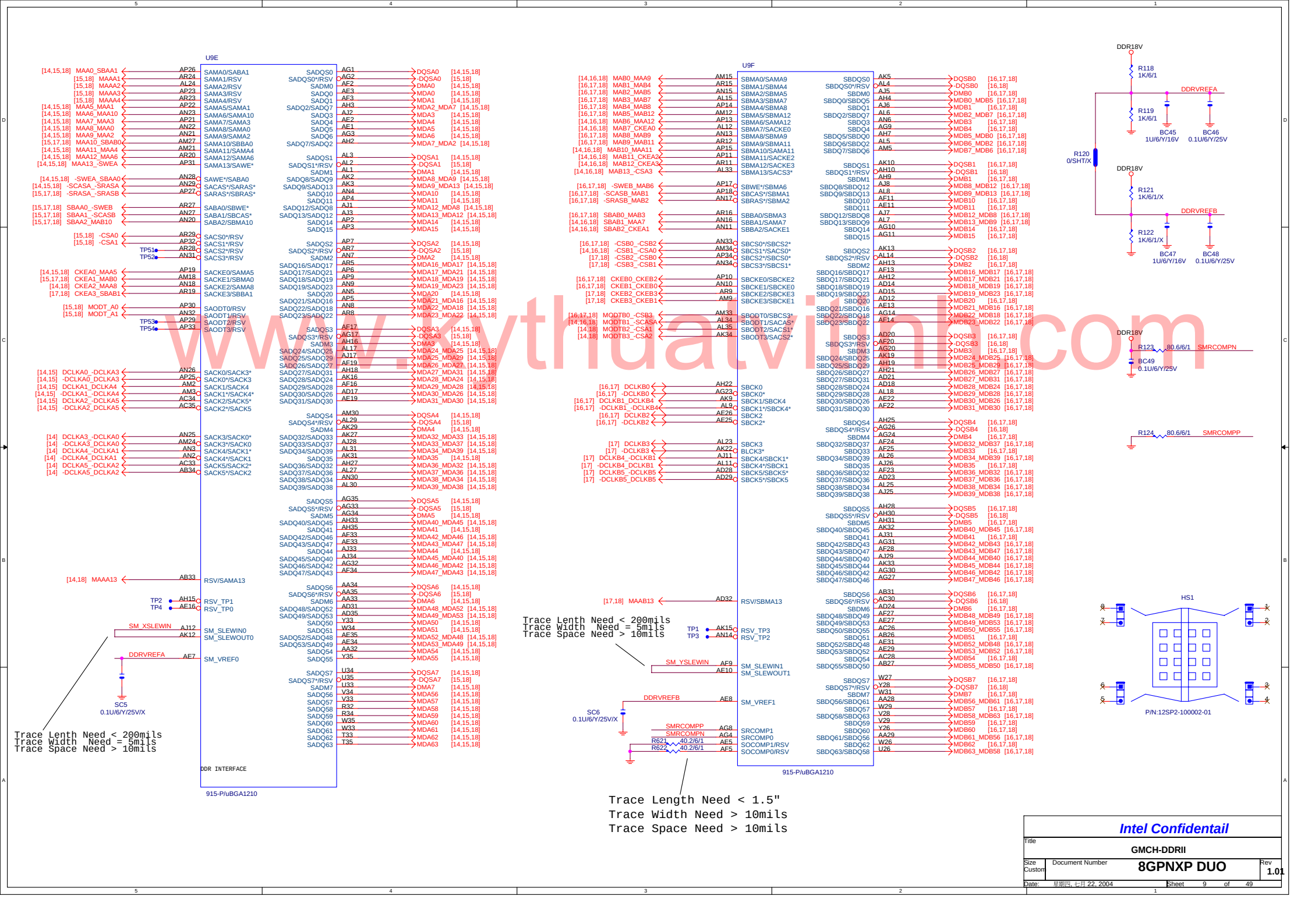

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Title	GMCH-DDRII		
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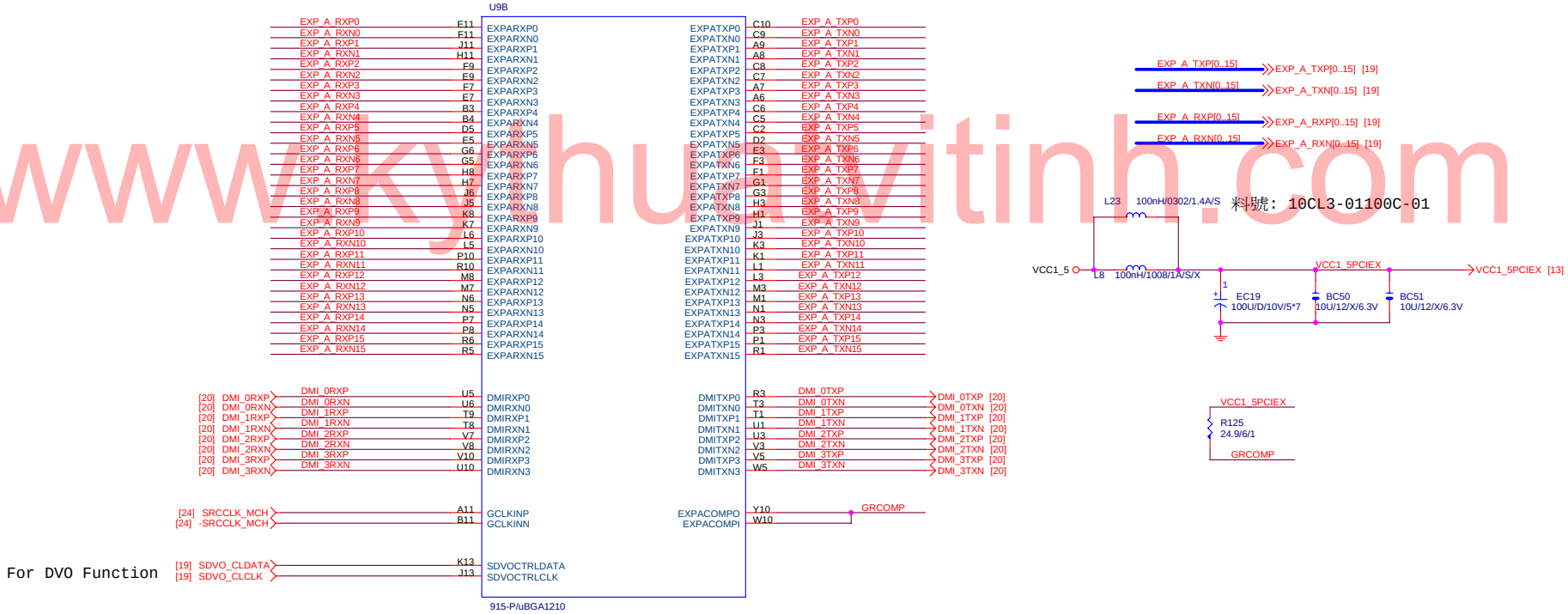

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Title	GMCH-PCI E & DMI		
Size: Custom	Document Number: 8GPNXP DUO		Rev: 1.01
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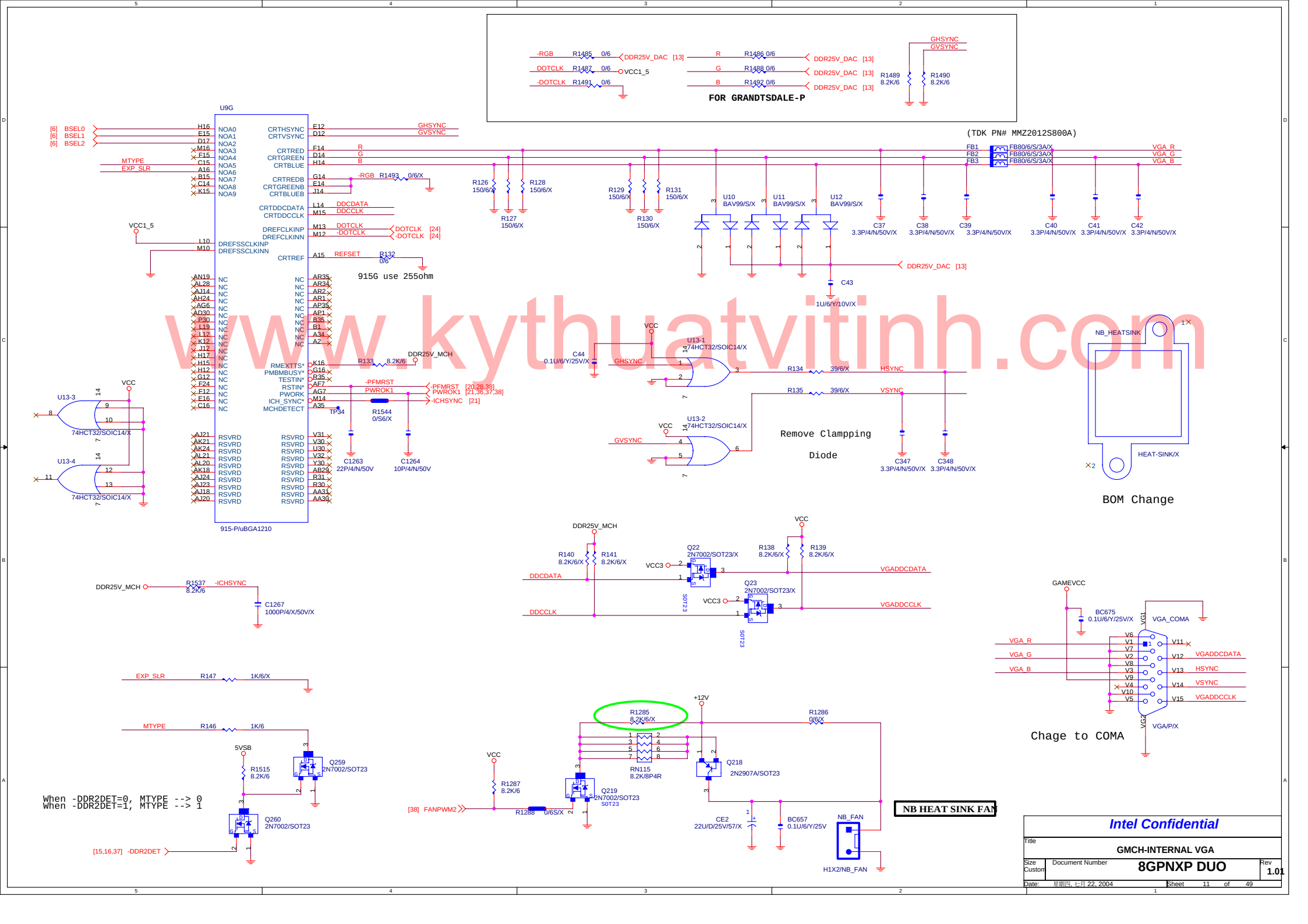

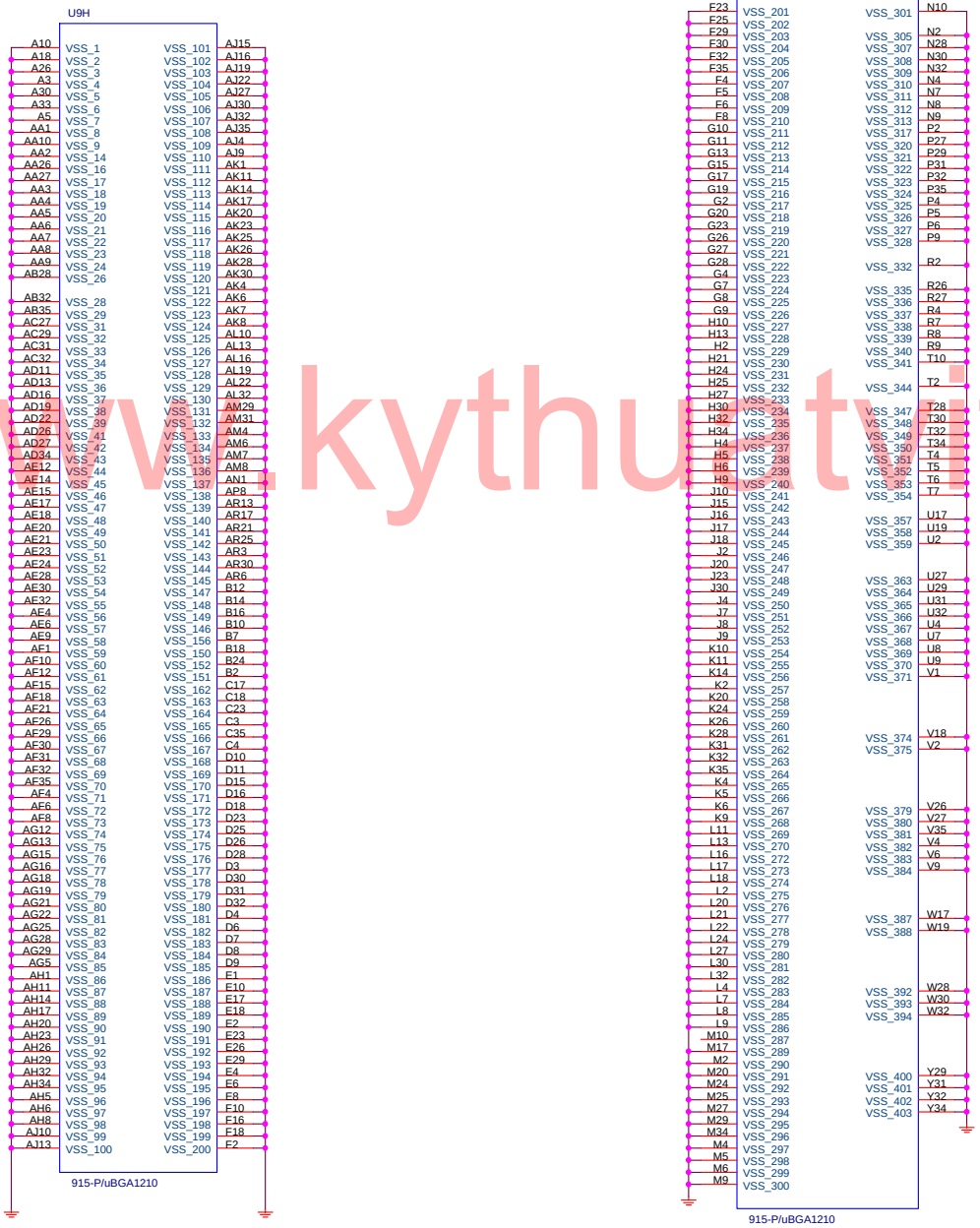

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Size: Custom	Document Number: 8GPNXP DUO	Rev: 1.01
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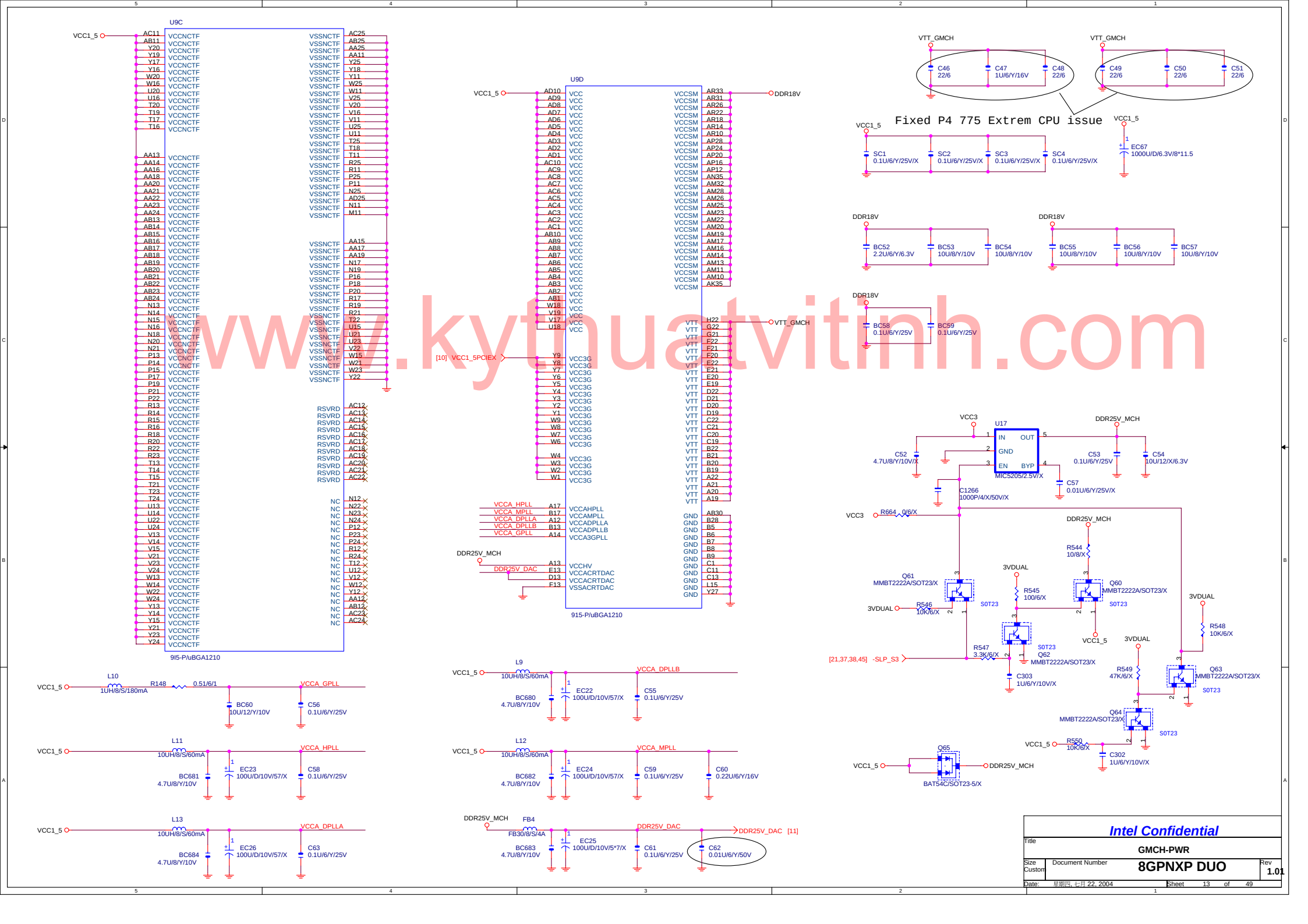

