

# TT 2.0

## PV1-Build A01 Final

2008/04/08

DATE	CHANGE NO.	REV

DRAWER	EE	DATE	POWER	DATE	<b>INVENTEC</b>			
DESIGN								
CHECK								
RESPONSIBLE								
TITLE					TT20			
SIZE =	3	VER :						
FILE NAME :	XXXX-XXXXXX-XX				SIZE	CODE	DOC. NUMBER	REV
P/N	XXXXXXXXXXXX				A3	CS	1310A21501-0	AX4
					SHEET	1	OF	70

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**INVENTEC**

TITLE *TT2.0*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by *Kevin Hsiao*      8-Apr-2008

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# Inventec Confidential

**AMD  
Lion / Sable**  
S1G2 Socket/638 pin

**AMD  
RS780  
FCBGA**

**AMD  
SB700  
FCBGA**

DDR II \_SODIMM0

DDR II \_SODIMM1

**NIC**  
Giga-bit LAN  
BCM 5787M

RJ45

PCIE2  
USB10  
MINI CARD for WLAN(MIMO)/WiMAX

PCIE3  
USB1  
PCIE Express card (Smart card adapter)

USB6  
MINI CARD for WWAN/WLAN/WiMAX

**1394  
Controller  
Agere  
FW322-07-NV100**

1394  
CONN

Accelero  
Meter

TV Docking  
TV  
LCM  
LVDS  
CRT Docking  
CRT

DVI Docking  
TMDS

HDD  
SATA 0

Fixed ODD  
SATA 1

USB0 CONN A  
USB2 CONN B  
USB4 DB CONN C  
USB5 DB CONN D  
USB7 CAMERA  
USB8 Docking  
USB9 Docking  
USB11 Bluetooth  
USB13 Finger Print

7 in 1 Slot  
USB3  
Flash media  
SMSC USX2016

Docking connector

MAIN BATT  
TRAVEL BATT

System Charger &  
DC/DC System power

**MDC  
Modem Module  
V1.5**

RJ11

**Audio  
ADI\_1984A**

Line Out  
Docking  
Line In  
MIC In  
Head Phone

**TPM  
V1.2**

**Super I/O  
47N217**

Serial Port  
Docking  
Parallel Port  
Docking

**KBC  
SMSC 1091  
(128P)**

PS2 Port  
Docking  
Internal  
Keyboard  
BIOS

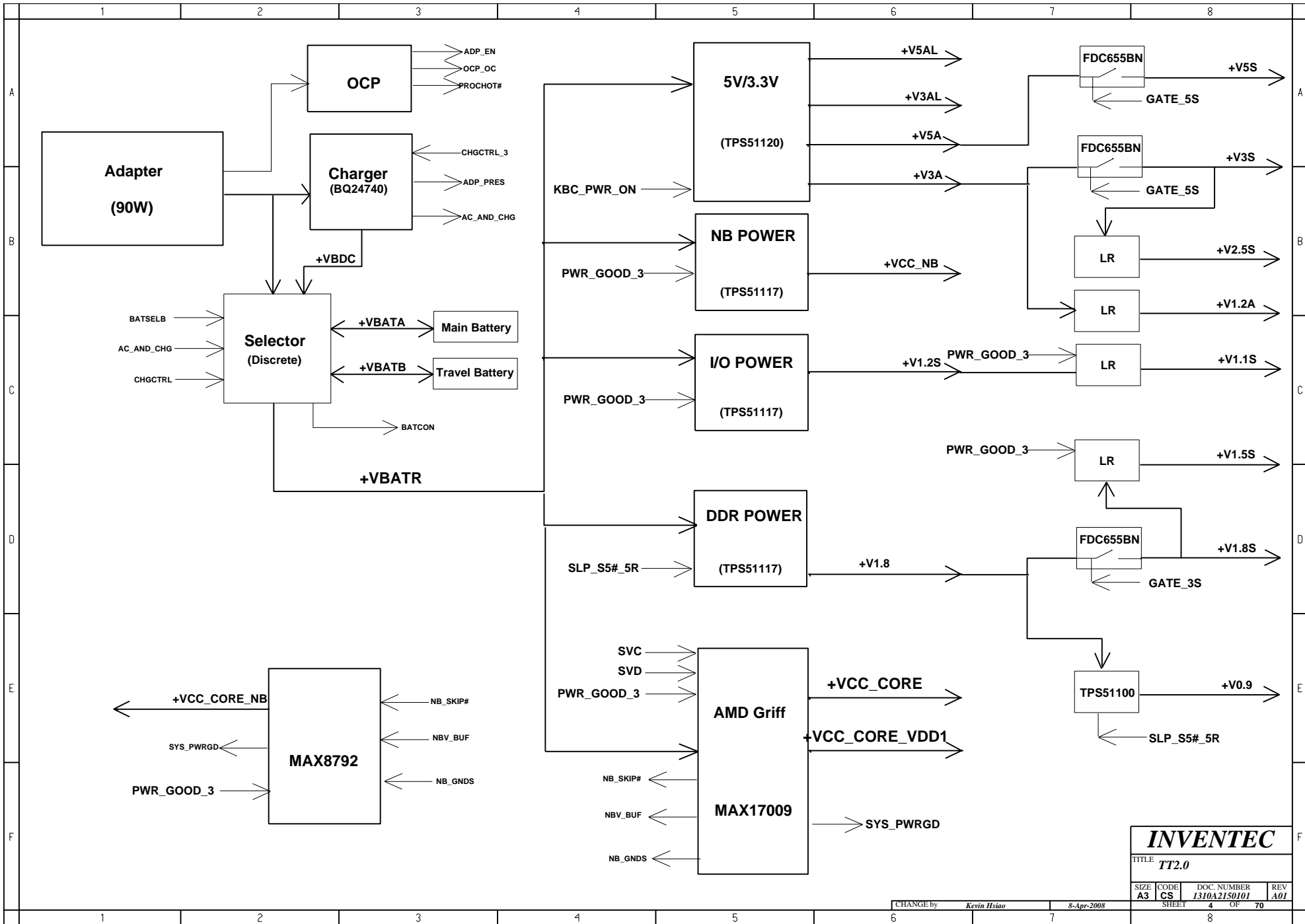
**INVENTEC**

TITLE *TT2.0*  
Block Diagram

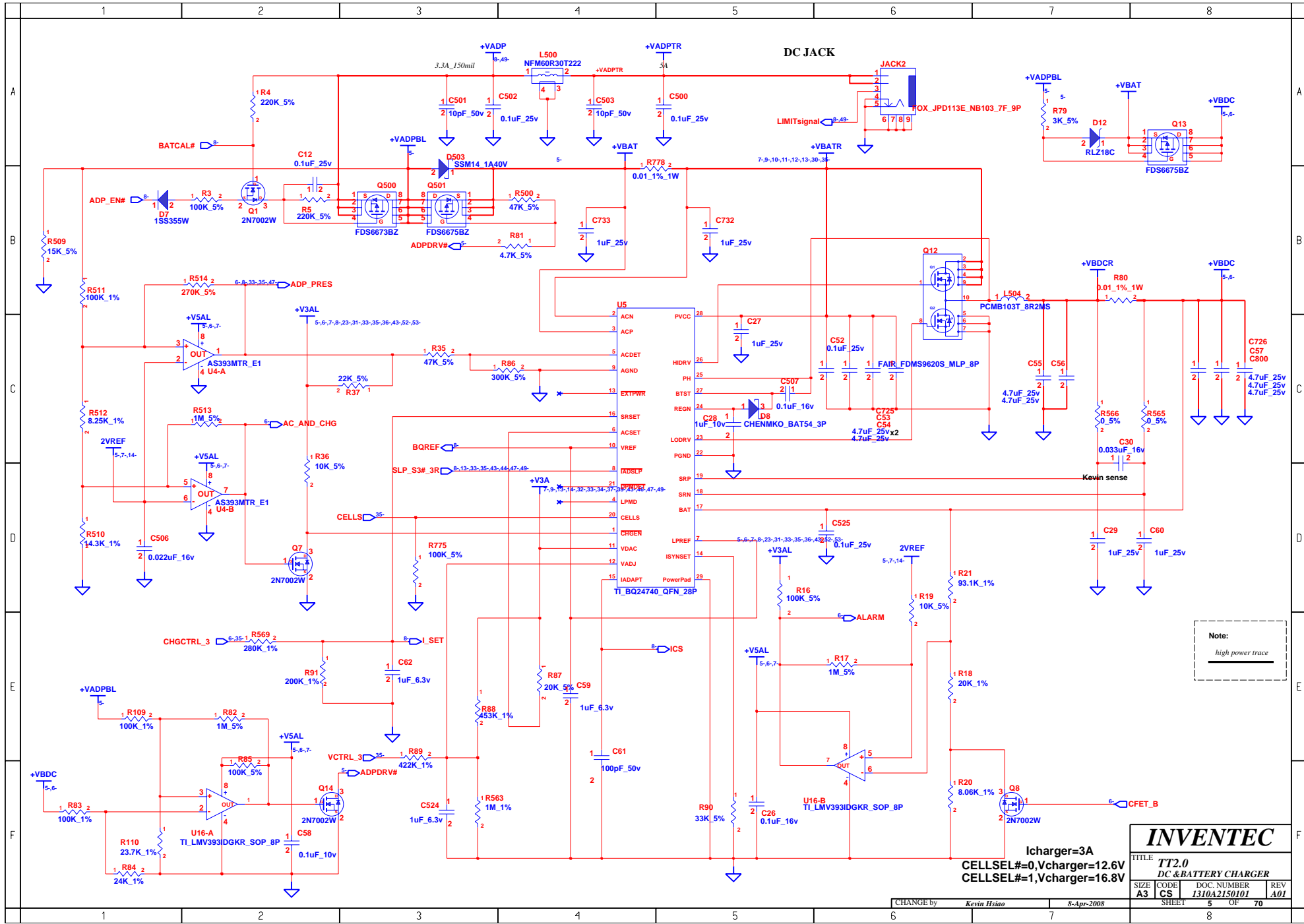
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
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CHANGE by *Kevin Hsiao* 8-Apr-2008

SHEET 3 OF 70



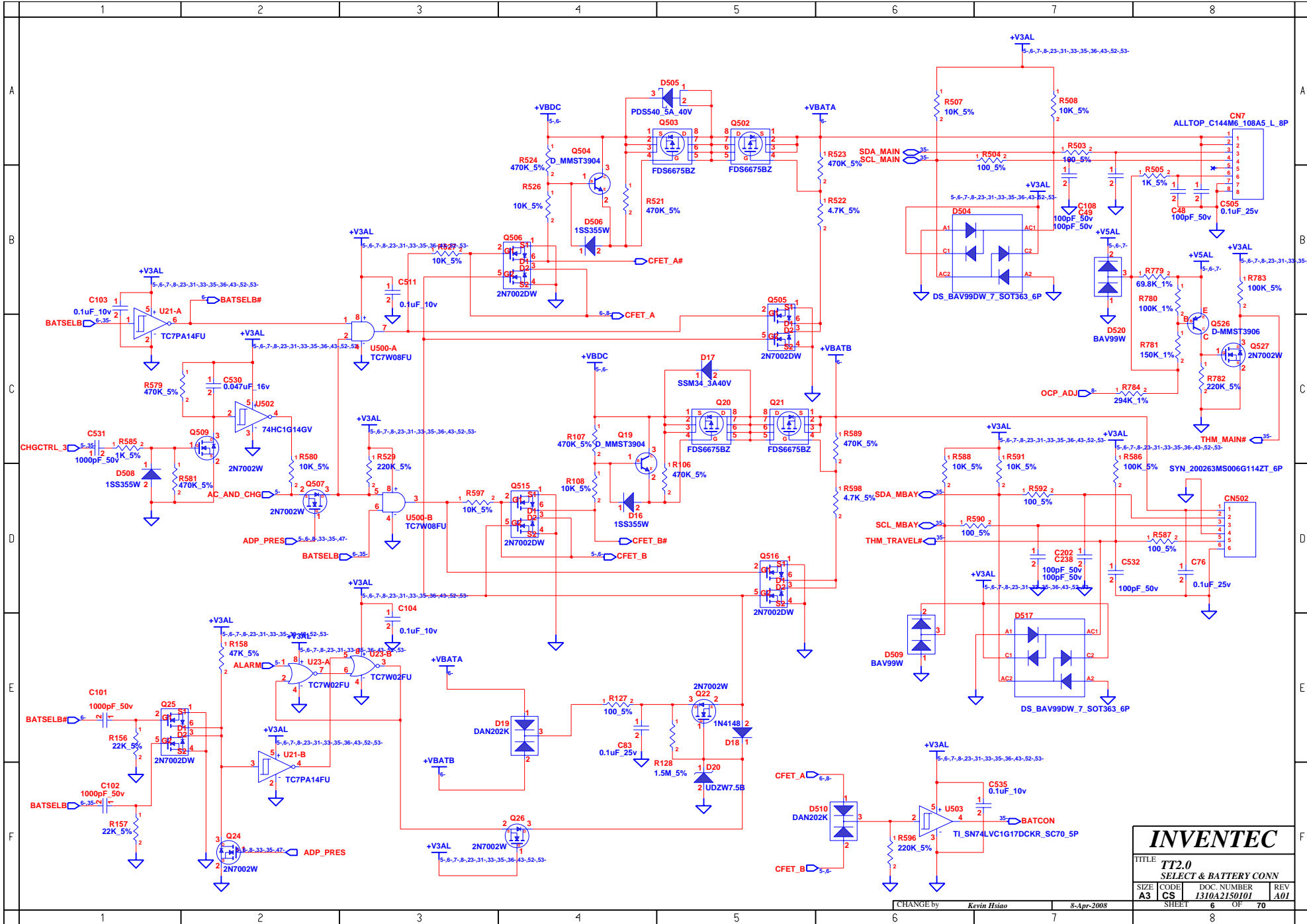
<b>INVENTEC</b>			
TITLE TT2.0			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101	REV A01
CHANGE by Kevin Hsiao		8-Apr-2008	
SHEET 4		OF 70	



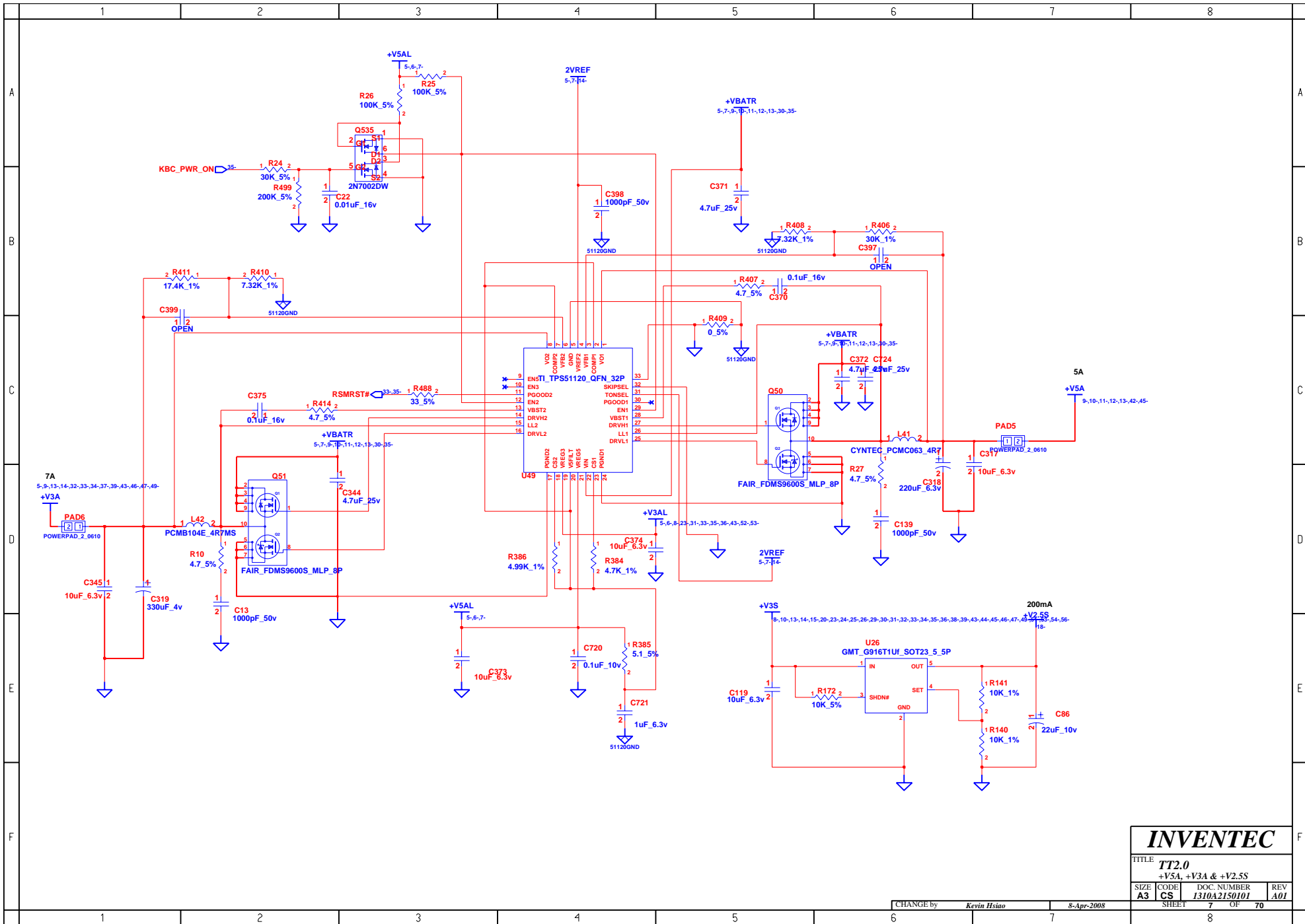
Note:  
high power trace

Icharger=3A  
CELLSEL#=0,Vcharger=12.6V  
CELLSEL#=1,Vcharger=16.8V

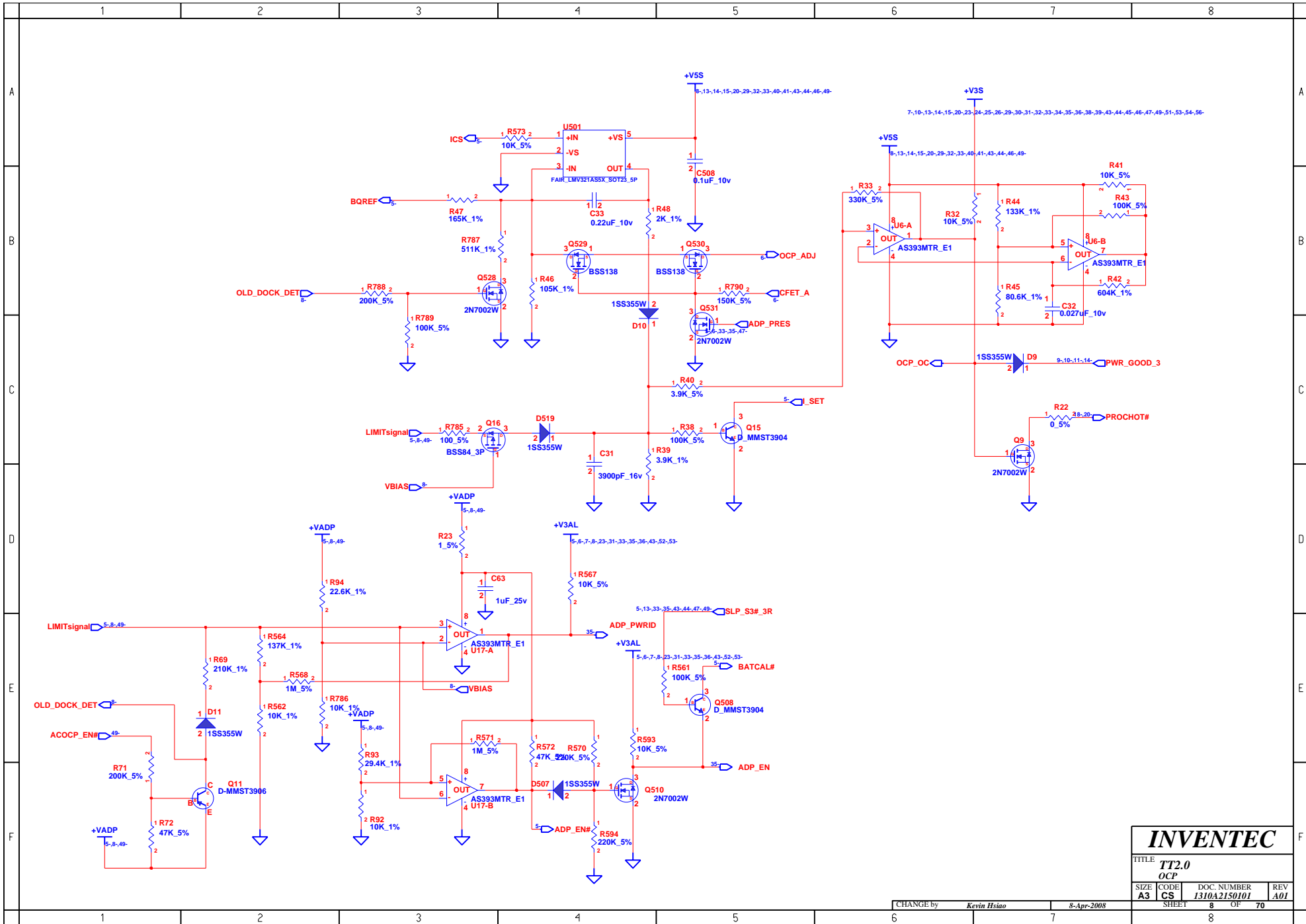
<b>INVENTEC</b>			
TITLE TT2.0 DC & BATTERY CHARGER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
CHANGE by Kevin Hsiao		8-Apr-2008	
SHEET 5		OF 70	



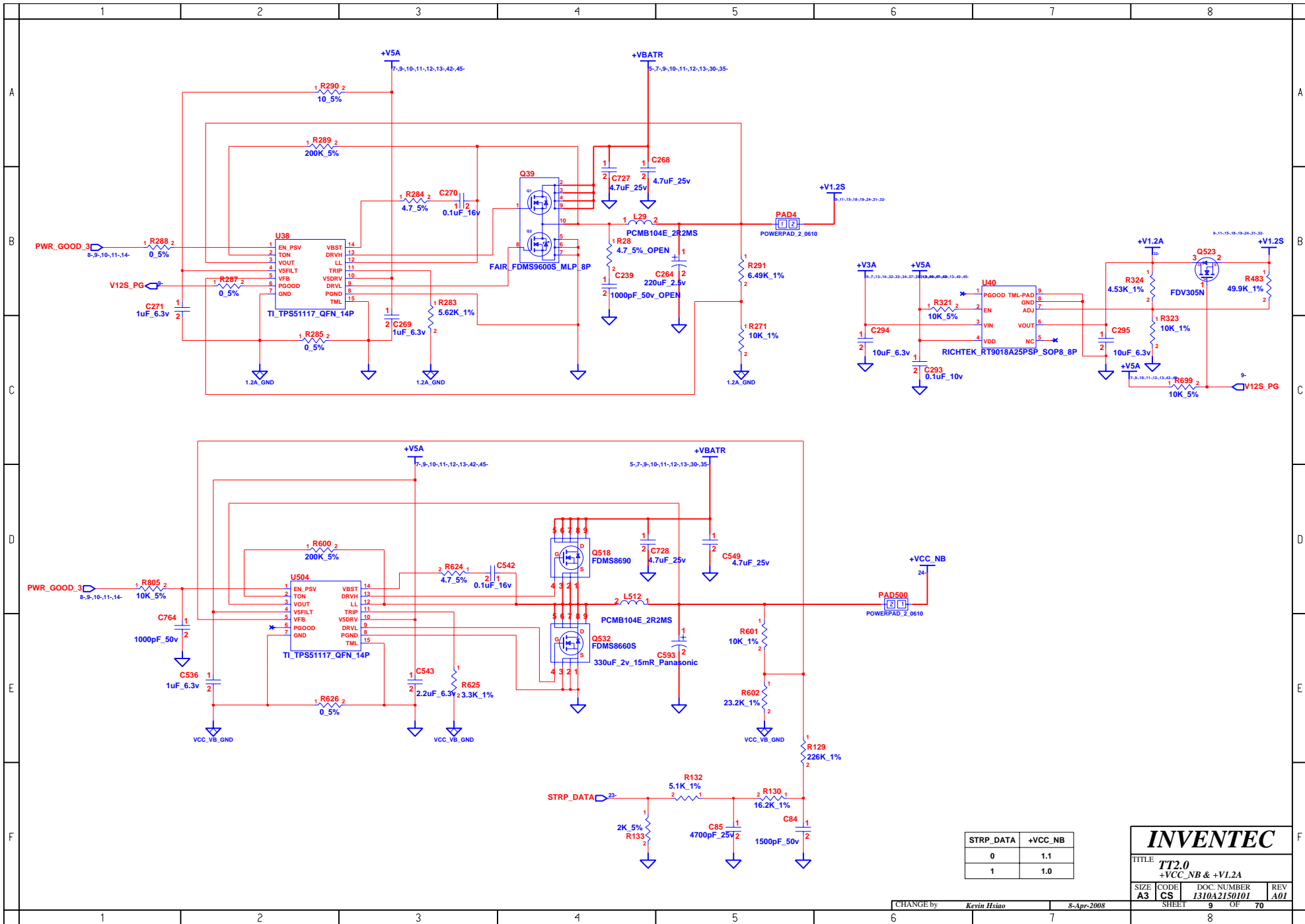
<b>INVENTEC</b>			
TITLE <b>TT2.0</b>			
SELECT & BATTERY CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01



<b>INVENTEC</b>			
TITLE <b>TT2.0</b>			
+V5A, +V3A & +V2.5S			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>I310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET 7		OF 70	



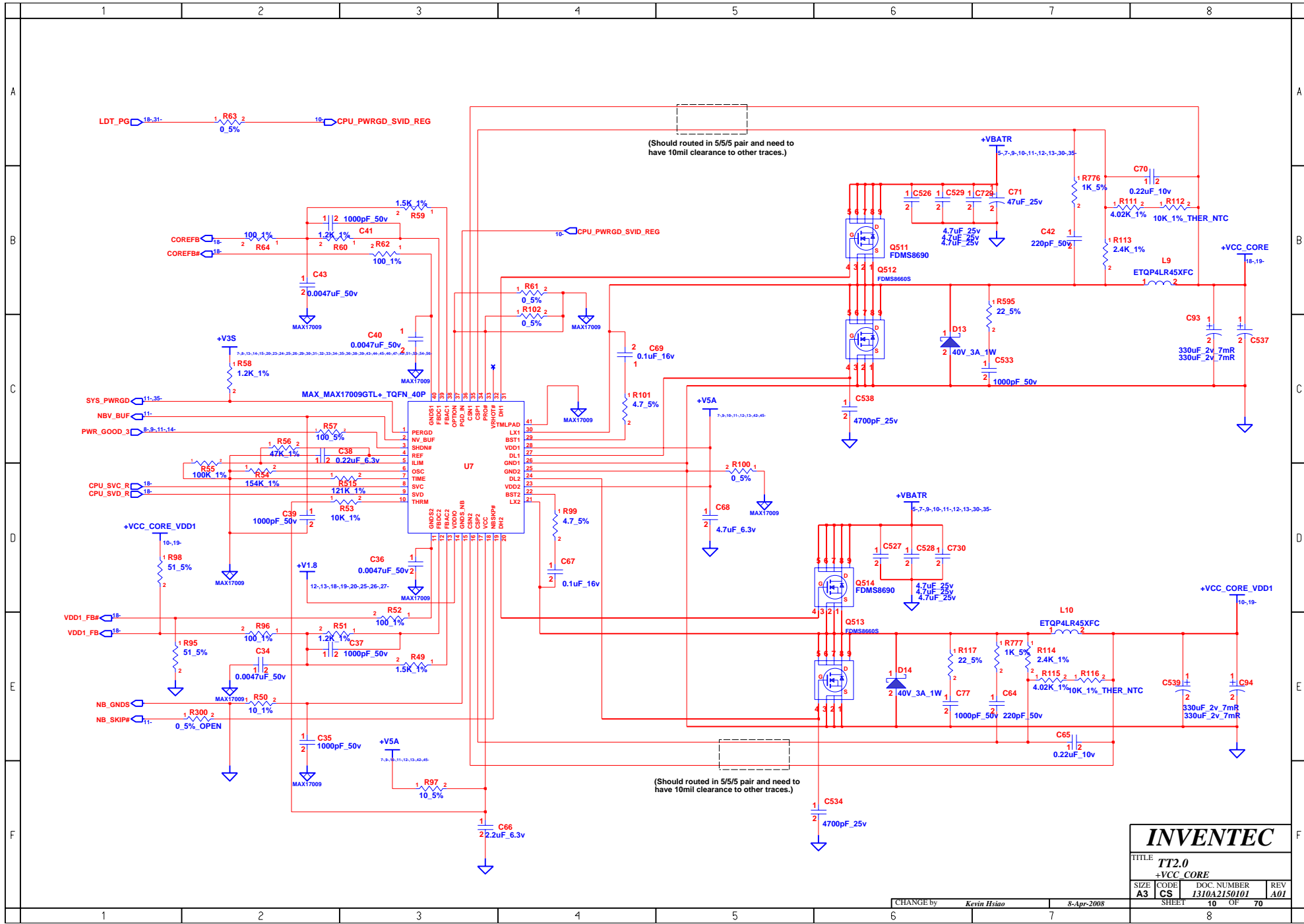
<b>INVENTEC</b>			
TITLE <b>TT2.0 OCP</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET		8 OF 70	



STRP_DATA	+VCC_NB
0	1.1
1	1.0

<b>INVENTEC</b>			
TITLE <b>TT2.0</b>			
+VCC_NB & +V1.2A			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2150101	A01
CHANGE by		SHEET	OF
Kevin Hsiao		9	70

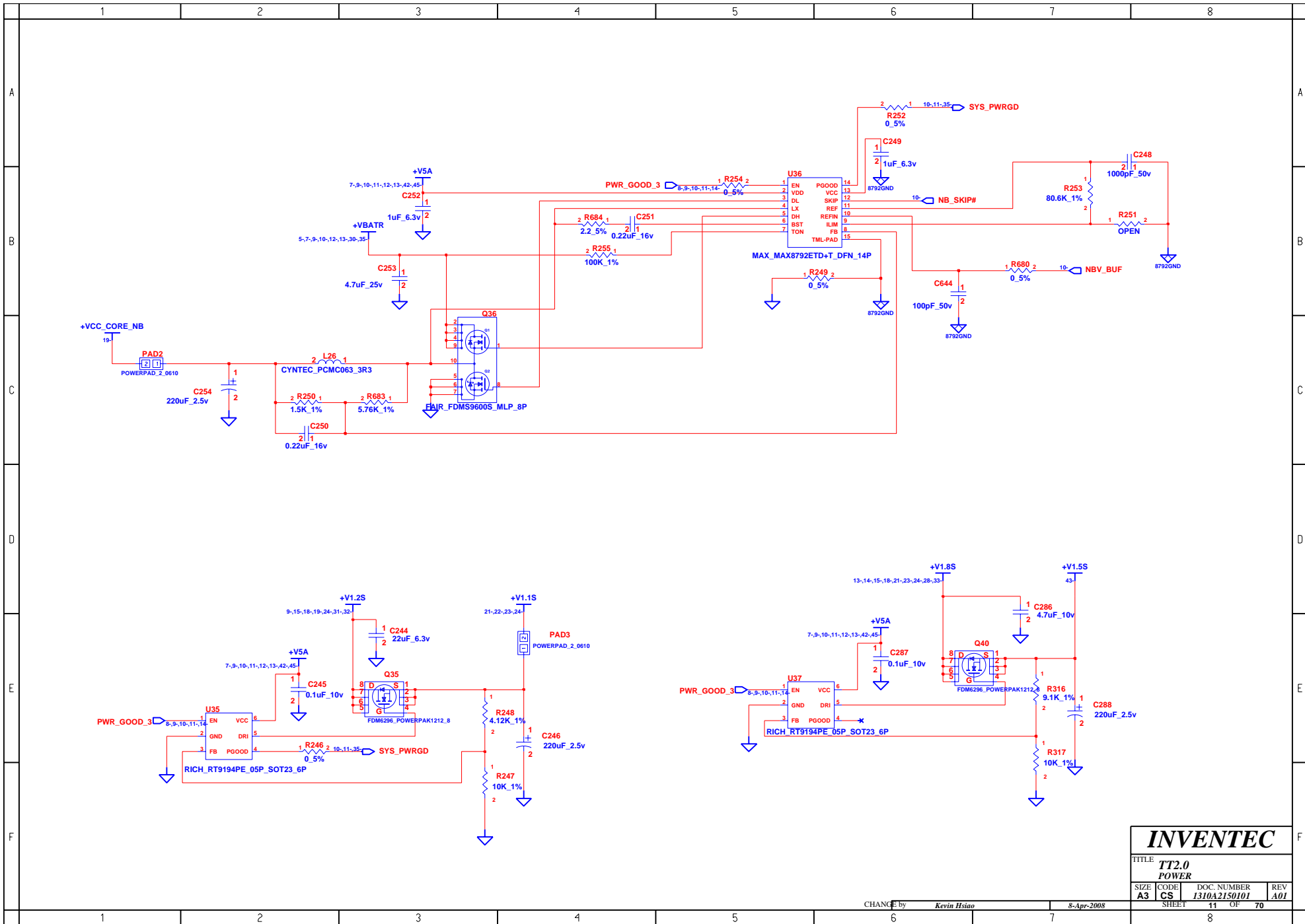
CHANGE by Kevin Hsiao 8-Apr-2008



(Should routed in 5/5 pair and need to have 10mil clearance to other traces.)

