

Table Of Content

PAGE

5- DC& Battery Charger
6- Selector & Battery CONN
7- +V5A, +V3A & +V1.8S
8- OCP
9- +VCC_NB & V1.2S
10- +VCC_CORE
11- POWER
12- DDR2 POWER
13- Power(Sleep)
14- Power(Sequence)
15- Clock Generator
16- AMD CPU-1
17- AMD CPU-2
18- AMD CPU-3
19- AMD CPU-4
20- Thermal & Fan Controller
21- RS780 -1
22- RS780 -2
23- RS780 -3
24- RS780 -4
25- DDR2-DIMM0
26- DDR2-DIMM1
27- DDR2-DAMPING
28- VIDEO MEMORY
29- CRT& S-Vedio CONN

PAGE

30- LCD CONN
31- SB700-1
32- SB700-2
33- SB700-3
34- SB700-4
35- KBC
36- SPI & Accelero-Meter
37- INT. KBC/Touch Pad Devices
38- Super I/O
39- TPM V1.2
40- HDD CONN (SATA)
41- SATA ODD & USB WEBCAM
42- USB CONN
43- Express DB CONN-MB SIDE
44- Audio DB CONN-MB SIDE
45- 7 IN 1 & SIM DB CONN-MB SIDE
46- MiniCard
47- LAN Interface
48- LAN RJ45 CONN
49- Docking CONN
50- Screw
51- BlueTooth
52- Power/LED
53- SW/B connector

PAGE

54- 1394
55- SIM CARD Daughter Board
56- Serial Port Connector
57- 7 IN 1 & USB Daughter Board (TT)
58- 7 IN 1 & USB Daughter Board (TT)
59- ODD EXTENSION BOARD
60- SERIAL BOARD
61- POWER BUTTON/LID SWITCH
62- AUDIO CONN
63- AUDIO DAUGHTER BOARD
64- Earphone & MIC JACK
65- Audio AMP & INT. Speaker CONN
66- MDC CONN
67- NEW CARD CNTR
68- NEW CARD
69- NEW CARD LED
70- FINGER PRINT READER

