

Model Name: GA-Z77M-D3H

Revision 1.0

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 1,2
08	DDR III CHANNEL B 1,2
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*1 SLOT
16	PCI EXPRESS*4 SLOT
17	PCI SLOT1
18	ITE 8728 LPC IO
19	COM,KB_USB,R_USB30
20	HWM,FAN CTRL,OV,-PROCHOT
21	DUAL BIOS
22	FP,FUSB,SPK,SATALED
23	VIA VT2021
24	REAR AUDIO JACK
25	ARTHEROS AR8161/AR8151
26	DISCRETE POWER
27	ATX,CLK GEN

SHEET

TITLE

28	RT8120_CPU_VTT
29	VCORE ISL95836_1
30	VCORE ISL95836_2
31	RT8120_DDR POWER
32	LPT,TPM
33	HDMI/DVI
34	IT8892E

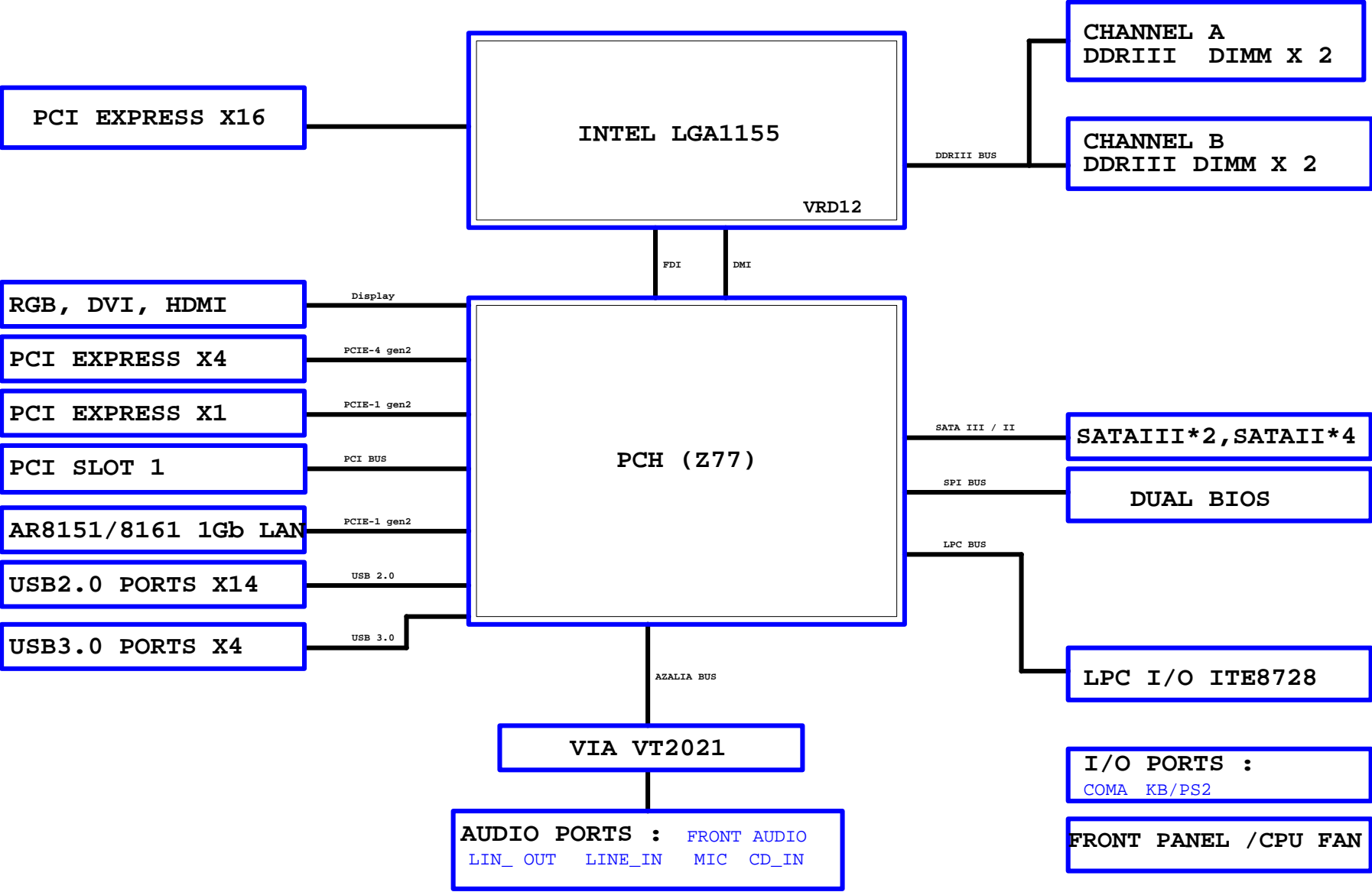
Gigabyte Technology

Title Cover Sheet		
Size Custom	Document Number GA-Z77M-D3H	Rev 1.0
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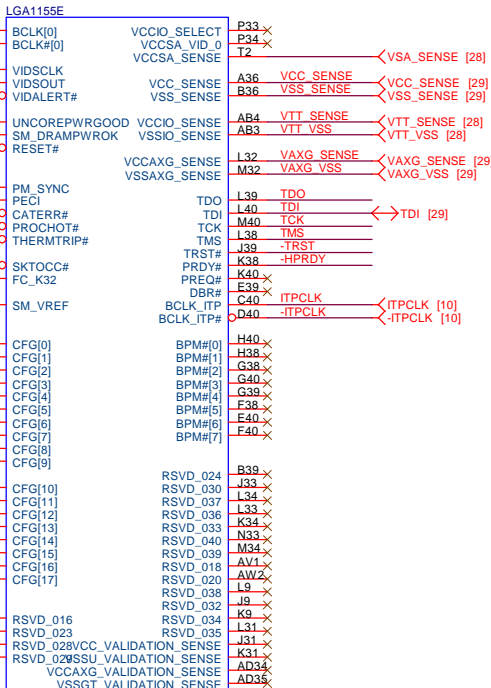
D

CD

BLOCK DIAGRAM



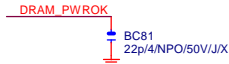
LGA1155E



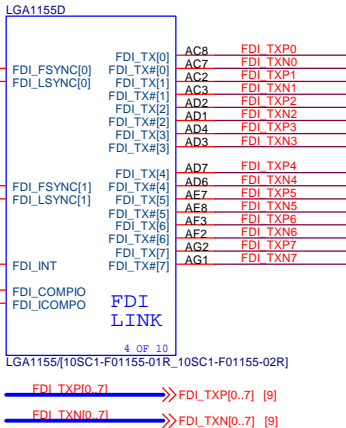
CFG	H	L	NOTE
0	RSVD	RSVD	RSVD
1	RSVD	RSVD	RSVD
2	NORM	Reverse	LANE REVERSAL[0]_x16
3	RSVD	RSVD	RSVD
4	RSVD	RSVD	RSVD
7	RSVD	RSVD	RSVD
8	RSVD	RSVD	RSVD
9	RSVD	RSVD	RSVD
10	RSVD	RSVD	RSVD
11	RSVD	RSVD	RSVD
12	RSVD	RSVD	RSVD
13	RSVD	RSVD	RSVD
14	RSVD	RSVD	RSVD
15	RSVD	RSVD	RSVD
16	RSVD	RSVD	RSVD
17	RSVD	RSVD	RSVD

CFG6	CFG5	PCIE CONFIG
1	1	1x16, Default
1	0	2X8
0	1	RSVD
0	0	XS4, X4, X4

CFG 0-17 all internal PULL-UP



LGA1155D



LGA1155C

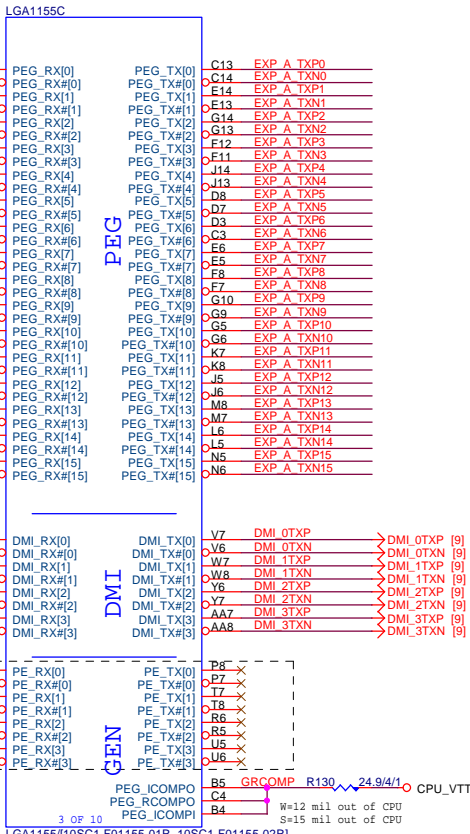


Figure 10 shows the schematic diagram of the CPU_VTT pin connections. The CPU_VTT pin is connected to a network of resistors and other components. Specifically, CPU_VTT is connected to R204 (1K/4/1) and R120 (1K/4/1). R204 is connected to -THRMTRIP and -PROCHOT. R120 is connected to CPU_PWRON and R146 (1K/4/1). R146 is connected to ground. Additionally, CPU_VTT is connected to a network of resistors (RN5, R165, R164) and other components (51/8P4R/4, TDI, TDO, TMS, -HPRDY, TCK, -TRST). RN5 is connected to pins 1, 3, 5, and 7 of a component. R165 (51/4/1) is connected to pins 2 and 4. R164 (51/4/1) is connected to pins 6 and 8. The other components are connected to pins 2, 4, 6, and 8 respectively.

Title			
CPU LGA1155-A			
Size	Document Number	Rev	
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LGA1155A

MAAA0	AV27	SA_MA[0]
MAAA1	AY24	SA_MA[1]
MAAA2	AW24	SA_MA[2]
MAAA3	AW23	SA_MA[3]
MAAA4	AV23	SA_MA[4]
MAAA5	AT24	SA_MA[5]
MAAA6	AT23	SA_MA[6]
MAAA7	AU22	SA_MA[7]
MAAA8	AV22	SA_MA[8]
MAAA9	AT22	SA_MA[9]
MAAA10	AU28	SA_MA[10]
MAAA11	AU21	SA_MA[11]
MAAA12	AT21	SA_MA[12]
MAAA13	AW32	SA_MA[13]
MAAA14	AU20	SA_MA[14]
MAAA15	AT20	SA_MA[15]

[7]	-SWEA	AW29	SA_WE#
[7]	-SCASA	AV30	SA_CAS#
[7]	-SRASA	AU28	SA_RAS#

[7]	SBA0	AV29	SA_BS[0]
[7]	SBA1	AW28	SA_BS[1]
[7]	SBA2	AV20	SA_BS[2]

[7]	-CSA0	AU29	SA_CS#
[7]	-CSA1	AV20	SA_CS#
[7]	-CSA2	AW30	SA_CS#
[7]	-CSA3	AU33	SA_CS#

[7]	CKEA0	AV19	SA_CKE[0]
[7]	CKEA1	AT19	SA_CKE[1]
[7]	CKEA2	AU18	SA_CKE[2]
[7]	CKEA3	AV18	SA_CKE[3]

MODT_A0	AV31	SA_ODT[0]
MODT_A1	AU32	SA_ODT[1]
MODT_A2	AU30	SA_ODT[2]
MODT_A3	AW33	SA_ODT[3]

[7]	DCLKA0	AY25	SA_CK[0]
[7]	-DCLKA0	AU24	SA_CK#
[7]	DCLKA1	AU24	SA_CK[1]
[7]	-DCLKA1	AU25	SA_CK#
[7]	DCLKA2	AW27	SA_CK[2]
[7]	-DCLKA2	AY27	SA_CK#
[7]	DCLKA3	AU26	SA_CK[3]
[7]	-DCLKA3	AW26	SA_CK#

[7,8]	-DDR3_RST	AW18	SM_DRAMRST#
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AV13	SA_DQS[8]
AV12	SA_DQS#

AU12	SA_ECC_CB[0]
AU14	SA_ECC_CB[1]
AV13	SA_ECC_CB[2]
AY13	SA_ECC_CB[3]
AU11	SA_ECC_CB[4]
AY12	SA_ECC_CB[5]
AV12	SA_ECC_CB[6]
AV12	SA_ECC_CB[7]

DDR_0

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LGA1155[10SC1-F01155-01R_10SC1-F01155-02R]

LGA1155B

MAAB0	AK24	SB_MA[0]
MAAB1	AM20	SB_MA[1]
MAAB2	AM19	SB_MA[2]
MAAB3	AK18	SB_MA[3]
MAAB4	AP19	SB_MA[4]
MAAB5	AP18	SB_MA[5]
MAAB6	AM18	SB_MA[6]
MAAB7	AL18	SB_MA[7]
MAAB8	AL18	SB_MA[8]
MAAB9	AY17	SB_MA[9]
MAAB10	AV23	SB_MA[10]
MAAB11	AU17	SB_MA[11]
MAAB12	AT18	SB_MA[12]
MAAB13	AR26	SB_MA[13]
MAAB14	AY16	SB_MA[14]
MAAB15	AV16	SB_MA[15]

[8]	-SWEB	AR25	SB_WE#
[8]	-SCASB	AK25	SB_CAS#
[8]	-SRASB	AP24	SB_RAS#

[8]	SBA0	AP23	SB_BS[0]
[8]	SBA1	AM24	SB_BS[1]
[8]	SBA2	AV17	SB_BS[2]

[8]	-CSB0	AN25	SB_CS#
[8]	-CSB1	AN26	SB_CS#
[8]	-CSB2	AL25	SB_CS#
[8]	-CSB3	AT26	SB_CS#

[8]	CKEB0	AU16	SB_CKE[0]
[8]	CKEB1	AY15	SB_CKE[1]
[8]	CKEB2	AW15	SB_CKE[2]
[8]	CKEB3	AV15	SB_CKE[3]

MODT_B0	AL26	SB_ODT[0]
MODT_B1	AP26	SB_ODT[1]
MODT_B2	AN26	SB_ODT[2]
MODT_B3	AK26	SB_ODT[3]

[8]	DCLKB0	AL21	SB_CK[0]
[8]	-DCLKB0	AL22	SB_CK#
[8]	DCLKB1	AL20	SB_CK[1]
[8]	-DCLKB1	AK20	SB_CK#
[8]	DCLKB2	AL23	SB_CK[2]
[8]	-DCLKB2	AP22	SB_CK#
[8]	DCLKB3	AK26	SB_CK[3]
[8]	-DCLKB3	AN21	SB_CK#

VREF_DQB	AH1	FC_AH1
VREF_DQA	AH4	FC_AH4

AN16	SB_DQS[8]
AN15	SB_DQS#

AL16	SB_ECC_CB[0]
AM16	SB_ECC_CB[1]
AP16	SB_ECC_CB[2]
AR16	SB_ECC_CB[3]
AL15	SB_ECC_CB[4]
AM15	SB_ECC_CB[5]
AR15	SB_ECC_CB[6]
AP15	SB_ECC_CB[7]

BC80	0.1u4/XT7R/16V/K
BC82	0.1u4/XT7R/16V/K

AK38	DQSA6
AK39	-DQSA6

AL40	MDA48
AL37	MDA49
AJ38	MDA50
AJ37	MDA51
AL39	MDA52
AL38	MDA53
AJ39	MDA54
AL40	MDA55

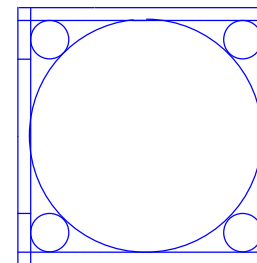
AF38	DQSA7
AF39	-DQSA7

AG40	MDA56
AG37	MDA57
AE38	MDA58
AE37	MDA59
AG39	MDA60
AG38	MDA61
AE39	MDA62
AE40	MDA63

DDR_1

2 OF 10

LGA1155[10SC1-F01155-01R_10SC1-F01155-02R]

CR
CPU RETAINTION/X

LGA1155_P



ILM_BP/1156/CSP/ILM_BP/1156/CSP/12KRC-0F0001-04R_12KRC-0F0001-05R]

AH7	DQSB0
AH6	-DQSB0
AG7	MDB0
AG8	MDB1
AJ8	MDB2
AJ8	MDB3
AG5	MDB4
AG6	MDB5
AJ6	MDB6
AJ7	MDB7

AM8	DQSB1
AL8	-DQSB1

AL7	MDB8
AM7	MDB9
AM10	MDB10
AL10	MDB11
AM6	MDB13
AL9	MDB14
AM9	MDB15

AM8	DQSB2
AP8	-DQSB2

AP7	MDB16
AP7	MDB17
AP10	MDB18
AP10	MDB19
AP6	MDB20
AR6	MDB21
AP9	MDB22
AR9	MDB23

AN13	DQSB3
AN12	-DQSB3

AM12	MDB24
AM13	MDB25
AR13	MDB26
AP13	MDB27
AL12	MDB28
AL13	MDB29
AP12	MDB30
AP12	MDB31

AN29	DQSB4
AN28	-DQSB4

AR28	MDB32
AR29	MDB33
AL28	MDB34
AL29	MDB35
AP28	MDB36
AP29	MDB37
AM28	MDB38
AM29	MDB39

AP33	DQSB5
AR33	-DQSB5

AP32	MDB40
AP31	MDB41
AP35	MDB42
AP34	MDB43
AR32	MDB44
AR31	MDB45
AR35	MDB46
AR34	MDB47

AL33	DQSB6
AM33	-DQSB6

AM32	MDB48
AM31	MDB49
AL35	MDB50
AL32	MDB51
AM34	MDB52
AL31	MDB53
AM35	MDB54
AL34	MDB55

AG35	DQSB7
AG34	-DQSB7

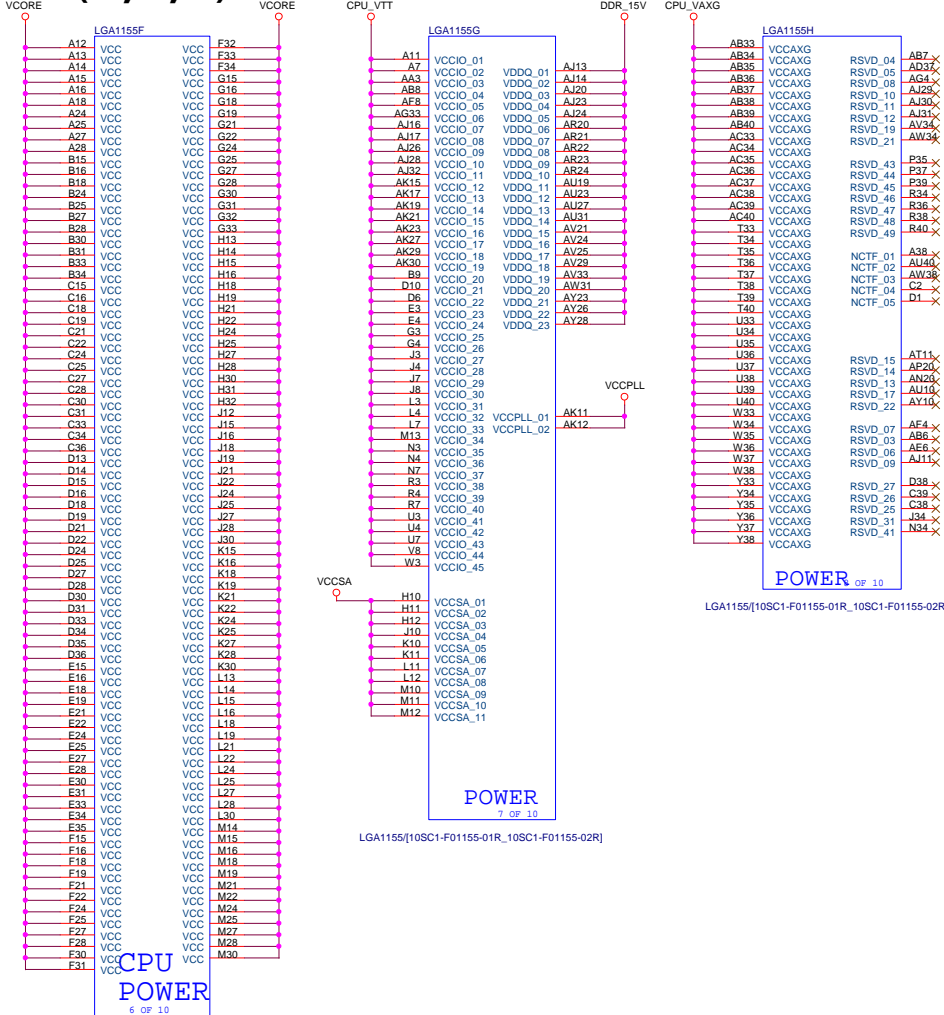
AH35	MDB56
AH34	MDB57
AE34	MDB58
AE35	MDB59
AJ35	MDB60
AJ34	MDB61
AE33	MDB62
AE35	MDB63

