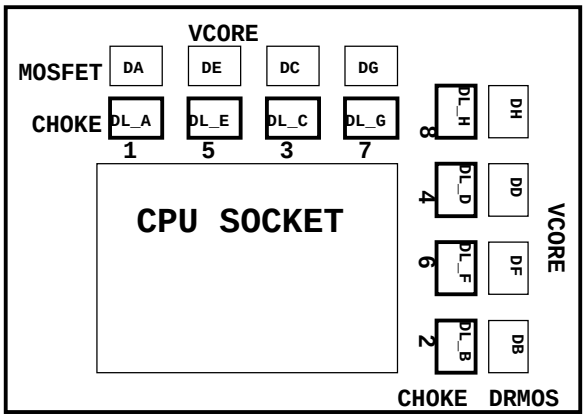
Model Name: GA-Z87X-UD3H

Rev 1.12

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	PCH HDMI/DP
15	PCI EXPRESS*16 SLOT
16	PCI EXPRESS*8 SLOT
17	PCI EXPRESS*16/*8 SWITCH
18	PCI EXPRESS*1 SLOTs X3
19	PCI EXPRESS*4 SLOT
20	ITE 8892
21	PCI SLOT 1
22	Dual BIOS
23	ALC898
24	REAR AUDIO JACK
25	AMPLIFIER
26	IR3563A PWM
27	IR3550-VCORE

SHEET	TITLE
28	IR3570-DDR PWM
29	IR3598-DDR POWER
30	5VDUAL, 3VDAUL, ERP
31	PCH1.05V, PCH1.5V, VCC3_DAC
32	I/O ITE8728
33	USB3_ESATA,KB/USB3
34	F_PANEL , F_USB , PHOT
35	F_USB 2.0
36	F_USB 3.0
37	ATX POWER, CLOCK GEN
38	HWM, FAN CTRL
39	INTEL I217
40	Marvell 9172
41	SATA SWITCH
42	RST, PWR, CLR_CMOS
43	USB 3.0 uPD720201
44	USB 3.0 uPD720201 POWER
45	TABLE LIST
46	



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Title: Cover Sheet		
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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GA-Z87X-UD3H

Component value change history

Data	Change Item	Reason
2012/10/22	0.1 BOM to be check items ATX power connector P/N Heaksine P/N PWM firmware & P/N	First Release
2013/04/23	9MZ87XU3H-00-10E 修改文字面REV1.02 change 1.03	
2013/07/01	9MZ87XU3H-00-11A 修改SIO JP5 PCH(C1換C2) FB2.3.4 SIZE0603 變成0402	
2013/07/02	9MZ87XU3H-00-11B 修改mos heatsink.	
2013/07/09	9MZ87XU3H-00-11C 1.導入5VSB OVP Protection 2.AUDIO AZ2225-01L CD1移除	
2013/07/30	9MZ87XU3H-00-11D 更換新的mos heatsink， 移除泡綿.	
2013/10/02	9MZ87XU3H-00-11E 移除R20.R21.R22.R27	
2013/10/22	9MZ87XU3H-00-11J	

Circuit or PCB layout change

DATE	Change Item	Reason
2012/11/12	REV0.1 Z87X-UD3H 0.1 gerber out	
2012/11/30	REV0.2	
2013/03/13	REV1.01 修改PHROCHOT 130度關機	
2013/03/27	REV1.02 Modify from Z87X-UD3H 7.0 所有的FAN都加一顆0.1u/4/X7R/16V/K ATX4P 統一命名為OC_PEG VIO統一更名為VIOD F_USB30_2 rename F_USB30_1 F_USB30_1 rename F_USB30_2 Add NC62 靠近PCH 新增MOS防燒線路 PHSFLT-串電阻改接到N_-THRMTRIP USB3.0 HUB	
2013/05/23	REV1.03 修改文字面	
2013/07/30	REV1.1 PCH chipset 改成版本C2	
2013/09/23	REV1.11 所有的PPAK footprint改為Q_TDSON8-GDS-T 1206 fuse footprint改為POLYSWITCH-1206-1 25MHz crystal Layout方式依此rule FAN 0 ohm 保護電阻改為0603 DDR VDDSPD 上件0805 fuse+0420 0 ohm co-layout	
2013/10/22	1.All F_USB2.0 ESD power change to "3VDUAL" 2.Add USB2.0 Short power protection	

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Title: BOM & PCB MODIFY HISTORY

Size	Document Number	Rev
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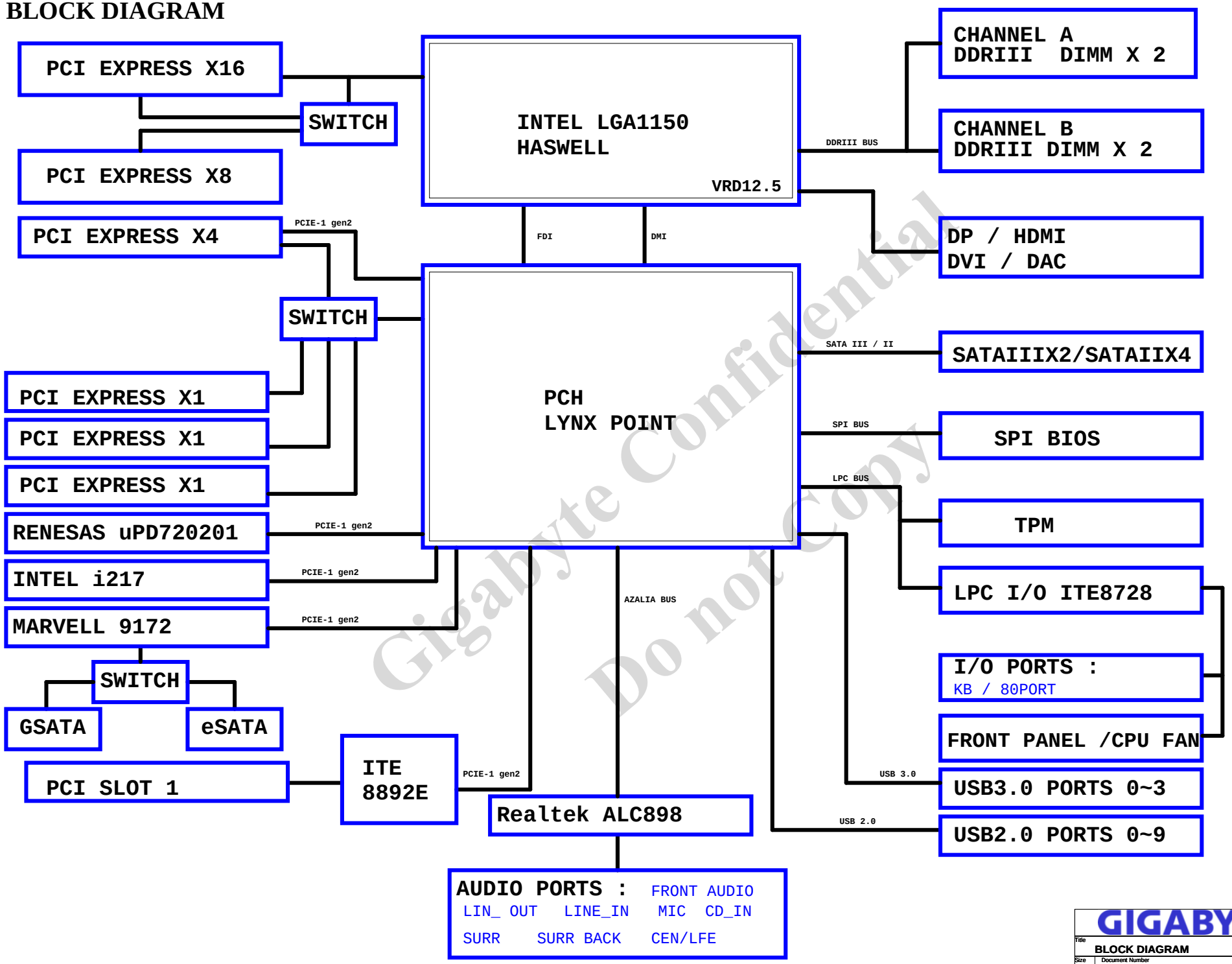
BLOCK DIAGRAM



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Title	BLOCK DIAGRAM	
Size C	Document Number GA-Z87X-UD3H	Rev 1.12
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LGA1150 (E)

LGA1150E

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	X8,X4,X4

CFG 0-17 all internal PULL-UP

LGA1150 (D)

LGA1150D

LGA1150 (C)

LGA1150C

CPU SVID

CPU PU/PD

SM REF

-CPURST

THRMTRIP DISABLE

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Title	CPU LGA1150-A	
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LGA1150 (A)

LGA1150A

MAAA0	AU13	DDR0_MA0	DDR0_DQ0	AD38	MDA0
MAAA1	AV16	DDR0_MA1	DDR0_DQ1	AD39	MDA1
MAAA2	AU16	DDR0_MA2	DDR0_DQ2	AF38	MDA2
MAAA3	AW17	DDR0_MA3	DDR0_DQ3	AF39	MDA3
MAAA4	AU17	DDR0_MA4	DDR0_DQ4	AD37	MDA4
MAAA5	AW18	DDR0_MA5	DDR0_DQ5	AD40	MDA5
MAAA6	AV17	DDR0_MA6	DDR0_DQ6	AF37	MDA6
MAAA7	AT18	DDR0_MA7	DDR0_DQ7	AF40	MDA7
MAAA8	AU18	DDR0_MA8	DDR0_DQ8	AH40	MDA9
MAAA9	AT19	DDR0_MA9	DDR0_DQ9	AH39	MDA13
MAAA10	AW11	DDR0_MA10	DDR0_DQ10	AK38	MDA10
MAAA11	AV19	DDR0_MA11	DDR0_DQ11	AK39	MDA11
MAAA12	AU19	DDR0_MA12	DDR0_DQ12	AH37	MDA12
MAAA13	AY10	DDR0_MA13	DDR0_DQ13	AH38	MDA8
MAAA14	AT20	DDR0_MA14	DDR0_DQ14	AK37	MDA14
MAAA15	AU21	DDR0_MA15	DDR0_DQ15	AK40	MDA15
			DDR0_DQ16	AM40	MDA17
MODT_A0	AW10	DDR0_ODT0	DDR0_DQ17	AM39	MDA21
MODT_A1	AY8	DDR0_ODT1	DDR0_DQ18	AP38	MDA18
MODT_A2	AW9	DDR0_ODT2	DDR0_DQ19	AP39	MDA19
MODT_A3	AU8	DDR0_ODT3	DDR0_DQ20	AM37	MDA20
			DDR0_DQ21	AM38	MDA16
	AW33	DDR0_ECC0	DDR0_DQ22	AP37	MDA22
	AV33	DDR0_ECC1	DDR0_DQ23	AP40	MDA23
	AU31	DDR0_ECC2	DDR0_DQ24	AV37	MDA25
	AV31	DDR0_ECC3	DDR0_DQ25	AW37	MDA29
	AT33	DDR0_ECC4	DDR0_DQ26	AU35	MDA26
	AU33	DDR0_ECC5	DDR0_DQ27	AV35	MDA27
	AT31	DDR0_ECC6	DDR0_DQ28	AT37	MDA28
	AW31	DDR0_ECC7	DDR0_DQ29	AU37	MDA24
			DDR0_DQ30	AT35	MDA30
			DDR0_DQ31	AW35	MDA31
SBAA0	AV12	DDR0_BA0	DDR0_DQ32	AY6	MDA33
SBAA1	AY11	DDR0_BA1	DDR0_DQ33	AU6	MDA37
SBAA2	AT21	DDR0_BA2	DDR0_DQ34	AV4	MDA34
			DDR0_DQ35	AU4	MDA35
CKEA0	AV22	DDR0_CKE0	DDR0_DQ36	AW6	MDA36
CKEA1	AT23	DDR0_CKE1	DDR0_DQ37	AV6	MDA32
CKEA2	AU22	DDR0_CKE2	DDR0_DQ38	AW4	MDA38
CKEA3	AU23	DDR0_CKE3	DDR0_DQ39	AY4	MDA39
			DDR0_DQ40	AR1	MDA41
-CSA0	AU14	DDR0_CS_N0	DDR0_DQ41	AR4	MDA45
-CSA1	AV9	DDR0_CS_N1	DDR0_DQ42	AN3	MDA42
-CSA2	AU10	DDR0_CS_N2	DDR0_DQ43	AN4	MDA43
-CSA3	AW8	DDR0_CS_N3	DDR0_DQ44	AR2	MDA44
			DDR0_DQ45	AR3	MDA40
DCLKA0	AY15	DDR0_CLK_P0	DDR0_DQ46	AN2	MDA46
-DCLKA0	AY16	DDR0_CLK_N0	DDR0_DQ47	AN1	MDA47
DCLKA1	AW15	DDR0_CLK_P1	DDR0_DQ48	AL1	MDA49
-DCLKA1	AV15	DDR0_CLK_N1	DDR0_DQ49	AL4	MDA53
DCLKA2	AV14	DDR0_CLK_P2	DDR0_DQ50	AJ3	MDA50
-DCLKA2	AW14	DDR0_CLK_N2	DDR0_DQ51	AJ4	MDA51
DCLKA3	AW13	DDR0_CLK_P3	DDR0_DQ52	AL2	MDA52
-DCLKA3	AY13	DDR0_CLK_N3	DDR0_DQ53	AL3	MDA48
			DDR0_DQ54	AJ2	MDA54
	AW12	RSVD	DDR0_DQ55	AJ1	MDA55
			DDR0_DQ56	AG1	MDA57
			DDR0_DQ57	AG4	MDA61
			DDR0_DQ58	AE3	MDA58
			DDR0_DQ59	AE4	MDA59
			DDR0_DQ60	AG2	MDA60
			DDR0_DQ61	AG3	MDA56
			DDR0_DQ62	AE2	MDA62
-SRASA	AU12	DDR0_RAS*	DDR0_DQ63	AE1	MDA63
-SWEA	AU11	DDR0_WE*	DDR0_DQS_P0	AE39	DQSA0
	AV20	RSVD	DDR0_DQS_P1	AJ39	DQSA1
	AW27	RSVD	DDR0_DQS_P2	AN39	DQSA2
-SCASA	AU9	DDR0_CAS*	DDR0_DQS_P3	AV36	DQSA3
			DDR0_DQS_P4	AV5	DQSA4
			DDR0_DQS_P5	AP3	DQSA5
			DDR0_DQS_P6	AK3	DQSA6
			DDR0_DQS_P7	AF3	DQSA7
DDR3_RST	AK22	DDR_RESET*	DDR0_DQS_P8	AV32	
			DDR0_DQS_N0	AE38	-DQSA0
			DDR0_DQS_N1	AJ38	-DQSA1
			DDR0_DQS_N2	AN38	-DQSA2
			DDR0_DQS_N3	AU36	-DQSA3
			DDR0_DQS_N4	AV5	-DQSA4
			DDR0_DQS_N5	AP2	-DQSA5
			DDR0_DQS_N6	AK2	-DQSA6
			DDR0_DQS_N7	AF2	-DQSA7
			DDR0_DQS_N8	AU32	

WR61 0/4

WC4 0.1u/4/X7R/16V/K/X

HASWELL/[10SC1-F01150-01R]

LGA1150 (B)

LGA1150B

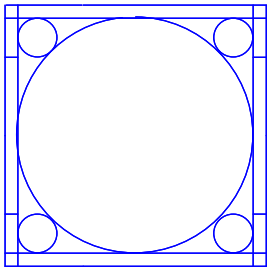
MAAB0	AL19	DDR1_MA0	DDR1_DQ0	AE34	MDB0
MAAB1	AK23	DDR1_MA1	DDR1_DQ1	AE35	MDB1
MAAB2	AM22	DDR1_MA2	DDR1_DQ2	AG35	MDB2
MAAB3	AM23	DDR1_MA3	DDR1_DQ3	AH35	MDB3
MAAB4	AP23	DDR1_MA4	DDR1_DQ4	AD34	MDB4
MAAB5	AL23	DDR1_MA5	DDR1_DQ5	AD35	MDB5
MAAB6	AY24	DDR1_MA6	DDR1_DQ6	AG34	MDB6
MAAB7	AV25	DDR1_MA7	DDR1_DQ7	AH34	MDB7
MAAB8	AU26	DDR1_MA8	DDR1_DQ8	AL34	MDB8
MAAB9	AW25	DDR1_MA9	DDR1_DQ9	AL35	MDB9
MAAB10	AP18	DDR1_MA10	DDR1_DQ10	AK31	MDB10
MAAB11	AY25	DDR1_MA11	DDR1_DQ11	AL31	MDB11
MAAB12	AV26	DDR1_MA12	DDR1_DQ12	AK34	MDB12
MAAB13	AR15	DDR1_MA13	DDR1_DQ13	AK35	MDB13
MAAB14	AV27	DDR1_MA14	DDR1_DQ14	AK32	MDB14
MAAB15	AY28	DDR1_MA15	DDR1_DQ15	AL32	MDB15
			DDR1_DQ16	AN34	MDB17
MODT_B0	AM17	DDR1_ODT0	DDR1_DQ17	AP34	MDB21
MODT_B1	AL16	DDR1_ODT1	DDR1_DQ18	AN31	MDB19
MODT_B2	AM16	DDR1_ODT2	DDR1_DQ19	AP31	MDB23
MODT_B3	AK15	DDR1_ODT3	DDR1_DQ20	AN35	MDB20
			DDR1_DQ21	AP35	MDB16
	AM26	DDR1_ECC0	DDR1_DQ22	AN32	MDB18
	AM25	DDR1_ECC1	DDR1_DQ23	AP32	MDB22
	AP25	DDR1_ECC2	DDR1_DQ24	AM29	MDB25
	AP26	DDR1_ECC3	DDR1_DQ25	AM28	MDB28
	AL26	DDR1_ECC4	DDR1_DQ26	AR29	MDB27
	AL25	DDR1_ECC5	DDR1_DQ27	AR28	MDB30
	AR26	DDR1_ECC6	DDR1_DQ28	AL29	MDB24
	AR25	DDR1_ECC7	DDR1_DQ29	AL28	MDB29
			DDR1_DQ30	AP29	MDB26
SBAB0	AK17	DDR1_BA0	DDR1_DQ31	AP28	MDB31
SBAB1	AL18	DDR1_BA1	DDR1_DQ32	AR12	MDB32
SBAB2	AW28	DDR1_BA2	DDR1_DQ33	AP12	MDB33
			DDR1_DQ34	AL13	MDB34
CKEB0	AW29	DDR1_CKE0	DDR1_DQ35	AL12	MDB35
CKEB1	AY29	DDR1_CKE1	DDR1_DQ36	AR13	MDB36
CKEB2	AU28	DDR1_CKE2	DDR1_DQ37	AP13	MDB37
CKEB3	AU29	DDR1_CKE3	DDR1_DQ38	AM13	MDB38
			DDR1_DQ39	AM12	MDB39
-CSB0	AP17	DDR1_CS_N0	DDR1_DQ40	AR9	MDB45
-CSB1	AN15	DDR1_CS_N1	DDR1_DQ41	AP9	MDB41
-CSB2	AN17	DDR1_CS_N2	DDR1_DQ42	AR6	MDB47
-CSB3	AL15	DDR1_CS_N3	DDR1_DQ43	AP6	MDB43
			DDR1_DQ44	AR10	MDB44
			DDR1_DQ45	AP10	MDB40
			DDR1_DQ46	AR7	MDB46
			DDR1_DQ47	AP7	MDB42
DCLKB0	AM20	DDR1_CLK_P0	DDR1_DQ48	AM9	MDB52
-DCLKB0	AM21	DDR1_CLK_N0	DDR1_DQ49	AL9	MDB53
DCLKB1	AP22	DDR1_CLK_P1	DDR1_DQ50	AL6	MDB50
-DCLKB1	AP21	DDR1_CLK_N1	DDR1_DQ51	AL7	MDB55
			DDR1_DQ52	AM10	MDB48
DCLKB2	AN20	DDR1_CLK_P2	DDR1_DQ53	AL10	MDB49
-DCLKB2	AN21	DDR1_CLK_N2	DDR1_DQ54	AM6	MDB54
DCLKB3	AP19	DDR1_CLK_P3	DDR1_DQ55	AM7	MDB51
-DCLKB3	AP20	DDR1_CLK_N3	DDR1_DQ56	AH6	MDB61
			DDR1_DQ57	AH7	MDB60
-SCASB	AP16	DDR1_CAS*	DDR1_DQ58	AE6	MDB59
	AL20	RSVD	DDR1_DQ59	AE7	MDB63
-SRASB	AM18	DDR1_RAS*	DDR1_DQ60	AJ6	MDB56
-SWEB	AK16	DDR1_WE*	DDR1_DQ61	AJ7	MDB57
			DDR1_DQ62	AF6	MDB58
VREF_DQA	AB39	DDR_VREF_DQ0	DDR1_DQ63	AF7	MDB62
VREF_DQB	AB40	DDR_VREF_DQ1	DDR1_DQS_P0	AF35	DQSB0
			DDR1_DQS_P1	AL33	DQSB1
			DDR1_DQS_P2	AP33	DQSB2
			DDR1_DQS_P3	AN28	DQSB3
			DDR1_DQS_P4	AN12	DQSB4
			DDR1_DQS_P5	AP8	DQSB5
			DDR1_DQS_P6	AL8	DQSB6
			DDR1_DQS_P7	AG7	DQSB7
			DDR1_DQS_P8	AN25	
			DDR1_DQS_N0	AF34	-DQSB0
			DDR1_DQS_N1	AK33	-DQSB1
			DDR1_DQS_N2	AN33	-DQSB2
			DDR1_DQS_N3	AN29	-DQSB3
			DDR1_DQS_N4	AN13	-DQSB4
			DDR1_DQS_N5	AR8	-DQSB5
			DDR1_DQS_N6	AM8	-DQSB6
			DDR1_DQS_N7	AG6	-DQSB7
			DDR1_DQS_N8	AN26	

VREF_DQA
VREF_DQB
WBC33 0.1u/4/X7R/16V/K
WBC34 0.1u/4/X7R/16V/K
Place in CPU bottom side

HASWELL/[10SC1-F01150-01R]

LGA1150 (CR)

CPU
ILM_BP/1156/CSP/[12KRC-0F0001-61R]



Need check the new CPU ME

DDR BUS

MODT_A[0..3]
MODT_B[0..3]
MDA[0..63]
MDB[0..63]
DQSA[0..7]
-DQSA[0..7]
MAAA[0..15]
MAAB[0..15]
DQSB[0..7]
-DQSB[0..7]

GIGABYTE™

Title	CPU LGA1150-B		
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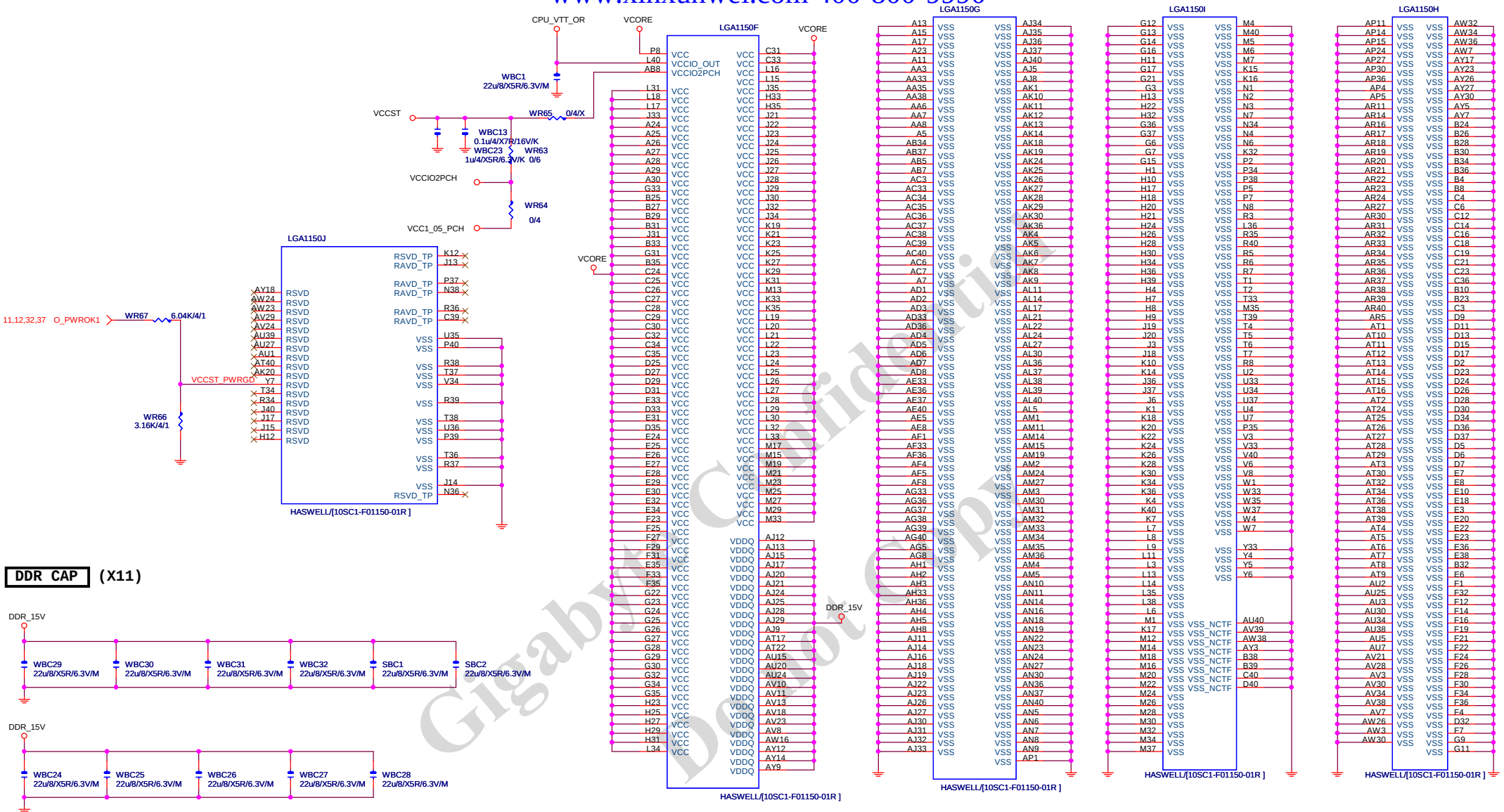
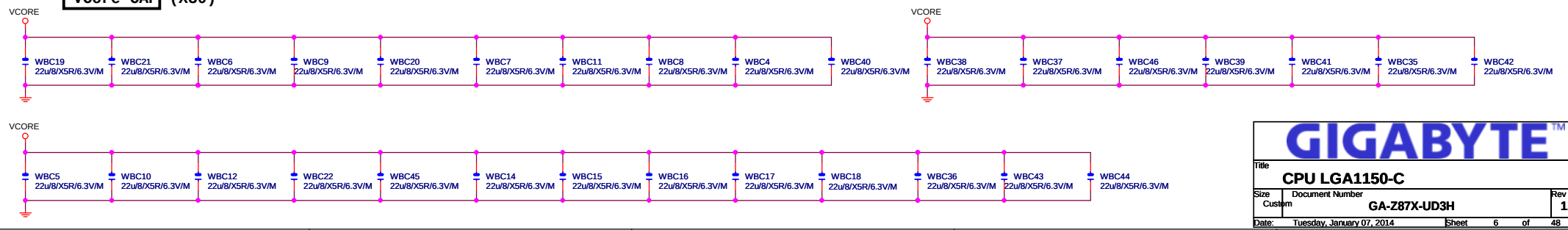


