

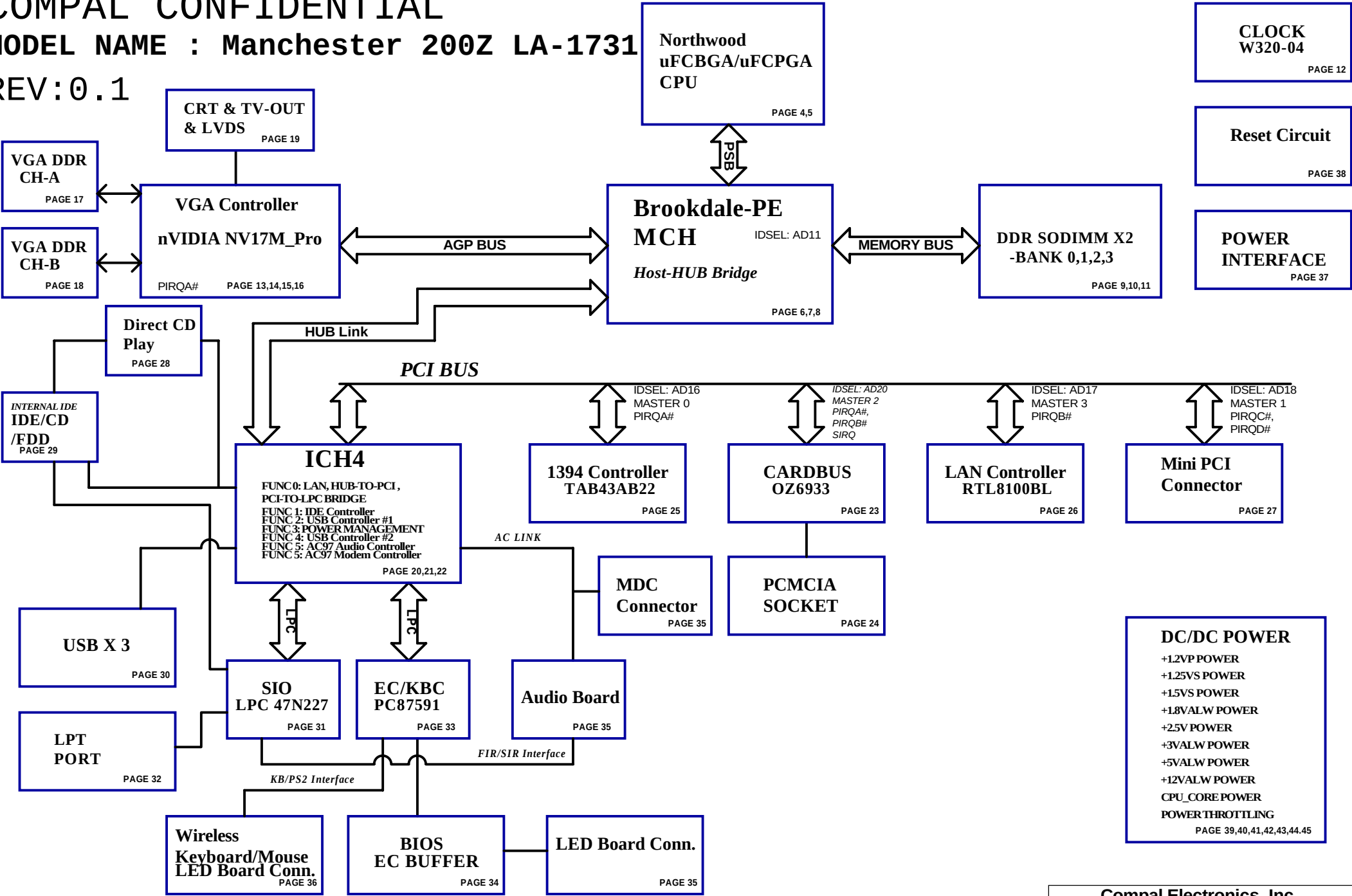
# *Manchester 200Z LA-1731 REV 1.0*

## *Schematics Document*

Intel Pentium 4 Processor it the 478-pin Package  
with 845PE / ICH4 chipset

|             |                   |  |               |
|-------------|-------------------|--|---------------|
| Title       |                   |  |               |
| Cover Sheet |                   |  |               |
| Size        | Document Number   |  | Rev           |
| B           | LA1731            |  | 1.0           |
| Date:       | ~P期二,十二月 31, 2002 |  | Sheet 1 of 46 |

COMPAL CONFIDENTIAL  
MODEL NAME : Manchester 200Z LA-1731  
REV:0.1



Voltage Rails

| Power Plane | Description                                 | S1  | S3  | S5  |
|-------------|---------------------------------------------|-----|-----|-----|
| VIN         | Adapter power supply (19V)                  | N/A | N/A | N/A |
| B+          | AC or battery power rail for power circuit. | N/A | N/A | N/A |
| +CPU_VCC    | Core voltage for CPU                        | ON  | OFF | OFF |
| +1.2VP      | 1.2V switched power rail for CPU AGTL Bus   | ON  | OFF | OFF |
| +1.25VS     | 1.25V switched power rail                   | ON  | OFF | OFF |
| +1.5VS      | AGP 4X                                      | ON  | OFF | OFF |
| +1.8VALW    | 1.8V power rail                             | ON  | ON  | ON* |
| +1.8VS      | 1.8V switched power rail                    | ON  | OFF | OFF |
| +2.5V       | 2.5V power rail                             | ON  | ON  | OFF |
| +2.5VS      | 2.5V switched power rail                    | ON  | OFF | OFF |
| +3VALW      | 3.3V always on power rail                   | ON  | ON  | ON* |
| +3V         | 3.3V power rail                             | ON  | ON  | OFF |
| +3VS        | 3.3V switched power rail                    | ON  | OFF | OFF |
| +5VALW      | 5V always on power rail                     | ON  | ON  | ON* |
| +5V         | 5V power rail                               | ON  | ON  | OFF |
| +5VS        | 5V switched power rail                      | ON  | OFF | OFF |
| +12VALW     | 12V always on power rail                    | ON  | ON  | ON* |
| RTCVCC      | RTC power                                   | ON  | ON  | ON  |
|             |                                             | ON  | ON  | ON  |

Note : ON\* means that this power plane is ON only with AC power available, otherwise it is OFF.

External PCI Devices

| Device   | IDSEL# | REQ#/GNT# | Interrupts  |
|----------|--------|-----------|-------------|
| VGA      |        |           | PIRQA       |
| CardBus  | AD20   | 2         | PIRQA/PIRQB |
| LAN      | AD17   | 3         | PIRQB       |
| Mini-PCI | AD18   | 1/4       | PIRQC/PIRQD |
| 1394     | AD16   | 0         | PIRQA       |

EC SM Bus1 address

| Device           | Address     | Device        | Address     |
|------------------|-------------|---------------|-------------|
| Smart Battery    | 0001 011X b | MAX1617MEE    | 1001 110X b |
| EEPROM(24C16/02) | 1010 000X b | OZ163         | 0011 0100 b |
| (24C04)          | 1011 000Xb  | Smart Battery | 0001 011X b |
|                  |             | Docking       | 0011 011X b |
|                  |             | DOT Board     | XXXX XXXXb  |

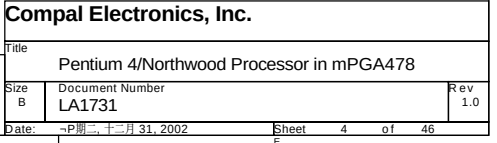
ICH4 SM Bus address

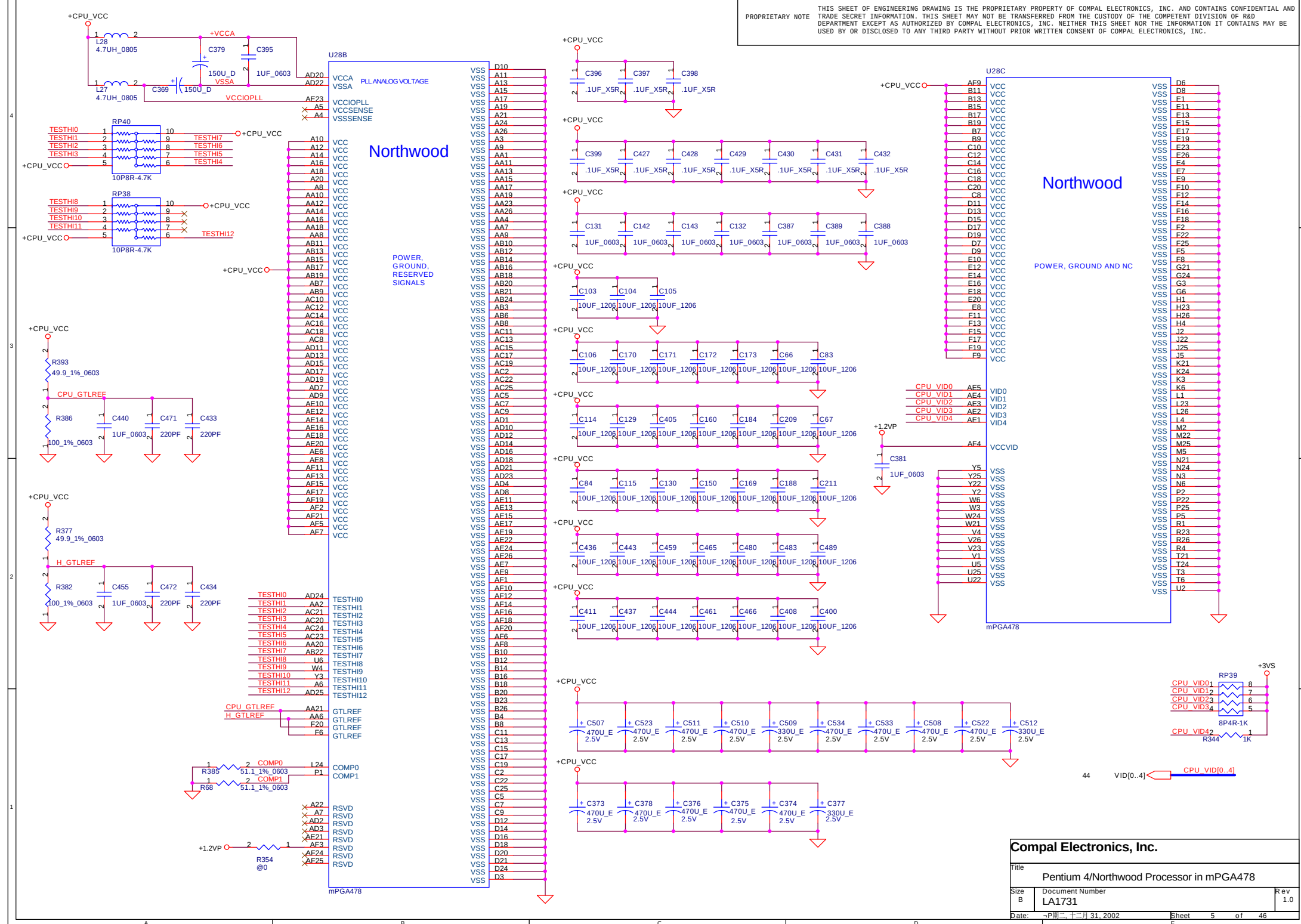
| Device                        | Address   |
|-------------------------------|-----------|
| Clock Generator ( ICS9508-10) | 1101 001X |

Board ID Table for AD channel

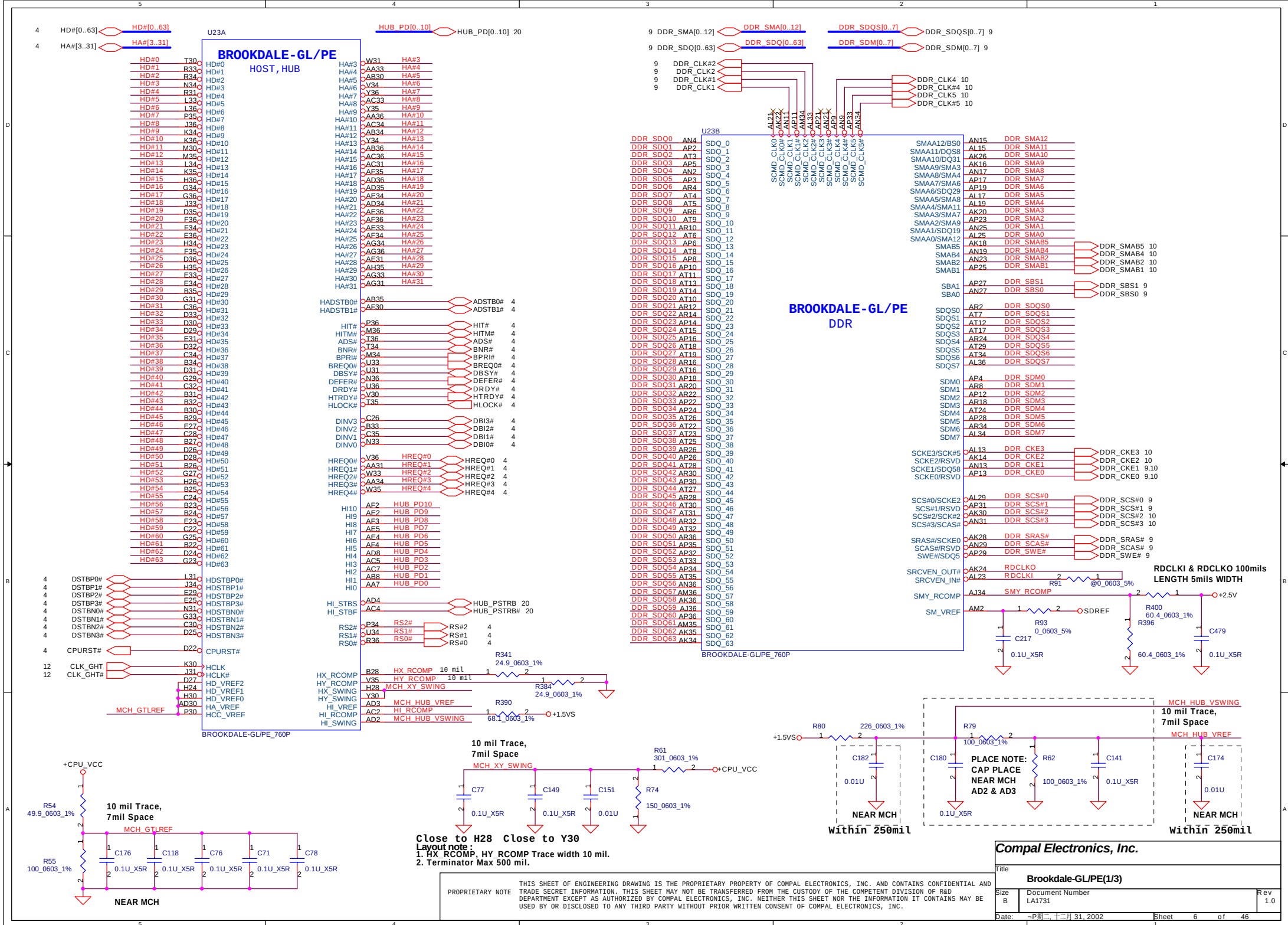
|          |             |             |             |             |
|----------|-------------|-------------|-------------|-------------|
| Vcc      | 3.3V +/- 5% |             |             |             |
| Ra       | 100K +/- 5% |             |             |             |
| Board ID | Rb          | VAD_BID min | VAD_BID typ | VAD_BID max |
| 0        | 0           | 0 V         | 0 V         | 0 V         |
| 1        | 8.2K +/- 5% | 0.216 V     | 0.250 V     | 0.289 V     |
| 2        | 18K +/- 5%  | 0.436 V     | 0.503 V     | 0.538 V     |
| 3        | 33K +/- 5%  | 0.712 V     | 0.819 V     | 0.875 V     |
| 4        | 56K +/- 5%  | 1.036 V     | 1.185 V     | 1.264 V     |
| 5        | 100K +/- 5% | 1.453 V     | 1.650 V     | 1.759 V     |
| 6        | 200K +/- 5% | 1.935 V     | 2.200 V     | 2.341 V     |
| 7        | NC          | 2.500 V     | 3.300 V     | 3.300 V     |

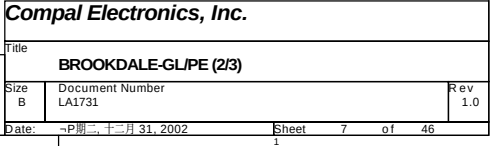
| Board ID | PCB Revision |
|----------|--------------|
| 0        | 0.1          |
| 1        | 1.0          |
| 2        |              |
| 3        |              |
| 4        |              |
| 5        |              |
| 6        |              |
| 7        |              |



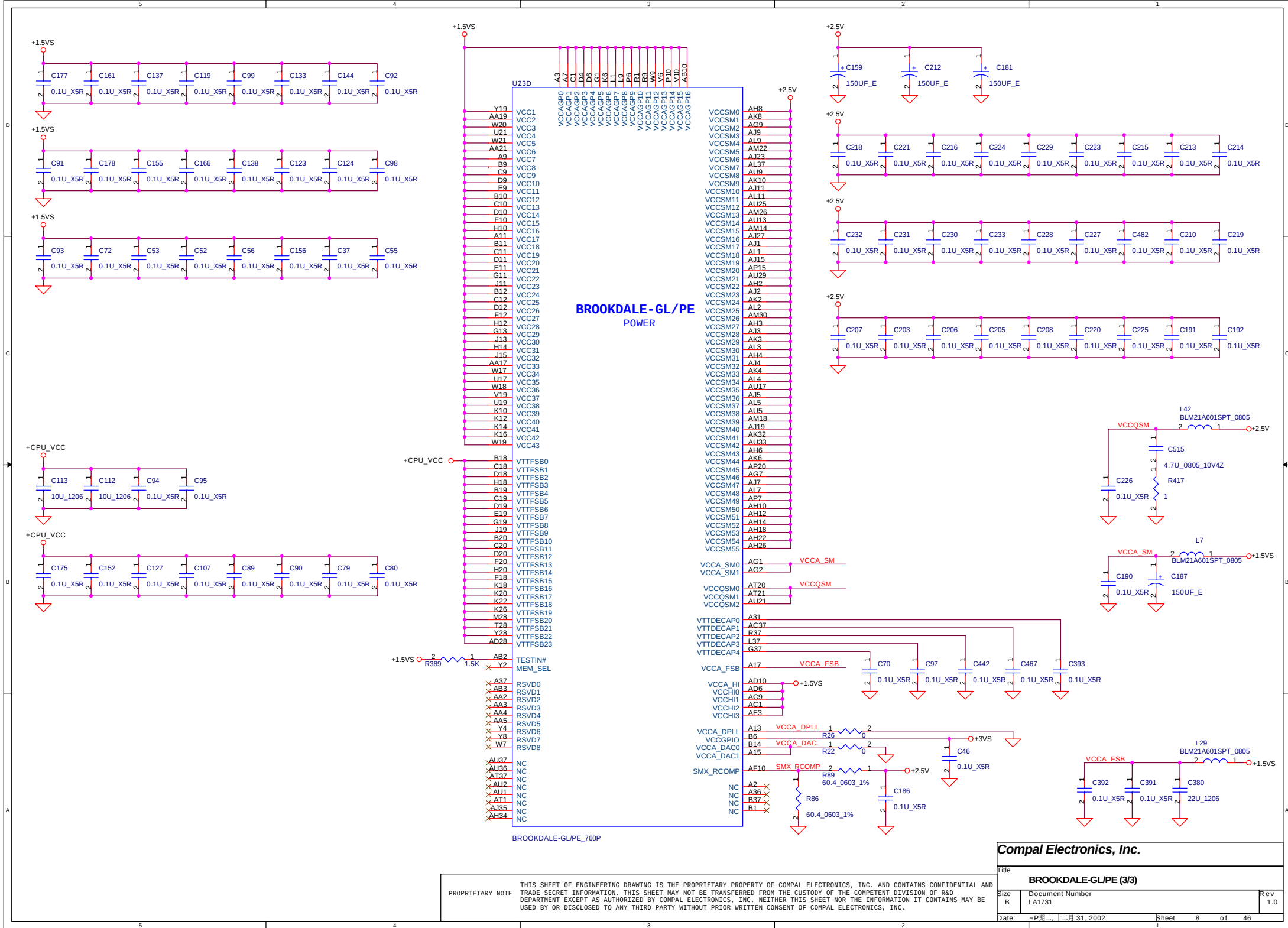
**Compal Electronics, Inc.**

|                                          |                           |       |            |
|------------------------------------------|---------------------------|-------|------------|
| Title                                    |                           |       |            |
| Pentium 4/Northwood Processor in mPGA478 |                           |       |            |
| Size<br>B                                | Document Number<br>LA1731 |       | Rev<br>1.0 |
| Date:                                    | ~P期二,十二月 31, 2002         | Sheet | 5 of 46    |



