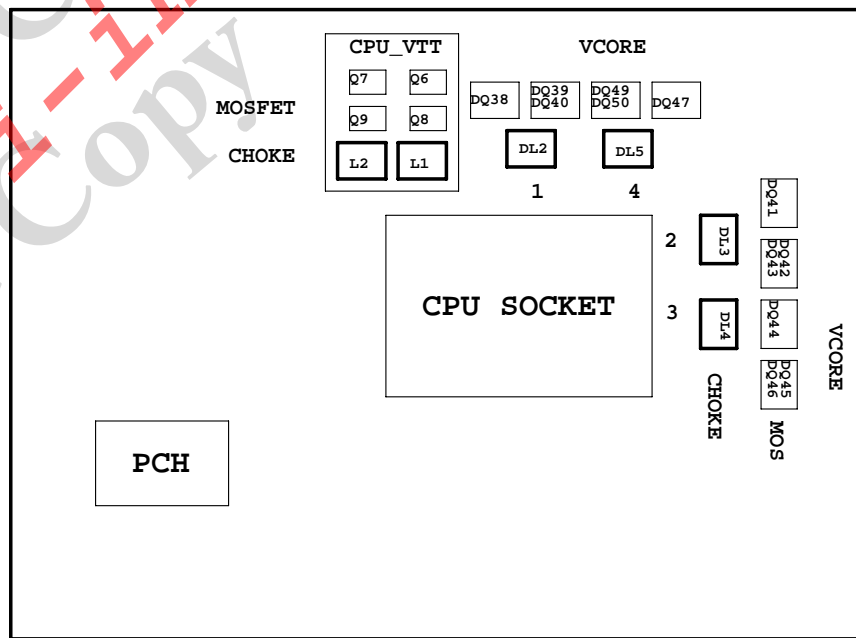


SHEET TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1155-A
05	CPU_LGA1155-B
06	CPU_LGA1155-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	PCH_FDI,DMI,USB,PCIE,NVRAM
10	PCH_DP,CLK BUFFER
11	PCH_HOST,SATA,PCI
12	PCH_GPIO,CTRL,AUDIO
13	PCH_PWR,GND
14	PCI EXPRESS*16 SLOT
15	PCI EXPRESS*4 SLOT
16	PCI EXPRESS*1 SLOTS X2
17	PCI SLOT 1&2&3
18	I/O ITE8728
19	COM, -PROHOT, ESATA CONNECT
20	Dual BIOS
21	ALC892
22	REAR AUDIO JACK
23	VCORE PWM_ISL6364CRZ-1
24	VCORE PWM_ISL6364CRZ-2
25	DISCRETE POWER
26	DDR_15V & VCC1_05 PCH PWM_ISL6545CBZ
27	CPU_VTT PWM_ISL6322G

SHEET TITLE

28	VCCSA POWER
29	F_PANEL , F_USB
30	ATX POWER, CLOCK GEN
31	HWM,KB/MS , FAN CTRL
32	REALTEK RTL8111E
33	NEC USB3.0
34	TABLE LIST
35	
36	
37	
38	
39	
40	



GA-P61-DS3-B3

Component value change history

Data	Change Item	Reason
2010/11/11 EBOM:01	1. H61/P67 Mounting plan	
	2. ALC892 銅製程 & NEC Lo-power mounting plan	
	3. CHOKE mounting	
2010/11/11 EBOM:01	1. U8第一PIN標示與BC141重疊不易辨識	
	2. PCH_HS定位孔與RN9、RN10距離不足2mm	
PA65-D3-0.1	1. 注意改成電解電容時REC2應該是用100uF	
	2. Add REC39 22u/8	
	3. MOSFET --> NEC+ON	
	4. Add 文字面 "108dB"	
	5. Add USB_LAN "11NR6-702009-93R"	
	6. VIN背板鋪銅移除	
	7. 文字面 "DES" 移除	
	8. F_AUDIO Connect 改成綠色	
	9. REMOVE SE9172 SPI FLASH	
PA65-D3-1.0	1. LUL RTL8111E-VL	
	2. 文字面"Ultra Durable 2"	
	3. 背板電容移除	
P61-USB3 10A-0114	1. GSATA SE9172 Component mask 注意:MASK的位置,除了9172全頁外,還包含C119,C120	
10B-0120	1. Remove RFB1/2/4/5	
10C-0121	1. Patch ITE8728低溫相容性和增加SVIDCLK Margin	
10D-0125	1. PCB REV1.0 --> REV1.01 SE9172 DIP MASK	
P61-USB3-B3-10A 1209	1. H61 Rev.B2 --> Rev.B3 2. CHOKE 1uH --> 0.8uH	
P61-USB3-B3-10T	1. EVT BOM	
P61-USB3-B3-11A	1. ITE8728/DX --> JP6 REMOVE 2. 依利安達未試產	
P61-USB3-B3-11B	1. PCH多一個選項 2. 後窗USB改紅色Connect 3. ITE8892 CK --> EX	4. 確認EXP是上PCH/SIO? (Layout少了rsmrst patch) 5. load-line DR303 1.58K --> 1.27K , DR294 158K --> 12.7K 6. BUP FUNCTION C129 4.7u --> 0.1u , R554 1K-->8.2K

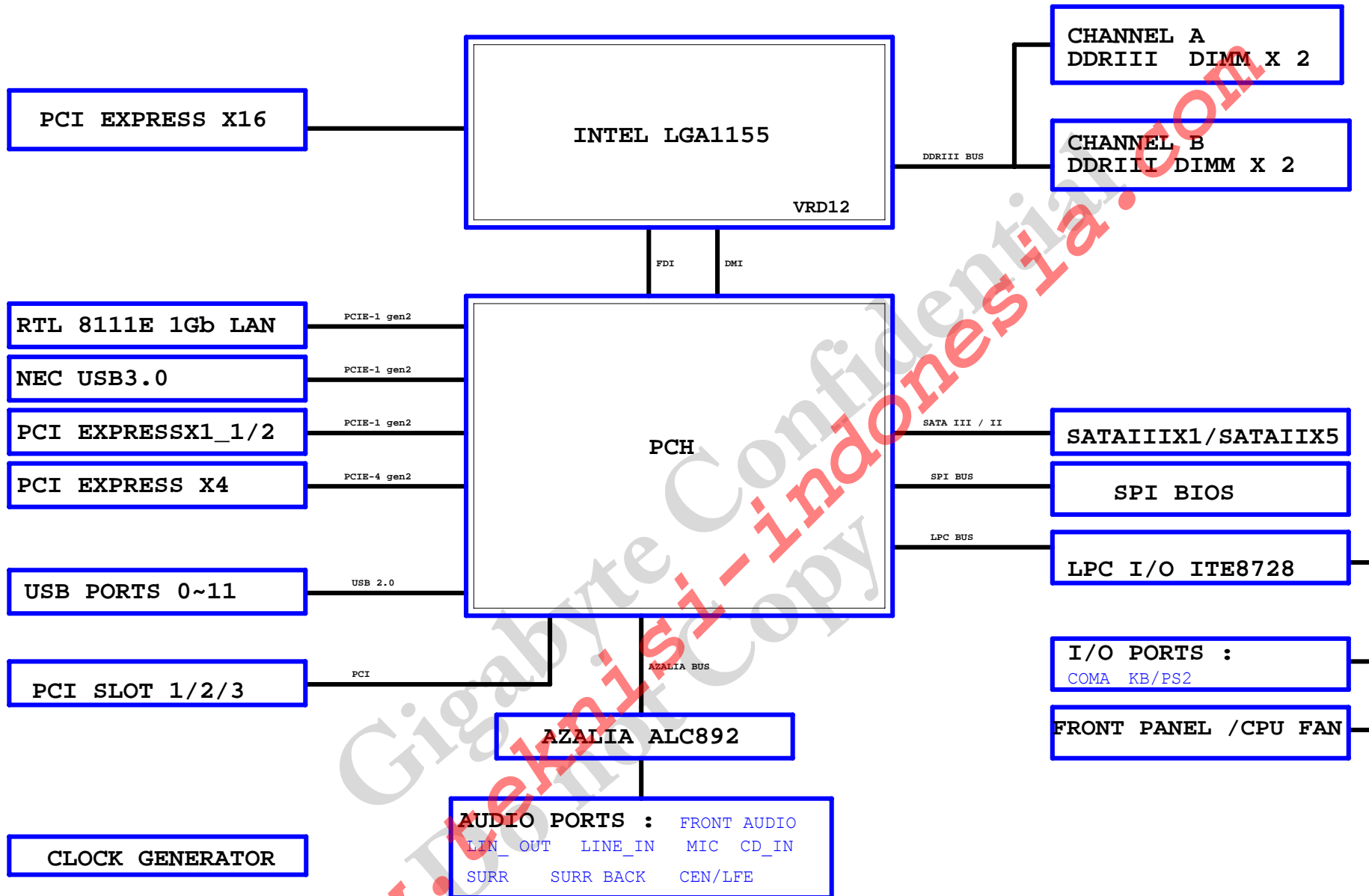
Circuit or PCB layout change

DATE	Change Item	Reason
2010/07/05 PCB:0.1	1. NEW MODEL: P67A-D3-0.1	
2010/08/18 PCB:0.2	由GA-P67A-D3-0.1 rename GA-P67A-UD3-0.2 1. update MOS_HS footprint 2.2Oz copper pcb	
2010/10/05 PCB:0.1	由GA-P67A-UD3-0.2 修改	
2010/10/18 PCB:0.2	1. 確認SATA 6GB PORT0 OR PORT1???	
	2. NO TURBO USB3.0 , SUR1-SUR8 ----->SHORT WIRE	
1.0	1. GSATA SE9172 Component mask	
P61-USB3-B3		
1.01	1. GSATA SE9172 Component mask 2. PVT Release	
1.0T	1. Add CLK Buffer 2. 0 ohm short 3. Remove Cap 6/8 CO-LAY	
1.1	1. 背板改MASK (含CPU,CPH)	

Gigabyte Technology

Title BOM & PCB MODIFY HISTORY		
Size Custom	Document Number GA-P61-DS3-B3	Rev 1.1
Date: Monday, May 02, 2011	Sheet 2	of 34

BLOCK DIAGRAM



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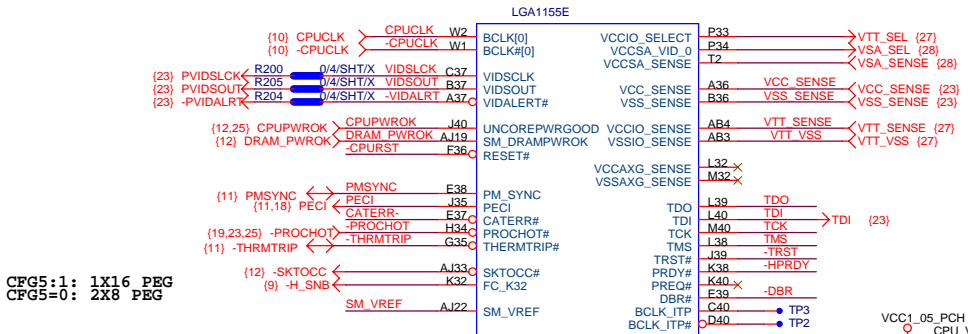
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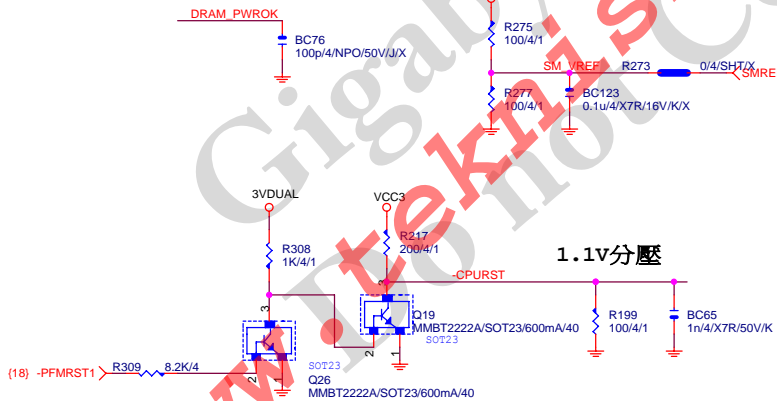
CFG5:1: 1X16 PEG
CFG5:0: 2X8 PEG

CFG	H	L	NOTE
0	RSVD	RSVD	RSVD
1	RSVD	RSVD	RSVD
2	NORM	Reverse	LANE REVERSAL[0],x16
3	RSVD	RSVD	RSVD
4	RSVD	RSVD	RSVD
7	RSVD	RSVD	RSVD
8	RSVD	RSVD	RSVD
9	RSVD	RSVD	RSVD
10	RSVD	RSVD	RSVD
11	RSVD	RSVD	RSVD
12	RSVD	RSVD	RSVD
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15	RSVD	RSVD	RSVD
16	RSVD	RSVD	RSVD
17	RSVD	RSVD	RSVD

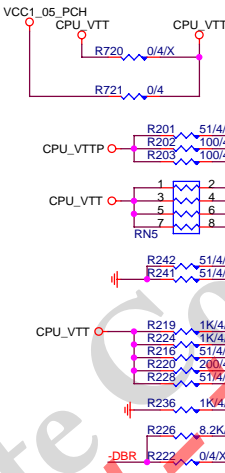
CFG6	CFG5	PCIE CONFIG
1	1	1X16, Default
1	0	2X8
0	1	RSVD
0	0	X8, X4, X4

CFG 0-17 all internal PULL-UP

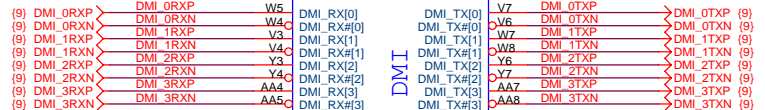
LGA1155[10SC1-F01155-01R]



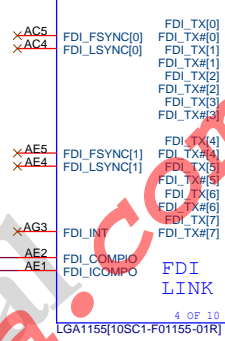
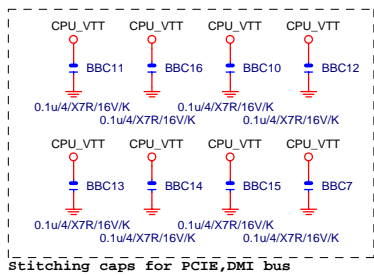
PCIEX16:16/5/5/5/16 breakout min 10/4/4/4/10)
Impedance=80 +/- 17.5%



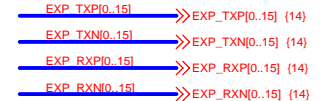
DMI:12/4/5/4/12 (breakout min 8/4/4/4/8)
Impedance=85 +/- 17.5%



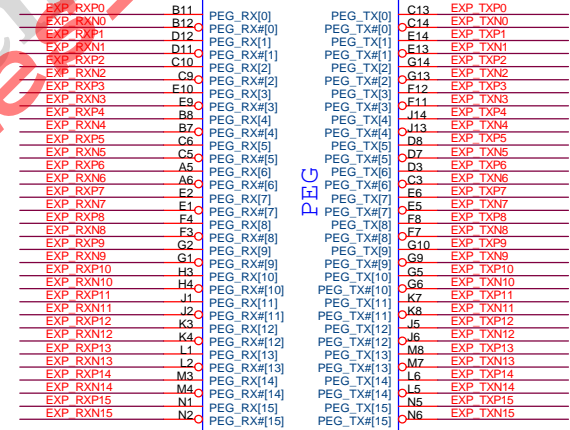
LGA1155[10SC1-F01155-01R]



Stitching caps for PCIE, DMI bus



LGA1155C



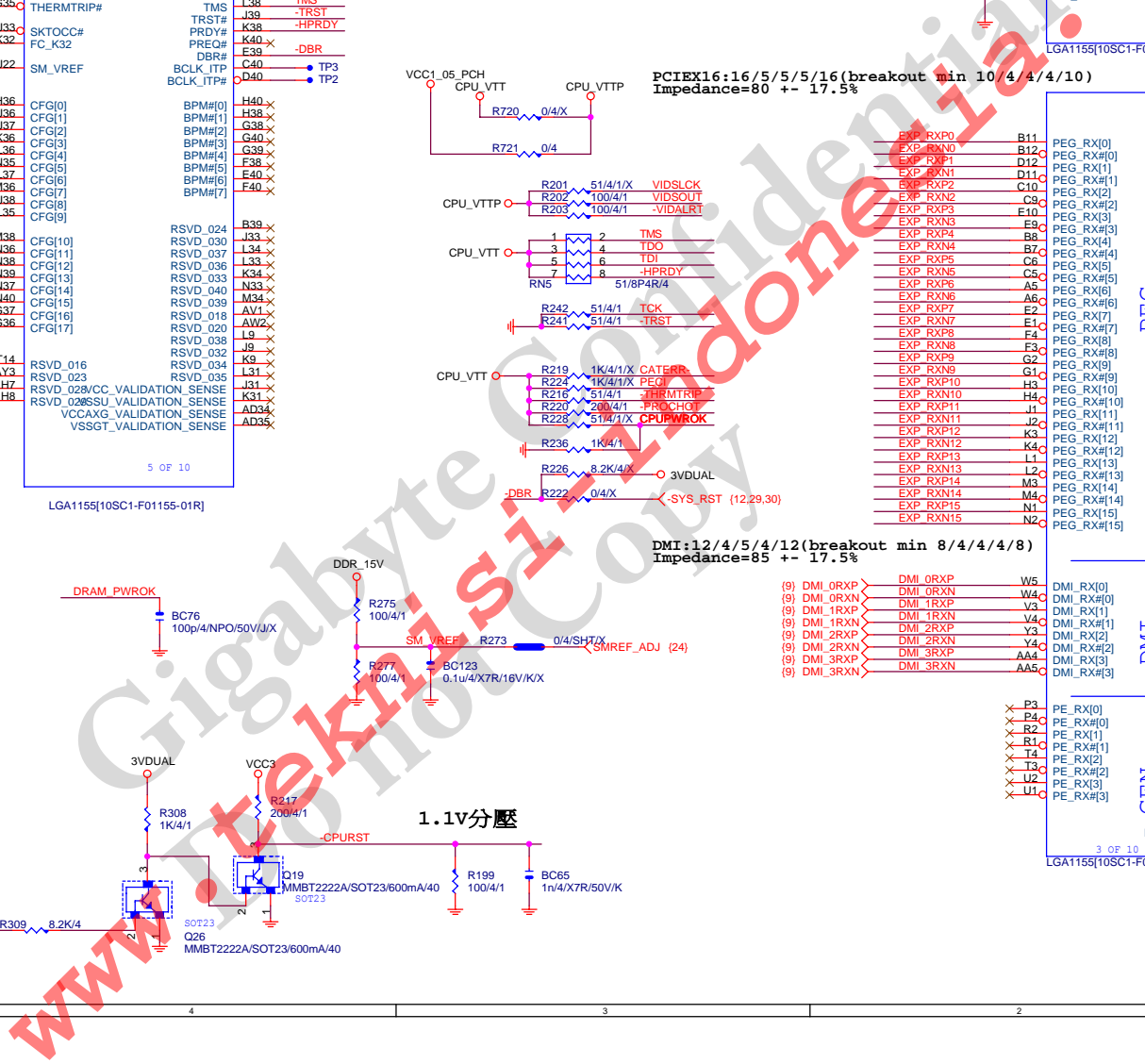
LGA1155[10SC1-F01155-01R]

Gigabyte Technology

Title: **CPU LGA1156-A**

Size: Document Number: **GA-P61-DS3-B3** Rev: 1.1

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LGA1155A

Pin list for LGA1155A showing pin numbers, names, and functions. Includes pins for memory (MAAA0-MAAA15), cache (CA0-CA1), and various control signals.

LGA1155[10SC1-F01155-01R]

DDR_0

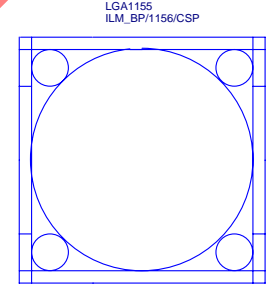
1 OF 10

LGA1155B

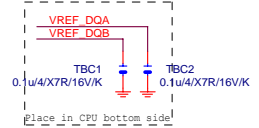
Pin list for LGA1155B showing pin numbers, names, and functions. Includes pins for memory (MAAB0-MAAB15), cache (CA0-CA1), and various control signals.

