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NOTES:  
1.HSF Property:Comply iSupplier system HSF property attribute up-to-date value.

CALTECH 11.6"  
OXFORD 14"  
(BSW)  
CS2 BUILD 2015.5.15

|             |            |     |
|-------------|------------|-----|
|             |            |     |
|             |            |     |
|             |            |     |
|             |            |     |
| 21-OCT-2002 |            |     |
| DATE        | CHANGE NO. | REV |

|                        |                |            |               |
|------------------------|----------------|------------|---------------|
| INVENTEC               |                |            |               |
| MODEL,PROJECT,FUNCTION |                |            |               |
| DESIGN/DRAWER          | XXX            | DATE       | 21-OCT-2002   |
| CHECK                  |                |            |               |
| APPROVAL               |                |            |               |
| TITLE NAME             | CALTECH OXFORD | SIZE       | A3            |
| CODE                   | CS             | DOC NUMBER | 1310xxxxx-0-0 |
| REV                    | X01            |            |               |
| PCB PIN                | XXXXXXXX       | PCB VER    | AX1           |
| SHEET                  | 1              | of         | 48            |

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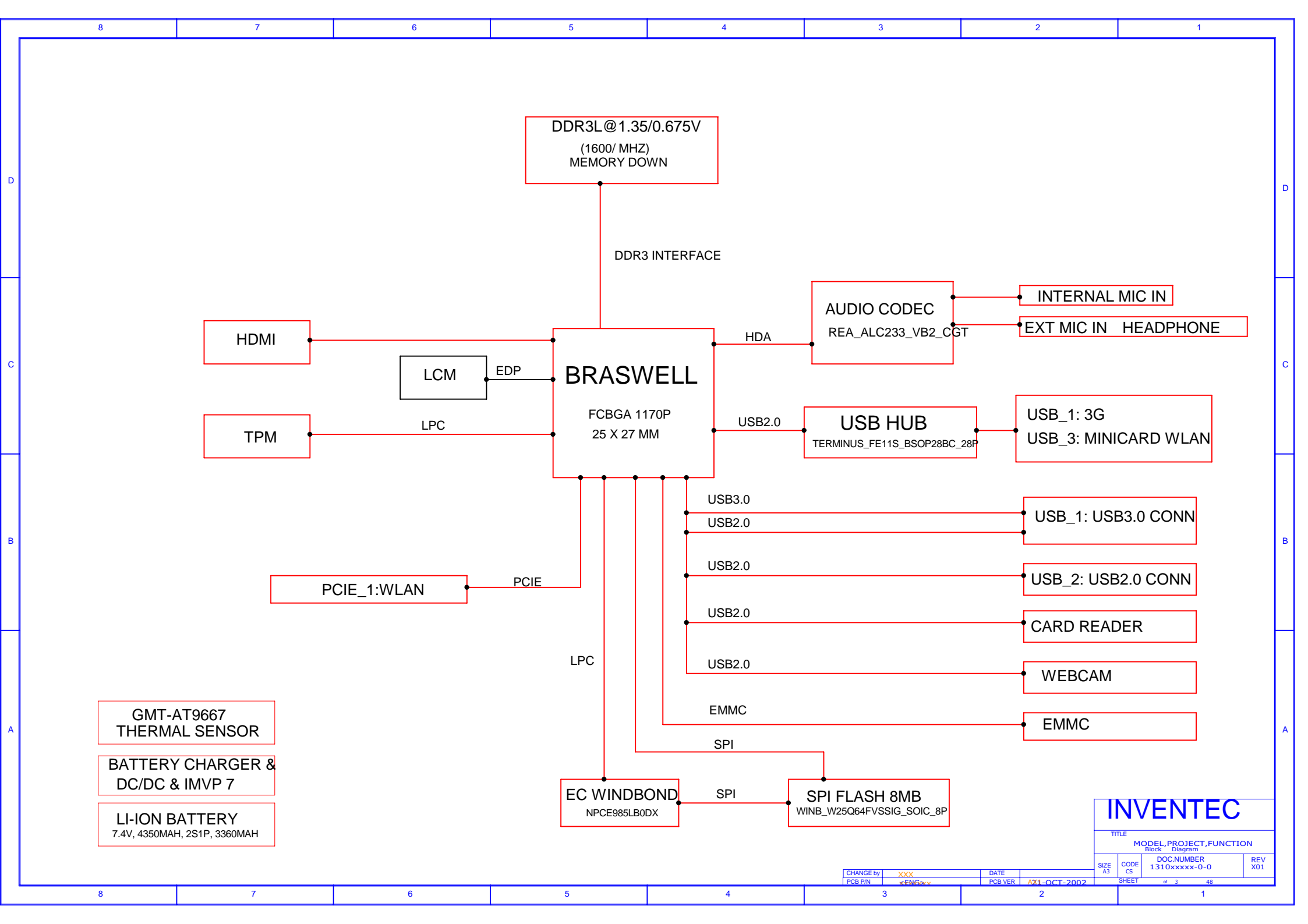
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| 2. INDEX                         | 28. HDMI                     |
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| 4. POWER MAP                     | 31. THERMAL&DDR RESISTER     |
| 5. POWER CHARGER                 | 32~42. CHIPSET               |
| 6. POWER +V3.3A/+5A              | 43.LEVEL SHIFT               |
| 7. POWER +V1.35S                 | 44. USB2.0 HUB               |
| 8. POWER VCORE                   | 45. EMI                      |
| 9. POWER VCORE/MOS               | 46. USB2.0 DB                |
| 10. POWER PVGG                   | 47. APP LED DB(NO COMPONENT) |
| 11. POWER PVGG/MOS               | 48. PWRBUTTON DB             |
| 12. MOIC(1V8.1V05.1V5.1V24.1V15) |                              |
| 13. ENABLE PIN                   |                              |
| 14. LOAD SWITCH                  |                              |
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| 16. KB&TOUCH PAD CONN            |                              |
| 17. EC                           |                              |
| 18. AUDIO CODEC                  |                              |
| 19. SPEAKER/HP JACK/MIC JACK     |                              |
| 20. CARDREADER                   |                              |
| 21. NGFF WLAN/DEBUG CARD         |                              |
| 22. 3G(NO COMPONENT)             |                              |
| 23. USB2.0                       |                              |
| 24. USB3.0                       |                              |
| 25. EMMC                         |                              |
| 26. POWER BOARD / TPM            |                              |

INVENTEC

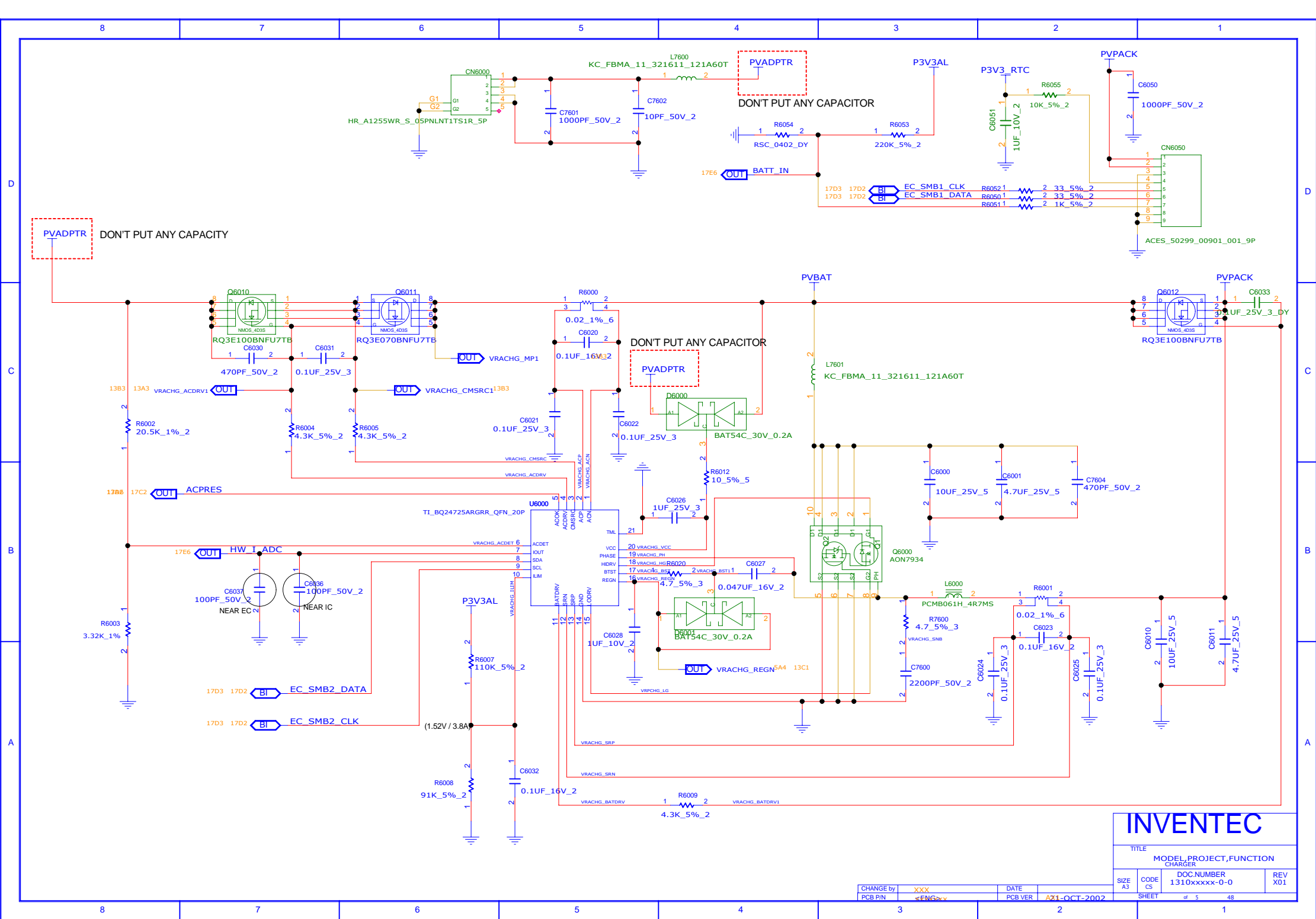
TITLE  
MODEL,PROJECT,FUNCTION  
CATELOG

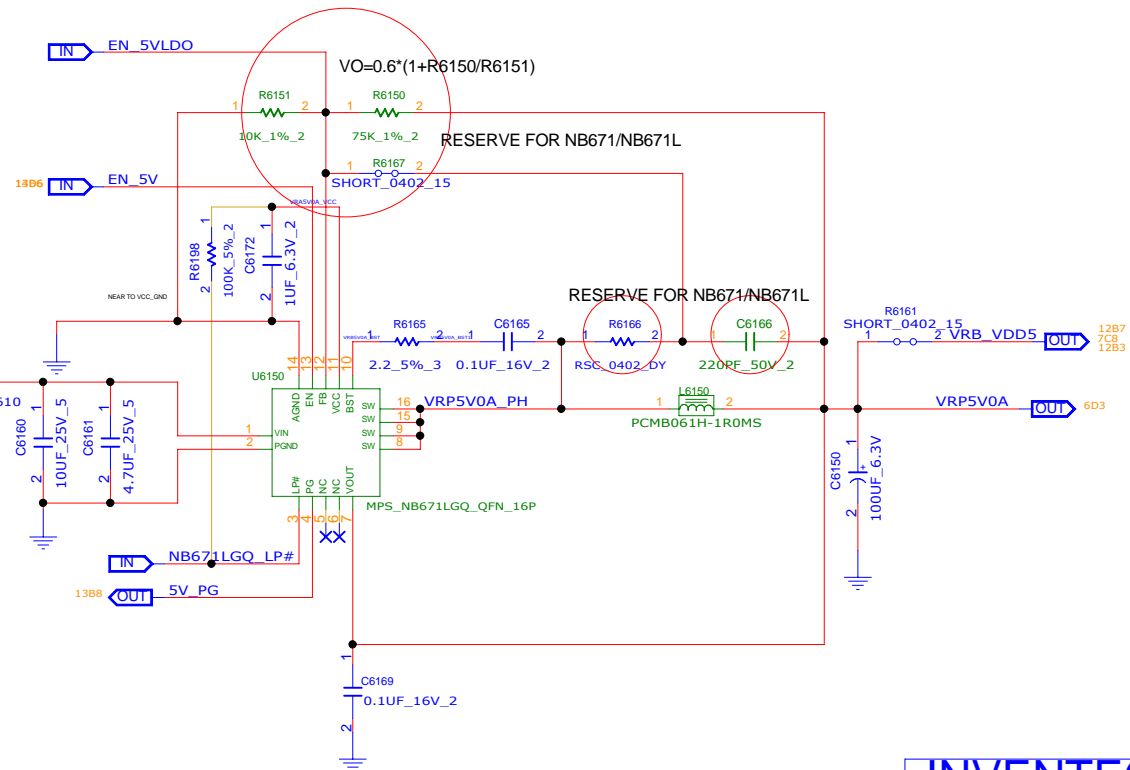
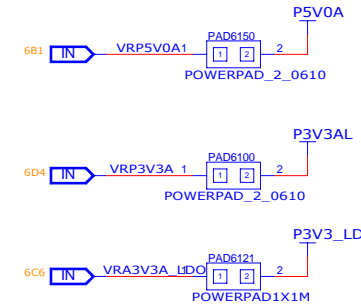
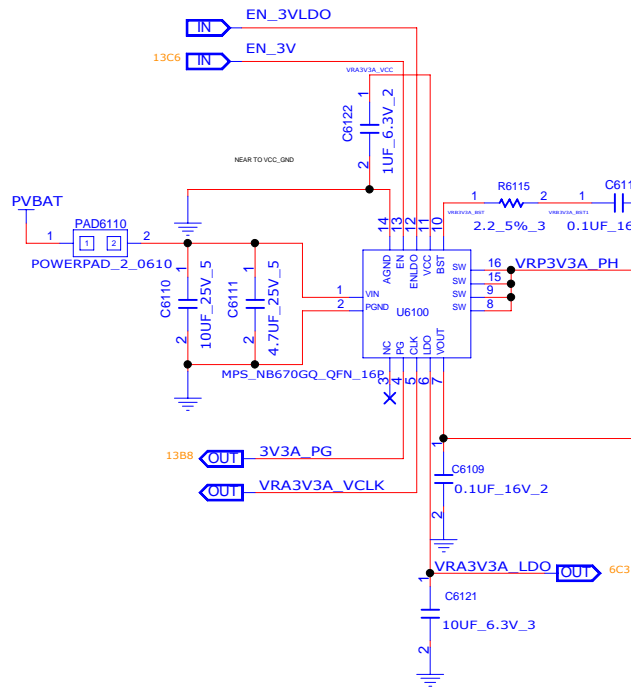
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| SIZE<br>A3    | CODE<br>CS | DOC NUMBER<br>1310xxxxx-0-0 | REV<br>X01 |
| SHEET 2 of 48 |            |                             |            |

|                      |                |                 |                    |
|----------------------|----------------|-----------------|--------------------|
| CHANGE by<br>PCB P/N | XXX<br>xxxxxxx | DATE<br>PCB VER | 21-OCT-2002<br>AX1 |
|----------------------|----------------|-----------------|--------------------|









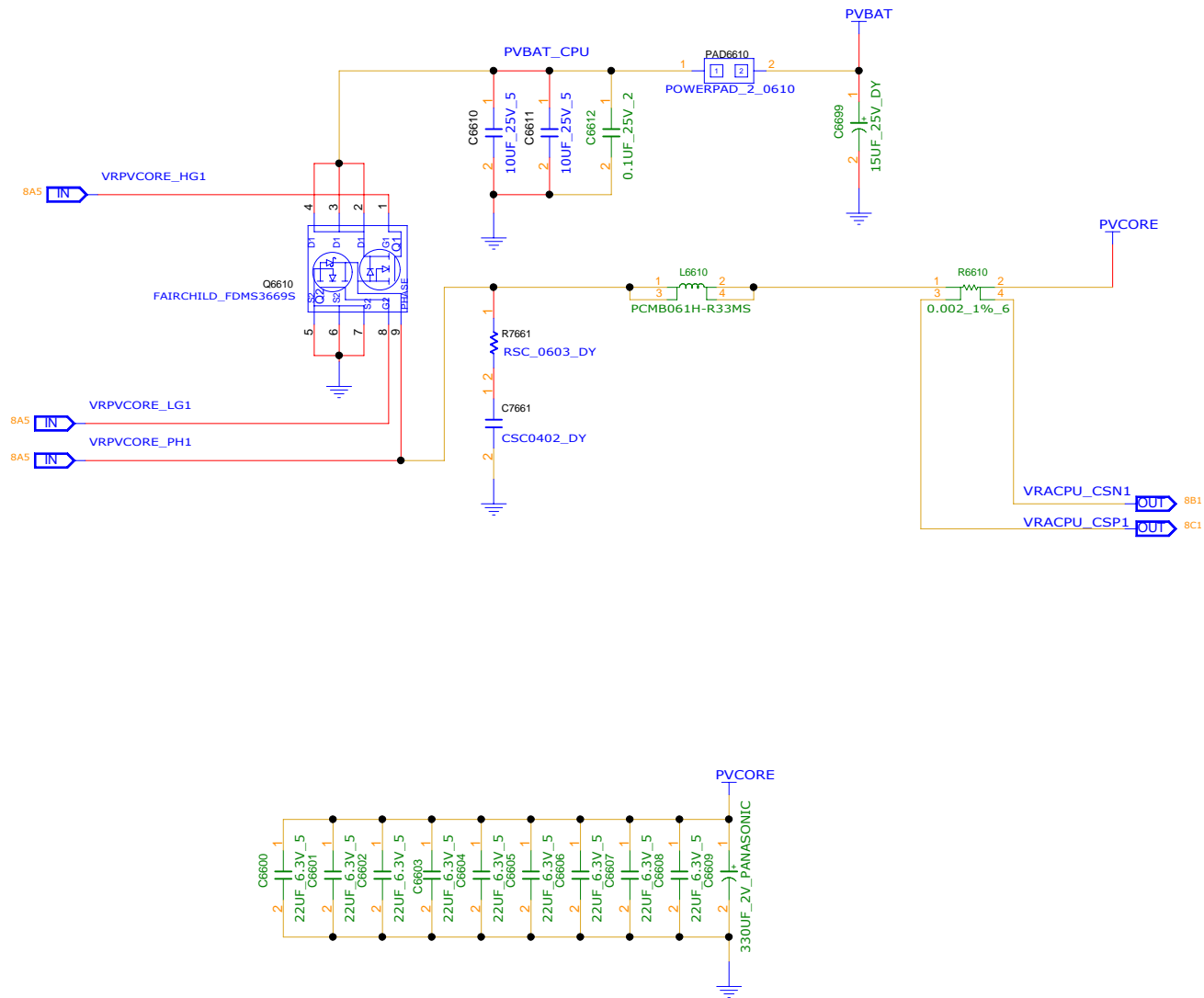
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| SHEET                  |      | of 6          | 48  |

