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KRUG WS BUILD

2010/04/23

| DATE | CHANGE NO. | REV |
|-------------|-----------------|-----|
| 2009-Nov-9 | 2009-ECO-032592 | B |
| 2009-Nov-2 | 2009-ECO-032092 | B |
| 2009-Oct-30 | 2009-ECO-031907 | B |
| 2009-Oct-27 | 2009-ECO-031470 | B |
| 2009-Sep-28 | 2009-ECO-029889 | A |
| 2009-Sep-24 | 2009-ECO-029545 | A |
| 2009-Sep-22 | 2009-ECO-029379 | A |
| 2009-Sep-19 | 2009-ECO-029157 | A |
| 2009-Sep-9 | 2009-ECO-028358 | A |
| 2009-Sep-1 | 2009-ECO-027740 | A |

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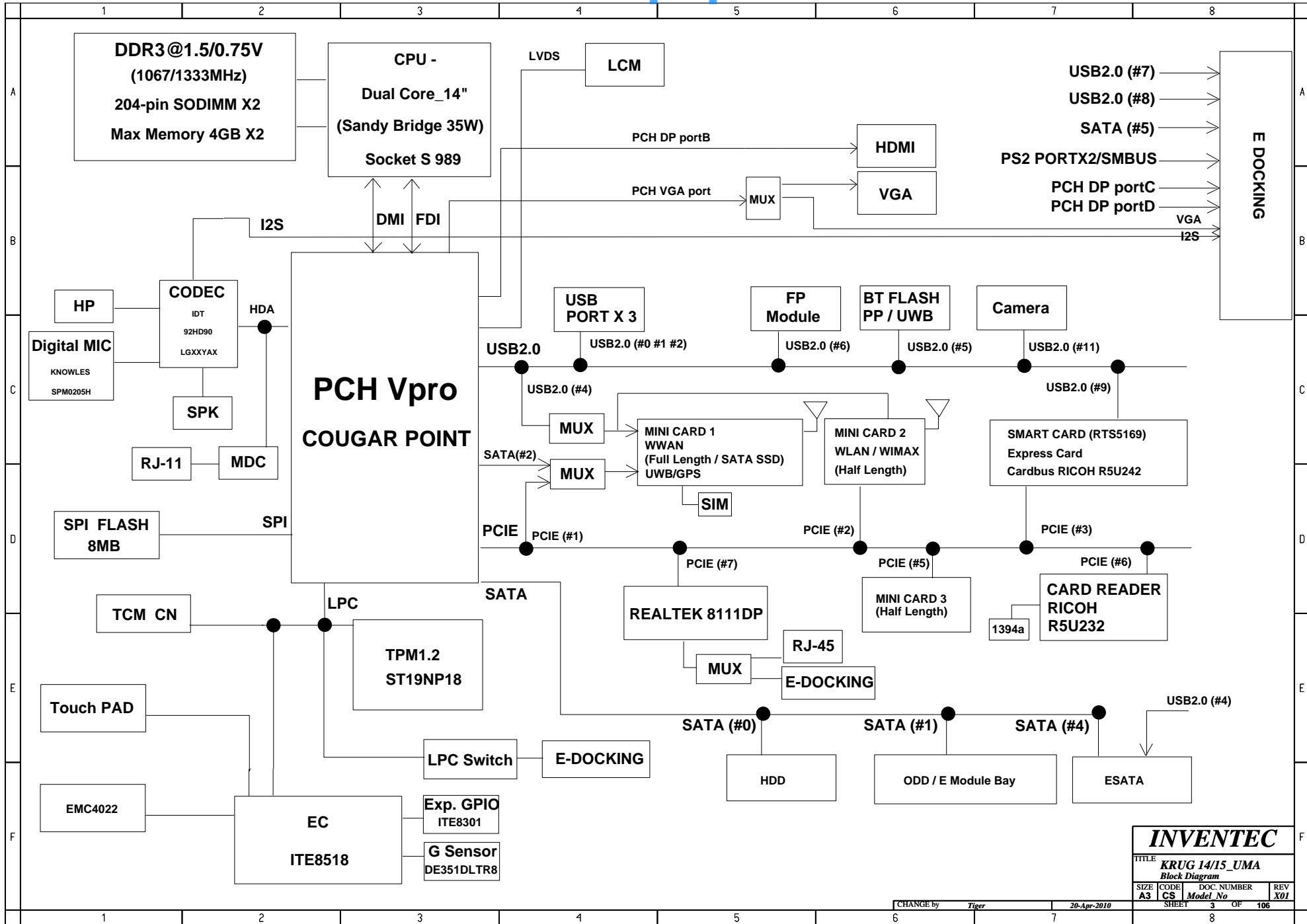
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| | | | | | | | | |
|-------------|---------------|------|-------|------|---|----------|-------------|-----|
| DRAWER | EE | DATE | POWER | DATE | INVENTEC TITLE KRUG | | | |
| DESIGN | | | | | | | | |
| CHECK | | | | | | | | |
| RESPONSIBLE | | | | | | | | |
| SIZE | 3 | | VER | A02 | SIZE | CODE | DOC. NUMBER | REV |
| FILE NAME | | | | | A3 | CS | Model No | X01 |
| P/N | 6050A.2296601 | | | | SHEET | 1 OF 106 | | |

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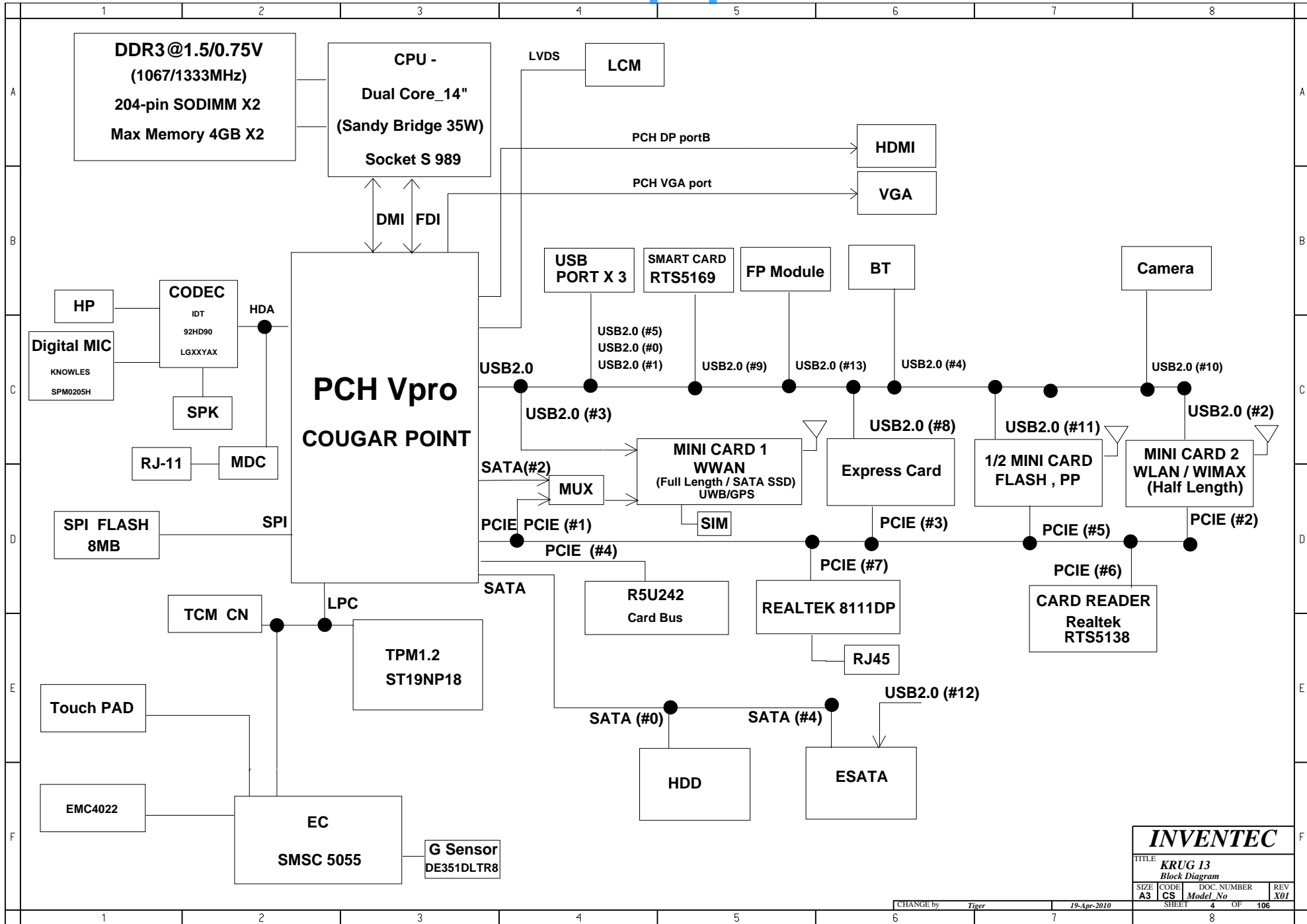
| PAGE | PAGE | PAGE | |
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| 2. Index | 32. PCH 2 | 60. LCM CONN | |
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| 16.UMA VGFX_CORE | 46. ITE8301 | 80-91 Discrete POWER (UMA OPEN) | |
| 17.UMA Power VCORE | 47. AUDIO CODEC | 92. ITE8502 | |
| 18.UMA Power +V3S/+V5S/+V1.5S | 48. MDC/Speaker/Jack | 93. ITE8709 | |
| 19.UMA Power | 49. LAN RTL8111DP | 94. HDMI Repeater | |
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| 28. FAN & THERMAL | 58. Finger Print | | |
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| 30. DDR3 DIMM1 | | | |

| | | | |
|-------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG INDEX | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 22-Apr-2010 | |
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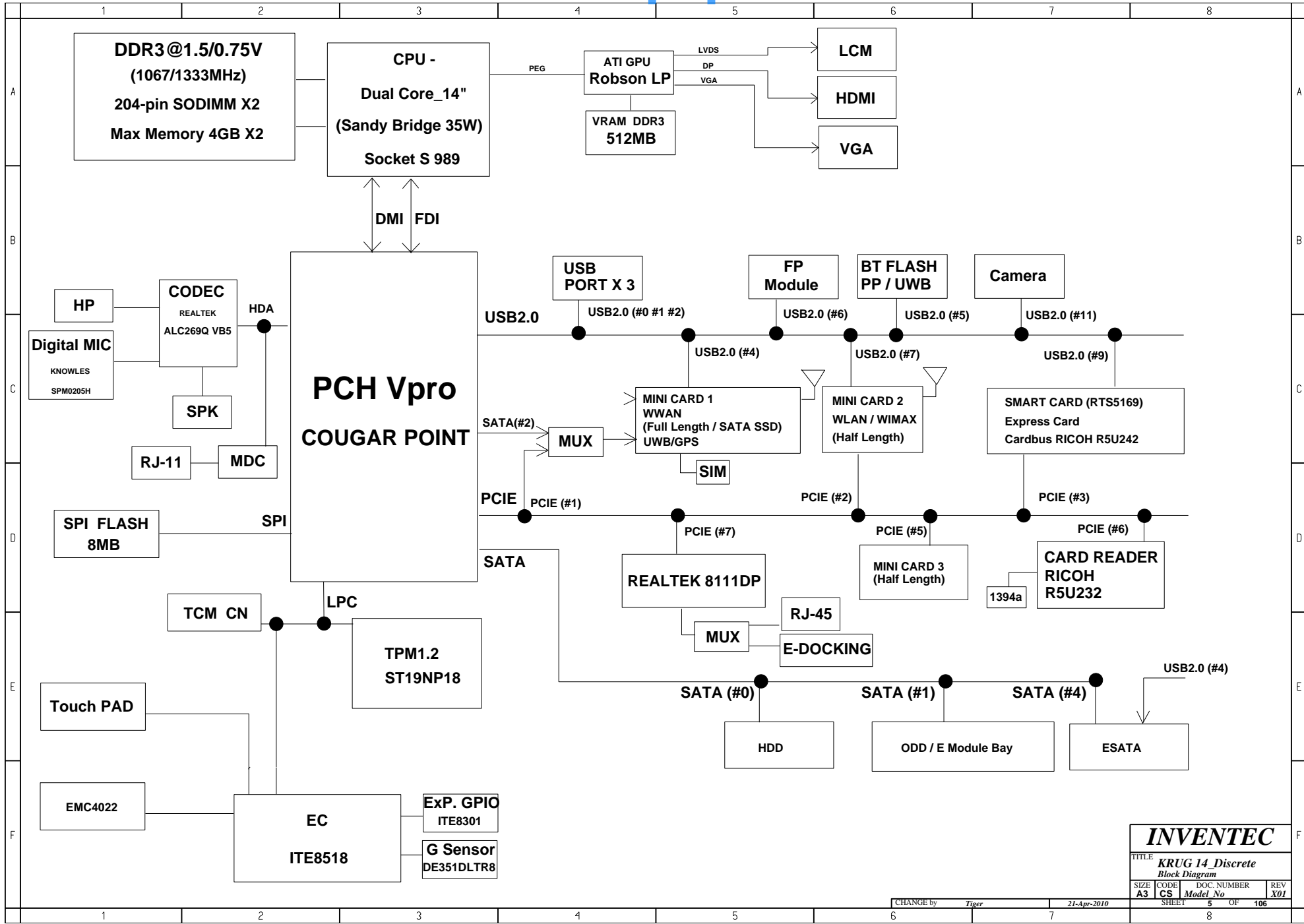
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| TITLE KRUG 14/15_UMA | | | |
| Block Diagram | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
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CHANGE by Tiger 20-Apr-2010

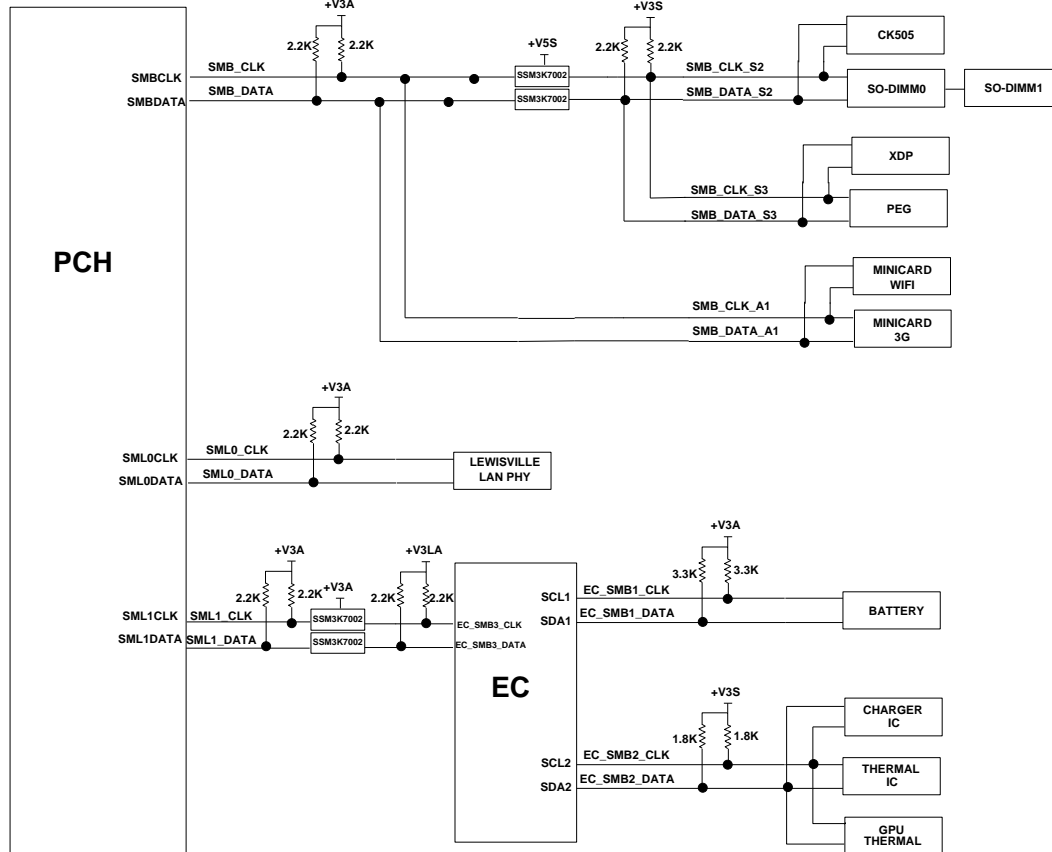


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| INVENTEC | | | |
| TITLE KRUG 13 | | | |
| Block Diagram | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
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CHANGE by Tiger 19-Apr-2010



| | | | |
|---------------------------------------|----------|-----------------------|----------|
| INVENTEC | | | |
| TITLE: KRUG 14 Discrete Block Diagram | | | |
| SIZE: A3 | CODE: CS | DOC. NUMBER: Model No | REV: X01 |
| CHANGE by: Tiger | | 21-Apr-2010 | |
| SHEET: 5 | | OF: 106 | |



| PCIE | |
|------|------------|
| 1 | NC |
| 2 | NC |
| 3 | WLAN |
| 4 | MINICARD3G |
| 5 | NC |
| 6 | LAN |
| 7 | NC |
| 8 | NC |

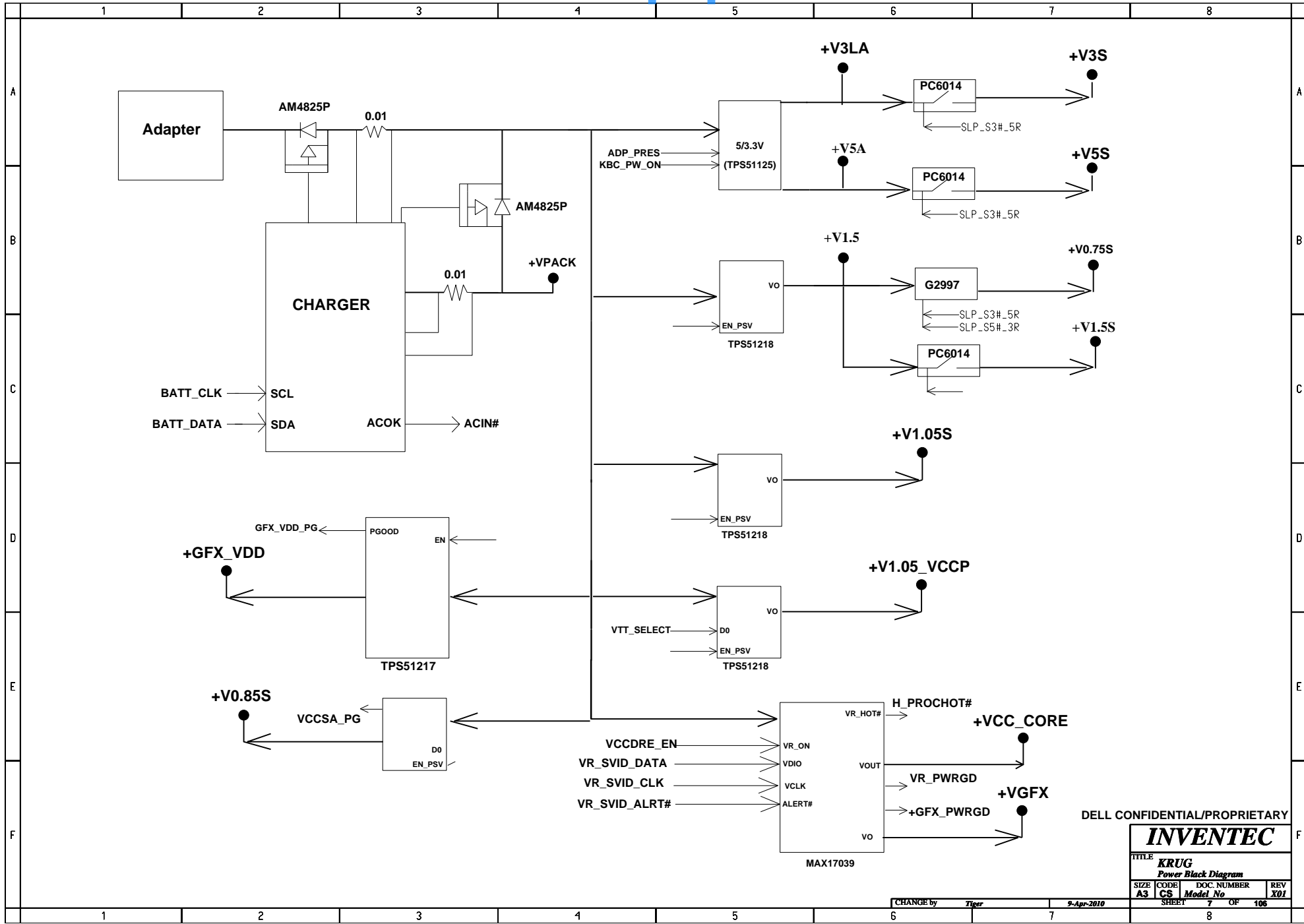
| USB | |
|-----|---------------|
| 0 | eSATA+USB |
| 1 | USB PORT A |
| 2 | USB PORT B |
| 3 | NC |
| 4 | NC |
| 5 | MINICARD WLAN |
| 6 | NC |
| 7 | NC |
| 8 | CARDREADER |
| 9 | NC |
| 10 | WEBCAM |
| 11 | NC |
| 12 | BLUE TOOTH |
| 13 | MINICARD 3G |

| SATA | |
|------|-------|
| 0 | SSD |
| 1 | HDD |
| 2 | ODD |
| 3 | eSATA |
| 4 | NC |
| 5 | NC |

INVENTEC

| | | | |
|-------------------|----------------|-----------------------------|----------------|
| TITLE KRUG | | | |
| SMB Diagram | | | |
| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 |
| SHEET 6 | | OF 106 | |

CHANGE by *Tiger* 9-Apr-2010

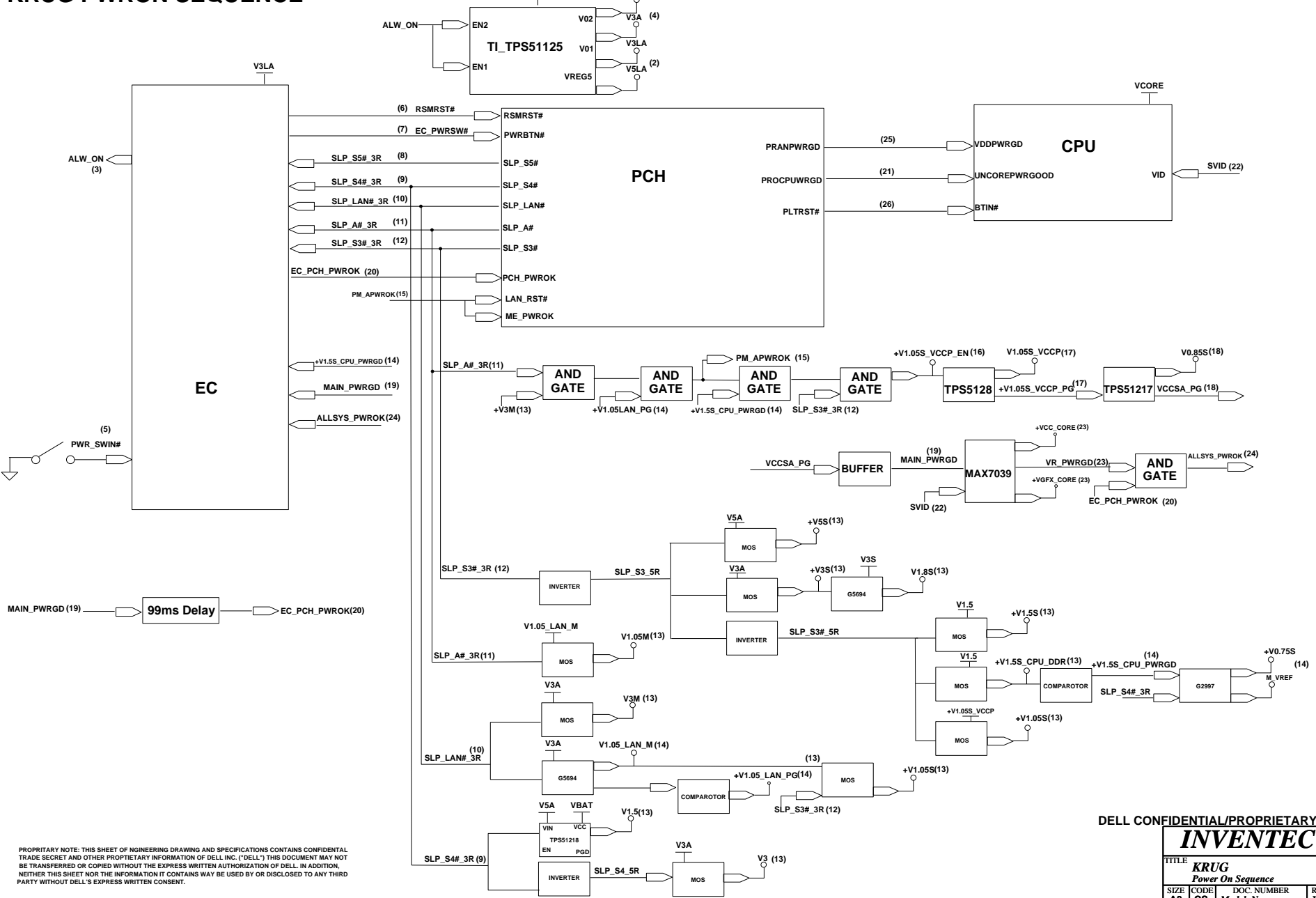


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| INVENTEC | | | |
| TITLE KRUG | | | |
| Power Block Diagram | | | |
| SIZE A3 | CODE CS | DOC. NUMBER 7 | REV X01 |
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CHANGE by *Tiker* 9-Apr-2010

KRUG PWRON SEQUENCE



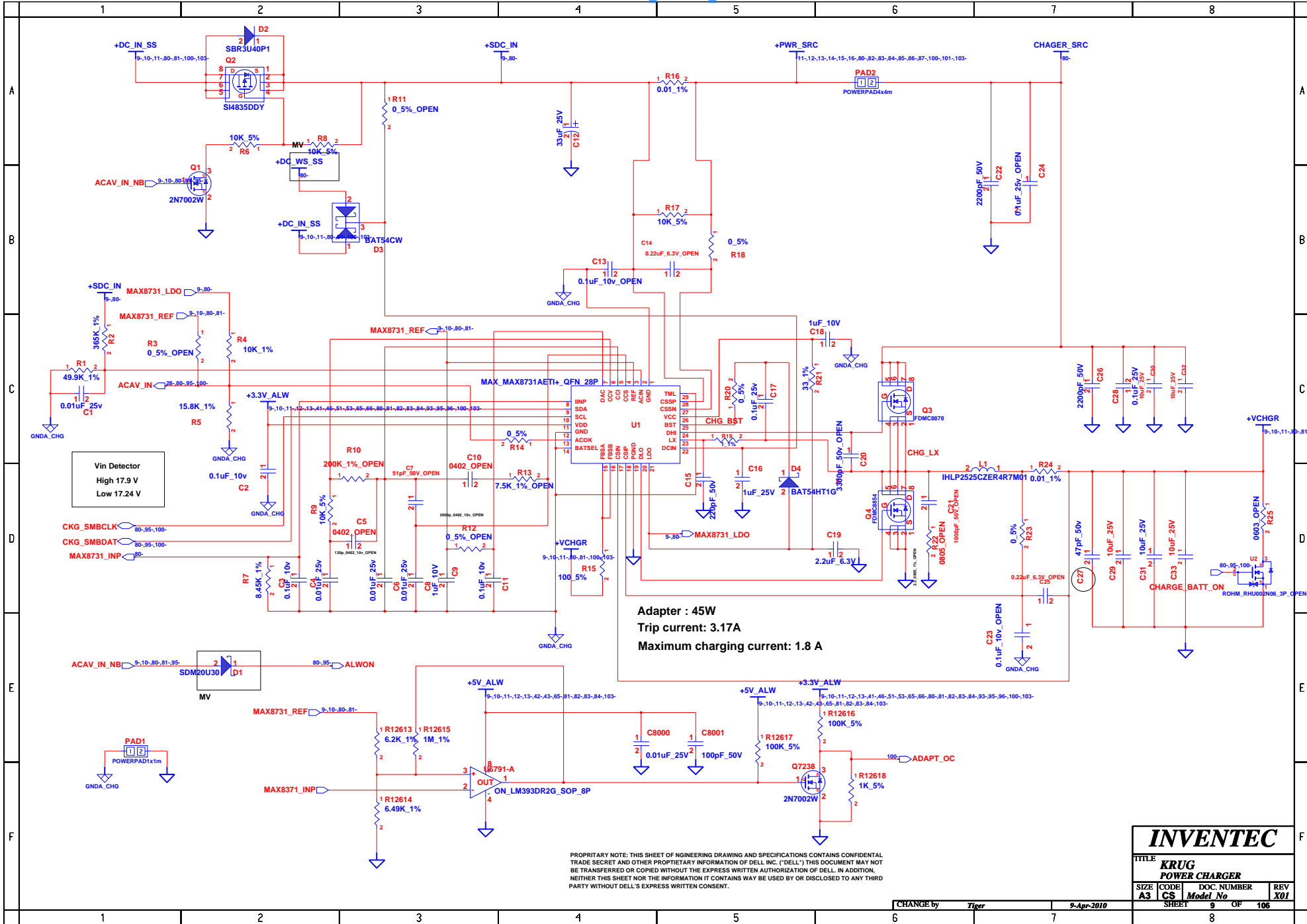
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| | | | |
|---------------------------|------|-------------|-----|
| TITLE | | | |
| KRUG Power On Sequence | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 8 OF | 106 |

CHANGE by *Tiger* 9-Apr-2010



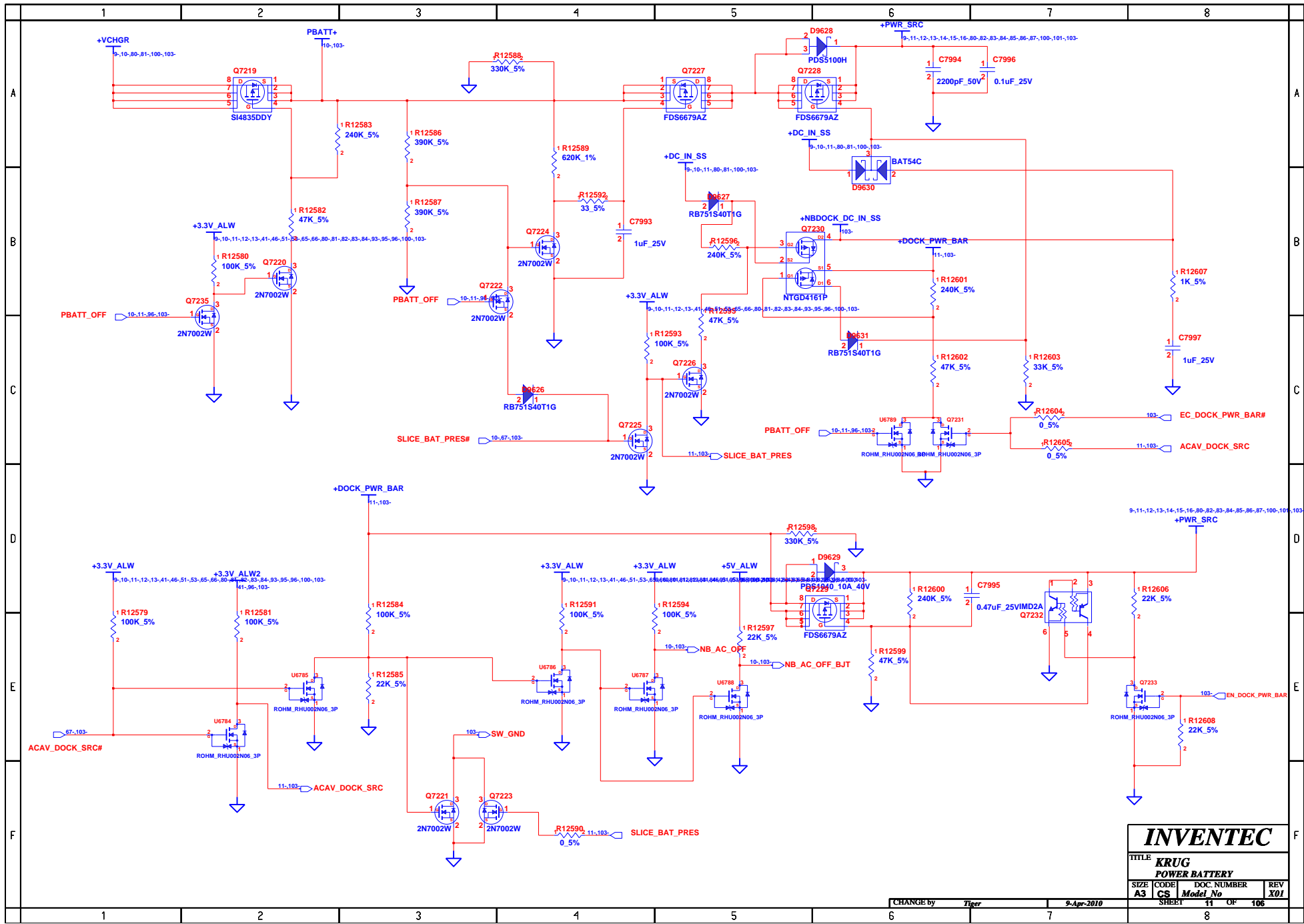
Adapter : 45W
 Trip current: 3.17A
 Maximum charging current: 1.8 A

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| | | | |
|--|-------------------|--------------------------------|-------------------|
| TITLE KRUG POWER CHARGER | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
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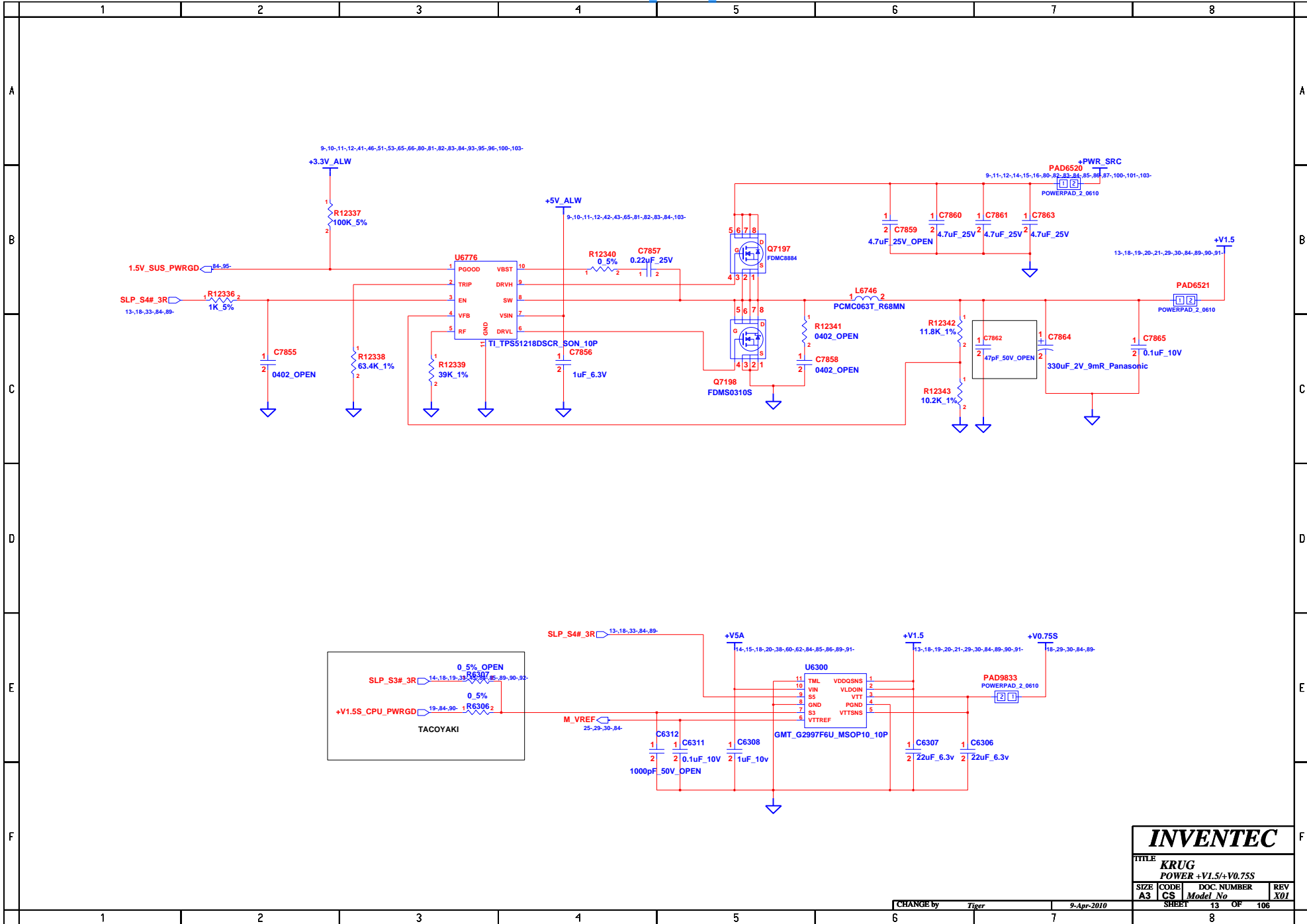
CHANGE by *Tiper* 9-Apr-2010



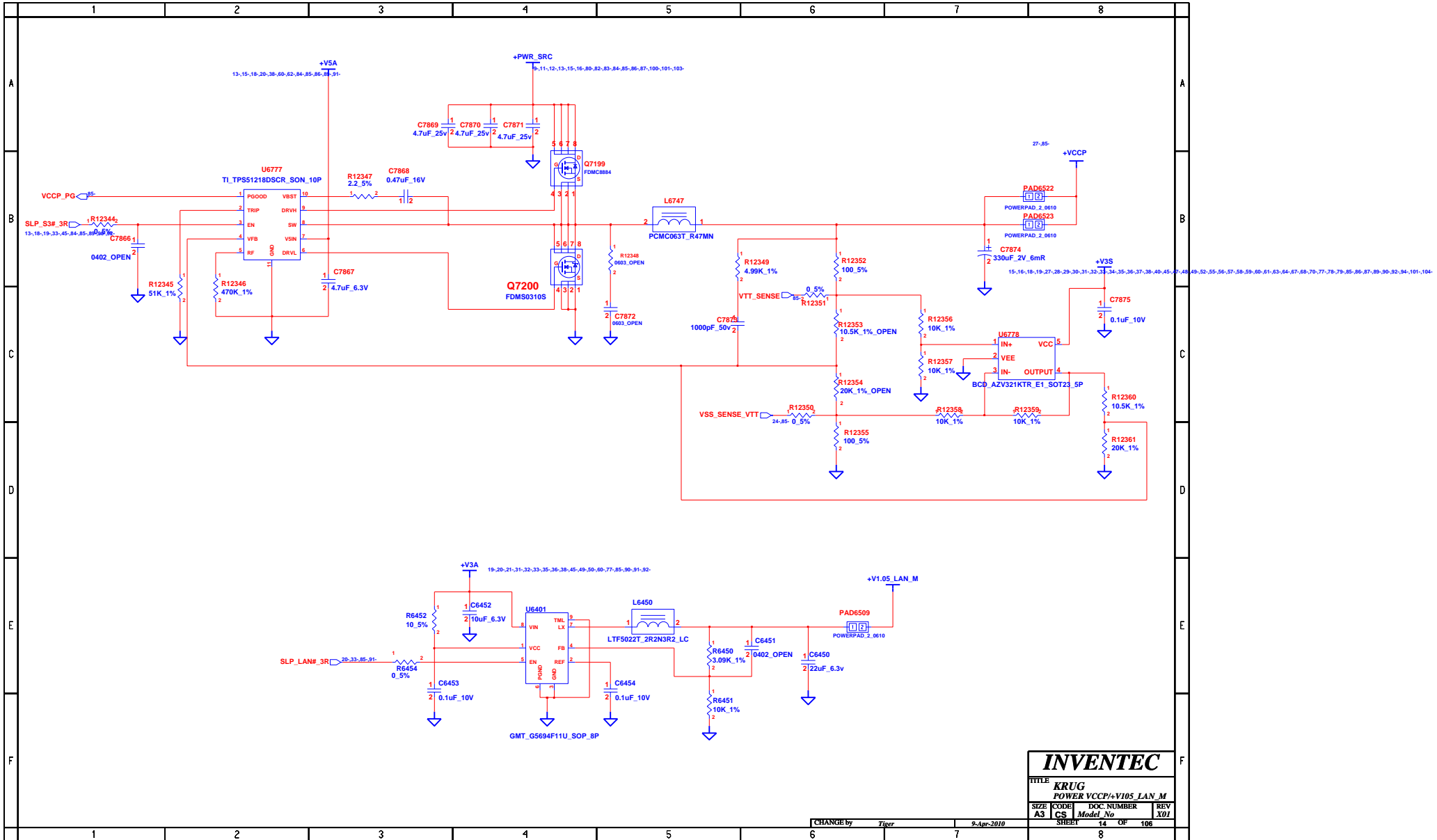
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TITLE **KRUG POWER BATTERY**

