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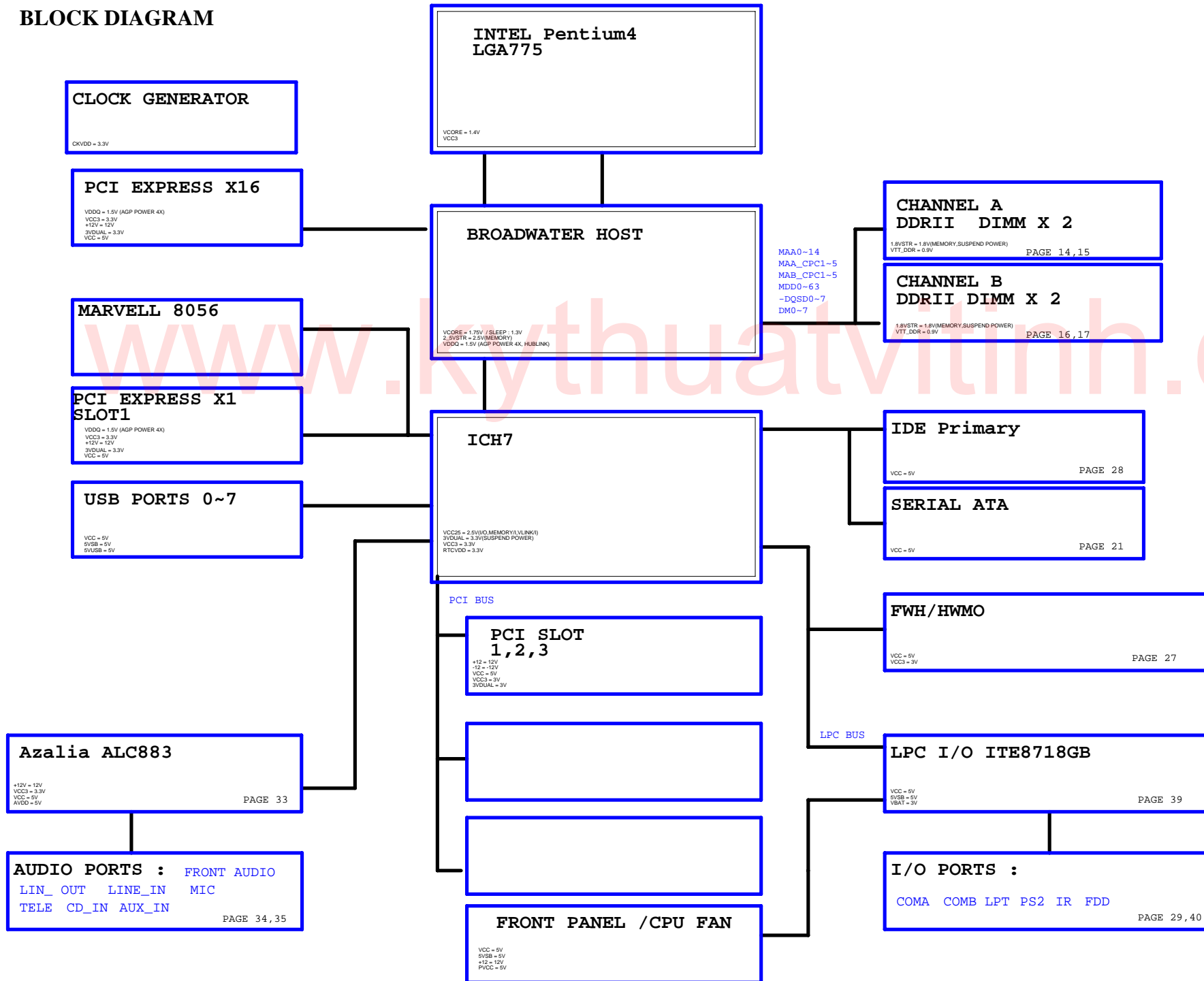
SHEET TITLE

28	FRONT PANEL
29	FRONT USB,REAL USB CONNECT
30	PROCESSOR HOT
31	ALC883
32	REAR AUDIO JACK
33	FRONT AUDIO CONNECTOR
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35	ITE 8712/8718 GBKX
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37	VCORE PWM
38	DISCRETE POWER
39	GPIO DEFINE
40	GPIO DEFINE
41	
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Intel Confidential

Cover Sheet		
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	945G-DS3	2.02
Date:	Friday, November 17, 2006	Sheet 1 of 40

BLOCK DIAGRAM



Model Name: 945G-DS3
Version:2.02

Circuit or PCB layout change
for next version

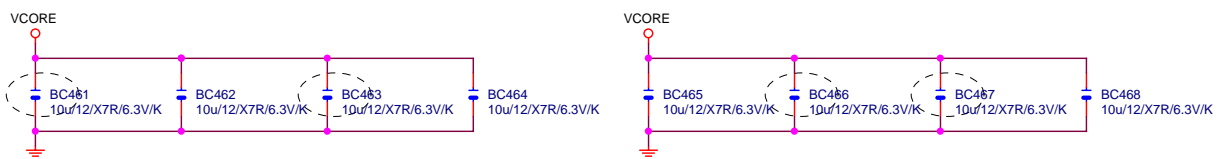
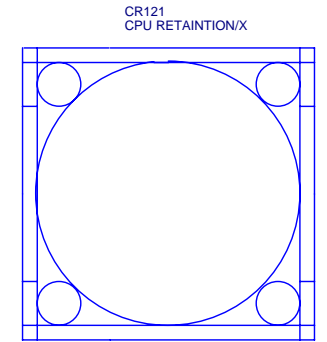
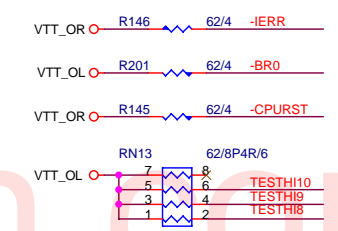
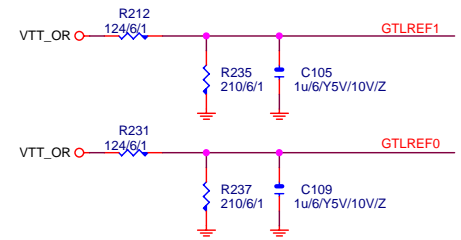
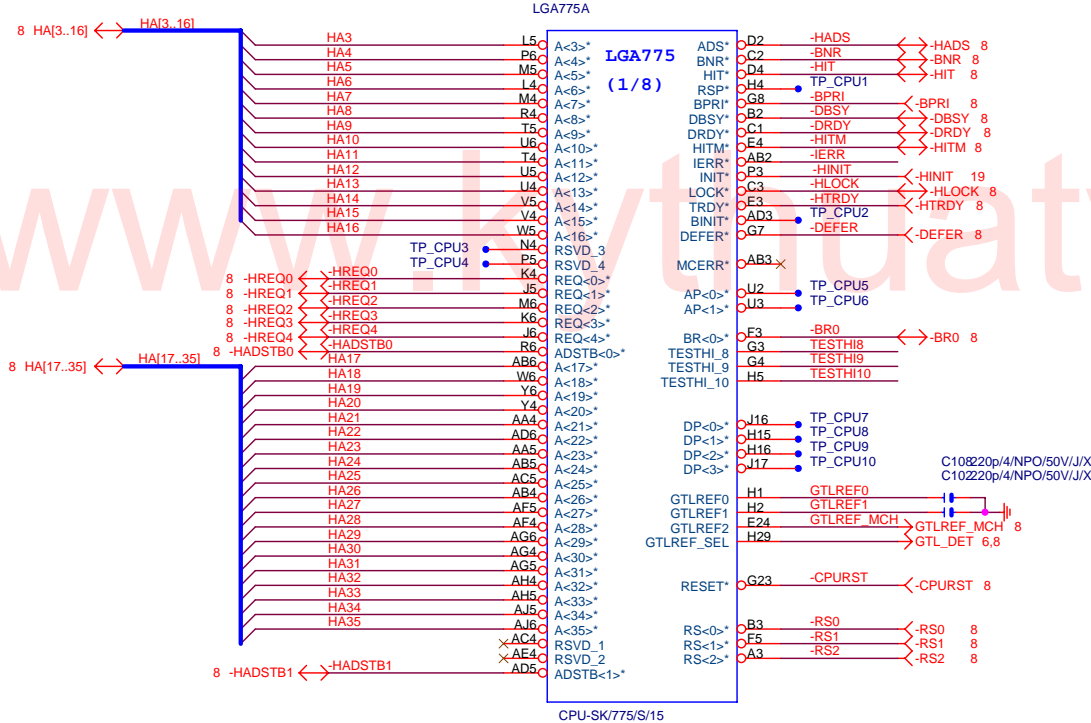
Component value change
history

2006

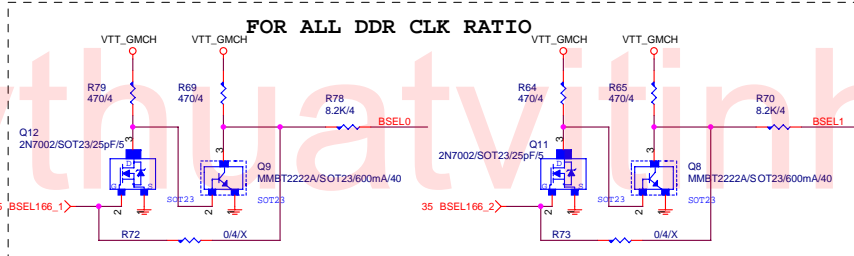
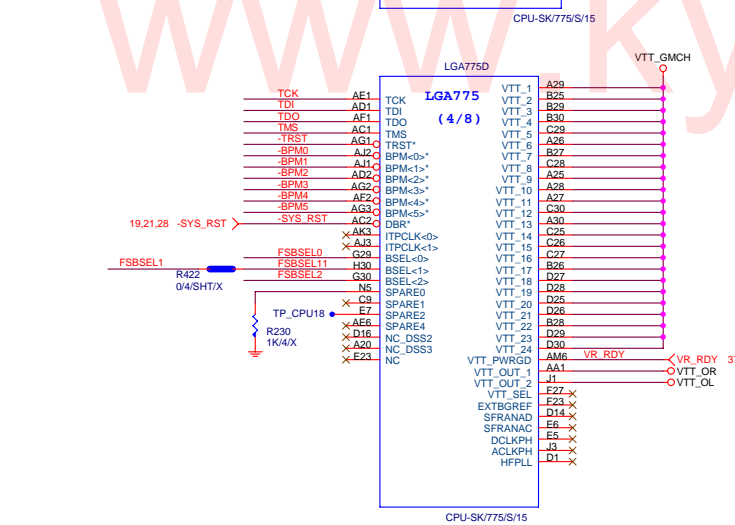
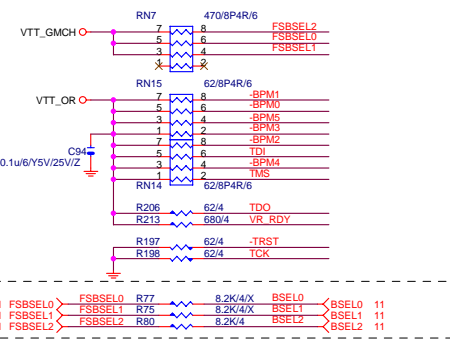
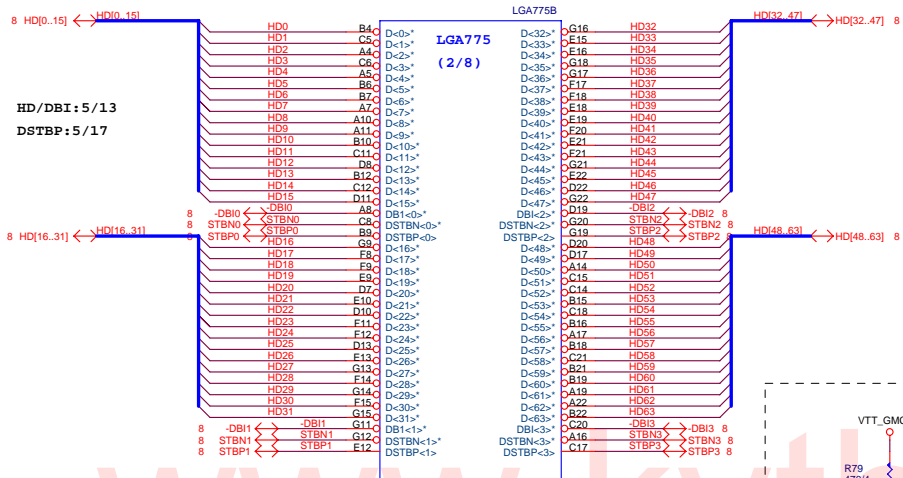
Data	Change Item	Reason
1.0A	EVT Release	
1.0B	1. PCB Rev1.0 --> REV1.01	
	2. DR68 200/6 --> 300/6	
	3. PROCHOT R379 2K/6/1 --> 1.78K/6/1	
	4. 包材修改	
	5. ADD COMP8 R101=30/6/1	
	6. PROCHOT & STPCLK D13=BAT54A REMOVE	
	7. CONROE 266MHZ --> 133MHZ R189=8.2K/4 , R169=22K/4 , ADD BC51 0.1U/4	
	8. DDRVTT ADD BC79,BC84=0.1U/6/Y5V/25V/Z	
	9. BC465,BC467,BC464,BC461 加替料	
	10CM3-041005-51R/54R/56R/57R/2AR	
	10. REMOVE PCI_BT1 , PCI_BT2	
1.0C	1. LPC DUAL BIOS SELECT REMOVE R458 , ADD R459=1K/4	
	2. RTL8111B ADD CAP FOR LBC45,35,55=0.1U/6 , LEC4,LEC6=100u/D	
2.0A	1. PWM 6 PHASE	
	2. VISTA SUPPORT	
2.0B	1. R224 1K/4 REMOVE	
	2. R2016 1K/4 --> 100/4	
	3. F2,F3 SMD FUSE 1.1A --> 1.6A	
	4. DL4,DL1,DL3:11LC5-40600C-W1R/W2R/W3R/W4R	
	5. L5,L13:11LC5-20200B-E1R/E2R/E3R/E4R	
	6. L12,L6:11LC5-20120B-W1R/W2R/W3R/W4R	
	7. PCB Rev2.0 --> Rev2.01	
	8. 包材修改	
	9. 大陸智恩 PCB REMOVE	
2.0B-ECN	1. REMOVE CPU IMPSEL R147=62/4	
2.0C	1. PCB REV2.01 -> REV2.02 (智恩,育富,鼎富,精成,全成信)	
	2. I/O SHIELD CHAMDE ADD 貼銘板	

DATE	Change Item	Reason
1.0	1. GA-945PL-S3 Rev1.01 --> GA-945P-S3 Rev1.0	
1.01	文字面 Dual Channel DDRII 移除	
	LAN LED LD1 REMOVE	
2.0	1. S/B HEATSINK 轉90,度	
	2. CEC11,CBC32 & CEC12,CBC37 不要 CO-LAYOUT	
2.01	1. 2uH Footprint : CHOKE2U-20A-SQ-1	
	2. POWER NET VCC1 5PCIEX CHANGE TO VCC1_5	
	3. CPU PIN.E7 ADD CPU_TP18	
	4. EC22 & CPU_FAN 靠太近	
	5. 文字面要出 GA-945P-DS3 , GA-945G-DS3, GA-945P-S2,GA-945G-S2	
2.02	1. ADD U23 FOR HSYNC & VSYNC LEVEL SHIFT	

HA/REQ: 5/13
ADSTB: 5/17



Gigabyte Technology		
Title P4_LGA775-A		
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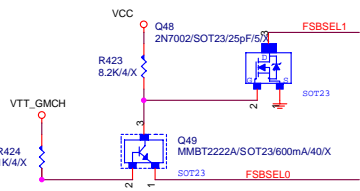


FOR ALL DDR CLK RATIO

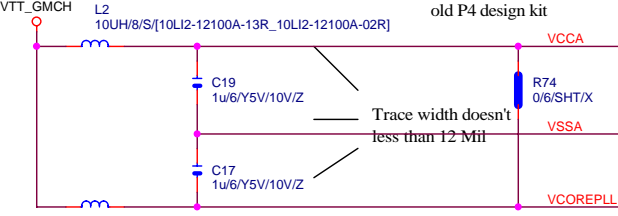
CHECK BSEL0/1 ITE8712 POWER ON 時電壓是否會高於1.2V

CPU

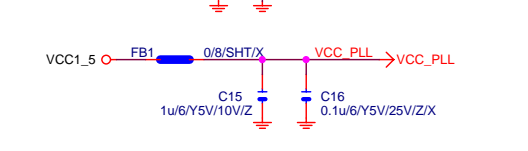
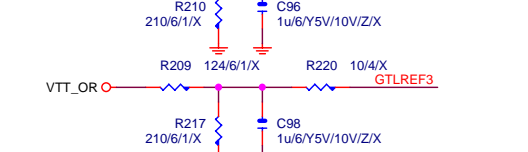
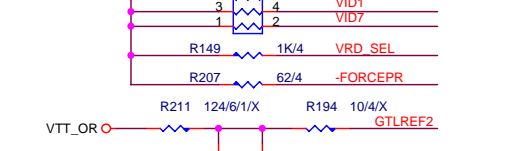
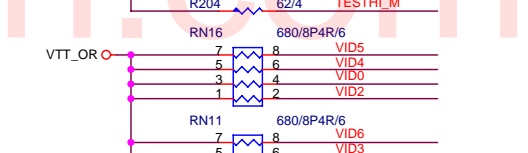
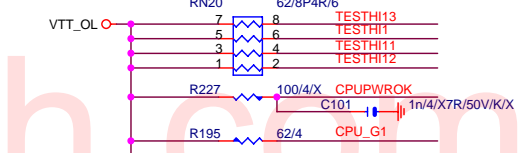
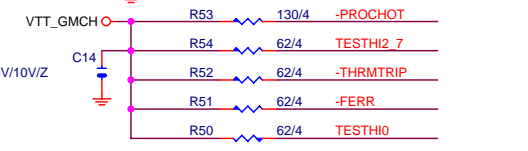
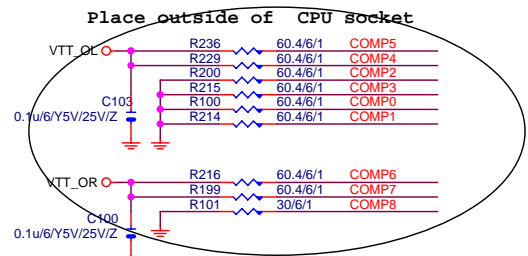
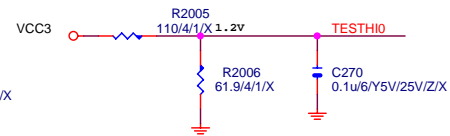
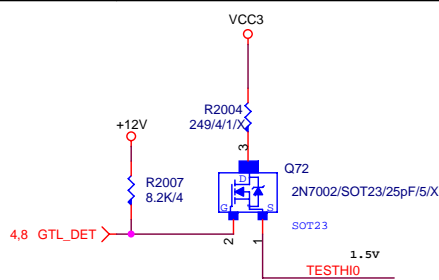
FSBSEL0	FSBSEL1	FSBSEL2	Clock	
1	0	1	100MHz	
1	0	0	1.33MHz	3/4
1	1	0	1.66MHz	# POWER ON
0	1	0	200MHz	
0	0	0	2.66MHz	1.5/2.0/2.5



