

Model Name: GA-H61M-D2-B3

Revision 1.11

SHEET

TITLE

SHEET

TITLE

| | |
|----|-----------------------------------|
| 01 | COVER SHEET |
| 02 | BOM & PCB MODIFY HISTORY |
| 03 | BLOCK DIAGRAM |
| 04 | CPU_LGA1155-A |
| 05 | CPU_LGA1155-B |
| 06 | CPU_LGA1155-C |
| 07 | DDR III CHANNEL A |
| 08 | DDR III CHANNEL B |
| 09 | PCH_FDI,DMI,USB,PCIE,NVRAM |
| 10 | PCH_DP,CLK BUFFER |
| 11 | PCH_HOST,SATA,PCI |
| 12 | PCH_GPIO,CTRL,AUDIO |
| 13 | PCH_PWR,GND |
| 14 | PCI EXPRESS*16 SLOT |
| 15 | PCI EXPRESS*1 SLOT |
| 16 | PCI EXPRESS*1x2 SLOT / CLOCK GEN. |
| 17 | ITE 8728 LPC IO |
| 18 | COMA,KB_MS,R_USB,-PROCHOT |
| 19 | HWM,FAN CTRL,OV,COMB |
| 20 | DUAL BIOS |
| 21 | FP,FUSB,SPK,SATALED |
| 22 | ALC888B-VD2 |
| 23 | REAR AUDIO JACK |
| 24 | REALTEK RTL8111E/USB_LAN |
| 25 | DISCRETE POWER |
| 26 | ATX,-S_WARN,-S_ACK,5VDUAL1 |
| 27 | ISL95870_CPU_VTT |

| | |
|----|-----------------|
| 28 | VCORE ISL6364_1 |
| 29 | VCORE ISL6364_2 |
| 30 | VCORE ISL6364_3 |
| 31 | TPM |
| 32 | LPT |

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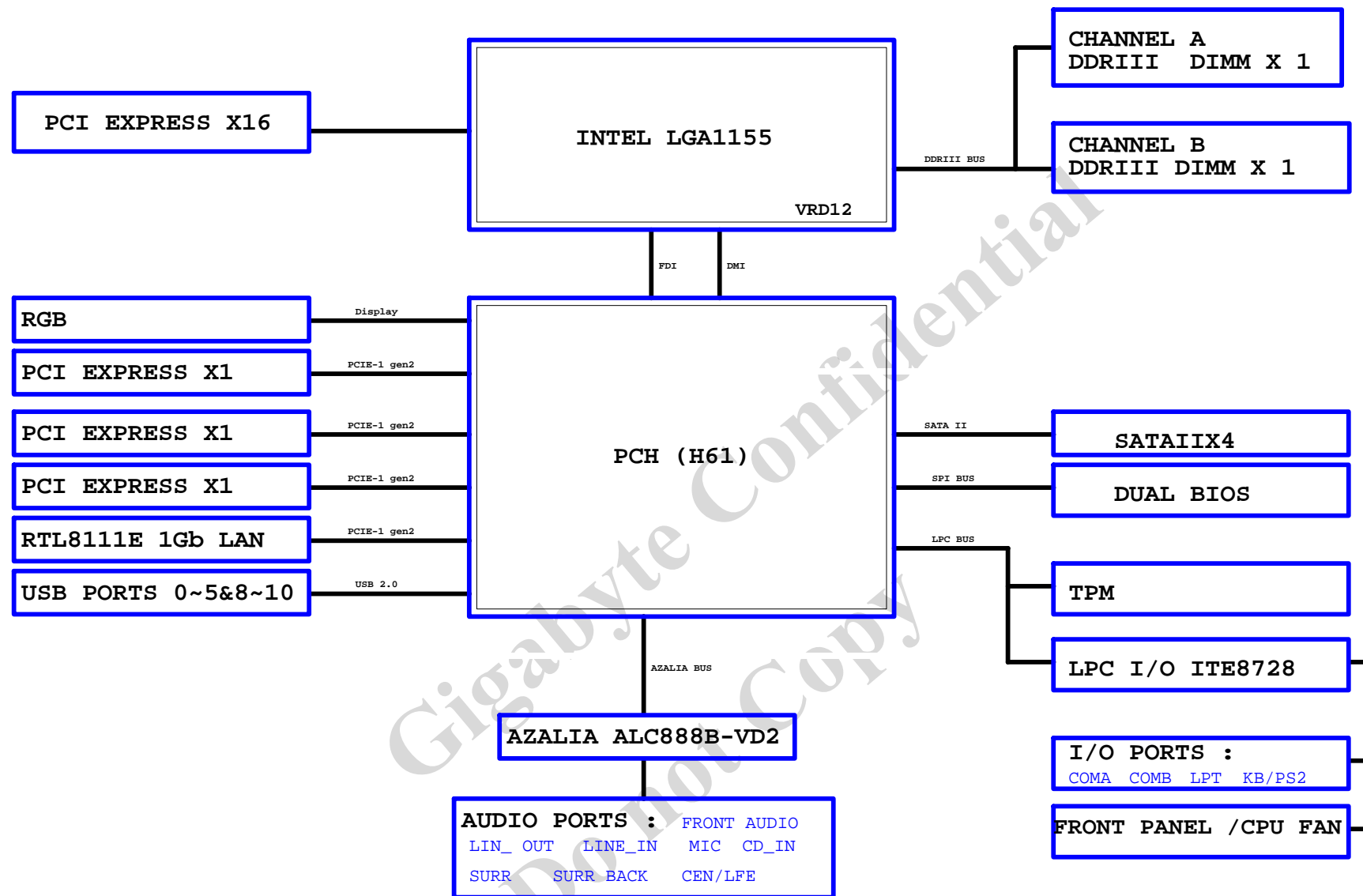
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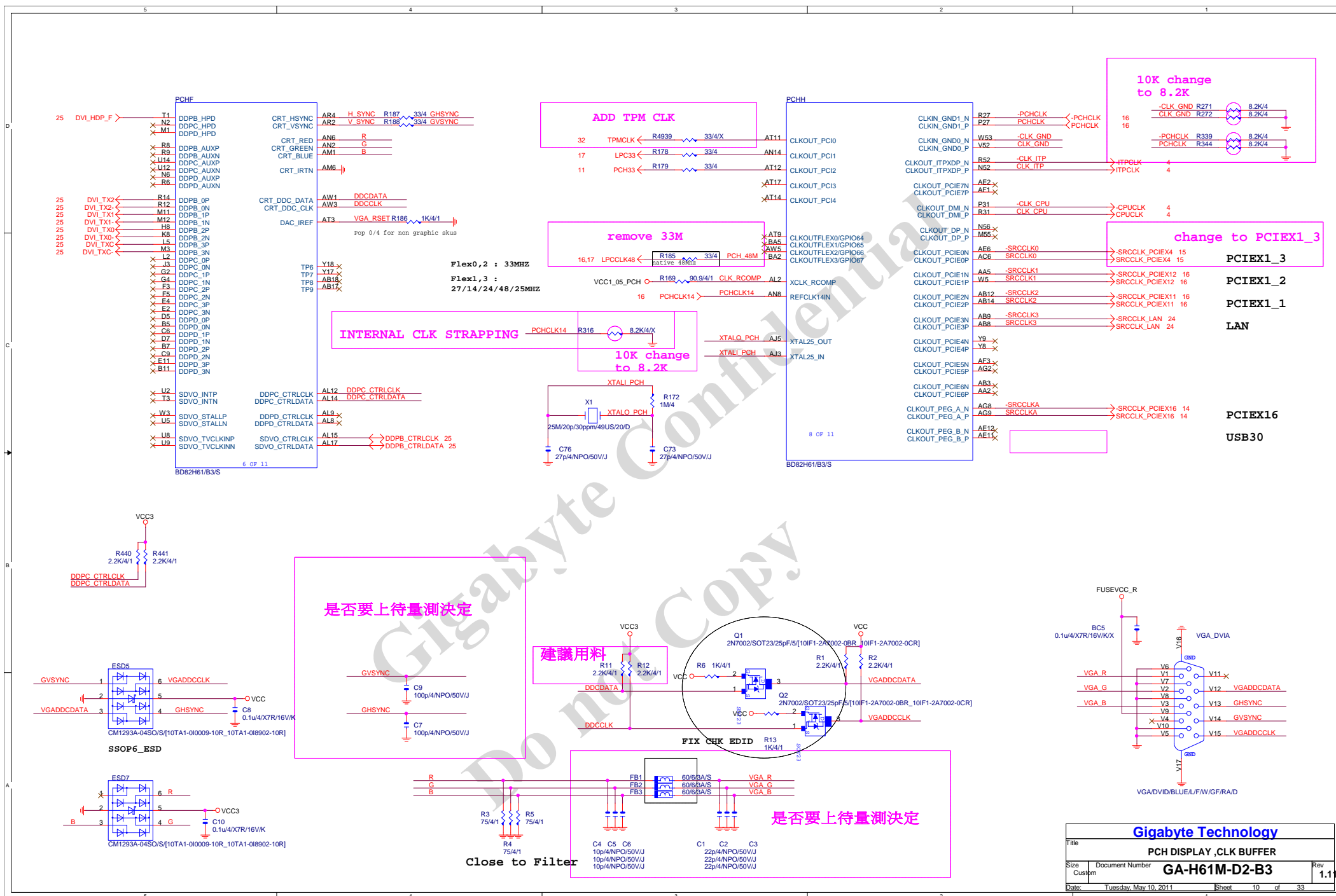
2011/03/11