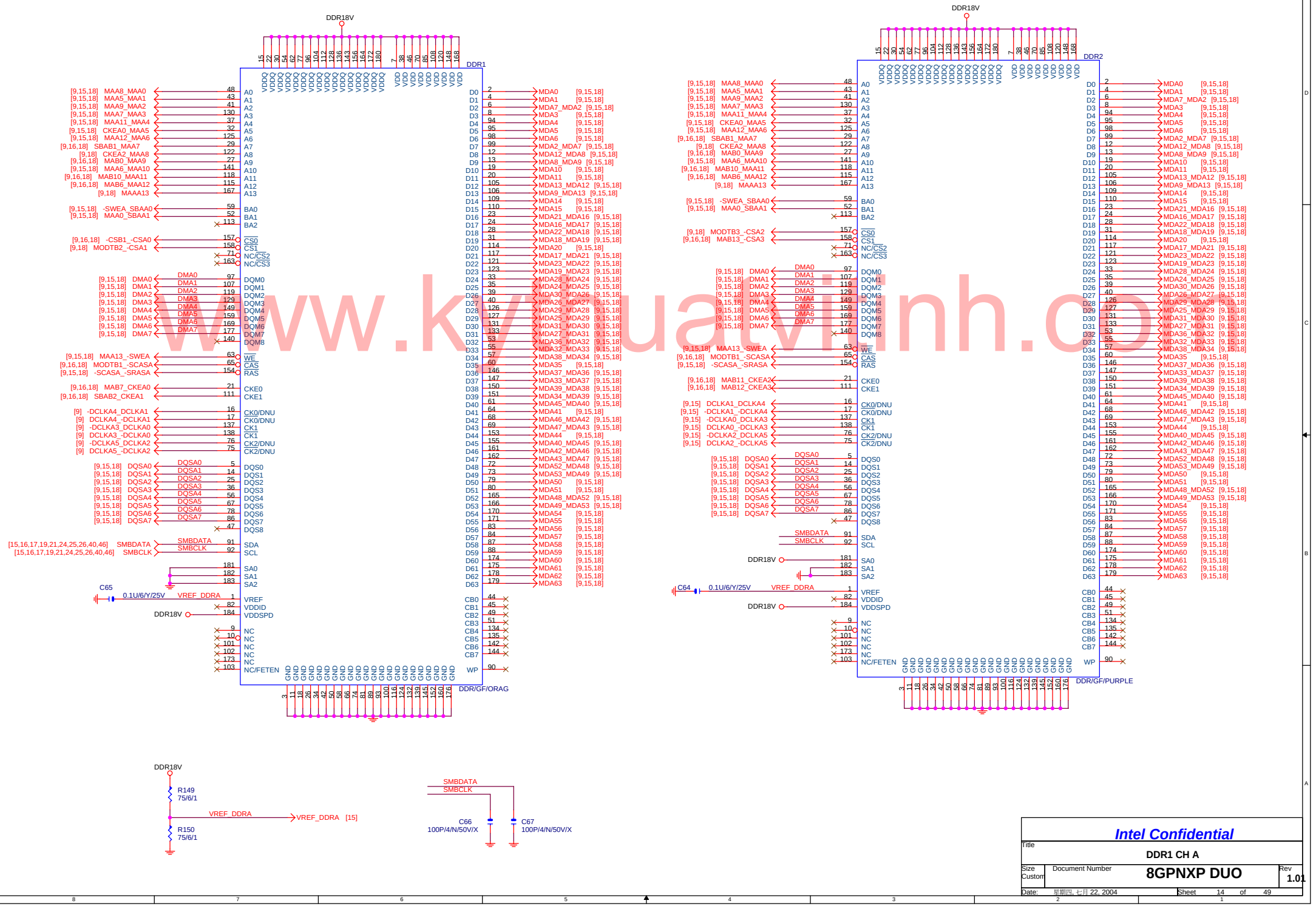

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Size: Custom	Document Number: 8GPNXP DUO	Rev: 1.01
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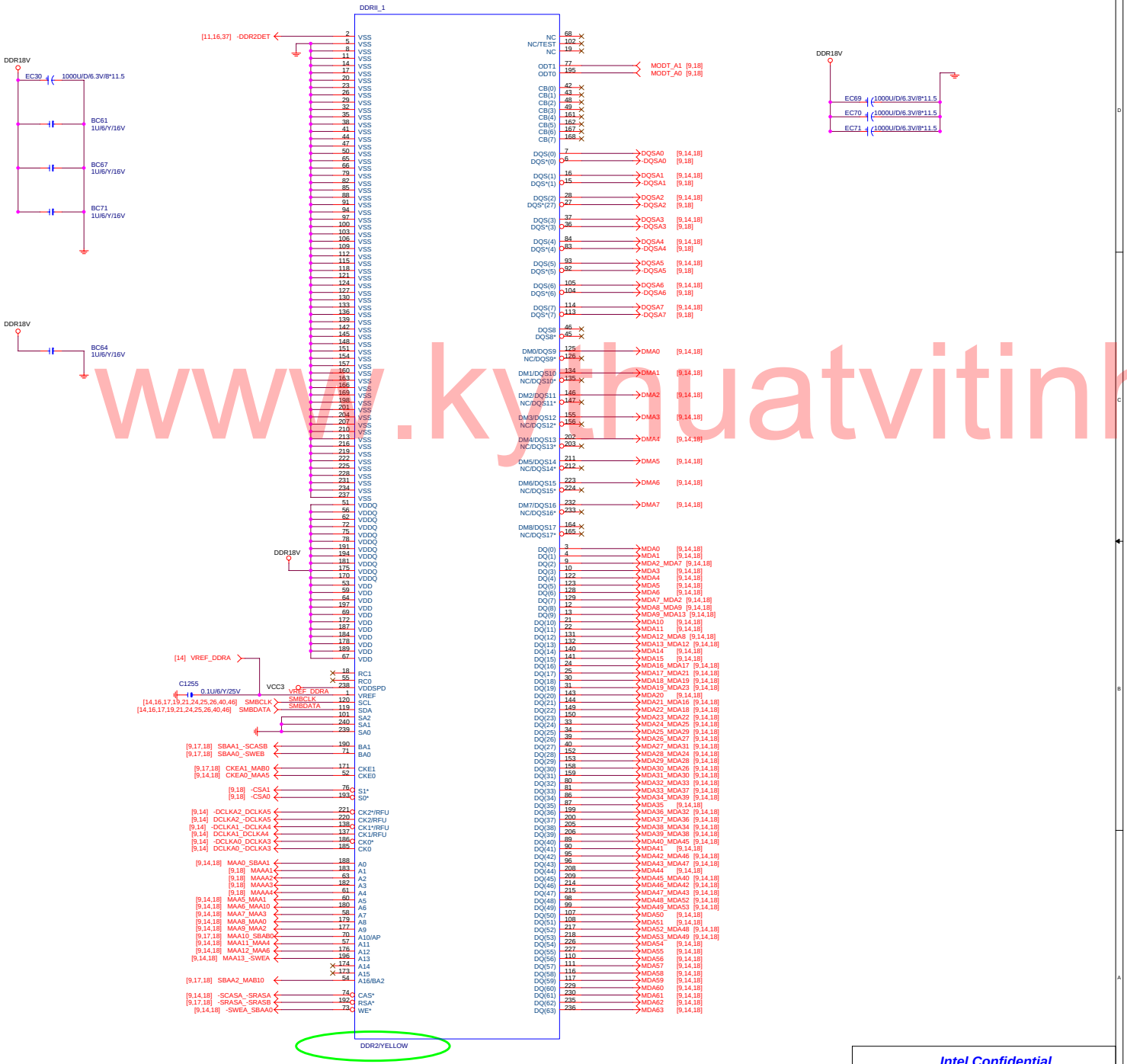

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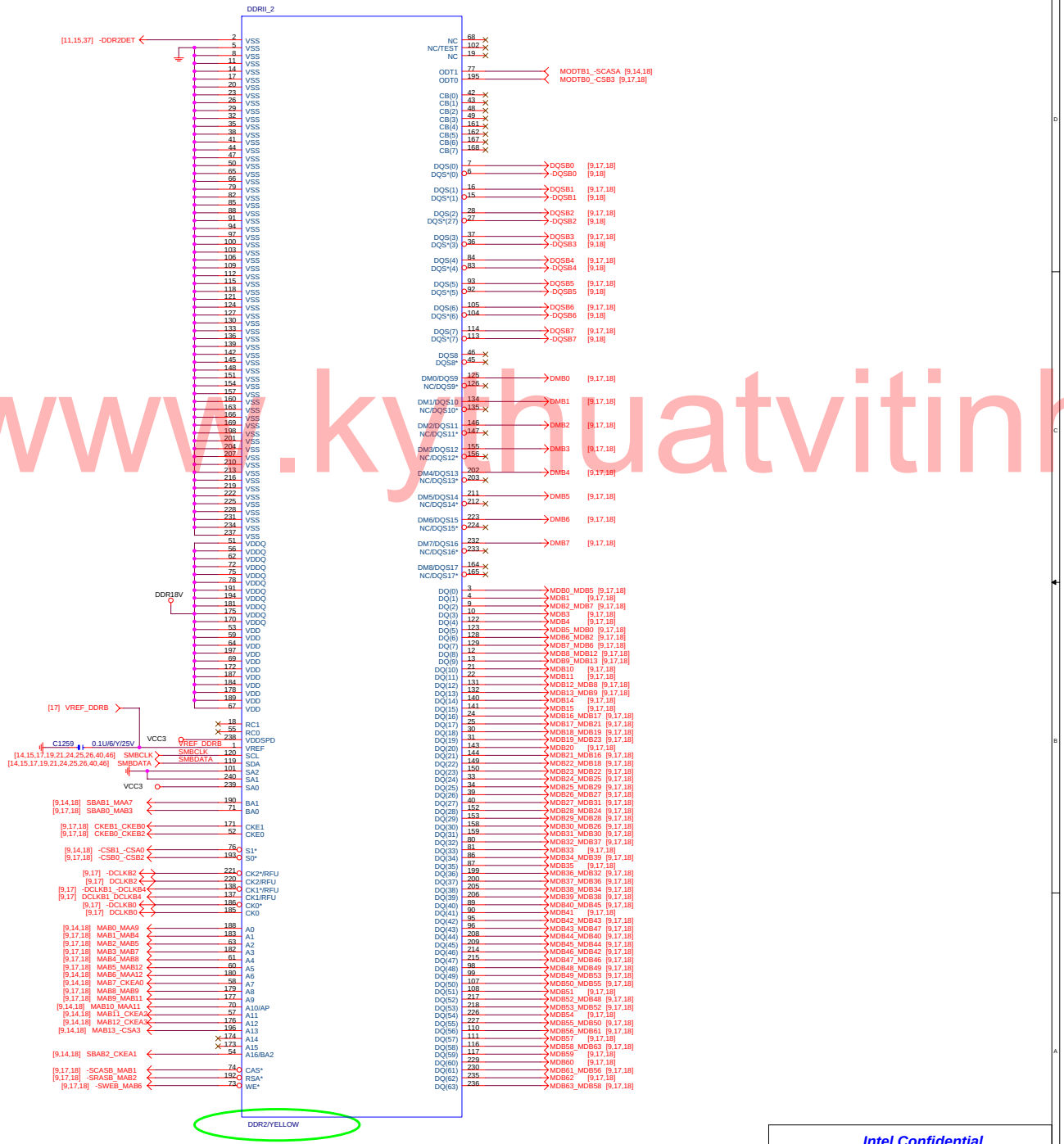
Size: Custom	Document Number: 8GPNXP DUO		Rev: 1.01
Date: 星期四, 十月 22, 2004		Sheet 15 of 49	



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Size: Custom	Document Number: 8GPNXP DUO	Rev: 1.01
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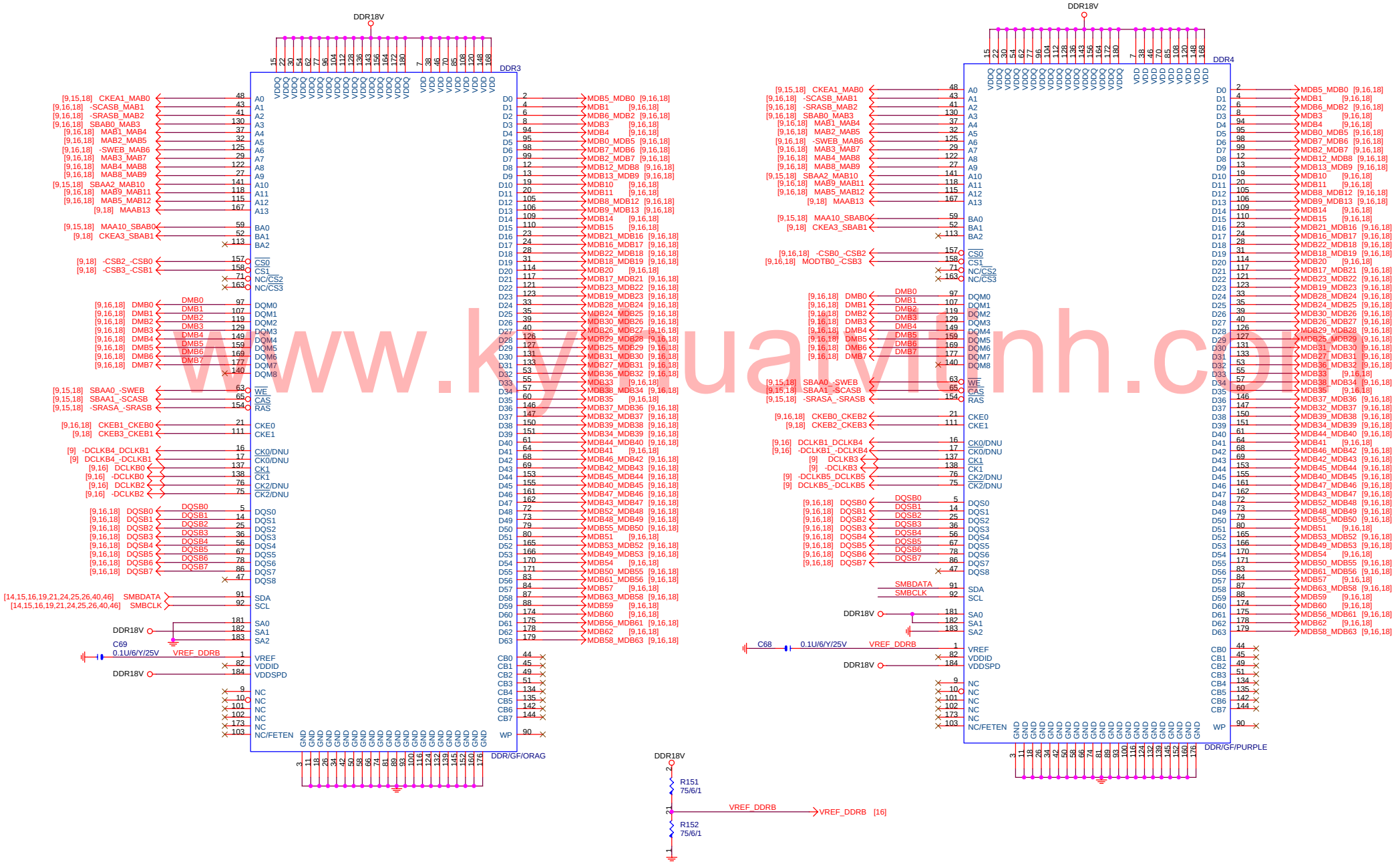

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Size: Custom	Document Number: 8GPNXP DUO	Rev: 1.01
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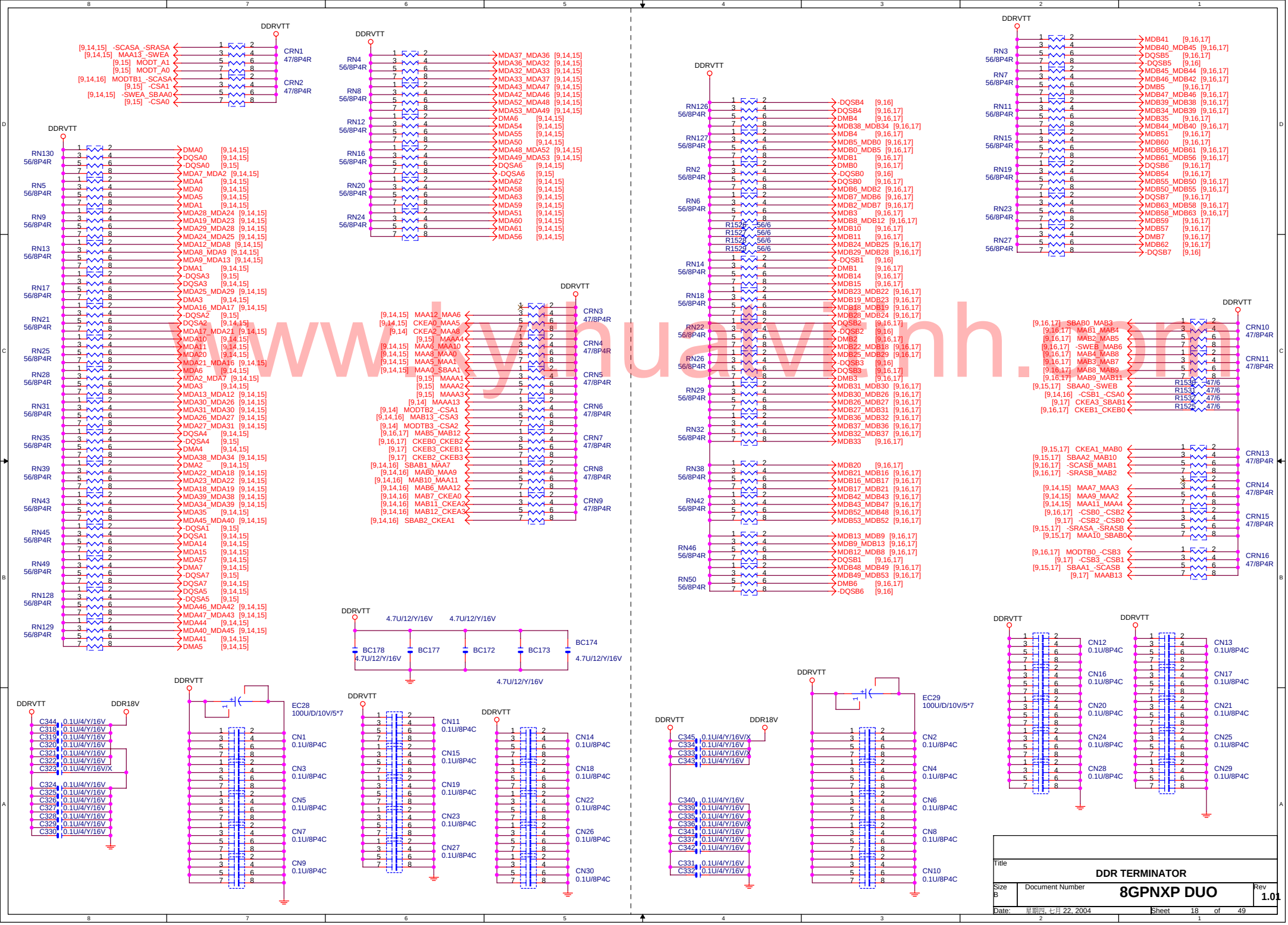

