

Model Name: GA-TG965MP-RH-GW

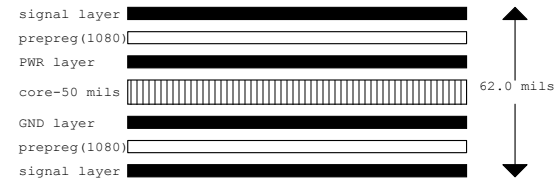
SHEET TITLE Revision 2.1

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	TABLE LIST
05	LGA775_A
06	LGA775_B/D
07	LGA775_C
08	LGA775_E/F/G/H
09	GMCH-BROADWATER_HOST
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11	GMCH-BROADWATER_PCI E / DMI
12	GMCH-BROADWATER_VGA
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14	GMCH-BROADWATER_PWR
15	DDRII-CHANNEL A 1,2
16	DDRII-CHANNEL B 1,2
17	DDRII-TERMINATION
18	PCI EXPRESS*16 SLOT
19	ICH8-PCI / DMI / LAN / USB
20	ICH8-GPIO / CTRL
21	ICH8-SATA / FAN PWM
22	ICH8-PWR / GND
23	CLOCK GEN
24	PCI EXPRESS*1 / PCI SLOT 1,2
25	ITE8718F
26	COM / LPT / SYS_FAN / CPU_FAN
27	BIOS / CI / HW MONITOR / KB / MS

SHEET TITLE

28	CODEC ALC888
29	AUDIO JACK
30	PWM FAN5032MPX
31	DISCRETE POWER
32	ATX POWER CONNECTOR
33	JMICRON JMB368
34	VT6308P 1394
35	RTL8101E_8111B ,REAR USB2
36	FP / F_USB / USB PWR / FDD / BZ

Broadwater chipset impedance:50Ω+/-15%
with 4mils trace width



Gigabyte Technology

Title		
Cover Sheet		
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Model Name: TG965MP-RH-GW

Version: 2.1

Circuit or PCB layout change for next version

Component value change history

2006/03/14

Data	Change Item	Reason
20060503 0.1 BOM	EVT BOM	
20060522 0.2 BOM	DVT BOM	
20060808 10A BOM	DVT BOM FOR new ver chipset (965G C2)	
11A BOM	PCB UPDATE FINE TUNE VRHOT	
11B BOM	add CBC32 CBC33 CBC36 CBC37 CBC40 CBC41 for EMI	
20070212 21A BOM	Add GTLREF PATCH schematic for D0 CPU PWM SOLUTION Fine Tune	
	change 62/6 to 62/4	
	change GTLREF 分壓電阻 to 0402 SIZE	
	Remove TPM and EX BIOS and FM function	
20070404 21B BOM	Adjust VCORE CAP.location	
20070515 21B BOM	GB1 BOM 轉GW BOM (add 包材) 12BC2-295648-00R 12A10-000042-11R 12BA5-003240-00R 12LC1-CROHS1-00R 12LC1-CROHS2-01R 12LB6-CROHS-00R	PM request

DATE	Change Item	Reason
R0.1	EVT	
R0.2	DVT support AFSC	
20060728 R1.0	PCB footprint new GBT rule External BIOS	
20060929 R1.1	change F_Panel 文字面	
20061207 R2.0	change LAN S.B JM368 U89 change 5VDUAL & 3VDUAL	
20070212 R2.1	ADD GTLREF PATCH SC ADD china ROHS logo	

BLOCK DIAGRAM

INTEL Pentium4
LGA775 VRM11
2005A

CLOCK GENERATOR

PCI EXPRESS X16

GMCH BROADWATER
965G

CHANNEL A
DDRII DIMM X 2

CHANNEL B
DDRII DIMM X 2

PCI EXPRESS X1

ICH8 DH

SPI BIOS

USB PORTS 0~9

SERIAL ATA II X6

INTEL 82566DC GB PHY

JM20330 1S1P

PCI SLOT 1,2

AZALIA ALC888

LPC I/O ITE8718 EX

AUDIO PORTS : FRONT AUDIO
LIN_OUT LINE_IN MIC CD_IN
SURR SURR BACK CEN/LFE

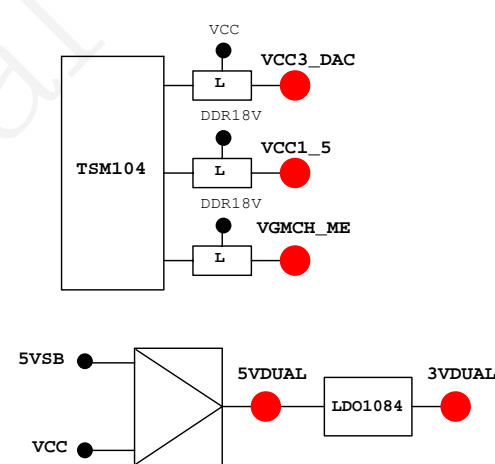
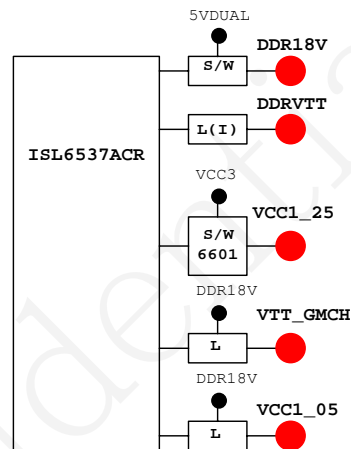
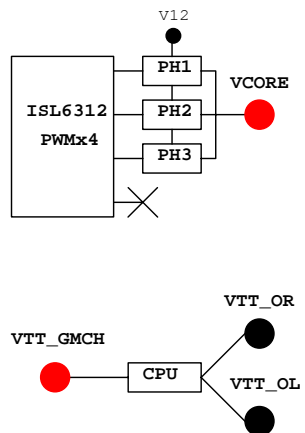
FRONT PANEL /CPU FAN

I/O PORTS :
COMA COMB LPT KB/PS2 FDD

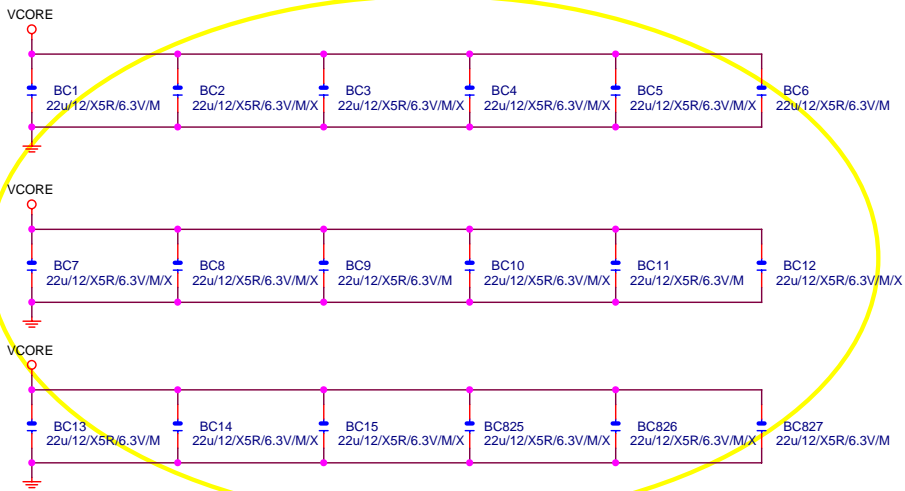
ICH8 GPIO LIST TABLE

PIN NAME	PWR WELL	AFTER/ FILTERST	USAGE	NOTE
GP0	MAIN	IN	-ACZ_DET	P/U 8.2K VCC3
GP1/TACH1	MAIN	IN	N/A	P/U 8.2K VCC3
GP2/PIRQE#	MAIN	IN	-PIRQE	P/U 8.2K VCC3
GP3/PIRQF#	MAIN	IN	-PIRQF	P/U 8.2K VCC3
GP4/PIRQG#	MAIN	IN	-PIRQG	P/U 8.2K VCC3
GP5/PIRQH#	MAIN	IN	-PIRQH	P/U 8.2K VCC3
GP6/TACH2	MAIN	IN	N/A	P/U 8.2K VCC3
GP7/TACH3	MAIN	IN	N/A	P/U 8.2K VCC3
GP8	STBY	IN	GPIO8	P/U 8.2K 3VDUAL
GP9	STBY	OUT	WOL_ONLY	P/D 100K GND
GP10	STBY	OUT	GPIO10	P/U 8.2K 3VDUAL
GP11/SMBALERT#	STBY	OUT	-SMBALRT	P/U 8.2K 3VDUAL
GP12	STBY	IN	MB_ID3	P/U 8.2K 3VDUAL
GP13	STBY	IN	-LPCPME	P/U 8.2K 3VDUAL
GP14	STBY	IN	GPIO14	P/U 8.2K 3VDUAL
GP15	STBY	OUT	GPIO15(TP)	N/A
GP16	MAIN	IN	MB_ID1	P/U 8.2K VCC3
GP17/TACH0	MAIN	IN	N/A(OPT-ITE)	P/U 8.2K VCC3
GP18	MAIN	IN	MB_ID2	P/U 8.2K VCC3
GP19	MAIN	IN	GPIO19	P/U 8.2K VCC3
GP20	MAIN	OUT	GPIO20	N/A
GP21	MAIN	IN	GPIO21	P/U 8.2K VCC3
GP22	MAIN	IN	GPIO22	P/U 8.2K VCC3
GP23	MAIN	OUT	-LDRQ1	P/U 8.2K VCC3
GP24	STBY	OUT	GPIO24(TP)	N/A
GP25	STBY	IN	MB_ID4	P/U 8.2K 3VDUAL
GP26/S4_STATE#	STBY	OUT	GPIO26	P/U 8.2K 3VDUAL
GP27	STBY	LOW	GPIO27	ENERGY-LAKE LED:GREEN
GP28	STBY	LOW	GPIO28	ENERGY-LAKE LED:YEL
GP29/OC5#	STBY	IN	-USBOC_F	P/U FUSEVCC1
GP30/OC6#	STBY	IN	-USBOC_F	P/U FUSEVCC1
GP31/OC7#	STBY	IN	-USBOC_F	P/U FUSEVCC1
GP32	MAIN	IN	MB_ID0	P/U 8.2K VCC3
GP33	MAIN	IN	GPIO33	P/U 8.2K VCC3
GP34	MAIN	IN	GPIO34	P/U 8.2K VCC3
GP35	MAIN	IN	N/A(TP)	N/A
GP36	MAIN	IN	GPIO36	P/U 8.2K VCC3
GP37	MAIN	IN	GPIO37	P/U 8.2K VCC3
GP38	MAIN	IN	GPIO38	P/U 8.2K VCC3
GP39	MAIN	IN	GPIO39	P/D 8.2K GND
GP48	MAIN	IN	GPIO48	P/U 8.2K VCC3
GP49	MAIN	IN	CPUPWROK	P/U 100 VTT_OL

VCORE:3 PHASE PWM--ISL6312

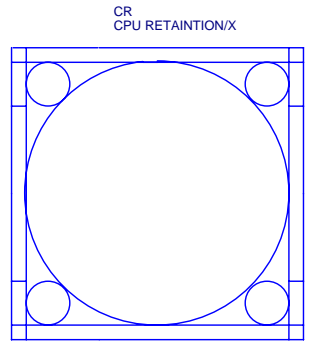
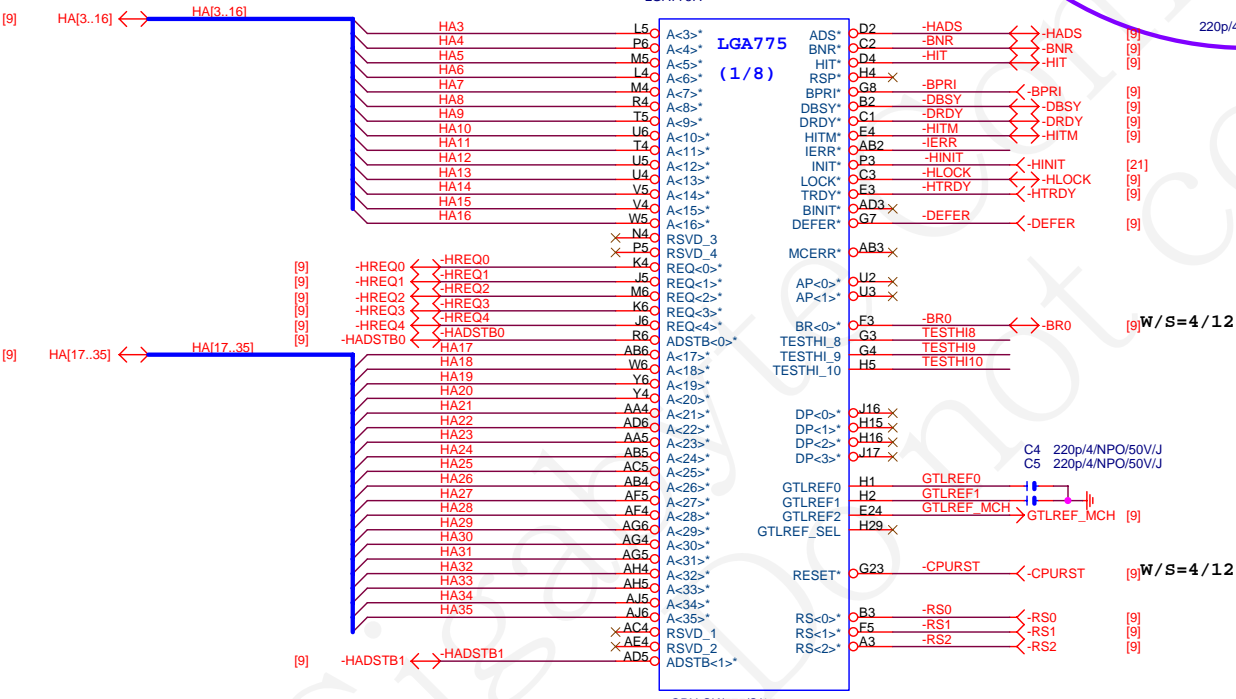
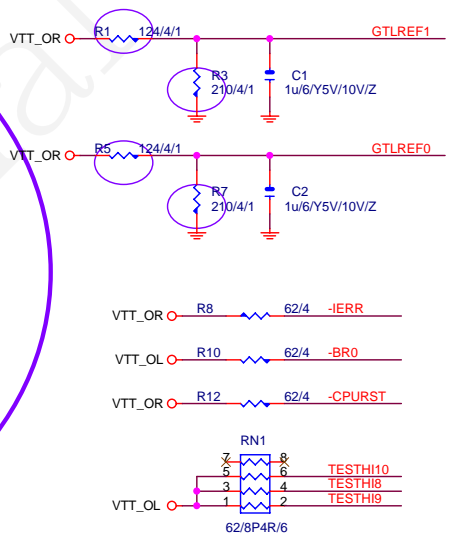
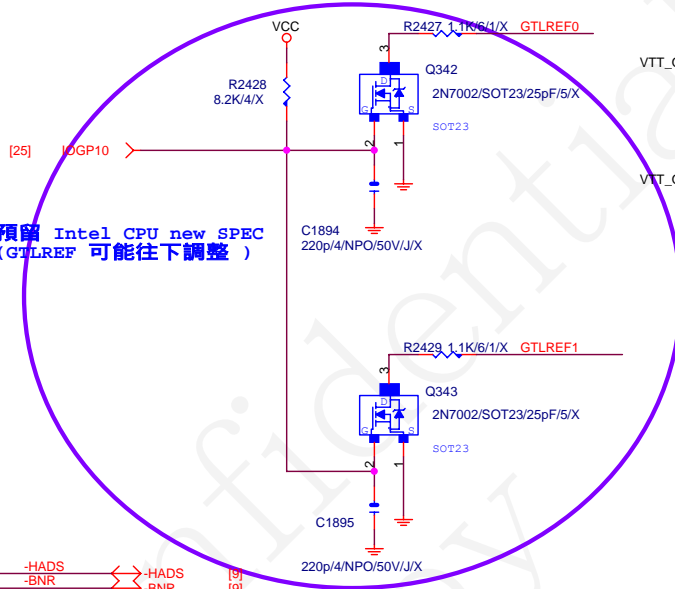


Gigabyte Technology			
Title			
TABLE LIST			
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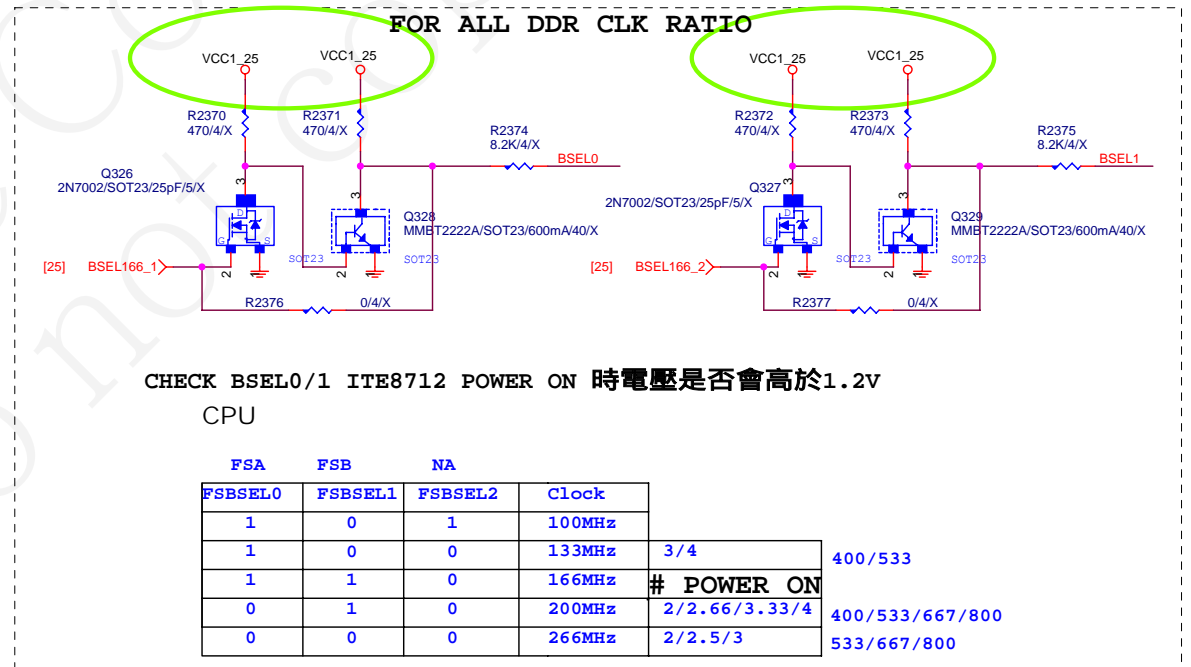
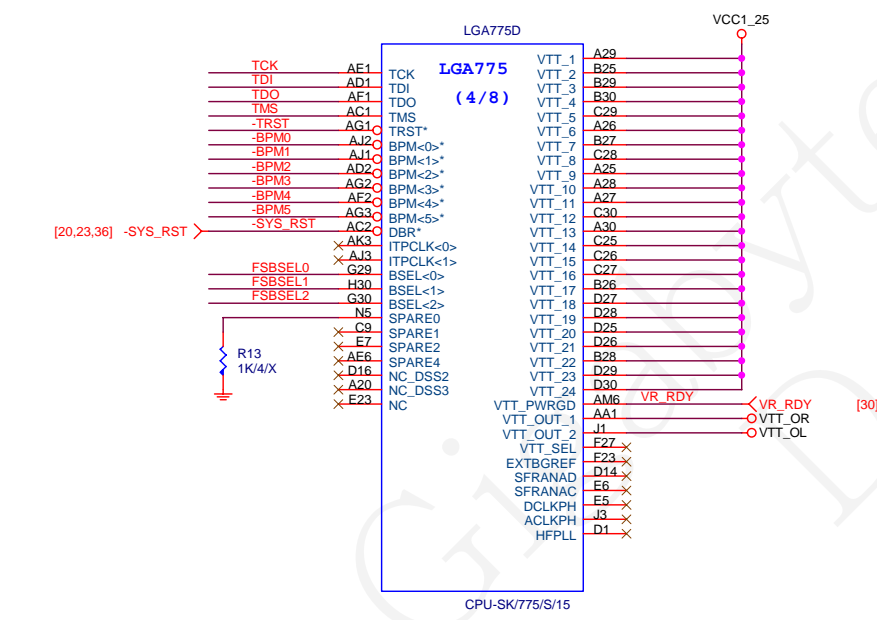
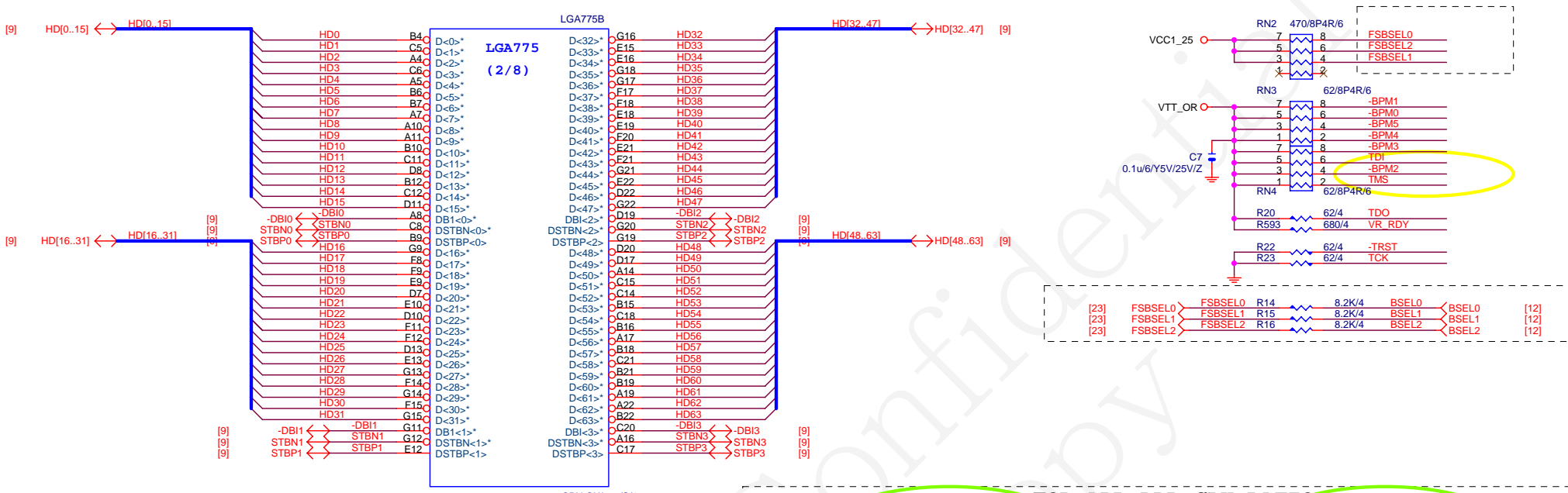
LGA775-D: FOOTPRINT