DDR CAP (X11)

VCore CAP (X30)



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Title	CPU LGA1150-C	
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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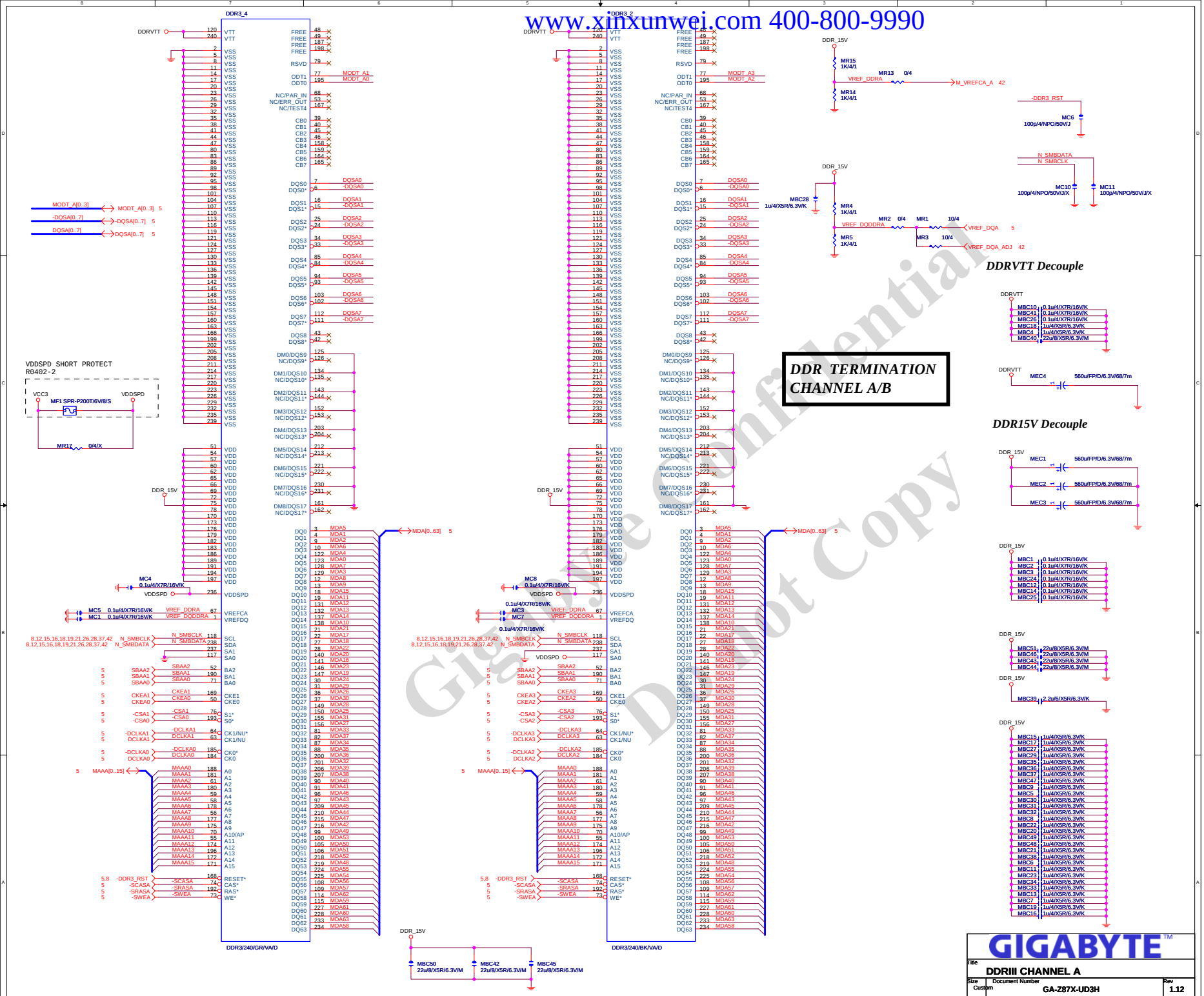

DDR TERMINATION CHANNEL A/B

GIGABYTE™

Title	DDRIII CHANNEL A	
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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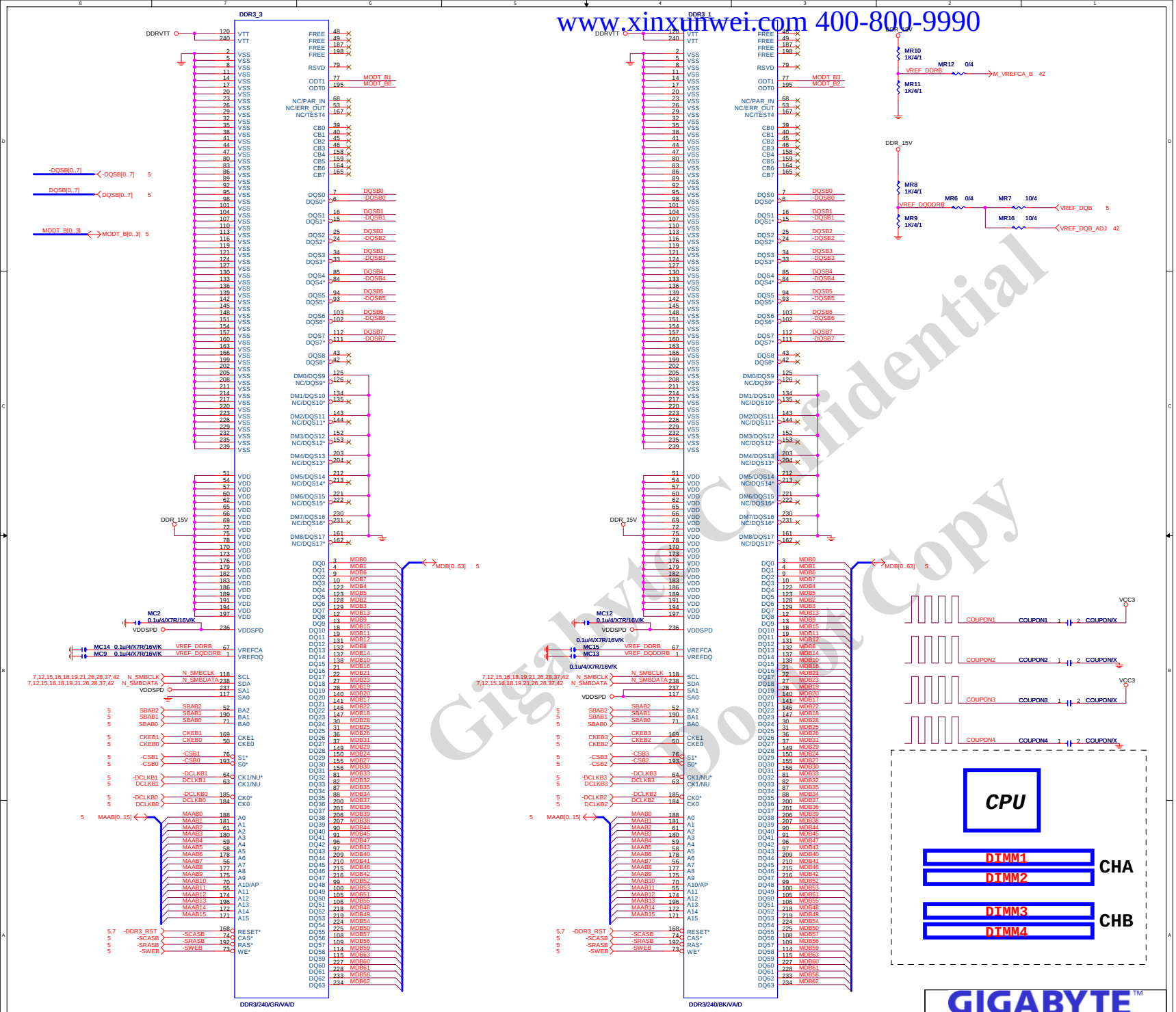

GIGABYTE™

Title	DDRIII CHANNEL B	
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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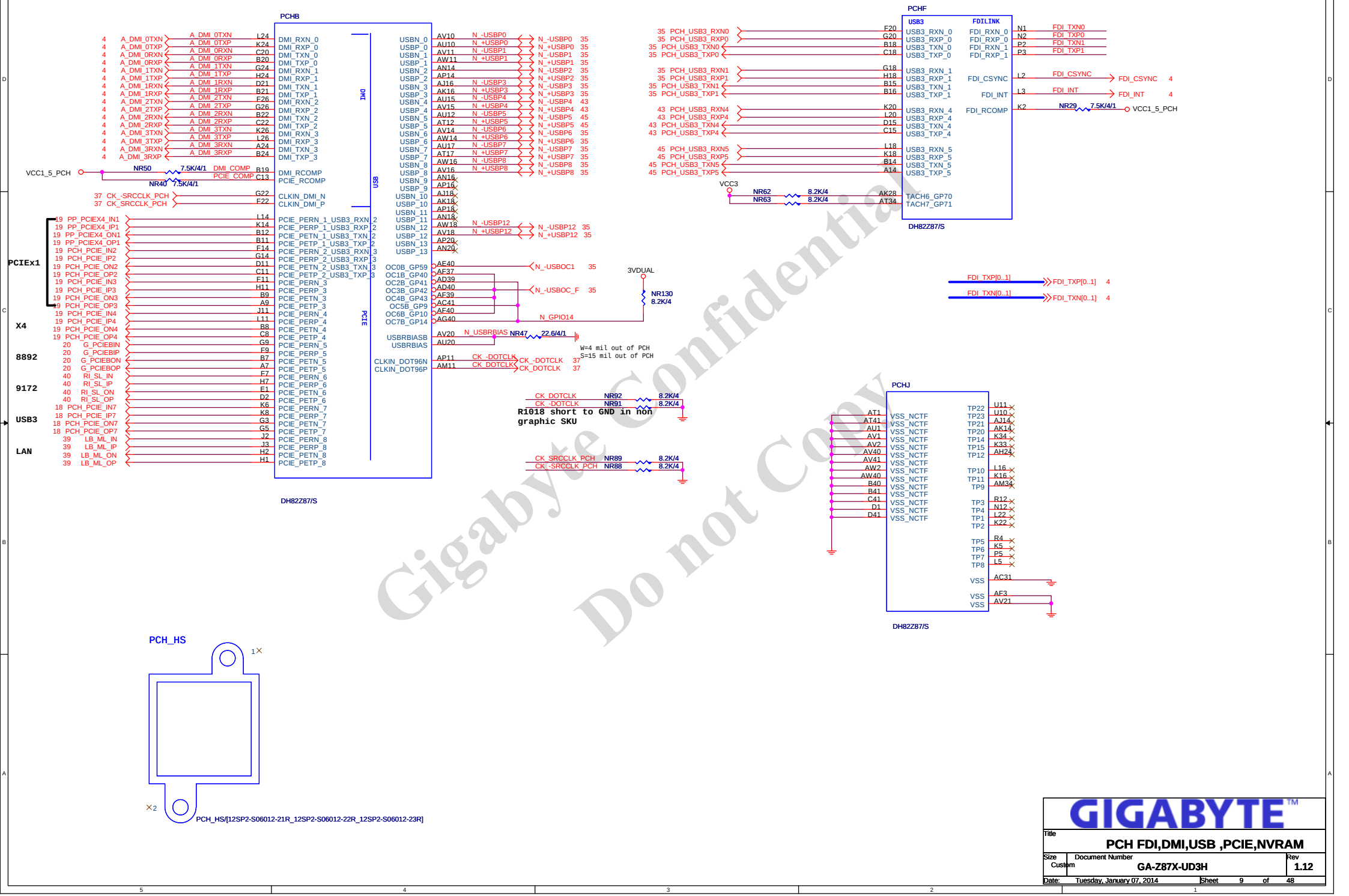

GIGABYTE™

Title	PCH FDI,DMI,USB ,PCIE,NVRAM	
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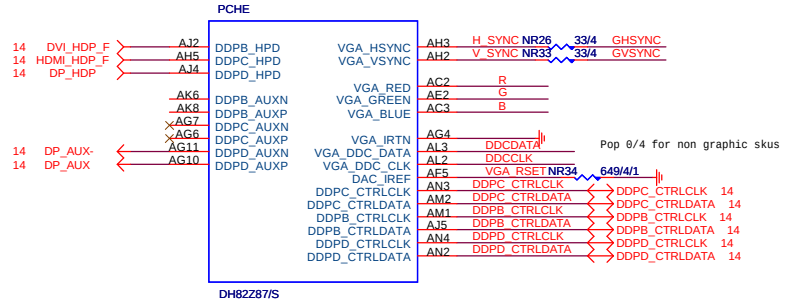

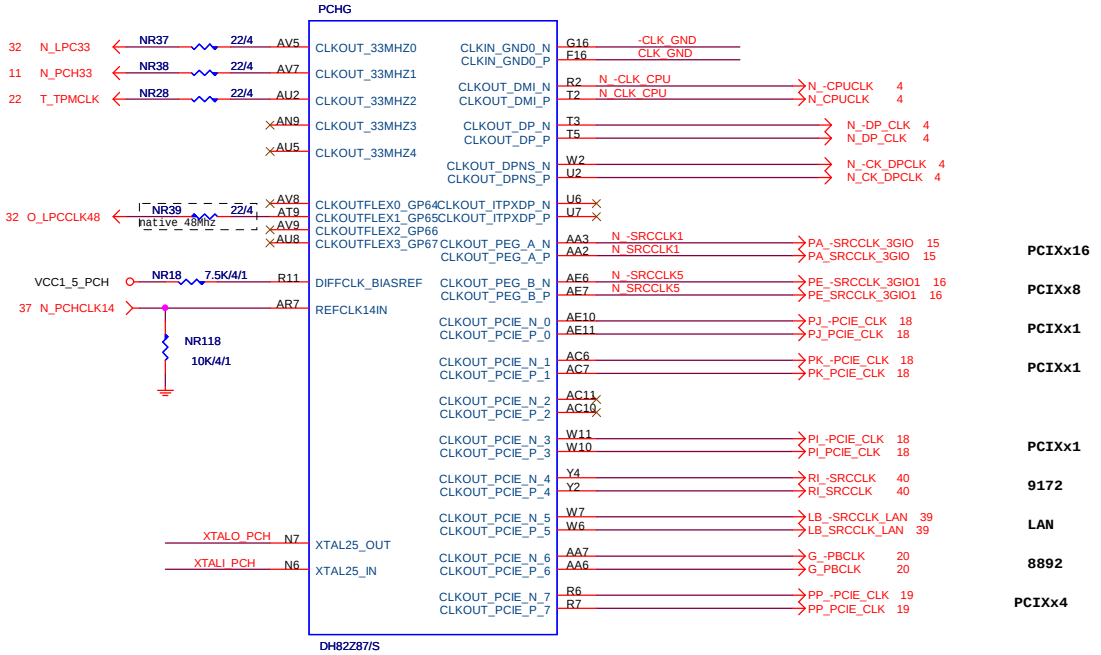

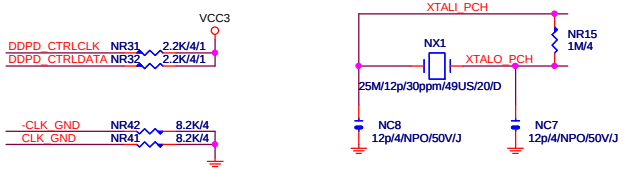

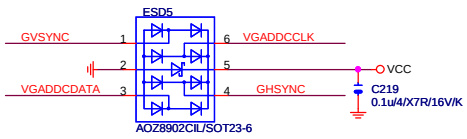

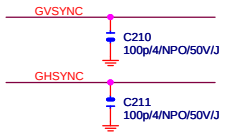

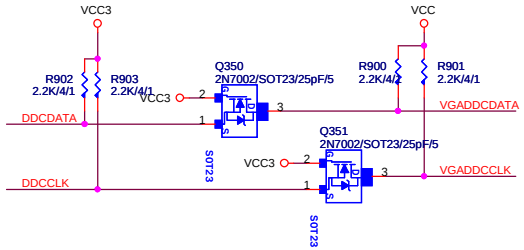

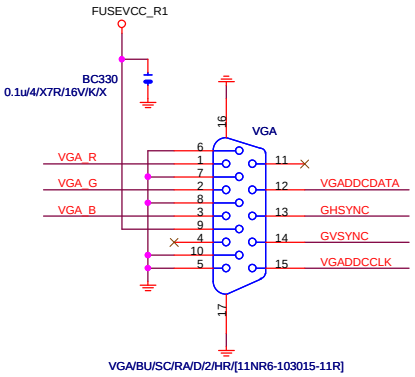

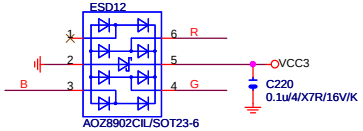

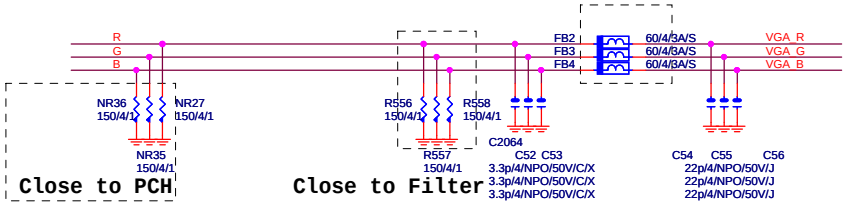

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Title	PCH DISPLAY ,CLK BUFFER	
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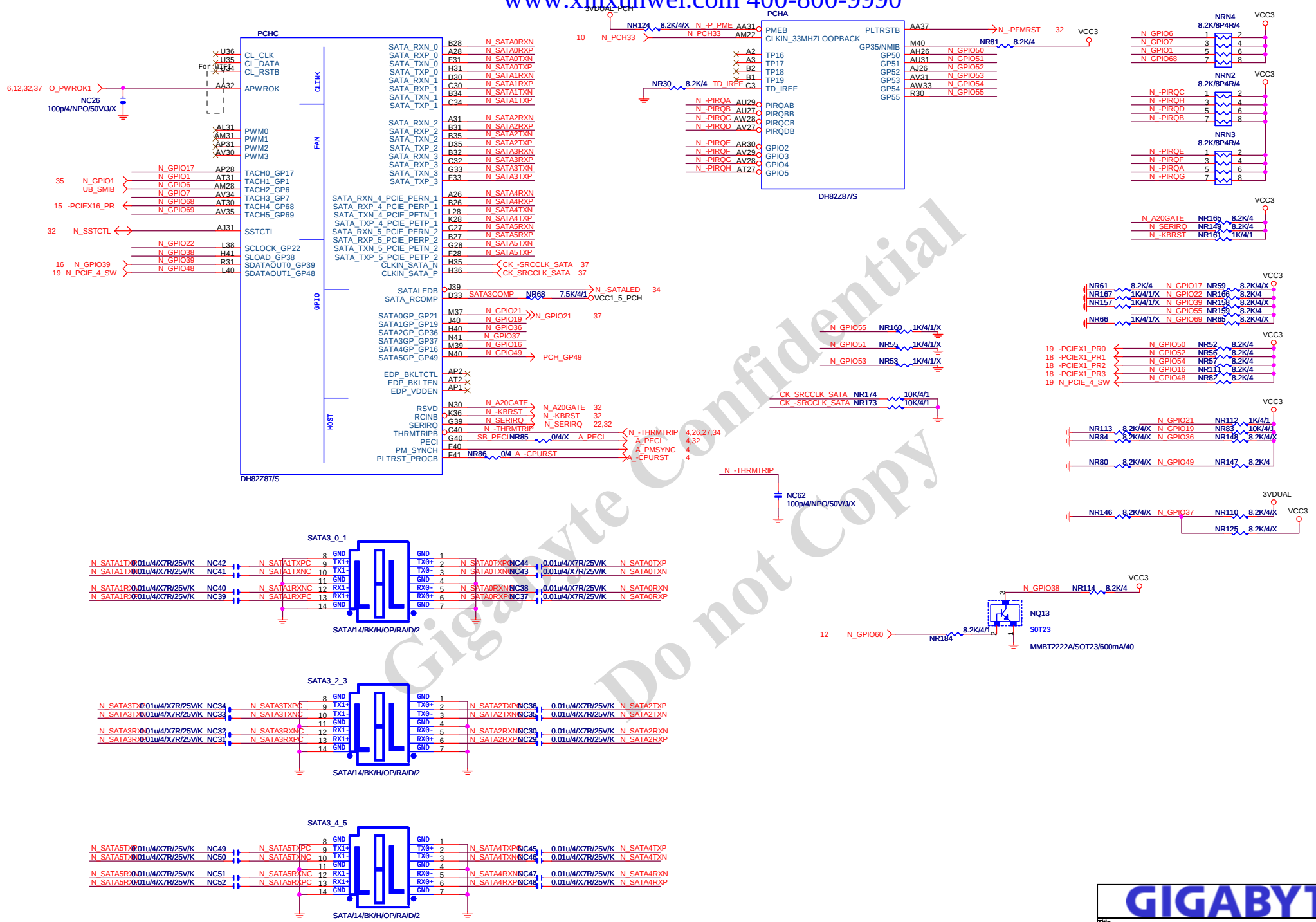

