

# Model Name: Q77DB

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	PCI EXPRESS*16 SLOT
10	PCH_FDI,DMI,USB,PCIE
11	PCH_DP,CLK BUFFER
12	PCH_HOST,SATA,PCI
13	PCH_GPIO,CTRL,AUDIO
14	PCH_PWR,GND
15	PCH_HDMI,DVI,DP
16	PCI EXPRESS*4 SLOT
17	PCI & PCIEX1 SLOT
18	INTEL 82579 LAN
19	ITE 8728 LPC IO
20	COM,LPT,80 Port
21	BIOS, TPM
22	VCORE /VAXG PWM_ISL95836-1
23	VCORE /VAXG PWM_ISL95836-2
24	RT8120-DDR POWWER
25	RT8120-VTT POWER
26	DISCRET POWER1
27	DISCRET POWER2

SHEET TITLE

28	ATX,RUSB,PROCHOT-
29	VT2021 CODEC
30	REAR AUDIO JACK
31	FP,FUSB,SPKR
32	HWM,KB/MS, FAN CTRL
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<b>GIGABYTE</b>			
Title			
Cover Sheet			
Size	Document Number	Rev	
Custom	Q77DB	1.01	
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**Model Name: Q77DB**

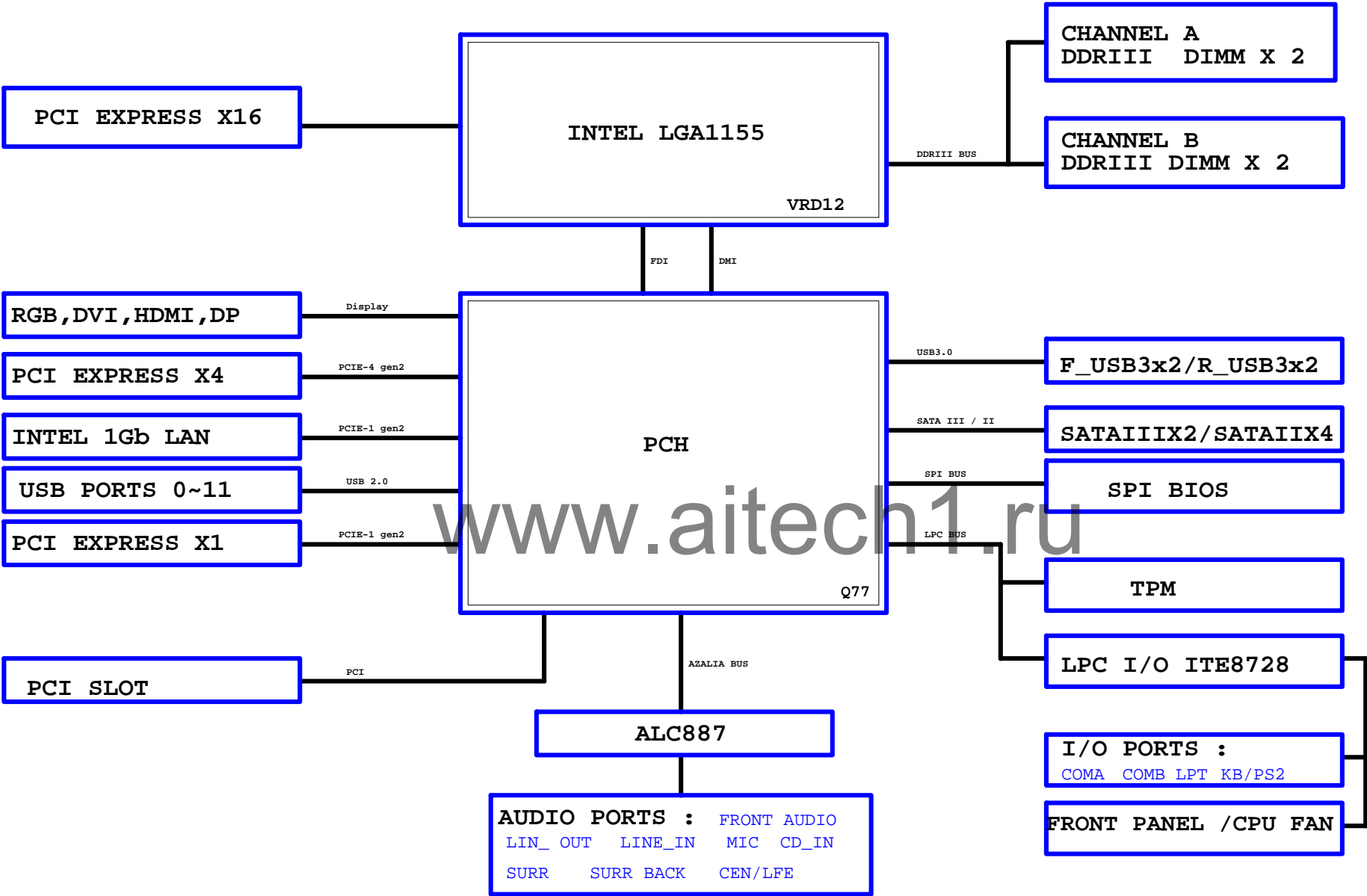
### Component value change history

[illegible]

## Circuit or PCB layout change

[illegible]

BLOCK DIAGRAM





## CPUA

MAAA0	AV27	SA_MA[0]	SA_DQS[0]	AK3	DQSA0
MAAA1	AY24	SA_MA[1]	SA_DQS[0]	AK2	-DQSA0
MAAA2	AW24	SA_MA[2]			
MAAA3	AW23	SA_MA[3]			
MAAA4	AV23	SA_MA[4]	SA_DQ[0]	AJ3	MDA0
MAAA5	AT24	SA_MA[5]	SA_DQ[1]	AJ4	MDA1
MAAA6	AT23	SA_MA[6]	SA_DQ[2]	AL3	MDA2
MAAA7	AU22	SA_MA[7]	SA_DQ[3]	AL4	MDA3
MAAA8	AV22	SA_MA[8]	SA_DQ[4]	AJ2	MDA4
MAAA9	AT22	SA_MA[9]	SA_DQ[5]	AJ1	MDA5
MAAA10	AV28	SA_MA[10]	SA_DQ[6]	AL2	MDA6
MAAA11	AU21	SA_MA[11]	SA_DQ[7]	AL1	MDA7
MAAA12	AT21	SA_MA[12]			
MAAA13	AW32	SA_MA[13]	SA_DQS[1]	AP3	DQSA1
MAAA14	AU20	SA_MA[14]	SA_DQS[1]	AP2	-DQSA1
MAAA15	AT20	SA_MA[15]			
(7) -SWEA	AW29	SA_WE#	SA_DQ[8]	AN1	MDA8
(7) -SCASA	AV30	SA_CAS#	SA_DQ[9]	AN4	MDA9
(7) -SRASA	AU28	SA_RAS#	SA_DQ[10]	AR3	MDA10
(7) SBA00	AY29	SA_BS[0]	SA_DQ[11]	AR4	MDA12
(7) SBA01	AW28	SA_BS[1]	SA_DQ[12]	AN2	MDA11
(7) SBA02	AV20	SA_BS[2]	SA_DQ[13]	AN3	MDA13
			SA_DQ[14]	AR2	MDA14
			SA_DQ[15]	AR1	MDA15
(7) -CSA0	AY29	SA_CS#	SA_DQS[2]	AW4	DQSA2
(7) -CSA1	AV32	SA_CS#	SA_DQS[2]	AW4	-DQSA2
(7) -CSA2	AW30	SA_CS#			
(7) -CSA3	AU33	SA_CS#			
(7) CKEA0	AV19	SA_CKE[0]	SA_DQ[16]	AV2	MDA16
(7) CKEA1	AT19	SA_CKE[1]	SA_DQ[17]	AV3	MDA17
(7) CKEA2	AU18	SA_CKE[2]	SA_DQ[18]	AV5	MDA18
(7) CKEA3	AV18	SA_CKE[3]	SA_DQ[19]	AV5	MDA19
			SA_DQ[20]	AU2	MDA20
MODT_A0	AV31	SA_ODT[0]	SA_DQ[21]	AU3	MDA21
MODT_A1	AU32	SA_ODT[1]	SA_DQ[22]	AU5	MDA22
MODT_A2	AU30	SA_ODT[2]	SA_DQ[23]	AY5	MDA23
MODT_A3	AW33	SA_ODT[3]			
(7) DCLKA0	AY25	SA_CK[0]	SA_DQS[3]	AV8	DQSA3
(7) -DCLKA0	AW25	SA_CK#	SA_DQS[3]	AW8	-DQSA3
(7) DCLKA1	AU24	SA_CK[1]			
(7) -DCLKA1	AU25	SA_CK#	SA_DQ[24]	AY7	MDA24
(7) DCLKA2	AW27	SA_CK[2]	SA_DQ[25]	AU7	MDA25
(7) -DCLKA2	AY27	SA_CK#	SA_DQ[26]	AV9	MDA26
(7) DCLKA3	AW26	SA_CK[3]	SA_DQ[27]	AU9	MDA27
(7) -DCLKA3	AV26	SA_CK#	SA_DQ[28]	AV7	MDA28
			SA_DQ[29]	AW7	MDA29
			SA_DQ[30]	AW9	MDA30
			SA_DQ[31]	AY9	MDA31
			SA_DQS[4]	AV37	DQSA4
			SA_DQS[4]	AV36	-DQSA4
			SA_DQ[32]	AU35	MDA32
			SA_DQ[33]	AW37	MDA33
			SA_DQ[34]	AU39	MDA34
			SA_DQ[35]	AU36	MDA35
			SA_DQ[36]	AW35	MDA36
			SA_DQ[37]	AY36	MDA37
			SA_DQ[38]	AU38	MDA38
			SA_DQ[39]	AU37	MDA39
			SA_DQS[5]	AP38	DQSA5
			SA_DQS[5]	AP39	-DQSA5
			SA_DQ[40]	AR40	MDA40
			SA_DQ[41]	AR37	MDA41
			SA_DQ[42]	AN38	MDA42
			SA_DQ[43]	AN37	MDA43
			SA_DQ[44]	AR39	MDA44
			SA_DQ[45]	AR38	MDA45
			SA_DQ[46]	AN39	MDA46
			SA_DQ[47]	AN40	MDA47
			SA_DQS[6]	AK38	DQSA6
			SA_DQS[6]	AK39	-DQSA6
			SA_DQ[48]	AL40	MDA48
			SA_DQ[49]	AL37	MDA49
			SA_DQ[50]	AJ38	MDA50
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			SA_DQ[52]	AL39	MDA52
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			SA_DQS[7]	AF38	DQSA7
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			SA_DQ[56]	AG40	MDA56
			SA_DQ[57]	AG37	MDA57
			SA_DQ[58]	AE38	MDA58
			SA_DQ[59]	AE37	MDA59
			SA_DQ[60]	AG39	MDA60
			SA_DQ[61]	AG38	MDA61
			SA_DQ[62]	AE39	MDA62
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DDR\_0

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LGA1155[10SC1-F01155-01R]

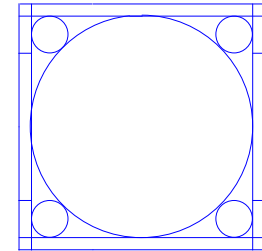
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MAAB2	AM19	SB_MA[2]			
MAAB3	AK18	SB_MA[3]			
MAAB4	AP19	SB_MA[4]	SB_DQ[0]	AG7	MDB0
MAAB5	AP18	SB_MA[5]	SB_DQ[1]	AG8	MDB1
MAAB6	AM18	SB_MA[6]	SB_DQ[2]	AJ9	MDB2
MAAB7	AL18	SB_MA[7]	SB_DQ[3]	AJ8	MDB3
MAAB8	AY17	SB_MA[8]	SB_DQ[4]	AG8	MDB4
MAAB9	AY17	SB_MA[9]	SB_DQ[5]	AJ6	MDB5
MAAB10	AN23	SB_MA[10]	SB_DQ[6]	AJ6	MDB6
MAAB11	AU17	SB_MA[11]	SB_DQ[7]	AJ7	MDB7
MAAB12	AT18	SB_MA[12]			
MAAB13	AR26	SB_MA[13]	SB_DQS[1]	AM8	DQSB1
MAAB14	AY16	SB_MA[14]	SB_DQS[1]	AL8	-DQSB1
MAAB15	AV16	SB_MA[15]			
(8) -SWEB	AR25	SB_WE#	SB_DQ[8]	AL7	MDB8
(8) -SCASB	AK25	SB_CAS#	SB_DQ[9]	AM7	MDB9
(8) -SRASB	AP24	SB_RAS#	SB_DQ[10]	AM10	MDB10
(8) SBAB0	AP23	SB_BS[0]	SB_DQ[11]	AL6	MDB12
(8) SBAB1	AM24	SB_BS[1]	SB_DQ[12]	AL6	MDB13
(8) SBAB2	AW17	SB_BS[2]	SB_DQ[13]	AL9	MDB14
			SB_DQ[14]	AM9	MDB15
			SB_DQ[15]		
(8) -CSB0	AN25	SB_CS#	SB_DQS[2]	AR8	DQSB2
(8) -CSB1	AN26	SB_CS#	SB_DQS[2]	AP8	-DQSB2
(8) -CSB2	AL25	SB_CS#			
(8) -CSB3	AT26	SB_CS#			
(8) CKEB0	AU16	SB_CKE[0]	SB_DQ[16]	AF7	MDB16
(8) CKEB1	AY15	SB_CKE[1]	SB_DQ[17]	AR7	MDB17
(8) CKEB2	AW15	SB_CKE[2]	SB_DQ[18]	AP10	MDB18
(8) CKEB3	AV15	SB_CKE[3]	SB_DQ[19]	AR10	MDB19
			SB_DQ[20]	AP6	MDB20
			SB_DQ[21]	AR6	MDB21
			SB_DQ[22]	AP9	MDB22
			SB_DQ[23]	AR9	MDB23
			SB_DQS[3]	AN13	DQSB3
			SB_DQS[3]	AN12	-DQSB3
(8) DCLKB0	AL21	SB_CK[0]			
(8) -DCLKB0	AL22	SB_CK#	SB_DQ[24]	AM12	MDB24
(8) DCLKB1	AK20	SB_CK[1]	SB_DQ[25]	AM13	MDB25
(8) -DCLKB1	AK20	SB_CK#	SB_DQ[26]	AR13	MDB26
(8) DCLKB2	AL23	SB_CK[2]	SB_DQ[27]	AP13	MDB27
(8) -DCLKB2	AM22	SB_CK#	SB_DQ[28]	AL12	MDB28
(8) DCLKB3	AP21	SB_CK[3]	SB_DQ[29]	AL13	MDB29
(8) -DCLKB3	AN21	SB_CK#	SB_DQ[30]	AR12	MDB30
			SB_DQ[31]	AP12	MDB31
			SB_DQS[4]	AN29	DQSB4
			SB_DQS[4]	AN28	-DQSB4
(8) VREF_DQB	AH1	FC_AH1			
(7) VREF_DQA	AH4	FC_AH4			
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			SB_DQ[33]	AP23	MDB33
			SB_DQ[34]	AL28	MDB34
			SB_DQ[35]	AL29	MDB35
			SB_DQ[36]	AP28	MDB36
			SB_DQ[37]	AP29	MDB37
			SB_DQ[38]	AM28	MDB38
			SB_DQ[39]	AM29	MDB39
			SB_DQS[5]	AP33	DQSB5
			SB_DQS[5]	AR33	-DQSB5
			SB_DQ[40]	AP32	MDB40
			SB_DQ[41]	AP21	MDB41
			SB_DQ[42]	AP35	MDB42
			SB_DQ[43]	AP34	MDB43
			SB_DQ[44]	AR32	MDB44
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			SB_DQ[46]	AR35	MDB46
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			SB_DQS[6]	AL33	DQSB6
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			SB_DQ[48]	AM32	MDB48
			SB_DQ[49]	AM31	MDB49
			SB_DQ[50]	AL35	MDB50
			SB_DQ[51]	AL32	MDB51
			SB_DQ[52]	AM34	MDB52
			SB_DQ[53]	AL31	MDB53
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			SB_DQ[55]	AL34	MDB55
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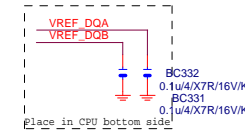
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LGA1155[10SC1-F01155-01R]