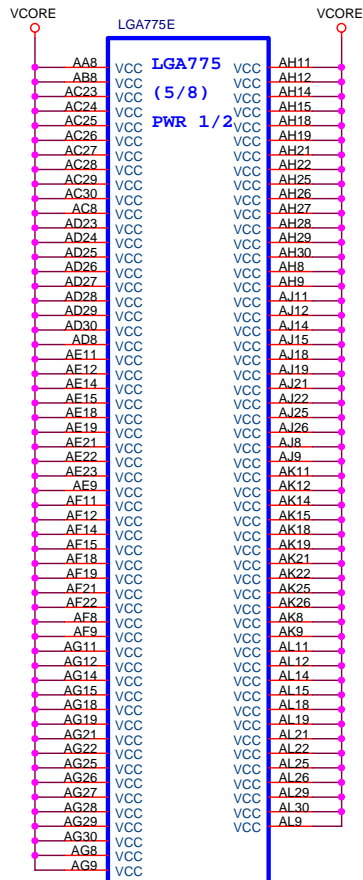
預留 Intel CPU new SPEC
(GTLREF 可能往下調整)



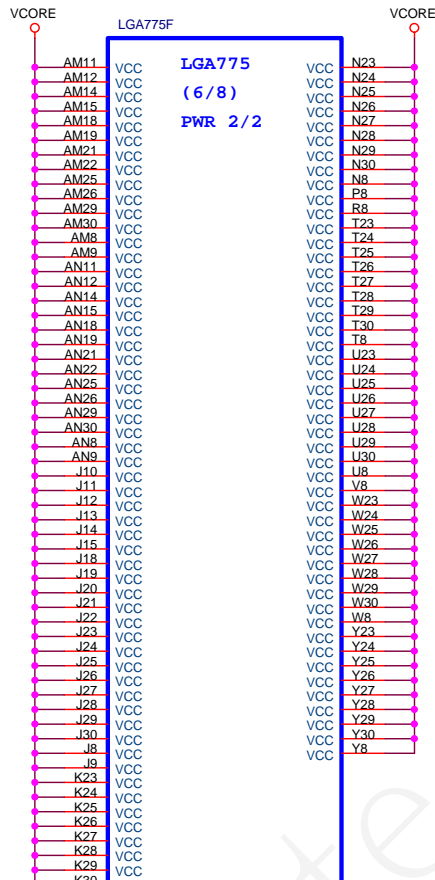
HOST 4X SIGNAL:W/S=4/14 to Dx#,DBIx#;W/S=4/25 to Strobe
 HOST 2X SIGNAL:W/S=4/14 to HAx#,REQx#;W/S=4/17 to Strobe
 HOST 1X SIGNAL:W/S=4/14

Gigabyte Technology		
Title LGA775-A		
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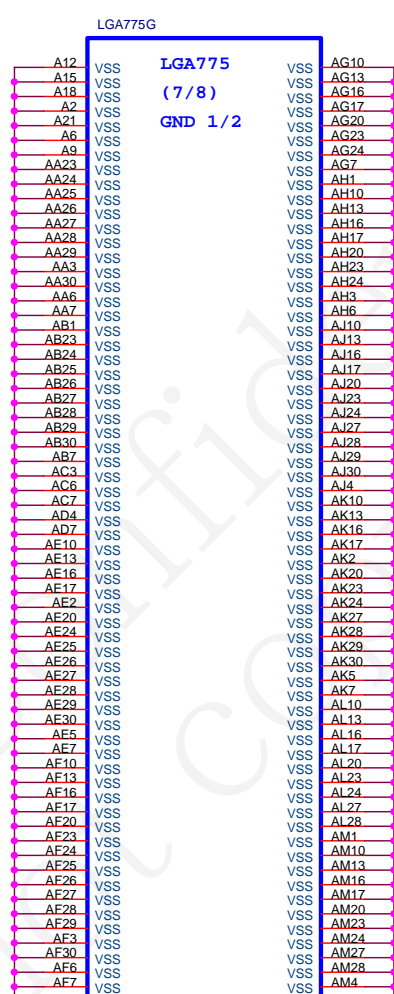




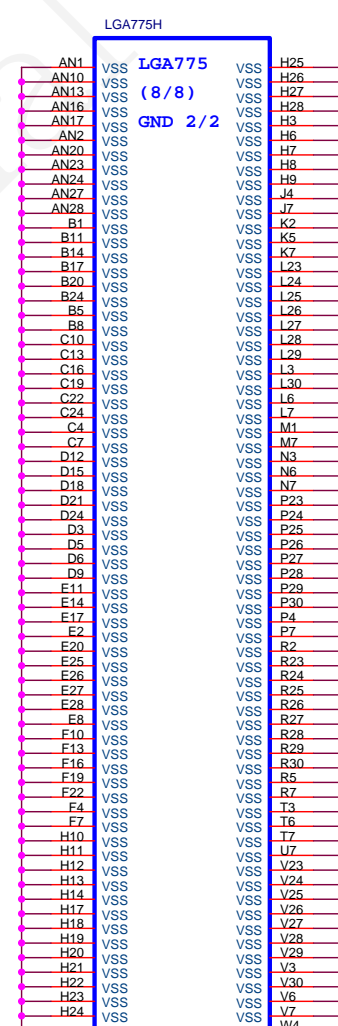
CPU-SK/775/S/15



CPU-SK/775/S/15



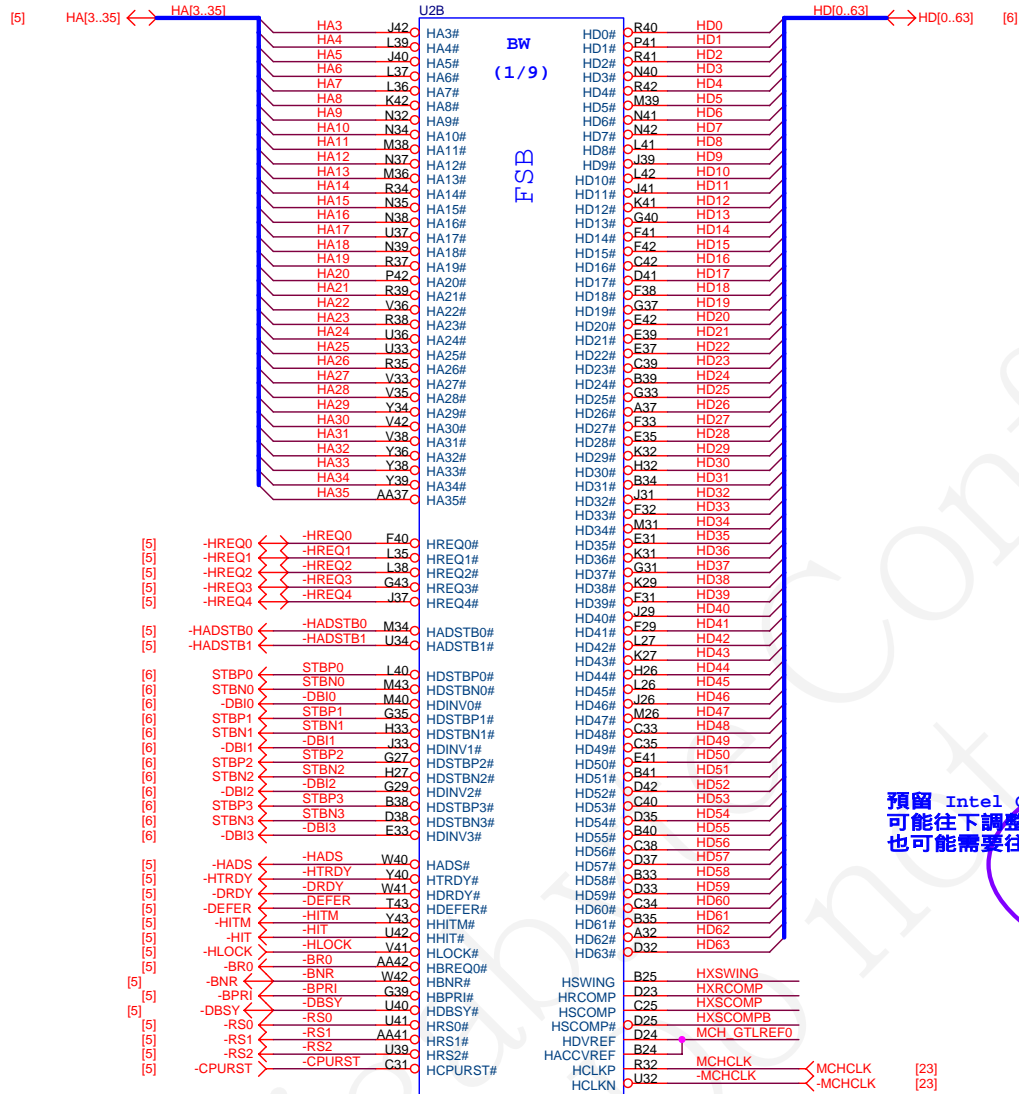
CPU-SK/775/S/15



CPU-SK/775/S/15

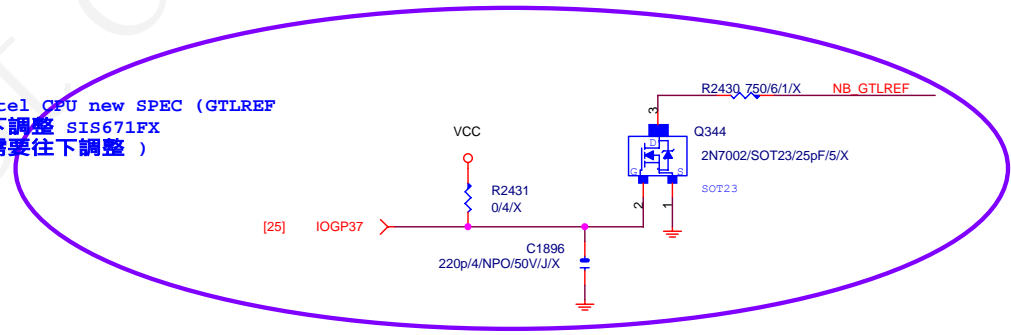
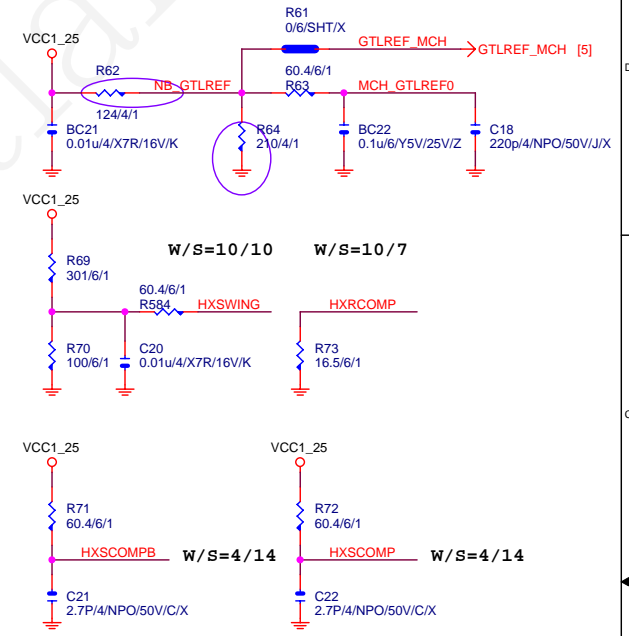
Gigabyte Technology

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LE82G965-C2/BGA1226[10HB1-030082-40R]
CPU INTERFACE

預留 Intel CPU new SPEC (GTLREF
可能往下調整 SIS671FX
也可能需要往下調整)



Gigabyte Technology	
Title GMCH-BROADWATER_HOST	
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U2C

Pin list for U2C (SMA, SDQS, SDQ, SDM, SCS, SCKE, SODT, SCS#, SCKE#, SMDM, TP1, TP17, TP16, TP17) with pin numbers and component names.

DDR_0

Pin list for DDR_0 (SDQS, SDQ, SDM, SCS, SCKE, SODT, SCS#, SCKE#, SMDM, TP1) with pin numbers and component names.

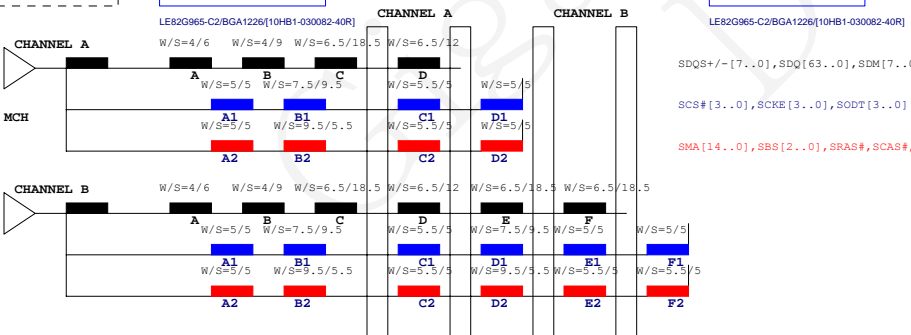
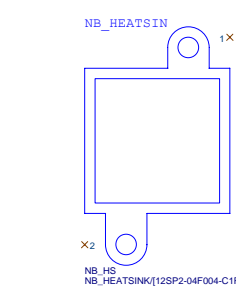
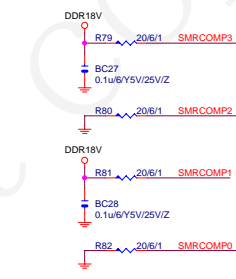
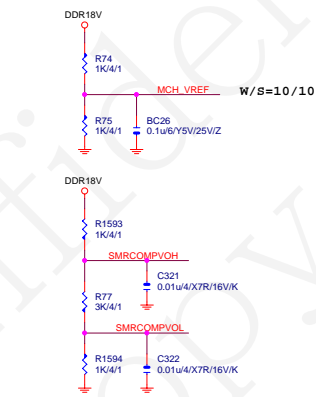
U2D

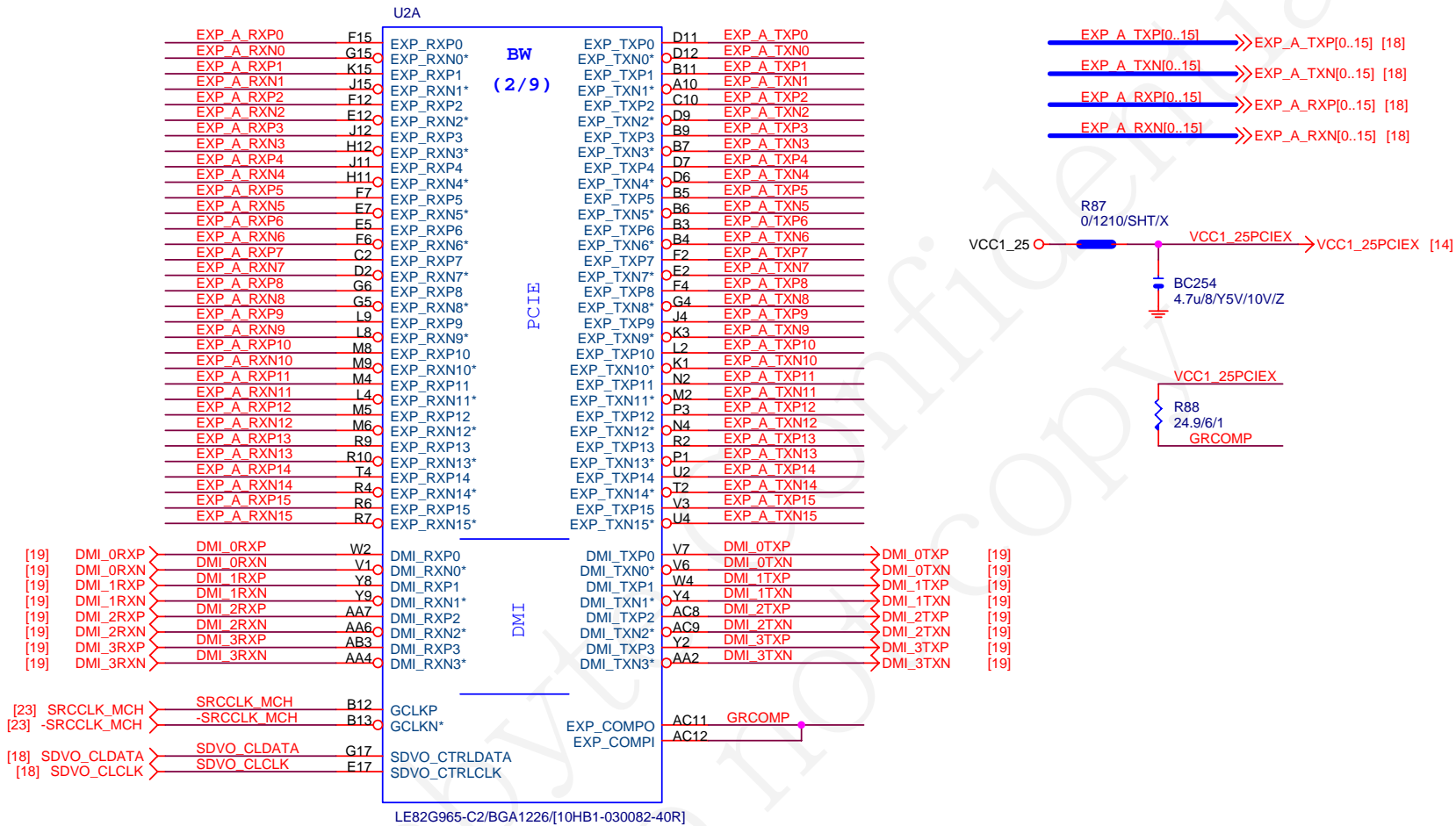
Pin list for U2D (SMA, SDQS, SDQ, SDM, SCS, SCKE, SODT, SCS#, SCKE#, SMDM, TP1, TP17, TP16, TP17) with pin numbers and component names.

DDR_1

Pin list for DDR_1 (SDQS, SDQ, SDM, SCS, SCKE, SODT, SCS#, SCKE#, SMDM, TP1, TP17, TP16, TP17) with pin numbers and component names.

