

**WHITNEY**

**WS**  
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**2010.03.30**

| INVENTEC      |         |             |         |
|---------------|---------|-------------|---------|
| TITLE Whitney |         |             |         |
| SIZE A3       | CODE CS | DOC. NUMBER | REV X01 |
| CHANGE by Jun |         | 31-Mar-2010 |         |
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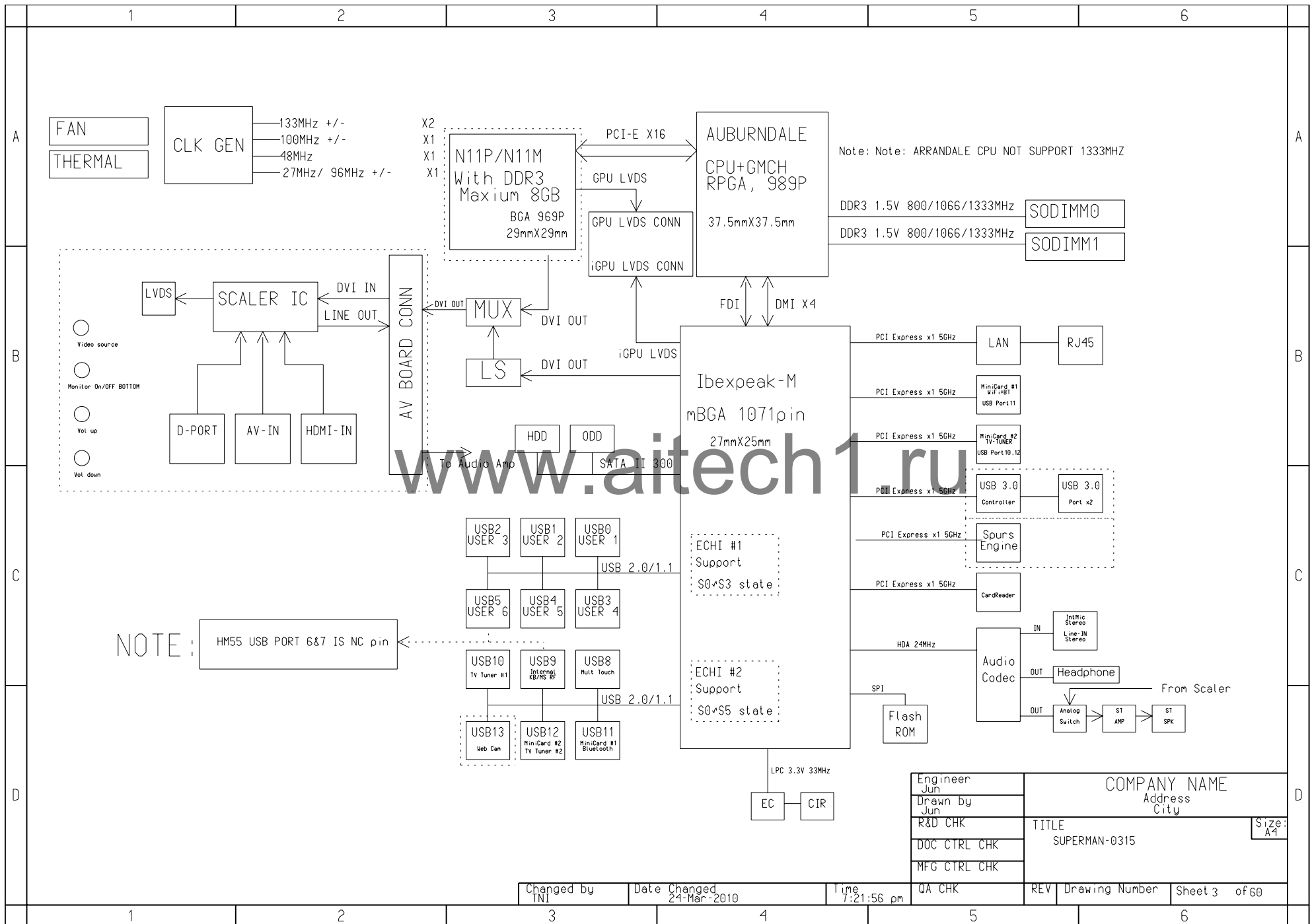
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**INVENTEC**

|                            |                |             |                |
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| TITLE <b>Whitney Index</b> |                |             |                |
| SIZE <b>A3</b>             | CODE <b>CS</b> | DOC. NUMBER | REV <b>X01</b> |
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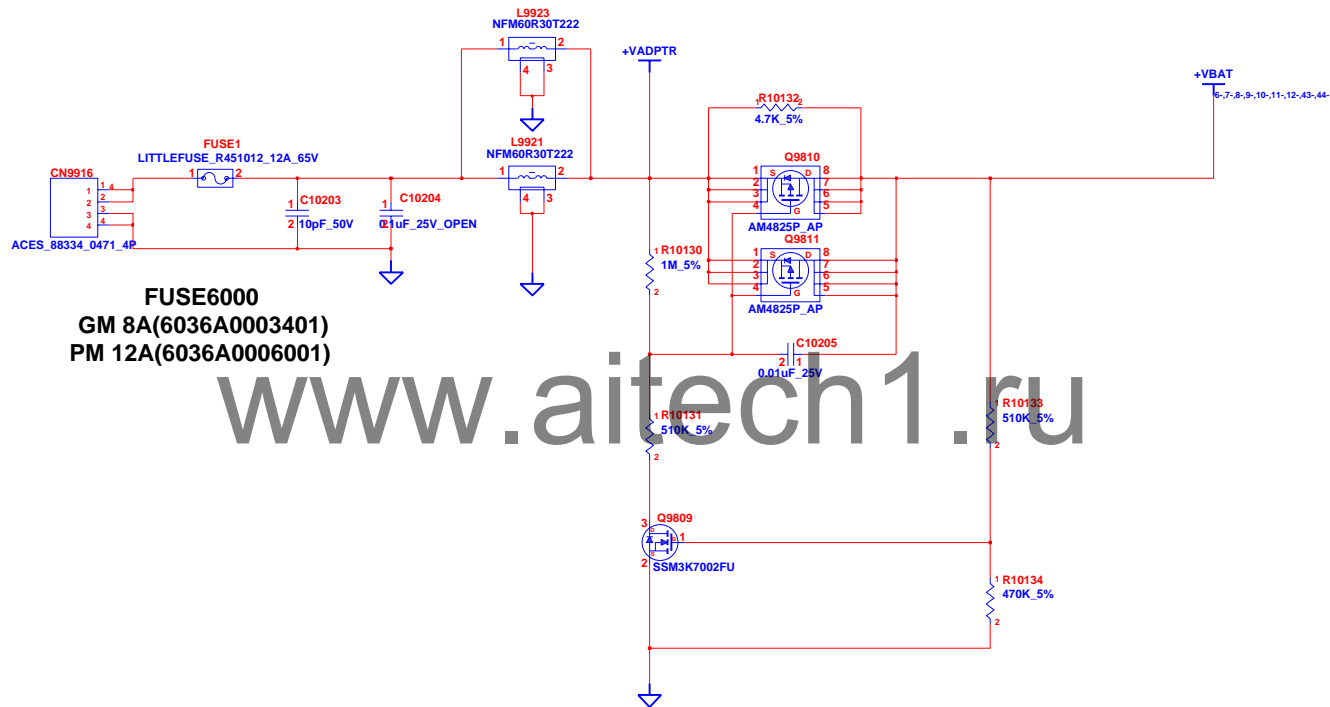
8



|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |
| A |   |   |   |   |   |   |   |   | A |
| B |   |   |   |   |   |   |   |   | B |
| C |   |   |   |   |   |   |   |   | C |
| D |   |   |   |   |   |   |   |   | D |
| E |   |   |   |   |   |   |   |   | E |
| F |   |   |   |   |   |   |   |   | F |
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |

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|   |                   |             |                   |
|---|-------------------|-------------|-------------------|
| <b>INVENTEC</b>                                     |                   |             |                   |
| TITLE <b>Whitney</b><br><b>Power Sequence Block</b> |                   |             |                   |
| SIZE<br><b>A3</b>                                   | CODE<br><b>CS</b> | DOC. NUMBER | REV<br><b>X01</b> |
| CHANGE by <i>Jun</i>                                |                   | 16-Mar-2010 |                   |
| SHEET   |                   | 4           | OF 60             |



**FUSE6000**  
**GM 8A(6036A0003401)**  
**PM 12A(6036A0006001)**

**INVENTEC**

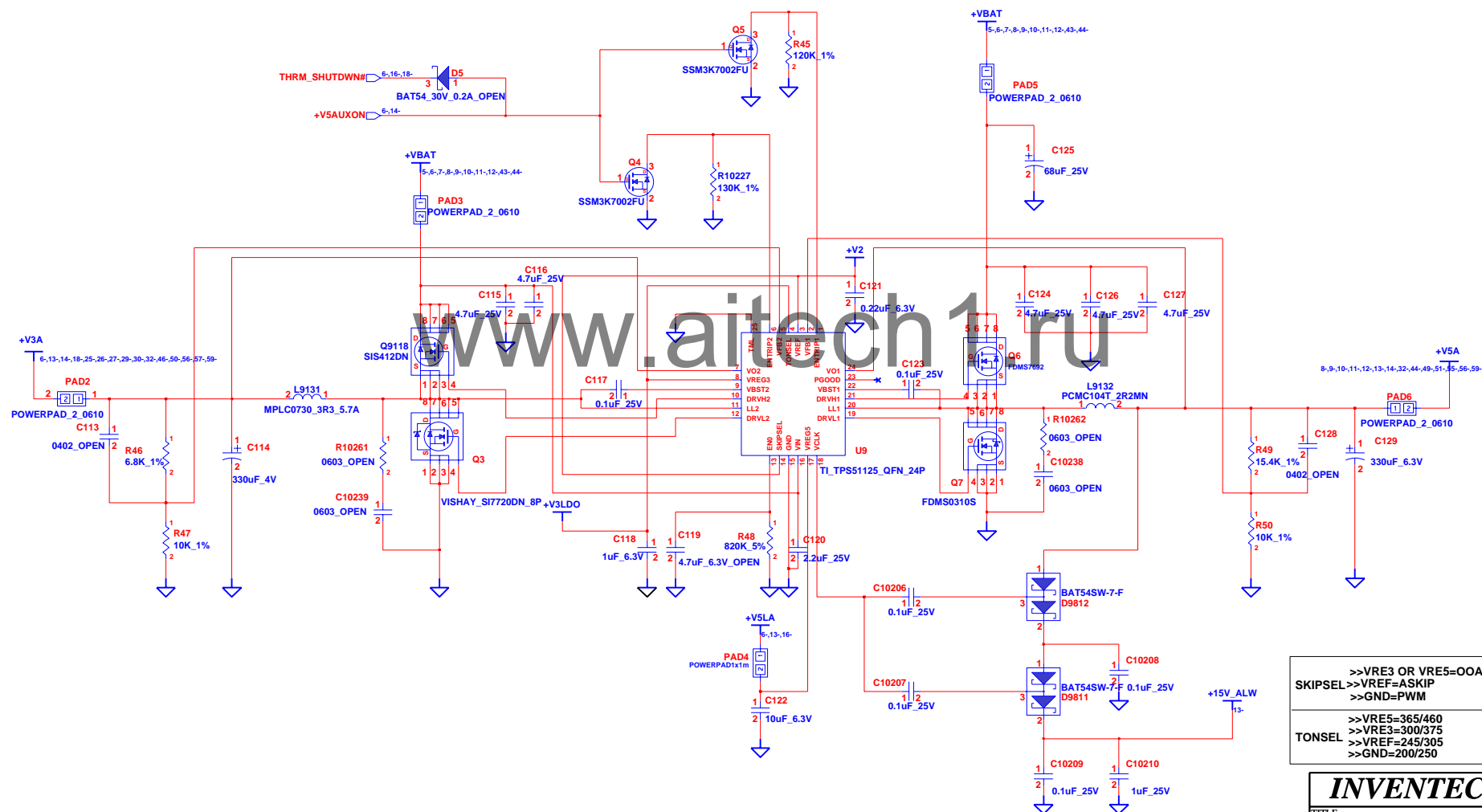
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| DC-JACK              |                |             |                |
| SIZE <b>A3</b>       | CODE <b>CS</b> | DOC. NUMBER | REV <b>X01</b> |
| SHEET                |                | 5 OF        | 60             |

CHANGE by *Jun* 16-Mar-2010

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**+V3LA +V3A +V5A**



|        |   |
|--------|---|
|        | >>VRE3 OR VRE5=OOA<br>SKIPSEL>>VREF=ASKIP<br>>>GND=PWM              |
| TONSEL | >>VRE5=365/460<br>>>VRE3=300/375<br>>>VREF=245/305<br>>>GND=200/250 |

**INVENTEC**

|                                     |           |             |            |
|-------------------------------------|-----------|-------------|------------|
| TITLE                               |           |             |            |
| <b>Whitney</b><br>+V3LA, +V3A, +V5A |           |             |            |
| SIZE                                | CODE      | DOC. NUMBER | REV        |
| <b>A3</b>                           | <b>CS</b> |             | <b>X01</b> |

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|-----------|------------|--------------------|
| CHANGE by | <i>Jun</i> | <i>19-Mar-2010</i> |
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**+VTT +V1.05S**

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TITLE: Whitney  
+VTT, +V1.05S

|            |            |             |            |
|------------|------------|-------------|------------|
| SIZE<br>A3 | CODE<br>CS | DOC. NUMBER | REV<br>X01 |
| SHEET 9    |            | OF 60       |            |

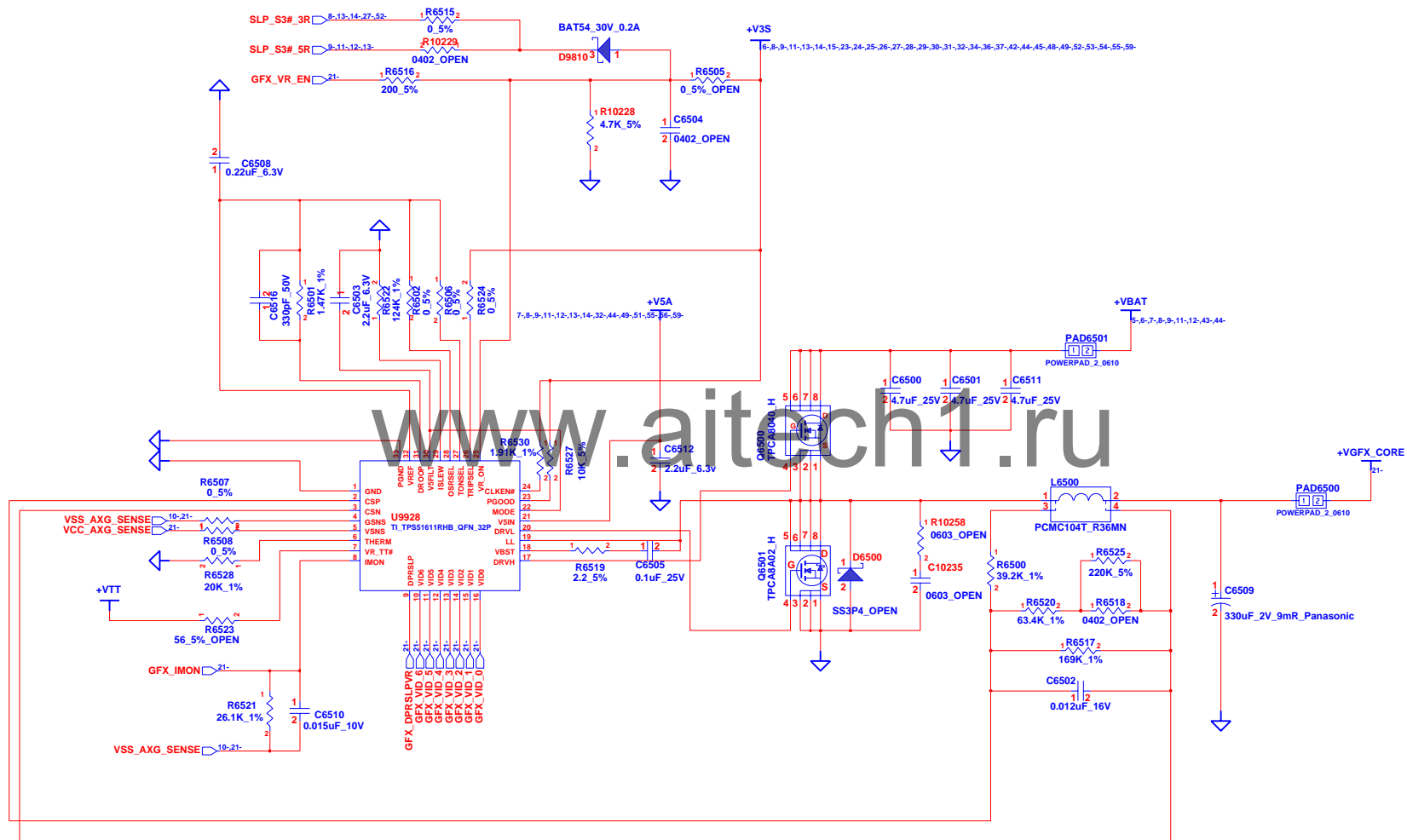
CHANGE by Jun 26-Mar-2010

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|  |                   |             |                   |
|--|-------------------|-------------|-------------------|
| TITLE <b>Whitney</b><br><b>+VTT, +V1.05S</b> |                   |             |                   |
| SIZE<br><b>A3</b>                            | CODE<br><b>CS</b> | DOC. NUMBER | REV<br><b>X01</b> |
| SHEET  |                   | 9           | OF 60             |

