

TT08_{8-Layer}

Final build PCB A02

2008/08/21

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| DATE | CHANGE NO. | REV |

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|----------------------------|----|------|-------|------|-----------------|------|--------------|
| DRAWER | EE | DATE | POWER | DATE | INVENTEC | | |
| DESIGN | | | | | TITLE | | |
| CHECK | | | | | TT08 | | |
| RESPONSIBLE | | | | | | | |
| SIZE = 3 | | | | | SIZE | CODE | DOC. NUMBER |
| FILE NAME : XXXX-XXXXXX-XX | | | | | A3 | CS | 1310A22136-0 |
| P/N XXXXXXXXXXXX | | | | | REV | | |
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INVENTEC

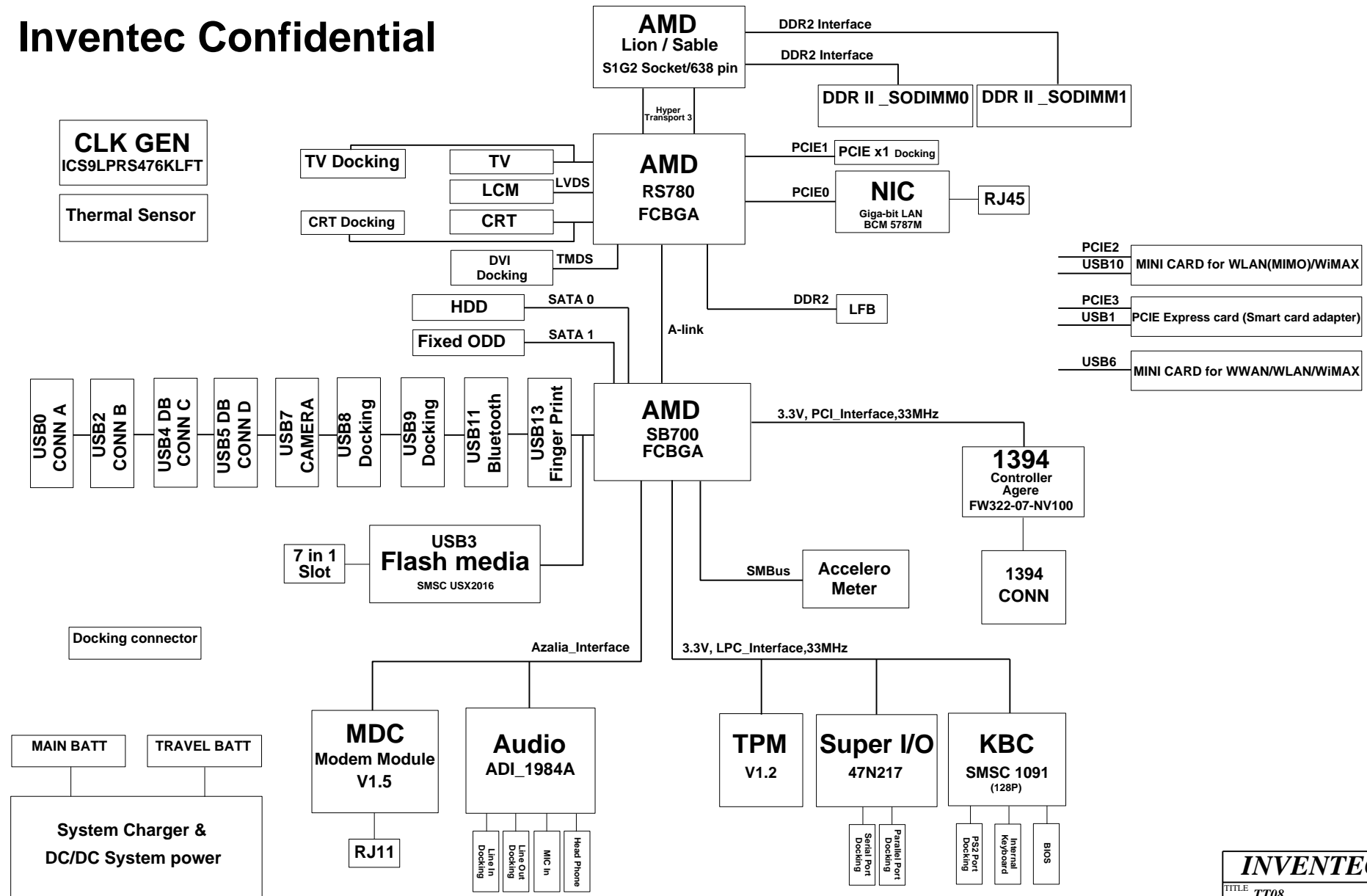
TITLE TT08

| | | | |
|-------------------|-------------------|------------------------------------|-------------------|
| SIZE A3 | CODE CS | DOC. NUMBER 1310A22136-0 | REV A02 |
|-------------------|-------------------|------------------------------------|-------------------|

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Inventec Confidential



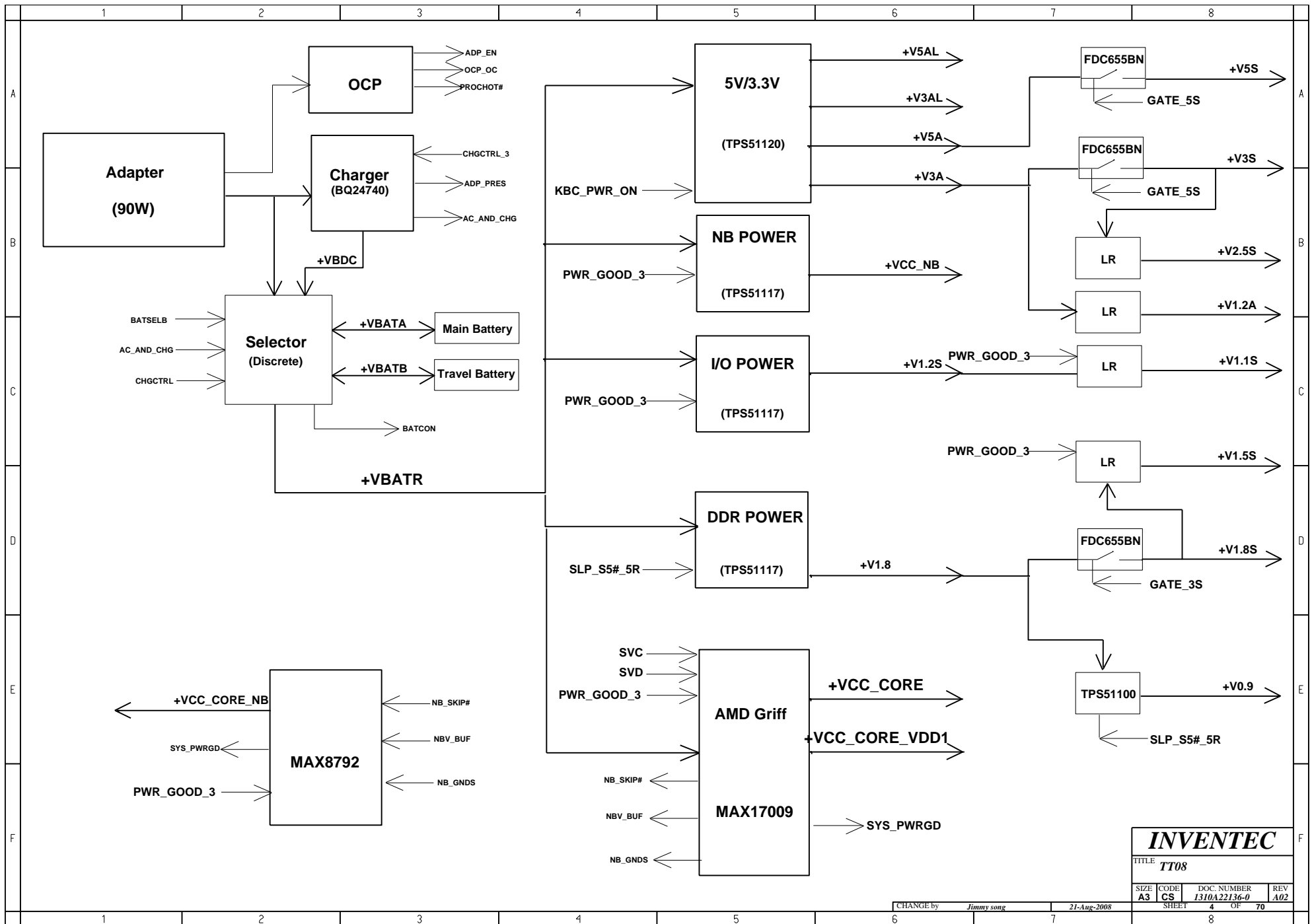
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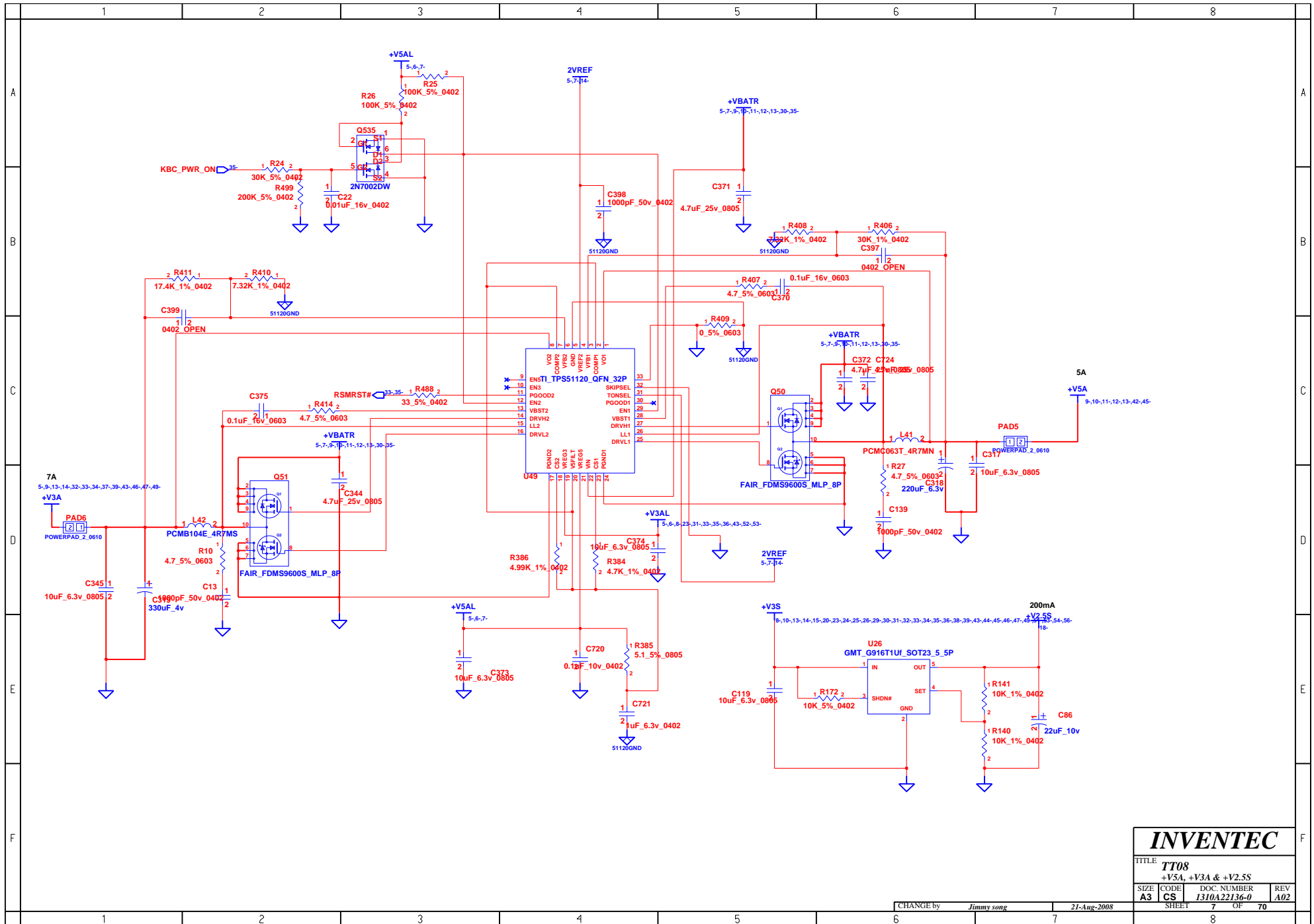
TITLE
TT08
Block Diagram

