

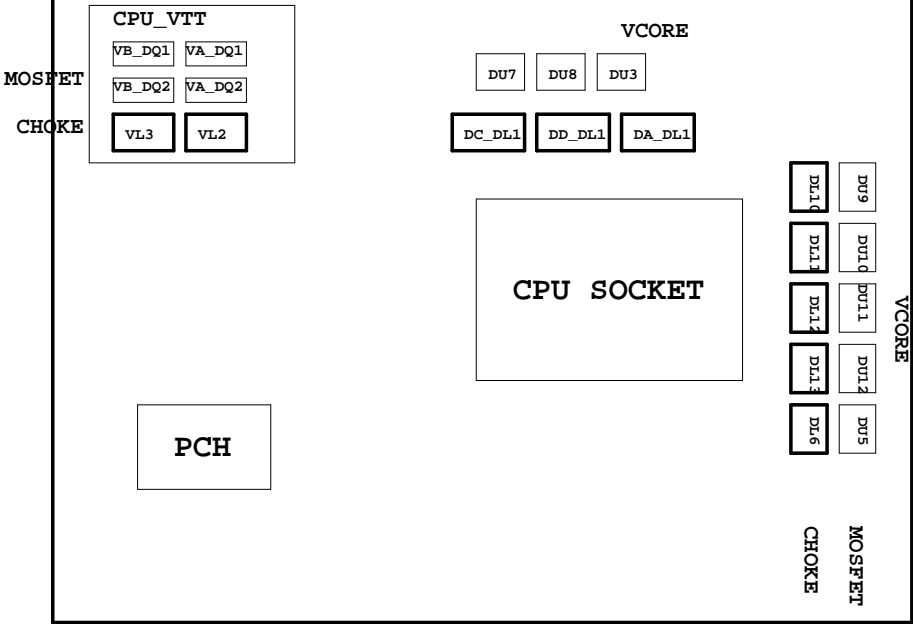
Model Name: GA-Z77X-D3H

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*8 SLOT
16	PCI EXPRESS*16/*8 SWITCH
17	PCI EXPRESS*1 SLOTS X3
18	PCI EXPRESS*4 SLOT
19	IT8892
20	PCI SLOT 1
21	HDMI/DVI/USB3.0
22	MSATA
23	Dual BIOS / TPM CONNECT
24	ALC889
25	REAR AUDIO JACK
26	VCORE PWM_IR3567
27	VCORE PWM_IR3567

SHEET TITLE

28	VCORE PWM_IR3570
29	DDR / CPU_VTT MOS
30	DISCRETE POWER
31	VCCSA POWER
32	I/O ITE8728
33	COM,-PHOT,RUSB
34	FP,FUSB
35	ATX POWER, CLOCK GEN
36	HWM,KB/MS , FAN CTRL
37	ARTHEROS AR8161/AR8151
38	MARVELL 9172
39	NCT3933U
40	VIA VL800 USB3.0
41	TABLE LIST



GA-Z77X-D3H

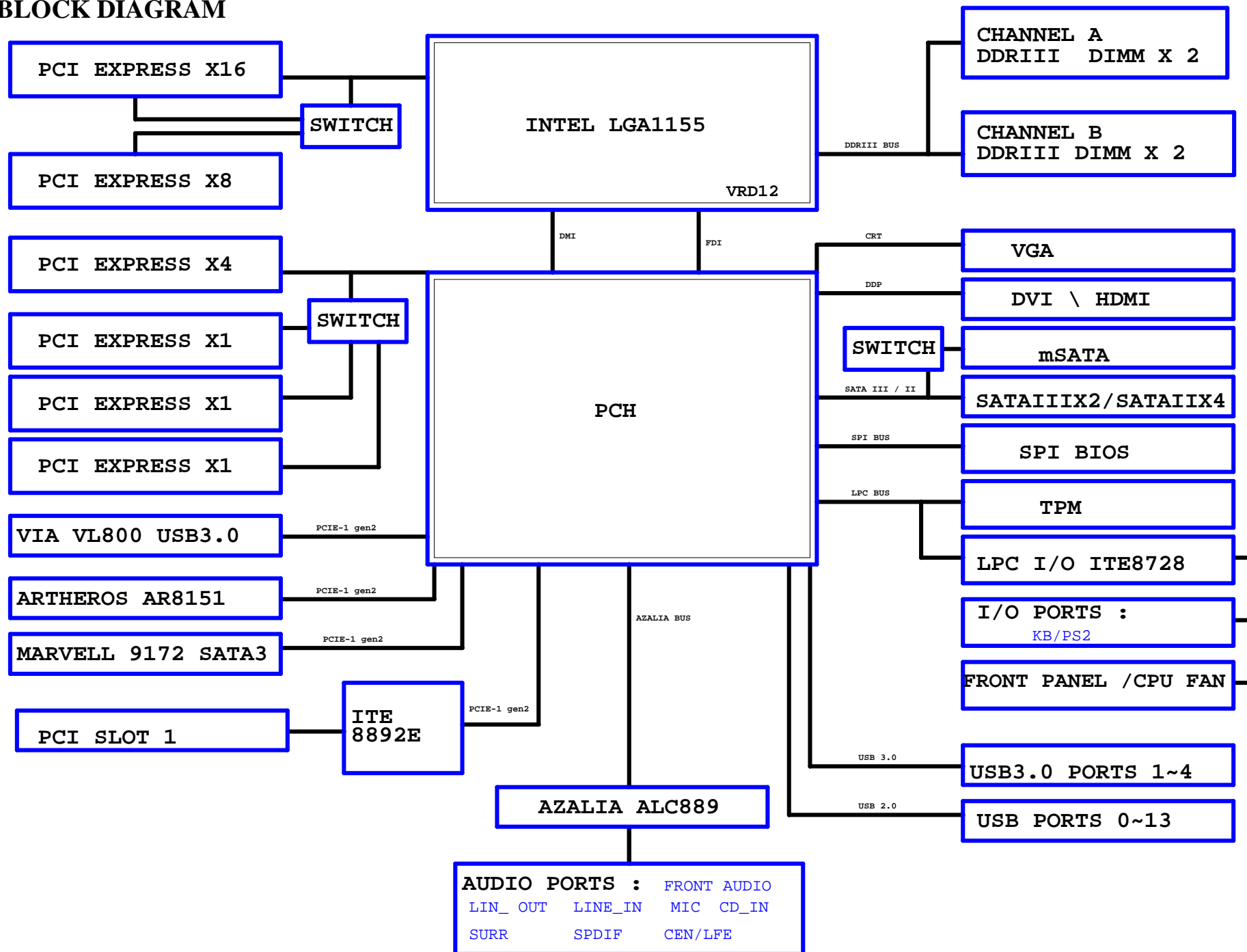
Component value change history

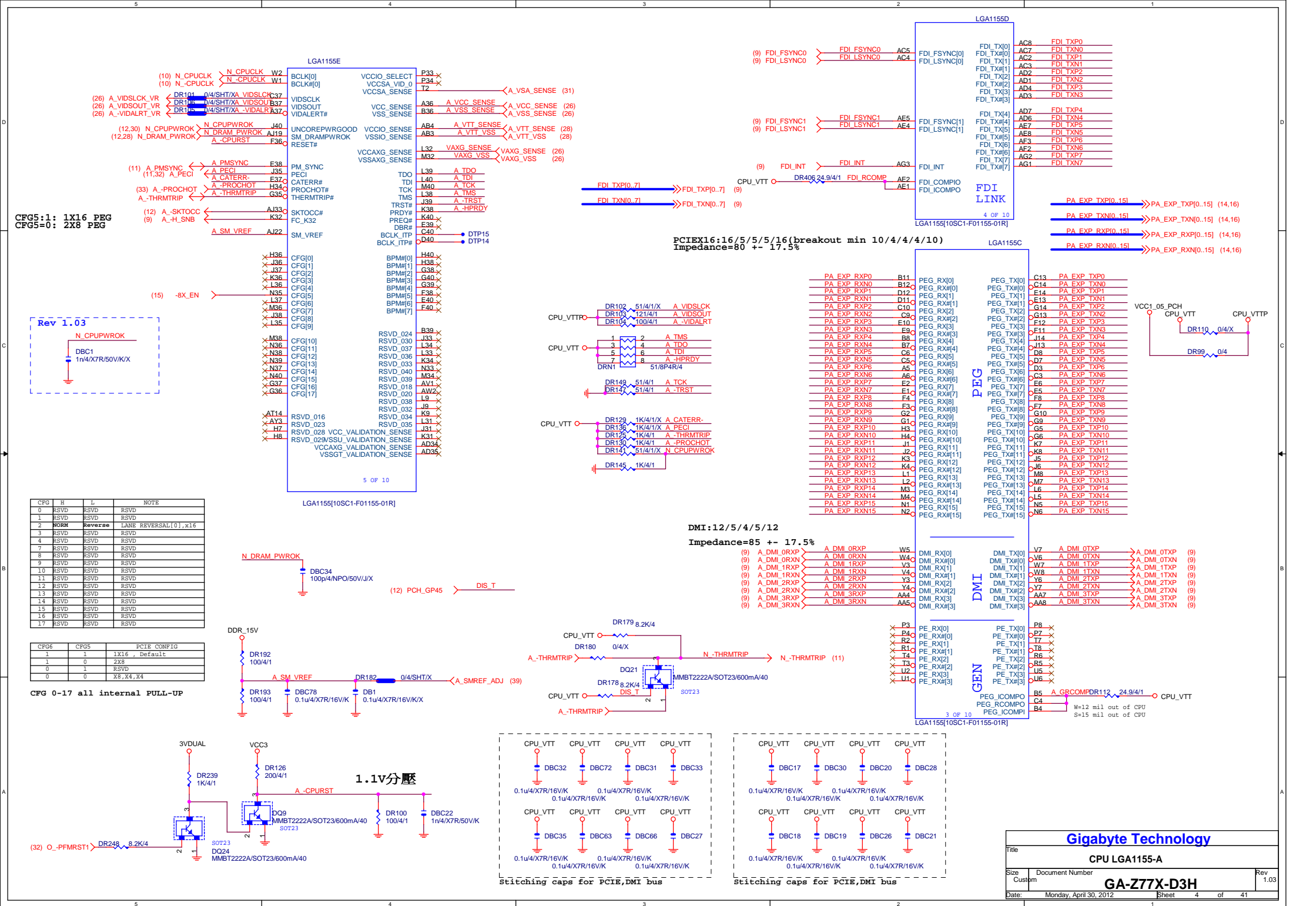
Data	Change Item	Reason
2011/12/02	1.First BOM. (GA-Z77X-D3H-01_20111125_1000-BOM.DSN)	
2012/01/03	1.PCH==>10HB1-030Z77-10R 2.PCH_HS==>12SP2-S05511-01R 3.ADD NR100 4.EMI ADD BC330 5.ADD PI3PCIE2415 FOR PCIEX4 SW TO X1 6.REMOVE DUAL BIOS SW 7.AUDIO CONNECT CHANGE TO 11NR6-403025-61R 8.REMOVE SURR BACK 9.DRAT2,DART3,MART3==>47K/1/4/S 10.DAR44,DAR15,MAR185==>0 OHM 11.ADD VA_DR2 FOR漏電 12.REMOVE DA_Q2,DB_DQ2==>DA_DQ3,DB_DQ3 13.後窗USB/USB_LAN CONNECT CHANGE TO USB3.0	9MZ77XD3H-00-02
2012/01/13	Modify 1.MAR149,DAR51,DAR1,24.9/4/1變更爲'100/4/1 2.DART2,DART3,MART3,47K/1/4/S變更爲47K/1/4/S/[10RH3-004702-21R] 3.MAC361,DAC24,DAC1,1N/4/X7R/50V/K變更爲3.3n/4/X7R/50V/K 4.MAR151,DAR54,DAR2,24.9/4/1變更爲0/4 Add 5..R5409,R5413,10K/4/1 6.R5412,R5408,45.3K/4/1 7.DAR82,0/4 8.C2068,C2069,0.1u/4/X7R/16V/K 9.Q668,Q670,2N7002/SOT23/25pF/5 10.U219,LM358DR/SO8 11.R5414,R5410,1.65K/4/1 12.RS1,RS2,100K/1/4/S 13.R_USB30_1,USB/18P/BU/OS/RA/D/2/HR 14.DB_DQ2,DA_DQ2,DF_DQ3,DE_DQ3,DC_DQ3,RJK0393DPA-0G/N/4.3m/PPAKSO-8 15.R5411,R5415,1K/4/1 16.RHC3,GBC28,LAC33,47p/4/NPO/50V/J Delete 1.UCR29,'8.2K/4 2.UCR25,'6.04K/4/1 3.UCQ2,'2N7002/SOT23/25pF/5 4.R_USB30,'USB/18P/BU/OS/RA/D/2/HR 5.U8,'NCT3931U-2/SOT23-8	9MZ77XD3H-00-10A
2012/01/13	1.DA_DR11,DC_DR11,DE_DR11,DZ_DR11,1/4 change to 0/4 2.FAN1/2/3 change to SYS_FAN1/2/3,V-A AMP WF 1*4P PINREX	9MZ77XD3H-00-10B
2012/01/31	1.R5410,R5414,1.65K change to 3.65K	9MZ77XD3H-00-10C
2012/02/03	Modify 1.R5410,'3.65K/4/1變更爲'1.65K/4/1 2.DAR6,'5.36K/4/1變更爲'5.1K/4/1 3.DY_DL1,DZ_DL1,VL2,DA_DL1,DB_DL1,DC_DL1,DD_DL1,DE_DL1,DF_DL1, '0.8uH/35A/INC109/F/D變更爲'0.36uH/38A/IGC109/FS/D 4.DAR45,DAR40,'1.54K/4/1變更爲'1.74K/4/1 5.DAR5,DAR8,'4.12K/4/1變更爲'4.75K/4/1 6.R5414,'3.65K/4/1變更爲'2.49K/4/1 7.DAR13,DAR36,DAR25,DAR59,DAR62,DAR75,DAR21,2K/4/1變更爲1.2K/4/1 8.DAR42,'2.05K/4/1變更爲2.37K/4/1 Add 1.DZ_DR10,DE_DR10,DC_DR10,DA_DR10,'0/4 Delete 1.DE_DR11,DC_DR11,DA_DR11,DZ_DR11,'0/4	9MZ77XD3H-00-10D
2012/02/07	Modify 1.DAR6,5.1K/4/1 change to 5.49K/4/1	9MZ77XD3H-00-10E
2012/03/13	1.Add MR34,MR35==>0 ohm 2.Remove UCU1 VIA USB30 EEPROM 3.Delete OR48,Add OR51 for MB_ID3	9MZ77XD3H-00-10K
2012/03/22	1.Add UCU1 EEPROM	9MZ77XD3H-00-10L
2012/03/23	1.PCB change to 1.03	9MZ77XD3H-00-10Q

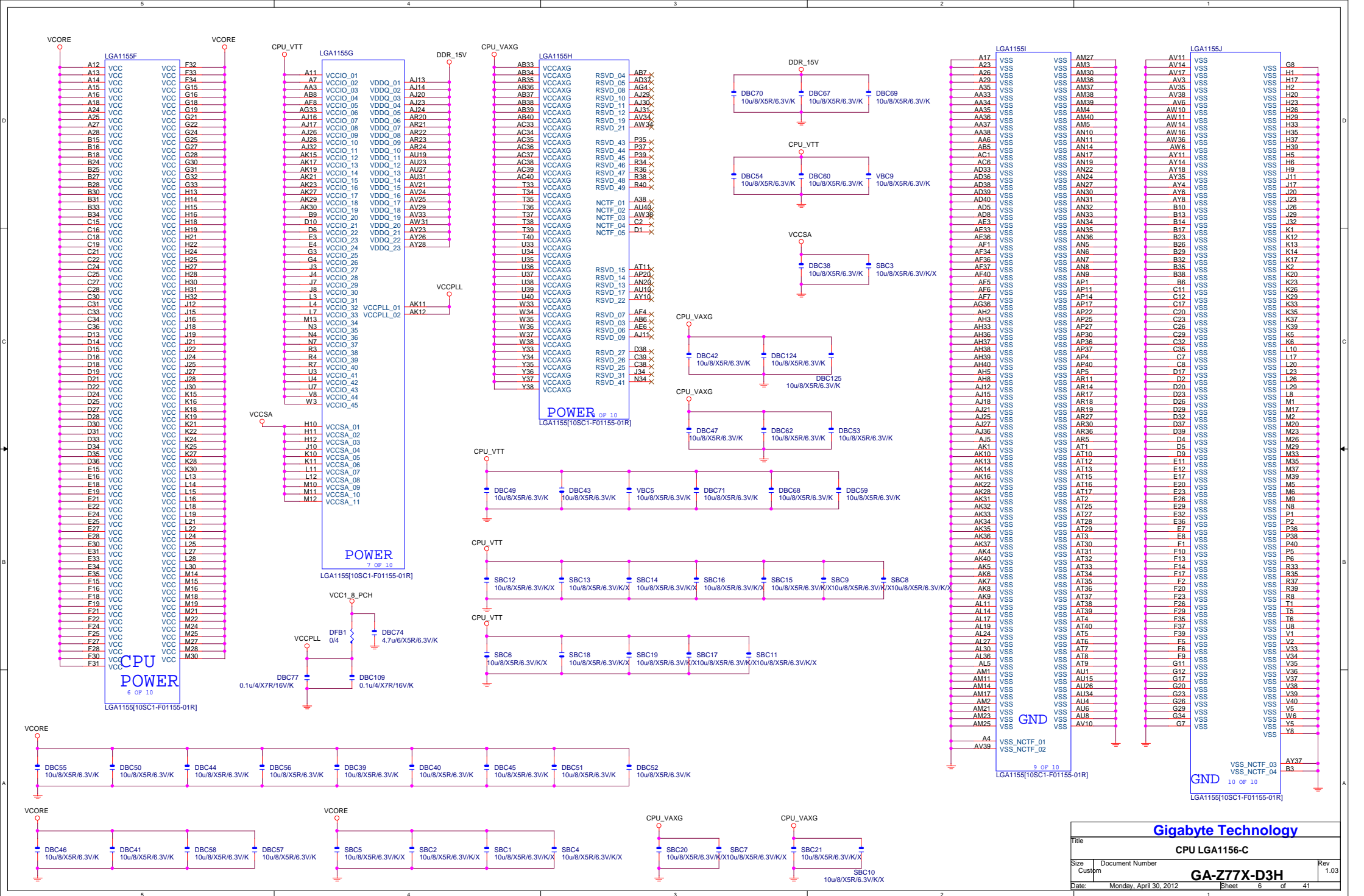
Circuit or PCB layout change

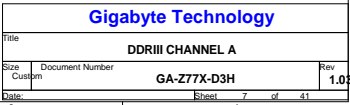
DATE	Change Item	Reason
2011/11/30	1.First SCH. (GA-Z77X-D3H-01_20111125_1000.DSN)	REV 0.1
	(Change from Z77X-UD3H-01A_1124_EBOM.DSN)	
2012/01/02	1.PARN2 change to 0/8P4R/4/X 2.ADD PI3PCIE2415 FOR PCIEX4 SW TO X1 3.REMOVE DUAL BIOS SW 4.AUDIO CONNECT CHANGE TO 11NR6-403025-61R (WITH SPDIF) 5.REMOVE SURR BACK 6.CPU_VTT ADD DUAL POWER 防漏電 7.VL2轉方向 8.ADD VIA VL800 USB3.0 9.後窗USB/USB_LAN CONNECT CHANGE TO USB3.0 10.ADD ATX POWER LOAD RESISTOR 11.SYS_FAN1/2/3 RENAME TO FAN1/2/3	REV 0.2
2012/01/13	1.Add PWM 3VDUAL input 2.Add GBC28 3.Add 2組 VR_HOT control線路 4.DAR53,DAR55,MAR148 CHANGE TO R0402-2 5.R_USB30 rename to R_USB30_1	REV 1.0
2012/01/19	1.FAN1/2/3 rename to SYS_FAN1/2/3	Rev 1.01
2012/02/22	1.DDR T型走線 2.Add MR34,MR35	Rev 1.02
2012/03/21	1.縮短DDR slot 間距 for O.C. 2.Add DBC1 for EMI ESD improve	Rev 1.03

