

Model Name : GA-G31M-ES2L

Revision 2.3

SHEET

TITLE

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TITLE

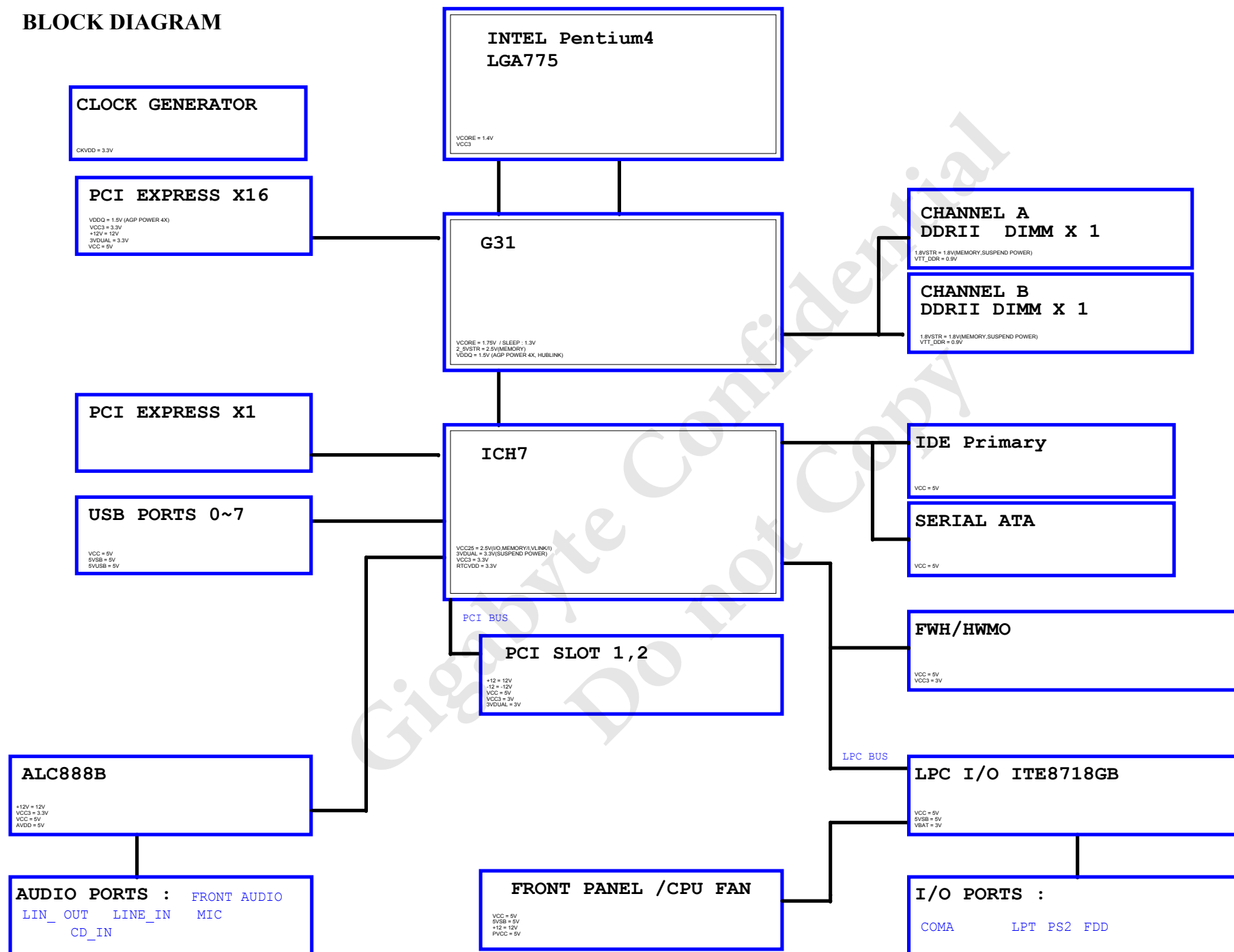
01	COVER SHEET
02	BLOCK DIAGRAM
03	BOM & PCB MODIFY HISTORY
04	P4 LGA775 A
05	P4 LGA775 B,D
06	P4 LGA775 C
07	P4 LGA775 E,F,G,H
08	G31 HOST
09	G31 DDRII
10	G31 PCI E, DMI
11	G31 VGA
12	G31 GND
13	G31 PWR
14	PCI EXPRESS*16 SLOT
15	DDRII CHANNEL A
16	DDRII CHANNEL B
17	DDRII TERMINATION
18	ICH7 PCI, USB, DMI, LAN
19	ICH7 IDE, GPIO, SATA, CTRL
20	ICH7 VCC, GND
21	CK505 CLOCK.
22	PCI SLOT 1,2,PCIE*1
23	IDE/FLOPPY
24	ITE 8718 GB/HX
25	COM LPT
26	CI, HWM, KB/MS, DUALBIOS
27	ALC888B

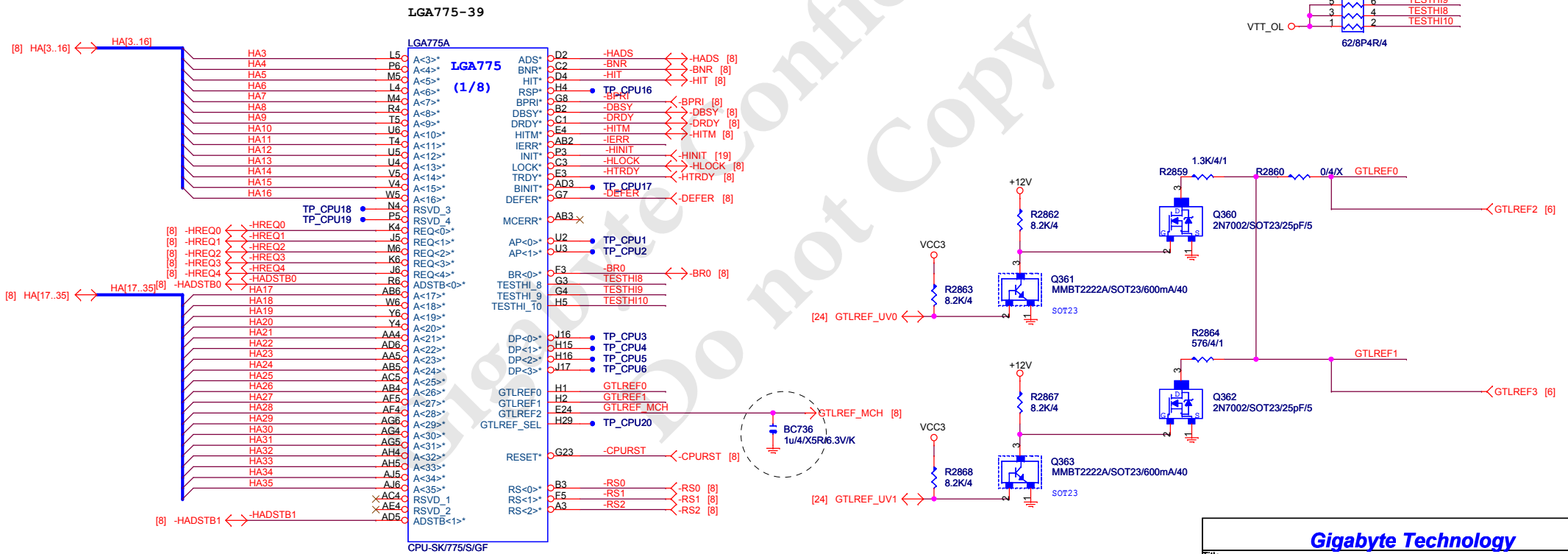
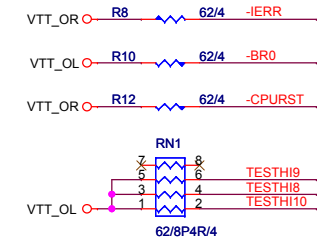
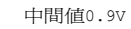
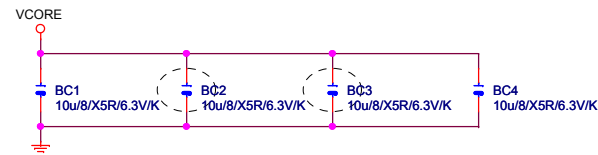
28	REAR AUDIO JACK
29	DISCRETE POWER
30	VCORE PWM ISL6312CRZ
31	ATX, OTHERS POWER
32	FRONT PANEL
33	ATHEROS AR8131M/AR8132M

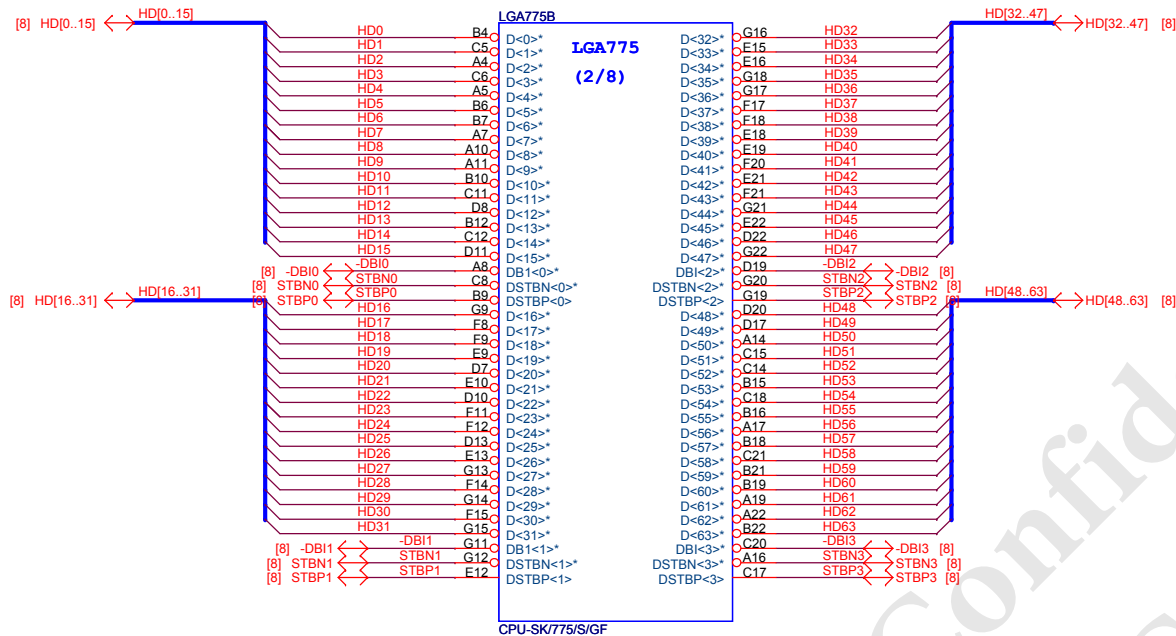
Gigabyte Technology

Title			
Cover Sheet			
Size	Document Number	Rev	
Custom	GA-G31M-ES2L	2.3	
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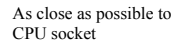
BLOCK DIAGRAM



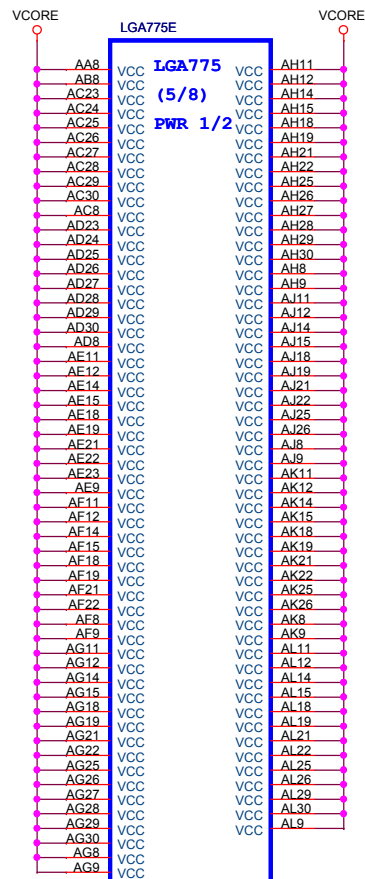




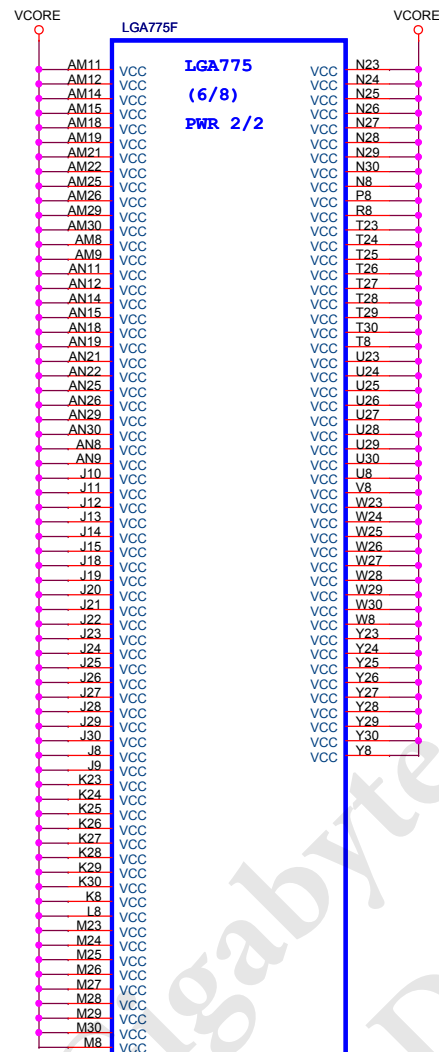
Trace width doesn't
less than 12 Mil



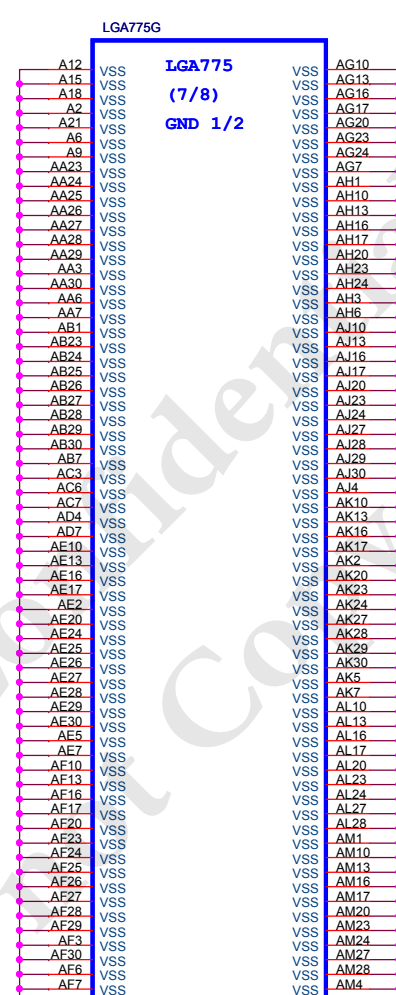
PECI:Platform Environment Control Interface