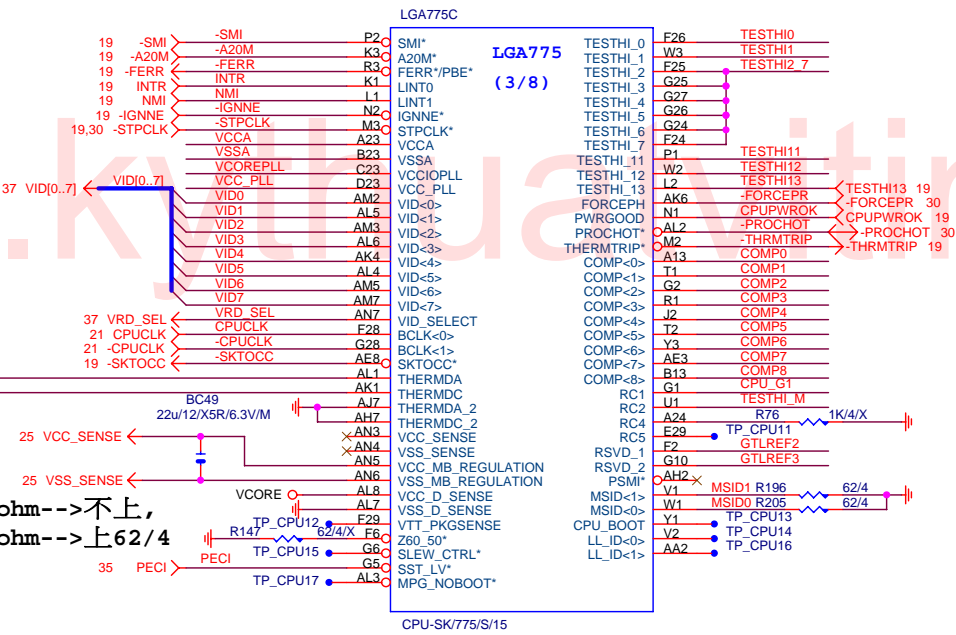
Note:
VCCA & VCOREPLL
define doesn't same as
old P4 design kit



As close as possible to
CPU socket



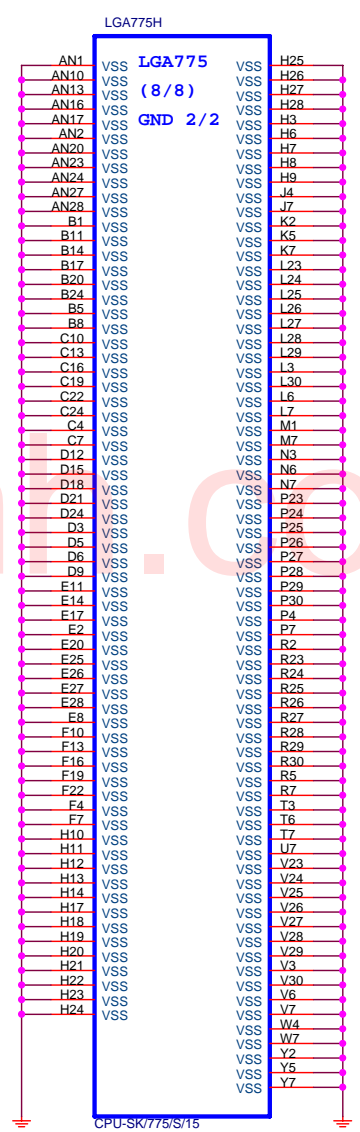
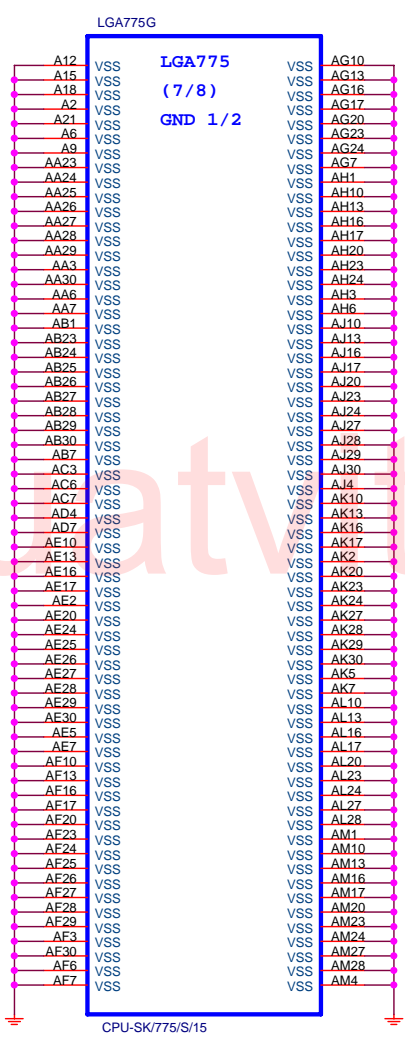
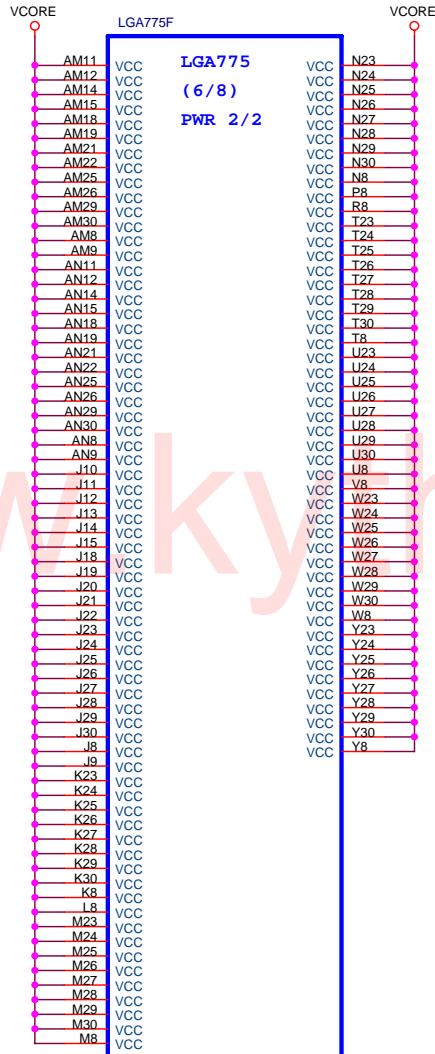
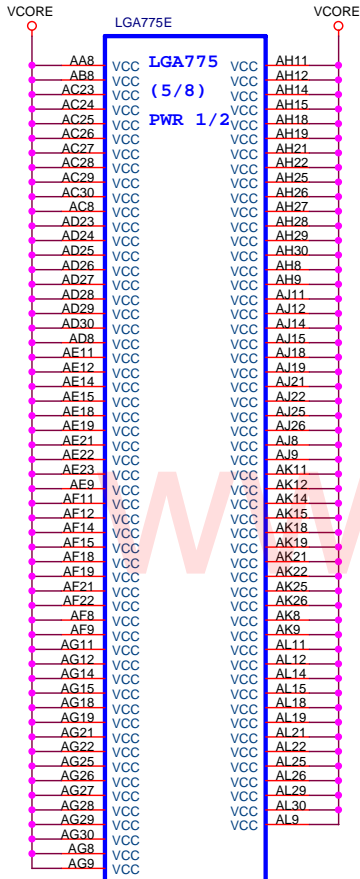
Title		P4_LGA775-C	
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Z60_50*: 阻抗60ohm-->不上,
Z60_50*: 阻抗50ohm-->上62/4

PECI: Platform Environment Control Interface

Rev 2.02

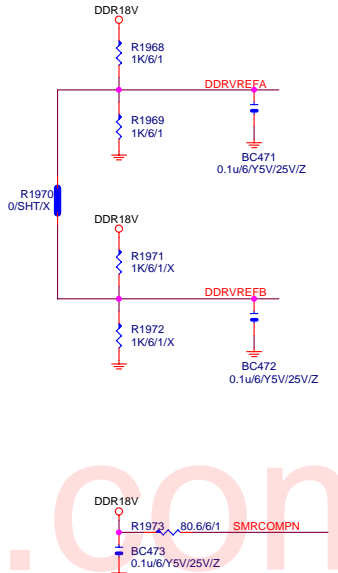
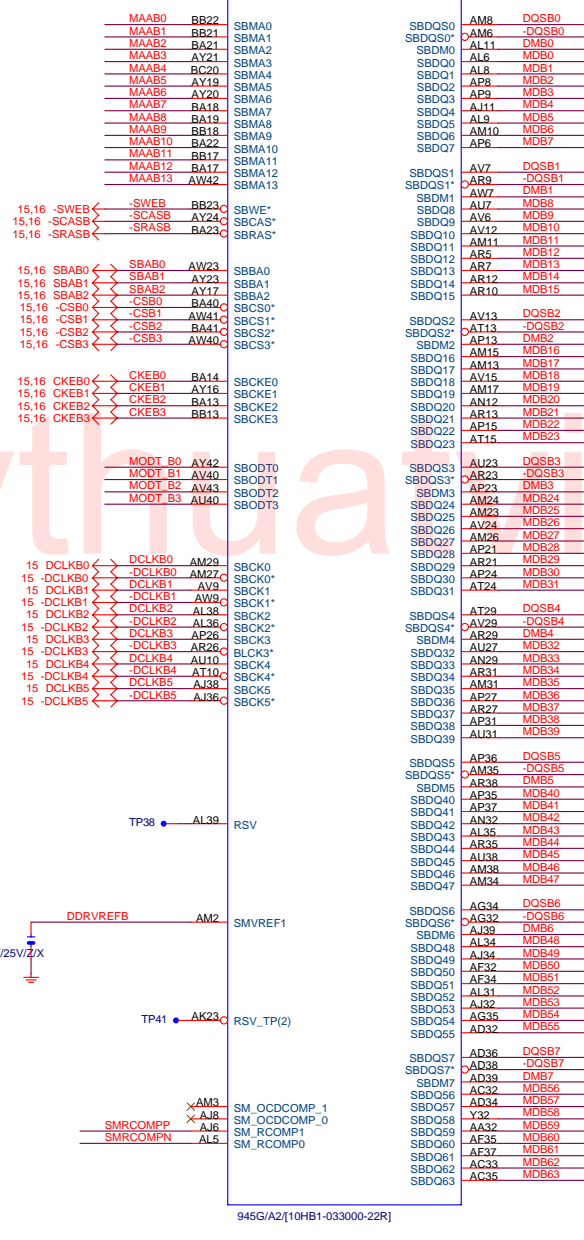
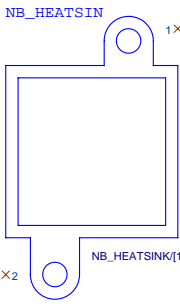
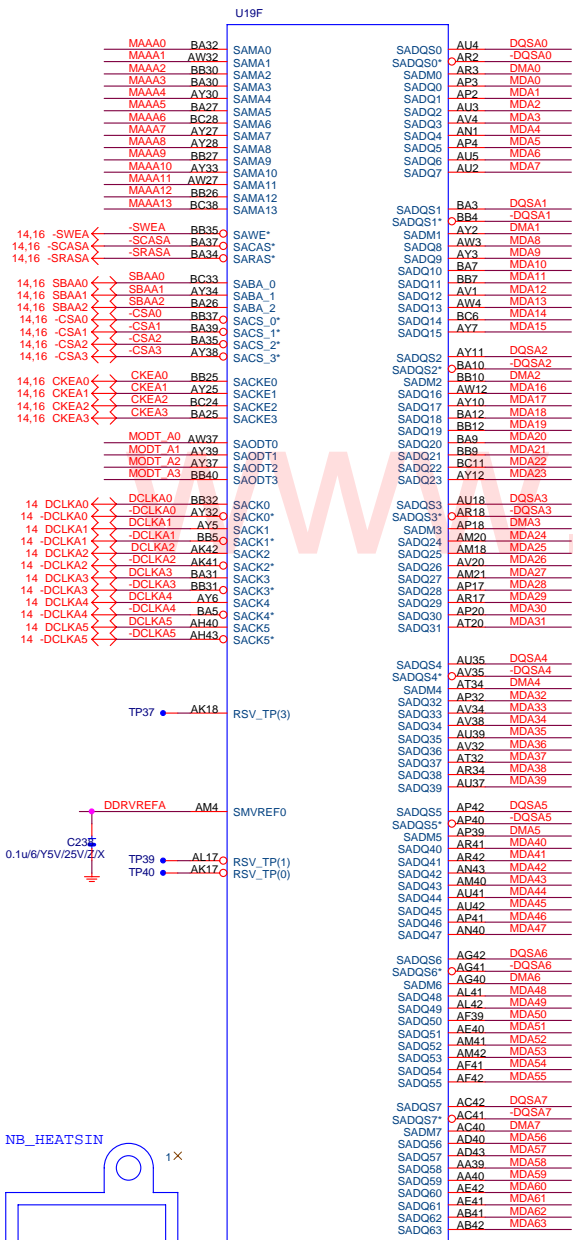


Gigabyte Technology

Title		P4_LGA775-E,F,G,H	
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U19F

U19G



945G/A2[10HB1-033000-22R] DDR INTERFACE

945G/A2[10HB1-033000-22R]

GIGABYTE THCNOLGIES

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U19C

A4	VSS	N2
A16	VSS	N6
A22	VSS	N8
A26	VSS	N13
A31	VSS	N15
A35	VSS	N16
B4	VSS	N27
B6	VSS	N29
B9	VSS	N31
B11	VSS	N33
B13	VSS	N36
B21	VSS	N39
B22	VSS	N43
B28	VSS	P3
B33	VSS	P14
B38	VSS	P15
C3	VSS	P24
C5	VSS	P26
C7	VSS	P27
C12	VSS	P29
C14	VSS	P30
C22	VSS	R6
C40	VSS	R9
D2	VSS	R12
D5	VSS	R14
D10	VSS	R30
D16	VSS	R31
D20	VSS	R34
D21	VSS	R37
E3	VSS	R39
E4	VSS	T2
E7	VSS	T42
E9	VSS	U3
E12	VSS	U5
E13	VSS	U8
E17	VSS	U12
E18	VSS	U14
E20	VSS	U31
E21	VSS	U33
E32	VSS	U36
F2	VSS	U38
F6	VSS	V2
F18	VSS	V8
F26	VSS	V11
F34	VSS	V12
F42	VSS	V14
G3	VSS	V36
G5	VSS	V37
G7	VSS	V38
G9	VSS	V39
G10	VSS	V43
G13	VSS	W3
G15	VSS	Y2
G18	VSS	Y5
G20	VSS	Y6
G21	VSS	Y9
G24	VSS	Y12
G27	VSS	Y14
G29	VSS	Y31
G31	VSS	Y35
G32	VSS	Y37
G35	VSS	Y39
G38	VSS	Y42
H12	VSS	AA3
H17	VSS	AA6
H26	VSS	AA11
H27	VSS	AA12
H32	VSS	AA14
I2	VSS	AA21
J5	VSS	AA23
J7	VSS	AA31
J10	VSS	AA33
J12	VSS	AA36
J21	VSS	AB2
J24	VSS	AB43
J29	VSS	AC2
J38	VSS	AC3
J43	VSS	AC7
K3	VSS	AC10
K5	VSS	AC14
K6	VSS	AC21
K7	VSS	AC23
K10	VSS	AC31
K12	VSS	AC36
K13	VSS	AC37
K15	VSS	AC38
K20	VSS	AC39
K27	VSS	
K32	VSS	
K34	VSS	
K37	VSS	
K39	VSS	
L2	VSS	
L12	VSS	
L24	VSS	
L26	VSS	
L29	VSS	
L31	VSS	
L42	VSS	
M3	VSS	
M5	VSS	
M8	VSS	
M9	VSS	
M10	VSS	
M13	VSS	
M20	VSS	
M21	VSS	
M35	VSS	
M37	VSS	

945G/A2[10HB1-033000-22R]