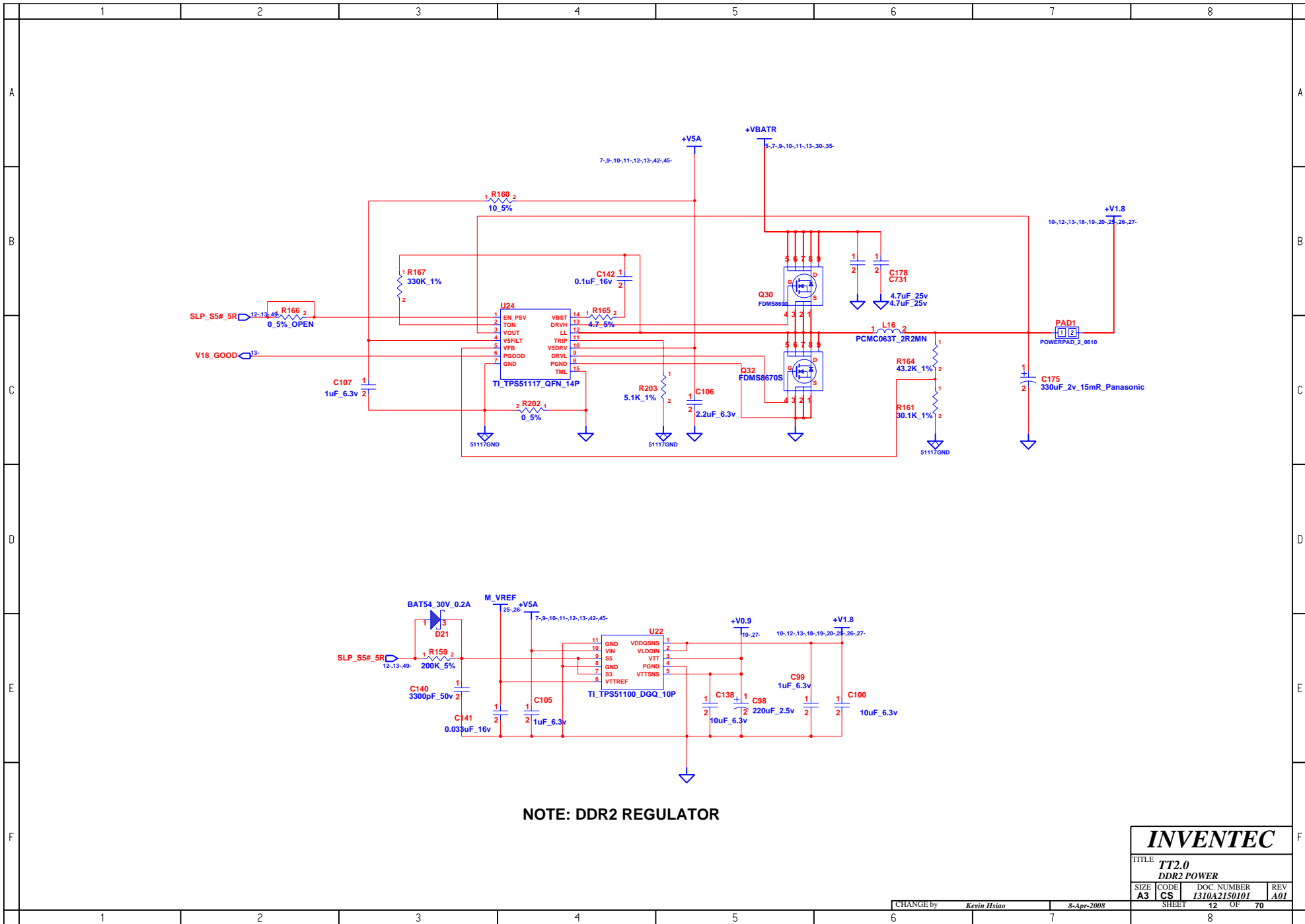
(Should routed in 5/5 pair and need to have 10mil clearance to other traces.)

<b>INVENTEC</b>			
TITLE <b>TT2.0</b>			
+VCC_CORE			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET <b>10</b>		OF <b>70</b>	



# INVENTEC

TITLE			
TT2.0			
POWER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
CHANGE by		SHEET	
Kevin Hsiao		11 OF 70	

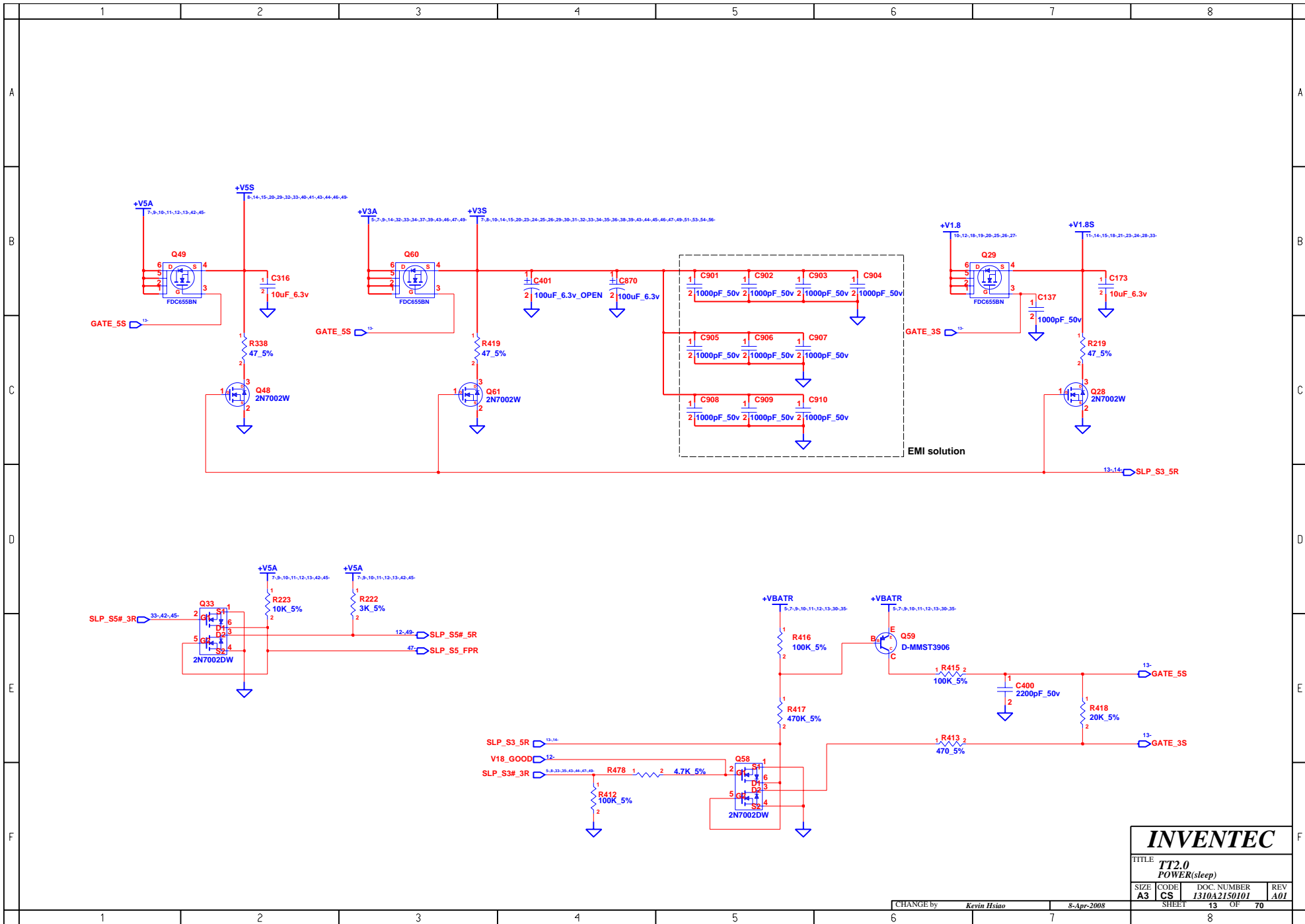


NOTE: DDR2 REGULATOR

**INVENTEC**

TITLE			
TT2.0			
DDR2 POWER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
CHANGE by		SHEET	
Kevin Hsiao		12 OF 70	

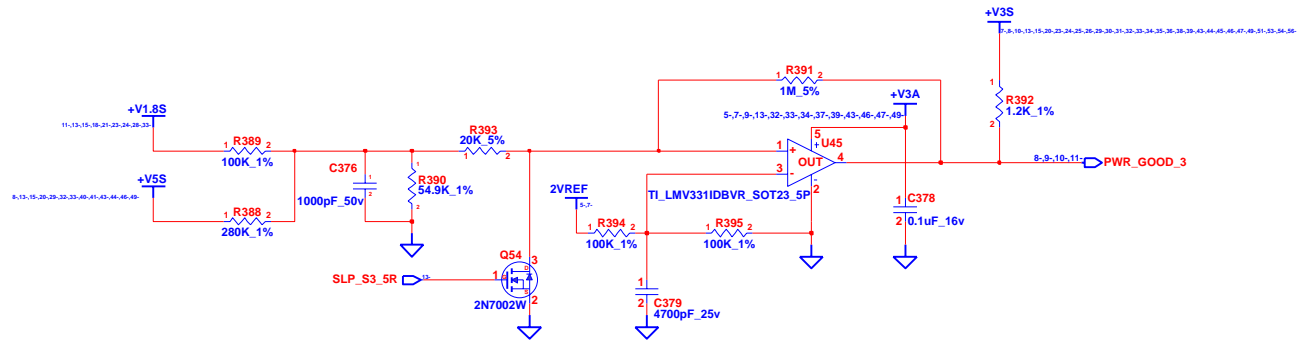
8-Apr-2008



# INVENTEC

TITLE TT2.0 POWER(sleep)			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101	REV A01
SHEET 13		OF 70	

CHANGE by Kevin Hsiao 8-Apr-2008



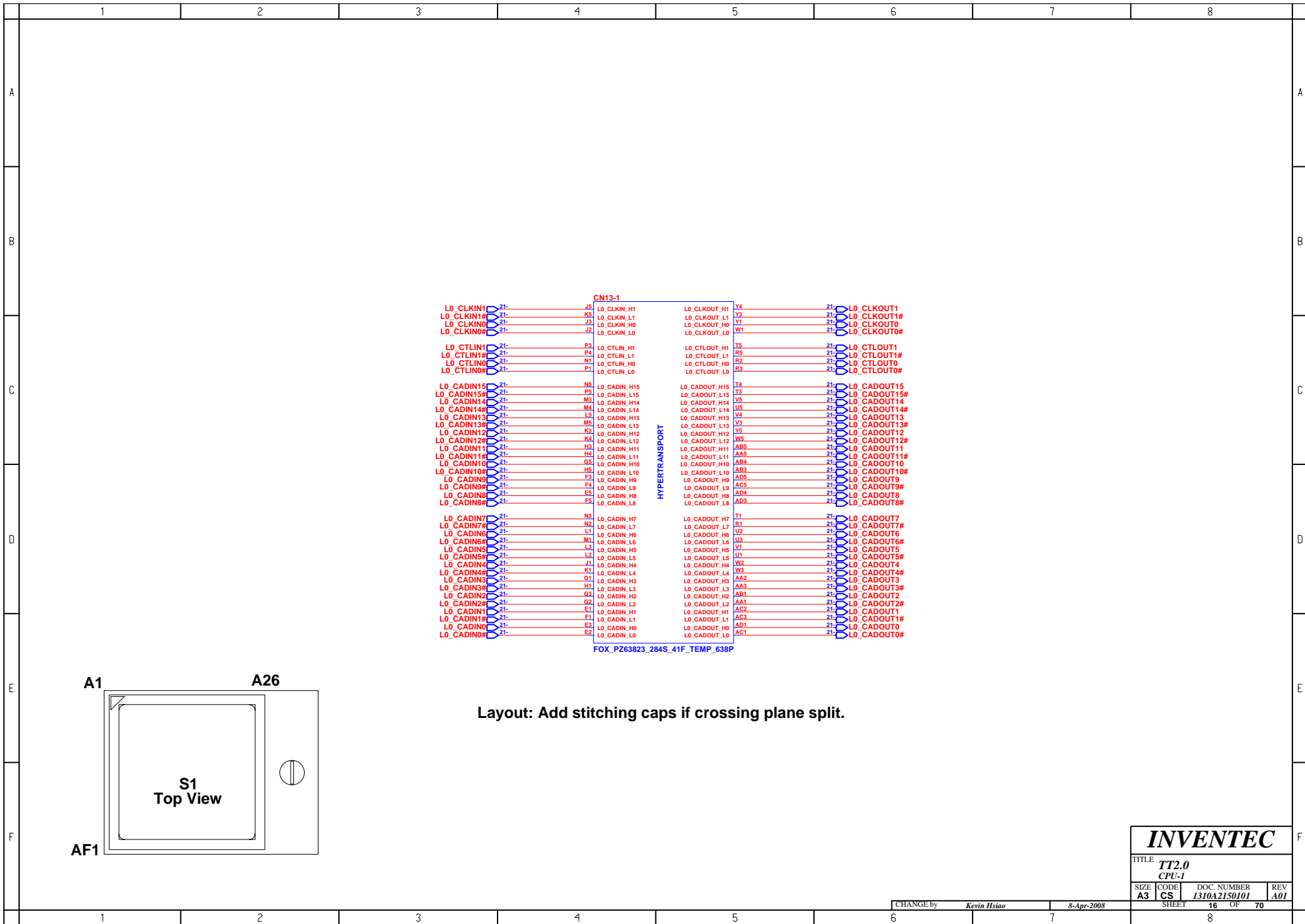
**INVENTEC**

TITLE			
TT2.0			
POWER(Sequence)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 14 OF 70



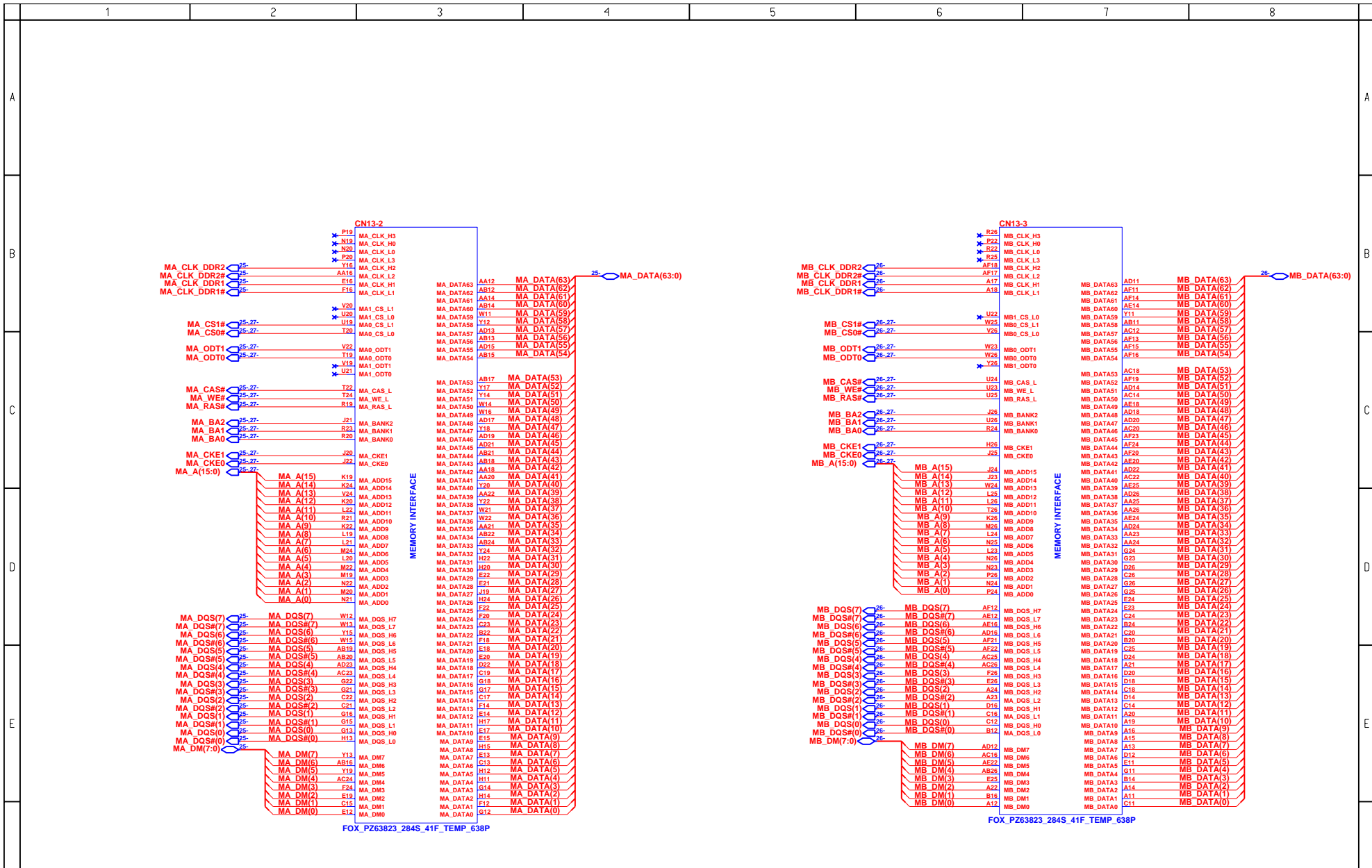


Layout: Add stitching caps if crossing plane split.

**INVENTEC**

TITLE			
TT2.0			
CPU-1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01
CHANGE by			SHEET
Kevin Hsiao			16 OF 70

8-Apr-2008



FOX\_P263823\_284S\_41F\_TEMP\_638P

FOX\_P263823\_284S\_41F\_TEMP\_638P

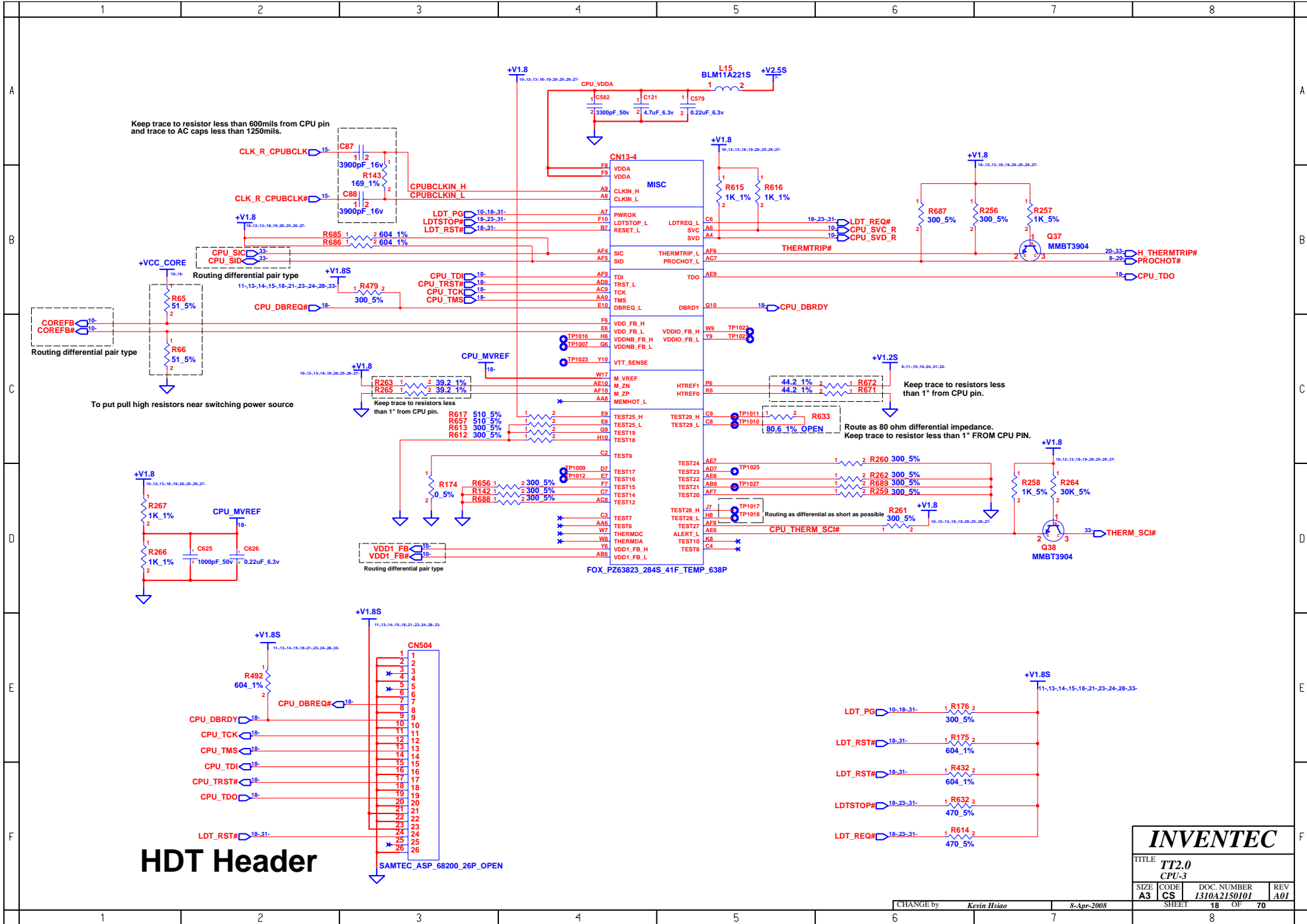
# INVENTEC

TITLE  
TT2.0  
CPU-2

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

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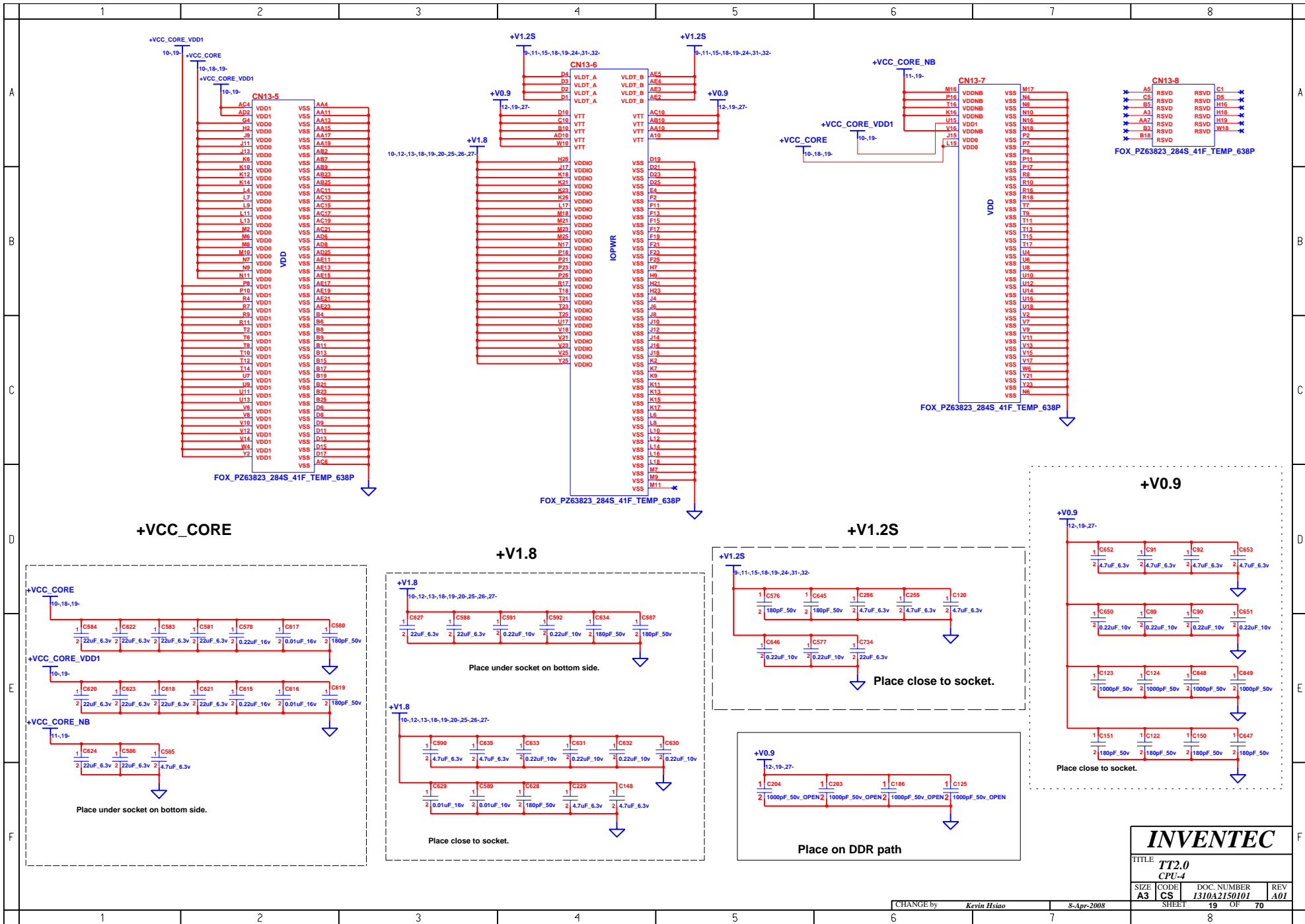
# HDT Header