DDR 1

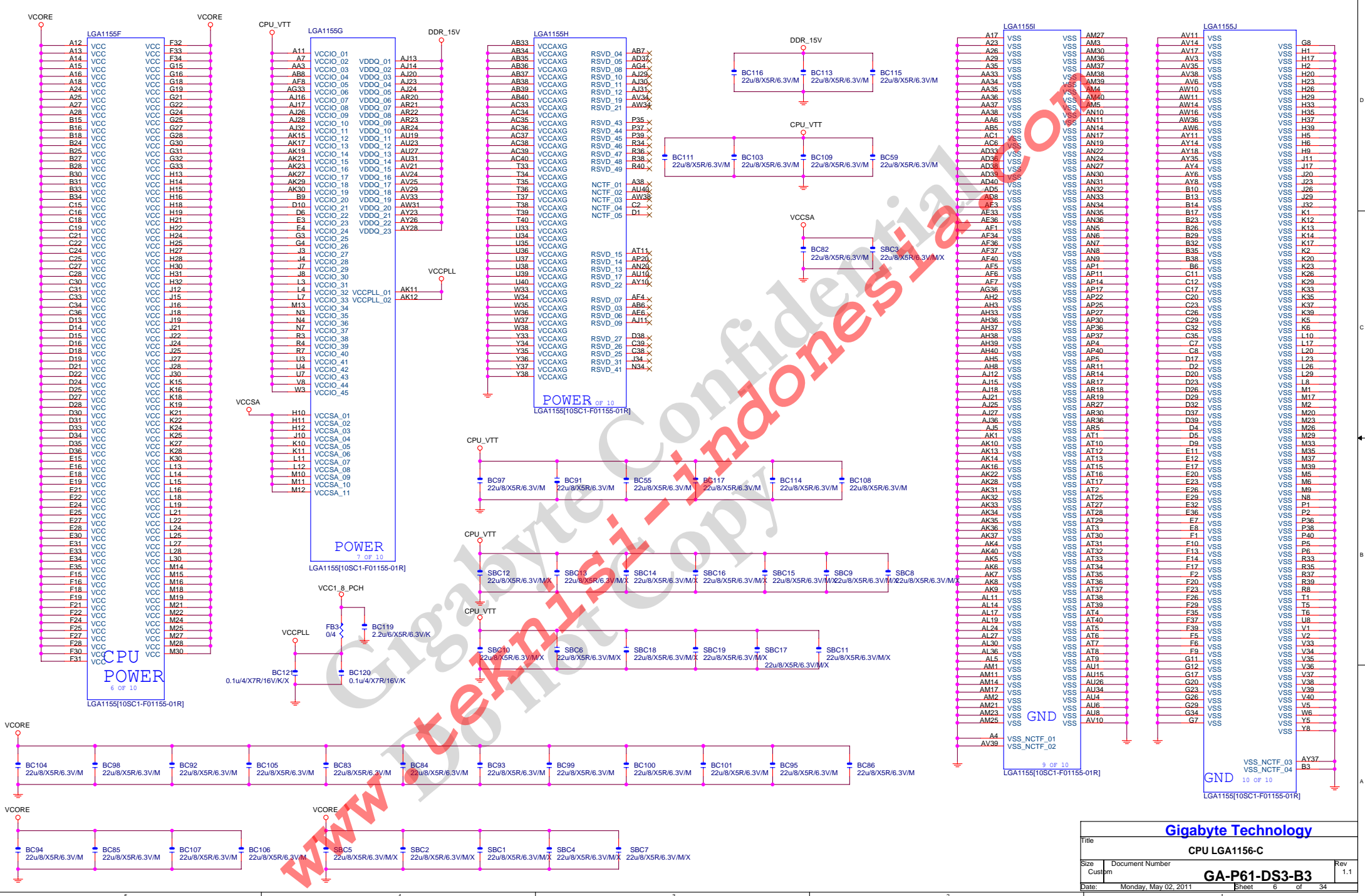
LGA1155[10SC1-F01155-01R]



Need check the new CPU ME

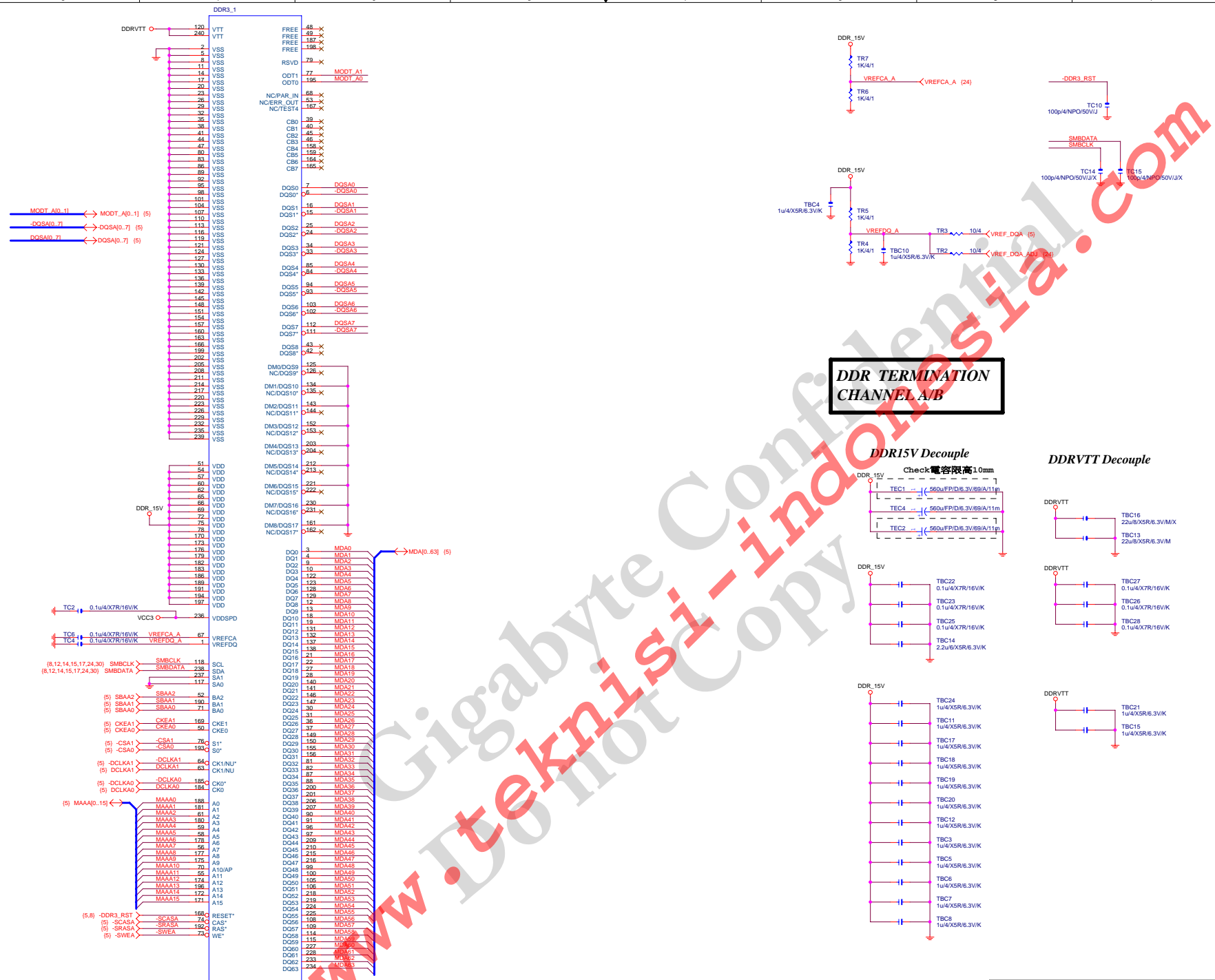


Gigabyte Technology logo and product information including title (CPU LGA1156-B), size (GA-P61-DS3-B3), and date (Monday, May 02, 2011).



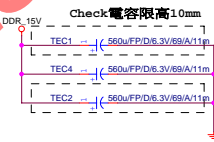
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Gigabyte Technology			
CPU LGA1156-C			
Title	Rev 1.1		
Size	Document Number	GA-P61-DS3-B3	
Date:	Monday, May 02, 2011	Sheet 6 of 34	

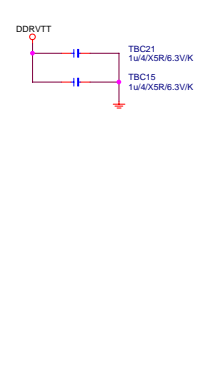
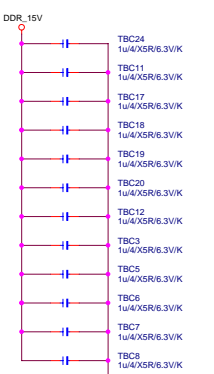
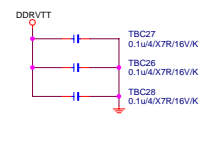
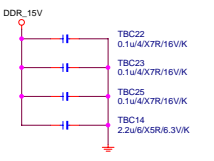
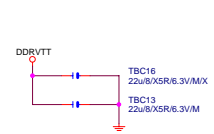


DDR TERMINATION CHANNEL A/B

DDR15V Decouple

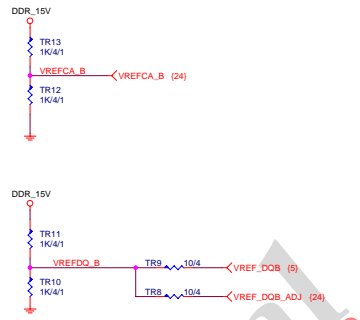
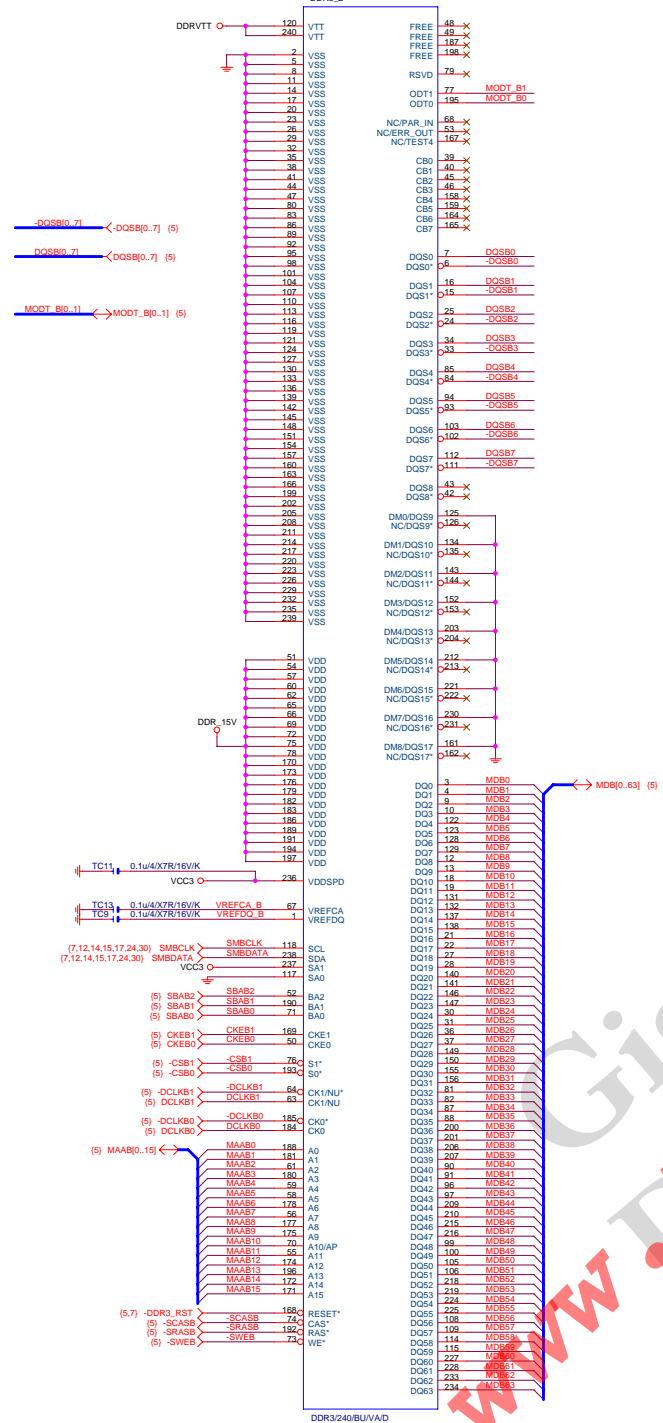


DDRVRTT Decouple



Gigabyte Technology

File	DDRIII CHANNEL A	
Size	Document Number	Rev
Custom	GA-P61-DS3-B3	1.1
Date:	Sheet	7 of 34

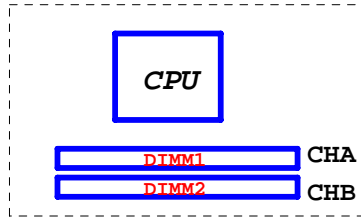


DDR3 1066,1333,1600MHZ BANDWIDTH

DDR3 1066MHZ
 DDR3 clock=533MHZ
 DDR3 single channel bandwidth=533x2x8Byte=8.5GB/s
 DDR3 dual channel bandwidth=533x2x2x8Byte=17GB/s

DDR3 1333MHZ
 DDR3 clock=667MHZ
 DDR3 single channel bandwidth=10.6GB/s
 DDR3 dual channel bandwidth=21GB/s

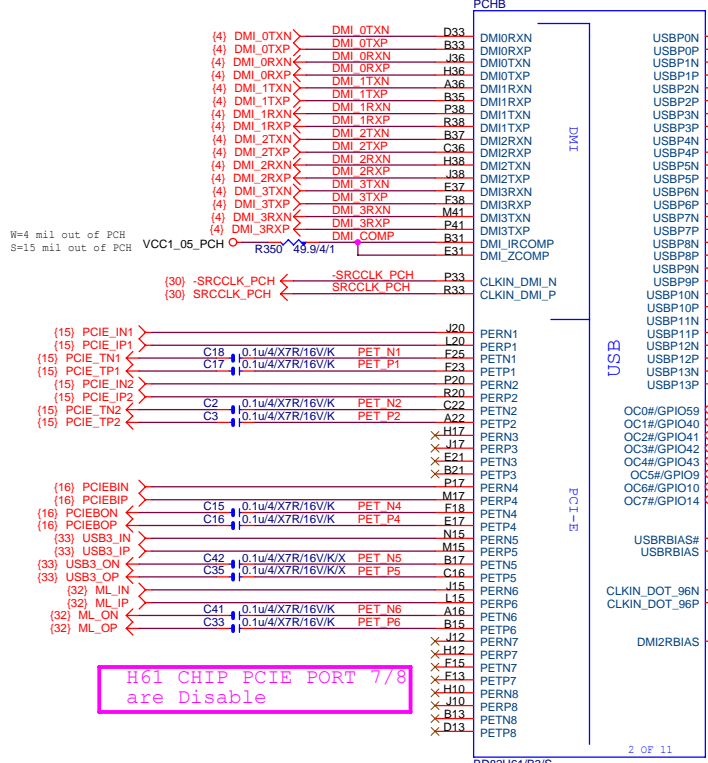
DDR3 1600MHZ
 DDR3 clock=800MHZ
 DDR3 single channel bandwidth=12.8GB/s
 DDR3 dual channel bandwidth=25.6GB/s



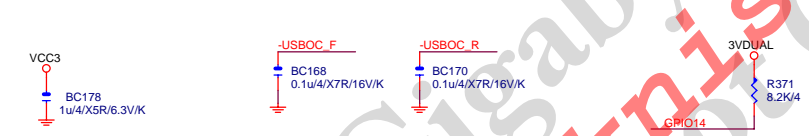
Gigabyte Technology		
Title DDRIII CHANNEL B		
Size	Document Number	Rev
Custom	GA-P61-DS3-B3	1.1
Date:	Sheet	8 of 34



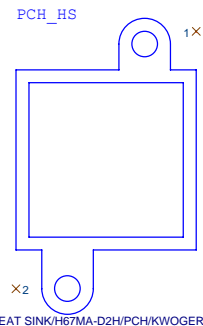
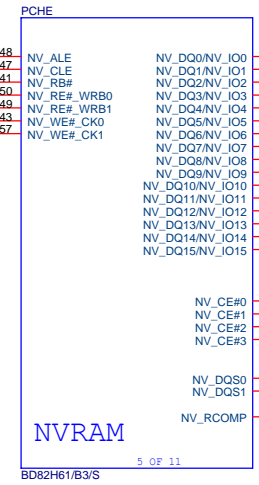
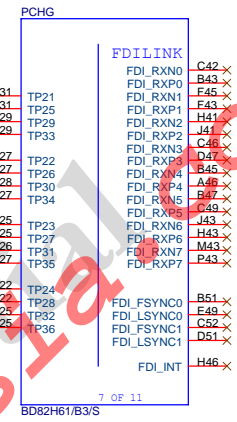
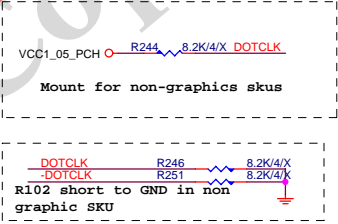
USB:12/7.5/4.5/7.5/12 (breakout min 8/4/4/4/8)
Impedance=90 +/- 17.5%



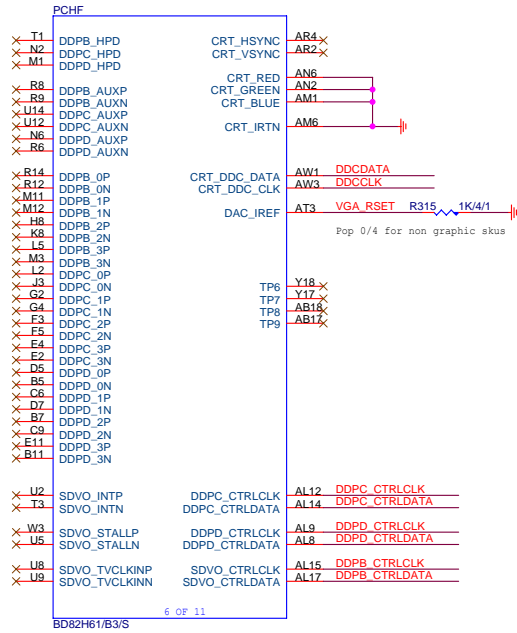
放靠近 Device & PCI-E Slot
PCIEX1:16/5/5/5/16 (breakout min 8/4/4/4/8)
Impedance=80 +/- 17.5%



USB OC#	Configure
OC0#	USB0,1
OC1#	USB2,3
OC2#	USB4,5
OC3#	USB6,7
OC4#	USB8,9
OC5#	USB10,11
OC6#	USB12,13
OC7#	Not Use



HEAT SINK/H67MA-D2H/PCH/KWOGER/[12SP2-S04608-01R_12SP2-S04608-02R_12SP2-S04608-03R]

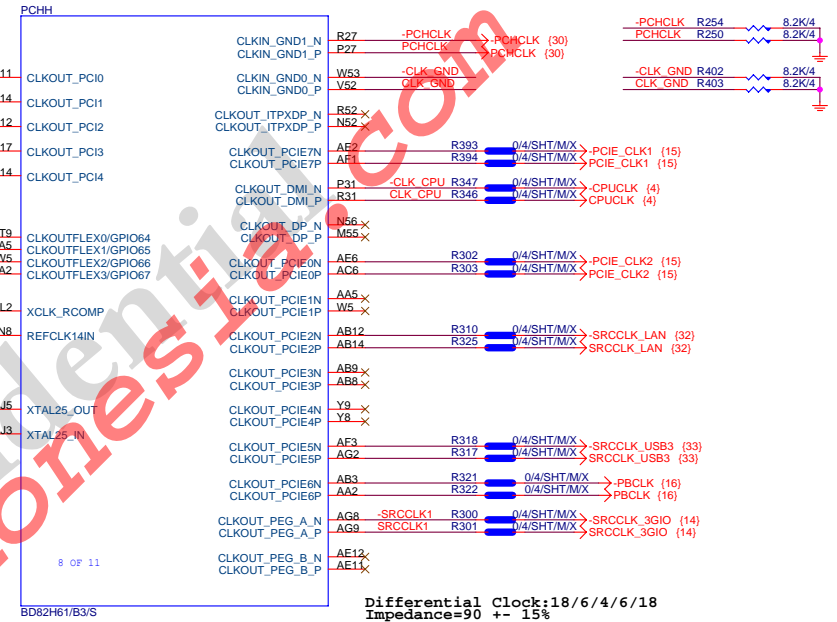
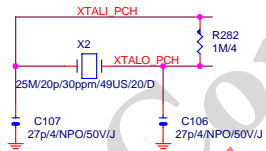