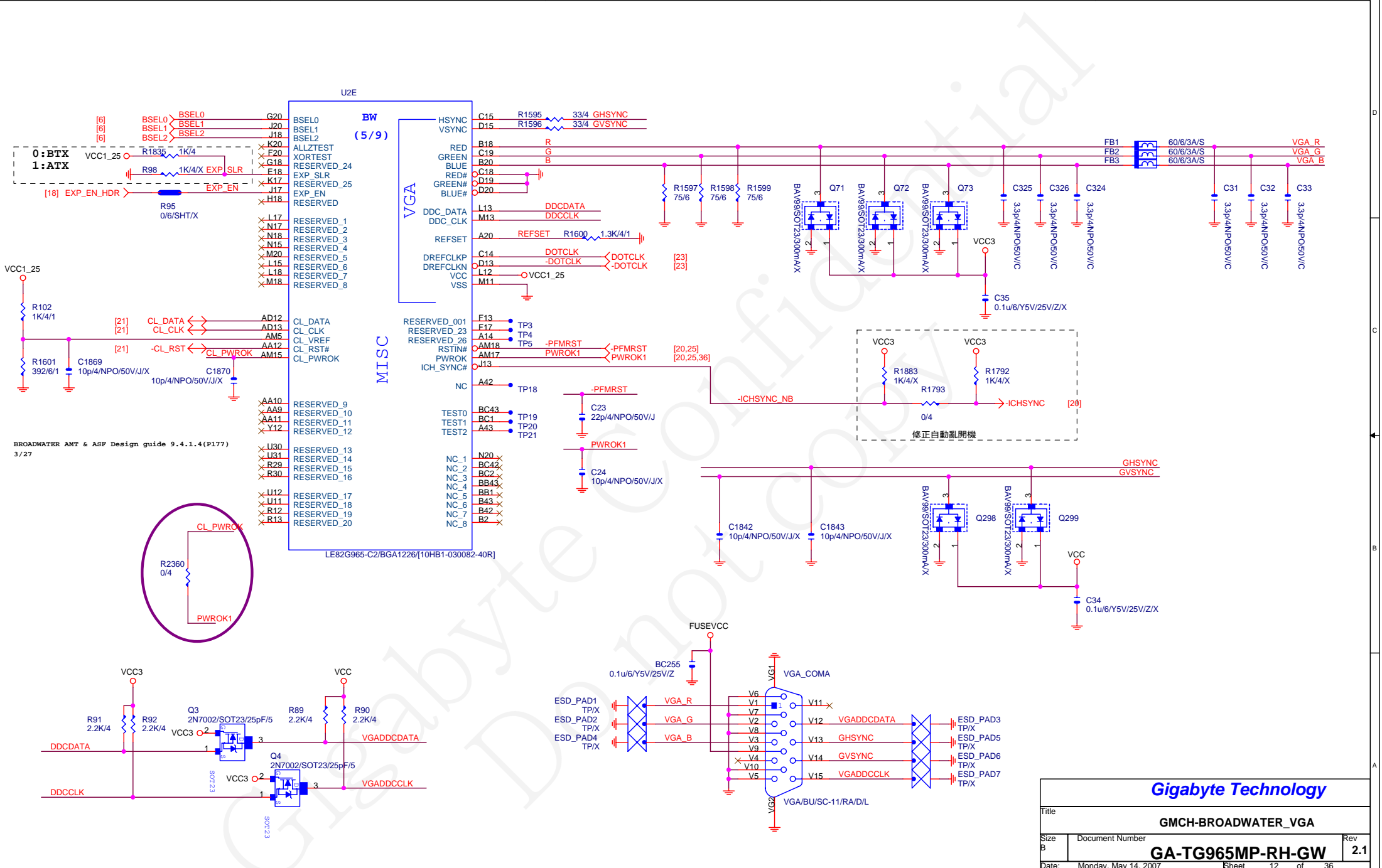
Pin list for U2D (SMA, SDQS, SDQ, SDM, SCS, SCKE, SODT, SCS#, SCKE#, SMDM, TP1, TP17, TP16, TP17) with pin numbers and component names.





Gigabyte Technology

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U2G

BC37	VSS_1	BW	VSS_181	AF5
BC32	VSS_2	(7/9)	VSS_182	AF3
BC28	VSS_3		VSS_183	AF2
BC24	VSS_4		VSS_184	AF1
BC10	VSS_5		VSS_185	AD42
BC5	VSS_6	GND 1/2	VSS_186	AD39
BB7	VSS_7		VSS_187	AD37
AY4	VSS_8		VSS_188	AD35
AW43	VSS_9		VSS_189	AD33
AW41	VSS_10		VSS_190	AD25
AW1	VSS_11		VSS_191	AD21
AV37	VSS_12		VSS_192	AD19
AV35	VSS_13		VSS_193	AC38
AV27	VSS_14		VSS_194	AC35
AV23	VSS_15		VSS_195	AC24
AV21	VSS_16		VSS_196	AC22
AV17	VSS_17		VSS_197	AC20
AV11	VSS_18		VSS_198	AC10
AV9	VSS_19		VSS_199	AC7
AV7	VSS_20		VSS_200	AC5
AU42	VSS_21		VSS_201	AB43
AU38	VSS_22		VSS_202	AB25
AU32	VSS_23		VSS_203	AB23
AU24	VSS_24		VSS_204	AB21
AU20	VSS_25		VSS_205	AB19
AU16	VSS_26		VSS_206	AB2
AU2	VSS_27		VSS_207	AB1
AT31	VSS_28		VSS_208	AA38
AT29	VSS_29		VSS_209	AA35
AT15	VSS_30		VSS_210	AA24
AT13	VSS_31		VSS_211	AA22
AT12	VSS_32		VSS_212	AA20
AR38	VSS_33		VSS_213	AA8
AR33	VSS_34		VSS_214	AA5
AR32	VSS_35		VSS_215	AA2
AR27	VSS_36		VSS_216	Y37
AR26	VSS_37		VSS_217	Y35
AR23	VSS_38		VSS_218	Y33
AR21	VSS_39		VSS_219	Y25
AR20	VSS_40		VSS_220	Y23
AR17	VSS_41		VSS_221	Y21
AR9	VSS_42		VSS_222	Y19
AR6	VSS_43		VSS_223	X10
AP43	VSS_44		VSS_224	Y7
AP24	VSS_45		VSS_225	Y5
AP18	VSS_46		VSS_226	Y1
AP1	VSS_47		VSS_227	W3
AN38	VSS_48		VSS_228	V43
AN31	VSS_49		VSS_229	V39
AN29	VSS_50		VSS_230	V37
AN24	VSS_51		VSS_231	V34
AN23	VSS_52		VSS_232	V32
AN20	VSS_53		VSS_233	V11
AN15	VSS_54		VSS_234	V8
AN13	VSS_55		VSS_235	V5
AN12	VSS_56		VSS_236	V2
AN11	VSS_57		VSS_237	U38
AN4	VSS_58		VSS_238	U35
AM42	VSS_59		VSS_239	U8
AM40	VSS_60		VSS_240	U7
AM36	VSS_61		VSS_241	U5
AM33	VSS_62		VSS_242	T42
AM29	VSS_63		VSS_243	T1
AM24	VSS_64		VSS_244	R36
AM23	VSS_65		VSS_245	R33
AM20	VSS_66		VSS_246	R31
AM11	VSS_67		VSS_247	R11
AM9	VSS_68		VSS_248	R8
AM7	VSS_69		VSS_249	R6
AM4	VSS_70		VSS_250	R3
AM2	VSS_71		VSS_251	P43
AM1	VSS_72		VSS_252	P30
AL36	VSS_73		VSS_253	P21
AL33	VSS_74		VSS_254	P18
AK43	VSS_75		VSS_255	P17
AJ39	VSS_76		VSS_256	P2
AJ36	VSS_77		VSS_257	N36
AJ33	VSS_78		VSS_258	N33
AH42	VSS_79		VSS_259	N31
AG37	VSS_80		VSS_260	N27
AG34	VSS_81		VSS_261	N21
AF43	VSS_82		VSS_262	N13
AF37	VSS_83		VSS_263	N10
AF36	VSS_84		VSS_264	N7
AF10	VSS_85		VSS_265	N5
AF9	VSS_86		VSS_266	M42
AF8	VSS_87		VSS_267	M37
AF7	VSS_88		VSS_268	M35
AF6	VSS_89		VSS_269	M33
	VSS_90		VSS_270	

LE82G965-C2/BGA1226/(10HB1-030082-40R)

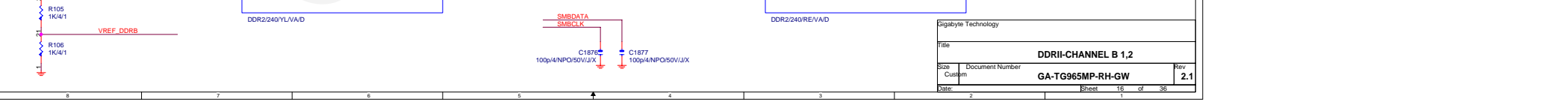
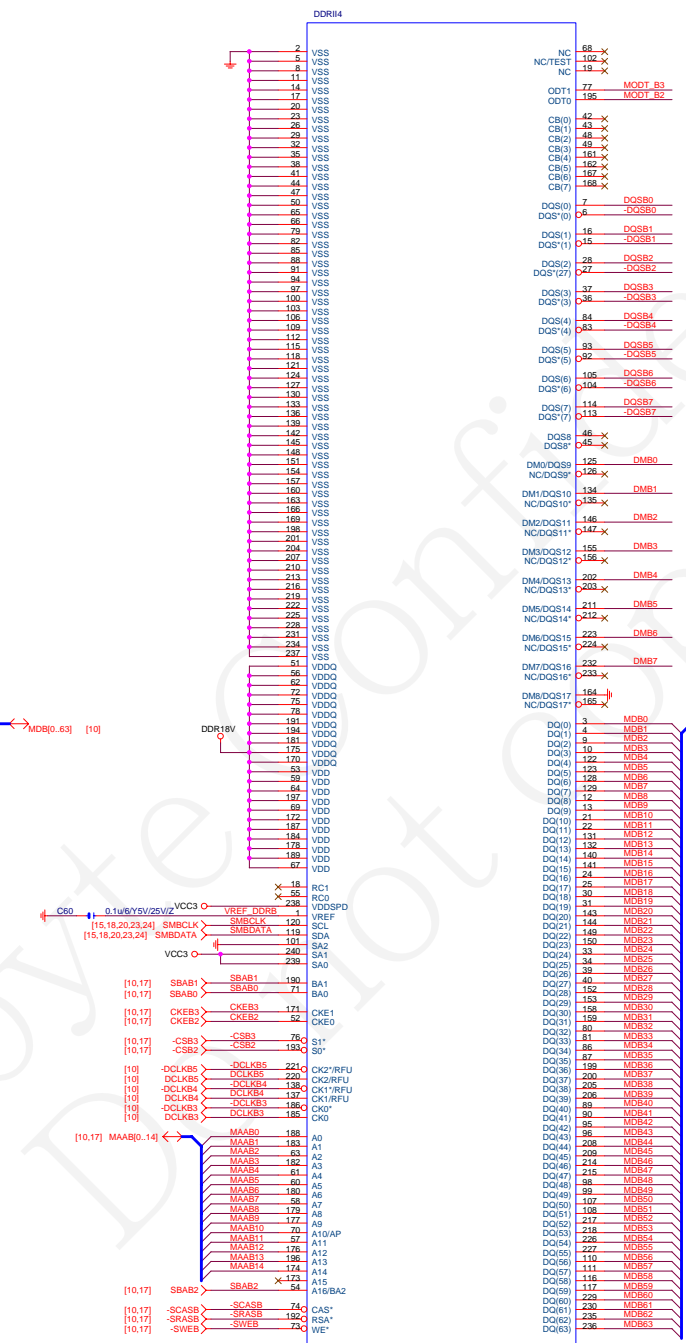
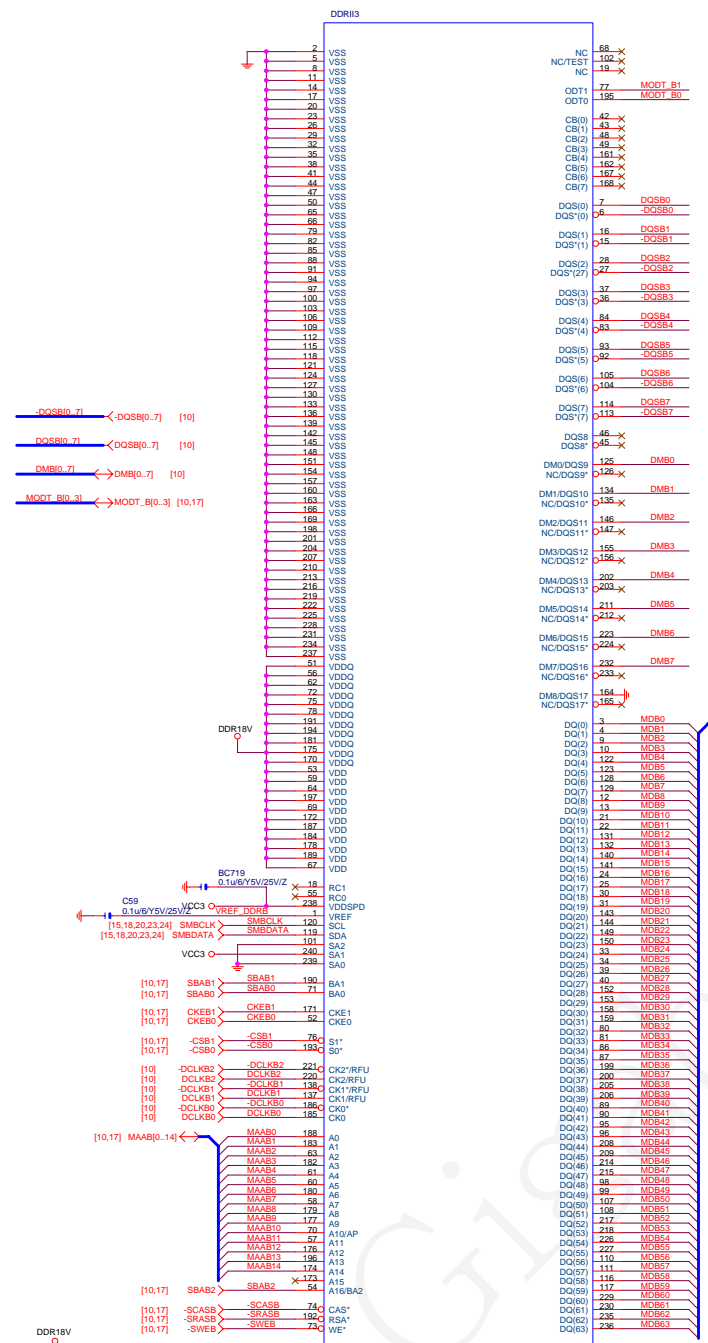
U2I

M27	VSS_91	BW	VSS_271	BC41
M21	VSS_92	(9/9)	VSS_272	BC3
M17	VSS_93		VSS_273	BA1
M15	VSS_94		VSS_274	AY40
M10	VSS_95	GND 2/2	VSS_275	AF23
M7	VSS_96		VSS_276	AF21
M1	VSS_97		VSS_277	AF19
L33	VSS_98		VSS_278	AE24
L32	VSS_99		VSS_279	AE22
L31	VSS_100		VSS_280	AE20
L29	VSS_101		VSS_281	AE18
L21	VSS_102		VSS_282	AC18
L20	VSS_103		VSS_283	AA18
L11	VSS_104		VSS_284	W24
L7	VSS_105		VSS_285	W22
L5	VSS_106		VSS_286	W20
L3	VSS_107		VSS_287	R21
K43	VSS_108		VSS_288	E1
K28	VSS_109		VSS_289	C43
K21	VSS_110		VSS_290	C1
K18	VSS_111		VSS_291	A41
K13	VSS_112		VSS_292	A5
K12	VSS_113		VSS_293	A3
K2	VSS_114			
J38	VSS_115			
J35	VSS_116			
J32	VSS_117			
J27	VSS_118			
J21	VSS_119			
J9	VSS_120			
J7	VSS_121			
J5	VSS_122			
H31	VSS_123			
H29	VSS_124			
H21	VSS_125			
H20	VSS_126			
H17	VSS_127			
H15	VSS_128			
H13	VSS_129			
G42	VSS_130			
G38	VSS_131			
G32	VSS_132			
G21	VSS_133			
G13	VSS_134			
G12	VSS_135			
G11	VSS_136			
G9	VSS_137			
G7	VSS_138			
G1	VSS_139			
F37	VSS_140			
F35	VSS_141			
F27	VSS_142			
F21	VSS_143			
F18	VSS_144			
F3	VSS_145			
E43	VSS_146			
E32	VSS_147			
E24	VSS_148			
E21	VSS_149			
E20	VSS_150			
E15	VSS_151			
E13	VSS_152			
E11	VSS_153			
E9	VSS_154			
E3	VSS_155			
D40	VSS_156			
D31	VSS_157			
D21	VSS_158			
D17	VSS_159			
D3	VSS_160			
C26	VSS_161			
C11	VSS_162			
C6	VSS_163			
C5	VSS_164			
C4	VSS_165			
B37	VSS_166			
B32	VSS_167			
B31	VSS_168			
B26	VSS_169			
B23	VSS_170			
B22	VSS_171			
B19	VSS_172			
B14	VSS_173			
B10	VSS_174			
A39	VSS_175			
A34	VSS_176			
A26	VSS_177			
A18	VSS_178			
A12	VSS_179			
A7	VSS_180			

LE82G965-C2/BGA1226/(10HB1-030082-40R)

Gigabyte Technology

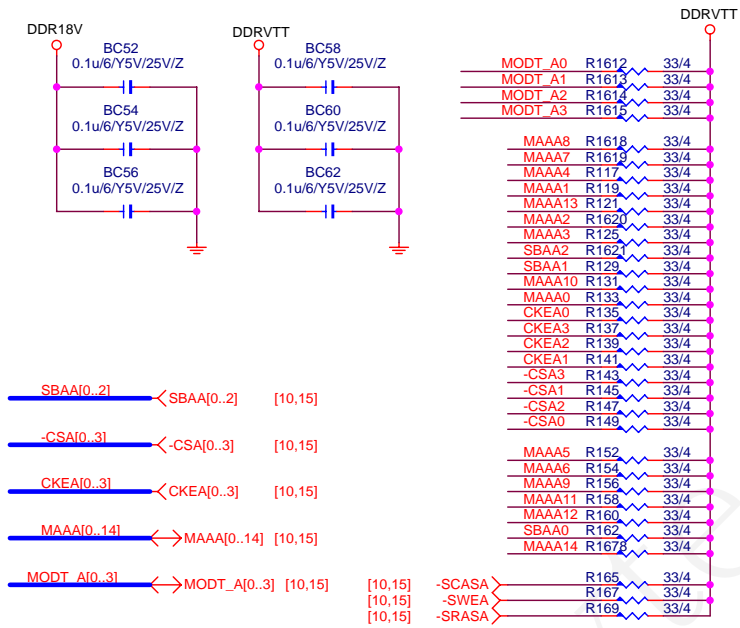
Title		
GMCH-BROADWATER_GND		
Size	Document Number	Rev
Custom	GA-TG965MP-RH-GW	2.1
Date:	Monday, May 14, 2007	Sheet 13 of 36