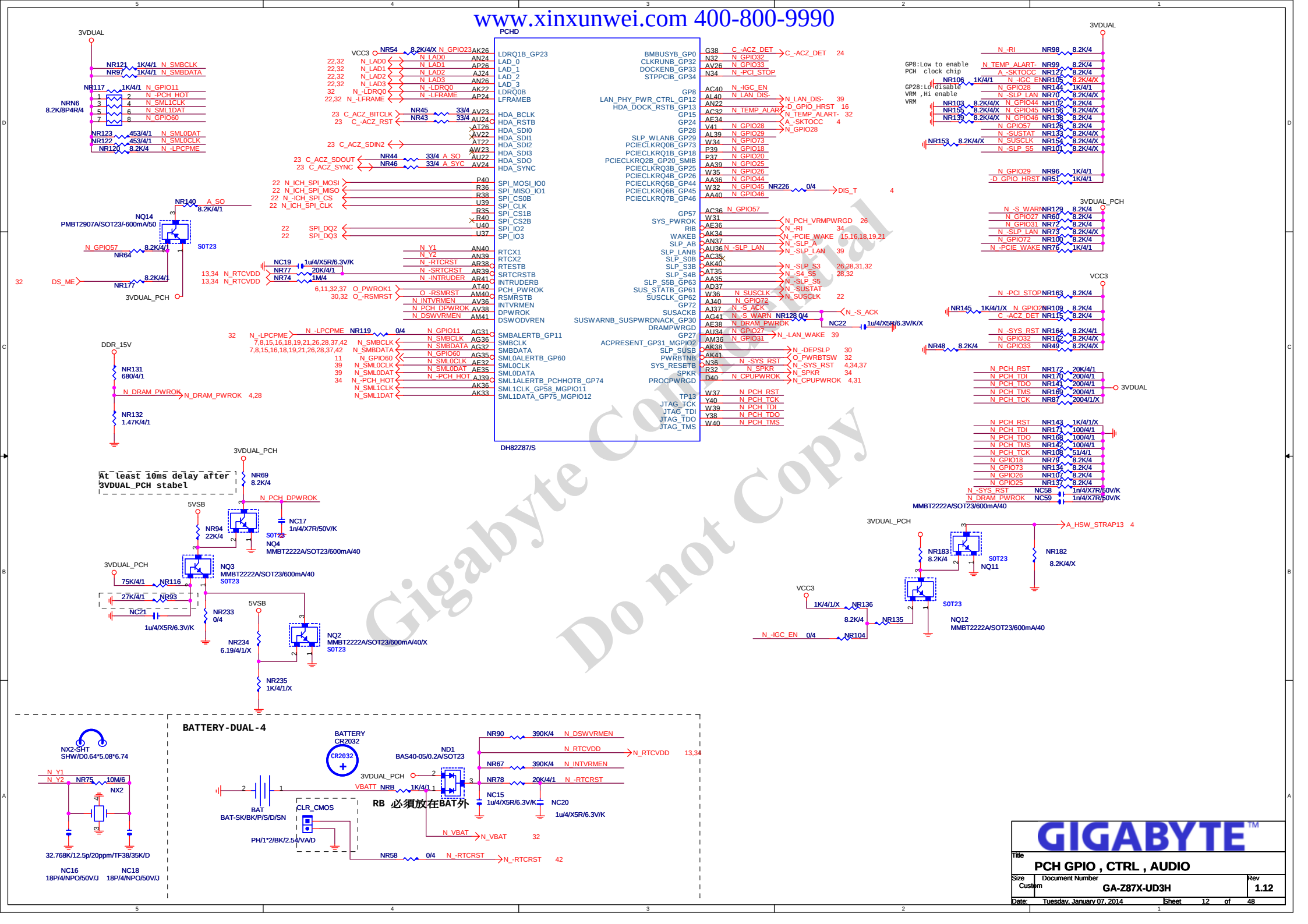

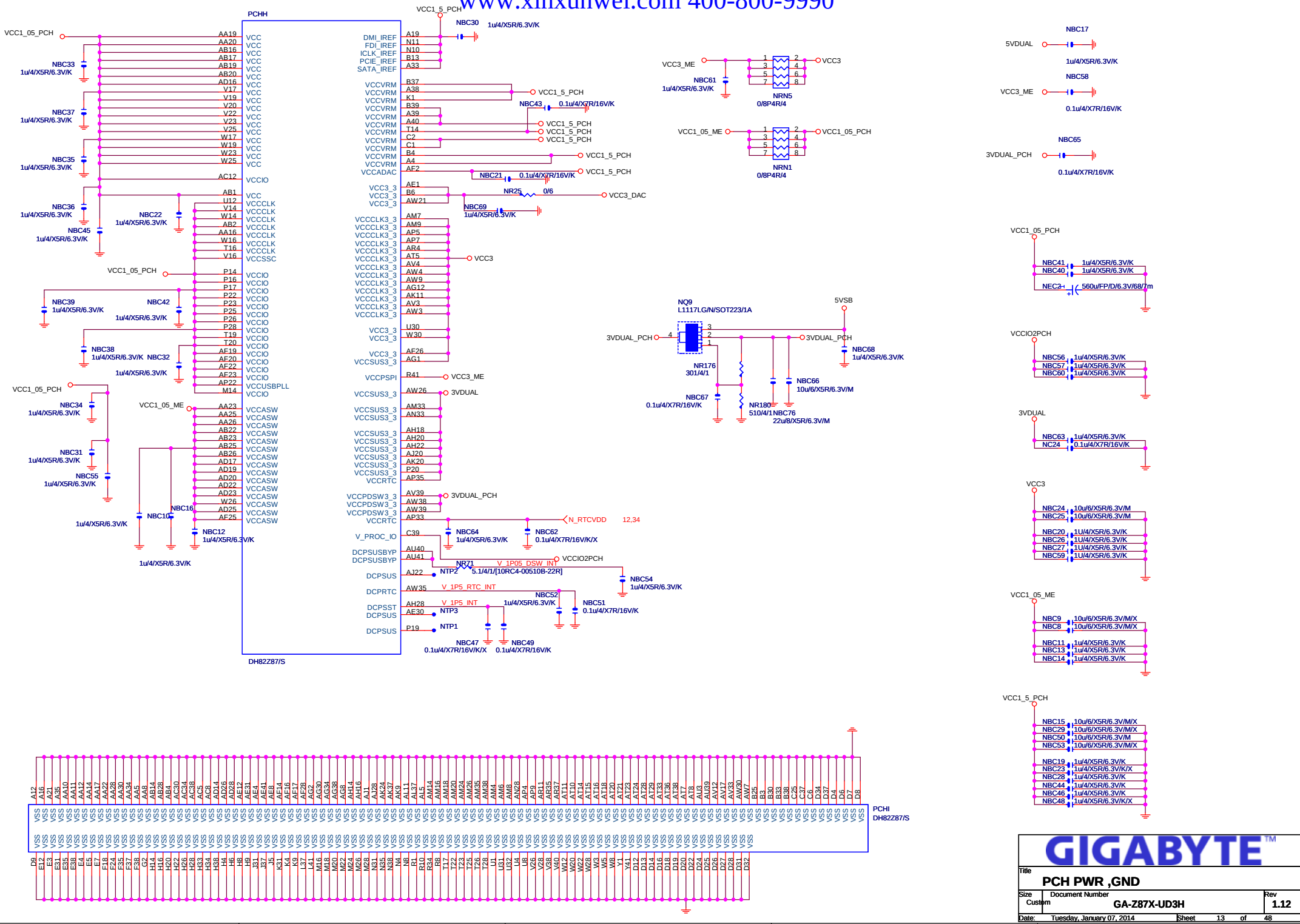

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Title	PCH PWR ,GND	
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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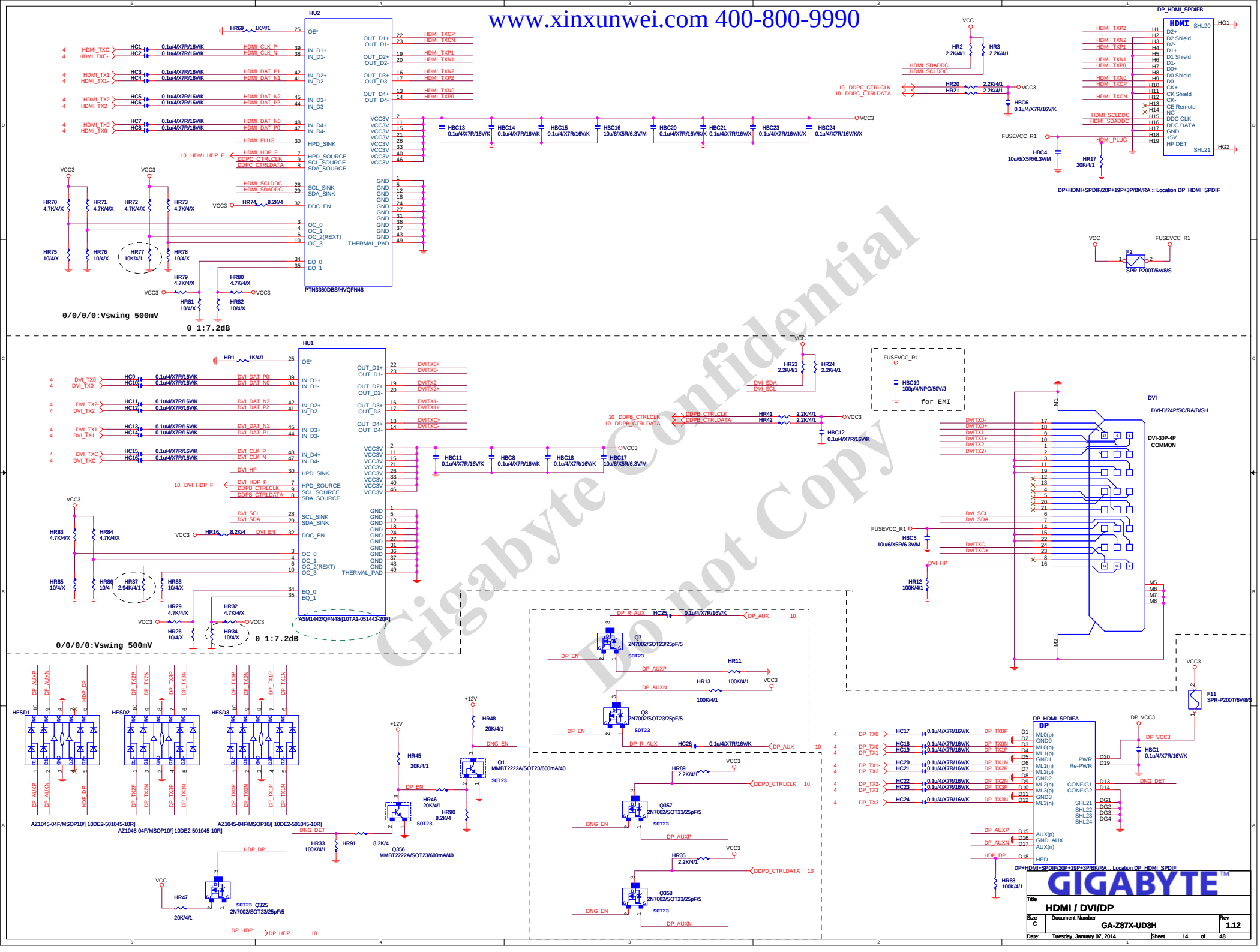

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Title	HDMI / DVI/DP	
Size C	Document Number GA-Z87X-UD3H	Rev 1.12
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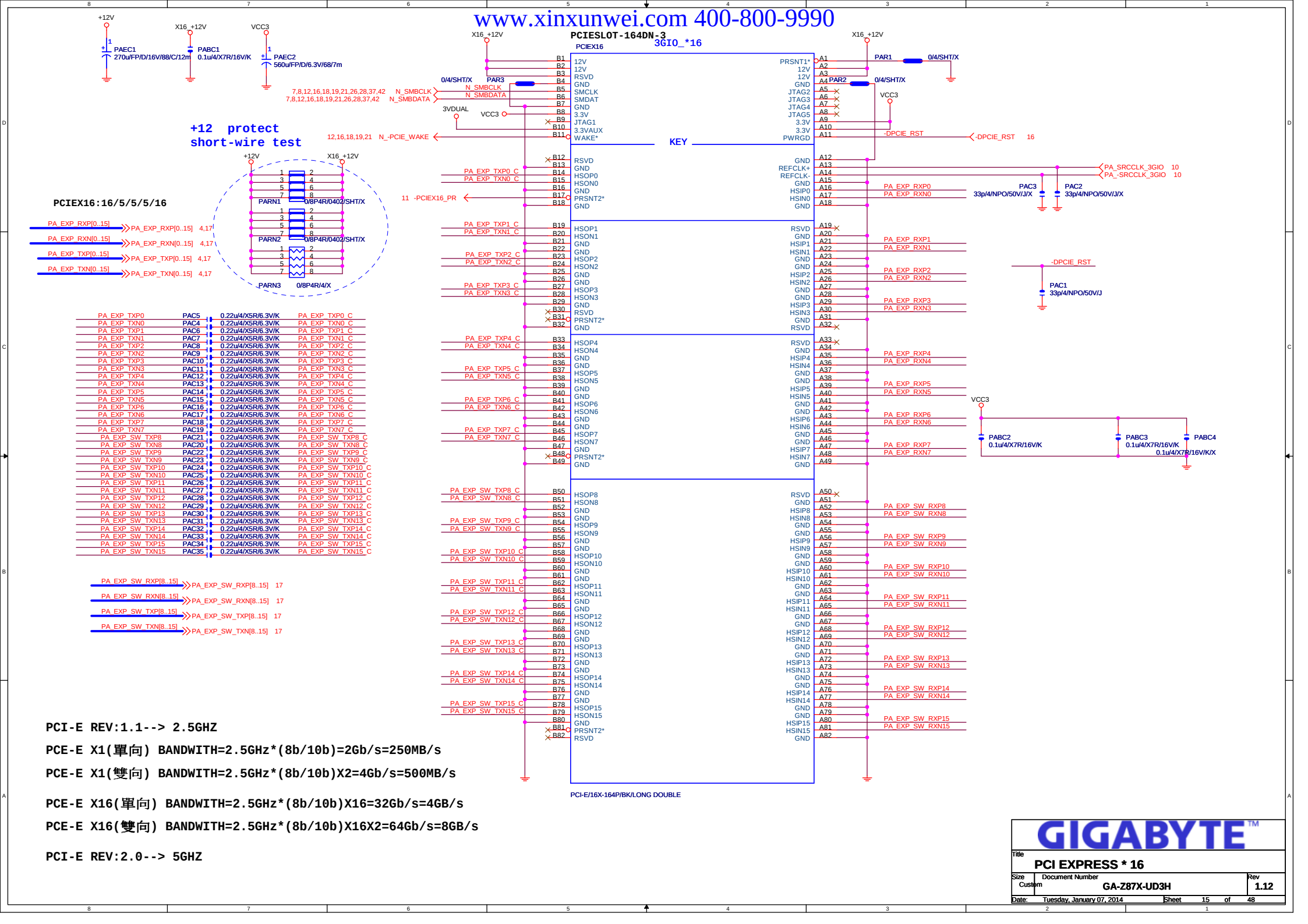

PCI-E REV:1.1--> 2.5GHZ

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

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

PCE-E X16(單向) BANDWITH=2.5GHz*(8b/10b)X16=32Gb/s=4GB/s

PCE-E X16(雙向) BANDWITH=2.5GHz*(8b/10b)X16X2=64Gb/s=8GB/s

PCI-E REV:2.0--> 5GHZ

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Title	PCI EXPRESS * 16	
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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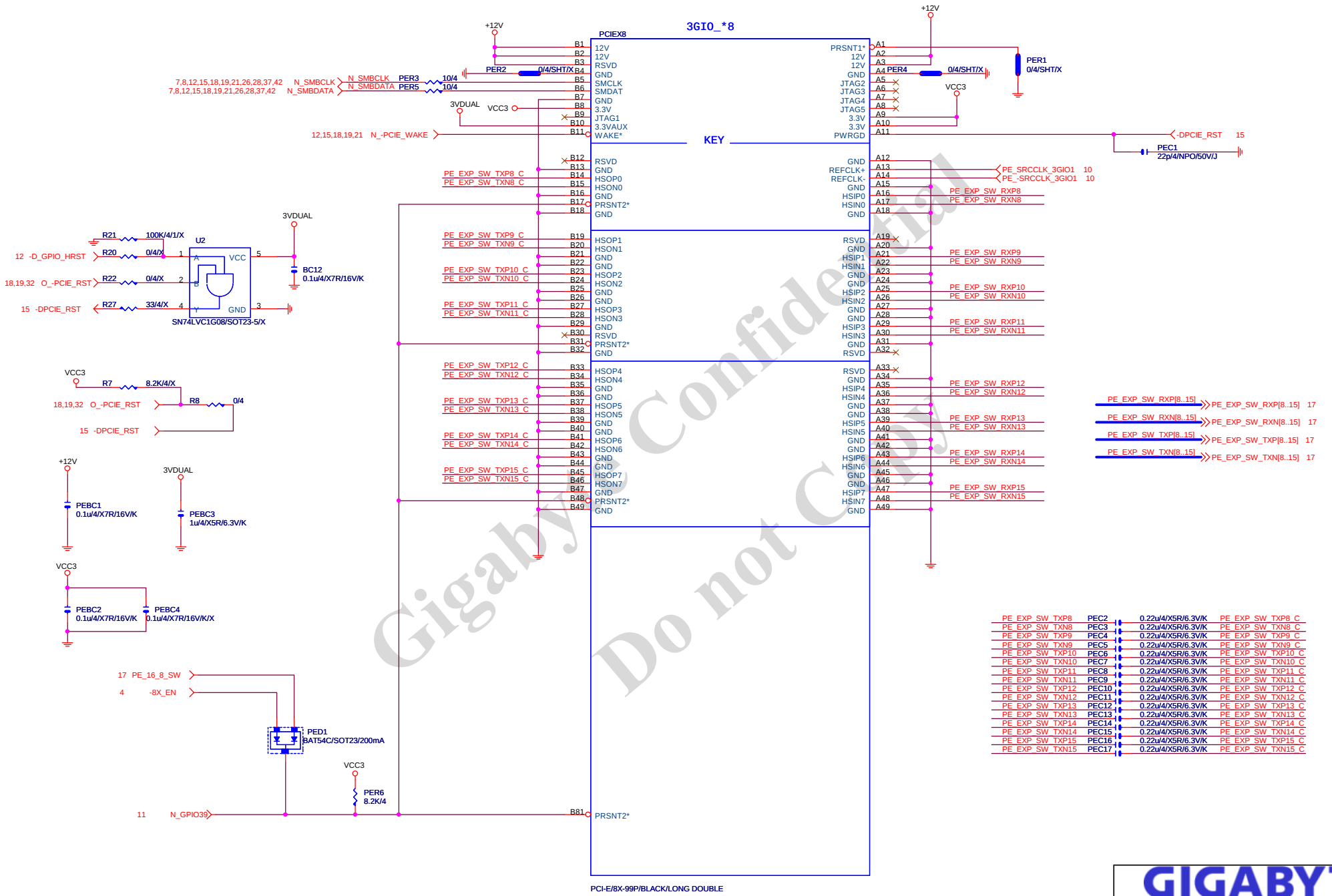

PE_EXP_SW_TXP8	PEC2	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXP8_C
PE_EXP_SW_TXN8	PEC3	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXN8_C
PE_EXP_SW_TXP9	PEC4	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXP9_C
PE_EXP_SW_TXN9	PEC5	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXN9_C
PE_EXP_SW_TXP10	PEC6	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXP10_C
PE_EXP_SW_TXN10	PEC7	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXN10_C
PE_EXP_SW_TXP11	PEC8	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXP11_C
PE_EXP_SW_TXN11	PEC9	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXN11_C
PE_EXP_SW_TXP12	PEC10	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXP12_C
PE_EXP_SW_TXN12	PEC11	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXN12_C
PE_EXP_SW_TXP13	PEC12	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXP13_C
PE_EXP_SW_TXN13	PEC13	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXN13_C
PE_EXP_SW_TXP14	PEC14	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXP14_C
PE_EXP_SW_TXN14	PEC15	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXN14_C
PE_EXP_SW_TXP15	PEC16	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXP15_C
PE_EXP_SW_TXN15	PEC17	0.22u/4/X5R/6.3V/K	PE_EXP_SW_TXN15_C

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Title	PCI EXPRESS X 8	
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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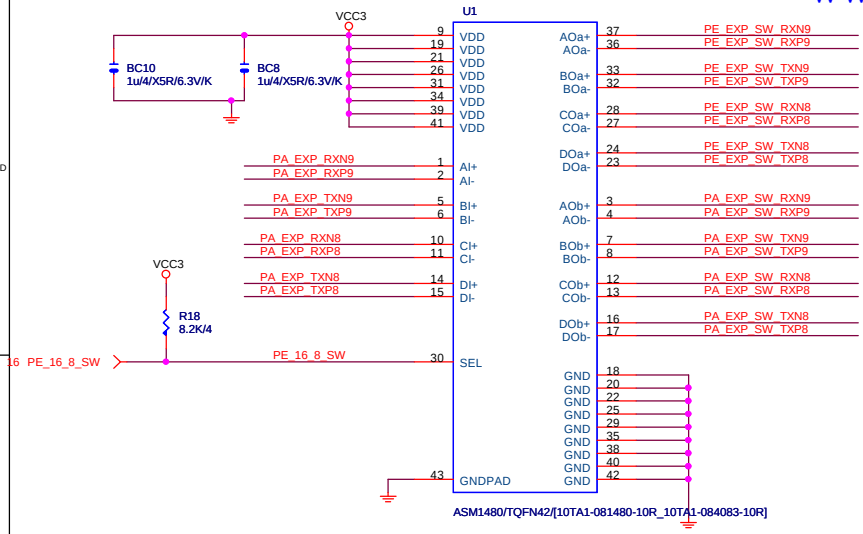
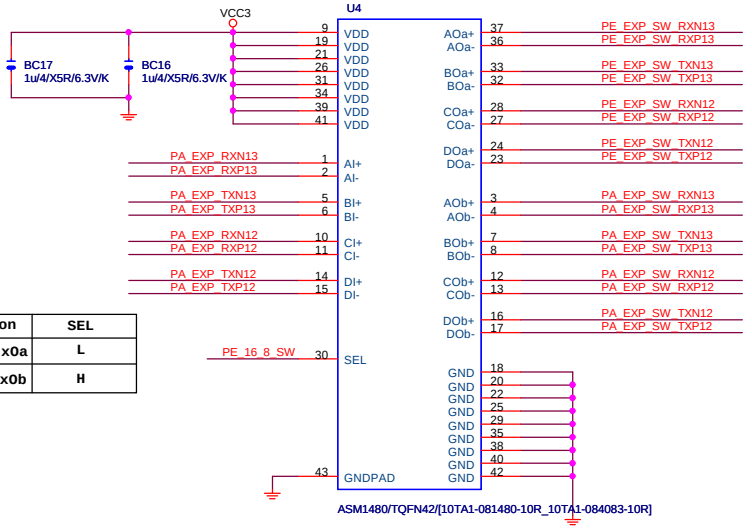
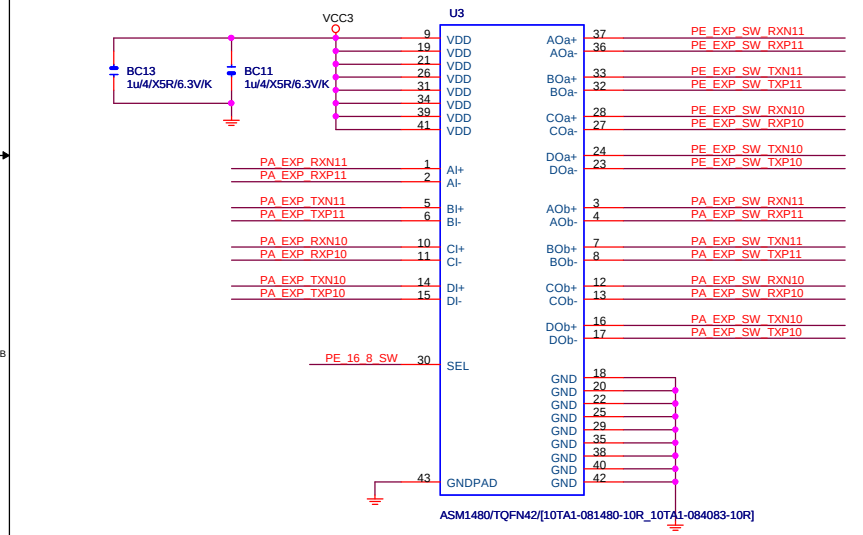
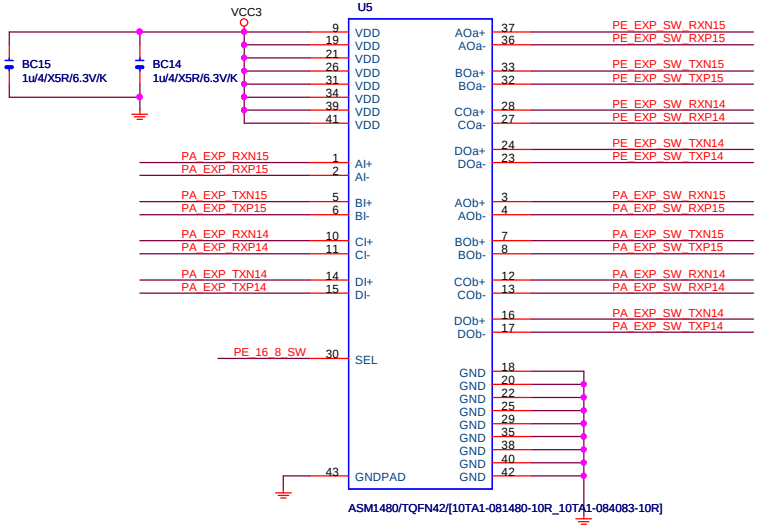




Function	SEL
xI--> x0a	L
xI--> x0b	H





PA_EXP_SW_RXP[8..15] >> PA_EXP_SW_RXP[8..15] 15
PA_EXP_SW_RXN[8..15] >> PA_EXP_SW_RXN[8..15] 15
PA_EXP_SW_TXP[8..15] >> PA_EXP_SW_TXP[8..15] 15
PA_EXP_SW_TXN[8..15] >> PA_EXP_SW_TXN[8..15] 15
PE_EXP_SW_RXP[8..15] >> PE_EXP_SW_RXP[8..15] 16
PE_EXP_SW_RXN[8..15] >> PE_EXP_SW_RXN[8..15] 16
PE_EXP_SW_TXP[8..15] >> PE_EXP_SW_TXP[8..15] 16
PE_EXP_SW_TXN[8..15] >> PE_EXP_SW_TXN[8..15] 16
PA_EXP_RXP[0..15] >> PA_EXP_RXP[0..15] 4,15
PA_EXP_RXN[0..15] >> PA_EXP_RXN[0..15] 4,15
PA_EXP_TXP[0..15] >> PA_EXP_TXP[0..15] 4,15
PA_EXP_TXN[0..15] >> PA_EXP_TXN[0..15] 4,15

