

Model Name : GA-G41MT-ES2L**Revision 1.11****SHEET****TITLE**

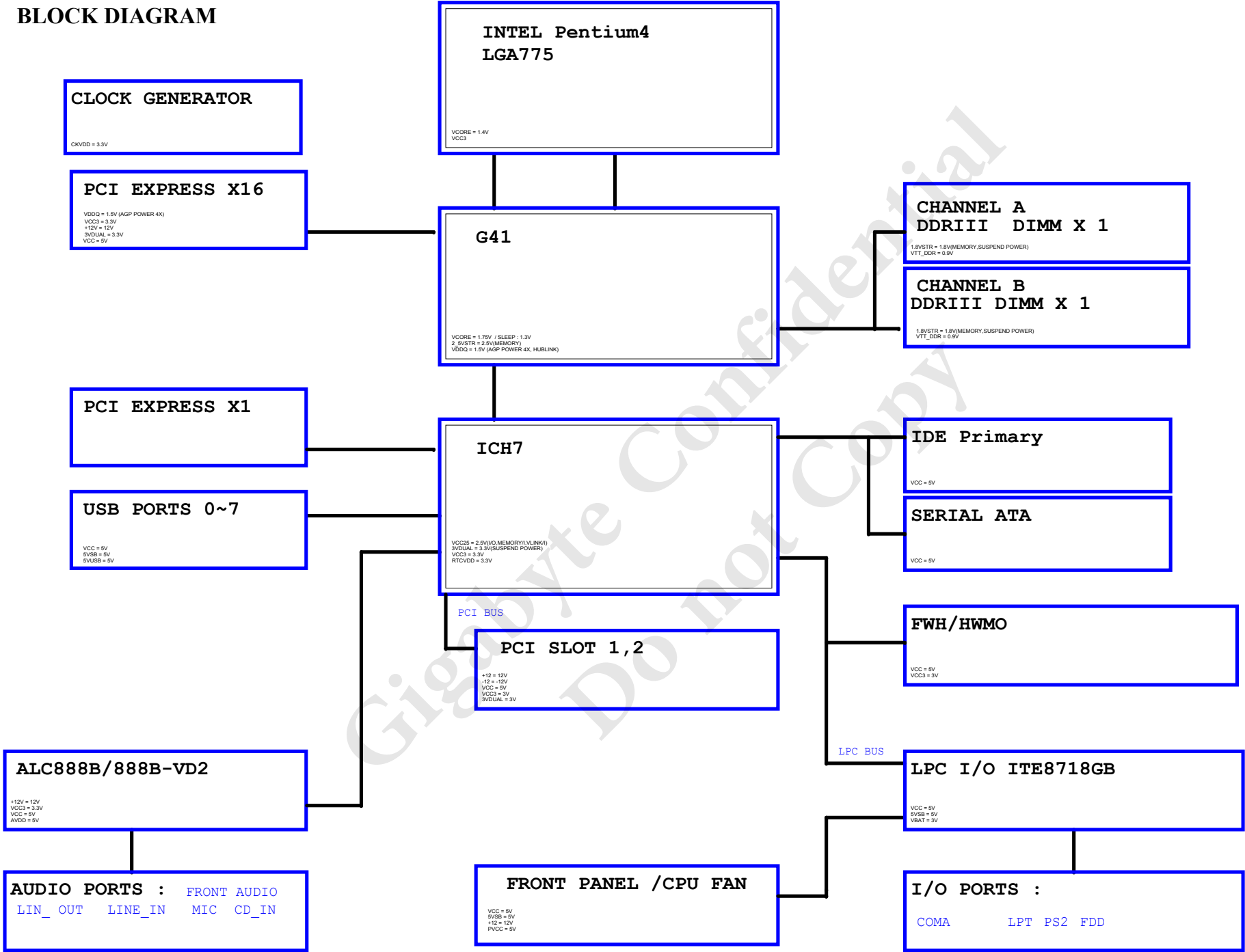
| | |
|----|----------------------------|
| 01 | COVER SHEET |
| 02 | BLOCK DIAGRAM |
| 03 | BOM & PCB MODIFY HISTORY |
| 04 | P4 LGA775 A |
| 05 | P4 LGA775 B,D |
| 06 | P4 LGA775 C |
| 07 | P4 LGA775 E,F,G,H |
| 08 | G41 HOST |
| 09 | G41 DDRII |
| 10 | G41 PCI E, DMI |
| 11 | G41 VGA |
| 12 | G41 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 1,2,PCIE*1 |
| 23 | IDE/FLOPPY |
| 24 | ITE 8718 GB |
| 25 | COM LPT |
| 26 | CI,HWM,KB/MS,DUALBIOS |
| 27 | ALC888B/888B-VD2 |

SHEET**TITLE**

| | |
|----|------------------------|
| 28 | REAR AUDIO JACK |
| 29 | DISCRETE POWER |
| 30 | VCORE PWM ISL6312 |
| 31 | ATX, OTHERS POWER |
| 32 | FRONT PANEL |
| 33 | REALTEK RTL8111E/8105E |

| | | | |
|-----------------------------|-------------------------|-------------|---------|
| Gigabyte Technology | | | |
| Title Cover Sheet | | | |
| Size | Document Number | Rev | |
| Custom | GA-G41MT-ES2L | 1.11 | |
| Date: | Tuesday, March 02, 2010 | Sheet | 1 of 33 |

BLOCK DIAGRAM

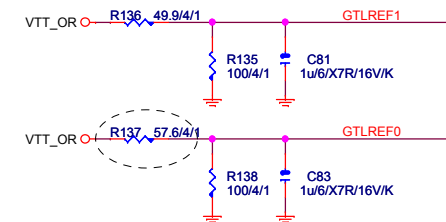
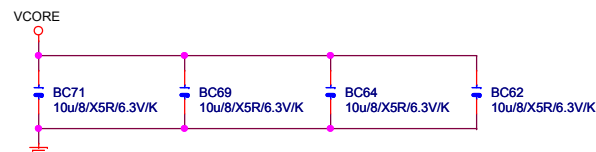


Version: 1.11

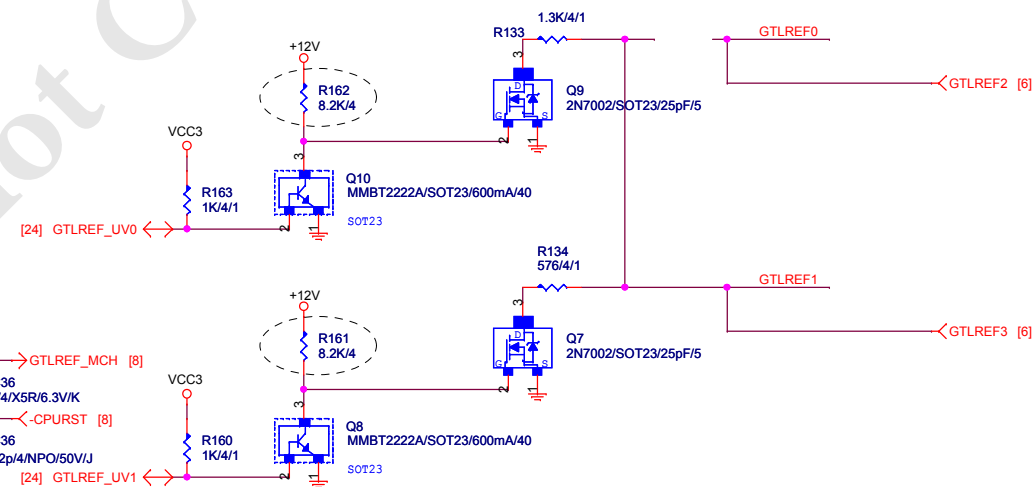
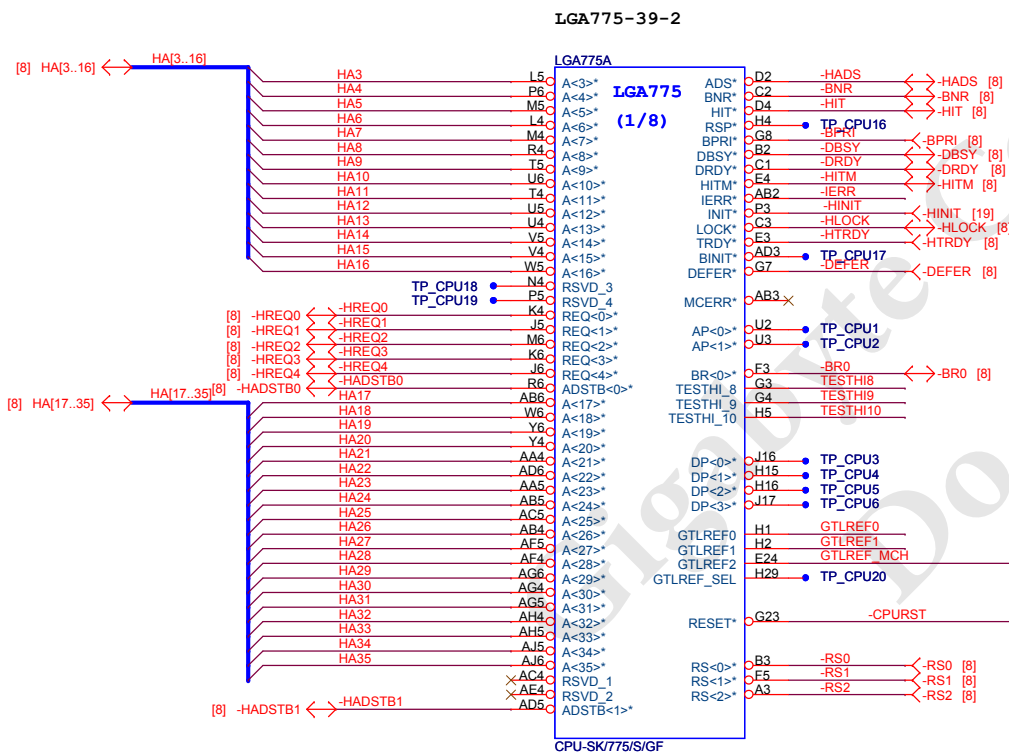
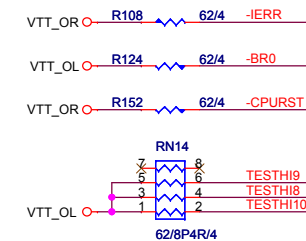
2010/03/02

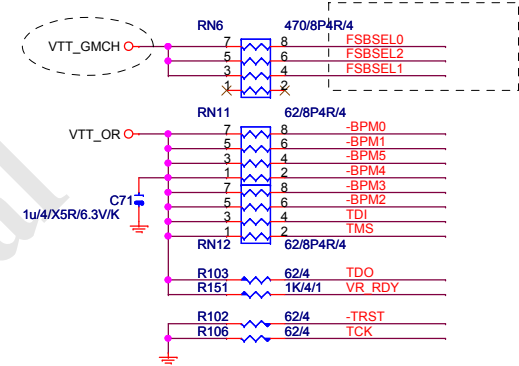
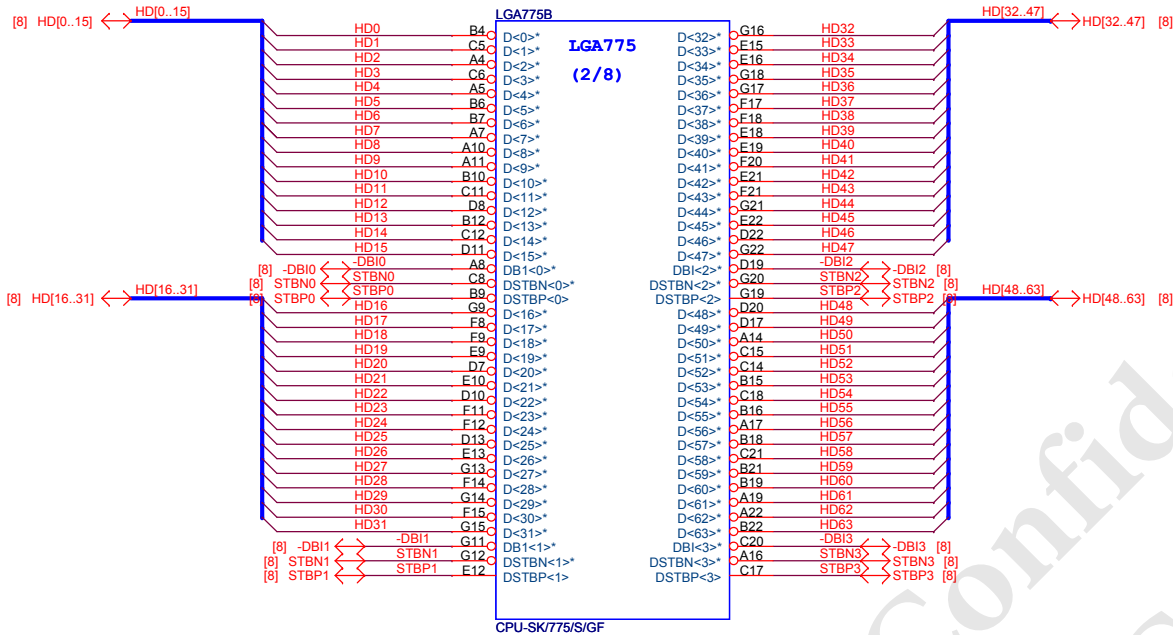
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| <i>Gigabyte Technology</i> | | | |
| BOM & PCB MODIFY HISTORY | | | |
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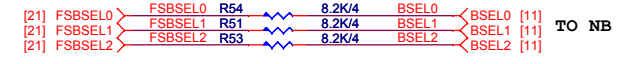


中間値0.9V





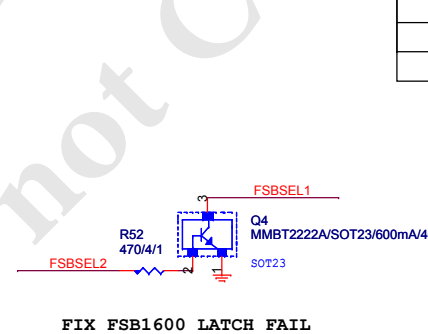
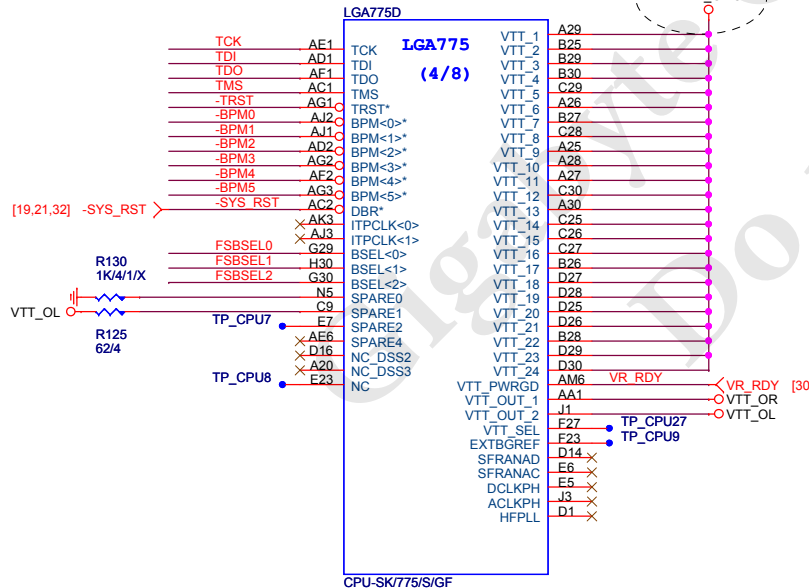
TO CLK GEN