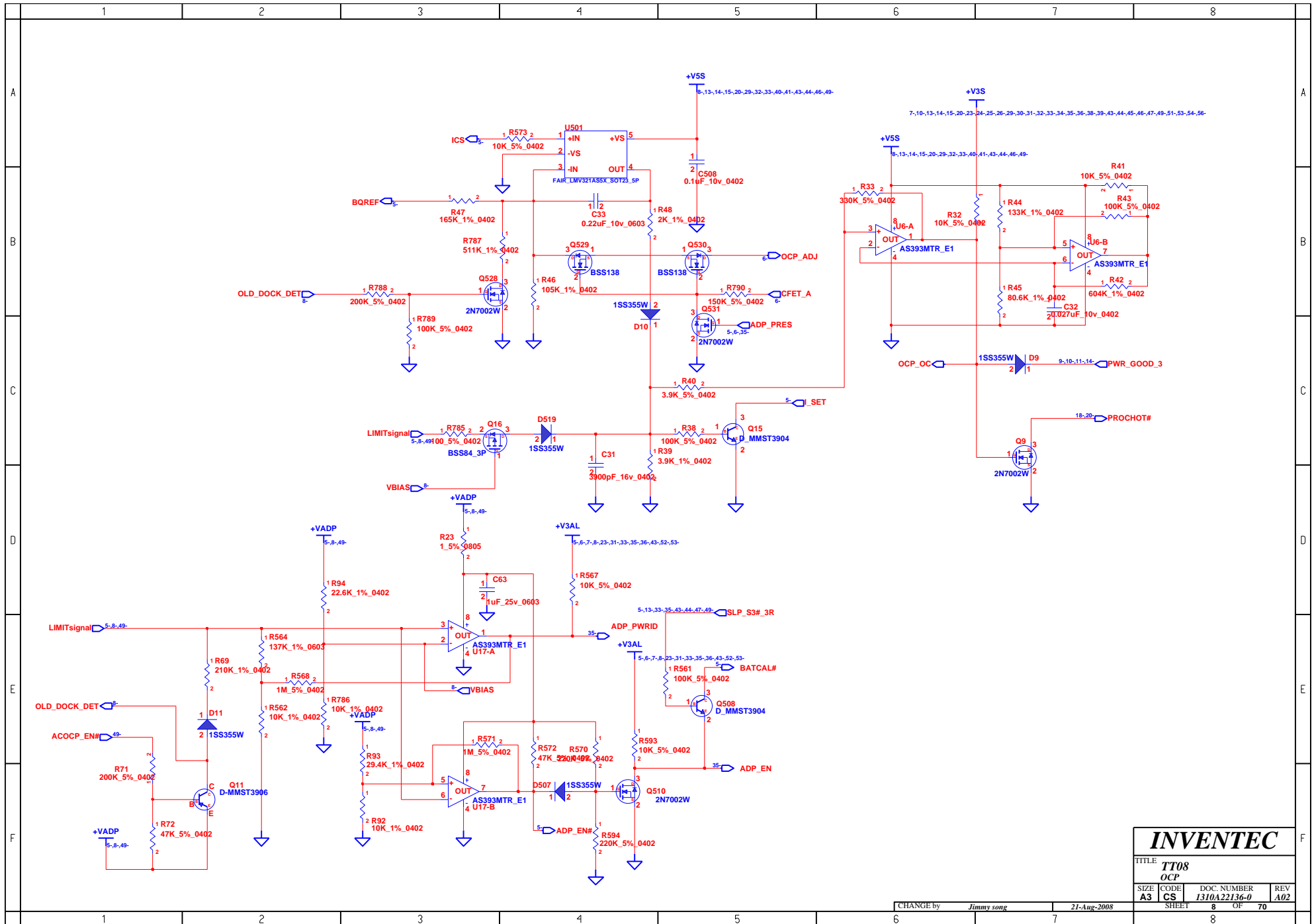
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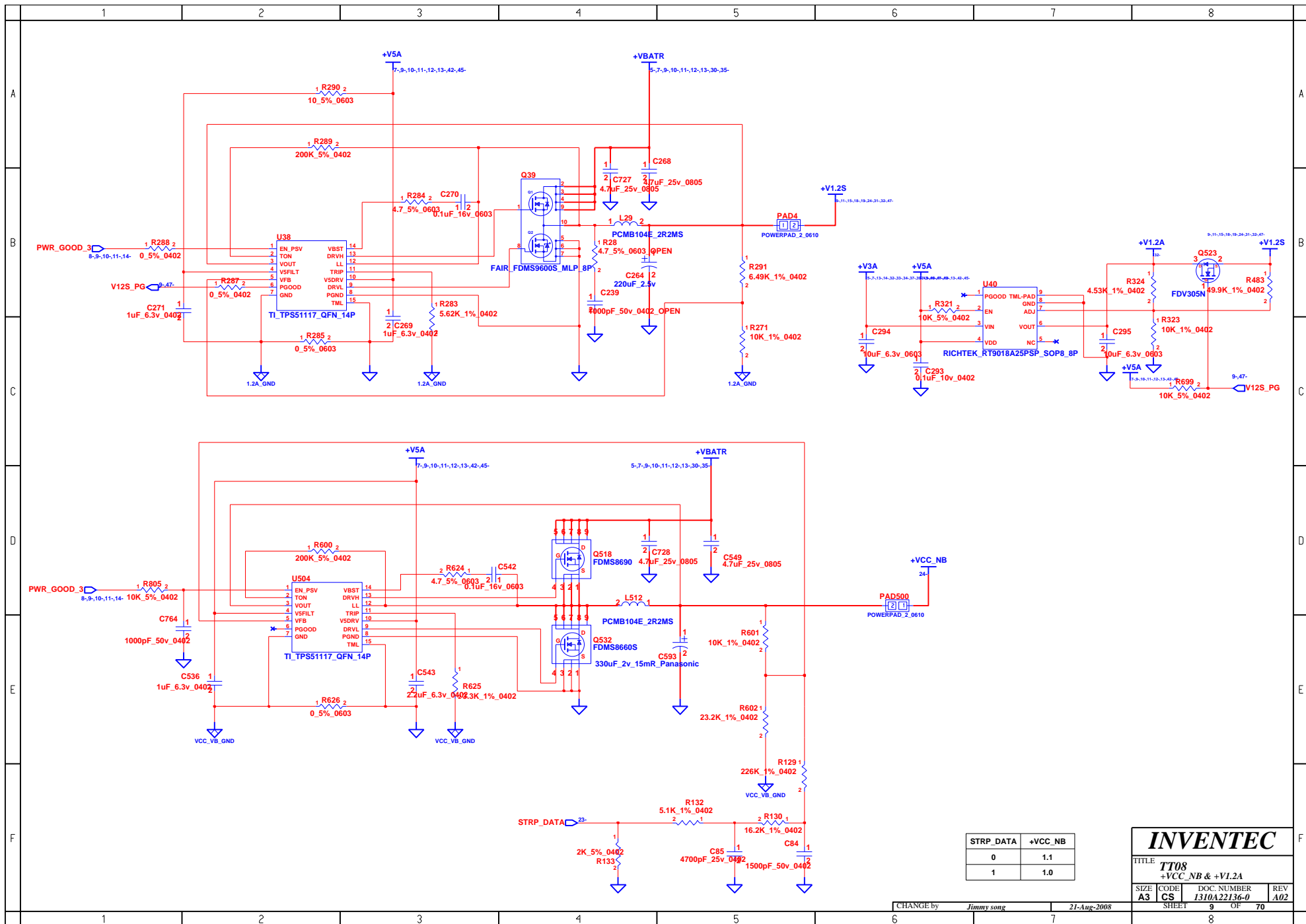
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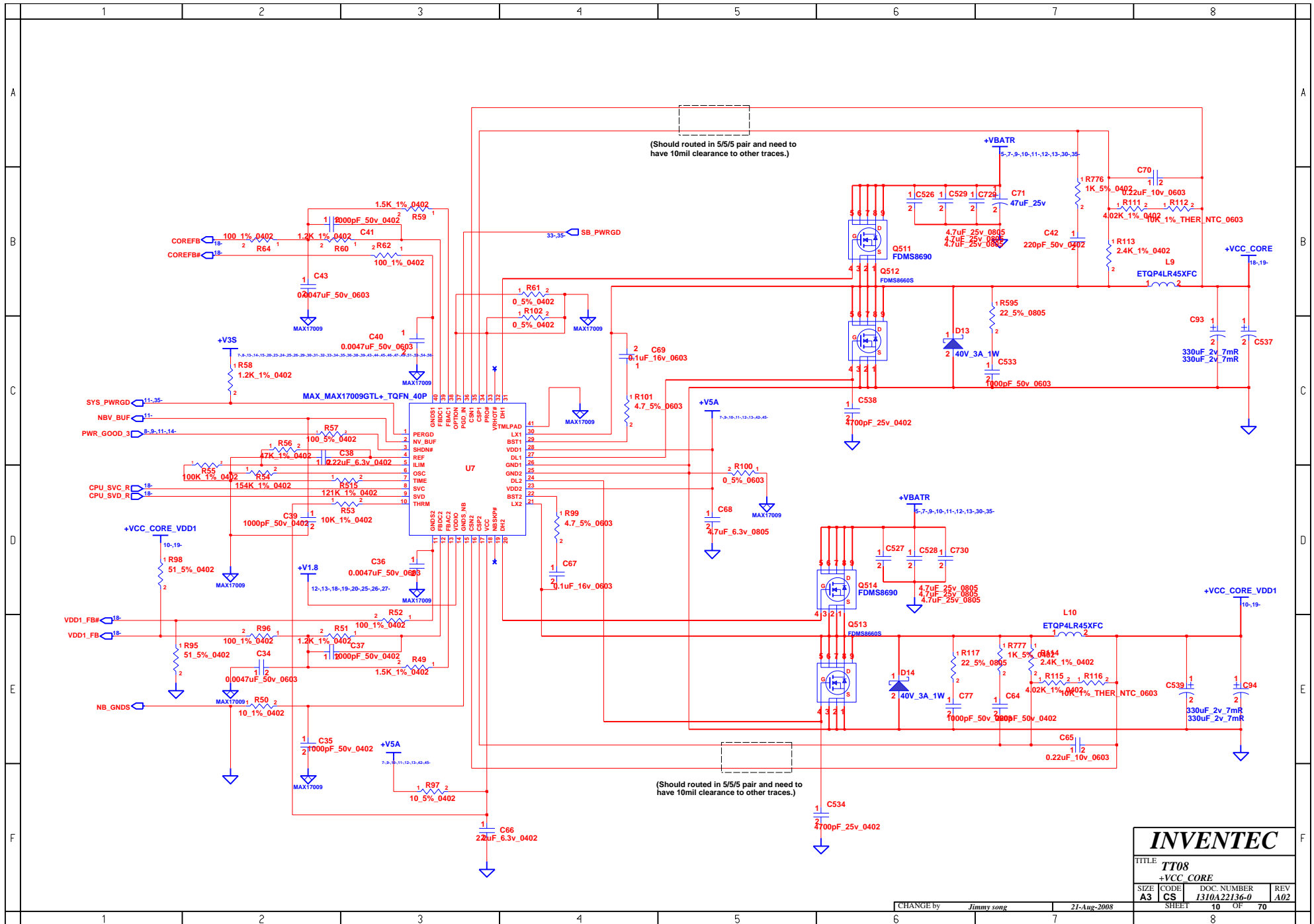
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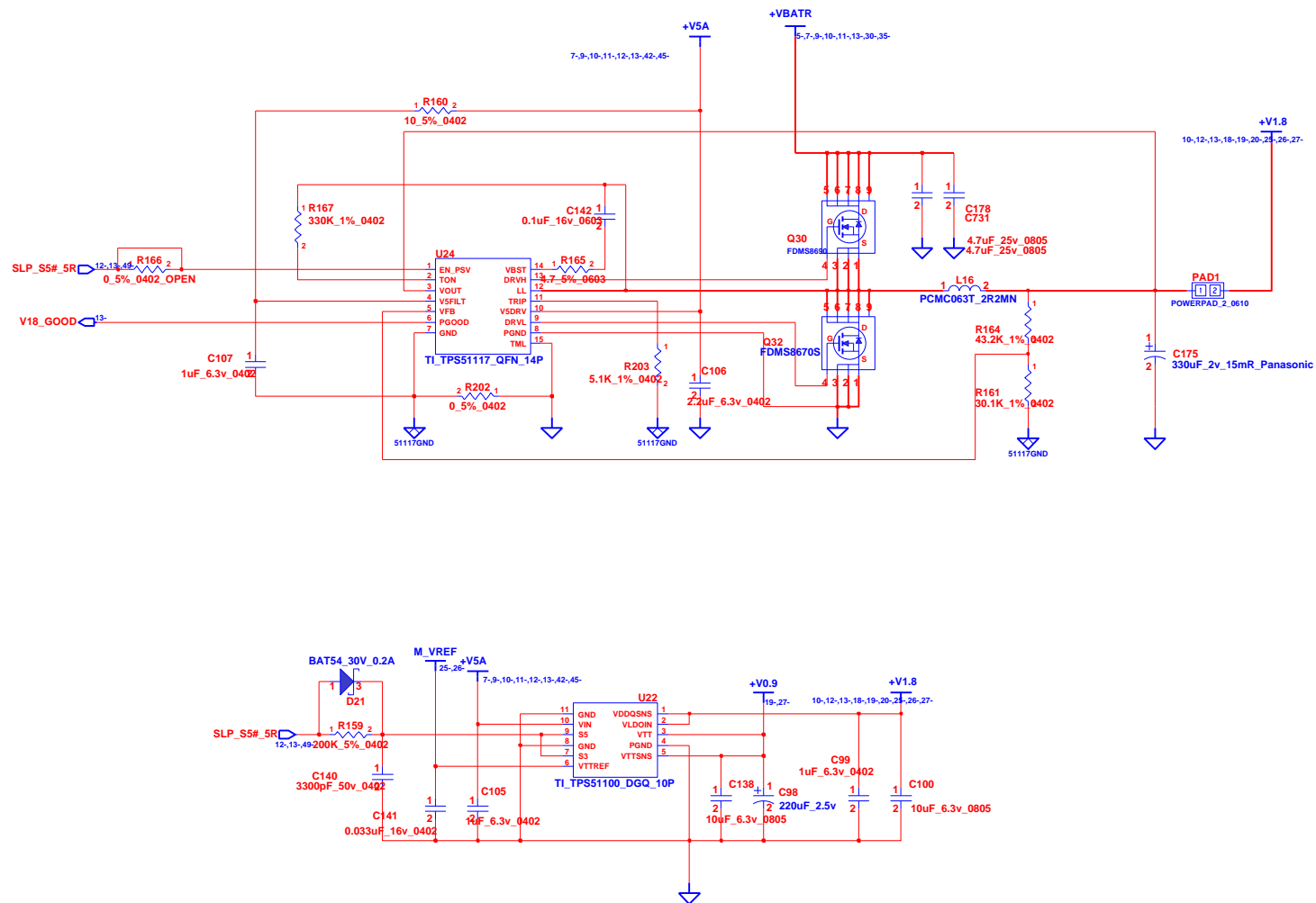












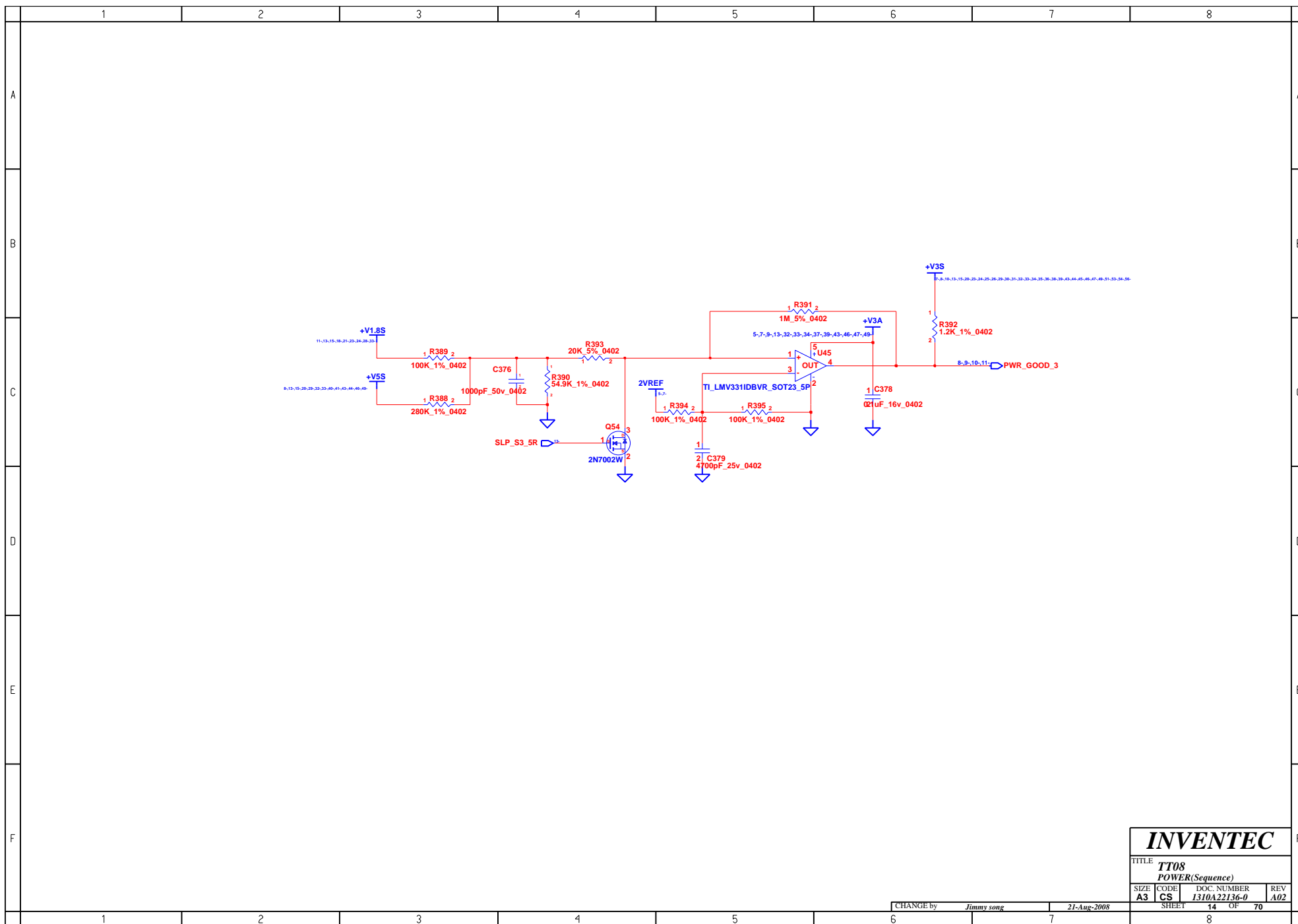
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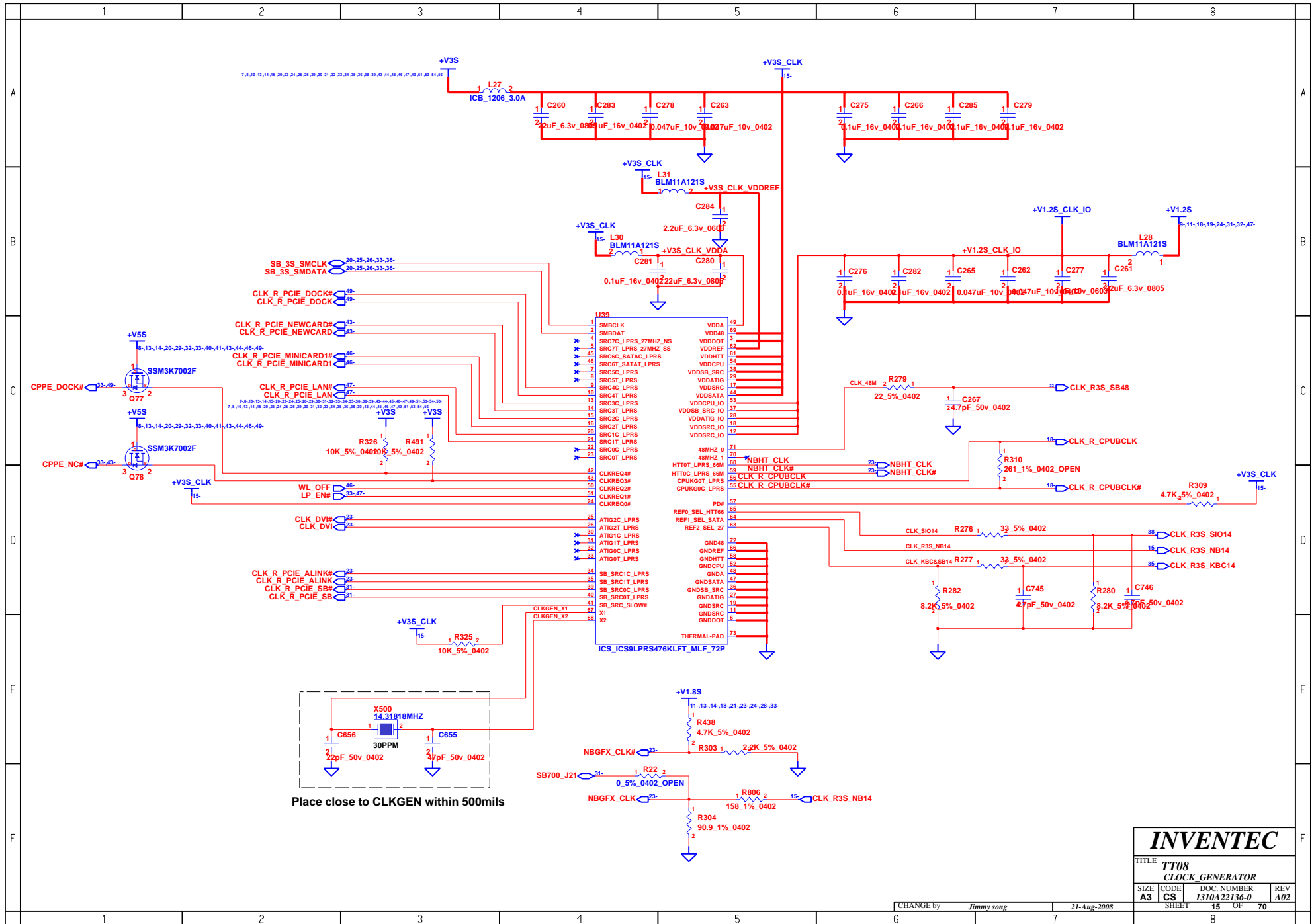
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| | | |
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| TT08 | | |
| DDR2 POWER | | |
| SIZE | CODE | DOC. NUMBER |
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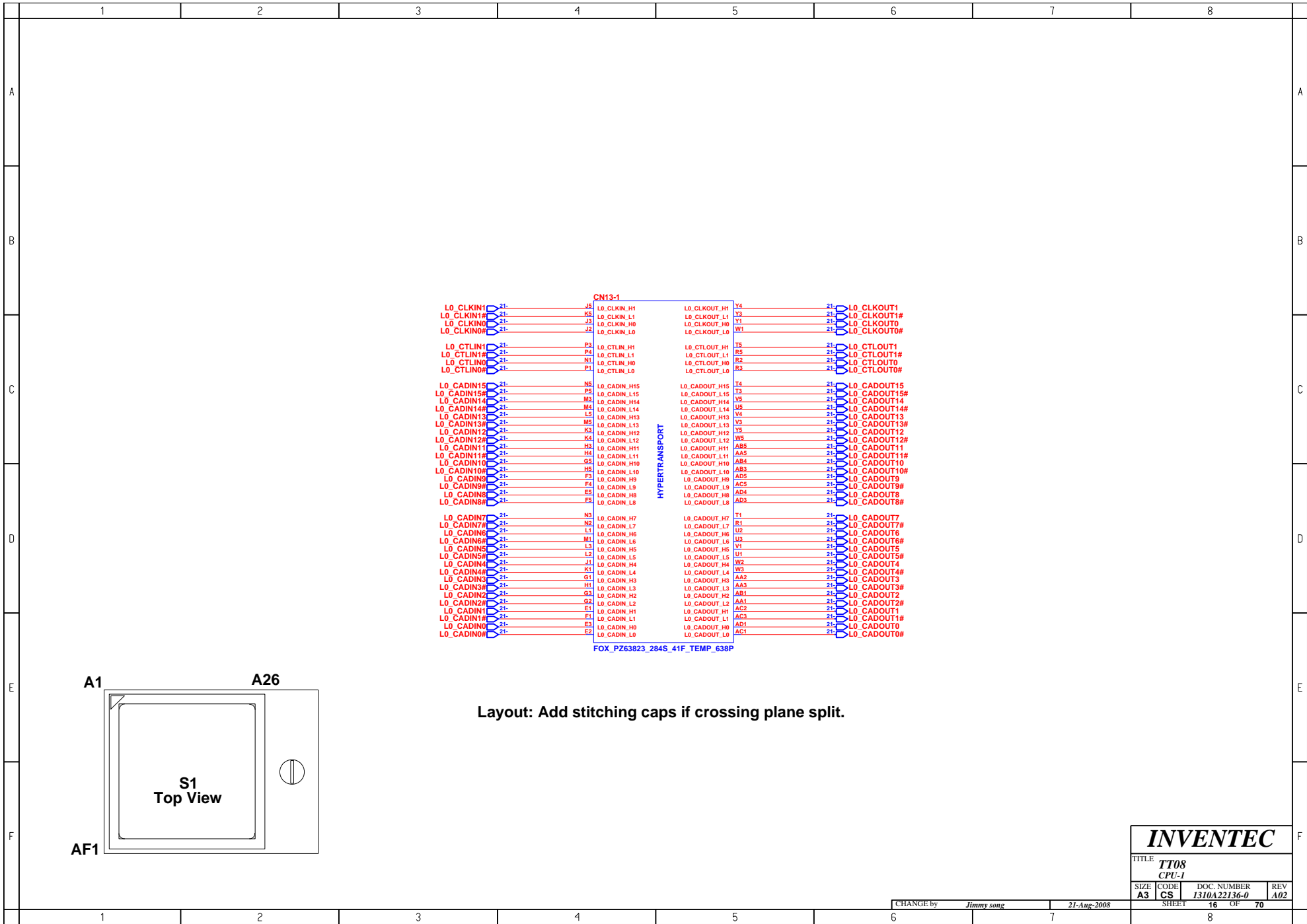