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|-----------|-----|-------------|
| CHANGE by | Jun | 26-Mar-2010 |
|-----------|-----|-------------|

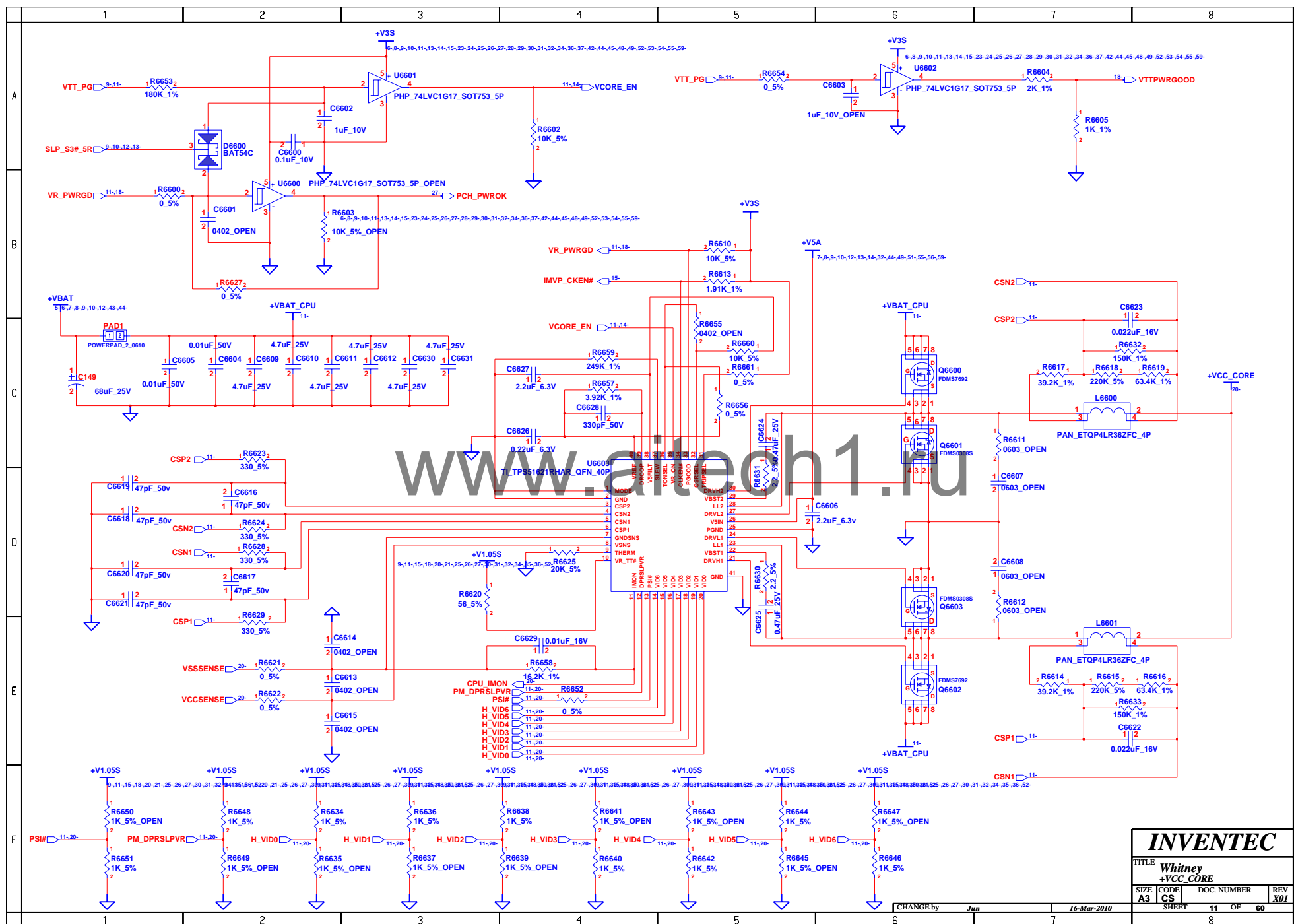
UMA : STUFF  
DISCRETE : OPEN

**INVENTEC**

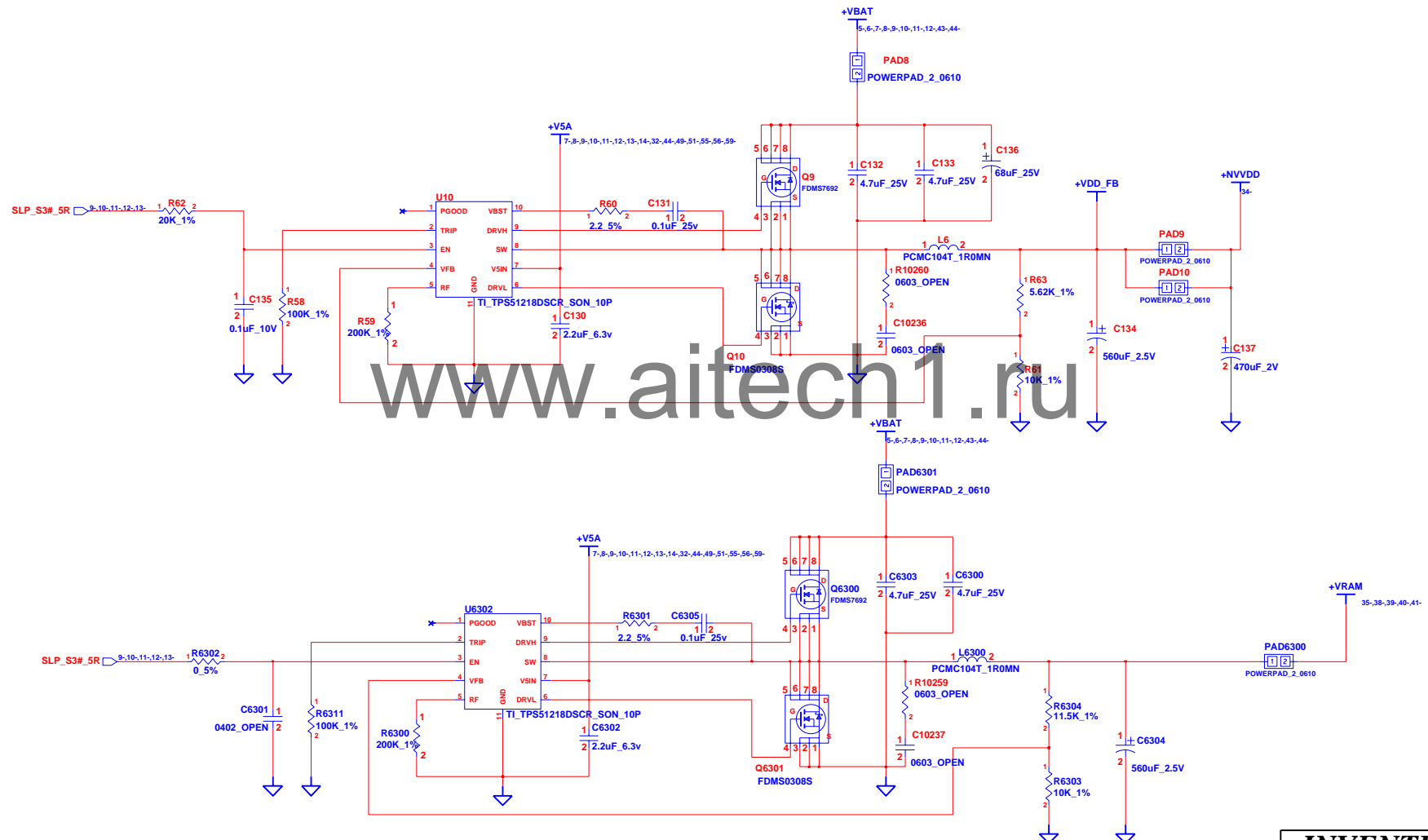
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| Whitney<br>+VGFX_CORE |      |             |     |
| SIZE                  | CODE | DOC. NUMBER | REV |
| A3                    | CS   |             | X01 |

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|-----------|-----|-------------|
| CHANGE by | Jun | 16-Mar-2010 |
|-----------|-----|-------------|

|    |    |   |
|----|----|---|
| 10 | OF | 6 |
| 8  |    |   |



# UMA OPEN +GPU\_VDD +VRAM

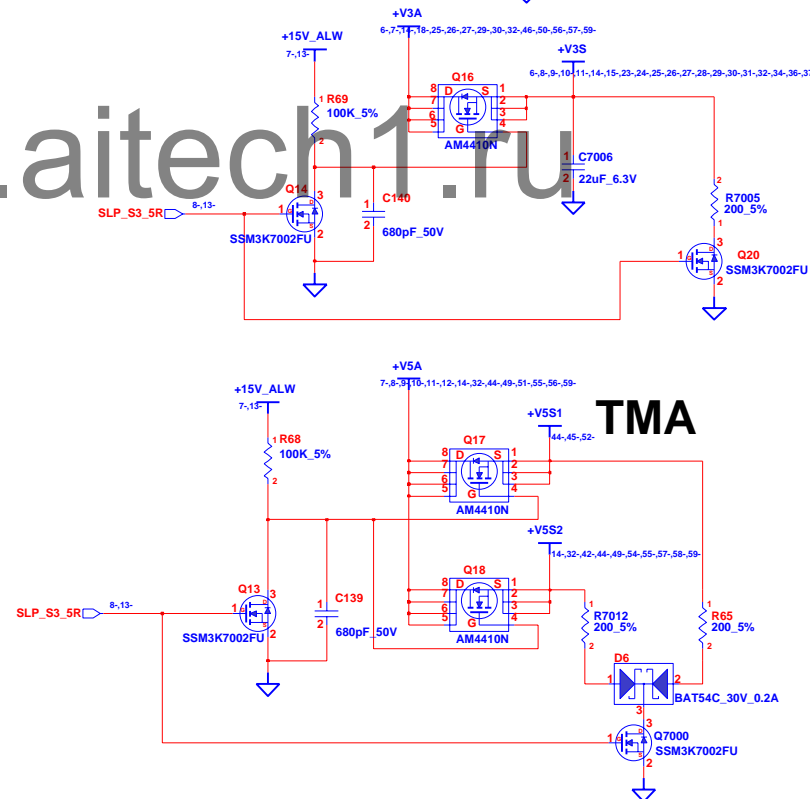
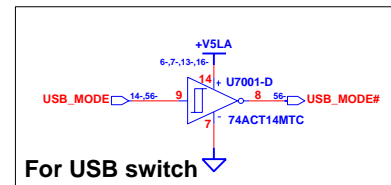
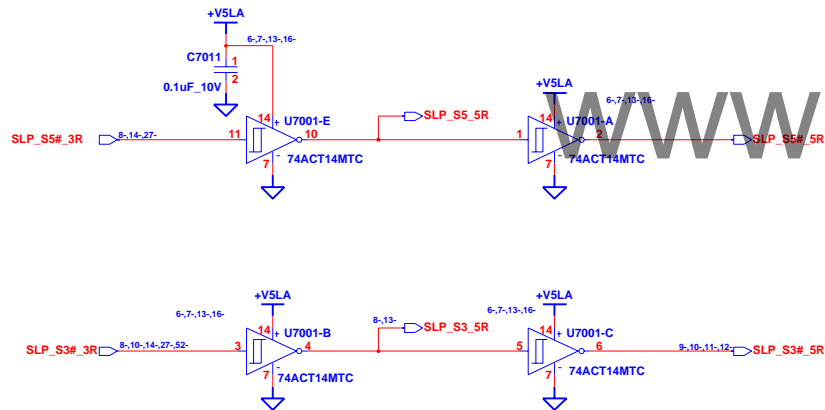
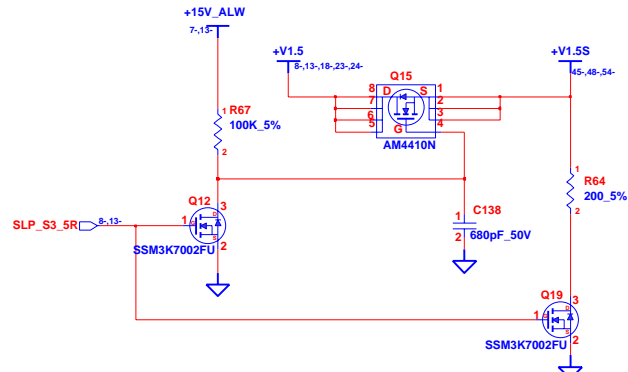
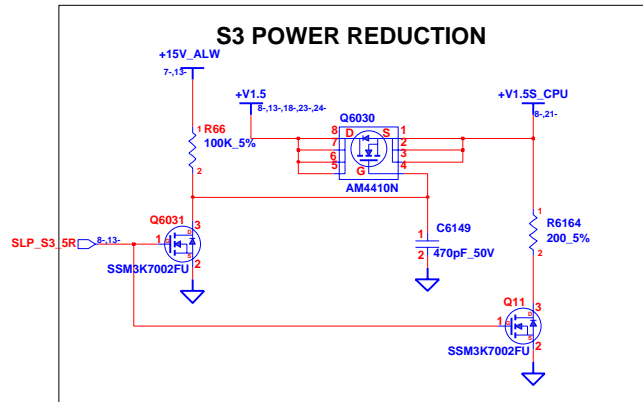


**INVENTEC**

|                         |                   |             |                   |
|-------------------------|-------------------|-------------|-------------------|
| TITLE<br><b>Whitney</b> |                   |             |                   |
| GPU VCC                 |                   |             |                   |
| SIZE<br><b>A3</b>       | CODE<br><b>CS</b> | DOC. NUMBER | REV<br><b>X01</b> |
| SHEET                   |                   | 12 OF       | 60                |

CHANGE by Jun 16-Mar-2010

# +V3S +V1.5S1 V5S2 +V1.5S\_CPU



| INVENTEC                |         |             |         |
|-------------------------|---------|-------------|---------|
| TITLE Whitney           |         |             |         |
| +V5S1 +V5S2 +V3S +V1.5S |         |             |         |
| SIZE A3                 | CODE CS | DOC. NUMBER | REV X01 |
| SHEET                   |         | 13 OF       | 60      |

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1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

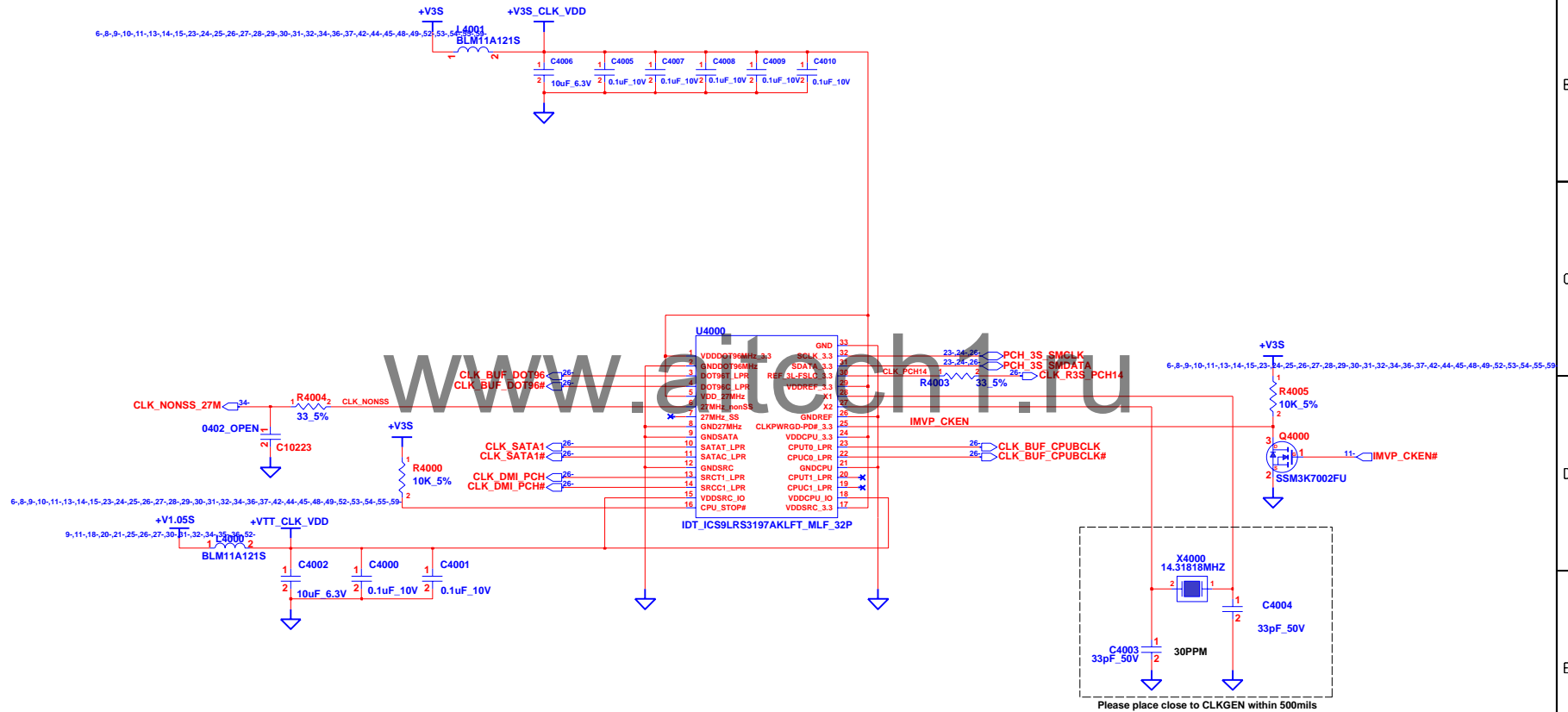
B

C

D

E

F

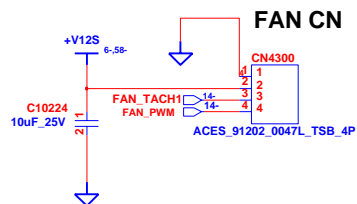


**INVENTEC**

|  |                   |             |                   |
|--|-------------------|-------------|-------------------|
| TITLE<br><b>Whitney</b><br>Clock Generator |                   |             |                   |
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| SHEET                                      |                   | 15 OF       | 60                |

