

Model Name: P35-S3G

Revision 1.0

SHEET TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	P4 LGA775 A
05	P4 LGA775 B,D
06	P4 LGA775 C
07	P4 LGA775 E,F,G,H
08	GMCH-BEARLAKE HOST
09	GMCH-BEARLAKE DDRII
10	GMCH-BEARLAKE PCI E, DMI
11	GMCH-BEARLAKE VGA
12	GMCH-BEARLAKE GND
13	GMCH-BEARLAKE PWR
14	PCI EXPRESS*16 SLOT
15	DDRII CHANNEL A 1,2
16	DDRII CHANNEL B 1,2
17	DDRII TERMINATION
18	ICH9 PCI, USB, DMI, LAN
19	ICH9 GPIO, CTRL
20	ICH9 SATA, FAN PWM
21	ICH9 VCC, GND
22	CLOCK GEN CK505
23	PCI EXPRESS*1 ,PCI SLOT 1,2
24	FDD/F USB
25	ITE8718GB
26	COM,LPT
27	BIOS,CI,HWM,KB/MS

SHEET TITLE

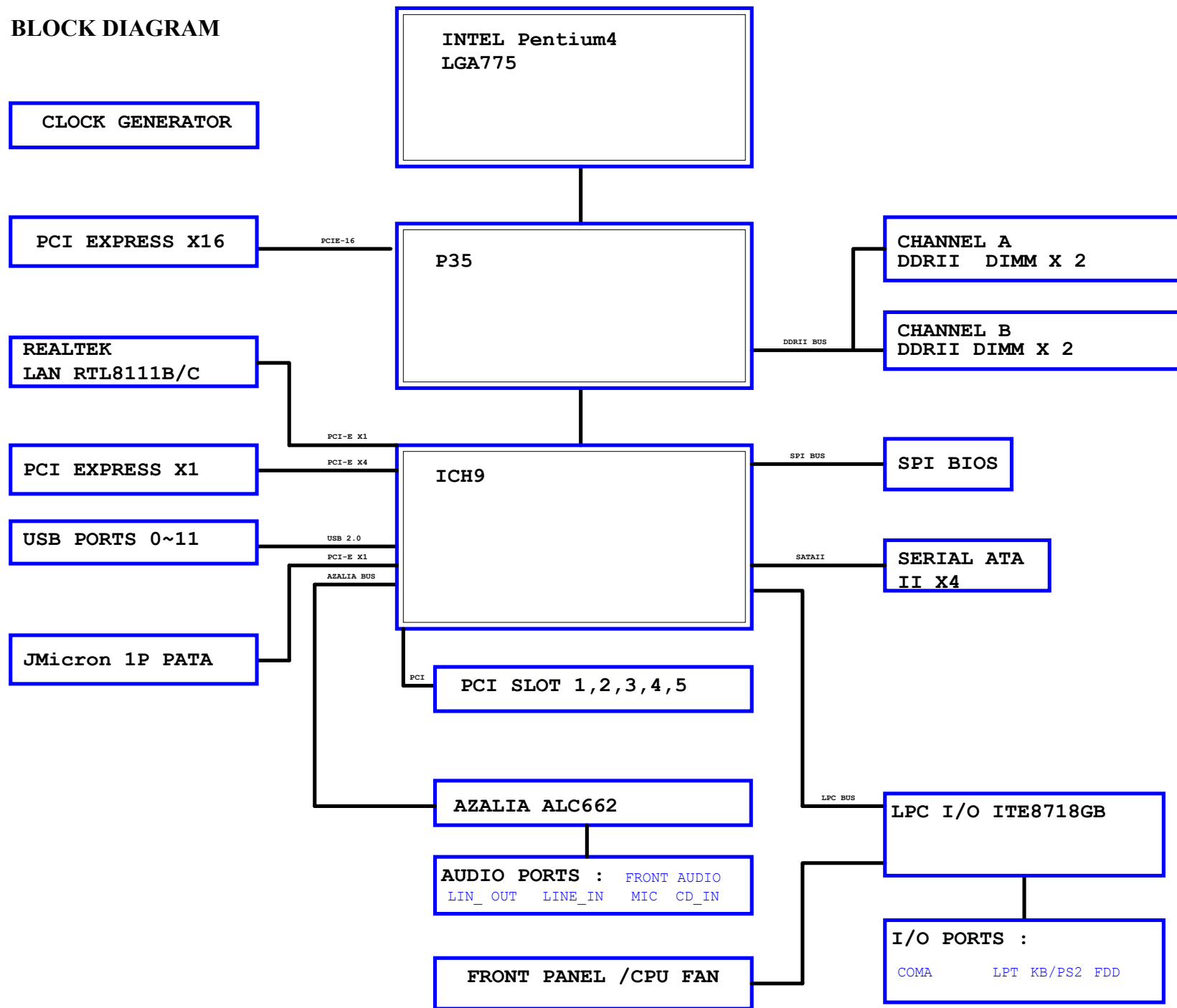
28	AZALIA ALC662
29	AUDIO JACK
30	DISCRETE POWER
31	VCORE PWM ISL6312-3 PHASE
32	ATX POWER
33	FRONT PANEL,FUSB,FDD
34	JMicron 1P PATA-JMB368
35	LAN REALTEK RTL8111B/C
36	PCI SLOT 3,4,5



Gigabyte Technology

Title		
Cover Sheet		
Size	Document Number	Rev
Custom	P35-S3G	1.0
Date:	Thursday, November 15, 2007	Sheet 1 of 36

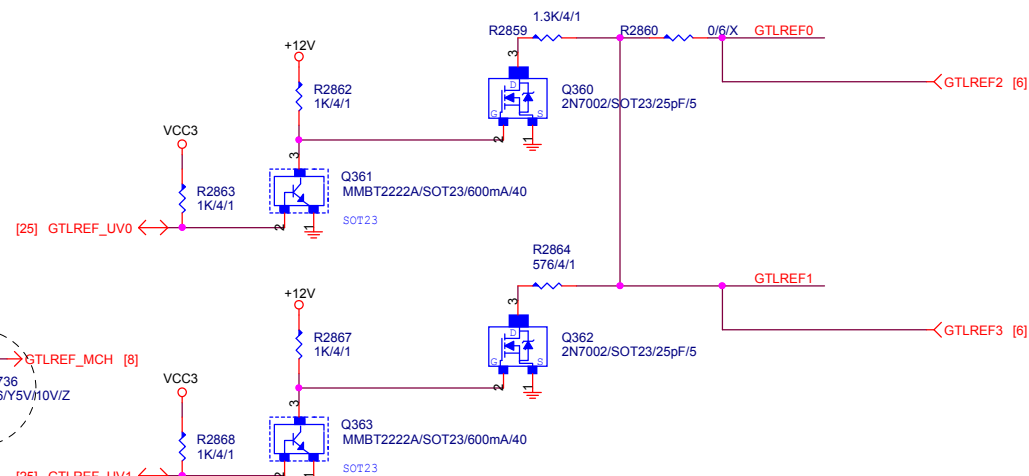
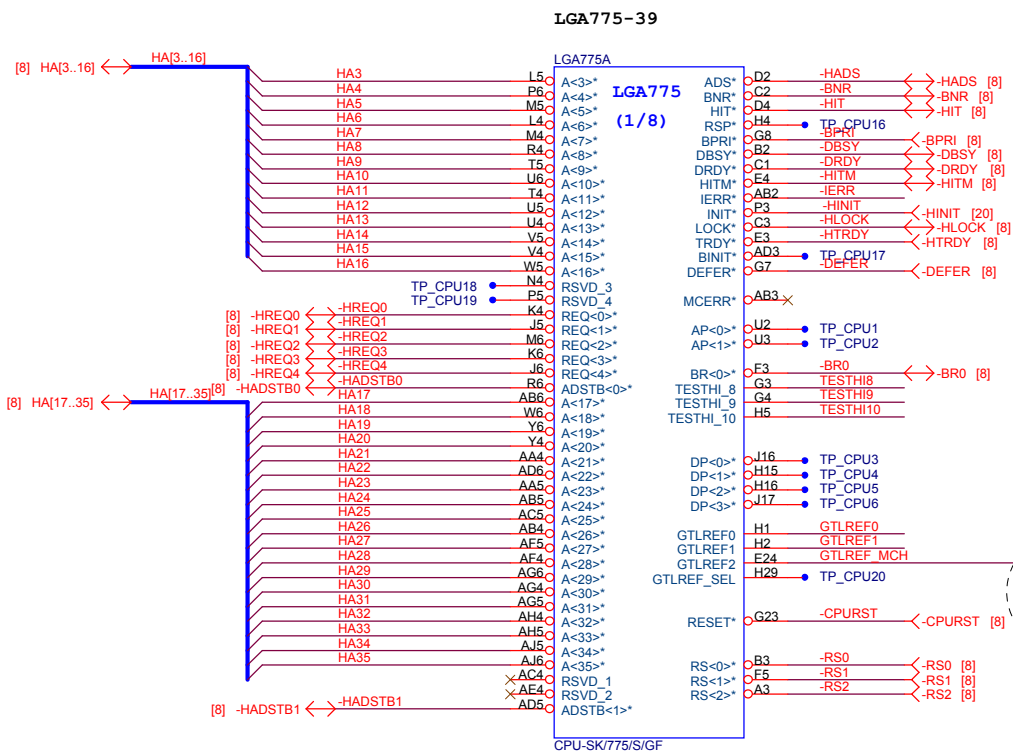
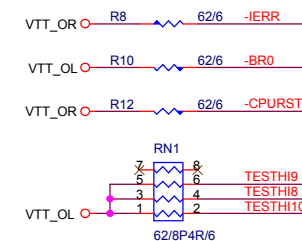
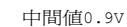
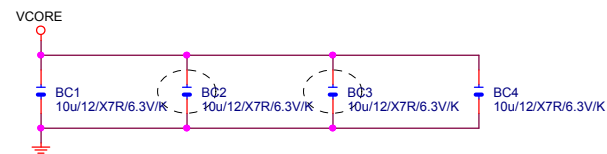
BLOCK DIAGRAM

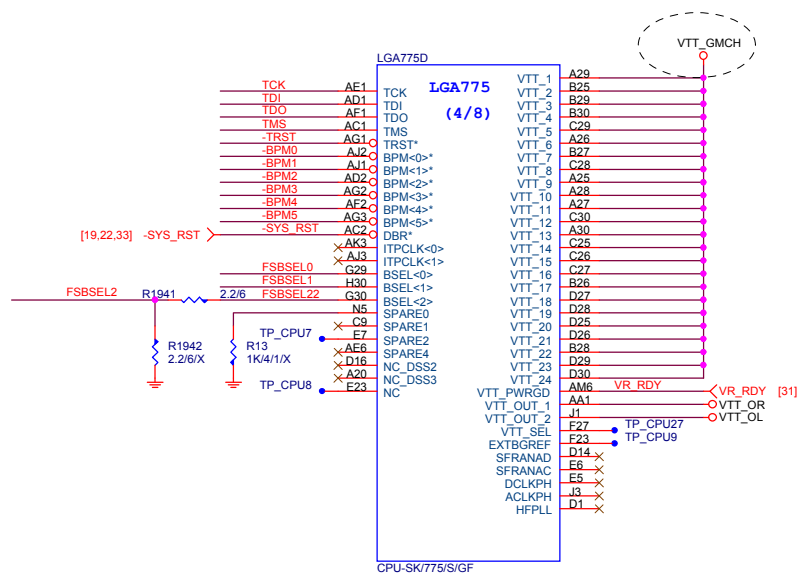
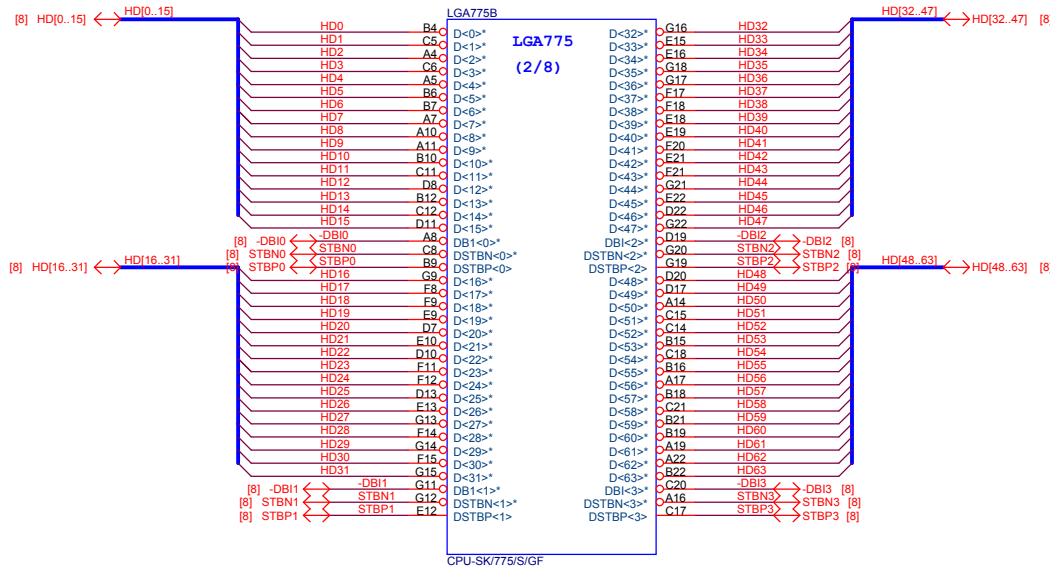


Version: 1.0

2007/11/15

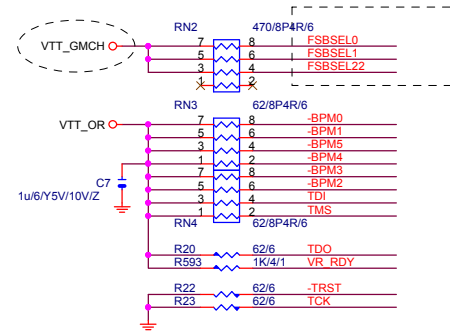
[illegible][illegible]



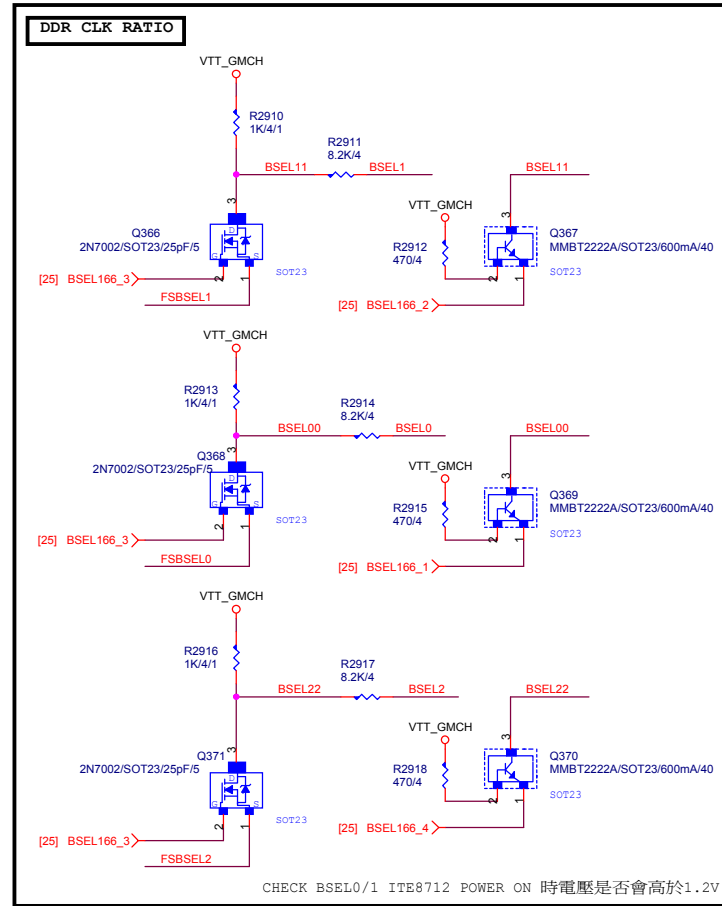


	FSA	FSB	FSC	
	FSBSEL0	FSBSEL1	FSBSEL2	Clock
?	1	0	1	100MHz
?	1	0	0	133MHz
G33	0	1	0	200MHz
G33	0	0	0	266MHz
G33	0	0	1	333MHz

400/533
400/533/667/800
533/667/800
667/800

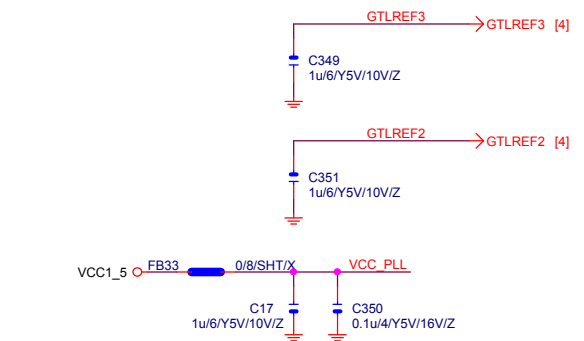
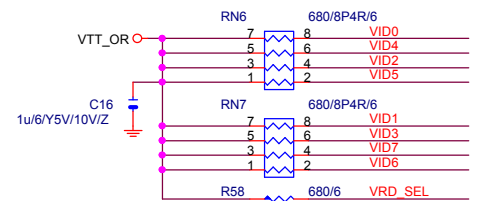
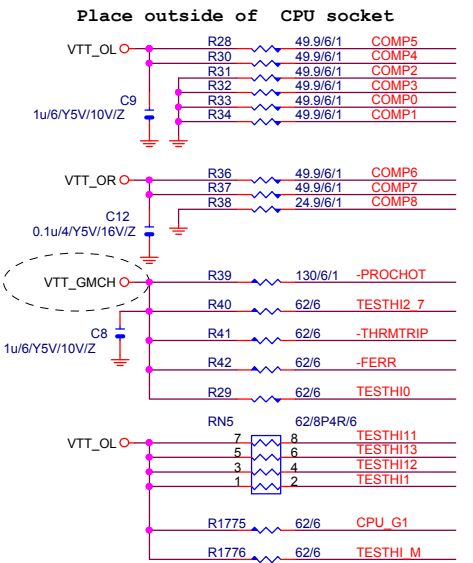
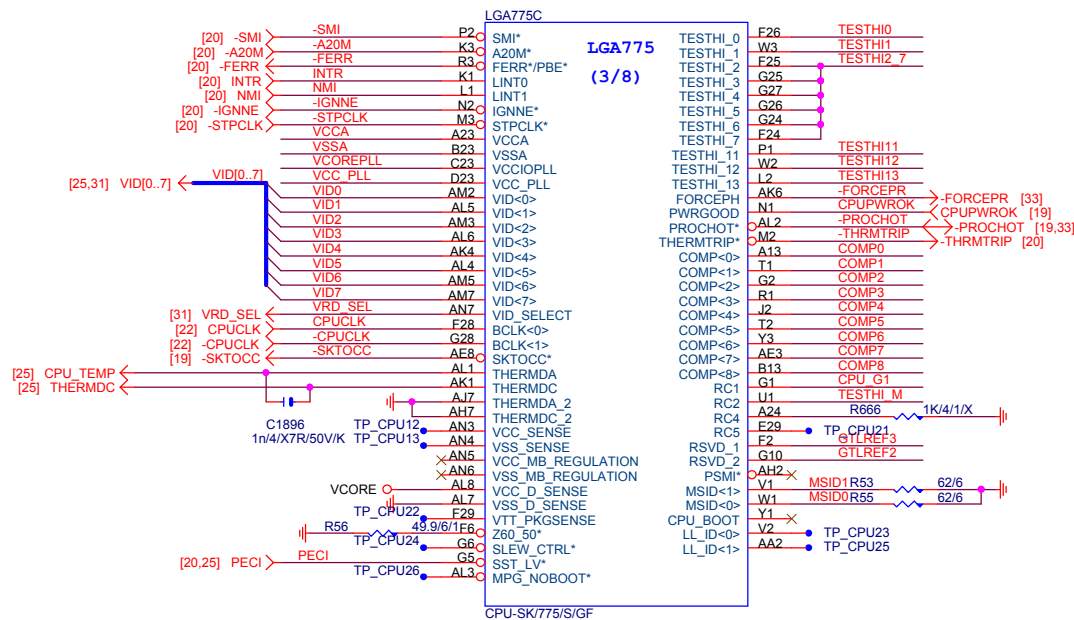
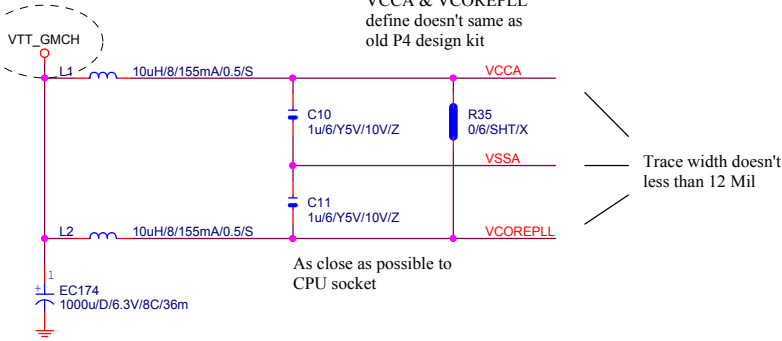