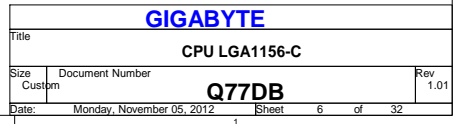
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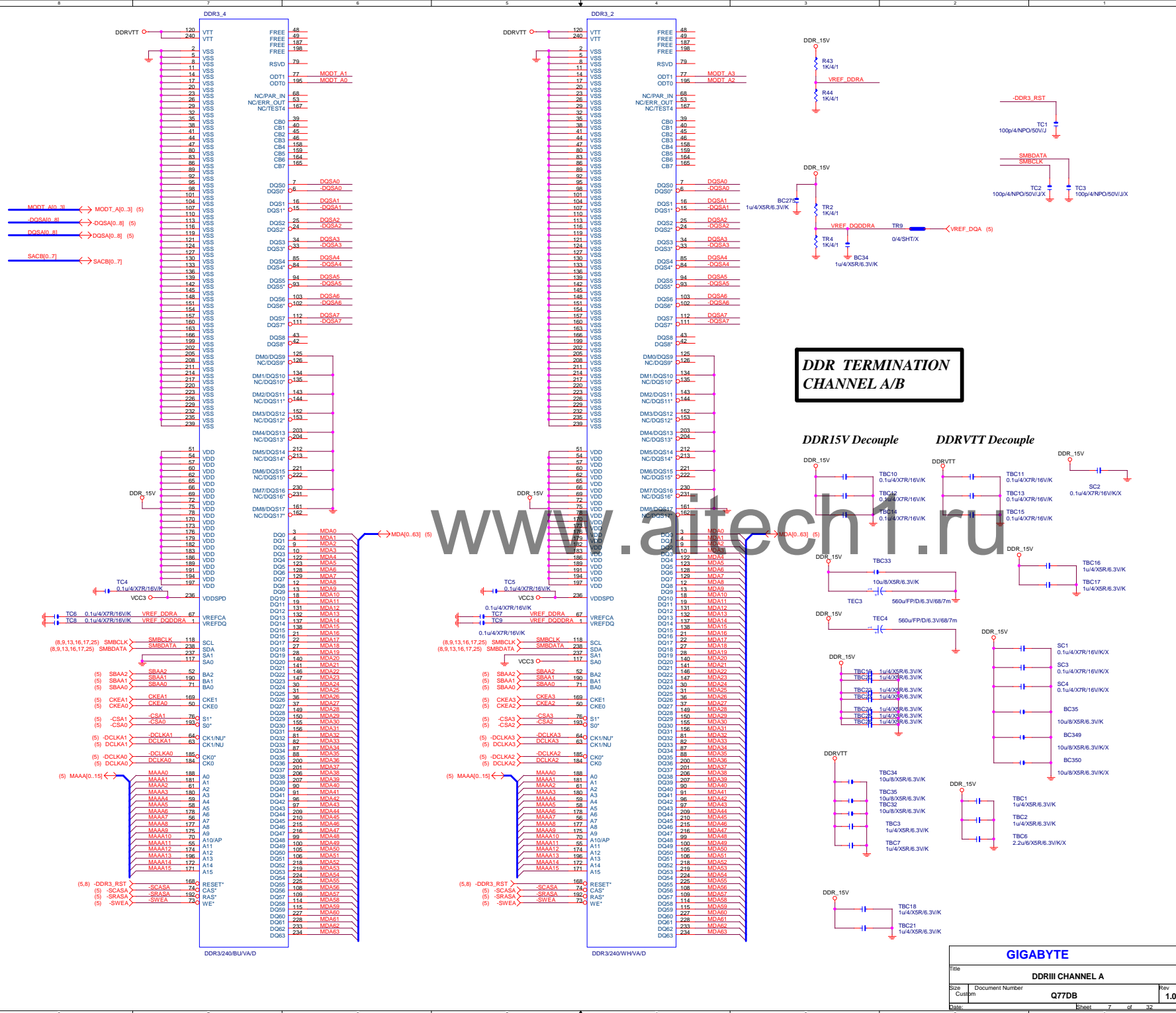
Need check the new CPU ME



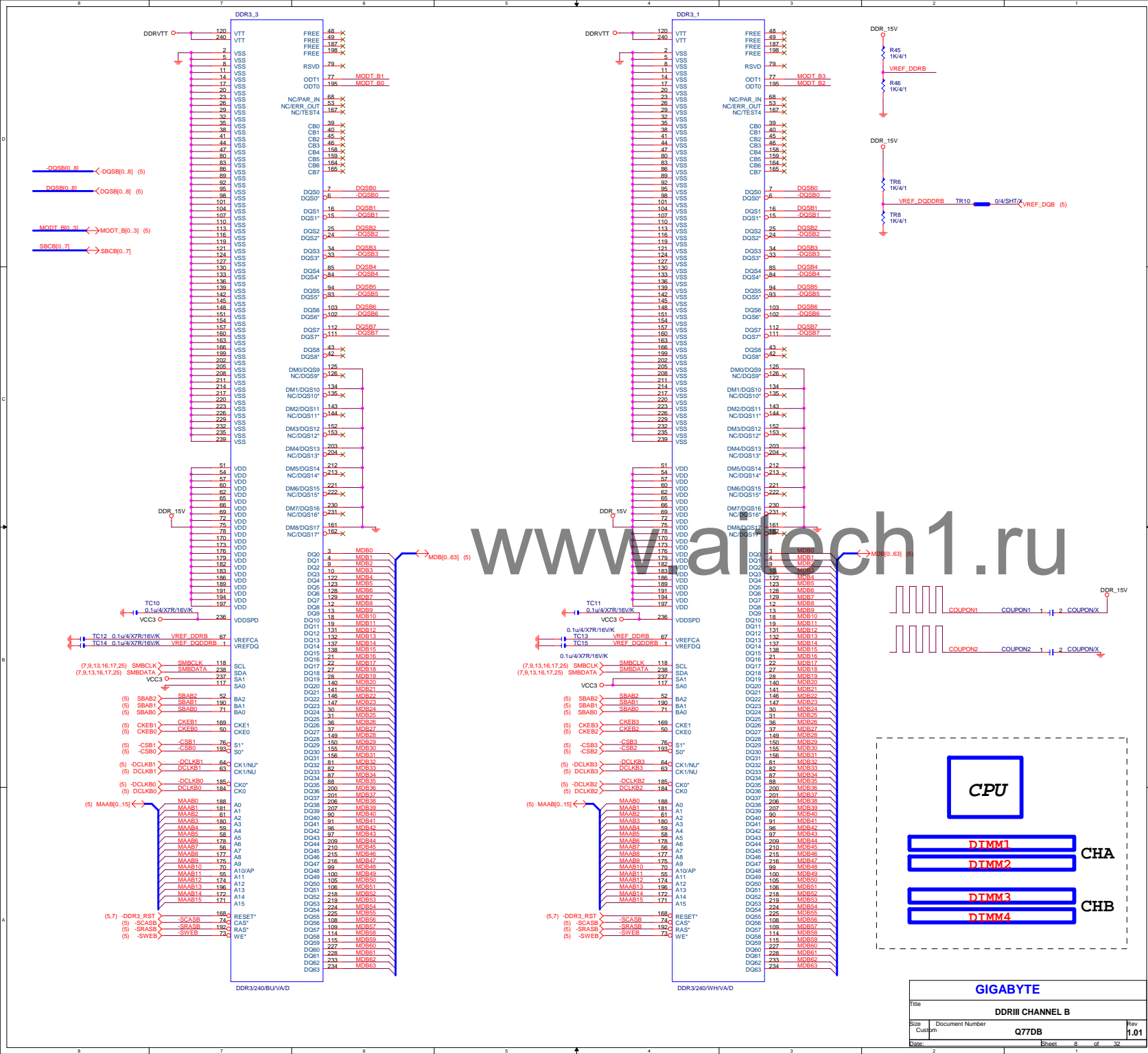
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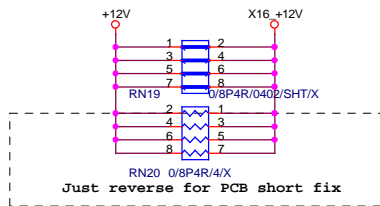
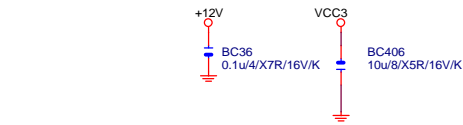








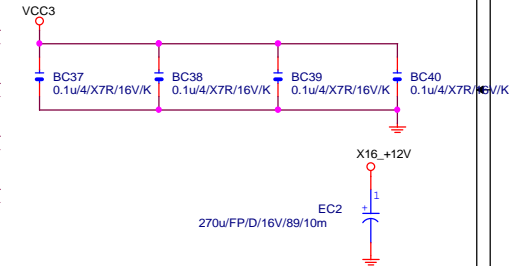
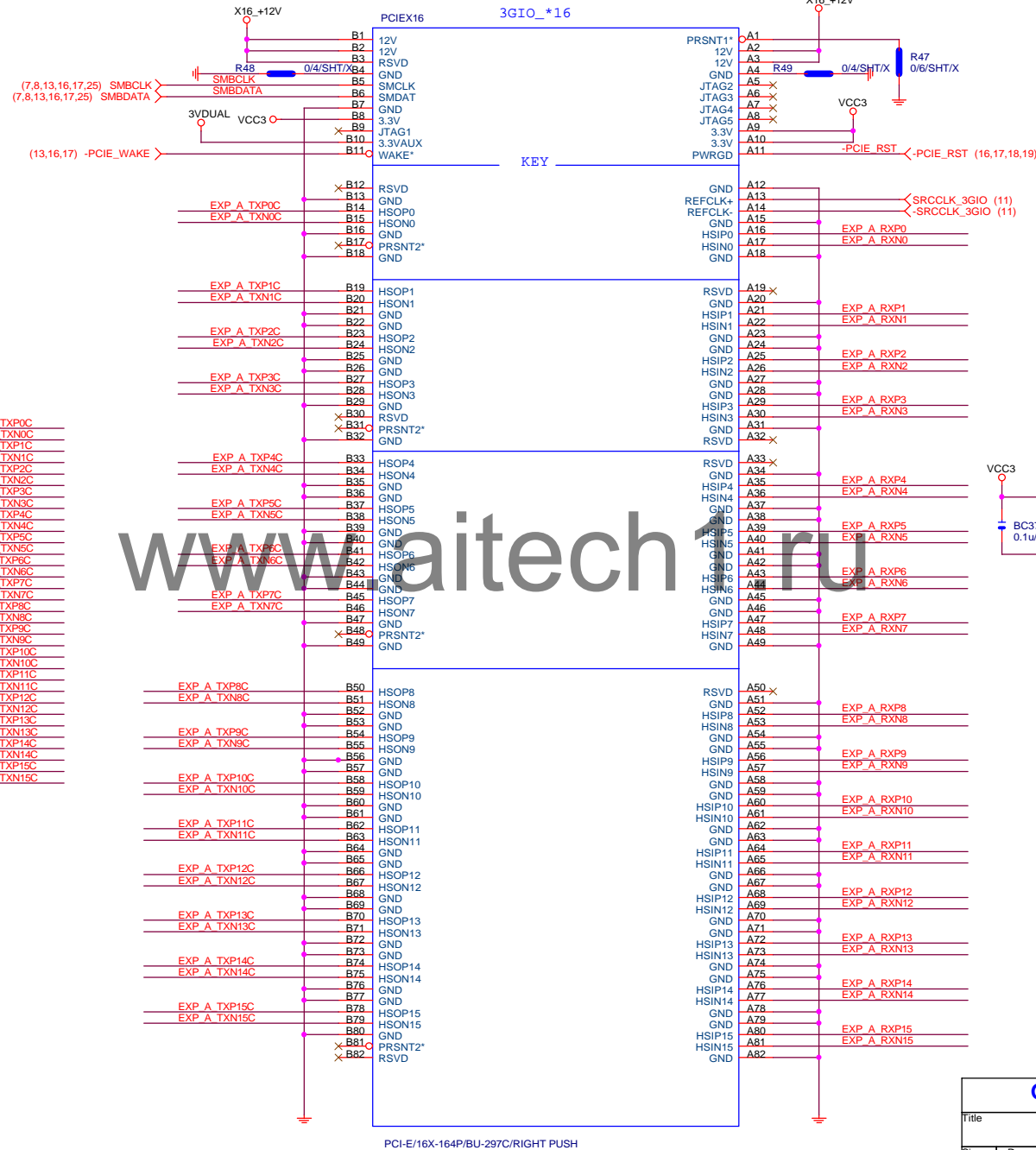