Flex0,2 : 33MHZ
 Flex1,3 : 27/14/24/48/25MHZ

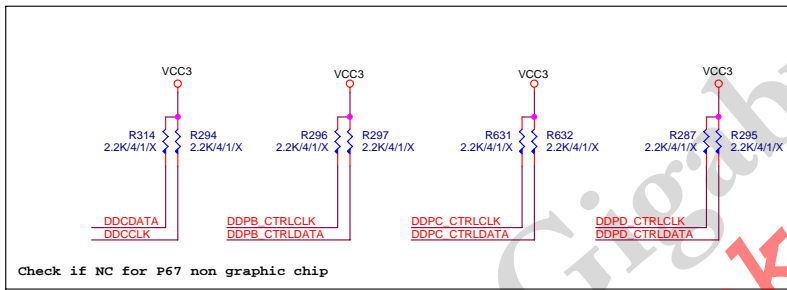
(30) LPCCCLK48_BF ← R710 0/4X
 (18) LPCCCLK48 ← R262 33/4 PCH 48M

VCC1_05_PCH ← R316 90.9/4/1 CLK_RCOMP AL2
 (30) PCHCLK14 ← PCHCLK14 AN8

PCHCLK14 ← R231 8.2K/4X



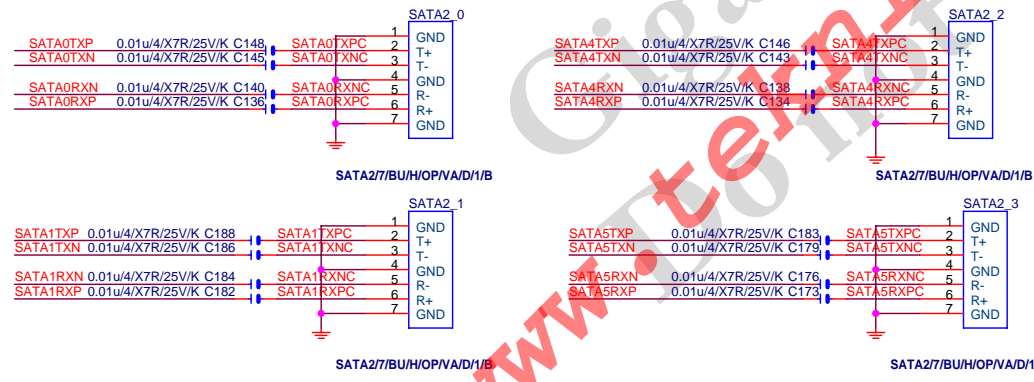
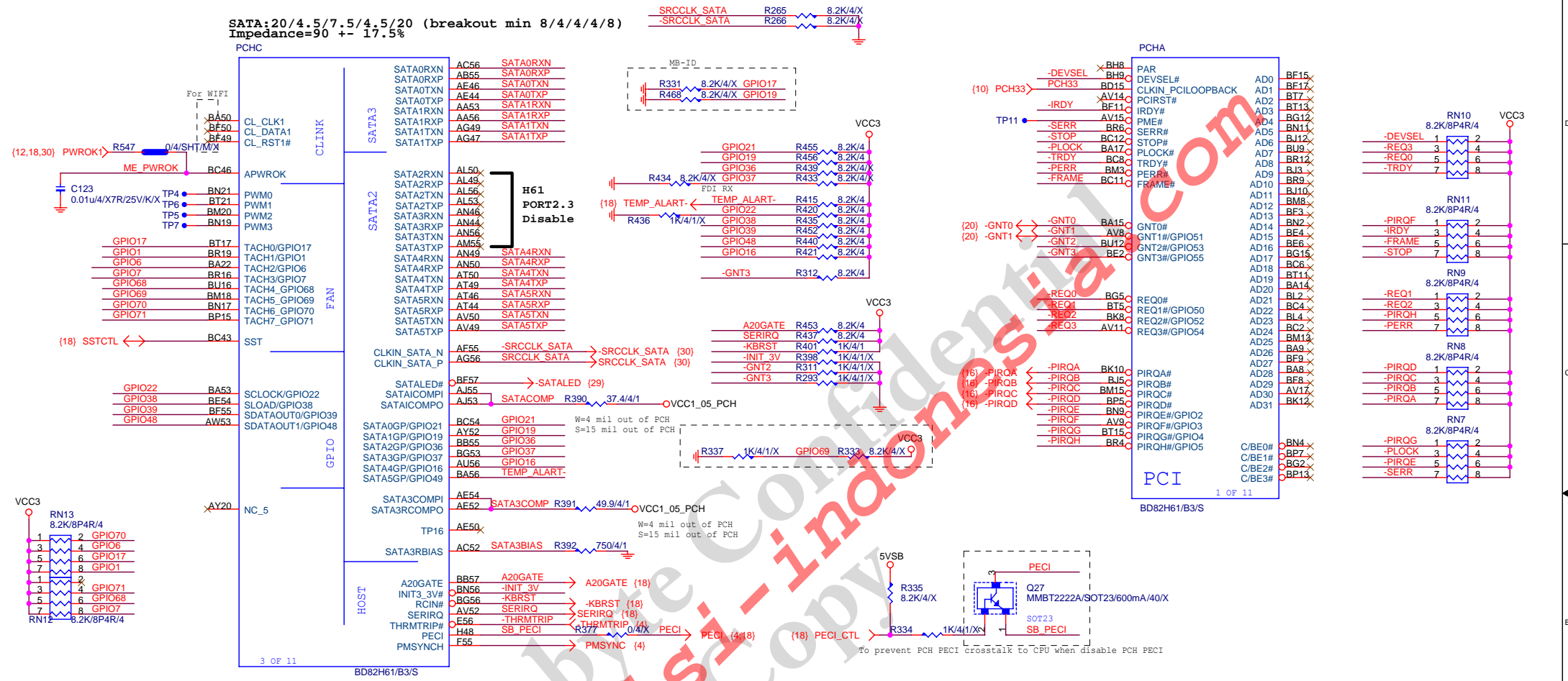
Differential Clock: 18/6/4/6/18
 Impedance=90 +- 15%



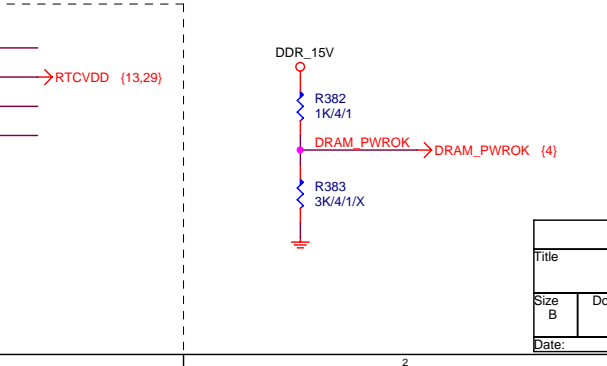
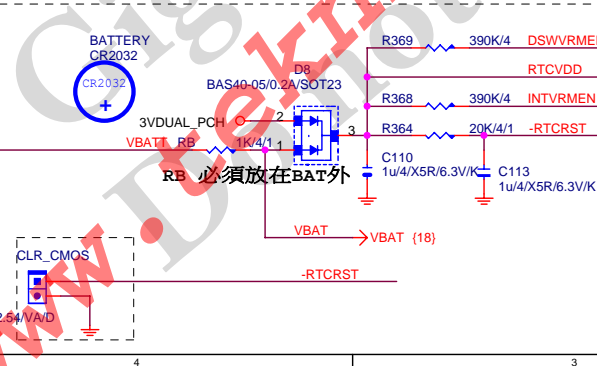
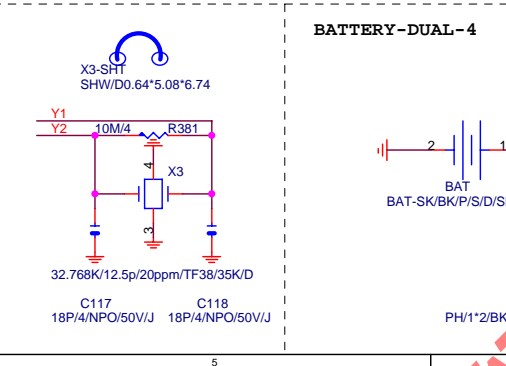
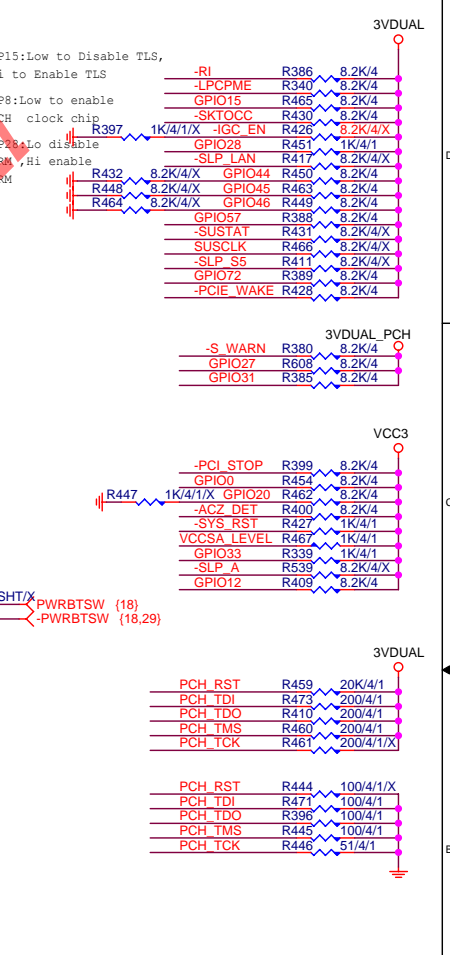
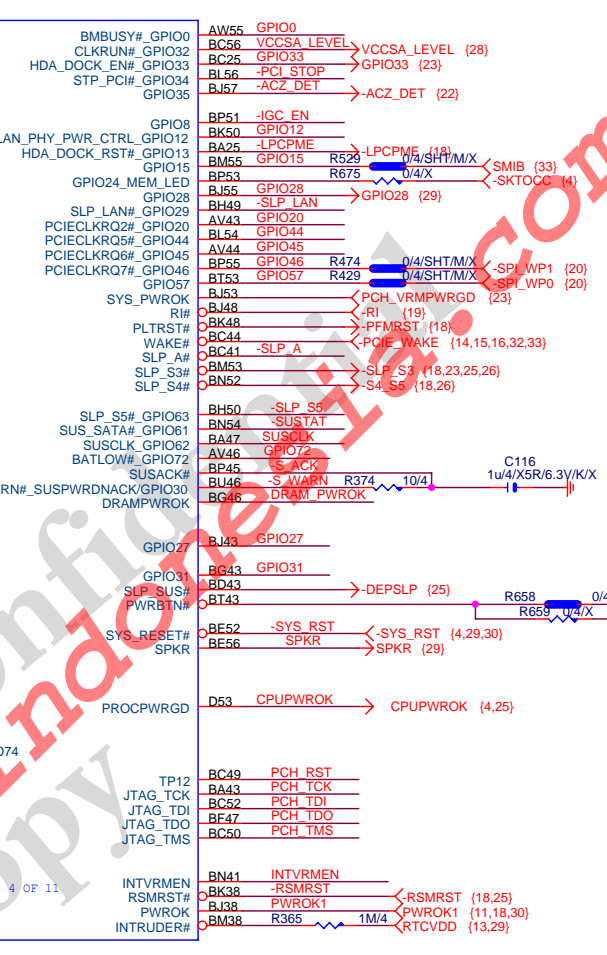
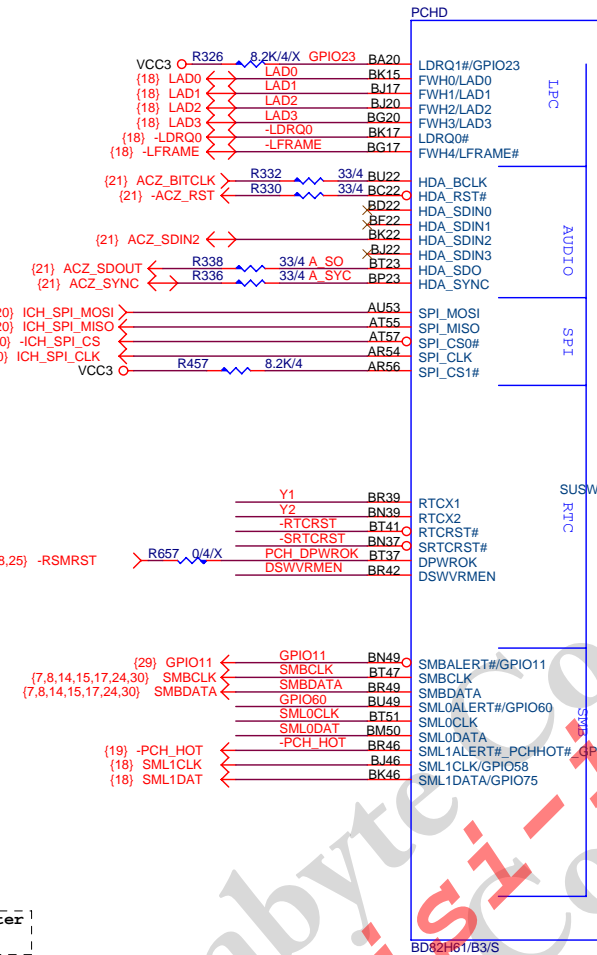
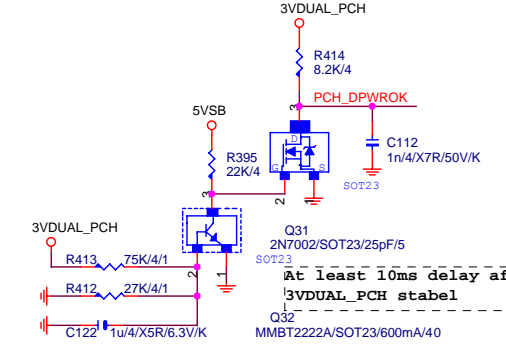
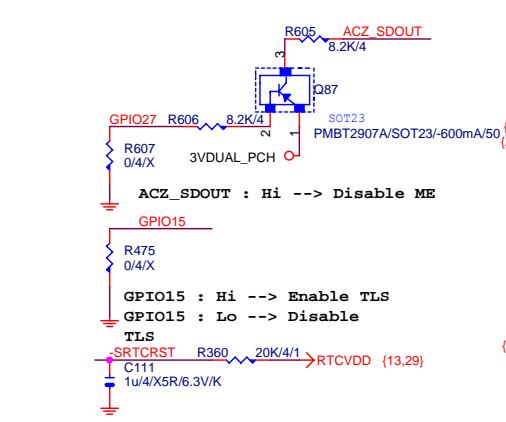
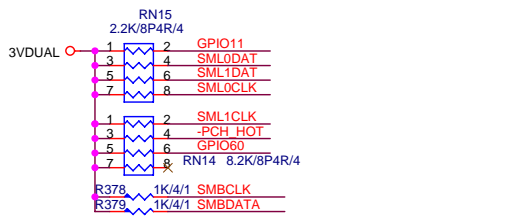
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Gigabyte Technology		
Title PCH DISPLAY ,CLK BUFFER		
Size Custom	Document Number GA-P61-DS3-B3	Rev 1.1
Date: Monday, May 02, 2011	Sheet 10	of 34

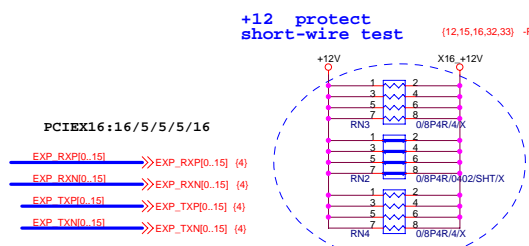
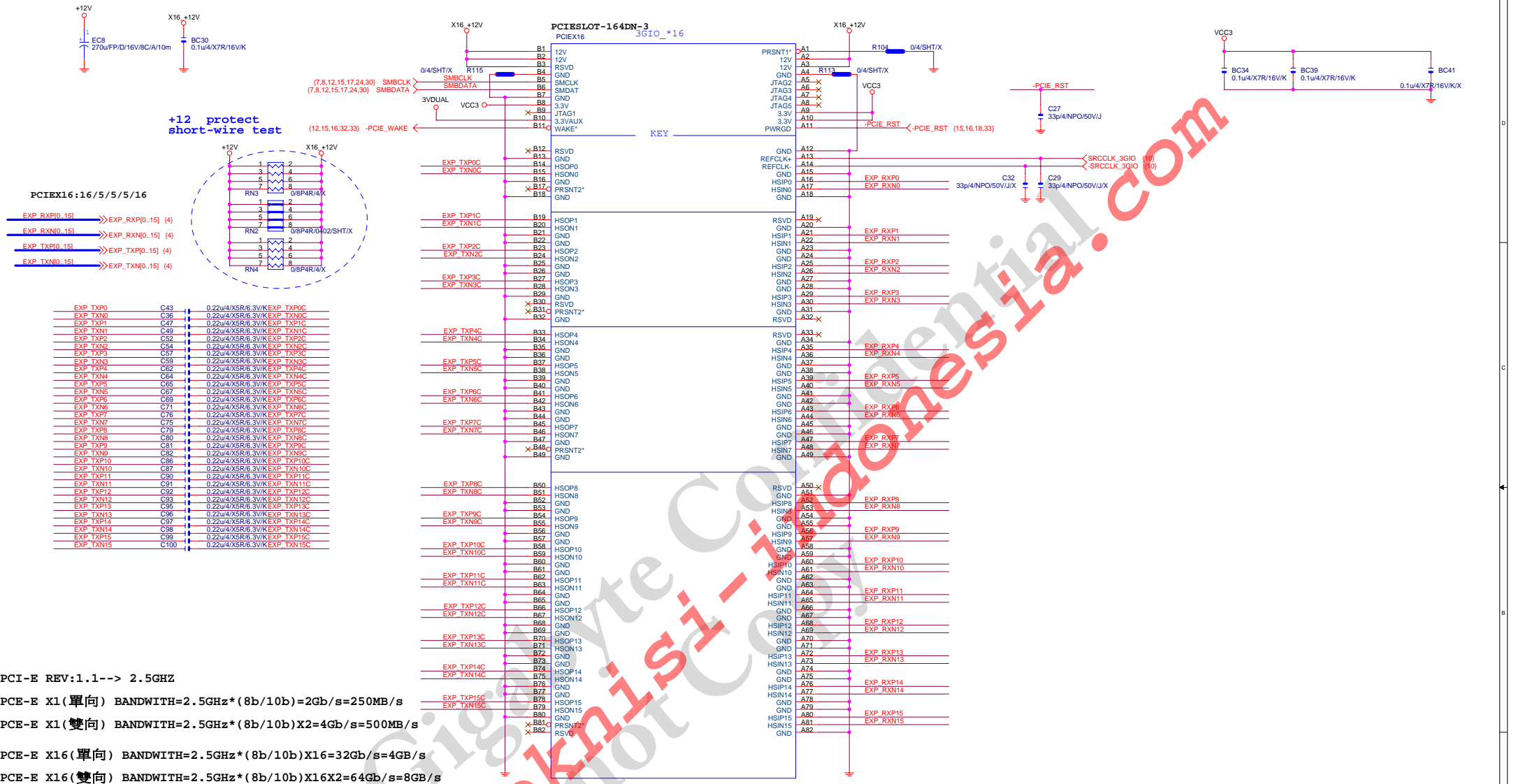
SATA:20/4.5/7.5/4.5/20 (breakout min 8/4/4/8)
Impedance=90 +- 17.5%



Gigabyte Technology		
Title: PCH HOST , SATA, PCI		
Size: B	Document Number: GA-P61-DS3-B3	Rev: 1.1
Date: Monday, May 02, 2011	Sheet: 11	of 34



Gigabyte Technology			
Title PCH GPIO , CTRL , AUDIO			
Size B	Document Number GA-P61-DS3-B3		Rev 1.1
Date:	Monday, May 02, 2011	Sheet 12	of 34