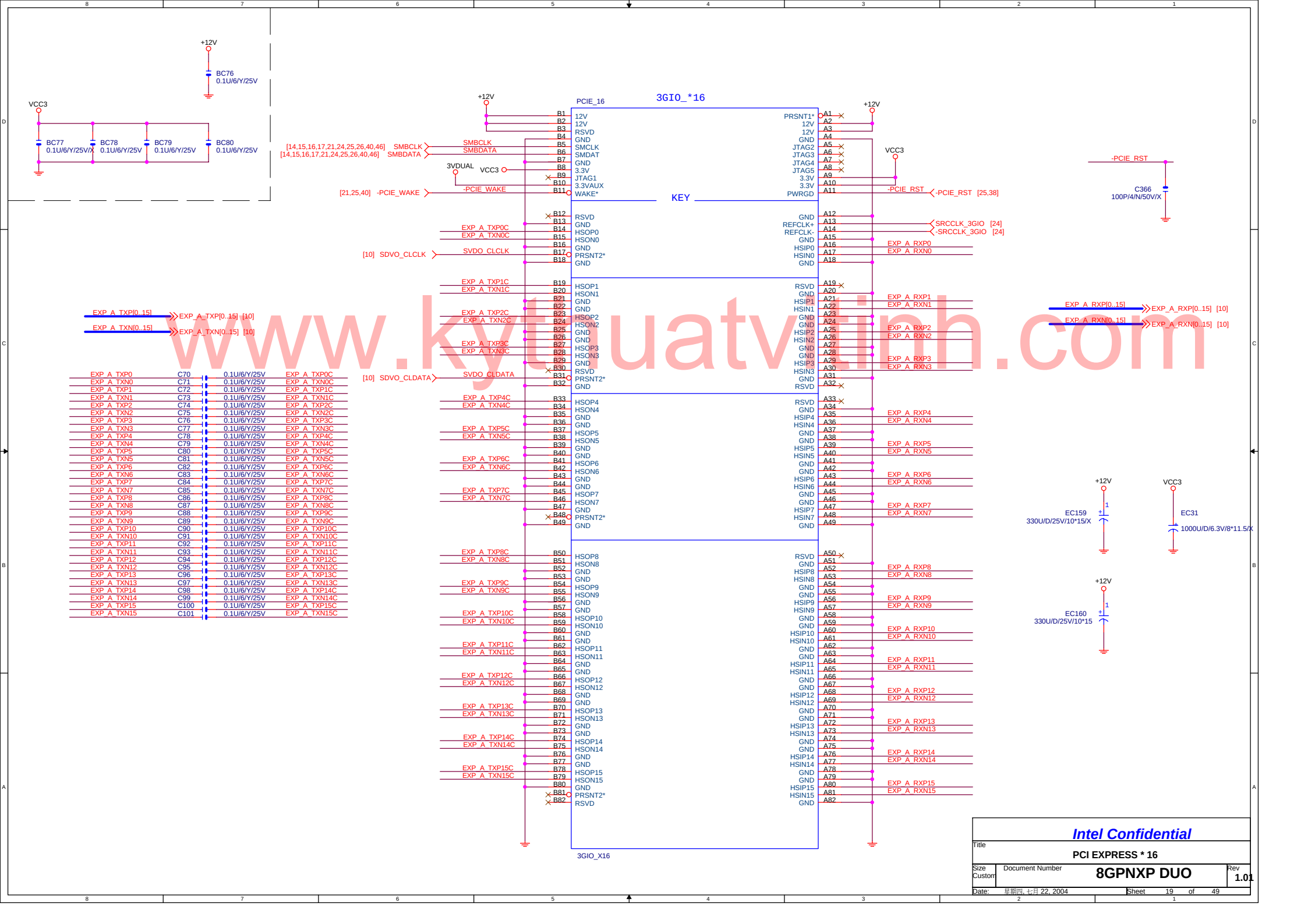

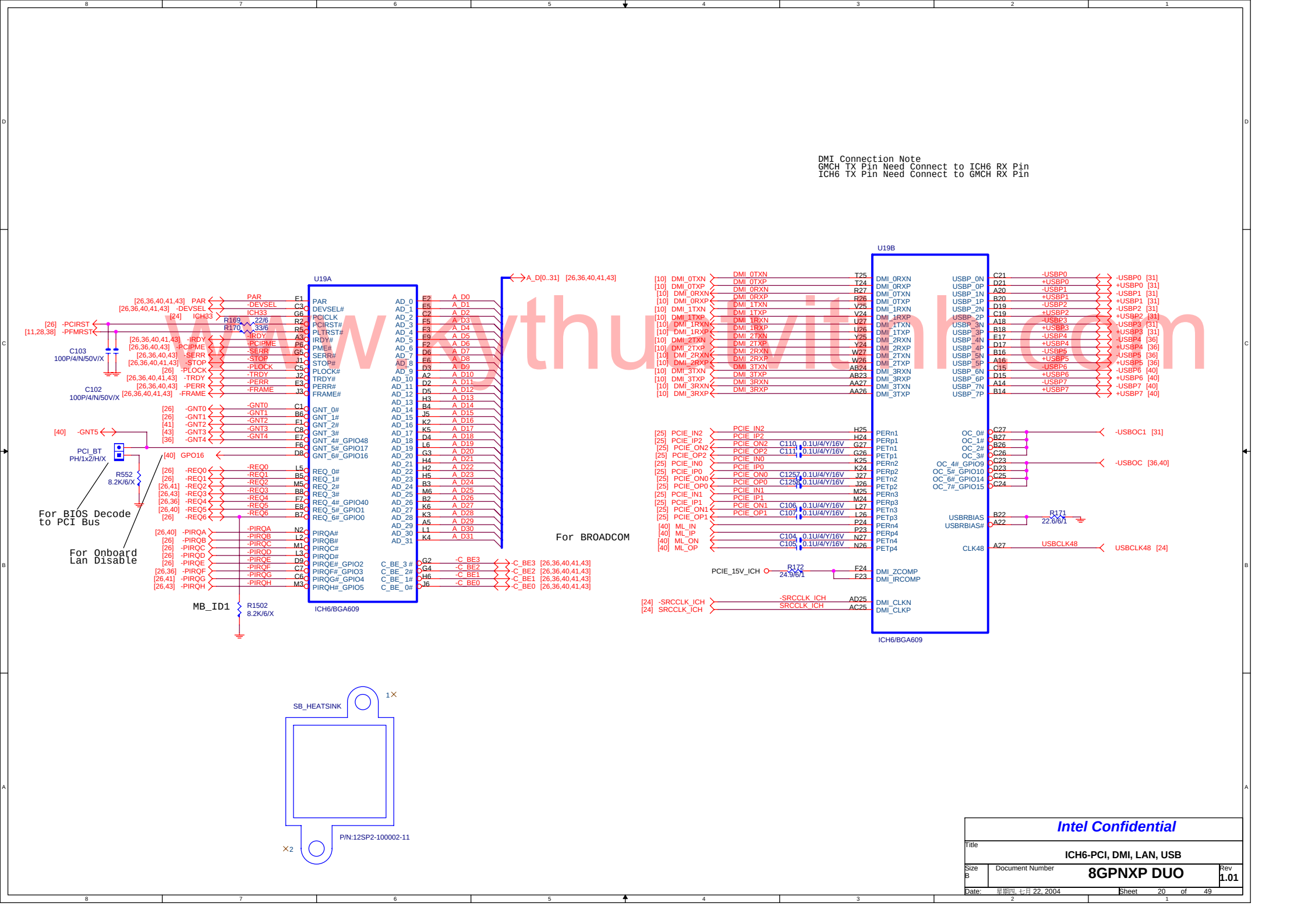
DMI Connection Note
GMCH TX Pin Need Connect to ICH6 RX Pin
ICH6 TX Pin Need Connect to GMCH RX Pin
U19A
ICH6/BGA609
U19B
ICH6/BGA609
For BIOS Decode to PCI Bus
For Onboard Lan Disable
For BROADCOM
MB_ID1
SB_HEATSINK
P/N:12SP2-100002-11
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ICH6-PCI, DMI, LAN, USB
8GPNXP DUO
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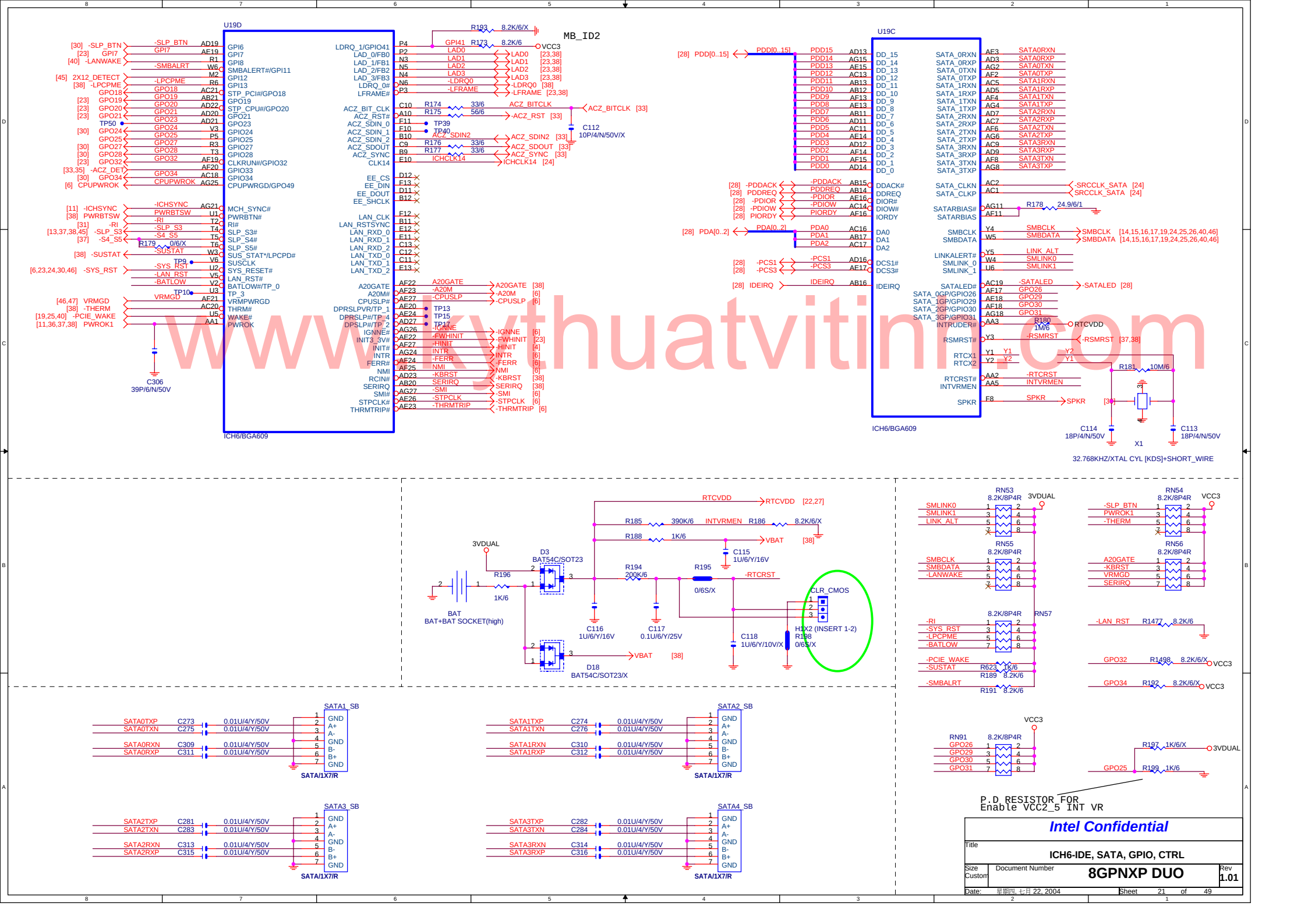

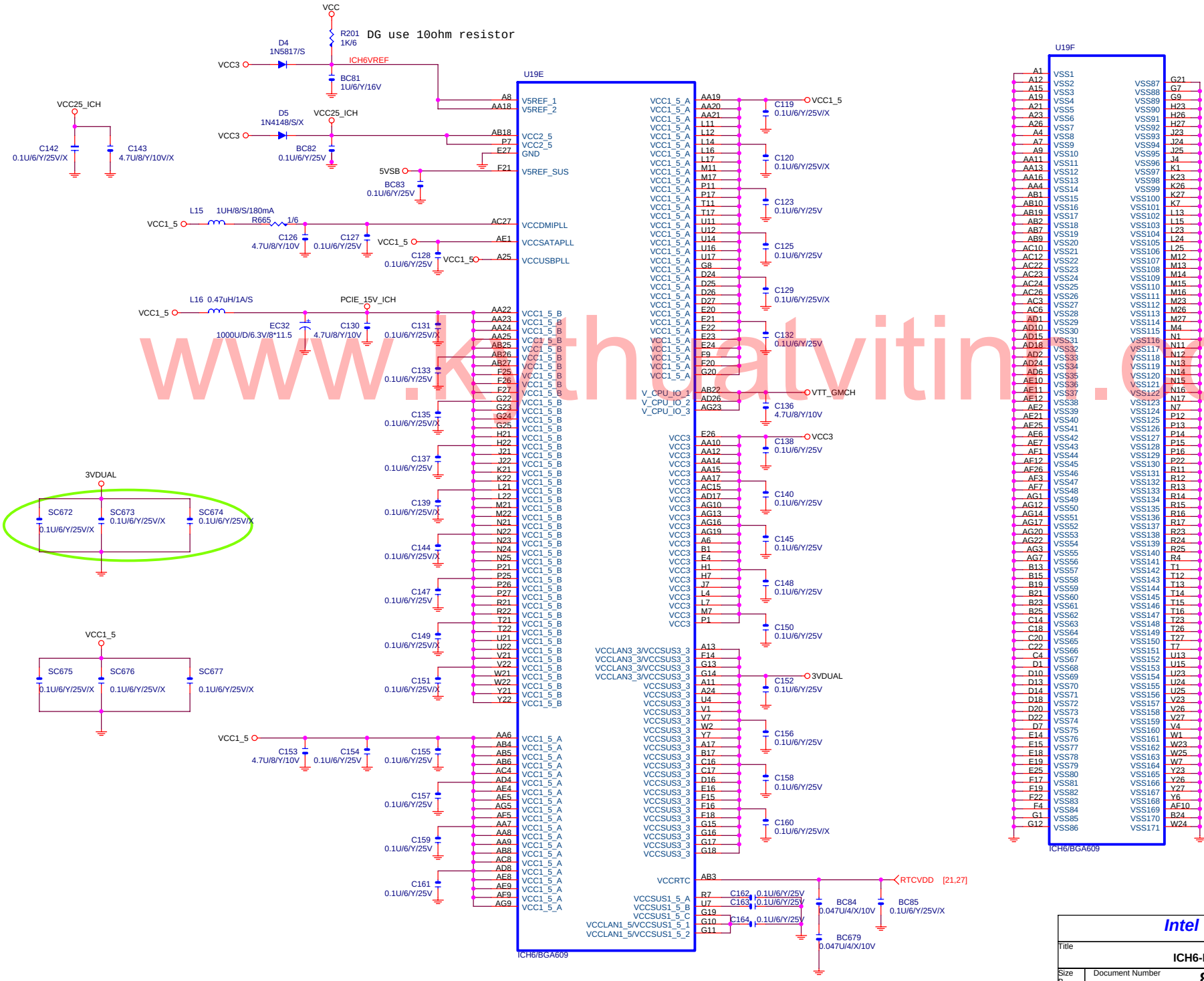

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Size B	Document Number 8GPNXP DUO	Rev 1.01
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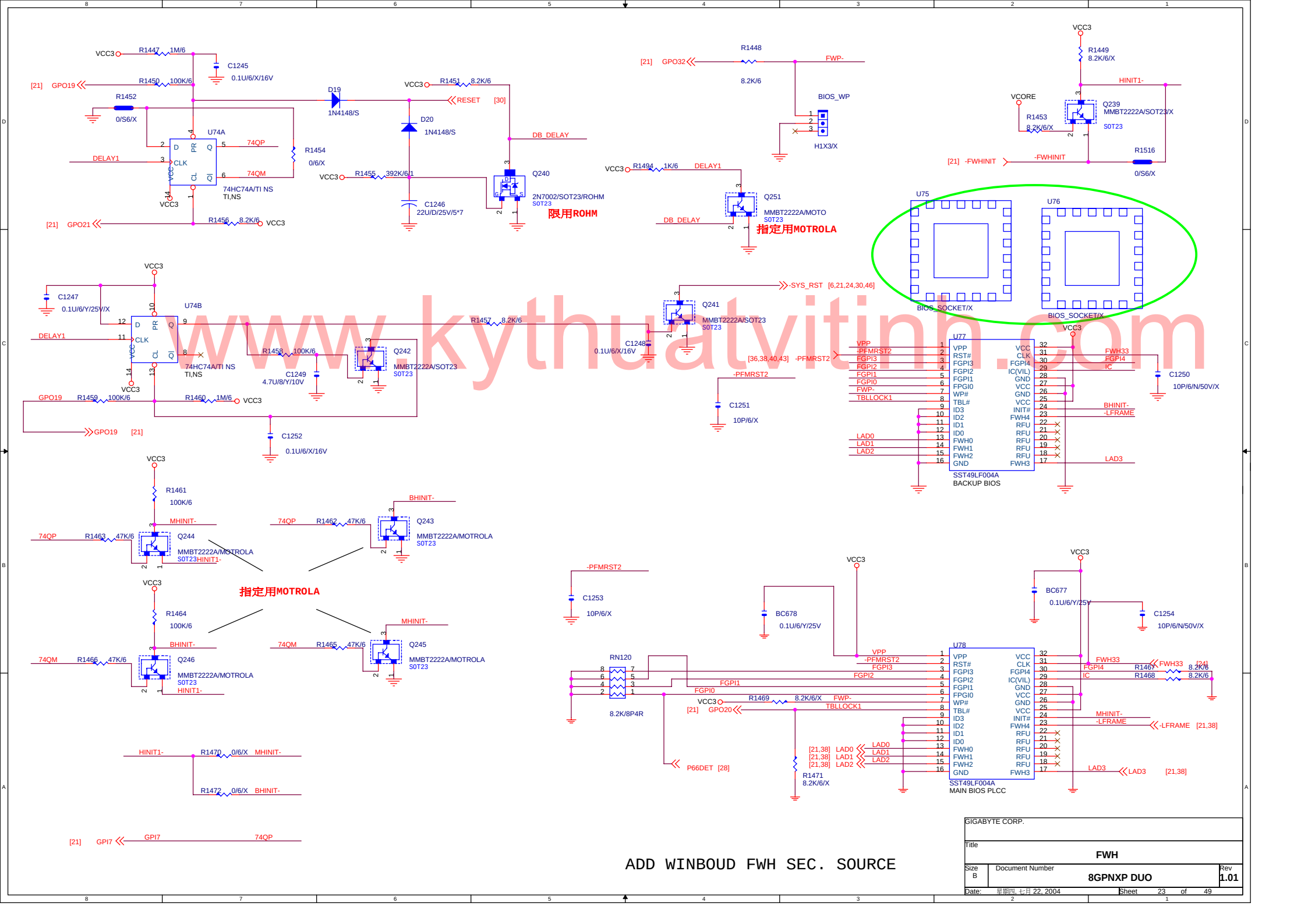
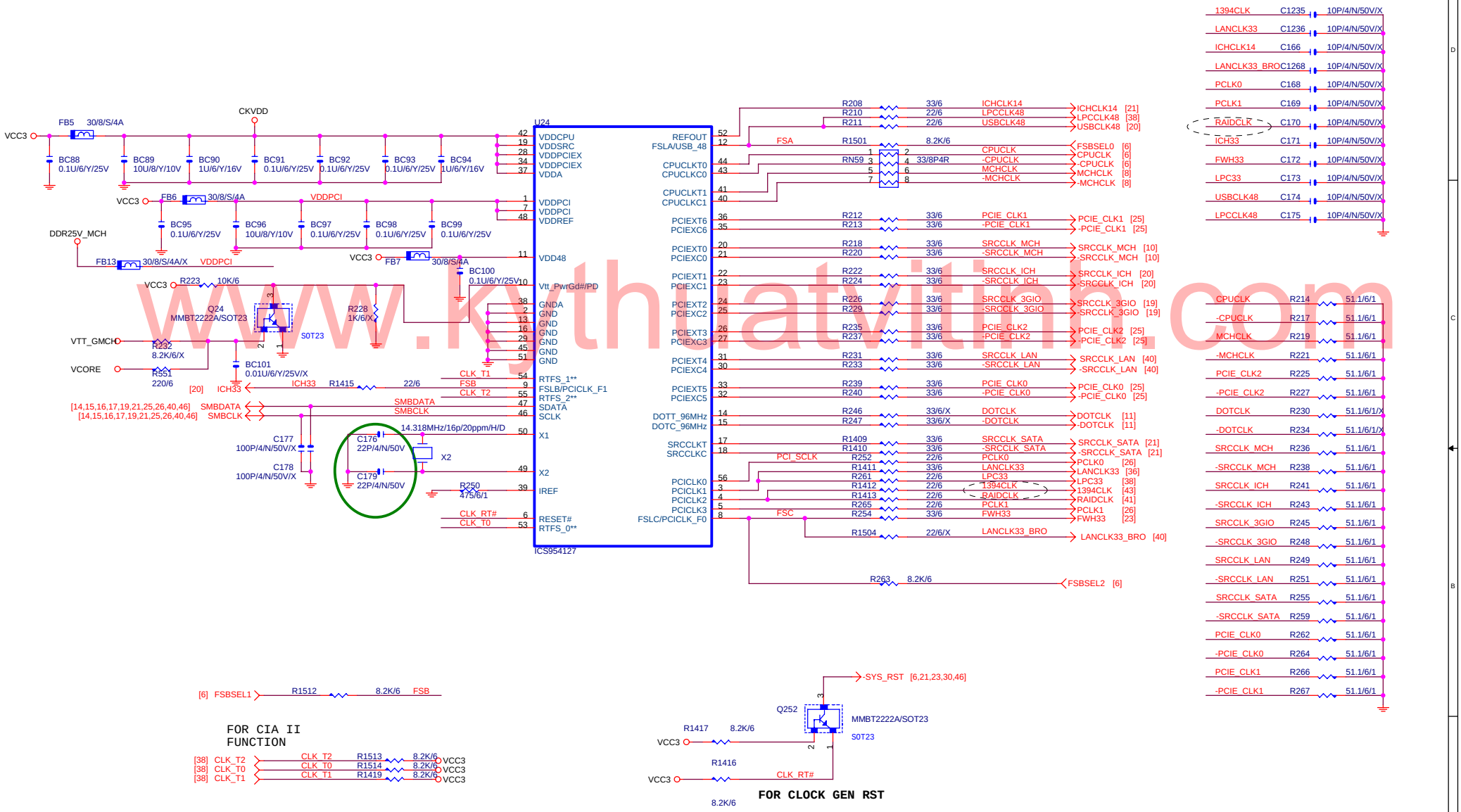


