

Model Name: GA-8I915G-LGE Revision 1.0

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	GMCH-GRANTSDALE_HOST
09	GMCH-GARNTSDALE_DDR
10	GMCH-GRANTSDALE_PCI E, DMI
11	GMCH-GRANTSDALE_INT VGA
12	GMCH-GRANTSDALE_GND
13	GMCH-GRANTSDALE_PWR
14	DDRII CHANNEL A
15	DDRII CHANNEL B
16	DDR TERMINATION
17	PCI EXPRESS*16 SLOT
18	ICH6 PCI, USB, DMI, LAN
19	ICH6 IDE, GPIO, SATA, CTRL
20	ICH6 VCC, GND
21	FWH
22	CK410M CLOCK.

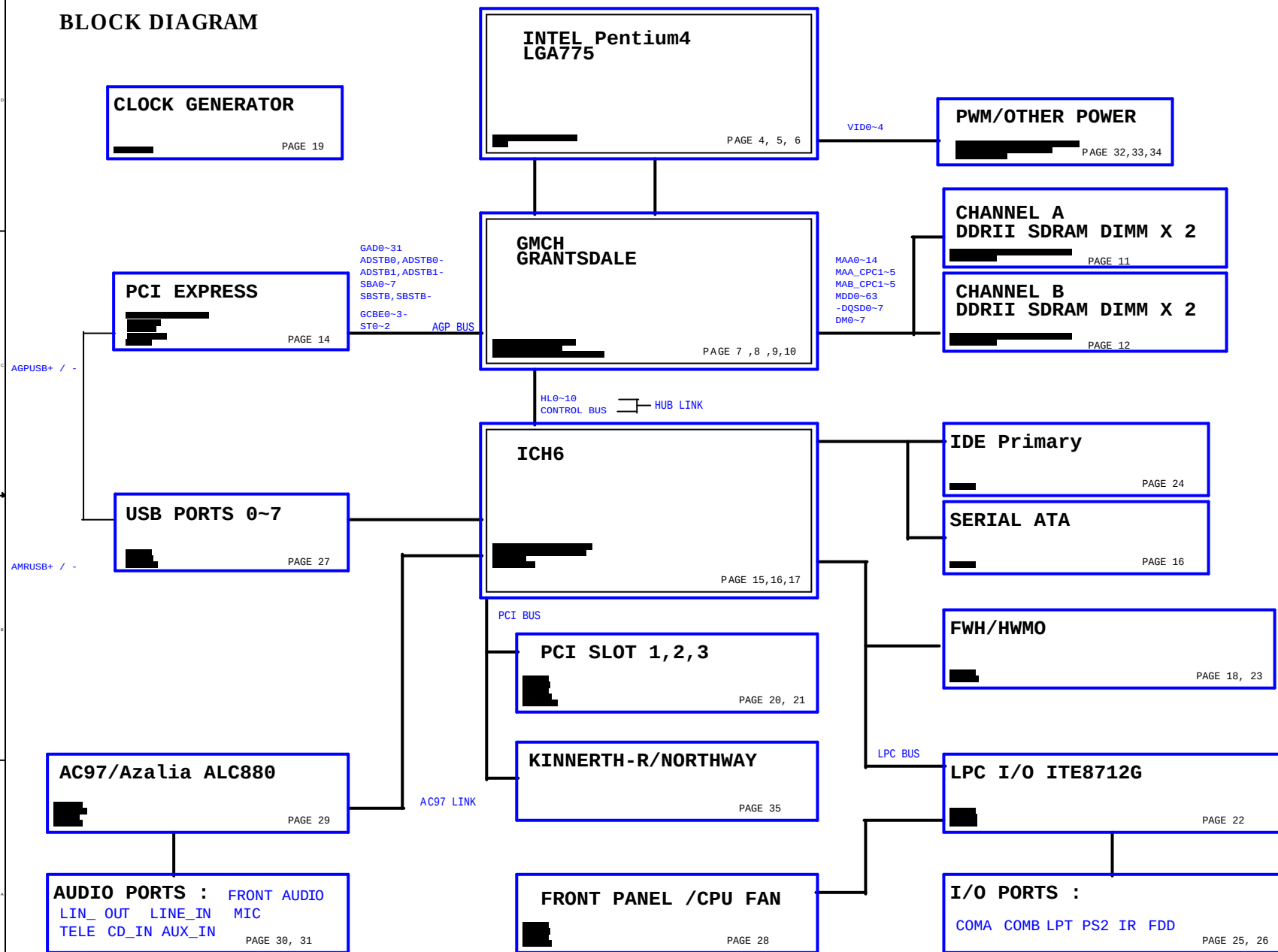
SHEET TITLE

23	PCI EXPRESS*1 SLOT 1
24	PCI SLOT 1, 2
25	HWMO&PROCHOT
26	IDE&FDD
27	KB_MS&GAME PORT
28	FRONT PANEL
29	FRONT USB CONNECTOR
30	CPU_FAN & SYS_FAN
31	CODEC
32	AUDIO JACK
33	F_AUDIO
34	LAN
35	ALL POWER
36	ITE8712 & IR
37	COM & LPT
38	1394
39	VCORE POWER
40	ATX POWER CONN.
41	GPIO & RESET TABLE
42	
43	
44	

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

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Cover Sheet		
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BLOCK DIAGRAM



Intel Confidential

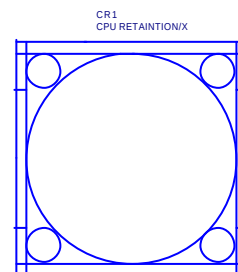
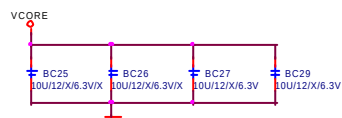
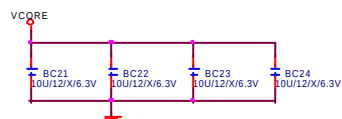
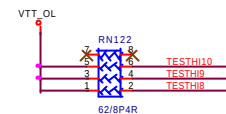
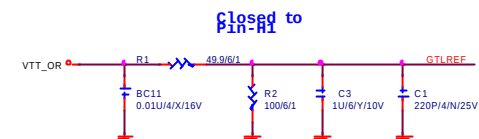
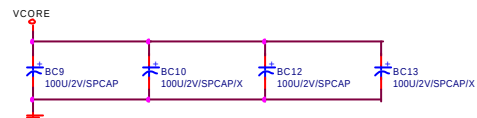
BLOCK DIAGRAM

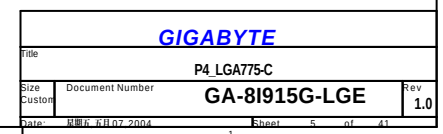
GA-8I915G-LGE

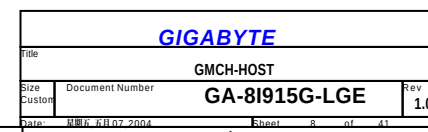
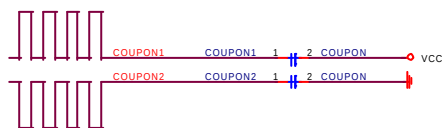
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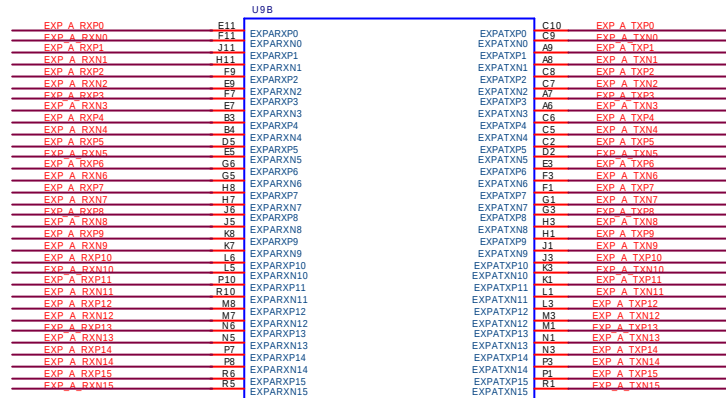
243.84mm*243.84mm/C/60/+ -15%/blue

[illegible][illegible]





