

2008/04/08

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INVENTEC

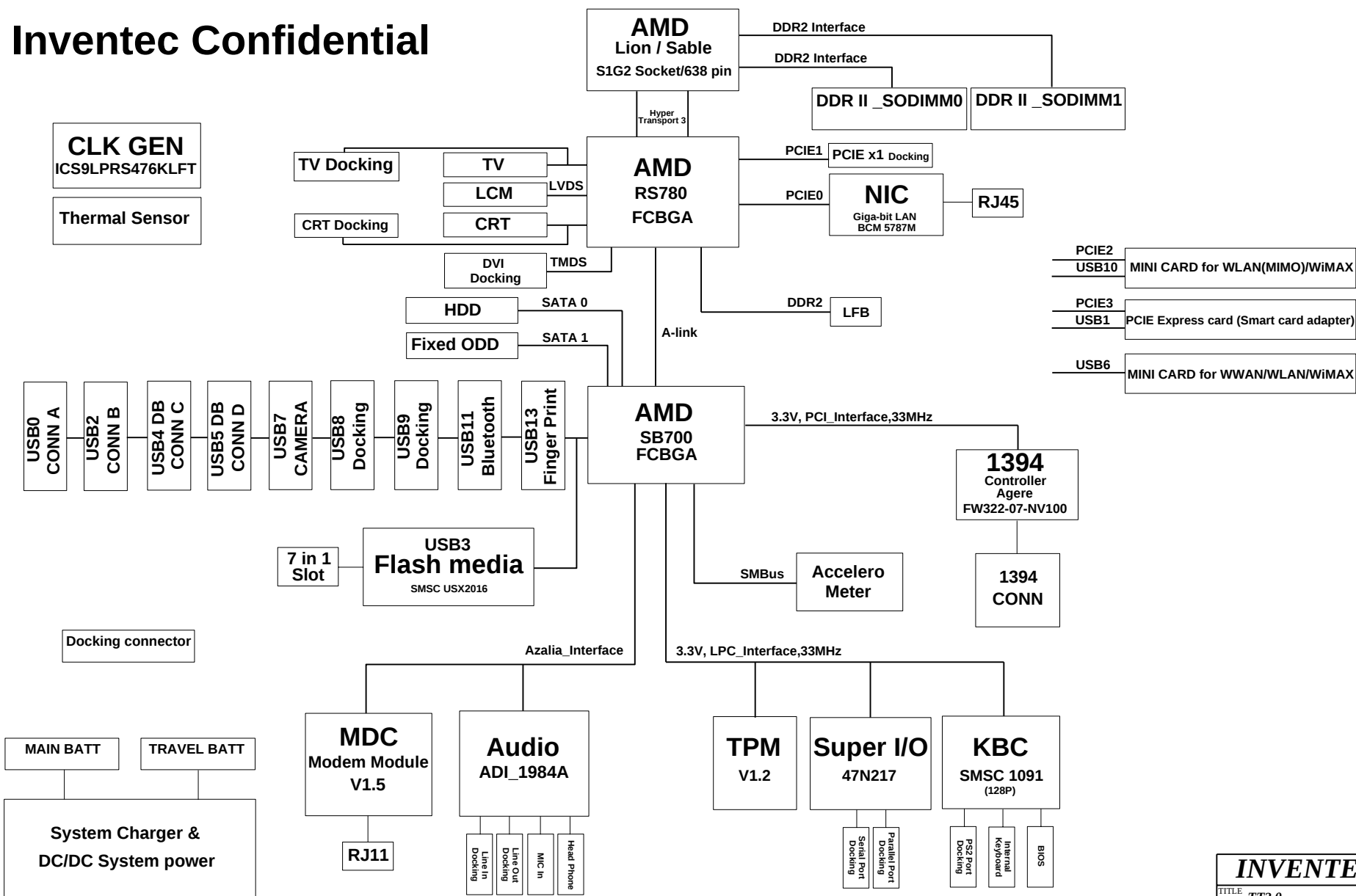
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SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
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CHANGE by *Kevin Hsiao* 8-Apr-2008

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Inventec Confidential



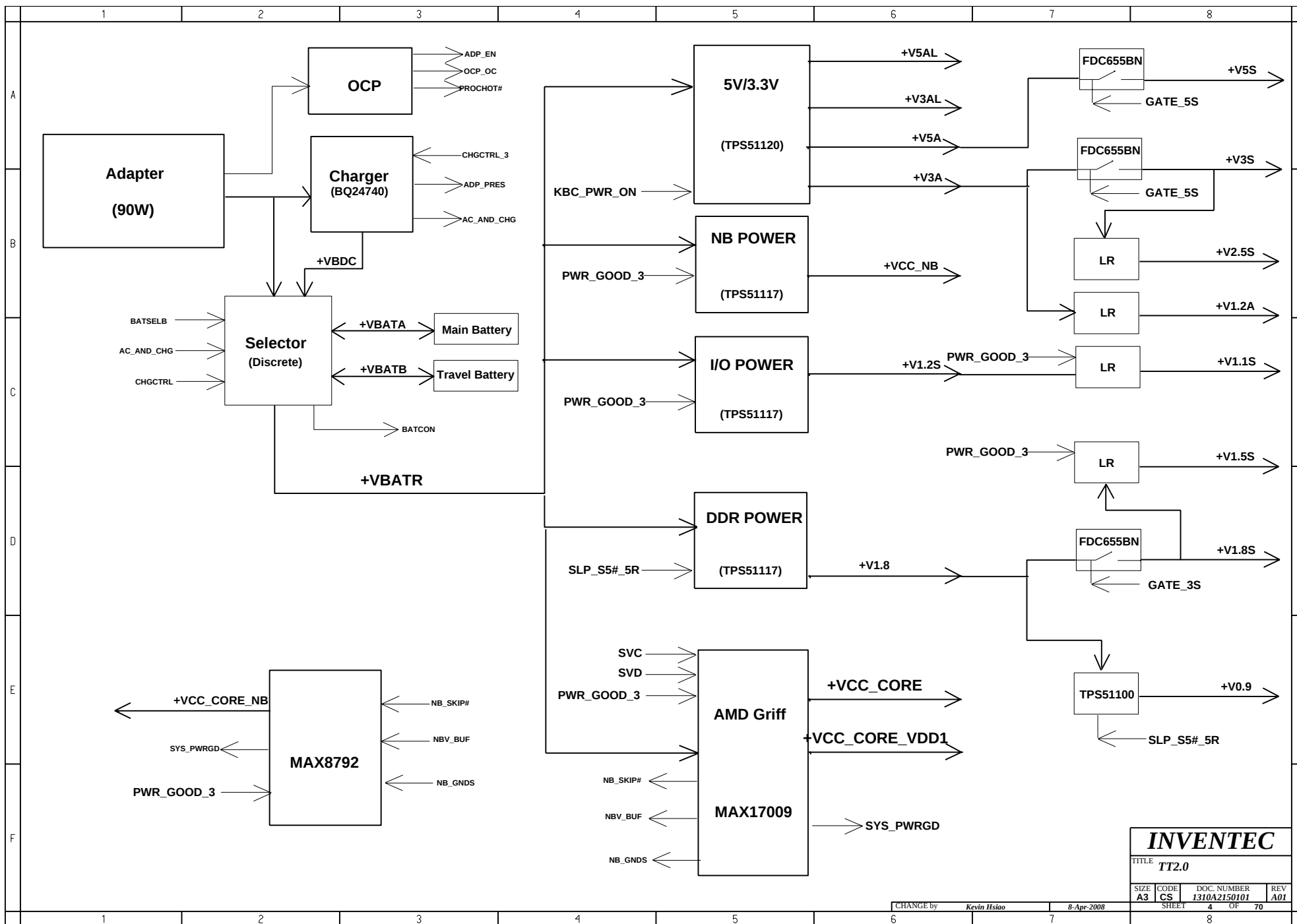
INVENTEC

TITLE
TT2.0
Block Diagram

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 3 OF 70



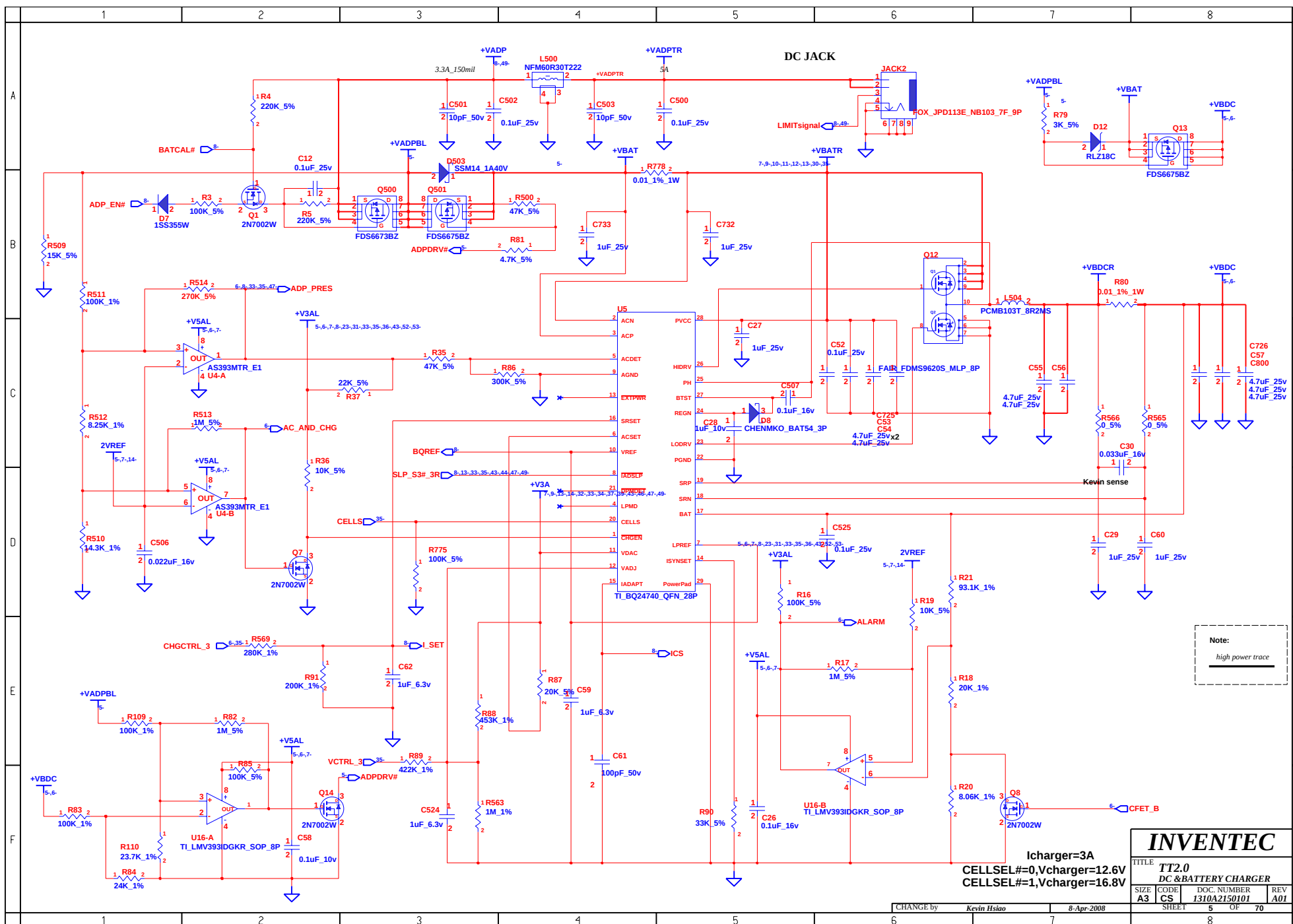
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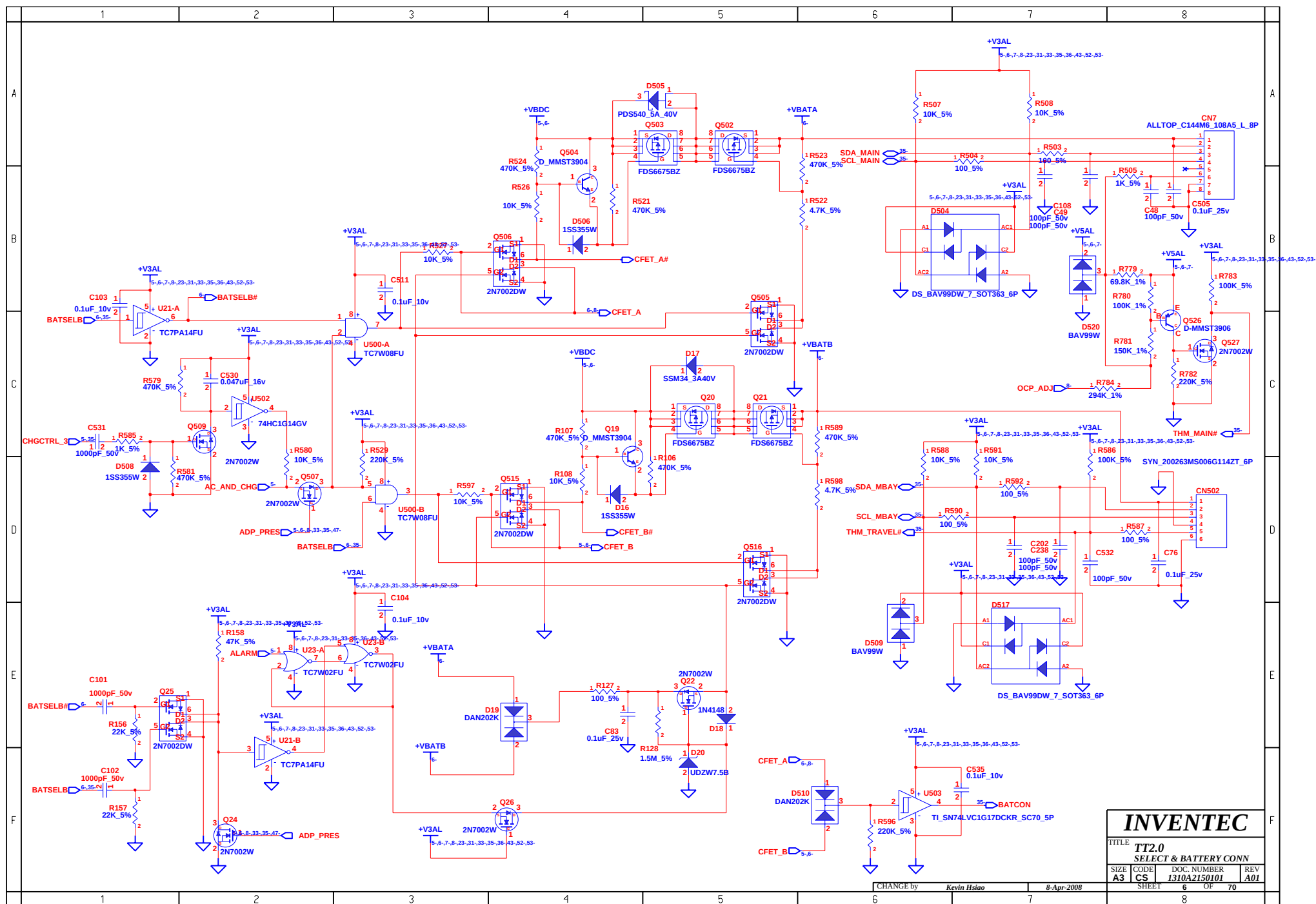
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TT2.0

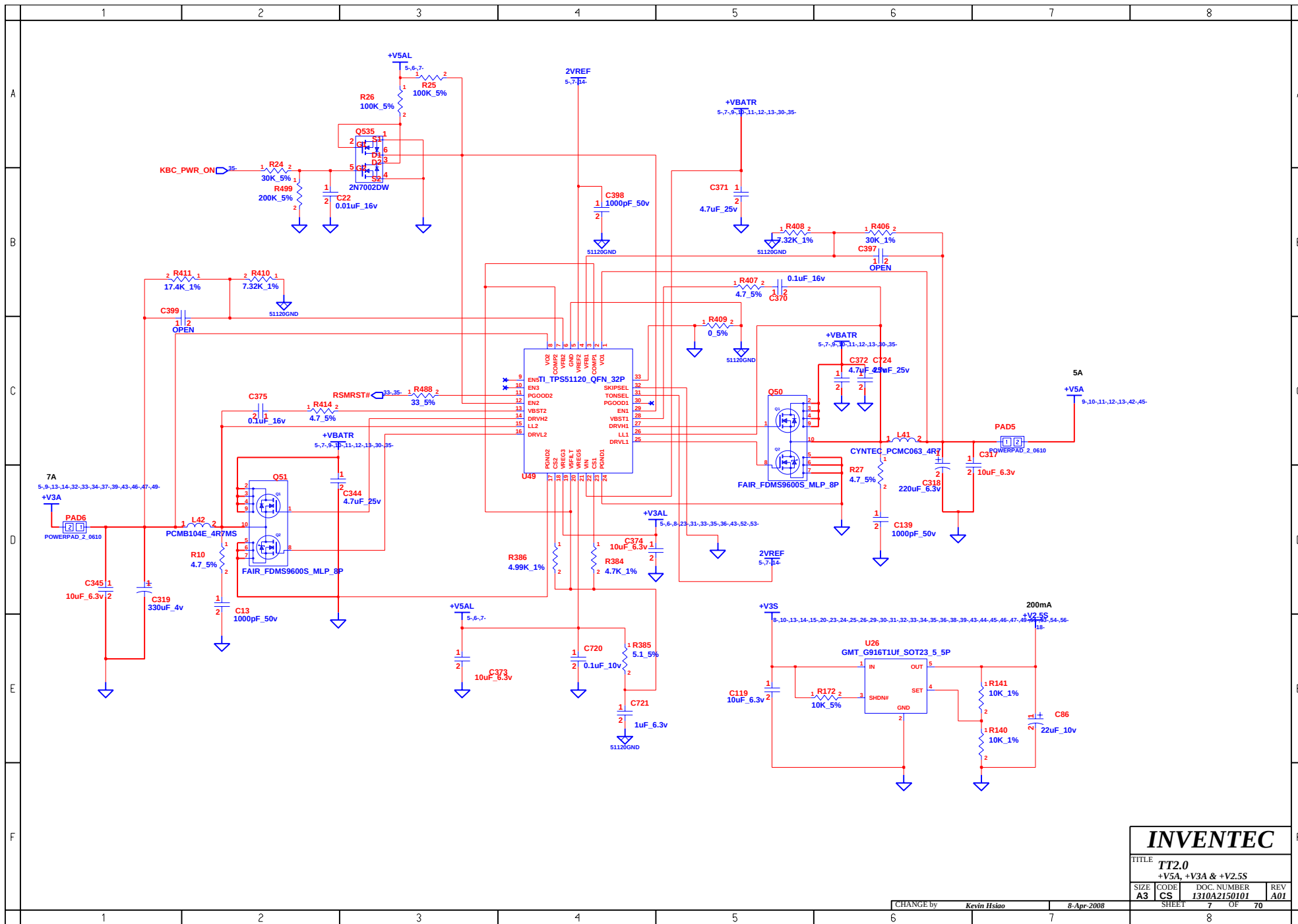
SIZE A3	CODE CS	DOC. NUMBER I310A2150101	REV A01
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CHANGE by Kevin Hsiao 8-Apr-2008

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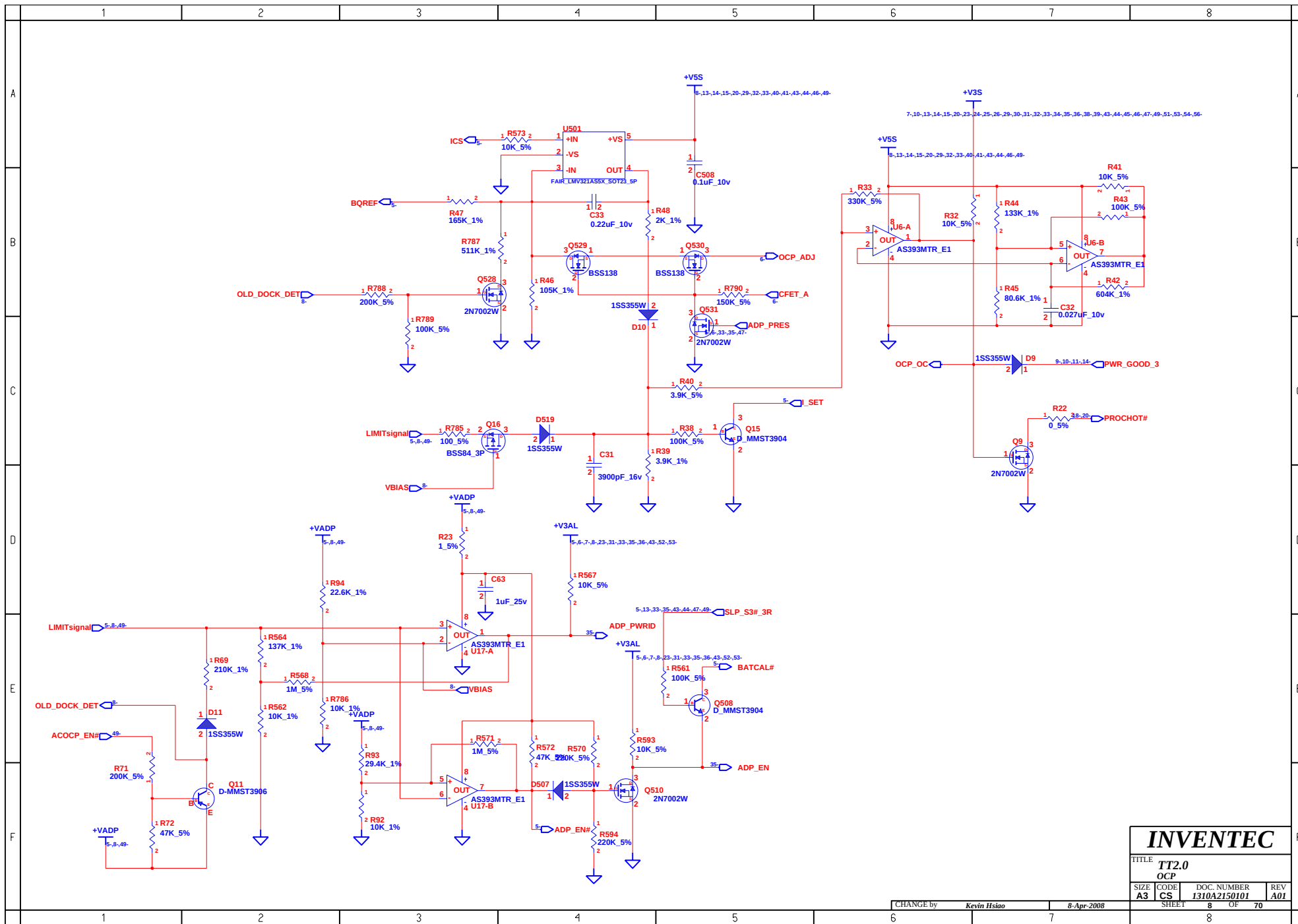