EXP TXP0	C43	0.22u4/X5R/6.3V/K/EXP TXP0C
EXP TXN0	C36	0.22u4/X5R/6.3V/K/EXP TXN0C
EXP TXP1	C47	0.22u4/X5R/6.3V/K/EXP TXP1C
EXP TXN1	C49	0.22u4/X5R/6.3V/K/EXP TXN1C
EXP TXP2	C52	0.22u4/X5R/6.3V/K/EXP TXP2C
EXP TXN2	C54	0.22u4/X5R/6.3V/K/EXP TXN2C
EXP TXP3	C57	0.22u4/X5R/6.3V/K/EXP TXP3C
EXP TXN3	C59	0.22u4/X5R/6.3V/K/EXP TXN3C
EXP TXP4	C62	0.22u4/X5R/6.3V/K/EXP TXP4C
EXP TXN4	C64	0.22u4/X5R/6.3V/K/EXP TXN4C
EXP TXP5	C65	0.22u4/X5R/6.3V/K/EXP TXP5C
EXP TXN5	C67	0.22u4/X5R/6.3V/K/EXP TXN5C
EXP TXP6	C69	0.22u4/X5R/6.3V/K/EXP TXP6C
EXP TXN6	C71	0.22u4/X5R/6.3V/K/EXP TXN6C
EXP TXP7	C76	0.22u4/X5R/6.3V/K/EXP TXP7C
EXP TXN7	C75	0.22u4/X5R/6.3V/K/EXP TXN7C
EXP TXP8	C79	0.22u4/X5R/6.3V/K/EXP TXP8C
EXP TXN8	C80	0.22u4/X5R/6.3V/K/EXP TXN8C
EXP TXP9	C81	0.22u4/X5R/6.3V/K/EXP TXP9C
EXP TXN9	C82	0.22u4/X5R/6.3V/K/EXP TXN9C
EXP TXP10	C86	0.22u4/X5R/6.3V/K/EXP TXP10C
EXP TXN10	C87	0.22u4/X5R/6.3V/K/EXP TXN10C
EXP TXP11	C90	0.22u4/X5R/6.3V/K/EXP TXP11C
EXP TXN11	C91	0.22u4/X5R/6.3V/K/EXP TXN11C
EXP TXP12	C92	0.22u4/X5R/6.3V/K/EXP TXP12C
EXP TXN12	C93	0.22u4/X5R/6.3V/K/EXP TXN12C
EXP TXP13	C95	0.22u4/X5R/6.3V/K/EXP TXP13C
EXP TXN13	C98	0.22u4/X5R/6.3V/K/EXP TXN13C
EXP TXP14	C97	0.22u4/X5R/6.3V/K/EXP TXP14C
EXP TXN14	C98	0.22u4/X5R/6.3V/K/EXP TXN14C
EXP TXP15	C99	0.22u4/X5R/6.3V/K/EXP TXP15C
EXP TXN15	C100	0.22u4/X5R/6.3V/K/EXP TXN15C

PCI-E REV:1.1--> 2.5GHZ

PCE-E X1 (單向) BANDWIDTH=2.5GHZ*(8b/10b)=2Gb/s=250MB/s

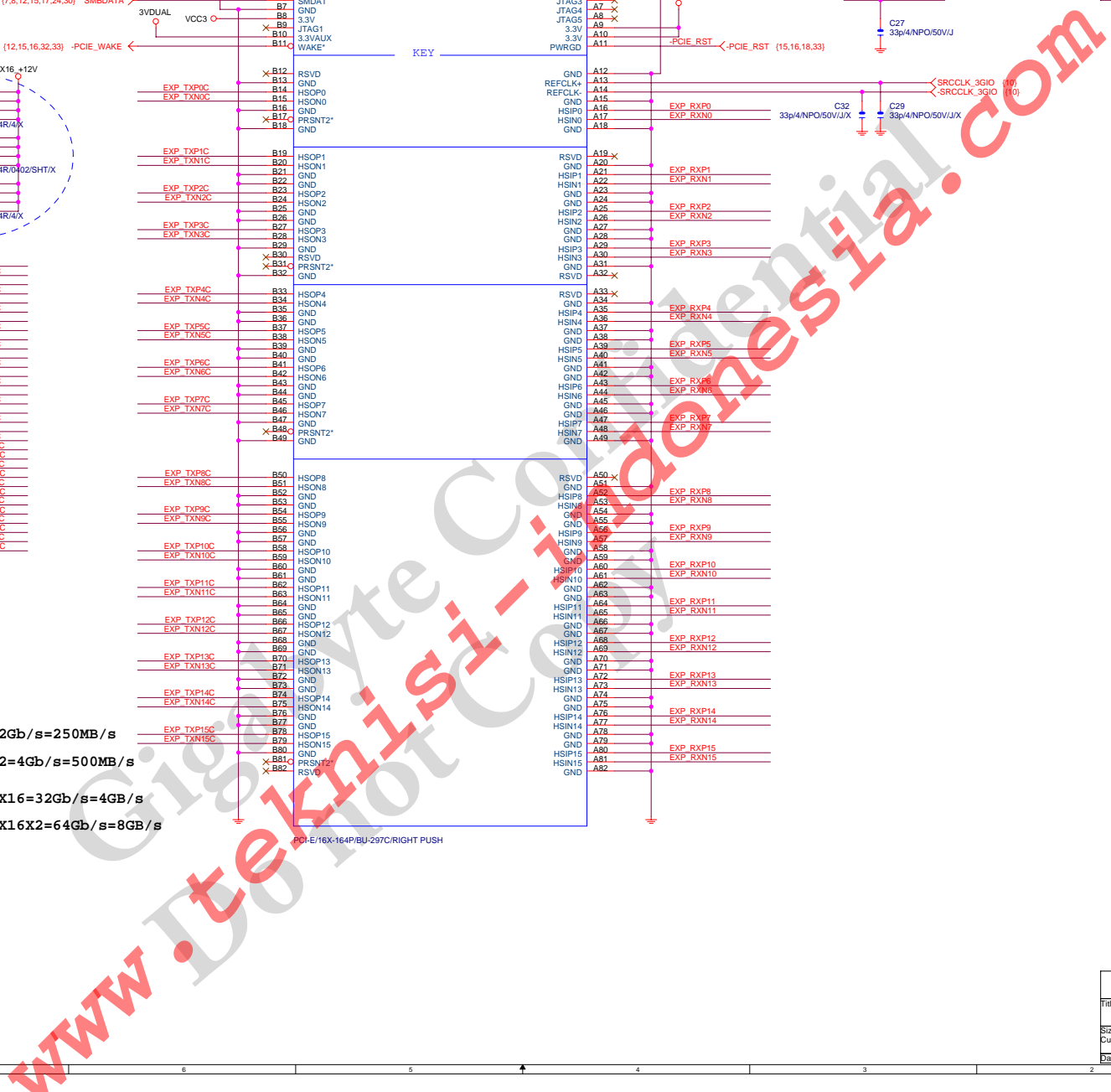
PCE-E X1 (雙向) BANDWIDTH=2.5GHZ*(8b/10b)X2=4Gb/s=500MB/s

PCB-E X16 (單向) BANDWIDTH=2.5GHZ*(8b/10b)X16=32Gb/s=4GB/s

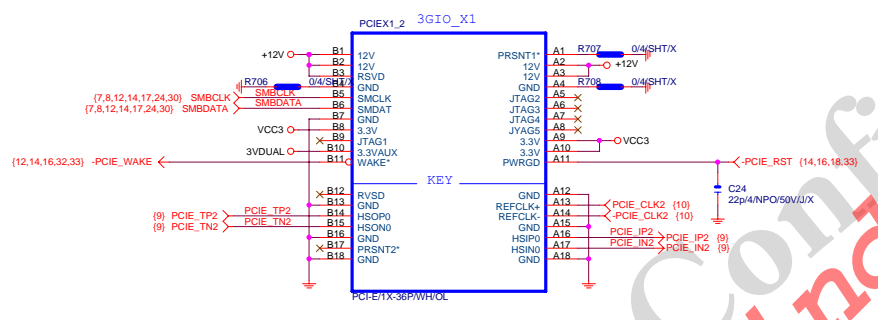
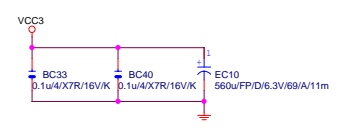
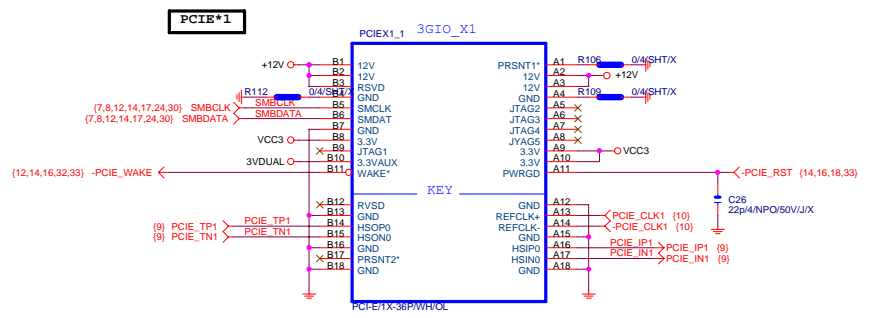
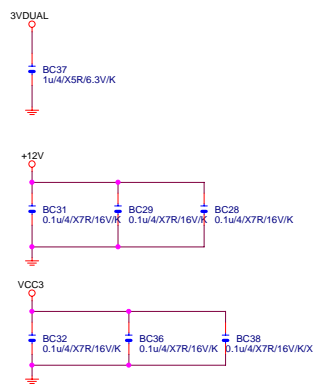
PCB-E X16 (雙向) BANDWIDTH=2.5GHZ*(8b/10b)X16X2=64Gb/s=8GB/s

PCI-E REV:2.0--> 5GHZ

PCI-E/16X-164P/BU-297C/RIGHT PUSH



Gigabyte Technology		
Title	PCI EXPRESS * 16	
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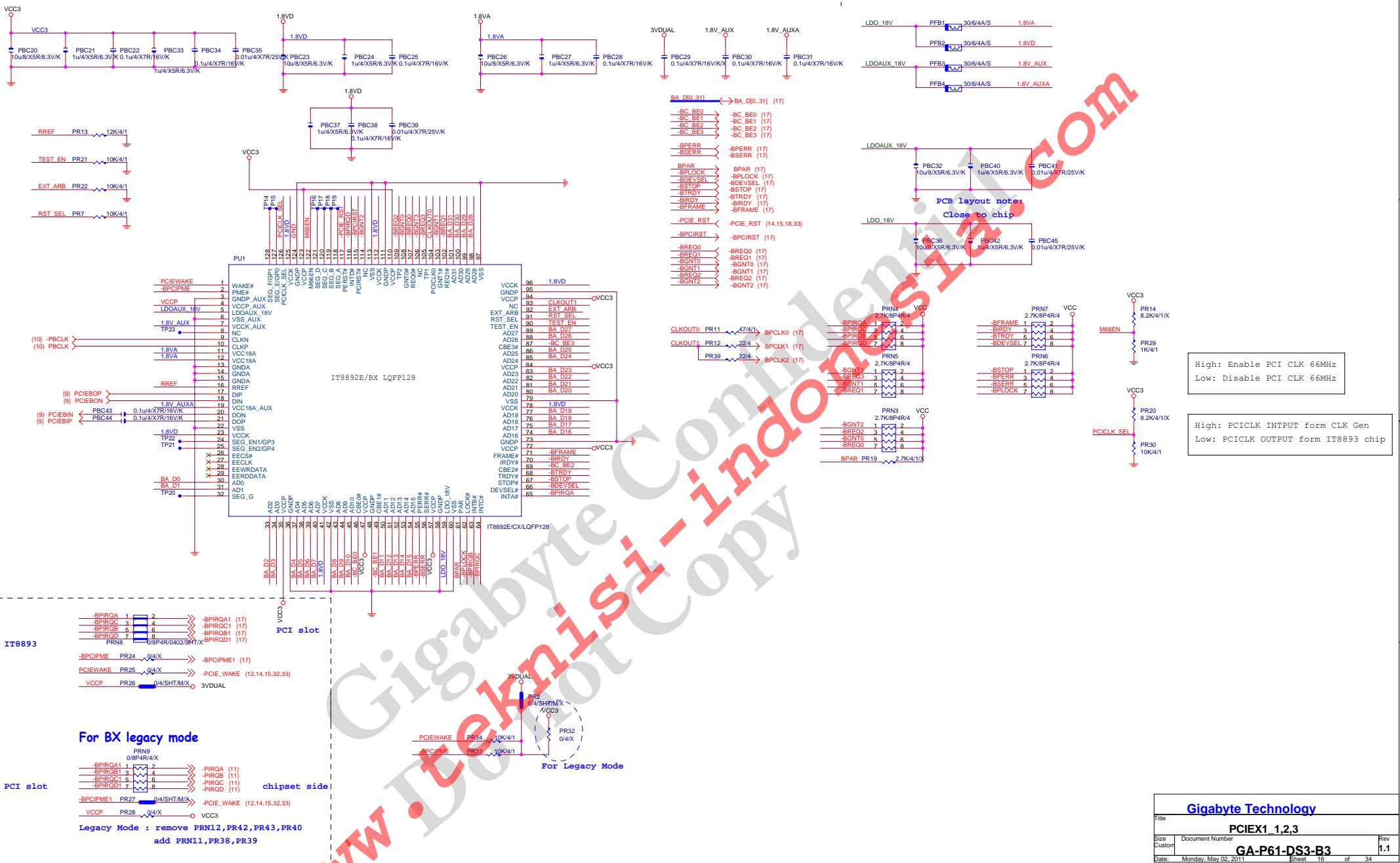


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PCI EXPRESS X 4 PORT		
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High: Enable PCI CLK 66MHz
 Low: Disable PCI CLK 66MHz

High: PCICLK INPUT form CLK Gen
 Low: PCICLK OUTPUT form IT8893 chip

For BX legacy mode

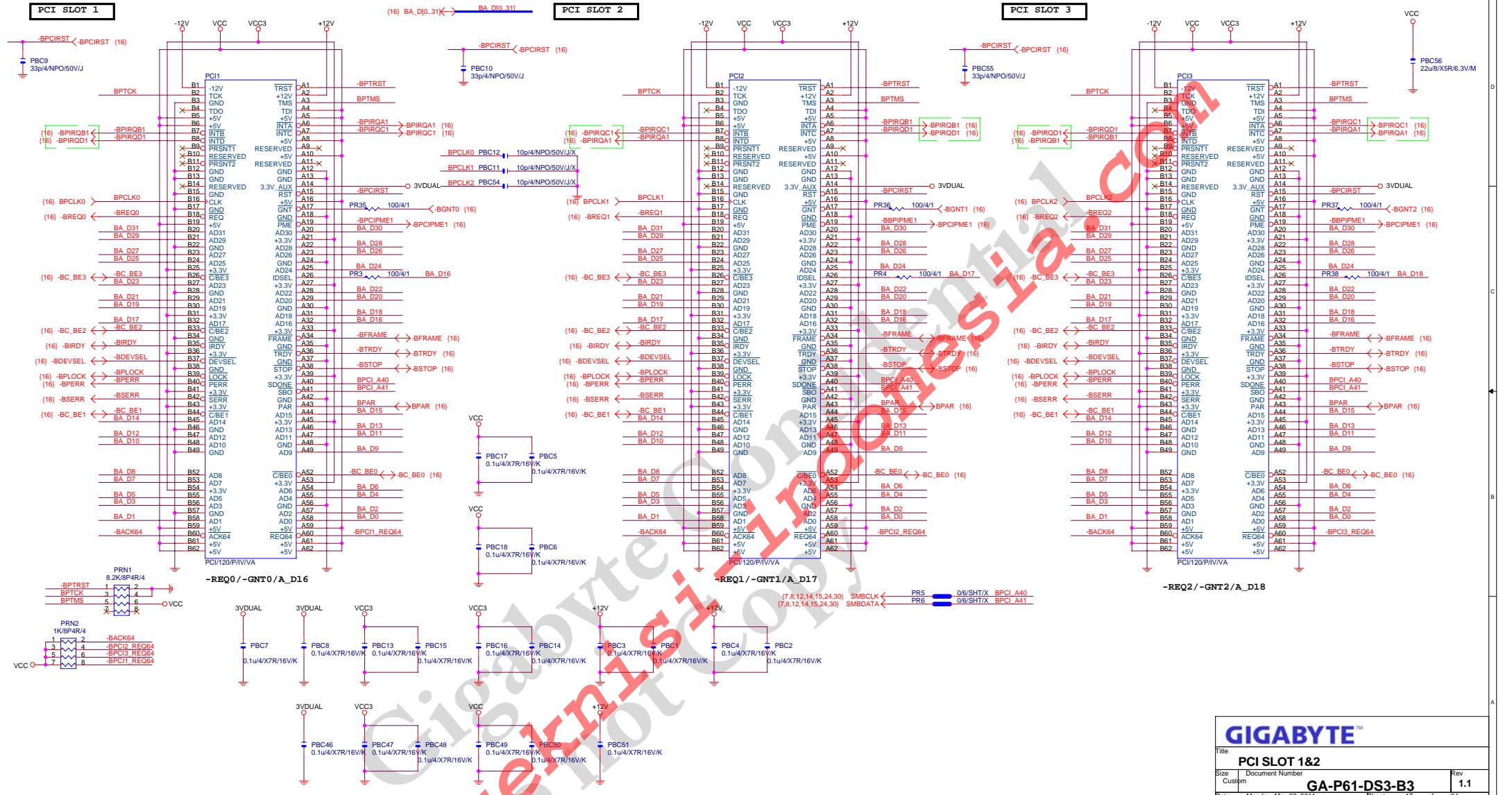
PRN9 0/8P4R/4X

-BPIROA1 1 2 -> -PIROA (11)
 -BPIROB1 3 4 -> -PIROB (11)
 -BPIROC1 5 6 -> -PIROC (11)
 -BPIROD1 7 8 -> -PIROD (11)

-BPCIPME1 PR27 0/4/SHT/MIX -> -PCIE_WAKE (12,14,15,32,33)
 VCCP PR28 0/4X -> VCC3

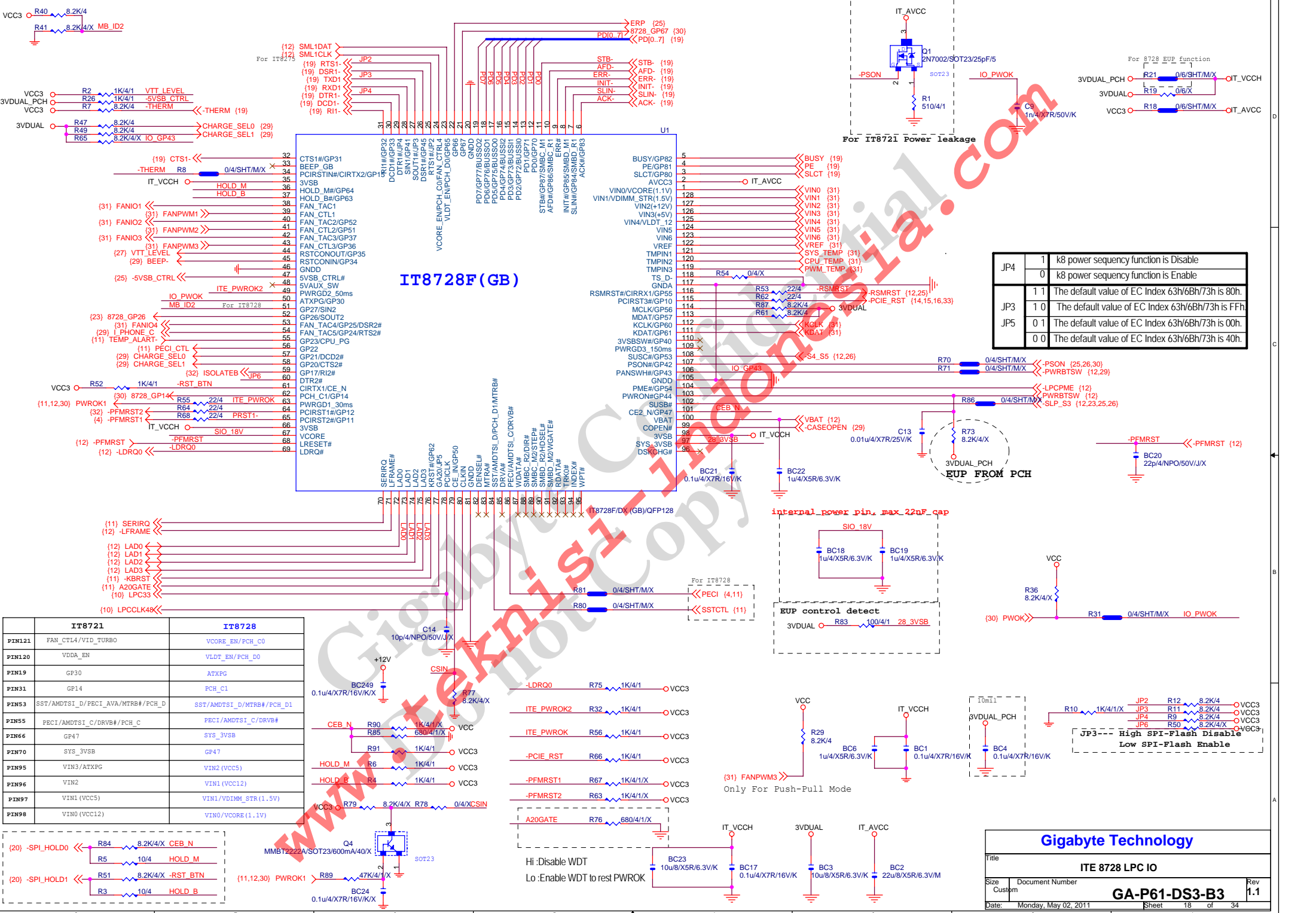
**Legacy Mode : remove PRN12,PR42,PR43,PR40
 add PRN11,PR38,PR39**

Gigabyte Technology		
Title PCIEX1 1,2,3		
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GIGABYTE		
PCI SLOT 1&2		
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IT8728F(GB)

JP4	1	k8 power sequency function is Disable
	0	k8 power sequency function is Enable
JP3	1 1	The default value of EC Index 63h/6Bh/73h is 80h.
	1 0	The default value of EC Index 63h/6Bh/73h is FFh
JP5	0 1	The default value of EC Index 63h/6Bh/73h is 00h.
	0 0	The default value of EC Index 63h/6Bh/73h is 40h.