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EXP A RXN0\_15] >>> EXP\_A\_RXN0[0..15] (4)

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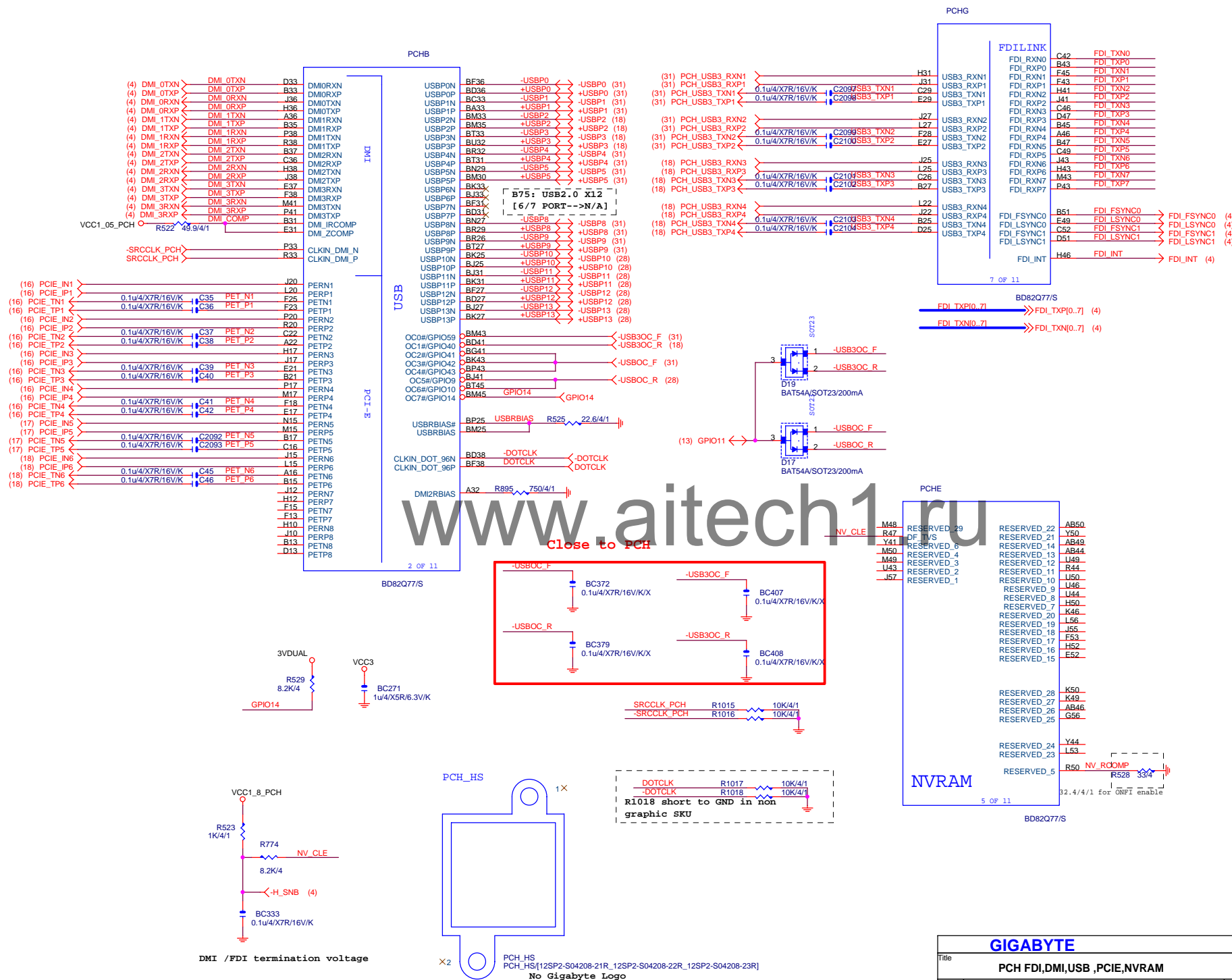
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EXP A TXP1	C4	0.22u4/X5R/6.3V/K	EXP A TXP1C
EXP A TXN1	C5	0.22u4/X5R/6.3V/K	EXP A TXN1C
EXP A TXP2	C6	0.22u4/X5R/6.3V/K	EXP A TXP2C
EXP A TXN2	C7	0.22u4/X5R/6.3V/K	EXP A TXN2C
EXP A TXP3	C8	0.22u4/X5R/6.3V/K	EXP A TXP3C
EXP A TXN3	C9	0.22u4/X5R/6.3V/K	EXP A TXN3C
EXP A TXP4	C10	0.22u4/X5R/6.3V/K	EXP A TXP4C
EXP A TXN4	C11	0.22u4/X5R/6.3V/K	EXP A TXN4C
EXP A TXP5	C12	0.22u4/X5R/6.3V/K	EXP A TXP5C
EXP A TXN5	C13	0.22u4/X5R/6.3V/K	EXP A TXN5C
EXP A TXP6	C14	0.22u4/X5R/6.3V/K	EXP A TXP6C
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EXP A TXP7	C16	0.22u4/X5R/6.3V/K	EXP A TXP7C
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EXP A TXP9	C20	0.22u4/X5R/6.3V/K	EXP A TXP9C
EXP A TXN9	C21	0.22u4/X5R/6.3V/K	EXP A TXN9C
EXP A TXP10	C22	0.22u4/X5R/6.3V/K	EXP A TXP10C
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EXP A TXP11	C24	0.22u4/X5R/6.3V/K	EXP A TXP11C
EXP A TXN11	C25	0.22u4/X5R/6.3V/K	EXP A TXN11C
EXP A TXP12	C26	0.22u4/X5R/6.3V/K	EXP A TXP12C
EXP A TXN12	C27	0.22u4/X5R/6.3V/K	EXP A TXN12C
EXP A TXP13	C28	0.22u4/X5R/6.3V/K	EXP A TXP13C
EXP A TXN13	C29	0.22u4/X5R/6.3V/K	EXP A TXN13C
EXP A TXP14	C30	0.22u4/X5R/6.3V/K	EXP A TXP14C
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EXP A TXP15	C32	0.22u4/X5R/6.3V/K	EXP A TXP15C
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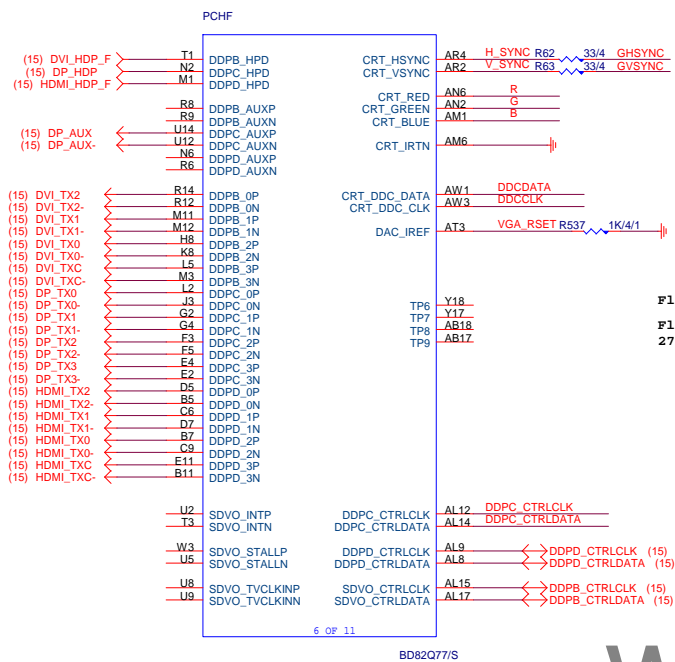


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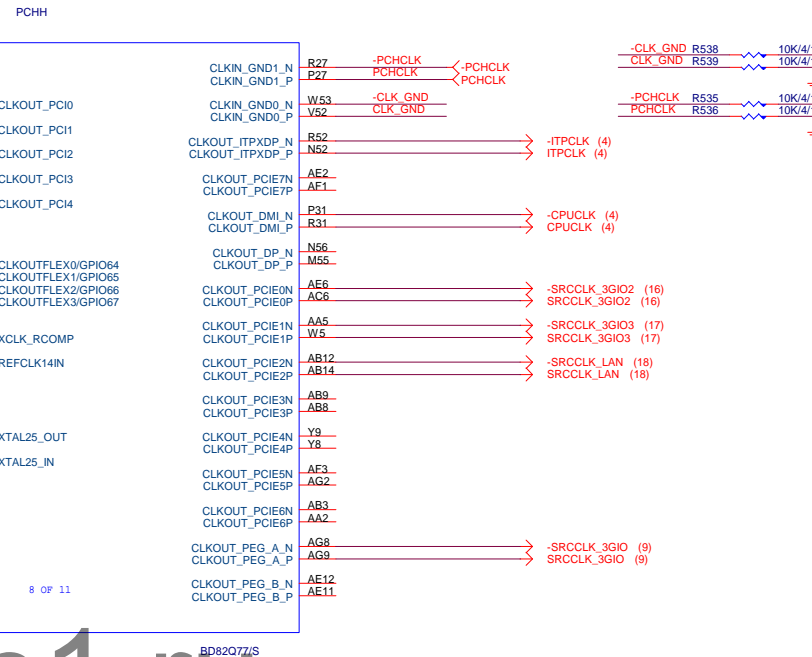
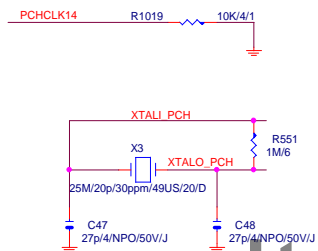
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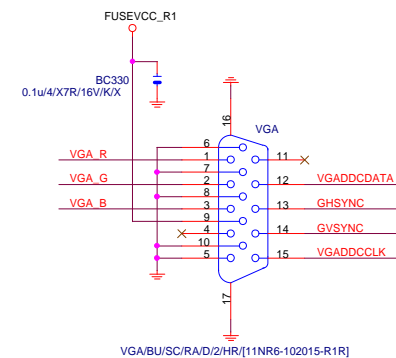
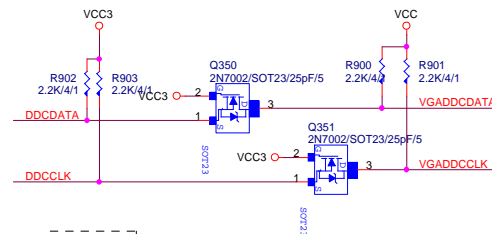
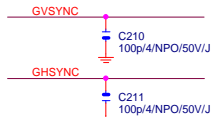
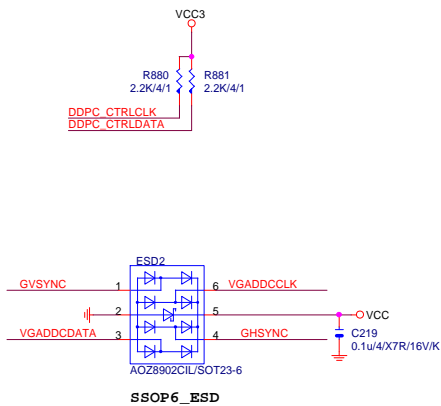




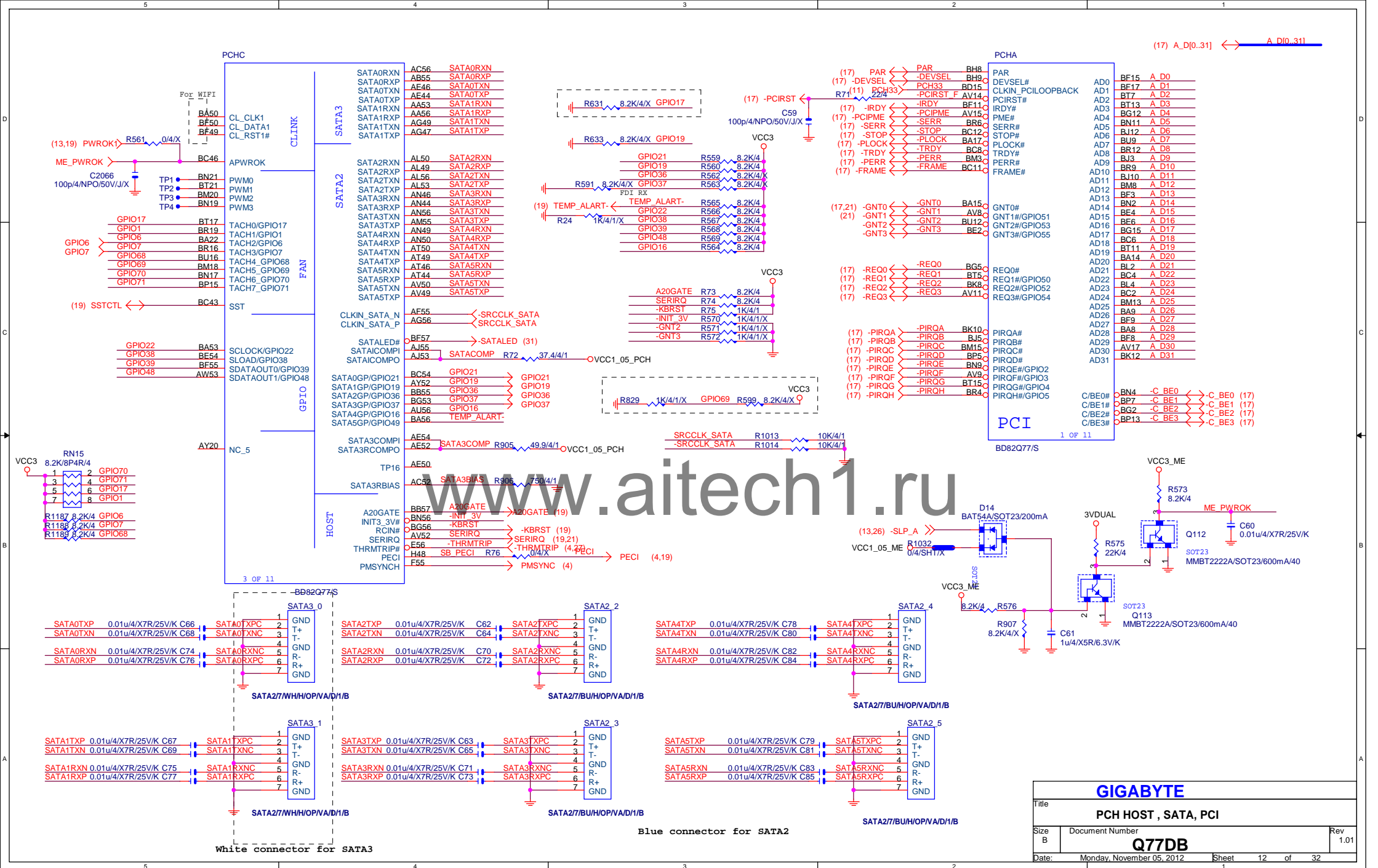
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 27/14/24/48/25MHZ

