

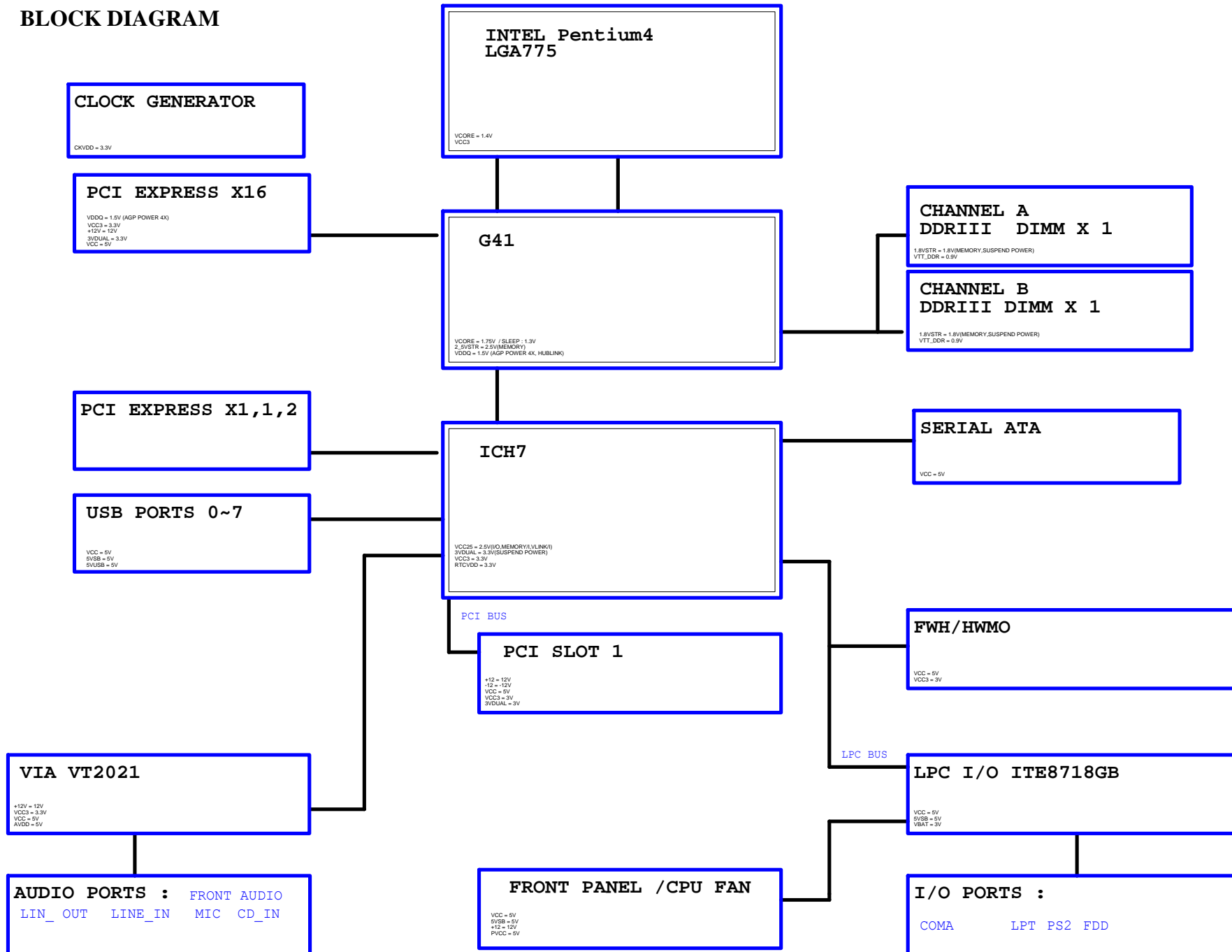
Model Name:GA-G41MT-S2P

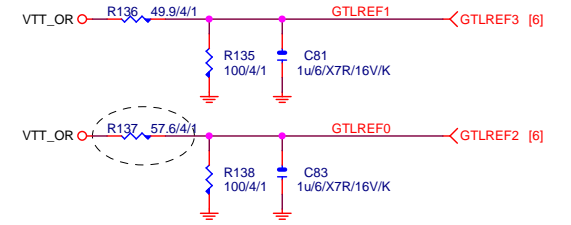
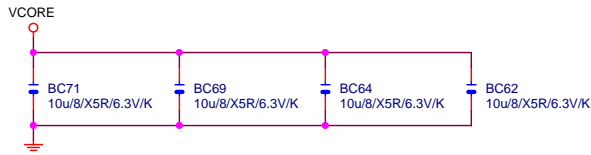
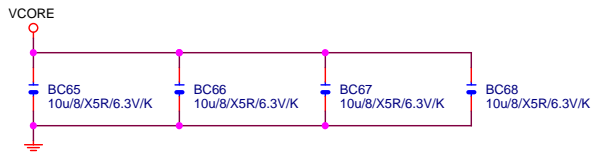
Revision 1.31