CPU

| NA | FSB | FSA | Clock |
|---------|---------|---------|--------|
| FSBSEL3 | FSBSEL1 | FSBSEL0 | |
| 1 | 0 | 1 | 100MHz |
| 0 | 0 | 1 | 133MHz |
| 0 | 1 | 1 | 166MHz |
| 0 | 1 | 0 | 200MHz |
| 0 | 0 | 0 | 266MHz |

X



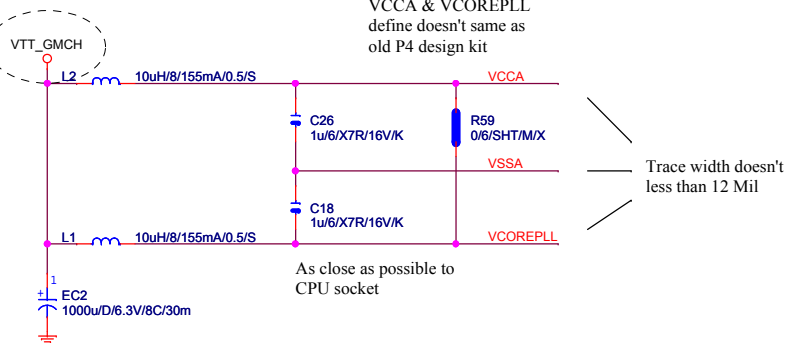
FIX FSB1600 LATCH FAIL

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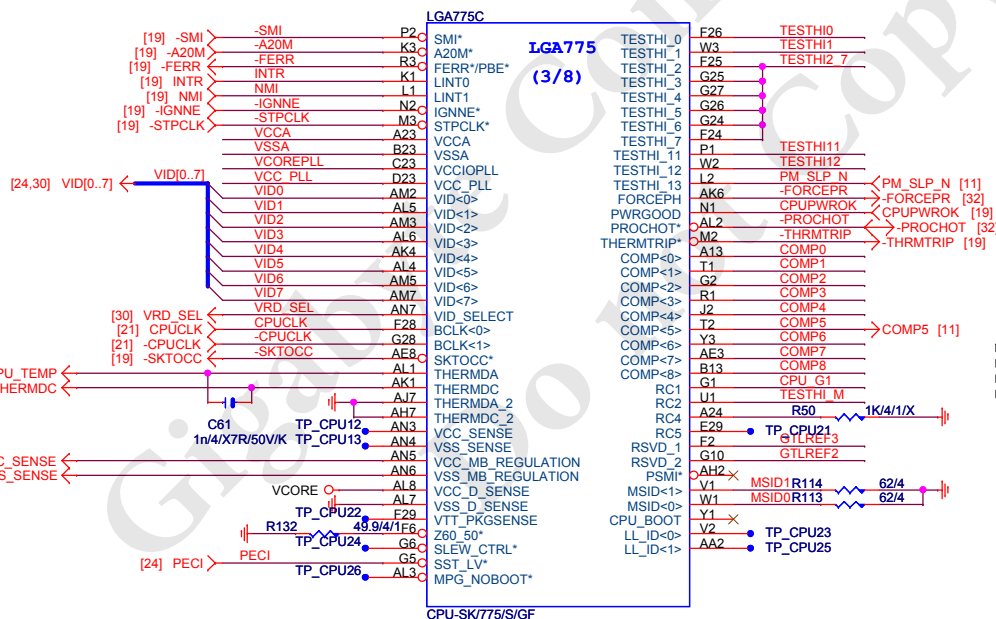
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|-------|-------------------------|---------------|---------------|
| Title | | | P4_LGA775-B,D |
| Size | Document Number | GA-G41MT-ES2L | |
| Date: | Tuesday, March 02, 2010 | Sheet | 5 of 33 |

Rev 1.1

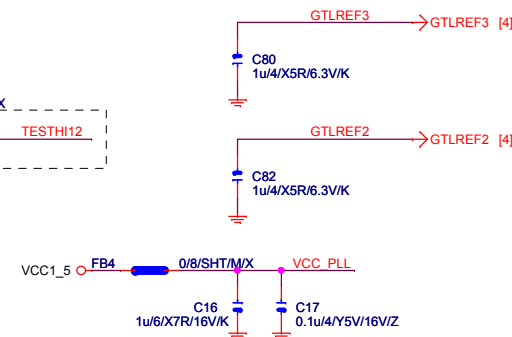
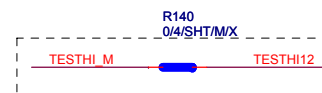
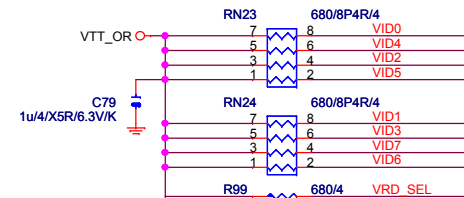
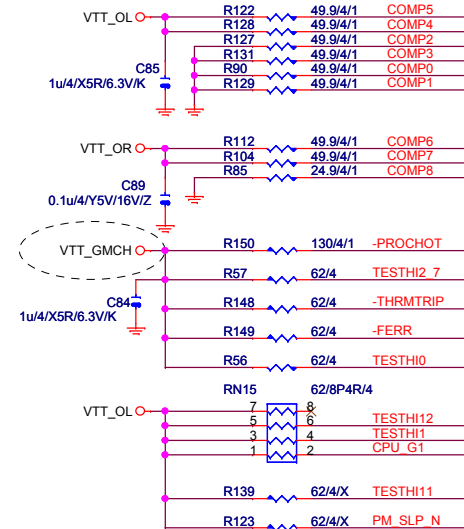
Note:
VCCA & VCOREPLL
define doesn't same as
old P4 design kit



As close as possible to
CPU socket



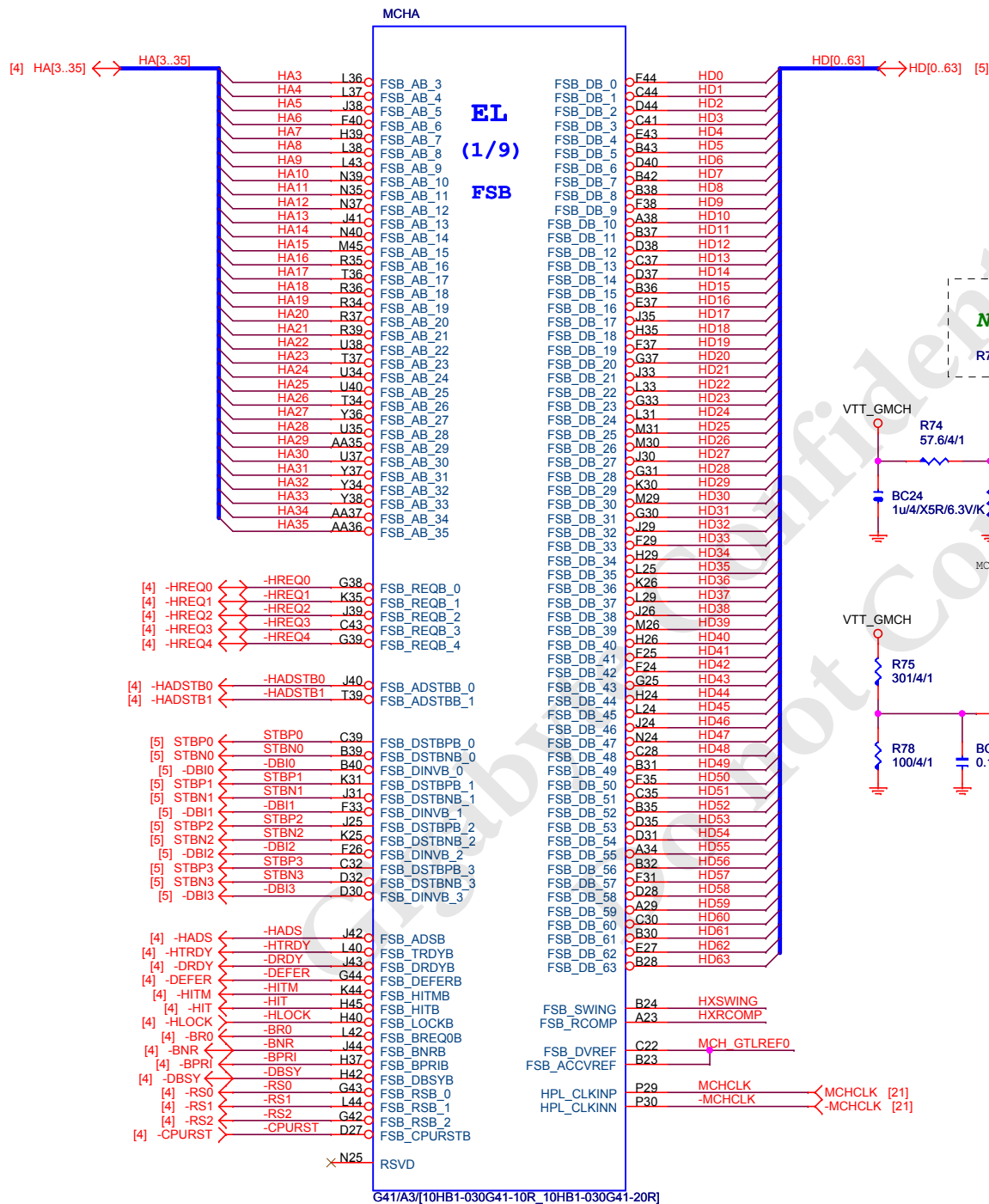
Place outside of CPU socket



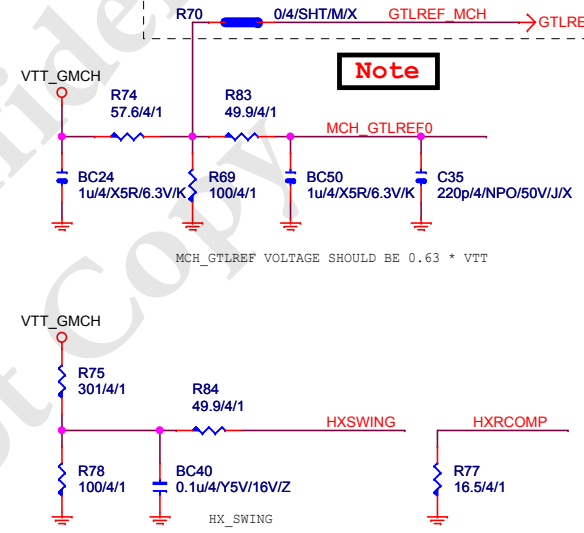
PECI:Platform Environment Control Interface

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| | | | |
|-------|-----------------|-------------------------|---------------|
| Title | | | P4_LGA775-C |
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Not used for CoreTM2 Duo and Wolfdale



Note

MCH_GTLREF VOLTAGE SHOULD BE 0.63 * VTT

Gigabyte Technology

| | | | | |
|--------|-------------------------|---------------|-----------|-------|
| Title | | | GMCH-HOST | |
| Size | Document Number | GA-G41MT-ES2L | | Rev |
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EL (3/9) DDR_A

| | | |
|-----------------------------|-------------|------------|
| MAAA1 BC31 | DDR_A_MA_0 | BC5 DQSA0 |
| MAAA2 BB32 | DDR_A_MA_1 | BD4 DQSA0 |
| MAAA3 BC32 | DDR_A_MA_2 | BC3 DMA1 |
| MAAA4 BD32 | DDR_A_MA_4 | BC2 MDA1 |
| MAAA5 BB31 | DDR_A_MA_5 | BD3 MDA1 |
| MAAA6 AY31 | DDR_A_MA_6 | BD7 MDA2 |
| MAAA7 BA31 | DDR_A_MA_7 | BB7 MDA3 |
| MAAA8 BD31 | DDR_A_MA_8 | BB2 MDA4 |
| MAAA9 BD30 | DDR_A_MA_9 | BA3 MDA5 |
| MAAA10 AW43 | DDR_A_MA_10 | BE6 MDA6 |
| MAAA11 BC30 | DDR_A_MA_11 | BD6 MDA7 |
| MAAA12 BB30 | DDR_A_MA_12 | BB9 DQSA1 |
| MAAA13 AM42 | DDR_A_MA_13 | BC9 DQSA1 |
| MAAA14 BD28 | DDR_A_MA_14 | |
| | | |
| [15] -SCASA ← SCASA AW42 | DDR_A_WEB | BD9 DMA1 |
| [15] -SRASA ← SRASA AW42 | DDR_A_CASB | BB8 MDA8 |
| | DDR_A_RASB | BA8 MDA9 |
| | | |
| [15] SBA00 ← SBA00 AV45 | DDR_A_BS_0 | BD11 MDA10 |
| [15] SBA01 ← SBA01 AY44 | DDR_A_BS_1 | BB11 MDA11 |
| [15] SBA02 ← SBA02 BC28 | DDR_A_BS_2 | BC7 MDA12 |
| | | |
| [15] -CSA0 ← CSA0 AU43 | DDR_A_CSB_0 | BE8 MDA13 |
| | DDR_A_CSB_1 | BD10 MDA14 |
| | DDR_A_CSB_2 | AY11 MDA15 |
| | | |
| [15] CKEA0 ← CKEA0 BB27 | DDR_A_CKE_0 | BD15 DQSA2 |
| [15] CKEA1 ← CKEA1 BB27 | DDR_A_CKE_1 | BB15 DQSA2 |
| | DDR_A_CKE_2 | BD14 DMA2 |
| | DDR_A_CKE_3 | |
| | | |
| [15] MODT_A0 ← MODT_A0 AR42 | DDR_A_ODT_0 | BB14 MDA16 |
| [15] MODT_A1 ← MODT_A1 AM44 | DDR_A_ODT_1 | BC14 MDA17 |
| | DDR_A_ODT_2 | BC16 MDA18 |
| | DDR_A_ODT_3 | BB16 MDA19 |
| | DDR_A_ODT_4 | BC15 MDA20 |
| | DDR_A_ODT_5 | BE12 MDA21 |
| | DDR_A_ODT_6 | BA15 MDA22 |
| | DDR_A_ODT_7 | BD16 MDA23 |
| | | |
| [15] DCLKA0 ← DCLKA0 AY37 | DDR_A_CK_0 | AR22 DQSA3 |
| [15] -DCLKA0 ← DCLKA0 BA37 | DDR_A_CK_0 | AT22 DQSA3 |
| | DDR_A_CK_1 | AV22 DMA3 |
| | DDR_A_CK_2 | |
| | | |
| [15] DCLKA2 ← DCLKA2 AY37 | DDR_A_CK_2 | AW21 MDA24 |
| [15] -DCLKA2 ← DCLKA2 AU37 | DDR_A_CK_2 | AY22 MDA25 |
| | DDR_A_CK_3 | AV24 MDA27 |
| | DDR_A_CK_4 | AY24 MDA27 |
| | DDR_A_CK_5 | AU21 MDA28 |
| | DDR_A_CK_6 | AT21 MDA29 |
| | DDR_A_CK_7 | AR24 MDA30 |
| | DDR_A_CK_8 | AU24 MDA31 |
| | DDR_A_CK_9 | |
| | | |
| | DDR_A_DQS_4 | AH43 DQSA4 |
| | DDR_A_DQS_4 | AH42 DQSA4 |
| | DDR_A_DM_4 | AK42 DMA4 |
| | | |
| | DDR_A_DQ_32 | AL41 MDA32 |
| | DDR_A_DQ_33 | AK43 MDA33 |
| | DDR_A_DQ_34 | AG42 MDA34 |
| | DDR_A_DQ_35 | AG44 MDA35 |
| | DDR_A_DQ_36 | AL42 MDA36 |
| | DDR_A_DQ_37 | AK44 MDA37 |
| | DDR_A_DQ_38 | AH44 MDA38 |
| | DDR_A_DQ_39 | AG41 MDA39 |
| | | |
| | DDR_A_DQS_5 | AD43 DQSA5 |
| | DDR_A_DQS_5 | AE42 DQSA5 |
| | DDR_A_DM_5 | AE45 DMA5 |
| | | |
| | DDR_A_DQ_40 | AF43 MDA40 |
| | DDR_A_DQ_41 | AF42 MDA41 |
| | DDR_A_DQ_42 | AC44 MDA42 |
| | DDR_A_DQ_43 | AC42 MDA43 |
| | DDR_A_DQ_44 | AF40 MDA44 |
| | DDR_A_DQ_45 | AT44 MDA45 |
| | DDR_A_DQ_46 | AD44 MDA46 |
| | DDR_A_DQ_47 | AC41 MDA47 |
| | | |
| | DDR_A_DQS_6 | Y43 DQSA6 |
| | DDR_A_DQS_6 | Y42 DQSA6 |
| | DDR_A_DM_6 | AM45 DMA6 |
| | | |
| | DDR_A_DQ_48 | AB43 MDA48 |
| | DDR_A_DQ_49 | AA42 MDA49 |
| | DDR_A_DQ_50 | WA42 MDA50 |
| | DDR_A_DQ_51 | WA1 MDA51 |
| | DDR_A_DQ_52 | AB42 MDA52 |
| | DDR_A_DQ_53 | AB44 MDA53 |
| | DDR_A_DQ_54 | Y44 MDA54 |
| | DDR_A_DQ_55 | Y40 MDA55 |
| | | |
| | DDR_A_DQS_7 | T44 DQSA7 |
| | DDR_A_DQS_7 | T43 DQSA7 |
| | DDR_A_DM_7 | T42 DMA7 |
| | | |
| | DDR_A_DQ_56 | Y42 MDA56 |
| | DDR_A_DQ_57 | U45 MDA57 |
| | DDR_A_DQ_58 | R40 MDA58 |
| | DDR_A_DQ_59 | P44 MDA59 |
| | DDR_A_DQ_60 | V44 MDA60 |
| | DDR_A_DQ_61 | V43 MDA61 |
| | DDR_A_DQ_62 | R41 MDA62 |
| | DDR_A_DQ_63 | R44 MDA63 |