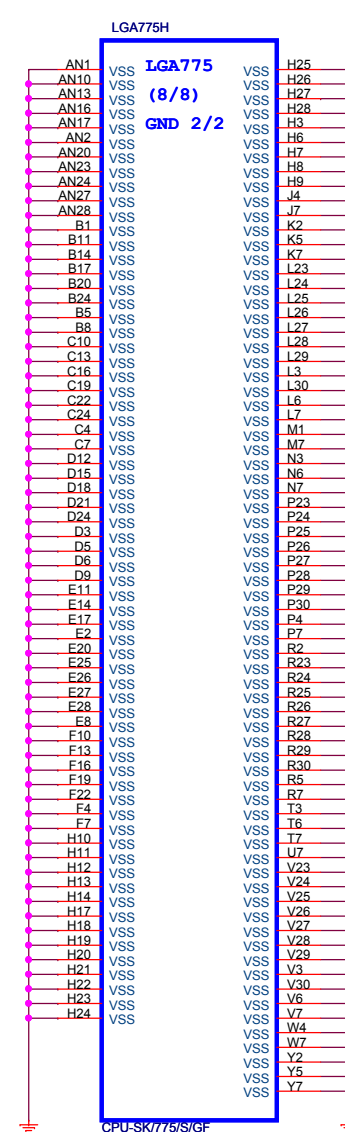
CPU-SK/775/S/GF



CPU-SK/775/S/GF



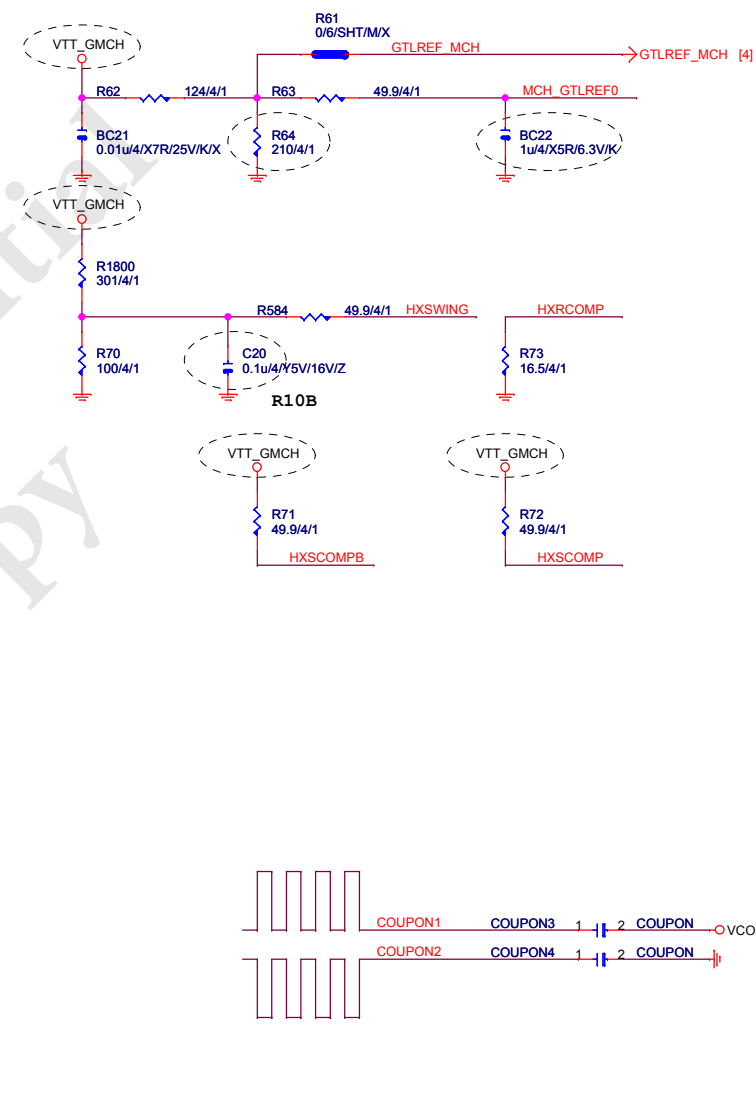
CPU-SK/775/S/GF



CPU-SK/775/S/GF

Gigabyte Technology

Title			P4_LGA775-E,F,G,H
Size	Document Number	Rev	
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CPU INTERFACE

U2C

BW
(3/9)

MAAA0	BA31	SMA_A0	SDQS_A0	AI44	DQSA0
MAAA1	BB25	SMA_A1	SDQS_A1#	AI43	DQSA0
MAAA2	BA26	SMA_A2	SDM_A0	AR2	DMA0
MAAA3	BA25	SMA_A3			
MAAA4	AY26	SMA_A4	SDQ_A0	AR5	MDA0
MAAA5	BA23	SMA_A5	SDQ_A1	AR4	MDA1
MAAA6	AY24	SMA_A6	SDQ_A2	AY3	MDA2
MAAA7	AY23	SMA_A7	SDQ_A3	AY2	MDA3
MAAA8	BB23	SMA_A8	SDQ_A4	AP3	MDA4
MAAA9	BA22	SMA_A9	SDQ_A5	AP2	MDA5
MAAA10	AY33	SMA_A10	SDQ_A6	AU1	MDA6
MAAA11	BB22	SMA_A11	SDQ_A7	AV4	MDA7
MAAA12	AY38	SMA_A12			
MAAA13	AY38	SMA_A13			
MAAA14	BA21	SMA_A14			
[15,17] -SWEA	BB3AC	SWE_A#	SDQS_A1#	BB3	DQSA1
[15,17] -SCASA	AY35C	SCAS_A#	SDM_A1	BA4	DQSA1
[15,17] -SRASA	BB33C	SRAS_A#		BA2	DMA1
[15,17] SBA00	BA33	SBS_A0	SDQ_A8	AY2	MDA8
[15,17] SBA01	BB32	SBS_A1	SDQ_A9	AY3	MDA9
[15,17] SBA02	BB31	SBS_A2	SDQ_A10	BB6	MDA10
[15,17] CSA0	AW35C	SCS_A1#	SDQ_A11	AY6	MDA11
[15,17] CSA1	BA35C	SCS_A1#	SDQ_A12	AW2	MDA12
[17] -CSA2	BA34C	SCS_A2#	SDQ_A13	AW5	MDA13
[17] -CSA3	BB38C	SCS_A3#	SDQ_A14	BA5	MDA14
[15,17] CKEA0	BC20	SCKE_A0	SDQ_A15	BA6	MDA15
[15,17] CKEA1	AY20	SCKE_A1			
[15,17] CKEA2	AY21	SCKE_A2			
[17] CKEA3	BA19	SCKE_A3			
MODT_A0	AY37	SODT_A0			
MODT_A1	BA38	SODT_A1			
	BB36	SODT_A2			
	BA39	SODT_A3			
[15] DCLKA0	AR31C	SCLK_A0	SDQS_A3	AT20	DQSA3
[15] DCLKA1	AP27	SCLK_A1	SDQS_A3#	AU18	DQSA3
[15] DCLKA2	AN27	SCLK_A2	SDM_A3	AN18	DMA3
[15] DCLKA2	AV33C	SCLK_A2#			
	AV33C	SCLK_A2#	SDQ_A34	AT18	MDA24
	AP29	SCLK_A3	SDQ_A25	AR18	MDA25
	AP21	SCLK_A3#	SDQ_A26	AU21	MDA26
	AM26	SCLK_A4	SDQ_A27	AT21	MDA27
	AM27	SCLK_A4	SDQ_A28	AP17	MDA28
	AT33C	SCLK_A5	SDQ_A29	AN17	MDA29
	AV33C	SCLK_A5	SDQ_A30	AP20	MDA30
	AV33C	SCLK_A5#	SDQ_A31	AV20	MDA31
SDQS_A4					
SDQS_A4#					
SDM_A4					
SDQ_A32	AV42	MDA32			
SDQ_A33	AU40	MDA33			
SDQ_A34	AP42	MDA34			
SDQ_A35	AN39	MDA35			
SDQ_A36	AU40	MDA36			
SDQ_A37	AV41	MDA37			
SDQ_A38	AR42	MDA38			
SDQ_A39	AP41	MDA39			
SDQS_A5	AI41	DQSA5			
SDQS_A5#	AI40	DQSA5			
SDM_A5	AM43	DMA5			
SDQ_A40	AN41	MDA40			
SDQ_A41	AM39	MDA41			
SDQ_A42	AK42	MDA42			
SDQ_A43	AK41	MDA43			
SDQ_A44	AN40	MDA44			
SDQ_A45	AN42	MDA45			
SDQ_A46	AL42	MDA46			
SDQ_A47	AL39	MDA47			
SDQS_A6	AG42	DQSA6			
SDQS_A6#	AG41	DQSA6			
SDM_A6	AG40	DMA6			
SDQ_A48	AJ40	MDA48			
SDQ_A49	AH43	MDA49			
SDQ_A50	AF39	MDA50			
SDQ_A51	AE40	MDA51			
SDQ_A52	AJ42	MDA52			
SDQ_A53	AJ41	MDA53			
SDQ_A54	AF41	MDA54			
SDQ_A55	AF42	MDA55			
SDQS_A7	AC42	DQSA7			
SDQS_A7#	AC41	DQSA7			
SDM_A7	AC40	DMA7			
SDQ_A56	AD40	MDA56			
SDQ_A57	AD43	MDA57			
SDQ_A58	AB41	MDA58			
SDQ_A59	AA40	MDA59			
SDQ_A60	AE42	MDA60			
SDQ_A61	AE41	MDA61			
SDQ_A62	AC39	MDA62			
SDQ_A63	AB42	MDA63			

DDR_0

AN21

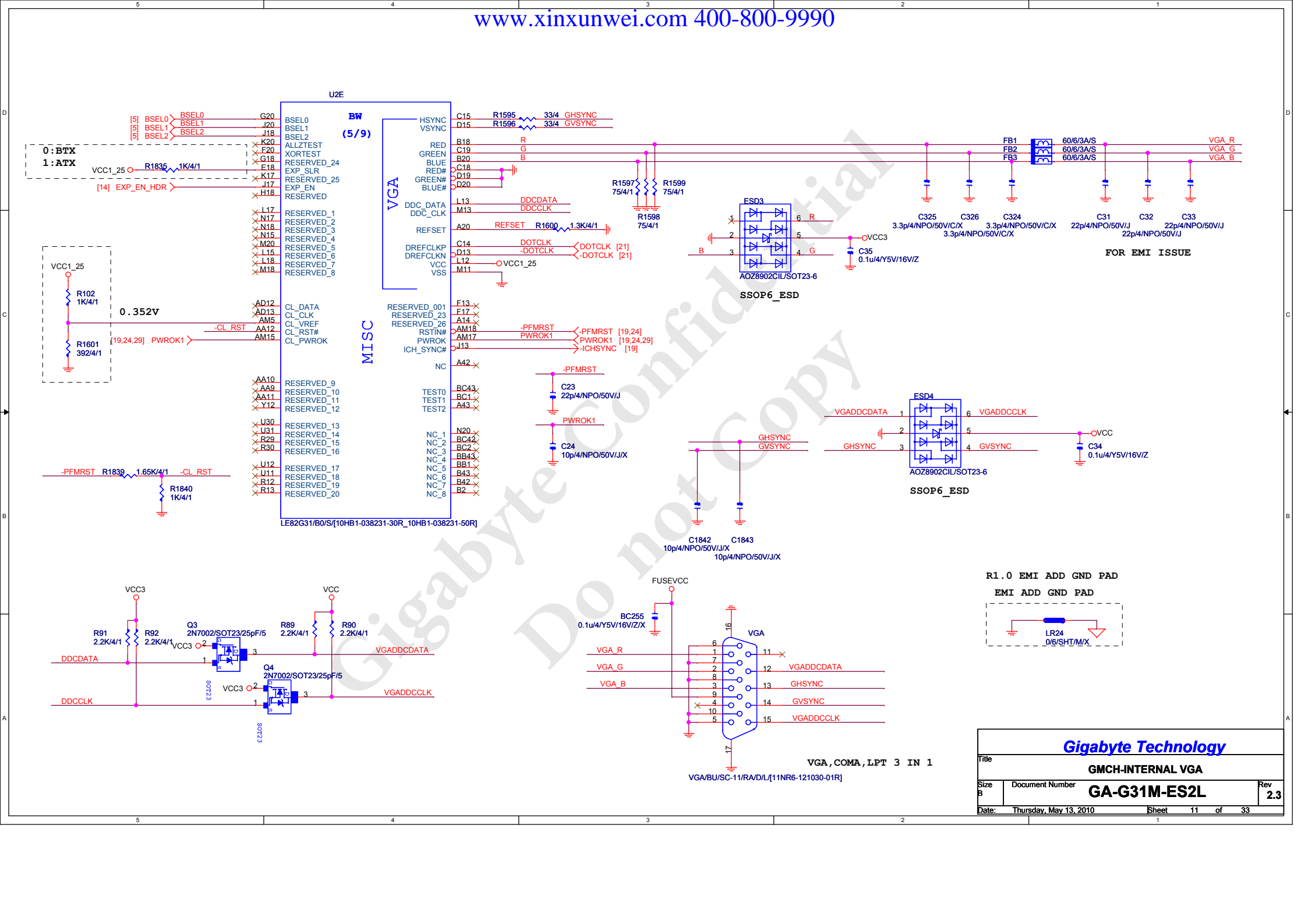
LE82G31B0S/[10HB1-038231-30R,10HB1-038231-50R] CHANNEL A