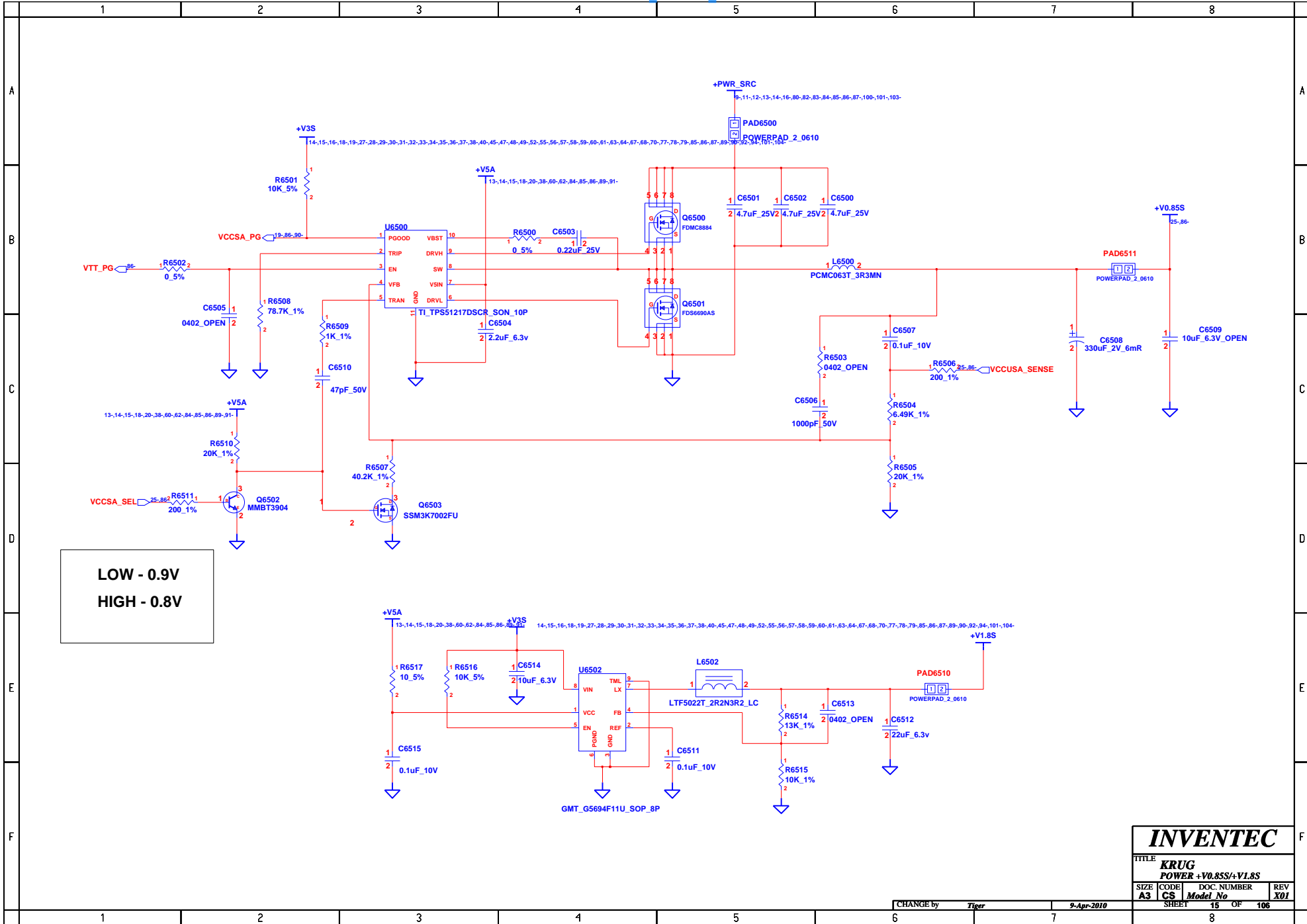
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| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model_No | X01 |



| | | | | |
|----------------------------|------|------------|------------|-----|
| INVENTEC | | | | |
| TITLE KRUG | | | | |
| POWER +V1.5/+V0.75S | | | | |
| SIZE | CODE | DOC NUMBER | REV | |
| A3 | CS | Model No | X01 | |
| CHANGE by | | Tiger | 9-Apr-2010 | |
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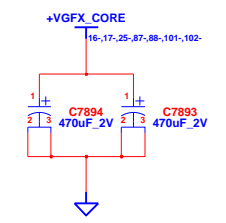
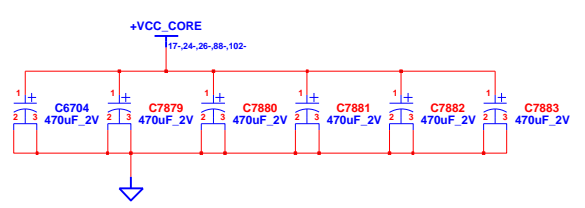
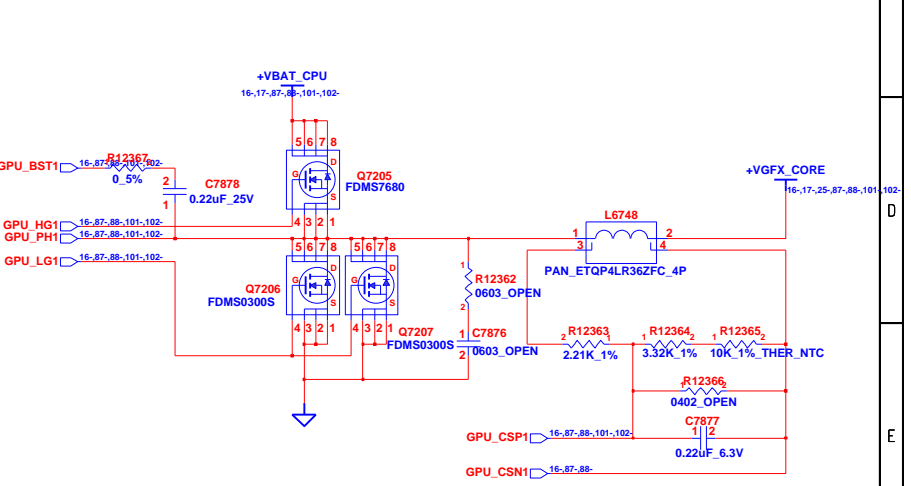
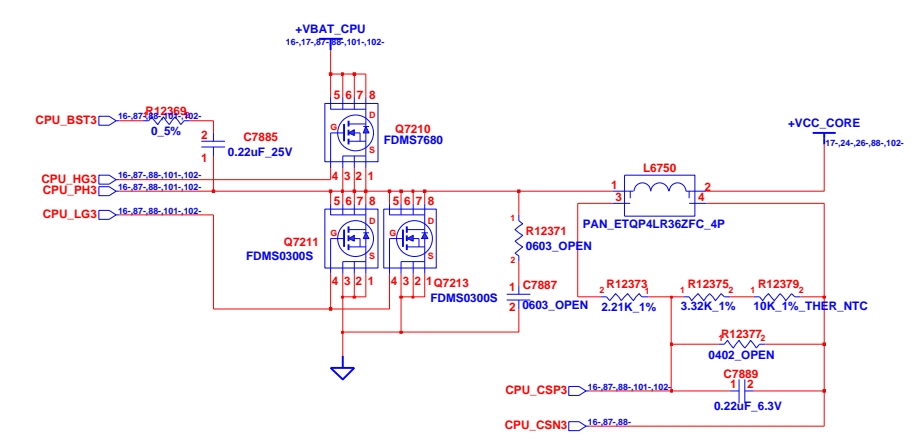
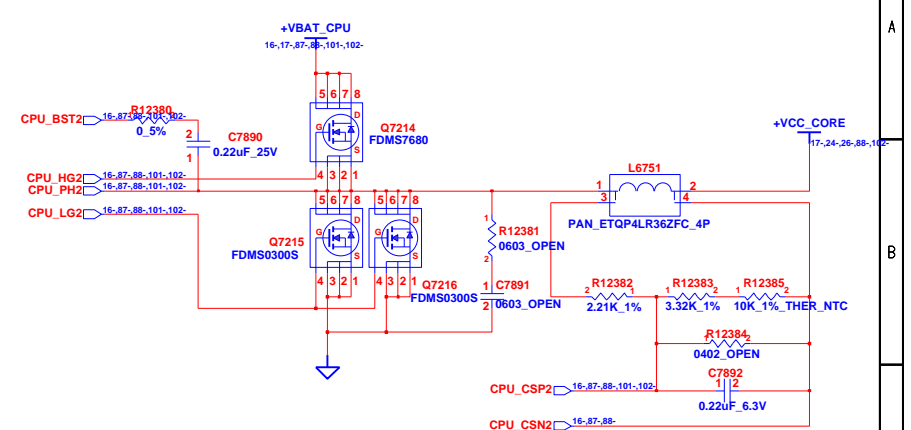
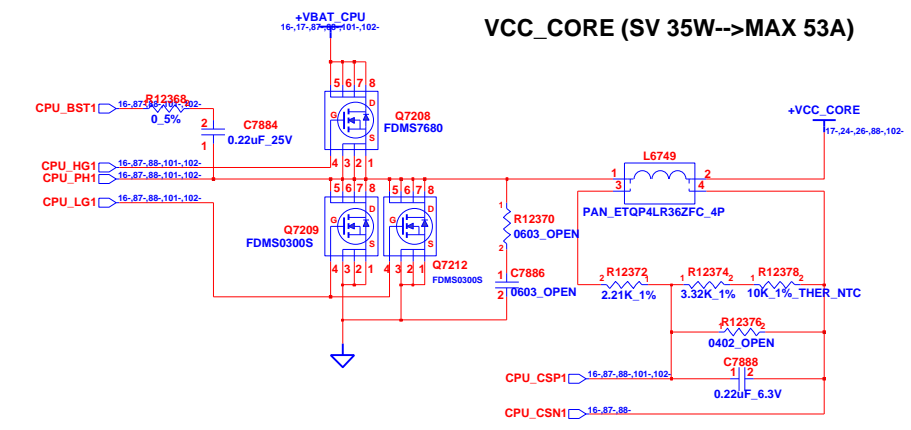
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| INVENTEC | | | |
| TITLE: KRUG | | | |
| POWER VCCP/+V1.05 LAN_M | | | |
| SIZE: A3 | CODE: CS | DOC NUMBER: Model_No | REV: X01 |



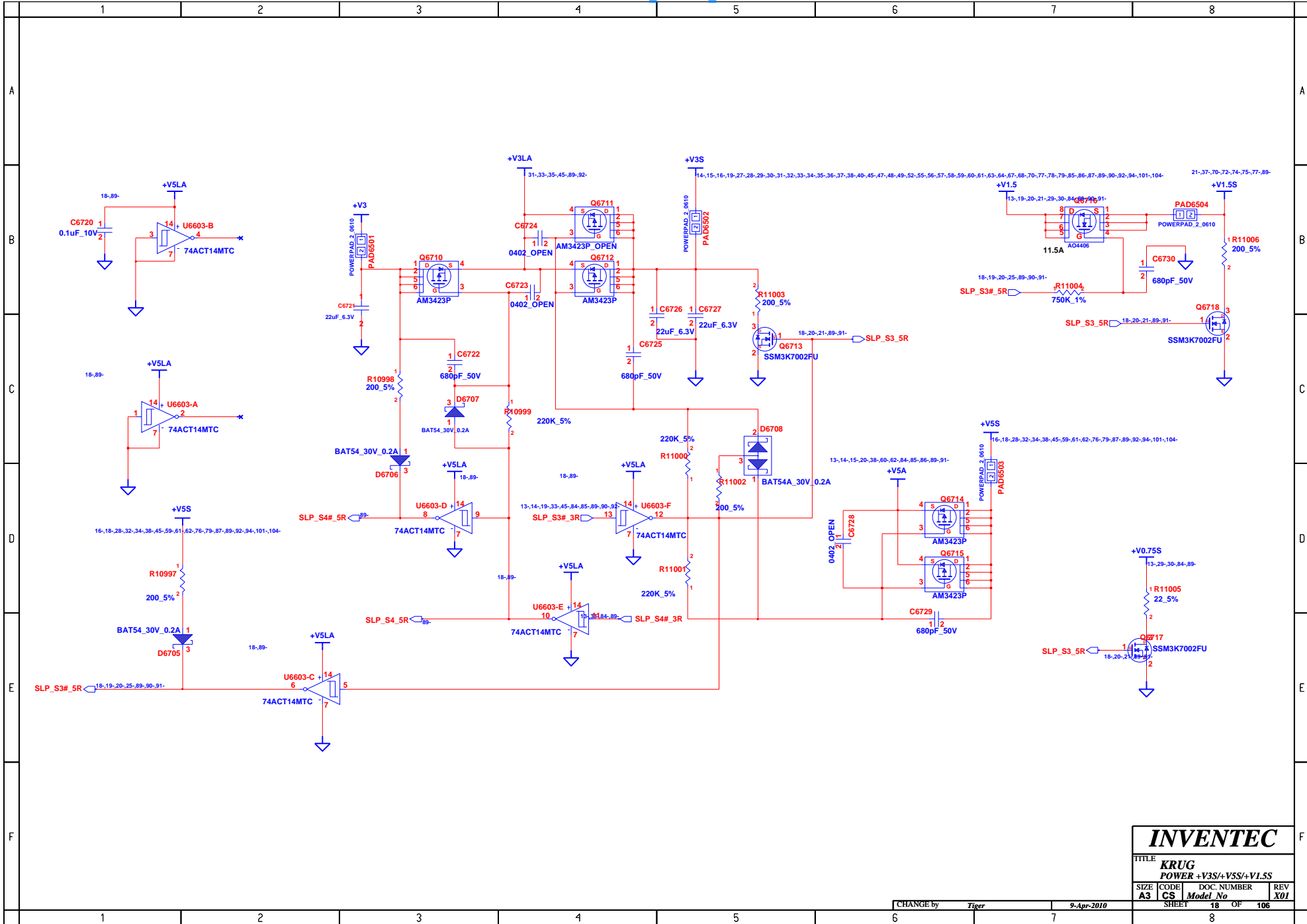
LOW - 0.9V
HIGH - 0.8V

| | | | |
|-----------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| POWER +V0.85S/+V1.8S | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiper</i> | | 9-Apr-2010 | |
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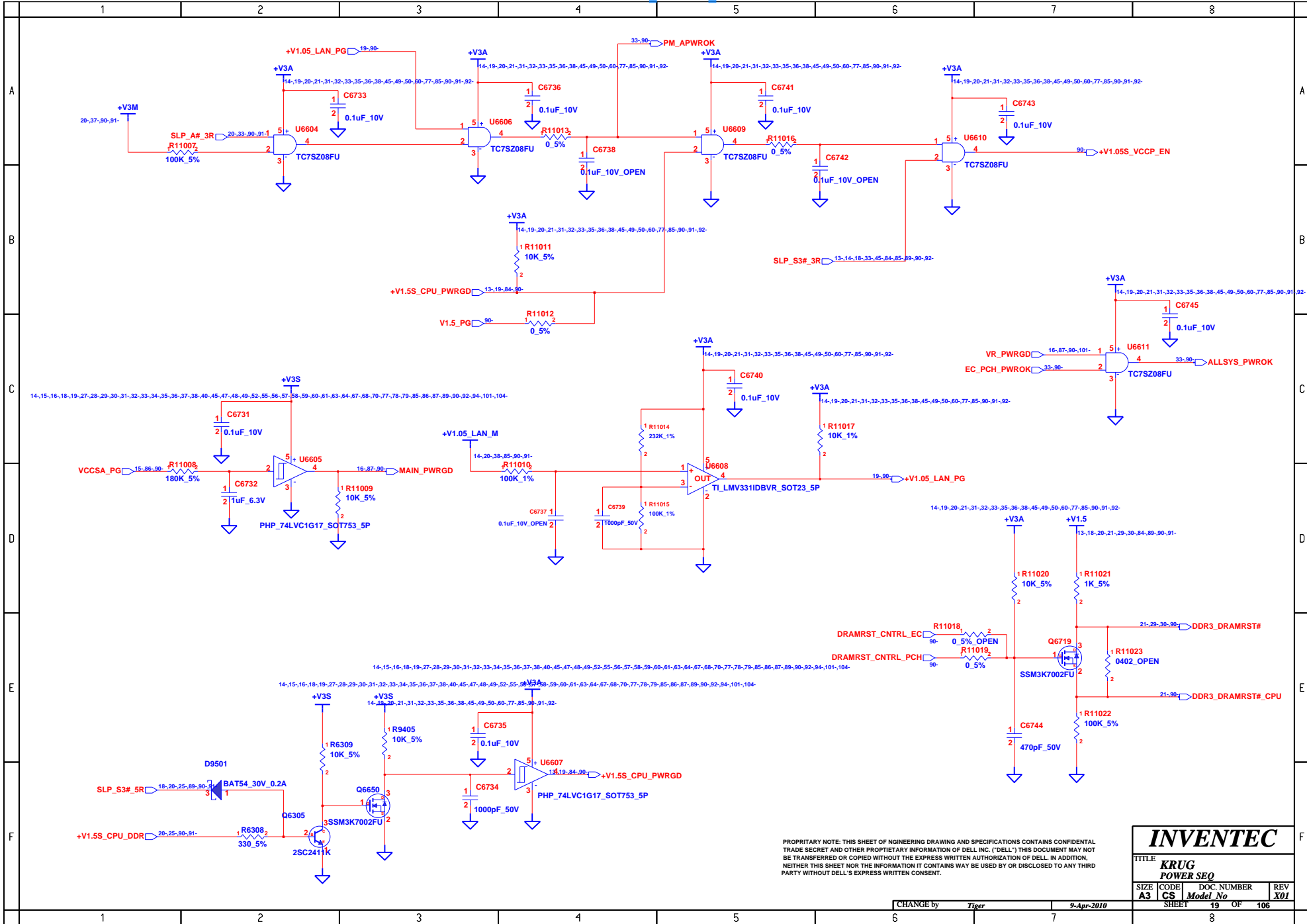
VCC_CORE (SV 35W-->MAX 53A)



| | | | |
|--------------------------------------|-------------------|-------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG POWER VCORE | | | |
| SIZE A3 | CODE CS | DOC NUMBER <i>Model No</i> | REV X01 |
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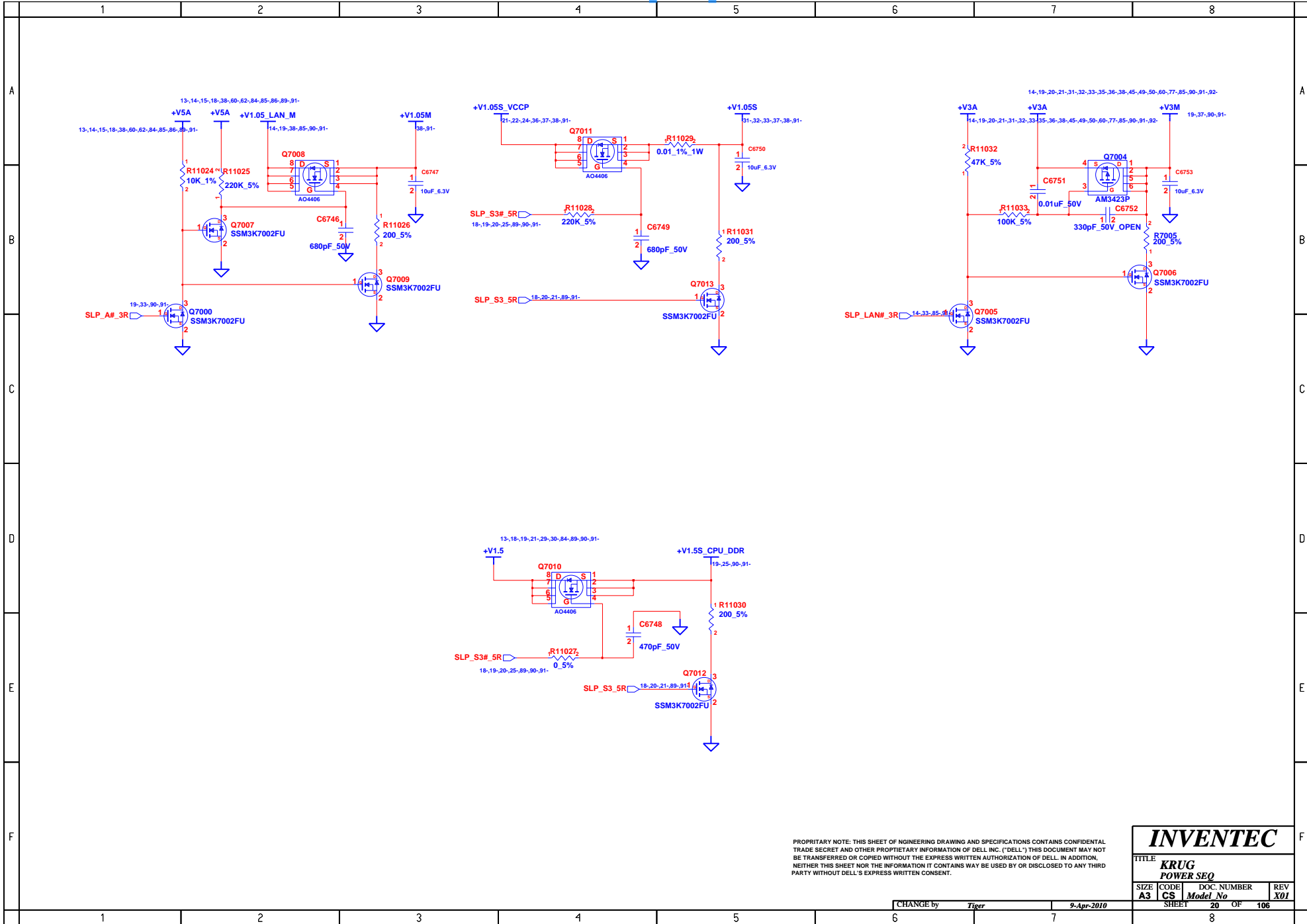
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| TITLE KRUG | | | | |
| POWER +V3S/+V5S/+V1.5S | | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 | |
| CHANGE by <i>Tiker</i> | | 9-Apr-2010 | | SHEET 18 OF 106 |



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| INVENTEC | | | |
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| SIZE A3 | CODE CS | DOC NUMBER <i>Model No</i> | REV X01 |
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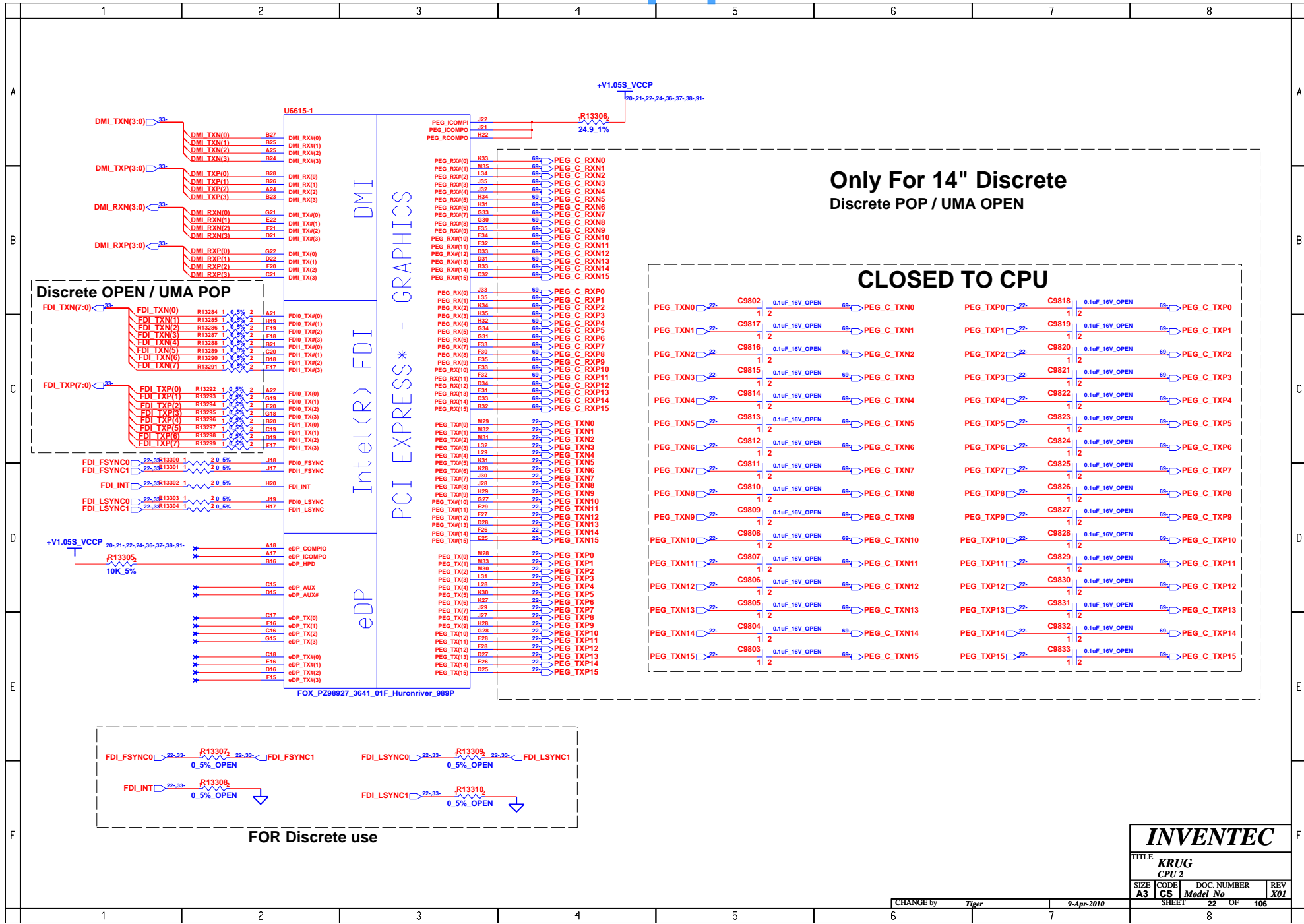
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| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
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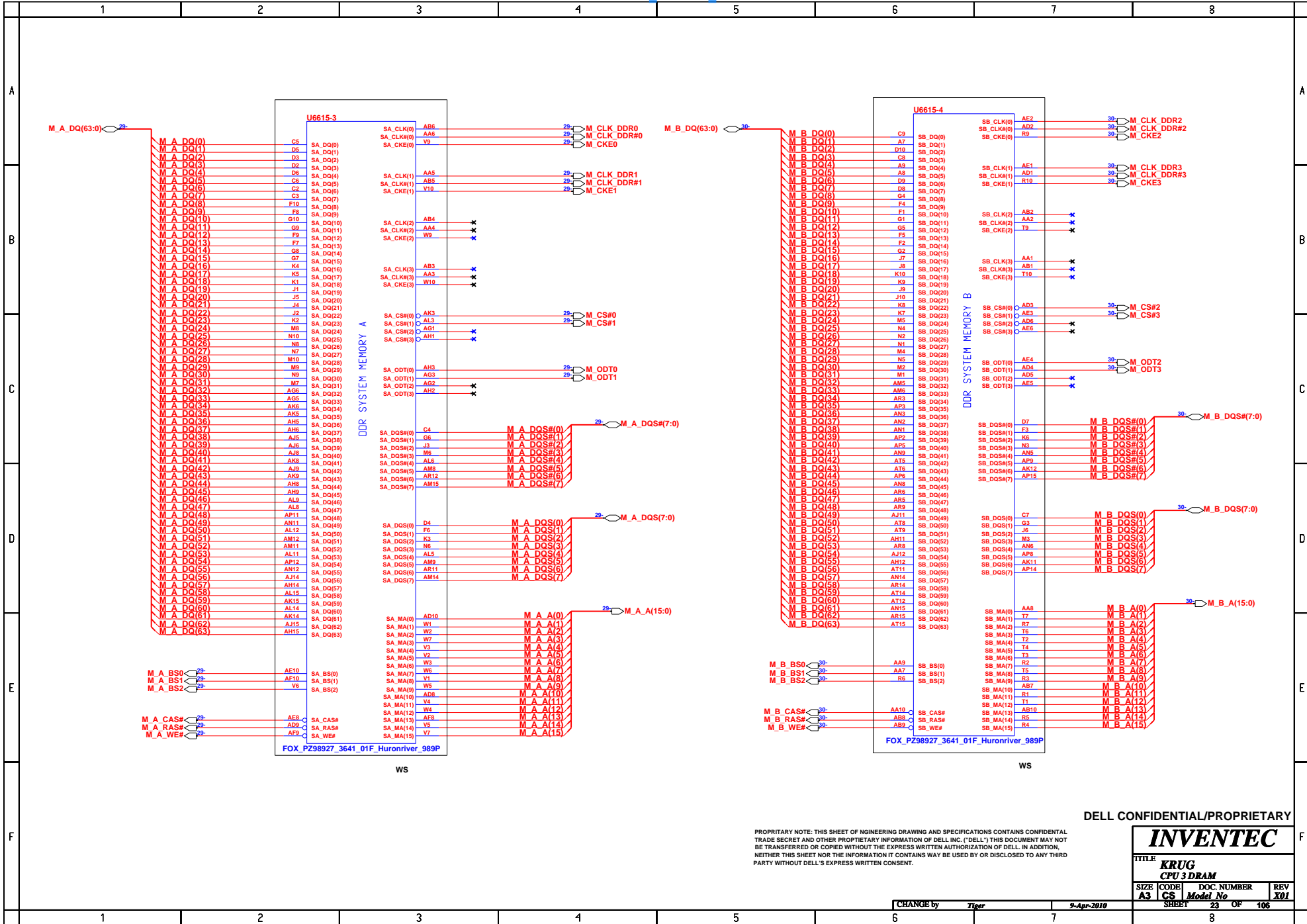
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Only For 14" Discrete
Discrete POP / UMA OPEN

CLOSED TO CPU

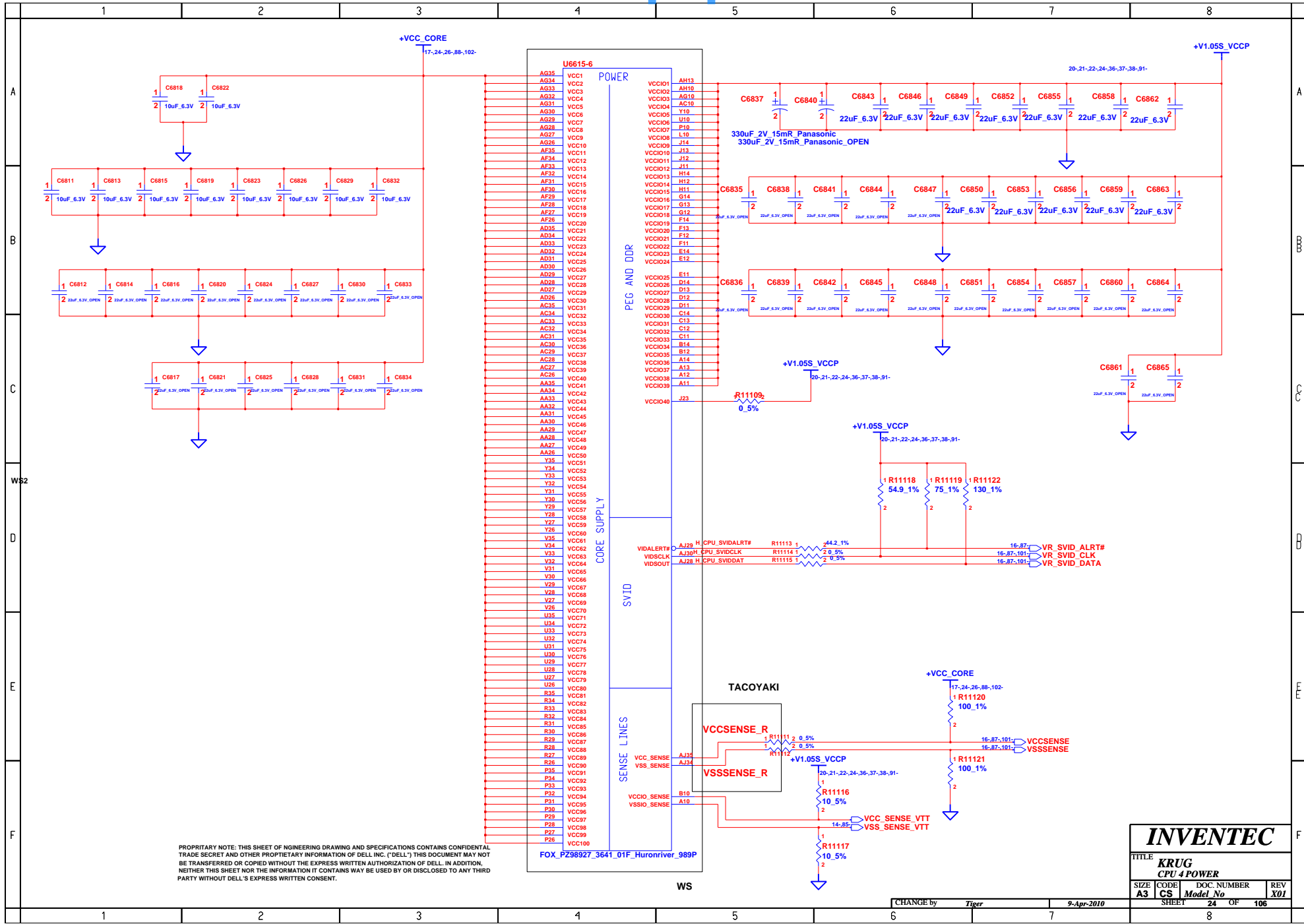
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| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 |
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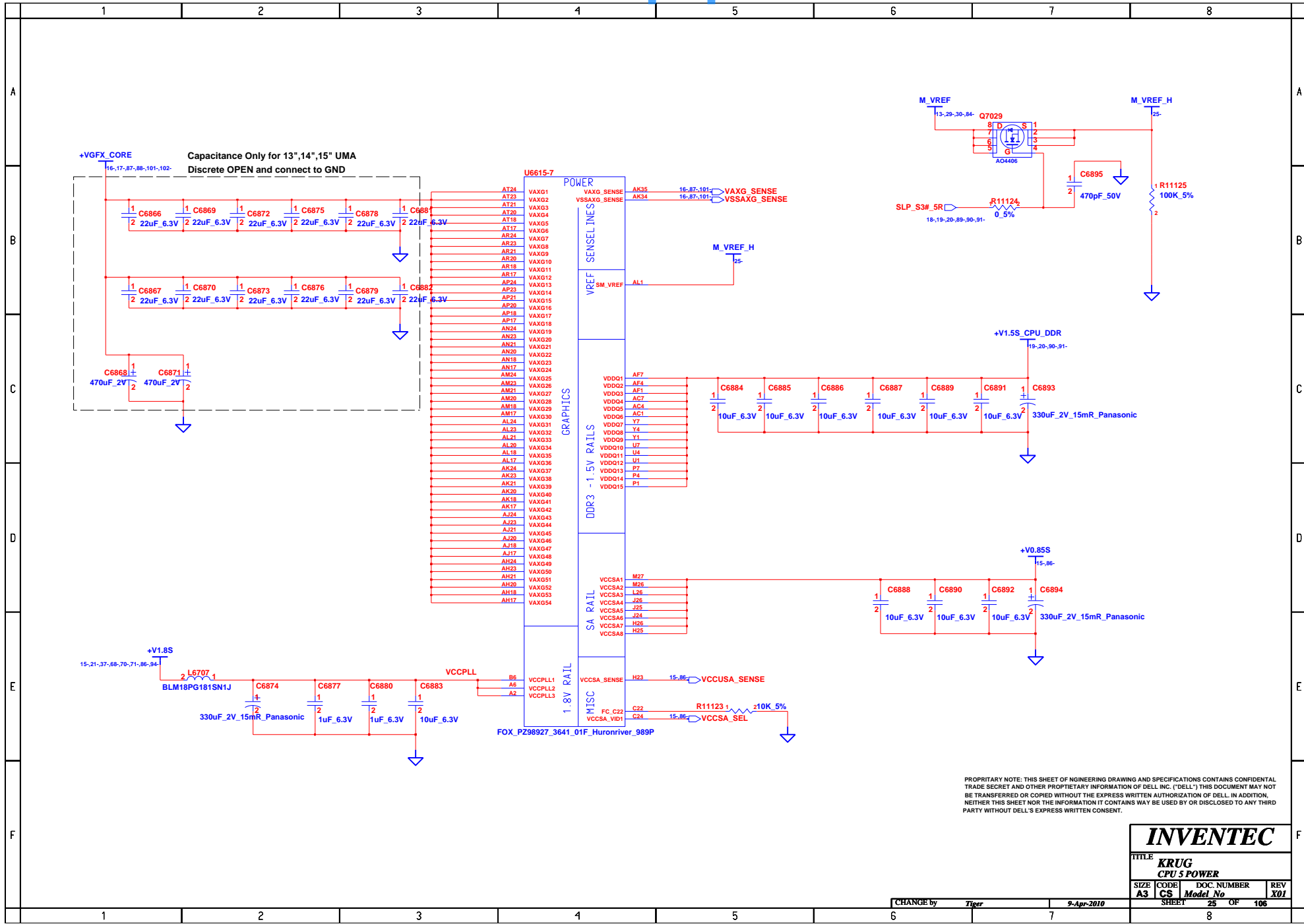
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| | | | |
|--------------------------------------|-------------------|-------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG CPU 4 POWER | | | |
| SIZE A3 | CODE CS | DOC NUMBER <i>Model No</i> | REV X01 |
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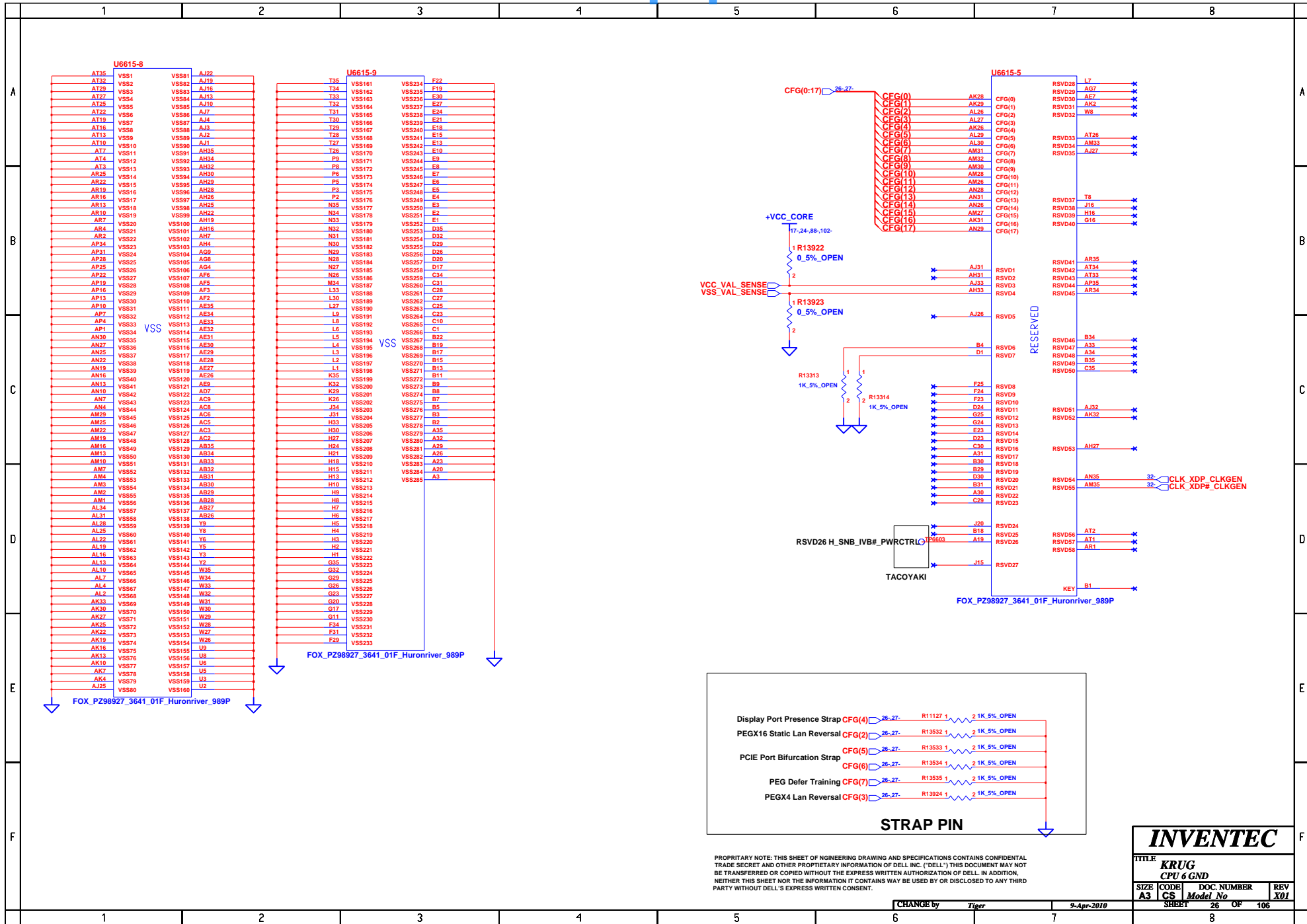