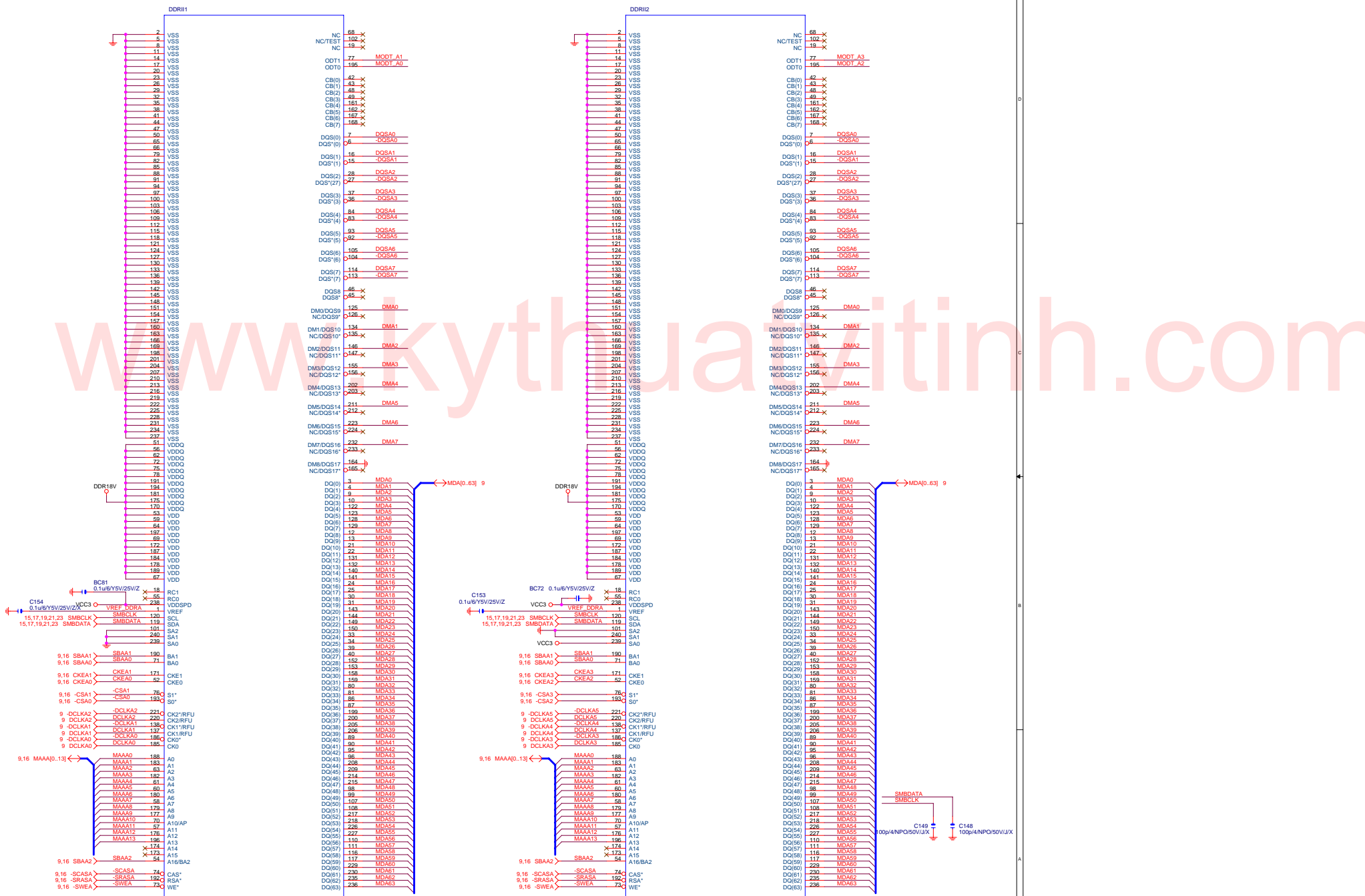
U19E

AD7	VSS
AD9	VSS
AD11	VSS
AD13	VSS
AD33	VSS
N24	VSS
AD37	VSS
AD42	VSS
N29	VSS
AF1	VSS
AF2	VSS
N33	VSS
AF5	VSS
N39	VSS
AF33	VSS
N43	VSS
P3	VSS
P14	VSS
P15	VSS
P24	VSS
P26	VSS
P27	VSS
P29	VSS
P30	VSS
R6	VSS
R9	VSS
R12	VSS
R14	VSS
R30	VSS
R31	VSS
R34	VSS
R37	VSS
R39	VSS
T2	VSS
AK24	VSS
AK26	VSS
AK29	VSS
U8	VSS
U12	VSS
U14	VSS
U31	VSS
U33	VSS
U36	VSS
U38	VSS
V2	VSS
V8	VSS
V11	VSS
V12	VSS
V14	VSS
V36	VSS
V37	VSS
V38	VSS
V39	VSS
V43	VSS
W3	VSS
Y2	VSS
Y5	VSS
Y6	VSS
Y9	VSS
Y12	VSS
Y14	VSS
Y31	VSS
Y35	VSS
Y37	VSS
Y39	VSS
Y42	VSS
AA3	VSS
AA6	VSS
AA11	VSS
AA12	VSS
AA14	VSS
AA21	VSS
AA23	VSS
AA31	VSS
AA33	VSS
AA36	VSS
AB2	VSS
AB43	VSS
AC2	VSS
AC3	VSS
AC7	VSS
AC10	VSS
AC14	VSS
AC21	VSS
AC23	VSS
AC31	VSS
AC36	VSS
AC37	VSS
AC38	VSS
AC39	VSS
AP5	VSS
AP7	VSS
AP10	VSS
AP12	VSS
AP29	VSS
AP34	VSS
AP38	VSS
AR1	VSS
AR6	VSS
AR15	VSS
AR20	VSS
AR24	VSS
AR32	VSS
AR37	VSS
AR39	VSS
AR43	VSS
AT12	VSS
AT17	VSS
AT18	VSS
AT21	VSS
AT23	VSS
AT26	VSS
AT27	VSS
AT31	VSS
AU6	VSS
AU9	VSS
AU12	VSS
AU13	VSS
AU15	VSS
AU17	VSS
AU20	VSS
AD18	VSS
AD20	VSS
AD22	VSS
AD24	VSS
AD27	VSS
AD29	VSS
AE19	VSS
AE21	VSS
AE23	VSS
AE25	VSS
AF18	VSS
AF20	VSS
AF22	VSS
AF24	VSS
AY1	VSS
BC4	VSS

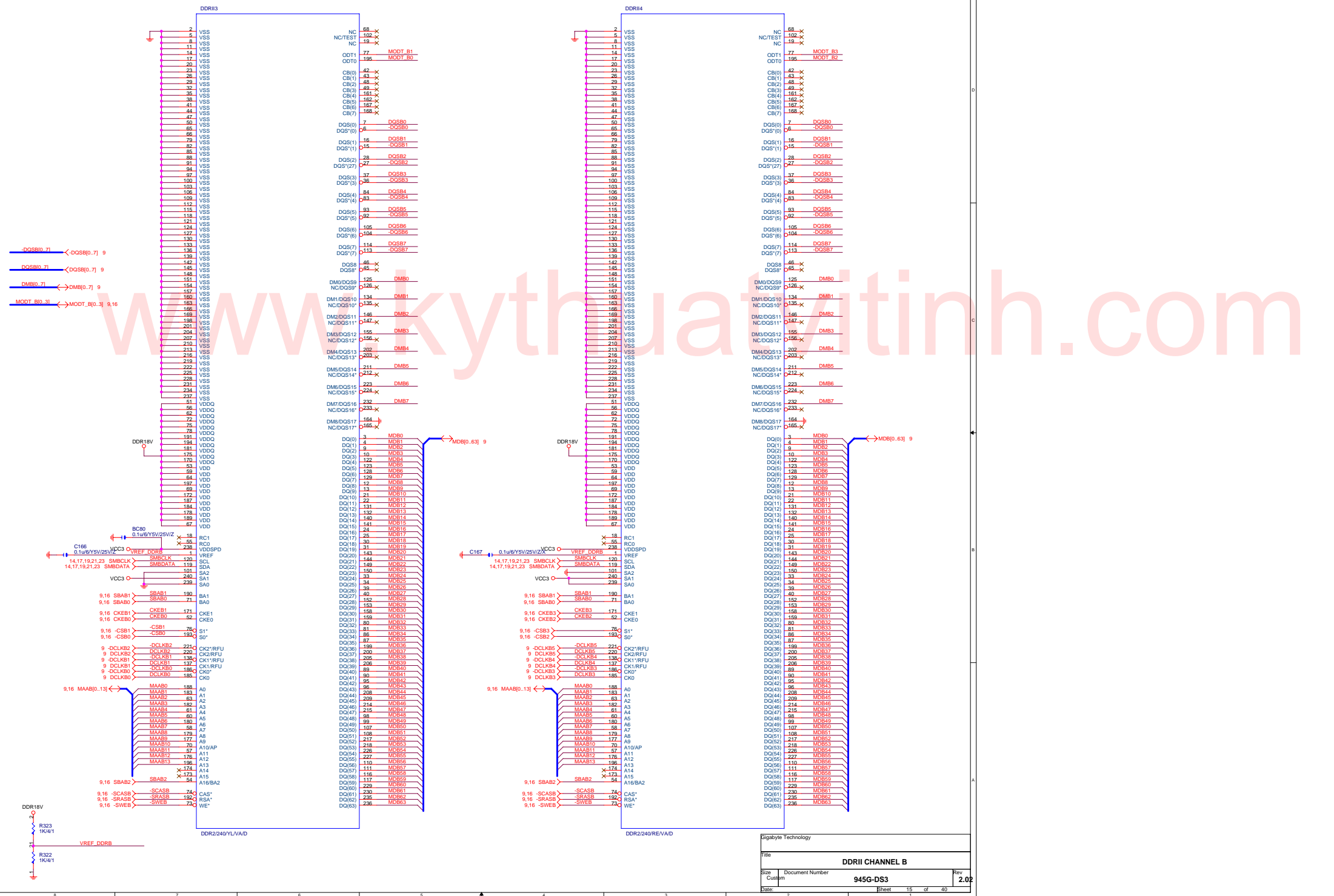
945G/A2[10HB1-033000-22R]

VSS	AU21
VSS	AU24
VSS	AU26
VSS	AU29
VSS	AU32
VSS	AU34
VSS	AV2
VSS	AV10
VSS	AV17
VSS	AV37
VSS	AW10
VSS	BA4
VSS	BA42
VSS	BB3
VSS	BB6
VSS	BB11
VSS	BB14
VSS	BB19
VSS	BB34
VSS	BB39
VSS	BB41
VSS	BC9
VSS	A40
VSS	D1
VSS	D43
VSS	R26
VSS	R29
VSS	U29
VSS	V24
VSS	V26
VSS	V29
VSS	W21
VSS	W23
VSS	W25
VSS	Y20
VSS	Y22
VSS	Y24
VSS	Y26
VSS	Y29
VSS	AA25
VSS	AA27
VSS	AA29
VSS	AC19
VSS	AC25
VSS	AC29
NC	AA2
NC	B2
NC	B3
NC	B4
NC	B42
NC	B43
NC	C2
NC	C4
NC	E35
NC	AV26
NC	AV27
NC	AW2
NC	AW28
NC	BA2
NC	BB1
NC	BB2
NC	BB43
NC	BC1
NC	BC2
NC	BC42
NC	BC43
RSVD	AK21
RSVD	AJ23
RSVD	AJ26
RSVD	AL25
RSVD	AL20
RSVD	AJ21
RSVD	AL26
RSVD	AK27
RSVD	AD30
RSVD	AC34
RSVD	Y30
RSVD	Y32
RSVD	AF31
RSVD	AD31
RSVD	U31
RSVD	V31
RSVD	AA30
RSVD	AC30
RSVD	AA3
RSVD	AG26
RSVD	AG27
RSVD	AJ24
RSVD	AJ27
RSVD	AK40
RSVD	AW12
RSVD	AY14
RSVD	BC16
RSVD	AJ29
RSVD	AG29

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Title	DDRII CHANNEL A
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-DQSB0_71 <-> DQSB[0..7] 9
 -DQSB0_71 <-> DQSB[0..7] 9
 -DMB0_71 <-> DMB[0..7] 9
 -MODT_B10_31 <-> MODT_B[0..3] 9,16

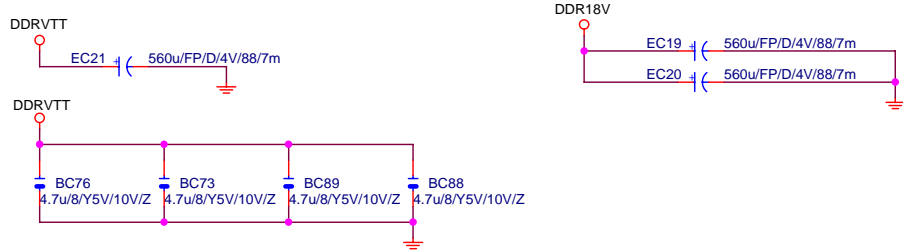
C166 0.1uF/9V5V/25VZVCC3
 14,17,19,21,23 SMBCLK VREF_DDRB
 14,17,19,21,23 SMBDATA
 VCC3
 9,16 SBAB1 SBAB1 190 BA1
 9,16 SBAB0 SBAB0 71 BA0
 9,16 CKEB1 CKEB1 171 CEK1
 9,16 CKEB0 CKEB0 52 CEK0
 9,16 CSB1 CSB1 78 S1*
 9,16 CSB0 CSB0 193 S0*
 9 -DCLKB2 -DCLKB2 221 CK2*/RFU
 9 DCLKB2 DCLKB2 220 CK2*/RFU
 9 -DCLKB1 -DCLKB1 137 CK1*/RFU
 9 DCLKB1 DCLKB1 137 CK1*/RFU
 9 -DCLKB0 -DCLKB0 186 CK0*
 9 DCLKB0 DCLKB0 186 CK0*
 9,16 MAAB[0..13] MAAB0 188 A0
 MAAB1 183 A1
 MAAB2 83 A2
 MAAB3 182 A3
 MAAB4 61 A4
 MAAB5 60 A5
 MAAB6 180 A6
 MAAB7 58 A7
 MAAB8 179 A8
 MAAB9 177 A9
 MAAB10 70 A10/AP
 MAAB11 57 A11
 MAAB12 178 A12
 MAAB13 196 A13
 9,16 SBAB2 SBAB2 54 A16
 9,16 SCASB -SCASB 74 CAS*
 9,16 SRASB -SRASB 192 RSA*
 9,16 SWEB -SWEB 73 WE*

C167 0.1uF/9V5V/25VZVCC3
 14,17,19,21,23 SMBCLK VREF_DDRB
 14,17,19,21,23 SMBDATA
 VCC3
 9,16 SBAB1 SBAB1 190 BA1
 9,16 SBAB0 SBAB0 71 BA0
 9,16 CKEB3 CKEB3 171 CEK1
 9,16 CKEB2 CKEB2 52 CEK0
 9,16 CSB3 CSB3 76 S1*
 9,16 CSB2 CSB2 193 S0*
 9 -DCLKB5 -DCLKB5 221 CK2*/RFU
 9 DCLKB5 DCLKB5 220 CK2*/RFU
 9 -DCLKB4 -DCLKB4 137 CK1*/RFU
 9 DCLKB4 DCLKB4 137 CK1*/RFU
 9 -DCLKB3 -DCLKB3 186 CK0*
 9 DCLKB3 DCLKB3 186 CK0*
 9,16 MAAB[0..13] MAAB0 188 A0
 MAAB1 183 A1
 MAAB2 83 A2
 MAAB3 182 A3
 MAAB4 61 A4
 MAAB5 60 A5
 MAAB6 180 A6
 MAAB7 58 A7
 MAAB8 179 A8
 MAAB9 177 A9
 MAAB10 70 A10/AP
 MAAB11 57 A11
 MAAB12 178 A12
 MAAB13 196 A13
 9,16 SBAB2 SBAB2 54 A16
 9,16 SCASB -SCASB 74 CAS*
 9,16 SRASB -SRASB 192 RSA*
 9,16 SWEB -SWEB 73 WE*

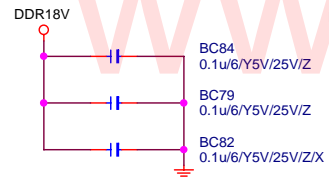
Sigabyte Technology	
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DDRII CHANNEL B	
Size	Document Number
Custom	945G-DS3
Date	Rev
	2.02
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DDR TERMINATION CHANNEL A

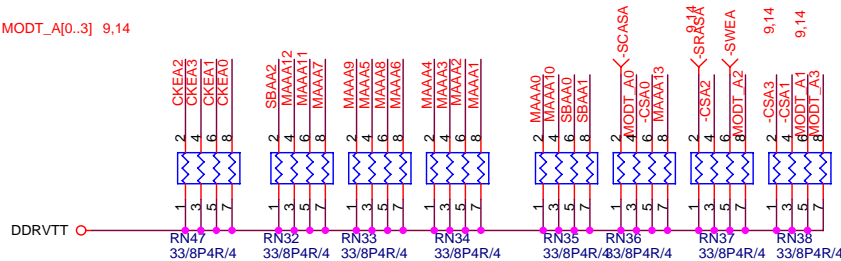
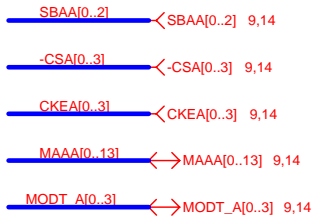
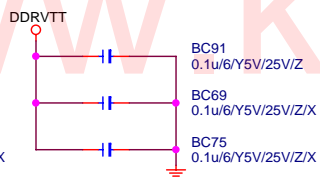
DDRVTT Decouple



DDR18V Decouple

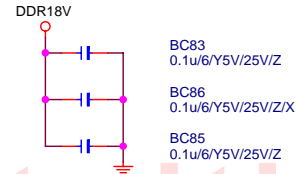


DDRVTT Decouple

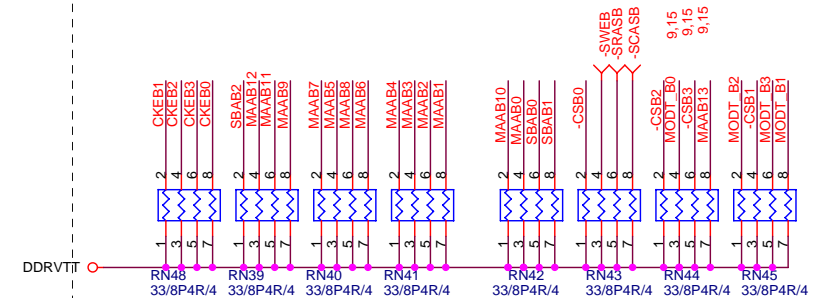
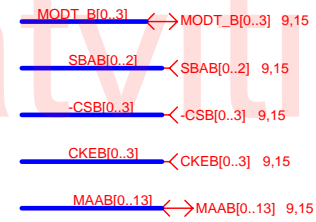
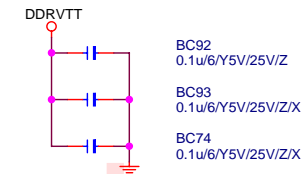