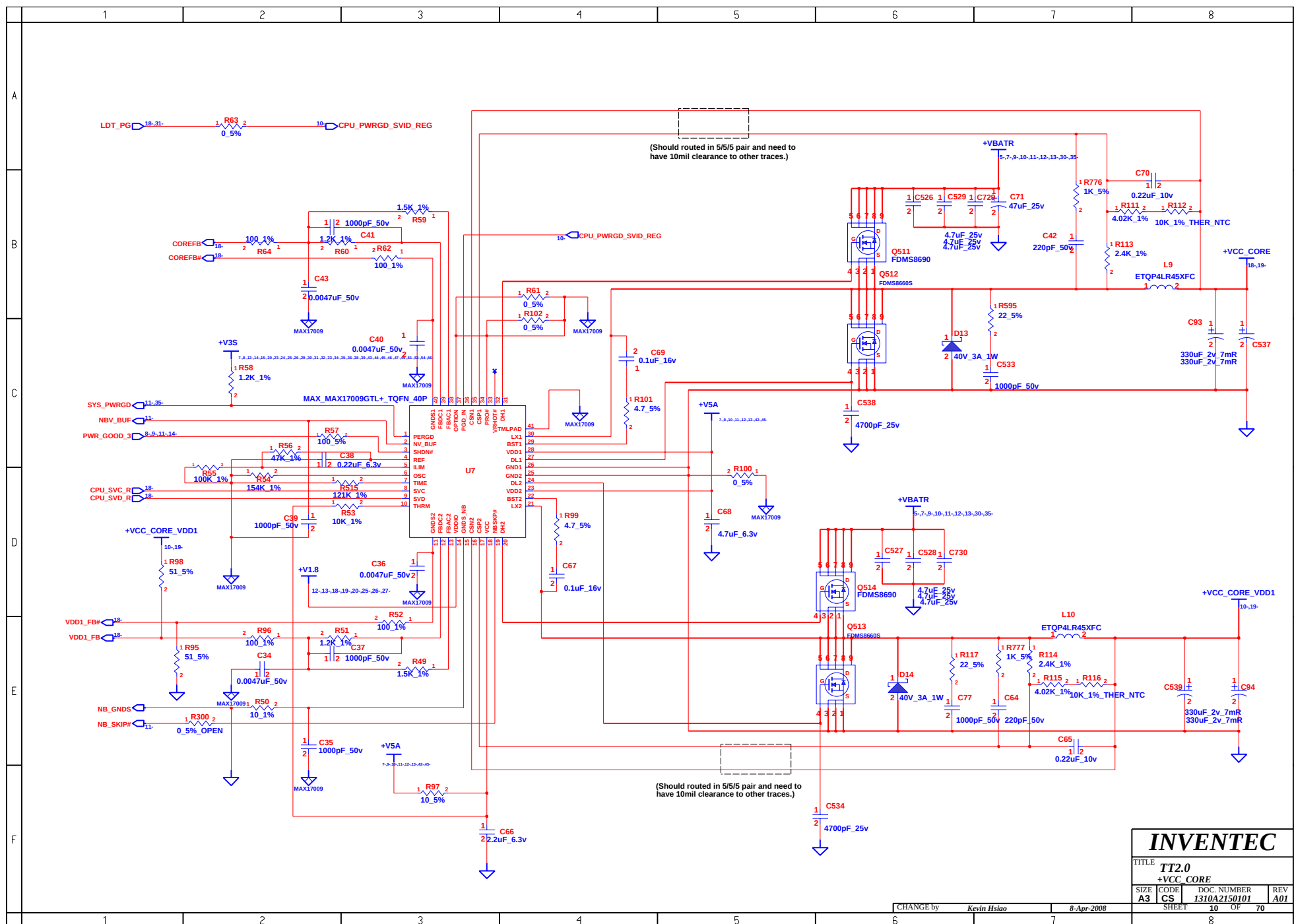
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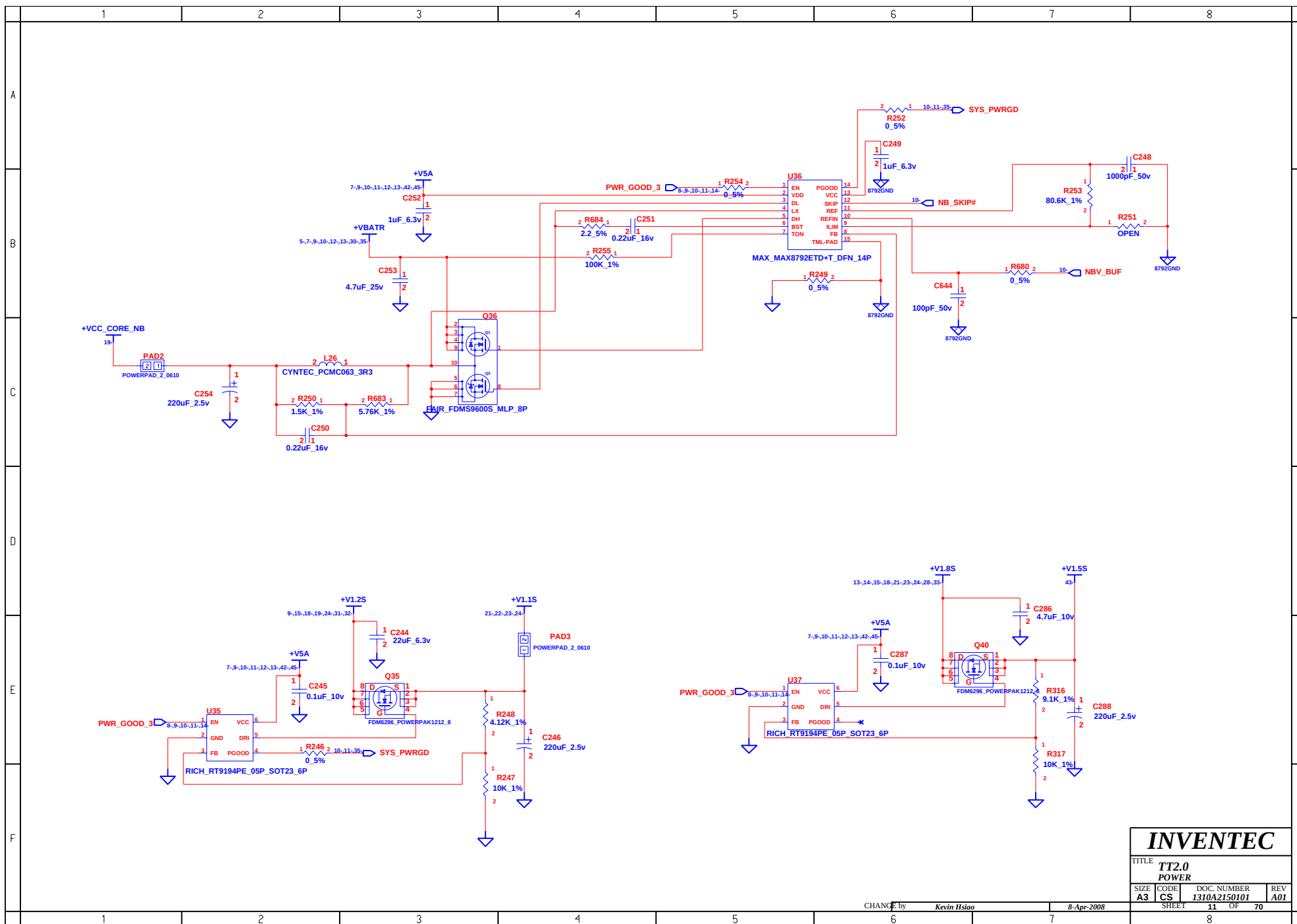
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SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

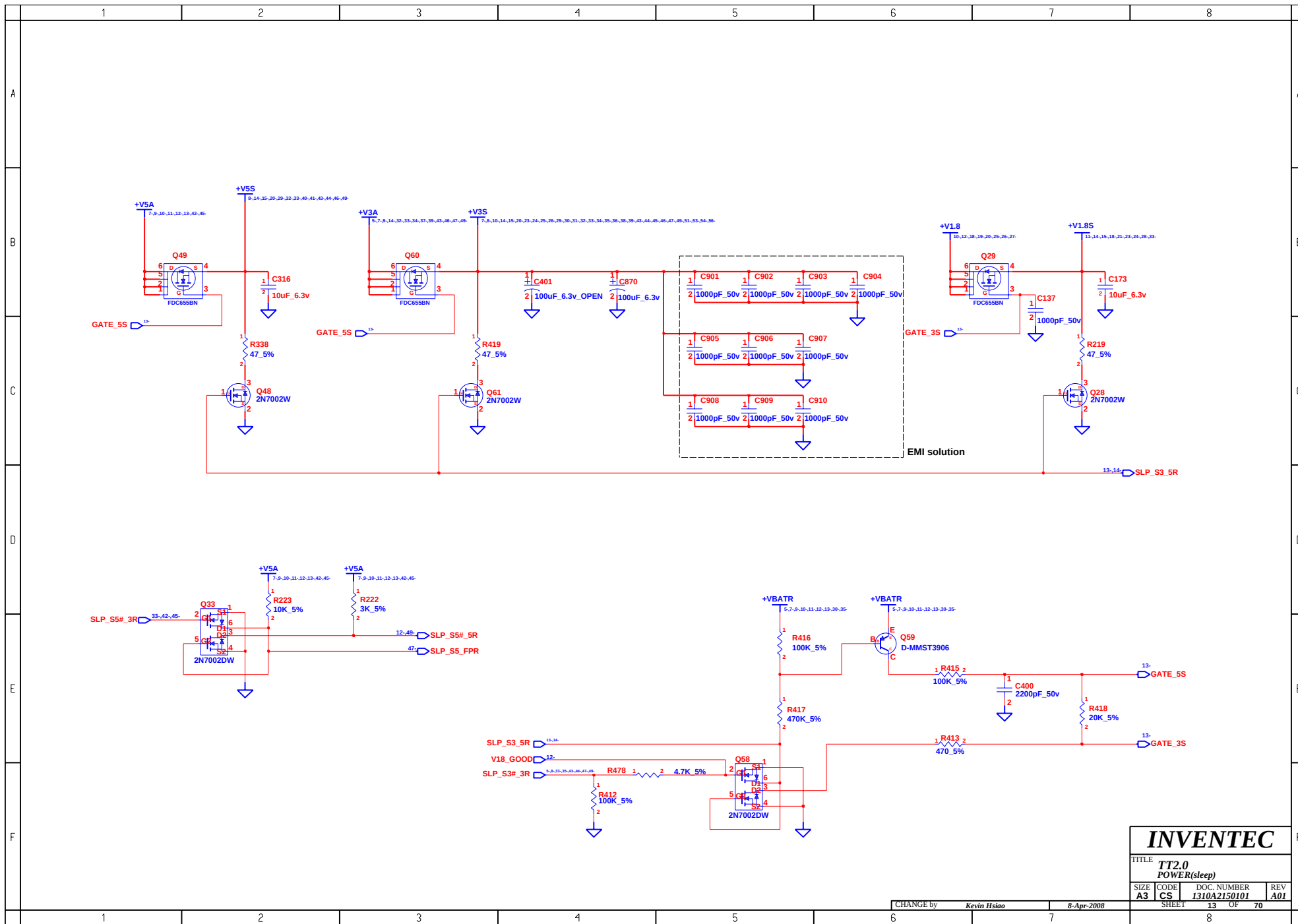
CHANGE by Kevin Hsiao 8-Apr-2008

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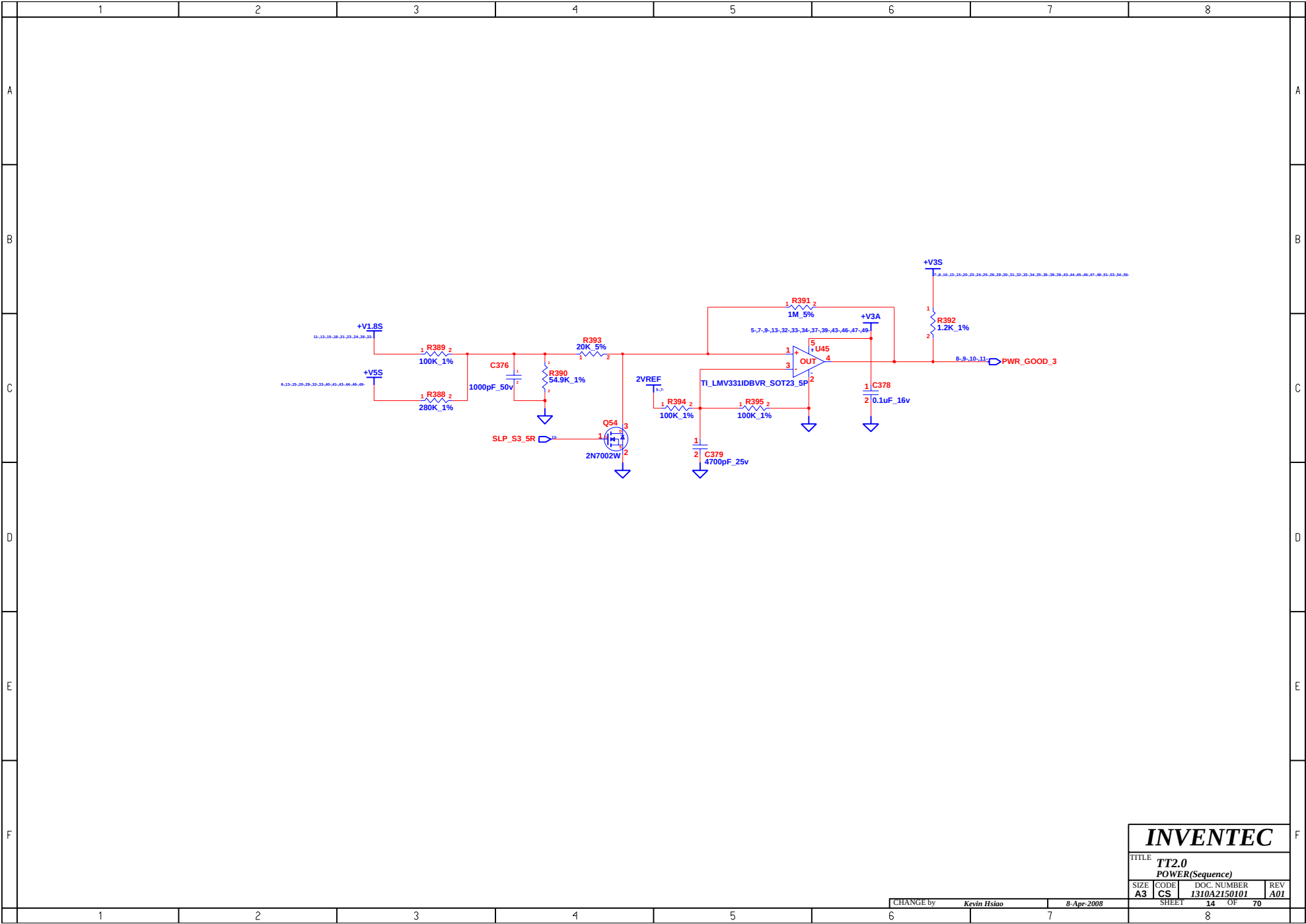
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TITLE
TT2.0
POWER(sleep)

SIZE A3	CODE CS	DOC. NUMBER I310A2150101	REV A01
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CHANGE by Kevin Hsiao 8-Apr-2008

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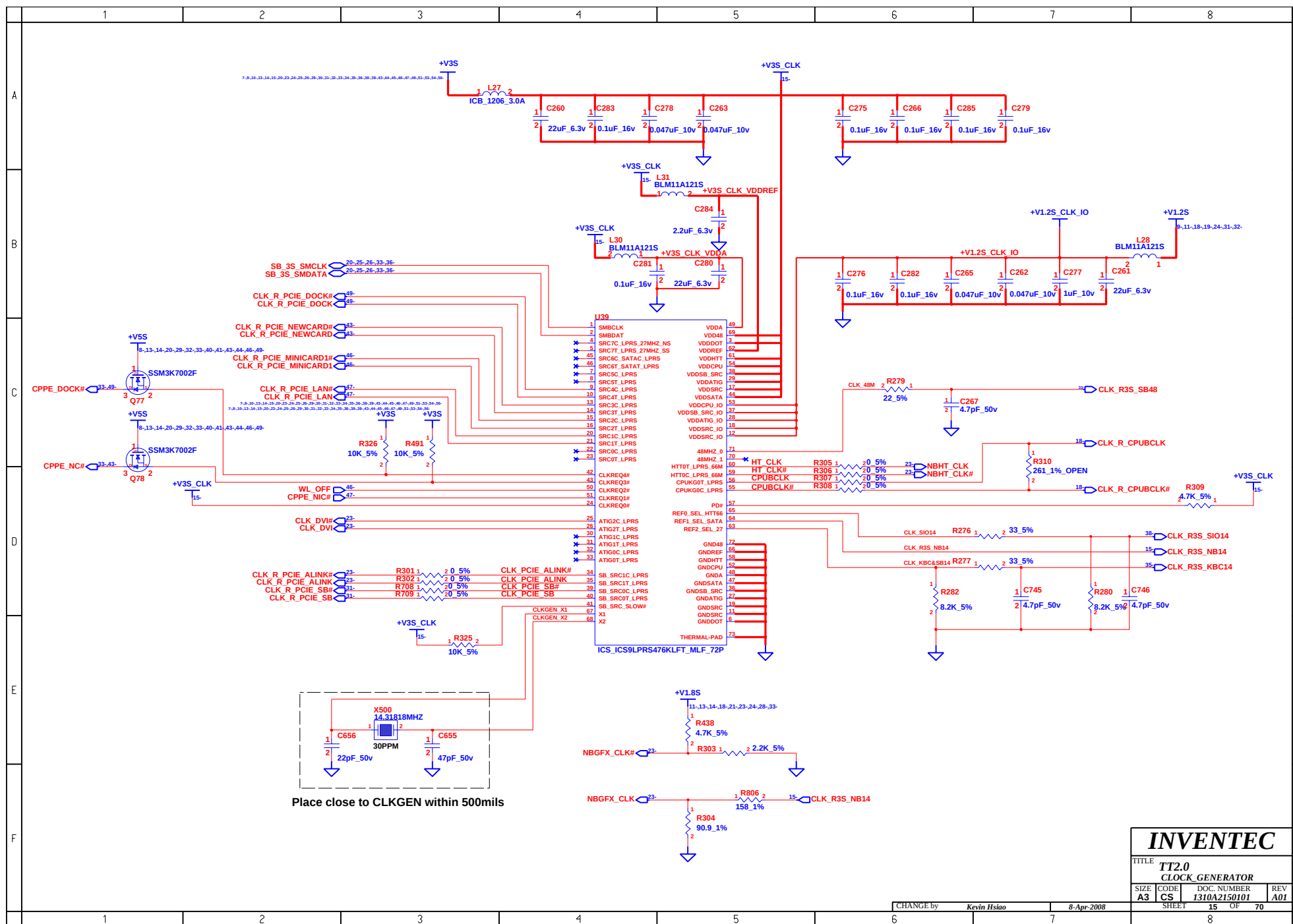


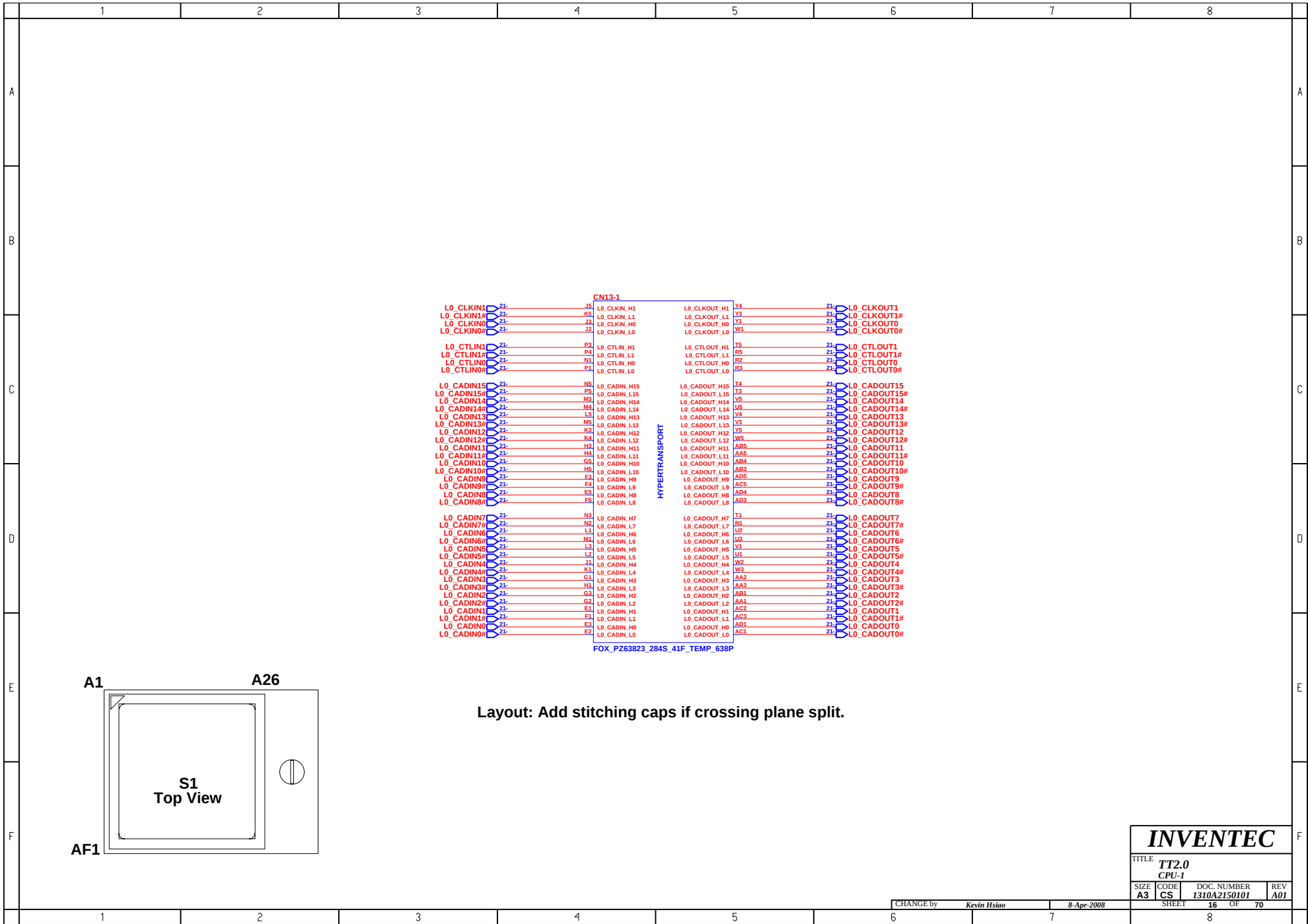
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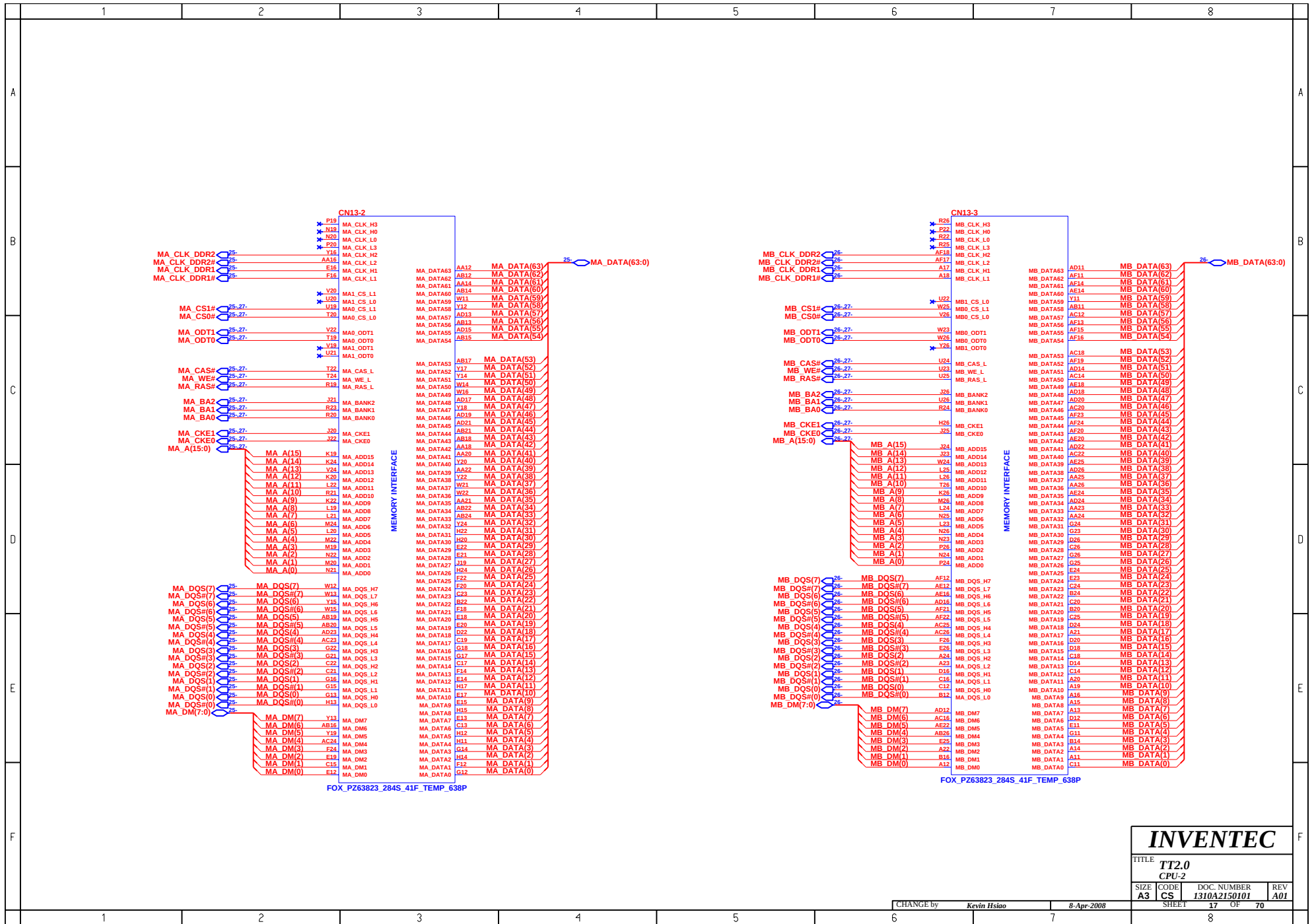
TITLE			
TT2.0			
POWER(Sequence)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