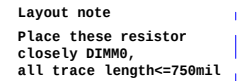
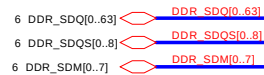




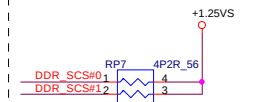




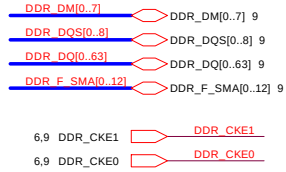
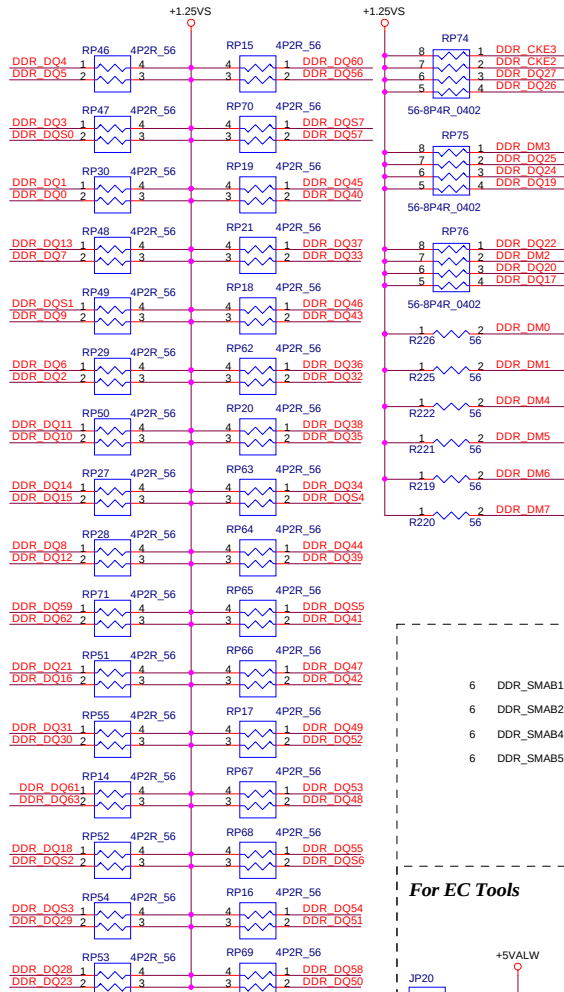
Place these resistor  
closely DIMM0,  
all trace length<750mil



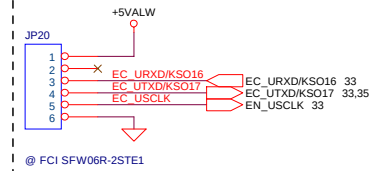
Layout note  
Place these resistor  
closely DIMM0,  
all trace length Max=1.3"



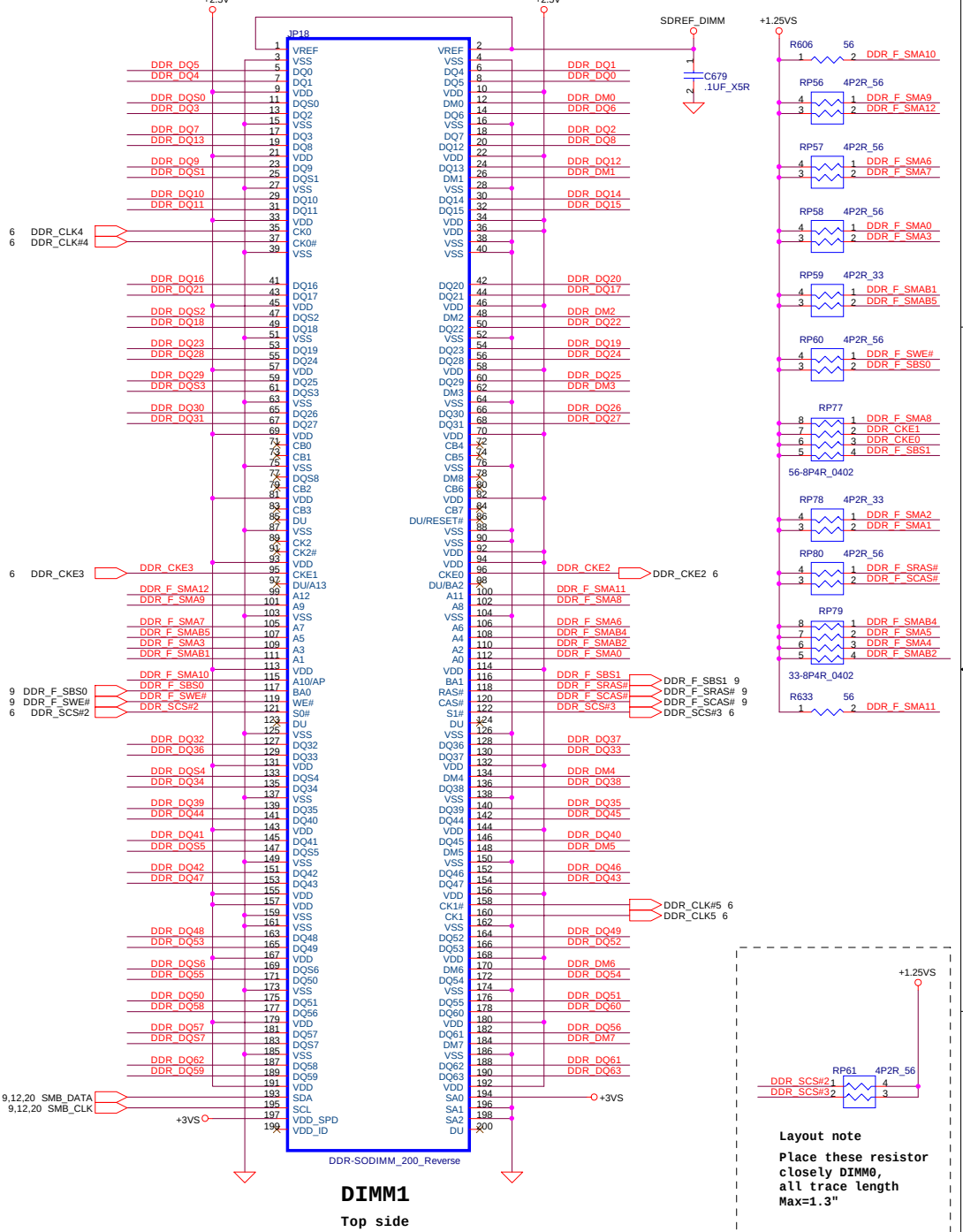
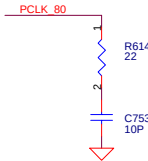
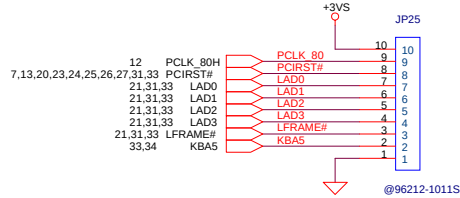
Layout note  
Place these resistor  
closely DIMM0,  
all trace  
length<=750mil



For EC Tools



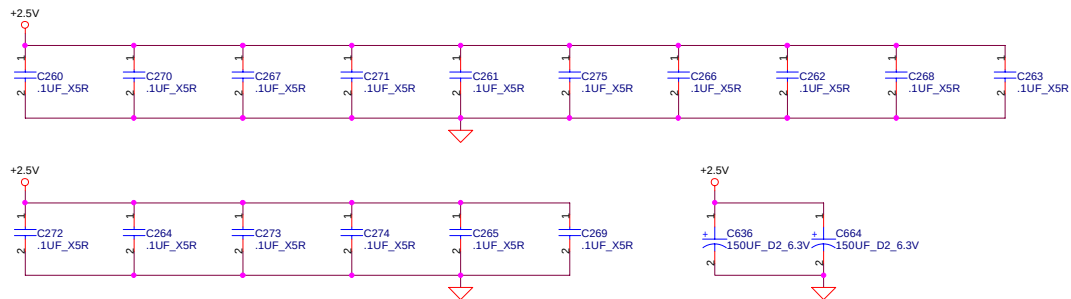
Layout note  
Place these resistor  
closely DIMM1,  
all trace  
length<=800mil



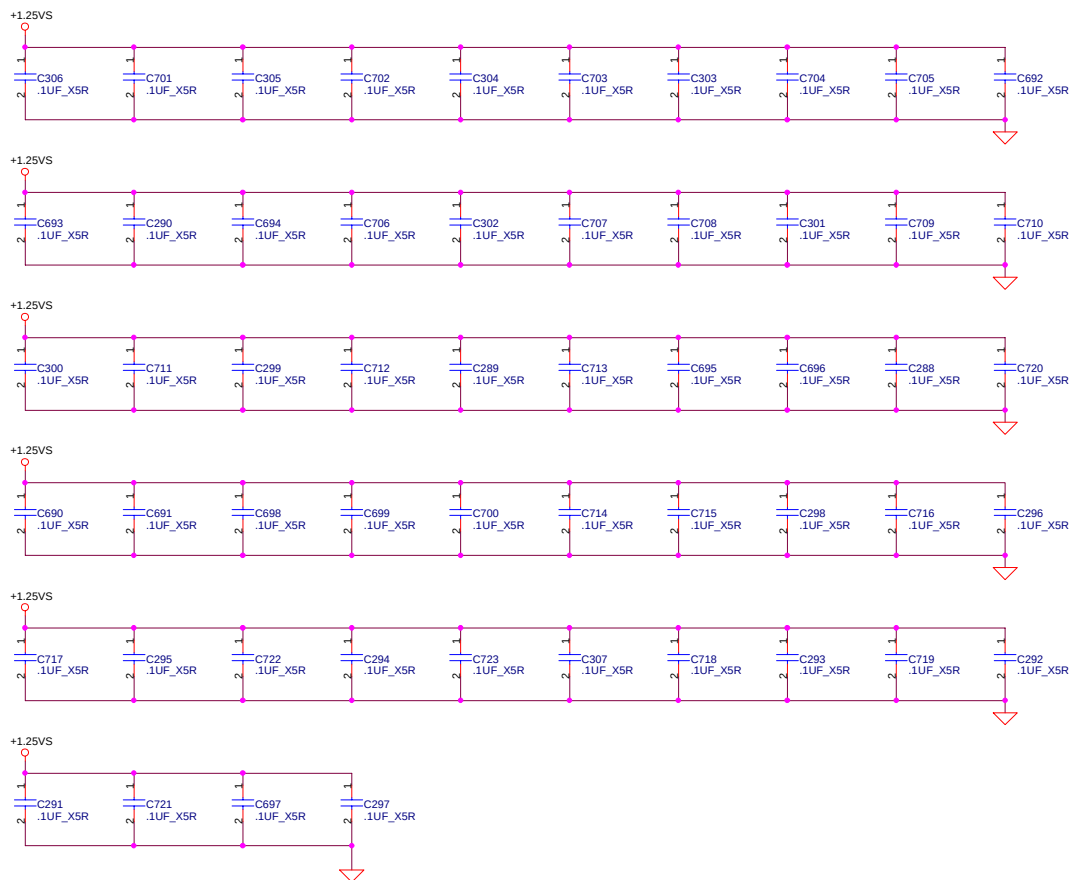
DIMM1  
Top side

Layout note  
Place these resistor  
closely DIMM0,  
all trace length  
Max=1.3"

Layout note :  
Distribute as close as possible  
to DDR-SODIMM.



Layout note :  
Place one cap close to every 2 pull up resistors termination to  
+1.25V



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|--------------------------|-------------------|----------------|
| Title                    |                   |                |
| DDR SODIMM Decoupling    |                   |                |
| Size                     | Document Number   | Rev            |
| B                        | LA1731            | 1.0            |
| Date:                    | 星期二, 十二月 23, 2002 | Sheet 11 of 46 |

| SEL1 | SEL0 | Function        |
|------|------|-----------------|
| 0    | 0    | 166Mhz Host CLK |
| 0    | 1    | 100Mhz Host CLK |
| 1    | 0    | 200Mhz Host CLK |
| 1    | 1    | 133Mhz Host CLK |

### Host Swing Select

| MULT0 | Reference R, Iref= VDD/(3*Rr) | Output Current |
|-------|-------------------------------|----------------|
| 0     | Rr = 221 1%, Iref =5.00mA     | Ioh = 4 * Iref |
| 1     | Rr = 475 1%, Iref =2.32mA     | Ioh = 6 * Iref |

Please closely pin42

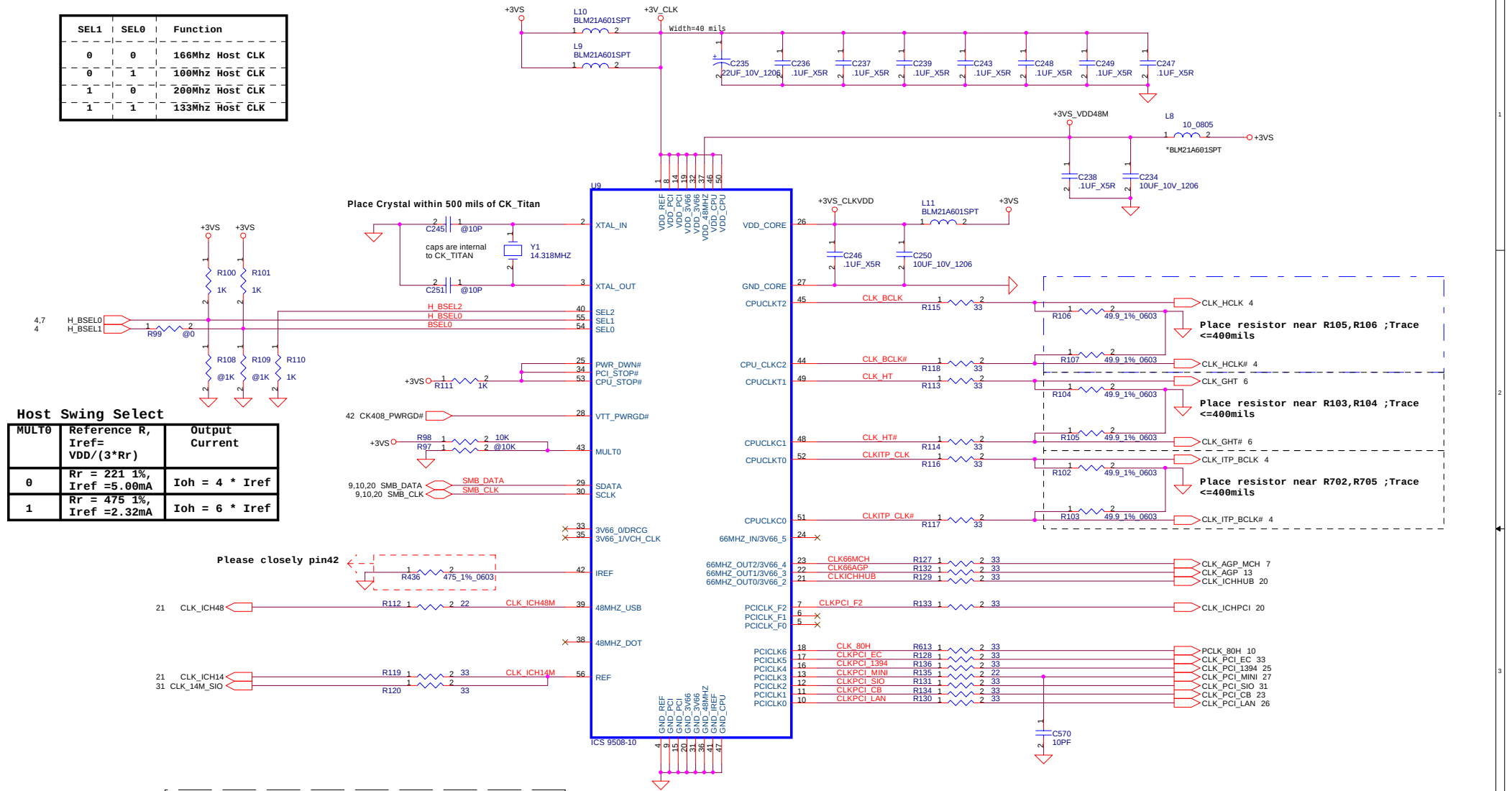
Note:  
CPU\_CLK[2:0] needs to be running in C3, C4.

Place Crystal within 500 mils of CK\_Titan

Place resistor near R105,R106 ;Trace <=400mils

Place resistor near R103,R104 ;Trace <=400mils

Place resistor near R702,R705 ;Trace <=400mils

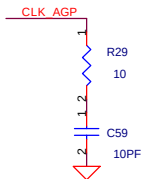
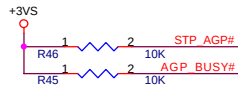
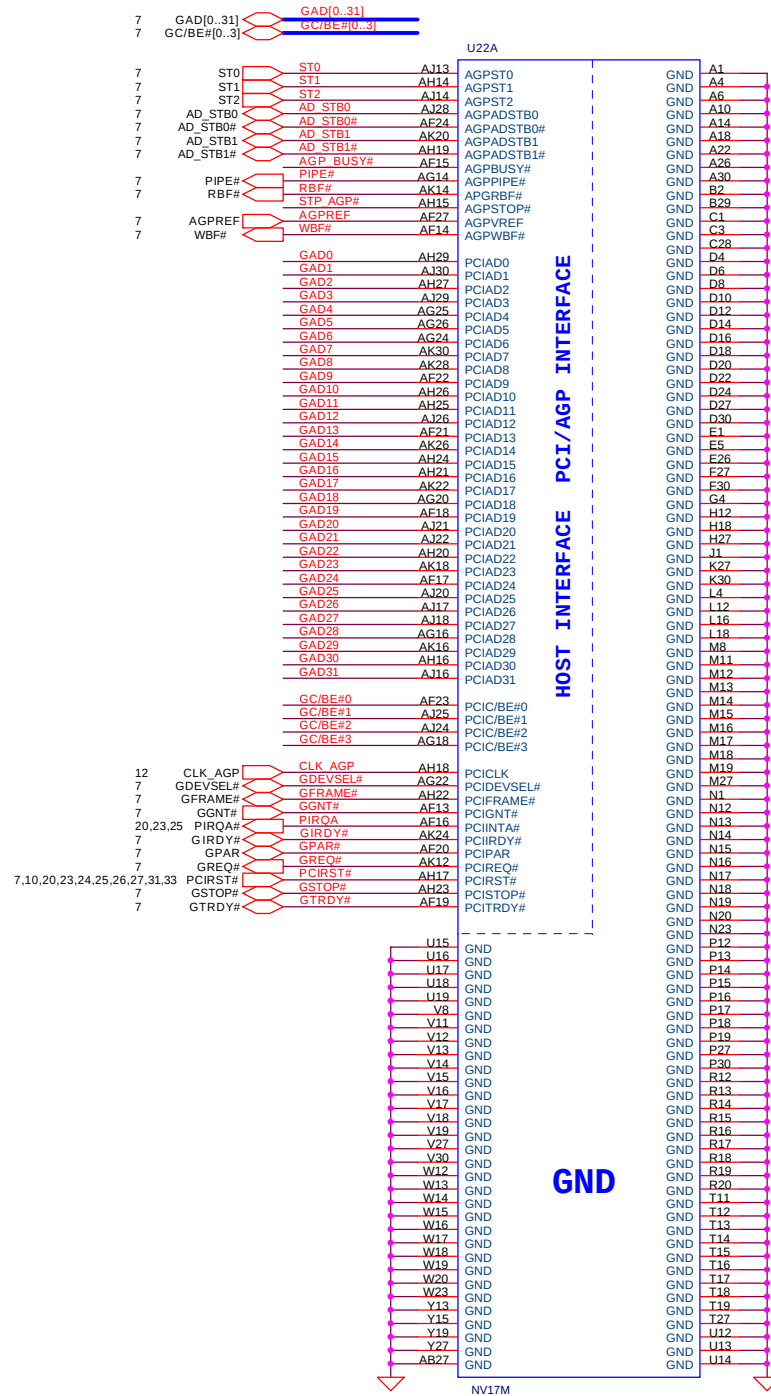