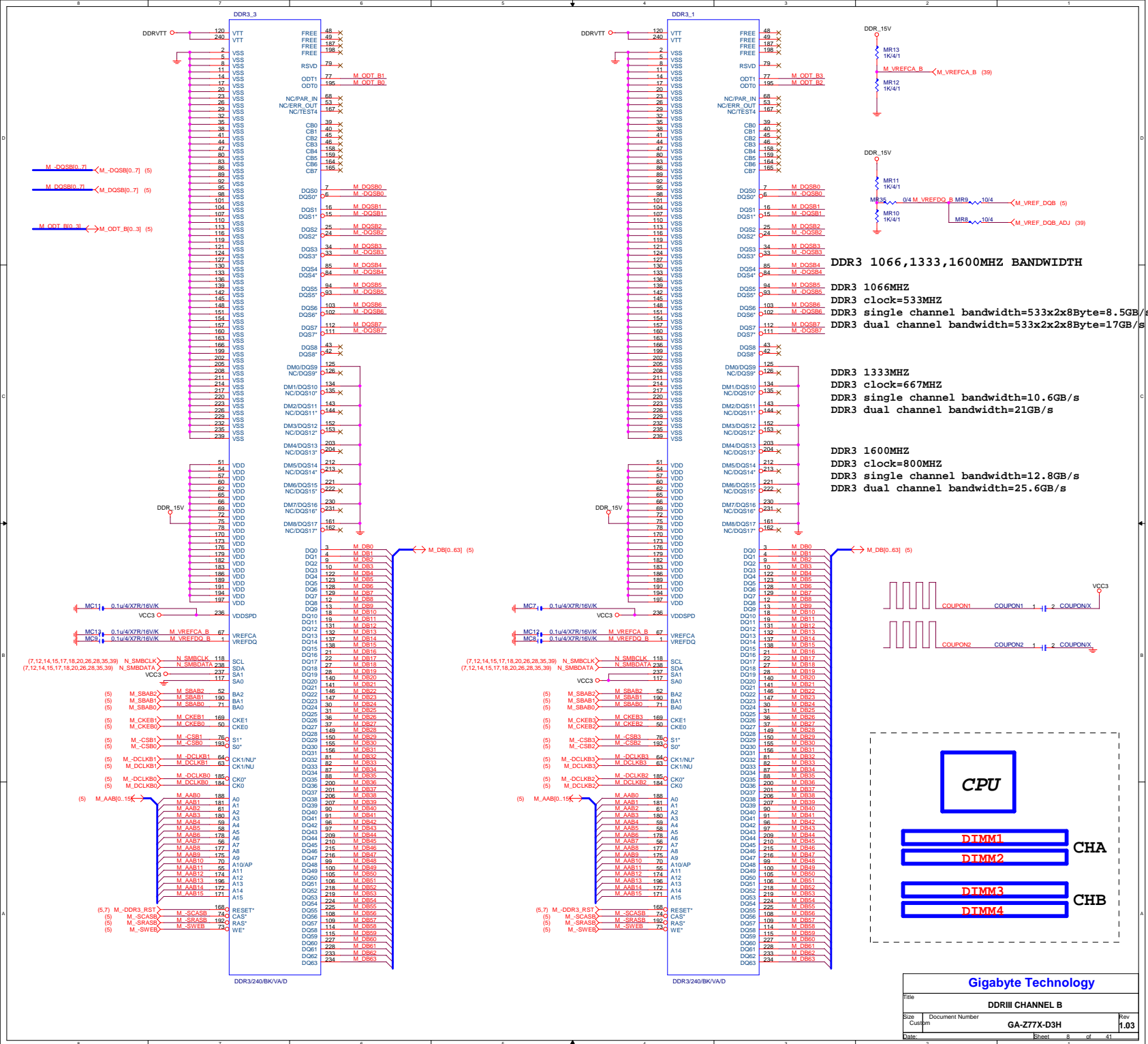
BLOCK DIAGRAM

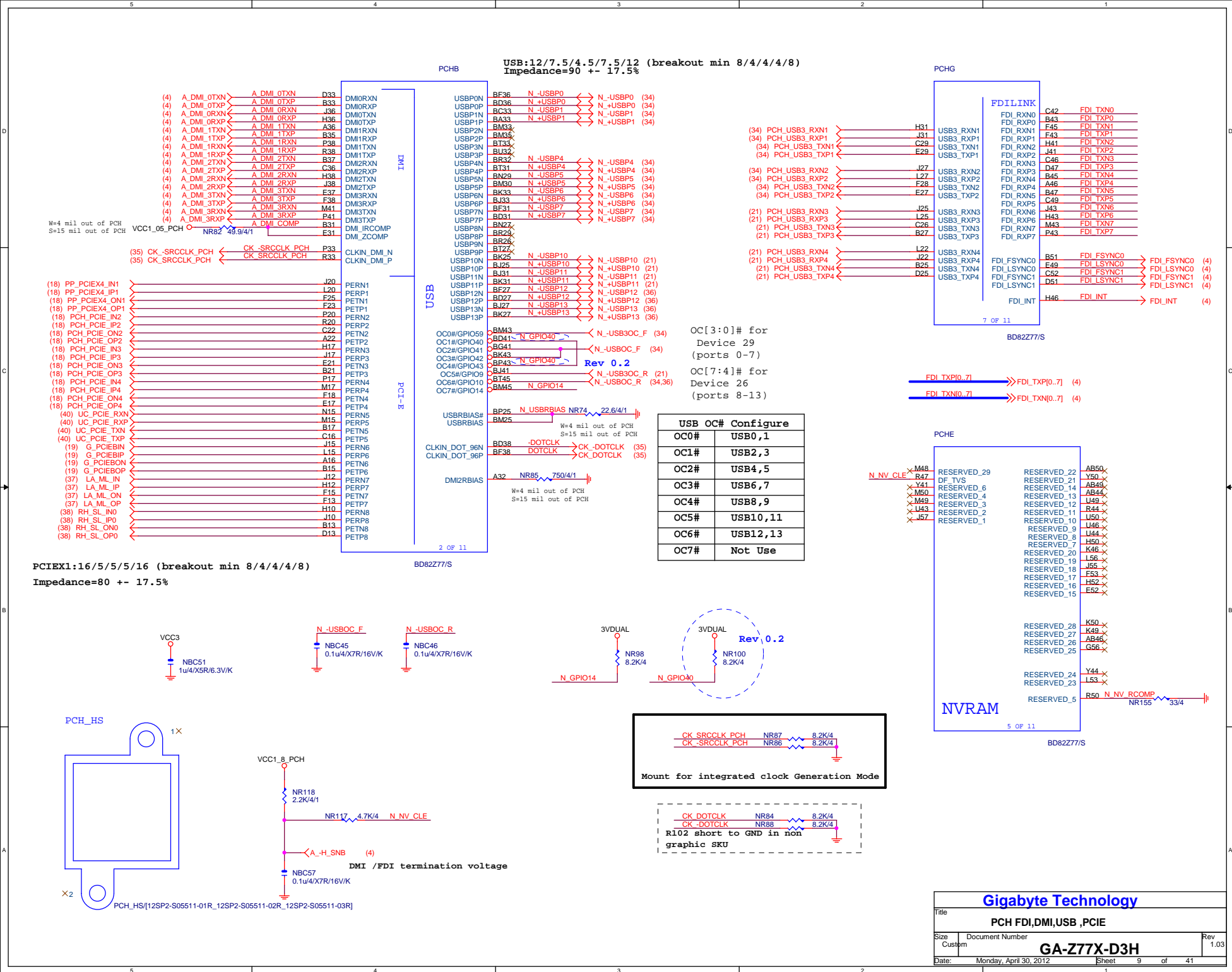












SATA:20/7.5/4.5/7.5/20 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%

PCHC

PCHA

MB-ID

For WIFI

NR177

0/4/SHT/MX

N ME PWROK

NC19

0.01u/4/X7R/25V/K/X

N GPIO17

N GPIO1

N GPIO6

N PHASE_CTRL

N GPIO68

N GPIO69

N GPIO70

N GPIO71

BT17

BT21

BT22

BR16

BU16

BM18

BN17

BP15

TACH0_GPIO17

TACH1_GPIO1

TACH2_GPIO6

TACH3_GPIO7

TACH4_GPIO68

TACH5_GPIO69

TACH6_GPIO70

TACH7_GPIO71

PWM0

PWM1

PWM2

PWM3

APWROK

NC5

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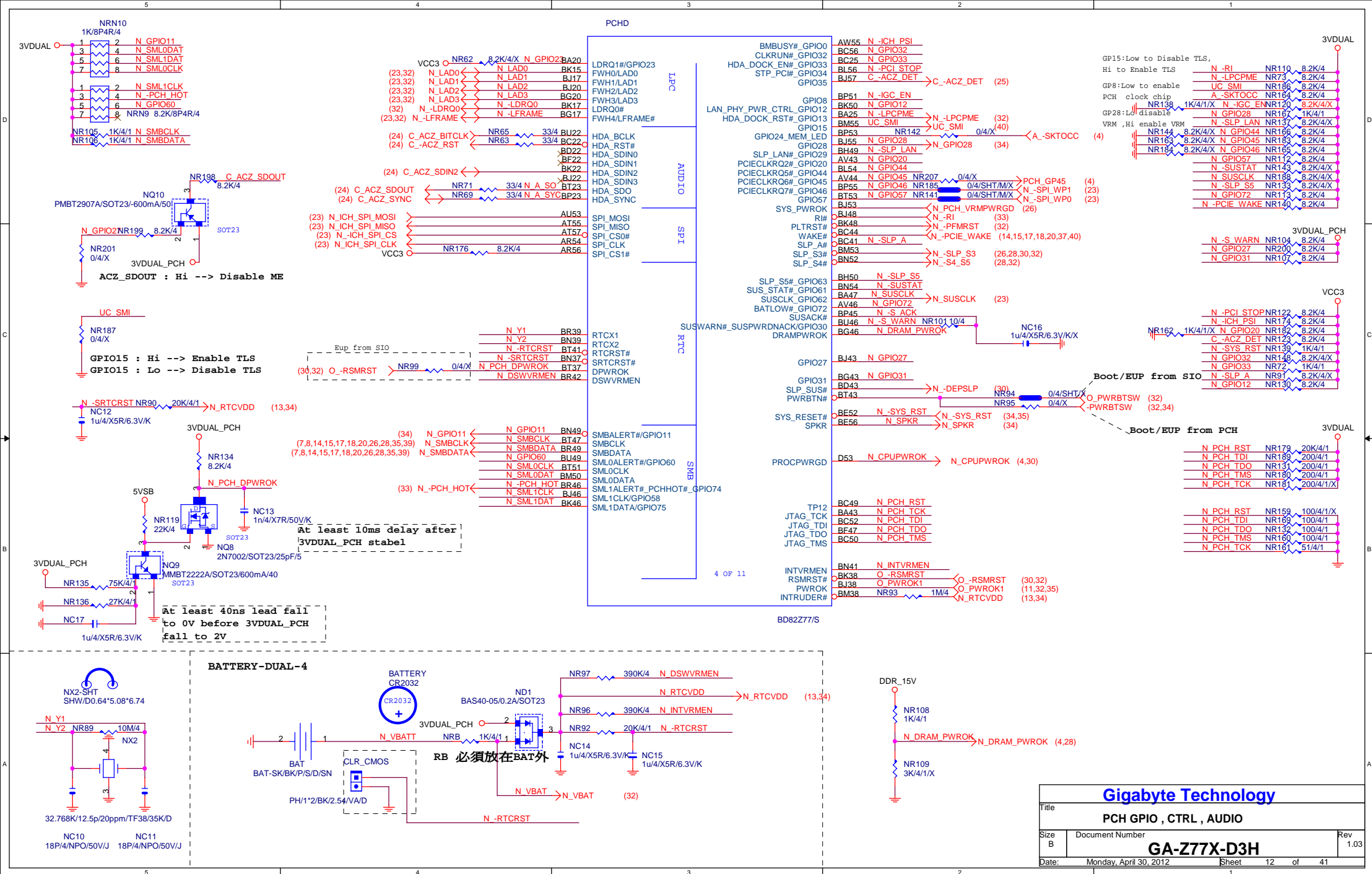
NC32