TO CLK GEN [22] FSBSEL0 FSBSEL0 R14 8.2K/4X BSEL0 BSEL0 [11]
[22] FSBSEL1 FSBSEL1 R15 8.2K/4X BSEL1 BSEL1 [11]
[22] FSBSEL2 FSBSEL2 R16 8.2K/4X BSEL2 BSEL2 [11] TO NB



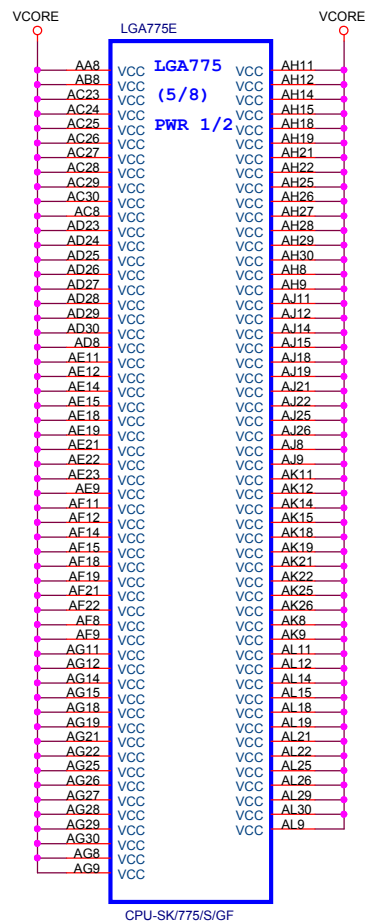
Gigabyte Technology		
Title P4_LGA775-B,D		
Size Custom	Document Number P35-S3G	Rev 1.0
Date: Thursday, November 15, 2007	Sheet 5	of 36

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

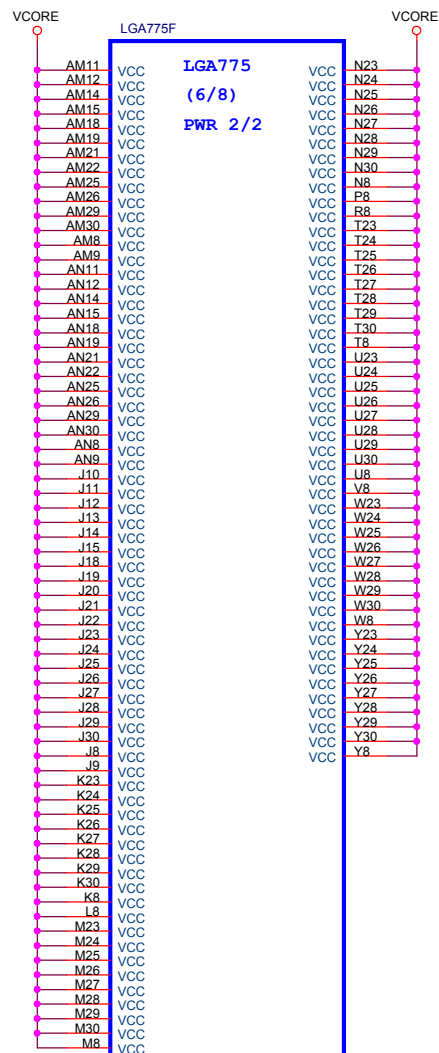


Gigabyte Technology			
Title			
P4_LGA775-C			
Size B	Document Number	P35-S3G	Rev 1.0
Date:	Thursday, November 15, 2007	Sheet 6 of 36	

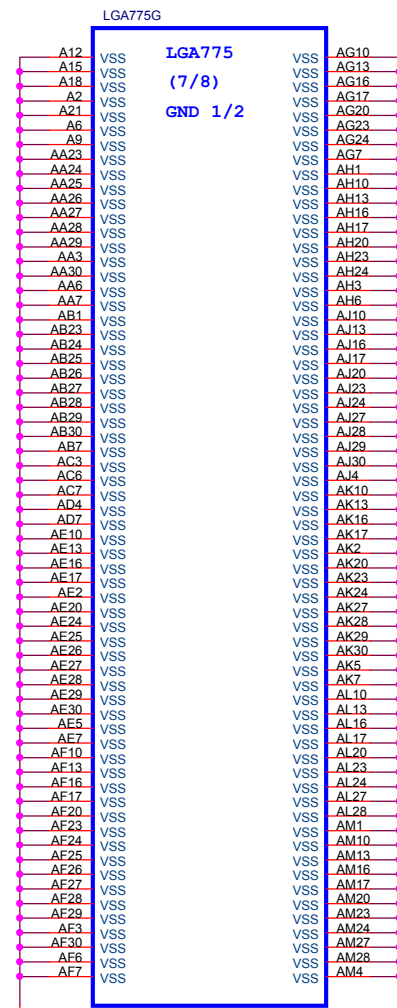
PECI:Platform Environment Control Interface



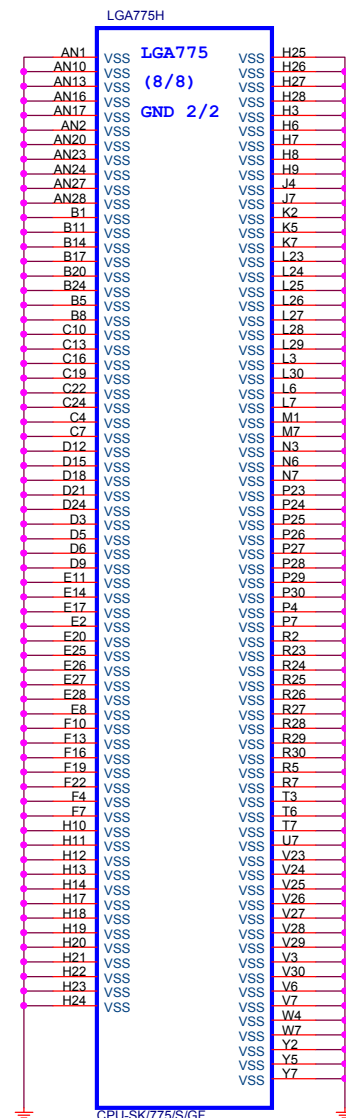
CPU-SK/775/S/GF



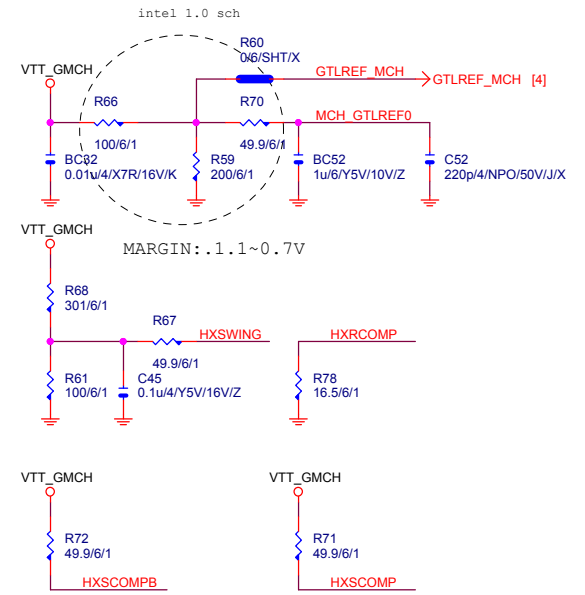
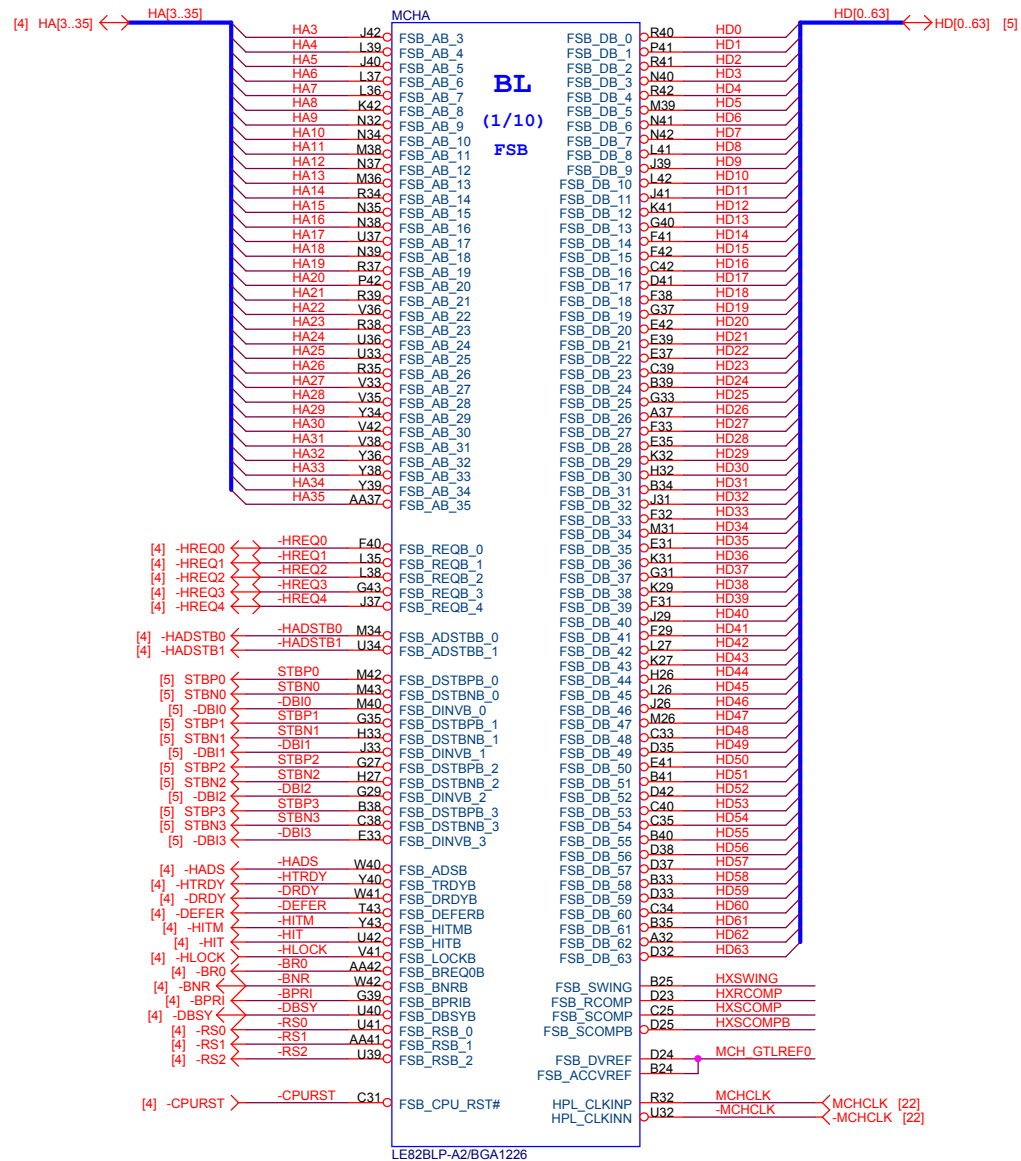
CPU-SK/775/S/GF



CPU-SK/775/S/GF



CPU-SK/775/S/GF



Gigabyte Technology

Title			GMCH-HOST
Size	Document Number	P35-S3G	
B			Rev 1.0
Date:	Thursday, November 15, 2007	Sheet	8 of 36

MCHB

MAAA0	BB30	DDR_A_MA_0	DDR_A_DQS_0	AP2	DQS40
MAAA1	AY26	DDR_A_MA_1	DDR_A_DQS0_0	AP3	DQS40
MAAA2	BA23	DDR_A_MA_2	DDR_A_DM_0	AN2	DMA0
MAAA3	BB23	DDR_A_MA_3			
MAAA4	AY23	DDR_A_MA_4		AM1	MDA0
MAAA5	BB22	DDR_A_MA_5	DDR_A_DQ_0	AN3	MDA1
MAAA6	BA22	DDR_A_MA_6	DDR_A_DQ_1	AR2	MDA2
MAAA7	BB21	DDR_A_MA_7	DDR_A_DQ_2	AR3	MDA3
MAAA8	AW21	DDR_A_MA_8	DDR_A_DQ_3	AL3	MDA4
MAAA9	BA21	DDR_A_MA_9	DDR_A_DQ_4	AM2	MDA5
MAAA10	BB21	DDR_A_MA_10	DDR_A_DQ_5	AR5	MDA6
MAAA11	AY21	DDR_A_MA_11	DDR_A_DQ_6	AR4	MDA7
MAAA12	BC20	DDR_A_MA_12	DDR_A_DQ_7		
MAAA13	AY38	DDR_A_MA_13	DDR_A_DQS_1	AW2	DQS41
MAAA14	BA19	DDR_A_MA_14	DDR_A_DQS1_0	AW1	DQS41
			DDR_A_DM_1	AW3	DMA1
(15.17) SWEA	SWEA	DDR_A_WEB	DDR_A_DQ_8	AV4	MDA8
(15.17) SCASA	SCASA	DDR_A_CSAB	DDR_A_DQ_9	AV3	MDA9
(15.17) SRASA	SRASA	DDR_A_RASB	DDR_A_DQ_10	BA4	MDA10
			DDR_A_DQ_11	BB3	MDA11
(15.17) SBA00	SBA00	DDR_A_BS_0	DDR_A_DQ_12	AU2	MDA12
(15.17) SBA01	SBA01	DDR_A_BS_1	DDR_A_DQ_13	AU1	MDA13
(15.17) SBA02	SBA02	DDR_A_BS_2	DDR_A_DQ_14	AY2	MDA14
			DDR_A_DQ_15	AY3	MDA15
(15.17) CSA0	CSA0	DDR_A_CSB_0	DDR_A_DQS_2	AY7	DQS42
(15.17) CSA1	CSA1	DDR_A_CSB_1	DDR_A_DQS2_0	BA6	DMA2
(15.17) CSA2	CSA2	DDR_A_CSB_2	DDR_A_DM_2	BB6	
(15.17) CSA3	CSA3	DDR_A_CSB_3			
(15.17) CKEA0	CKEA0	DDR_A_CKE_0	DDR_A_DQ_16	BB5	MDA16
(15.17) CKEA1	CKEA1	DDR_A_CKE_1	DDR_A_DQ_17	AY8	MDA17
(15.17) CKEA2	CKEA2	DDR_A_CKE_2	DDR_A_DQ_18	BA9	MDA18
(15.17) CKEA3	CKEA3	DDR_A_CKE_3	DDR_A_DQ_19	BB9	MDA19
			DDR_A_DQ_20	BA5	MDA20
	MODT_A0	DDR_A_ODT_0	DDR_A_DQ_21	BB4	MDA21
	MODT_A1	DDR_A_ODT_1	DDR_A_DQ_22	BC7	MDA22
	MODT_A2	DDR_A_ODT_2	DDR_A_DQ_23	AY9	AY29
	MODT_A3	DDR_A_ODT_3			
(15) DCLKA0	DCLKA0	DDR_A_CK_0	DDR_A_DQS_3	AT20	DQS43
(15) DCLKA1	DCLKA1	DDR_A_CK_1	DDR_A_DQS3_0	AU18	DQS43
(15) DCLKA2	DCLKA2	DDR_A_CK_2	DDR_A_DM_3	AN18	DMA3
(15) DCLKA3	DCLKA3	DDR_A_CK_3			
(15) DCLKA4	DCLKA4	DDR_A_CK_4	DDR_A_DQ_24	AT18	MDA24
(15) DCLKA5	DCLKA5	DDR_A_CK_5	DDR_A_DQ_25	AR18	MDA25
			DDR_A_DQ_26	AU21	MDA26
			DDR_A_DQ_27	AT21	MDA27
			DDR_A_DQ_28	AP17	MDA28
			DDR_A_DQ_29	AN17	MDA29
			DDR_A_DQ_30	AP20	MDA30
			DDR_A_DQ_31	AV20	MDA31
			DDR_A_DQS_4	AR41	DQS44
			DDR_A_DQS4_0	AR40	DQS44
			DDR_A_DM_4	AU43	DMA4
			DDR_A_DQ_32	AV42	MDA32
			DDR_A_DQ_33	AL40	MDA33
			DDR_A_DQ_34	AR42	MDA34
			DDR_A_DQ_35	AN39	MDA35
			DDR_A_DQ_36	AV40	MDA36
			DDR_A_DQ_37	AN39	MDA37
			DDR_A_DQ_38	AR42	MDA38
			DDR_A_DQ_39	AP41	MDA39
			DDR_A_DQS_5	AL41	DQS45
			DDR_A_DQS5_0	AL40	DQS45
			DDR_A_DM_5	AM43	DMA5
			DDR_A_DQ_40	AN41	MDA40
			DDR_A_DQ_41	AN39	MDA41
			DDR_A_DQ_42	AK42	MDA42
			DDR_A_DQ_43	AK41	MDA43
			DDR_A_DQ_44	AN40	MDA44
			DDR_A_DQ_45	AN42	MDA45
			DDR_A_DQ_46	AL42	MDA46
			DDR_A_DQ_47	AL39	MDA47
			DDR_A_DQS_6	AG42	DQS46
			DDR_A_DQS6_0	AG41	DQS46
			DDR_A_DM_6	AG40	DMA6
			DDR_A_DQ_48	AL40	MDA48
			DDR_A_DQ_49	AK43	MDA49
			DDR_A_DQ_50	AE39	MDA50
			DDR_A_DQ_51	AE40	MDA51
			DDR_A_DQ_52	AL42	MDA52
			DDR_A_DQ_53	AL41	MDA53
			DDR_A_DQ_54	AE41	MDA54
			DDR_A_DQ_55	AE42	MDA55
			DDR_A_DQS_7	AC42	DQS47
			DDR_A_DQS7_0	AC41	DQS47
			DDR_A_DM_7	AC40	DMA7
			DDR_A_DQ_56	AD40	MDA56
			DDR_A_DQ_57	AD43	MDA57
			DDR_A_DQ_58	AB41	MDA58
			DDR_A_DQ_59	AM40	MDA59
			DDR_A_DQ_60	AE42	MDA60
			DDR_A_DQ_61	AE41	MDA61
			DDR_A_DQ_62	AC39	MDA62
			DDR_A_DQ_63	AB42	MDA63

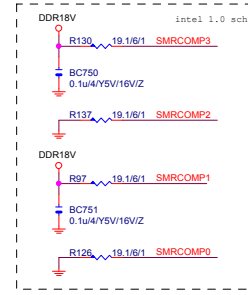
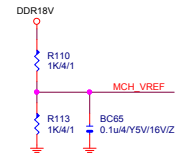
L82B1P-A2/BGA1226