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| TITLE | | | |
| TT08 | | | |
| CLOCK GENERATOR | | | |
| SIZE | CODE | DOC. NUMBER | REV |
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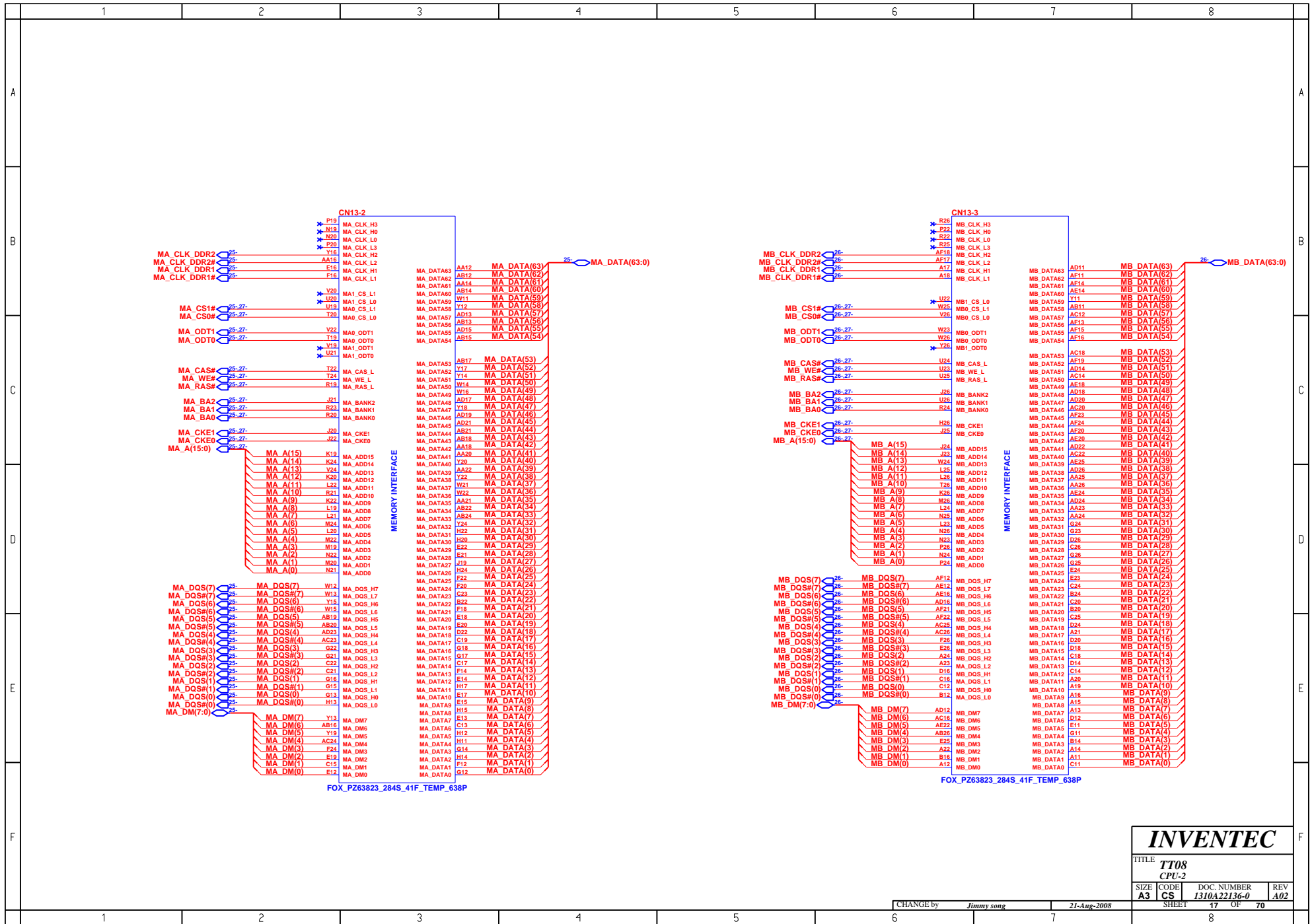


INVENTEC

| | | | |
|-------|------|--------------|-----|
| TITLE | | | |
| TT08 | | | |
| CPU-1 | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 1310A22136-0 | A02 |

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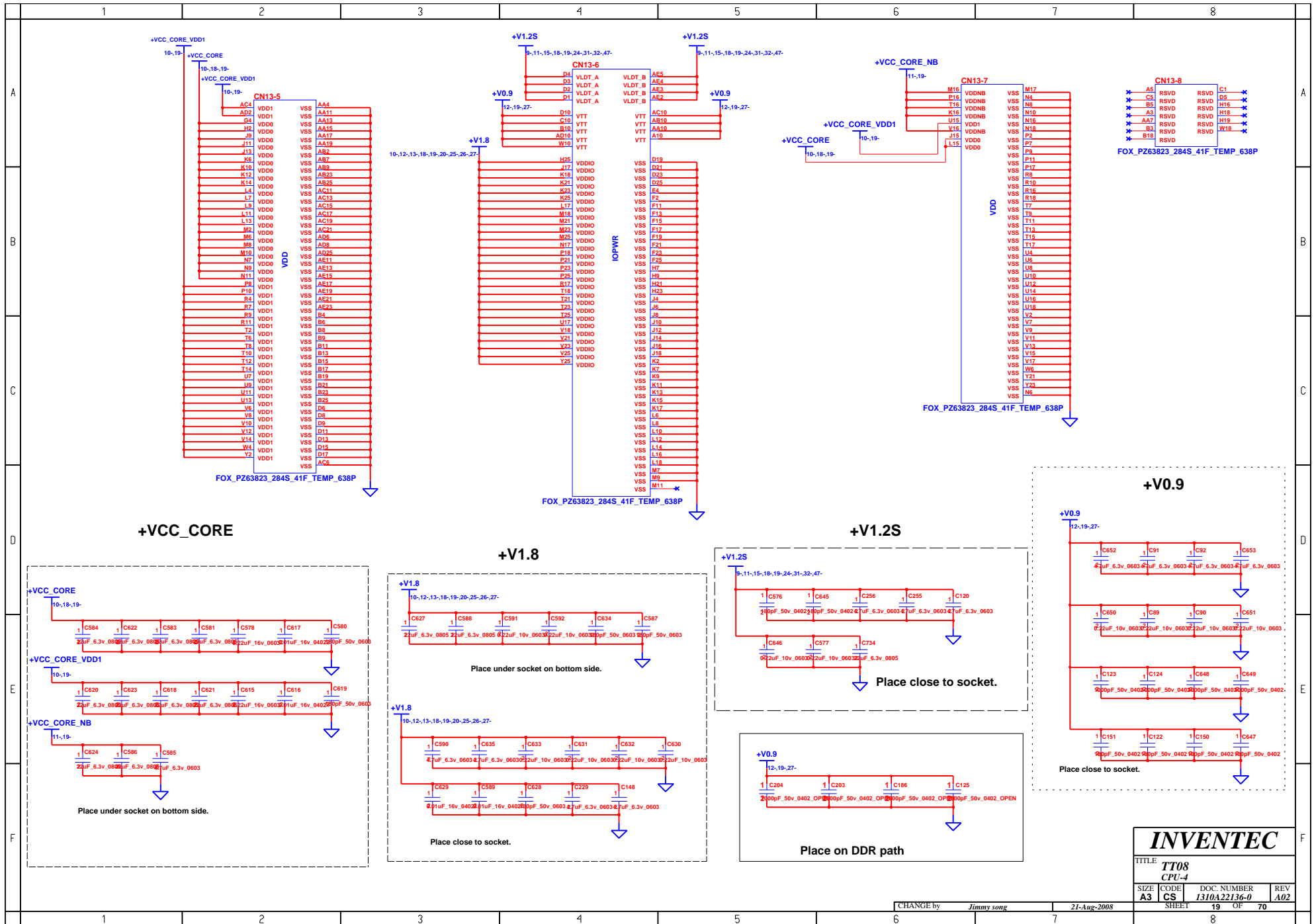
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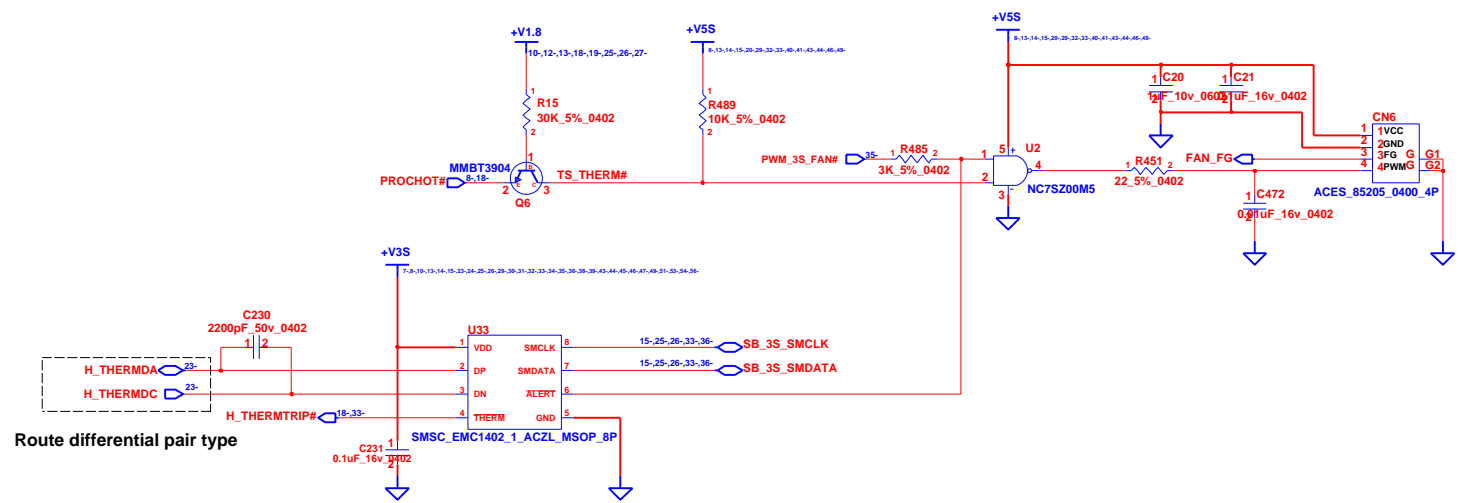


INVENTEC

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|-------|------|--------------|-------|
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| TT08 | | | |
| CPU-2 | | | |
| SIZE | CODE | DOC. NUMBER | REV |
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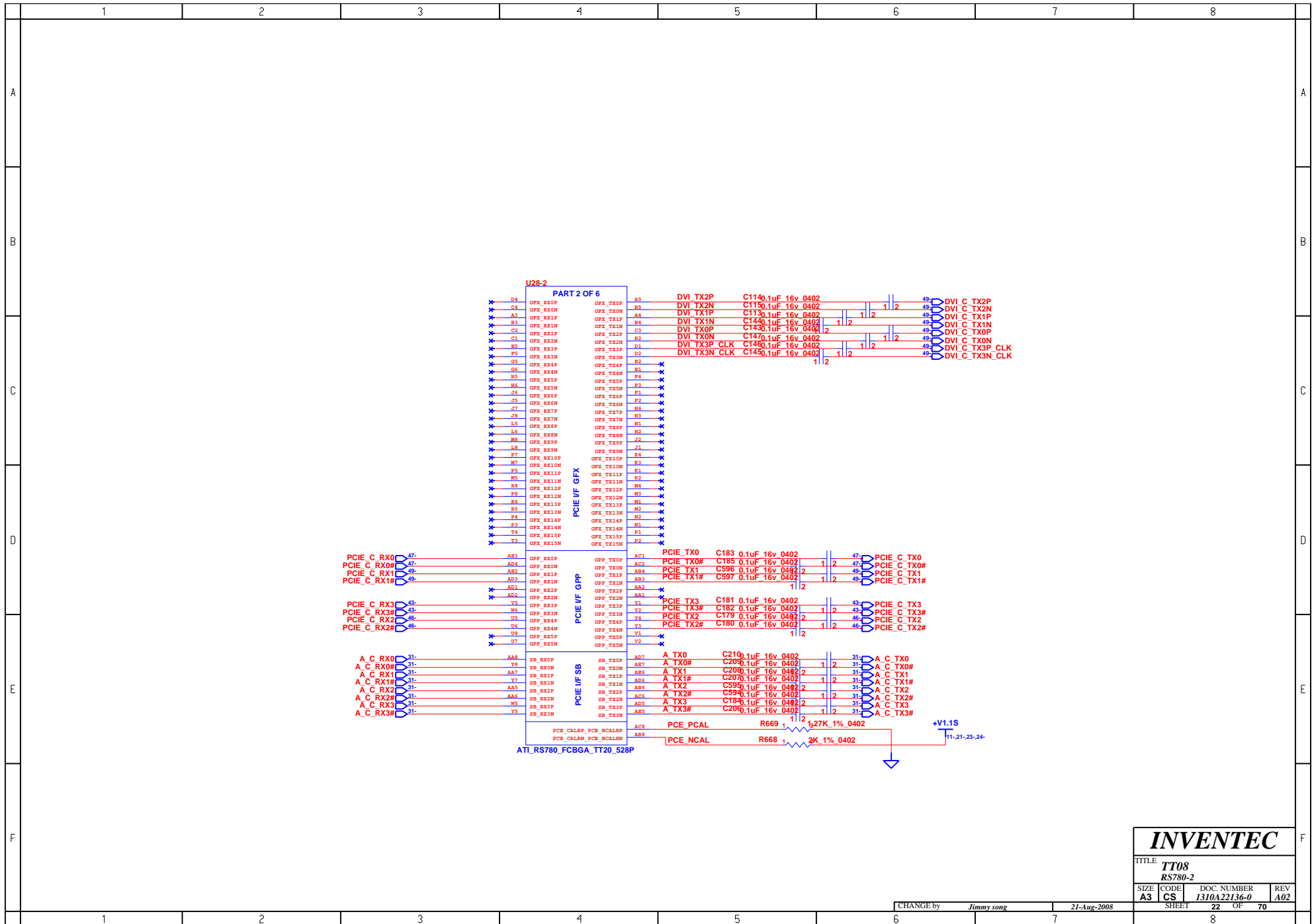
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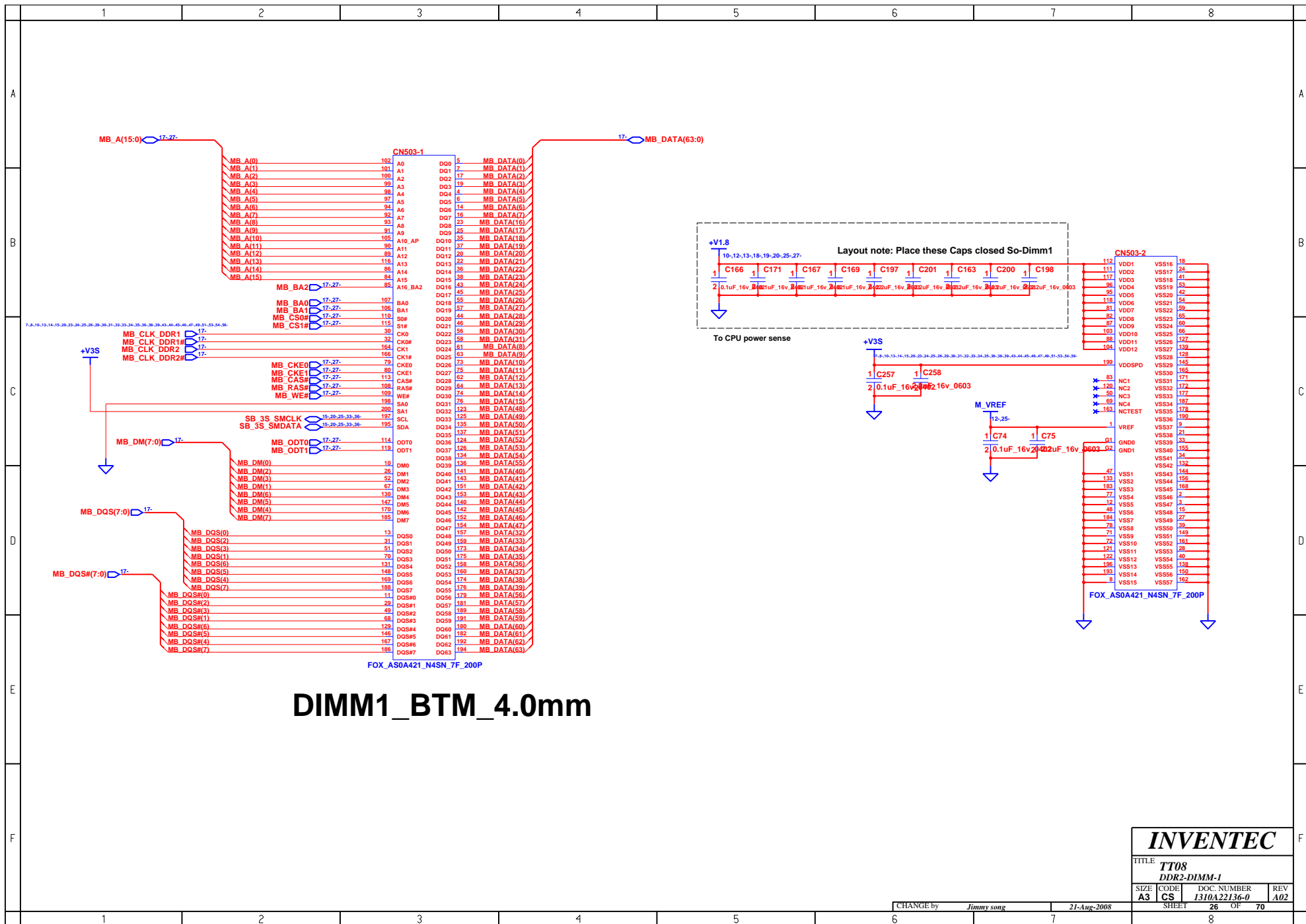