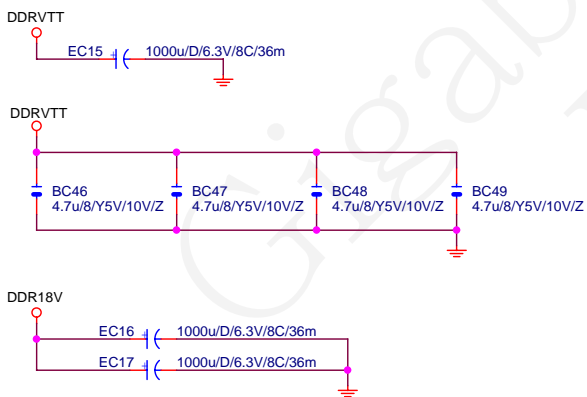
DDR TERMINATION CHANNEL A

DDR18V Decouple

DDRVTT Decouple



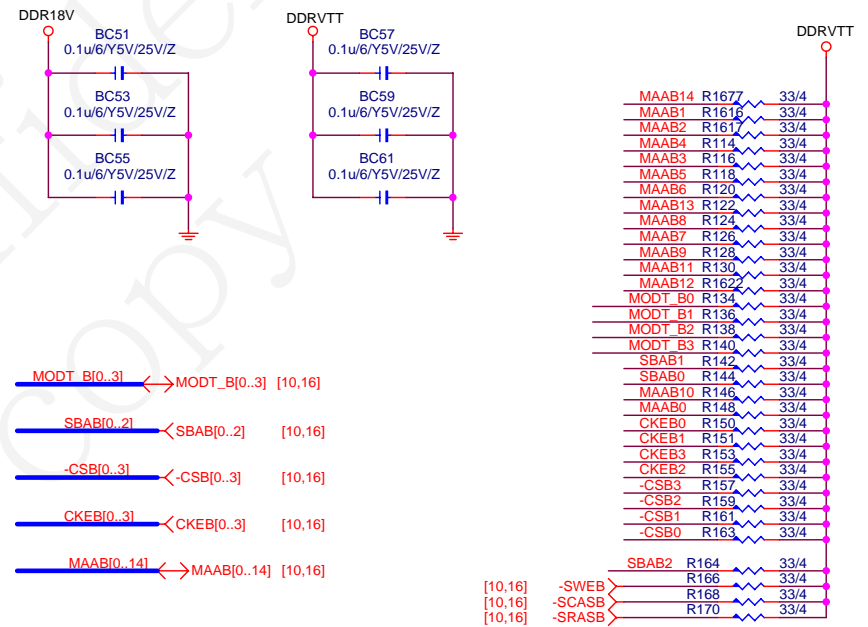
DDRVTT Decouple



DDR TERMINATION CHANNEL B

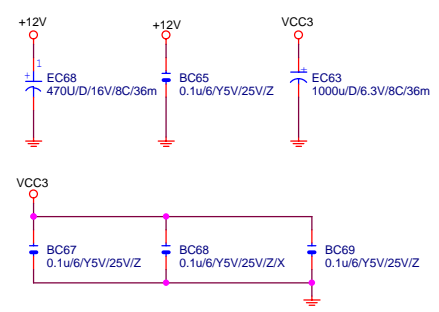
DDR18V Decouple

DDRVTT Decouple

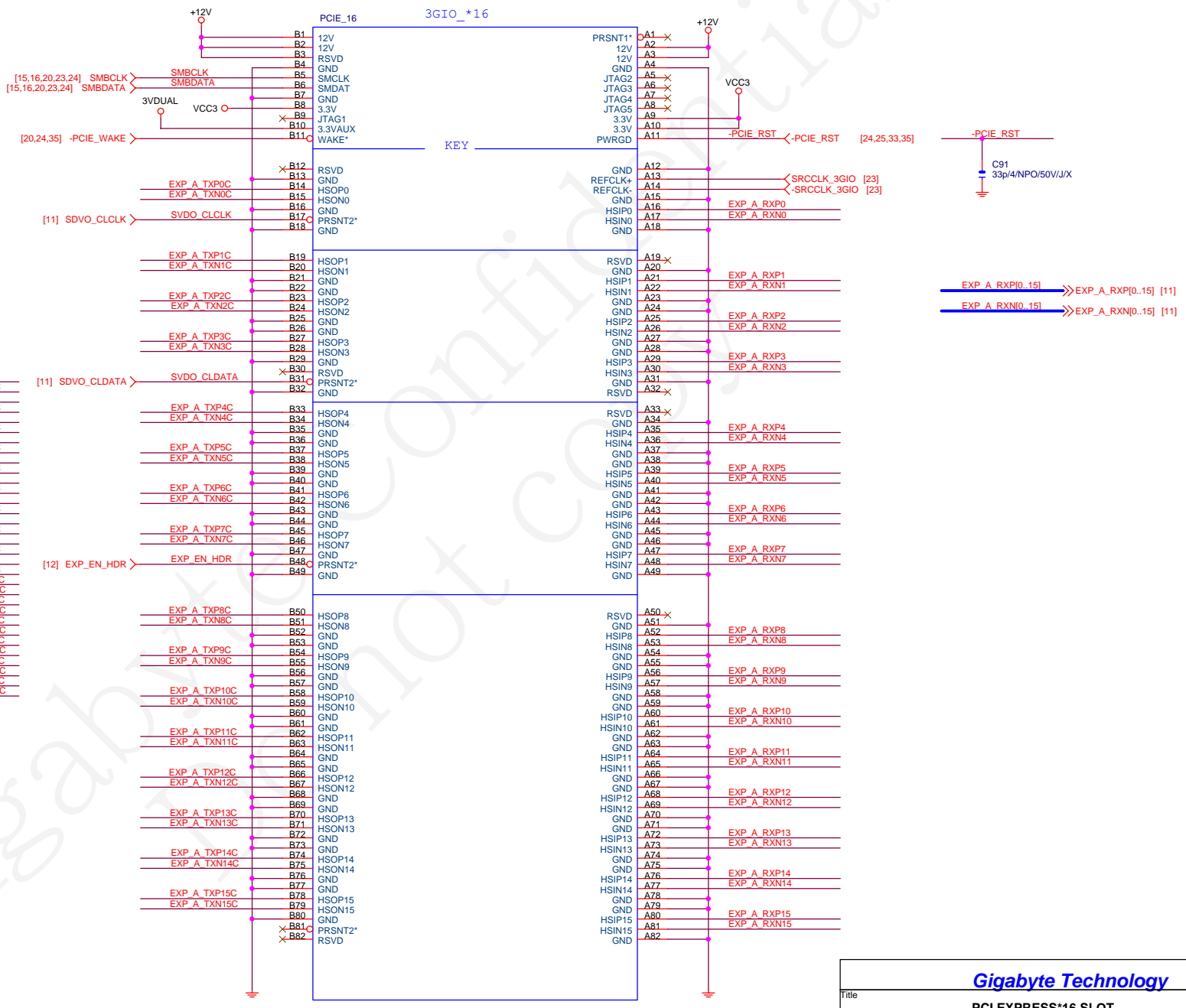


Gigabyte Technology

Title			DDRII-TERMINATION		
Size	Document Number				Rev
Custom	GA-TG965MP-RH-GW				2.1
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PCIESLOT-164DN-2



EXP_A_TXP[0..15] >>> EXP_A_TXP[0..15] [11]
 EXP_A_TXN[0..15] >>> EXP_A_TXN[0..15] [11]

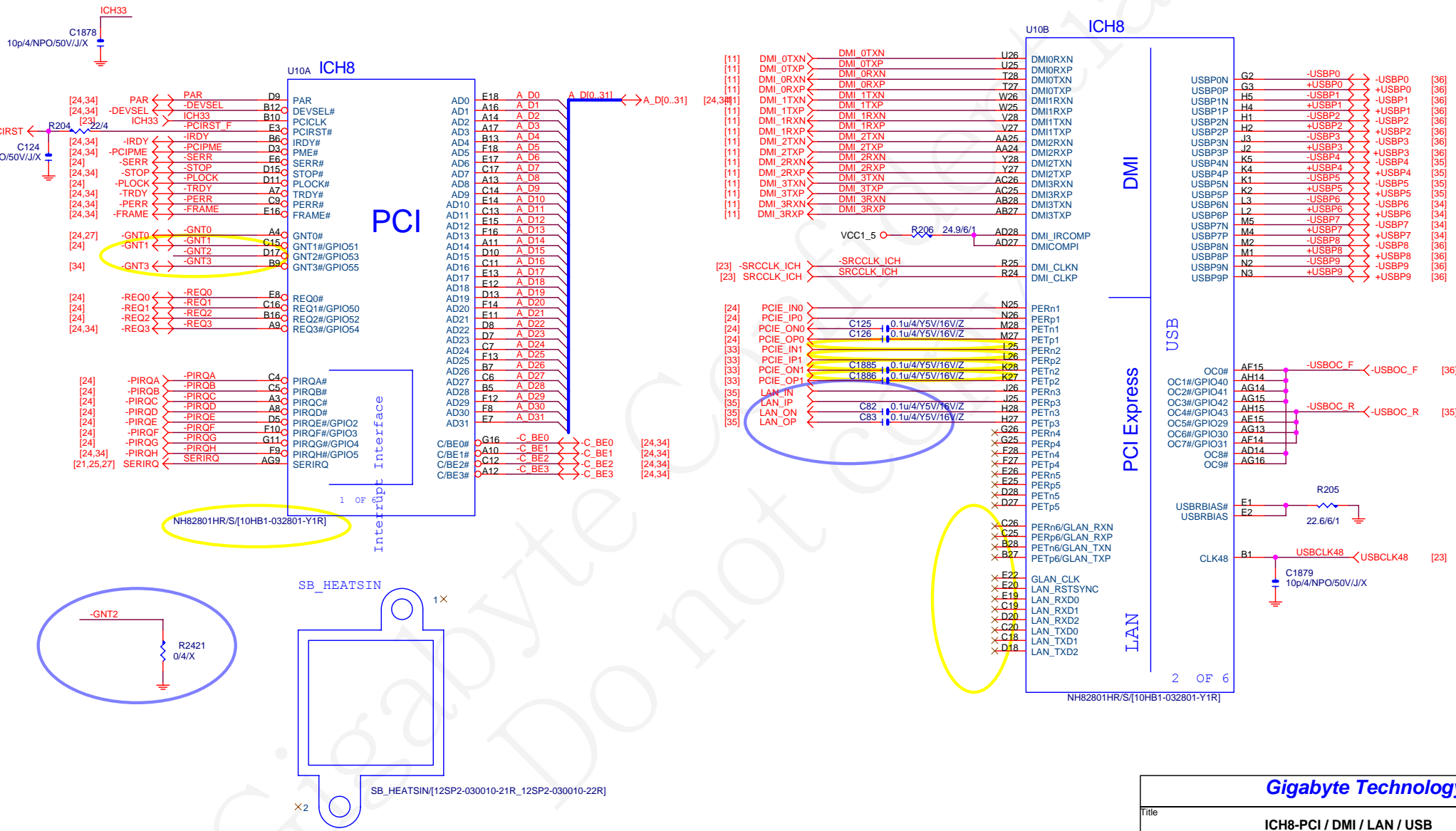
EXP_A_TXP0	C92	0.1u/4/Y5V/16V/Z	EXP_A_TXP0C
EXP_A_TXN0	C93	0.1u/4/Y5V/16V/Z	EXP_A_TXN0C
EXP_A_TXP1	C94	0.1u/4/Y5V/16V/Z	EXP_A_TXP1C
EXP_A_TXN1	C95	0.1u/4/Y5V/16V/Z	EXP_A_TXN1C
EXP_A_TXP2	C96	0.1u/4/Y5V/16V/Z	EXP_A_TXP2C
EXP_A_TXN2	C97	0.1u/4/Y5V/16V/Z	EXP_A_TXN2C
EXP_A_TXP3	C98	0.1u/4/Y5V/16V/Z	EXP_A_TXP3C
EXP_A_TXN3	C99	0.1u/4/Y5V/16V/Z	EXP_A_TXN3C
EXP_A_TXP4	C100	0.1u/4/Y5V/16V/Z	EXP_A_TXP4C
EXP_A_TXN4	C101	0.1u/4/Y5V/16V/Z	EXP_A_TXN4C
EXP_A_TXP5	C102	0.1u/4/Y5V/16V/Z	EXP_A_TXP5C
EXP_A_TXN5	C103	0.1u/4/Y5V/16V/Z	EXP_A_TXN5C
EXP_A_TXP6	C104	0.1u/4/Y5V/16V/Z	EXP_A_TXP6C
EXP_A_TXN6	C105	0.1u/4/Y5V/16V/Z	EXP_A_TXN6C
EXP_A_TXP7	C106	0.1u/4/Y5V/16V/Z	EXP_A_TXP7C
EXP_A_TXN7	C107	0.1u/4/Y5V/16V/Z	EXP_A_TXN7C
EXP_A_TXP8	C108	0.1u/4/Y5V/16V/Z	EXP_A_TXP8C
EXP_A_TXN8	C109	0.1u/4/Y5V/16V/Z	EXP_A_TXN8C
EXP_A_TXP9	C110	0.1u/4/Y5V/16V/Z	EXP_A_TXP9C
EXP_A_TXN9	C111	0.1u/4/Y5V/16V/Z	EXP_A_TXN9C
EXP_A_TXP10	C112	0.1u/4/Y5V/16V/Z	EXP_A_TXP10C
EXP_A_TXN10	C113	0.1u/4/Y5V/16V/Z	EXP_A_TXN10C
EXP_A_TXP11	C114	0.1u/4/Y5V/16V/Z	EXP_A_TXP11C
EXP_A_TXN11	C115	0.1u/4/Y5V/16V/Z	EXP_A_TXN11C
EXP_A_TXP12	C116	0.1u/4/Y5V/16V/Z	EXP_A_TXP12C
EXP_A_TXN12	C117	0.1u/4/Y5V/16V/Z	EXP_A_TXN12C
EXP_A_TXP13	C118	0.1u/4/Y5V/16V/Z	EXP_A_TXP13C
EXP_A_TXN13	C119	0.1u/4/Y5V/16V/Z	EXP_A_TXN13C
EXP_A_TXP14	C120	0.1u/4/Y5V/16V/Z	EXP_A_TXP14C
EXP_A_TXN14	C121	0.1u/4/Y5V/16V/Z	EXP_A_TXN14C
EXP_A_TXP15	C122	0.1u/4/Y5V/16V/Z	EXP_A_TXP15C
EXP_A_TXN15	C123	0.1u/4/Y5V/16V/Z	EXP_A_TXN15C

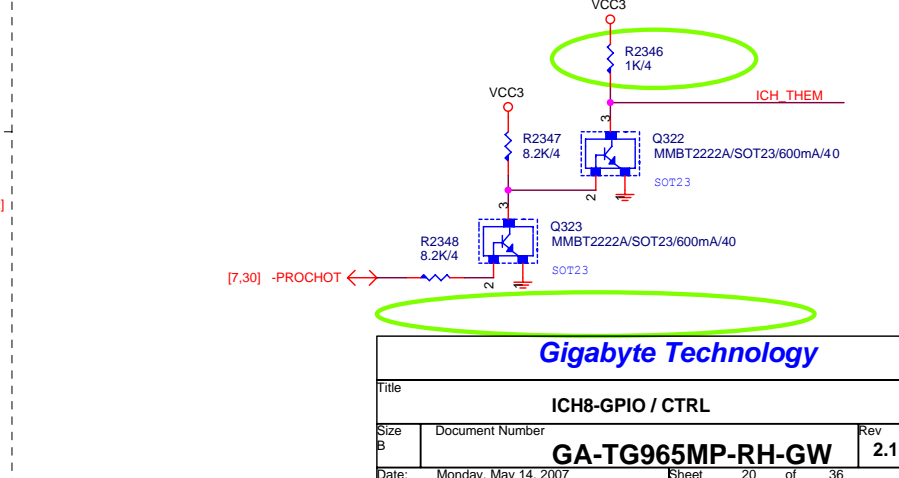
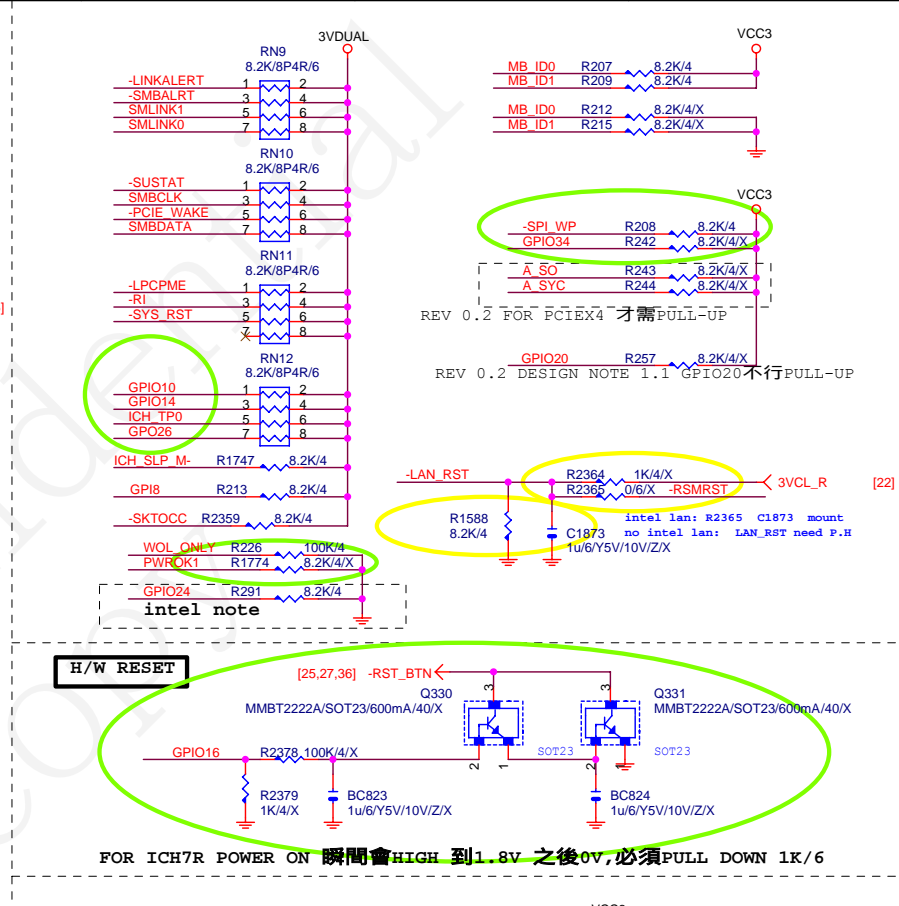
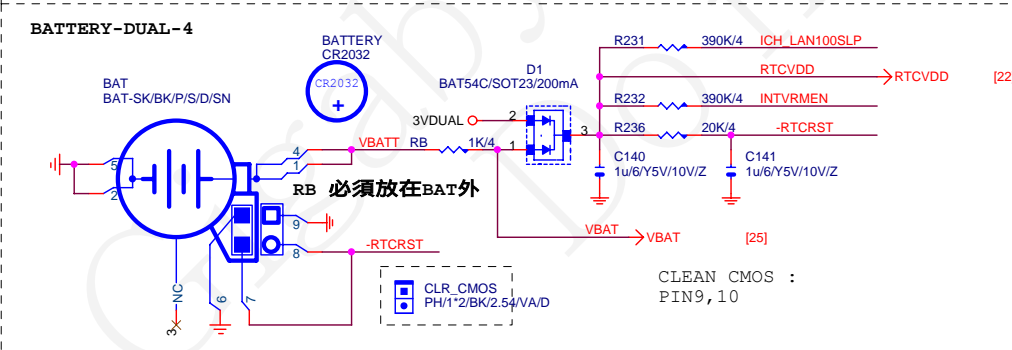
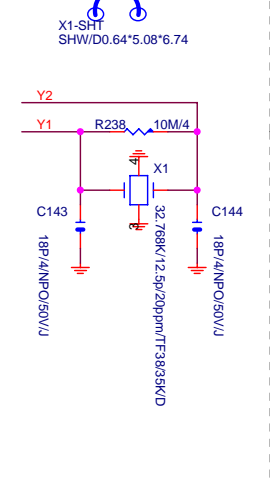
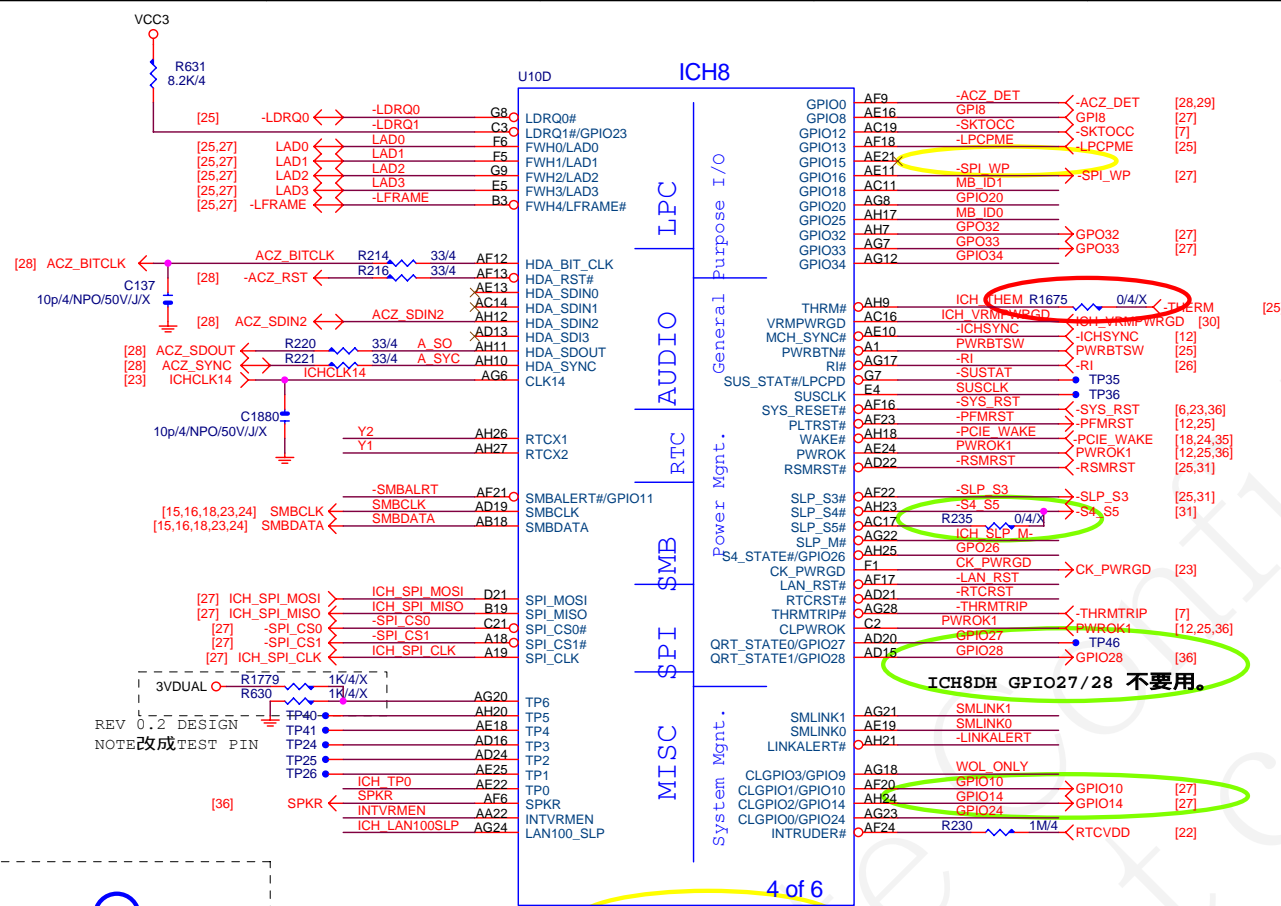
PCI-E/16X-164P/BK/AUTO-LOCK