DDR TERMINATION CHANNEL B

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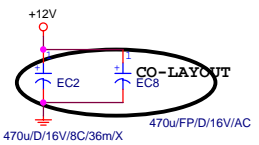
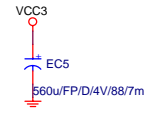


DDRVTT Decouple



Gigabyte Technology

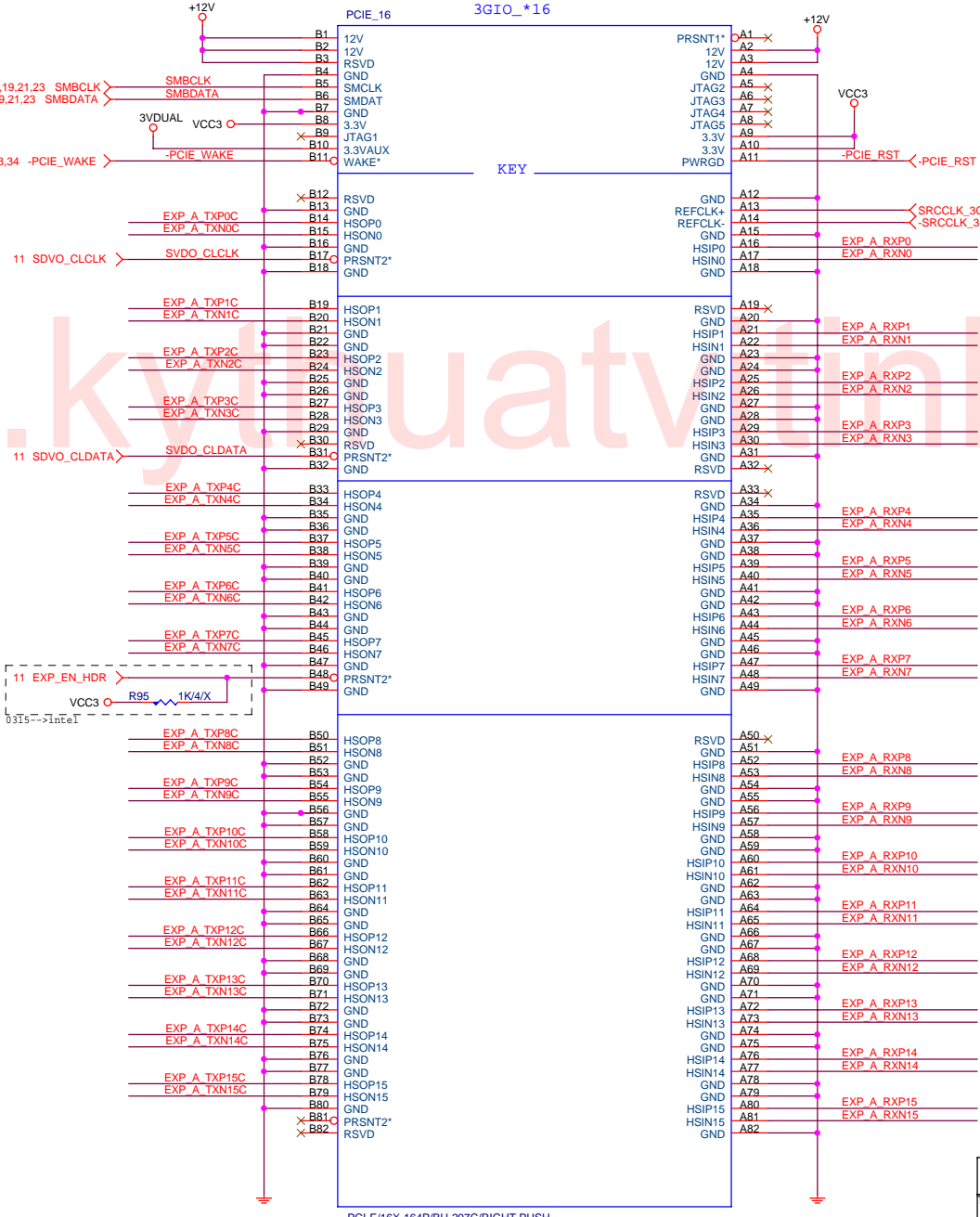
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DDRII TERMINATOR		
Size Custom	Document Number	Rev
	945G-DS3	2.02
Date:	Friday, November 17, 2006	Sheet 16 of 40



470uF/16V/8C/36mX

EXP_A_TXP0_15] >>> EXP_A_TXP0_15] 10
 EXP_A_TXN0_15] >>> EXP_A_TXN0_15] 10

EXP_A_TXP0	C27	0.1u4/Y5V/16V/Z	EXP_A_TXP0C
EXP_A_TXN0	C26	0.1u4/Y5V/16V/Z	EXP_A_TXN0C
EXP_A_TXP1	C31	0.1u4/Y5V/16V/Z	EXP_A_TXP1C
EXP_A_TXN1	C32	0.1u4/Y5V/16V/Z	EXP_A_TXN1C
EXP_A_TXP2	C34	0.1u4/Y5V/16V/Z	EXP_A_TXP2C
EXP_A_TXN2	C37	0.1u4/Y5V/16V/Z	EXP_A_TXN2C
EXP_A_TXP3	C38	0.1u4/Y5V/16V/Z	EXP_A_TXP3C
EXP_A_TXN3	C39	0.1u4/Y5V/16V/Z	EXP_A_TXN3C
EXP_A_TXP4	C40	0.1u4/Y5V/16V/Z	EXP_A_TXP4C
EXP_A_TXN4	C41	0.1u4/Y5V/16V/Z	EXP_A_TXN4C
EXP_A_TXP5	C48	0.1u4/Y5V/16V/Z	EXP_A_TXP5C
EXP_A_TXN5	C47	0.1u4/Y5V/16V/Z	EXP_A_TXN5C
EXP_A_TXP6	C52	0.1u4/Y5V/16V/Z	EXP_A_TXP6C
EXP_A_TXN6	C49	0.1u4/Y5V/16V/Z	EXP_A_TXN6C
EXP_A_TXP7	C63	0.1u4/Y5V/16V/Z	EXP_A_TXP7C
EXP_A_TXN7	C62	0.1u4/Y5V/16V/Z	EXP_A_TXN7C
EXP_A_TXP8	C65	0.1u4/Y5V/16V/Z	EXP_A_TXP8C
EXP_A_TXN8	C66	0.1u4/Y5V/16V/Z	EXP_A_TXN8C
EXP_A_TXP9	C67	0.1u4/Y5V/16V/Z	EXP_A_TXP9C
EXP_A_TXN9	C70	0.1u4/Y5V/16V/Z	EXP_A_TXN9C
EXP_A_TXP10	C81	0.1u4/Y5V/16V/Z	EXP_A_TXP10C
EXP_A_TXN10	C80	0.1u4/Y5V/16V/Z	EXP_A_TXN10C
EXP_A_TXP11	C84	0.1u4/Y5V/16V/Z	EXP_A_TXP11C
EXP_A_TXN11	C83	0.1u4/Y5V/16V/Z	EXP_A_TXN11C
EXP_A_TXP12	C86	0.1u4/Y5V/16V/Z	EXP_A_TXP12C
EXP_A_TXN12	C85	0.1u4/Y5V/16V/Z	EXP_A_TXN12C
EXP_A_TXP13	C92	0.1u4/Y5V/16V/Z	EXP_A_TXP13C
EXP_A_TXN13	C91	0.1u4/Y5V/16V/Z	EXP_A_TXN13C
EXP_A_TXP14	C99	0.1u4/Y5V/16V/Z	EXP_A_TXP14C
EXP_A_TXN14	C97	0.1u4/Y5V/16V/Z	EXP_A_TXN14C
EXP_A_TXP15	C106	0.1u4/Y5V/16V/Z	EXP_A_TXP15C
EXP_A_TXN15	C104	0.1u4/Y5V/16V/Z	EXP_A_TXN15C



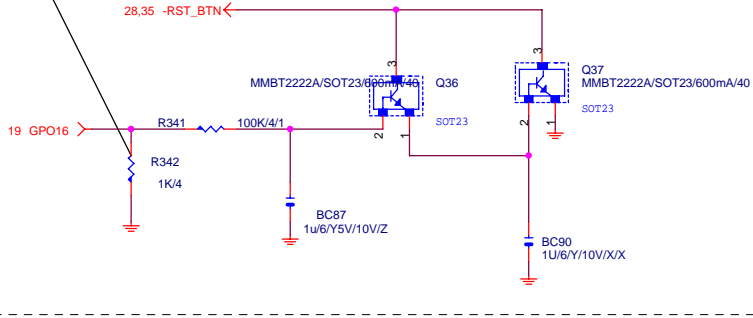
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100歐姆: [20/5/7/5/20]

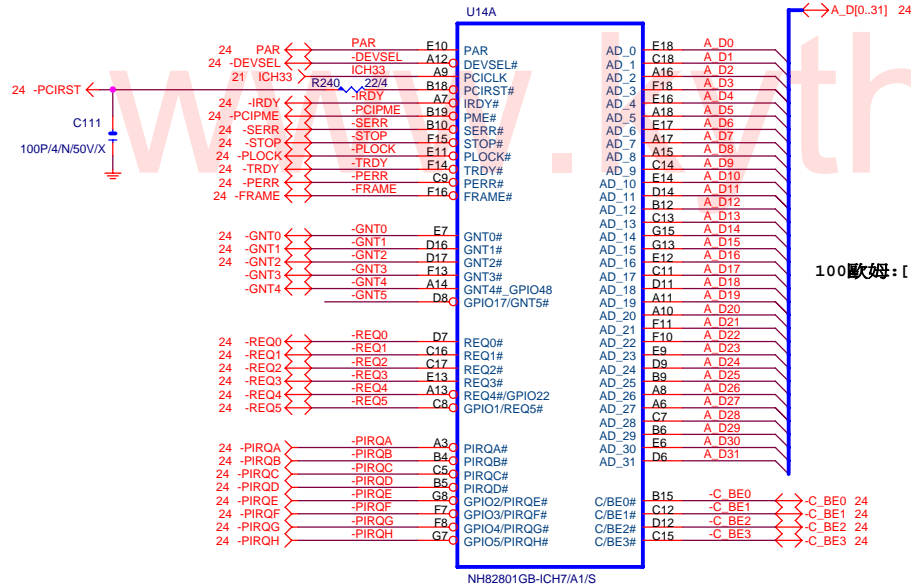
EXP_A_RXP0_15] >>> EXP_A_RXP0_15] 10
 EXP_A_RXN0_15] >>> EXP_A_RXN0_15] 10

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

FOR ICH7R POWER ON 瞬間會HIGH 到1.8V 之後0V, 必須PULL DOWN 1K/6



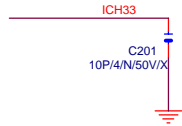
H/W
RESET



100歐姆:[20/5/7/5/20]

10HB1-032801-M1 REV:NON

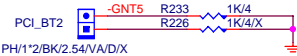
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SPI=	1	0
PCI=	0	1
LPC=	1	1



JP1'2/BU/OHO: [-1-2]CLOSE/X



PH1'2/BK/2.54/VA/D/X

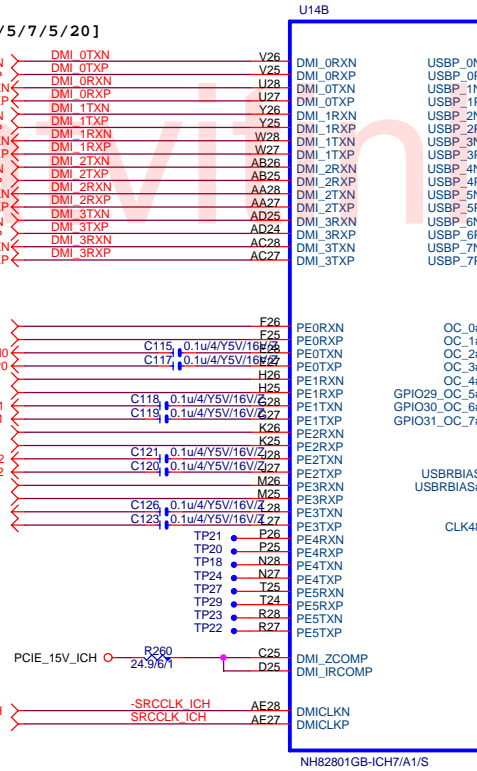


PH1'2/BK/2.54/VA/D/X

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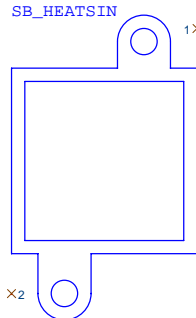


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90歐姆:[20/7.5/7.5/7.5/20]

100歐姆:[20/5/7/5/20]



SB_HEATSIN(12SP2-030010-81R_12SP2-030010-82R_12SP2-030010-83R_12SP2-030010-84R)

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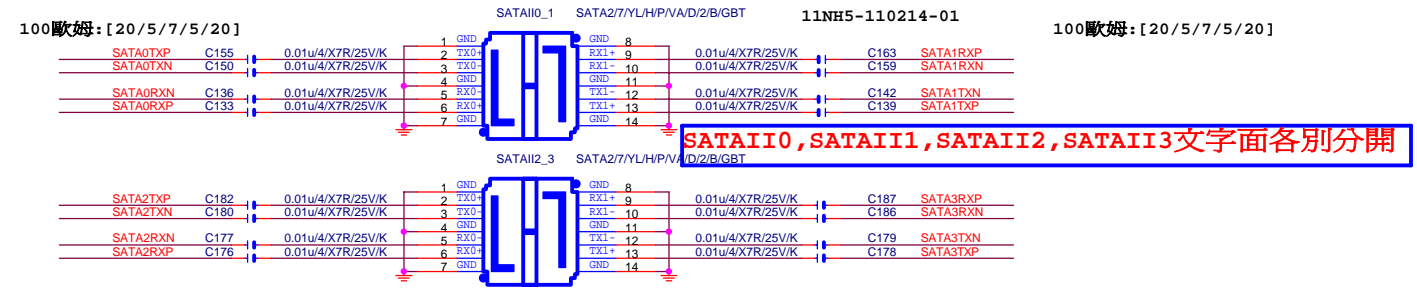
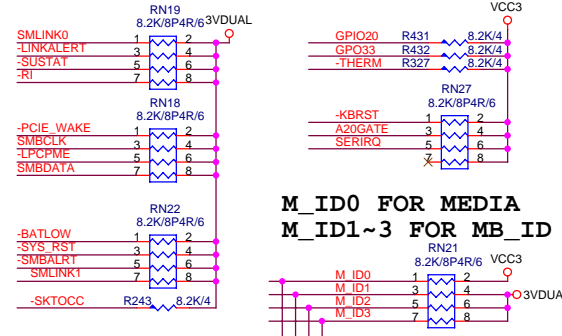
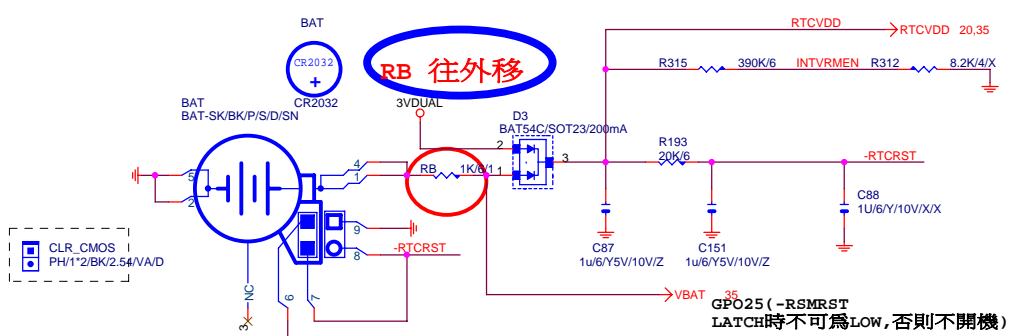
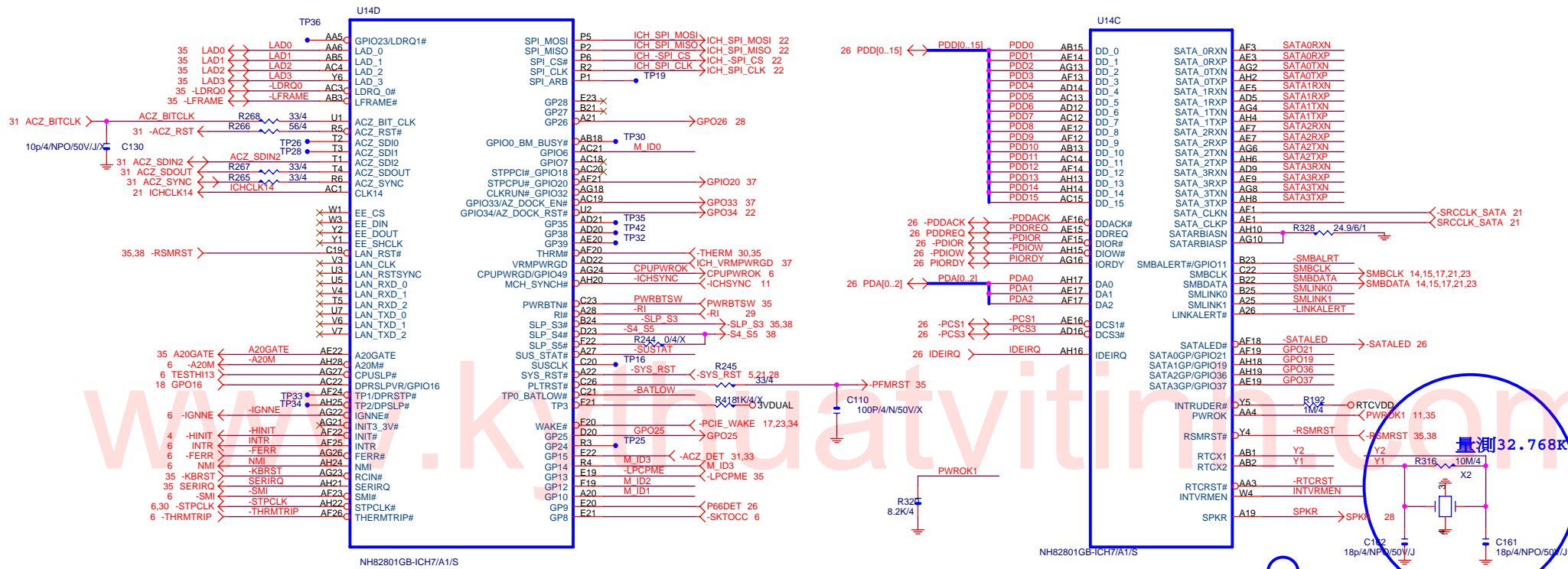
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Size: 945G-DS3

