

Model Name: GA-P55-UD5

SHEET TITLE

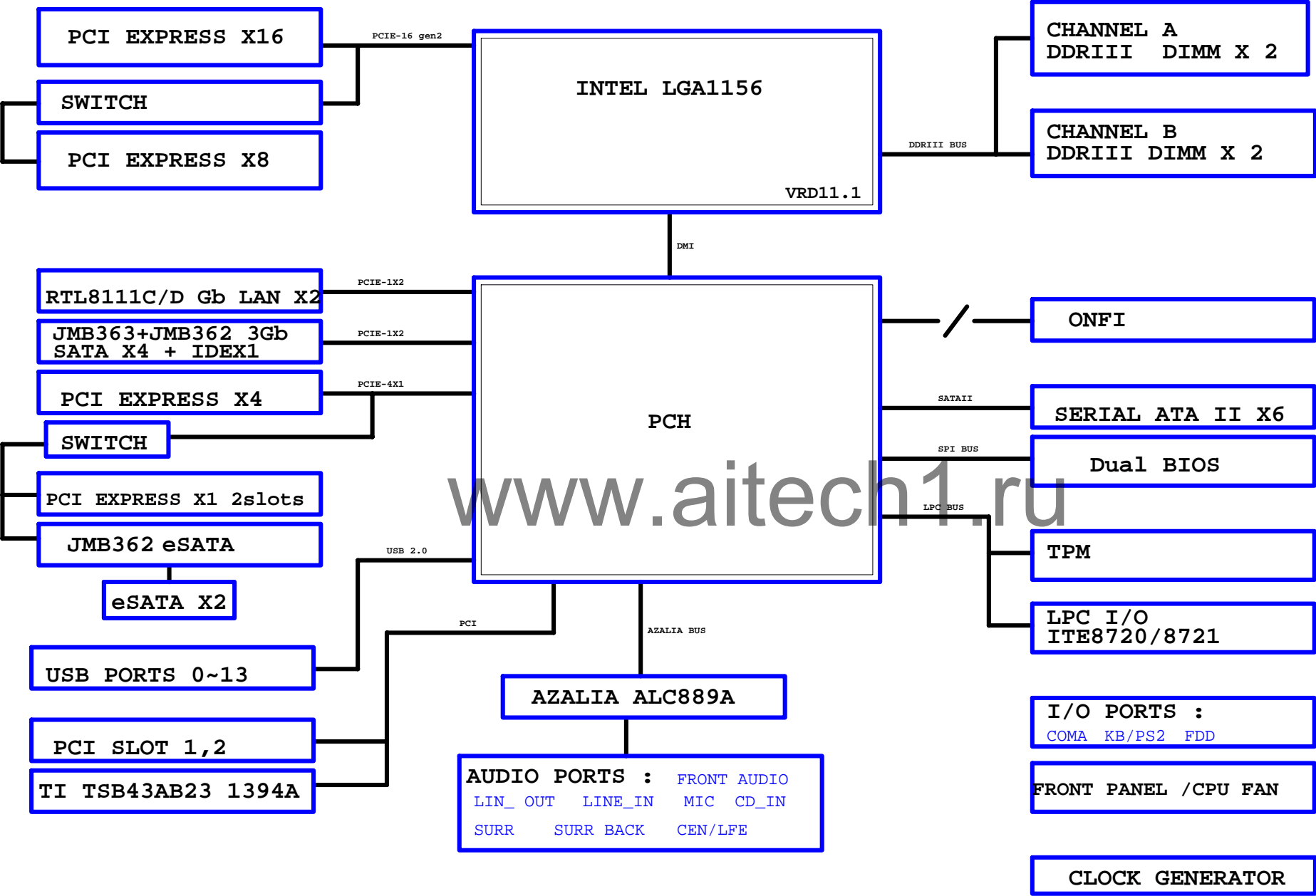
01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1156-A
05	CPU_LGA1156-B
06	CPU_LGA1156-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	DDR III POWER CAP
10	PCI EXPRESS*16 SLOT
11	PCI EXPRESS*8 SLOT
12	PCI EXPRESS*16 Switch
13	PCH_FDI,DMI,USB,PCIE,NVRAM
14	PCH_DP,CLK BUFFER
15	PCH_HOST,SATA,PCI
16	PCH_GPIO,CTRL,AUDIO
17	PCH_PWR,GND
18	DUAL BIOS , TPM
19	COM, -PROHOT,DYNAMIC OC
20	PCI SLOT
21	TI TSB43AB23 1394
22	ITE 8720 LPC IO
23	ATX POWER
24	FP,FUSB,FDD
25	PCI EXPRESS*4 SLOT
26	PCI EXPRESS*1 SLOT & Switch
27	CLOCK GEN ICS9LPRS914

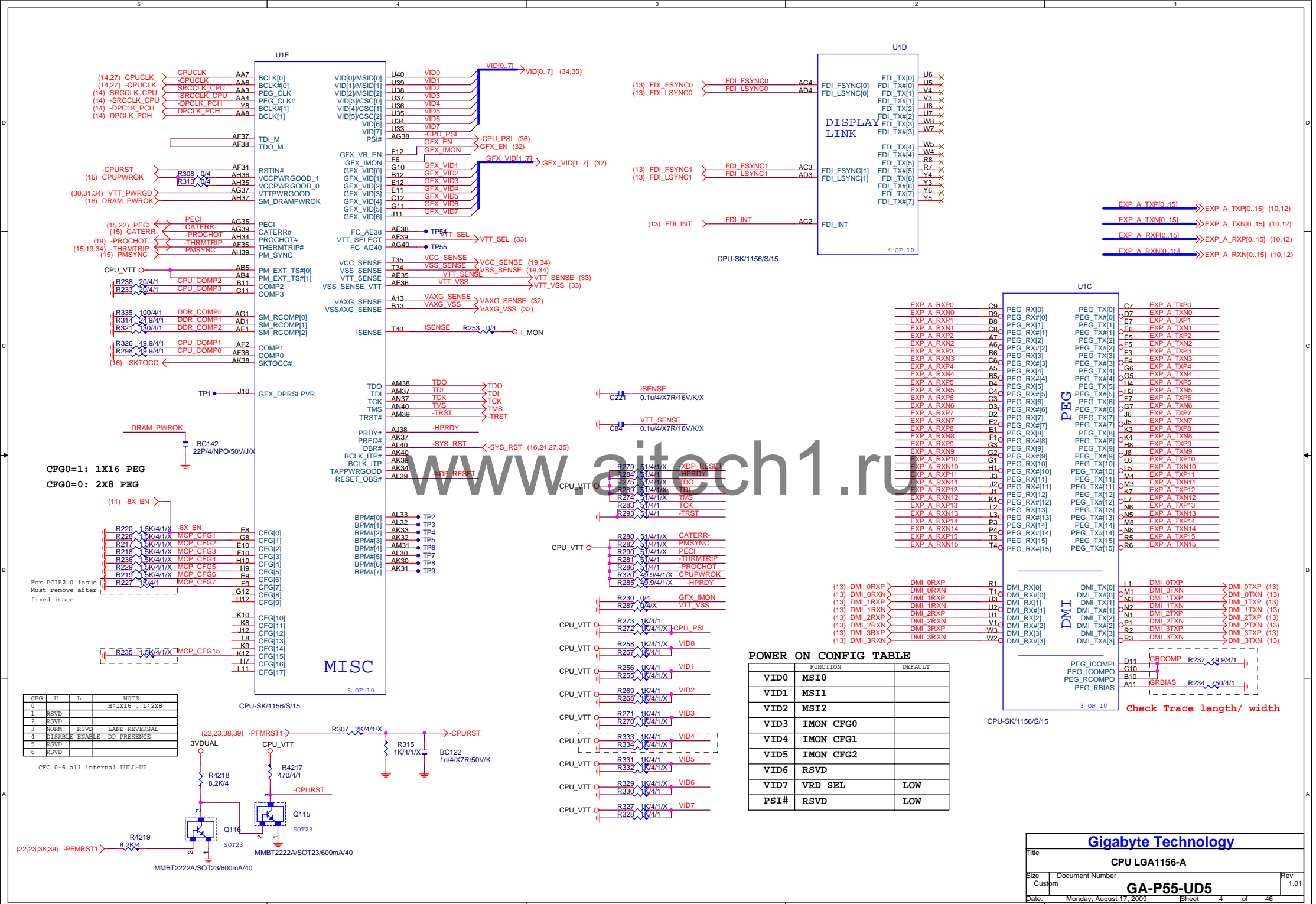
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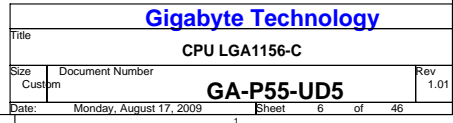
28	ALC889A
29	REAR AUDIO JACK
30	DISCRETE POWER I
31	DISCRETE POWER II
32	PCH CORE POWER
33	CPU VTT POWER
34	VCORE PWM_ISL6336CR-1
35	VCORE PWM_ISL6336CR-2
36	VCORE PWM_ISL6336CR-3
37	VCORE PWM_ISL6336CR-4
38	REALTEK RTL8111C/D-1
39	REALTEK RTL8111C/D-2
40	JMB363 SATA2+IDE
41	JMB362 SATA2
42	HWM,KB/MS, FAN CTRL
43	LED information , Switch button
44	DDRIII POWER
45	JMB362 eSATA
45	NV FLASH

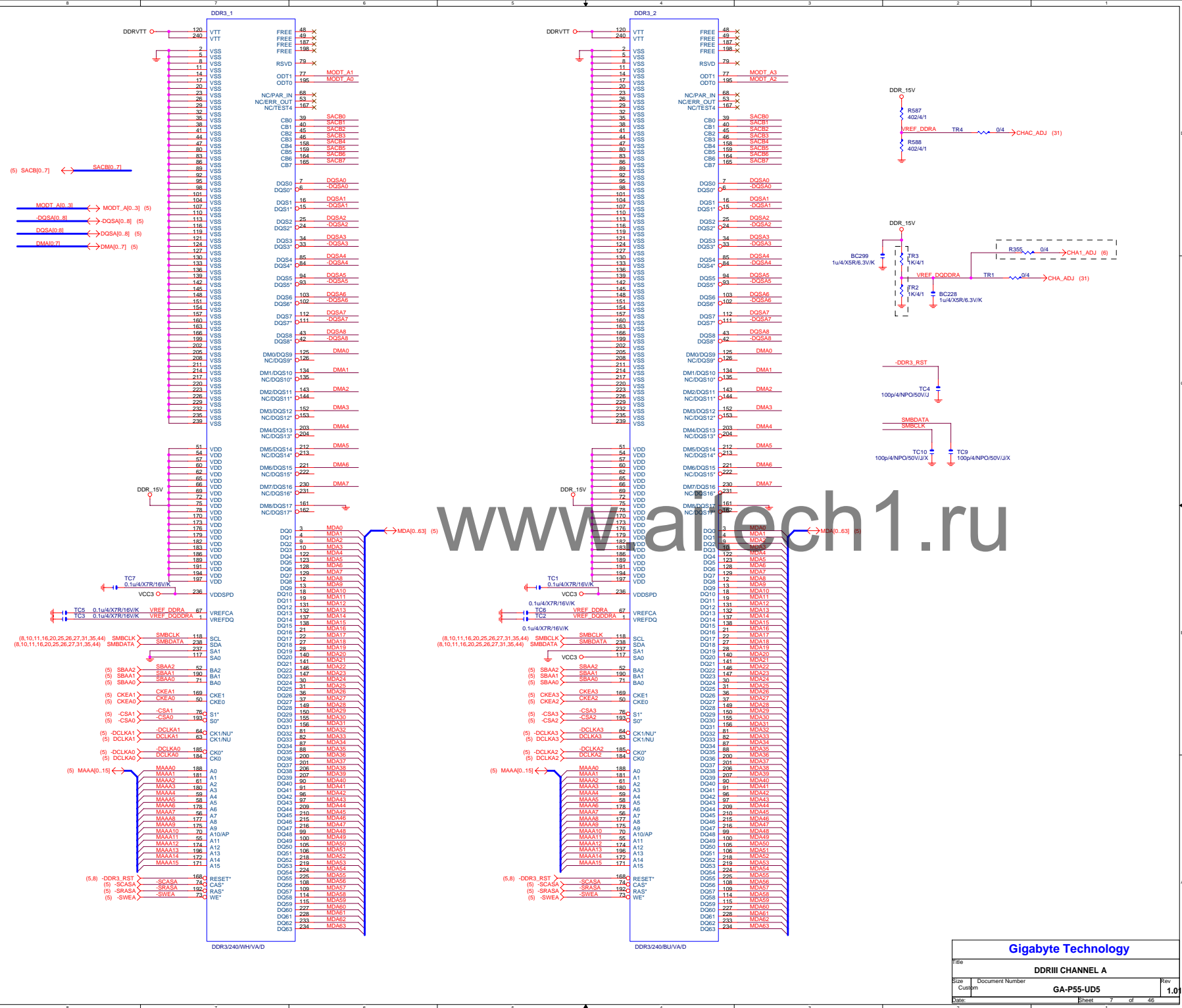
Gigabyte Technology			
Title			
Cover Sheet			
Size	Document Number	Rev	
Custom	GA-P55-UD5	1.01	
Date:	Monday, August 17, 2009	Sheet	1 of 46

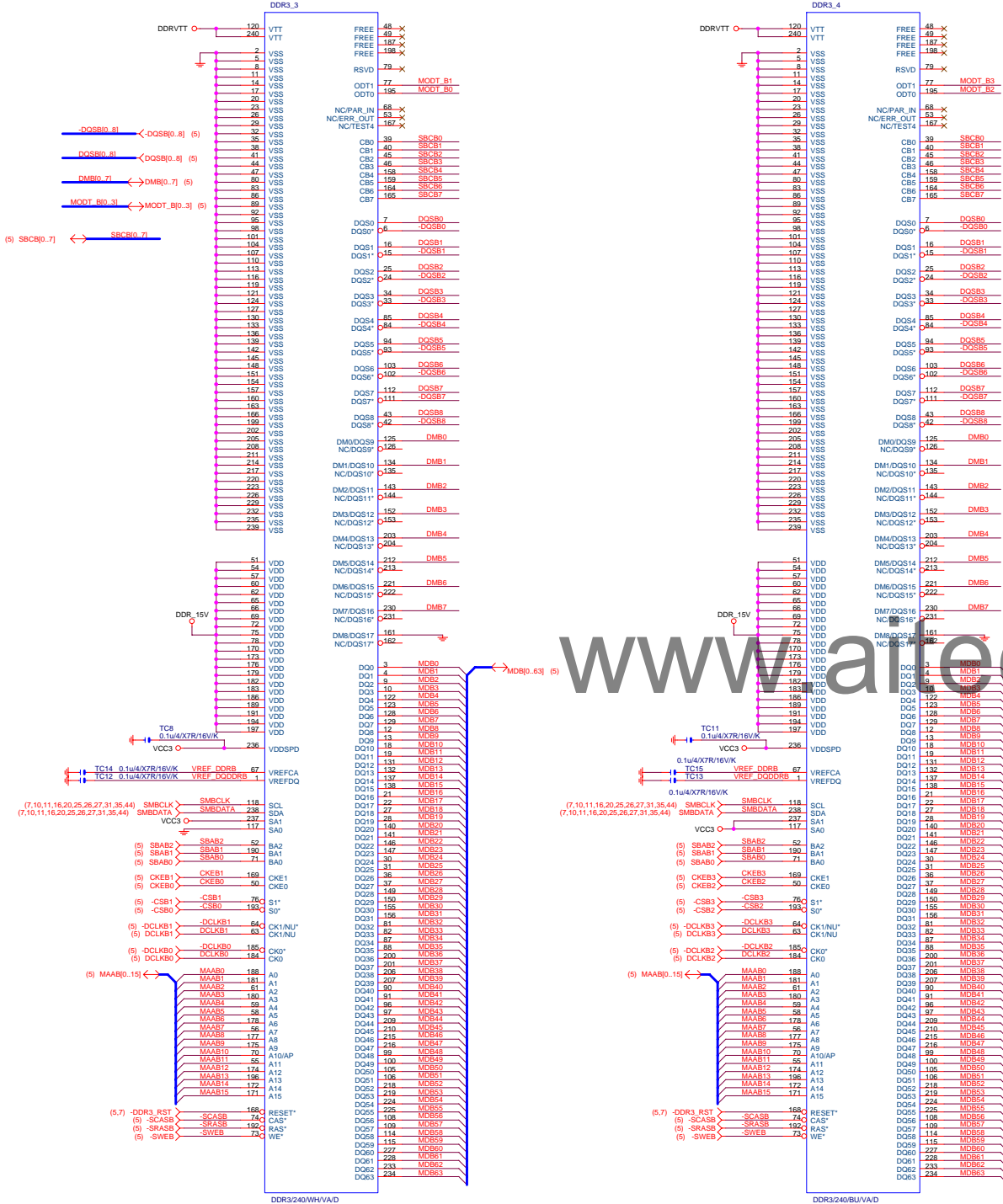
BLOCK DIAGRAM





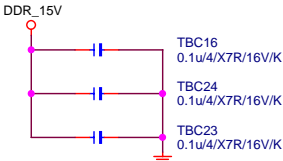




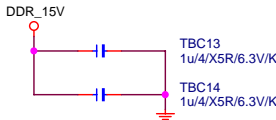
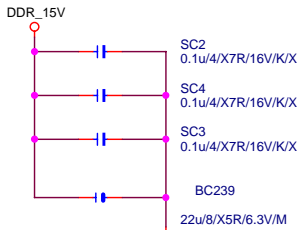
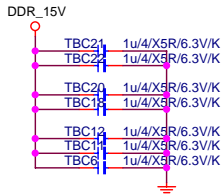
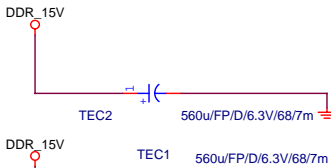
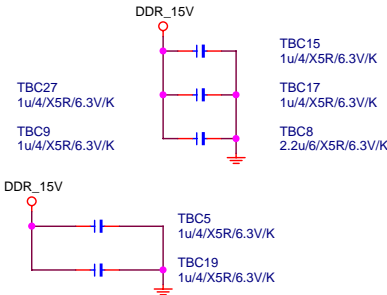
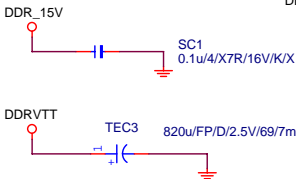
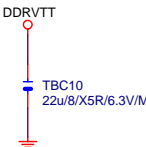
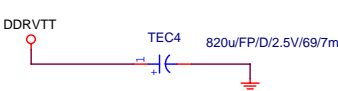
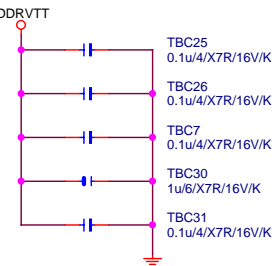