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CPU LGA1156-B		
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LGA1155

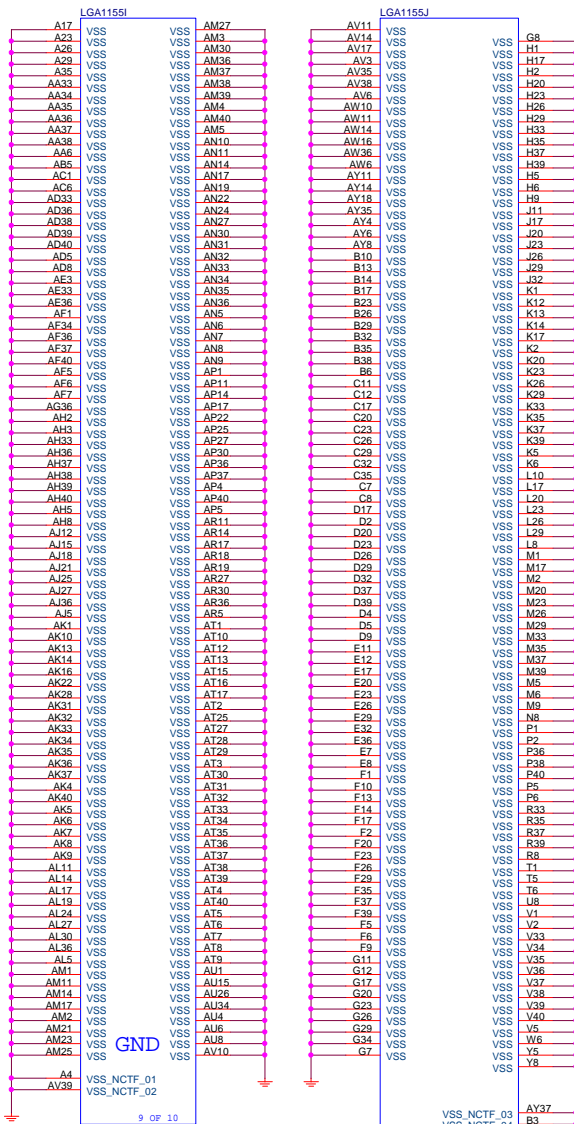
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LGA1155[10SC1-F01155-01R_10SC1-F01155-02R]

LGA1155

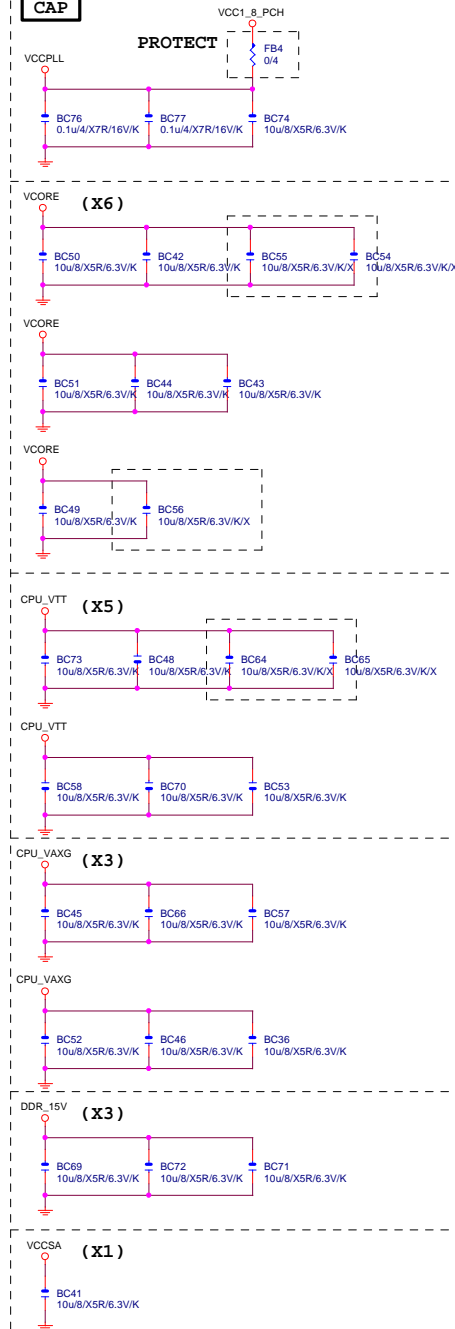
(I,J)



LGA1155[10SC1-F01155-01R_10SC1-F01155-02R]

LGA1155[10SC1-F01155-01R_10SC1-F01155-02R]

CAP

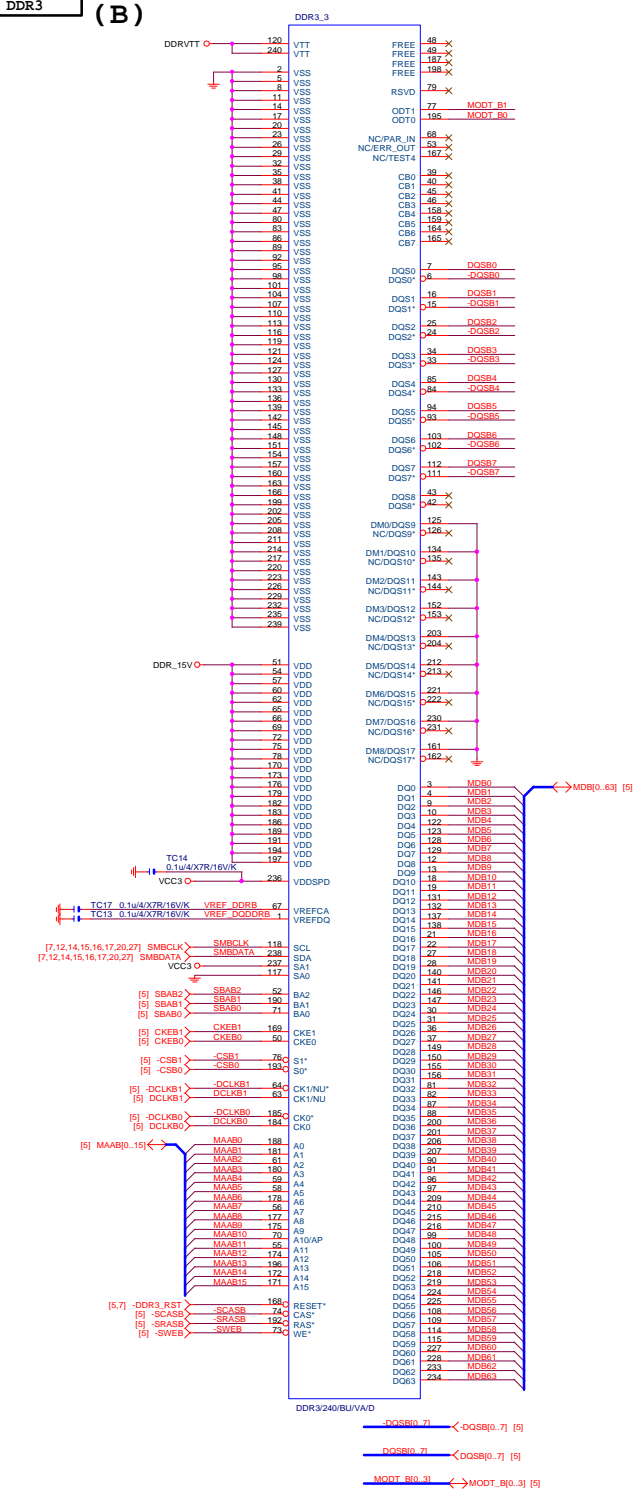


Gigabyte Technology

Title			CPU LGA1156-C
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Custom	GA-Z77M-D3H	1.0	
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DDR3

(B)



(B)



PCH

(E)

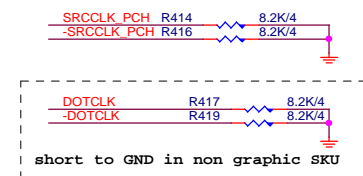
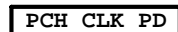
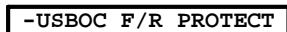


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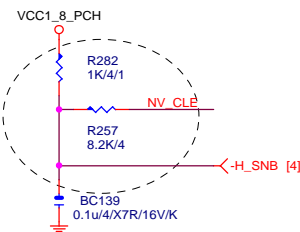
5 OF 11

BD82Z77/S/[10HB1-030Z77-10R]

(G)



NVRAM PU



USB TABLE

USB OC# Configure	
OC0#	USB0,1(F_USB30)
OC1#	USB2,3(USB30_20)
OC2#	USB4,5(F_USB1)
OC3#	USB6,7(B75:N/A)
OC4#	USB8,9(F_USB2)
OC5#	USB10,11(USB_LAN)
OC6#	USB12,13(KB_USB)
OC7#	N/A

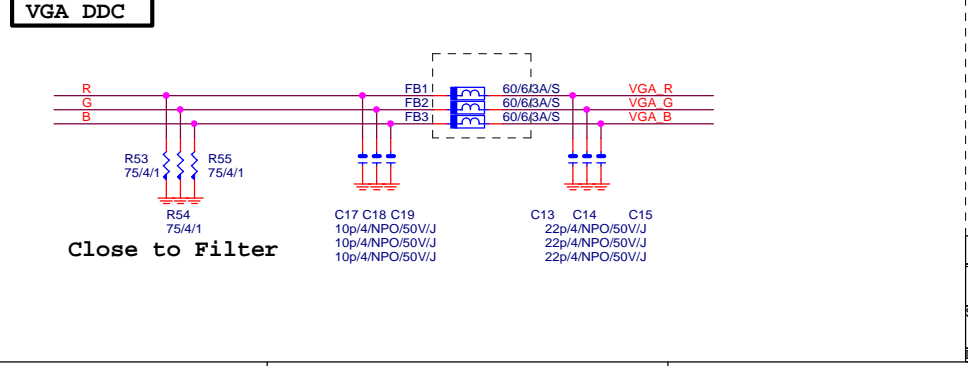
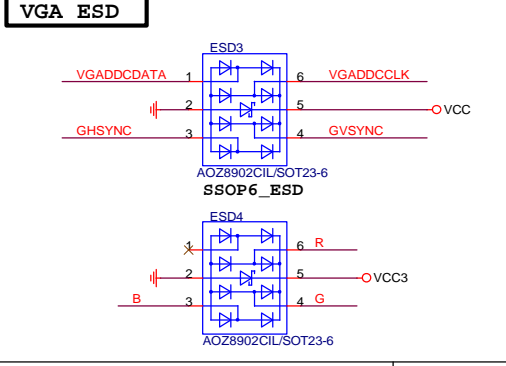
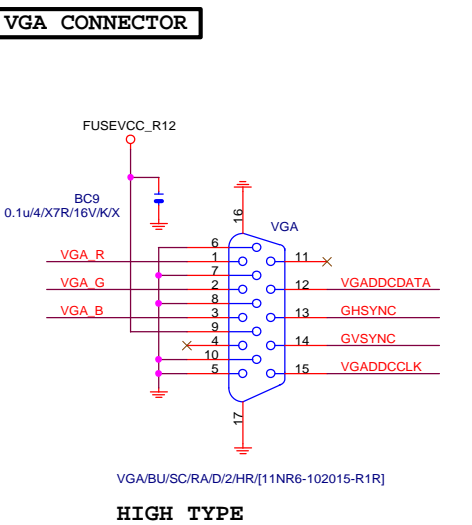
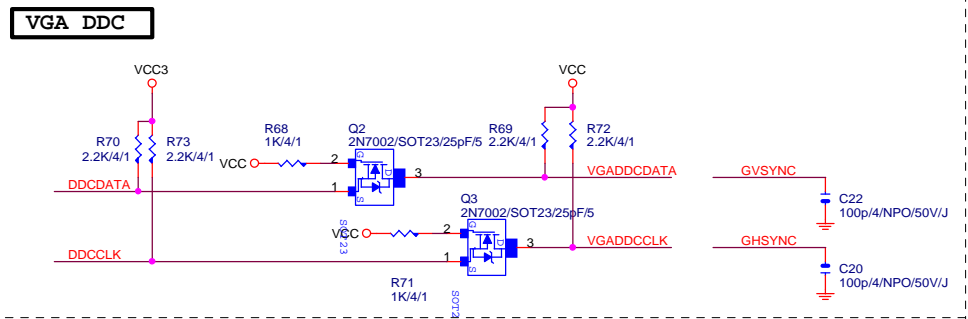
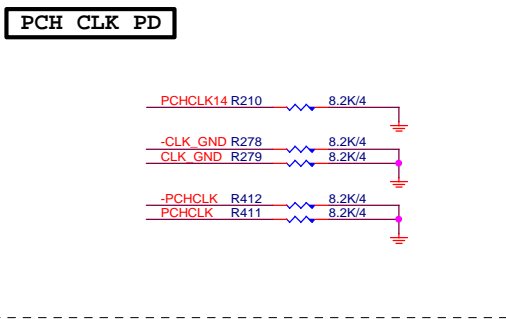
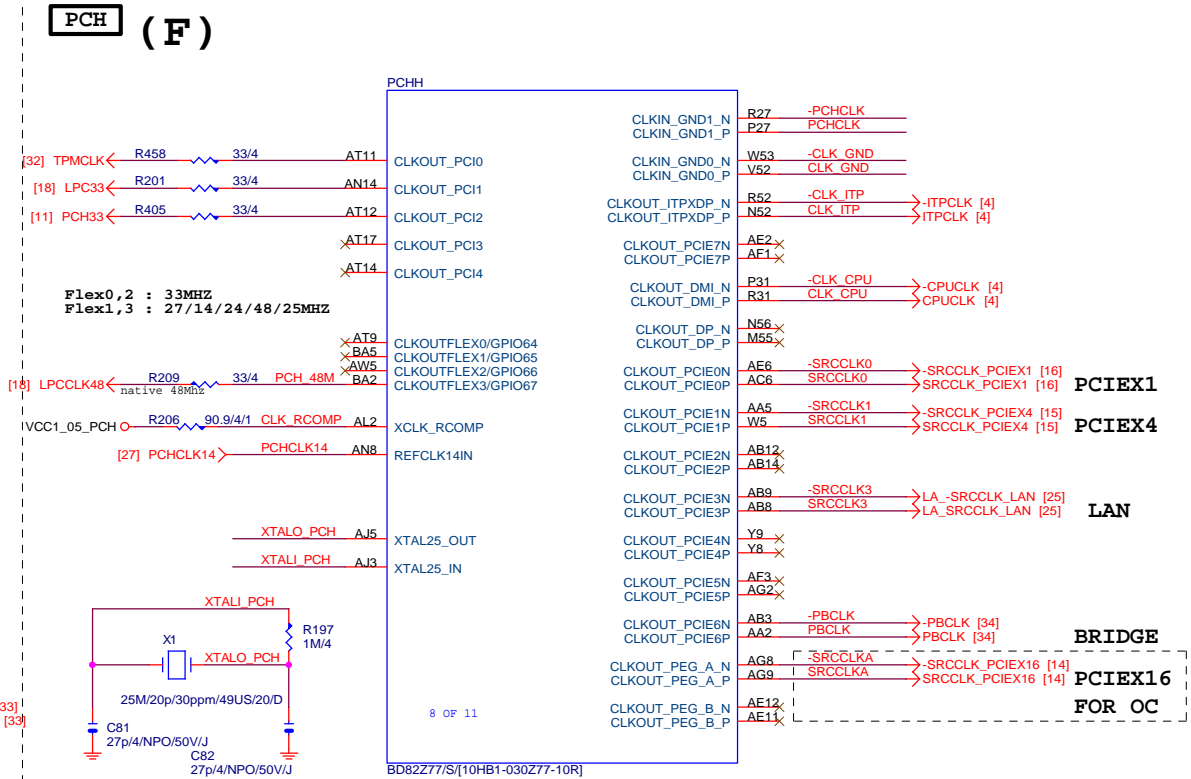
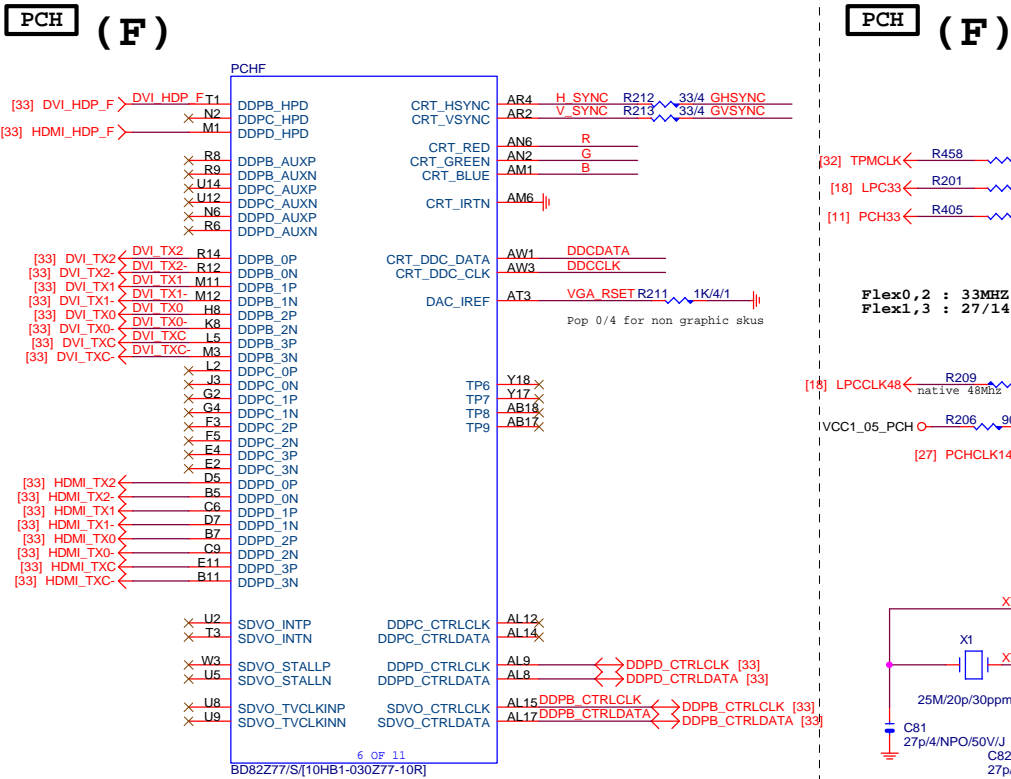
Gigabyte Technology

Title	PCH FDI,DMI,USB ,PCIE,NVRAM
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Size	Document Number	GA-Z77M-D3H
Custom		