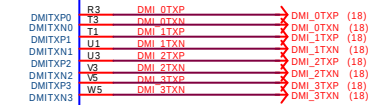




For DVO Function

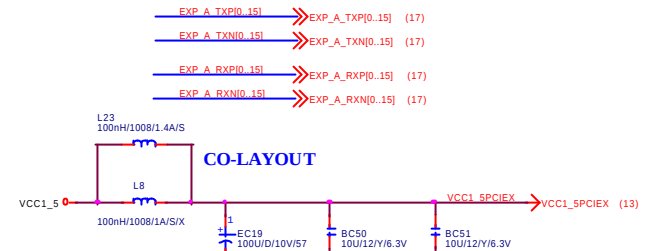


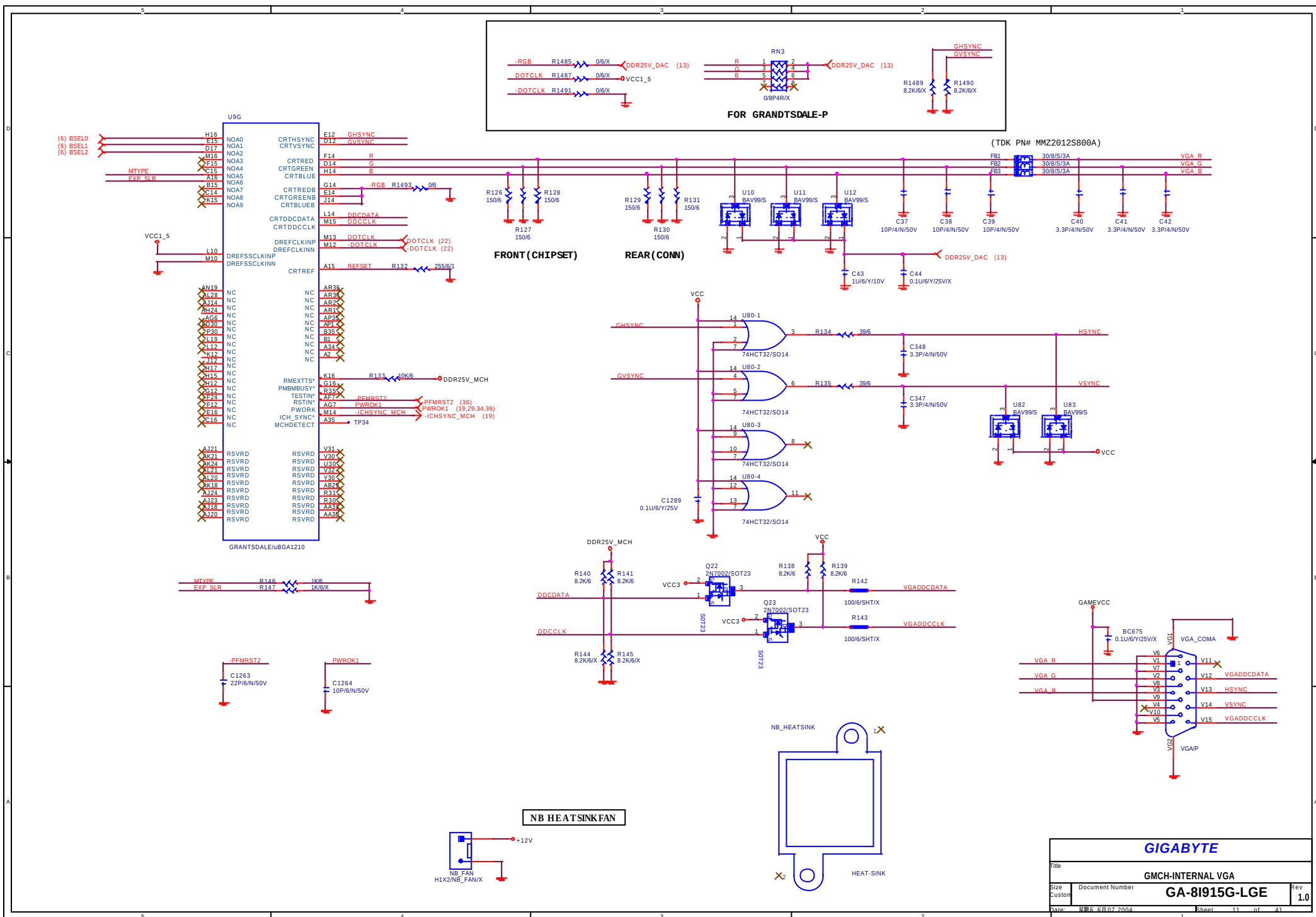
GRANTSDALE/bGA1210

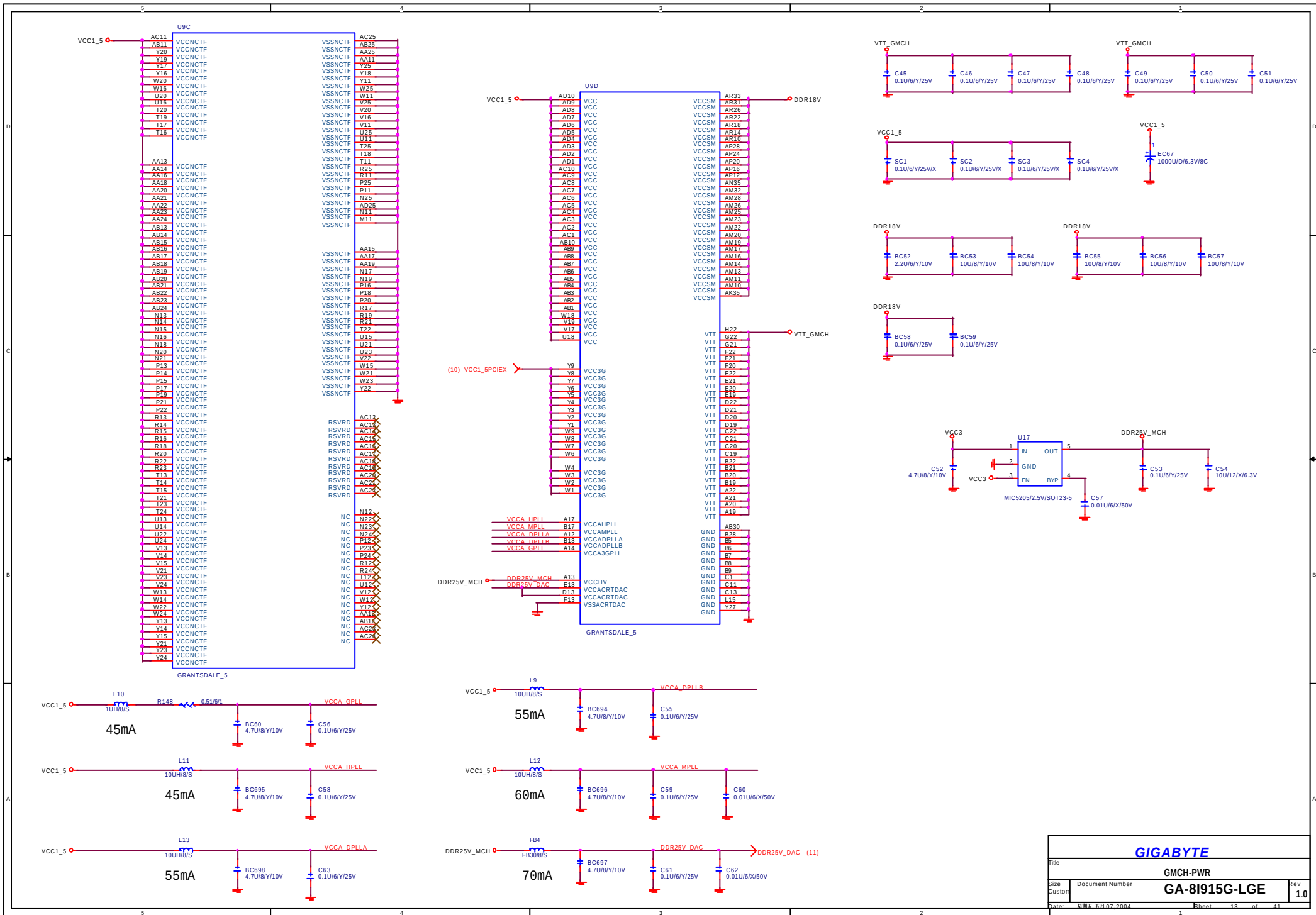


GRCOMP

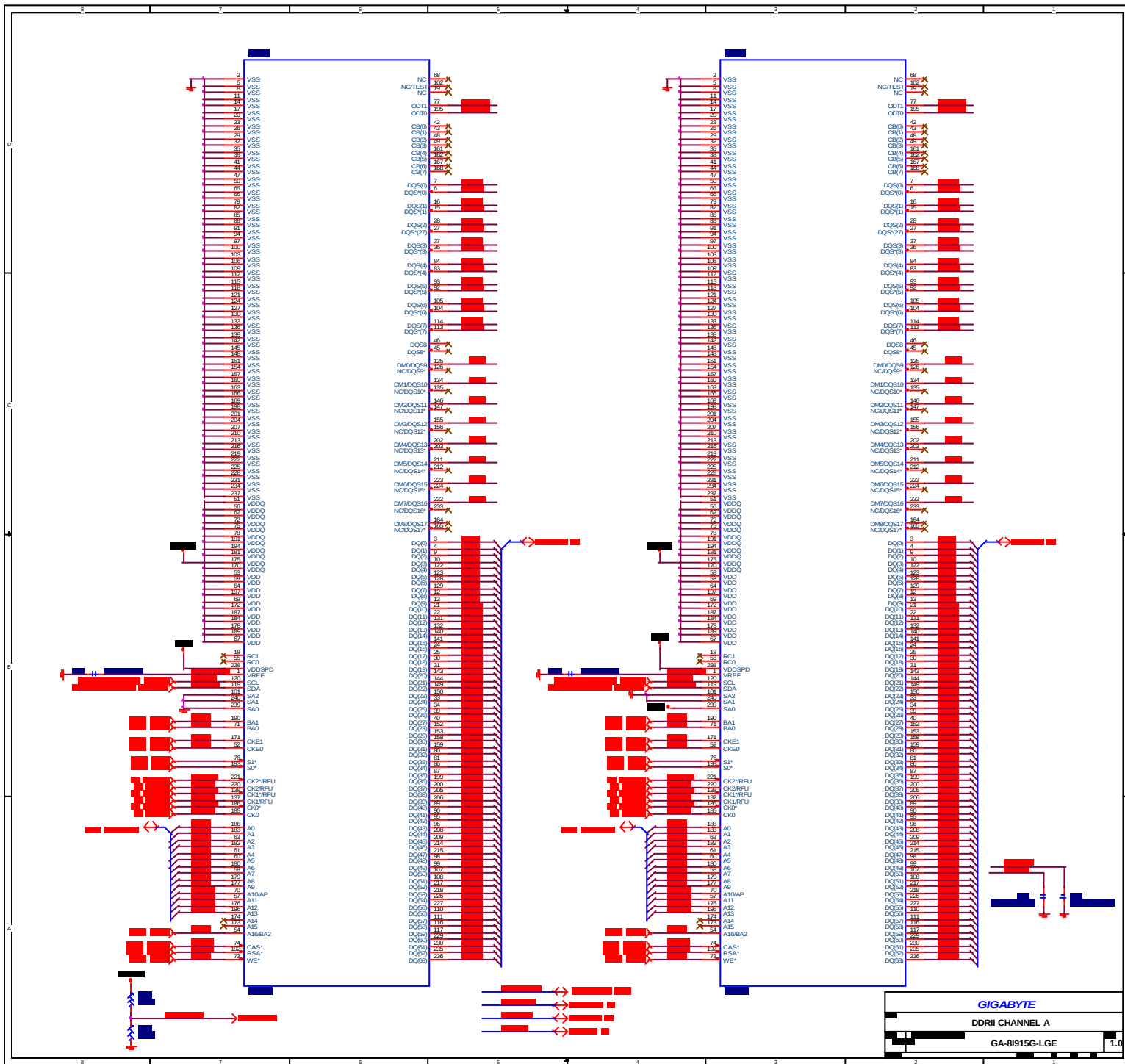
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台慶 (FPI0302-R10M-01)

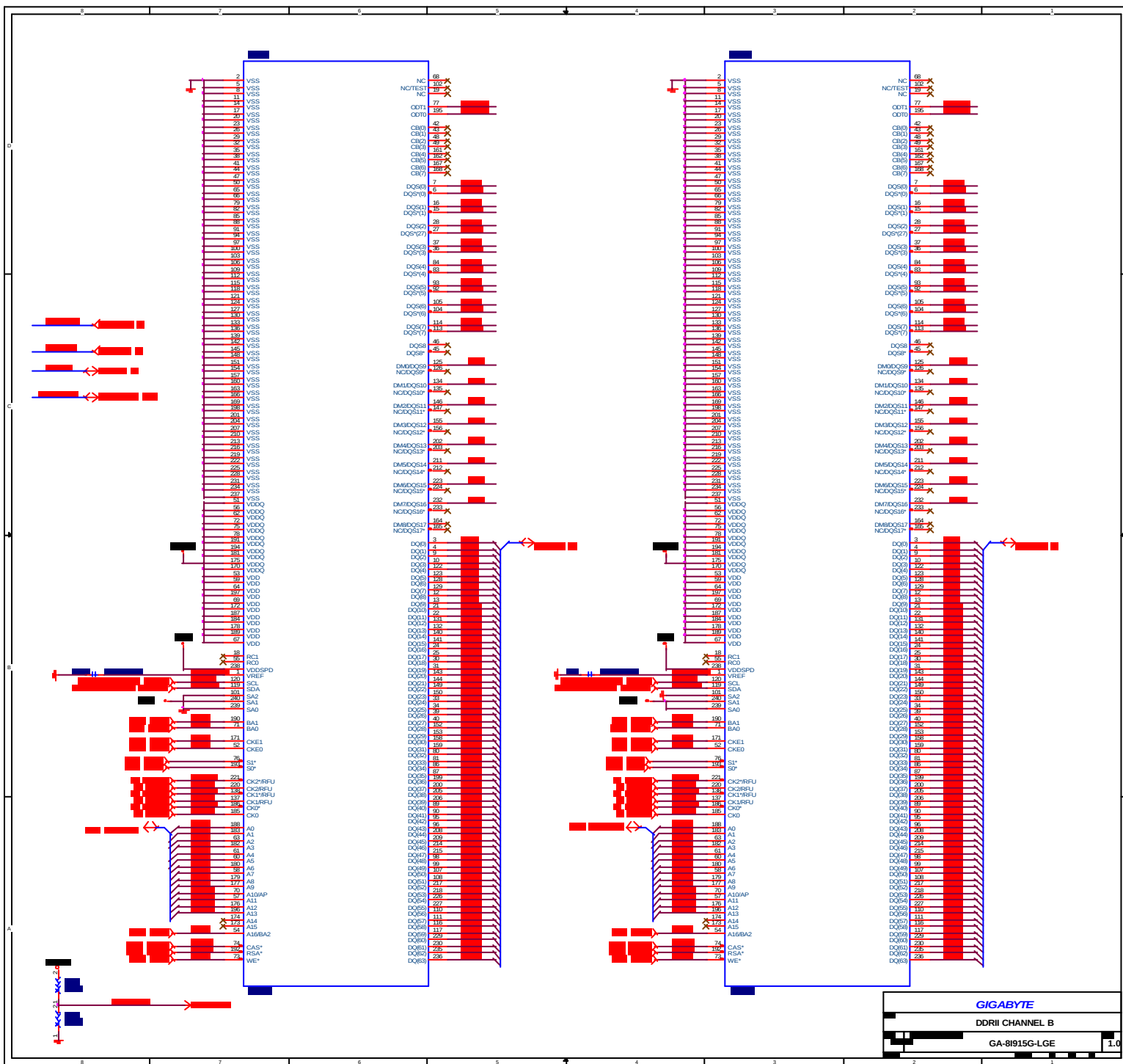




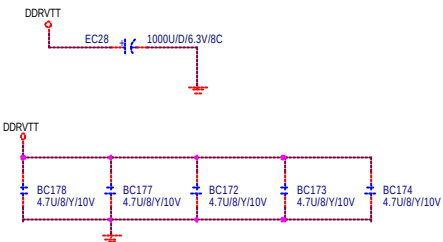


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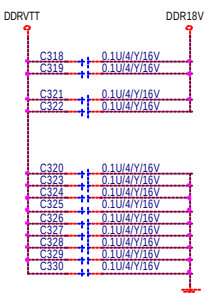
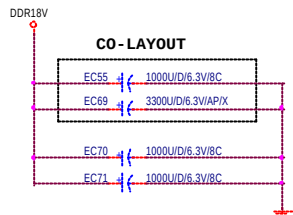




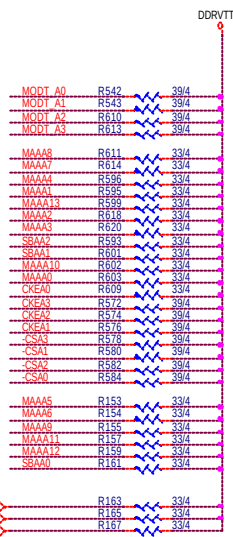
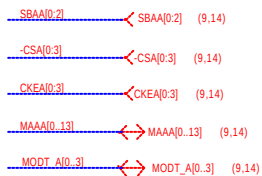
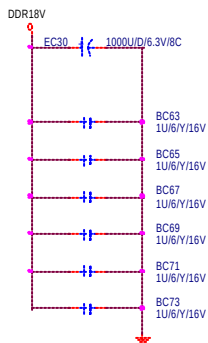
DDRVTT Decouple



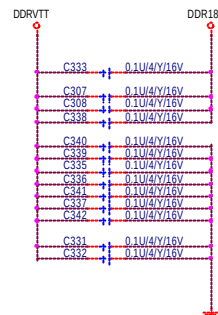
DDR TERMINATION CHANNEL A



DDR18V Decouple

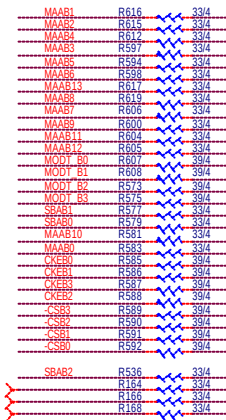
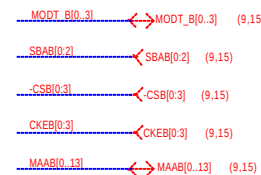
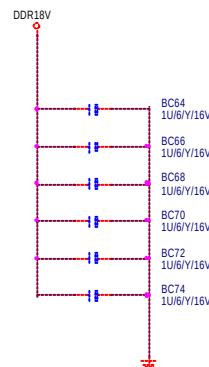