DDR TERMINATION
CHANNEL A/B

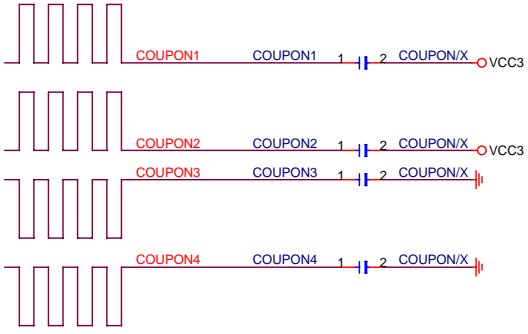
DDR15V Decouple



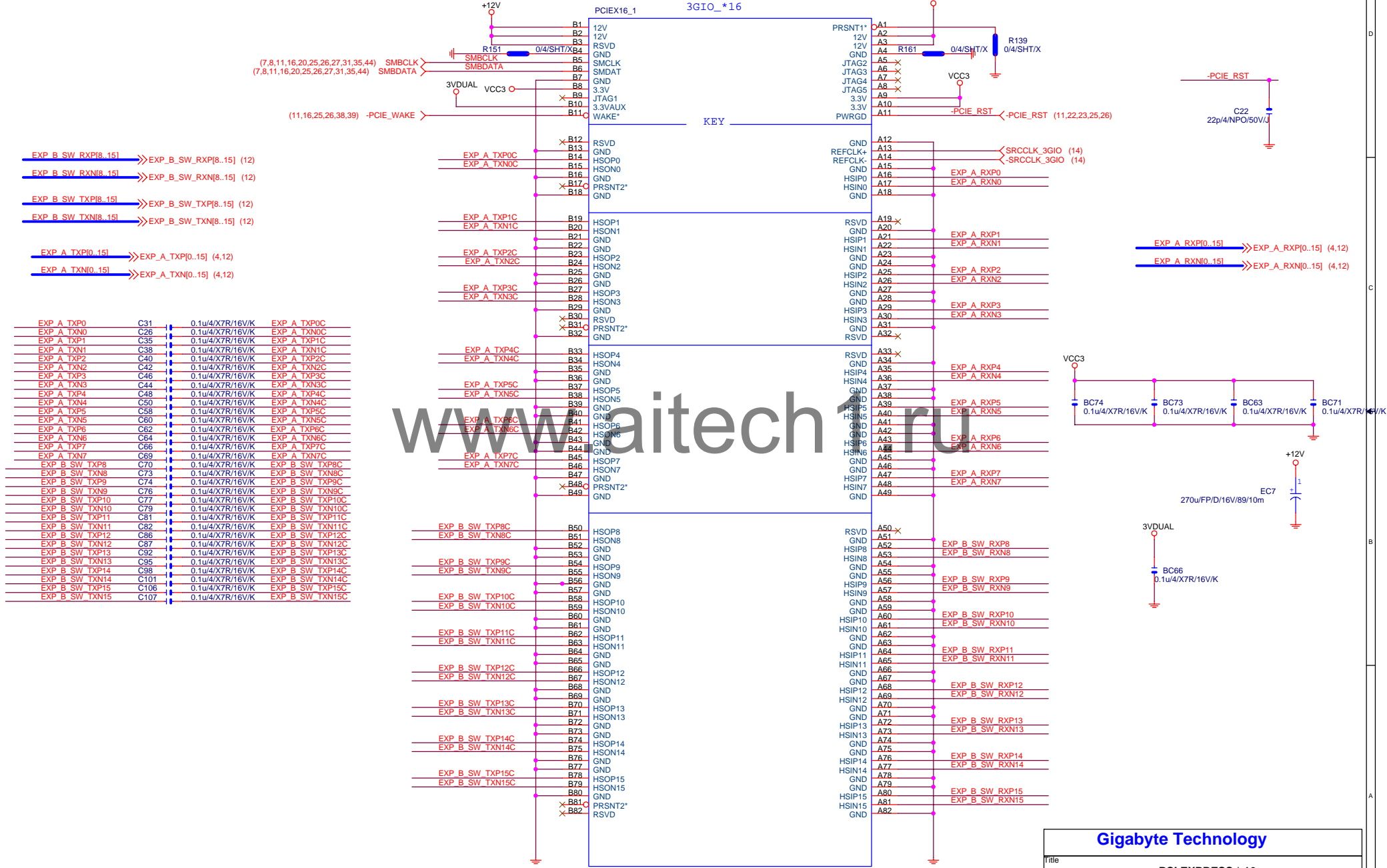
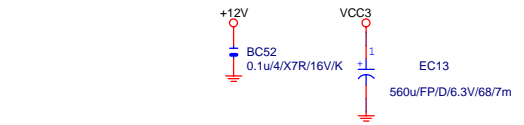
DDRVTT Decouple



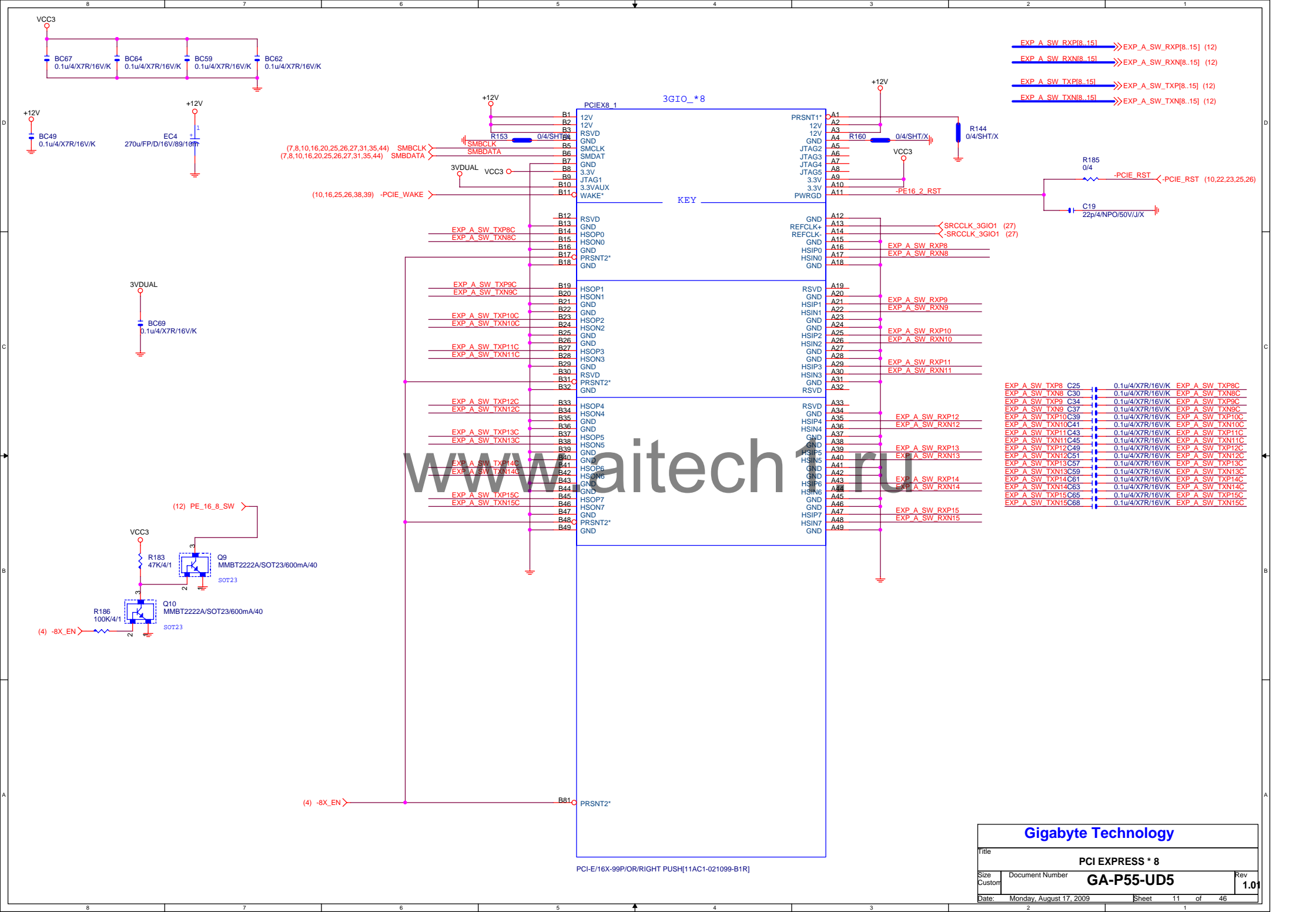
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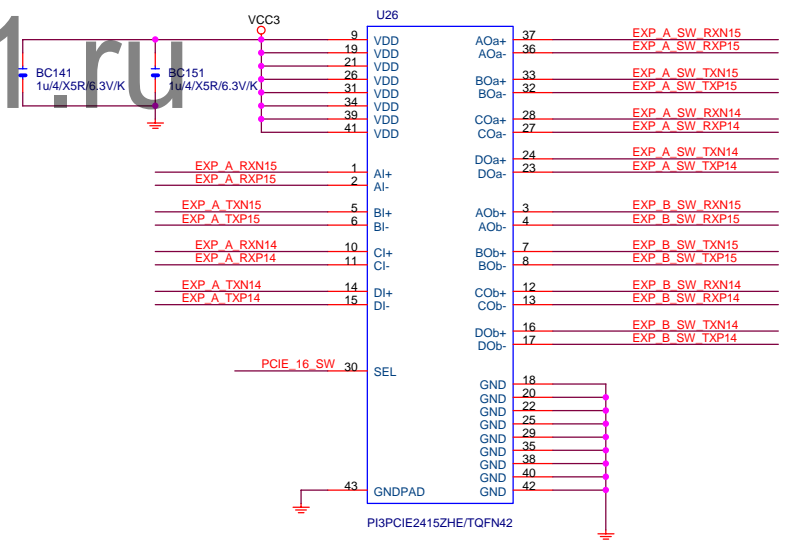
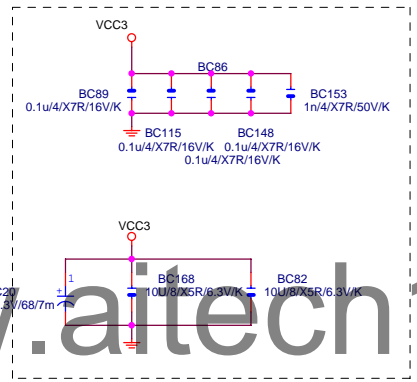
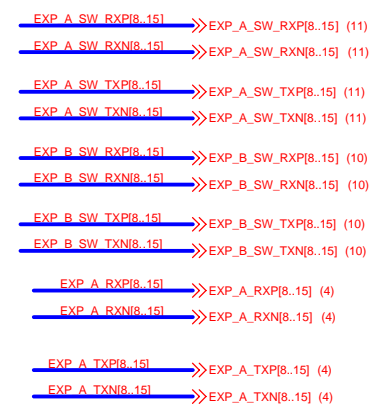
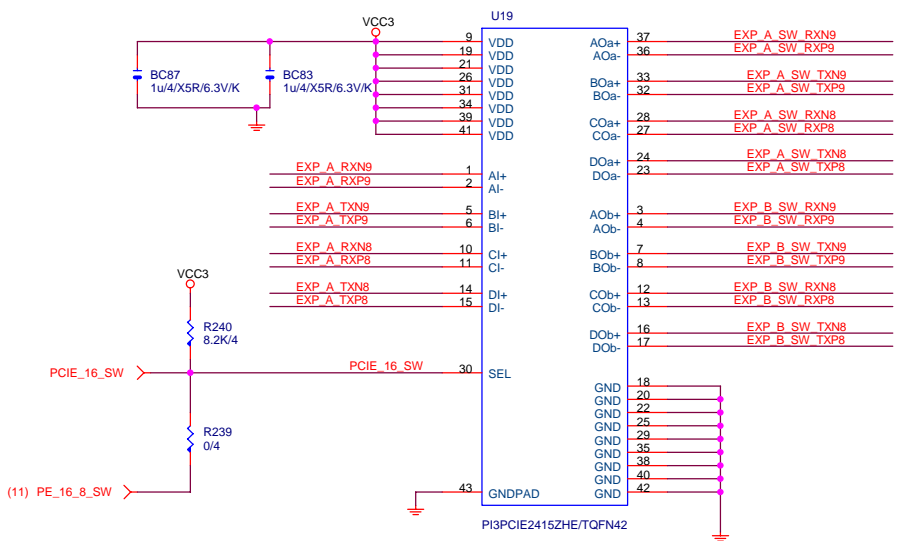


Gigabyte Technology		
Title		
DDRIII POWER CAP		
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EXP A TXP0	C31	0.1u4/X7R/16V/K	EXP A TXP0C
EXP A TXN0	C26	0.1u4/X7R/16V/K	EXP A TXN0C
EXP A TXP1	C35	0.1u4/X7R/16V/K	EXP A TXP1C
EXP A TXN1	C38	0.1u4/X7R/16V/K	EXP A TXN1C
EXP A TXP2	C40	0.1u4/X7R/16V/K	EXP A TXP2C
EXP A TXN2	C42	0.1u4/X7R/16V/K	EXP A TXN2C
EXP A TXP3	C46	0.1u4/X7R/16V/K	EXP A TXP3C
EXP A TXN3	C44	0.1u4/X7R/16V/K	EXP A TXN3C
EXP A TXP4	C48	0.1u4/X7R/16V/K	EXP A TXP4C
EXP A TXN4	C50	0.1u4/X7R/16V/K	EXP A TXN4C
EXP A TXP5	C58	0.1u4/X7R/16V/K	EXP A TXP5C
EXP A TXN5	C60	0.1u4/X7R/16V/K	EXP A TXN5C
EXP A TXP6	C62	0.1u4/X7R/16V/K	EXP A TXP6C
EXP A TXN6	C64	0.1u4/X7R/16V/K	EXP A TXN6C
EXP A TXP7	C66	0.1u4/X7R/16V/K	EXP A TXP7C
EXP A TXN7	C69	0.1u4/X7R/16V/K	EXP A TXN7C
EXP B SW TXP8	C70	0.1u4/X7R/16V/K	EXP B SW TXP8C
EXP B SW TXN8	C73	0.1u4/X7R/16V/K	EXP B SW TXN8C
EXP B SW TXP9	C74	0.1u4/X7R/16V/K	EXP B SW TXP9C
EXP B SW TXN9	C76	0.1u4/X7R/16V/K	EXP B SW TXN9C
EXP B SW TXP10	C77	0.1u4/X7R/16V/K	EXP B SW TXP10C
EXP B SW TXN10	C79	0.1u4/X7R/16V/K	EXP B SW TXN10C
EXP B SW TXP11	C81	0.1u4/X7R/16V/K	EXP B SW TXP11C
EXP B SW TXN11	C82	0.1u4/X7R/16V/K	EXP B SW TXN11C
EXP B SW TXP12	C86	0.1u4/X7R/16V/K	EXP B SW TXP12C
EXP B SW TXN12	C87	0.1u4/X7R/16V/K	EXP B SW TXN12C
EXP B SW TXP13	C92	0.1u4/X7R/16V/K	EXP B SW TXP13C
EXP B SW TXN13	C95	0.1u4/X7R/16V/K	EXP B SW TXN13C
EXP B SW TXP14	C98	0.1u4/X7R/16V/K	EXP B SW TXP14C
EXP B SW TXN14	C101	0.1u4/X7R/16V/K	EXP B SW TXN14C
EXP B SW TXP15	C106	0.1u4/X7R/16V/K	EXP B SW TXP15C
EXP B SW TXN15	C107	0.1u4/X7R/16V/K	EXP B SW TXN15C