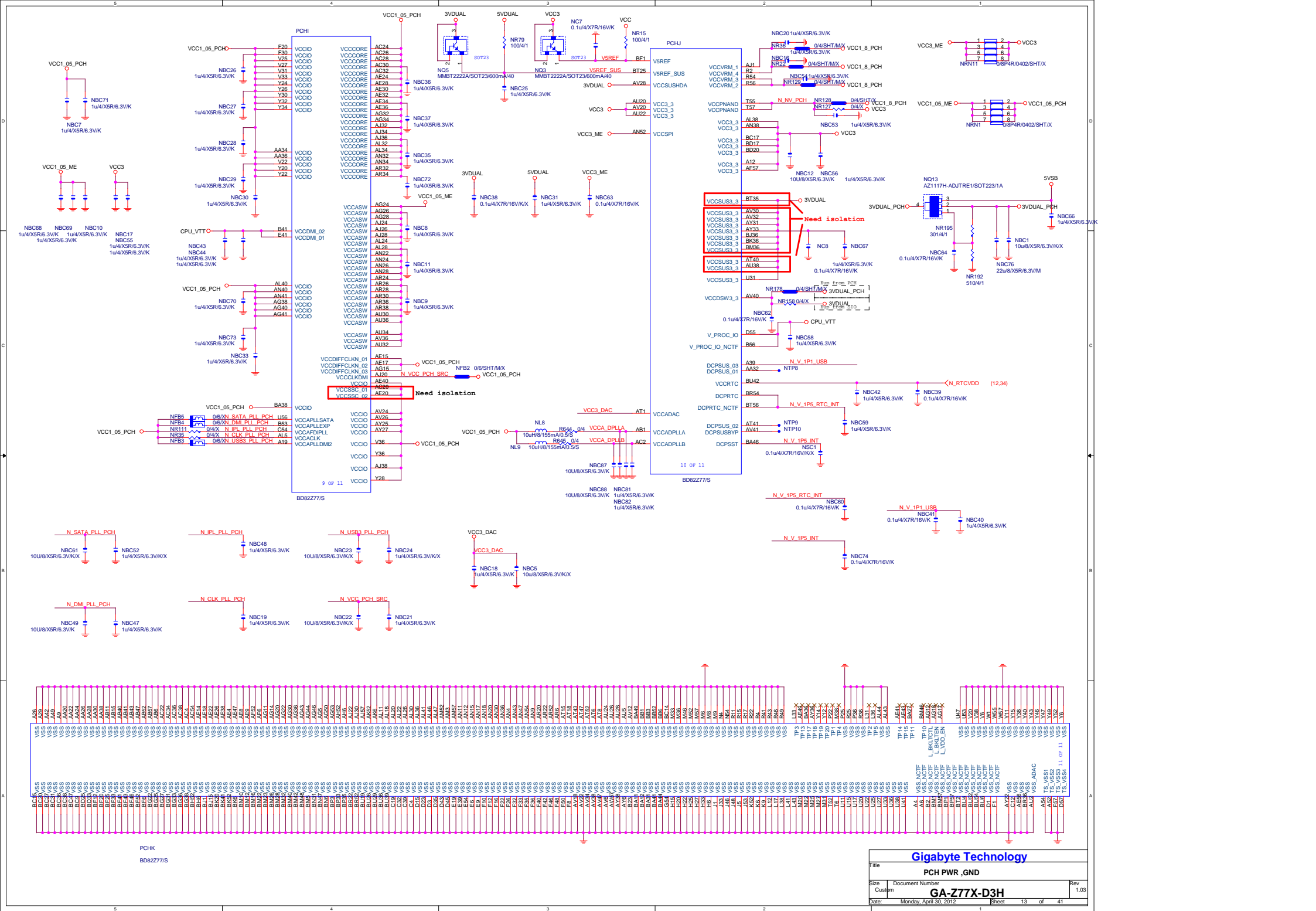
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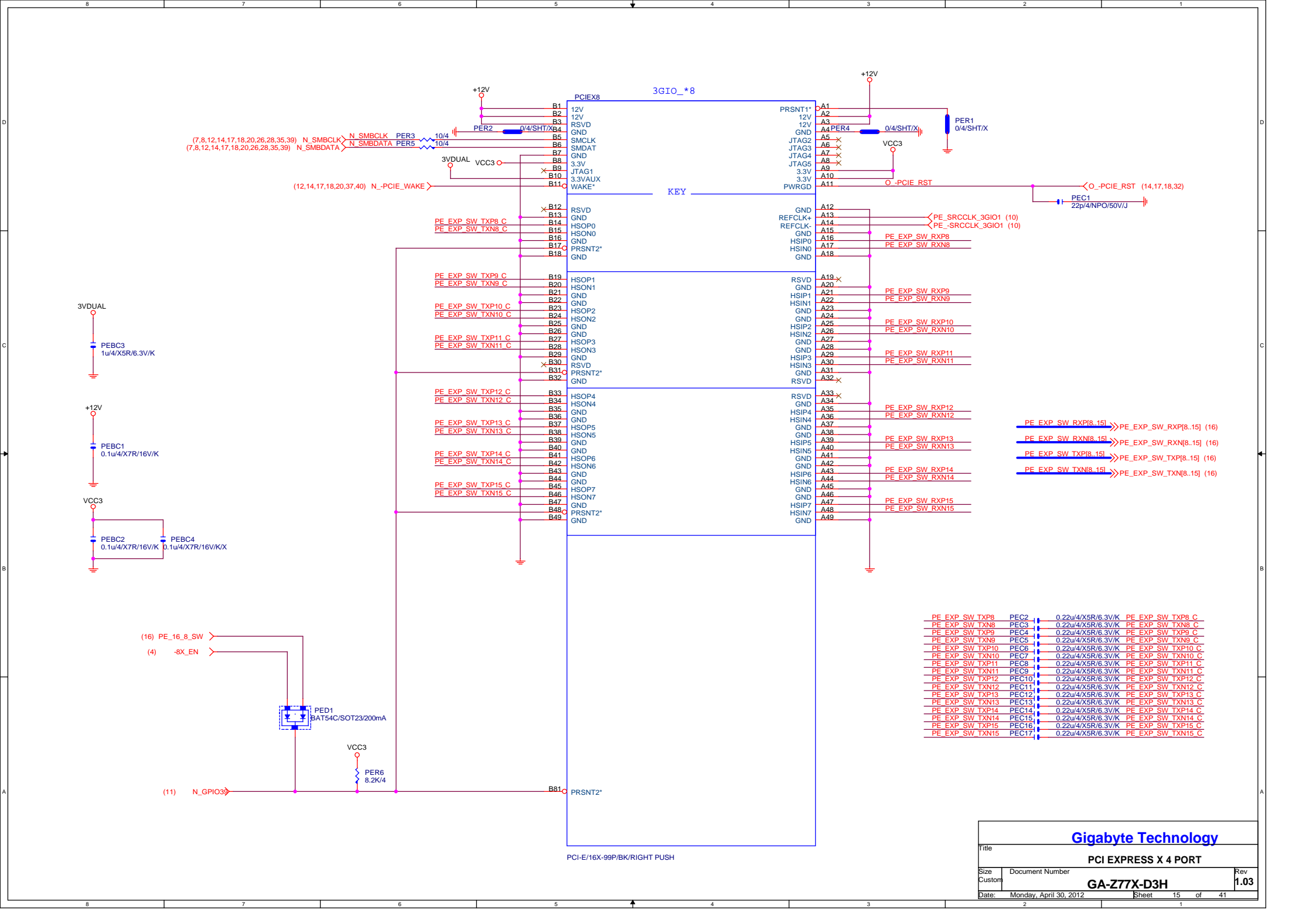
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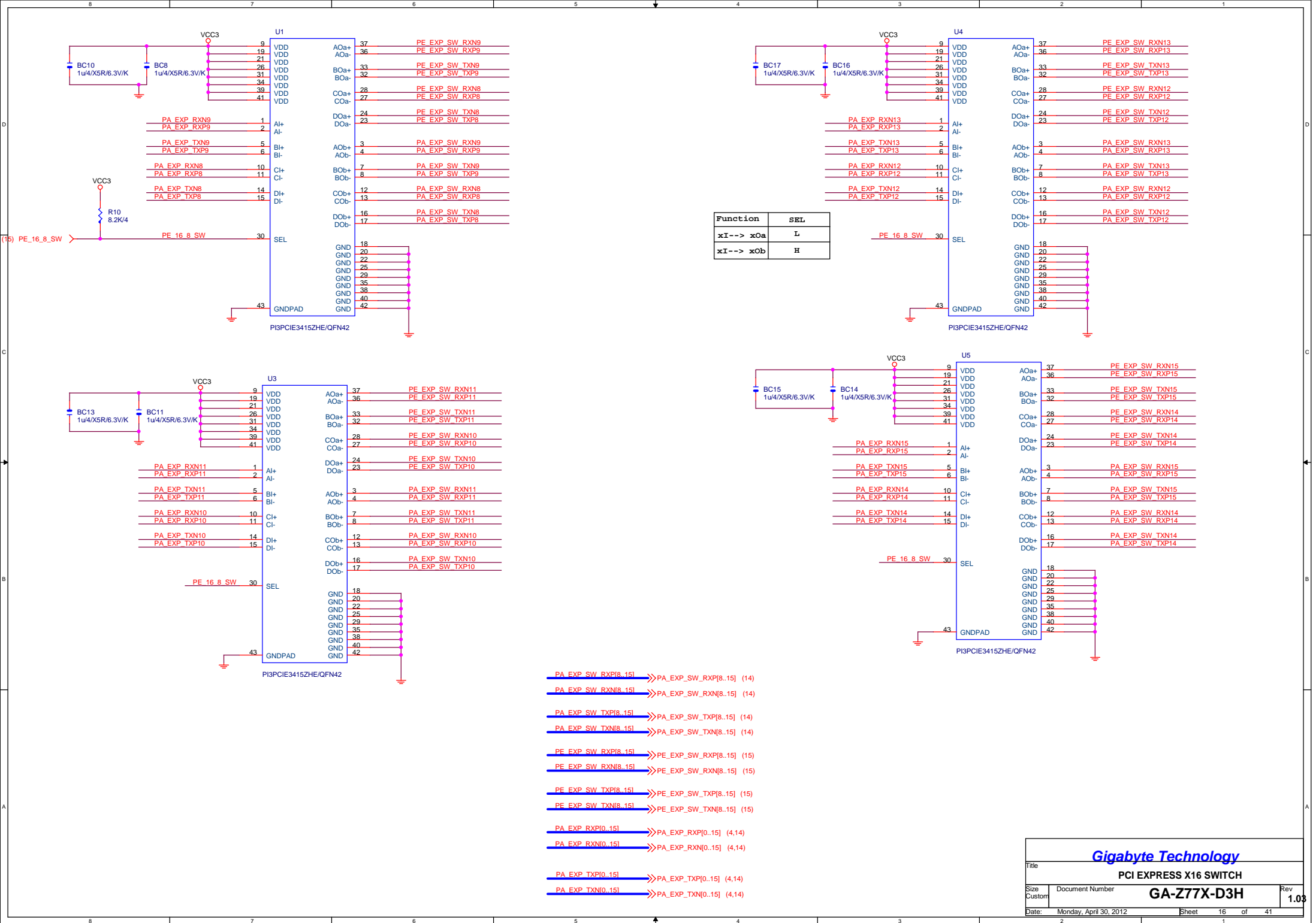
NC29