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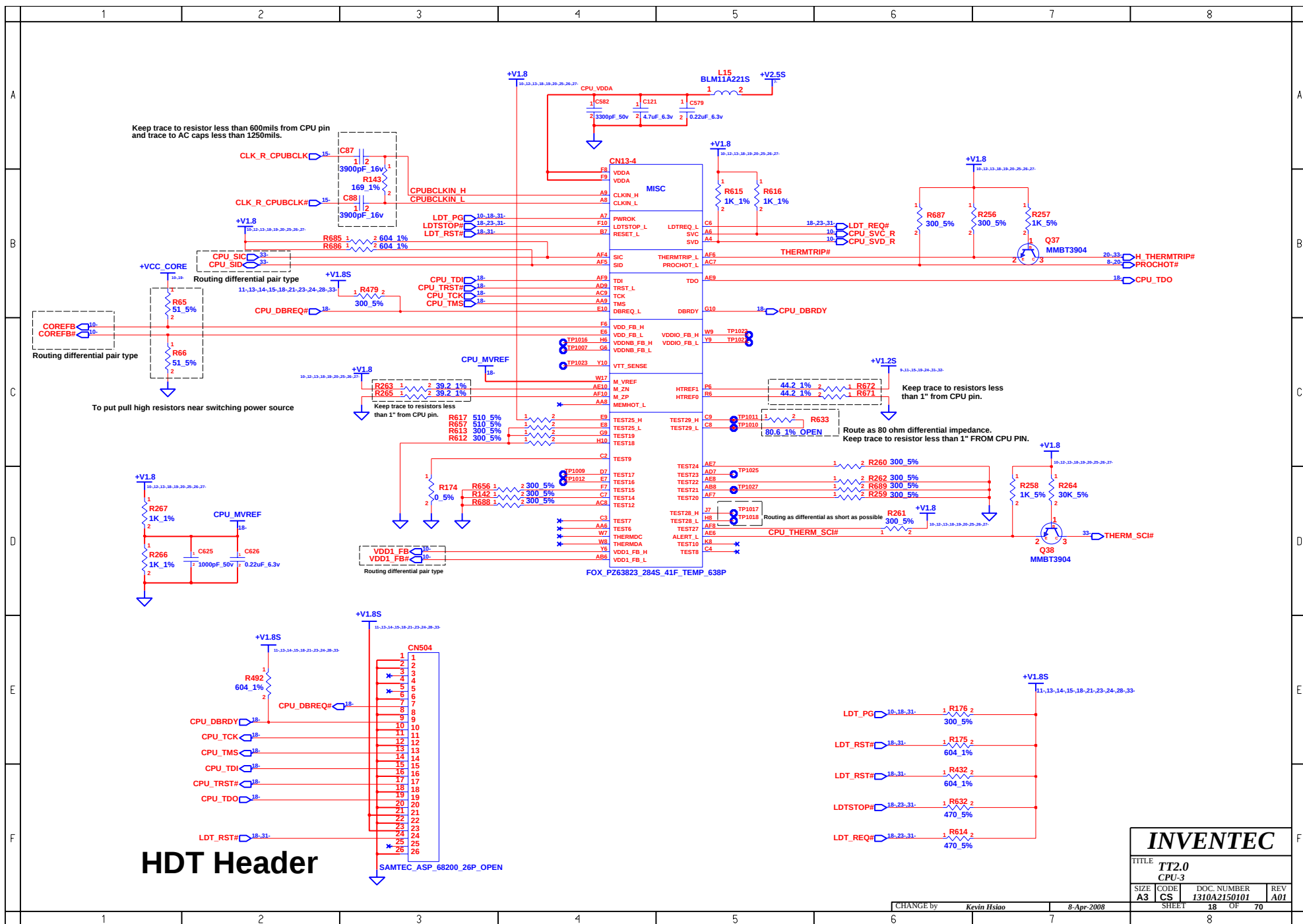


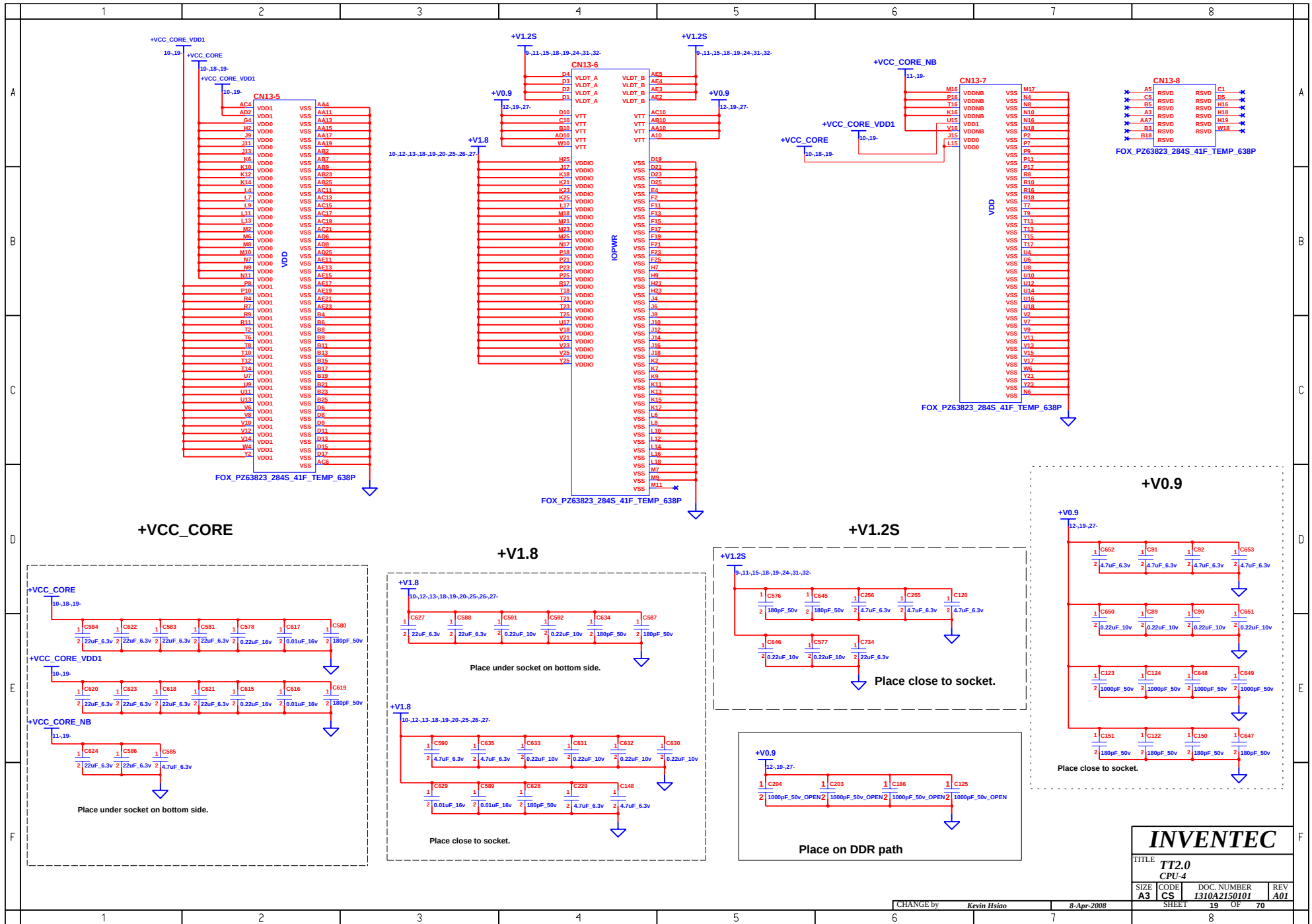


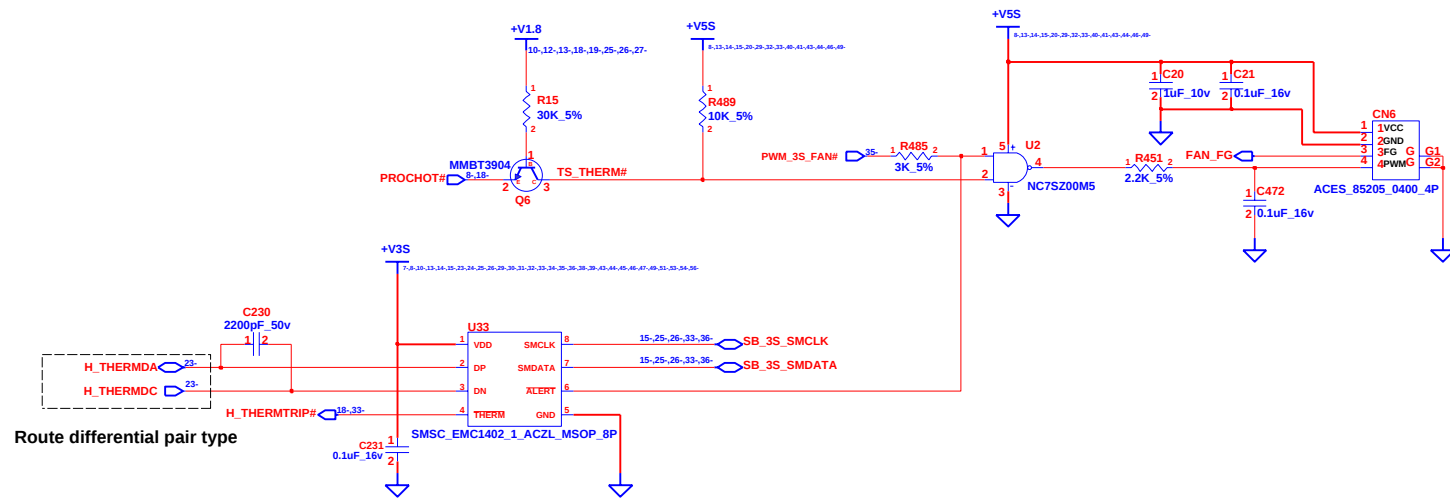


INVENTEC

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TT2.0			
CPU-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01







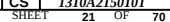
LAYOUT Note: Put the thermal sensor close to CPU.

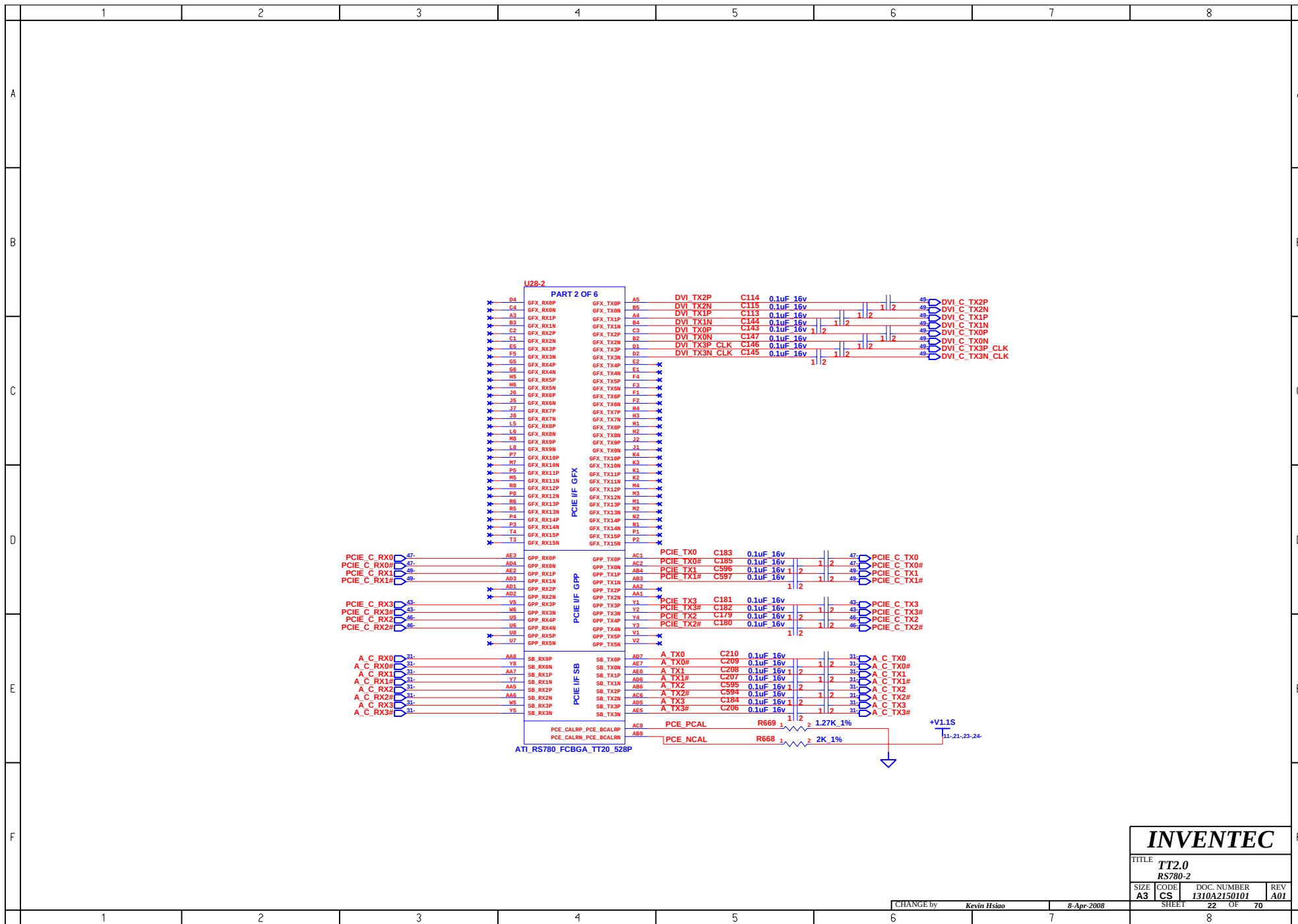
INVENTEC

TITLE			
TT2.0			
THERMAL&FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310AZ150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

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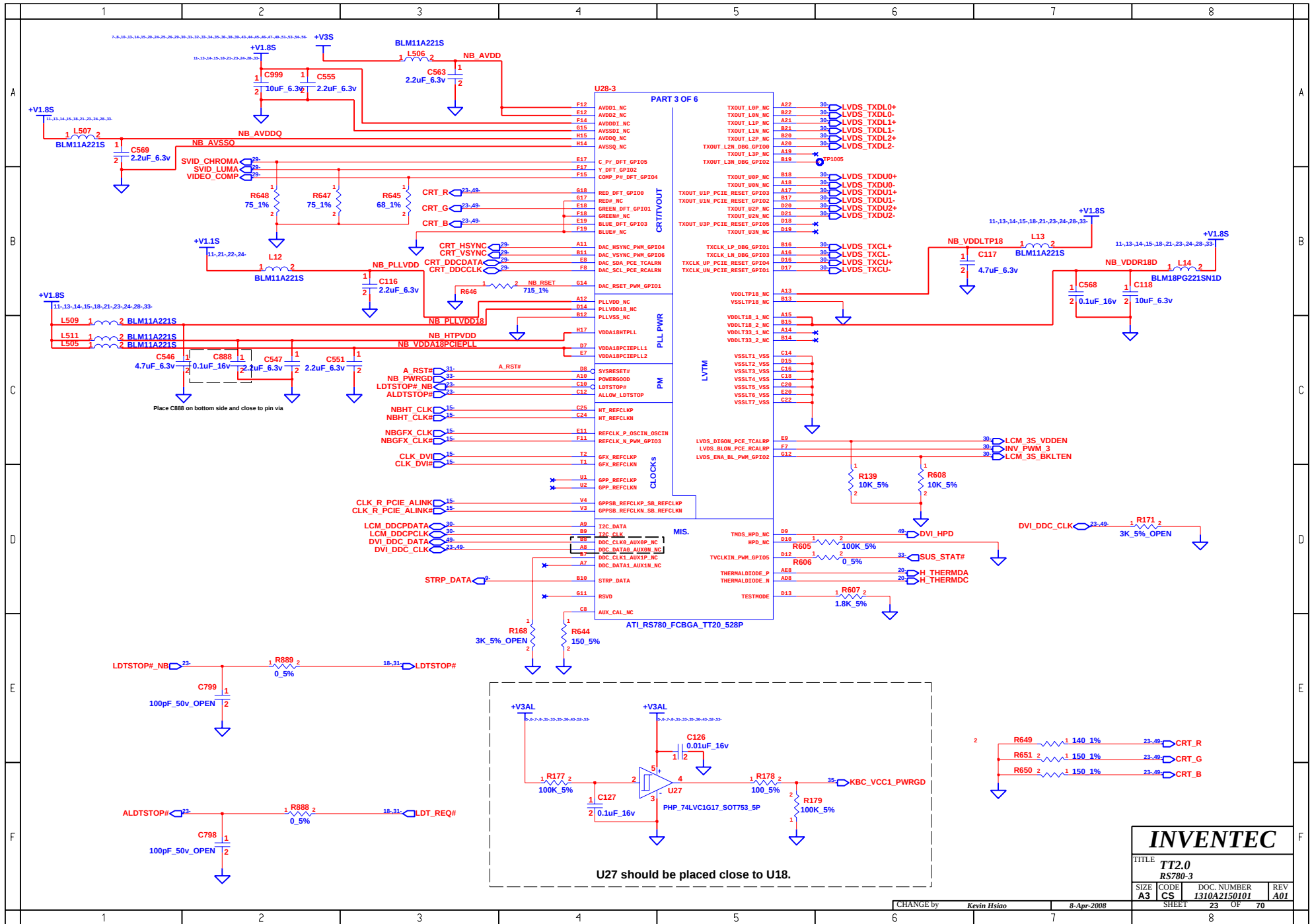


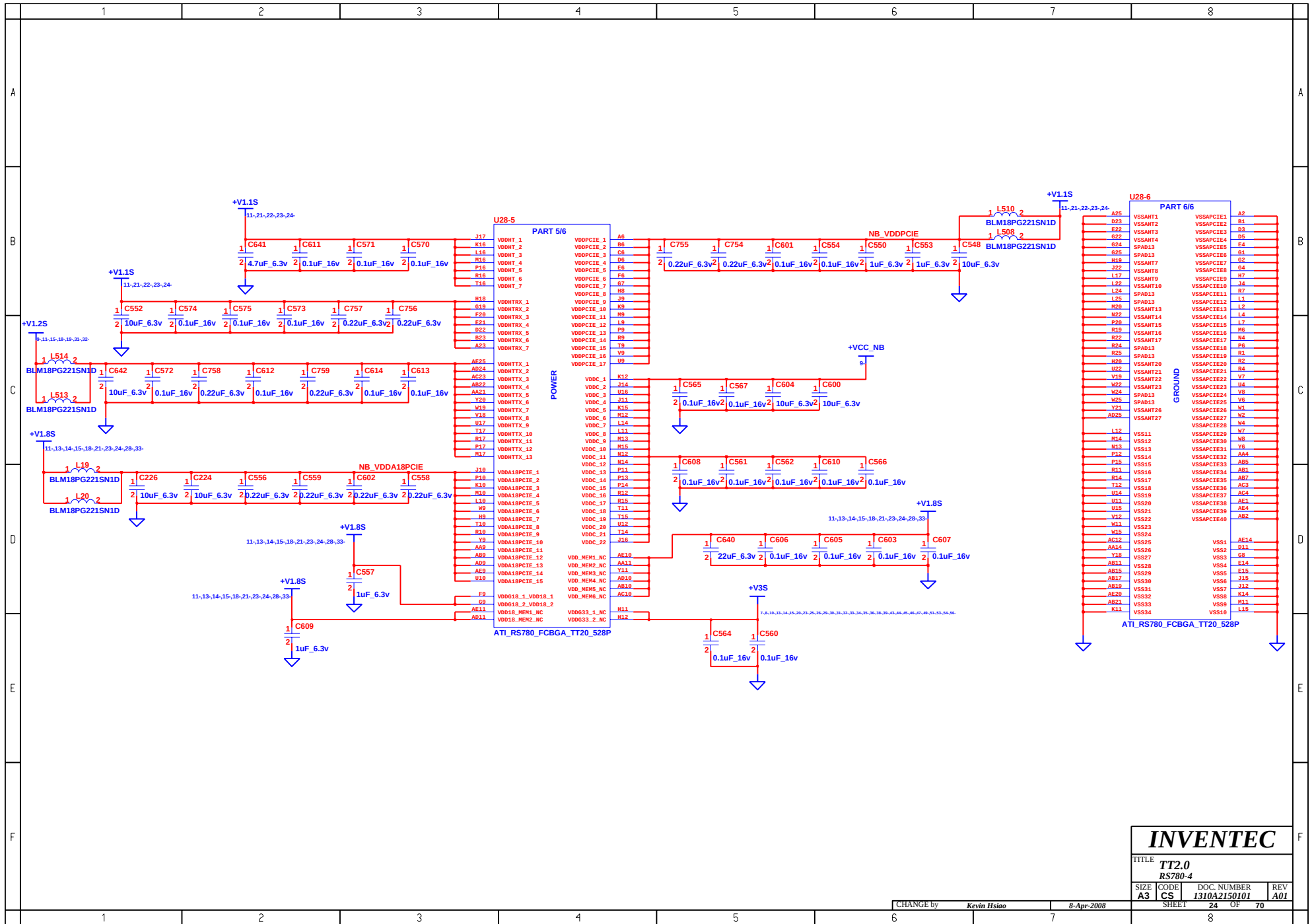


INVENTEC

TITLE			
TT2.0			
RS780-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
SHEET 22 OF 70			

CHANGE by Kevin Hsiao 8-Apr-2008



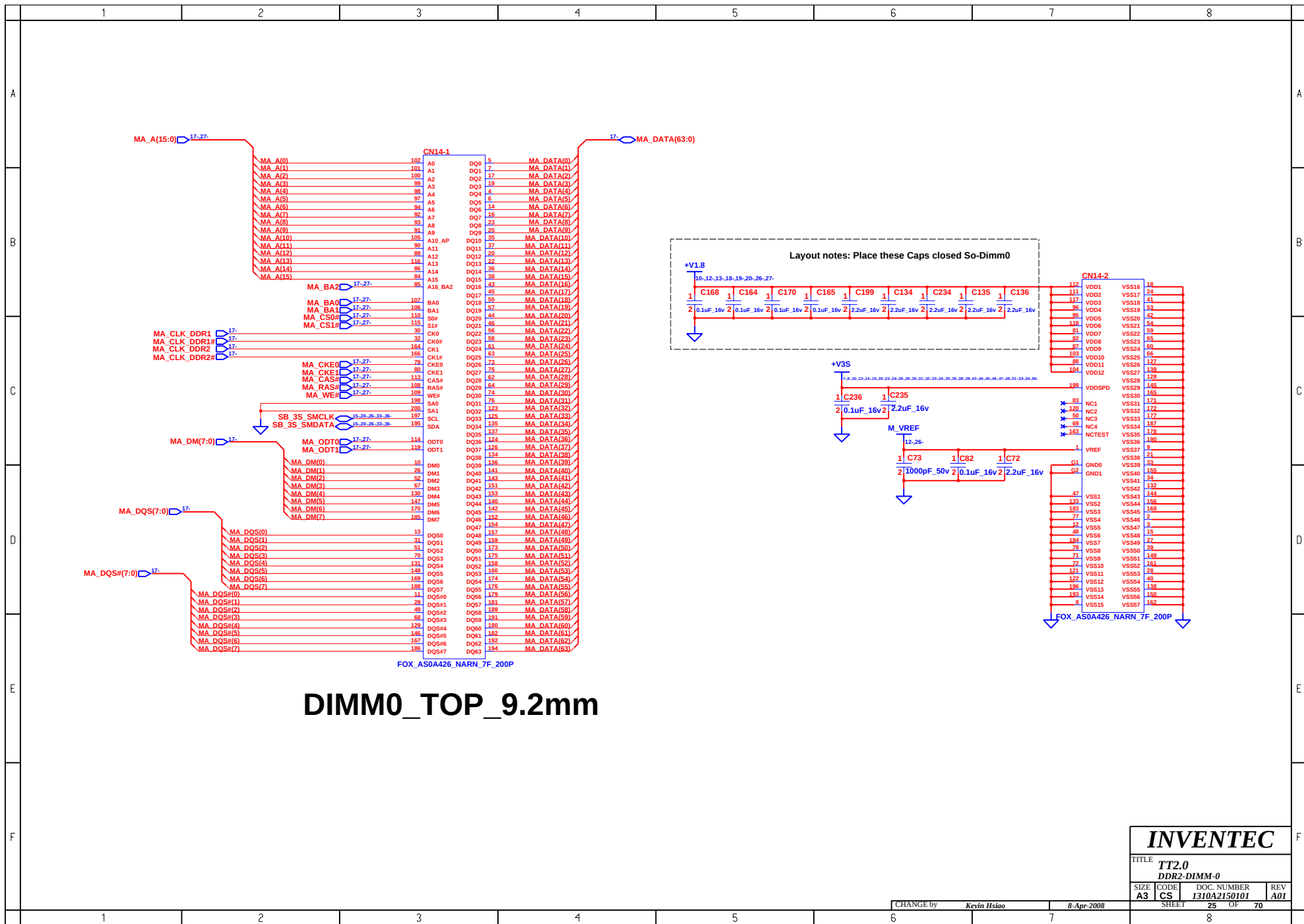


INVENTEC

TITLE TT2.0 RS780-4			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101	REV A01
SHEET 24		OF 70	