SHEET	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	G41_HOST
09	G41_DDRII
10	G41_PCI E, DMI
11	G41_VGA
12	G41_GND
13	G41_PWR
14	PCI EXPRESS*16 SLOT
15	DDR3 CHANNEL A
16	DDR3 CHANNEL B
17	DDR3 TERMINATION
18	ICH7 PCI, USB, DMI, LAN
19	ICH7 IDE, GPIO, SATA, CTRL
20	ICH7 VCC, GND
21	CK505 CLOCK.
22	PCI SLOT 1,PCIE*1,2
23	IDE/FLOPPY/F_USB/R_USB
24	ITE 8718 GB
25	COM_LPT
26	CI,HWM,KB/MS,DUALBIOS
27	VIA VT2021

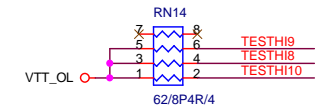
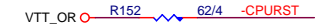
SHEET	TITLE
28	REAR AUDIO JACK
29	DISCRETE POWER
30	VCORE PWM_ISL6312
31	ATX, OTHERS POWER
32	FRONT PANEL
33	ARTHEROS AR8151

BLOCK DIAGRAM

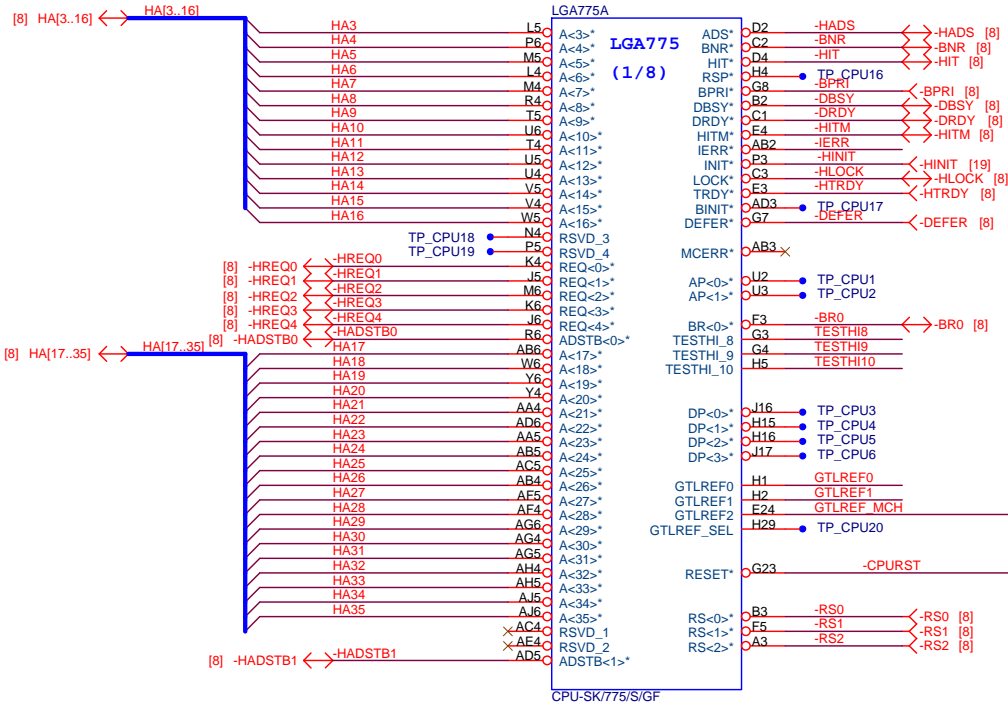




中間値 0.9V

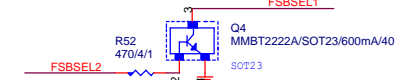
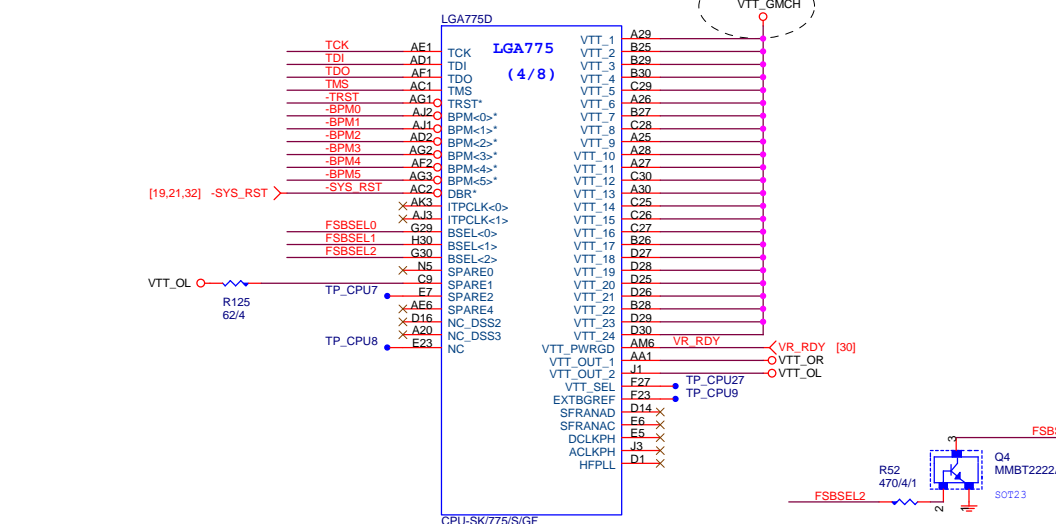
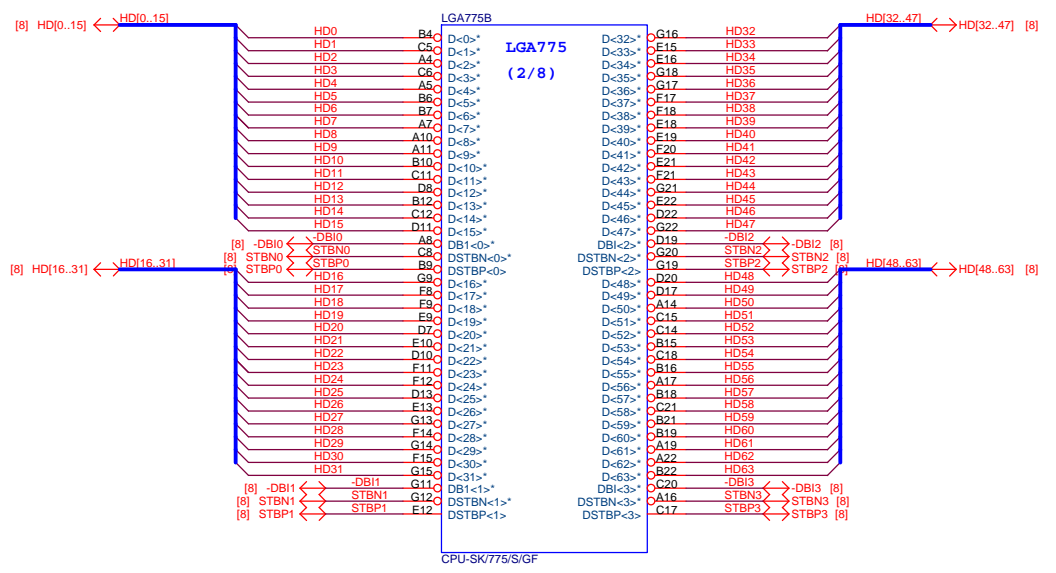


LGA775-39-2



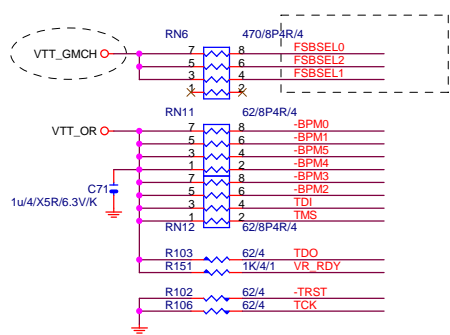
Gigabyte Technology

Title			P4_LGA775-A		
Size	Document Number	GA-G41MT-S2P			Rev
B					1.3
Date:	Thursday, December 23, 2010	Sheet	4	of	33