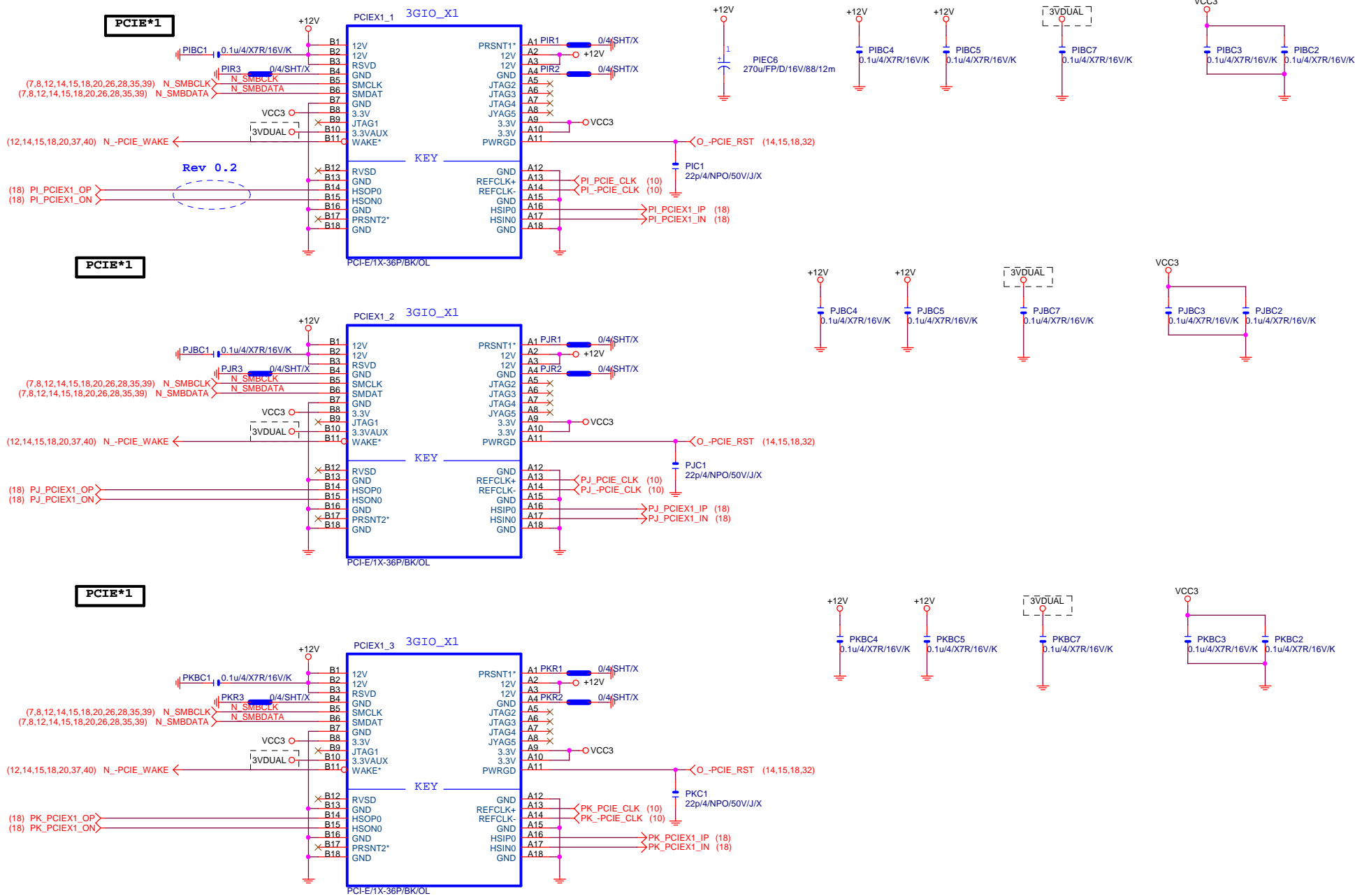
NC28



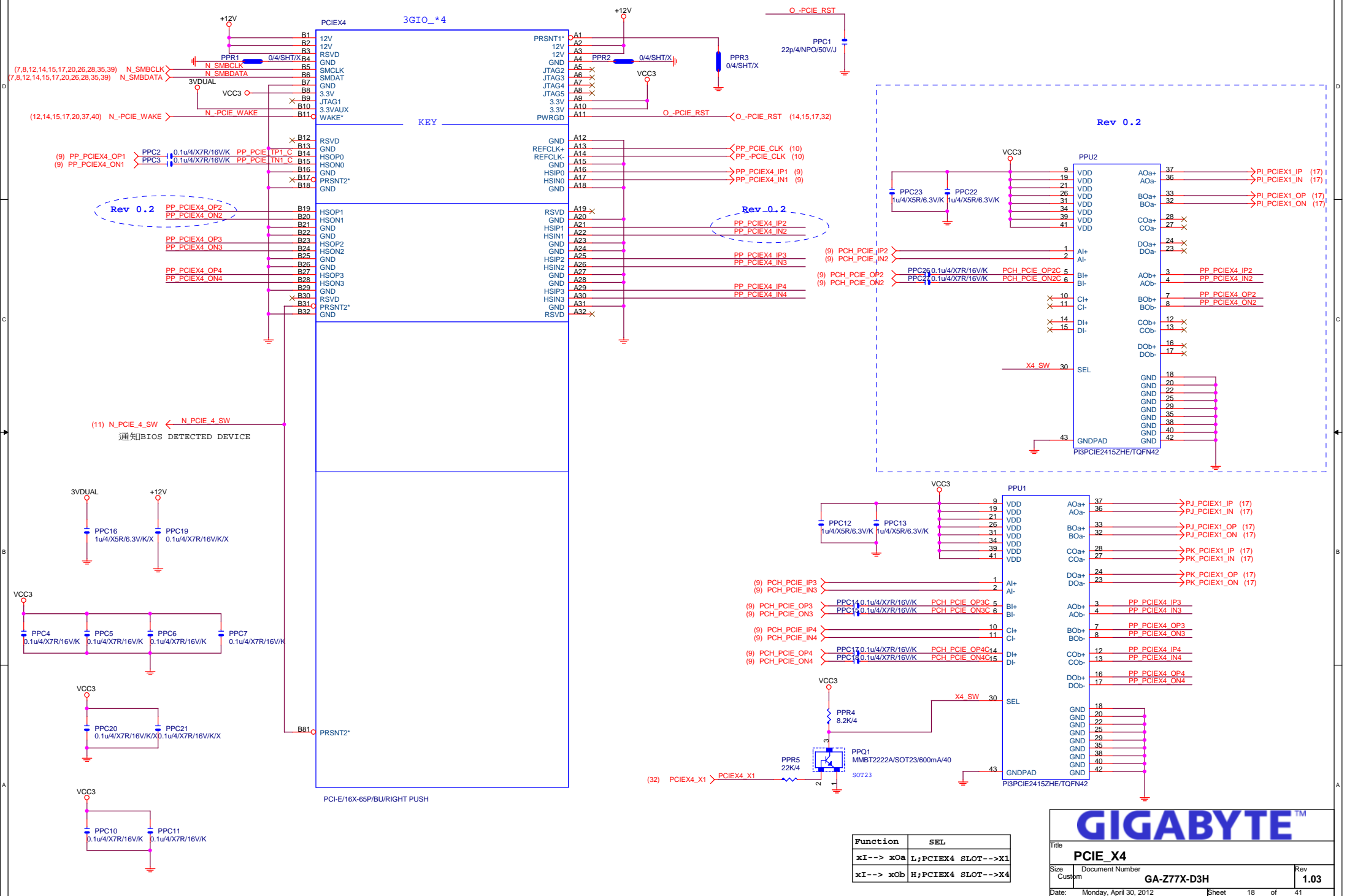


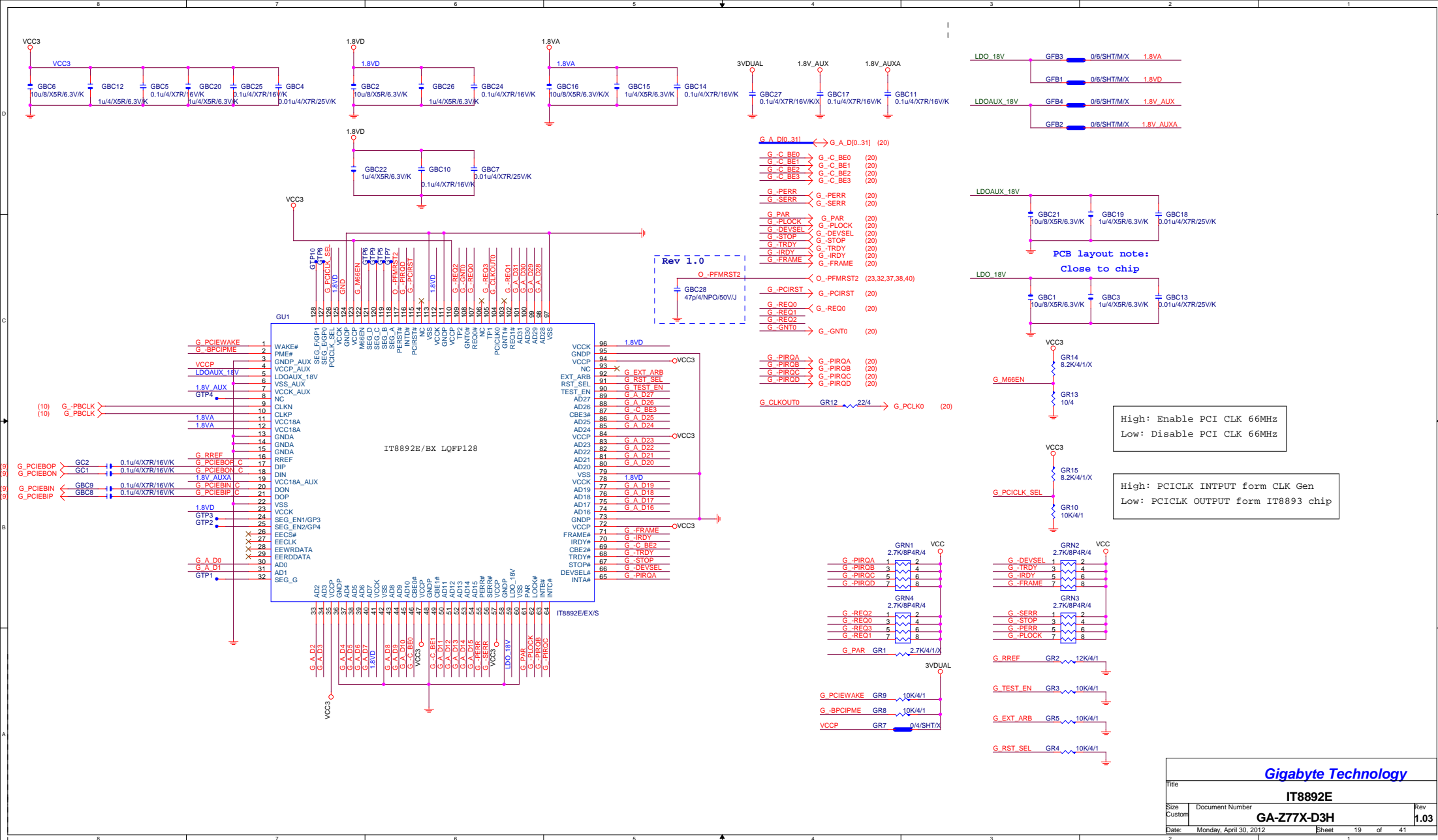






PCIE*4

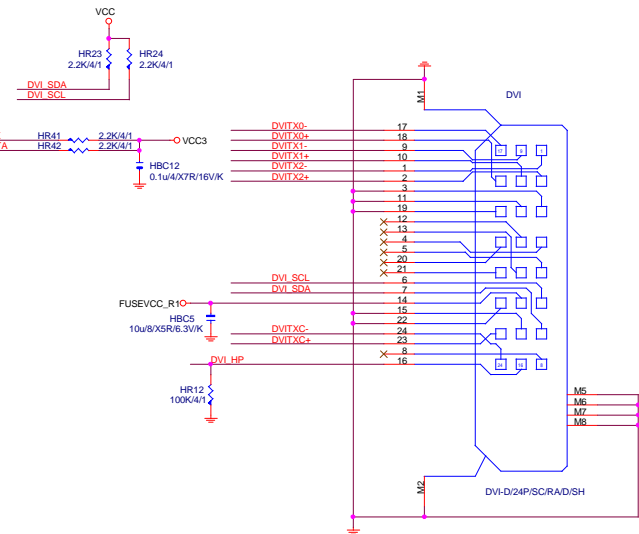
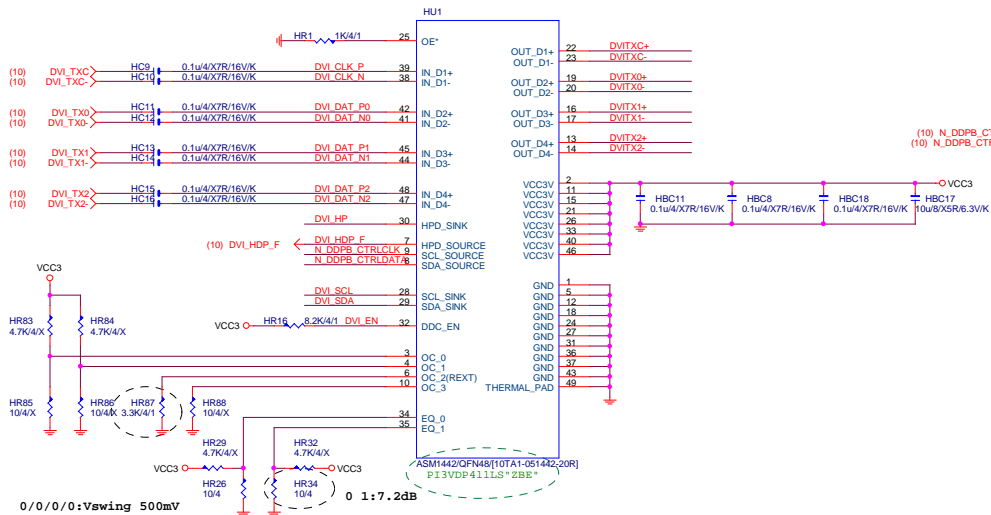
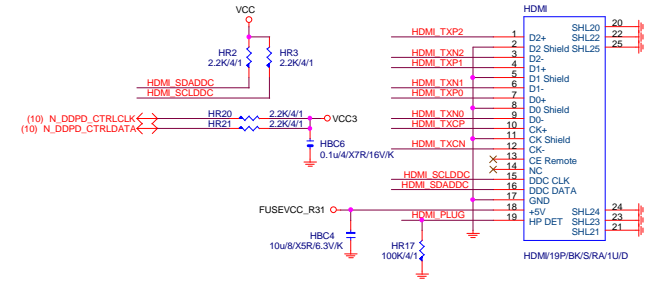
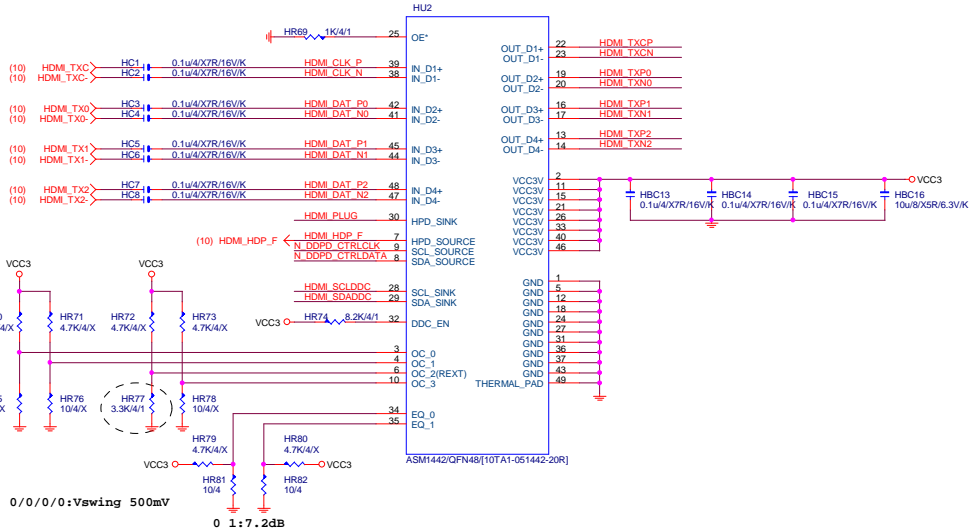




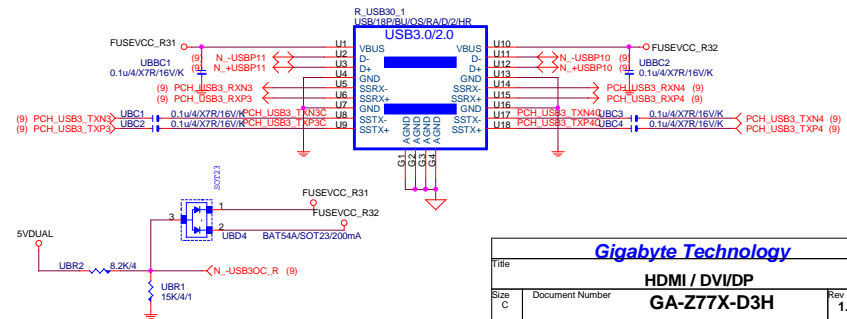
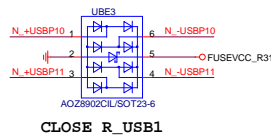
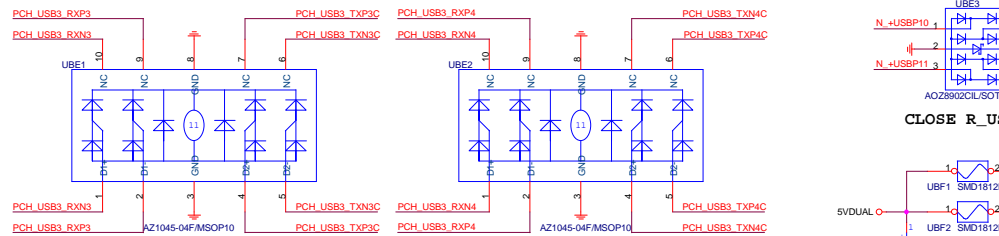
(19) G_-PIRQB
(19) G_-PIRQD

Rev
1.03

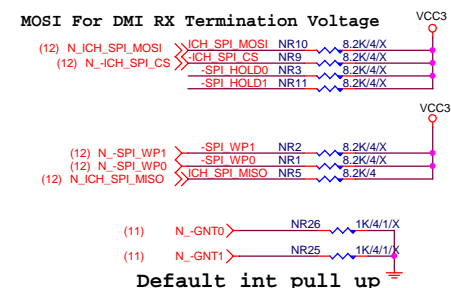
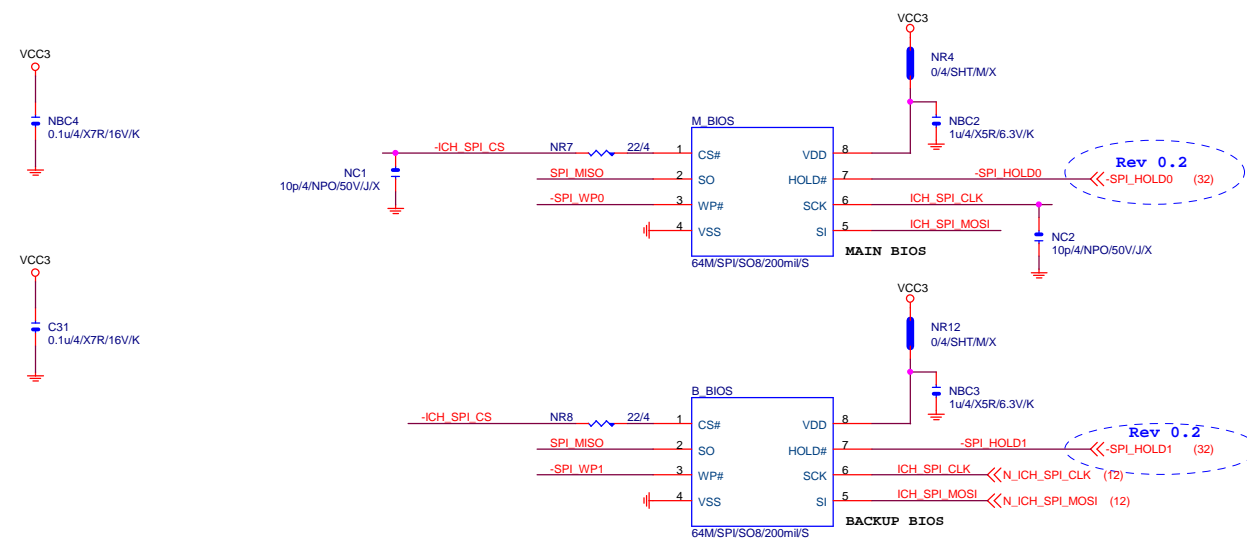
Sheet 20 of 41



USB 3.0



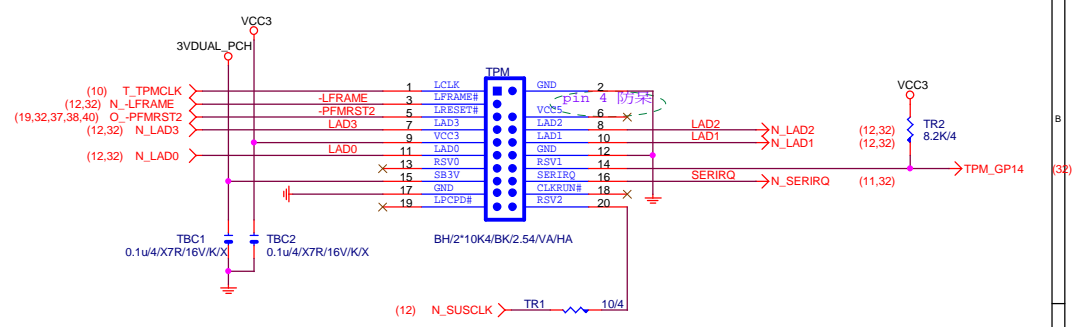
Gigabyte Technology			
File	HDMI / DVI/DP		
Size	Document Number	GA-Z77X-D3H	
C			Rev 1.03
Date:	Monday, April 30, 2012	Sheet	21 of 41



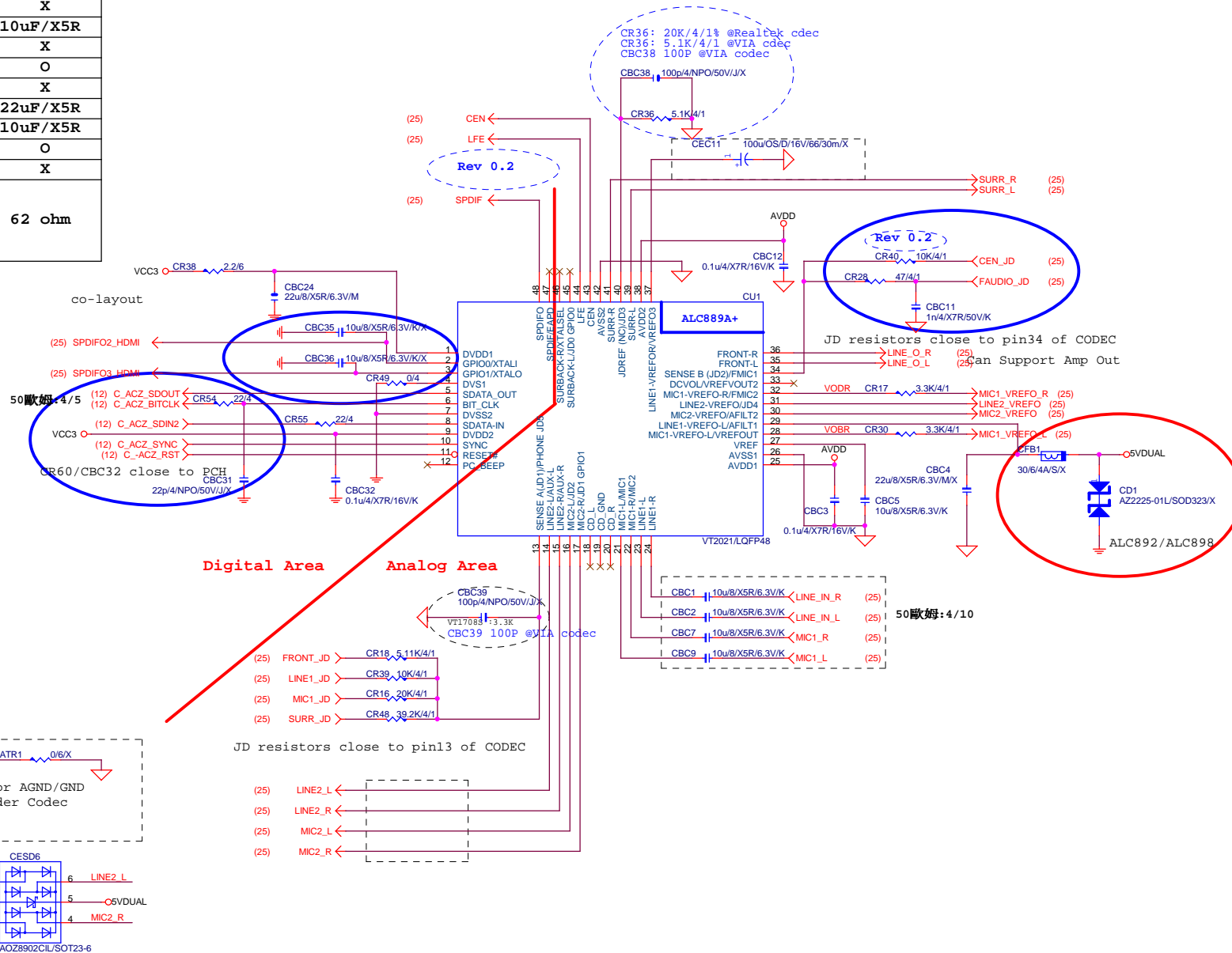
BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

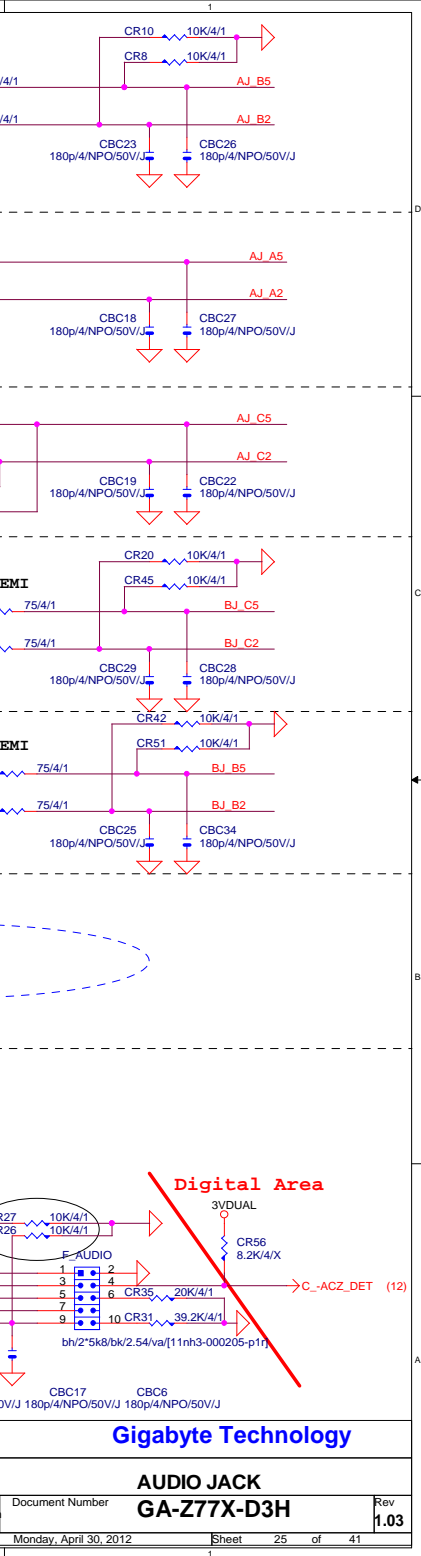
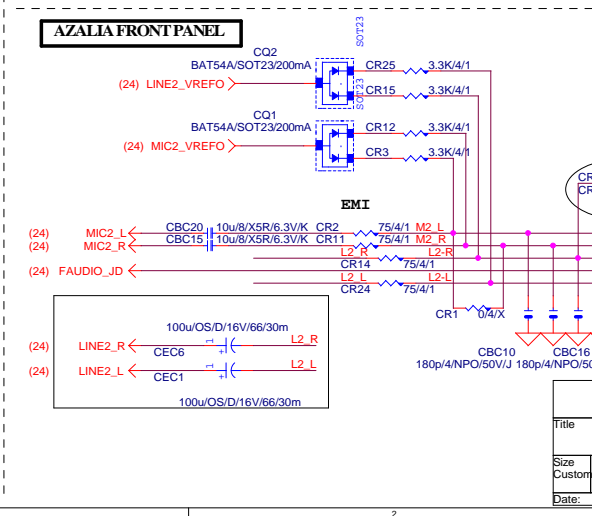
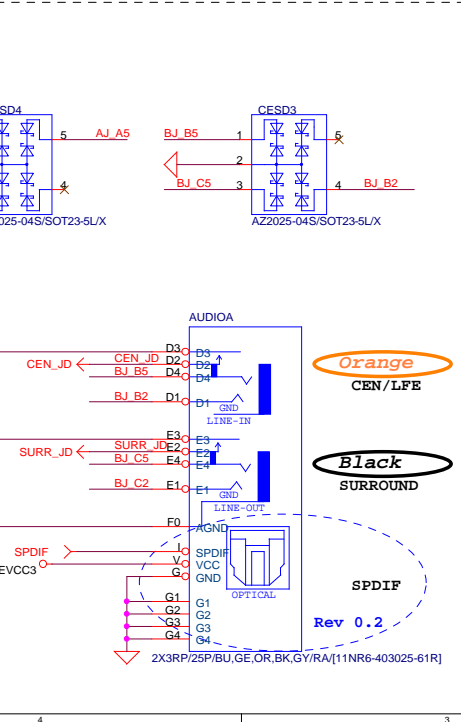
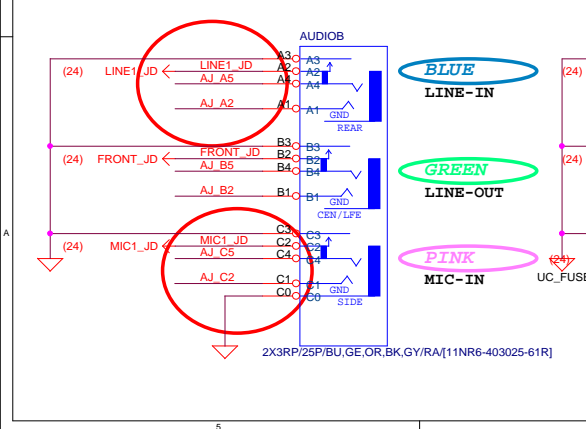
1 means floating
0 means PD 1k