CHANGE by Kevin Hsiao 8-Apr-2008

8



DIMM0_TOP_9.2mm

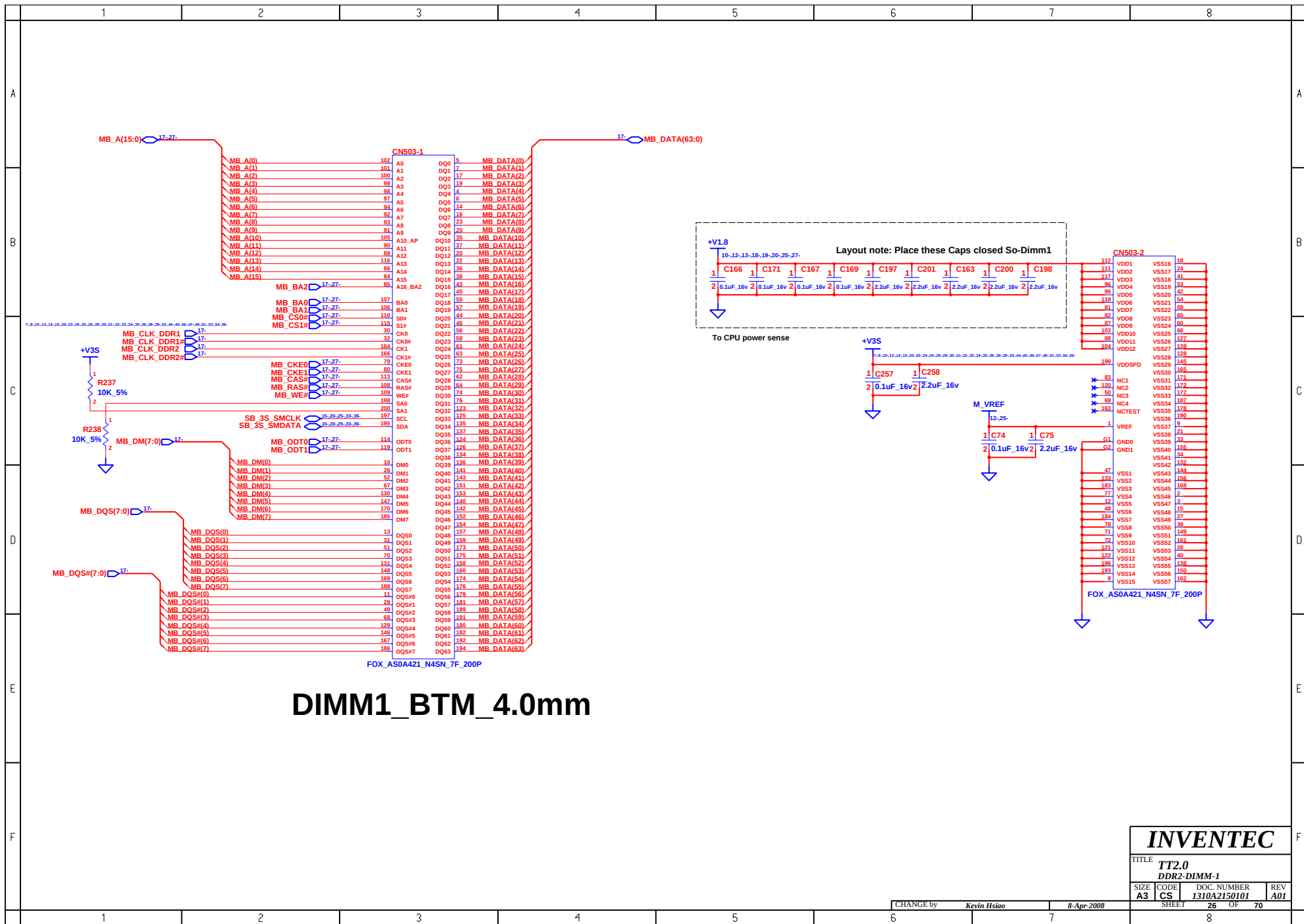
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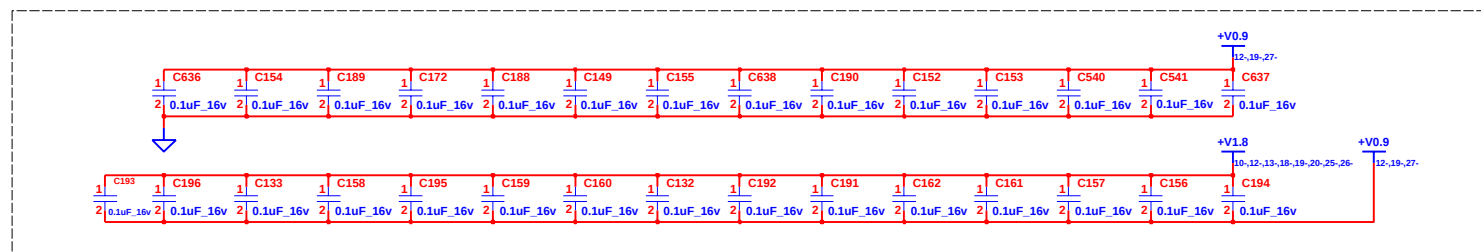
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TT2.0
DDR2-DIMM-0

SIZE CODE DOC. NUMBER REV
A3 CS 1310A2150101 A01

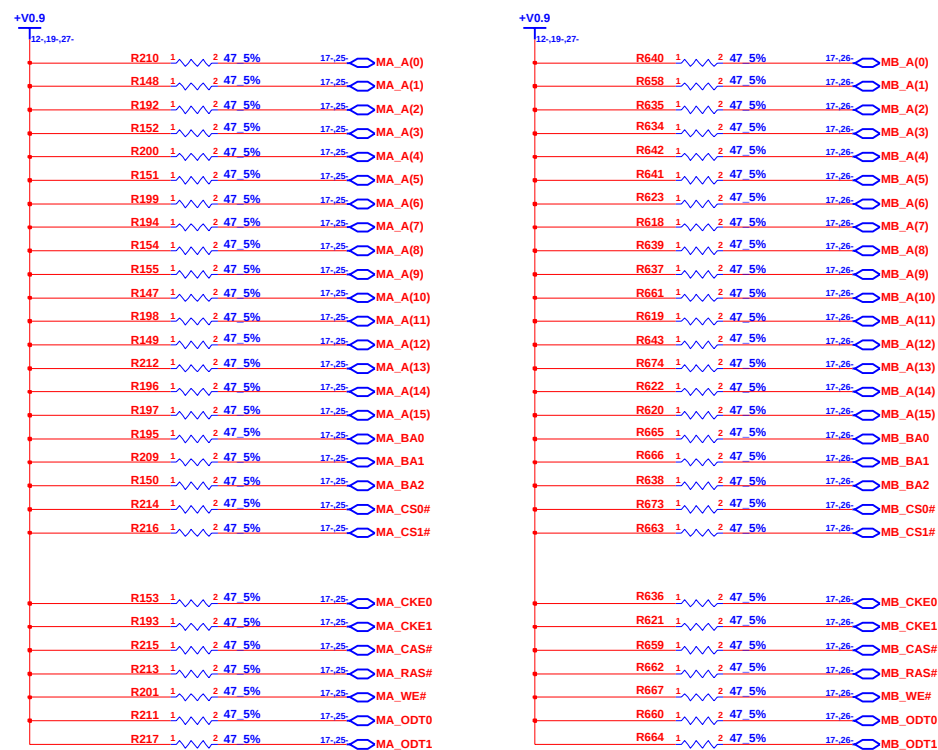
CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 25 OF 70

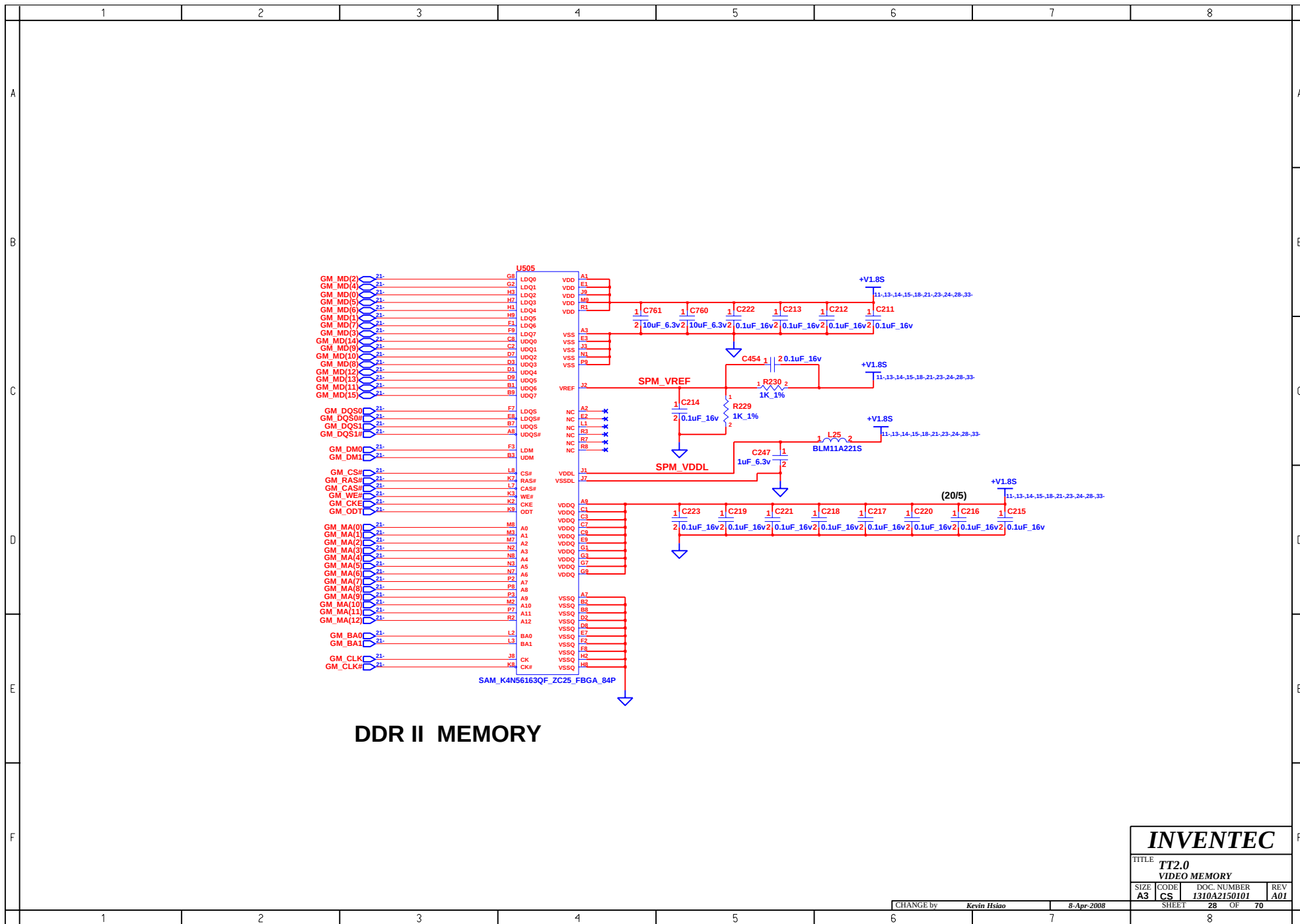


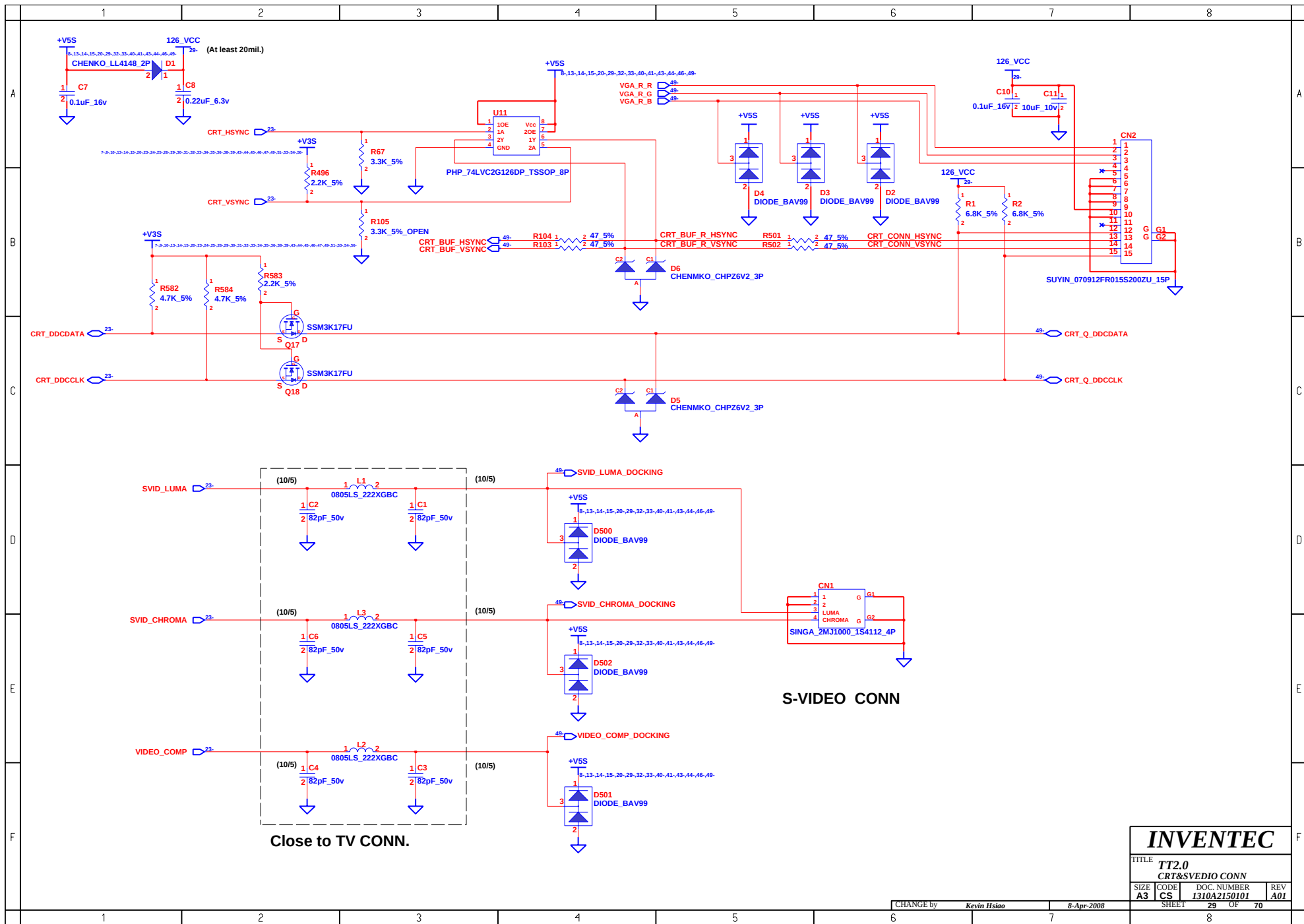


Place CAPs close to DIMM



INVENTEC			
TITLE TT2.0 DDR2-DAMPING			
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
SHEET		27	OF 70



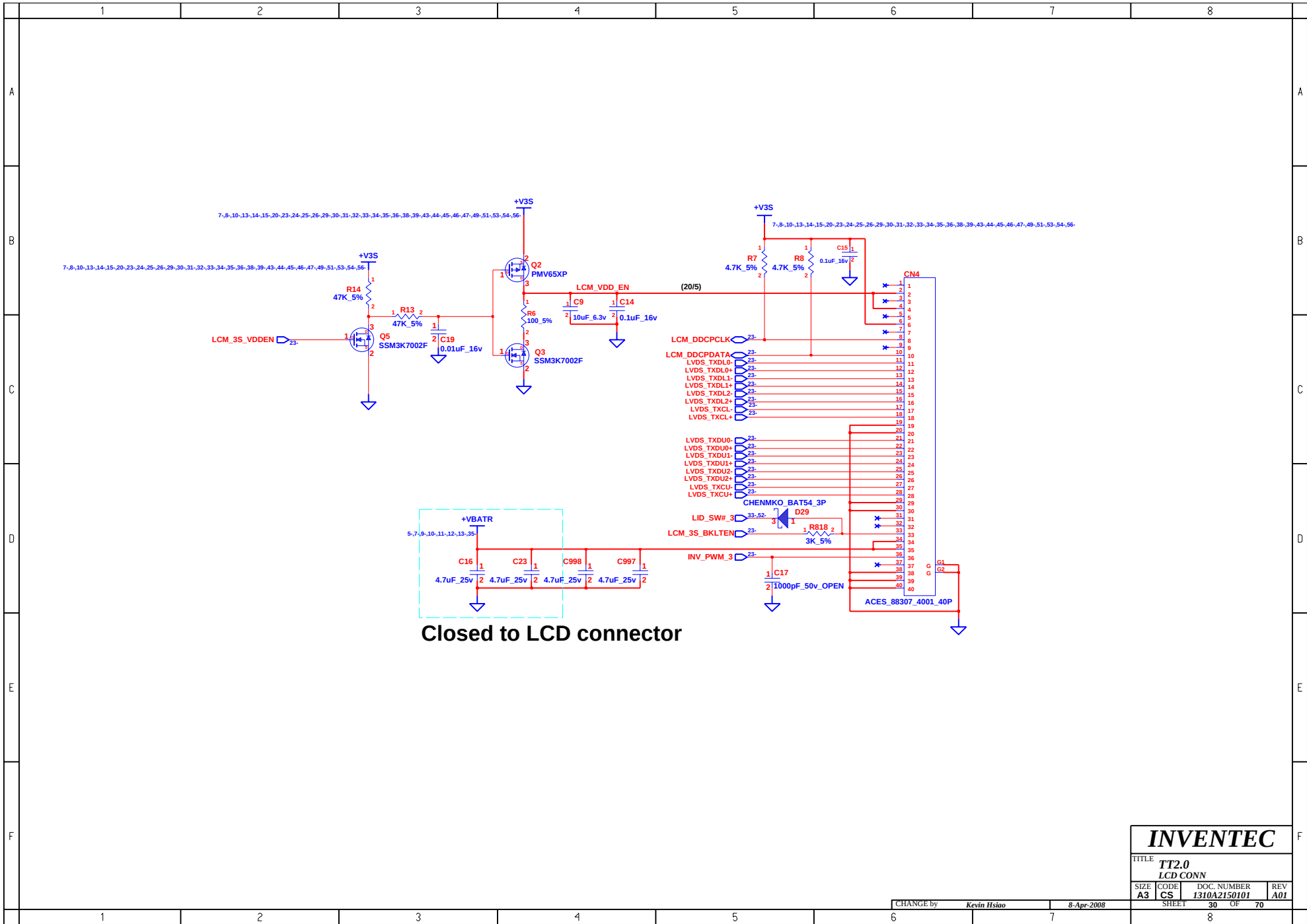


INVENTEC

TITLE			
TT2.0			
CRT&SVEDIO CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 29 OF 70