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|-------------|------|-------------|-----|
| TITLE | | | |
| KRUG | | | |
| CPU 5 POWER | | | |
| SIZE | CODE | DOC. NUMBER | REV |
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|-----------|-------|------------|-----|
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Display Port Presence Strap CFPG(4) 26-27: R11127 1 2 1K 5% OPEN

PEGX16 Static Lan Reversal CFPG(2) 26-27: R13532 1 2 1K 5% OPEN

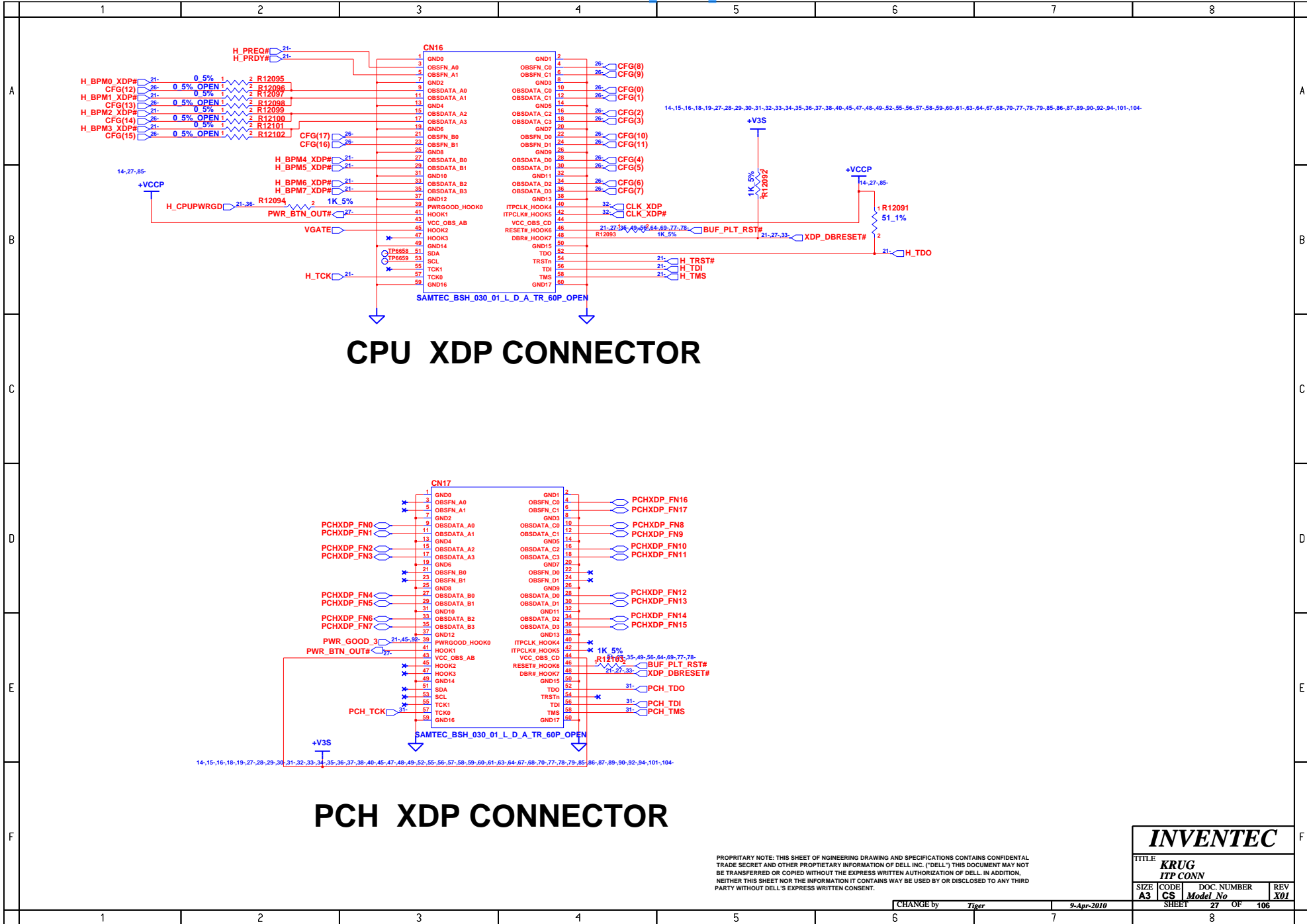
PCIE Port Bifurcation Strap CFPG(5) 26-27: R13533 1 2 1K 5% OPEN

PEG Defer Training CFPG(7) 26-27: R13534 1 2 1K 5% OPEN

PEGX4 Lan Reversal CFPG(3) 26-27: R13924 1 2 1K 5% OPEN

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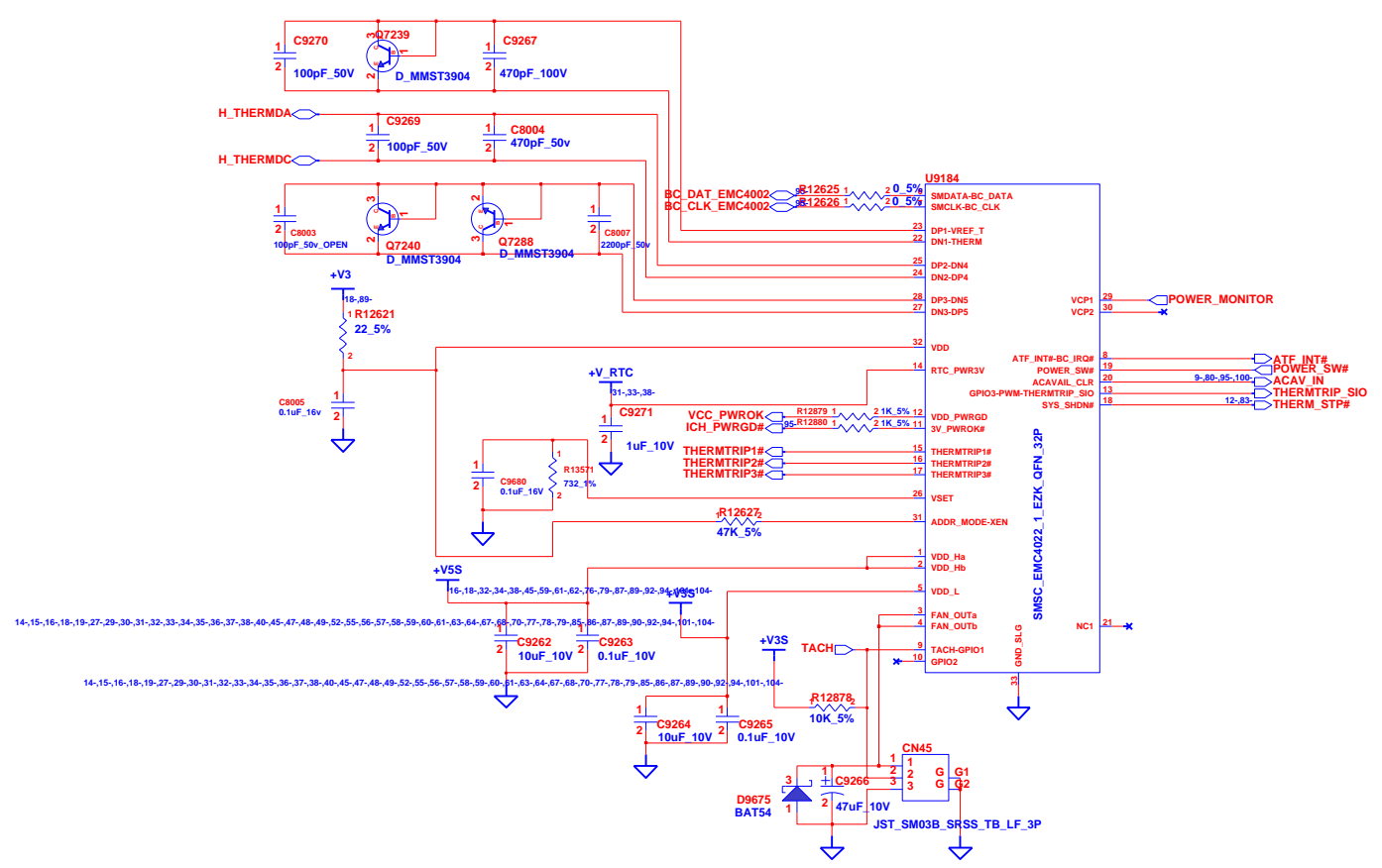
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|--------------------------|------|-------------|-----|
| TITLE | | | |
| KRUG ITP CONN | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
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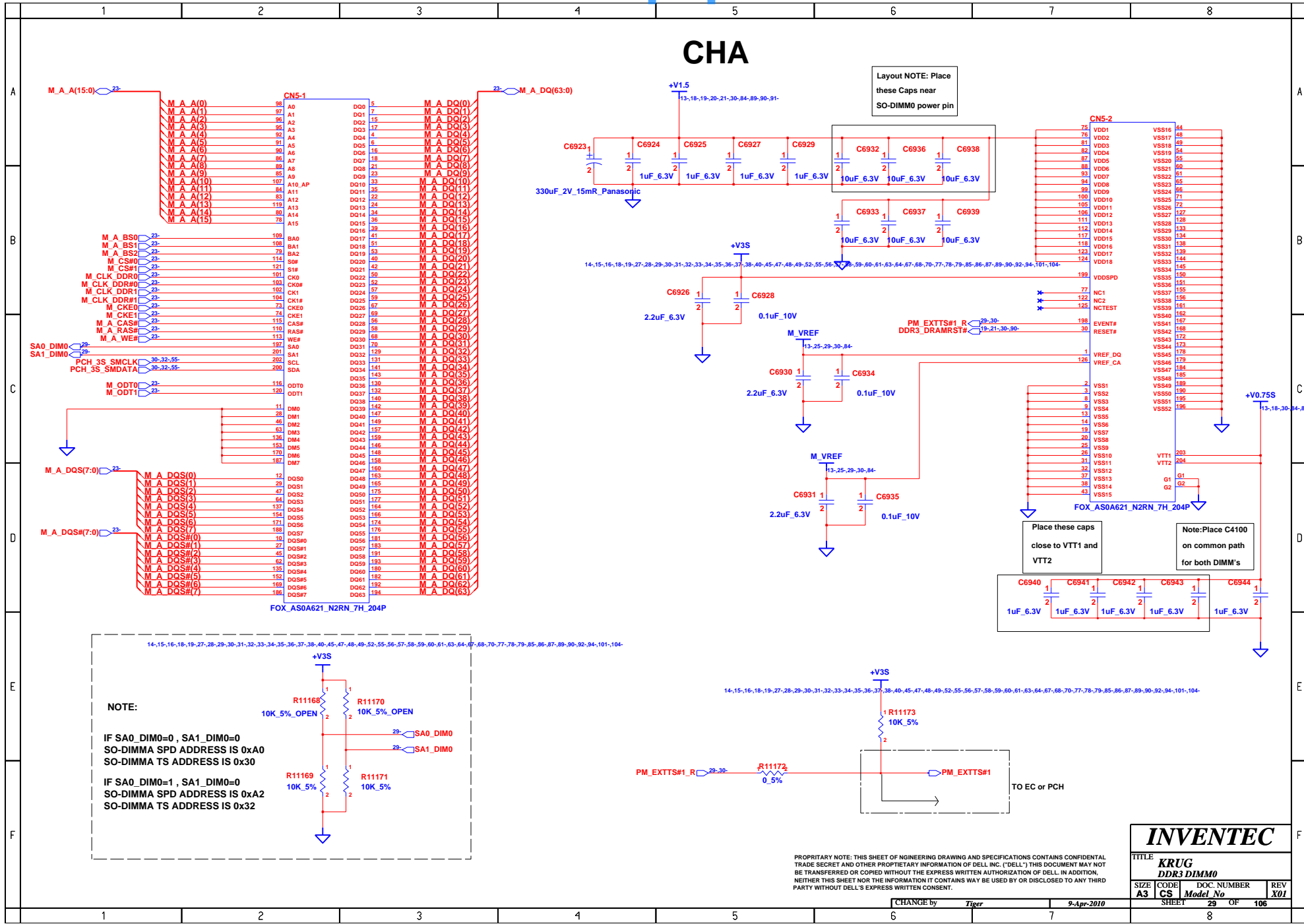


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|-------------|------|-------------|--------|
| TITLE | | | |
| KRUG | | | |
| FAN&THERMAL | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
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CHA

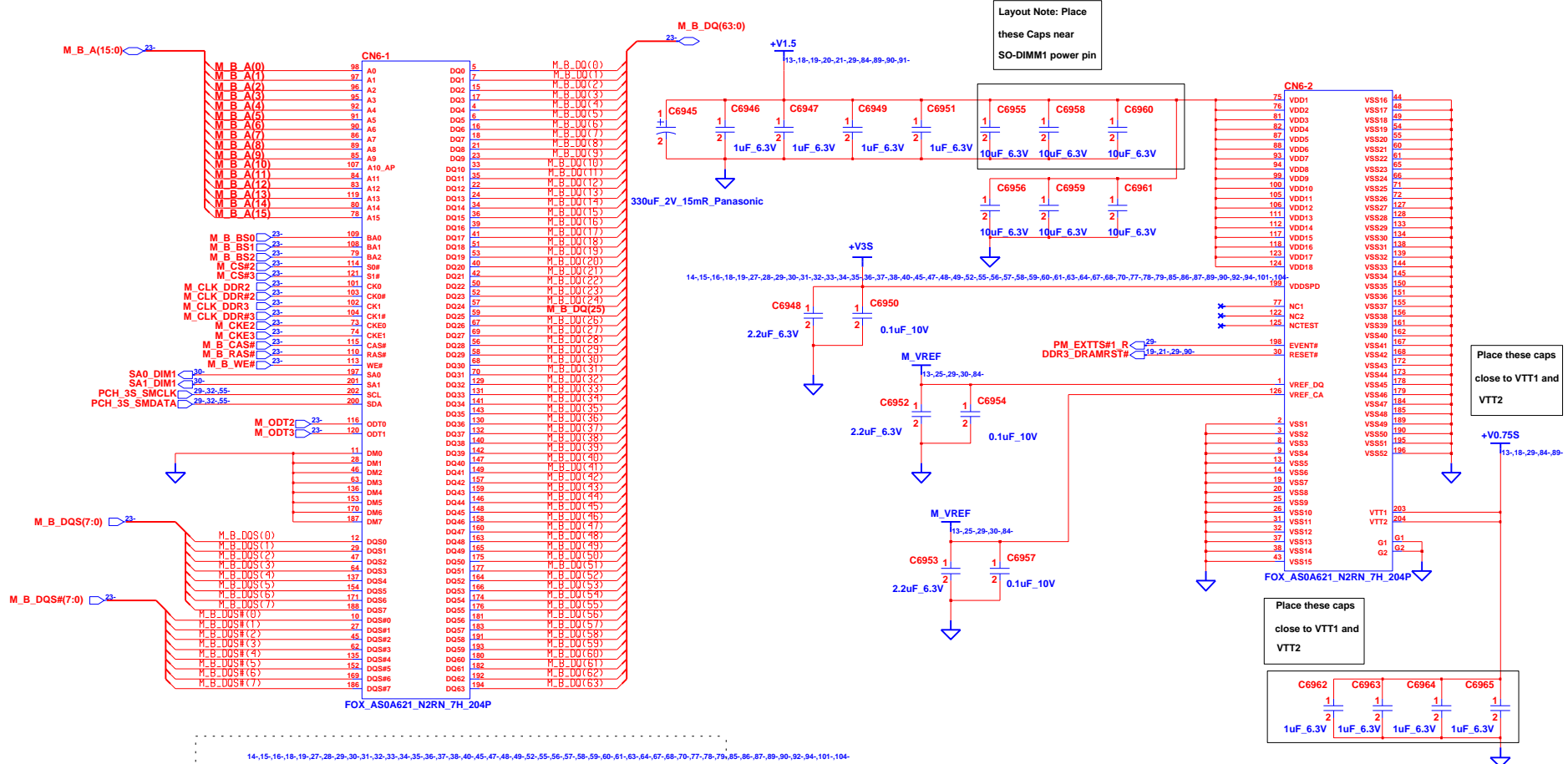


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| | | | |
|------------|------|------------|--------|
| TITLE | | | |
| KRUG | | | |
| DDR3 DIMM0 | | | |
| SIZE | CODE | DOC NUMBER | REV |
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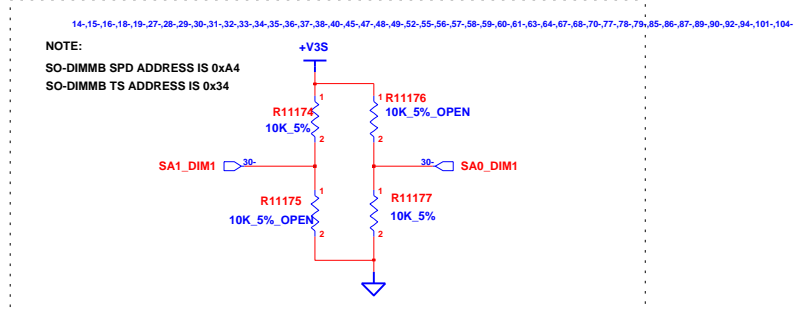
CHB



Layout Note: Place these Caps near SO-DIMM1 power pin

Place these caps close to VTT1 and VTT2

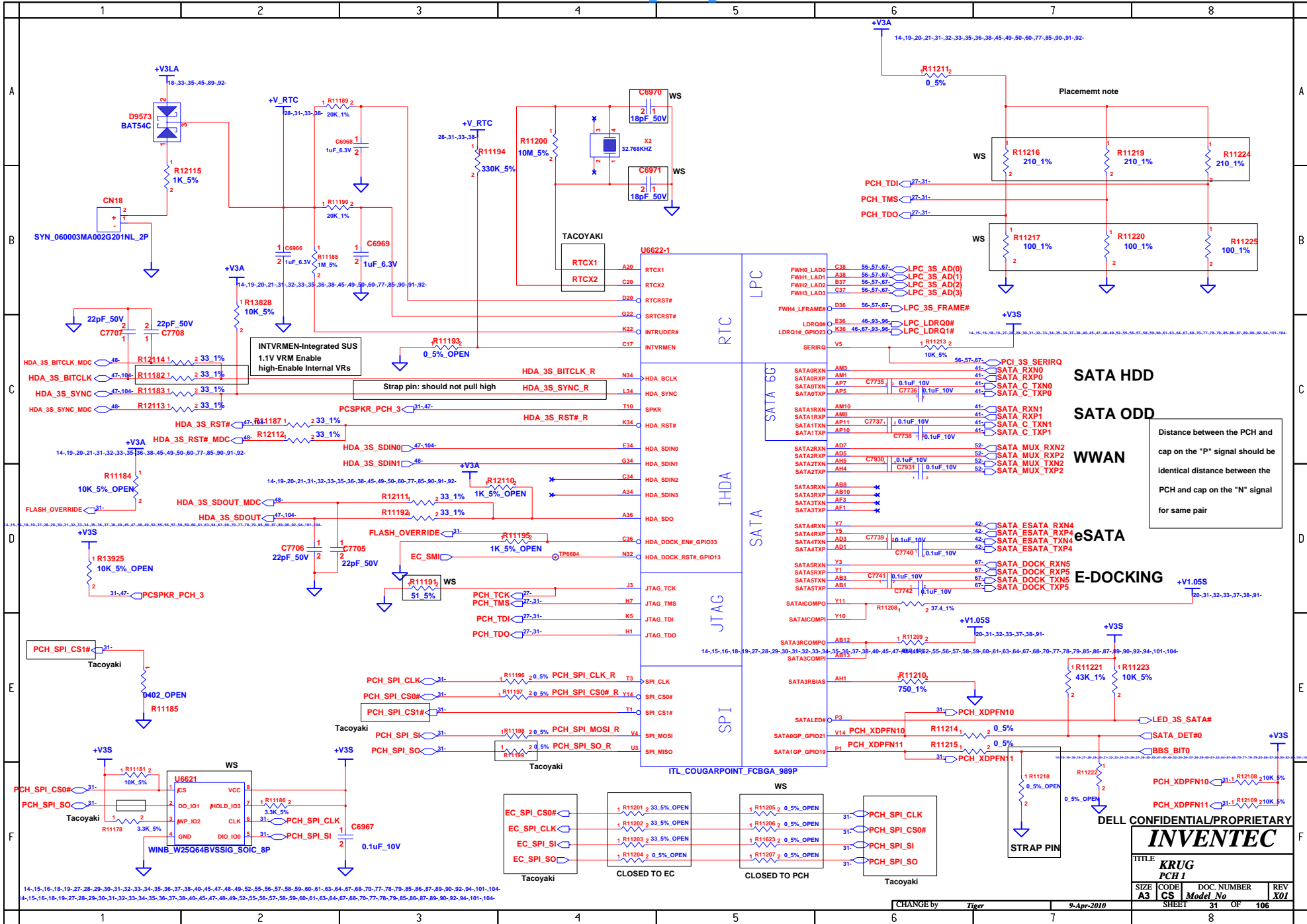
Place these caps close to VTT1 and VTT2



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| | | | | |
|------------------------------|----------------|----------------------------|----------------|--|
| INVENTEC | | | | |
| TITLE KRUG DDR3 DIMM1 | | | | |
| SIZE A3 | CODE CS | DOC NUMBER Model No | REV X01 | |
| SHEET 30 | | OF 106 | | |

CHANGE by *Tiker* 9-Apr-2010



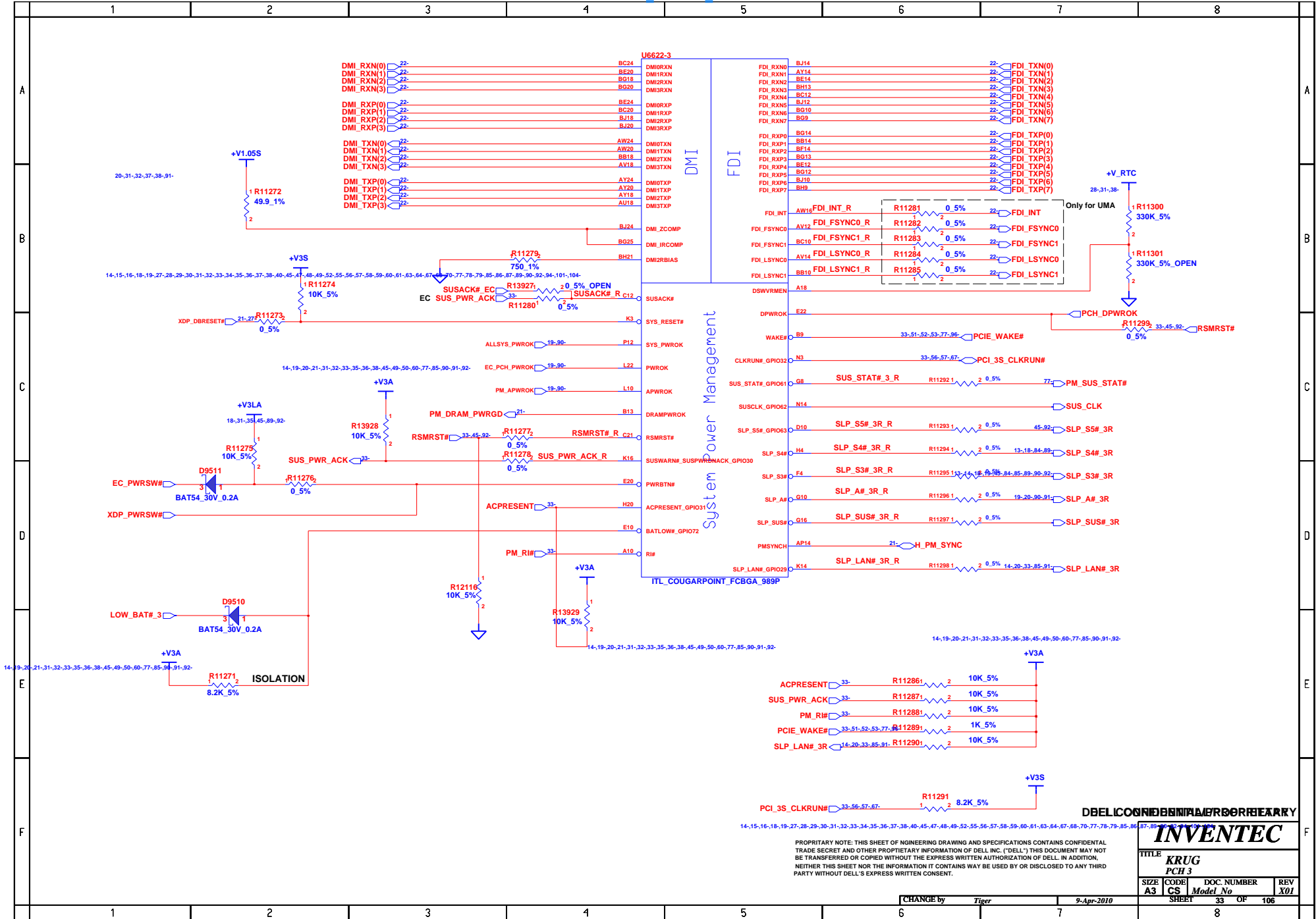
SATA HDD
SATA ODD
WWAN
eSATA
E-DOCKING

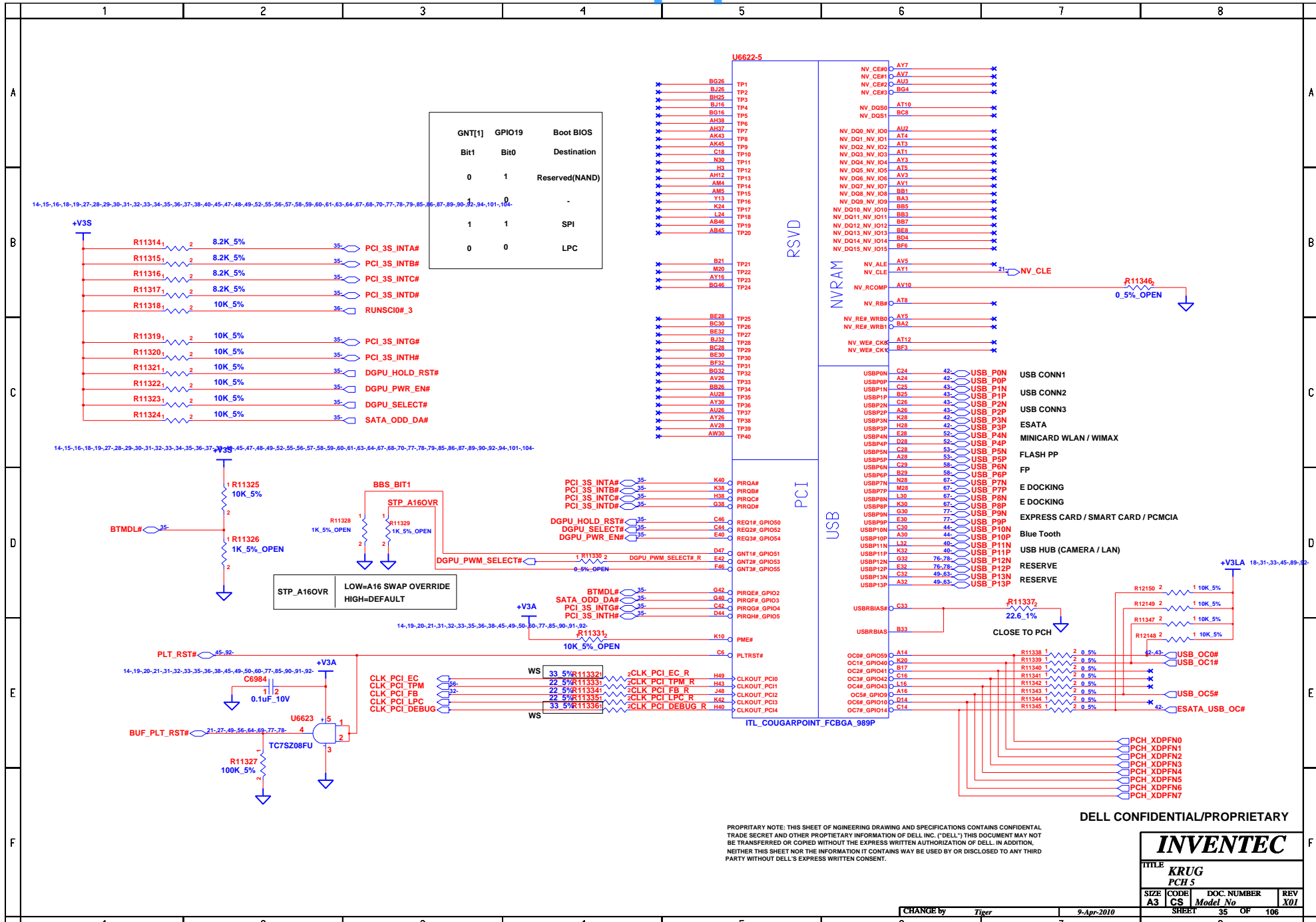
Distance between the PCH and cap on the "P" signal should be identical distance between the PCH and cap on the "N" signal for same pair

DELL CONFIDENTIAL/PROPRIETARY
INVENTEC

TITLE
KRUG
PCH 1

| | | | |
|------------|------------|------------------------|------------|
| SIZE A3 | CODE CS | DOC NUMBER Model No | REV X01 |
| SHEET | | 31 | OF 106 |



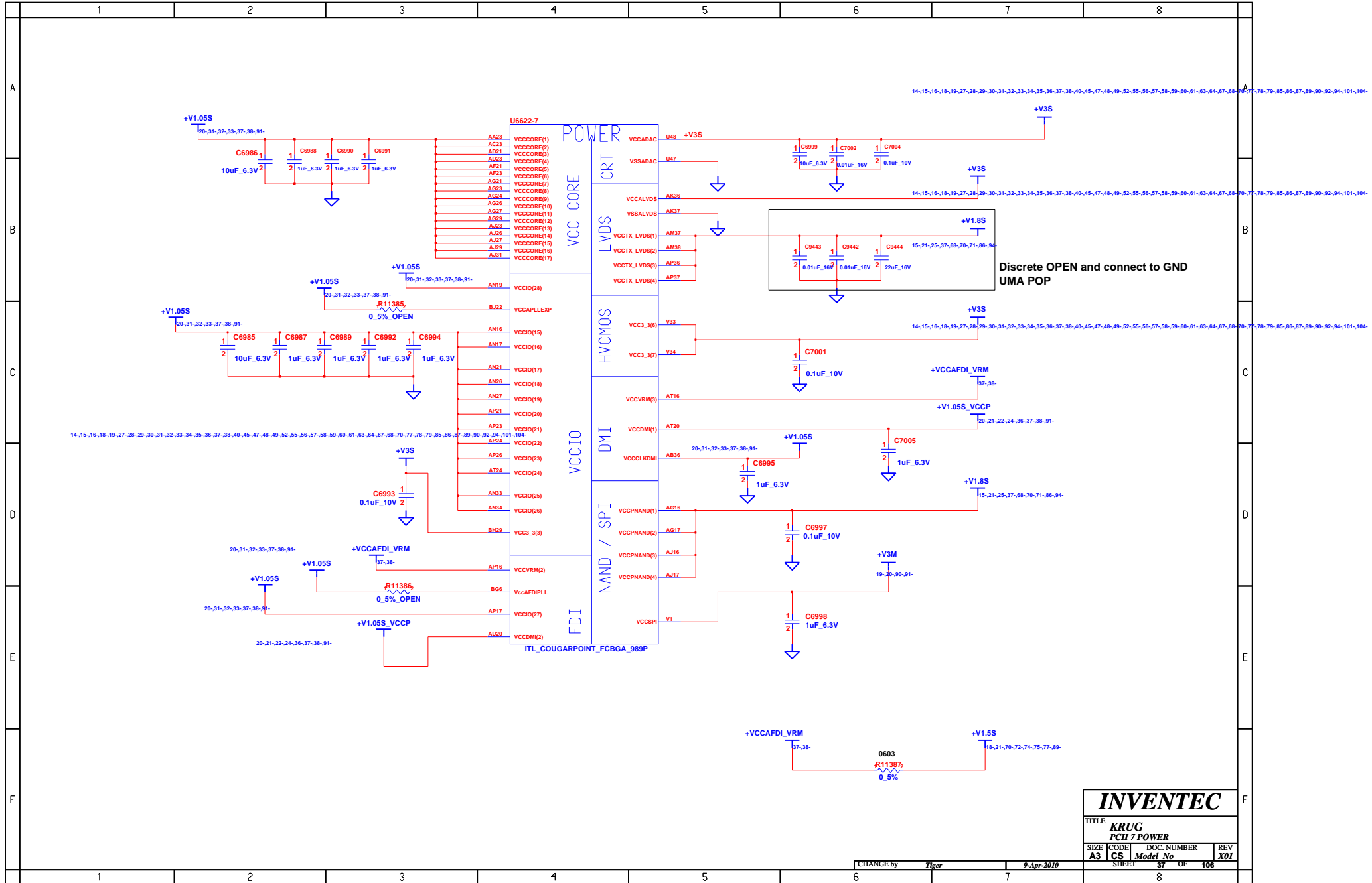


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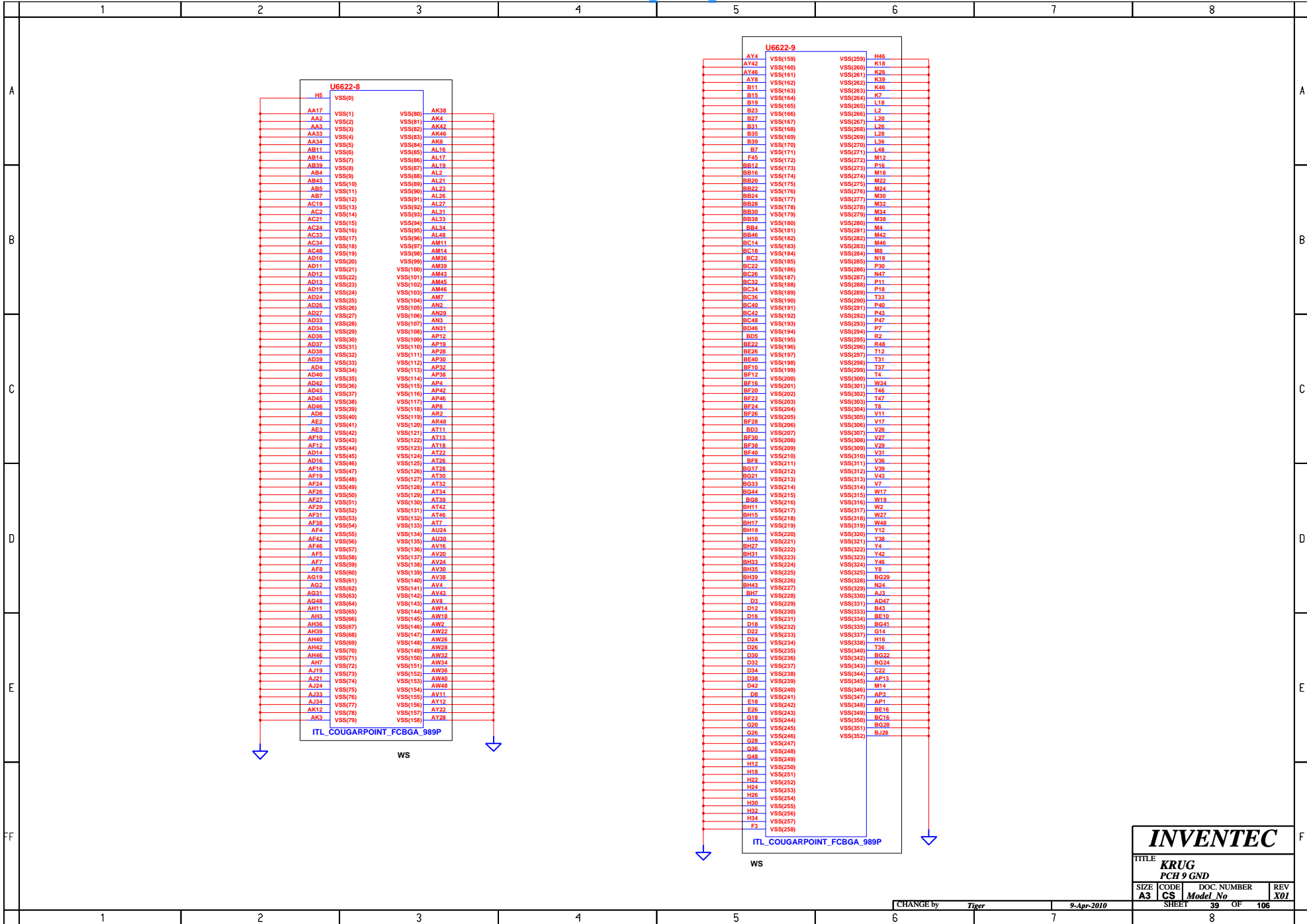
DELL CONFIDENTIAL/PROPRIETARY

INVENTEC

| | | | |
|-----------|------|-------------|------------|
| TITLE | | | |
| KRUG | | | |
| PCH 5 | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| CHANGE by | | Tiger | 9-Apr-2010 |
| SHEET | | 35 | OF 106 |



| | | | |
|------------------------|----------------|-----------------------------|----------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| PCH 7 POWER | | | |
| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 |
| CHANGE by Tiger | | 9-Apr-2010 | |
| SHEET 37 | | OF 106 | |



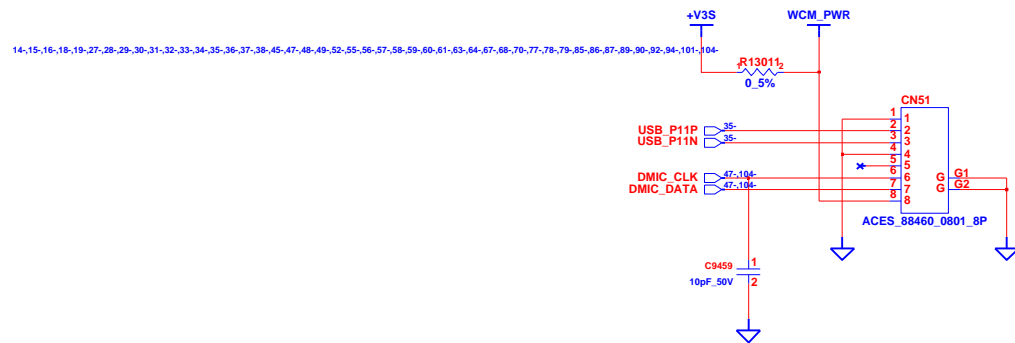
INVENTEC

TITLE **KRUG
PCH 9 GND**

| | | | |
|------|------|-------------|-----|
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |

CHANGE by *Tiker* 9-Apr-2010

SHEET 39 OF 106

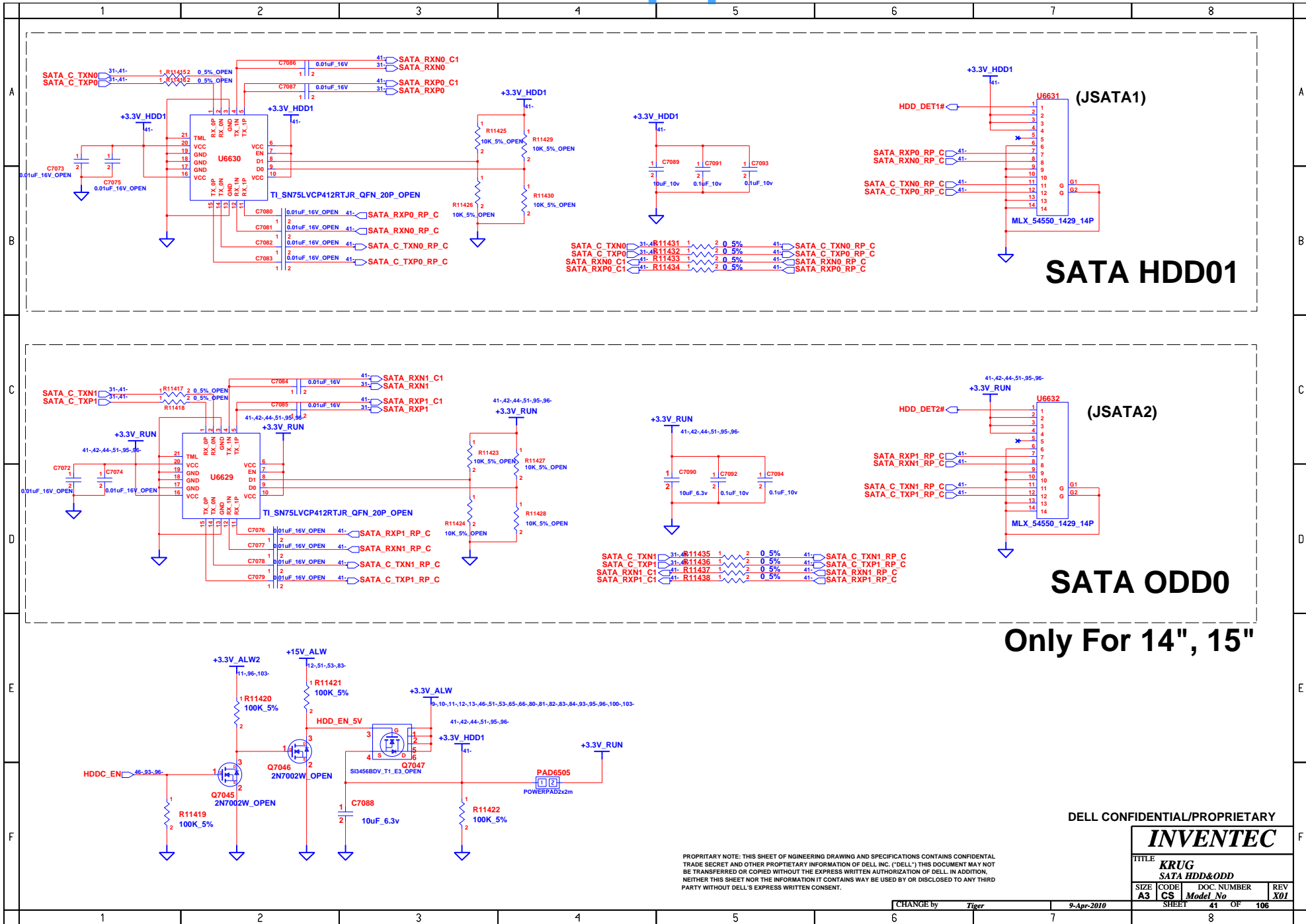


INVENTEC

| | | | |
|-------------|------|-------------|-----|
| TITLE | | | |
| KRUG CAMERA | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |

CHANGE by Tiger 9-Apr-2010

SHEET 40 OF 106



SATA HDD01

SATA ODD0

Only For 14", 15"

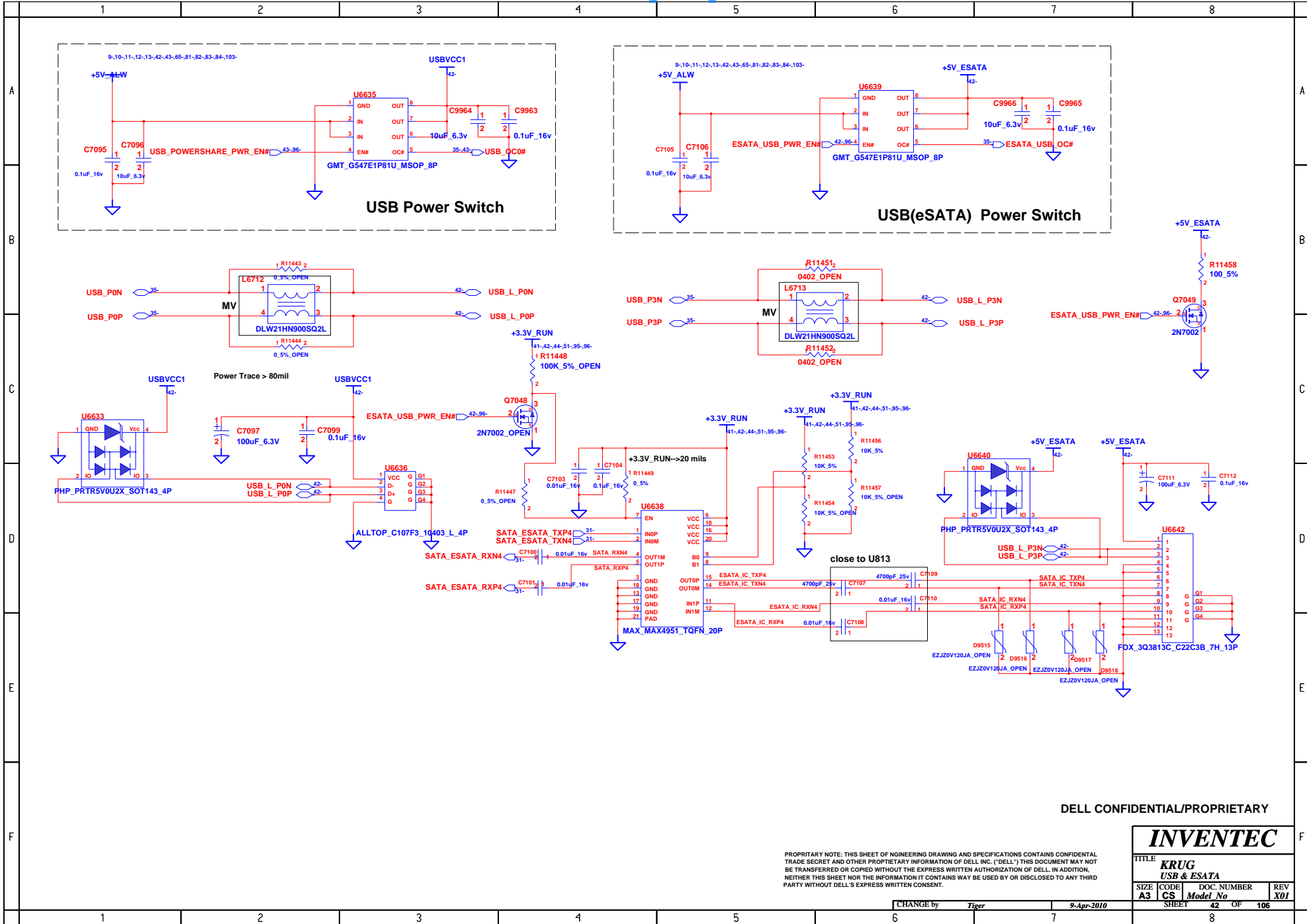
DELL CONFIDENTIAL/PROPRIETARY

INVENTEC

| | | | |
|--------------|------|-------------|-----|
| TITLE | | | |
| KRUG | | | |
| SATA HDD&ODD | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 41 OF | 106 |

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CHANGE by *Tiker* 9-Apr-2010



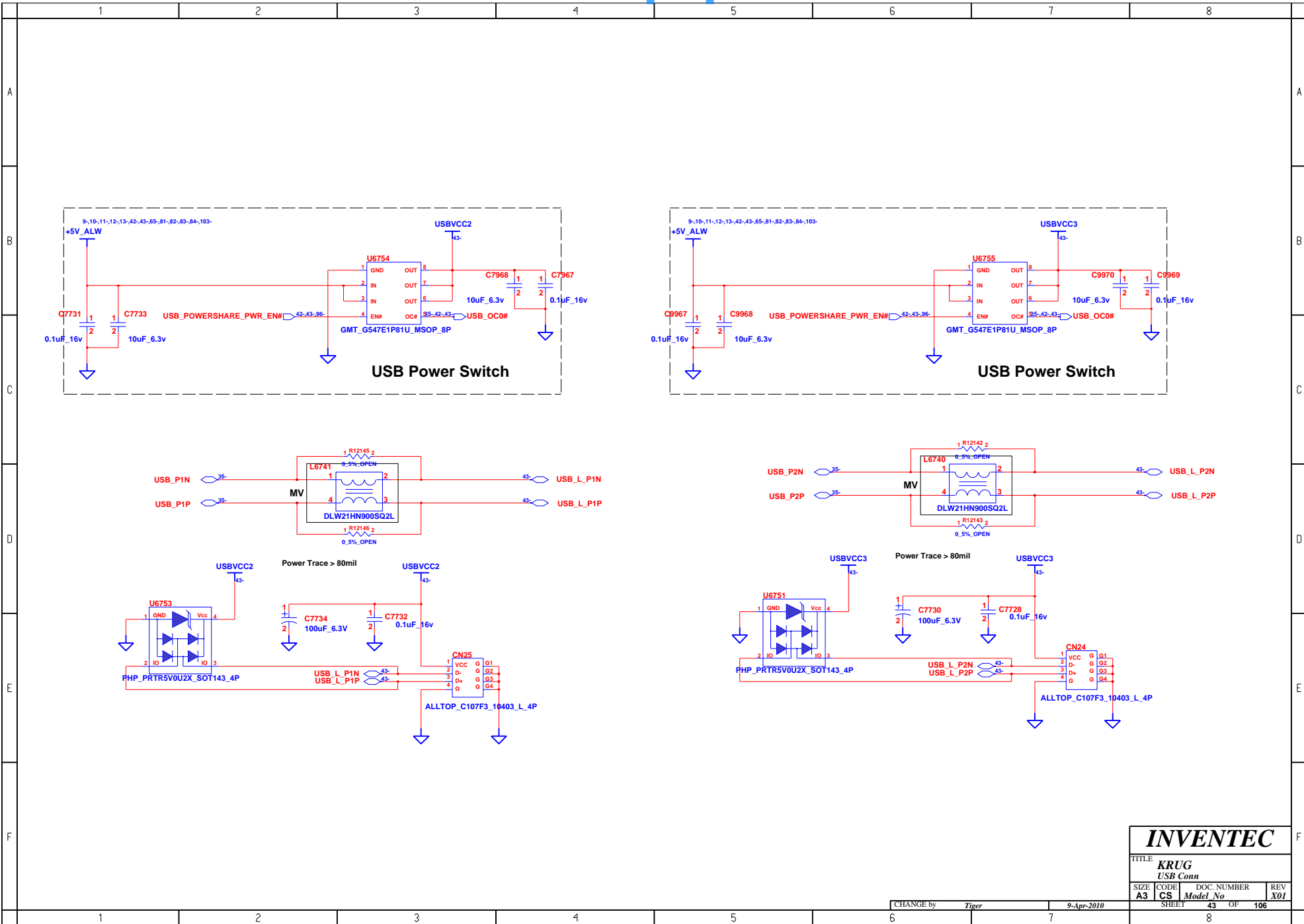
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INVENTEC

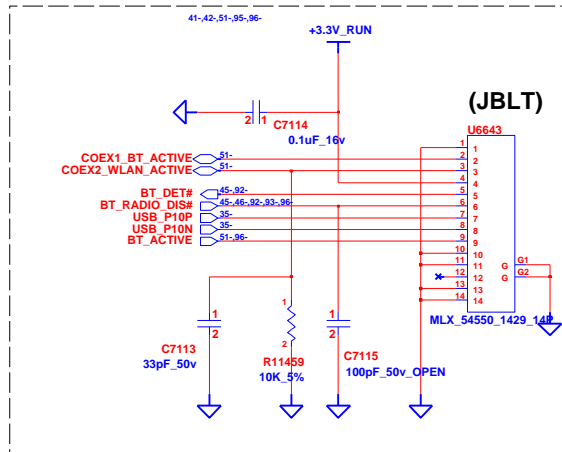
| | | | |
|---------------------------------|-------------------|-------------------------------|-------------------|
| TITLE USB & ESATA | | | |
| SIZE A3 | CODE CS | DOC NUMBER <i>Model No</i> | REV X01 |
| SHEET 42 | | OF 106 | |

CHANGE by *Tiger* 9-Apr-2010



| | | | |
|----------------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG USB Conn | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET 43 | | OF 106 | |

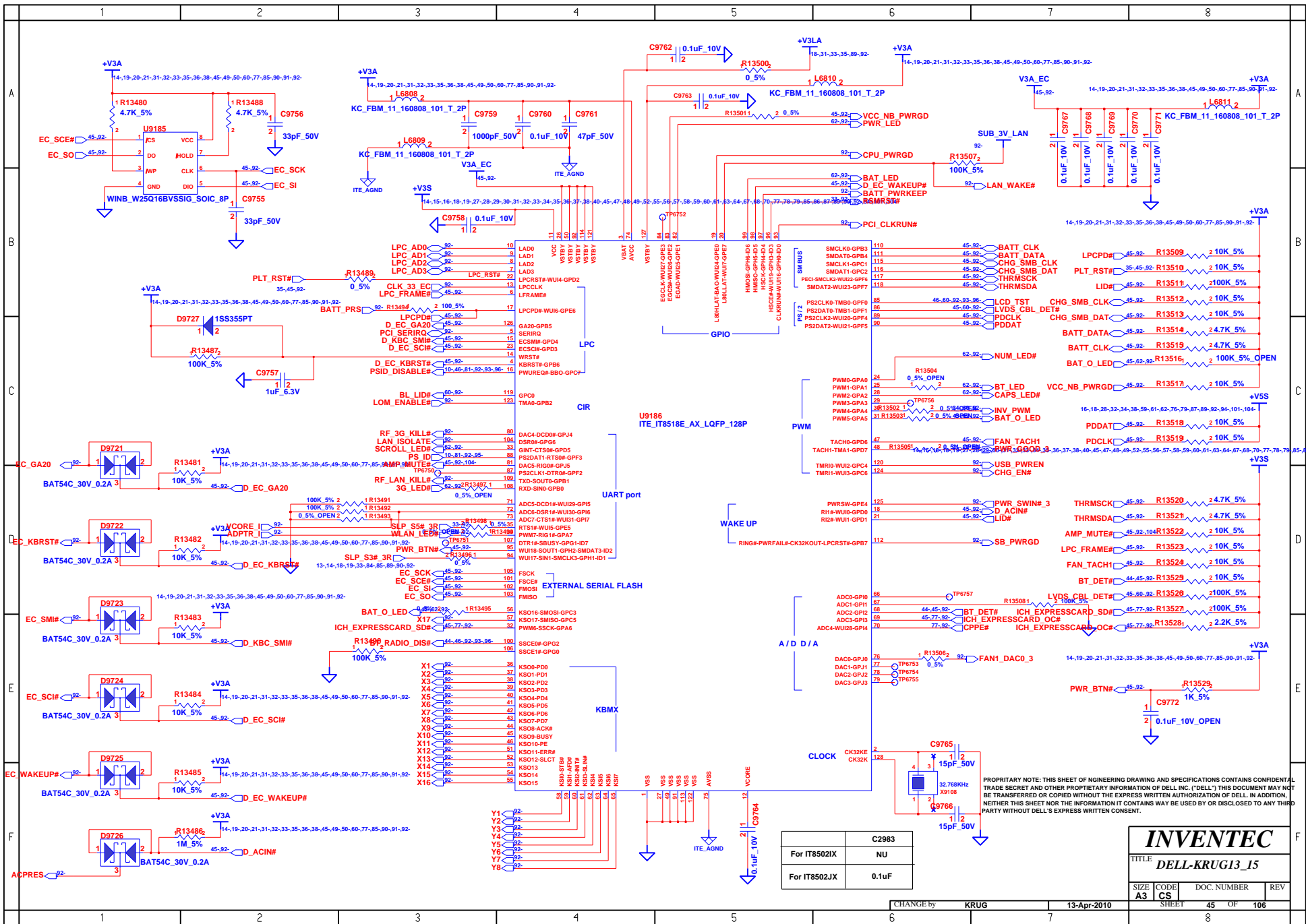
BlueTooth



INVENTEC

| | | | |
|-------------|-----------|-----------------|------------|
| TITLE | | | |
| KRUG | | | |
| <i>BT</i> | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | <i>Model No</i> | X01 |
| SHEET | | 44 OF | 106 |

CHANGE by *Tiger* 9-Apr-2010



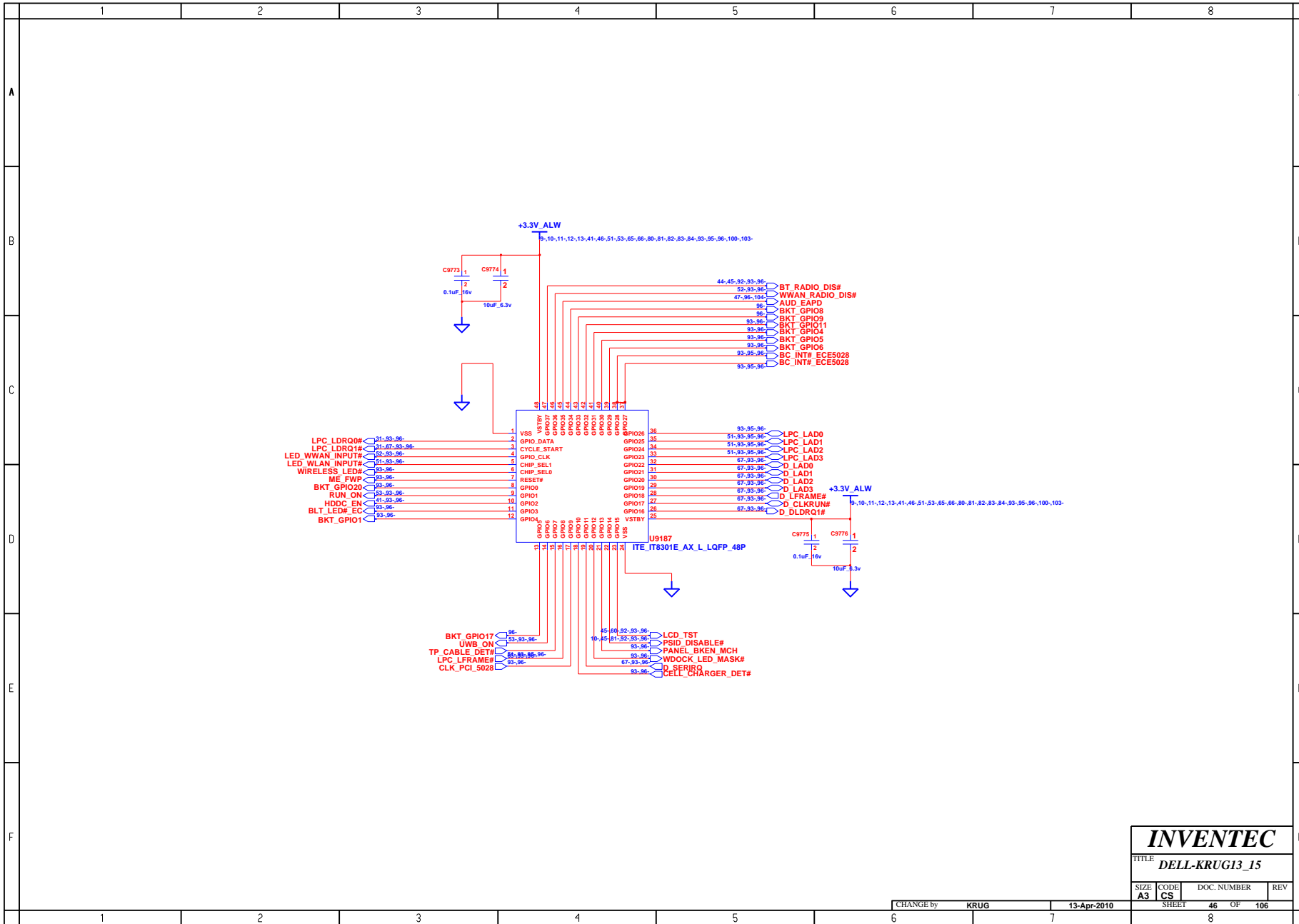
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| | |
|--------------|-------|
| | C2983 |
| For IT8502IX | NU |
| For IT8502JX | 0.1uF |

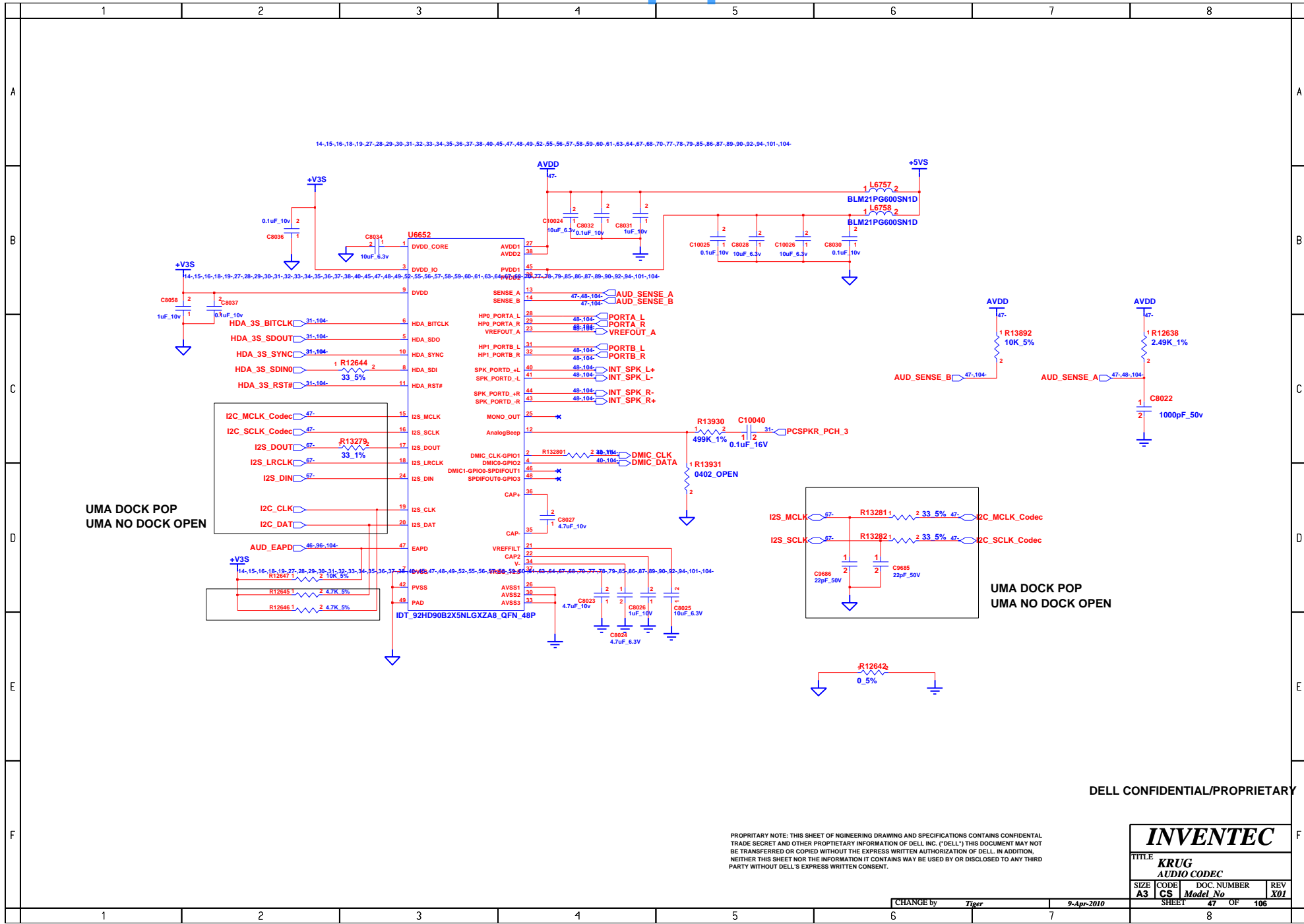
INVENTEC

TITLE
DELL-KRUG13_15

| | | | |
|------------|------------|-------------|-----|
| SIZE A3 | CODE CS | DOC. NUMBER | REV |
| | | | |



INVENTEC
 TITLE: DELL-KRUG13_15
 SIZE: A3 CODE: CS DOC. NUMBER: REV: SHEET: 46 OF 106

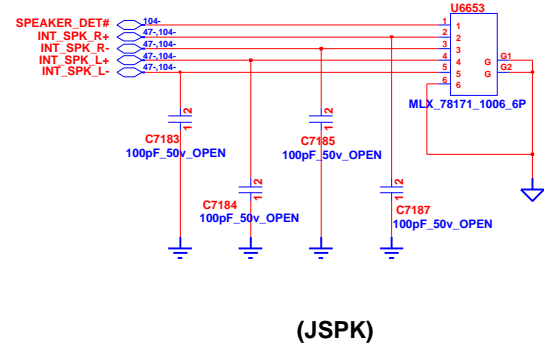
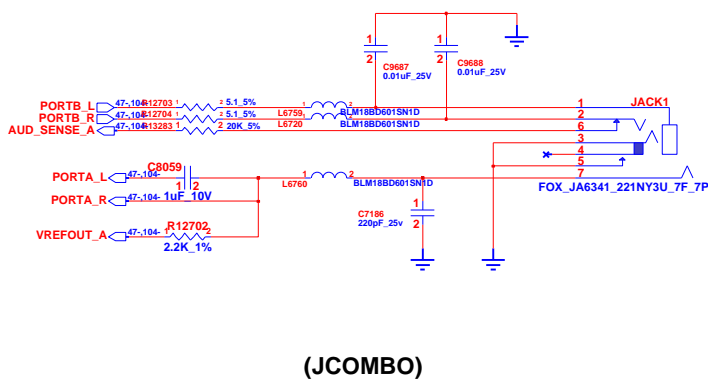
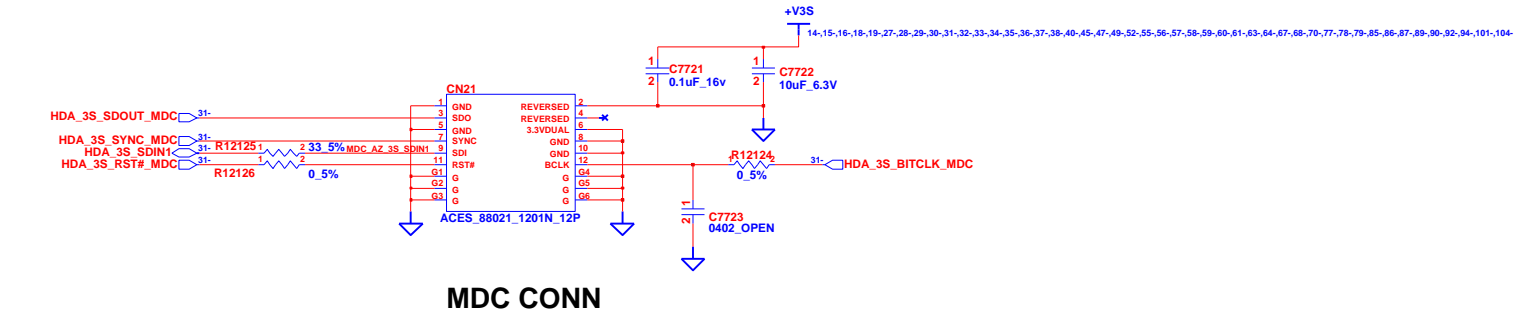


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| | | | |
|--------------------------------------|-------------------|-------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG AUDIO CODEC | | | |
| SIZE A3 | CODE CS | DOC NUMBER <i>Model No</i> | REV X01 |
| SHEET | | 47 | OF 106 |

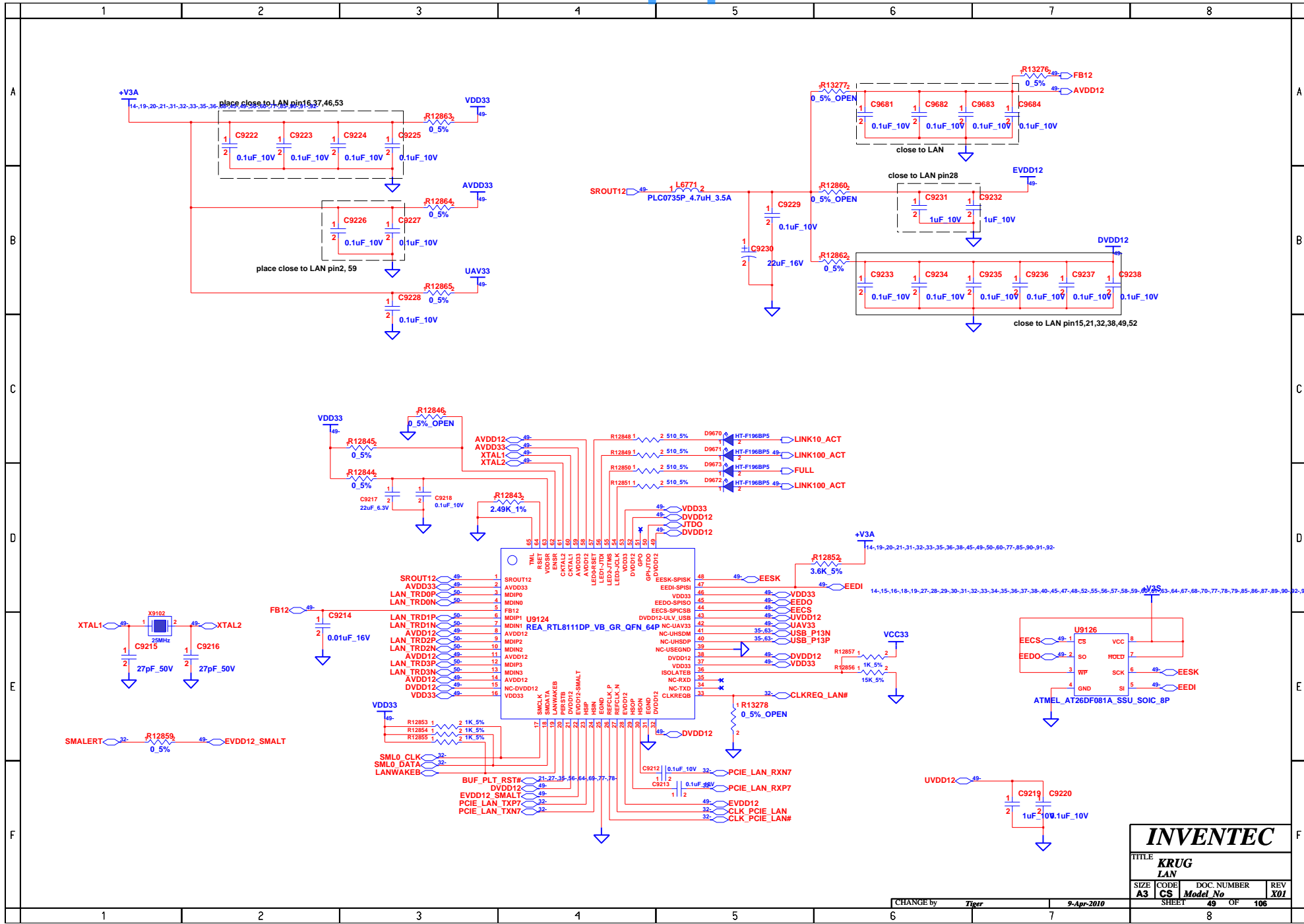
CHANGE by *Tiker* 9-Apr-2010



INVENTEC

| | | | |
|-----------------------|----------------|----------------------------|----------------|
| TITLE KRUG | | | |
| MDC/Spaker/Combo JACK | | | |
| SIZE A3 | CODE CS | DOC NUMBER Model No | REV X01 |
| SHEET 48 | | OF 106 | |

CHANGE by *Tiger* 9-Apr-2010

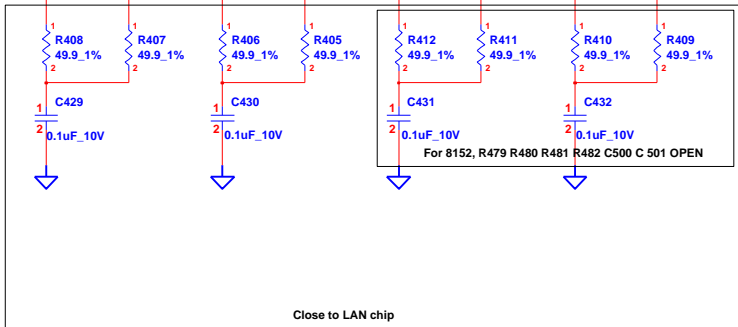
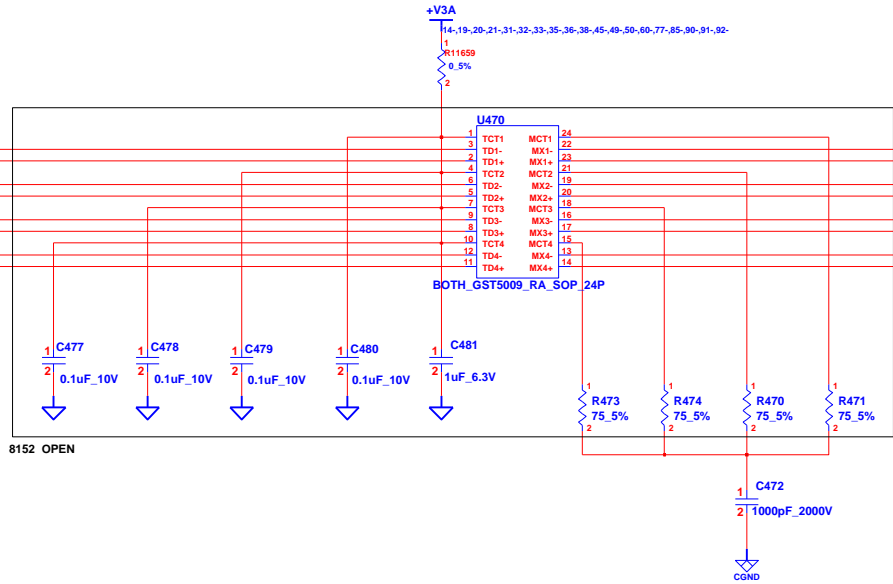
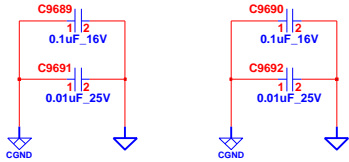
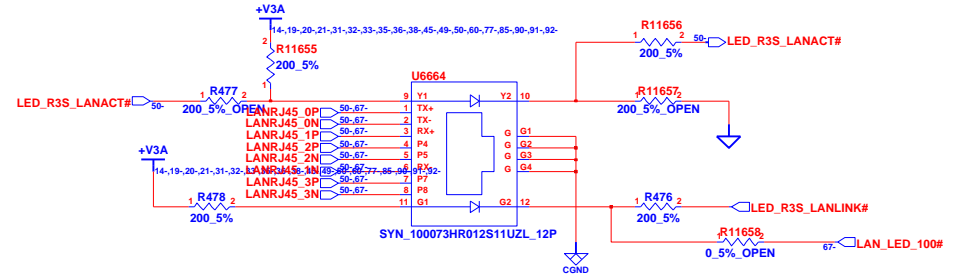
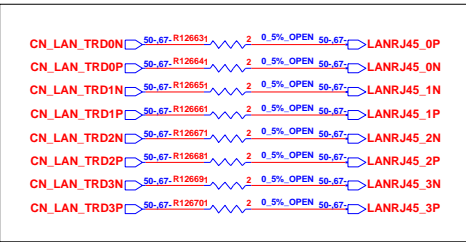


TITLE
KRUG
LAN

| | | | |
|--------------------|-------------------|--------------------------------|-------------------|
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| SHEET 49 | | OF 106 | |

CHANGE by *Tiker* 9-Apr-2010

Docking OPEN
No Docking POP

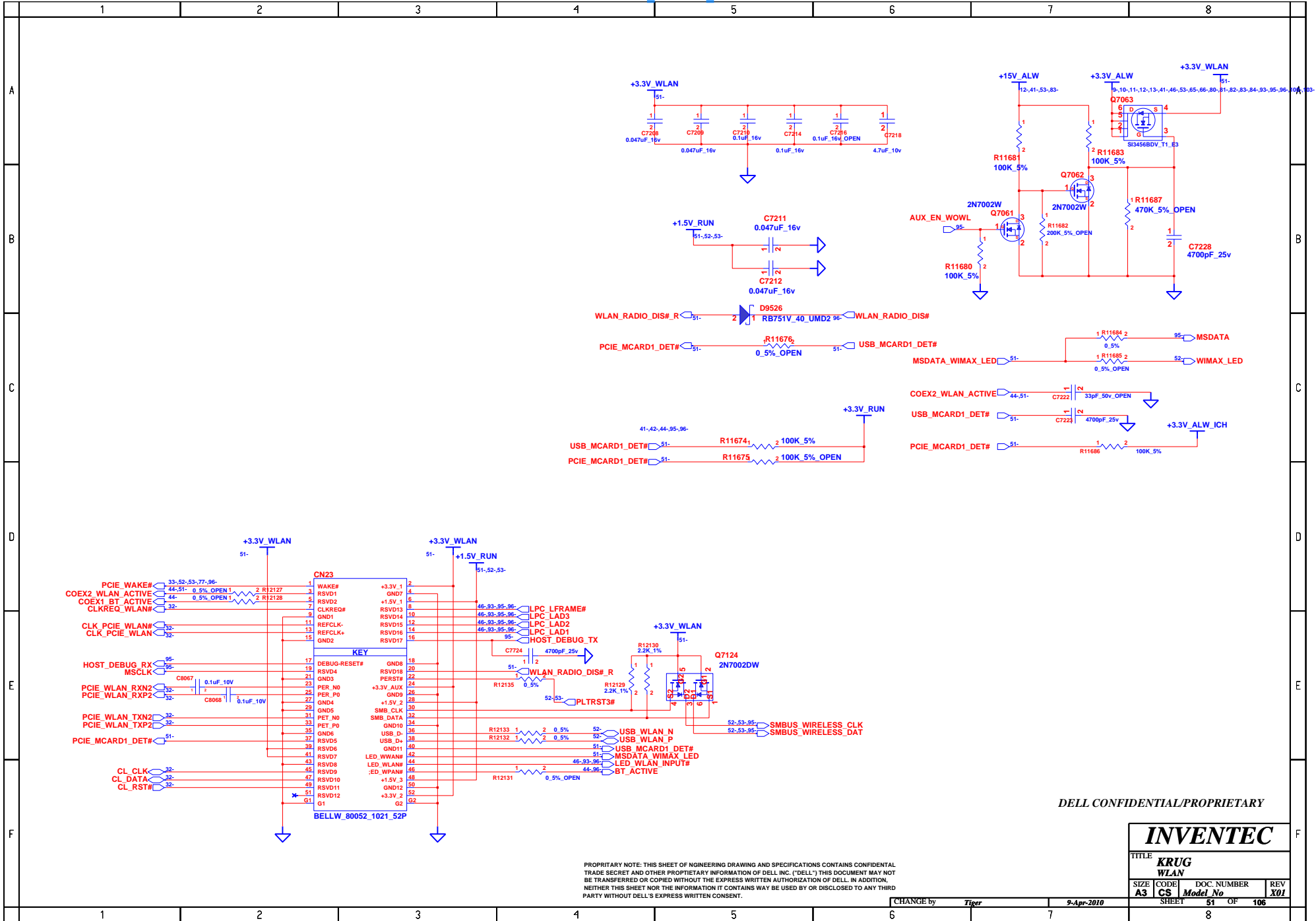


Close to LAN chip

INVENTEC

| | | | |
|------------------|------|-------------|--------|
| TITLE | | | |
| KRUG | | | |
| RJ45/TRANSFORMER | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 50 | OF 106 |

CHANGE by Tiker 9-Apr-2010



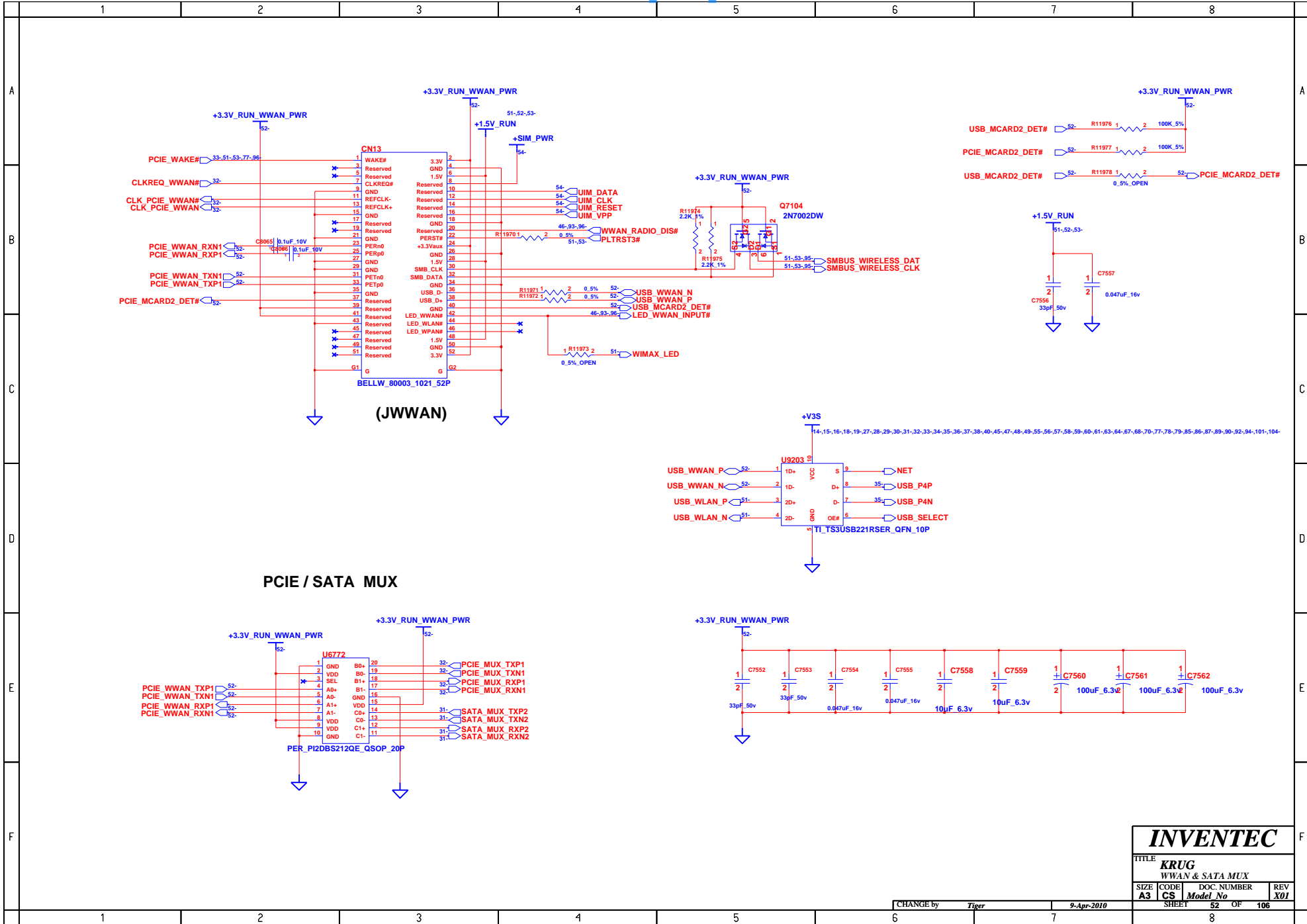
DELL CONFIDENTIAL/PROPRIETARY

INVENTEC

| | | | |
|-------|------|-------------|--------|
| TITLE | | | |
| KRUG | | | |
| WLAN | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 51 | OF 106 |