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Clock Generator

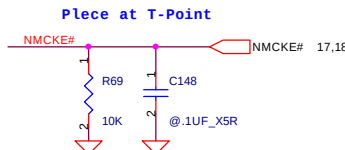
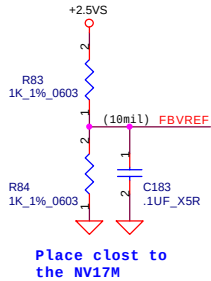
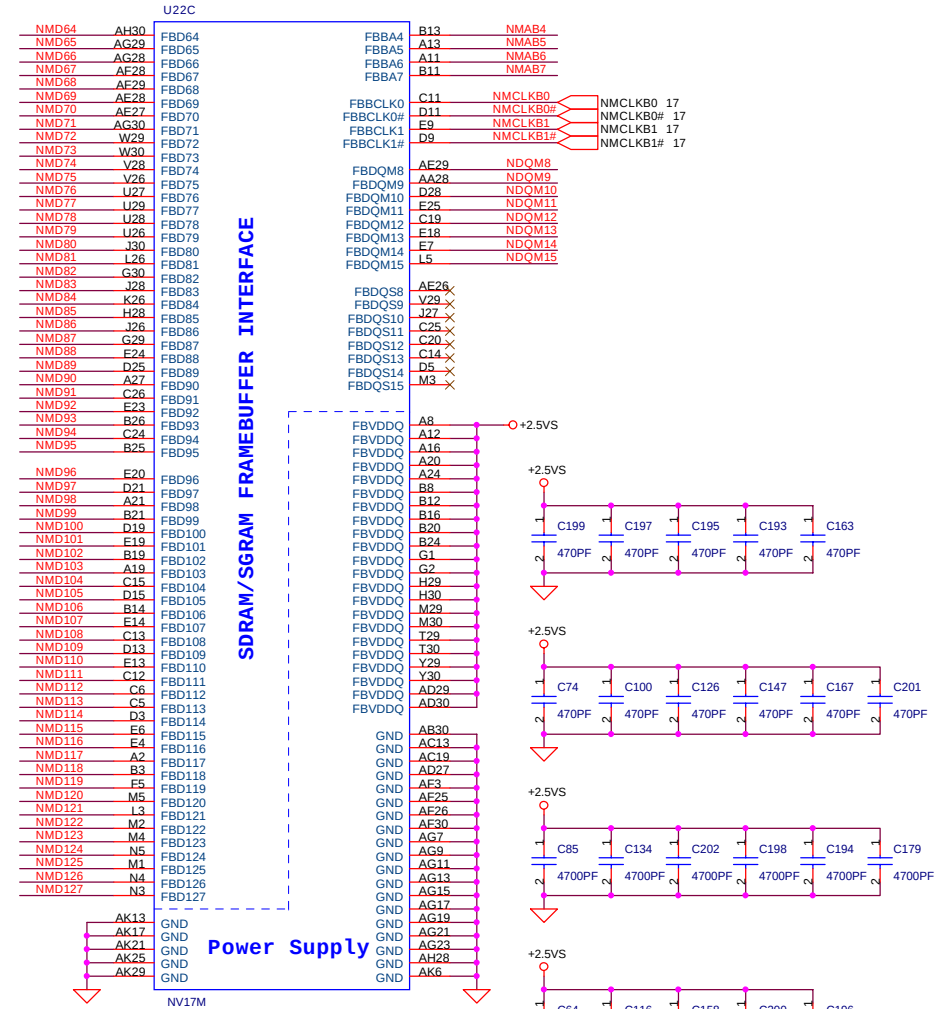
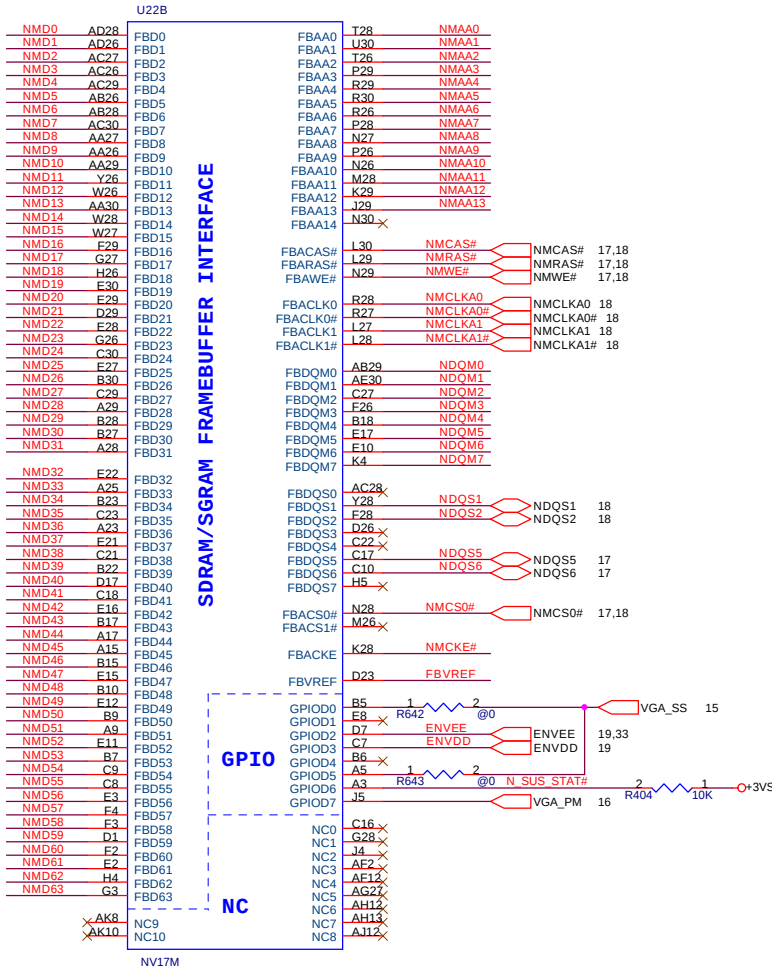
|       |                     |                |
|-------|---------------------|----------------|
| Size  | Document Number     | Rev            |
| B     | LA1731              | 1.0            |
| Date: | 星期二, 2002 731, 2002 | Sheet 12 of 46 |

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17,18 NMAA[0..13] NMAA[0..13]  
17,18 NMD[0..127] NMD[0..127]  
17,18 NDQM[0..15] NDQM[0..15]

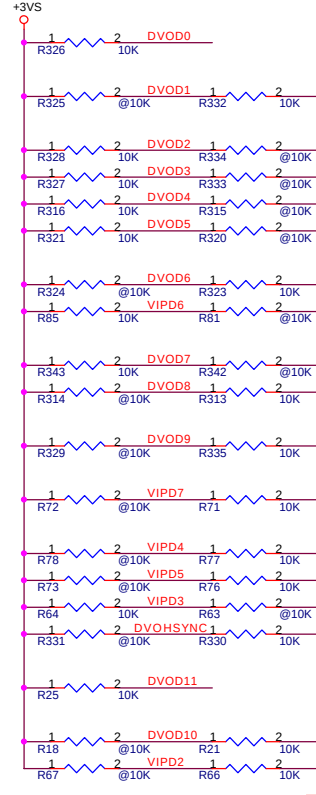
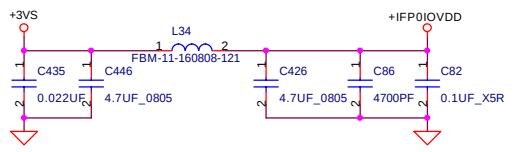
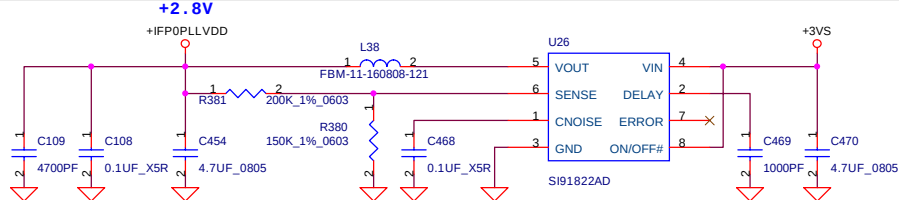
17,18 NMAB[4..7] NMAB[4..7]



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|     |                        |                           |            |
|-----|------------------------|---------------------------|------------|
| AND | Title                  |                           |            |
|     | nVIDIA NV17M (DDR)     |                           |            |
|     | Size B                 | Document Number<br>LA1731 | Rev<br>1.0 |
|     | Date: ~P期二,十二月三十一,2002 | Sheet 14 of 46            |            |

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PCI AD SWAP  
0: REVERSED  
1: NORMAL DEFAULT

SUB\_VENDOR  
0: system BIOS  
1: adapter BIOS DEFAULT

RAM\_CFG[3:0]  
1111: 4MX32 DDR, DQS per word, high drive strength  
1101: 4MX32 DDR, DQS per byte, low drive strength  
1001: 2MX32 DDR, DQS per word, high drive strength  
1000: 2MX32 DDR, DQS per word, low drive strength  
0111: 2MX32 DDR, DQS per byte, low drive strength

CRYSTAL[1:0]  
00: 13.5MHz  
01: 14.318MHz  
10: 27MHz SQ17/NV17 DEFAULT, NV11 DEFAULT  
11: unknown

TVMODE[1:0]  
00: SECAM  
01: NTSC DEFAULT  
10: PAL  
11: VGA

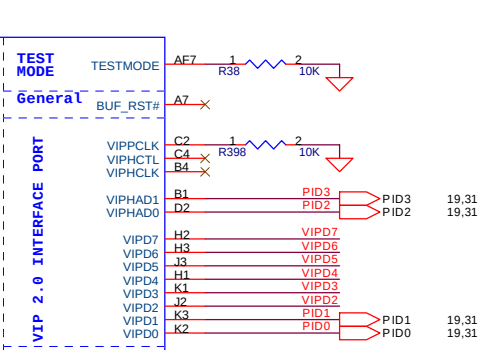
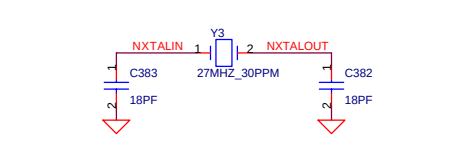
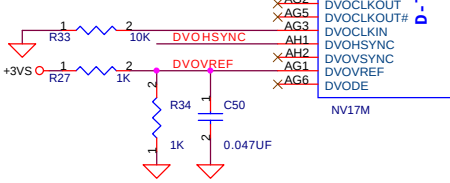
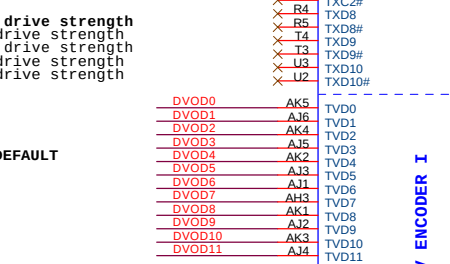
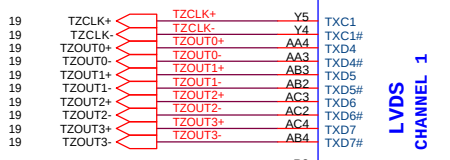
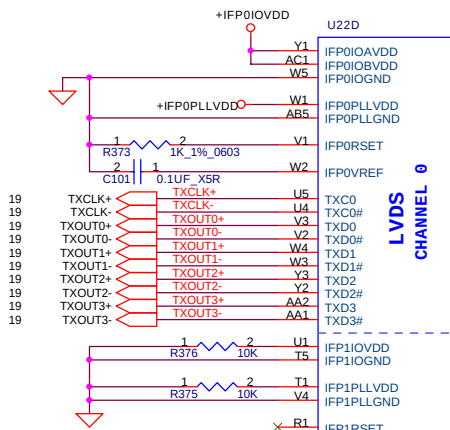
AGP4X  
0: Enabled DEFAULT  
1: disabled

AGP\_FW  
0: Enabled DEFAULT  
1: disabled

PCI\_DEVID[0:3]  
0100: NV17M  
0101: NV17SQUISH  
0111: NV17M\_Pro

BUS\_TYPE  
0: PCI  
1: AGP DEFAULT

ROMTYPE[1:0]  
00: Parallel DEFAULT  
01: serial AT25F  
10: serial SST45V  
11: serial future



TESTMODE  
General

ROM/ IF

LVDS CHANNEL 0

LVDS CHANNEL 1

PLL & VIDEO DAC

D-TV ENCODER I

DISPLAY I

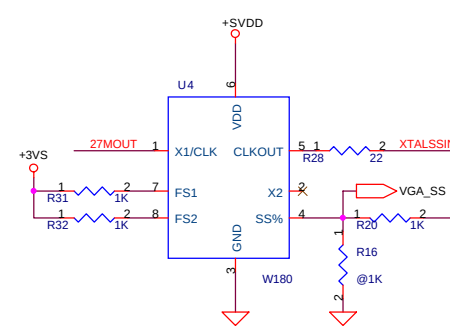
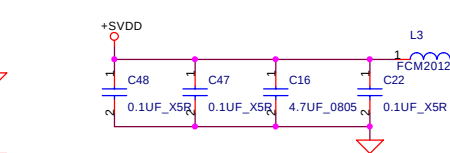
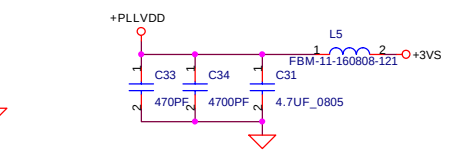
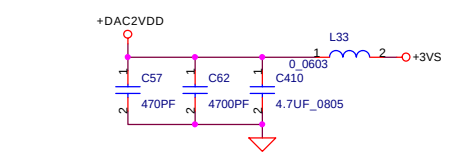
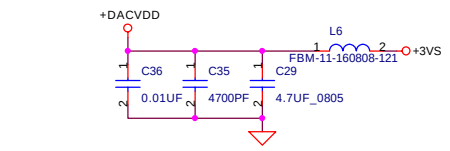
### W180-01

Modulation Width Selection

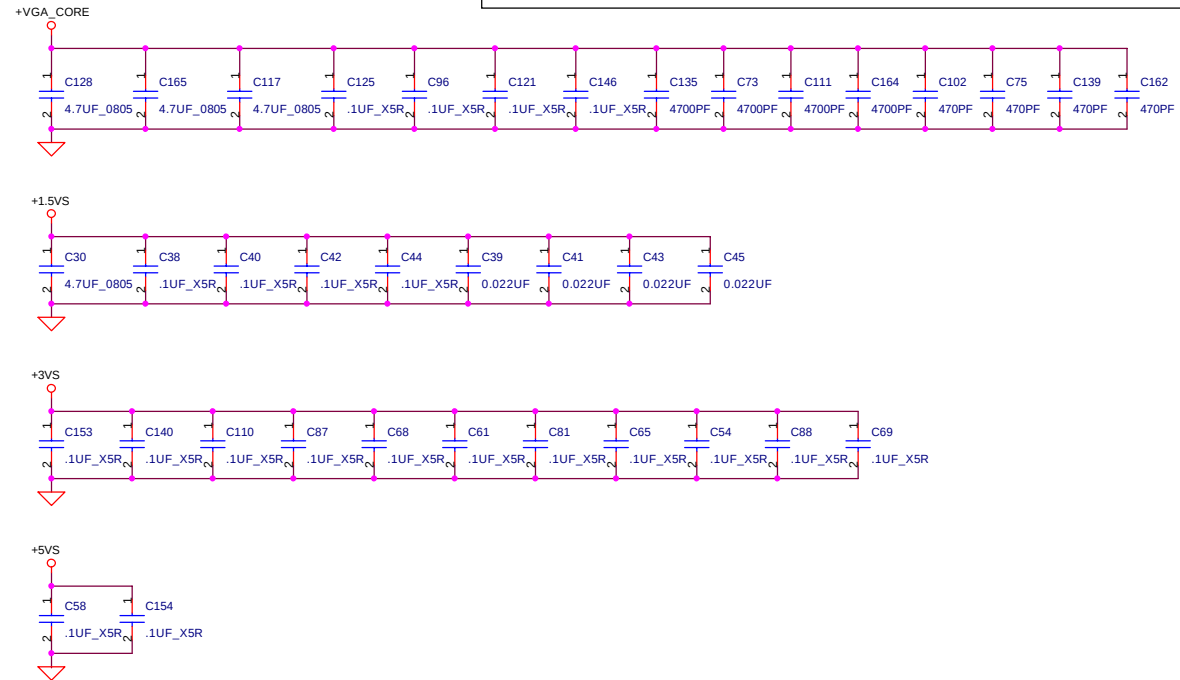
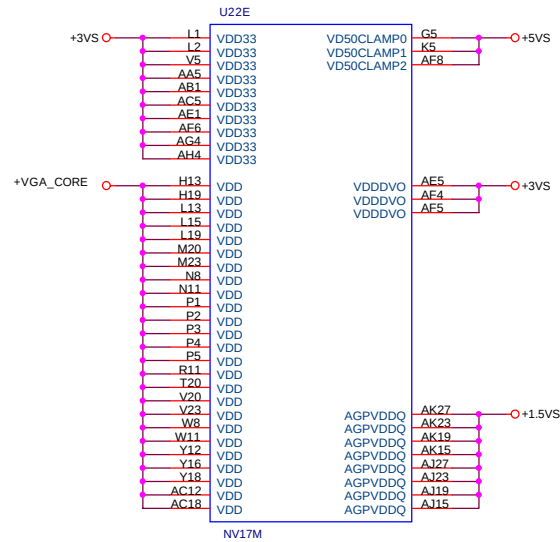
SS% 0  $F_{in} \geq F_{out} \geq F_{in} - 1.25\%$   
SS% 1  $F_{in} \geq F_{out} \geq F_{in} - 3.75\%$

Freq Range Selection

| FS1 | FS0 | $10 \geq F_{in} \geq 8$  |
|-----|-----|--------------------------|
| 0   | 1   | $15 \geq F_{in} \geq 10$ |
| 1   | 0   | $18 \geq F_{in} \geq 15$ |
| 1   | 1   | $28 \geq F_{in} \geq 18$ |



