

<http://hobi-elektronika.net>

# S18

## MP BUILD

2006 10 19

|      |            |     |
|------|------------|-----|
|      |            |     |
|      |            |     |
|      |            |     |
|      |            |     |
|      |            |     |
|      |            |     |
|      |            |     |
|      |            |     |
| DATE | CHANGE NO. | REV |

|                            |              |      |       |      |                  |           |                 |            |
|----------------------------|--------------|------|-------|------|------------------|-----------|-----------------|------------|
| DRAWER                     | EE           | DATE | POWER | DATE | <b>INVENTEC</b>  |           |                 |            |
| DESIGN                     |              |      |       |      | TITLE <b>S18</b> |           |                 |            |
| CHECK                      |              |      |       |      |                  |           |                 |            |
| RESPONSIBLE                |              |      |       |      |                  |           |                 |            |
| SIZE = 3                   |              |      |       |      | SIZE             | CODE      | DOC. NUMBER     | REV        |
| FILE NAME : XXXX-XXXXXX-XX |              |      |       |      | <b>A3</b>        | <b>CS</b> | <b>Model No</b> | <b>A02</b> |
| P/N                        | XXXXXXXXXXXX |      |       |      | SHEET 1 OF 36    |           |                 |            |

<http://hobi-elektronika.net>

TABLE OF CONTENTS

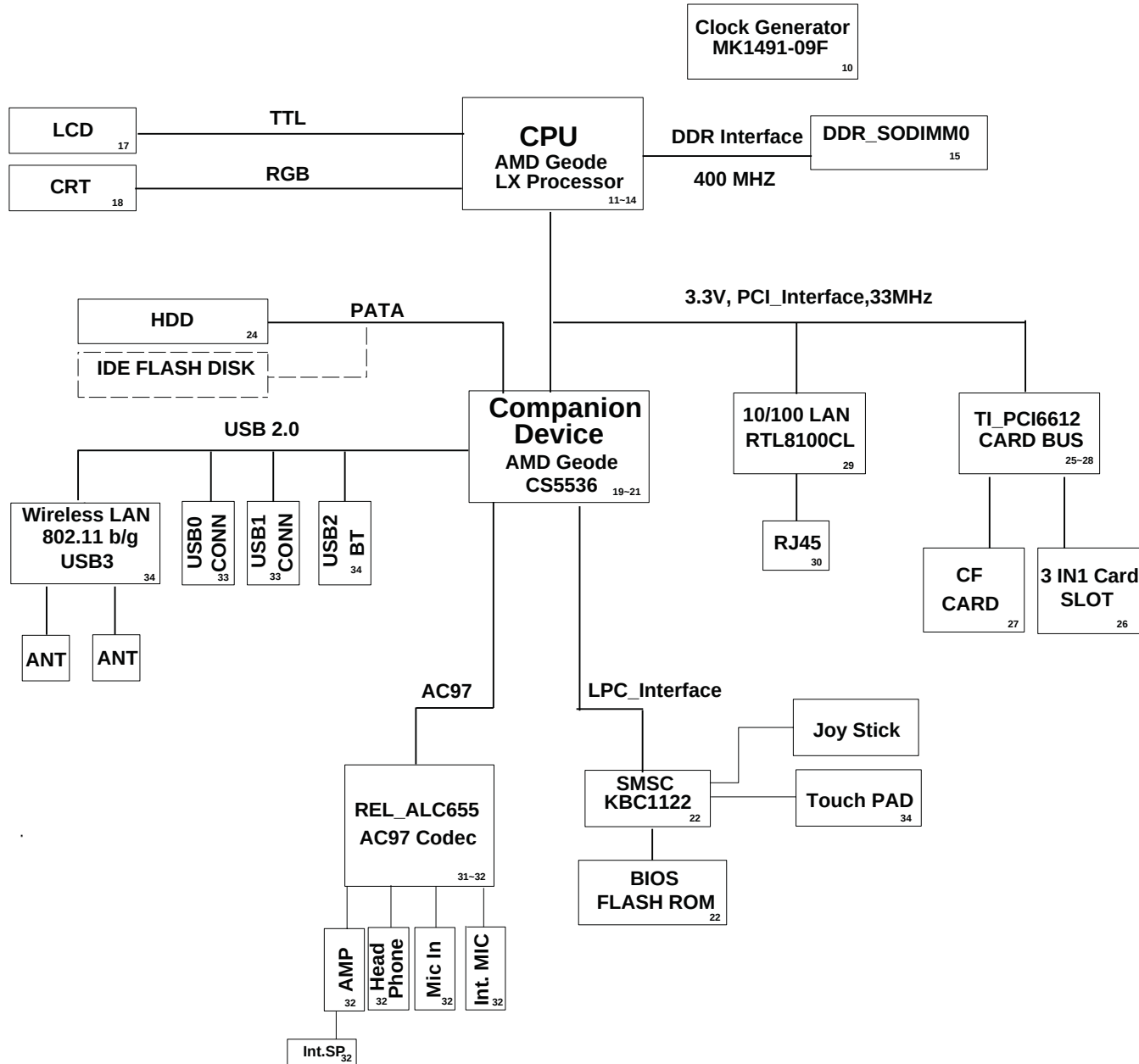
| PAGE                   | PAGE                    |
|------------------------|-------------------------|
| 1.COVER PAGE           | 24.IDE HDD CONN         |
| 2.INDEX                | 25.CARDBUS CONTROLLER   |
| 3.BLOCK DIAGRAM        | 26.CARD READER CONN     |
| 4.POWER SEQUENCE BLOCK | 27.CF CARD CONN         |
| 5.POWER BLOCK DIAGRAM  | 28.CARDBUS CONTROLLER   |
| 6-8.SYSTEM POWER       | 29.LAN CONTROLLER       |
| 9.BLANK                | 30.LAN TRANSFORM & CONN |
| 10.CLOCK GENERATOR     | 31.CODEC                |
| 11.CPU Geode 1         | 32.AUDIO AMP & JACK     |
| 12.CPU Geode 2         | 33.USB                  |
| 13.CPU Geode 3         | 34.FUN. CONN            |
| 14.CPU Geode 4         | 35.SCREW                |
| 15.DDR SO DIMM0        | 36.SYSTEM POWER         |
| 16.BLANK               |                         |
| 17.Pannel              |                         |
| 18.CRT CONN            |                         |
| 19.S/B CS5536 1        |                         |
| 20.S/B CS5536 2        |                         |
| 21.S/B CS5536 3        |                         |
| 22.KBC                 |                         |
| 23.DEBUG CARD          |                         |

**INVENTEC**

|                               |                   |                                |                   |
|-------------------------------|-------------------|--------------------------------|-------------------|
| TITLE<br><b>S18<br/>INDEX</b> |                   |                                |                   |
| SIZE<br><b>A3</b>             | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><b>A02</b> |
| SHEET                         |                   | 2                              | OF 36             |

CHANGE by *Drawn Name* 5-Oct-2006

<http://hobi-elektronika.net>



**INVENTEC**

| TITLE         |      |             |       |
|---------------|------|-------------|-------|
| S18           |      |             |       |
| BLOCK DIAGRAM |      |             |       |
| SIZE          | CODE | DOC. NUMBER | REV   |
| A3            | CS   | Model No    | A02   |
| SHEET         |      | 3           | OF 36 |

CHANGE by *Drawn Name* 5-Oct-2006

<http://hobi-elektronika.net>

# AMD Geode™ LX Processor

RESET#

VCC3SB

10K

10K

# AMD Geode™ CS5536 Companion Device

WORKING

WORKING

WORKING

GPIO24/WORK\_AUX

WORK\_AUX

WORK\_AUX

RESET\_OUT

PCIRST#

PCIRST#

VCC3SB

10K

10K

PWRBTN#

RESET\_WORK#

PWR\_BTN#

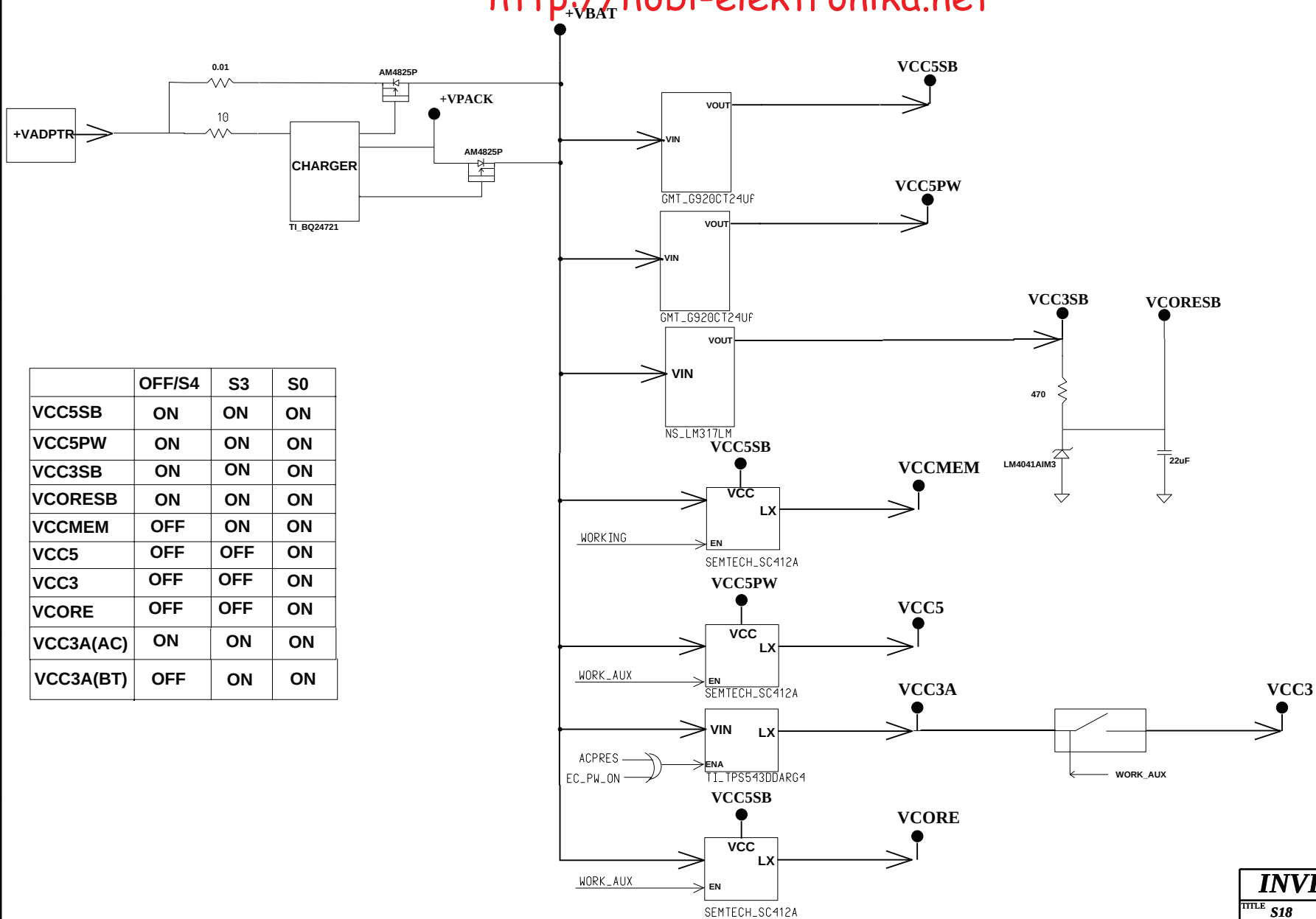
LVD\_EN#

**INVENTEC**

|                      |      |             |       |
|----------------------|------|-------------|-------|
| TITLE                |      |             |       |
| S18                  |      |             |       |
| POWER SEQUENCE BLOCK |      |             |       |
| SIZE                 | CODE | DOC. NUMBER | REV   |
| A3                   | CS   | Model No    | A02   |
| SHEET                |      | 4           | OF 36 |