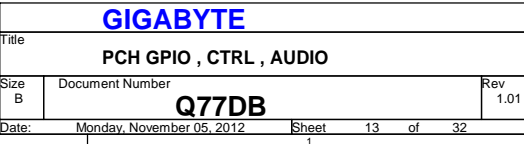


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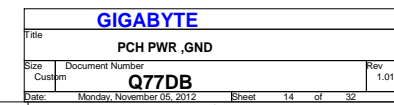


GIGABYTE			
PCH DISPLAY ,CLK BUFFER			
Title	Document Number	Rev	
Size	Custom	1.01	
Q77DB			
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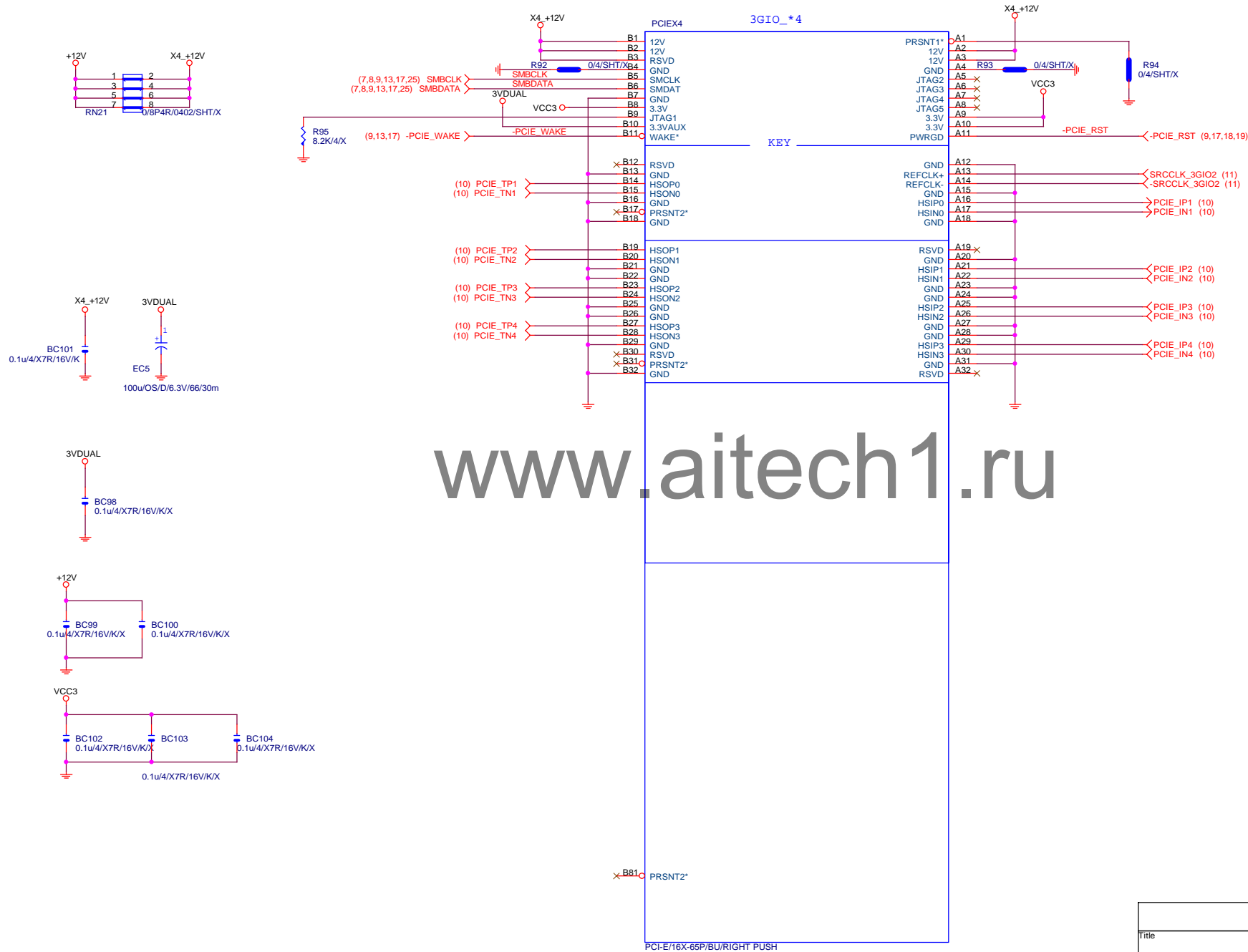






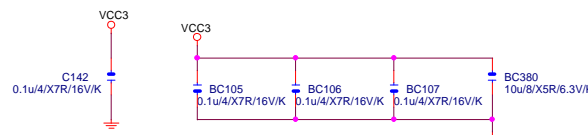
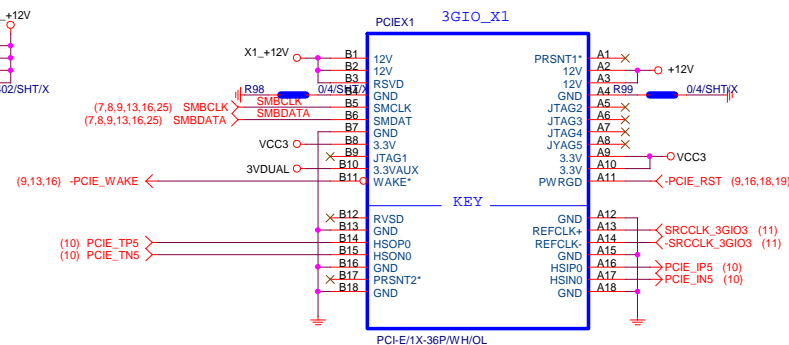
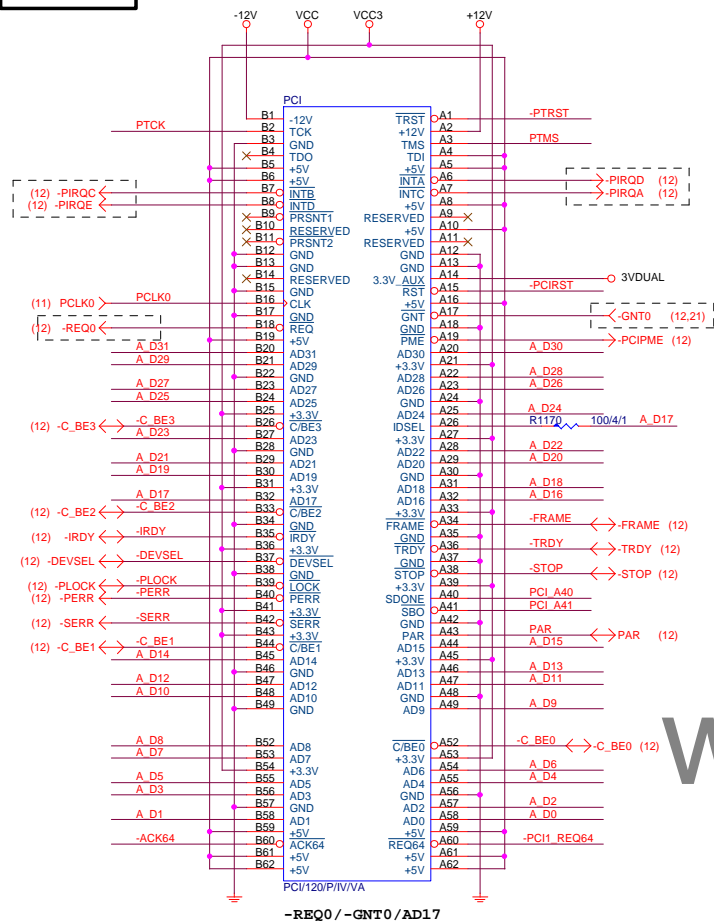


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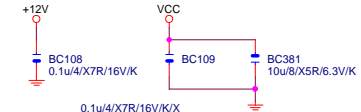
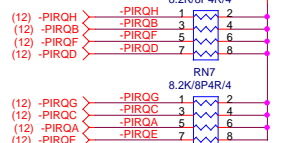
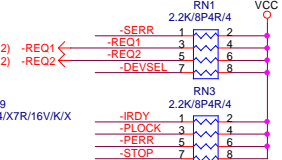
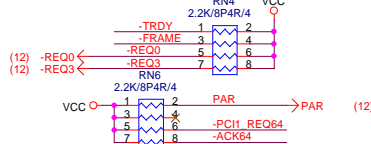
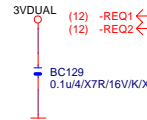
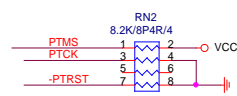
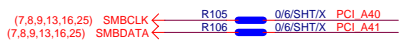


GIGABYTE			
Title			
PCI EXPRESS X 4 PORT			
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## PCI SLOT

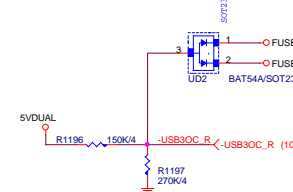
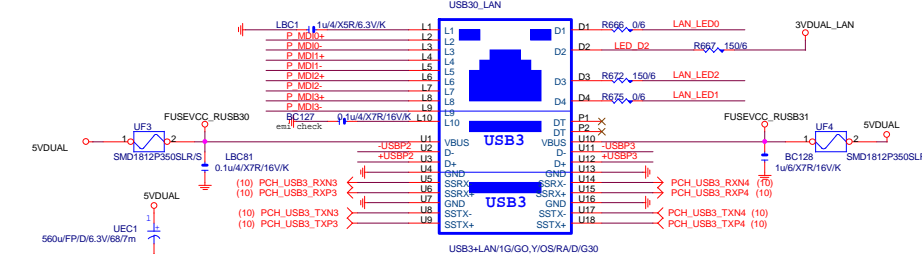
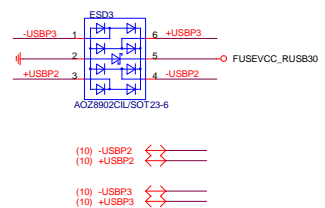
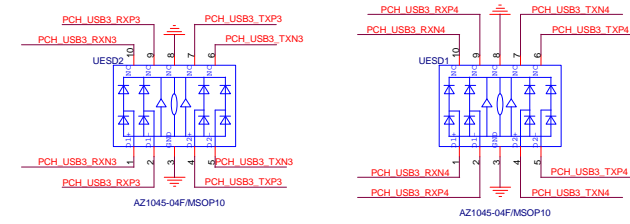
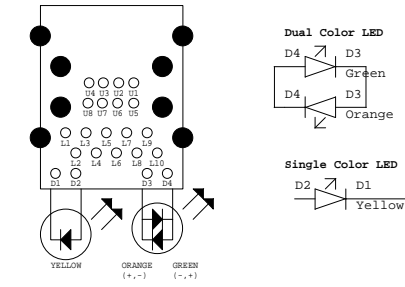
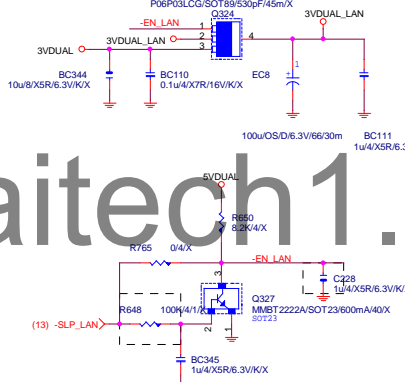
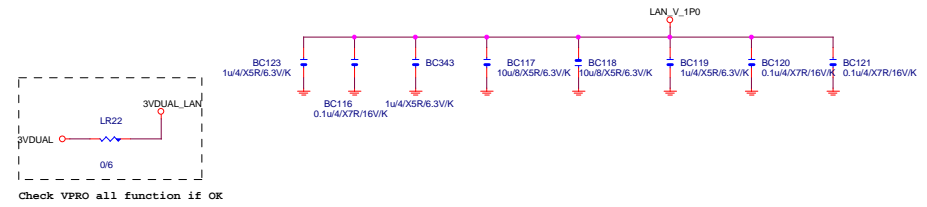
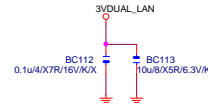
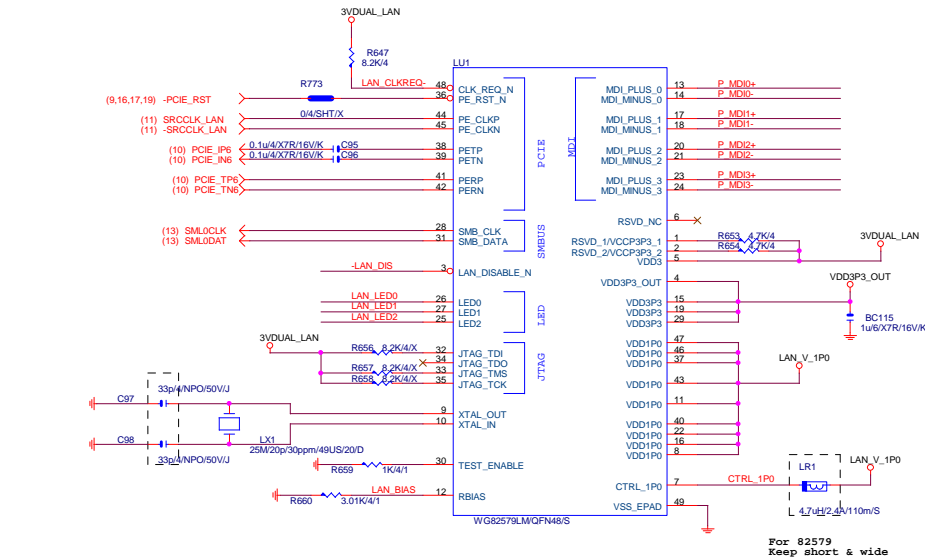