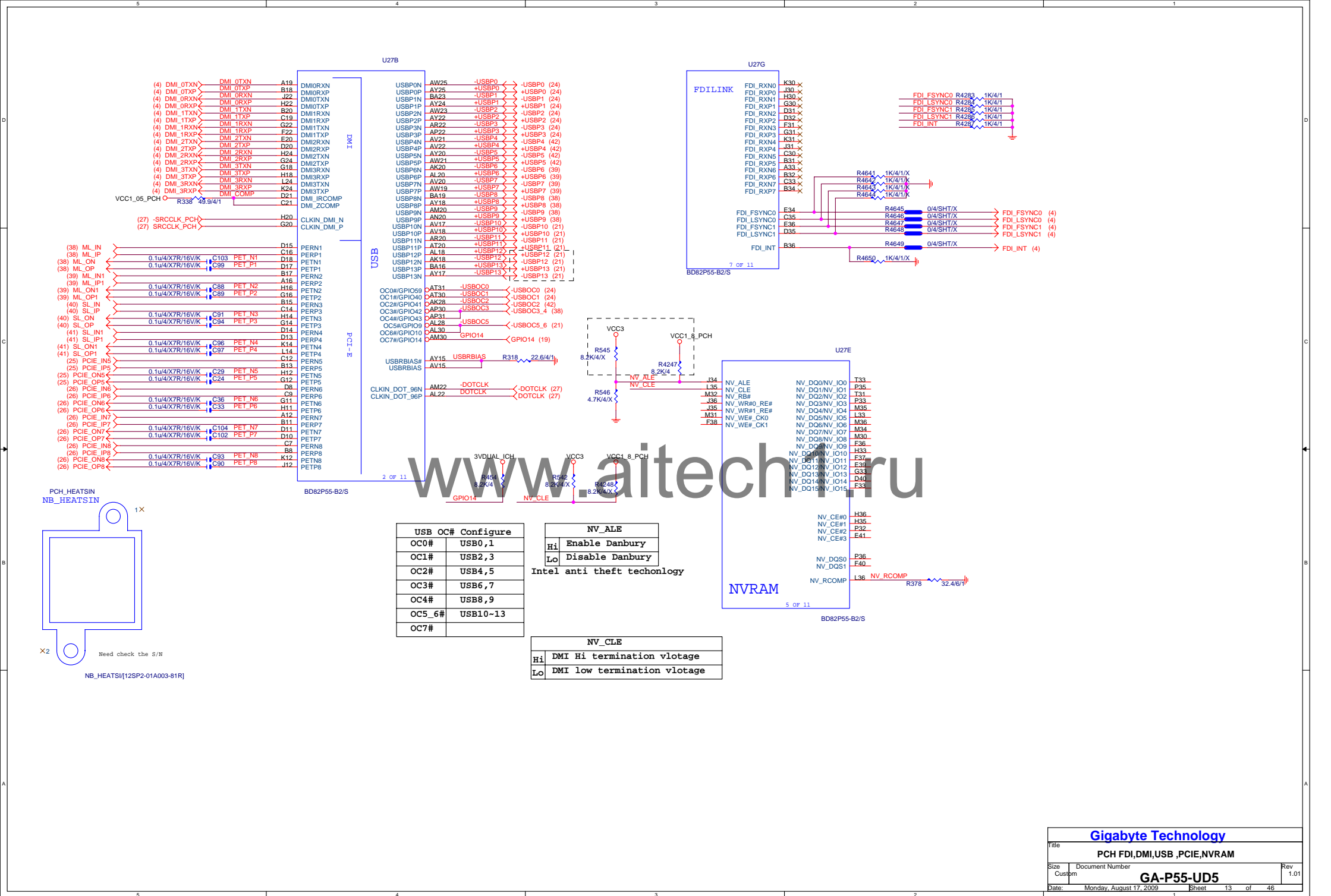


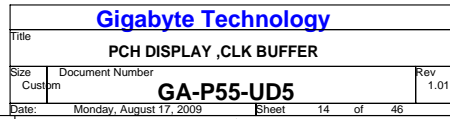


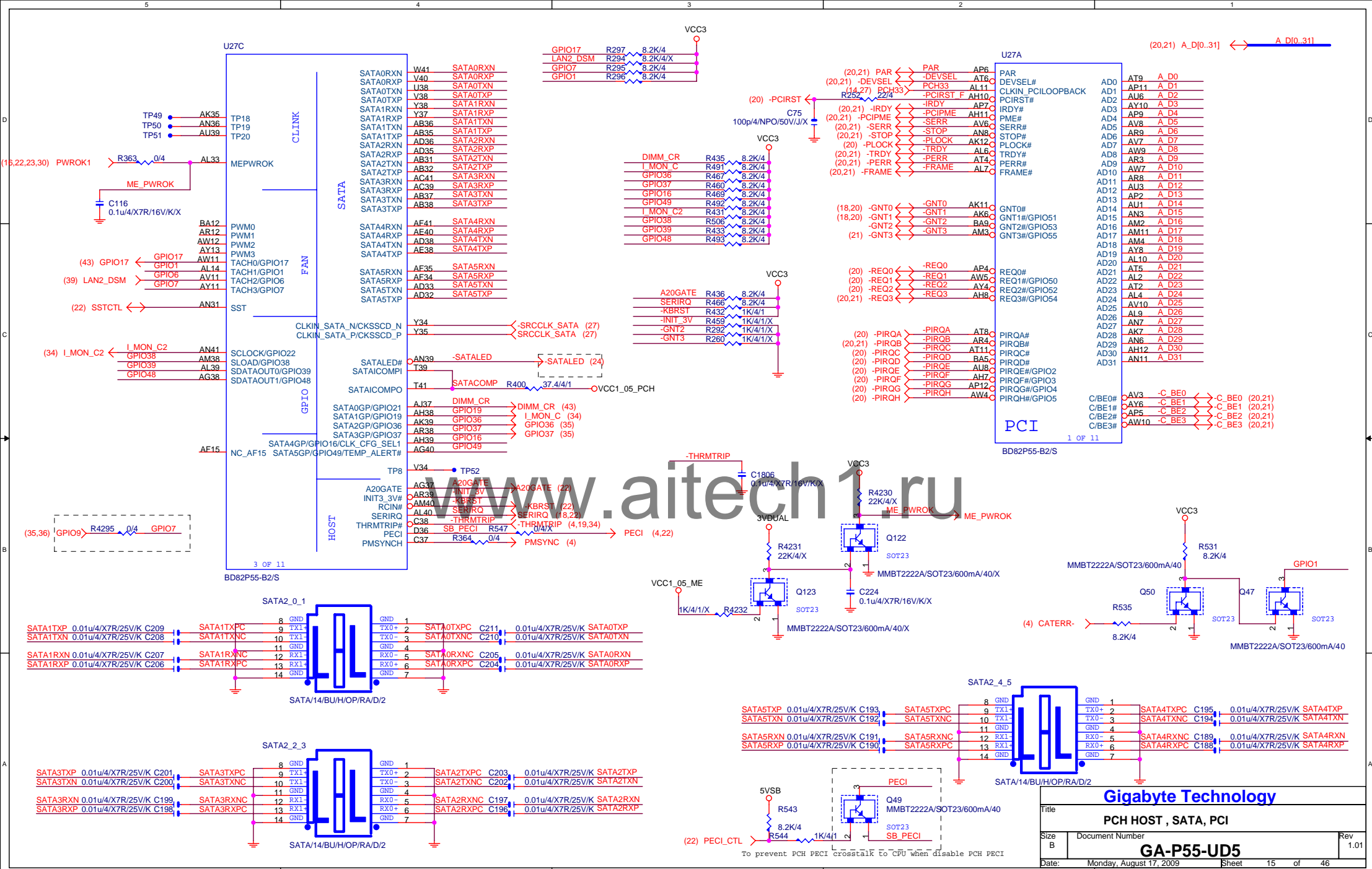
Function	SEL
xI--> xOa	L
xI--> xOb	H

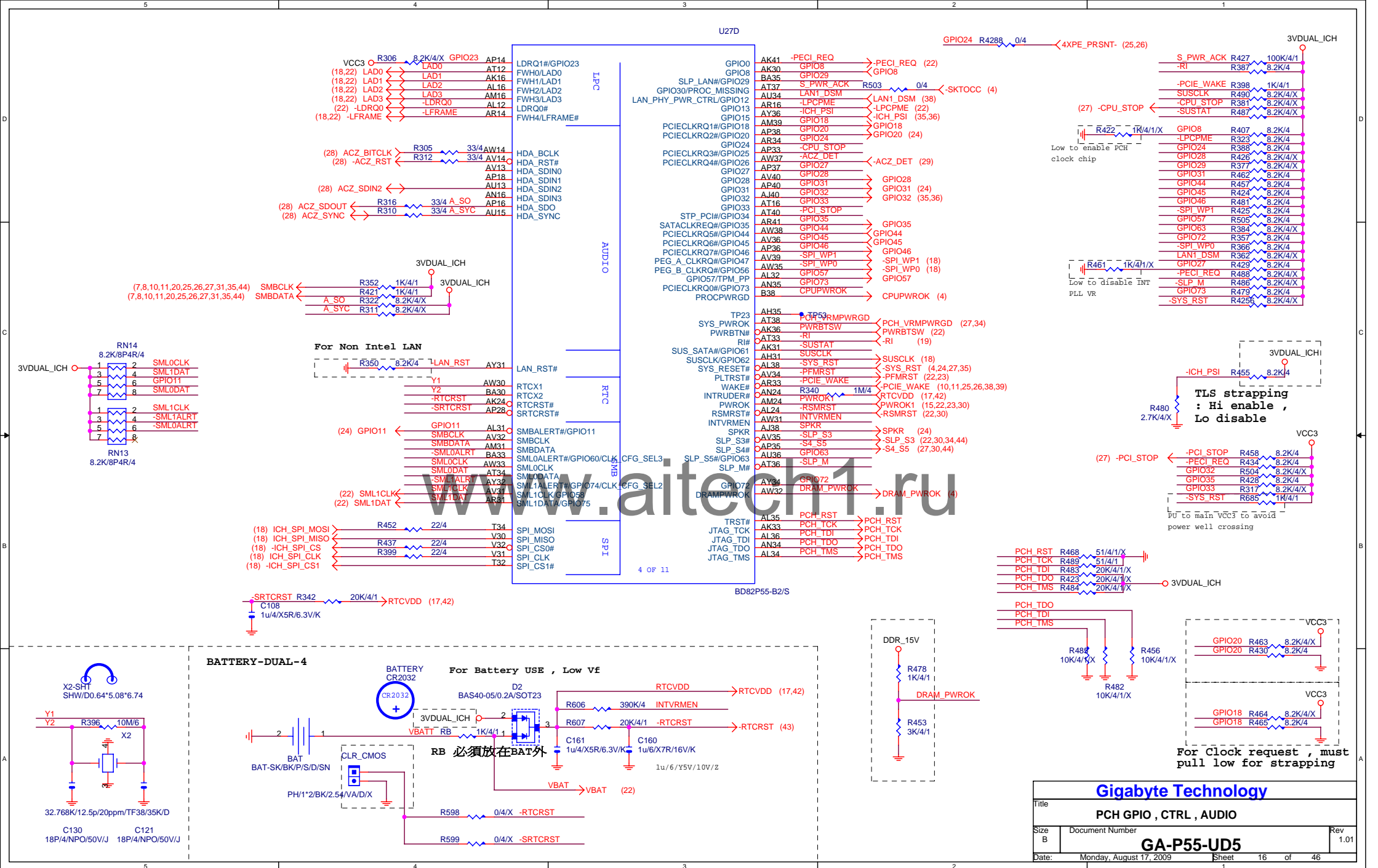
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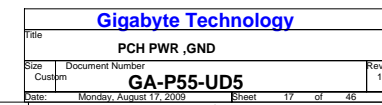
Close the Switch IC

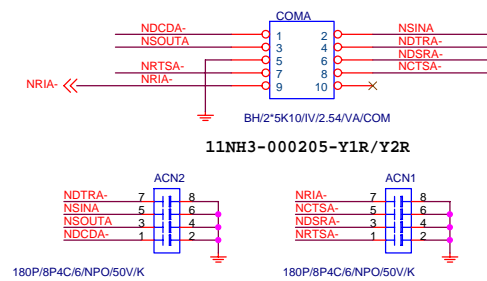
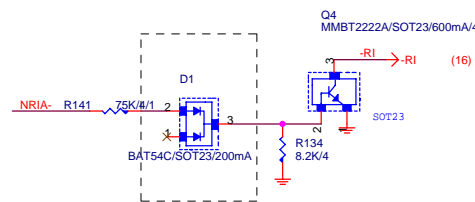
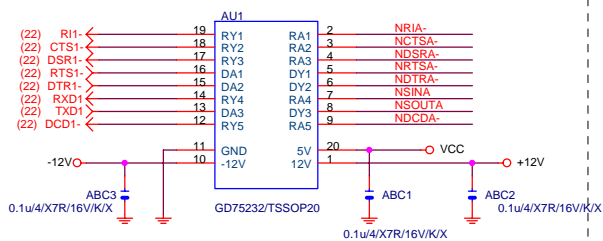




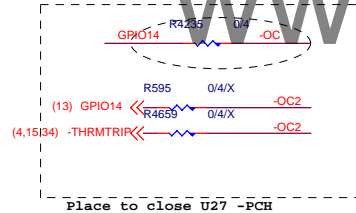
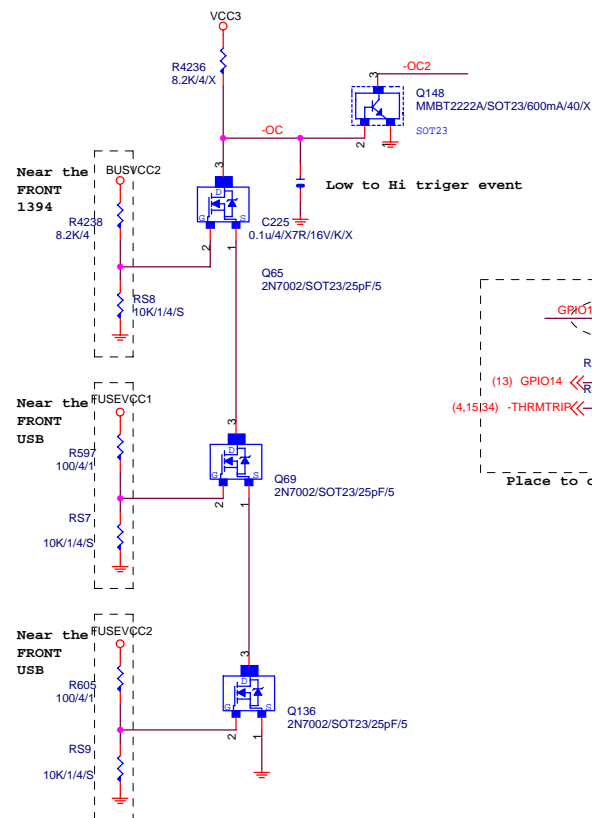




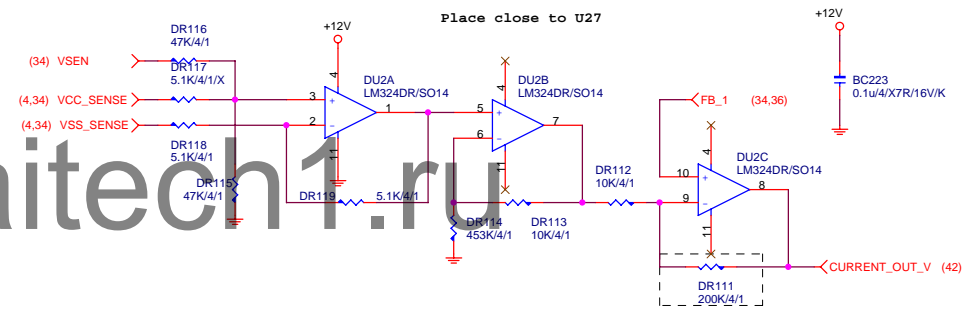




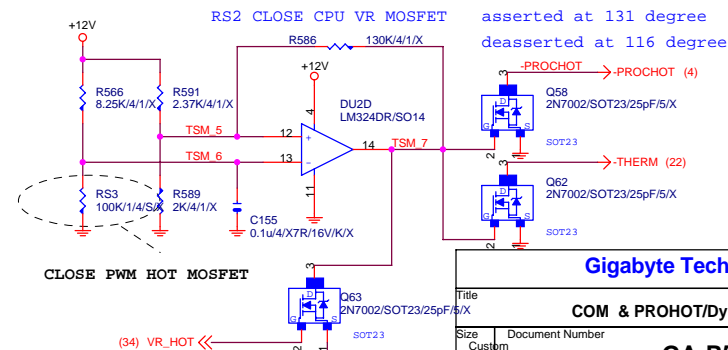
Voltage Protector



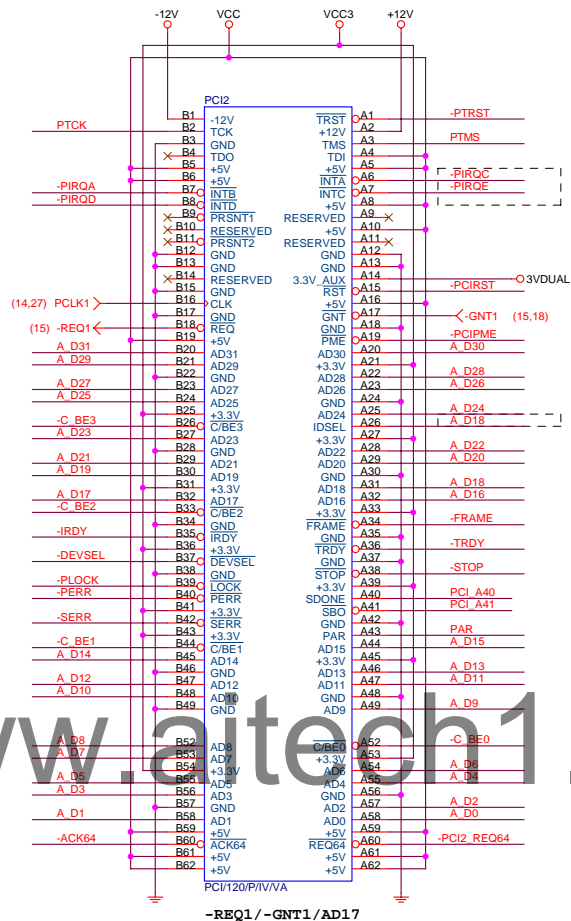
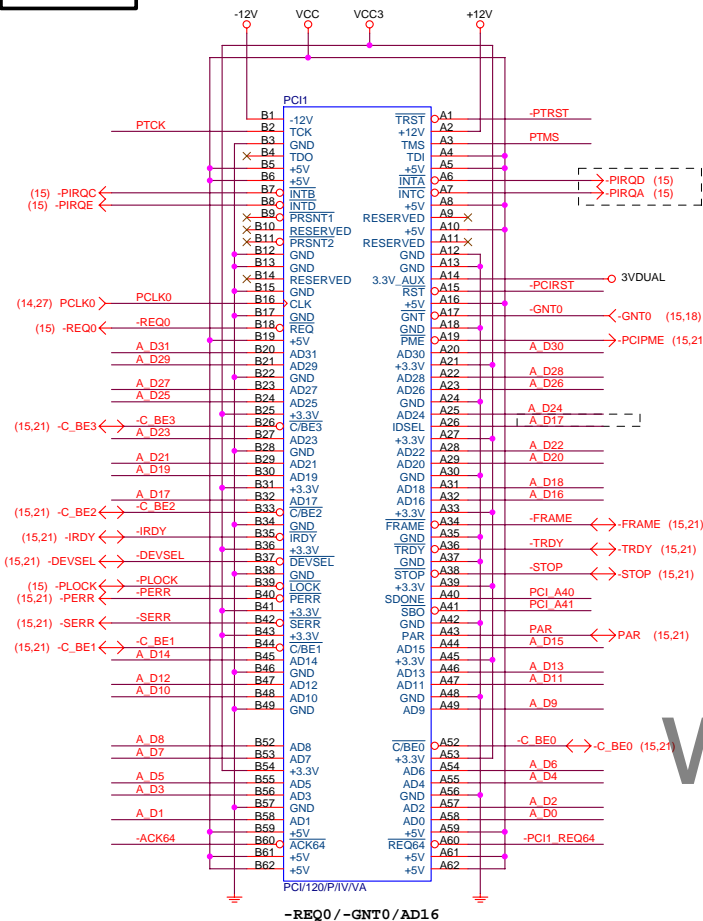
DYNAMIC CURRENT OC