G41A3[10H81-030G41-10R_10H81-030G41-20R]

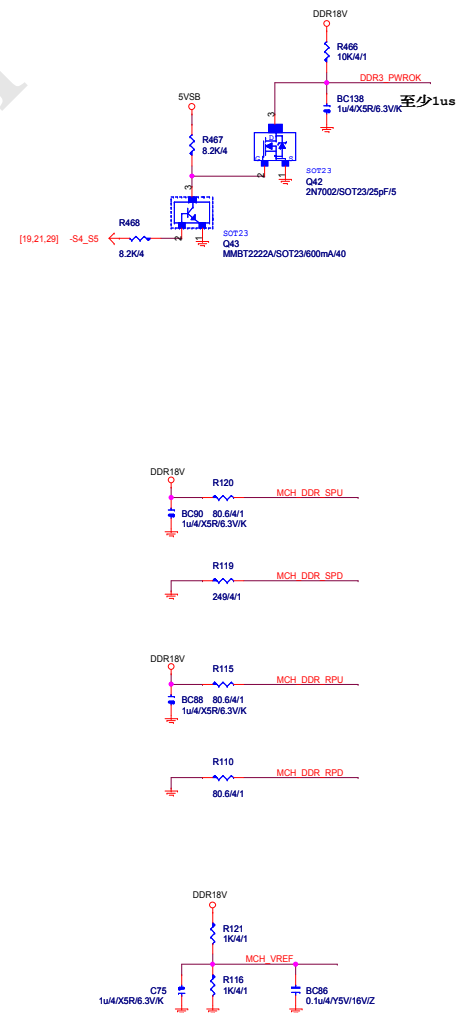
| | | |
|-----------|-------------|------|
| MDA0_63 | ← MDA0_63 | [15] |
| MAAA0_14 | ← MAAA0_14 | [15] |
| MODT_A0_1 | ← MODT_A0_1 | [15] |
| DQSA0_7 | ← DQSA0_7 | [15] |
| DQSA0_7 | ← DQSA0_7 | [15] |
| DMA0_7 | ← DMA0_7 | [15] |

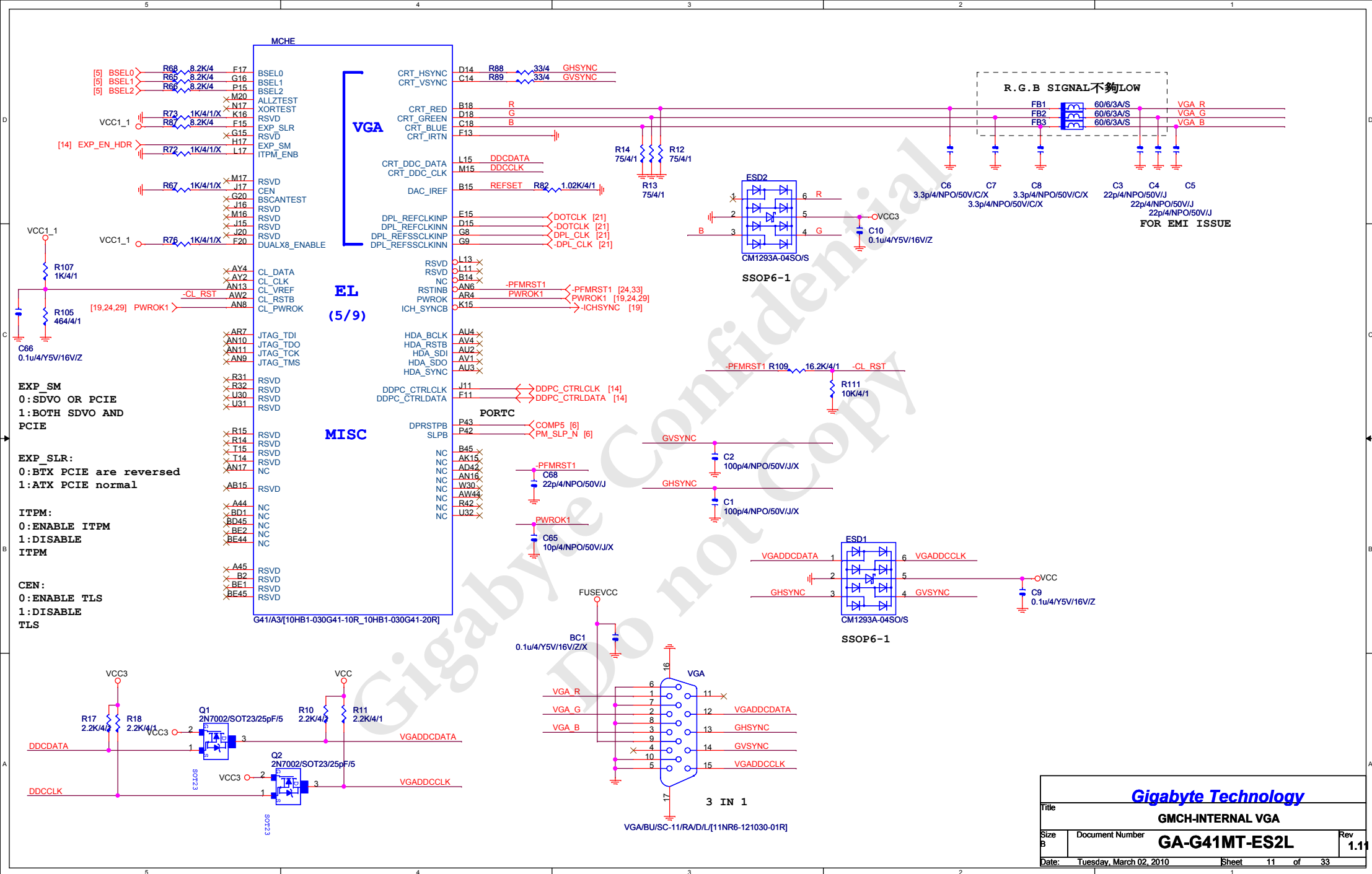
EL (4/9) DDR_B

| | | |
|-----------------------------|-----------------|------------|
| MAAB0 BD24 | DDR_B_MA_0 | AW8 DQSB0 |
| MAAB1 BB23 | DDR_B_MA_1 | AW9 DQSB0 |
| MAAB2 BB24 | DDR_B_MA_2 | AY6 DMB0 |
| MAAB3 BD23 | DDR_B_MA_3 | |
| MAAB4 BB22 | DDR_B_MA_4 | AV7 MDB0 |
| MAAB5 BD22 | DDR_B_MA_5 | AW4 MDB1 |
| MAAB6 BC22 | DDR_B_MA_6 | BA9 MDB2 |
| MAAB7 BC20 | DDR_B_MA_7 | AU11 MDB3 |
| MAAB8 BD20 | DDR_B_MA_8 | AU7 MDB5 |
| MAAB9 BD20 | DDR_B_MA_9 | AU15 MDB6 |
| MAAB10 BC26 | DDR_B_MA_10 | AW7 MDB6 |
| MAAB11 BD19 | DDR_B_MA_11 | AY9 MDB7 |
| MAAB12 BB19 | DDR_B_MA_12 | |
| MAAB13 BE38 | DDR_B_MA_13 | |
| MAAB14 BA19 | DDR_B_MA_14 | |
| | | |
| [16] -SWEB ← SWEB BD36 | DDR_B_WEB | AT15 DQSB1 |
| [16] -SCASB ← SCASB BC37C | DDR_B_CASB | AU15 DQSB1 |
| [16] -SRASB ← SRASB BD36C | DDR_B_RASB | AR15 DMB1 |
| | | |
| [16] SBA00 ← SBA00 BD26 | DDR_B_BS_0 | AY13 MDB8 |
| [16] SBA01 ← SBA01 BB26 | DDR_B_BS_1 | AP15 MDB9 |
| [16] SBA02 ← SBA02 BA19 | DDR_B_BS_2 | AW15 MDB10 |
| | | |
| [16] -CSB0 ← CSB0 BB35C | DDR_B_CSB_0 | AT16 MDB11 |
| [16] -CSB1 ← CSB1 BD36C | DDR_B_CSB_1 | AU13 MDB12 |
| | | |
| [16] CKEB0 ← CKEB0 BC18 | DDR_B_CKE_0 | AP16 MDB14 |
| [16] CKEB1 ← CKEB1 BE17 | DDR_B_CKE_1 | AW13 MDB15 |
| | DDR_B_CKE_2 | AT16 MDB15 |
| | DDR_B_CKE_3 | |
| | | |
| [16] MODT_B0 ← MODT_B0 BD37 | DDR_B_ODT_0 | AR20 DQSB2 |
| [16] MODT_B1 ← MODT_B1 BC39 | DDR_B_ODT_1 | AR17 DQSB2 |
| | DDR_B_ODT_2 | AU17 DMB2 |
| | DDR_B_ODT_3 | |
| | | |
| [16] DCLKB0 ← DCLKB0 AY33 | DDR_B_CK_0 | AY17 MDB16 |
| [16] -DCLKB0 ← DCLKB0 AW33 | DDR_B_CK_0 | AV17 MDB17 |
| | DDR_B_CK_1 | AR21 MDB18 |
| | DDR_B_CK_2 | AV20 MDB19 |
| | DDR_B_CK_3 | AP17 MDB20 |
| | DDR_B_CK_4 | AW16 MDB21 |
| | DDR_B_CK_5 | AT20 MDB22 |
| | DDR_B_CK_6 | AN20 MDB23 |
| | | |
| [16] DCLKB2 ← DCLKB2 AY35 | DDR_B_CK_2 | AU26 DQSB3 |
| [16] -DCLKB2 ← DCLKB2 AT31 | DDR_B_CK_2 | AT26 DQSB3 |
| | DDR_B_CK_3 | AV25 DMB3 |
| | DDR_B_CK_4 | |
| | DDR_B_CK_5 | |
| | DDR_B_CK_6 | |
| | | |
| | DDR_B_DQS_4 | AR38 DQSB4 |
| | DDR_B_DQS_4 | AR37 DQSB4 |
| | DDR_B_DM_4 | AU39 DMB4 |
| | | |
| | DDR_B_DQ_32 | AR36 MDB32 |
| | DDR_B_DQ_33 | AU38 MDB33 |
| | DDR_B_DQ_34 | AN35 MDB34 |
| | DDR_B_DQ_35 | AN37 MDB35 |
| | DDR_B_DQ_36 | AV39 MDB36 |
| | DDR_B_DQ_37 | AW39 MDB37 |
| | DDR_B_DQ_38 | AU40 MDB38 |
| | DDR_B_DQ_39 | AU41 MDB39 |
| | | |
| [15] -CSA1 ← CSA1 AR43 | DDR3_A_CSB1 | |
| [15] -SWEA ← SWEA AT44 | DDR3_A_WEB | |
| | DDR3_B_ODT3 | |
| | DDR3_DRAM_PWROK | |
| | DDR3_DRAM_RSTB | |
| [15,16] DDR3_RST ← | | |
| | | |
| | DDR_B_DQ_40 | AL35 MDB40 |
| | DDR_B_DQ_41 | AL36 MDB41 |
| | DDR_B_DQ_42 | AK36 MDB42 |
| | DDR_B_DQ_43 | AJ34 MDB43 |
| | DDR_B_DQ_44 | AN39 MDB44 |
| | DDR_B_DQ_45 | AN40 MDB45 |
| | DDR_B_DQ_46 | AK37 MDB46 |
| | DDR_B_DQ_47 | AL39 MDB47 |
| | | |
| | DDR_B_DQS_6 | AE37 DQSB6 |
| | DDR_B_DQS_6 | AE36 DQSB6 |
| | DDR_B_DM_6 | AJ35 DMB6 |
| | | |
| | DDR_B_DQ_48 | AJ38 MDB48 |
| | DDR_B_DQ_49 | AJ37 MDB49 |
| | DDR_B_DQ_50 | AE38 MDB50 |
| | DDR_B_DQ_51 | AE37 MDB51 |
| | DDR_B_DQ_52 | AK40 MDB52 |
| | DDR_B_DQ_53 | AH40 MDB53 |
| | DDR_B_DQ_54 | AE34 MDB54 |
| | | |
| | DDR_B_DQ_55 | AE35 MDB55 |
| | DDR_B_DQS_7 | AB35 DQSB7 |
| | DDR_B_DQS_7 | AD35 DQSB7 |
| | | |
| | DDR_B_DM_7 | AD37 DMB7 |
| | DDR_B_DQ_56 | AD40 MDB56 |
| | DDR_B_DQ_57 | AD38 MDB57 |
| | DDR_B_DQ_58 | AB40 MDB58 |
| | DDR_B_DQ_59 | AE39 MDB59 |
| | DDR_B_DQ_60 | AE36 MDB60 |
| | DDR_B_DQ_61 | AE39 MDB61 |
| | DDR_B_DQ_62 | AB37 MDB62 |
| | DDR_B_DQ_63 | AB38 MDB63 |