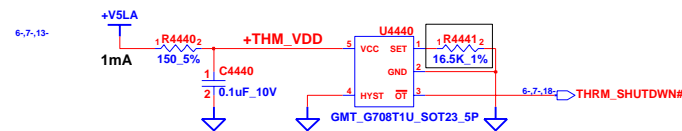
CHANGE by Jun 16-Mar-2010

1 2 3 4 5 6 7 8



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#### Board Thermal Sensor



Thermal shutdown at 98 C° +/- 3 C° from 60 C° to 100 C°

$$RSET = 0.0012 * T^2 - 0.9308 * T + 96.147$$

Hysteresis is 30C

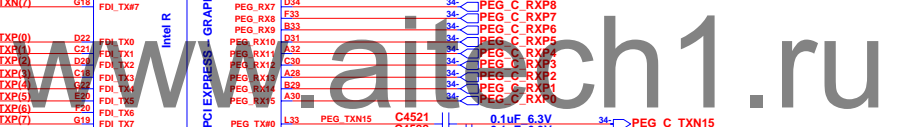
**INVENTEC**

|                         |      |             |     |
|-------------------------|------|-------------|-----|
| TITLE                   |      |             |     |
| Whitney                 |      |             |     |
| FAN, Thermal controller |      |             |     |
| SIZE                    | CODE | DOC. NUMBER | REV |
| A3                      | CS   |             | X01 |

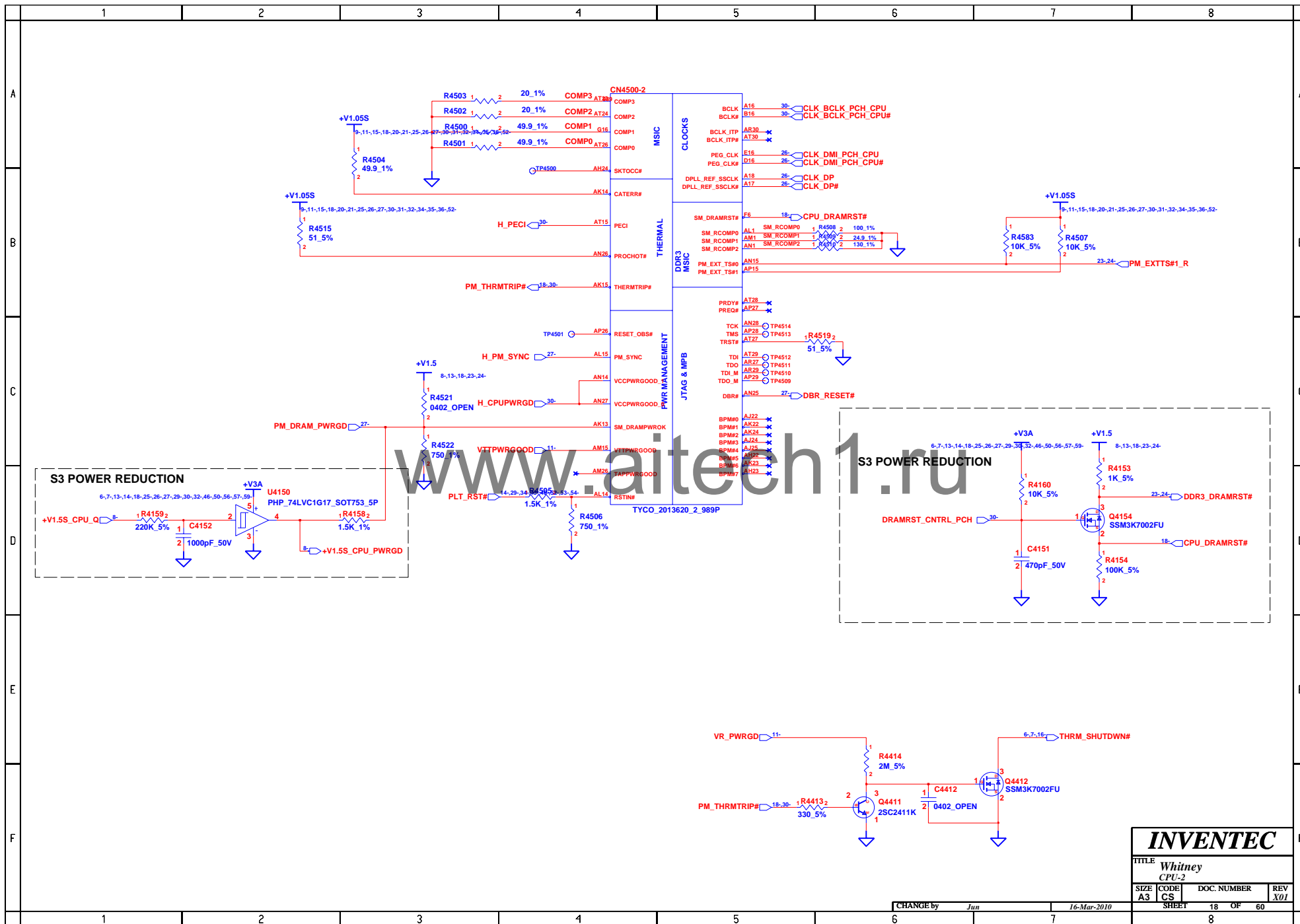
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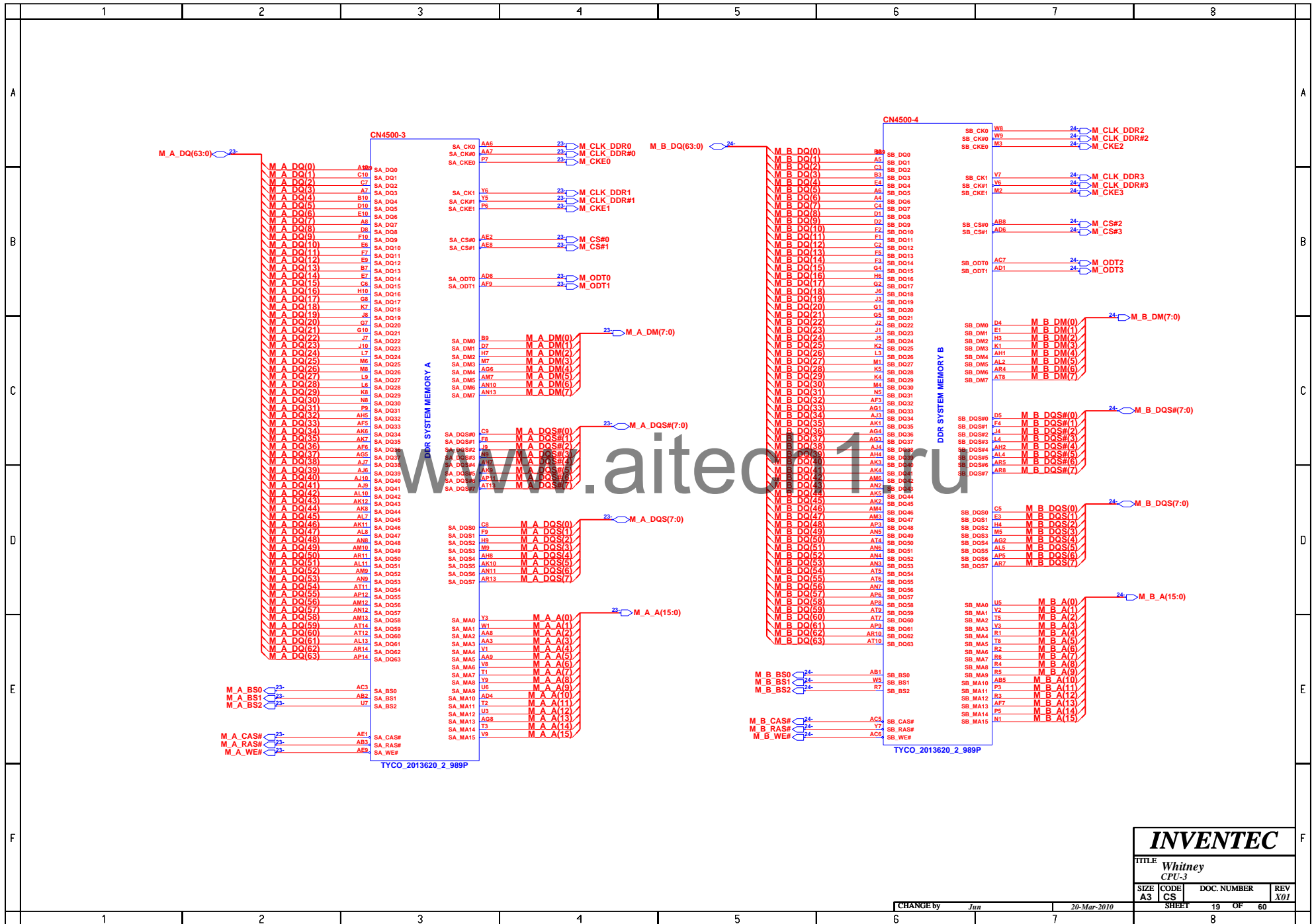
SHEET 16 OF 60

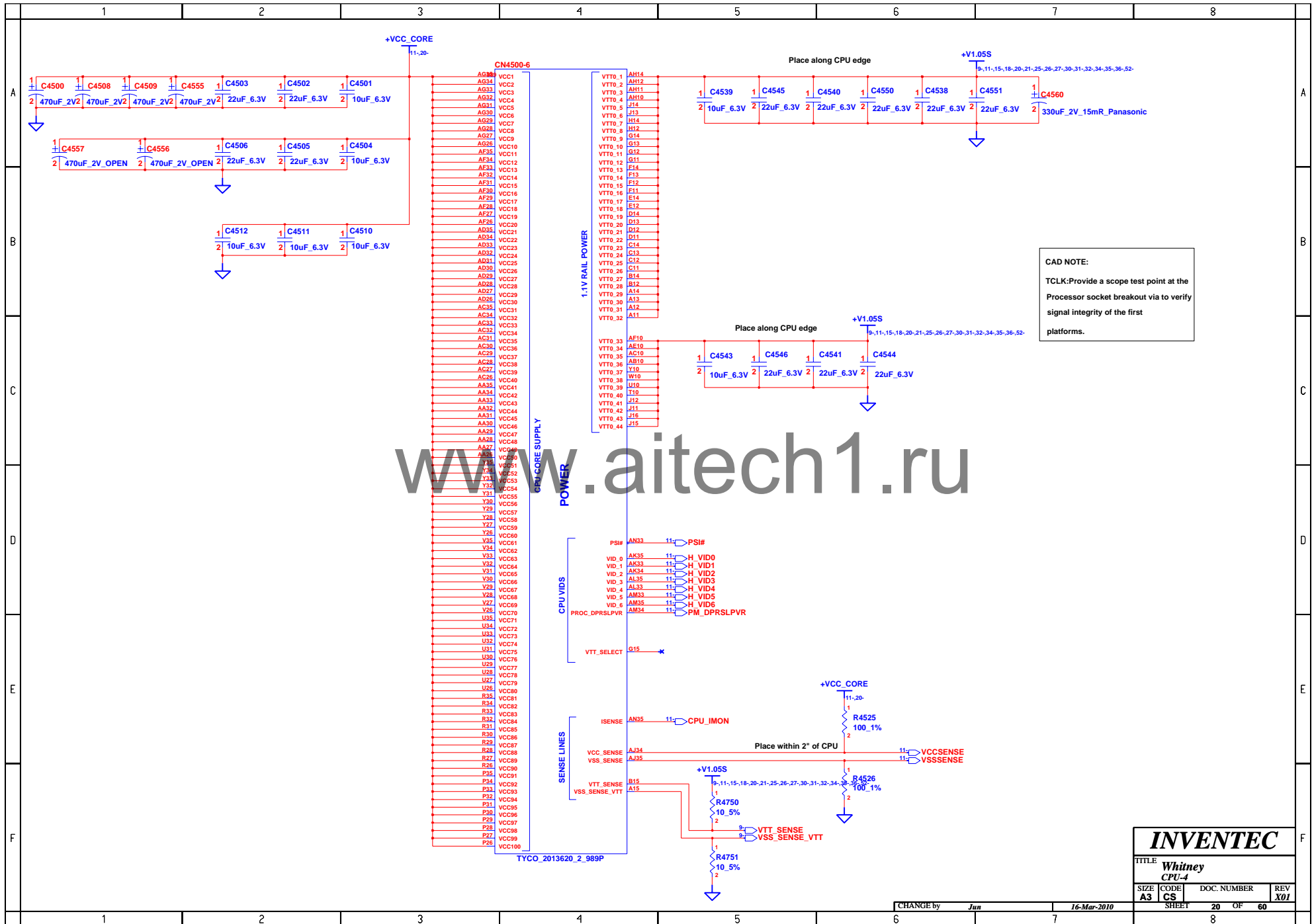


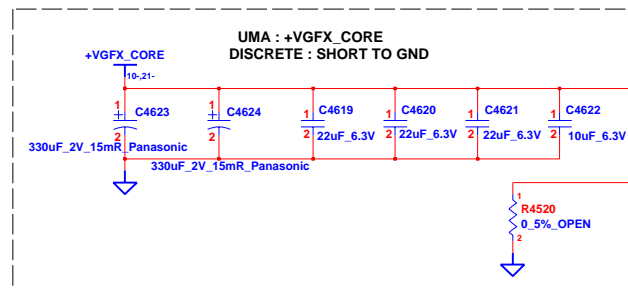


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| CHANGE by | <i>Jun</i> | <i>16-Mar-2010</i> |
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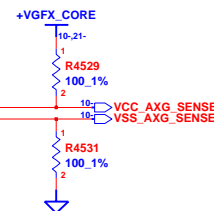




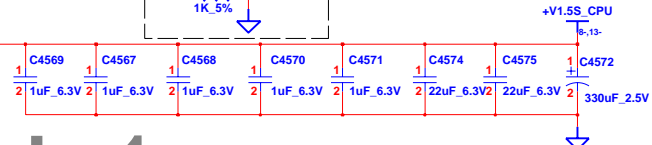




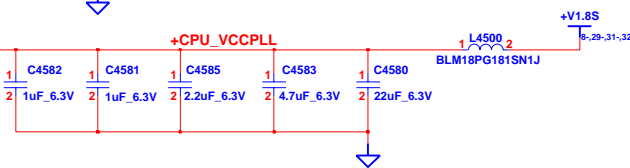
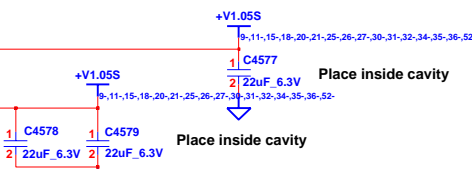
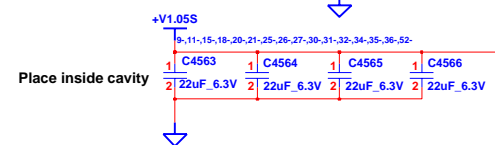
Route VCC\_AXG\_SENSE and  
VSS\_AXG\_SENSE  
differentially



**UMA : OPEN  
DISCRETE : STUFF**



**Place inside cavity**



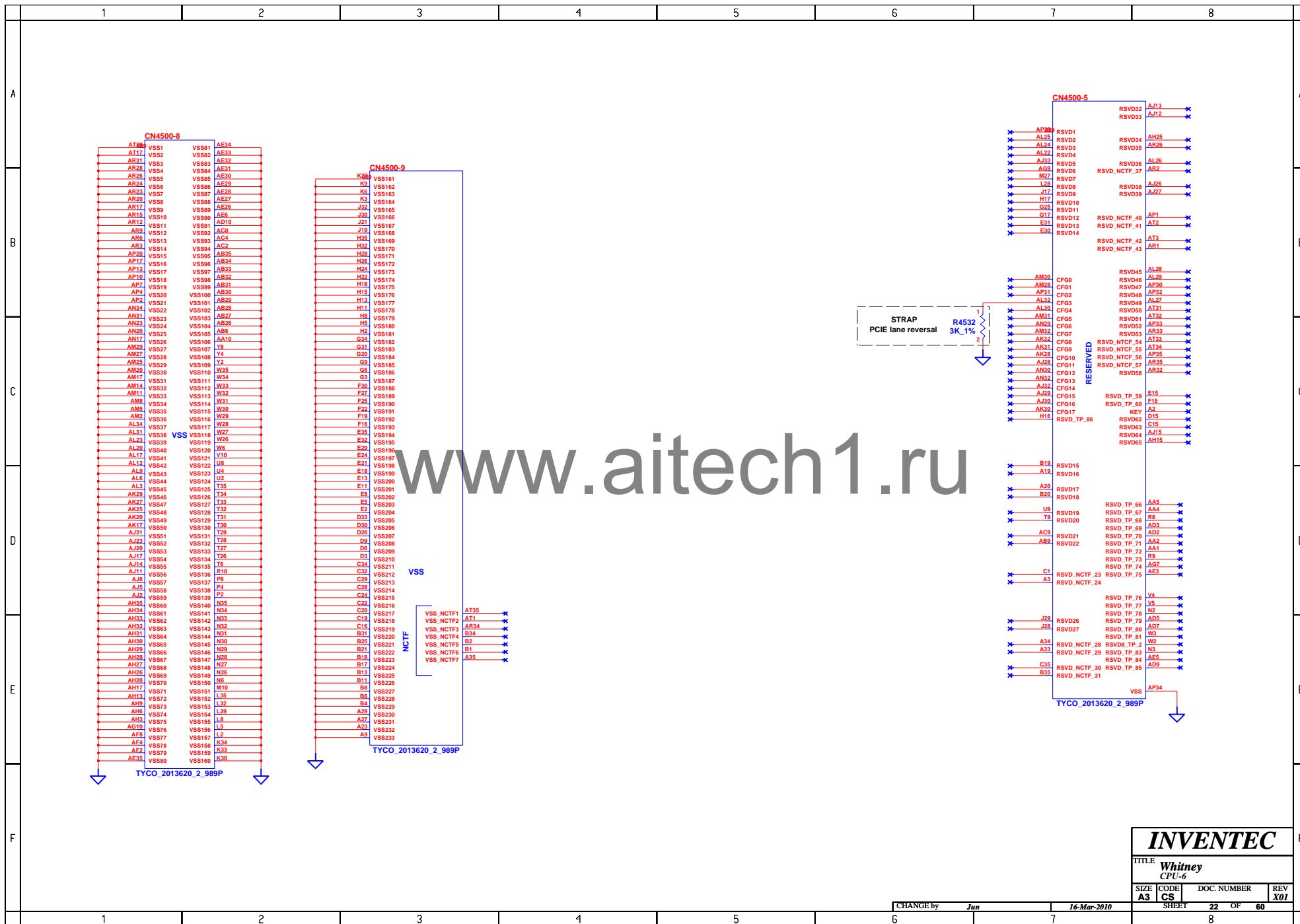
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**INVENTEC**