U2D

BW
(4/9)

MAAB0	BB17	SMA_B0	SDQS_B0	AW6	DQSB0
MAAB1	AY17	SMA_B1	SDQS_B0#	AU5	DQSB0
MAAB2	BA17	SMA_B2	SDM_B0	AR7	DMB0
MAAB3	BC16	SMA_B3			
MAAB4	AW15	SMA_B4	SDQ_B0	AN7	MDB0
MAAB5	BA15	SMA_B5	SDQ_B1	AN8	MDB1
MAAB6	BB15	SMA_B6	SDQ_B2	AW2	MDB2
MAAB7	BA14	SMA_B7	SDQ_B3	AW7	MDB3
MAAB8	AY15	SMA_B8	SDQ_B4	AN5	MDB4
MAAB9	MA15	SMA_B9	SDQ_B5	AN5	MDB5
MAAB10	AW16	SMA_B10	SDQ_B6	AN2	MDB6
MAAB11	BB13	SMA_B11	SDQ_B7	AW7	MDB7
MAAB12	BA13	SMA_B12			
MAAB13	AY20	SMA_B13			
MAAB14	AY13	SMA_B14			
[16,17] -SWEB	BA27C	SWE_B#	SDQS_B1#	AP12	DQSB1
[16,17] -SCASB	AW29C	SCAS_B#	SDQS_B1#	AP12	DQSB1
[16,17] -SRASB	AW28C	SRAS_B#	SDM_B1	AW9	DMB1
[16,17] SBA80	AY19	SBS_B0	SDQ_B8	AT11	MDB8
[16,17] SBA81	BA18	SBS_B1	SDQ_B9	AP13	MDB9
[16,17] SBA82	BC12	SBS_B2	SDQ_B10	AT13	MDB10
[16,17] CSB0	BB27	SCS_B0#	SDQ_B11	AT13	MDB11
[16,17] CSB1	BB30	SCS_B1#	SDQ_B12	AT11	MDB12
[16,17] CSB2	AY27C	SCS_B2#	SDQ_B13	AU9	MDB13
[16,17] CSB3	AY31C	SCS_B3#	SDQ_B14	AV12	MDB14
[16,17] CSB0	BB27	SCS_B0#	SDQ_B15	AU12	MDB15
[16,17] CSB1	BB30	SCS_B1#			
[16,17] CSB2	AY27C	SCS_B2#	SDQS_B2	AP16	DQSB2
[16,17] CSB3	AY31C	SCS_B3#	SDQS_B2#	AW13	DMB2
[16,17] CSB3	AY31C	SCS_B3#	SDM_B2		
[16,17] CKEB0	AY12	SCKE_B0	SDQ_B16	AU15	MDB16
[16,17] CKEB1	AW12	SCKE_B1	SDQ_B17	AV13	MDB17
[16,17] CKEB2	BB11	SCKE_B2	SDQ_B18	AU17	MDB18
[16,17] CKEB3	BA11	SCKE_B3	SDQ_B19	AT17	MDB19
MODT_B0	BA29	SODT_B0	SDQ_B20	AU13	MDB20
MODT_B1	BA30	SODT_B1	SDQ_B21	AM13	MDB21
BB29		SODT_B2	SDQ_B22	AV15	MDB22
BB31		SODT_B3	SDQ_B23	AW17	MDB23
[16] DCLKB0	AV31	SCLK_B0	SDQS_B3	AT24	DQSB3
[16] DCLKB0	AV31	SCLK_B0#	SDQS_B3#	AU26	DQSB3
[16] DCLKB1	AT27	SCLK_B1	SDM_B3	AP23	DMB3
[16] DCLKB1	AT27	SCLK_B1#			
[16] DCLKB2	AT32	SCLK_B2	SDQ_B24	MD24	MDB24
[16] DCLKB2	AT32	SCLK_B2#	SDQ_B25	AT23	MDB25
	AU29	SCLK_B3	SDQ_B26	AT28	MDB26
	AT29	SCLK_B3#	SDQ_B27	AP26	MDB27
	AV29	SCLK_B4	SDQ_B28	AU23	MDB28
	AV27	SCLK_B4#	SDQ_B29	AN23	MDB29
	AV32	SCLK_B5	SDQ_B30	AR24	MDB30
	AV32	SCLK_B5#	SDQ_B31	AN26	MDB31
SDQS_B4					
SDQS_B4#					
SDM_B4					
SDQ_B32	AV37	MDB32			
SDQ_B33	AV38	MDB33			
SDQ_B34	AV38	MDB34			
SDQ_B35	AN37	MDB35			
SDQ_B36	AU35	MDB36			
SDQ_B37	AR35	MDB37			
SDQ_B38	AN35	MDB38			
SDQ_B39	AR37	MDB39			
SDQS_B5	AL35	DQSB5			
SDQS_B5#	AL34	DQSB5			
SDM_B5	AM37	DMB5			
SDQ_B40	AM35	MDB40			
SDQ_B41	AM38	MDB41			
SDQ_B42	AJ34	MDB42			
SDQ_B43	AL38	MDB43			
SDQ_B44	AR39	MDB44			
SDQ_B45	AM34	MDB45			
SDQ_B46	AL37	MDB46			
SDQ_B47	AL32	MDB47			
SDQS_B6	AG35	DQSB6			
SDQS_B6#	AG36	DQSB6			
SDM_B6	AG39	DMB6			
SDQ_B48	AG38	MDB48			
SDQ_B49	AJ38	MDB49			
SDQ_B50	AF38	MDB50			
SDQ_B51	AE33	MDB51			
SDQ_B52	AJ37	MDB52			
SDQ_B53	AJ35	MDB53			
SDQ_B54	AG33	MDB54			
SDQ_B55	AF34	MDB55			
SDQS_B7	AC38	DQSB7			
SDQS_B7#	AC37	DQSB7			
SDM_B7	AD38	DMB7			
SDQ_B56	AD38	MDB56			
SDQ_B57	AC33	MDB57			
SDQ_B58	AA34	MDB58			
SDQ_B59	AA36	MDB59			
SDQ_B60	AD34	MDB60			
SDQ_B61	AF38	MDB61			
SDQ_B62	AC34	MDB62			
SDQ_B63	AA33	MDB63			
RESERVED_1					
RESERVED_2					
RESERVED_3					
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RESERVED_86					





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
AY41	VSS_8		VSS_188	AD35
AY4	VSS_9		VSS_189	AD33
AW43	VSS_10		VSS_190	AD25
AW41	VSS_11		VSS_191	AD23
AW1	VSS_12		VSS_192	AD21
AV37	VSS_13		VSS_193	AD19
AV35	VSS_14		VSS_194	AC38
AV27	VSS_15		VSS_195	AC35
AV23	VSS_16		VSS_196	AC24
AV21	VSS_17		VSS_197	AC22
AV17	VSS_18		VSS_198	AC20
AV11	VSS_19		VSS_199	AC10
AV9	VSS_20		VSS_200	AC7
AV7	VSS_21		VSS_201	AC5
AU42	VSS_22		VSS_202	AB43
AU38	VSS_23		VSS_203	AB25
AU32	VSS_24		VSS_204	AB23
AU24	VSS_25		VSS_205	AB21
AU20	VSS_26		VSS_206	AB19
AU6	VSS_27		VSS_207	AB2
AU2	VSS_28		VSS_208	AB1
AT31	VSS_29		VSS_209	AA38
AT29	VSS_30		VSS_210	AA35
AT15	VSS_31		VSS_211	AA24
AT13	VSS_32		VSS_212	AA22
AT12	VSS_33		VSS_213	AA20
AR38	VSS_34		VSS_214	AA8
AR33	VSS_35		VSS_215	AA5
AR32	VSS_36		VSS_216	Y42
AR27	VSS_37		VSS_217	Y37
AR26	VSS_38		VSS_218	Y35
AR23	VSS_39		VSS_219	Y33
AR21	VSS_40		VSS_220	Y25
AR20	VSS_41		VSS_221	Y23
AR17	VSS_42		VSS_222	Y21
AR9	VSS_43		VSS_223	Y19
AR6	VSS_44		VSS_224	Y10
AP43	VSS_45		VSS_225	Y7
AP24	VSS_46		VSS_226	Y5
AP18	VSS_47		VSS_227	Y1
AP1	VSS_48		VSS_228	W3
AN38	VSS_49		VSS_229	W43
AN31	VSS_50		VSS_230	V39
AN29	VSS_51		VSS_231	V37
AN24	VSS_52		VSS_232	V34
AN23	VSS_53		VSS_233	V32
AN20	VSS_54		VSS_234	V11
AN15	VSS_55		VSS_235	V8
AN13	VSS_56		VSS_236	V5
AN12	VSS_57		VSS_237	V2
AN11	VSS_58		VSS_238	U38
AN4	VSS_59		VSS_239	U35
AM42	VSS_60		VSS_240	U8
AM40	VSS_61		VSS_241	U7
AM36	VSS_62		VSS_242	U5
AM33	VSS_63		VSS_243	T42
AM29	VSS_64		VSS_244	T1
AM24	VSS_65		VSS_245	R36
AM23	VSS_66		VSS_246	R33
AM20	VSS_67		VSS_247	R31
AM11	VSS_68		VSS_248	R11
AM9	VSS_69		VSS_249	R8
AM7	VSS_70		VSS_250	R5
AM4	VSS_71		VSS_251	R3
AM2	VSS_72		VSS_252	P43
AM1	VSS_73		VSS_253	P30
AL36	VSS_74		VSS_254	P21
AL33	VSS_75		VSS_255	P18
AK43	VSS_76		VSS_256	P17
AJ39	VSS_77		VSS_257	P2
AJ38	VSS_78		VSS_258	N36
AJ33	VSS_79		VSS_259	N33
AH42	VSS_80		VSS_260	N31
AG37	VSS_81		VSS_261	N27
AG34	VSS_82		VSS_262	N21
AF43	VSS_83		VSS_263	N13
AF37	VSS_84		VSS_264	N10
AF36	VSS_85		VSS_265	N7
AF10	VSS_86		VSS_266	N5
AF9	VSS_87		VSS_267	M42
AF8	VSS_88		VSS_268	M37
AF7	VSS_89		VSS_269	M35
AF6	VSS_90		VSS_270	M33

LE82G31/B0/S/[10HB1-038231-30R_10HB1-038231-50R]

U2G

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	AF24
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
K26	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			
F43	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			

LE82G31/B0/S/[10HB1-038231-30R_10HB1-038231-50R]

Gigabyte Technology

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GMCH-GND

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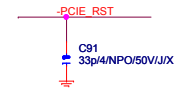
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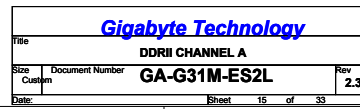
The diagram shows a 3-phase 4-wire system. Three horizontal lines represent the phase conductors, and a fourth line at the bottom represents the neutral conductor. Each phase conductor is connected to the neutral conductor through a vertical impedance element. The elements are labeled as follows:

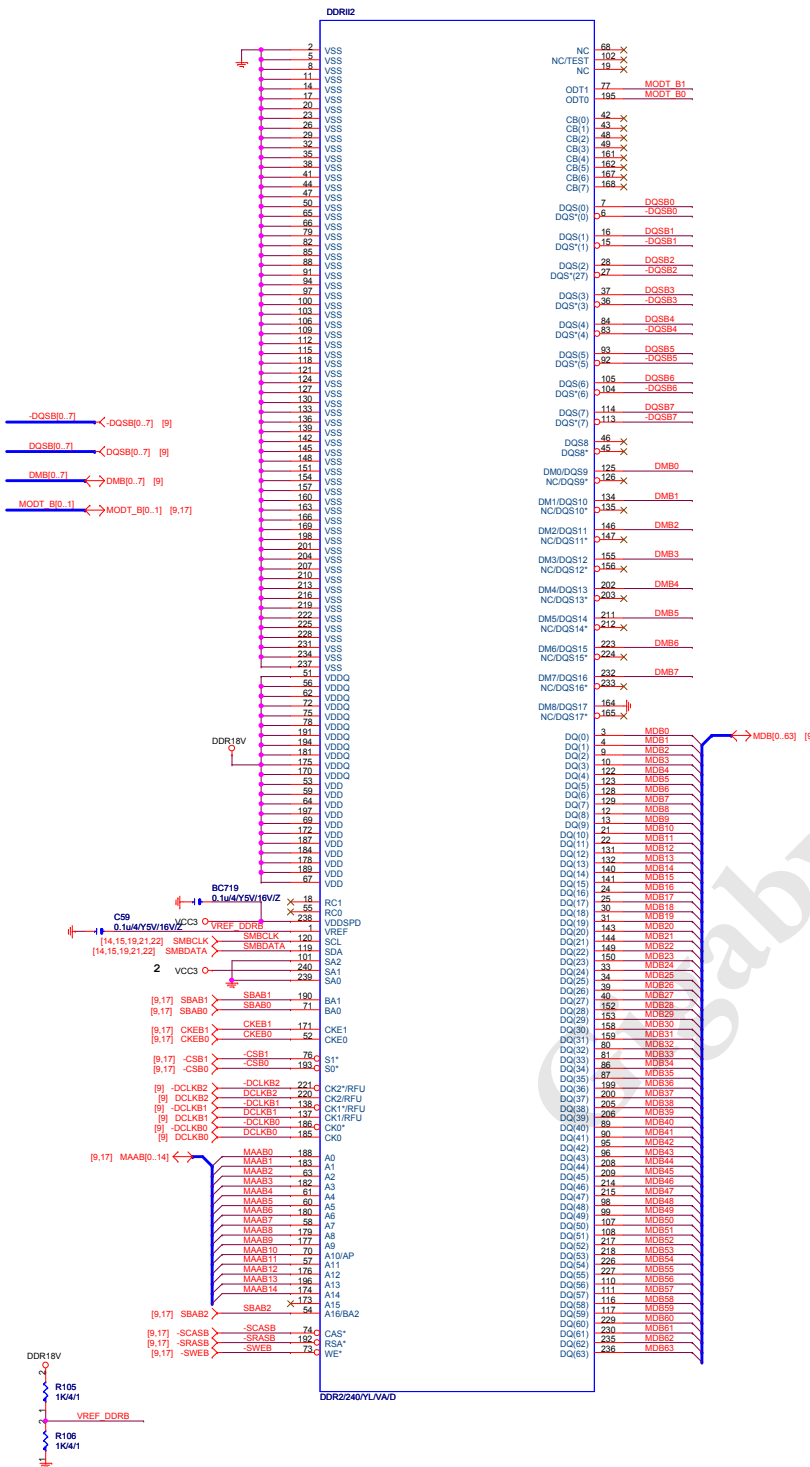
- BC67**: $0.1u/4/Y5V/16V/Z/X$
- BC68**: $0.1u/4/Y5V/16V/Z/X$
- BC69**: $0.1u/4/Y5V/16V/Z/X$

EXP A TXP0	C92	0.1uW/4XTR/16V/K	EXP A TXP0G
EXP A TXN0	C93	0.1uW/4XTR/16V/K	EXP A TXN0G
EXP A TXP1	C94	0.1uW/4XTR/16V/K	EXP A TXP1G
EXP A TXN1	C95	0.1uW/4XTR/16V/K	EXP A TXN1G
EXP A TXP2	C96	0.1uW/4XTR/16V/K	EXP A TXP2G
EXP A TXN2	C97	0.1uW/4XTR/16V/K	EXP A TXN2G
EXP A TXP3	C98	0.1uW/4XTR/16V/K	EXP A TXP3G
EXP A TXN3	C99	0.1uW/4XTR/16V/K	EXP A TXN3G
EXP A TXP4	C100	0.1uW/4XTR/16V/K	EXP A TXP4G
EXP A TXN4	C101	0.1uW/4XTR/16V/K	EXP A TXN4G
EXP A TXP5	C102	0.1uW/4XTR/16V/K	EXP A TXP5G
EXP A TXN5	C103	0.1uW/4XTR/16V/K	EXP A TXN5G
EXP A TXP6	C104	0.1uW/4XTR/16V/K	EXP A TXP6G
EXP A TXN6	C105	0.1uW/4XTR/16V/K	EXP A TXN6G
EXP A TXP7	C106	0.1uW/4XTR/16V/K	EXP A TXP7G
EXP A TXN7	C107	0.1uW/4XTR/16V/K	EXP A TXN7G
EXP A TXP8	C108	0.1uW/4XTR/16V/K	EXP A TXP8G
EXP A TXN8	C109	0.1uW/4XTR/16V/K	EXP A TXN8G
EXP A TXP9	C110	0.1uW/4XTR/16V/K	EXP A TXP9G
EXP A TXN9	C111	0.1uW/4XTR/16V/K	EXP A TXN9G
EXP A TXP10	C112	0.1uW/4XTR/16V/K	EXP A TXP10G
EXP A TXN10	C113	0.1uW/4XTR/16V/K	EXP A TXN10G
EXP A TXP11	C114	0.1uW/4XTR/16V/K	EXP A TXP11G
EXP A TXN11	C115	0.1uW/4XTR/16V/K	EXP A TXN11G
EXP A TXP12	C116	0.1uW/4XTR/16V/K	EXP A TXP12G
EXP A TXN12	C117	0.1uW/4XTR/16V/K	EXP A TXN12G
EXP A TXP13	C118	0.1uW/4XTR/16V/K	EXP A TXP13G
EXP A TXN13	C119	0.1uW/4XTR/16V/K	EXP A TXN13G
EXP A TXP14	C120	0.1uW/4XTR/16V/K	EXP A TXP14G
EXP A TXN14	C121	0.1uW/4XTR/16V/K	EXP A TXN14G
EXP A TXP15	C122	0.1uW/4XTR/16V/K	EXP A TXP15G
EXP A TXN15	C123	0.1uW/4XTR/16V/K	EXP A TXN15G



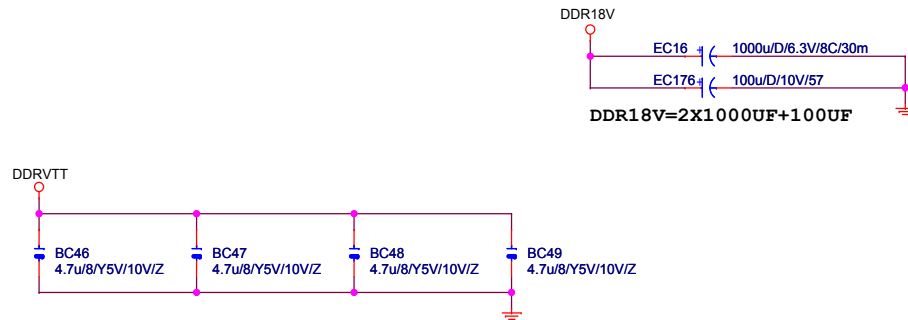
<i>Gigabyte Technology</i>			
PCI EXPRESS * 16			
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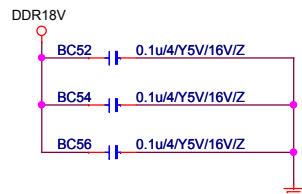


DDR TERMINATION CHANNEL A

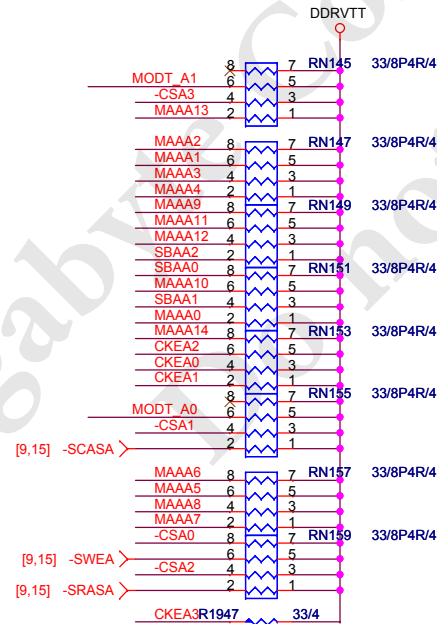
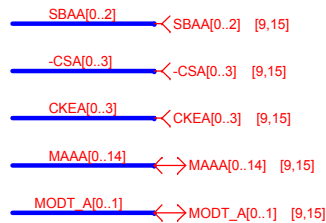
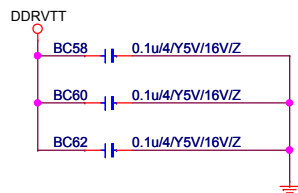
DDRVTT Decouple



DDR18V Decouple

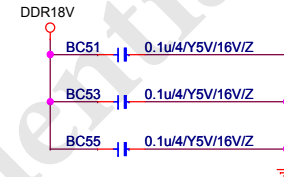


DDRVTT Decouple

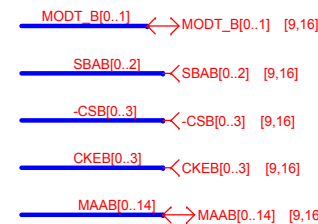
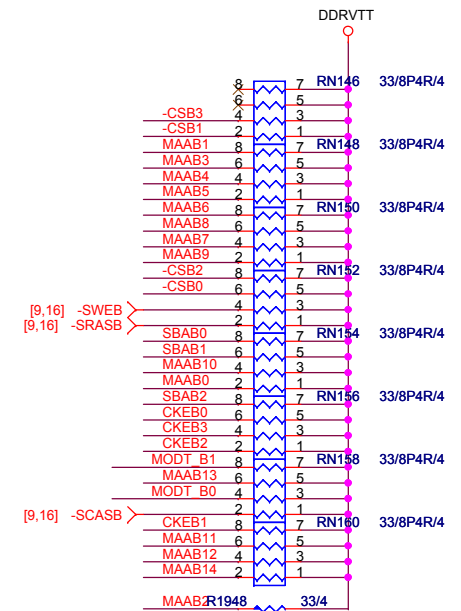
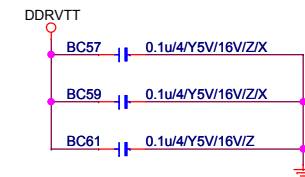