SAMTEC ASP 68200 26P\_OPEN

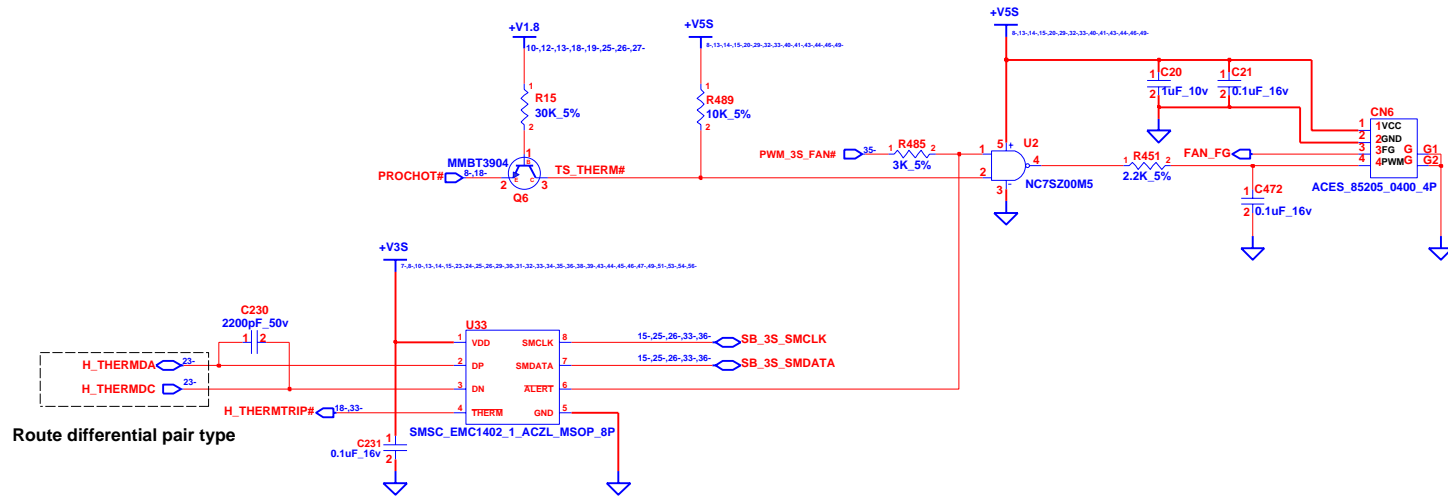
## INVENTEC

TITLE			
TT2.0			
CPU-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
SHEET		OF	
18		70	

CHANGE by Kevin Hsiao 8-Apr-2008



<b>INVENTEC</b>			
TITLE <b>TT2.0 CPU-4</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>I310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET <b>19</b>		OF <b>70</b>	



Route differential pair type

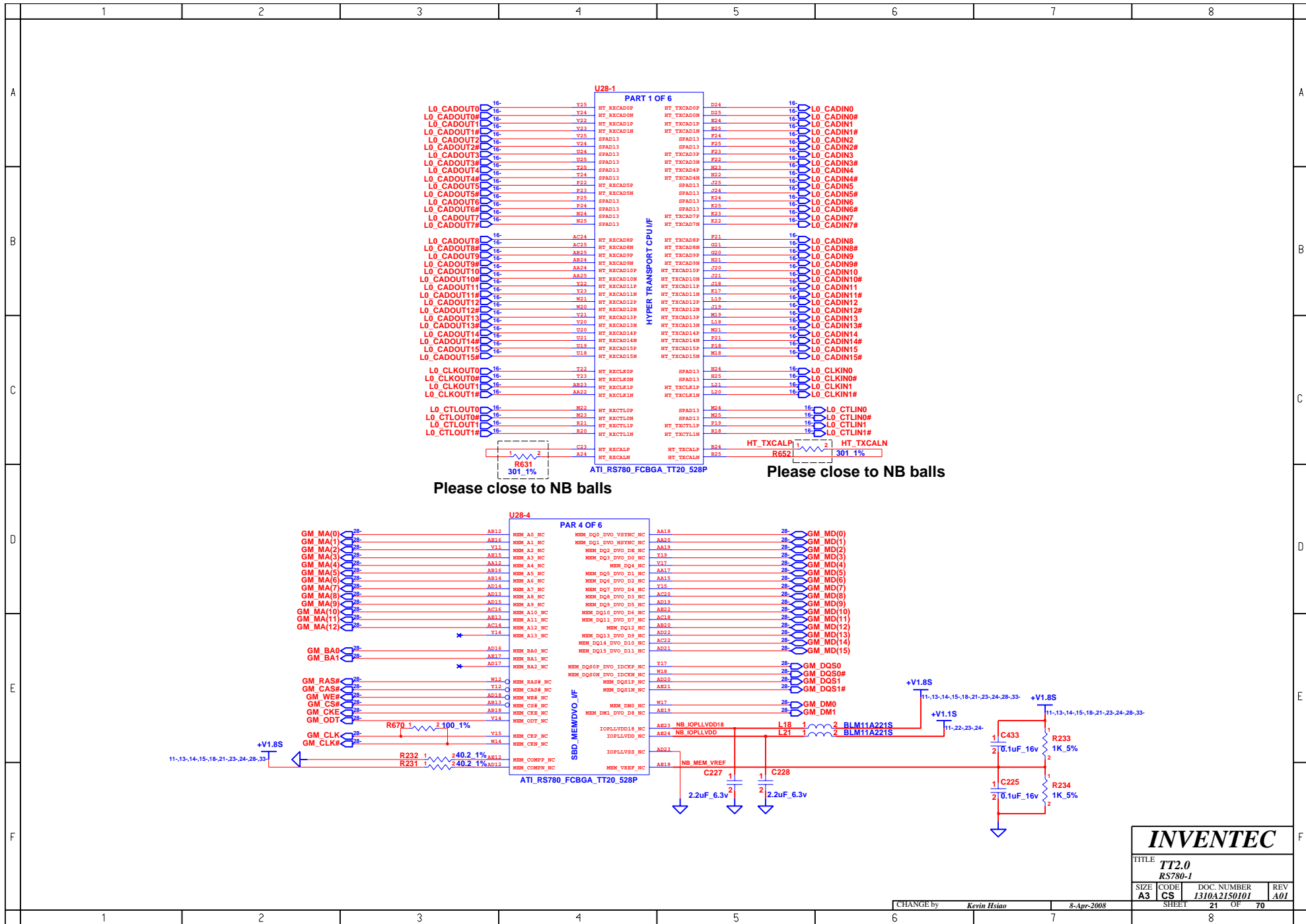
LAYOUT Note: Put the thermal sensor close to CPU.

**INVENTEC**

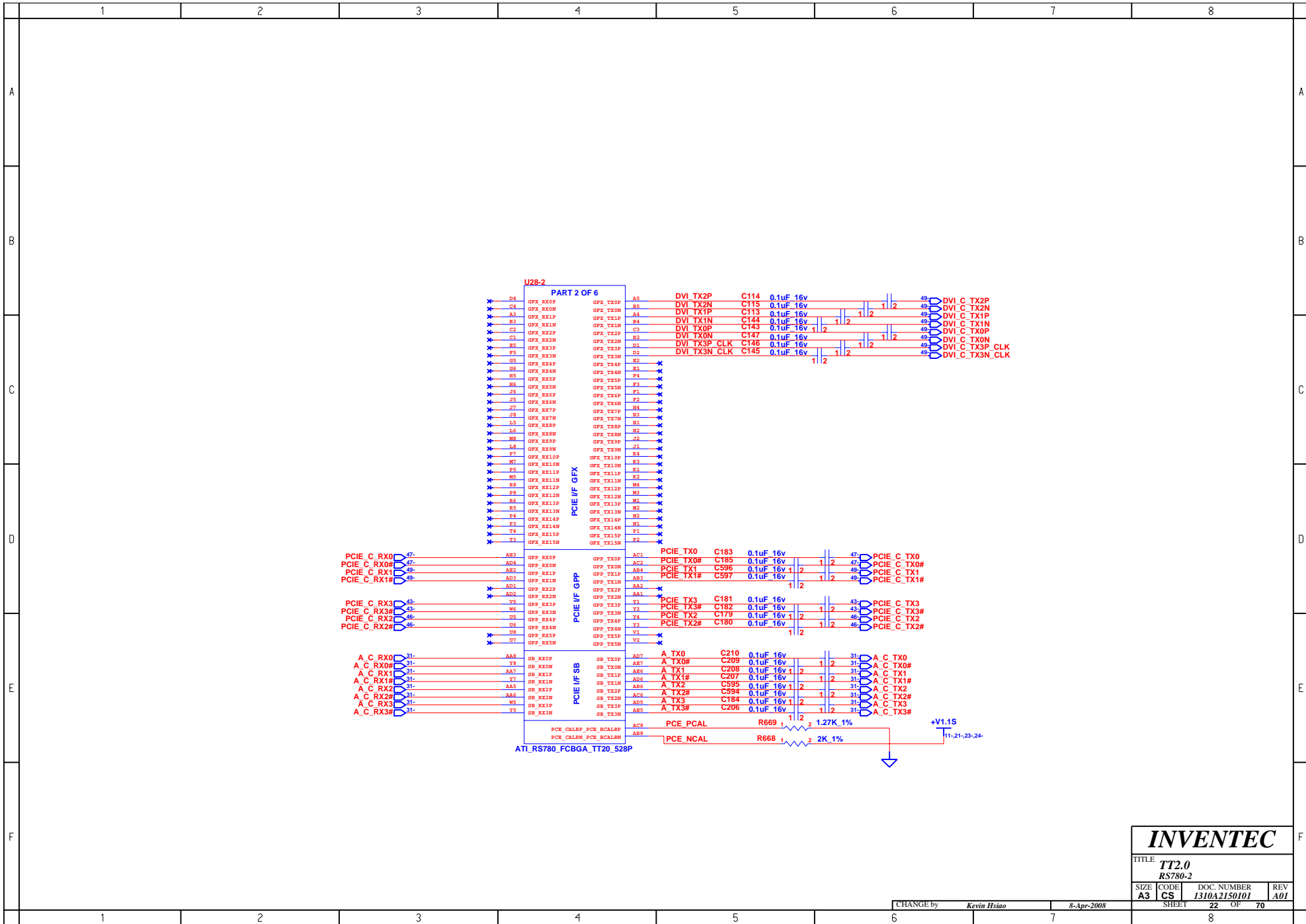
TITLE			
TT2.0			
THERMAL&FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

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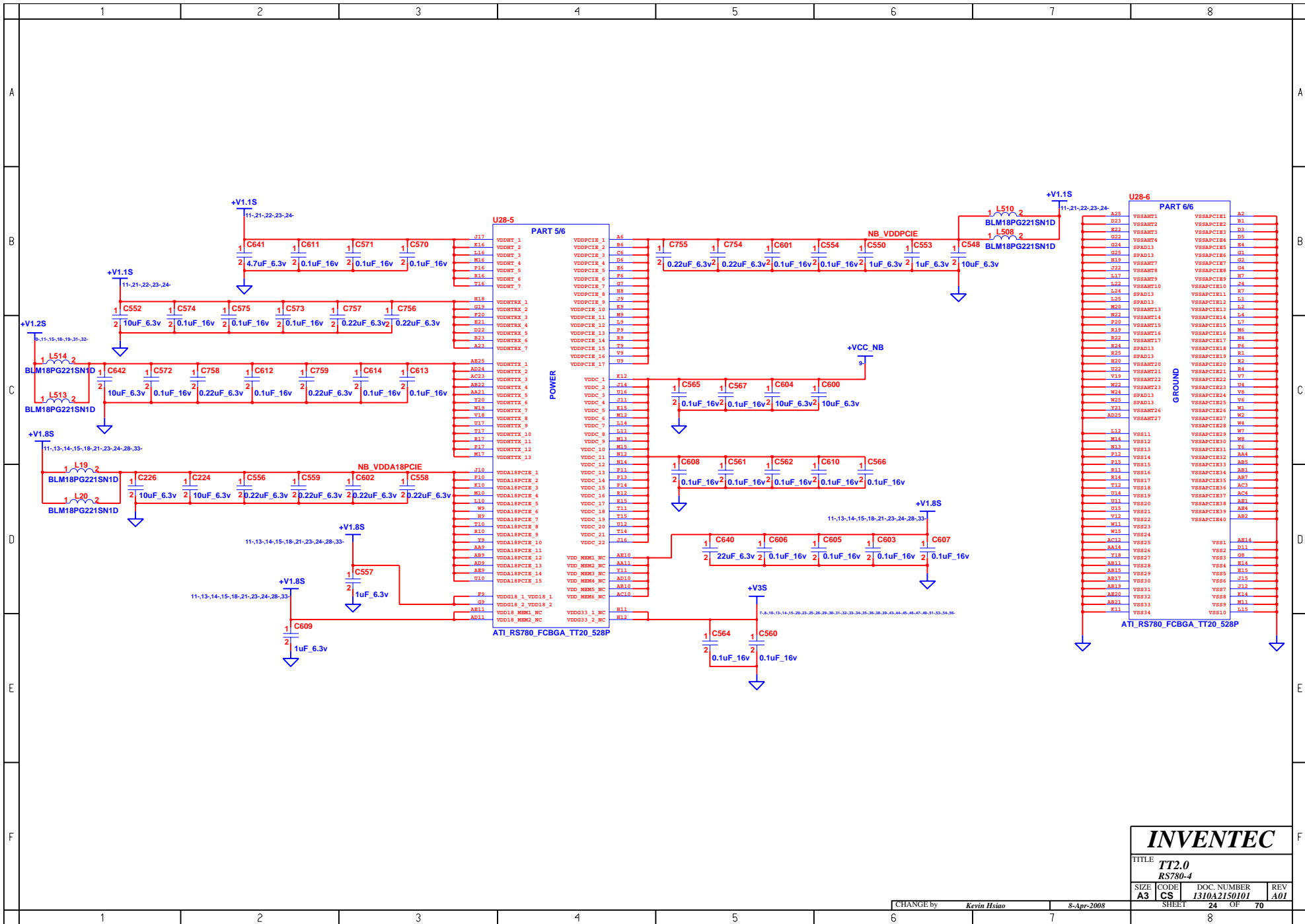


<b>INVENTEC</b>			
TITLE <b>TT2.0</b> <b>RS780-1</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET <b>21</b>		OF <b>70</b>	



<b>INVENTEC</b>			
TITLE <b>TT2.0</b> <b>RS780-2</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET <b>22</b>		OF <b>70</b>	





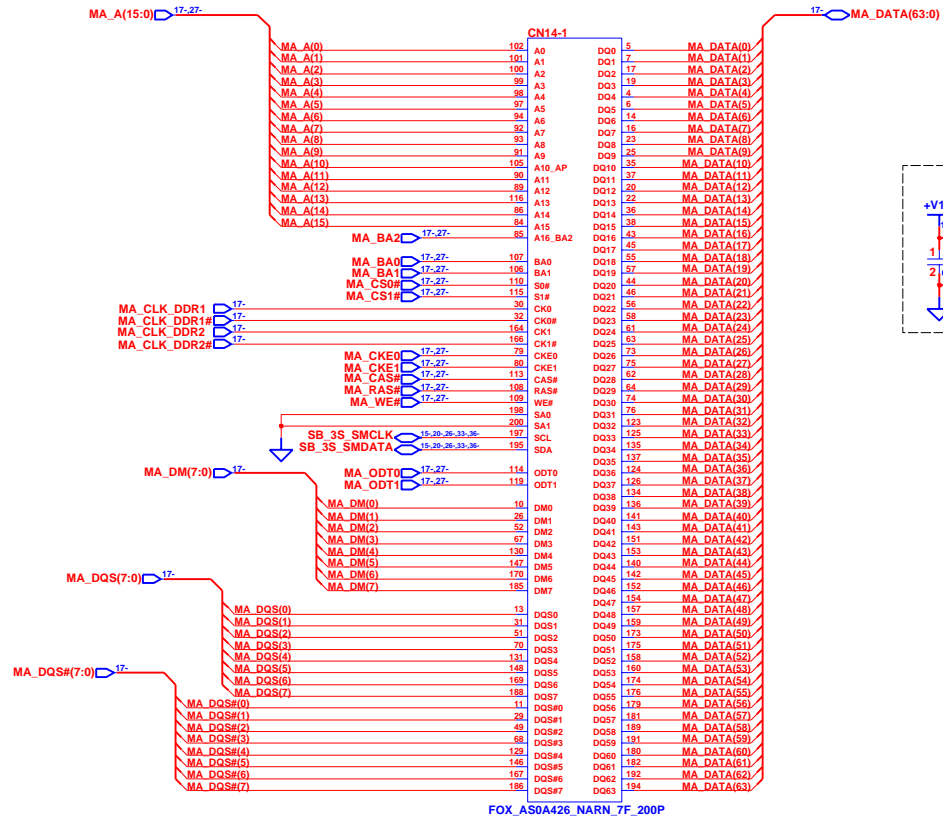
# INVENTEC

TITLE  
**TT2.0**  
**RS780-4**

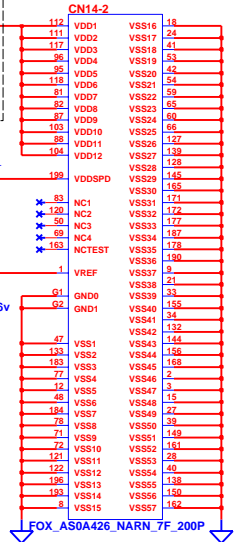
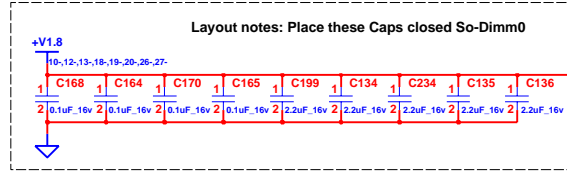
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by *Kevin Hsiao* 8-Apr-2008

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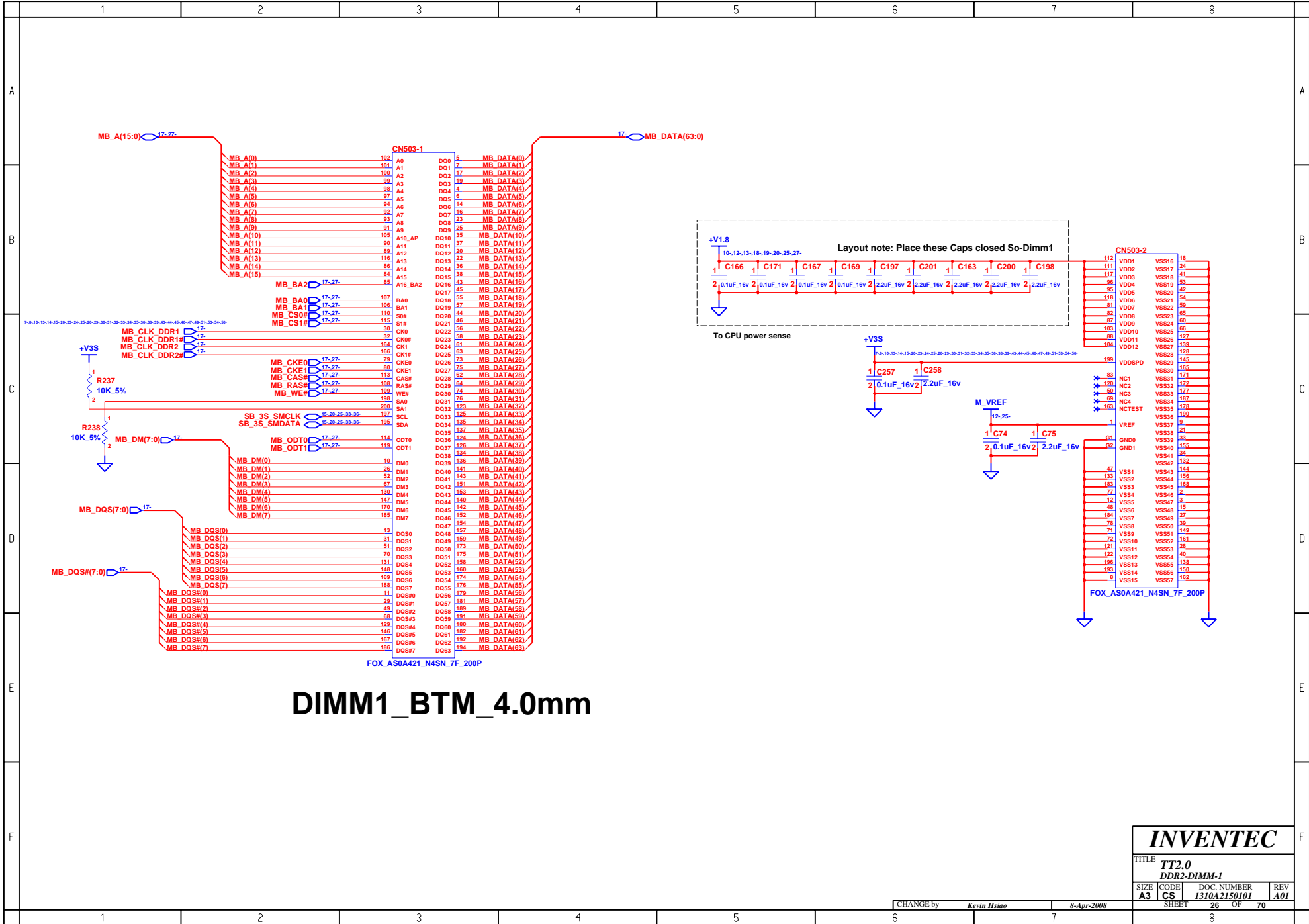
# DIMM0\_TOP\_9.2mm



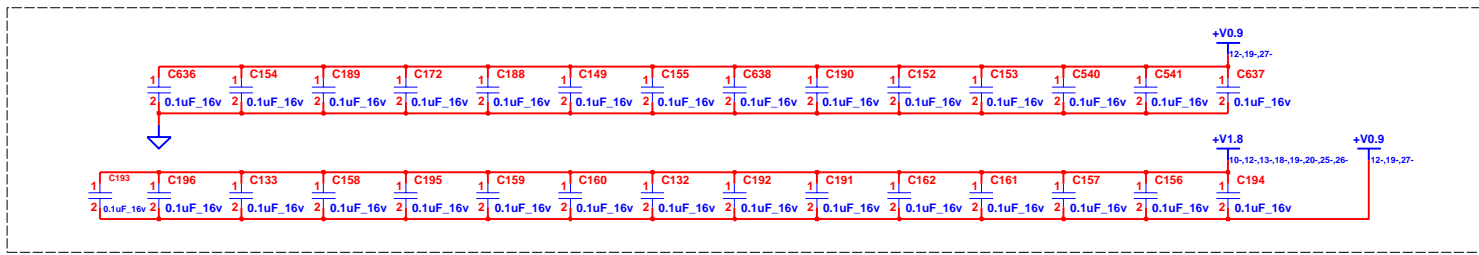
**INVENTEC**

TITLE TT2.0  
DDR2-DIMM-0

SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
CHANGE by Kevin Hsiao		8-Apr-2008	SHEET 25 OF 70

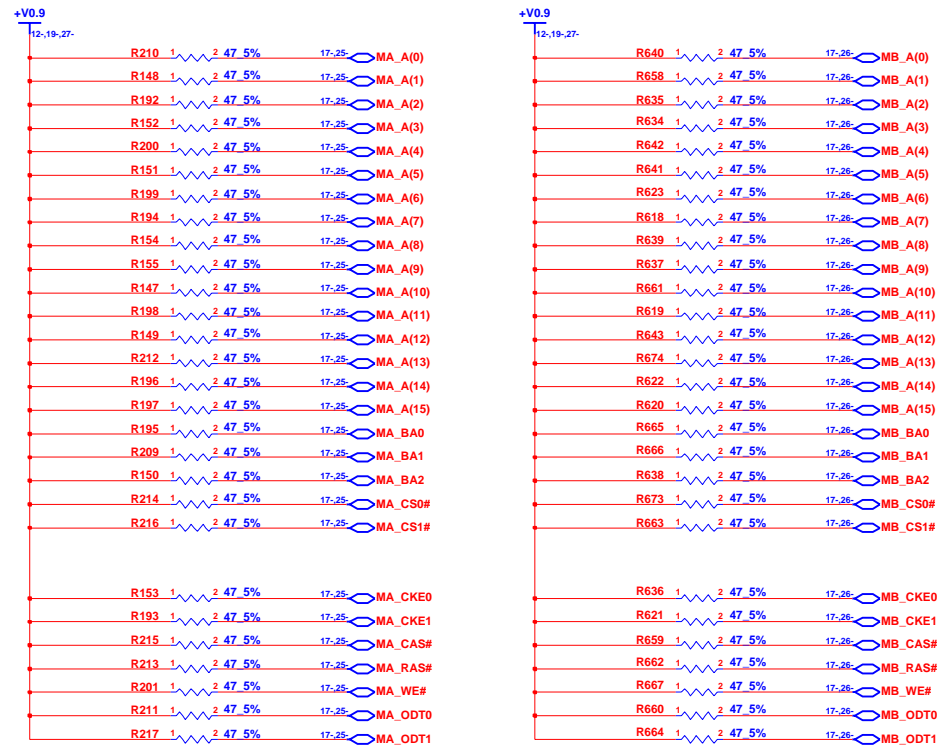


<b>INVENTEC</b>			
TITLE TT2.0 DDR2-DIMM-1			
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101	REV A01
CHANGE by Kevin Hsiao		8-Apr-2008	SHEET 26 OF 70



To CPU power sense

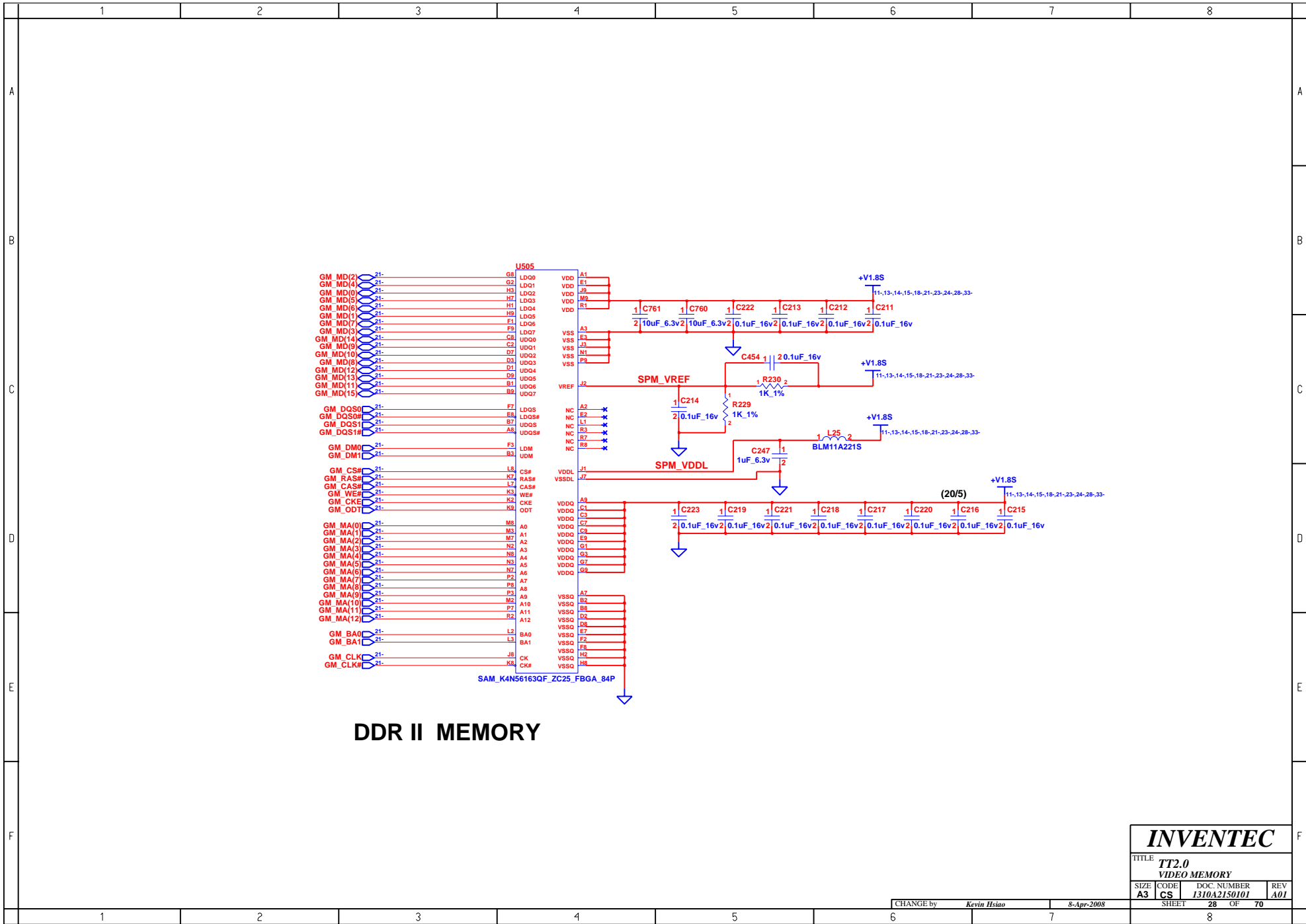
## Place CAPs close to DIMM



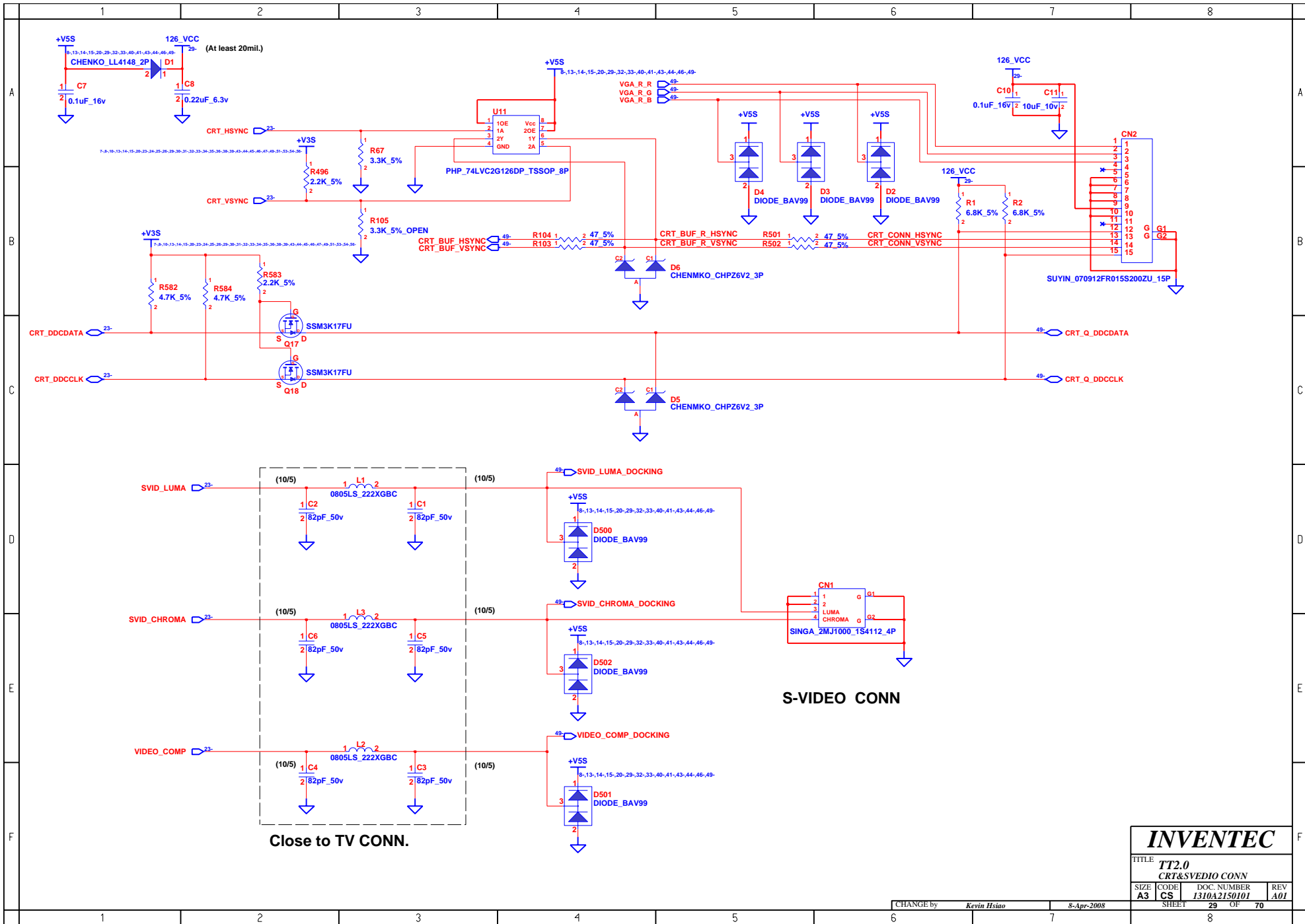
# INVENTEC

TITLE			
TT2.0			
DDR2-DAMPING			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
SHEET		OF	
27		70	