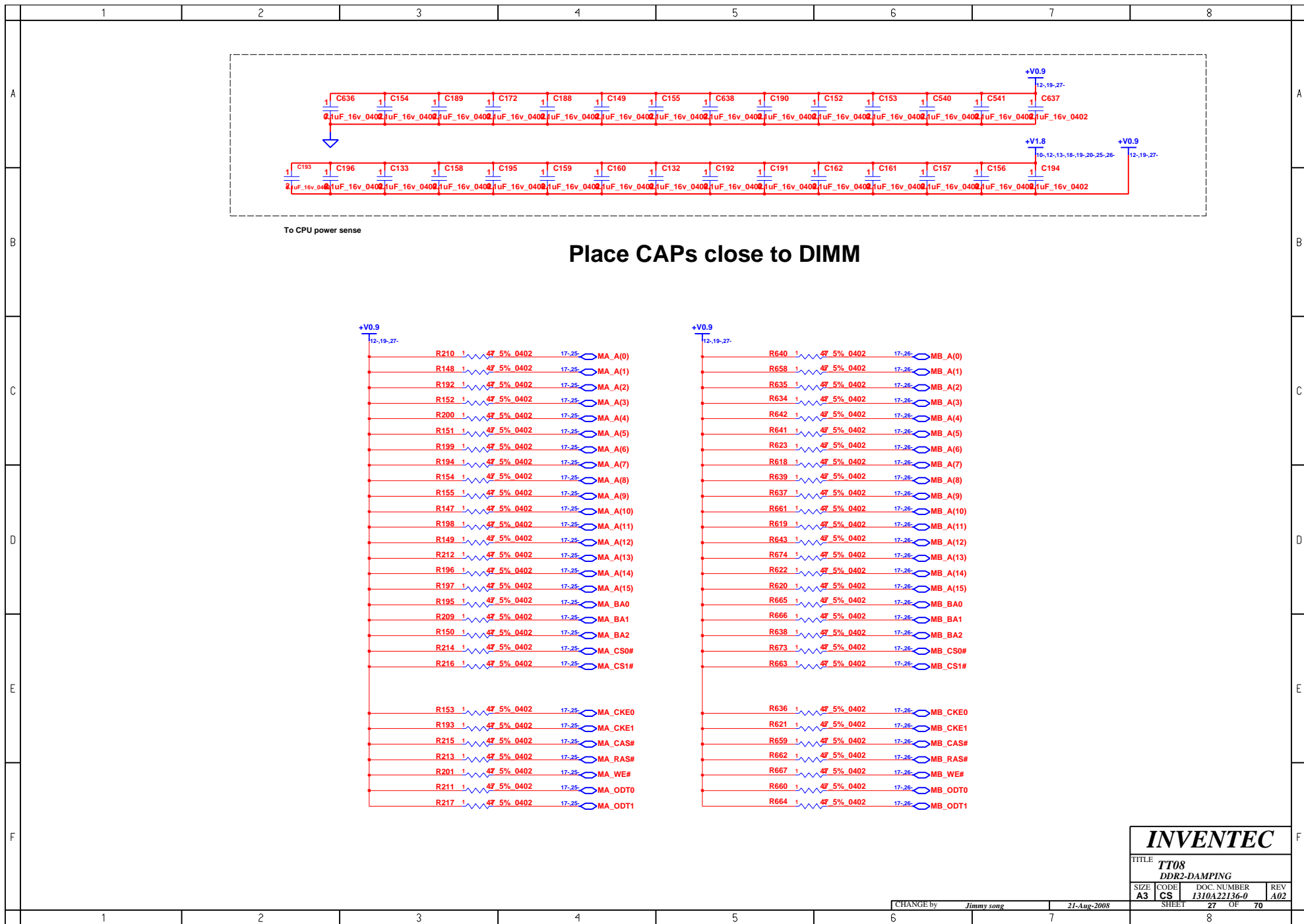


LAYOUT Note: Put the thermal sensor close to CPU.

| INVENTEC | | | |
|------------------------|------|--------------|-------|
| TITLE | | | |
| TT08 | | | |
| THERMAL&FAN CONTROLLER | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | I310A22136-0 | A02 |
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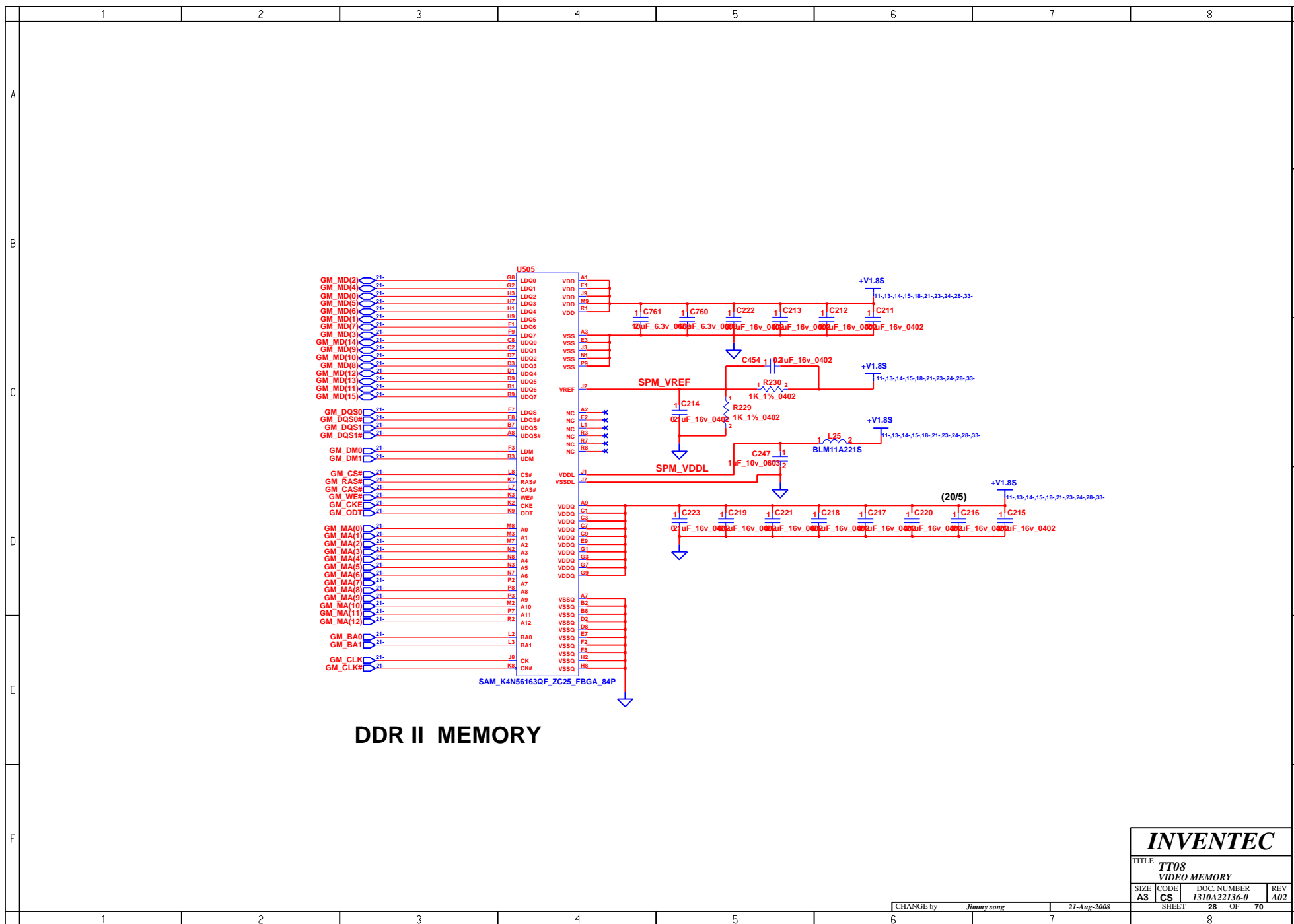


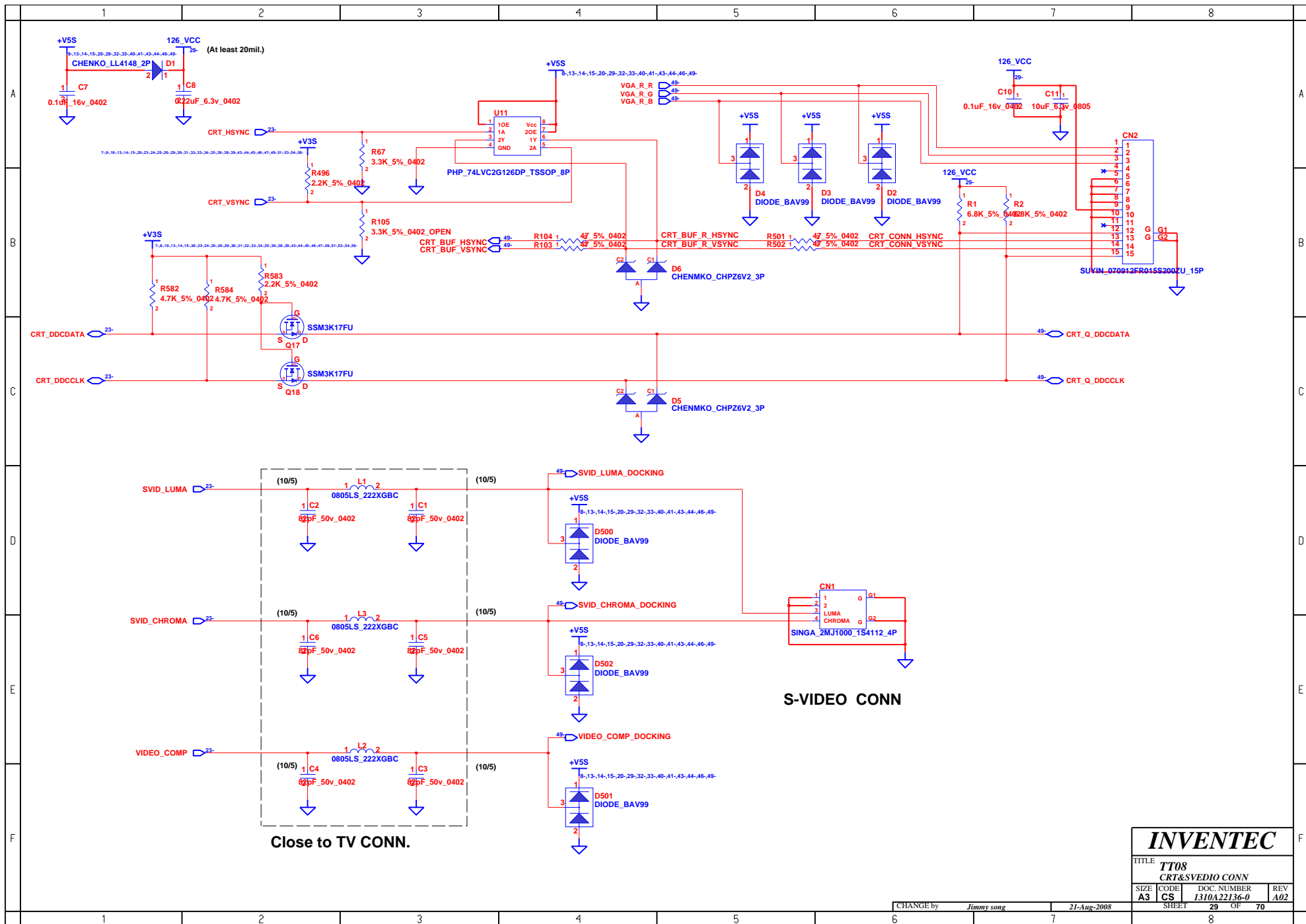
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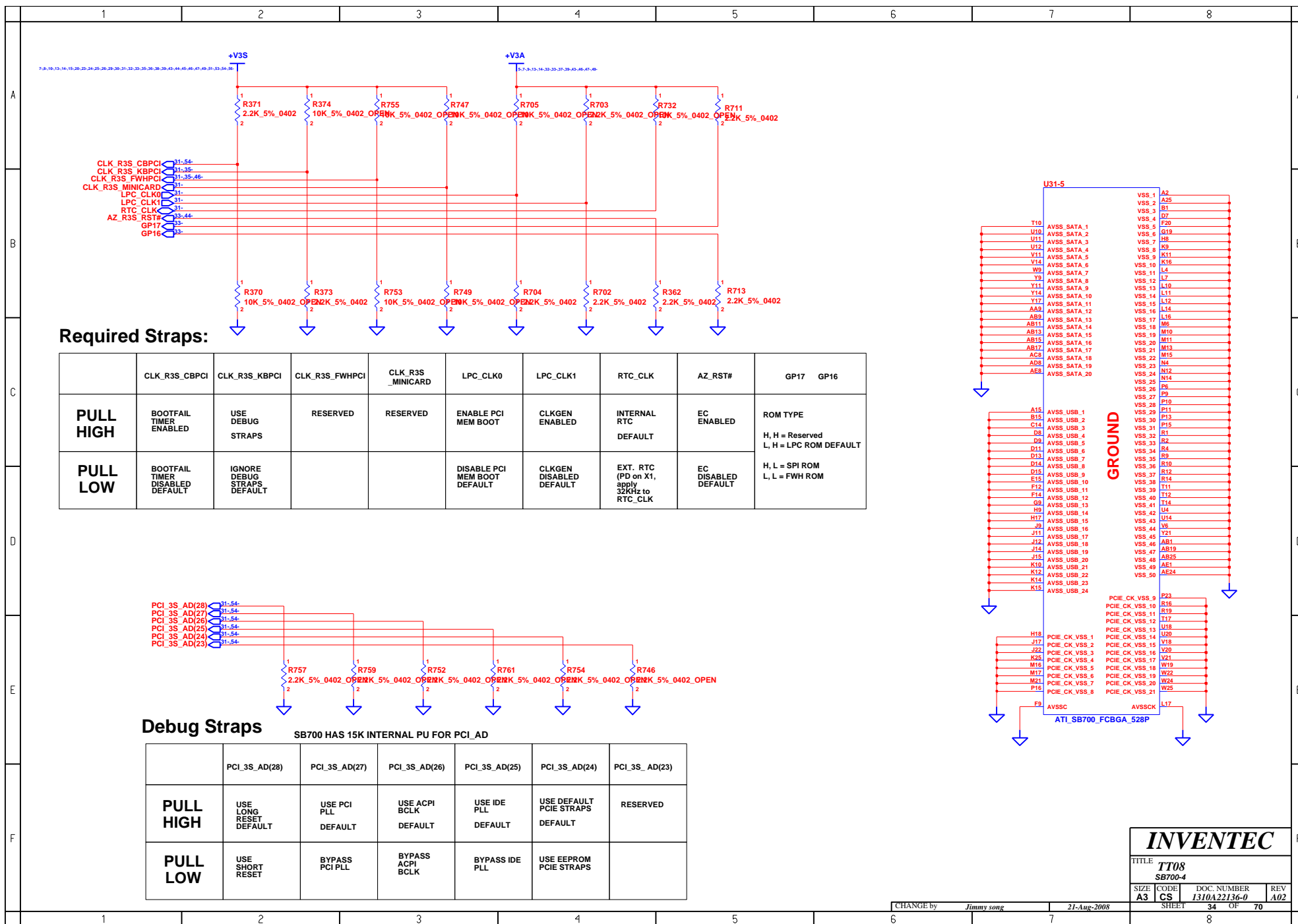
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| TITLE | | | |
| TT08 | | | |
| DDR2-DAMPING | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | I310A22136-0 | A02 |

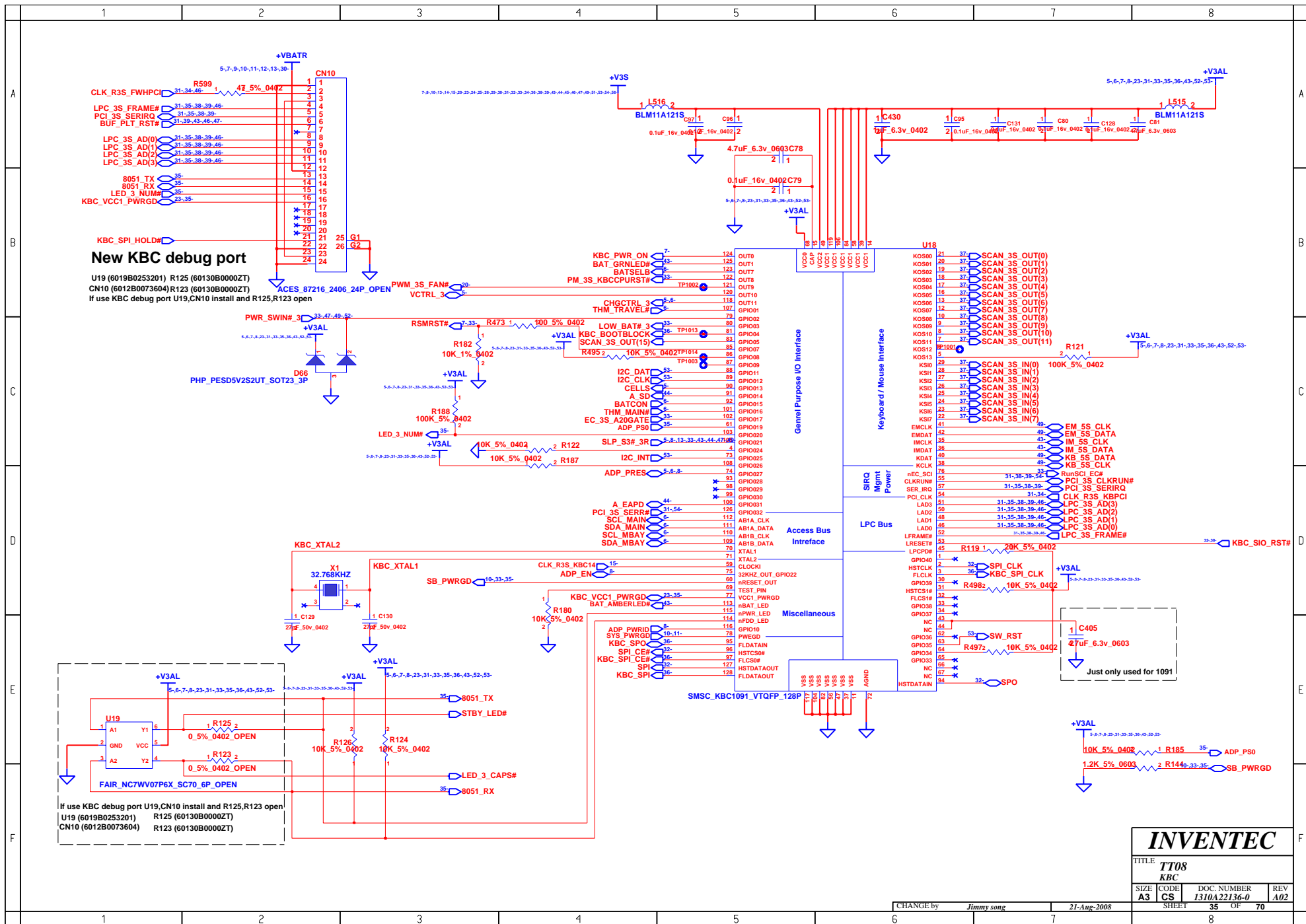
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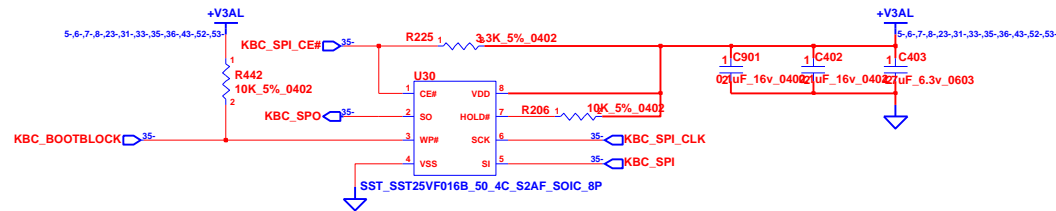
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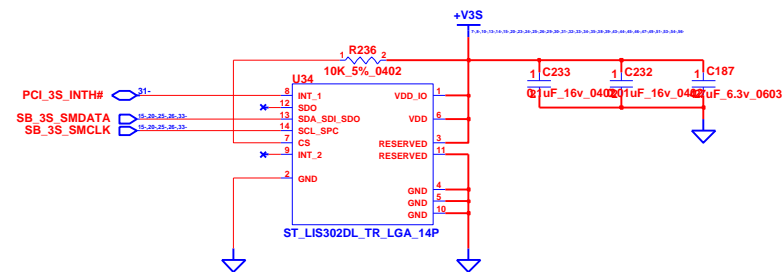