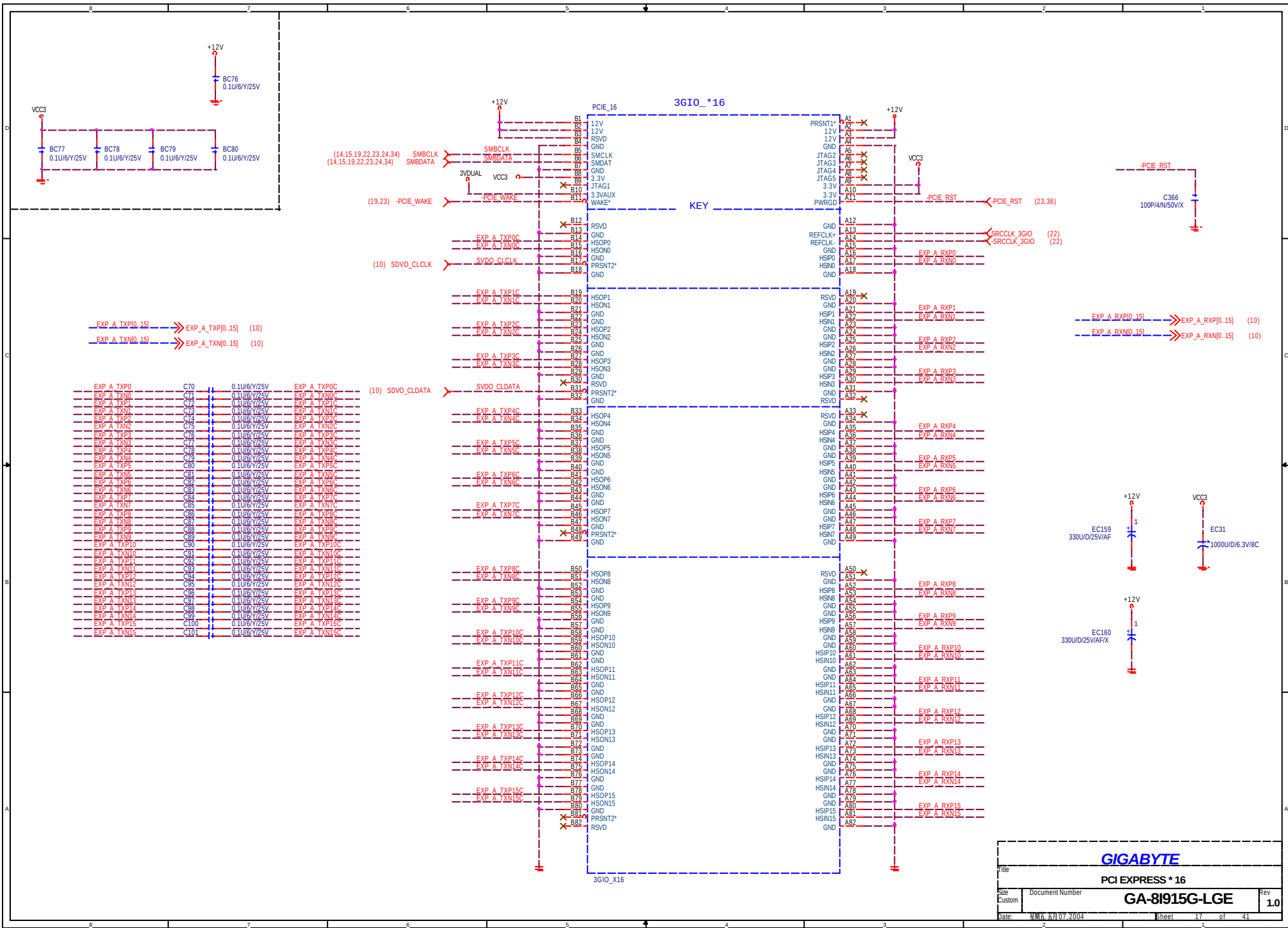
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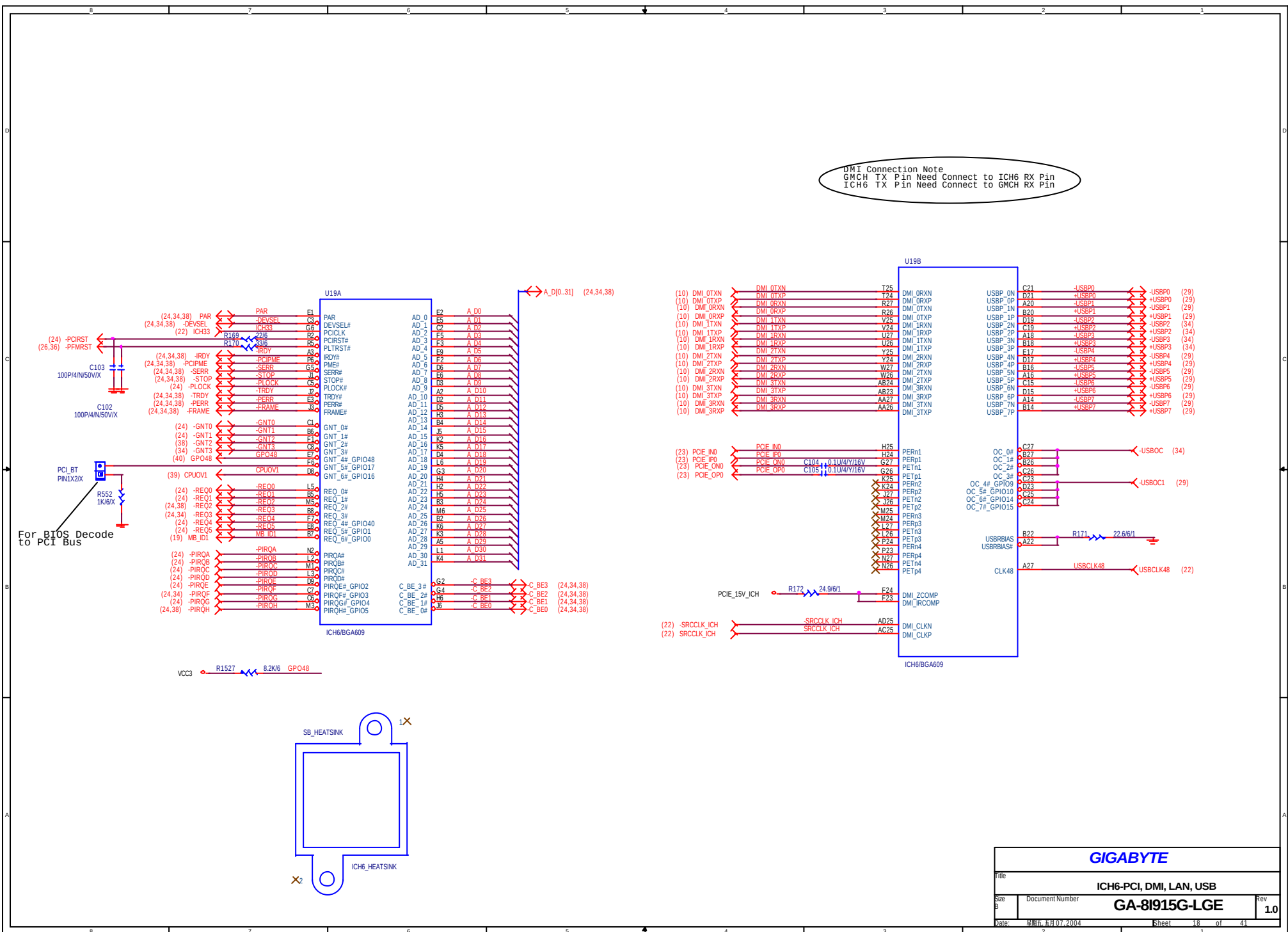