DDR TERMINATION CHANNEL B

DDR18V Decouple

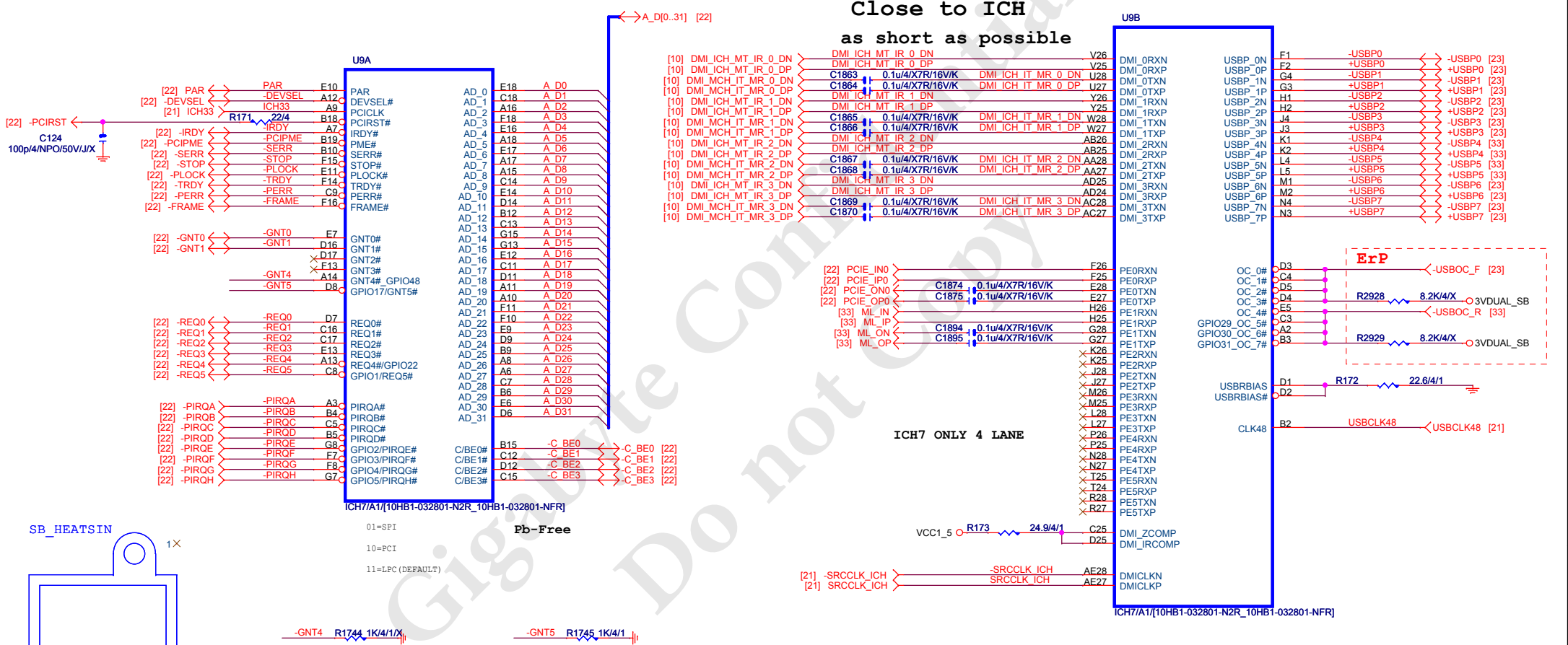


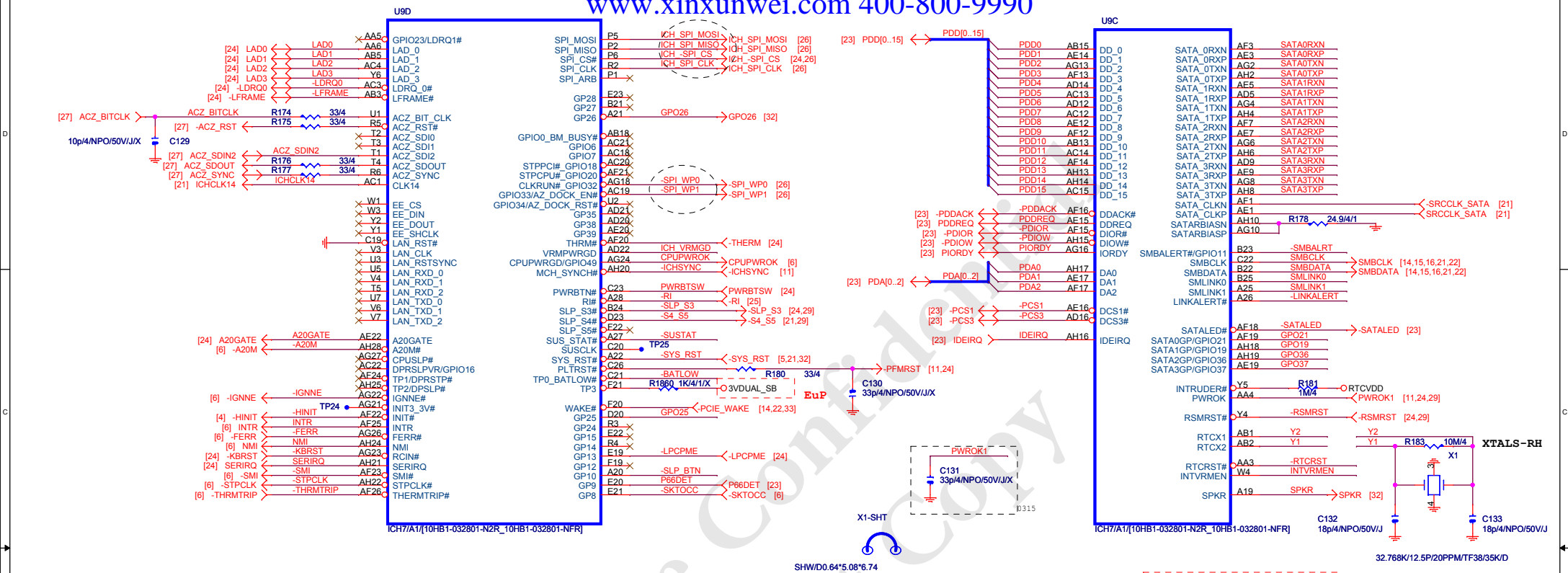
DDRVTT Decouple



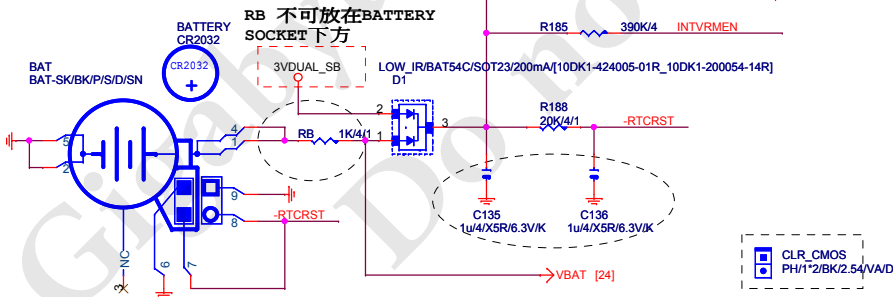
Gigabyte Technology

Title			
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Size	Document Number	Rev	
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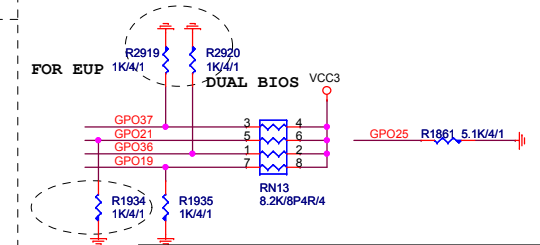
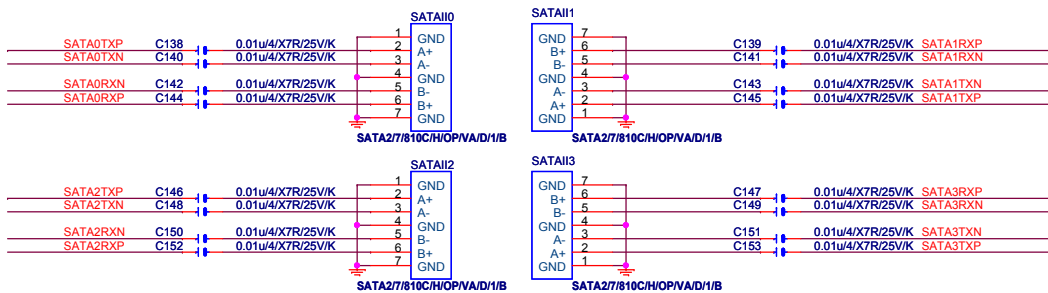
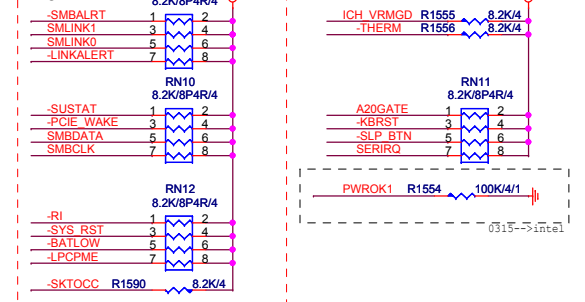




NEW TYPE: BATTERY-DUAL-4



EUP



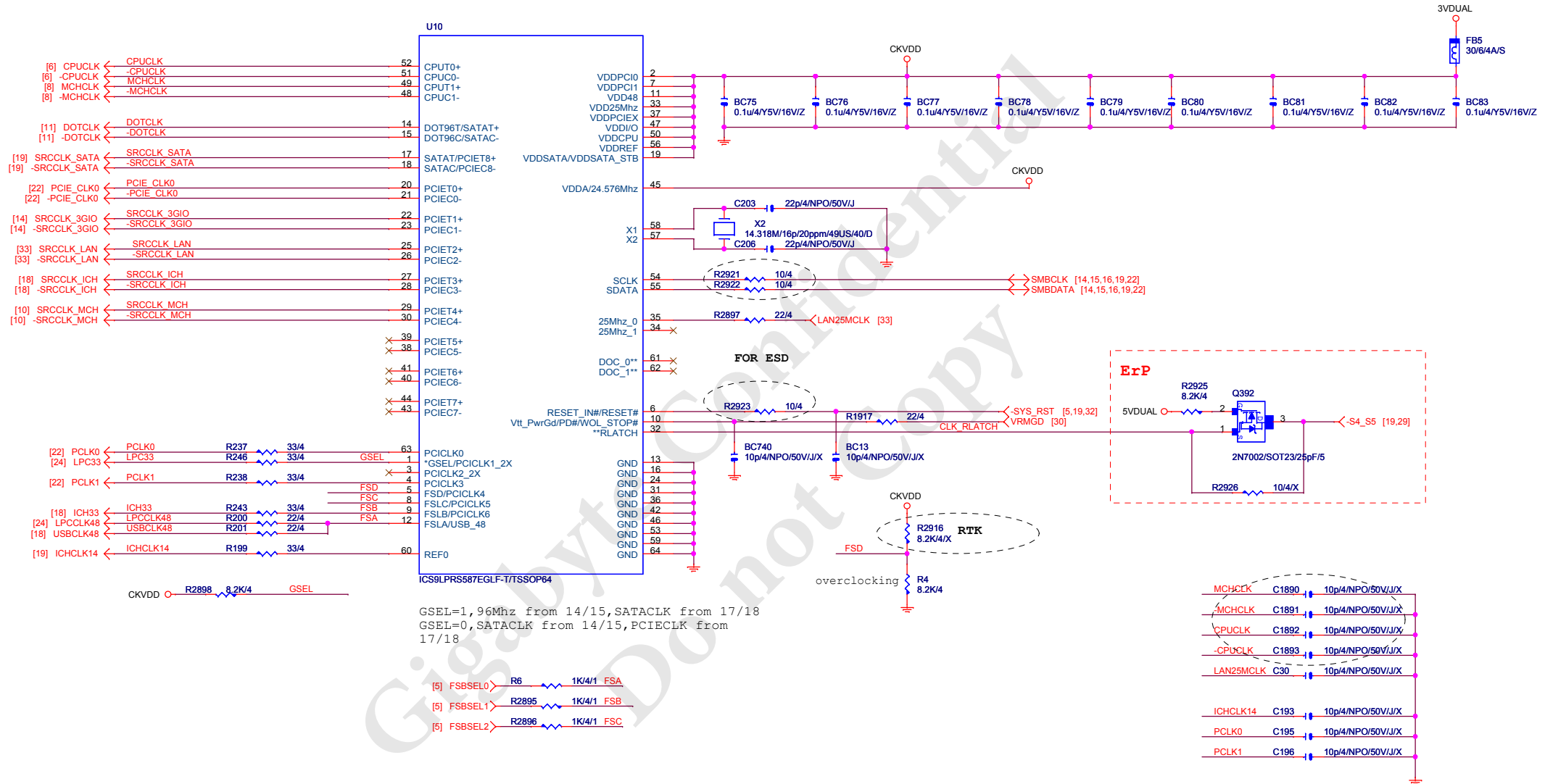
R1.1 DES LITE DESIGN

Gigabyte Technology

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ICH7-IDE, SATA, GPIO, CTRL			
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漏電



Gigabyte Technology

Title

CK505 CLK GEN

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Custom

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2.3

Date:

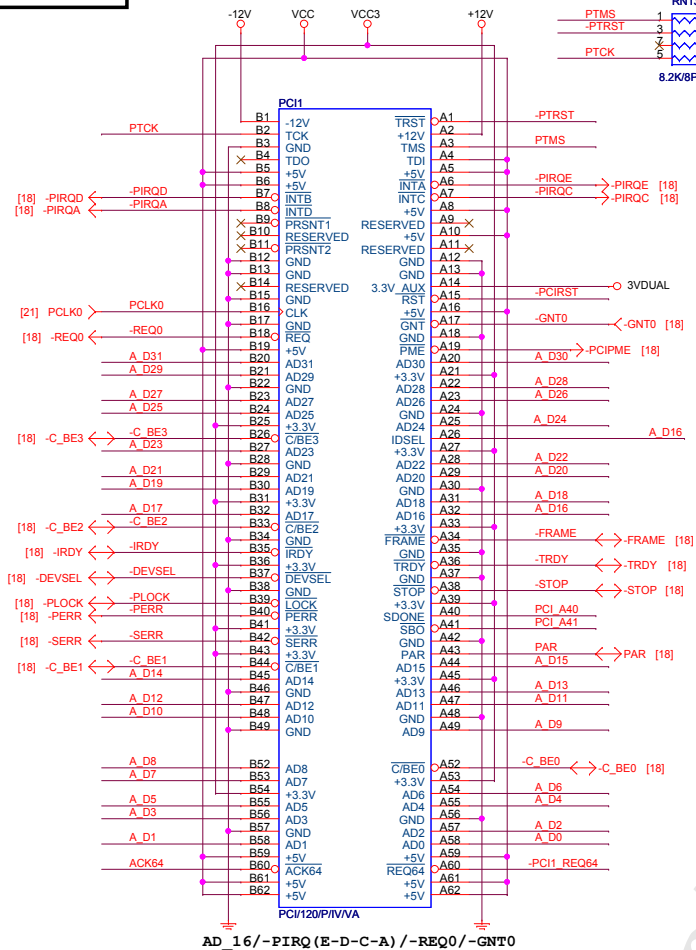
Tuesday, May 11, 2010

Sheet

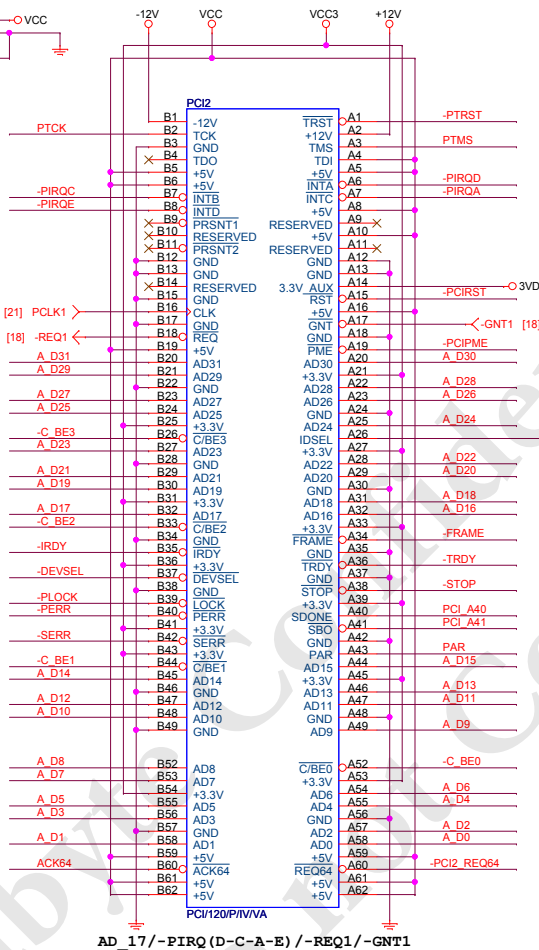
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PCI1, 2 SLOT