SPI Flash



Accelerometer

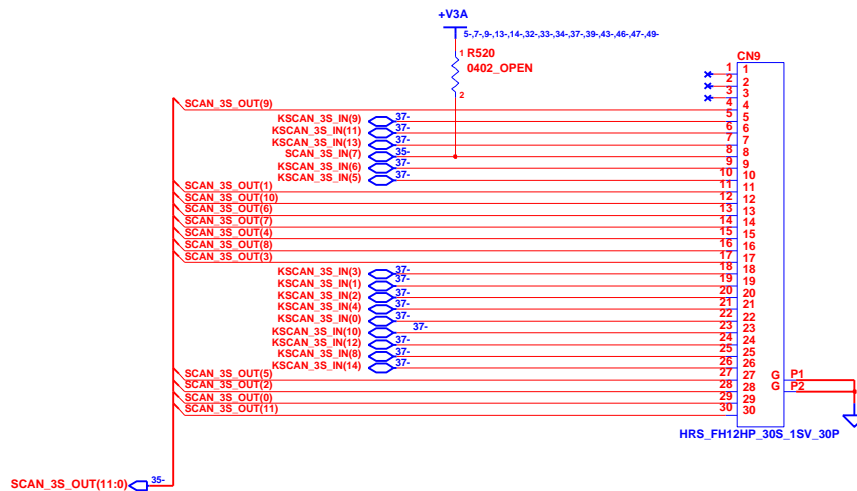
INVENTEC

TITLE
TT08
SPI & Accelerometer

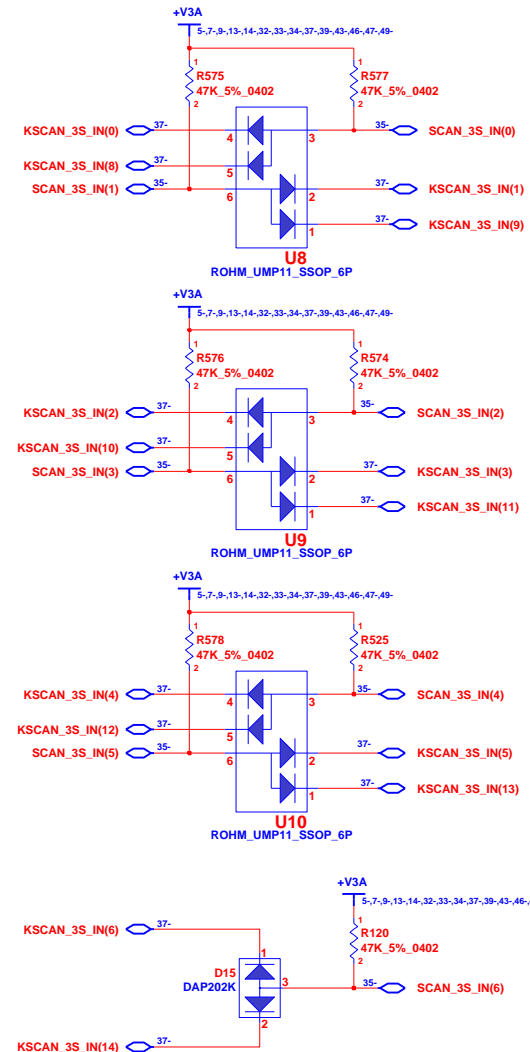
SIZE CODE DOC. NUMBER REV
A3 CS I310A22136-0 A02

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Keyboard CONN

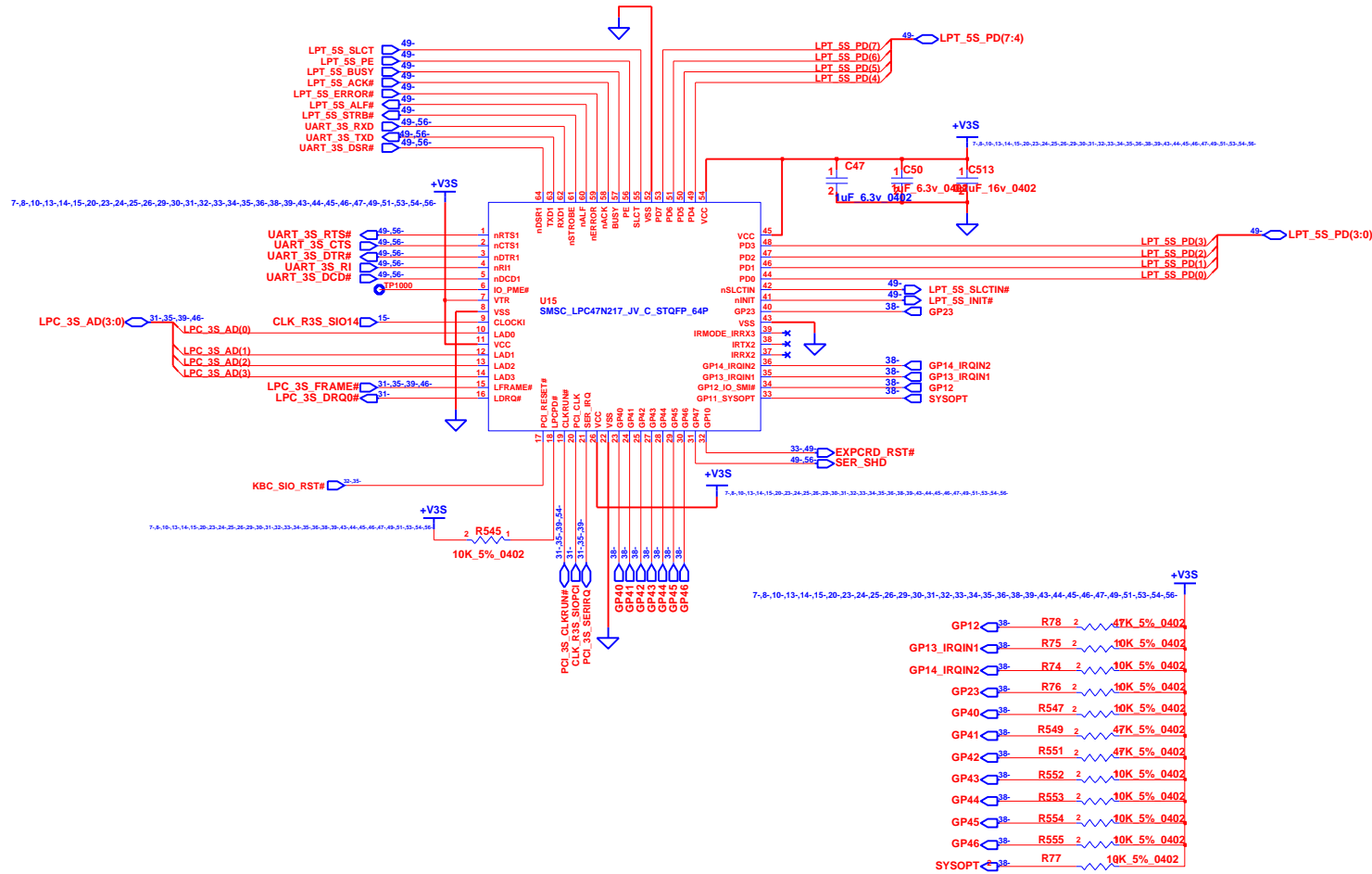


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|-----------------------|------|--------------|
| TITLE | | |
| TT08 | | |
| INT.KBC/POINT DEVICES | | |
| SIZE | CODE | DOC. NUMBER |
| A3 | CS | 1310A22136-0 |
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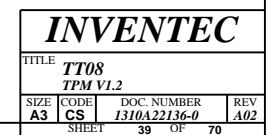
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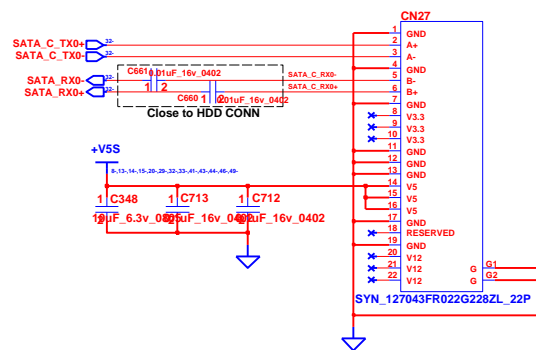


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| TITLE | | |
| TT08 SUPER I/O | | |
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| SHEET | | REV |
| 38 | | A02 |

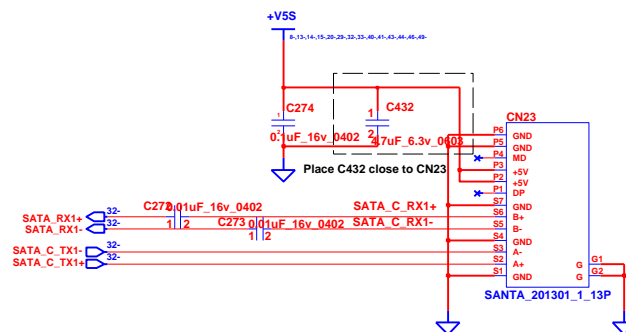
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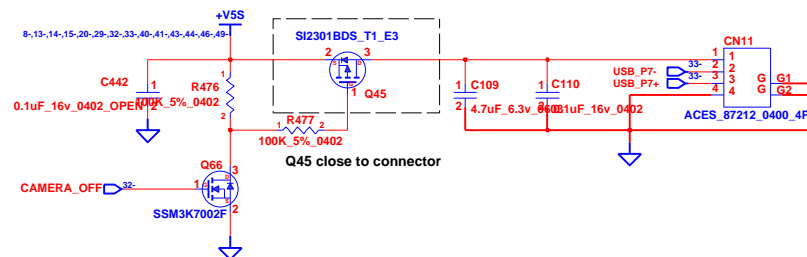


HDD CONN

| INVENTEC | | | |
|---------------|------|--------------|-------|
| TITLE | | | |
| TT08 | | | |
| SATA HDD CONN | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 1310A22136-0 | A02 |
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ODD SATA CONNECTOR



USB WEBCAM CONNECTOR

| INVENTEC | | | |
|--|------------|-----------------------------|----------------|
| TITLE TT08 SATA ODD & USB WEBCAM | | | |
| SIZE A3 | CODE CS | DOC. NUMBER I310A22136-0 | REV A02 |
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1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