CHANGE by *Kevin Hsiao* 8-Apr-2008

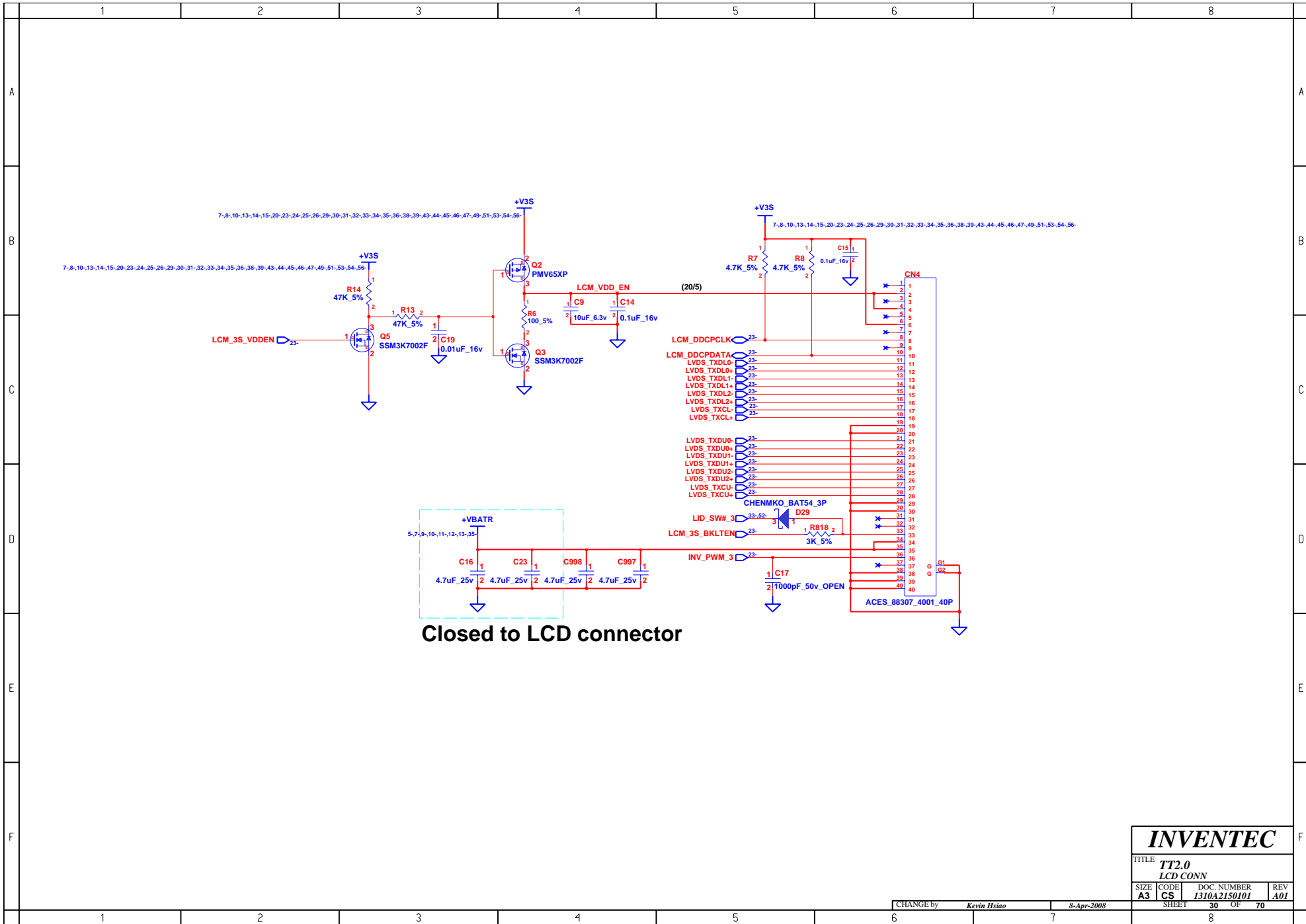


<b>INVENTEC</b>			
TITLE <b>TT2.0</b>			
VIDEO MEMORY			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2150101	A01
CHANGE by		8-Apr-2008	
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# INVENTEC

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



# INVENTEC

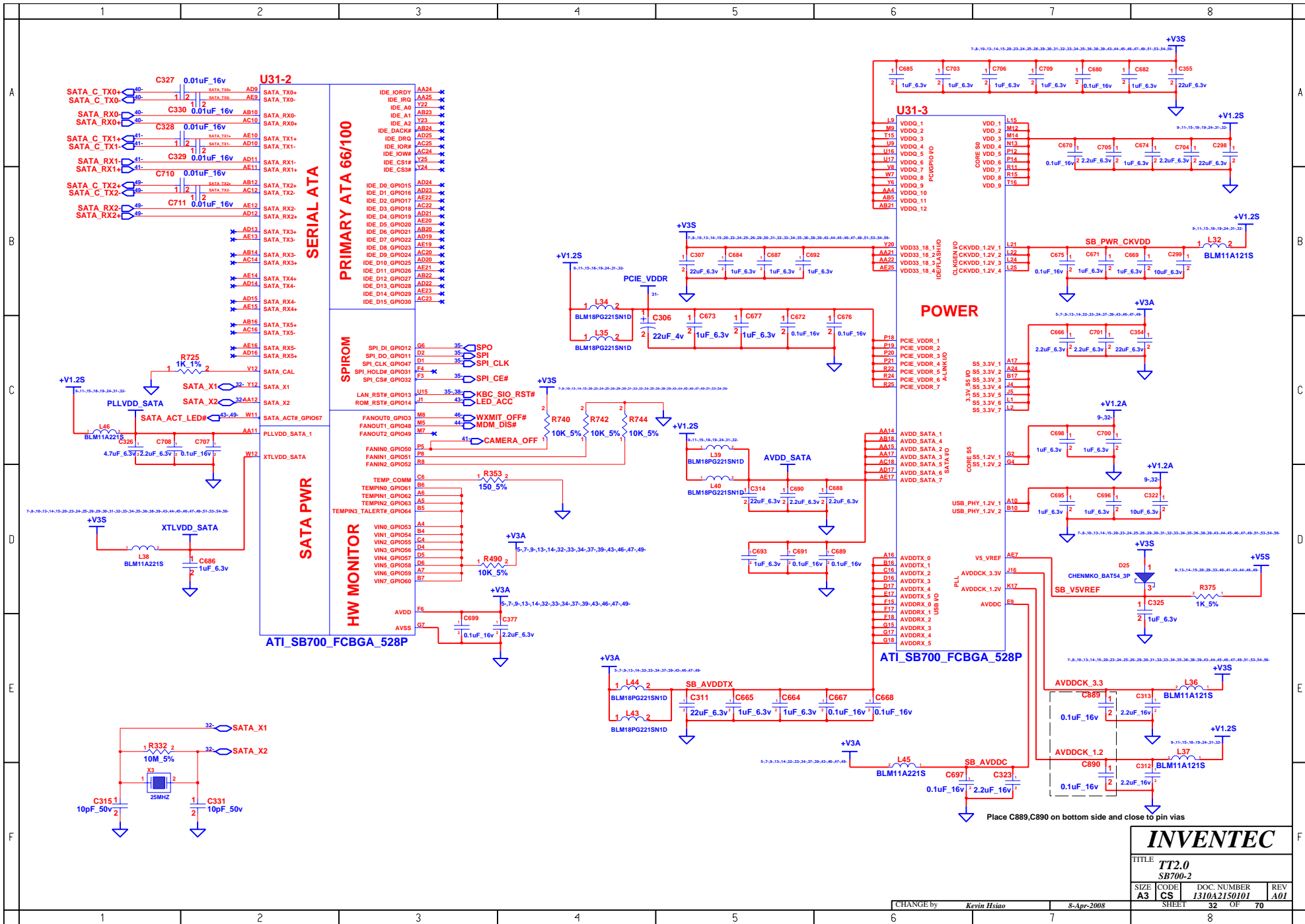
TITLE  
**TT2.0**  
 LCD CONN

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

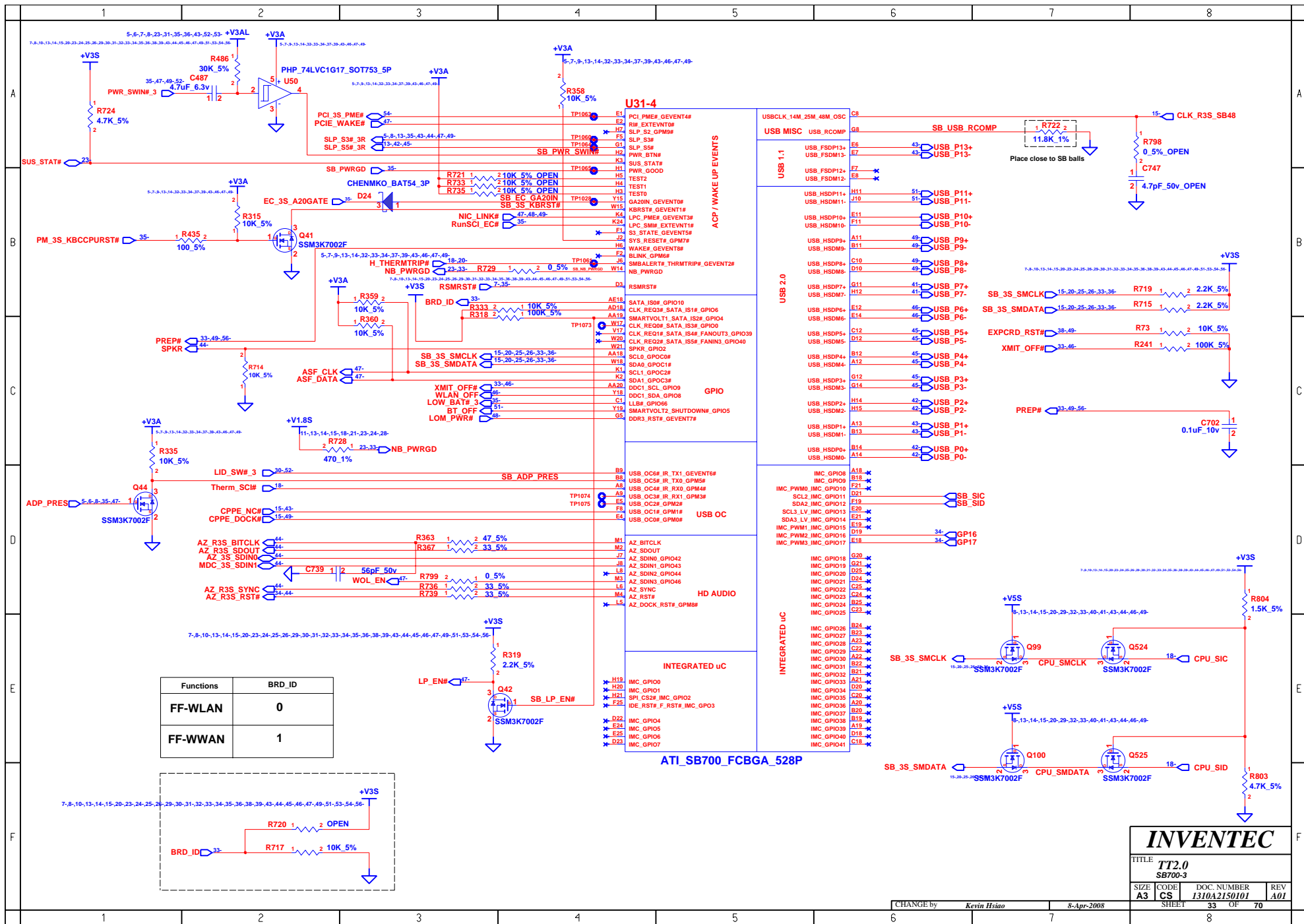
CHANGE by *Kevin Hsiao* 8-Apr-2008

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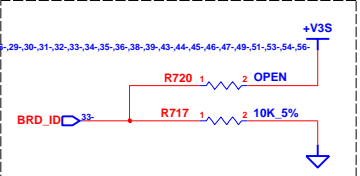




<b>INVENTEC</b>			
TITLE <b>TT2.0 SB700-2</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>I310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET <b>32</b>		OF <b>70</b>	



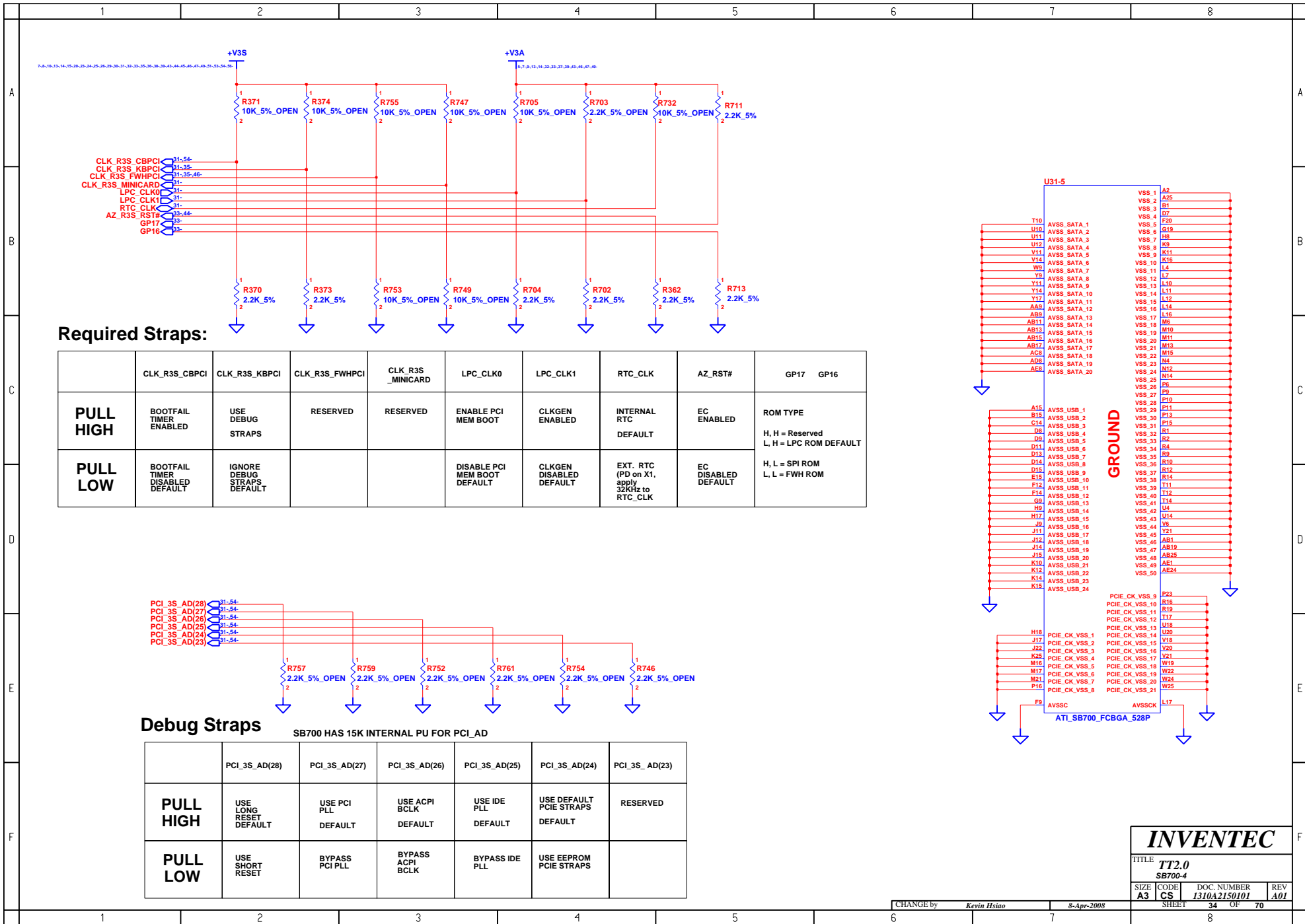
Functions	BRD_ID
FF-WLAN	0
FF-WWAN	1



**INVENTEC**

TITLE **TT2.0 SB700-3**

SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <b>Kevin Hsiao</b>		8-Apr-2008	
SHEET <b>33</b>		OF <b>70</b>	



**Required Straps:**

	CLK_R3S_CBPCI	CLK_R3S_KBPCI	CLK_R3S_FWHPCI	CLK_R3S_MINICARD	LPC_CLK0	LPC_CLK1	RTC_CLK	AZ_RST#	GP17 GP16
<b>PULL HIGH</b>	BOOTFAIL TIMER ENABLED	USE DEBUG STRAPS	RESERVED	RESERVED	ENABLE PCI MEM BOOT	CLKGEN ENABLED	INTERNAL RTC DEFAULT	EC ENABLED	ROM TYPE H, H = Reserved L, H = LPC ROM DEFAULT
<b>PULL LOW</b>	BOOTFAIL TIMER DISABLED DEFAULT	IGNORE DEBUG STRAPS DEFAULT			DISABLE PCI MEM BOOT DEFAULT	CLKGEN DISABLED DEFAULT	EXT. RTC (PD on X1, apply 32KHz to RTC_CLK	EC DISABLED DEFAULT	H, L = SPI ROM L, L = FWH ROM

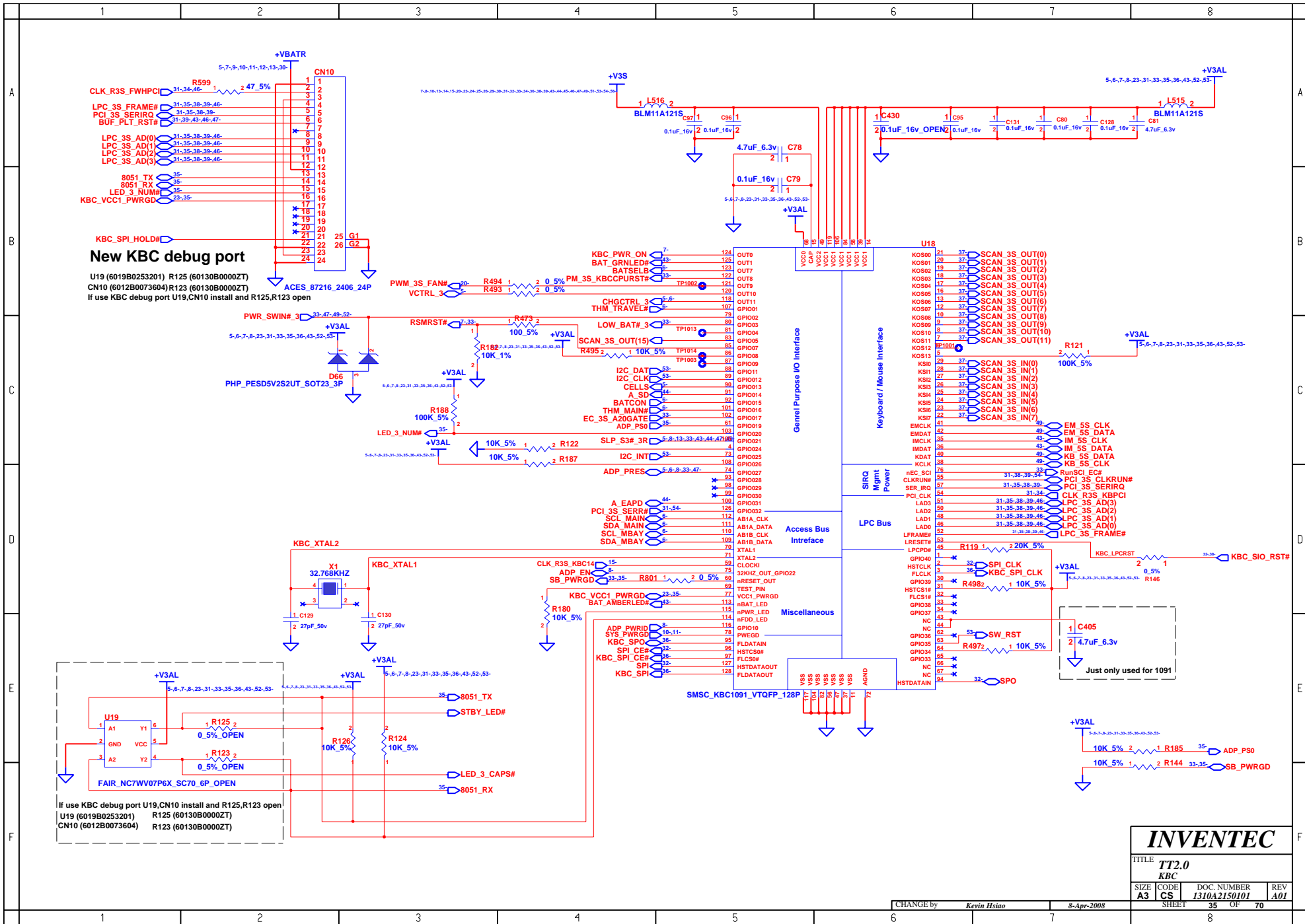
**Debug Straps**

SB700 HAS 15K INTERNAL PU FOR PCI\_AD

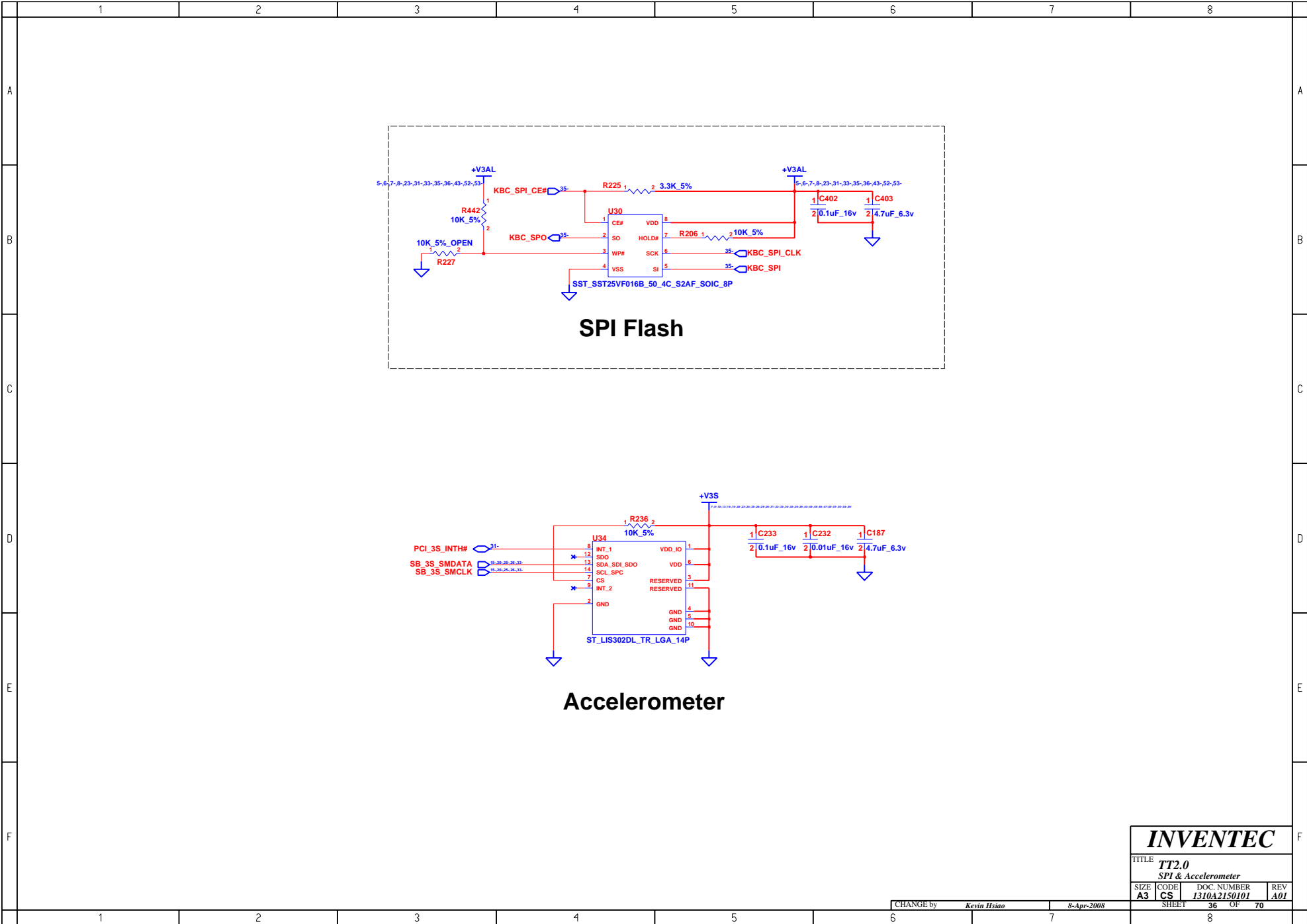
	PCI_3S_AD(28)	PCI_3S_AD(27)	PCI_3S_AD(26)	PCI_3S_AD(25)	PCI_3S_AD(24)	PCI_3S_AD(23)
<b>PULL HIGH</b>	USE LONG RESET DEFAULT	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	RESERVED
<b>PULL LOW</b>	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	

**INVENTEC**

TITLE <b>TT2.0</b>			
SB700-4			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>I310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET <b>34</b>		OF <b>70</b>	



<b>INVENTEC</b>			
TITLE <b>TT2.0 KBC</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>I310A2150101</b>	REV <b>A01</b>
CHANGE by <b>Kevin Hsiao</b>		8-Apr-2008	
SHEET <b>35</b>		OF <b>70</b>	