Gigabyte Technology

PCI EXPRESS*16 SLOT

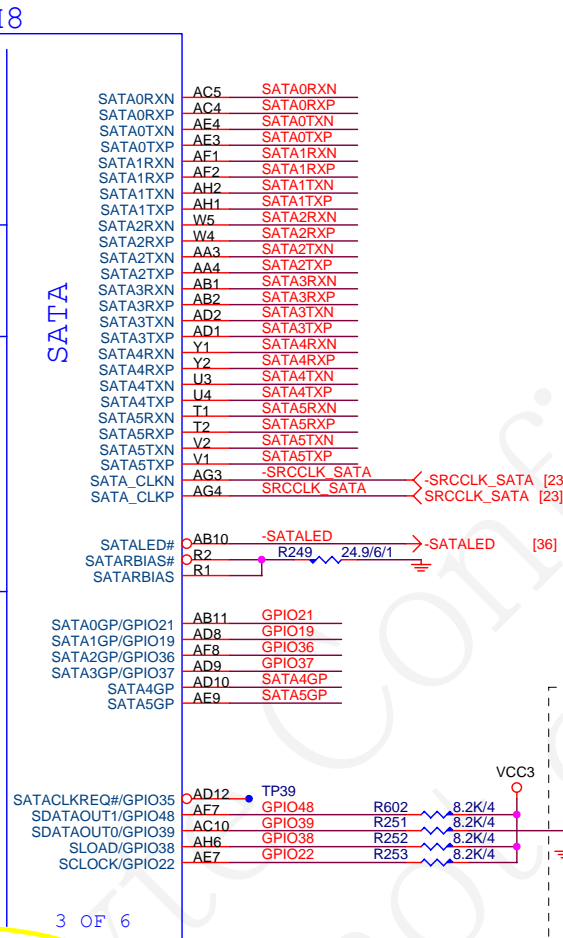
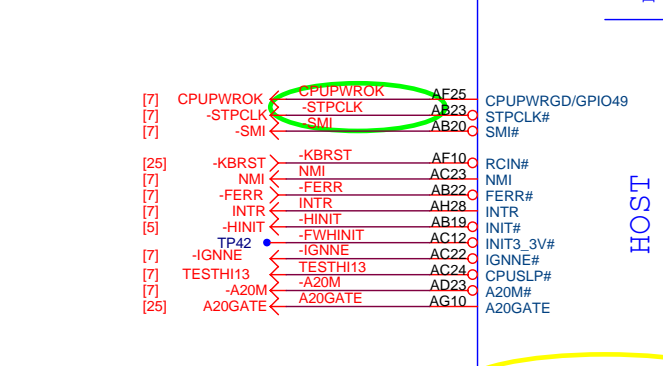
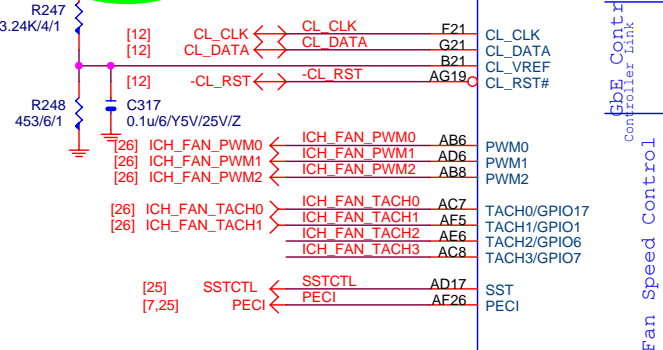
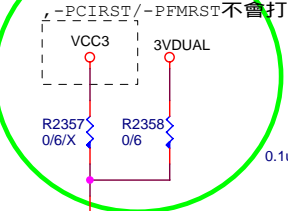
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Size	GA-TG965MP-RH-GW		2.1
Custom			
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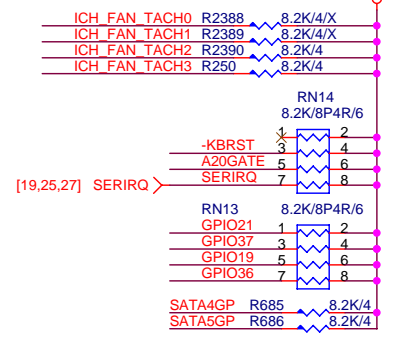


Gigabyte Technology		
Title: ICH8-GPIO / CTRL		
Size B	Document Number	Rev 2.1
GA-TG965MP-RH-GW		
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REV 0.2 修改成 VCC3,
否則造成不開機

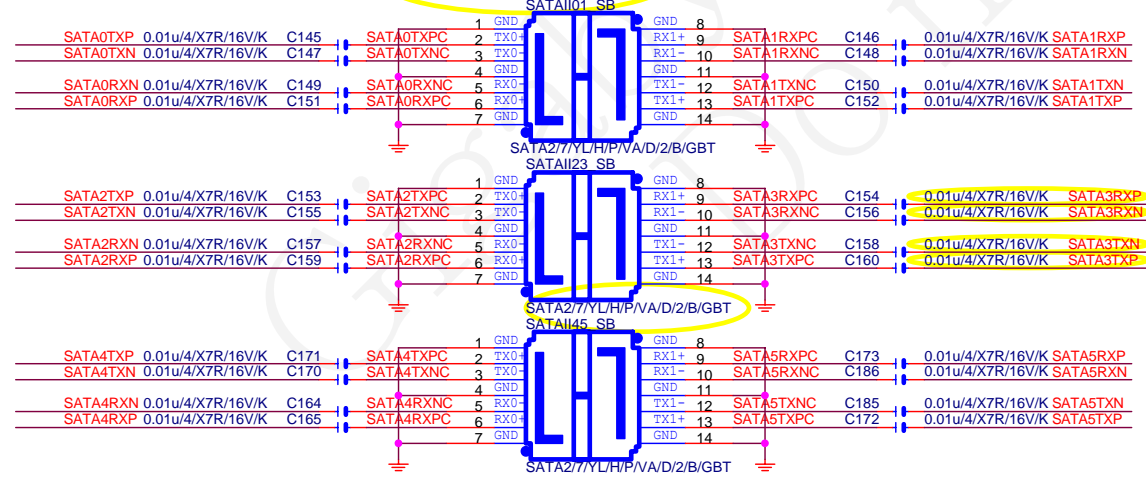


ICH8 FAN CTRL 沒用到的要 P.H



The ICH8 integrated GbE LAN test mode is activated any time the ICH8 GPIO39 signal is not at a low logic level.
Workaround
Under investigation. Possible workaround is to use a weak pulldown resistor on GPIO39 to ensure signal is always low

NH82801HR/S/[10HB1-032801-Y1R]



Gigabyte Technology

Title: ICH8-SATA / FAN PWM

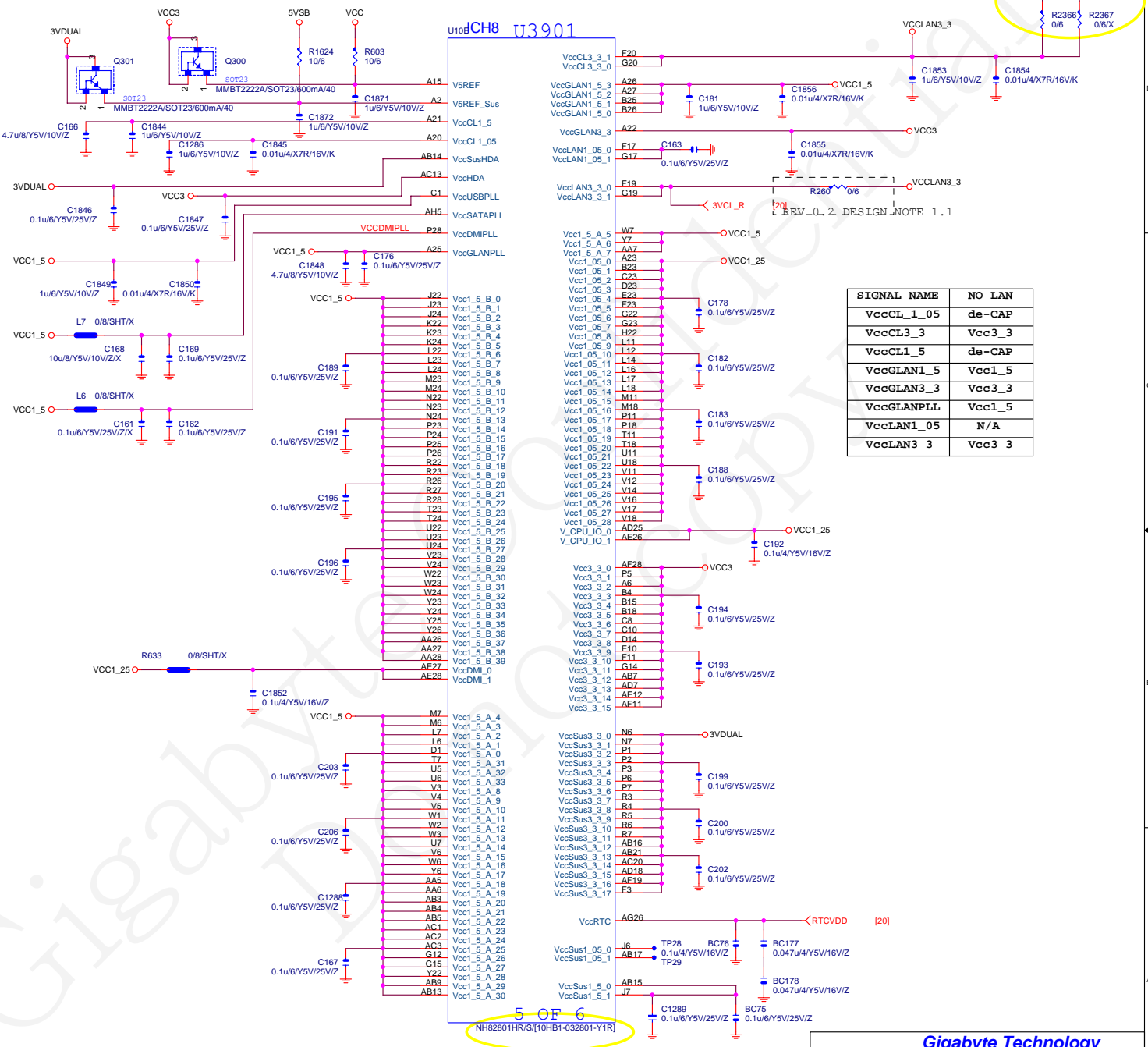
Size Custom: Document Number: GA-TG965MP-RH-GW Rev: 2.1

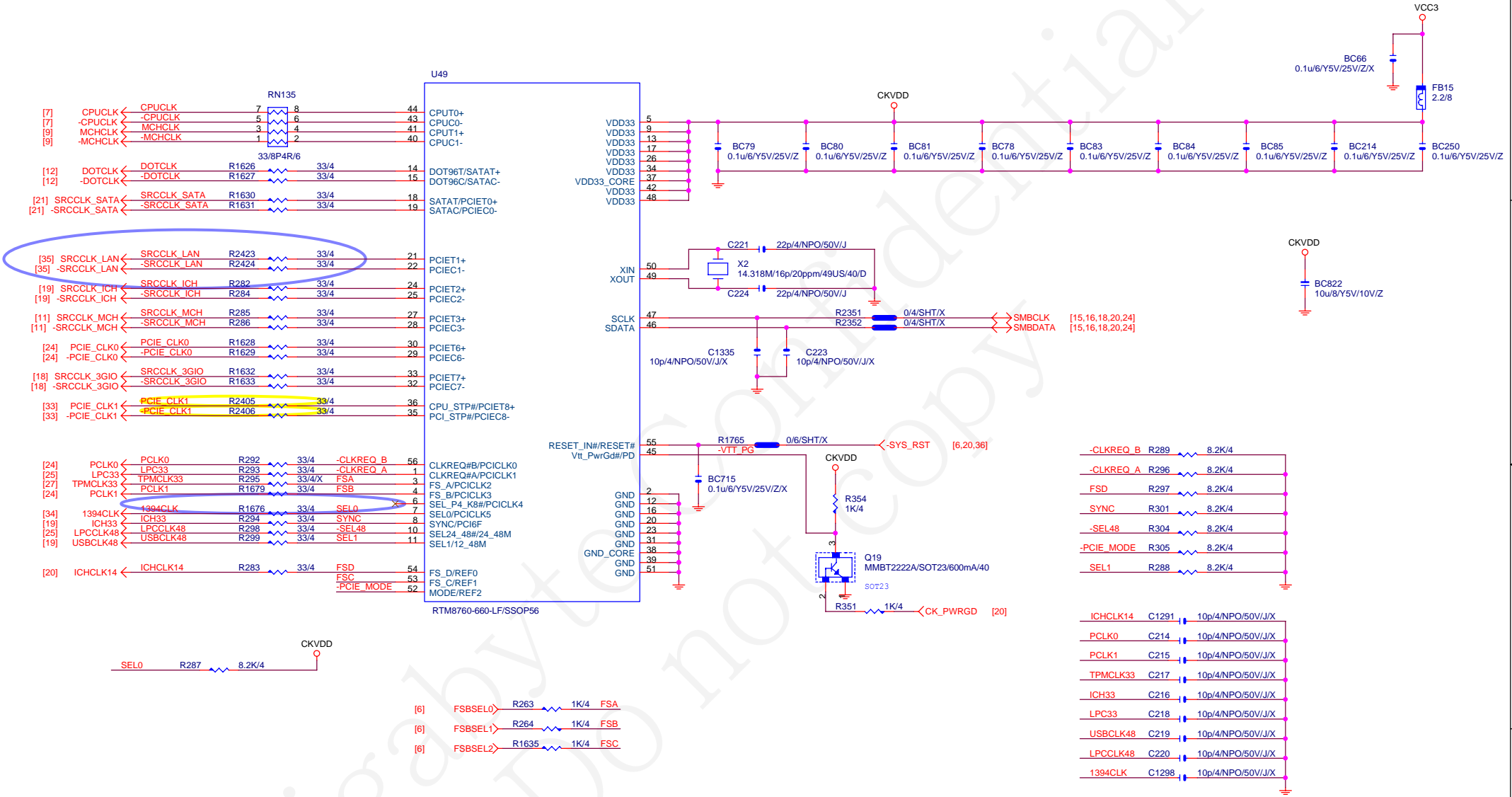
Date: Monday, May 14, 2007 Sheet: 21 of 36

R11	VSS_099	P27	VSS_098
R12	VSS_100	P22	VSS_097
R13	VSS_101	P17	VSS_096
R14	VSS_102	P16	VSS_095
R15	VSS_103	P15	VSS_094
R16	VSS_104	P14	VSS_093
R17	VSS_105	P13	VSS_092
R18	VSS_106	P12	VSS_091
T3	VSS_107	N28	VSS_090
T4	VSS_108	N27	VSS_089
T5	VSS_109	N26	VSS_088
T6	VSS_110	N25	VSS_087
T12	VSS_111	N24	VSS_086
T13	VSS_112	N23	VSS_085
T14	VSS_113	N22	VSS_084
T15	VSS_114	N21	VSS_083
T16	VSS_115	N20	VSS_082
T17	VSS_116	N19	VSS_081
T22	VSS_117	N18	VSS_080
T25	VSS_118	N17	VSS_079
T26	VSS_119	N16	VSS_078
U1	VSS_120	N15	VSS_077
U2	VSS_121	N14	VSS_076
U12	VSS_122	N13	VSS_075
U13	VSS_123	N12	VSS_074
U14	VSS_124	N11	VSS_073
U15	VSS_125	N10	VSS_072
U16	VSS_126	N9	VSS_071
U17	VSS_127	N8	VSS_070
U27	VSS_128	N7	VSS_069
U28	VSS_129	N6	VSS_068
V7	VSS_130	N5	VSS_067
V13	VSS_131	N4	VSS_066
V15	VSS_132	N3	VSS_065
V22	VSS_133	N2	VSS_064
V25	VSS_134	N1	VSS_063
V26	VSS_135	N18	VSS_062
W27	VSS_136	N17	VSS_061
W28	VSS_137	N16	VSS_060
Y3	VSS_138	N15	VSS_059
Y4	VSS_139	N14	VSS_058
Y5	VSS_140	N13	VSS_057
AA1	VSS_141	N12	VSS_056
AA2	VSS_142	N11	VSS_055
AA23	VSS_143	N10	VSS_054
AB12	VSS_144	N9	VSS_053
AB24	VSS_145	N8	VSS_052
AB25	VSS_146	N7	VSS_051
AC6	VSS_147	N6	VSS_050
AC3	VSS_148	N5	VSS_049
AC15	VSS_149	N4	VSS_048
AC18	VSS_150	N3	VSS_047
AC21	VSS_151	N2	VSS_046
AC27	VSS_152	N1	VSS_045
AC28	VSS_153	N18	VSS_044
AD3	VSS_154	N17	VSS_043
AD4	VSS_155	N16	VSS_042
AD5	VSS_156	N15	VSS_041
AD11	VSS_157	N14	VSS_040
AD26	VSS_158	N13	VSS_039
AE1	VSS_159	N12	VSS_038
AE5	VSS_160	N11	VSS_037
AE14	VSS_161	N10	VSS_036
AE17	VSS_162	N9	VSS_035
AE20	VSS_163	N8	VSS_034
AE23	VSS_164	N7	VSS_033
AE3	VSS_165	N6	VSS_032
AE4	VSS_166	N5	VSS_031
AG2	VSS_167	N4	VSS_030
AG5	VSS_168	N3	VSS_029
AG11	VSS_169	N2	VSS_028
AG25	VSS_170	N1	VSS_027
AG27	VSS_171	N18	VSS_026
AH3	VSS_172	N17	VSS_025
AH4	VSS_173	N16	VSS_024
AH13	VSS_174	N15	VSS_023
AH16	VSS_175	N14	VSS_022
AH19	VSS_176	N13	VSS_021
AH22	VSS_177	N12	VSS_020
	VSS_178	N11	VSS_019
	VSS_179	N10	VSS_018
	VSS_180	N9	VSS_017
	VSS_181	N8	VSS_016
	VSS_182	N7	VSS_015
AH8	VSS_183	N6	VSS_014
AF27	VSS_184	N5	VSS_013
F4	VSS_185	N4	VSS_012
B22	VSS_186	N3	VSS_011
		N2	VSS_010
		N1	VSS_009
		N18	VSS_008
		N17	VSS_007
		N16	VSS_006
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		N14	VSS_004
		N13	VSS_003
		N12	VSS_002
		N11	VSS_001