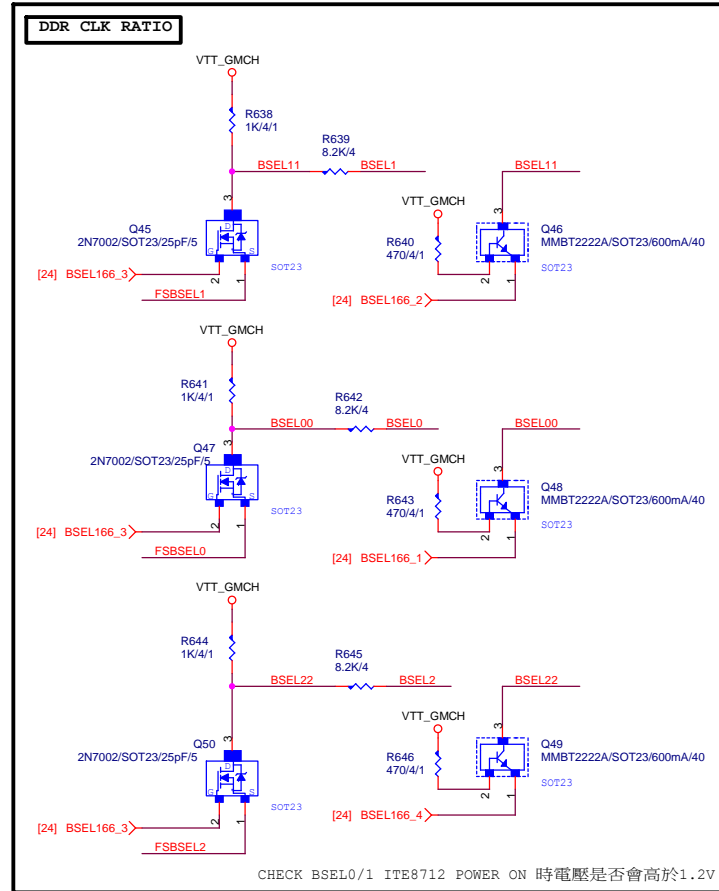


CPU

NA	FSB	FSB	FSB	FSB
FSBSEL3	FSBSEL1	FSBSEL0	FSBSEL0	FSBSEL0
1	0	1	1	100MHz
0	0	1	1	133MHz
0	1	1	1	166MHz
0	1	0	1	200MHz
0	0	0	0	266MHz



TO CLK GEN [21] FSBSEL0 FSBSEL0 R54 8.2K/4X BSEL0 BSEL0 [11]
 [21] FSBSEL1 FSBSEL1 R51 8.2K/4X BSEL1 BSEL1 [11]
 [21] FSBSEL2 FSBSEL2 R53 8.2K/4X BSEL2 BSEL2 [11] **TO NB**



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

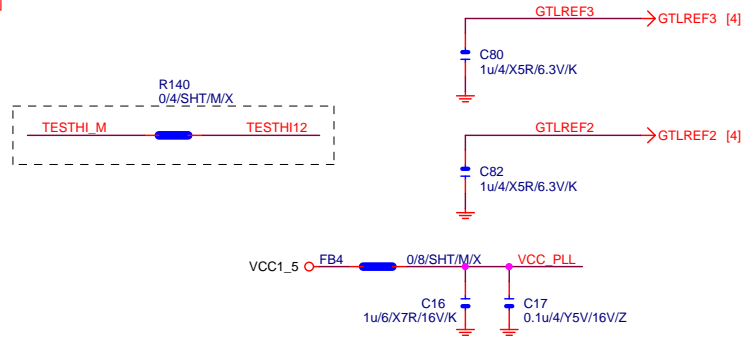
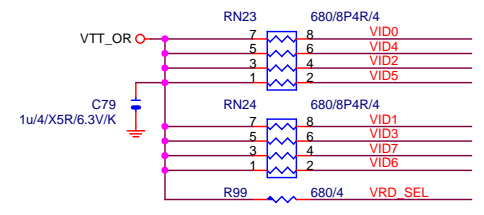
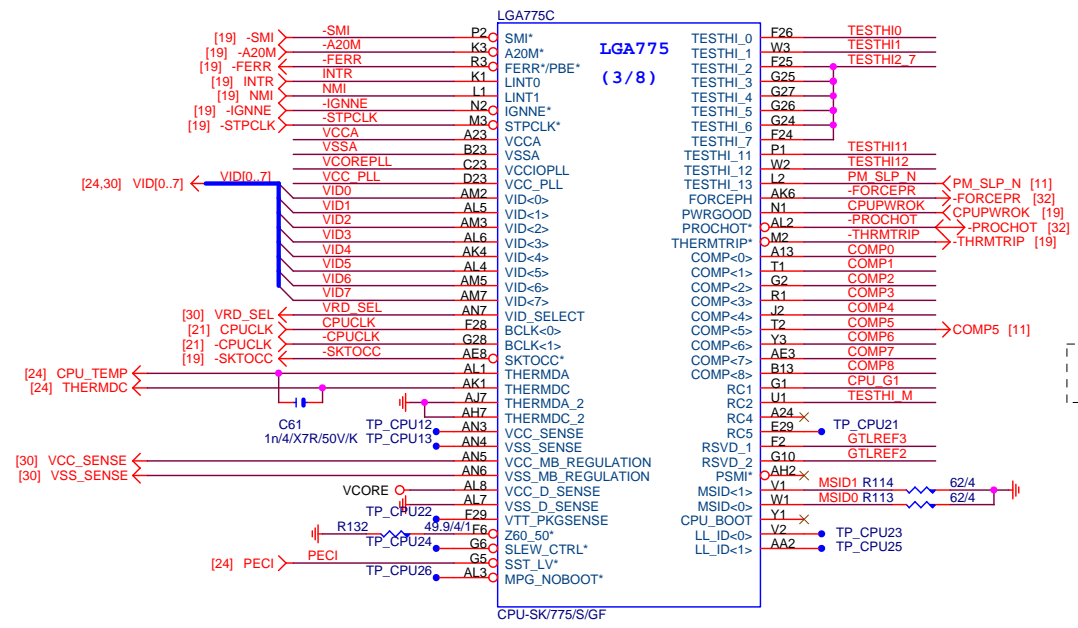
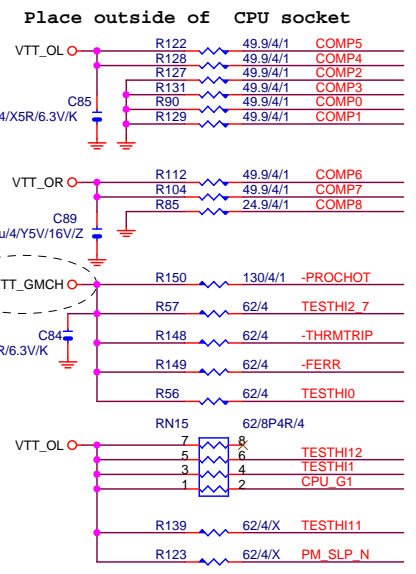
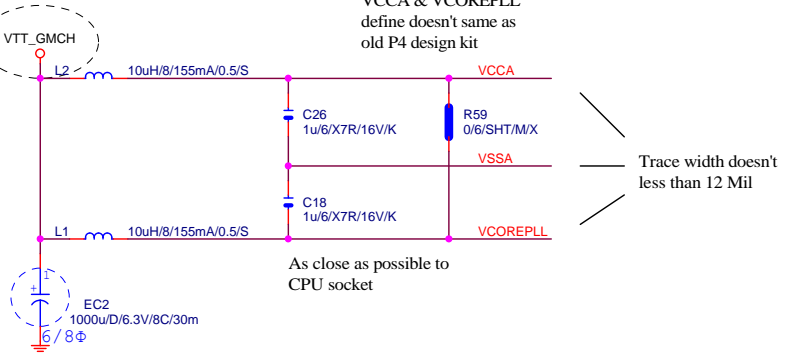
Gigabyte Technology