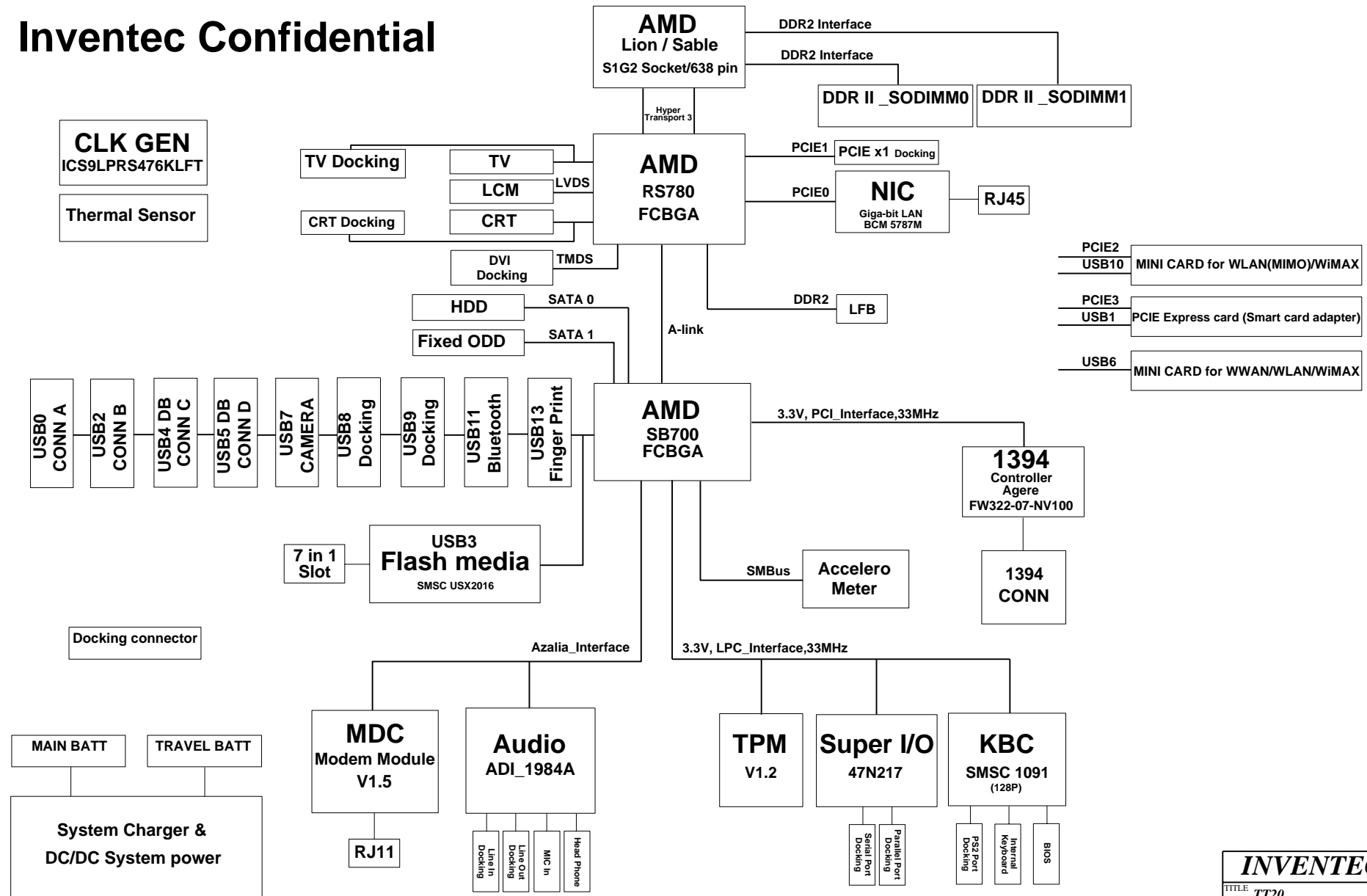
INVENTEC

TITLE **TT20**

SIZE A3	CODE CS	DOC. NUMBER 1310A2150101-1	REV A02
SHEET		2	OF 70

CHANGE by *Kevin Hsiao* 15-May-2008

Inventec Confidential

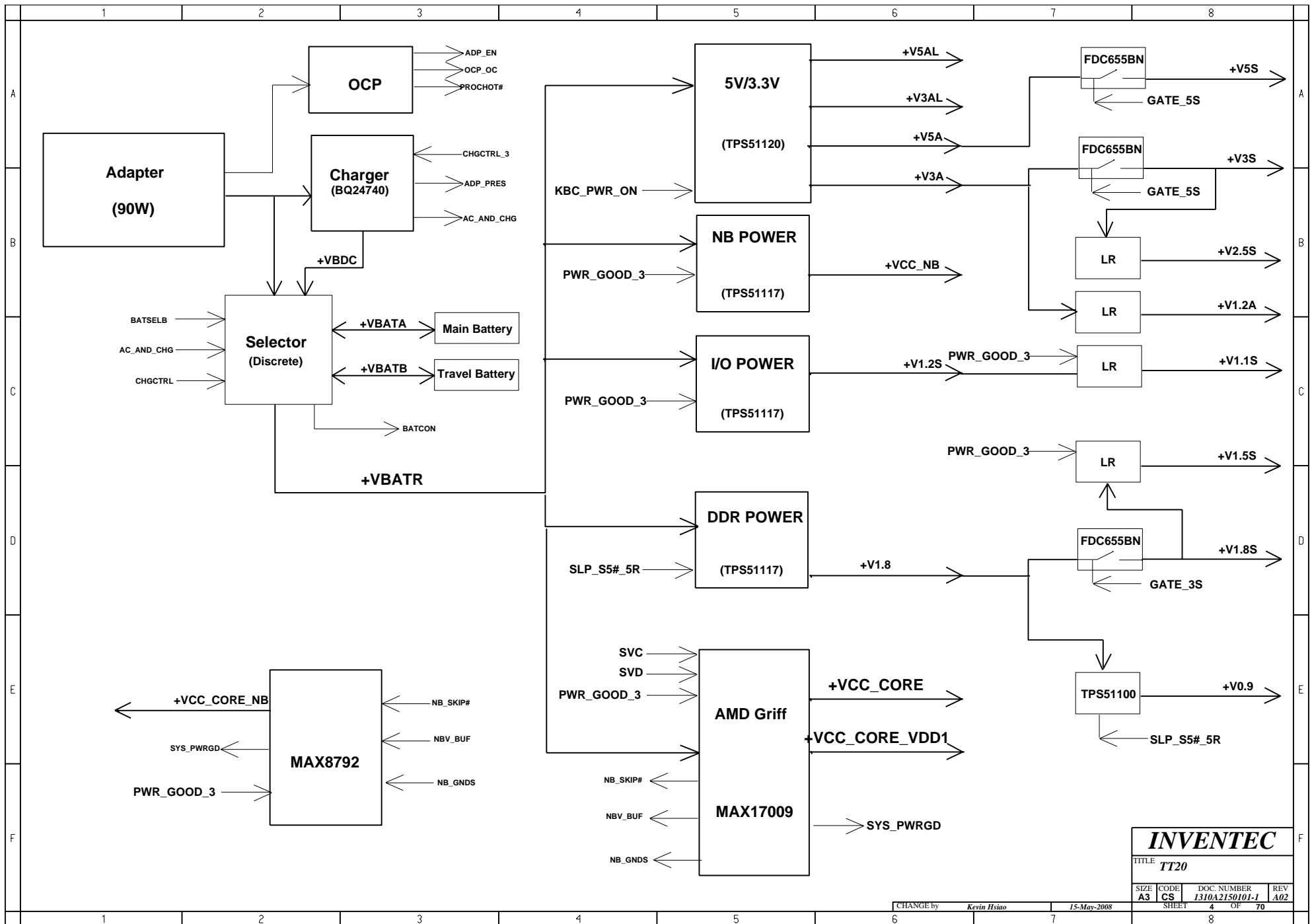


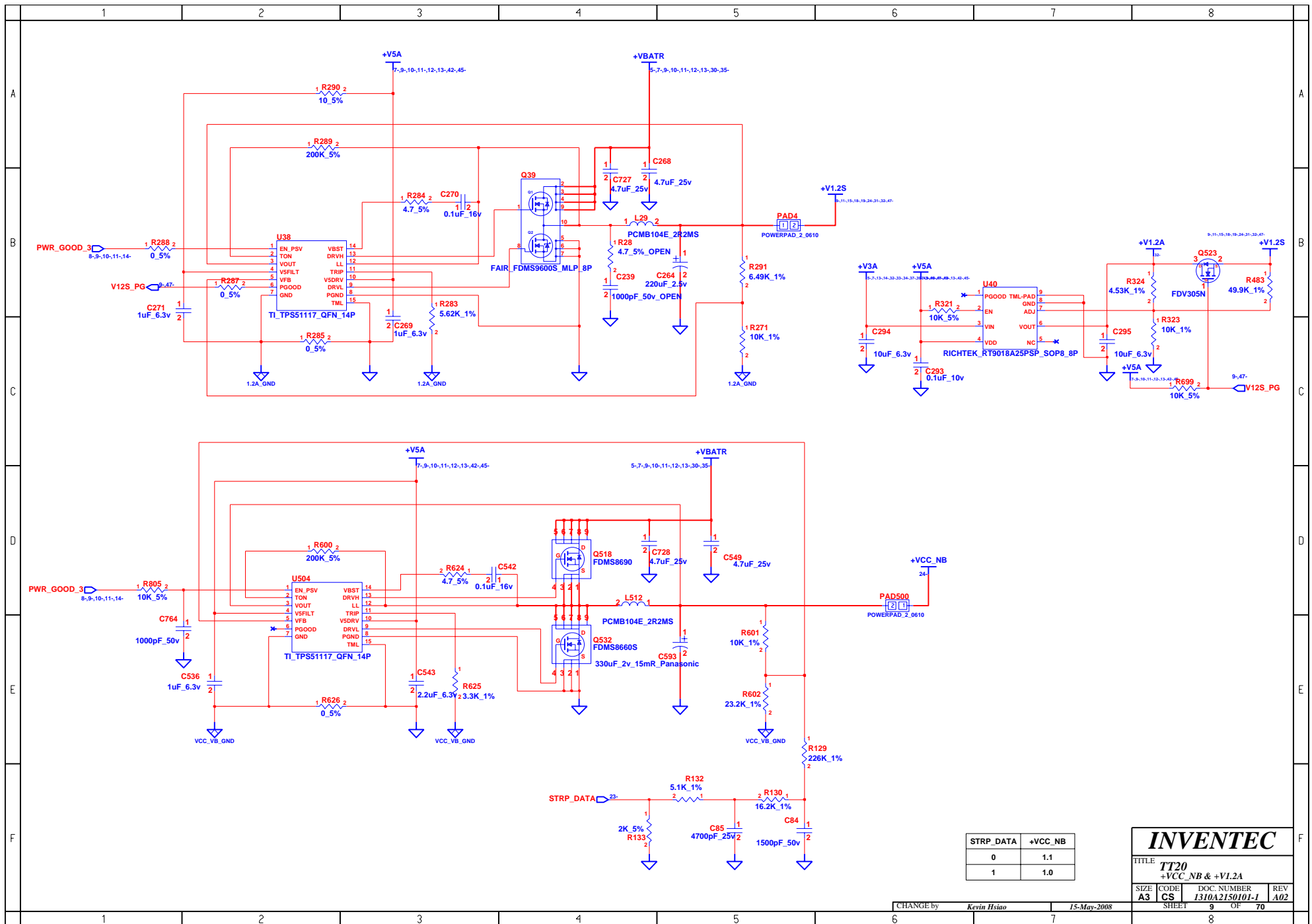
INVENTEC

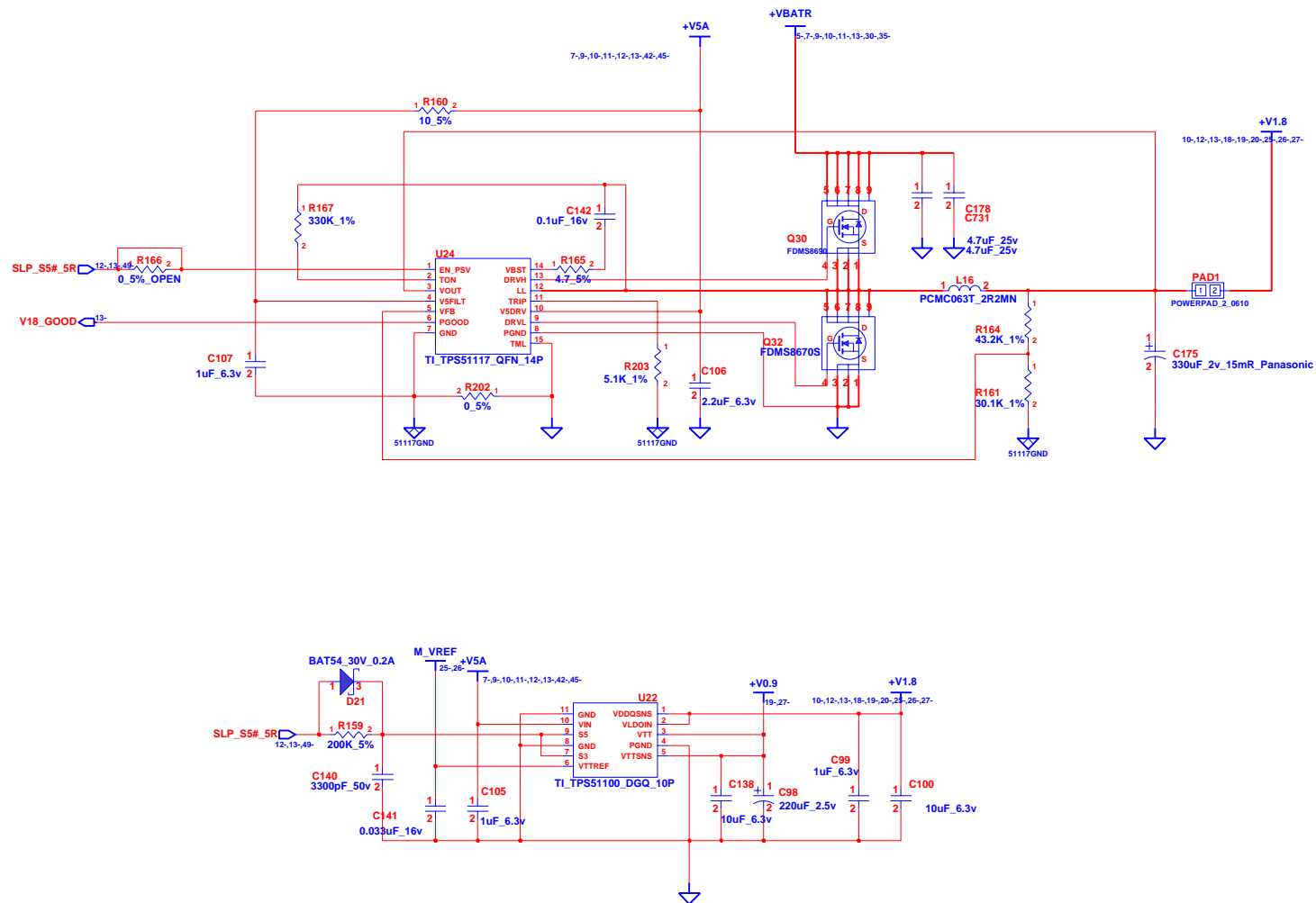
TITLE
TT20
Block Diagram