CHANGE by *Drawn Name* 5-Oct-2006

<http://hobi-elektronika.net>



|           | OFF/S4 | S3  | S0 |
|-----------|--------|-----|----|
| VCC5SB    | ON     | ON  | ON |
| VCC5PW    | ON     | ON  | ON |
| VCC3SB    | ON     | ON  | ON |
| VCORESB   | ON     | ON  | ON |
| VCCMEM    | OFF    | ON  | ON |
| VCC5      | OFF    | OFF | ON |
| VCC3      | OFF    | OFF | ON |
| VCORE     | OFF    | OFF | ON |
| VCC3A(AC) | ON     | ON  | ON |
| VCC3A(BT) | OFF    | ON  | ON |

**INVENTEC**

|       |                                          |
|-------|------------------------------------------|
| TITLE | <b>S18</b><br><b>POWER BLOCK DIAGRAM</b> |
|-------|------------------------------------------|

|                   |                   |                                |                      |
|-------------------|-------------------|--------------------------------|----------------------|
| SIZE<br><b>A3</b> | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model_No</i> | REVISION<br><i>A</i> |
|-------------------|-------------------|--------------------------------|----------------------|

|           |                    |            |
|-----------|--------------------|------------|
| CHANGE by | <i>Drawer_Name</i> | 5-Oct-2006 |
|-----------|--------------------|------------|

SHEET 5 OF 36

http://hobi-elektronika.net

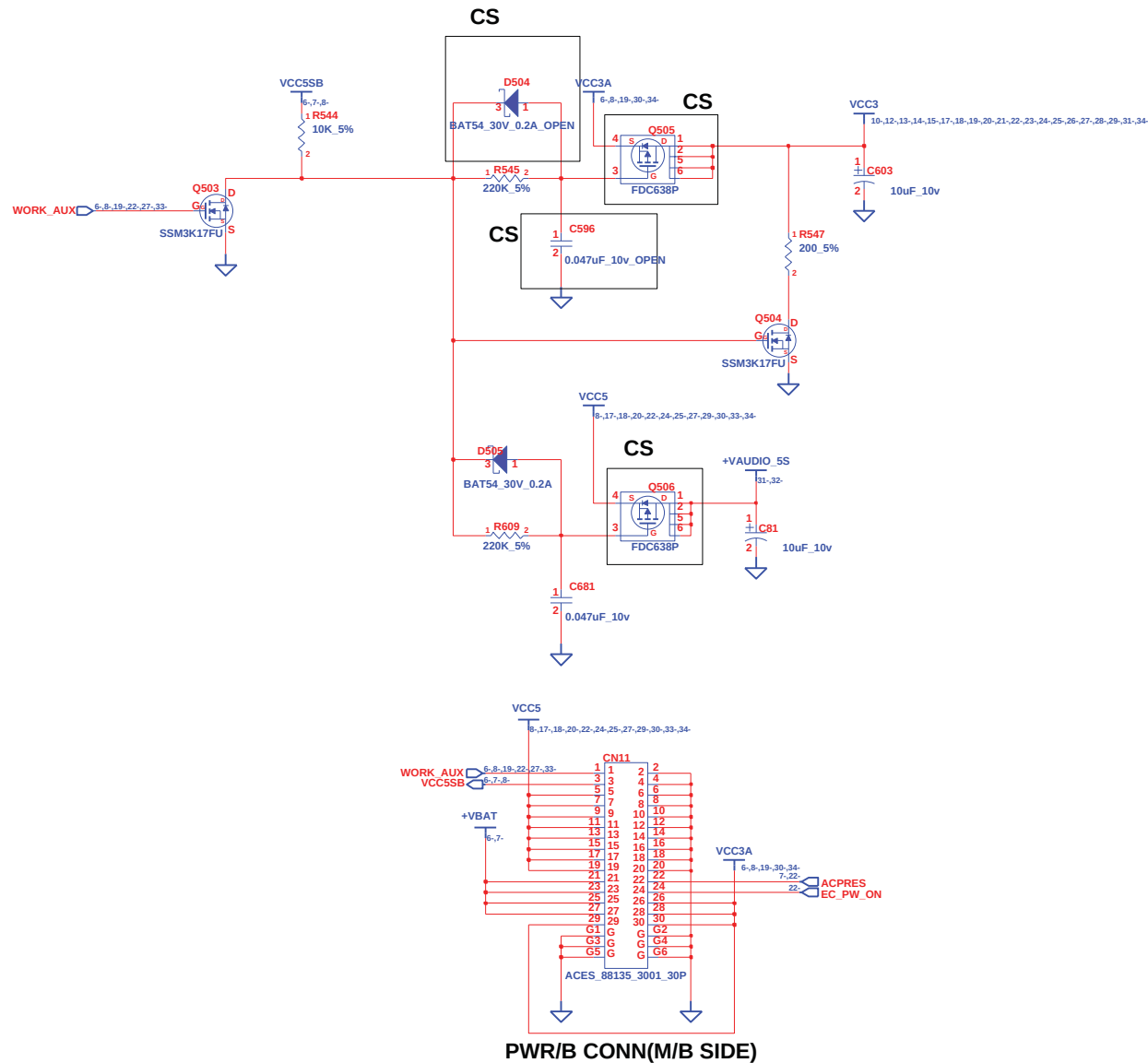
| FOR MP |      |
|--------|------|
| R521   | OPEN |
| R522   | OPEN |
| U5     | OPEN |

|                                                 |                |                                       |                |
|-------------------------------------------------|----------------|---------------------------------------|----------------|
| TITLE <b><i>S18</i></b>                         |                |                                       |                |
| SYSTEM POWER(VCCMEM/VCCS/VCCSSB/VCCSSB/VCCOESB) |                |                                       |                |
| SIZE <b>A3</b>                                  | CODE <b>CS</b> | DOC. NUMBER<br><b><i>Model No</i></b> | REV <b>A02</b> |
| SHEET <b>6</b>                                  |                | OF <b>36</b>                          |                |

|           |                    |             |
|-----------|--------------------|-------------|
| CHANGE by | <i>Drawer Name</i> | 16-Oct-2006 |
|-----------|--------------------|-------------|



<http://hobi-elektronika.net>



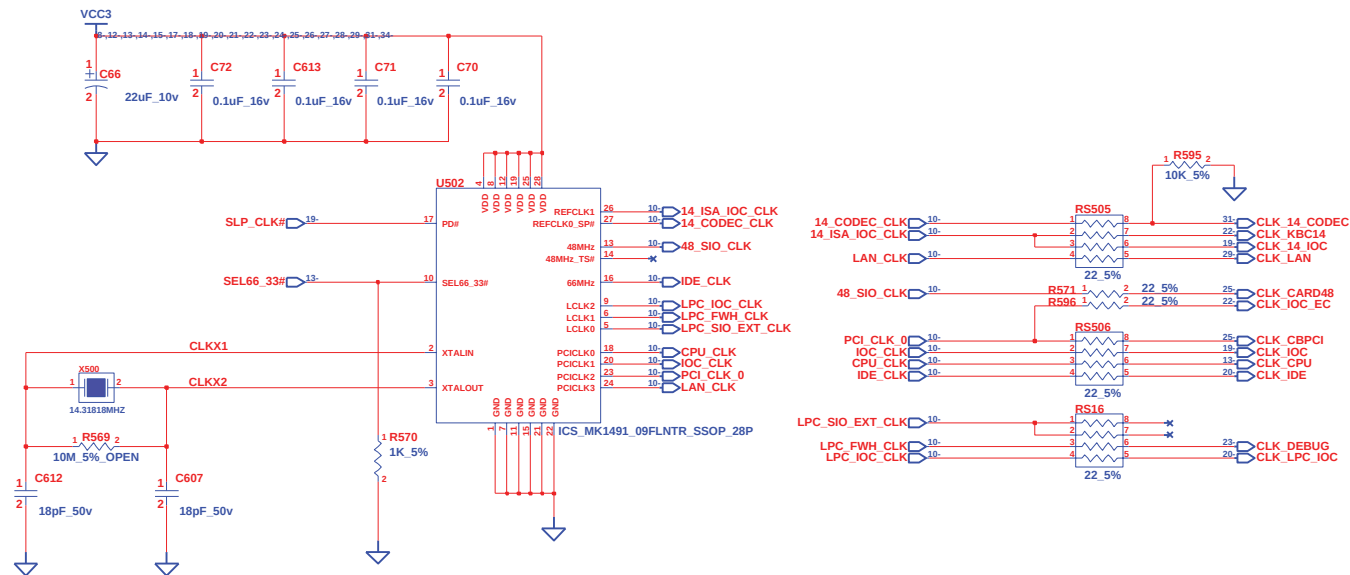
| INVENTEC                           |      |             |       |
|------------------------------------|------|-------------|-------|
| TITLE                              |      |             |       |
| S18                                |      |             |       |
| SYSTEM POWER(VCORE/VCC3/VCCMEMCPU) |      |             |       |
| SIZE                               | CODE | DOC. NUMBER | REV   |
| A3                                 | CS   | Model No    | A02   |
| CHANGE by                          |      | 5-Oct-2006  |       |
| DRAWN by                           |      |             |       |
| SHEET                              |      | 8           | OF 36 |



|   |                                                                       |   |   |   |   |   |   |   |   |
|---|-----------------------------------------------------------------------|---|---|---|---|---|---|---|---|
|   | 1                                                                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |
| A | <a href="http://hobi-elektronika.net">http://hobi-elektronika.net</a> |   |   |   |   |   |   |   | A |
| B |                                                                       |   |   |   |   |   |   |   | B |
| C | BLANK                                                                 |   |   |   |   |   |   |   | C |
| D |                                                                       |   |   |   |   |   |   |   | D |
| E |                                                                       |   |   |   |   |   |   |   | E |
| F |                                                                       |   |   |   |   |   |   |   | F |
|   | 1                                                                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |

|                             |                   |                                |                   |
|-----------------------------|-------------------|--------------------------------|-------------------|
| <b>INVENTEC</b>             |                   |                                |                   |
| TITLE <b>S18</b>            |                   |                                |                   |
| SIZE<br><b>A3</b>           | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><b>A02</b> |
| CHANGE by <i>Drawn Name</i> |                   | 5-Oct-2006                     |                   |
| SHEET                       |                   | 9                              | OF 36             |