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Title: PCI EXPRESS X16 SWITCH		
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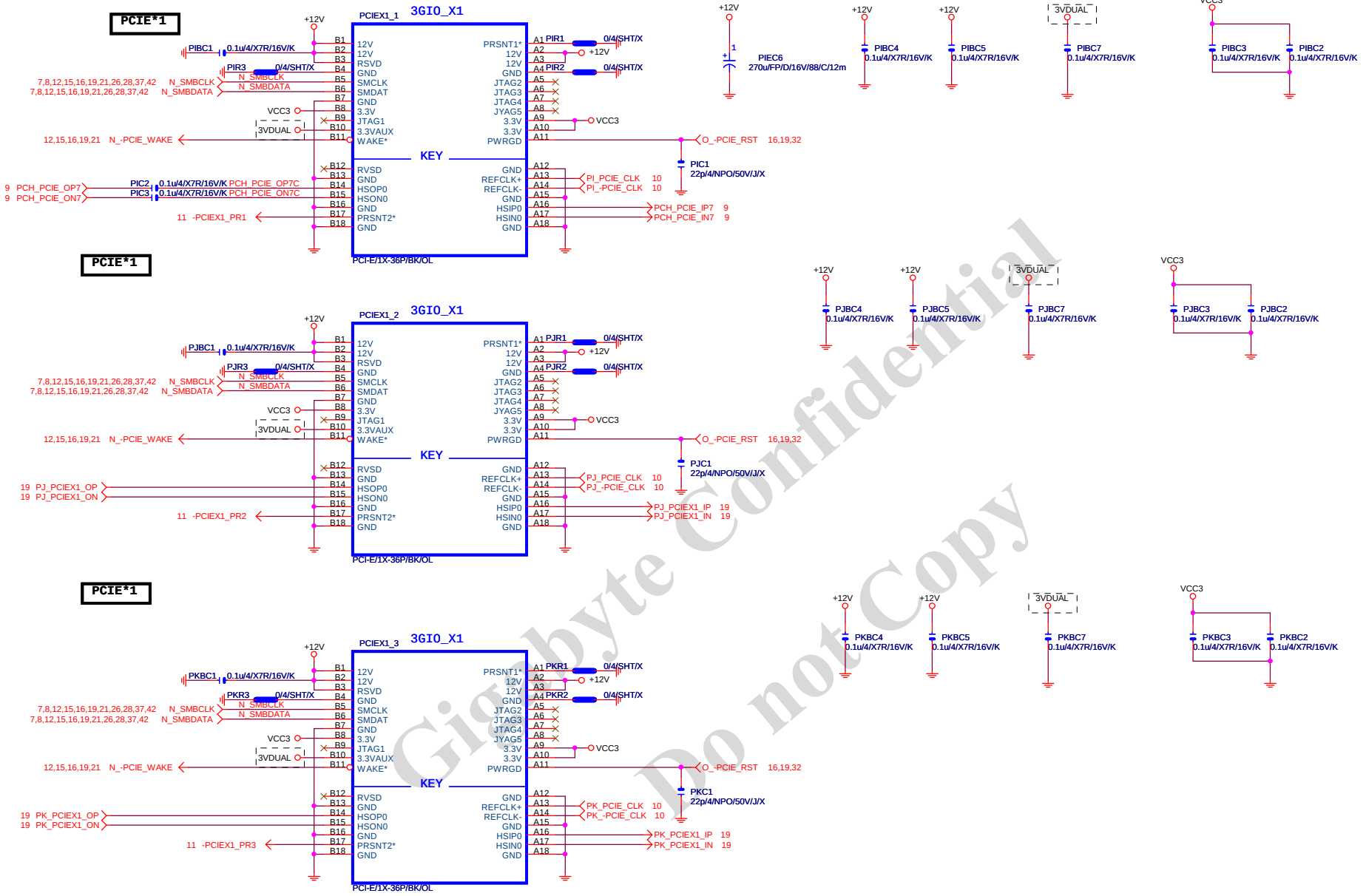

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Title	PCIE_X1 1,2,3	
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PCIE*4

3GIO_*4

PCIEX4

KEY

PCI-E/4X-65P/BK/LONG DOUBLE

通知BIOS DETECTED DEVICE

PPU1

ASM1440/TQFN42/[10TA1-081440-10R]

Function	SEL
xI--> xOa	L;PCIEX4 SLOT-->X1
xI--> xOb	H;PCIEX4 SLOT-->X4

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Title: PCIE_X4

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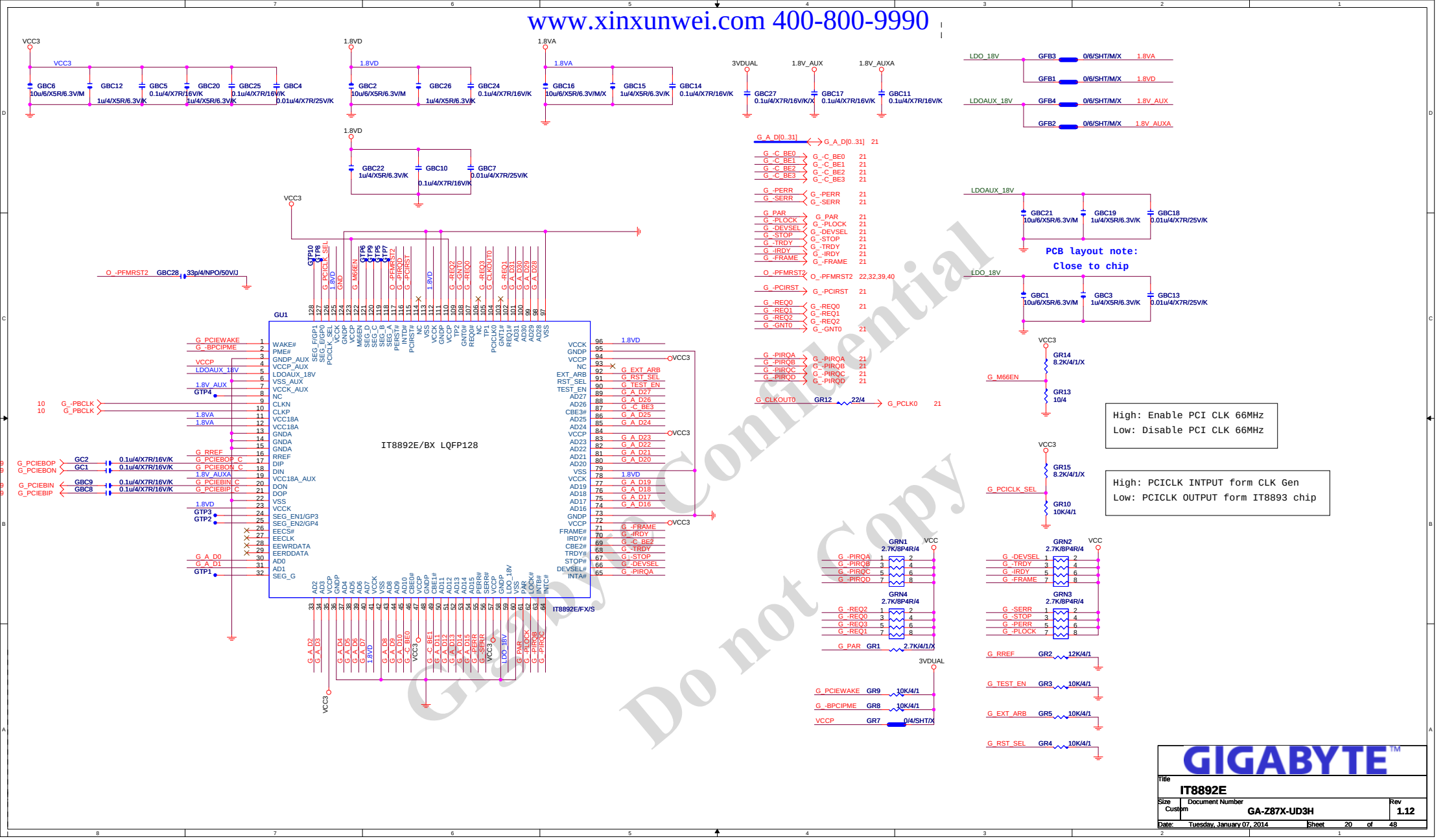

Title	IT8892E	
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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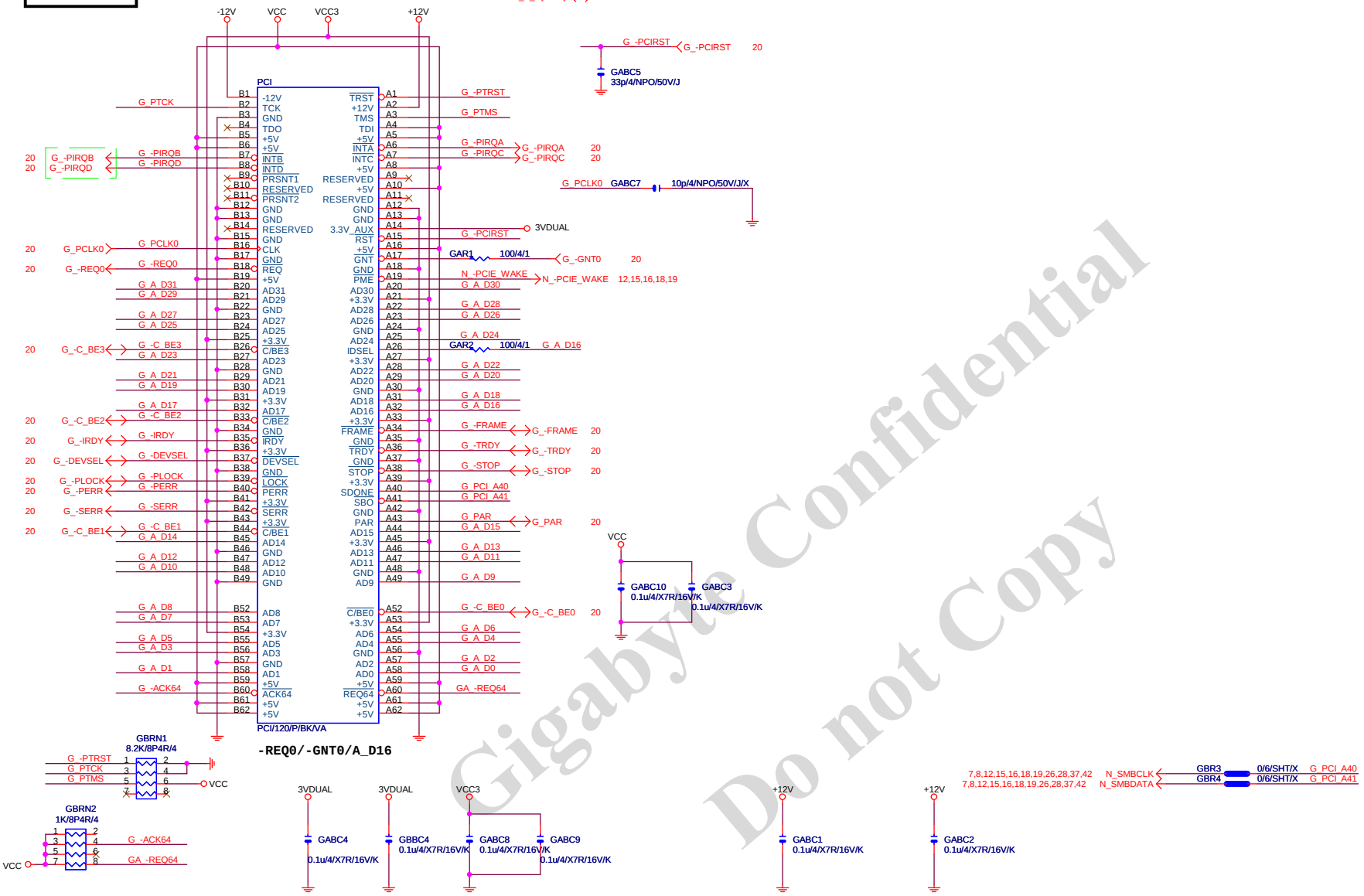
PCI SLOT 1



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Title: PCI SLOT 1		
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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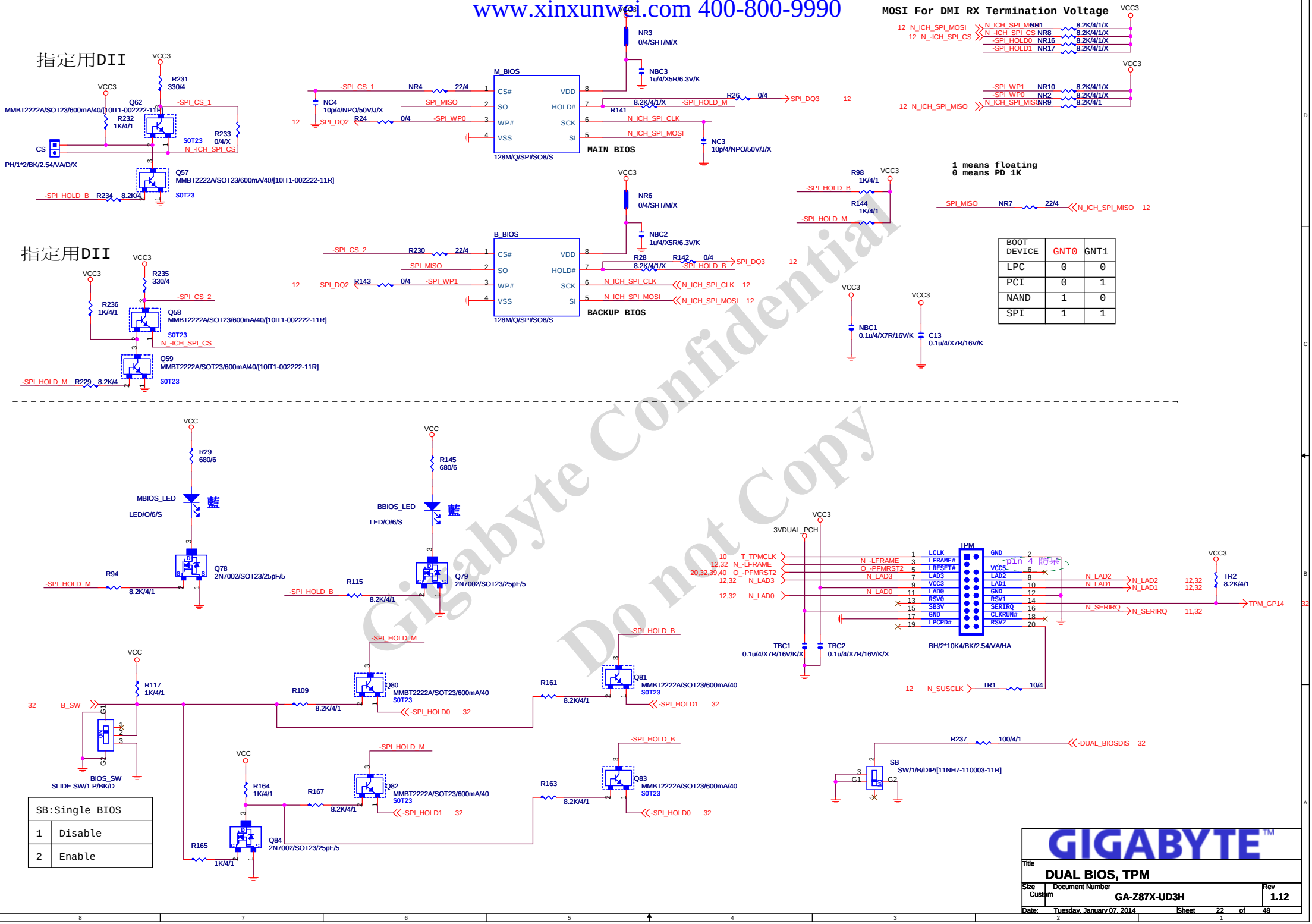

Title	DUAL BIOS, TPM
Size	Custom
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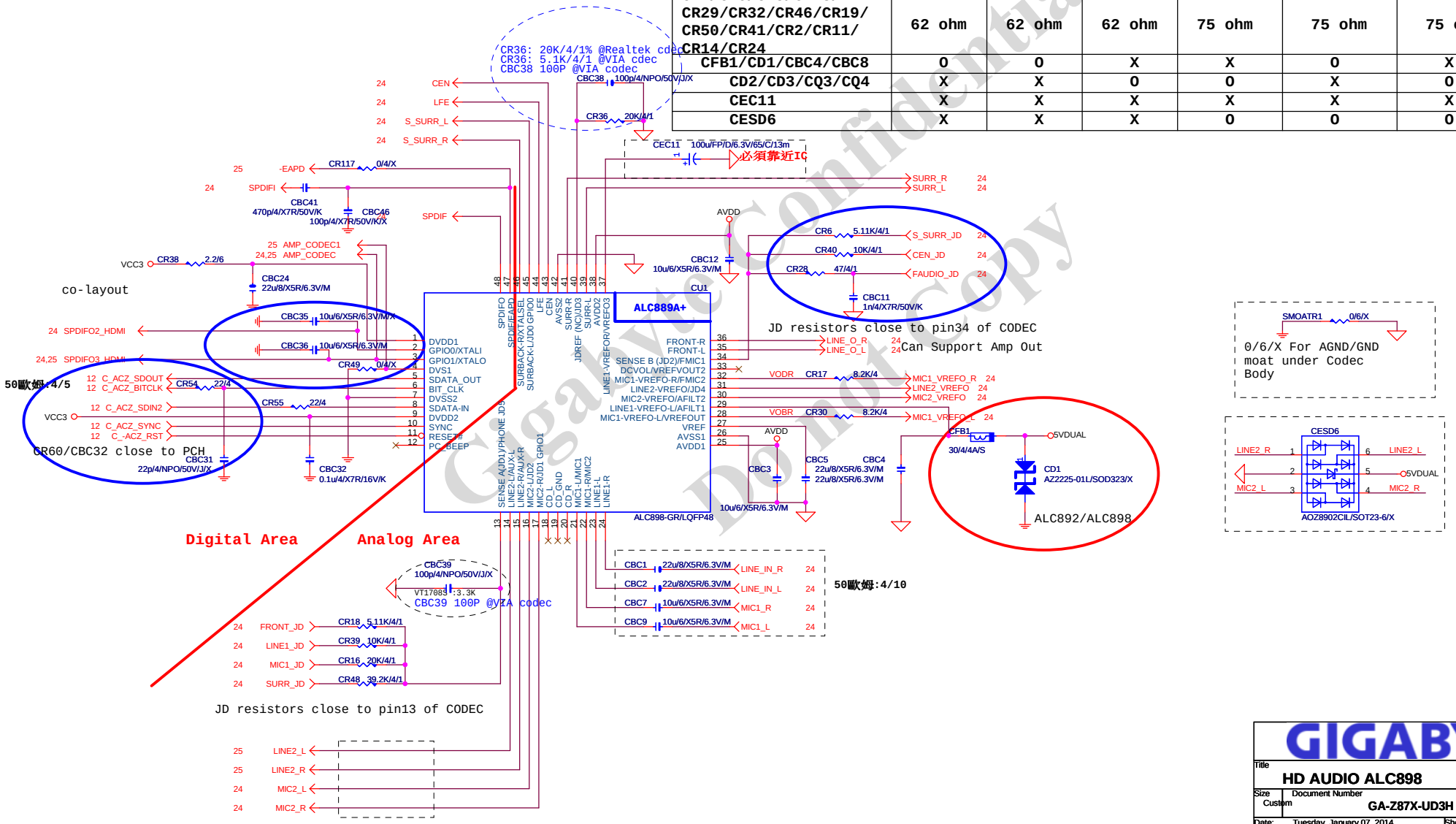
AZALIA CODEC : ALC662/ALC887-VD2/ALC889/VT1708S-CD/VT1708S-CE/VT2021 Colay

	ALC662	ALC887-VD2	ALC889	VT1708S-CD	VT1708S-CE	VT2021	ALC898/ALC892
CR49	X	X	0	0	X	0	X
CBC36	0	0	X	X	0	X	0
CR28/CBC11	47ohm+1nF	47ohm+1nF	47ohm+1nF	22ohm+100P	22ohm+100P	47ohm+1nF	47ohm+1nF
CR52	X	0	0	0	0	0	0
CR57	0	X	X	X	X	X	X
CBC1/CBC2	10uF/X5R	10uF/X5R	22uF/X5R	10uF/X5R	10uF/X5R	10uF/X5R	22uF/X5R
CR36	20K/4/1	20K/4/1	20K/4/1	5.1K/4/1	20K/4/1	5.1K/4/1	20K/4/1
CR17/CR30/ CR25/CR15/CR12/CR3/	8.2K/4	8.2K/4	8.2K/4	3.3K/4/1	3.3K/4/1	3.3K/4/1	8.2K/4
CBC38/CBC39	X	X	X	100P/4	100P/4	X	X
CR10/CR8/CR20/CR45/ CR42/CR51/CR27/CR26	22K/4	22K/4	22K/4	10K/4/1	10K/4/1	10K/4/1	22K/4
CR7/CR9/CR5/CR13/ CR29/CR32/CR46/CR19/ CR50/CR41/CR2/CR11/ CR14/CR24	62 ohm	62 ohm	62 ohm	75 ohm	75 ohm	75 ohm	62 ohm
CFB1/CD1/CBC4/CBC8	0	0	X	X	0	X	0
CD2/CD3/CQ3/CQ4	X	X	0	0	X	0	X
CEC11	X	X	X	X	X	X	0
CESD6	X	X	X	0	0	0	X



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Title: HD AUDIO ALC898

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CR23 2.2/4

CR44 0/6

Audio jack --> USB

MOATC1 0/4 → Near Audio jack left

MOATC2 0/4 → Codec --> Audio jack

MOATC3 0.1u/4/X7R/16V/K → F_AUDIO

CR4 0/6/SHT/X

VCC3

CR104 8.2K/4/X

CR105 374K/4/1/X

CR103 0/4

SPDIF_IN

PH/1*3/BK/2.54/VA/D

23 SPDIFI

5VDUAL

DP_HDMI_SPDIFC

FUSEVCC_R1

23 SPDIF

DP+HDMI+SPDIF/20P+19P+3P/BK/RA :: Location DP_HDMI_SPDIF

23,25 SPDIFO3_HDMI CR53 0/4/X

23 SPDIFO2_HDMI CR52 0/4

23 SPDIF CR57 0/4/X

SPDIFO_HDMI

CBC37 100p/4/NPO/50V/J

PIN

SPDIF_O PH/1*2/BK/2.54/VA/D

For HDMI SPDIF

AZALIA JACK

BTX AZALIA CONNECTOR

11NR6-403007-21R

AUDIOB

23 LINE1_JD LINE1_JD AJ_A5 AJ_A2

23 FRONT_JD FRONT_JD AJ_B5 AJ_B2

23 MIC1_JD MIC1_JD AJ_C5 AJ_C2

GND LINE-IN / LINE-OUT / MIC-IN

BLUE LINE-IN

GREEN LINE-OUT

PINK MIC-IN

2X3RP/26P/OR,BK,GY,BU,GE,PK/RA

AUDIOA

23 CEN_JD CEN_JD BJ_B5 BJ_B2

23 SURR_JD SURR_JD BJ_C5 BJ_C2

23 S_SURR_JD S_SURR_JD BJ_A5 BJ_A2

GND REAR / CEN / SIDE

Orange CEN/LFE

Black SURROUND

Gray SURROUND SIDE

2X3RP/26P/OR,BK,GY,BU,GE,PK/RA

LINE-OUT

CEC2 100u/FP/D/6.3V/65/C/13m CR7 62/4

23 LINE_O_R → AJ_B5

CEC3 100u/FP/D/6.3V/65/C/13m CR9 62/4

23 LINE_O_L → AJ_B2

CR10 22K/4 CR8 22K/4

CBC23 180p/4/NPO/50V/J CBC26 180p/4/NPO/50V/J

LINE-IN

23 LINE_IN_R CR5 62/4 AJ_A5

23 LINE_IN_L CR13 62/4 AJ_A2

CBC18 180p/4/NPO/50V/J CBC27 180p/4/NPO/50V/J

MIC-IN

23 MIC1_R CR29 62/4 AJ_C5

23 MIC1_L CR32 62/4 AJ_C2

23 MIC1_VREFO_L

23 MIC1_VREFO_R

CBC19 180p/4/NPO/50V/J CBC22 180p/4/NPO/50V/J

SURROUND

EMI

CEC5 100u/FP/D/6.3V/65/C/13m CR46 62/4

23 SURR_R → BJ_C5

CEC7 100u/FP/D/6.3V/65/C/13m CR19 62/4

23 SURR_L → BJ_C2

CR20 22K/4 CR45 22K/4

CBC29 180p/4/NPO/50V/J CBC28 180p/4/NPO/50V/J

CEN/LFE

EMI

CEC9 100u/FP/D/6.3V/65/C/13m CR50 62/4

23 LFE → BJ_B5

CEC10 100u/FP/D/6.3V/65/C/13m CR41 62/4

23 CEN → BJ_B2

CR42 22K/4 CR51 22K/4

CBC25 180p/4/NPO/50V/J CBC34 180p/4/NPO/50V/J

SURR BACK

EMI

CEC8 100u/FP/D/6.3V/65/C/13m CR21 62/4

23 S_SURR_R → BJ_A5

CEC4 100u/FP/D/6.3V/65/C/13m CR47 62/4

23 S_SURR_L → BJ_A2

CR43 22K/4 CR22 22K/4

CBC33 180p/4/NPO/50V/J CBC30 180p/4/NPO/50V/J

AZALIA FRONT PANEL

CQ2 BAT54A/SOT23/200mA

23 LINE2_VREFO

CQ1 BAT54A/SOT23/200mA

23 MIC2_VREFO

SOT23

CR25 8.2K/4/1/X CR15 8.2K/4/1/X

CR12 8.2K/4/1 CR3 8.2K/4/1

EMI

23 MIC2_L CBC20 10u/6/X5R/6.3V/M CR2 62/4 M2_L

23 MIC2_R CBC15 10u/6/X5R/6.3V/M CR11 62/4 M2_R

25 LINE2_OUT_R CR33 62/4 L2-R

23 FAUDIO_JD

25 LINE2_OUT_L CR34 62/4 L2-L

CR1 0/4/X

CBC10 180p/4/NPO/50V/J CBC16 180p/4/NPO/50V/J

CR27 22K/4 CR26 22K/4

F_AUDIO

Digital Area

3VDUAL

CR56 8.2K/4/X

C_-ACZ_DET 12

CR35 20K/4/1 CR31 39.2K/4/1

BH/2*5K8/BK/2.54/VA/AUDIO/PRT/TUR180/11NH3-001205-31RI

CBC17 180p/4/NPO/50V/J CBC6 180p/4/NPO/50V/J

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Title: AUDIO JACK

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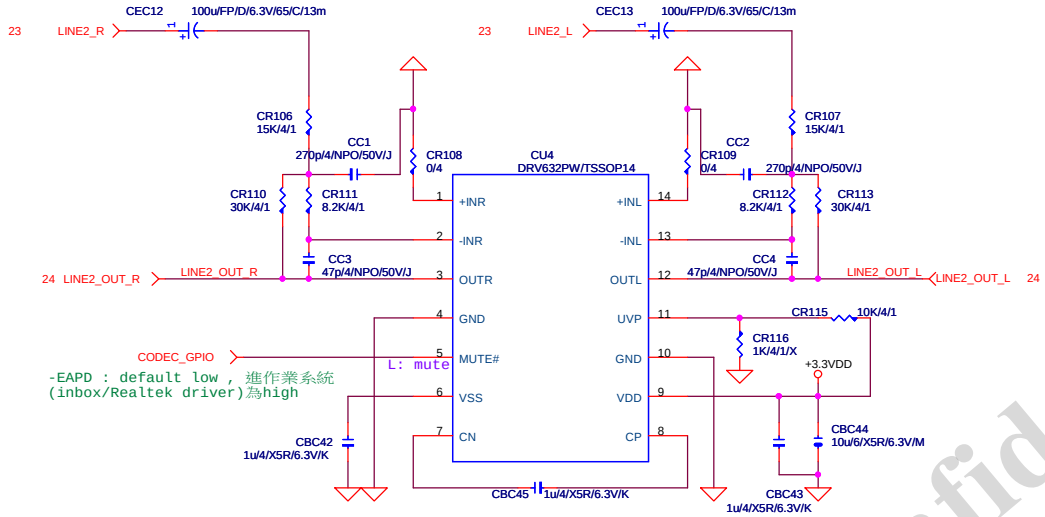
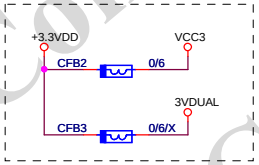
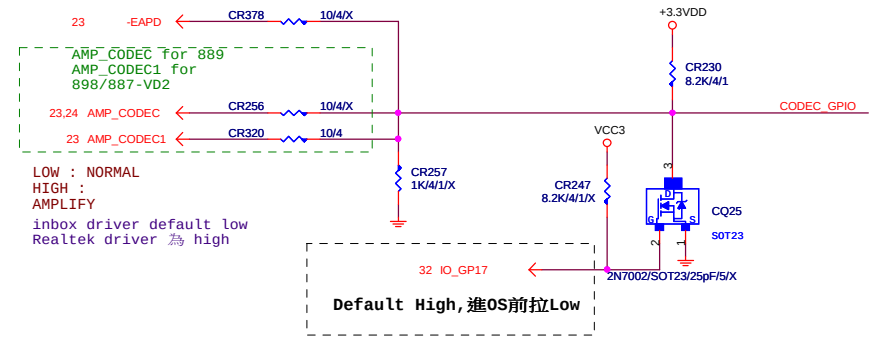
HEADPHONE