-PROHOT



PCI1,2 SLOT



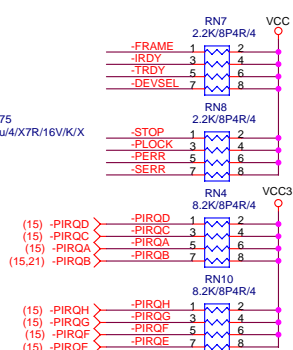
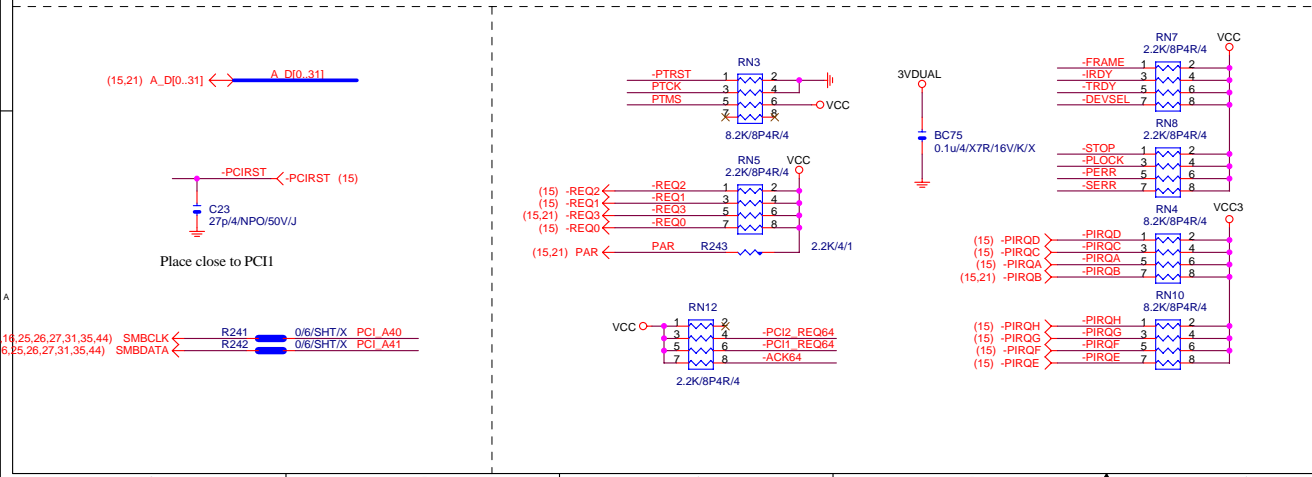
VCC

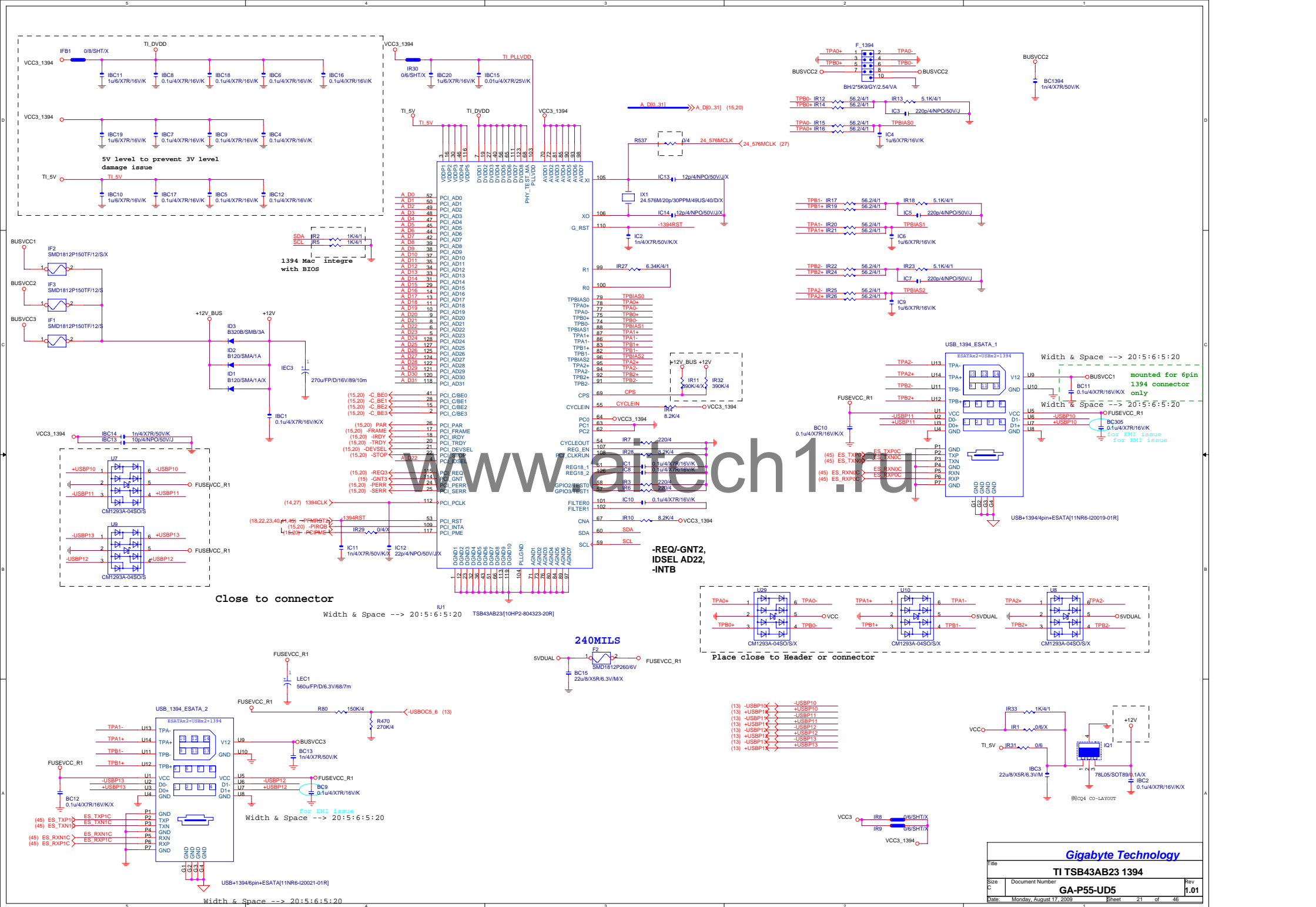
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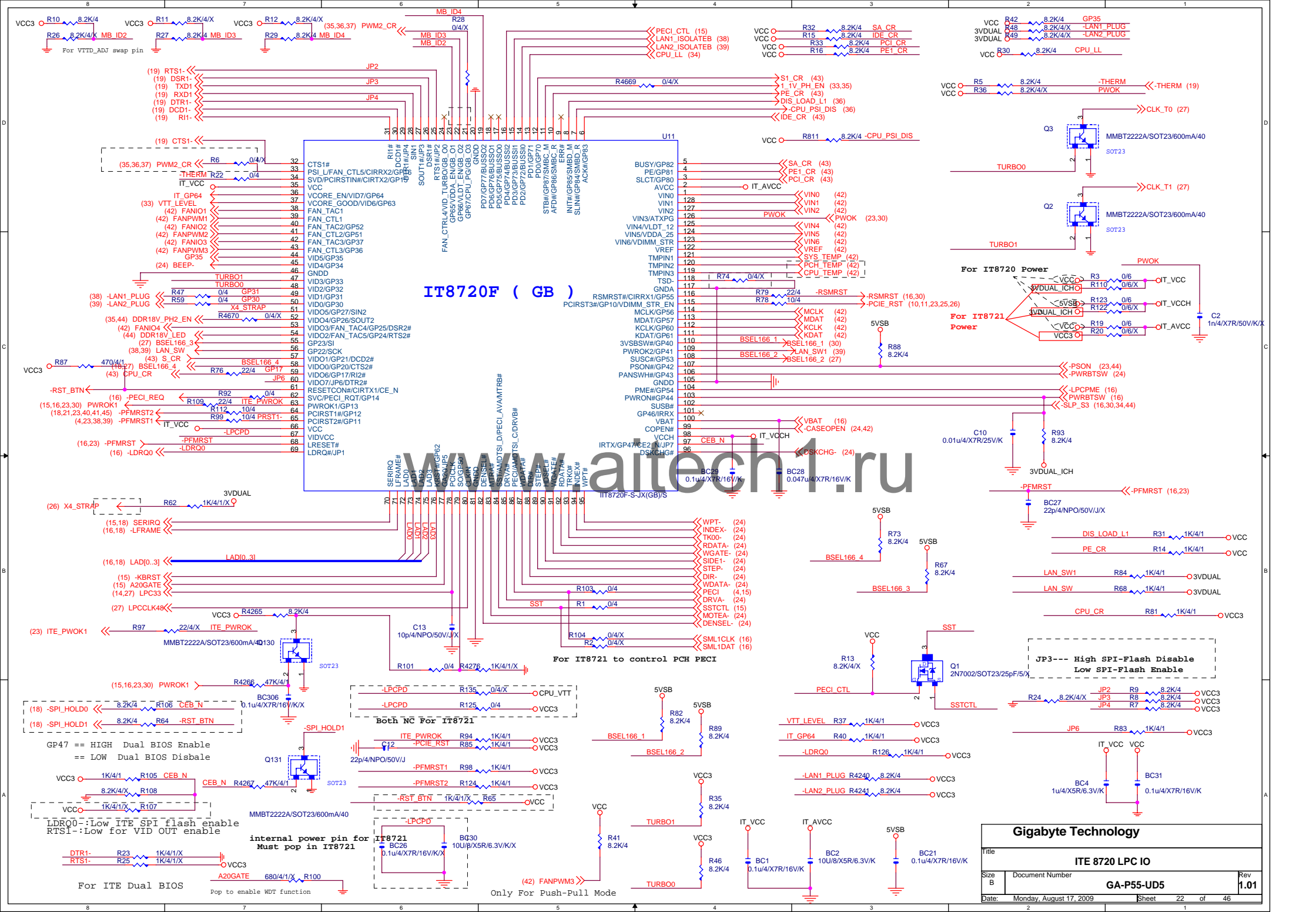
EC51

560u/FP/D/6.3V/687m

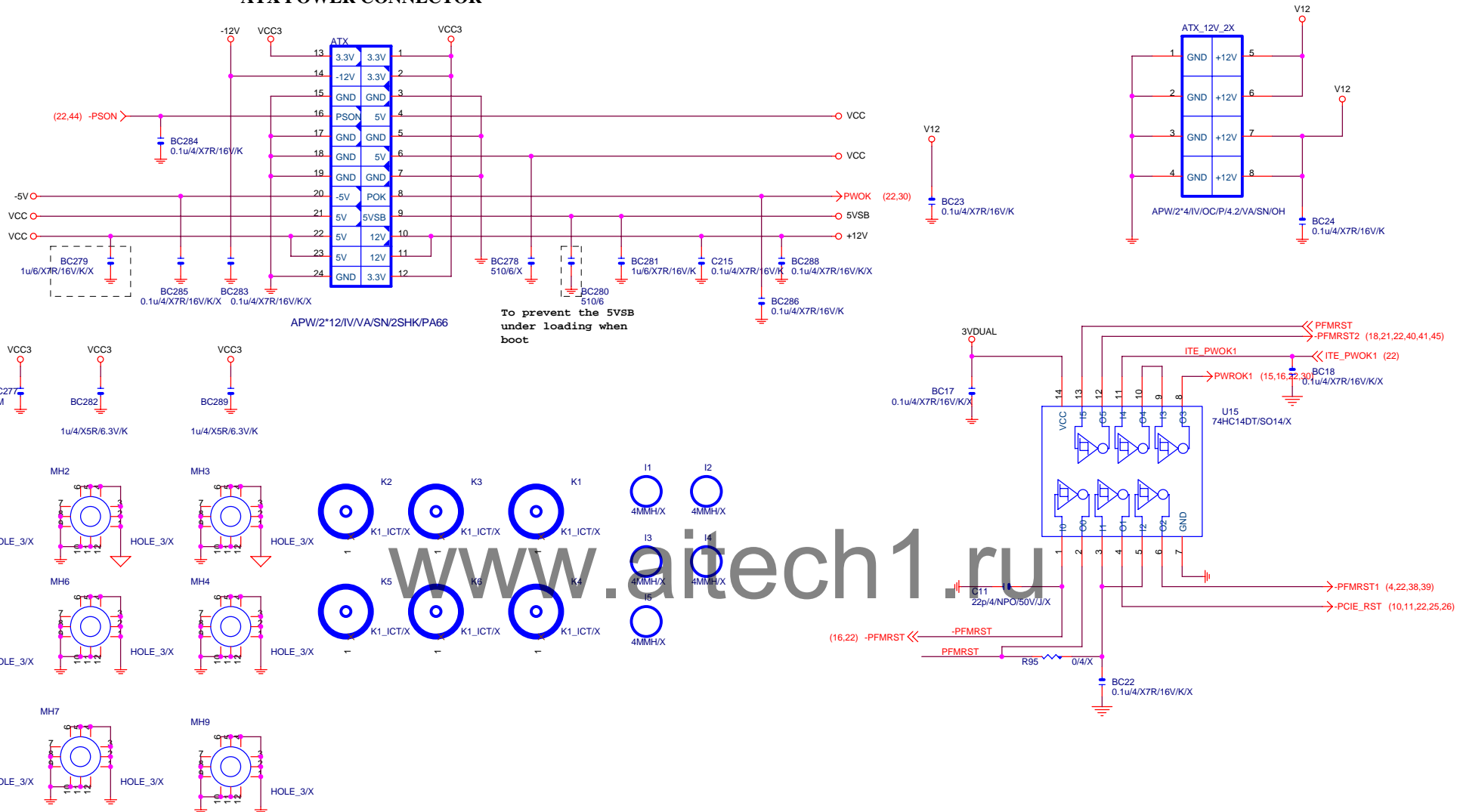
Pinout diagram for the ADXL345 module. The diagram shows a 16-pin header with pins labeled A D10, B48, B49, A D8, A D7, B52, B53, B54, A D6, B55, A D5, B56, A D3, AD12, AD10, GND, AD11, GND, AD9, A48, A49, A D9, A D9, -C BE0, +3.3V, A D8, A D4, and A52, A53, A54, A55, A56. The pins are connected to the ADXL345 chip. The diagram is overlaid with a large watermark 'www.aitech1.ru'.

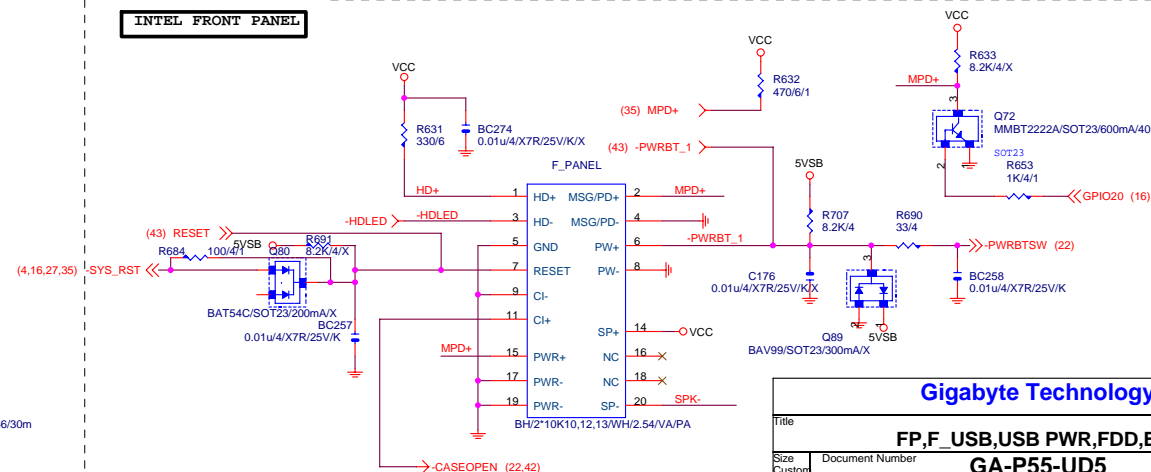
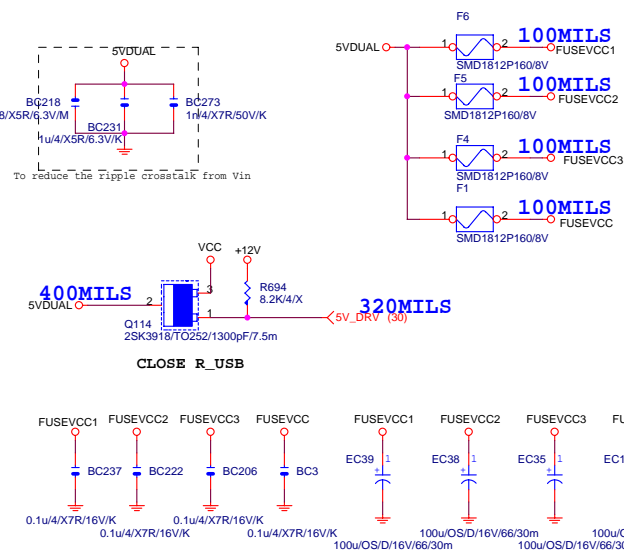
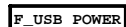
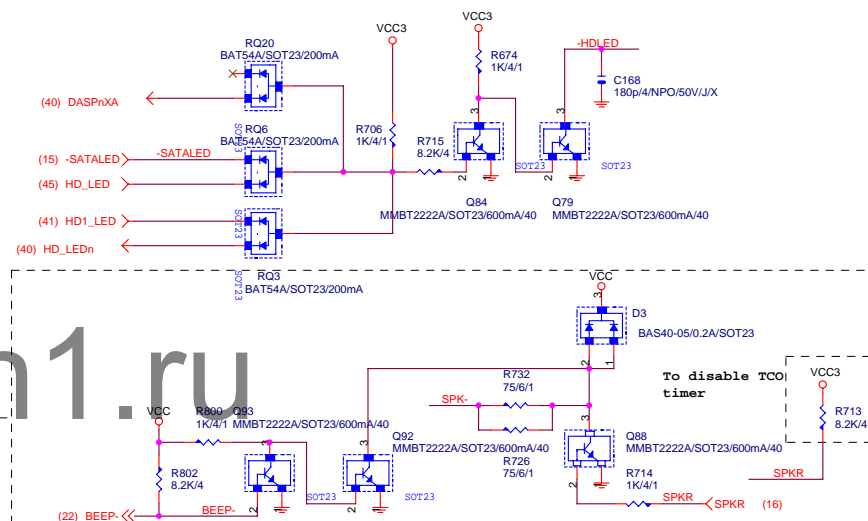
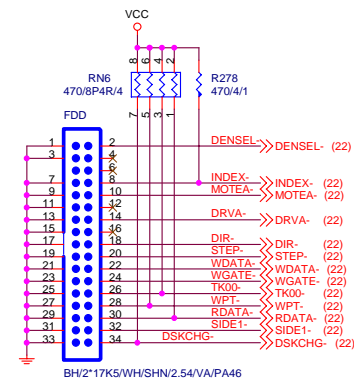
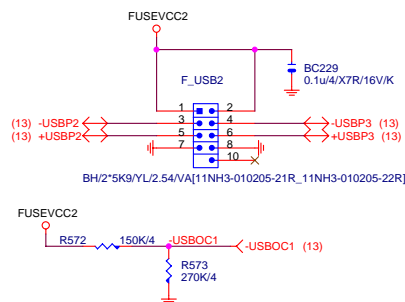
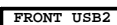
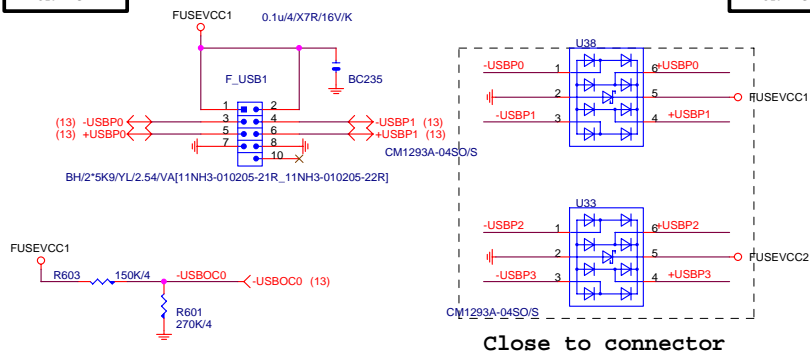
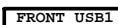