Rev: 2.02

Date: Friday, November 17, 2006

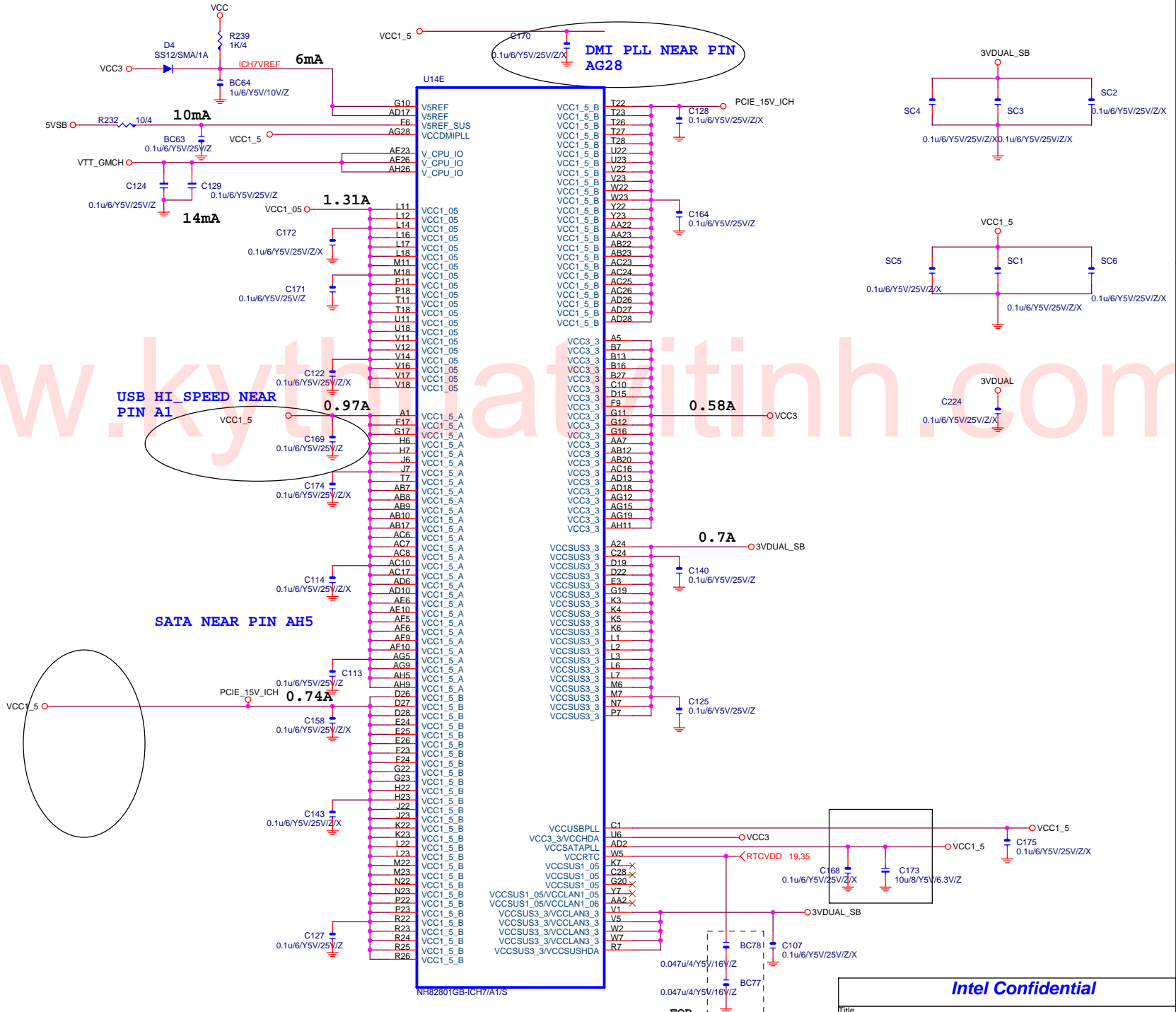
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U14F

A4	VSS1	VSS101	R14
A23	VSS2	VSS102	R15
B1	VSS3	VSS103	R16
B8	VSS4	VSS104	R17
B11	VSS5	VSS105	R18
B14	VSS6	VSS106	T6
B17	VSS7	VSS107	T12
B20	VSS8	VSS108	T13
B26	VSS9	VSS109	T14
B28	VSS10	VSS110	T15
C2	VSS11	VSS111	T16
C6	VSS12	VSS112	T17
D10	VSS13	VSS113	U4
D13	VSS14	VSS114	U12
D18	VSS15	VSS115	U13
D21	VSS16	VSS116	U14
D24	VSS17	VSS117	U16
E1	VSS18	VSS118	U17
E2	VSS19	VSS119	U24
E8	VSS20	VSS120	U25
E15	VSS21	VSS121	U26
F3	VSS22	VSS122	U2
F4	VSS23	VSS123	V1
F5	VSS24	VSS124	V15
F12	VSS25	VSS125	V2
F27	VSS26	VSS126	V24
F28	VSS27	VSS127	V27
G1	VSS28	VSS128	V28
G2	VSS29	VSS129	W6
G4	VSS30	VSS130	W24
G6	VSS31	VSS131	W25
G9	VSS32	VSS132	W26
G14	VSS33	VSS133	Y3
G18	VSS34	VSS134	Y24
G21	VSS35	VSS135	Y28
G24	VSS36	VSS136	AA1
G25	VSS37	VSS137	AA24
G26	VSS38	VSS138	AA25
H3	VSS39	VSS139	AA26
H4	VSS40	VSS140	AB4
H5	VSS41	VSS141	AB6
H24	VSS42	VSS142	AB11
H27	VSS43	VSS143	AB14
H28	VSS44	VSS144	AB16
J1	VSS45	VSS145	AB19
J2	VSS46	VSS146	AB21
J5	VSS47	VSS147	AB24
J24	VSS48	VSS148	AB27
J25	VSS49	VSS149	AB28
J26	VSS50	VSS150	AC2
K24	VSS51	VSS151	AC5
K27	VSS52	VSS152	AC9
K28	VSS53	VSS153	AC11
L13	VSS54	VSS154	AD1
L15	VSS55	VSS155	AD3
L24	VSS56	VSS156	AD4
L25	VSS57	VSS157	AD7
L26	VSS58	VSS158	AD8
M3	VSS59	VSS159	AD11
M4	VSS60	VSS160	AD15
M5	VSS61	VSS161	AD19
M12	VSS62	VSS162	AD23
M13	VSS63	VSS163	AE2
M14	VSS64	VSS164	AE4
M15	VSS65	VSS165	AE8
M16	VSS66	VSS166	AE11
M17	VSS67	VSS167	AE13
M24	VSS68	VSS168	AE18
M27	VSS69	VSS169	AE21
M28	VSS70	VSS170	AE24
N1	VSS71	VSS171	AE25
N2	VSS72	VSS172	AF2
N5	VSS73	VSS173	AF4
N6	VSS74	VSS174	AF8
N11	VSS75	VSS175	AF11
N12	VSS76	VSS176	AF27
N13	VSS77	VSS177	AF28
N14	VSS78	VSS178	AG1
N15	VSS79	VSS179	AG3
N16	VSS80	VSS180	AG7
N17	VSS81	VSS181	AG14
N18	VSS82	VSS182	AG17
N24	VSS83	VSS183	AG20
N25	VSS84	VSS184	AG25
N26	VSS85	VSS185	AH1
P3	VSS86	VSS186	AH3
P4	VSS87	VSS187	AH7
P12	VSS88	VSS188	AH12
P13	VSS89	VSS189	AH23
P14	VSS90	VSS190	AH27
P15	VSS91	VSS191	C27
P16	VSS92	VSS192	E4
P17	VSS93	VSS193	E4
P24	VSS94	VSS194	AG11
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R1	VSS97		
R11	VSS98		
R12	VSS99		
R13	VSS100		

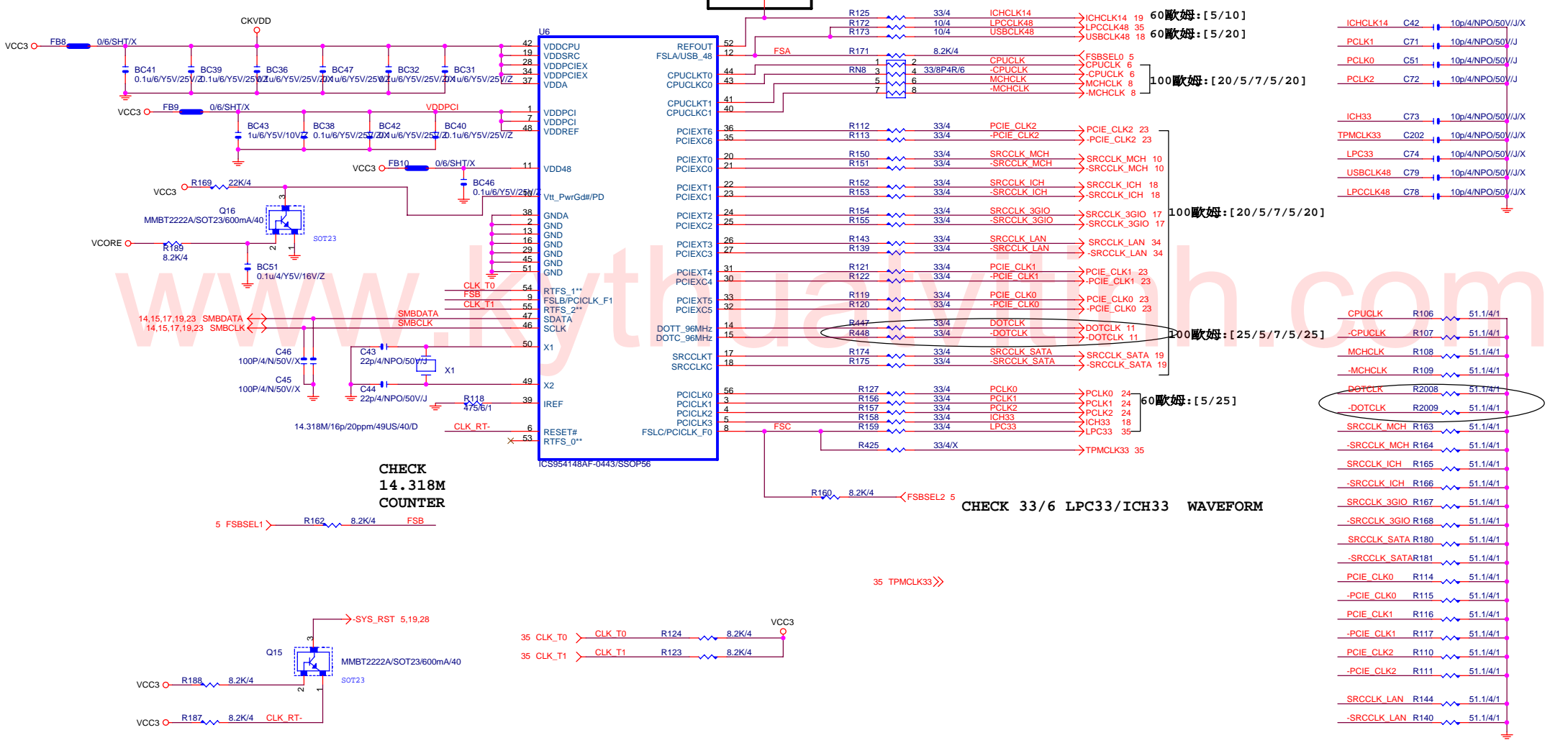
NH82801GB-ICH7/A1/S



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Title			ICH6-PWR & GND		
Size	Document Number	945G-DS3			Rev
B					2.02
Date:	Friday, November 17, 2006	Sheet	20	of	40

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 GSEL=0, DOT
 FREQ=100MHZ

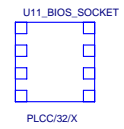
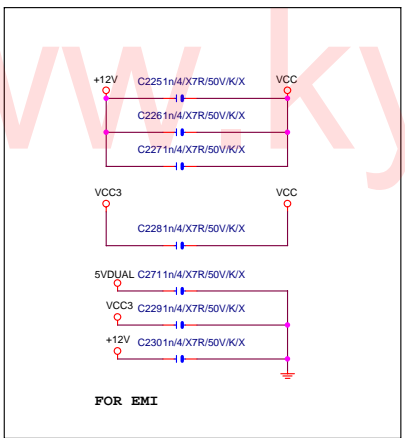
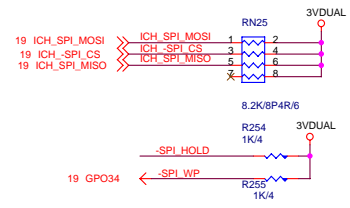
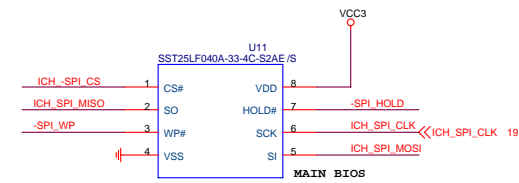
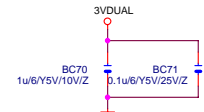
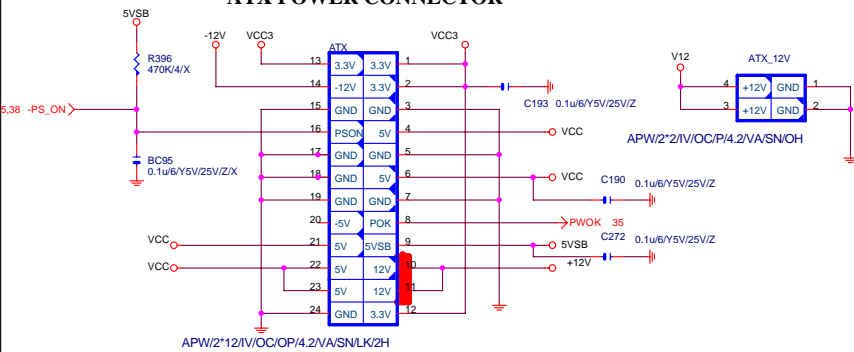


CHECK
 14.318M
 COUNTER

CHECK 33/6 LPC33/ICH33 WAVEFORM

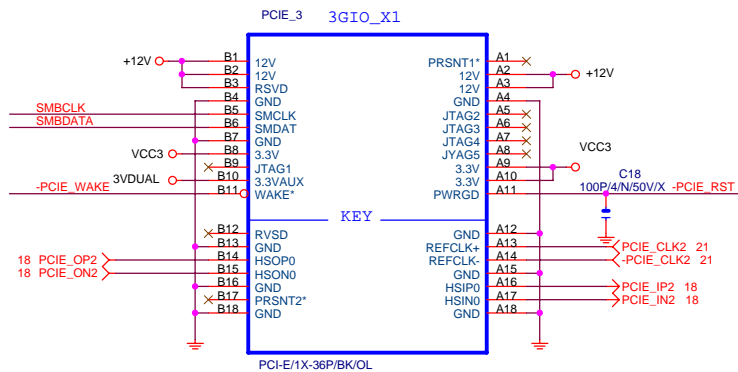
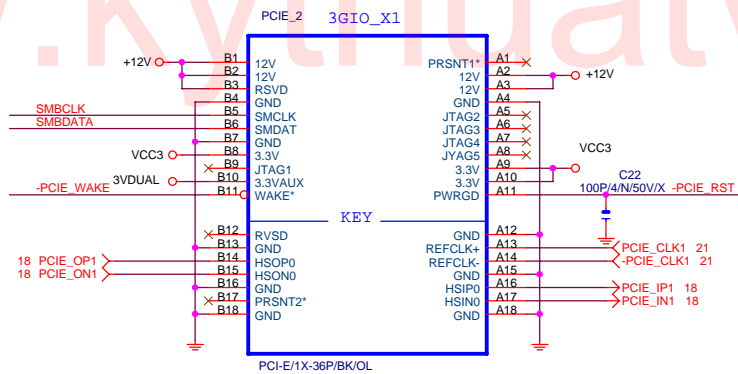
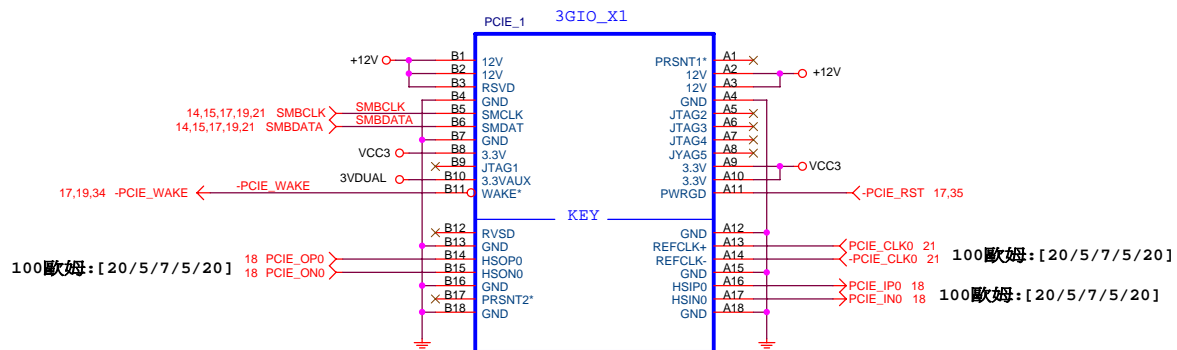
Gigabyte Technology		
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CK505 CLK GEN		
Size	Document Number	Rev
Custom	945G-DS3	2.02
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ATX POWER CONNECTOR