| CHANGE by | DATE    |
|-----------|---------|
| PCB P/N   | PCB VER |
| PCB VER   | DATE    |
| PCB VER   | DATE    |









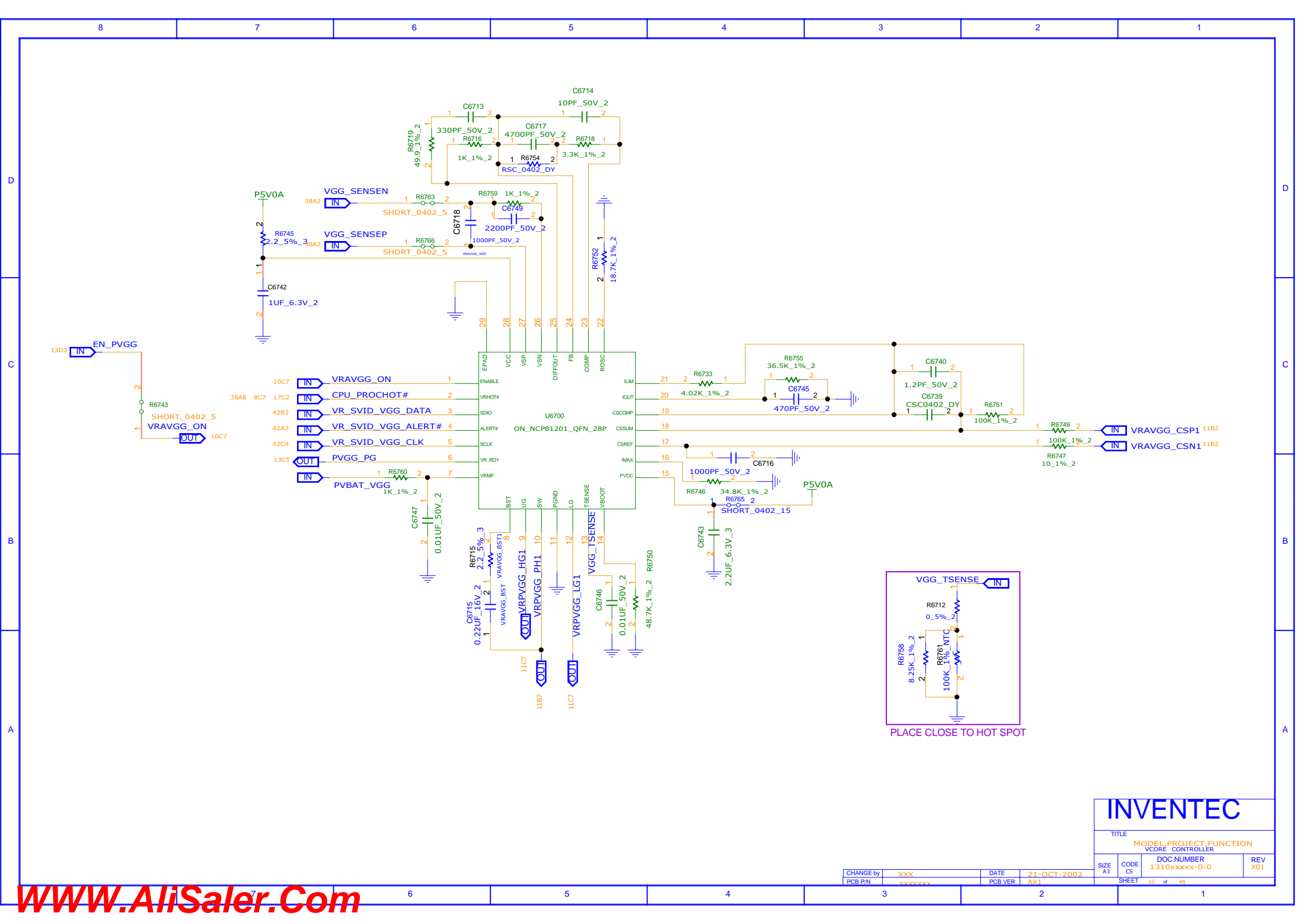
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TITLE  
MODEL PROJECT,FUNCTION  
VCCA\_POWER

SIZE CODE DOC NUMBER REV  
A3 CS 1310xxxxx-0-0 X01

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CHANGE by XXX DATE 21-OCT-2002  
PCB P/N xxxxxxxx PCB VER AX1



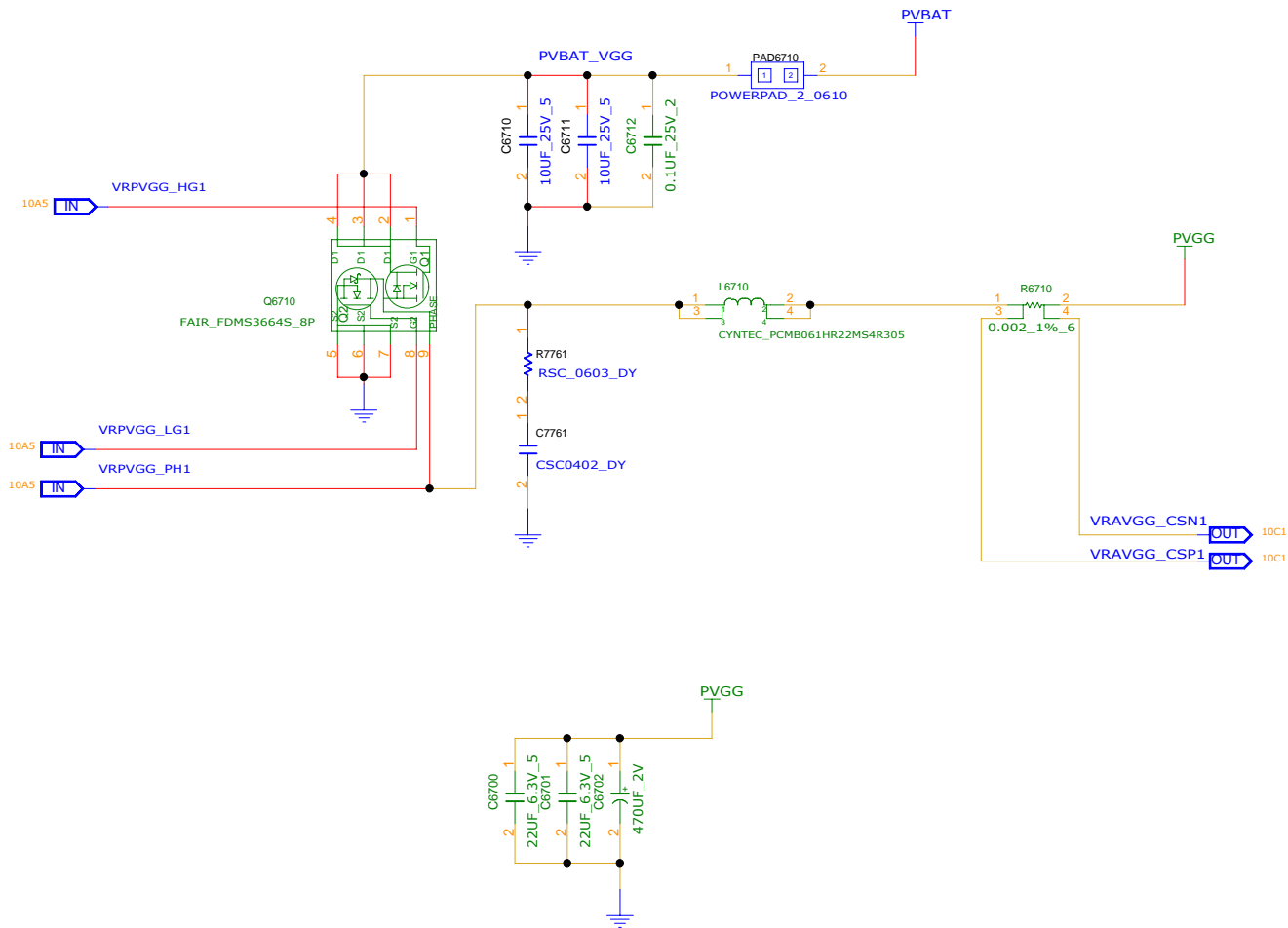
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TITLE  
MODEL PROJECT FUNCTION  
VCORE CONTROLLER

SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV X01

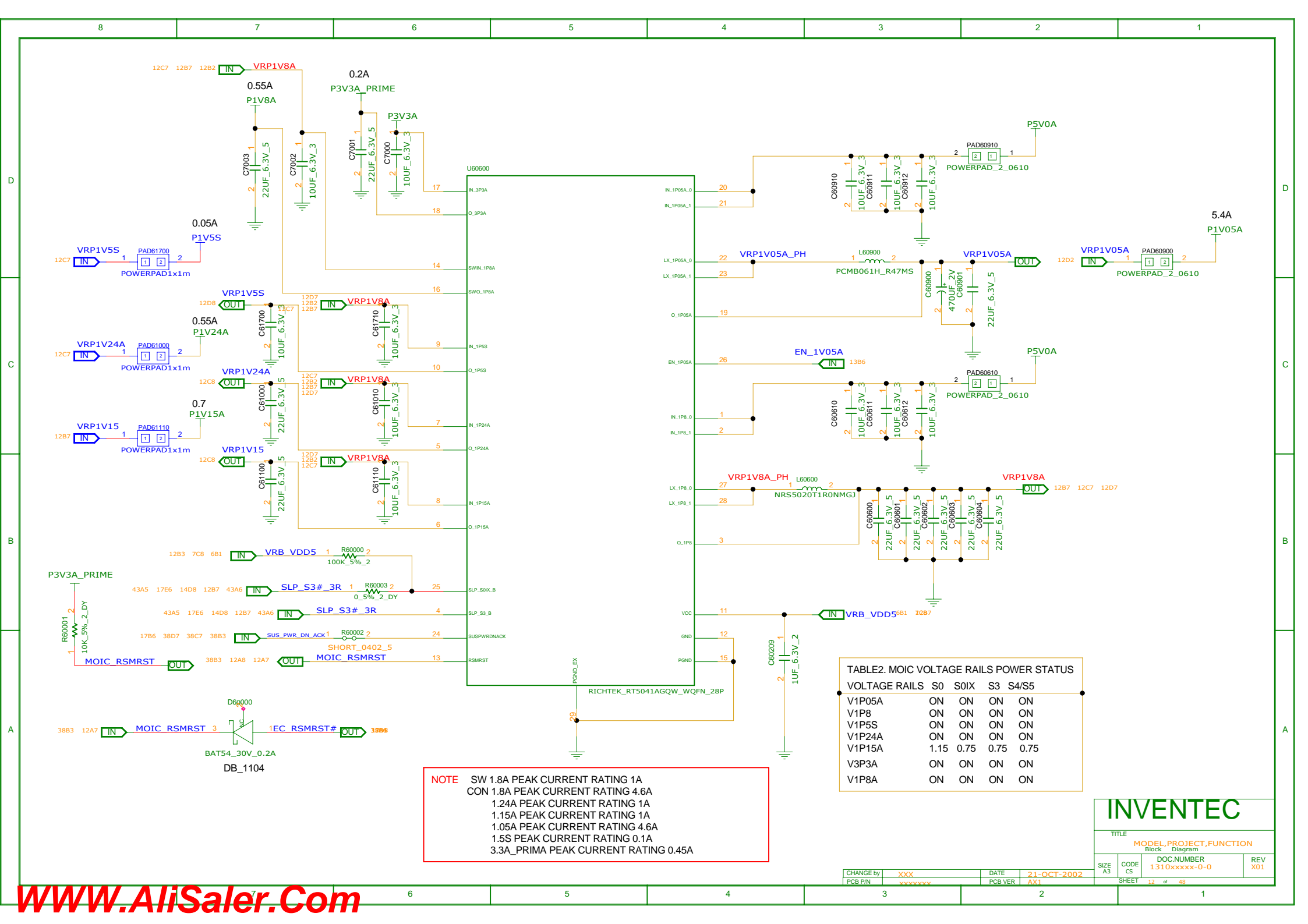
SHEET 10 of 48

CHANGE by XXX DATE 21-OCT-2002  
PCB P/N xxxxxxxx PCB VER AX1



| INVENTEC               |      |               |     |
|------------------------|------|---------------|-----|
| TITLE                  |      |               |     |
| MODEL PROJECT,FUNCTION |      |               |     |
| VCORE_M05              |      |               |     |
| SIZE                   | CODE | DOC NUMBER    | REV |
| A3                     | CS   | 1310xxxxx-0-0 | X01 |
| SHEET of 11 48         |      |               |     |

|           |         |         |              |
|-----------|---------|---------|--------------|
| CHANGE by | XXX     | DATE    |              |
| PCB P/N   | <ENG>xx | PCB VER | A71-OCT-2002 |



NOTE SW 1.8A PEAK CURRENT RATING 1A  
CON 1.8A PEAK CURRENT RATING 4.6A  
1.24A PEAK CURRENT RATING 1A  
1.15A PEAK CURRENT RATING 1A  
1.05A PEAK CURRENT RATING 4.6A  
1.5S PEAK CURRENT RATING 0.1A  
3.3A\_PRIMA PEAK CURRENT RATING 0.45A

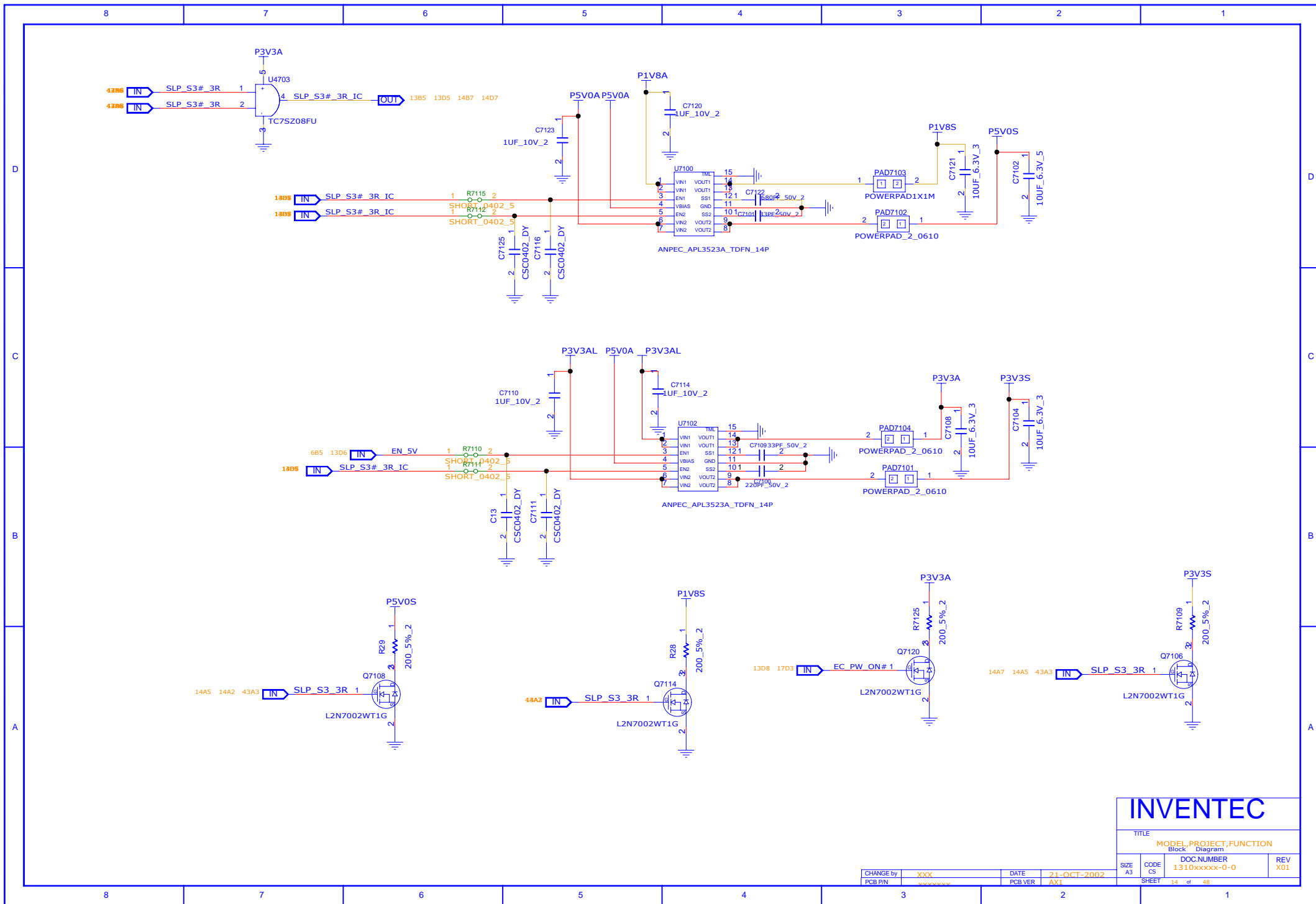
| TABLE2. MOIC VOLTAGE RAILS POWER STATUS |      |      |      |       |
|---|------|------|------|-------|
| VOLTAGE RAILS                           | S0   | S0IX | S3   | S4/S5 |
| V1P05A                                  | ON   | ON   | ON   | ON    |
| V1P8                                    | ON   | ON   | ON   | ON    |
| V1P5S                                   | ON   | ON   | ON   | ON    |
| V1P24A                                  | ON   | ON   | ON   | ON    |
| V1P15A                                  | 1.15 | 0.75 | 0.75 | 0.75  |
| V3P3A                                   | ON   | ON   | ON   | ON    |
| V1P8A                                   | ON   | ON   | ON   | ON    |