TITLE  
**Whitney  
CPU-5**

SIZE **A3** CODE **CS** DOC. NUMBER **21** OF **60** REV **X01**

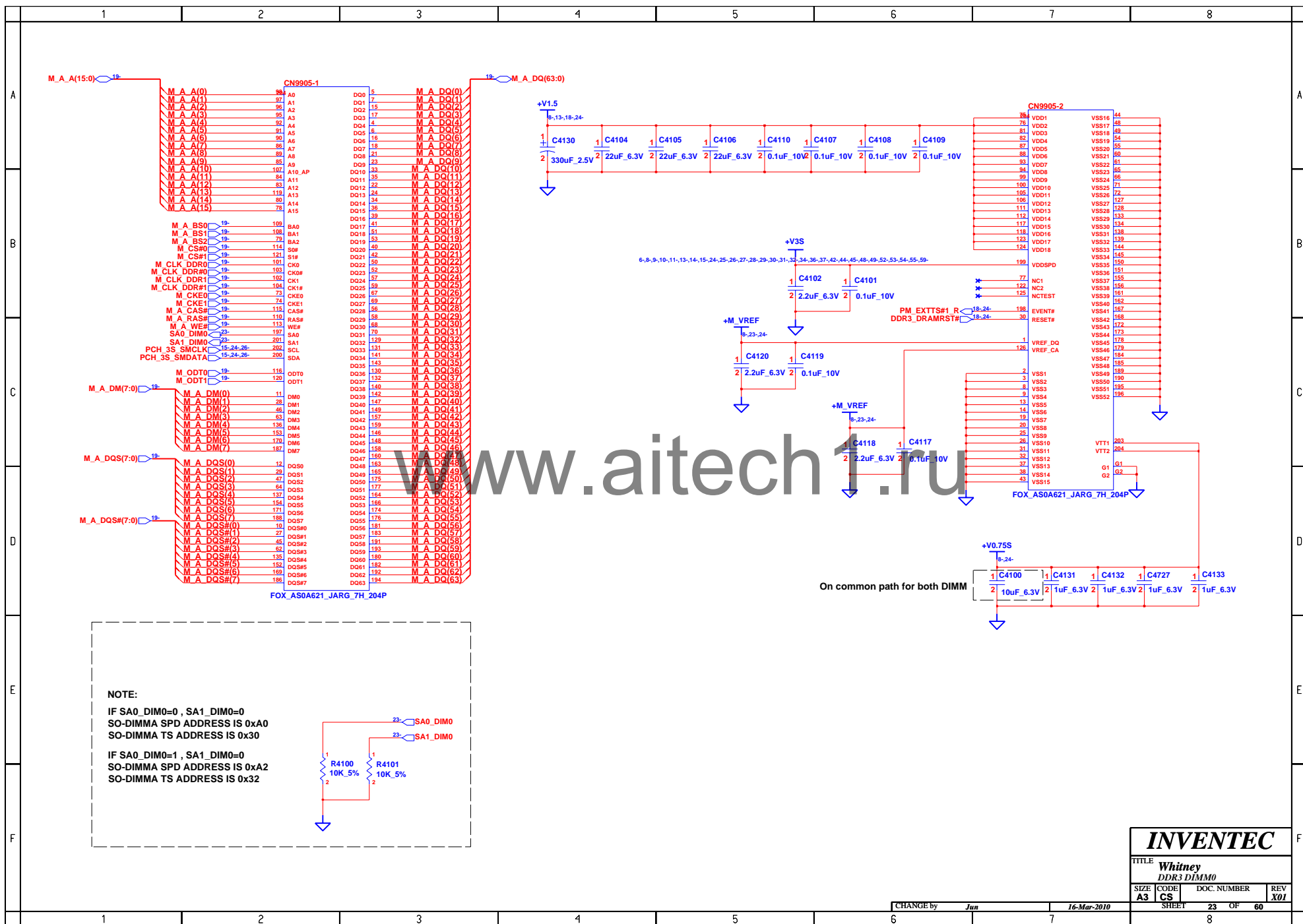
CHANGE by **Jun** 16-Mar-2010

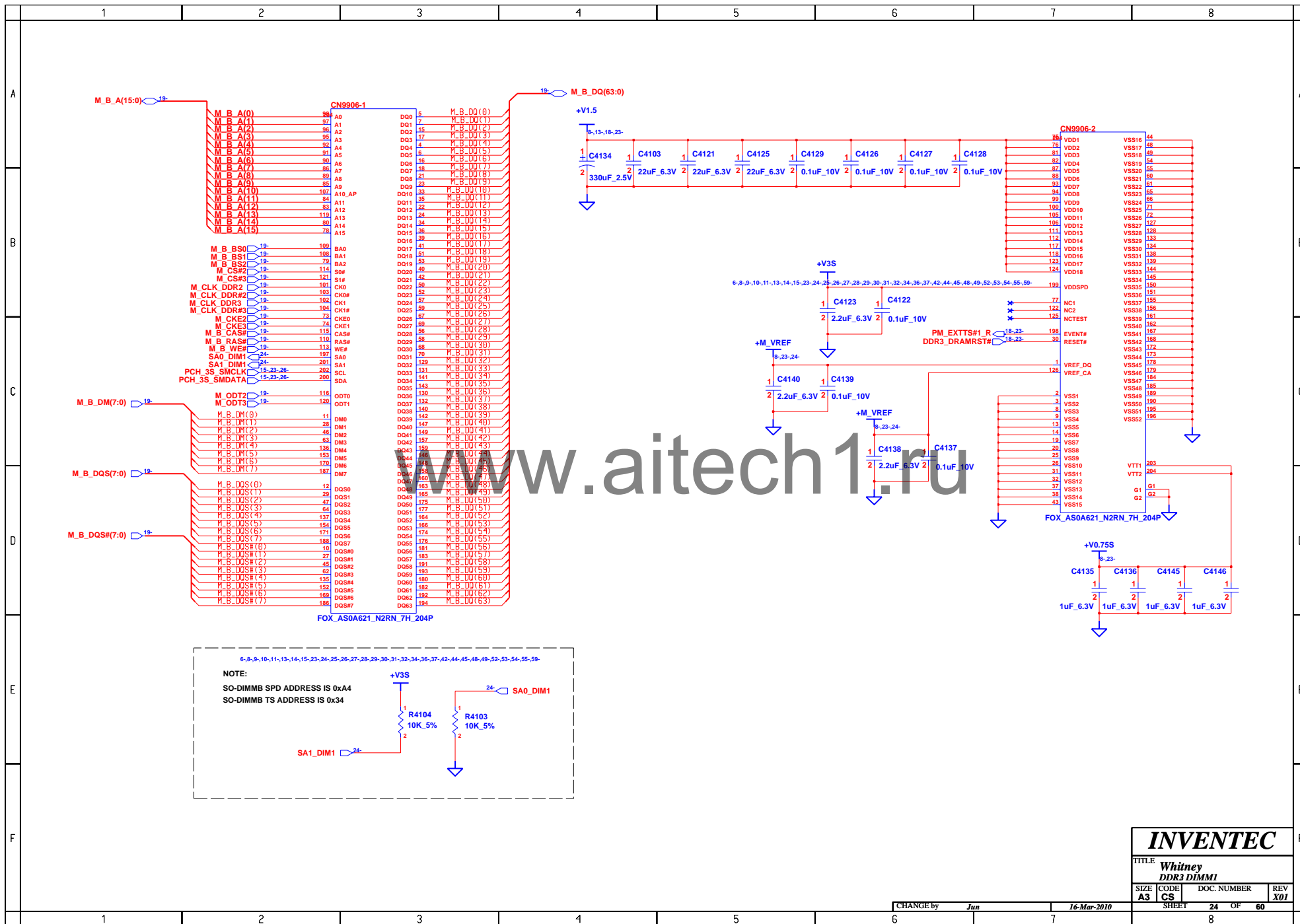


**INVENTEC**

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| Whitney CPU-6 |      |             |     |
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| A3            | CS   | SHEET       | X01 |

|           |     |             |    |    |    |
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| CHANGE by | Jun | 16-Mar-2010 | 22 | OF | 60 |
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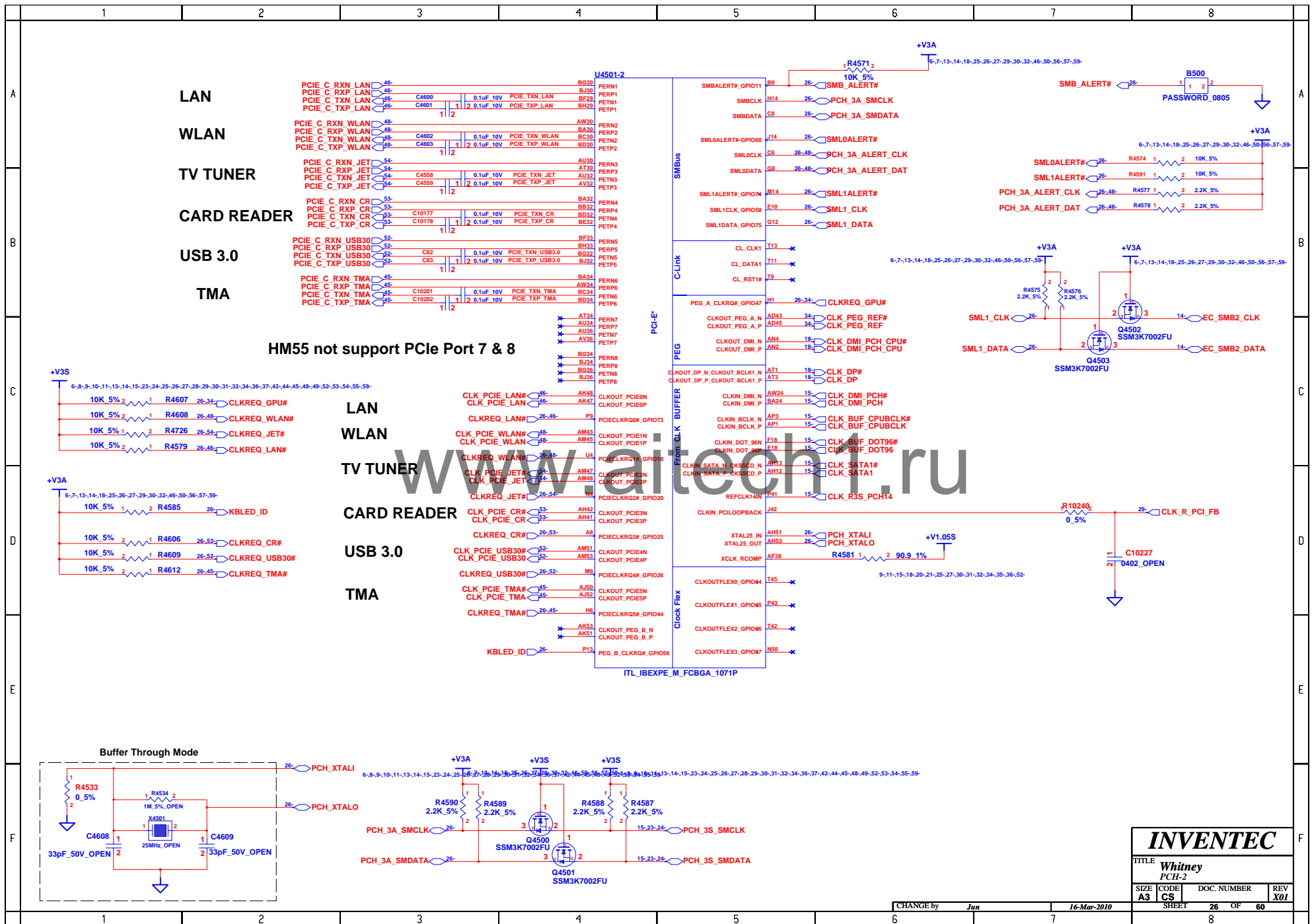
**INVENTEC**

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| SIZE<br><b>A3</b>                      | CODE<br><b>CS</b> | DOC. NUMBER | REV<br><b>X01</b> |
| SHEET                                  |                   | 24 OF       | 60                |

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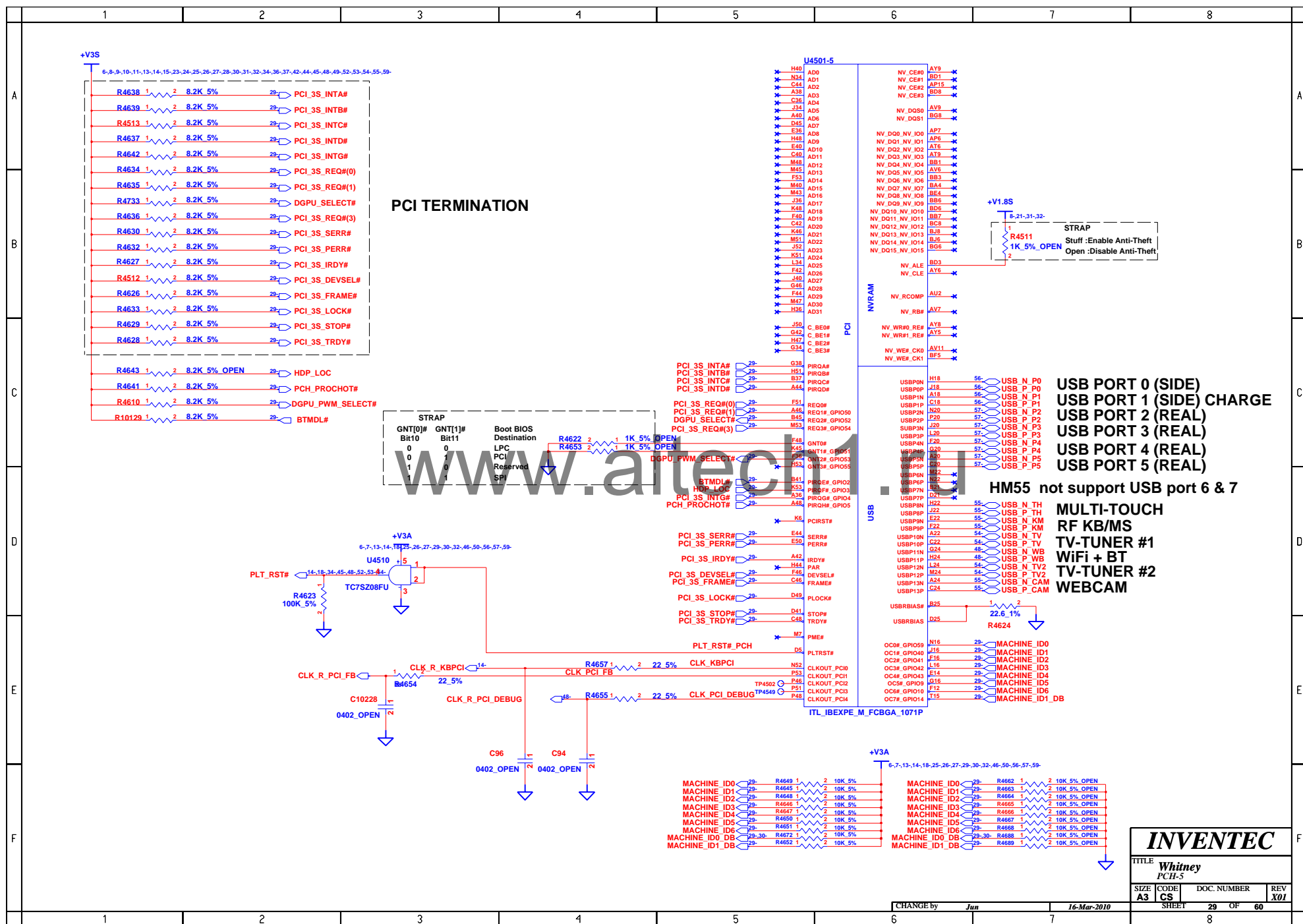