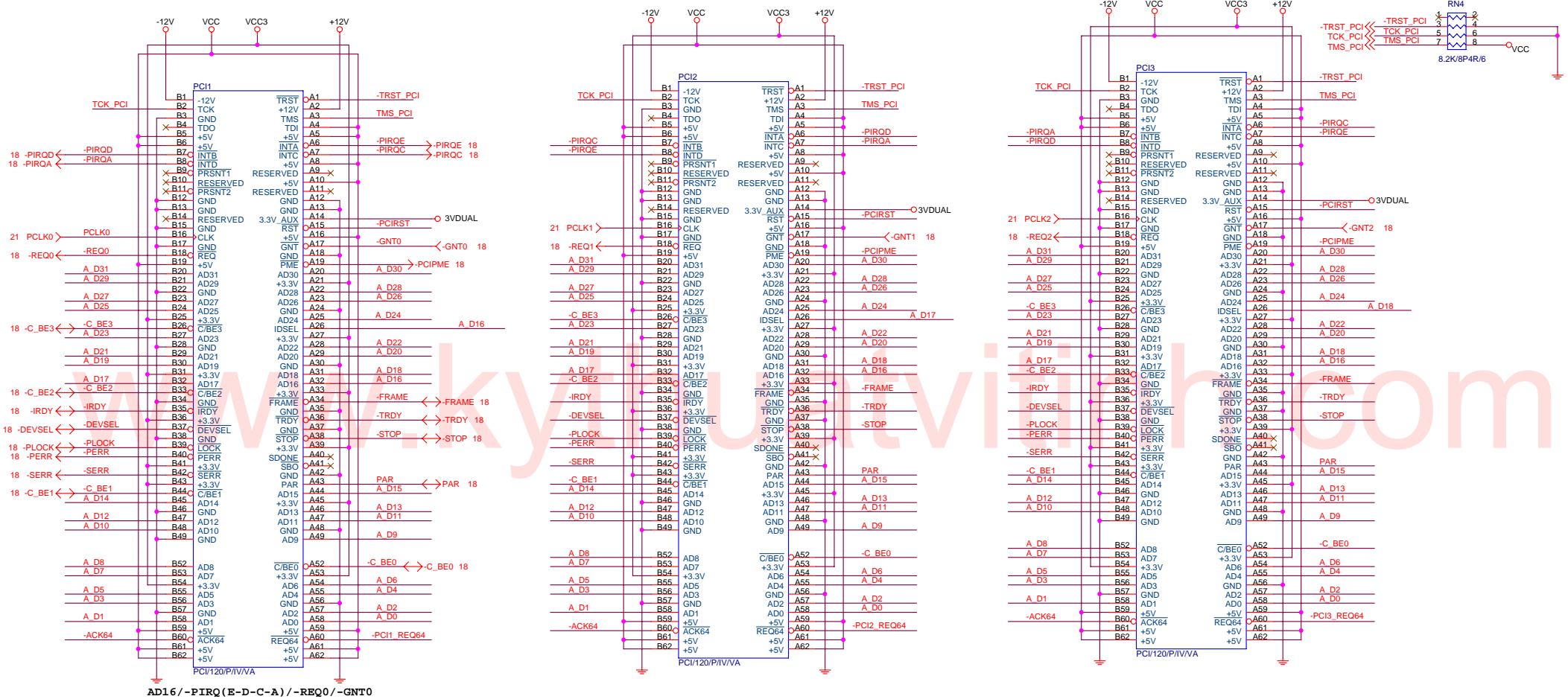
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GIGABYTE			
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Size: Custom	Document Number: 945G-DS3	Rev: 2.0	
Date: Friday, November 17, 2006	Sheet: 22	of 40	

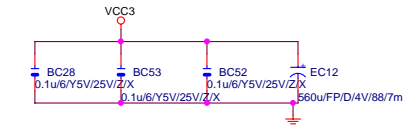
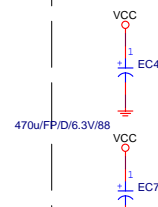
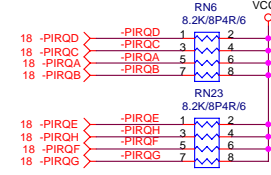
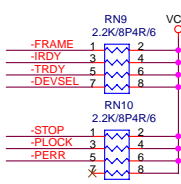
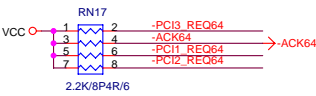
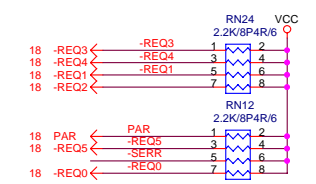
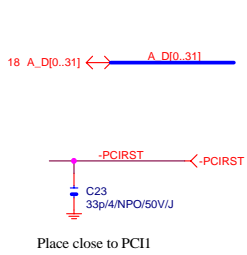


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Title		
PCI E SLOT 1, 2, 3		
Size	Document Number	Rev
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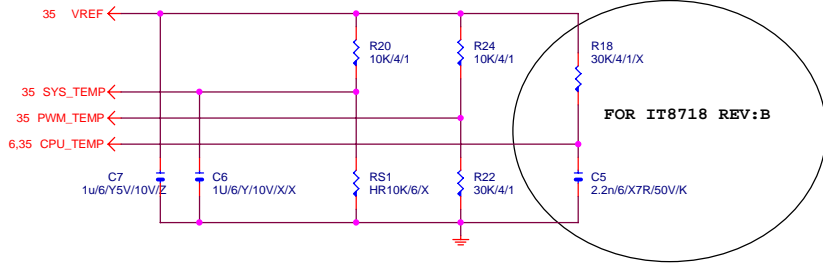
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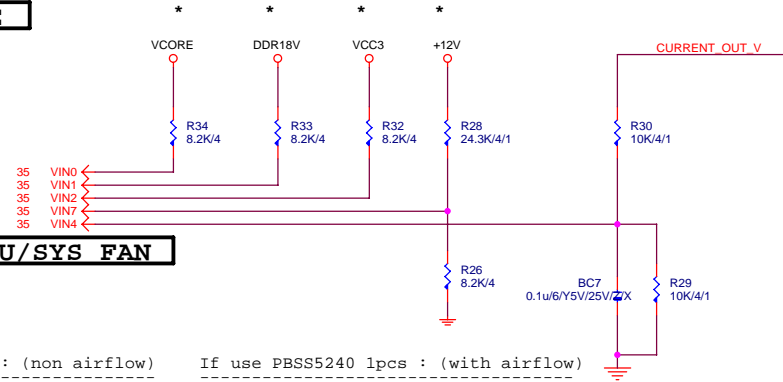
Intel Confidential		
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Title	945G-DS3	
Document Number	945G-DS3	
Customer		
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470uF/P/D/6.3V/88/11CO2-884700-01R_11CO2-884700-02R_11CO2-884700-03R/JX

TEMP. SENSE



VOLTAGE SENSE



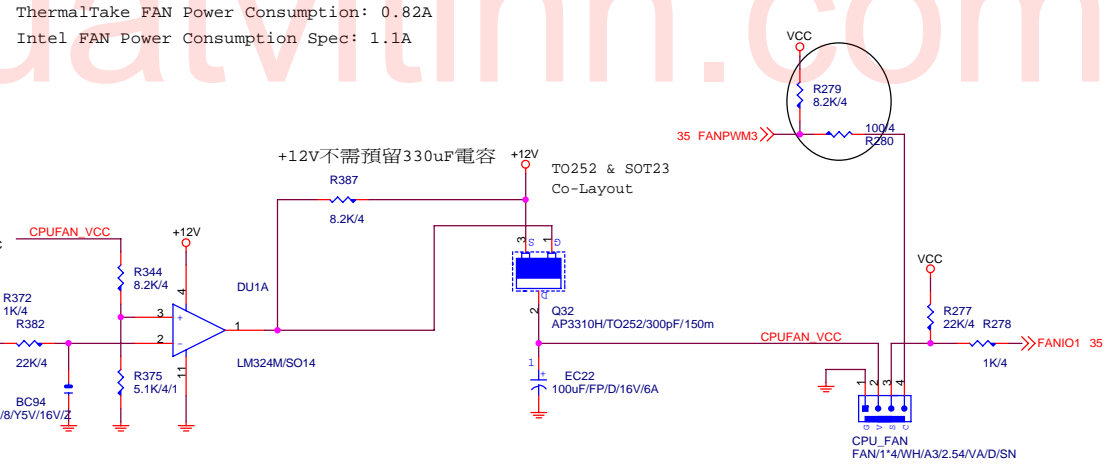
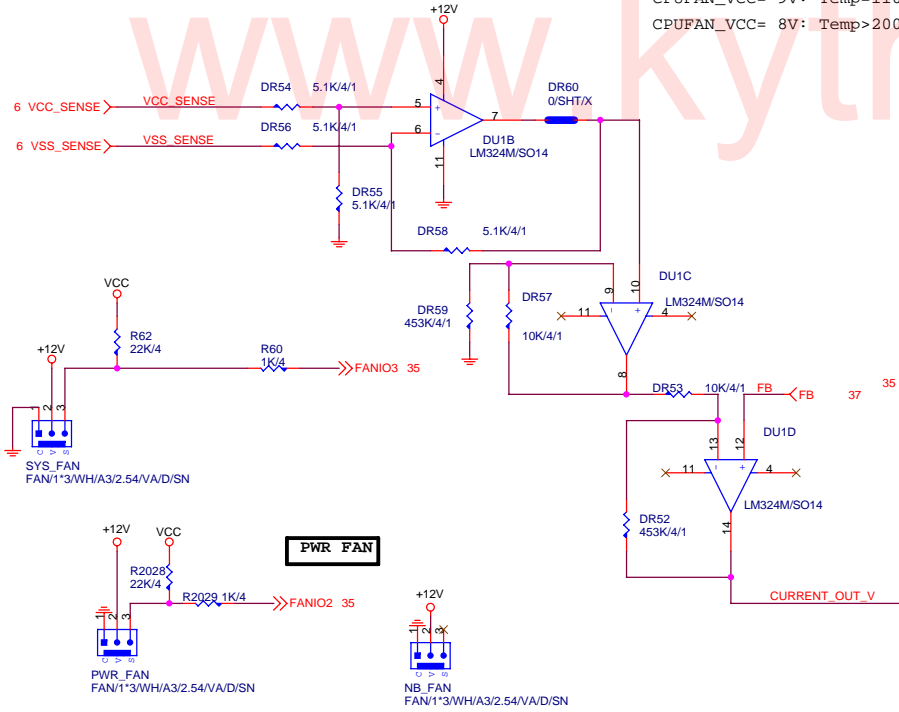
CPU/SYS FAN

DUAL POWER

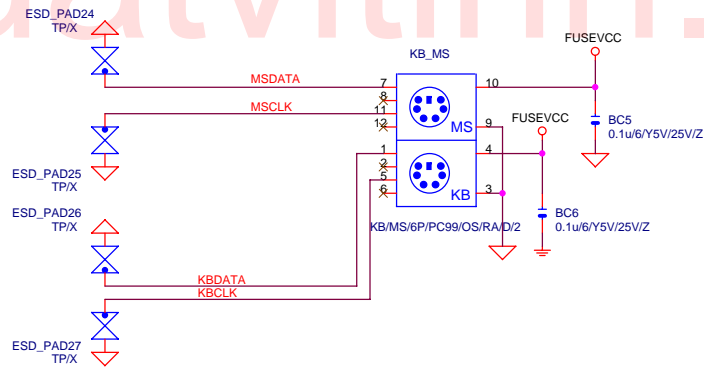
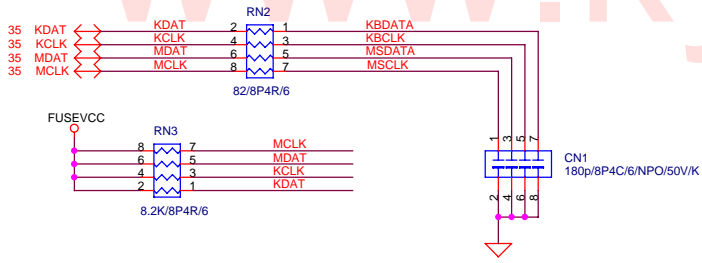
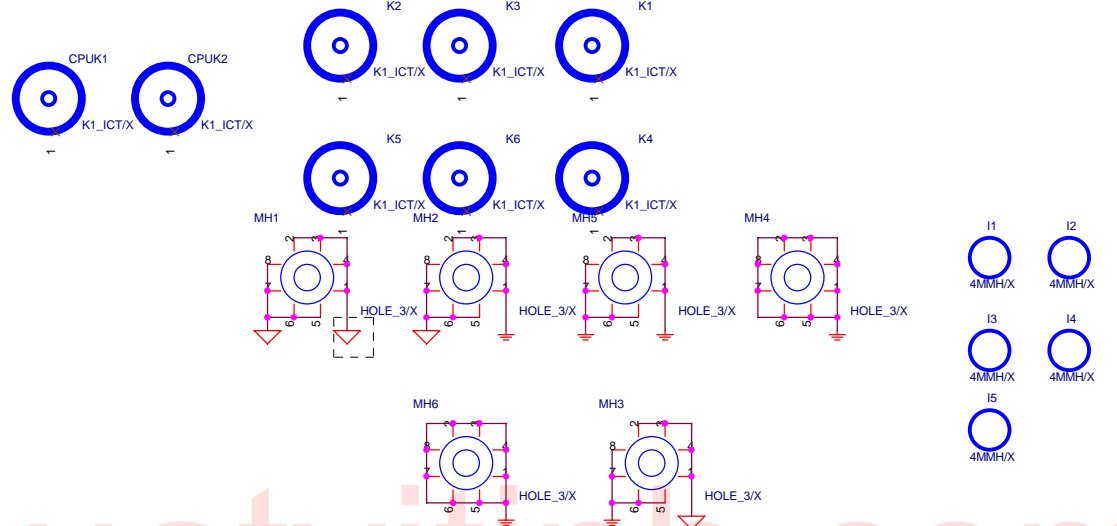
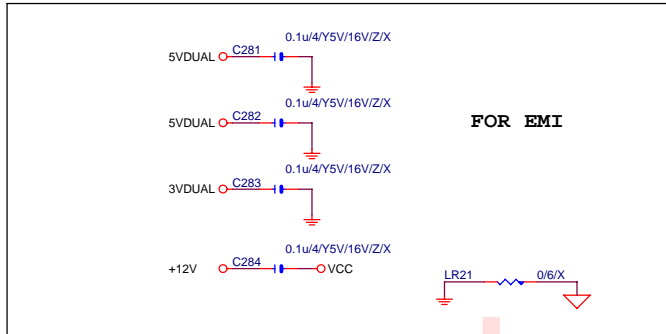
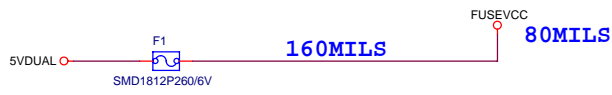
If use PBSS5240 lpcs : (non airflow) If use PBSS5240 lpcs : (with airflow)

CPUFAN_VCC=12V: Temp=40 deg	CPUFAN_VCC=12V: Temp=33 deg
CPUFAN_VCC=11V: Temp=82 deg	CPUFAN_VCC=11V: Temp=62 deg
CPUFAN_VCC=10V: Temp=70 deg	CPUFAN_VCC=10V: Temp=86 deg
CPUFAN_VCC= 9V: Temp=110 deg	CPUFAN_VCC= 9V: Temp=117 deg
CPUFAN_VCC= 8V: Temp>200 deg	CPUFAN_VCC= 8V: Temp>122 deg

ThermalTake FAN Power Consumption: 0.82A
Intel FAN Power Consumption Spec: 1.1A



GIGABYTE		
Title		
HWM/FANCI/BIOS		
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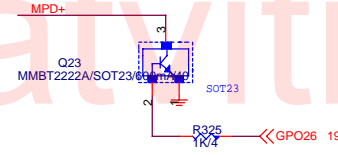
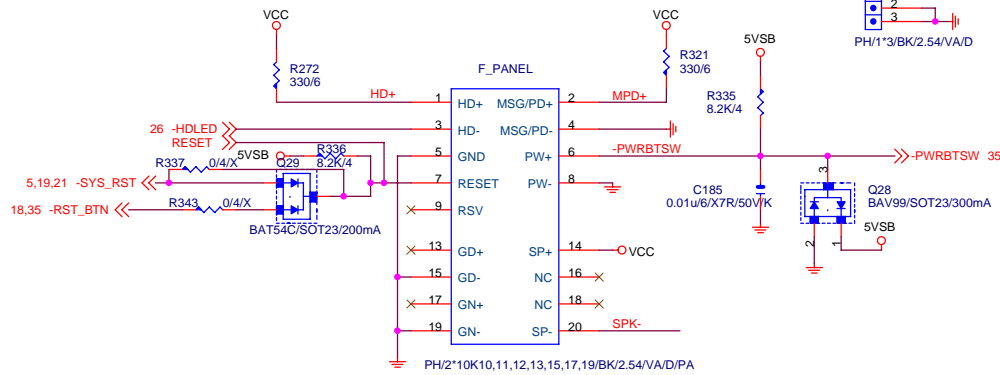
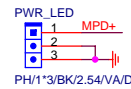