Title: P4_LGA775-B,D

Size: Custom Document Number: GA-G41MT-S2P Rev: 1.31

Date: Thursday, December 23, 2010 Sheet: 5 of 33

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



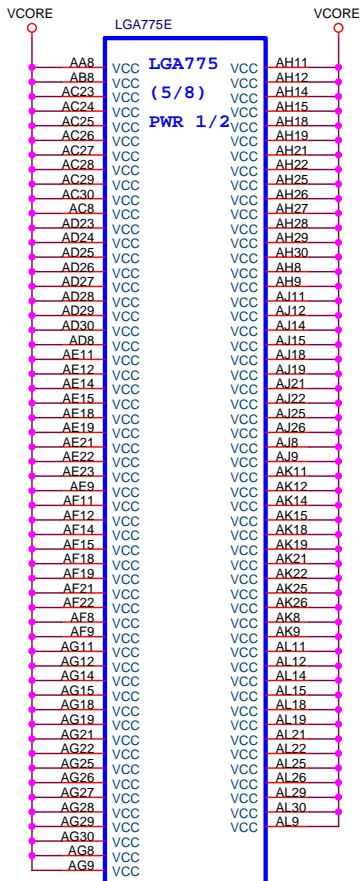
Gigabyte Technology

Title: **P4_LGA775-C**

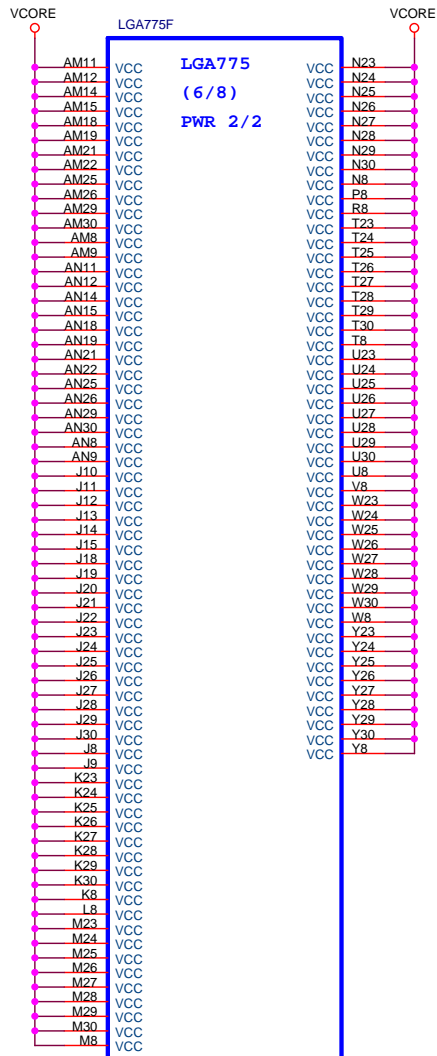
Size B Document Number: **GA-G41MT-S2P** Rev: **1.3**