Rev 0.2

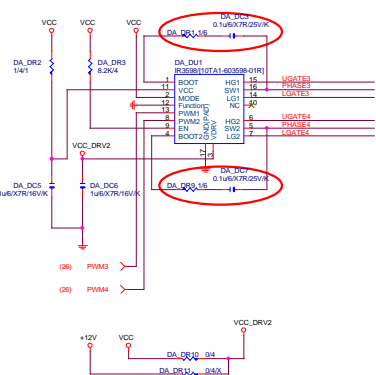


	ALC889	ALC889B	ALC898/ALC892
CR49	O	O	X
CBC36	X	X	10uF/X5R
CBC35	X	10uF/X5R	X
CR52	O	X	O
CR53	X	O	X
CBC1/CBC2	22uF/X5R	22uF/X5R	22uF/X5R
CBC7/CBC9/CBC20/CBC15	10uF/X5R	10uF/X5R	10uF/X5R
CFB1/CD1/CBC4	X	X	O
CD2/CD3/CQ3/CQ4	O	O	X
CR7/CR9/CR5/CR13/ CR29/CR32/CR46/CR19/ CR50/CR41/CR21/CR47/ CR2/CR11/CR14/CR24	62 ohm	62 ohm	62 ohm





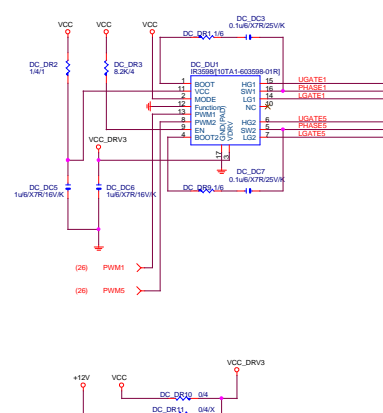
VCORE Phase 3,6



FUNCTION	MODE	SWN MODE	PHASE MODE
0	1	12 ATL	DUAL
1	1	12 ATL	Doubler
0	0	Tri-Seate	DUAL
1	0	Tri-Seate	Doubler
OPEN	0	Tri-Seate	Quad
OPEN	1	12 ATL	Quad

In Quad mode , IC1 pin10 link to IC2 pin10
IC1 pin9 link to IC2 pin9 without VU

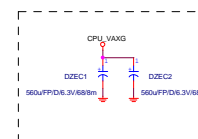
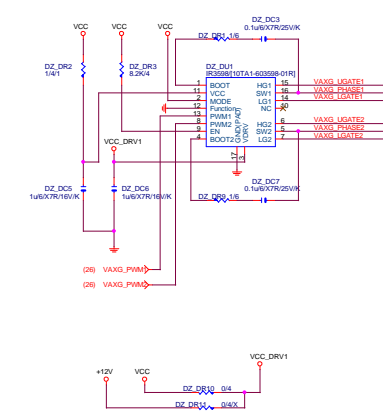
VCORE Phase 1,4



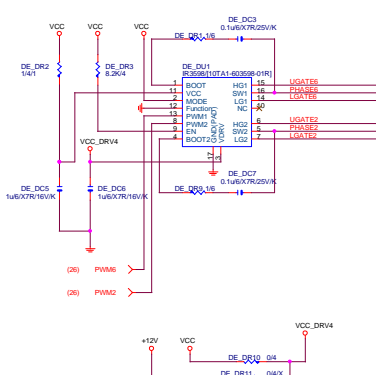
FUNCTION	MODE	SWN MODE	PHASE MODE
0	1	IR ATL	DUAL
1	1	IR ATL	Doubler
0	0	Tri-Seate	DUAL
1	0	Tri-Seate	Doubler
OPEN	0	Tri-Seate	Quad
OPEN	1	IR ATL	Quad

In Quad mode , IC1 pin10 link to IC2 pin1
IC1 pin9 link to IC2 pin9 without PE

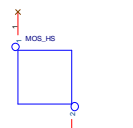
VAXG Phase



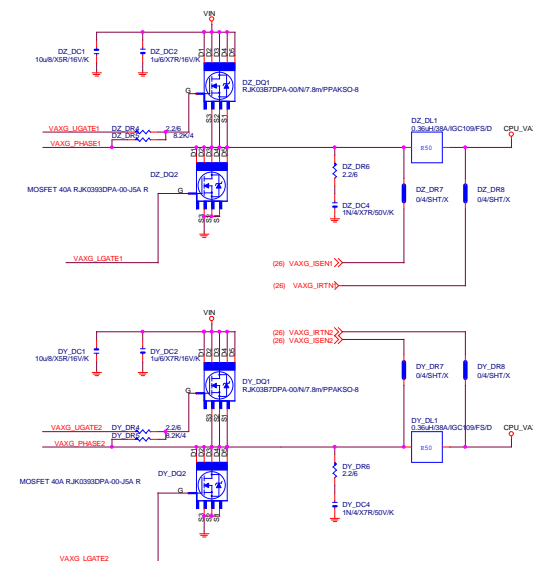
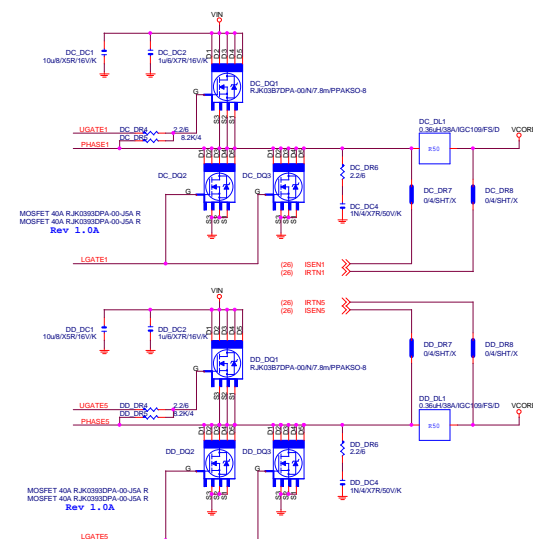
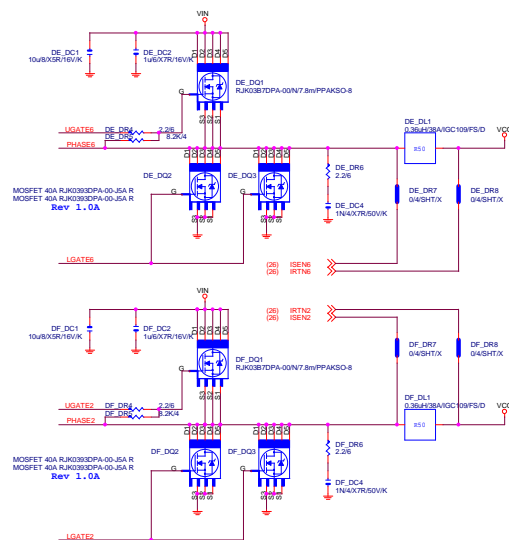
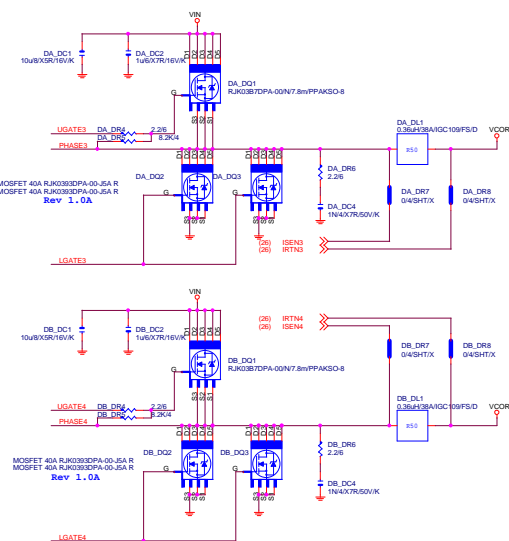
VCORE Phase 5,2

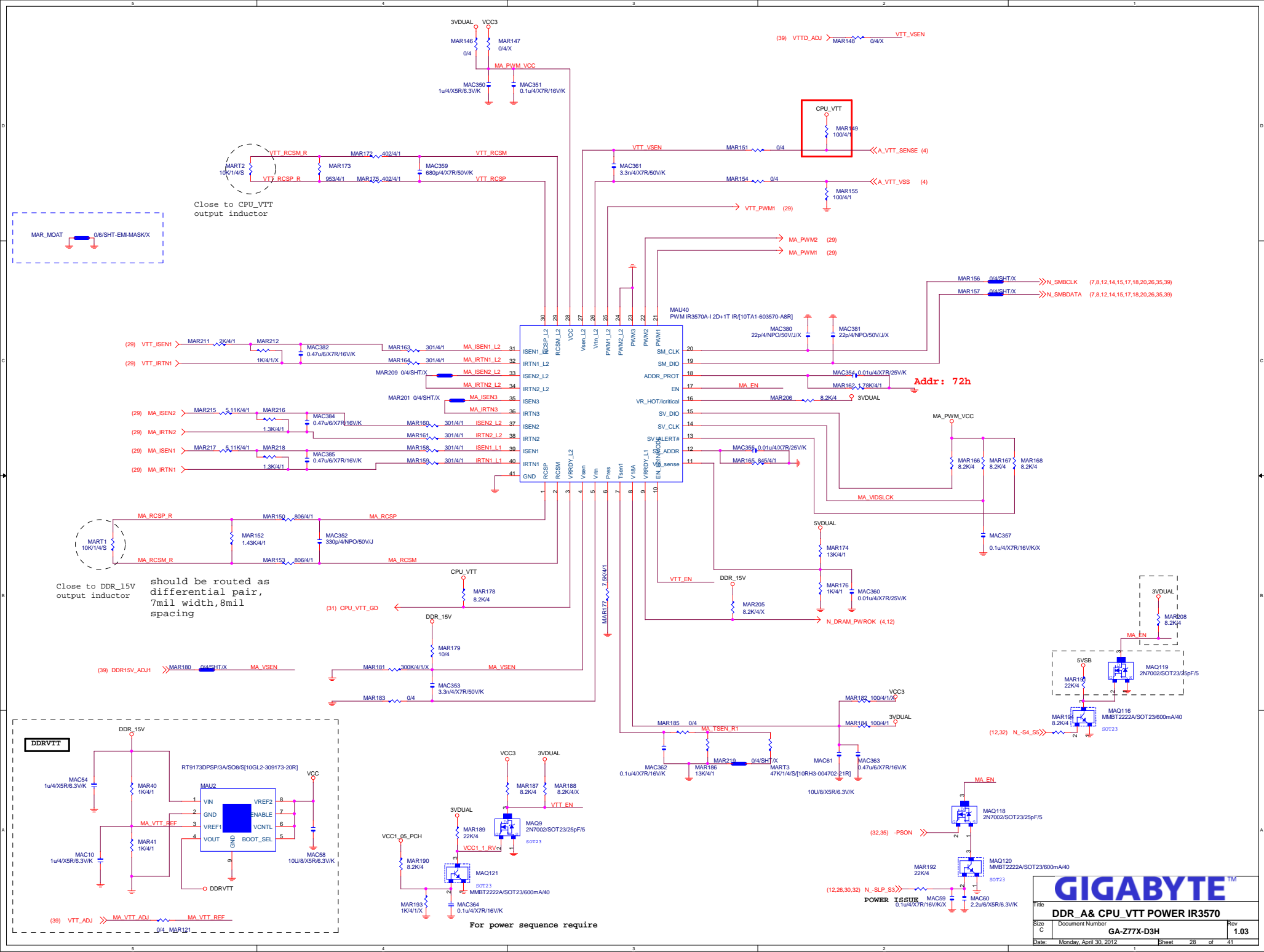


MOS HEATSINK



MOS HS[12SP2-S08924-01R_12SP2-S08924-02R_12SP2-S08924-03R]