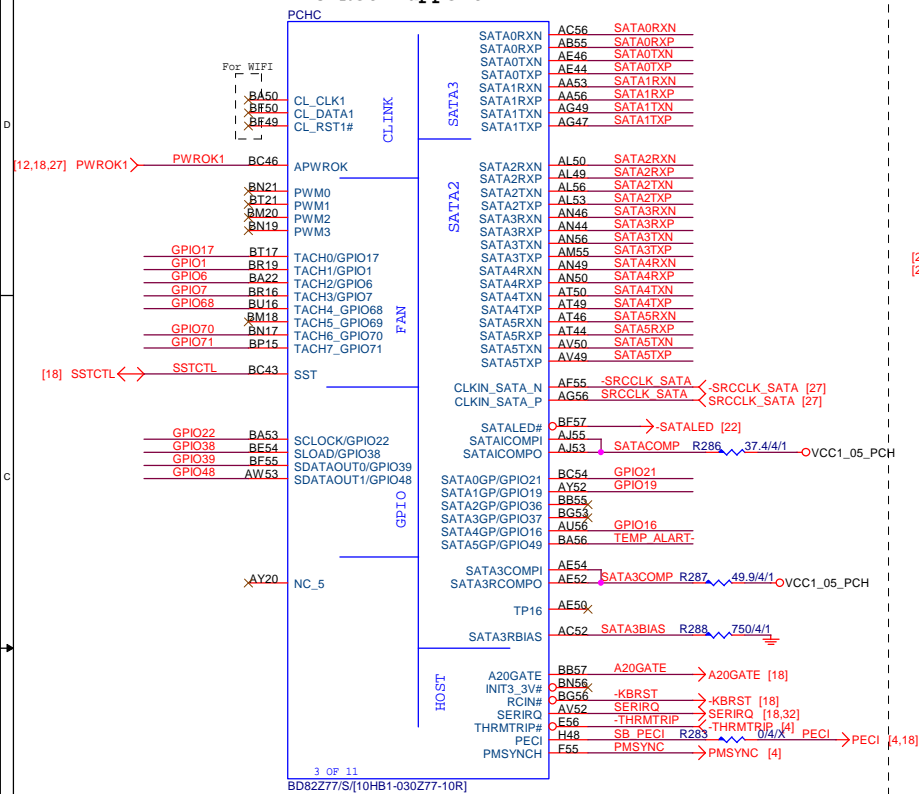
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1.0

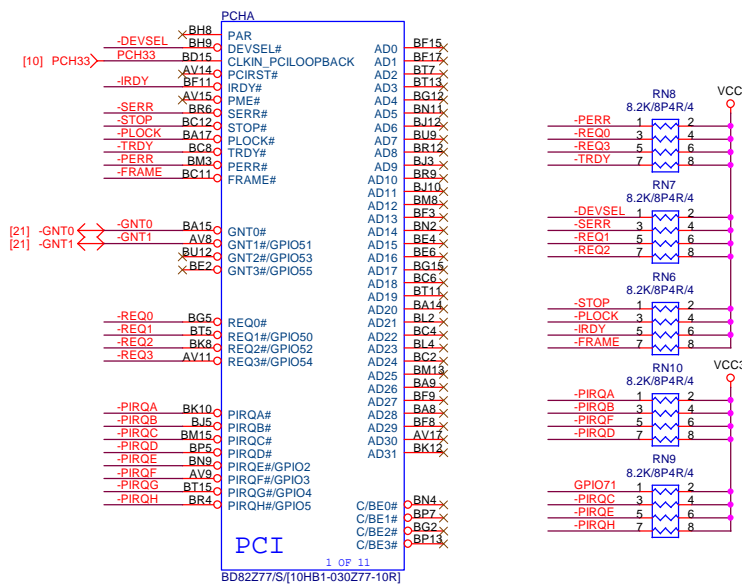


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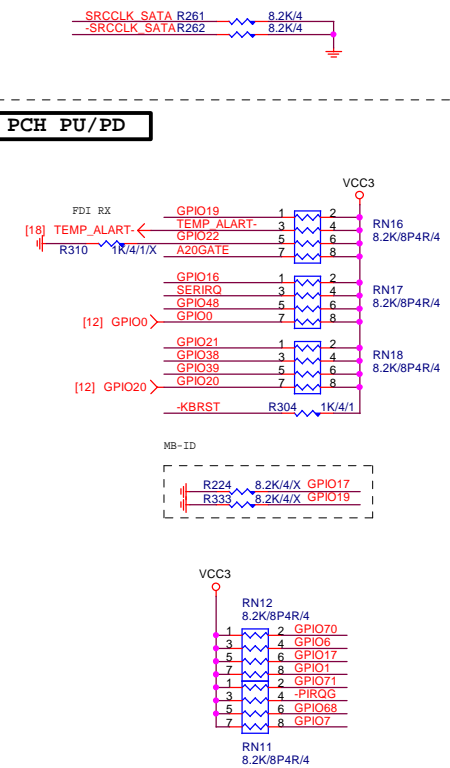
B75 SATA3.0 ONLY PORT0
B75 Not Support RAID



(A)

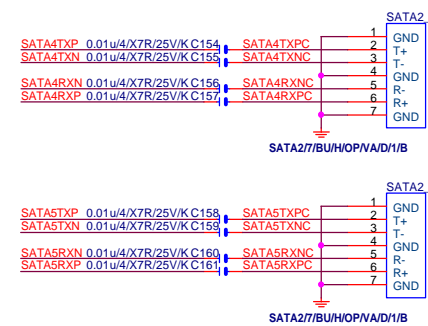
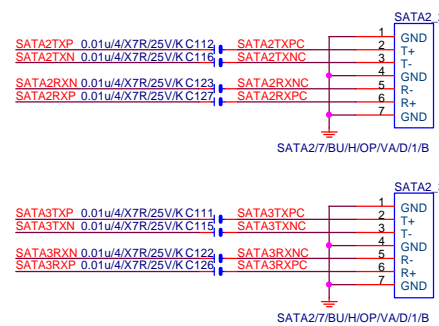
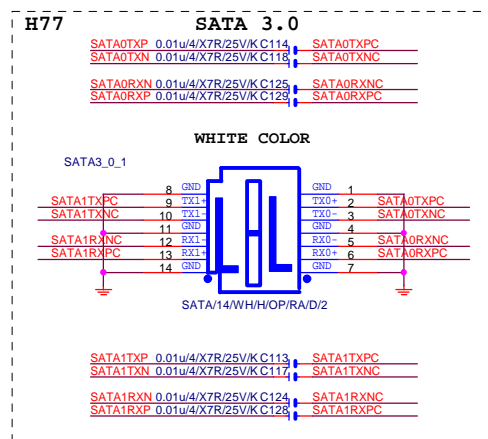


PCH CLK PD



SATA CONNECTOR

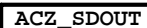
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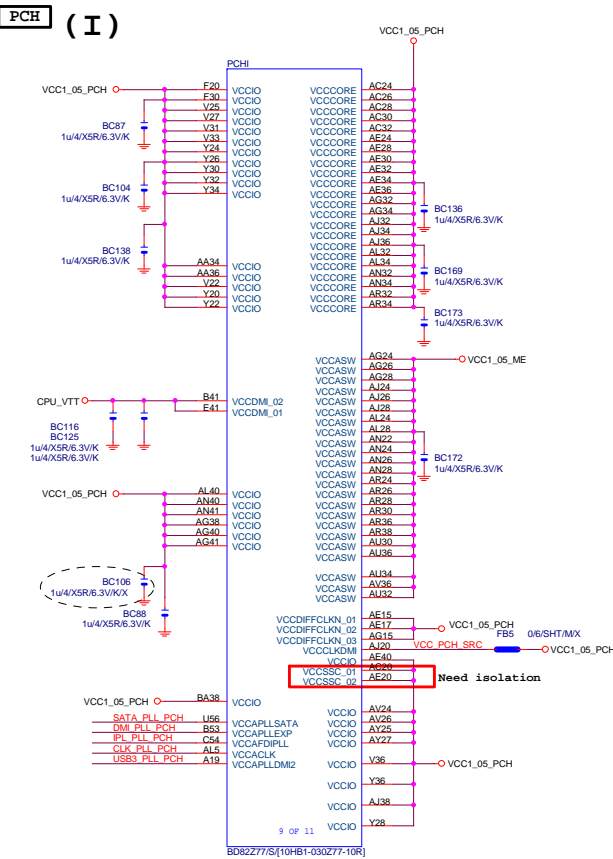
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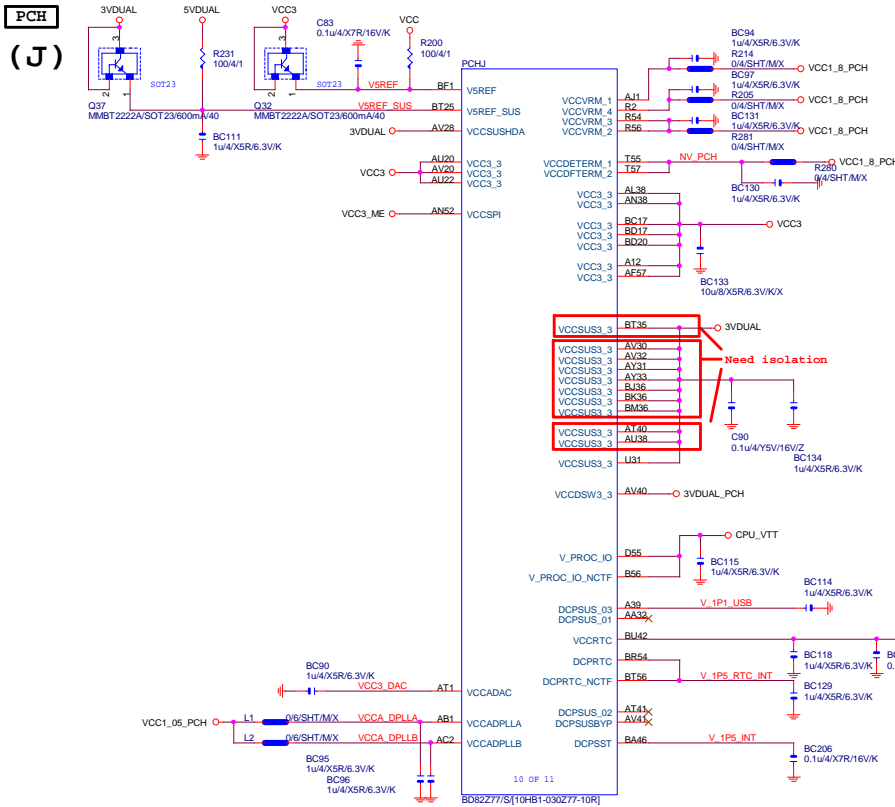
Gigabyte Technology

Title			
PCH GPIO , CTRL , AUDIO			
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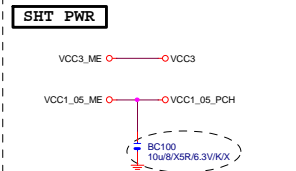
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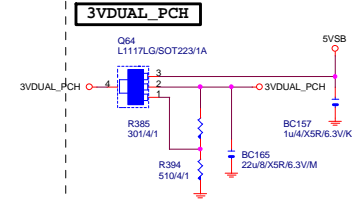
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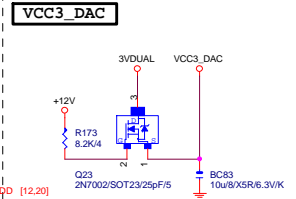
SHT	PWR
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3VDUAL_PCH

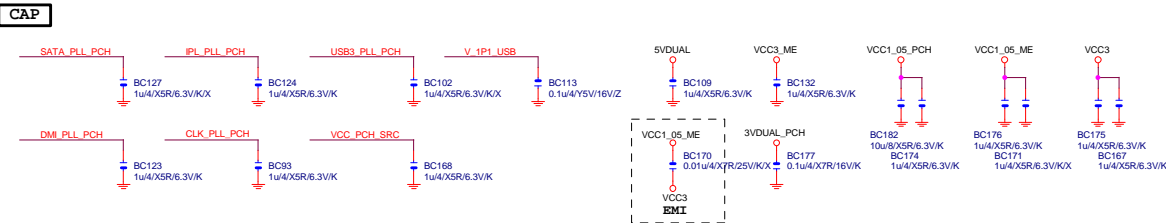


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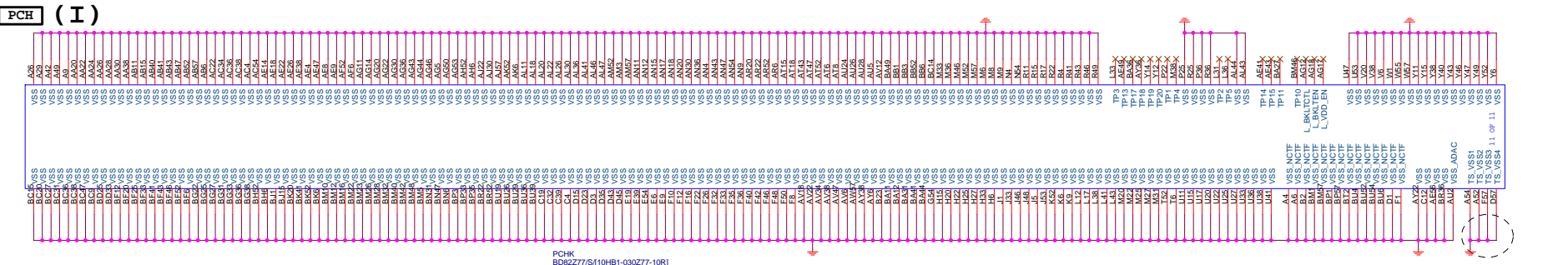


CLOSE北橋(注意震盪水波紋)

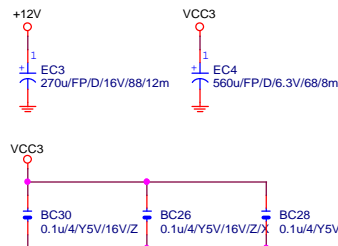
CAP



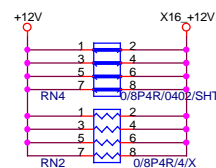
PCH (I)



PCIEX16 CAP



PCIEX16 PROTECT SHT

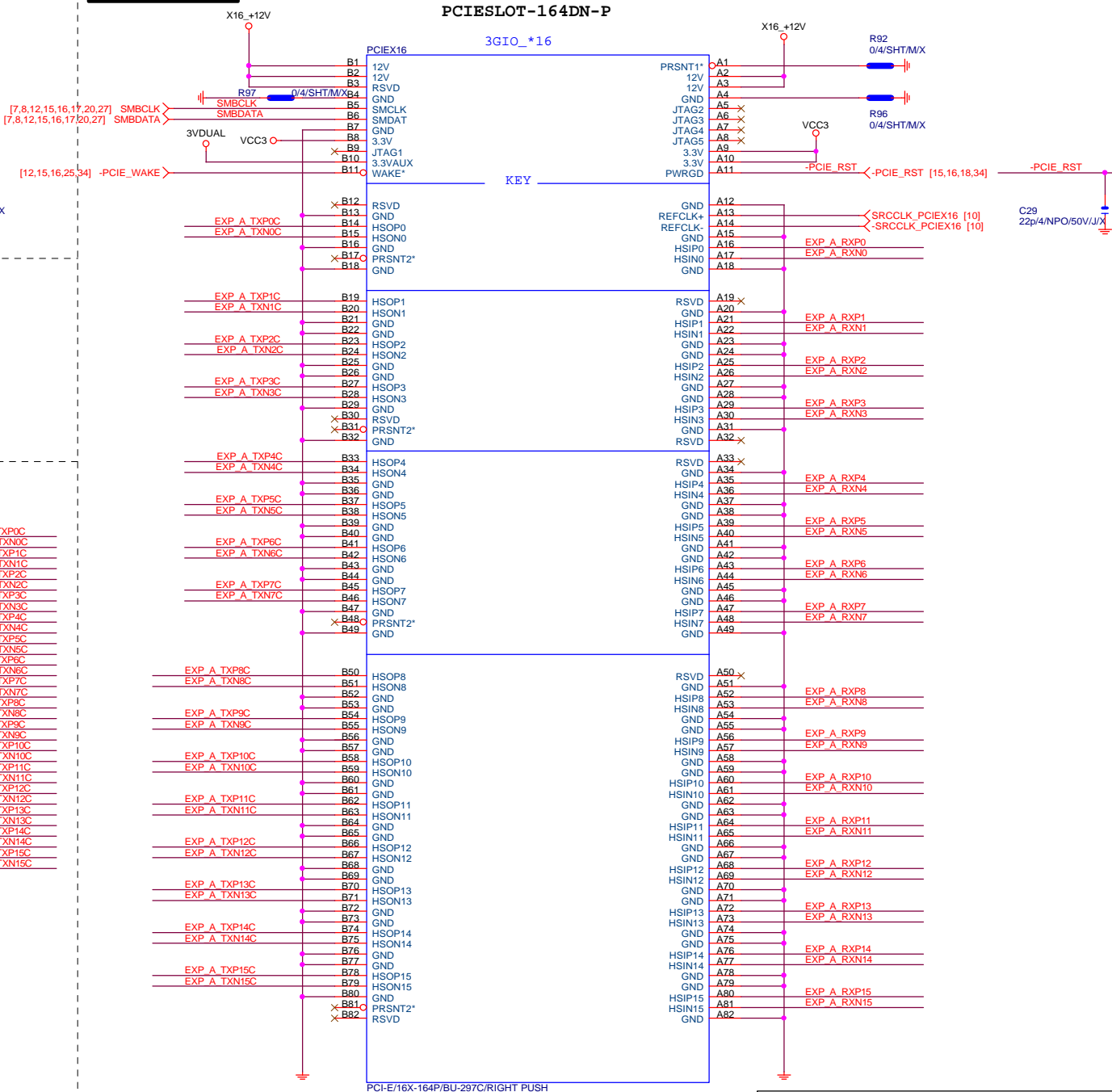


PCIEX16 AC CAP

EXP A TXP0	C32	0.22u/4/X5R/6.3V/K	EXP A TXP0C
EXP A TXN0	C30	0.22u/4/X5R/6.3V/K	EXP A TXN0C
EXP A TXP1	C35	0.22u/4/X5R/6.3V/K	EXP A TXP1C
EXP A TXN1	C37	0.22u/4/X5R/6.3V/K	EXP A TXN1C
EXP A TXP2	C39	0.22u/4/X5R/6.3V/K	EXP A TXP2C
EXP A TXN2	C41	0.22u/4/X5R/6.3V/K	EXP A TXN2C
EXP A TXP3	C43	0.22u/4/X5R/6.3V/K	EXP A TXP3C
EXP A TXN3	C45	0.22u/4/X5R/6.3V/K	EXP A TXN3C
EXP A TXP4	C46	0.22u/4/X5R/6.3V/K	EXP A TXP4C
EXP A TXN4	C49	0.22u/4/X5R/6.3V/K	EXP A TXN4C
EXP A TXP5	C50	0.22u/4/X5R/6.3V/K	EXP A TXP5C
EXP A TXN5	C51	0.22u/4/X5R/6.3V/K	EXP A TXN5C
EXP A TXP6	C52	0.22u/4/X5R/6.3V/K	EXP A TXP6C
EXP A TXN6	C54	0.22u/4/X5R/6.3V/K	EXP A TXN6C
EXP A TXP7	C57	0.22u/4/X5R/6.3V/K	EXP A TXP7C
EXP A TXN7	C58	0.22u/4/X5R/6.3V/K	EXP A TXN7C
EXP A TXP8	C60	0.22u/4/X5R/6.3V/K	EXP A TXP8C
EXP A TXN8	C61	0.22u/4/X5R/6.3V/K	EXP A TXN8C
EXP A TXP9	C62	0.22u/4/X5R/6.3V/K	EXP A TXP9C
EXP A TXN9	C63	0.22u/4/X5R/6.3V/K	EXP A TXN9C
EXP A TXP10	C64	0.22u/4/X5R/6.3V/K	EXP A TXP10C
EXP A TXN10	C65	0.22u/4/X5R/6.3V/K	EXP A TXN10C
EXP A TXP11	C66	0.22u/4/X5R/6.3V/K	EXP A TXP11C
EXP A TXN11	C67	0.22u/4/X5R/6.3V/K	EXP A TXN11C
EXP A TXP12	C68	0.22u/4/X5R/6.3V/K	EXP A TXP12C
EXP A TXN12	C70	0.22u/4/X5R/6.3V/K	EXP A TXN12C
EXP A TXP13	C72	0.22u/4/X5R/6.3V/K	EXP A TXP13C
EXP A TXN13	C73	0.22u/4/X5R/6.3V/K	EXP A TXN13C
EXP A TXP14	C74	0.22u/4/X5R/6.3V/K	EXP A TXP14C
EXP A TXN14	C75	0.22u/4/X5R/6.3V/K	EXP A TXN14C
EXP A TXP15	C77	0.22u/4/X5R/6.3V/K	EXP A TXP15C
EXP A TXN15	C78	0.22u/4/X5R/6.3V/K	EXP A TXN15C