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Title KB & PS2 MOUSE & IR			
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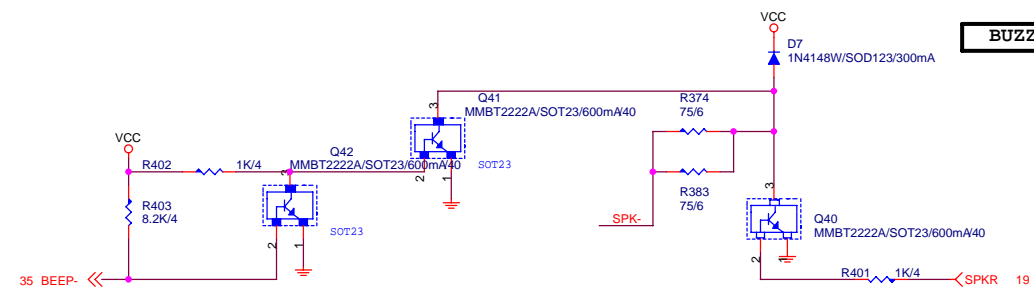
www.kythuatvitinh.com

INTEL FRONT PANEL

3 PIN POWER LED
LAYOUT PLACE CLOSE
TO F_PANEL



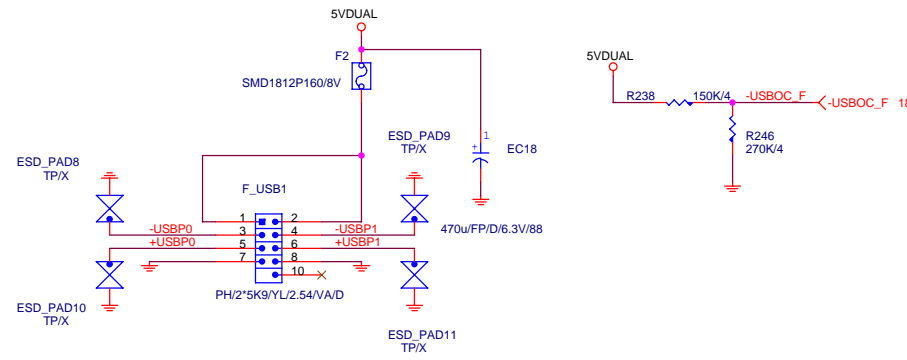
BUZZER



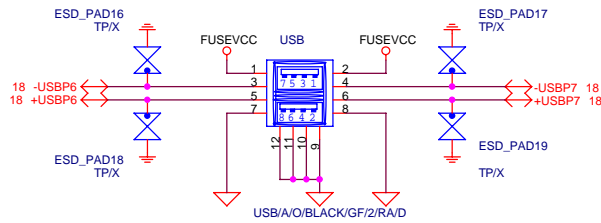
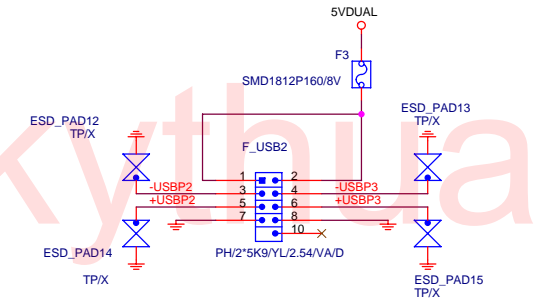
Intel Confidential		
FRONT PANEL		
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FRONT USB

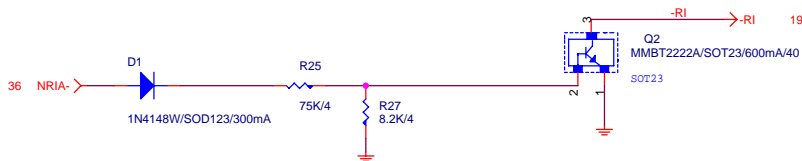
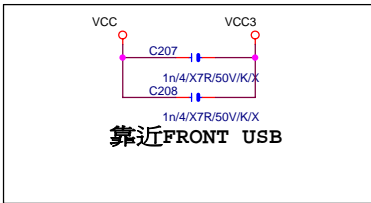
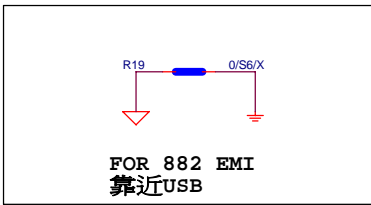
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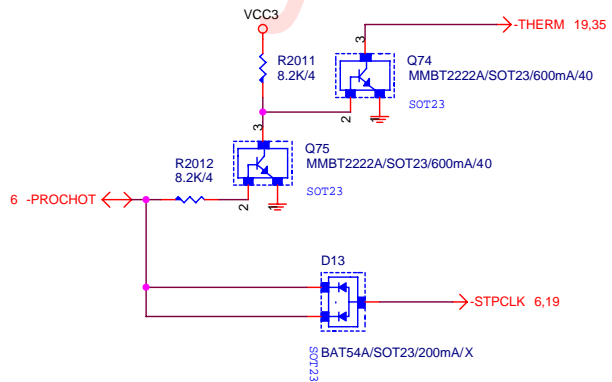
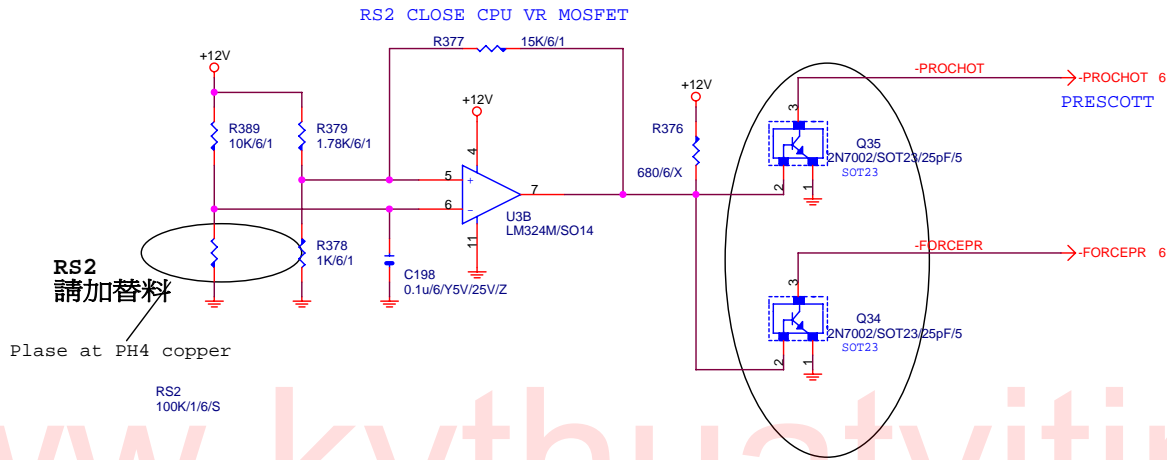


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asserted at 131 degree
deasserted at 116 degree

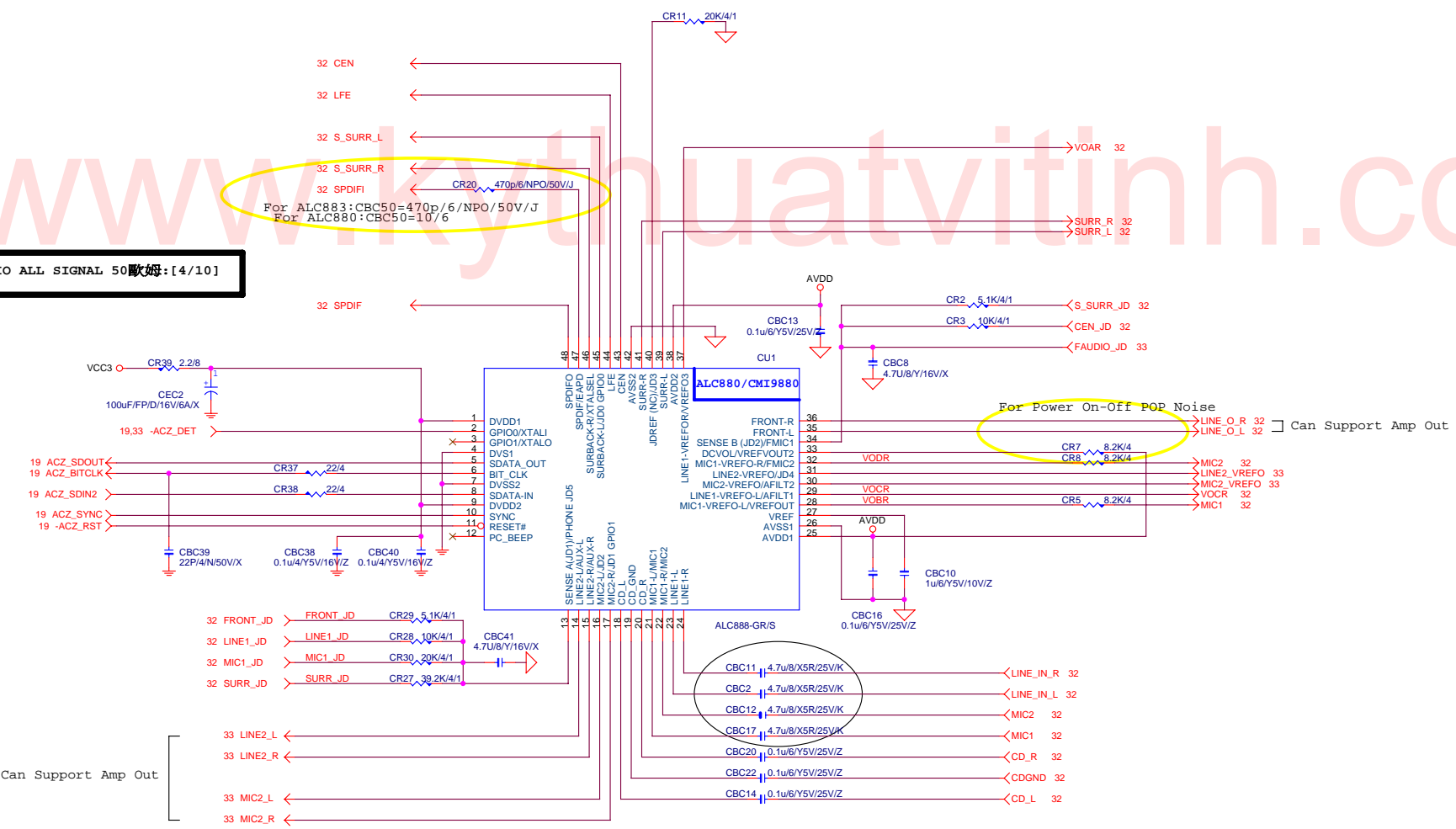


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Title		
FAN CONTROL		
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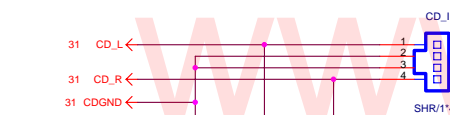
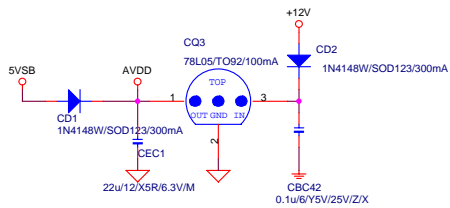
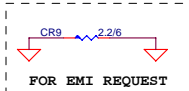
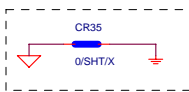
www.wikiatvitinh.com

AUDIO ALL SIGNAL 50 歌母:[4/10]



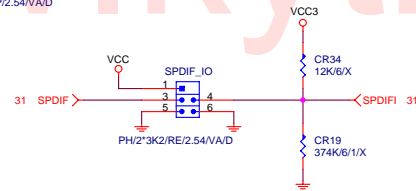
Can Support Amp Out

Intel Confidential		
Title AC97 ALC658		
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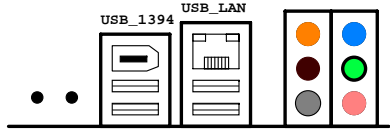


CD IN

47Kohm For CMI9880
8.2Kohm for ALC880

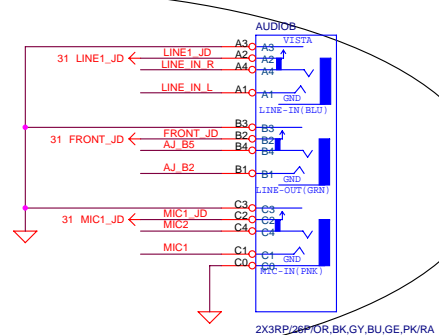
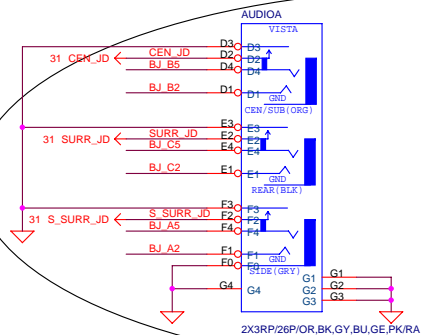
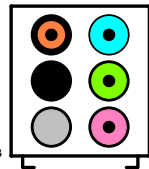