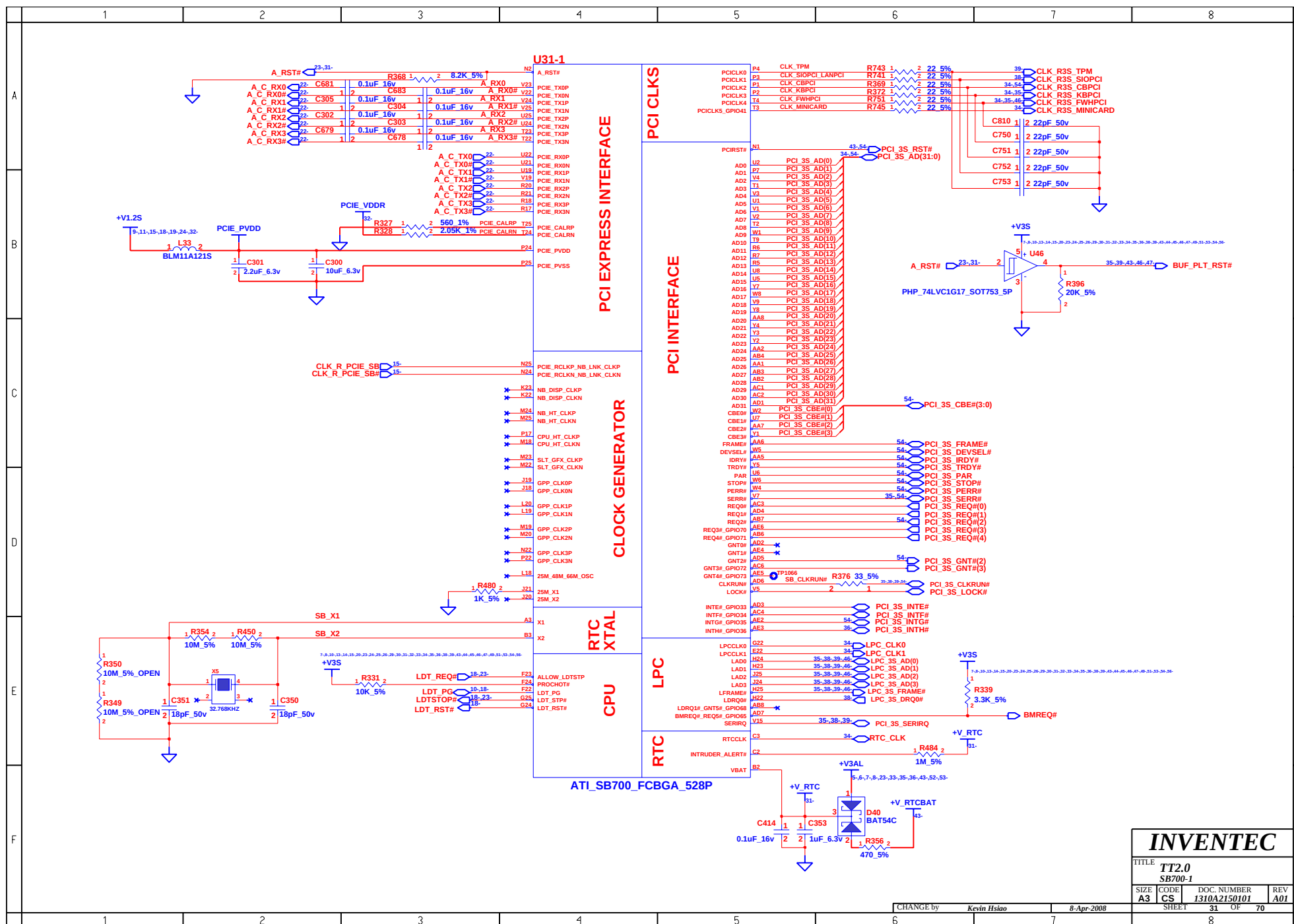


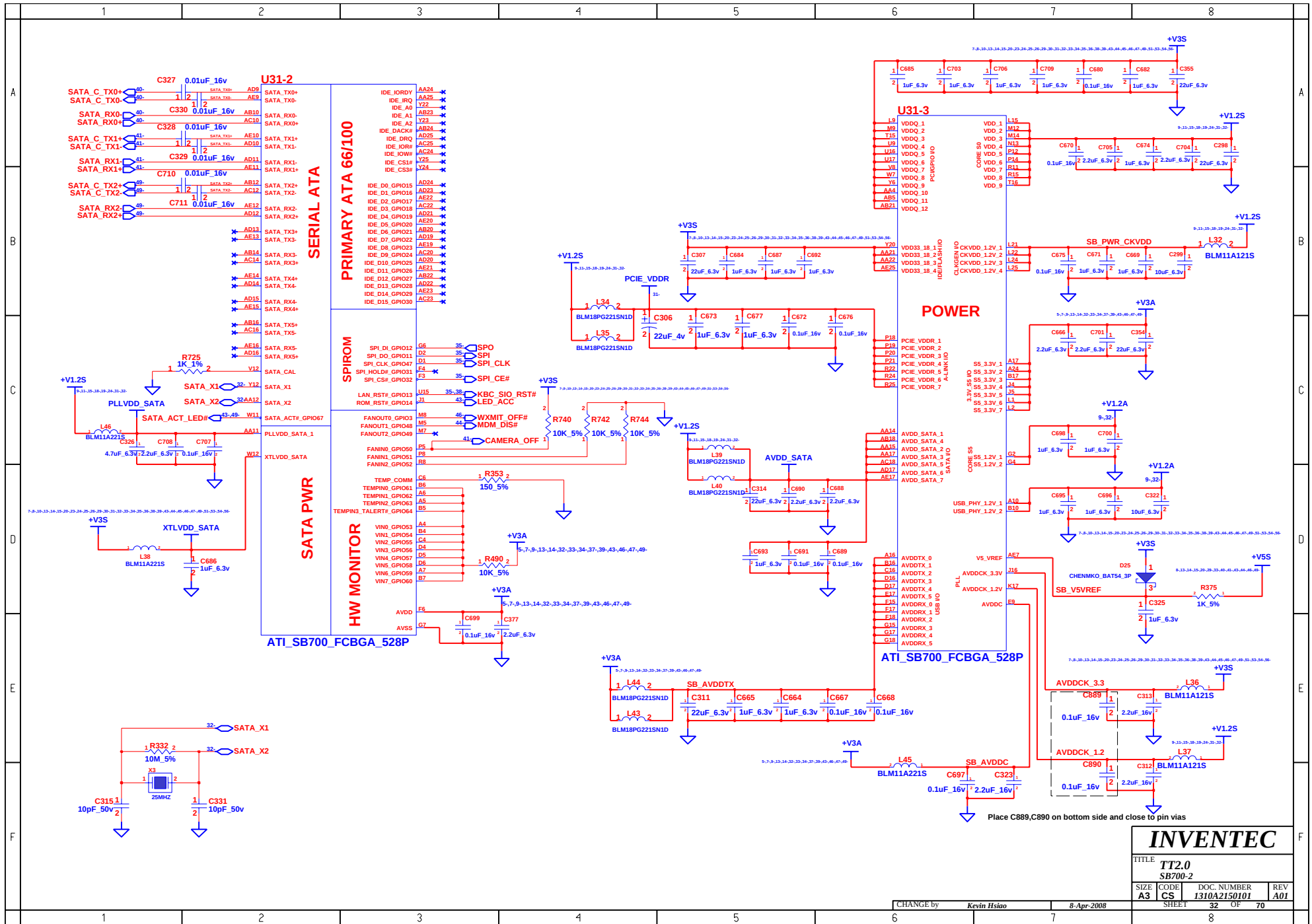
INVENTEC

TITLE TT2.0 LCD CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 30 OF 70

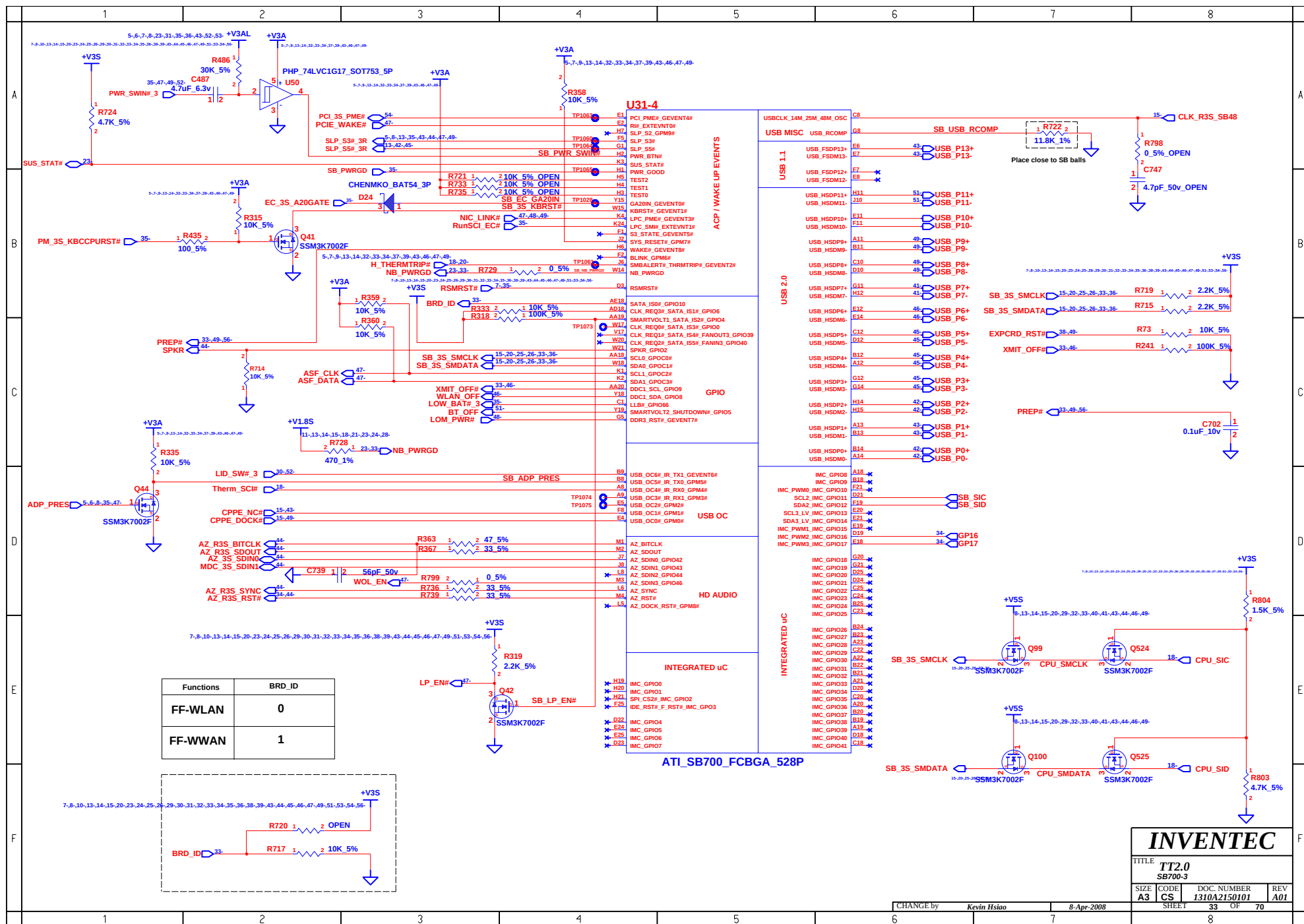


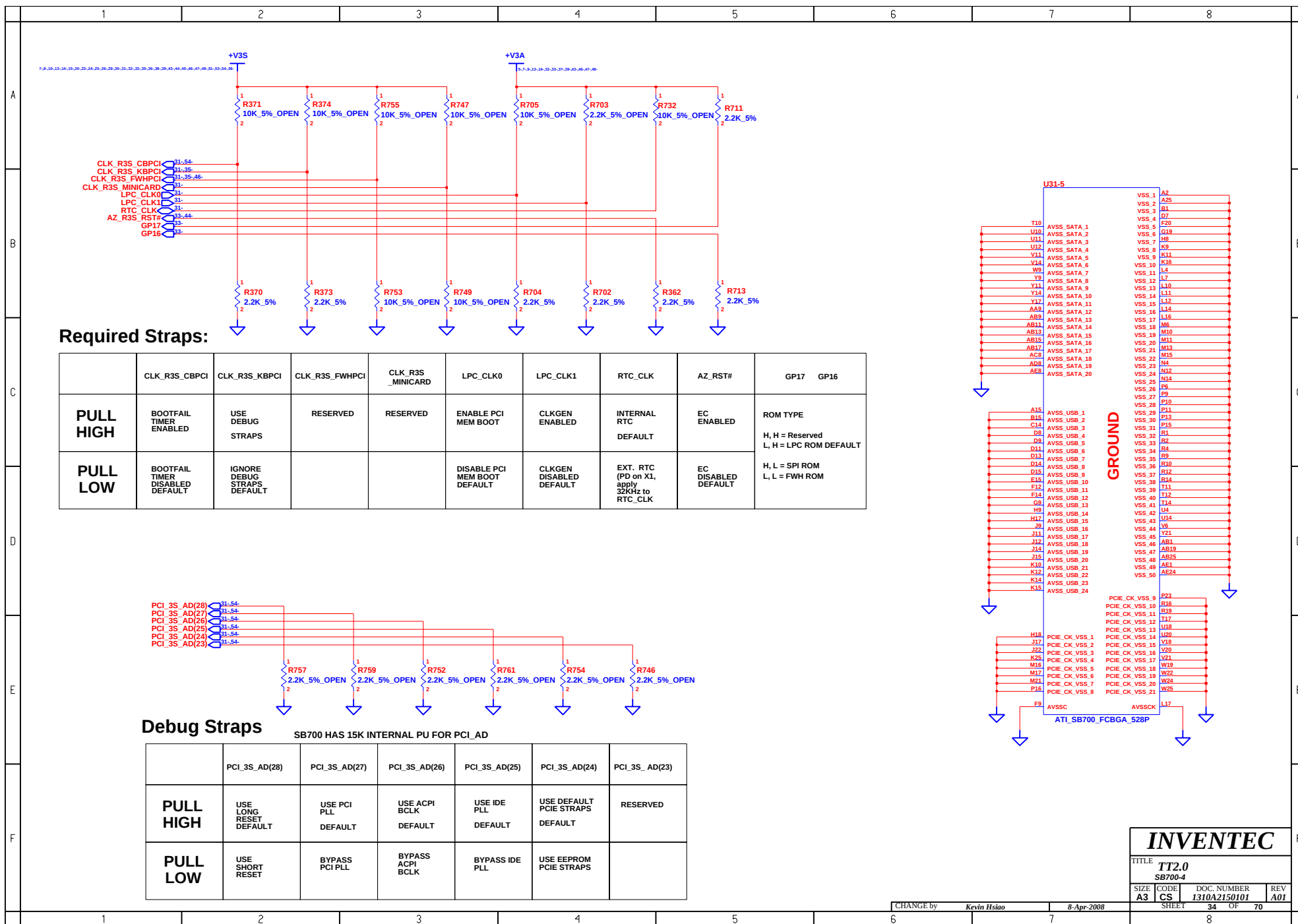


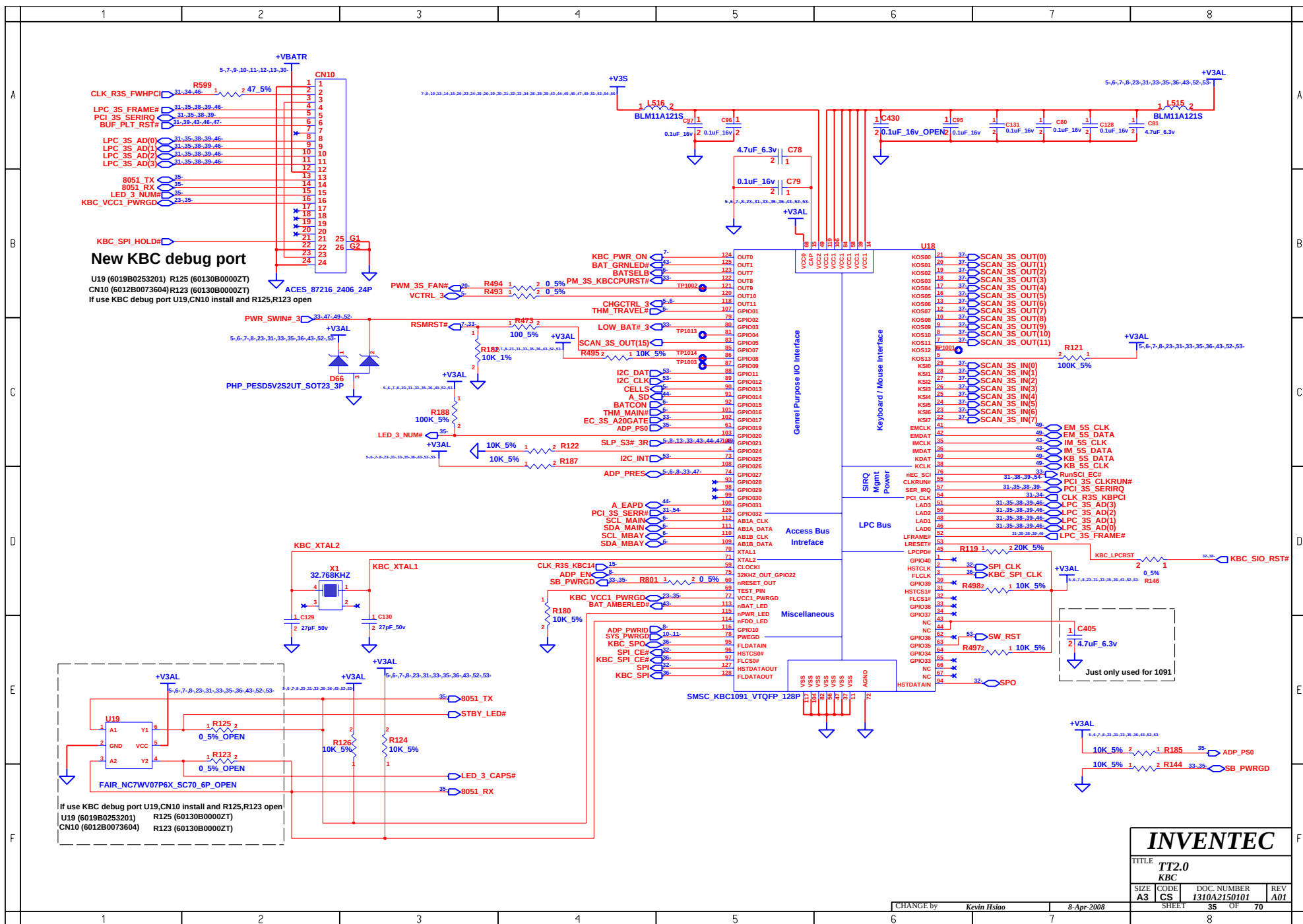
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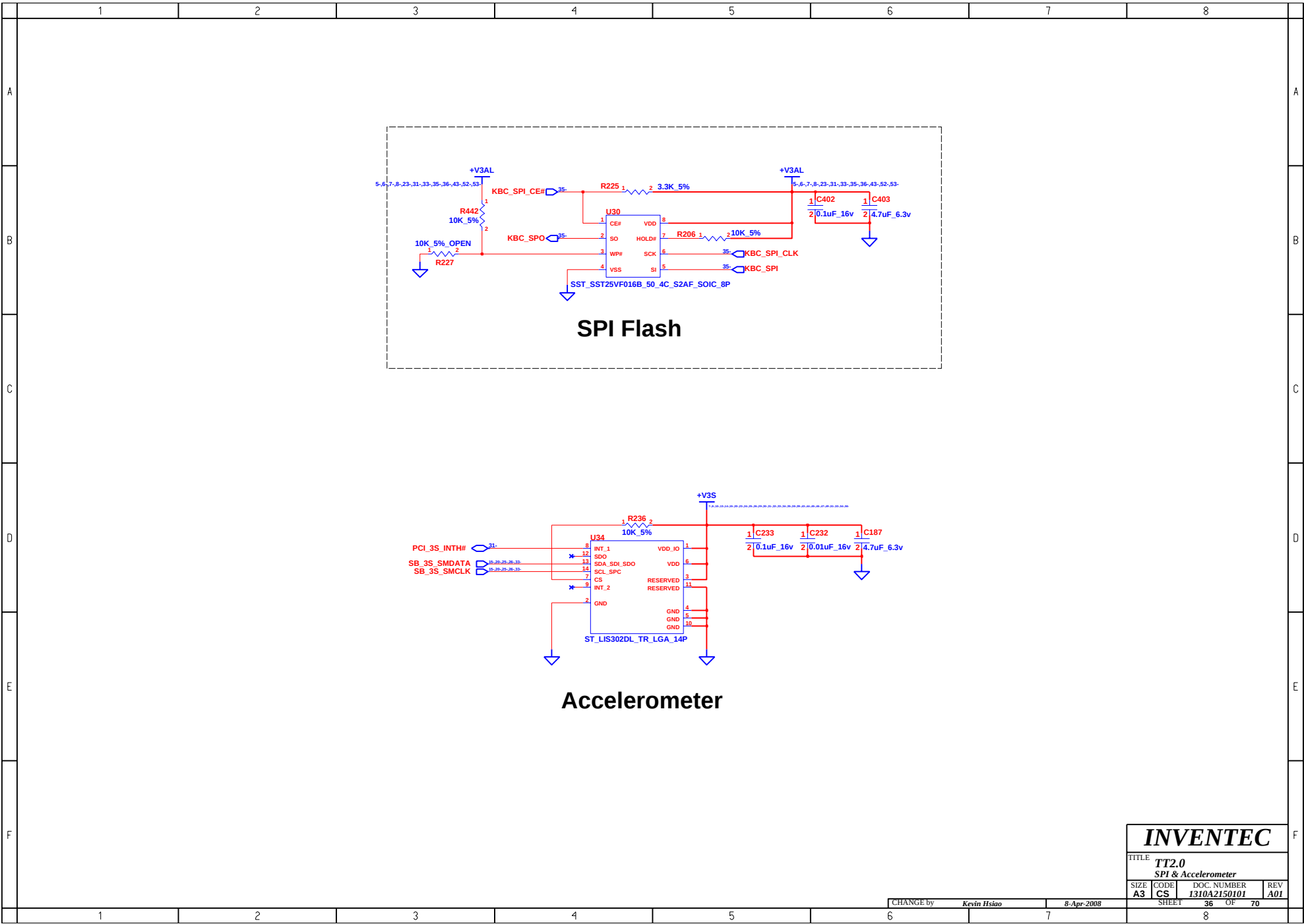
TITLE			
TT2.0			
SB700-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
SHEET		32	OF 70

CHANGE by Kevin Hsiao 8-Apr-2008









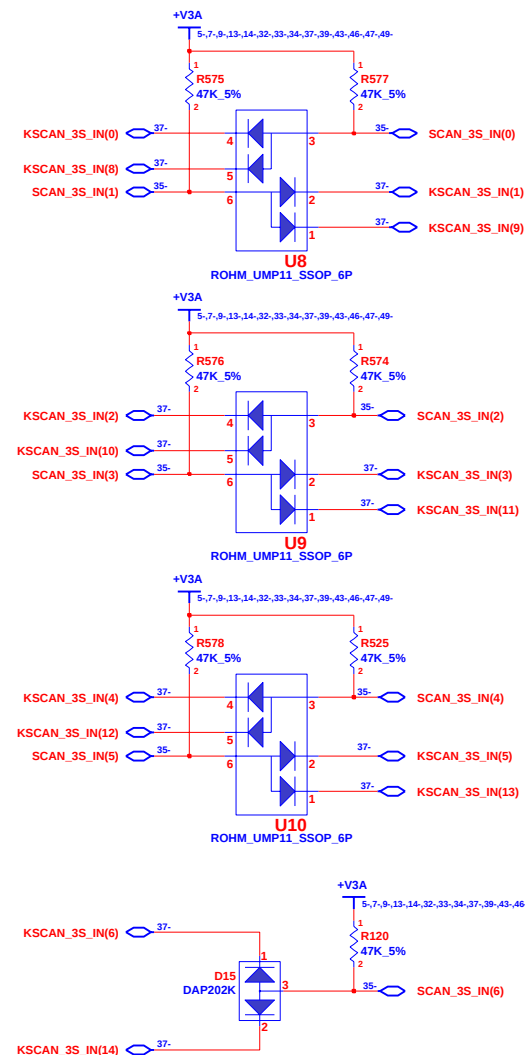
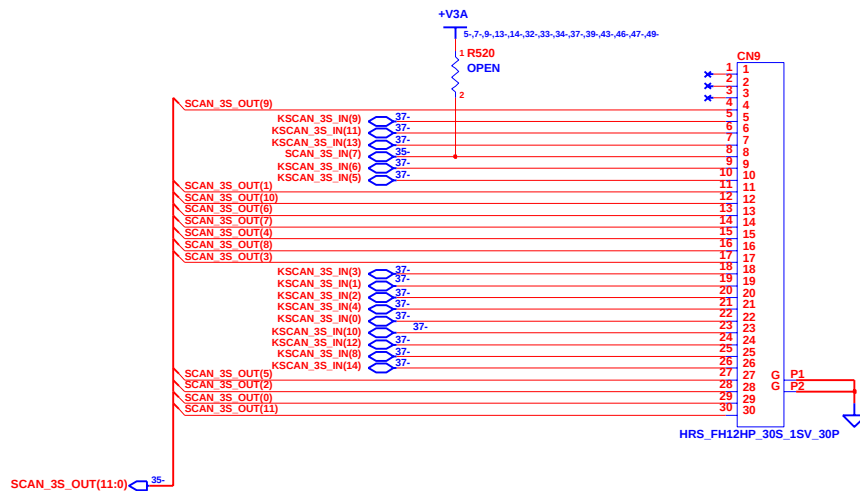
INVENTEC

TITLE
TT2.0
SPI & Accelerometer

SIZE A3	CODE CS	DOC. NUMBER I310A2150101	REV A01
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CHANGE by **Kevin Hsiao** 8-Apr-2008

SHEET **36** OF **70**

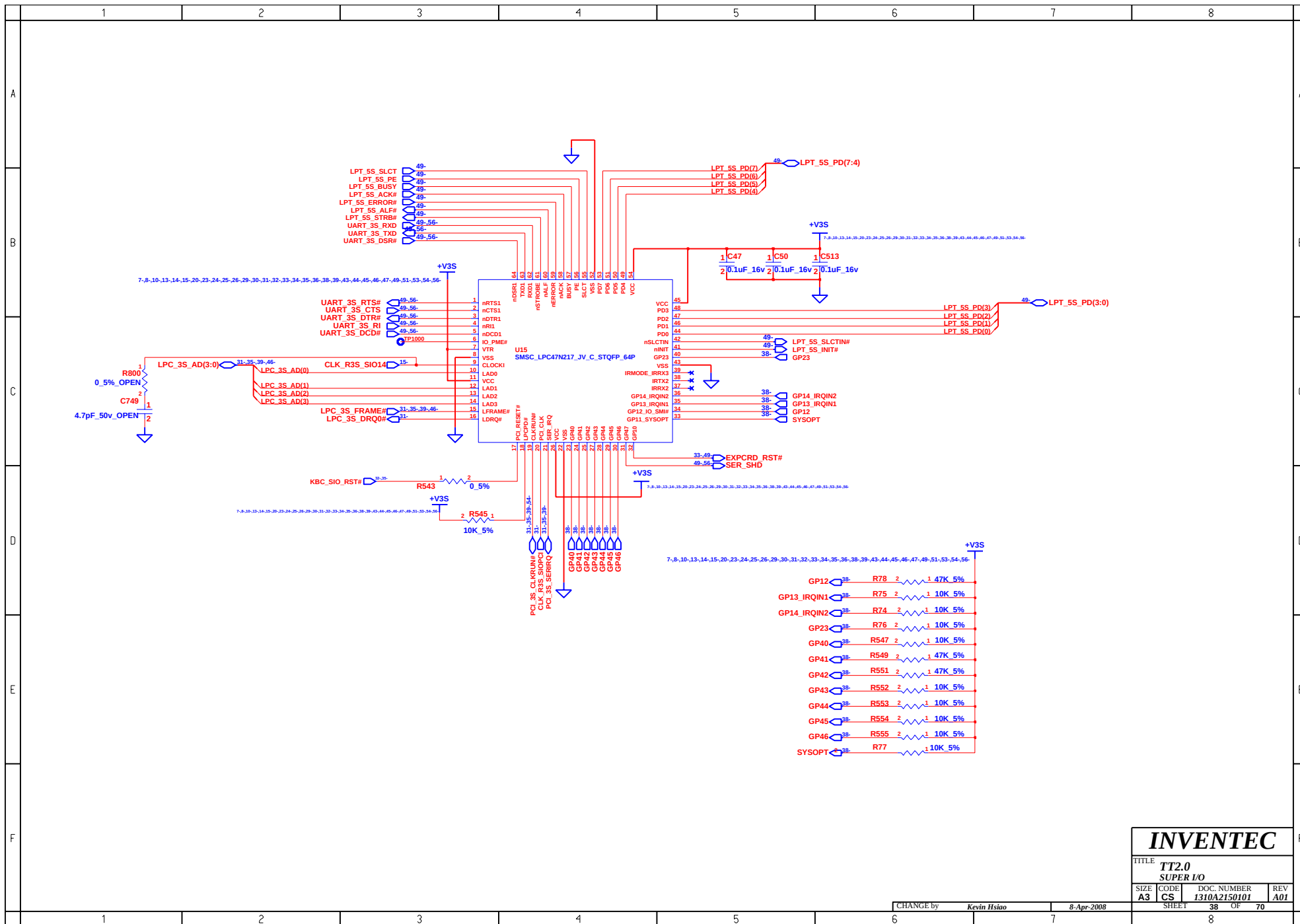


INVENTEC

TITLE			
TT2.0			
INT.KBC/POINT DEVICES			
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A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 37 OF 70

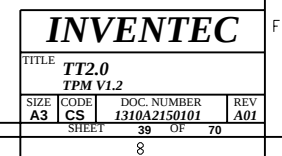


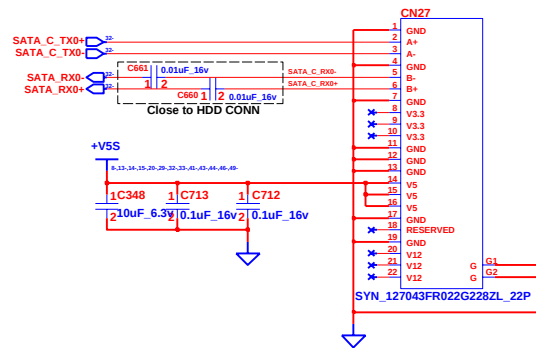
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TITLE TT2.0 SUPER I/O			
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CHANGE by *Kevin Hsiao* 8-Apr-2008

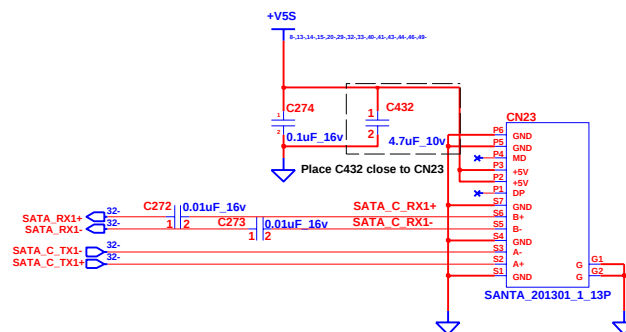
SHEET 38 OF 70



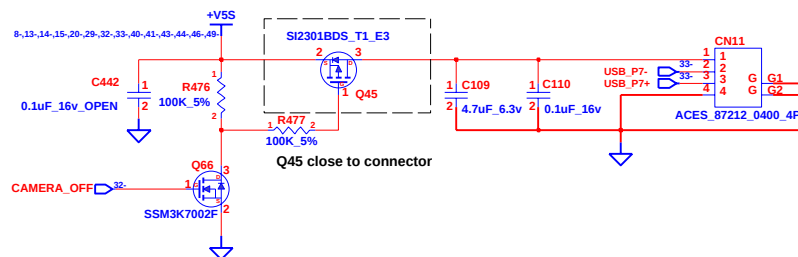


HDD CONN

INVENTEC			
TITLE TT2.0 SATA HDD CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
CHANGE by Kevin Hsiao		8-Apr-2008	
SHEET 40		OF 70	



ODD SATA CONNECTOR



USB WEBCAM CONNECTOR

INVENTEC			
TITLE TT2.0 SATA ODD & USB WEBCAM			
SIZE A3	CODE CS	DOC. NUMBER I310AZ150101	REV A01
CHANGE by Kevin Hsiao		8-Apr-2008	
SHEET 41		OF 70	
1		8	