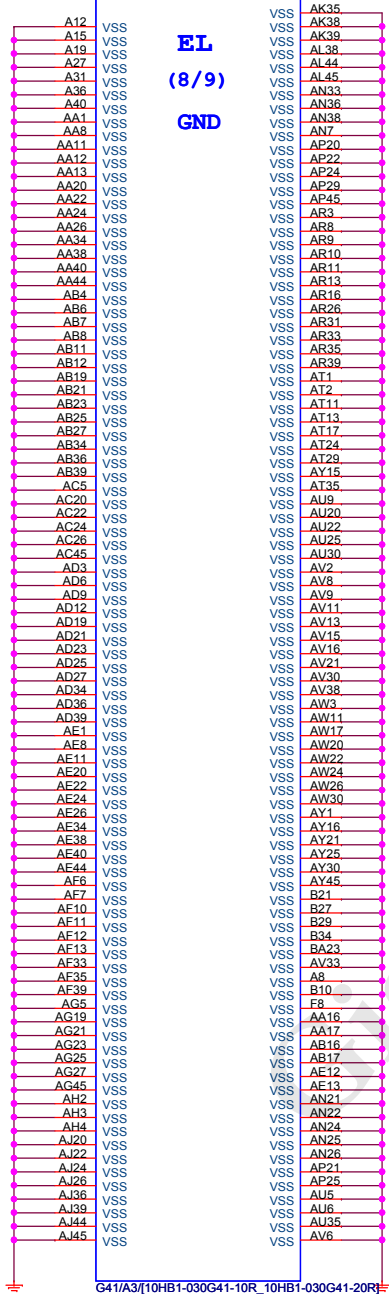
G41A3[10H81-030G41-10R_10H81-030G41-20R]

| | | |
|-----------|-------------|------|
| MDB0_63 | ← MDB0_63 | [16] |
| MAAB0_14 | ← MAAB0_14 | [16] |
| MODT_B0_1 | ← MODT_B0_1 | [16] |
| DQSB0_7 | ← DQSB0_7 | [16] |
| DQSB0_7 | ← DQSB0_7 | [16] |
| DMB0_7 | ← DMB0_7 | [16] |



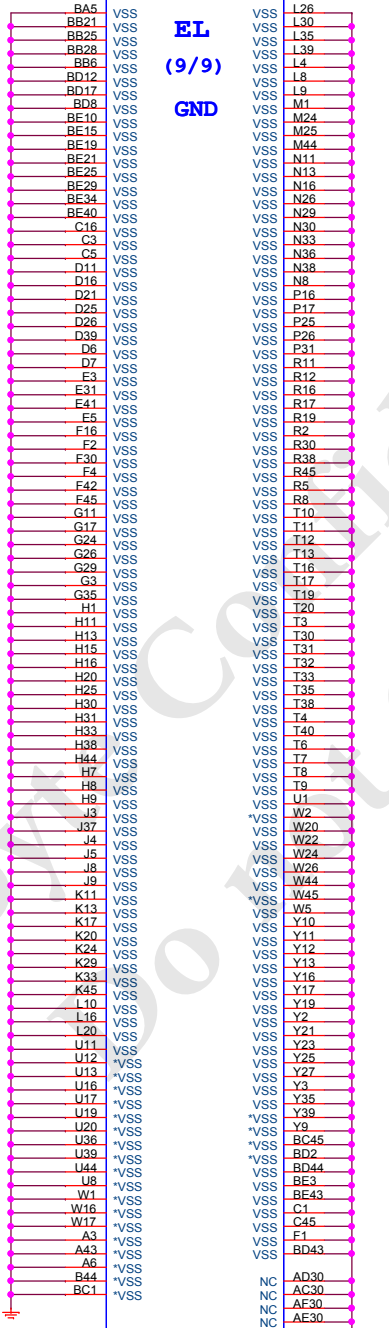


MCHH

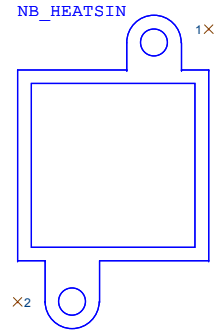


G41/A3[10HB1-030G41-10R_10HB1-030G41-20R]

MCHI



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



NB_HS

NB_HEATSINK[12SP2-04A004-42R_12SP2-04A004-43R]

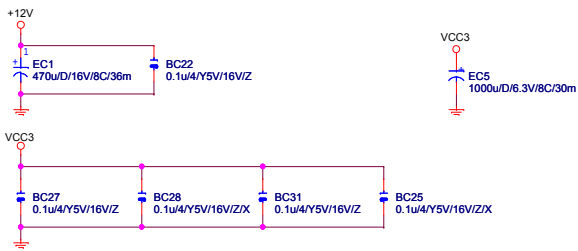
BGASINK445A-L

GRAY 20MM

Gigabyte Technology

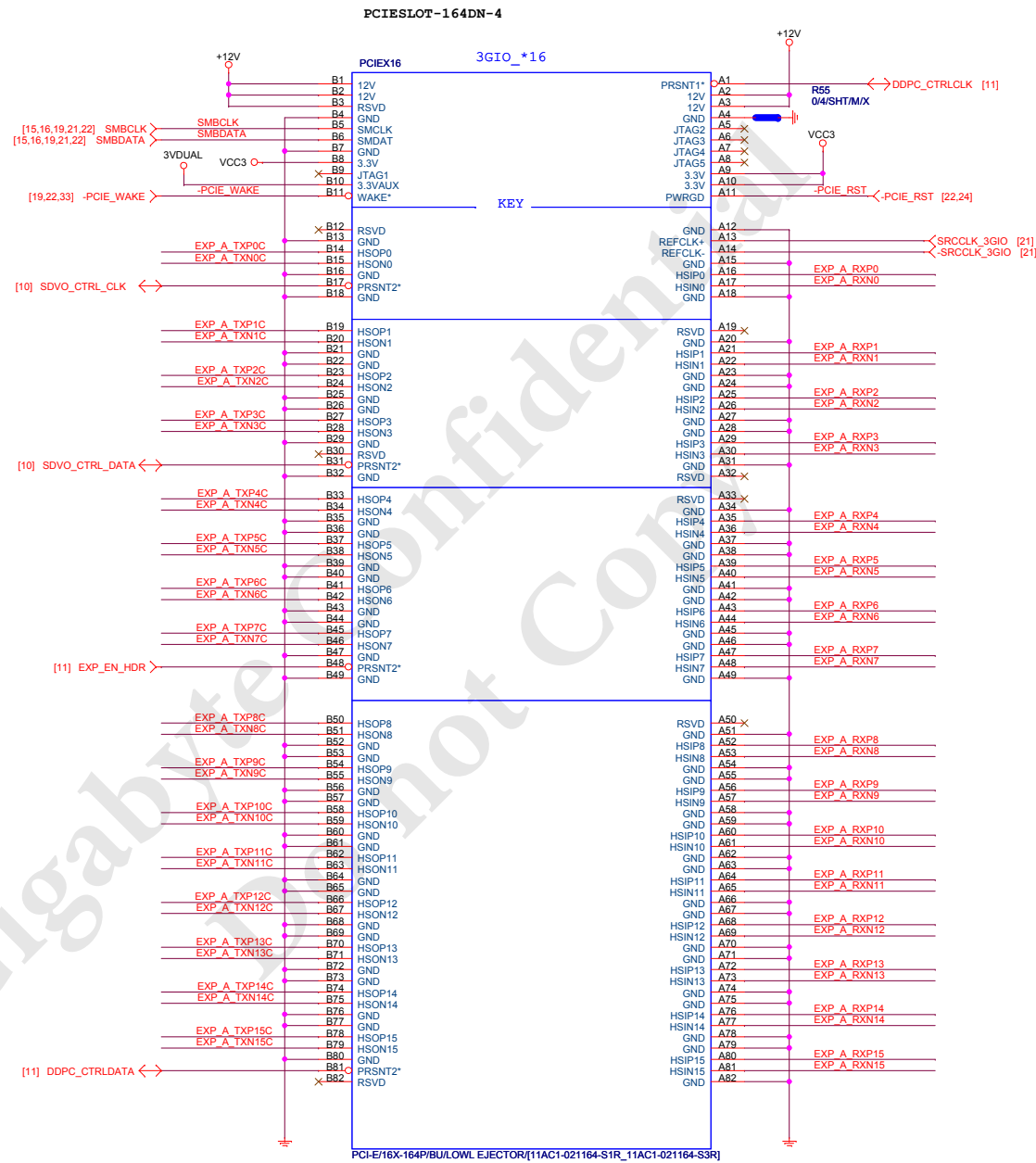
GMCH-GND

| | | |
|-------------|-------------------------|----------------|
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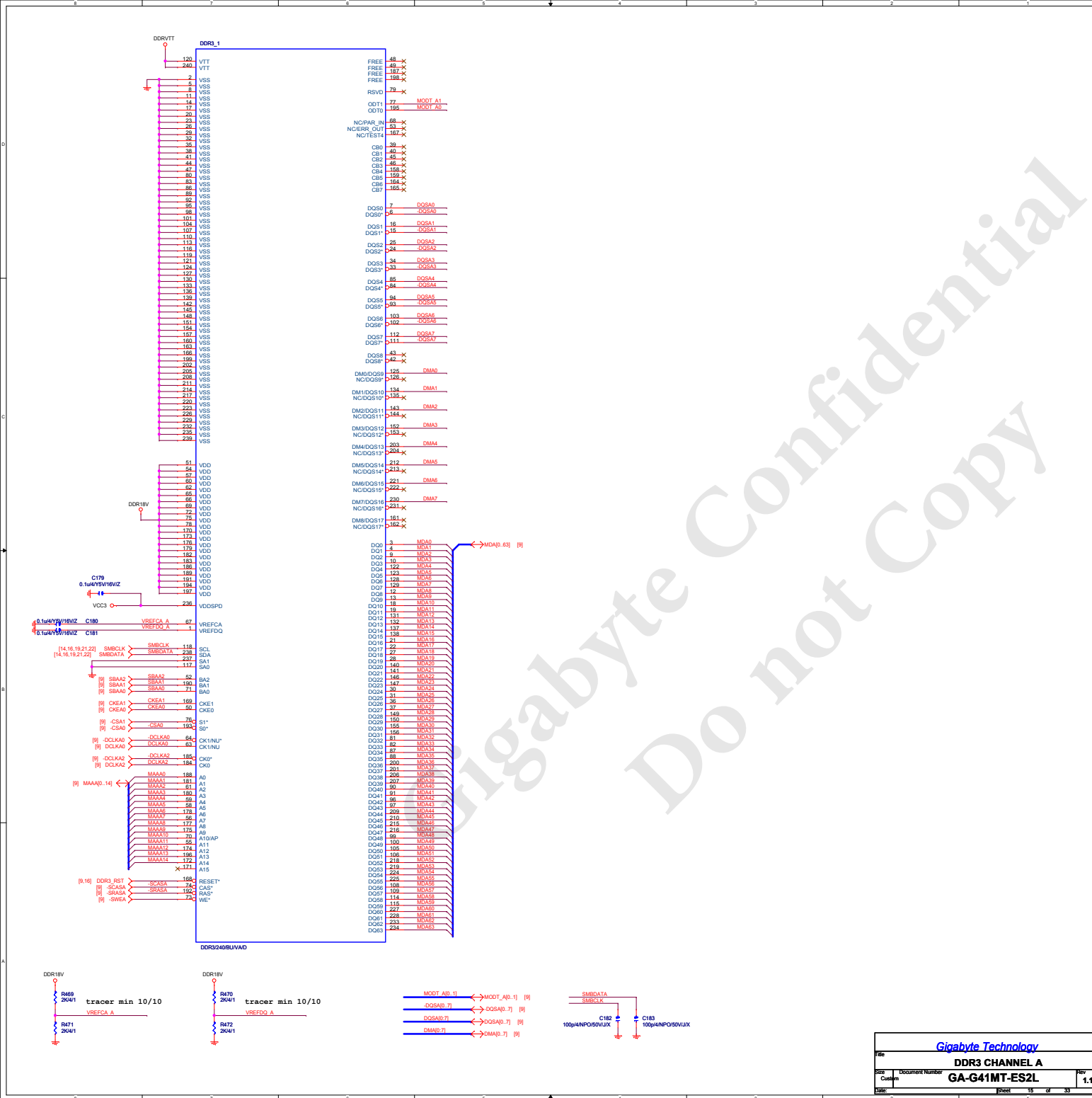


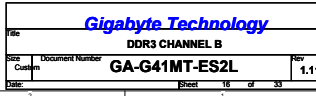
EXP_A_TXP[0..15] >>> EXP_A_TXP[0..15] [10] EXP_A_RXP[0..15] >>> EXP_A_RXP[0..15] [10]
EXP_A_TXN[0..15] >>> EXP_A_TXN[0..15] [10] EXP_A_RXN[0..15] >>> EXP_A_RXN[0..15] [10]

| | | | |
|-------------|-----|------------------|--------------|
| EXP_A_TXP0 | C30 | 0.1uF/4X7R/16V/K | EXP_A_TXP0C |
| EXP_A_TXN0 | C29 | 0.1uF/4X7R/16V/K | EXP_A_TXN0C |
| EXP_A_TXP1 | C31 | 0.1uF/4X7R/16V/K | EXP_A_TXP1C |
| EXP_A_TXN1 | C32 | 0.1uF/4X7R/16V/K | EXP_A_TXN1C |
| EXP_A_TXP2 | C33 | 0.1uF/4X7R/16V/K | EXP_A_TXP2C |
| EXP_A_TXN2 | C34 | 0.1uF/4X7R/16V/K | EXP_A_TXN2C |
| EXP_A_TXP3 | C37 | 0.1uF/4X7R/16V/K | EXP_A_TXP3C |
| EXP_A_TXN3 | C38 | 0.1uF/4X7R/16V/K | EXP_A_TXN3C |
| EXP_A_TXP4 | C39 | 0.1uF/4X7R/16V/K | EXP_A_TXP4C |
| EXP_A_TXN4 | C40 | 0.1uF/4X7R/16V/K | EXP_A_TXN4C |
| EXP_A_TXP5 | C42 | 0.1uF/4X7R/16V/K | EXP_A_TXP5C |
| EXP_A_TXN5 | C41 | 0.1uF/4X7R/16V/K | EXP_A_TXN5C |
| EXP_A_TXP6 | C44 | 0.1uF/4X7R/16V/K | EXP_A_TXP6C |
| EXP_A_TXN6 | C43 | 0.1uF/4X7R/16V/K | EXP_A_TXN6C |
| EXP_A_TXP7 | C47 | 0.1uF/4X7R/16V/K | EXP_A_TXP7C |
| EXP_A_TXN7 | C45 | 0.1uF/4X7R/16V/K | EXP_A_TXN7C |
| EXP_A_TXP8 | C48 | 0.1uF/4X7R/16V/K | EXP_A_TXP8C |
| EXP_A_TXN8 | C49 | 0.1uF/4X7R/16V/K | EXP_A_TXN8C |
| EXP_A_TXP9 | C59 | 0.1uF/4X7R/16V/K | EXP_A_TXP9C |
| EXP_A_TXN9 | C60 | 0.1uF/4X7R/16V/K | EXP_A_TXN9C |
| EXP_A_TXP10 | C63 | 0.1uF/4X7R/16V/K | EXP_A_TXP10C |
| EXP_A_TXN10 | C62 | 0.1uF/4X7R/16V/K | EXP_A_TXN10C |
| EXP_A_TXP11 | C67 | 0.1uF/4X7R/16V/K | EXP_A_TXP11C |
| EXP_A_TXN11 | C64 | 0.1uF/4X7R/16V/K | EXP_A_TXN11C |
| EXP_A_TXP12 | C69 | 0.1uF/4X7R/16V/K | EXP_A_TXP12C |
| EXP_A_TXN12 | C70 | 0.1uF/4X7R/16V/K | EXP_A_TXN12C |
| EXP_A_TXP13 | C73 | 0.1uF/4X7R/16V/K | EXP_A_TXP13C |
| EXP_A_TXN13 | C72 | 0.1uF/4X7R/16V/K | EXP_A_TXN13C |
| EXP_A_TXP14 | C76 | 0.1uF/4X7R/16V/K | EXP_A_TXP14C |
| EXP_A_TXN14 | C74 | 0.1uF/4X7R/16V/K | EXP_A_TXN14C |
| EXP_A_TXP15 | C78 | 0.1uF/4X7R/16V/K | EXP_A_TXP15C |
| EXP_A_TXN15 | C77 | 0.1uF/4X7R/16V/K | EXP_A_TXN15C |