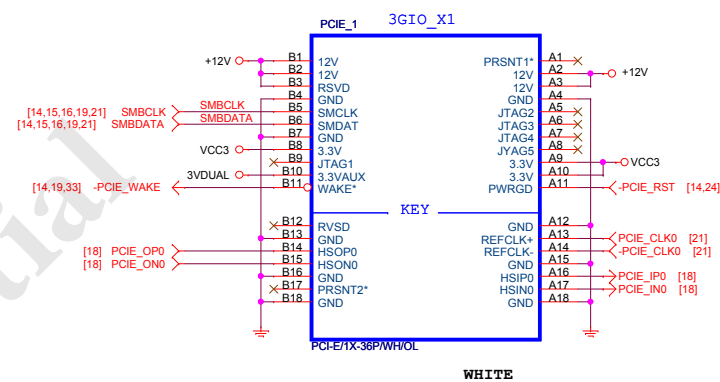
PART*1



AD_16/-PIRQ (E-D-C-A) /-REQ0/-GNT0



AD_17/-PIRQ (D-C-A-E) /-REQ1/-GNT1



WHITE

[18] A_D[0..31] ↔ A_D[0..31]

-PCIRST ↔ -PCIRST [18]

C208
33p4/NPO/50V/J/X

Place close to PCI1

REO4 ↔ REQ4
REO3 ↔ REQ3
REO1 ↔ REQ1
REO2 ↔ REQ2

REO0 ↔ REQ0
PAR ↔ PAR
REO5 ↔ REQ5

PC12 REQ64
PC11 REQ64

-DEVSEL
-TRDY
-IRDY
-FRAME

-SERR
-PERR
-PLOCK
-STOP

-PIRQA
-PIRQD
-PIRQC
-PIRQB

-PIRQE
-PIRQF
-PIRQH
-PIRQG

BC91
0.1u4/Y5V/16V/Z

BC93
0.1u4/Y5V/16V/Z

BC95
0.1u4/Y5V/16V/Z

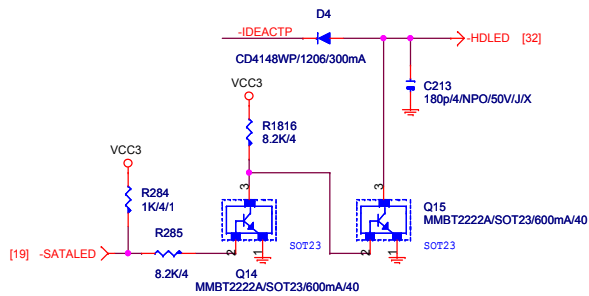
BC96
0.1u4/Y5V/16V/Z

BC97
0.1u4/Y5V/16V/Z

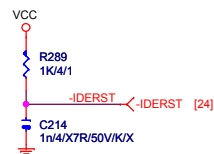
Gigabyte Technology

Title			PCI SLOT 1, 2/PCIEX1
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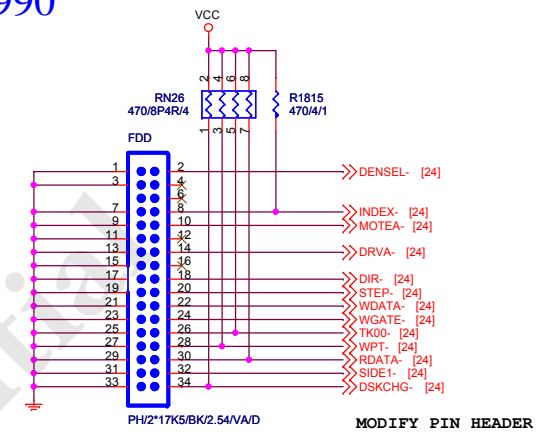
IDE/SATA LED



IDE RESET

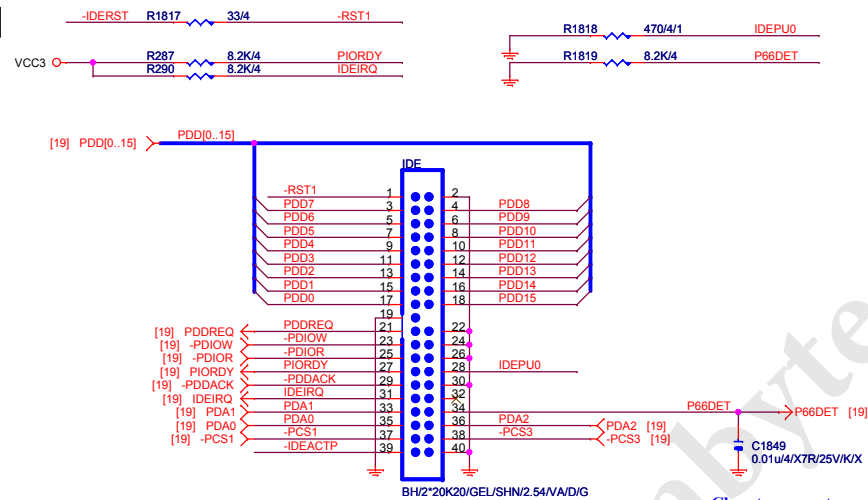


FLOPPY



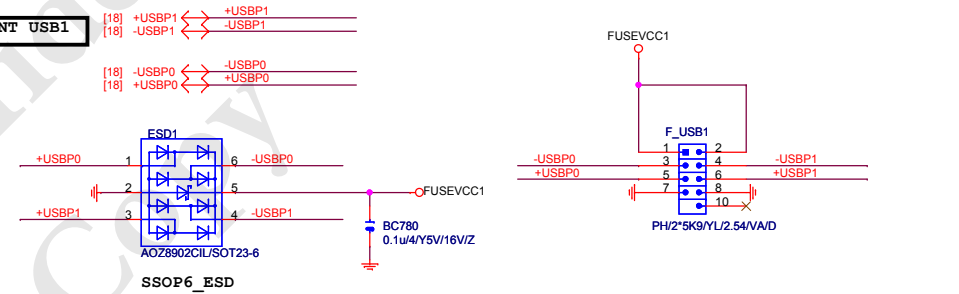
MODIFY PIN HEADER

IDE

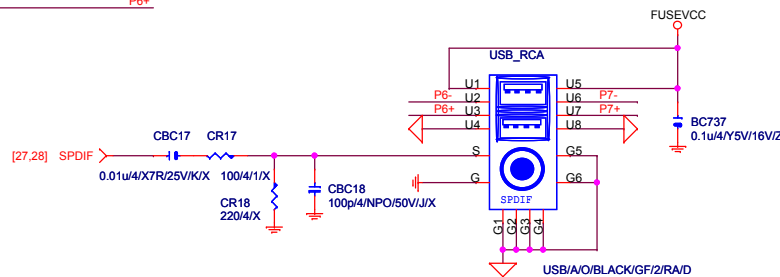
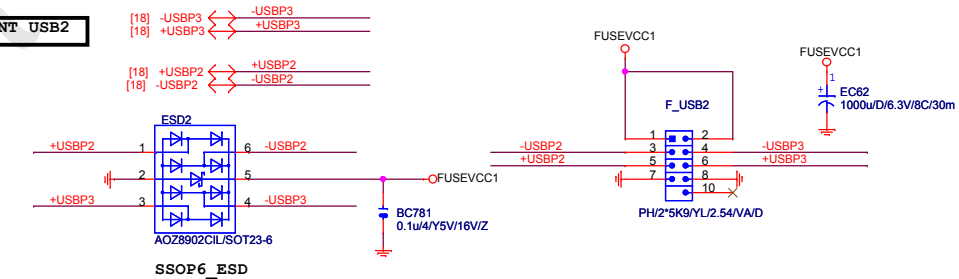


Close to connector

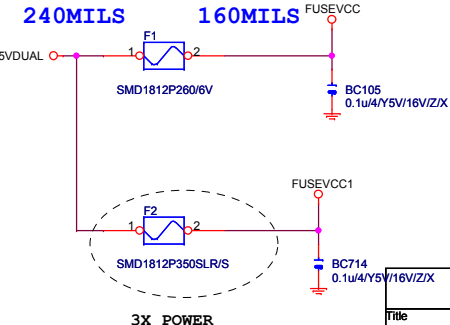
FRONT USB1



FRONT USB2



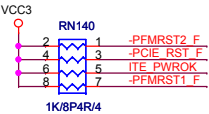
POP USBX2



3X POWER

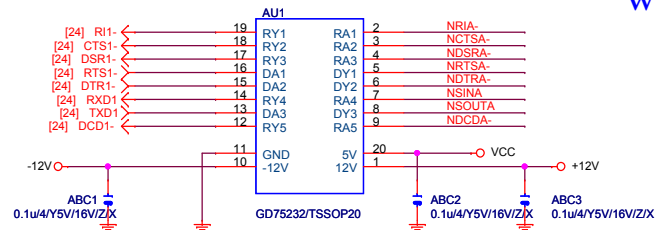
Gigabyte Technology

Title		IDE,FDD,F USB,USB RCA	
Size	Document Number	GA-G31M-ES2L	
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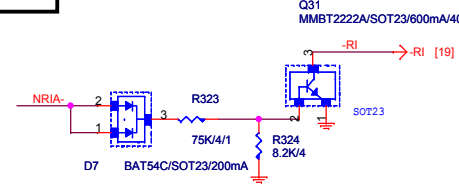


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ITE 8712/18 LPC IO			
Size B	Document Number	GA-G31M-ES2L	Rev 2.3
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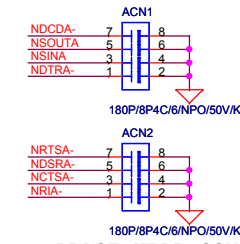
COMA



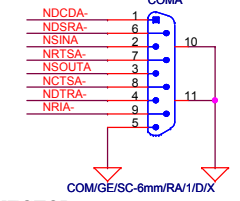
RING IN



EXTERNAL COMA

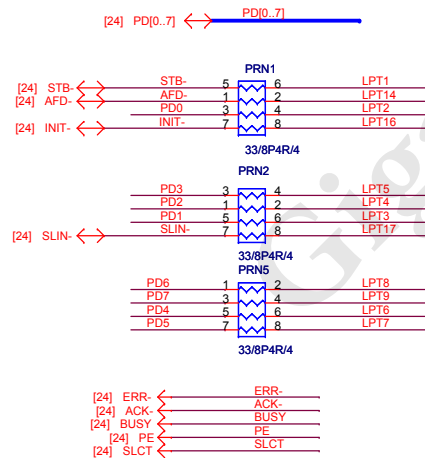


VGA, COMA, LPT 3 IN 1

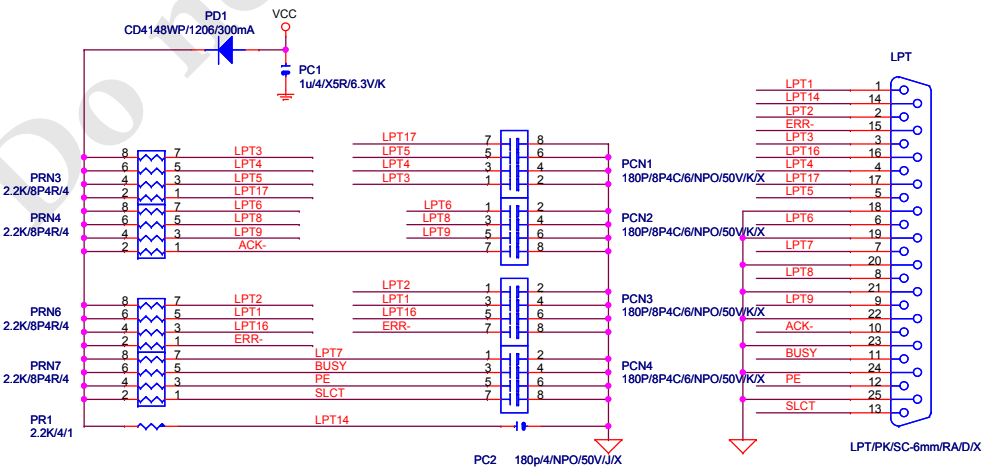


PLACE NEAR COM CONNECTOR

LPT PORT

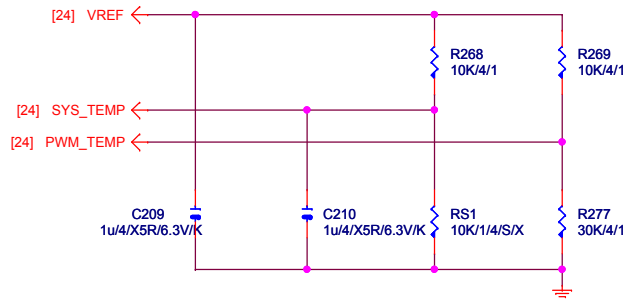
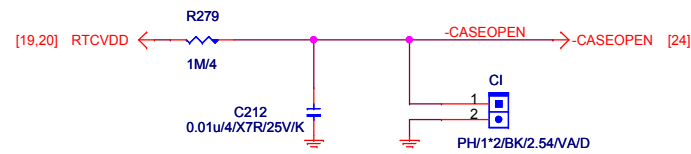