HEADPHONE



Title: Audio Amplifier		
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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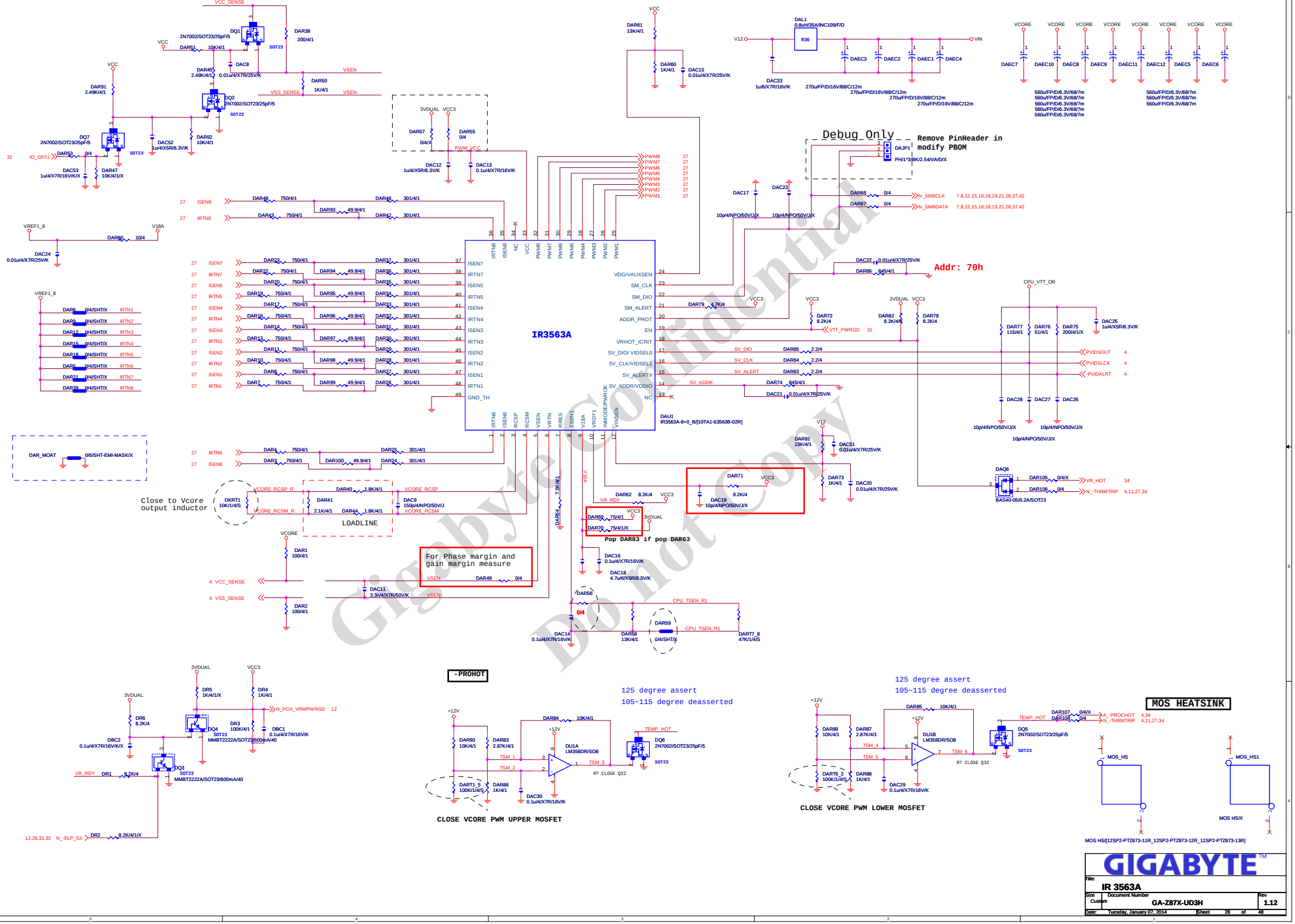

Title	IR 3563A
Size	Custom
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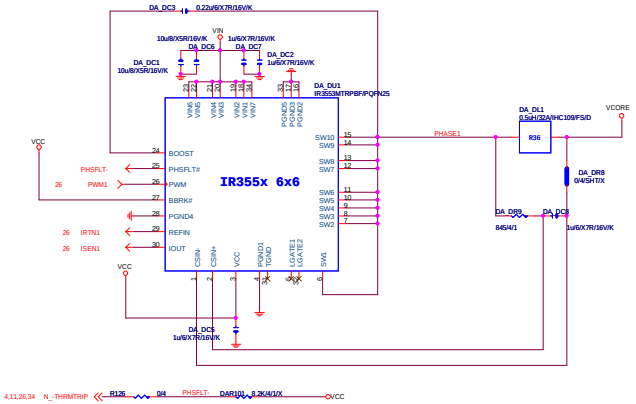
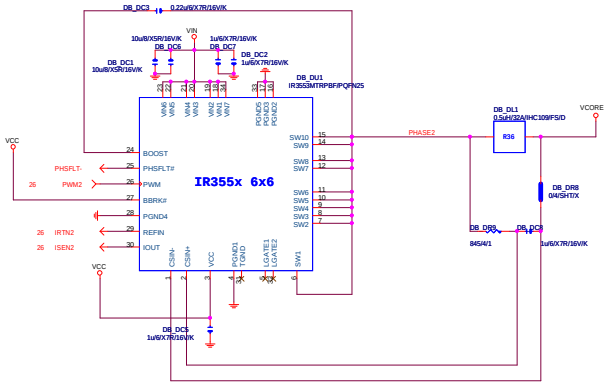
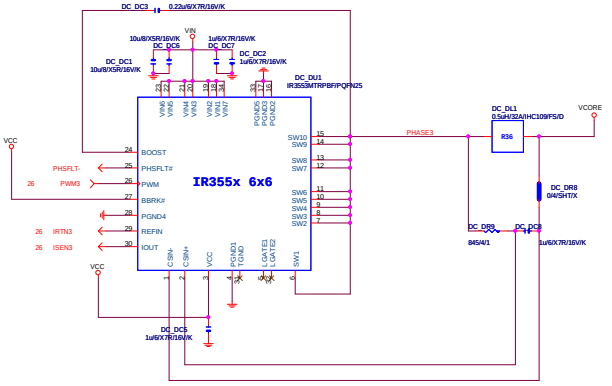
VCORE-PHASE1



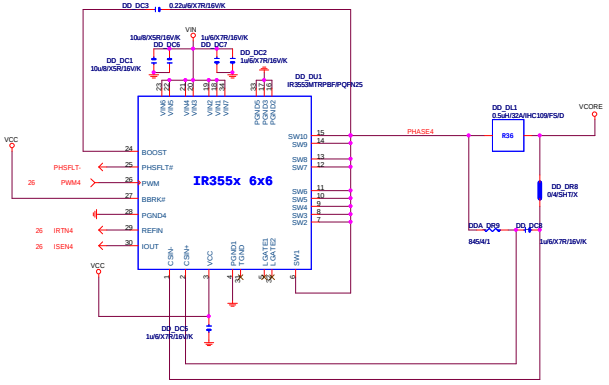
VCORE-PHASE2



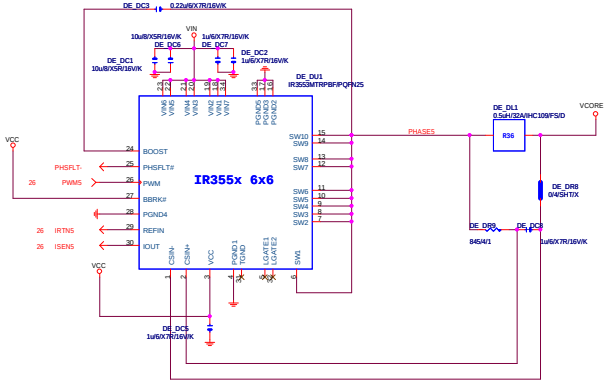
VCORE-PHASE3



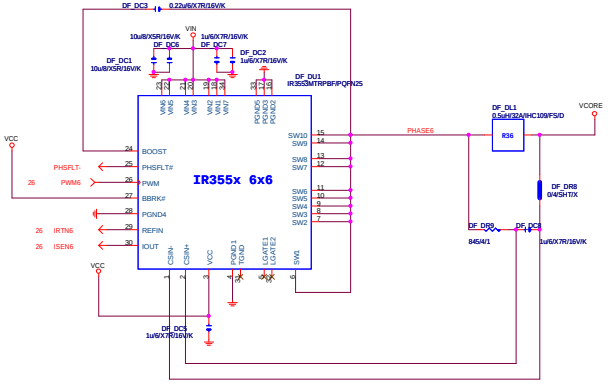
VCORE-PHASE4



VCORE-PHASE5



VCORE-PHASE6



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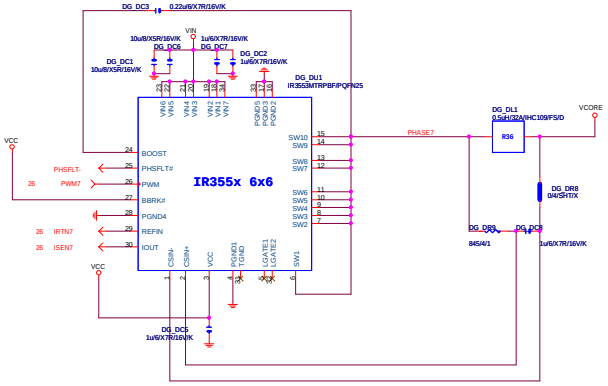
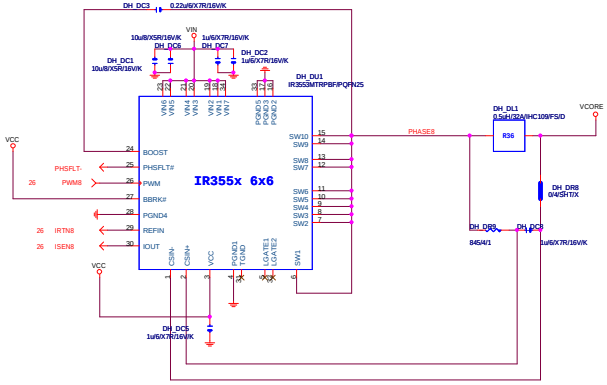


VCORE-PHASE8



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Title	CPU CORE VR	
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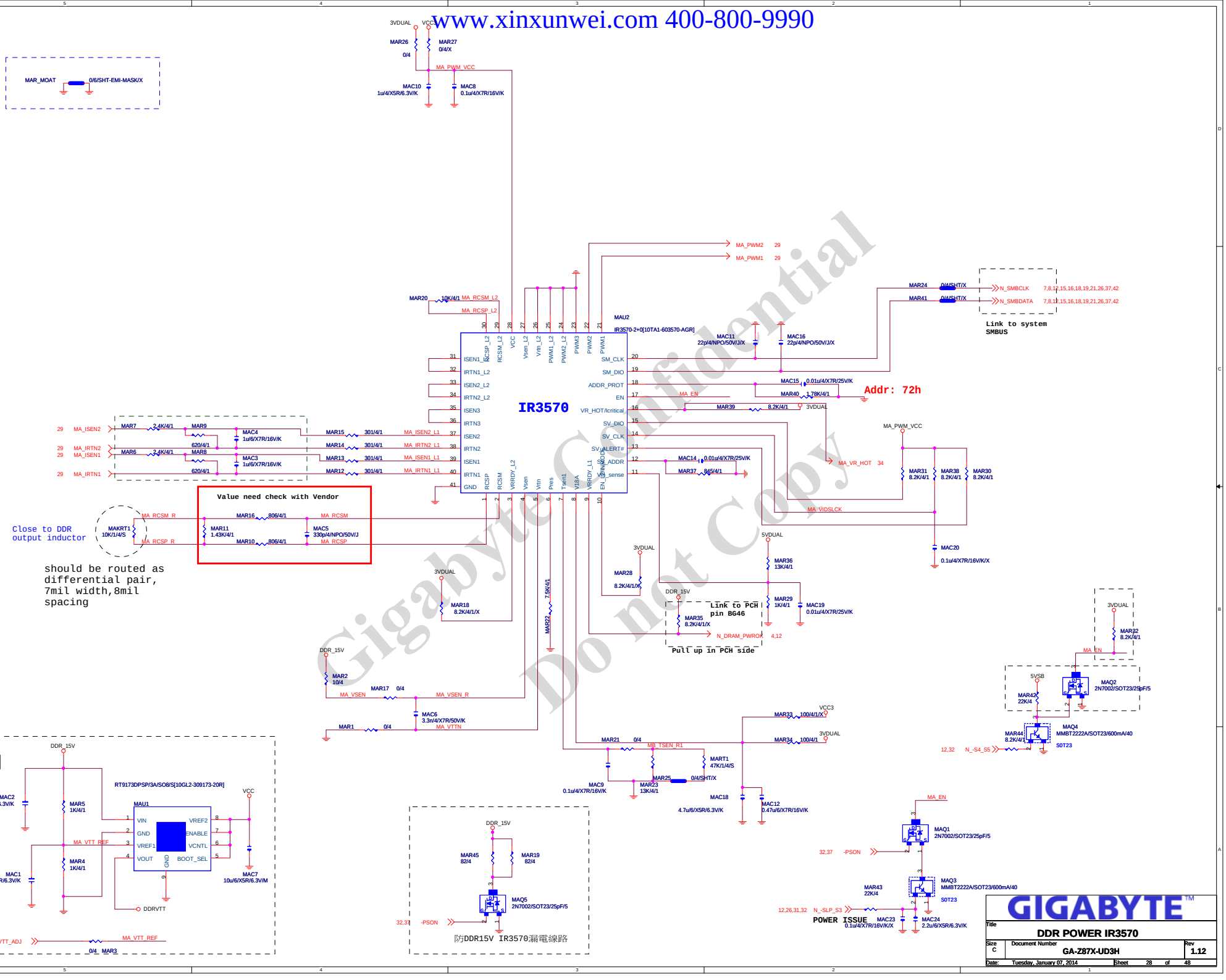

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Title	DDR POWER IR3570	
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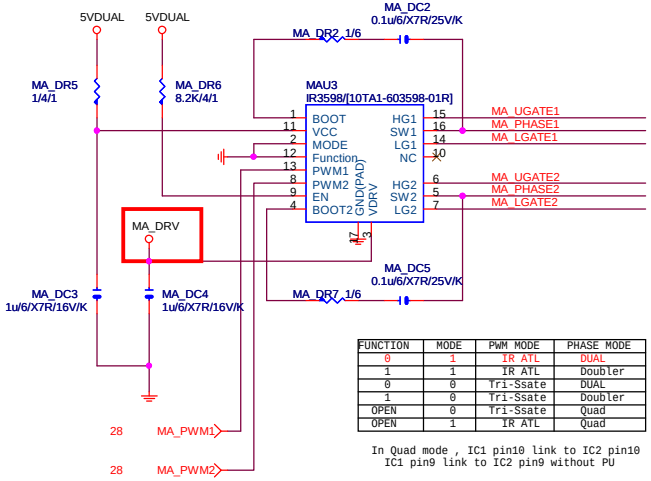
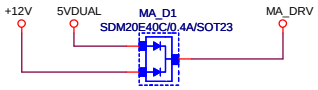
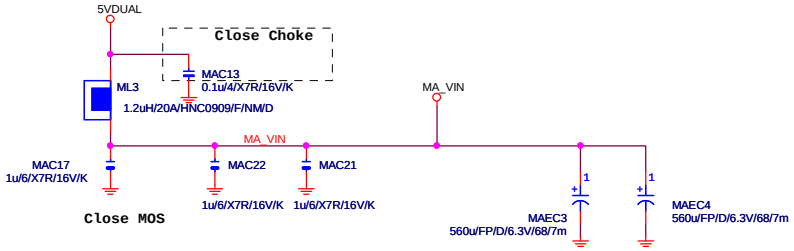
DDR_15V

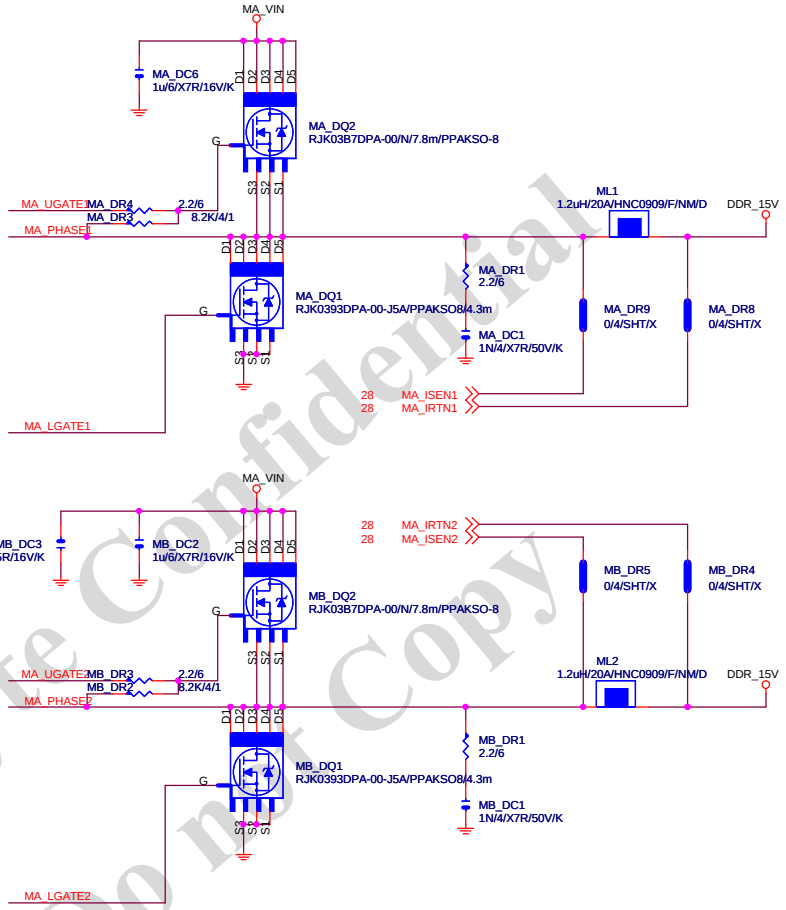


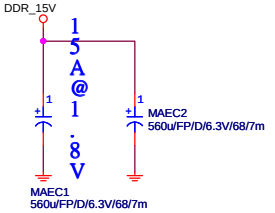
FUNCTION	MODE	PWM MODE	PHASE MODE
0	1	IR ATL	DUAL
1	1	IR ATL	Doubler
0	0	Tri-Ssate	DUAL
1	0	Tri-Ssate	Doubler
OPEN	0	Tri-Ssate	Quad
OPEN	1	IR ATL	Quad

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









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Title	IR3570	
Size: Custom	Document Number: GA-Z87X-UD3H	Rev: 1.12
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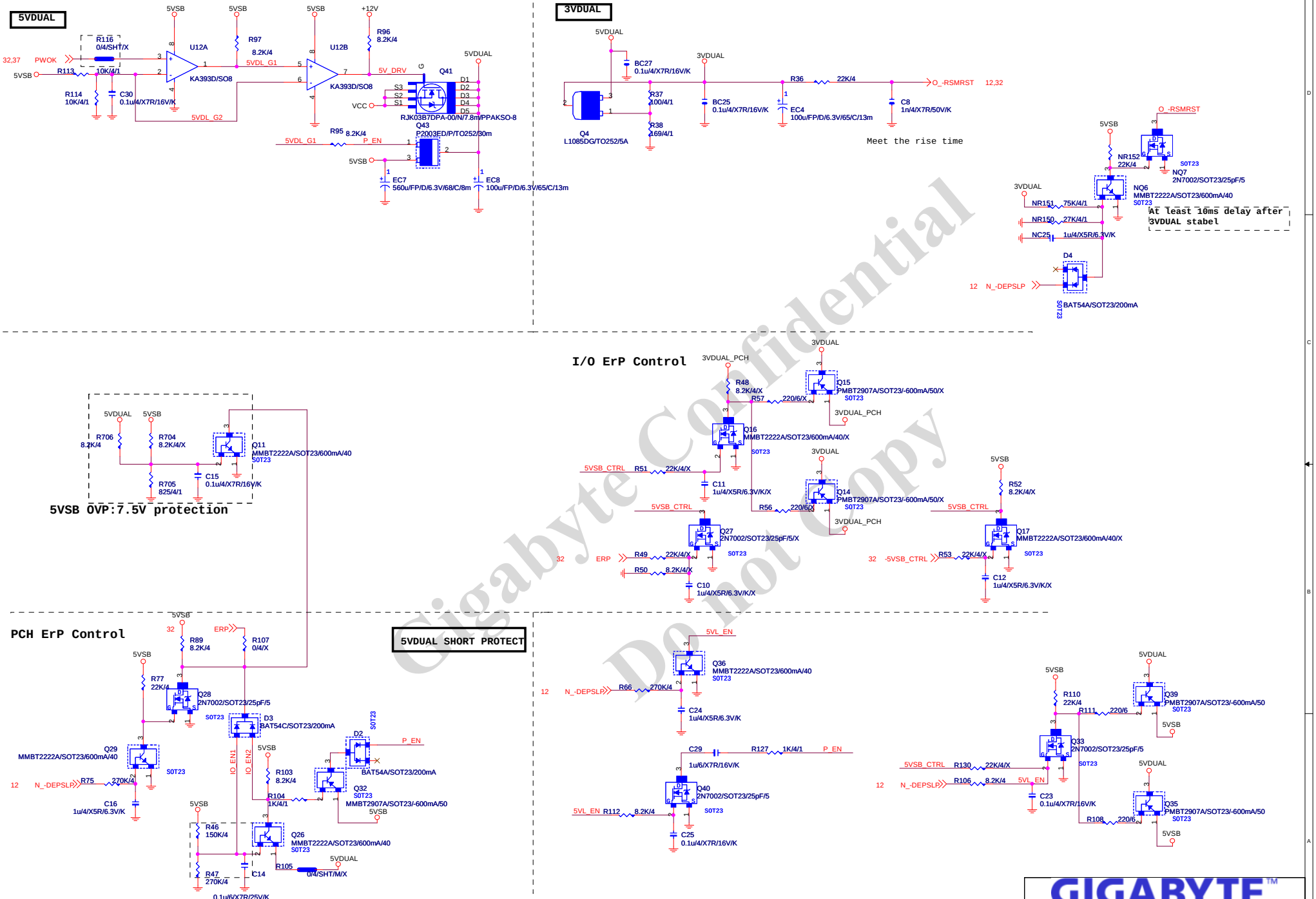

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Title: 5VDUAL, 3VDAUL, ERP		
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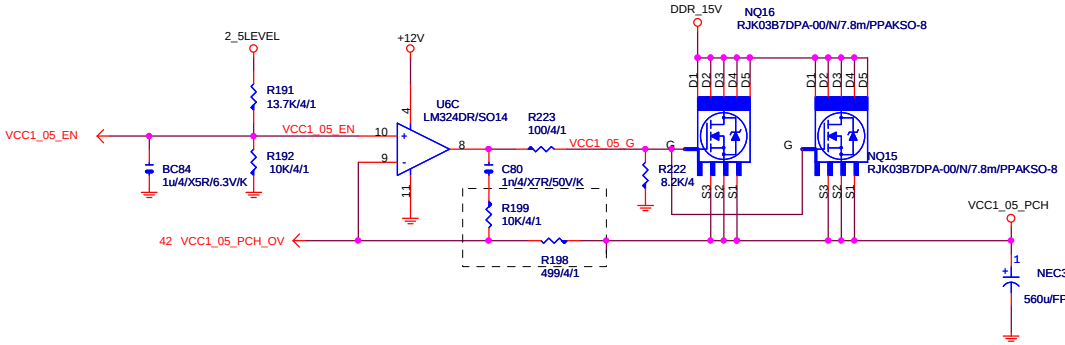
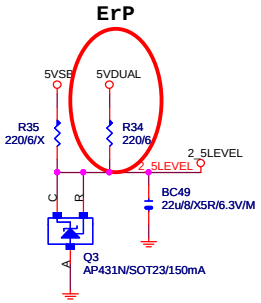
VCC1_05_PCH