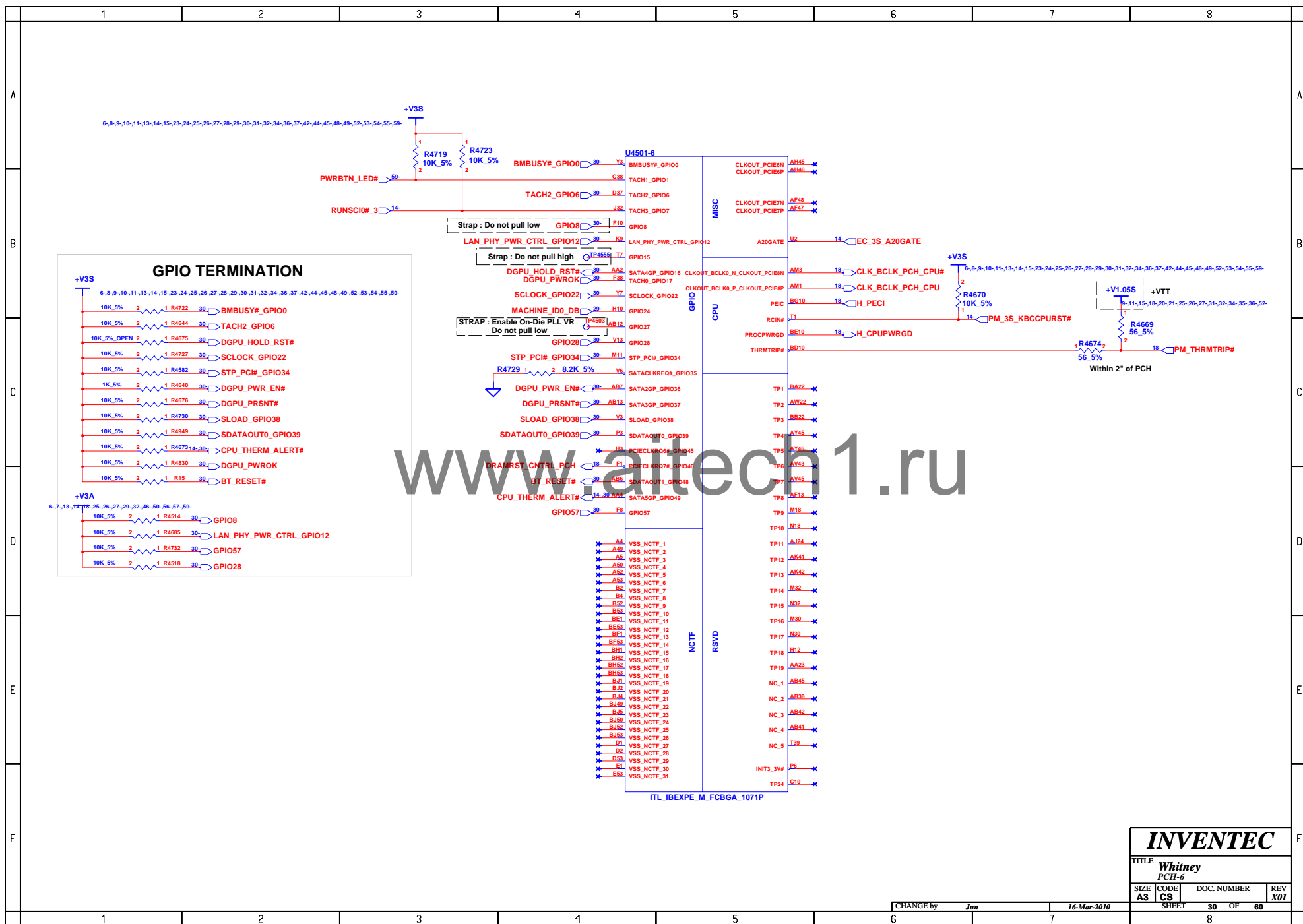


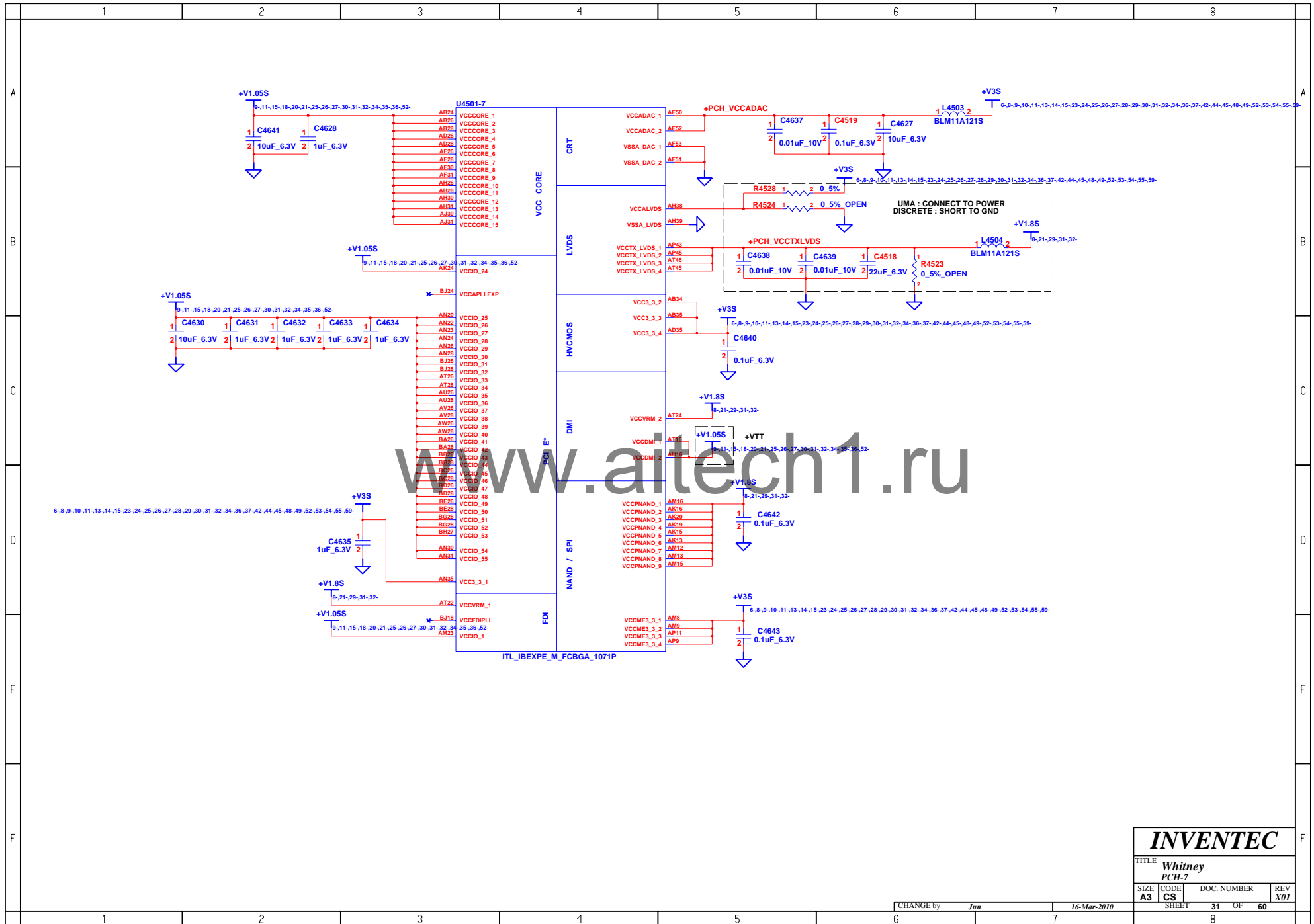
















**U4501-9**

**U4501-10**

ITL\_IBEXPE\_M\_FCBGA\_1071P

ITL\_IBEXPE\_M\_FCBGA\_1071P

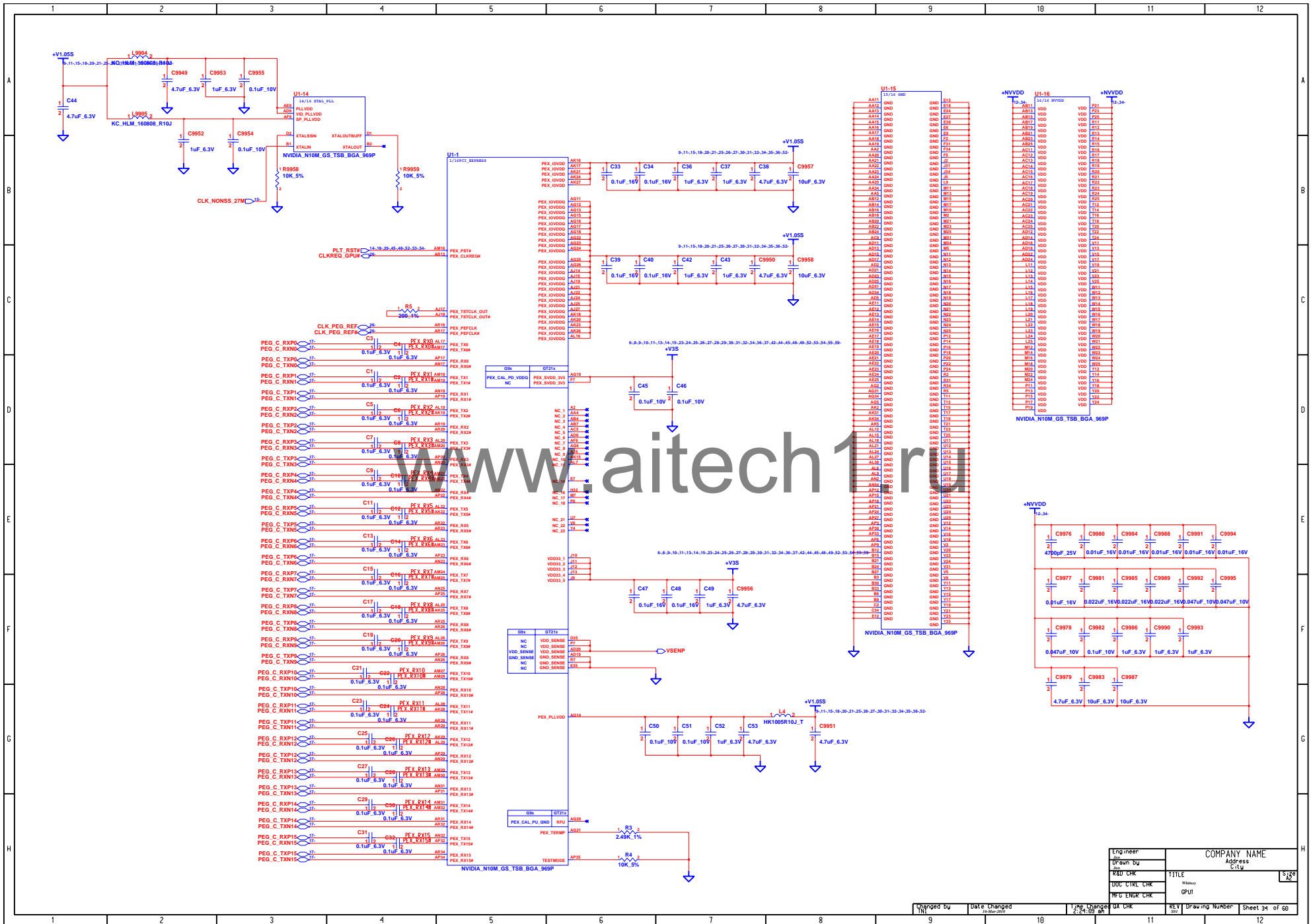
**INVENTEC**

TITLE: **Whitney**  
**PCH-9**

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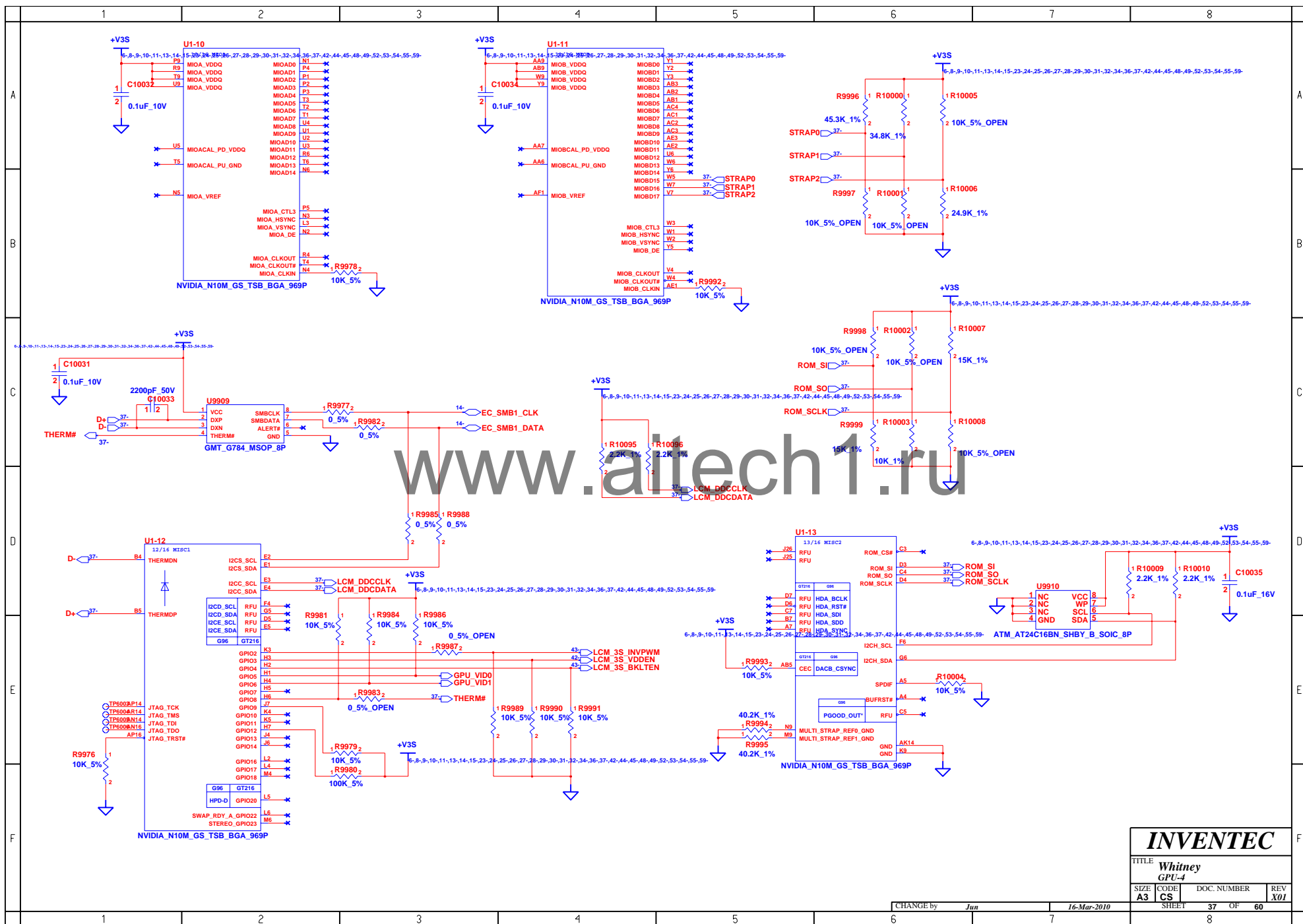
CHANGE by Jun 16-Mar-2010