MAU1 (B36361) 400308-01R1

MA_DR2 1/4 I

MA_DR3 B2/4

MA_DR4

MA_DR5

MA_DR6

MA_DR7

MA_DR8

MA_DR9

MA_DR10

MA_DR11

MA_DR12

MA_DR13

MA_DR14

MA_DR15

MA_DR16

MA_DR17

MA_DR18

MA_DR19

MA_DR20

MA_DR21

MA_DR22

MA_DR23

MA_DR24

MA_DR25

MA_DR26

MA_DR27

MA_DR28

MA_DR29

MA_DR30

MA_DR31

MA_DR32

MA_DR33

MA_DR34

MA_DR35

MA_DR36

MA_DR37

MA_DR38

MA_DR39

MA_DR40

MA_DR41

MA_DR42

MA_DR43

MA_DR44

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MA_DR239

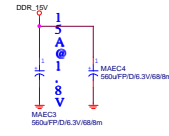
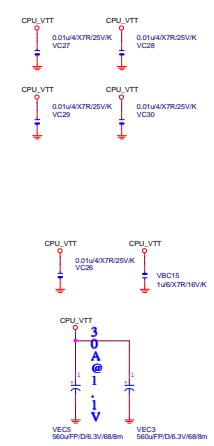
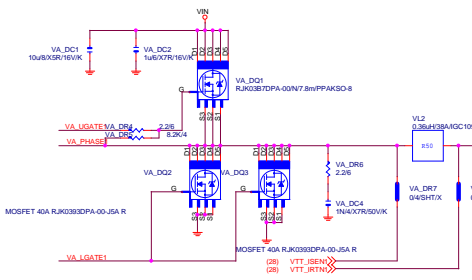
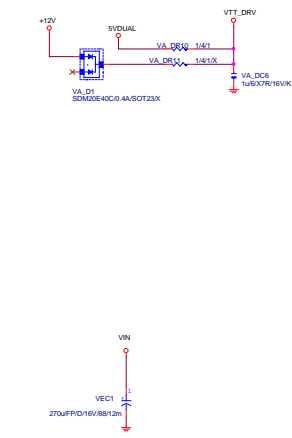
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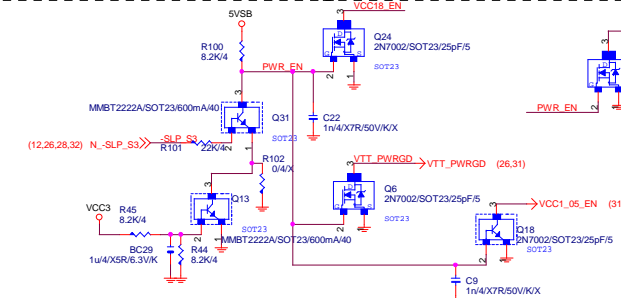
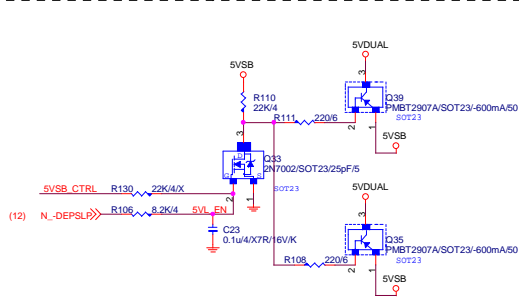
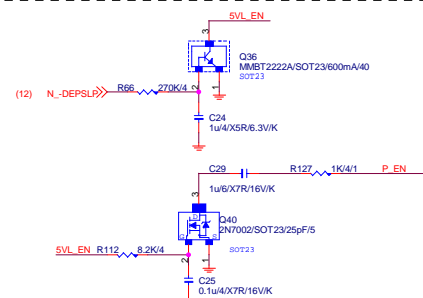
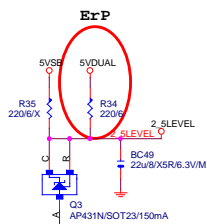
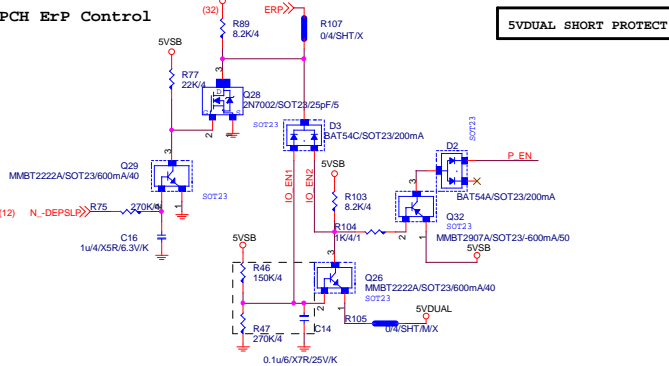
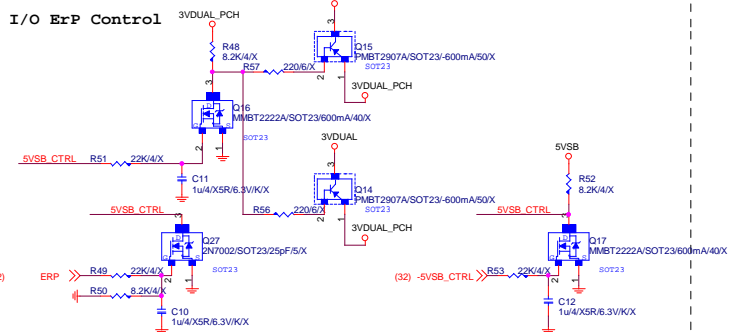
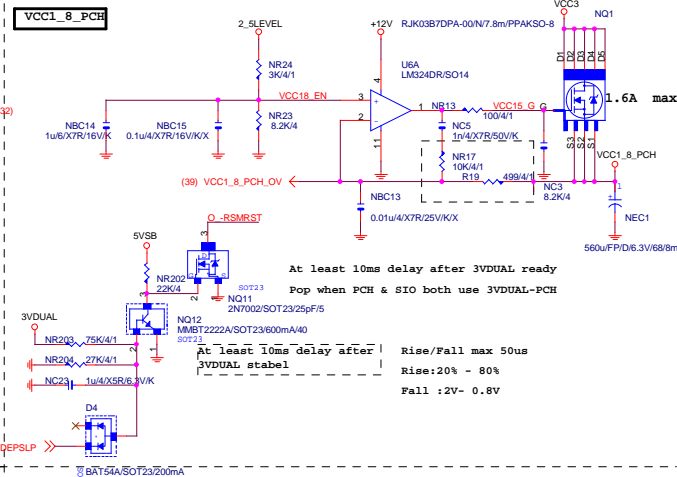
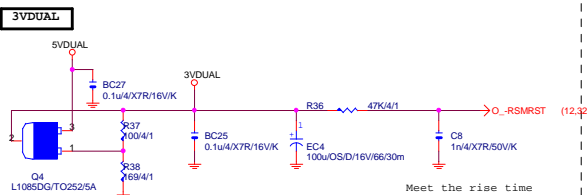
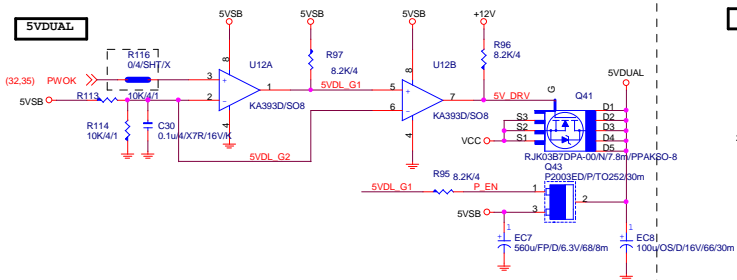
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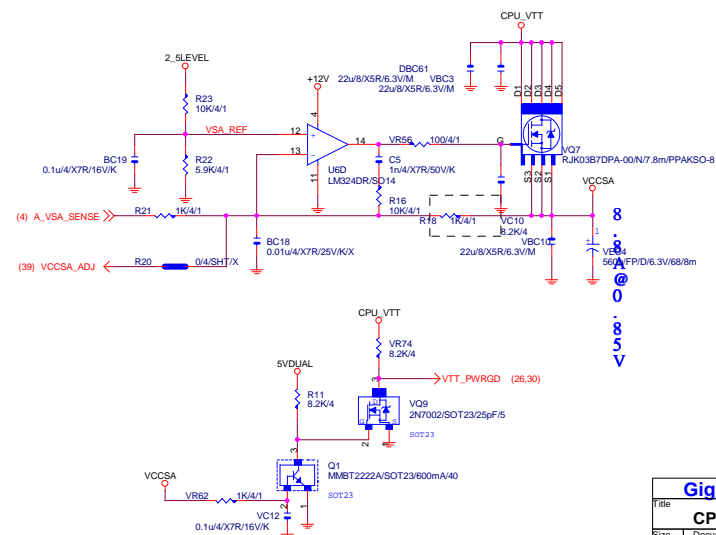
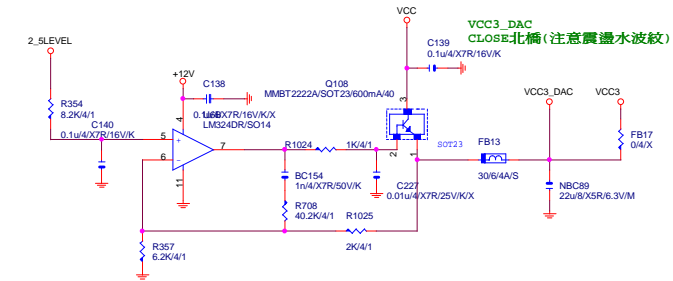
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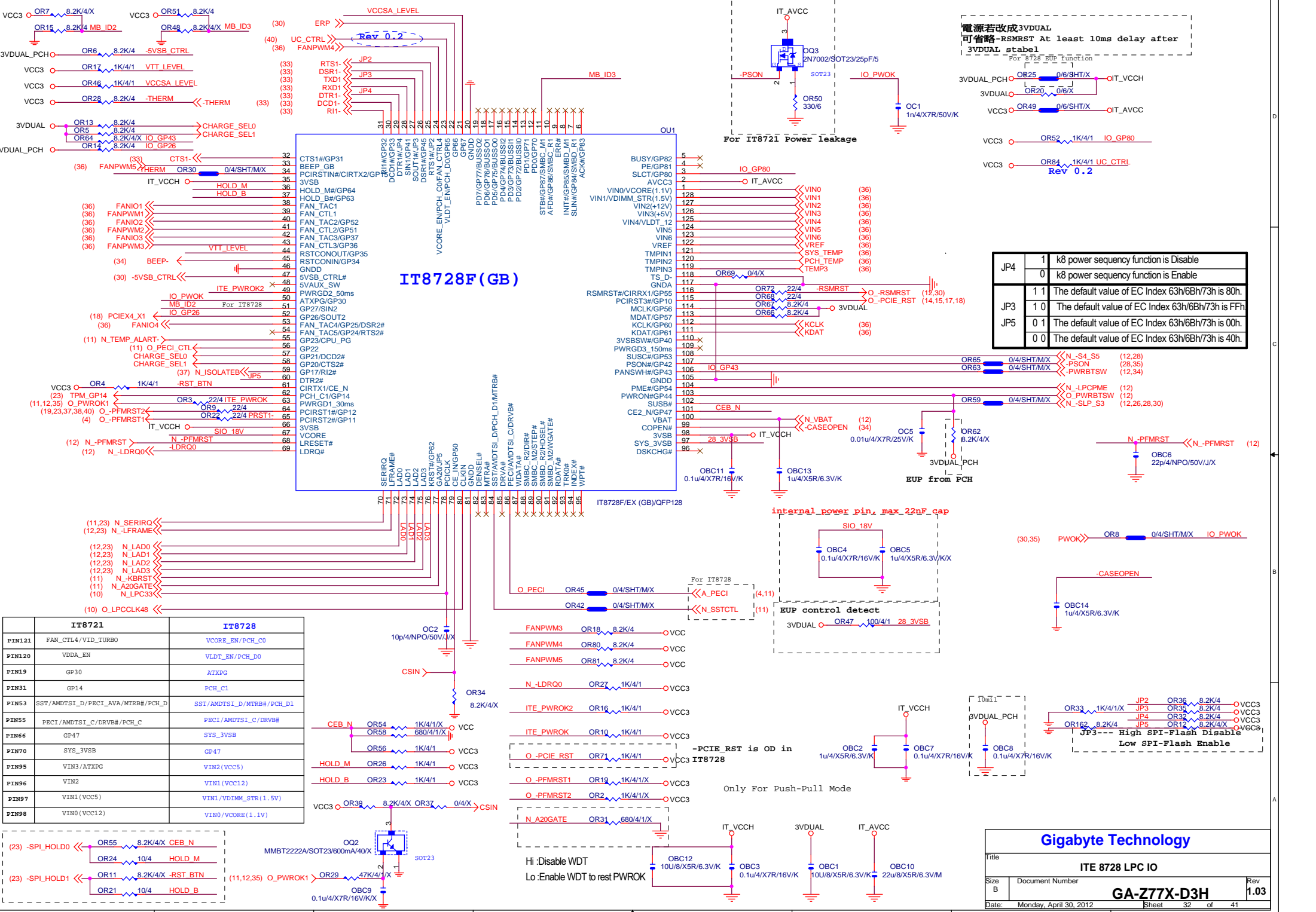
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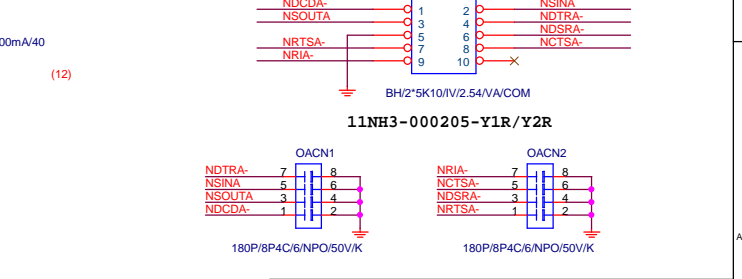
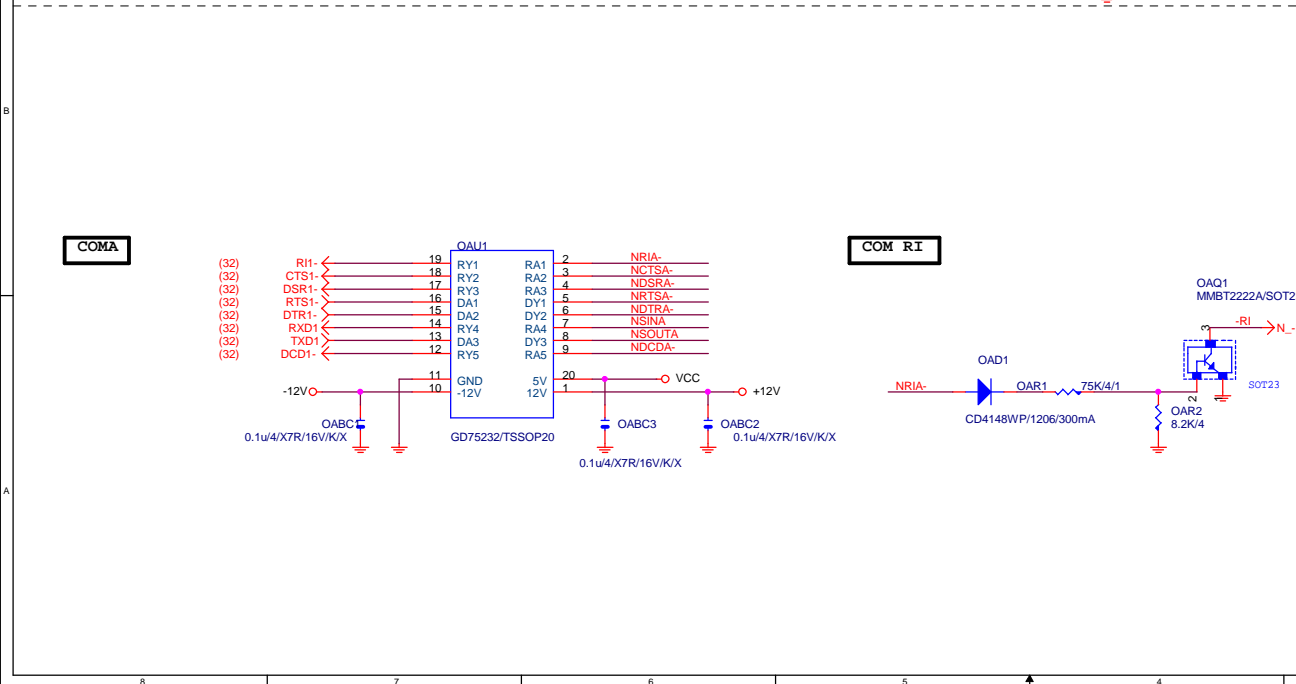
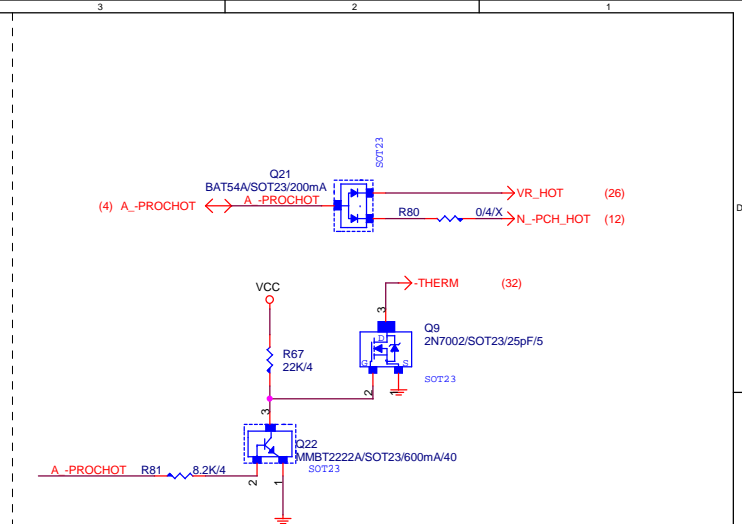
FUNCTION	MODE	FSM MODE	PHASE MODE
0	1	IR ATL	DUAL
1	1	IR ATL	Doubler
0	0	Tri-Sate	DUAL
1	0	Tri-Sate	Doubler
OPEN	0	Tri-Sate	Quad
OPEN	1	IR ATL	Quad

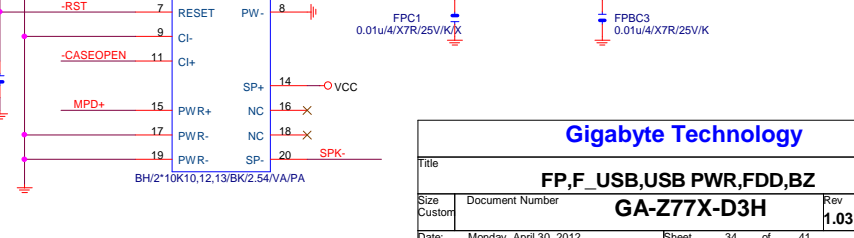
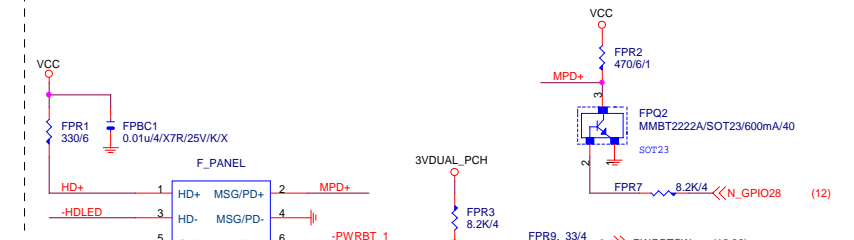
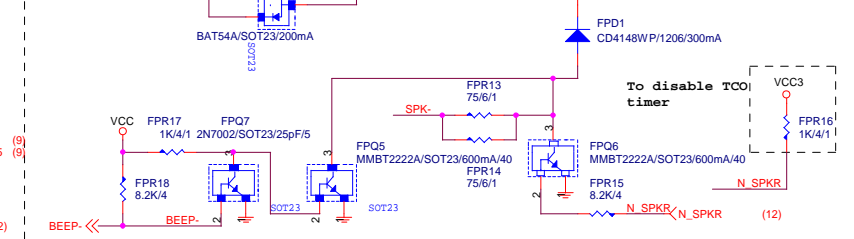
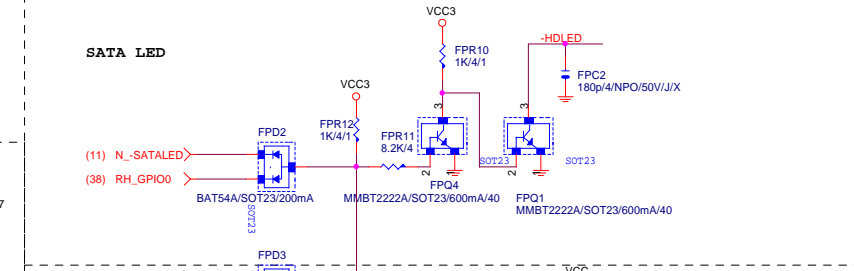
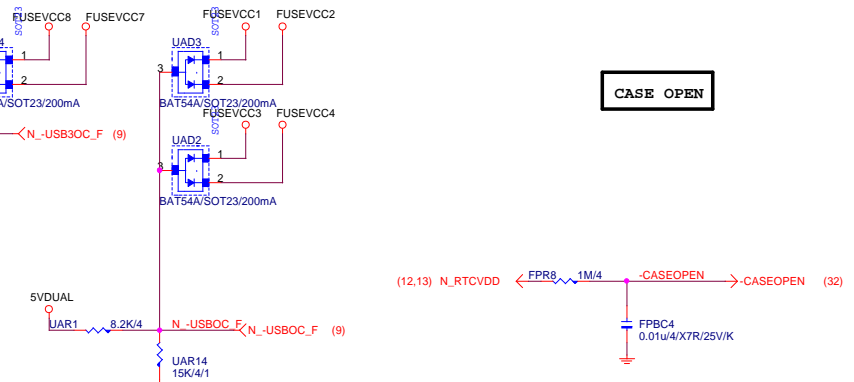
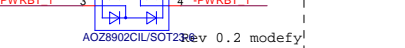
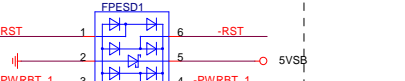
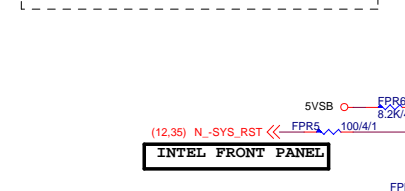
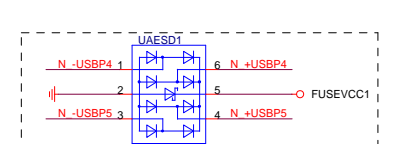
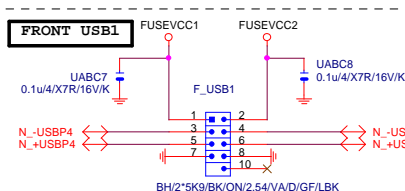
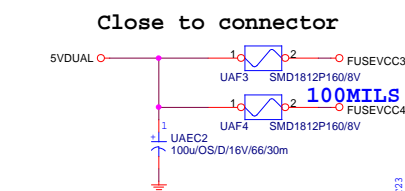
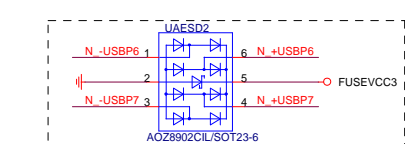
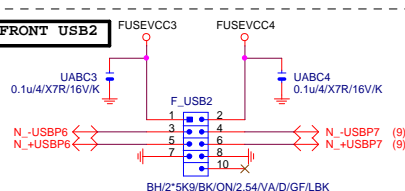
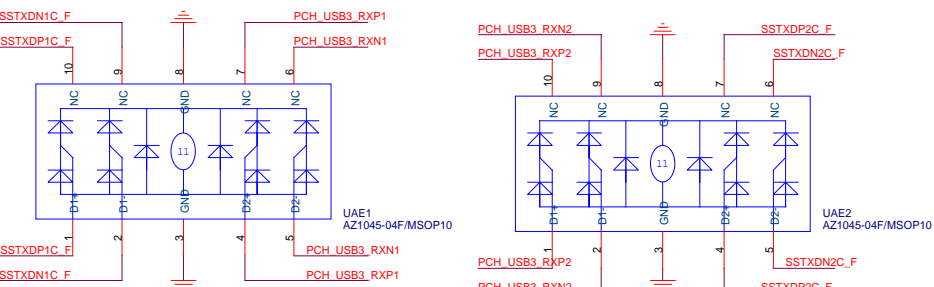
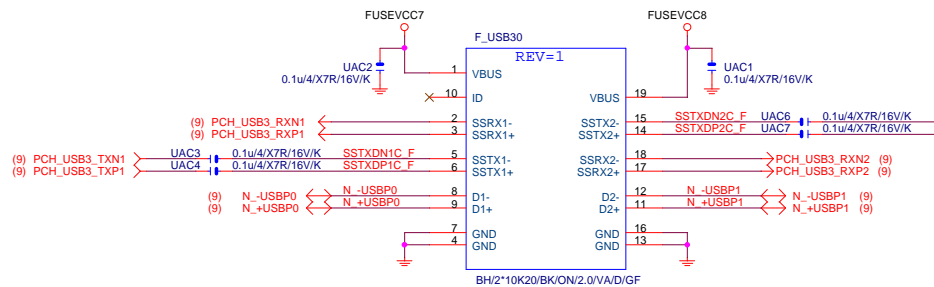
[illegible][illegible]