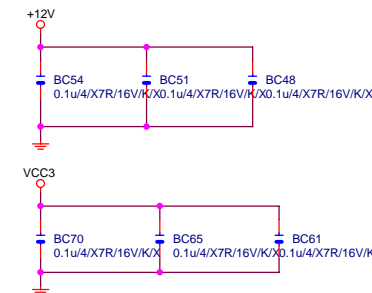
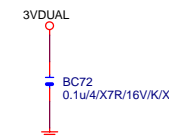
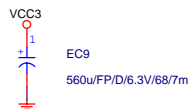
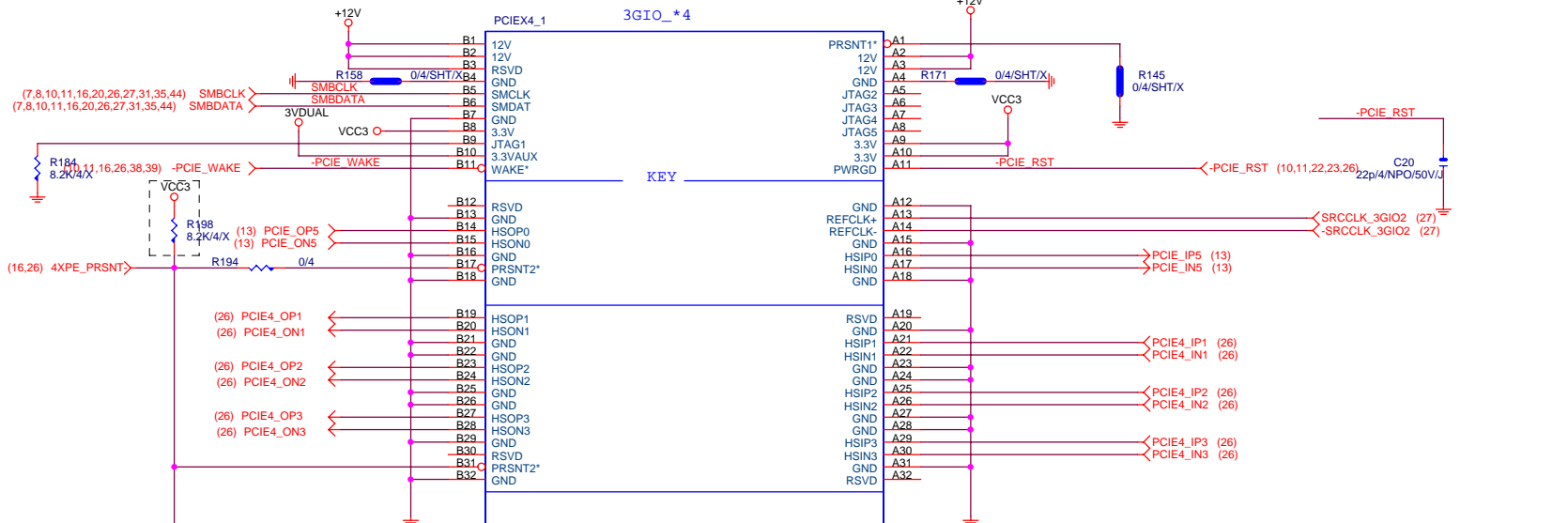


ATX POWER CONNECTOR





Gigabyte Technology			
Title FP,F_USB,USB PWR,FDD,BZ			
Size Custom	Document Number	GA-P55-UD5	Rev 1.01
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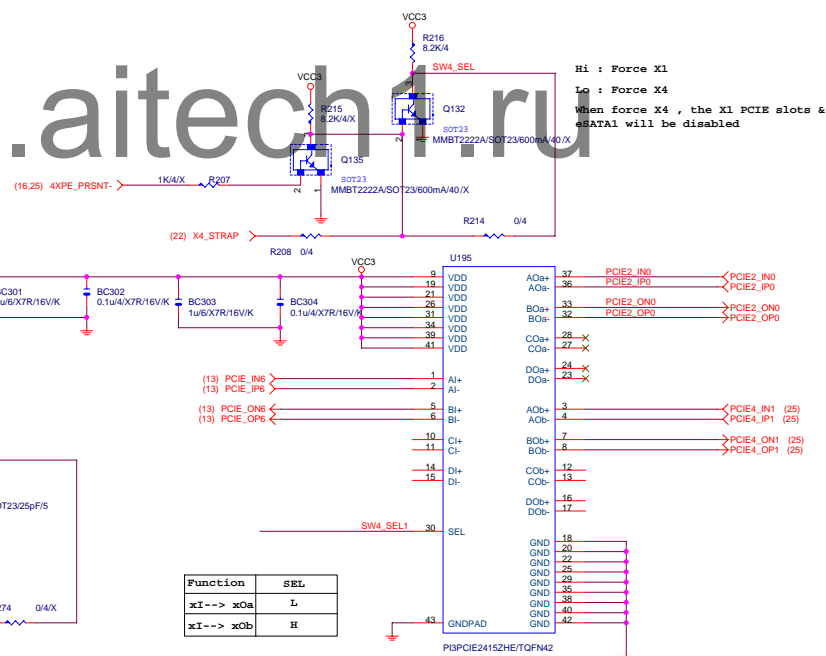
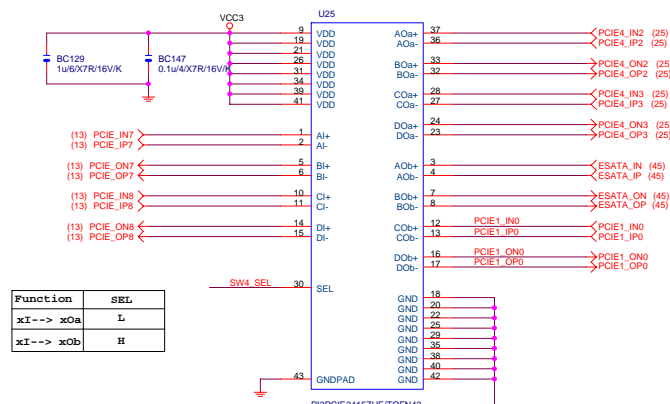


Color must
be Orange

PCI-E/16X-65P/OR/RIGHT PUSH[11AC1-021065-B1R]

Gigabyte Technology			
Title			
PCI EXPRESS X 4 PORT			
Size	Document Number	Rev	
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For Vih level consideration





(14:20) PCLK0 > PCHCLK14 C125 10p/4/NPO/50V/JJX
 (14:15) PCH33 > PCLK0 C131 10p/4/NPO/50V/JJX
 (14:22) LPC33 > PCH33 C122 10p/4/NPO/50V/JJX
 (14:20) PCLK1 > LPC33 C124 10p/4/NPO/50V/JJX
 > PCLK1 C119 10p/4/NPO/50V/JJX
 > LPCCLK48 C118 10p/4/NPO/50V/JJX
 (14:21) 1394CLK > LPCCLK48 C123 10p/4/NPO/50V/JJX

Title			
CK505 CLK GEN			
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co-layout

(29) SPDIFO2_HDMI

(16) ACZ_SDOOUT

(16) ACZ_BITCLK

(16) ACZ_SDI2

(16) ACZ_SYNC

(16) -ACZ_RST

CR14/CBC4 close to SouthBridge

VCC3

CR65 2.2/8

CBC40

22u/8/X5R/6.3V/M

CR57 8.2/4

CR58 8.2/4

CR59 0/4

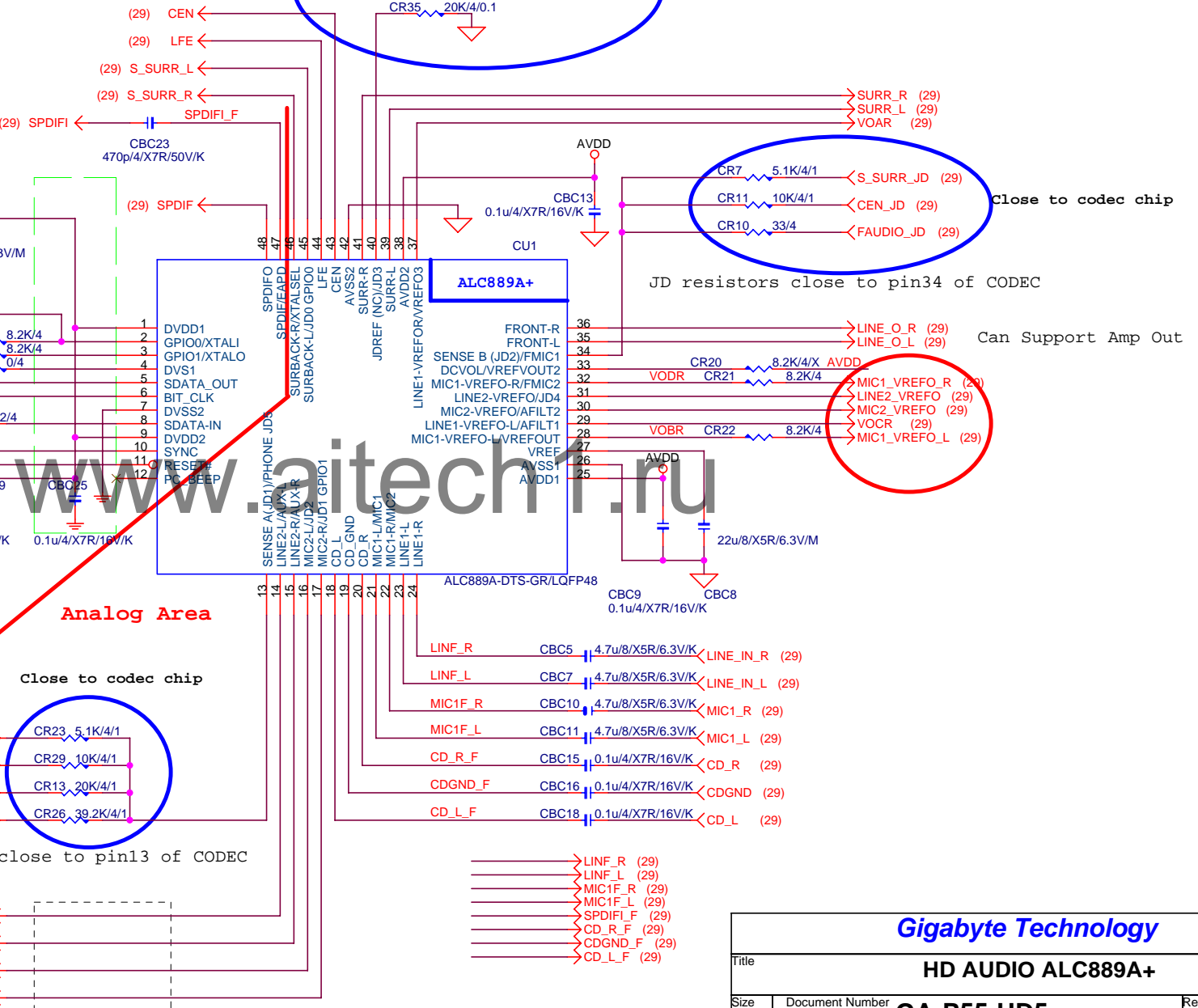
CR60 22/4

CR61 22/4

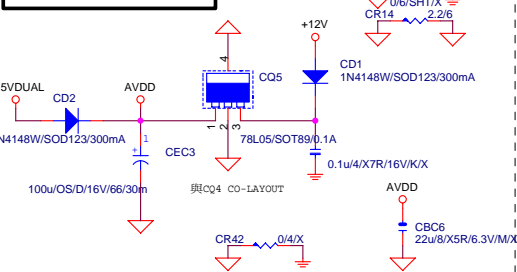
CR28 22p/4/NP0/50V/J/X

CBC29

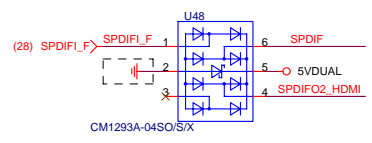
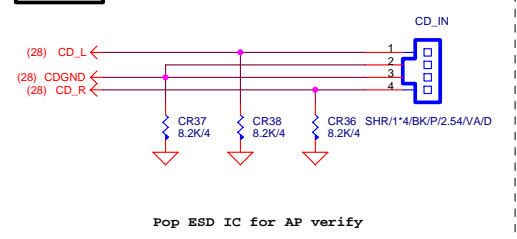
0.1u/4/X7R/16V/K



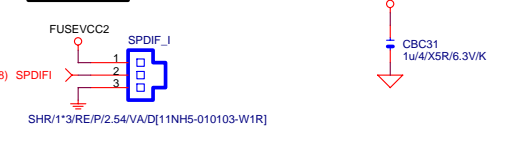
CODEC POWER/EMI PAD



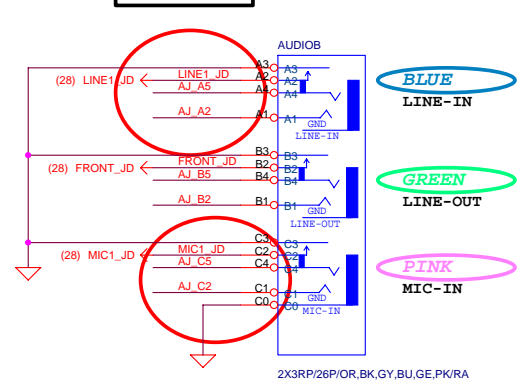
CD IN



SPDIF_IN



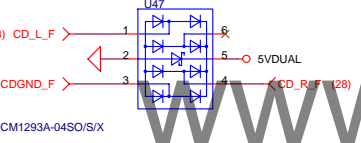
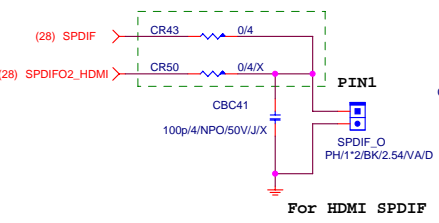
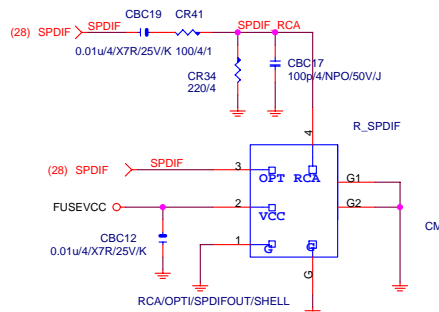
AZALIA JACK



BLUE
LINE-IN

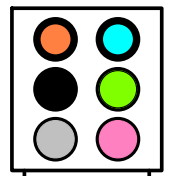
GREEN
LINE-OUT

PINK
MIC-IN

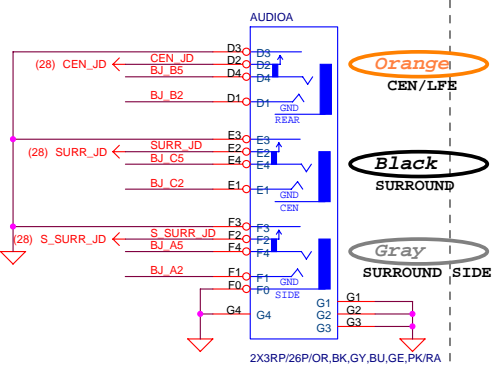


Audio precision quality is bad when ESD IC mount

BTX AZALIA CONNECTOR



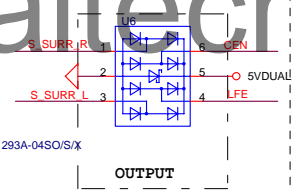
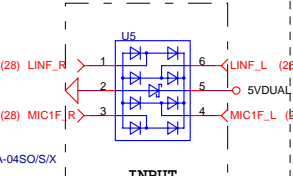
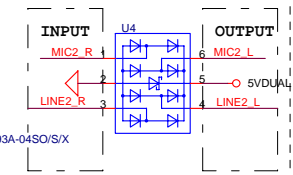
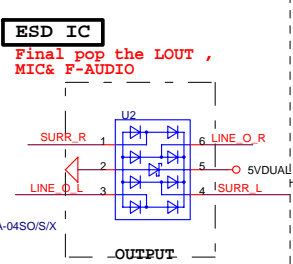
11NR6-403007-21R