SIZE A3	CODE CS	DOC. NUMBER I310A2150101-1	REV A02
SHEET 3		OF 70	

CHANGE by Kevin Hsiao 15-May-2008





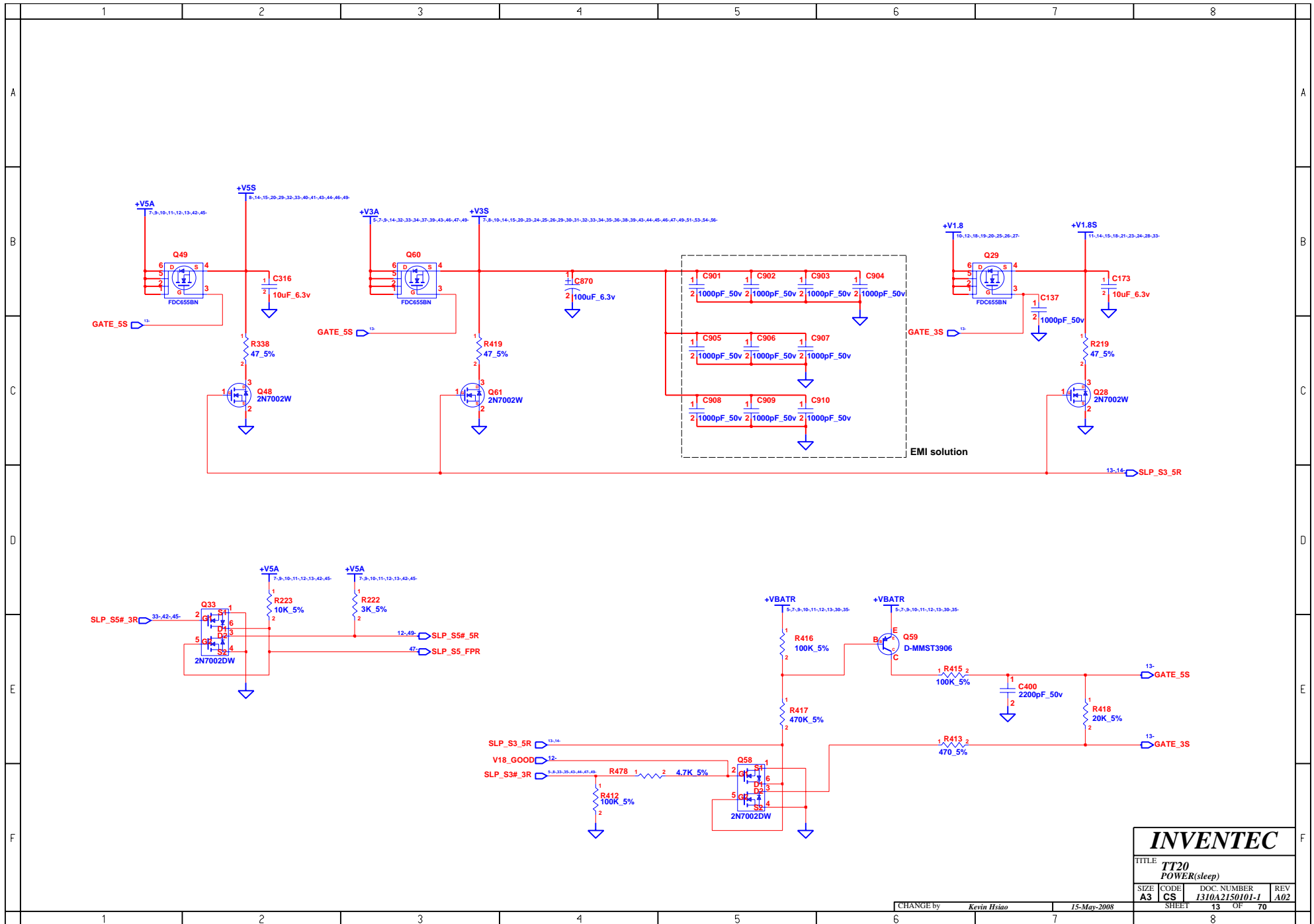


INVENTEC

TITLE		
TT20		
DDR2 POWER		
SIZE	CODE	DOC. NUMBER
A3	CS	I310A2150101-1
REV		A02

CHANGE by Kevin Hsiao 15-May-2008

SHEET 12 OF 70

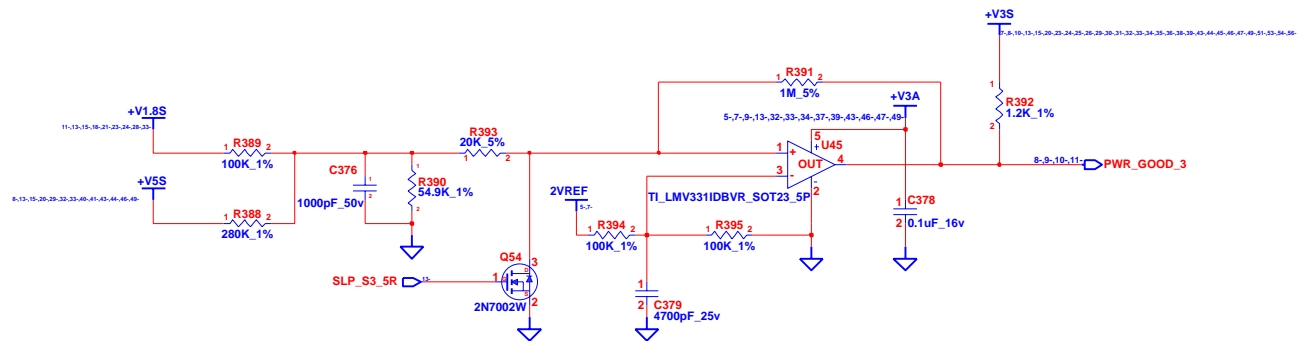


INVENTEC

TITLE
TT20
POWER(sleep)