$$(3.3V/70mA+360\mu A)$$


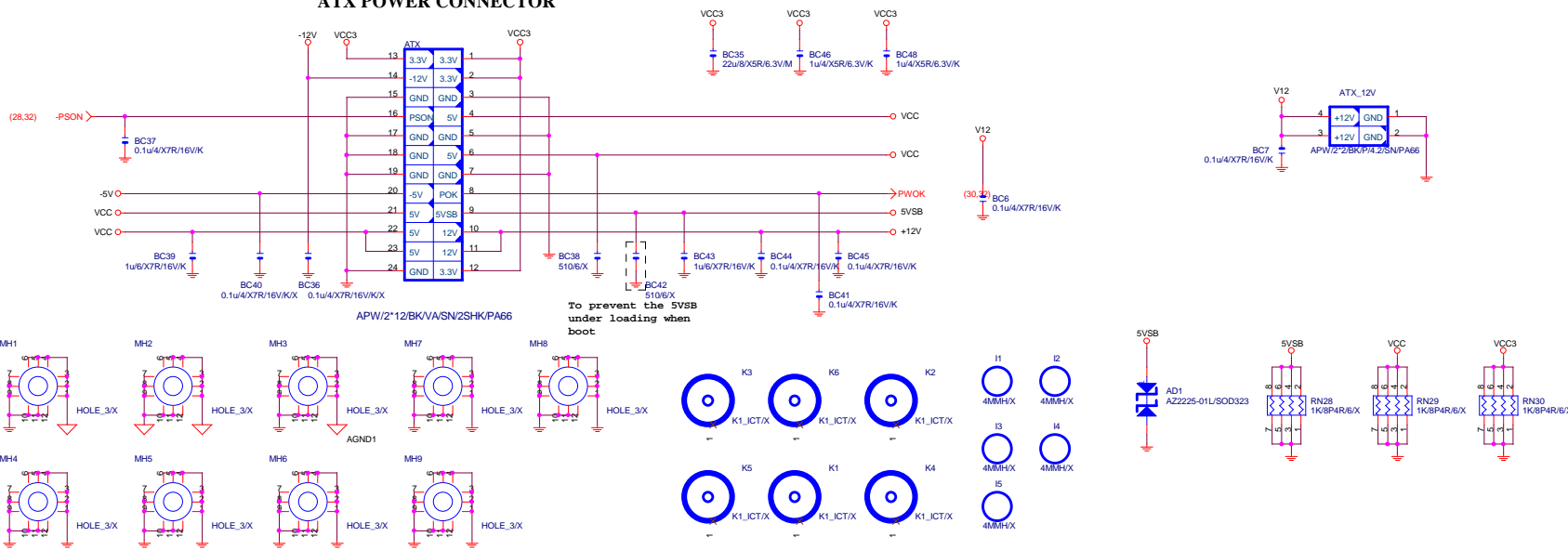






Gigabyte Technology			
Title			
FF, F_USB, USB PWR, FDD, BZ			
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ATX POWER CONNECTOR



CLK GEN CK505

CPU Frequency Selection

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

N_PCHCLK14 C182 10p/4NPO/50V/J/X

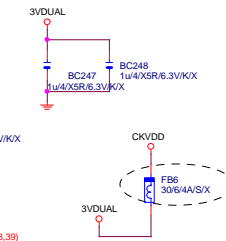
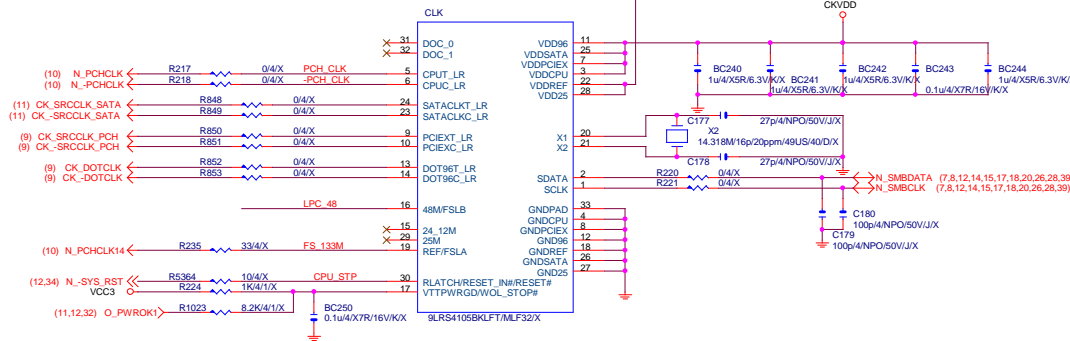
CKVDD R241 8.2K/4/1/X FS_133M

CKVDD R242 8.2K/4/1

CKVDD R237 8.2K/4/1/X CPU_STP

CKVDD R5384 8.2K/4/1/X LPC_48

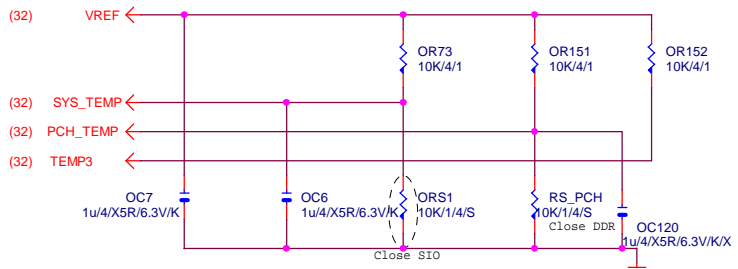
CKVDD R992 8.2K/4/1 LPC_48



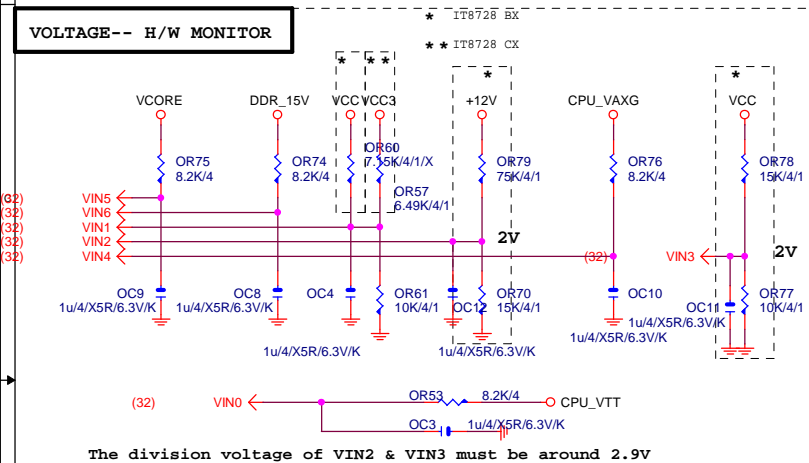
Gigabyte Technology

Title	ATX POWER CONNECTOR	Rev	1.03
Size	Document Number	GA-Z77X-D3H	
Custom			
Date:	Monday, April 30, 2012	Sheet	35 of 41

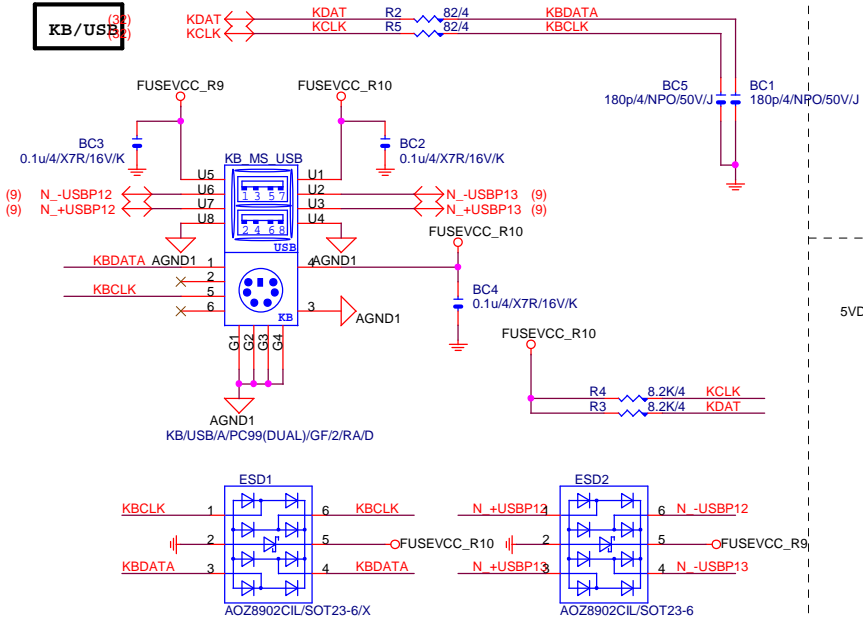
TEMP H/W MONITOR



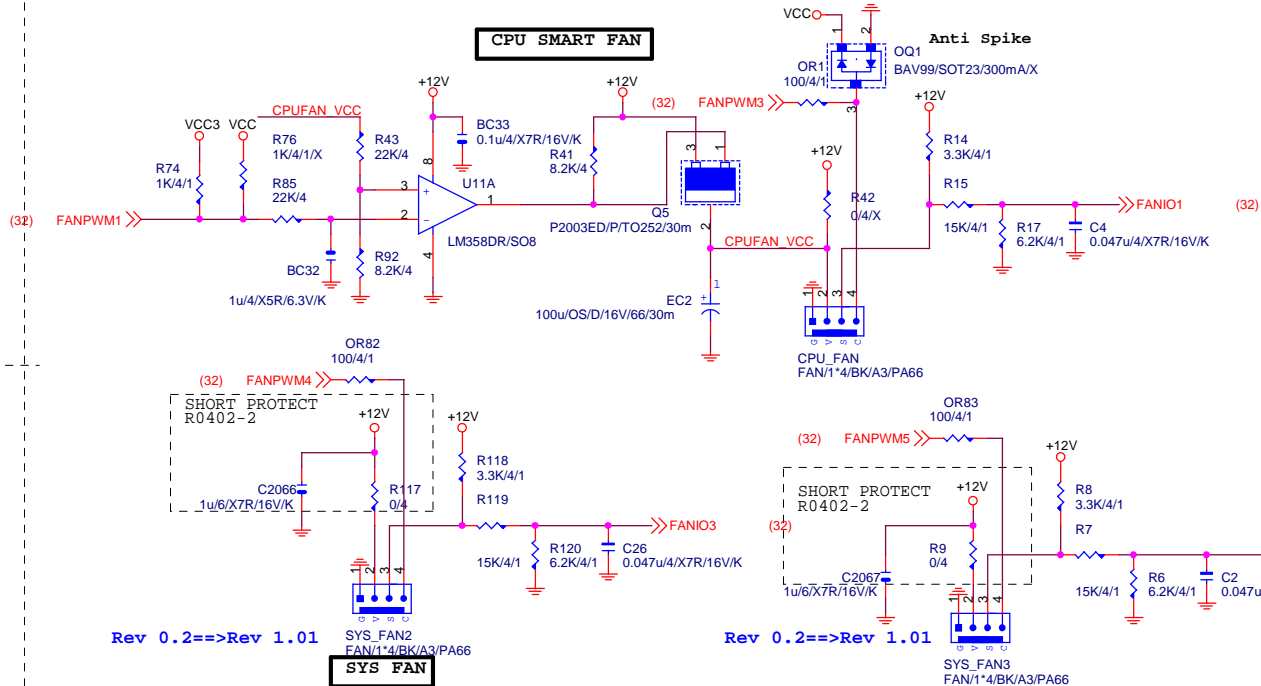
VOLTAGE-- H/W MONITOR



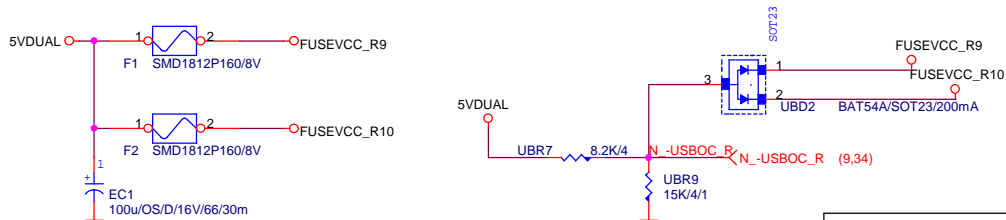
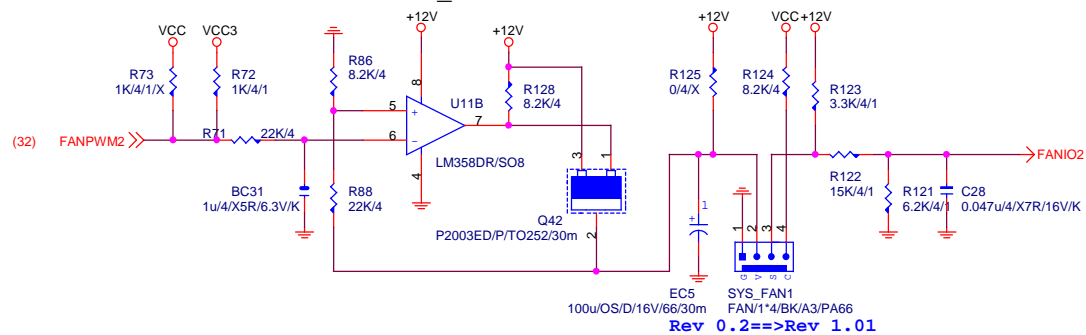
KB/USB (32)