Place close to PCI1



**GIGABYTE**

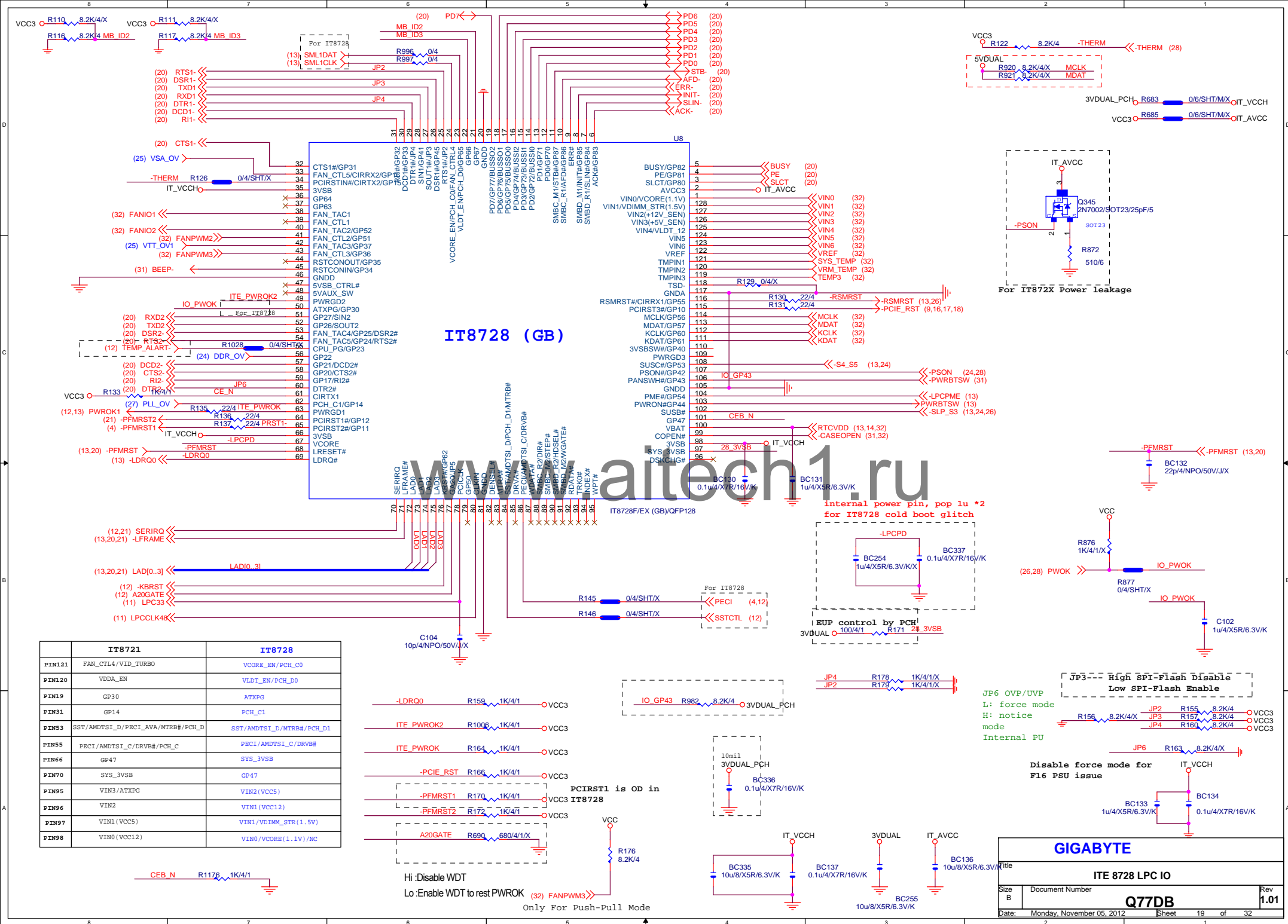
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PCIEX1,PCI SLOT			
Size Custom	Document Number	Q77DB	Rev 1.01
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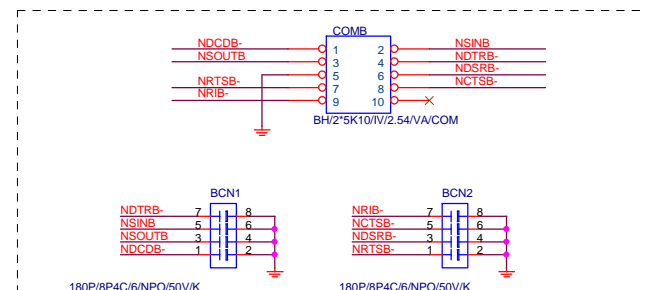
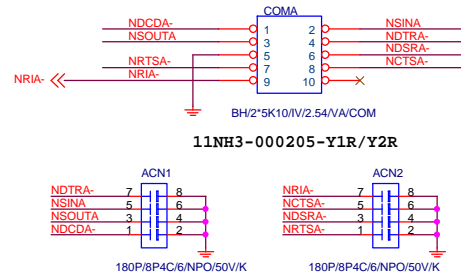
1Gb	Orange
100Mb	Green
10Mb	Off

Access	Blinking
Link	Yellow

GIGABYTE		
Title LEWISVILLE_82579		
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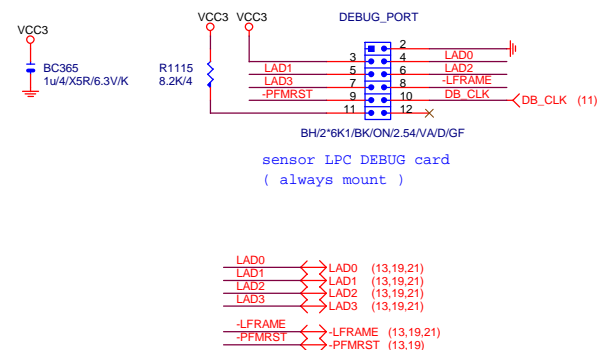
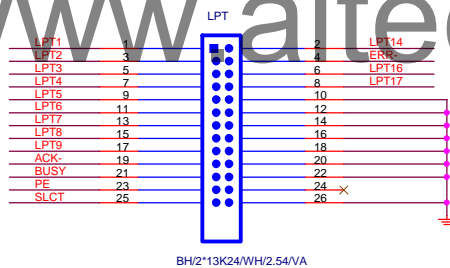


COMB



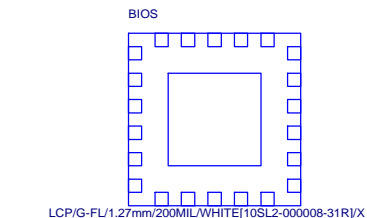
PLACE NEAR COM CONNECTOR

80 PORT



**GIGABYTE**

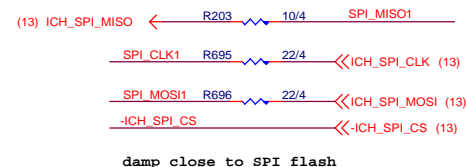
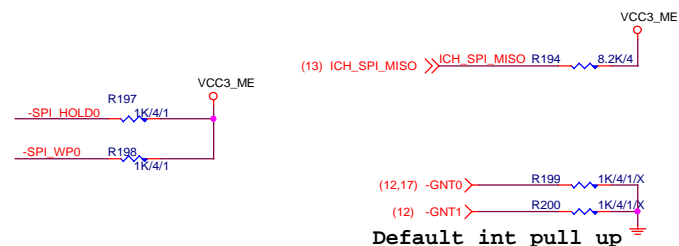
Title				COM A/B & LPT & 80 PORT			
Size	Document Number						Rev
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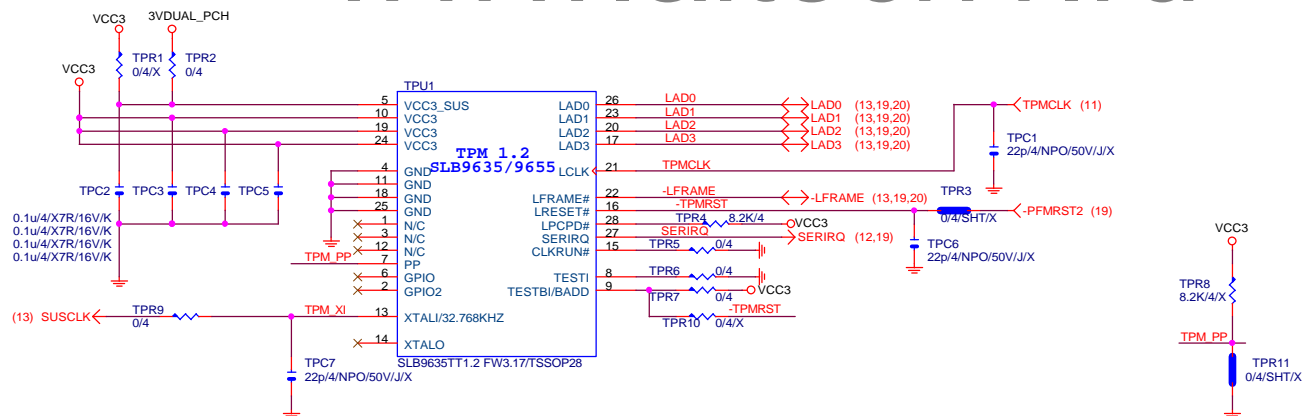
```

1 means floating
0 means PD 1K

```

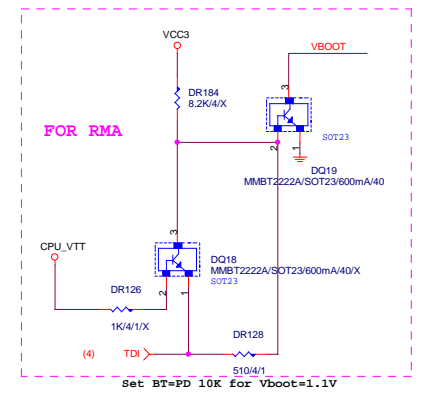
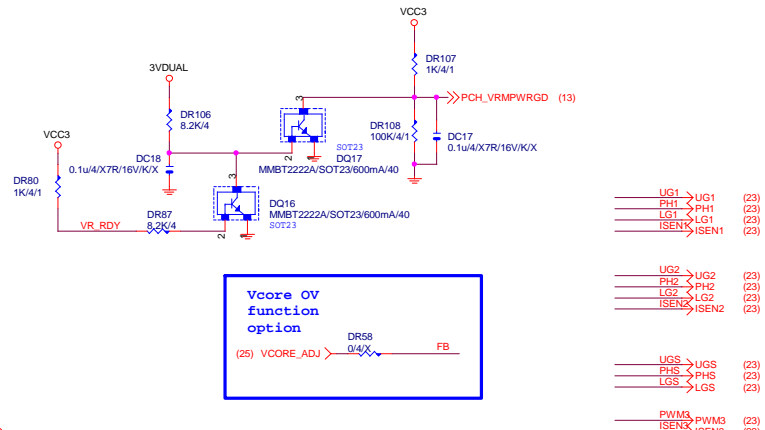
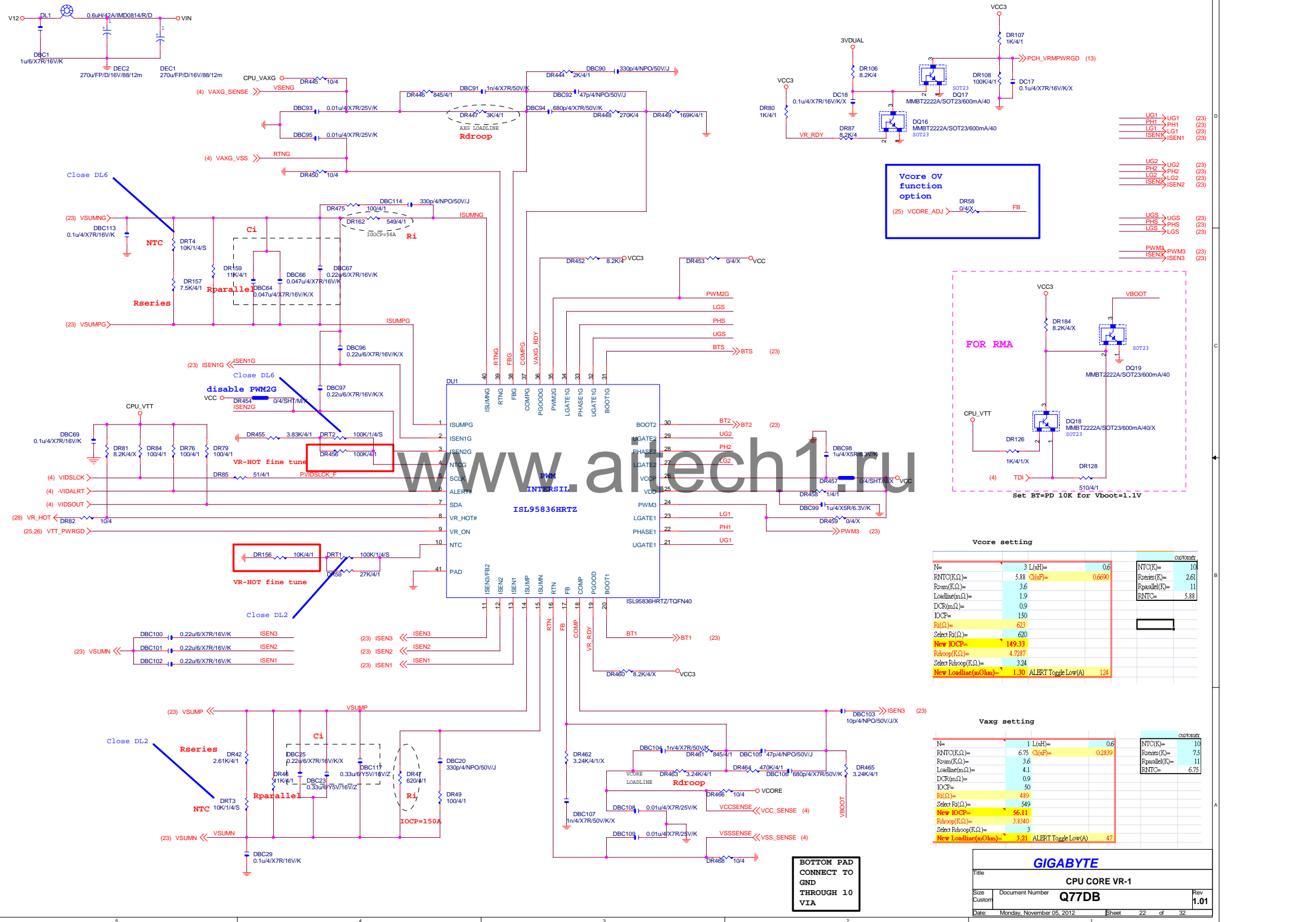