Date: Thursday, December 23, 2010 Sheet: 6 of 33

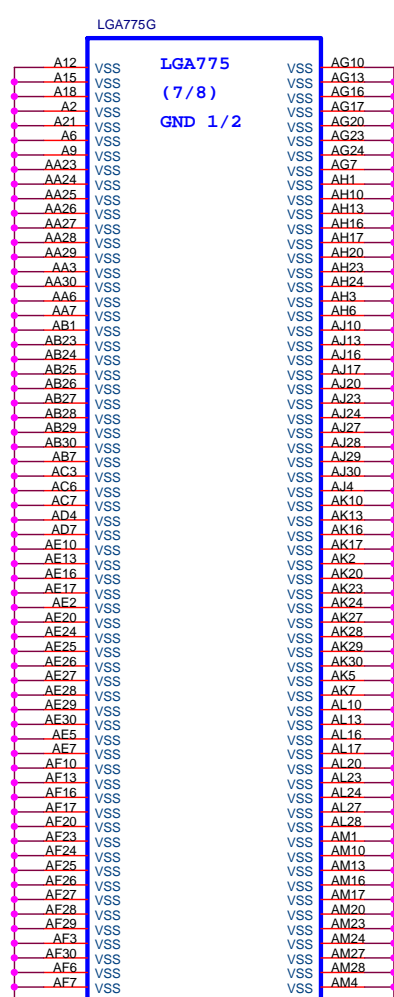
PECI: Platform Environment Control Interface