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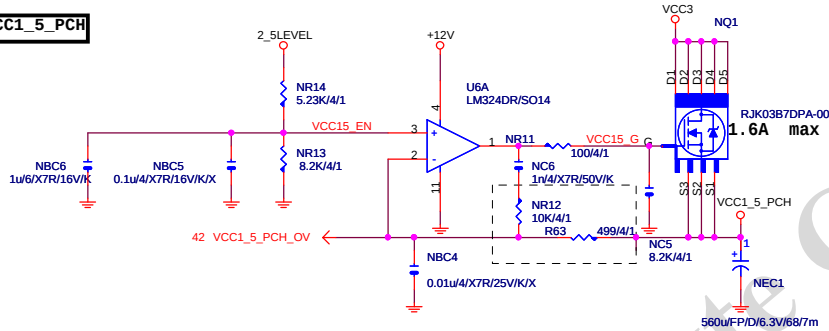


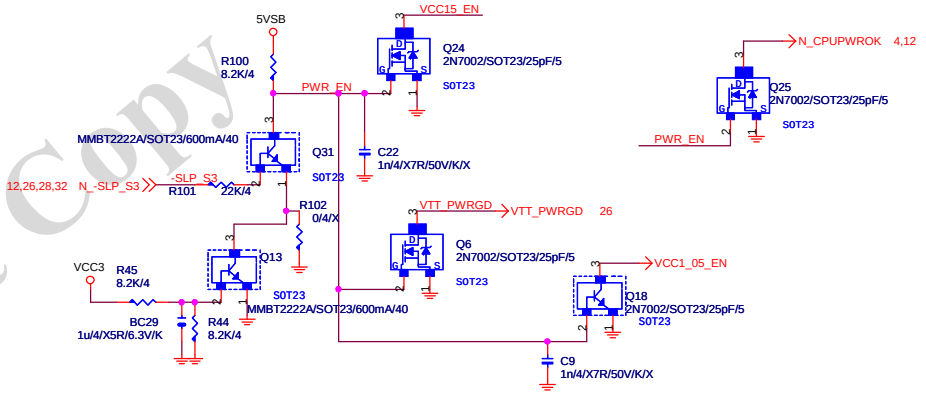
Rise/Fall max 50us

Rise:20% - 80%

Fall :2V- 0.8V

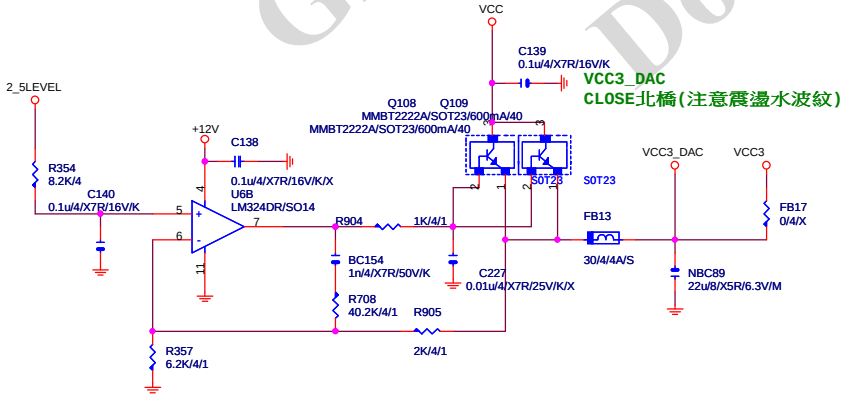
At least 10ms delay after 3VDUAL ready

Pop when PCH & SIO both use 3VDUAL-PCH



VCC3_DAC

(3.3V/70mA+360uA)



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Title: VCC 1.05 PCH, VCC1.5 PCH, CC3 DAC

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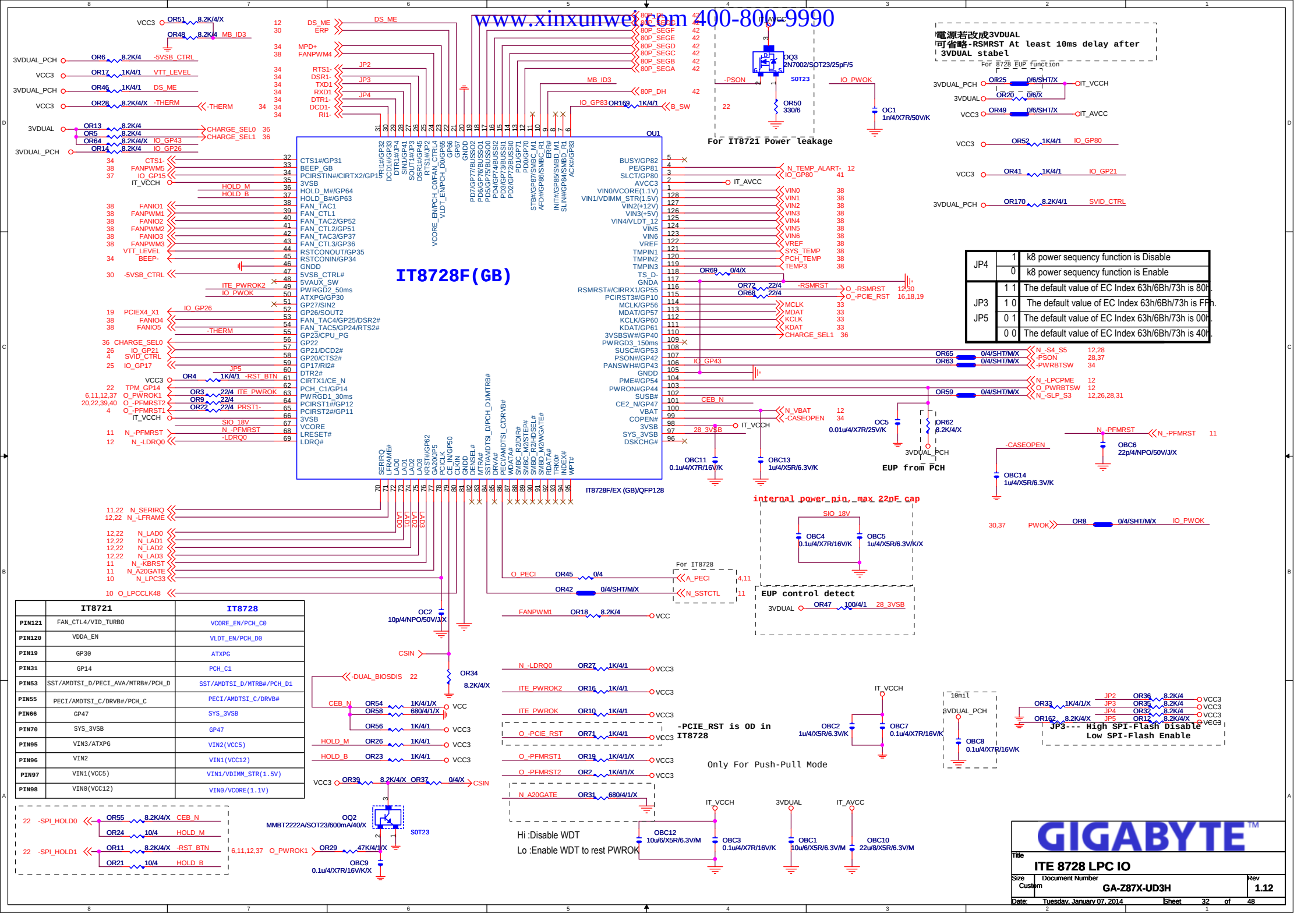

JP4	1	k8 power sequency function is Disable
	0	k8 power sequency function is Enable
JP3 JP5	1 1	The default value of EC Index 63h/6Bh/73h is 80h.
	1 0	The default value of EC Index 63h/6Bh/73h is FFh.
	0 1	The default value of EC Index 63h/6Bh/73h is 00h.
	0 0	The default value of EC Index 63h/6Bh/73h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

Title	ITE 8728 LPC IO
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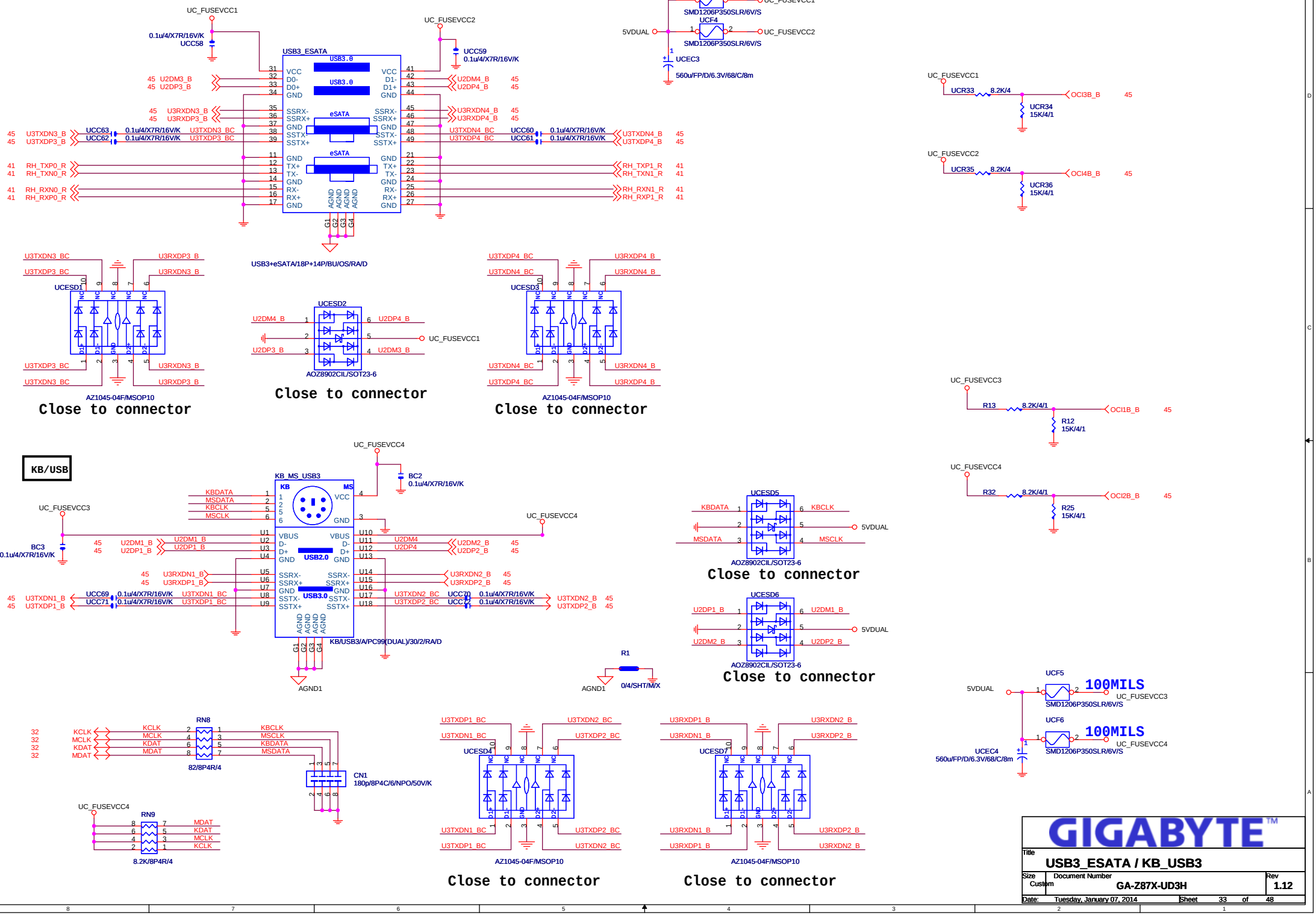

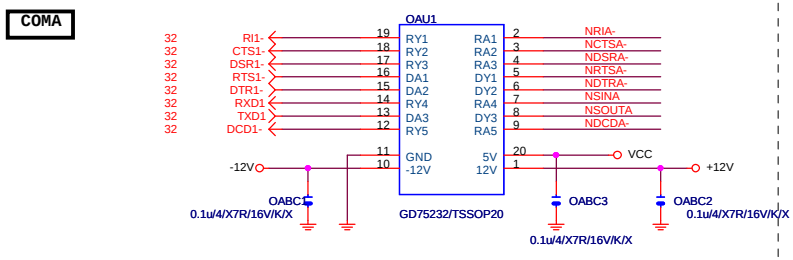

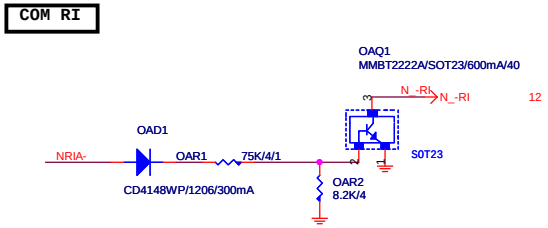

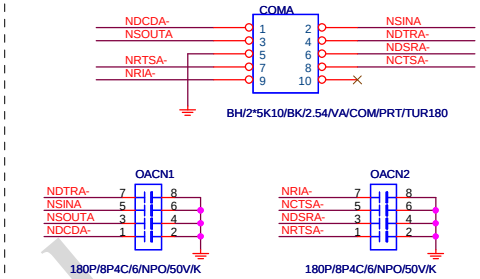

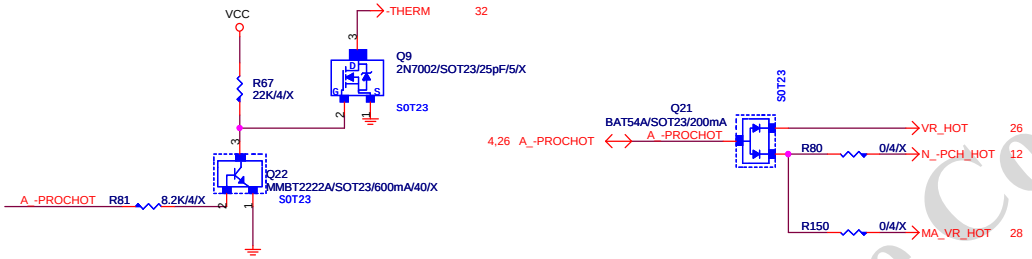

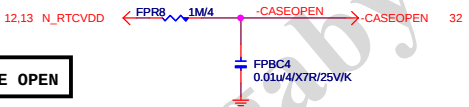

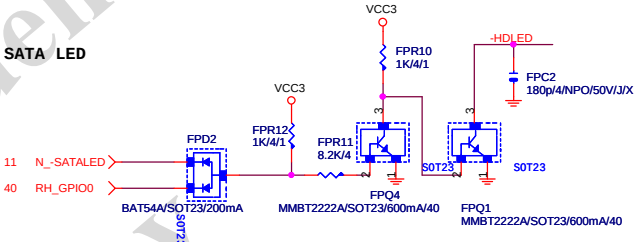

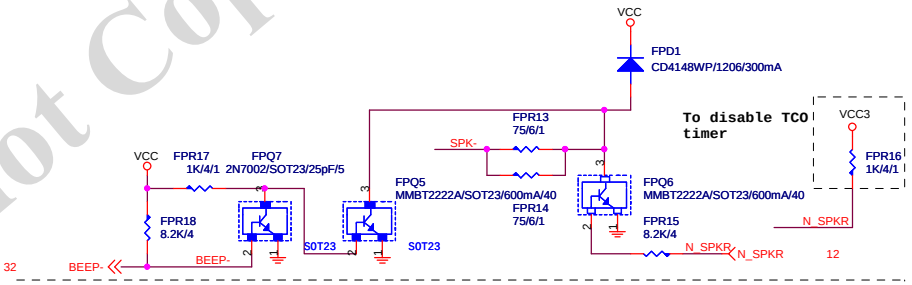

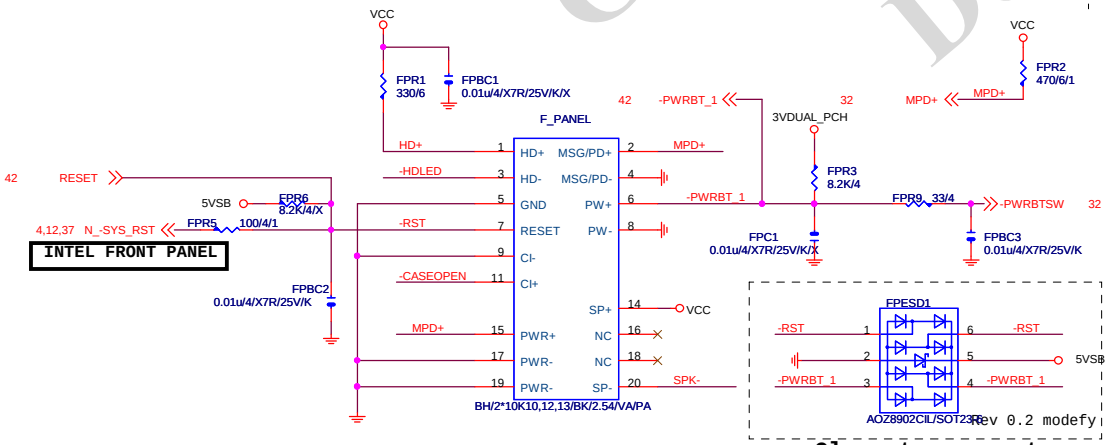

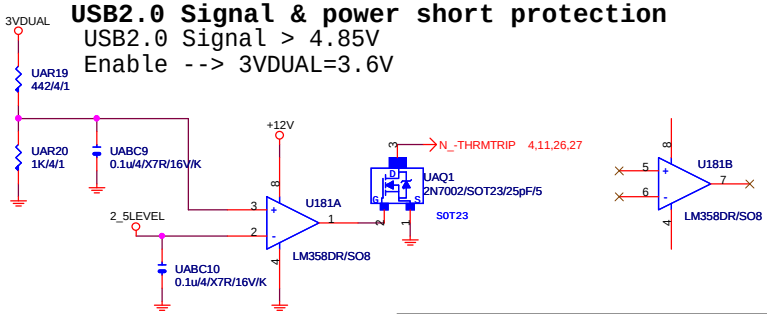

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Title	FP, COM, -PHOT	
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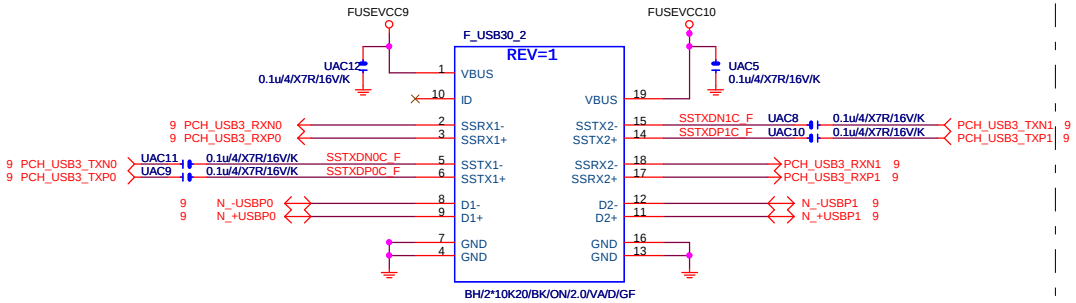
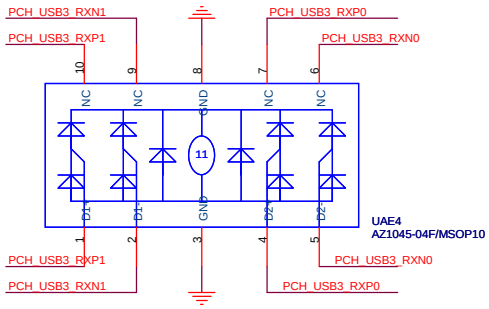
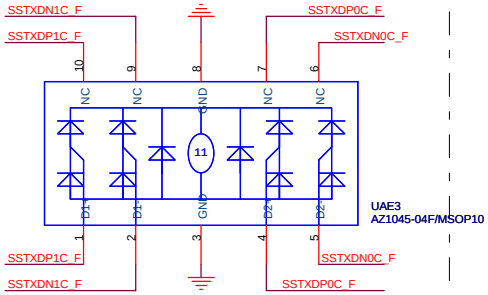
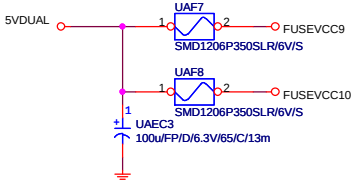
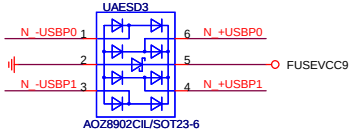
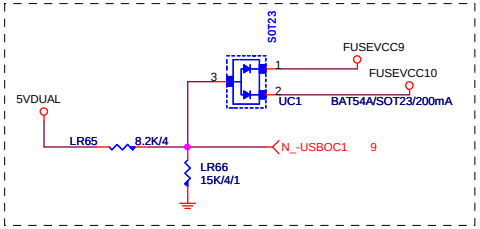


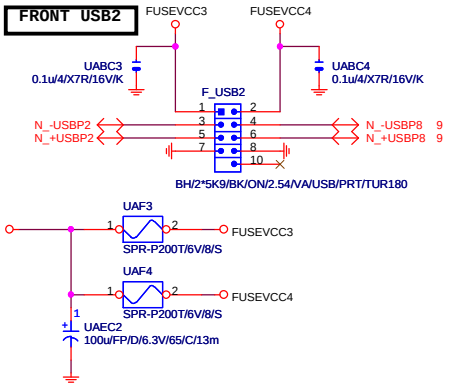


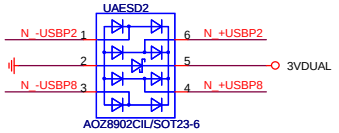




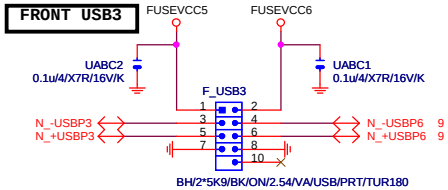


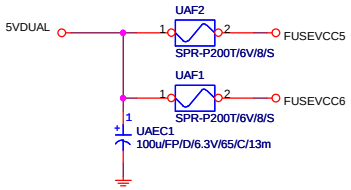


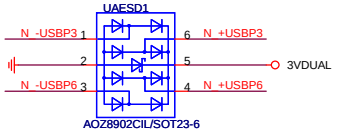




Close to connector







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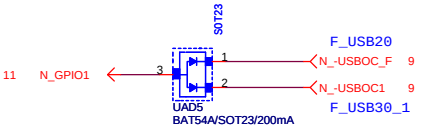

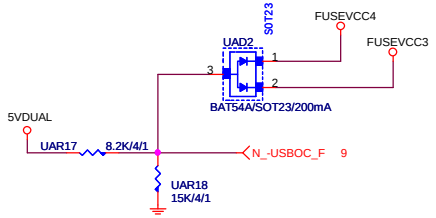

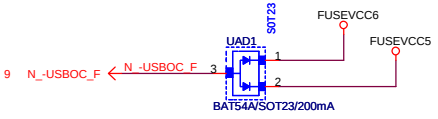

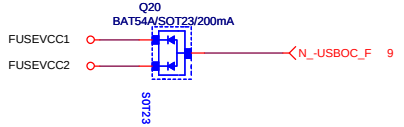

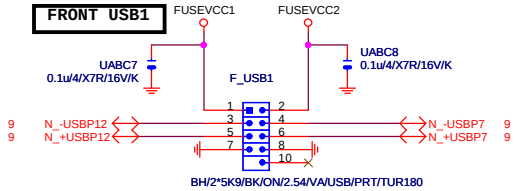

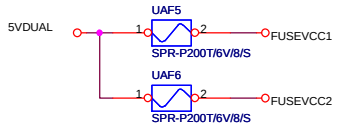

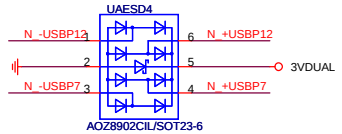

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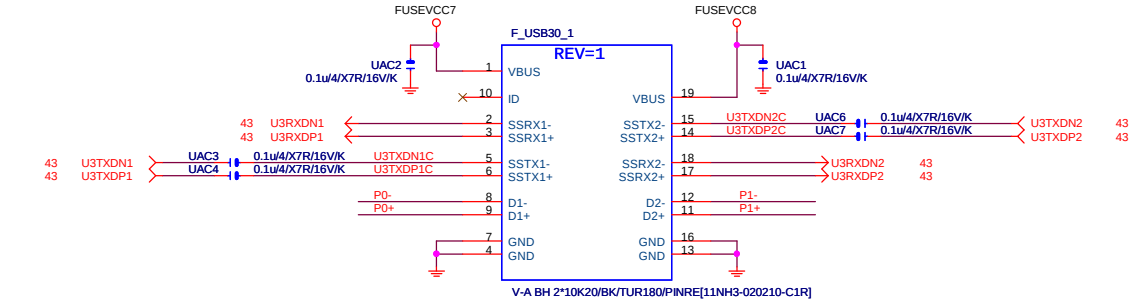