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**GIGABYTE**

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Size Custom	Document Number	<b>Q77DB</b>	Rev <b>1.01</b>
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Vcore setting

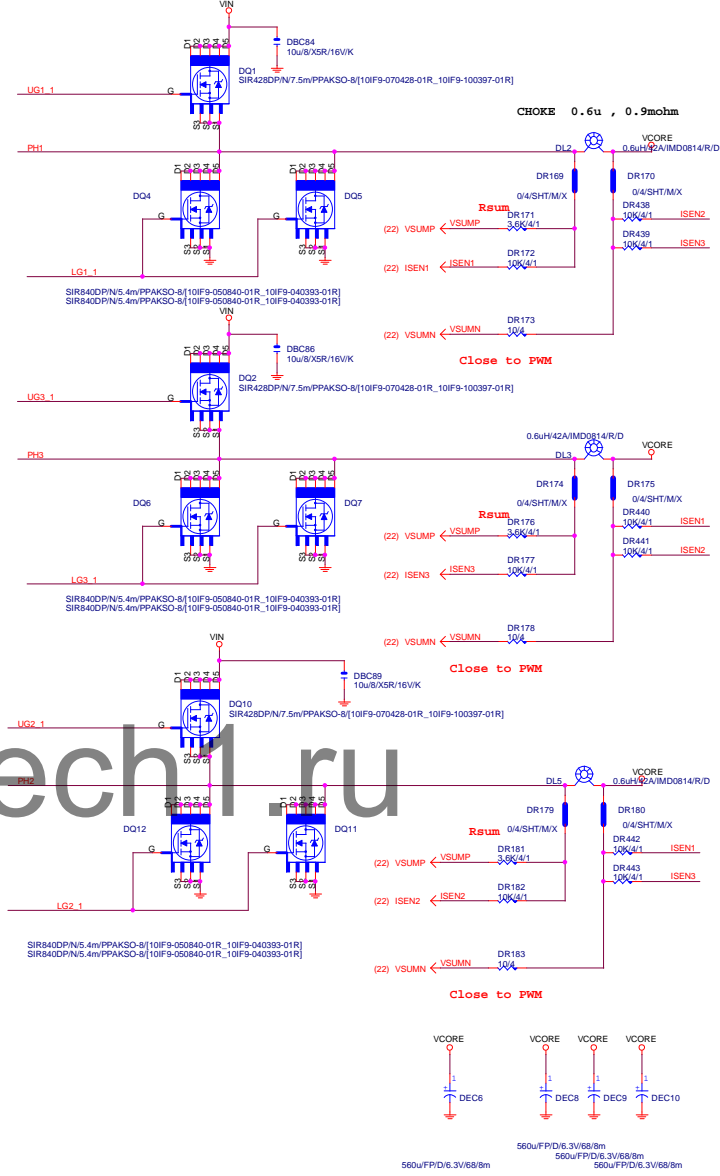
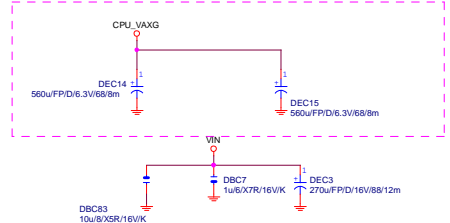
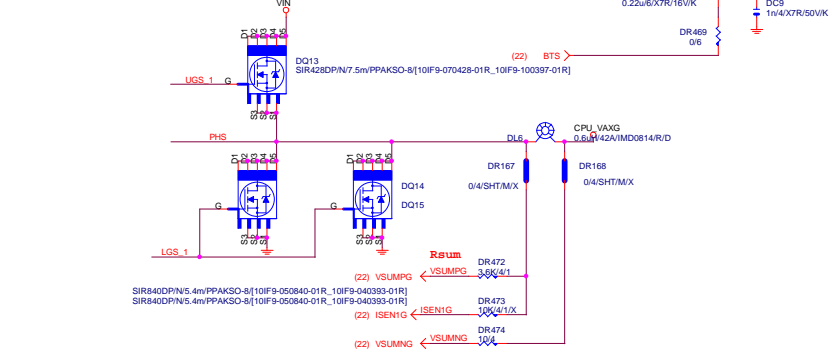
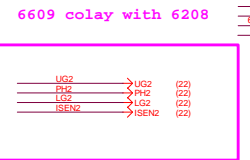
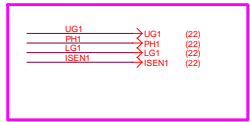
N=	3	L(uH)=	0.6	customer
RNTC(K.Ω)=	5.88	C(uF)=	0.690	NTC(K)= 10
Rsum(K.Ω)=	3.6			Rseries(K)= 2.61
Loadline(m.Ω)=	1.9			Rparallel(K)= 11
DCR(m.Ω)=	0.9			RNTC= 5.88
IOCP=	150			
Ri(Ω)=	623			
Select Ri(Ω)=	620			
New IOCP=	149.33			
Rdroop(K.Ω)=	4.7287			
Select Rdroop(K.Ω)=	3.24			
New Loadline(mOhm)=	1.30	ALERT Toggle Low(A)	124	

Vauxg setting

N=	1	L(uH)=	0.6	customer
RNTC(K.Ω)=	6.75	C(uF)=	0.2839	NTC(K)= 10
Rsum(K.Ω)=	3.6			Rseries(K)= 7.5
Loadline(m.Ω)=	4.1			Rparallel(K)= 11
DCR(m.Ω)=	0.9			RNTC= 6.75
IOCP=	50			
Ri(Ω)=	489			
Select Ri(Ω)=	549			
New IOCP=	56.11			
Rdroop(K.Ω)=	3.8340			
Select Rdroop(K.Ω)=	3			
New Loadline(mOhm)=	3.21	ALERT Toggle Low(A)	47	

BOTTOM PAD  
CONNECT TO  
GND  
THROUGH 10  
VIA





GIGABYTE			
CPU CORE VR-3			
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DDR\_15V

OCP :  
 $Rocset = (Iocp * Lgate, rdson) / Iocset$   
 $Iocset = 10uA$

VIN=5V, VOUT=1.5V, IOUT=25A, PHASE=1  
 IRMS=11.45A

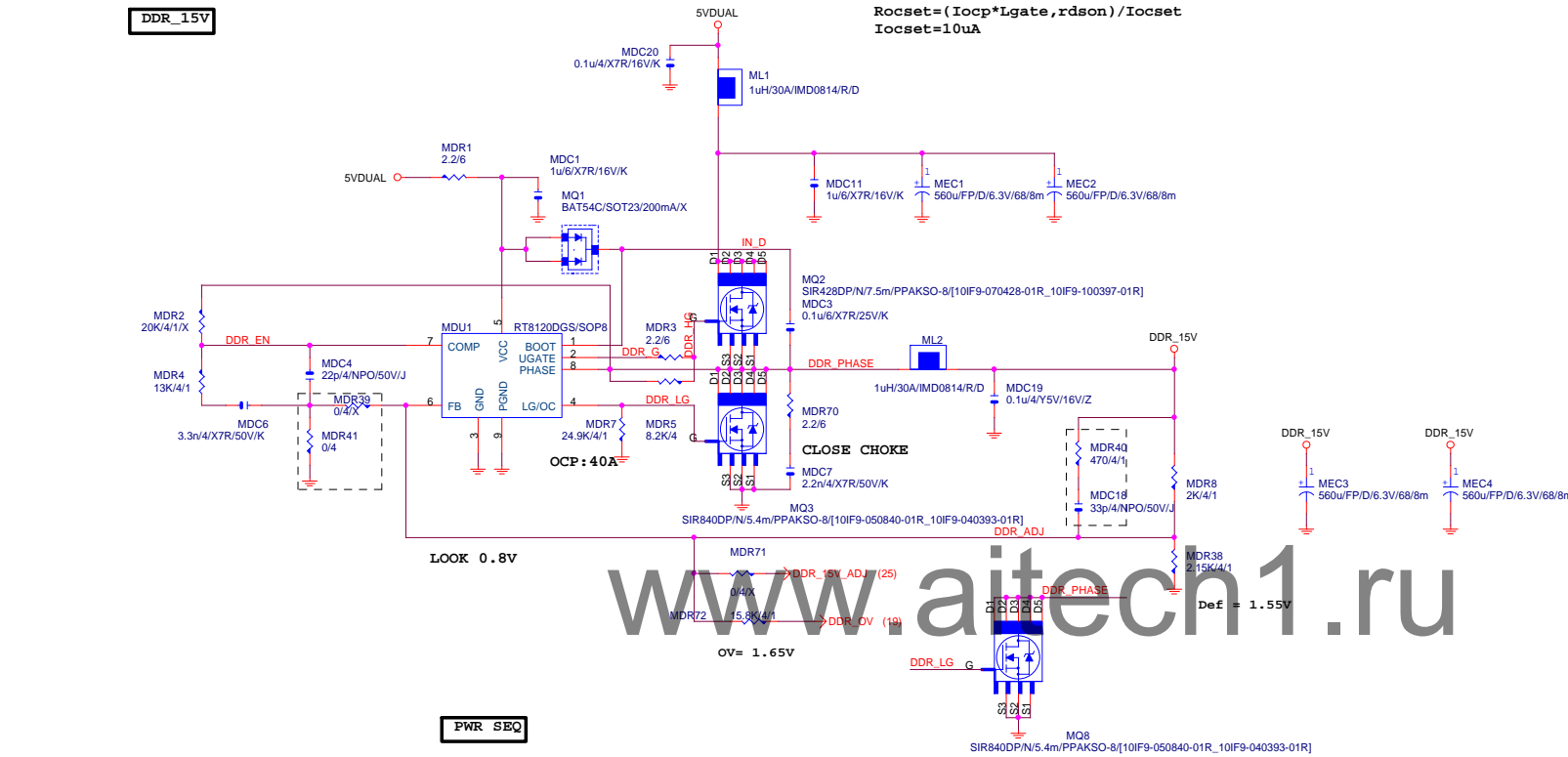
560u/FP/D/6.3V/68/8m RIPPLE CURRENT=4.7A  
 Coefficient=1.7(85°C), 1(105°C)

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

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

OCP :  $I_{peak} = (2 \times Iocset \times Rocset) / Rdson$   
 typ  $Iocset = 20uA$  ,  $Rocset = 4.7k$

OCP :  $53.71A = (2 \times 20uax4.7k) / (7m / 7m)$



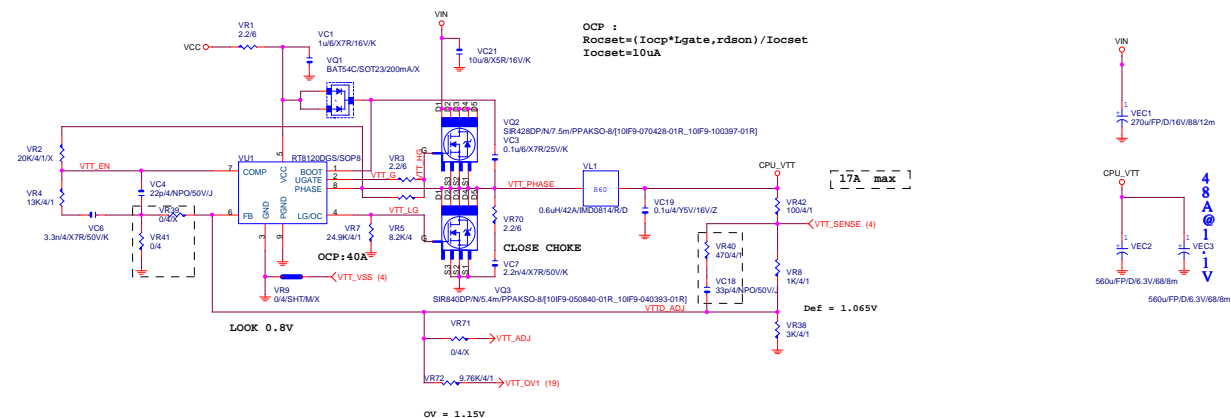
PWR\_SEQ



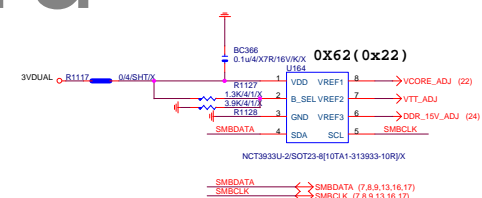
**GIGABYTE**

Title			DDR POWER
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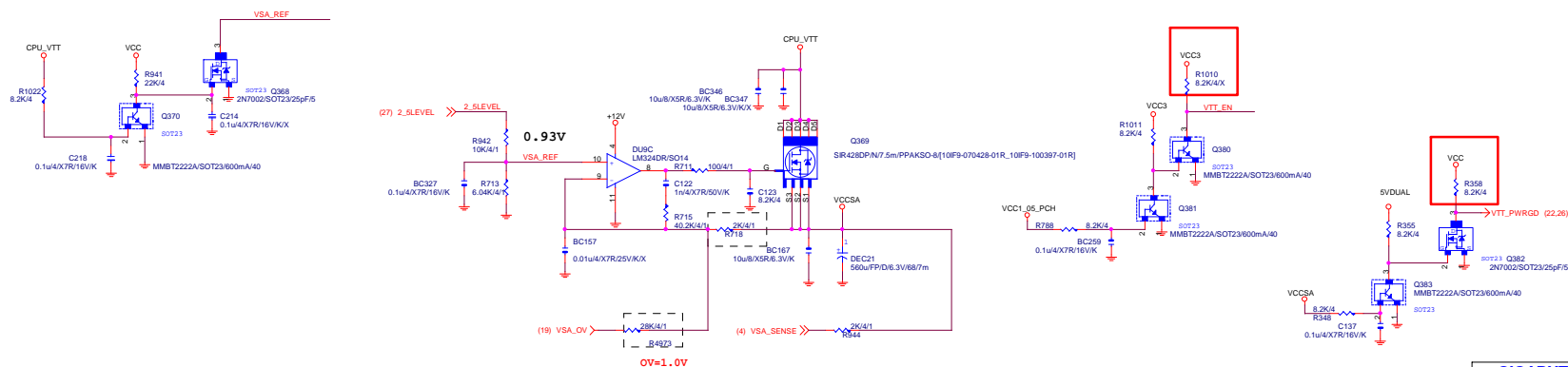
CPU\_VTT