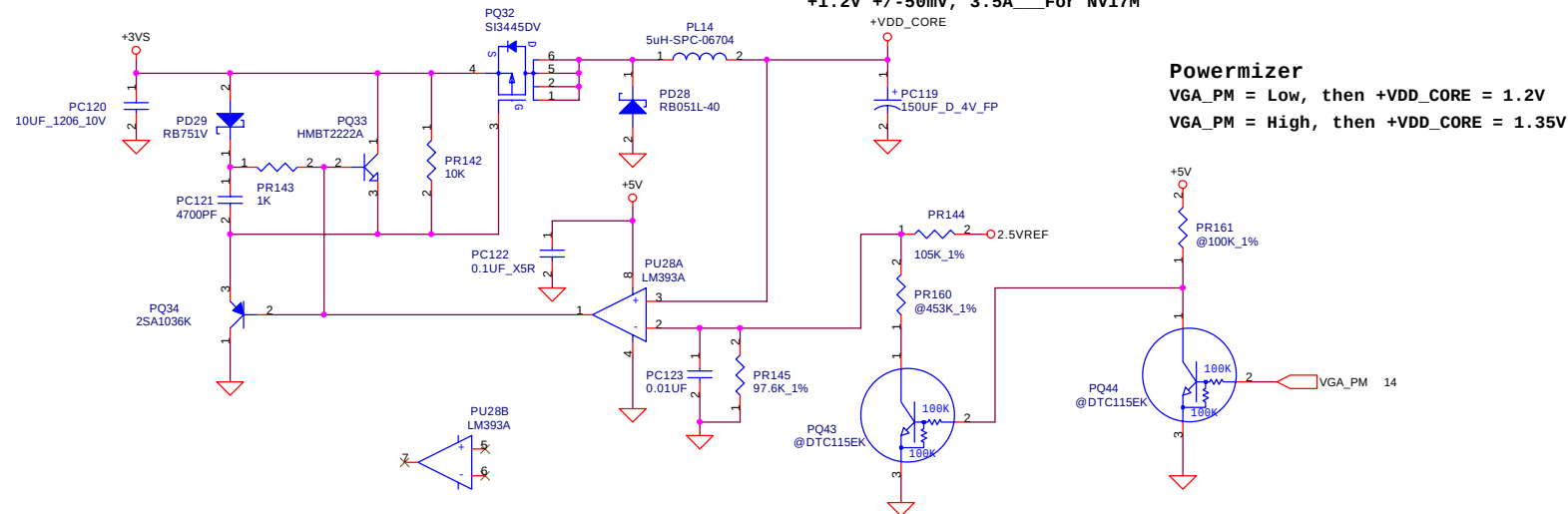




As close as ppossible to related pin

**+1.35V +/-50mV, 3.5A\_\_\_For NV17M\_Pro**

**+1.2V +/-50mV, 3.5A\_\_\_\_For NV17M**



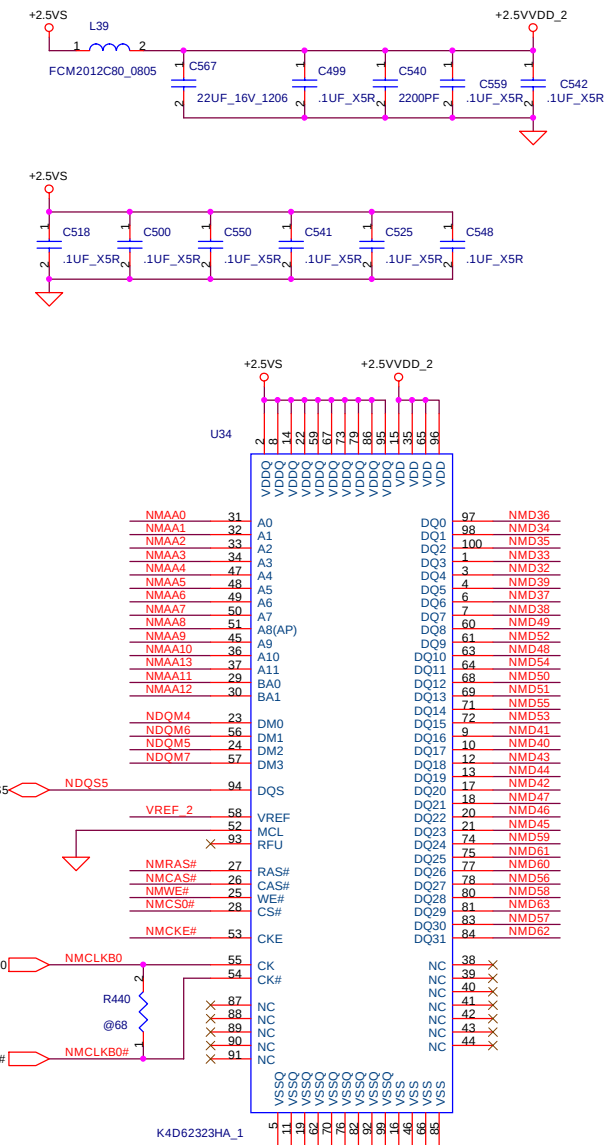
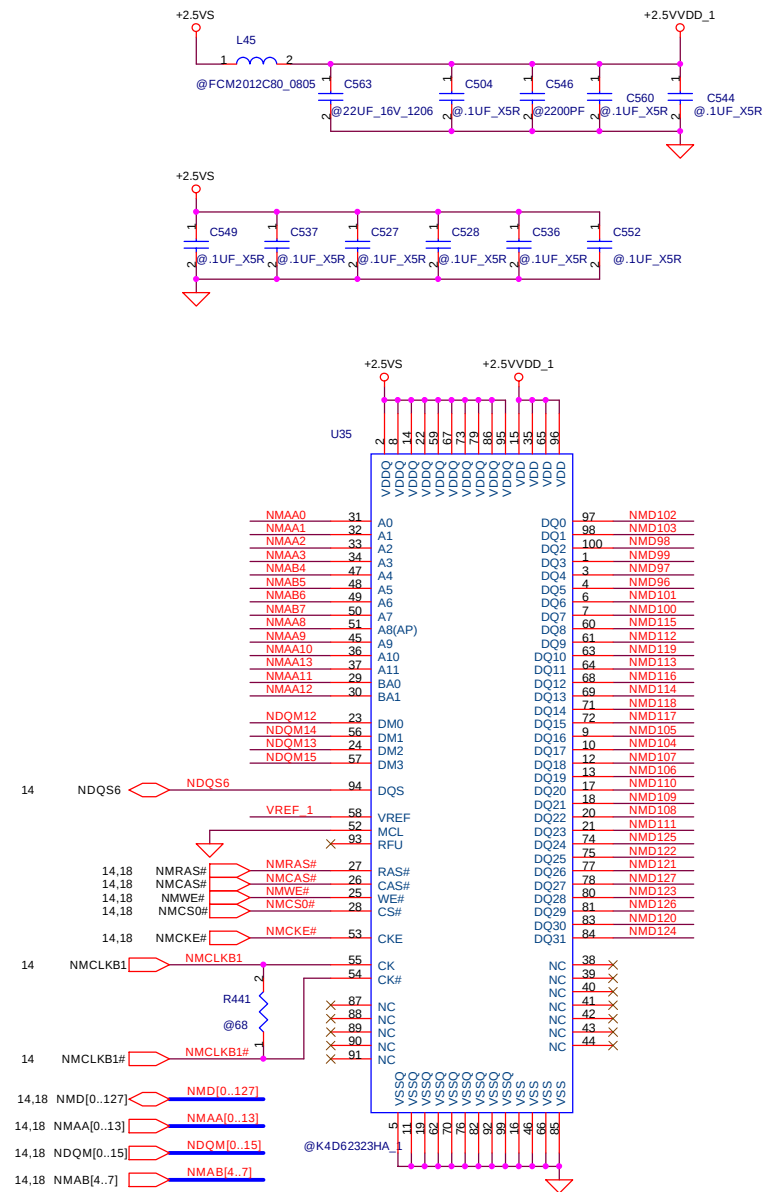
## Powermizer

**VGA\_PM = Low, then +VDD\_CORE = 1.2V**

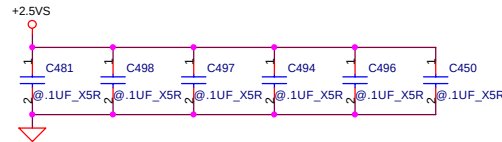
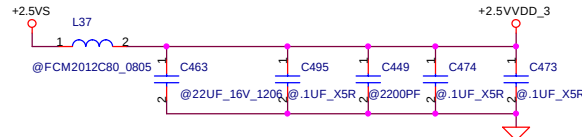
VGA\_PM = High, then +VDD\_CORE = 1.35V

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|                               |                           |            |
|-------------------------------|---------------------------|------------|
| Title<br>nVIDIA NV17M (Power) |                           |            |
| Size<br>B                     | Document Number<br>LA1731 | Rev<br>1.0 |
| Date:<br>2002.12.31           | Sheet 16 of 46            |            |



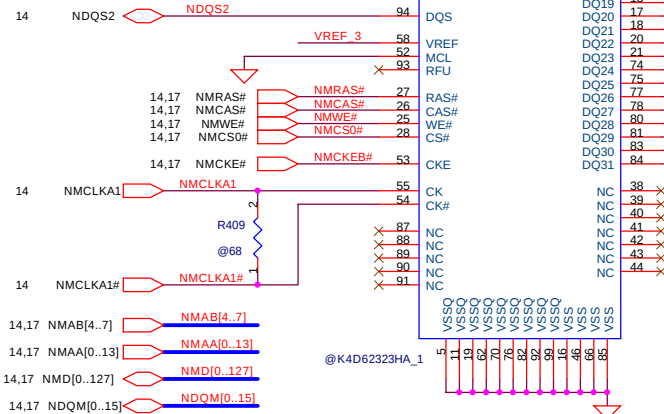
# As close as possible to related pin



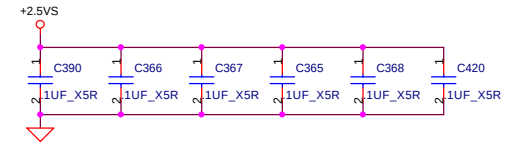
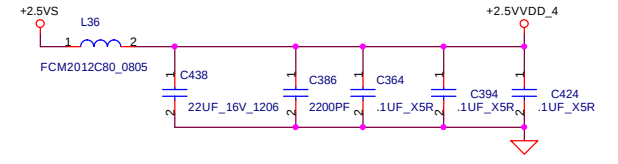
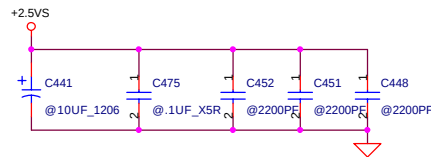
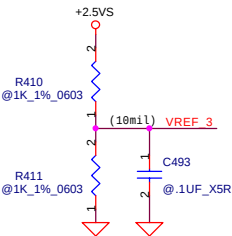
+2.5VS +2.5VVDD\_3

U24

|        |    |        |      |     |       |
|--------|----|--------|------|-----|-------|
| NMAA0  | 31 | A0     | DQ0  | 97  | NMD79 |
| NMAA1  | 32 | A1     | DQ1  | 98  | NMD78 |
| NMAA2  | 33 | A2     | DQ2  | 100 | NMD77 |
| NMAA3  | 34 | A3     | DQ3  | 1   | NMD76 |
| NMAA4  | 47 | A4     | DQ4  | 3   | NMD75 |
| NMAA5  | 48 | A5     | DQ5  | 4   | NMD74 |
| NMAA6  | 49 | A6     | DQ6  | 6   | NMD73 |
| NMAA7  | 50 | A7     | DQ7  | 7   | NMD72 |
| NMAA8  | 51 | A8(AP) | DQ8  | 60  | NMD71 |
| NMAA9  | 45 | A9     | DQ9  | 61  | NMD70 |
| NMAA10 | 36 | A10    | DQ10 | 63  | NMD69 |
| NMAA11 | 29 | A11    | DQ11 | 64  | NMD68 |
| NMAA12 | 30 | BA0    | DQ12 | 68  | NMD67 |
|        |    | BA1    | DQ13 | 69  | NMD66 |
|        |    |        | DQ14 | 71  | NMD65 |
|        |    |        | DQ15 | 72  | NMD64 |
|        |    |        | DQ16 | 9   | NMD63 |
|        |    |        | DQ17 | 10  | NMD62 |
|        |    |        | DQ18 | 12  | NMD61 |
|        |    |        | DQ19 | 13  | NMD60 |
|        |    |        | DQ20 | 17  | NMD59 |
|        |    |        | DQ21 | 18  | NMD58 |
|        |    |        | DQ22 | 20  | NMD57 |
|        |    |        | DQ23 | 21  | NMD56 |
|        |    |        | DQ24 | 74  | NMD55 |
|        |    |        | DQ25 | 75  | NMD54 |
|        |    |        | DQ26 | 77  | NMD53 |
|        |    |        | DQ27 | 78  | NMD52 |
|        |    |        | DQ28 | 80  | NMD51 |
|        |    |        | DQ29 | 81  | NMD50 |
|        |    |        | DQ30 | 83  | NMD49 |
|        |    |        | DQ31 | 84  | NMD48 |



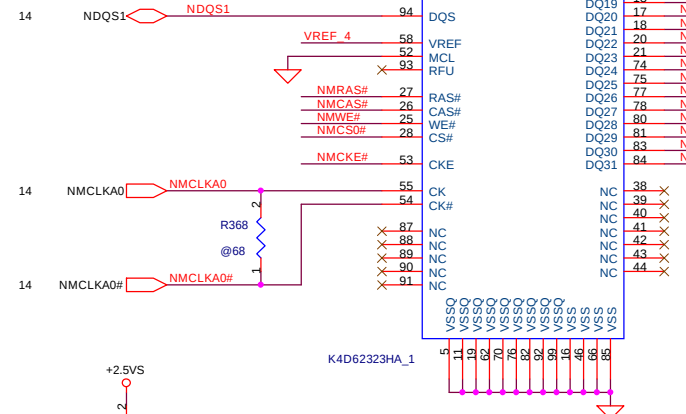
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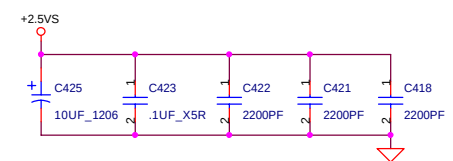
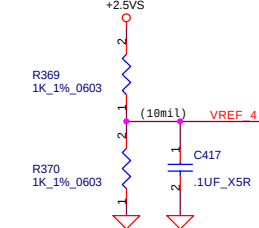
+2.5VS +2.5VVDD\_4

U19

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|--------|----|--------|------|-----|-------|
| NMAA0  | 31 | A0     | DQ0  | 97  | NMD6  |
| NMAA1  | 32 | A1     | DQ1  | 98  | NMD5  |
| NMAA2  | 33 | A2     | DQ2  | 100 | NMD4  |
| NMAA3  | 34 | A3     | DQ3  | 1   | NMD3  |
| NMAA4  | 47 | A4     | DQ4  | 3   | NMD2  |
| NMAA5  | 48 | A5     | DQ5  | 4   | NMD1  |
| NMAA6  | 49 | A6     | DQ6  | 6   | NMD0  |
| NMAA7  | 50 | A7     | DQ7  | 7   | NMD0  |
| NMAA8  | 51 | A8(AP) | DQ8  | 60  | NMD31 |
| NMAA9  | 45 | A9     | DQ9  | 61  | NMD30 |
| NMAA10 | 36 | A10    | DQ10 | 63  | NMD29 |
| NMAA11 | 29 | A11    | DQ11 | 64  | NMD28 |
| NMAA12 | 30 | BA0    | DQ12 | 68  | NMD27 |
|        |    | BA1    | DQ13 | 69  | NMD26 |
|        |    |        | DQ14 | 71  | NMD25 |
|        |    |        | DQ15 | 72  | NMD24 |
|        |    |        | DQ16 | 9   | NMD23 |
|        |    |        | DQ17 | 10  | NMD22 |
|        |    |        | DQ18 | 12  | NMD21 |
|        |    |        | DQ19 | 13  | NMD20 |
|        |    |        | DQ20 | 17  | NMD19 |
|        |    |        | DQ21 | 18  | NMD18 |
|        |    |        | DQ22 | 20  | NMD17 |
|        |    |        | DQ23 | 21  | NMD16 |
|        |    |        | DQ24 | 74  | NMD15 |
|        |    |        | DQ25 | 75  | NMD14 |
|        |    |        | DQ26 | 77  | NMD13 |
|        |    |        | DQ27 | 78  | NMD12 |
|        |    |        | DQ28 | 80  | NMD11 |
|        |    |        | DQ29 | 81  | NMD10 |
|        |    |        | DQ30 | 83  | NMD9  |
|        |    |        | DQ31 | 84  | NMD8  |