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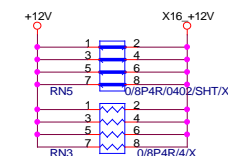
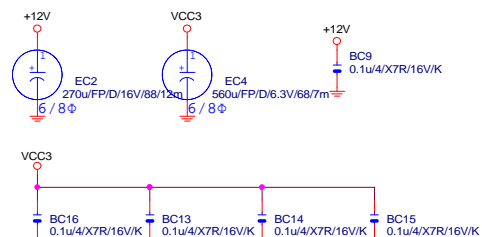
BLOCK DIAGRAM



| | | | |
|---------------------|-----------------------|---------------|---------|
| Gigabyte Technology | | | |
| Title BLOCK DIAGRAM | | | |
| Size | Document Number | GA-H61M-D2-B3 | Rev |
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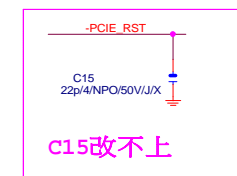
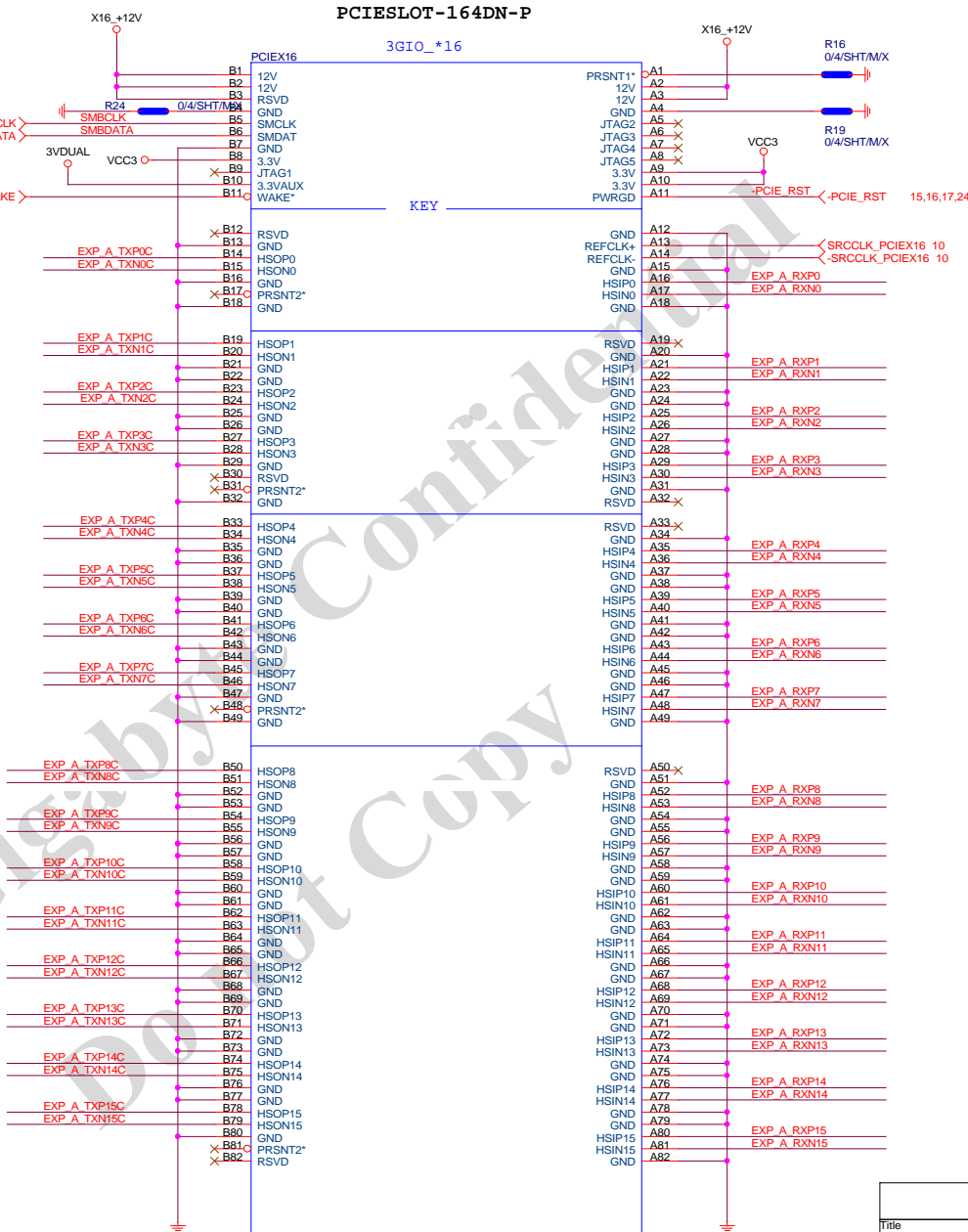


EC6D_8D10MM-RH



EXP_A_RXP0_15] >>> EXP_A_RXP0_15] 4
EXP_A_RXN0_15] >>> EXP_A_RXN0_15] 4
EXP_A_TXP0_15] >>> EXP_A_TXP0_15] 4
EXP_A_TXN0_15] >>> EXP_A_TXN0_15] 4