1 2 3 4 5 6 7 8

A

B

C

D

E

F

A

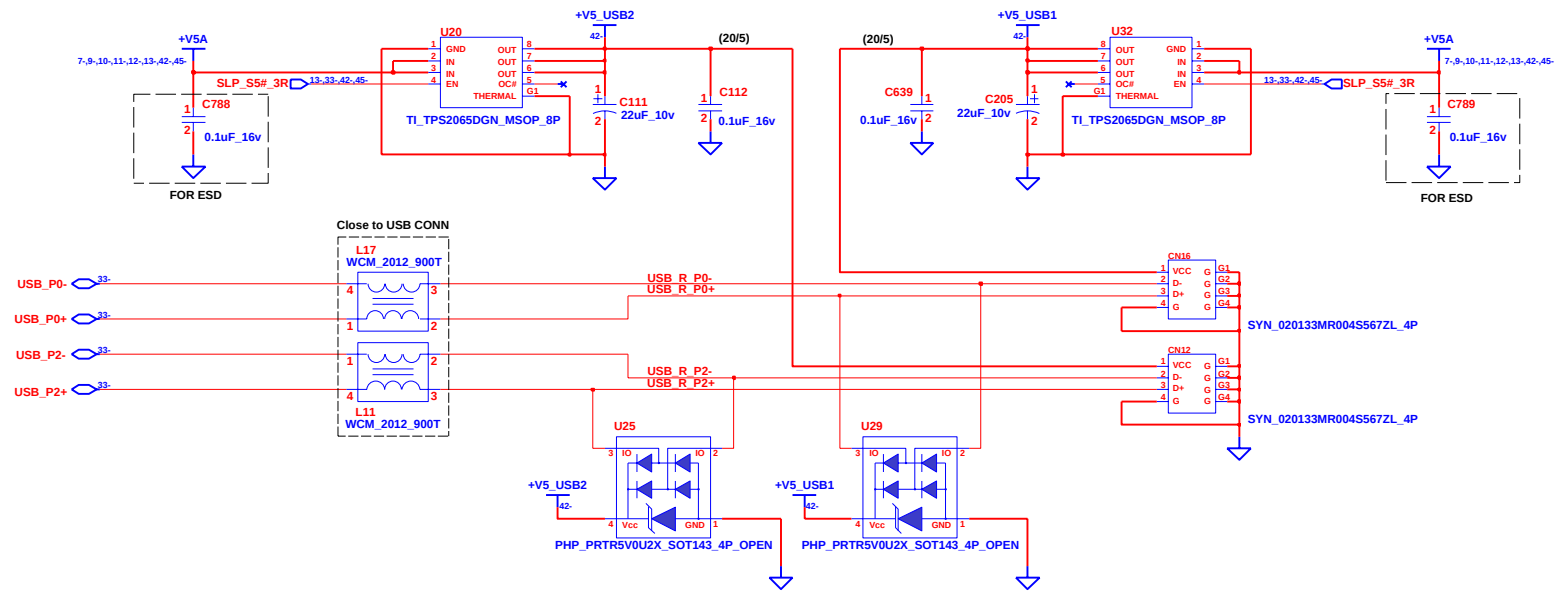
B

C

D

E

F

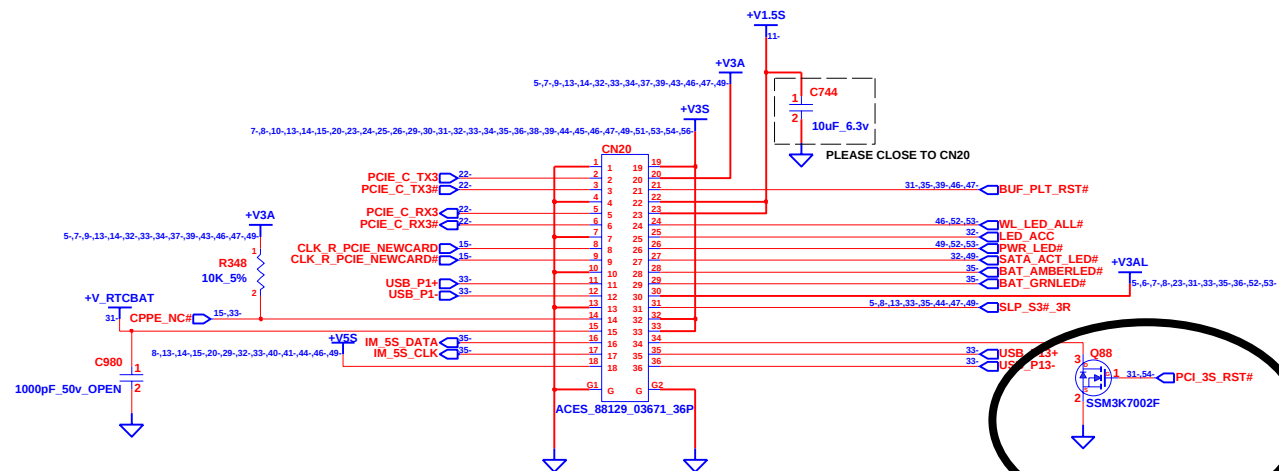


INVENTEC

TITLE			
TT2.0 USB CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

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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

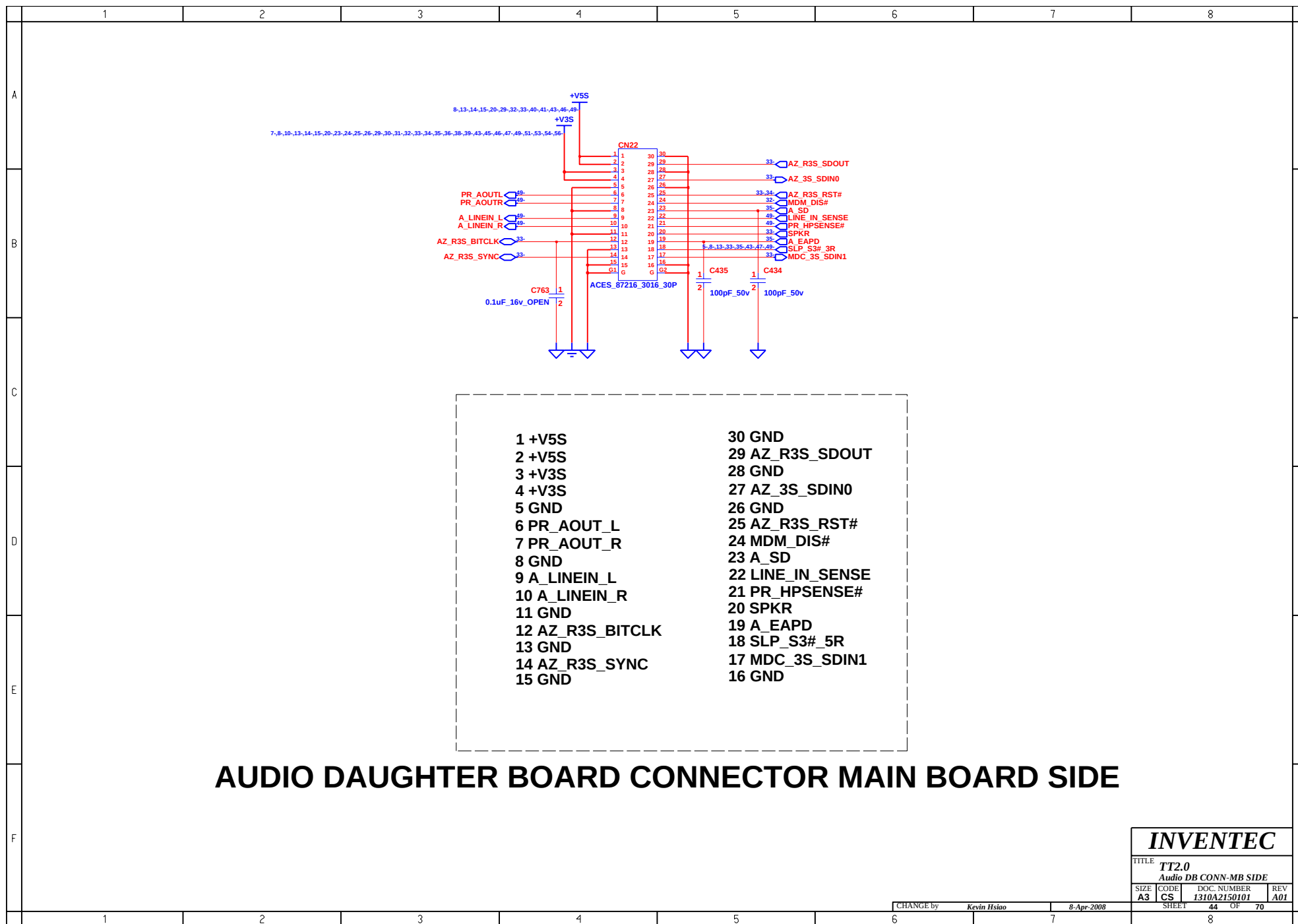
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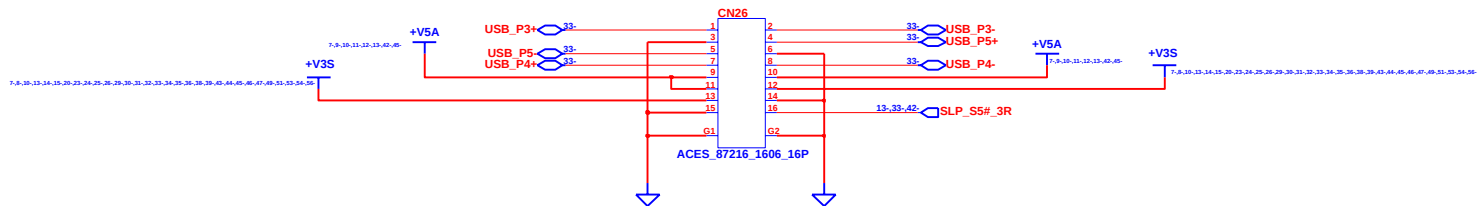
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Express DB CONN-MB SIDE

SIZE	CODE	DOC. NUMBER	REV
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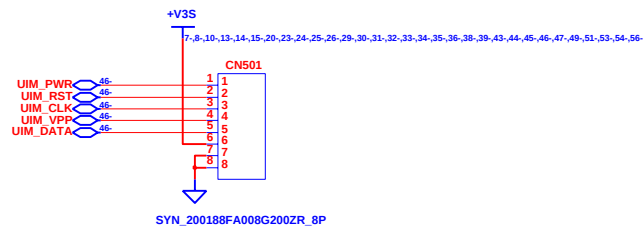
CHANGE by Kevin Hsiao 8-Apr-2008

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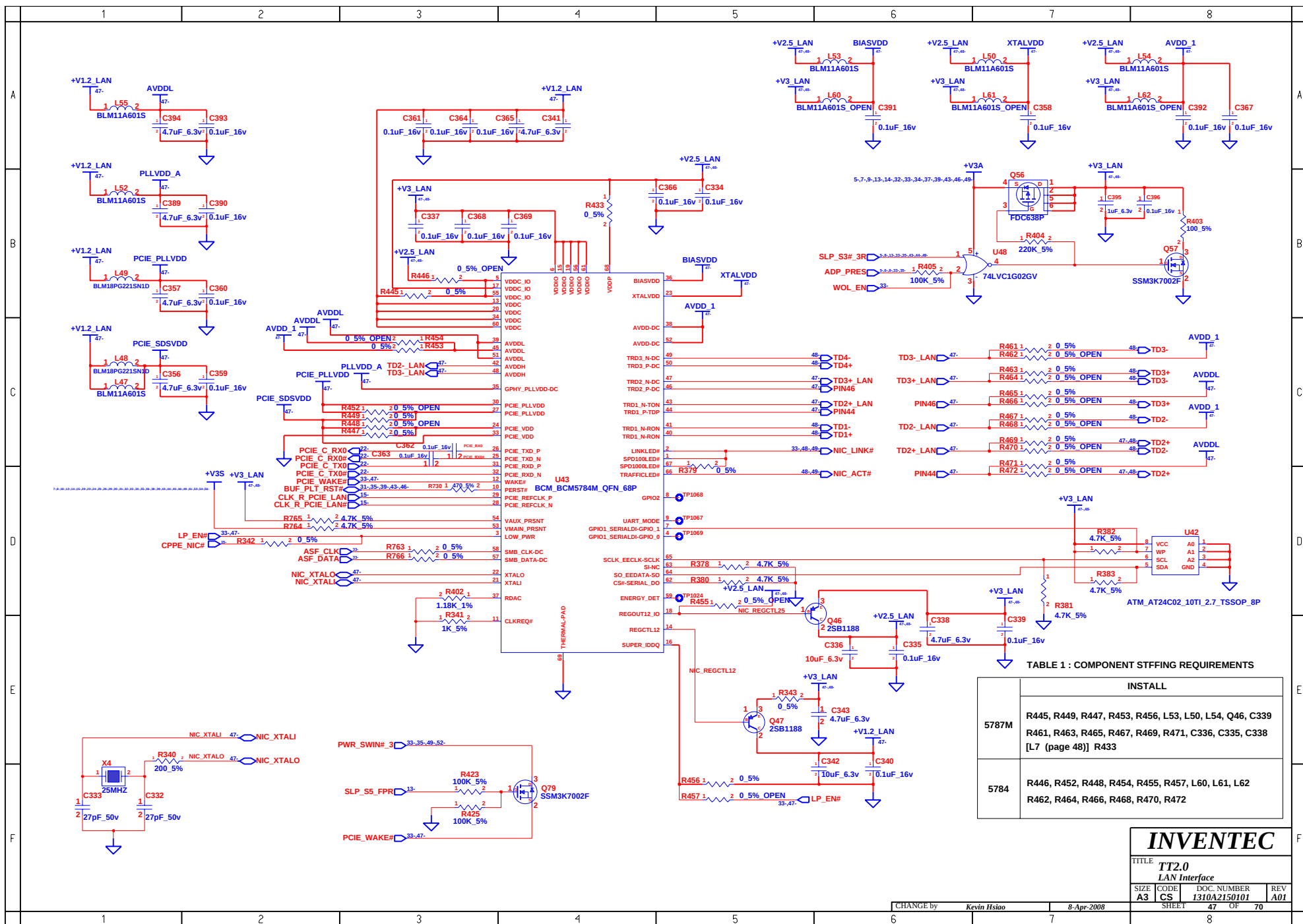


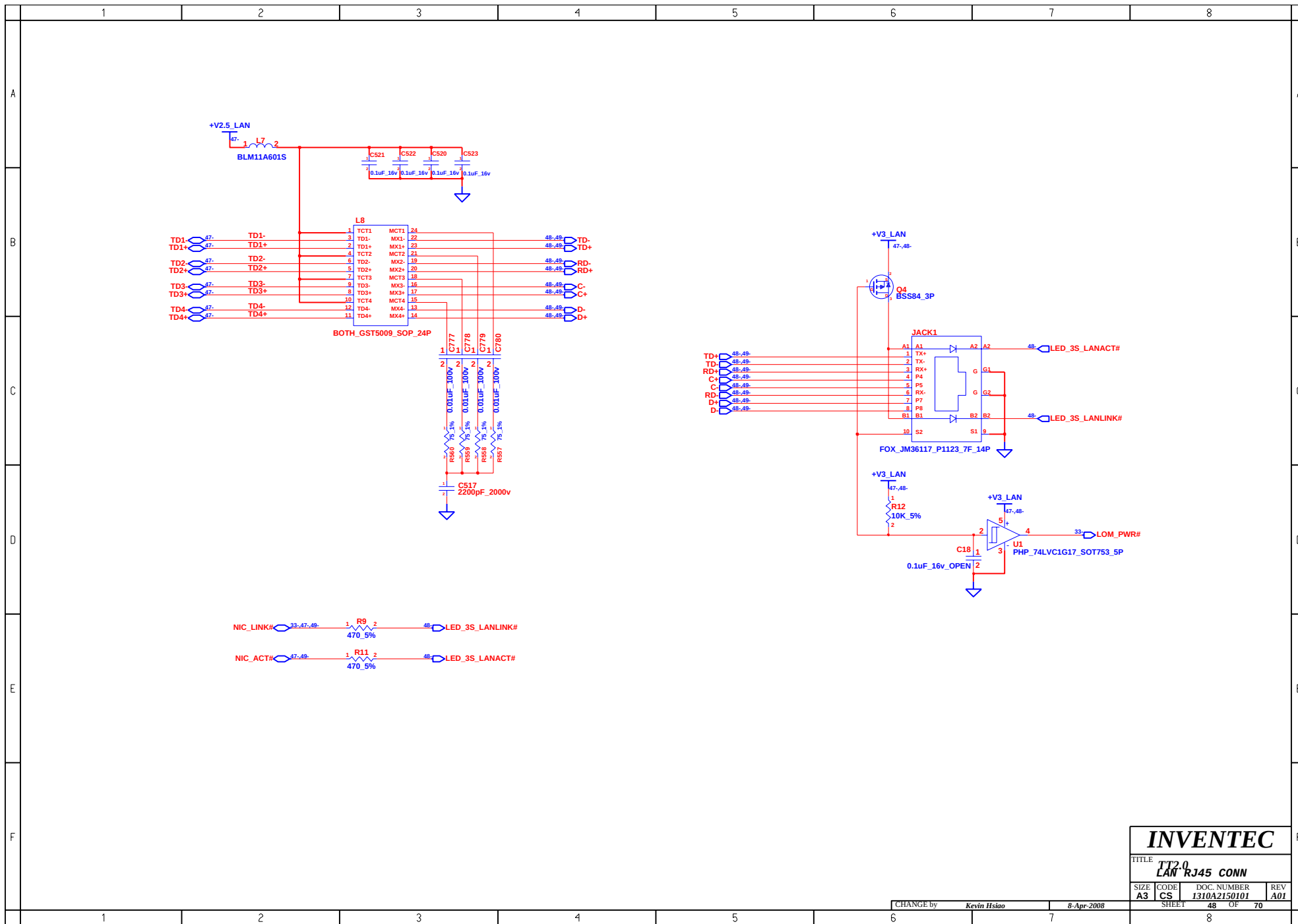
7 IN 1 daughter board connector MB SIDE



SIM card daughter board connector MB SIDE

INVENTEC			
TITLE <i>TT2.0</i> 7 IN 1 & SIM DB CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET		45 OF 70	



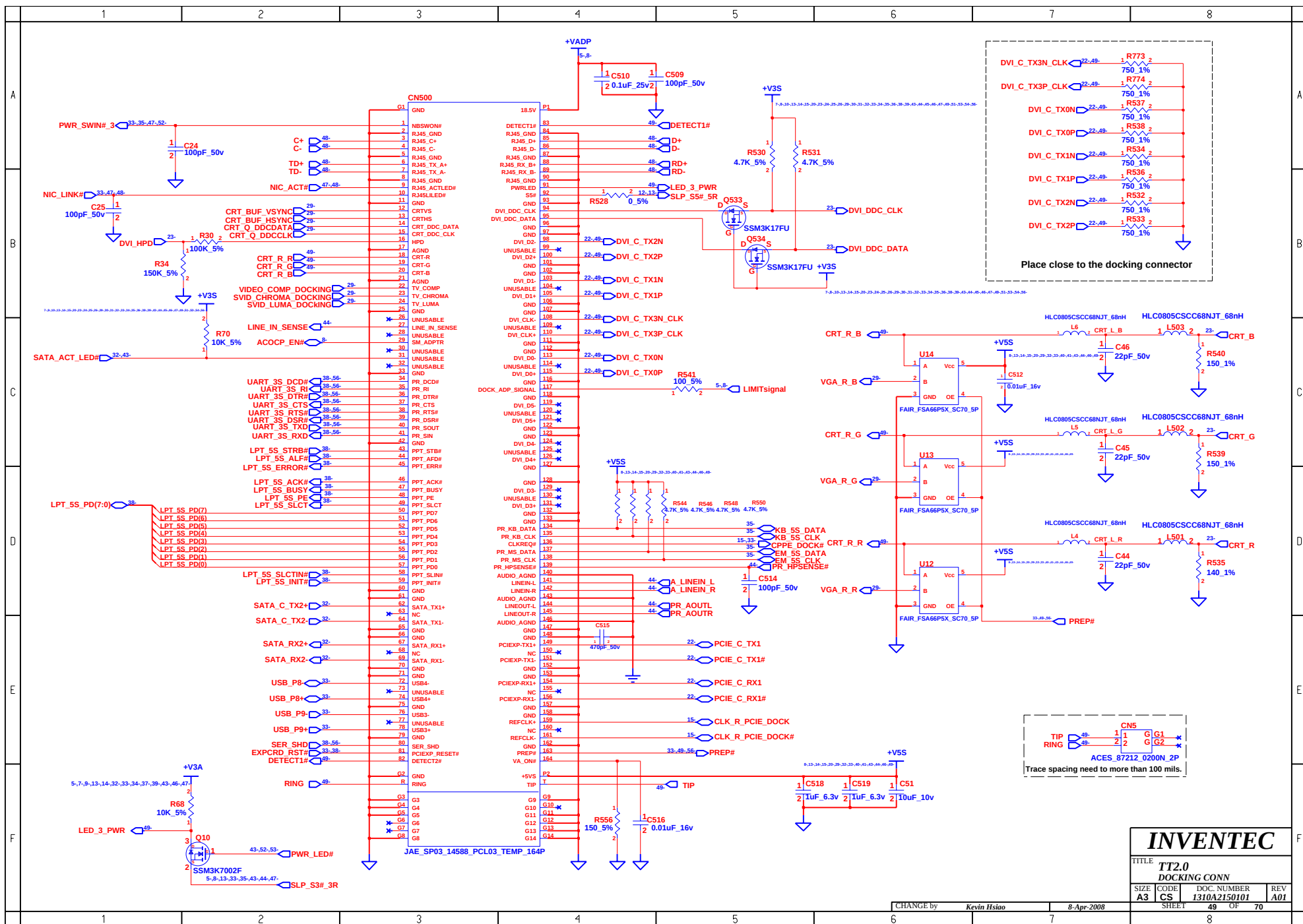


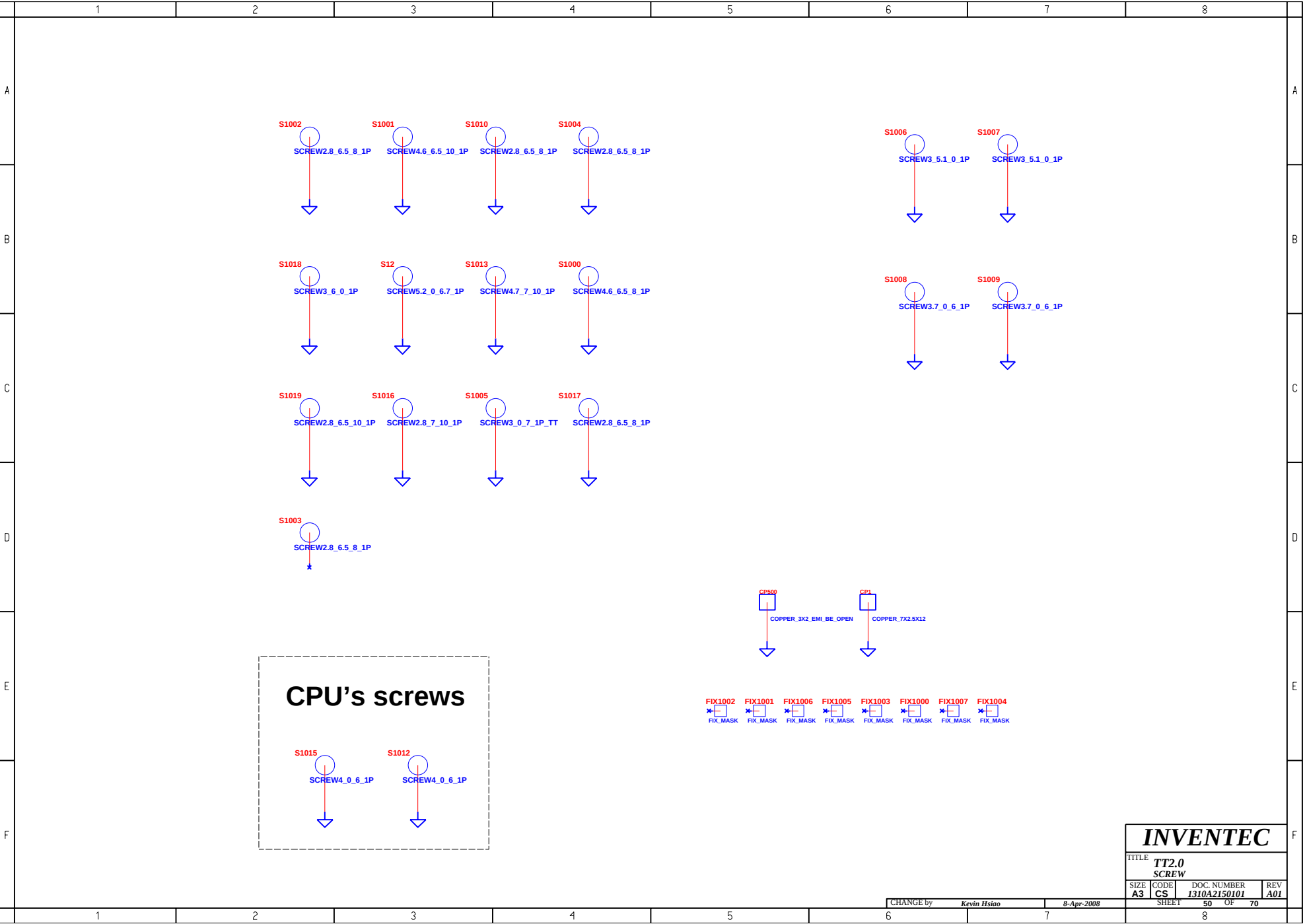
INVENTEC

TITLE
TT2.0
LAN RJ45 CONN

SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
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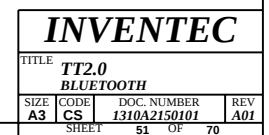
SHEET 48 OF 70