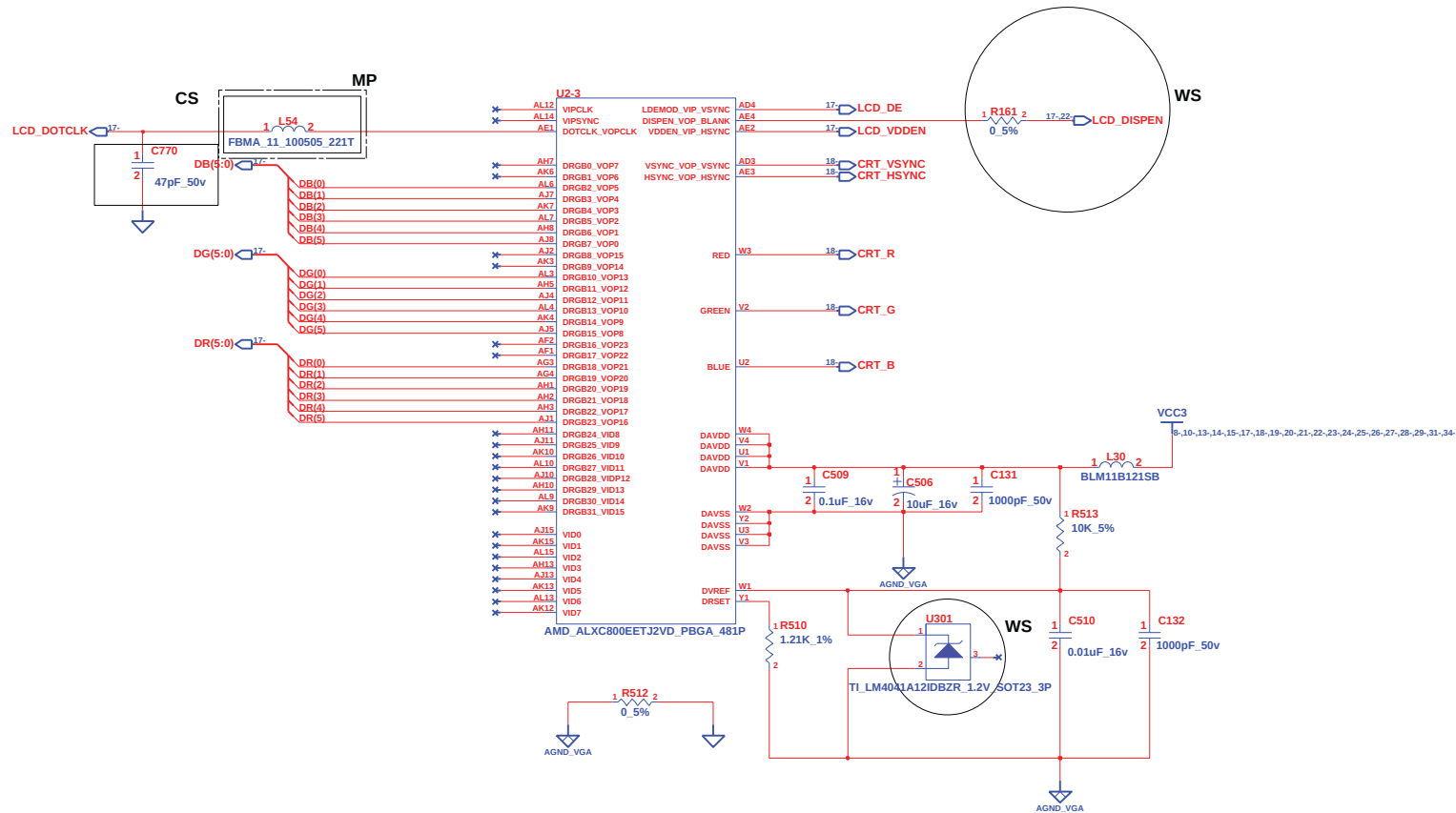
<http://hobi-elektronika.net>



| INVENTEC        |      |             |       |
|-----------------|------|-------------|-------|
| TITLE           |      |             |       |
| S18             |      |             |       |
| CLOCK GENERATOR |      |             |       |
| SIZE            | CODE | DOC. NUMBER | REV   |
| A3              | CS   | Model No    | A02   |
| CHANGE by       |      | 5-Oct-2006  |       |
| DRAWN by        |      |             |       |
| SHEET           |      | 10          | OF 36 |