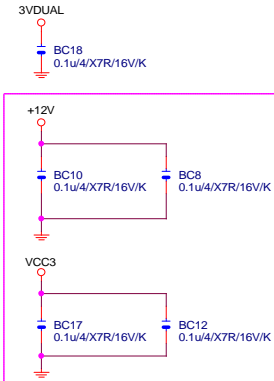
| | | | |
|-------------|-----|-------------------|--------------|
| EXP_A_TXP0 | C22 | 0.22u4/X5R/6.3V/K | EXP_A_TXP0C |
| EXP_A_TXN0 | C26 | 0.22u4/X5R/6.3V/K | EXP_A_TXN0C |
| EXP_A_TXP1 | C29 | 0.22u4/X5R/6.3V/K | EXP_A_TXP1C |
| EXP_A_TXN1 | C31 | 0.22u4/X5R/6.3V/K | EXP_A_TXN1C |
| EXP_A_TXP2 | C33 | 0.22u4/X5R/6.3V/K | EXP_A_TXP2C |
| EXP_A_TXN2 | C35 | 0.22u4/X5R/6.3V/K | EXP_A_TXN2C |
| EXP_A_TXP3 | C37 | 0.22u4/X5R/6.3V/K | EXP_A_TXP3C |
| EXP_A_TXN3 | C40 | 0.22u4/X5R/6.3V/K | EXP_A_TXN3C |
| EXP_A_TXP4 | C48 | 0.22u4/X5R/6.3V/K | EXP_A_TXP4C |
| EXP_A_TXN4 | C49 | 0.22u4/X5R/6.3V/K | EXP_A_TXN4C |
| EXP_A_TXP5 | C52 | 0.22u4/X5R/6.3V/K | EXP_A_TXP5C |
| EXP_A_TXN5 | C54 | 0.22u4/X5R/6.3V/K | EXP_A_TXN5C |
| EXP_A_TXP6 | C56 | 0.22u4/X5R/6.3V/K | EXP_A_TXP6C |
| EXP_A_TXN6 | C58 | 0.22u4/X5R/6.3V/K | EXP_A_TXN6C |
| EXP_A_TXP7 | C60 | 0.22u4/X5R/6.3V/K | EXP_A_TXP7C |
| EXP_A_TXN7 | C61 | 0.22u4/X5R/6.3V/K | EXP_A_TXN7C |
| EXP_A_TXP8 | C63 | 0.22u4/X5R/6.3V/K | EXP_A_TXP8C |
| EXP_A_TXN8 | C64 | 0.22u4/X5R/6.3V/K | EXP_A_TXN8C |
| EXP_A_TXP9 | C66 | 0.22u4/X5R/6.3V/K | EXP_A_TXP9C |
| EXP_A_TXN9 | C67 | 0.22u4/X5R/6.3V/K | EXP_A_TXN9C |
| EXP_A_TXP10 | C69 | 0.22u4/X5R/6.3V/K | EXP_A_TXP10C |
| EXP_A_TXN10 | C70 | 0.22u4/X5R/6.3V/K | EXP_A_TXN10C |
| EXP_A_TXP11 | C71 | 0.22u4/X5R/6.3V/K | EXP_A_TXP11C |
| EXP_A_TXN11 | C72 | 0.22u4/X5R/6.3V/K | EXP_A_TXN11C |
| EXP_A_TXP12 | C74 | 0.22u4/X5R/6.3V/K | EXP_A_TXP12C |
| EXP_A_TXN12 | C75 | 0.22u4/X5R/6.3V/K | EXP_A_TXN12C |
| EXP_A_TXP13 | C77 | 0.22u4/X5R/6.3V/K | EXP_A_TXP13C |
| EXP_A_TXN13 | C78 | 0.22u4/X5R/6.3V/K | EXP_A_TXN13C |
| EXP_A_TXP14 | C79 | 0.22u4/X5R/6.3V/K | EXP_A_TXP14C |
| EXP_A_TXN14 | C80 | 0.22u4/X5R/6.3V/K | EXP_A_TXN14C |
| EXP_A_TXP15 | C82 | 0.22u4/X5R/6.3V/K | EXP_A_TXP15C |
| EXP_A_TXN15 | C83 | 0.22u4/X5R/6.3V/K | EXP_A_TXN15C |



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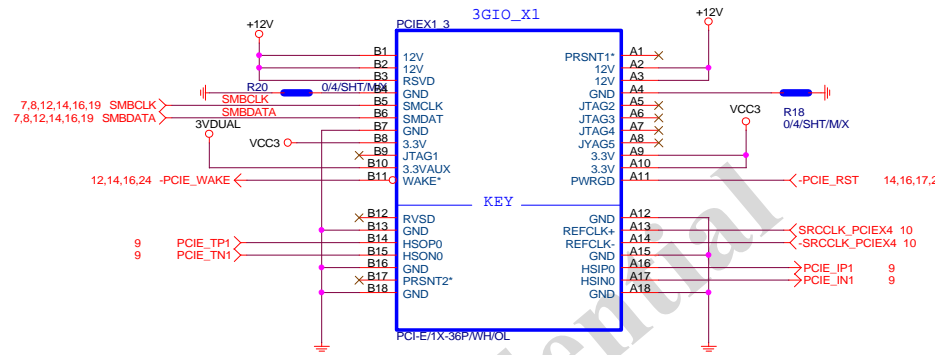
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|--------|-----------------------|---------------|------------------|
| Title | | | PCI EXPRESS * 16 |
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PCIESLOT-64D-98D-P