MCHC

MAAB0	AW15	DDR_B_MA_0	DDR_B_DQS_0	AV6	DQS80
MAAB1	BB15	DDR_B_MA_1	DDR_B_DQS0_0	AU5	DQS80
MAAB2	BA15	DDR_B_MA_2	DDR_B_DM_0	AR7	DM80
MAAB3	AY15	DDR_B_MA_3			
MAAB4	BA14	DDR_B_MA_4	DDR_B_DQ_0	AN7	MD80
MAAB5	BB14	DDR_B_MA_5	DDR_B_DQ_1	AN8	MD81
MAAB6	AW12	DDR_B_MA_6	DDR_B_DQ_2	AN5	MD82
MAAB7	BA13	DDR_B_MA_7	DDR_B_DQ_3	AW7	MD83
MAAB8	BB13	DDR_B_MA_8	DDR_B_DQ_4	AN5	MD84
MAAB9	AY13	DDR_B_MA_9	DDR_B_DQ_5	AN6	MD85
MAAB10	BA17	DDR_B_MA_10	DDR_B_DQ_6	AN9	MD86
MAAB11	AY12	DDR_B_MA_11	DDR_B_DQ_7	AU7	MD87
MAAB12	BA11	DDR_B_MA_12	DDR_B_DQS_1	AR12	DQS81
MAAB13	BB11	DDR_B_MA_13	DDR_B_DQS1_0	AP12	DQS81
MAAB14	BB11	DDR_B_MA_14	DDR_B_DM_1	AW9	DM81
(16.17) SWEB	SWEB	DDR_B_WEB	DDR_B_DQ_8	AT11	MD88
(16.17) SCASB	SCASB	DDR_B_CSAB	DDR_B_DQ_9	AU11	MD89
(16.17) SRASB	SRASB	DDR_B_RASB	DDR_B_DQ_10	AP13	MD90
			DDR_B_DQ_11	AR13	MD811
(16.17) SBAB0	SBAB0	DDR_B_BS_0	DDR_B_DQ_12	AR11	MD812
(16.17) SBAB1	SBAB1	DDR_B_BS_1	DDR_B_DQ_13	AU9	MD813
(16.17) SBAB2	SBAB2	DDR_B_BS_2	DDR_B_DQ_14	AV12	MD814
			DDR_B_DQ_15	AU12	MD815
(16.17) CSB0	CSB0	DDR_B_CSB_0	DDR_B_DQS_2	AP15	DQS82
(16.17) CSB1	CSB1	DDR_B_CSB_1	DDR_B_DQS2_0	AR15	DQS82
(16.17) CSB2	CSB2	DDR_B_CSB_2	DDR_B_DM_2	AW13	DM82
(16.17) CSB3	CSB3	DDR_B_CSB_3			
(16.17) CKEB0	CKEB0	DDR_B_CKE_0	DDR_B_DQ_16	AU15	MD816
(16.17) CKEB1	CKEB1	DDR_B_CKE_1	DDR_B_DQ_17	AV13	MD817
(16.17) CKEB2	CKEB2	DDR_B_CKE_2	DDR_B_DQ_18	AU17	MD818
(16.17) CKEB3	CKEB3	DDR_B_CKE_3	DDR_B_DQ_19	AT17	MD819
			DDR_B_DQ_20	AU13	MD820
			DDR_B_DQ_21	AM13	MD821
			DDR_B_DQ_22	AV15	MD822
			DDR_B_DQ_23	AW17	MD823
(16) DCLKB0	DCLKB0	DDR_B_CK_0	DDR_B_DQS_3	AT24	DQS83
(16) DCLKB1	DCLKB1	DDR_B_CK_1	DDR_B_DQS3_0	AU28	DQS83
(16) DCLKB2	DCLKB2	DDR_B_CK_2	DDR_B_DM_3	AP23	DM83
(16) DCLKB3	DCLKB3	DDR_B_CK_3			
(16) DCLKB4	DCLKB4	DDR_B_CK_4	DDR_B_DQ_24	AV24	MD824
(16) DCLKB5	DCLKB5	DDR_B_CK_5	DDR_B_DQ_25	AT23	MD825
			DDR_B_DQ_26	AT26	MD826
			DDR_B_DQ_27	AP26	MD827
			DDR_B_DQ_28	AU23	MD828
			DDR_B_DQ_29	AW23	MD829
			DDR_B_DQ_30	AN26	MD830
			DDR_B_DQ_31	AN26	MD831
			DDR_B_DQS_4	AW39	DQS84
			DDR_B_DQS4_0	AW39	DQS84
			DDR_B_DM_4	AU37	DM84
			DDR_B_DQ_32	AW37	MD832
			DDR_B_DQ_33	AV38	MD833
			DDR_B_DQ_34	AN38	MD834
			DDR_B_DQ_35	AN37	MD835
			DDR_B_DQ_36	AU35	MD836
			DDR_B_DQ_37	AN35	MD837
			DDR_B_DQ_38	AN35	MD838
			DDR_B_DQ_39	AR37	MD839
			DDR_B_DQS_5	AL35	DQS85
			DDR_B_DQS5_0	AL34	DQS85
			DDR_B_DM_5	AM37	DM85
			DDR_B_DQ_40	AM35	MD840
			DDR_B_DQ_41	AM38	MD841
			DDR_B_DQ_42	AJ34	MD842
			DDR_B_DQ_43	AL38	MD843
			DDR_B_DQ_44	AM34	MD844
			DDR_B_DQ_45	AL37	MD845
			DDR_B_DQ_46	AL32	MD846
			DDR_B_DQ_47		
			DDR_B_DQS_6	AG35	DQS86
			DDR_B_DQS6_0	AG35	DQS86
			DDR_B_DM_6	AG39	DM86
			DDR_B_DQ_48	AG38	MD848
			DDR_B_DQ_49	AJ38	MD849
			DDR_B_DQ_50	AF35	MD850
			DDR_B_DQ_51	AF33	MD851
			DDR_B_DQ_52	AJ37	MD852
			DDR_B_DQ_53	AJ35	MD853
			DDR_B_DQ_54	AG33	MD854
			DDR_B_DQ_55	AF34	MD855
			DDR_B_DQS_7	AC36	DQS87
			DDR_B_DQS7_0	AC37	DQS87
			DDR_B_DM_7	AD38	DM87
			DDR_B_DQ_56	AD36	MD856
			DDR_B_DQ_57	AC33	MD857
			DDR_B_DQ_58	AD34	MD858
			DDR_B_DQ_59	AD36	MD859
			DDR_B_DQ_60	AD34	MD860
			DDR_B_DQ_61	AC38	MD861
			DDR_B_DQ_62	AC34	MD862
			DDR_B_DQ_63	AC33	MD863

L82B1P-A2/BGA1226

(15.17) MODT_A0_3]	MODT_A0_3]	MODT_A0_3]
(16.17) MODT_B0_3]	MODT_B0_3]	MODT_B0_3]
(16) -DQS80_7]	-DQS80_7]	-DQS80_7]
(15.17) MAAB0_14]	MAAB0_14]	MAAB0_14]
(16) DM80_7]	DM80_7]	DM80_7]
(16) MD80_63]	MD80_63]	MD80_63]
(16) DQS80_7]	DQS80_7]	DQS80_7]
(15.17) MAAB0_14]	MAAB0_14]	MAAB0_14]
(15) DMA0_63]	DMA0_63]	DMA0_63]
(15) MDA0_63]	MDA0_63]	MDA0_63]
(15) DQSA0_7]	DQSA0_7]	DQSA0_7]
(15) -DQSA0_7]	-DQSA0_7]	-DQSA0_7]

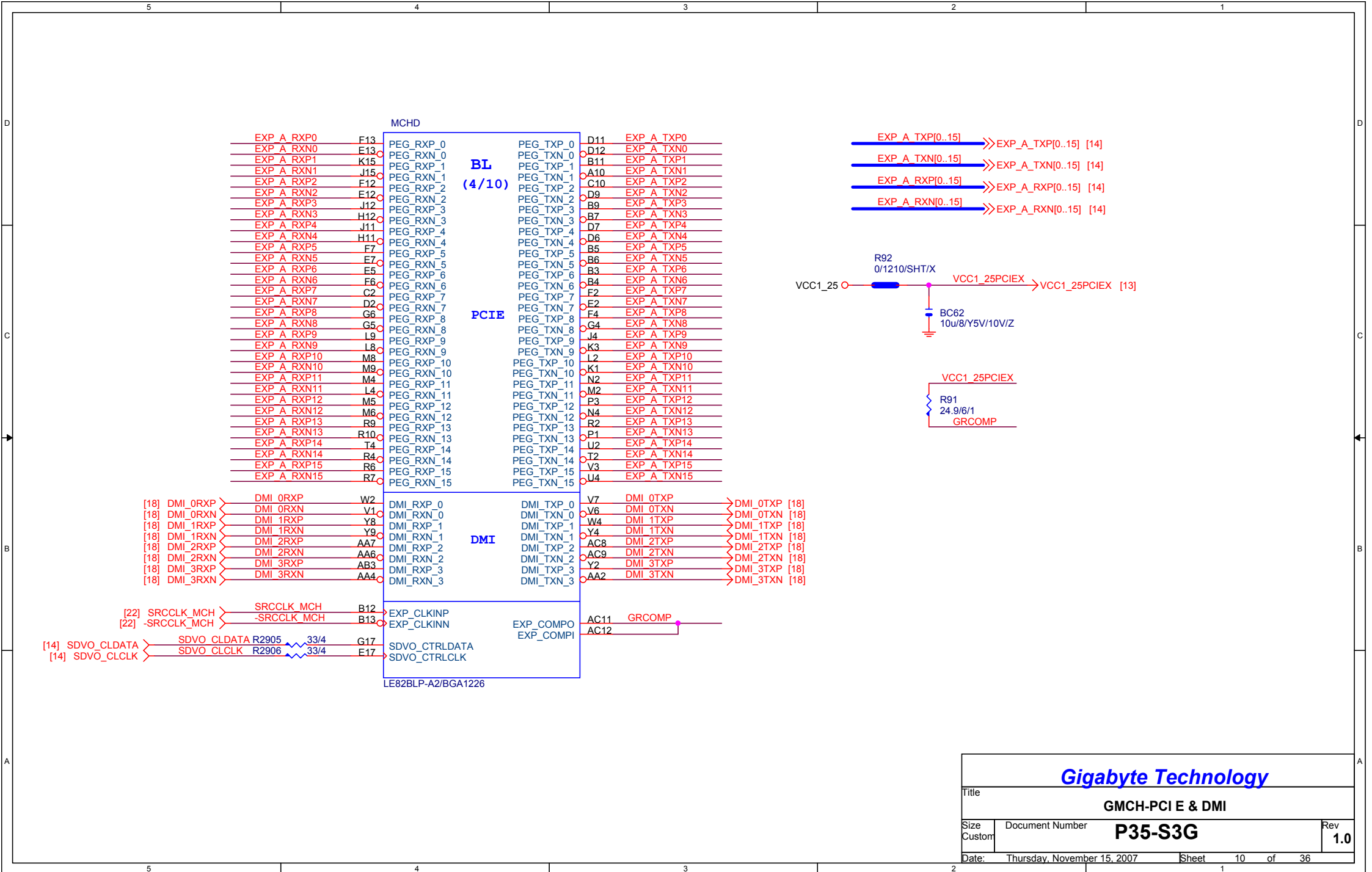


NB_HEATSIN

X2

NEW HS (GOLD)

NB_HEATSINK[12SP2-04F004-91R_12SP2-04F004-92R_12SP2-04F004-93R_12SP2-04F004-94R]

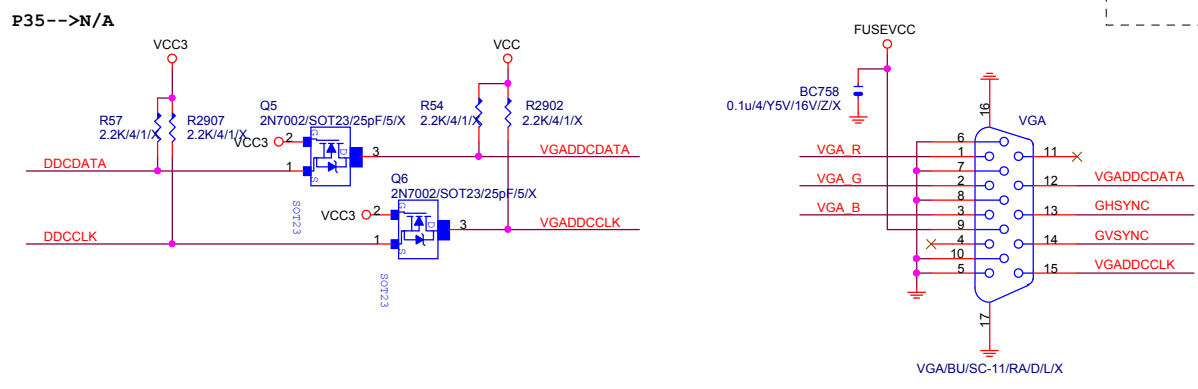
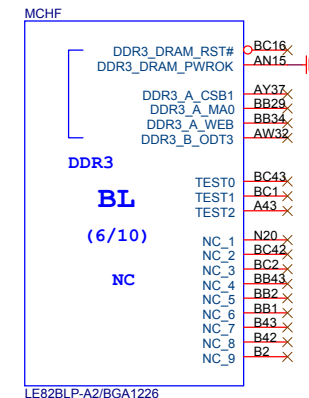
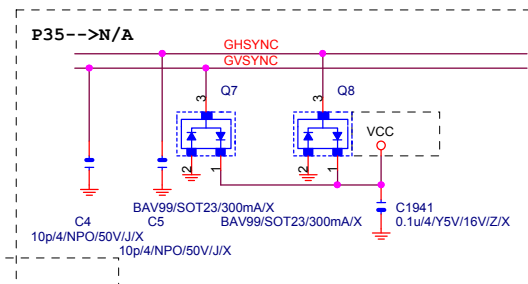
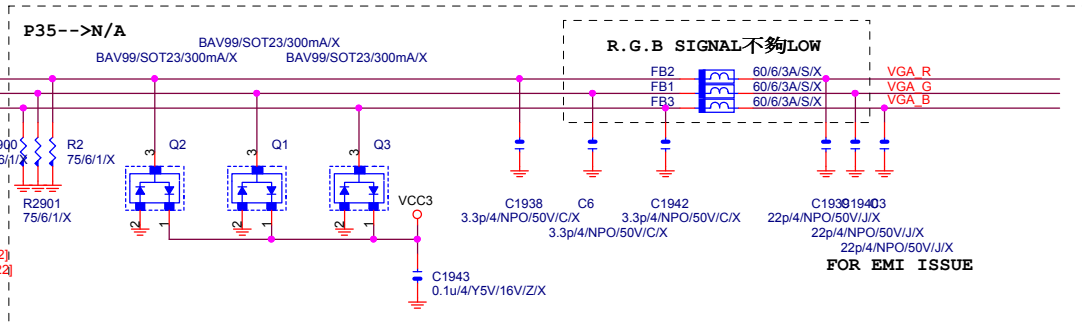
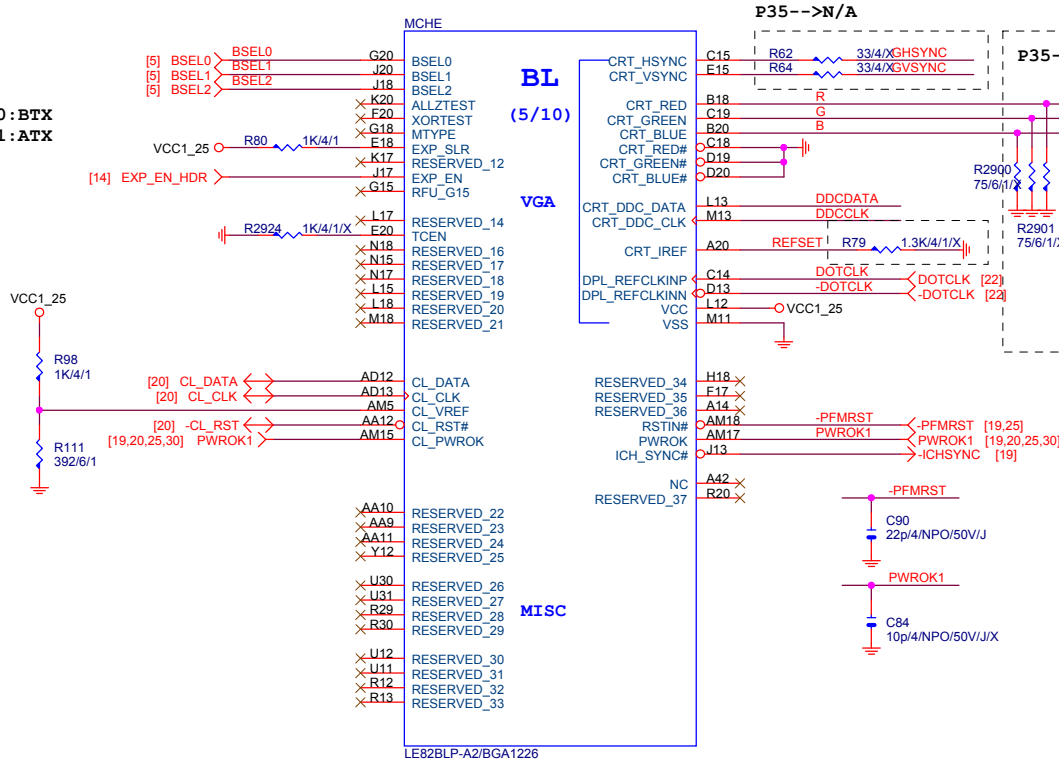


Gigabyte Technology

Title		
GMCH-PCI E & DMI		
Size Custom	Document Number	Rev
	P35-S3G	1.0

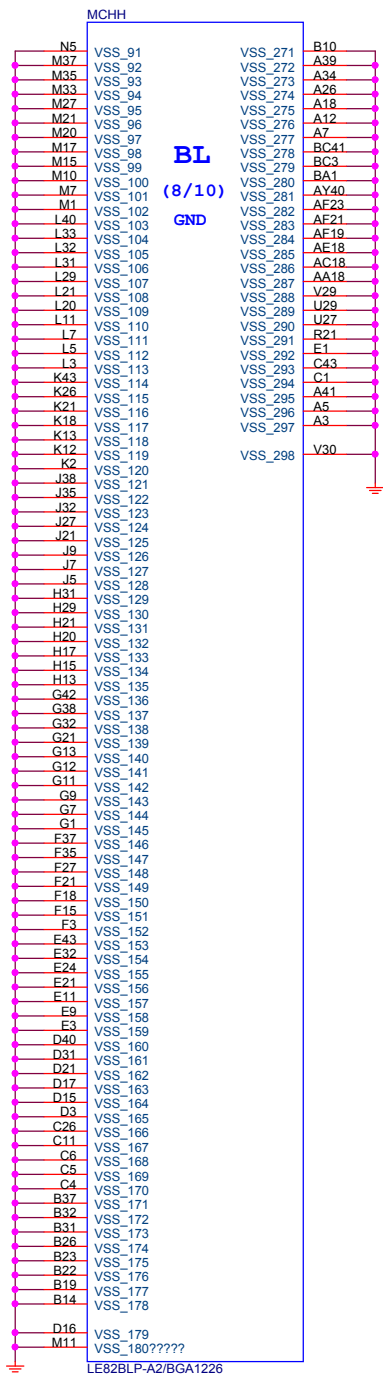
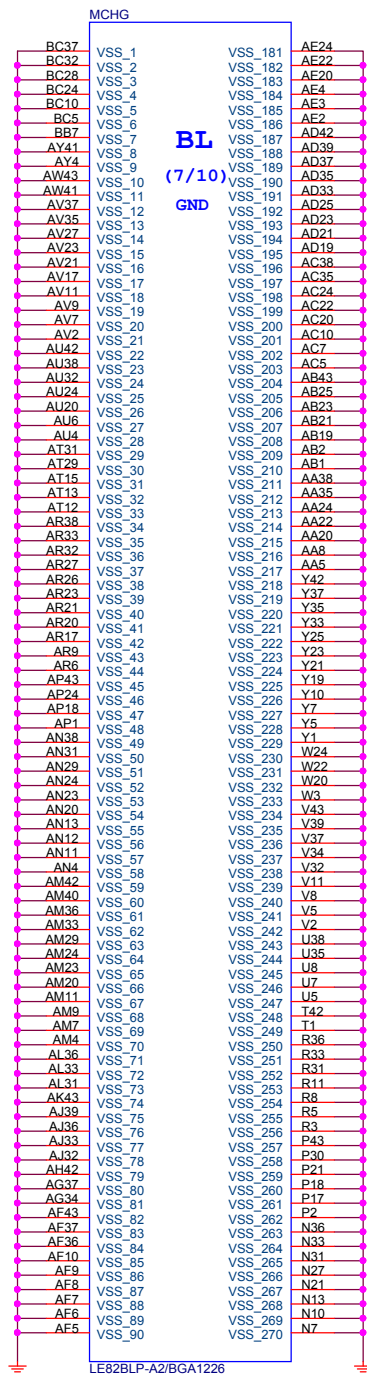
Date: Thursday, November 15, 2007 Sheet 10 of 36