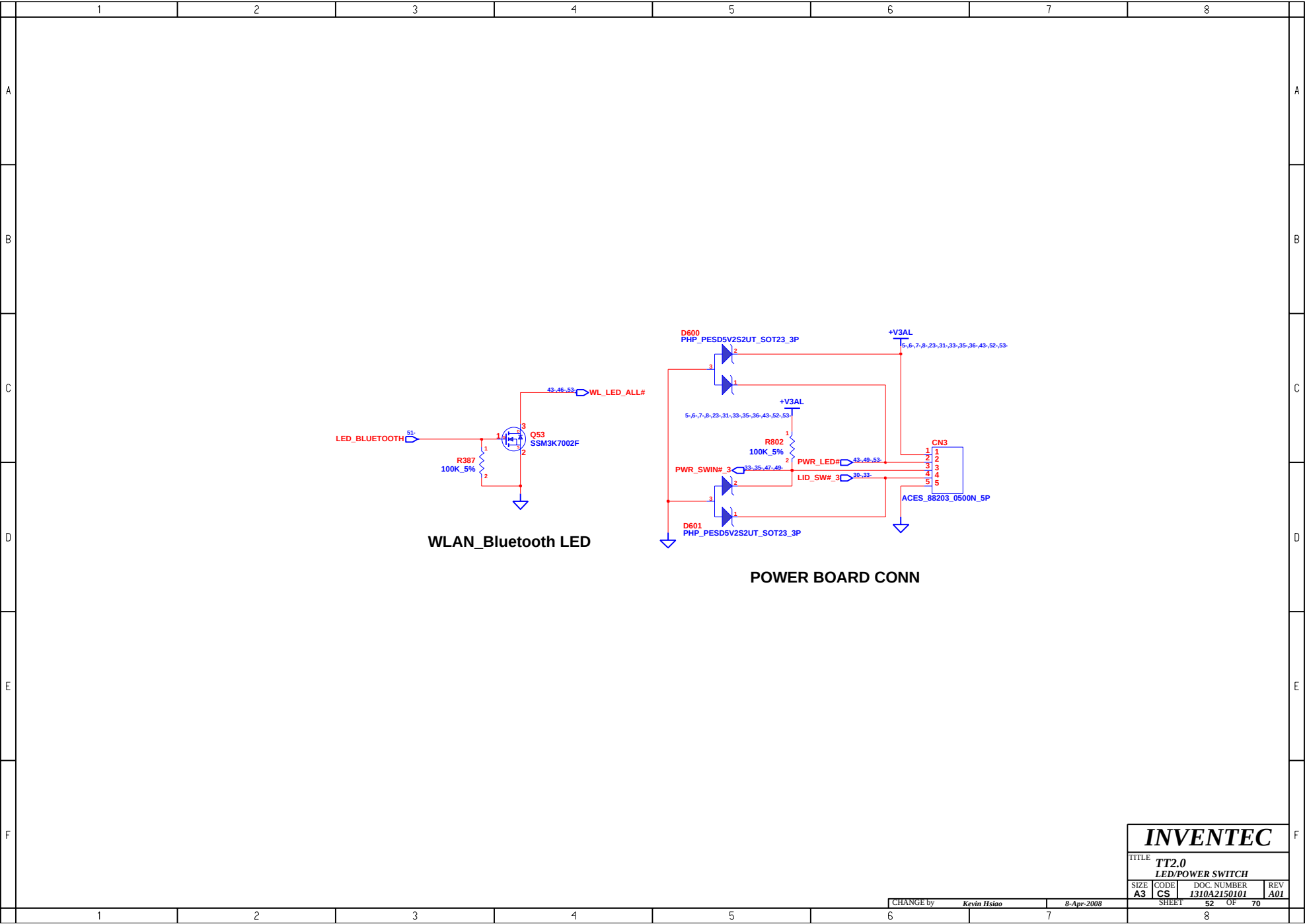


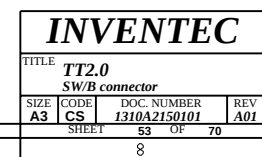


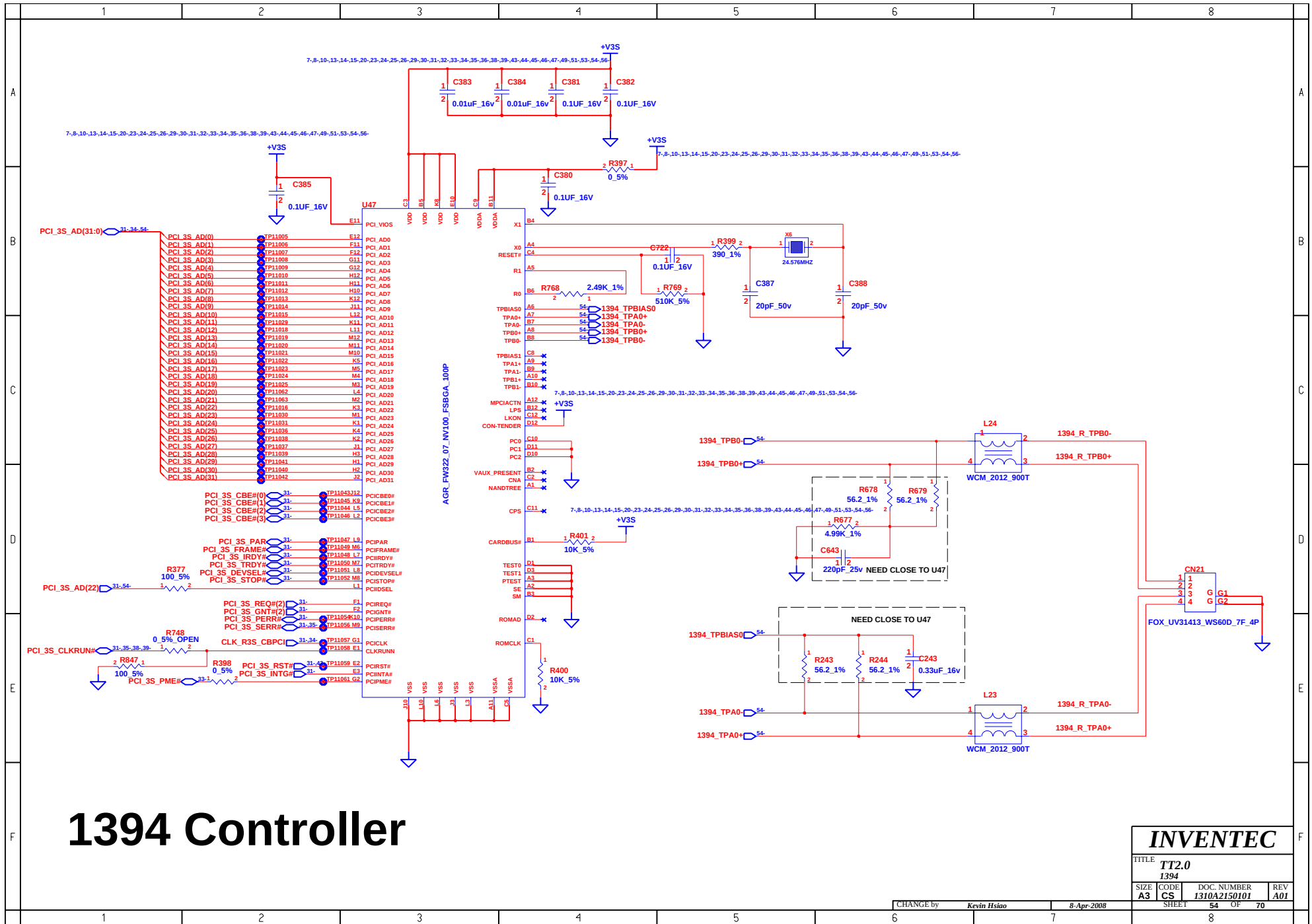
INVENTEC

TITLE			
TT2.0			
SCREW			
SIZE	CODE	DOC. NUMBER	REV
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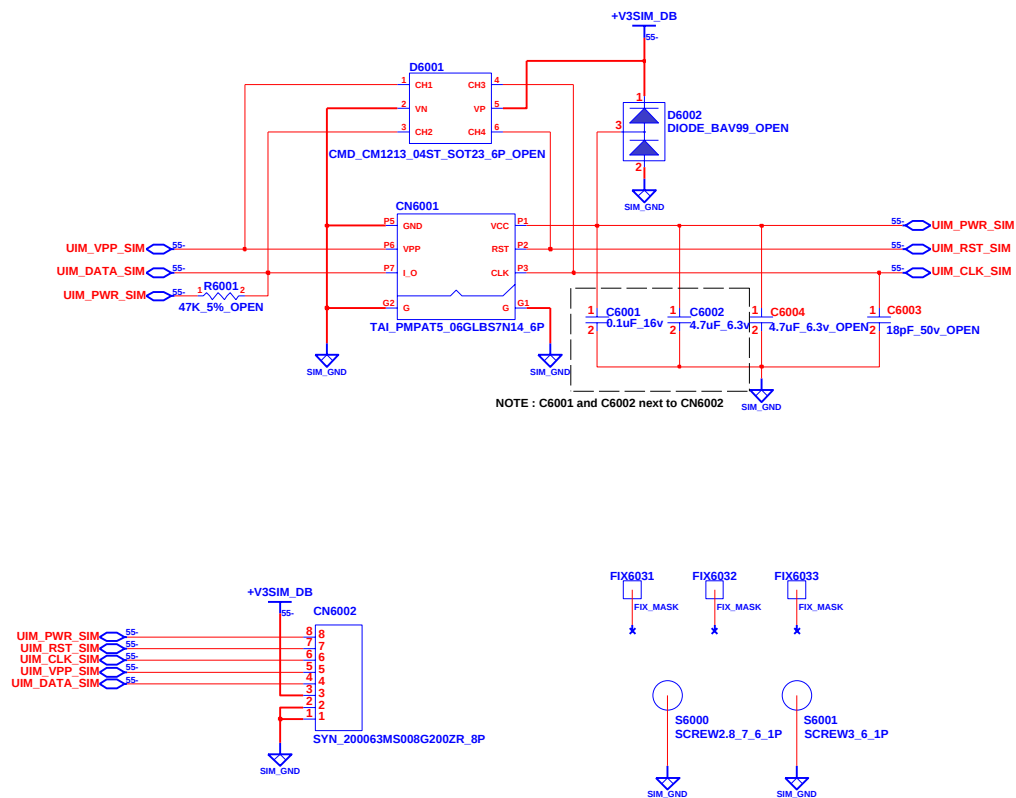




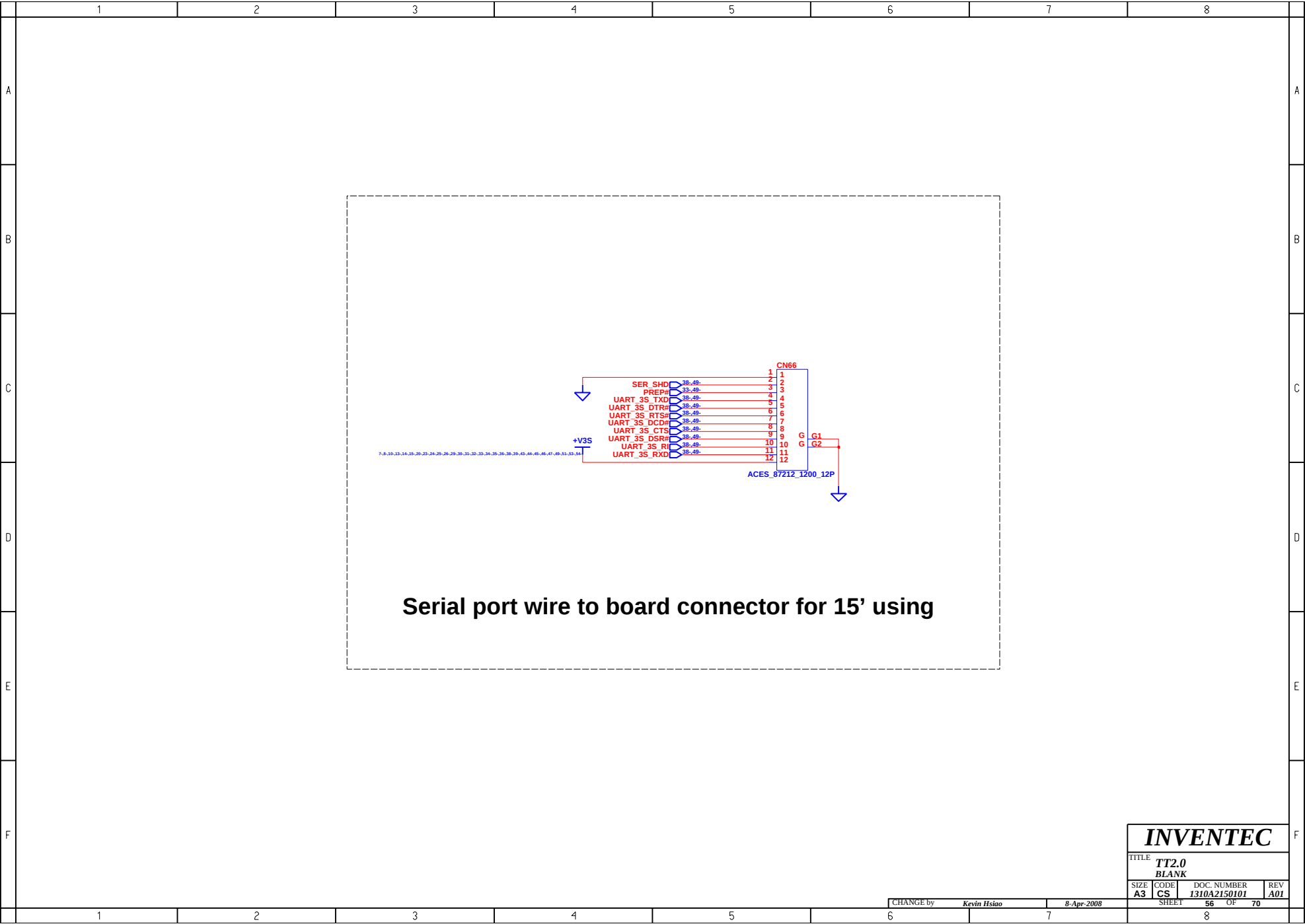




SIM CARD Daughter Board



INVENTEC			
TITLE			
TT2.0			
SIM CARD Daughter Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
CHANGE by		Kevin Hsiao	8-Apr-2008
SHEET		55	OF 70

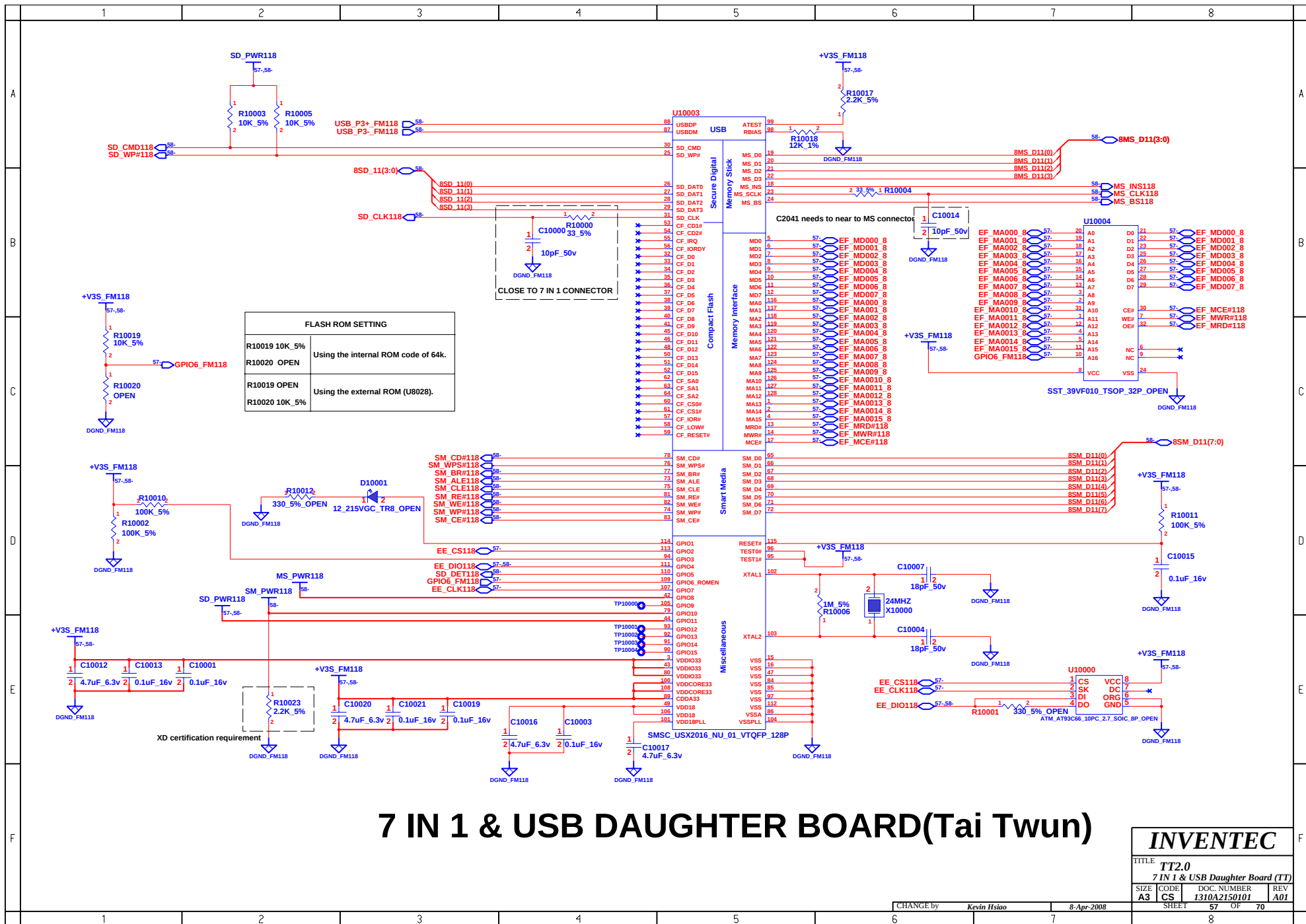


INVENTEC

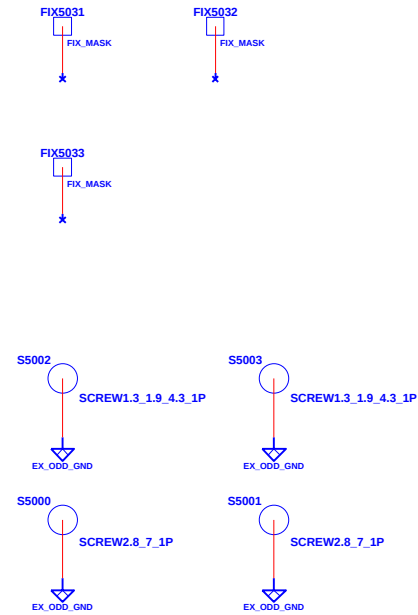
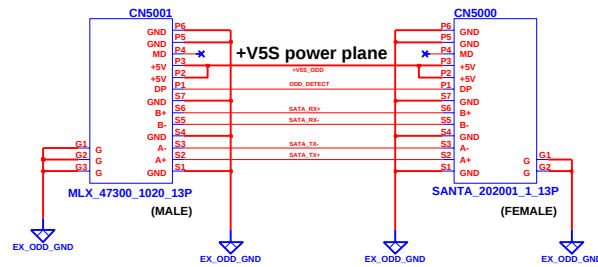
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TT2.0
BLANK

SIZE CODE DOC. NUMBER REV
A3 CS 1310A2150101 A01

SHEET 56 OF 70



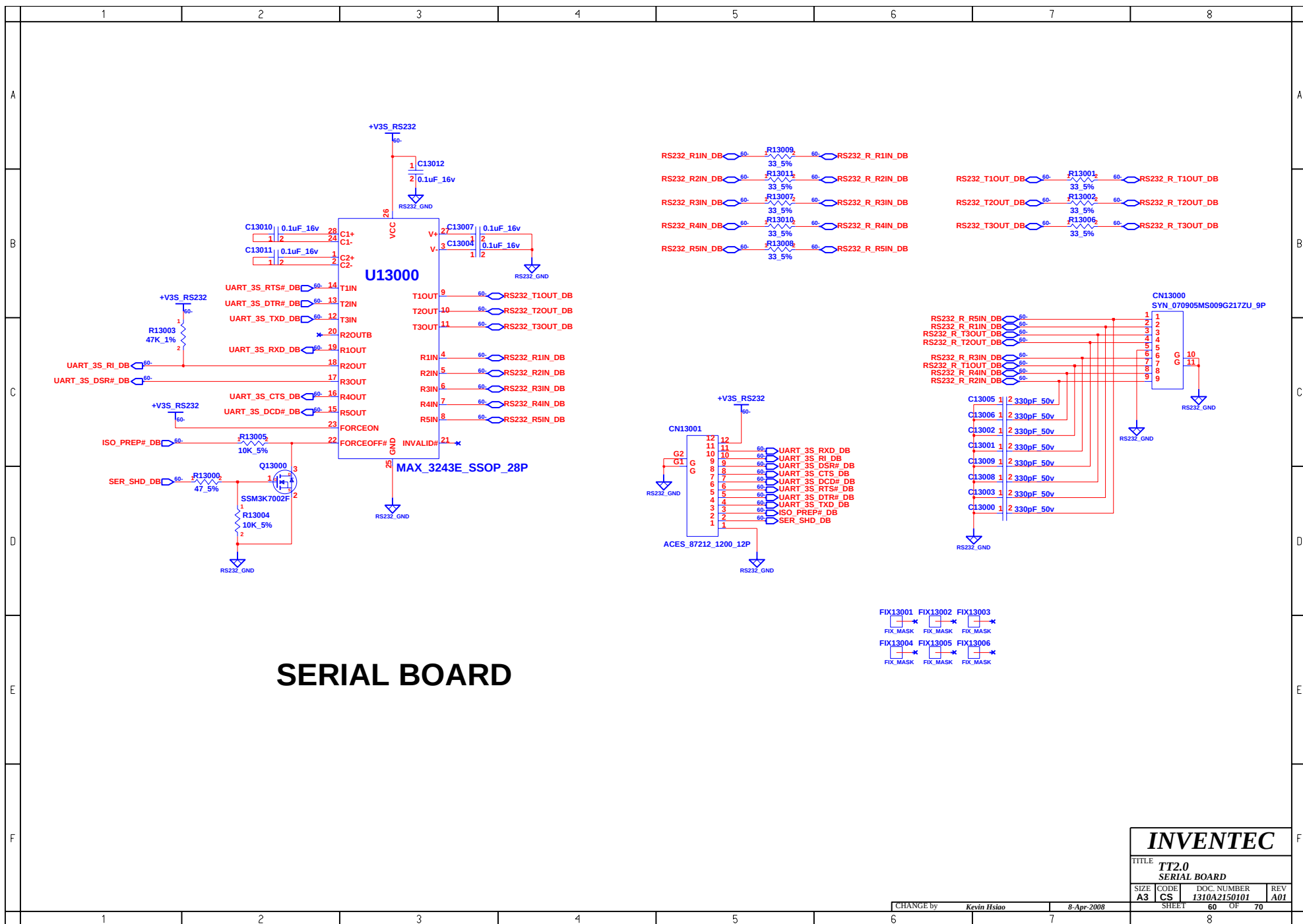
7 IN 1 & USB DAUGHTER BOARD(Tai Twun)