BC8 BC12改不上

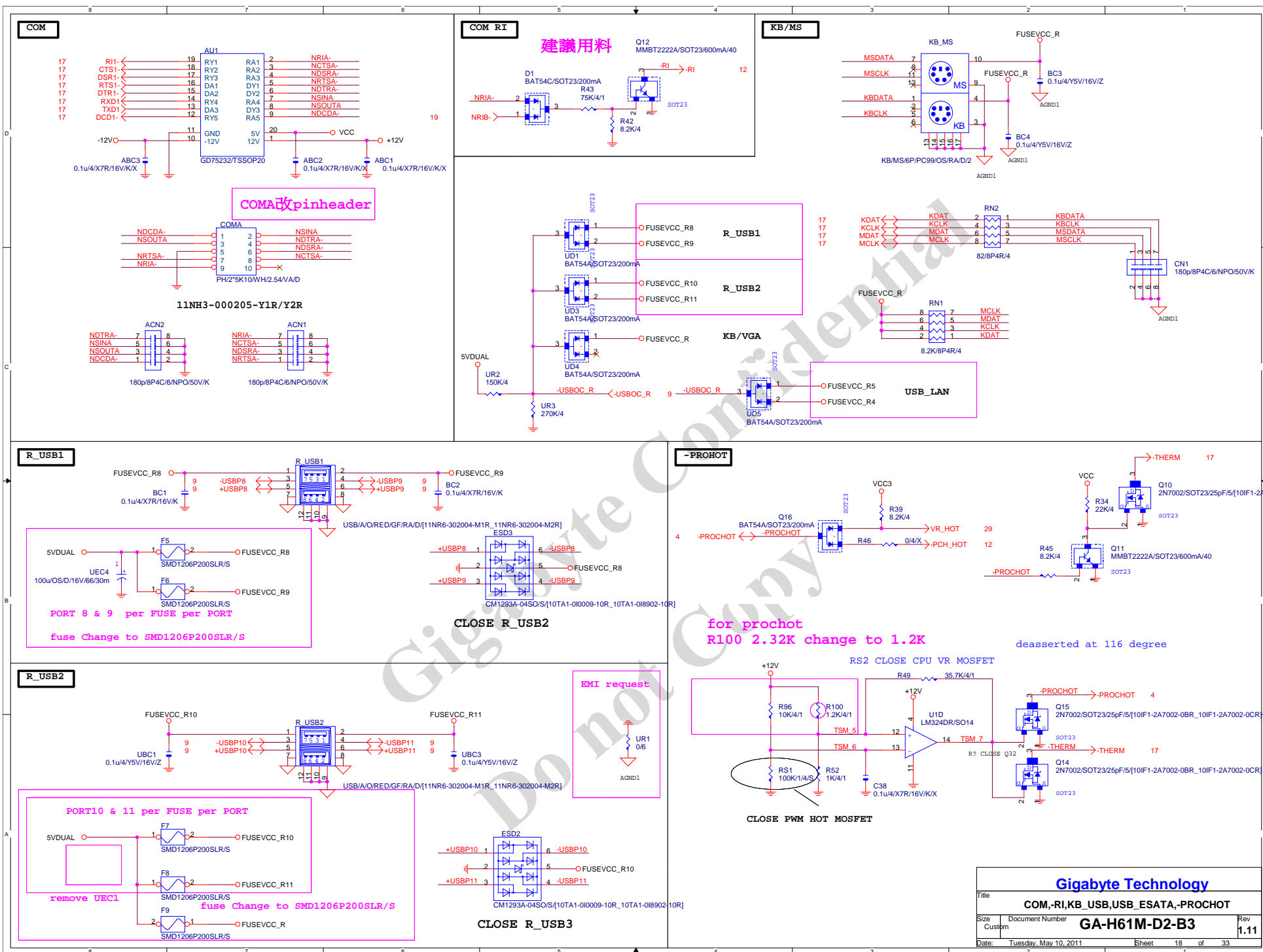
REMOVE RN

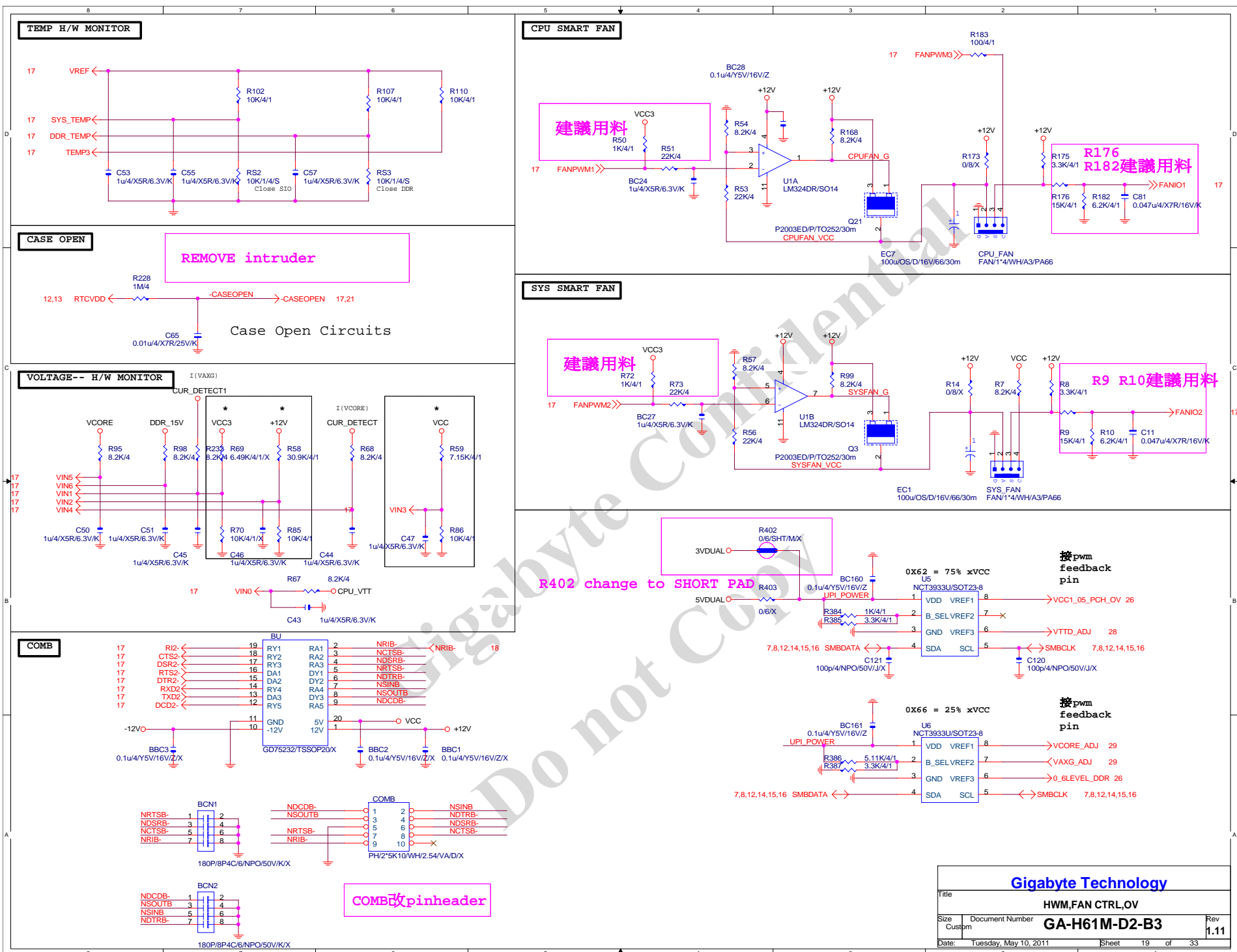


PCIEX4 change to PCIEX1

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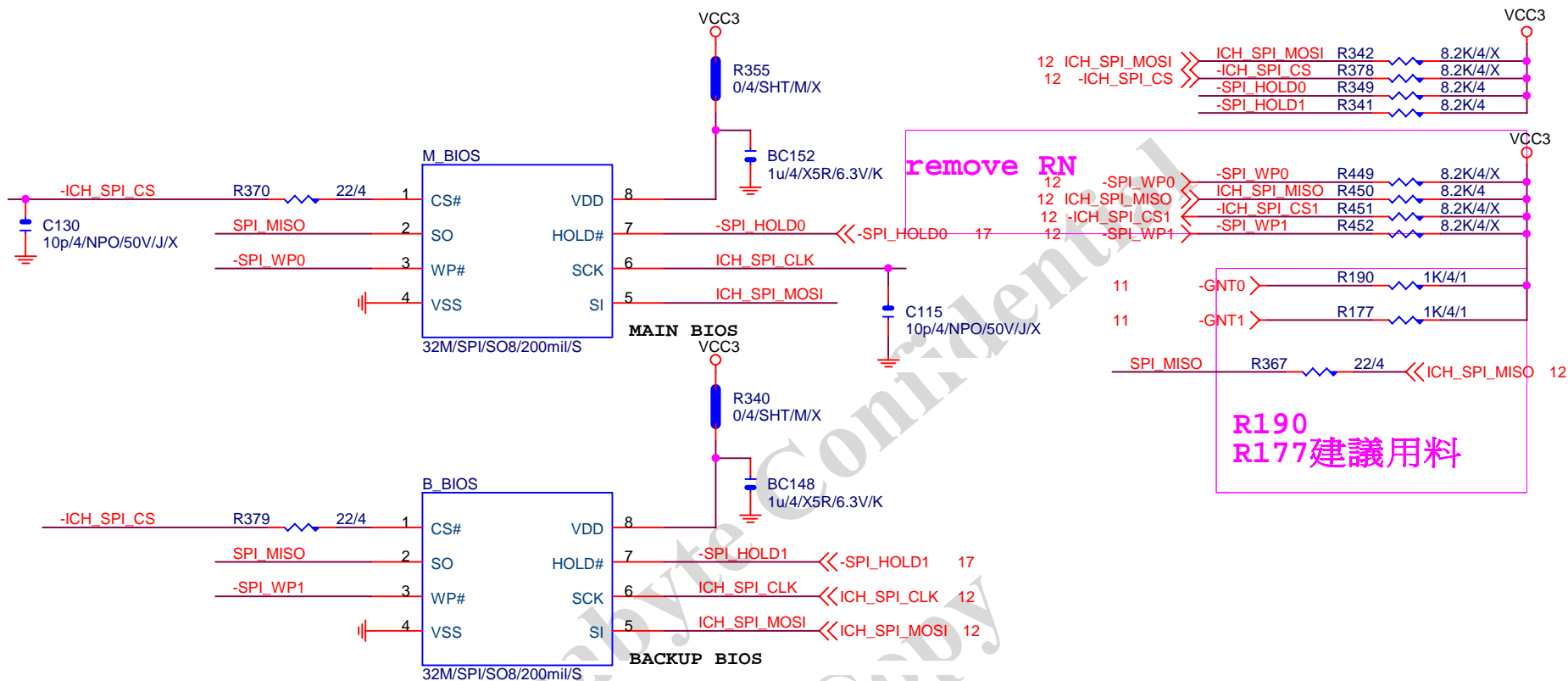
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| Title | | | PCI EXPRESS X 4 PORT |
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DUAL BIOS