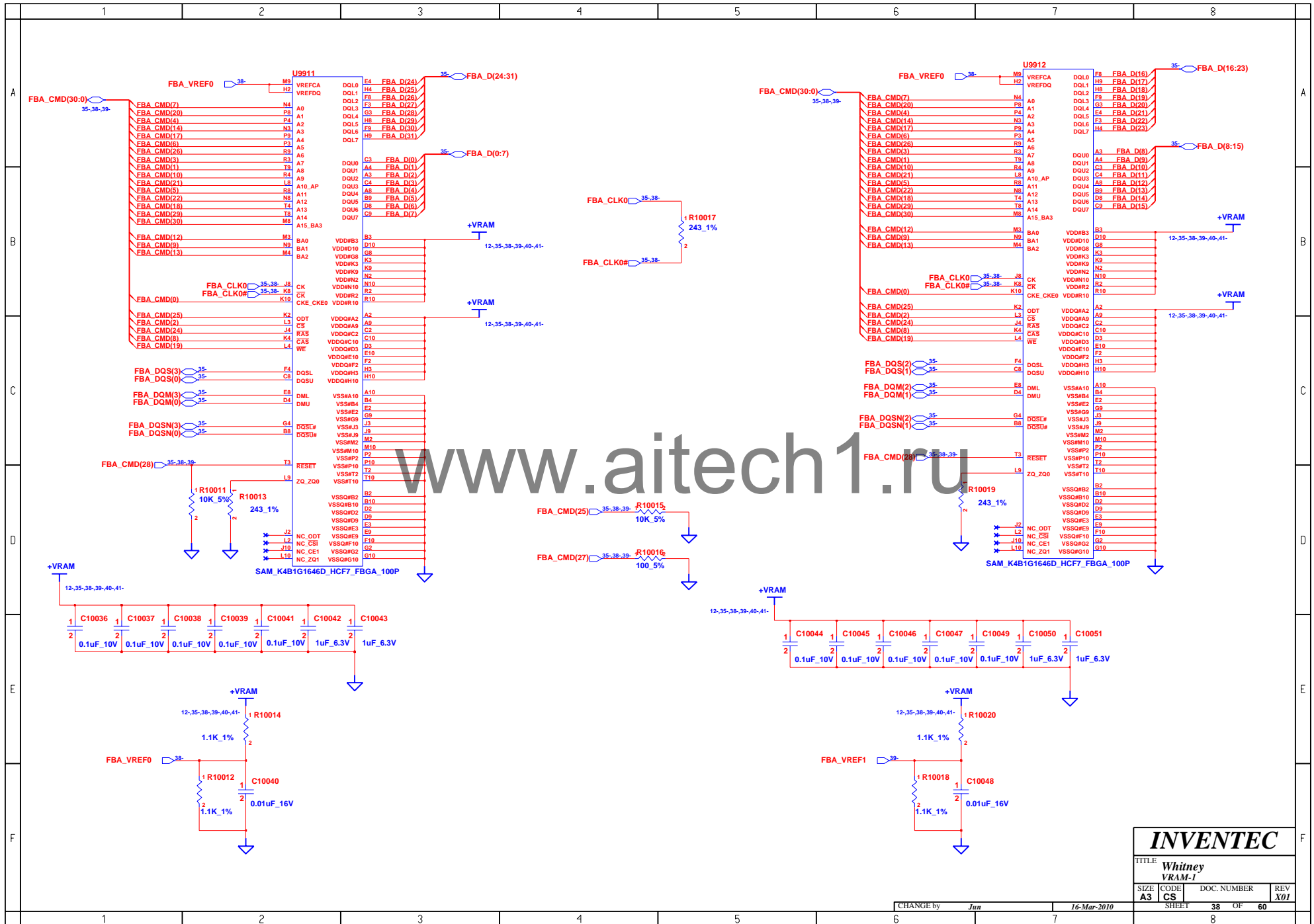
SHEET 33 OF 60







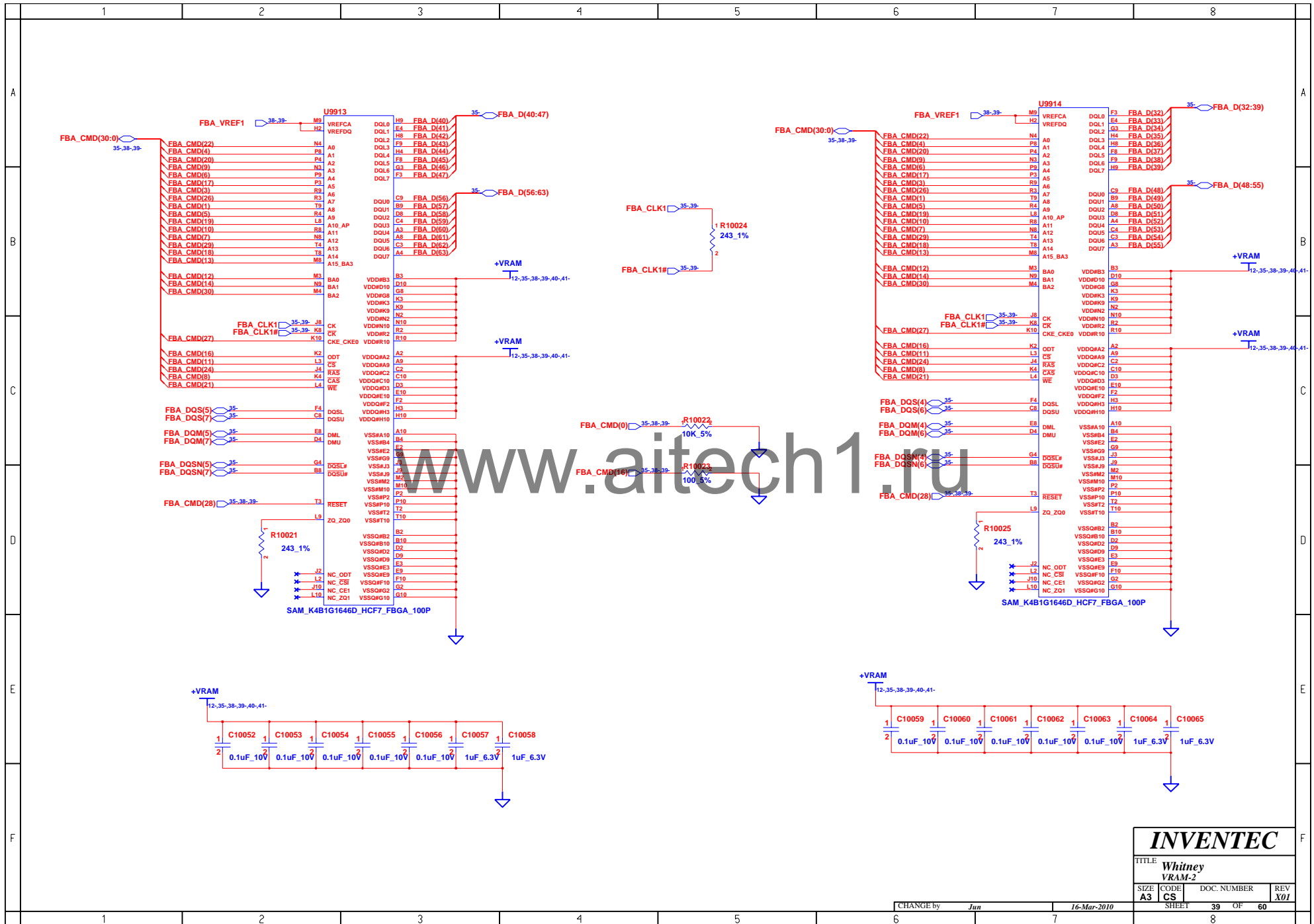




**INVENTEC**

|                                    |                   |             |                   |
|------------------------------------|-------------------|-------------|-------------------|
| TITLE<br><b>Whitney<br/>VRAM-1</b> |                   |             |                   |
| SIZE<br><b>A3</b>                  | CODE<br><b>CS</b> | DOC. NUMBER | REV<br><b>X01</b> |
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**INVENTEC**

|                                    |                   |                             |                   |
|------------------------------------|-------------------|-----------------------------|-------------------|
| TITLE<br><b>Whitney<br/>VRAM-2</b> |                   |                             |                   |
| SIZE<br><b>A3</b>                  | CODE<br><b>CS</b> | DOC. NUMBER<br><b>SHEET</b> | REV<br><b>X01</b> |

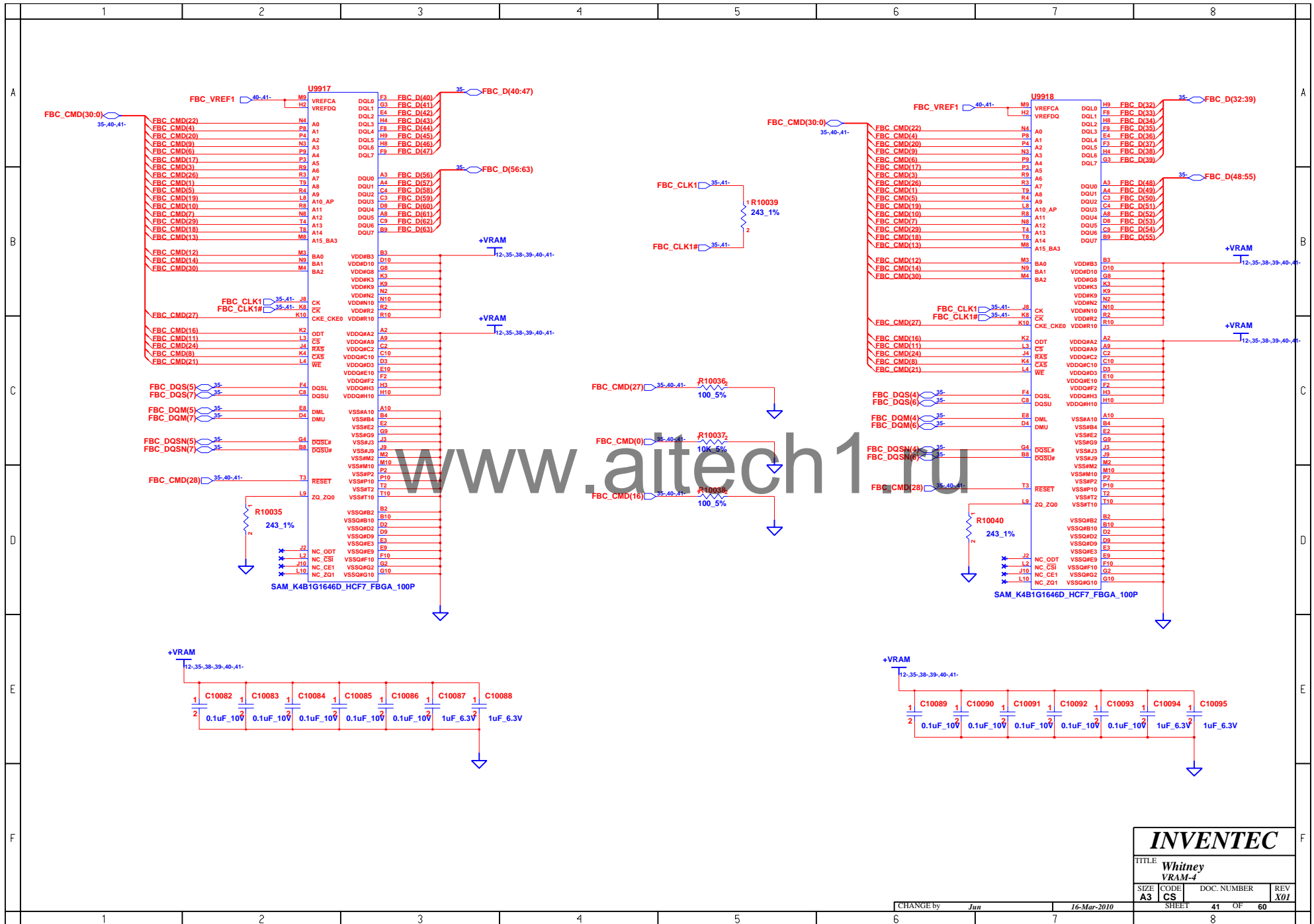
CHANGE by **Jun** 16-Mar-2010

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**INVENTEC**

|         |      |             |     |
|---------|------|-------------|-----|
| TITLE   |      |             |     |
| Whitney |      |             |     |
| VRAM-4  |      |             |     |
| SIZE    | CODE | DOC. NUMBER | REV |
| A3      | CS   |             | X01 |
| SHEET   |      | 41 OF       | 60  |

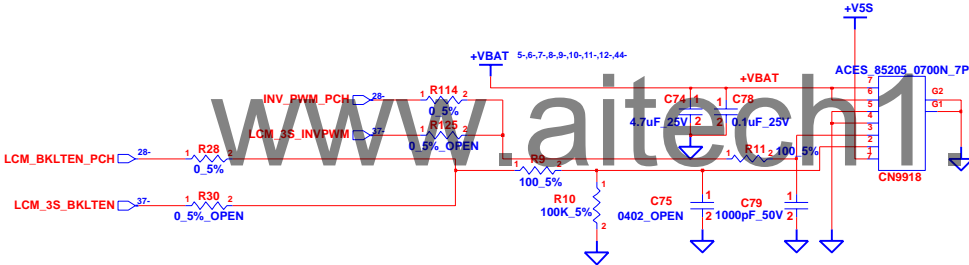
CHANGE by Jun 16-Mar-2010

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13-,14-,32-,42-,44-,38-,52-,56-,59-,58-,55-,57-,58-,59-



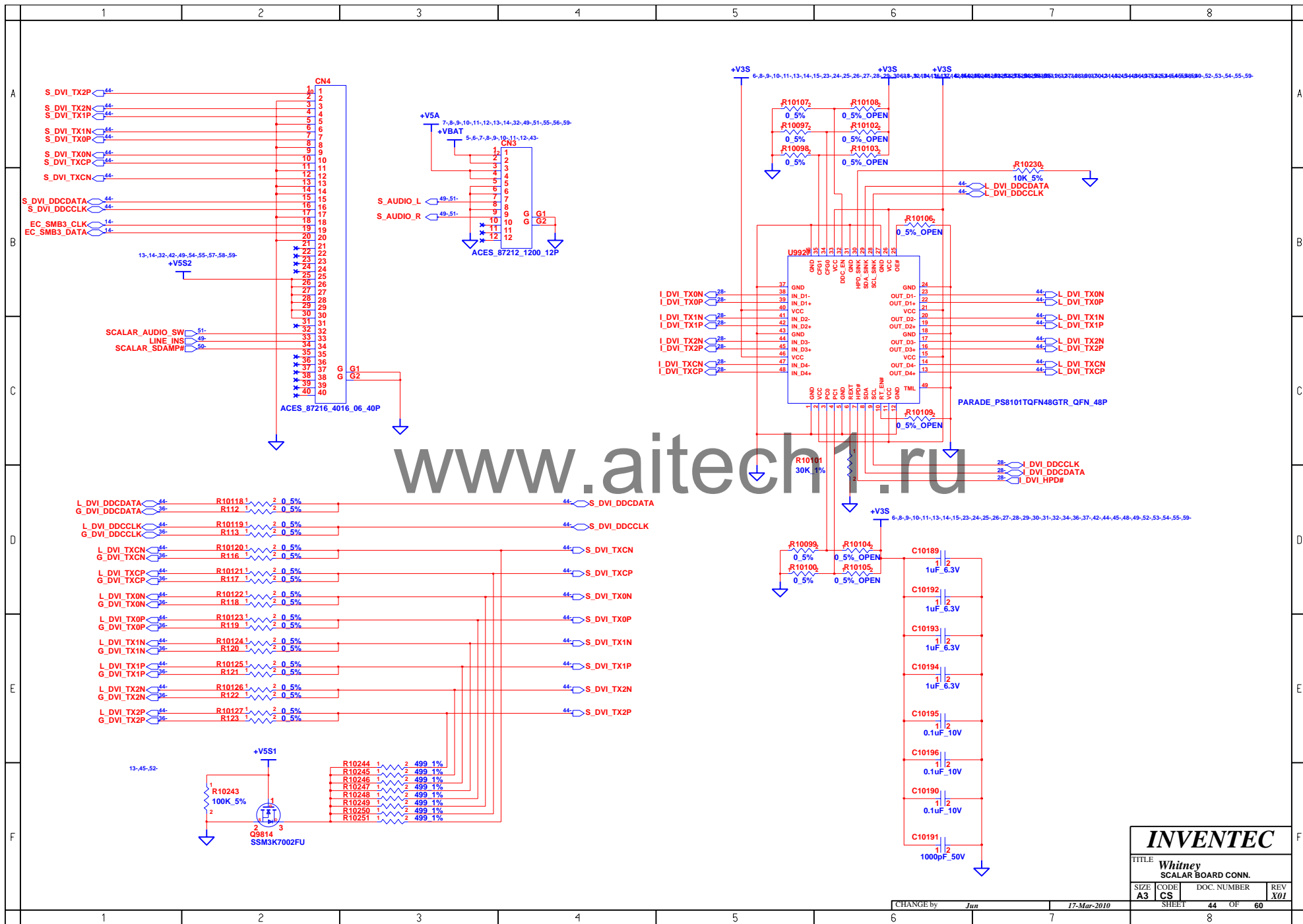
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| TITLE                                      |           |             |            |
| <b>Whitney</b><br><i>LCM (UMA) / D-SUB</i> |           |             |            |
| SIZE                                       | CODE      | DOC. NUMBER | REV        |
| <b>A3</b>                                  | <b>CS</b> |             | <b>X01</b> |



|       |   |
|-------|---|
| TITLE | <b>Whitney</b><br><b>LCM-2 (GPU) / D-SUB2</b> |
|-------|---|

|                   |                   |             |                   |
|-------------------|-------------------|-------------|-------------------|
| SIZE<br><b>A3</b> | CODE<br><b>CS</b> | DOC. NUMBER | REV<br><b>X01</b> |
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|           |            |                    |
|-----------|------------|--------------------|
| CHANGE by | <i>Jun</i> | <i>16-Mar-2010</i> |
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**INVENTEC**

TITLE: **Whitney**  
SCALAR BOARD CONN.

|                   |                   |             |                   |
|-------------------|-------------------|-------------|-------------------|
| SIZE<br><b>A3</b> | CODE<br><b>CS</b> | DOC. NUMBER | REV<br><b>X01</b> |
|-------------------|-------------------|-------------|-------------------|

CHANGE by *Jun* 17-Mar-2010

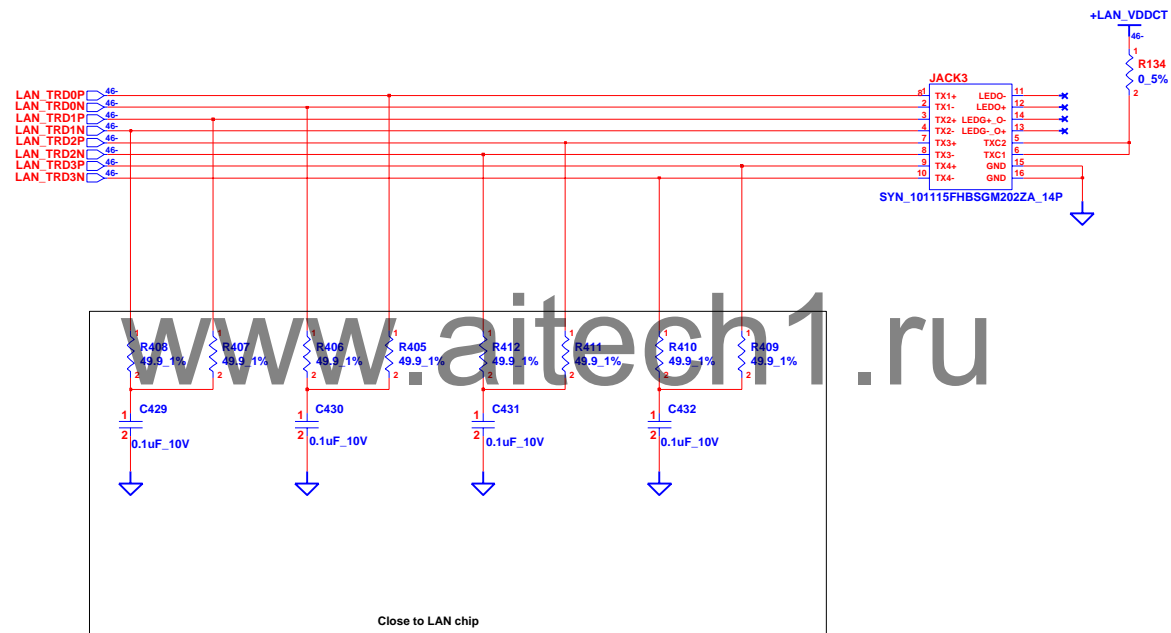
SHEET 44 OF 60

**SPURS ENGINEER CNTR**

The schematic diagram illustrates the SPURS ENGINEER CNTR circuit. The central component is the BELLW\_80003\_1021\_52P IC. It is connected to a +V3S power source (800mA) and a +V1.5S power source. A +VSS1 source is also shown. The circuit includes capacitors C10184, C10185, C10186, and C10187, and a resistor R27 (10K 5%). The diagram is labeled with 'www.aiteo1.ru' and 'INVENTEC'.