SIZE A3	CODE CS	DOC. NUMBER I310A2150101-1	REV A02
SHEET 13		OF 70	

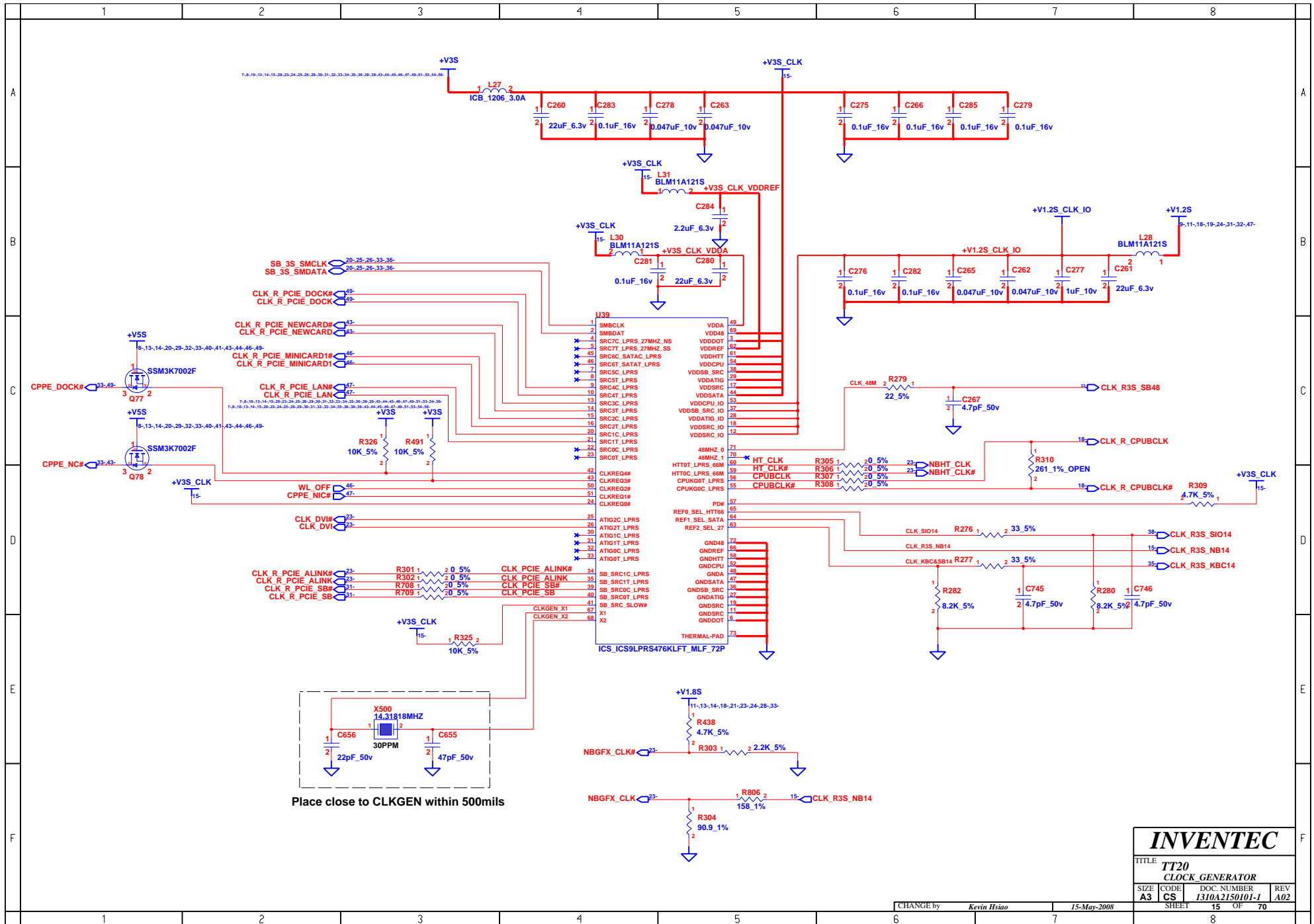
CHANGE by *Kevin Hsiao* 15-May-2008



INVENTEC

TITLE			
TT20			
POWER(Sequence)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02
SHEET		14	OF 70

CHANGE by Kevin Hsiao 15-May-2008

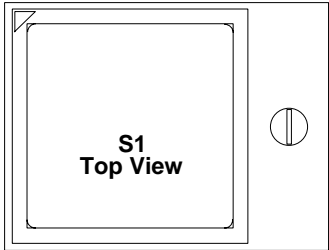
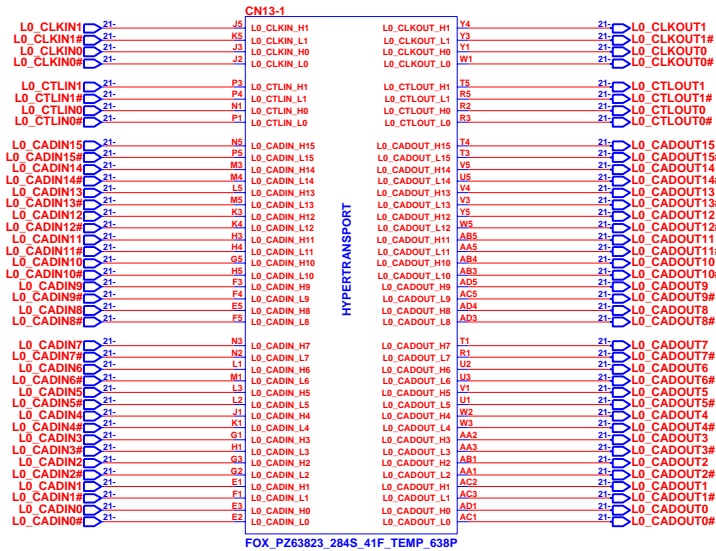
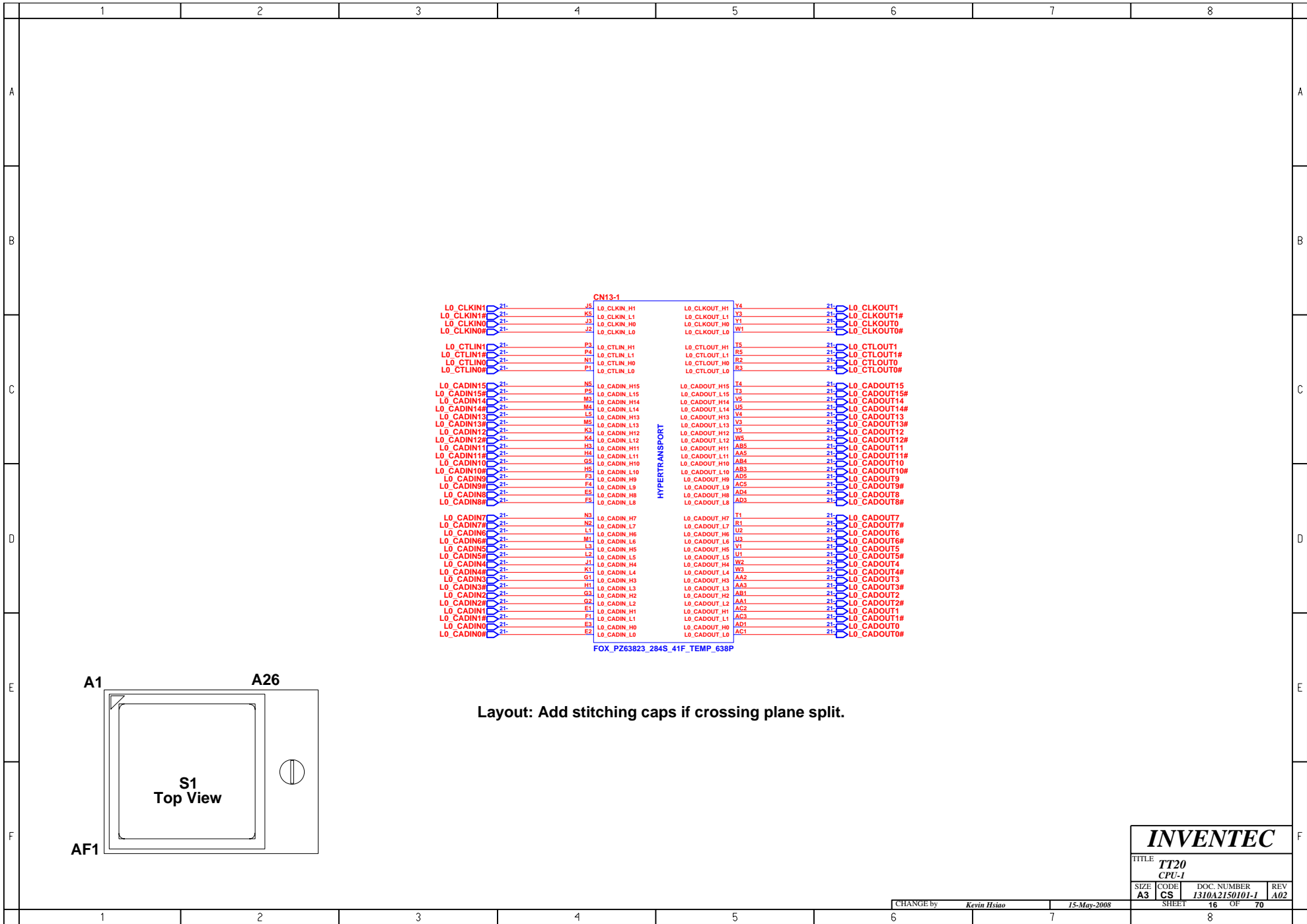