R349 R341 改上件 for ITE 8728 DX



| BOOT DEVICE | GNT1 | GNT0 |
|----------------|------|------|
| LPC | 0 | 0 |
| PCI | 0 | 1 |
| SPI | 1 | 1 |

1 means floating
0 means PD 1K

Gigabyte Technology

Title

DUAL BIOS

Size
A

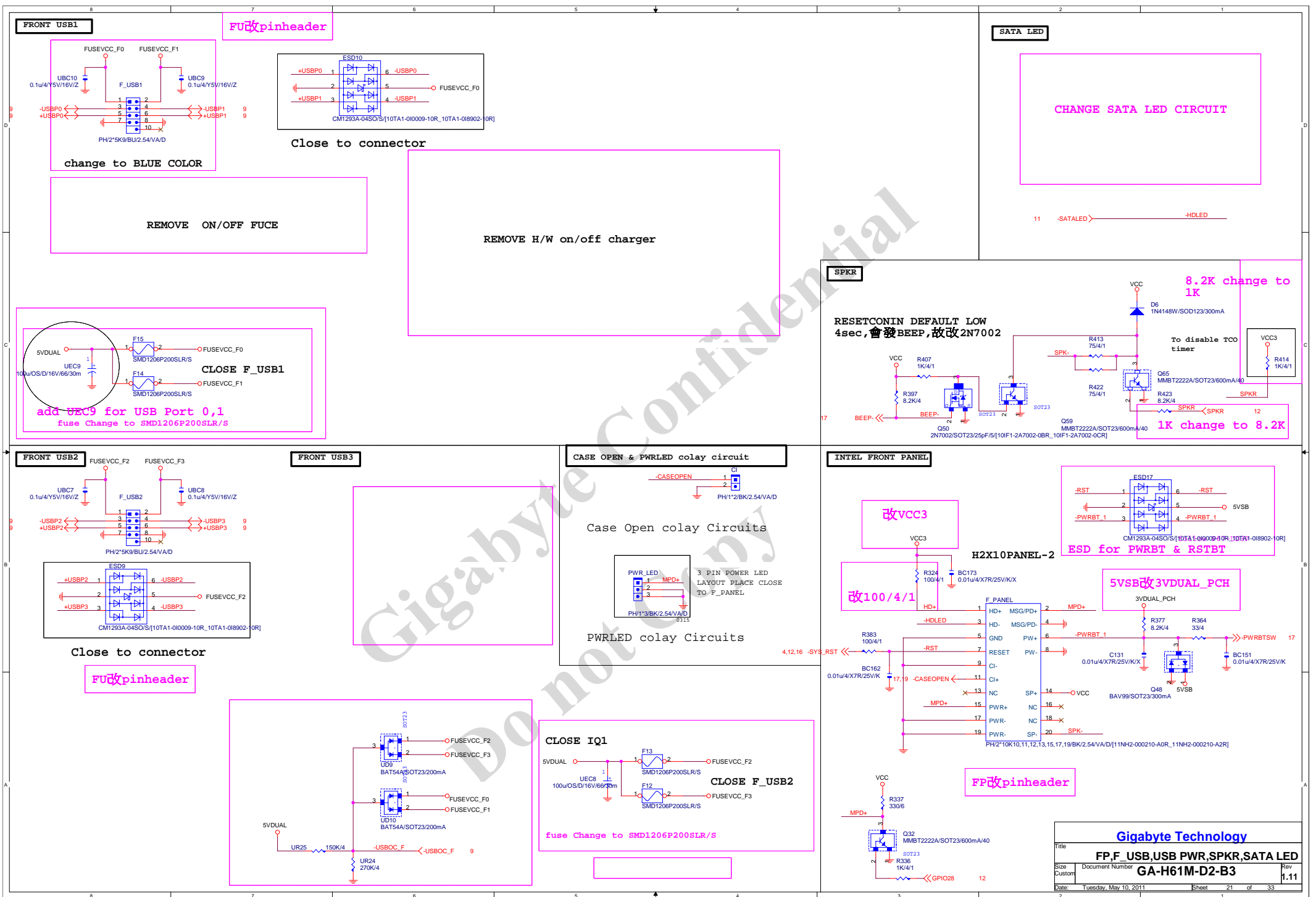
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GA-H61M-D2-B3

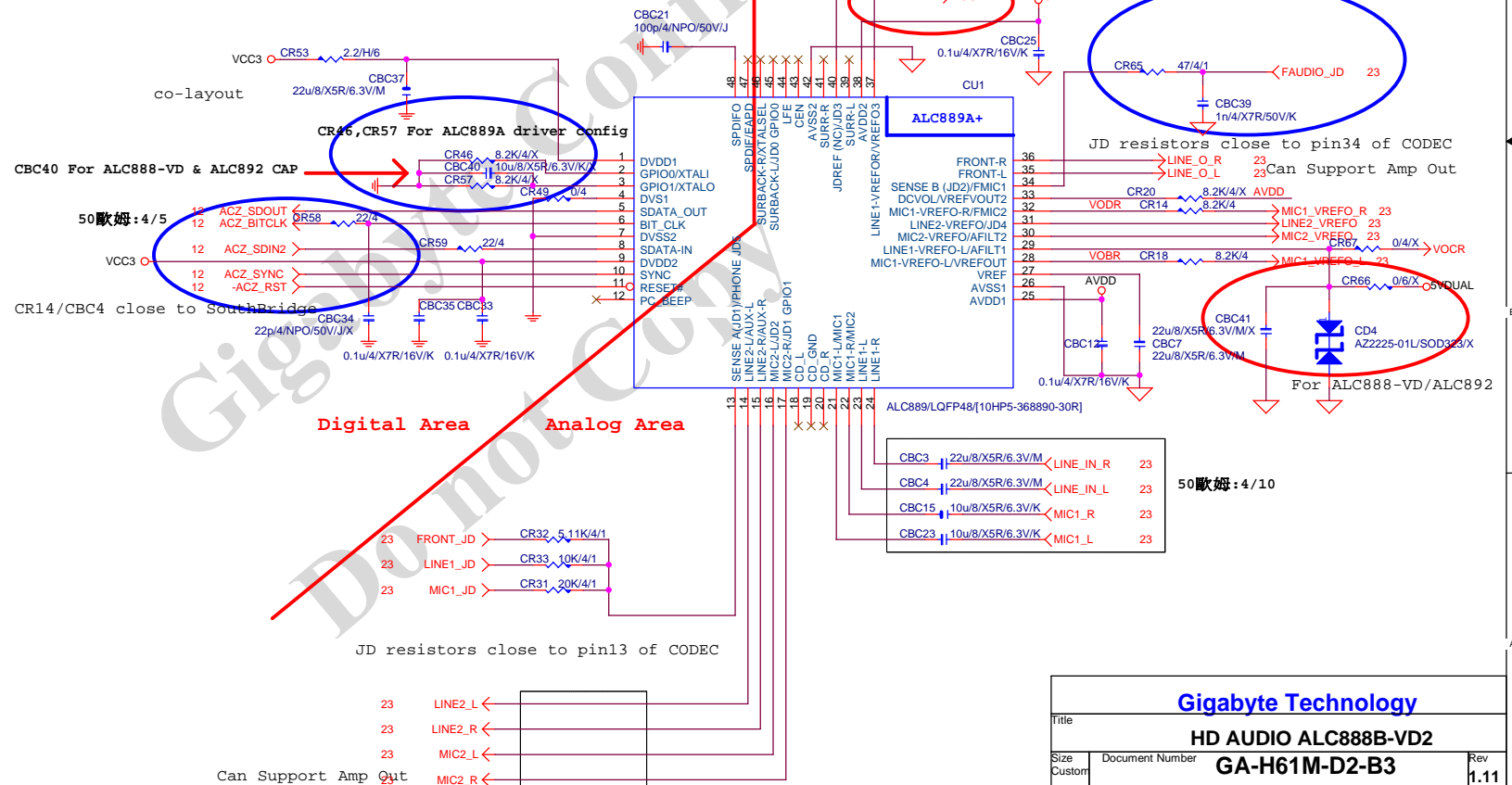
Rev
1.11

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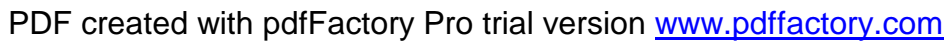