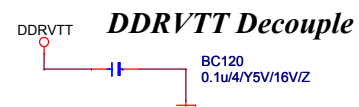
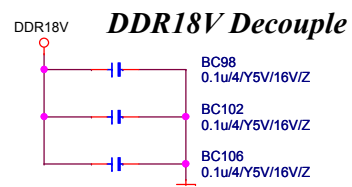
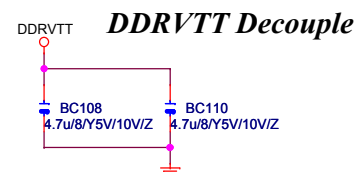
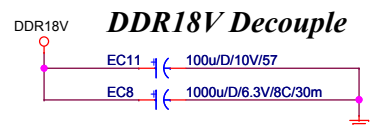


LOWV LEFT BLUE

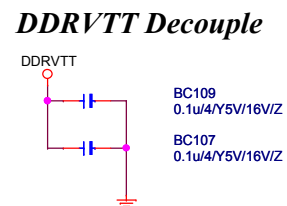
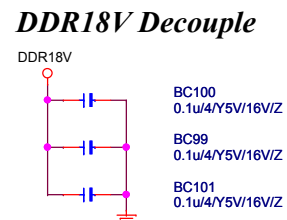




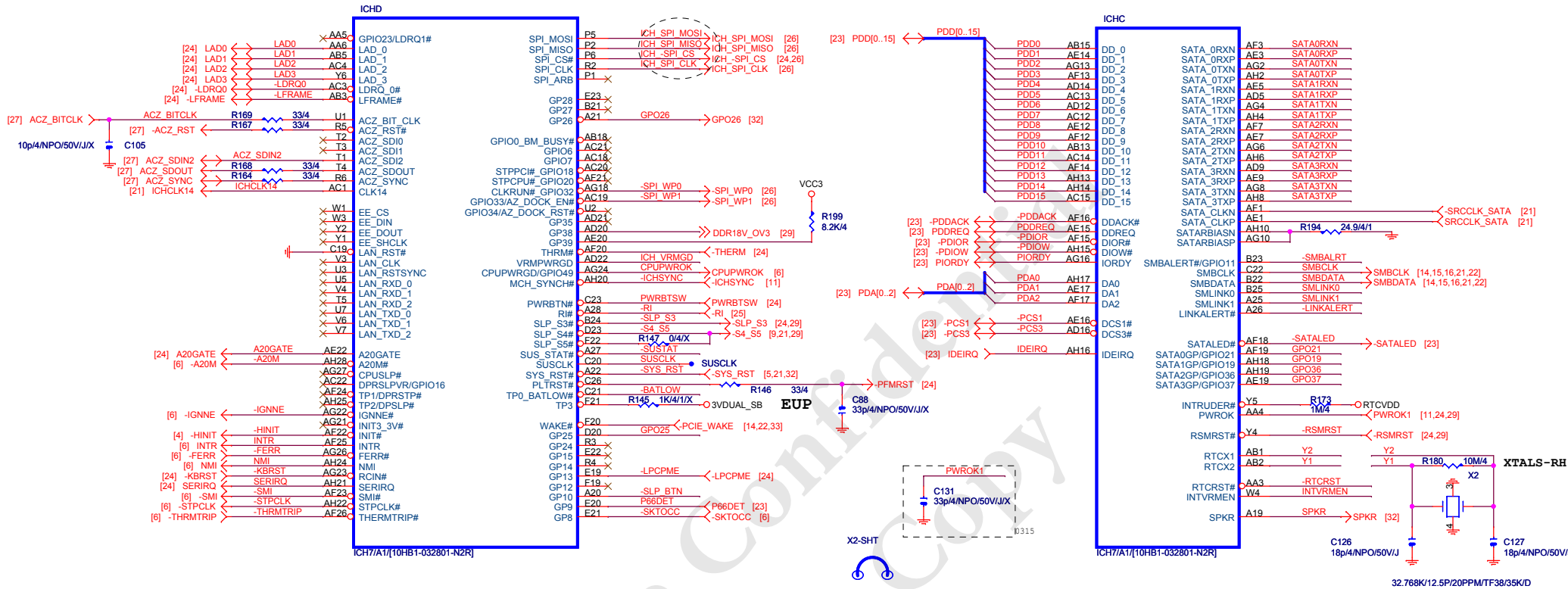
DDR TERMINATION CHANNEL A



DDR TERMINATION CHANNEL B



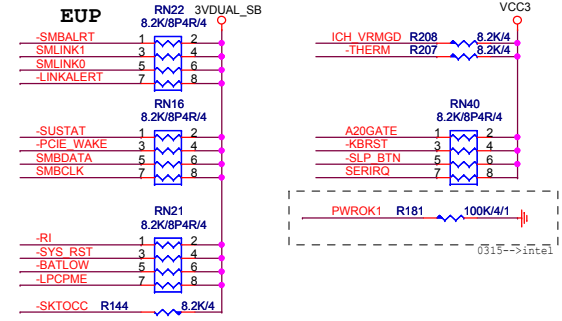
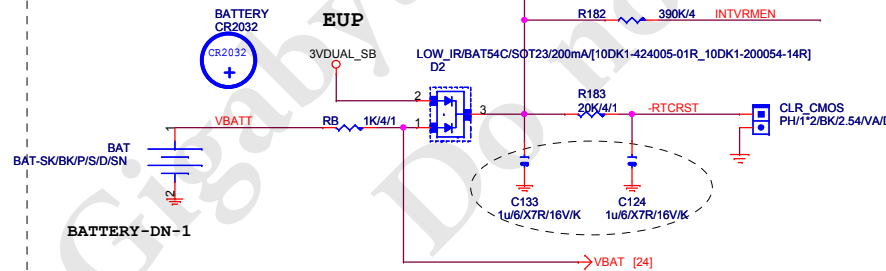
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|---------------------|-------------------------|-------|----------|
| Gigabyte Technology | | | |
| Title | | | |
| DDRII TERMINATOR | | | |
| Size | Document Number | Rev | |
| Custom | GA-G41MT-ES2L | 1.11 | |
| Date: | Tuesday, March 02, 2010 | Sheet | 17 of 33 |



NEW TYPE: BATTERY-DUAL-4

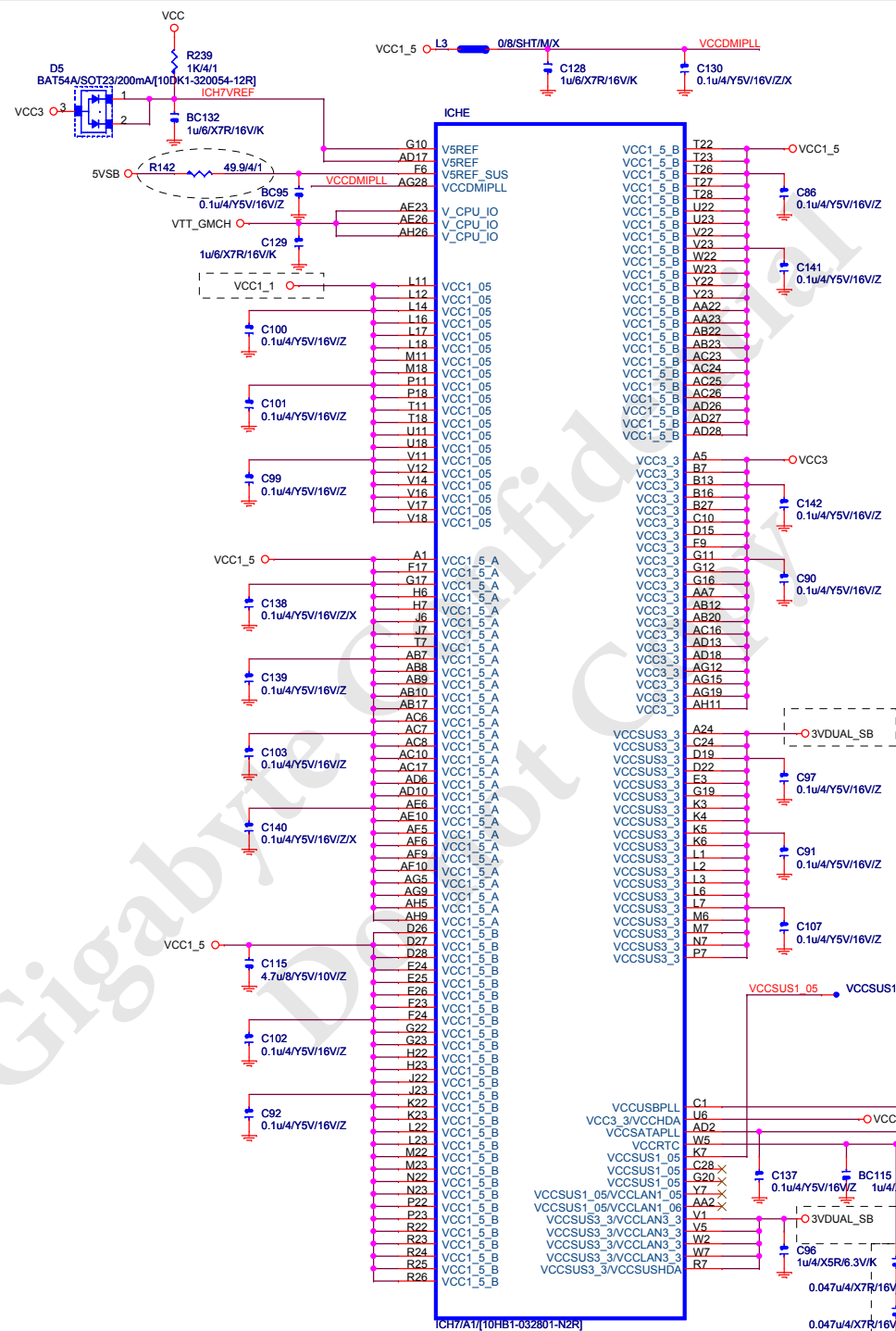
SHWDD.04*5.08*6.74

RB 不可放在 BATTERY SOCKET 下方



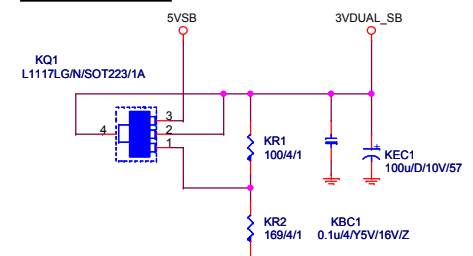
| ICHF | | | |
|------|--------|--------|------|
| A4 | VSS1 | VSS101 | R14 |
| A23 | VSS102 | VSS102 | R15 |
| B1 | VSS3 | VSS103 | R16 |
| B8 | VSS4 | VSS104 | R17 |
| B11 | VSS5 | VSS105 | R18 |
| B14 | VSS6 | VSS106 | T8 |
| B17 | VSS7 | VSS107 | T12 |
| B20 | VSS8 | VSS108 | T13 |
| B26 | VSS9 | VSS109 | T14 |
| B28 | VSS10 | VSS110 | T15 |
| C2 | VSS11 | VSS111 | T16 |
| C6 | VSS12 | VSS112 | T17 |
| D10 | VSS13 | VSS113 | U4 |
| D13 | VSS14 | VSS114 | U12 |
| D18 | VSS15 | VSS115 | U13 |
| D21 | VSS16 | VSS116 | U14 |
| D24 | VSS17 | VSS117 | U15 |
| E1 | VSS18 | VSS118 | U16 |
| E2 | VSS19 | VSS119 | U17 |
| E8 | VSS20 | VSS120 | U25 |
| E15 | VSS21 | VSS121 | U26 |
| F3 | VSS22 | VSS122 | V2 |
| F4 | VSS23 | VSS123 | V13 |
| F5 | VSS24 | VSS124 | V15 |
| F12 | VSS25 | VSS125 | V24 |
| F27 | VSS26 | VSS126 | V27 |
| F28 | VSS27 | VSS127 | V28 |
| G1 | VSS28 | VSS128 | W6 |
| G2 | VSS29 | VSS129 | W24 |
| G5 | VSS30 | VSS130 | W25 |
| G6 | VSS31 | VSS131 | W26 |
| G9 | VSS32 | VSS132 | Y3 |
| G14 | VSS33 | VSS133 | Y24 |
| G18 | VSS34 | VSS134 | Y27 |
| G21 | VSS35 | VSS135 | Y28 |
| G24 | VSS36 | VSS136 | AA1 |
| G25 | VSS37 | VSS137 | AA24 |
| G26 | VSS38 | VSS138 | AA25 |
| H3 | VSS39 | VSS139 | AA26 |
| H4 | VSS40 | VSS140 | AB4 |
| H24 | VSS41 | VSS141 | AB6 |
| H27 | VSS42 | VSS142 | AB11 |
| H28 | VSS43 | VSS143 | AB14 |
| J1 | VSS44 | VSS144 | AB16 |
| J2 | VSS45 | VSS145 | AB19 |
| J5 | VSS46 | VSS146 | AB21 |
| J24 | VSS47 | VSS147 | AB24 |
| J25 | VSS48 | VSS148 | AB27 |
| J26 | VSS49 | VSS149 | AB28 |
| K24 | VSS50 | VSS150 | AC2 |
| K27 | VSS51 | VSS151 | AC5 |
| K28 | VSS52 | VSS152 | AC9 |
| L13 | VSS53 | VSS153 | AC11 |
| L15 | VSS54 | VSS154 | AC10 |
| L24 | VSS55 | VSS155 | AD1 |
| L25 | VSS56 | VSS156 | AD3 |
| L26 | VSS57 | VSS157 | AD4 |
| M3 | VSS58 | VSS158 | AD7 |
| M4 | VSS59 | VSS159 | AD8 |
| M5 | VSS60 | VSS160 | AD11 |
| M12 | VSS61 | VSS161 | AD15 |
| M13 | VSS62 | VSS162 | AD19 |
| M14 | VSS63 | VSS163 | AD23 |
| M15 | VSS64 | VSS164 | AE2 |
| M16 | VSS65 | VSS165 | AE4 |
| M17 | VSS66 | VSS166 | AE8 |
| M24 | VSS67 | VSS167 | AE11 |
| M27 | VSS68 | VSS168 | AE13 |
| M28 | VSS69 | VSS169 | AE18 |
| N1 | VSS70 | VSS170 | AE21 |
| N2 | VSS71 | VSS171 | AE24 |
| N5 | VSS72 | VSS172 | AE2 |
| N6 | VSS73 | VSS173 | AF4 |
| N11 | VSS74 | VSS174 | AF8 |
| N12 | VSS75 | VSS175 | AF11 |
| N13 | VSS76 | VSS176 | AF27 |
| N14 | VSS77 | VSS177 | AF28 |
| N15 | VSS78 | VSS178 | AG1 |
| N16 | VSS79 | VSS179 | AG3 |
| N17 | VSS80 | VSS180 | AG7 |
| N18 | VSS81 | VSS181 | AG14 |
| N24 | VSS82 | VSS182 | AG17 |
| N25 | VSS83 | VSS183 | AG20 |
| N26 | VSS84 | VSS184 | AG26 |
| P3 | VSS85 | VSS185 | AH1 |
| P4 | VSS86 | VSS186 | AH3 |
| P12 | VSS87 | VSS187 | AH7 |
| P13 | VSS88 | VSS188 | AH12 |
| P14 | VSS89 | VSS189 | AH23 |
| P15 | VSS90 | VSS190 | AH27 |
| P16 | VSS91 | VSS191 | C27 |
| P17 | VSS92 | VSS192 | E4 |
| P24 | VSS93 | VSS193 | E411 |
| P27 | VSS94 | VSS194 | |
| P28 | VSS95 | | |
| P29 | VSS96 | | |
| R1 | VSS97 | | |
| R11 | VSS98 | | |
| R12 | VSS99 | | |
| R13 | VSS100 | | |