AZALIA JACK

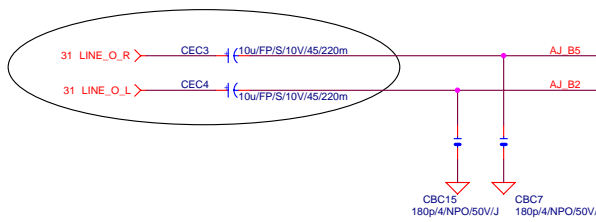


3RP/26P/OR, BK, GY, BU, GE, PK/RA/D/1/B
VISTA規範: REAR-->BLK, CEN/SUB-->ORG

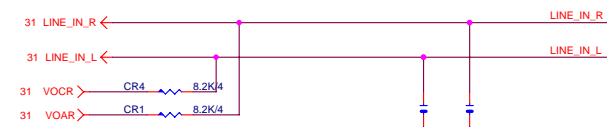
BTX AZALIA CONNECTOR



**LINE OUT
FRONT OUT**



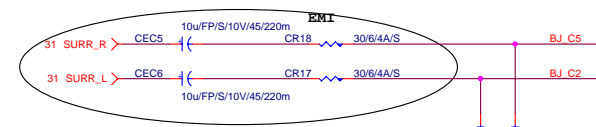
LINE-IN



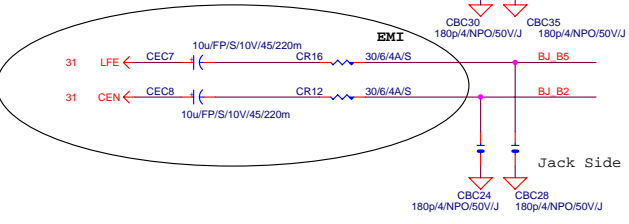
MIC



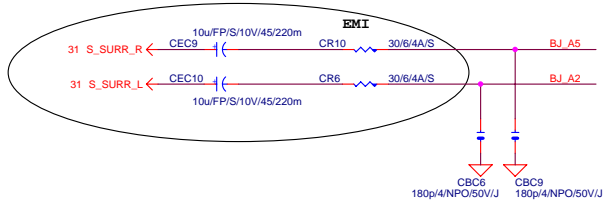
SURROUND



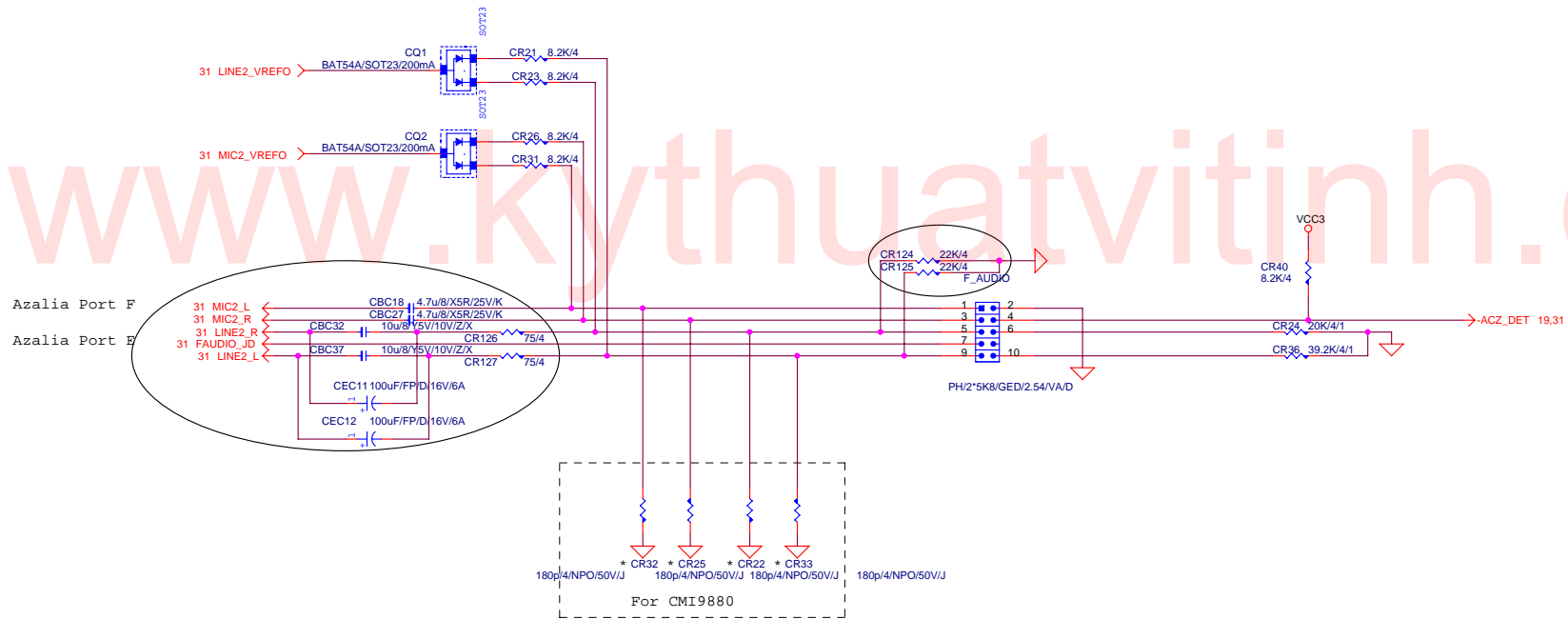
CEN/LFE



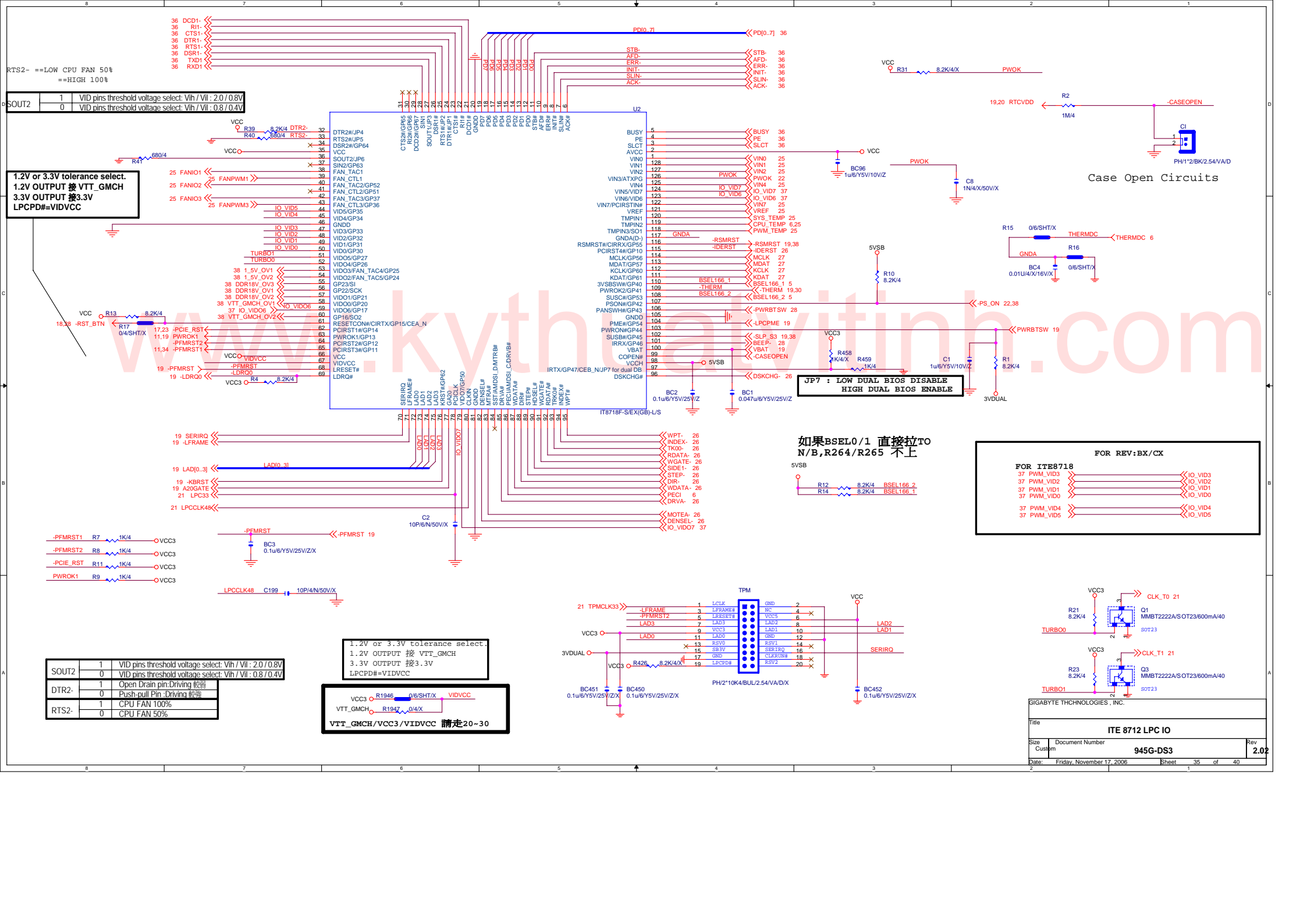
SURR BACK



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File		
AUDIO JACK		
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FRONT AUDIO CONNECTOR		
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SOUT2	1	VID pins threshold voltage select: Vih / Vil : 2.0 / 0.8V
	0	VID pins threshold voltage select: Vih / Vil : 0.8 / 0.4V

1.2V or 3.3V tolerance select.
 1.2V OUTPUT 接 VTT_GMCH
 3.3V OUTPUT 接 3.3V
 LPCPD# = VIDVCC

VCC	R39	8.2K/4	DTR2-	32
VCC	R40	8.2K/4	RTS2-	33
VCC	R4	680/4		
VCC	R13	8.2K/4		
VCC	R17	0.4/SHT/X		
VCC	R19	8.2K/4		
VCC	R4	8.2K/4		

-PFMRST1	R7	1K/4	VCC3
-PFMRST2	R8	1K/4	VCC3
-PCIE_RST	R11	1K/4	VCC3
PWROK1	R9	1K/4	VCC3

SOUT2	1	VID pins threshold voltage select: Vih / Vil : 2.0 / 0.8V
	0	VID pins threshold voltage select: Vih / Vil : 0.8 / 0.4V
DTR2-	1	Open Drain pin Driving 软件
	0	Push-pull Pin Driving 软件
RTS2-	1	CPU FAN 100%
	0	CPU FAN 50%

1.2V or 3.3V tolerance select
 1.2V OUTPUT 接 VTT_GMCH
 3.3V OUTPUT 接 3.3V
 LPCPD# = VIDVCC

VCC3 R1946 0.6/SHT/X VIDVCC
 VTT_GMCH R1947 0.4/X

VTT_GMCH/VCC3/VIDVCC 請走 20-30

如果 BSEL0/1 直接拉 TO N/B, R264/R265 不上

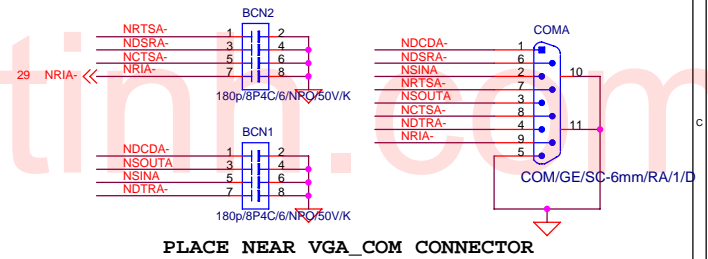
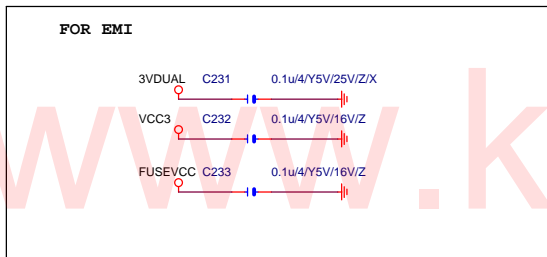
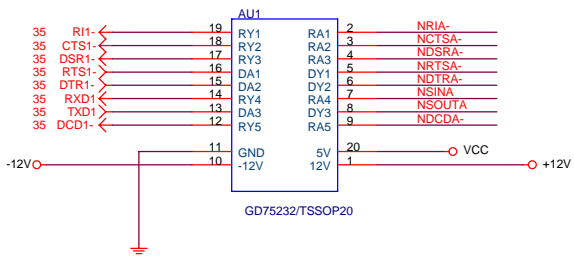
FOR REV: Bx/Cx

FOR ITE8718

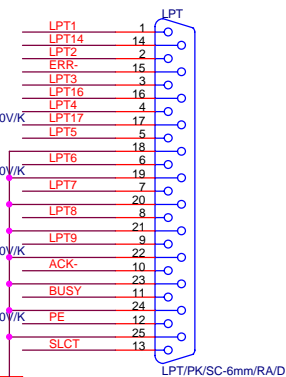
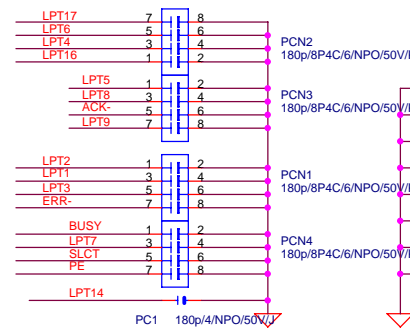
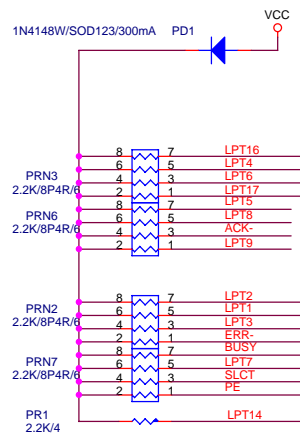
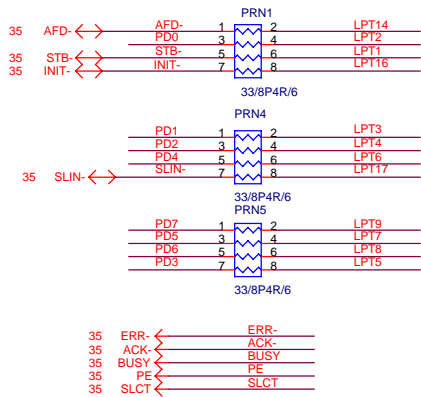
37 PWM_VID3	IO_VID3
37 PWM_VID2	IO_VID2
37 PWM_VID0	IO_VID0
37 PWM_VID4	IO_VID4
37 PWM_VID5	IO_VID5

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ITE 8712 LPC IO		
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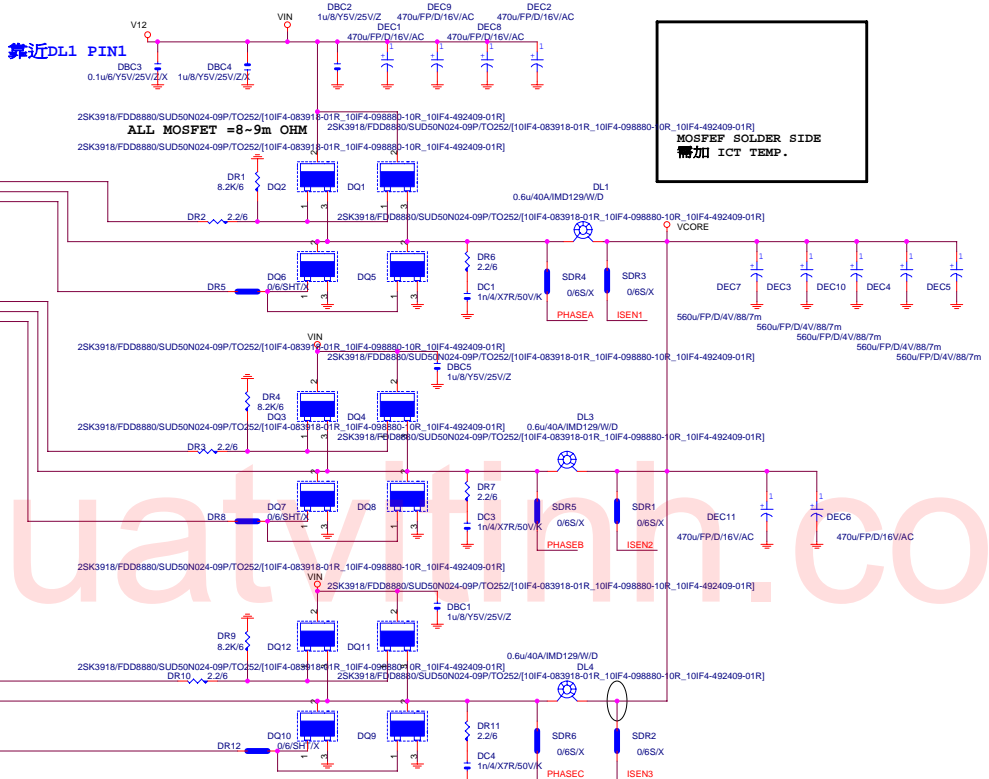
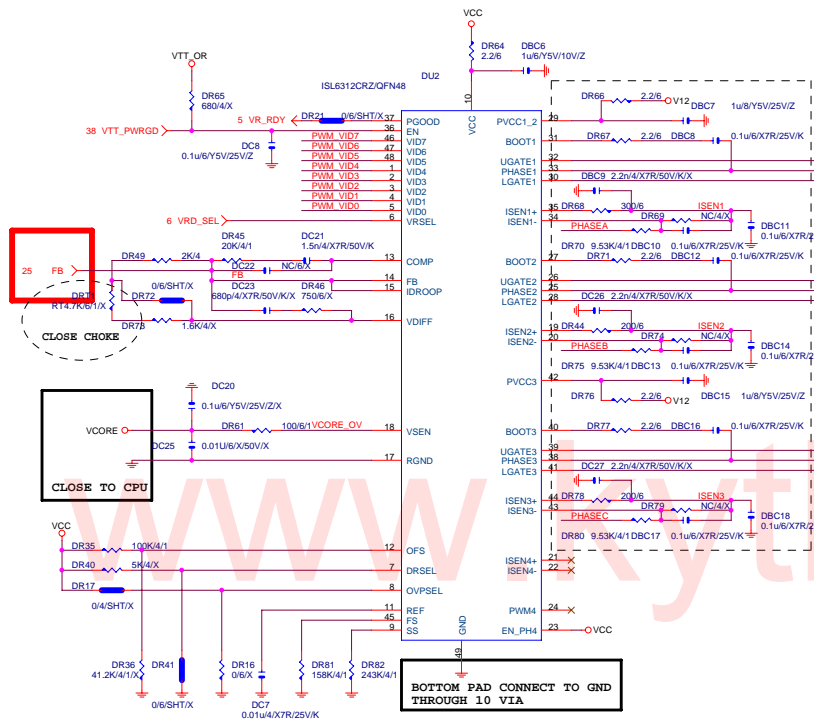


35 PD[0..7] ↔ PD[0..7]



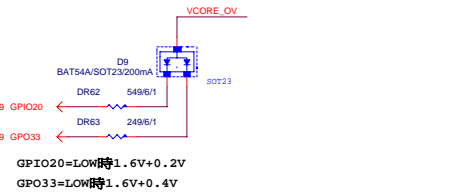
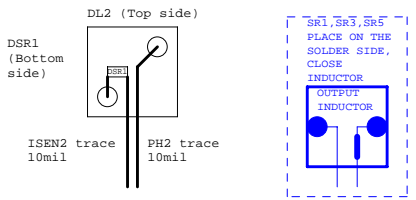
GIGABYTE TECHNOLOGIES, INC.

Title			
COM & IR & LPT PORT & FLOOPY			
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OUTPUT SINK=100uA

I/O OUTPUT SINK=8mA



FOR REV:BX/CX

6 VID0	7	8	PWM_VID0	PWM_VID0	35
6 VID1	5	6	PWM_VID1	PWM_VID1	35
6 VID2	3	4	PWM_VID2	PWM_VID2	35
6 VID3	1	2	PWM_VID3	PWM_VID3	35
6 VID4	DR85	1K/4	PWM_VID4	PWM_VID4	35
6 VID5	DR86	1K/4	PWM_VID5	PWM_VID5	35

FOR REV: CX

35 IO_VID06	VCC3	VCC3	IO_VID6	IO_VID6	35
35 IO_VID07	R1950	R1951	IO_VID7	IO_VID7	35
	1K/4	1K/4	PWM_VID6	PWM_VID6	35
			PWM_VID7	PWM_VID7	35

ICH6 GPIO Table:

NAME	PWR LANE	USAGE	NAME	PWR LANE	USAGE
GPI0	V5REF	M/B ID (-REQ6)	GPI41	VCC3	M/B ID
GPI1	V5REF	-REQ5	GPO48	VCC3	-GNT4
GPI2	V5REF	-PIRQE	GPO49	V-CPUIO	CPUPWOK
GPI3	V5REF	-PIRQF			
GPI4	V5REF	-PIRQG			
GPI5	V5REF	-PIRQH			
GPI6	VCC3	-SLP_BTN			
GPI7	VCC3	DUAL BIOS			
GPI8	3VDAUL	-LANWAKE			
GPI9	3VDAUL	-USBOC4			
GPI10	3VDAUL	-USBOC5			
GPI11	3VDAUL	-SMBALT			
GPI12	VCC3	ATX DET			
GPI13	3VDAUL	-LPCPME			
GPI14	3VDAUL	-USBOC6			
GPI15	3VDAUL	-USBOC7			
GPO16	VCC3	CPU OV1 (-GNT6)			
GPO17	VCC3	-GNT5			
GPO18	VCC3	CPU OV2			
GPO19	VCC3	DUAL BIOS			
GPO20	VCC3	BIOS T-BLOCK			
GPO21	VCC3	DUAL BIOS			
GPO23	VCC3	DDR OV0			
GPI024	3VDAUL	GREEN LED			
GPI025	3VDAUL	DDR OV1			
GPI26	VCC3	SATA GP0			
GPI027	3VDAUL	+PWRLED			
GPI028	3VDAUL	-PWRLED			
GPI29	VCC3	SATA GP1			
GPI30	VCC3	SATA GP2			
GPI31	VCC3	SATA GP3			
GPI032	VCC3	BIOS WP			
GPI033	VCC3	AZALIA DET			
GPI034	VCC3	PWRLED			
GPI40	V5REF	-REQ4			

PWROK/RESET Table:

ITE8712BHX PIN	NET NAME	TARGET
PIN62/-PCIRST1	-PCIE_RST	1. PCI-E * 1 Slot1 2. PCI-E * 1 Slot2 3. PCI-E * 1 Slot3 4. PCI-E * 16 Slot
PIN64/-PCIRST2	-PFMRST2	1. Onboard PCI Lan 2. Onboard 1394 Chip 3. OnBoard FWH
PIN65/-PCIRST3	-PFMRST1	1. Onboard PCI-E Lan 2. Onboard SATA Chip 3. GMCH
PIN115/-PCIRST4	-PFMRST -IDERST	Reserved For IDE
PIN63/PWROK1	PWROK1	1. GMCH 2. ICH6 3. 5VDUAL SWITCH 4. DPS CONTROL
PIN109/PWROK2	-THERM	1. ICH6

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