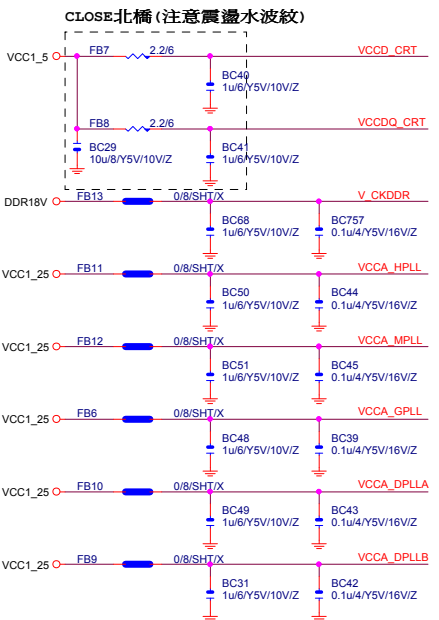
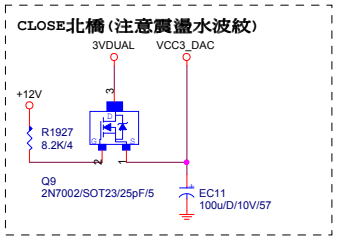
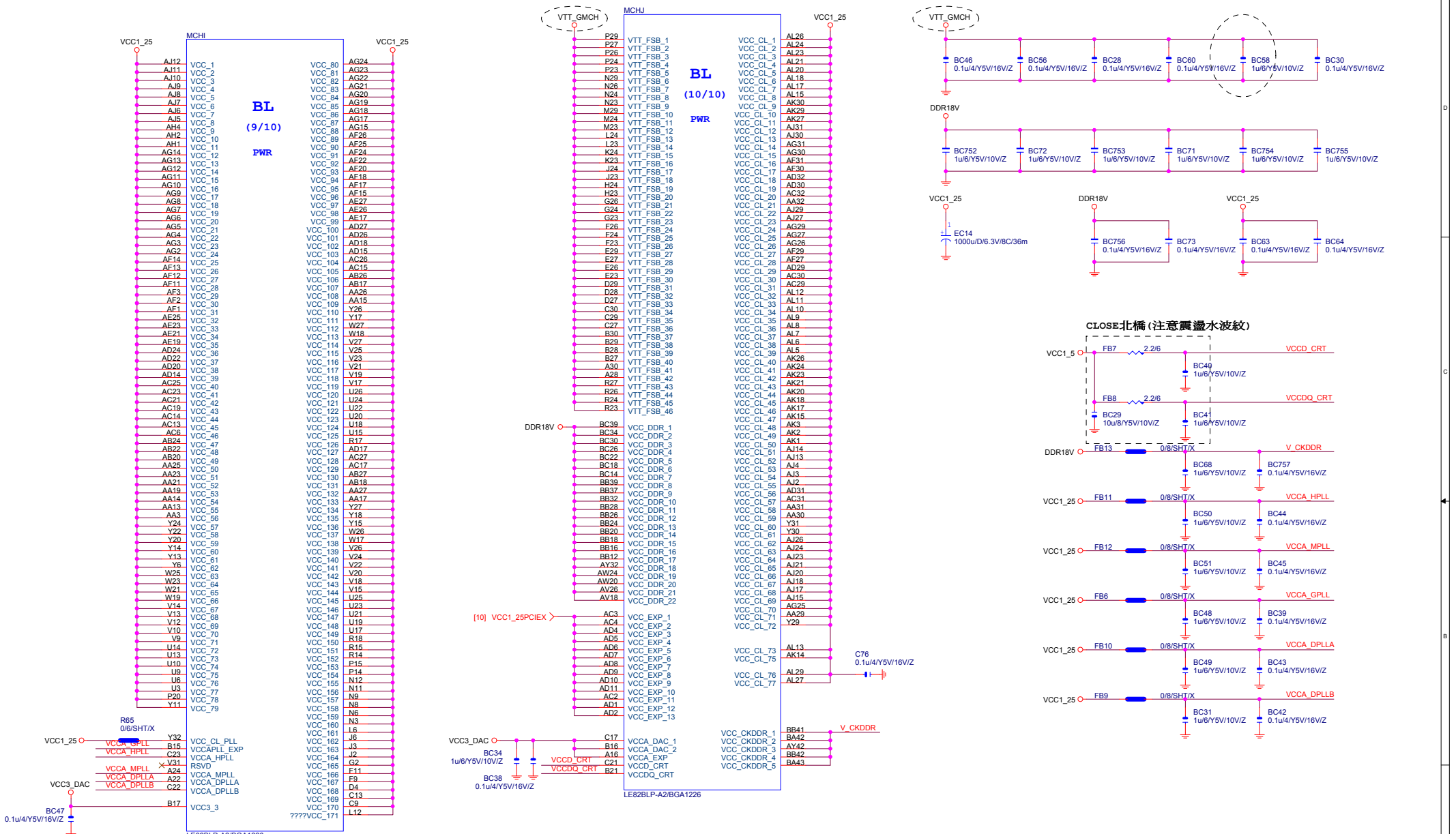
0:BTX
1:ATX

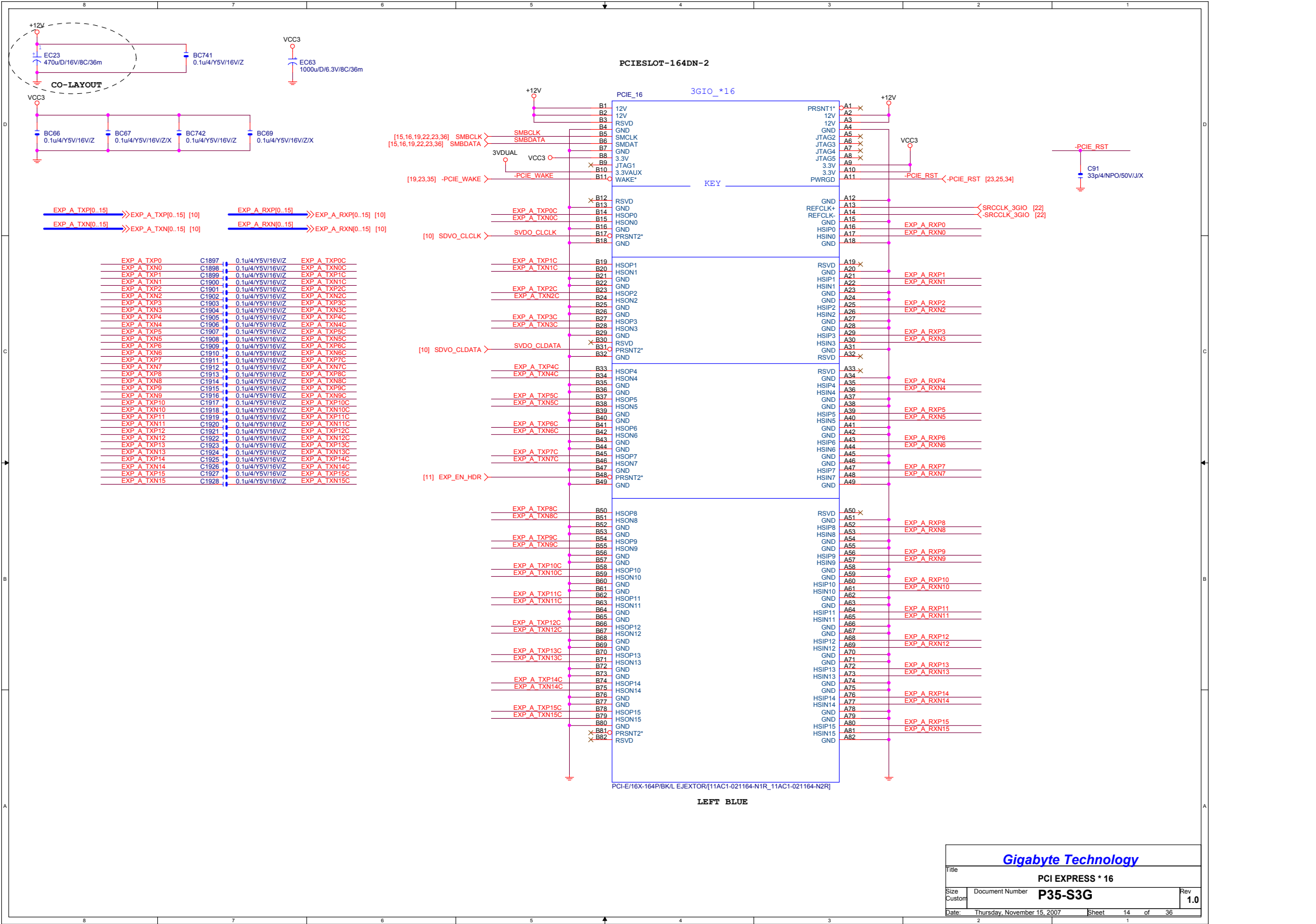


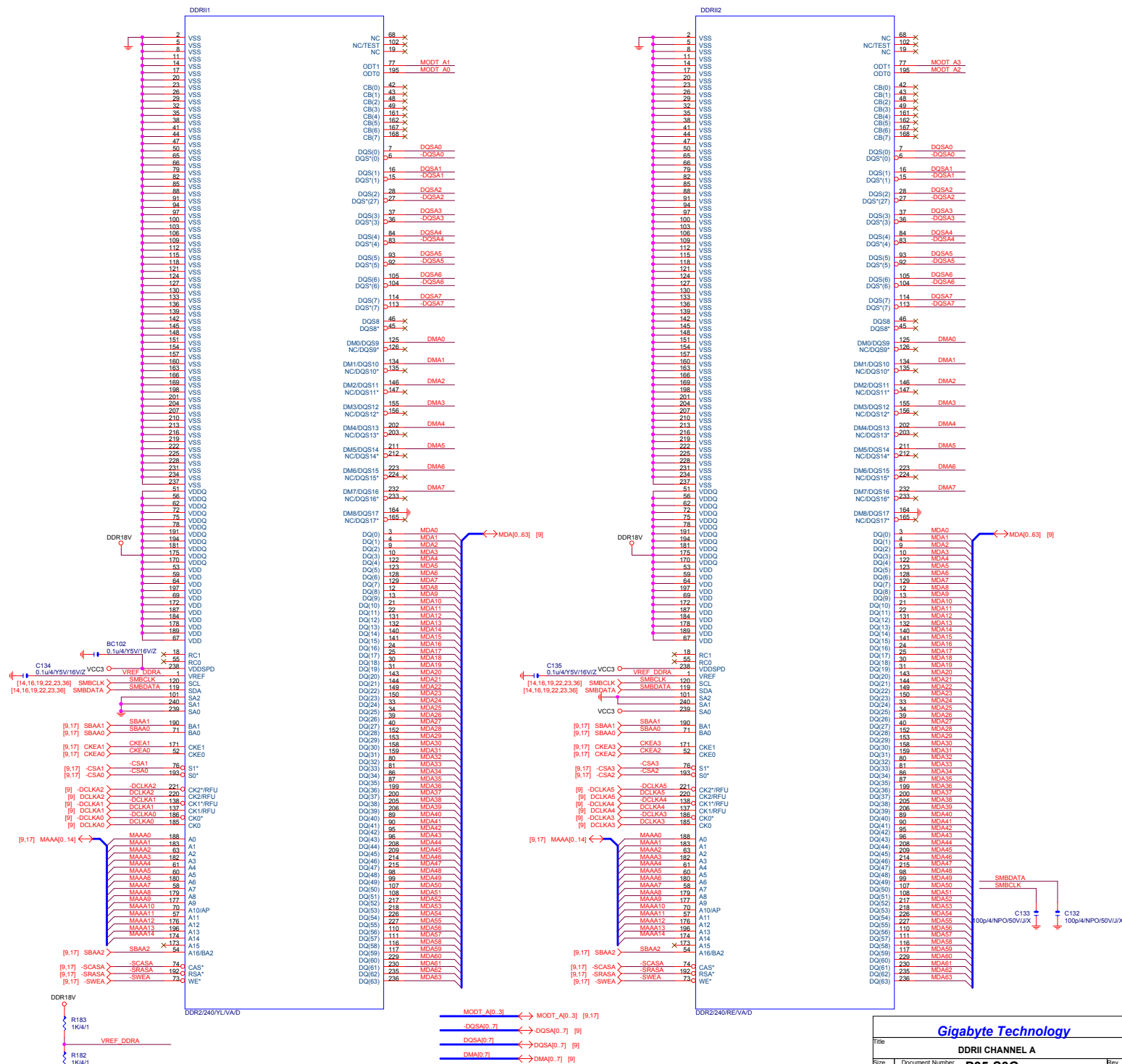
Gigabyte Technology

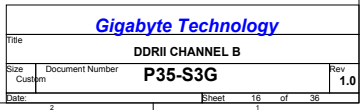
Title			GMCH-INTERNAL VGA	
Size	Document Number	P35-S3G		Rev
B				1.0
Date:	Thursday, November 15, 2007	Sheet	11	of 36





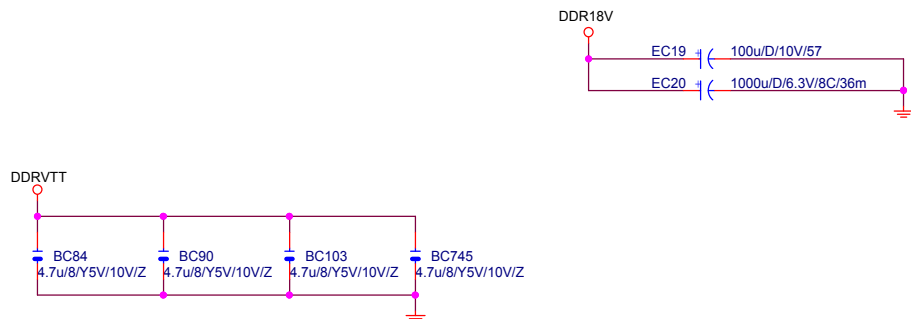




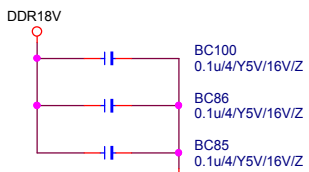


DDR TERMINATION CHANNEL A

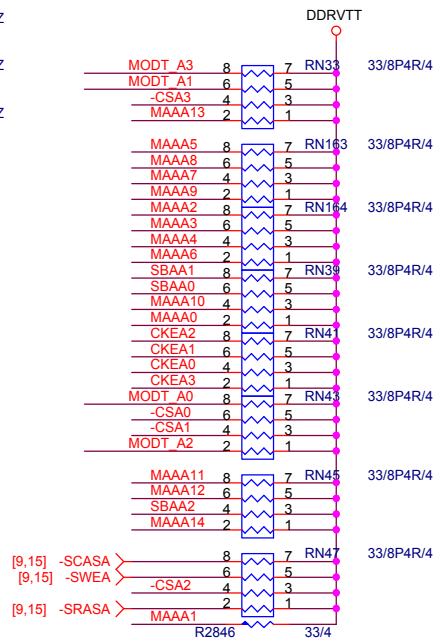
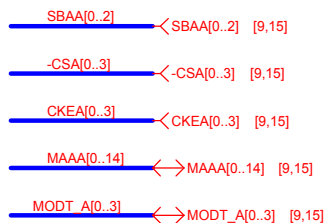
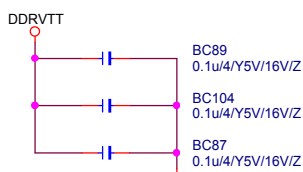
DDRVTT Decouple



DDR18V Decouple

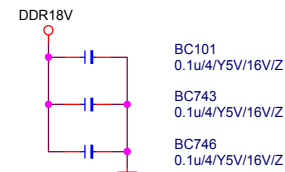


DDRVTT Decouple

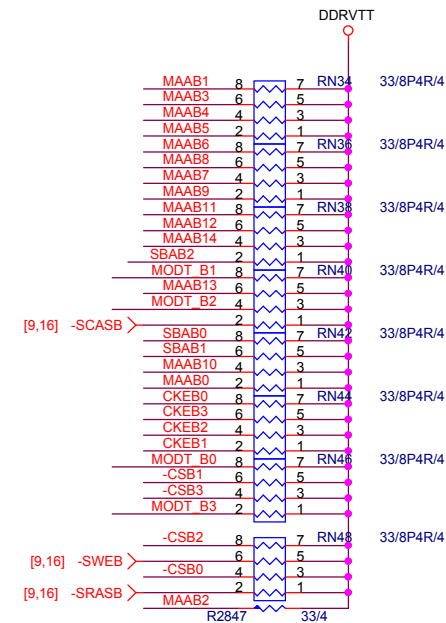
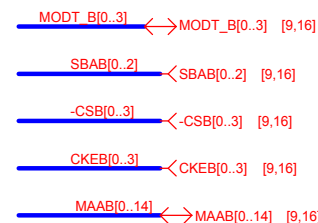
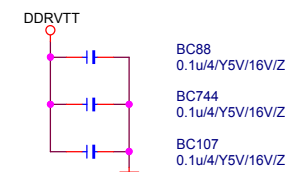


DDR TERMINATION CHANNEL B

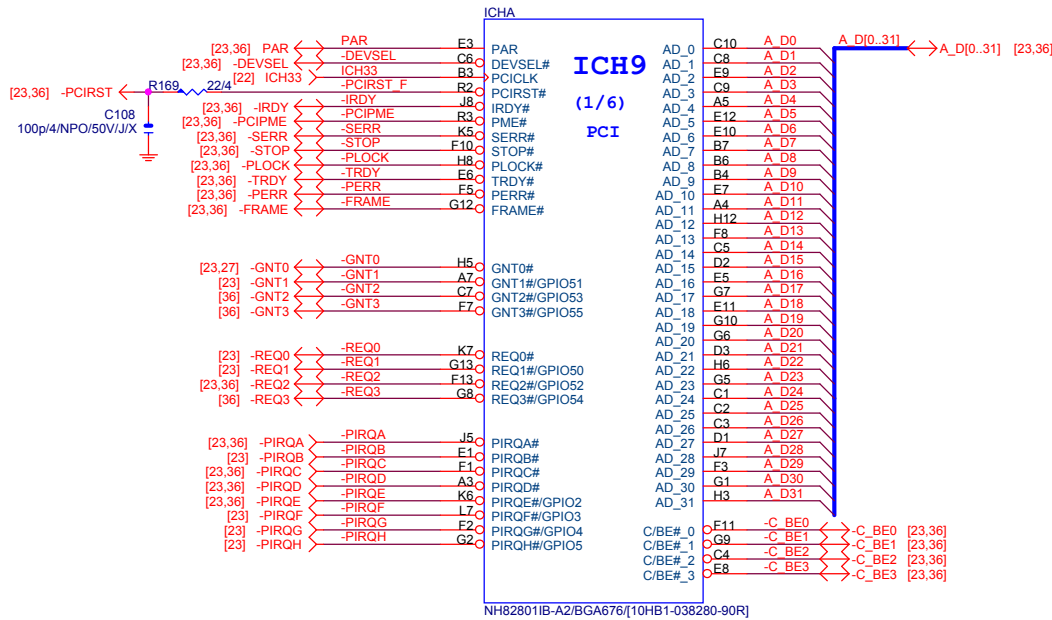
DDR18V Decouple



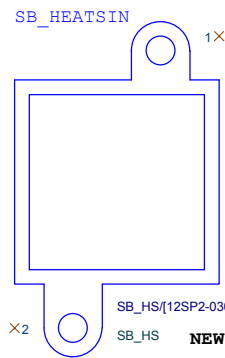
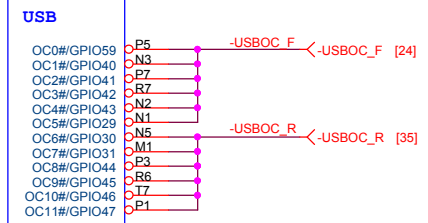
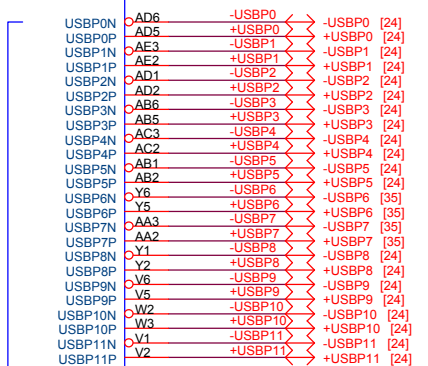
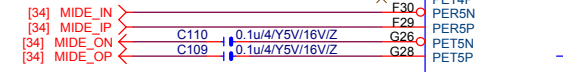
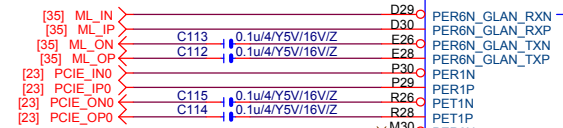
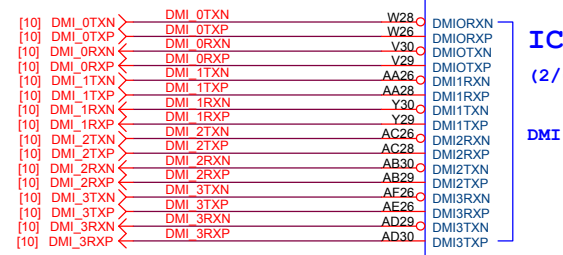
DDRVTT Decouple