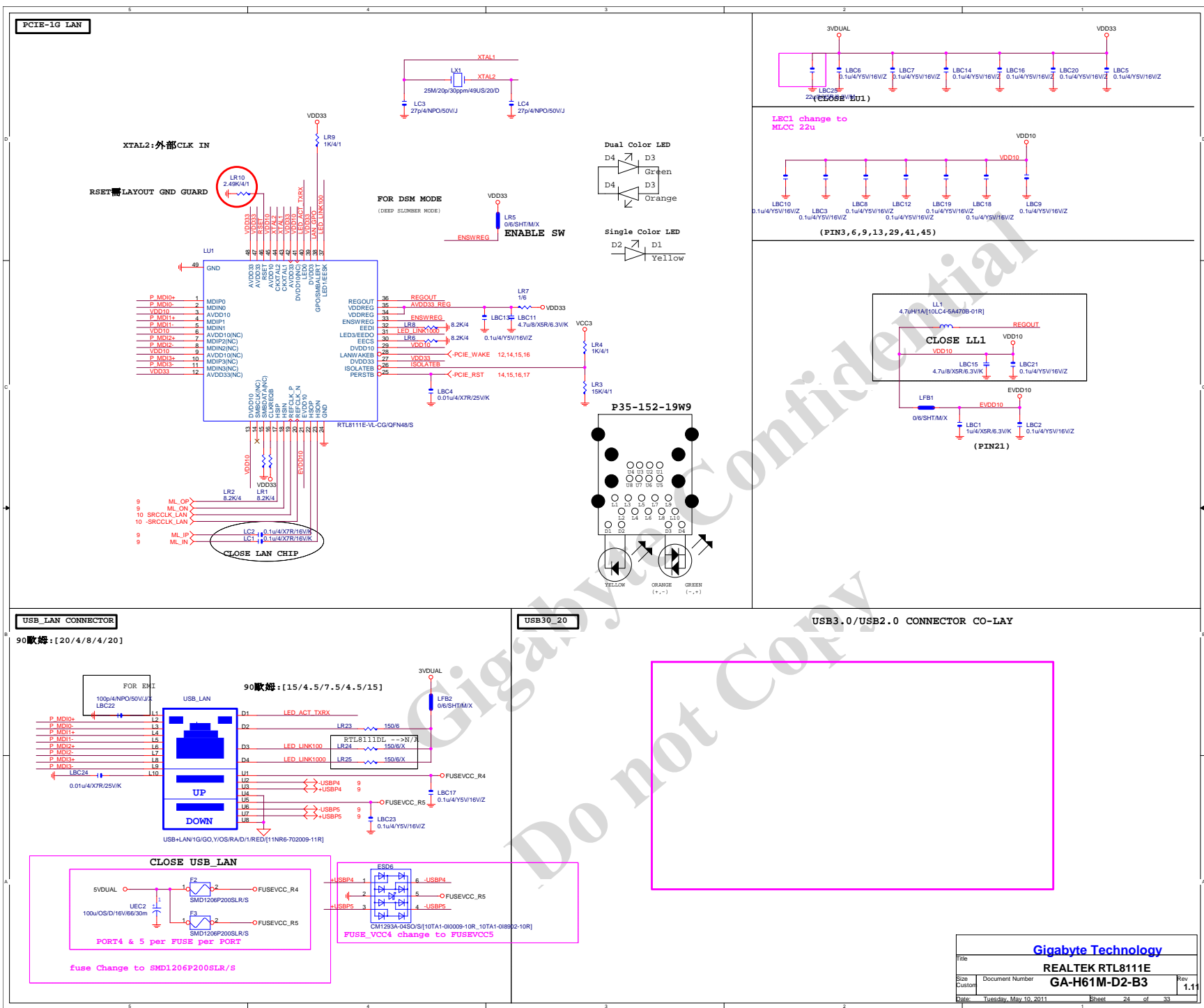
| | ALC883 | ALC888-VA | ALC888B | ALC888-VD | ALC892R | ALC889 | ALC889A |
|---|---------------|---------------|---------------|---------------|---------------|-----------------------|---------------|
| CR46 | X | X | X | X | X | X | O |
| CR57 | X | X | X | X | X | X | O |
| CR49 | O | O | X | X | X | O | O |
| CBC40 | X | X | X | 10uF/X5R | 10uF/X5R | X | X |
| CR20 | O | X | X | X | X | X | X |
| CR26 | 20K/1% | 20K/1% | 20K/1% | 20K/1% | 20K/1% | 20K/1% | 20K/0.1% |
| CR47 | X | X | O | X | O | O | X |
| CR48 | O | O | X | O | X | X | O |
| CBC2/CBC4/CBC5/ CBC6/CBC10/CBC11 | 4.7uF /X5R | 4.7uF /X5R | 4.7uF /X5R | 4.7uF /X5R | 4.7uF /X5R | 10uF /X5R | 4.7uF /X5R |
| CR1/CR3/CR10/CR12/ CR15/CR19/CR56/CR27/ CR55/CR37/CR28/CR34/ CR6/CR9/CR51/CR61 | 75 ohm | 75 ohm | 75 ohm | 75 ohm | 75 ohm | 66 ohm or lower | 75 ohm |
| CR66/CR68/CD3/CBC41 | X | X | X | O | X | X | X |
| CR67/CD1/CD2/CQ3/CQ5 | O | O | O | X | O | O | O |