<http://hobi-elektronika.net>



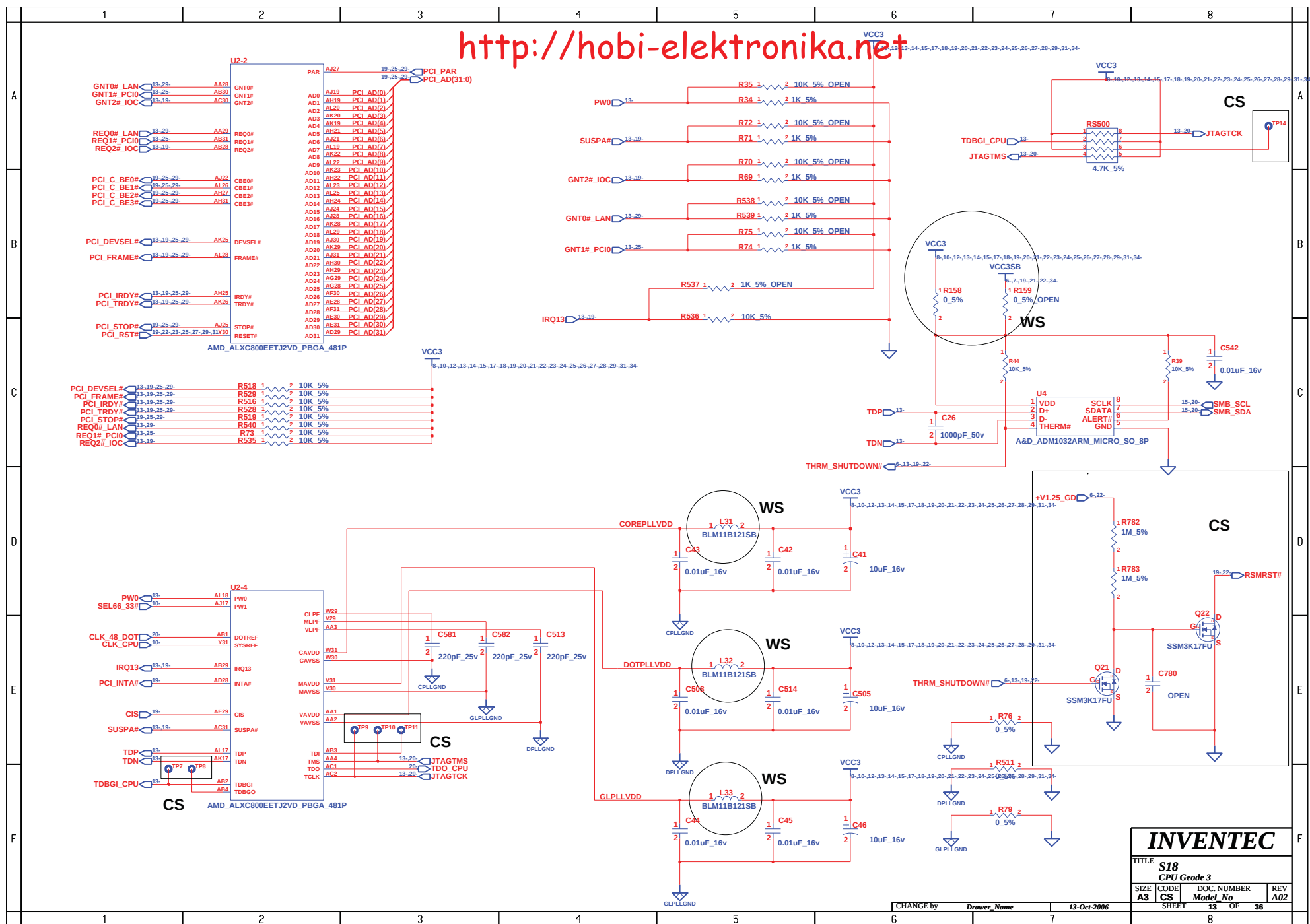
**INVENTEC**

TITLE  
**S18**  
**CPU Geode 2**

| SIZE | CODE | DOC. NUMBER | REV |
|------|------|-------------|-----|
| A3   | CS   | Model No    | A02 |

CHANGE by *Drawn Name* 13-Oct-2006

SHEET 12 OF 36



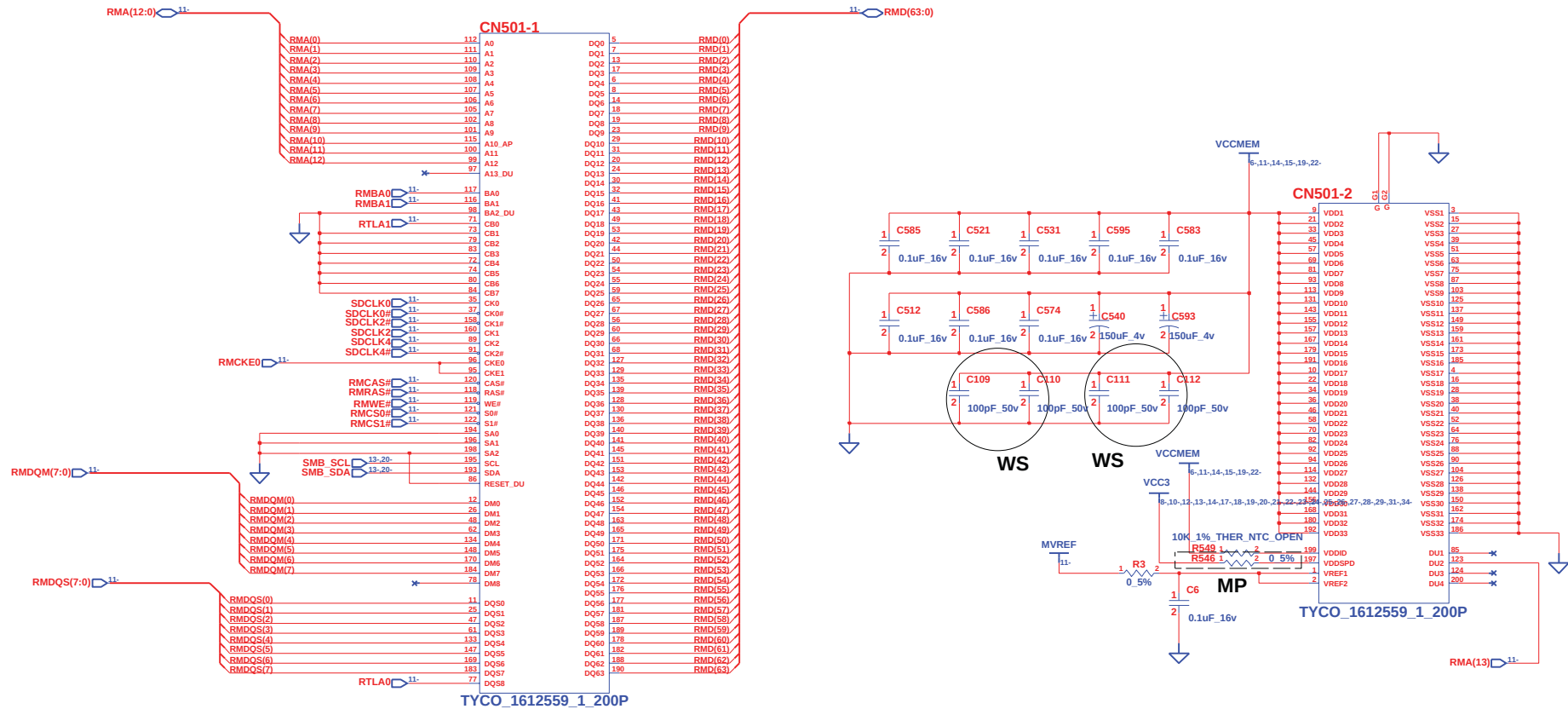
bi-



|                   |                   |                                |                   |
|-------------------|-------------------|--------------------------------|-------------------|
| SIZE<br><b>A3</b> | CODE<br><b>CS</b> | DOC. NUMBER<br><i>Model No</i> | REV<br><b>A02</b> |
|-------------------|-------------------|--------------------------------|-------------------|

|       |          |    |    |
|-------|----------|----|----|
| CS    | Model No |    |    |
| SHEET | 14       | OF | 36 |

<http://hobi-elektronika.net>



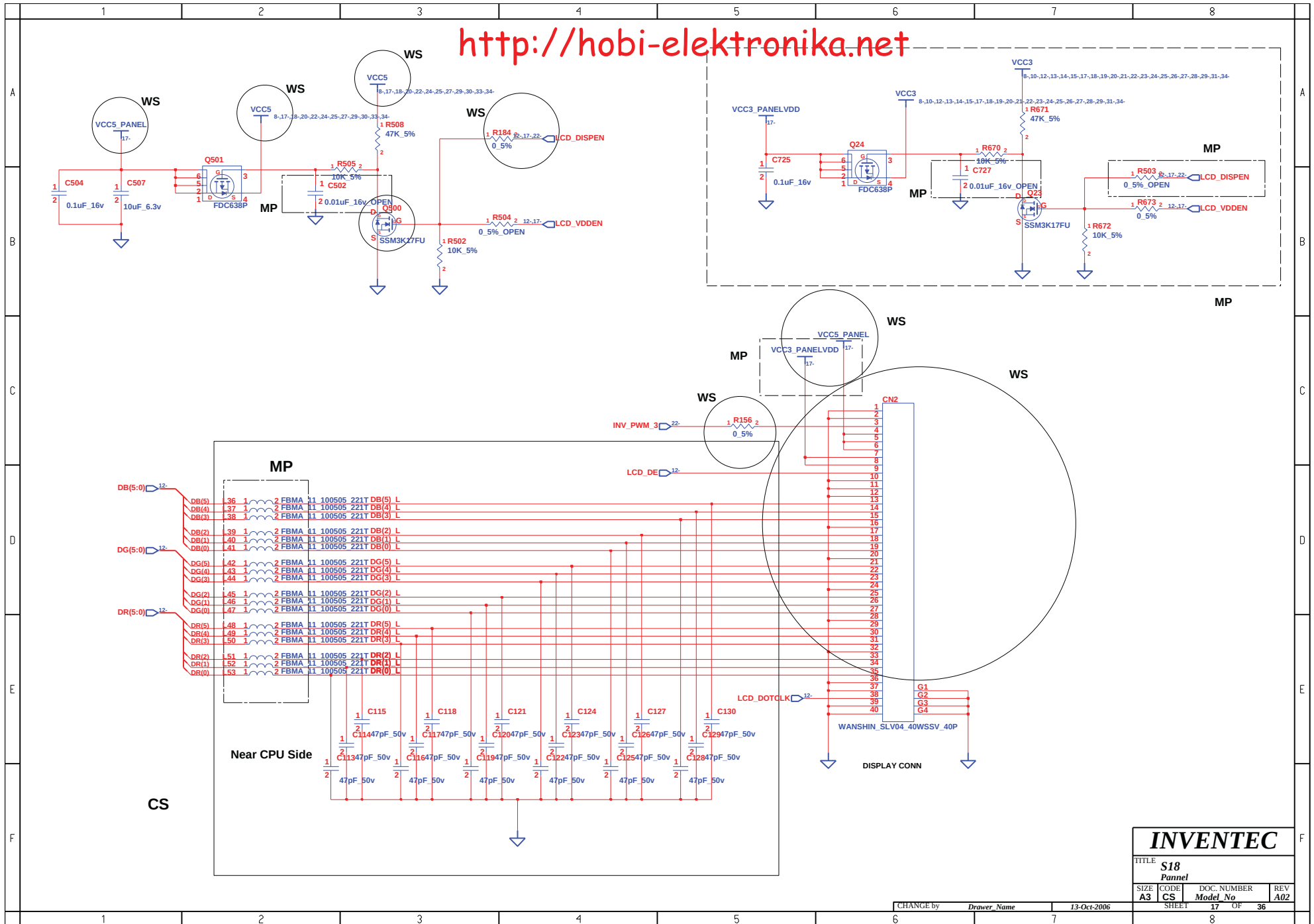
|   |                                                                       |   |   |   |   |   |   |   |   |
|---|-----------------------------------------------------------------------|---|---|---|---|---|---|---|---|
|   | 1                                                                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |
| A | <a href="http://hobi-elektronika.net">http://hobi-elektronika.net</a> |   |   |   |   |   |   |   | A |
| B |                                                                       |   |   |   |   |   |   |   | B |
| C |                                                                       |   |   |   |   |   |   |   | C |
| D | BLANK                                                                 |   |   |   |   |   |   |   | D |
| E |                                                                       |   |   |   |   |   |   |   | E |
| F |                                                                       |   |   |   |   |   |   |   | F |
|   | 1                                                                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |

| INVENTEC          |                   |                                |                   |
|-------------------|-------------------|--------------------------------|-------------------|
| TITLE <i>S18</i>  |                   |                                |                   |
| SIZE<br><i>A3</i> | CODE<br><i>CS</i> | DOC. NUMBER<br><i>Model No</i> | REV<br><i>A02</i> |
| SHEET 16 OF 36    |                   |                                |                   |

CHANGE by *Drawn Name* 5-Oct-2006



<http://hobi-elektronika.net>

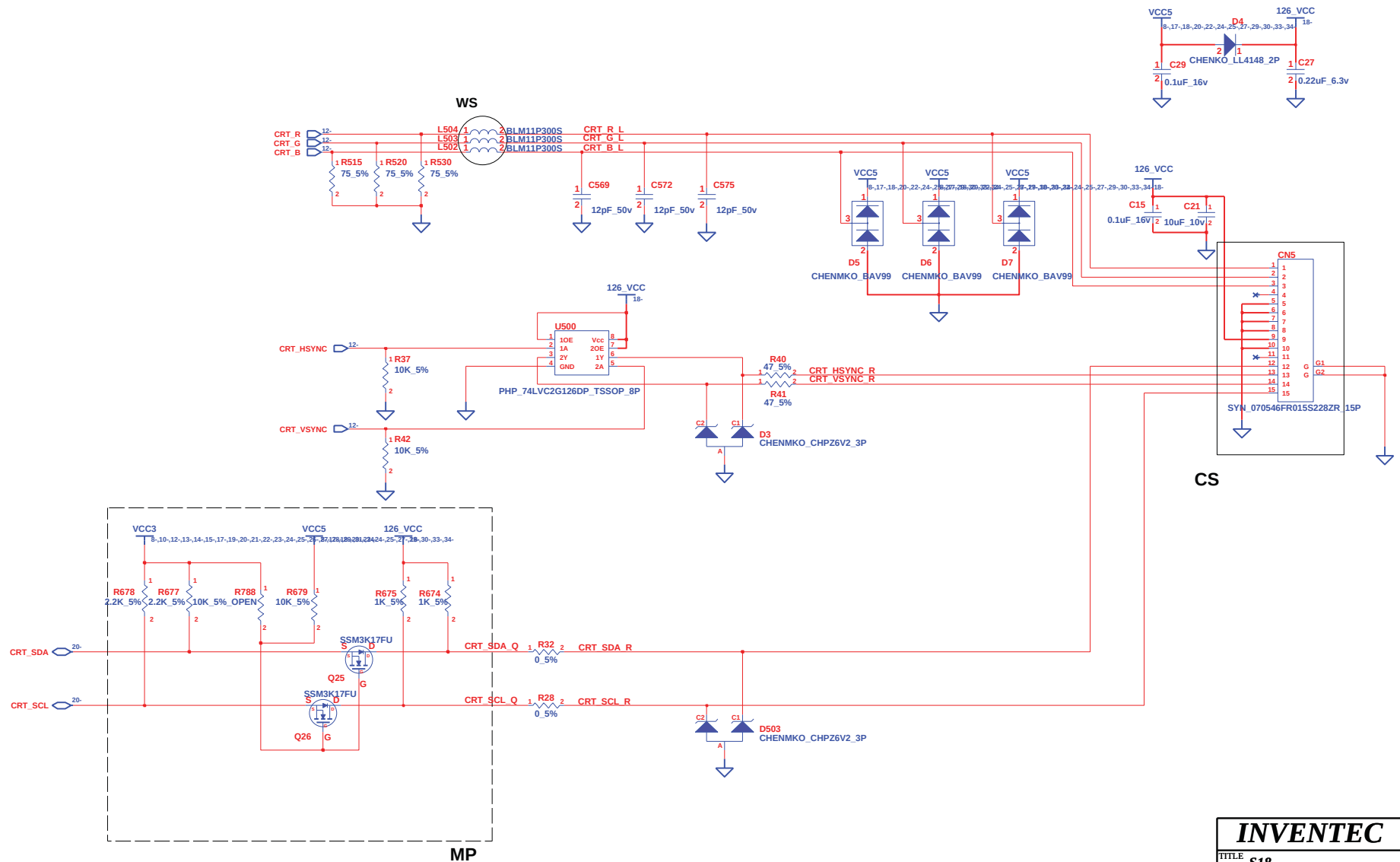


**INVENTEC**

|           |      |             |     |
|-----------|------|-------------|-----|
| TITLE     |      |             |     |
| S18 Panel |      |             |     |
| SIZE      | CODE | DOC. NUMBER | REV |
| A3        | CS   | Model No    | A02 |
| SHEET     |      | 17 OF       | 36  |