	IT8721	IT8728
PIN121	FAN_CTL4/VID_TURBO	VCORE_EN/PCH_C0
PIN120	VDDA_EN	VLDT_EN/PCH_D0
PIN19	GP30	ATXPG
PIN31	GP14	PCH_C1
PIN53	SST/AMDTSI_D/PECI_AVA/MTRB#/PCH_D	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PECI/AMDTSI_C/DRVB#/PCH_C	PECI/AMDTSI_C/DRVB#
PIN66	GP47	SYS_3VSB
PIN70	SYS_3VSB	GP47
PIN95	VIN3/ATXPG	VIN2 (VCC5)
PIN96	VIN2	VIN1 (VCC12)
PIN97	VIN1 (VCC5)	VIN1/VDIMM_STR(1.5V)
PIN98	VIN0 (VCC12)	VIN0/VCORE (1.1V)

Gigabyte Technology

Title: **ITE 8728 LPC IO**

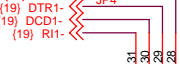
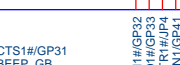
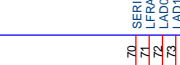
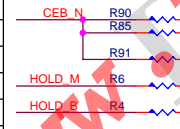
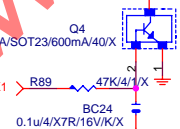
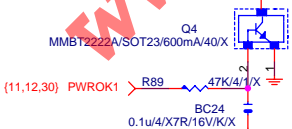
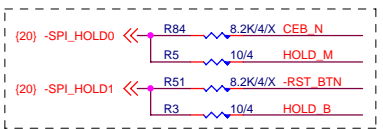
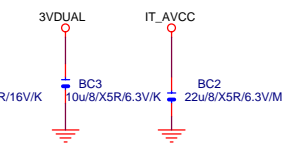
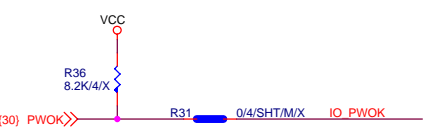
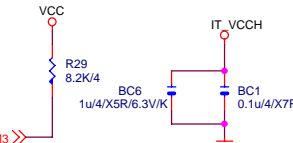
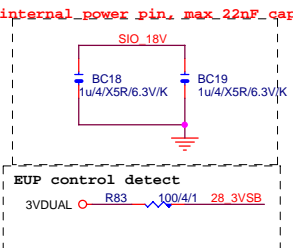
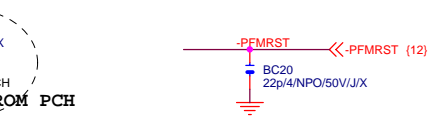
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Document Number: **GA-P61-DS3-B3**

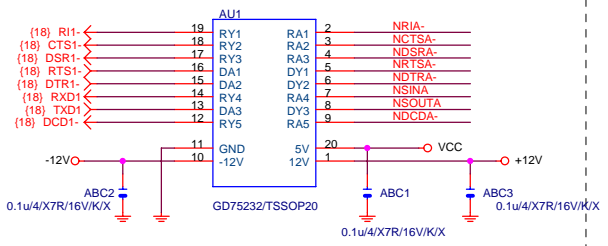
Rev: **1.1**

Date: Monday, May 02, 2011

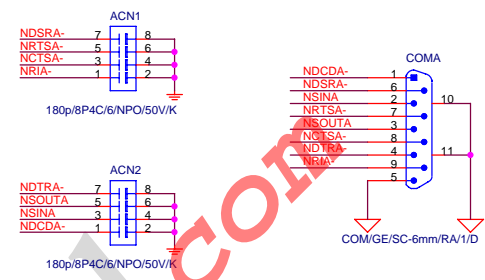
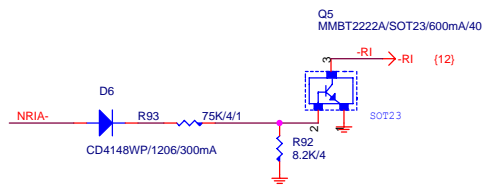
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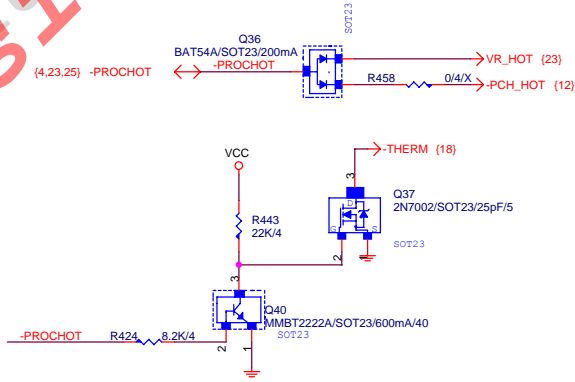
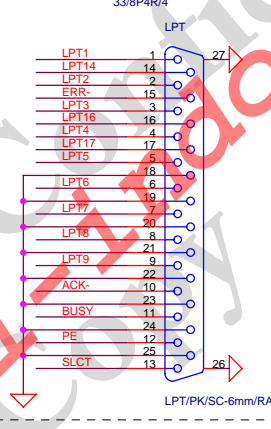
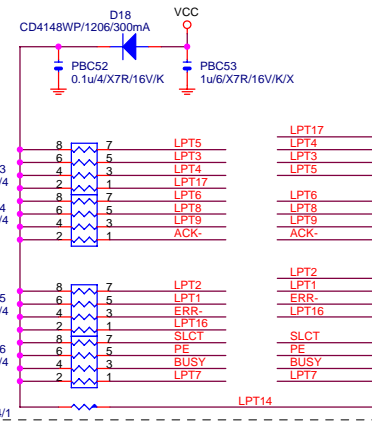
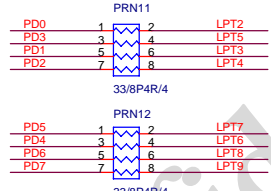
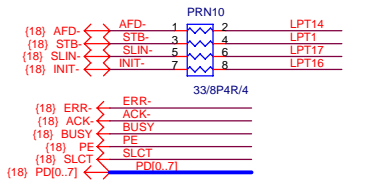
COMA



COM RI

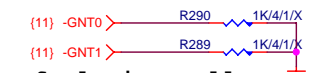
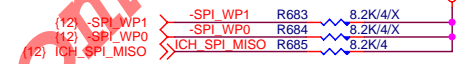
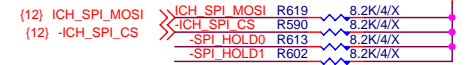


LPT PORT

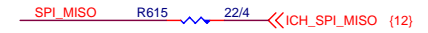


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MOSI For DMI RX Termination Voltage

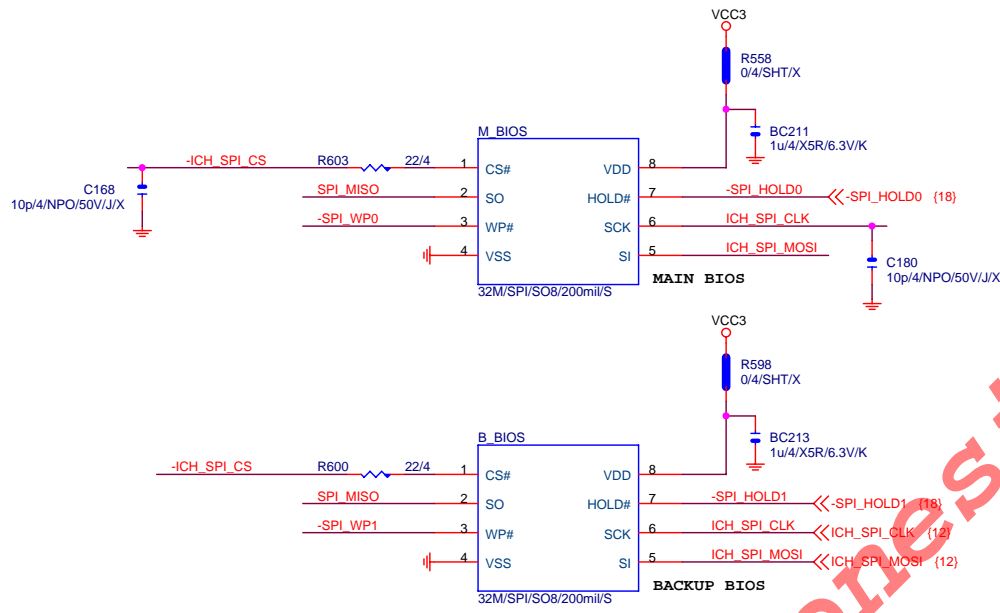


Default int pull up



BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

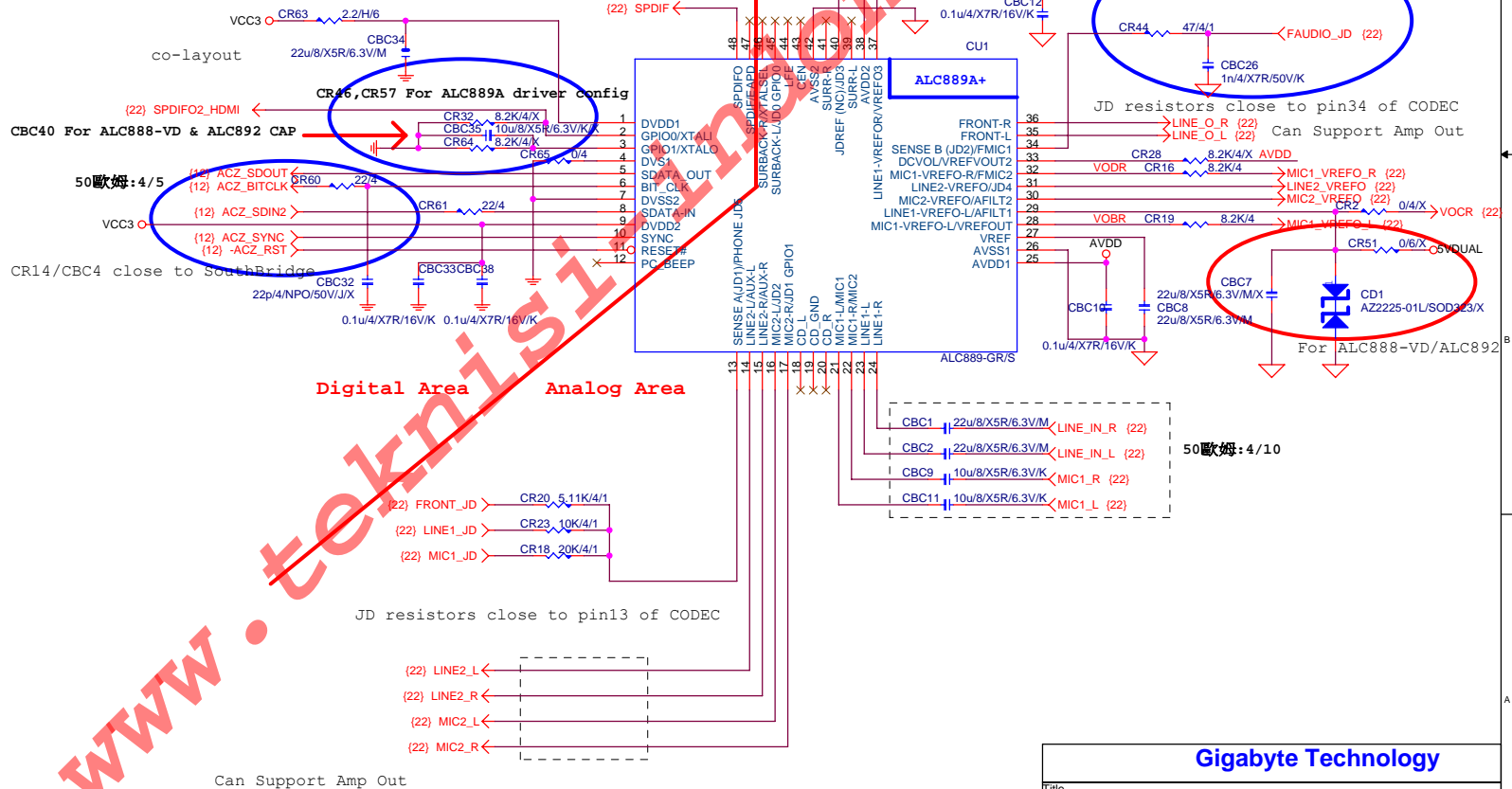
1 means floating
0 means PD 1K



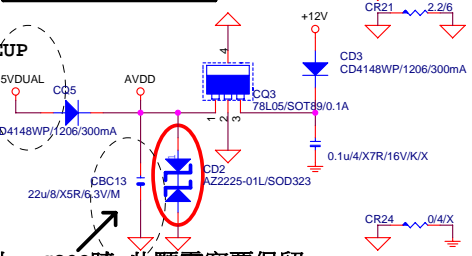
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Gigabyte Technology			
BIOS			
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	ALC883	ALC888-V	ALC888B	ALC888-VD	ALC892R	ALC889	ALC889A
CR32	X	X	X	X	X	X	O
CR64	X	X	X	X	X	X	O
CR65	O	O	X	X	X	O	O
CBC35	X	X	X	10uF/X5R10uF/X5R	X	X	X
CR28	O	X	X	X	X	X	X
CR34	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/0.1%
CR31	X	X	O	X	O	O	X
CR30	O	O	X	O	X	X	O
CBC1/CBC2/CBC5/ CBC6/CBC9/CBC11	4.7uF/ /X5R	4.7uF/ /X5R	4.7uF/ /X5R	4.7uF/ /X5R	4.7uF/ /X5R	10uF/ /X5R	4.7uF/ /X5R
CR5/CR8/CR11/CR4/ CR17/CR22/CR45/CR33/ CR47/CR40/CR26/CR37/ CR13/CR11/CR57/CR53	75 ohm	75 ohm	75 ohm	75 ohm	75 ohm	66 ohm or lower	75 ohm
CR51/CD1/CBC7	X	X	X	O	X	X	X
CD2/CD3/CQ3/CQ5	O	O	O	X	O	O	O

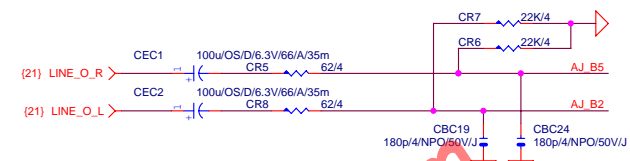


CODEC POWER/EMI PAD



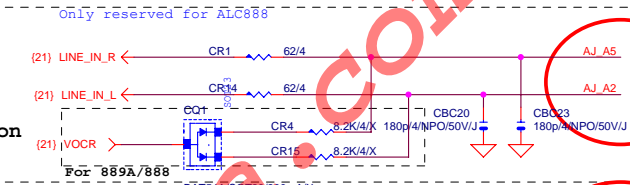
上ALC892時,此顆電容要保留
ADD CD2 For ESD PROTECT DIODE

LINE-OUT

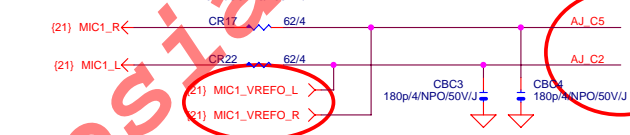


LINE-IN

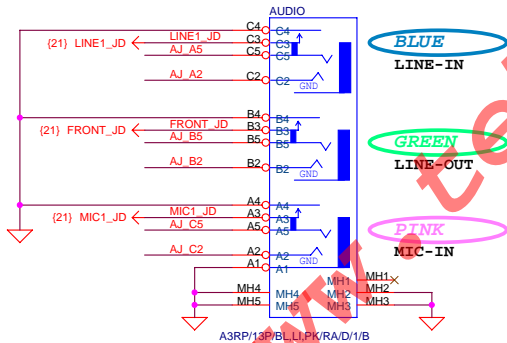
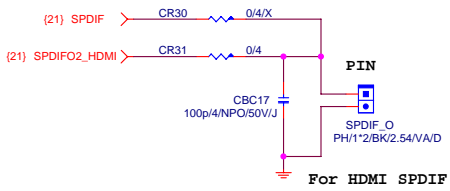
Verify MIC function in LINE-in