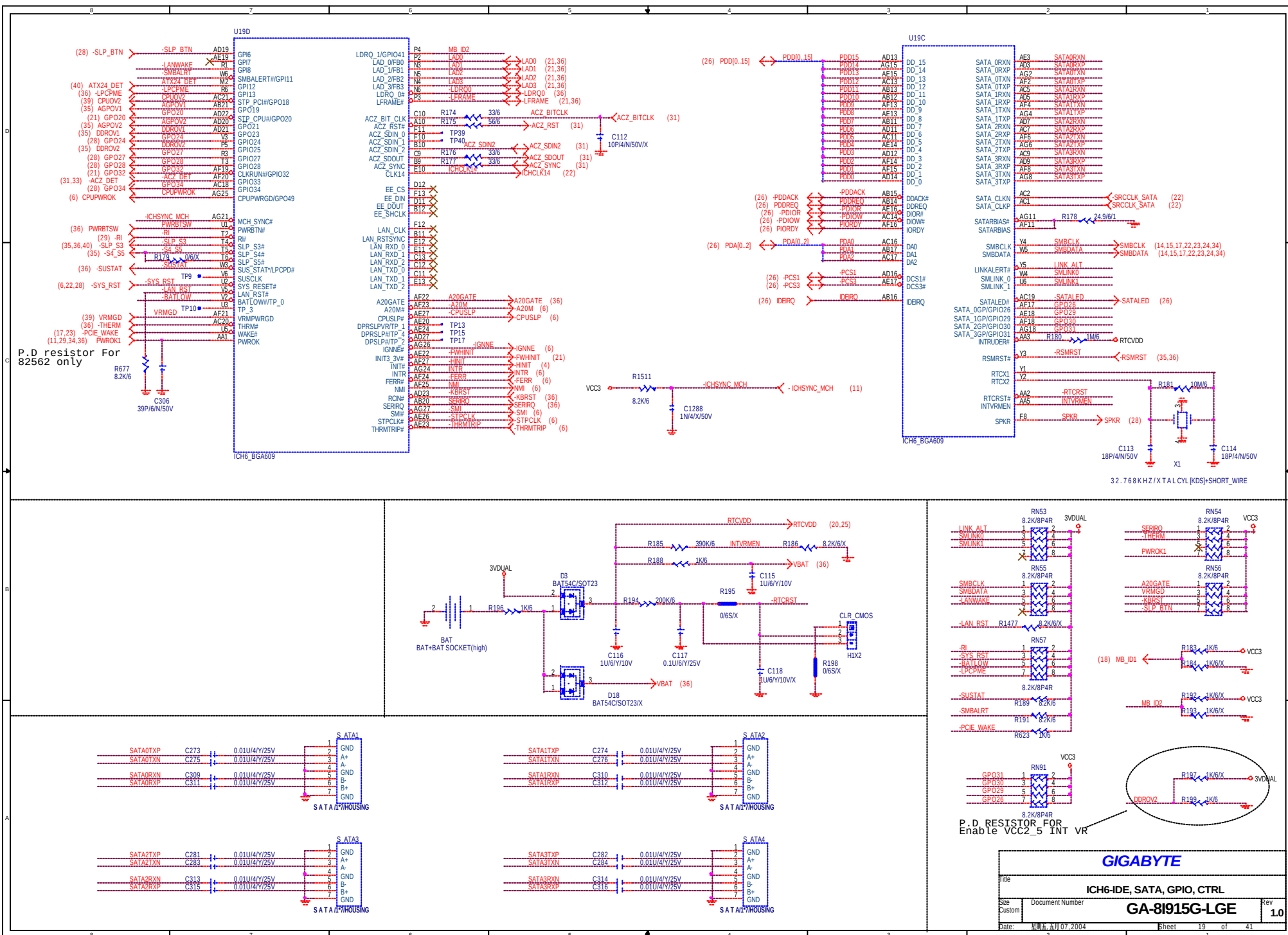
CHANNEL B

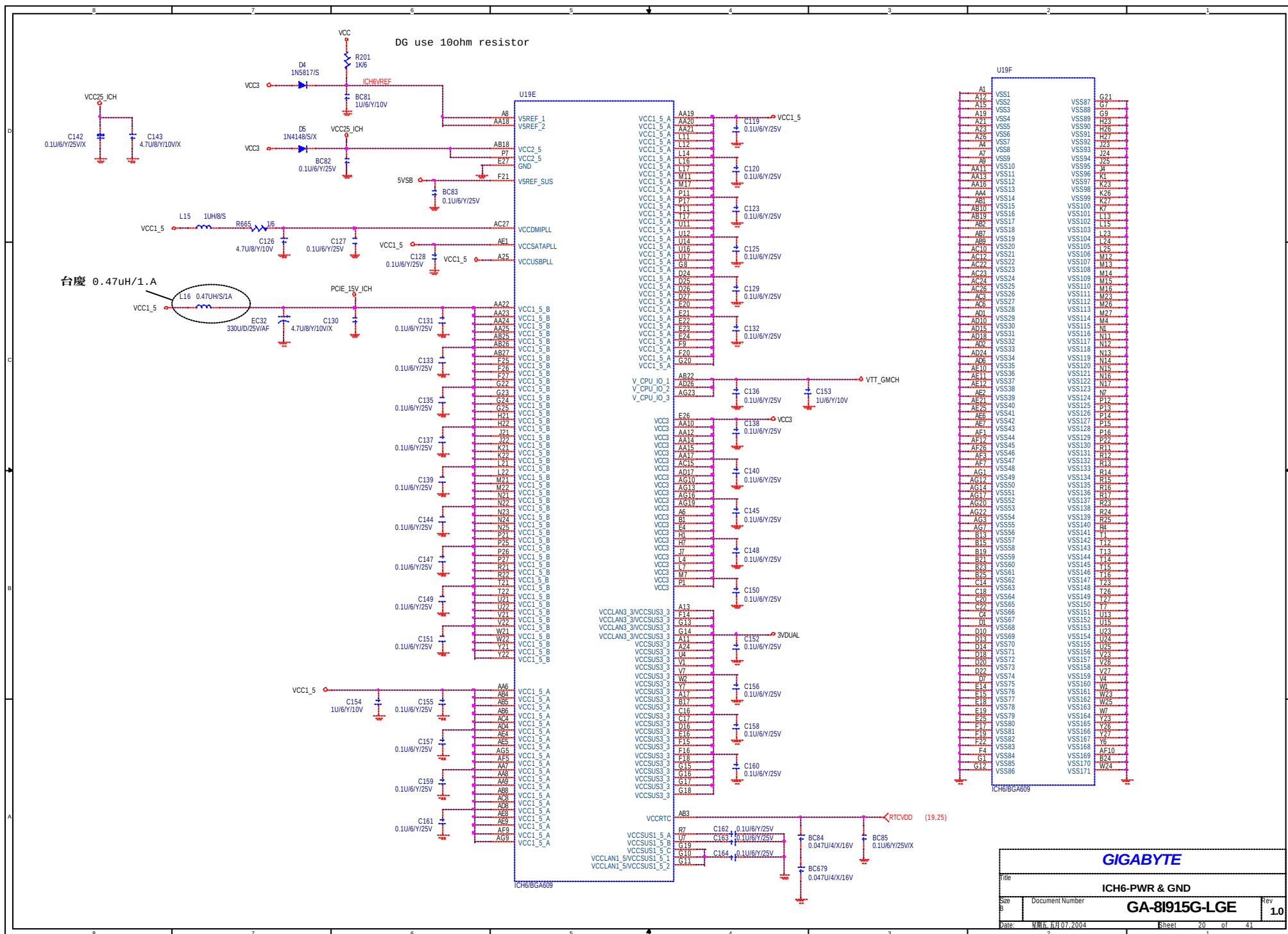
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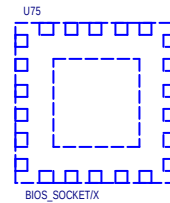
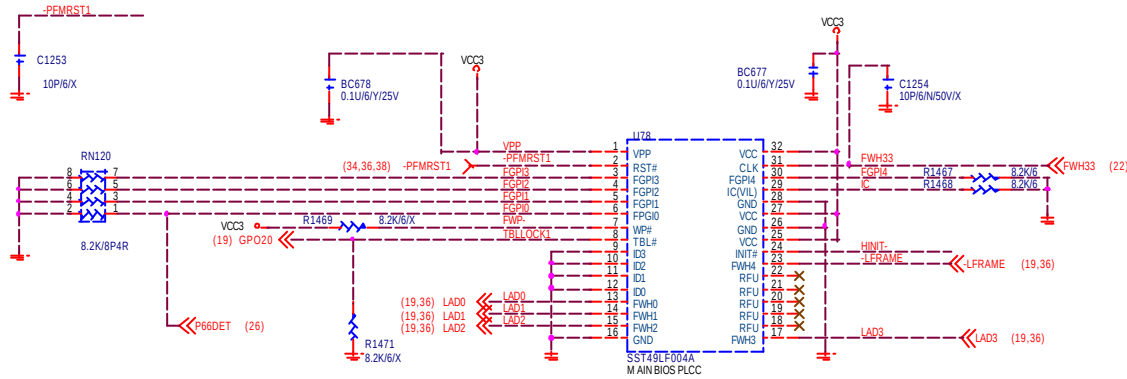




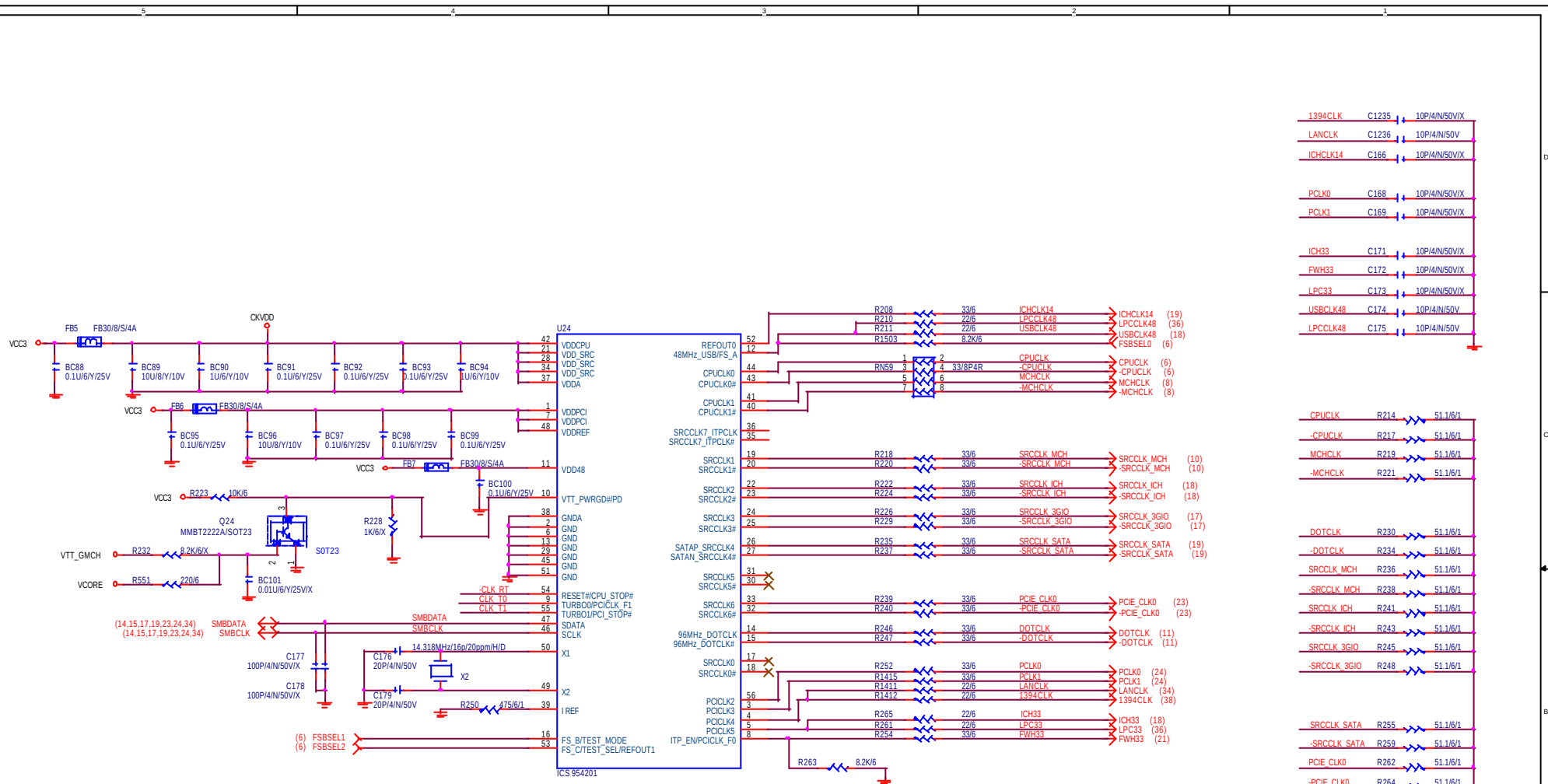








GIGABYTE			
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FWH			
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P.D --> PIN35/36 for SRCCLK7

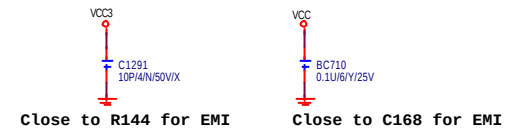
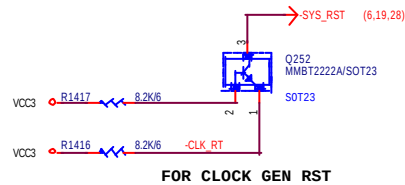
FOR CK410M R NOT INSTALL

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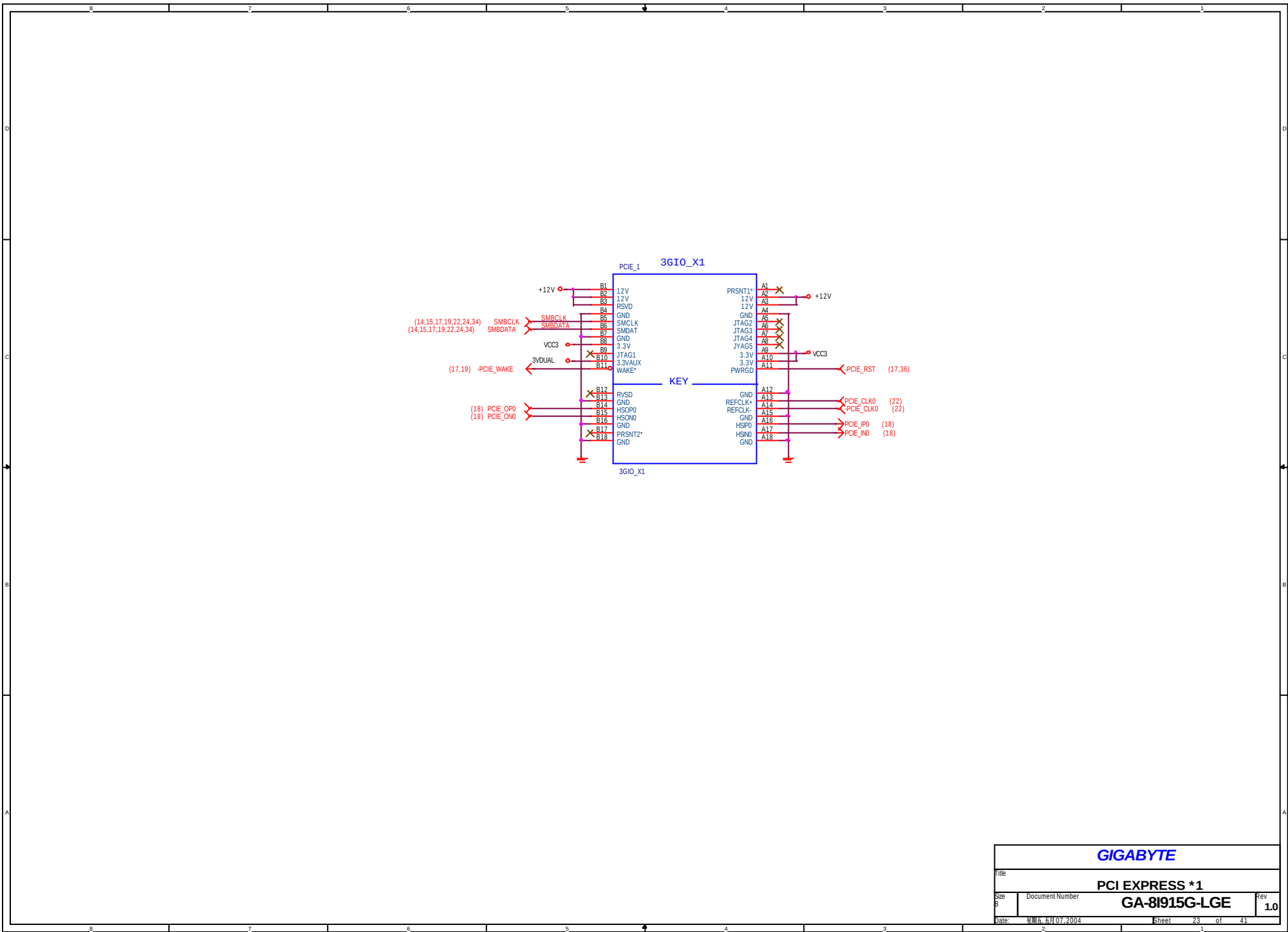
FOR CIA II
FUNCTION

FOR CK410M

(36) TURBO1 ← R1420 0/6/X CLK T1

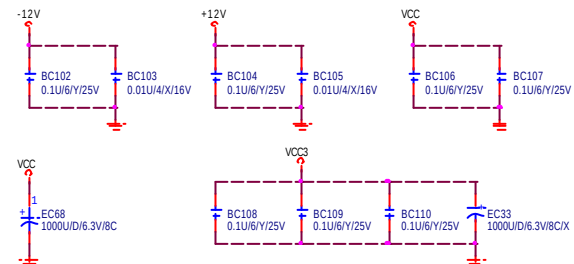
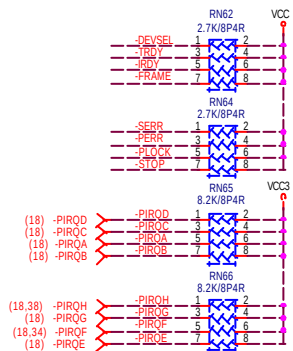
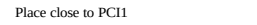