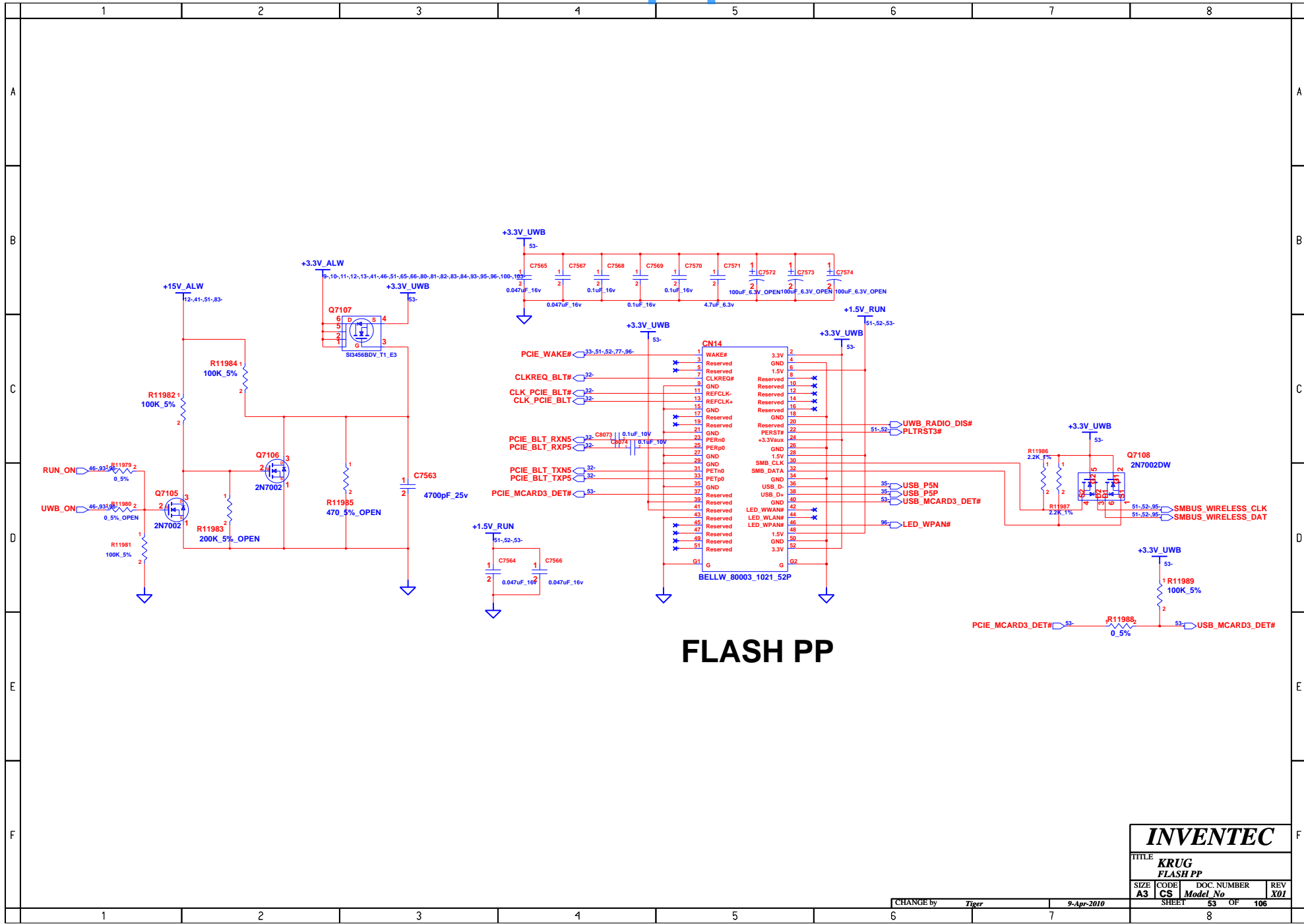
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CHANGE by *Tiper* 9-Apr-2010



PCIE / SATA MUX

| | | | |
|------------------------|-------------------|-------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| WWAN & SATA MUX | | | |
| SIZE A3 | CODE CS | DOC NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET 52 | | OF 106 | |



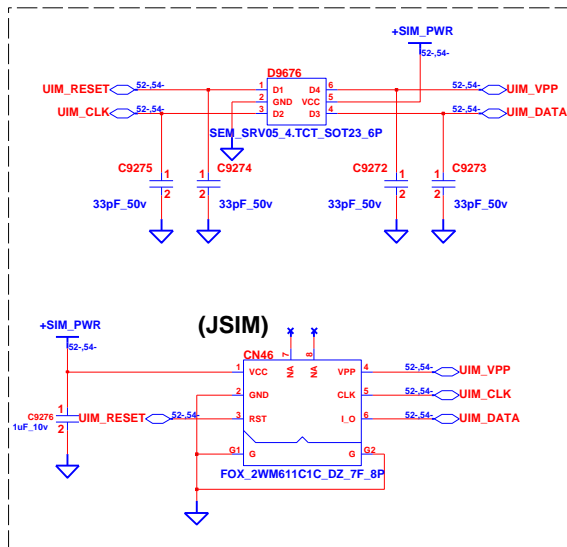
FLASH PP

INVENTEC

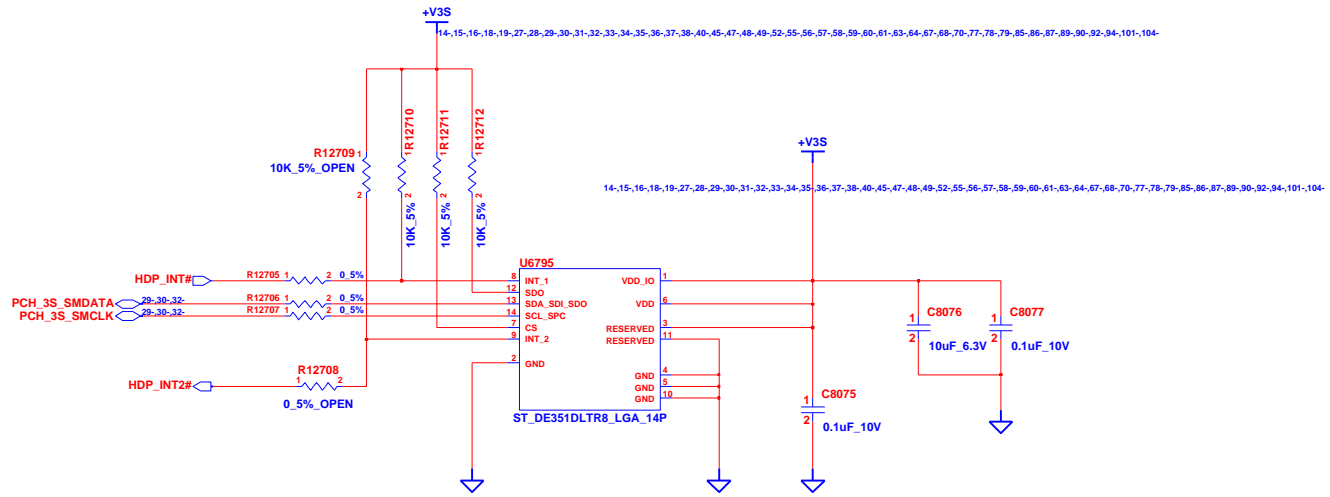
| | | | |
|----------|------|-------------|--------|
| TITLE | | | |
| KRUG | | | |
| FLASH PP | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 53 | OF 106 |

CHANGE by *Tiger* 9-Apr-2010

SIM Card



| | | | |
|---------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| SIM CARD | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET | | 54 | OF 106 |
| | | 8 | |

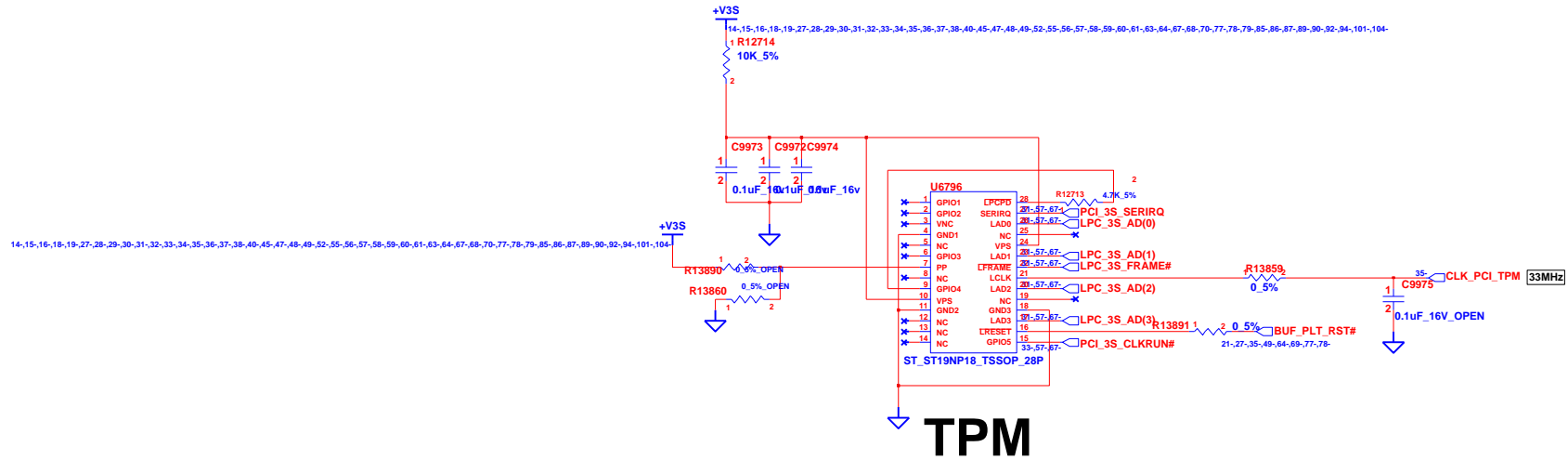


G SENSOR

INVENTEC

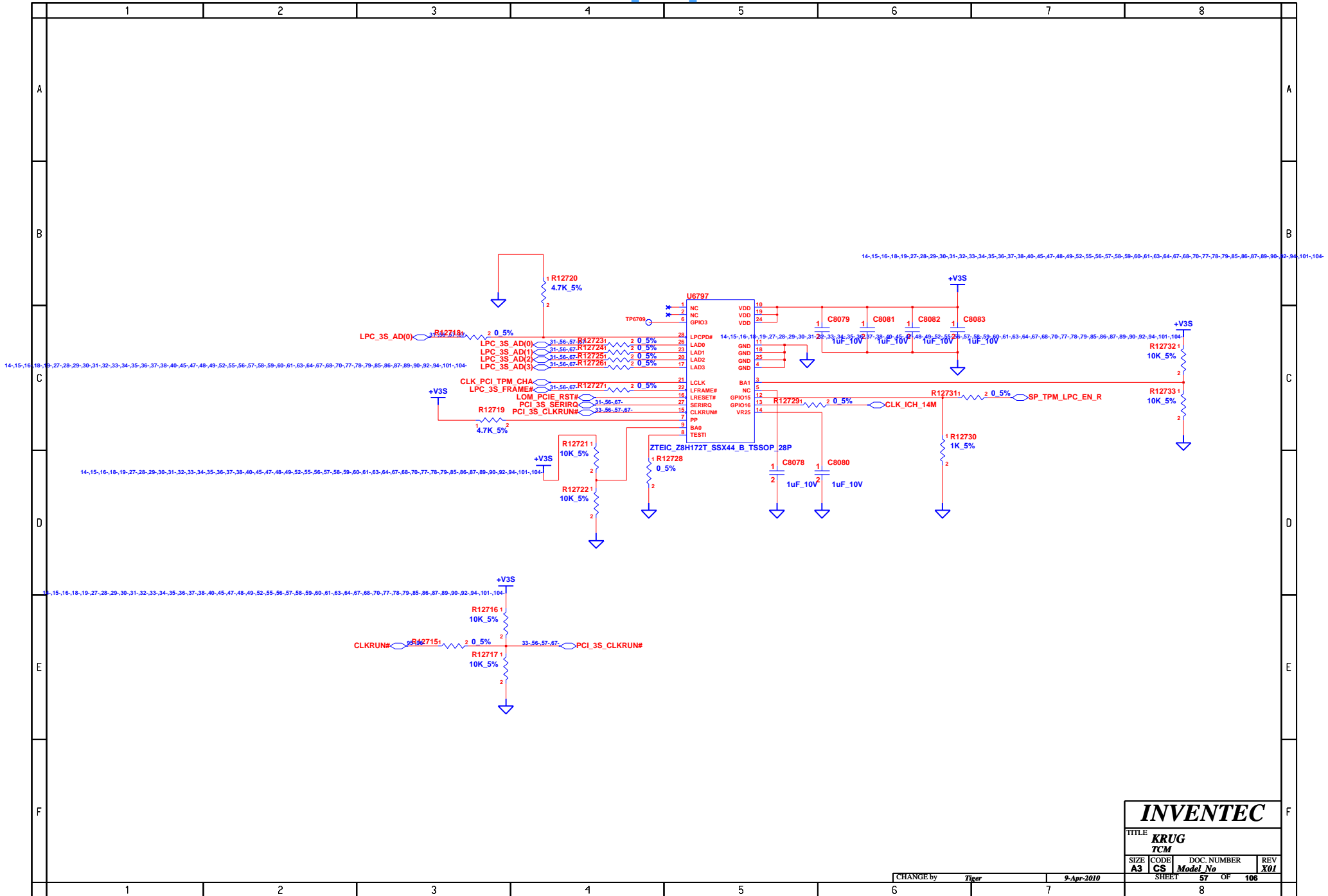
| | | | |
|----------|------|-------------|-----|
| TITLE | | | |
| KRUG | | | |
| G SENSOR | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 55 OF | 106 |

CHANGE by Tiger 9-Apr-2010

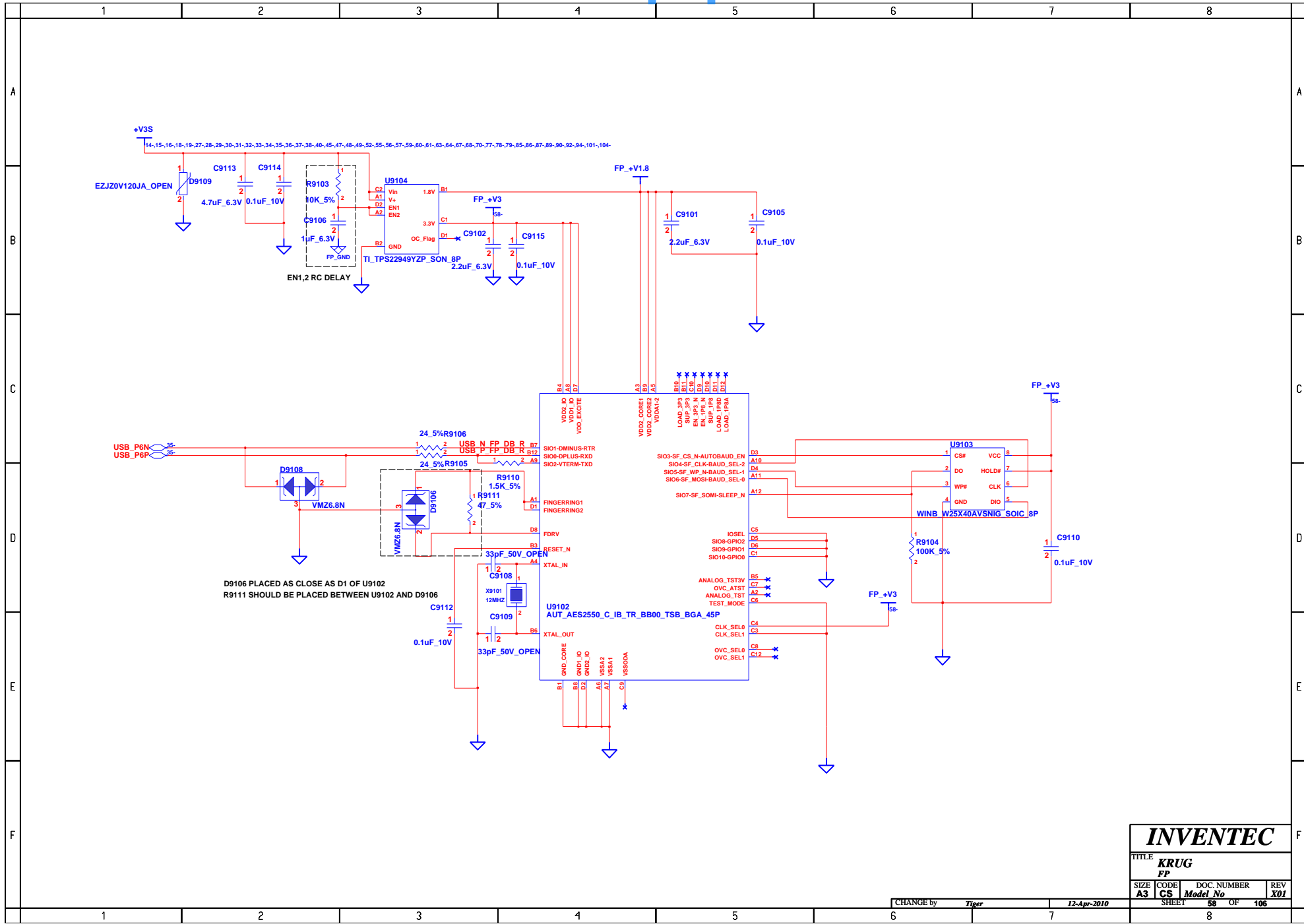


TPM

| | | | |
|-------------------|------|-------------|-----|
| INVENTEC | | | |
| TITLE KRUG | | | |
| TPM | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model_No | X01 |

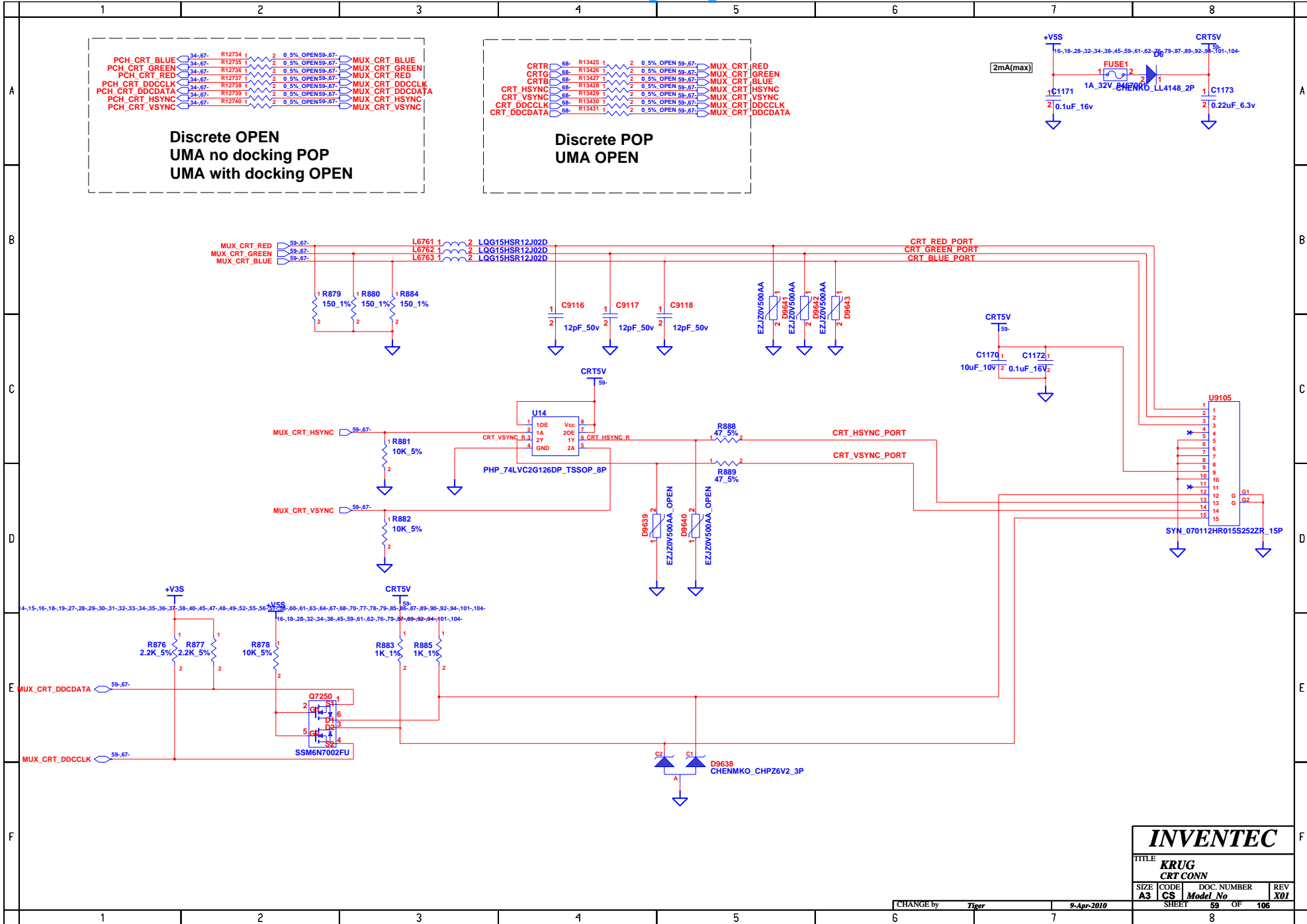


| | | | |
|------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| TCM | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET 57 | | OF 106 | |

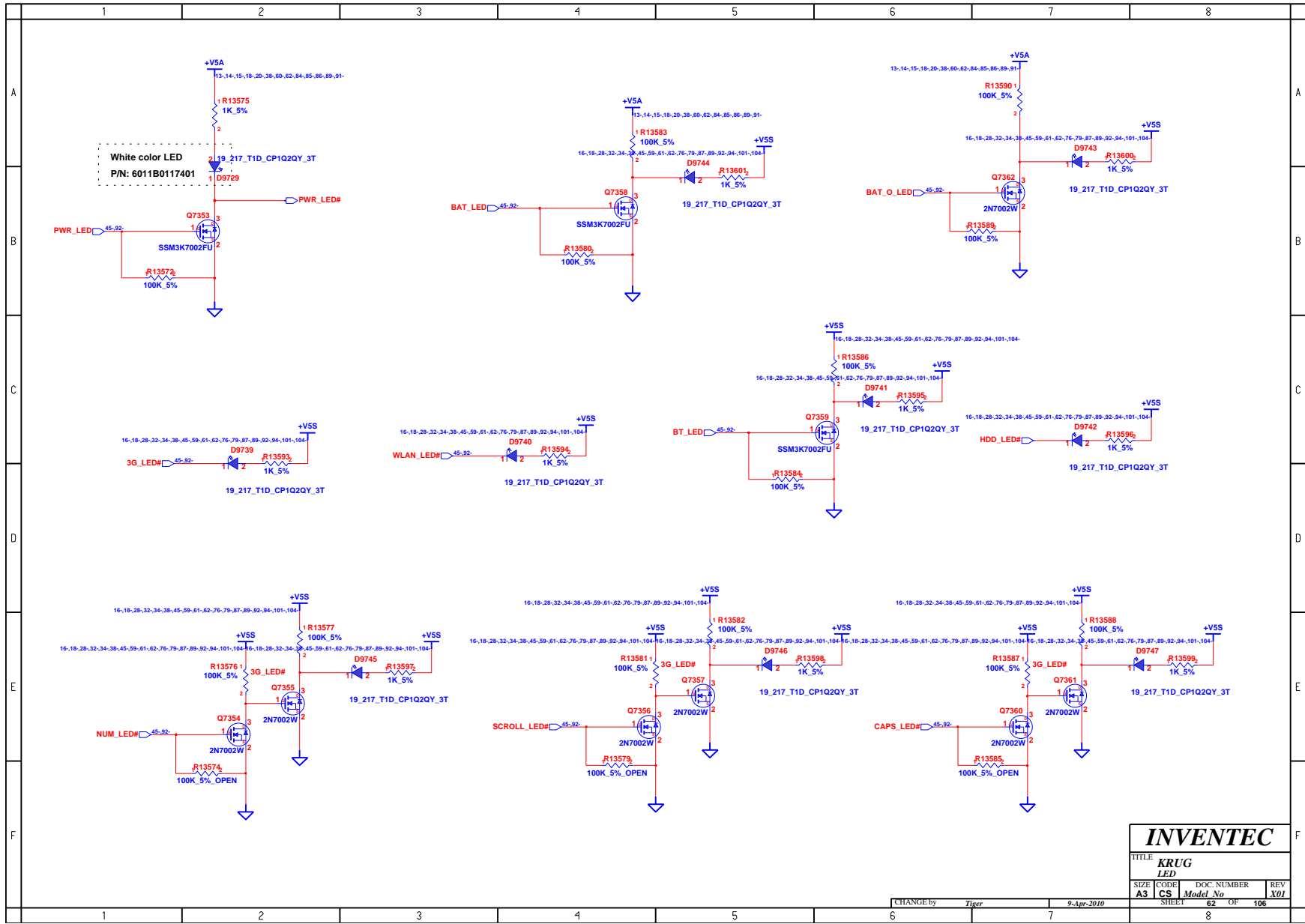


D9106 PLACED AS CLOSE AS D1 OF U9102
R9111 SHOULD BE PLACED BETWEEN U9102 AND D9106

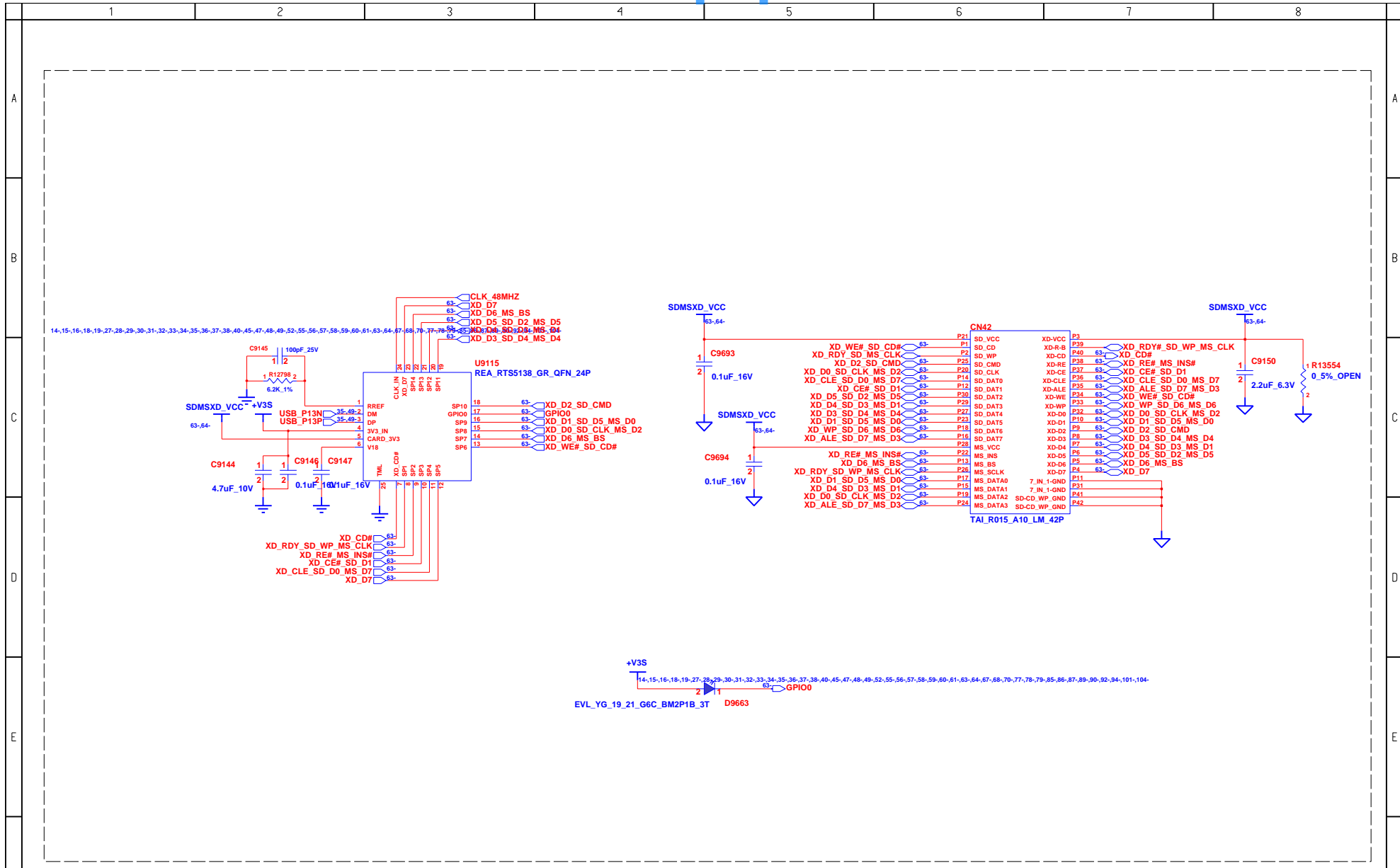
| | | | |
|------------------------|----------------|-----------------------------|-----------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| FP | | | |
| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 |
| CHANGE by <i>Tiger</i> | | 12-Apr-2010 | SHEET 58 OF 106 |



| | | | |
|-----------------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG CRT CONN | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiker</i> | | 9-Apr-2010 | 59 OF 106 |
| 1 | 2 | 3 | 8 |

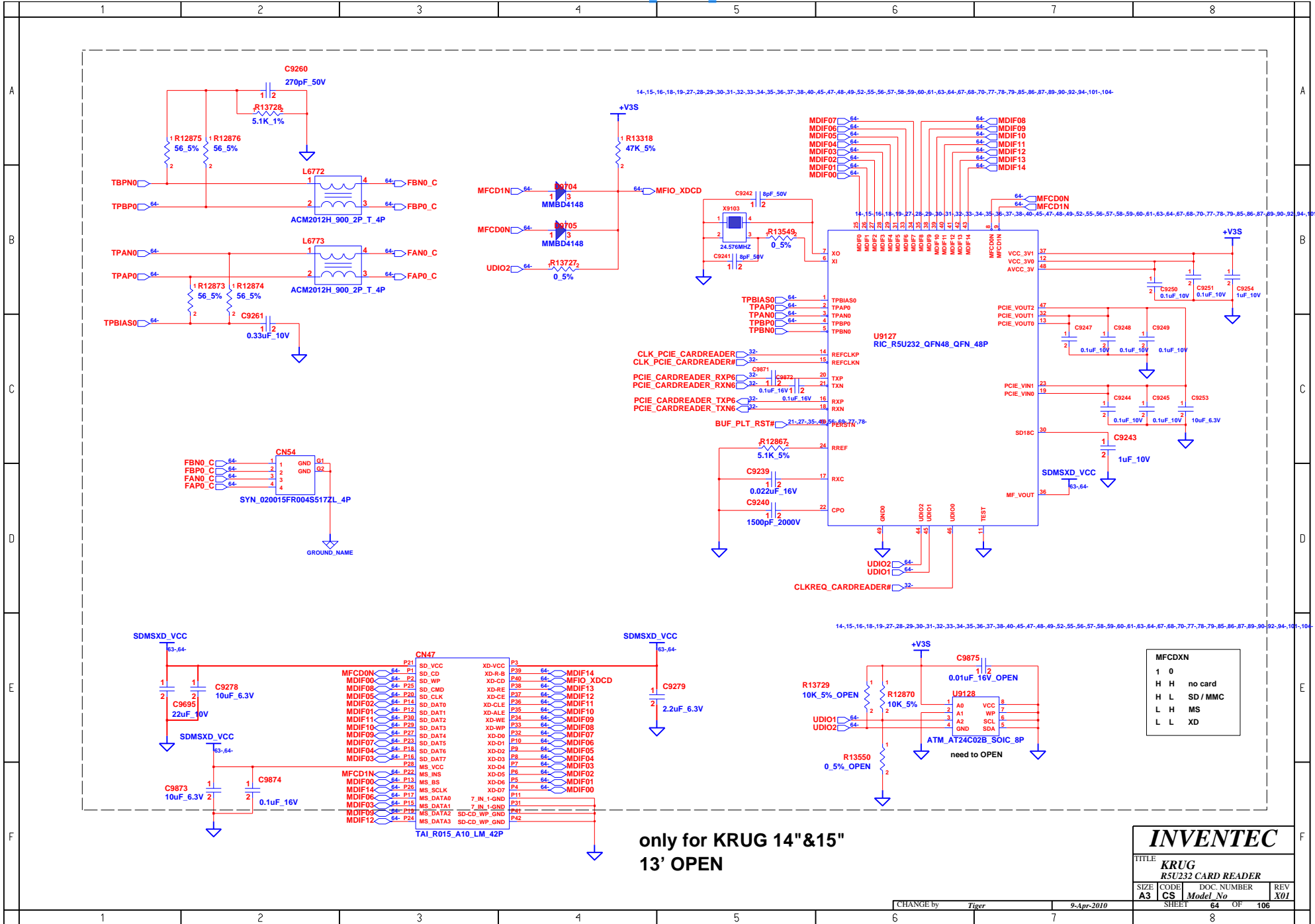


| | | | |
|------------------------|----------------|-----------------------------|----------------|
| INVENTEC | | | |
| TITLE KRUG LED | | | |
| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET 62 | | OF 106 | |



only for KRUG 13"
14' 15' OPEN

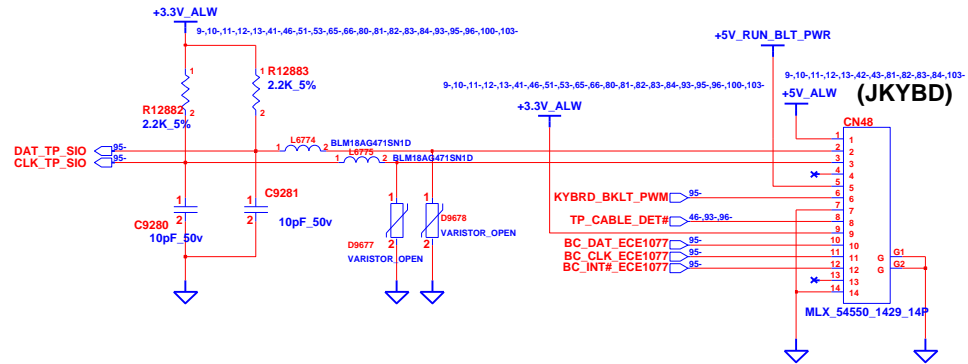
| | | | |
|---|-------------------|-------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG 5138 CARD READER | | | |
| SIZE A3 | CODE CS | DOC NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET 63 OF 106 | | 8 | |



| | | |
|--------|---|----------|
| MFCDDN | 1 | 0 |
| H | H | no card |
| L | L | SD / MMC |
| L | H | MS |
| L | L | XD |

only for KRUG 14" & 15"
13' OPEN

| | | | |
|--------------------------------|----------|-----------------------|----------|
| INVENTEC | | | |
| TITLE: KRUG RSU232 CARD READER | | | |
| SIZE: A3 | CODE: CS | DOC. NUMBER: Model No | REV: X01 |
| CHANGE by: Tiker | | 9-Apr-2010 | |
| SHEET: 64 | | OF: 106 | |

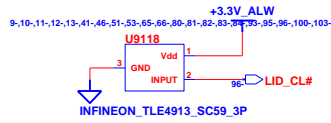


INVENTEC

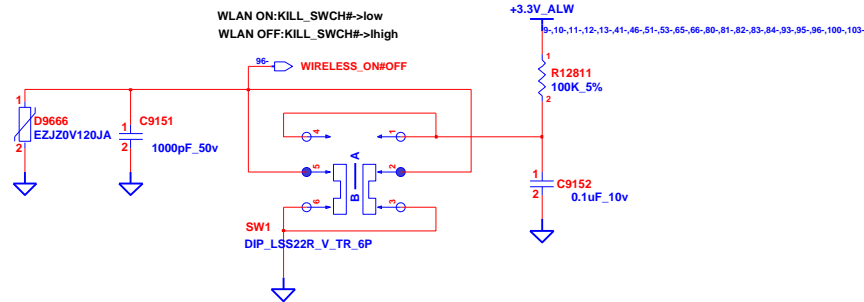
| | | | |
|---------|------|-------------|--------|
| TITLE | | | |
| KRUG | | | |
| KB CONN | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 65 | OF 106 |

CHANGE by Tiger 9-Apr-2010

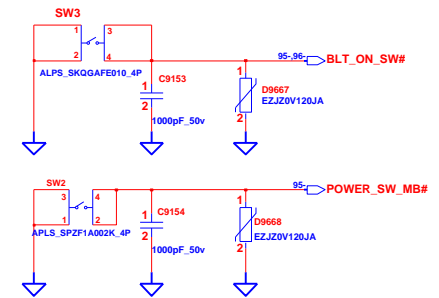
Hall Sensor



RF SWITCH

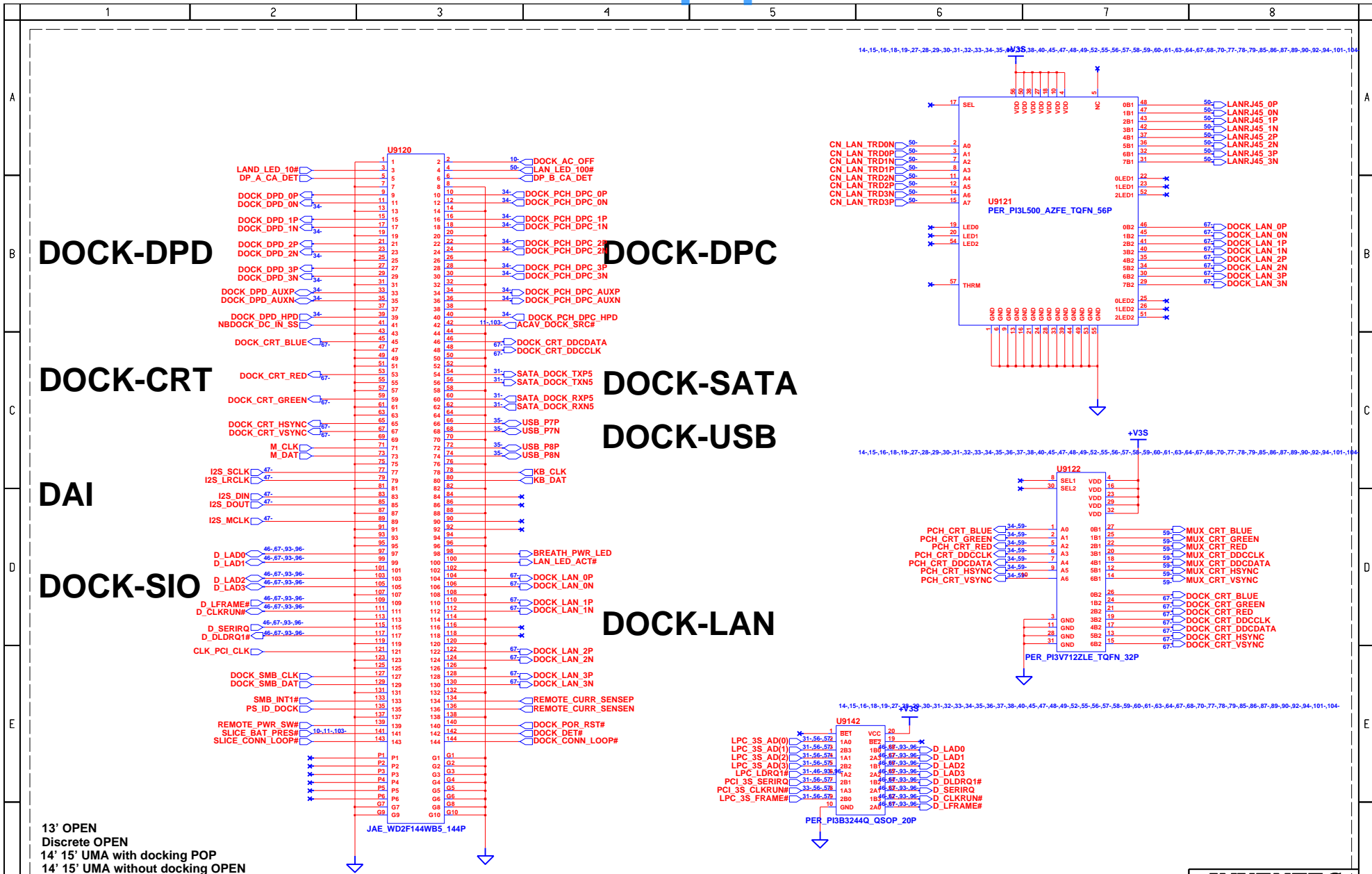


Power Switch



INVENTEC

| | | | |
|------------------------------------|------|-------------|------------|
| TITLE | | | |
| KRUG | | | |
| POWER Button/RF Switch/HALL Sensor | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| CHANGE by | | Tiger | 9-Apr-2010 |
| SHEET | | 66 | OF 106 |