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| TITLE                  |      |               |     |
|------------------------|------|---------------|-----|
| MODEL,PROJECT,FUNCTION |      |               |     |
| SIZE                   | CODE | DOC NUMBER    | REV |
| A3                     | CS   | 1310xxxxx-0-0 | X01 |
| SHEET 12 of 48         |      |               |     |

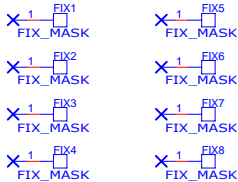
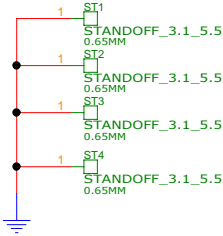
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|-----------|---------|---------|-------------|
| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |



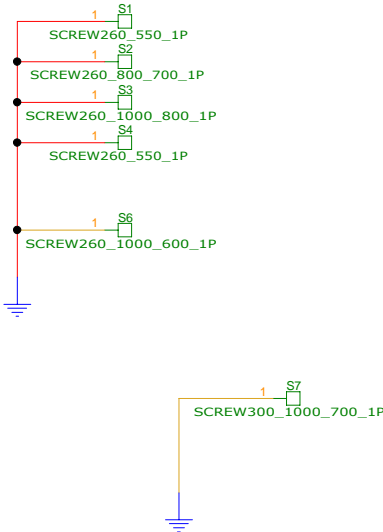


REFERENCE 0~49(PCB SCREW)

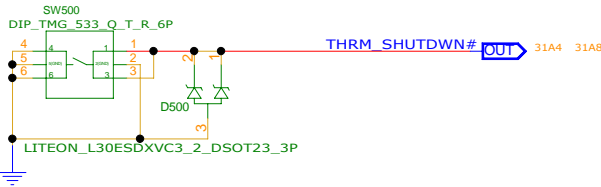
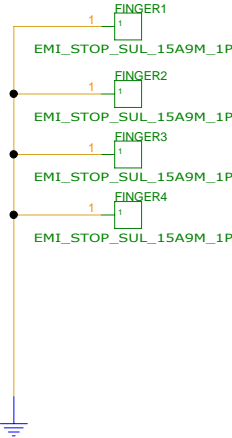
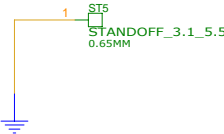
CPU



PCB



3G

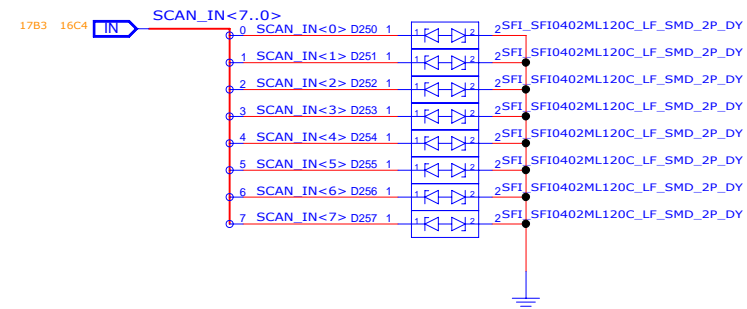


INVENTEC

TITLE  
MODEL,PROJECT,FUNCTION  
Block Diagram

| SIZE<br>A3 | CODE<br>CS | DOC NUMBER<br>1310xxxxx-0-0 | REV<br>X01 |
|------------|------------|-----------------------------|------------|
| SHEET      | 15         | of                          | 48         |

|           |         |         |             |
|-----------|---------|---------|-------------|
| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |

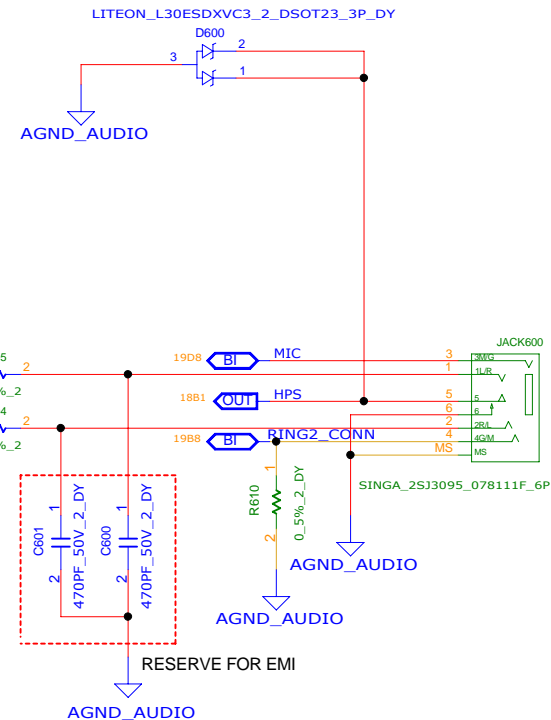
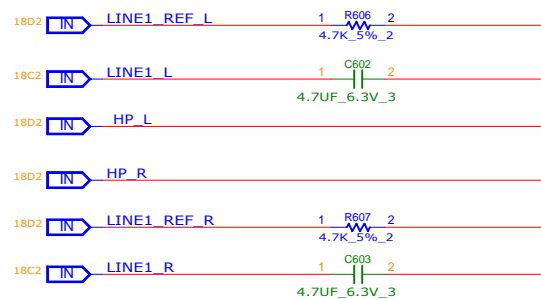
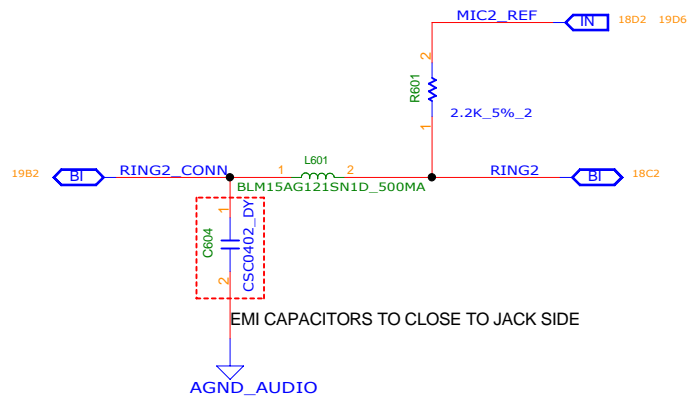
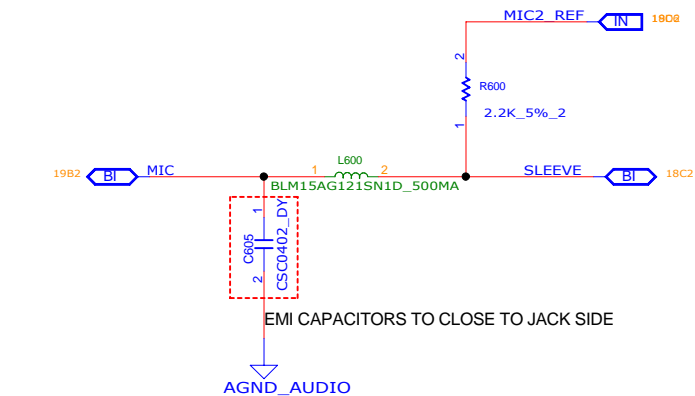




|          |          |           |          |
|----------|----------|-----------|----------|
| CHANGE b | XXX      | DATE      |          |
| PCB P/N  | xxx>ENG> | PCB VER 2 | -06/2002 |

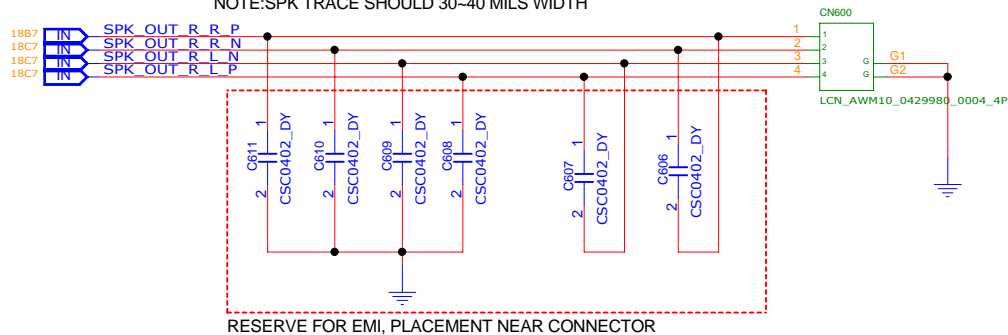


# AUDIO JACKS



## INTERNAL SPEAKERS

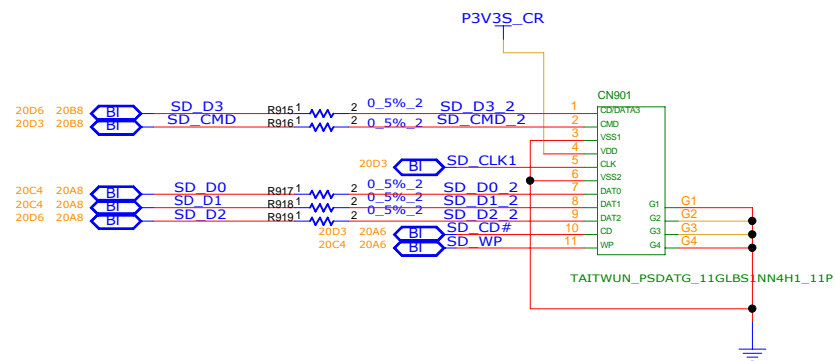
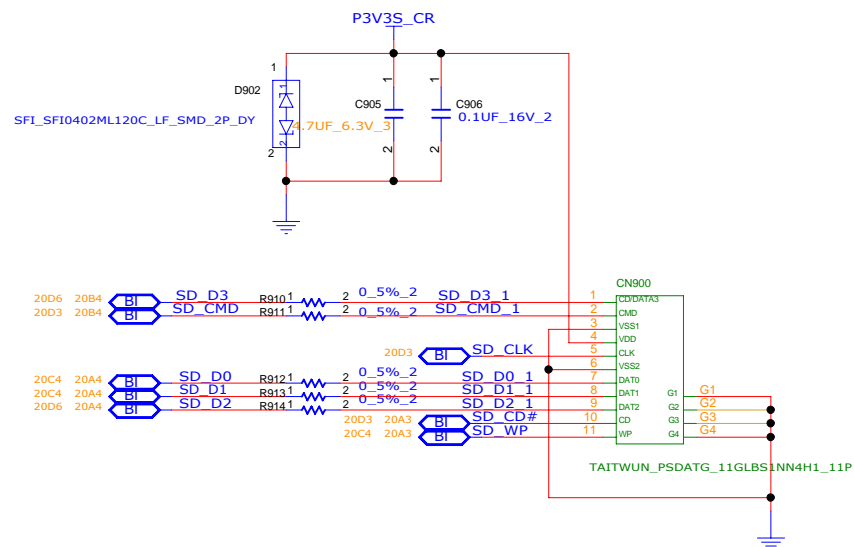
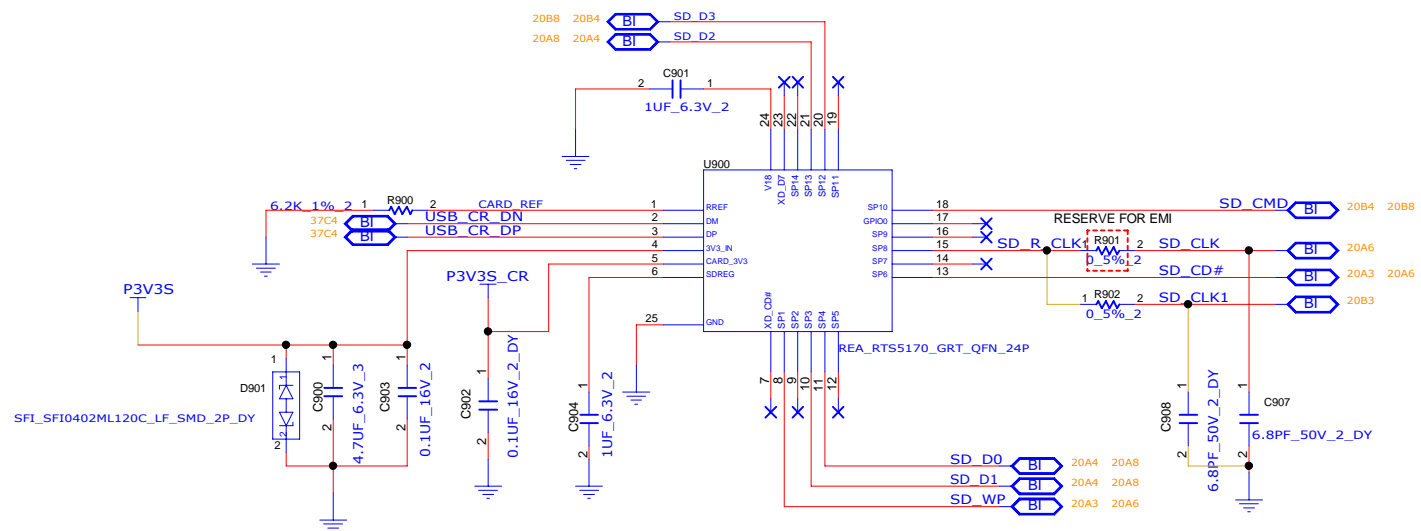
NOTE:SPK TRACE SHOULD 30-40 MILS WIDTH



INVENTEC

| TITLE                  |      |               |     |
|------------------------|------|---------------|-----|
| MODEL,PROJECT,FUNCTION |      |               |     |
| SIZE                   | CODE | DOC NUMBER    | REV |
| A3                     | CS   | 1310xxxxx-0-0 | X01 |
| SHEET                  |      | 19 of 48      |     |

|           |         |         |             |
|-----------|---------|---------|-------------|
| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |



INVENTEC

| TITLE | MODEL,PROJECT,FUNCTION |
|-------|------------------------|
|       | Block Diagram          |

|                |            |                             |        |
|----------------|------------|-----------------------------|--------|
| SIZE<br>A3     | CODE<br>CS | DOC.NUMBER<br>1310xxxxx-0-0 | R<br>X |
| SHEET 30 of 40 |            |                             |        |

|           |         |         |             |
|-----------|---------|---------|-------------|
| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |

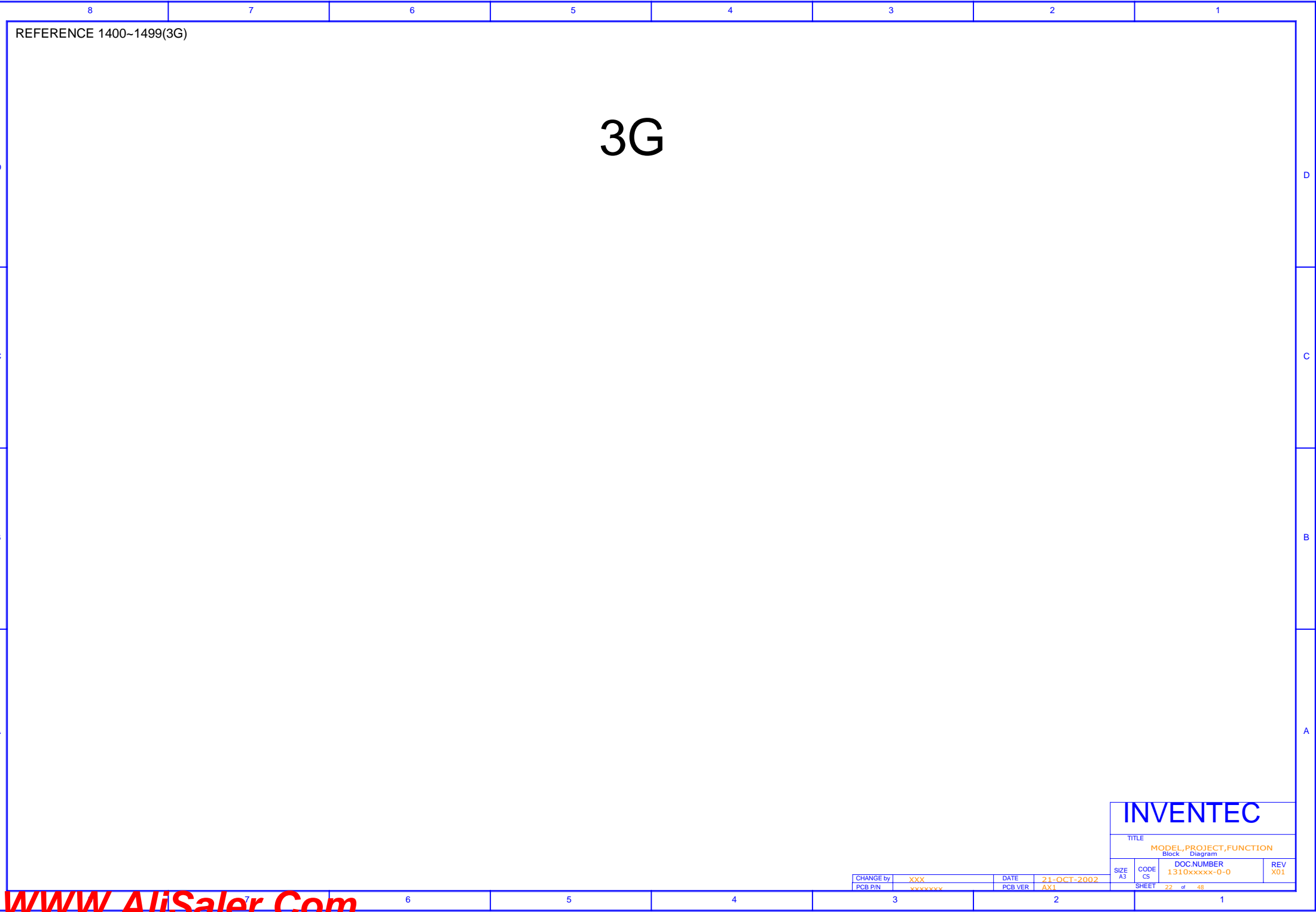
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## REFERENCE 1800~1349(V/DAN)



| TITLE | MODEL,PROJECT,FUNCTION |
|-------|------------------------|
|       | Block Diagram          |

|            |            |                             |        |
|------------|------------|-----------------------------|--------|
| SIZE<br>A3 | CODE<br>CS | DOC.NUMBER<br>1310xxxxx-0-0 | R<br>X |
| SHEET      |            | 21 of 48                    |        |