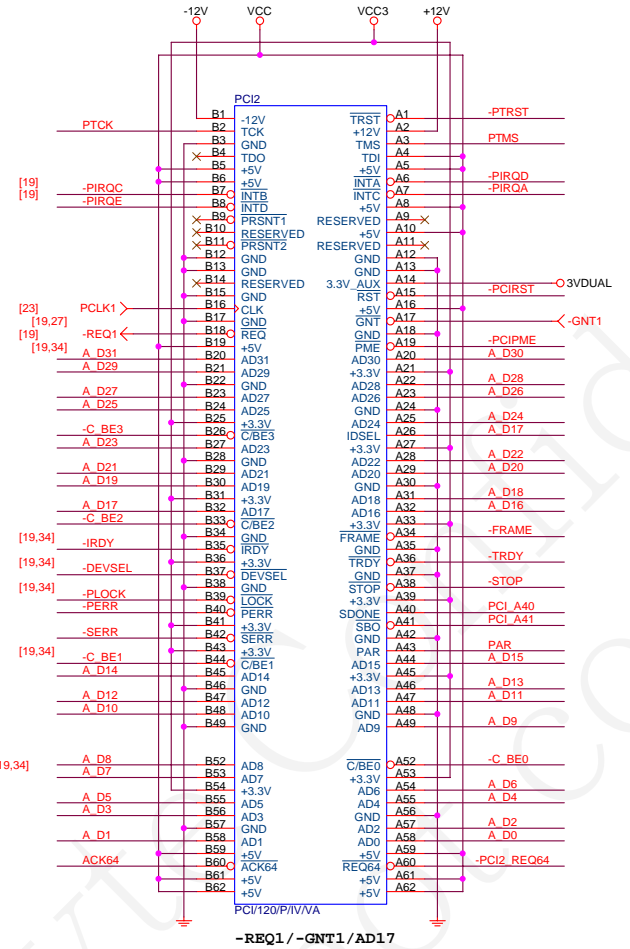
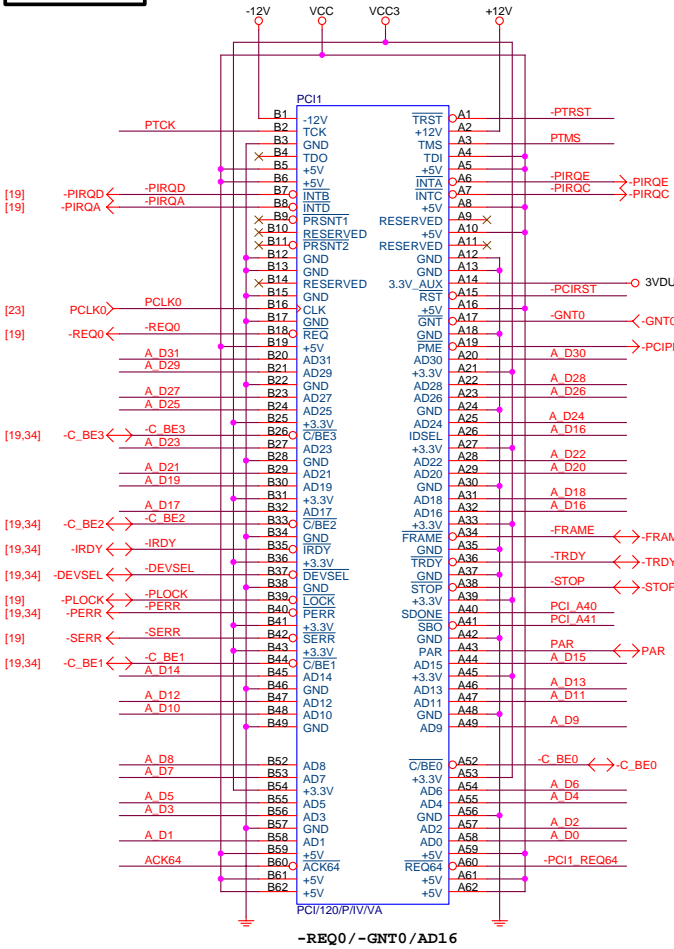
6 OF 6

NH82801HR/S(10HB1-032801-Y1R)

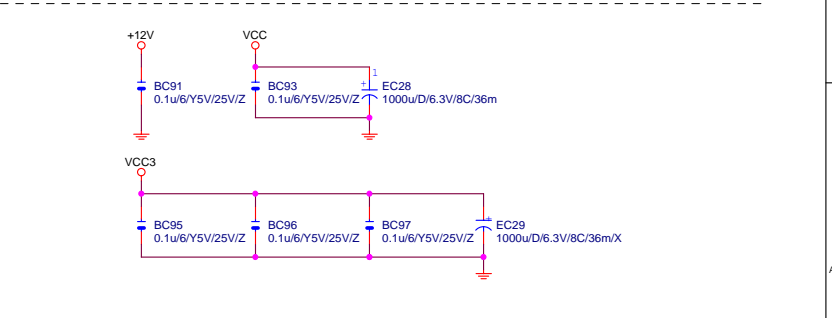
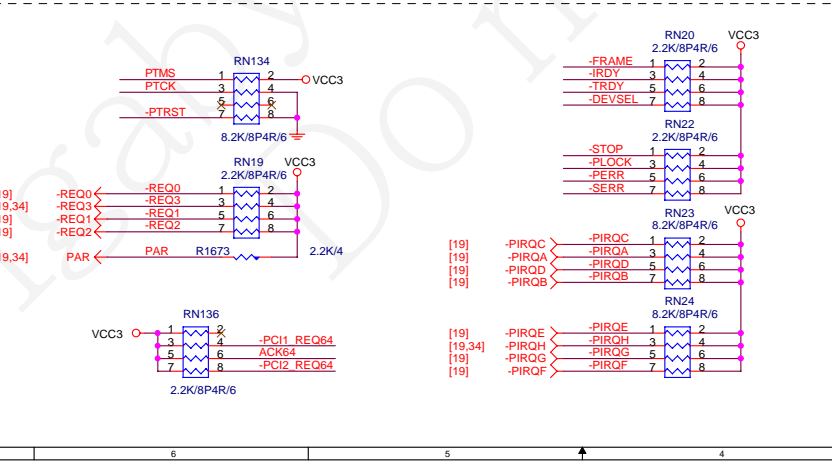
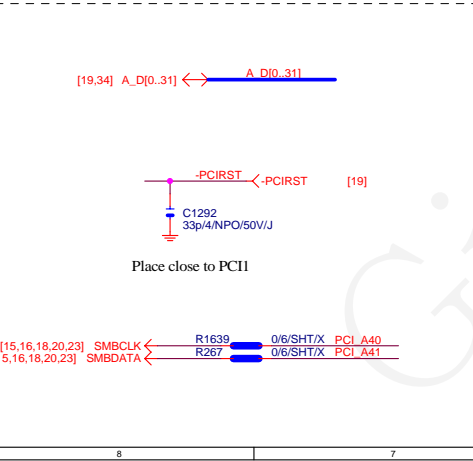
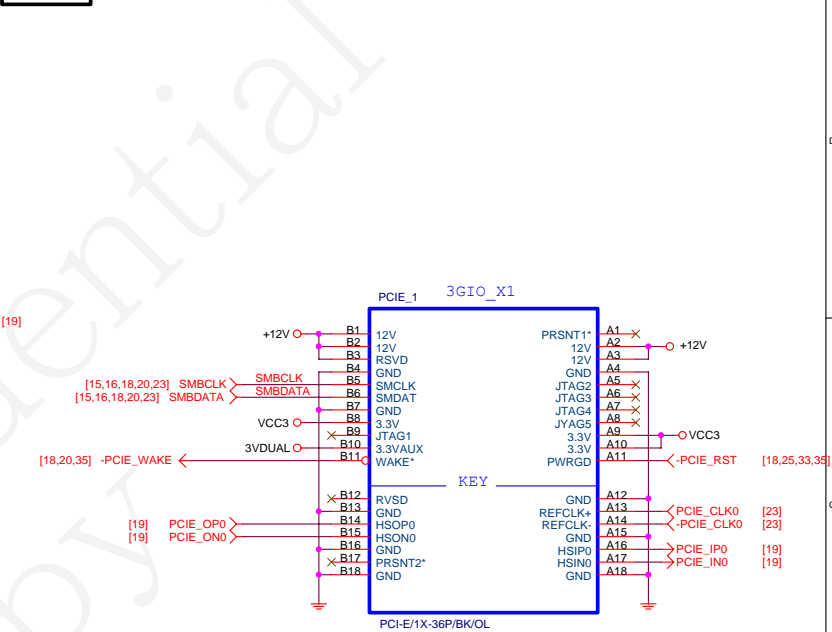




PCI1, 2 SLOT



PCIe*1

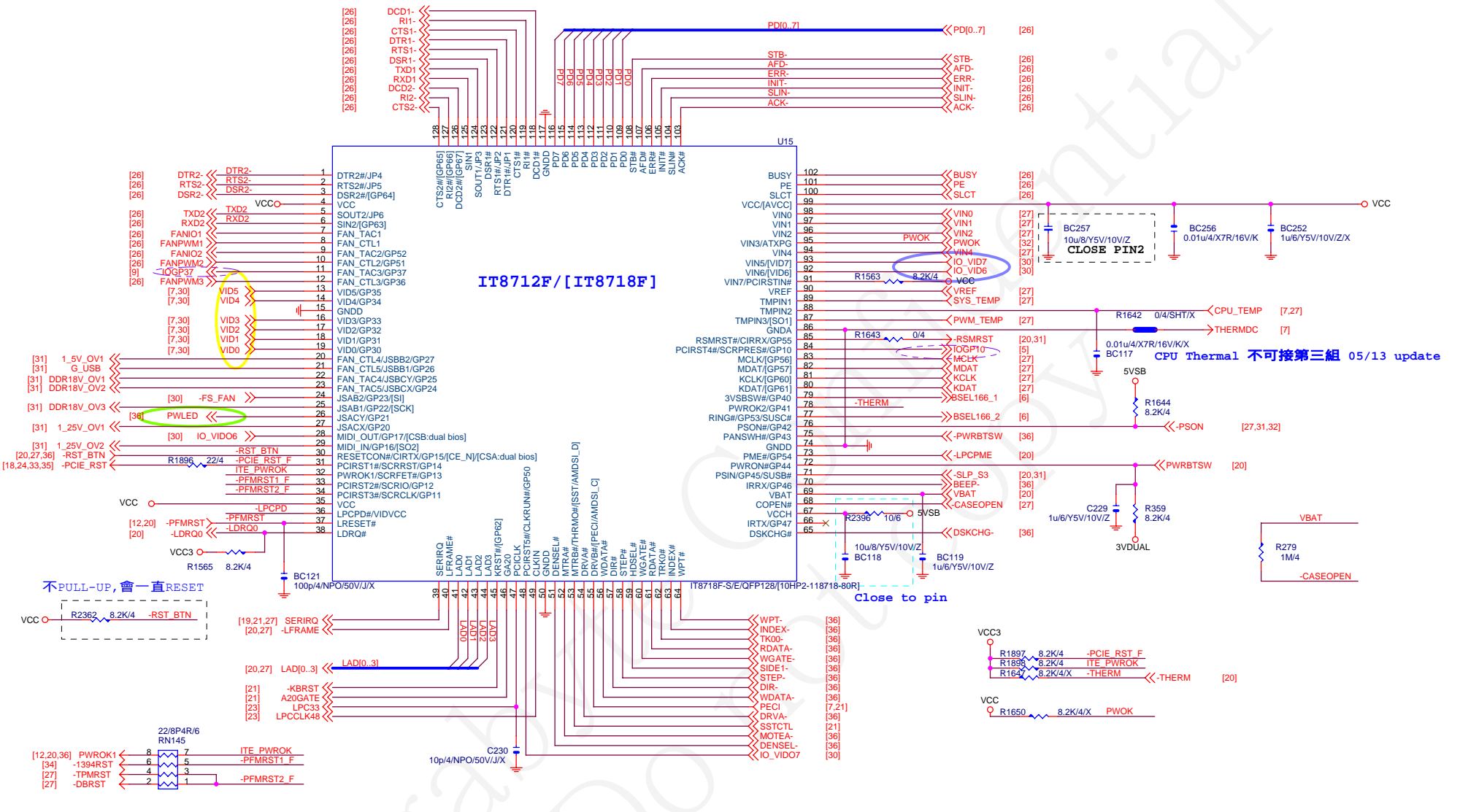


Gigabyte Technology

Title: **PCI EXPRESS*1/PCI SLOT 1,2**

Size: Document Number: **GA-TG965MP-RH-GW** Rev: **2.1**

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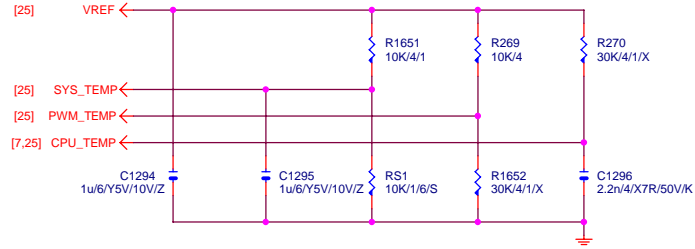


1.2V or 3.3V tolerance select.
 1.2V OUTPUT 接 VT1_GMCH
 3.3V OUTPUT 接 3.3V
 LPCPD# = VIDVCC

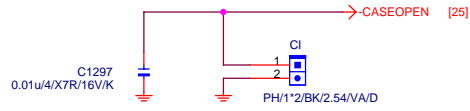
SOUT2	1	VID pins threshold voltage select: Vih / Vil : 2.0 / 0.8V
	0	VID pins threshold voltage select: Vih / Vil : 0.8 / 0.4V

RTS2- == LOW CPU FAN 50% (DEFAULT 50%)
 == HIGH 100%

TEMP H/W MONITOR

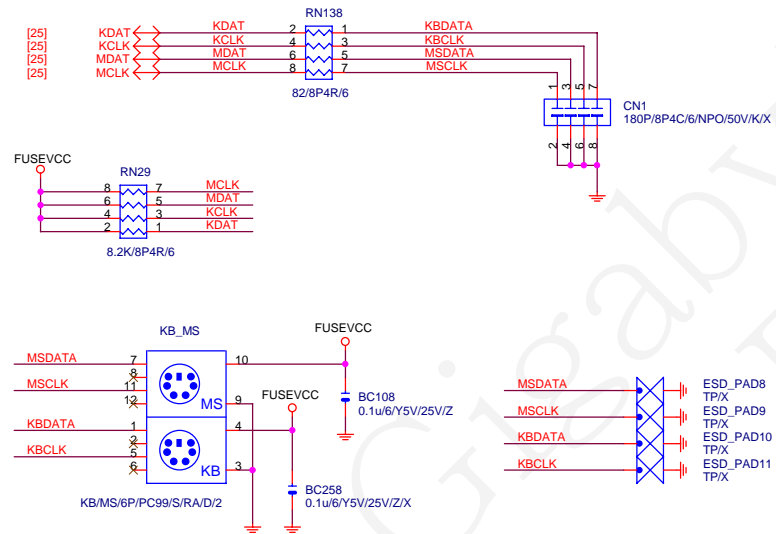


CASE OPEN

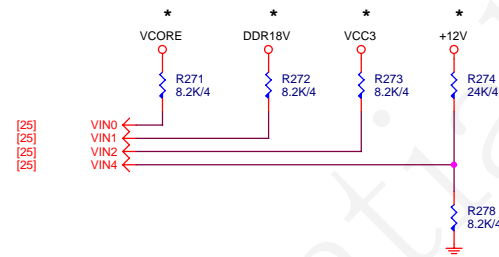


Case Open Circuits

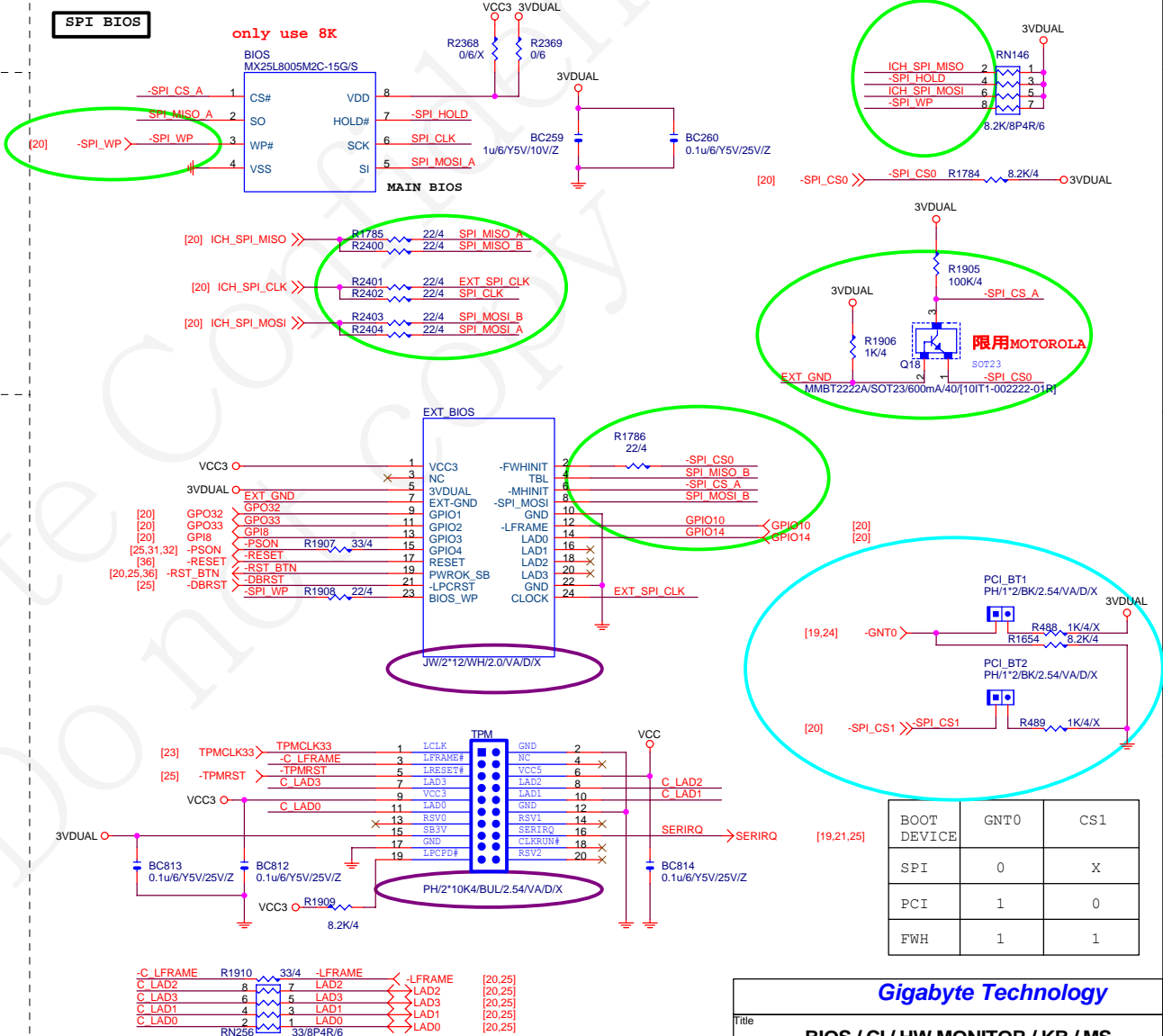
KB/MS



VOLTAGE-- H/W MONITOR



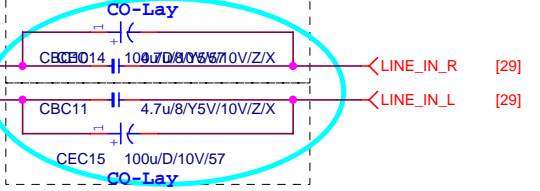
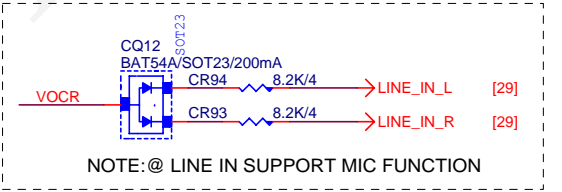
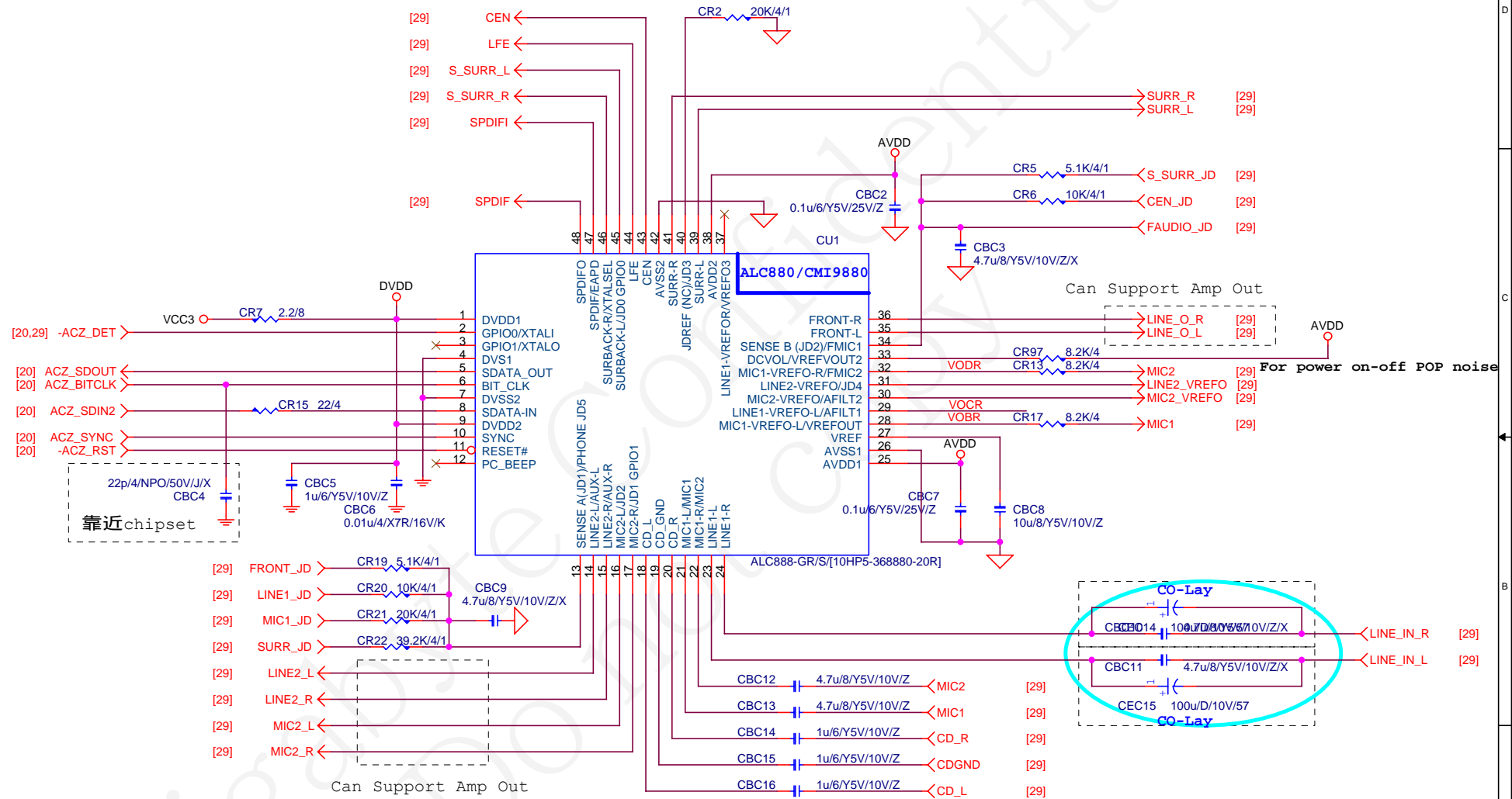
SPI BIOS