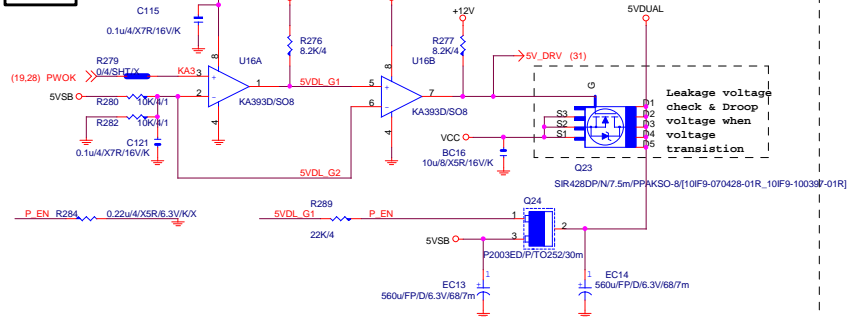
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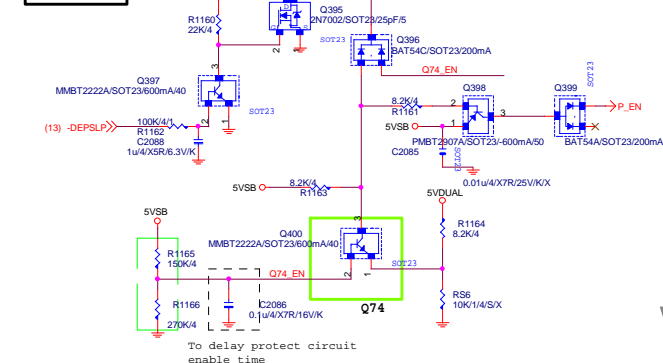
VCC\_SA



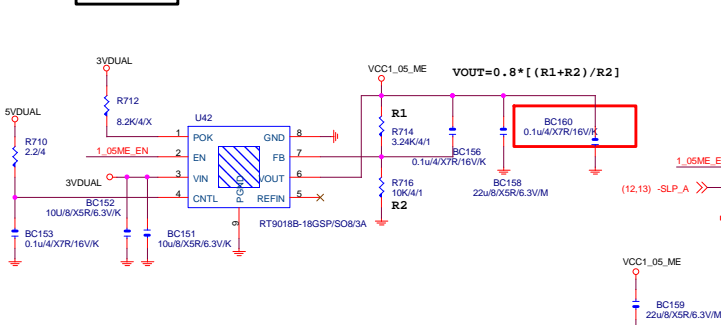
# 5VDUAL



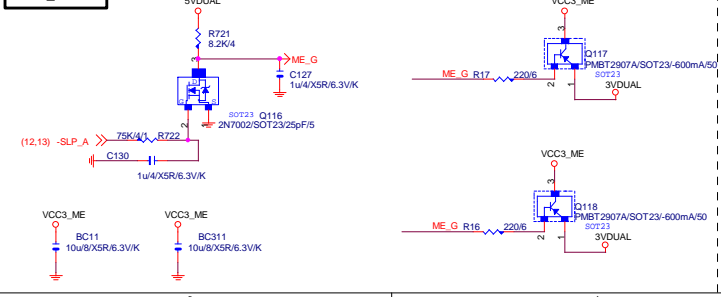
# 5VDUAL UVP



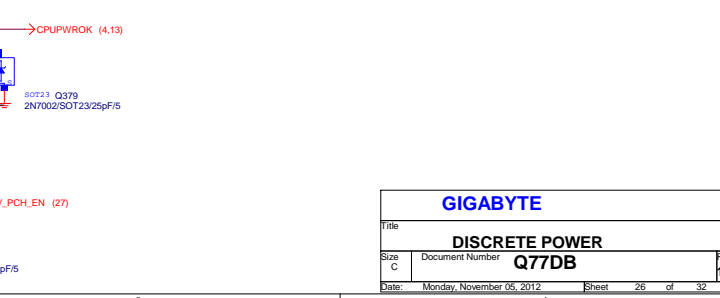
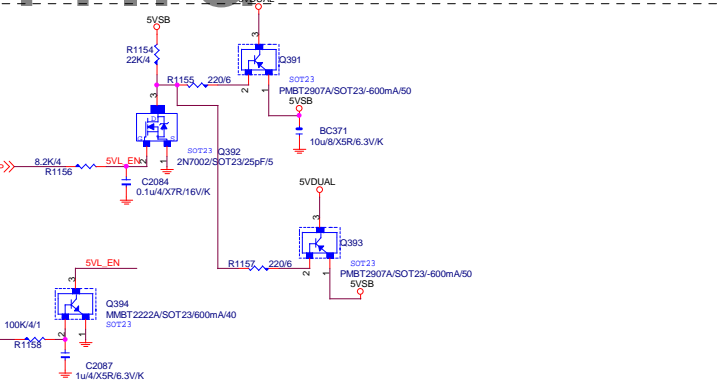
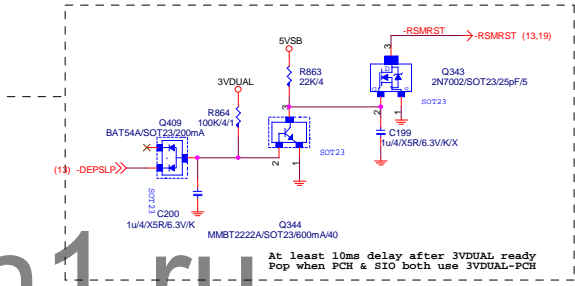
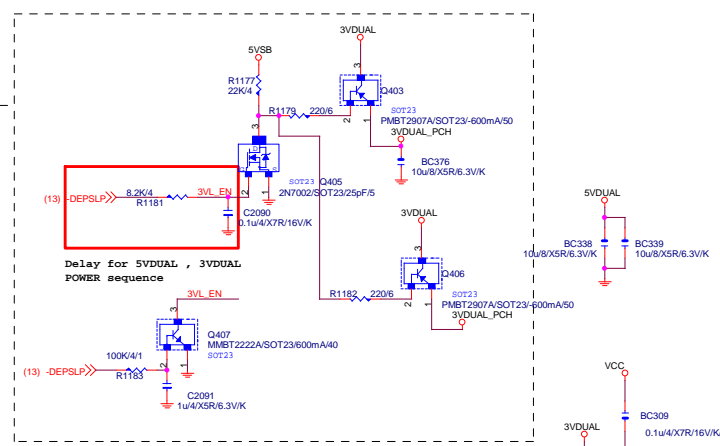
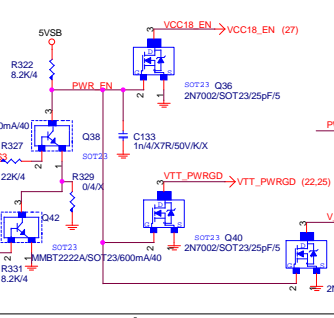
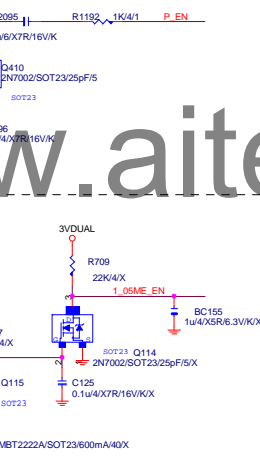
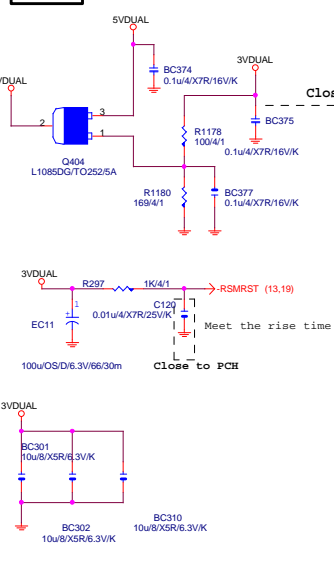
# VCC1\_05\_ME



# VCC3\_ME



# 3VDUAL



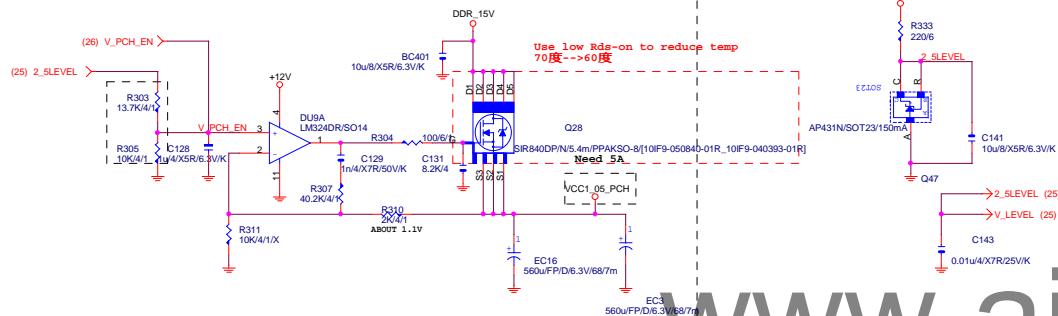
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GIGABYTE

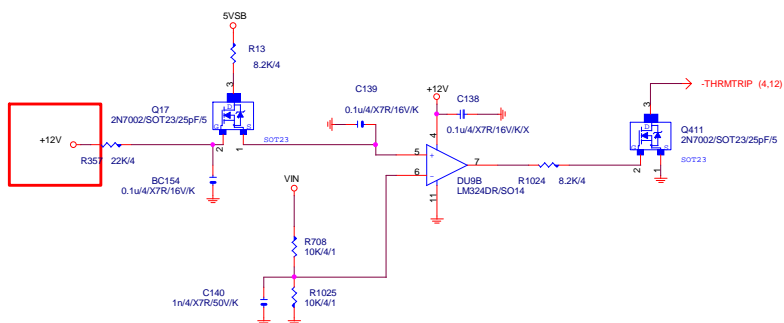
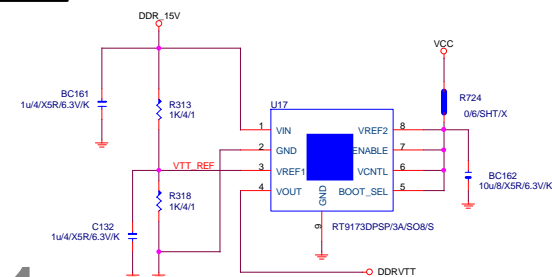
DISCRETE POWER  
Q77DB

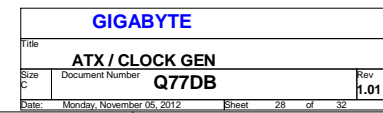
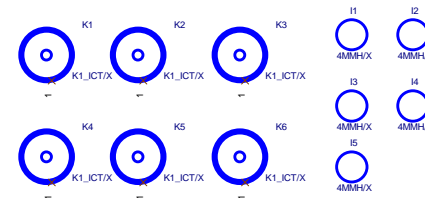
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VCC1\_05\_PCH