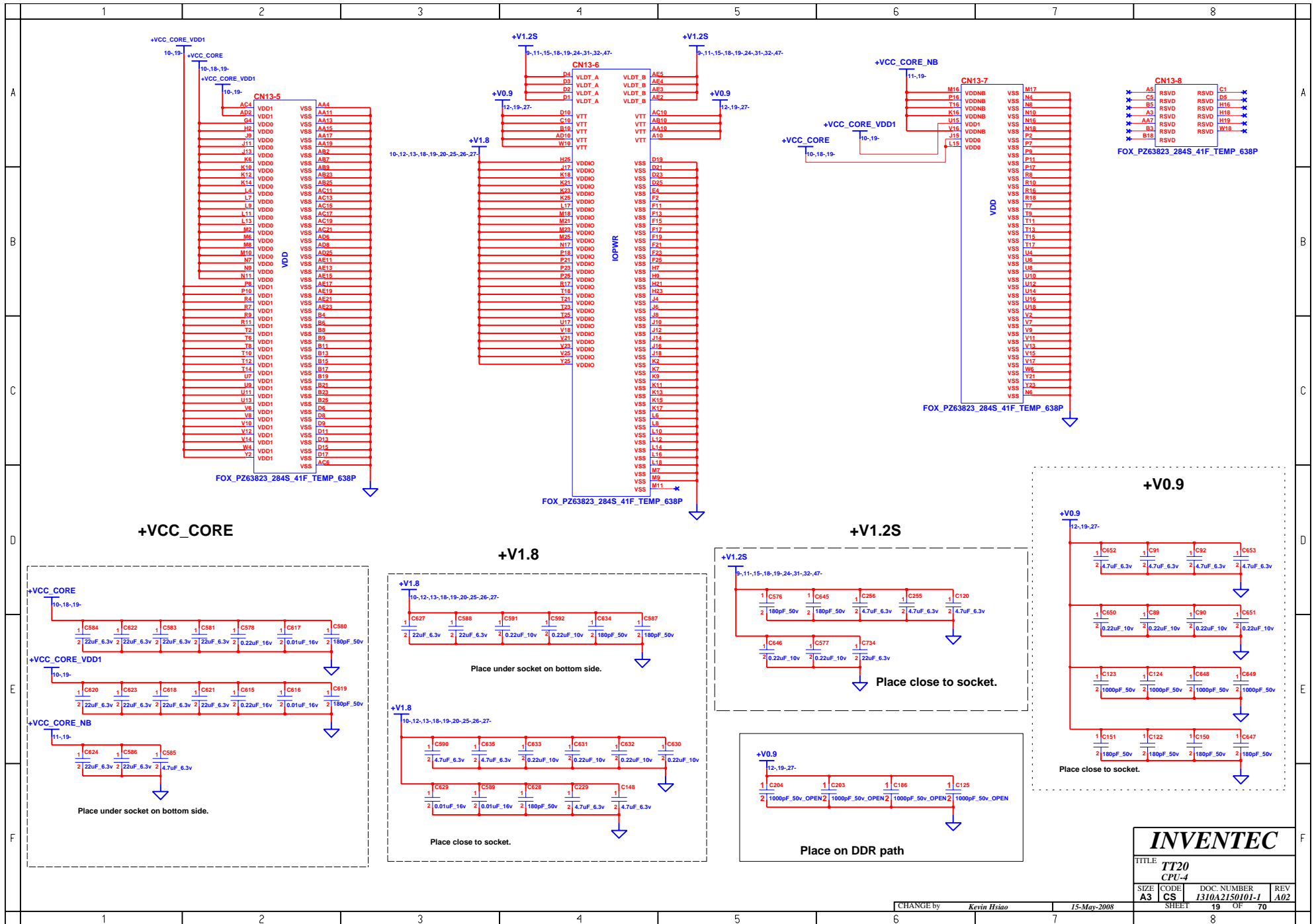
INVENTEC

TITLE
TT20
CLOCK GENERATOR

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101-1	A02

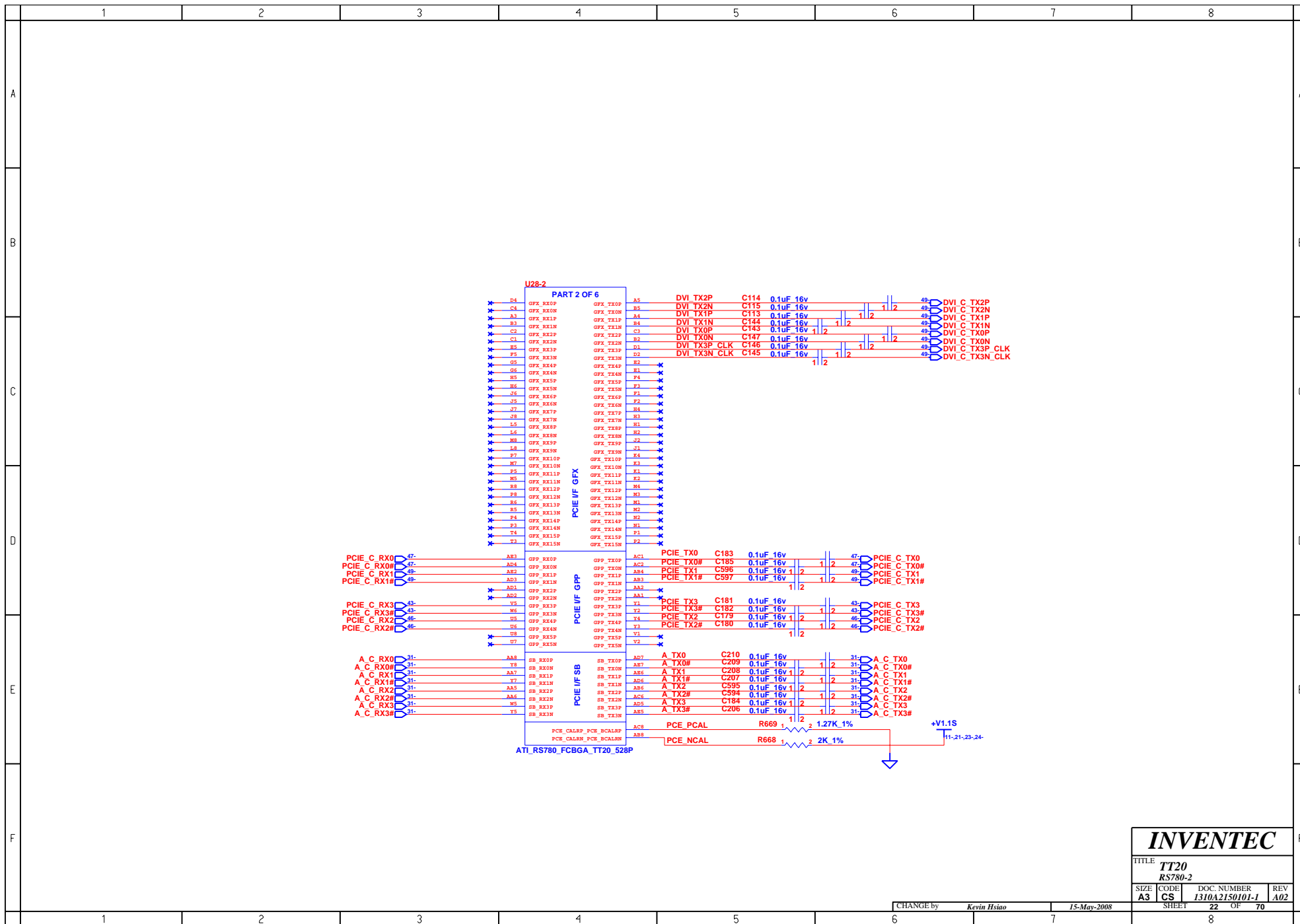
SHEET 15 OF 70







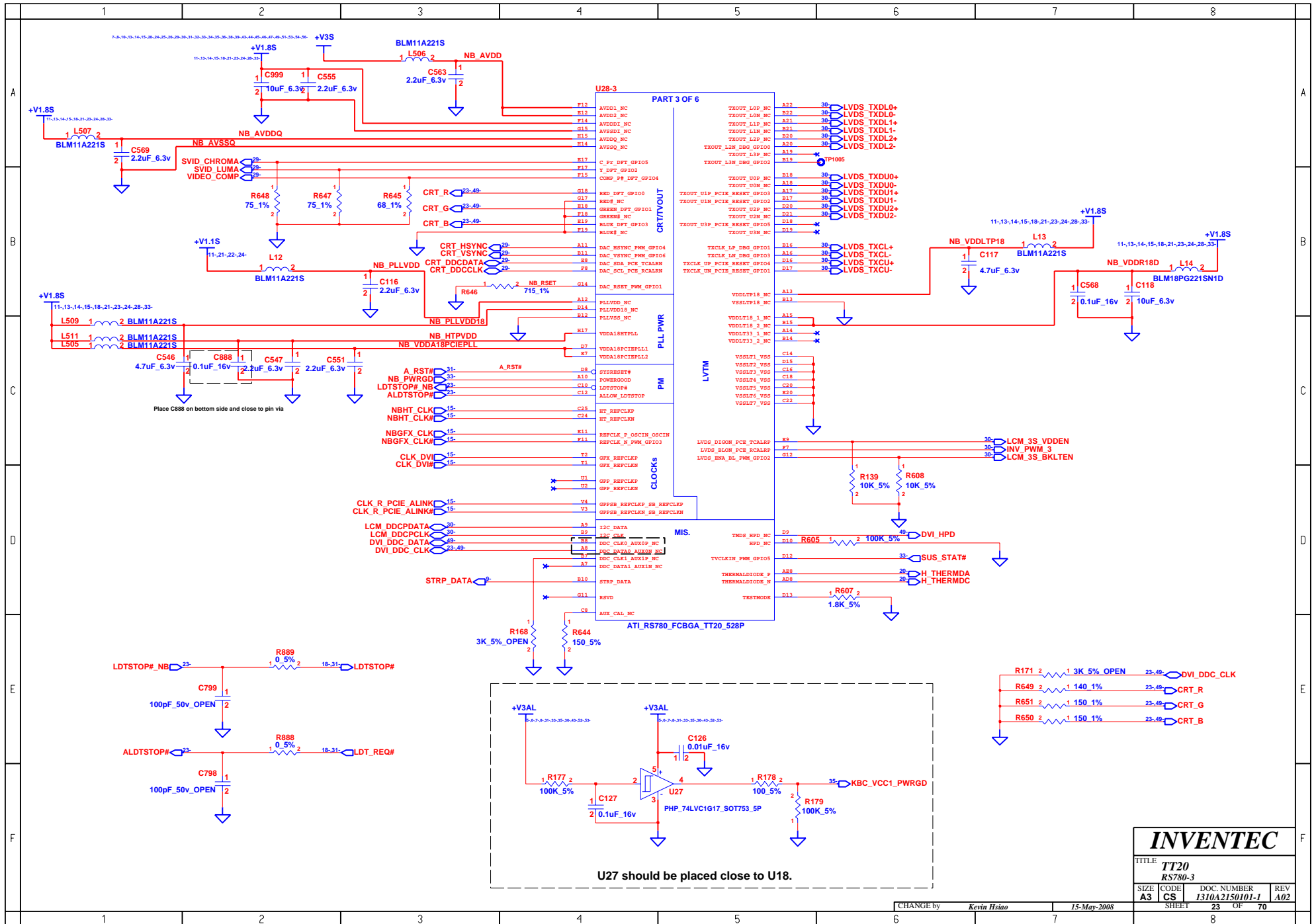
CHANGE by	<i>Kevin Hsiao</i>	<i>22-May-2008</i>
-----------	--------------------	--------------------

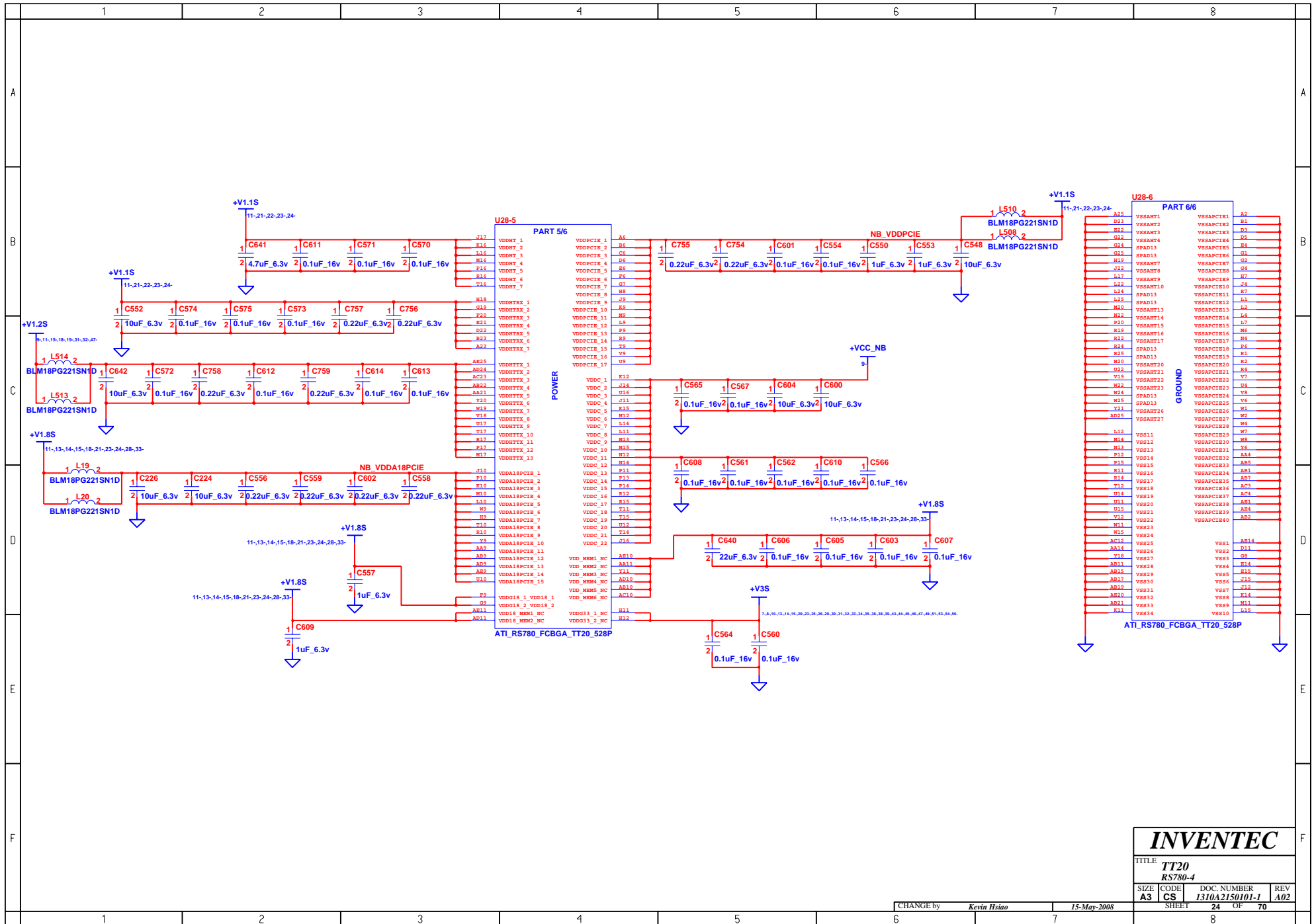


INVENTEC

TITLE			
TT20			
RS780-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101-1	A02
SHEET		22	OF 70