BOOT DEVICE	GNT0	CS1
SPI	0	X
PCI	1	0
FWH	1	1

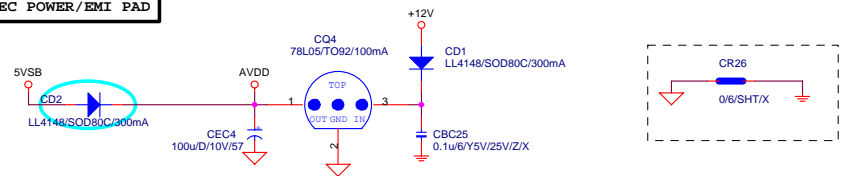
Gigabyte Technology

Title			
BIOS / CI / HW MONITOR / KB / MS			
Size	Document Number	Rev	
B		GA-TG965MP-RH-GW	
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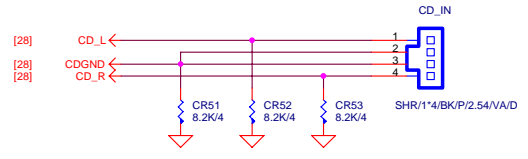


Gigabyte Technology		
CODEC ALC888		
Title	Document Number	Rev
	GA-TG965MP-RH-GW	2.1
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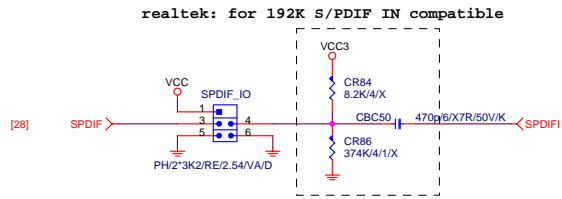
CODEC POWER/EMI PAD



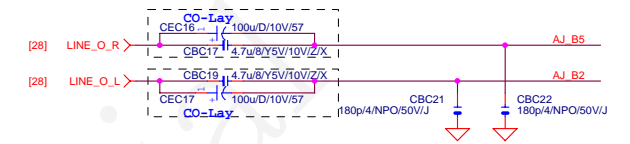
CD IN



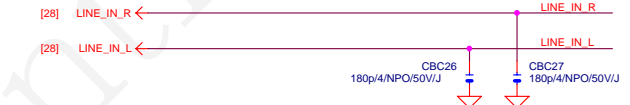
SPDIF



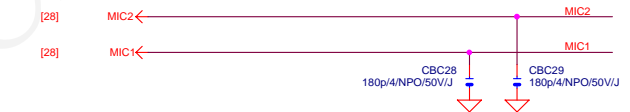
LINE-OUT



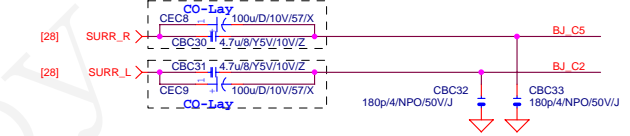
LINE-IN



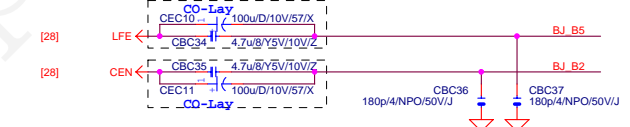
MIC-IN



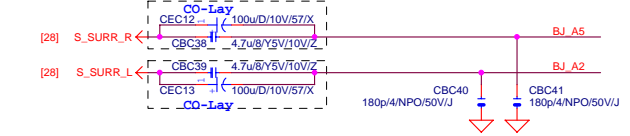
SURROUND



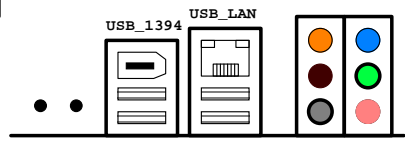
CEN/LFE



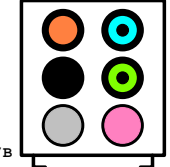
SURR BACK



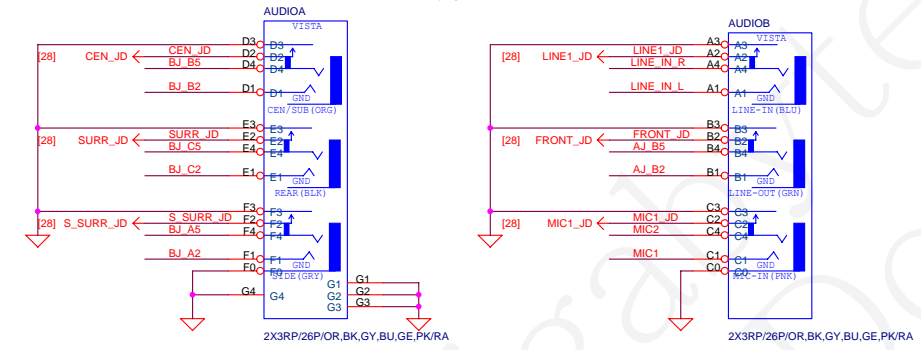
AZALIA JACK



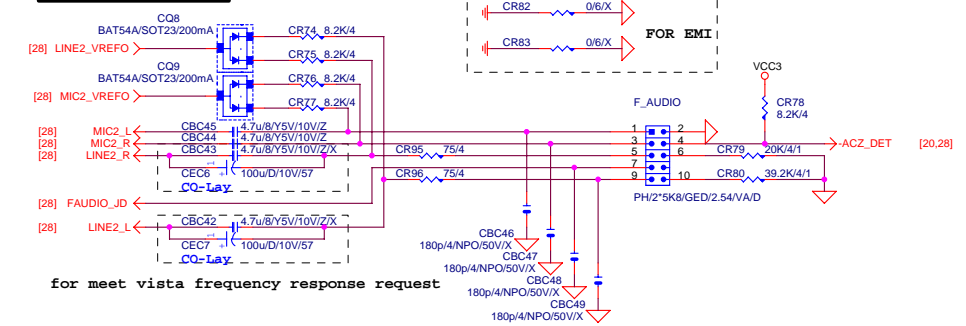
BTX AZALIA CONNECTOR



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

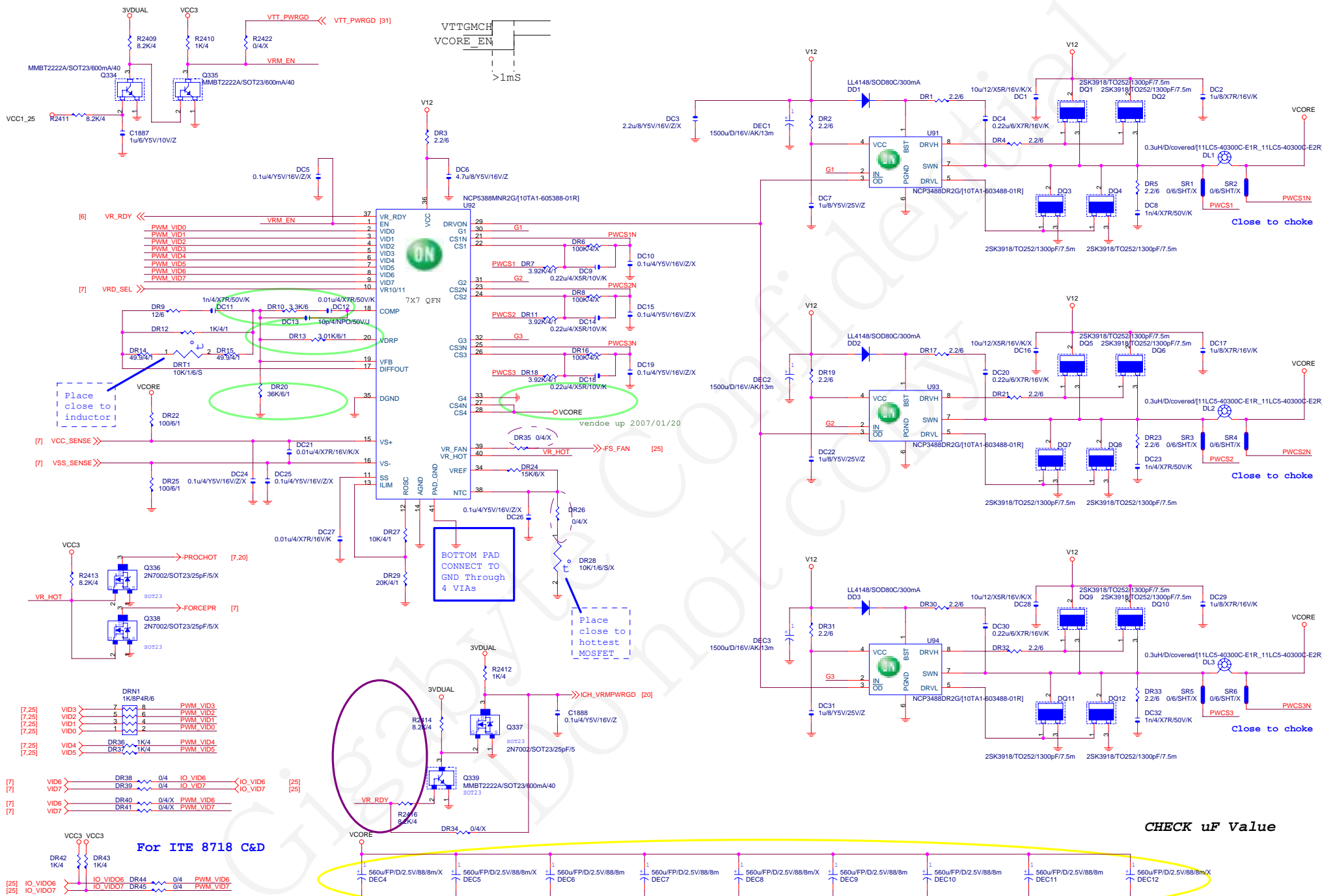


AZALIA FRONT PANEL



for meet vista frequency response request

Gigabyte Technology	
AUDIO JACK	
Title	Document Number
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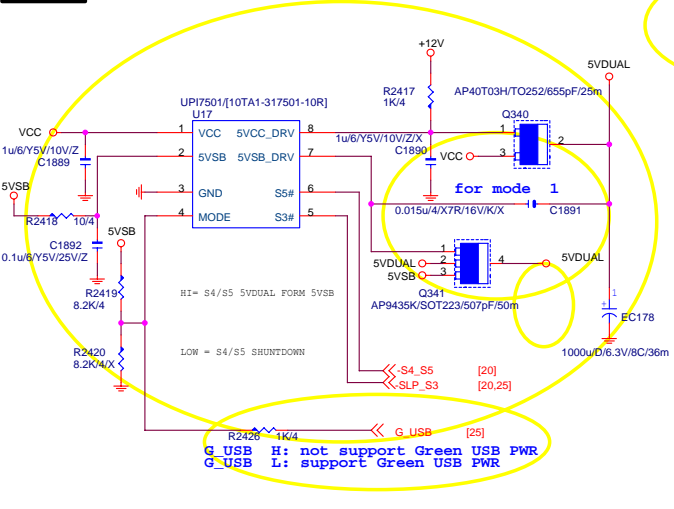
CHECK uF Value

For ITE 8718 C&D

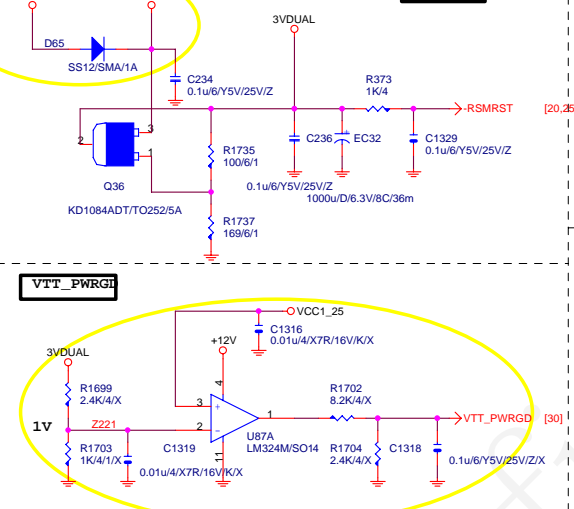
[7,25] VID3	DR1	1K/8P4R/6	PWM VID3
[7,25] VID2	DR2	1K/4	PWM VID2
[7,25] VID1	DR3	1K/4	PWM VID1
[7,25] VID0	DR4	1K/4	PWM VID0
[7,25] VID4	DR36	1K/4	PWM VID4
[7,25] VID5	DR37	1K/4	PWM VID5
[7] VID6	DR38	0/4	IO_VID6
[7] VID7	DR39	0/4	IO_VID7
[7] VID6	DR40	0/4/X	PWM VID6
[7] VID7	DR41	0/4/X	PWM VID7
[25] IO_VID6	DR44	0/4	PWM VID6
[25] IO_VID7	DR45	0/4	PWM VID7

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Title	PWM FAN5032MPX		
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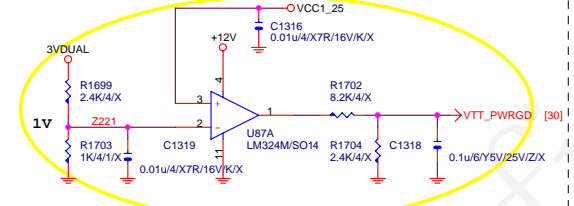
5VDUAL



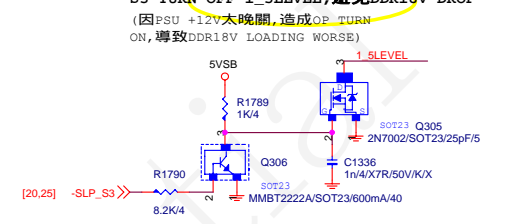
3VDUAL



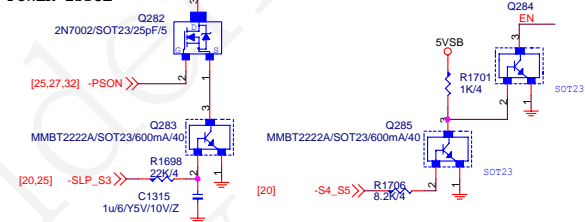
VTT_PWRG1



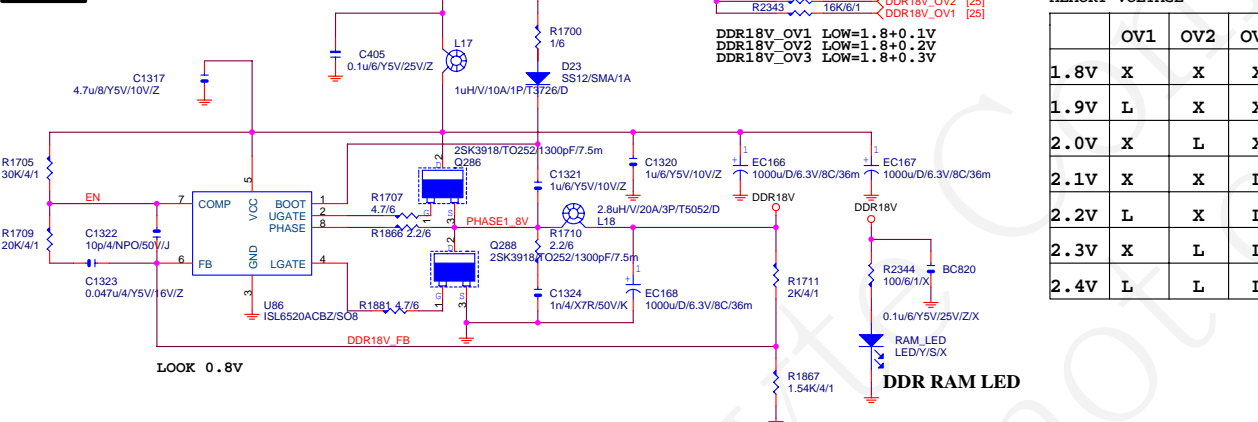
S3 TURN OFF 1_5LEVEL, 避免DDR18V DROP
(因PSU +12V太晚關,造成OP TURN ON,導致DDR18V LOADING WORSE)