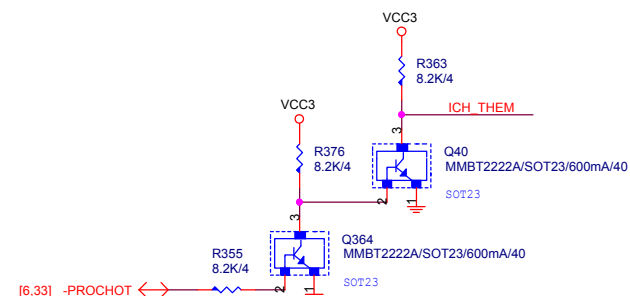
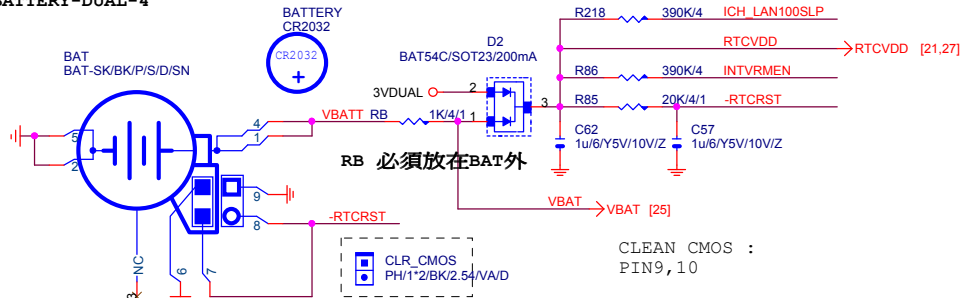
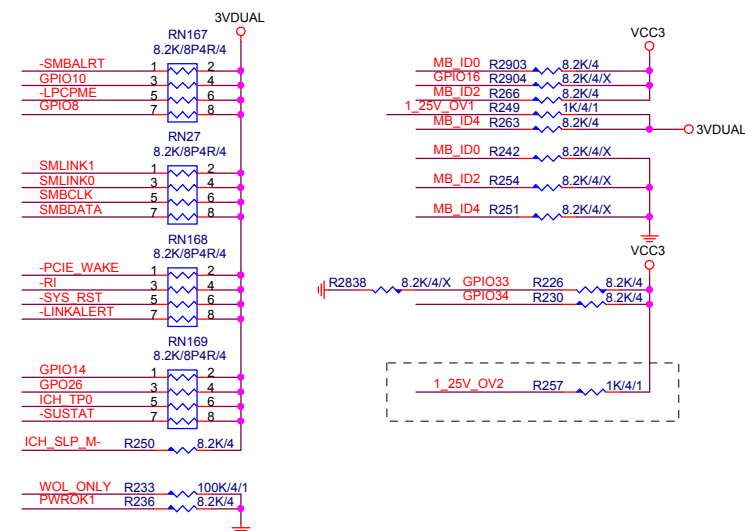
Gigabyte Technology



NH82801IB-A2/BGA676[10HB1-038280-90R]



SB_HS[12SP2-030005-21R_12SP2-030005-22R_12SP2-030005-23R_12SP2-030005-24R]
SB_HS NEW SB_HS 對邊 (GOLD)



修改成VCC3，
否則造成不開機
，-PCIRST/-PFMRST不會打

VCC1_5

VCC3

R156 3.24K/4/1

R157 453/6/1

C98 0.1u/4/Y5V/16V/Z

[11] CL_CLK ↔ CL_CLK

[11] CL_DATA ↔ CL_DATA

[11] PWROK1 ↔ PWROK1

[11] -CL_RST ↔ -CL_RST

[33] ICH_FAN_PWM0 ↔ ICH_FAN_PWM0

[25,33] ICH_FAN_PWM1 ↔ ICH_FAN_PWM1

[25,33] ICH_FAN_PWM2 ↔ ICH_FAN_PWM2

[25,33] ICH_FAN_TACH0 ↔ ICH_FAN_TACH0

[25,33] ICH_FAN_TACH1 ↔ ICH_FAN_TACH1

TACH0~3 : PU-20K-IN

[25] SSTCTL ↔ SST

R241 8.2K/4

R227 8.2K/4

R225 8.2K/4/X

R2899 8.2K/4

R1939 2.2K/4/1

DMI TERMINATION STRAP

VCC3

R158 24.9/6/1

ICH9

ICH9

(3/6)

GLAN_COMP0

GLAN_COMP1

CL_CLK0

CL_DATA0

TP5

CL_VREF0

TP4

CLPWROK

TP7

CL_RST0#

PWM0

PWM1

PWM2

GPIO17/TACH0

GPIO1/TACH1

GPIO6/TACH2

GPIO7/TACH3

SATA

GPIO22/SCLOCK

GPIO38/SLOAD

GPIO39/SDATAOUT0

GPIO48/SDATAOUT1

SATA0RXN

SATA0RXP

SATA0TXN

SATA0TXP

SATA1RXN

SATA1RXP

SATA1TXN

SATA1TXP

SATA2RXN

SATA2RXP

SATA2TXN

SATA2TXP

SATA3RXN

SATA3RXP

SATA3TXN

SATA3TXP

SATA4RXN

SATA4RXP

SATA4TXN

SATA4TXP

SATA5RXN

SATA5RXP

SATA5TXN

SATA5TXP

AK17 SATA0RXN

AJ17 SATA0RXP

AK19 SATA0TXN

AJ19 SATA0TXP

AK15 SATA1RXN

AH15 SATA1RXP

AH16 SATA1TXN

AF16 SATA1TXP

AJ13

AK14

AF14

AJ11

AK11

AF12

AH12

AJ9

AK9

AF10

AH9

AK7

AF8

AH7

AF18

AF19

SATA4RXN

SATA4RXP

SATA4TXN

SATA4TXP

SATA5RXN

SATA5RXP

SATA5TXN

SATA5TXP

-SRCCLK_SATA

SRCCLK_SATA

SRCCLK_SATA

SATALED#

SATARBIA#

SATARBASP

GPIO21/SATA0GP

GPIO19/SATA1GP

GPIO36/SATA2GP

GPIO37/SATA3GP

SATA4GP

SATA5GP

A20GATE

A20M#

IGNNE#

INIT3_3V#

INTE NOTE:SATAII PORT

ICH9: 4 (0/1/4/5 PORT,2/3:N/A)