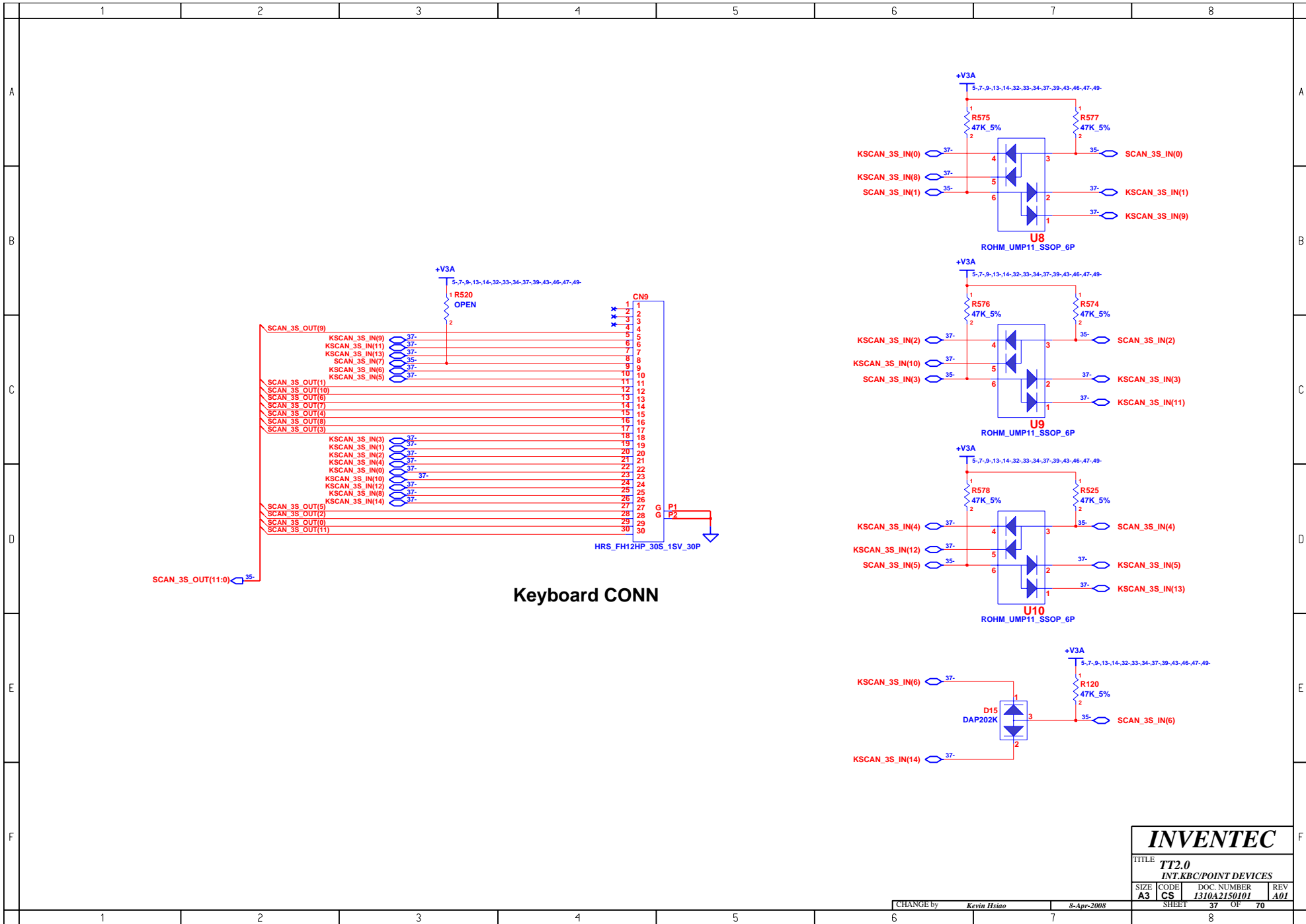
**INVENTEC**

TITLE *TT2.0*  
*SPI & Accelerometer*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by *Kevin Hsiao* 8-Apr-2008

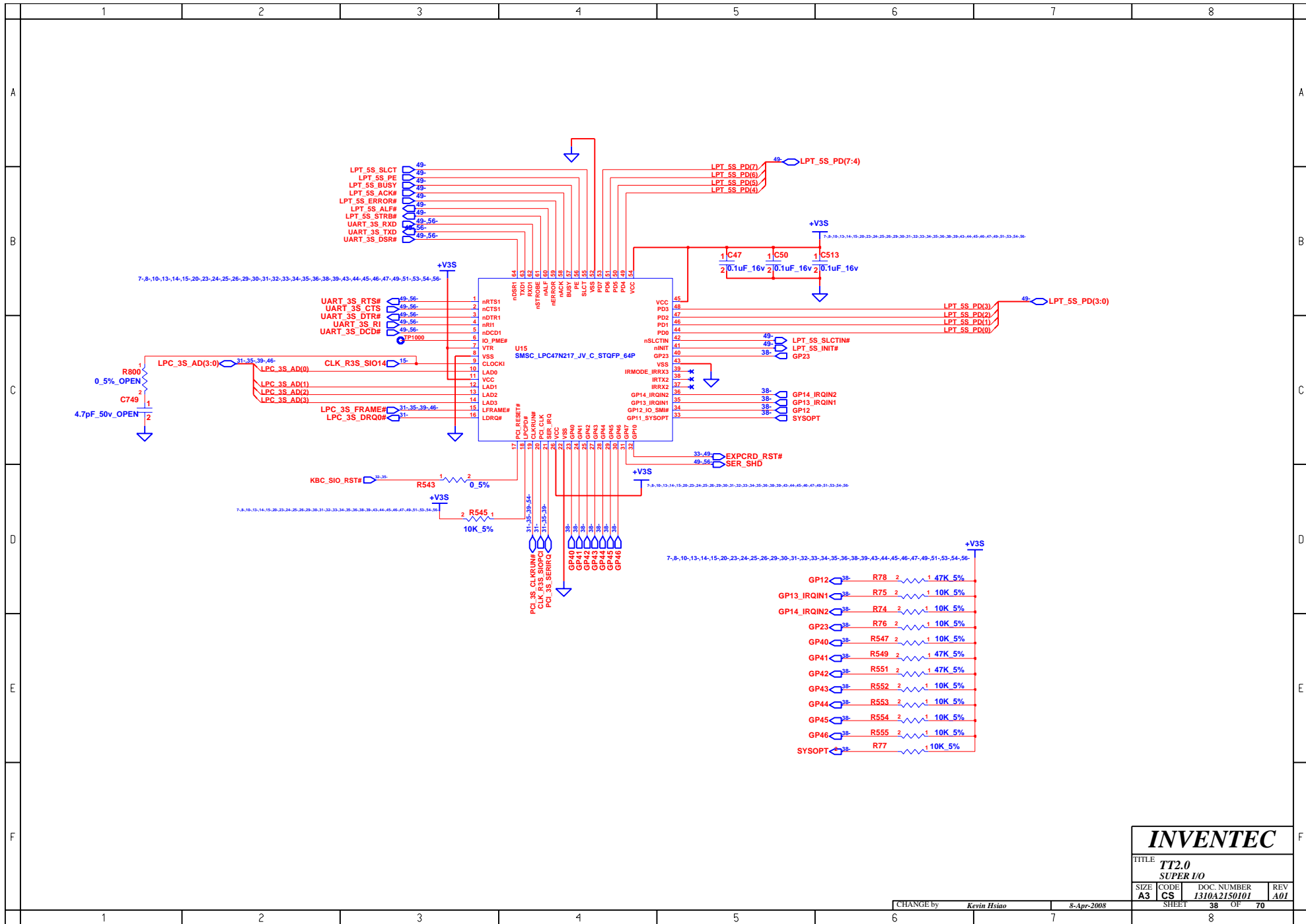
SHEET 36 OF 70



**INVENTEC**

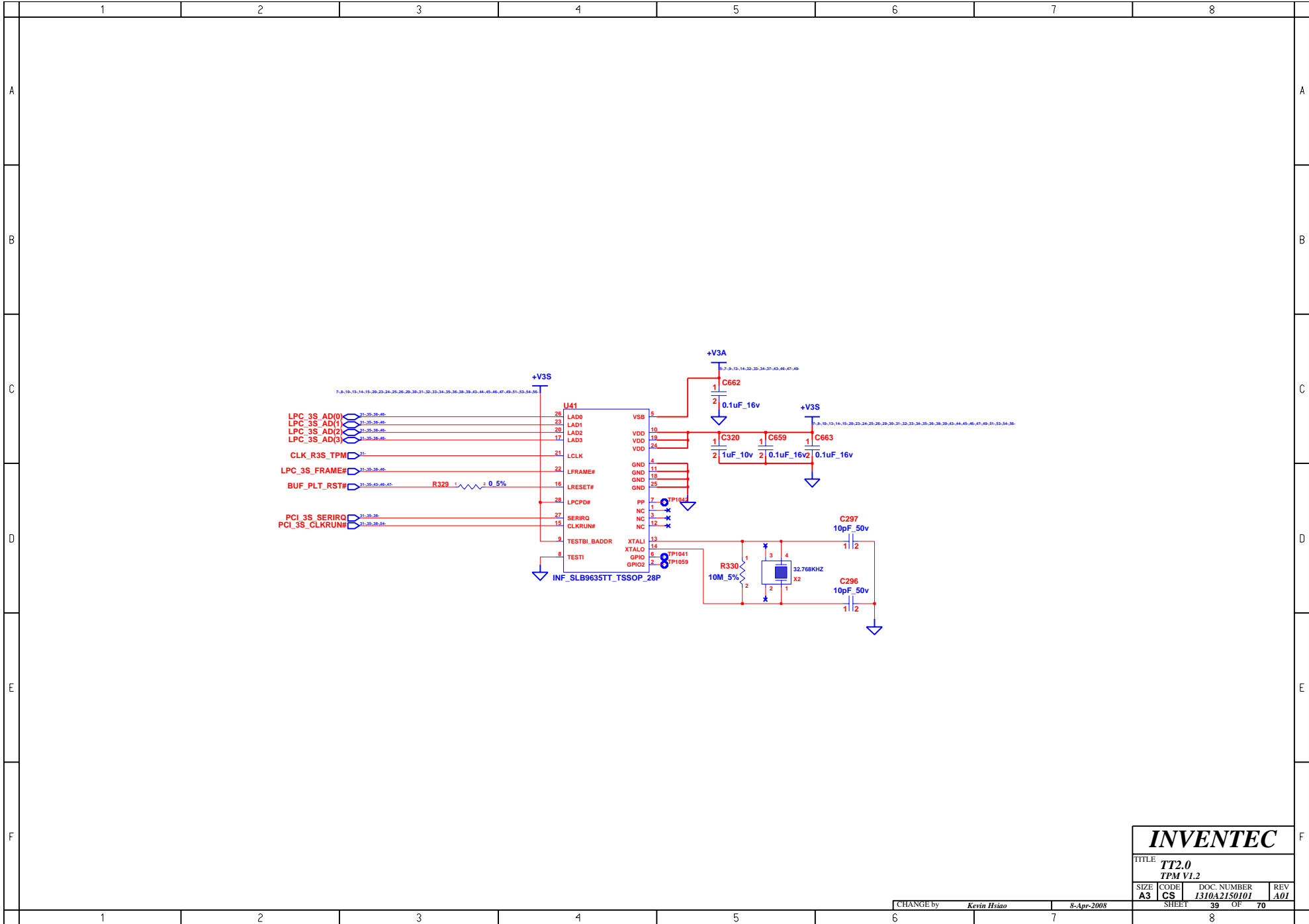
TITLE			
TT2.0			
INT.KBC/POINT DEVICES			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01
CHANGE by		SHEET	OF
Kevin Hsiao		37	70

8-Apr-2008



# INVENTEC

TITLE			
TT2.0			
SUPER I/O			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01



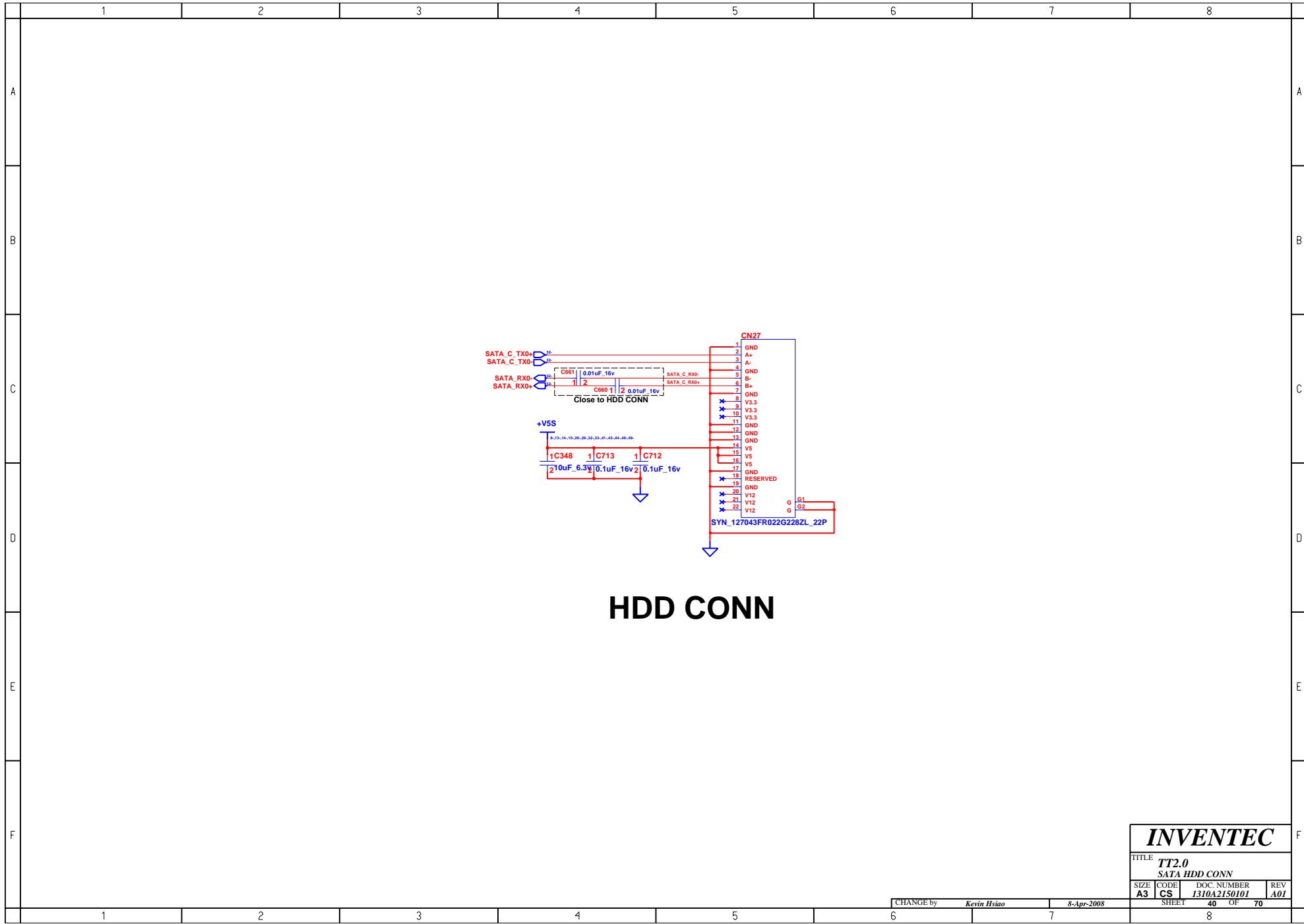
**INVENTEC**

TITLE  
**TT2.0**  
**TPM V1.2**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by *Kevin Hsiao* 8-Apr-2008

SHEET 39 OF 70



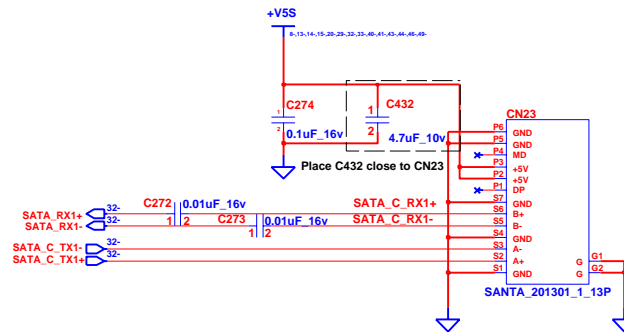
# HDD CONN

**INVENTEC**

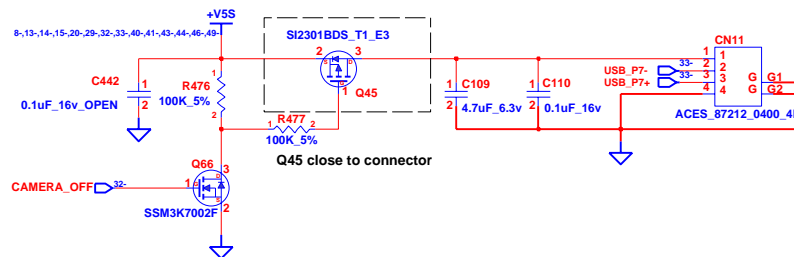
TITLE			
TT2.0			
SATA HDD CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by *Kevin Hsiao* 8-Apr-2008

SHEET 40 OF 70



### ODD SATA CONNECTOR



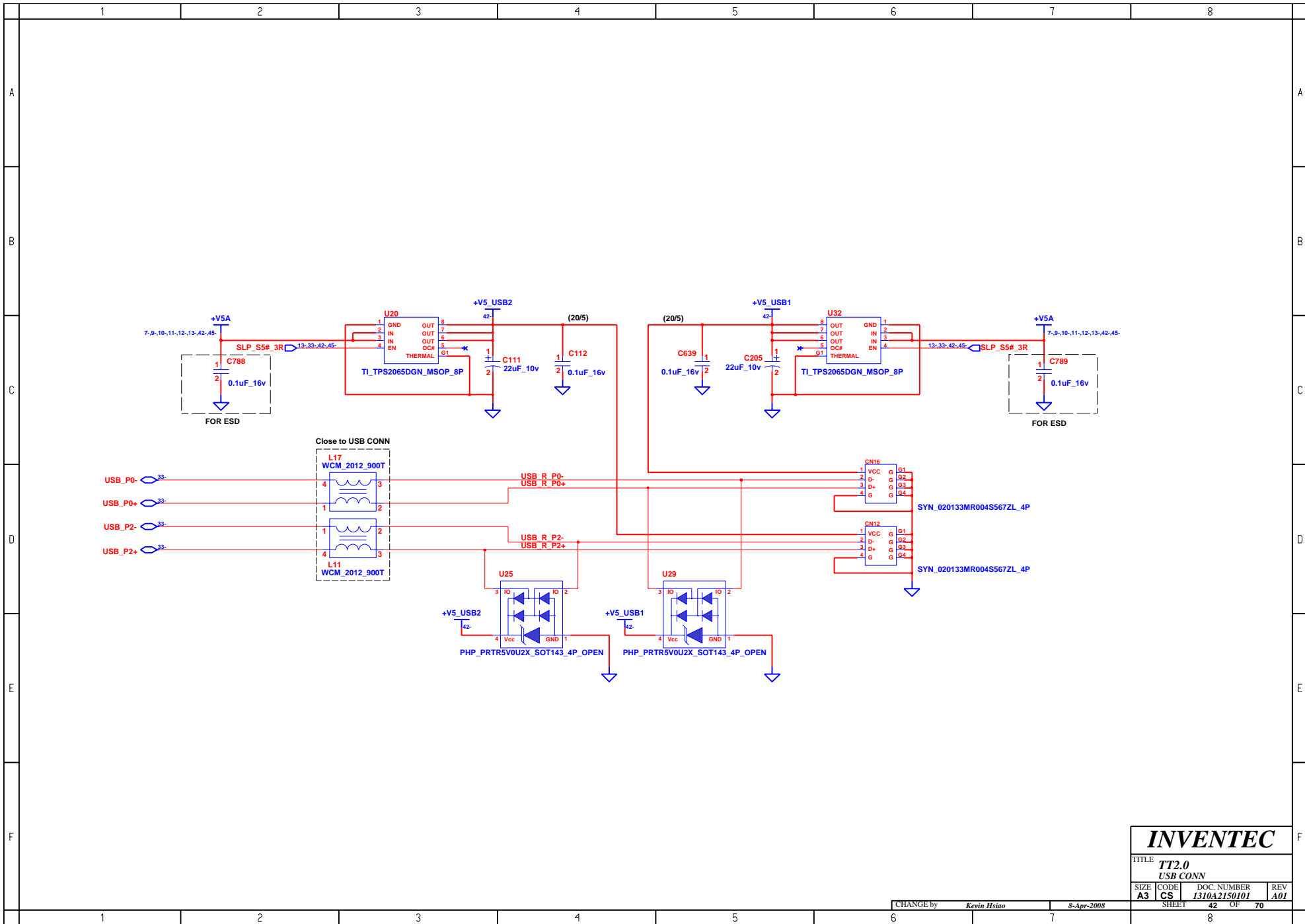
### USB WEBCAM CONNECTOR

**INVENTEC**

TITLE			
TT2.0			
SATA ODD & USB WEBCAM			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

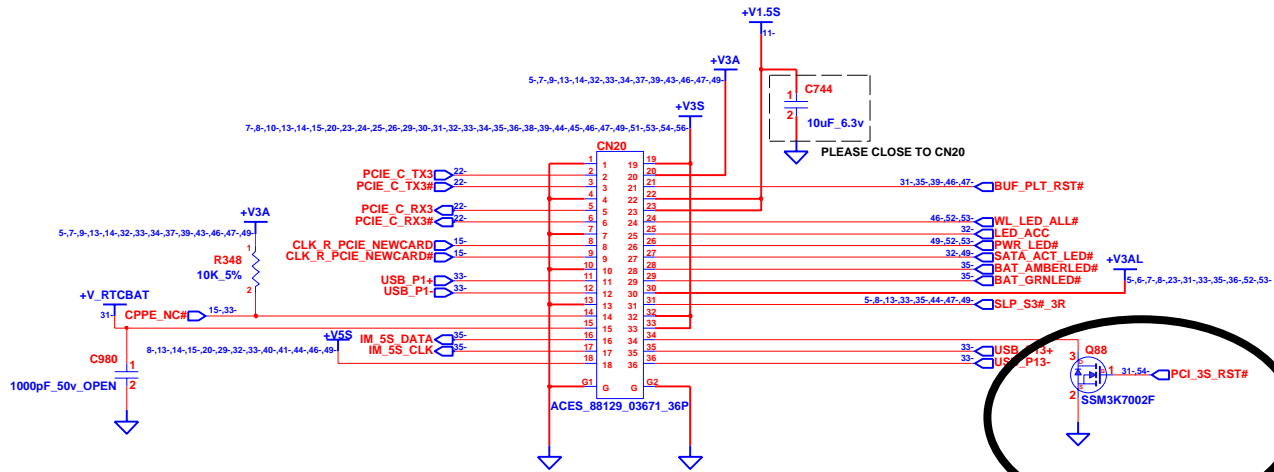
SHEET 41 OF 70



# INVENTEC

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

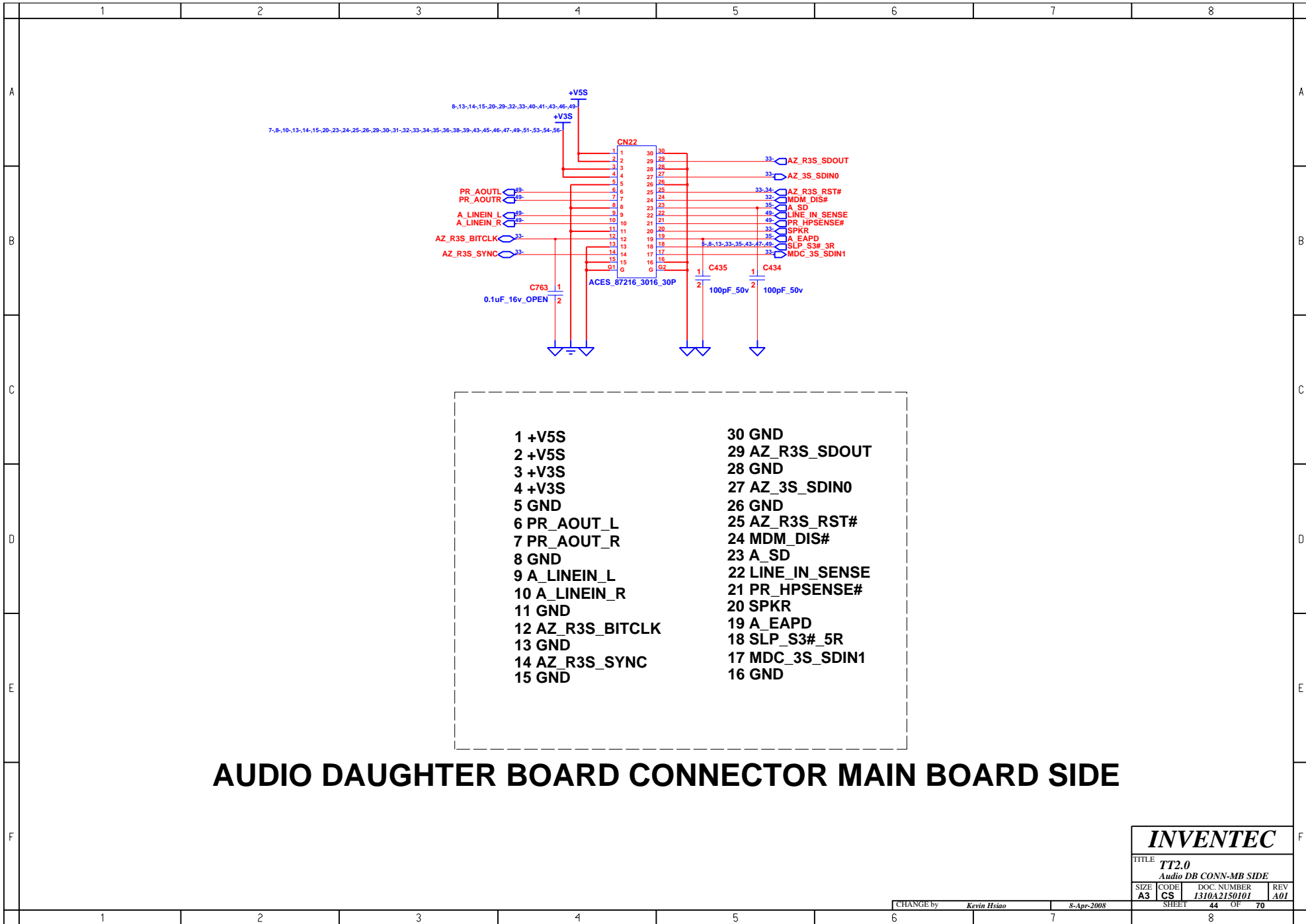
CHANGE by	Kevin Hsiao	8-Apr-2008	SHEET	42	OF	70
-----------	-------------	------------	-------	----	----	----



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

<b>INVENTEC</b>			
TITLE <i>TT2.0</i> <i>Express DB CONN-MB SIDE</i>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	SHEET 43 OF 70



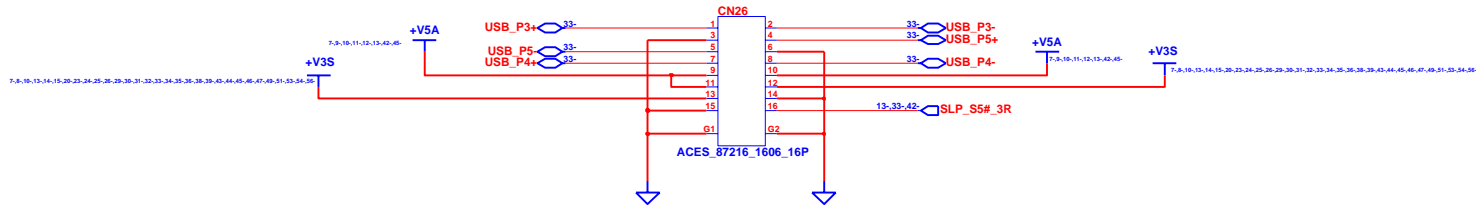
## AUDIO DAUGHTER BOARD CONNECTOR MAIN BOARD SIDE

**INVENTEC**

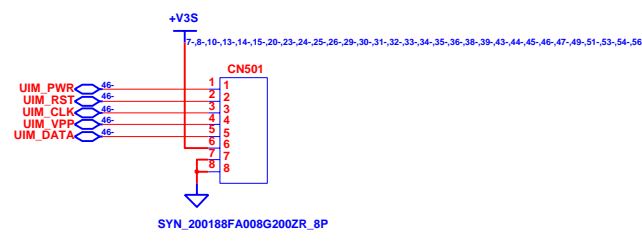
TITLE			
TT2.0			
Audio DB CONN-MB SIDE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 44 OF 70