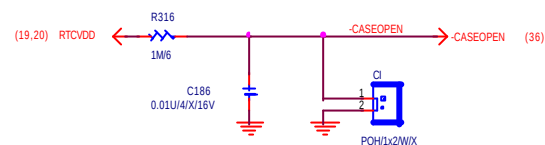
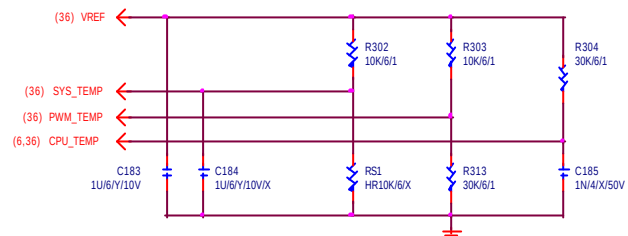
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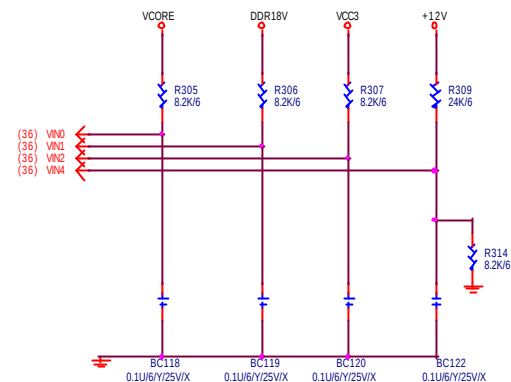
GIGABYTE

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PCI EXPRESS *1			
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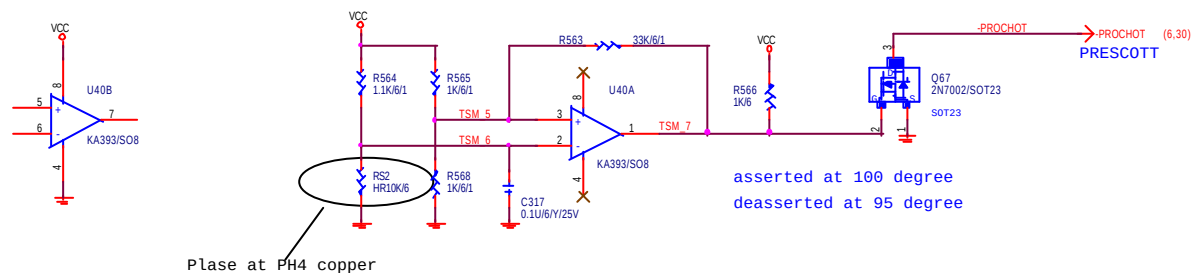




Case Open Circuits

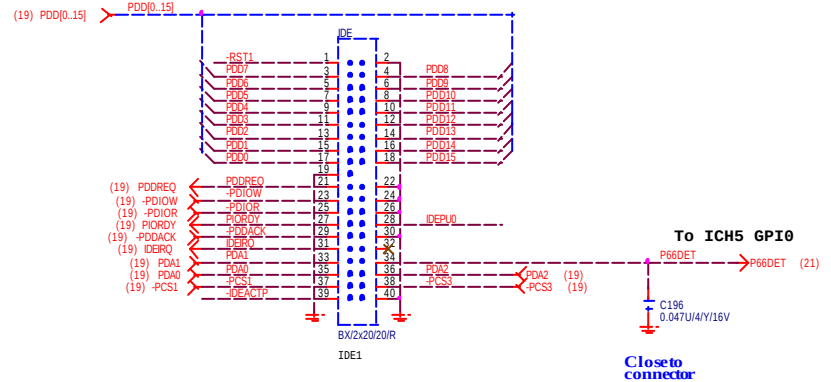
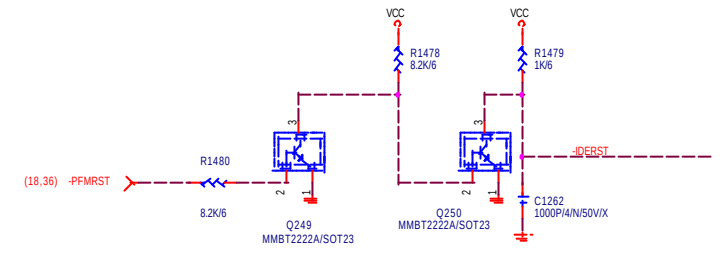
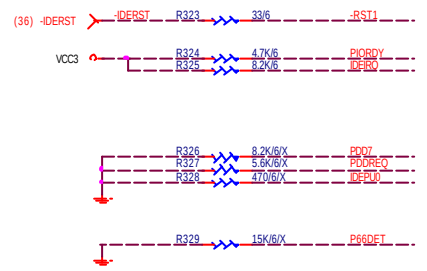
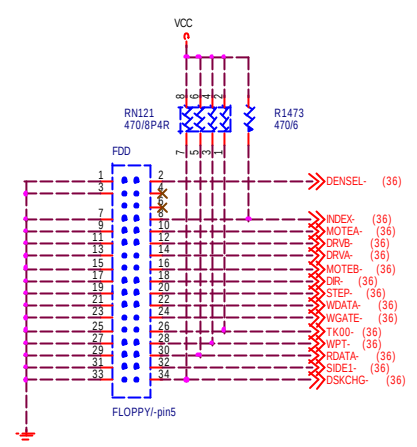
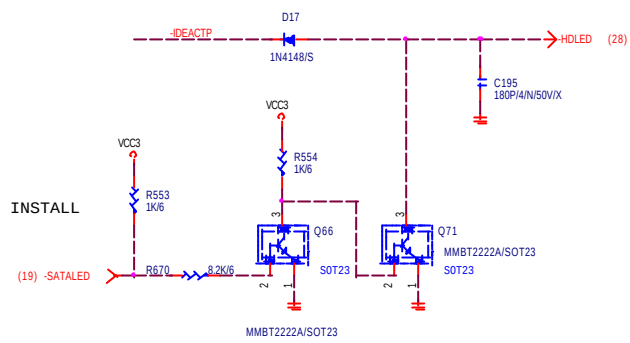


RS2 CLOSE CPU VR MOSFET

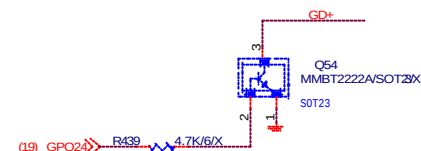
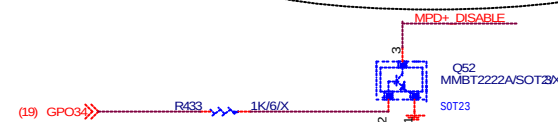
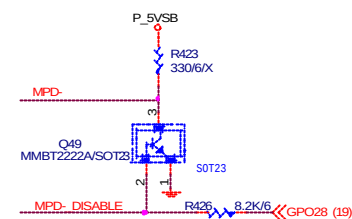
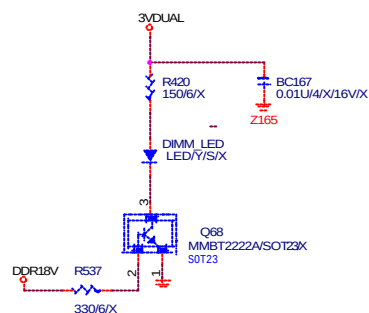


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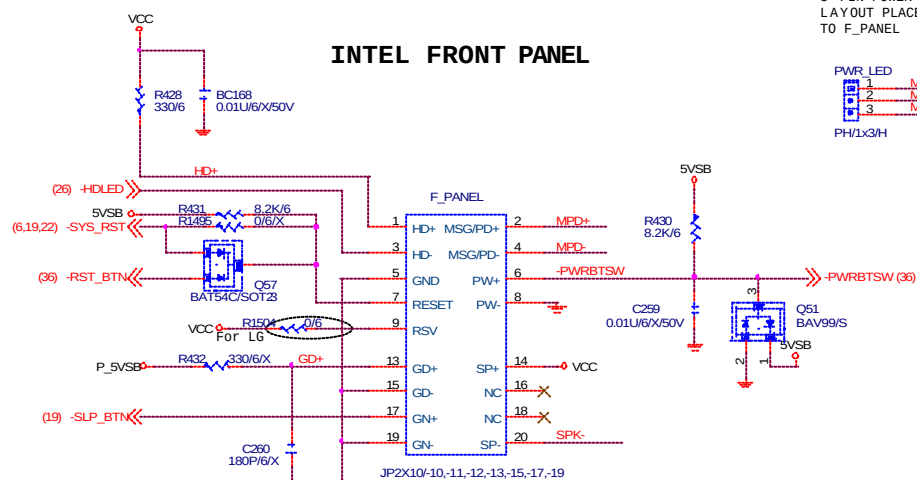
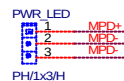
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HWMO & PROCHOT		
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PRIMARY IDE CONNECTOR



3 PIN POWER LED
LAYOUT PLACE CLOSE
TO F PANEL

[illegible]

LED States	ACPI States	GP028
ON	S1, S3	0
OFF	S0, S5	1

(GP022 DEFAULT HIGH, main power)

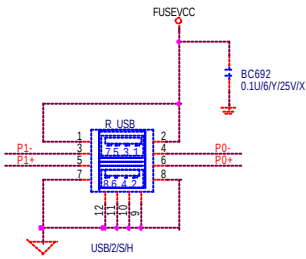
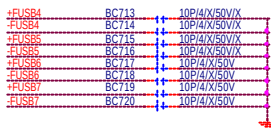
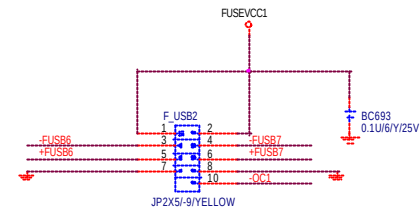
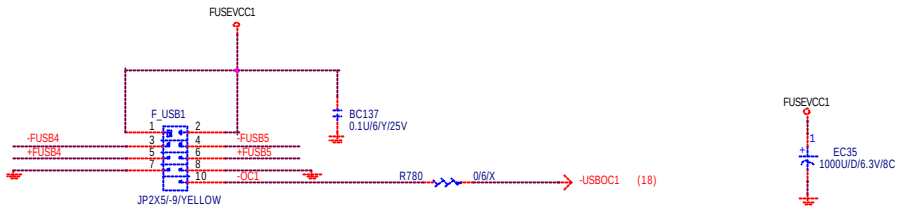
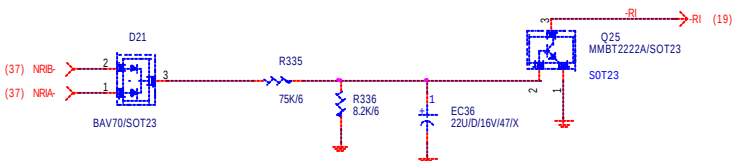
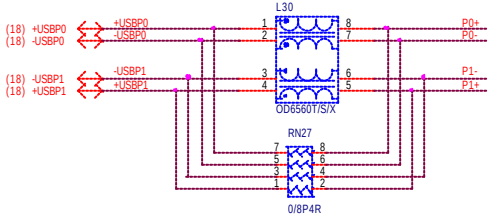
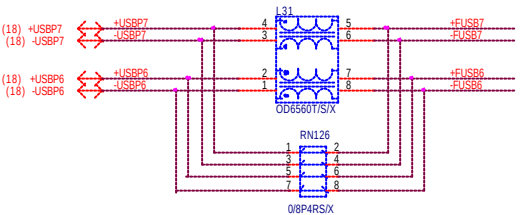
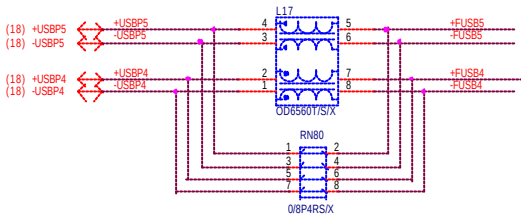
LED States	ACPI States	GP025	GP027	GP028
OFF	S1, S3, S5	1	1	NOT
Steady Green	S0	1	1	1
Blinking Green	S0(message waiting)	1	B	1

LED States	ACPI States	GP025	GP027	GP028
OFF	S5	1	1	1
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

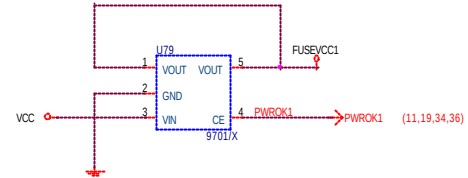
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FRONT PANEL			
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FRONT USB

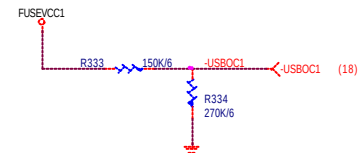
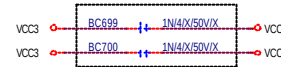
ICH6 USB2.0