DOCK-DPD

DOCK-DPC

DOCK-CRT

DOCK-SATA

DOCK-USB

DAI

DOCK-SIO

DOCK-LAN

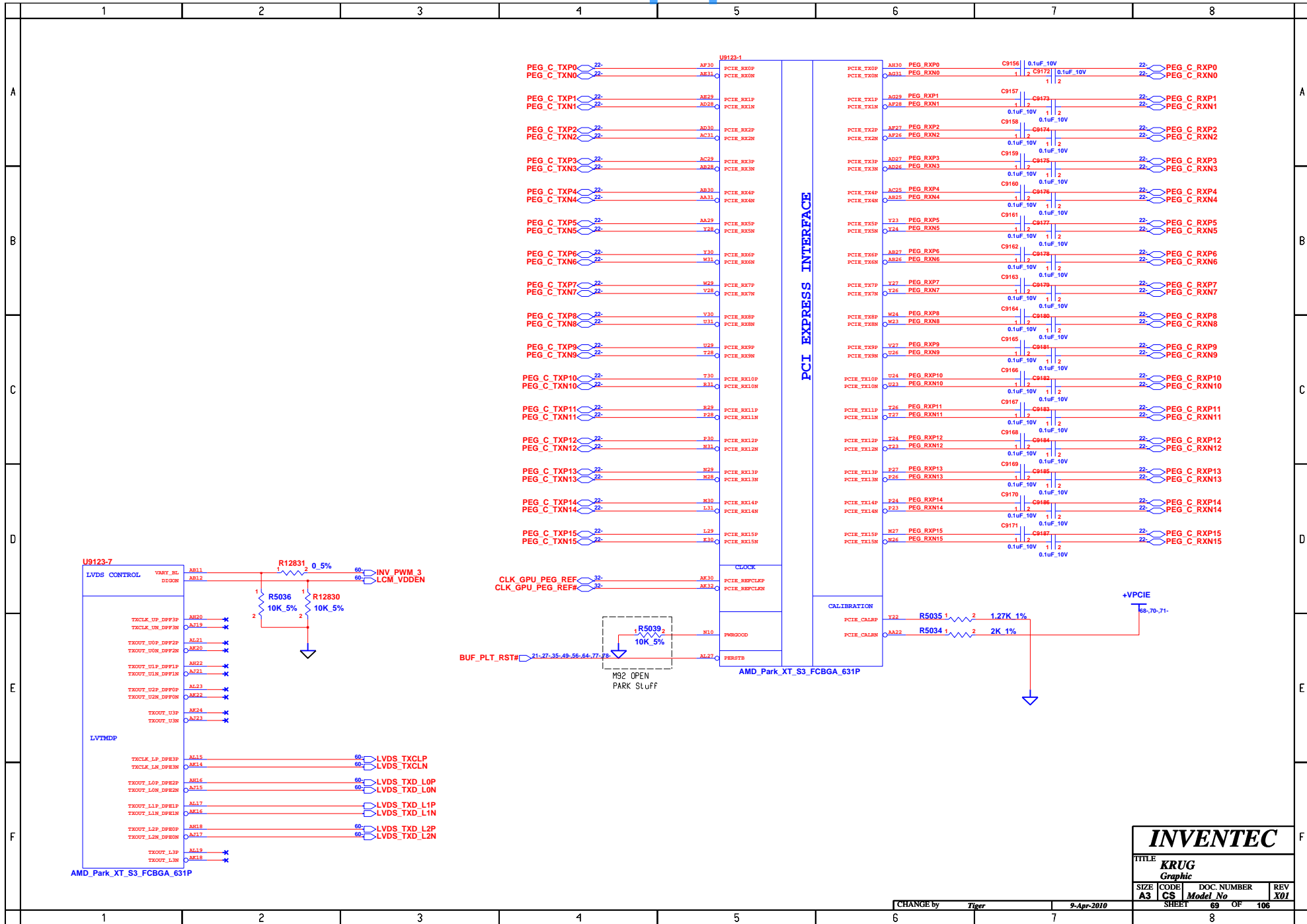
13' OPEN
 Discrete OPEN
 14' 15' UMA with docking POP
 14' 15' UMA without docking OPEN

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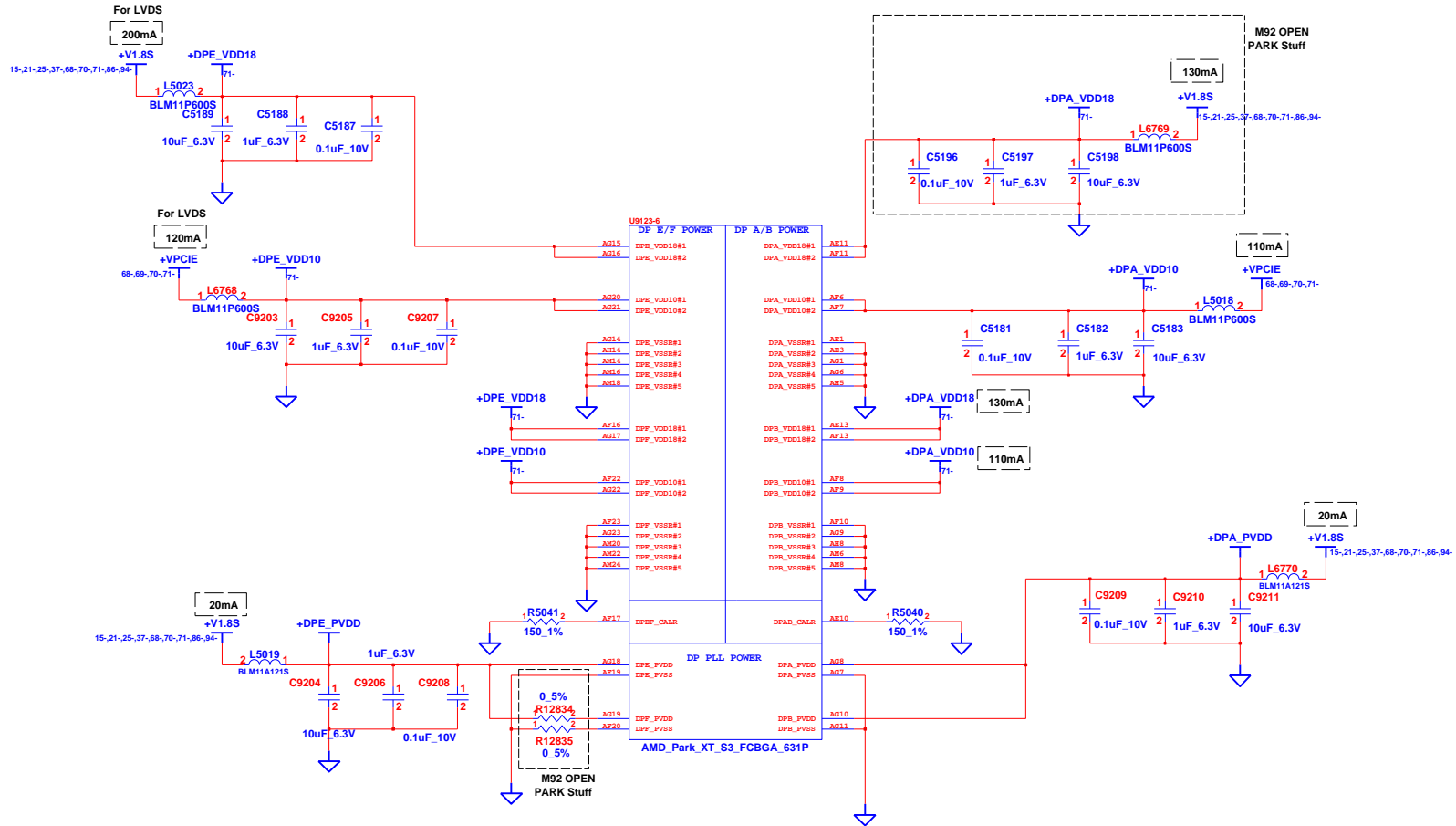
INVENTEC

| | | | | |
|------------------------------------|-------------------|-------------------------------|-------------------|-----|
| TITLE KRUG E-DOCKING | | | | |
| SIZE A3 | CODE CS | DOC NUMBER <i>Model No</i> | REV X01 | |
| SHEET | | 67 | OF | 106 |

CHANGE by *Tiker* 9-Apr-2010



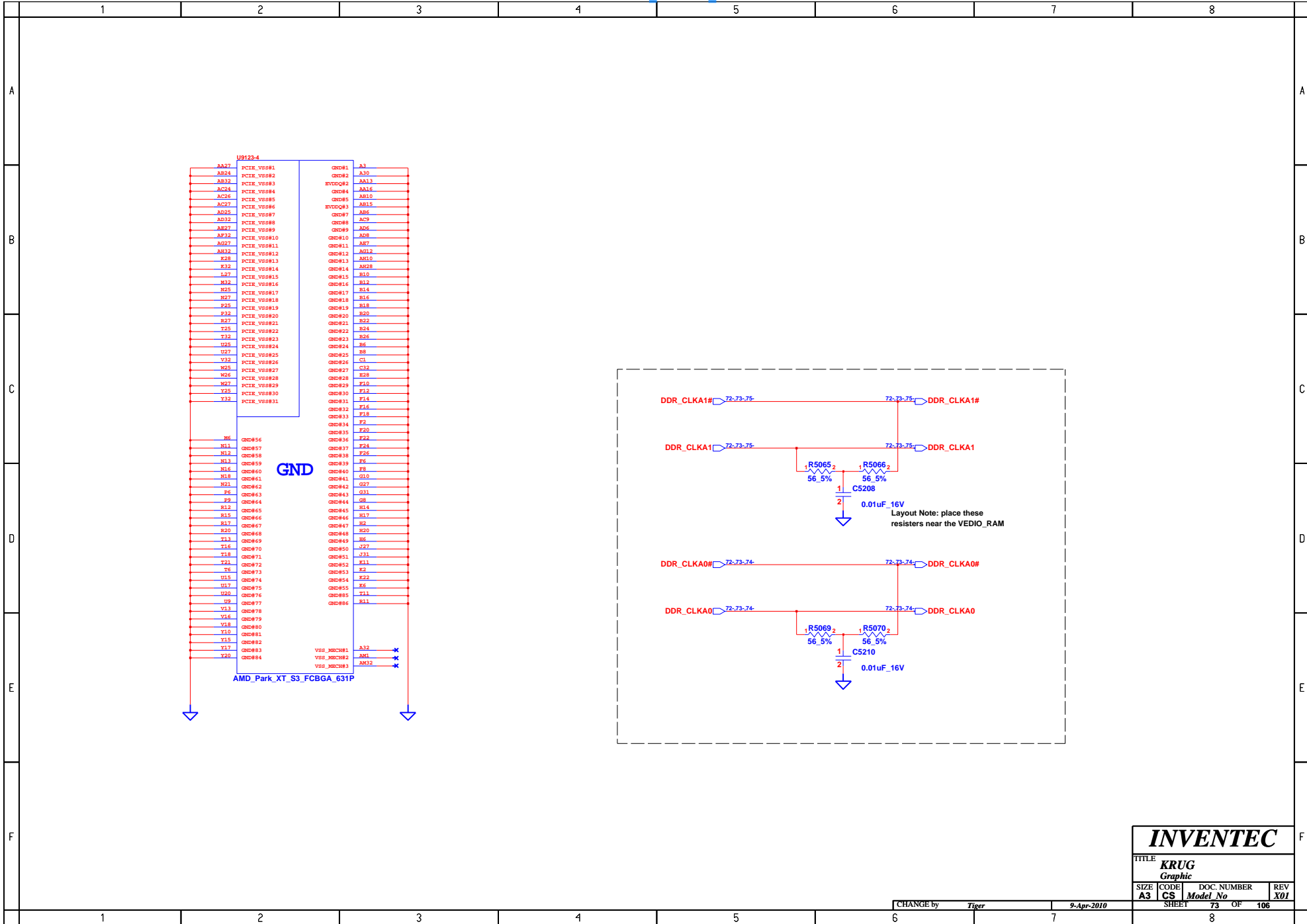
| | | | |
|---------------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG Graphic | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET | | 69 OF 106 | |



INVENTEC

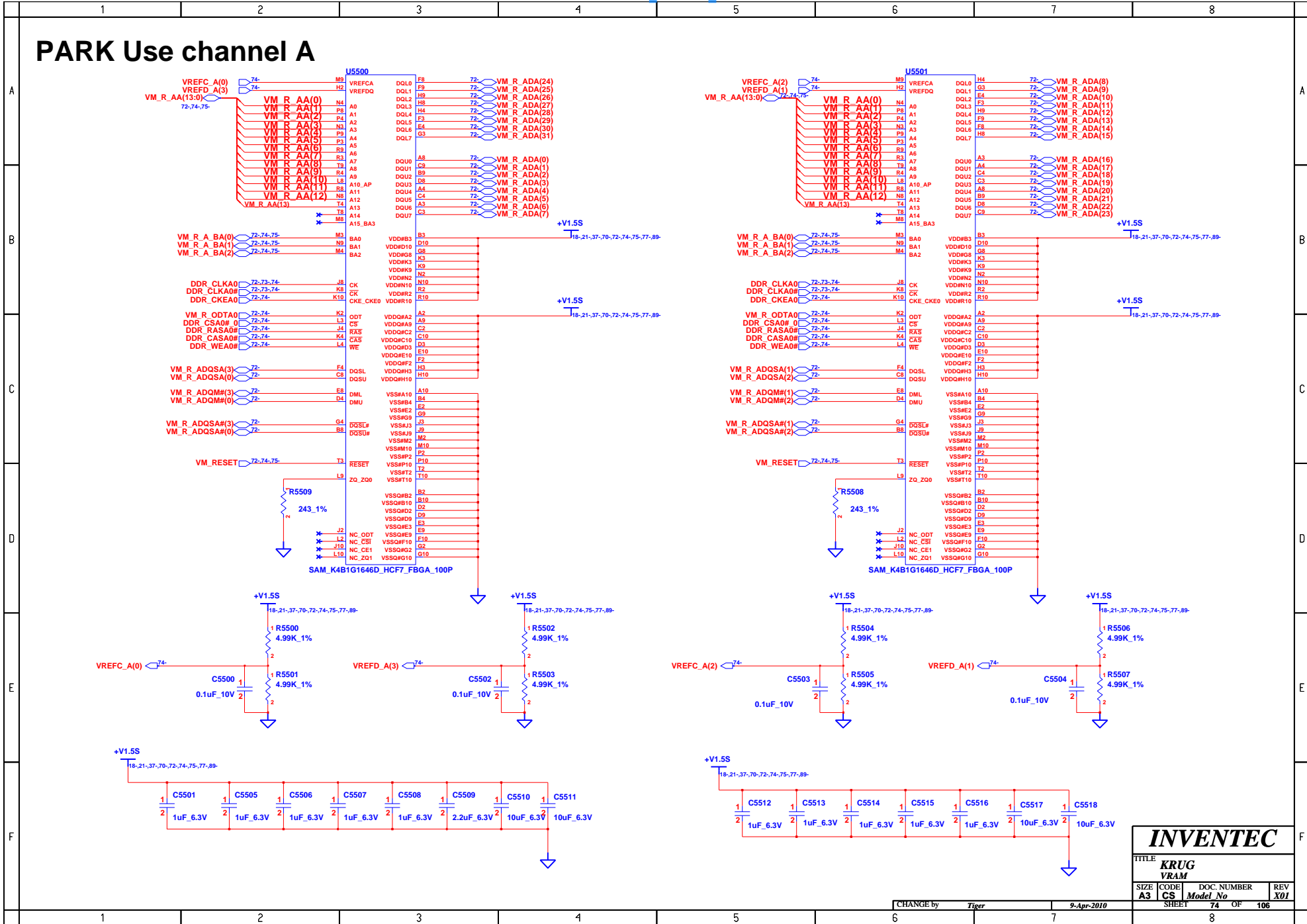
| | | | |
|-----------------|------|-------------|-----|
| TITLE | | | |
| KRUG Graphic | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 71 OF | 106 |

CHANGE by Tiker 9-Apr-2010

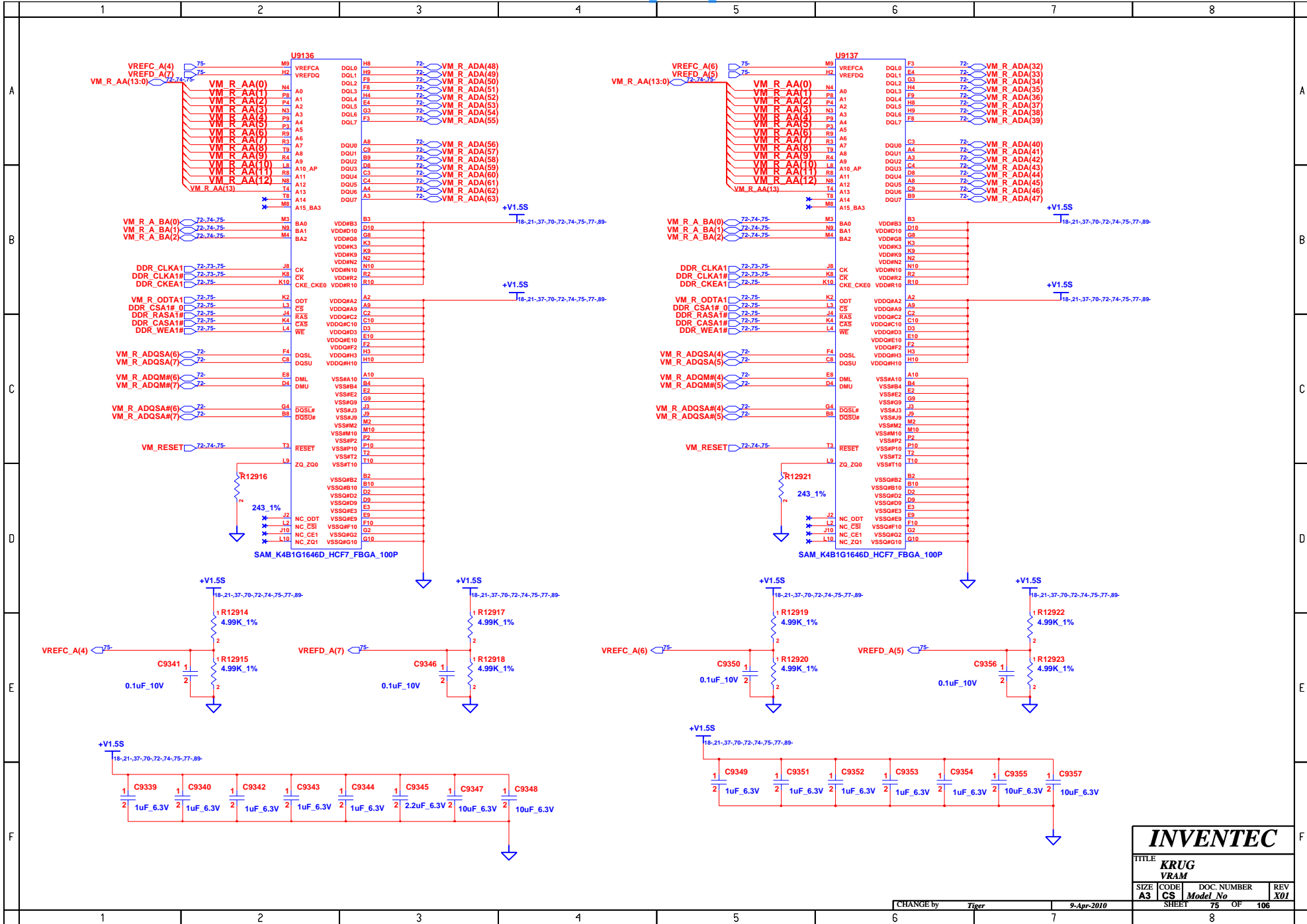


| | | | |
|------------------------|----------------|-----------------------------|-----------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| Graphic | | | |
| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | SHEET 73 OF 106 |

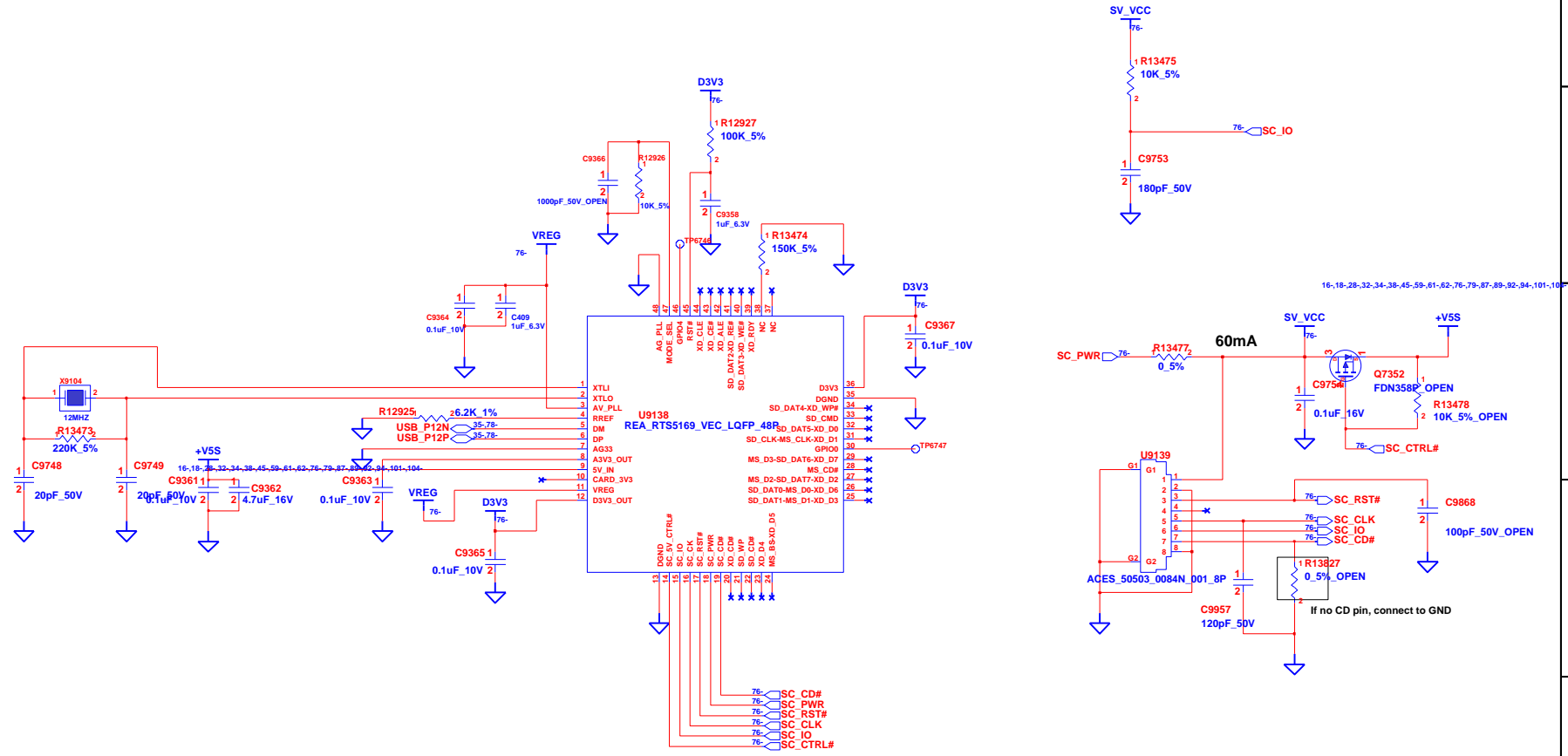
PARK Use channel A



| | | | | |
|-------------------------------|-------------------|--------------------------------|-------------------|--|
| INVENTEC | | | | |
| TITLE KRUG VRAM | | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 | |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | | |
| SHEET 74 OF 106 | | | | |



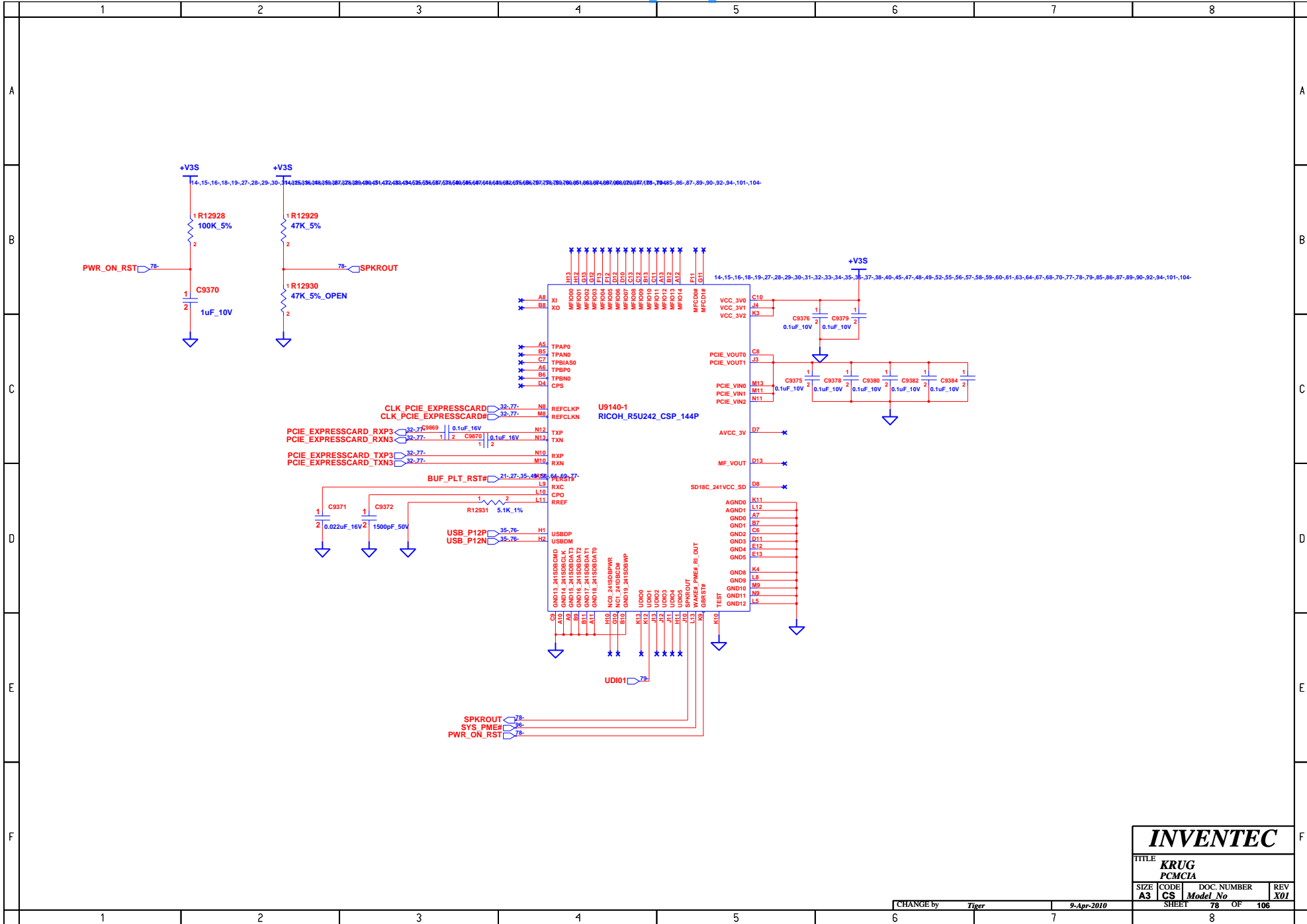
| | | | |
|-------------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG VRAM | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| SHEET | | 75 | OF 106 |



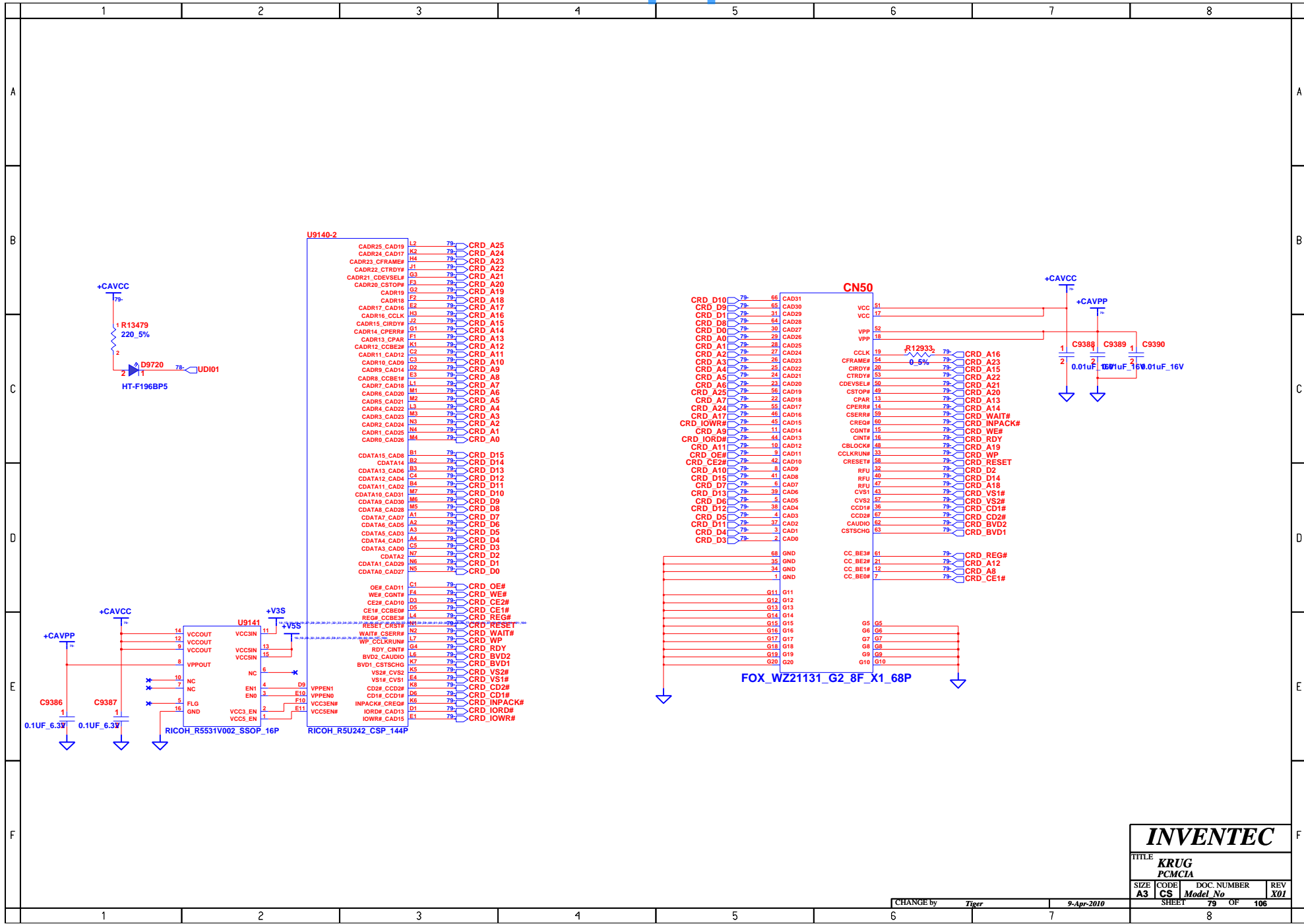
| | | | |
|-------------------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG SMART CARD | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiker</i> | | 9-Apr-2010 | SHEET 76 OF 106 |

1 2 3 4 5 6 7 8

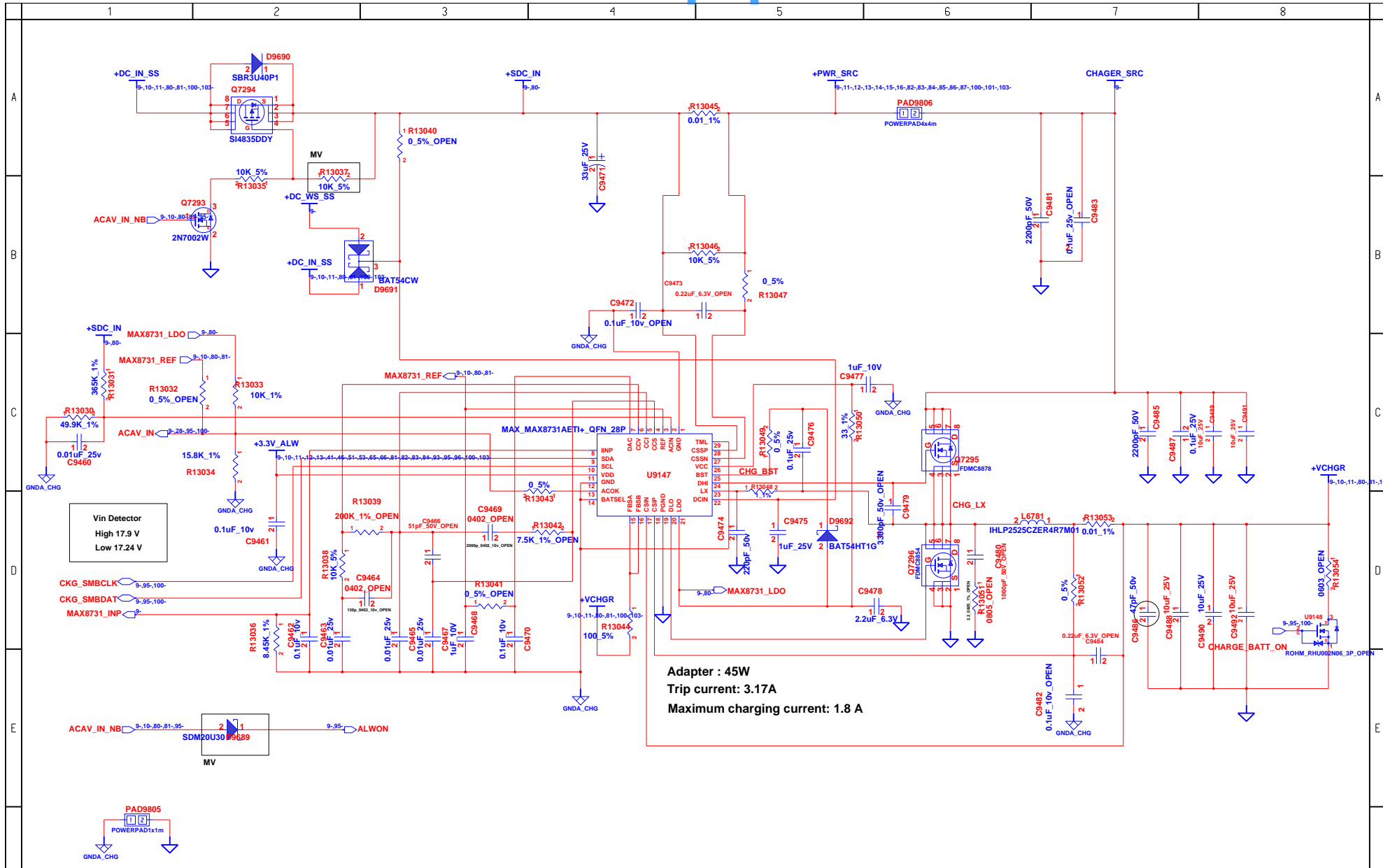
A B C D E F



| | | | |
|---------------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG PCMCIA | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | SHEET 78 OF 106 |



| | | | |
|----------------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG PCMCLIA | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET 79 | | OF 106 | |



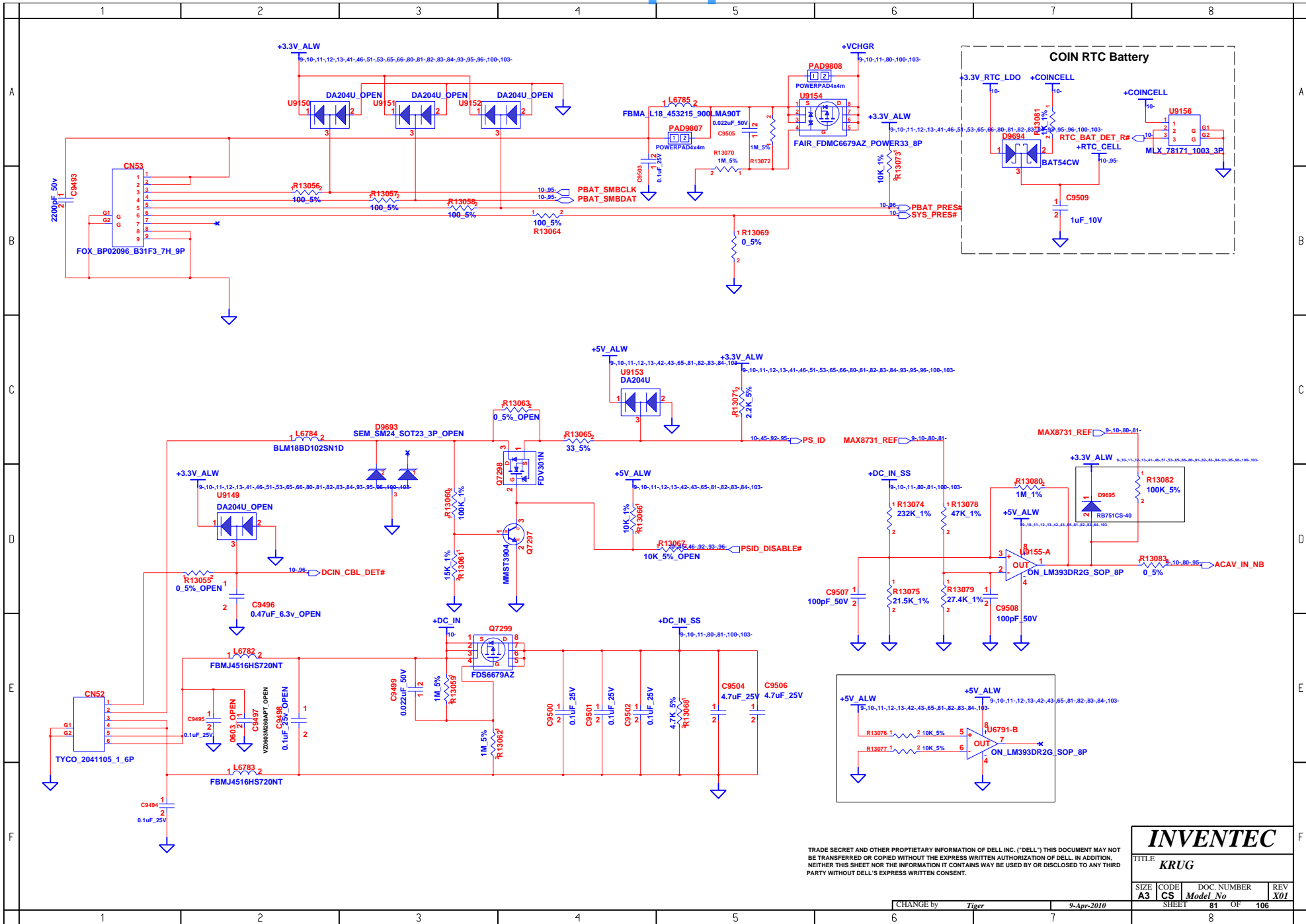
Adapter : 45W
 Trip current: 3.17A
 Maximum charging current: 1.8 A

INVENTEC

| | | | |
|---------------|------------|-------------------------|------------|
| TITLE KRUG | | | |
| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 |
| SHEET | | 80 OF | 106 |