INVENTEC

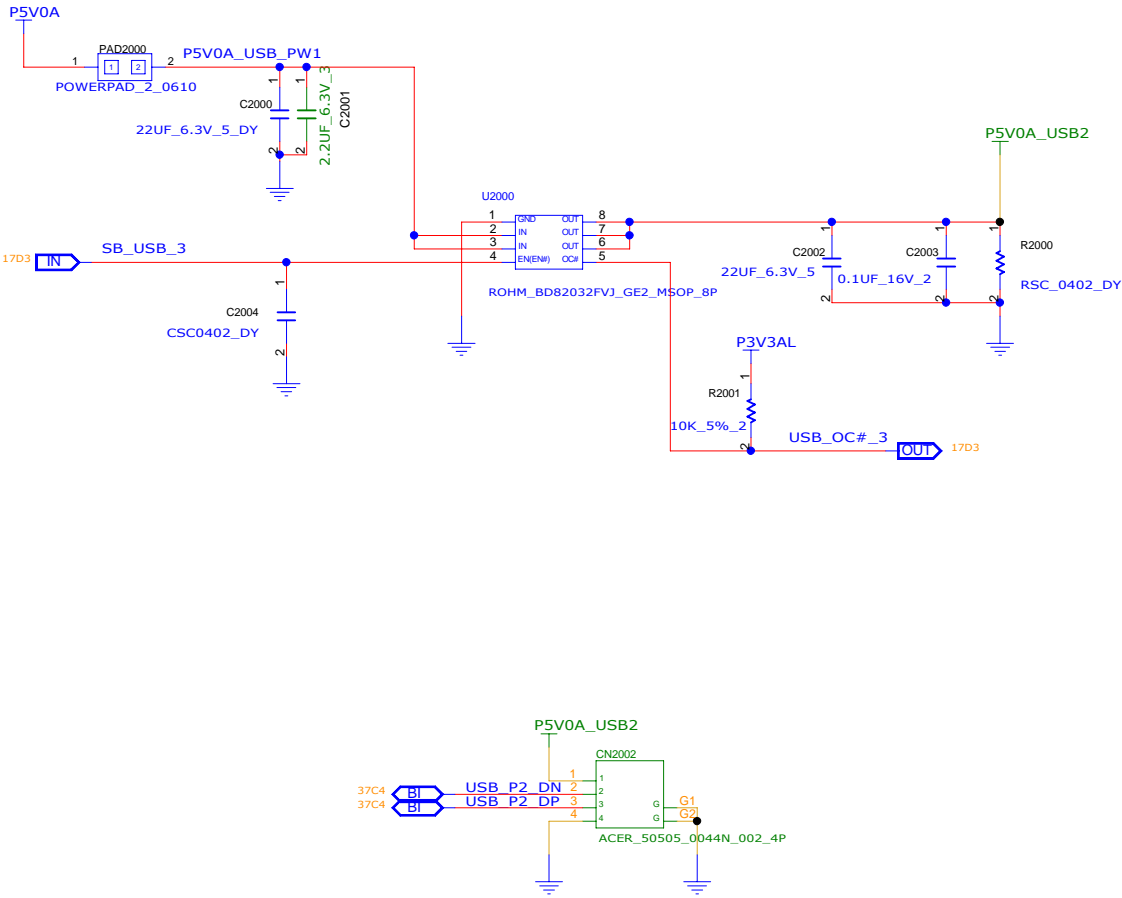
TITLE  
MODEL,PROJECT,FUNCTION  
Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV X01

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CHANGE by XXX DATE 21-OCT-2002  
PCB P/N xxxxxxxx PCB VER AX1

REFERENCE 2000~2099(USB)



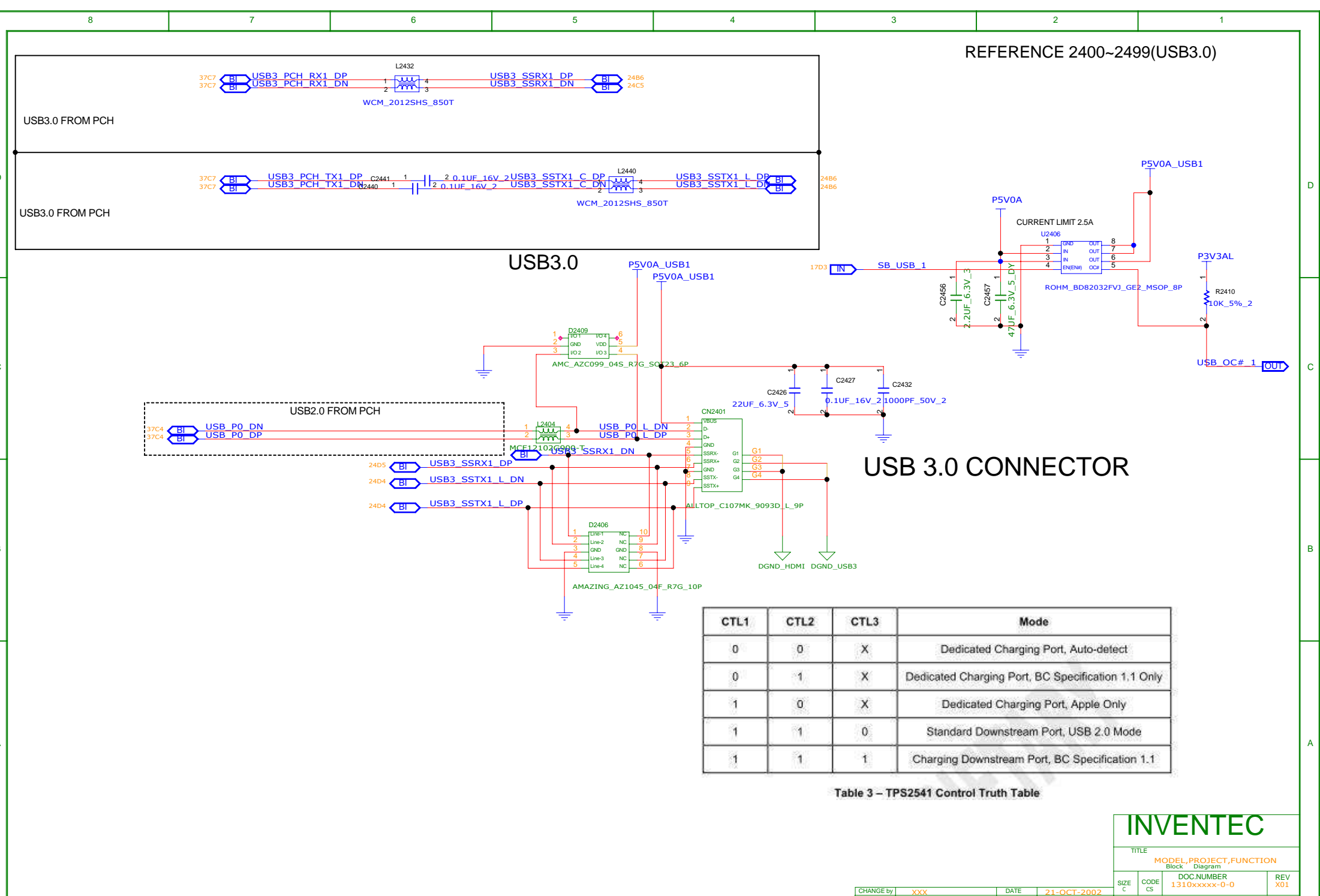
INVENTEC

TITLE MODEL,PROJECT,FUNCTION Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV X01

CHANGE by XXX DATE 21-OCT-2002 PCB P/N xxxxxxxx PCB VER AX1

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USB 3.0 CONNECTOR

| CTL1 | CTL2 | CTL3 | Mode   |
|------|------|------|--|
| 0    | 0    | X    | Dedicated Charging Port, Auto-detect               |
| 0    | 1    | X    | Dedicated Charging Port, BC Specification 1,1 Only |
| 1    | 0    | X    | Dedicated Charging Port, Apple Only                |
| 1    | 1    | 0    | Standard Downstream Port, USB 2.0 Mode             |
| 1    | 1    | 1    | Charging Downstream Port, BC Specification 1.1     |

Table 3 – TPS2541 Control Truth Table

INVENTEC

TITLE MODEL,PROJECT,FUNCTION

Block Diagram

DOC NUMBER 1310xxxxx-0-0

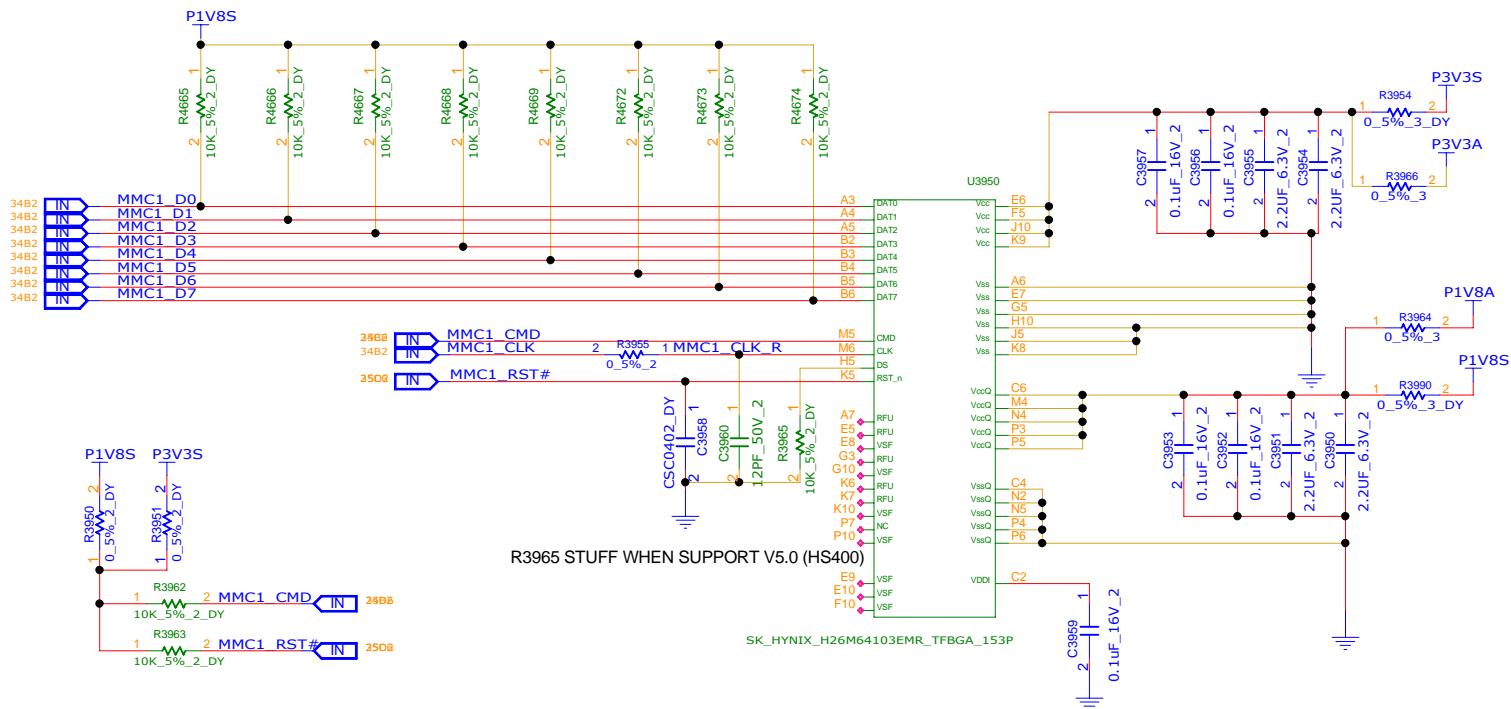
REV X01

CHANGE by XXX DATE 21-OCT-2002

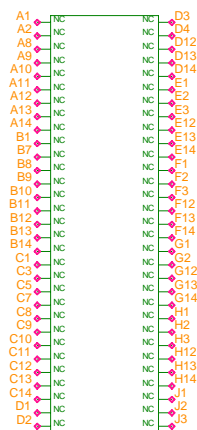
PCB P/N xxxxxx PCB VER AX1

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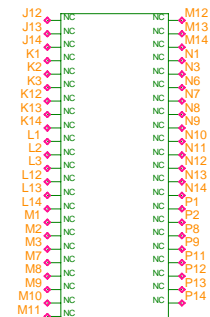


U3950



SK\_HYNIX\_H26M64103EMR\_TFBGA\_153P

U3950



SK\_HYNIX\_H26M64103EMR\_TFBGA\_153P

| Vender                | SIZE | IEC PN       |
|-----------------------|------|--------------|
| SK HYNIX_H26M64103EMR | 32G  | 6019B1257601 |

INVENTEC

TITLE  
MODEL,PROJECT,FUNCTION

DOC NUMBER  
1310xxxxx-0-0

REV  
X01

CHANGE by  
PCB P/N

DATE  
PCB VER

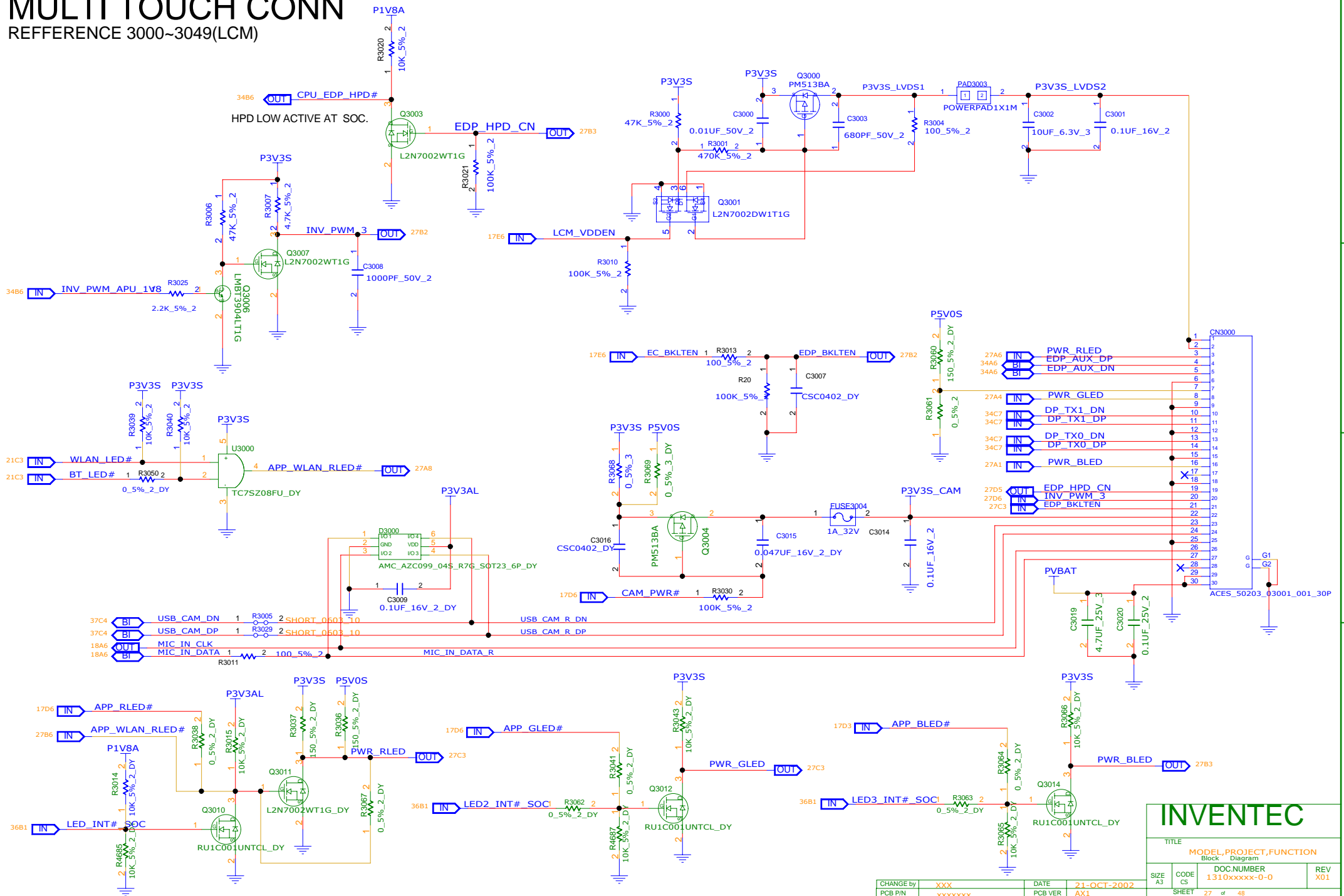
21-OCT-2002  
AX1

SHEET  
25 of 48



# MULTI TOUCH CONN

## REFERENCE 3000~3049(LCM)



INVENTEC

| TITLE                  |      |               |     |
|------------------------|------|---------------|-----|
| MODEL,PROJECT,FUNCTION |      |               |     |
| Block Diagram          |      |               |     |
| SIZE                   | CODE | DOC NUMBER    | REV |
| A3                     | CS   | 1310xxxxx-0-0 | X01 |
| SHEET                  |      | 27 of 48      |     |