CHANGE by *Drawer Name* 13-Oct-2006

<http://hobi-elektronika.net>

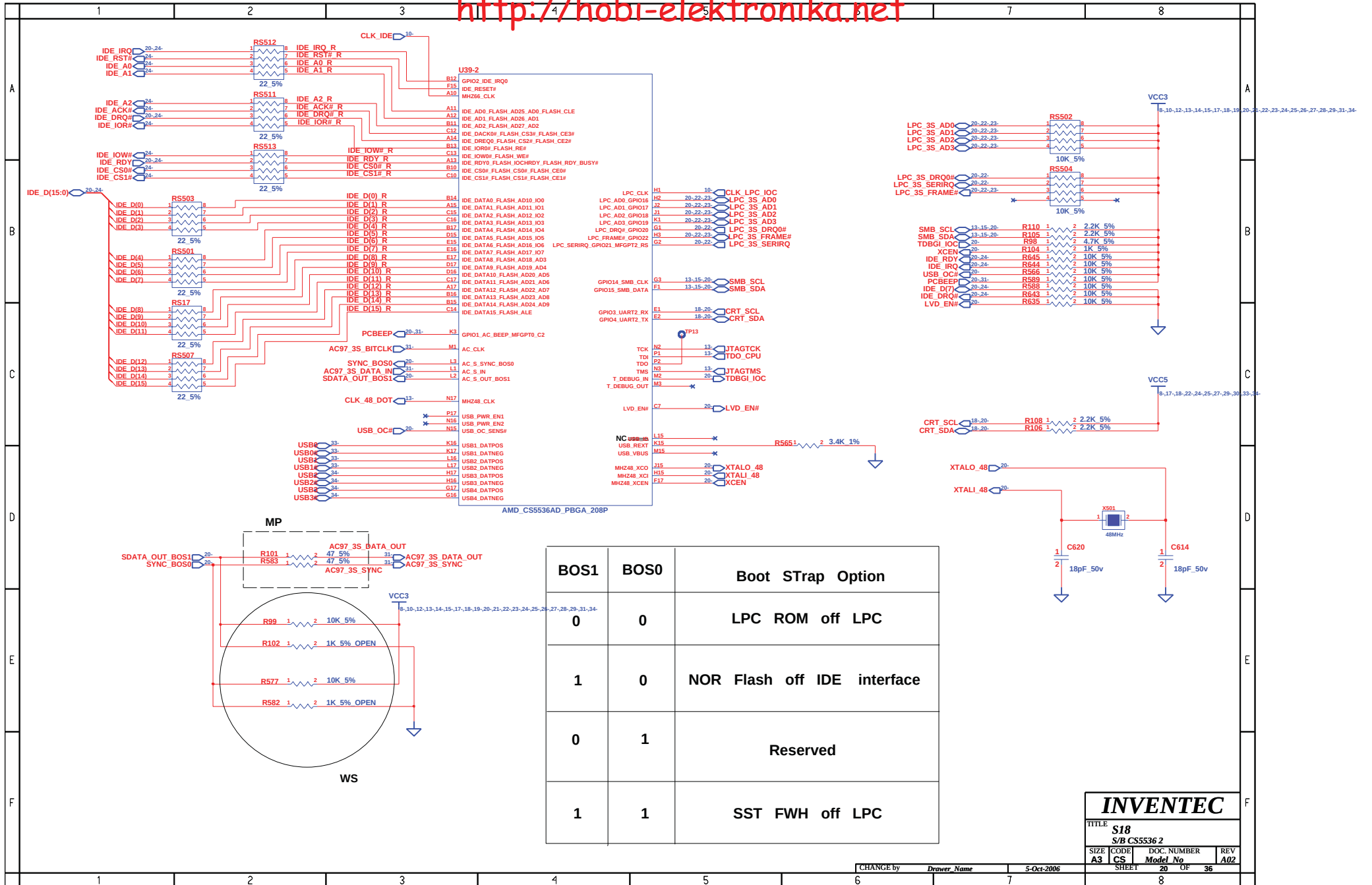


| INVENTEC  |      |             |       |
|-----------|------|-------------|-------|
| TITLE     |      |             |       |
| S18       |      |             |       |
| CART CONN |      |             |       |
| SIZE      | CODE | DOC. NUMBER | REV   |
| A3        | CS   | Model No    | A02   |
| SHEET     |      | 18          | OF 36 |

CHANGE by *Drawn Name* 13-Oct-2006

|                     |      |             |     |
|---------------------|------|-------------|-----|
| TITLE               |      |             |     |
| S18<br>S/B CS5536 1 |      |             |     |
| SIZE                | CODE | DOC. NUMBER | REV |
| A3                  | CS   | Model No    | A02 |
| SHEET 19 OF 36      |      |             |     |

|       |    |          |     |
|-------|----|----------|-----|
| A3    | CS | Model No | A02 |
| SHEET |    | 19 OF    | 36  |



| BOS1 | BOS0 | Boot STrap Option           |
|------|------|-----------------------------|
| 0    | 0    | LPC ROM off LPC             |
| 1    | 0    | NOR Flash off IDE interface |
| 0    | 1    | Reserved                    |
| 1    | 1    | SST FWH off LPC             |

**INVENTEC**

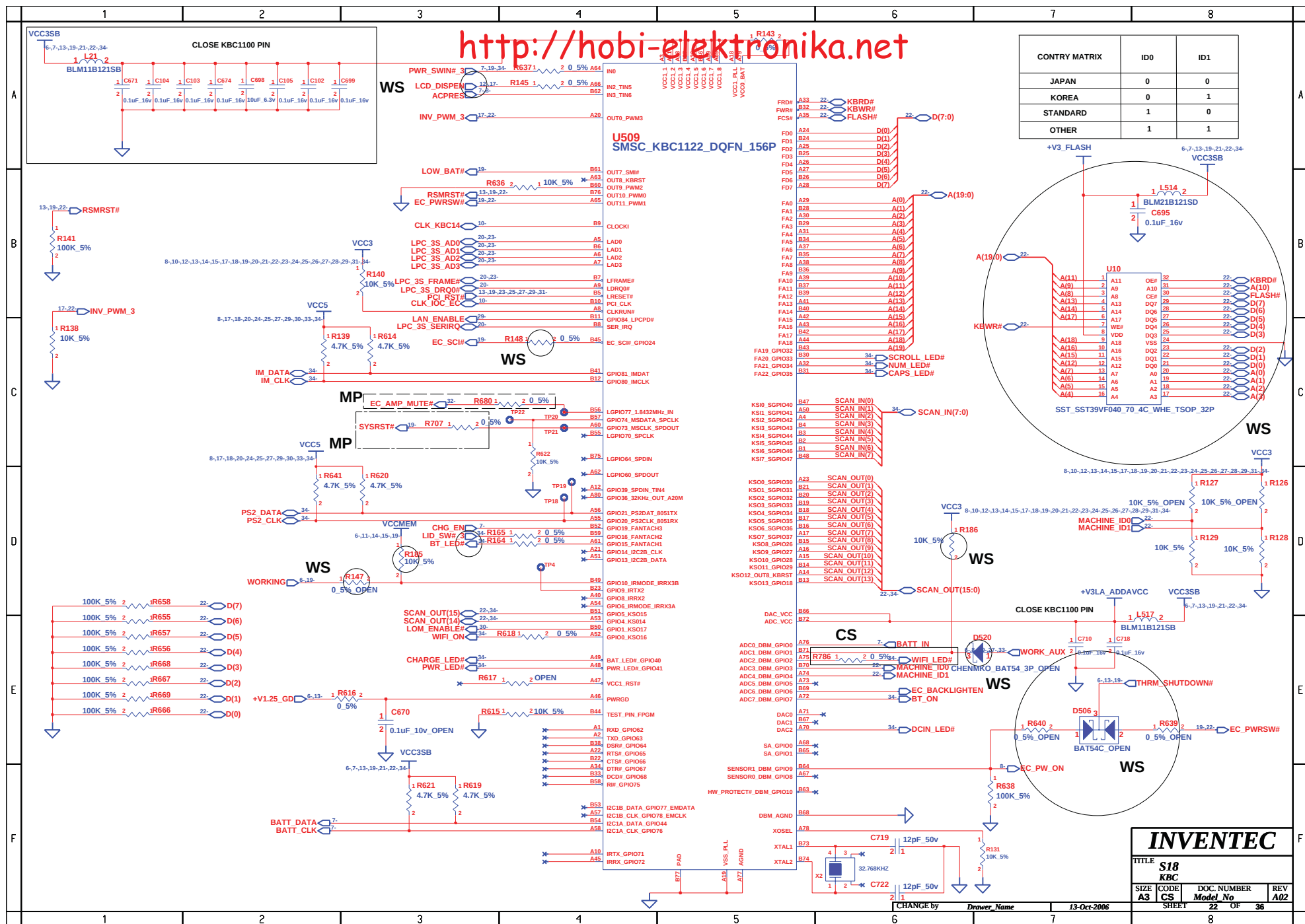
TITLE  
**S18**  
S/B CS5536 2

|            |            |                         |            |
|------------|------------|-------------------------|------------|
| SIZE<br>A3 | CODE<br>CS | DOC. NUMBER<br>Model No | REV<br>A02 |
|------------|------------|-------------------------|------------|