ADD WINBOUD FWH SEC. SOURCE

GIGABYTE CORP.		
Title: FWH		
Size: B	Document Number: 8GPNXP DUO	Rev: 1.01
Date: 星期四, 七月 22, 2004	Sheet 23 of 49	



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Title	CK410M/GBT_CLK GEN		
Size: Custom	Document Number: 8GPNXP DUO		Rev: 1.01
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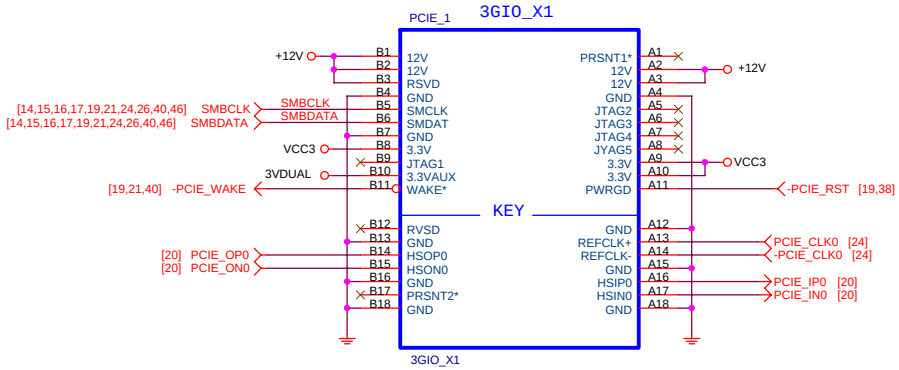

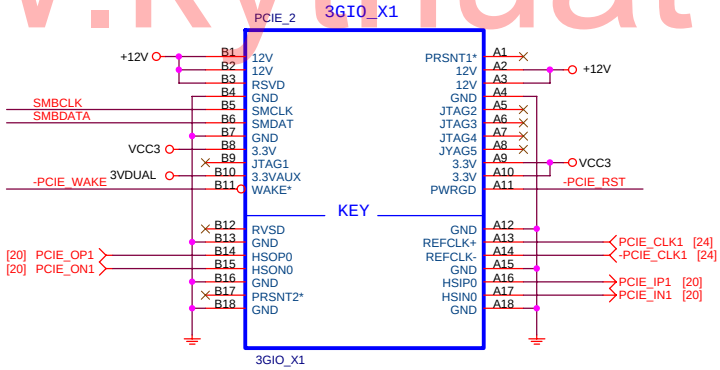

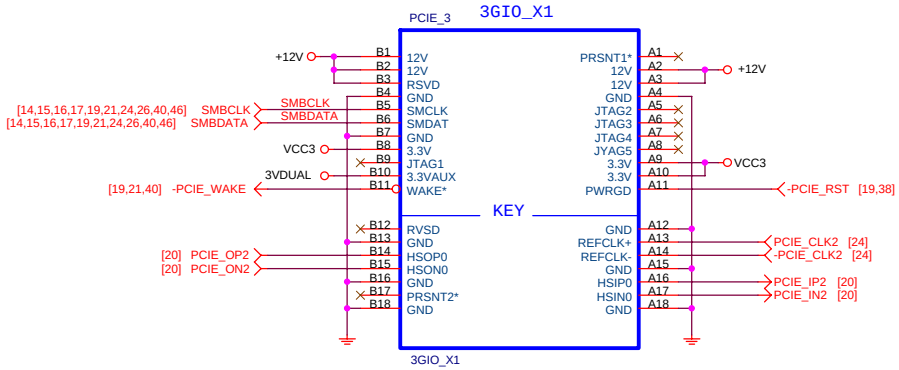

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Title: PCI E SLOT 1, 2, 3

Size: B | Document Number: 8GPNXP DUO | Rev: 1.01

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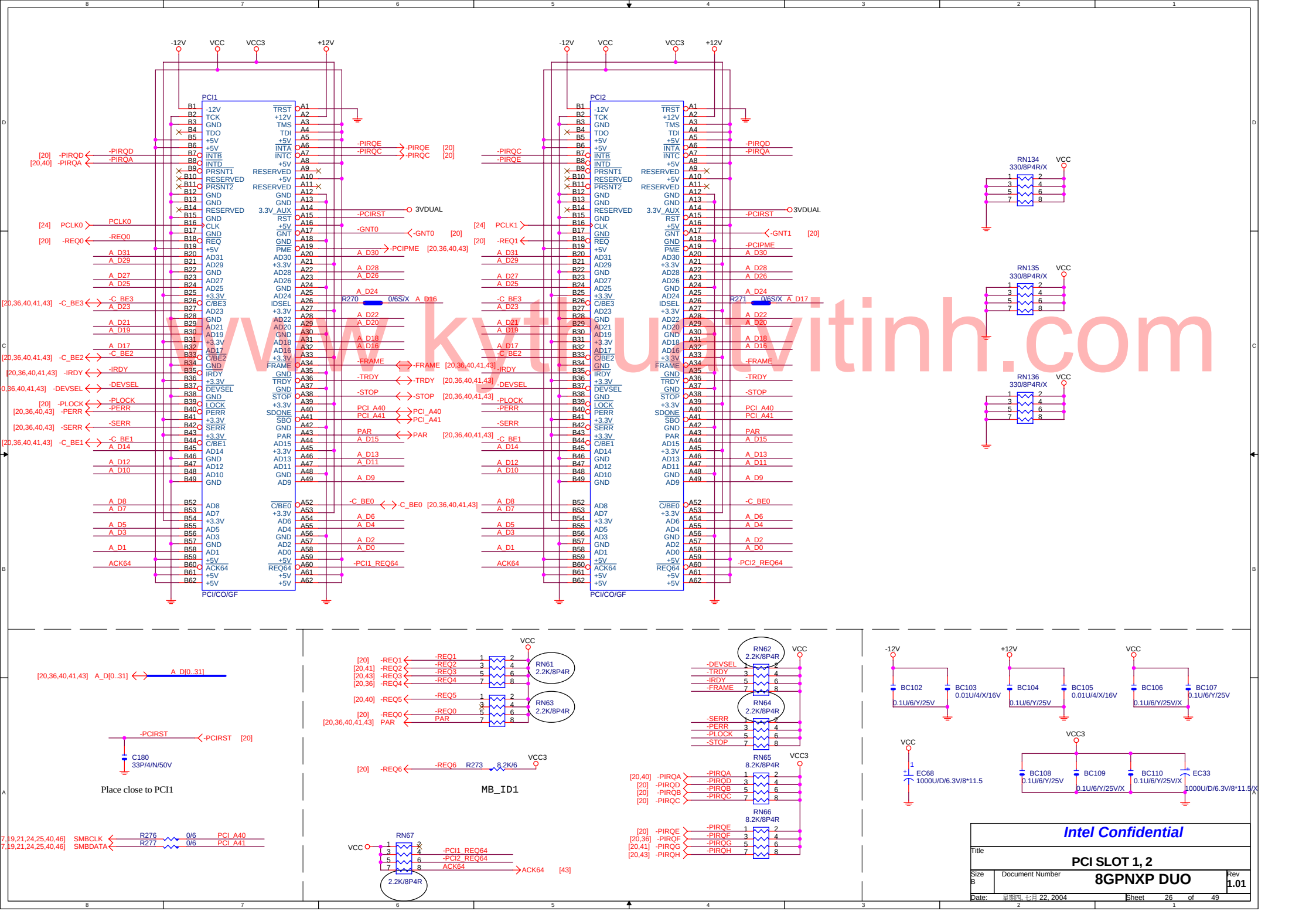

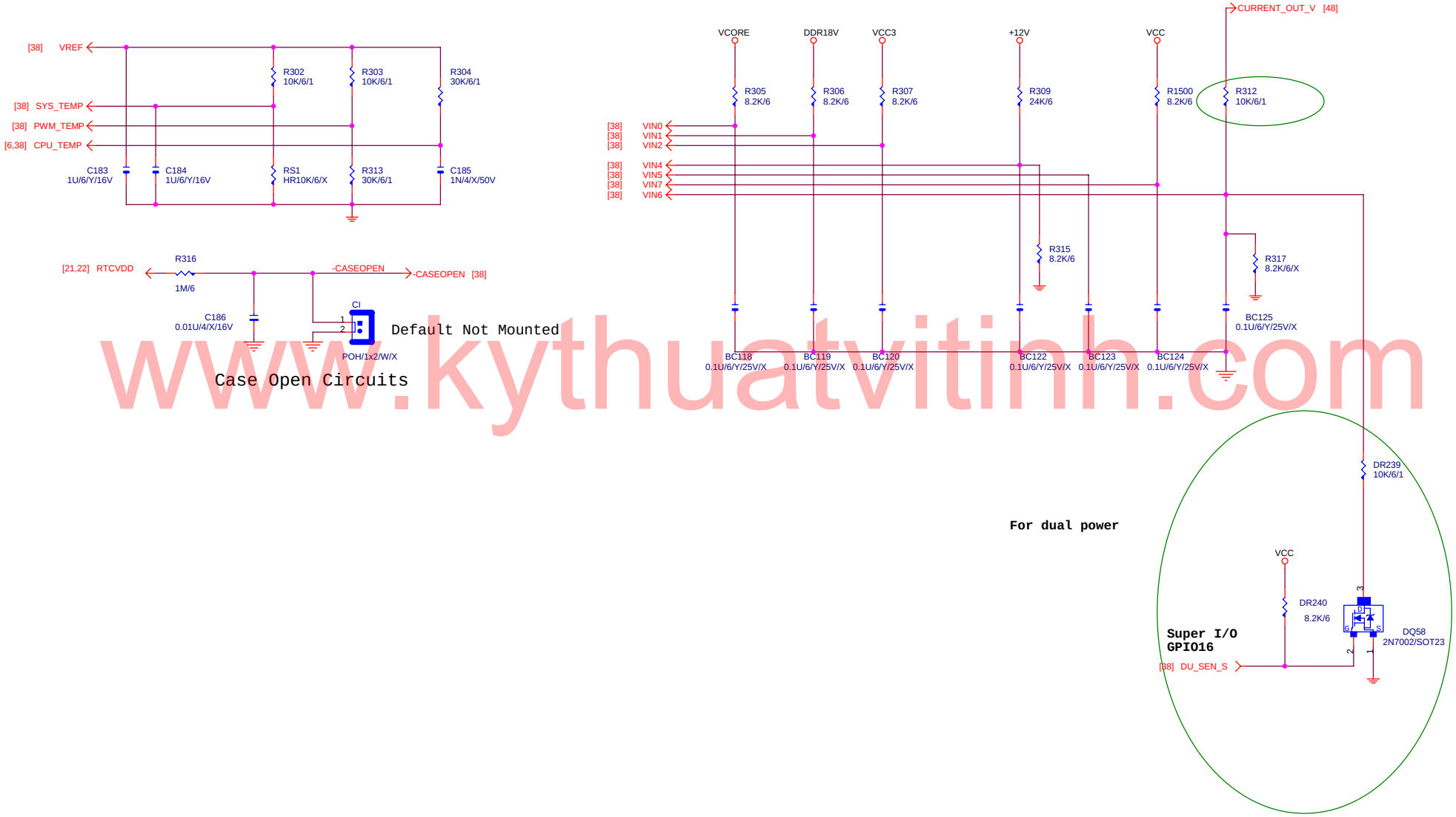

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Title	HARDWARE MONITOR	
Size B	Document Number 8GPNXP DUO	Rev 1.01
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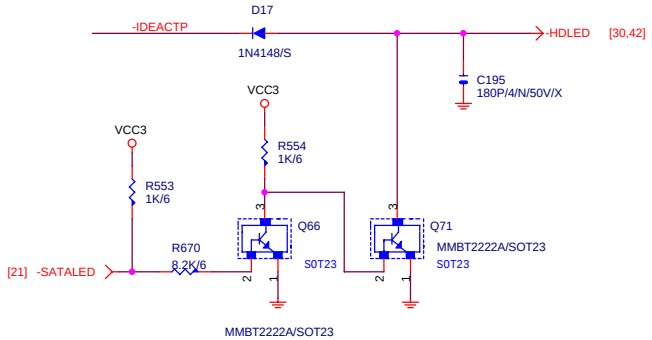

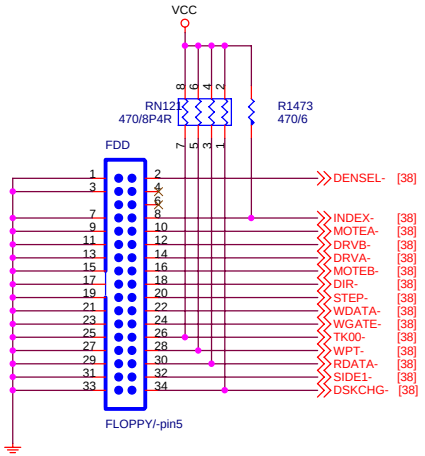

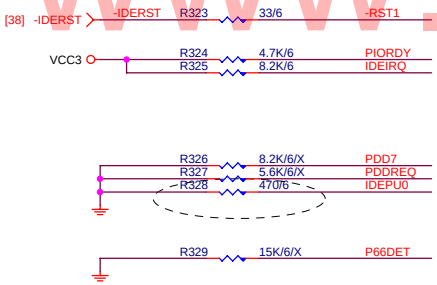

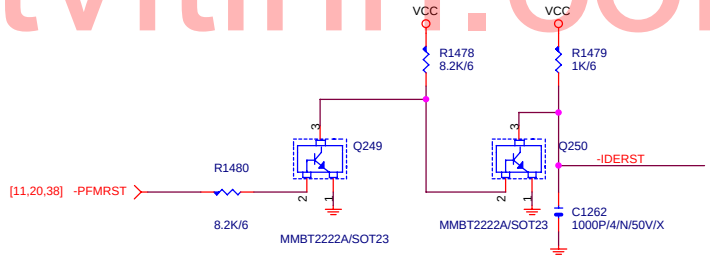

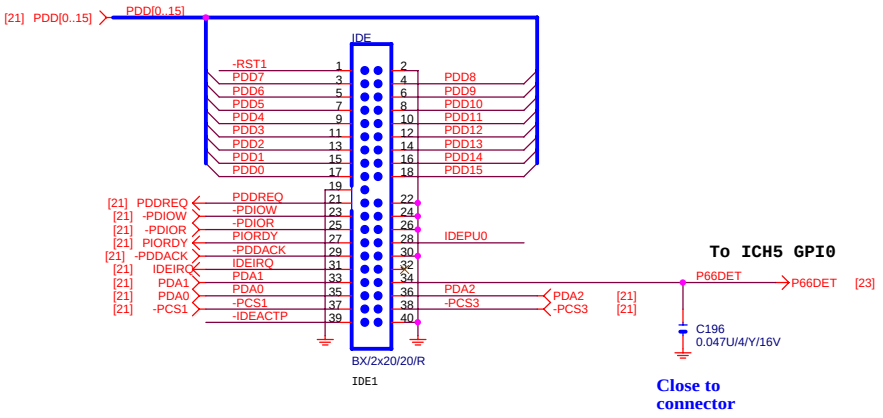

PRIMARY IDE CONNECTOR

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Size: B	Document Number: 8GPNXP DUO	Rev: 1.01
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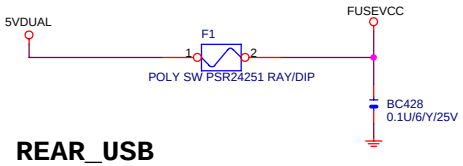
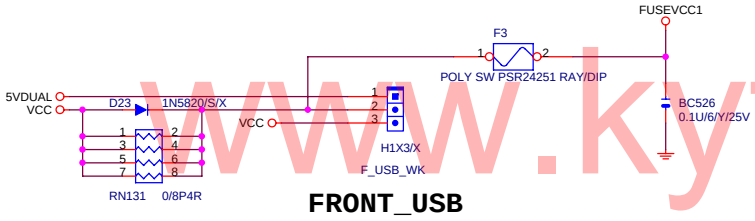
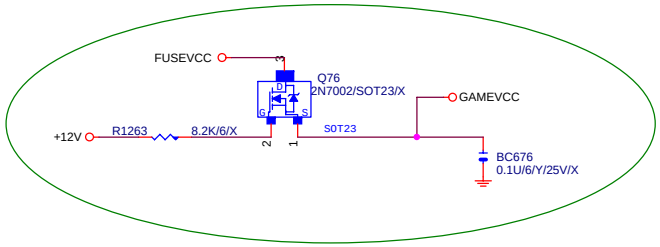