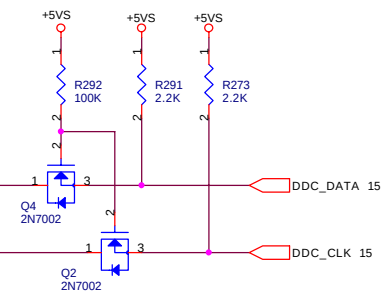
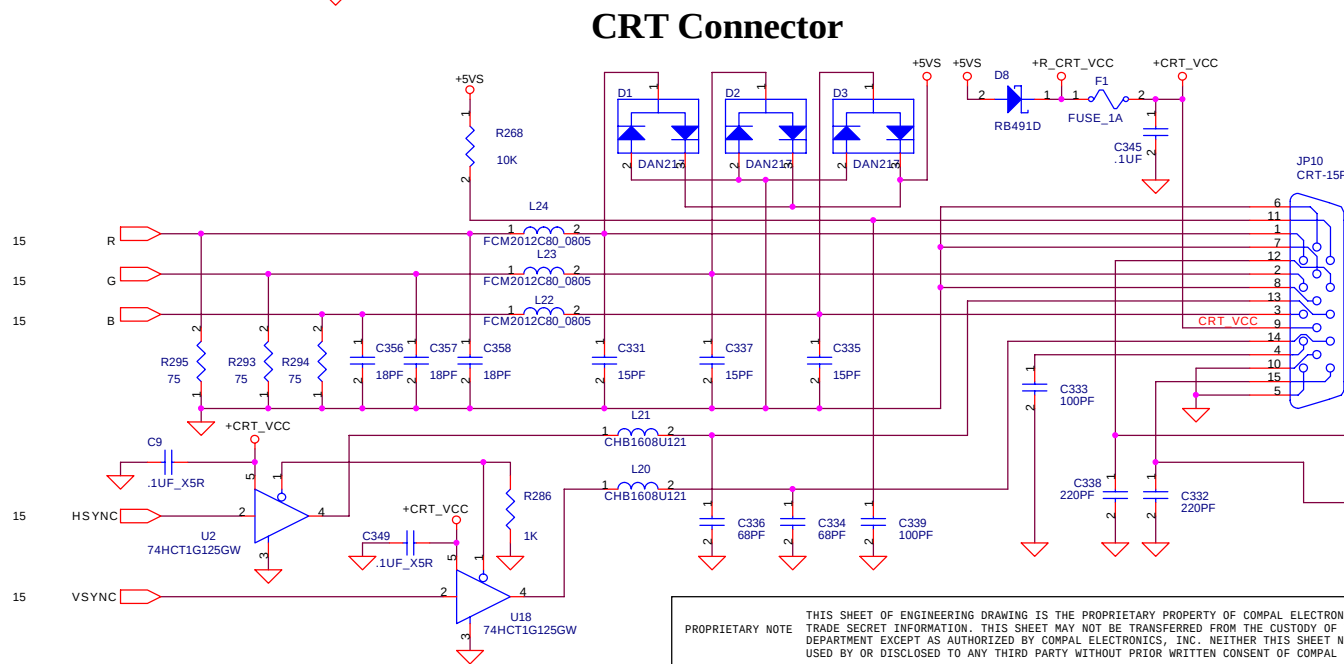
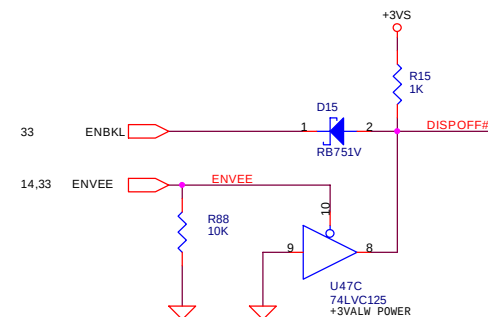
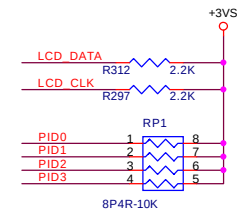
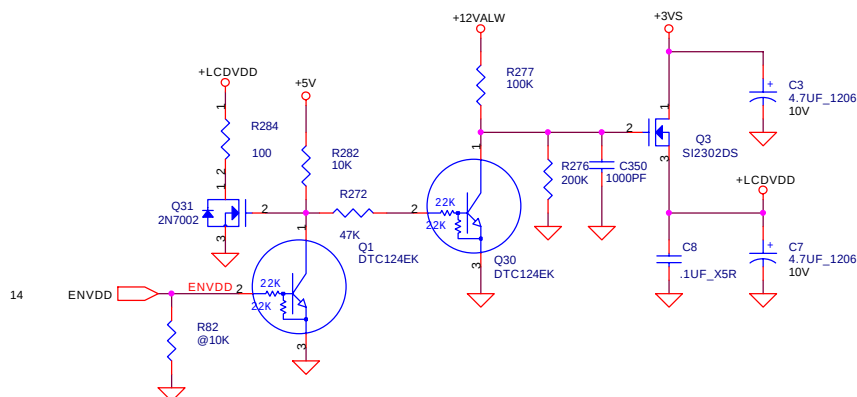
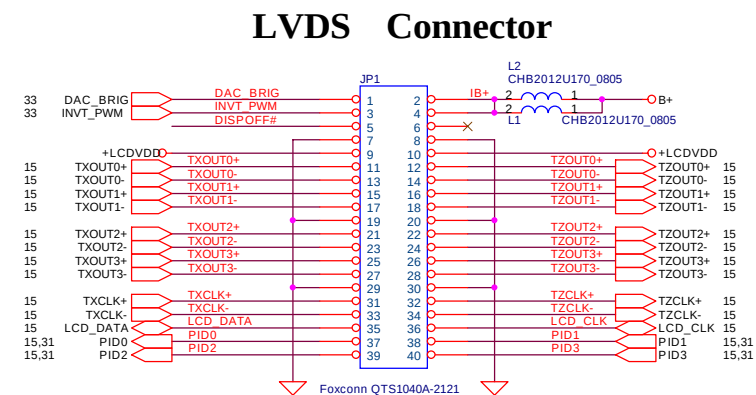
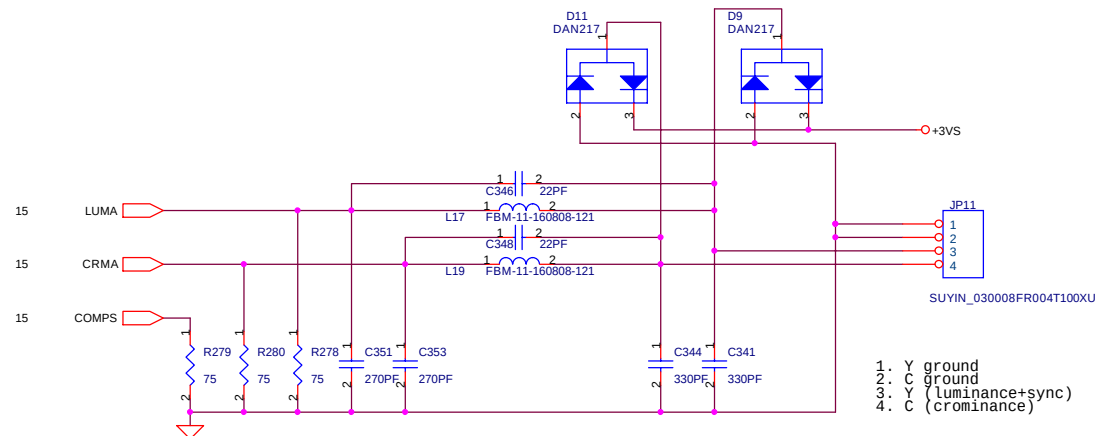
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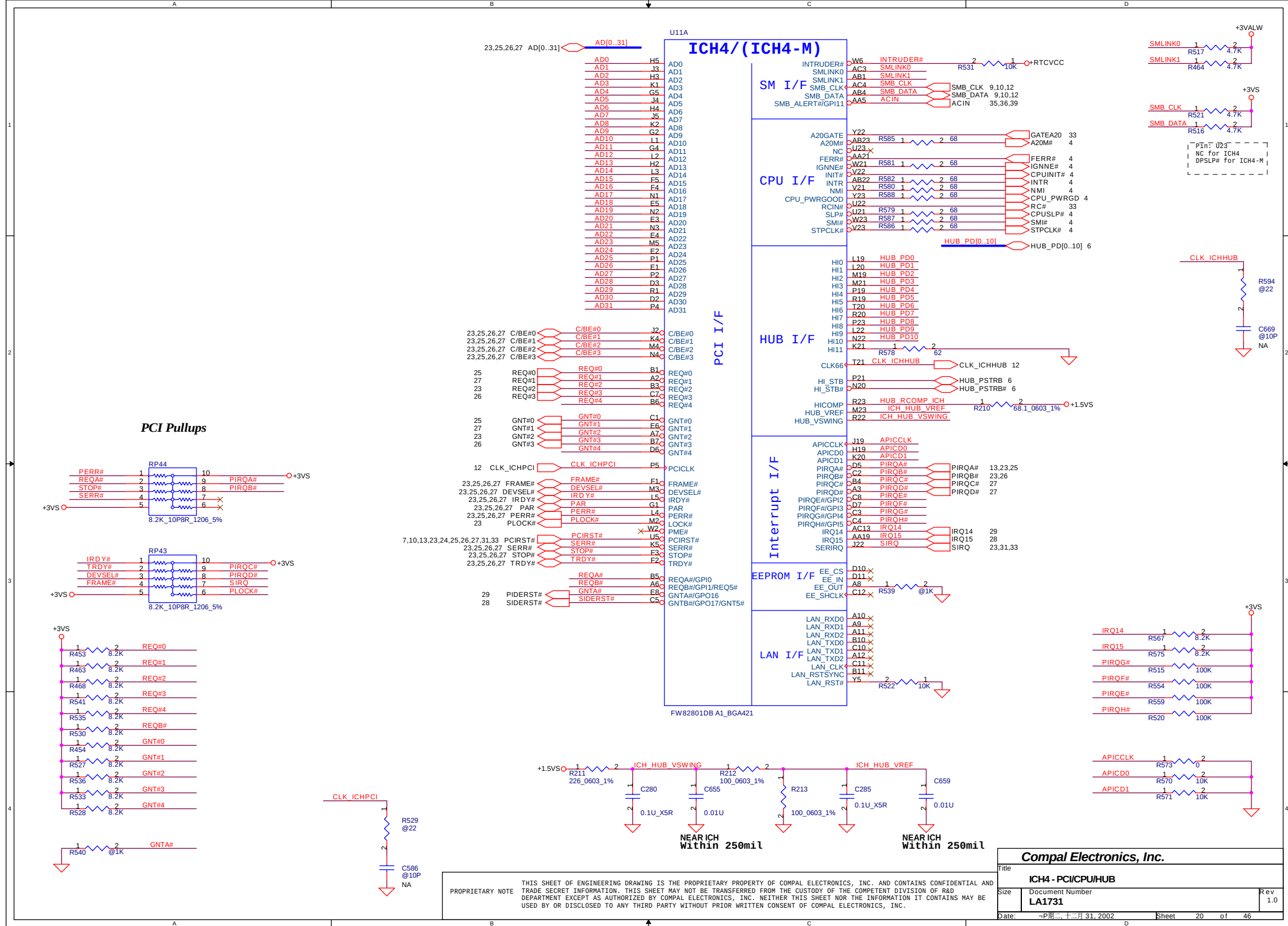


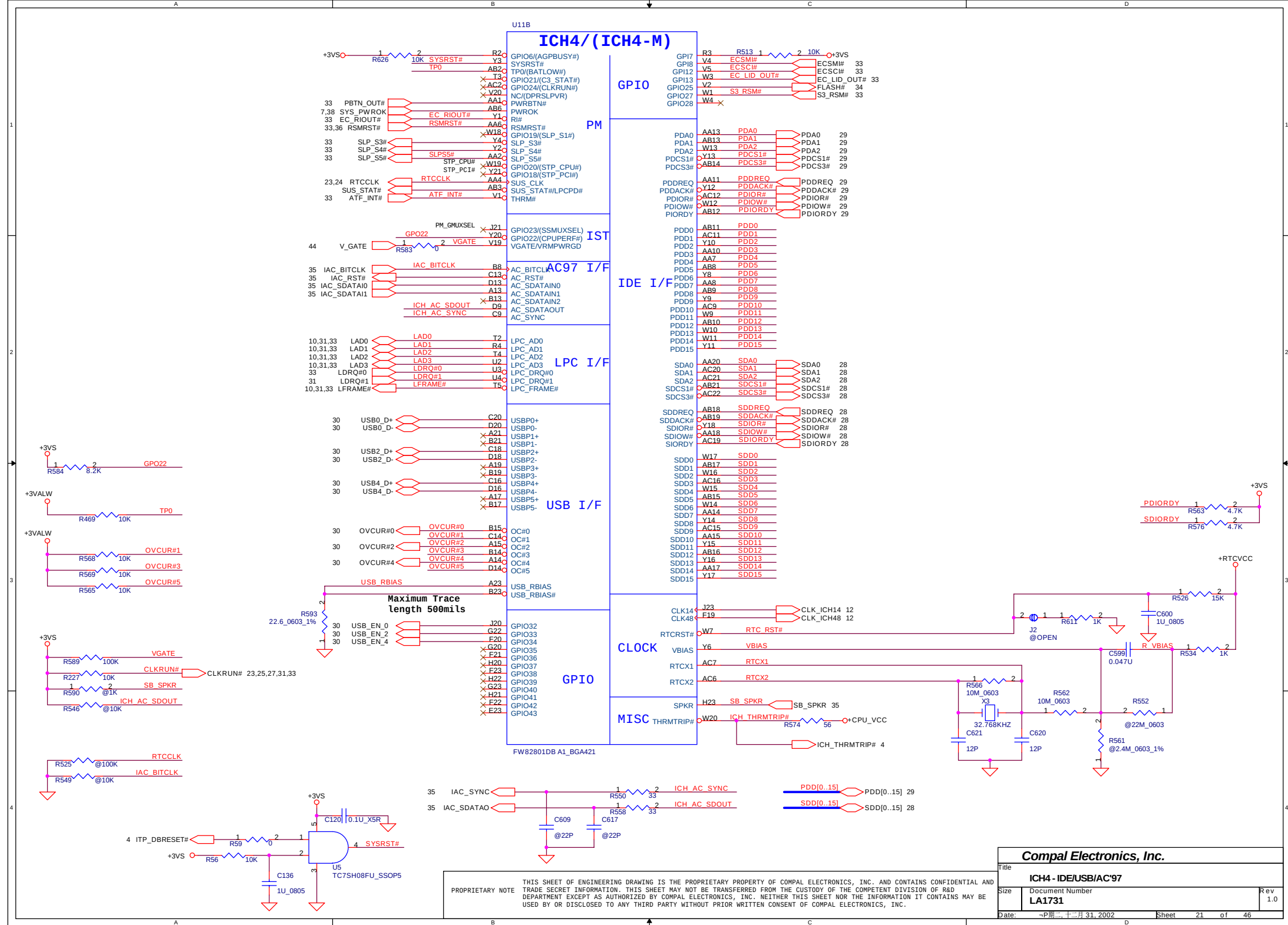
## Compal Electronics, Inc.

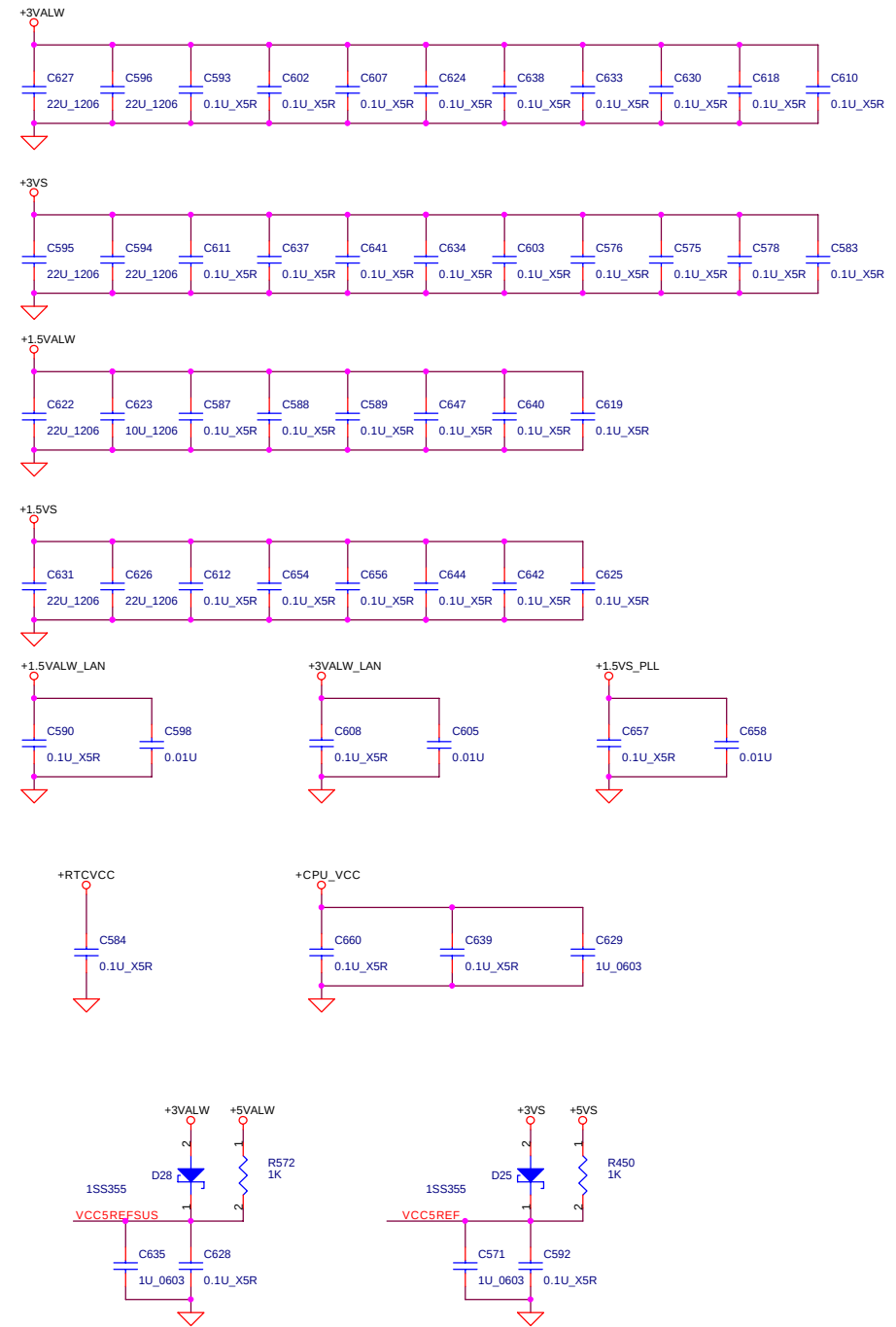
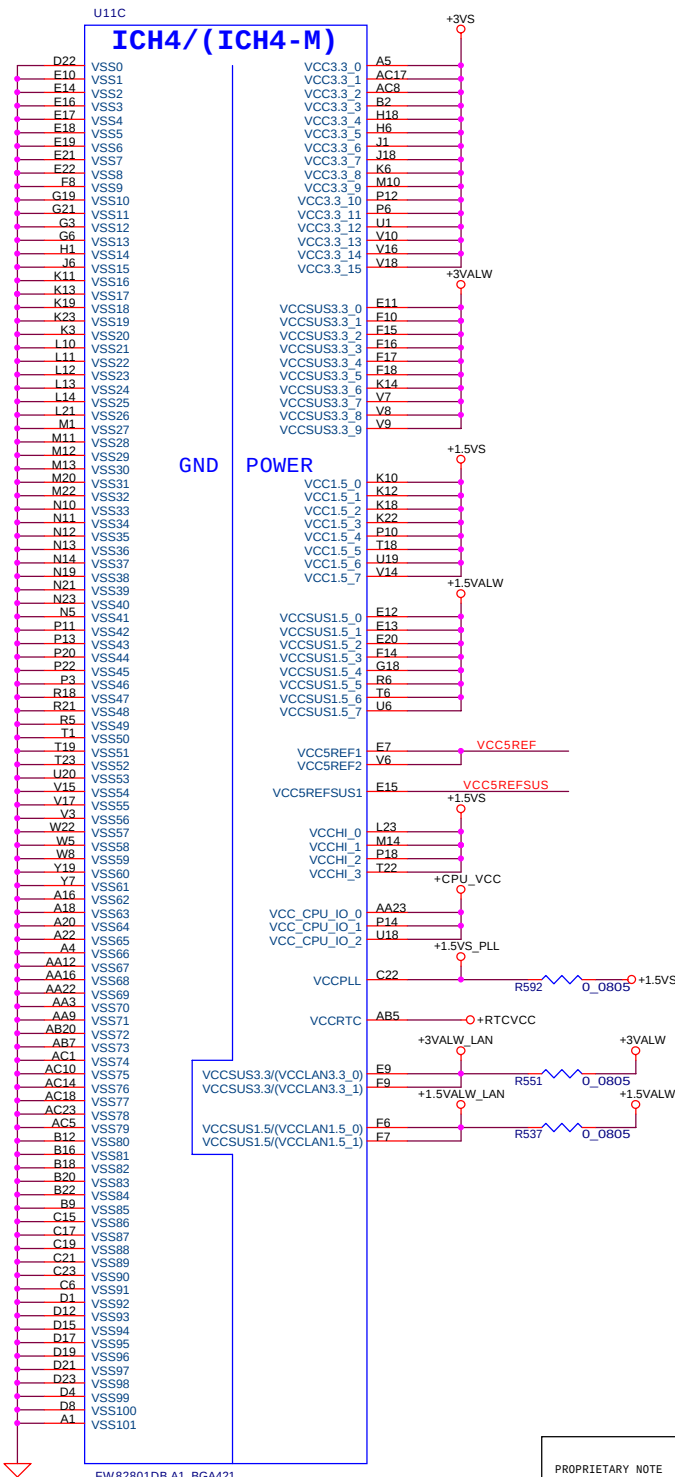
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| AND | Title                 |                        |  |                |         |
|     | nVIDIA NV17M DDR CH-B |                        |  |                |         |
|     | Size B                | Document Number LA1731 |  |                | Rev 1.0 |
|     | Date:                 | ~P期二,十二月31,2002        |  | Sheet 18 of 46 |         |

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1



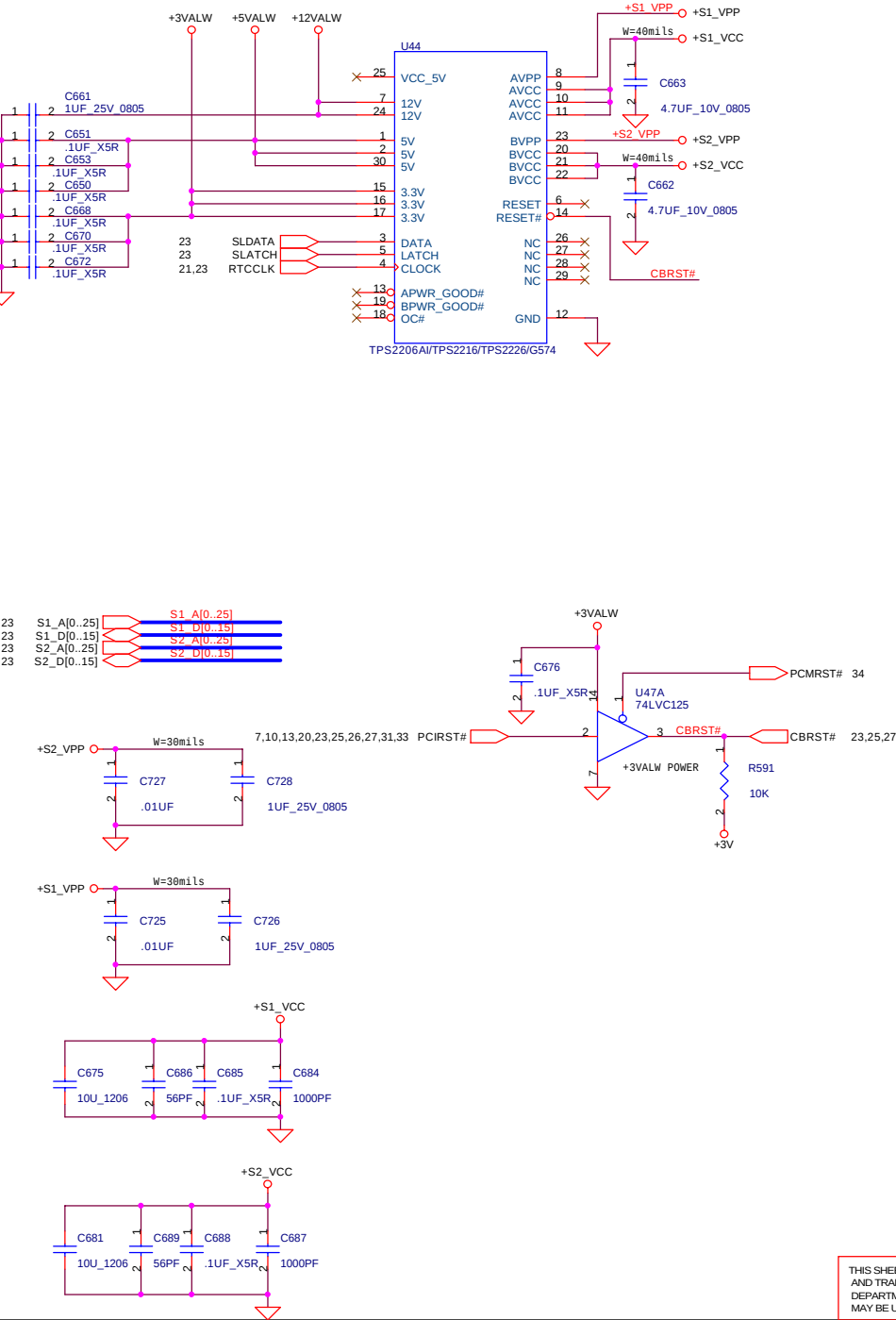
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Slot B