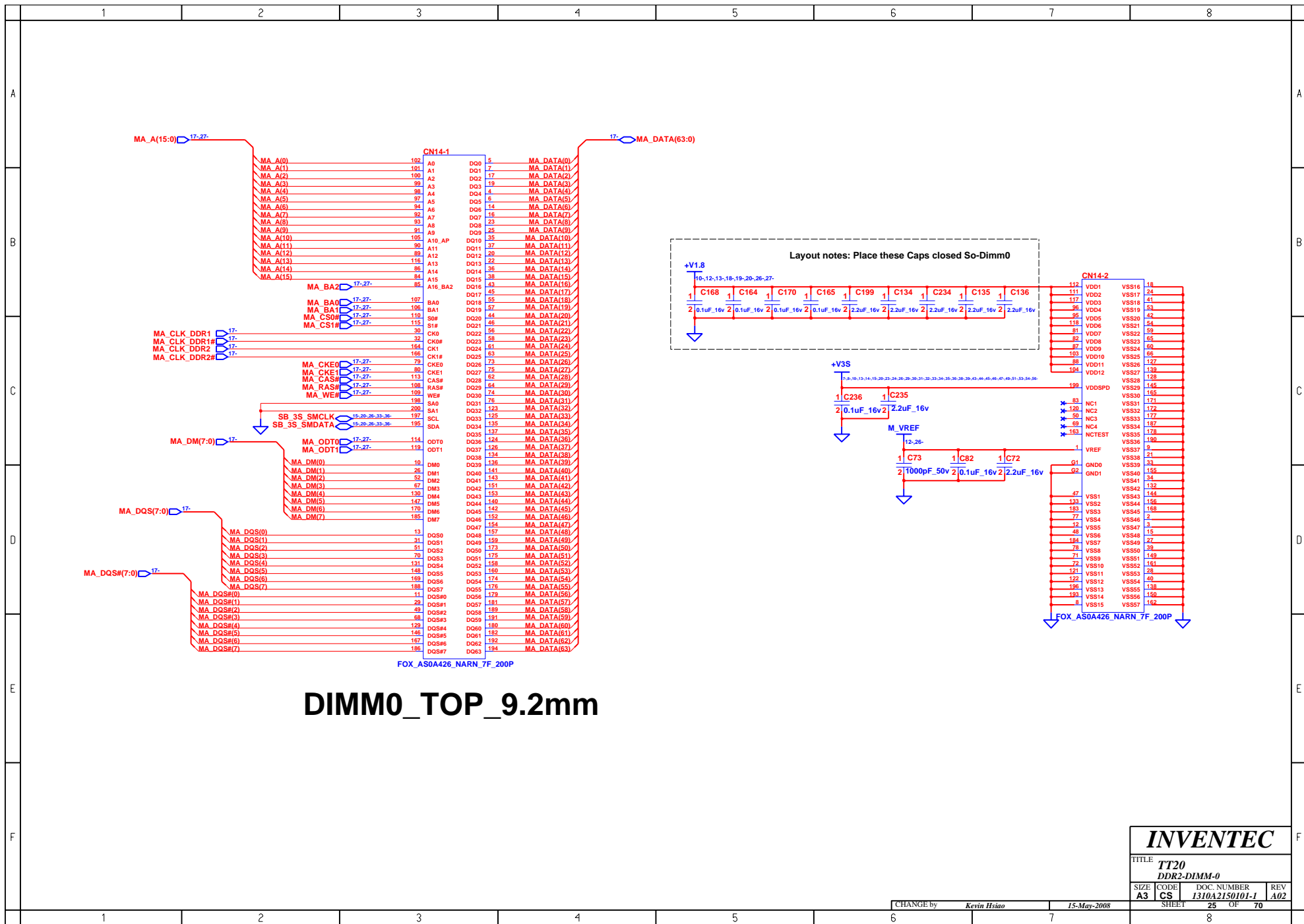
CHANGE by Kevin Hsiao 15-May-2008

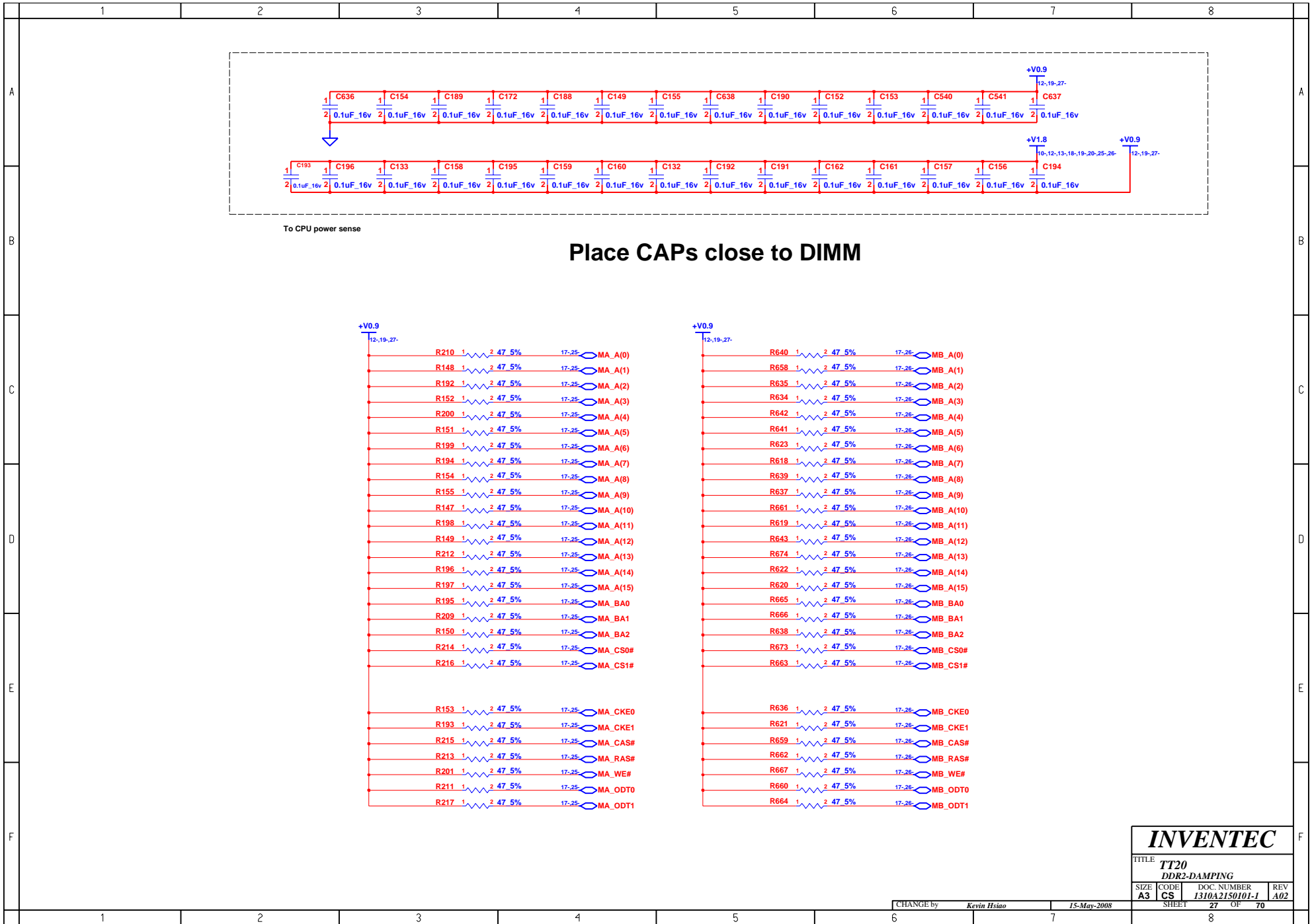


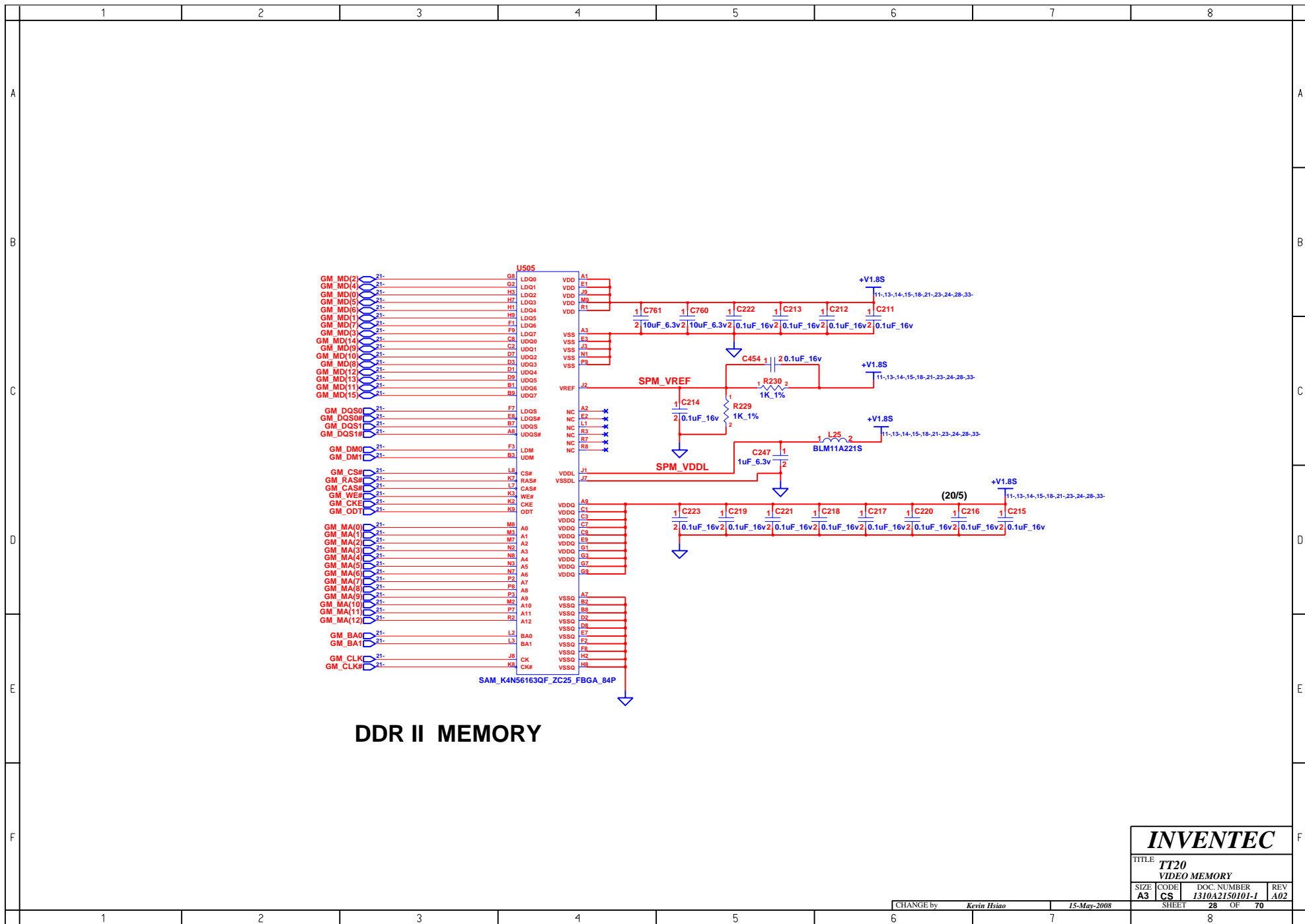


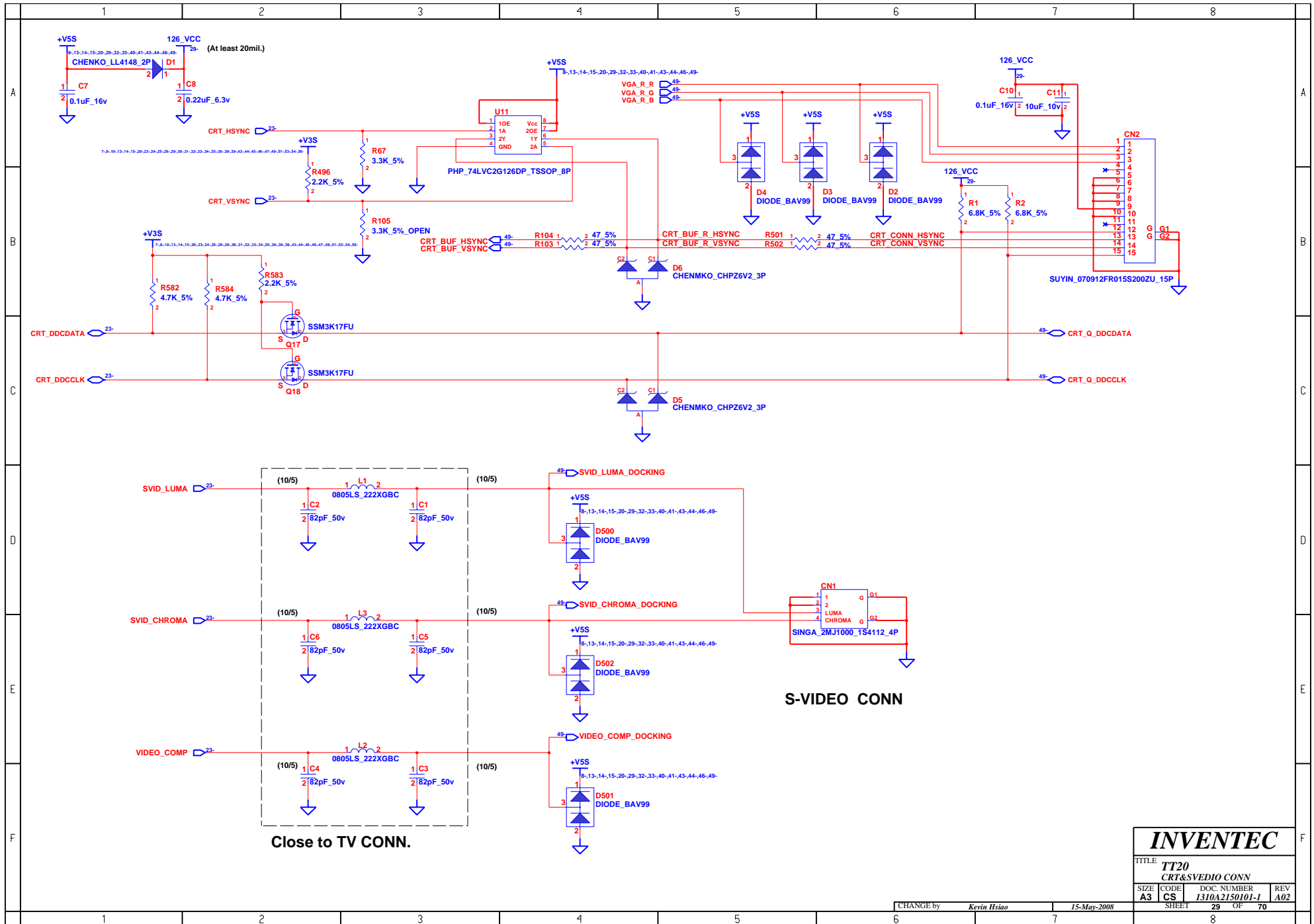
INVENTEC

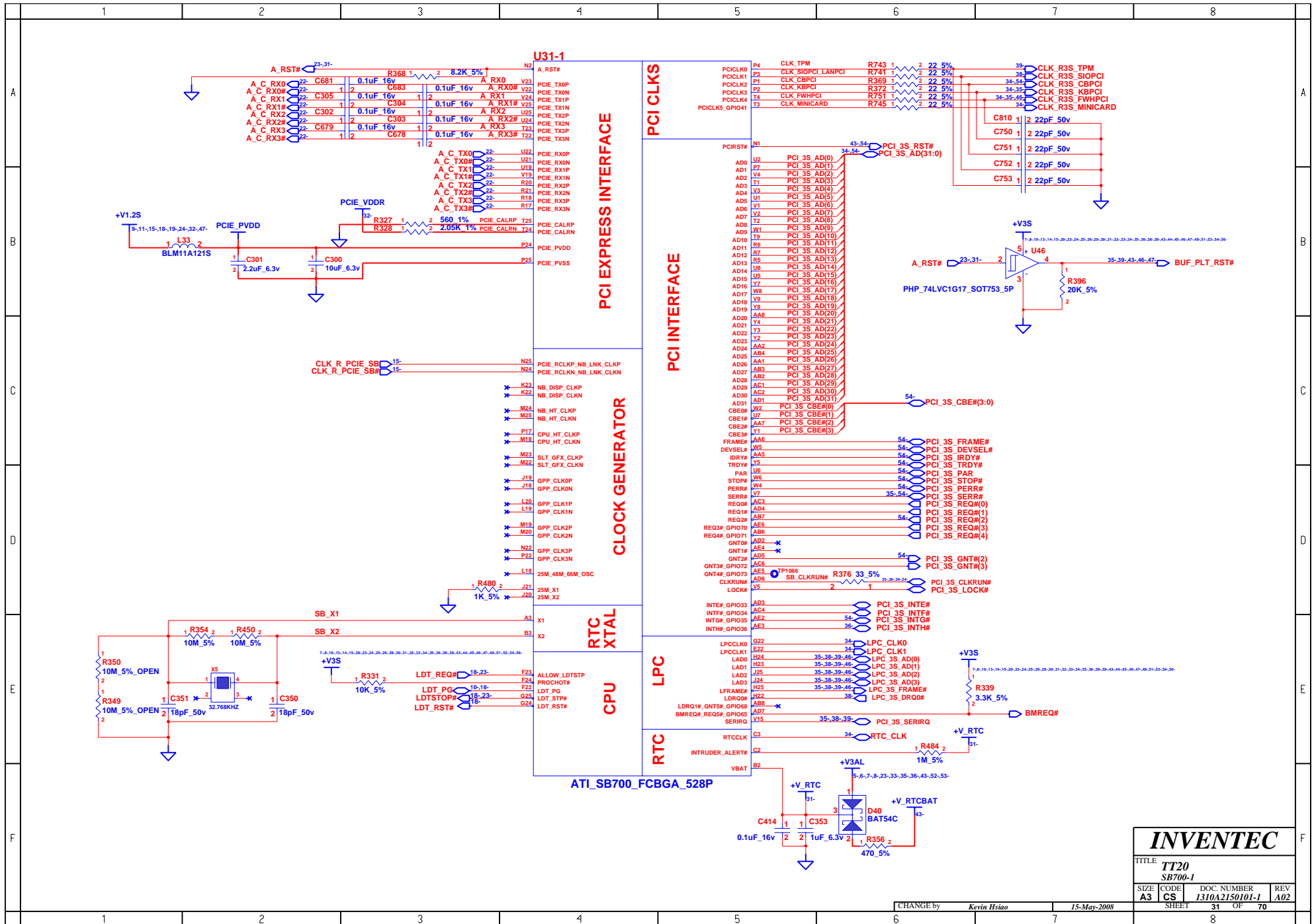
TITLE TT20 RS780-4			
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101-1	REV A02
SHEET 24		OF 70	