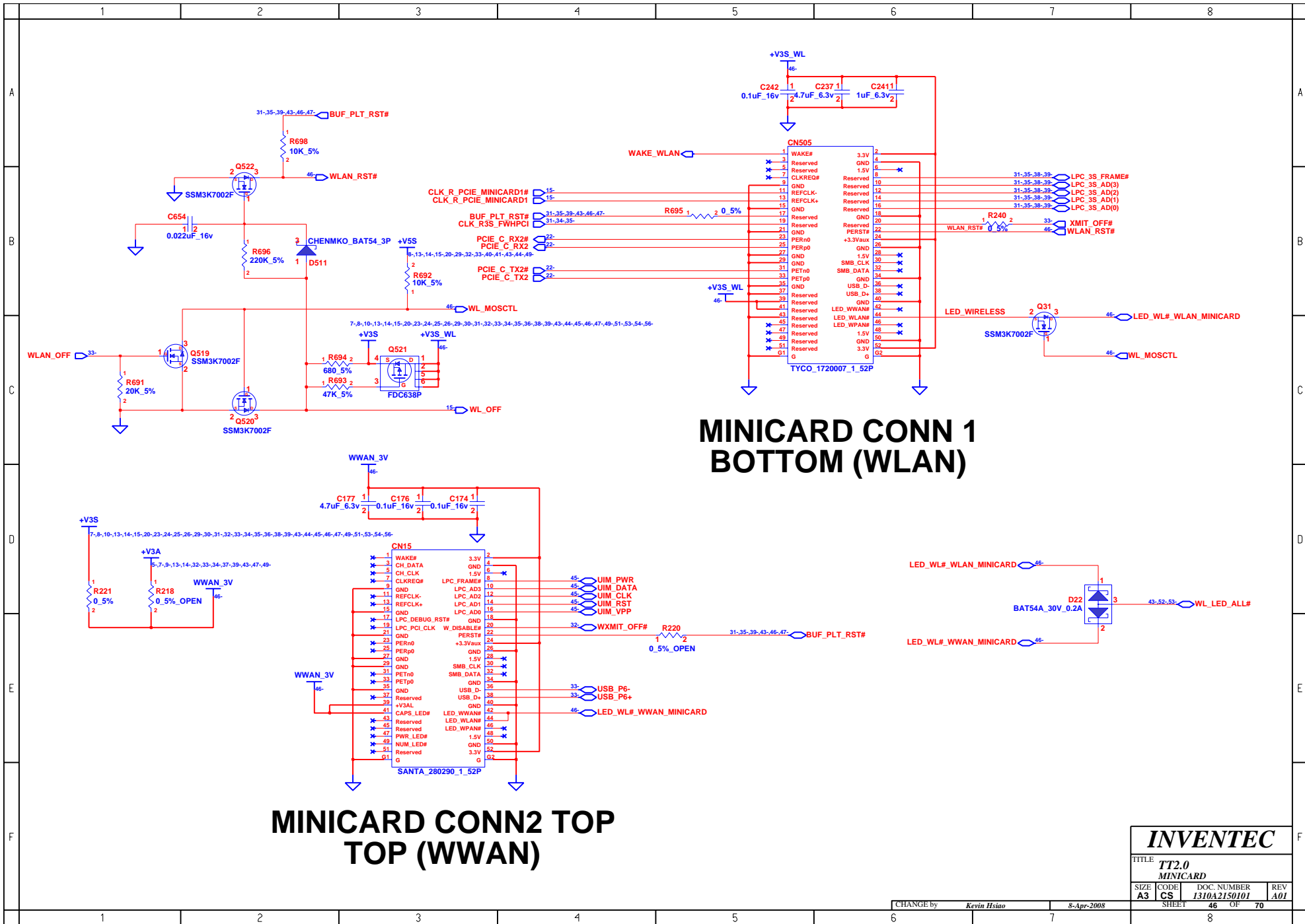


### 7 IN 1 daughter board connector MB SIDE



### SIM card daughter board connector MB SIDE

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



# MINICARD CONN1 BOTTOM (WLAN)

# MINICARD CONN2 TOP TOP (WWAN)

**INVENTEC**

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

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 46 OF 70

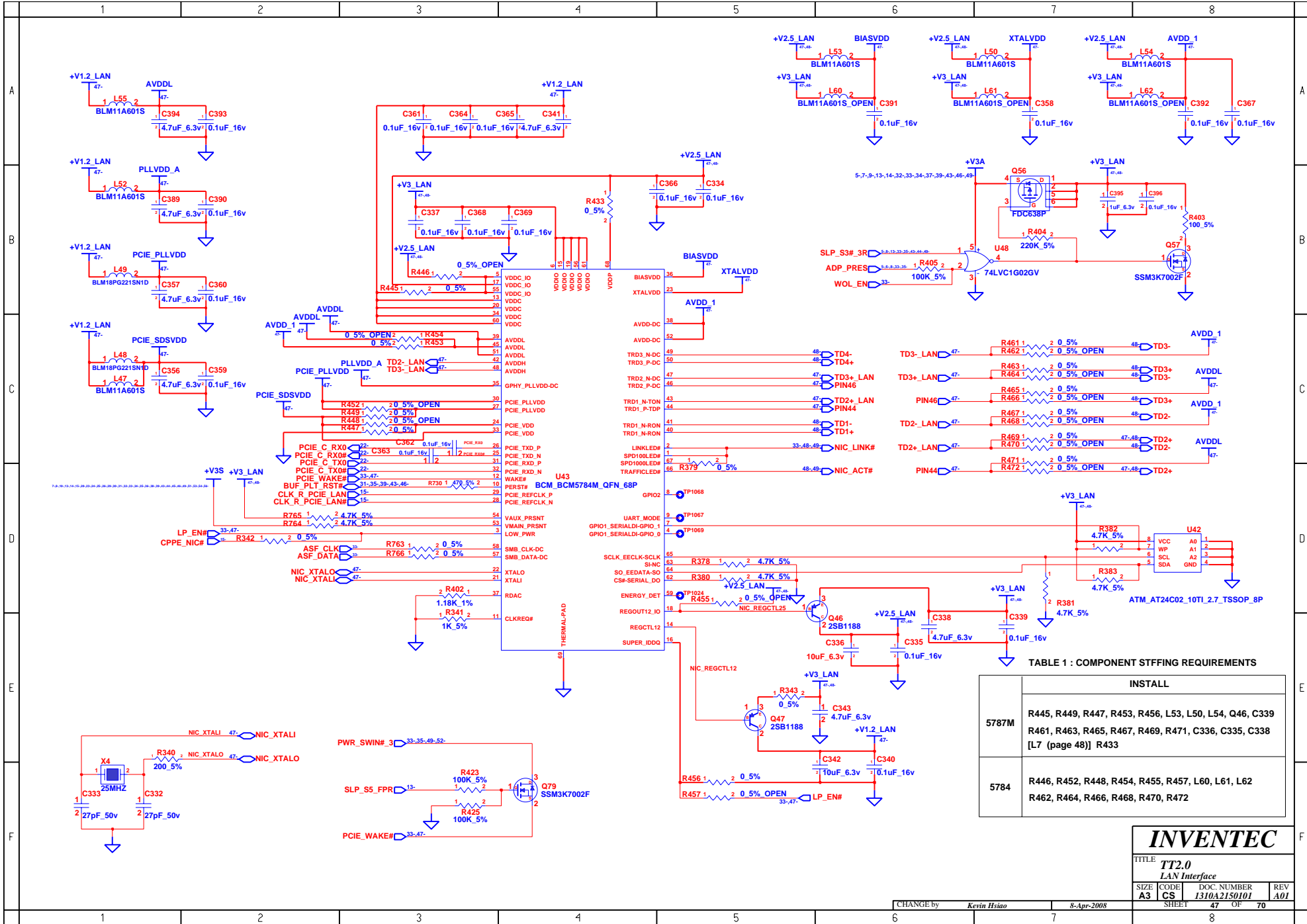


TABLE 1 : COMPONENT STUFFING REQUIREMENTS

		INSTALL	
5787M		R445, R449, R447, R453, R456, L53, L50, L54, Q46, C339	
		R461, R463, R465, R467, R469, R471, C336, C335, C338 [L7 (page 48)] R433	
5784		R446, R452, R448, R454, R455, R457, L60, L61, L62	
		R462, R464, R466, R468, R470, R472	

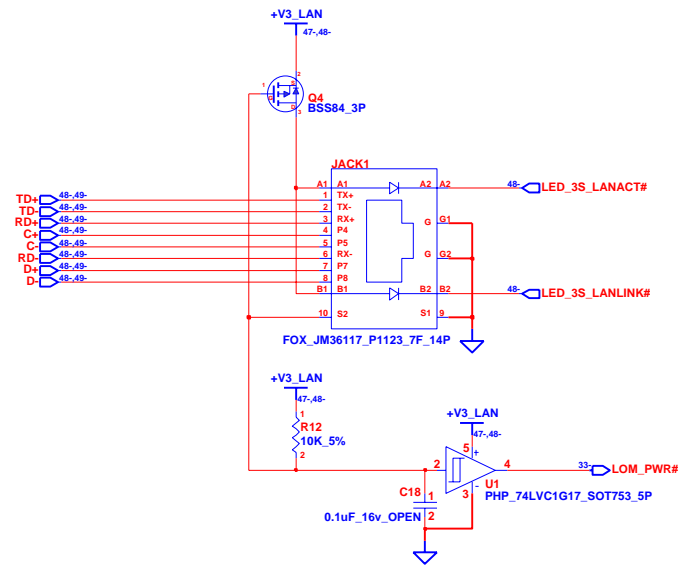
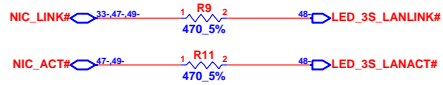
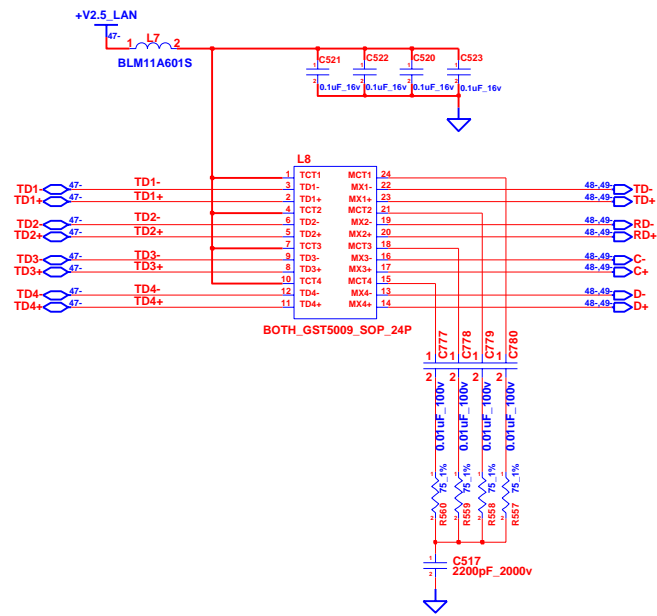
**INVENTEC**

TITLE  
**TT2.0**  
 LAN Interface

SIZE CODE DOC. NUMBER REV  
**A3 CS 1310A2150101 A01**

CHANGE by *Kevin Hsiao* 8-Apr-2008

SHEET 47 OF 70



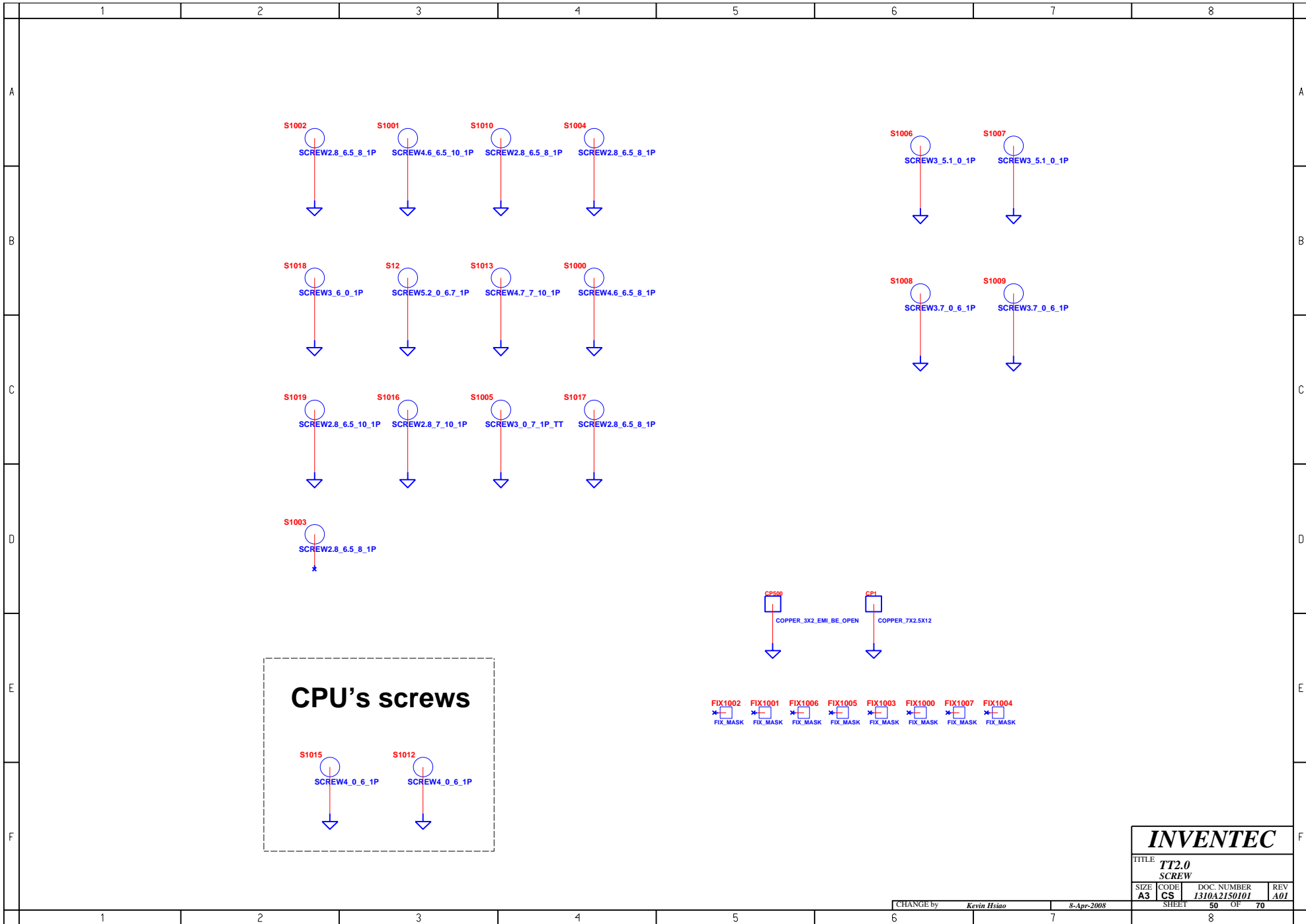
# INVENTEC

TITLE			
TT2.0			
LAN RJ45 CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 48 OF 70





**CPU's screws**

S1015      S1012  
 SCREW4\_0\_6\_1P      SCREW4\_0\_6\_1P

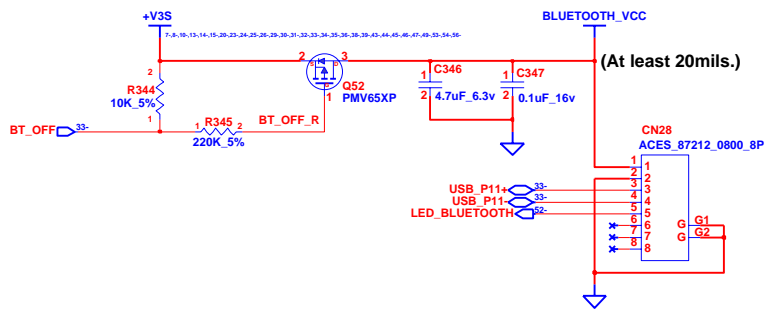
\* FIX1002   \* FIX1001   \* FIX1006   \* FIX1005   \* FIX1003   \* FIX1000   \* FIX1007   \* FIX1004  
 \* FIX\_MASK   \* FIX\_MASK   \* FIX\_MASK   \* FIX\_MASK   \* FIX\_MASK   \* FIX\_MASK   \* FIX\_MASK   \* FIX\_MASK

**INVENTEC**

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

CHANGE by *Kevin Hsiao*      8-Apr-2008

SHEET 50 OF 70



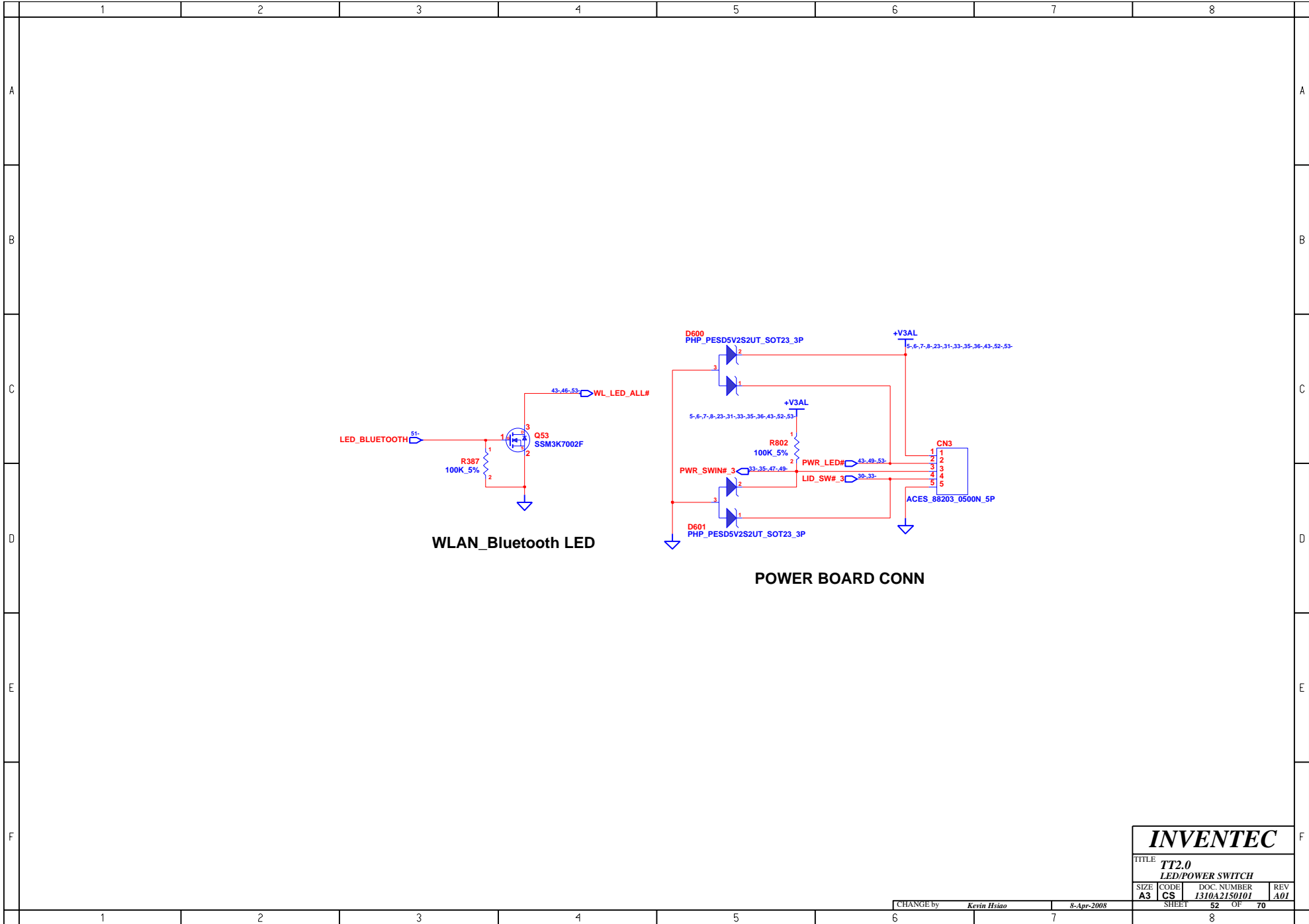
**INVENTEC**

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

CHANGE by *Kevin Hsiao* 8-Apr-2008

SHEET 51 OF 70

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

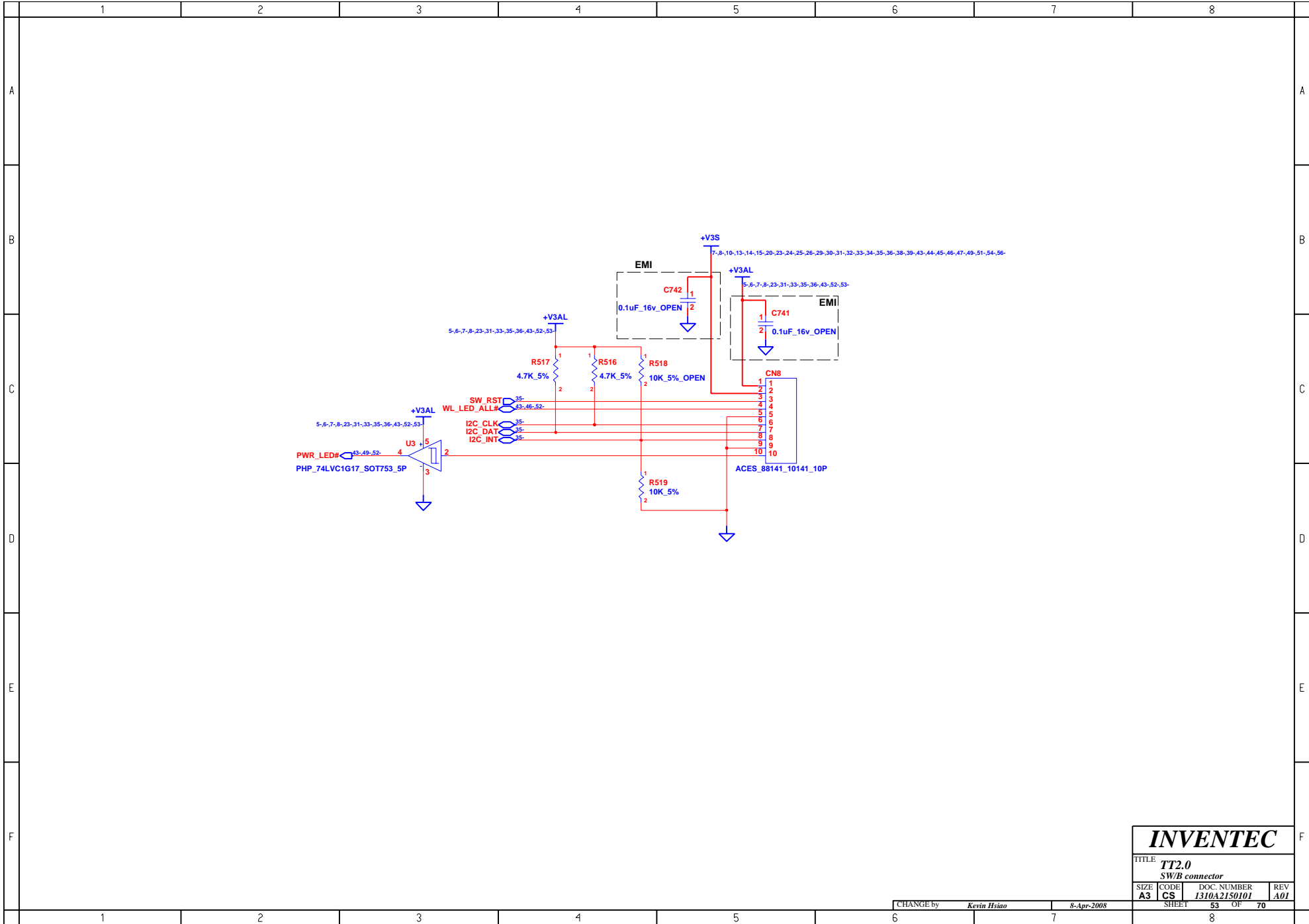


**INVENTEC**

TITLE			
TT2.0			
LED/POWER SWITCH			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by *Kevin Hsiao* 8-Apr-2008

SHEET 52 OF 70

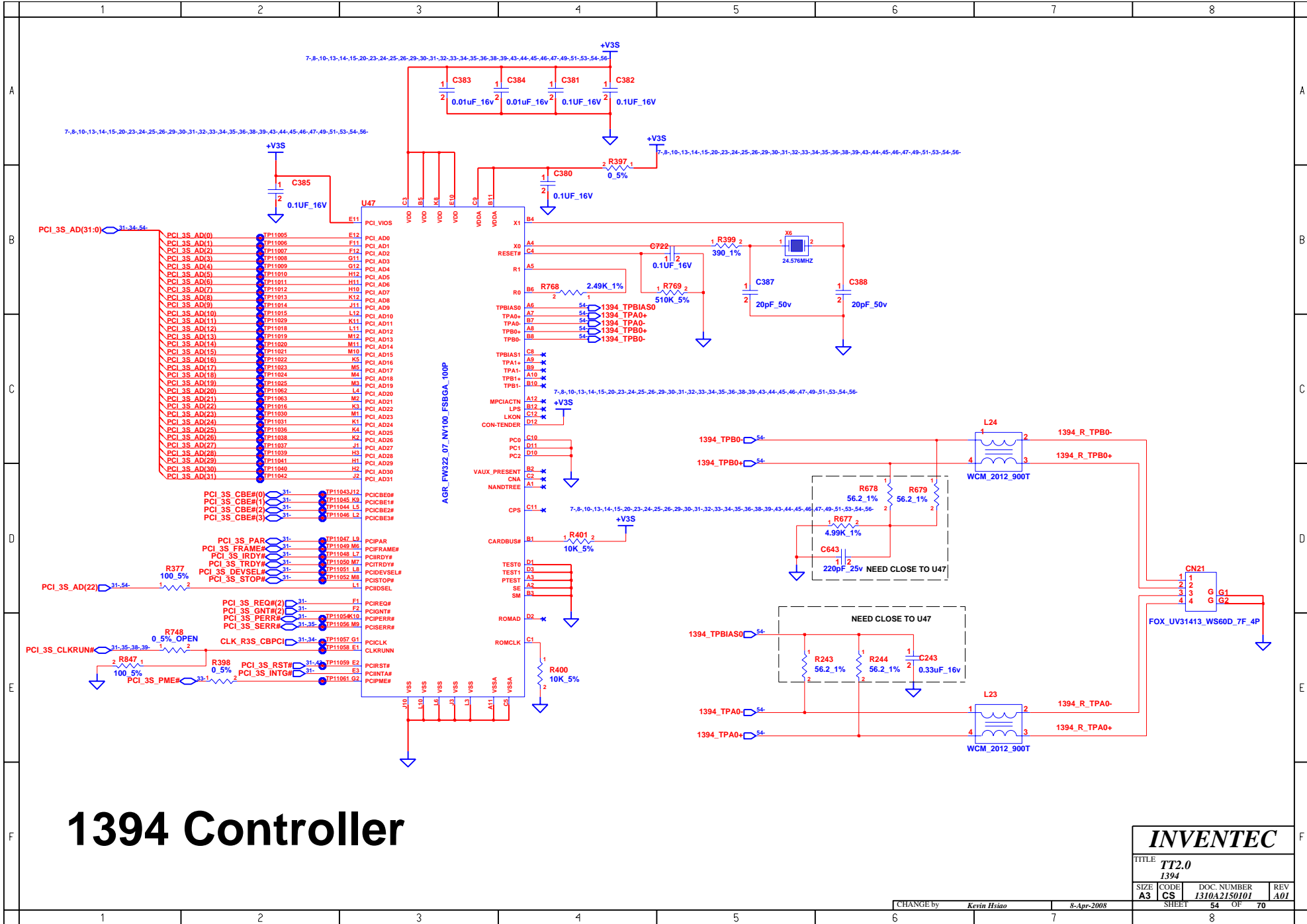


**INVENTEC**

TITLE <i>TT2.0</i>			
SW/B connector			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by *Kevin Hsiao* 8-Apr-2008

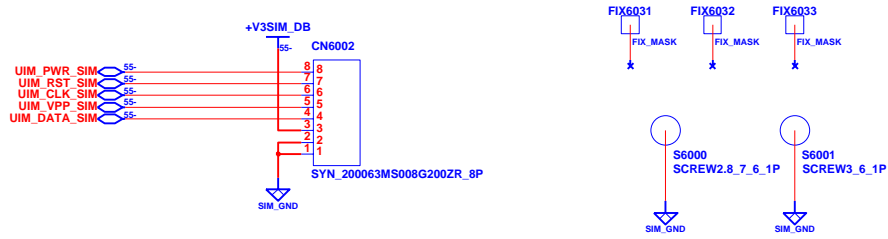
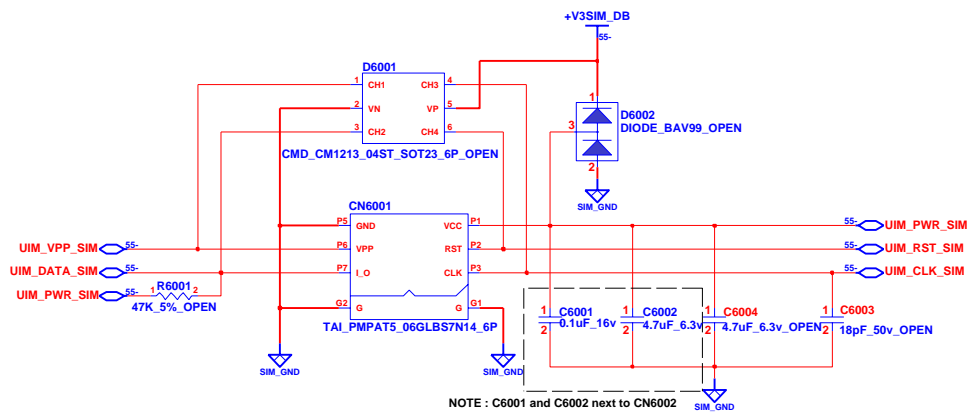
SHEET 53 OF 70