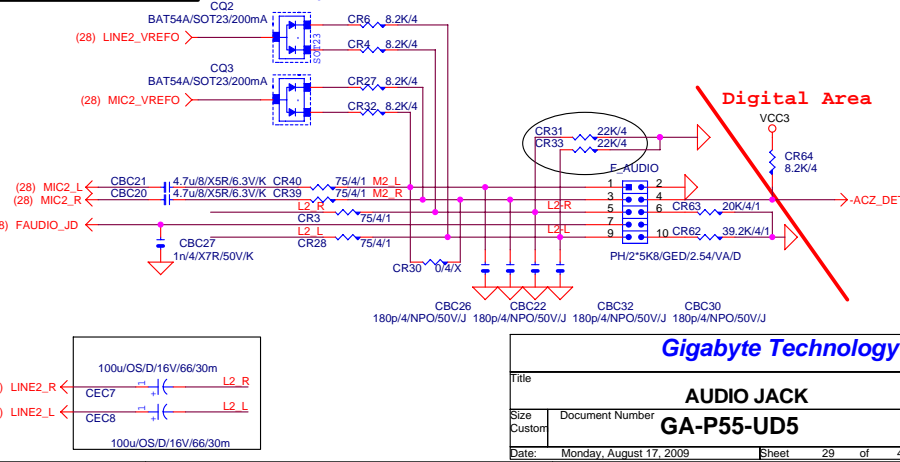
Orange
CEN/LFE

Black
SURROUND

Gray
SURROUND SIDE



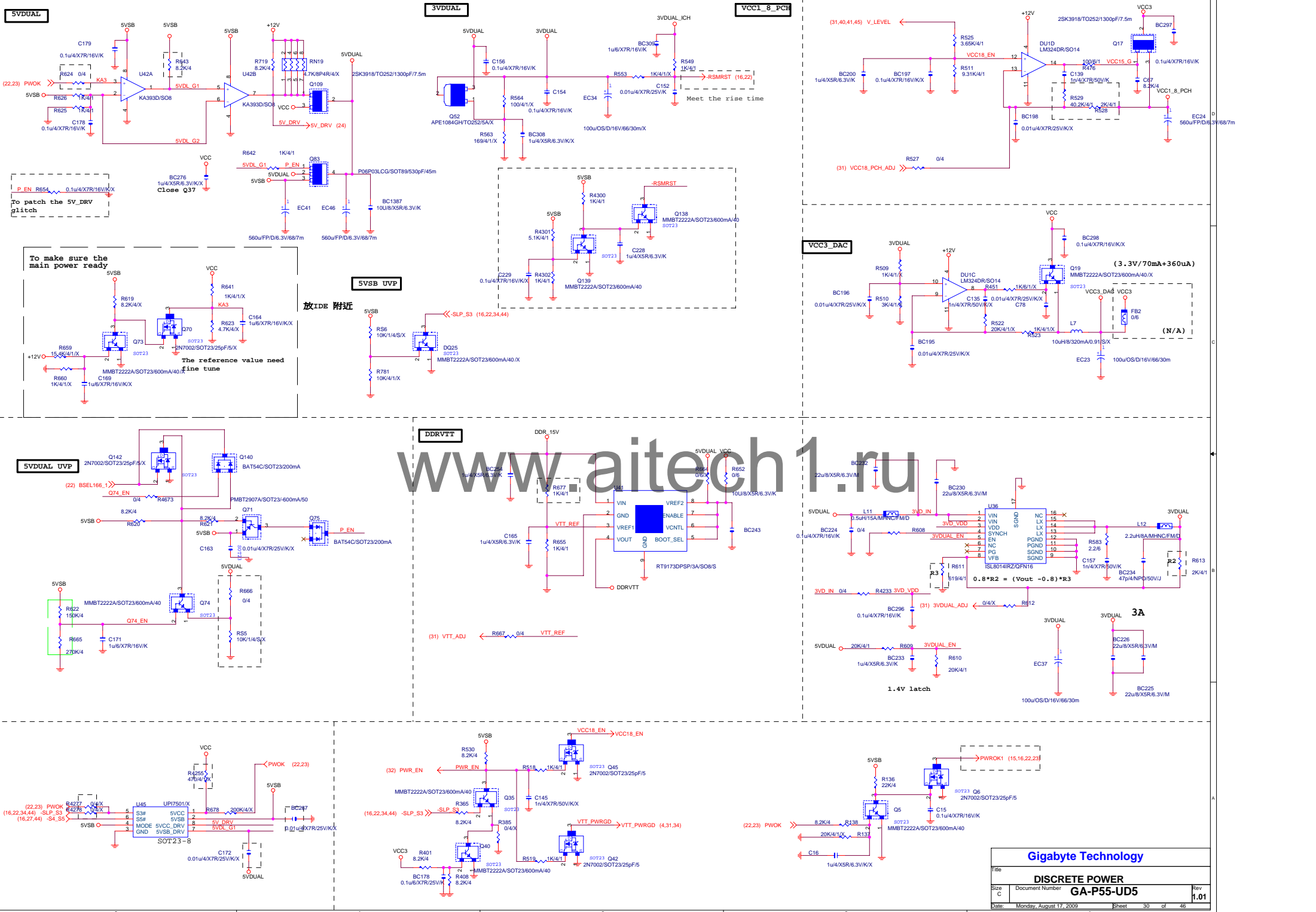
AZALIA FRONT PANEL

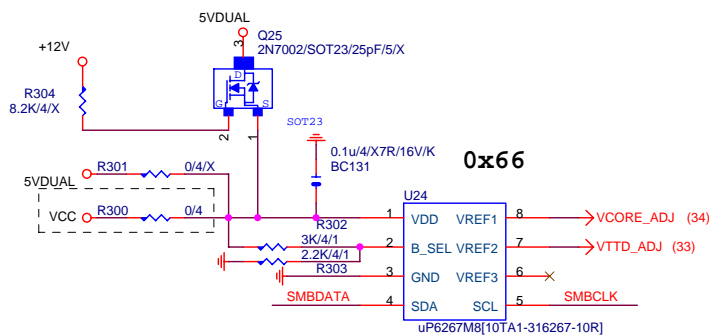
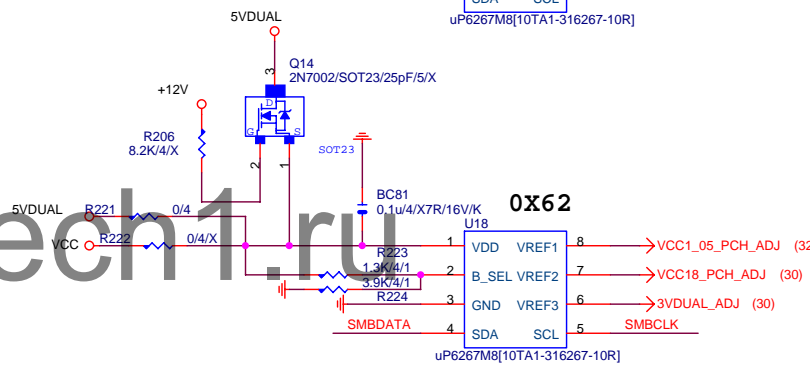
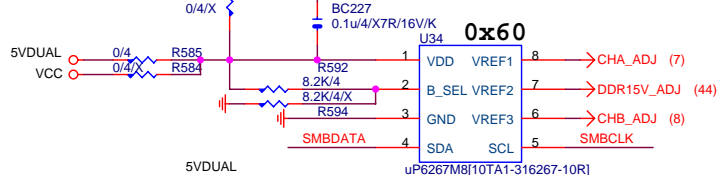
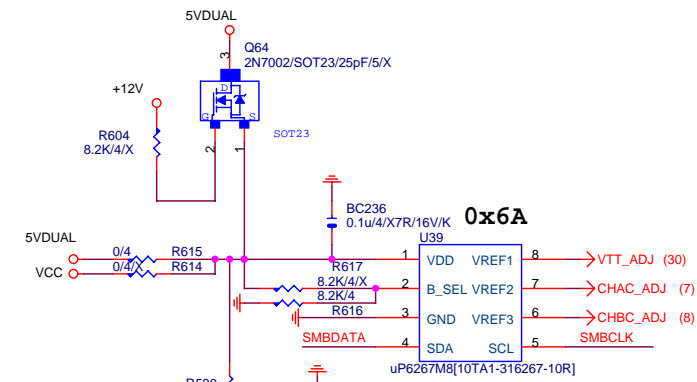
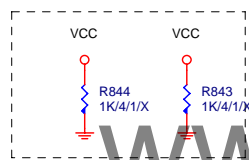
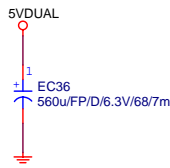
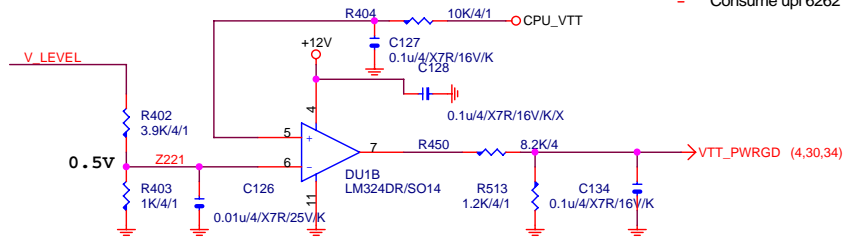
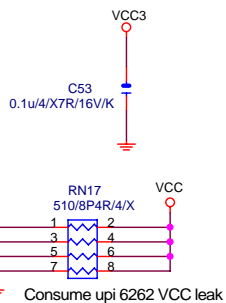
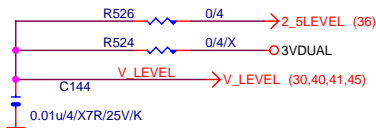
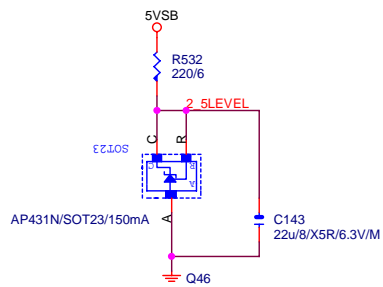


Digital Area

Gigabyte Technology

Title			AUDIO JACK
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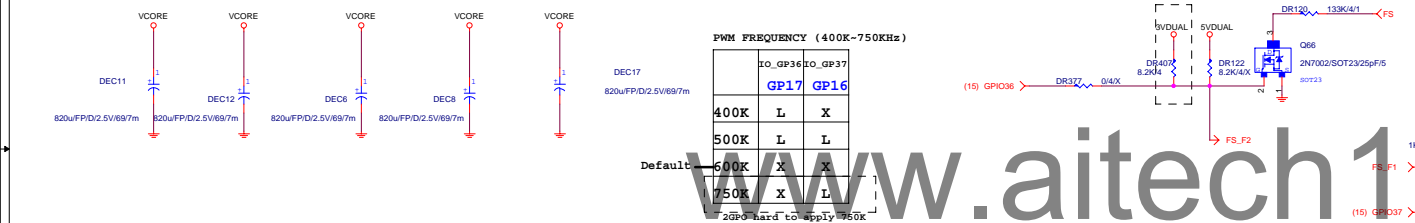


SMBCLK ↔ SMBCLK (7,8,10,11,16,20,25,26,27,35,44)
SMBDATA ↔ SMBDATA (7,8,10,11,16,20,25,26,27,35,44)

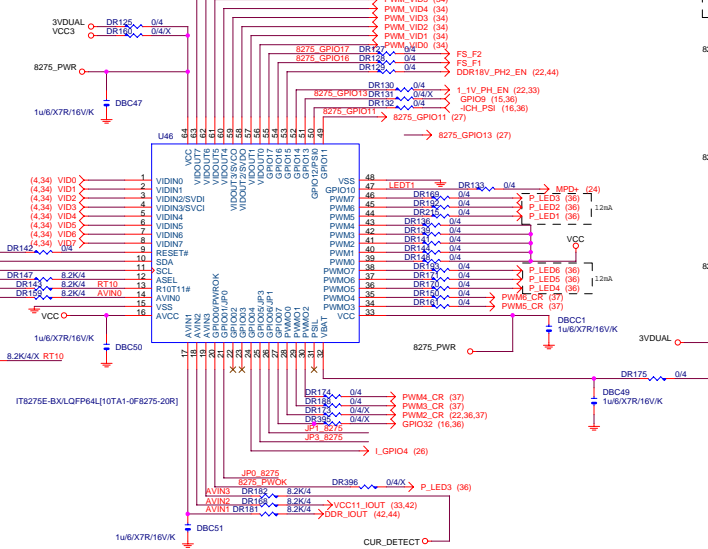
Gigabyte Technology			
Title	DISCRETE POWER II		
Size	Document Number	Rev	
B		GA-P55-UD5	
Date:	Monday, August 17, 2009	Sheet	31 of 46

1.01



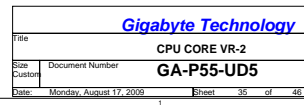


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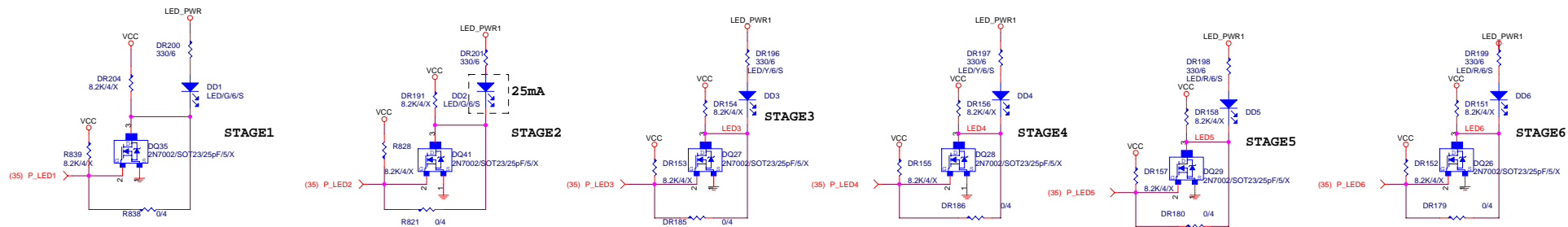


For new BX 8275

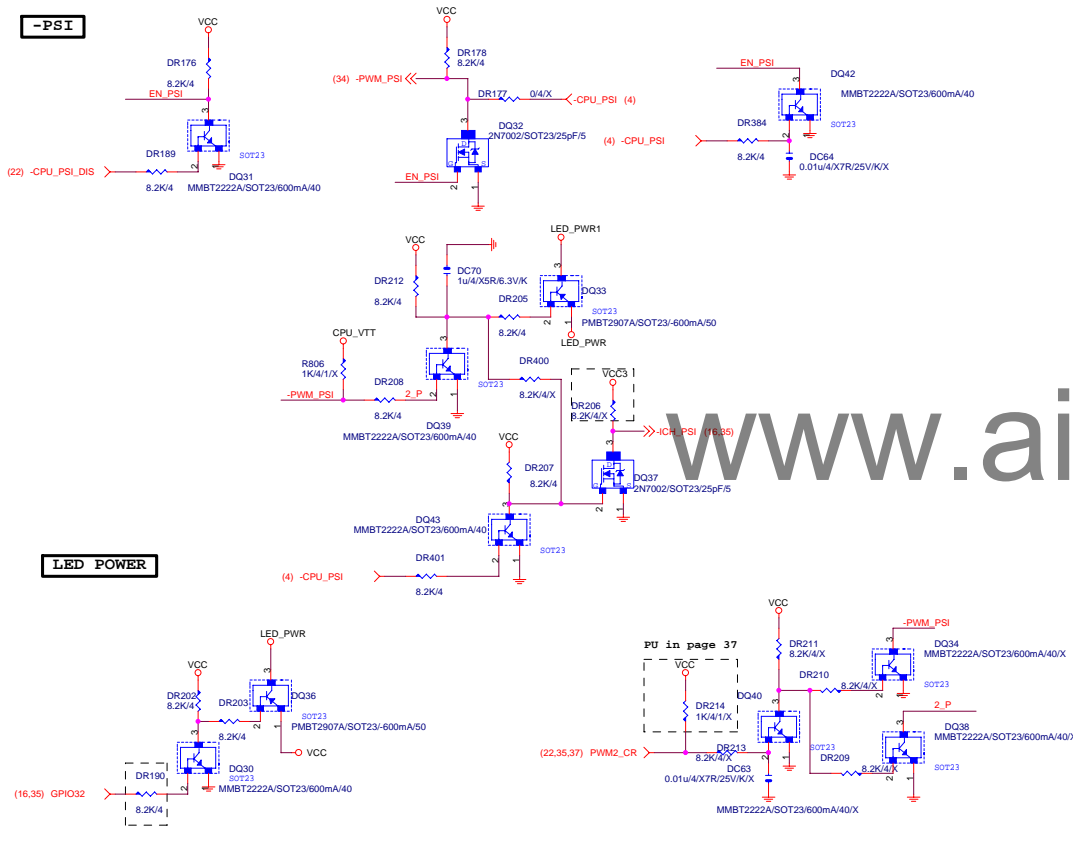
	RT10
Lo	PWM0 0-4 control by FW
Hi	PWM0-4 bypass to PWM00-4



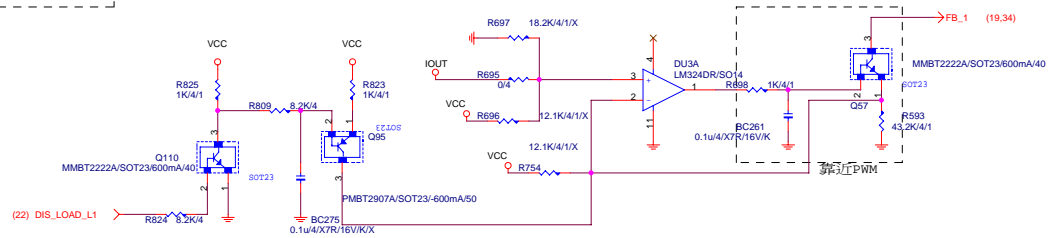
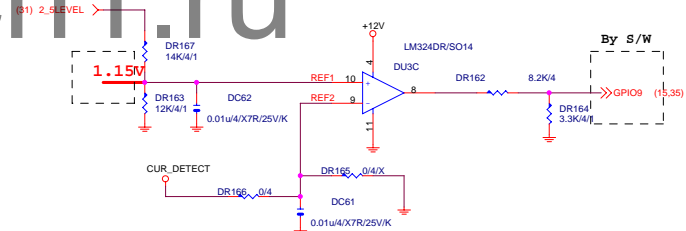
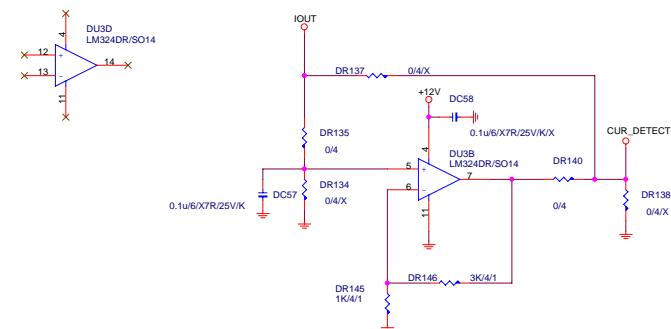
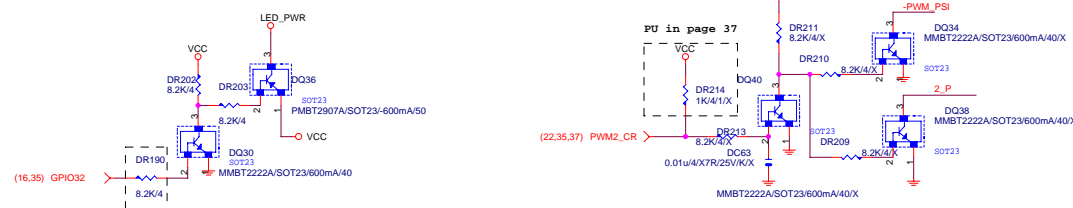
PHASE LED