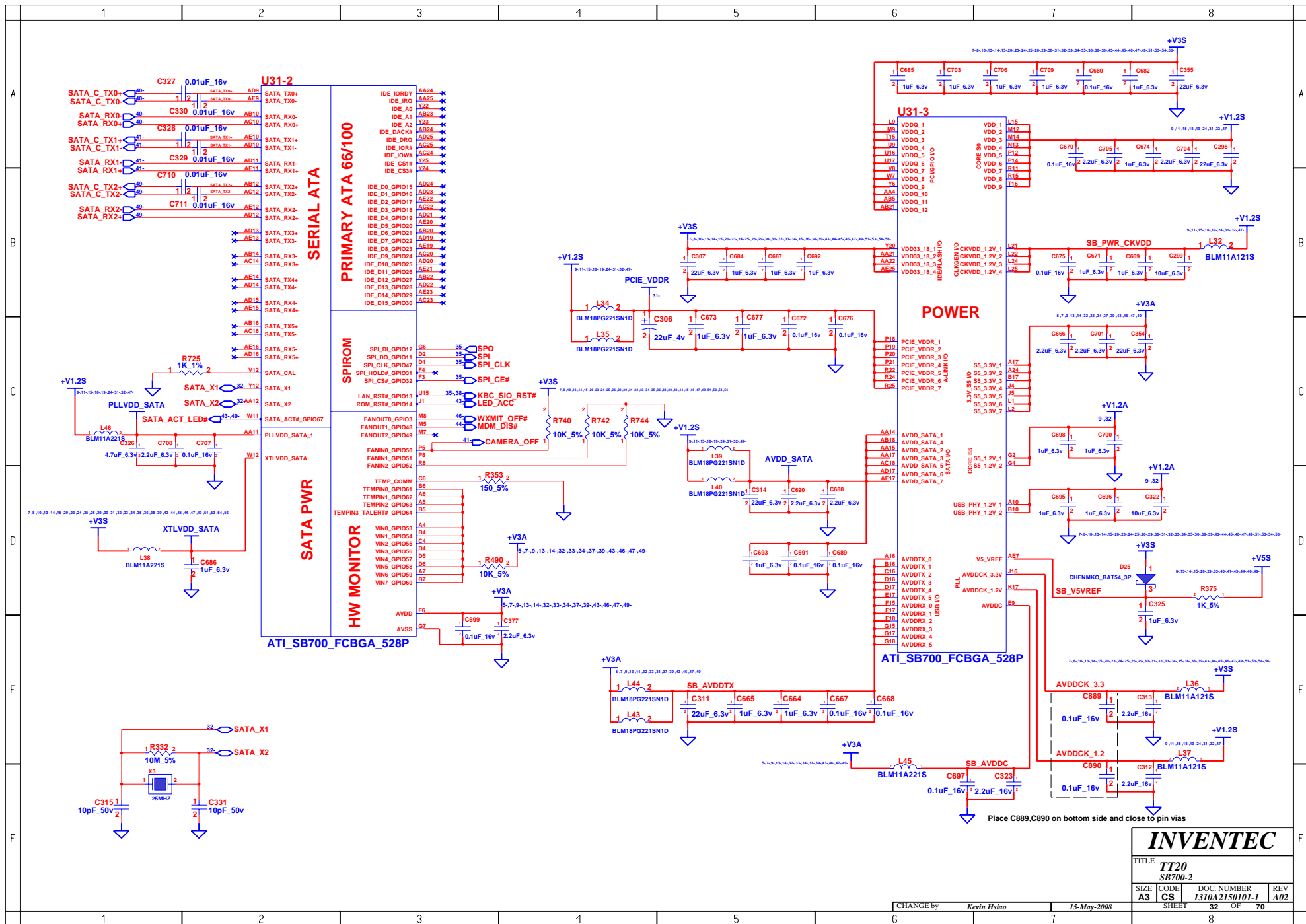






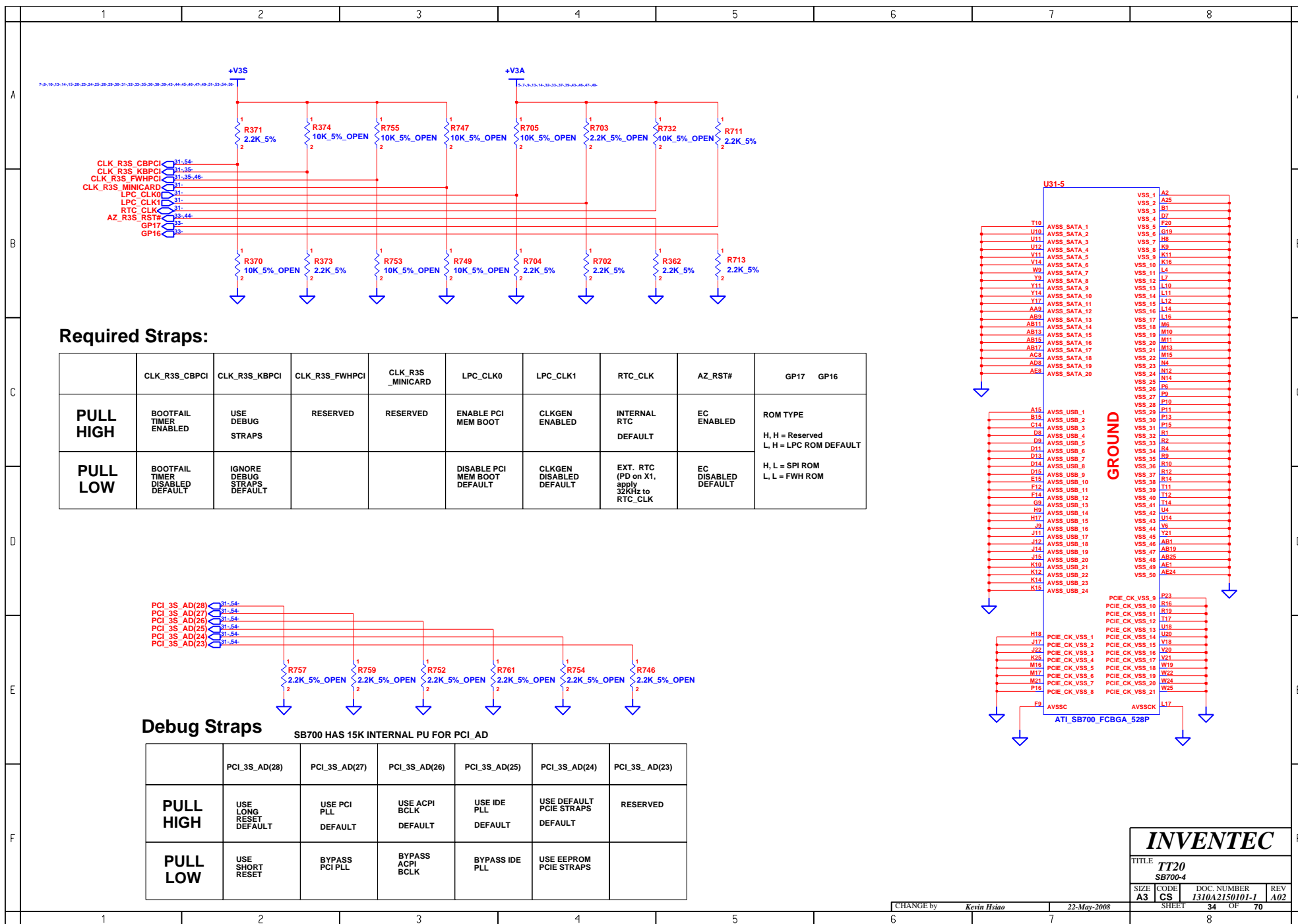


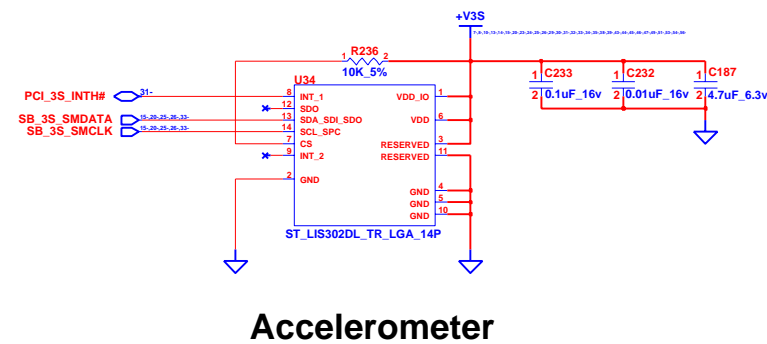
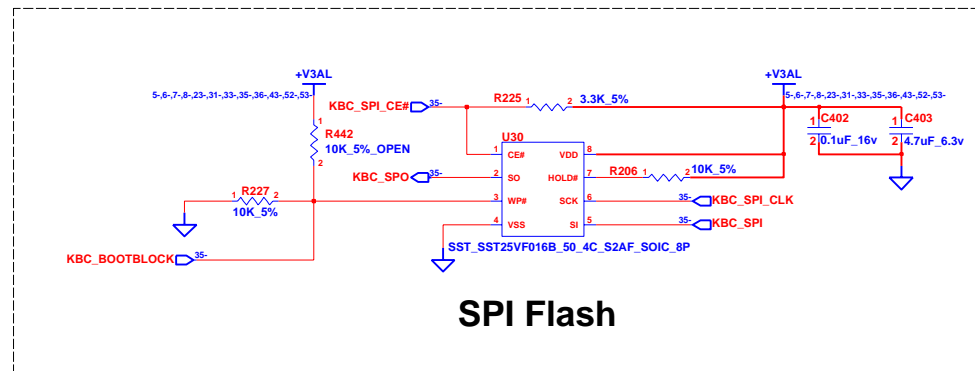


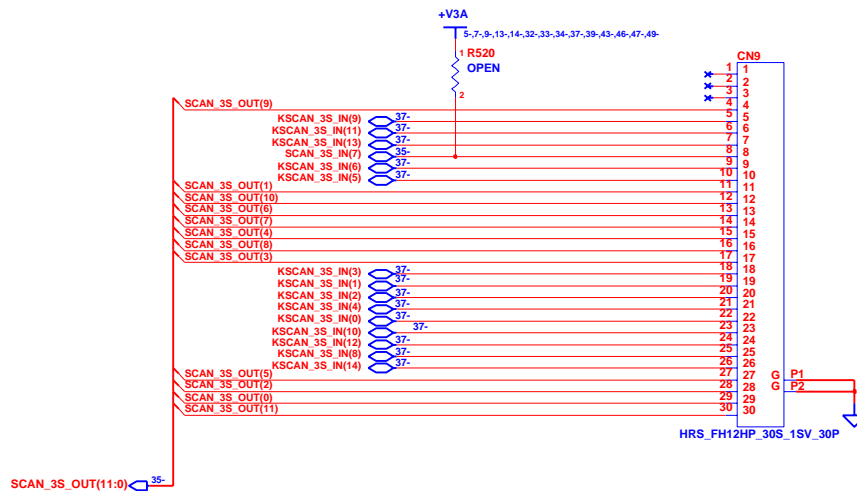


INVENTEC

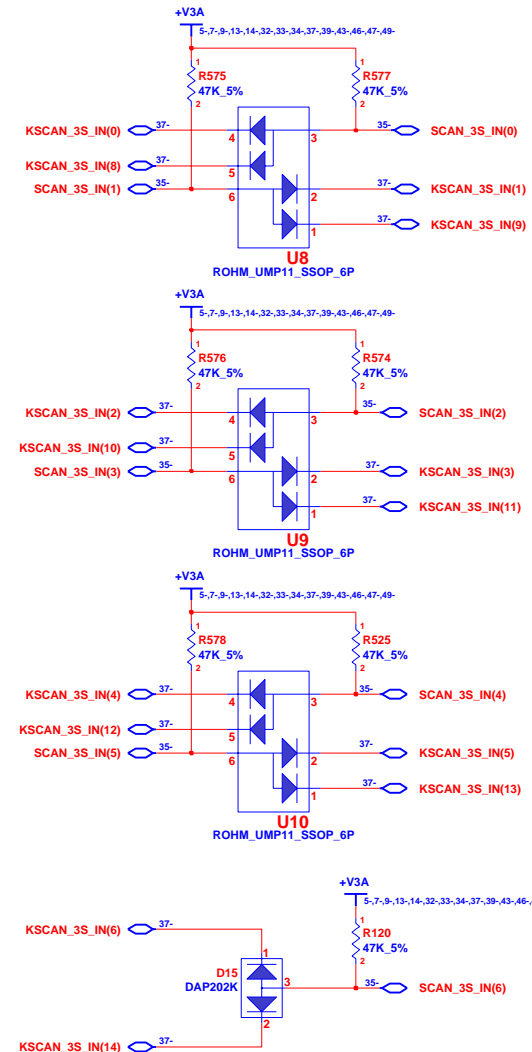
TITLE			
TT20			
SB700-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02
SHEET		32	OF 70





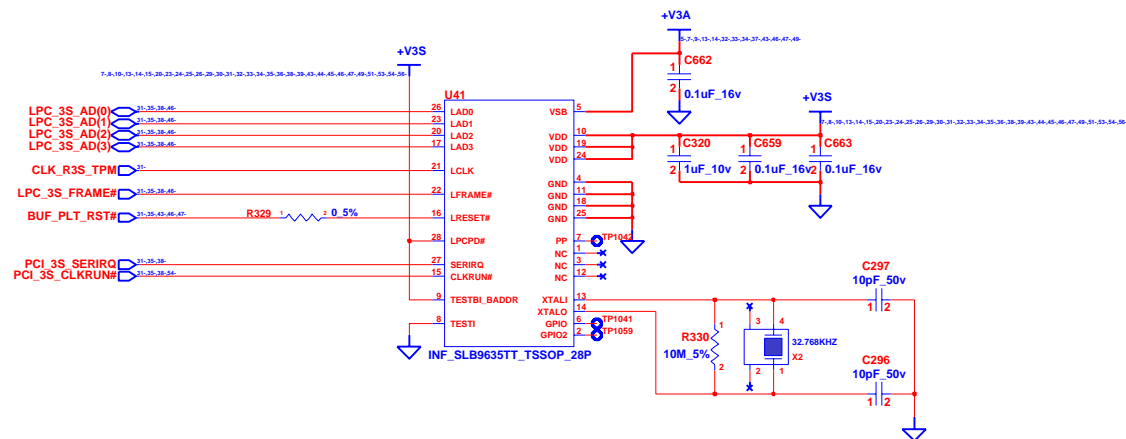


Keyboard CONN



INVENTEC

TITLE TT20 INT.KBC/POINT DEVICES			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101-1	REV A02
CHANGE by <i>Kevin Hsiao</i>		15-May-2008	
SHEET 37		OF 70	



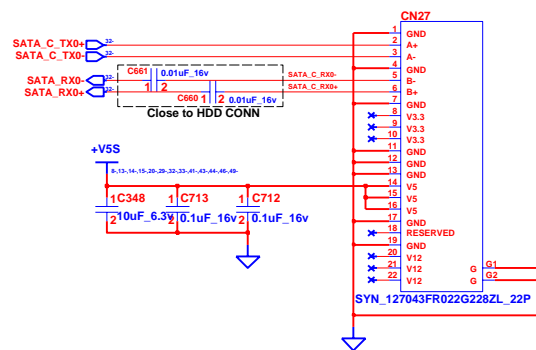
INVENTEC

TITLE
TT20
TPM V1.2

SIZE CODE DOC. NUMBER REV
A3 CS 1310A2150101-1 A02

CHANGE by Kevin Hsiao 15-May-2008

SHEET 39 OF 70



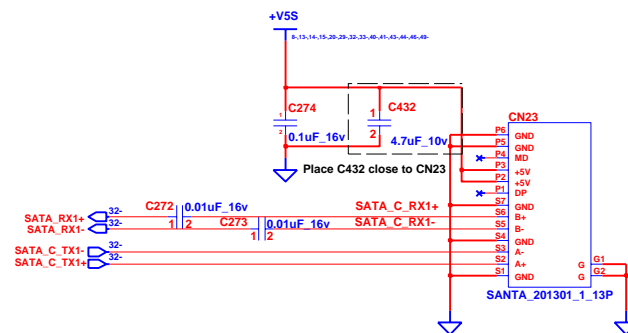
HDD CONN

INVENTEC

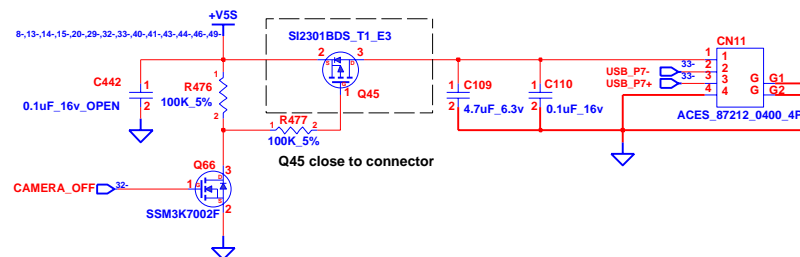
TITLE			
TT20			
SATA HDD CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02

CHANGE by Kevin Hsiao 15-May-2008

SHEET 40 OF 70



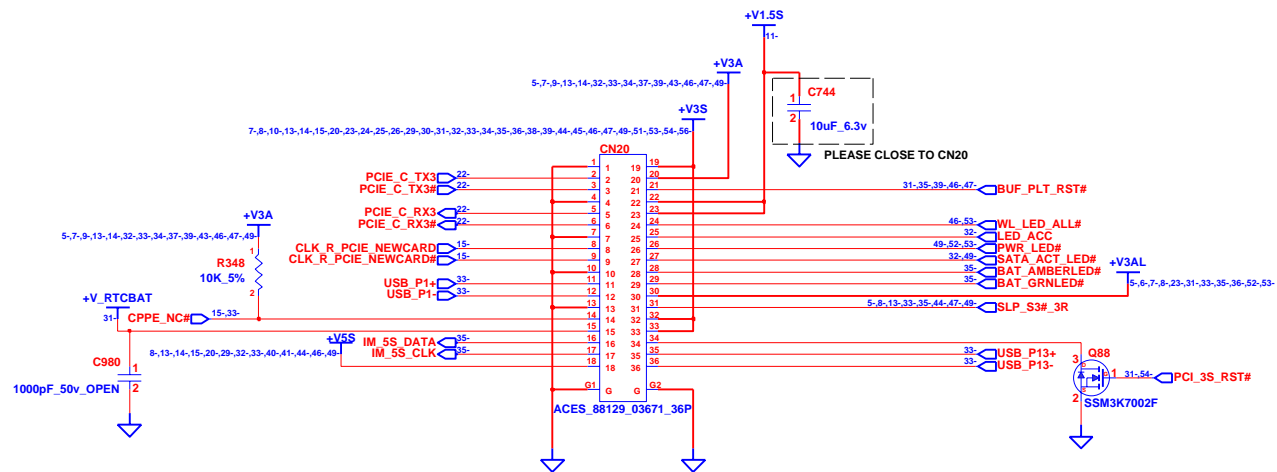
ODD SATA CONNECTOR



USB WEBCAM CONNECTOR

INVENTEC			
TITLE			
TT20			
SATA ODD & USB WEBCAM			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02
CHANGE by		15-May-2008	
SHEET		41	OF 70
		8	