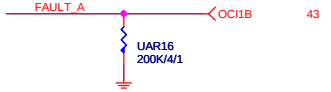

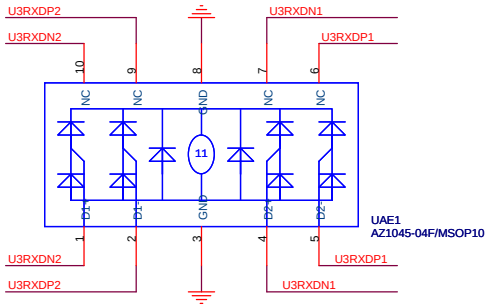

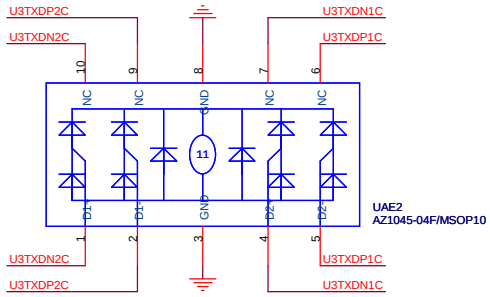

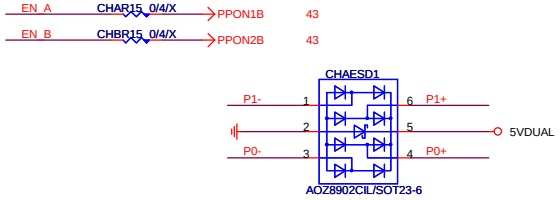

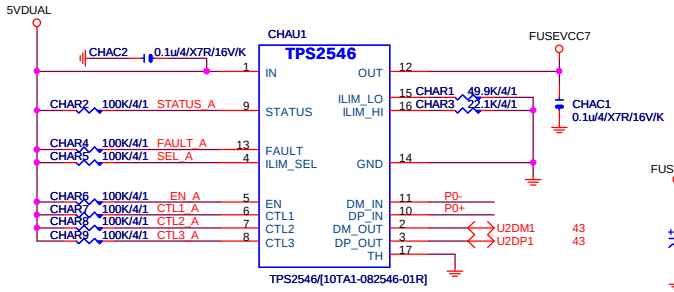

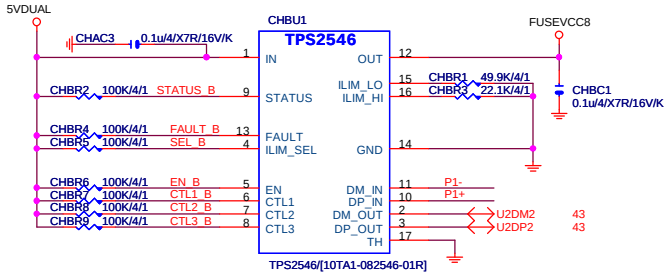

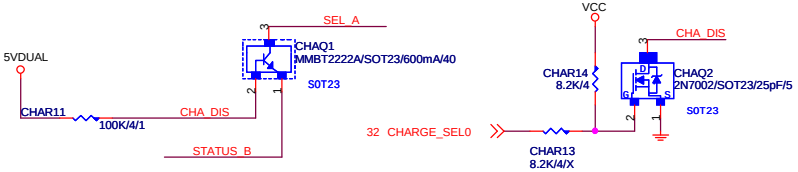

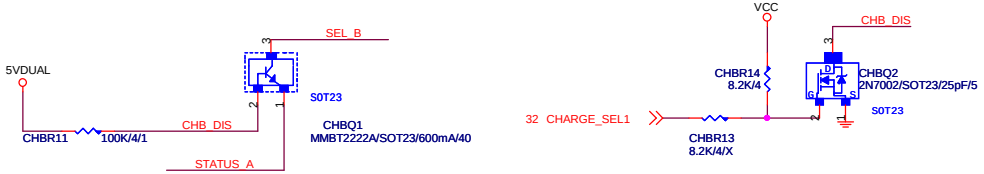

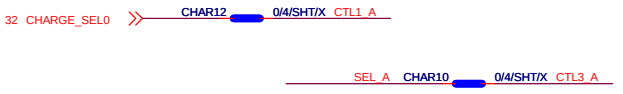

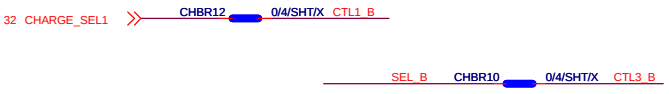

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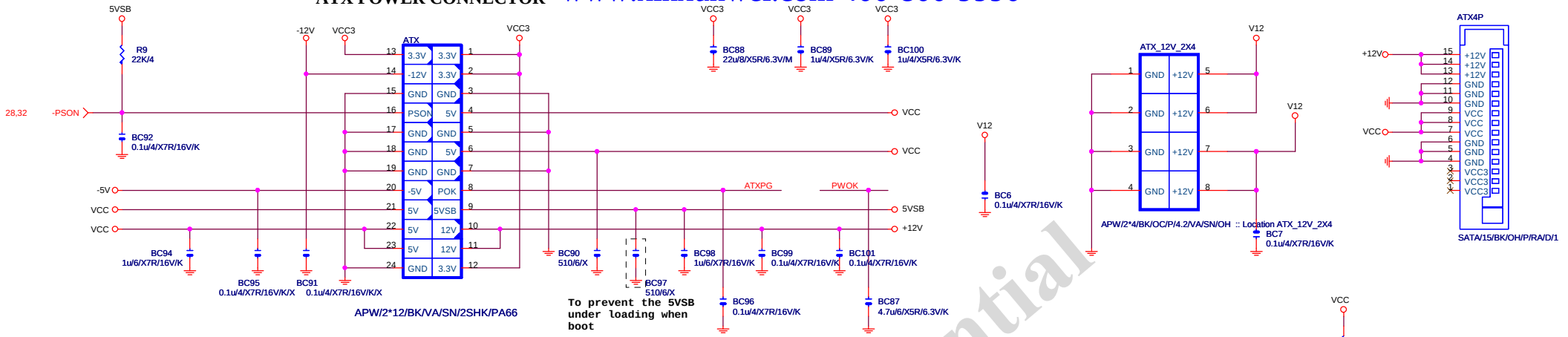
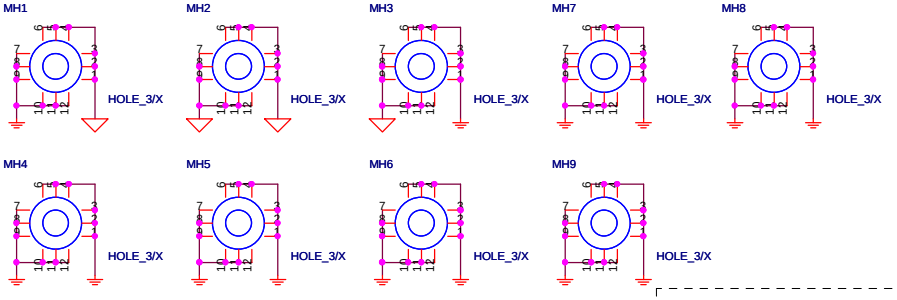
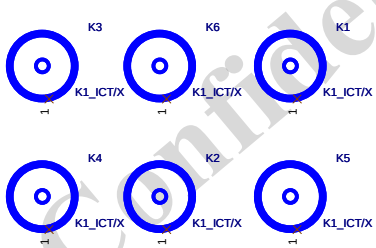
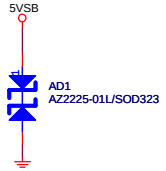
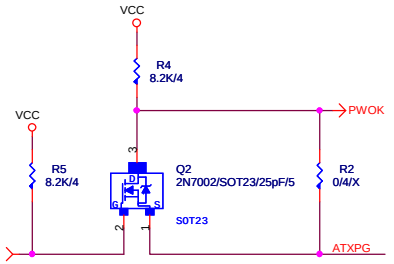
ATX POWER CONNECTOR

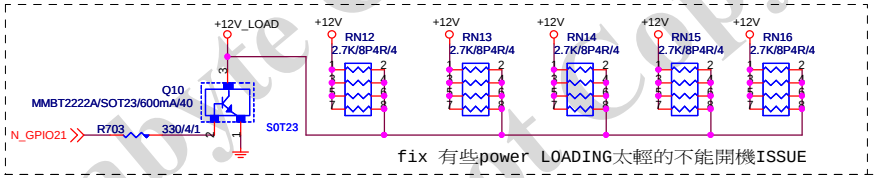


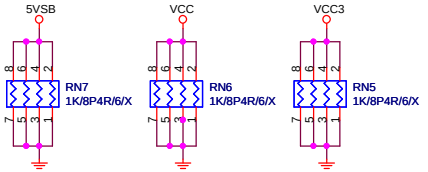








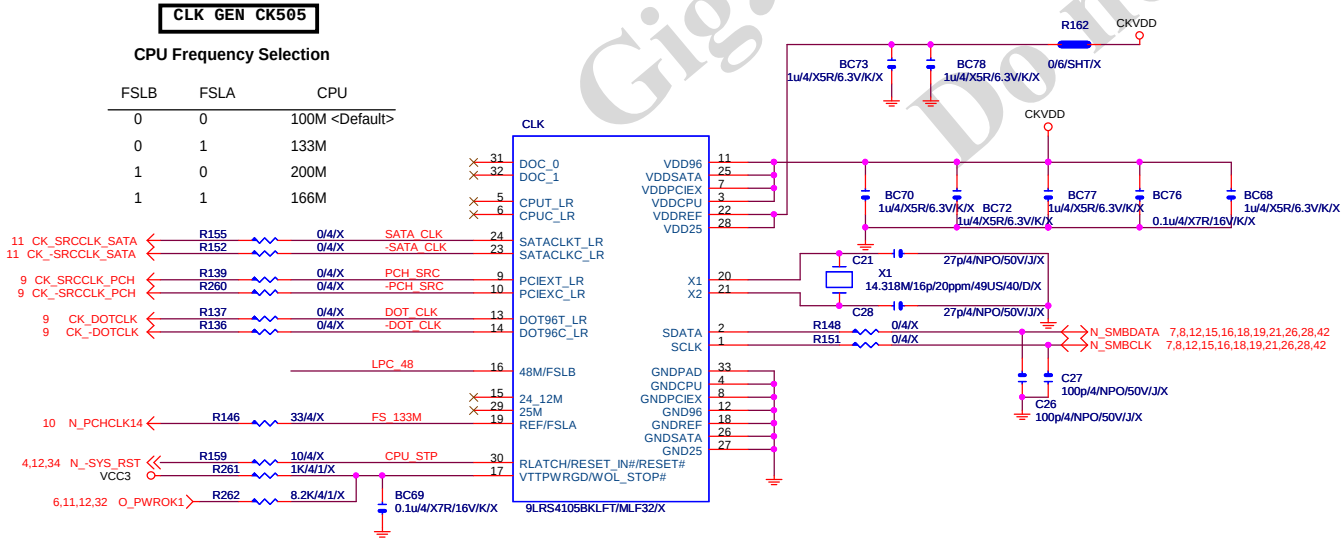


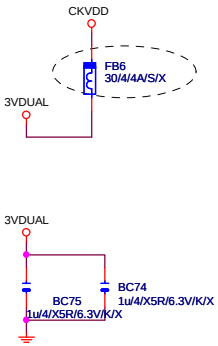


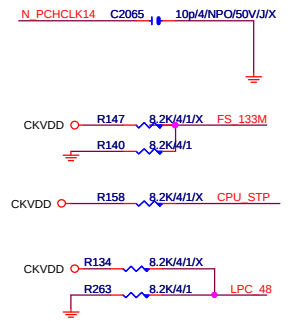
CLK GEN CK505

CPU Frequency Selection

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







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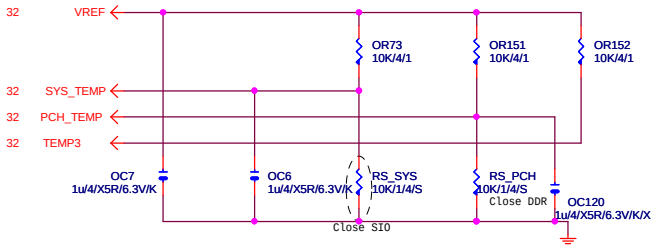
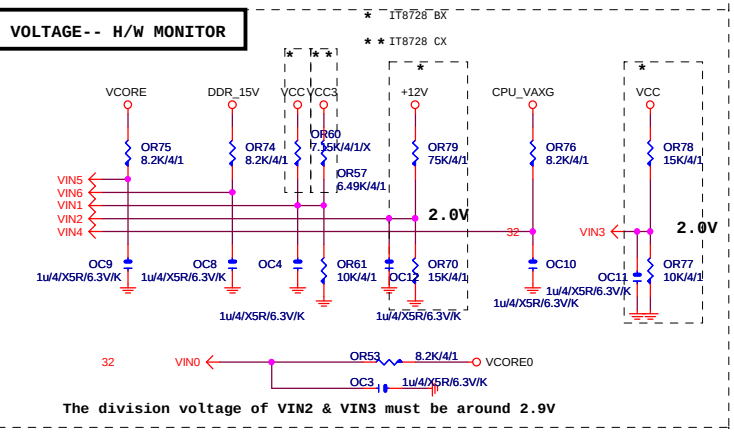
TEMP H/W MONITOR

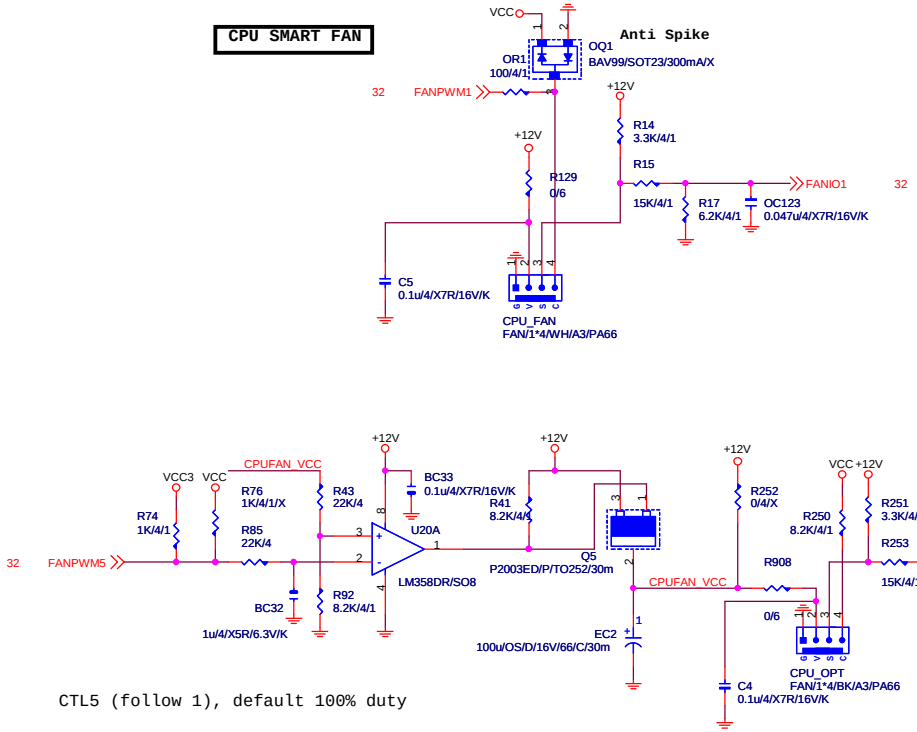


VOLTAGE-- H/W MONITOR



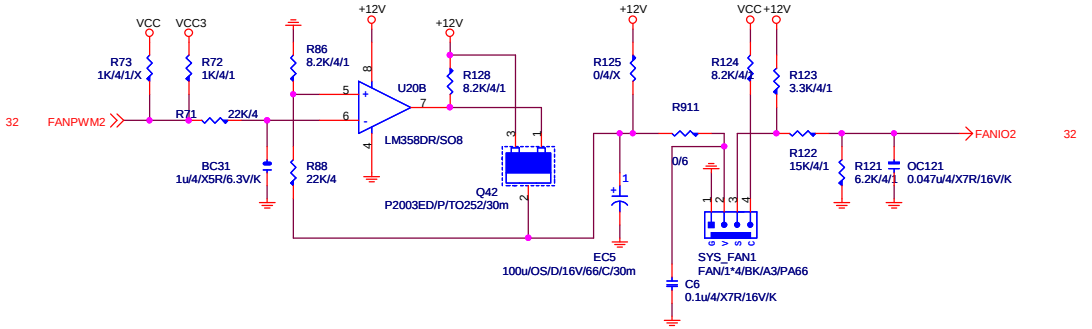
The division voltage of VIN2 & VIN3 must be around 2.9V

CPU SMART FAN

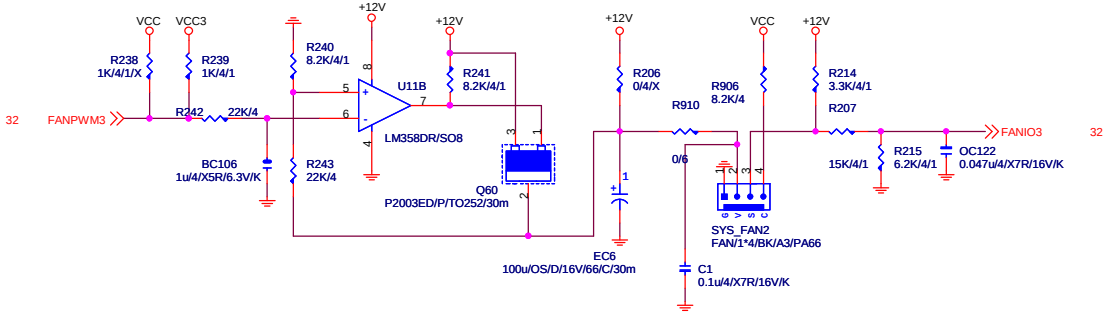


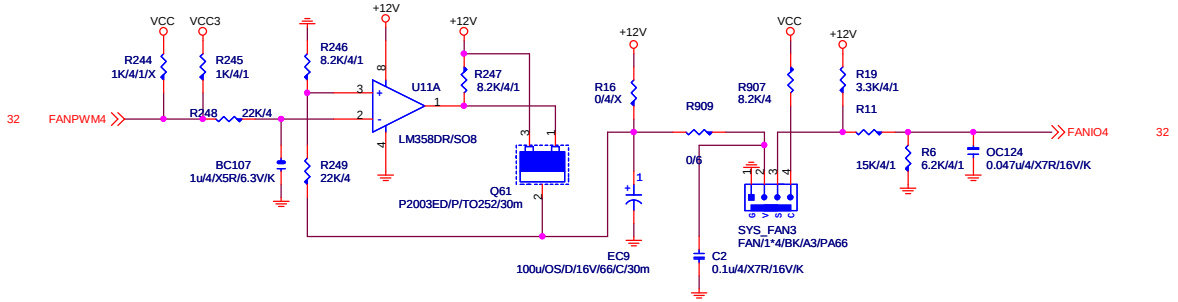
CTL5 (follow 1), default 100% duty

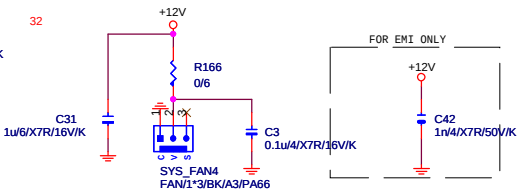
Linear SYS_FAN



Linear SYS_FAN







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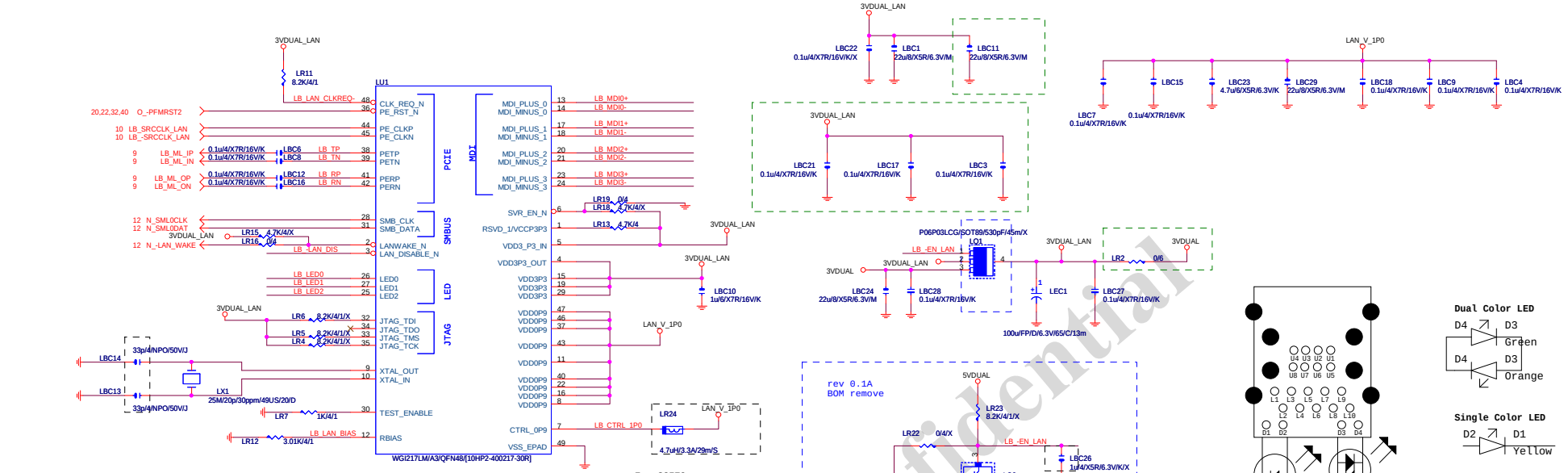
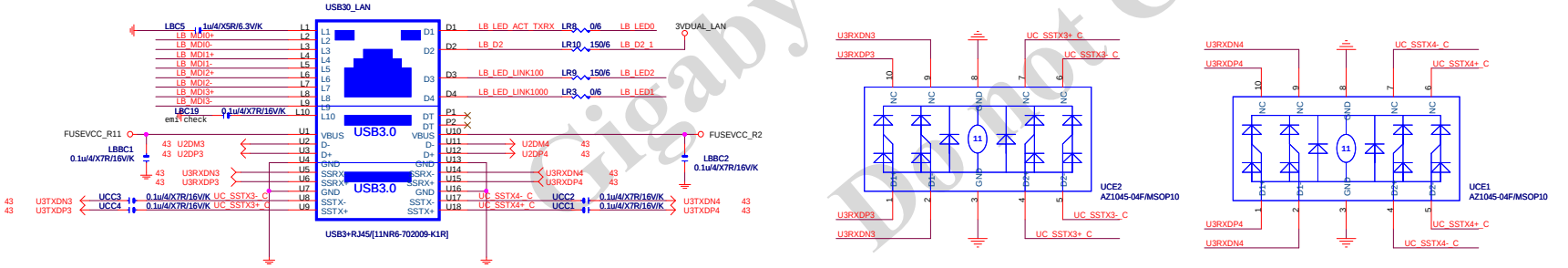
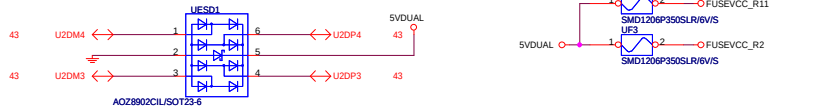
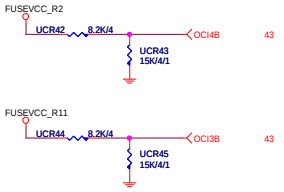


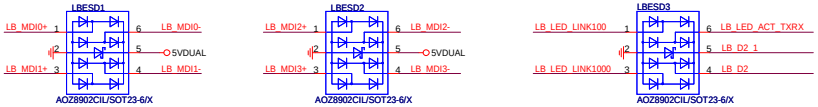




Close to connector



RMA ESD PROTECT



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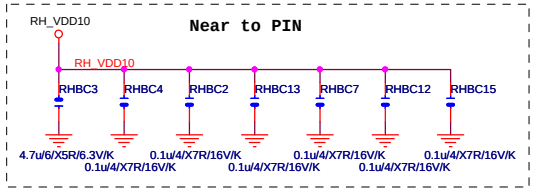