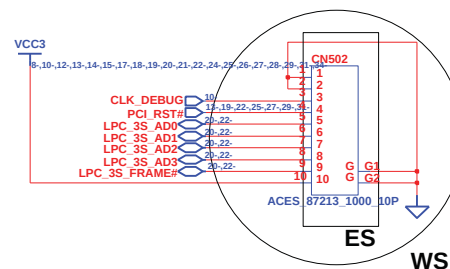
CHANGE by *Drawer Name* 5-Oct-2006

SHEET 20 OF 36





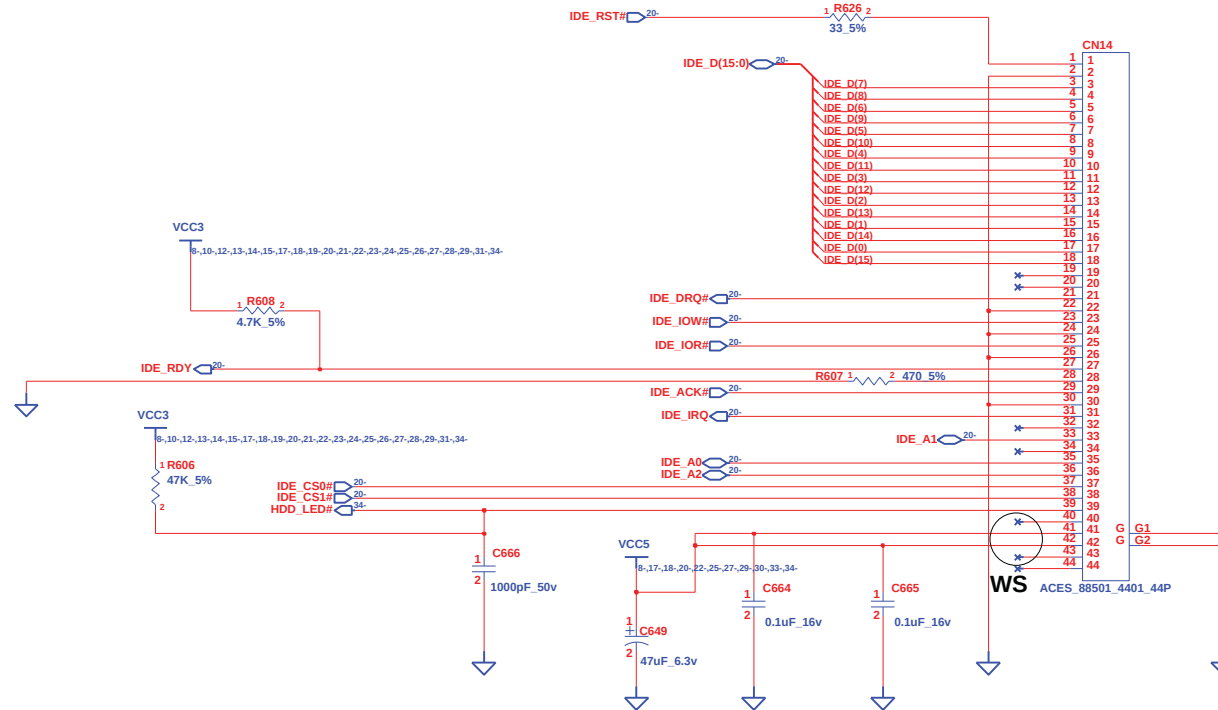
<http://hobi-elektronika.net>



MINI CARD CONN for DEBUG

| INVENTEC    |      |             |       |
|-------------|------|-------------|-------|
| TITLE       |      |             |       |
| S18         |      |             |       |
| DEBUG CARD  |      |             |       |
| SIZE        | CODE | DOC. NUMBER | REV   |
| A3          | CS   | Model No    | A02   |
| CHANGE by   |      | 5-Oct-2006  |       |
| Drawer Name |      |             |       |
| SHEET       |      | 23          | OF 36 |

<http://hobi-elektronika.net>



**INVENTEC**

TITLE **S18**  
**IDE HDD CONN**

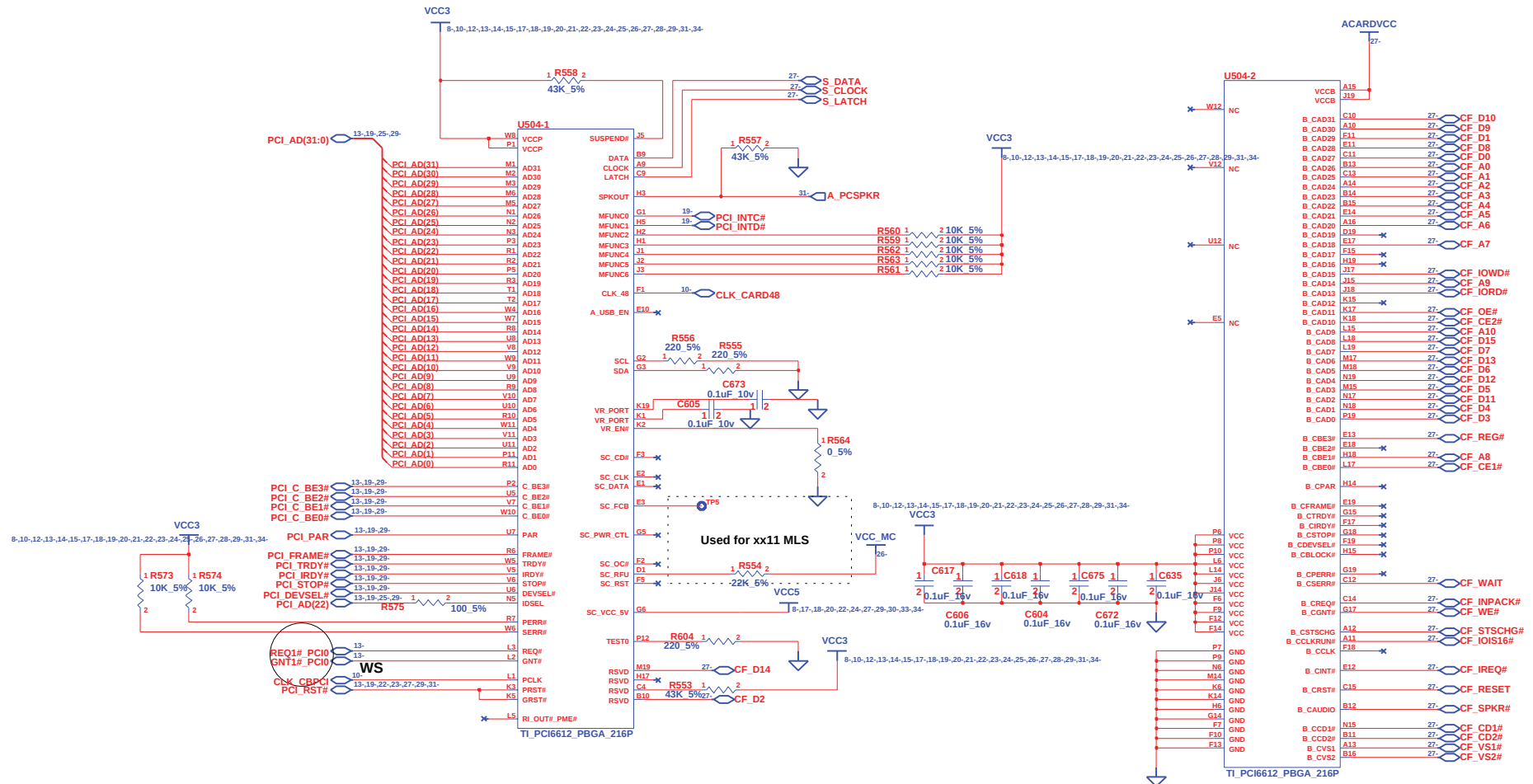
|                 |                |                             |                |
|-----------------|----------------|-----------------------------|----------------|
| SIZE <b>A3</b>  | CODE <b>CS</b> | DOC. NUMBER <b>Model No</b> | REV <b>A02</b> |
| SHEET <b>24</b> |                | OF <b>36</b>                |                |

CHANGE by *Drawn Name* 5-Oct-2006

8



<http://hobi-elektronika.net>



**INVENTEC**

TITLE  
**S18**  
**CARDBUS CONTROLLER**

| SIZE | CODE | DOC. NUMBER | REV |
|------|------|-------------|-----|
| A3   | CS   | Model No    | A02 |

CHANGE by *Drawn Name* 5-Oct-2006

SHEET 25 OF 36

8

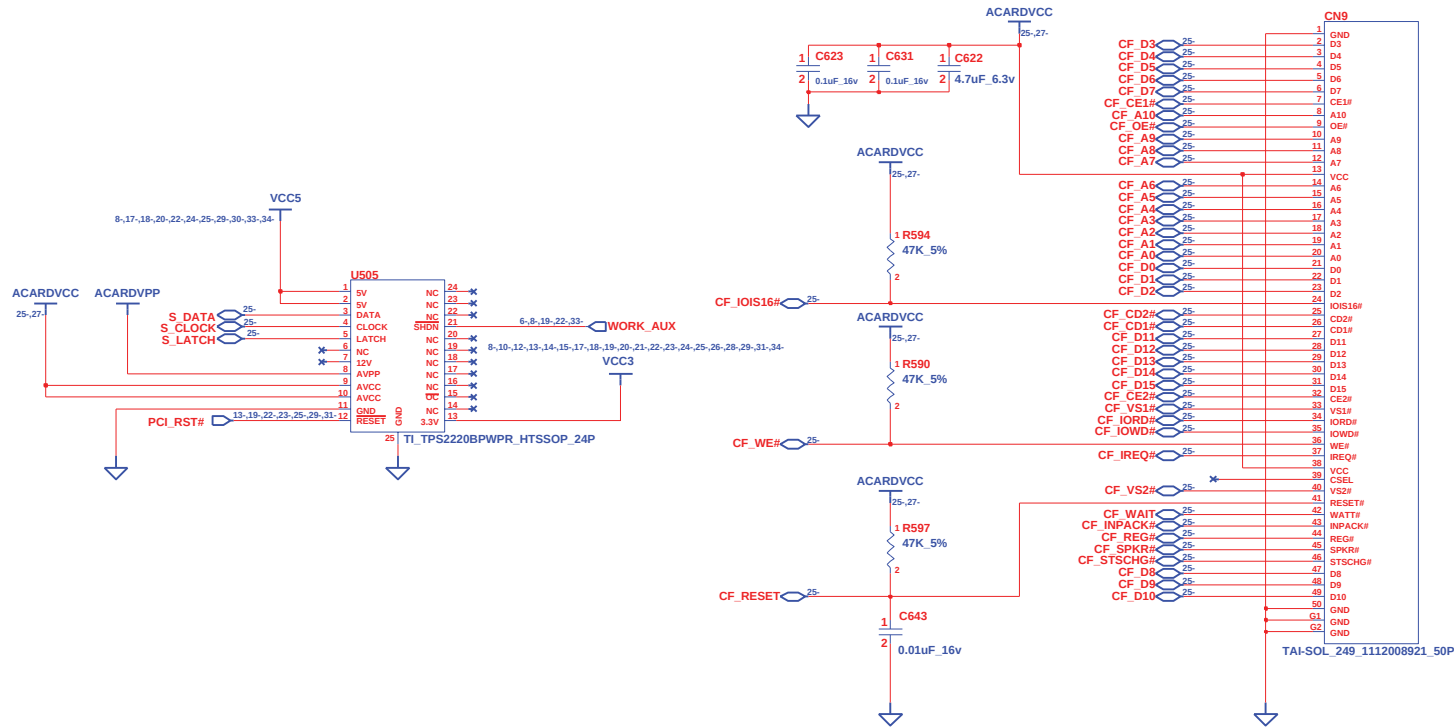
[illegible]