# 1394 Controller

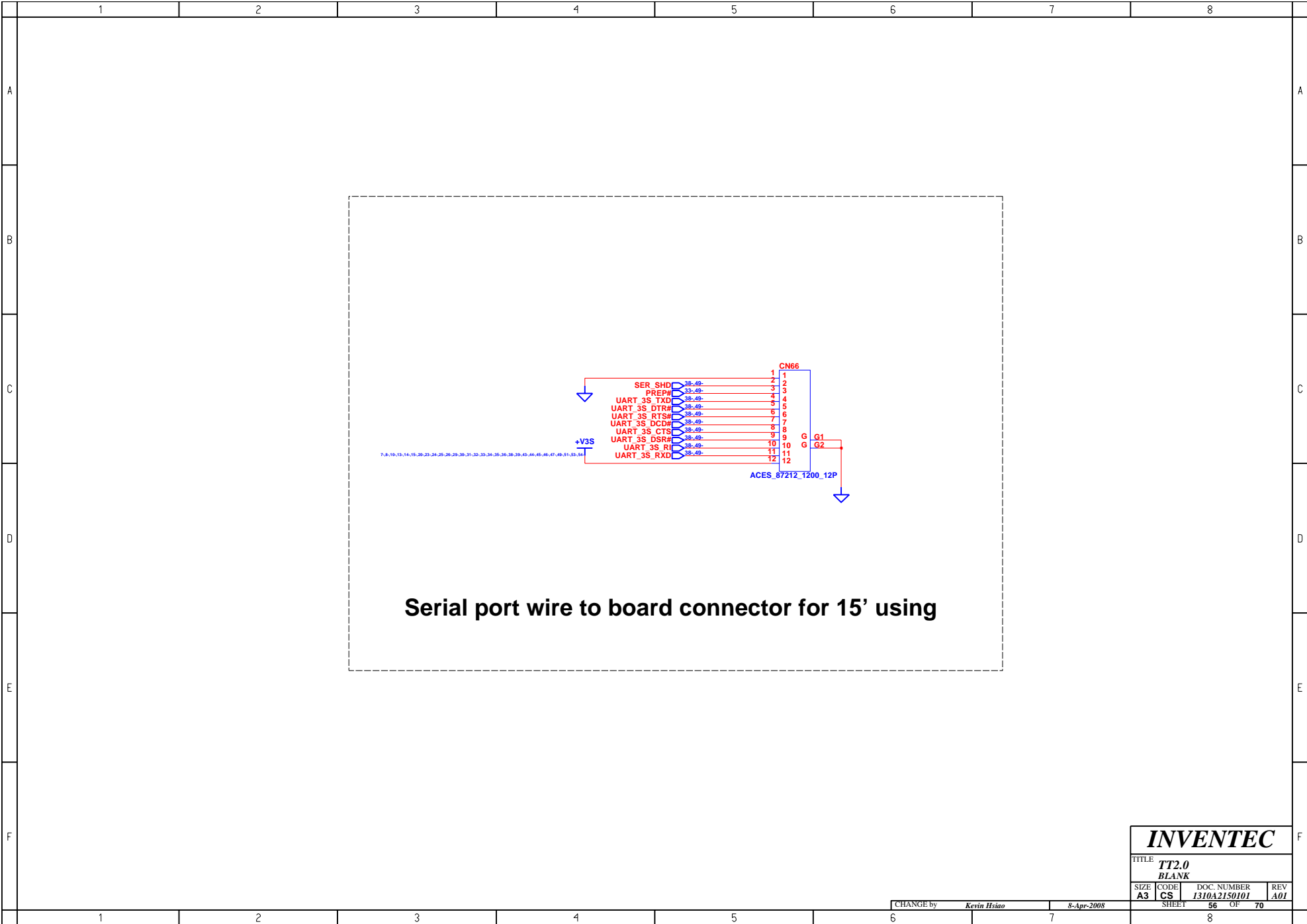
**INVENTEC**

TITLE			
TT2.0			
1394			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01



# SIM CARD Daughter Board

<b>INVENTEC</b>			
TITLE <i>TT2.0</i>			
SIM CARD Daughter Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	SHEET 55 OF 70



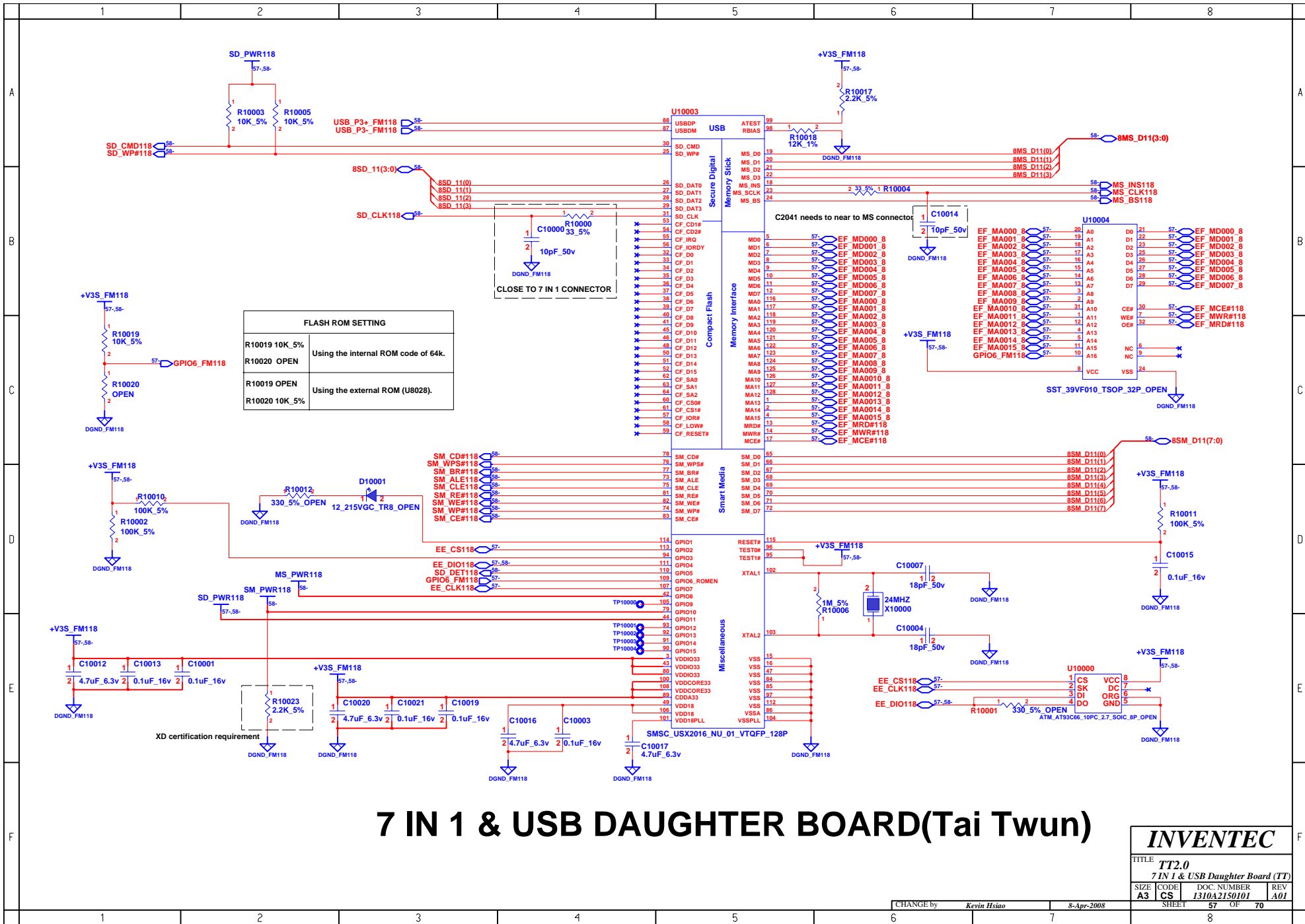
**INVENTEC**

TITLE *TT2.0*  
BLANK

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

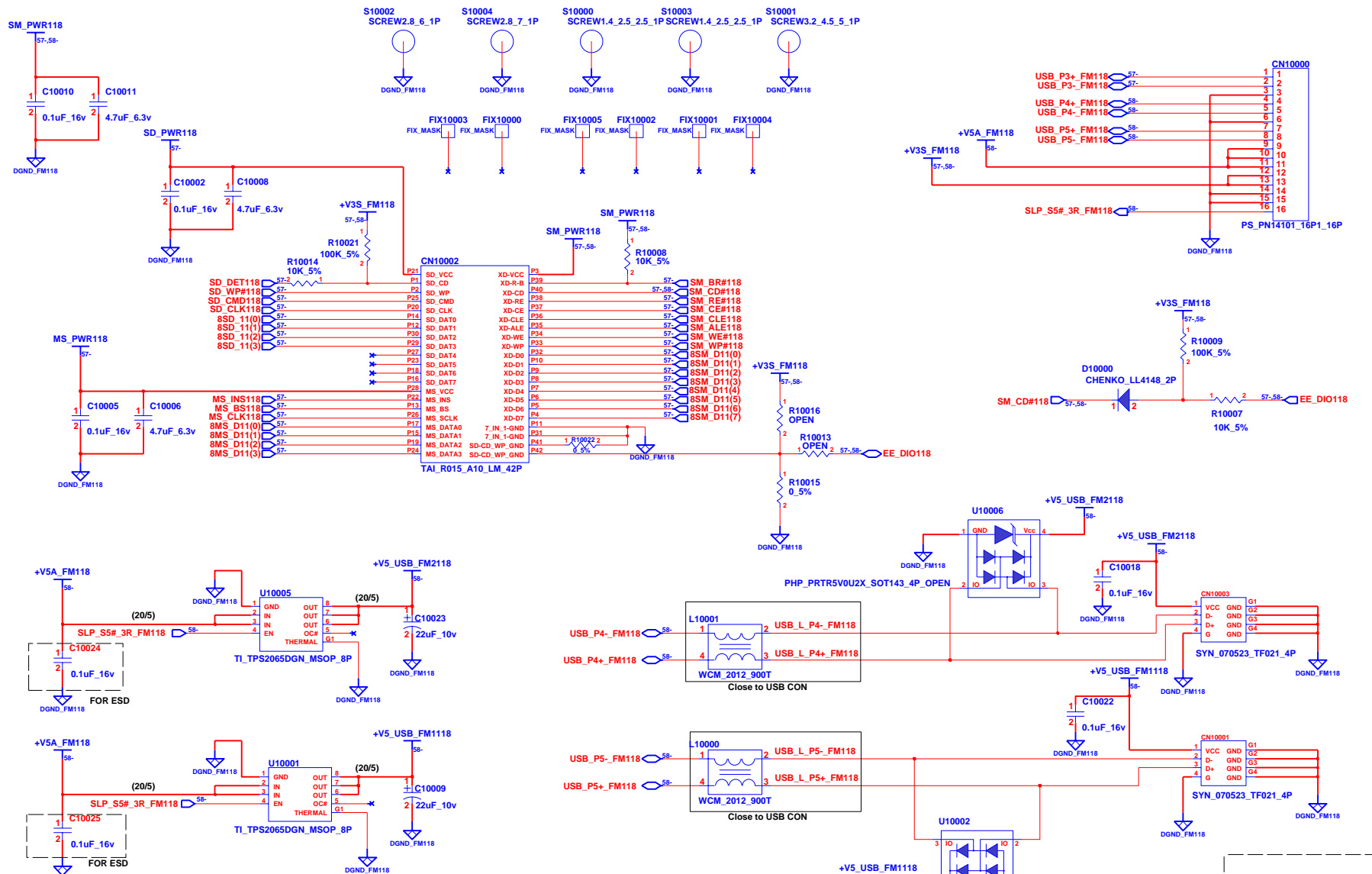
CHANGE by *Kevin Hsiao* 8-Apr-2008

SHEET 56 OF 70

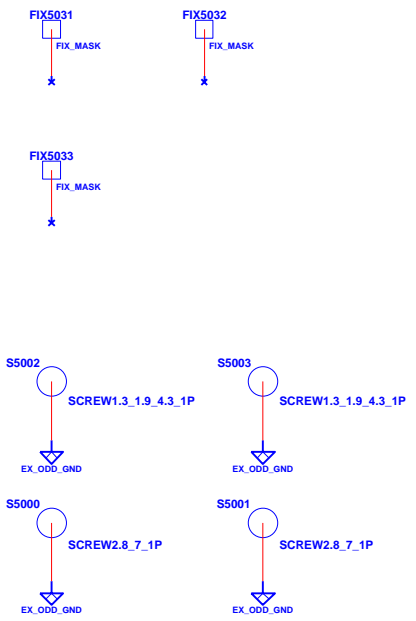
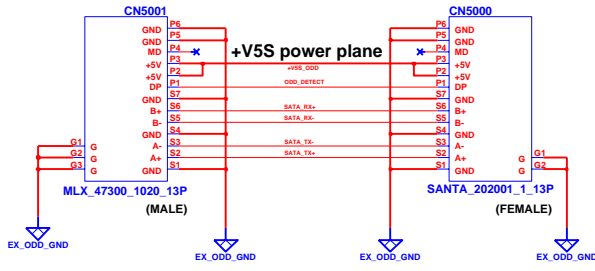


<b>INVENTEC</b>			
TITLE <b>TT2.0</b>			
7 IN 1 & USB Daughter Board (TT)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET 57		OF 70	

# 7 IN 1 & USB DAUGHTER BOARD(Tai Twun)



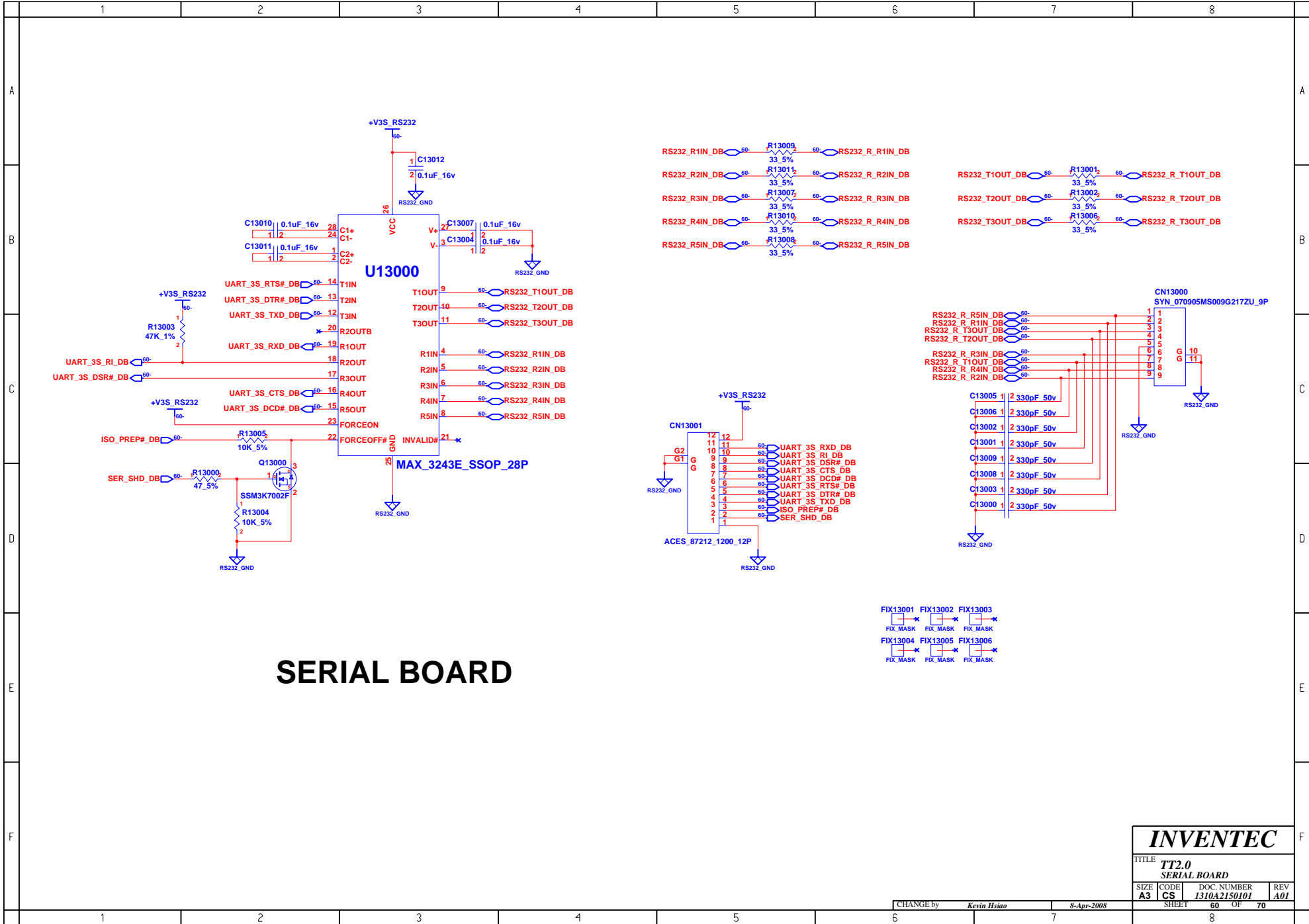
<b>INVENTEC</b>			
TITLE <i>TT2.0</i> 7 IN 1 & USB Daughter Board (TT)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
CHANGE by		SHEET	OF
Kevin Hsiao		58	70



15" only

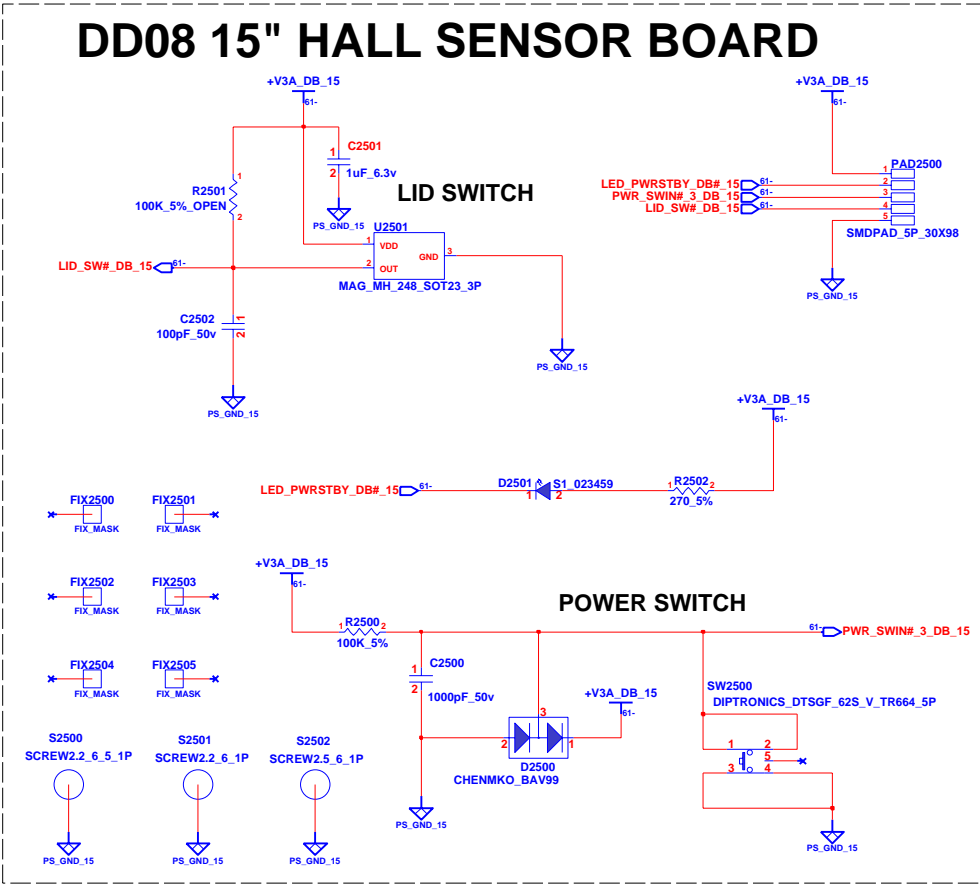
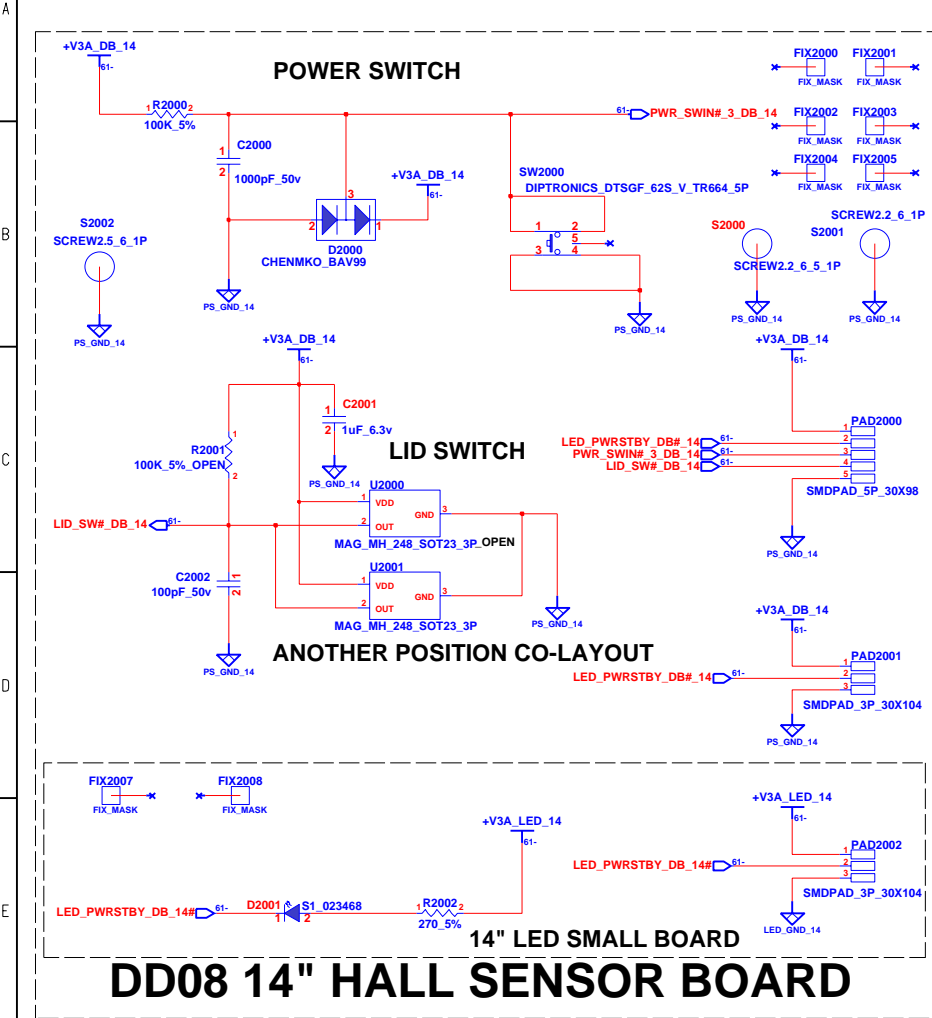
# ODD Extension Board

<b>INVENTEC</b>			
TITLE <b>TT2.0</b>			
ODD Extension Board			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <b>Kevin Hsiao</b>		8-Apr-2008	
SHEET <b>59</b>		OF <b>70</b>	



**INVENTEC**

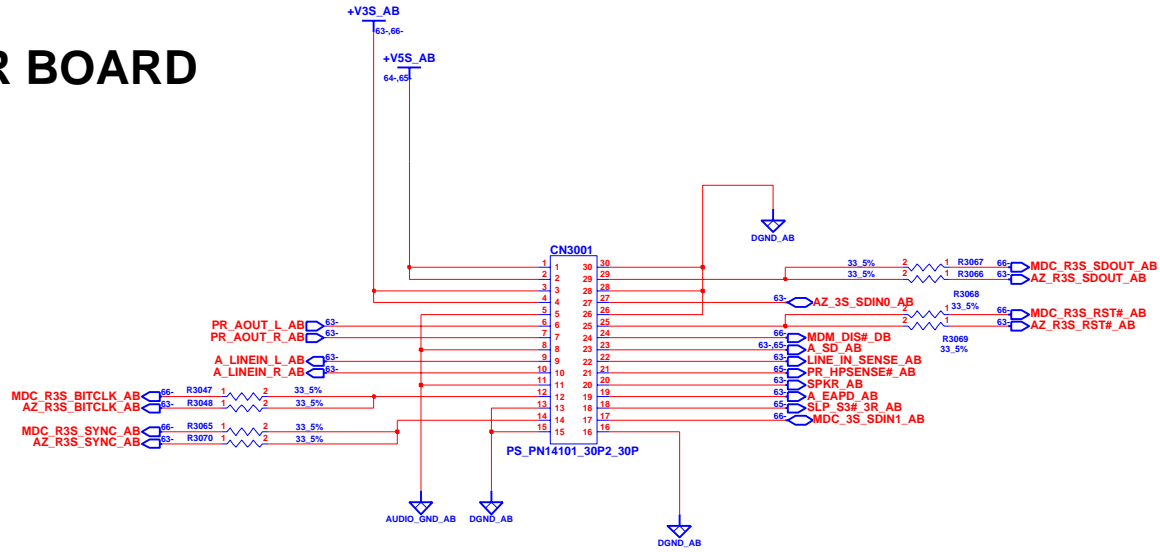
TITLE			
TT2.0 SERIAL BOARD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01



**POWER BUTTON BOARD**

<b>INVENTEC</b>			
TITLE TT2.0 POWER BUTTON/LID SWITCH			
SIZE A3	CODE CS	DOC NUMBER 1310A2150101	REV A01
CHANGE by Kevin Hsiao		8-Apr-2008	
SHEET 61		OF 70	

# 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             |

FIX3501    FIX3504  
 \* [ ] \* [ ]  
 FIX\_MASK    FIX\_MASK

FIX3505    FIX3506  
 \* [ ] \* [ ]  
 FIX\_MASK    FIX\_MASK

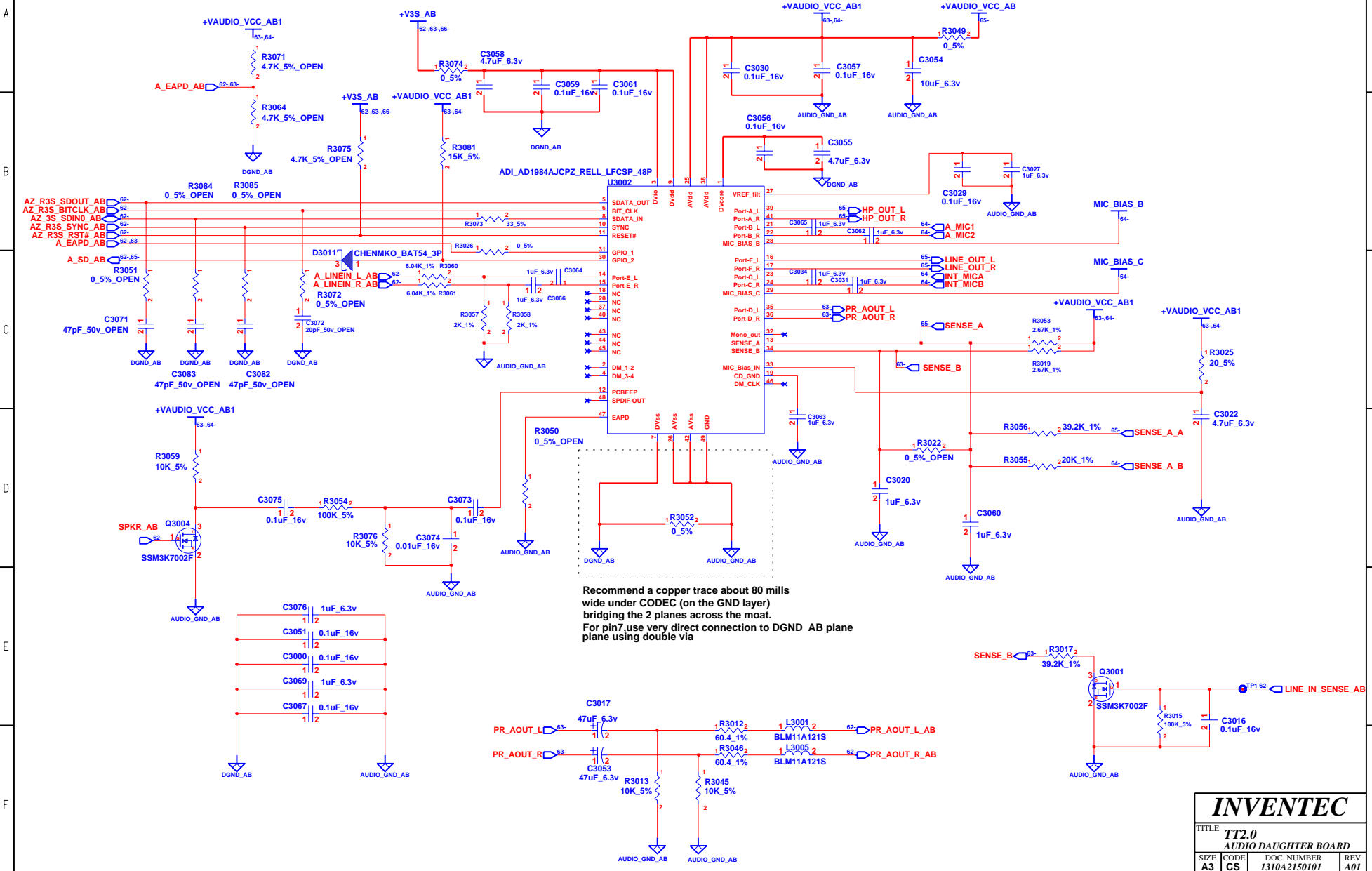
**INVENTEC**

TITLE			
TT2.0			
AUDIO CONNECTOR			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