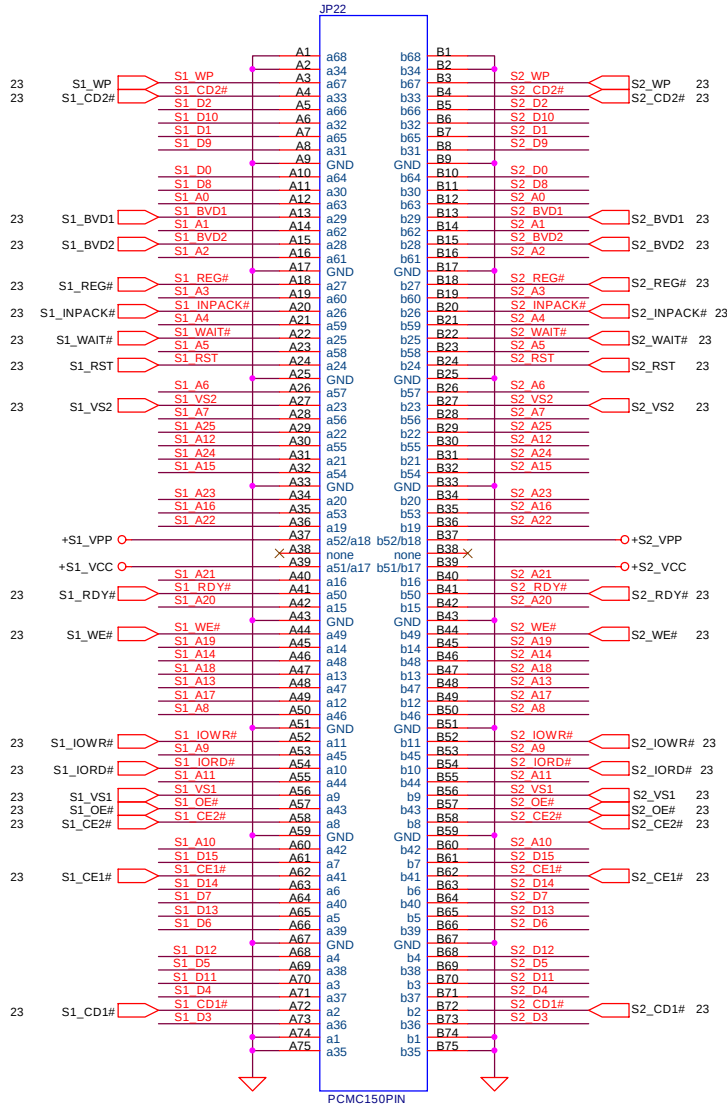
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|--------------------------------|---------------------------|-------|------------|
| Title                          |                           |       |            |
| CardBus Controller ( OZ6933T ) |                           |       |            |
| Size<br>B                      | Document Number<br>LA1731 |       | Rev<br>1.0 |
| Date:                          | ~P 星期二, 十二月 31, 2002      | Sheet | 23 of 46   |

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PCMCIA POWER CTRL.



CARDBUS  
SOCKET



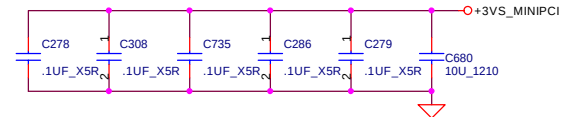
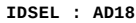
Compal Electronics, Inc

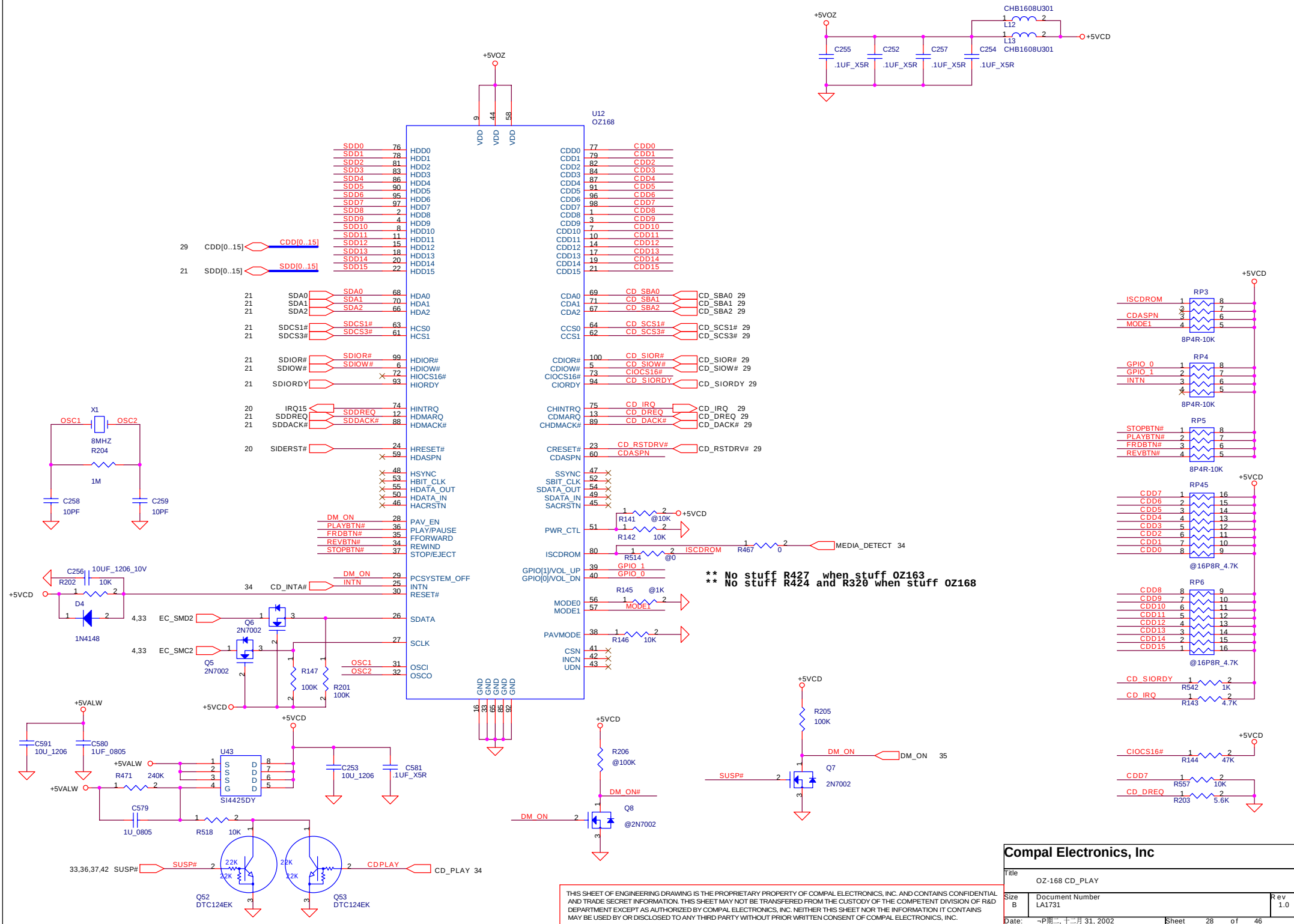
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| Title             |                   |     |    |
| FCI PCMCIA SOCKET |                   |     |    |
| Size              | Document Number   | Rev |    |
| B                 | LA1731            | 1.0 |    |
| Date:             | ~P期二,十二月三十一, 2002 |     |    |
| Sheet             | 24                | of  | 46 |

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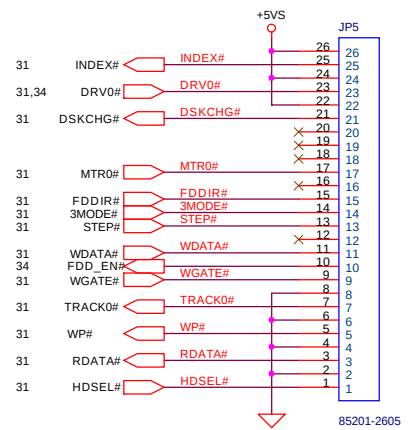
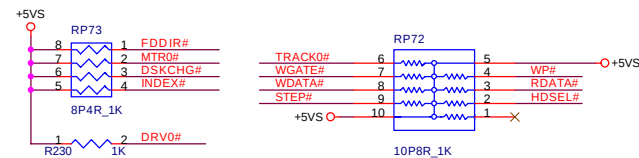
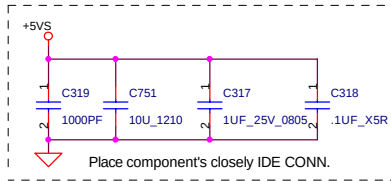
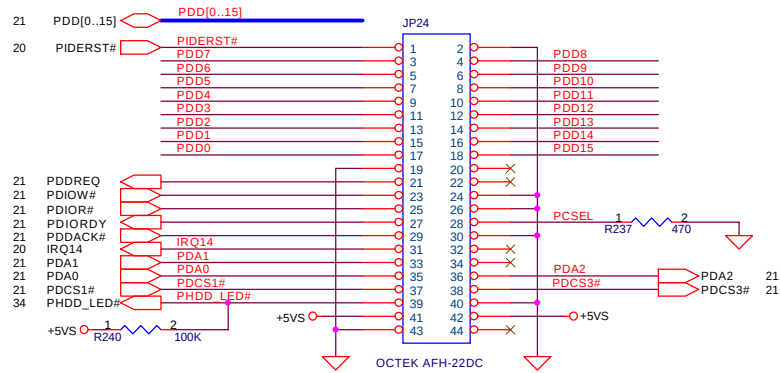




# Compal Electronics, Inc

|       |                    |       |                |
|-------|--------------------|-------|----------------|
| Title |                    |       | OZ-168 CD_PLAY |
| Size  | Document Number    | Rev   |                |
| B     | LA1731             | 1.0   |                |
| Date: | ~P期二, 十二月 31, 2002 | Sheet | 28 of 46       |

# IDE,CD-ROM Module CONN.

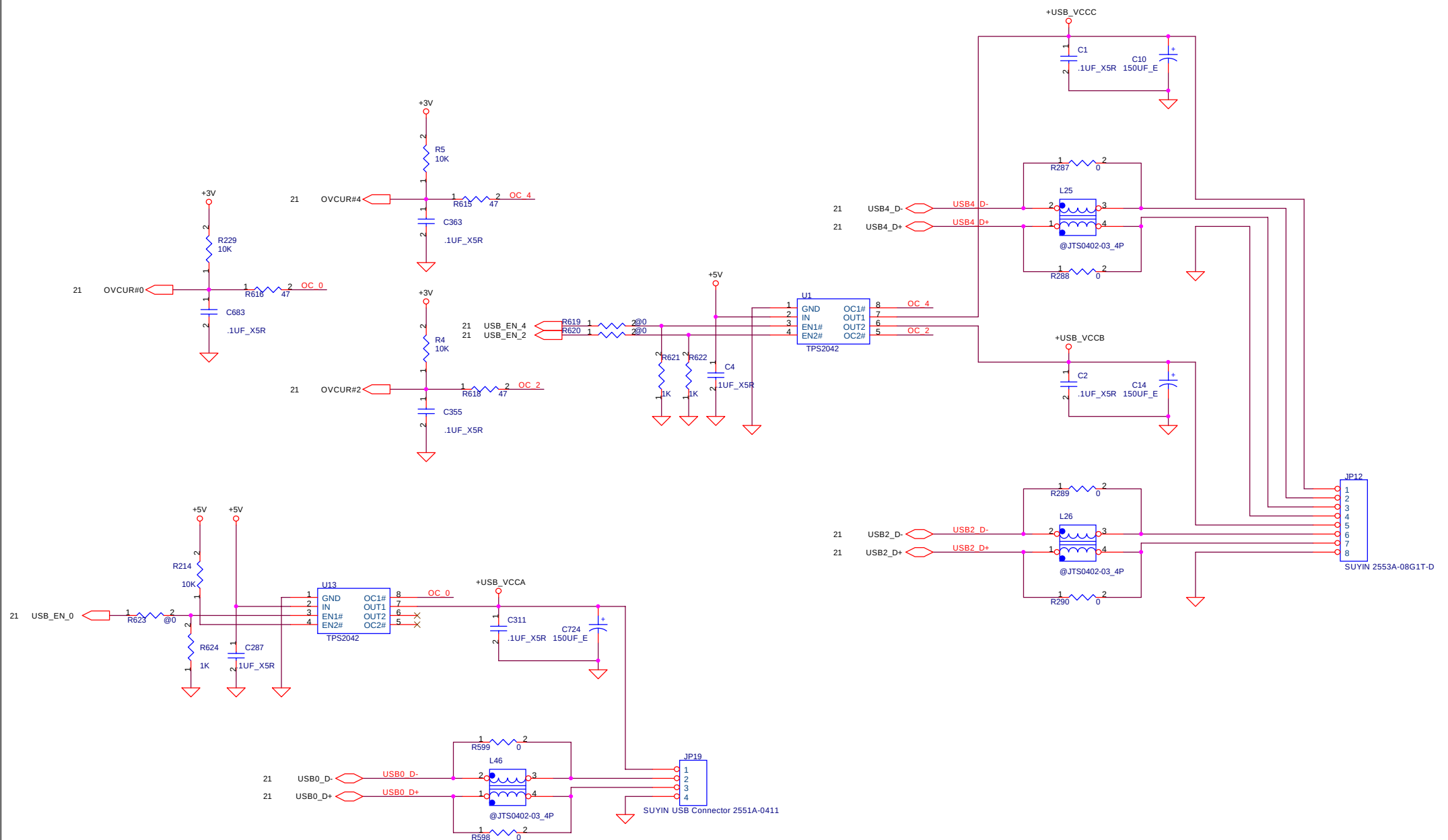


Compal Electronics, Inc

|                       |                    |       |          |
|-----------------------|--------------------|-------|----------|
| Title                 |                    |       |          |
| IDE/ FDD MODULE CONN. |                    |       |          |
| Size                  | Document Number    | Rev   |          |
| B                     | LA1731             | 1.0   |          |
| Date:                 | ~P期二, 十二月 31, 2002 | Sheet | 29 of 46 |