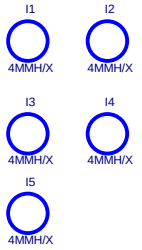
REAR_USB

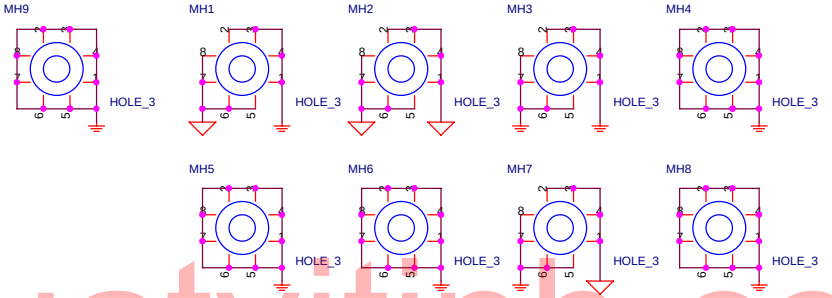
1-2 Enable USB Wake Up
2-3 Disable USB Wake Up

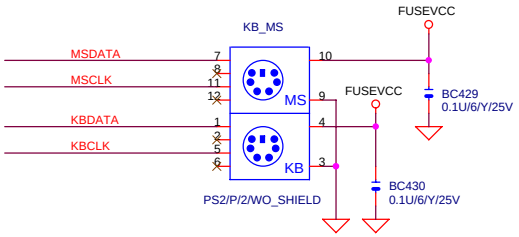


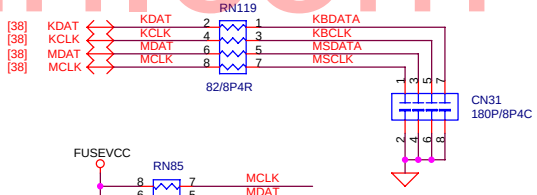
FRONT_USB

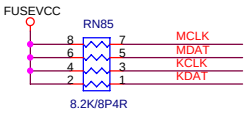












Remove Game Port

GIGABYTE CORP.		
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Size: B	Document Number: 8GPNXP DUO	Rev: 1.01
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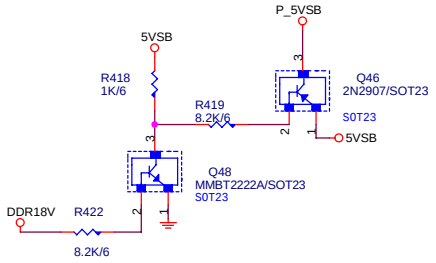
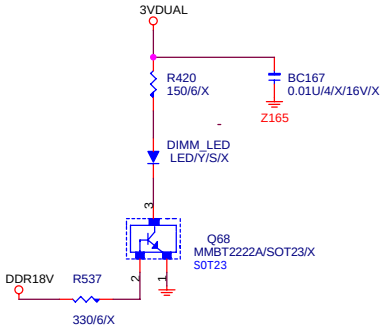
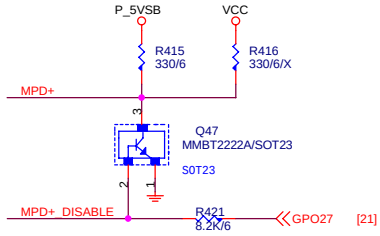
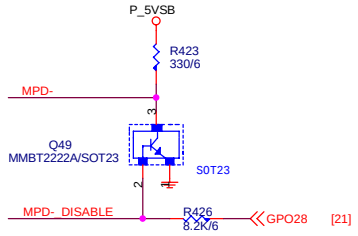
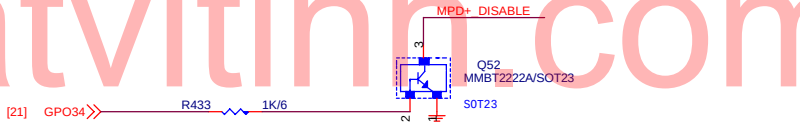






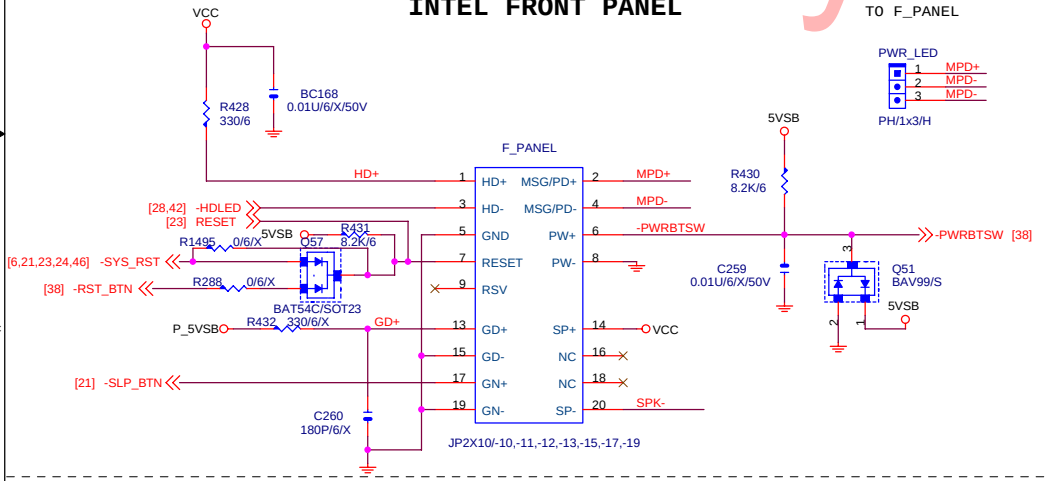


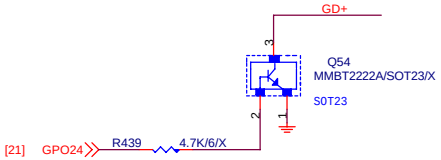
PREVENT S0 W/O CPU, GREEN IS ON.



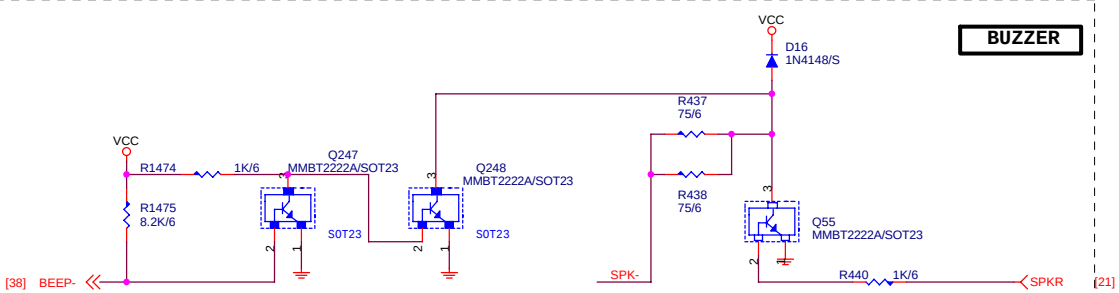
INTEL FRONT PANEL

3 PIN POWER LED
LAYOUT PLACE CLOSE
TO F_PANEL





BUZZER



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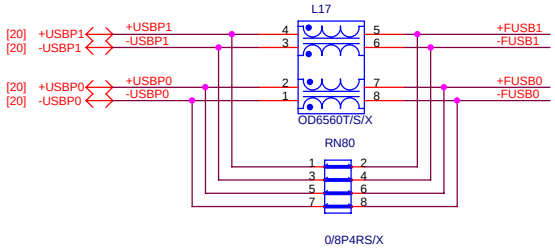
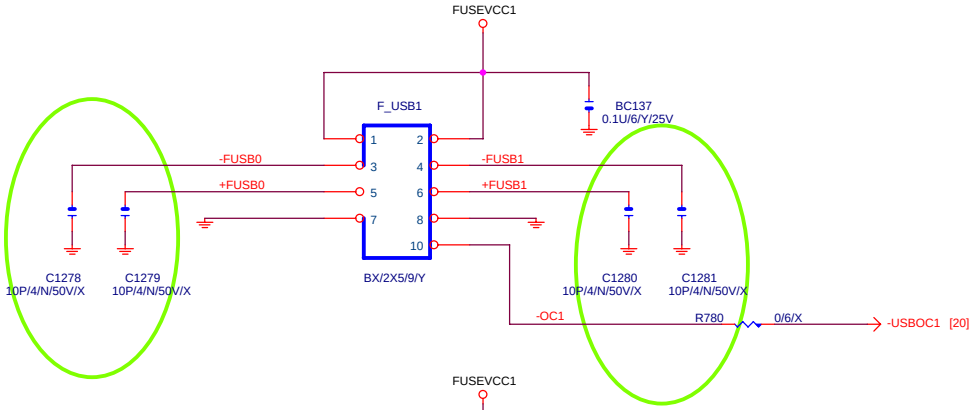
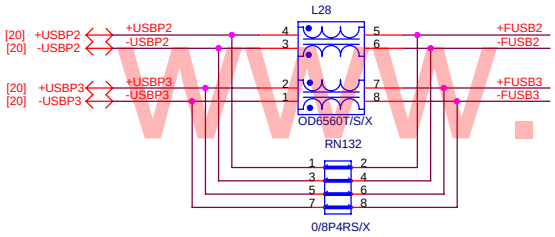
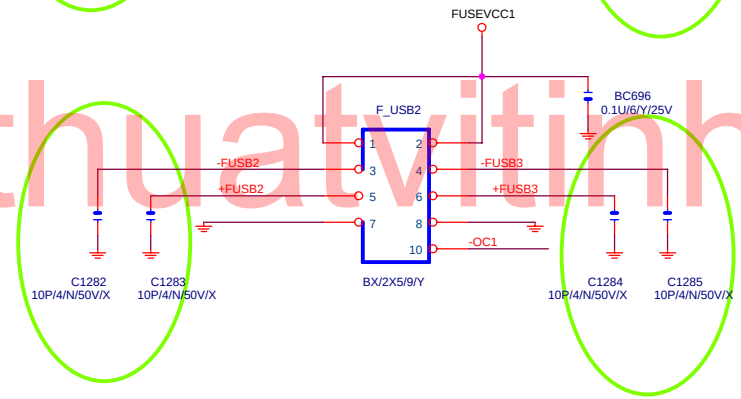
FRONT USB

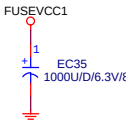
ICH5 USB2.0

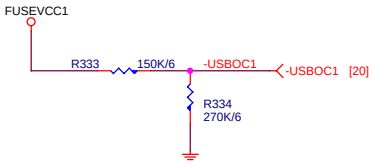


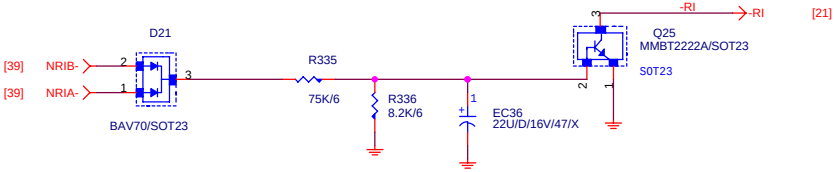












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Title: FRONT USB CONNECTOR		
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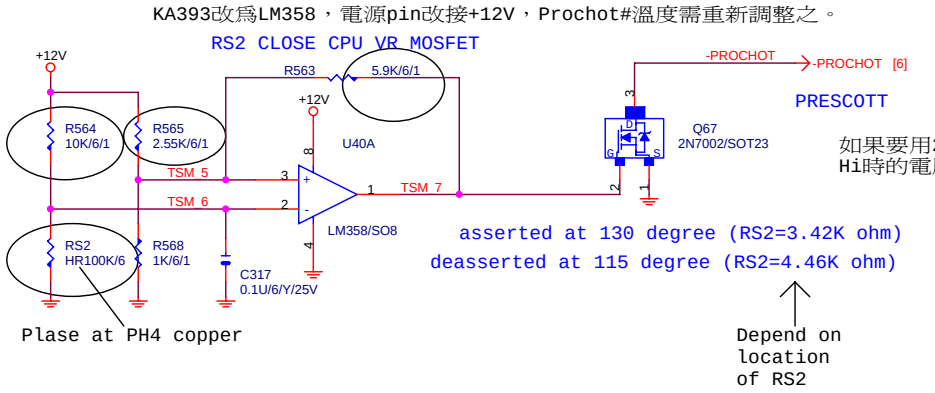

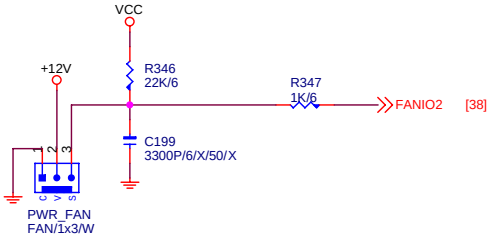

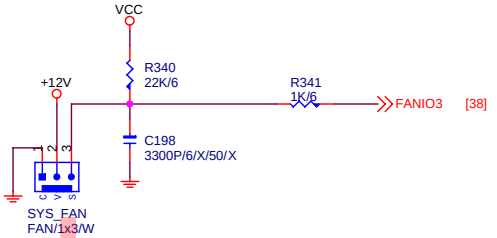

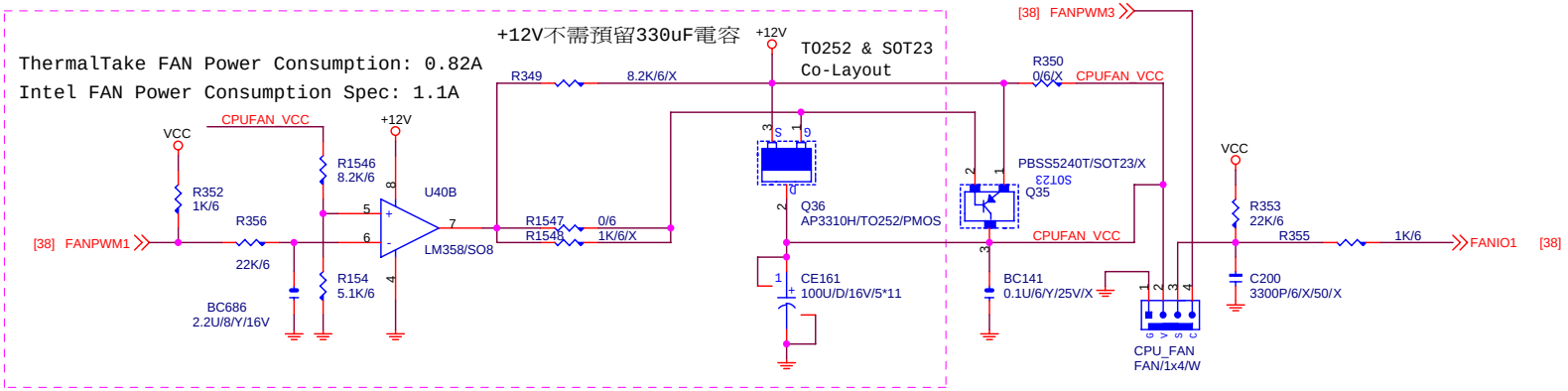

改爲Foot Print 可與3PIN FAN
的Library
料號: 11NH5-020104-41

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

Title	FAN CONTROL	
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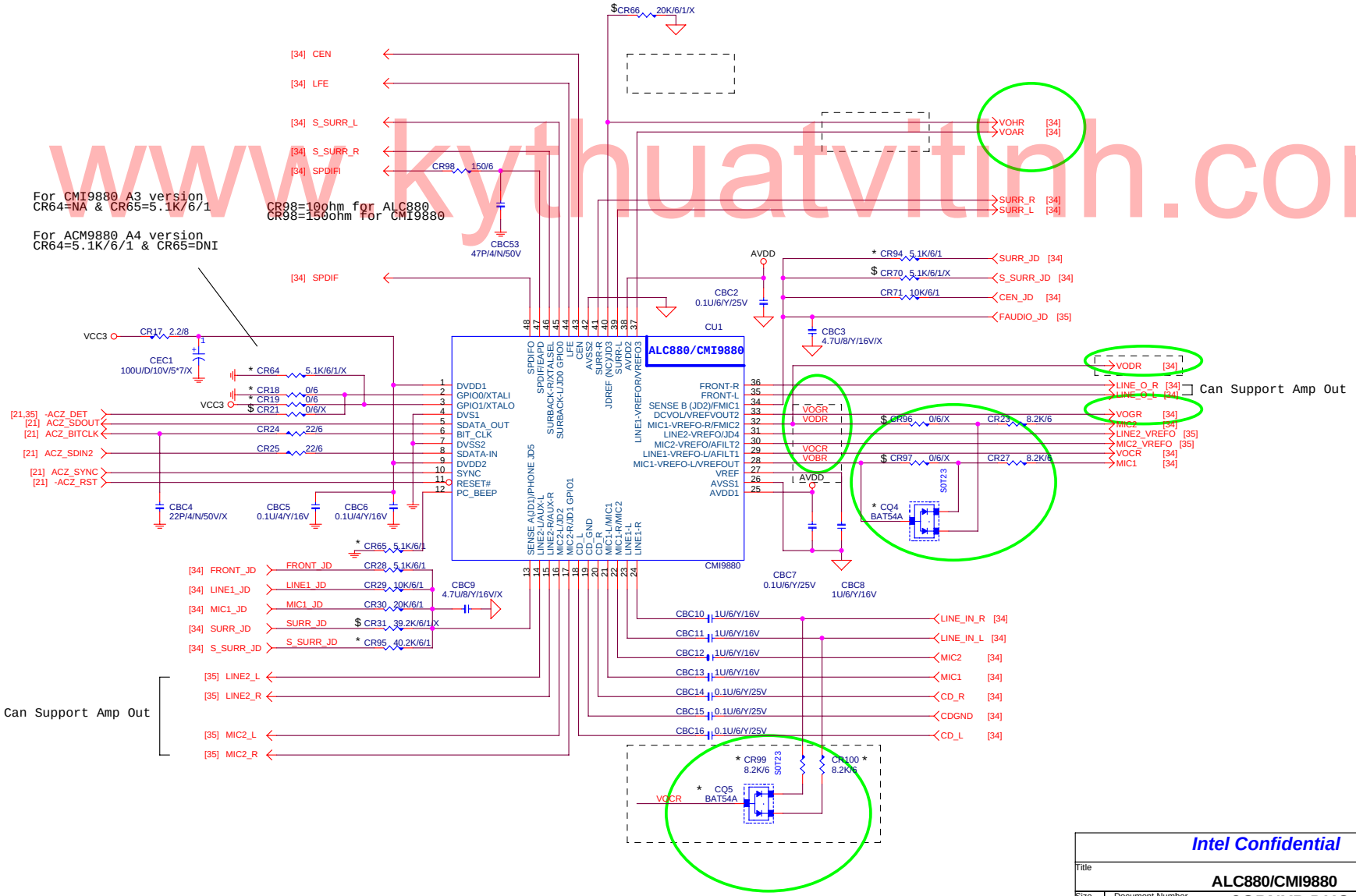
"$" means for ALC880 only
"*" means for CMI9880 only