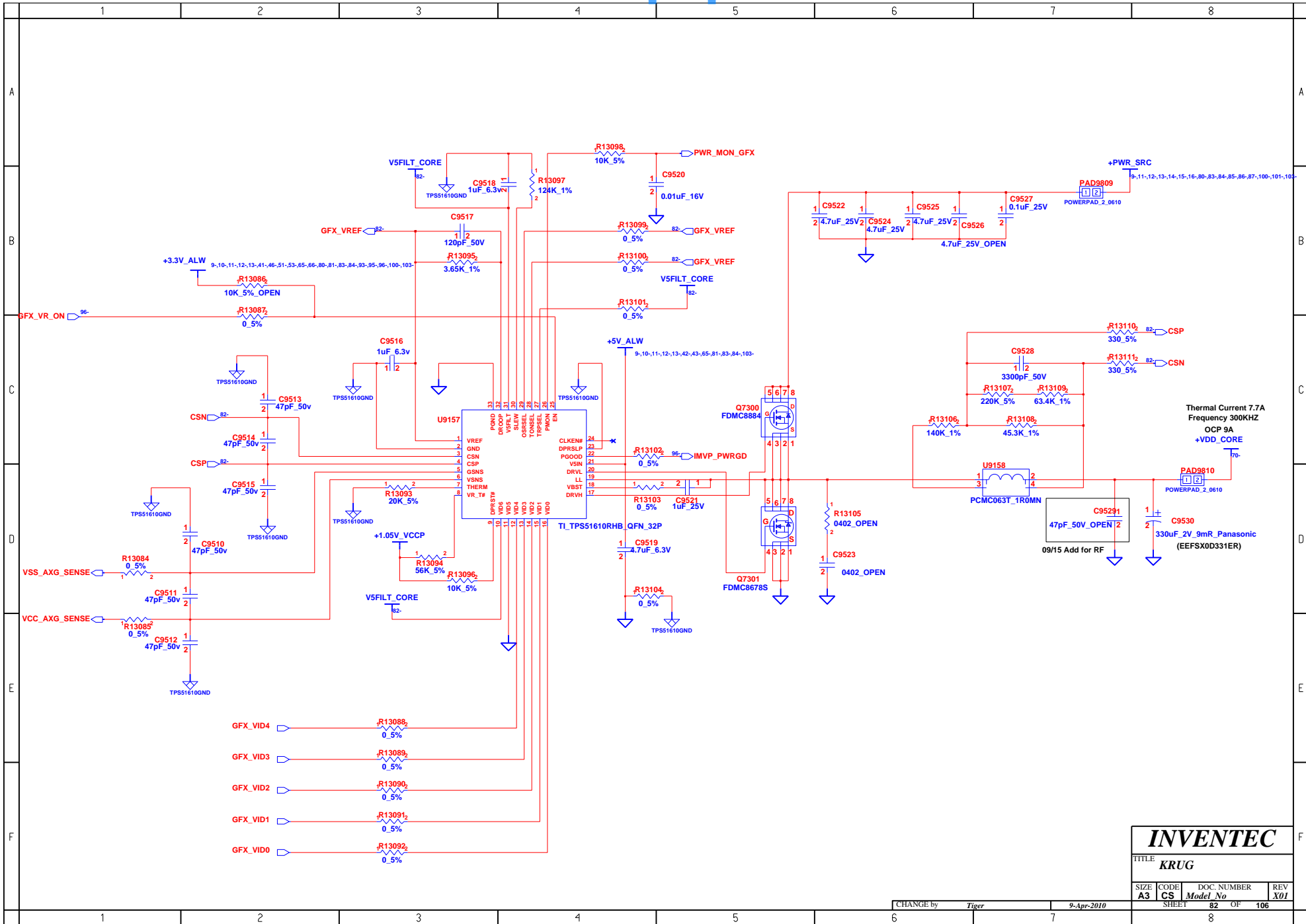
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| | | |
|-----------|-------|------------|
| CHANGE by | Tiker | 9-Apr-2010 |
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | |



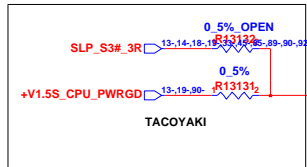
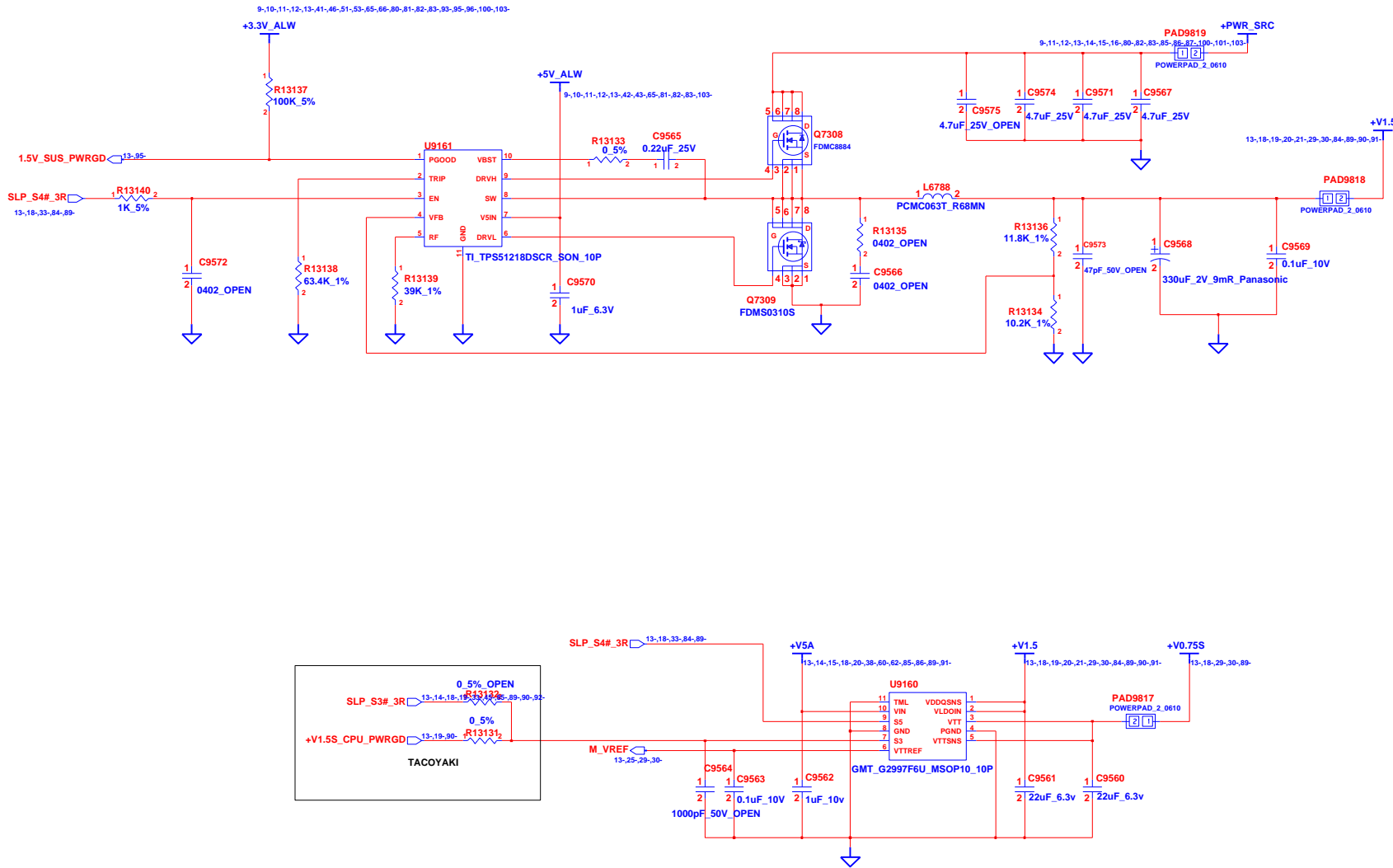
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|------------------|----------|-----------------------|----------|--|
| INVENTEC | | | | |
| TITLE: KRUG | | | | |
| SIZE: A3 | CODE: CS | DOC. NUMBER: Model No | REV: X01 | |
| CHANGE by: Tiger | | 9-Apr-2010 | | |
| SHEET: 81 | | OF: 106 | | |



Thermal Current 7.7A
 Frequency 300KHZ
 OCP 9A
 +VDD_CORE

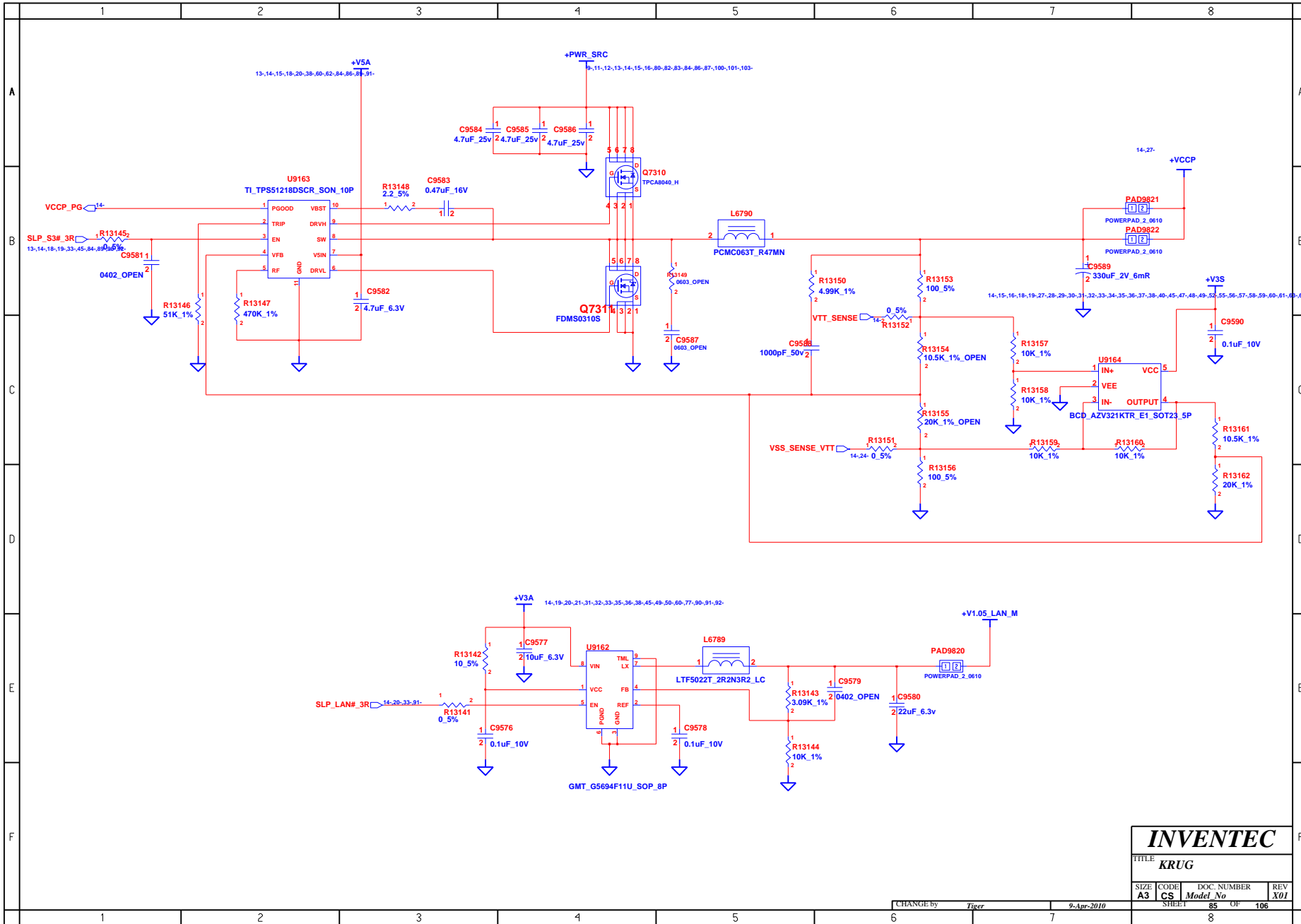
| | | | |
|-----------------|------------|-------------------------|------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 |
| SHEET 82 | | OF 106 | |



INVENTEC

| | | | |
|-------|------|-------------|-----|
| TITLE | | | |
| KRUG | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |
| SHEET | | 84 OF | 106 |

CHANGE by Tiger 9-Apr-2010

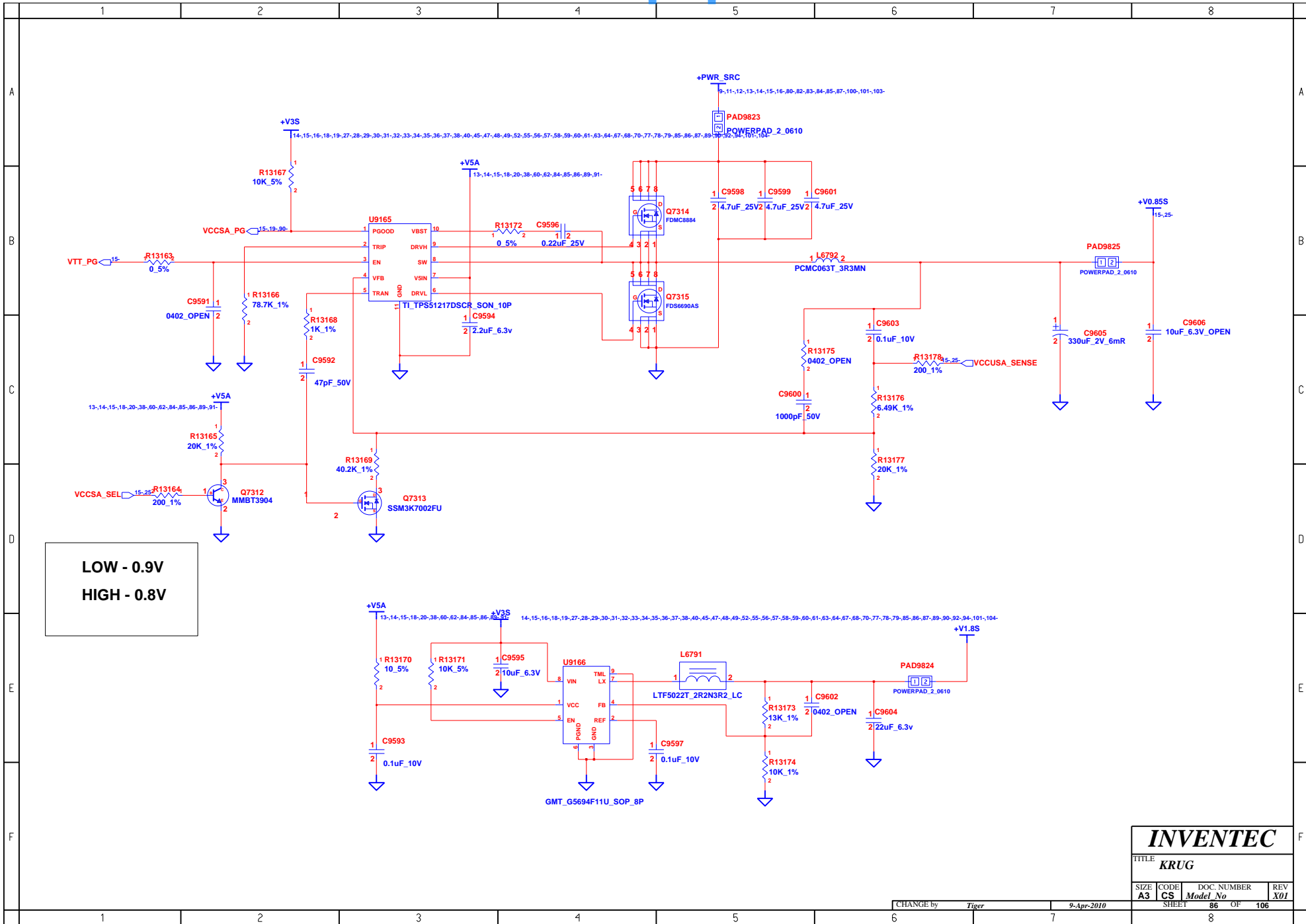


INVENTEC

TITLE: **KRUG**

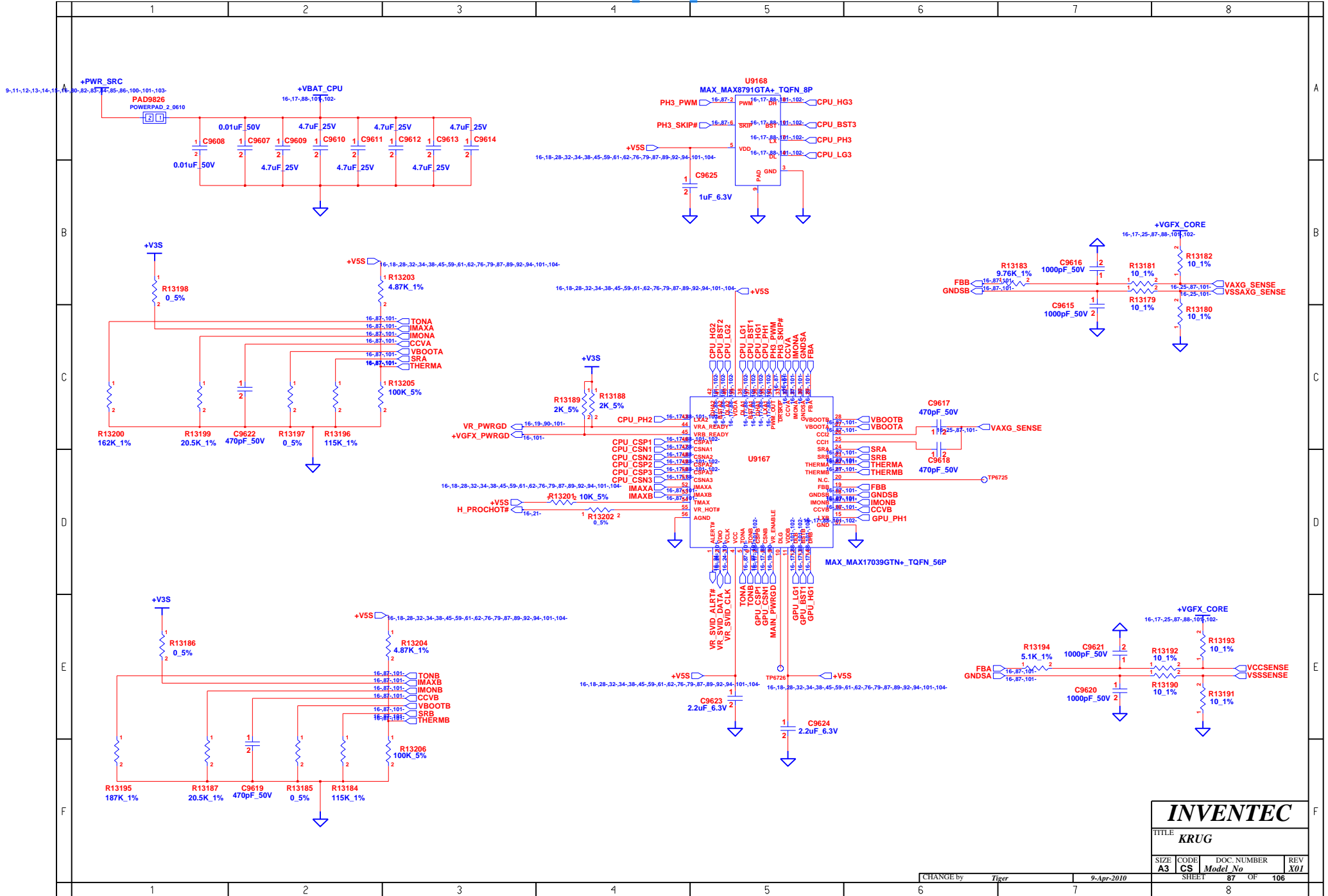
| | | | |
|------|------|-------------|-----|
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |

CHANGE by: Tiger 9-Apr-2010 SHEET 85 OF 106



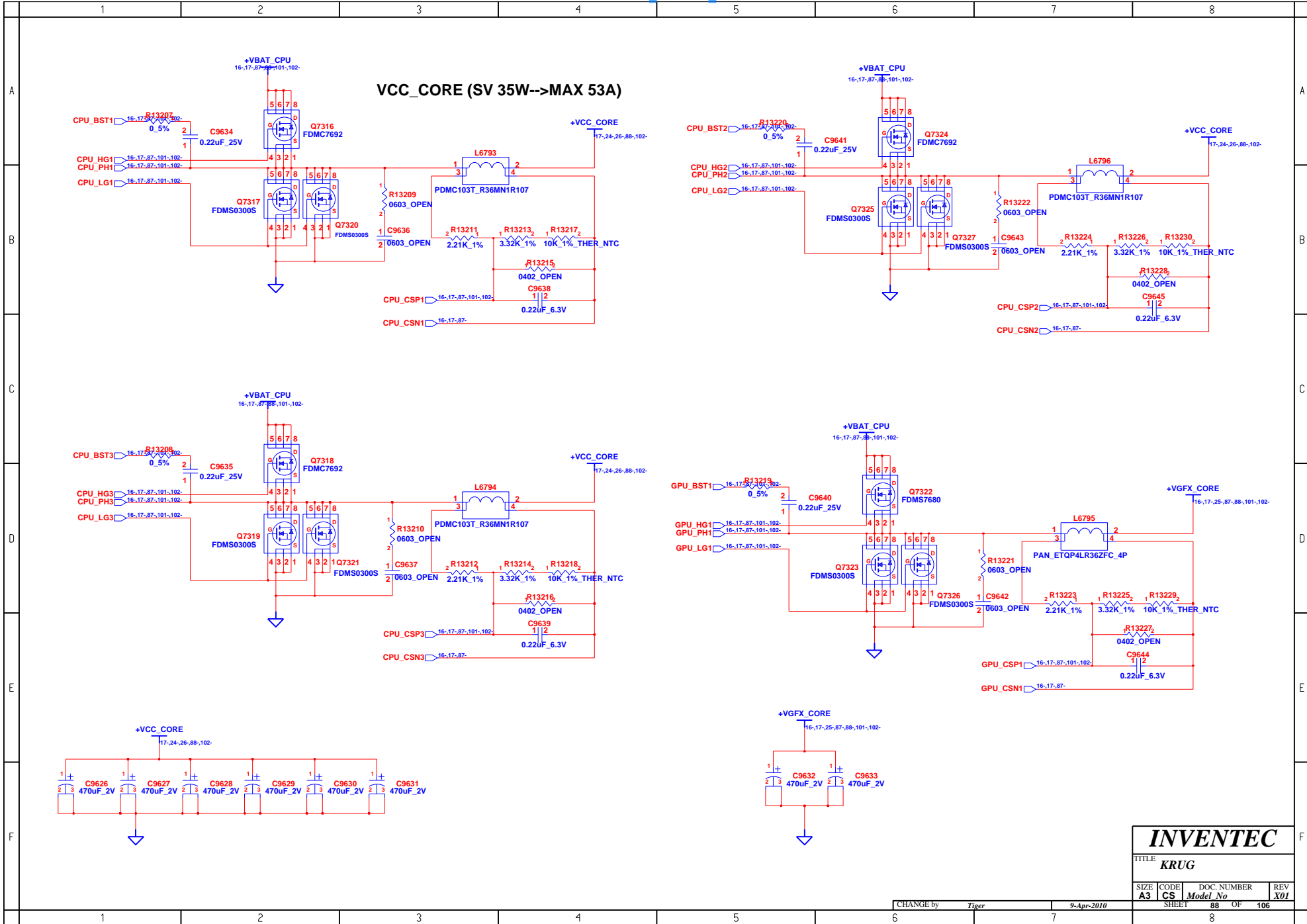
LOW - 0.9V
HIGH - 0.8V

| | | | |
|-------------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET 86 OF 106 | | 8 | |

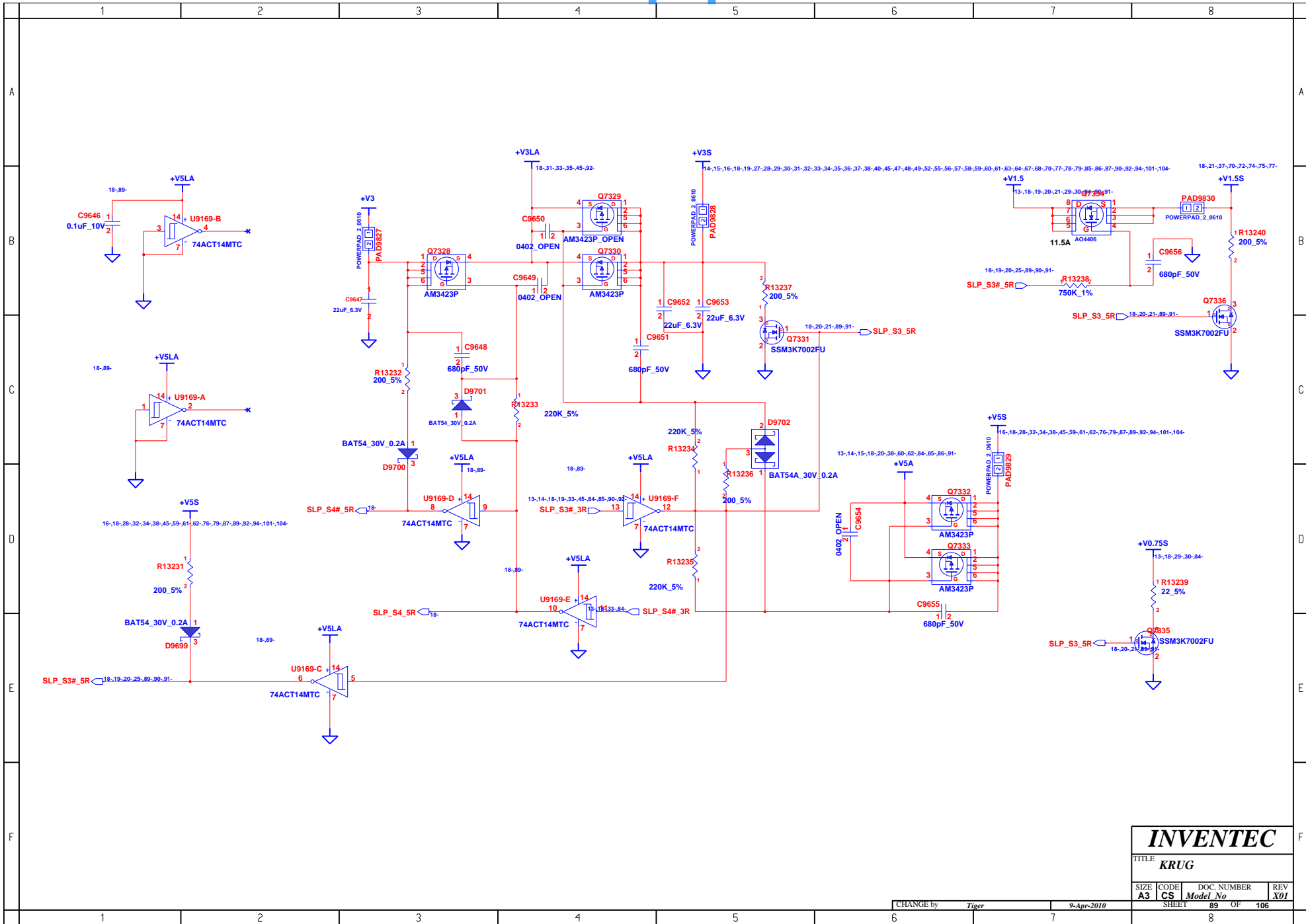


| | | | | |
|-------------------|----------------|-----------------------------|----------------|--|
| INVENTEC | | | | |
| TITLE KRUG | | | | |
| SIZE A3 | CODE CS | DOC. NUMBER Model No | REV X01 | |
| SHEET 87 | | OF 106 | | |

CHANGE by Tiger 9-Apr-2010



| | | | |
|------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET 88 | | OF 106 | |



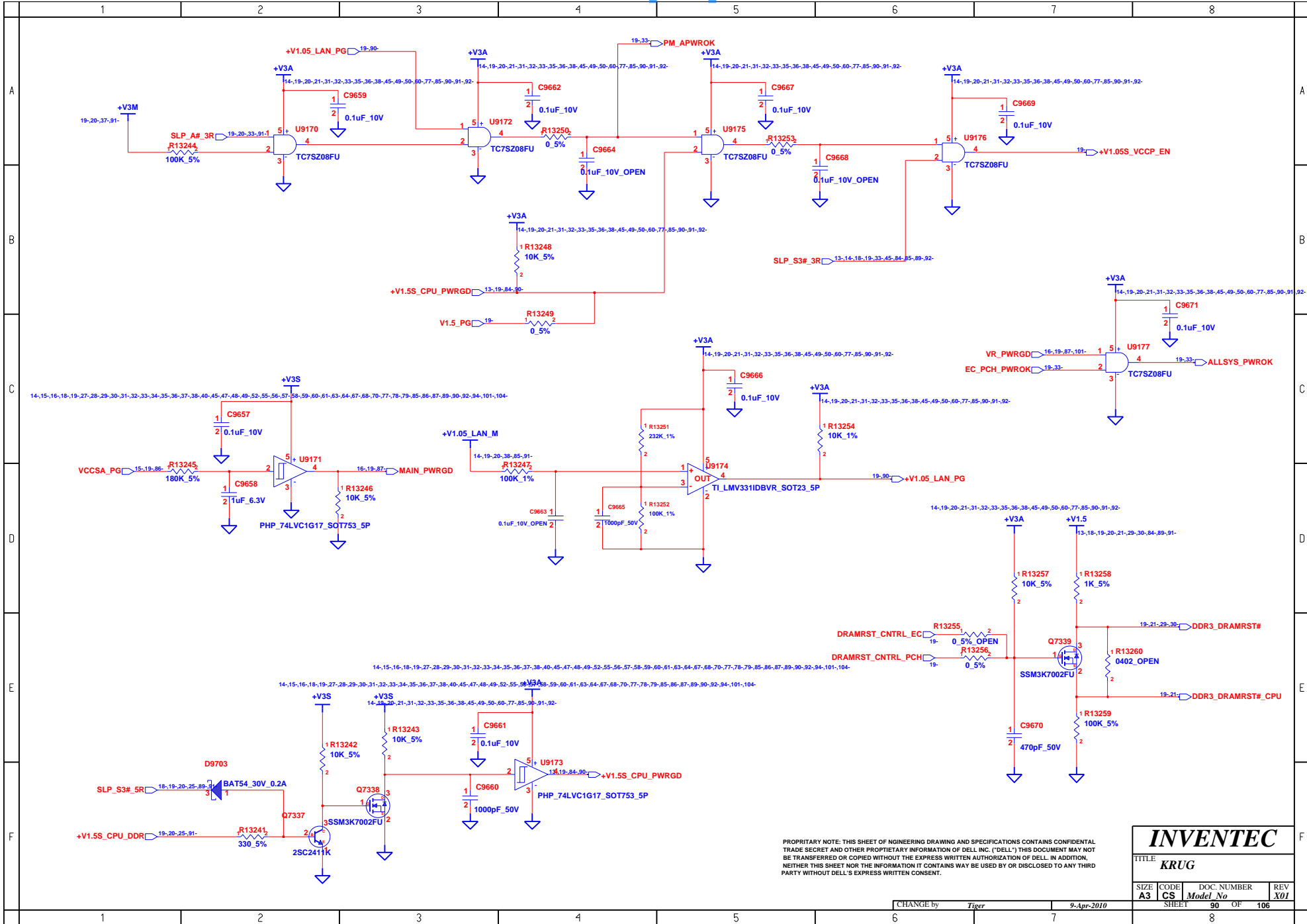
INVENTEC

TITLE: KRUG

| | | | |
|------|------|-------------|-----|
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |

CHANGE by: Tiger 9-Apr-2010

SHEET 89 OF 106



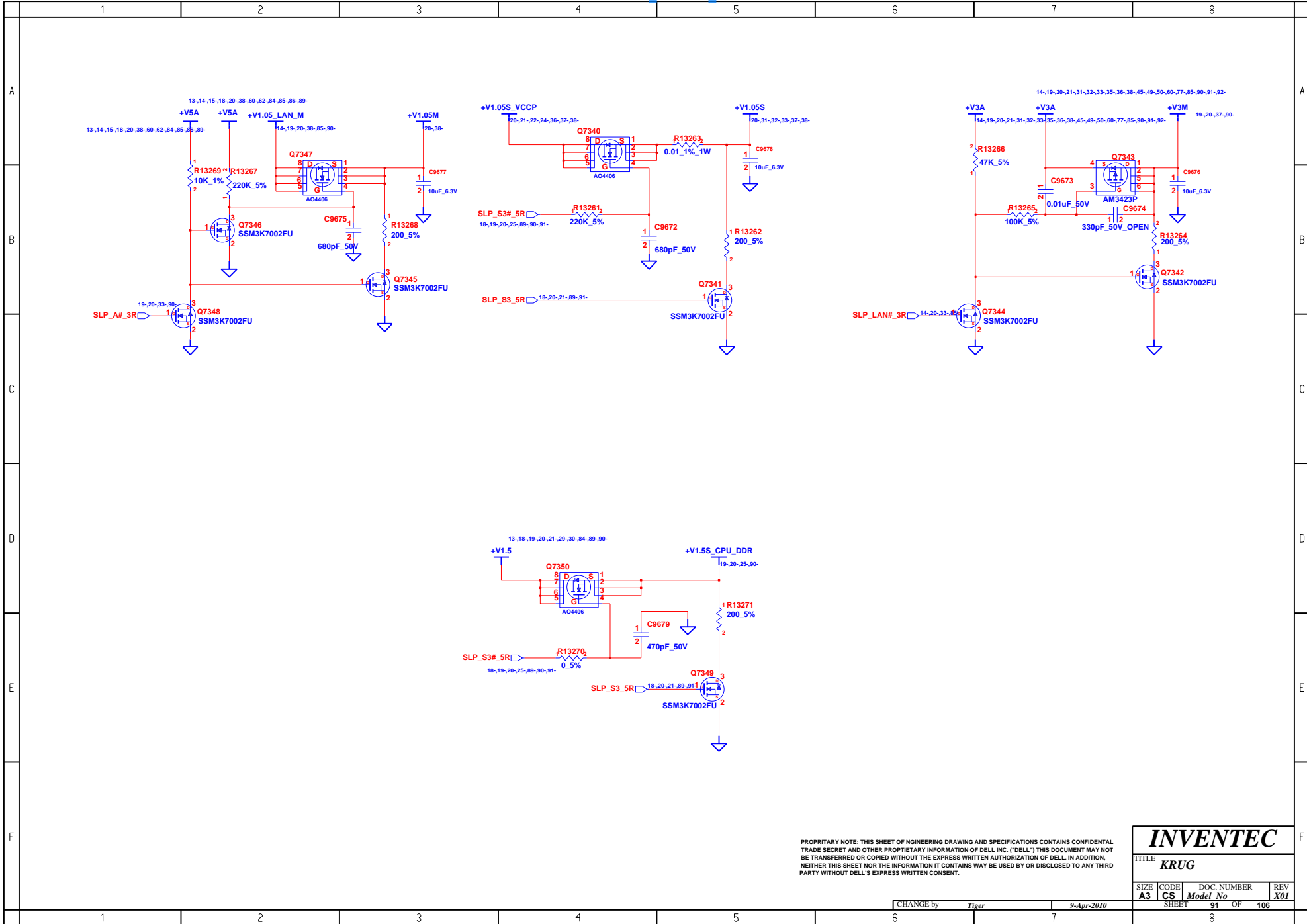
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INVENTEC

TITLE
KRUG

| | | | |
|--------------------|-------------------|--------------------------------|-------------------|
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| SHEET 90 | | OF 106 | |

CHANGE by *Tiger* 9-Apr-2010



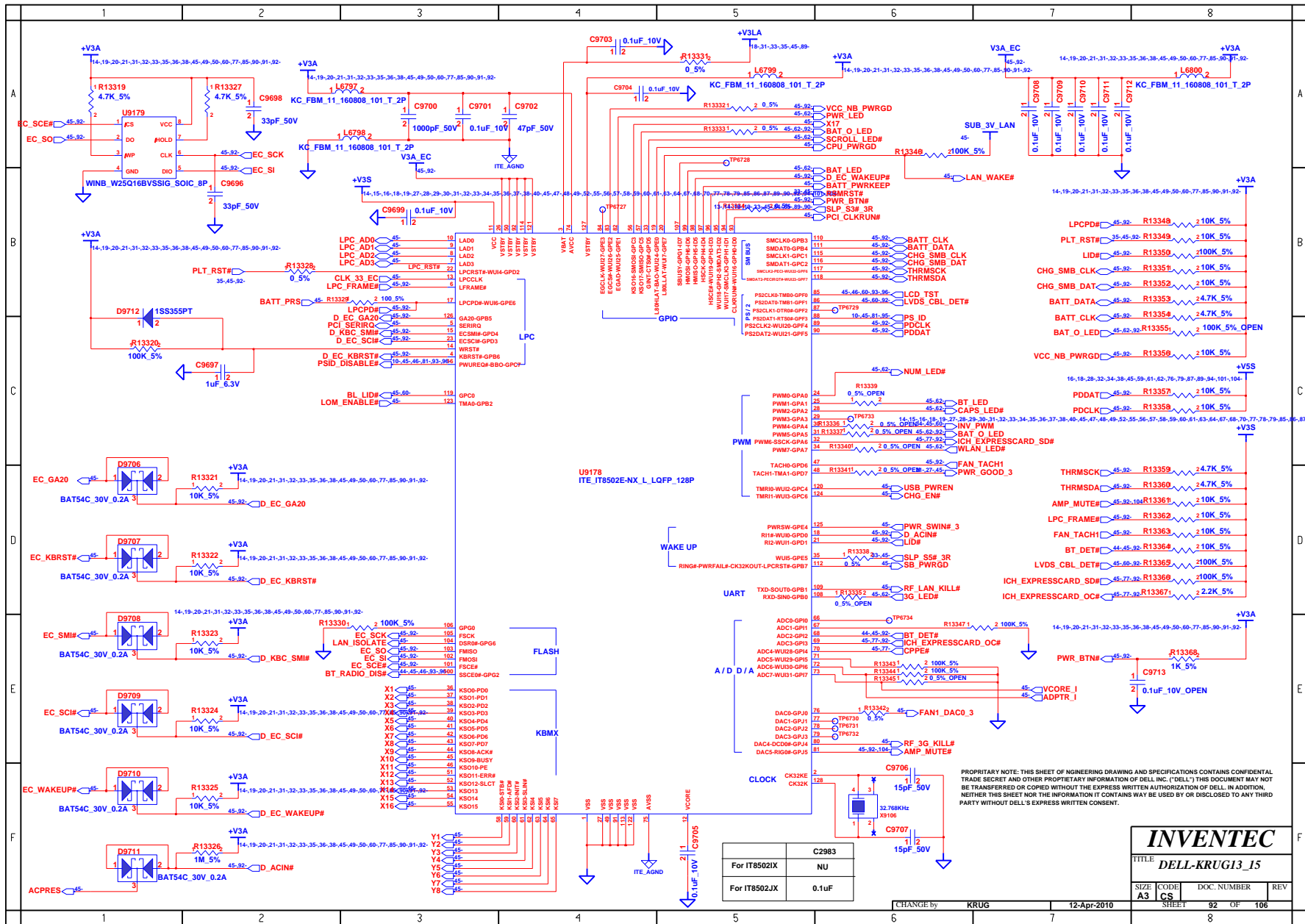
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INVENTEC

TITLE
KRUG

| | | | |
|--------------------|-------------------|--------------------------------|-------------------|
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model No</i> | REV X01 |
| SHEET 91 | | OF 106 | |