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## Compal Electronics, Inc

Title  
USB & FIR

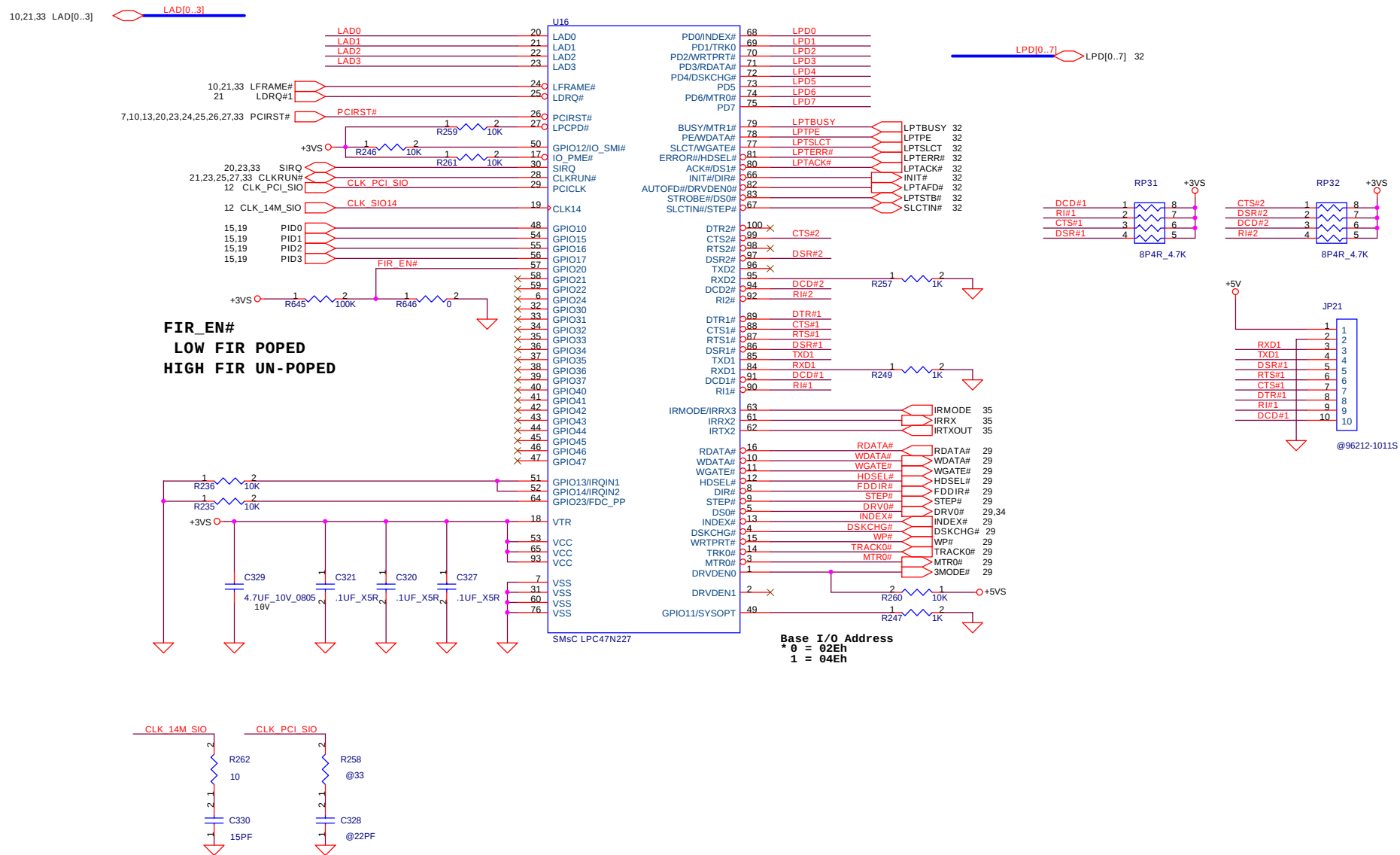
Size B Document Number  
LA1731

Rev  
1.0

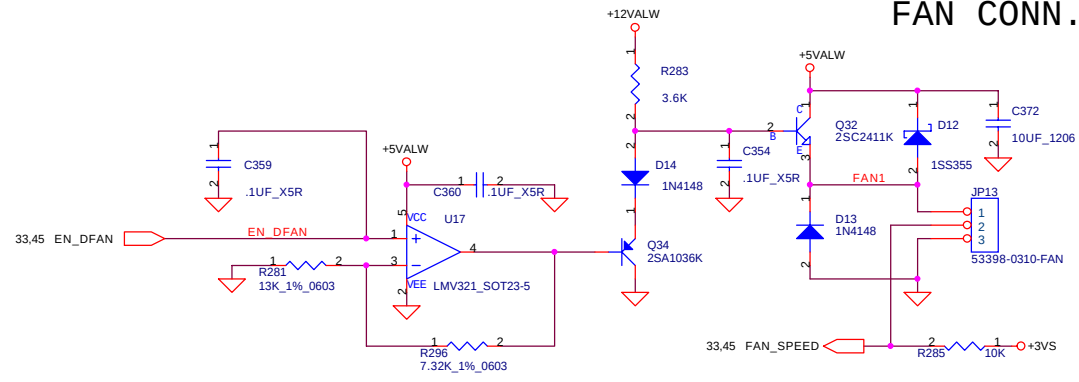
Date: ~P期二, 十二月 31, 2002

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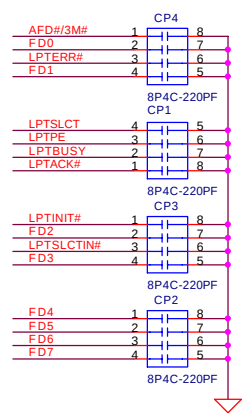
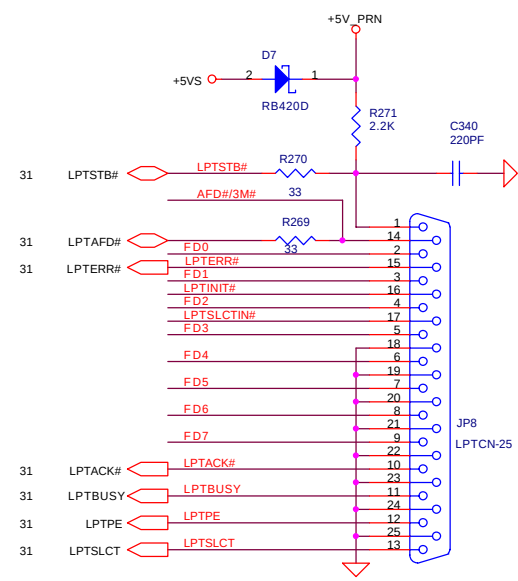
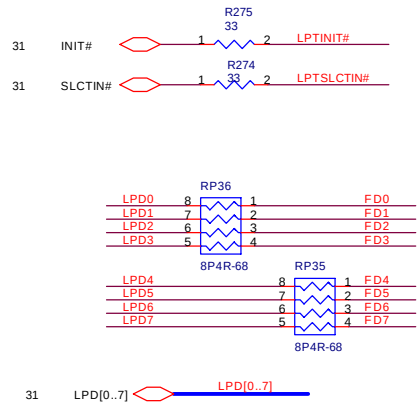
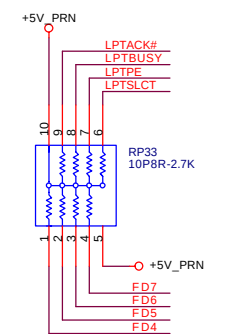
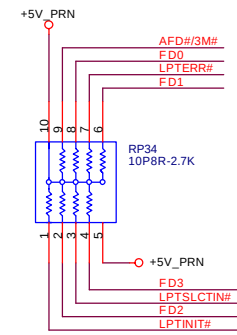
# SUPER I/O SMsC FDC47N227



# FAN CONN.

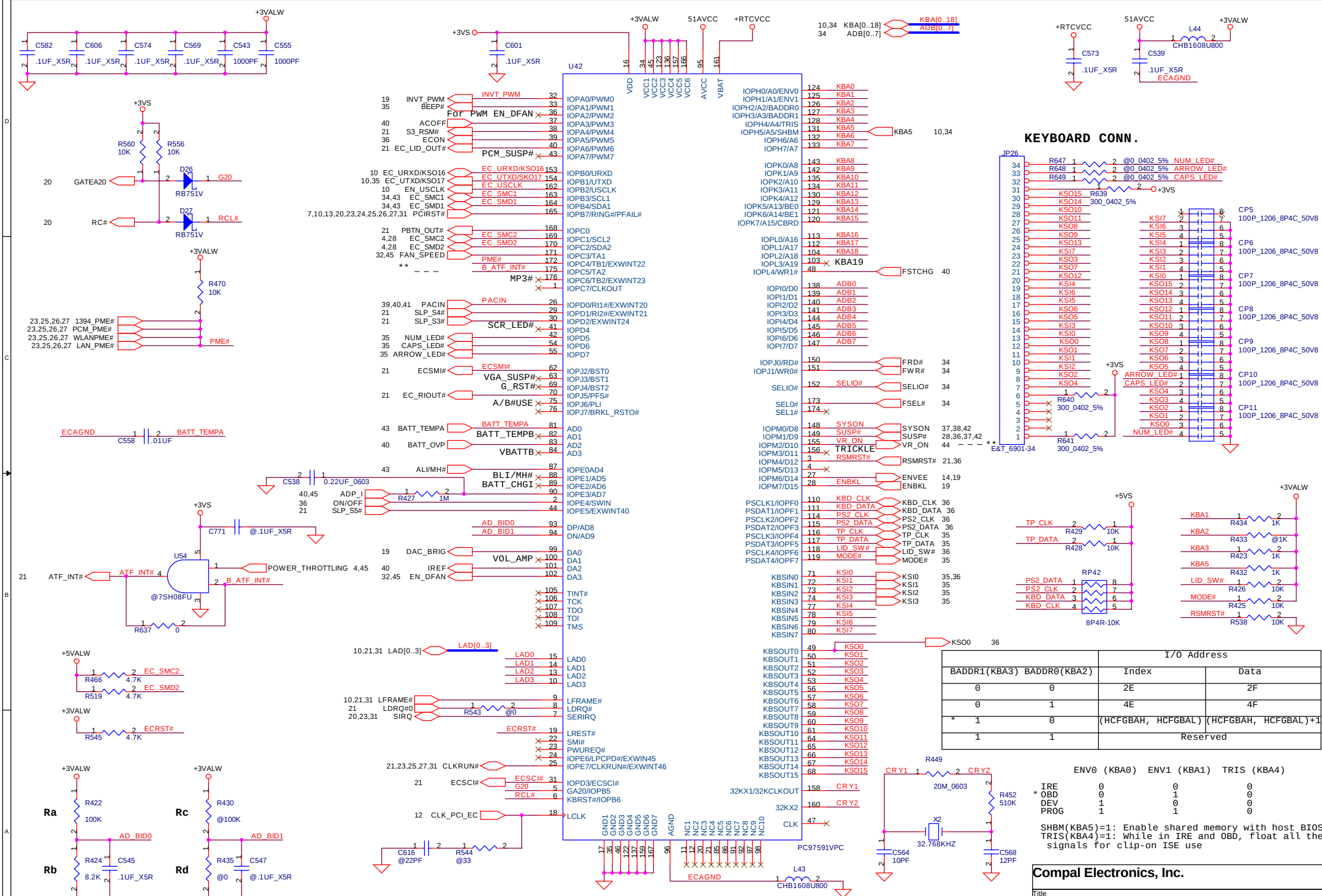


# PARALLEL PORT



|                          |                        |         |
|--------------------------|------------------------|---------|
| Compal Electronics, Inc. |                        |         |
| Title PARALLEL PORT      |                        |         |
| Size B                   | Document Number LA1731 | Rev 1.0 |
| Date: ~P期二, 十二月 31, 2002 | Sheet 32               | of 46   |

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Analog Board ID definition, Please see page 2.

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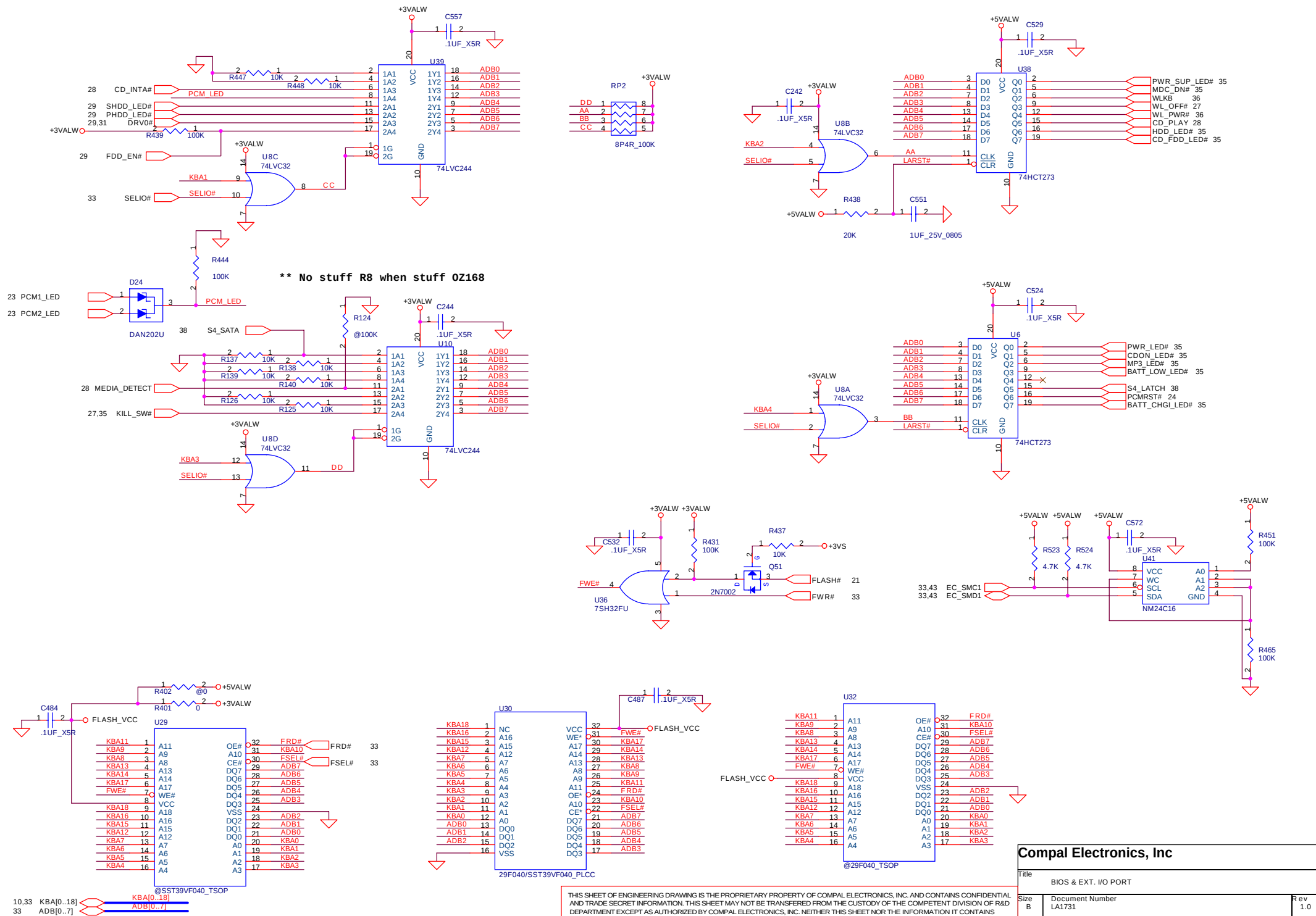
| I/O Address  |              |                    |                      |
|--------------|--------------|--------------------|----------------------|
| BADDR1(KBA3) | BADDR0(KBA2) | Index              | Data                 |
| 0            | 0            | 2E                 | 2F                   |
| 0            | 1            | 4E                 | 4F                   |
| * 1          | 0            | (HCFGBAH, HCFGBAL) | (HCFGBAH, HCFGBAL)+1 |
| 1            | 1            | Reserved           |                      |

|       | ENV0 (KBA0) | ENV1 (KBA1) | TRIS (KBA4) |
|-------|-------------|-------------|-------------|
| IRE   | 0           | 0           | 0           |
| * OBD | 0           | 1           | 0           |
| DEV   | 1           | 0           | 0           |
| PROG  | 1           | 1           | 0           |

SMB(KBA5)=1: Enable shared memory with host BIOS  
TRIS(KBA4)=1: While in IRE and OBD, float all the signals for clip-on ISE use

Compal Electronics, Inc.

|                     |                           |            |
|---------------------|---------------------------|------------|
| Title<br>EC PC87591 |                           |            |
| Size<br>B           | Document Number<br>LA1731 | Rev<br>1.0 |
| Date<br>Date        | -P周二, 十二月 31, 2002        |            |
| Sheet<br>33         |                           | of 46      |



# Compal Electronics, Inc

Title BIOS & EXT. I/O PORT

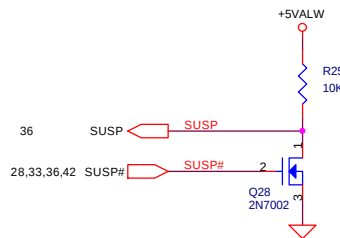
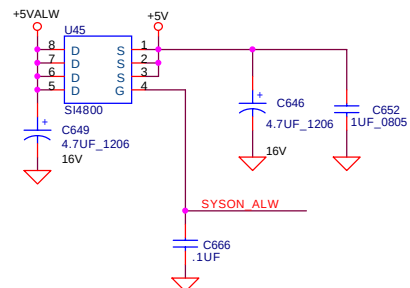
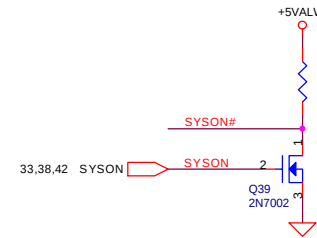
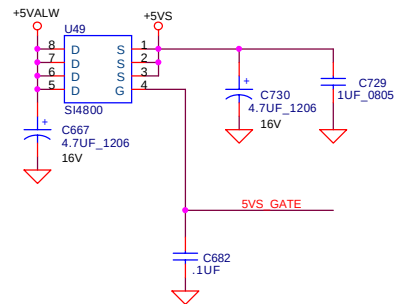
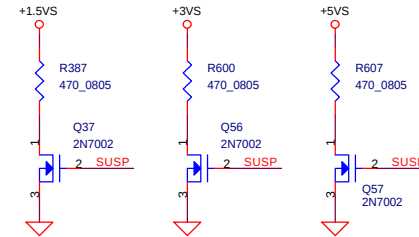
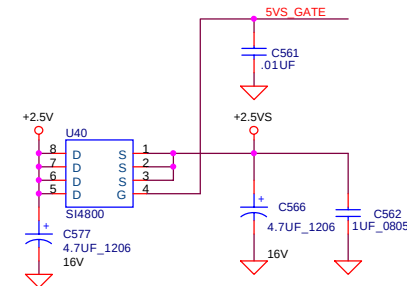
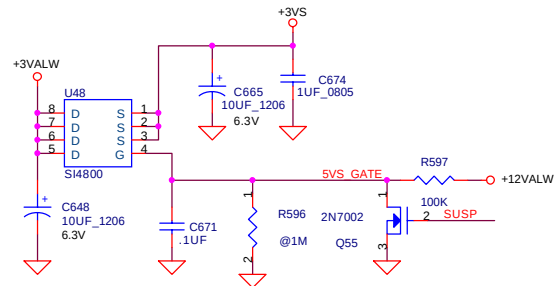
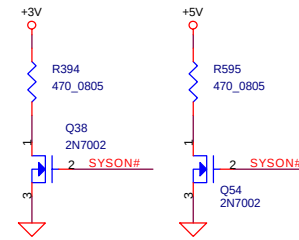
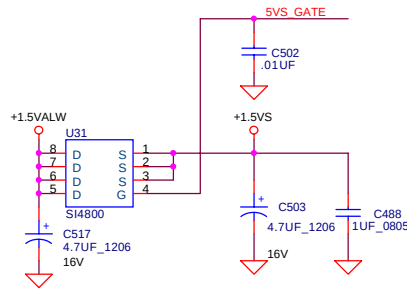
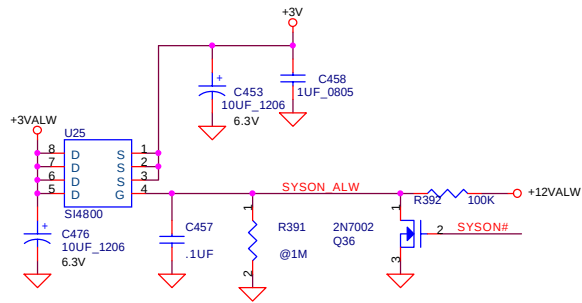
| Size  | Document Number    | Rev            |
|-------|--------------------|----------------|
| B     | LA1731             | 1.0            |
| Date: | ~P期二, 十二月 31, 2002 | Sheet 34 of 46 |

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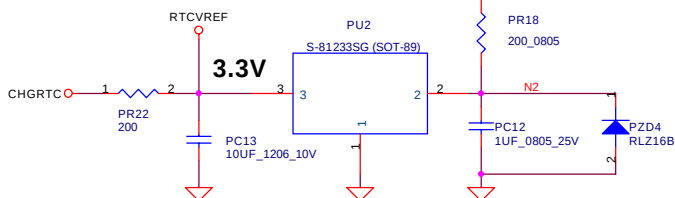
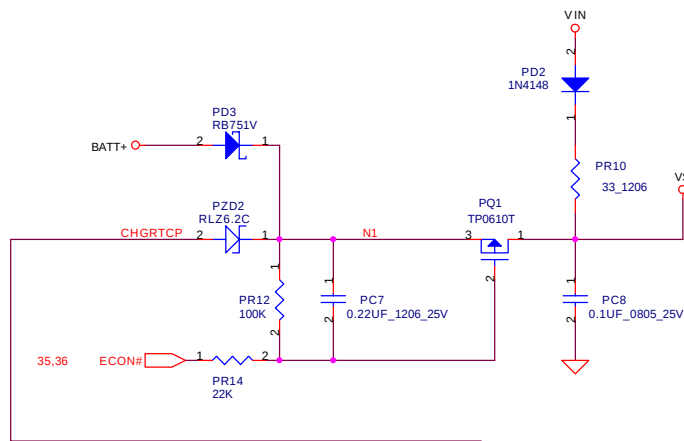
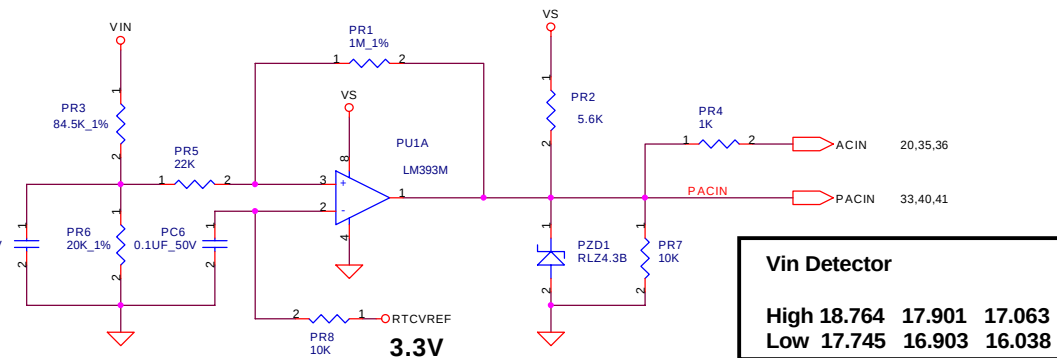
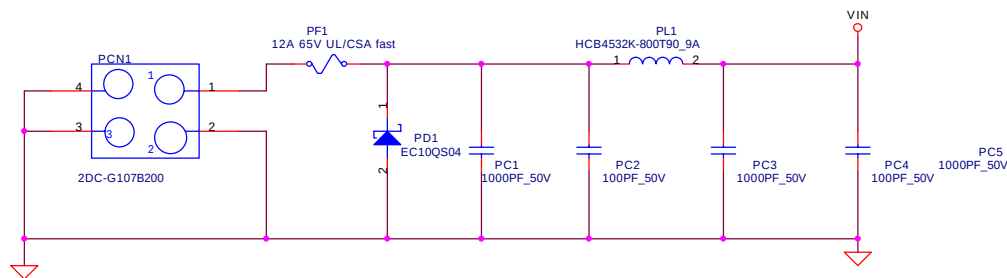