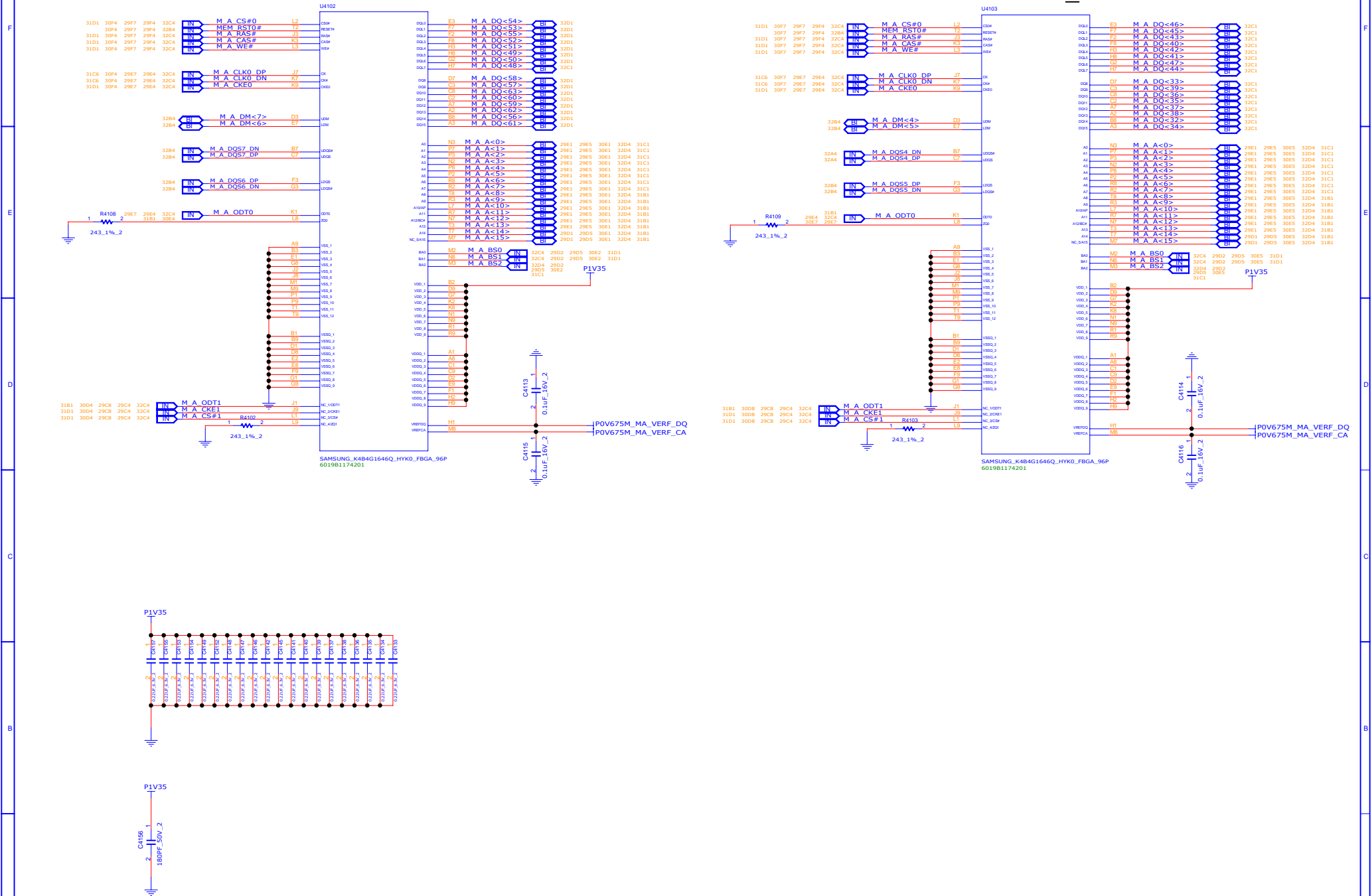
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| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |



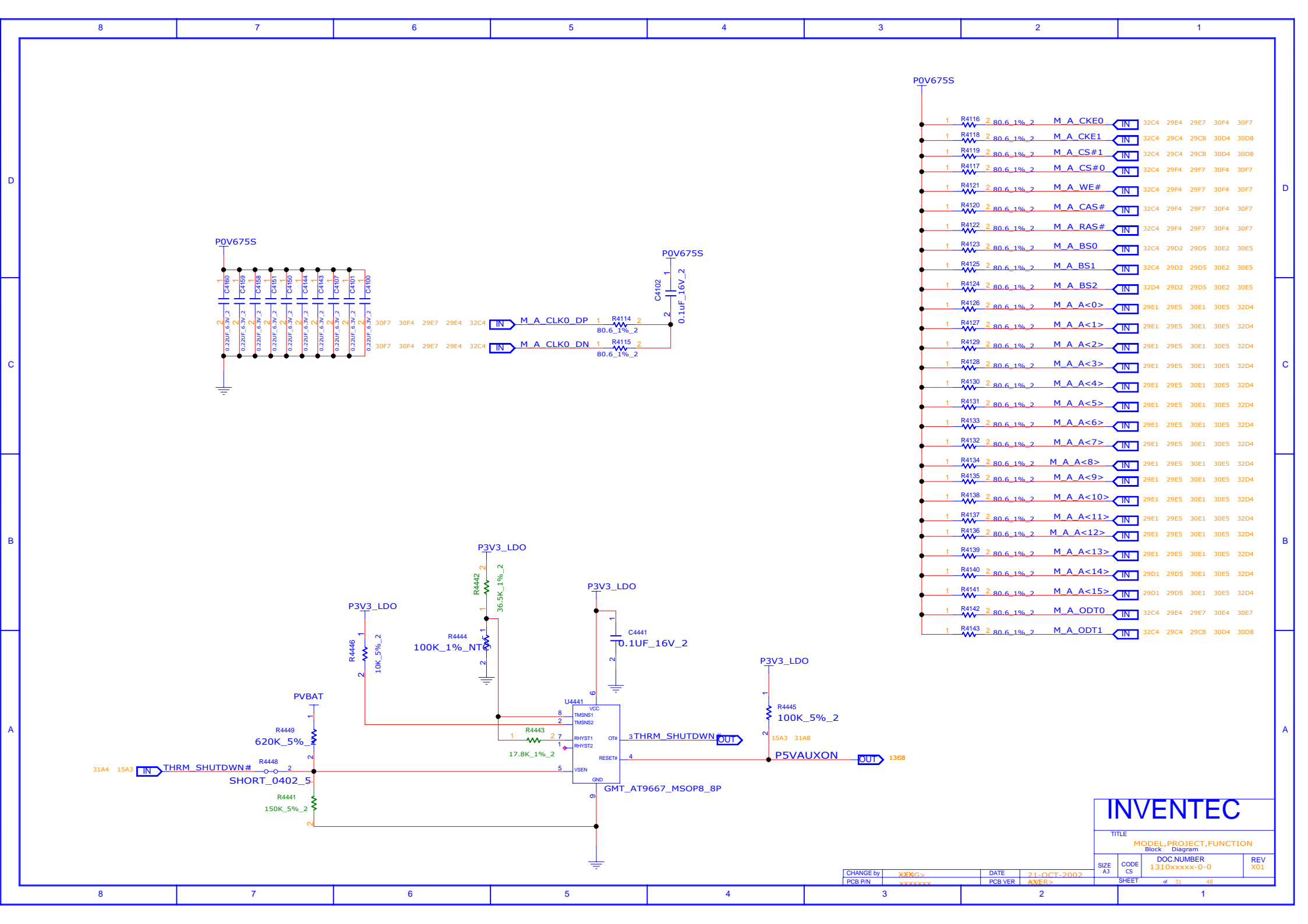


## DDR3L\_2

## DDR3L\_3



|                        |      |               |    |     |
|------------------------|------|---------------|----|-----|
| INVENTEC               |      |               |    |     |
| FILE                   |      |               |    |     |
| MODEL,PROJECT,FUNCTION |      |               |    |     |
| 34_DDR3L3M-1           |      |               |    |     |
| SIZE                   | CODE | DOC NUMBER    |    | REV |
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| SHEET                  |      | of            | 30 | 48  |
| 1                      |      |               |    |     |



INVENTEC

TITLE  
MODEL,PROJECT,FUNCTION  
Block Diagram

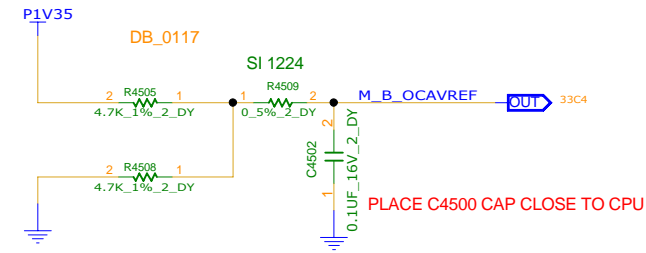
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| SHEET of 31 48 |      |               |     |

| CHANGE by | DATE        |
|-----------|-------------|
| PCB P/N   | PCB VER     |
| X00NG>    | 21-OCT-2002 |
| xxxxxx    | AWER>       |

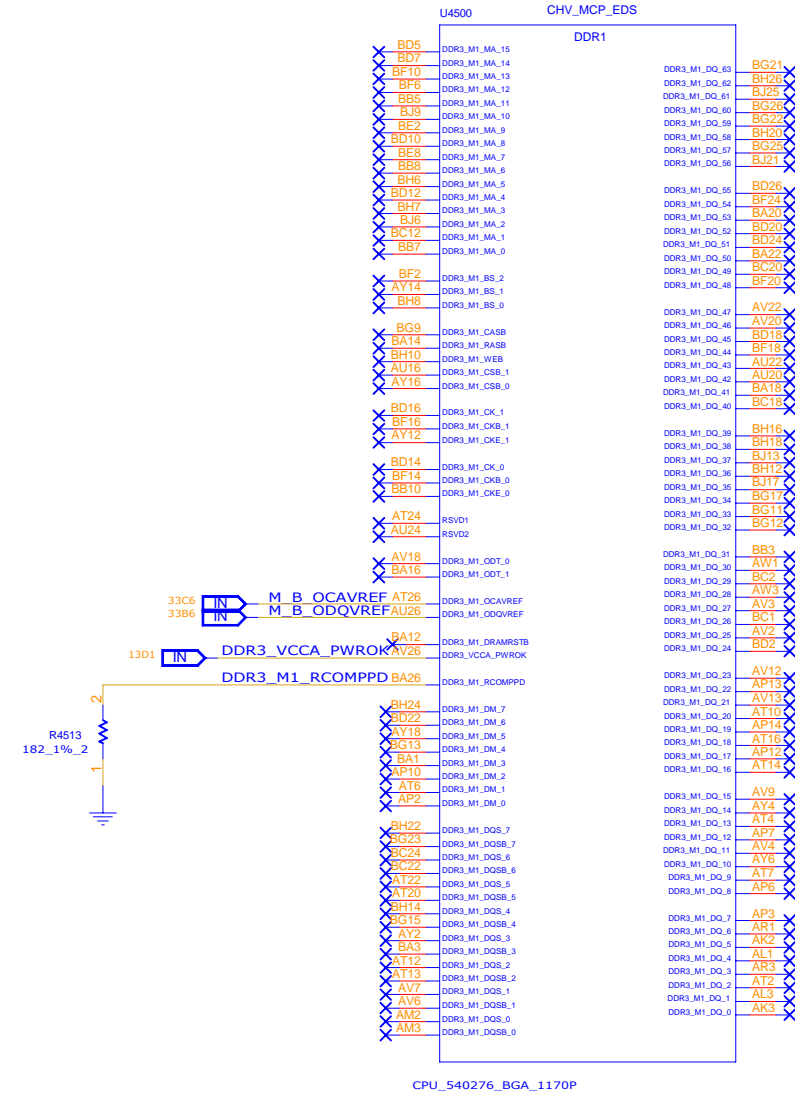
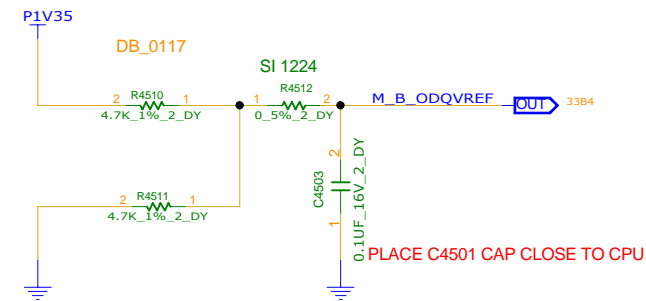




NOTE  
PLACE TWO 4.7K RESISTORS CLOSE TO CPU PINS ON M\_VREF  
ROUTE THE VREF POWER SIGNALS WITH THICK TRACES



NOTE  
PLACE TWO 4.7K RESISTORS CLOSE TO CPU PINS ON M\_VREF  
ROUTE THE VREF POWER SIGNALS WITH THICK TRACES

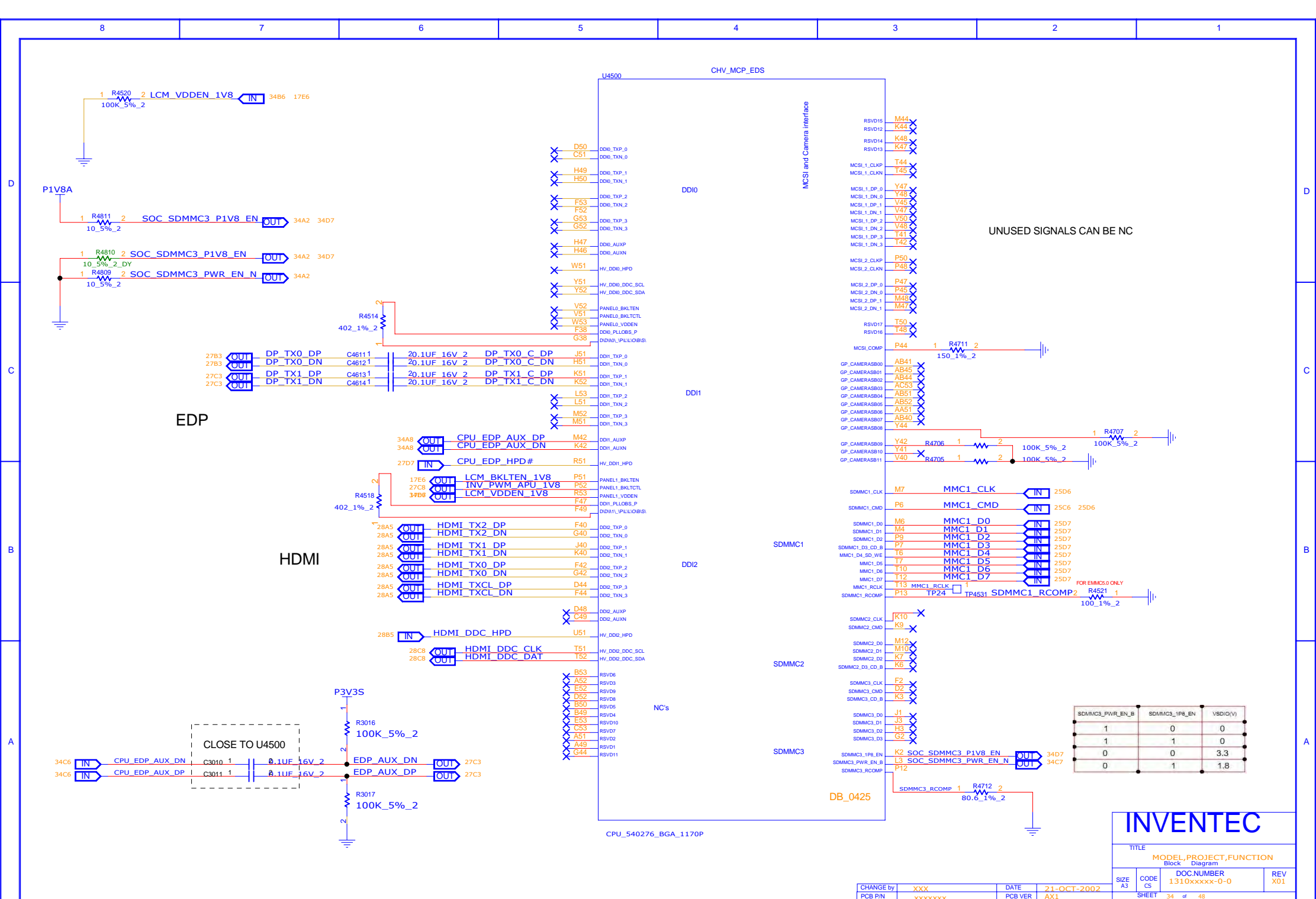


INVENTEC

TITLE  
MODEL, PROJECT, FUNCTION  
Block Diagram

SIZE A3 CODE CS DOC NUMBER 1310xxxxxx-0-0 REV X01  
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CHANGE by XXX DATE 21-OCT-2002  
PCB P/N xxxxxxxx PCB VER AX1



WLAN

SPI FLASH

TRUTH TABLE

| S | OE | FUNCTION   |
|---|----|------------|
| X | H  | Disconnect |
| L | L  | D = 1D     |
| H | L  | D = 2D     |