EXP A RXP0.15] >> EXP_A_RXP0.15] [4]
 EXP A RXN0.15] >> EXP_A_RXN0.15] [4]
 EXP A TXP0.15] >> EXP_A_TXP0.15] [4]
 EXP A TXN0.15] >> EXP_A_TXN0.15] [4]

PCIEX16 SLOT



PCI-E16X-164P/BU-297C/RIGHT PUSH

Gigabyte Technology

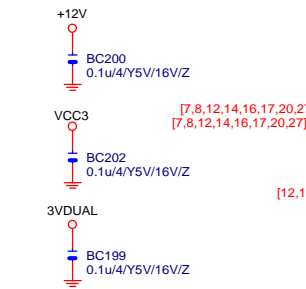
Title			PCI EXPRESS * 16		
Size			GA-Z77M-D3H		
Custom			Rev 1.0		
Date: Friday, January 13, 2012			Sheet 14 of 34		

PCIEX4 CAP

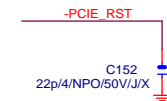
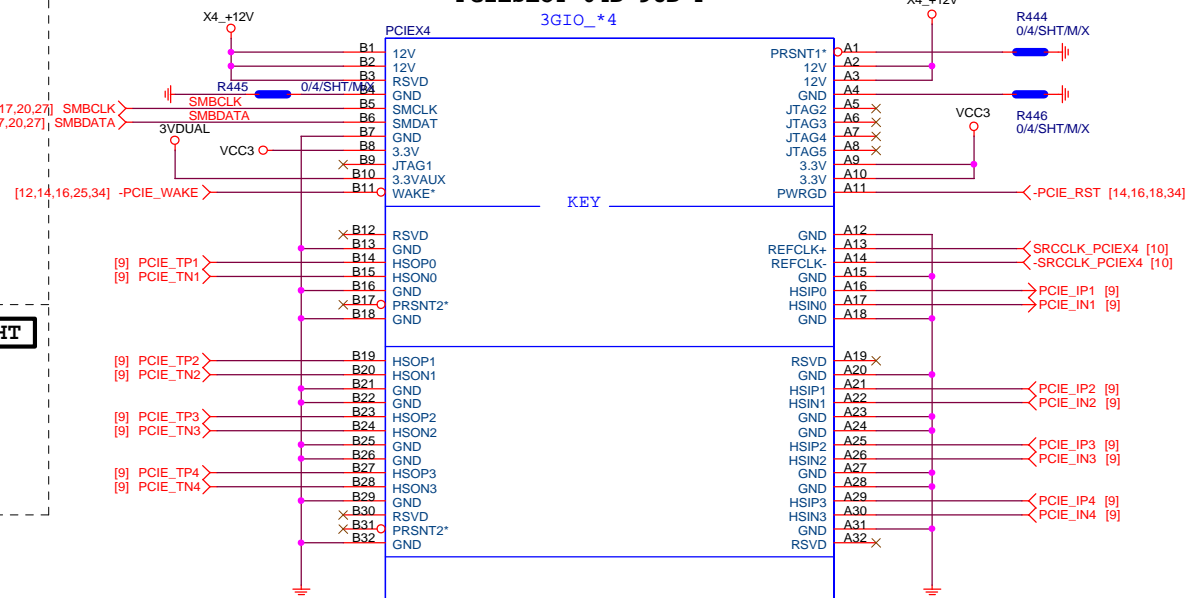
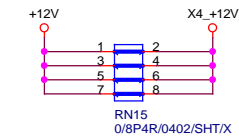
PCIEX4 SLOT

PCIESLOT-64D-98D-P

3GIO_*4



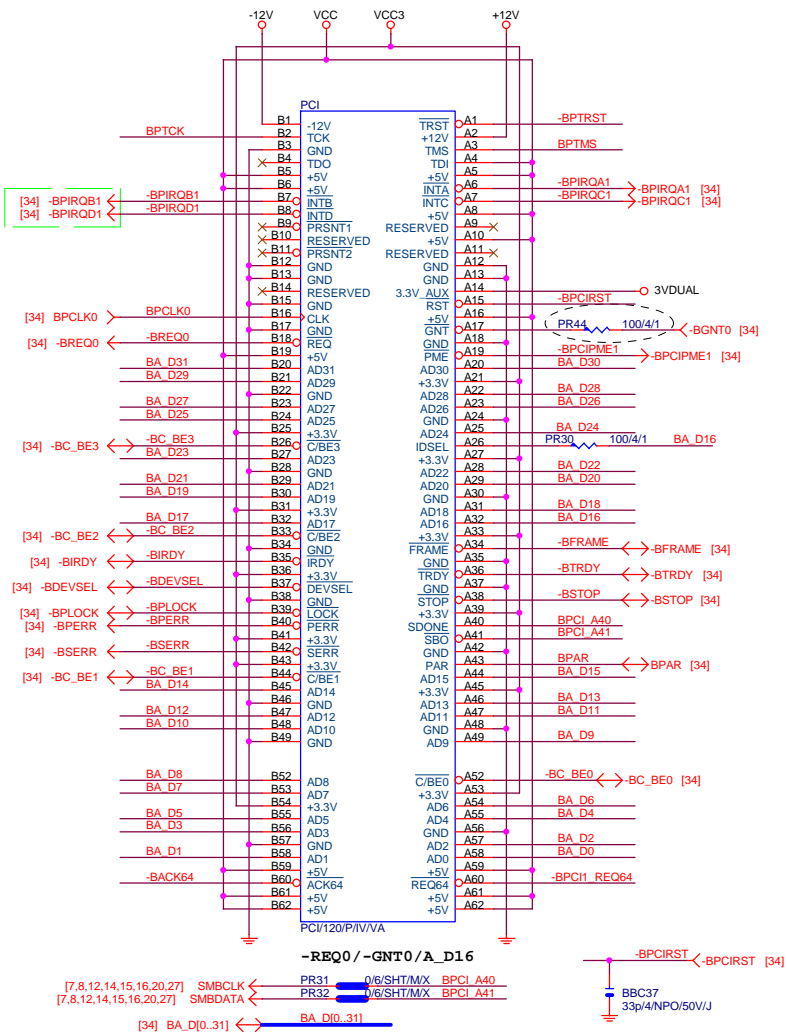
PCIEX16 PROTECT SHT



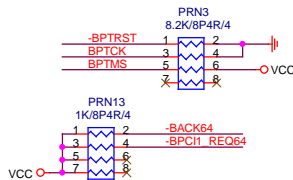
Gigabyte Technology

Title		
PCI EXPRESS X 4 PORT		
Size	Document Number	Rev
Custom	GA-Z77M-D3H	1.0
Date:	Friday, January 13, 2012	Sheet 15 of 34

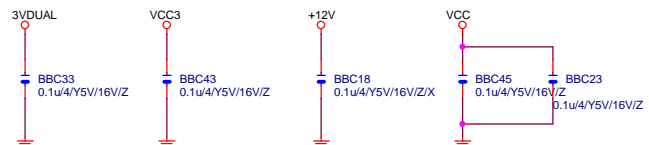
PCI SLOT



PCI	PU
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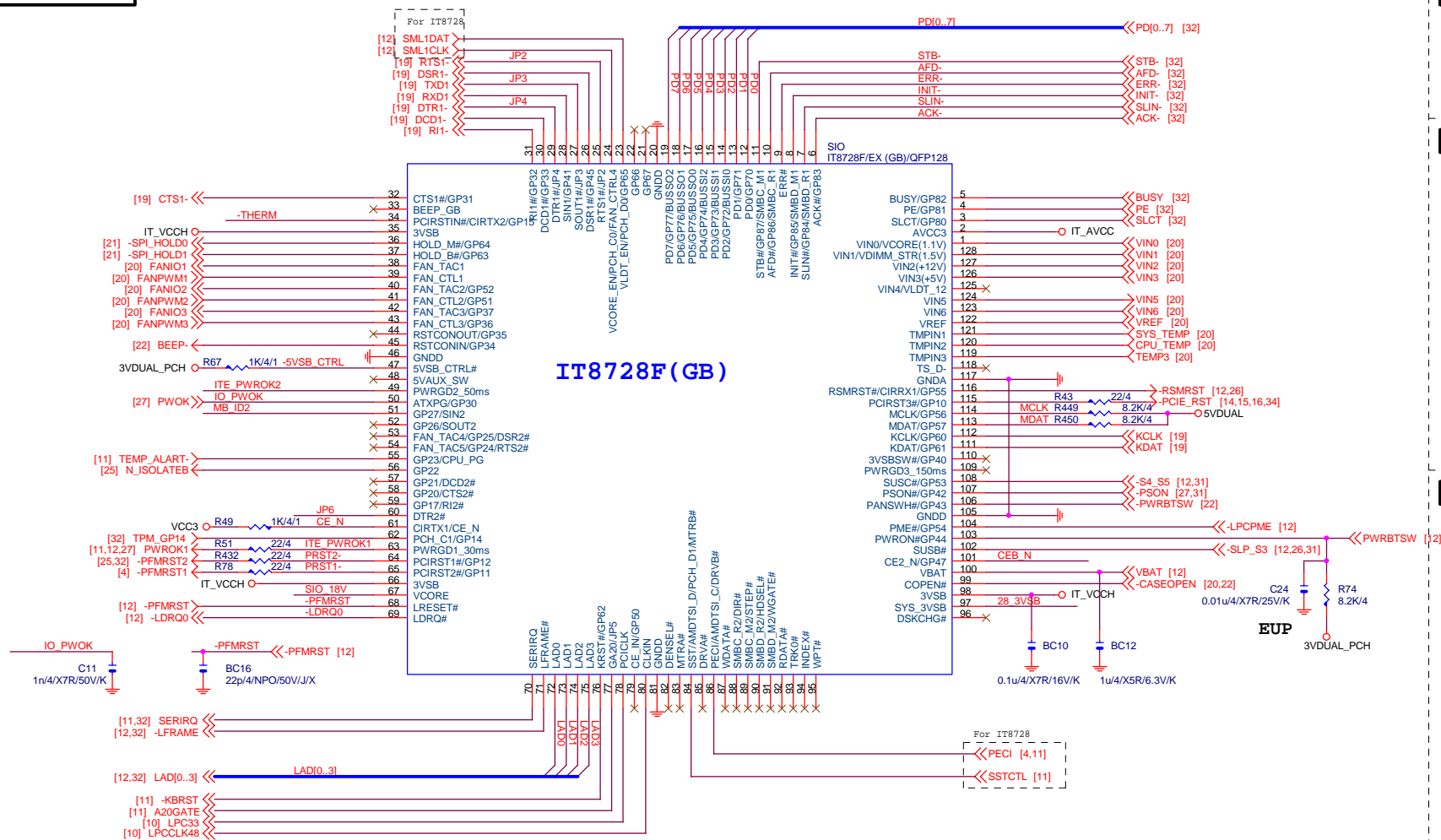
PCI CAP



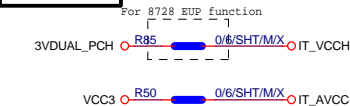
Gigabyte Technology

Title			
PCI SLOT 1&2			
Size Custom	Document Number	GA-Z77M-D3H	Rev 1.0
Date:	Friday, January 13, 2012	Sheet 17 of 34	

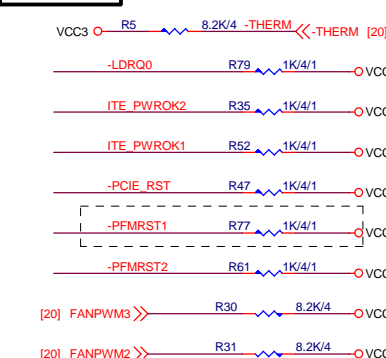
SIO IT8728F



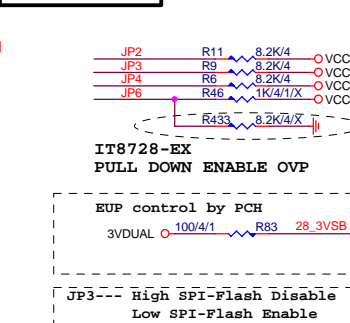
PWR	SHT
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SIO	PU
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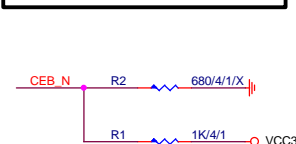
SIO STRAP



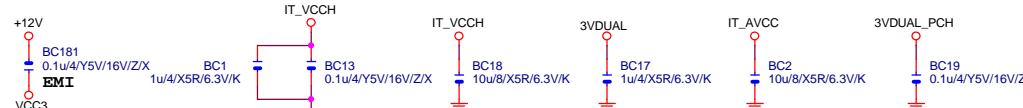
IT8728F NOTE

	IT8728
PIN121	VCORE_EN/PCH_C0
PIN120	VLDT_EN/PCH_D0
PIN19	ATXPG
PIN31	PCH_C1
PIN53	SST/AMDSI_D1/MTRB#/PCH_D1
PIN55	PECI/AMDSI_C/DRV#
PIN66	STS_3VSB
PIN70	GP47
PIN95	VIN2(VCC5)
PIN96	VIN1(VCC12)
PIN97	VIN1/VDIMM_STR(1.5V)
PIN98	VIN0/VCORE(1.1V)/NC

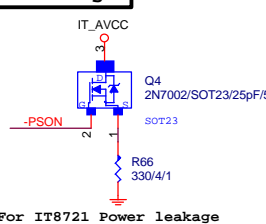
DUAL BIOS OPT STRAP



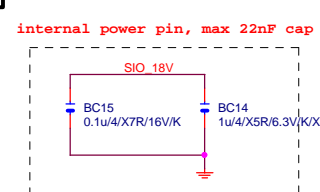
SIO CAP



Power leakage



SIO_18V

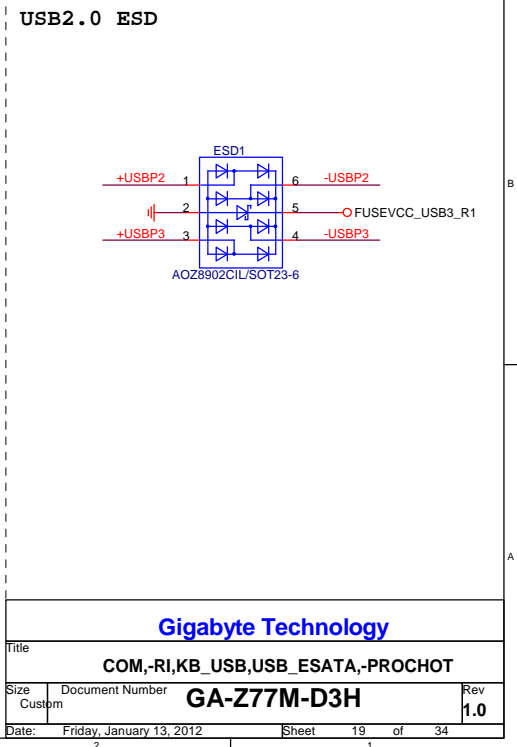
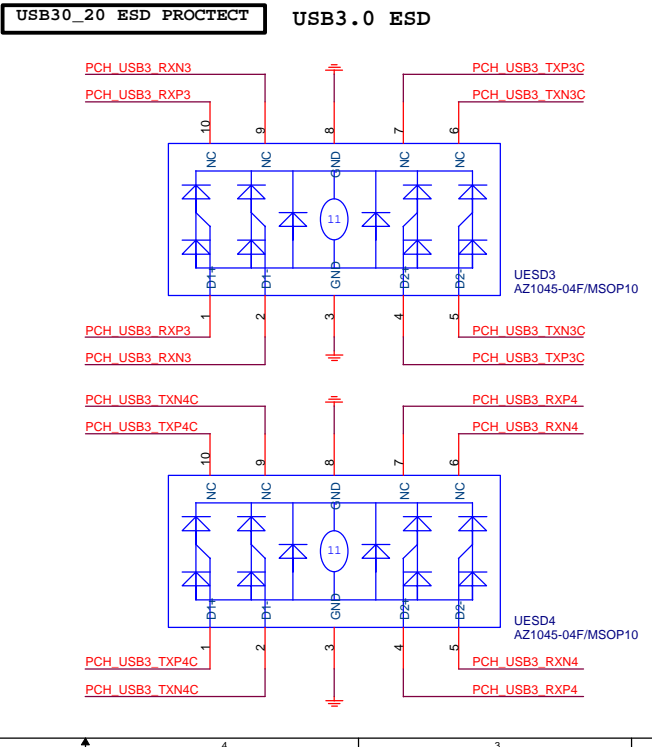
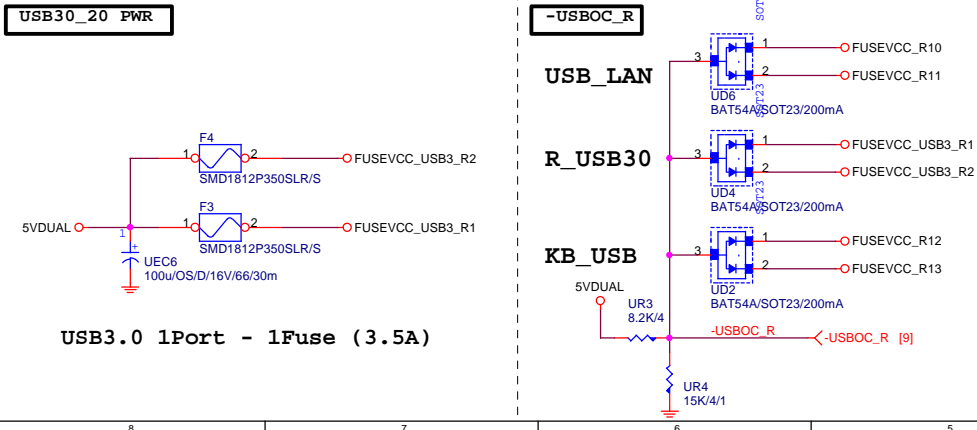
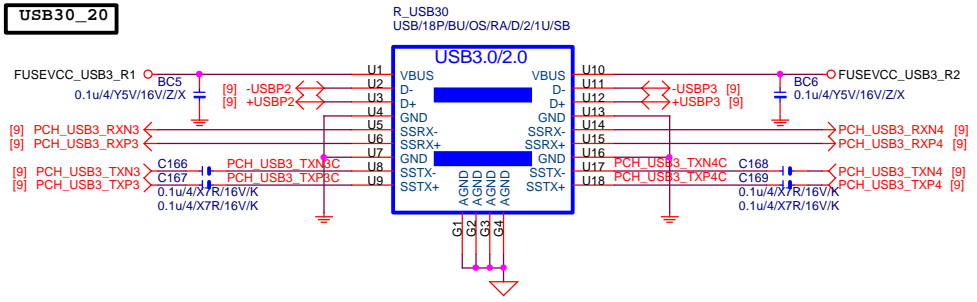
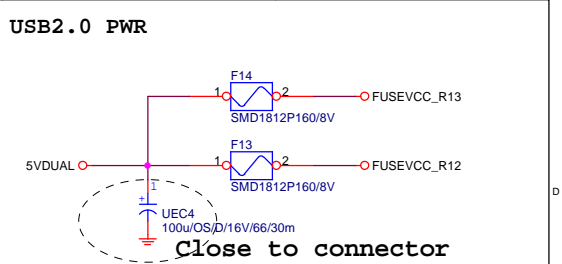
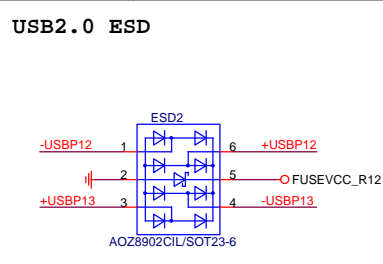
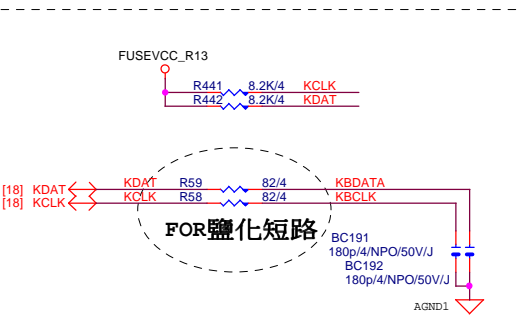
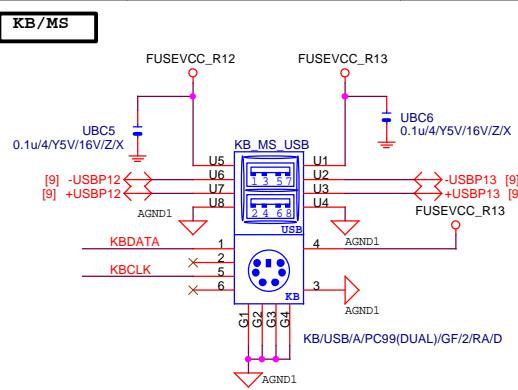
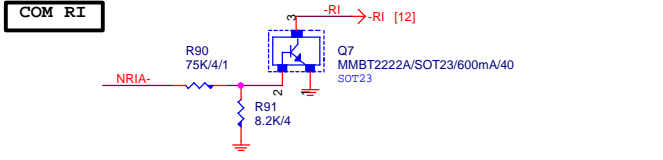
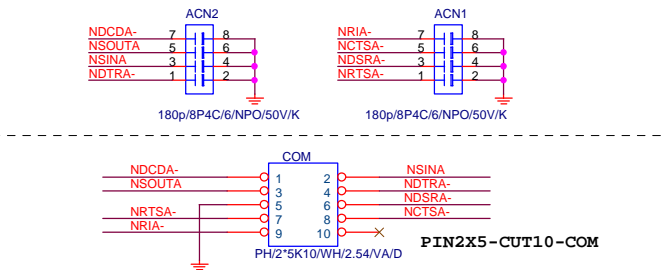
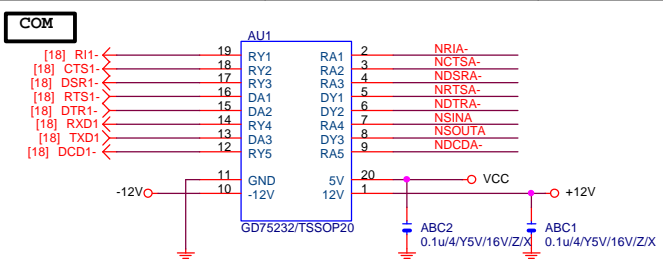