VGA, COMA, LPT 3 IN 1

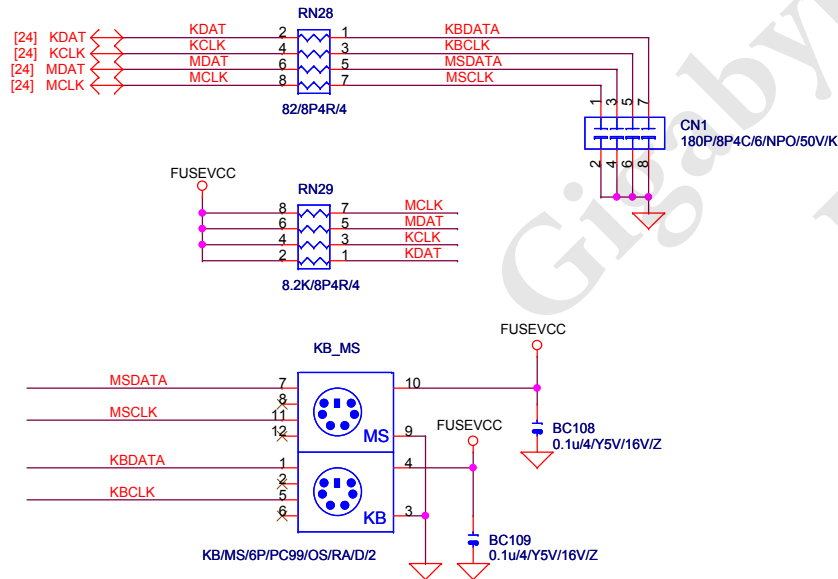
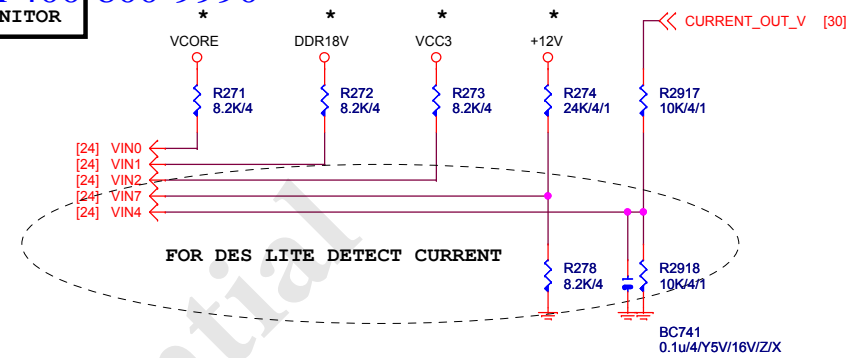
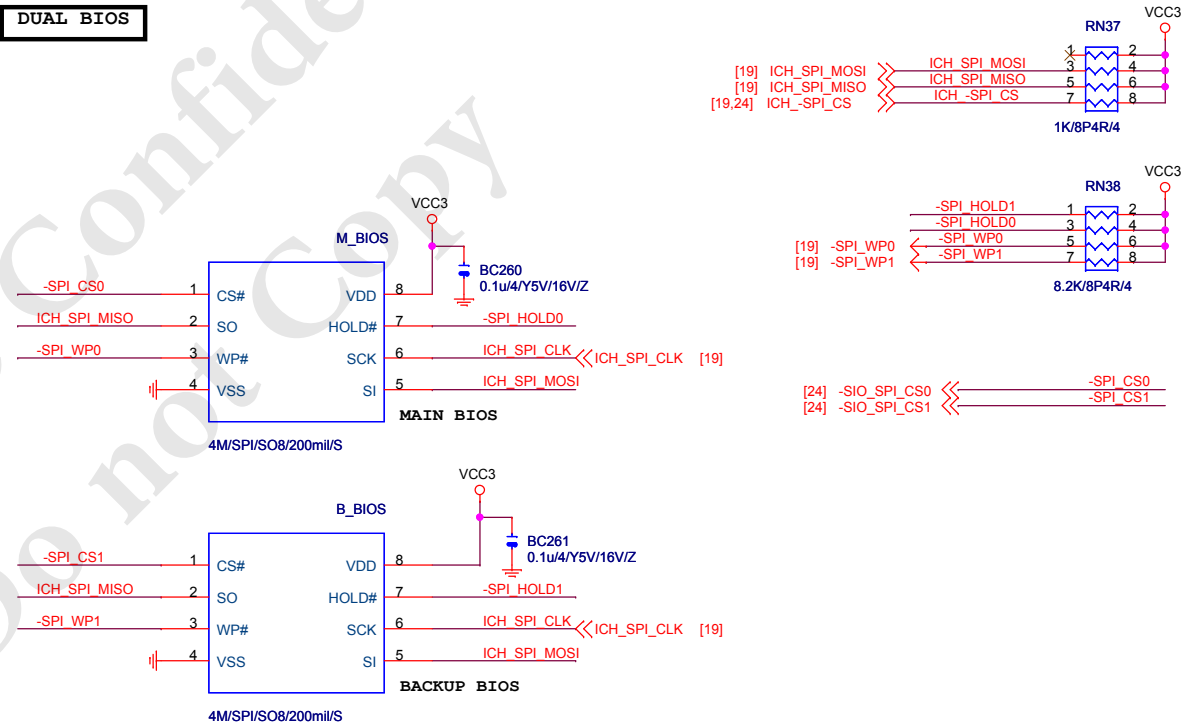


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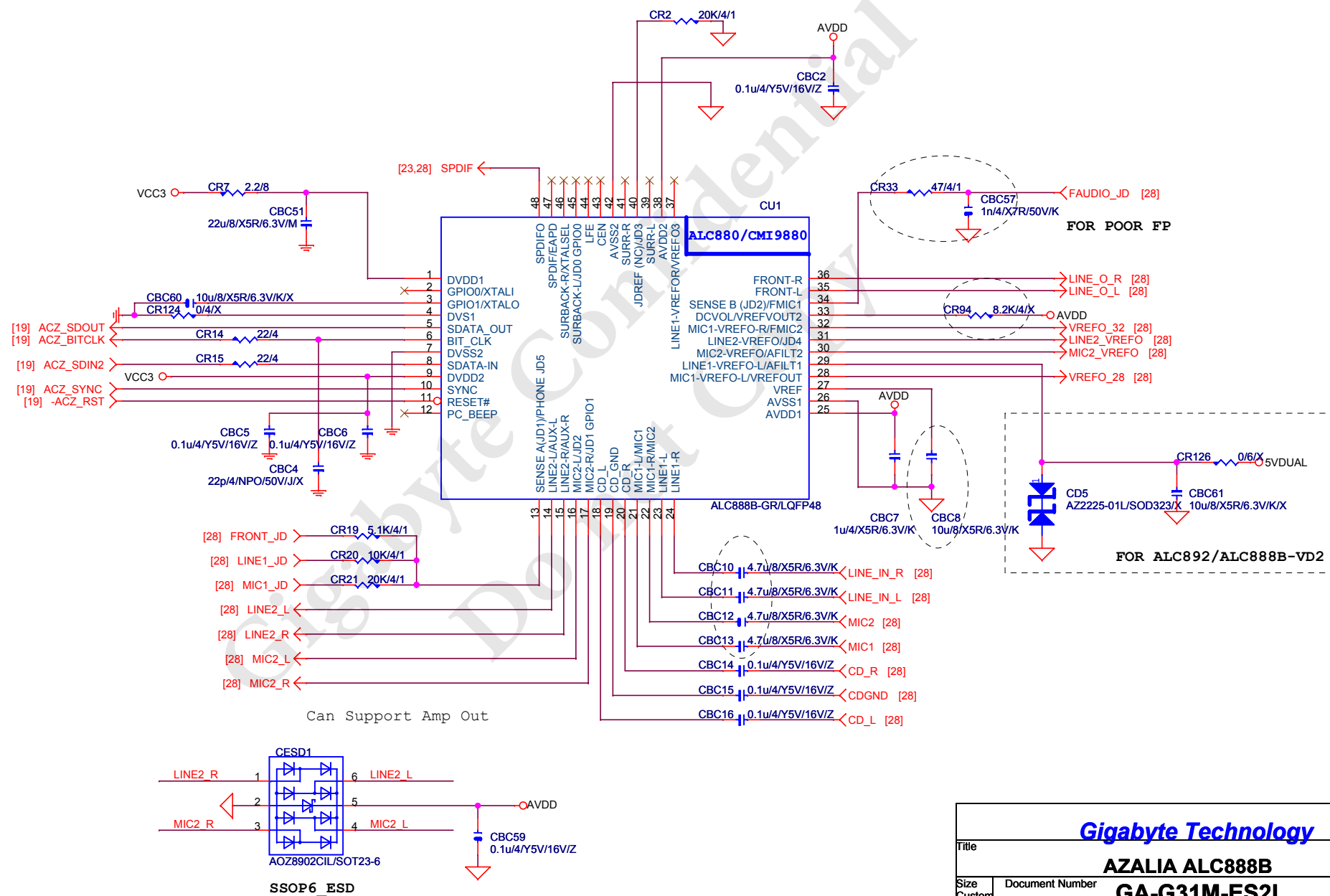
Title			COM & LPT PORT
Size B	Document Number	GA-G31M-ES2L	
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TEMP H/W MONITOR**CASE OPEN**

Case Open Circuits

KB/MS**VOLTAGE-- H/W MONITOR****DUAL BIOS****Gigabyte Technology**

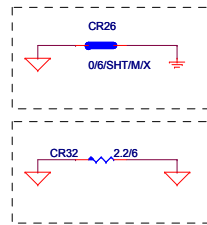
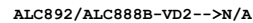
Title			HW-MONITOR/CI/KB/MS/BIOS	
Size	Document Number	GA-G31M-ES2L		Rev
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Title		
AZALIA ALC888B		
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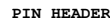
CODEC POWER/EMI PAD



CD	IN
----	----



SPDIF IN



AZALIA JACK



LINE-IN



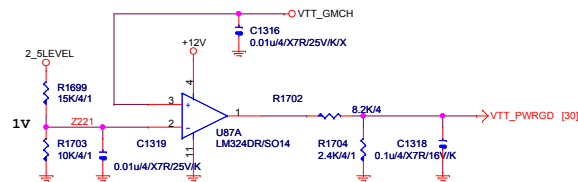
MIC-IN



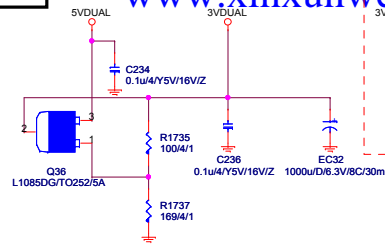
AZALIA FRONT PANEL



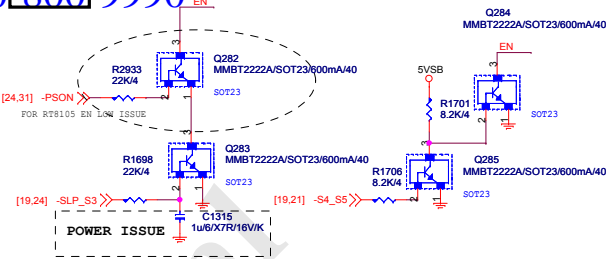
VTT_PWRGD



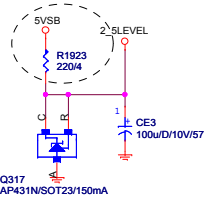
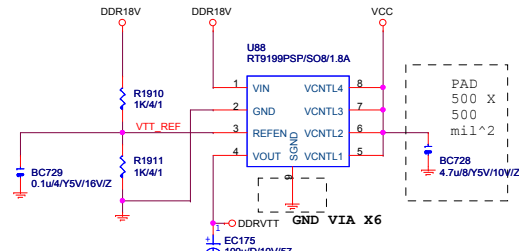
3VDUAL



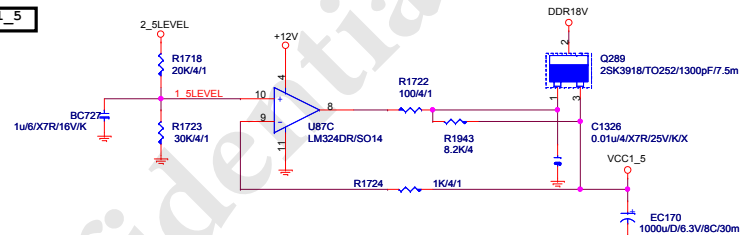
ErP



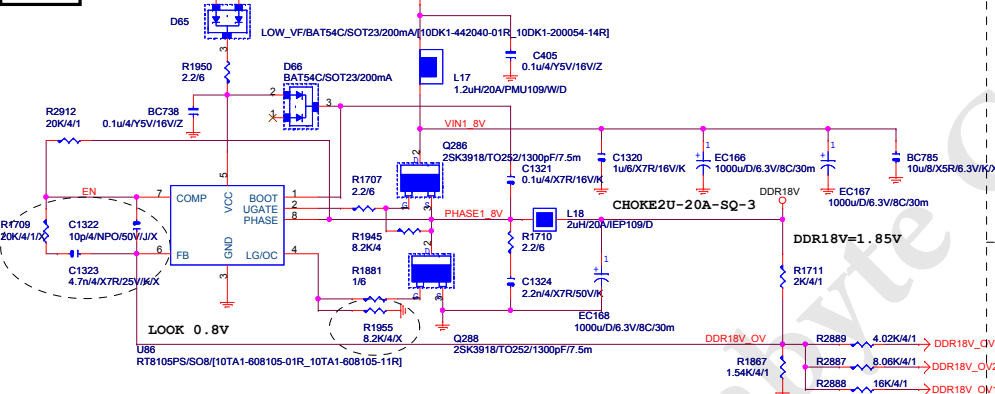
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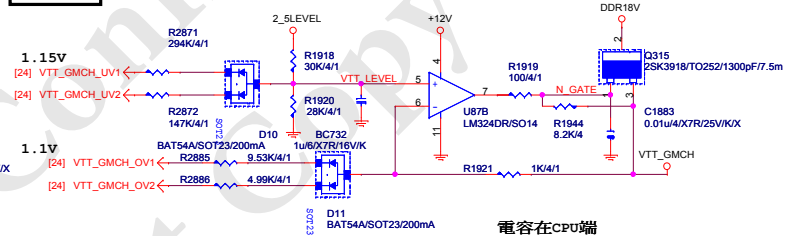
VCC1_5