|           |                    |            |
|-----------|--------------------|------------|
| CHANGE by | <i>Drawer_Name</i> | 5-Oct-2006 |
|-----------|--------------------|------------|

|       |                                       |
|-------|---------------------------------------|
| TITLE | <b>S18</b><br><b>CARD READER CONN</b> |
|-------|---------------------------------------|

|       |    |    |    |
|-------|----|----|----|
| SHEET | 26 | OF | 36 |
| 8     |    |    |    |

<http://hobi-elektronika.net>



**INVENTEC**

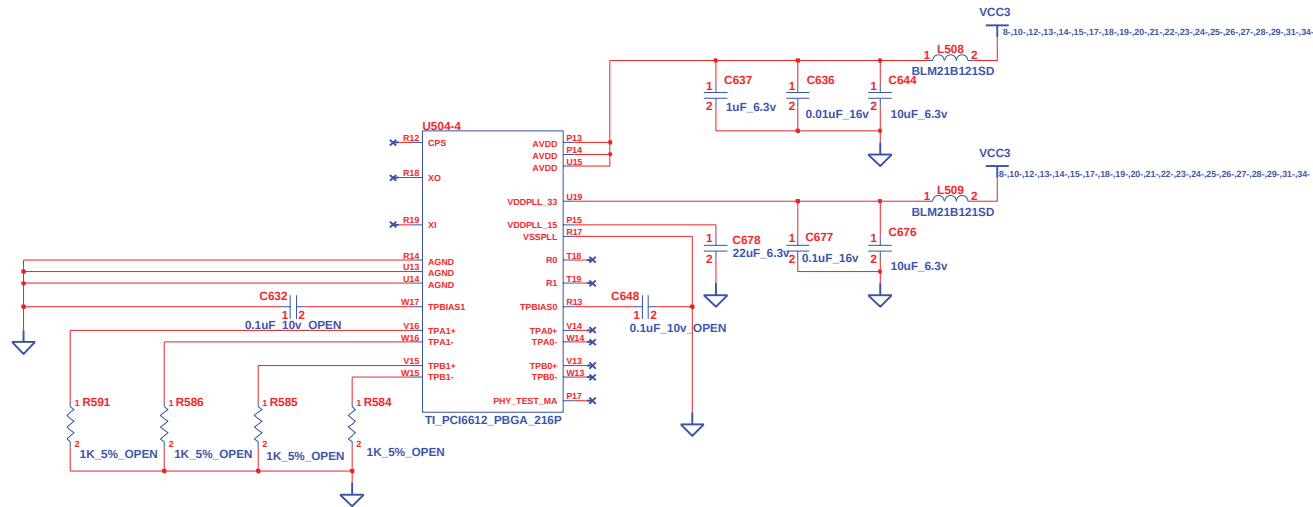
TITLE  
**S18**  
**CF CARD CONN**

| SIZE | CODE | DOC. NUMBER | REV |
|------|------|-------------|-----|
| A3   | CS   | Model No    | A02 |

CHANGE by *Drawn Name* 5-Oct-2006

SHEET 27 OF 36

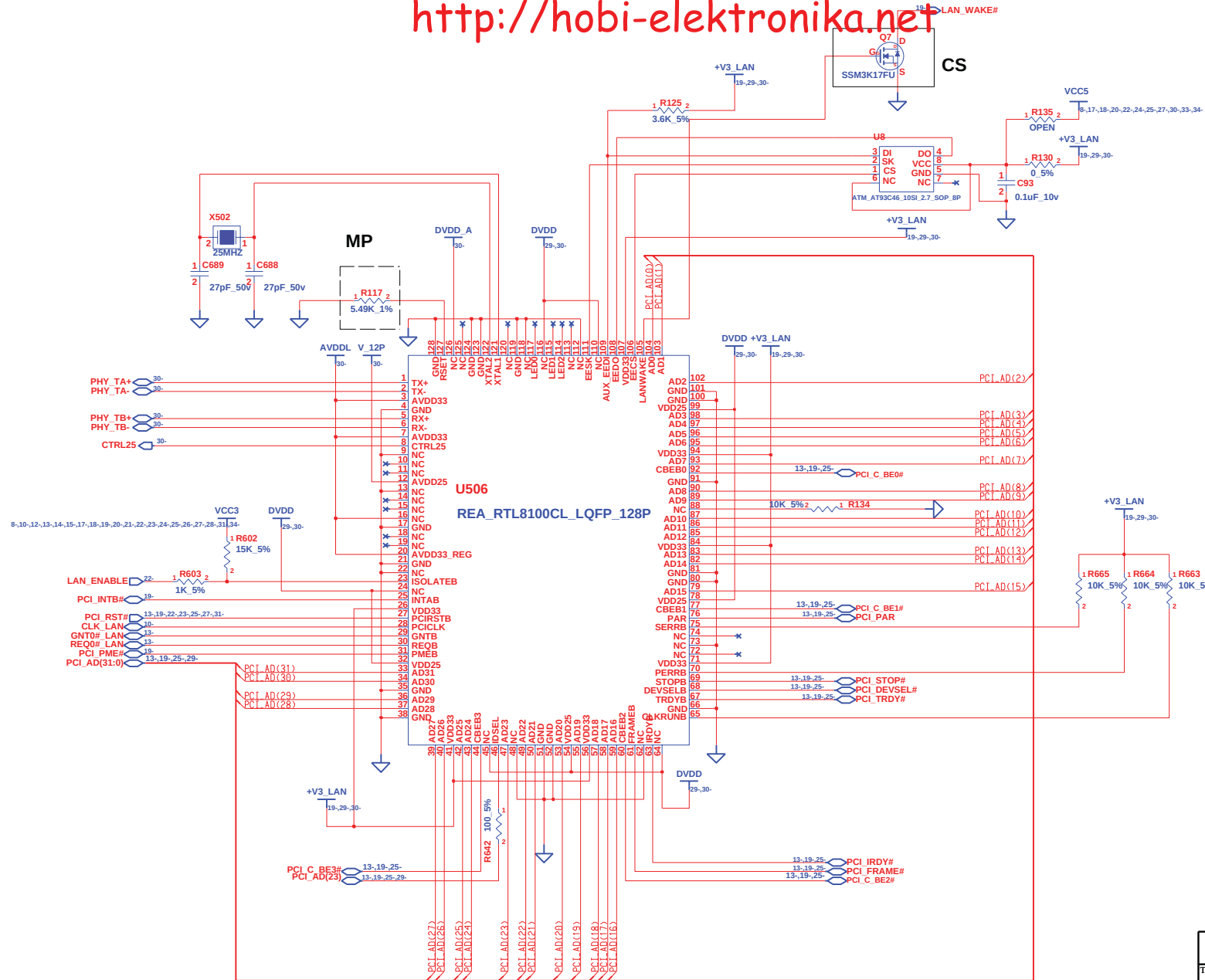
<http://hobi-elektronika.net>



| INVENTEC           |      |             |       |
|--------------------|------|-------------|-------|
| TITLE              |      |             |       |
| S18                |      |             |       |
| CARDBUS CONTROLLER |      |             |       |
| SIZE               | CODE | DOC. NUMBER | REV   |
| A3                 | CS   | Model No    | A02   |
| SHEET              |      | 28          | OF 36 |