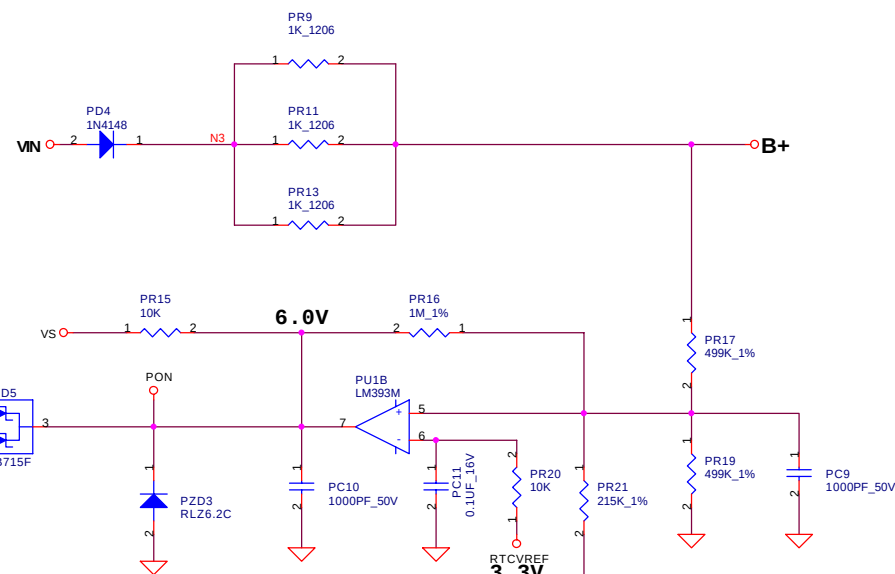
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| Compal Electronics, Inc. |                   |                |
|--------------------------|-------------------|----------------|
| Title                    | POWER CONTROL CKT |                |
| Size                     | Document Number   | Rev            |
| B                        | LA1731            | 1.0            |
| Date:                    | ~P期四, 一月 02, 2003 | Sheet 37 of 46 |

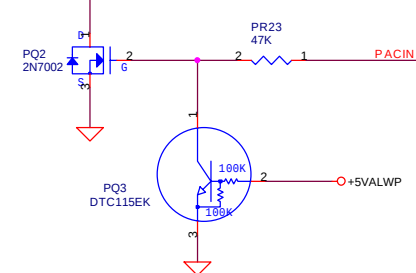




4,41,43 MAINPWON  
40 ACON



| Precharge detector |       |       |
|--------------------|-------|-------|
| 15.34              | 15.90 | 16.48 |
| 13.13              | 13.71 | 14.20 |



+2.5VP (6A,240mils ,Via NO.= 12)

+1.5VIN (3A,120mils ,Via NO.= 6)

+1.2VPP (300mA,40mils ,Via NO.= 2)

+12VALWP (120mA,20mils ,Via NO.= 1)

+5VALWP (5A,200mils ,Via NO.= 10)

+3VALWP (5A,200mils ,Via NO.= 10)

+1.25VSP (3A,120mils ,Via NO.= 6)

+12VP\_FAN (1.5A,60mils ,Via NO.= 3)

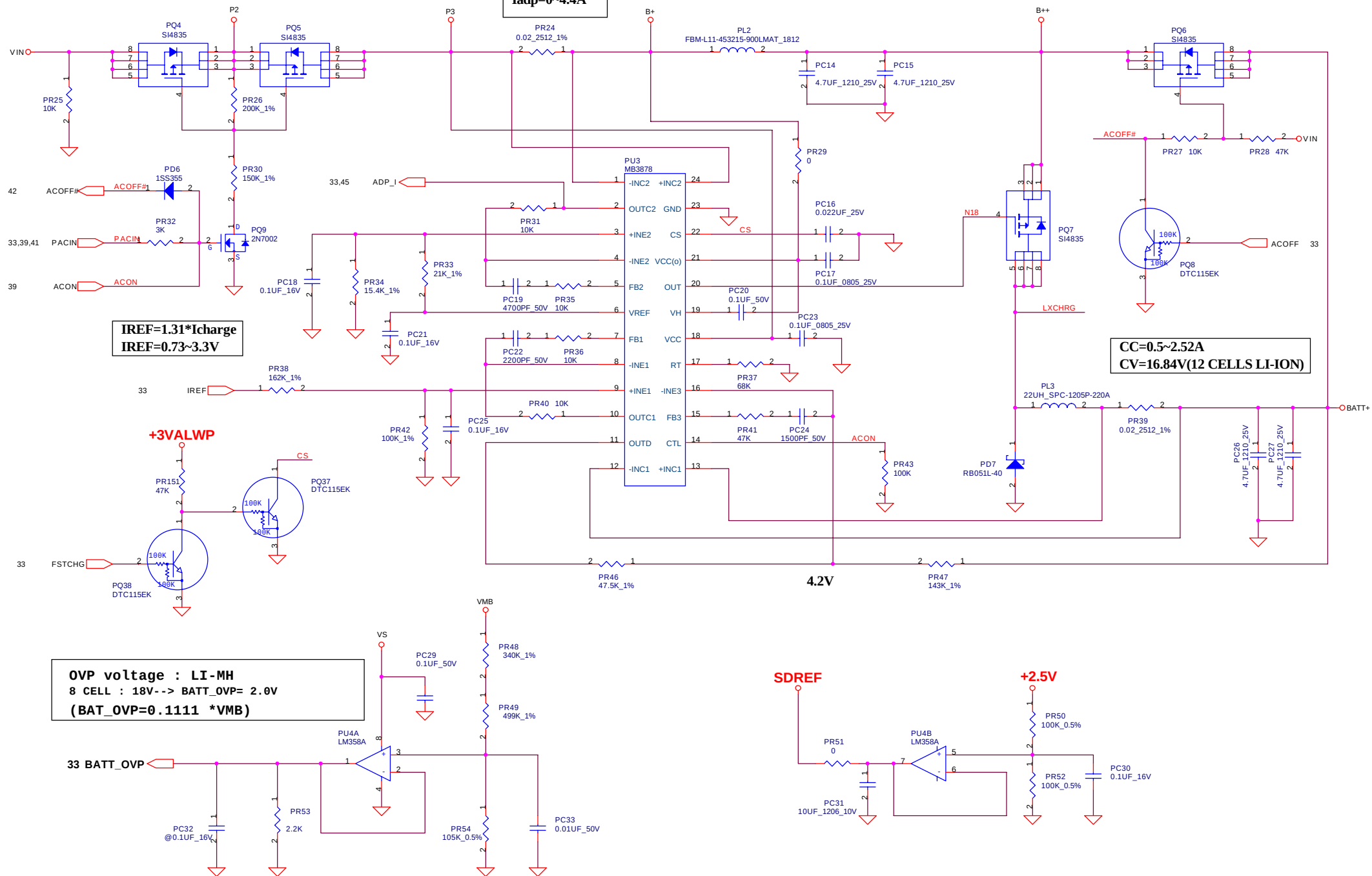
+VDD\_CORE (4A,160mils ,Via NO.= 8)

Compal Electronics, Inc.

|                  |                 |     |
|------------------|-----------------|-----|
| Title            |                 |     |
| DCIN & DETECTOR  |                 |     |
| Size             | Document Number | Rev |
| B                | LA1611          | 1.0 |
| Date: 2002.12.31 |                 |     |
| Sheet 39 of 46   |                 |     |

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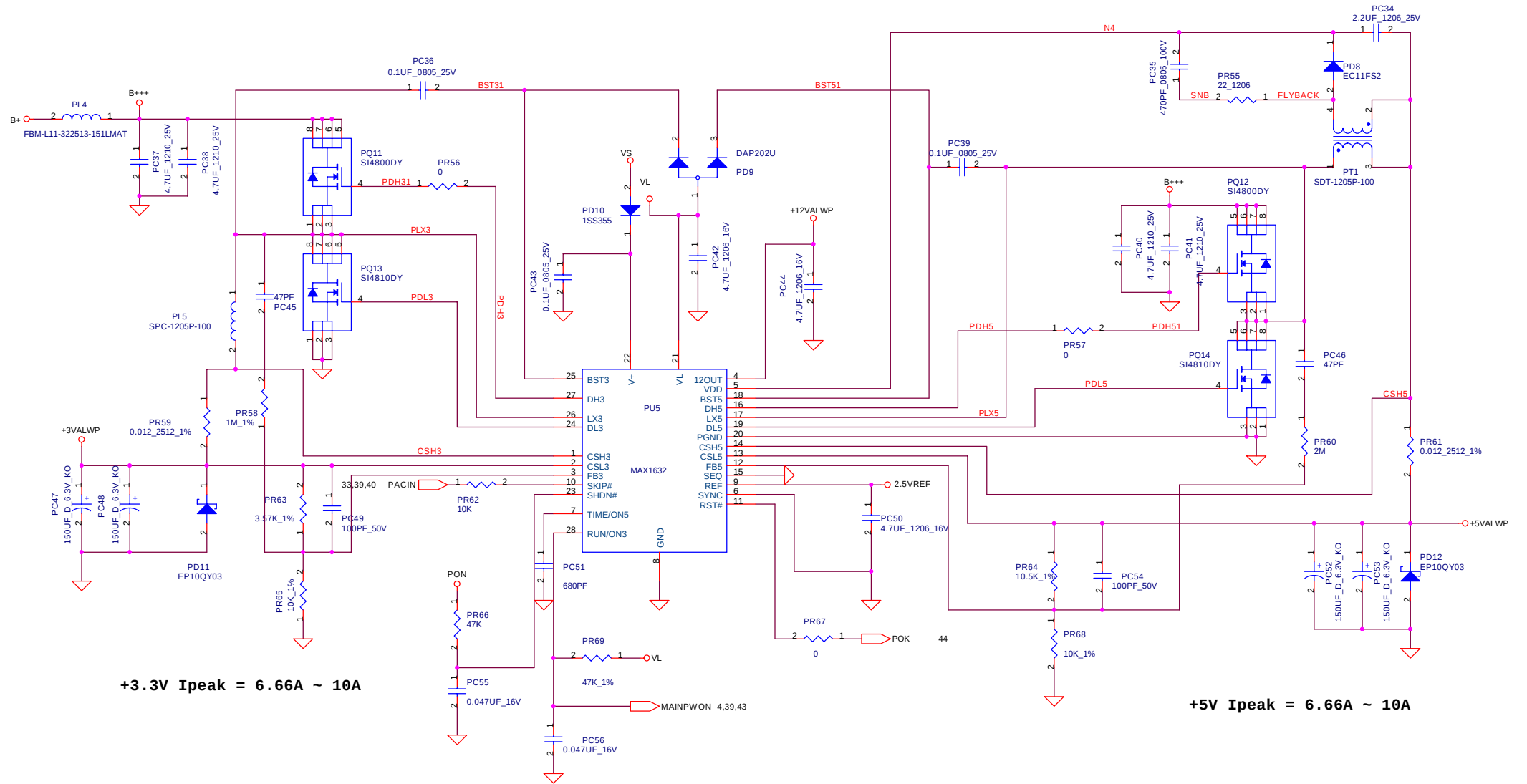
I<sub>adp</sub>=0~4.4A



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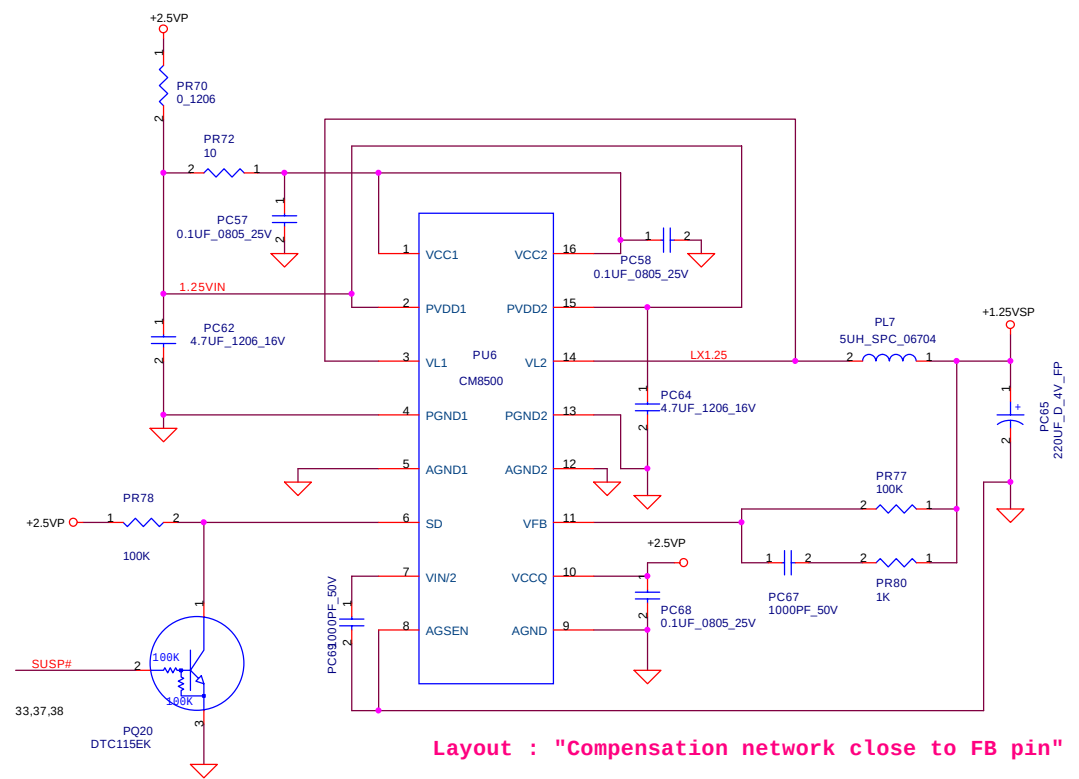
Compal Electronics, Inc.

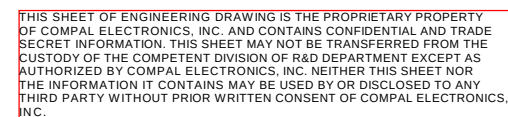
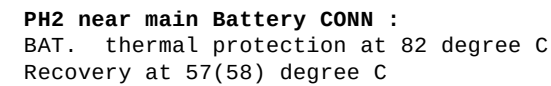
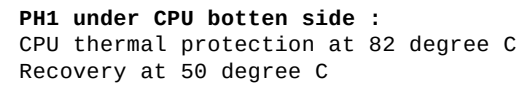
|       |                     |                 |          |
|-------|---------------------|-----------------|----------|
| Title |                     | CHARGER         |          |
| Size  | B                   | Document Number | LA1611   |
| Date: | ~P 周二, 十二月 31, 2002 | Sheet           | 40 of 46 |
|       |                     | Rev             |          |
|       |                     | 1.0             |          |



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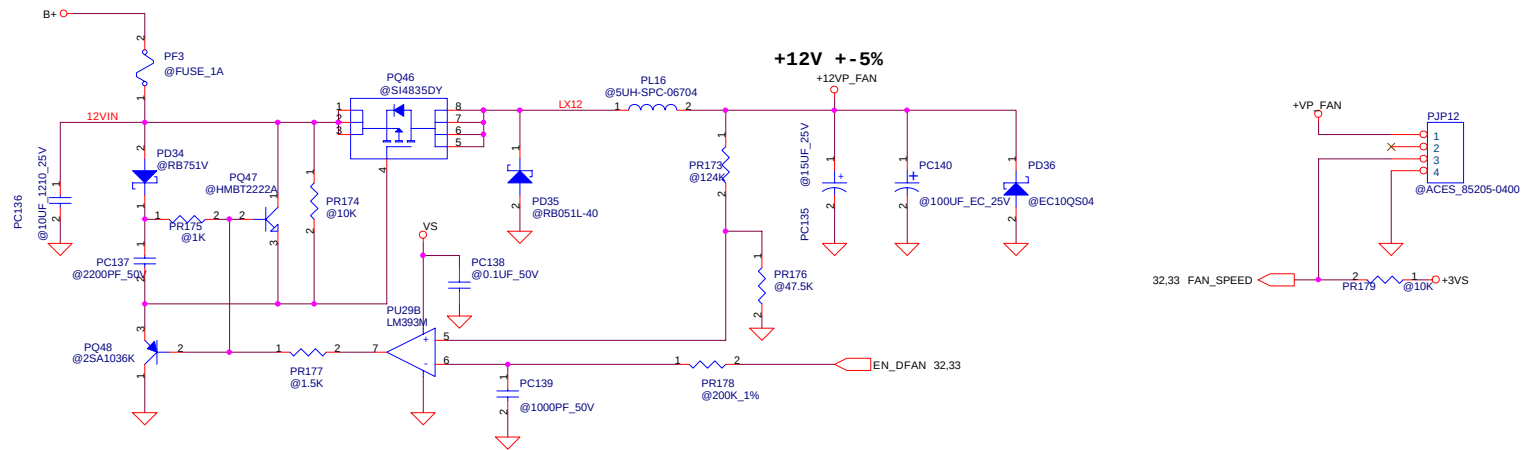
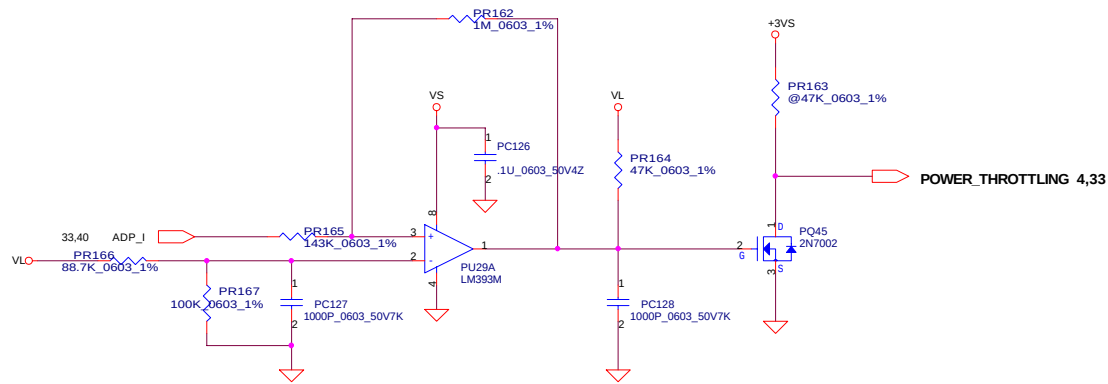
|                          |                 |       |          |
|--------------------------|-----------------|-------|----------|
| Compal Electronics, Inc. |                 |       |          |
| Title                    | 5V/3.3V/12V     |       |          |
| Size                     | Document Number | Rev   |          |
| B                        | LA1611          | 1.0   |          |
| Date:                    | 2002.12.31      | Sheet | 41 of 46 |











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| Compal Electronics, Inc. |                 |            |          |
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| Title                    |                 | Throttling |          |
| Size                     | Document Number | Rev        |          |
| B                        | BTR80 LA1661    | 1.0        |          |
| Date: 2012.12.31         | 2012            | Sheet      | 45 of 46 |

# Manchester 200Z PIR LIST

\*\*\*\*\* Rev0.1 PIR List \*\*\*\*\*

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12/16/02 P.16 PR145 124K Change to 97.6K
12/16/02 P.39 PCN1 Change to 2DC-G1078200
12/16/02 P.44 PR169 Change to @0
12/16/02 P.45 PR162, PR164, PR165, PR166, PR167, PC126, PC127, PC128, PQ45, PU29A Remove @
12/17/02 P.33

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12/19/02 P.4 R92 Remove @

12/31/02 P.37 C682, C457, C666, C671 Change to 0.1u // for Panel Flash When AC-IN

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|                                 |                 |       |          |
|---------------------------------|-----------------|-------|----------|
| <b>Compal Electronics, Inc.</b> |                 |       |          |
| Title                           |                 |       |          |
| ATR80 PIR LIST                  |                 |       |          |
| Size B                          | Document Number | Rev   |          |
|                                 | LA1731          | 1.0   |          |
| Date:                           | 2003.02.02      | Sheet | 46 of 46 |