NEAR F_USB CONNECTOR

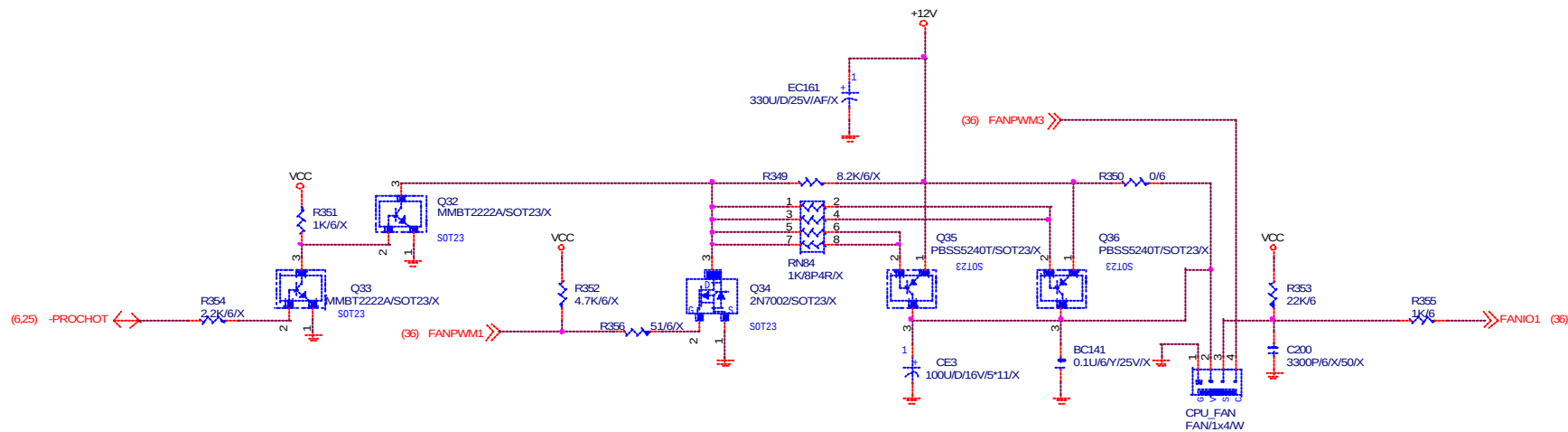
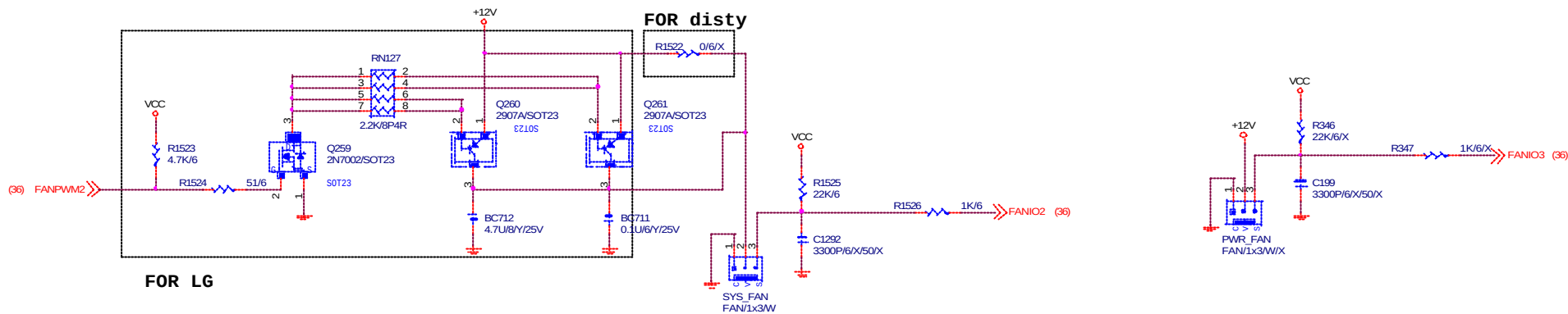


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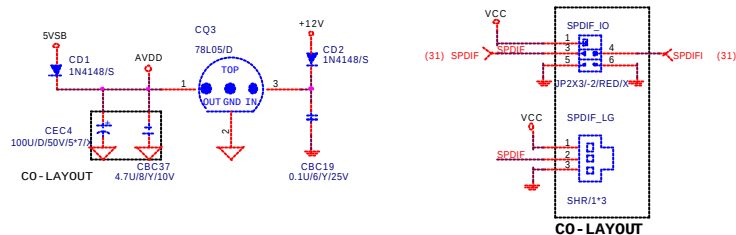
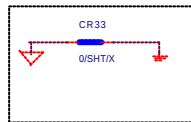
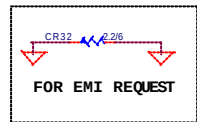


GIGABYTE

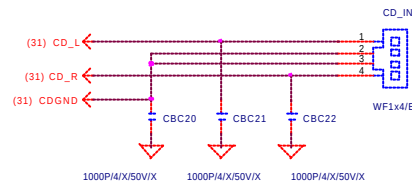
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FAN CONTROL			
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CD IN

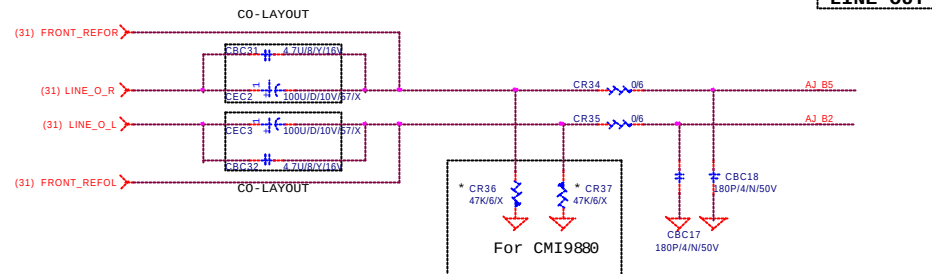
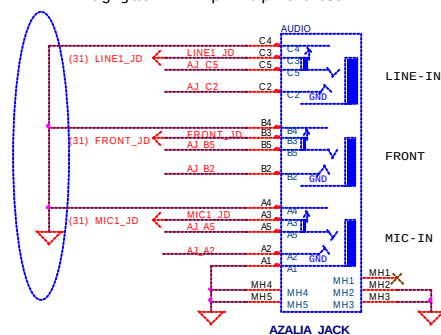


Remove AUX-IN connector

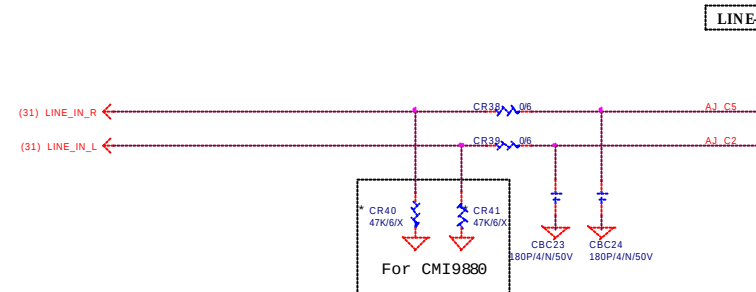
Azalia Jack

Normal --> pin4/pin3 open

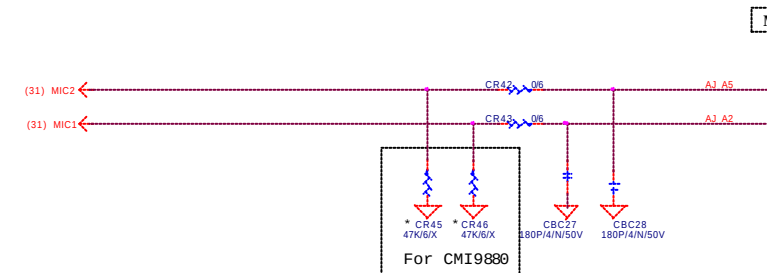
Plug jack --> pin4/pin3 close



LINE OUT



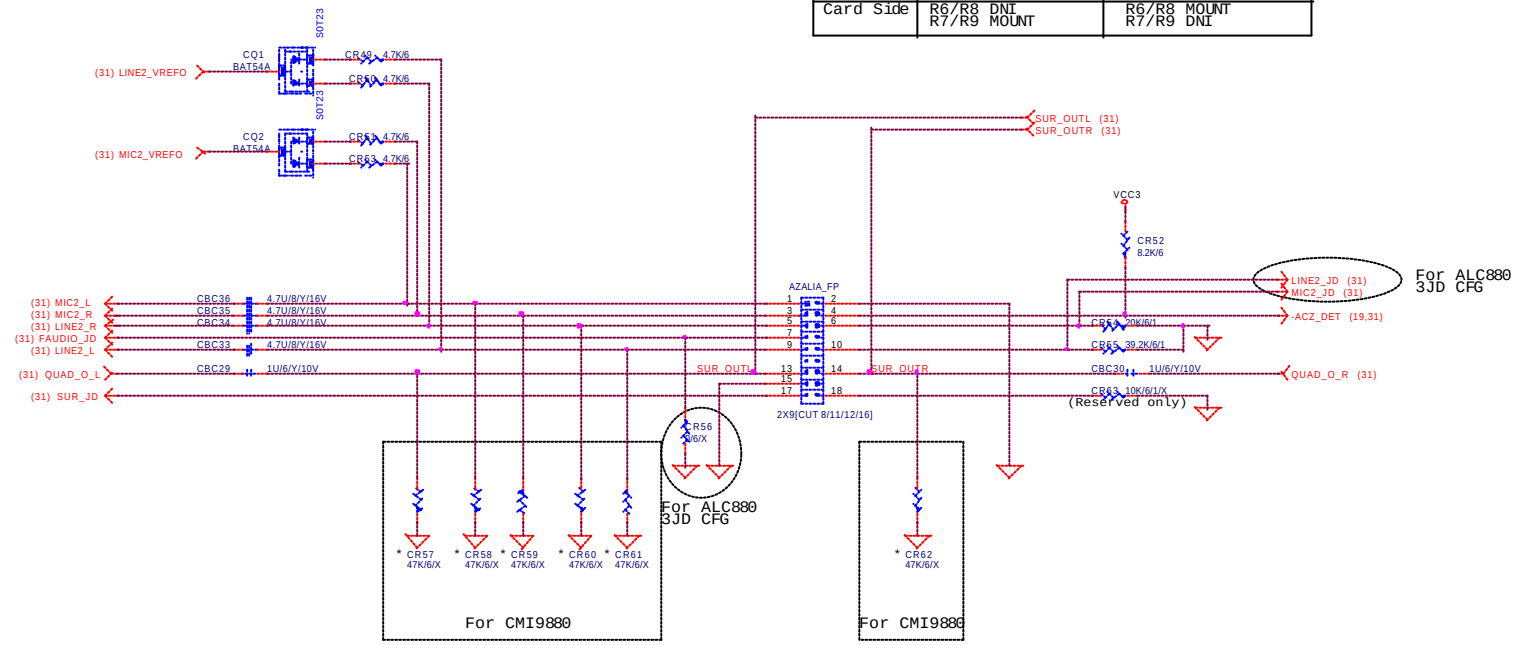
LINE-IN



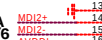
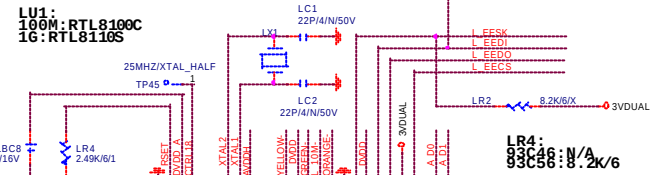
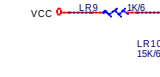
MIC

GIGABYTE			
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AUDIO JACK			
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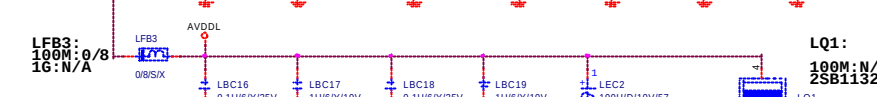
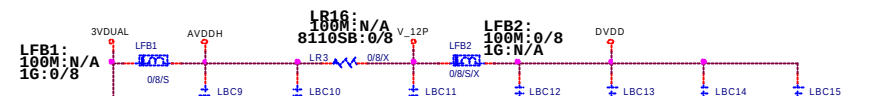
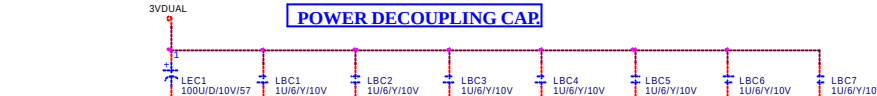
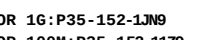
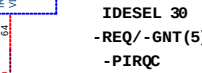
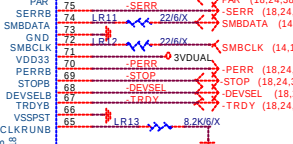
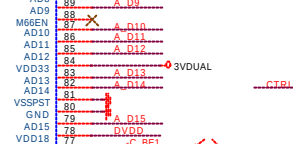
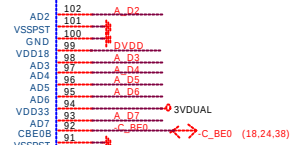
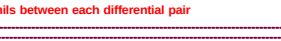
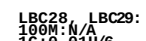
	Front Audio Jack sense method	
	From Pin6/Pin10	From Pin7
M/B Side	R524/R526/R529 DNI R561/R527 MOUNT	R524/R526/R529 MOUNT R561/R527 DNI
Card Side	R6/R8 DNI R7/R9 MOUNT	R6/R8 MOUNT R7/R9 DNI