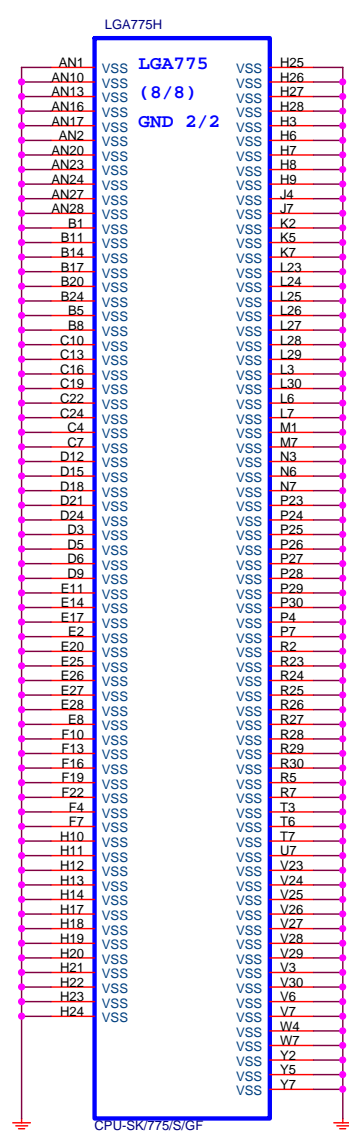
CPU-SK/775/S/GF



CPU-SK/775/S/GF



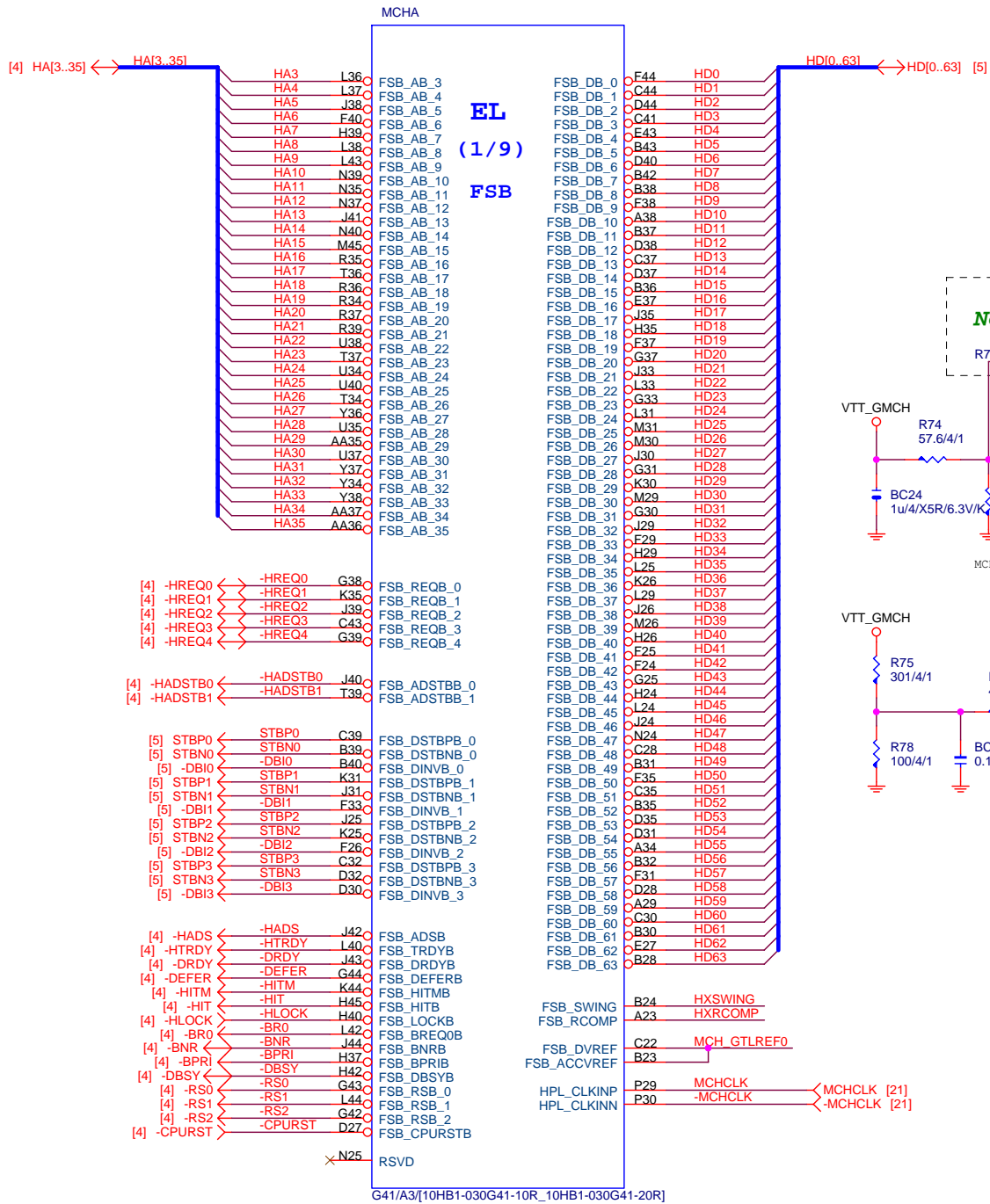
CPU-SK/775/S/GF



CPU-SK/775/S/GF

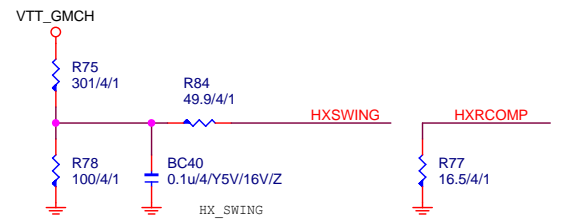
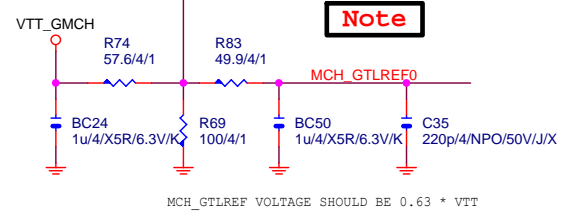
Gigabyte Technology

Title		P4_LGA775-E,F,G,H	
Size B	Document Number	GA-G41MT-S2P	Rev 1.3
Date:	Thursday, December 23, 2010	Sheet 7	of 33



Not used for CoreTM2 Duo and Wolfdale

R70 0/4/SHT/M/X GTLREF_MCH → GTLREF_MCH [4]



Gigabyte Technology		
GMCH-HOST		
Title		
Size	Document Number	Rev
Custom	GA-G41MT-S2P	1.31
Date:	Thursday, December 23, 2010	Sheet 8 of 33

MAAA1 BC31	DDR_A_MA_0	BC5 DQSA0