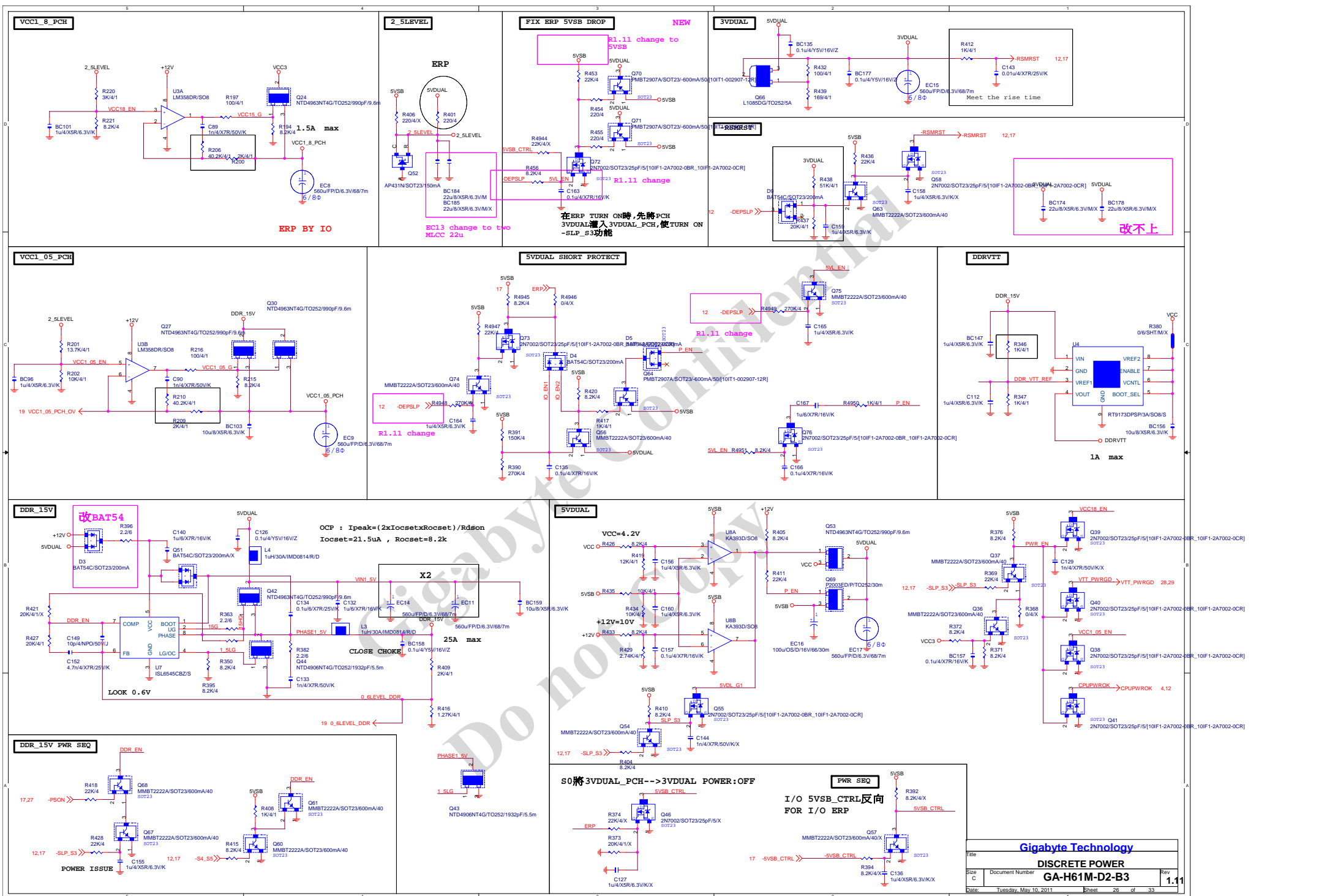


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|--------|-----------------------|---------------|----------|
| Title | HD AUDIO ALC888B-VD2 | | |
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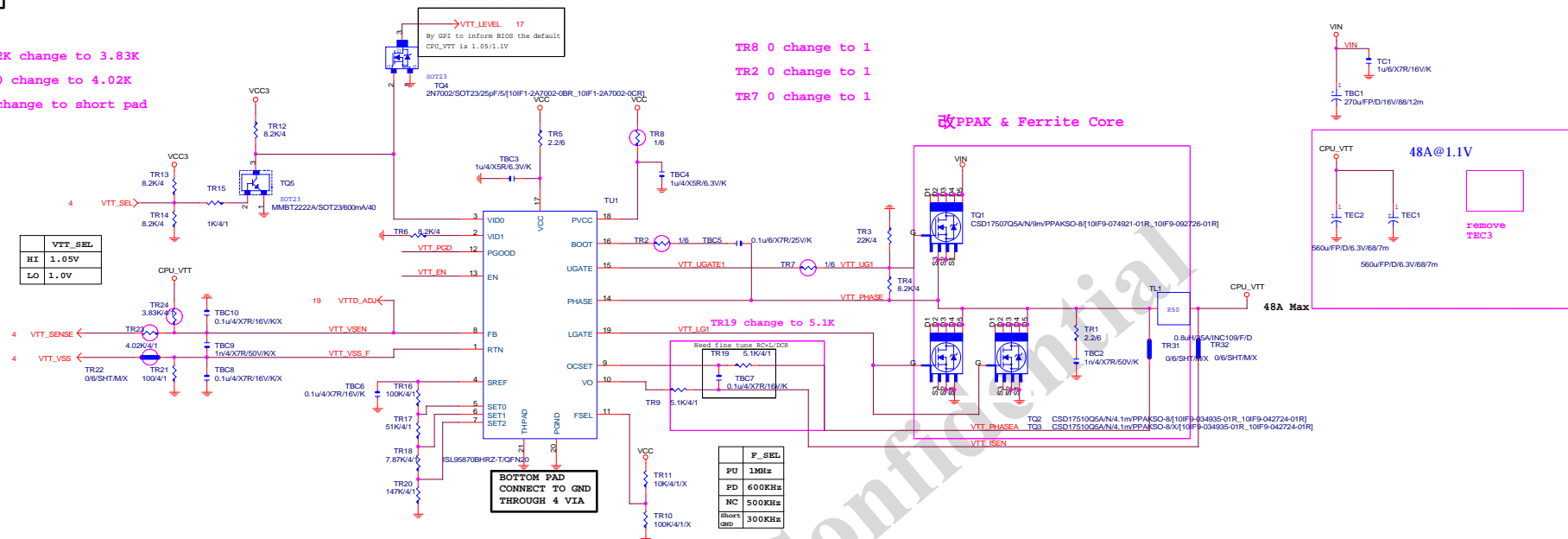




CPU_VTT

TR23 2K change to 3.83K
TR23 0 change to 4.02K
TR22 change to short pad

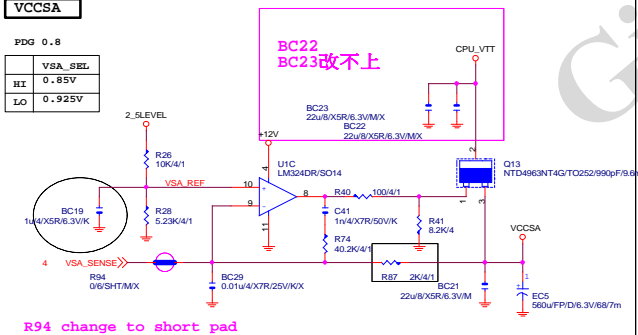
```
TR8 0 change to 1
TR2 0 change to 1
TR7 0 change to 1
```



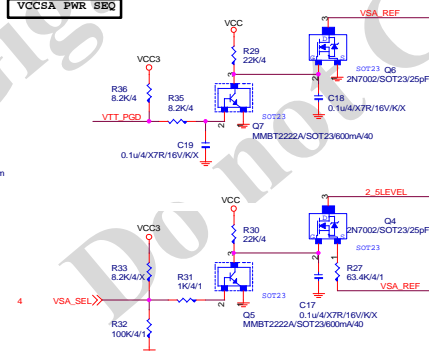
VCCSA

PDG 0.8

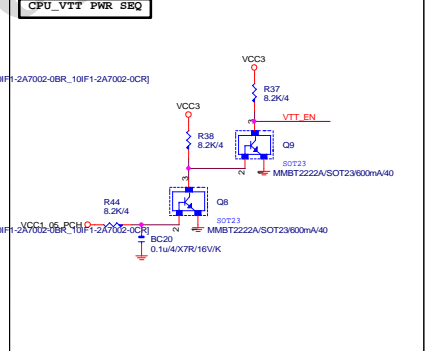
| | |
|----|---------|
| | VSA_SEL |
| HI | 0.85V |
| LO | 0.925V |



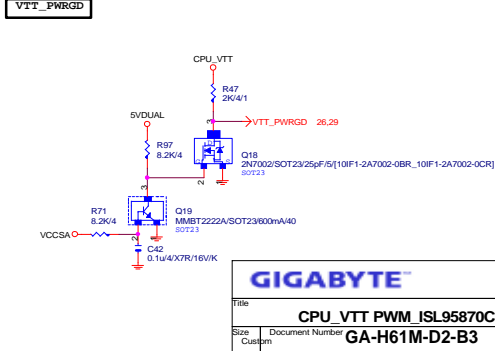
VCCSA PWR SEQ



| | | |
|---------|-----|-----|
| CPU_VTT | PWR | SEQ |
|---------|-----|-----|



VTT_PWRGD



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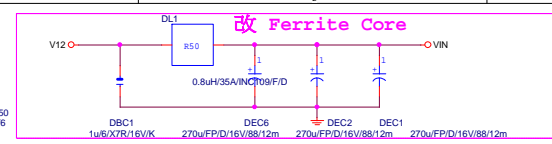
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|-------------------------|-----------------------|-------|----------|
| Title | | | |
| CPU_VTT PWM ISL95870CRZ | | | |
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DR85 150 change to 51
 DR69 6.8K change to 11K
 DR82 0 change to 10
 DR62 2.1K change to 1.1K
 DR65 1.6K change to 1.1K
 DR57 100 change to 8.2K
 DR102 100 change to 8.2K
 DR54 short change to 750
 DR103 short change to 1K
 DR91 6.8K change to 10K
 DR100 3.3K change to 1K
 DR69 11K change to 20K
 DR54 change to 1.2K

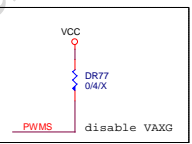
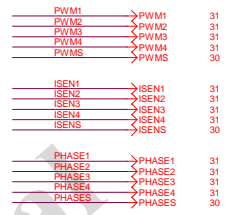
DR84 56.2 change to 51
 DR92 2.1K change to 1K

DR52 16.2K change to 24.9K

remove VAXG RDY



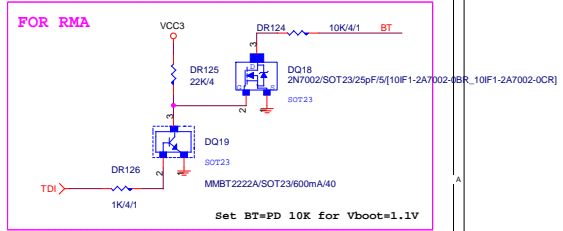
DR46 DR48 DR45 DR47 change to 10
 DR86 change to 750



FOR CUT5 IC

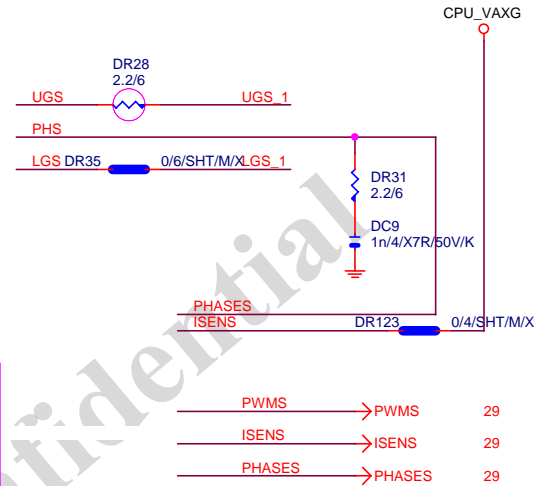
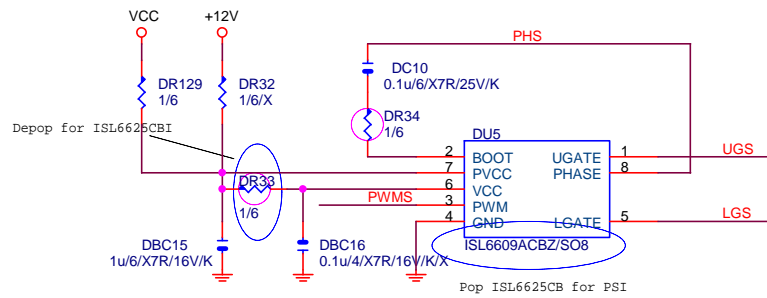
BOTTOM PAD CONNECT TO GND THROUGH 10 VIA