AK25 GPIO21

AE20 GPIO19

AE21 GPIO36

AE22 GPIO37

AF22 SATA4GP

AD21 SATA5GP

P8

AJ28

AC22

M3

AE23

AH27

AJ27

AF24

L3

N6

AH26

AJ29

AD24

AC23

SB_PECI

PECI

SERIRQ

-KBRST

A20GATE

GPIO21

GPIO37

GPIO19

GPIO36

SATA4GP

SATA5GP

R1934

R1935

R1936

R1937

Q54

2N7002/SOT23/25pF/5

SB_PECI

PECI

5VSB

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

FOR ICH8 PECI

5VSB

8.2K/4

1K/4/1

Q54

2N7002/SOT23/25pF/5

SB_PECI

PECI

5VSB

8.2K/4

1K/4/1

Q54

2N7002/SOT23/25pF/5

SB_PECI

PECI

5VSB

8.2K/4

1K/4/1

Q54

2N7002/SOT23/25pF/5

SB_PECI

PECI

5VSB

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

8.2K/4

Gigabyte Technology

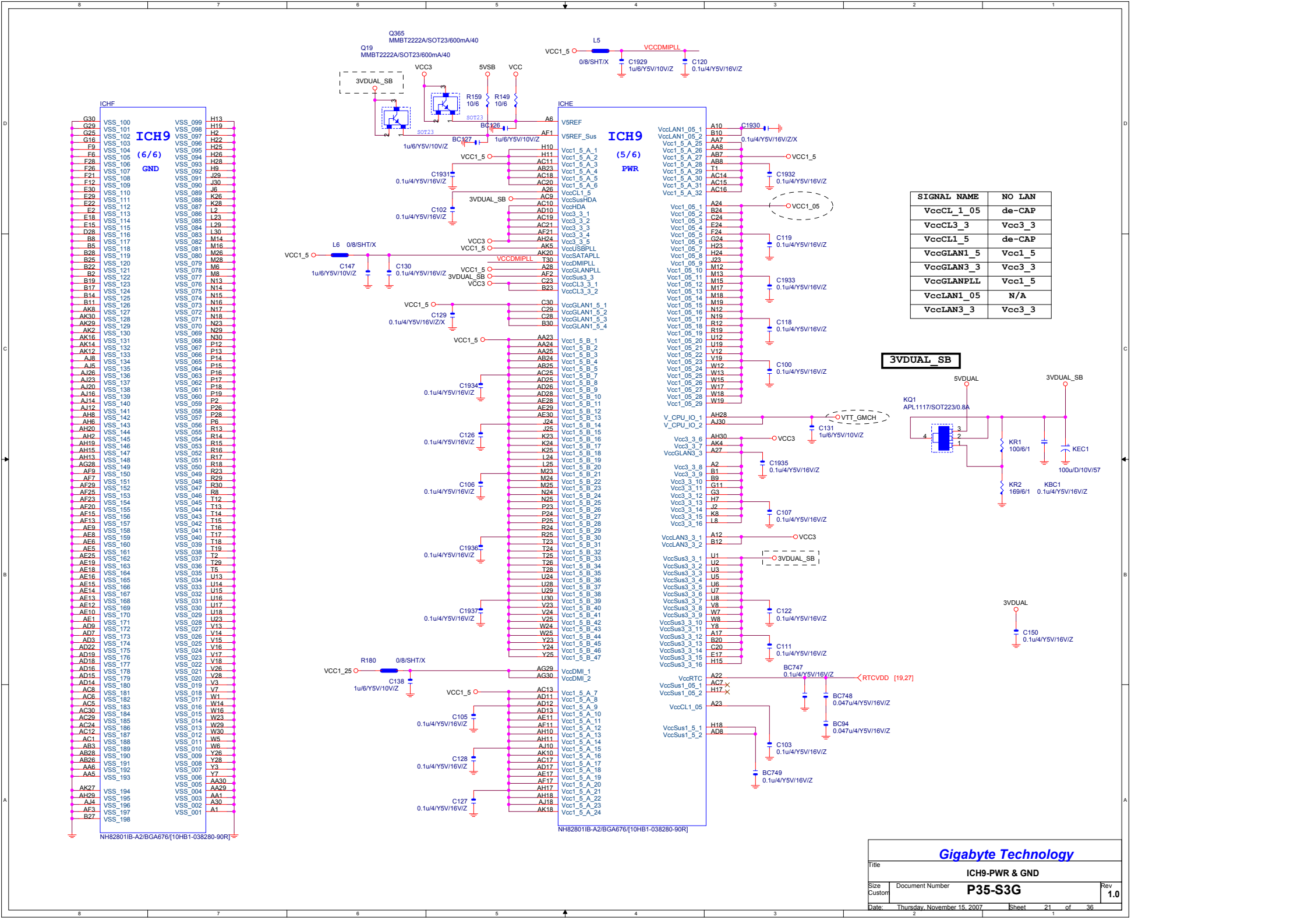
ICH9- SATA, FAN CTRL

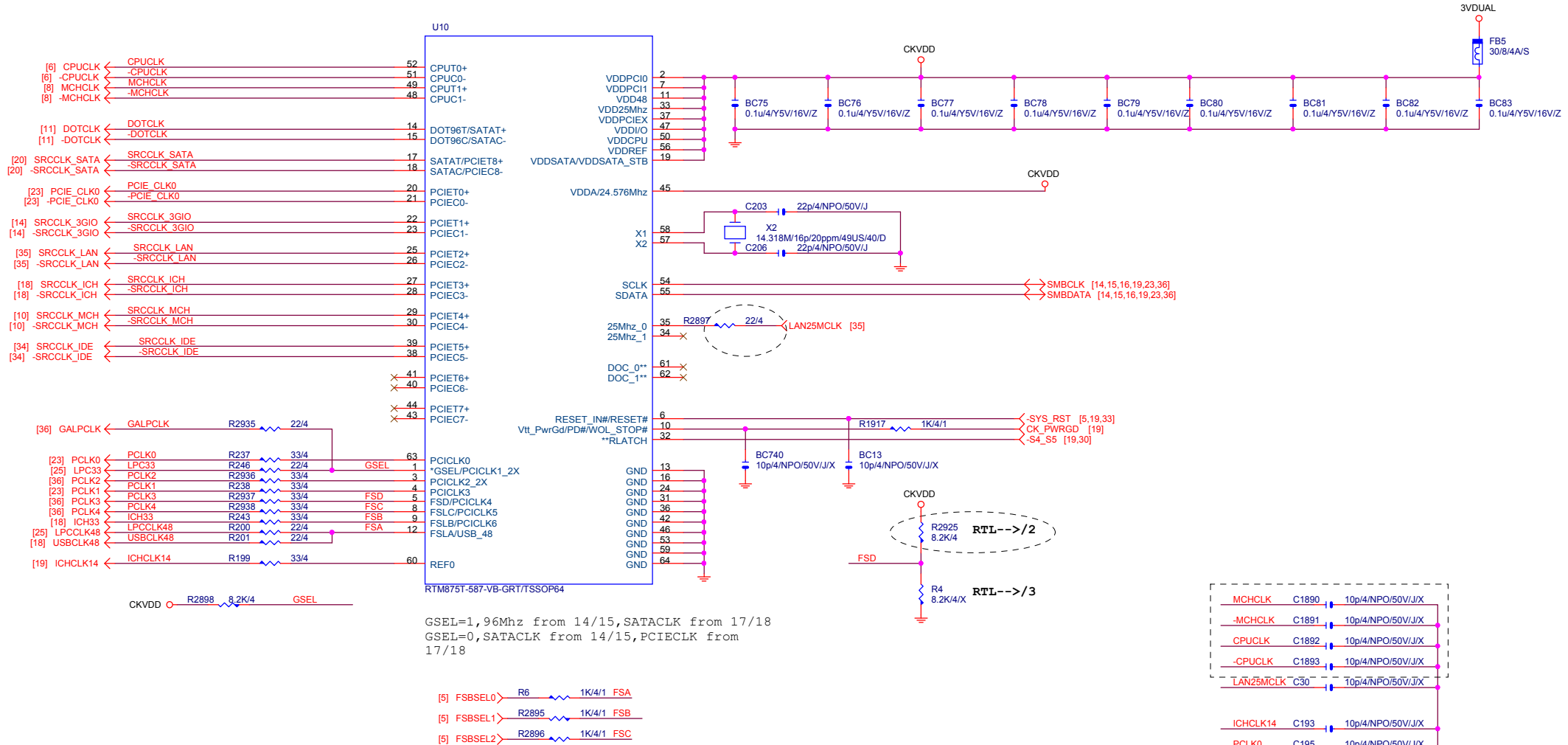
P35-S3G

Rev 1.0

Sheet 20 of 36

Date: Thursday, November 15, 2007

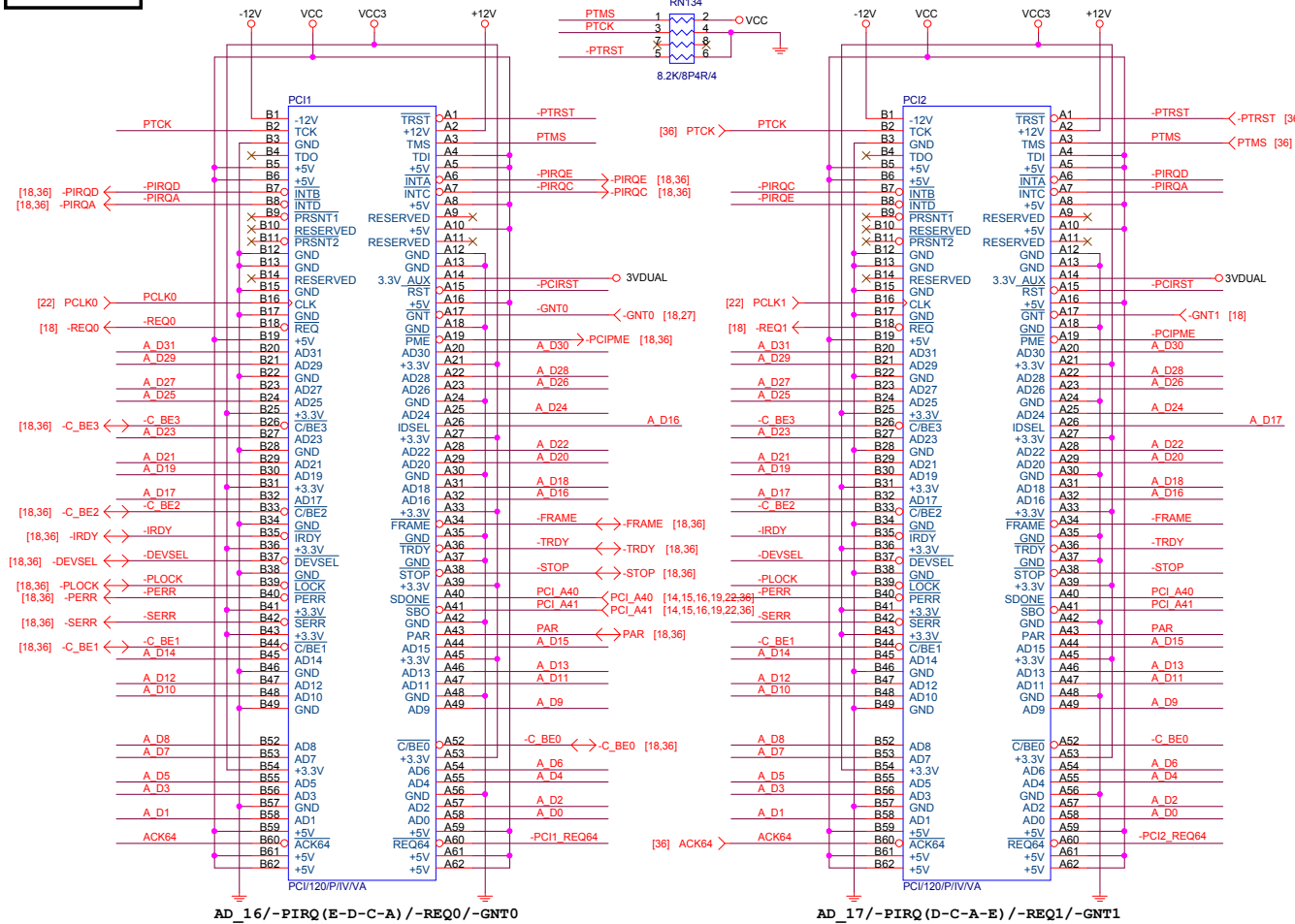




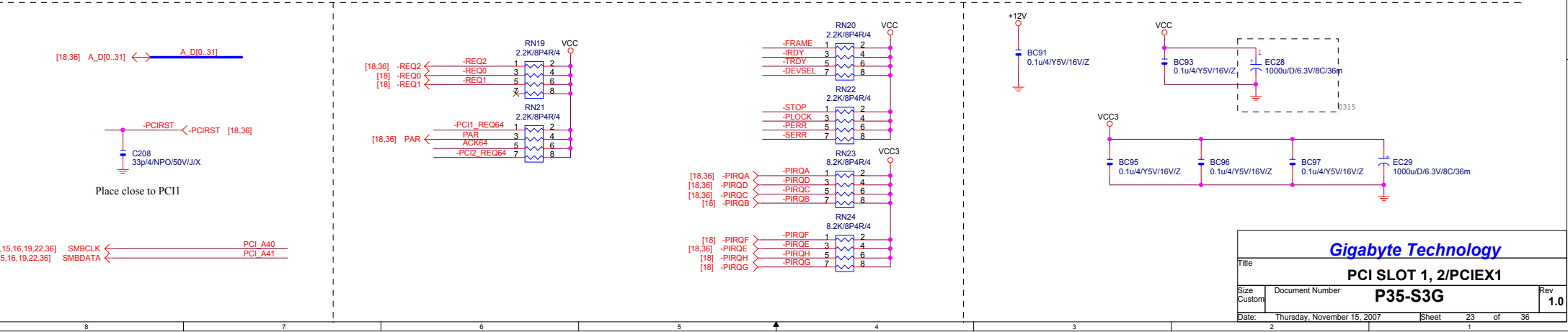
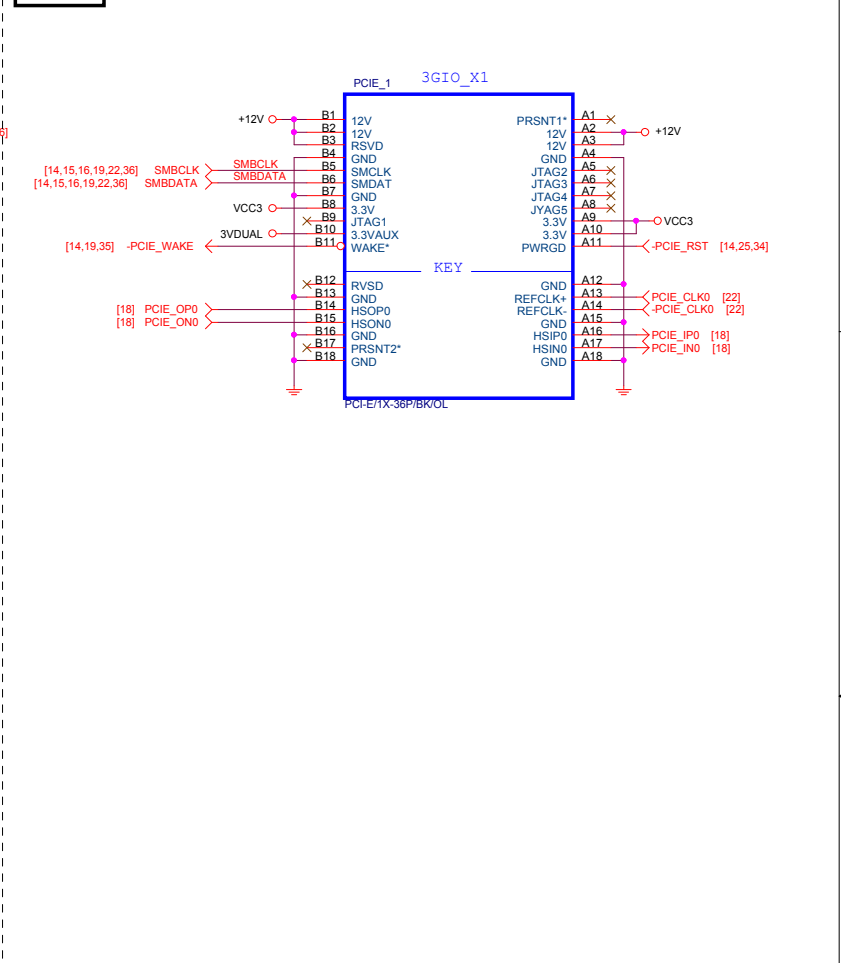
Gigabyte Technology

Title			CK505 CLK GEN		
Size			P35-S3G		
Custom	Document Number			Rev	1.0
Date:	Thursday, November 15, 2007	Sheet	22	of	36

PCI1,2 SLOT

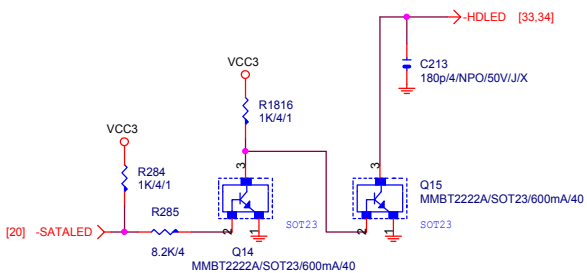


PCIE*1

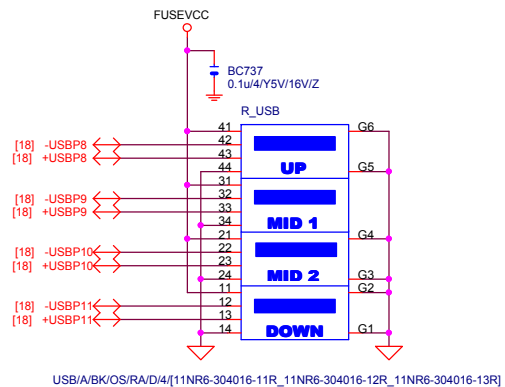
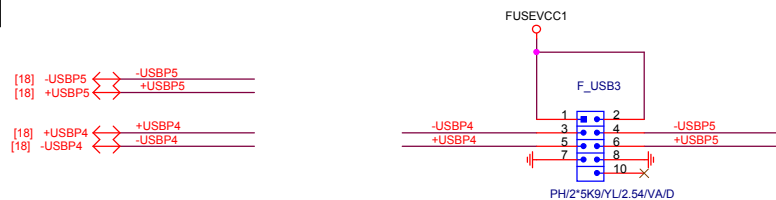


Gigabyte Technology			
PCI SLOT 1, 2/PCIEX1			
Title	Document Number	P35-S3G	
Size	Custom	Rev 1.0	
Date:	Thursday, November 15, 2007	Sheet	23 of 36

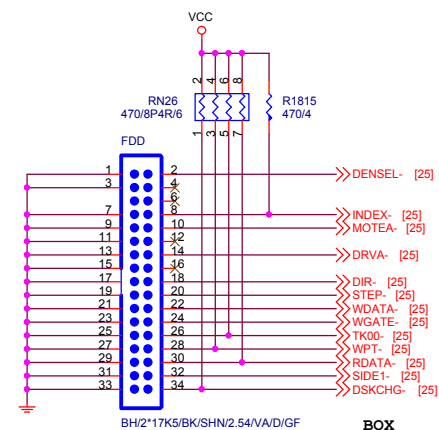
IDE/SATA LED



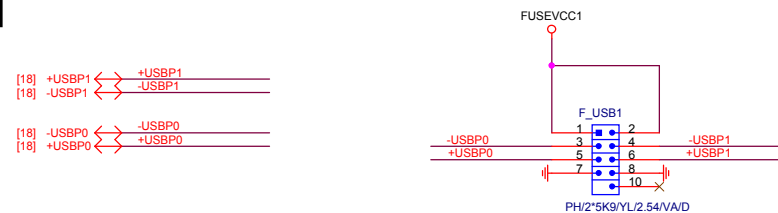
FRONT USB3



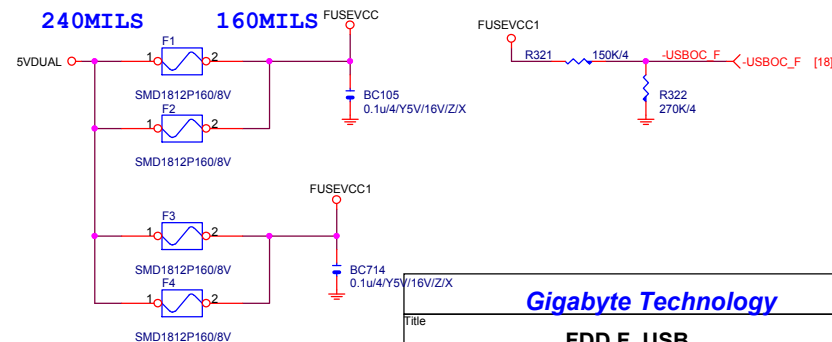
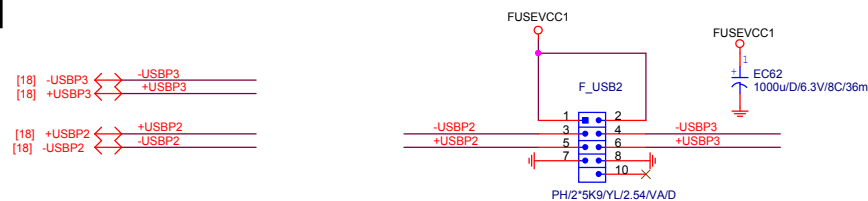
FLOPPY



FRONT USB1



FRONT USB2

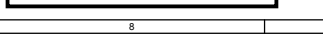
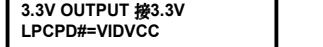
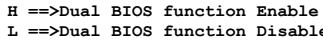
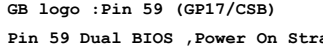
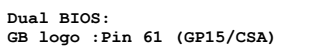
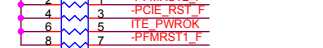
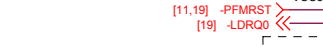
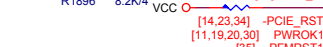
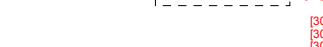
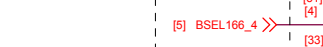


RTS2- ==LOW CPU FAN 50%
==HIGH 100%

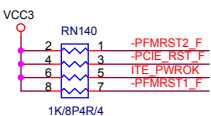
DEFAULT 50%



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



IT8712F/[IT8718F]



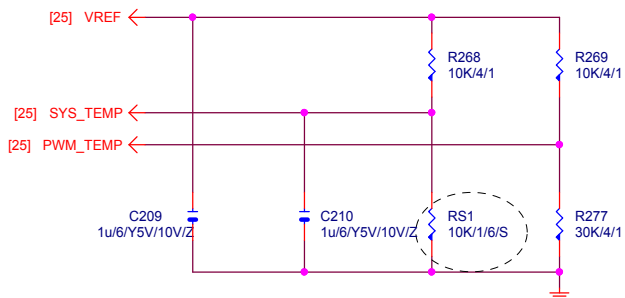
Dual BIOS:
GB logo :Pin 61 (GP15/CSA)
GB logo :Pin 59 (GP17/CSB)

Pin 59 Dual BIOS ,Power On Strapping:
H ==>Dual BIOS function Enable
L ==>Dual BIOS function Disable

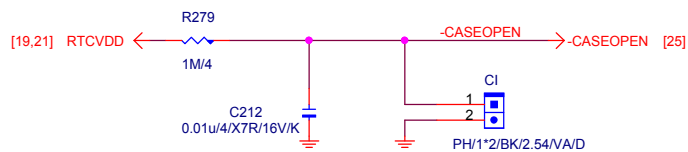
1.2V or 3.3V tolerance select.
1.2V OUTPUT 接 VTT_GMCH
3.3V OUTPUT 接 3.3V
LPCPD# =VIDVCC

Gigabyte Technology			
Title			
ITE 8712/18 LPC IO			
Size	Document Number	Rev	
B	P35-S3G	1.0	
Date:	Thursday, November 15, 2007	Sheet	25 of 36

TEMP H/W MONITOR

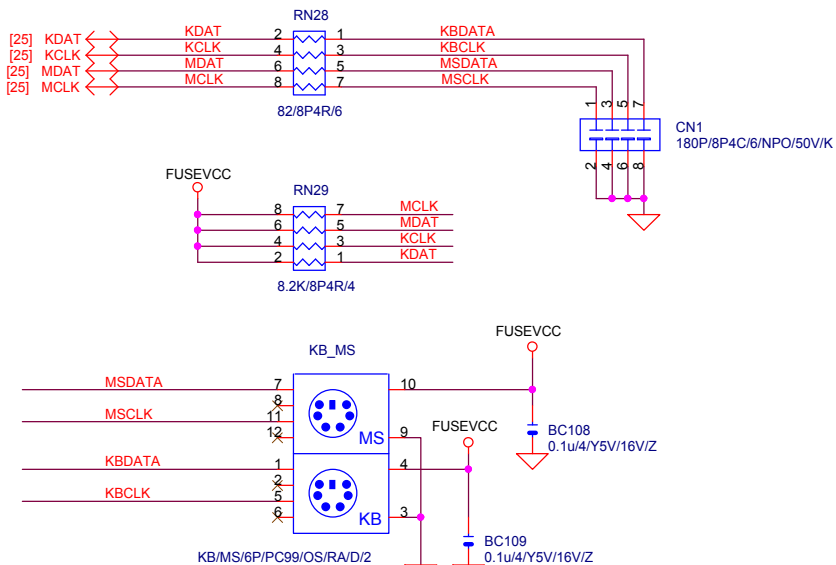


CASE OPEN

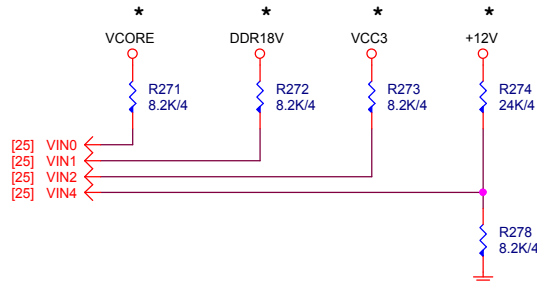


Case Open Circuits

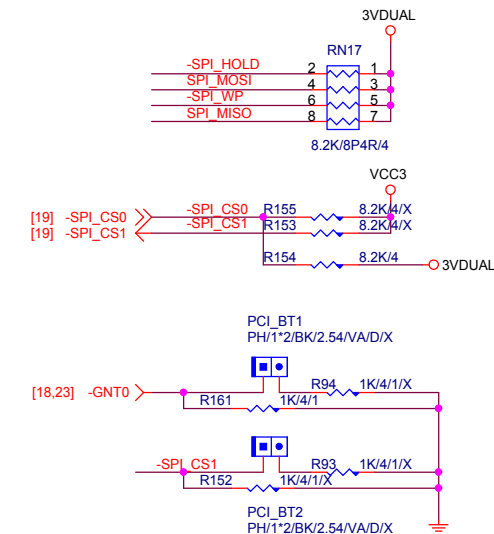
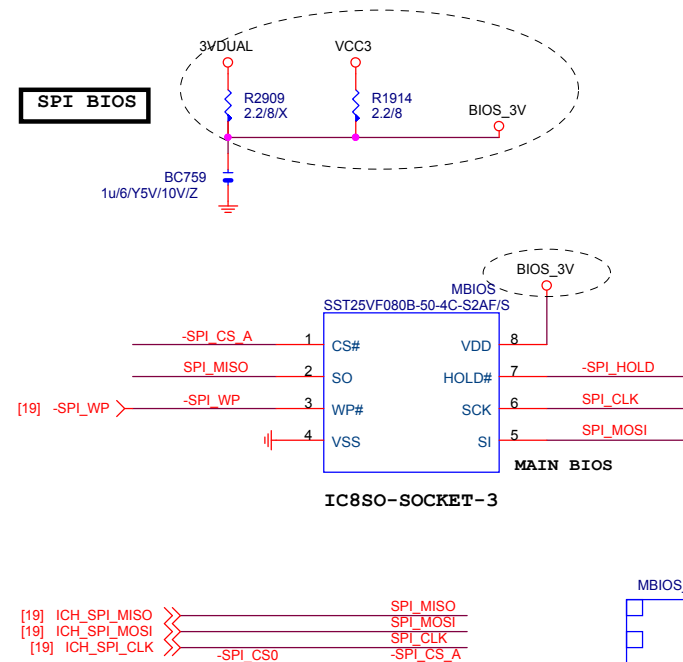
KB/MS



VOLTAGE-- H/W MONITOR

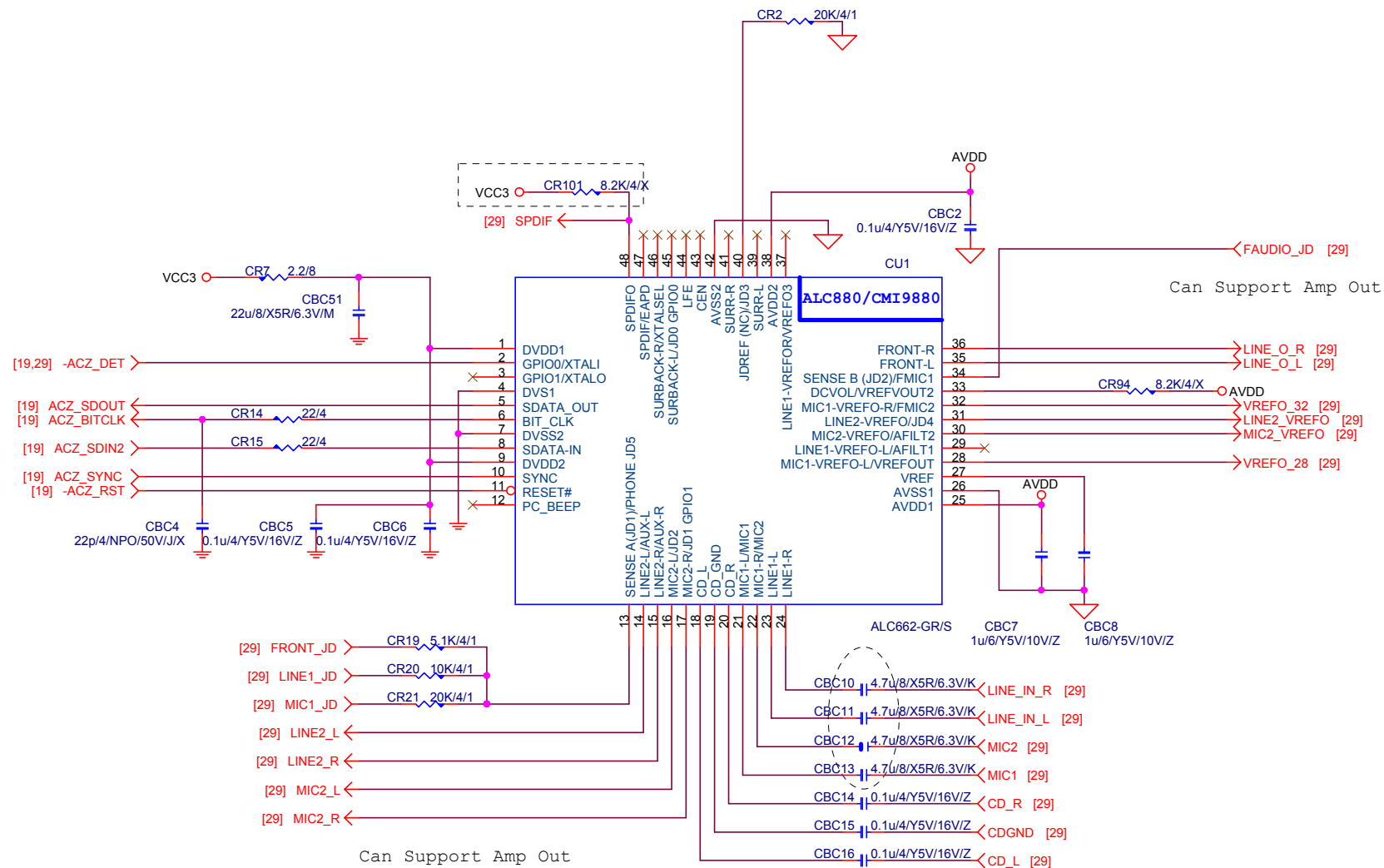


SPI BIOS



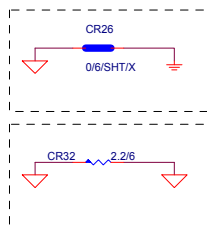
BOOT DEVICE	GNT0	CS1
SPI	0	1
PCI	1	0
FWH	1	1

Gigabyte Technology		
Title		
HW-MONITOR/CI/KB/MS/BIOS		
Size	Document Number	Rev
Custom	P35-S3G	1.0
Date:	Thursday, November 15, 2007	Sheet 27 of 36



Gigabyte Technology

Title		
AZALIA ALC662		
Size	Document Number	Rev
Custom	P35-S3G	1.0
Date:	Thursday, November 15, 2007	Sheet 28 of 36