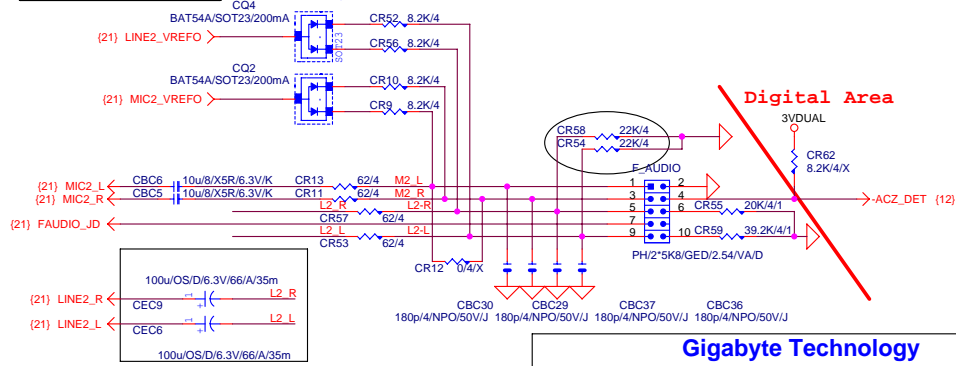
MIC-IN



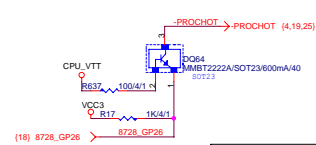
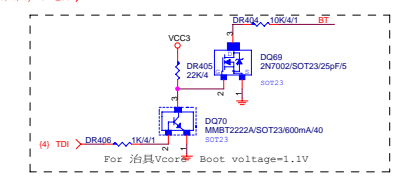
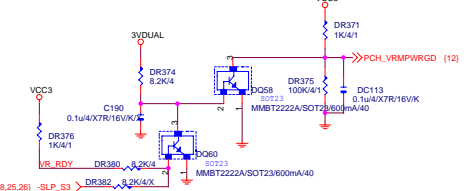
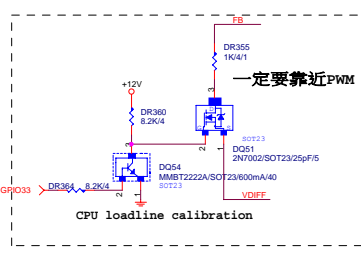
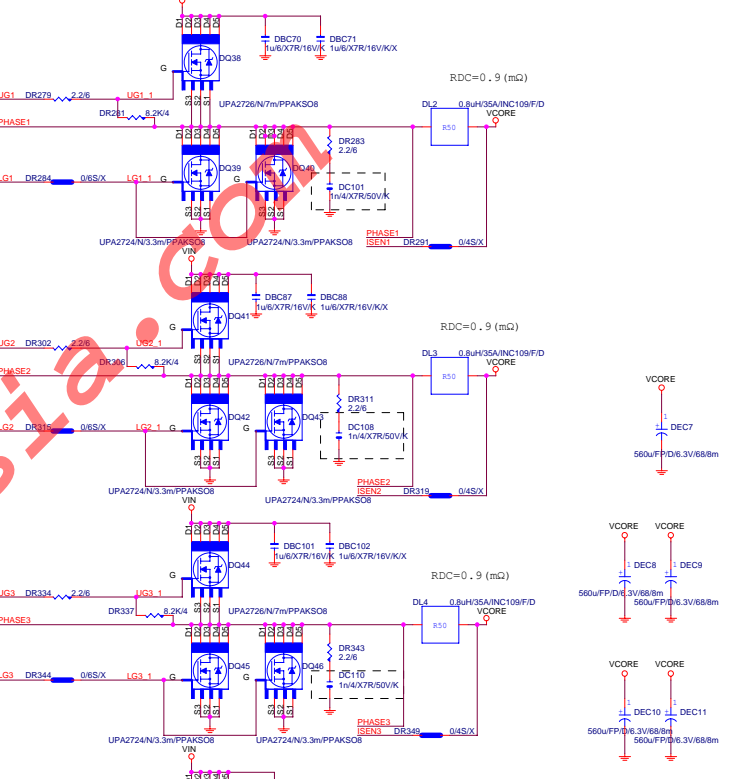
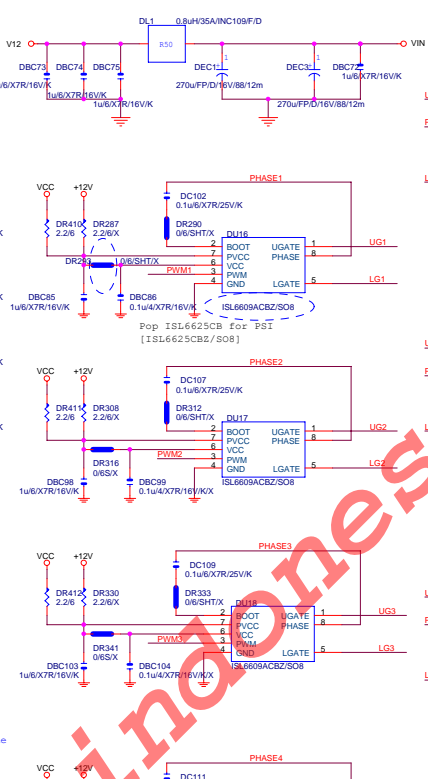
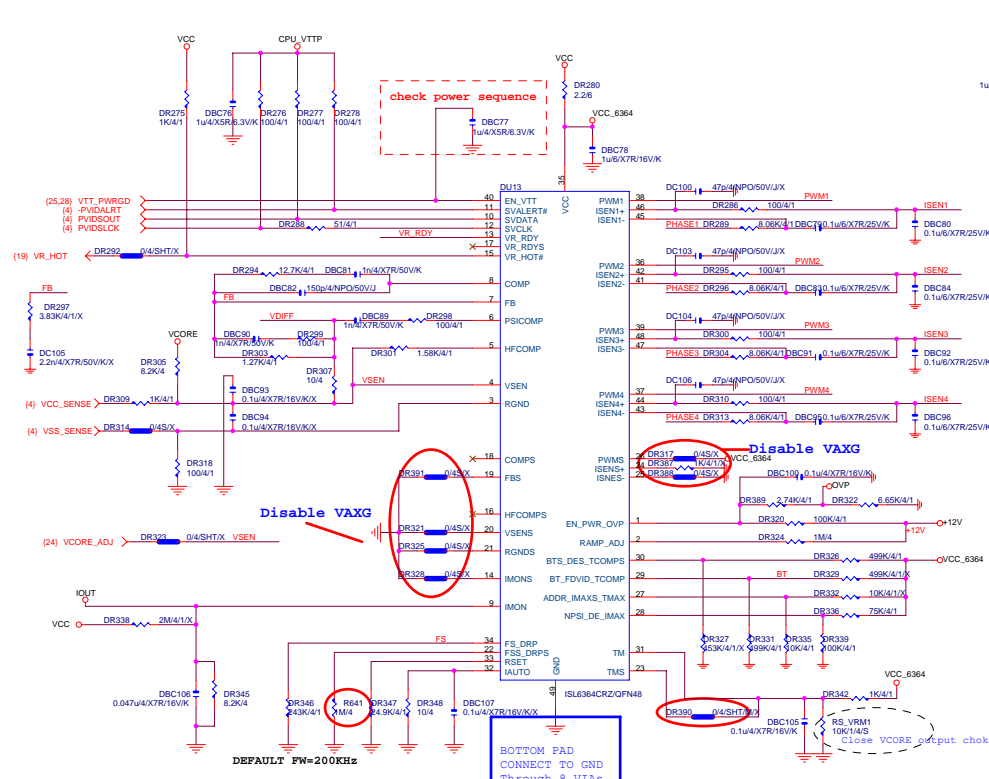
SPDIF_OUT



AZALIA FRONT PANEL

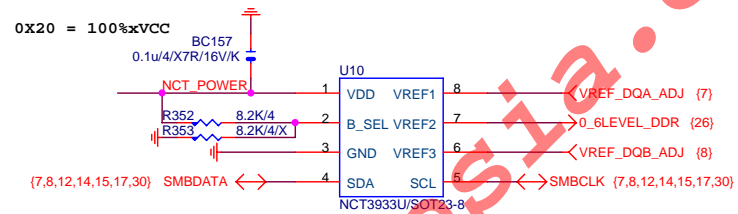
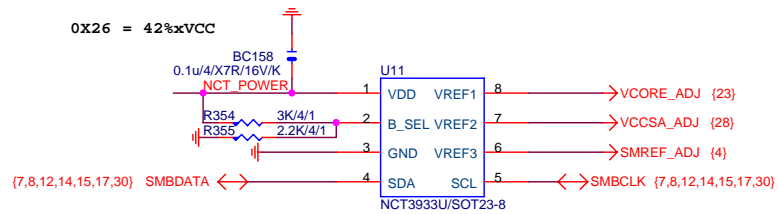
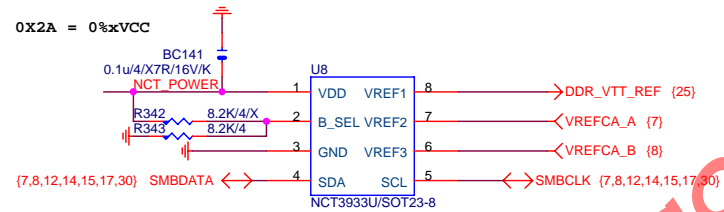
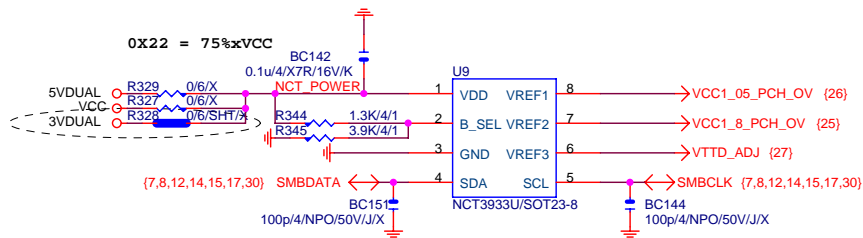


Gigabyte Technology		
AUDIO JACK		
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File	ISL6364 for VR12 DT	
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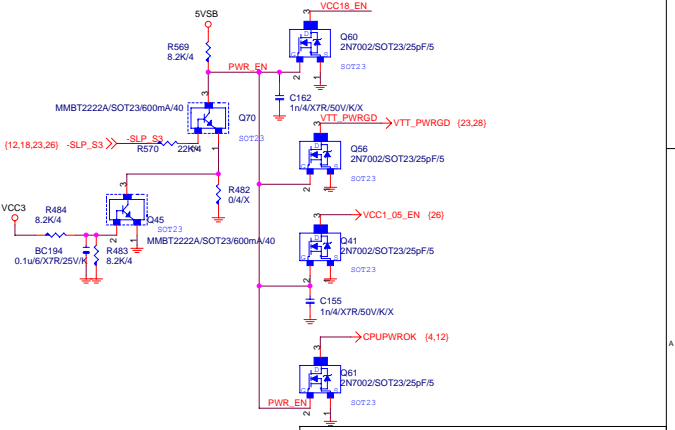
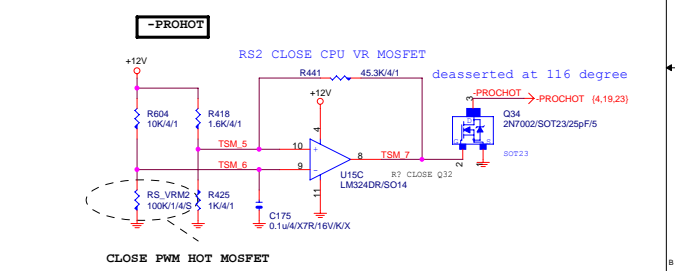
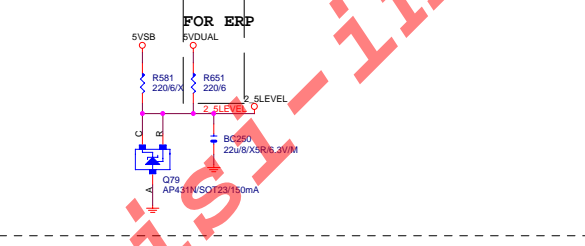
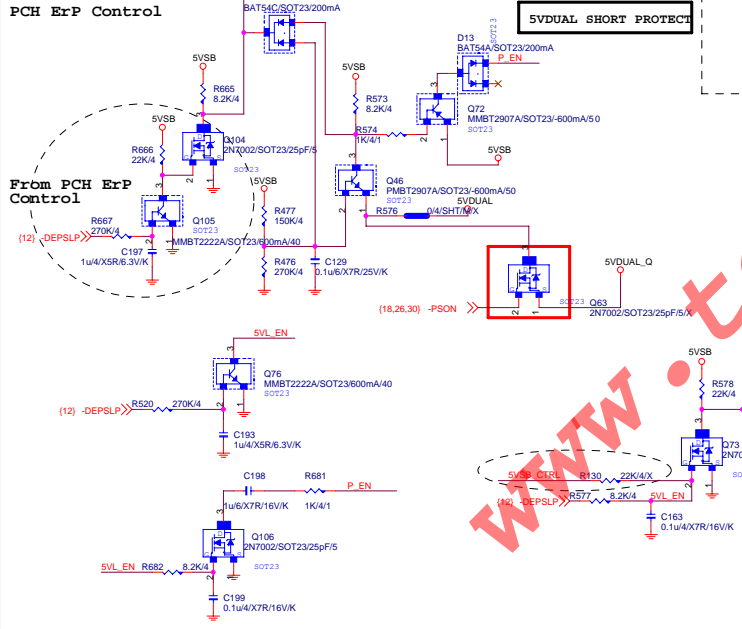
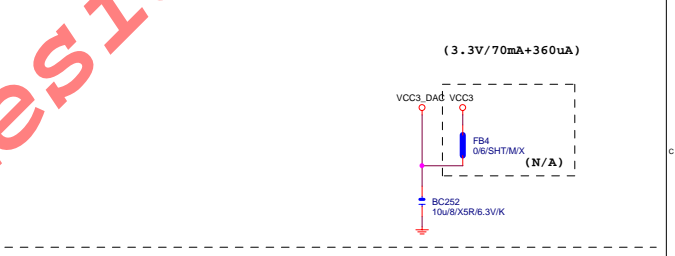
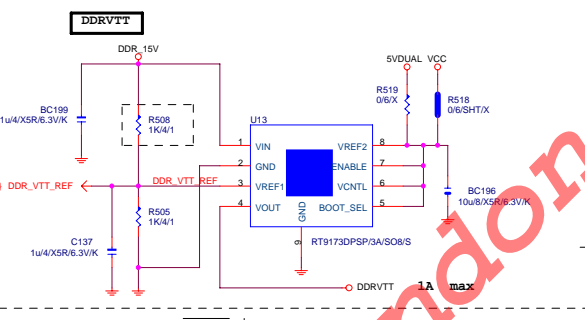
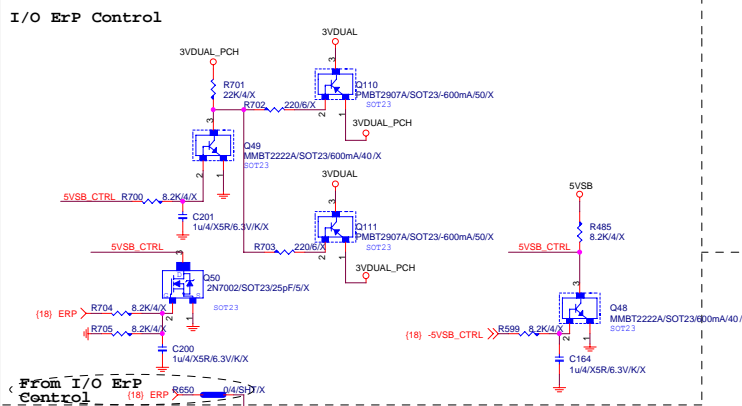
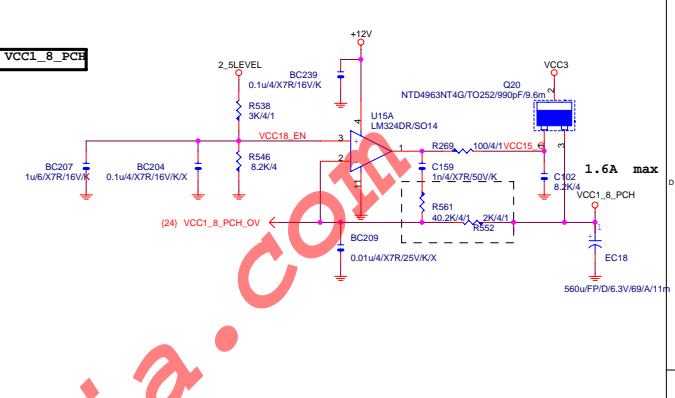
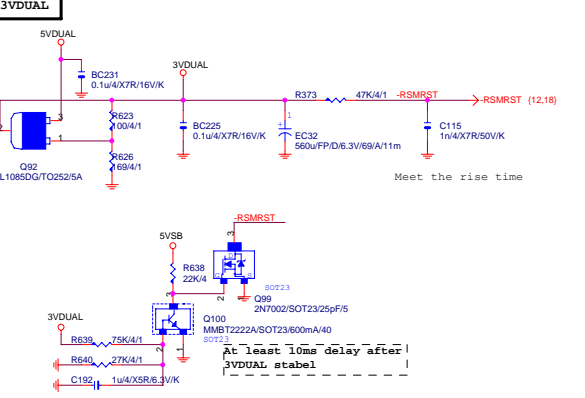
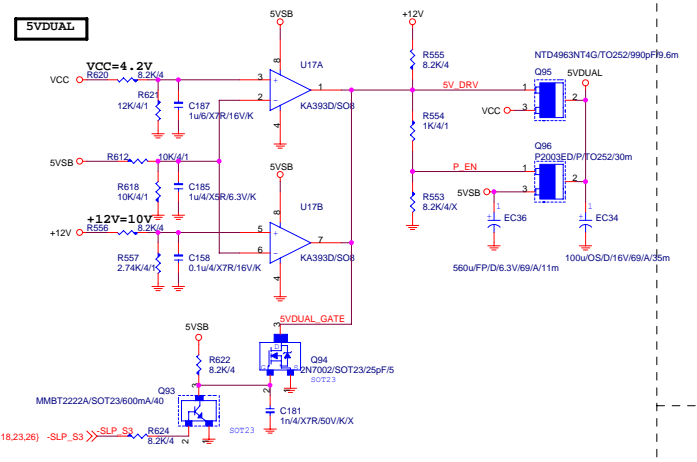
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up6262	0X2A	0X20	0X22	0X26
VREF1	DDR_VTT	VREF_DDRA_DQ	VCC1_05_PCH	VCORE
VREF2	VREF_DDRA_CA	DDR15V	VCC1_8_PCH	VCCSA
VREF3	VREF_DDRA_CAVREF_DDRB_DQ		CPU_VTT	SMREF

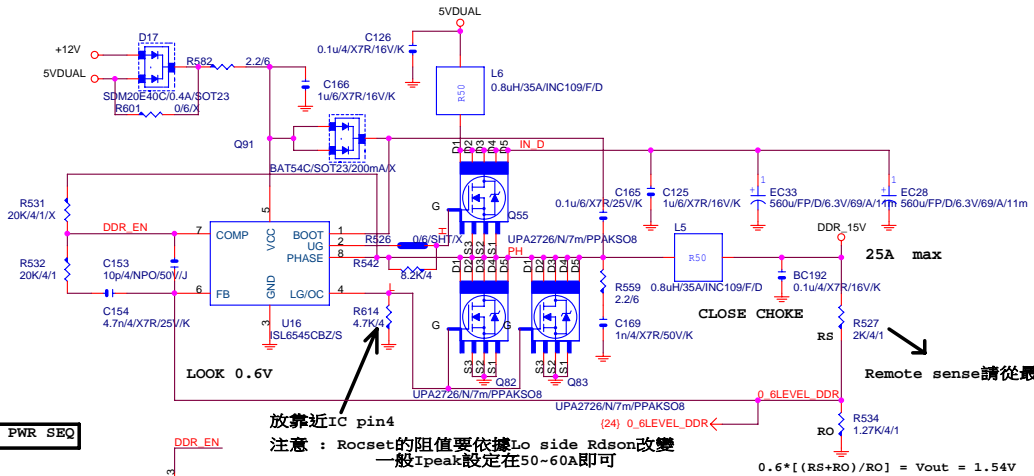
Gigabyte Technology		
Title		
CPU CORE VR-2		
Size	Document Number	Rev
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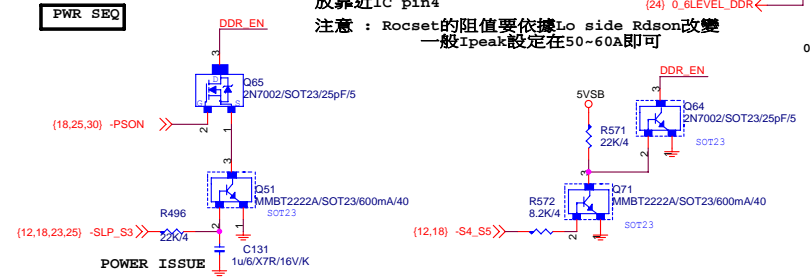