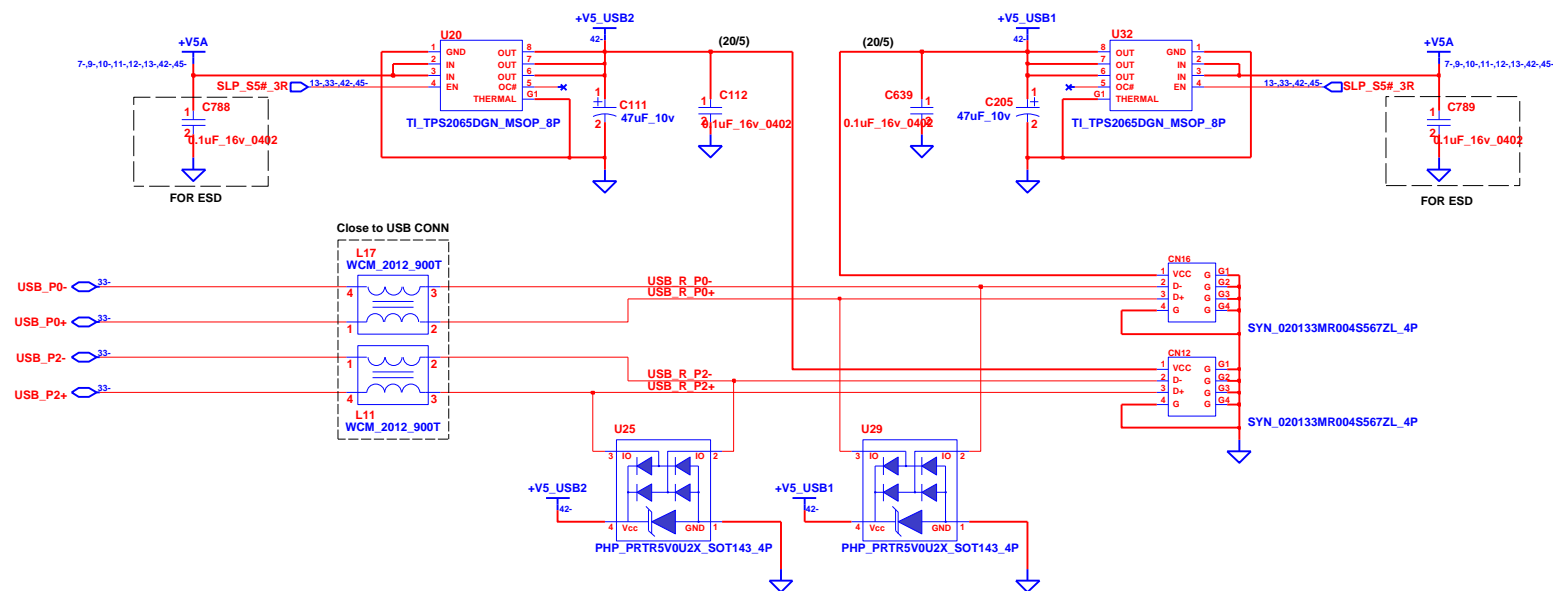
B

C

D

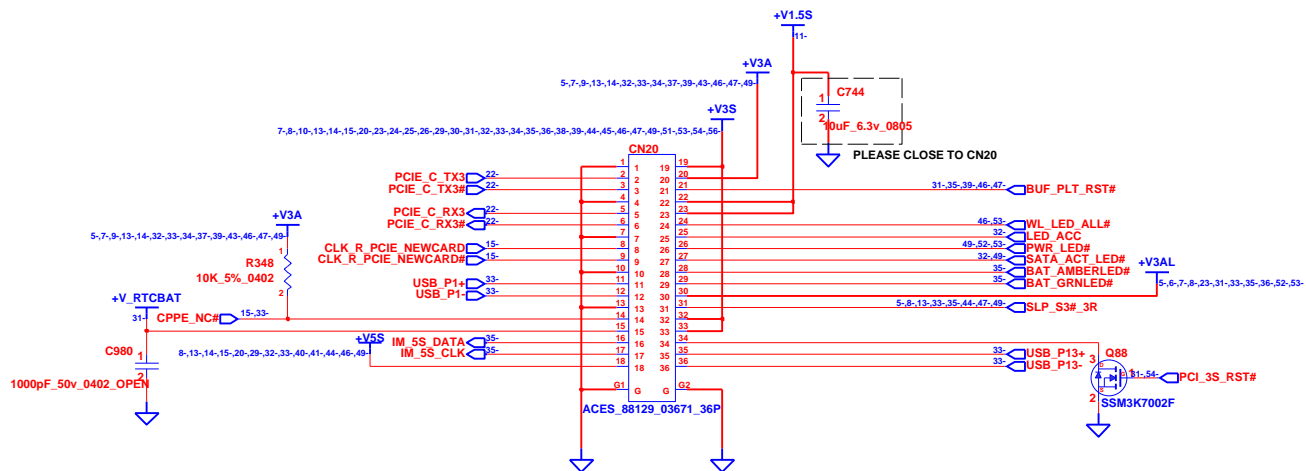
E

F



| INVENTEC | | | |
|---------------------------|------------|-----------------------------|------------|
| TITLE TT08 USB CONN | | | |
| SIZE A3 | CODE CS | DOC. NUMBER I310A22136-0 | REV A02 |
| CHANGE by Jimmy song | | 21-Aug-2008 | |
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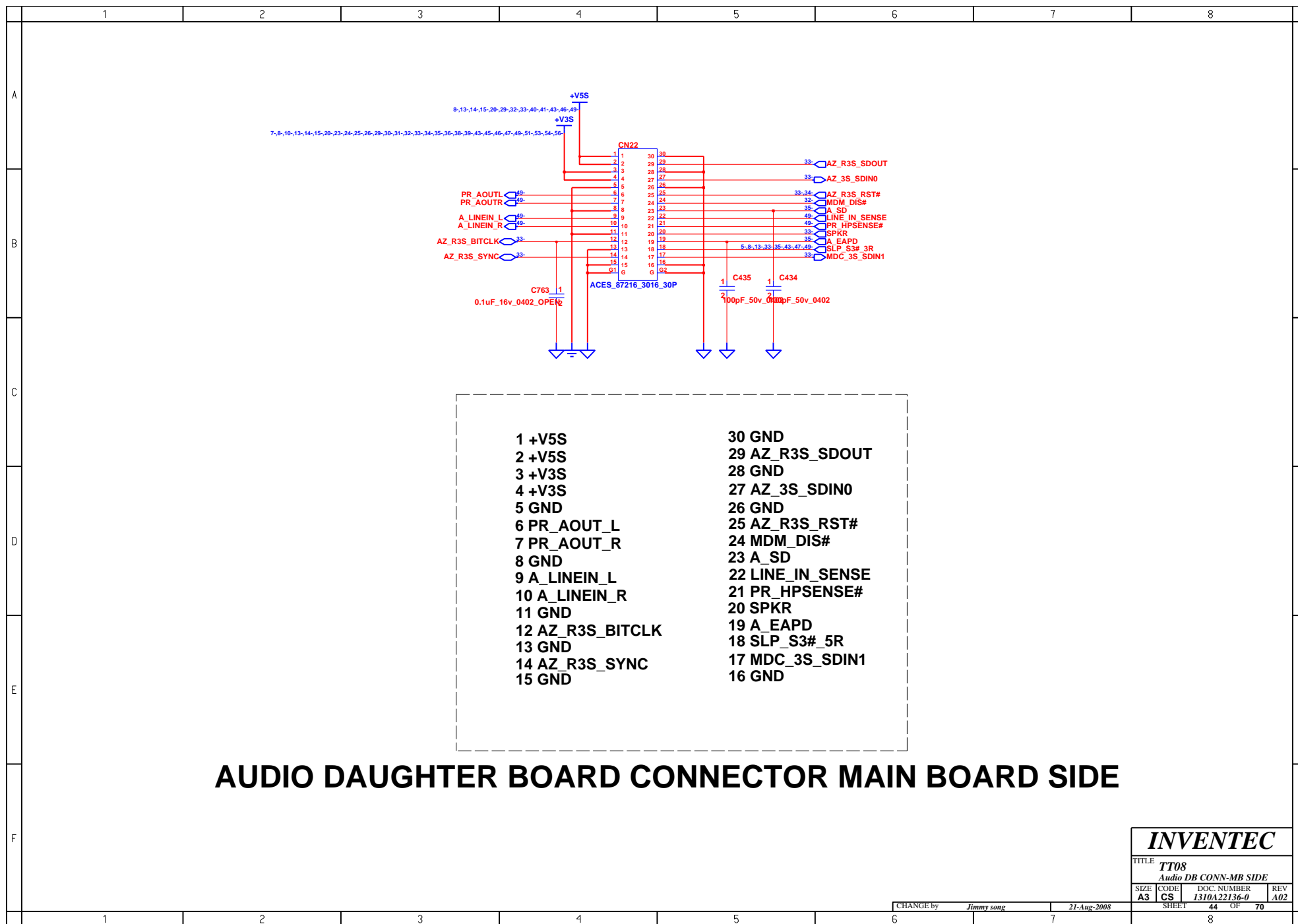
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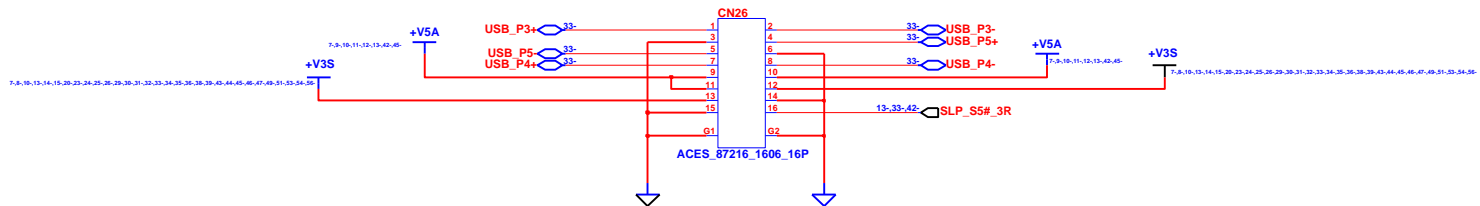


| | |
|-----------------------|-------------------|
| 1 GND | 19 +V3S |
| 2 PCIE_C_TXP | 20 +V3A |
| 3 PCIE_C_TXN | 21 PLT_RST# |
| 4 GND | 22 +V1.5S |
| 5 PCIE_C_RXP | 23 +V1.5S |
| 6 PCIE_C_RXN | 24 WL_LED_ALL# |
| 7 GND | 25 ACC_LED# |
| 8 CLK_R_PCIE_NEWCARD | 26 STBY_LED# |
| 9 CLK_R_PCIE_NEWCARD# | 27 LED_3S_SATA# |
| 10 GND | 28 BAT_AMBER_LED# |
| 11 USB_P+ | 29 BAT_GRN_LED# |
| 12 USB_P- | 30 +V3AL |
| 13 GND | 31 SLP_S3#_3R |
| 14 CLK_R_REQ# | 32 +V3S |
| 15 +V_RTCBAT | 33 +V3S |
| 16 TOUCHPAD DATA | 34 FPR_OFF |
| 17 TOUCHPAD CLK | 35 USB_P+ |
| 18 +V5S | 36 USB_P- |

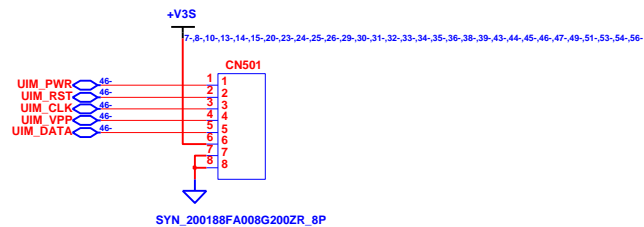
EXPRESSCARD DAUGHTER BOARD CONNECTOR MAIN SIDE

| | | | |
|--|----------------|---------------------------------|----------------|
| INVENTEC | | | |
| TITLE TT08 Express DB CONN-MB SIDE | | | |
| SIZE A3 | CODE CS | DOC. NUMBER I310A22136-0 | REV A02 |
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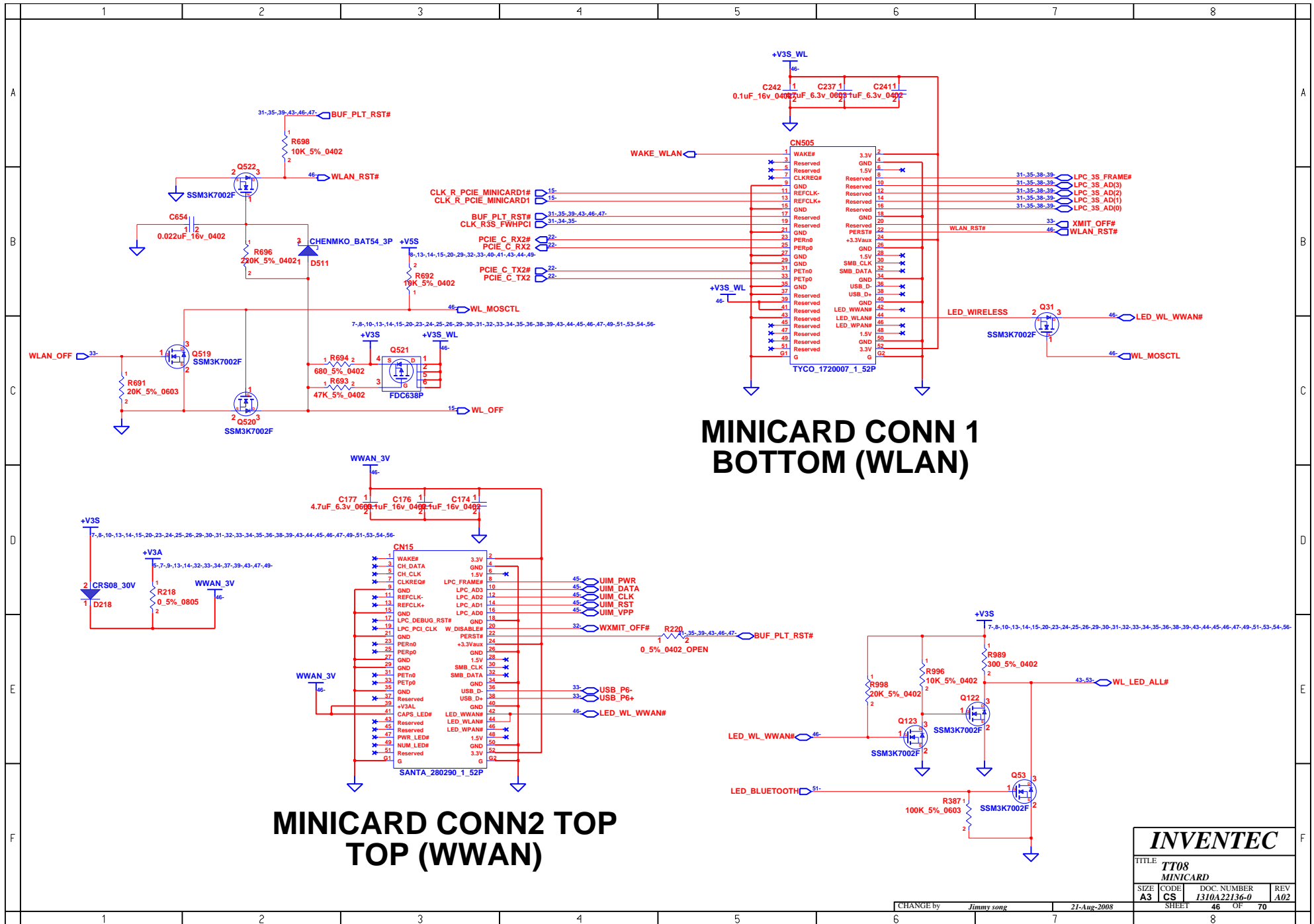


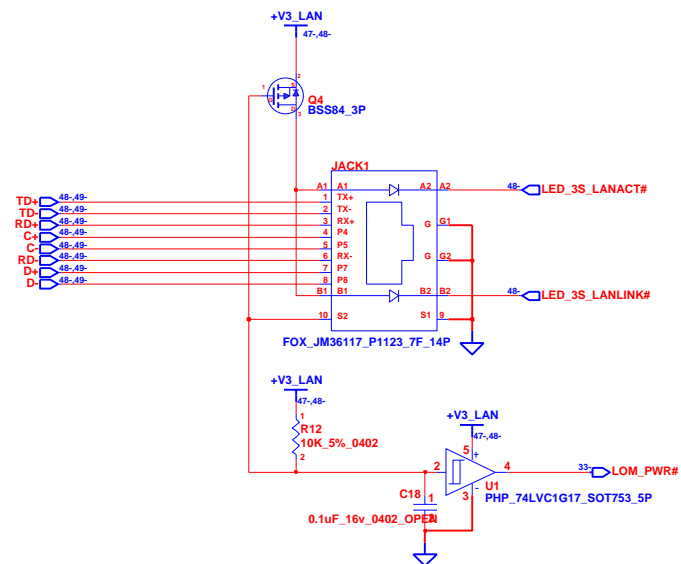
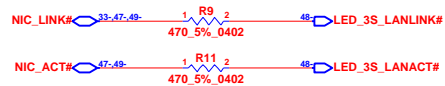
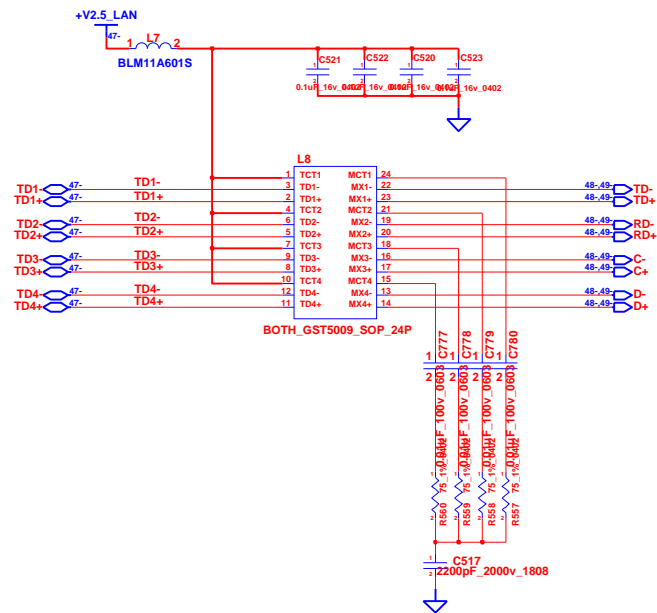
7 IN 1 daughter board connector MB SIDE



SIM card daughter board connector MB SIDE

| INVENTEC | | | |
|----------------------|------|--------------|-----|
| TITLE | | | |
| TT08 | | | |
| 7 IN 1 & SIM DB CONN | | | |
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| INVENTEC | | | |
|---------------|------|--------------|-----|
| TITLE | | | |
| TT08 | | | |
| LAN RJ45 CONN | | | |
| SIZE | CODE | DOC. NUMBER | REV |
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| A | | | | | | | | | A |
| B | | | | | | | | | B |
| C | | | | | | | | | C |
| D | | | | | | | | | D |
| E | | | | | | | | | E |
| F | | | | | | | | | F |

S1002

SCREW2.8_6.5_8_1P

S1001

SCREW4.6_6.5_10_1P

S1010

SCREW2.8_6.5_8_1P

S1004

SCREW2.8_6.5_8_1P

S1006

SCREW3_5.1_0_1P

S1007

SCREW3_5.1_0_1P

S1018

SCREW3_6_3_1P

S12

SCREW5.2_0_6.7_1P

S1013

SCREW4.7_7_10_1P

S1000

SCREW4.6_6.5_8_1P

S1008

SCREW3.7_0_6_1P

S1009

SCREW3.7_0_6_1P

S1019

SCREW2.8_6.5_10_1P

S1016

SCREW2.8_7_10_1P

S1005

SCREW3_0_7_1P_TT

S1017

SCREW2.8_6.5_8_1P

S1003

SCREW2.8_6.5_8_1P

CP500

COPPER_3X2_EMI_BE_OPEN

CP1

COPPER_7X2.5X12

FIX1002

FIX_MASK

FIX1001

FIX_MASK

FIX1006

FIX_MASK

FIX1005

FIX_MASK

FIX1003

FIX_MASK

FIX1000

FIX_MASK

FIX1007

FIX_MASK

FIX1004

FIX_MASK

S1015

SCREW4_0_6_1P

S1012

SCREW4_0_6_1P

S1030

SCREW3.2_0_4.5_1P

S1031

SCREW3.2_0_4.5_1P

CPU's screws

INVENTEC

TITLE

TT08

SCREW

SIZE

A3

CODE

CS

DOC. NUMBER

I310A22136-0

REV

A02

CHANGE by

Jimmy song

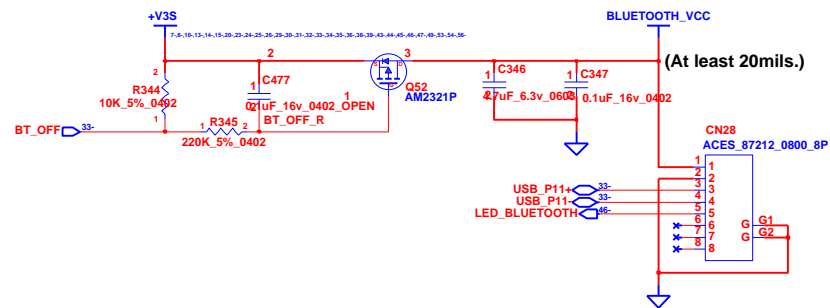
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OF

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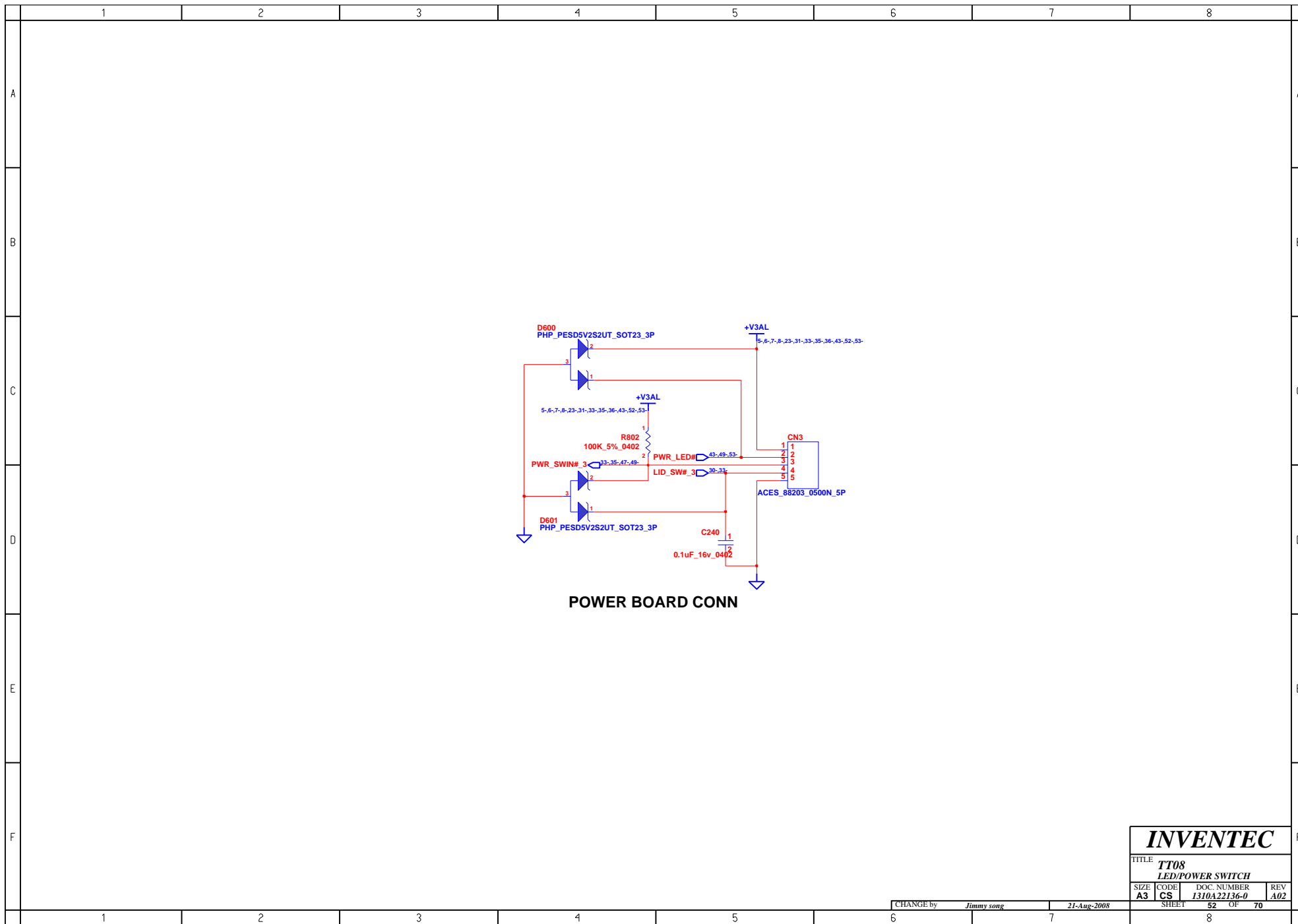