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Title	ALC880/CMI9880	
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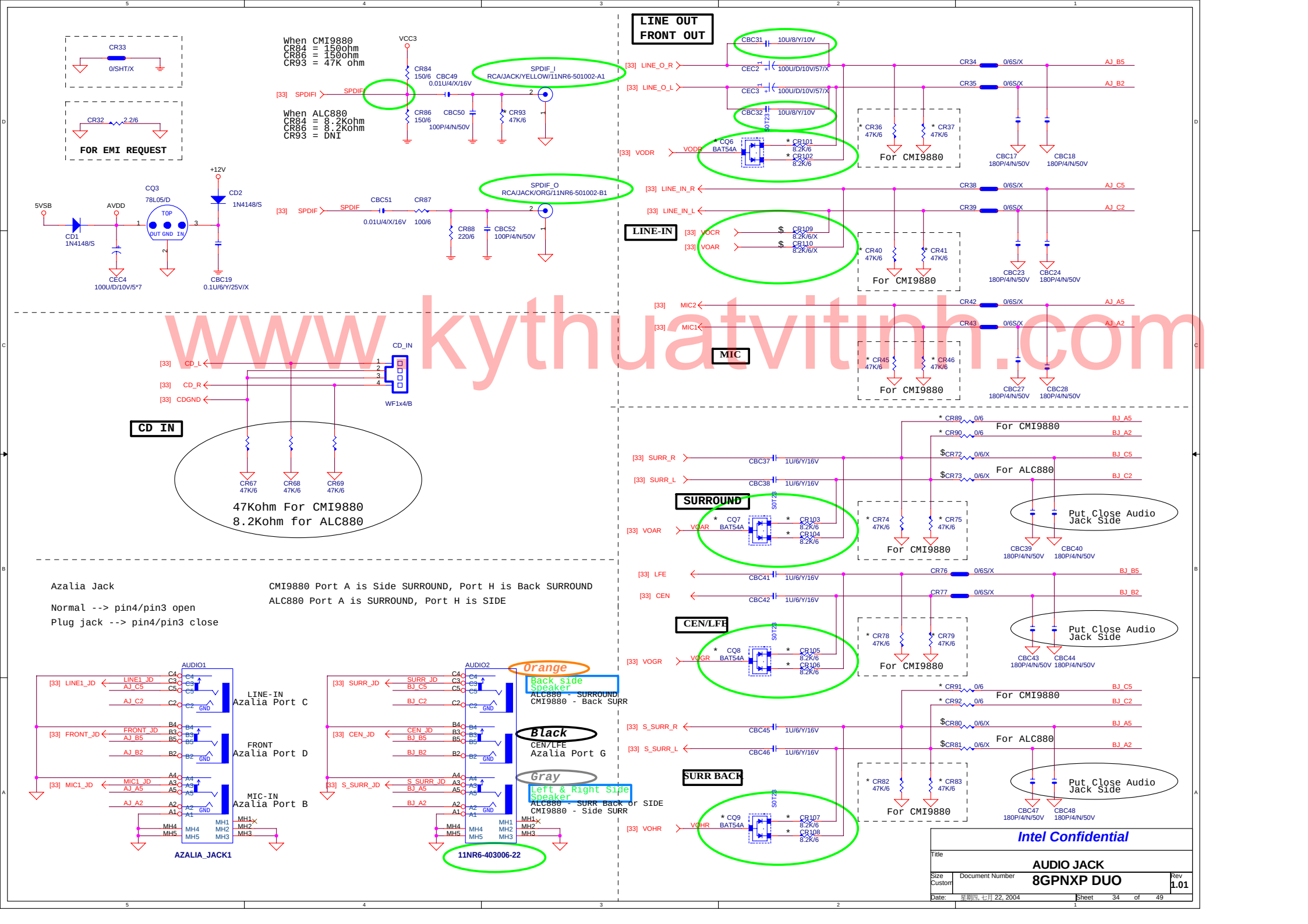

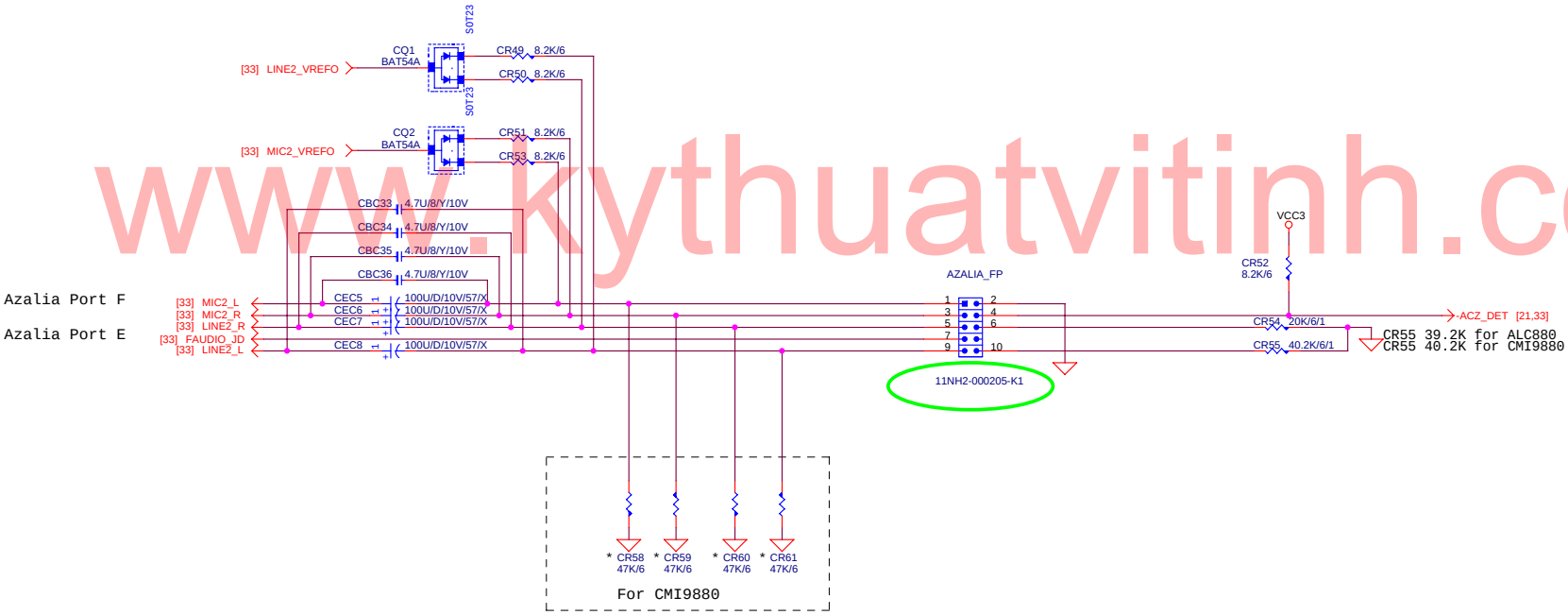

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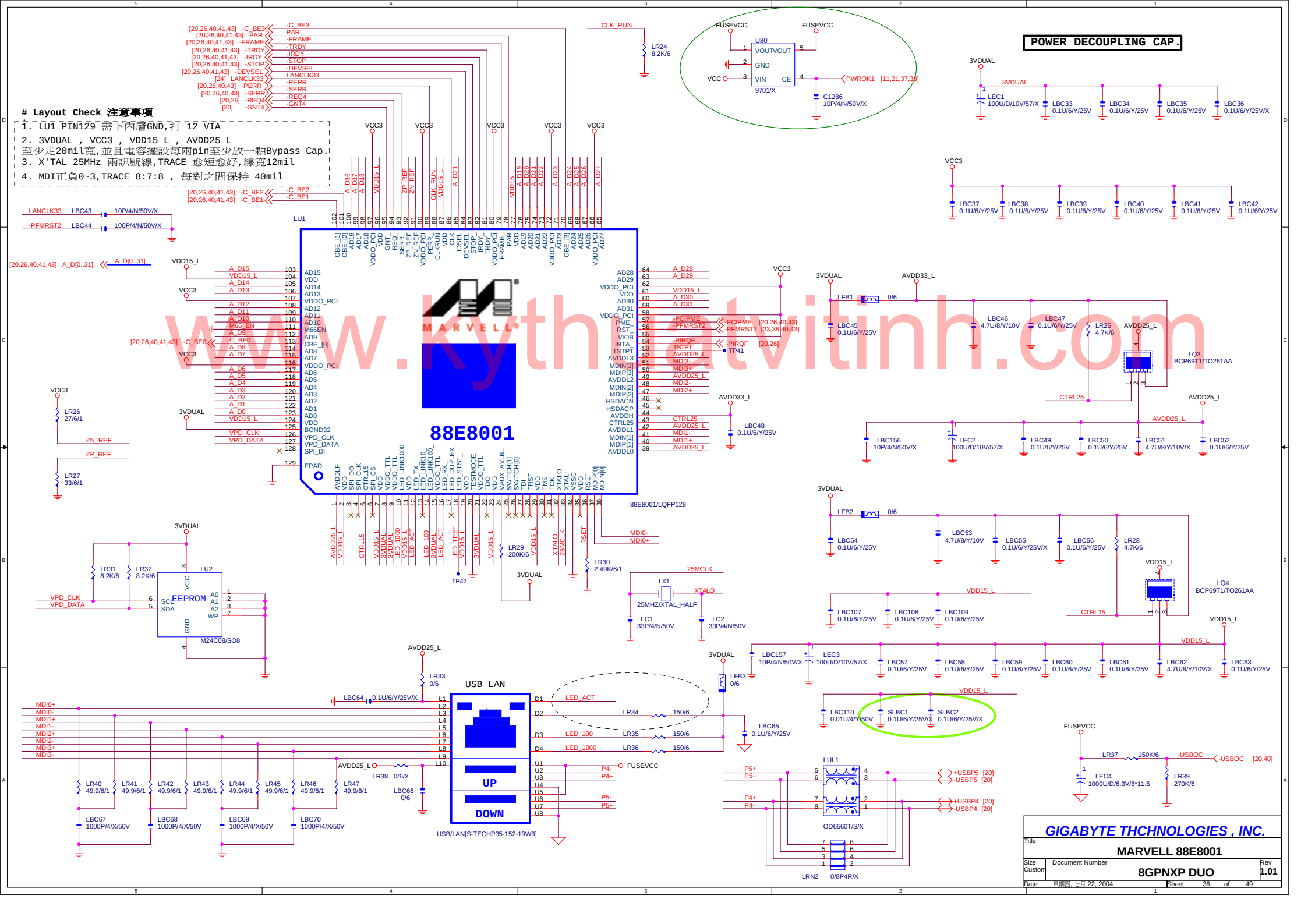
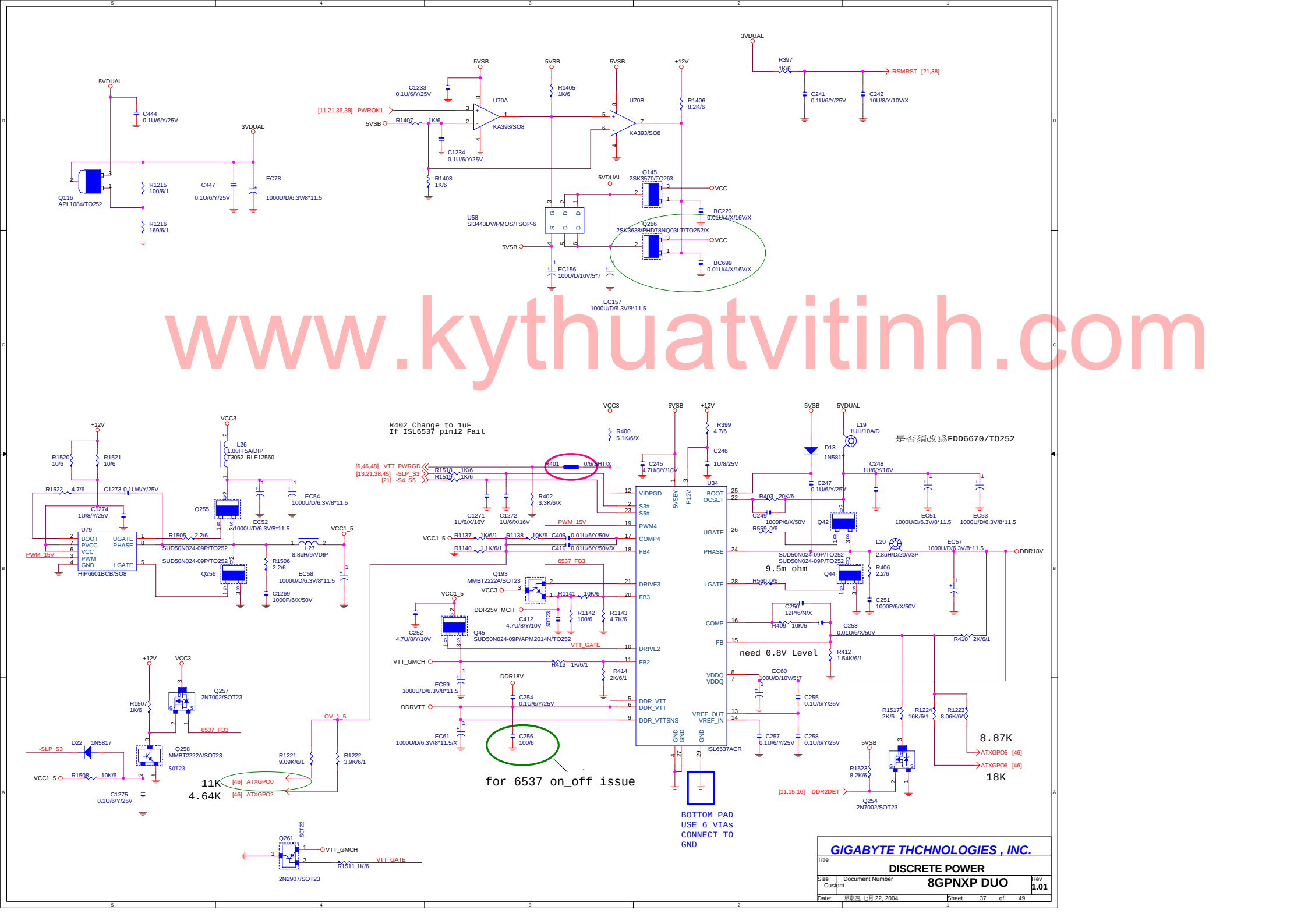
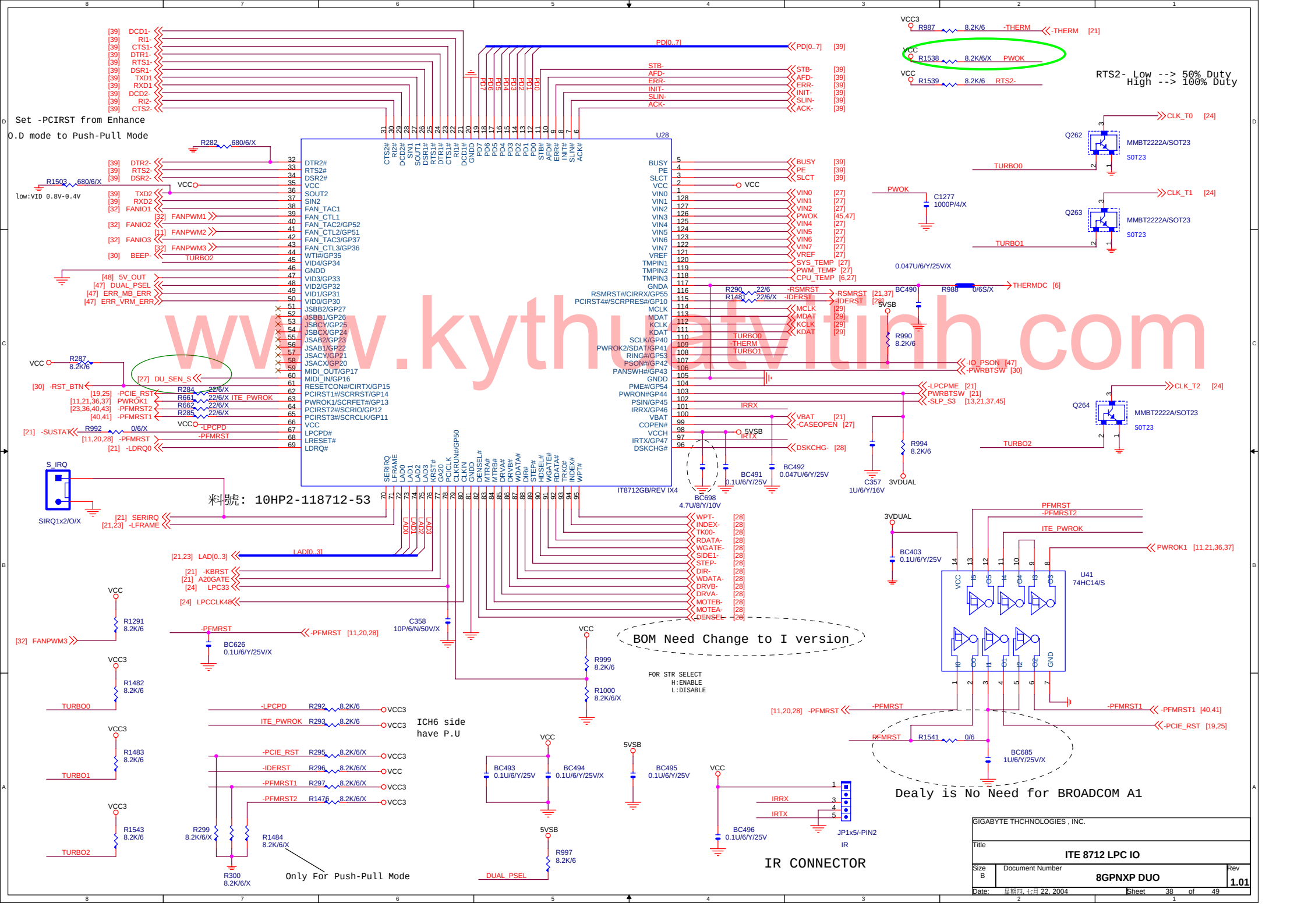
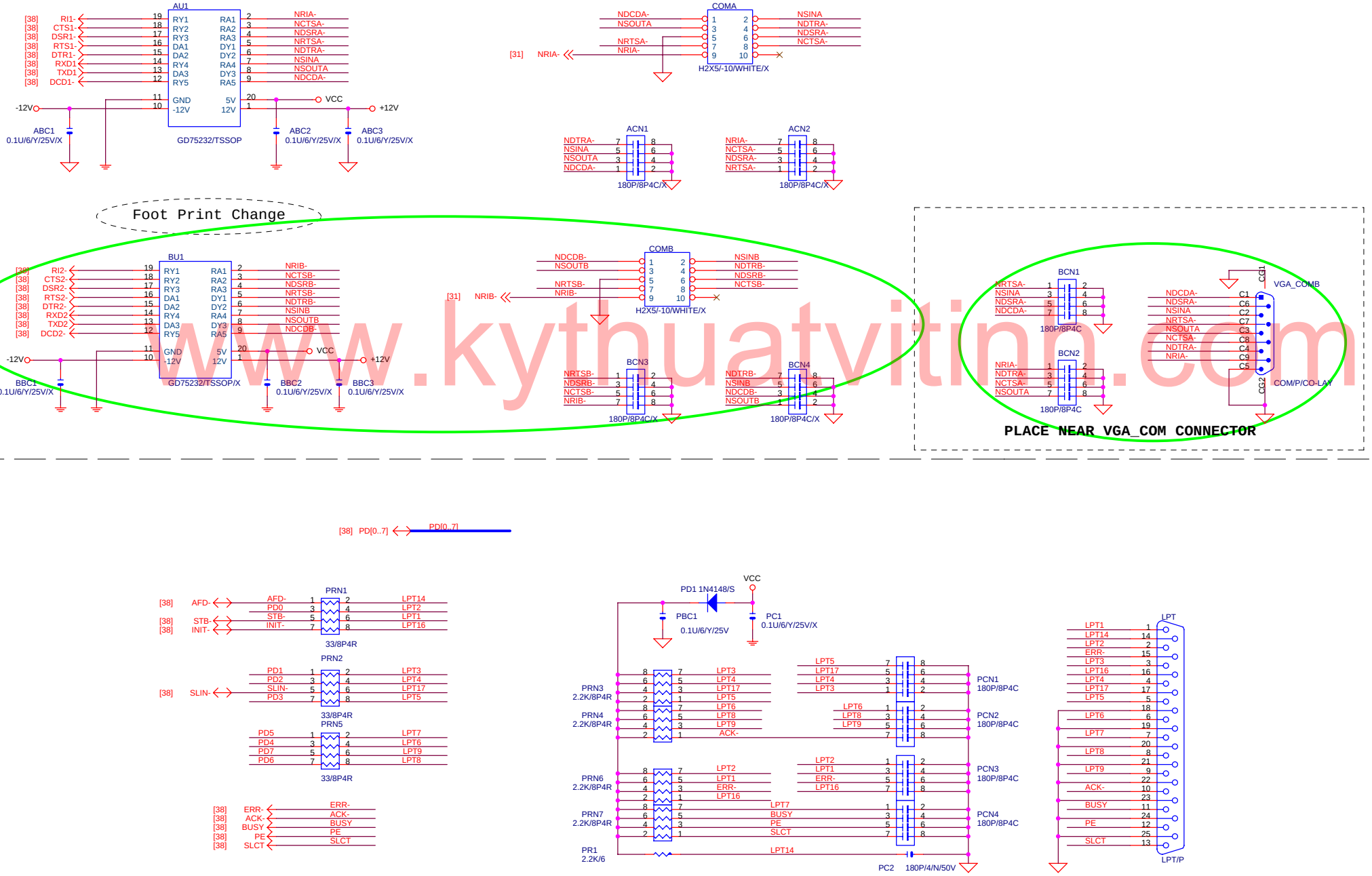