PWR SEQ



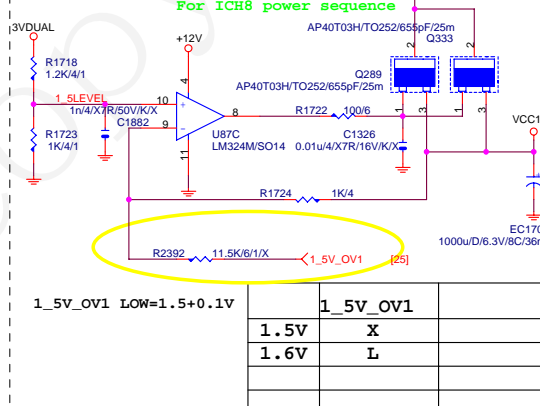
DDR18V



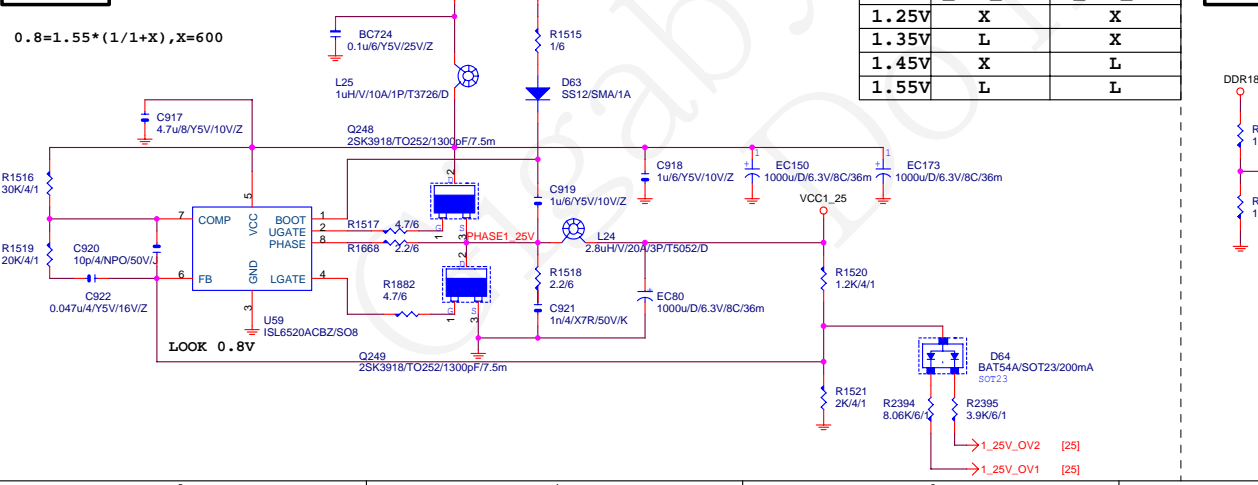
MEMORY VOLTAGE

	OV1	OV2	OV3
1.8V	X	X	X
1.9V	L	X	X
2.0V	X	L	X
2.1V	X	X	L
2.2V	L	X	L
2.3V	X	L	L
2.4V	L	L	L

VCC1_5 2.2A



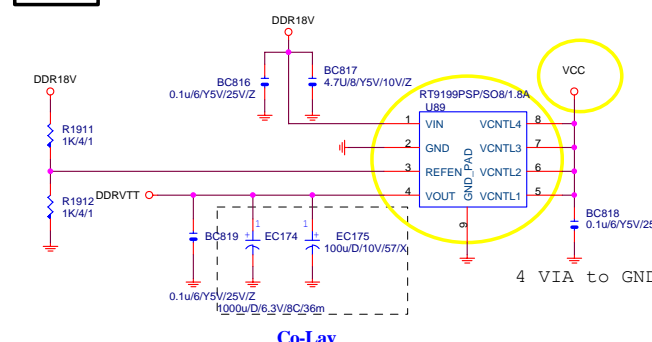
VCC1_25



1_25V_OV1

	1_25V_OV1	1_25V_OV2
1.25V	X	X
1.35V	L	X
1.45V	X	L
1.55V	L	L

DDRVRT



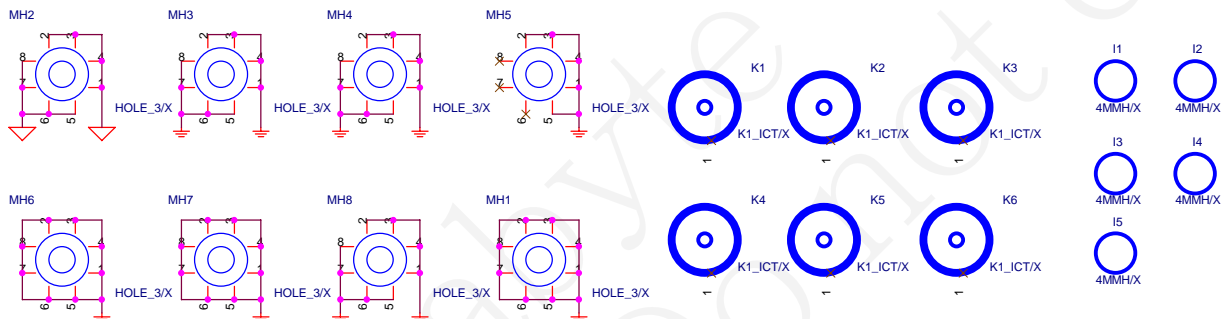
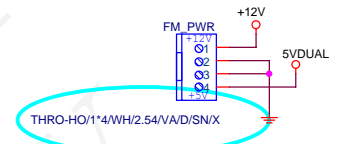
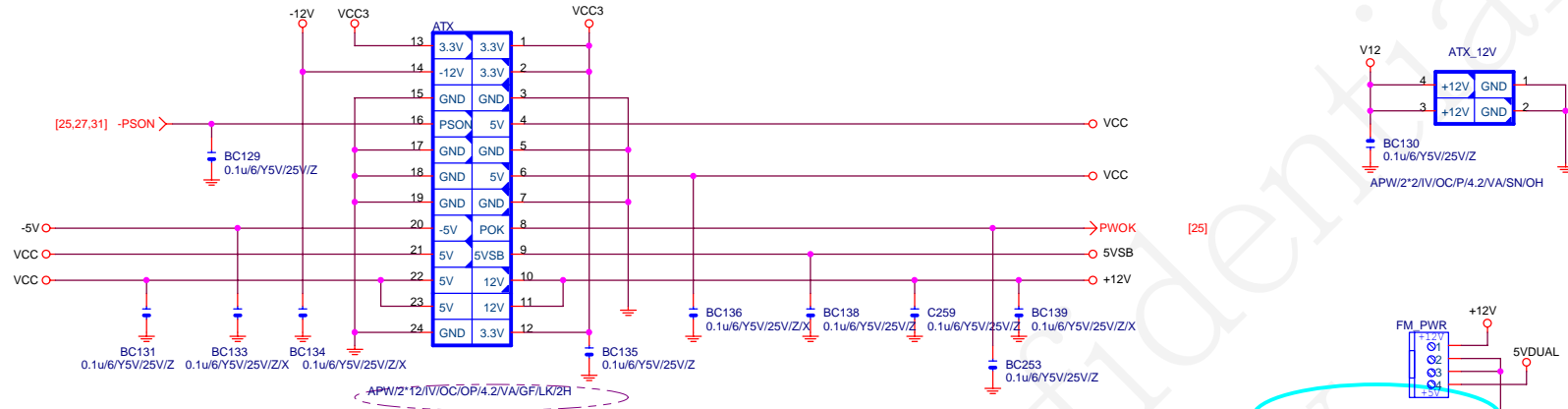
Gigabyte Technology

File: **DISCRETE POWER**

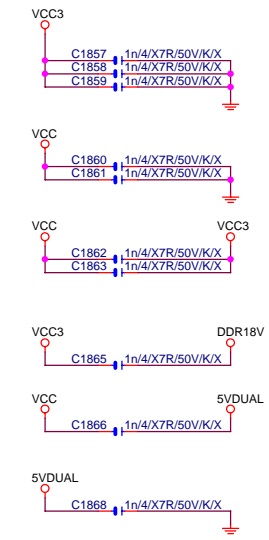
Size: **GA-TG965MP-RH-GW** Rev: **2.1**

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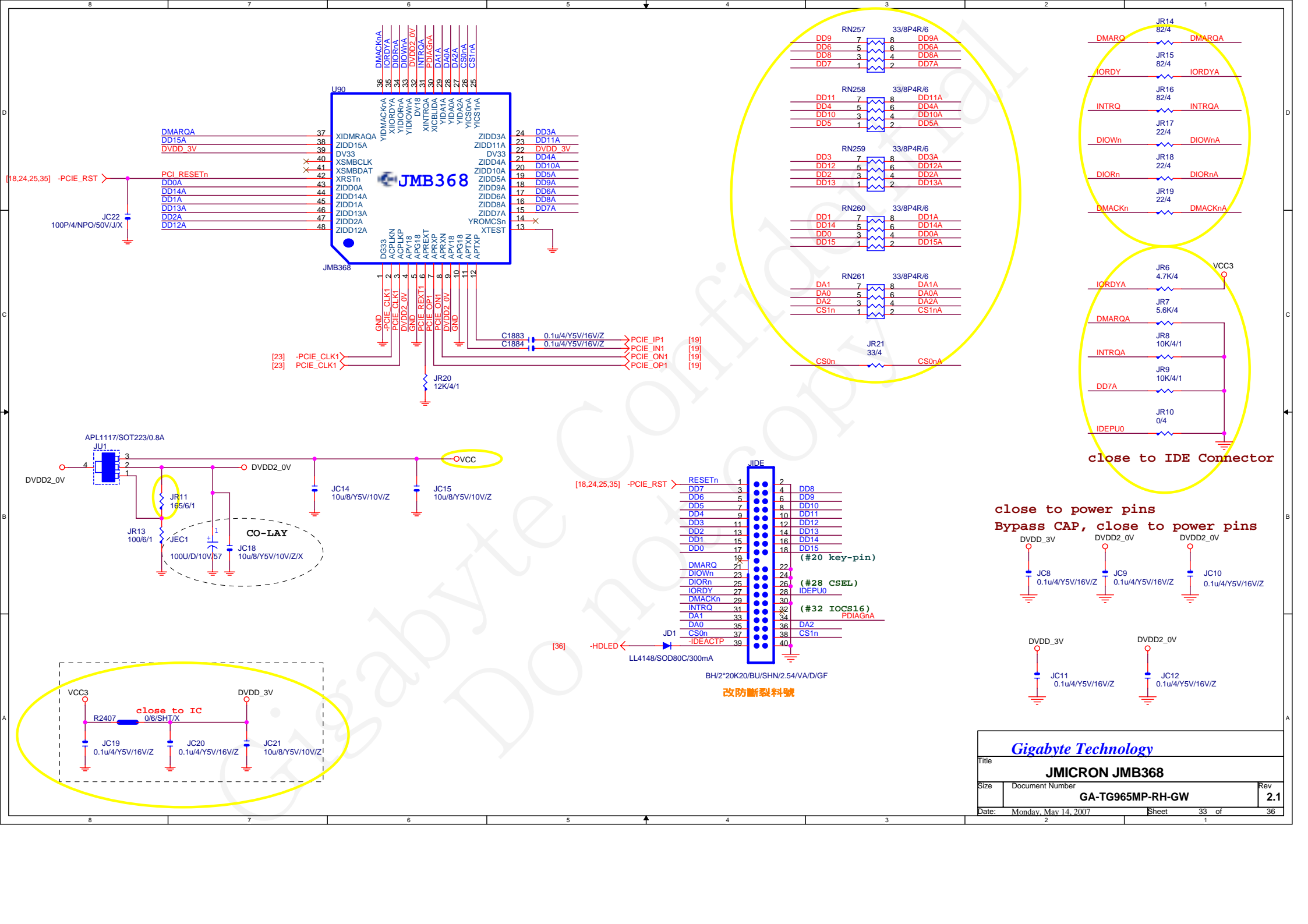
ATX POWER CONNECTOR



EMI



Gigabyte Technology			
ATX POWER CONNECTOR			
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JMB368

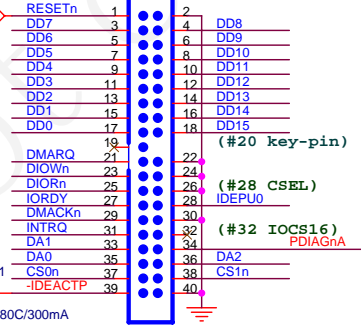
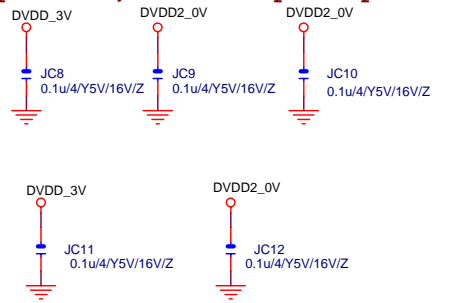
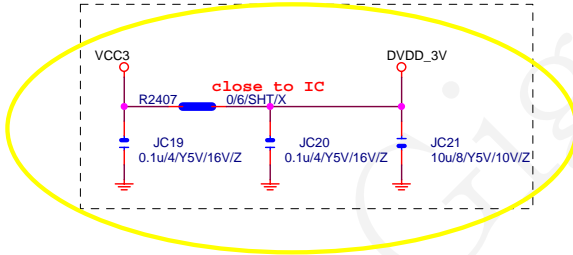
改防断裂料號

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Title		
JMICRON JMB368		
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close to IDE Connector

close to power pins
Bypass CAP, close to power pins



[18,24,25,35] -PCIE_RST

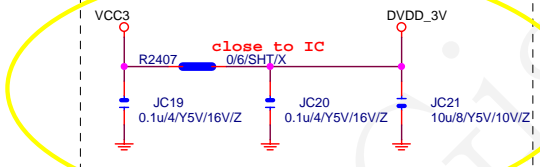
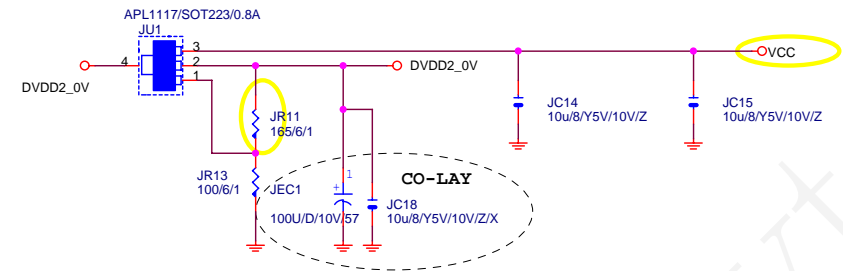
[36] -HDLED

[23] -PCIE_CLK1
[23] PCIE_CLK1

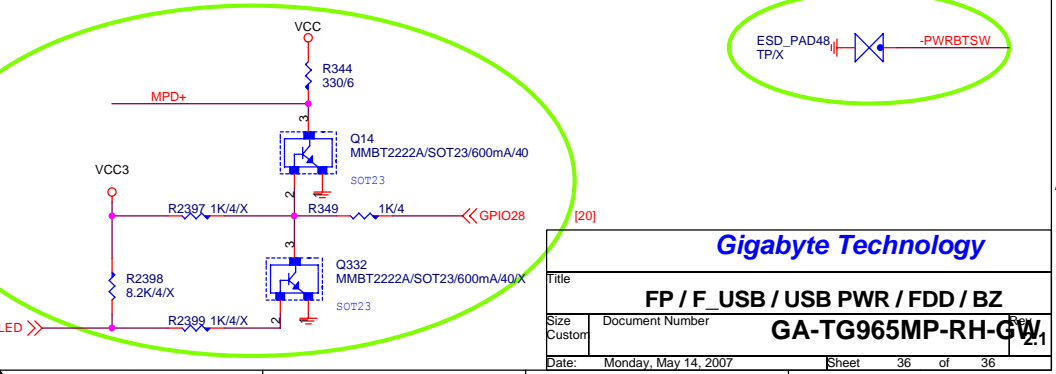
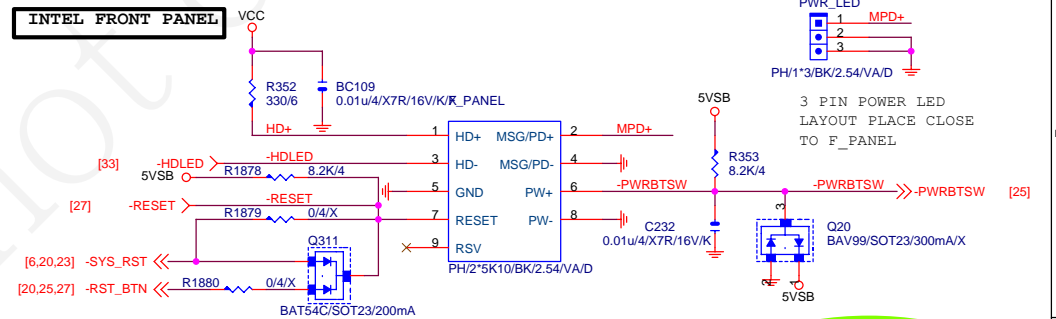
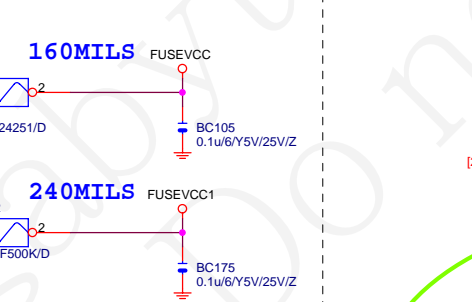
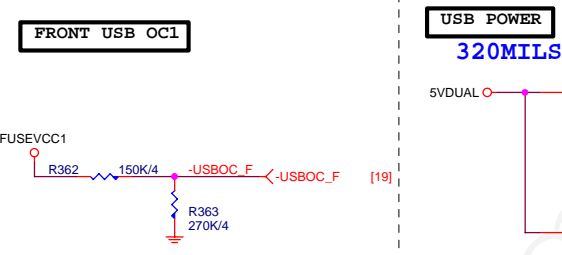
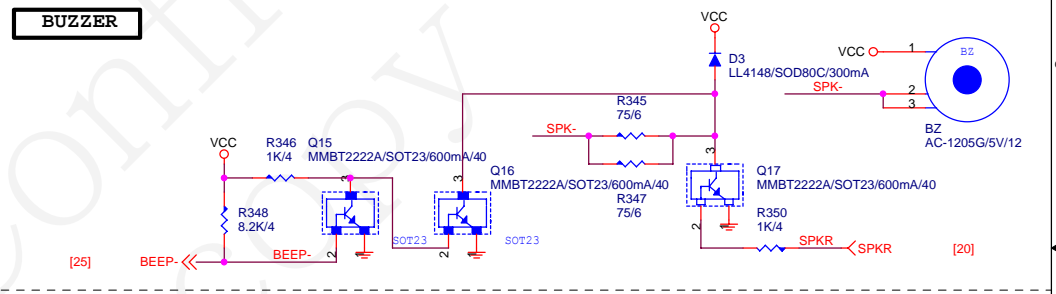
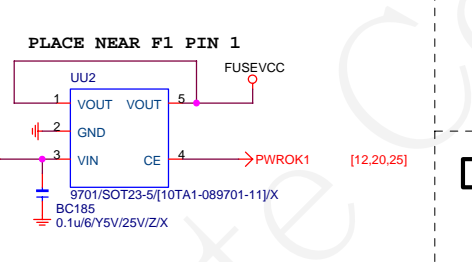
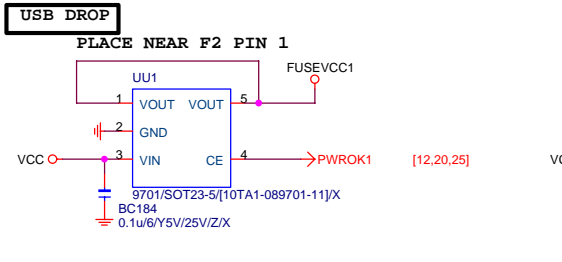
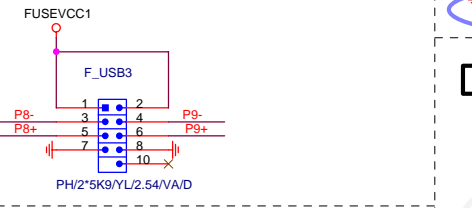
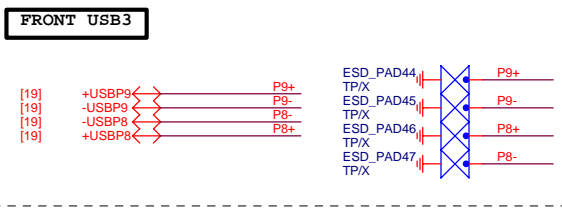
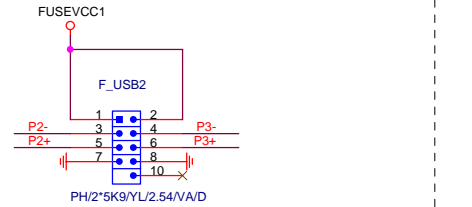
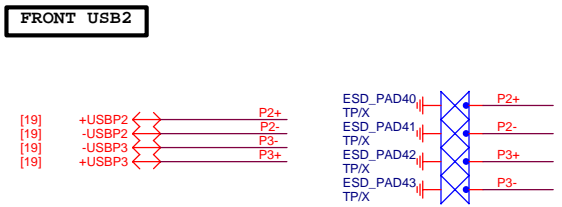
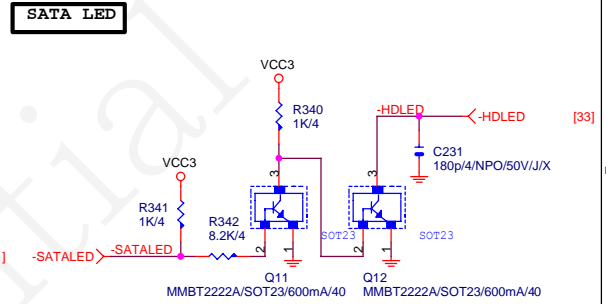
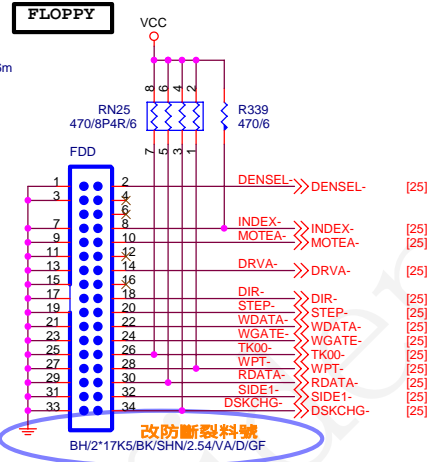
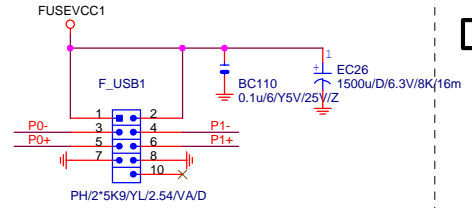
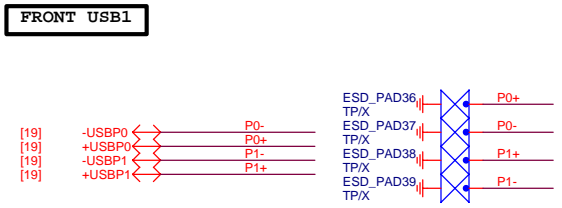
[19] PCIE_IP1
[19] PCIE_IN1
[19] PCIE_ON1
[19] PCIE_OP1

[18,24,25,35] -PCIE_RST

JC22
100P/4/NPO/50V/JJ/X



close to IC



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FP / F_USB / USB PWR / FDD / BZ	
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