CHANGE by *Tiger* 9-Apr-2010



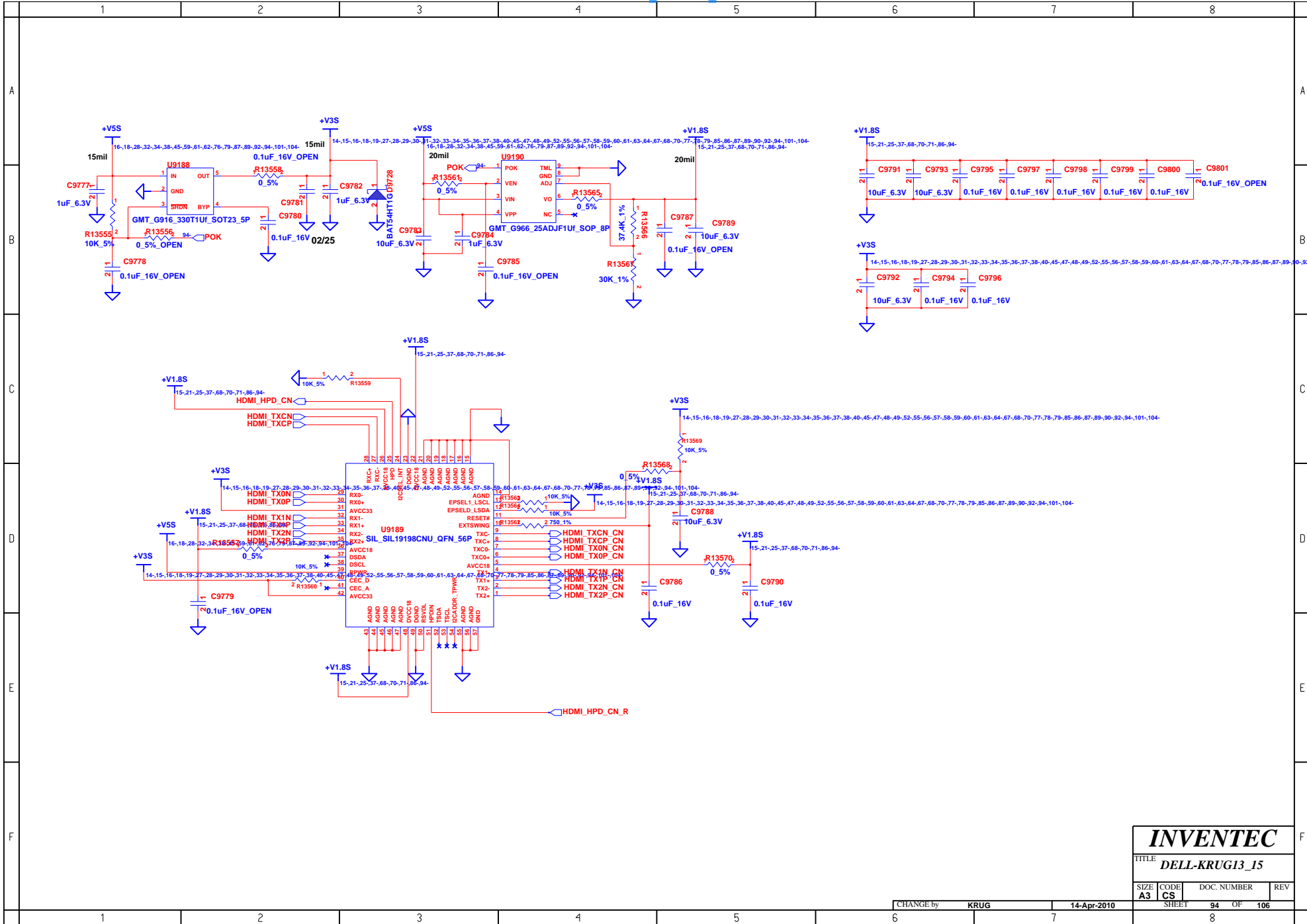
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TITLE: **DELL-KRUG13_15**

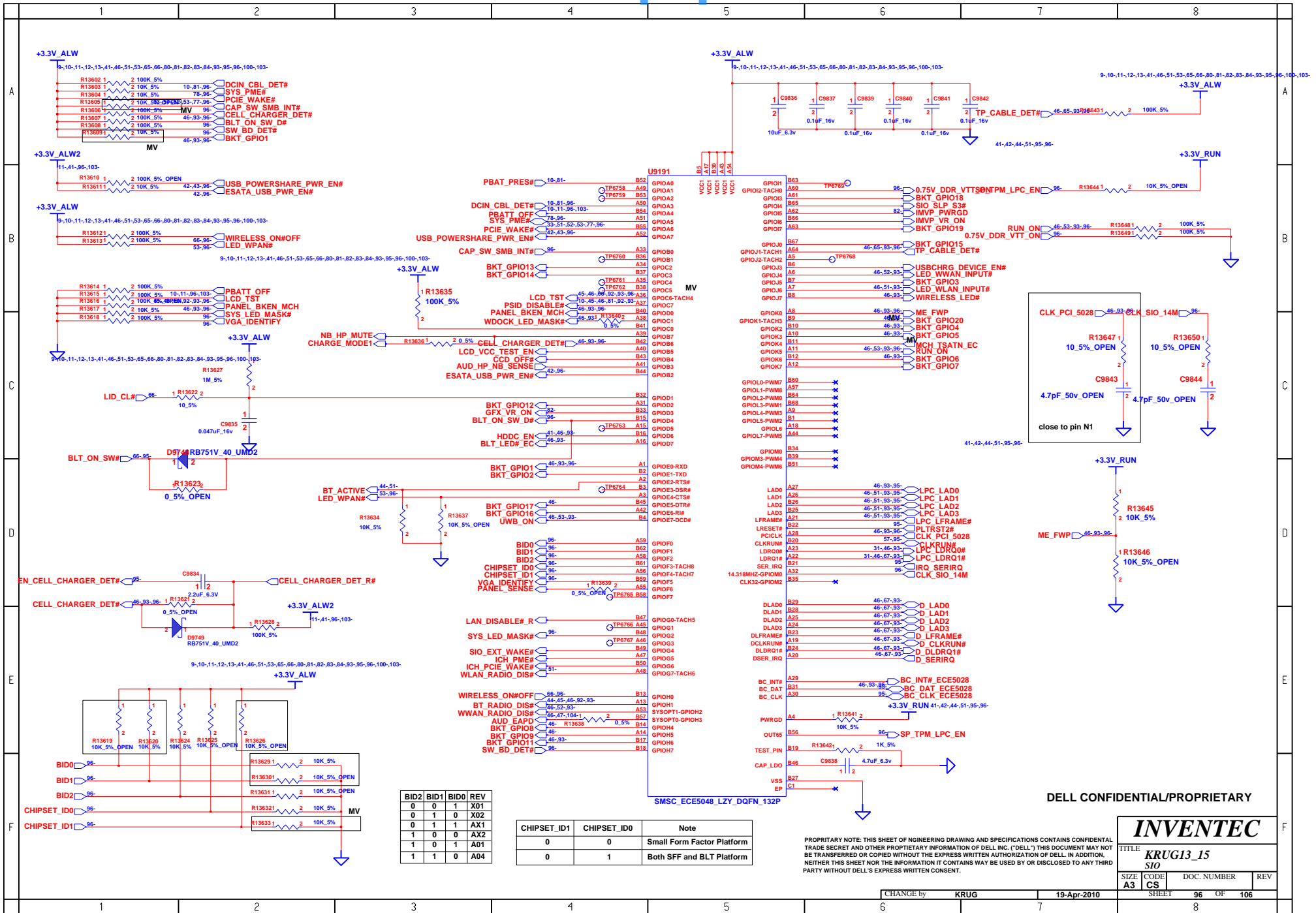
| | | | |
|------|------|-------------|-----|
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 92 OF 106 | 8 |

CHANGE by: KRUG 12-Apr-2010 SHEET 92 OF 106



| | | | |
|--------------------------------|-------------------|-----------------------------|-------------------------|
| INVENTEC | | | |
| TITLE DELL-KRUG13_I5 | | | |
| SIZE A3 | CODE CS | DOC. NUMBER SHEET | REV 94 OF 106 |

CHANGE by **KRUG** 14-Apr-2010



| BID2 | BID1 | BID0 | REV |
|------|------|------|-----|
| 0 | 0 | 1 | X01 |
| 0 | 1 | 0 | X02 |
| 0 | 1 | 1 | AX1 |
| 1 | 0 | 0 | AX2 |
| 1 | 0 | 1 | A01 |
| 1 | 1 | 0 | A04 |

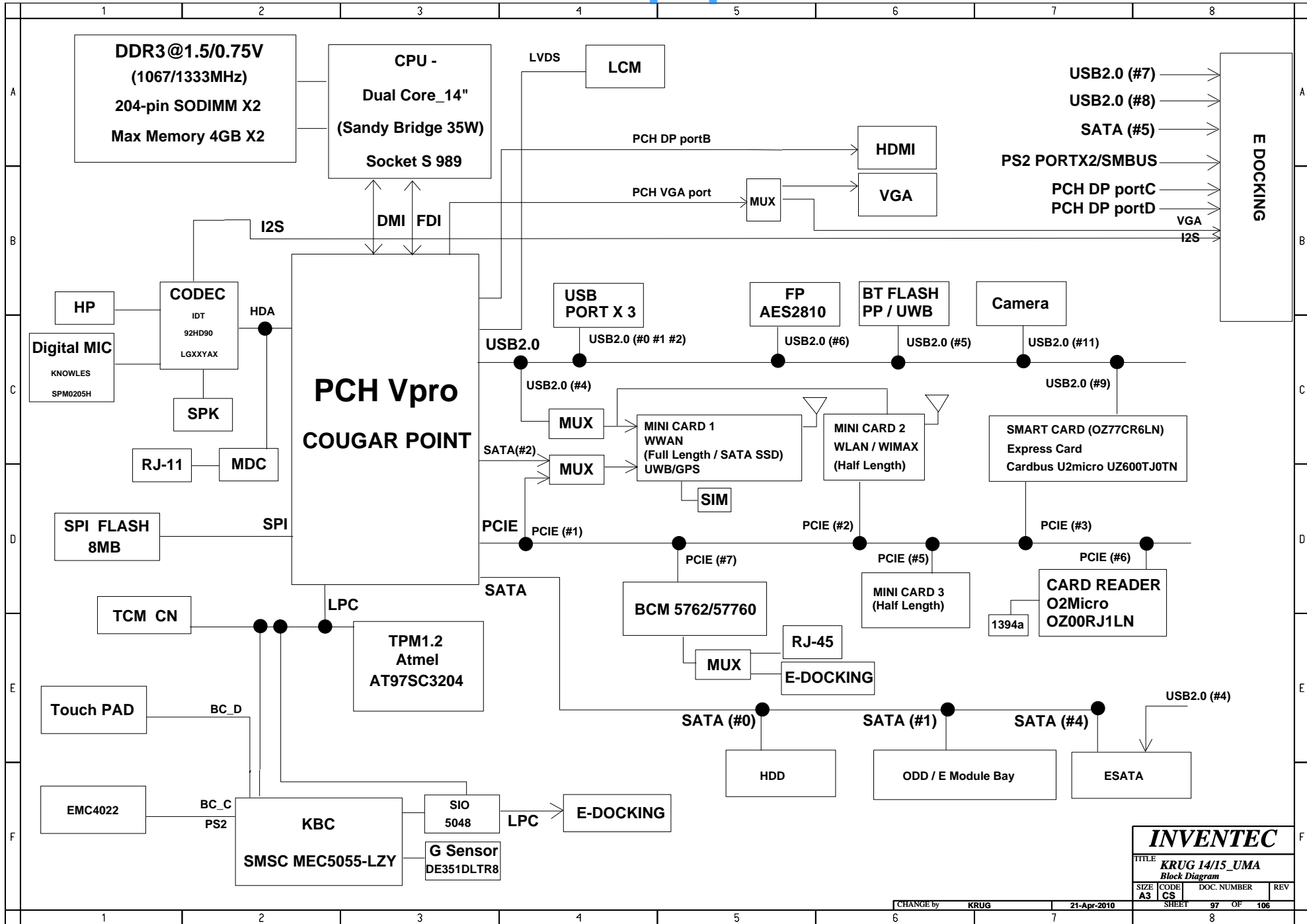
| CHIPSET_ID1 | CHIPSET_ID0 | Note |
|-------------|-------------|----------------------------|
| 0 | 0 | Small Form Factor Platform |
| 0 | 1 | Both SFF and BLT Platform |

DELL CONFIDENTIAL/PROPRIETARY

INVENTEC

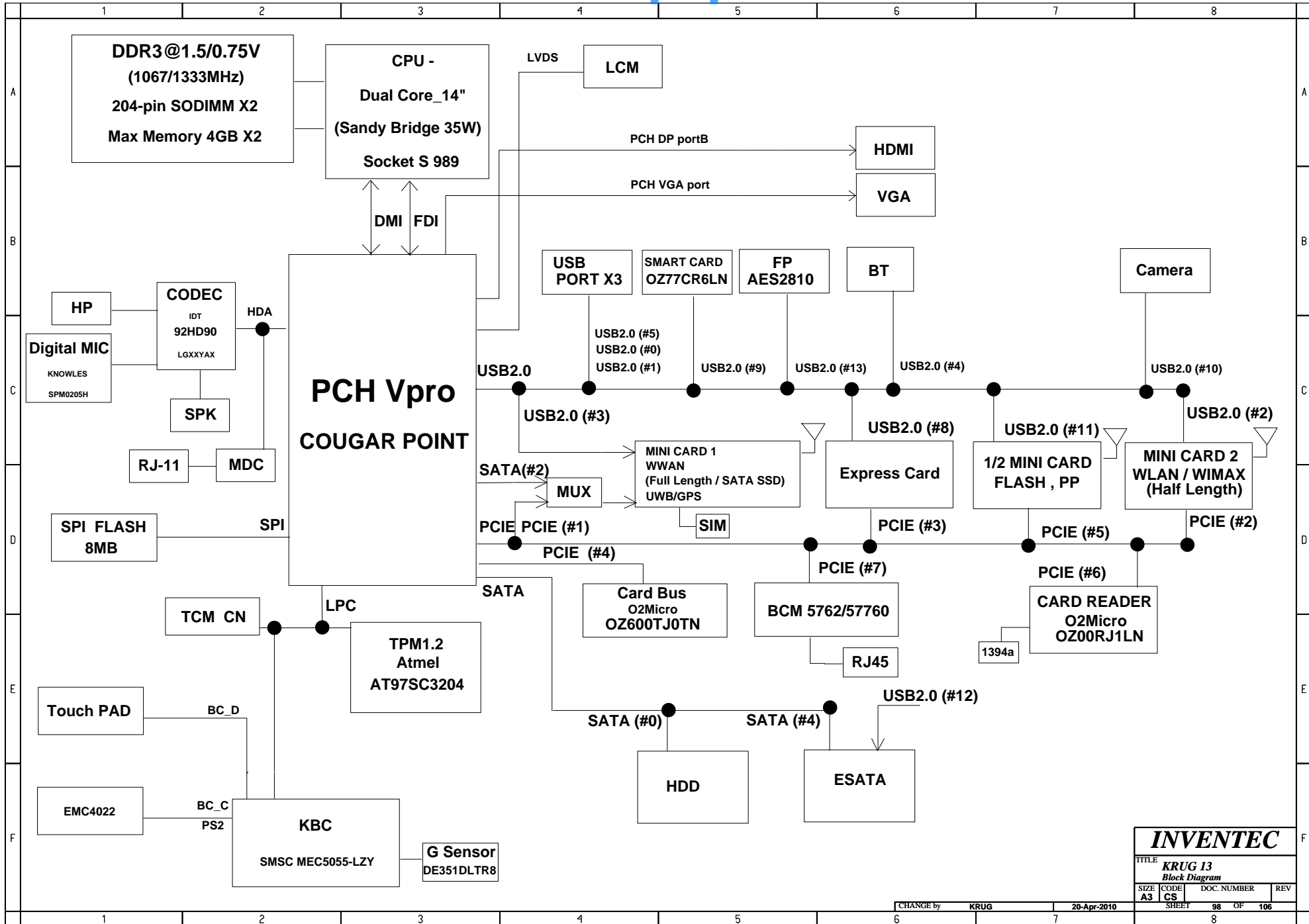
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|----------------------------------|-------------------|--------------------------|-------------------|
| TITLE KRUG13_15 SIO | | | |
| SIZE A3 | CODE CS | DOC. NUMBER 96 | REV 106 |



| | | | |
|-----------------------|----------|-----------------|----------|
| INVENTEC | | | |
| TITLE: KRUG 14/15_UMA | | | |
| Block Diagram | | | |
| SIZE: A3 | CODE: CS | DOC. NUMBER: 97 | REV: 106 |
| SHEET | | OF | |

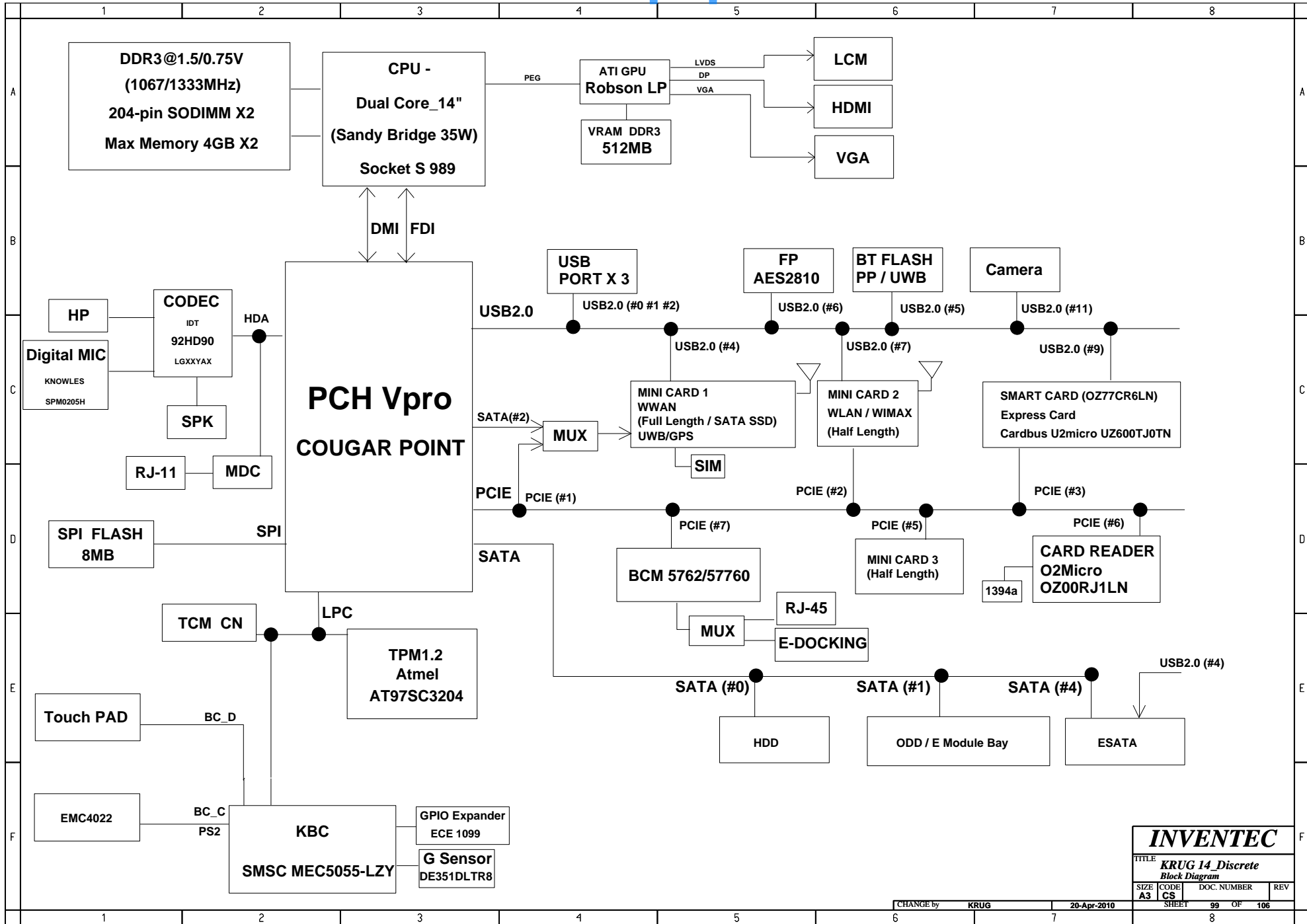
CHANGE by KRUG 21-Apr-2010



INVENTEC

| | | | |
|---------------|------|-------------|-----|
| TITLE | | | |
| KRUG 13 | | | |
| Block Diagram | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 98 | 106 |
| SHEET | | | OF |
| 8 | | | 106 |

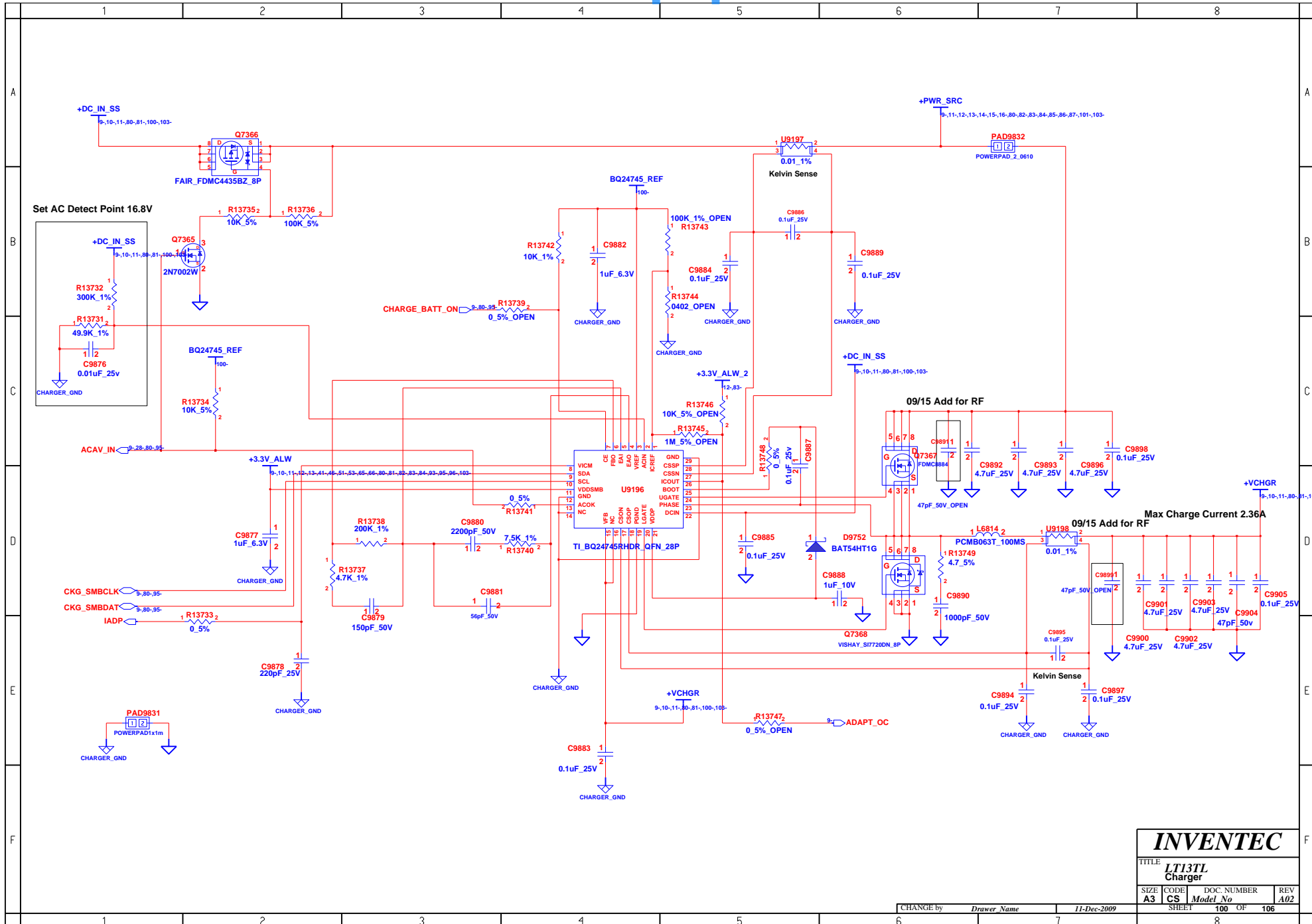
CHANGE by KRUG 20-Apr-2010



INVENTEC

| | | | |
|------------------|------|-------------|-----|
| TITLE | | | |
| KRUG 14_Discrete | | | |
| Block Diagram | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 99 | 106 |
| SHEET | | | |

CHANGE by KRUG 20-Apr-2010

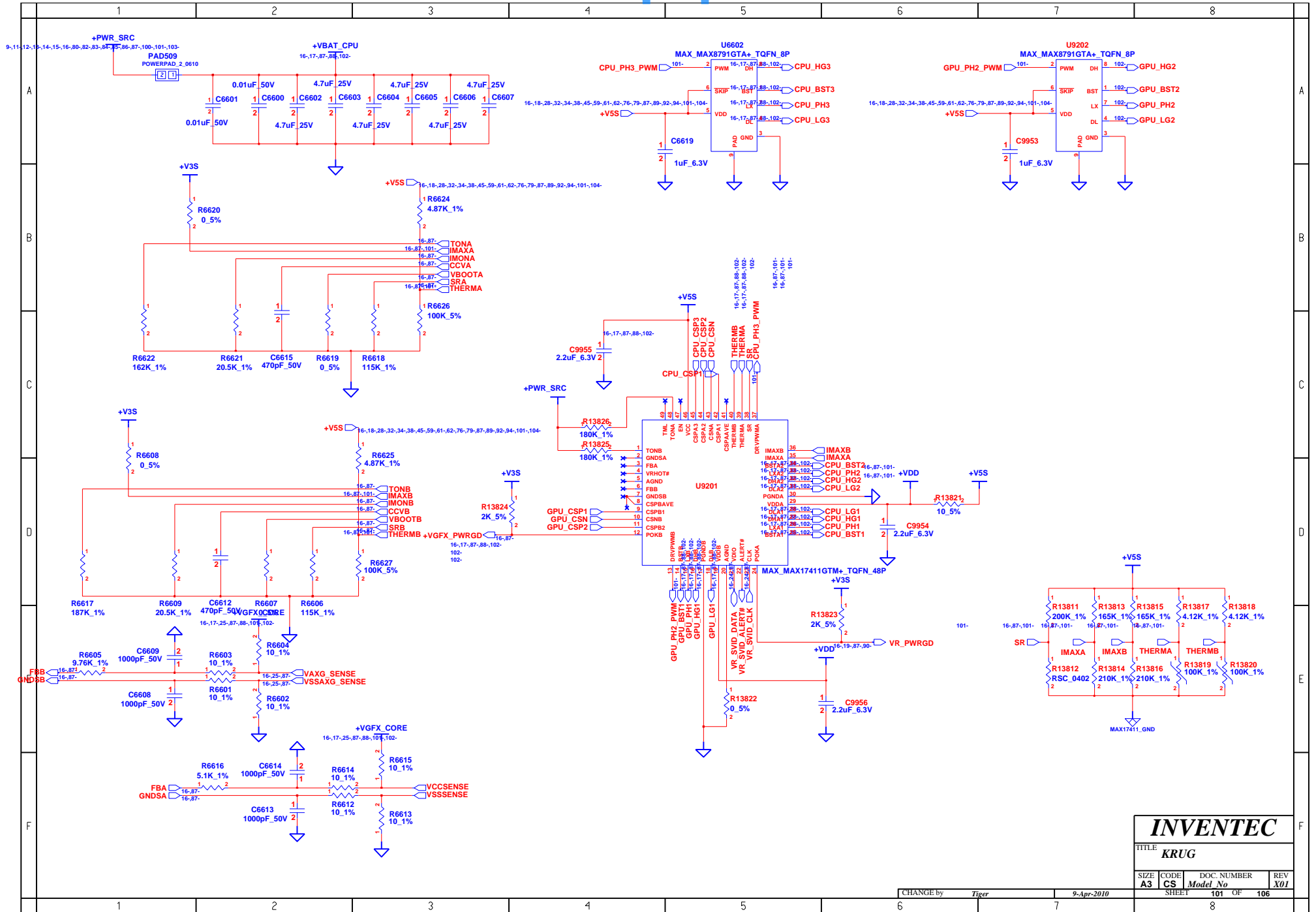


INVENTEC

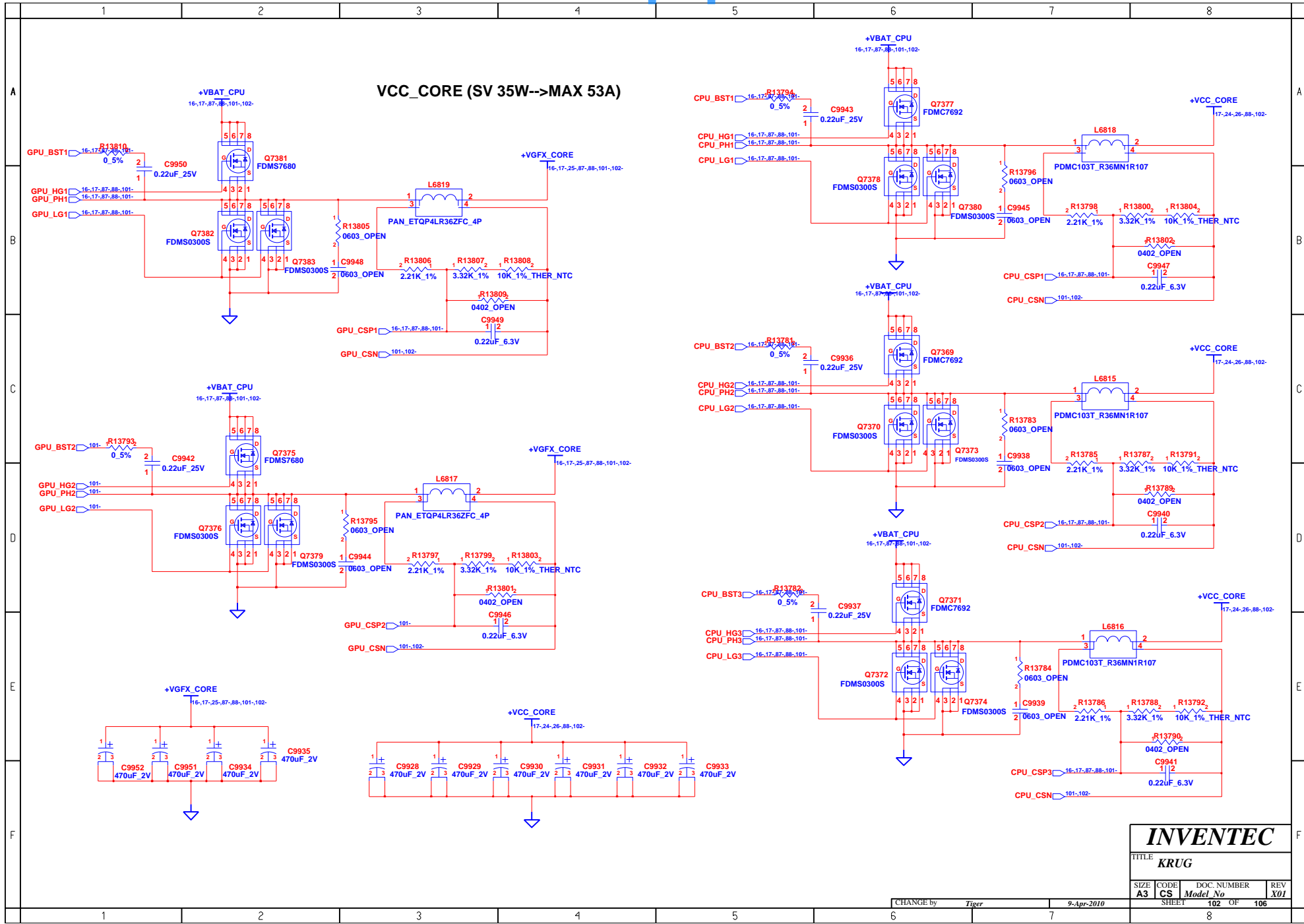
TITLE
LT131L
 Charger

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

CHANGE by *Drawer Name* 11-Dec-2009 SHEET 100 OF 106



| | | | |
|------------------------|-------------------|--------------------------------|-------------------|
| INVENTEC | | | |
| TITLE KRUG | | | |
| SIZE A3 | CODE CS | DOC. NUMBER <i>Model_No</i> | REV X01 |
| CHANGE by <i>Tiger</i> | | 9-Apr-2010 | |
| SHEET | | 101 OF 106 | |



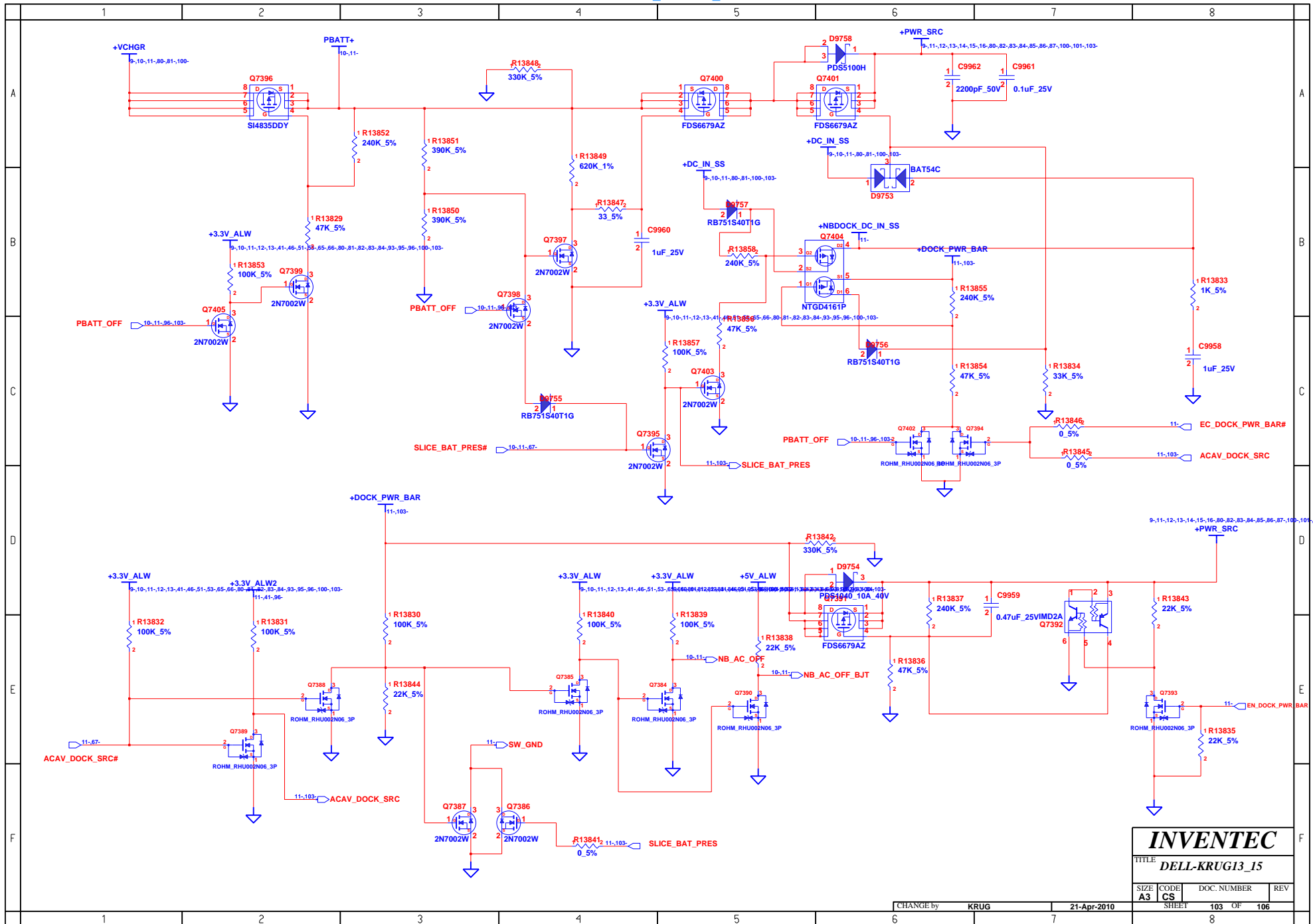
INVENTEC

TITLE
KRUG

| | | | |
|------|------|-------------|-----|
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | Model No | X01 |

| | | | |
|-------|-----|----|-----|
| SHEET | 102 | OF | 106 |
|-------|-----|----|-----|

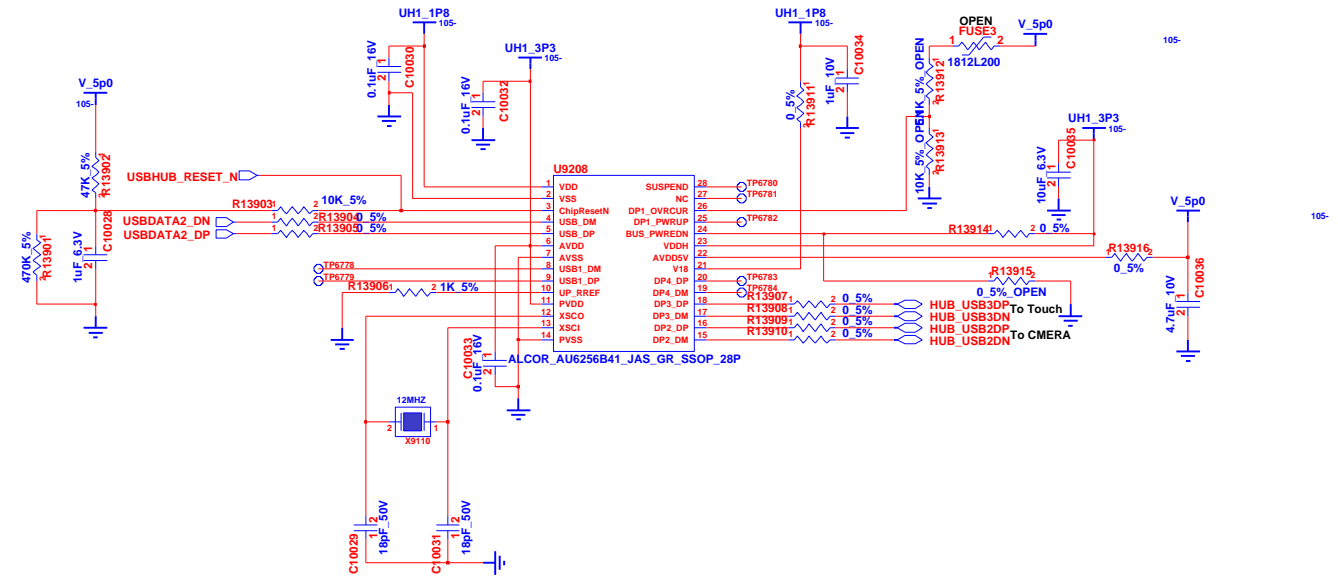
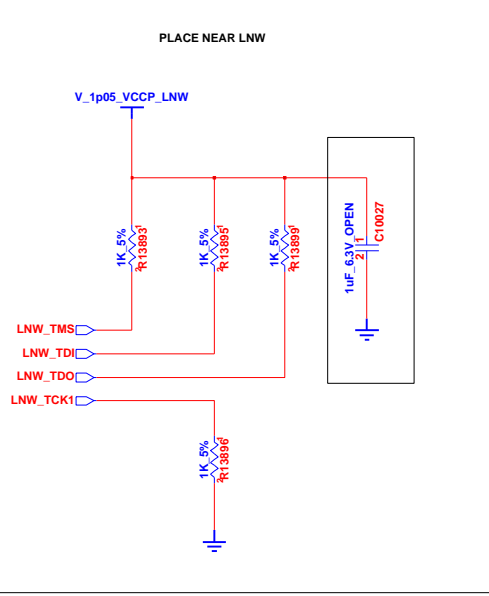
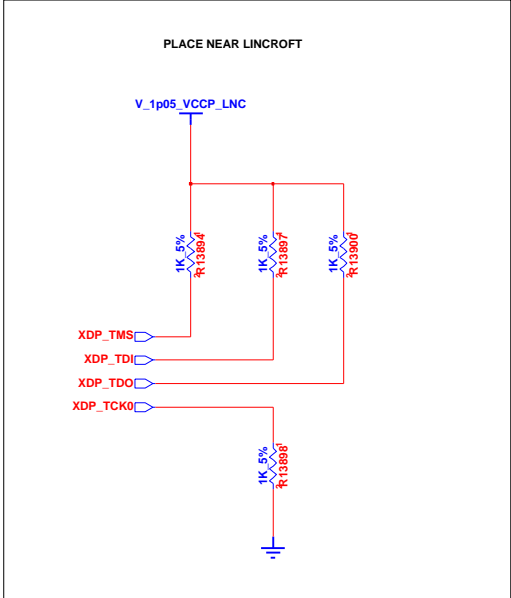
CHANGE by Tiger 9-Apr-2010

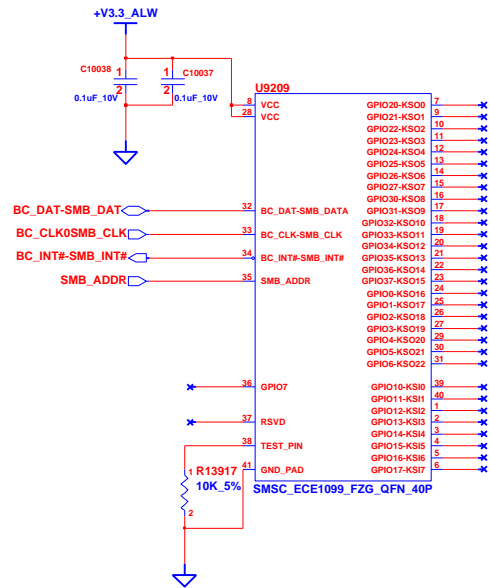


| | | | |
|----------------------|------------|-------------|--------|
| INVENTEC | | | |
| TITLE DELL-KRUG15 | | | |
| SIZE A3 | CODE CS | DOC. NUMBER | REV |
| SHEET | | 103 | OF 106 |

CHANGE by KRUG 21-Apr-2010

USB HUB1





INVENTEC

| | | | |
|------------|------|-------------|-----|
| TITLE | | | |
| KRUG13_15 | | | |
| GENERAL IO | | | |
| SIZE | CODE | DOC. NUMBER | REV |
| A3 | CS | 106 OF 106 | |

CHANGE by KRUG 22-Apr-2010

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