ICH7/A1/[10HB1-032801-N2R]



ICH7/A1/[10HB1-032801-N2R]

3VDUAL_SB EUP



ESD

FOR RMA

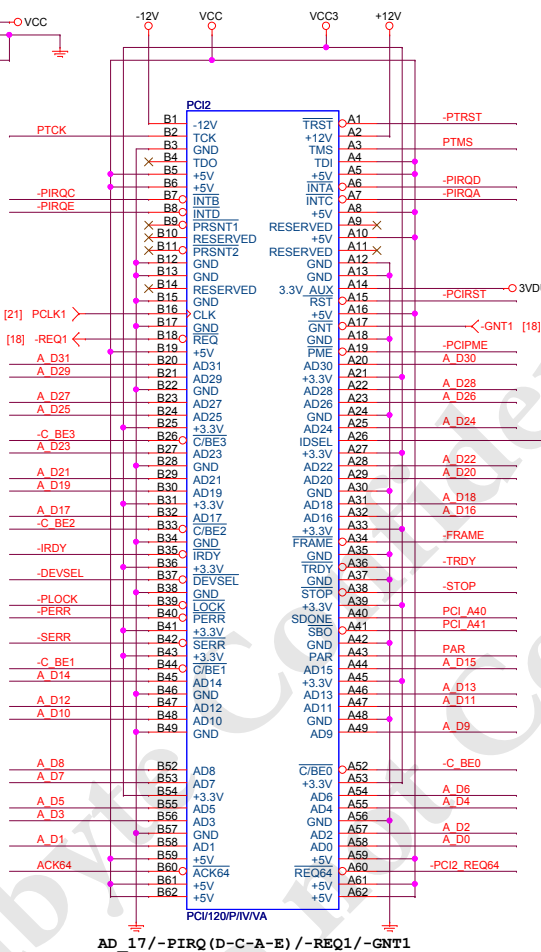
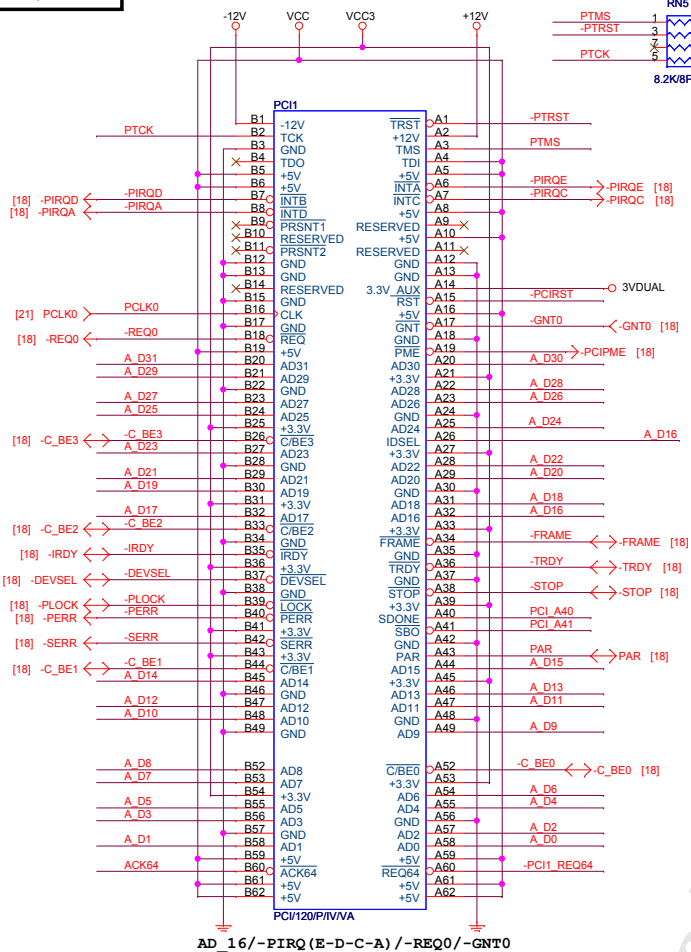
ESD

FOR 漏電

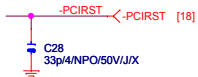
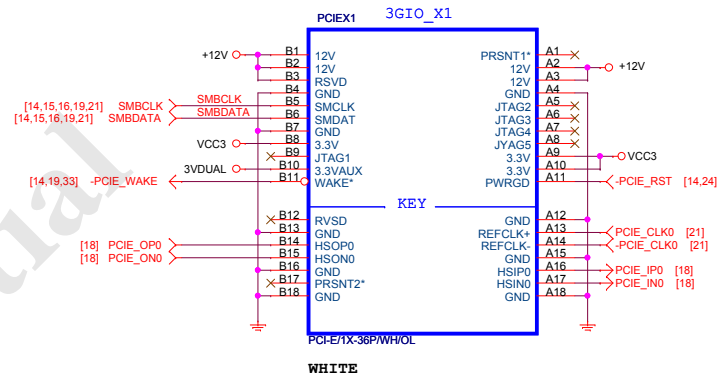
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| Gigabyte Technology | | |
| Title ICH7-PWR & GND | | |
| Size B | Document Number | Rev 1.1 |
| Date: Tuesday, March 02, 2010 | | Sheet 20 of 33 |



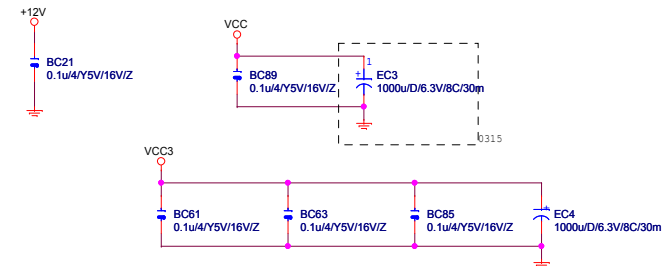
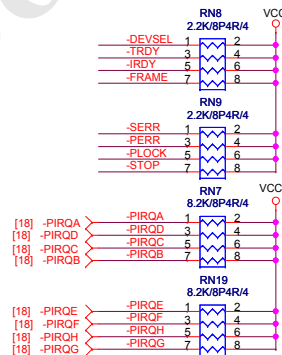
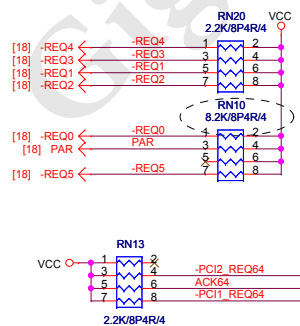
| |
|-------------|
| PCI1,2 SLOT |
|-------------|



PCIE*1



Place close to PCI1



| | | | |
|-----------------------------------|-------------------------|----------------------|----------------|
| Gigabyte Technology | | | |
| Title PCI SLOT 1, 2/PCIEX1 | | | |
| Size Custom | Document Number | GA-G41MT-ES2L | Rev 1.1 |
| Date: | Tuesday, March 02, 2010 | Sheet 22 of 33 | |

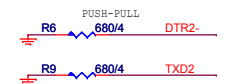
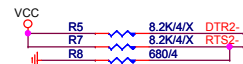
Pinout diagram for the BH7217KS/WH/SHN/2.54V/A/PA46 connector. The diagram shows a 34-pin connector with pins 1-34. Pins 1-10 are labeled with pin numbers. Pins 11-34 are labeled with pin numbers and corresponding signals: DENSEL- [24], INDEX- [24], MOTEA- [24], DRVA- [24], DIR- [24], STEP- [24], WDATA- [24], WGATE- [24], TK00- [24], WPT- [24], RDATA- [24], SIDE1- [24], and DSKCHG- [24]. The diagram also shows a VCC pin (pin 34) and an FDD pin (pin 33). The connector is labeled RN4 470/BP4R/4 and R26 470/4/1.

[illegible]

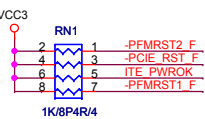
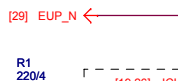
The schematic diagram illustrates the USB1 module's internal components and connections. On the left, the ESD3 protection circuit is shown, featuring a CM1293A-04SO/S diode array. It has four input pins: +USBP0, -USBP0, +USBP1, and -USBP1. The output pins are labeled 1, 2, 3, and 4. The output of the ESD3 circuit is connected to the FUSEVCC1 pin. The FUSEVCC1 pin is also connected to the FUSEVCC1 pin of the FUSEVCC1 module, which is a PH12*5K9/BU2.54/VA/D module. The FUSEVCC1 module has 10 pins, with pins 1, 2, 3, and 4 labeled +USBP0, -USBP0, +USBP1, and -USBP1 respectively. The FUSEVCC1 module is also connected to the FUSEVCC1 pin of the FUSEVCC1 module.

| | | | |
|---------------------|-------------------------|---------------|-------------|
| Title | | | |
| IDE,FDD,F_USB,R_USB | | | |
| Size B | Document Number | GA-G41MT-ES2L | Rev 1.11 |
| Date: | Tuesday, March 02, 2010 | Sheet | 23 of 33 |

DEFAULT 50%



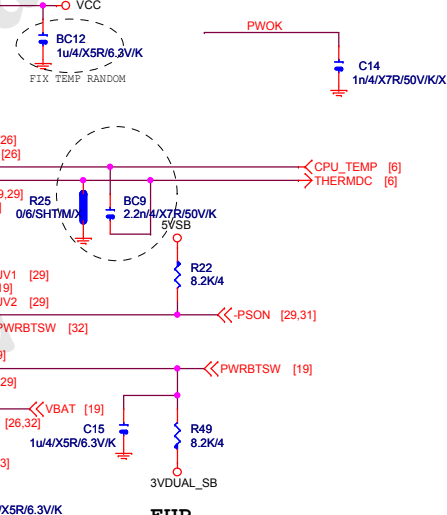
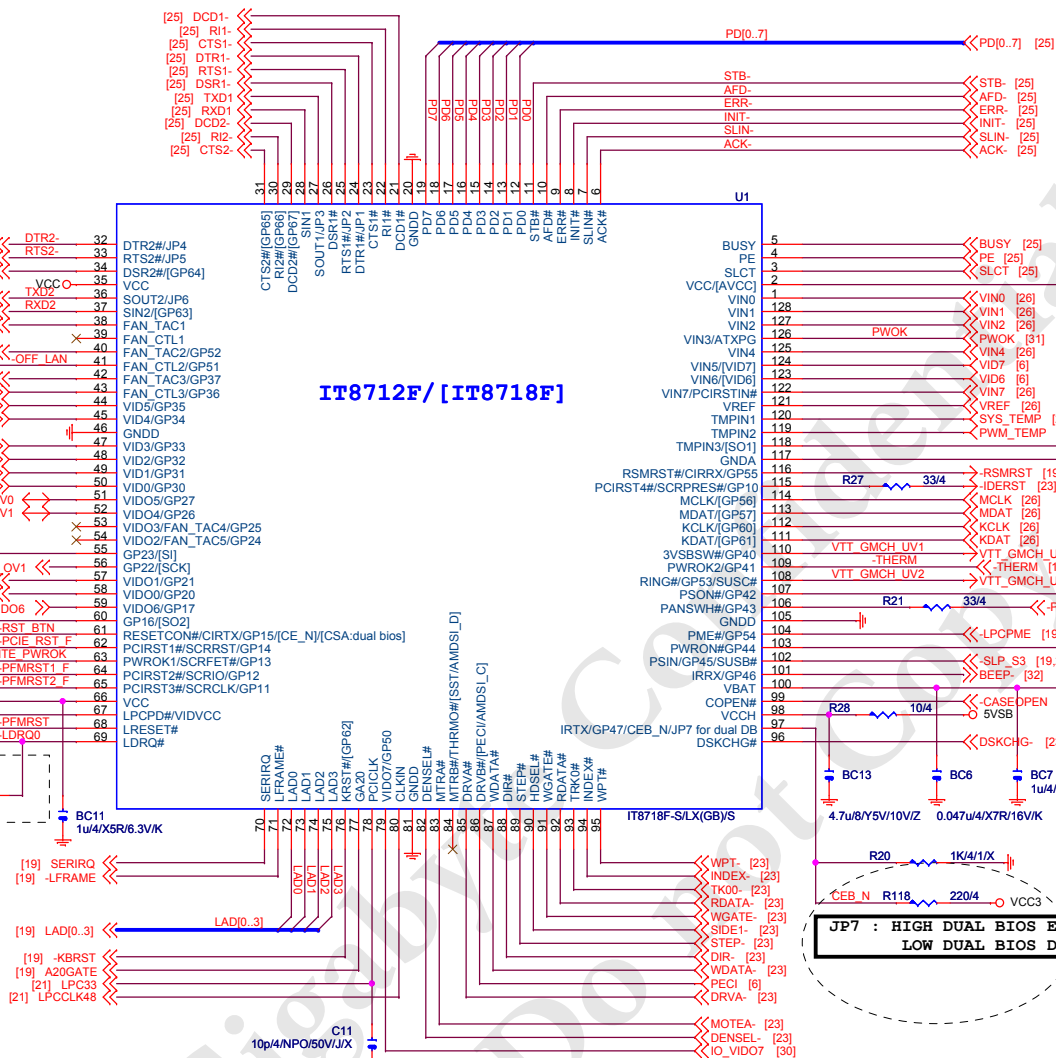
EUP



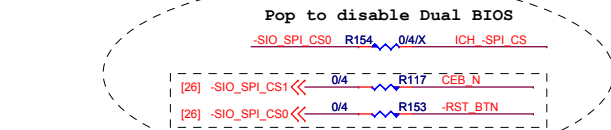
Dual BIOS:
GB logo :Pin 61 (GP15/CSA)
GB logo :Pin 59 (GP17/CSB)