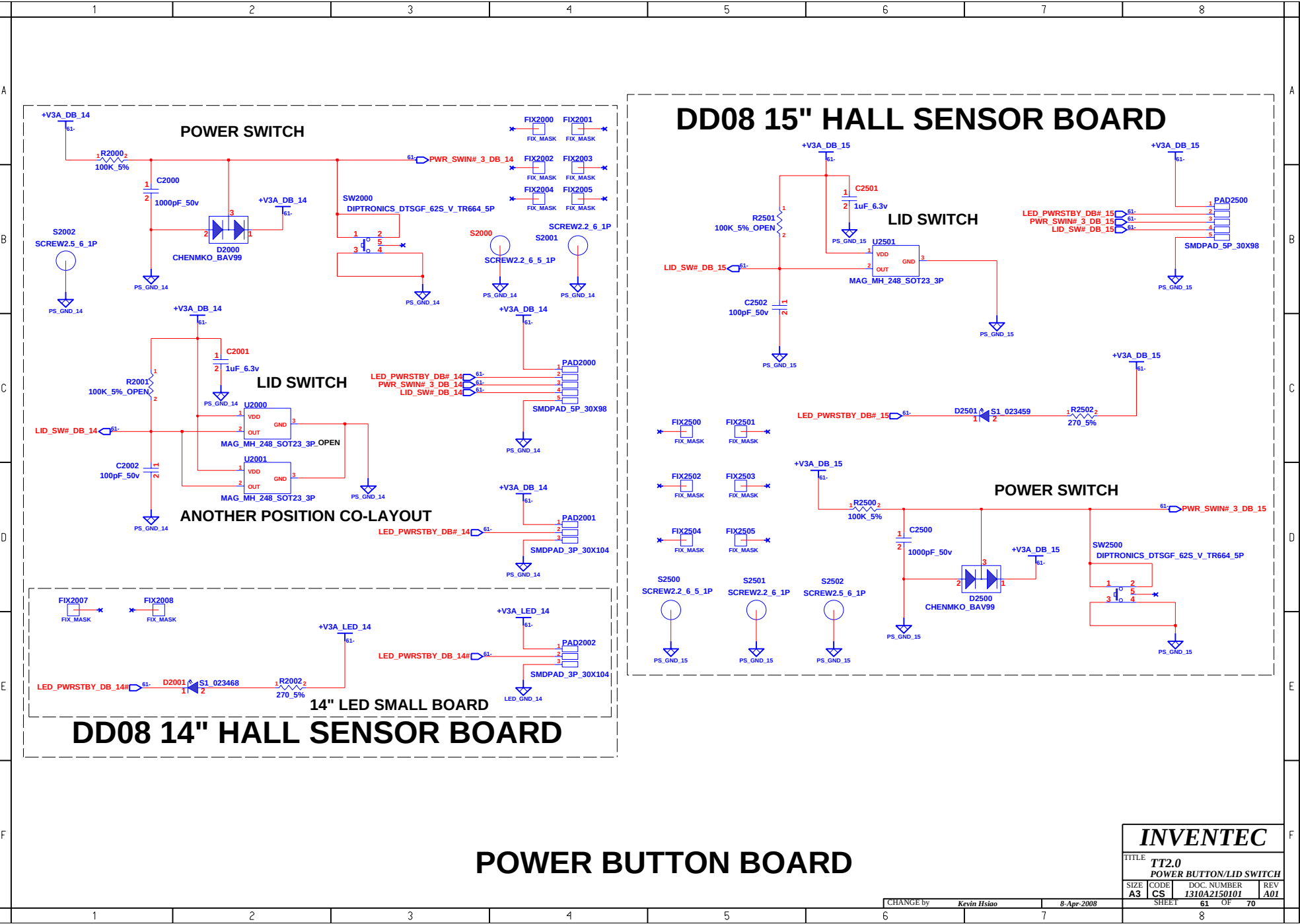


15" only

ODD Extension Board

INVENTEC			
TITLE TT2.0 ODD Extension Board			
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
CHANGE by Kevin Hsiao		8-Apr-2008	
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AUDIO DAUGHTER BOARD

Audio CONN

Pin	Signal	Pin	Signal
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

FIX3501
FIX_MASK

FIX3504
FIX_MASK

FIX3505
FIX_MASK

FIX3506
FIX_MASK

INVENTEC

TITLE
TT2.0
AUDIO CONNECTOR

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

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8

AUDIO DAUGHTER BOARD

Audio CONN

Pin	Signal	Pin	Signal
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

FIX3501
FIX_MASK

FIX3504
FIX_MASK

FIX3505
FIX_MASK

FIX3506
FIX_MASK

INVENTEC

TITLE
TT2.0
AUDIO CONNECTOR

SIZE	CODE	DOC. NUMBER	REV
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8

- 1 2 3 4 5 6 7 8

A

AUDIO DAUGHTER BOARD

B

C

Audio CONN

D

E

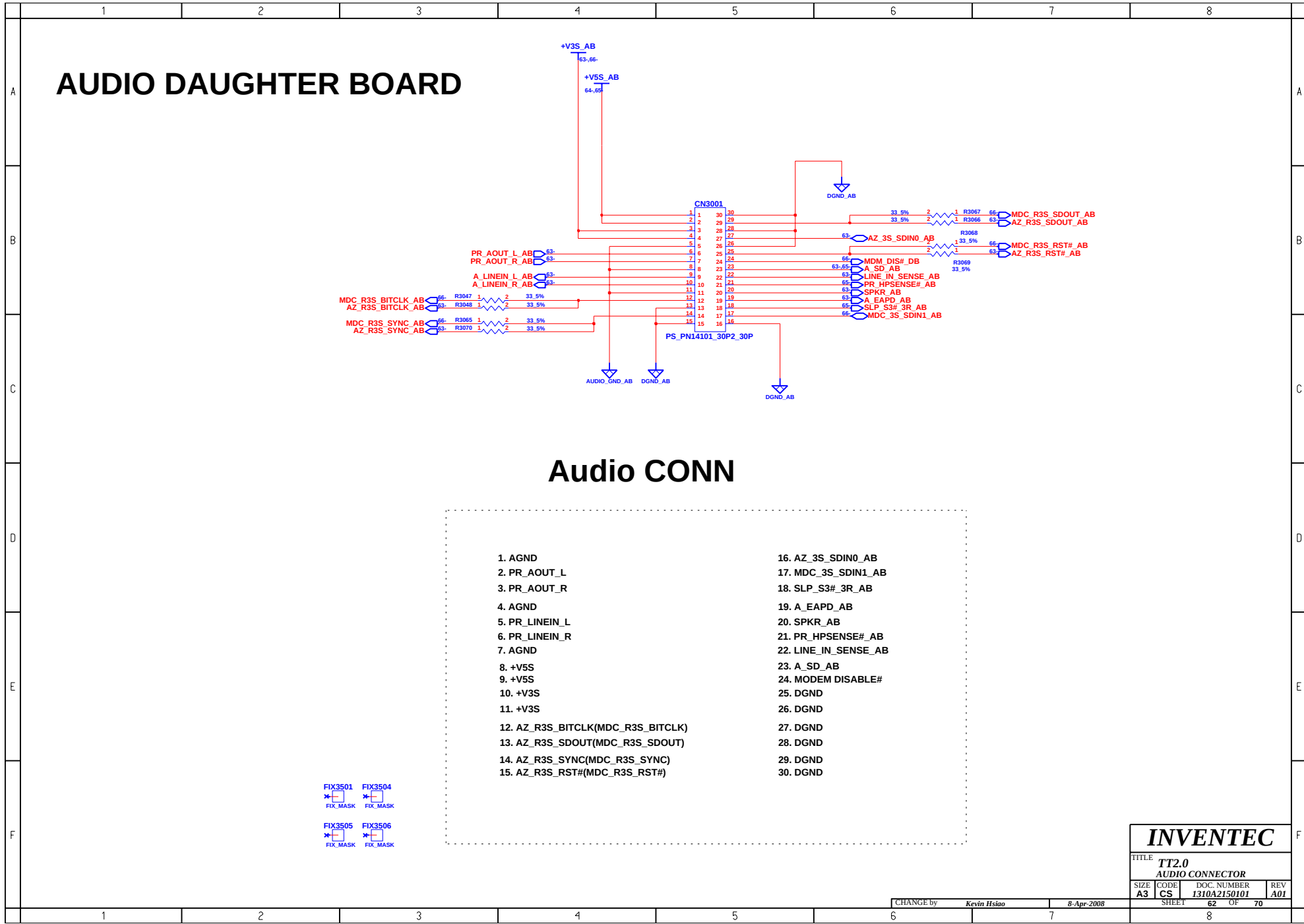
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SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

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8



AUDIO DAUGHTER BOARD

1 2 3 4 5 6 7 8

A

AUDIO DAUGHTER BOARD

B

C

Audio CONN

D

E

F

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

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8

1 2 3 4 5 6 7 8

A

AUDIO DAUGHTER BOARD

B

C

Audio CONN

D

E

F

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

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8

1 2 3 4 5 6 7 8

A

AUDIO DAUGHTER BOARD

B

C

Audio CONN

D

E

F

SIZE	CODE	DOC. NUMBER	REV
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AUDIO DAUGHTER BOARD

Recommend a copper trace about 80 mills wide under CODEC (on the GND layer) bridging the 2 planes across the moat.
For pin7, use very direct connection to DGND_AB plane using double via

INVENTEC			
TITLE TT2.0 AUDIO DAUGHTER BOARD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by	Kevin Hsiao	8-Apr-2008	SHEET 63 OF 70
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TITLE			
TT2.0 AUDIO DAUGHTER BOARD			
SIZE	CODE	DOC. NUMBER	REV.
A3	CS	1310A2150101	A0
SHEET		63	OF 70

CHANGE by	<i>Kevin Hsiao</i>	<i>8-Apr-2008</i>
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AUDIO DAUGHTER BOARD

MIC Jack

Earphone Jack

EXT. MIC

INT. MIC

INVENTEC

TT2.0

EARPHONE & MIC JACK

SIZE A3 CODE CS DOC. NUMBER 1310A2150101 REV A01

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TITLE			
TT2.0 EARPHONE & MIC JACK			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01
SHEET		64	OF 70

CHANGE by	<i>Kevin Hsiao</i>	<i>8-Apr-2008</i>
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AUDIO DAUGHTER BOARD

The schematic diagram illustrates the internal components and connections of the Audio Daughter Board. Key components include:

- Audio Amplifiers:** U3001 (TI TPA6041A4RHBR-QFN_32P) and U3002 (TI TPA6041A4RHBR-QFN_32P).
- Capacitors:** C3010, C3011, C3012, C3013, C3037, C3038, C3039, C3040, C3041, C3042, C3043, C3044, C3047, C3077, C3078, C3079, C3080.
- Resistors:** R3007, R3009, R3036, R3037, R3038, R3062, R3068, R3077.
- Power Supply:** +VSS_AB and +VDD_AB.
- Internal Speaker:** CN3003 (Internal Speaker).
- External Speaker:** HP_JS (External Speaker).

Additional labels and notes include:

- Internal Speaker:** Label for the internal speaker connection.
- Colse to internal speaker.** Note indicating the proximity of the internal speaker connection.
- Place near CODEC:** Note indicating the placement of the external speaker connection.
- Close to R549:** Note indicating the placement of the external speaker connection.

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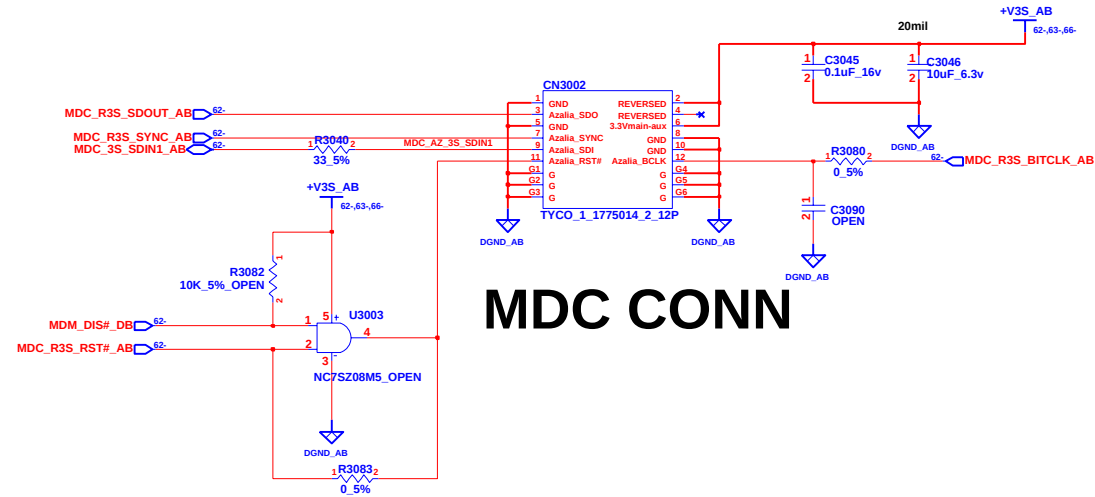
SHEET 65 OF 70

Colse to internal speaker.

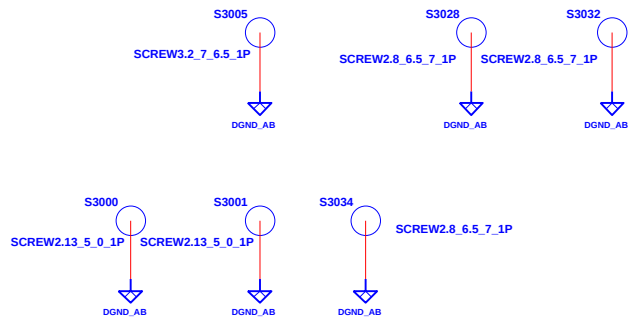
TITLE			
<i>TT2.0</i> <i>AUDIO AMP & INT SPEAKER</i>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01
SHEET 65 OF 70			

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AUDIO DAUGHTER BOARD



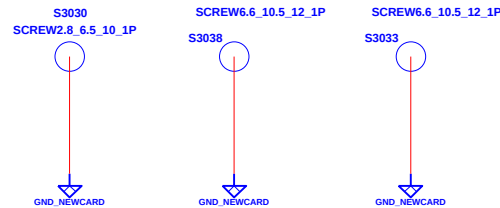
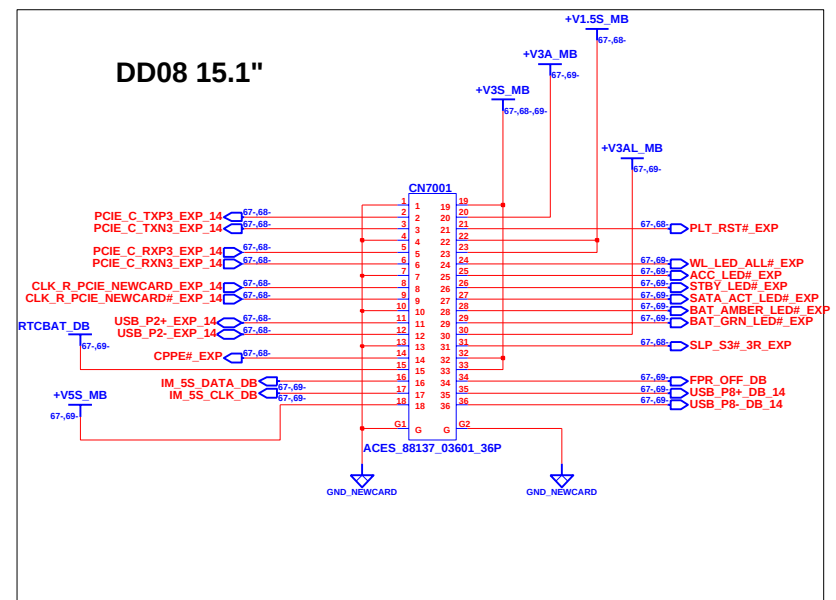
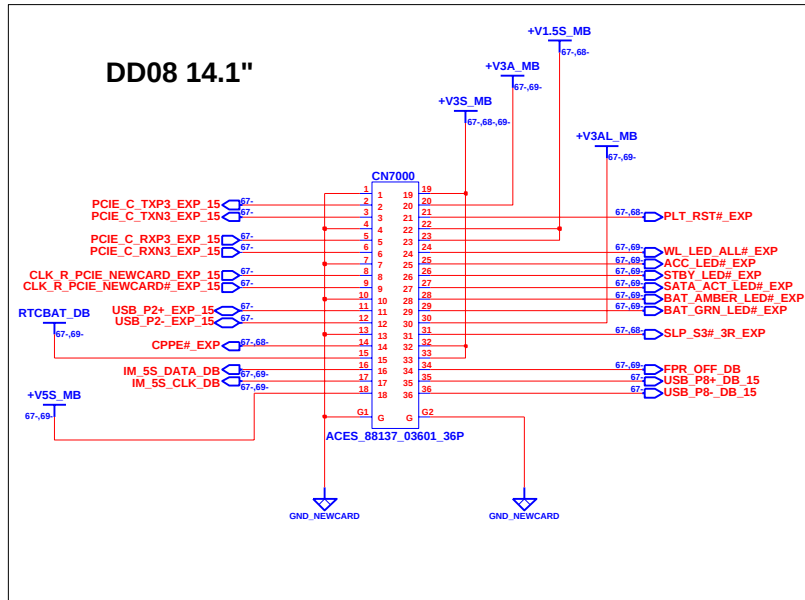
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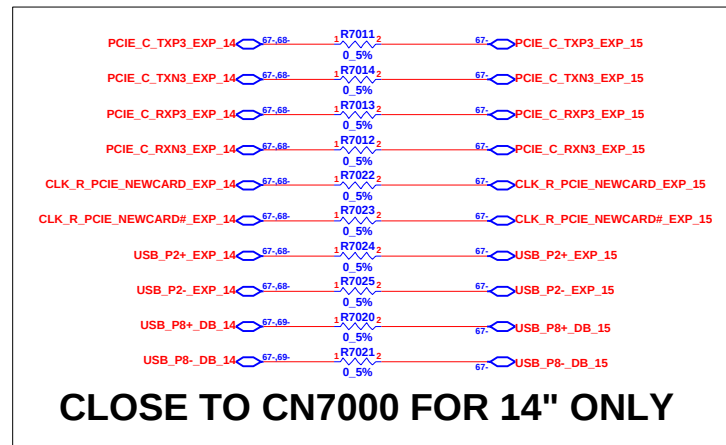
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TITLE TT2.0			
MDC CONNECTOR			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101	REV A01
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- | | |
|-----------------------|------------------|
| 1 GND | 19 +V3S |
| 2 PCIE_C_TXP | 20 +V3A |
| 3 PCIE_C_TXN | 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_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 +V5S | 36 USB_P8- |



EXPRESS CARD DAUGHTER BOARD

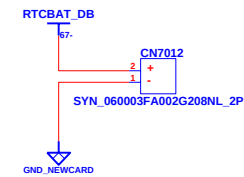
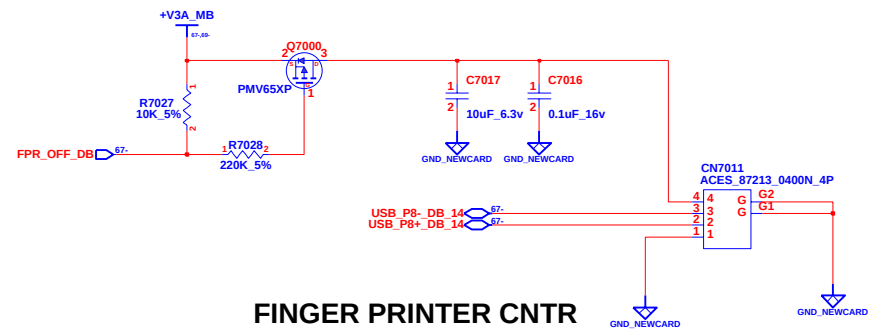
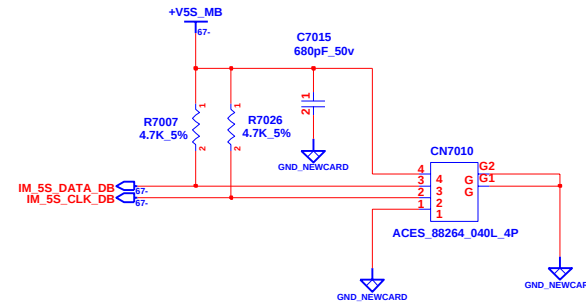
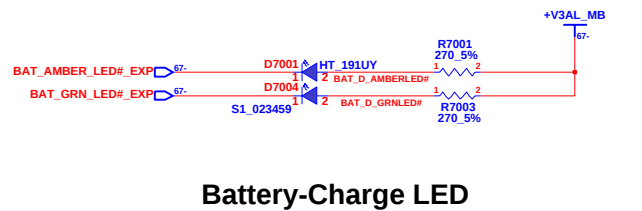
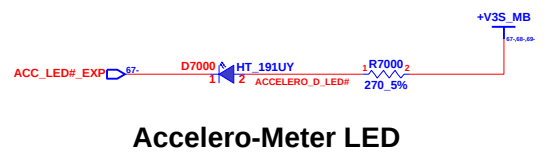
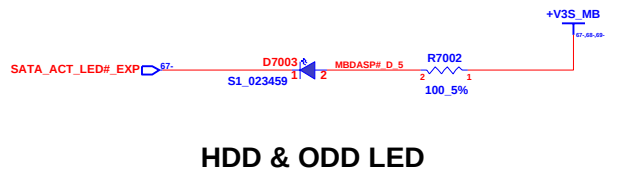
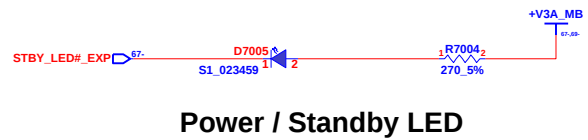
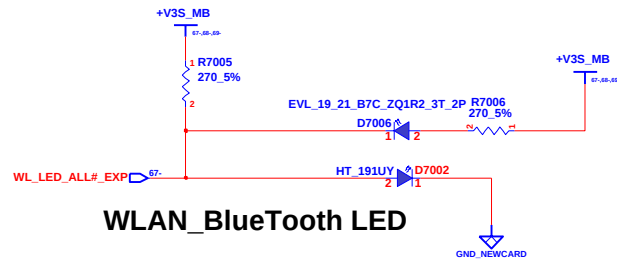
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TITLE TT2.0 NEW CARD CONNECTOR			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101	REV A01
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EXPRESS CARD DAUGHTER BOARD

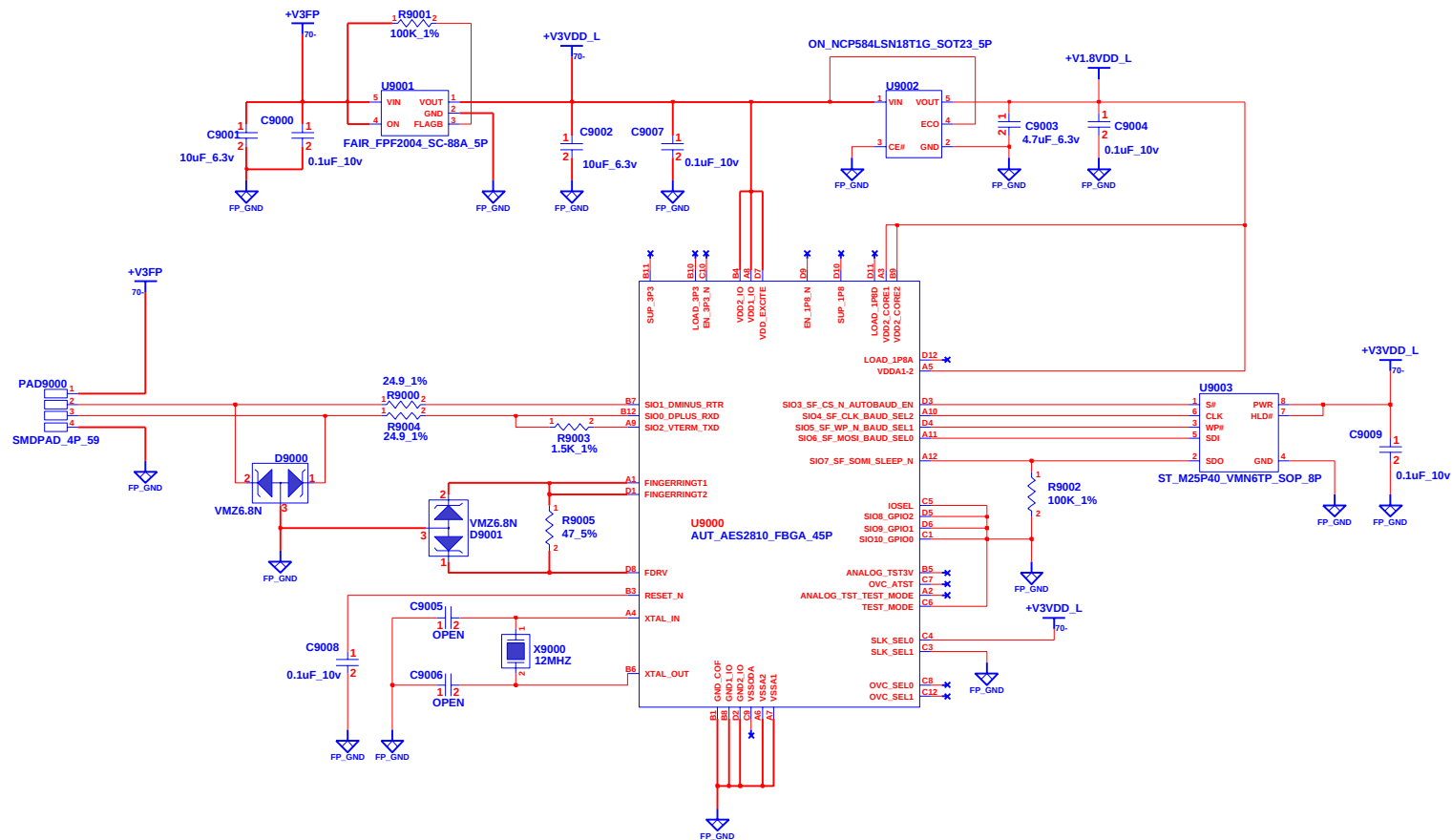


INVENTEC

TITLE			
TT2.0			
NEW CARD LED			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01

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Layout notes :

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.

Finger Print Reader DB

INVENTEC

TITLE
TT2.0
FINGER PRINT READER

SIZE CODE DOC. NUMBER REV
A3 CS 1310A2150101 A01

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