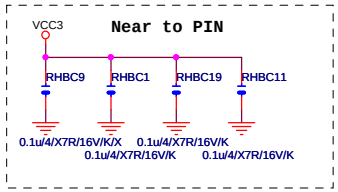

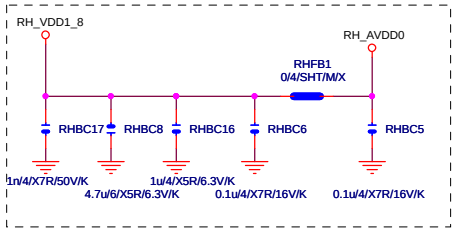

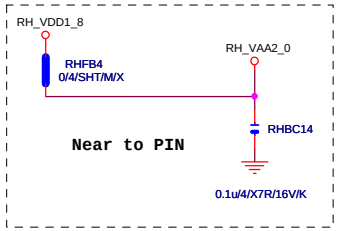

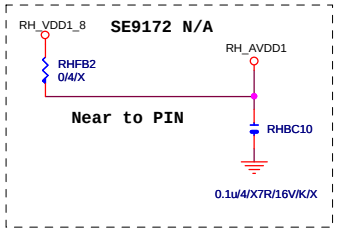

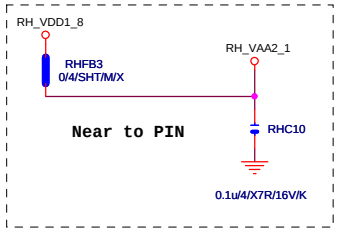

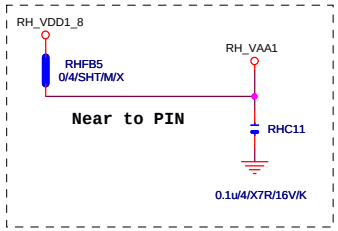

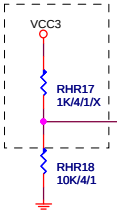

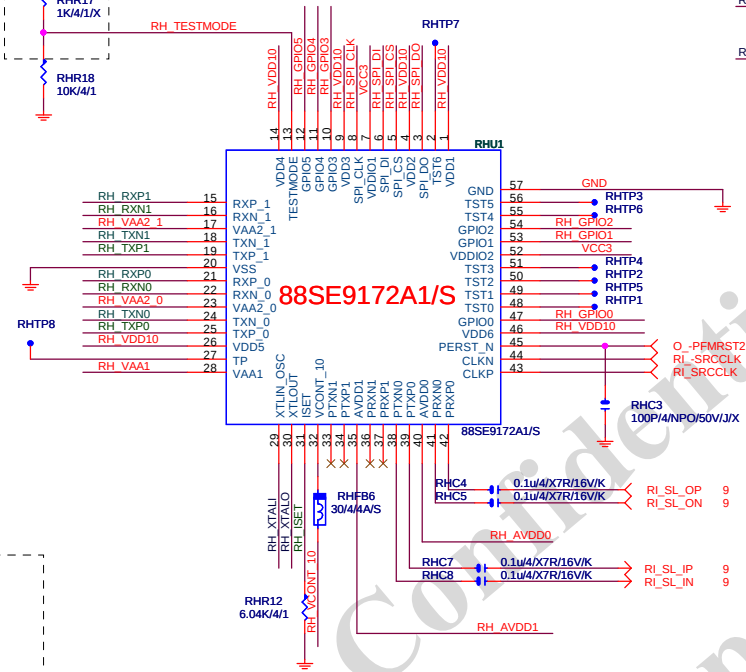

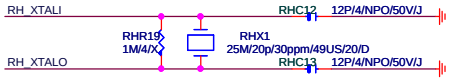

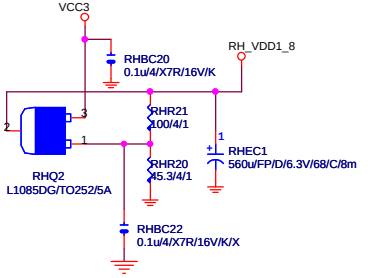

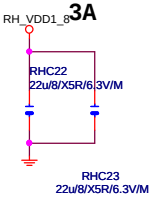

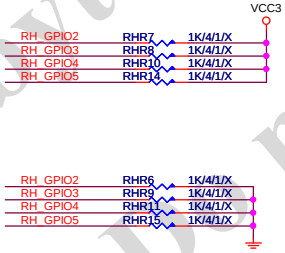

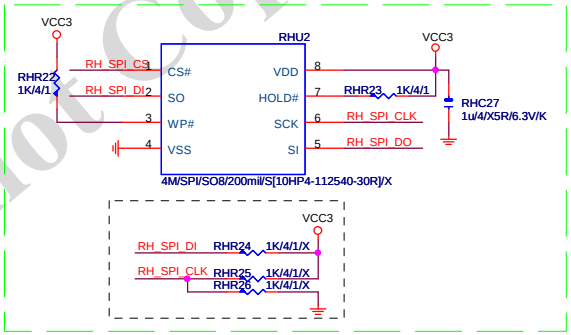

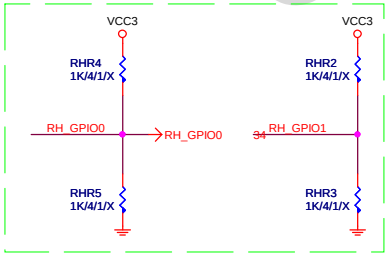

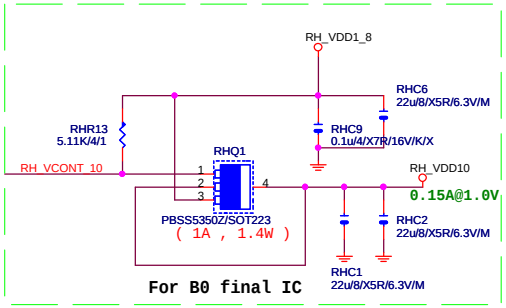

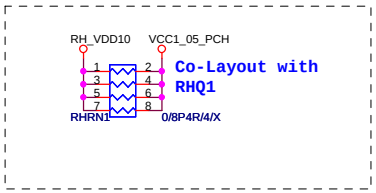

Marvell 9172 Power Requirements
Analog 1.8V 230mA
Core 1.0V 900mA
I/O 3.3V 50mA

GIGABYTE™

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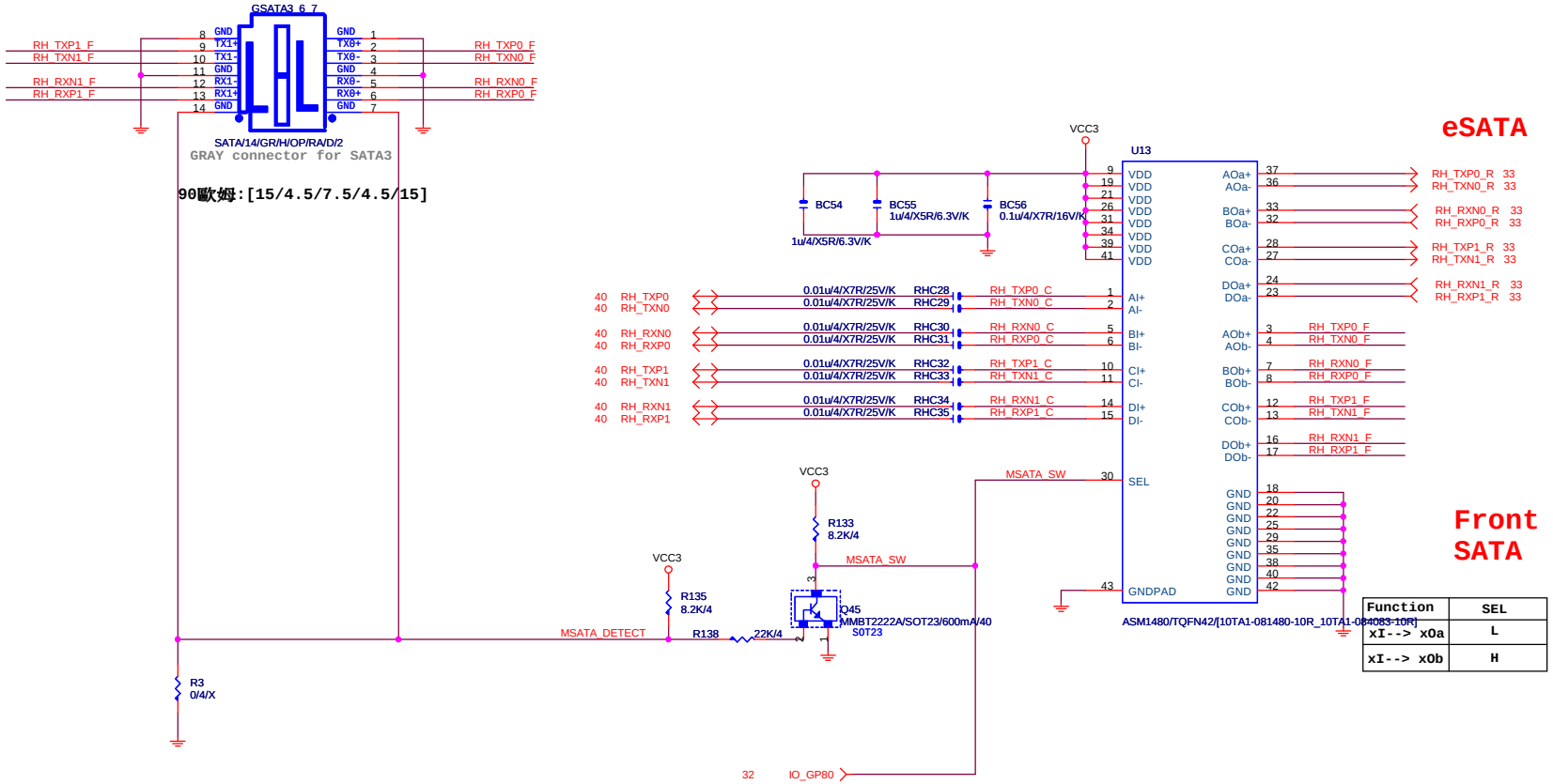

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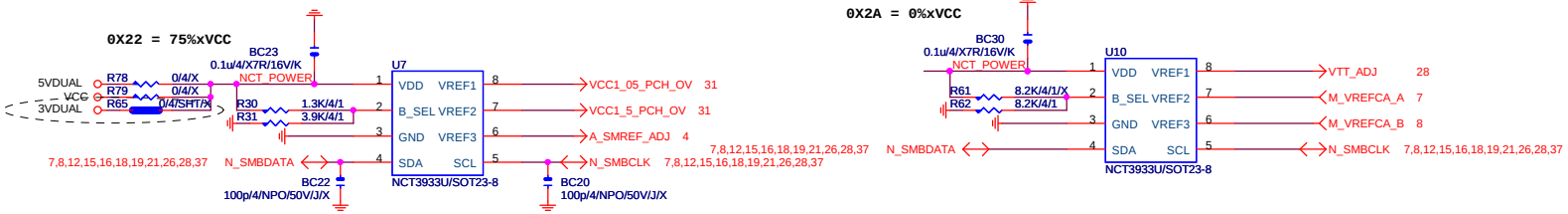
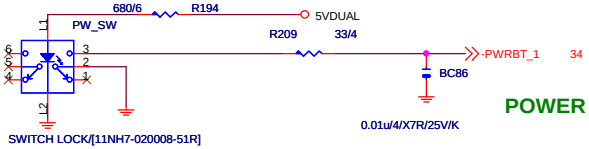
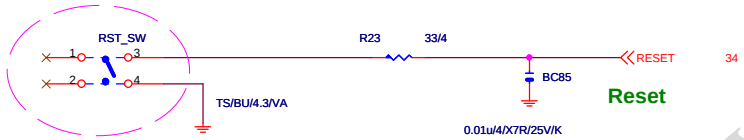
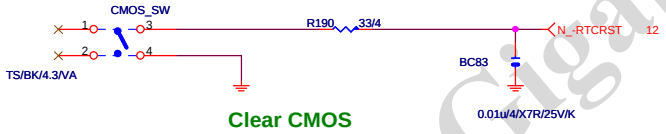
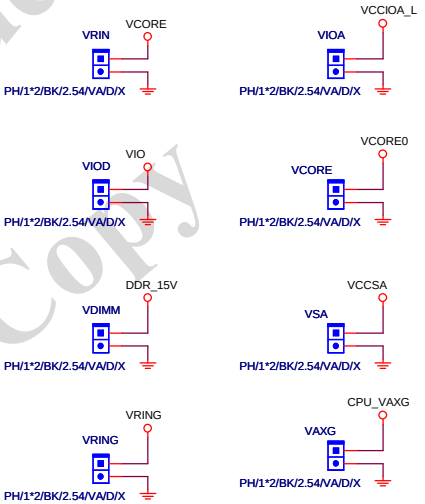


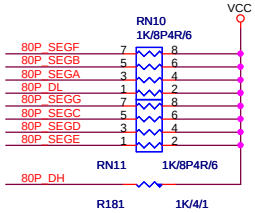


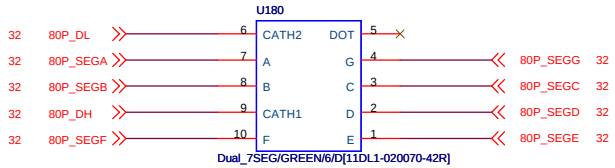




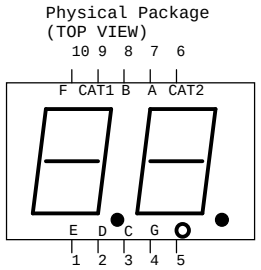


80 PORT





COMMON CATHODE



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Title	RST, PWR, CLR_CMOS, OV	
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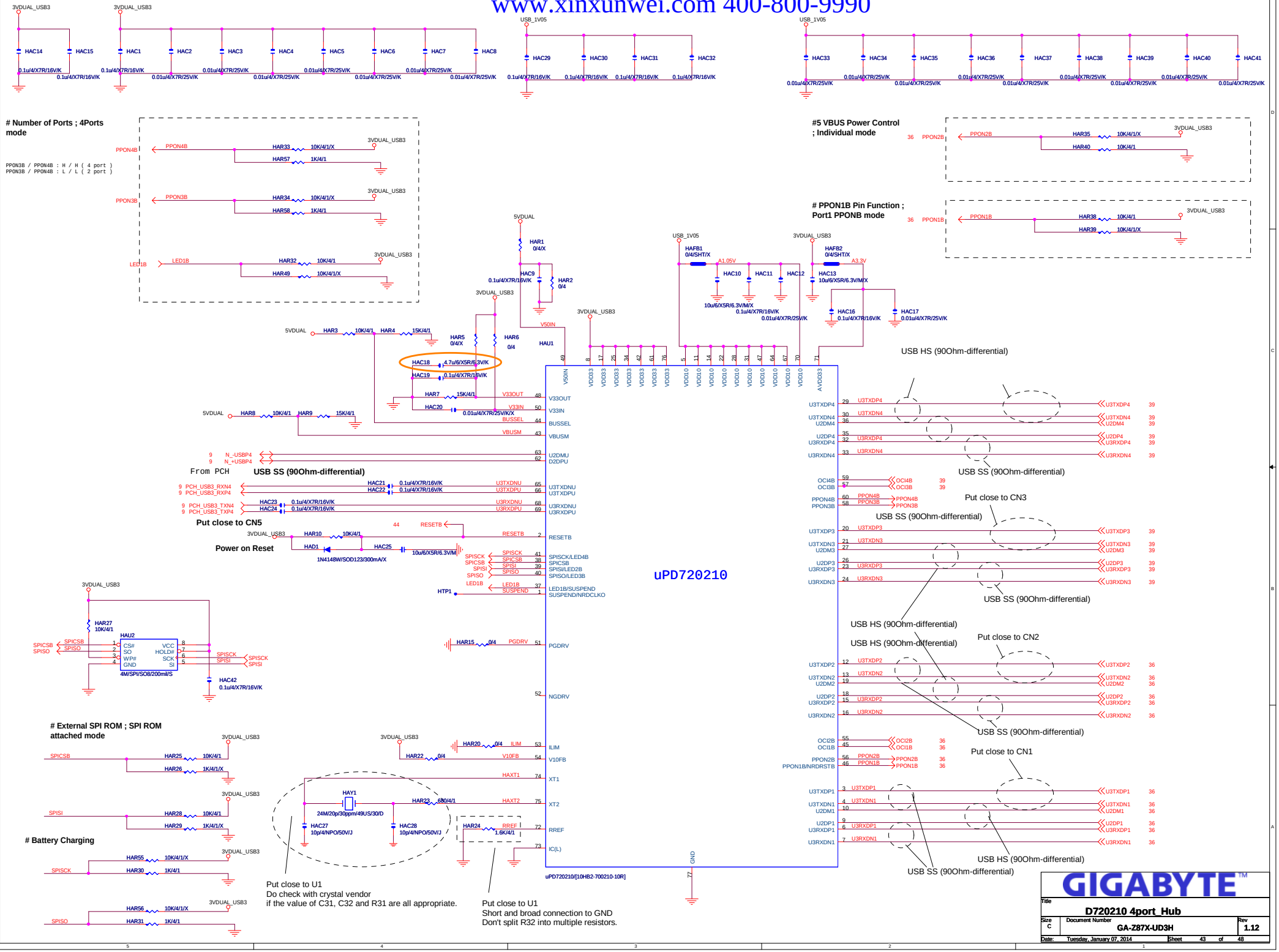

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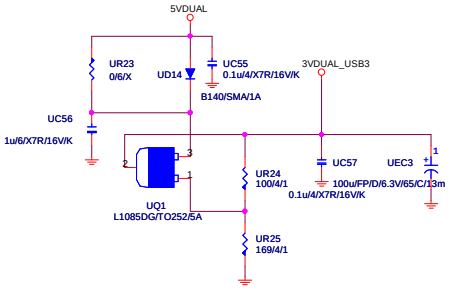
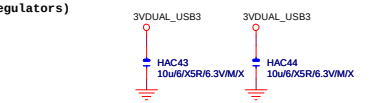
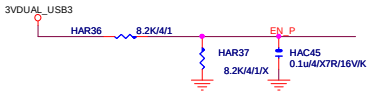
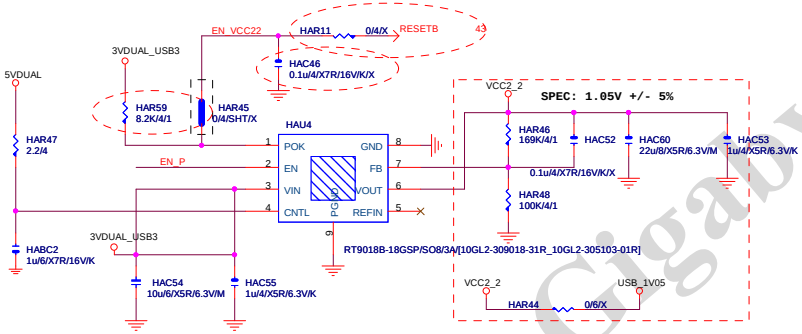
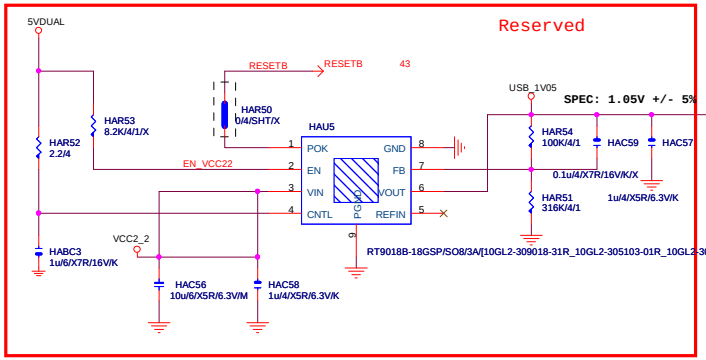


USB1_05V power consumption is 0.7A (w/o onchip regulators)









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Title	D720210 4port_Hub	
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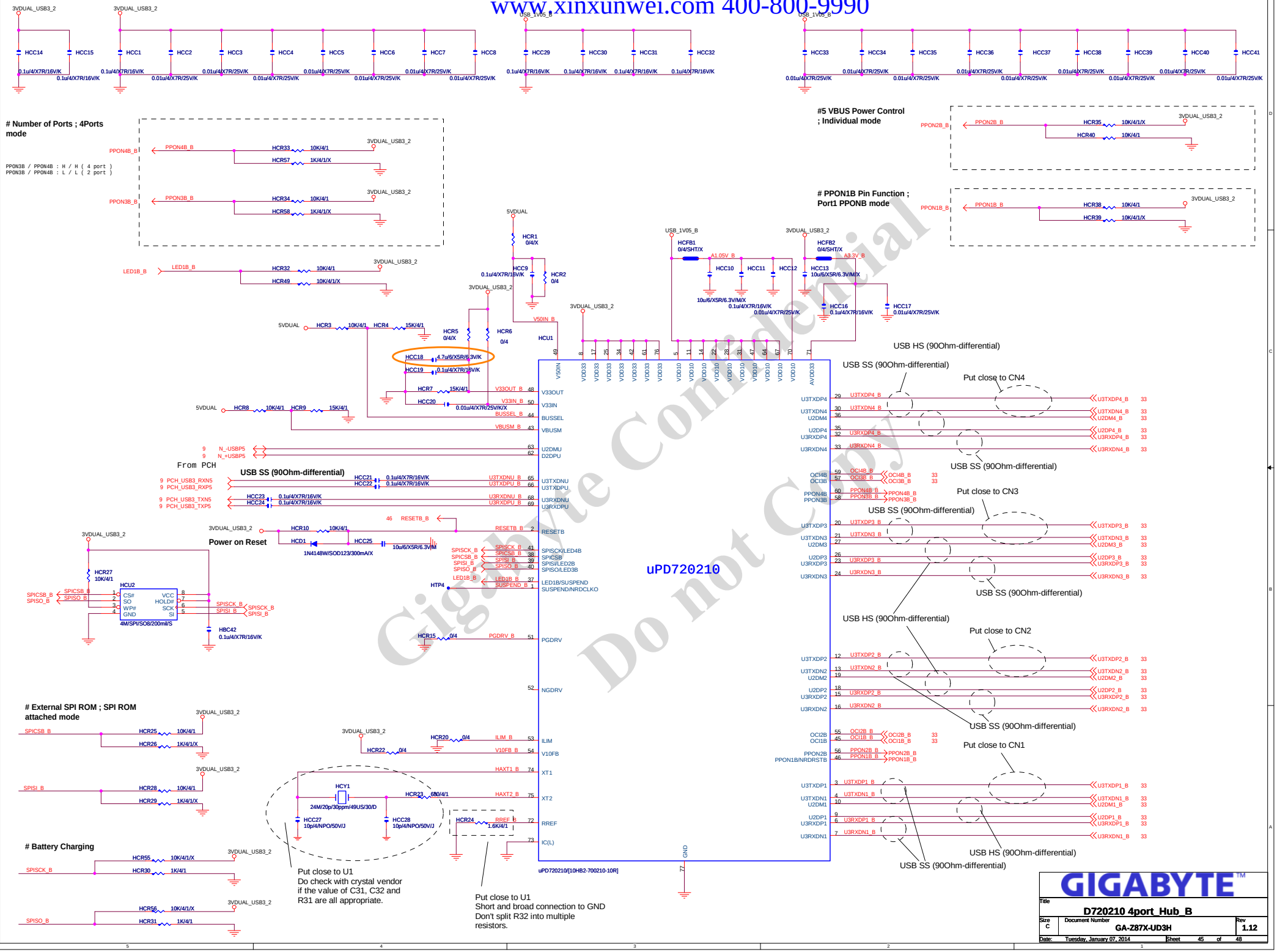

Title	D720210 4port_Hub_B	
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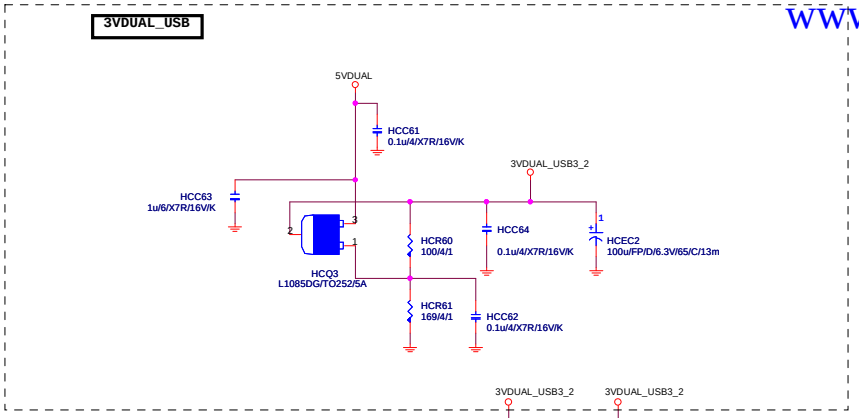
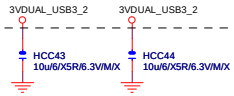
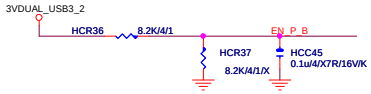
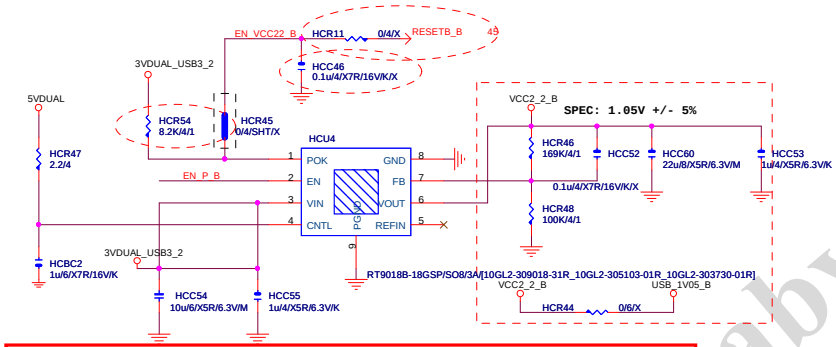
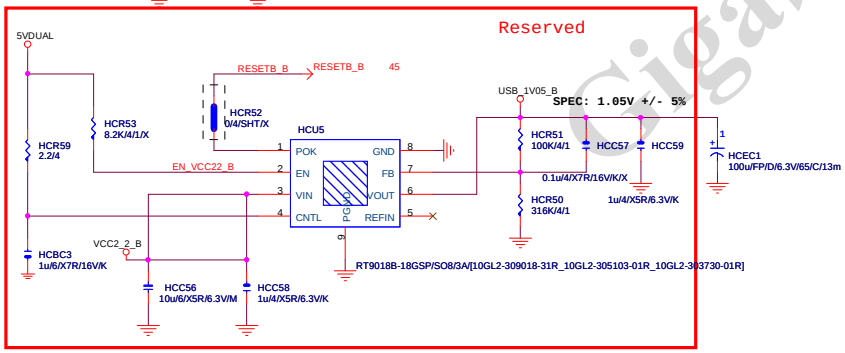




USB1_05V power consumption is 0.7A (w/o onchip regulators)







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Title	D720210 4port_Hub_B	
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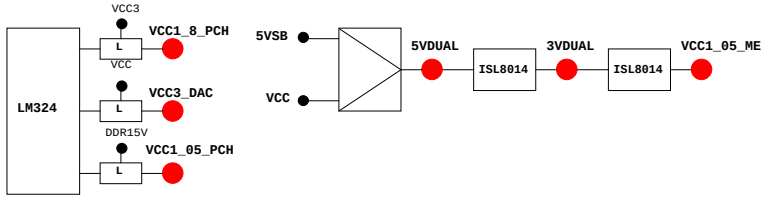
PCH GPIO LIST TABLE

PIN NAME	PWR	AFTER/PLTRST	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_PCH_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

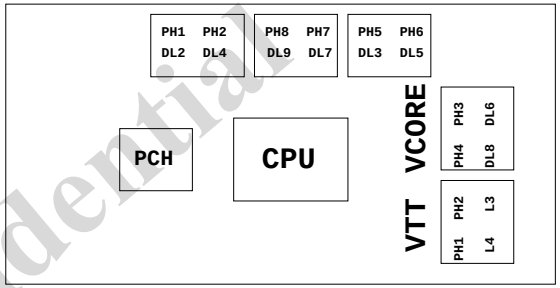
Super I/O ITE8720 GPIO Table

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#CIRRX1/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	空 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/CIRRX2/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

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RESET TABLE

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