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

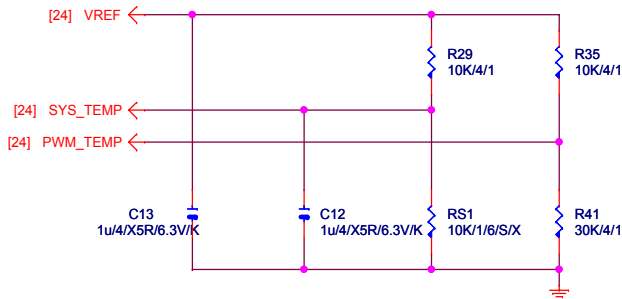
1.2V or 3.3V tolerance select.
1.2V OUTPUT 接 VTT_GMCH
3.3V OUTPUT 接3.3V
LPCPD#=VIDVCC



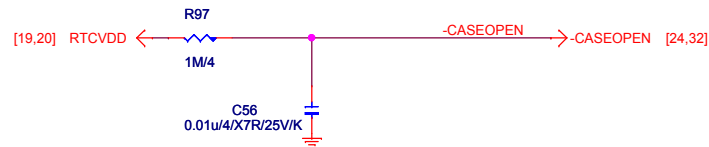
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JP7 : HIGH DUAL BIOS ENABLE
      LOW DUAL BIOS DISABLE
```



TEMP H/W MONITOR

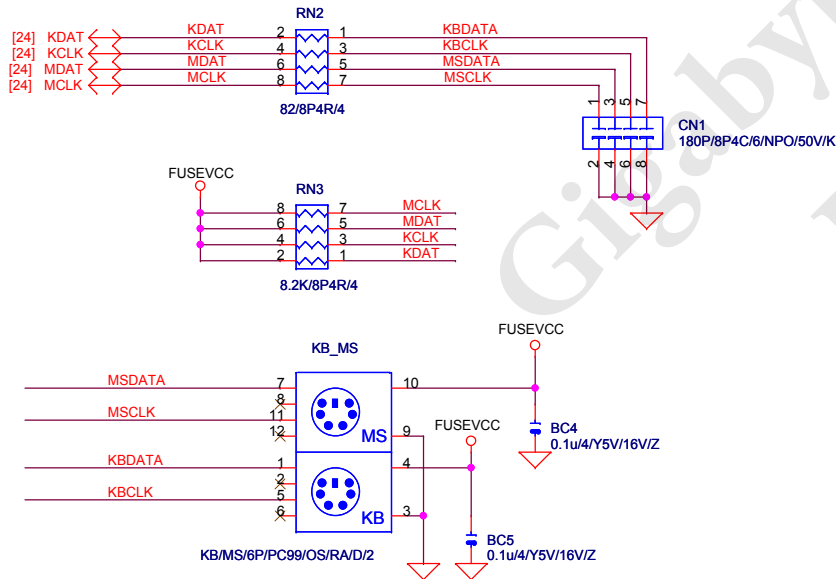


CASE OPEN

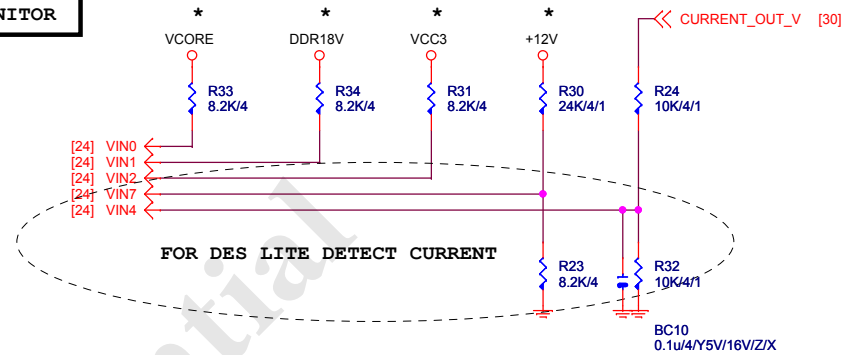


Case Open Circuits

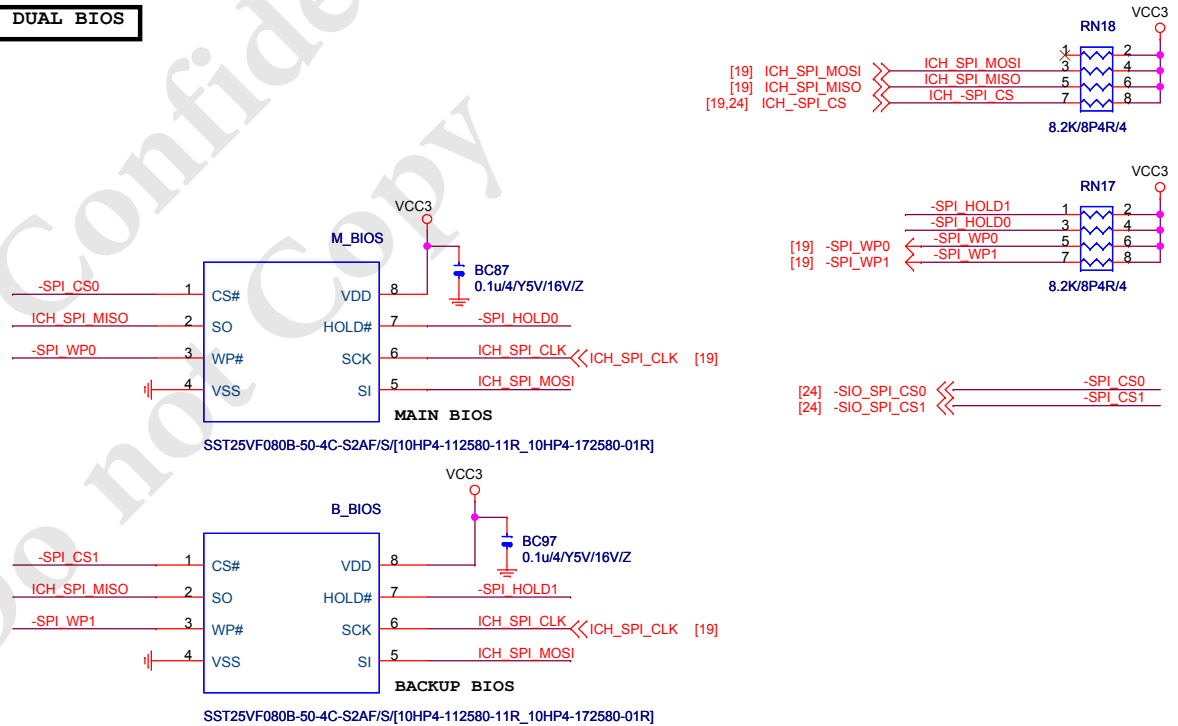
KB/MS



VOLTAGE-- H/W MONITOR



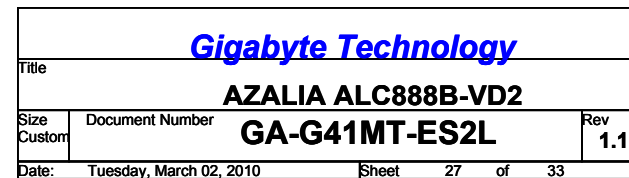
DUAL BIOS



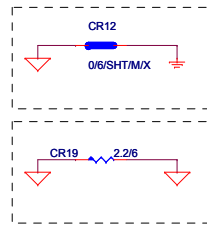
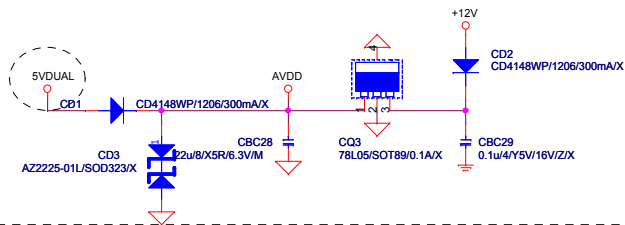
Gigabyte Technology

| | | | | |
|-------|-------------------------|-----------------|--------------------------|-------|
| Title | | | HW-MONITOR/CI/KB/MS/BIOS | |
| Size | Custom | Document Number | GA-G41MT-ES2L | |
| Date: | Tuesday, March 02, 2010 | Sheet | 26 | of 33 |

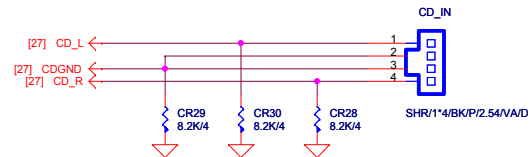
Rev 1.11



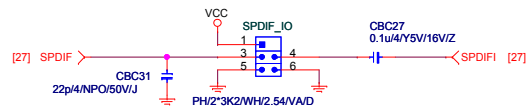
CODEC POWER/EMI PAD



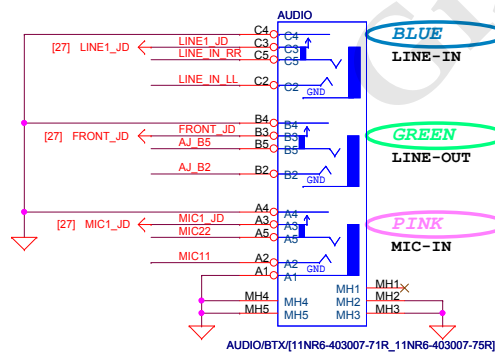
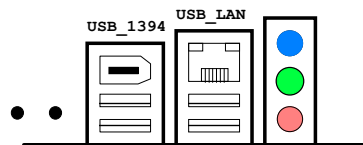
CD IN



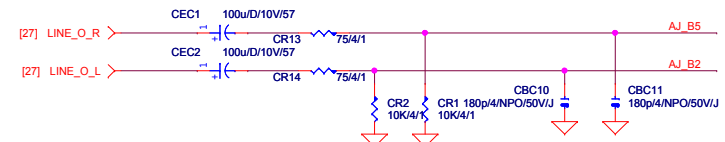
SPDIF IN



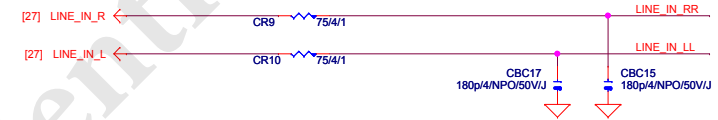
AZALIA JACK



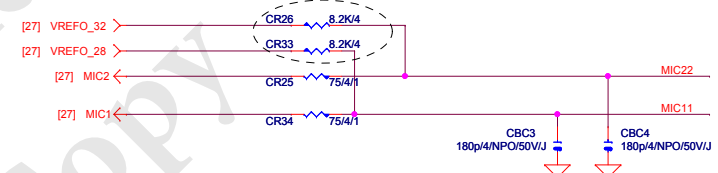
LINE-OUT



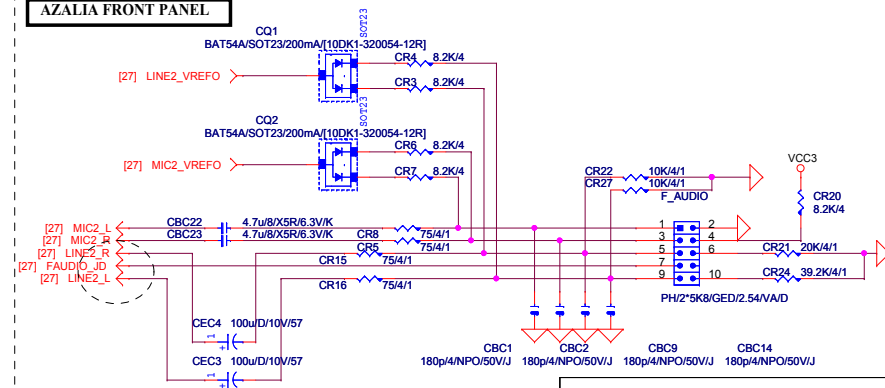
LINE-IN



MIC-IN

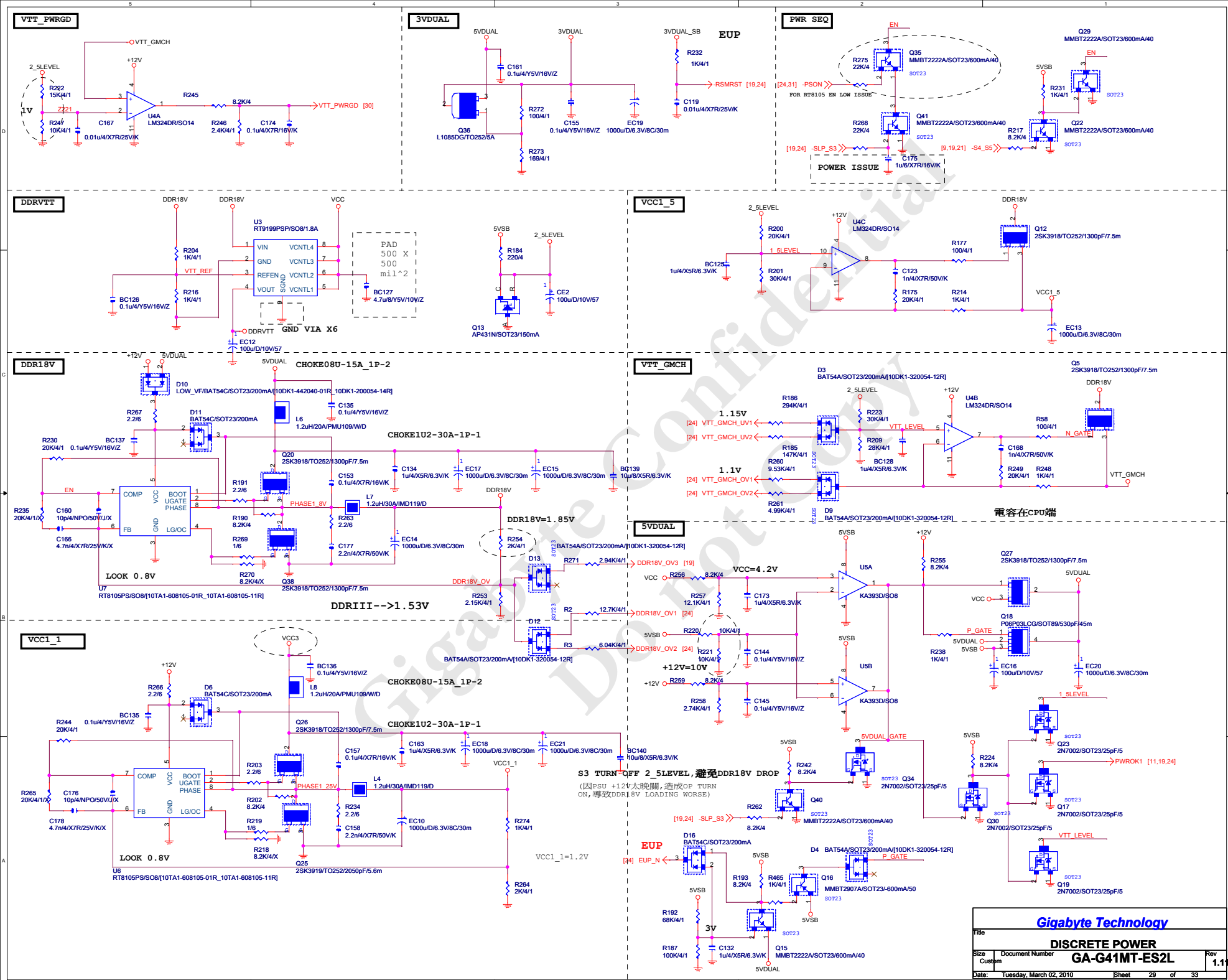


AZALIA FRONT PANEL

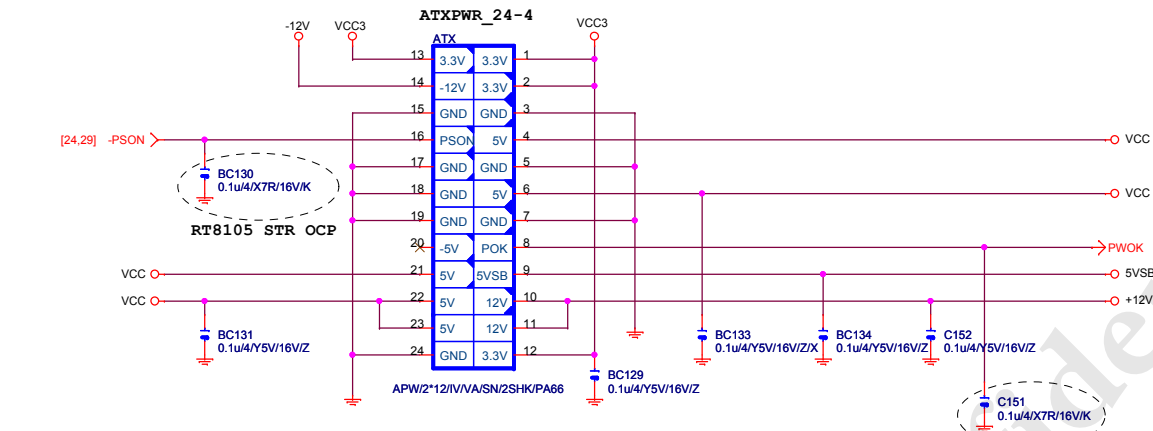


Gigabyte Technology

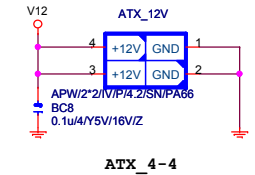
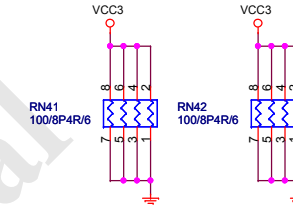
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|------------|-------------------------|--|-------|----------|
| Title | | | | |
| AUDIO JACK | | | | |