Close VCORE output choke
 Close VXX output choke

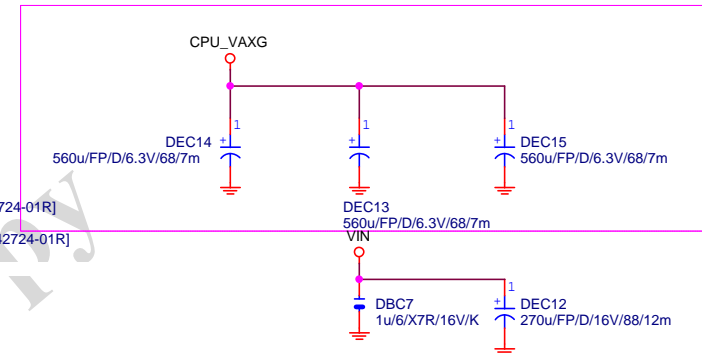


VAXG

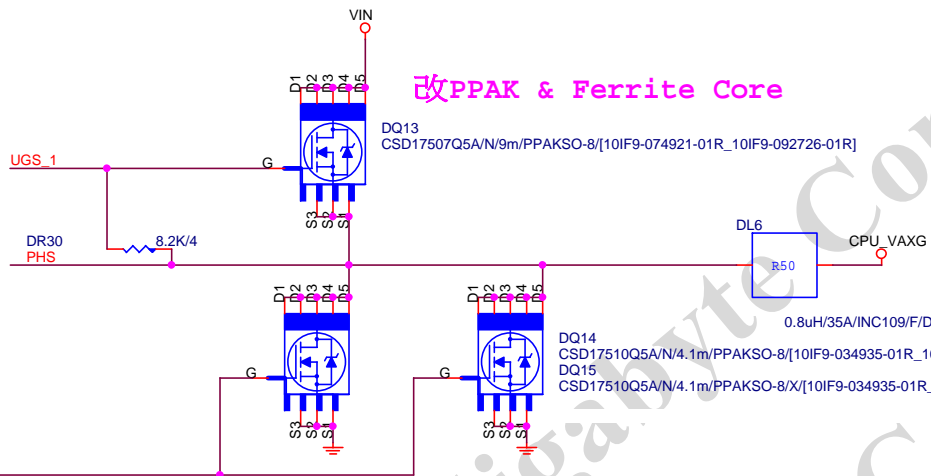
DR33 0 change to 1
DR34 0 change to 1
DR28 0 change to 2.2



PWMS → PWMS 29
ISENS → ISENS 29
PHASES → PHASES 29

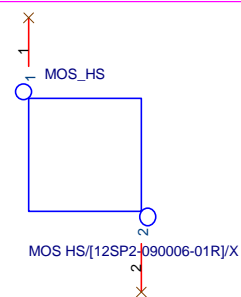


改PPAK & Ferrite Core



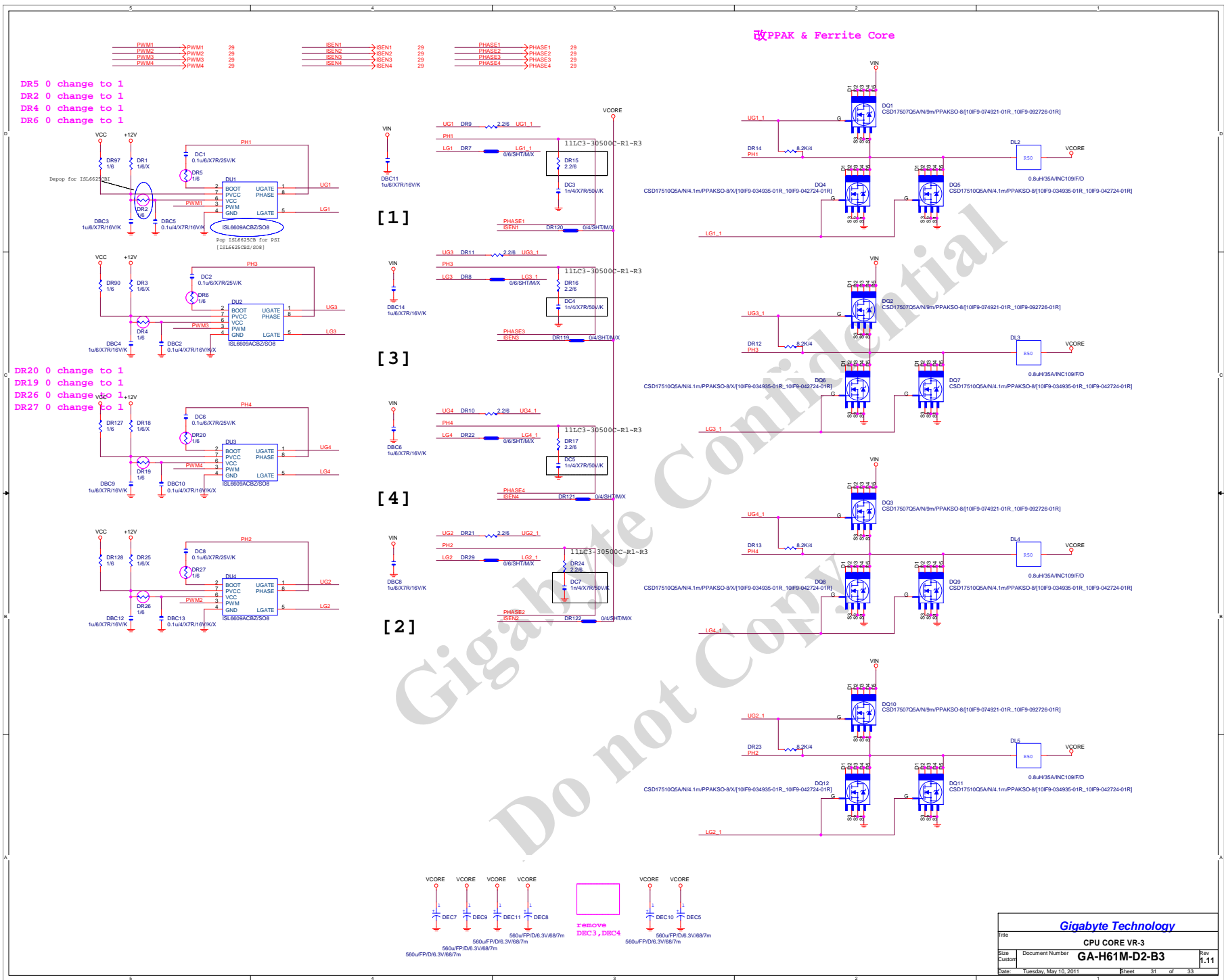
MOS HEATSINK

改不上

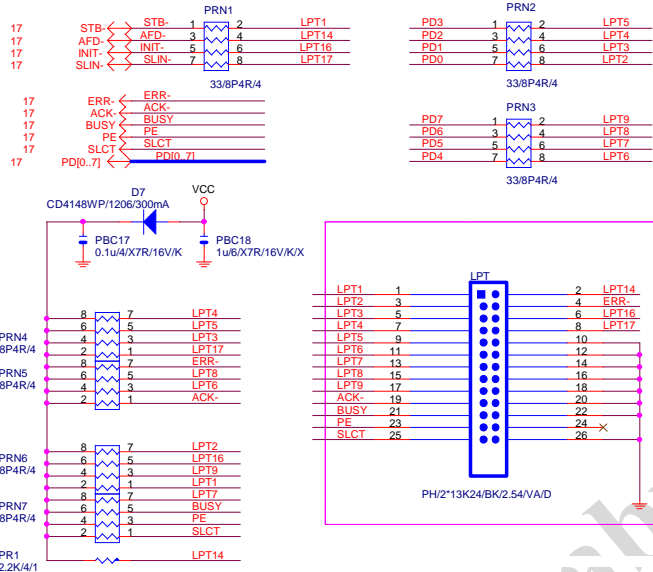


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|--------|-----------------------|---------------|---------------|
| Title | | | CPU CORE VR-2 |
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LPT PORT



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| LPT | | | |
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