MAAA2 BC35	DDR_A_MA_1	BD4 DQSA0
MAAA3 BR32	DDR_A_MA_2	BD4 DMA0
MAAA4 BC32	DDR_A_MA_3	BC2 MDA0
MAAA5 BB31	DDR_A_MA_4	BD3 MDA1
MAAA6 AY31	DDR_A_MA_5	BD7 MDA2
MAAA7 BA31	DDR_A_MA_6	BD3 MDA3
MAAA8 BD31	DDR_A_MA_7	BB6 MDA4
MAAA9 BR30	DDR_A_MA_8	BA3 MDA5
MAAA10 AW31	DDR_A_MA_9	BE6 MDA6
MAAA11 BC30	DDR_A_MA_10	
MAAA12 BR30	DDR_A_MA_11	
MAAA13 AM42	DDR_A_MA_12	
MAAA14 BD28	DDR_A_MA_13	
	DDR_A_MA_14	
	DDR_A_DM_0	
	DDR_A_DM_1	
	DDR_A_DM_2	
	DDR_A_DM_3	
	DDR_A_DM_4	
	DDR_A_DM_5	
	DDR_A_DM_6	
	DDR_A_DM_7	
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	DDR_A_DM_59	
	DDR_A_DM_60	
	DDR_A_DM_61	
	DDR_A_DM_62	
	DDR_A_DM_63	