| Size | Document Number | | | Rev |
| Custom | GA-G41MT-ES2L | | | 1.11 |
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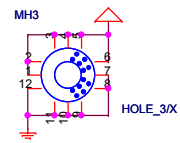
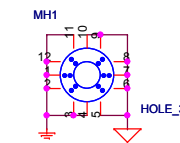
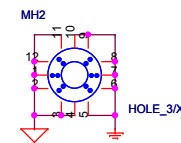
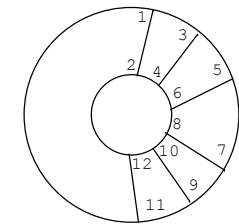
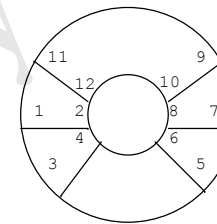
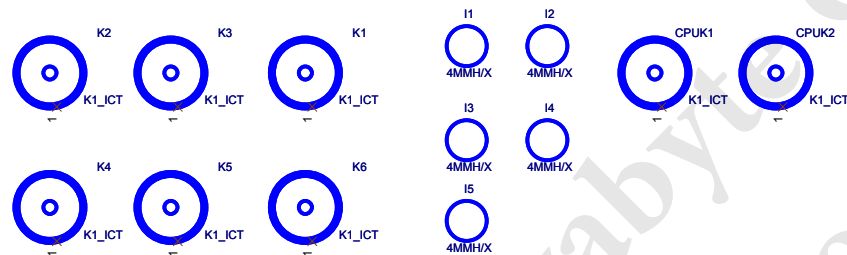
ATX POWER CONNECTOR



FIX PWR AcBel (ATX-400C-A2ADB)

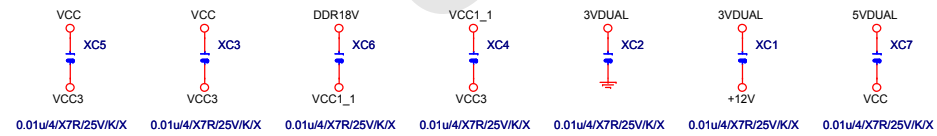
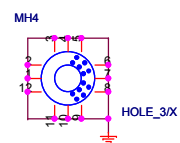
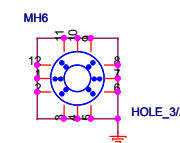
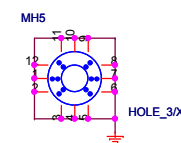


ATX_4-4



HOLE_4-RH-1

HOLE_4-RH-5MM-1



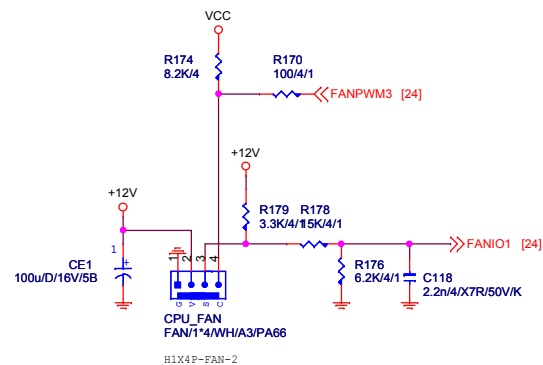
Gigabyte Technology

ATX POWER CONNECTOR

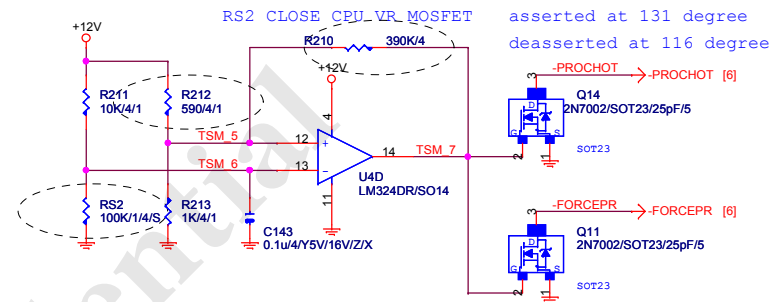
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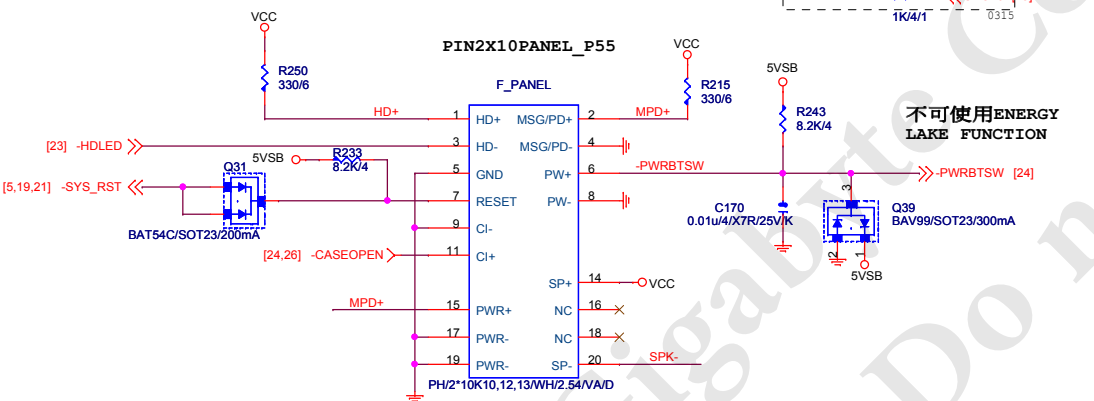
CPU SMART FAN SMART FAN



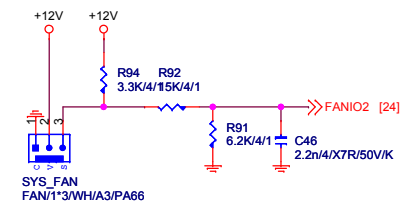
PROCESSOR HOT



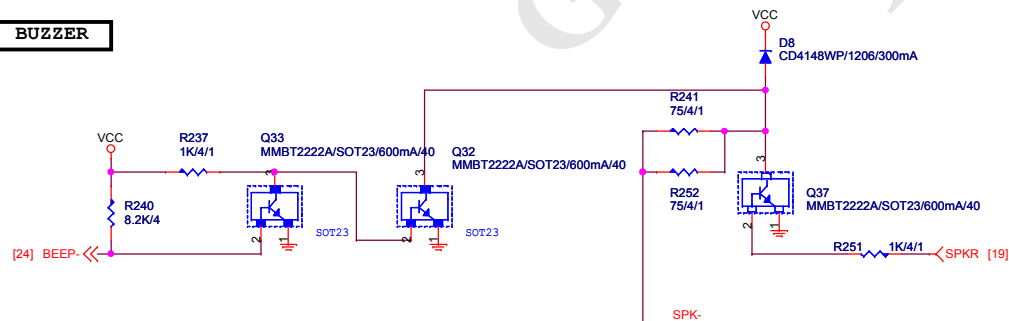
INTEL FRONT PANEL



SYS_FAN



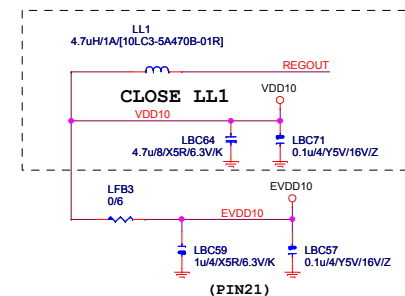
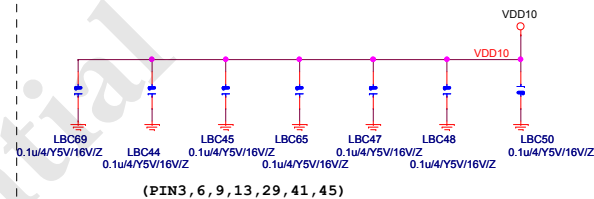
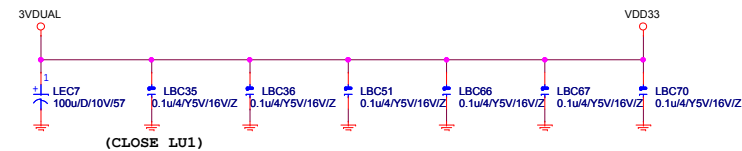
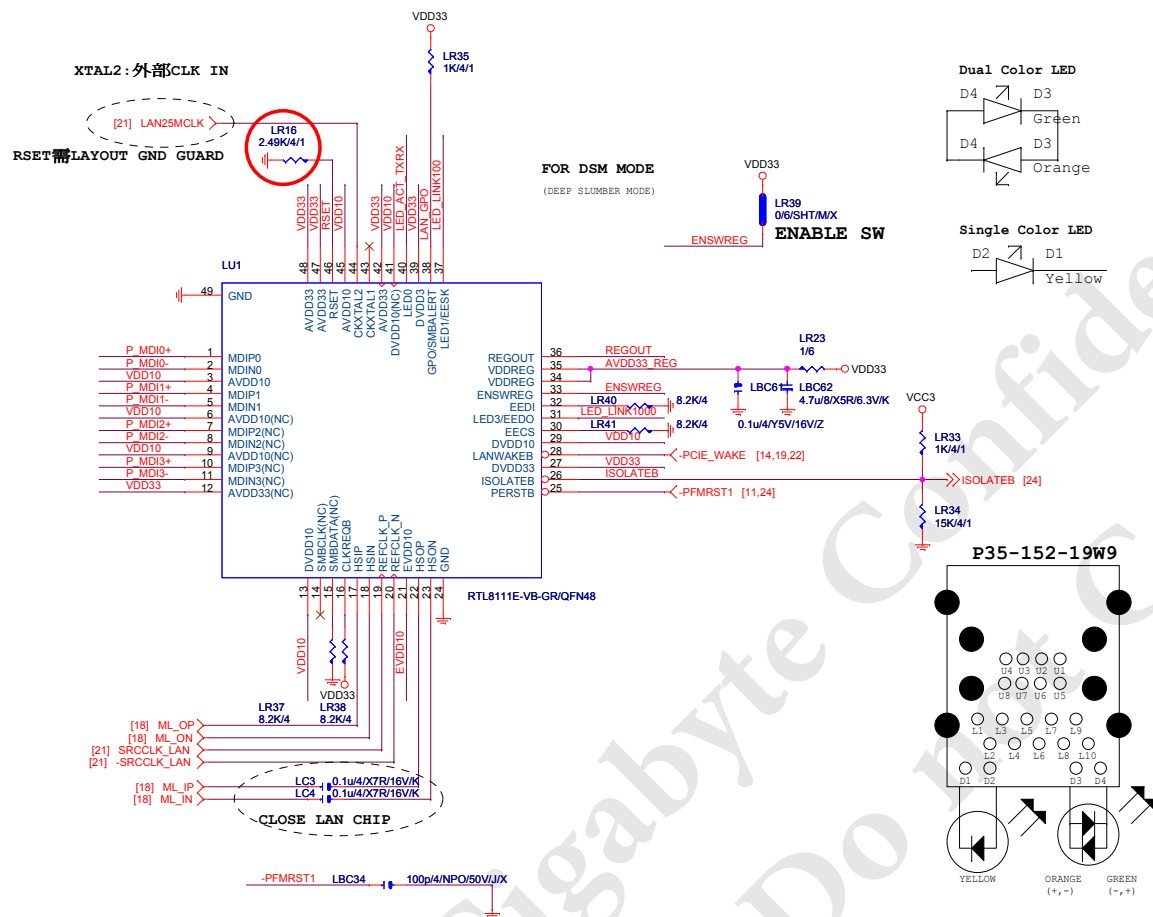
BUZZER



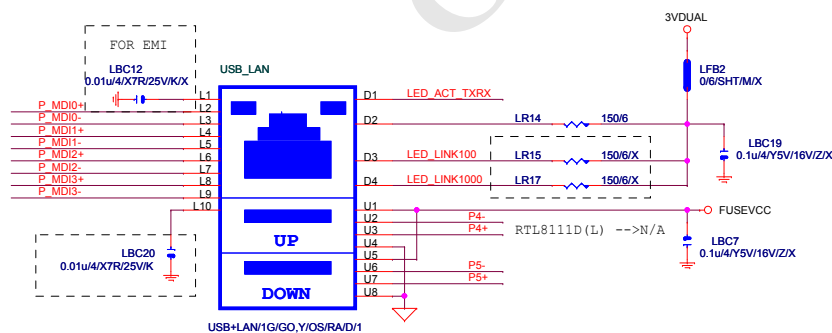
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| Title | | |
| FRONT PANEL | | |
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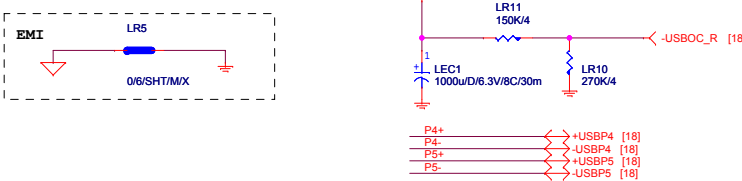
PCIE-1G LAN



USB LAN CONNECTOR



USB LAN



| | | | |
|----------------------------------|-----------------|----------------------|-------------------------|
| Gigabyte Technology | | | |
| Title | | | |
| REALTEK RTL8111R/RTL8105E | | | |
| Size | Document Number | GA-G41MT-ES2L | Rev |
| Custom | | | 1.1 |
| | | | |
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