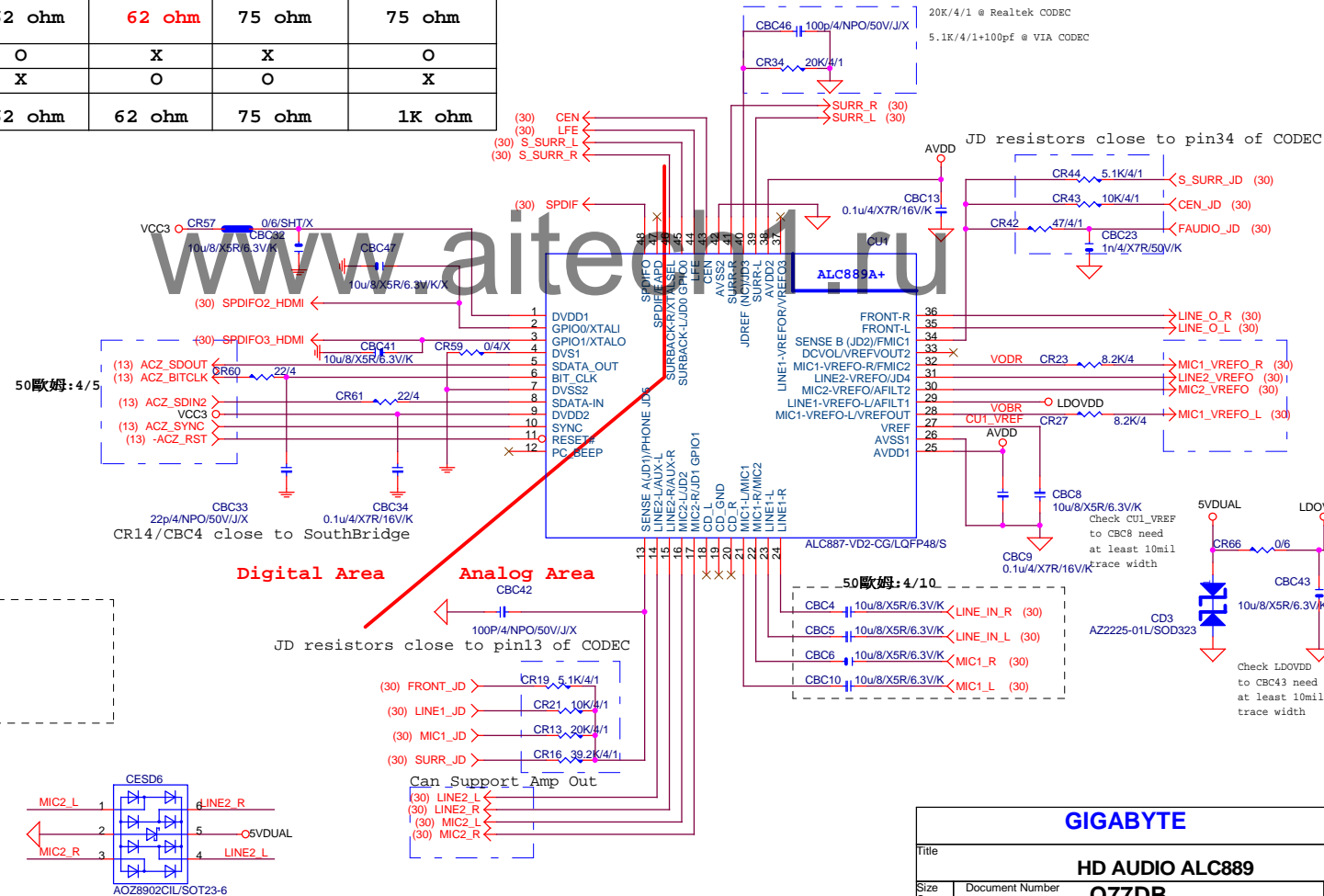


## DDRVTT





	ALC662	ALC887-VD2	ALC889	VT1708S	VT1708SCE
CR59	X	X	O	O	X
CR	X	X	X	X	0.1u/4
CBC41	O	O	X	X	O
CR42/CBC23	47ohm+1nF	47ohm+1nF	47ohm+1nF	22ohm+100P	22ohm+100P
CR63	X	O	O	O	O
CR56	O	X	X	X	X
CBC4/CBC5	22uF/X5R	22uF/X5R	22uF/X5R	22uF/X5R	22uF/X5R
CR19	5.11K/4/1	5.11K/4/1	5.11K/4/1	5.1K/4/1	5.1K/4/1
CR34	20K/4/1	20K/4/1	20K/4/1	5.1K/4/1	20K/4/1
CBC42/CBC46	N/A	N/A	N/A	100P/4	100P/4
CR14/CR33/CR28/CR45/ CR41/CR46/CR2/CR4/ CR35/CR39	22K/4	22K/4	22K/4	10K/4	10K/4
CR32/CR15/CR51/CR25 /CR52/CR40/CR3/CR1/ CR9/CR6/CR36/CR38	62 ohm	62 ohm	62 ohm	75 ohm	75 ohm
CR66/CD3/CBC43	O	O	X	X	O
CD1/CD2/CQ4/CQ5/CBC36	X	X	O	O	X
CR12/CR17/CR22/CR26	62 ohm	62 ohm	62 ohm	75 ohm	1K ohm



GIGABYTE

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# FRONT USB1

# FRONT USB2

# SATA LED

# SPKR

# INTEL FRONT PANEL

# F\_USB POWER

# CLOSE R\_USB

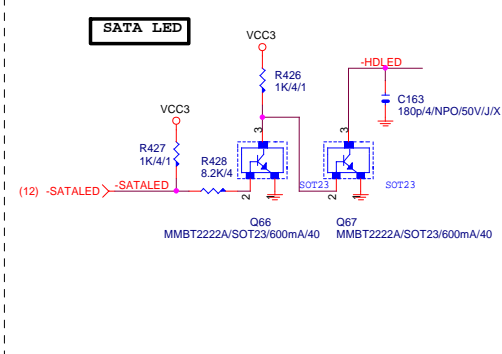
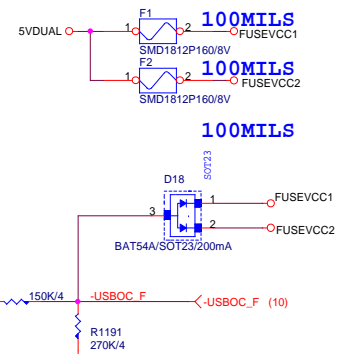
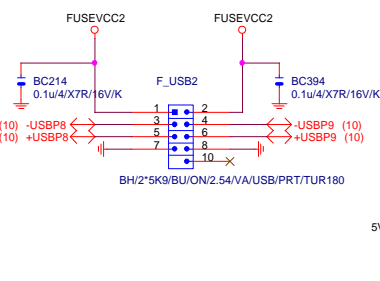
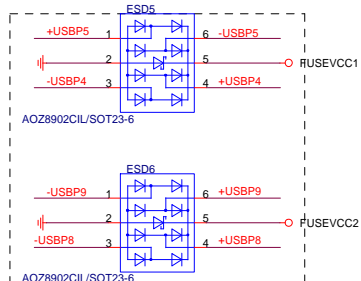
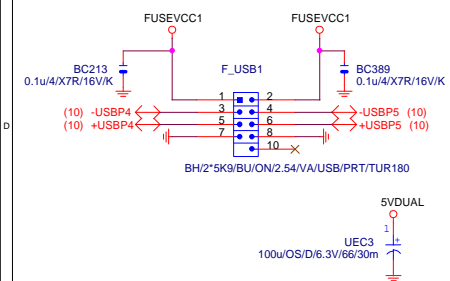
# GIGABYTE

FF,F\_USB,USB PWR,BZ

Q77DB

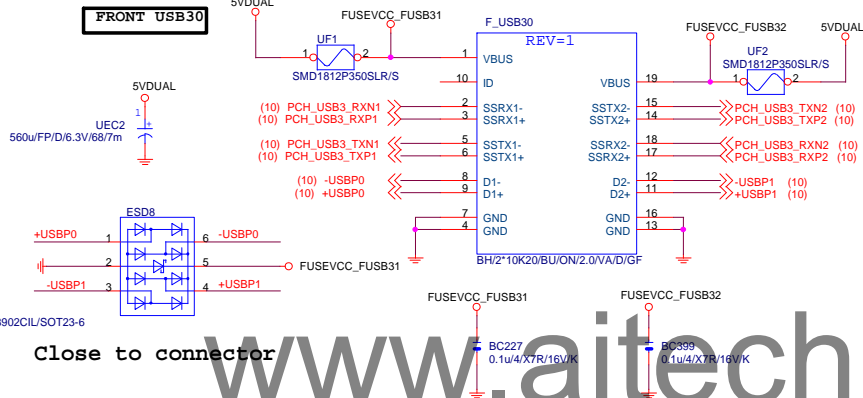
Rev 1.01

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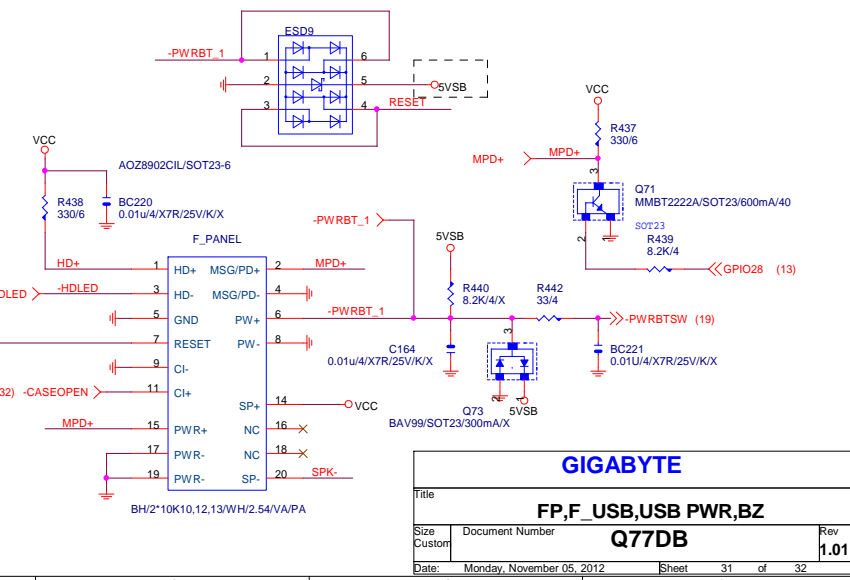
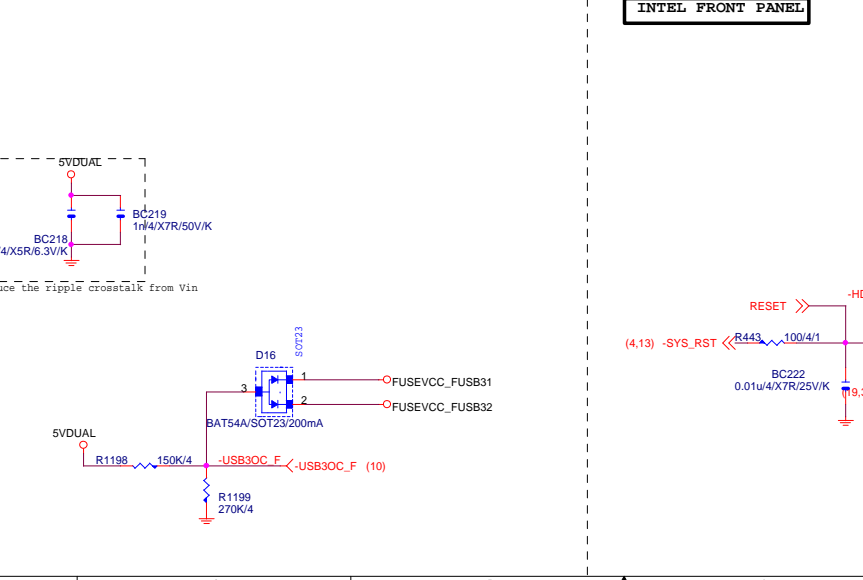
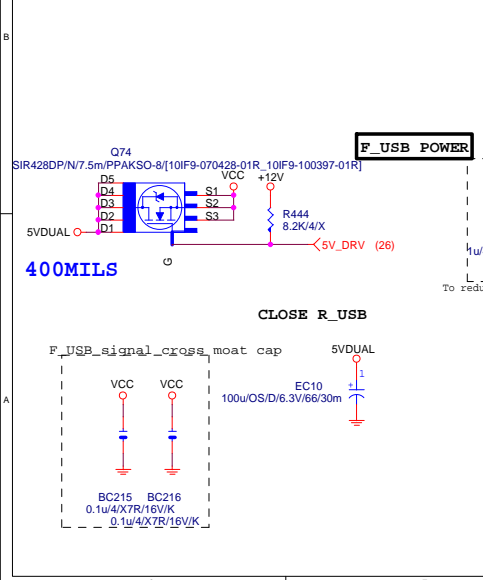
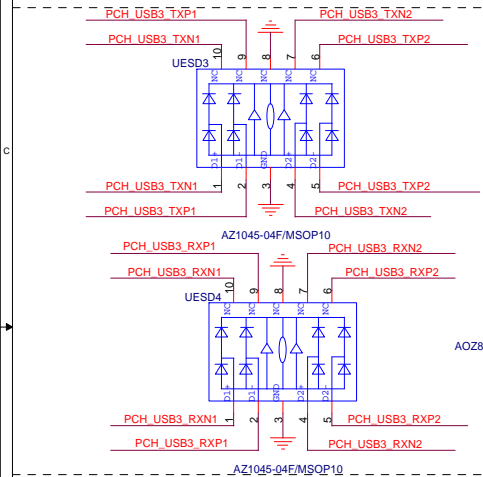
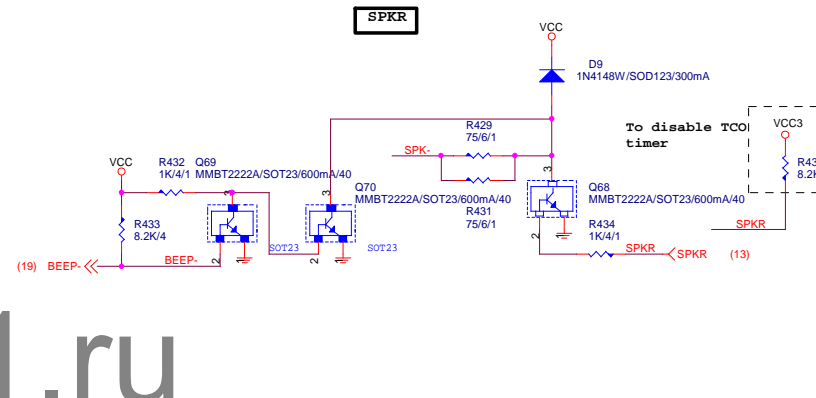


Close to connector

# FRONT USB30



Close to connector



(19) VREF ←

(19) SYS\_TEMP ←

(9) VRM\_TEMP ←

(9) TEMP3 ←

C166 1u4/X5R/6.3V/K

C167 1u4/X5R/6.3V/K

R446 10K/4/1

R447 10K/4/1

R448 10K/4/1

RS4 10K/1/4/S Close SIO

RS5 10K/1/4/S Close PCH

C225 1u4/X5R/6.3V/K

Close VRM MOS

**CASE OPEN**

Q77 enable -CI by PCH for AMT

R1027  
0/4/SHT/X  
->INTRUDER (13)

R469  
1M/4/X  
(13,14,19) RTCVDD <-

-CASEOPEN <- CASEOPEN (19,31)

C170  
0.01u/4/X7R/25V/K

Change to 0.01u from 1u to fix the first battery on Case open abnormal.

Case Open Circuits

**VOLTAGE-- H/W MONITOR**

(19) VIN0 ← R1134 8.2K/4 CPU\_VTT

C2081 1u4/X5R/6.3V/K

VCORE R481 8.2K/4

DDR\_15V R482 8.2K/4

VCC3 R483 6.49K/4/1

+12V R484 75K/4/1

VCCSA R485 8.2K/4

VCC R486 15K/4/1

(19) VIN5

(19) VIN6

(19) VIN1

(19) VIN2

(19) VIN4

C201 1u4/X5R/6.3V/K

C202 1u4/X5R/6.3V/K

C203 1u4/X5R/6.8V/K

C204 1u4/X5R/6.3V/K

R879 110K/4/1

R496 15K/4/1

C205 1u4/X5R/6.3V/K

C173 1u4/X5R/6.3V/K

R878 10K/4/1

(19) VIN3

[illegible]

R1135  
 100/4/1  
 (19) FANPWM3  
 +12V  
 R1138  
 0/4  
 BC369  
 1u6/X7R/16V/K  
 +12V  
 R1139  
 3.3K/4/1  
 R1141  
 15K/4/1  
 R1143  
 6.2K/4/1  
 C2082  
 0.047u4/X7R/16V/K  
 FANIO1 (19)  
 CPU\_FAN  
 FAN/1\*4/WH/A3/PA66

[illegible][illegible]

<b>GIGABYTE</b>			
Title			
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