EL
(3/9)
DDR_A

G41/A3[10HB1-030G41-10R_10HB1-030G41-20R]

- MDA0_63 ↔ MDA[0..63] [15]
- MAAA0_141 ↔ MAAA[0..141] [15]
- MODT_A0_11 ↔ MODT_A[0..11] [15]
- DQSA0_71 ↔ DQSA[0..71] [15]
- DQSA0_71 ↔ DQSA[0..71] [15]
- DMA0_71 ↔ DMA[0..71] [15]

MAAB0 BD24	DDR_B_MA_0	AW8 DOSB0
MAAB1 BE23	DDR_B_MA_1	AW9 DOSB0
MAAB2 BE23	DDR_B_MA_2	AW6 DMB0
MAAB3 BE23	DDR_B_MA_3	AV7 MDB0
MAAB4 BE22	DDR_B_MA_4	AW4 MEB1
MAAB5 BE22	DDR_B_MA_5	BA9 MEB2
MAAB6 BE22	DDR_B_MA_6	AU11 MEB3
MAAB7 BE20	DDR_B_MA_7	AW7 MEB4
MAAB8 BE20	DDR_B_MA_8	AU8 MEB5
MAAB9 BE20	DDR_B_MA_9	AW7 MEB6
MAAB10 BE20	DDR_B_MA_10	AW9 MEB7
MAAB11 BE19	DDR_B_MA_11	
MAAB12 BE19	DDR_B_MA_12	
MAAB13 BE38	DDR_B_MA_13	
MAAB14 BA19	DDR_B_MA_14	
	DDR_B_DM_0	
	DDR_B_DM_1	
	DDR_B_DM_2	
	DDR_B_DM_3	
	DDR_B_DM_4	
	DDR_B_DM_5	
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	DDR_B_DM_61	
	DDR_B_DM_62	
	DDR_B_DM_63	

EL
(4/9)
DDR_B

- [16] -SWEB ↔ SWEB B036C
- [16] -SCASB ↔ SRASB B036C
- [16] -SRASB ↔ SRASB B036C

- [16] SBAB0 B026
- [16] SBAB1 B026
- [16] SBAB2 B016

- [16] -CSB0 ↔ CSB0 B035C
- [16] -CSB1 ↔ CSB1 B035C
- [16] -CSB2 ↔ CSB2 B035C

- [16] CKEB0 B018
- [16] CKEB1 B017
- [16] CKEB2 B018

- [16] MODT_B0 B017
- [16] MODT_B1 B017
- [16] MODT_B2 B017

- [16] DCLKB0 ↔ DCLKB0 AY33
- [16] -DCLKB0 ↔ -DCLKB0 AY33C
- [16] DCLKB1 ↔ DCLKB1 AY35
- [16] -DCLKB1 ↔ -DCLKB1 AY35C

- [16] DCLKB2 ↔ DCLKB2 AY31C
- [16] -DCLKB2 ↔ -DCLKB2 AY31C
- [16] DCLKB3 ↔ DCLKB3 AY31C
- [16] -DCLKB3 ↔ -DCLKB3 AY31C

- [16] DCLKB4 ↔ DCLKB4 AY31C
- [16] -DCLKB4 ↔ -DCLKB4 AY31C
- [16] DCLKB5 ↔ DCLKB5 AY31C
- [16] -DCLKB5 ↔ -DCLKB5 AY31C

- [15] -CSA1 ↔ CSA1 AR33
- [15] -SWEA ↔ SWEA AT44
- [15,16] DDR3_PWROK ↔ ARG AX40
- [15,16] DDR3_RST ↔ RST BC24

- MCH_VREF B844
- MCH_DDR_RPD AY42
- MCH_DDR_RPU BA43
- MCH_DDR_SPD BC43
- MCH_DDR_SPU BC44

- T44 DQSA7
- T43 -DQSA7
- T42 DMA7

- V42 MDA56
- V45 MDA57
- V40 MDA58
- V44 MDA59
- V44 MDA60
- V43 MDA61
- R41 MDA62
- R44 MDA63

G41/A3[10HB1-030G41-10R_10HB1-030G41-20R]

- MDB0_63 ↔ MDB[0..63] [16]
- MAAB0_141 ↔ MAAB[0..141] [16]
- MODT_B0_11 ↔ MODT_B[0..11] [16]
- DOSB0_71 ↔ -DOSB[0..71] [16]
- DOSB0_71 ↔ DOSB[0..71] [16]
- DMB0_71 ↔ DMB[0..71] [16]