MB	ID
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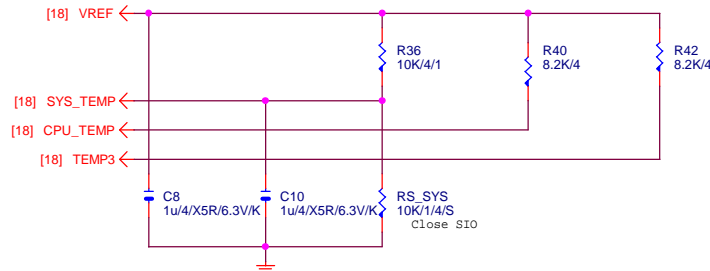


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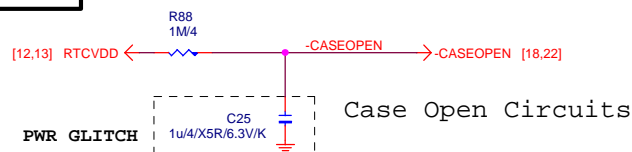
Title				ITE 8728 LPC IO			
Size	Document Number						Rev
Custom	GA-Z77M-D3H						1.0
Date:	Friday, January 13, 2012			Sheet	18	of	34



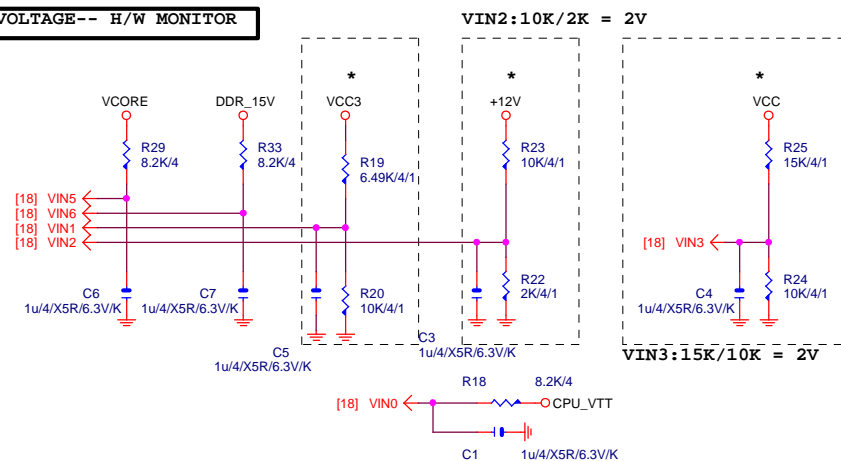
TEMP H/W MONITOR



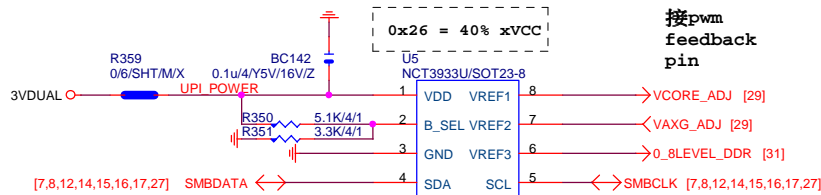
CASE OPEN



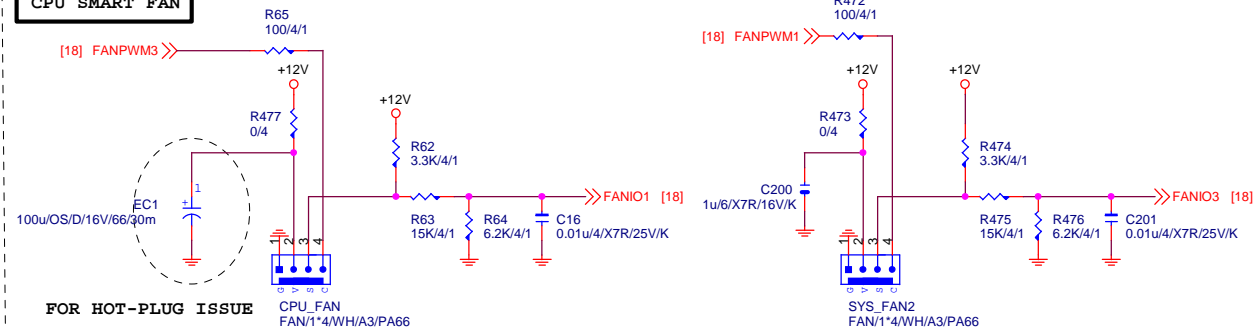
VOLTAGE-- H/W MONITOR



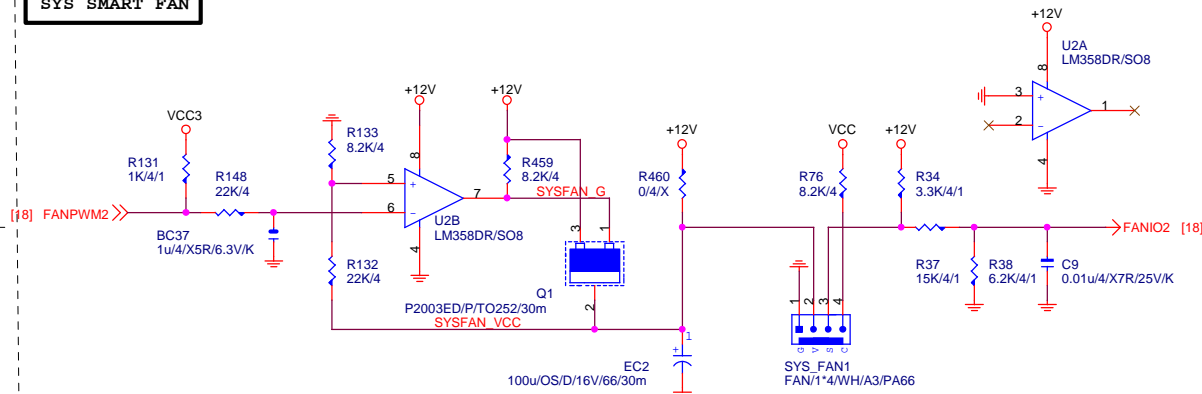
OV NCT3933



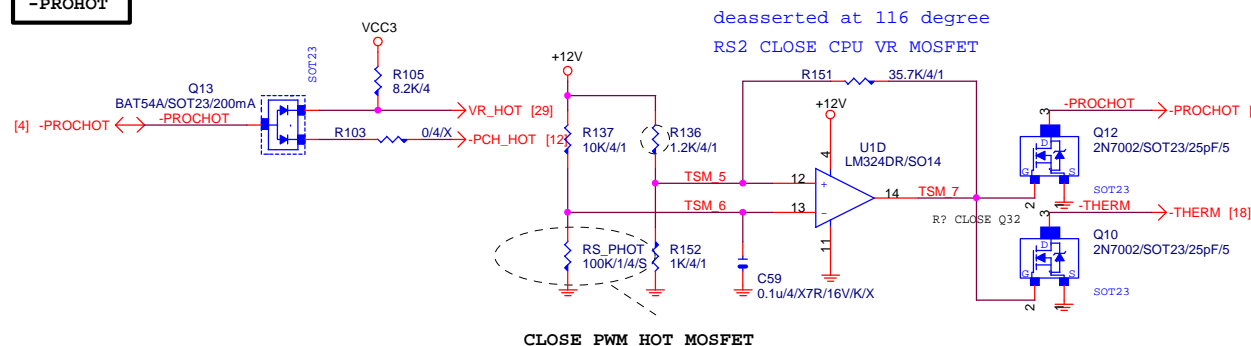
CPU SMART FAN



SYS SMART FAN



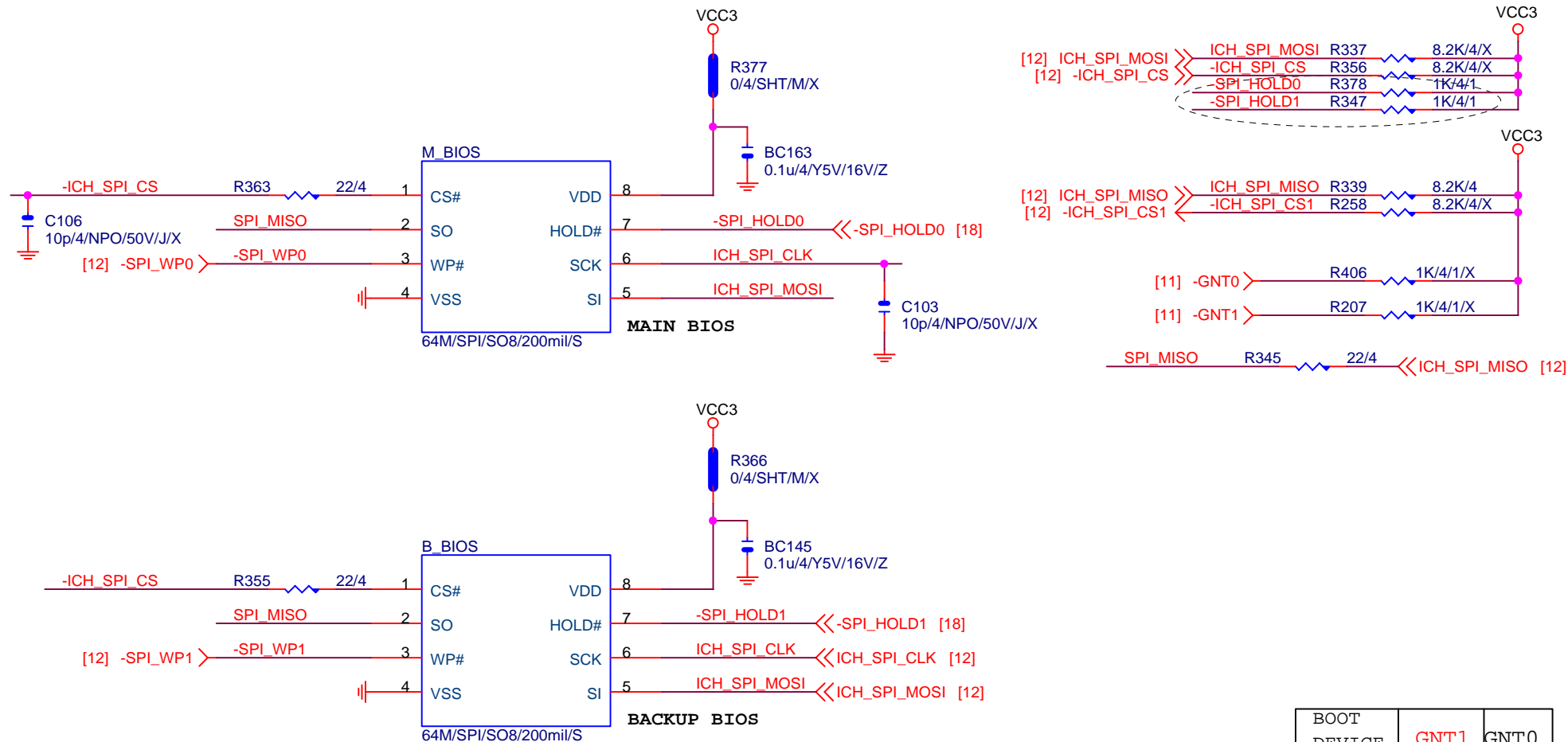
-PROHOT



Gigabyte Technology

Title			HWM,FAN CTRL,OV
Size	Document Number	GA-Z77M-D3H	
Custom		Rev	1.0
Date:	Friday, January 13, 2012	Sheet	20 of 34

DUAL BIOS



B65使用64M BIOS
 使用H67暫用32M
 H61使用32M BIOS

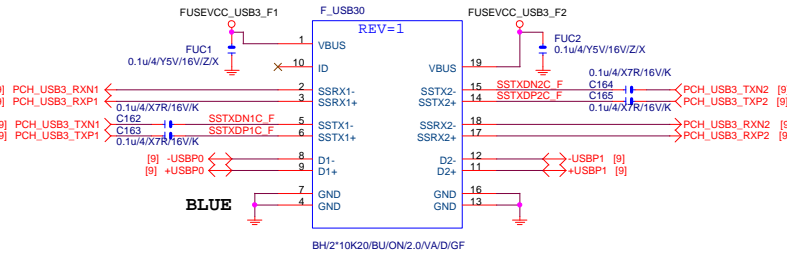
BOOT DEVICE	GNT1	GNT0
LPC	0	0
PCI	0	1
SPI	1	1

1 means floating
 0 means PD 1K

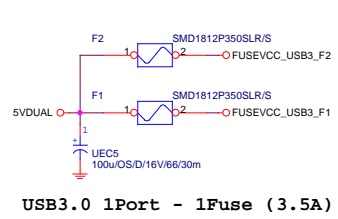
Gigabyte Technology

Title		
DUAL BIOS		
Size A	Document Number	Rev
	GA-Z77M-D3H	1.0
Date:	Friday, January 13, 2012	Sheet 21 of 34