R402 Change to 1uF
If ISL6537 pin12 Fail
是否須改爲FDD6670/TO252
9.5m ohm
need 0.8V Level
for 6537 on_off issue
BOTTOM PAD
USE 6 VIAs
CONNECT TO
GND
11K
4.64K
8.87K
18K
GIGABYTE THCHNOLOGIES , INC.
DISCRETE POWER
8GPNXP DUO
1.01
www.kythuatvitinh.com





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Title: COM & IR & LPT PORT &FLOOPY

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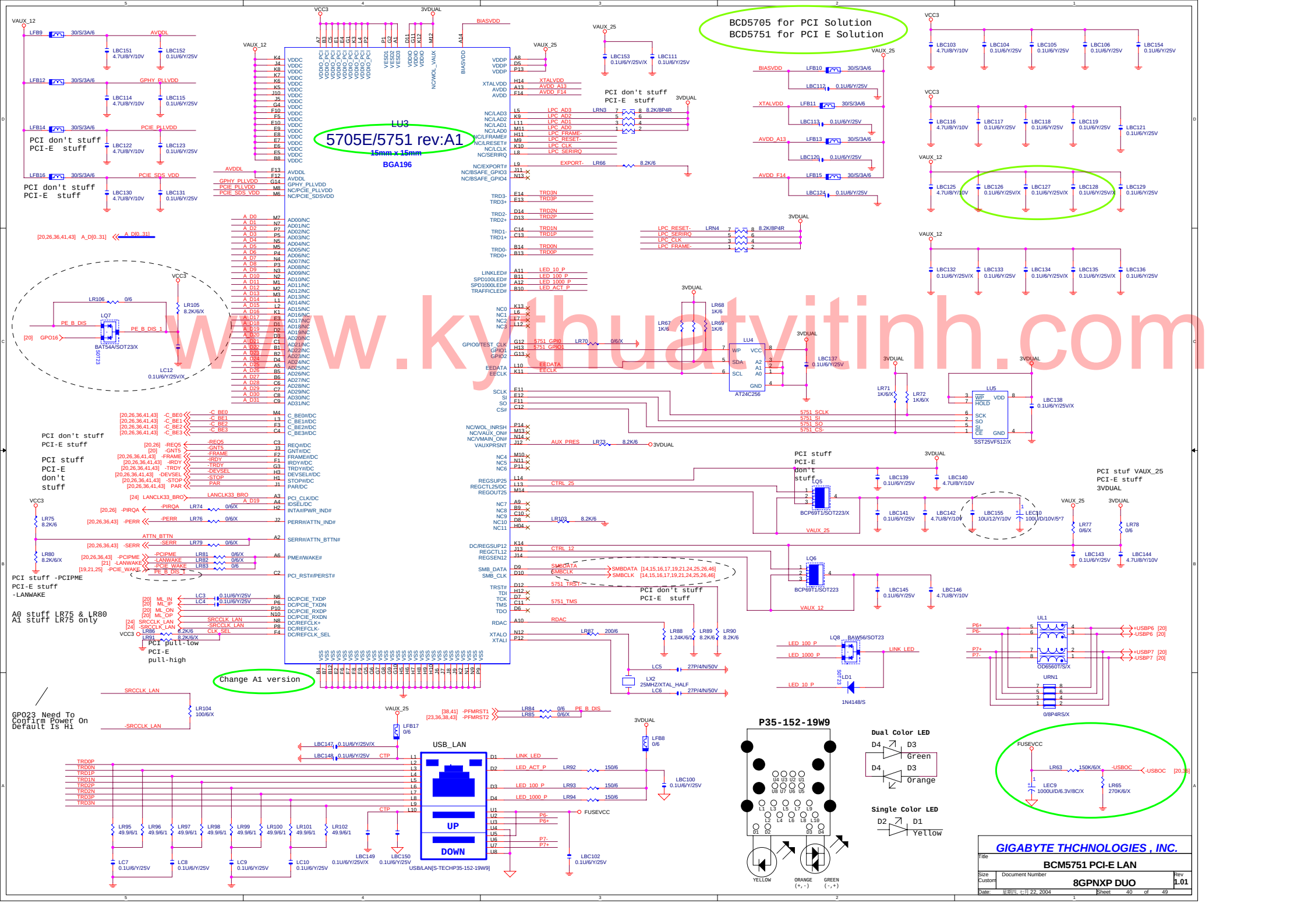
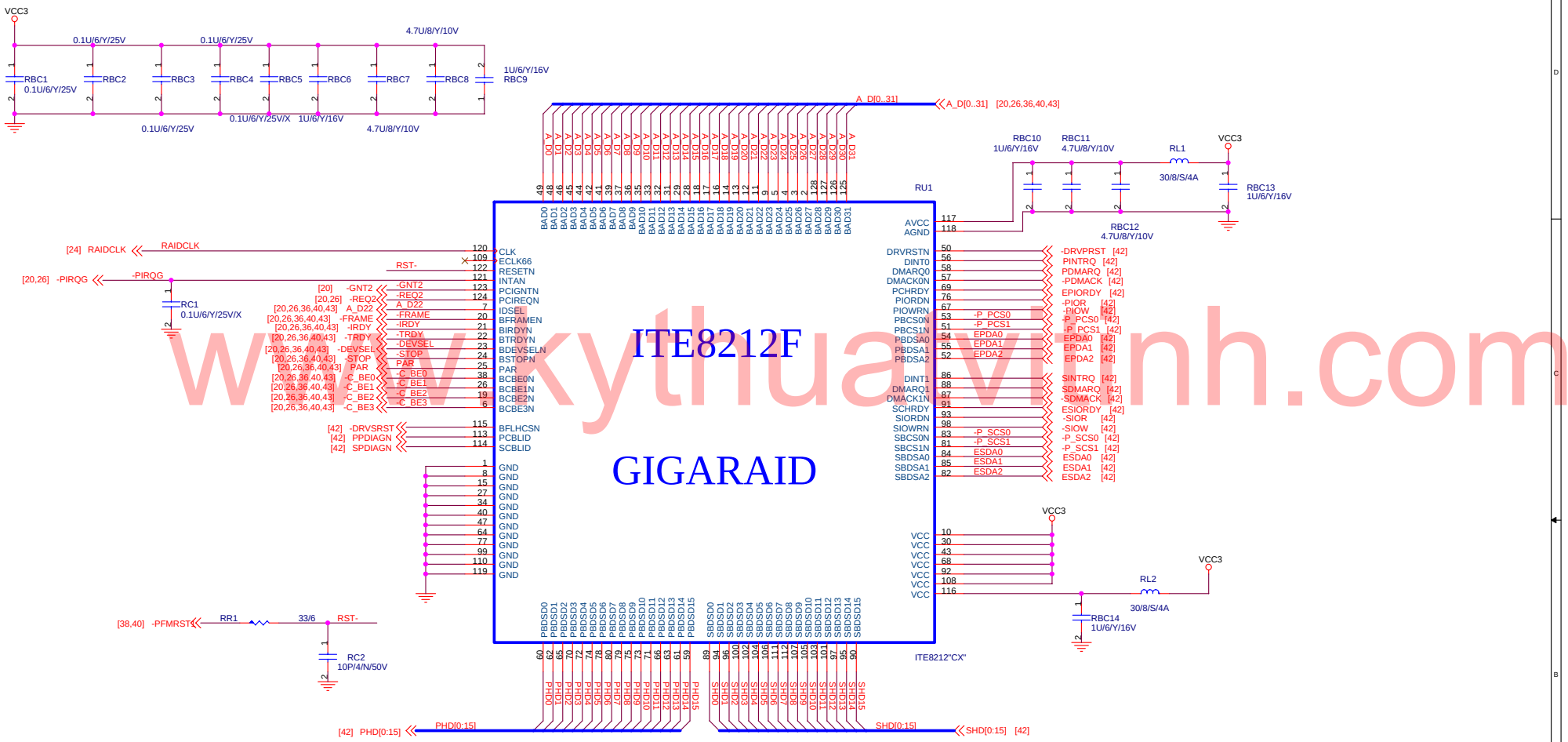
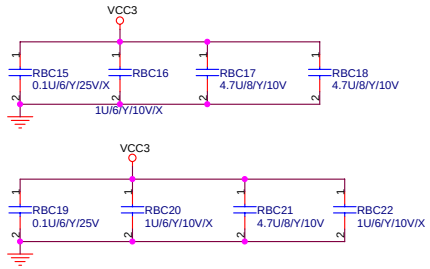




WIDER TRACE FOR POWER



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Title	ITE GIGARAID		
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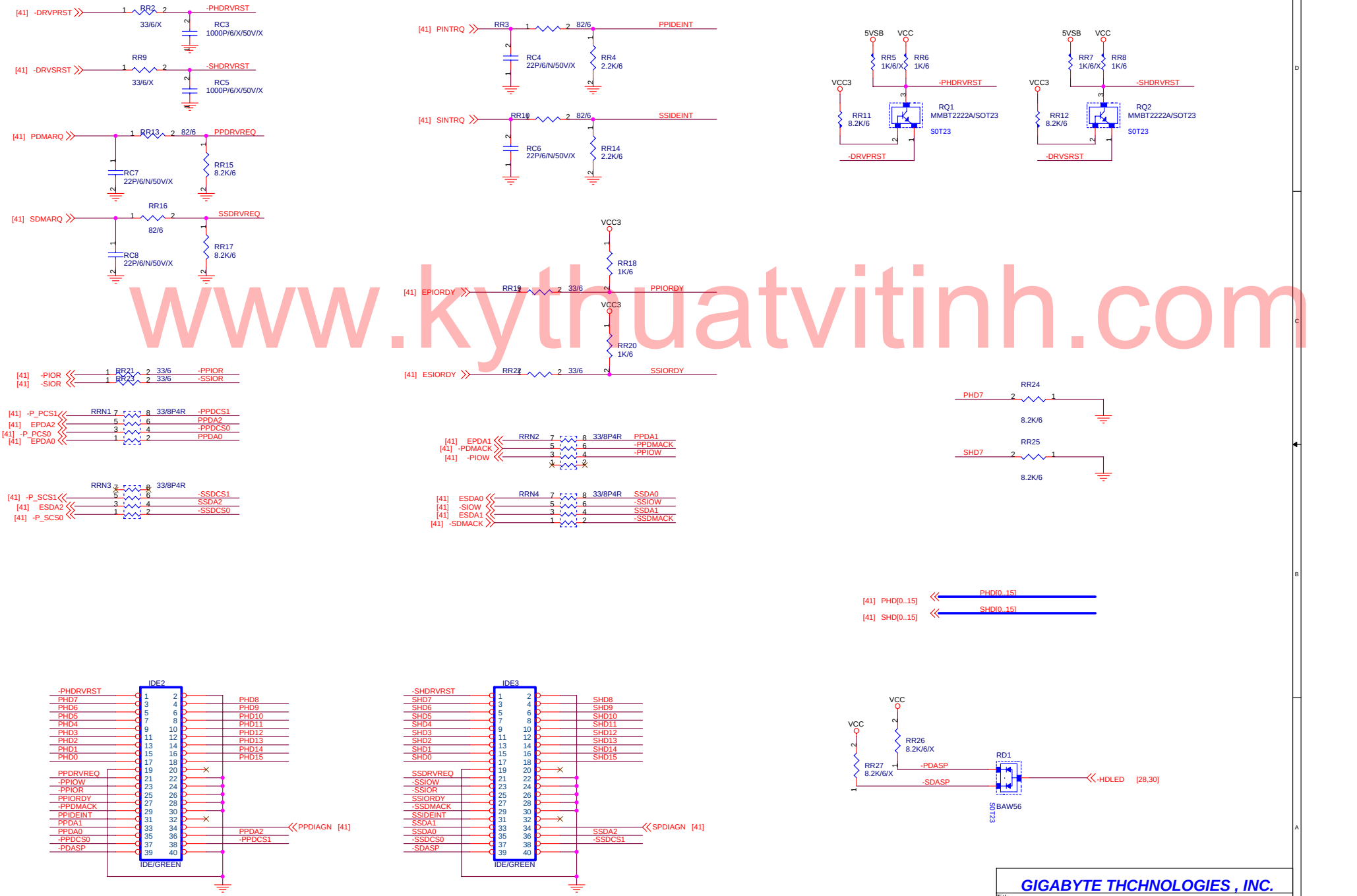

GIGABYTE THCHNOLOGIES , INC.		
Title	ITE GIGARAID	
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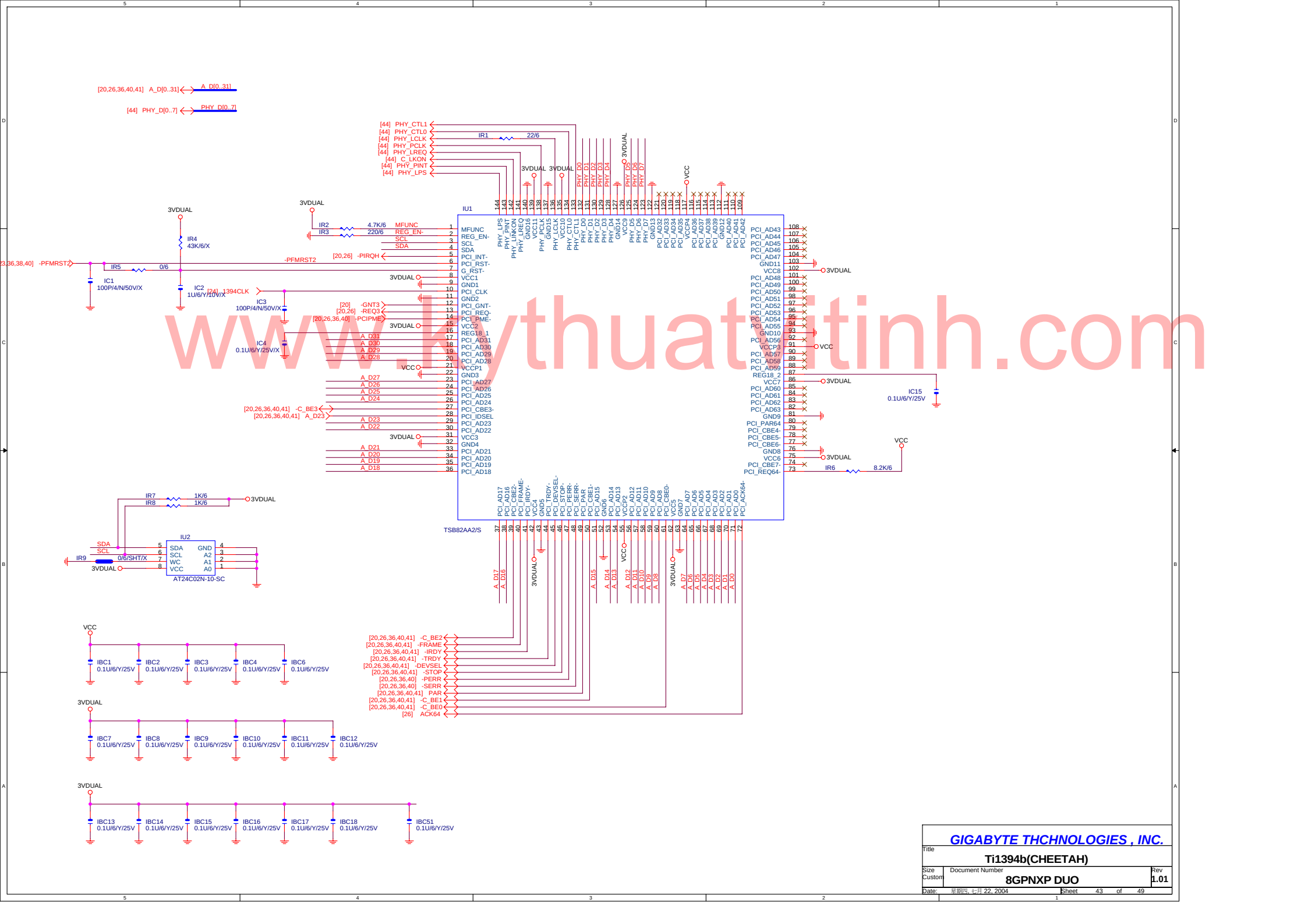
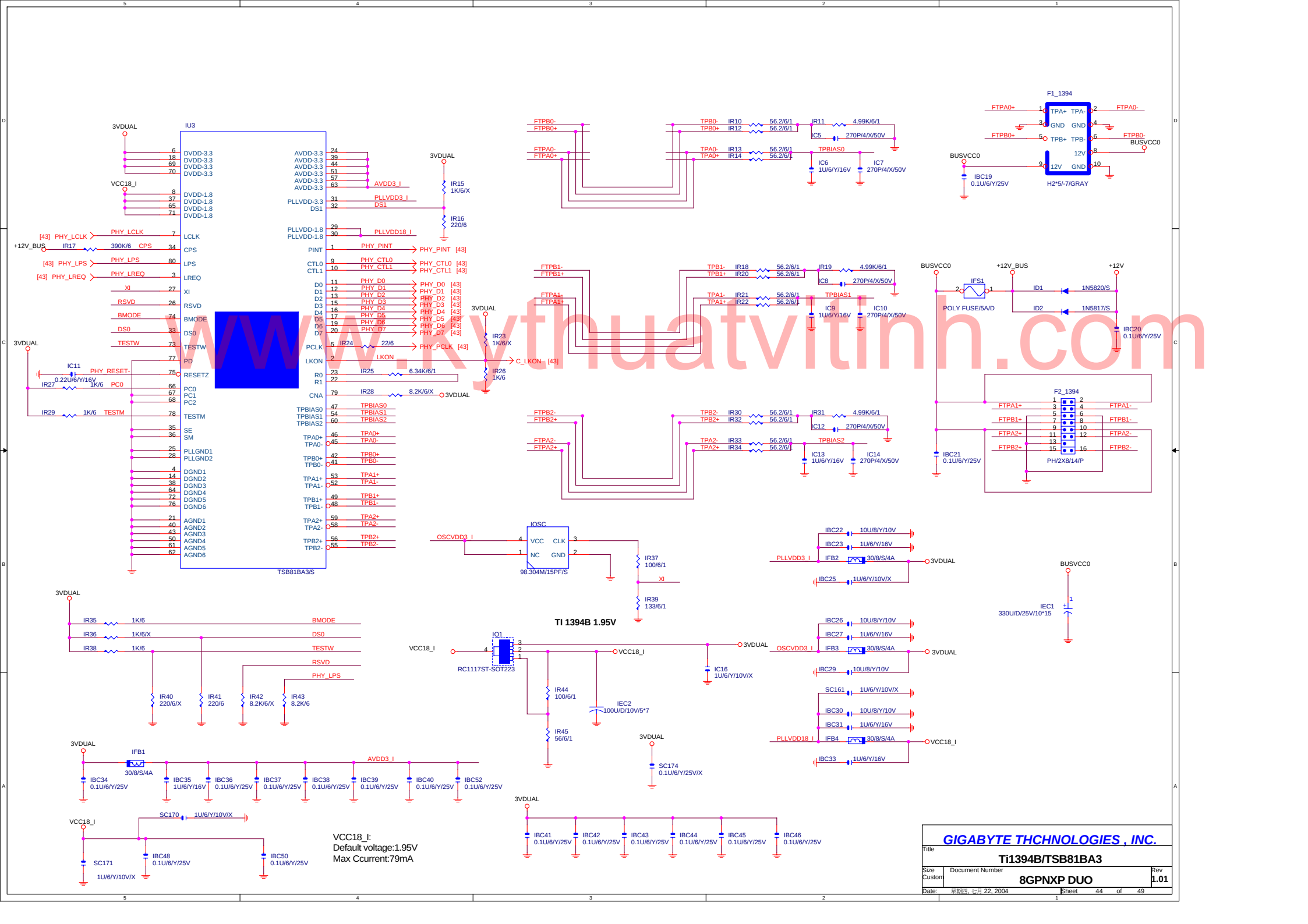
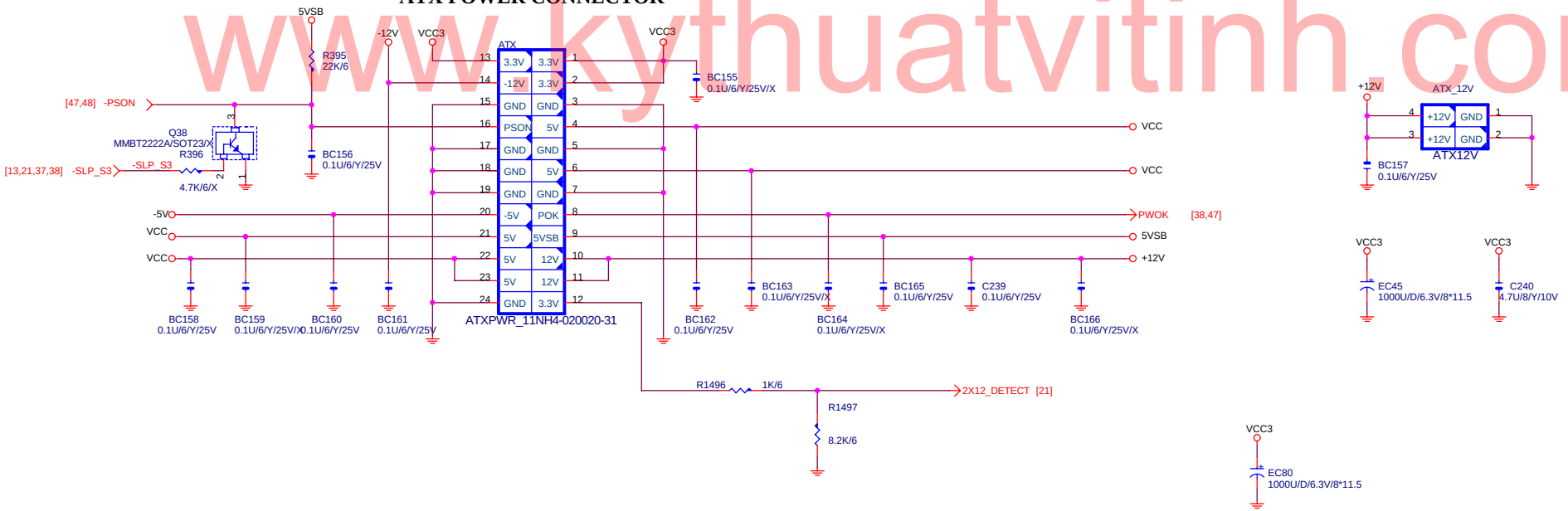