VCC

SPDIF_O

1

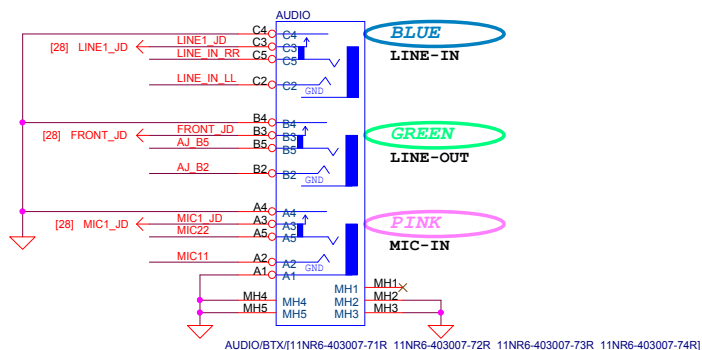
2

3

[28] SPDIF

PH1*3/BK/2.54/VA/D

PIN HEADER 1X3



[28] LINE_O_R > CEC1 (10uS/16V/45) CR104 75/6/1 AJ_B5

[28] LINE_O_L > CEC2 (10uS/16V/45) CR105 75/6/1 AJ_B2

CR106 22K/4

CR107 180p/4/NPO/50V/J

CB21

CB22 180p/4/NPO/50V/J

[28] LINE_IN_R ←

[28] LINE_IN_L ←

CR108 75pF

CR109 75pF

CR110 22kF

CR111 22kF

180pF/NPO/50V/J

CBC26

CBC27

180pF/NPO/50V/J

[28] VREFO_32 >

[28] VREFO_28 >

[28] MIC2 <

[28] MIC1 <

CR112 2.2K/4/1

CR113 2.2K/4/1

CR114 75/6/1

CR115 75/6/1

CR116 22K/4

CR117 22K/4

CBC28 180p/4/NPO/50V/J

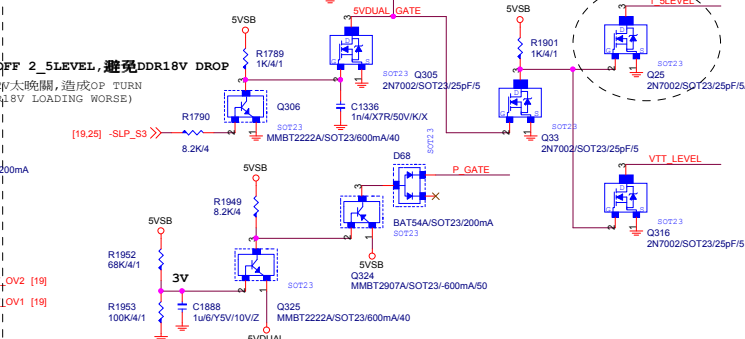
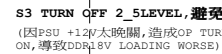
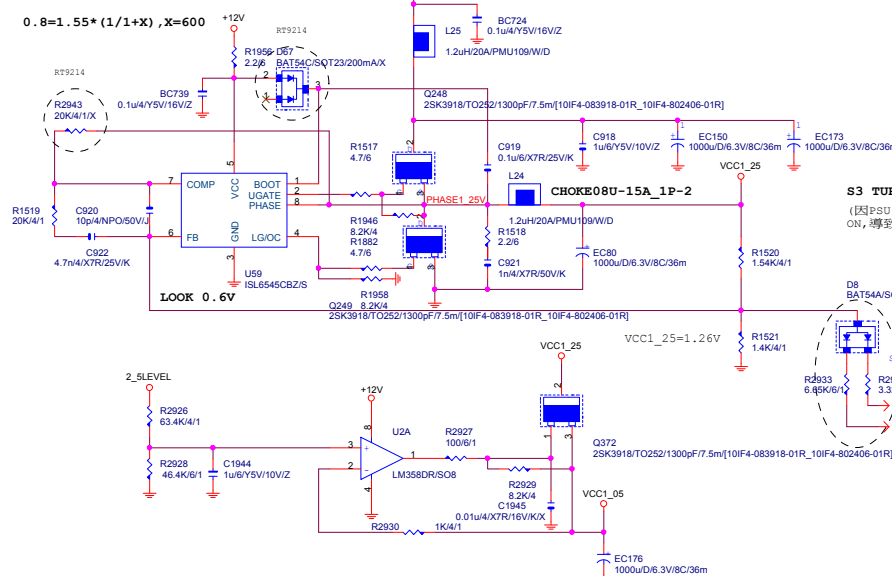
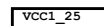
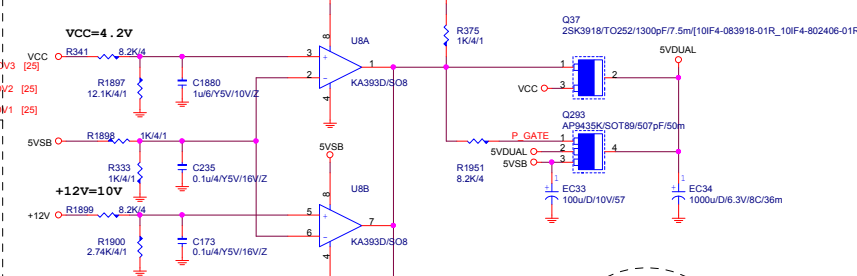
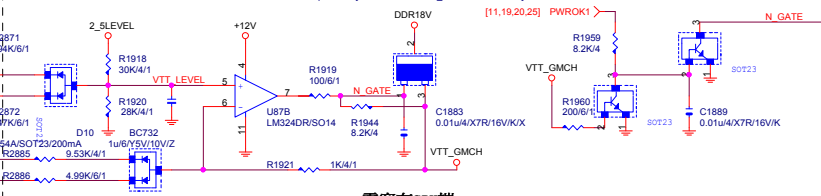
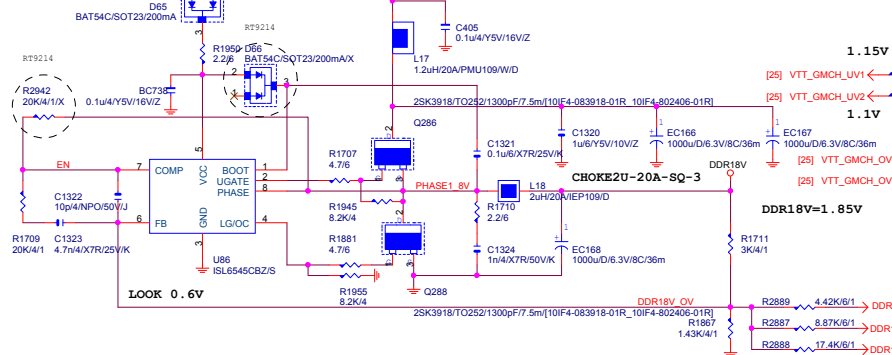
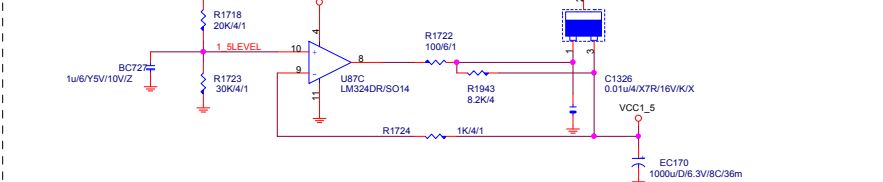
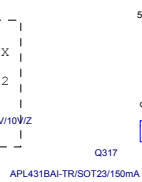
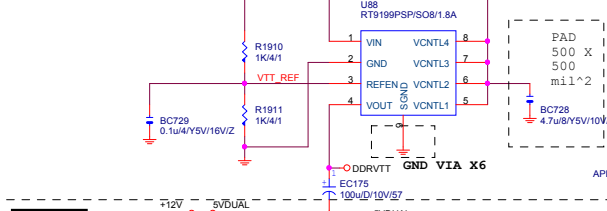
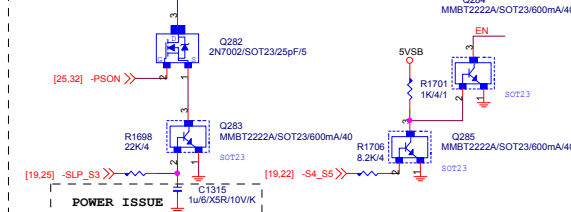
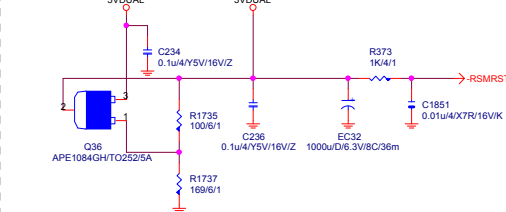
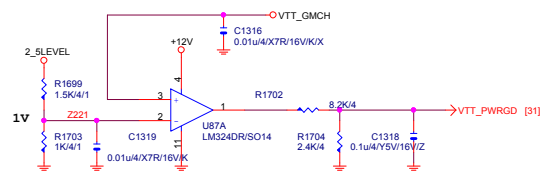
CBC29 180p/4/NPO/50V/J

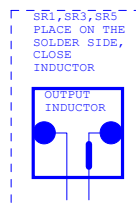
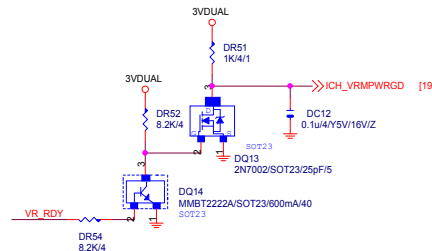
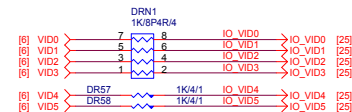
MIC22

MIC11

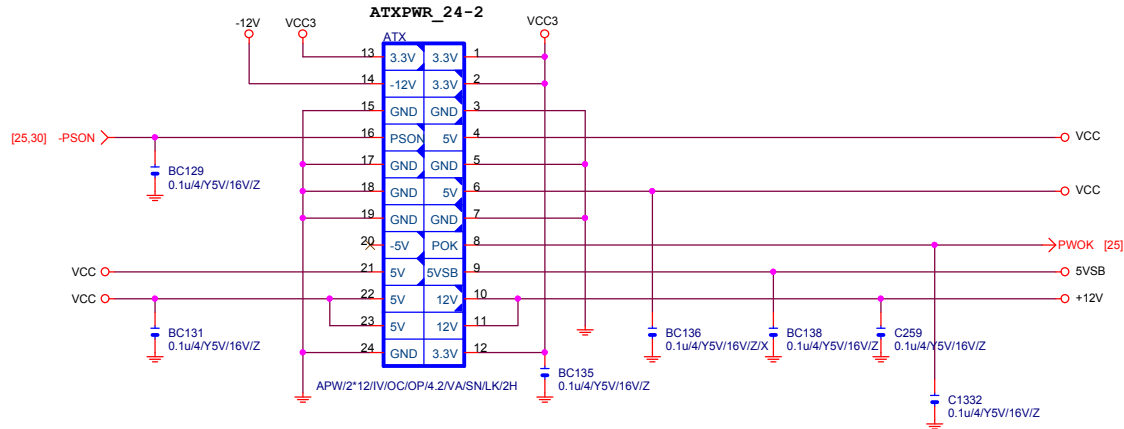
The schematic diagram for the AZALIA FRONT PANEL shows the following components and connections:

- Resistors:** CR74 (8.2K/4), CR75 (8.2K/4), CR76 (8.2K/4), CR77 (8.2K/4), CR118 (22K/4), CR119 (22K/4), CR97 (22K/4), CR98 (22K/4), CR78 (8.2K/4), CR79 (20K/4/1), CR80 (39.2K/4/1).
- Capacitors:** CBC45 (4.7u8/Y5V/10V/J), CBC44 (4.7u8/Y5V/10V/J), CEC99 (100uD/10V/57), CEC10 (100uD/10V/57), CBC46 (180p4/NPO/50V/J), CBC47 (180p4/NPO/50V/J), CBC48 (180p4/NPO/50V/J), CBC49 (180p4/NPO/50V/J).
- Connectors:** SOT23 (BAT54A/SOT23/200mA), SOT23 (BAT54A/SOT23/200mA), PH2*5K8/GED/2.54/VA/D (10 pins).
- Other Components:** QO8, QO9 (diodes), VCC3 (power supply), F_AUDIO (audio input), ACZ_DET (active low), FAUDIO_ID (active low).
- Labels:** [28] LINE2_VREFO, [28] MIC2_VREFO, [28] MIC2_L, [28] MIC2_R, [28] LINE2_R, [28] LINE2_L, [19:28] ACZ_DET, [28] FAUDIO_ID.

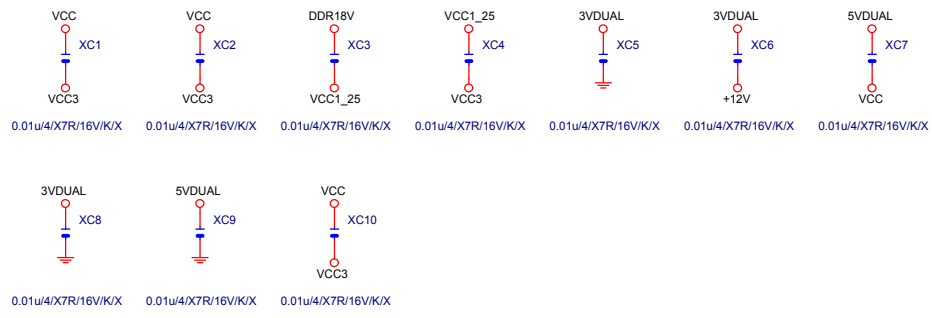
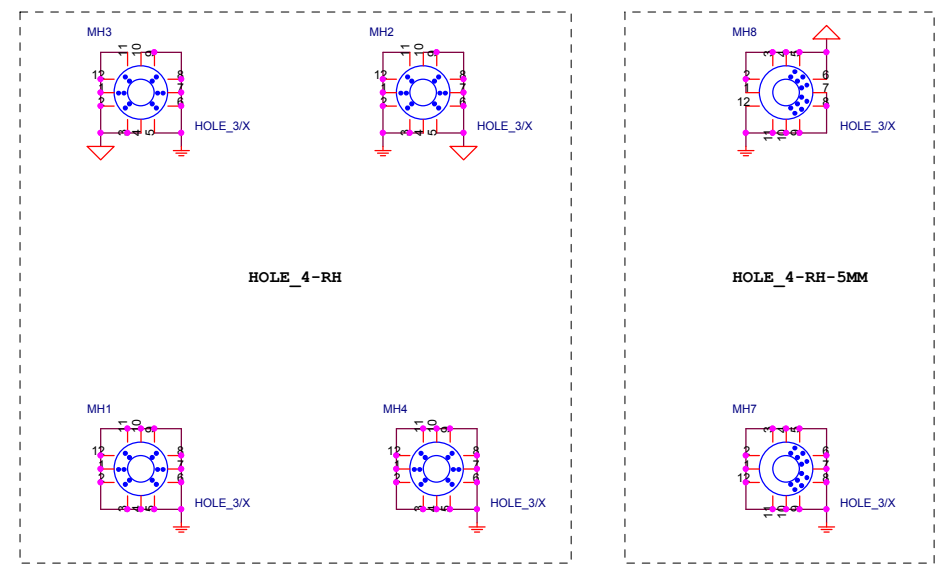
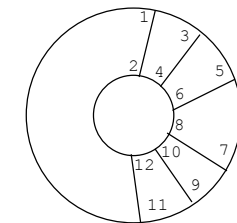
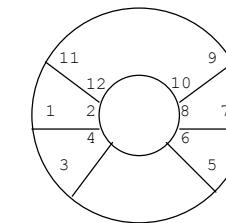
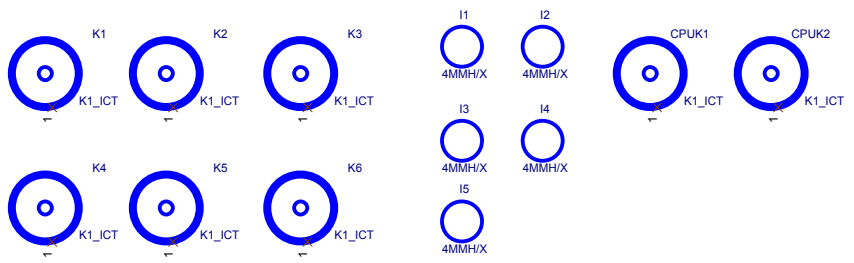
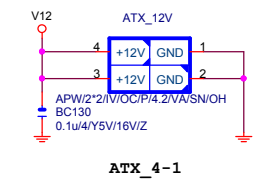
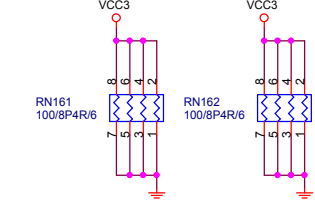




ATX POWER CONNECTOR

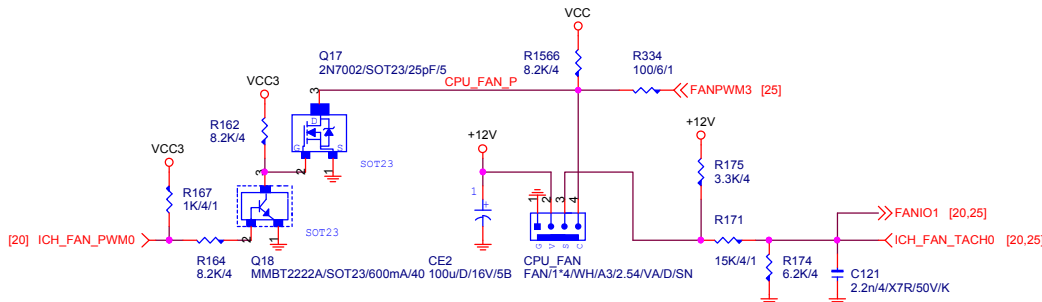


FIX PWR AcBel (ATX-400C-A2ADB)