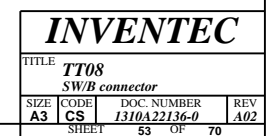
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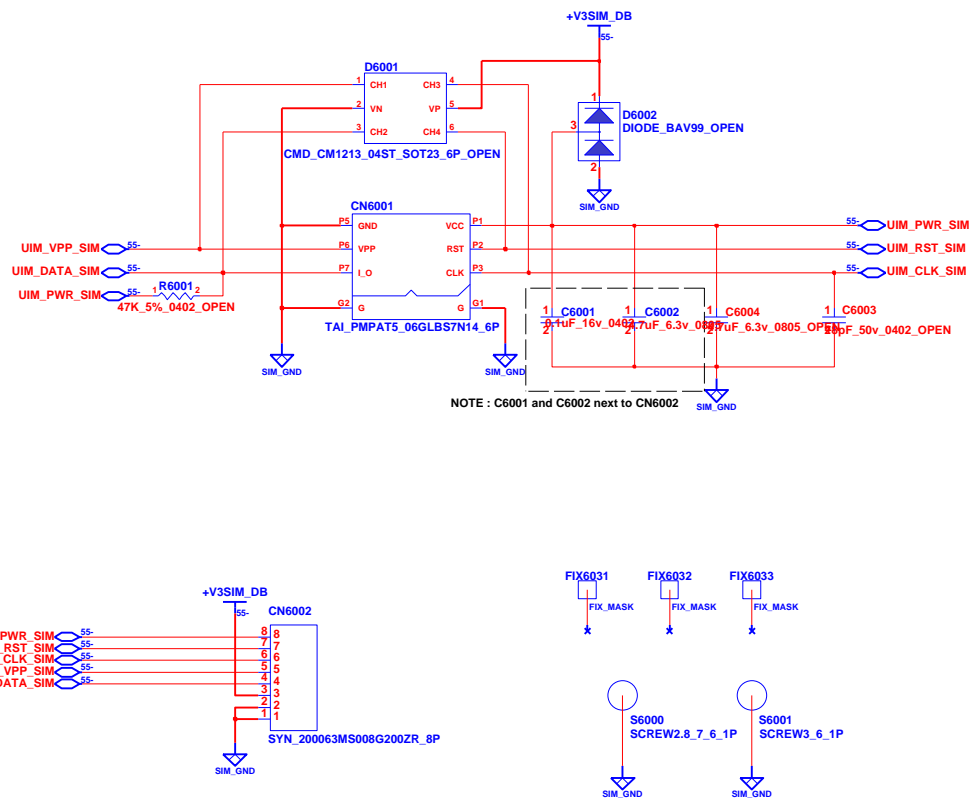
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|-----------|------|--------------|-----|
| TITLE | | | |
| TT08 | | | |
| BLUETOOTH | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | I310A22136-0 | A02 |

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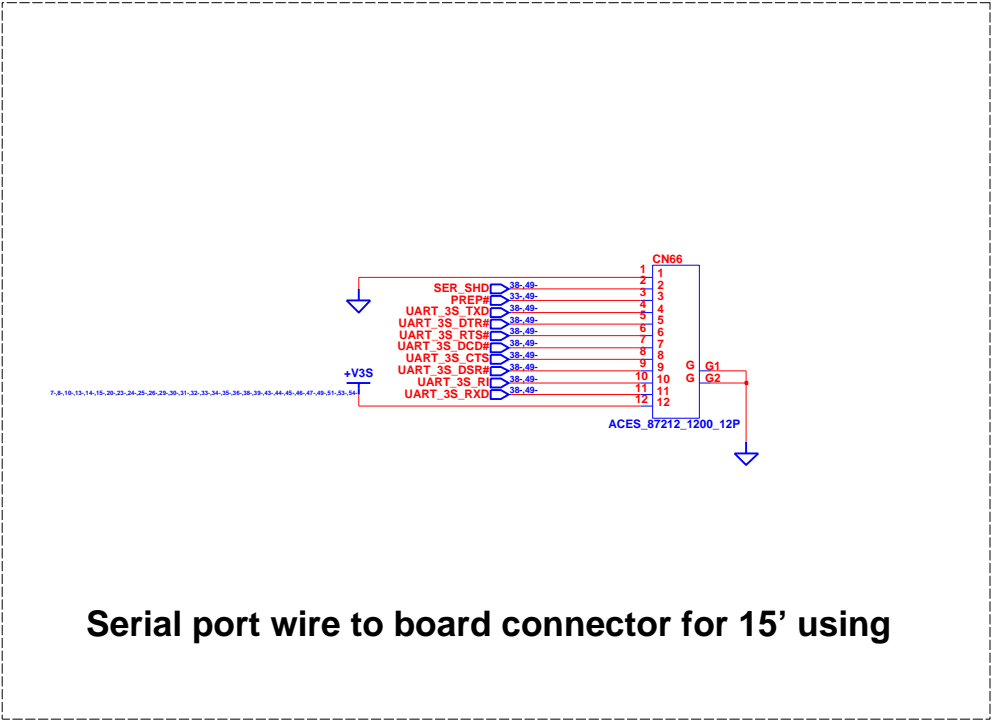




SIM CARD Daughter Board

| INVENTEC | | | |
|-------------------------|------|--------------|-------|
| TITLE | | | |
| TT08 | | | |
| SIM CARD Daughter Board | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 1310A22136-0 | A02 |
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 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 | |



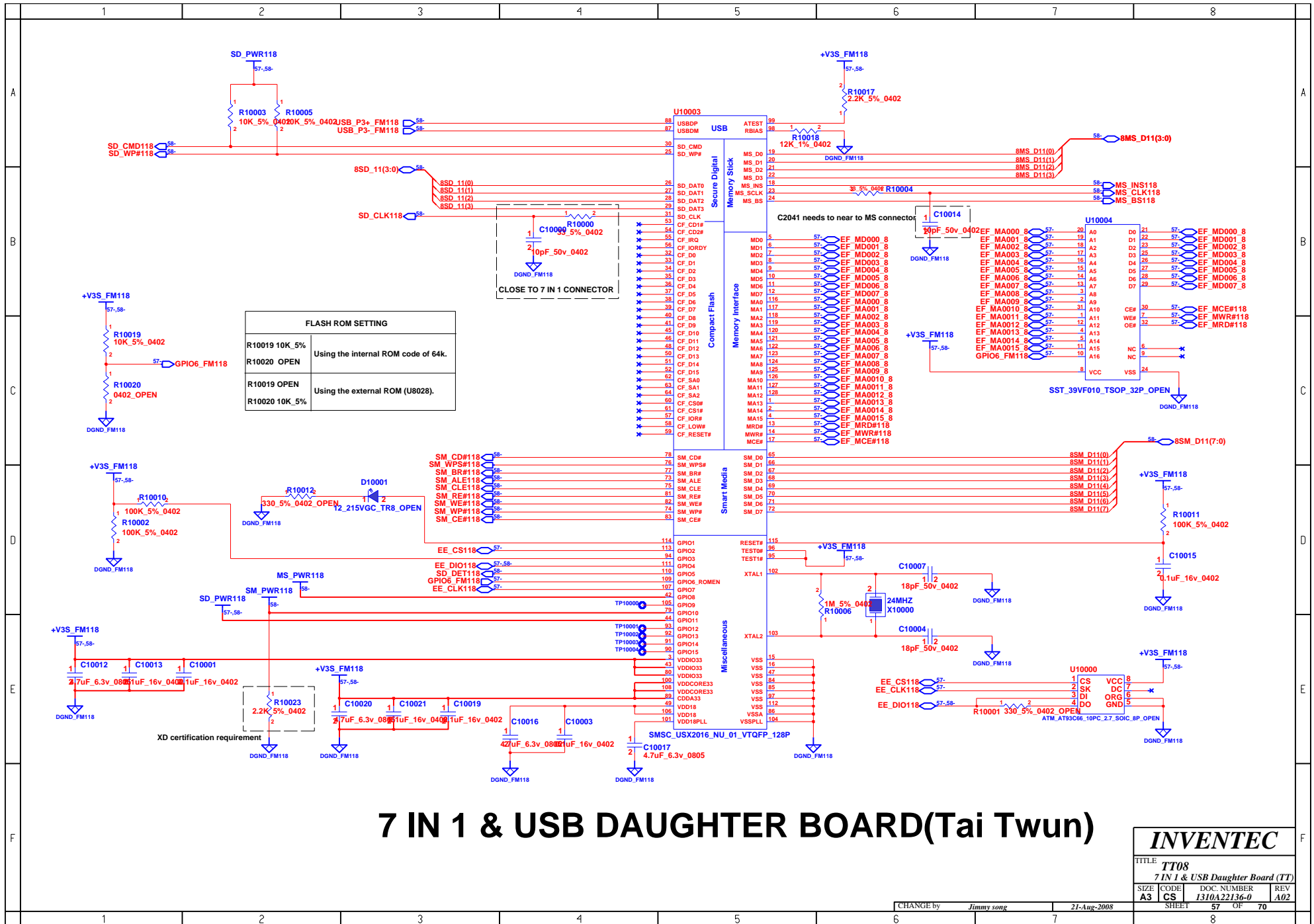
INVENTEC

TITLE
TT08
BLANK

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|-------------------|-------------------|------------------------------------|-------------------|

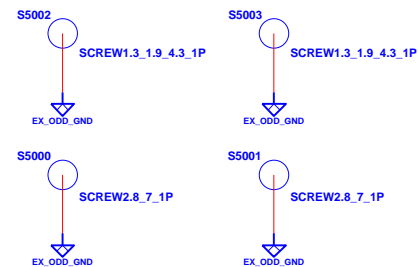
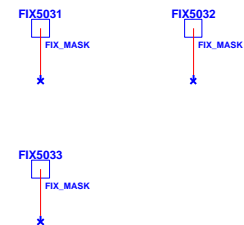
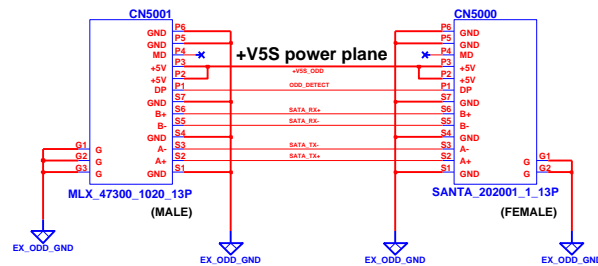
CHANGE by *Jimmy song* 21-Aug-2008

SHEET 56 OF 70



7 IN 1 & USB DAUGHTER BOARD(Tai Twun)

| INVENTEC | | | |
|----------------------------------|------|--------------|-------|
| TITLE TT08 | | | |
| 7 IN 1 & USB Daughter Board (TT) | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | I310A22136-0 | A02 |
| CHANGE by Jimmy song | | 21-Aug-2008 | |
| SHEET | | 58 | OF 70 |

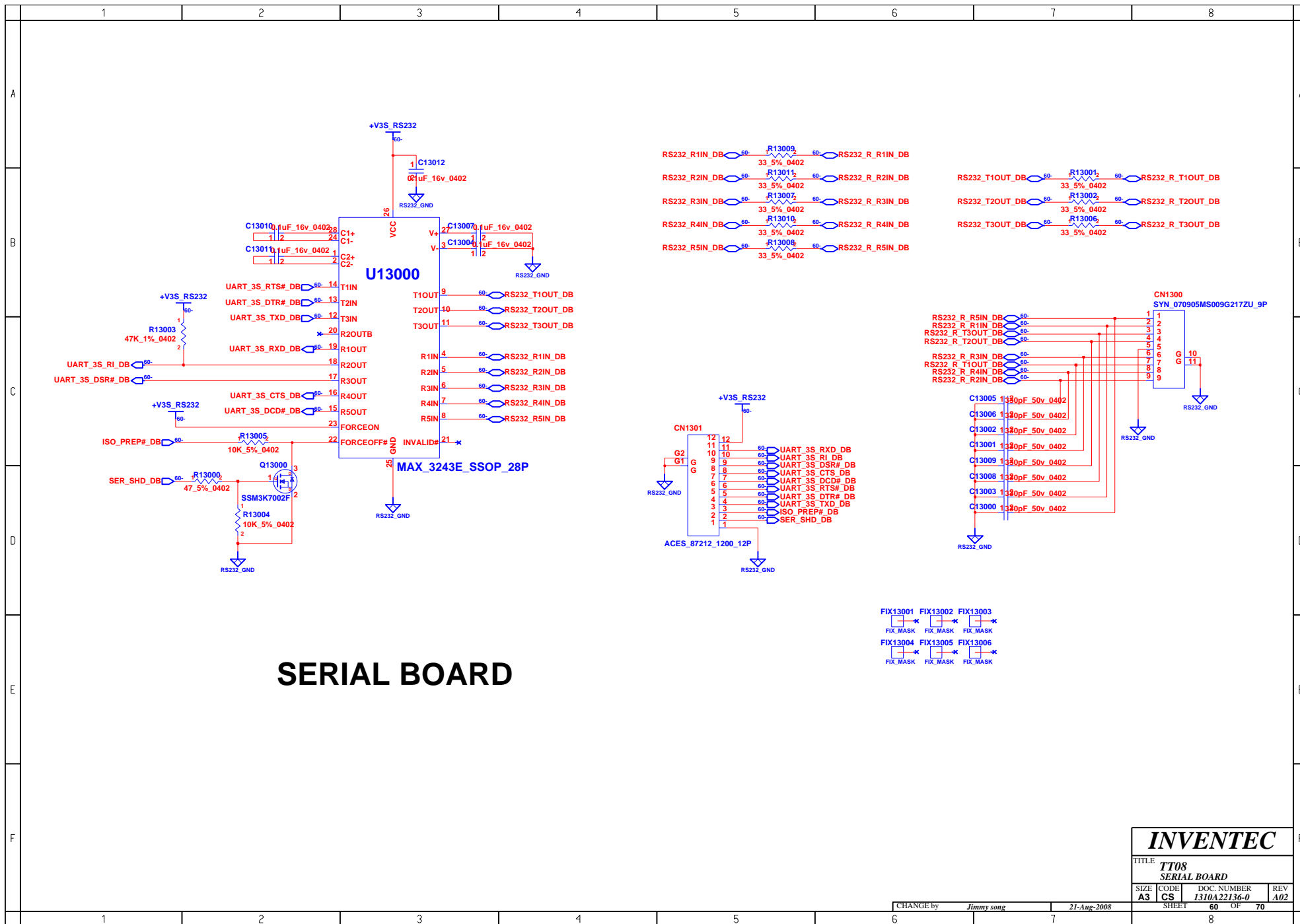


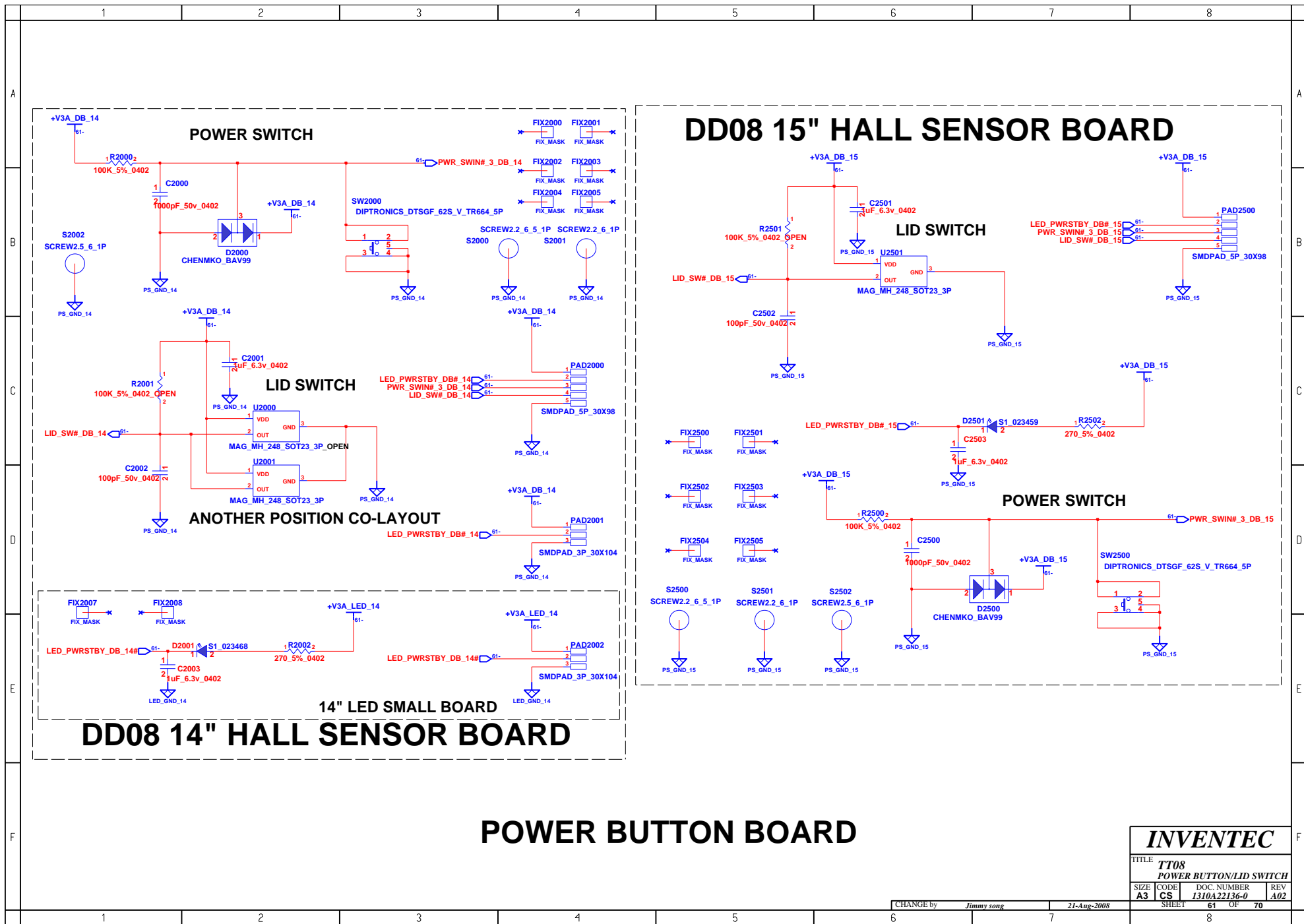
15" only

ODD Extension Board

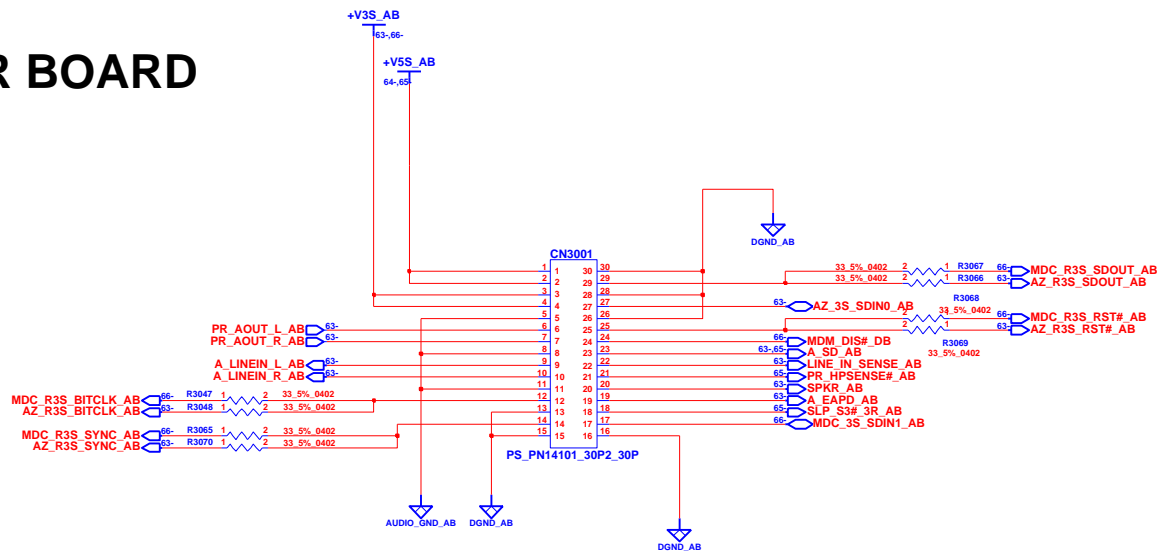
| INVENTEC | | | |
|---------------------|---------|--------------------------|---------|
| TITLE TT08 | | | |
| ODD Extension Board | | | |
| SIZE A3 | CODE CS | DOC. NUMBER 1310A22136-0 | REV A02 |
| SHEET 59 | | OF 70 | |