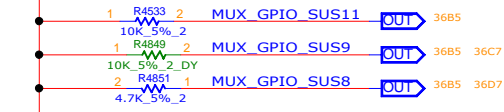
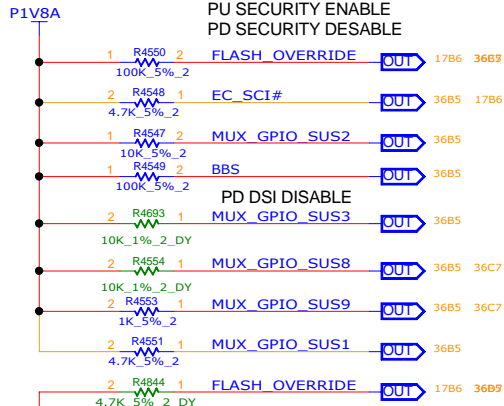
INVENTEC

TITLE  
MODEL,PROJECT,FUNCTIONDOC NUMBER  
1310xxxxxx-0-0REV  
X01CHANGE by  
PCB P/N XXX  
xxxxxxxDATE  
PCB VER 21-OCT-2002  
AX1SHEET  
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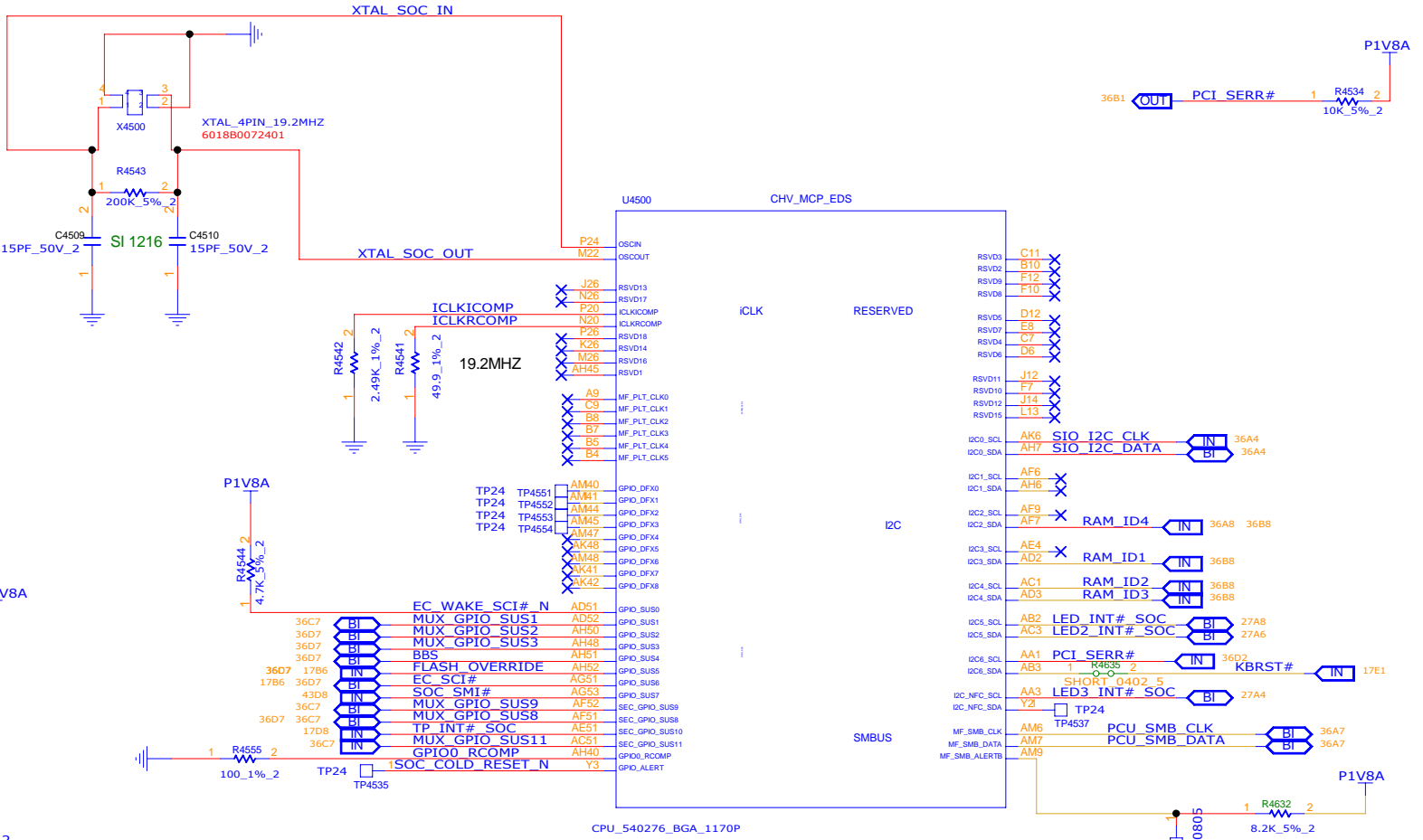
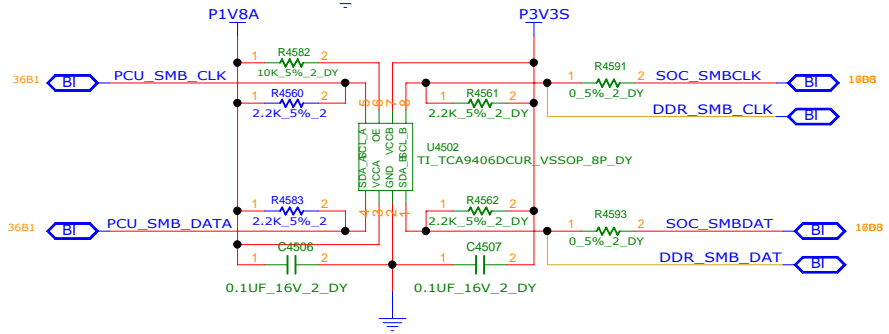
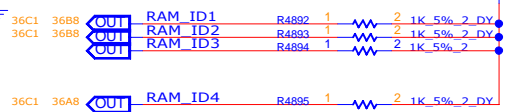
# STRAP PIN

\*PLEASE REFERENCE TO CRB PAGE23\*

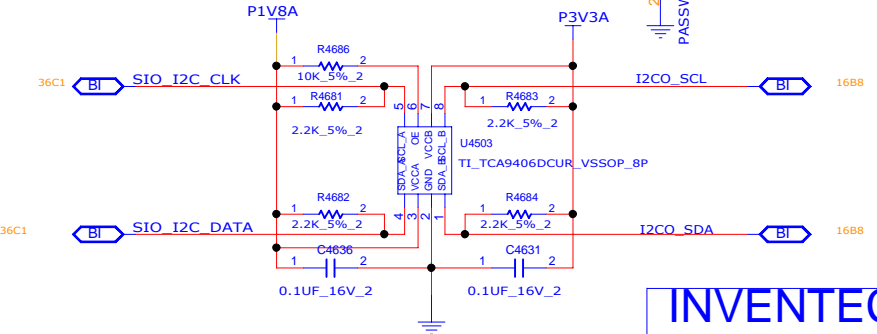
PU SECURITY ENABLE  
PD SECURITY DESABLE



DB\_1118



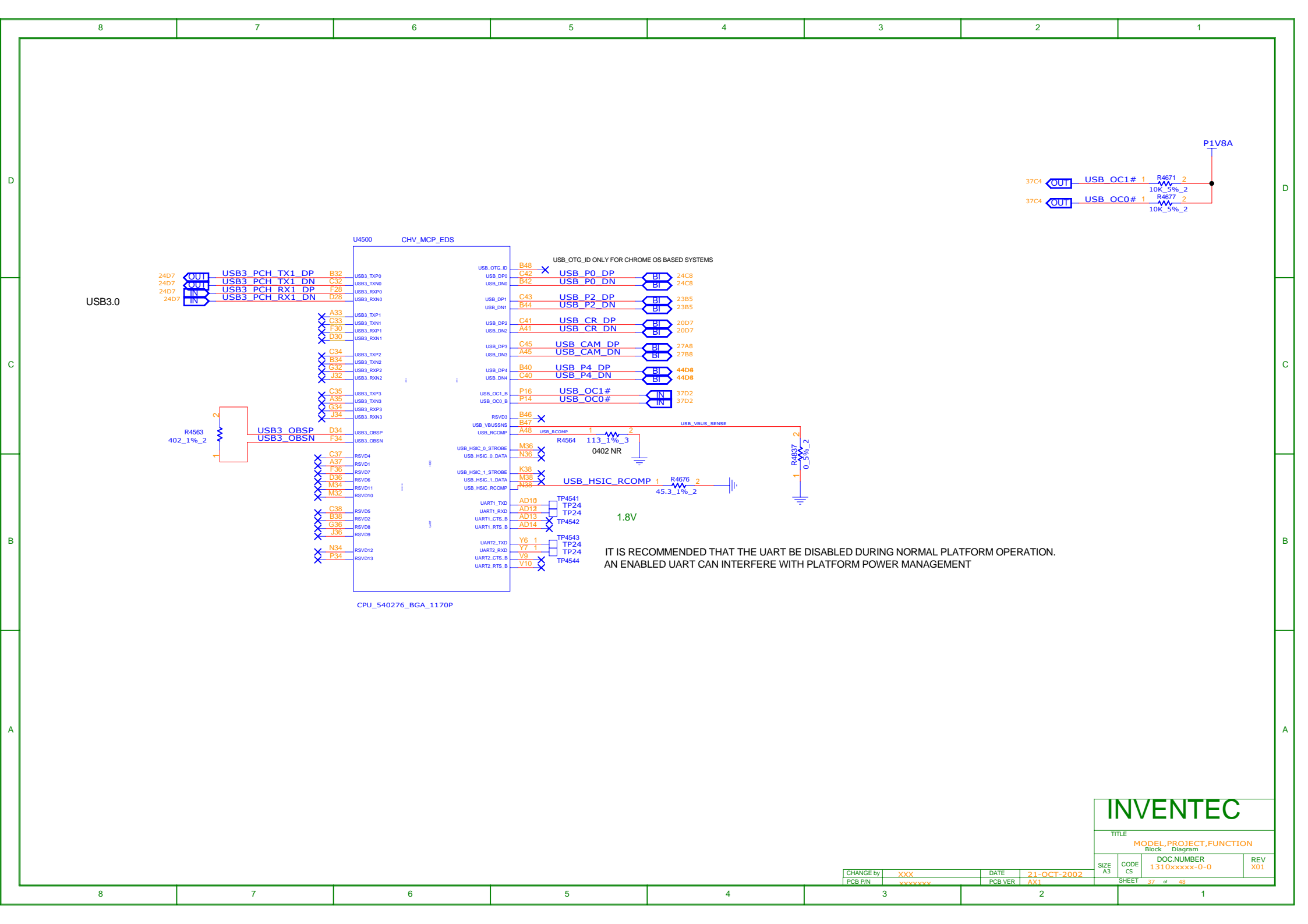
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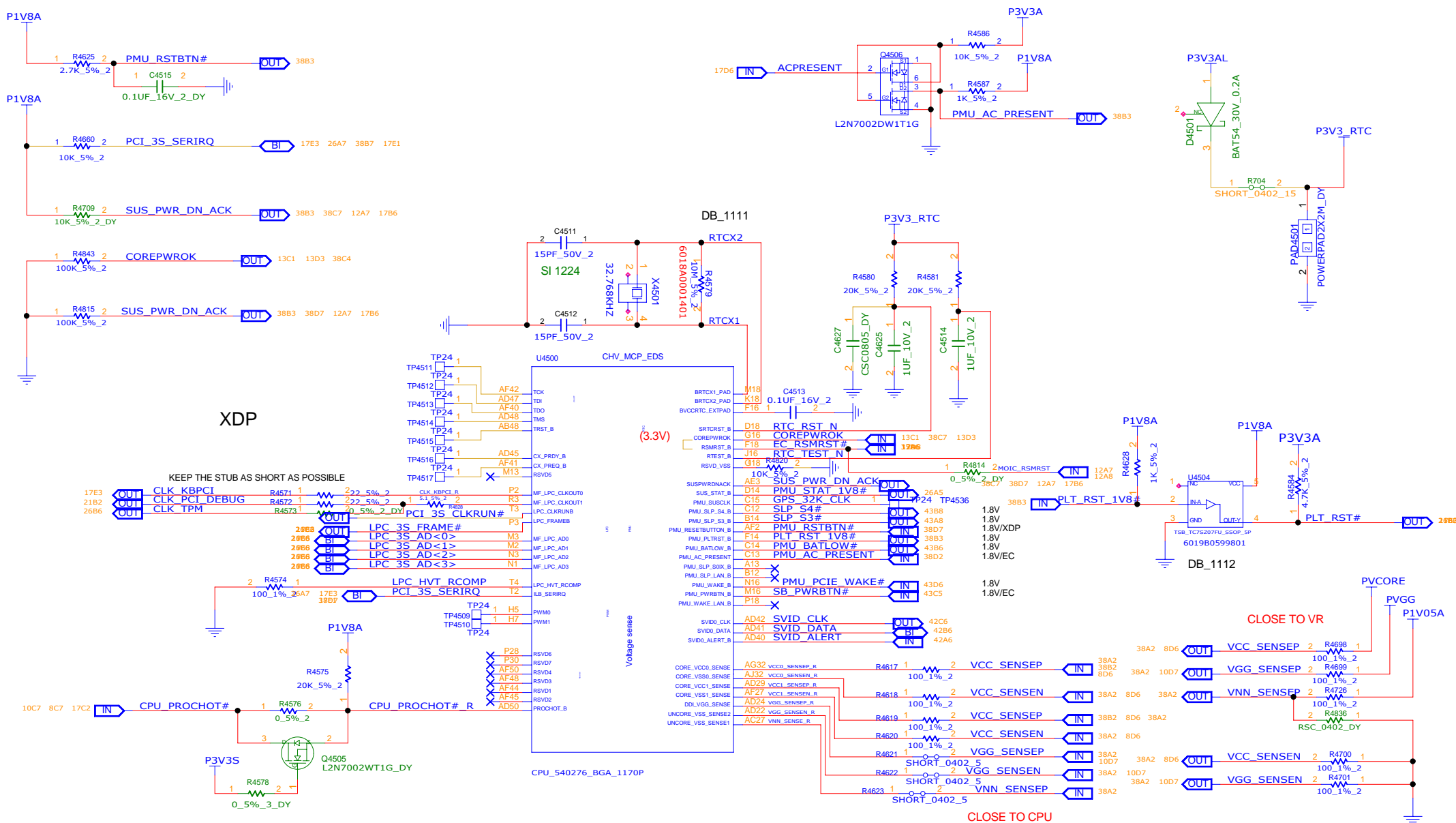


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| TITLE                  |      |          |  |
|------------------------|------|----------|--|
| MODEL,PROJECT,FUNCTION |      |          |  |
| Block Diagram          |      |          |  |
| DOC NUMBER             |      |          |  |
| 1310xxxxx-0-0          |      |          |  |
| REV                    |      |          |  |
| X01                    |      |          |  |
| SIZE                   | CODE | SHEET    |  |
| A3                     | CS   | of 36 48 |  |

|           |     |         |              |
|-----------|-----|---------|--------------|
| CHANGE by | XXX | DATE    |              |
| PCB P/N   | ENG | PCB VER | A71-OCT-2002 |