CHANGE by *Drawn Name* 13-Oct-2006

<http://hobi-elektronika.net>



**INVENTEC**

TITLE  
**S18**  
**LAN CONTROLLER**

| SIZE | CODE | DOC. NUMBER | REV |
|------|------|-------------|-----|
| A3   | CS   | Model No    | A02 |

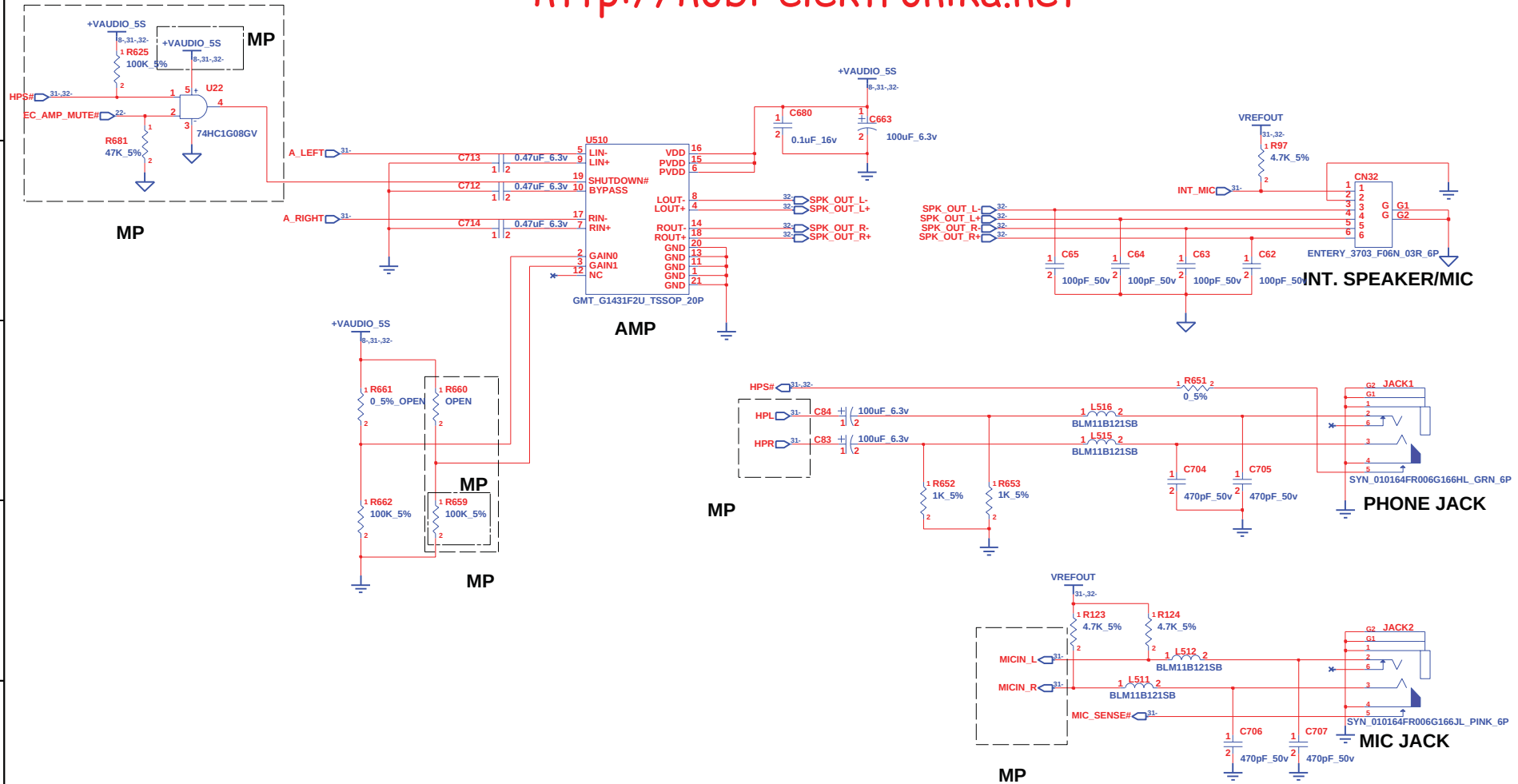
CHANGE by *Drawn Name* 5-Oct-2006

SHEET 29 OF 36





<http://hobi-elektronika.net>



| INVENTEC         |      |             |             |
|------------------|------|-------------|-------------|
| TITLE            |      |             |             |
| S18              |      |             |             |
| AUDIO AMP & JACK |      |             |             |
| SIZE             | CODE | DOC. NUMBER | REV         |
| A3               | CS   | Model No    | A02         |
| CHANGE by        |      | Drawer Name | 13-Oct-2006 |
| SHEET            |      | 32          | OF 36       |



http://hobi-elektronika.net

**RIGHT SIDE**

**LEFT SIDE**

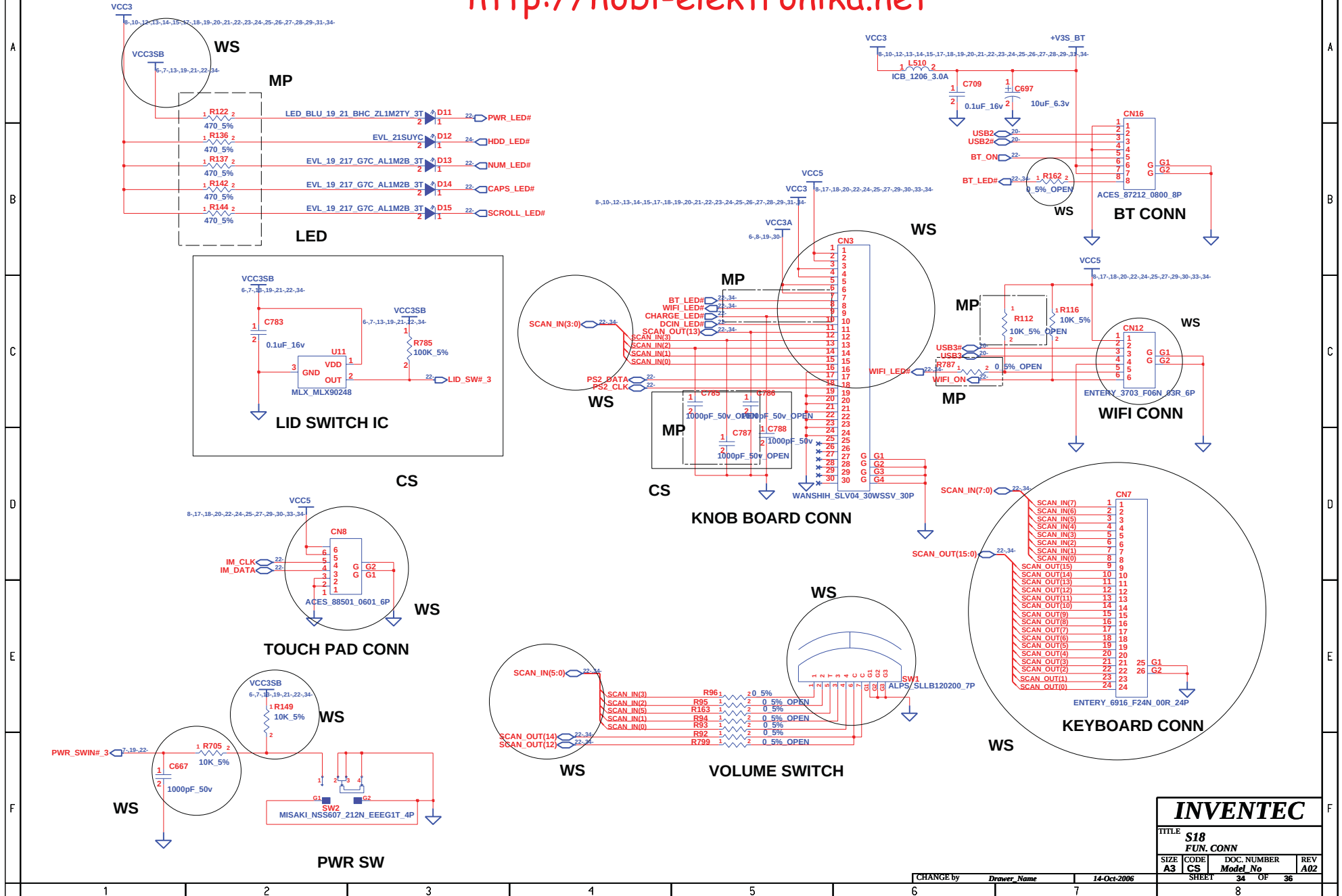
| INVENTEC |      |             |     |       |
|----------|------|-------------|-----|-------|
| TITLE    |      |             |     |       |
| S18      |      |             |     |       |
| USB      |      |             |     |       |
| SIZE     | CODE | DOC. NUMBER | REV |       |
| A3       | CS   | Model No    | 33  | OF 36 |

CHANGE by Drawer Name 5-Oct-2006

**LEFT SIDE**

|                                |                |                             |                |
|--------------------------------|----------------|-----------------------------|----------------|
| <b>INVENTEC</b>                |                |                             |                |
| TITLE <b>S18</b><br><b>USB</b> |                |                             |                |
| SIZE <b>A3</b>                 | CODE <b>CS</b> | DOC. NUMBER <b>Model No</b> | REV <b>A02</b> |
| SHEET <b>33</b>                |                | OF <b>36</b>                |                |
| 8                              |                |                             |                |

<http://hobi-elektronika.net>

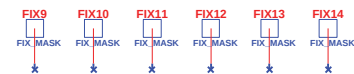
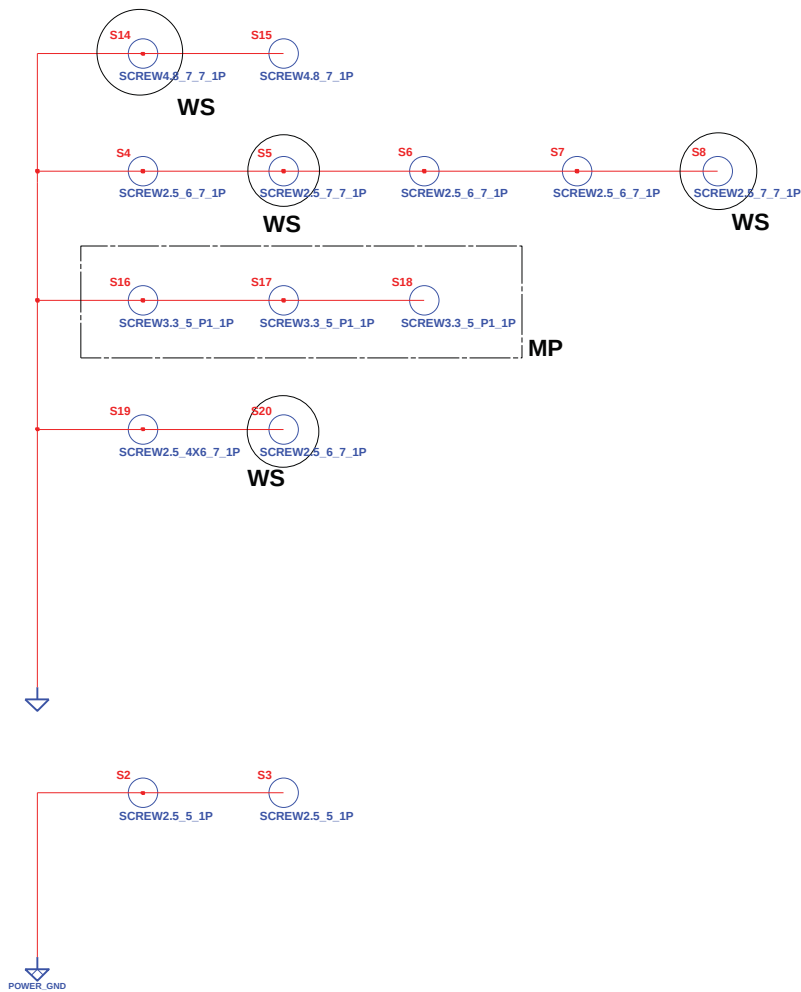


**INVENTEC**

|           |      |             |       |
|-----------|------|-------------|-------|
| TITLE     |      |             |       |
| S18       |      |             |       |
| FUN. CONN |      |             |       |
| SIZE      | CODE | DOC. NUMBER | REV   |
| A3        | CS   | Model No    | A02   |
| SHEET     |      | 34          | OF 36 |

CHANGE by *Drawn Name* 14-Oct-2006

<http://hobi-elektronika.net>



| INVENTEC |      |             |       |
|----------|------|-------------|-------|
| TITLE    |      |             |       |
| S18      |      |             |       |
| SCREW    |      |             |       |
| SIZE     | CODE | DOC. NUMBER | REV   |
| A3       | CS   | Model No    | A02   |
| SHEET    |      | 35          | OF 36 |

CHANGE by *Drawer Name* 19-Oct-2006

8

[illegible]

|                                   |           |                 |          |
|-----------------------------------|-----------|-----------------|----------|
| TITLE                             |           |                 |          |
| <b>S18</b><br><b>SYSTEM POWER</b> |           |                 |          |
| SIZE                              | CODE      | DOC. NUMBER     | R        |
| <b>A3</b>                         | <b>CS</b> | <i>Model No</i> | <i>A</i> |
| SHEET                             |           | 36              | OF 36    |

|           |                    |             |
|-----------|--------------------|-------------|
| CHANGE by | <i>Drawer Name</i> | 16-Oct-2006 |
|-----------|--------------------|-------------|

CS Model No  
SHEET 36 OF 36