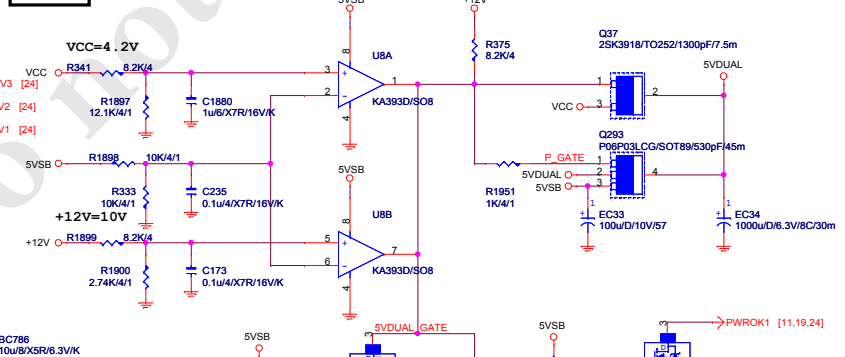
DDR18V



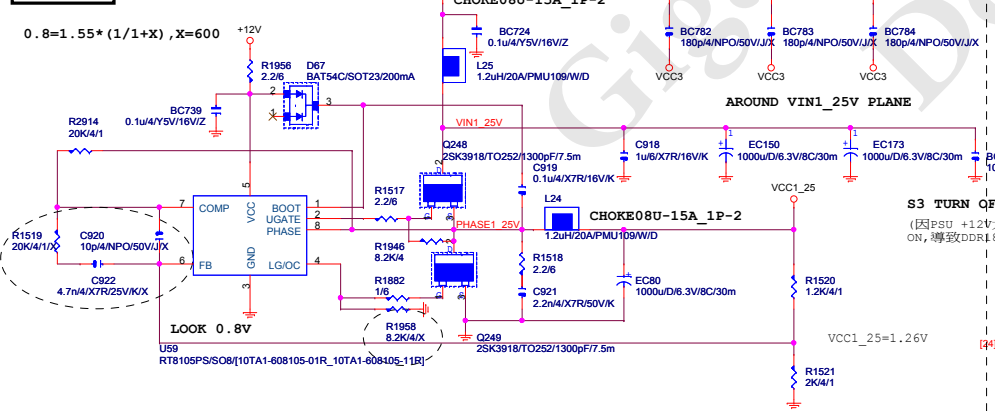
VTT_GMCH



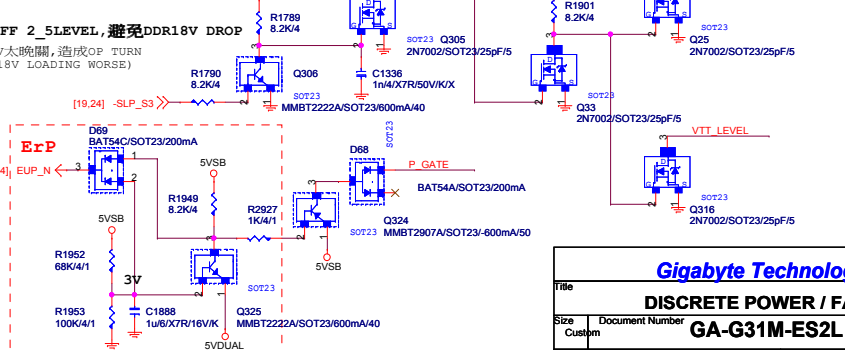
5VDUAL



VCC1_25



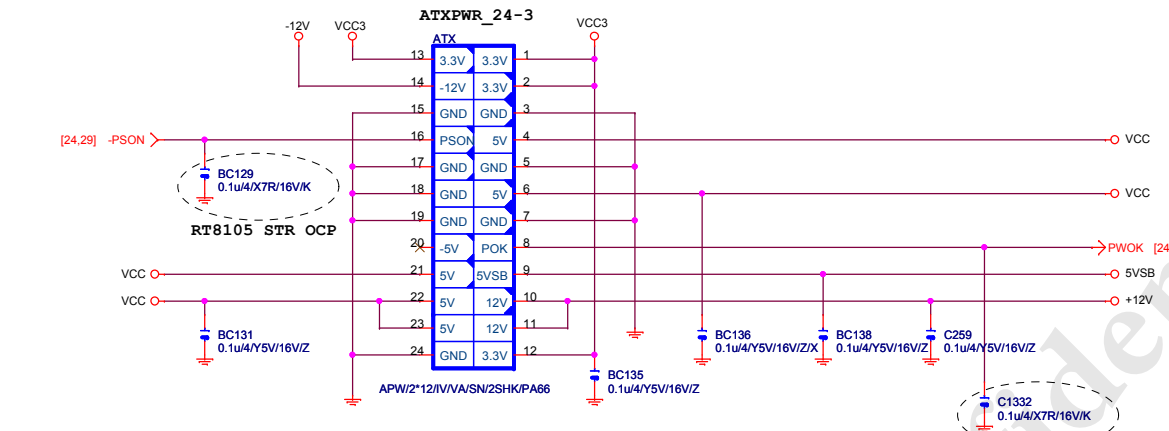
S3 TURN OFF 2_5LEVEL, 避免DDR18V DROP
(因PSU +12V太晚關, 造成OP TURN ON, 導致DDR18V LOADING WORSE)



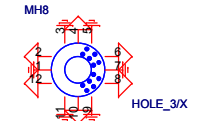
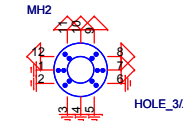
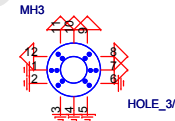
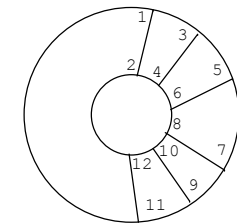
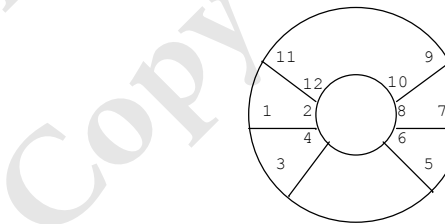
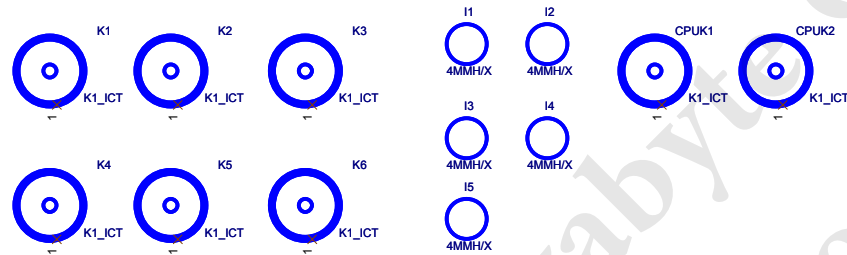
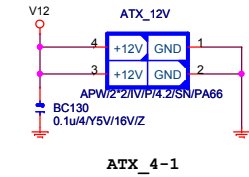
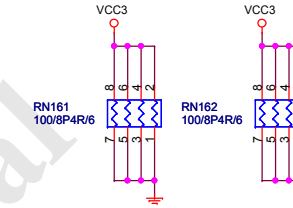
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DISCRETE POWER / FAN CTRL			
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ATX POWER CONNECTOR

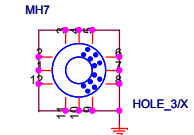
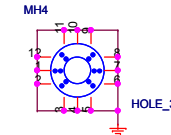
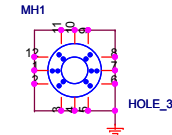
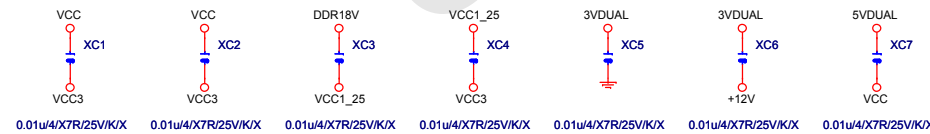


FIX PWR AcBel (ATX-400C-A2ADB)



HOLE_4-RH-1

HOLE_4-RH-5MM-1



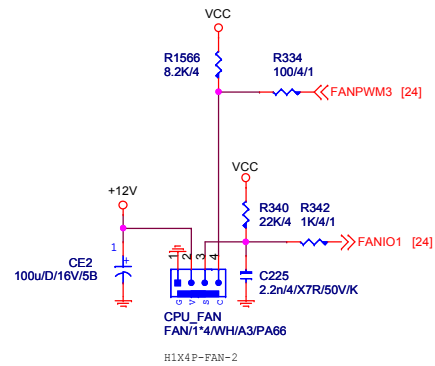
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ATX POWER CONNECTORSize
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GA-G31M-ES2LRev
2.3

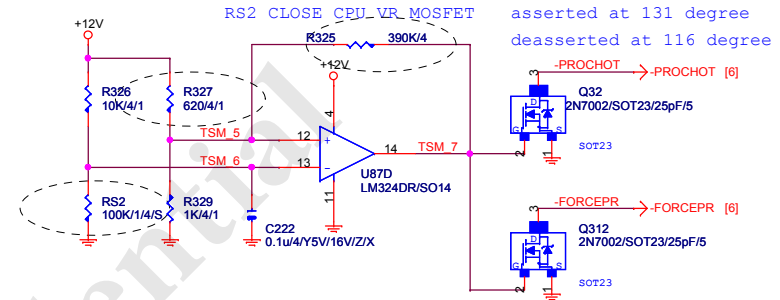
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CPU SMART FAN SMART FAN

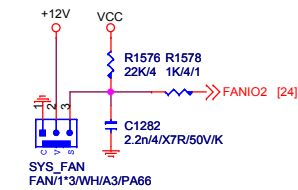
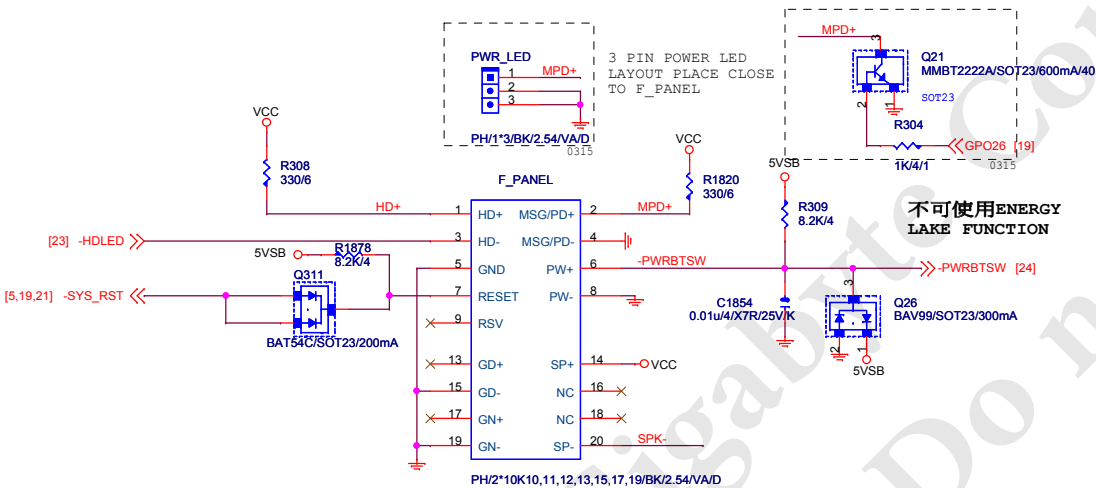


PROCESSOR HOT

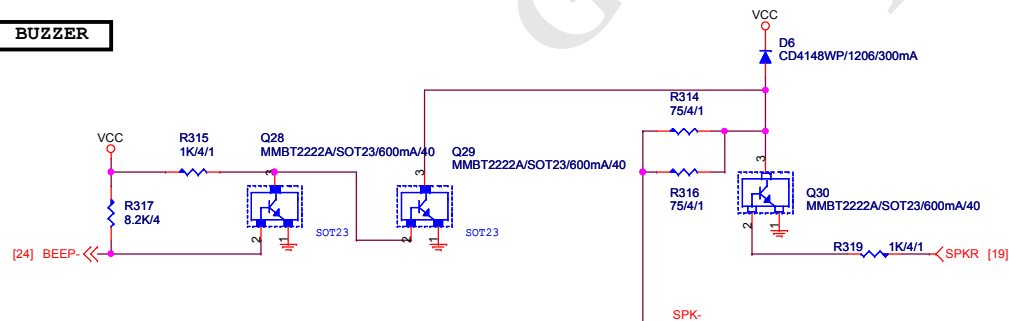


INTEL FRONT PANEL

SYS_FAN



BUZZER



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FRONT PANEL		
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