CPU SMART FAN

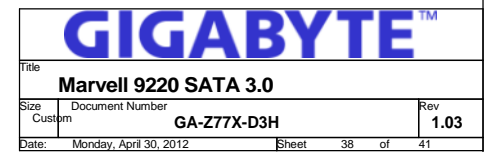
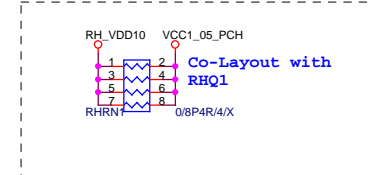
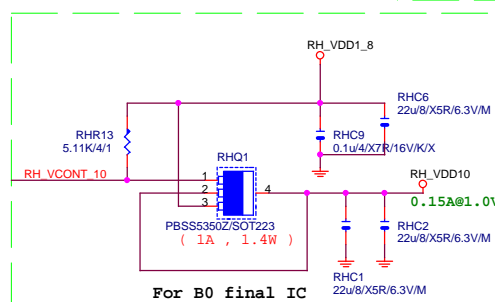
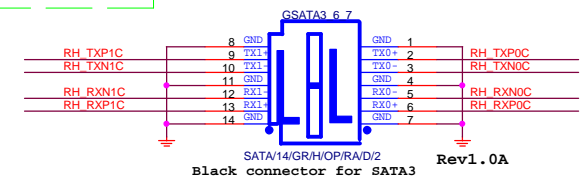
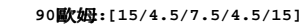
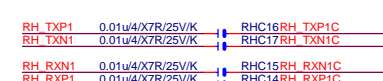
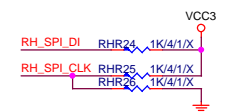
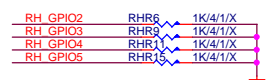
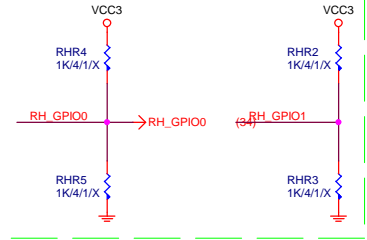
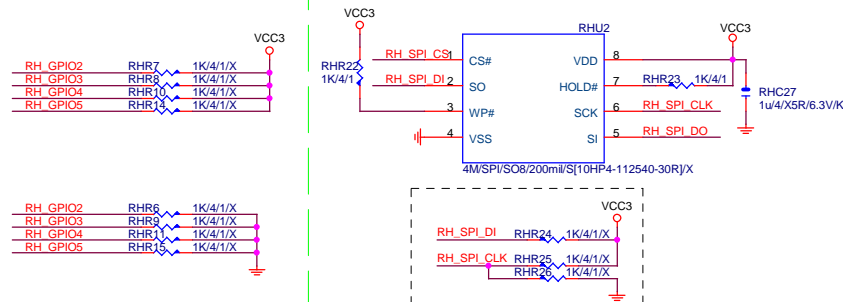
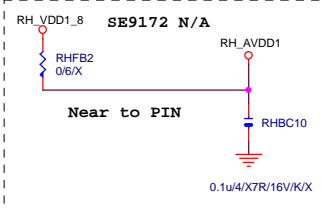
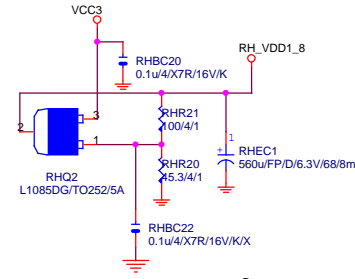
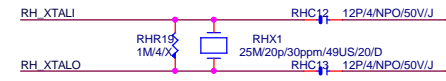
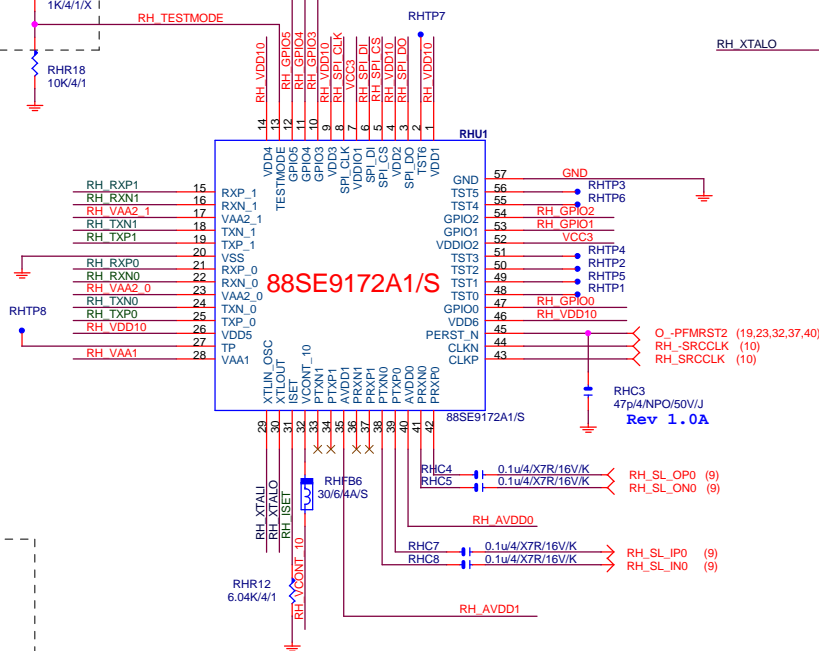
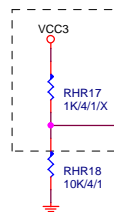


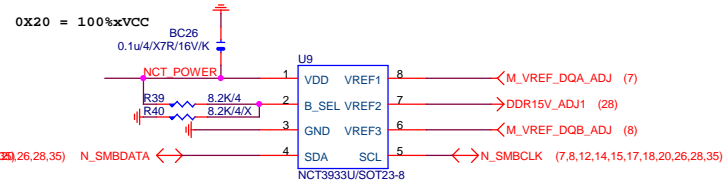
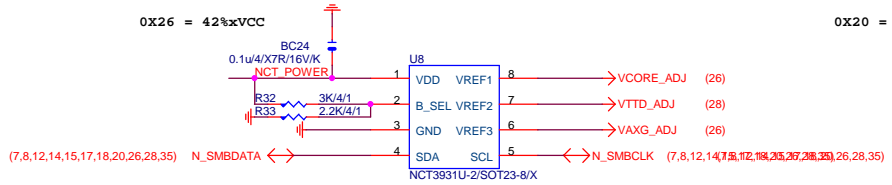
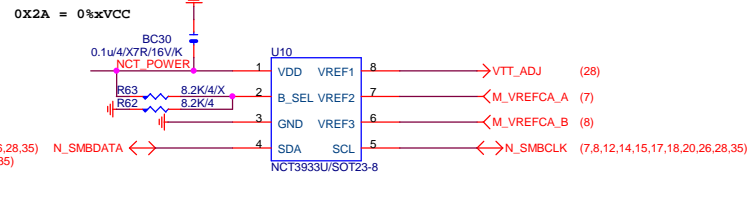
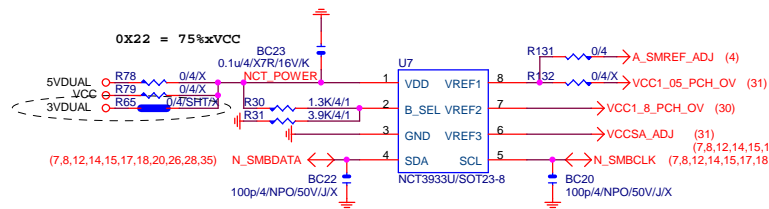
Linear SYS_FAN

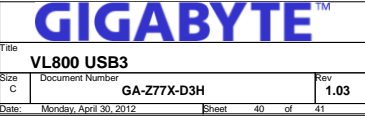


Gigabyte Technology

Title			
HWM,KB/MS, FAN CTRL			
Size	Document Number	Rev	
Custom	GA-Z77X-D3H	1.03	
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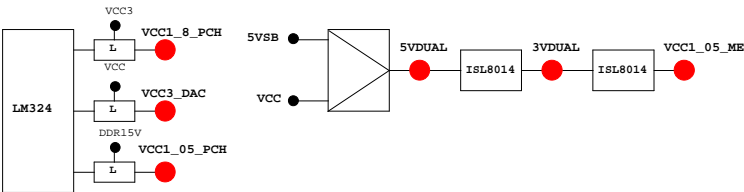


PCH GPIO LIST TABLE					
PIN NAME	PWR	Default	USAGE	NOTE	
GP0	MAIN	H-Z	GPI -PECI_REQ	N/A	
GP1/TACH1	MAIN		GPI ICH_FAN_TACH1	N/A	
GP2/PIRQE#	MAIN		GPI -PIRQE	P/U 8.2K VCC3	
GP3/PIRQF#	MAIN		GPI -PIRQF	P/U 8.2K VCC3	
GP4/PIRQG#	MAIN		GPI -PIRQG	P/U 8.2K VCC3	
GP5/PIRQH#	MAIN		GPI -PIRQH	P/U 8.2K VCC3	
GP6/TACH2	MAIN		GPI ICH_FAN_TACH2	N/A	
GP7/TACH3	MAIN		GPI ICH_FAN_TACH3	N/A	
GP8	STBY	H	GPO GPIO8	P/U 8.2K 3VDUAL	
GP9/OC5#	STBY		NATIVE OC5#	N/A	
GP10/OC6#	STBY		NATIVE OC6#	N/A	
GP11/SMBALERT#	STBY		NATIVE -SMBALERT	P/U 8.2K 3VDUAL	
GP12	STBY	L	GPI LAN_PHY_PWR_CTRL	P/U 8.2K 3VDUAL	
GP13	STBY	L	GPI GPIO13	P/U 8.2K 3VDUAL	
GP14/OC7#	STBY		NATIVE OC7#	N/A	
GP15	STBY	L	GPO GPIO15	N/A	
GP16	MAIN		GPI -SKTOCC	P/U 8.2K VCC3	
GP17/TACH0	MAIN		GPI ICH_FAN_TACH0	N/A	
GP18	MAIN		NATIVE MB_ID0	P/D 8.2K GND	
GP19	MAIN		GPI -LAN1_ISO	P/U 8.2K VCC3	
GP20	MAIN		NATIVE LED_CTL	P/U 1K VCC3	
GP21	MAIN		GPI VCC18_FCH_OV2	P/U 8.2K VCC3	
GP22	MAIN	H-Z	GPI VCORE_OV3	P/U 8.2K VCC3	
GP23	MAIN		NATIVE -LDRQ1	P/U 8.2K VCC3	
GP24	STBY	L	GPO TLS	P/U 8.2K 3VDUAL	
GP25	STBY		NATIVE -CPU_STOP	P/U 8.2K 3VDUAL	
GP26	STBY		NATIVE -ACZ_DET	P/U 8.2K 3VDUAL	
GP27	STBY	H	GPO GPIO27	P/U 8.2K 3VDUAL	
GP28	STBY	H	GPO GPIO28	P/U 8.2K 3VDUAL	
GP29	STBY	L	GPI GPIO29	N/A	
GP30	STBY	H-Z	GPI S_PWR_ACK	P/U 100K 3VDUAL	
GP31	STBY	H-Z	GPI N/A(Reverse)	P/U 8.2K VCC3	
GP32	MAIN	H	GPO MB_ID1	P/D 8.2K GND	
GP33	MAIN	H	GPO LOAD-LINE	P/U 1K VCC3	
GP34	MAIN	H-Z	GPI -PCI_STOP	P/U 8.2K VCC3	
GP35	MAIN	L	GPO GPIO35	P/U 8.2K VCC3	
GP36	MAIN		GPI -LAN1_DSM	P/U 8.2K VCC3	
GP37	MAIN		GPI N/A	P/U 8.2K VCC3	
GP38	MAIN	H-Z	GPI VCORE_OV2	P/U 8.2K VCC3	
GP39	MAIN	H-Z	GPI -LAN_DSM	P/U 8.2K VCC3	
GP40	STBY		NATIVE OC1#	N/A	
GP41	STBY		NATIVE OC2#	N/A	
GP42	STBY		NATIVE OC3#	N/A	
GP43	STBY		NATIVE OC4#	N/A	
GP44	STBY	L	NATIVE N/A	P/U 8.2K 3VDUAL	
GP45	STBY		NATIVE -LPCPME	P/U 8.2K 3VDUAL	
GP46	STBY	L	NATIVE PWR_LED	P/U 8.2K 3VDUAL	
GP47	STBY		NATIVE PSI_LED	P/U 8.2K 3VDUAL	
GP48	MAIN	H-Z	IN EN_PWM	P/U 8.2K VCC3	
GP49	MAIN	H-Z	IN VCC18_OV1	P/U 8.2K VCC3	
GP50	MAIN		NATIVE -REQ1	P/U 2.2K VCC	
GP51	MAIN	H	NATIVE -GNT1	N/A	
GP52	MAIN		NATIVE -REQ2	P/U 2.2K VCC	
GP53	MAIN	H	NATIVE -GNT2	N/A	
GP54	MAIN		NATIVE -REQ3	P/U 2.2K VCC	
GP55	MAIN	H	NATIVE -GNT3	N/A	
GP56	STBY		NATIVE N/A(Reverse)	P/U 8.2K 3VDUAL	
GP57	STBY	H-Z	IN VCORE_OV1	P/U 8.2K 3VDUAL	
GP58	STBY	H-Z	NATIVE F_USB_OC	P/U 8.2K 3VDUAL	
GP59	STBY		NATIVE USB_OC0#	N/A	
GP60	STBY	H-Z	NATIVE N/A(Reverse)	P/U 8.2K 3VDUAL	
GP61	STBY	L	NATIVE -SUSTAT	N/A	
GP62	STBY	L	NATIVE SUSCLK	N/A	
GP63	STBY	L	NATIVE GPIO63	N/A	
GP64	MAIN	L	NATIVE CLKOUTFLEX0	N/A	
GP65	MAIN	L	NATIVE CLKOUTFLEX1	N/A	
GP66	MAIN	L	NATIVE CLKOUTFLEX2	N/A	
GP67	MAIN	L	NATIVE CLKOUTFLEX3	N/A	
GP72	STBY	H-Z	NATIVE VCORE_OV4	P/U 8.2K 3VDUAL	
GP73	STBY		NATIVE 1_05V_OV1	P/U 8.2K 3VDUAL	
GP74	STBY	H-Z	NATIVE 1_05V_OV2	P/U 8.2K 3VDUAL	
GP75	STBY	H-Z	NATIVE N/A(Reverse)	P/U 8.2K 3VDUAL	

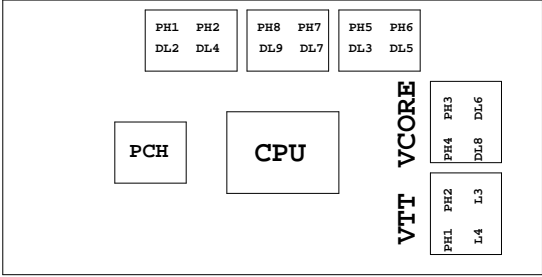
Super I/O ITE8720 GPIO Table

PIN NAME	USAGE	NOTE
SVC/PECI_RQT/GP14	-PECI_REQ	
PWROK1/GP13	PWROK1/ITE_PWROK	
KRST#/GP62	-KBRST	
SO/GP50	-ICH_SPI_CS	
IRTX/GP47/CE2_N/JP7	CEB_N	
GP46/IRRX	-LAN2_DSM	
PSION#/GP42	-PSON	
PWROK2#/GP41	PECI_CTL	
PCIRST3#/GP10/VDIMM_STR_EN	-PCIE_RST	
RSMRST#CIRRXL/GP55	-RSMRST	
PME#/GP54	-LPCPME	
PD5/GP75/BUSSO0	N/A	

PIN NAME	USAGE	NOTE
FAN_TAC2/GP52	FANIO2	
FAN_TAC3/GP37	FANIO3	
VIDO3/FAN_TAC4/GP25/DSR2#	FANIO4	
FAN_CTL2/GP51	FANPWM2	
FAN_CTL3/GP36	FANPWM3	
VID4/GP34	BEEP-	
VID3/GP33	TURBO1	
VID2/GP32	TURBO0	
VCORE_GOOD/VID6/GP63	CPUT_LED1_C	
VID5/GP35	CPUT_LED2_C	
VID1/GP31	CPUT_LED3_C	
VID0/GP30	-LAN1_DSM	NBT_LED1_C
SLCT/GP80	CPU_LED1_C	
PE/GP81	CPU_LED2_C	
BUSY/GP82	CPU_LED3_C	
PD3/GP73/BUSSI1	SB_LED1_C	
PD4/GP74/BUSSI2	SB_LED2_C	
VCORE_EN/VID7/GP64	IT_GP64	SB_LED3_C
PD0/GP70	NB_LED1_C	
PD1/GP71	NB_LED2_C	
PD2/GP72/BUSSI0	NB_LED3_C	
GP22/SCK	LOW_PWR_1	
VIDO5/GP27/SIN2	LOW_PWR_2	
PCIRST2#/GP11	-PFMRST1	
PCIRST1#/GP12	-PFMRST2	
3VSBSW#/GP40	CSI_F0	BSEL166_1
SUSC#/GP53	CSI_F1	BSEL166_2
GP23/SI	BSEL166_3/CSISBSL	
VIDO0/GP20/CTS2#	CPUT_LED1_C	BSEL166_4
GP65/VDDA_EN/GB_01	MB_ID2	
PD6/GP76/BUSSO1	MB_ID3	
PD7/GP77/BUSSO2	MB_ID4	
AFD#/GP86/SMBC_R	2X PIN	FST_2X8
INIT#/GP85/SMBD_M	SEC_2x8	GTLREF_AD2
ACK#/GP83	DDR_LED1_C	
VIDO1/GP21/DCD2#	DDR_LED2_C	
STB#/GP87/SMBC_M	DDR_LED3_C	
PWRON#GP44	VCORE_OV1	
PANSWH#/GP43	PWRBTSW	
KDAT/GP61	-PWRBTSW	
KCLK/GP60	KDAT	
MDAT/GP57	KCLK	
MACL/GP56	MDAT	
GP66/VLDT_EN/GB_02	NBT_LED1_C	MCLK
SVD/PCIRSTIN#/CIRTX/GP15	PWM2_CR	
KDAT/GP61	PWM2_CR	
GP67/CPU_PG/GB_03	EN_LOADLINE	IT_GP67/-EN_PWM2
SLIN#/GP84/SMBD_R	-EN_PWM2	
PSI_L/FAN_CLT5/CIRRXL2/GP16	-THERM	
VIDO4/GP26/SOUT2	DDR18V_PH2_EN	
VIDO2/FAN_TAC5/GP24/DSR2#	DDR18V_LED	
VIDO6/GP17/RI2#	1_1V_PH_EN	
VIDO7/JP6/DTR2#	JP6	
PD5/GP75/BUSSO0	SB_LED3_C	



PWM各相位的擺法如下：



BIOS超電壓對應表：

線路圖名稱	BIOS選項
Vcore	CPU Vcore
CPU_VTT	CPU Termination
CPU_VAXG	CPU Graphic Core
VCC1_8_PCH	CPU PLL
VCC1_05_PCH	PCH core
3VDUAL	3VDUAL
DDR15V	DRAM voltage
DDRVTT	DRAM Terminatio
VREF_CA_A/VREF_CA_B	DRAM Address Ref
VREF_DQ_A/VREF_DQ_B	DRAM Data Ref

散熱模組料號：

8IBP：
1.12SP2-01A001-Y1R/Y2R
2.12SP2-01A001-Z1R/Z2R
(HIBRID模組)包材階

	3 pin FAN control	4 pin FAN control	FAN speed	Controller
CPU FAN	FANPWM1	FANPWM3	FANIO1	IT8720
	ICH_FAN_PWM2	ICH_FAN_PWM0	ICH_FAN_TACH0	PCH
SYS FAN	FANPWM2	N/A	FANIO2	IT8720
	ICH_FAN_PWM1	N/A	ICH_FAN_TACH1	PCH
PWR FAN	N/A	N/A	FANIO3	IT8720
			ICH_FAN_TACH2	PCH

Gigabyte Technology			
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