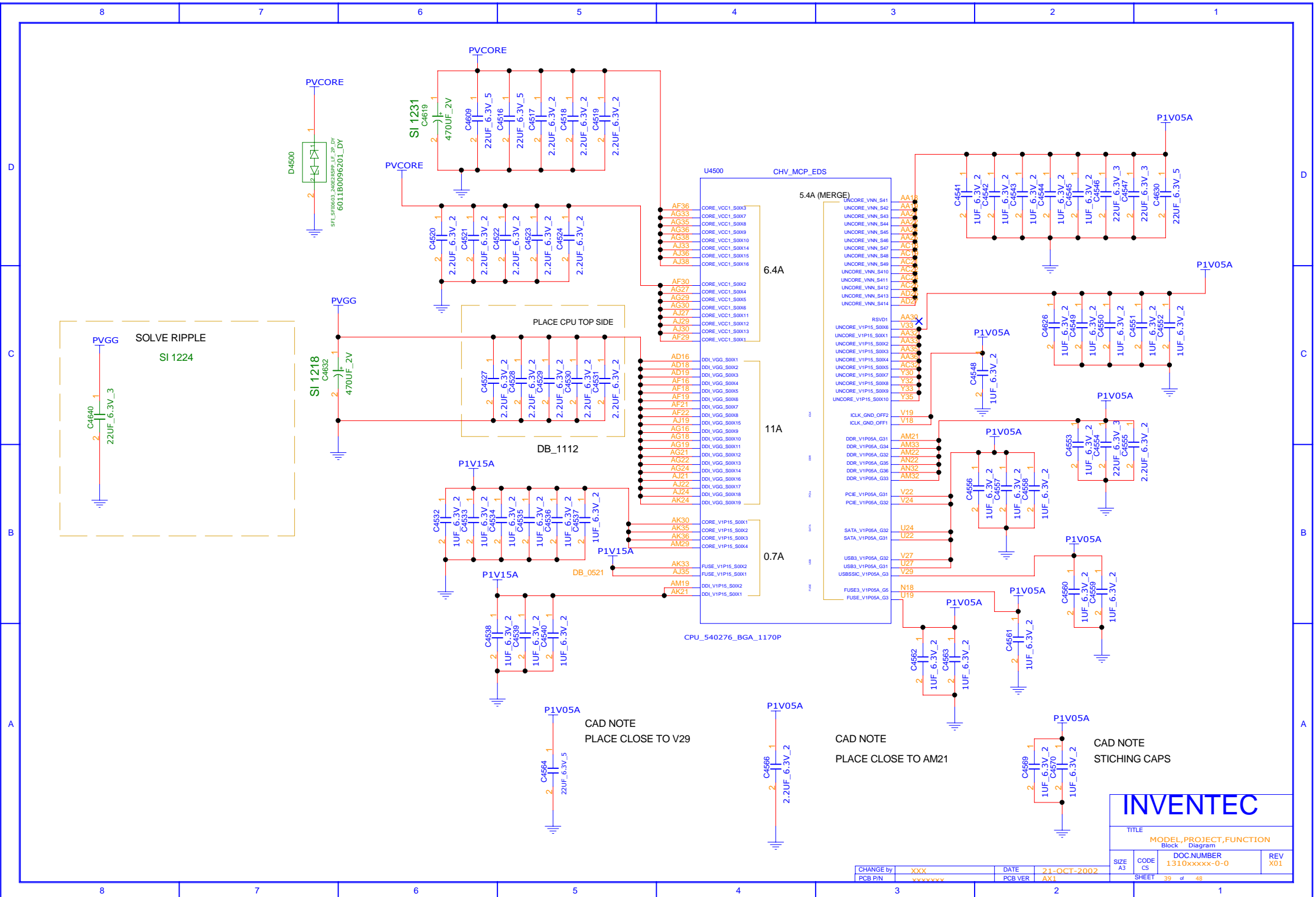


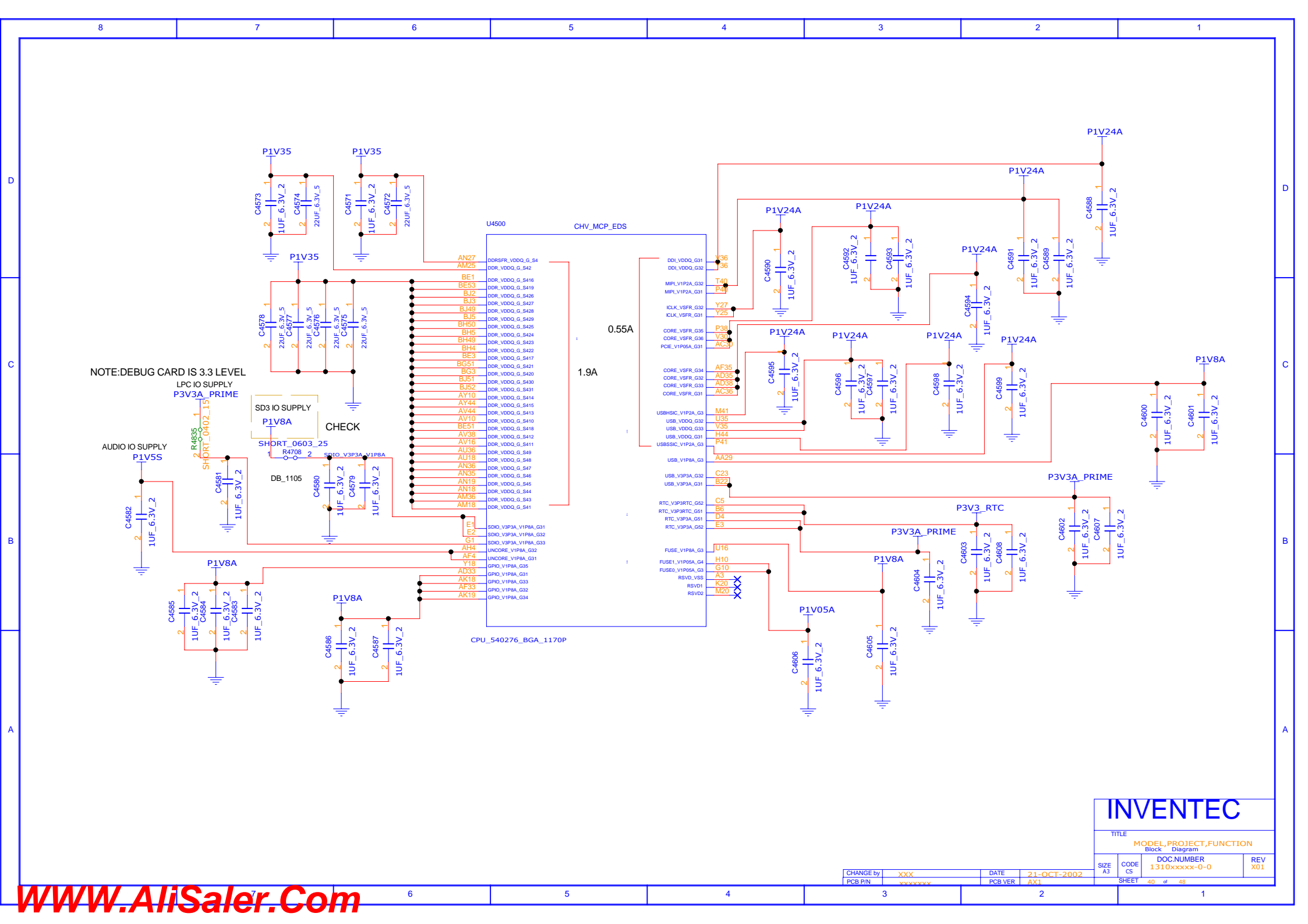
INVENTEC

| TITLE | MODEL, PROJECT, FUNCTION |
|-------|--------------------------|
|       | Block Diagram            |

|            |            |                             |        |
|------------|------------|-----------------------------|--------|
| SIZE<br>A3 | CODE<br>CS | DOC.NUMBER<br>1310xxxxx-0-0 | R<br>X |
|------------|------------|-----------------------------|--------|

|           |         |         |             |
|-----------|---------|---------|-------------|
| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |





NOTE:DEBUG CARD IS 3.3 LEVEL  
LPC IO SUPPLY  
P3V3A\_PRIME

AUDIO IO SUPPLY  
P1V5S

SD3 IO SUPPLY  
P1V8A

CHECK  
SHORT\_0603\_25

CPU\_540276\_BGA\_1170P

CHV\_MCP\_EDS

1.9A

0.55A

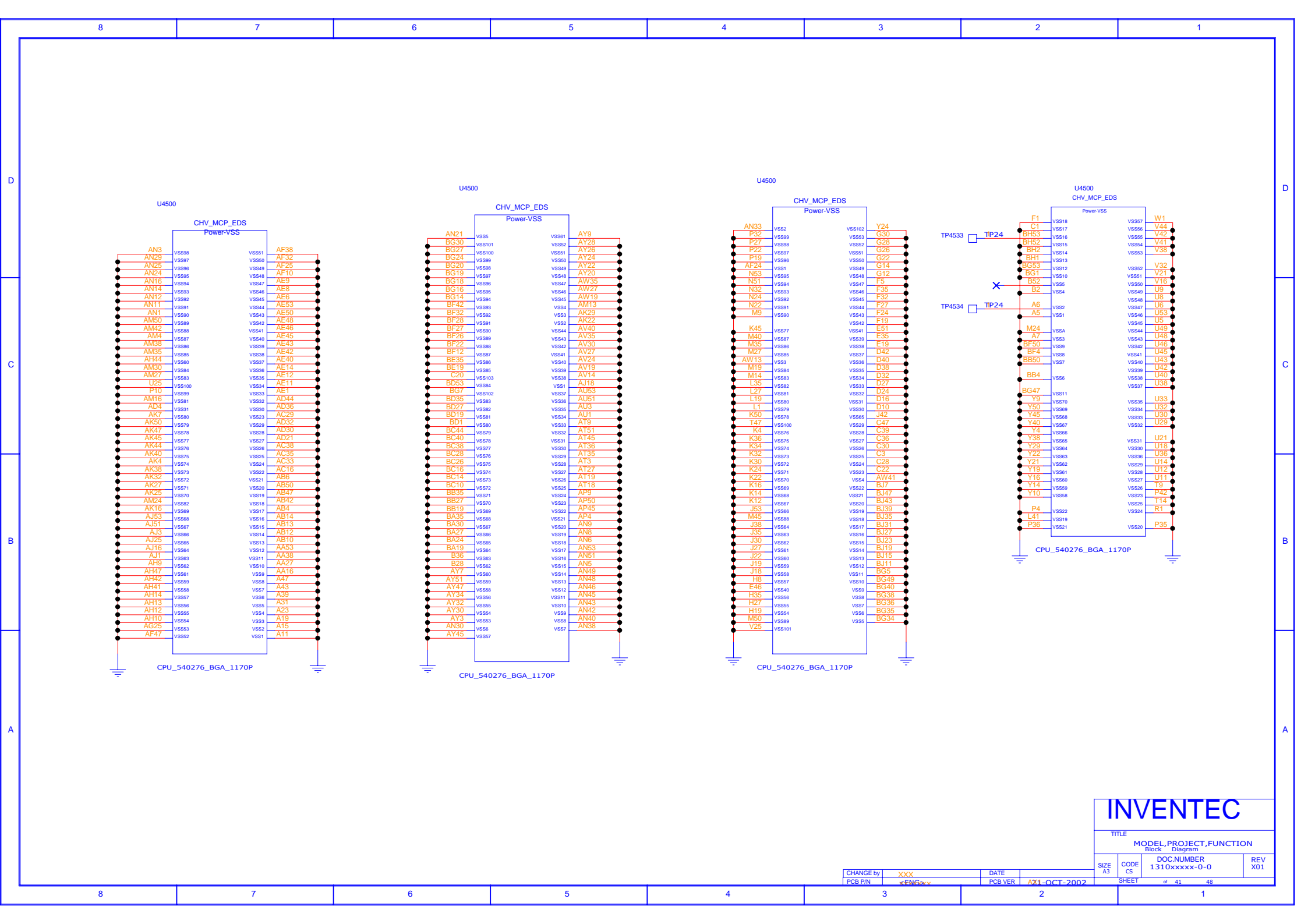
INVENTEC

TITLE  
MODEL,PROJECT,FUNCTION  
Block Diagram

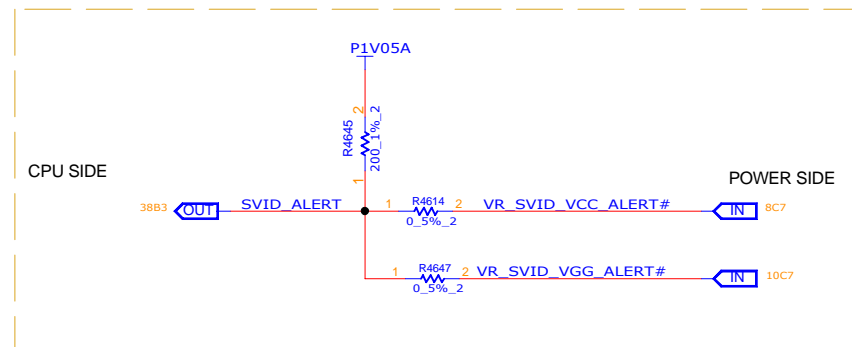
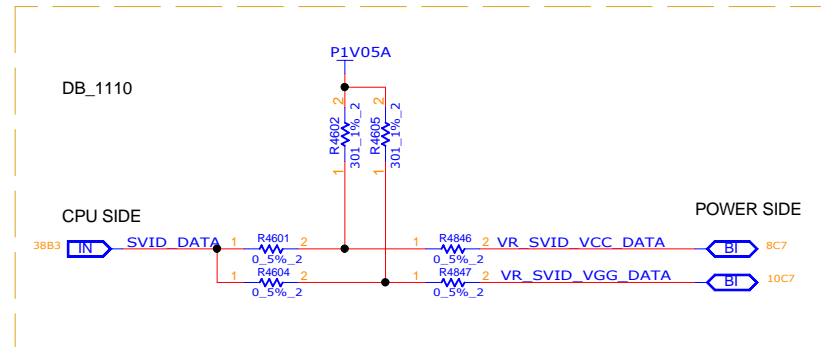
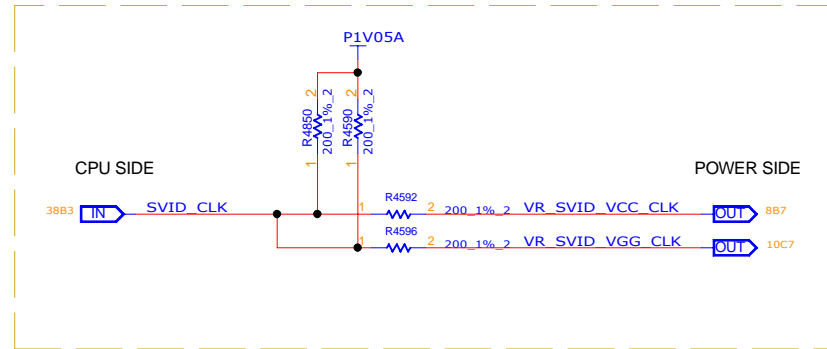
SIZE A3 CODE CS DOC NUMBER 1310xxxxx-0-0 REV X01  
SHEET 40 of 48

CHANGE by XXX DATE 21-OCT-2002  
PCB P/N xxxxxxxx PCB VER AX1





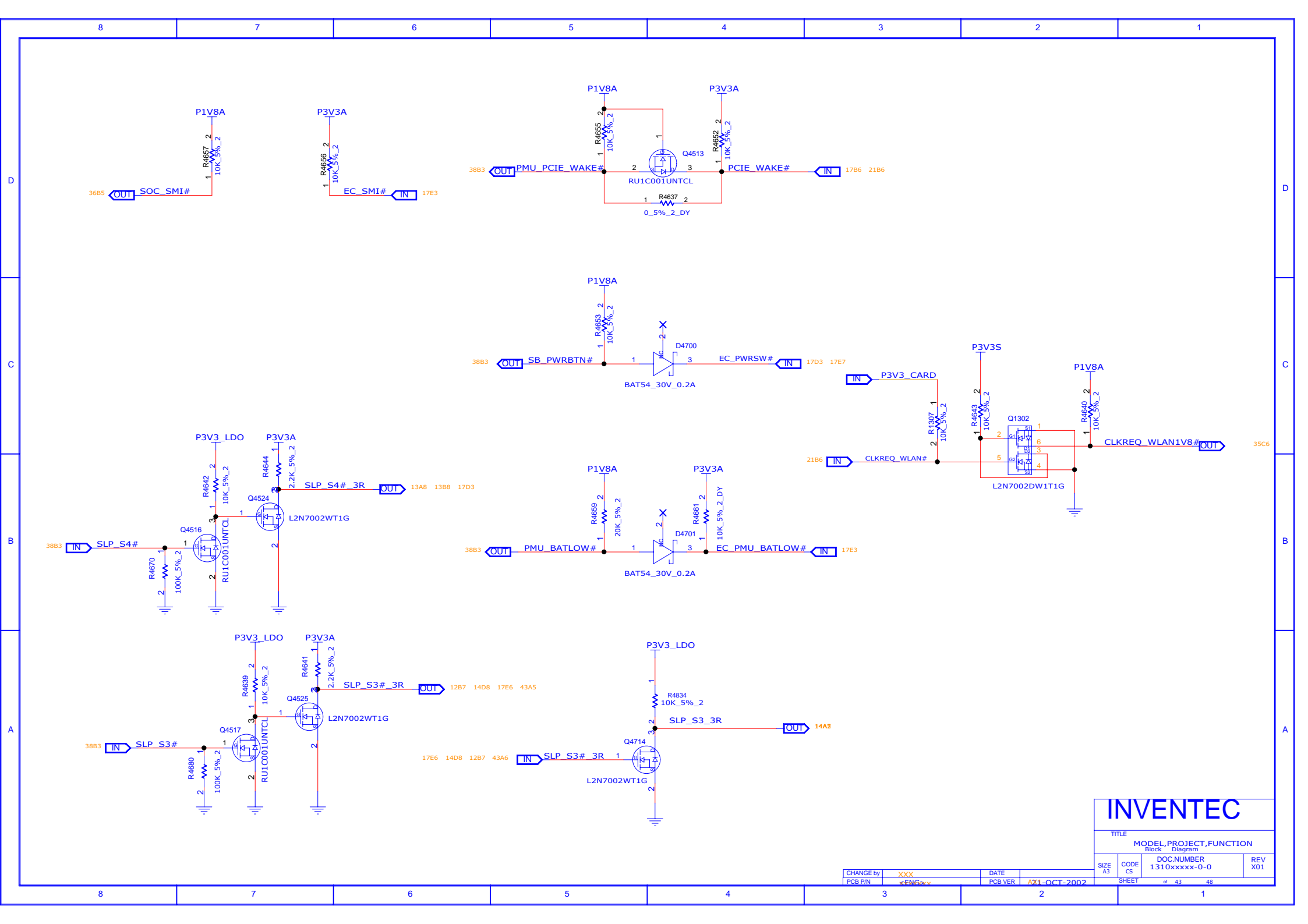
# SVID



INVENTEC

| TITLE                    |      |               |     |
|--------------------------|------|---------------|-----|
| MODEL, PROJECT, FUNCTION |      |               |     |
| Block Diagram            |      |               |     |
| SIZE                     | CODE | DOC NUMBER    | REV |
| A3                       | CS   | 1310xxxxx-0-0 | X01 |
| SHEET 42 of 48           |      |               |     |

|           |         |         |             |
|-----------|---------|---------|-------------|
| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |