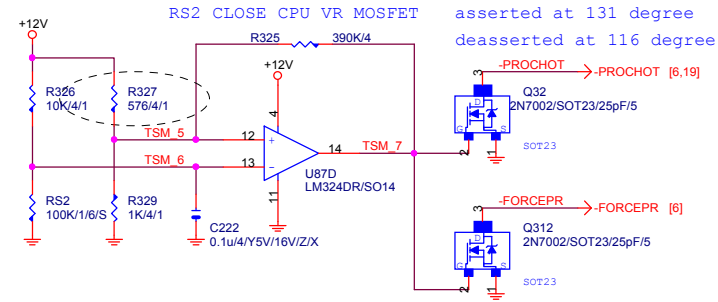


CPU SMART FAN

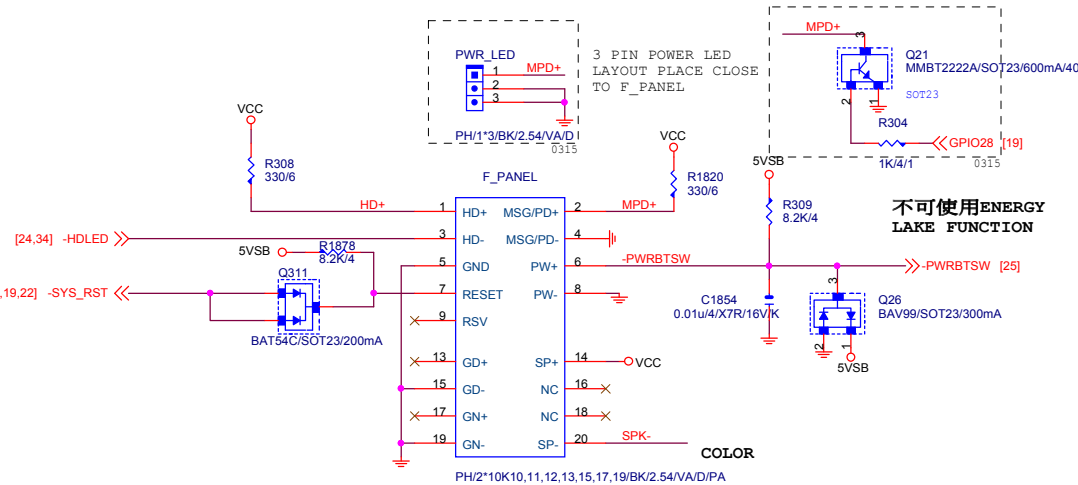
SMART FAN



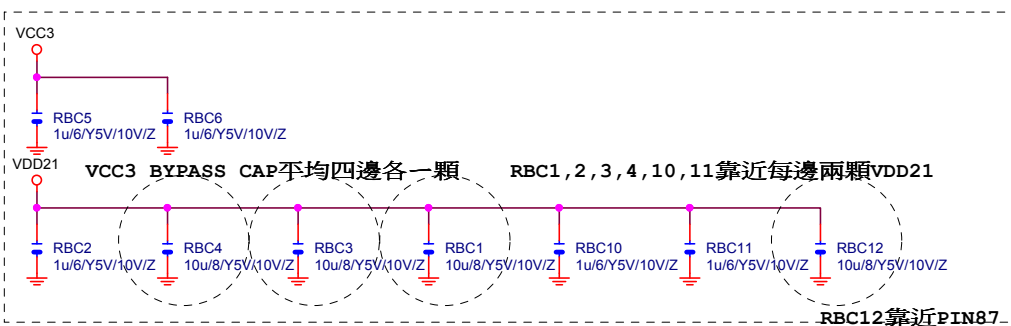
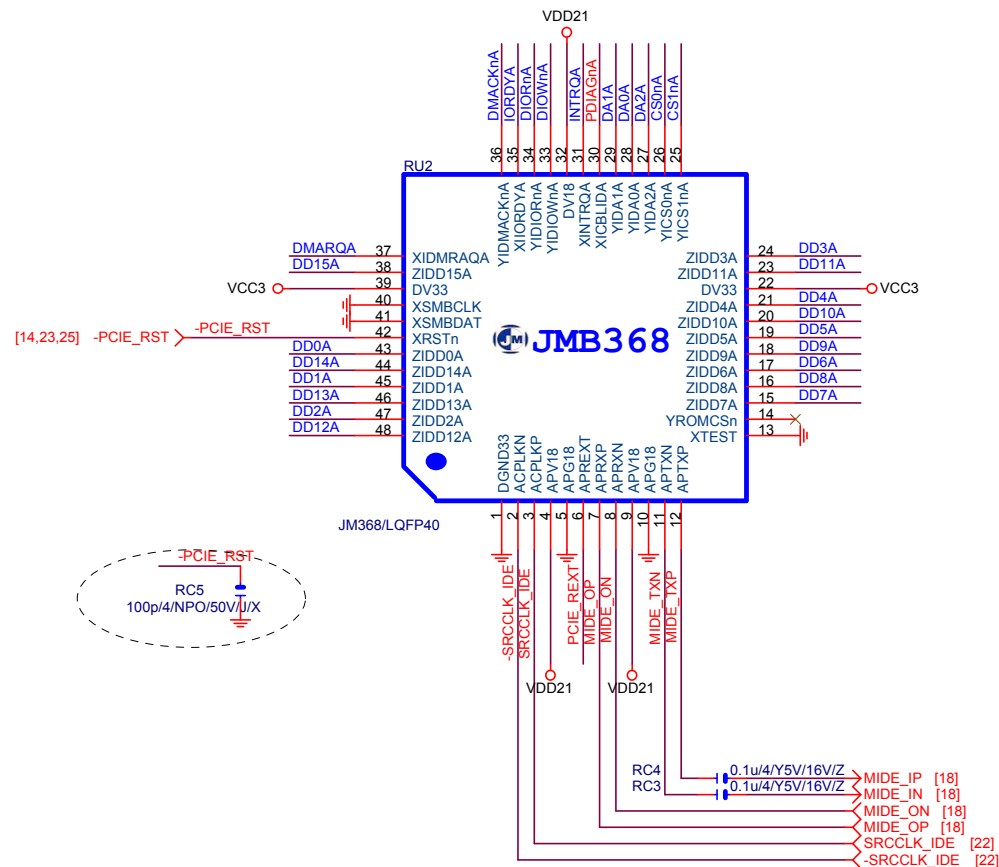
PROCESSOR HOT



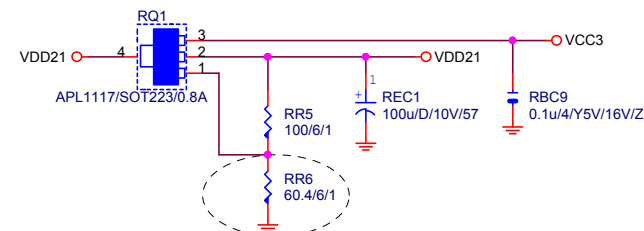
INTEL FRONT PANEL



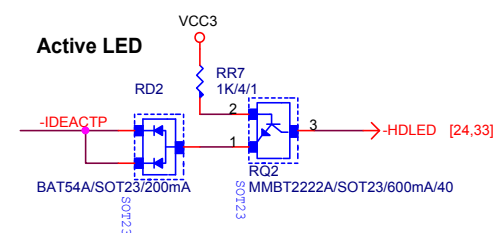
JMicron 1P PATA



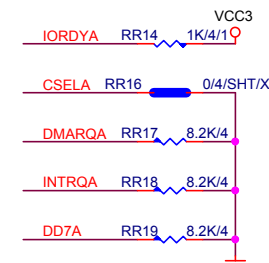
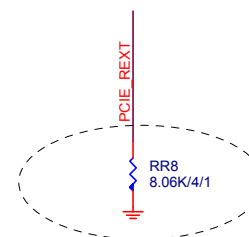
3.3V to 2.1V Voltage Regulator



JMicron suggest JMB368 to 2.1V

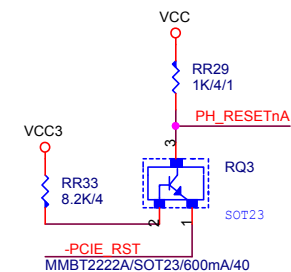
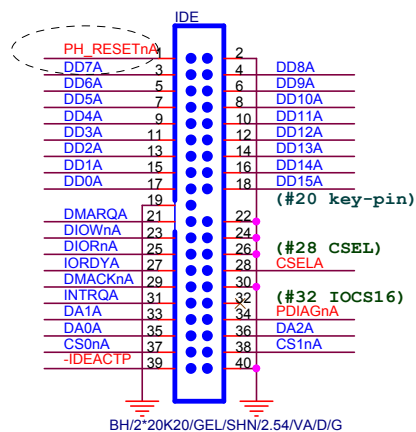


Near to PIN



IDE Connector

368 issue



Gigabyte Technology

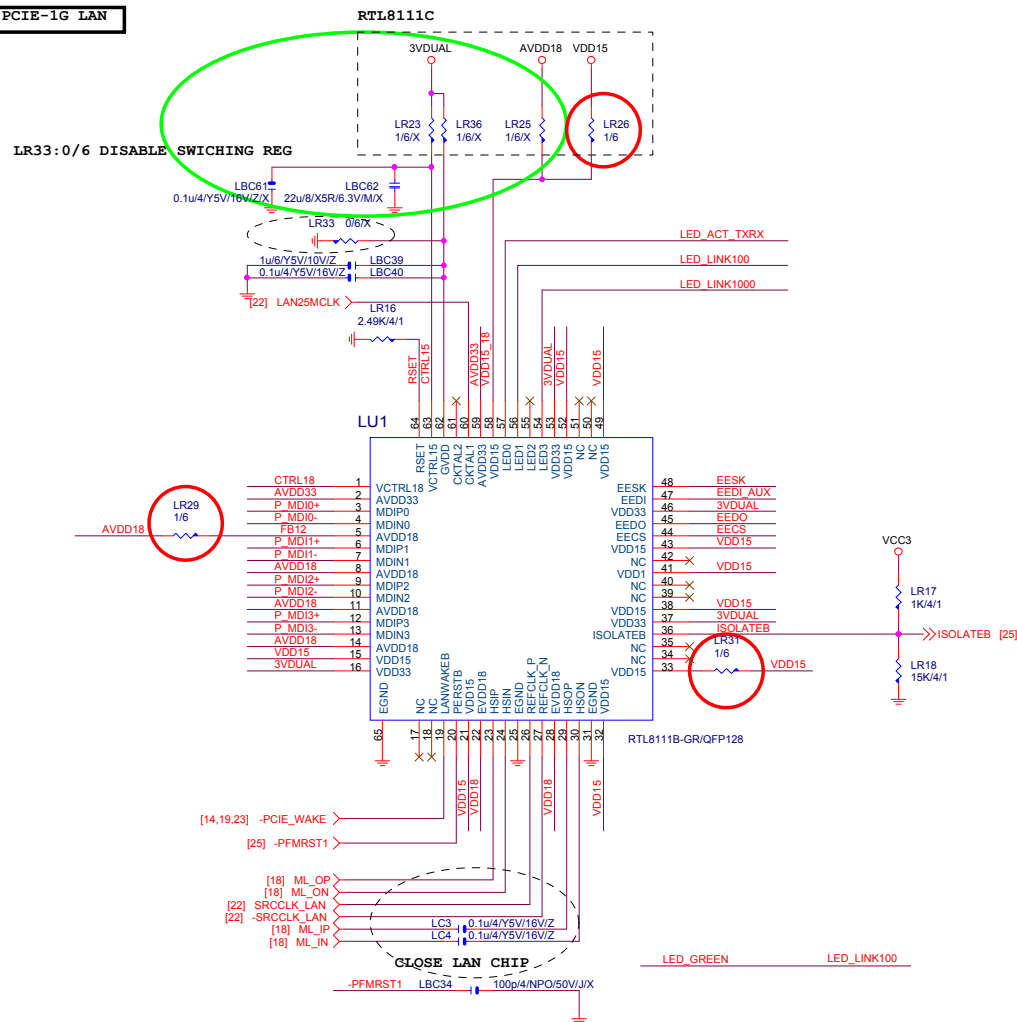
JMicron 1P PATA

P35-S3G

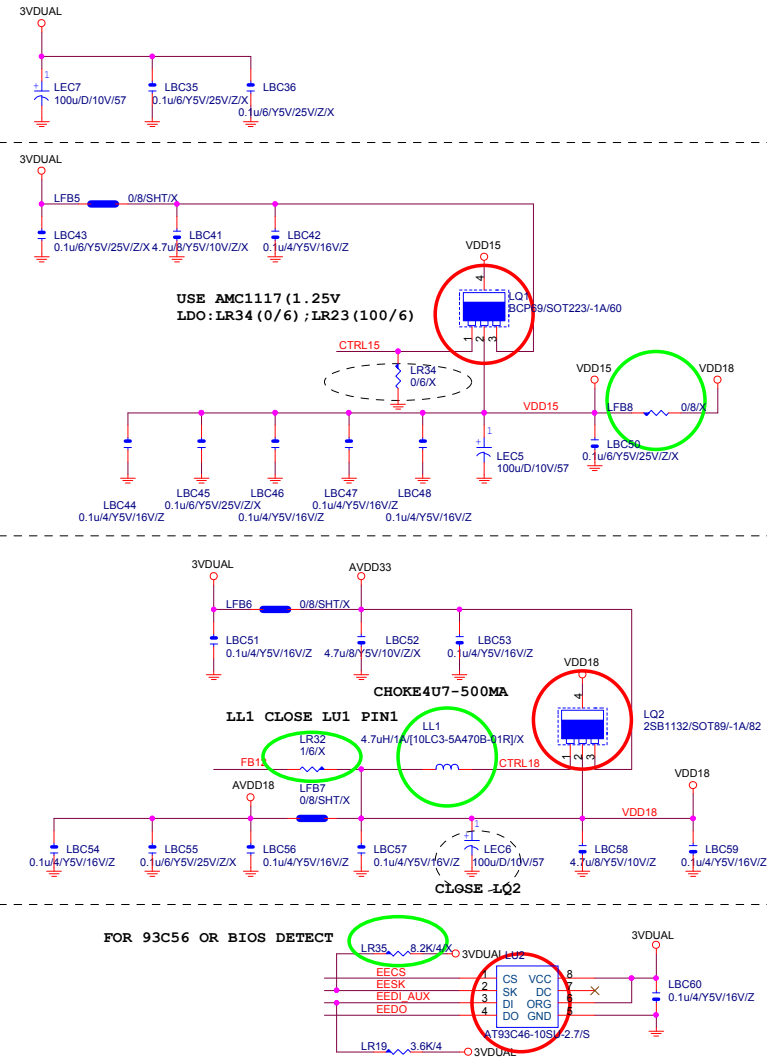
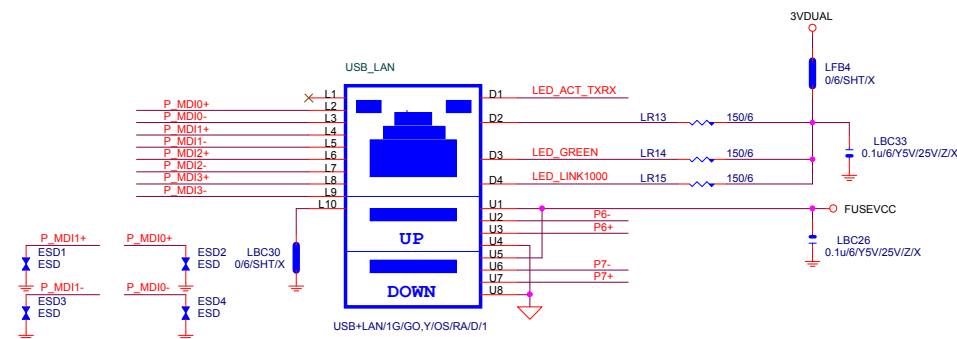
Rev	1.0
-----	-----

Date:	Thursday, November 15, 2007	Sheet	34	of	36
-------	-----------------------------	-------	----	----	----

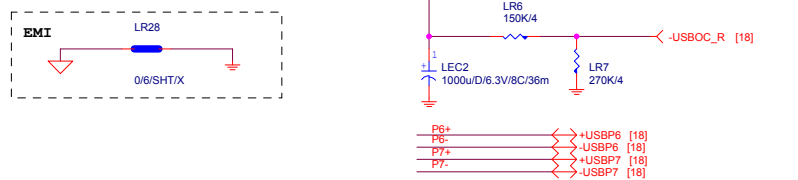
PCIE-1G LAN



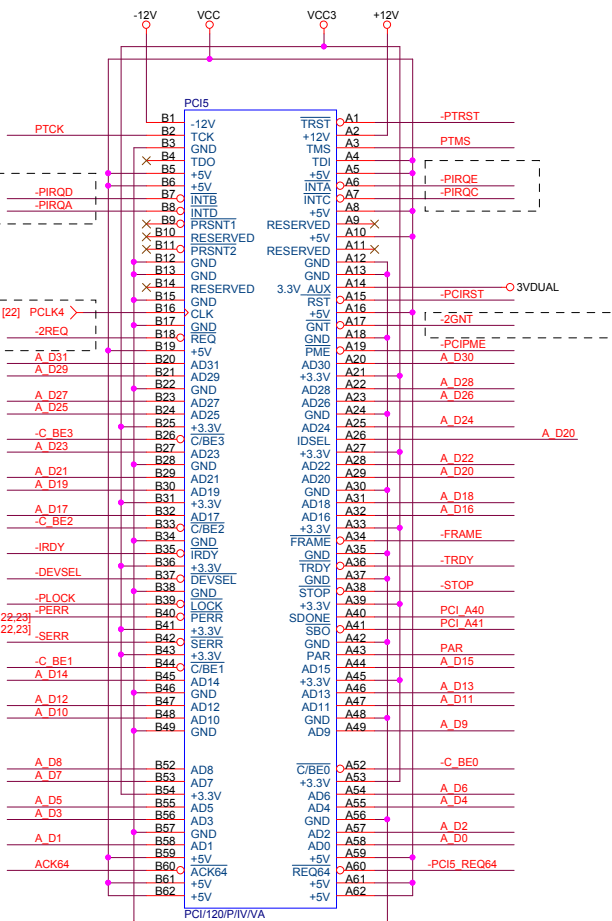
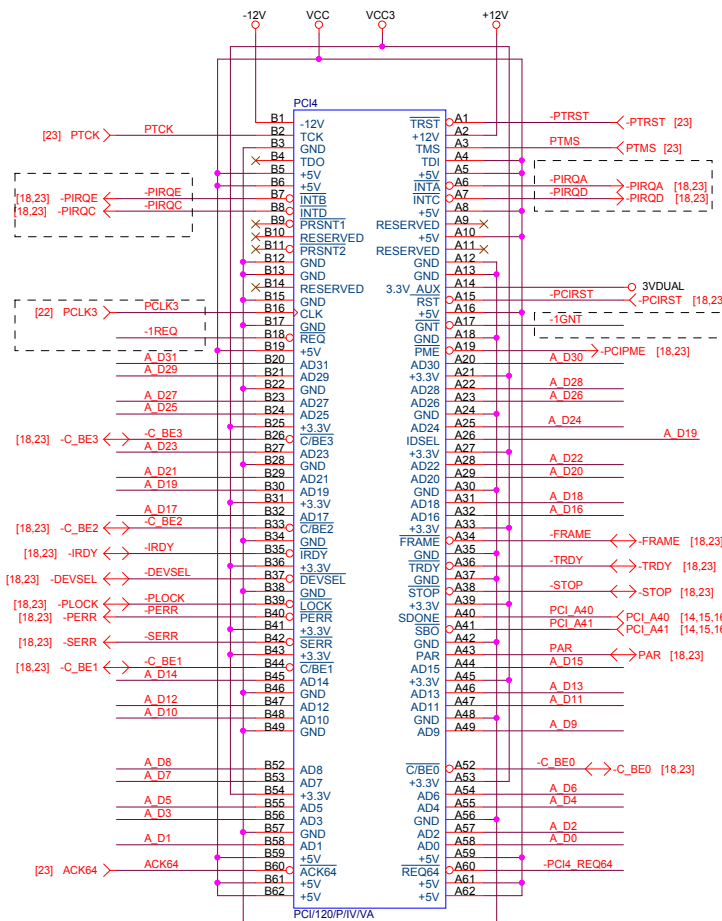
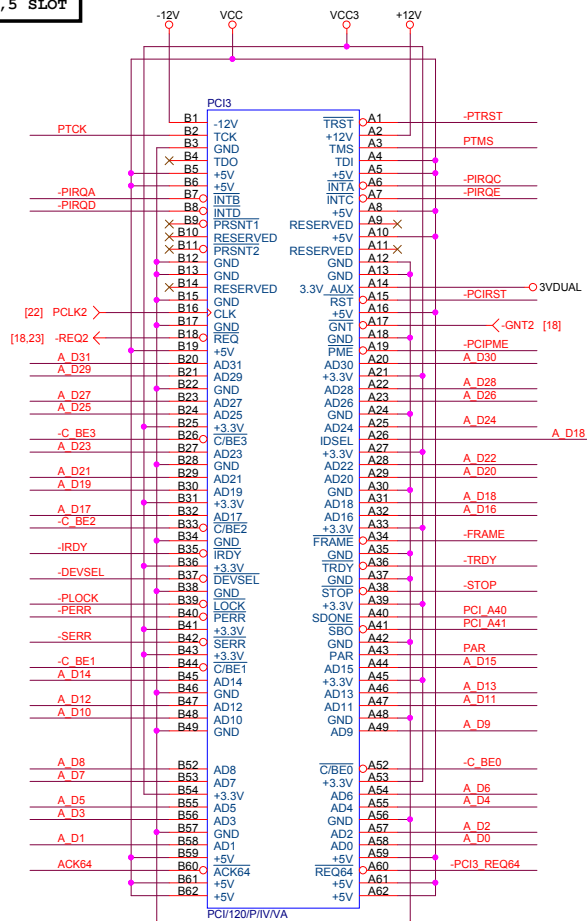
USB LAN CONNECTOR



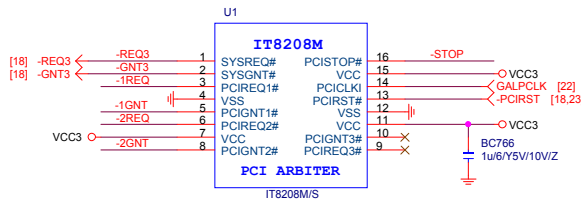
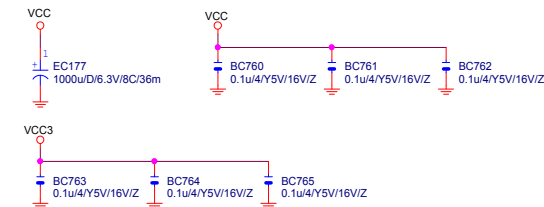
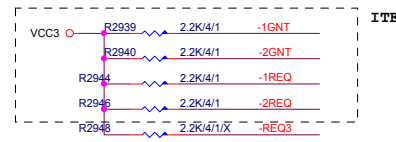
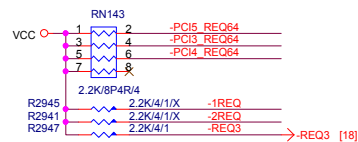
USB LAN



PCI 3,4,5 SLOT



[18,23] A_D[0..31] ↔ A_D10..31



Gigabyte Technology			
Title			
PCI SLOT 3, 4, 5			
P35-S3G			
Size	Document Number	Rev	
Custom		1.0	
Date:	Thursday, November 15, 2007	Sheet	36 of 36