| SIZE | CODE | DOC. NUMBER | REV |
|------|------|-------------|-----|
| A3   | CS   | 45 OF 60    | X01 |

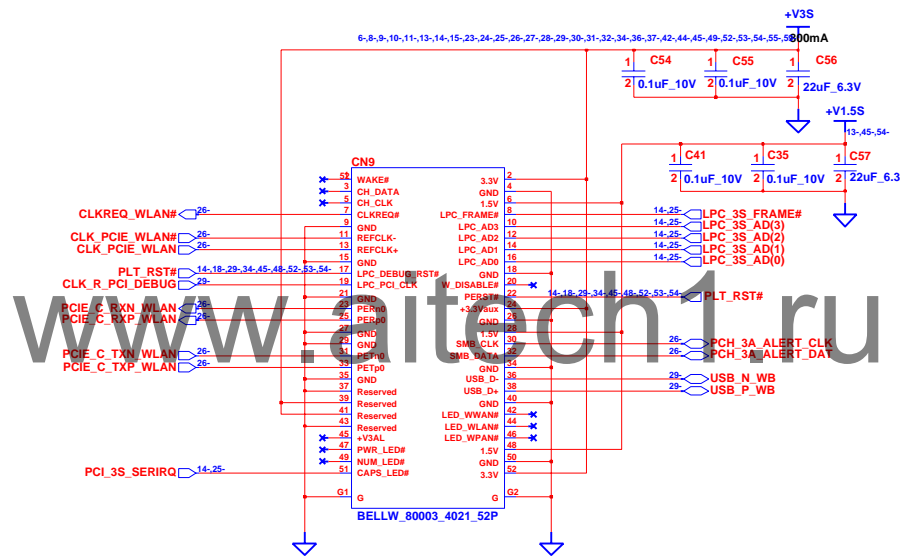




| INVENTEC                        |         |             |         |
|---------------------------------|---------|-------------|---------|
| TITLE Whitney Transformer, RJ45 |         |             |         |
| SIZE A3                         | CODE CS | DOC. NUMBER | REV X01 |
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CHANGE by Jun 24-Mar-2010

# WiFi + BT CNTR



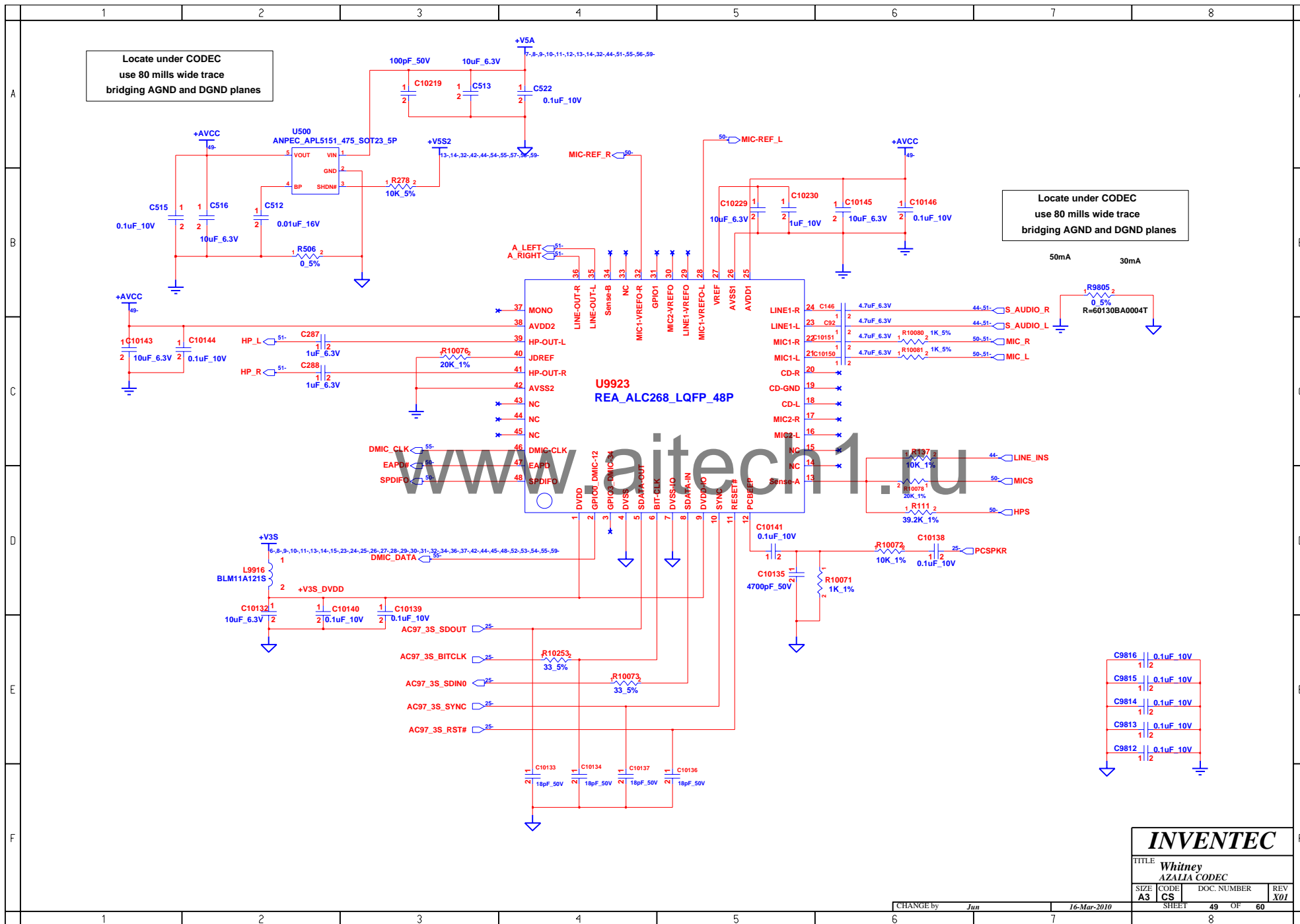
**INVENTEC**

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|----------------|------|-------------|-----|
| TITLE          |      |             |     |
| Whitney        |      |             |     |
| WiFi + BT CNTR |      |             |     |
| SIZE           | CODE | DOC. NUMBER | REV |
| A3             | CS   |             | X01 |

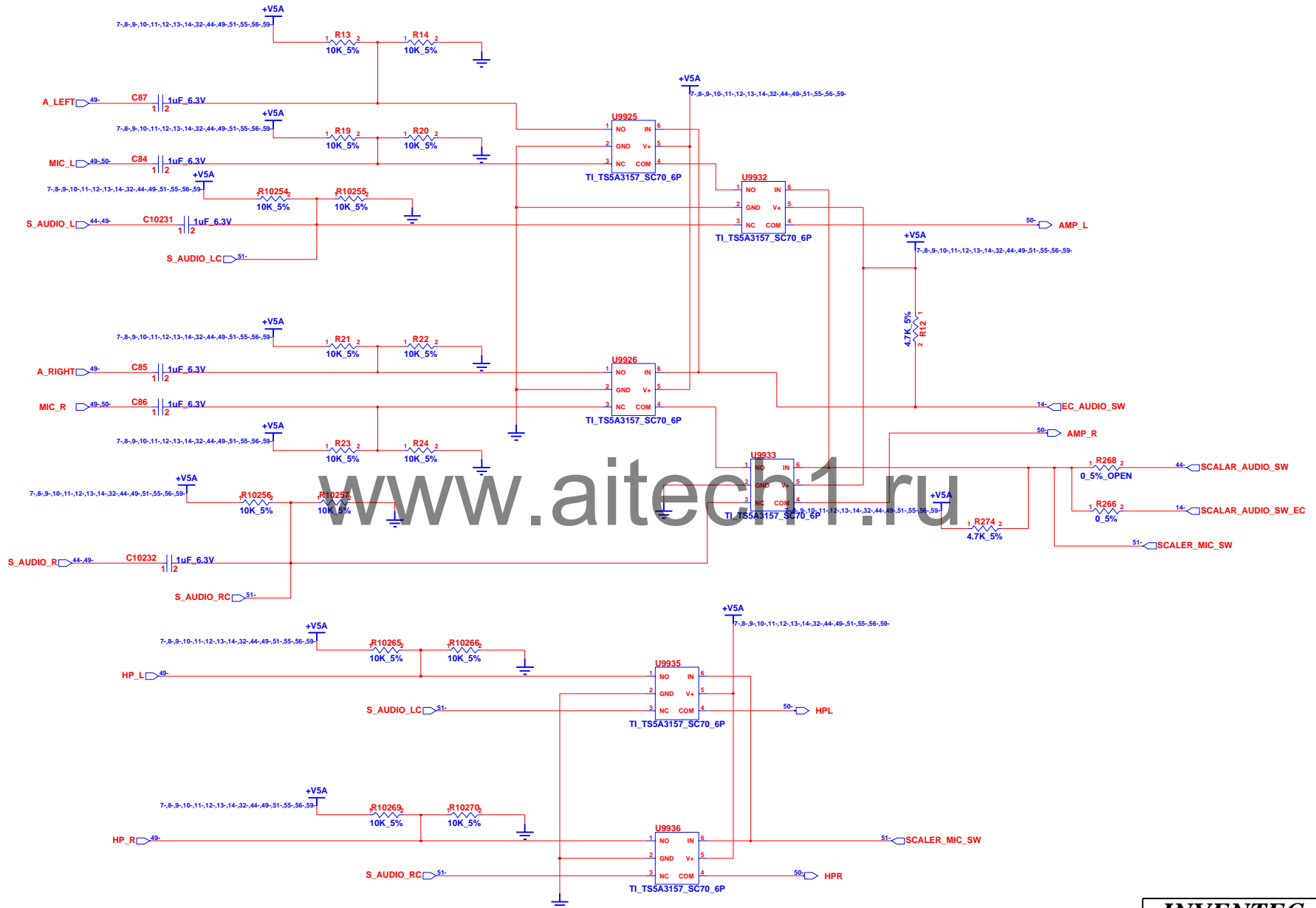
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# INVENTEC

|                     |      |             |       |
|---------------------|------|-------------|-------|
| TITLE               |      |             |       |
| Whitney<br>AUDIO SW |      |             |       |
| SIZE                | CODE | DOC. NUMBER | REV   |
| A3                  | CS   | Model No    | X01   |
| SHEET               |      | 51          | OF 60 |

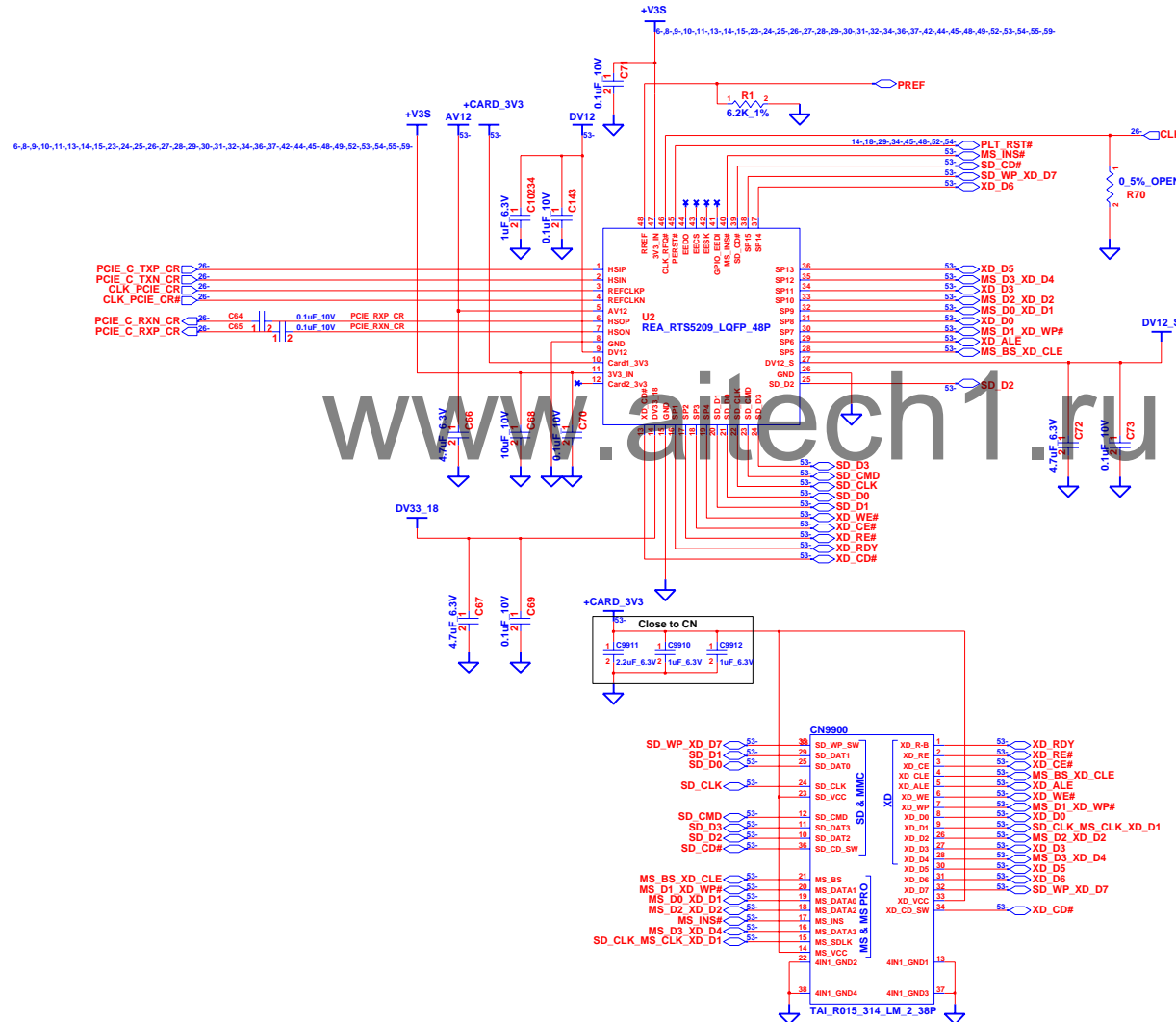
CHANGE by Jun Feng 17-Mar-2010

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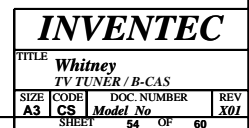
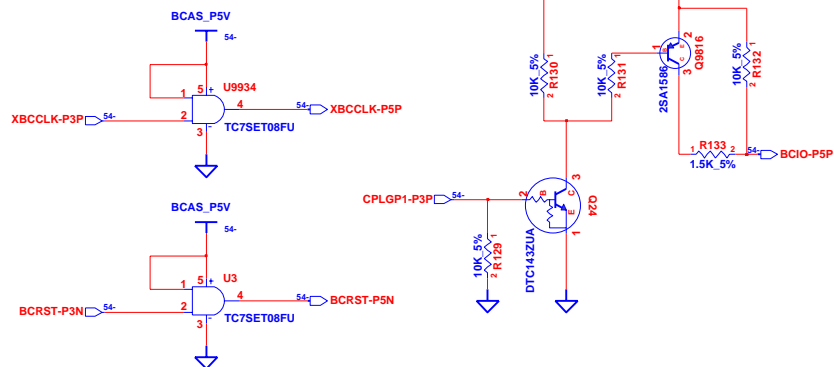
# USB 3.0 CNTR to Daughter Board

| INVENTEC                              |                   |                                |                   |
|---------------------------------------|-------------------|--------------------------------|-------------------|
| TITLE <b>Whitney</b><br><b>USB3.0</b> |                   |                                |                   |
| SIZE<br><b>A3</b>                     | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><b>X01</b> |
| CHANGE by <i>Jun Feng</i>             |                   | 16-Mar-2010                    |                   |
| SHEET                                 |                   | 52                             | OF 60             |
|                                       |                   | 8                              |                   |

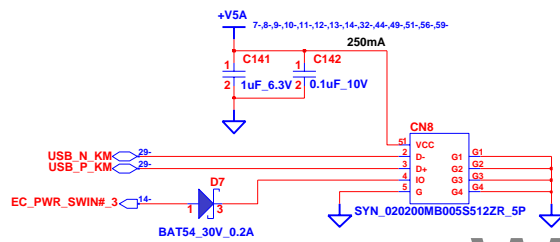
# CARD READER BOARD



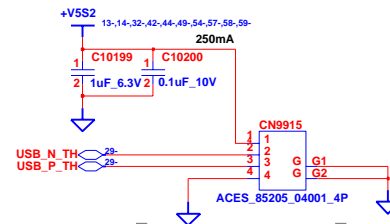
| INVENTEC                 |         |                      |                |
|--------------------------|---------|----------------------|----------------|
| TITLE Whitney CardReader |         |                      |                |
| SIZE A3                  | CODE CS | DOC. NUMBER Model No | REV X01        |
| CHANGE by Jun Feng       |         | 11-Mar-2010          | SHEET 53 OF 60 |