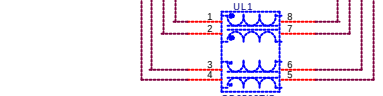
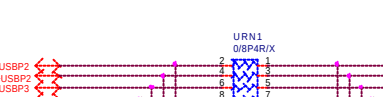
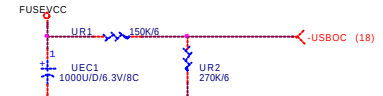
		Dual Color LED	
	Yellow	Green	Orange
10Mb	---	OFF	OFF
100Mb	---	ON	OFF
1Gb	---	OFF	ON
Link	ON	---	---
Active	Blink	---	---



RTL8110S



Close to USB port

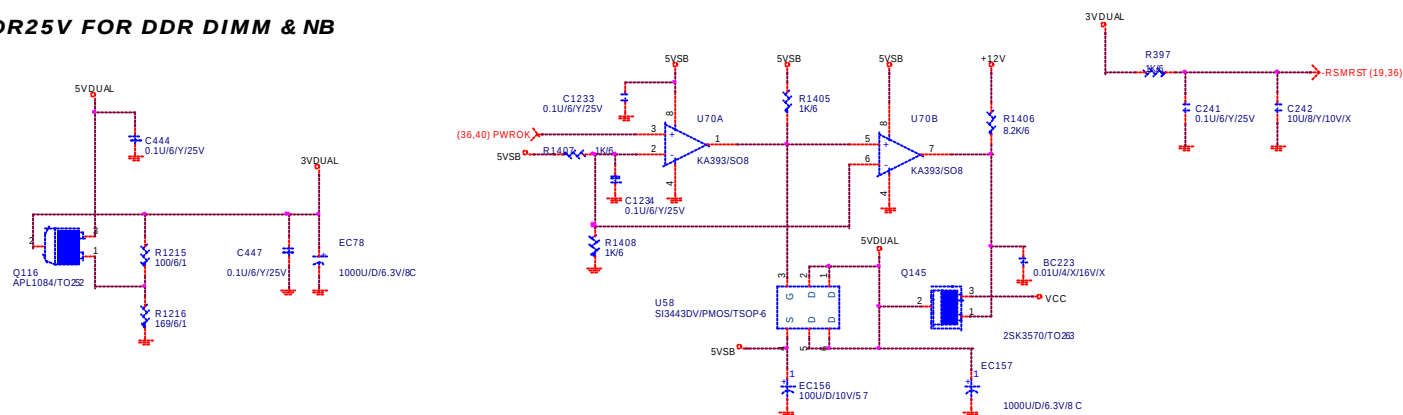


NEAR USB_LAN CONNECTOR

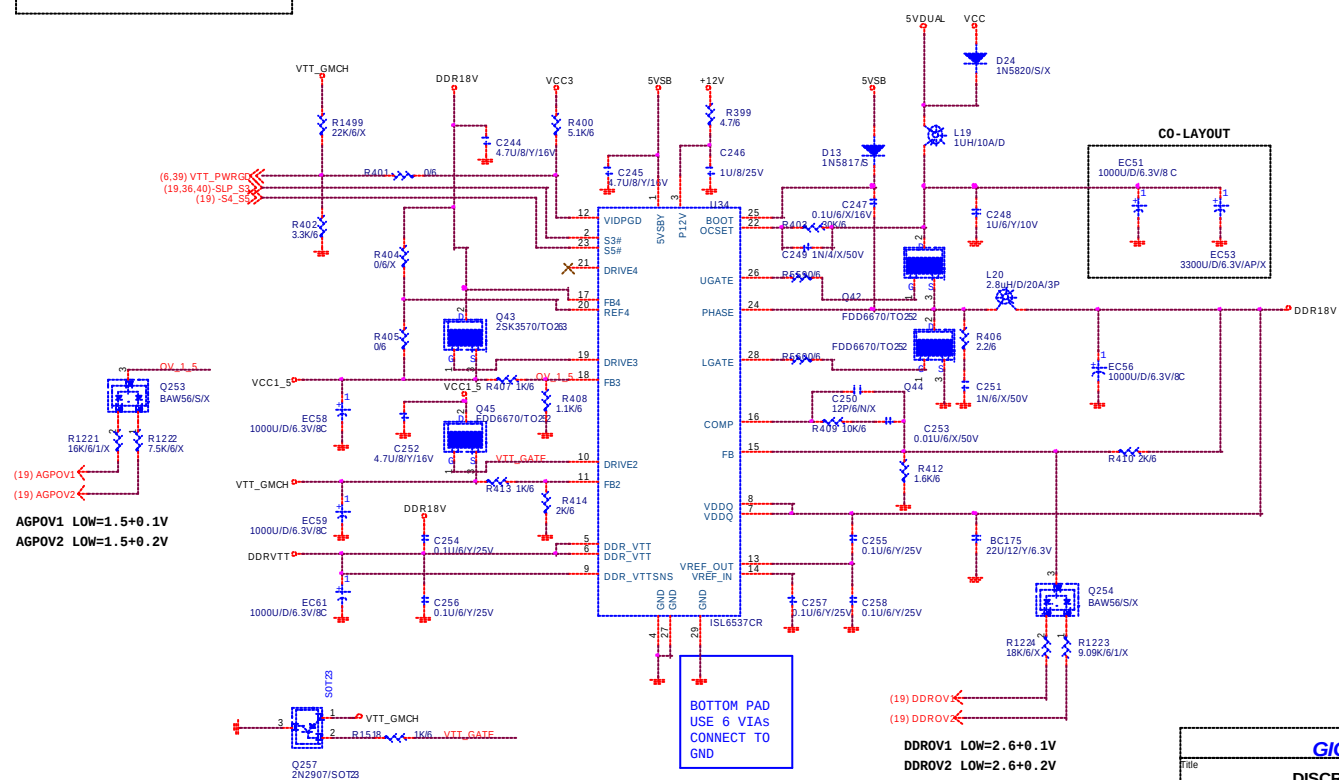
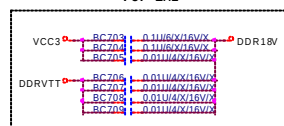


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LAN RTL8110S			
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DDR25V FOR DDR DIMM & NB



For EMI



DDROV1 LOW=2.6+0.1V
DDROV2 LOW=2.6+0.2V

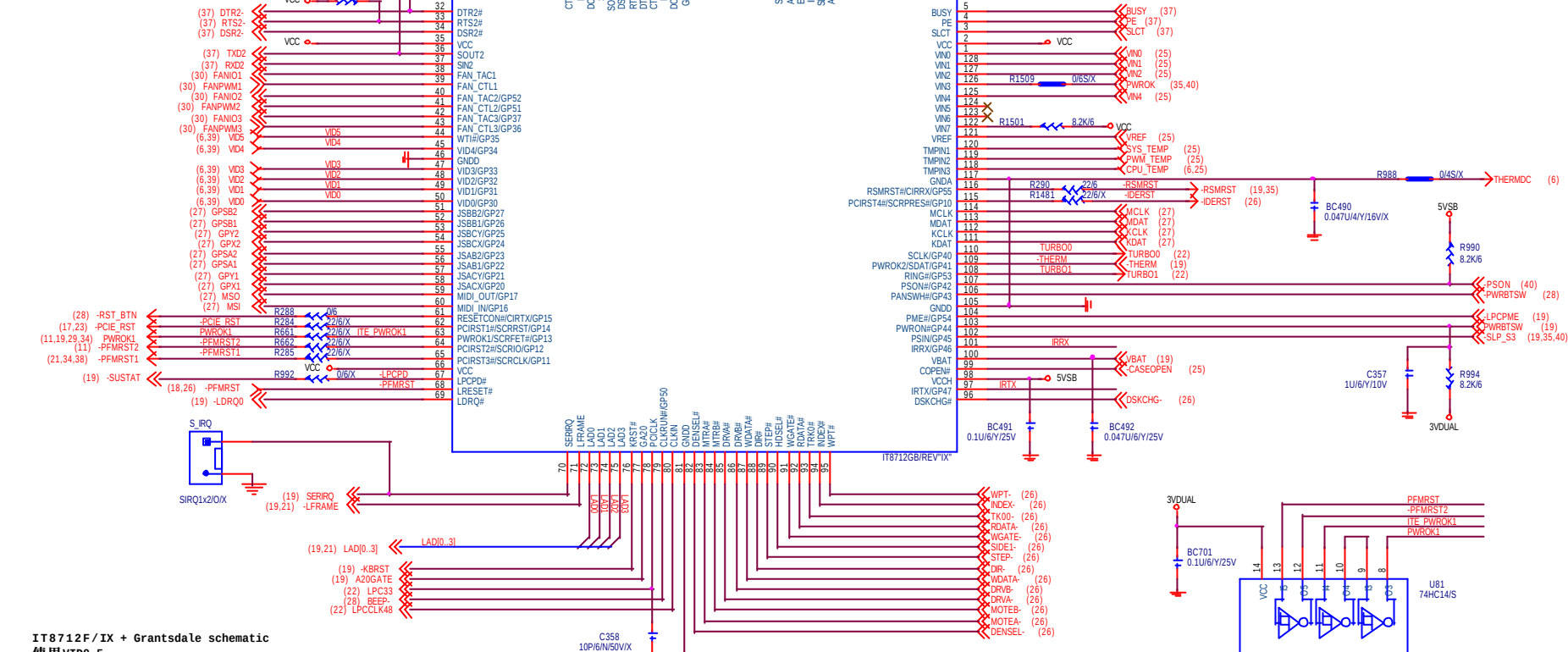
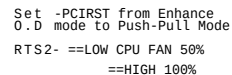
GIGABYTE

DISCRETE POWER

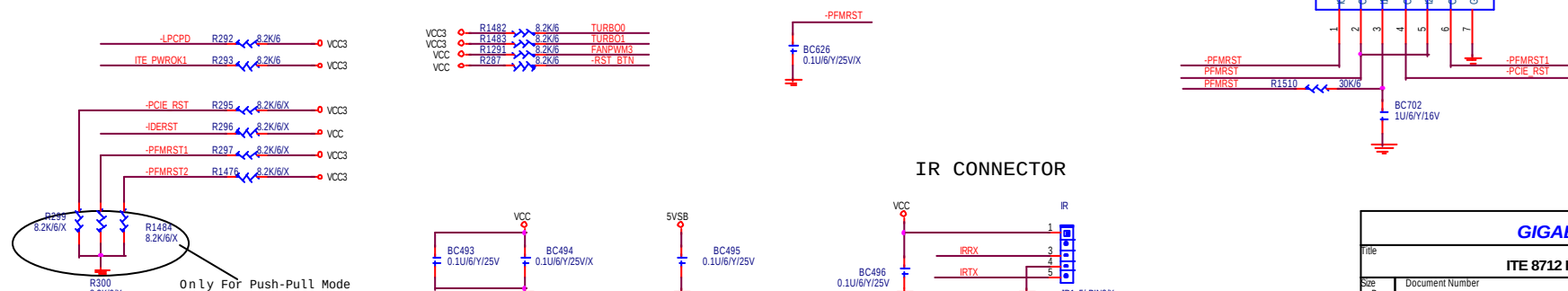
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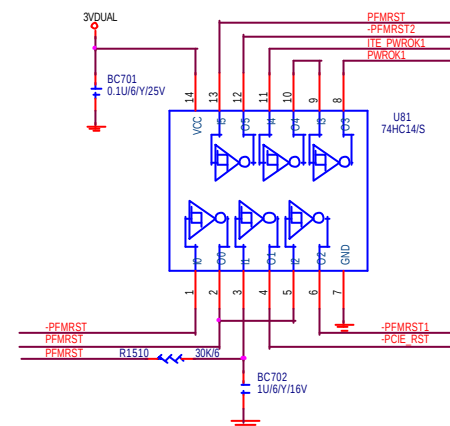
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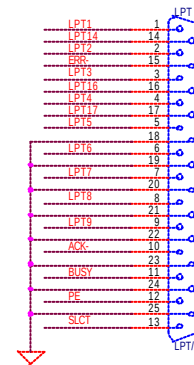
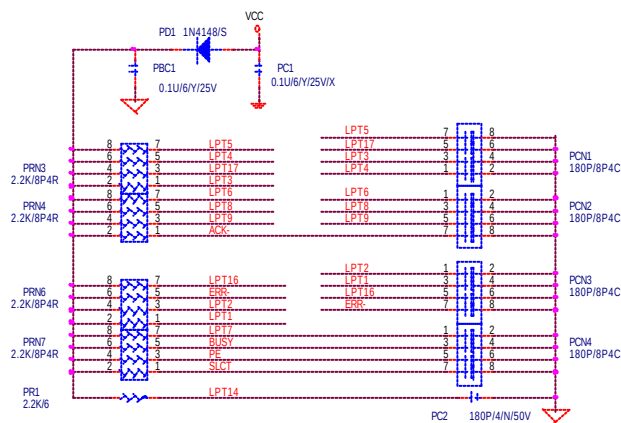
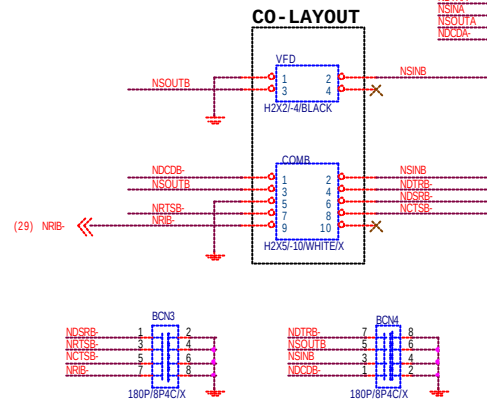
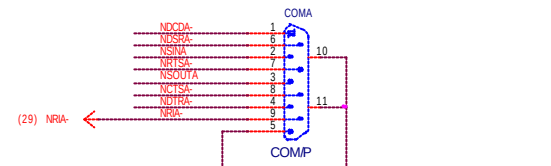
IT8712F/IX + Grantsdale schematic
使用VID0-5
注意事項,也就是說SOUT(680 Ohm pull
down)選擇 VID threshold 0.8/0.4