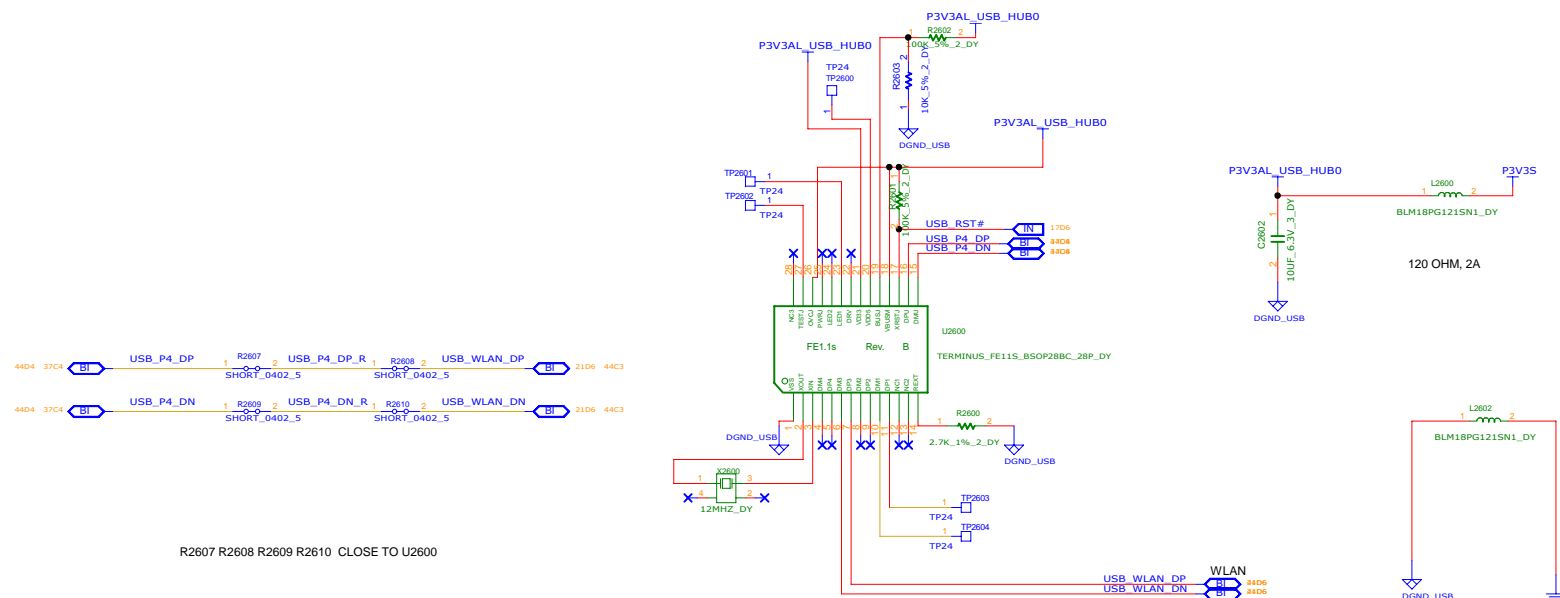
INVENTEC

TITLE  
MODEL,PROJECT,FUNCTION  
Block Diagram

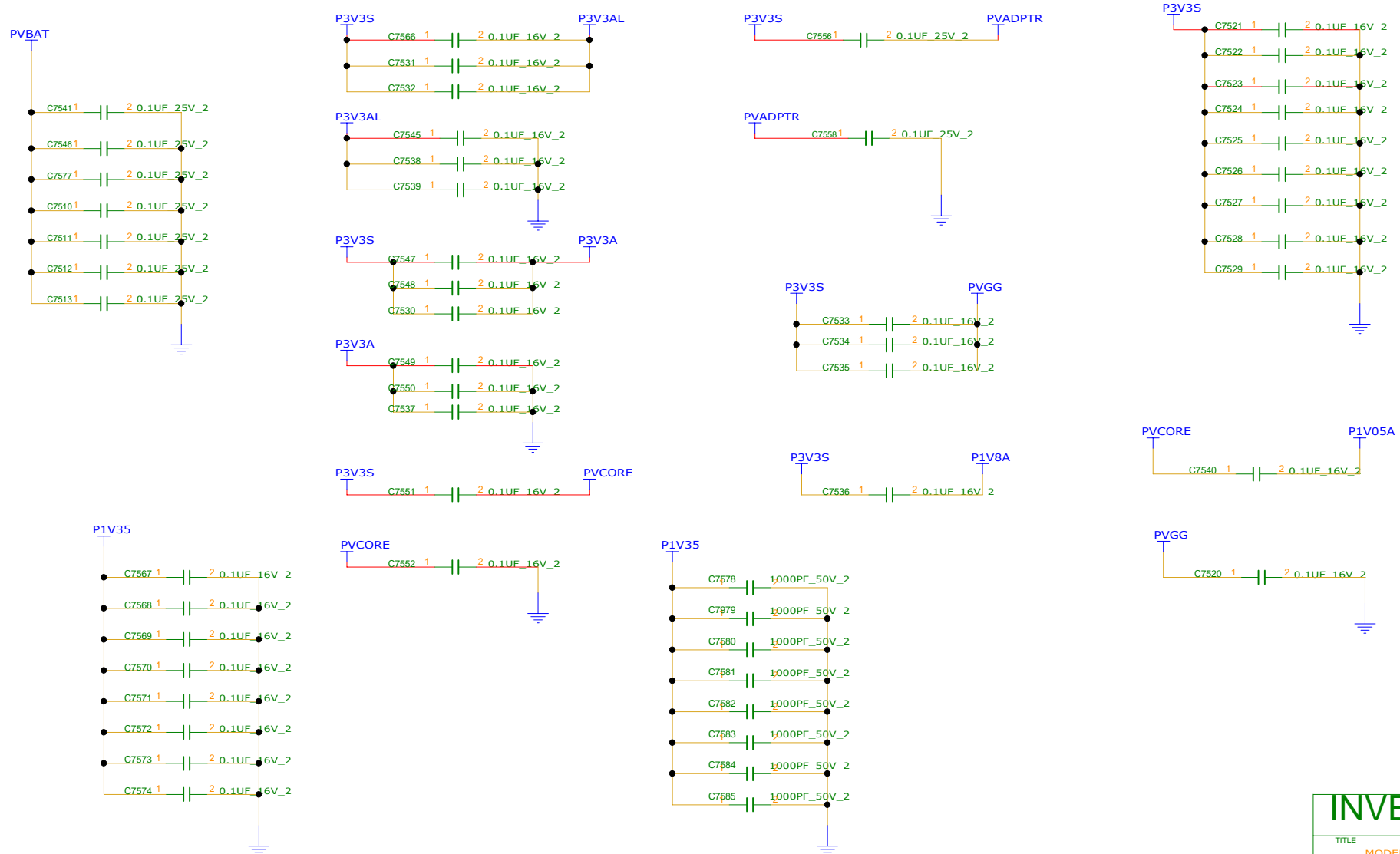
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|------------|------------|-----------------------------|------------|
| SIZE<br>A3 | CODE<br>CS | DOC NUMBER<br>1310xxxxx-0-0 | REV<br>X01 |
| SHEET      |            | of 43 48                    |            |

|                      |            |                 |              |
|----------------------|------------|-----------------|--------------|
| CHANGE by<br>PCB P/N | XXX<br>ENG | DATE<br>PCB VER | A71-OCT-2002 |
|----------------------|------------|-----------------|--------------|

# USB2.0 HUB



# EMI

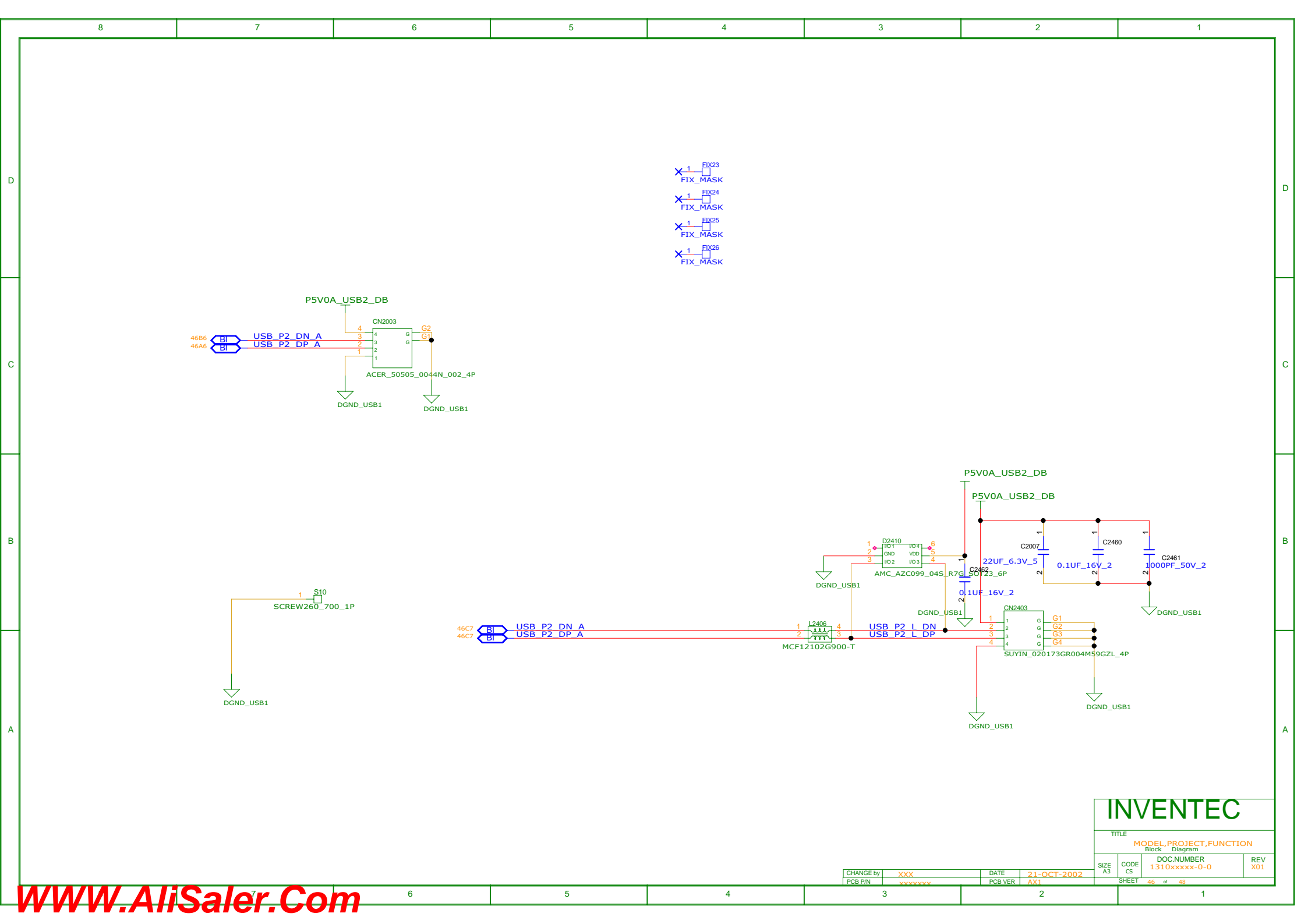


INVENTEC

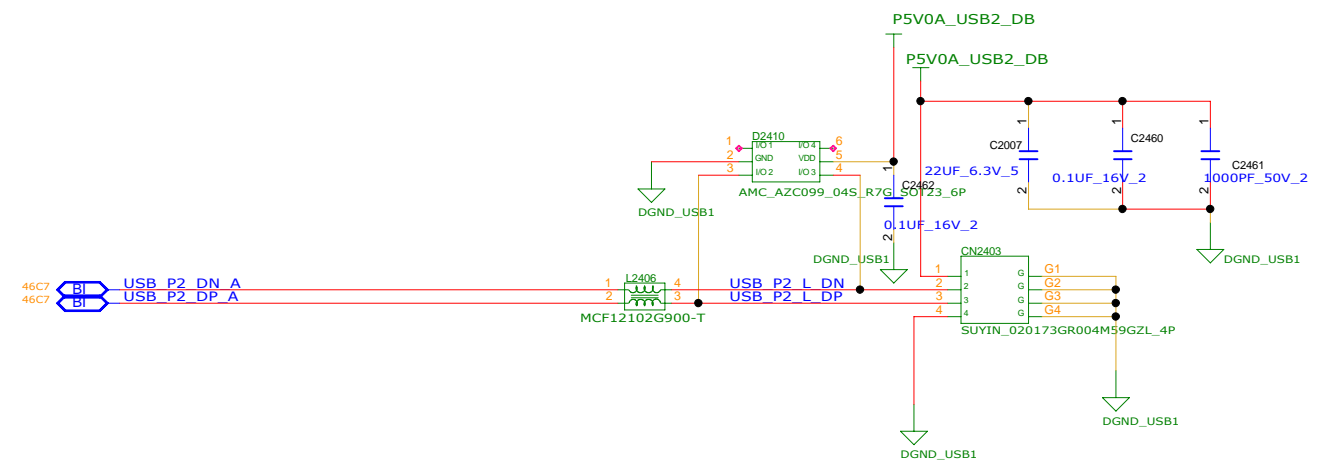
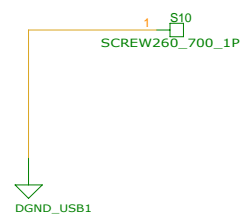
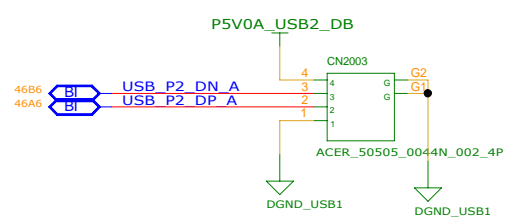
TITLE  
MODEL, PROJECT, FUNCTION  
Block Diagram

|            |            |                             |            |
|------------|------------|-----------------------------|------------|
| SIZE<br>A3 | CODE<br>CS | DOC NUMBER<br>1310xxxxx-0-0 | REV<br>X01 |
| SHEET      |            | 45 of 48                    |            |

|                      |                |                 |                    |
|----------------------|----------------|-----------------|--------------------|
| CHANGE by<br>PCB P/N | XXX<br>xxxxxxx | DATE<br>PCB VER | 21-OCT-2002<br>AX1 |
|----------------------|----------------|-----------------|--------------------|

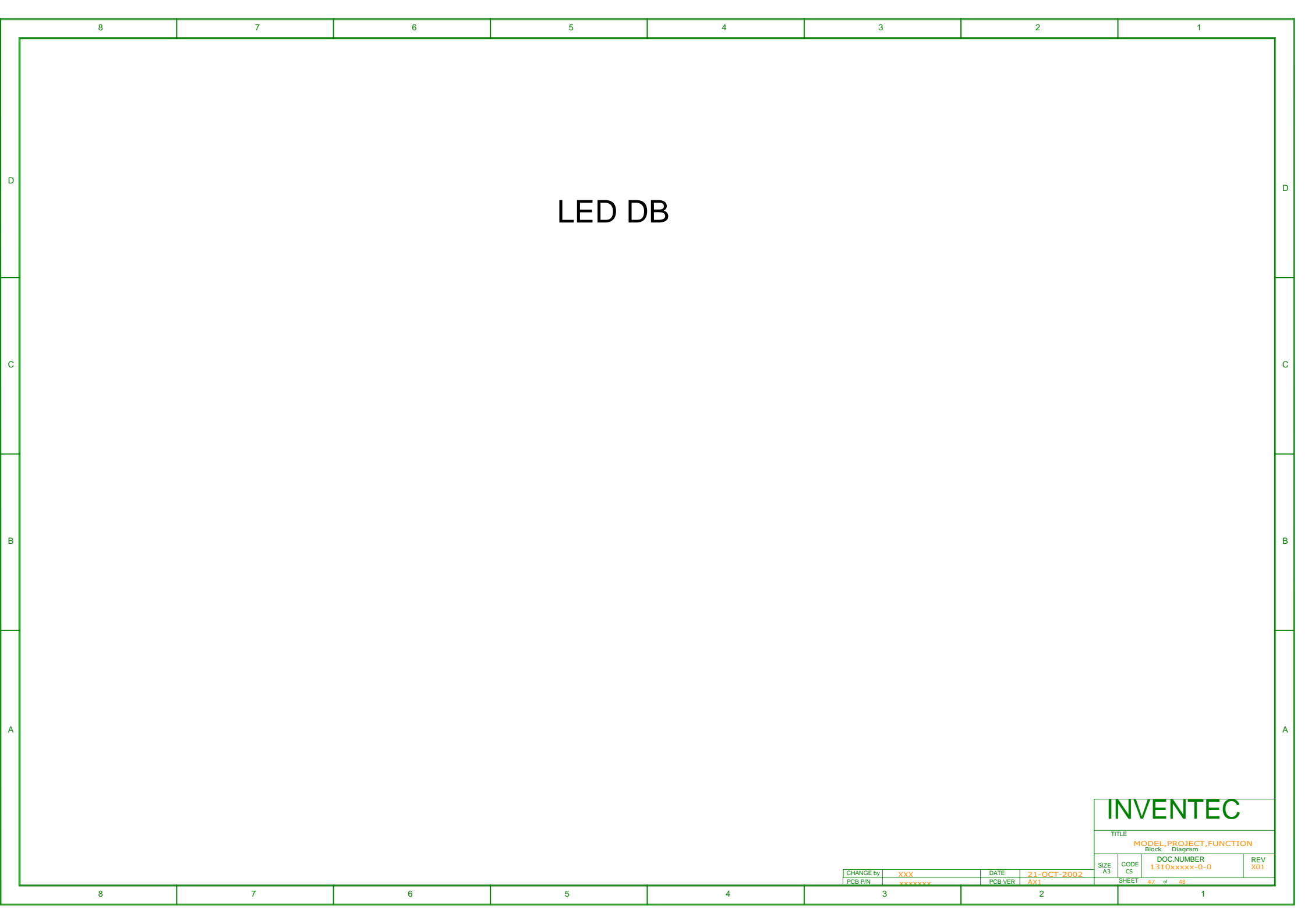


1 FIX23  
FIX\_MASK  
1 FIX24  
FIX\_MASK  
1 FIX25  
FIX\_MASK  
1 FIX26  
FIX\_MASK



| INVENTEC               |      |               |     |
|------------------------|------|---------------|-----|
| TITLE                  |      |               |     |
| MODEL,PROJECT,FUNCTION |      |               |     |
| Block Diagram          |      |               |     |
| SIZE                   | CODE | DOC NUMBER    | REV |
| A3                     | CS   | 1310xxxxx-0-0 | X01 |
| SHEET 46 of 48         |      |               |     |

|           |         |         |             |
|-----------|---------|---------|-------------|
| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |



# LED DB

INVENTEC

TITLE

MODEL,PROJECT,FUNCTION  
Block Diagram

SIZE  
A3

CODE  
CS

DOC NUMBER  
1310xxxxx-0-0

REV  
X01

SHEET 47 of 48

|           |         |         |             |
|-----------|---------|---------|-------------|
| CHANGE by | XXX     | DATE    | 21-OCT-2002 |
| PCB P/N   | xxxxxxx | PCB VER | AX1         |