ATX POWER CONNECTOR



GIGABYTE THCHNOLOGIES , INC.		
Title: ATX POWER CONNECTOR		
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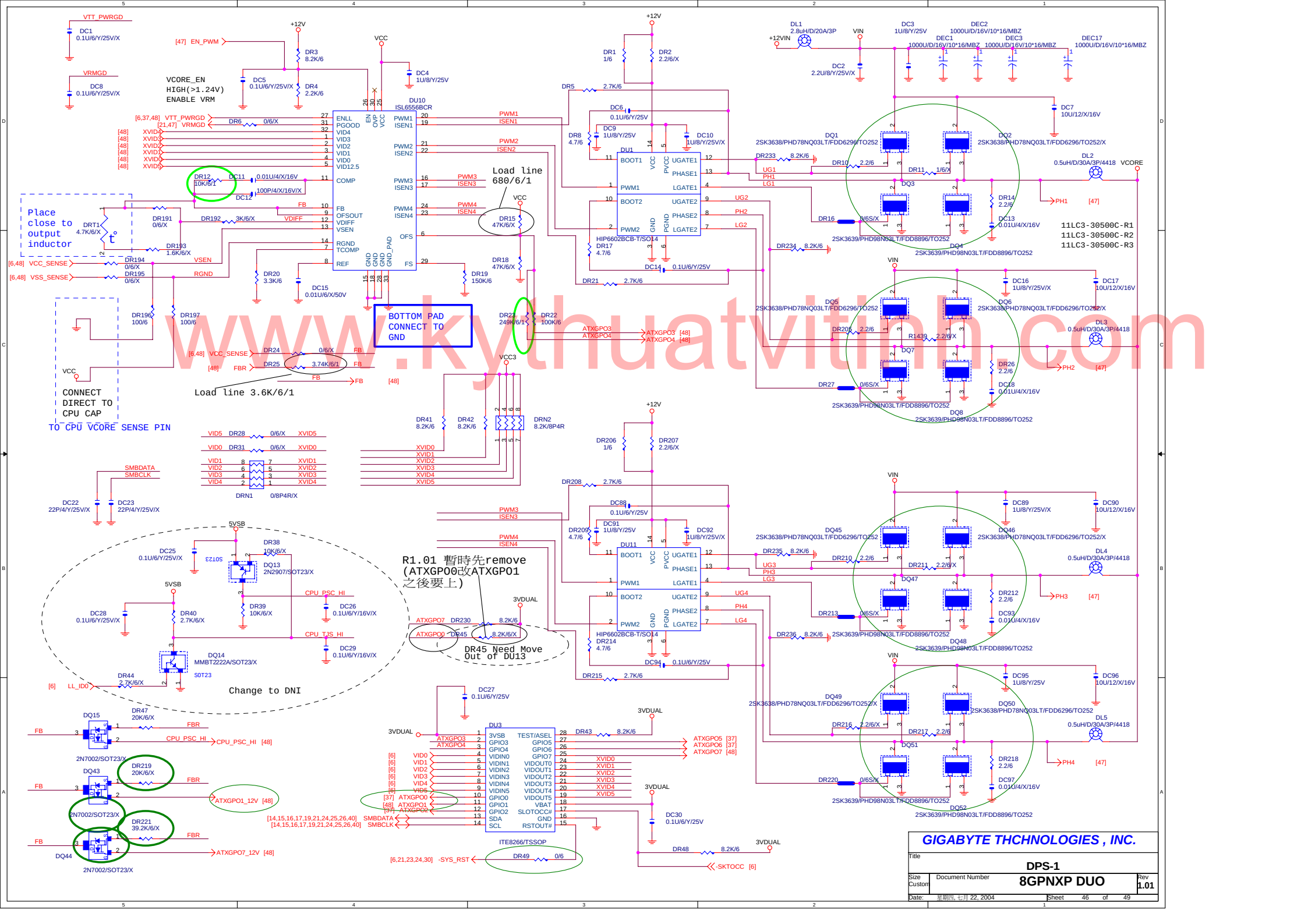
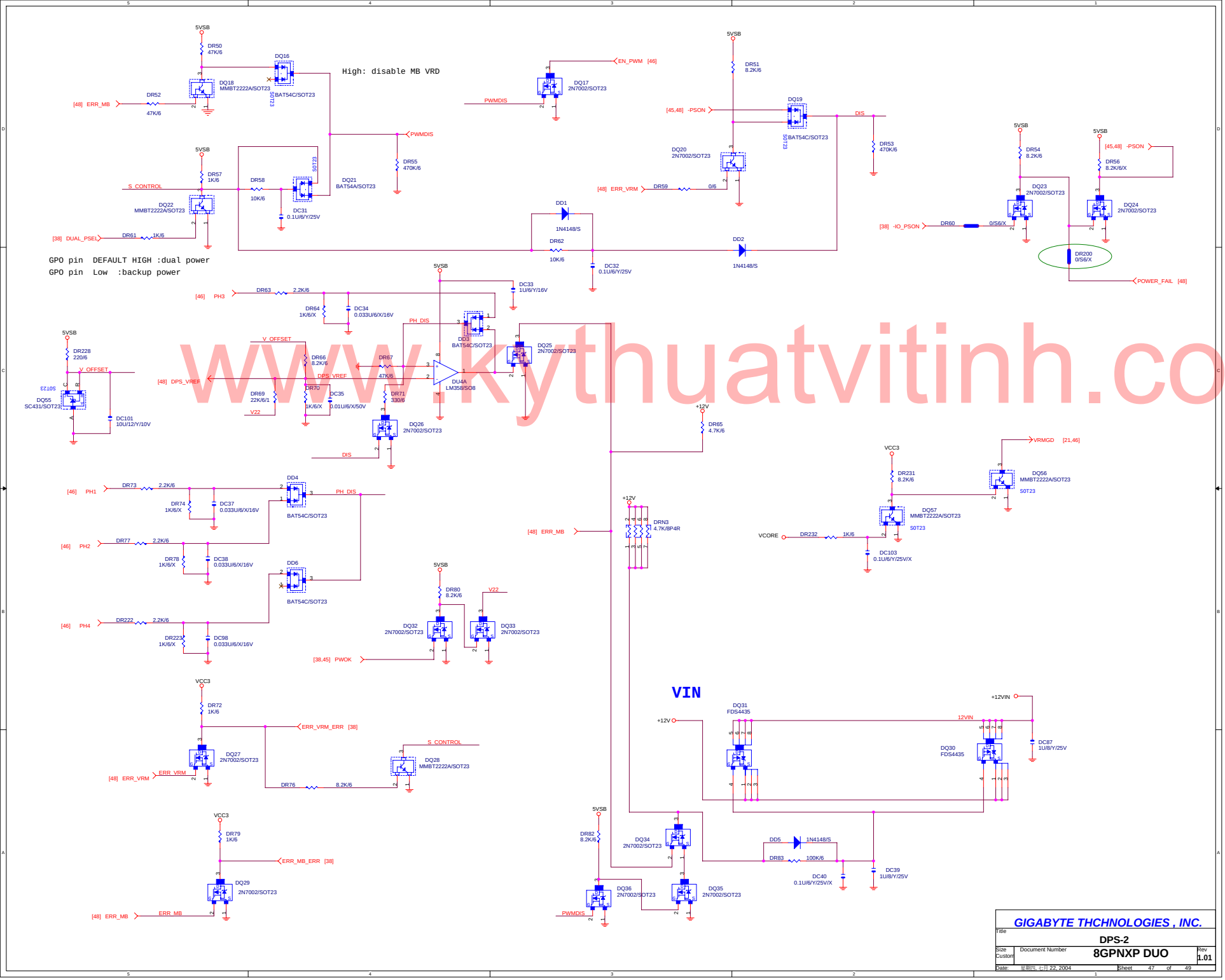
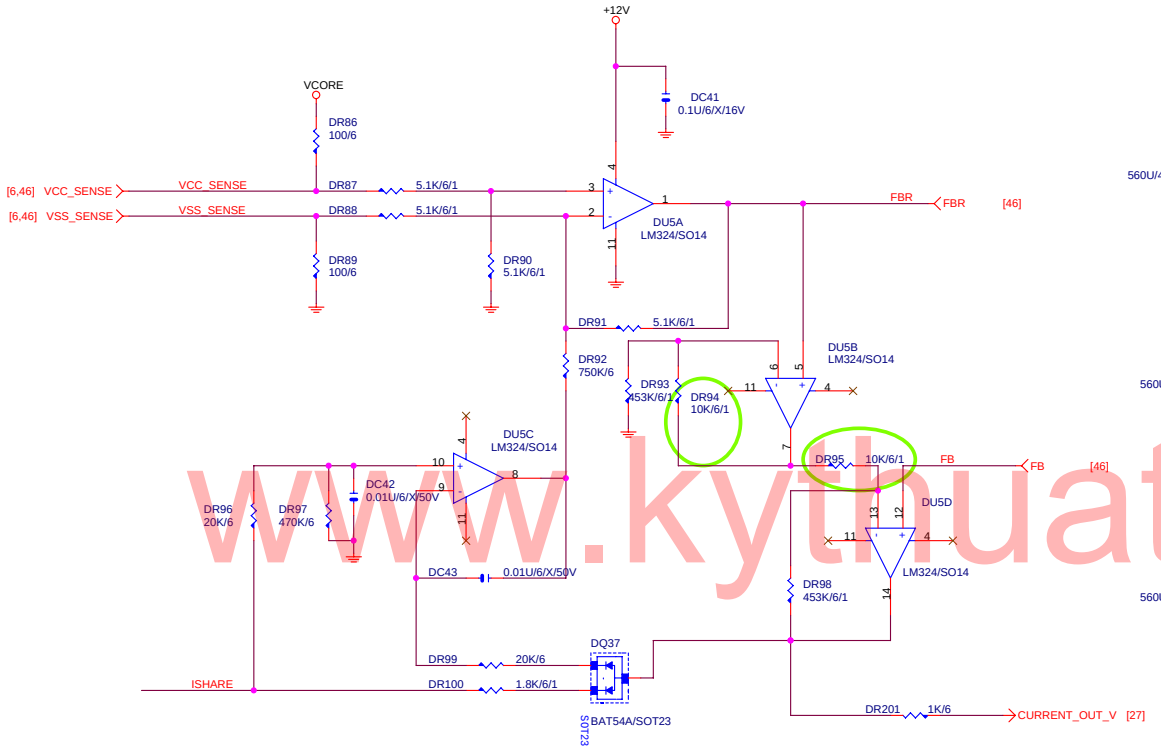
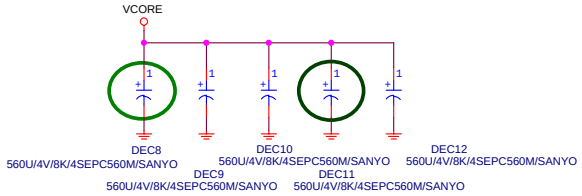
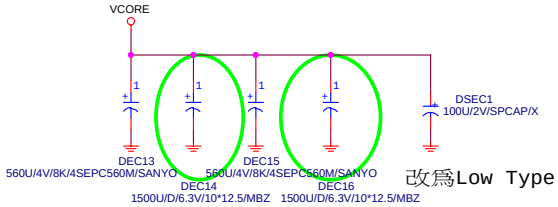


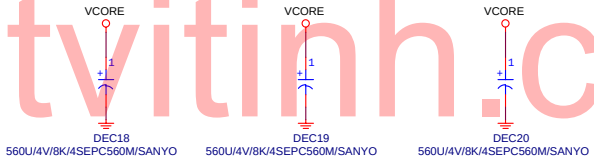


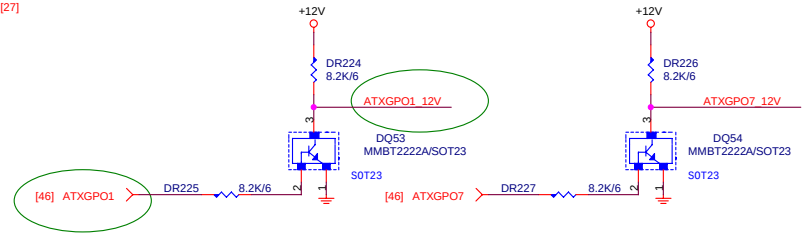
DUAL POWER

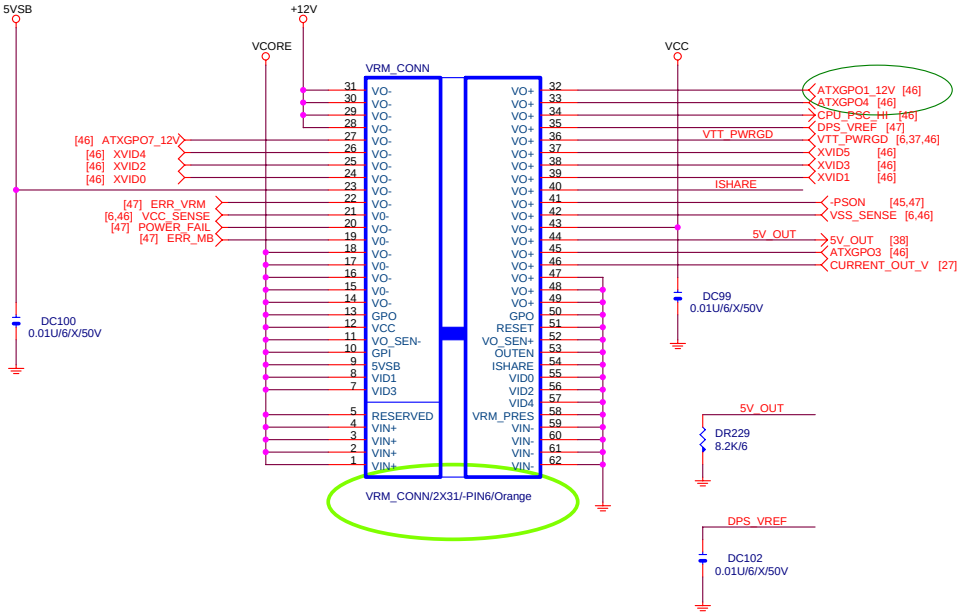












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ATX_PWOK

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	PWRLED			
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
PIN63/PWROK1	PWROK1	1. GMCH 2. ICH6 3. 5VDUAL SWITCH
PIN109/PWROK2	-THERM	1. ICH6
ICH6 -PCIRST		1. PCI Slot1 1. PCI Slot2
ICH6 -PFMRST		1. GMCH 2. IDE 3. LPC IO 4. 74HC14 Input
ATX PWOK	PWOK	1. LPC IO 2. DPS
PIN115/-PCIRST4	-IDERST	Reserved For IDE

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