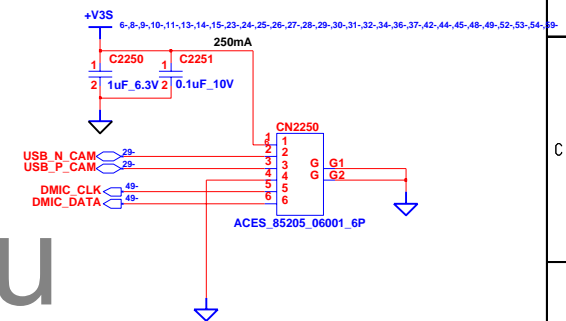
## RF K/B M/S



## MULTI TOUCH



## WEBCAM

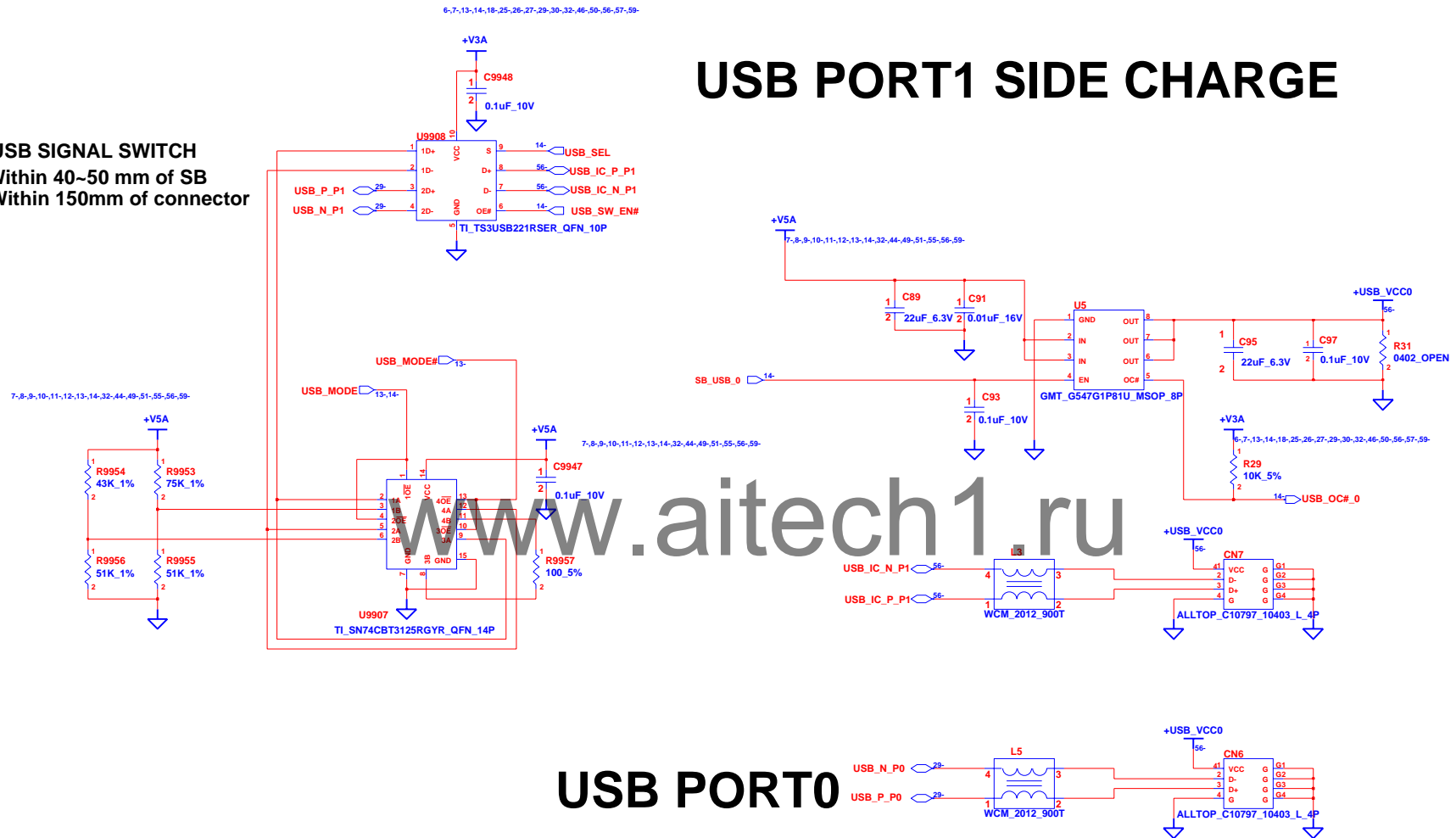


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| INVENTEC                        |                |                             |                |
|---------------------------------|----------------|-----------------------------|----------------|
| TITLE <b>Whitney</b>            |                |                             |                |
| Camera / Multi Touch CNTR/KB/MS |                |                             |                |
| SIZE <b>A3</b>                  | CODE <b>CS</b> | DOC. NUMBER <b>Model No</b> | REV <b>X01</b> |
| CHANGE by <b>Jun Feng</b>       |                | 11-Mar-2010                 |                |
| SHEET <b>55</b>                 |                | OF <b>60</b>                |                |

# USB PORT1 SIDE CHARGE

**USB SIGNAL SWITCH**  
Within 40~50 mm of SB  
Within 150mm of connector



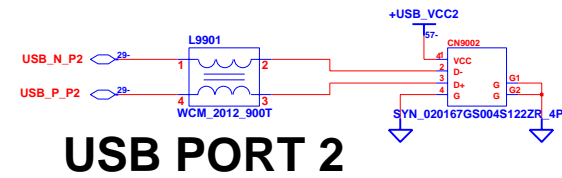
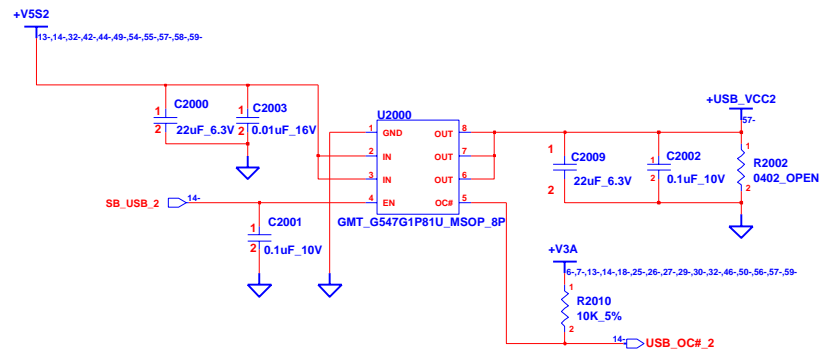
## USB PORT0

**INVENTEC**

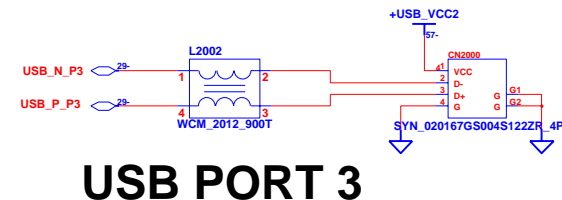
|         |      |             |       |
|---------|------|-------------|-------|
| TITLE   |      |             |       |
| Whitney |      |             |       |
| USB2.0  |      |             |       |
| SIZE    | CODE | DOC. NUMBER | REV   |
| A3      | CS   | Model No    | X01   |
| SHEET   |      | 56          | OF 60 |

CHANGE by Jun Feng 11-Mar-2010

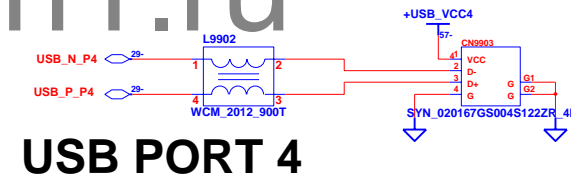
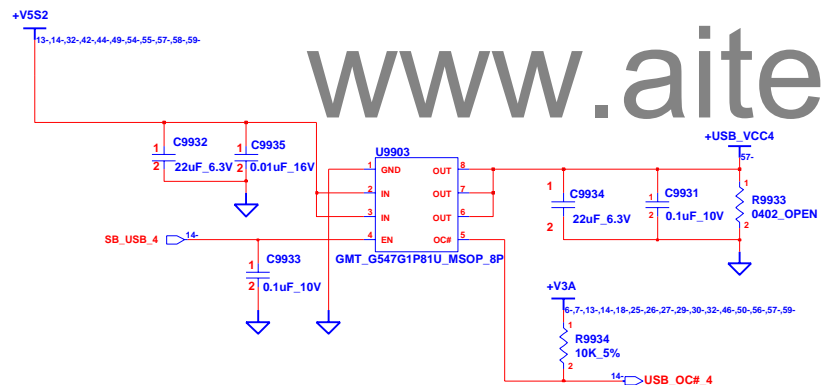




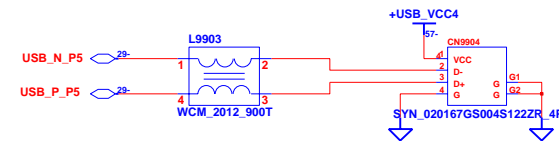
USB PORT 2



USB PORT 3



USB PORT 4



USB PORT 5

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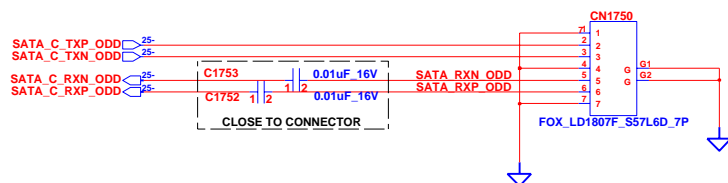
**INVENTEC**

|         |      |             |     |
|---------|------|-------------|-----|
| TITLE   |      |             |     |
| Whitney |      |             |     |
| USB2.0  |      |             |     |
| SIZE    | CODE | DOC. NUMBER | REV |
| A3      | CS   | Model No    | X01 |

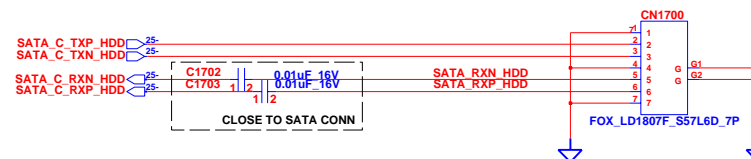
CHANGE by Jun Feng 16-Mar-2010

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## SATA ODD

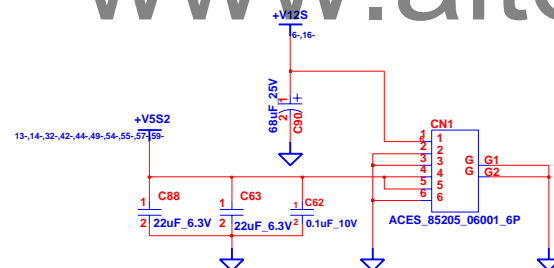


## SATA HDD



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## SATA POWER



**INVENTEC**

|                    |      |             |     |
|--------------------|------|-------------|-----|
| TITLE              |      |             |     |
| Whitney            |      |             |     |
| SATA HDD, SATA ODD |      |             |     |
| SIZE               | CODE | DOC. NUMBER | REV |
| A3                 | CS   | Model No    | X01 |

CHANGE by Jun Feng 11-Mar-2010

SHEET 58 OF 60

# KEYBOARD FOR DEBUG

# LED CIR Daughter Board

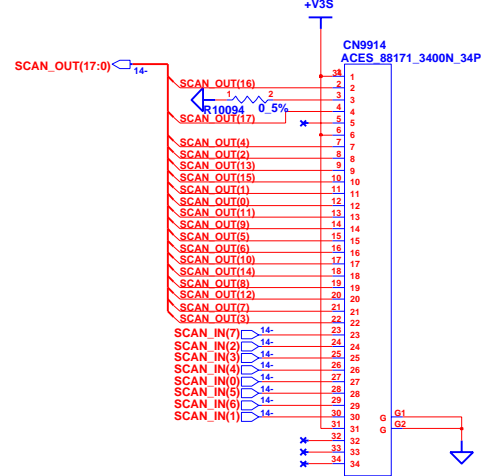
# IR BLASTER ME TEST

**INVENTEC**

|  |                   |                                |                   |
|--|-------------------|--------------------------------|-------------------|
| TITLE<br><b>Whitney</b><br>KEYBOARD/ LED BOARD |                   |                                |                   |
| SIZE<br><b>A3</b>                              | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><b>X01</b> |
| SHEET<br><b>59</b>                             |                   | OF<br><b>60</b>                |                   |

CHANGE by *Jun Feng* 11-Mar-2010

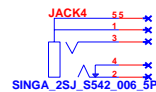
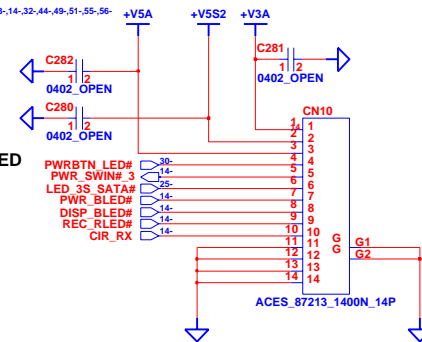
6-8,9-10,11,12,14,15,23-24,25-26,27-28,29,30,31,32,34,36,37,42,44,45,48,49,52,53,54,55-

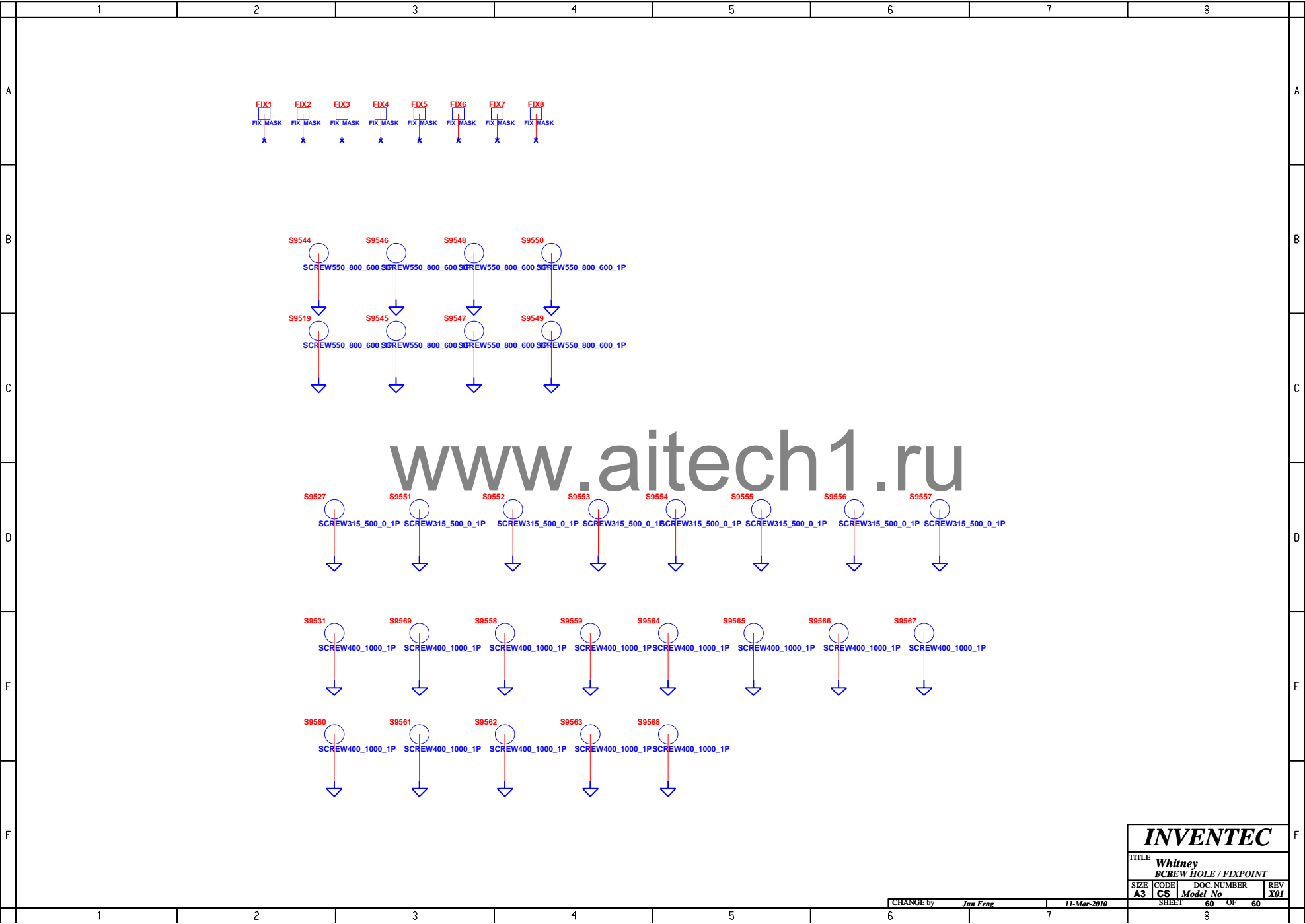


13,14,32,42,74,83,84,85,86,87,29,30,32,46,50,56,57-

7-8,9-10,11,12,13,14,32,44,49,51,55,56-

POWER BUTTON & LED  
HDD LED  
POWER LED  
DISPLAY LED  
RECORDING LED  
CIR RX





**INVENTEC**

|                       |      |             |     |
|-----------------------|------|-------------|-----|
| TITLE                 |      |             |     |
| Whitney               |      |             |     |
| SCREW HOLE / FIXPOINT |      |             |     |
| SIZE                  | CODE | DOC. NUMBER | REV |
| A3                    | CS   | Model No    | X01 |
| SHEET                 |      | OF          | 60  |

CHANGE by Jun Feng 11-Mar-2010

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