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DDR18V

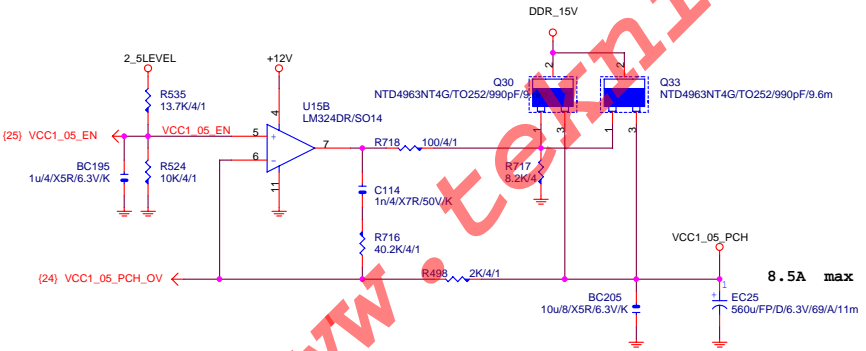


PWR SEQ



放靠近IC pin4

VCC1_05_PCH



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Custom	GA-P61-DS3-B3	1.1	
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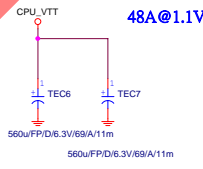
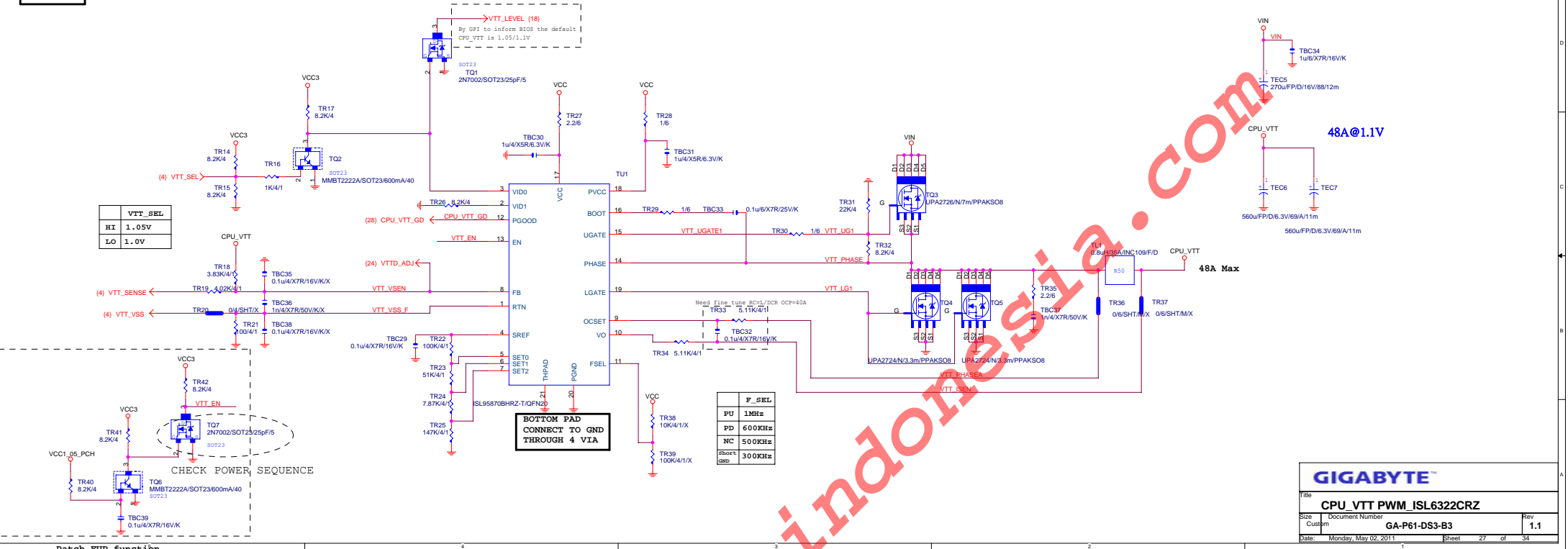
CPU_VTT

VTT_SEL	
HI	1.05V
LO	1.0V

By GPT to inform BIOS the default CPU_VTT is 1.05/1.1V

BOTTOM PAD CONNECT TO GND THROUGH 4 VIA

F_SEL	
PU	1MHz
PD	600KHz
NC	500KHz
BIAS/gnd	300KHz



48A Max

GIGABYTE

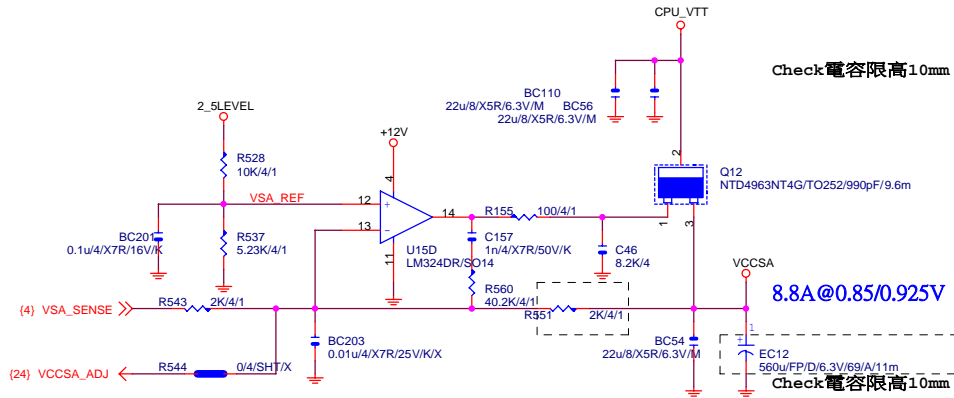
Title: **CPU_VTT PWM_ISL6322CRZ**

Size	Document Number	Rev
Custm	GA-P61-DS3-B3	1.1

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VCC_SA

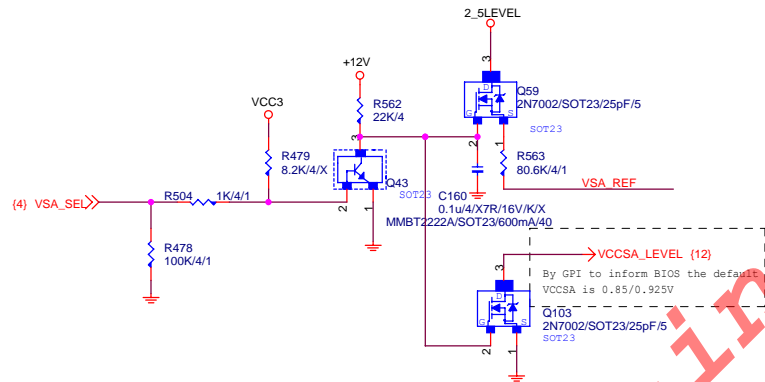


8.8A@0.85/0.925V

Check 電容限高10mm

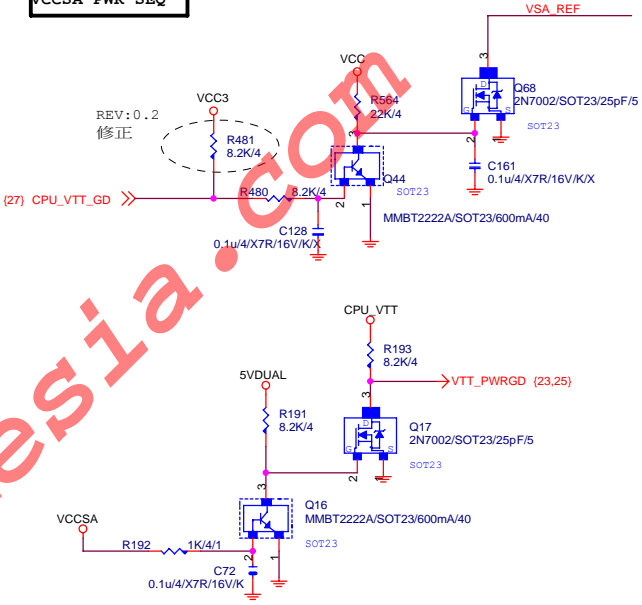
PDG 1.01

	VSA_SEL
HI	0.85V
LO	0.925V



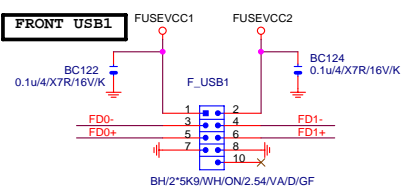
By GPI to inform BIOS the default VCCSA is 0.85/0.925V

VCCSA_PWR_SEQ



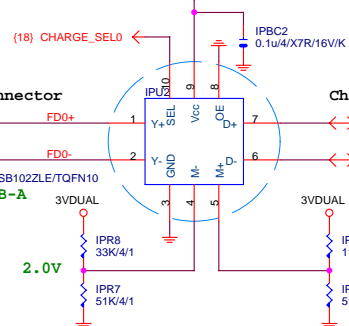
Gigabyte Technology		
Title CPU VTT PWM_ISL6312		
Size Custom	Document Number GA-P61-DS3-B3	Rev 1.1
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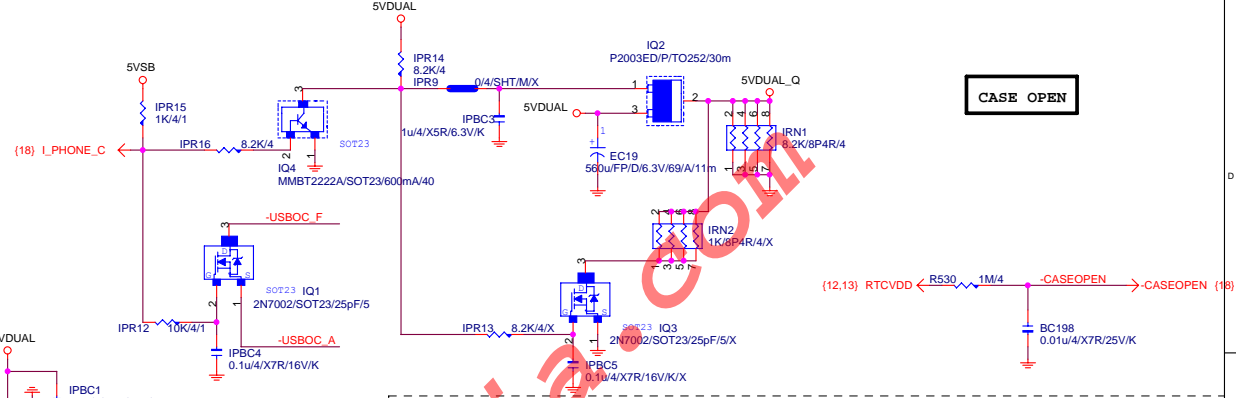
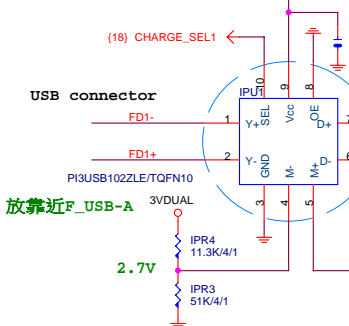


i phone charger circuit

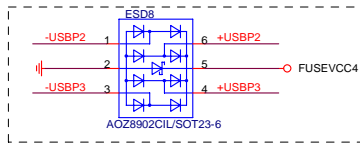
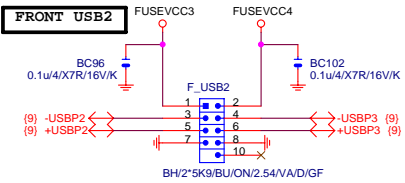
DEFAULT H, STABBY POWER



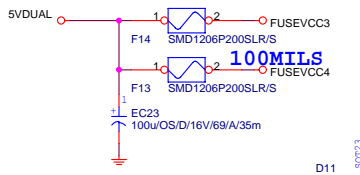
DEFAULT H, STABBY POWER



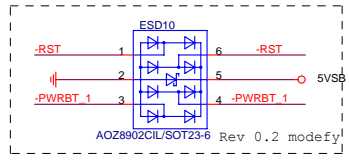
CASE OPEN



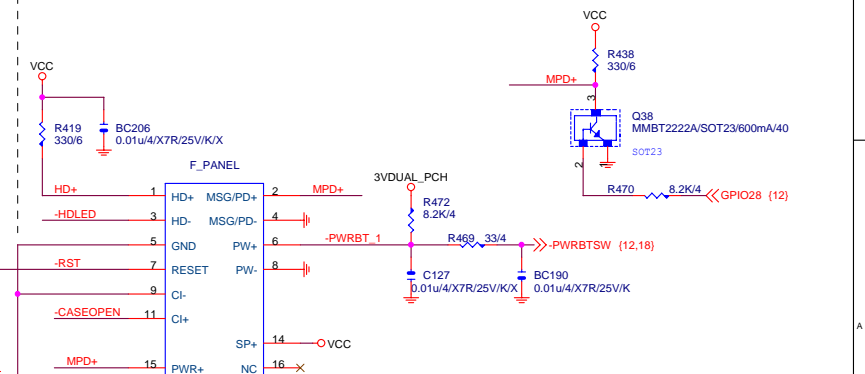
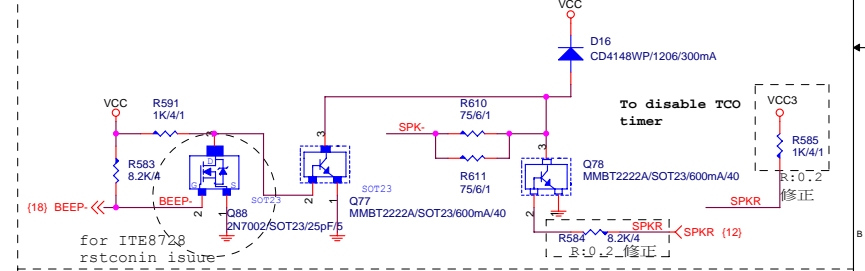
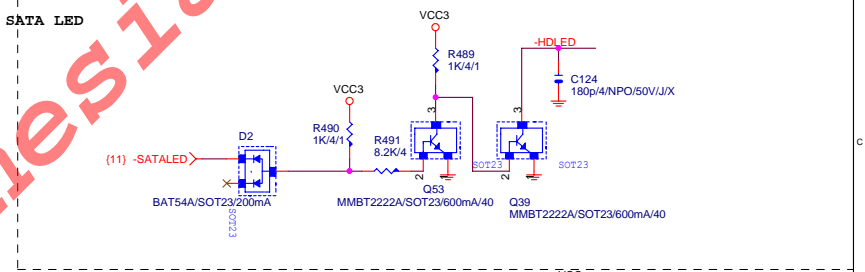
Close to connector



F_USB POWER PROTECT



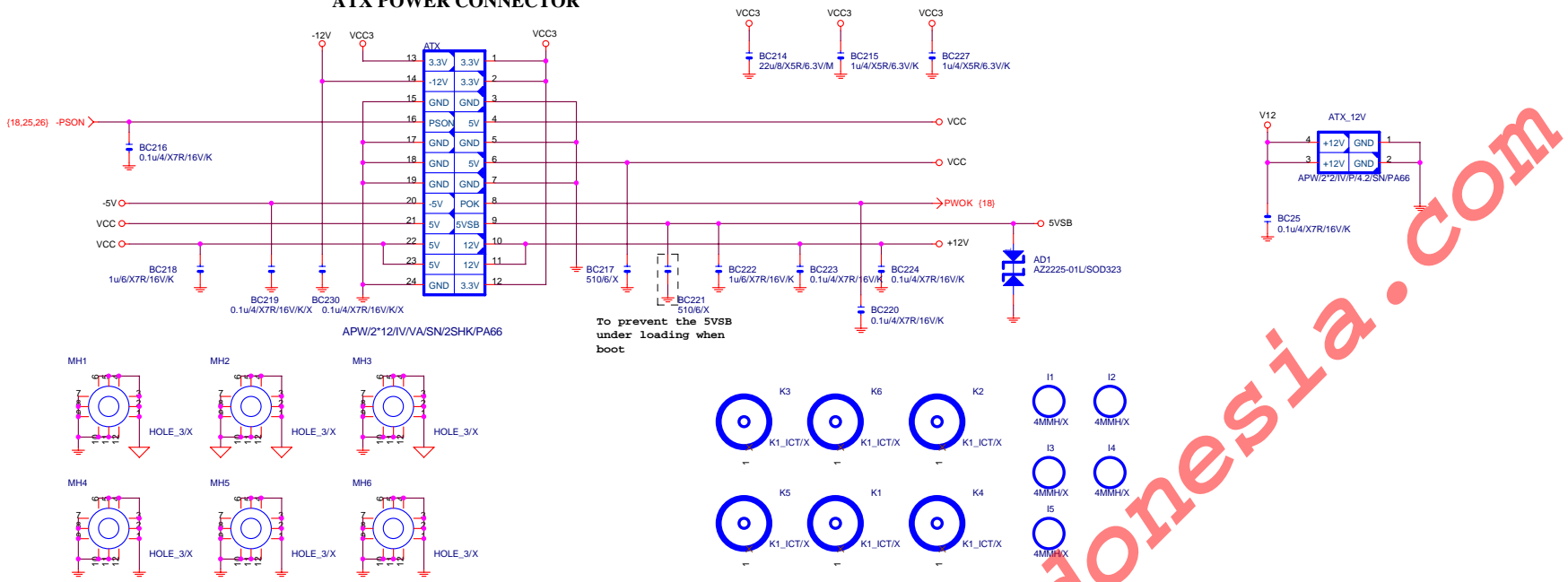
INTEL FRONT PANEL



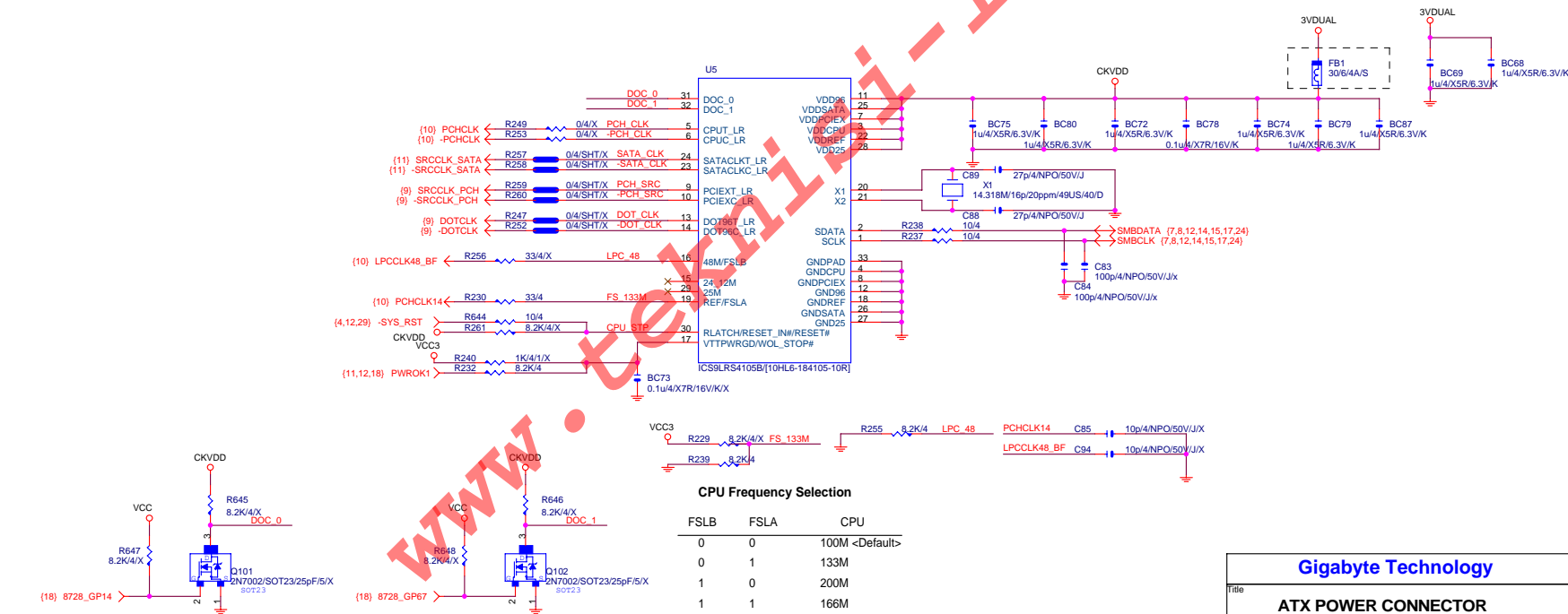
Gigabyte Technology		
FP,F_USB,USB PWR,FDD,BZ		
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ATX POWER CONNECTOR