CHANGE by Kevin Hsiao 8-Apr-2008

SHEET 62 OF 70

# AUDIO DAUGHTER BOARD

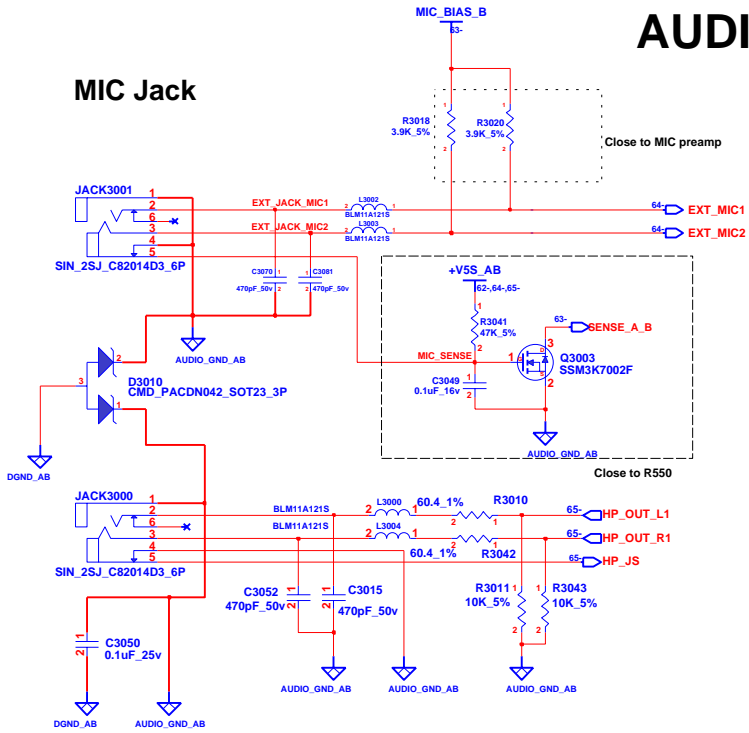


Recommend a copper trace about 80 mills wide under CODEC (on the GND layer) bridging the 2 planes across the moat. For pin7, use very direct connection to DGND\_AB plane using double via

<b>INVENTEC</b>			
TITLE <b>TT2.0 AUDIO DAUGHTER BOARD</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	
SHEET <b>63</b>		OF <b>70</b>	

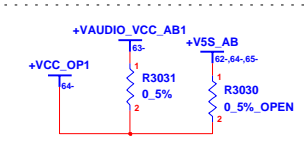
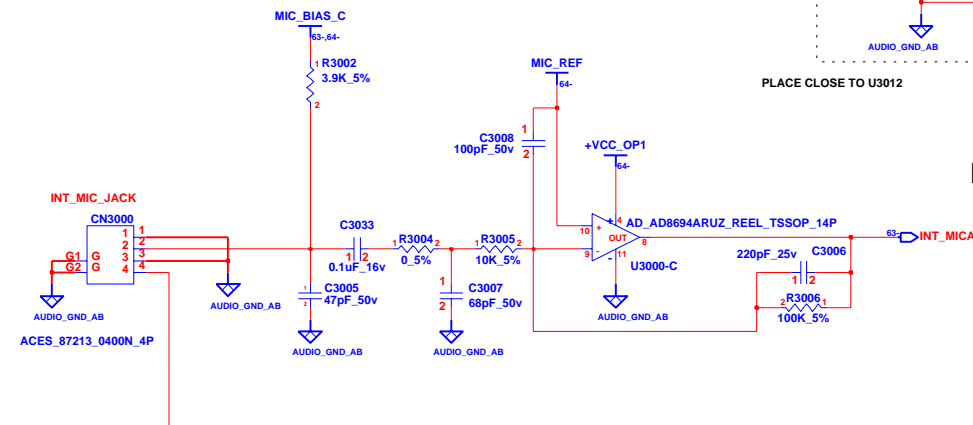
# AUDIO DAUGHTER BOARD

## MIC Jack

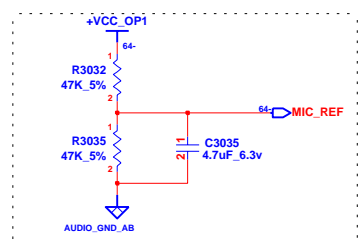


## Earphone Jack

R3176 need to be place very close to jack pin1 with heavy copper traces(20 mil min)

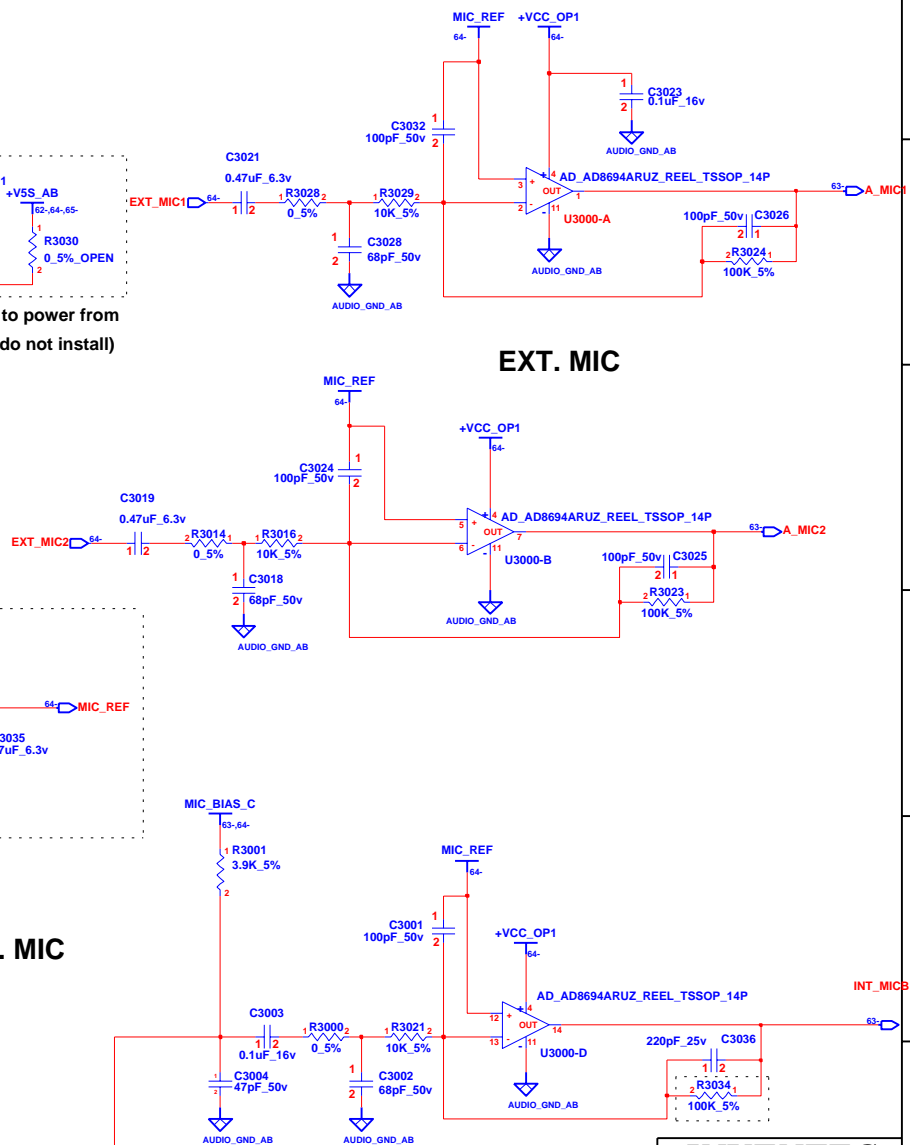


Add option resistor to power from +VSS\_AB if needed(do not install)



PLACE CLOSE TO U3012

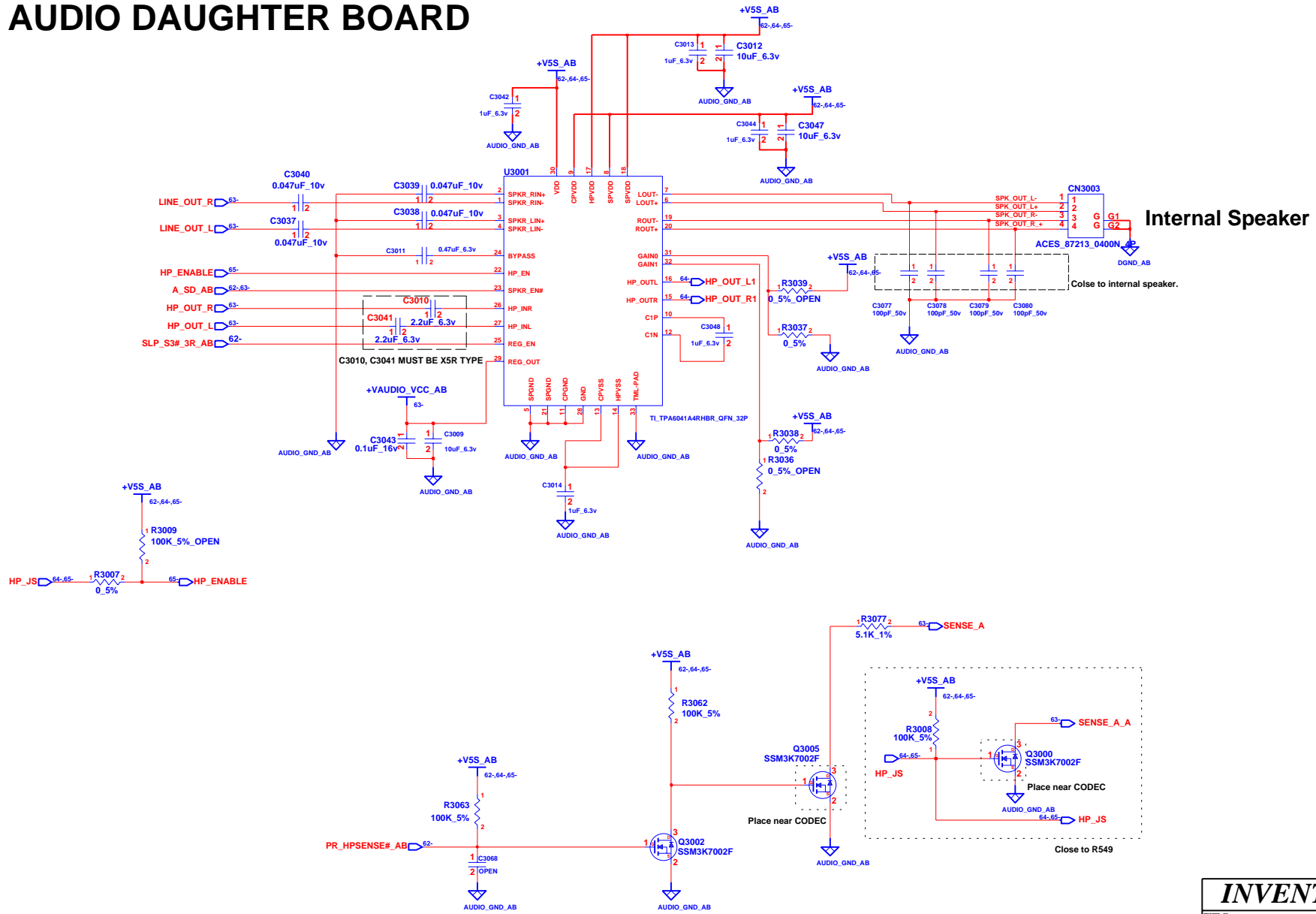
## INT. MIC



## INVENTEC

TITLE			
TT2.0			
EARPHONE & MIC JACK			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01

# AUDIO DAUGHTER BOARD



**Internal Speaker**

Close to internal speaker.

Place near CODEC

Place near CODEC

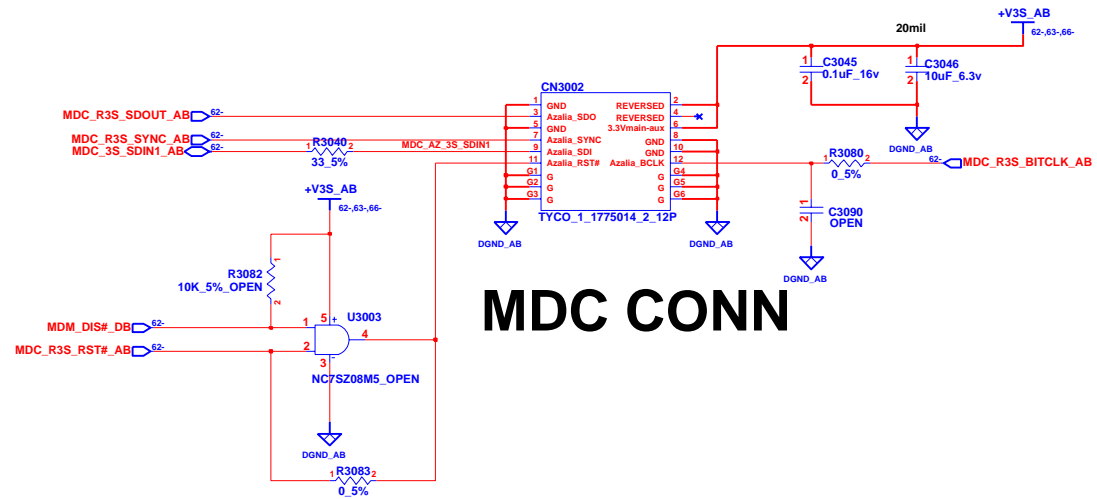
Place near CODEC

Close to R549

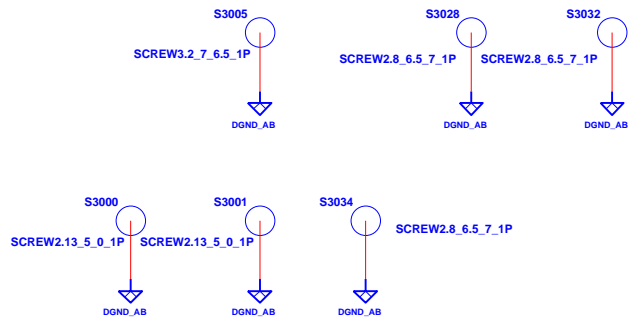
**INVENTEC**

TITLE			
TT2.0			
AUDIO AMP & INT SPEAKER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101	A01
CHANGE by		SHEET	
Kevin Hsiao		65 OF 70	

# AUDIO DAUGHTER BOARD

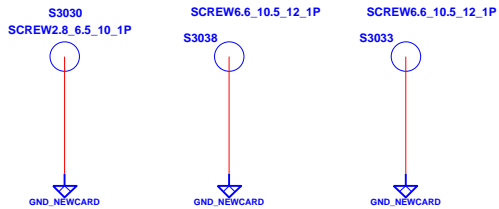
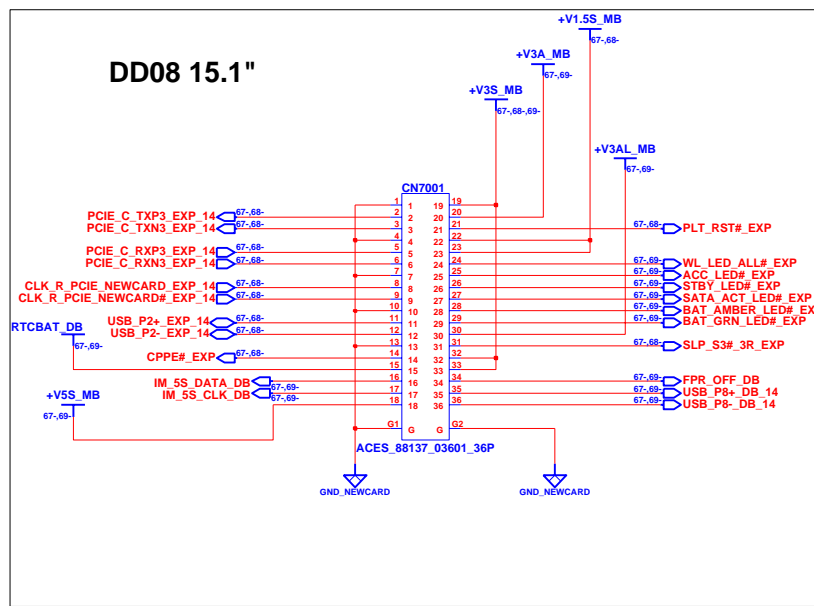
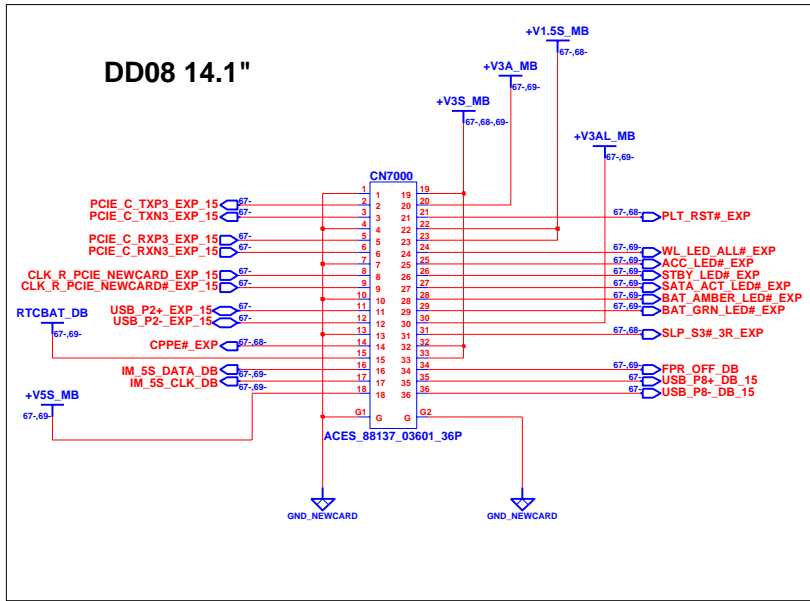


## MDC CONN

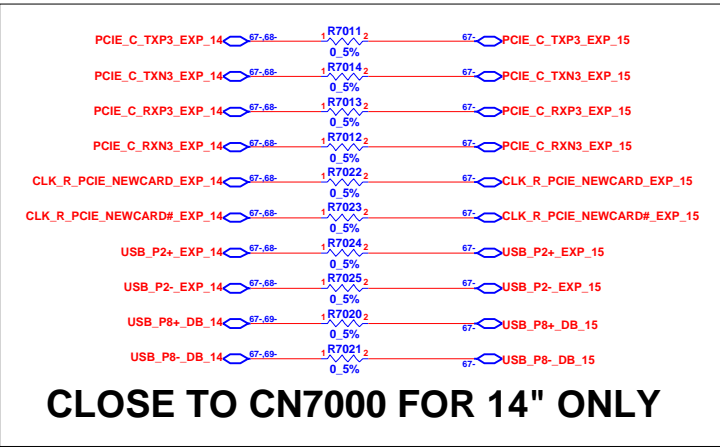


**INVENTEC**

TITLE <b>TT2.0</b>			
MDC CONNECTOR			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A2150101</b>	REV <b>A01</b>
CHANGE by <i>Kevin Hsiao</i>		8-Apr-2008	SHEET <b>66</b> OF <b>70</b>



- |                       |                  |
|-----------------------|------------------|
| 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_S3#_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-       |

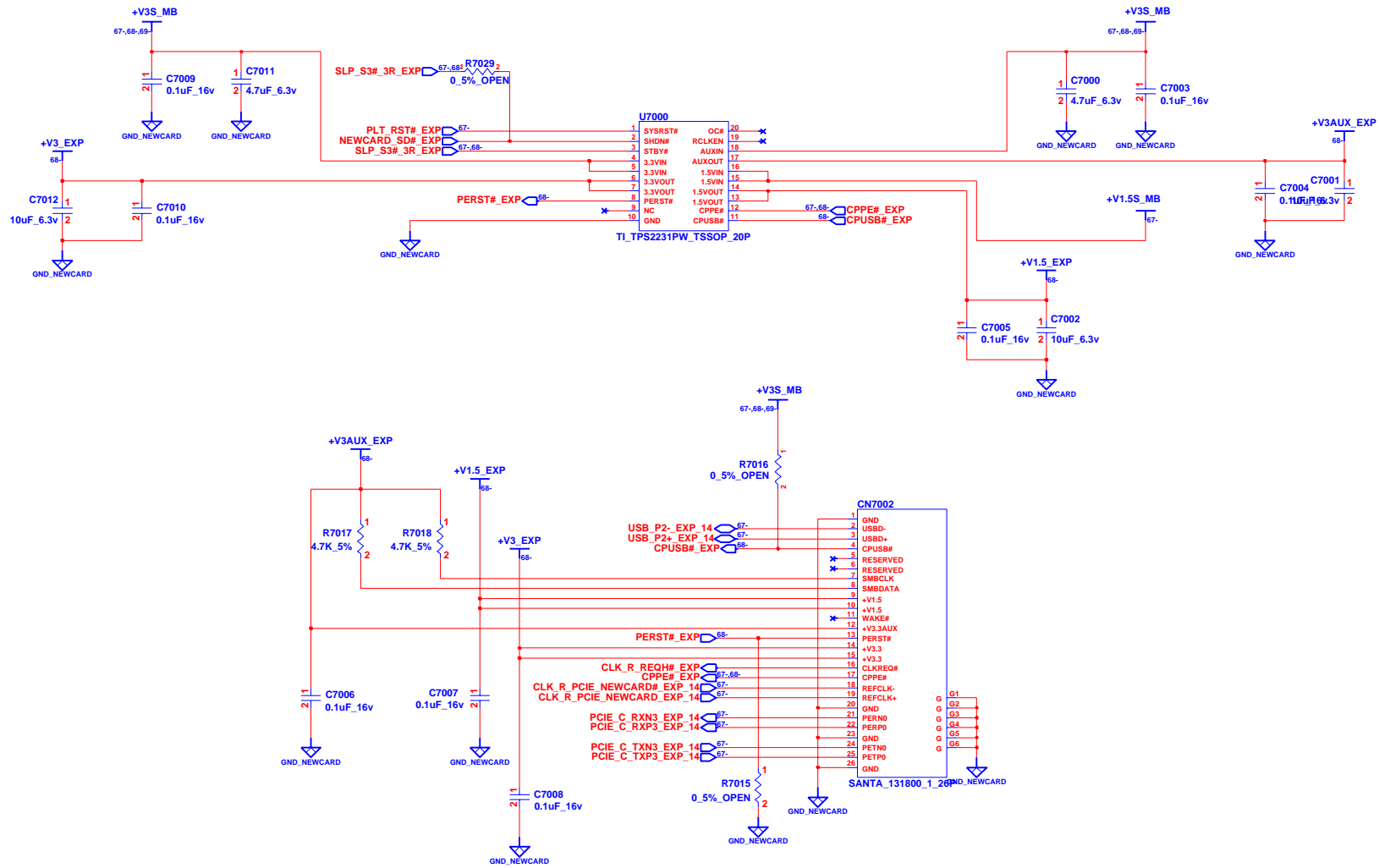


# EXPRESS CARD DAUGHTER BOARD

**INVENTEC**

TITLE			
TT2.0			
NEW CARD CONNECTOR			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01
SHEET		67	OF 70

CHANGE by Kevin Hsiao 8-Apr-2008



# EXPRESS CARD DAUGHTER BOARD

**INVENTEC**

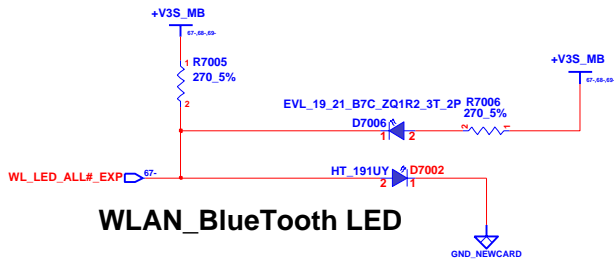
TITLE **TT2.0**  
NEW CARD

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01

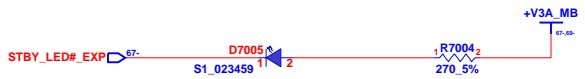
CHANGE by *Kevin Hsiao* 8-Apr-2008

SHEET 88 OF 70

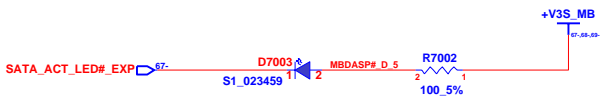
# EXPRESS CARD DAUGHTER BOARD



WLAN\_BlueTooth LED



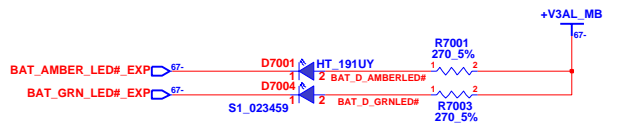
Power / Standby LED



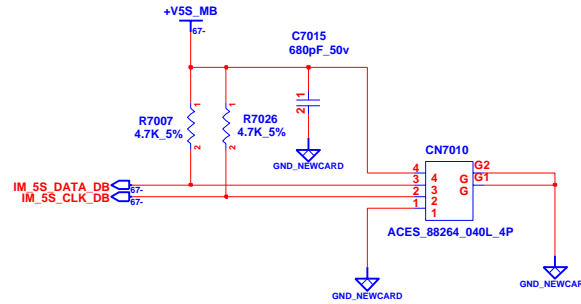
HDD & ODD LED



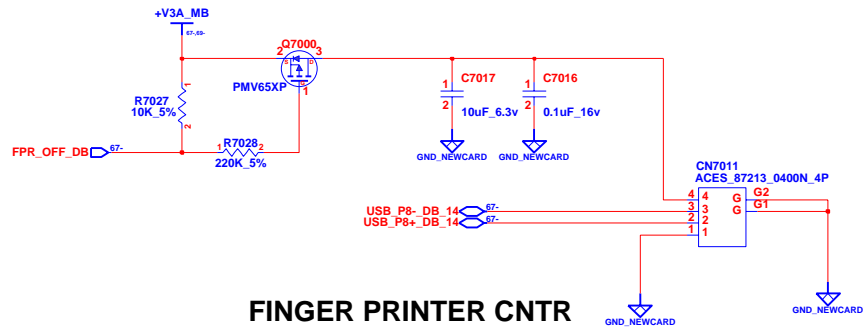
Accelero-Meter LED



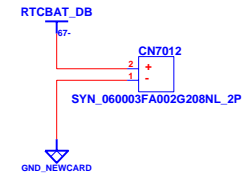
Battery-Charge LED



TOUCH PAD CNTR



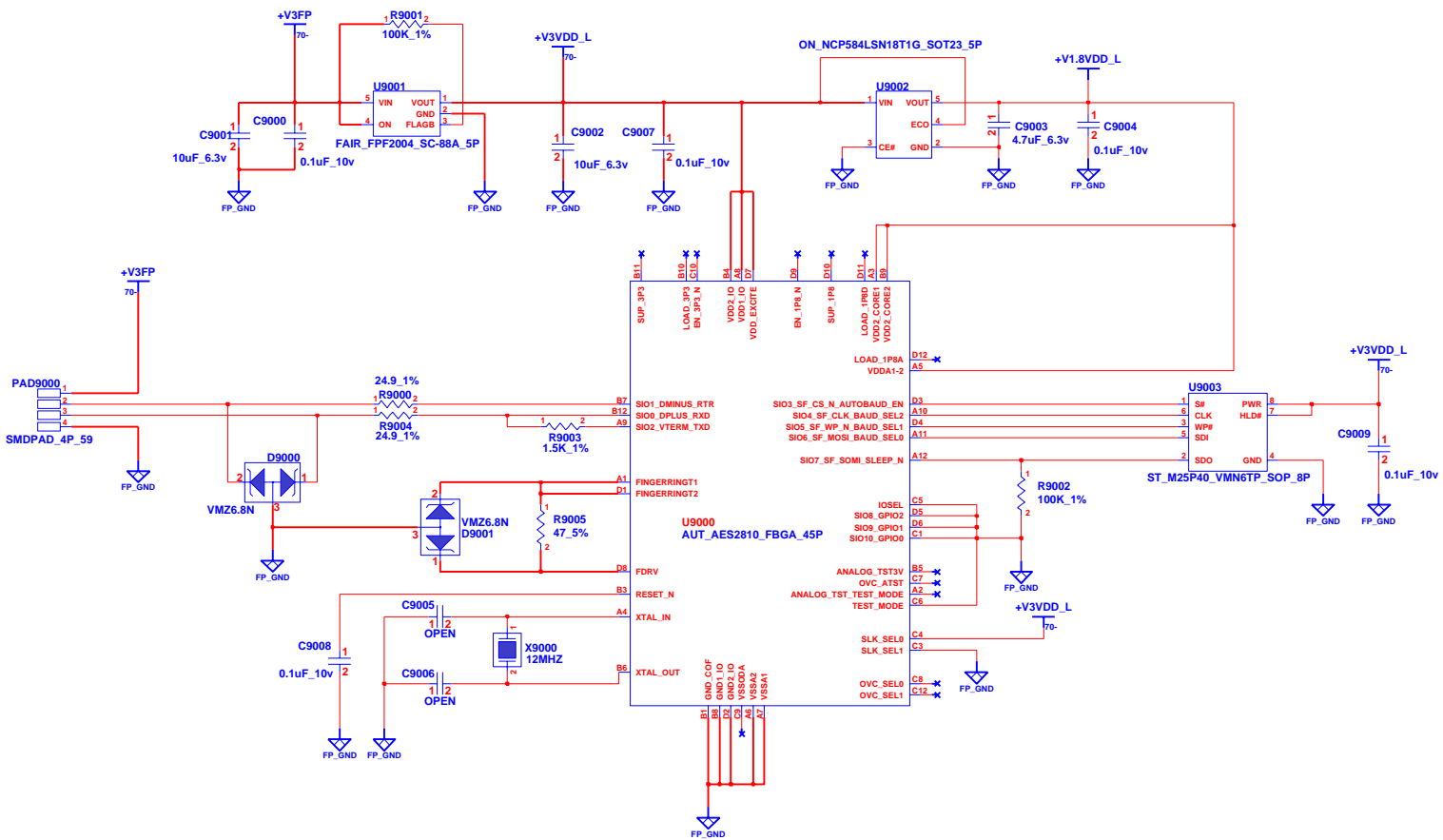
FINGER PRINTER CNTR



RTC CNTR

**INVENTEC**

TITLE			
TT2.0			
NEW CARD LED			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01
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.

<b>INVENTEC</b>			
TITLE <b>TT2.0</b>			
FINGER PRINT READER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101	A01