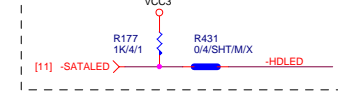
F_USB30



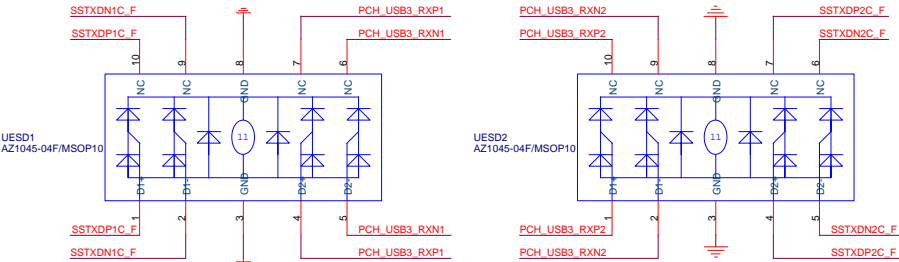
F_USB30 PWR



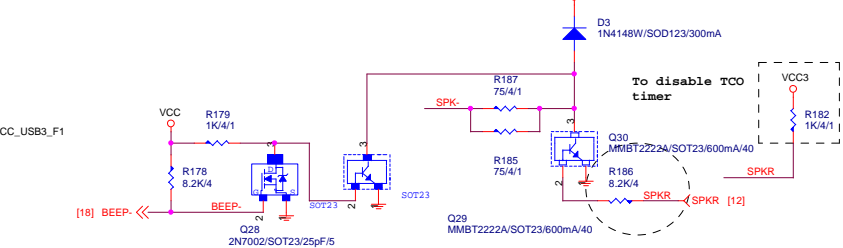
SATA LED



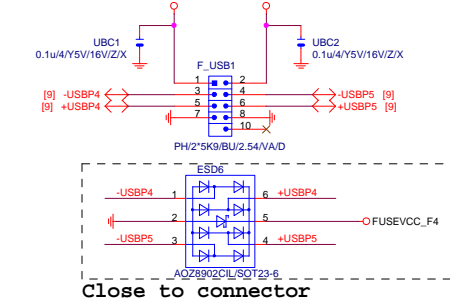
F_USB30 ESD PROTECT



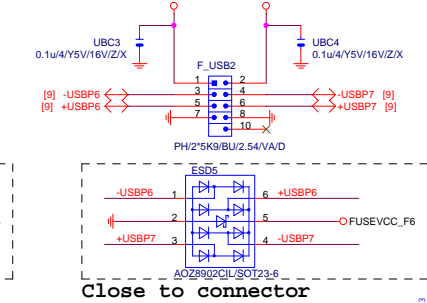
SPKR



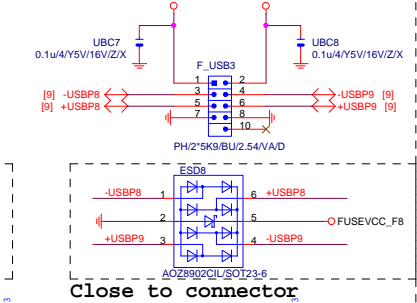
FRONT USB1



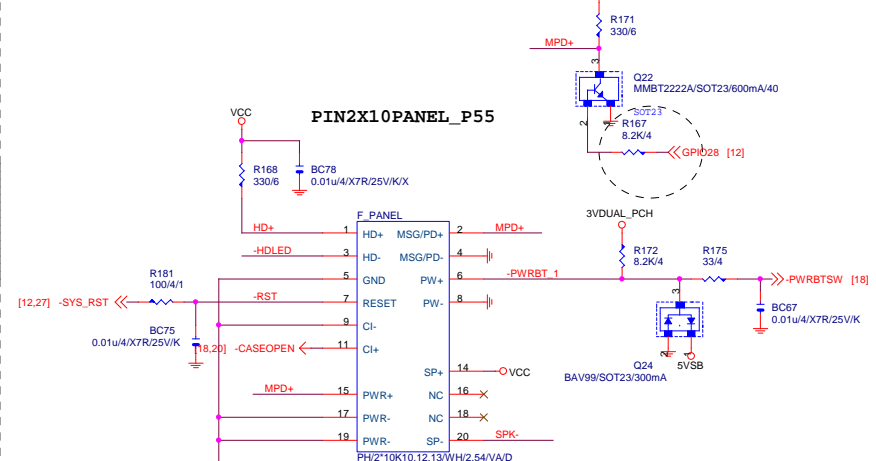
FRONT USB2



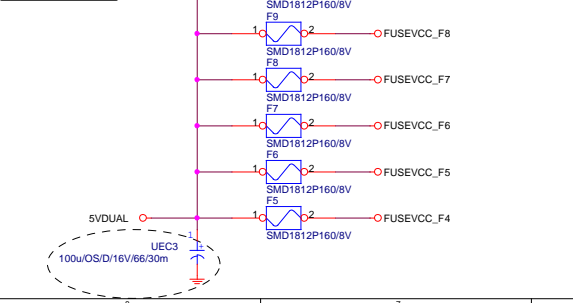
FRONT USB3



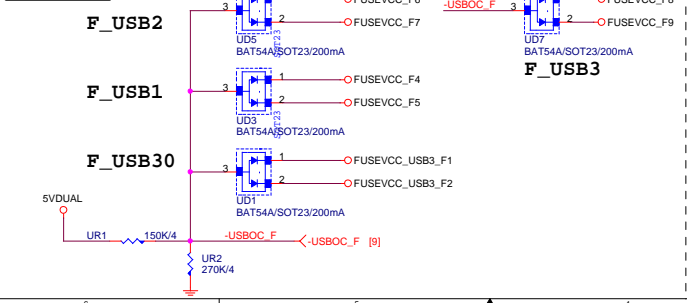
INTEL FRONT PANEL



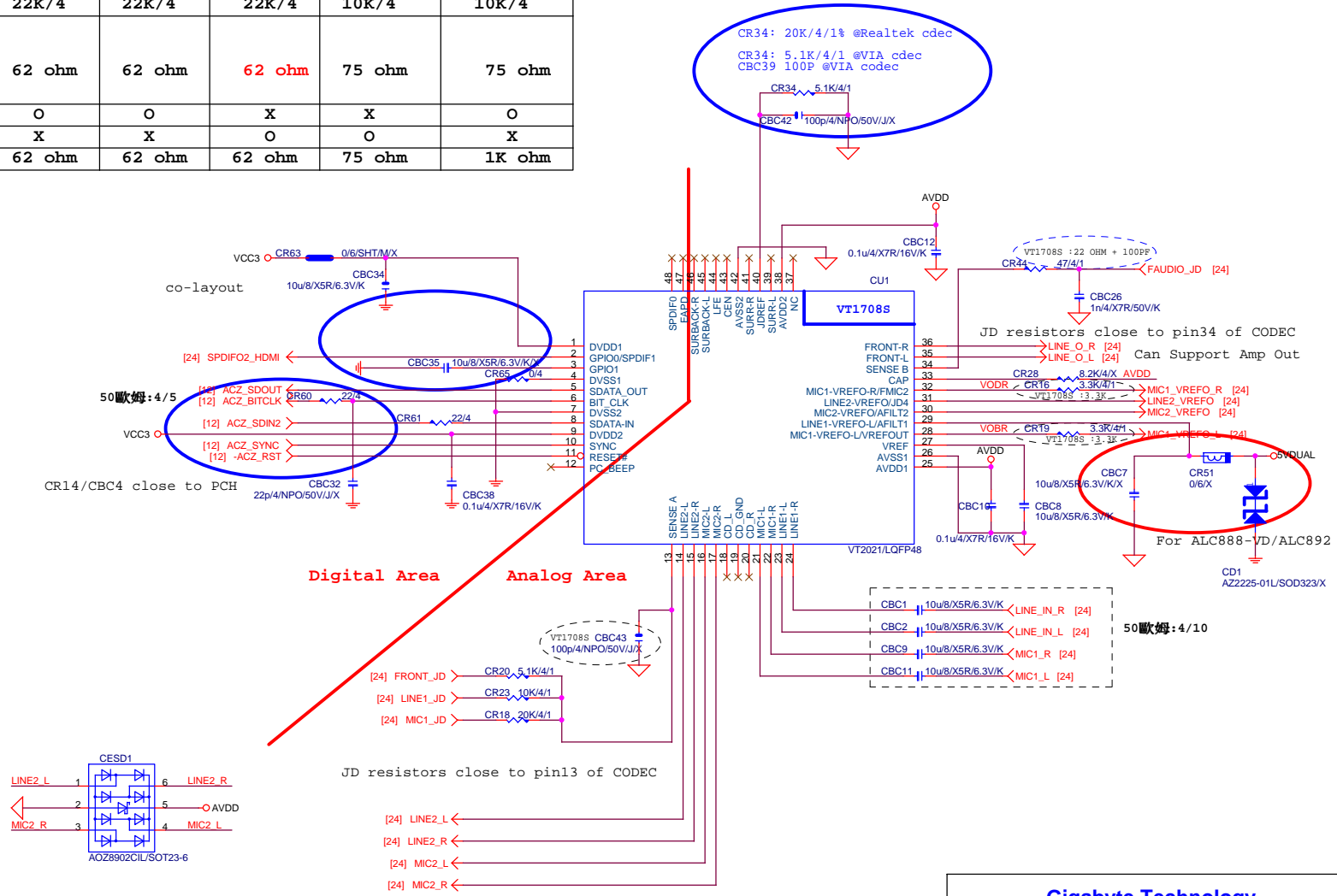
FUSEVCC_F

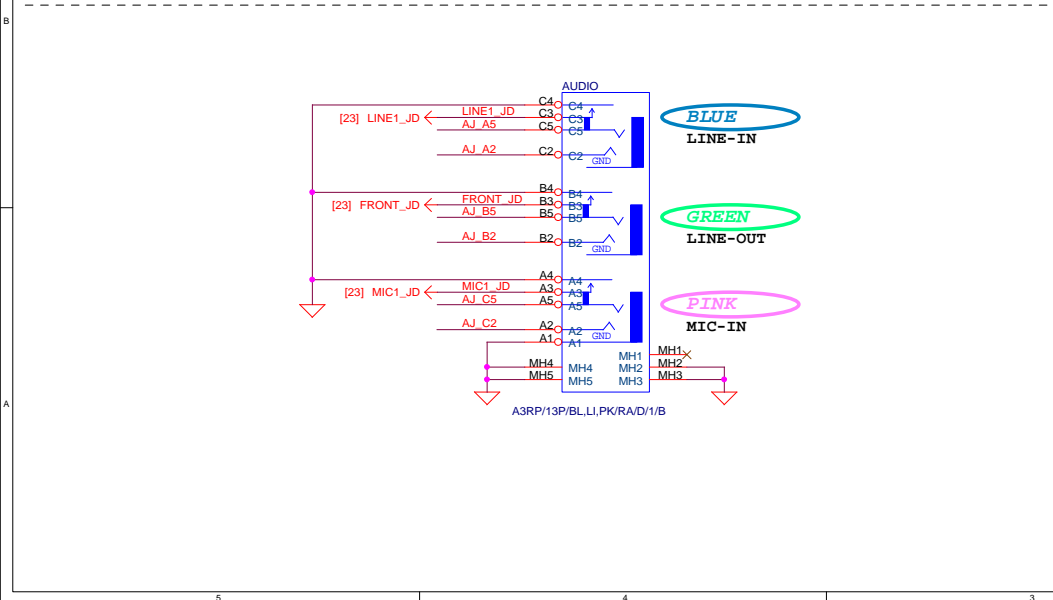


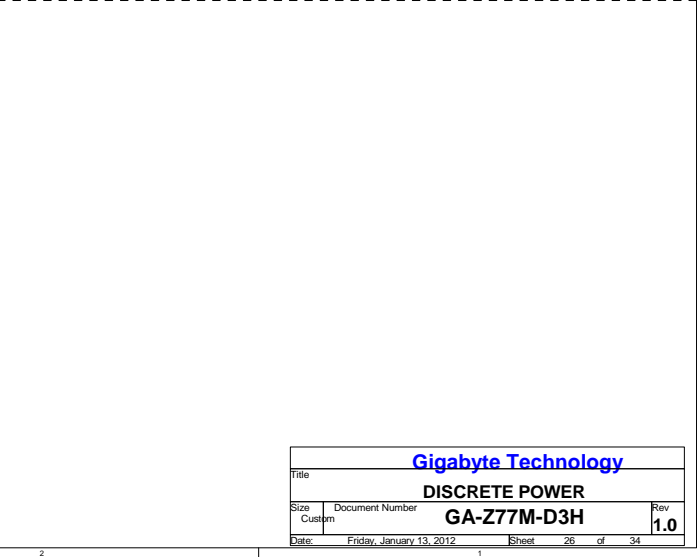
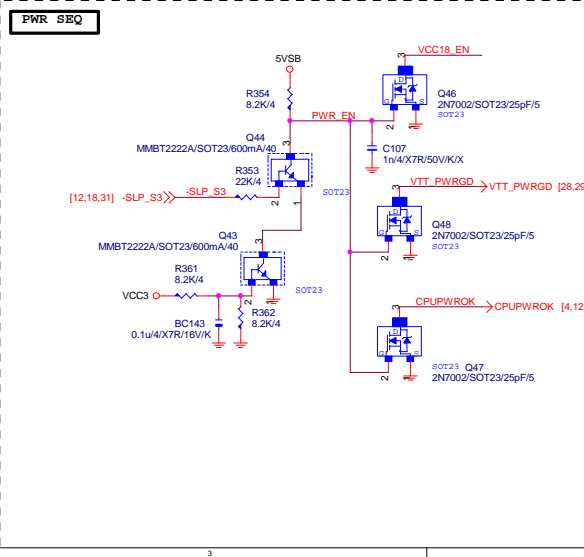
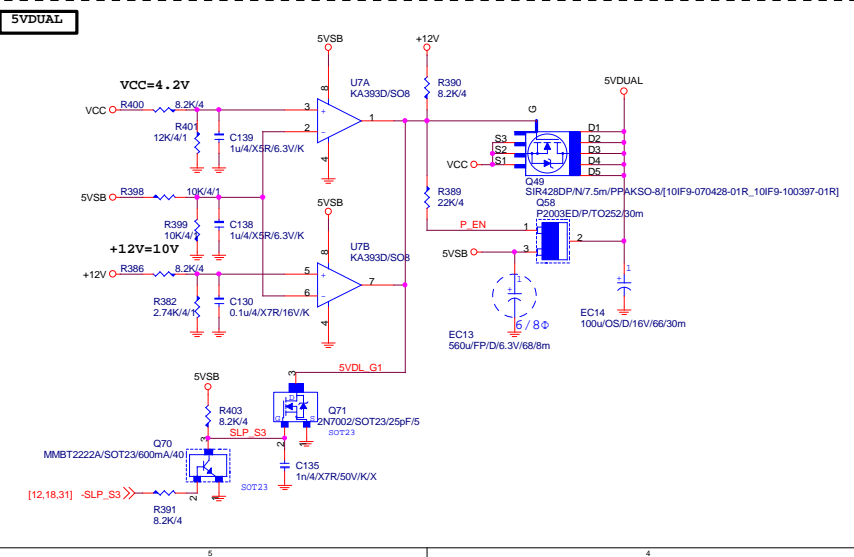
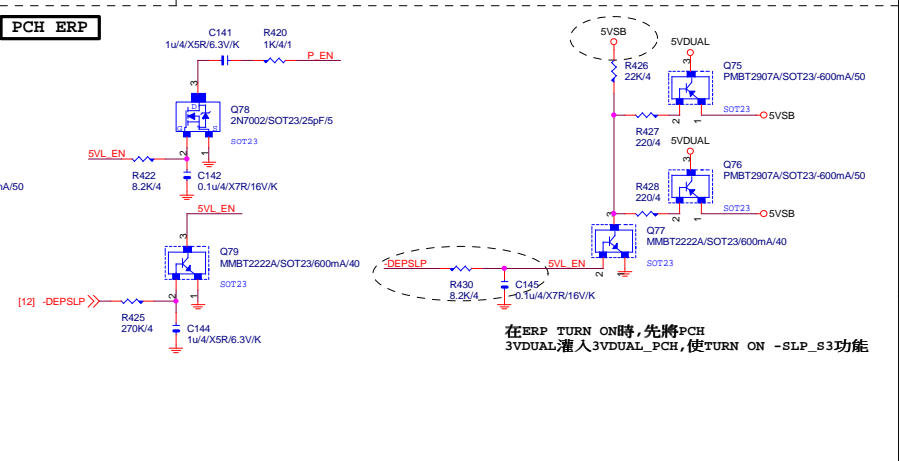
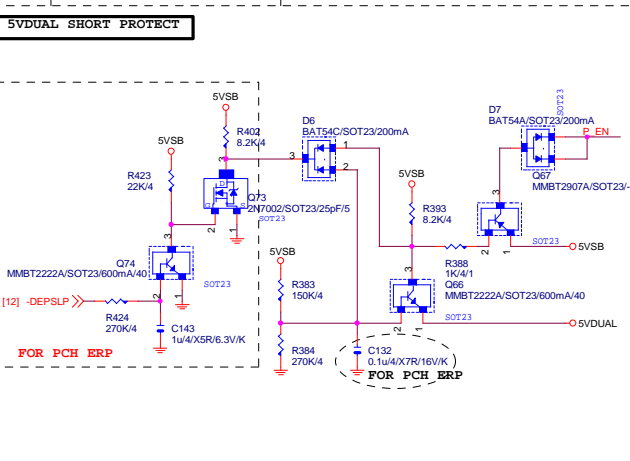
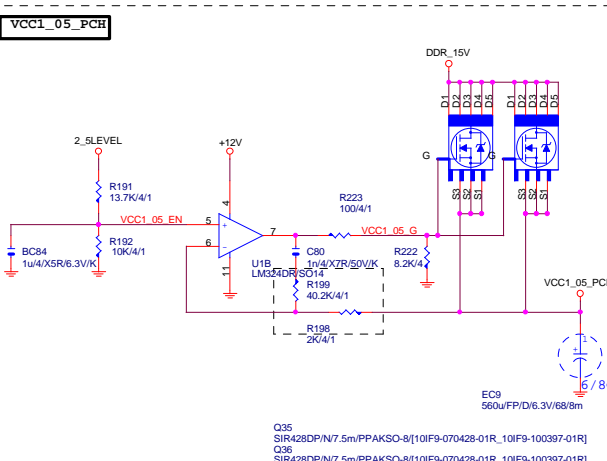
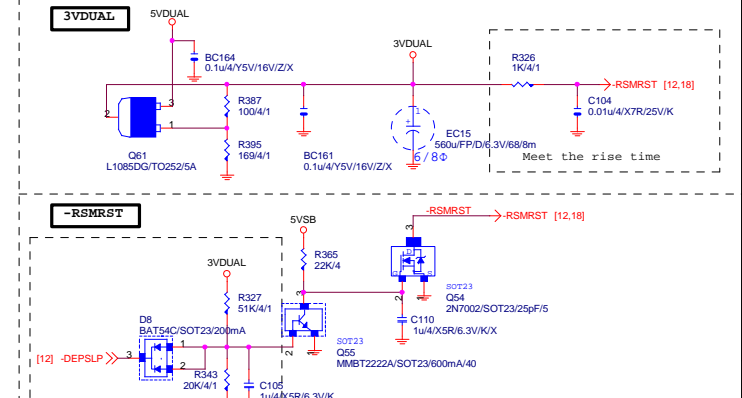
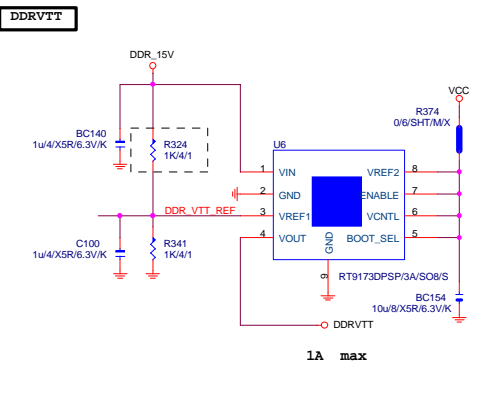
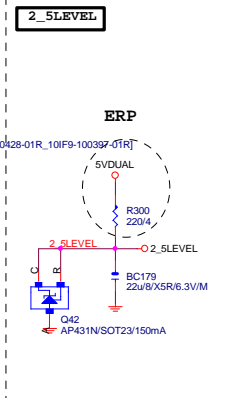
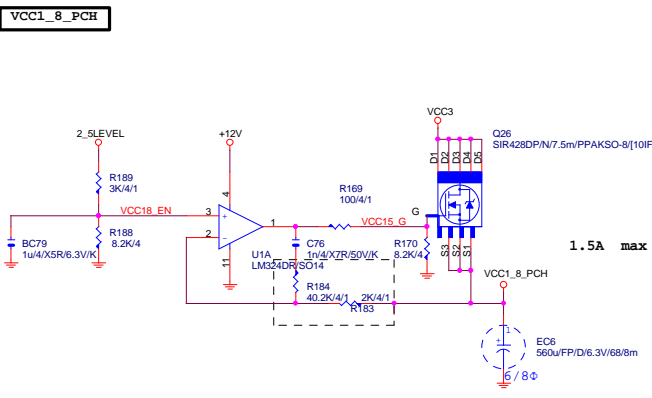
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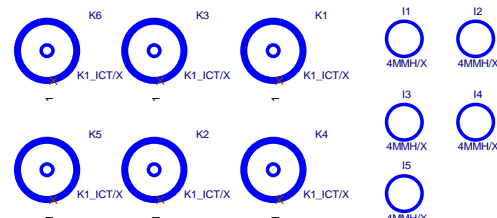
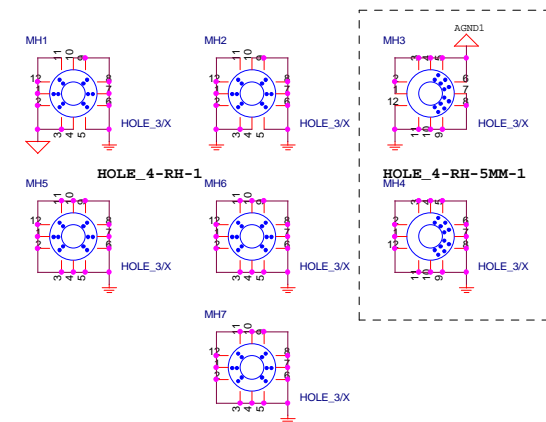
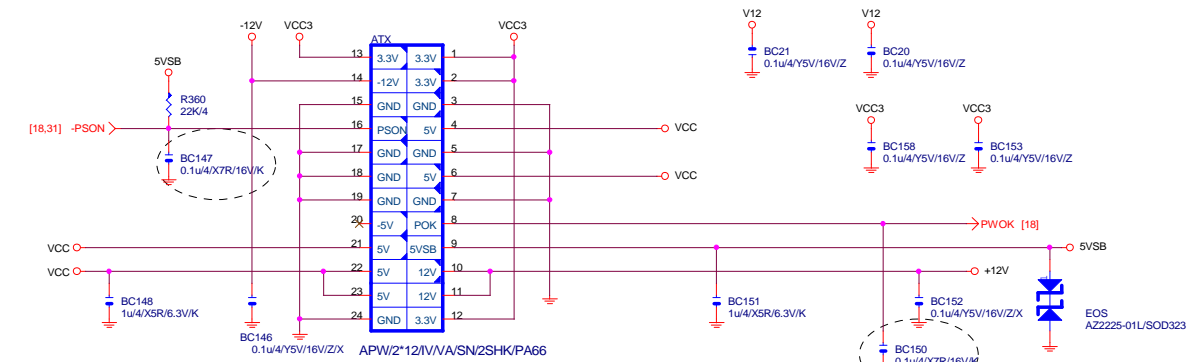
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CR65	X	X	O	O	X
CR64	X	X	X	X	0.1u/4
CBC35	O	O	X	X	O
CR44/CBC6	47ohm+1nF	47ohm+1nF	47ohm+1nF	22ohm+100P	22ohm+100P
CR31	X	O	O	O	O
CR30	O	X	X	X	X
CBC1/CBC2	22uF/X5R	22uF/X5R	22uF/X5R	22uF/X5R	22uF/X5R
CR20	5.11K/4/1	5.11K/4/1	5.11K/4/1	5.1K/4/1	5.1K/4/1
CR34	20K/4/1	20K/4/1	20K/4/1	5.1K/4/1	20K/4/1
CBC39/CBC40	N/A	N/A	N/A	100P/4	100P/4
CR6/CR7/CR54/CR58	22K/4	22K/4	22K/4	10K/4	10K/4
CR5/CR8/CR11/CR4/ CR17/CR22/CR45/CR33/ CR47/CR40/CR26/CR37/ CR13/CR11/CR57/CR53	62 ohm	62 ohm	62 ohm	75 ohm	75 ohm
CR51/CD1/CBC7	O	O	X	X	O
CD2/CD3/CQ3/CQ5	X	X	O	O	X
CR1/CR14/CR17/CR22	62 ohm	62 ohm	62 ohm	75 ohm	1K ohm