To prevent the 5VSB under loading when boot



CPU Frequency Selection

FSLB	FSLA	CPU
0	0	100M <Default>
0	1	133M
1	0	200M
1	1	166M

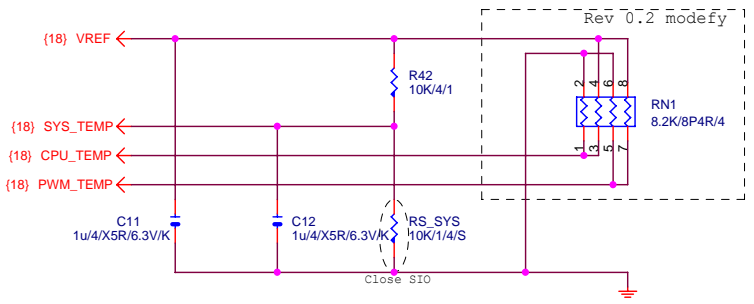
Gigabyte Technology

Title: **ATX POWER CONNECTOR**
 GA-P61-DS3-B3

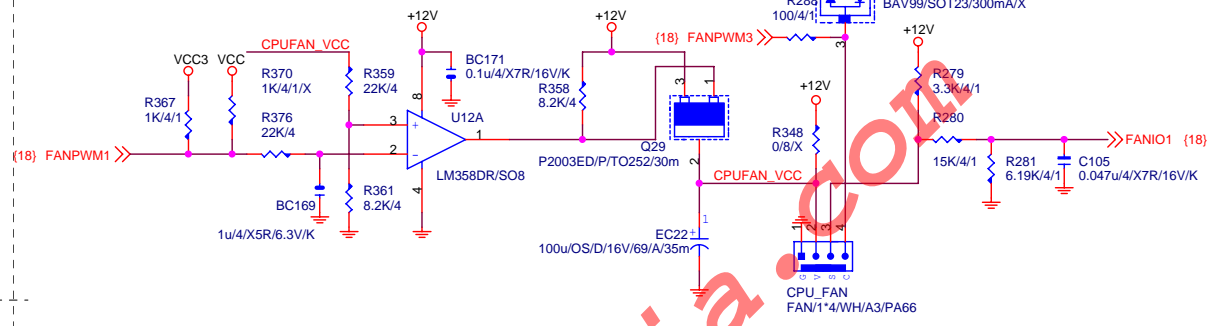
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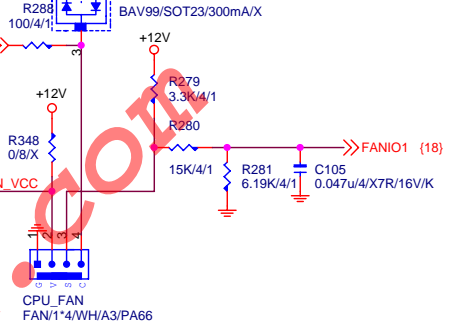
TEMP H/W MONITOR



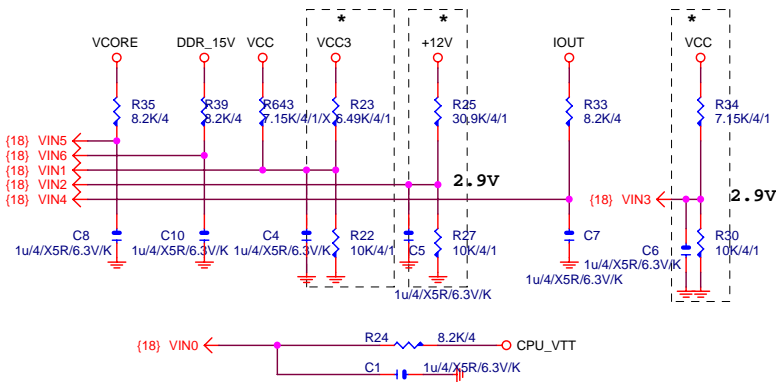
CPU SMART FAN



Anti Spike

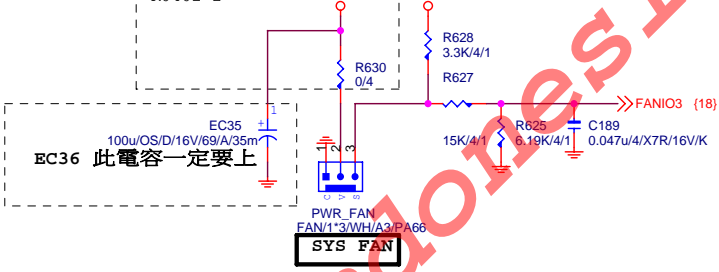


VOLTAGE-- H/W MONITOR

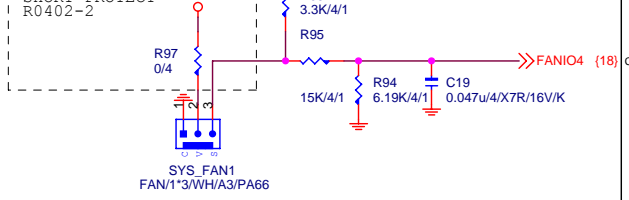


The division voltage of VIN2 & VIN3 must be around 2.9V

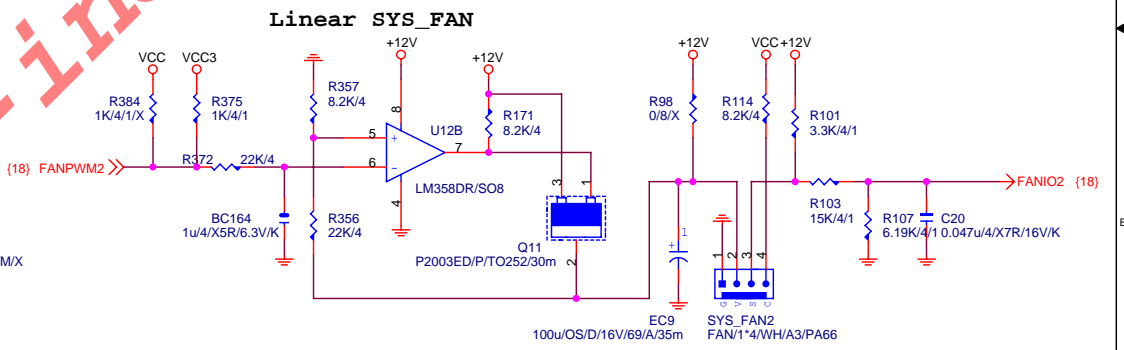
SHORT PROTECT



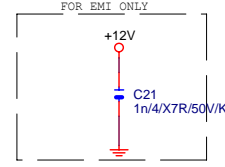
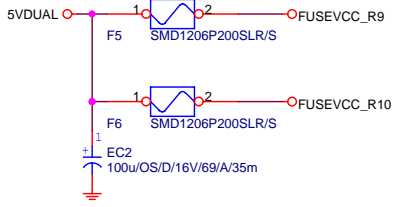
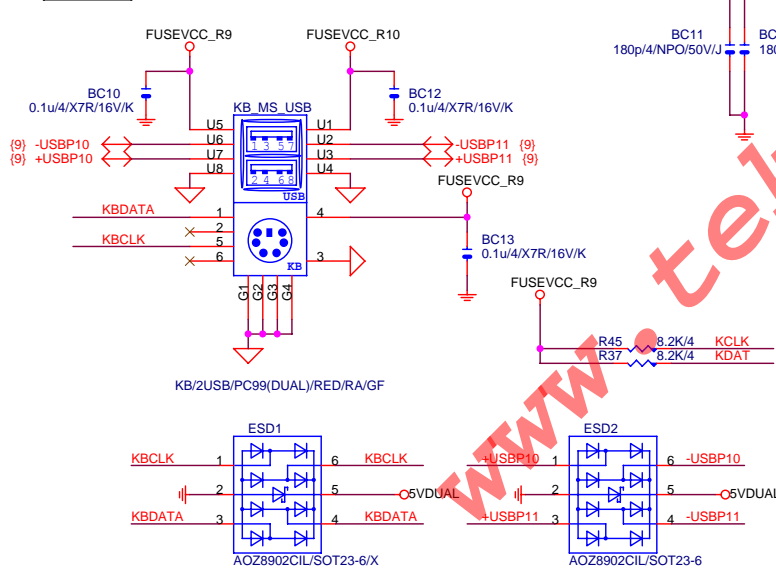
SHORT PROTECT



SYS FAN



KB/USB

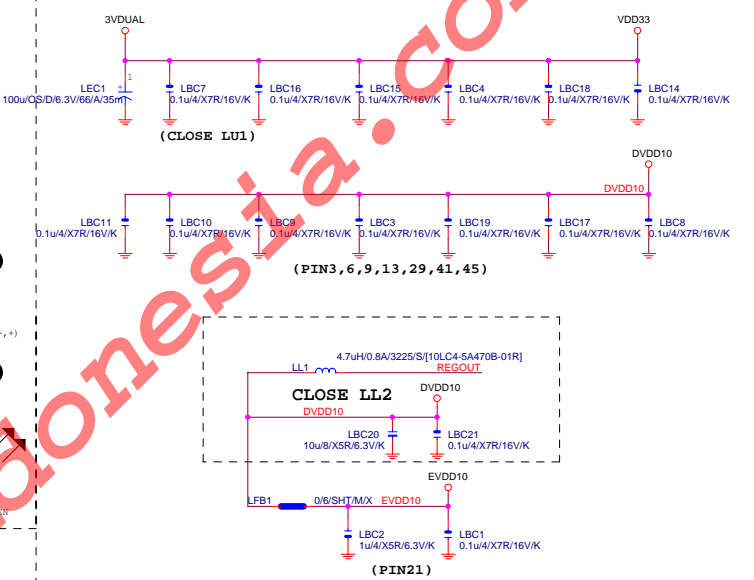
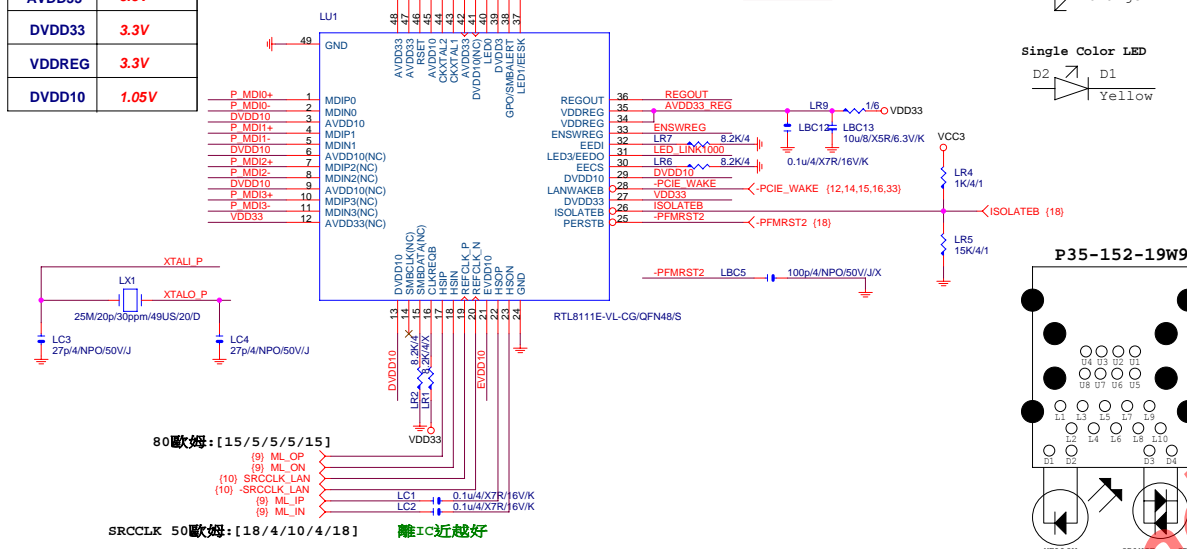


Gigabyte Technology			
Title HWM,KB/MS, FAN CTRL			
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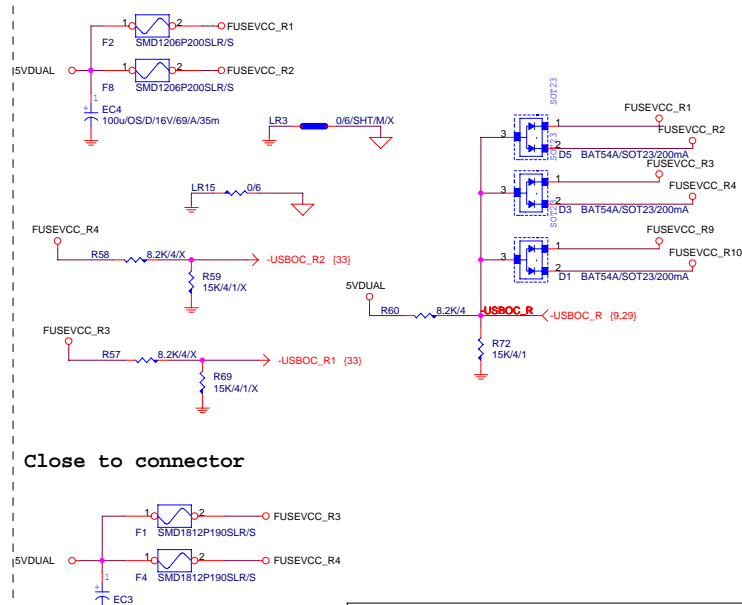
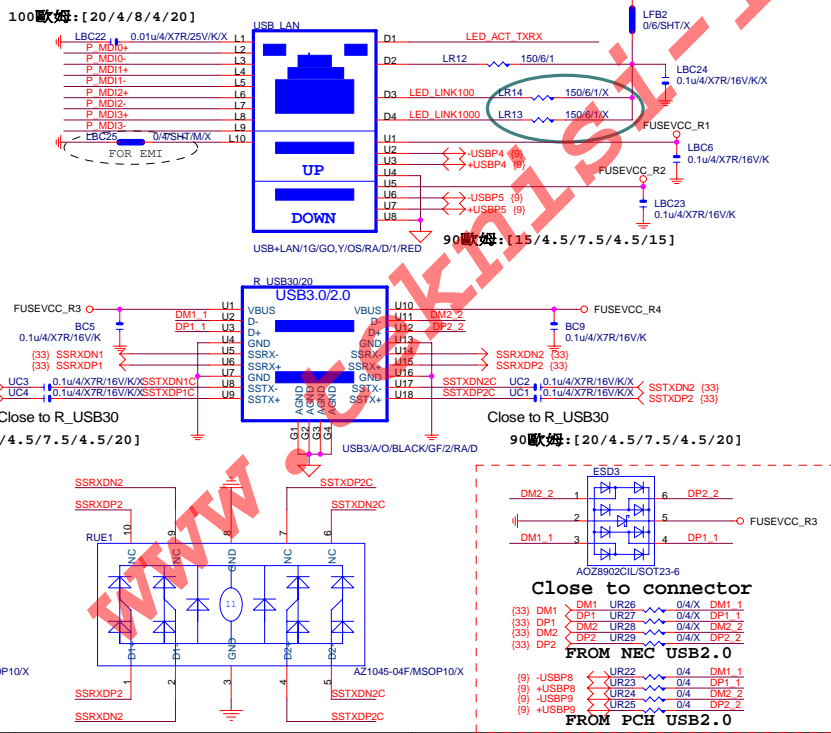
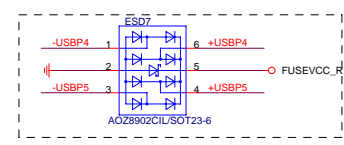
PCIE-1G LAN

Power domain chart

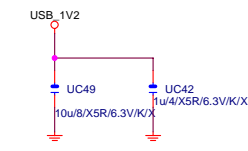
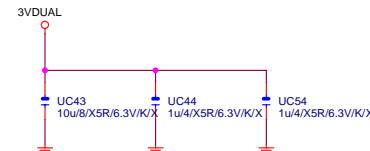
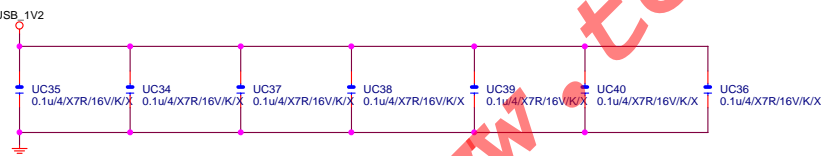
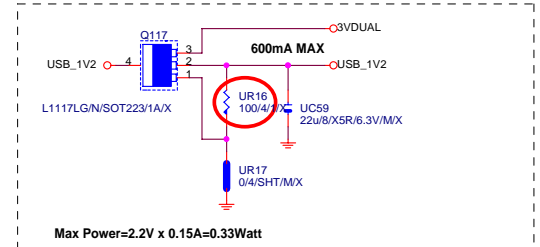
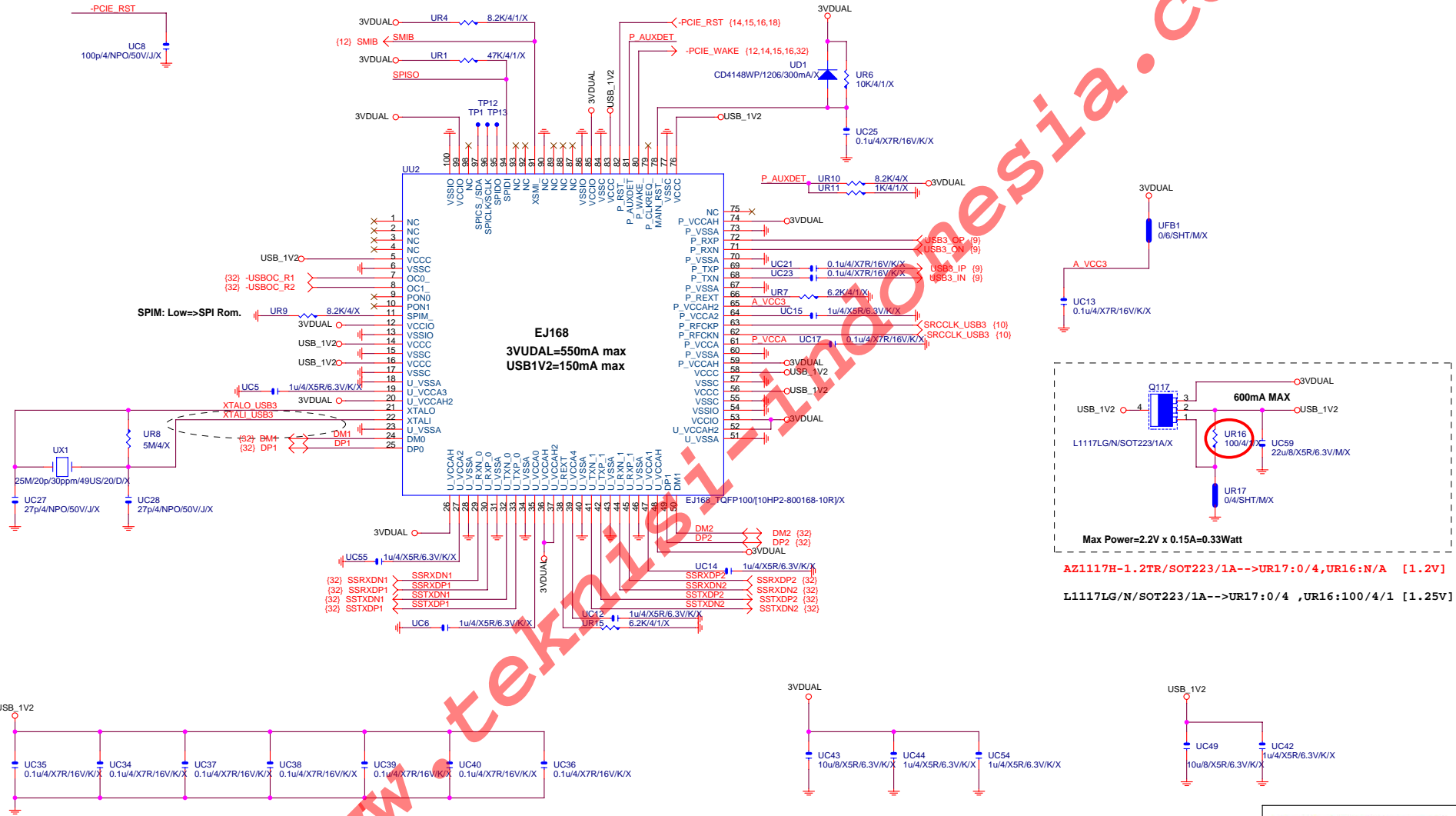
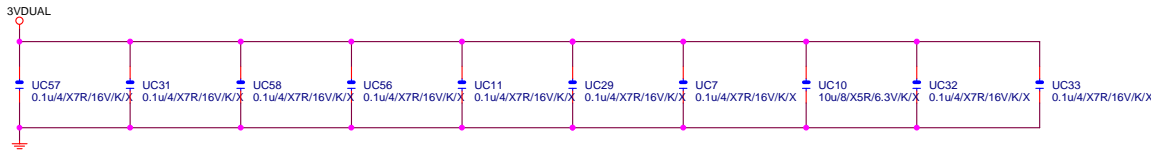
	RTL8111E
AVDD33	3.3V
DVDD33	3.3V
VDDREG	3.3V
DVDD10	1.05V



USB30_LAN CONNECTOR



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Title EJ168		
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GIGABYTE™		
Title: Marvell 9172 SATA 3.0		
Size: Custom	Document Number: GA-P61-DS3-B3	Rev: 1.1
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