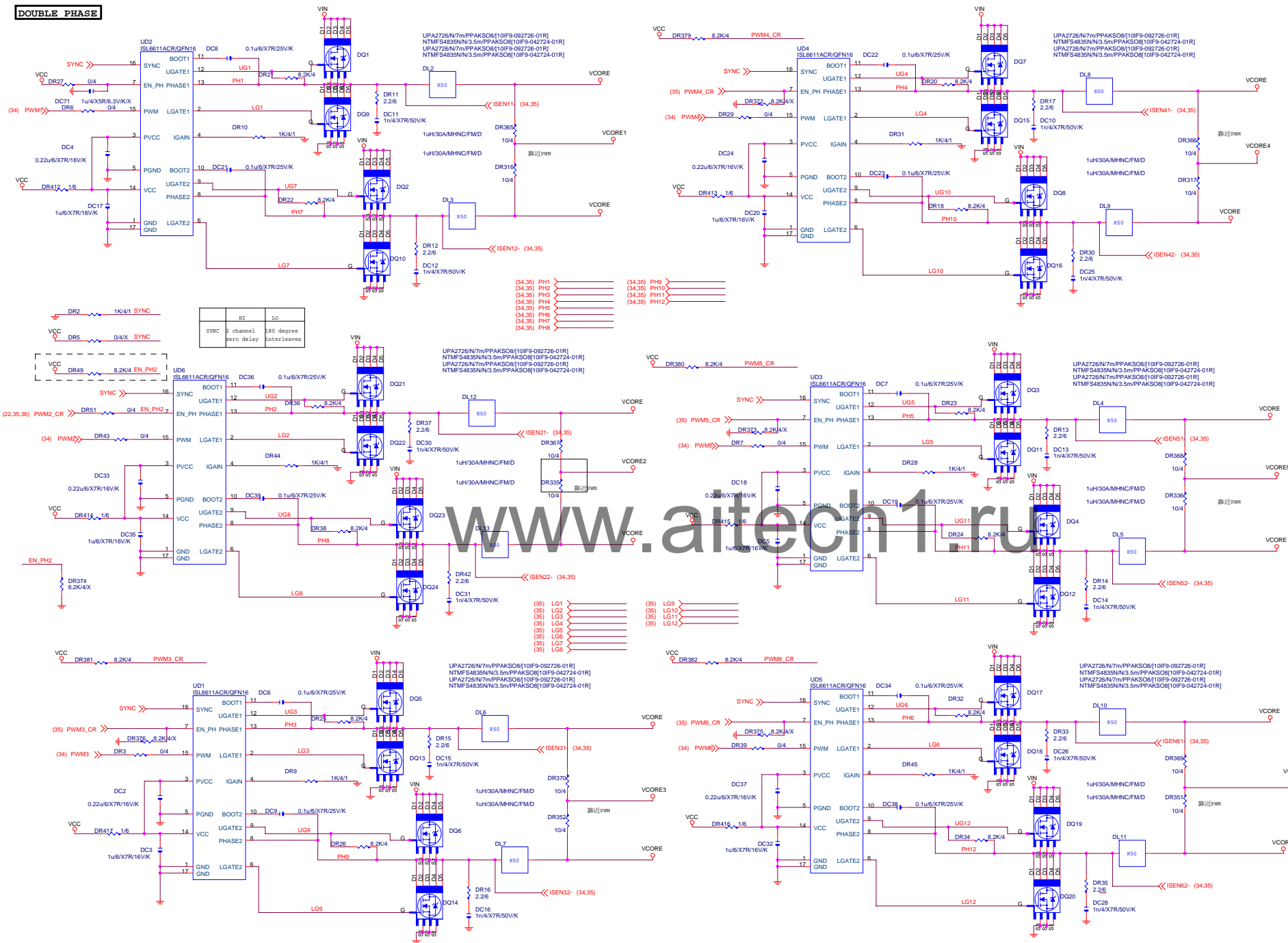
-PSI



LED POWER



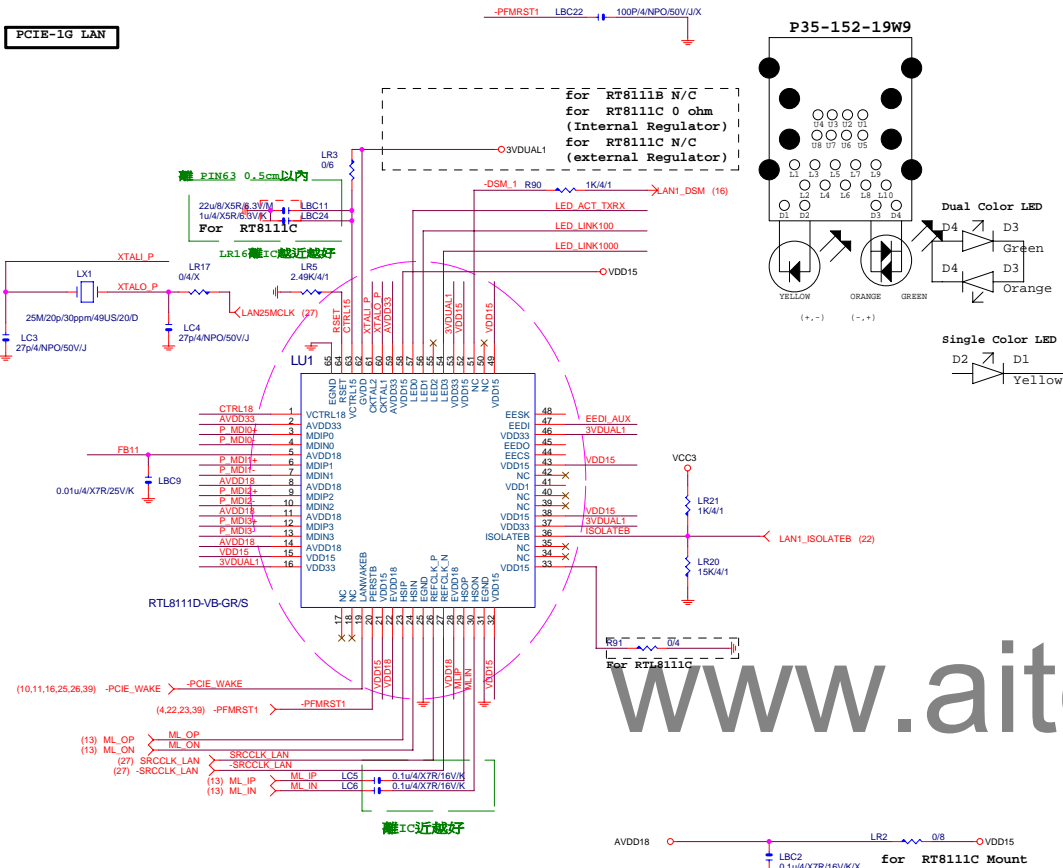
DOUBLE PHASE



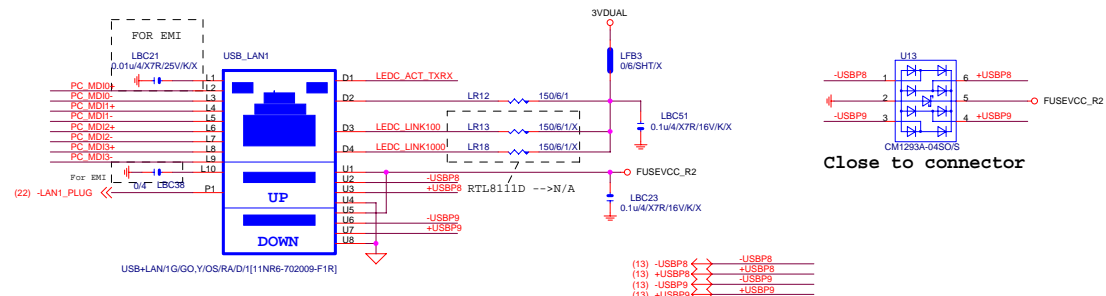
Gigabyte Technology

File	CPU CORE VR-4		
Size	Document Number	GA-P55-UD5	
Custom		Rev 1.01	
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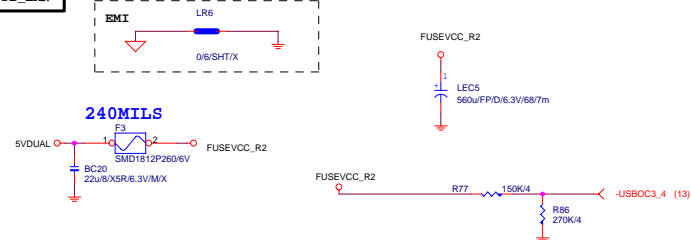
PCIE-1G LAN



USB_LAN CONNECTOR



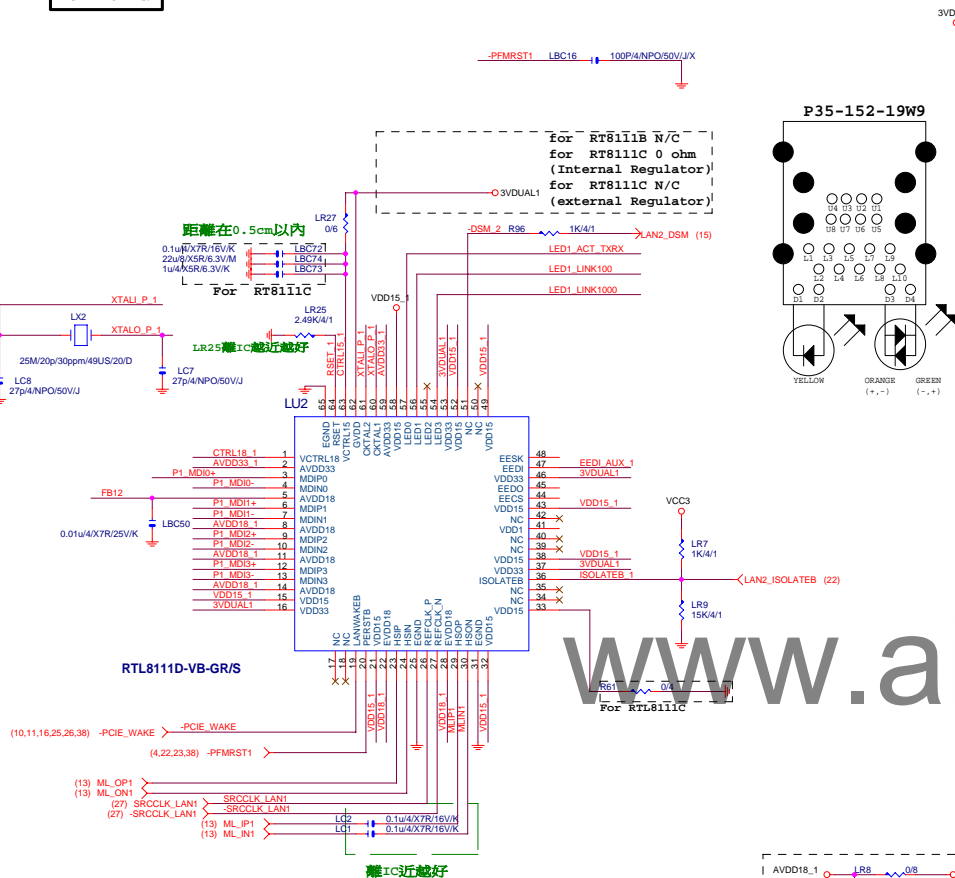
USB_LAN



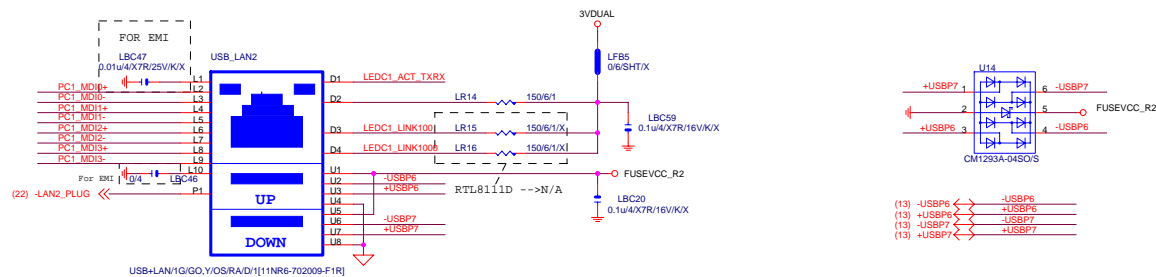
Gigabyte Technology

Title			
REALTEK RTL8111D			
Size C	Document Number	GA-P55-UD5	Rev 1.0
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PCIE-1G LAN



USB_LAN CONNECTOR

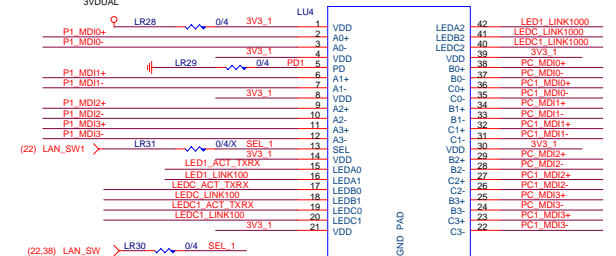
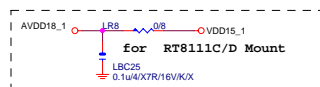


Dual Color LED

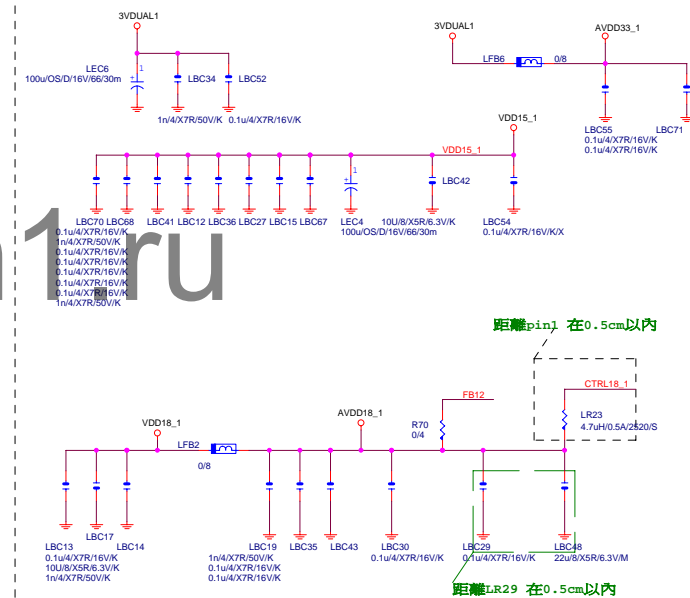
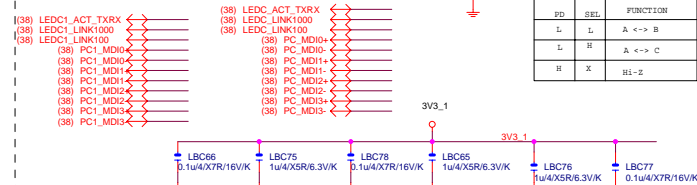
D4 D3 Green
D4 D3 Orange

Single Color LED

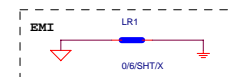
D2 D1 Yellow



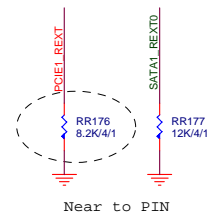
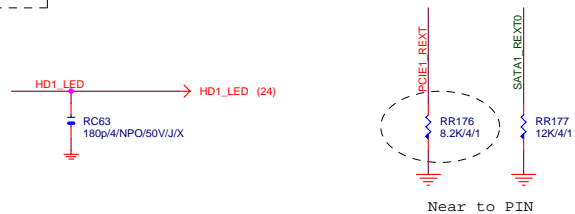
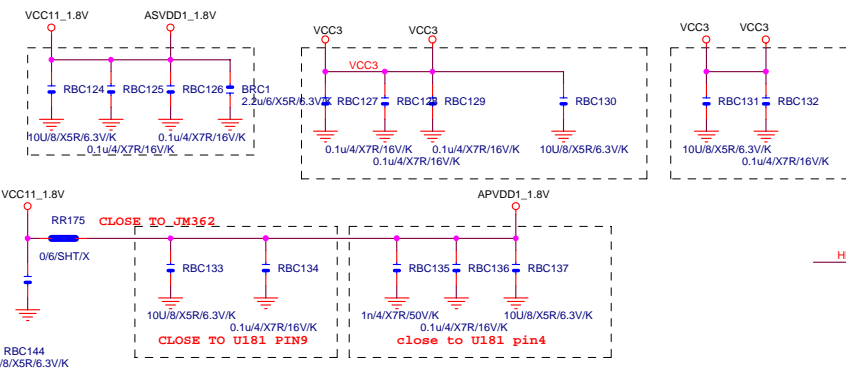
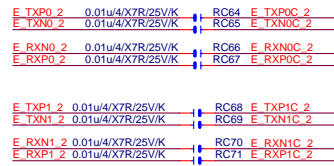
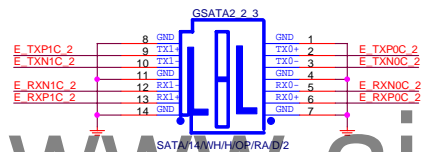
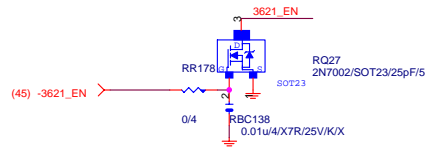
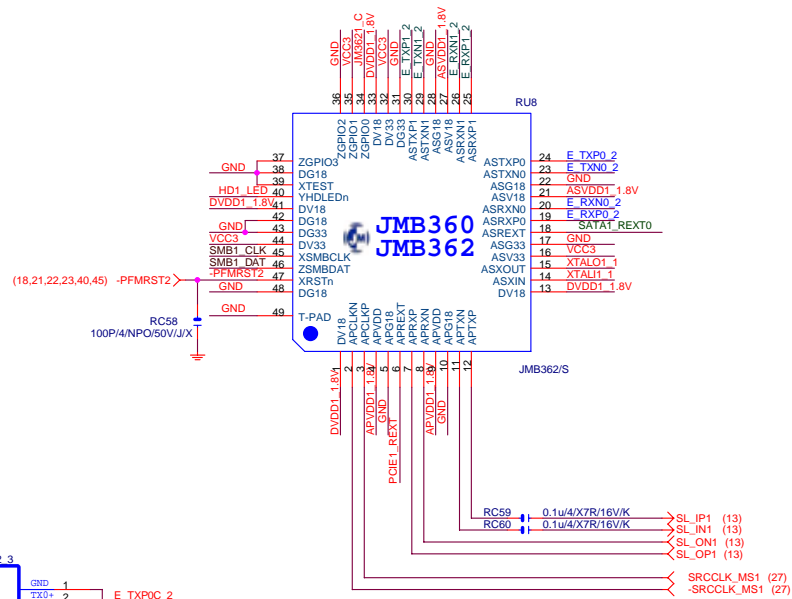
PD	SEL	FUNCTION
L	L	A <-> B
L	H	A <-> C
H	X	Hi-Z