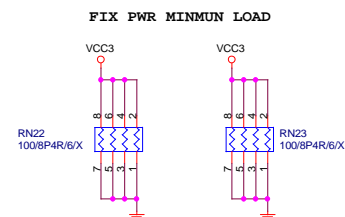
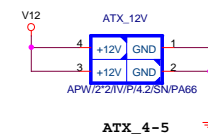




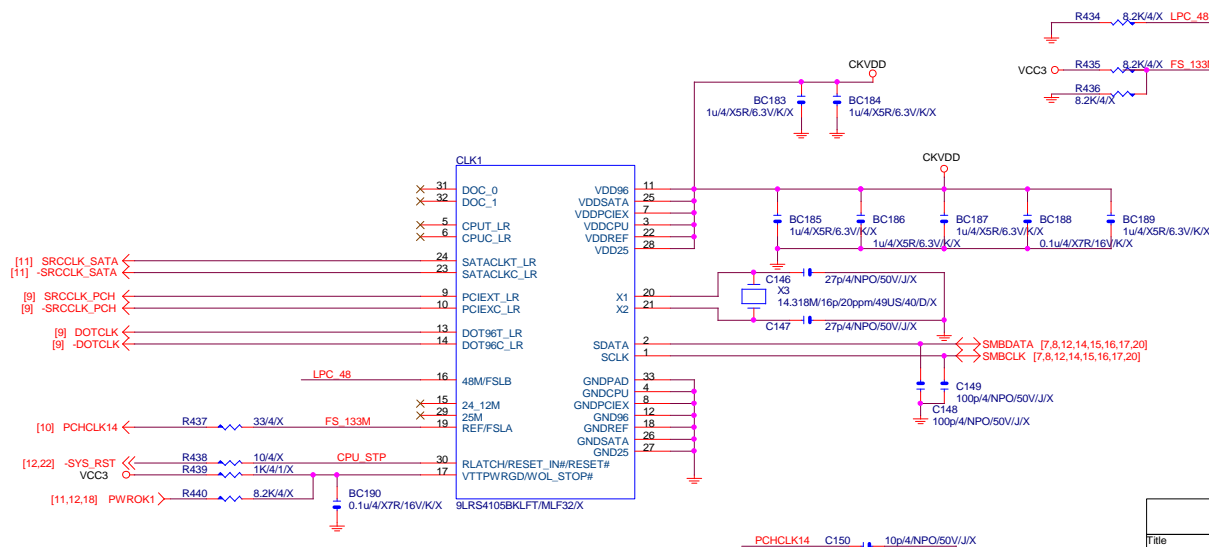
ATXX24 POWER CONNECTOR



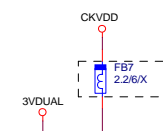
To prevent the 5VSB
under loading when
boot



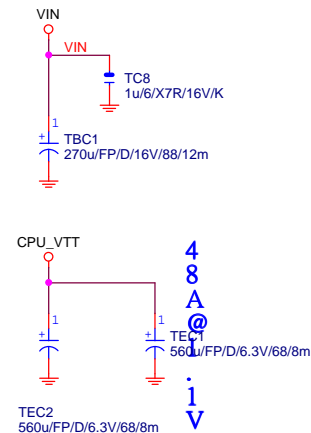
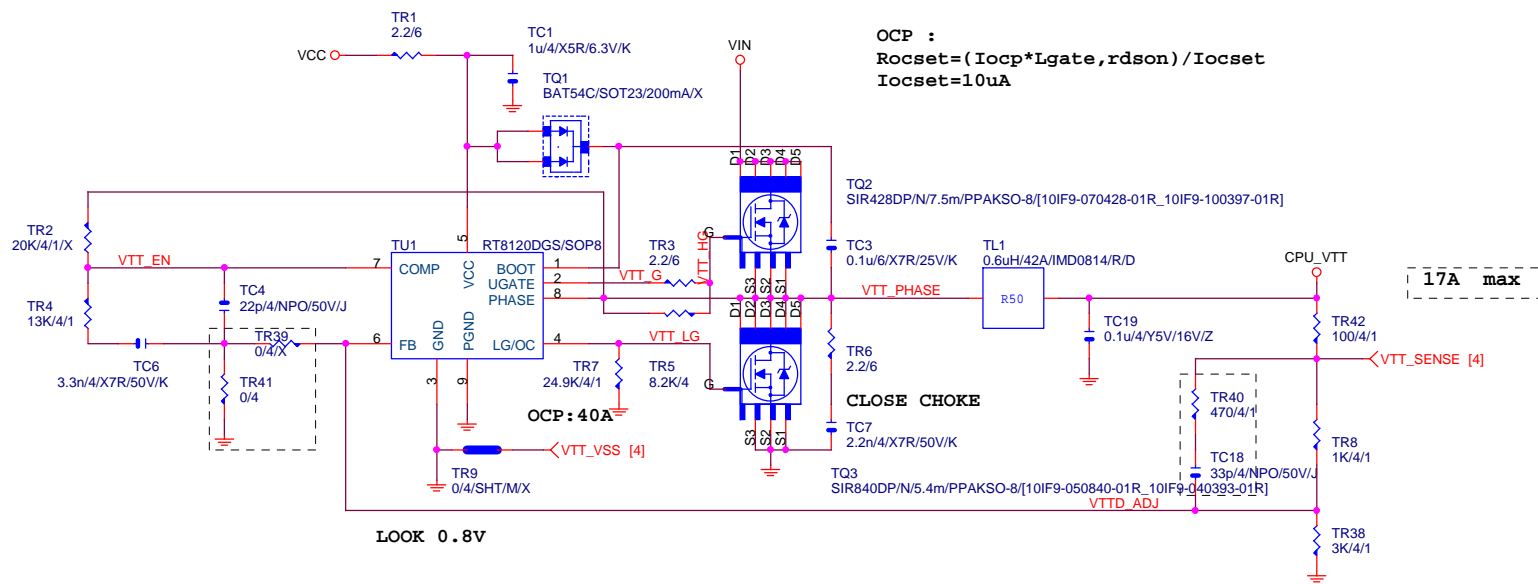
CLK GEN



CPU Frequency Selection	
FS	CPU
0	100M <Default>
1	133M



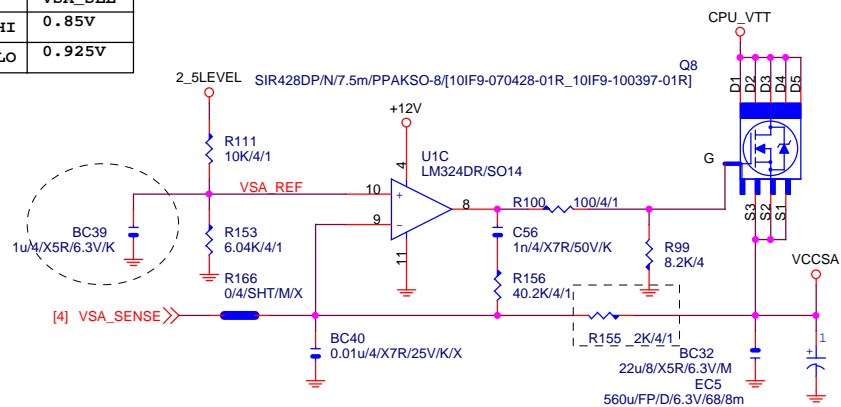
CPU_VTT



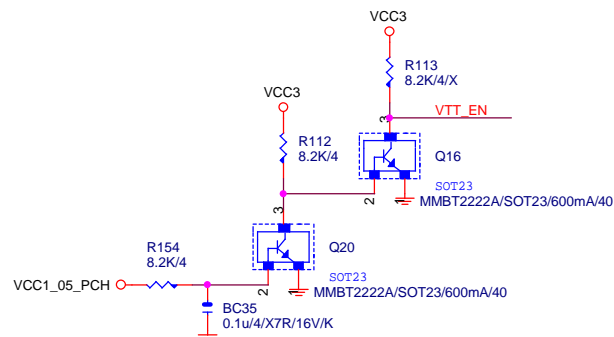
VCCSA

PDG 0.8

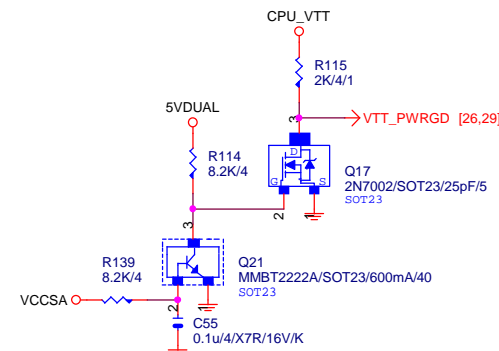
	VSA_SEL
HI	0.85V
LO	0.925V



CPU_VTT	PWR	SEQ
---------	-----	-----



VTT_PWRGD



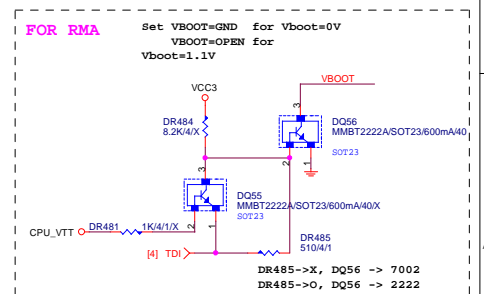
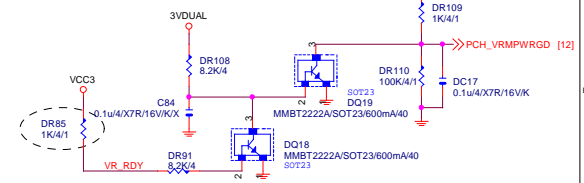
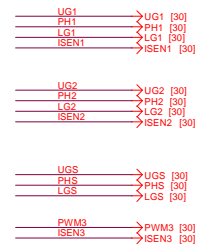
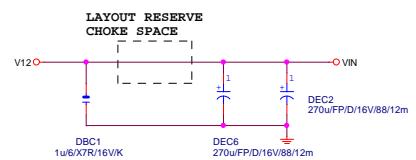
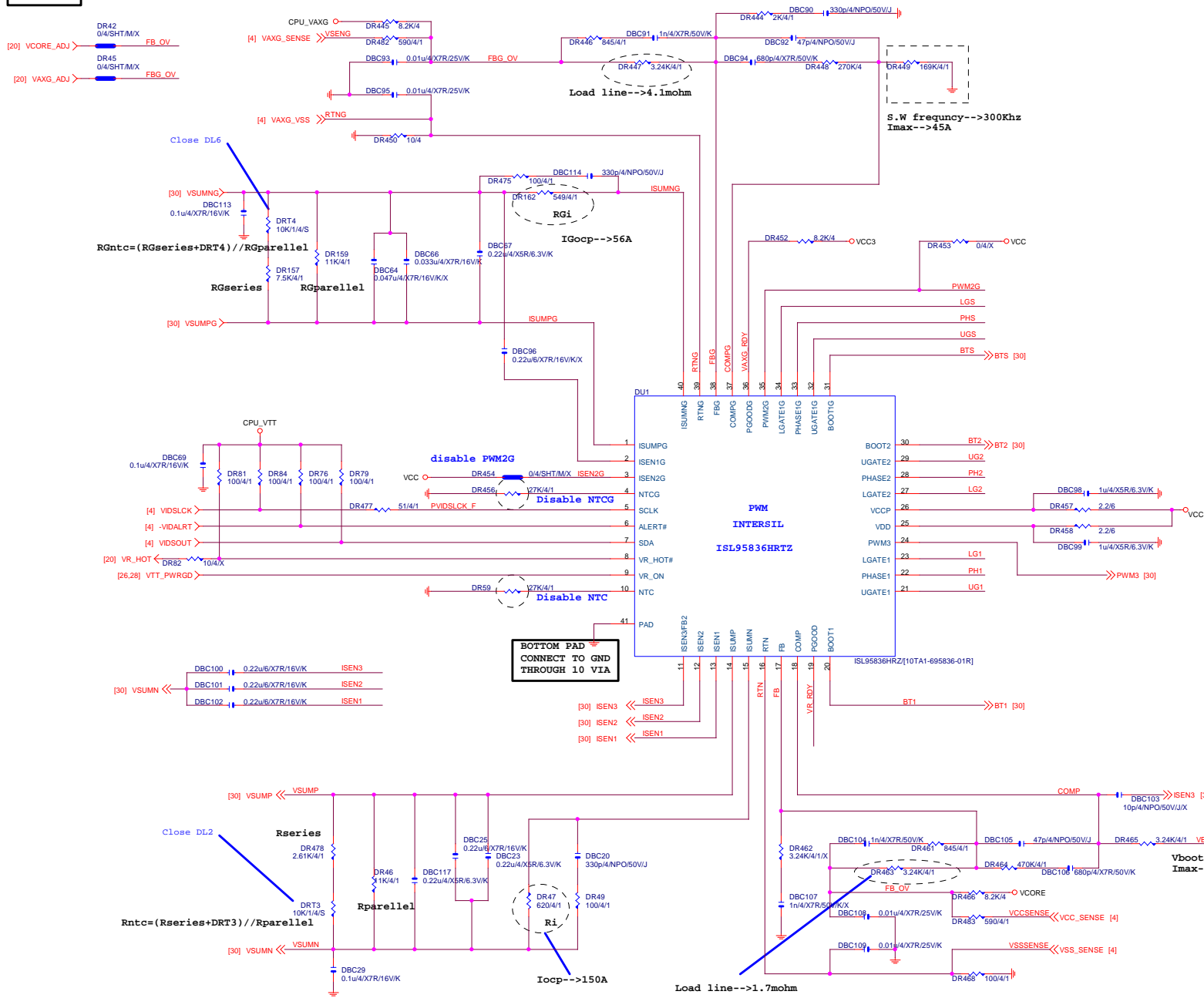
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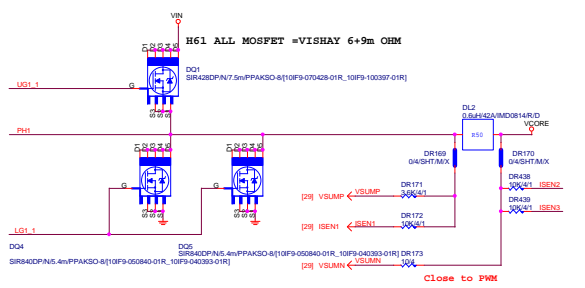
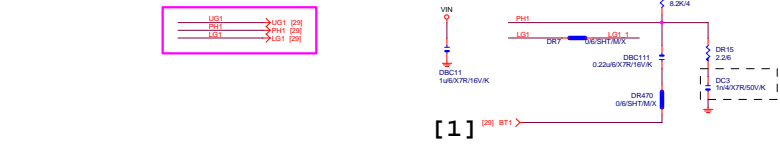
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VCORE PWM

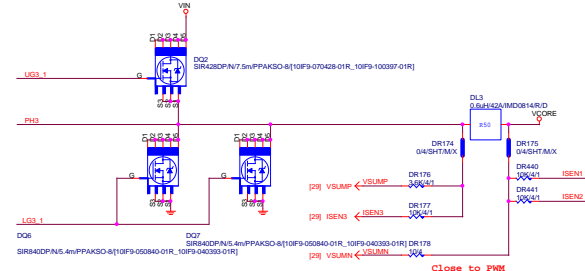
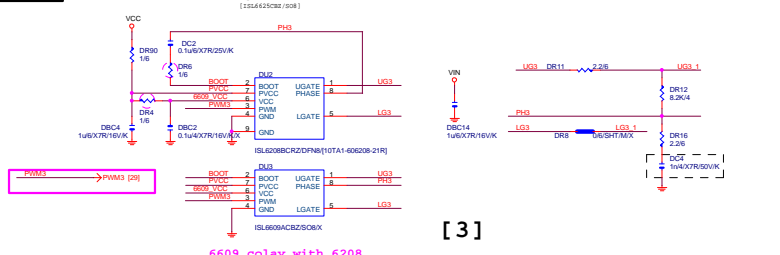