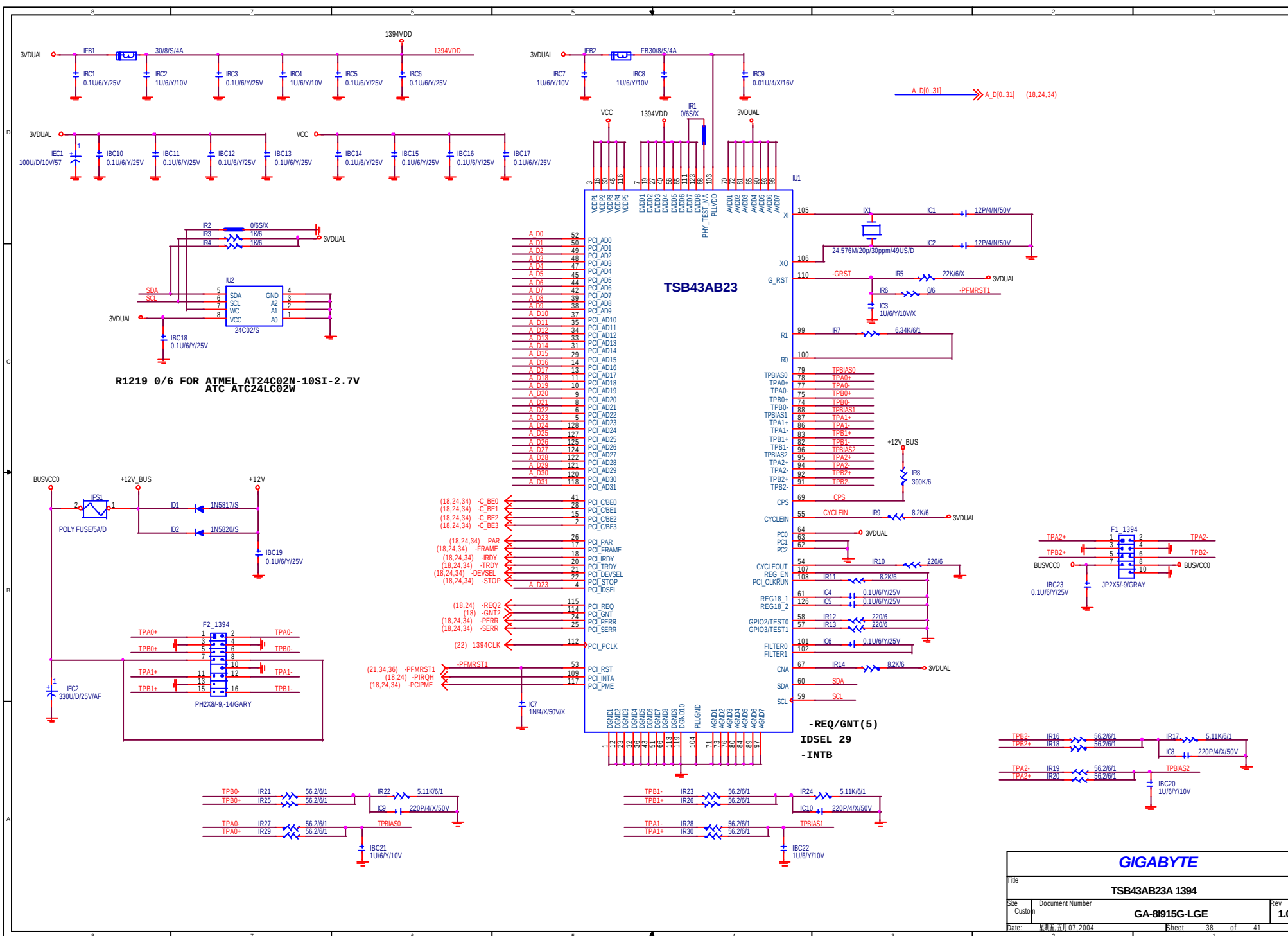


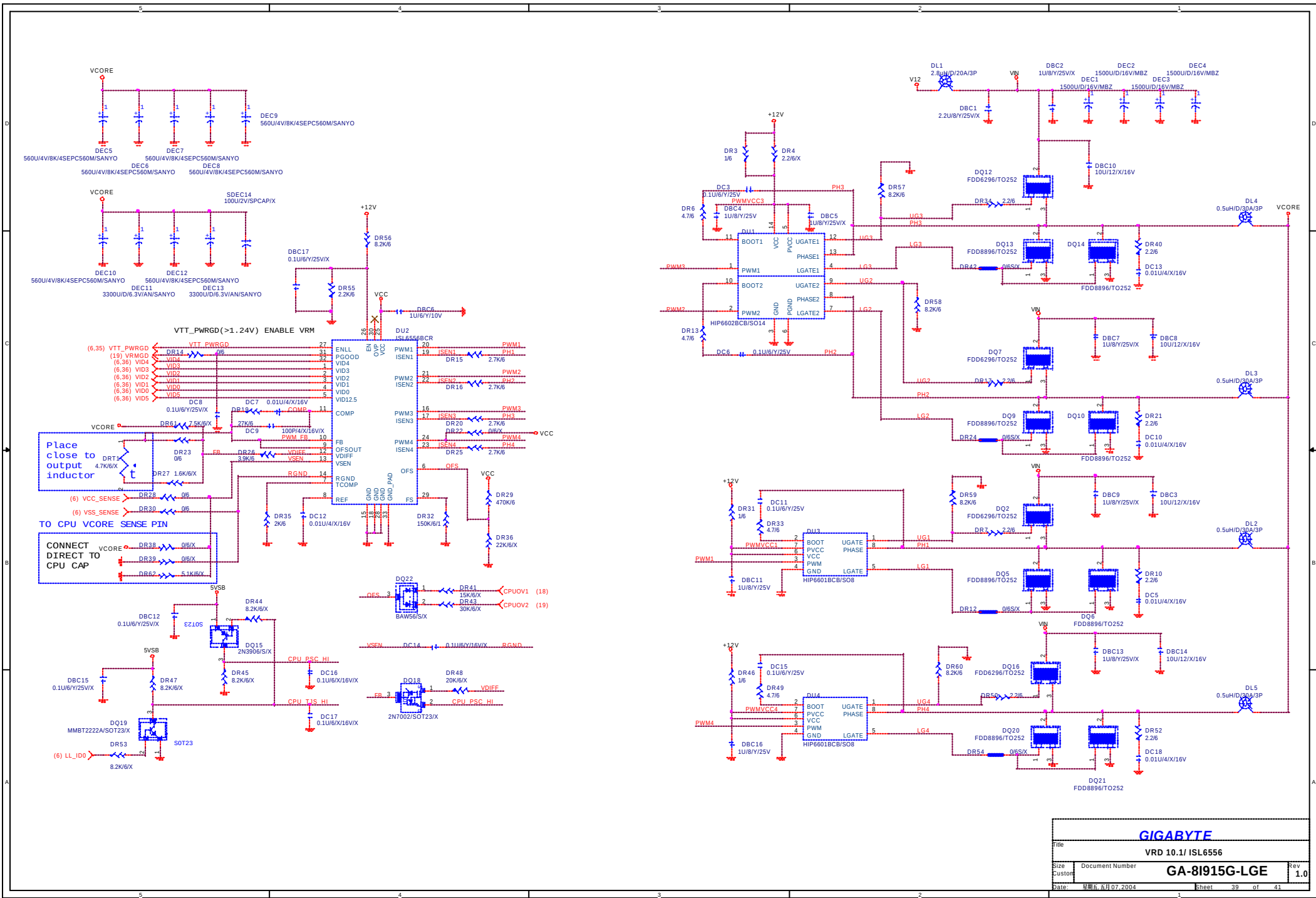
IR CONNECTOR



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File ITE 8712 LPC IO			
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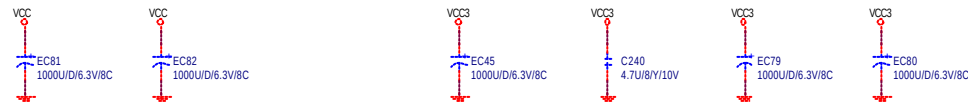
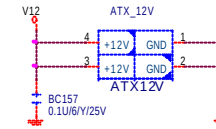
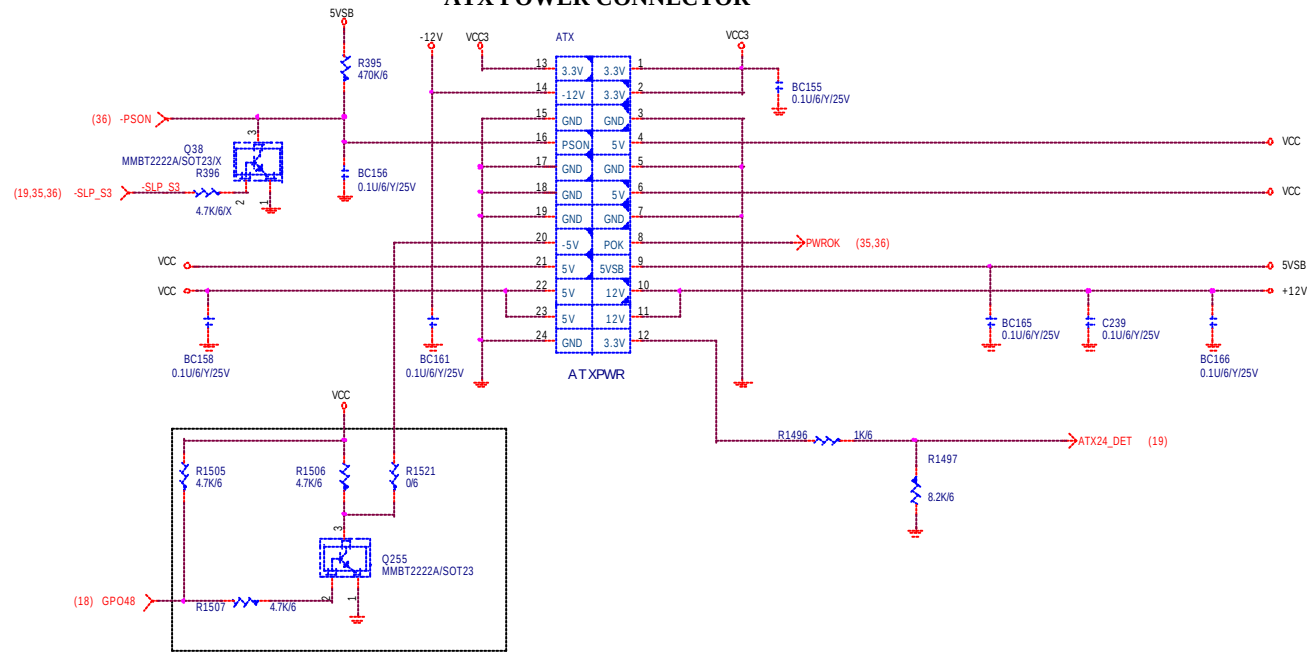






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ATX POWER CONNECTOR



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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	GP048	VCC3	-GNT4
GPI2	V5REF	-PIRQE	GP049	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			
GP016	VCC3	CPU_0V1 (-GNT6)			
GP017	VCC3	-GNT5			
GP018	VCC3	CPU_0V2			
GP019	VCC3	DUAL BIOS			
GP020	VCC3	BIOS_T-BLOCK			
GP021	VCC3	DUAL BIOS			
GP023	VCC3	DDR_0V0			
GPI024	3VDAUL	GREEN_LED			
GPI025	3VDAUL	DDR_0V1			
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	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
PIN115/-PCIRST4	-IDERST	Reserved For IDE
PIN63/PWROK1	PWROK1	1. GMCH 2. ICH6 3. 5VDUAL SWITCH 4. DPS CONTROL
PIN109/PWROK2	-THERM	1. ICH6