CHANGE by Jimmy song 21-Aug-2008





AUDIO DAUGHTER BOARD



Audio CONN

- | | |
|-----------------------------------|----------------------|
| 1. AGND | 16. AZ_3S_SDIN0_AB |
| 2. PR_AOUT_L | 17. MDC_3S_SDIN1_AB |
| 3. PR_AOUT_R | 18. SLP_S3#_3R_AB |
| 4. AGND | 19. A_EAPD_AB |
| 5. PR_LINEIN_L | 20. SPKR_AB |
| 6. PR_LINEIN_R | 21. PR_HPSENSE#_AB |
| 7. AGND | 22. LINE_IN_SENSE_AB |
| 8. +V5S | 23. A_SD_AB |
| 9. +V5S | 24. MODEM DISABLE# |
| 10. +V3S | 25. DGND |
| 11. +V3S | 26. DGND |
| 12. AZ_R3S_BITCLK(MDC_R3S_BITCLK) | 27. DGND |
| 13. AZ_R3S_SDOUT(MDC_R3S_SDOUT) | 28. DGND |
| 14. AZ_R3S_SYNC(MDC_R3S_SYNC) | 29. DGND |
| 15. AZ_R3S_RST#(MDC_R3S_RST#) | 30. DGND |



INVENTEC

| | | |
|-----------------|------|--------------|
| TITLE | | |
| TT08 | | |
| AUDIO CONNECTOR | | |
| SIZE | CODE | DOC. NUMBER |
| A3 | CS | 1310A22136-0 |
| SHEET | | REV |
| 62 | | A02 |

CHANGE by Jimmy song 21-Aug-2008

AUDIO DAUGHTER BOARD

AUDIO DAUGHTER BOARD

AUDIO DAUGHTER BOARD

MIC Jack

Earphone Jack

EXT. MIC

INT. MIC

INVENTEC

TT08

EARPHONE & MIC JACK

SIZE A3 CODE CS DOC. NUMBER 1310A22136-0 REV A02

CHANGE by Jimmy song 21-Aug-2008

SHEET 84 OF 70

AUDIO DAUGHTER BOARD

MIC Jack

Earphone Jack

INT. MIC

EXT. MIC

INVENTEC

TT08

EARPHONE & MIC JACK

SIZE A3 CODE CS DOC. NUMBER 1310A22136-0 REV A02

CHANGE by Jimmy song 21-Aug-2008

SHEET 84 OF 70

AUDIO DAUGHTER BOARD

Internal Speaker

Coils to internal speaker.

INVENTEC

TITLE: TT08
AUDIO AMP & INT SPEAKER

SIZE: A3
CODE: CS
DOC. NUMBER: 1310A22136-0
REV: A02

CHANGE by: Jimmy song
21-Aug-2008

SHEET 65 OF 70

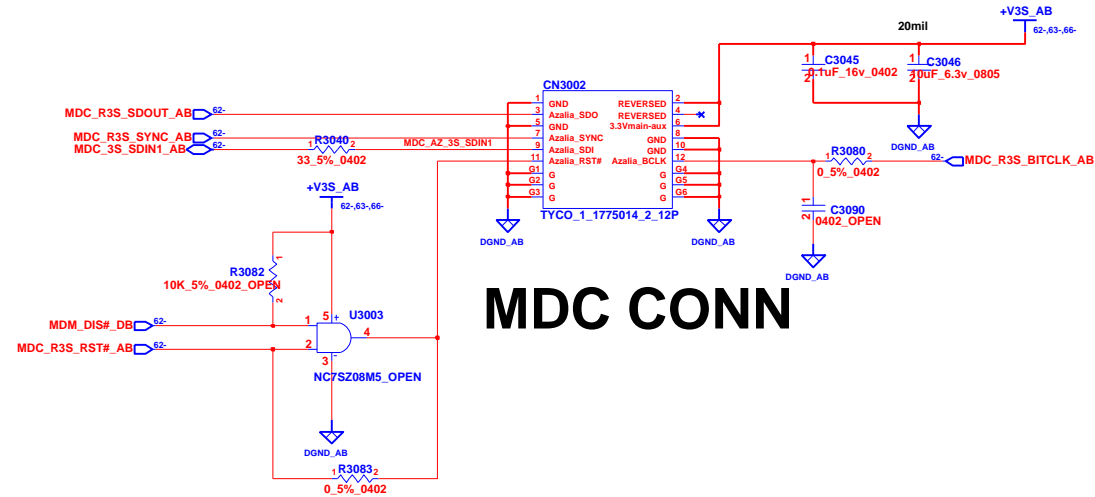
Colse to internal speaker.

| | | | |
|---|-----------|----------------------------|------------------|
| TITLE | | | |
| <i>TT08</i> <i>AUDIO AMP & INT SPEAKER</i> | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | <i>1310A22136-0</i> | <i>A0</i> |

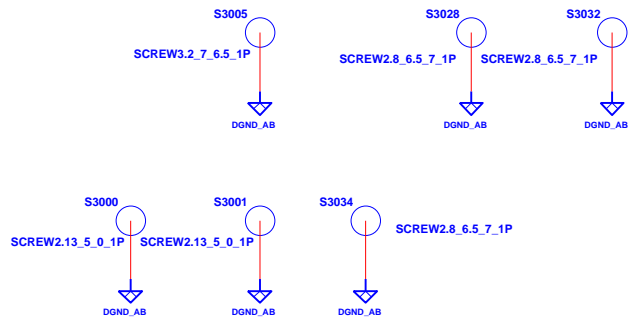
| | | |
|-----------|-------------------|-------------|
| CHANGE by | <i>Jimmy song</i> | 21-Aug-2008 |
|-----------|-------------------|-------------|

CS 1310A22136-0
SHEET 65 OF 70

AUDIO DAUGHTER BOARD



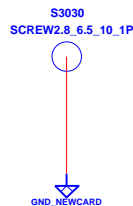
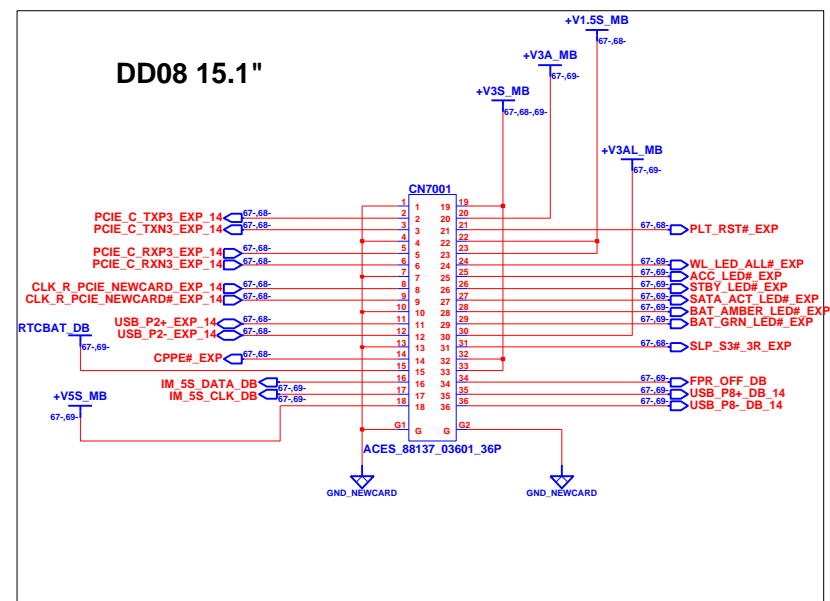
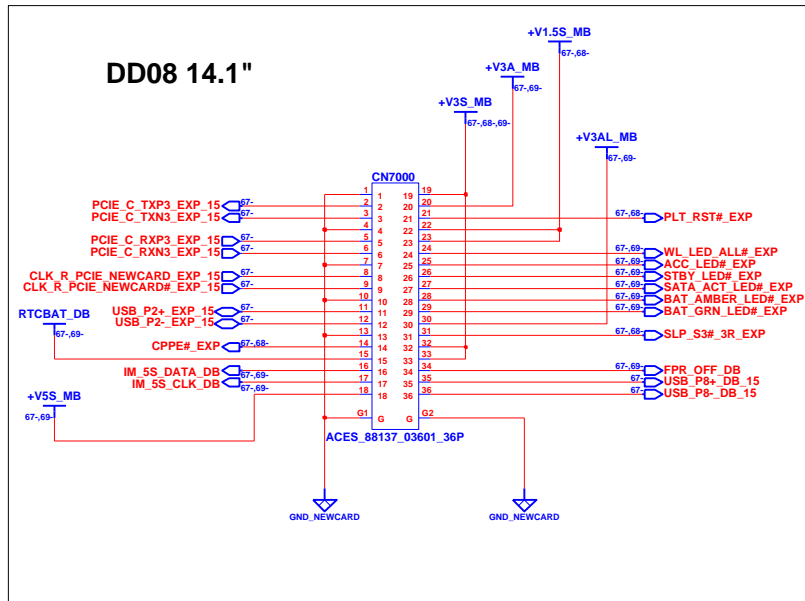
MDC CONN



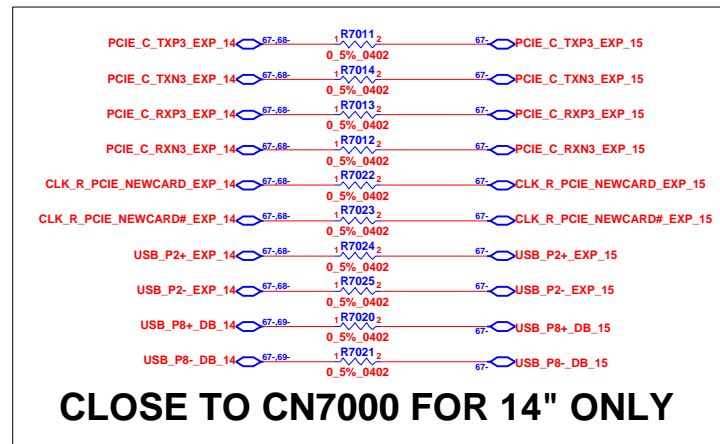
INVENTEC

| | | | |
|-------------------|----------------|---------------------------------|----------------|
| TITLE TT08 | | | |
| MDC CONNECTOR | | | |
| SIZE A3 | CODE CS | DOC. NUMBER 1310A22136-0 | REV A02 |
| SHEET 66 | | OF 70 | |

CHANGE by *Jimmy song* 21-Aug-2008



- | | |
|-----------------------|------------------|
| 1 GND | 19 +V3S |
| 2 PCI_E_C_TXP | 20 +V3A |
| 3 PCI_E_C_TXN | 21 PLT_RST# |
| 4 GND | 22 +V1.5S |
| 5 PCI_E_C_RXP | 23 +V1.5S |
| 6 PCI_E_C_RXN | 24 WL_LED_ALL# |
| 7 GND | 25 ACC_LED# |
| 8 CLK_R_PCIE_NEWCARD | 26 STBY_LED# |
| 9 CLK_R_PCIE_NEWCARD# | 27 LED_3S_SATA# |
| 10 GND | 28 BAT_AMBERLED# |
| 11 USB_P+ | 29 BAT_GRNLED# |
| 12 USB_P- | 30 LED_3S_ODD# |
| 13 GND | 31 SLP_3S#_3R |
| 14 CLK_R_REQ# | 32 +V3S |
| 15 RTCBAT | 33 +V3S |
| 16 TOUCHPAD DATA | 34 FPR_OFF |
| 17 TOUCHPAD CLK | 35 USB_P8+ |
| 18 +VSS | 36 USB_P8- |



EXPRESS CARD DAUGHTER BOARD

INVENTEC

| | | | |
|----------------------|-------------------|------------------------------------|-------------------|
| TITLE TT08 | | | |
| NEW CARD CONNECTOR | | | |
| SIZE A3 | CODE CS | DOC. NUMBER I310A22136-0 | REV A02 |

CHANGE by *Jimmy song* 21-Aug-2008

SHEET 67 OF 70

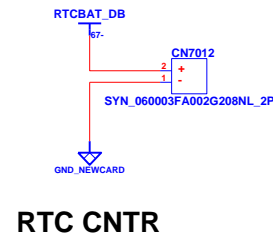
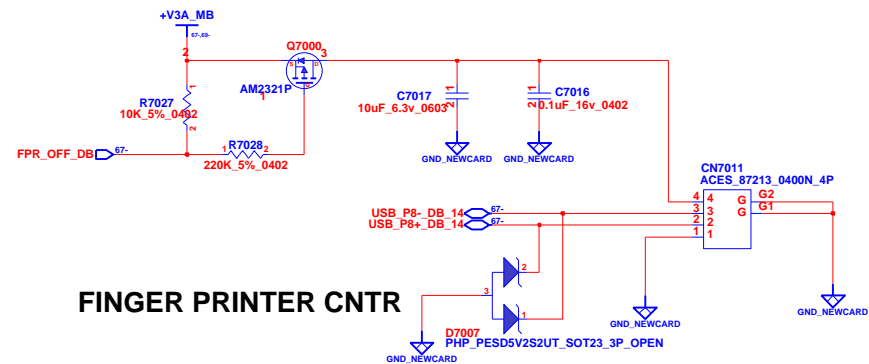
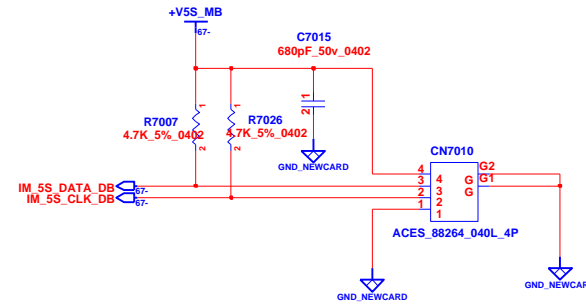
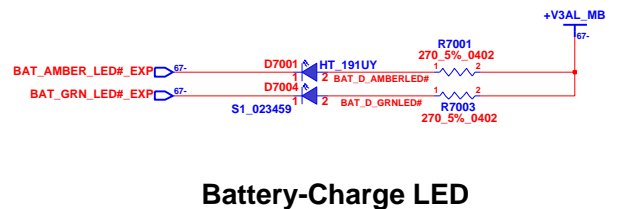
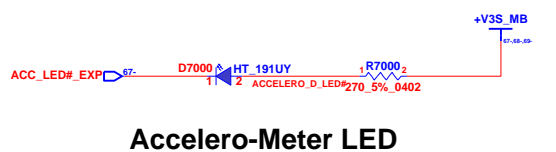
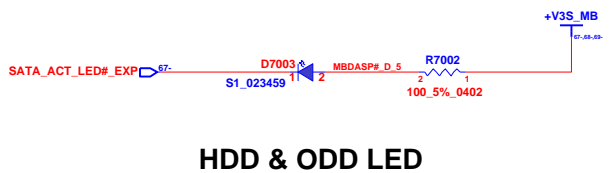
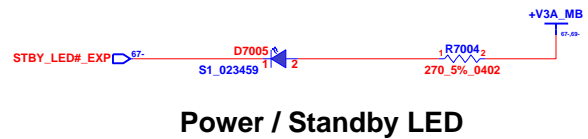
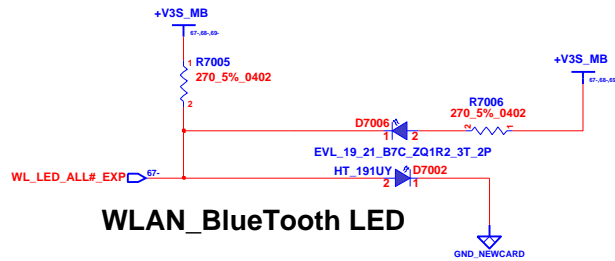


| | | | |
|---------------------------------------|-----------|---------------------|------------|
| TITLE | | | |
| <i>TT08</i> NEW CARD | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 1310A22136-0 | A02 |
| SHEET 68 OF 70 | | | |

| | | |
|-----------|-------------------|--------------------|
| CHANGE by | <i>Jimmy song</i> | <i>21-Aug-2008</i> |
|-----------|-------------------|--------------------|

| | | |
|----|----|----|
| 68 | OF | 70 |
|----|----|----|

EXPRESS CARD DAUGHTER BOARD



INVENTEC

| | | | |
|--------------|------|--------------|-------|
| TITLE | | | |
| TT08 | | | |
| NEW CARD LED | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 1310A22136-0 | A02 |
| SHEET | | 69 | OF 70 |

Layout notes :

Finger Print Reader DB

1. Placed R5 close to U1
2. Placed D1 closed to R5
3. D1 & D2 pin_A to GND should be a short trace(20mil max) using three via to connect to GND.

| | | | |
|--|-------------------|---|-------------------|
| <i>INVENTEC</i> | | | |
| TITLE <i>TT08</i> FINGER PRINT READER | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>I310A22136-0</i> | REV A02 |
| SHEET 70 | | OF 70 | |