			
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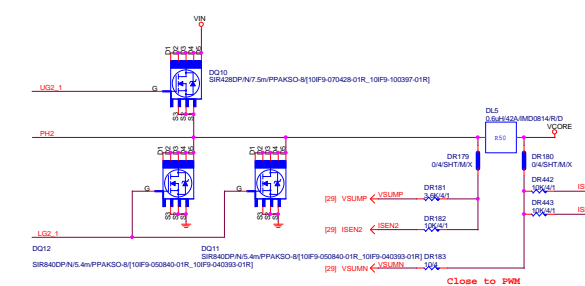
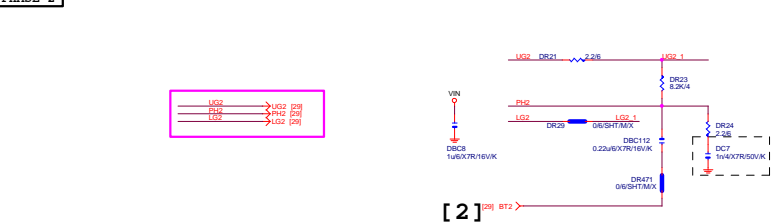
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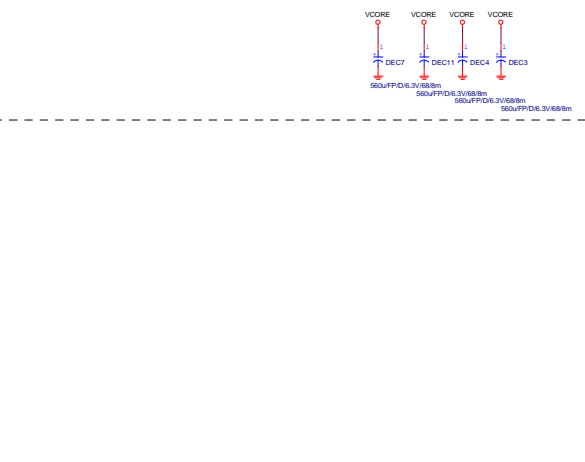
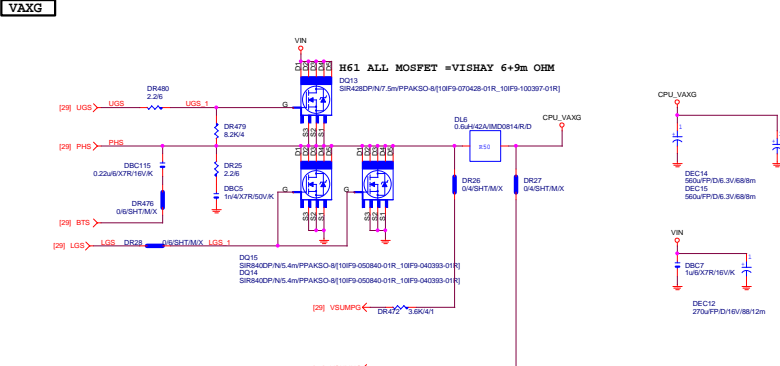
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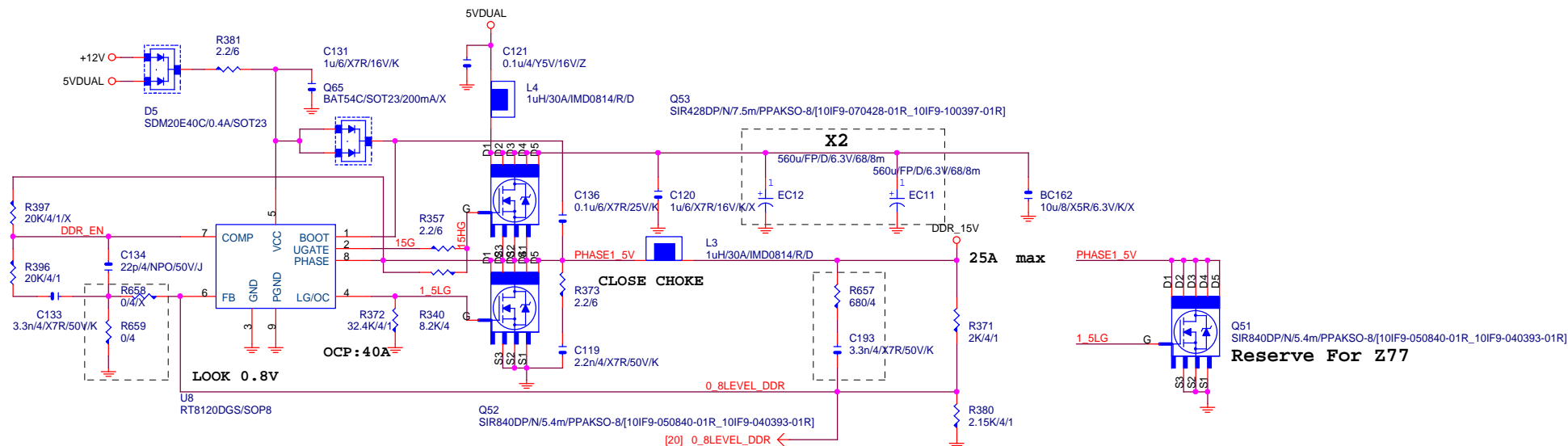
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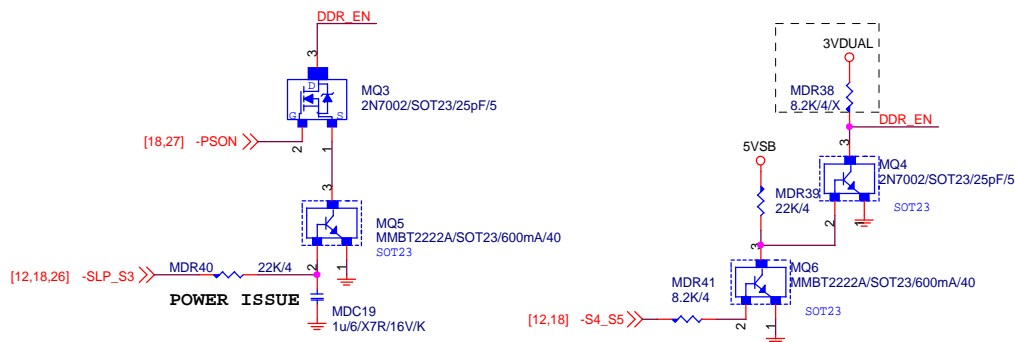
VAXG



DDR15V



PWR SEQ



VIN=5V,VOUT=1.5V,IOUT=25A,PHASE=1

IRMS=11.45A

560u/FP/D/6.3V/68/8m RIPPLE CURRENT=4.7A

Coefficient=1.7(85°C), 1(105°C)

VIN Ripple current=4.7X1.7=7.99A(85°C)

-->故固態電容須 $2 \times 7.99 = 15.98 > 11.45A$

OCP : $I_{peak} = (2 \times I_{ocset} \times R_{ocset}) / R_{dson}$
typ $I_{ocset} = 20\mu A$, $R_{ocset} = 4.7k$

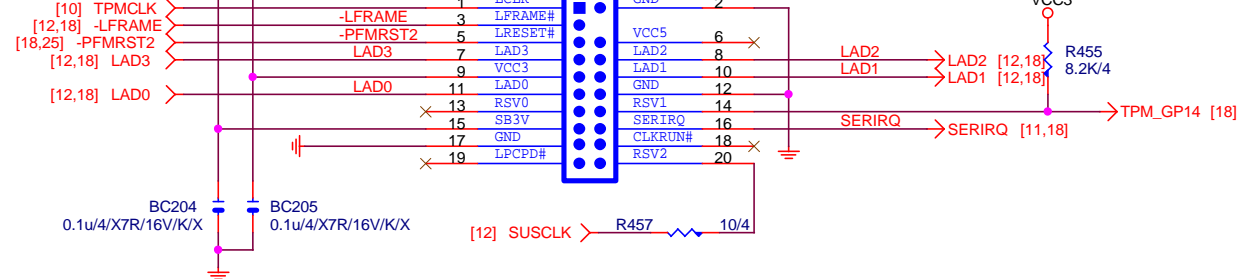
$$\text{OCP} : 53.71\text{A} = (2 \times 20\text{uax}4.7\text{k}) / (7\text{m} // 7\text{m})$$

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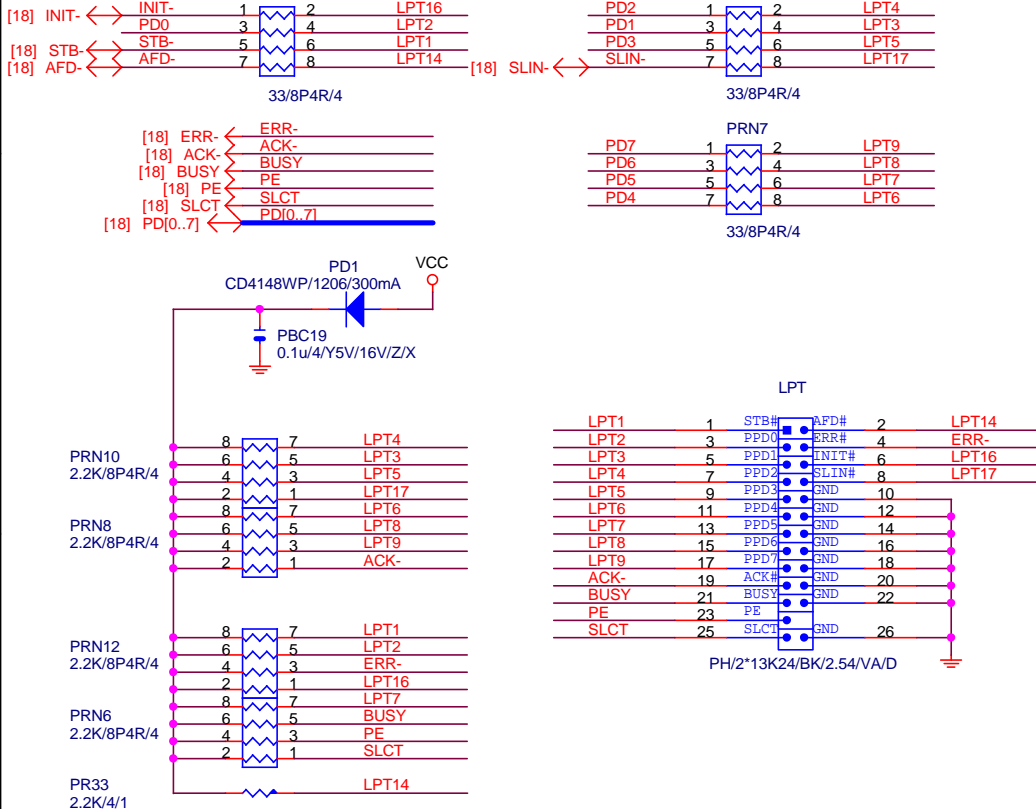
DDR POWER

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TPM



LPT PORT



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LPT

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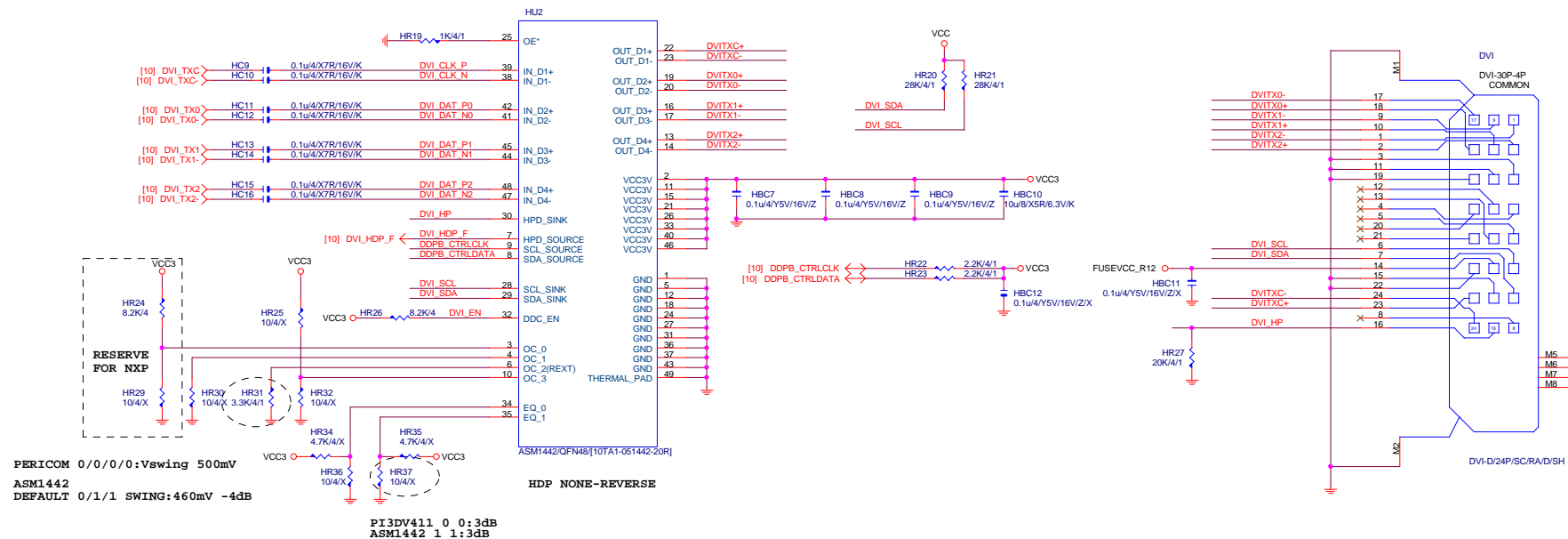
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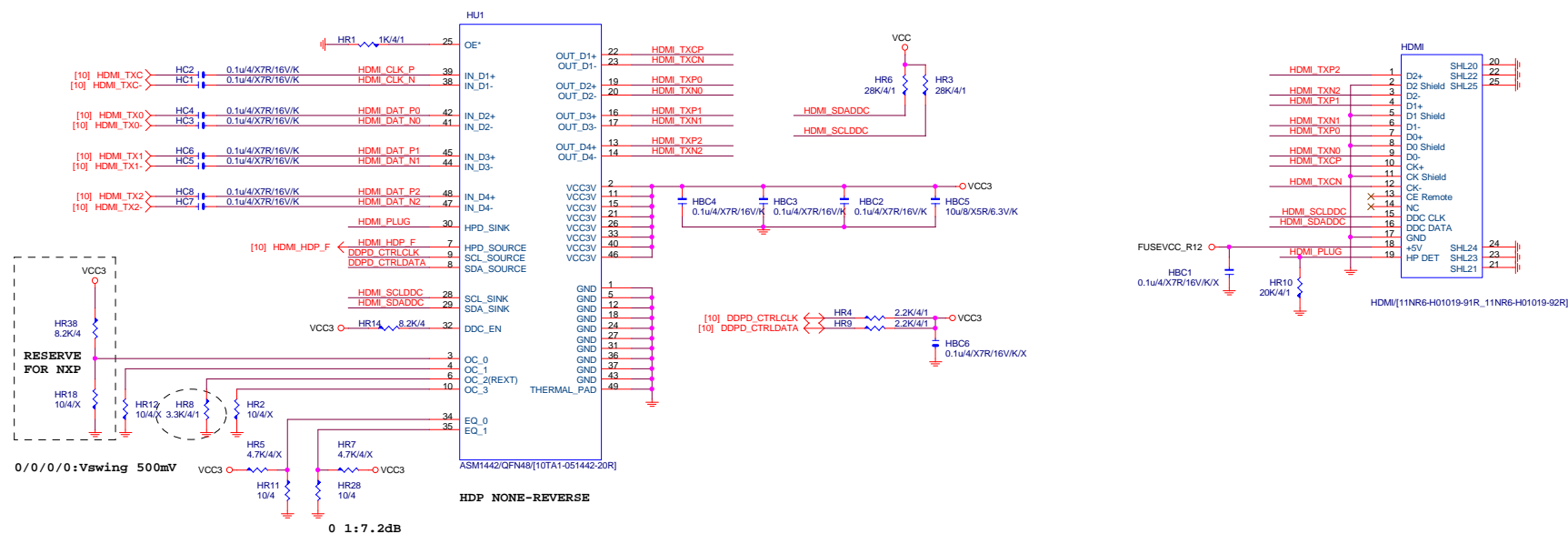
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DVI LEVEL SHIFT

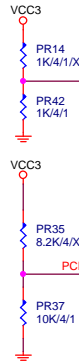
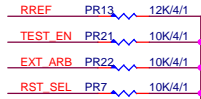
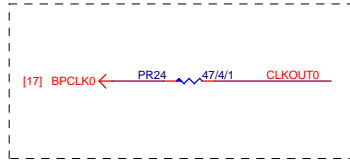
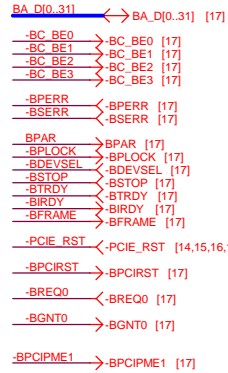


HDMI LEVEL SHIFT



PCIE TO PCI

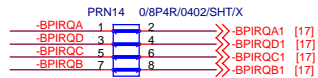
PCI:5/4/5 Impedance=50 +- 15%



High: Enable PCI CLK 66MHz
Low: Disable PCI CLK 66MHz

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

IT8892



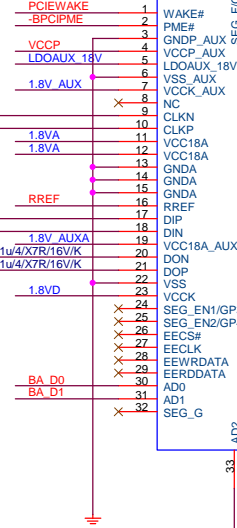
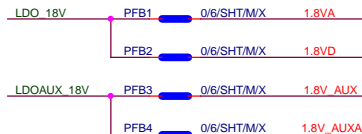
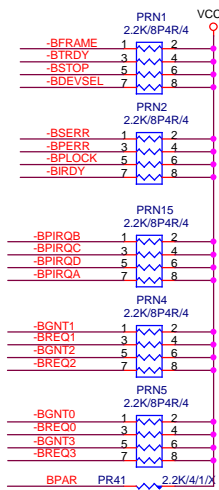
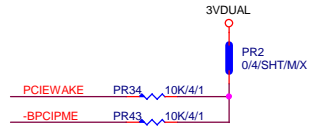
PCI slot



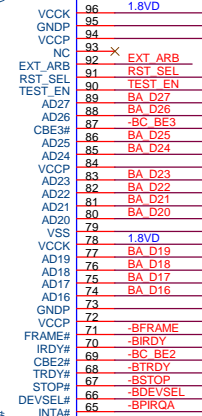
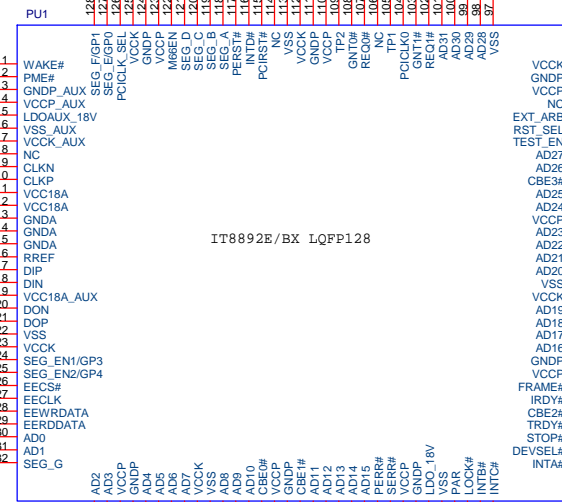
PCI slot



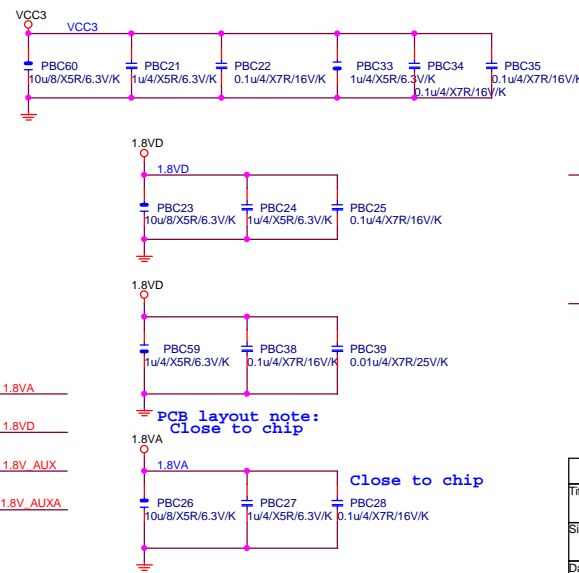
chipset side



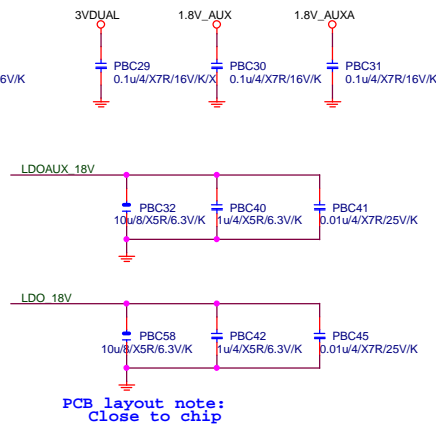
IT8892E/BX LQFP128



IT8892E/EX/S(10HP2-698892-30R)



PCB layout note:
Close to chip



PCB layout note:
Close to chip

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