USB_LAN



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<i>Gigabyte Technology</i>			
Title			
JMB362			
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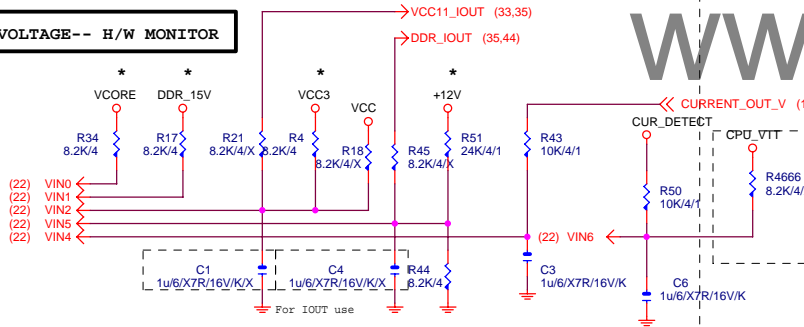
(22) VREF ←
 (22) SYS_TEMP ←
 (2) PCH_TEMP ←
 (2) CPU_TEMP ←

C5 1u6/X7R/16V/K
 C7 1u6/X7R/16V/K
 C8 1u6/X7R/16V/K
 C9 1u6/X7R/16V/K

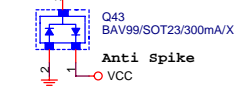
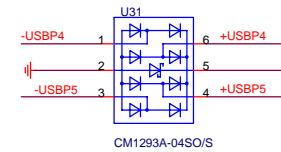
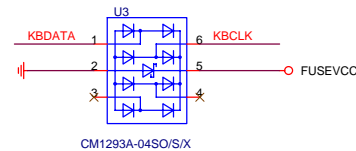
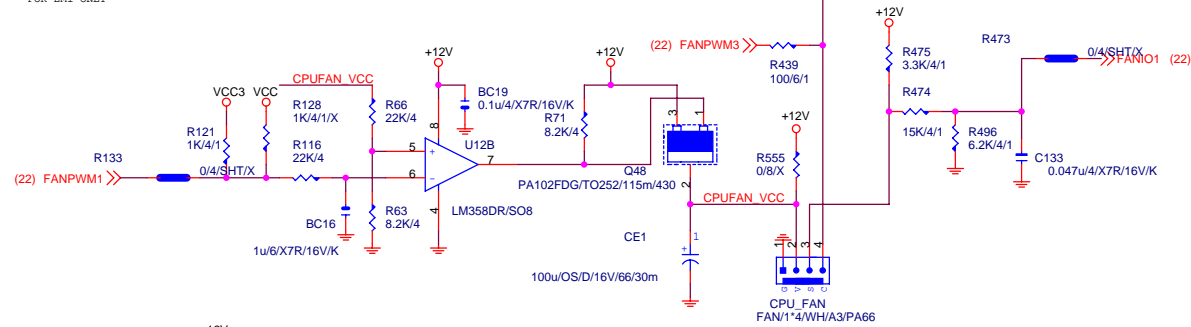
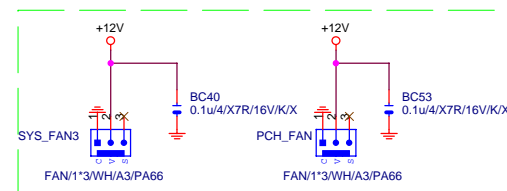
R60 10K/4/1
 R75 10K/4/1
 R69 10K/4/1
 RS1 10K/1/4/S
 RS2 10K/1/4/S
 RS4 10K/1/4/S/X

1u6/X7R/16V/K

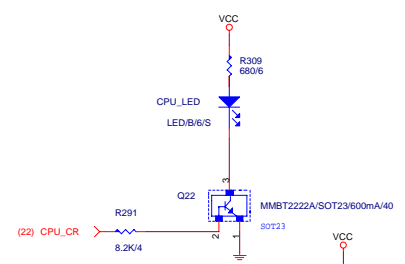
VOLTAGE-- H/W MONITOR

[illegible]

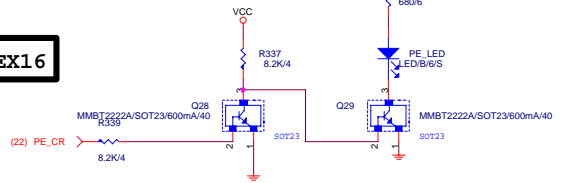
FOR EMI ONLY



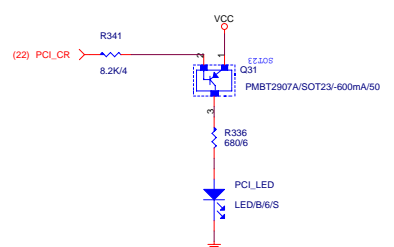
CPU



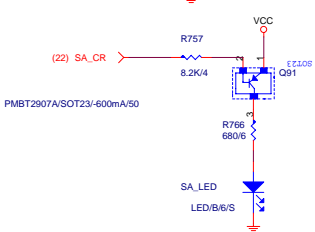
PCIEX16



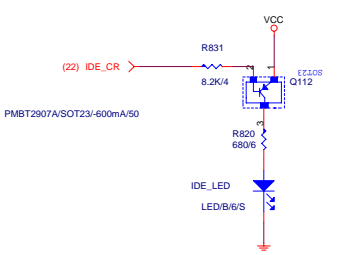
PCI



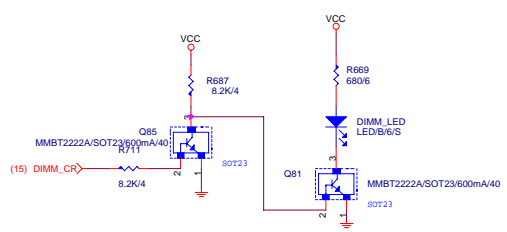
SATA



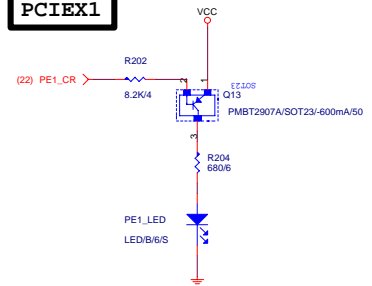
IDE



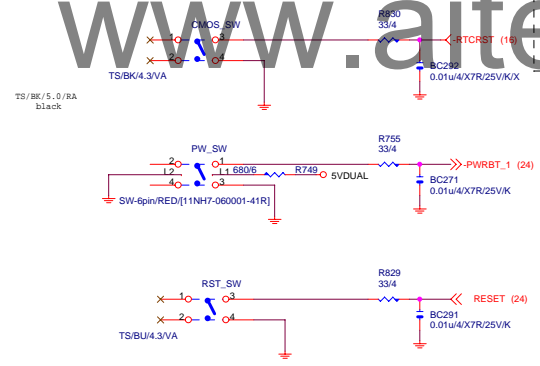
DIMM



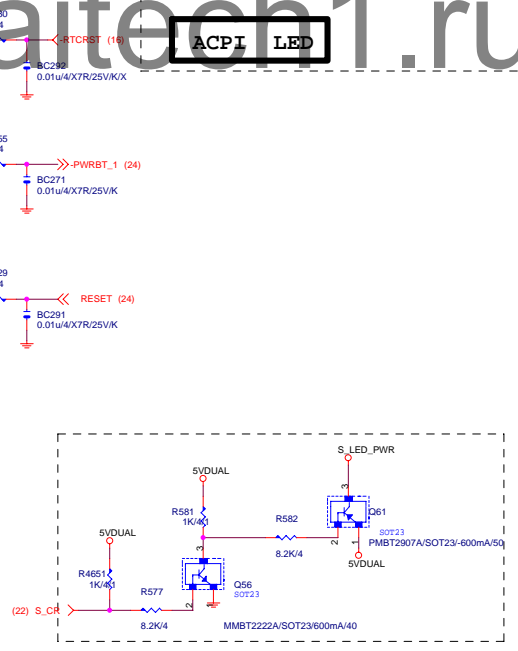
PCIEX1



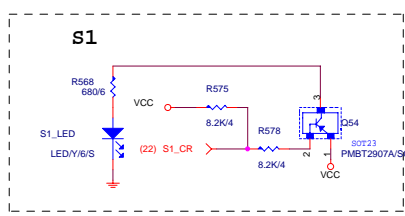
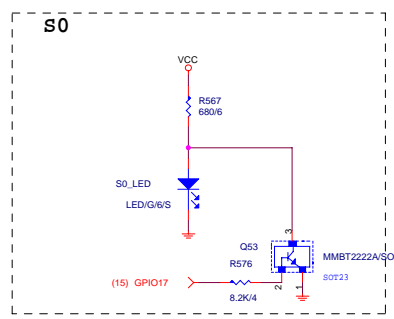
SW BTN



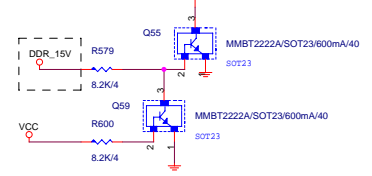
ACPI LED



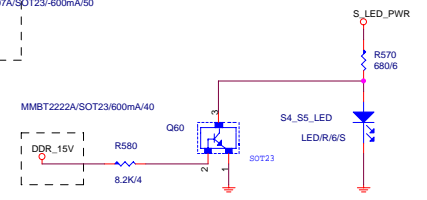
LED PWR



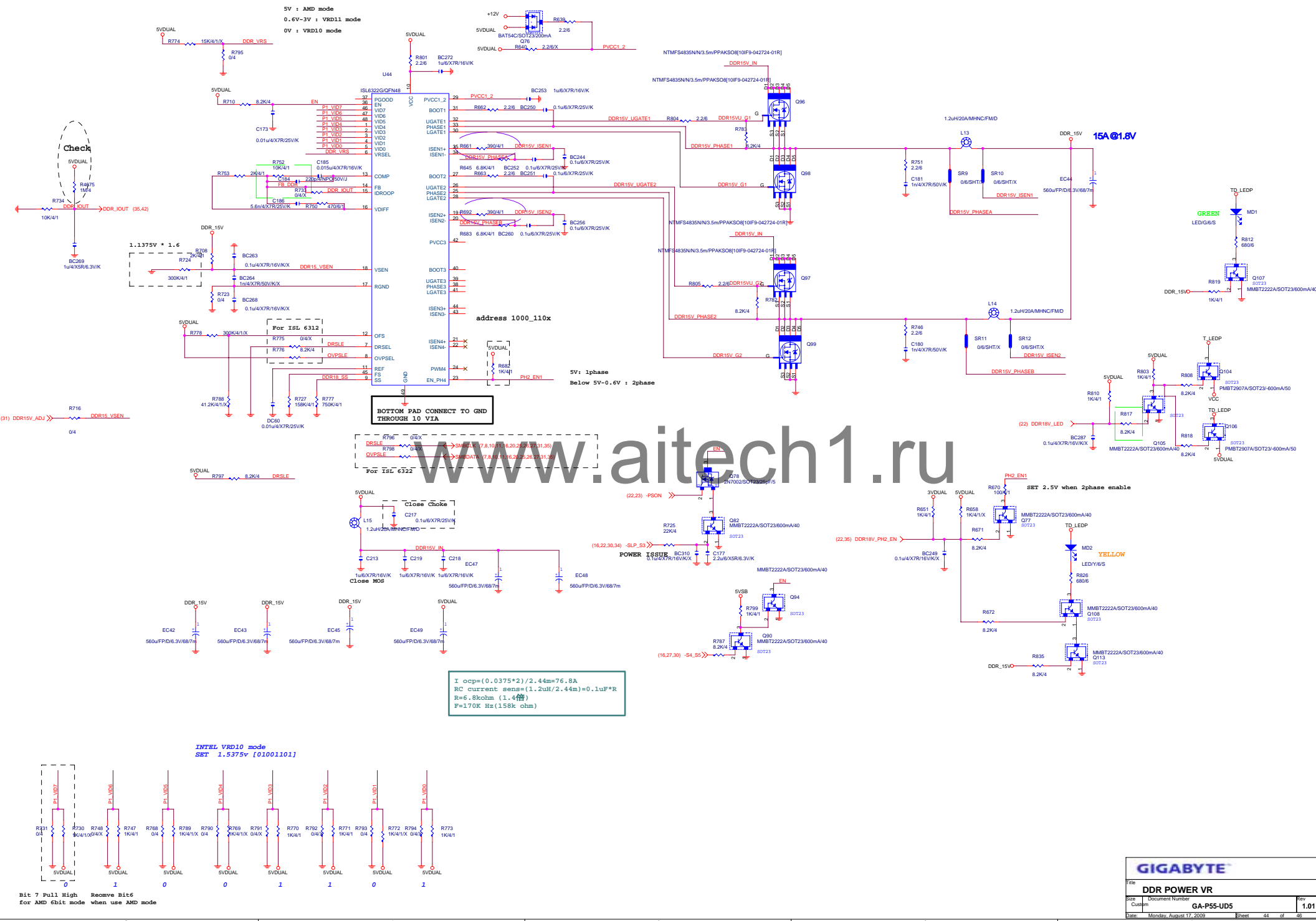
S3



S4_S5

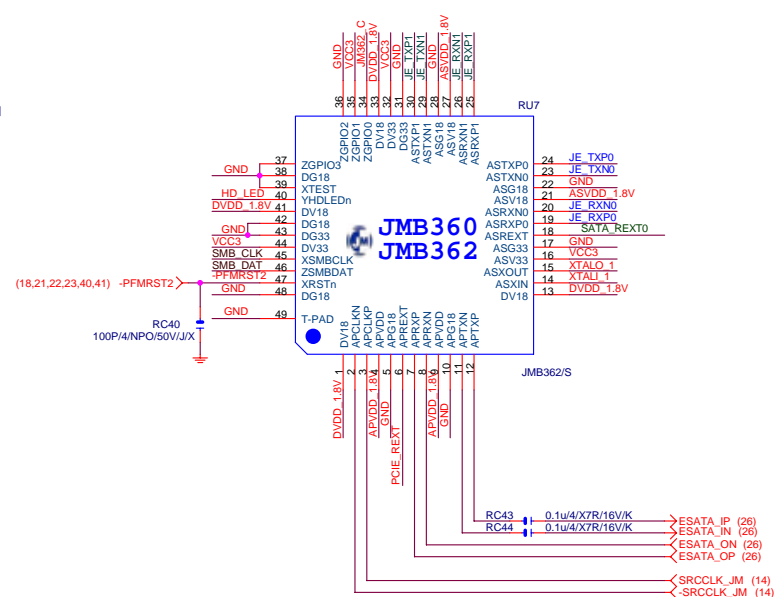
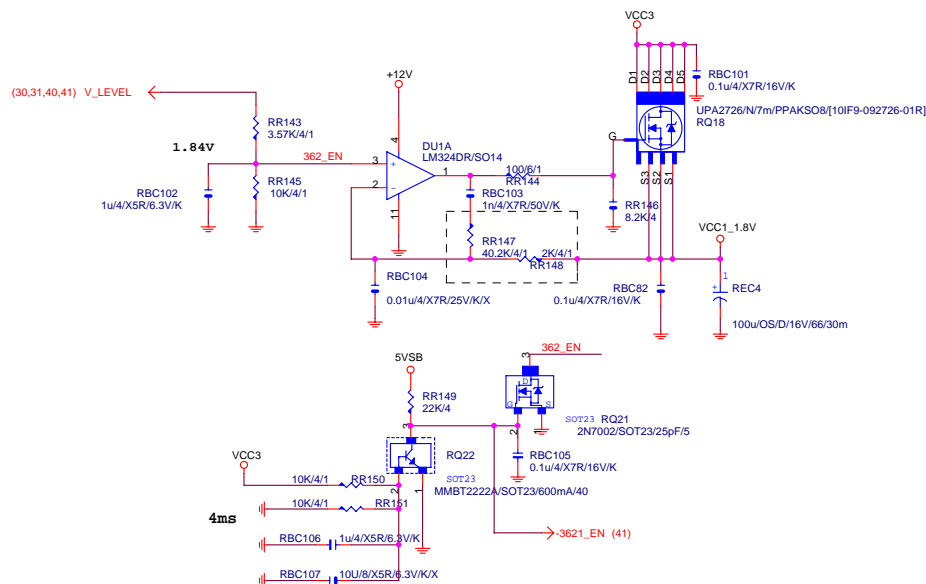


NAME	NAME	LED COLOR		
CPU_CR	ICH	BLUE		
DIMM_CR		BLUE		
PE_CR		BLUE		
PE1_LED		BLUE		
PCI_CR		BLUE		
SA_CR		BLUE		
IDE_CR		BLUE		
S0_CR		GREEN		
S1_CR		YELLOW		
S3_CR		ORANGE		
S4_S5_CR		RED		

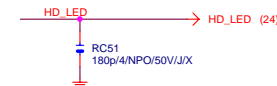
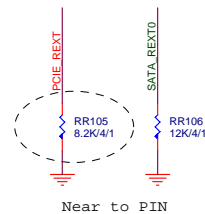
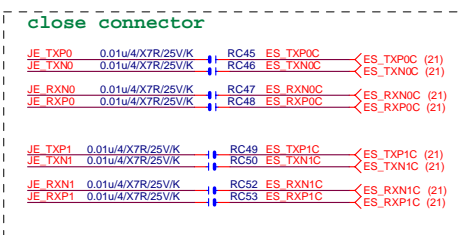
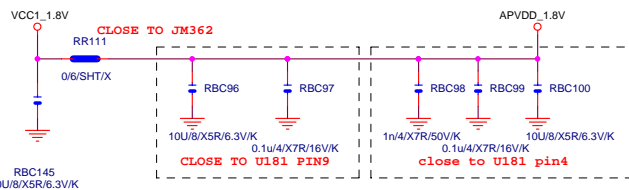
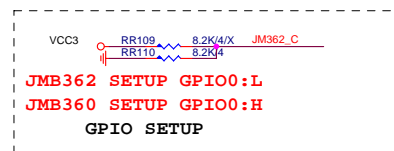
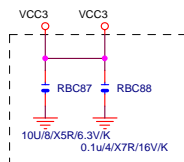
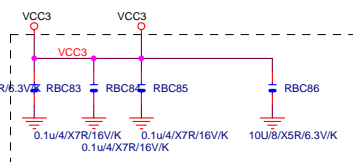
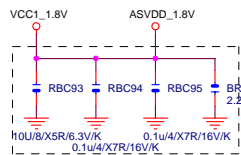
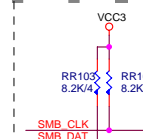
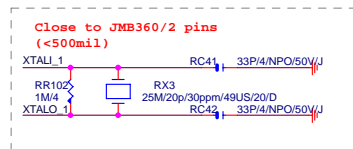
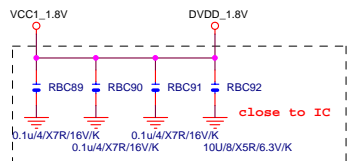


Bit 7 Pull High Remove Bit6
for AMD 6bit mode when use AMD mode

3.3V to 1.8V Voltage Regulator



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JMB362			
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File			
NVRAM			
Size	Document Number		Rev
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Date	Monday, August 17, 2009		Sheet 46 of 46