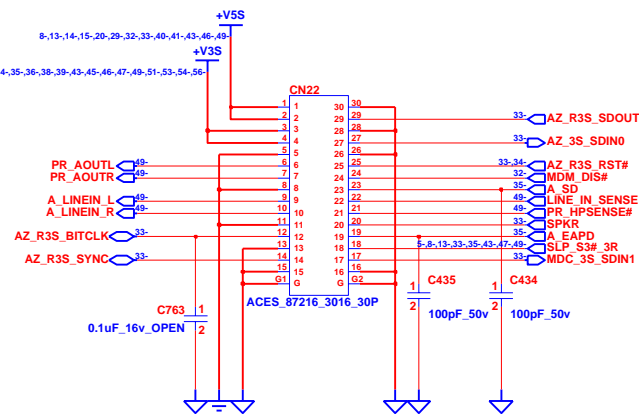
1 GND	19 +V3S
2 PCIE_C_TXP	20 +V3A
3 PCIE_C_TXN	21 PLT_RST#
4 GND	22 +V1.5S
5 PCIE_C_RXP	23 +V1.5S
6 PCIE_C_RXN	24 WL_LED_ALL#
7 GND	25 ACC_LED#
8 CLK_R_PCIE_NEWCARD	26 STBY_LED#
9 CLK_R_PCIE_NEWCARD#	27 LED_3S_SATA#
10 GND	28 BAT_AMBER_LED#
11 USB_P+	29 BAT_GRN_LED#
12 USB_P-	30 +V3AL
13 GND	31 SLP_S3#_3R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

EXPRESSCARD DAUGHTER BOARD CONNECTOR MAIN SIDE

INVENTEC

TITLE			
TT20			
Express DB CONN-MB SIDE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02
SHEET		43	OF 70

CHANGE by Kevin Hsiao 15-May-2008



- | | |
|------------------|------------------|
| 1 +V5S | 30 GND |
| 2 +V5S | 29 AZ_R3S_SDOUT |
| 3 +V3S | 28 GND |
| 4 +V3S | 27 AZ_3S_SDIN0 |
| 5 GND | 26 GND |
| 6 PR_AOUT_L | 25 AZ_R3S_RST# |
| 7 PR_AOUT_R | 24 MDM_DIS# |
| 8 GND | 23 A_SD |
| 9 A_LINEIN_L | 22 LINE_IN_SENSE |
| 10 A_LINEIN_R | 21 PR_HPSENSE# |
| 11 GND | 20 SPKR |
| 12 AZ_R3S_BITCLK | 19 A_EAPD |
| 13 GND | 18 SLP_S3#_5R |
| 14 AZ_R3S_SYNC | 17 MDC_3S_SDIN1 |
| 15 GND | 16 GND |

AUDIO DAUGHTER BOARD CONNECTOR MAIN BOARD SIDE

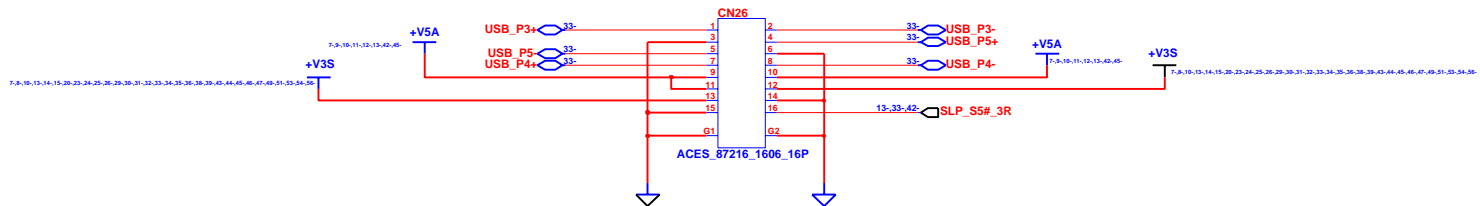
INVENTEC

TITLE
TT20
Audio DB CONN-MB SIDE

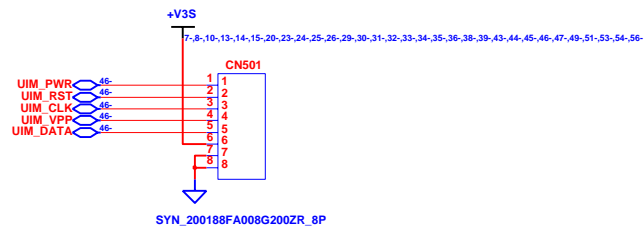
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02

CHANGE by Kevin Hsiao 15-May-2008

SHEET 44 OF 70

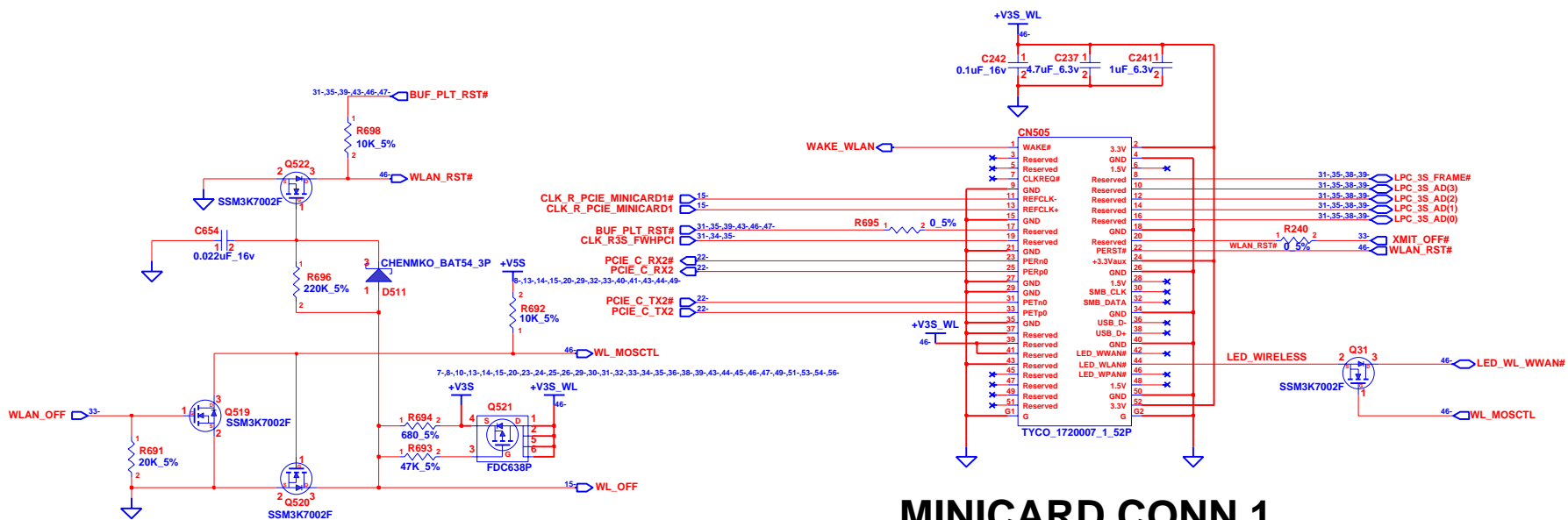


7 IN 1 daughter board connector MB SIDE

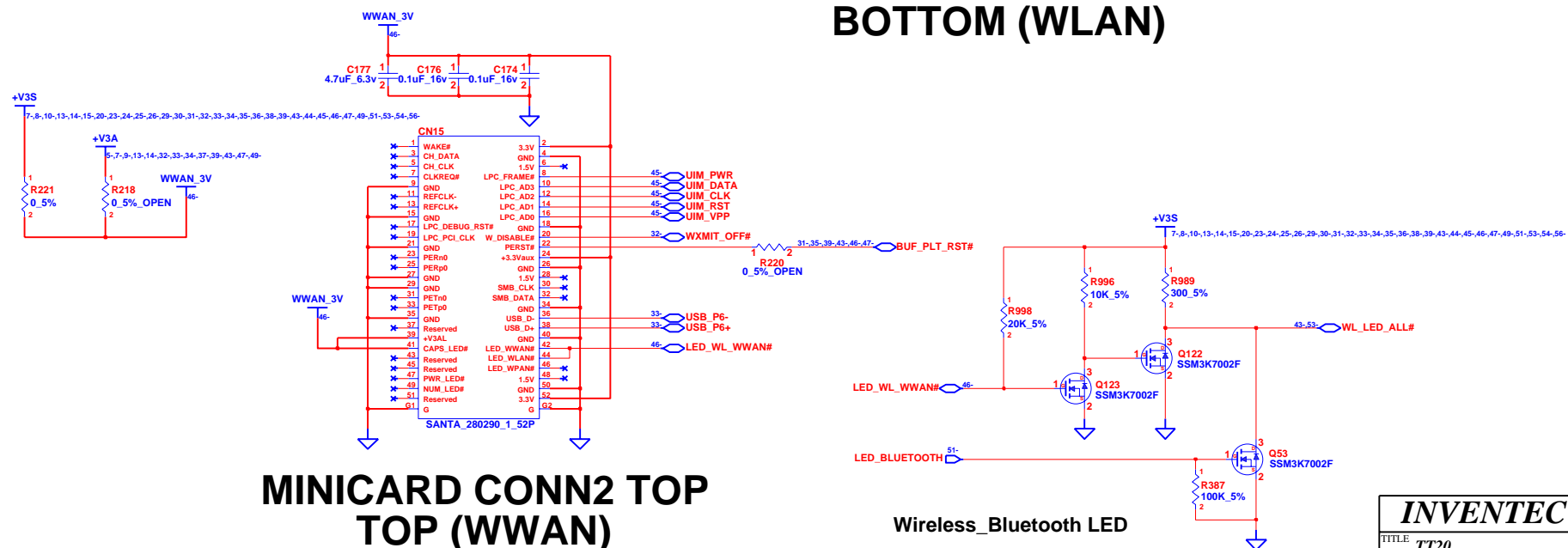


SIM card daughter board connector MB SIDE

INVENTEC			
TITLE			
TT20			
7 IN 1 & SIM DB CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02
CHANGE by		SHEET	
Kevin Hsiao		45 OF 70	
15-May-2008		8	



MINICARD CONN 1 BOTTOM (WLAN)

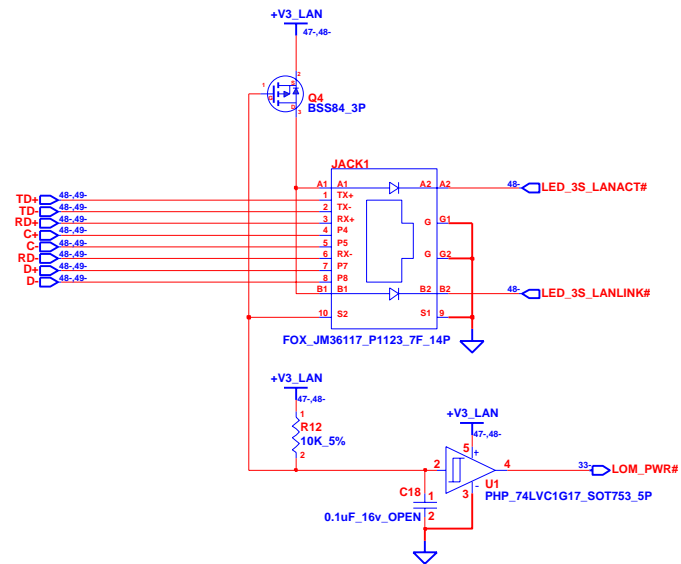
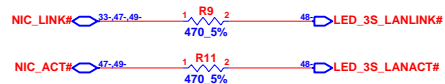
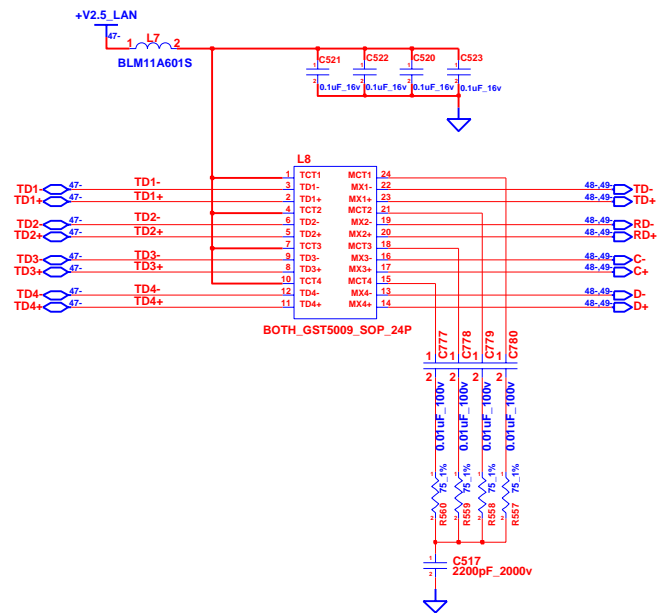


MINICARD CONN2 TOP TOP (WWAN)

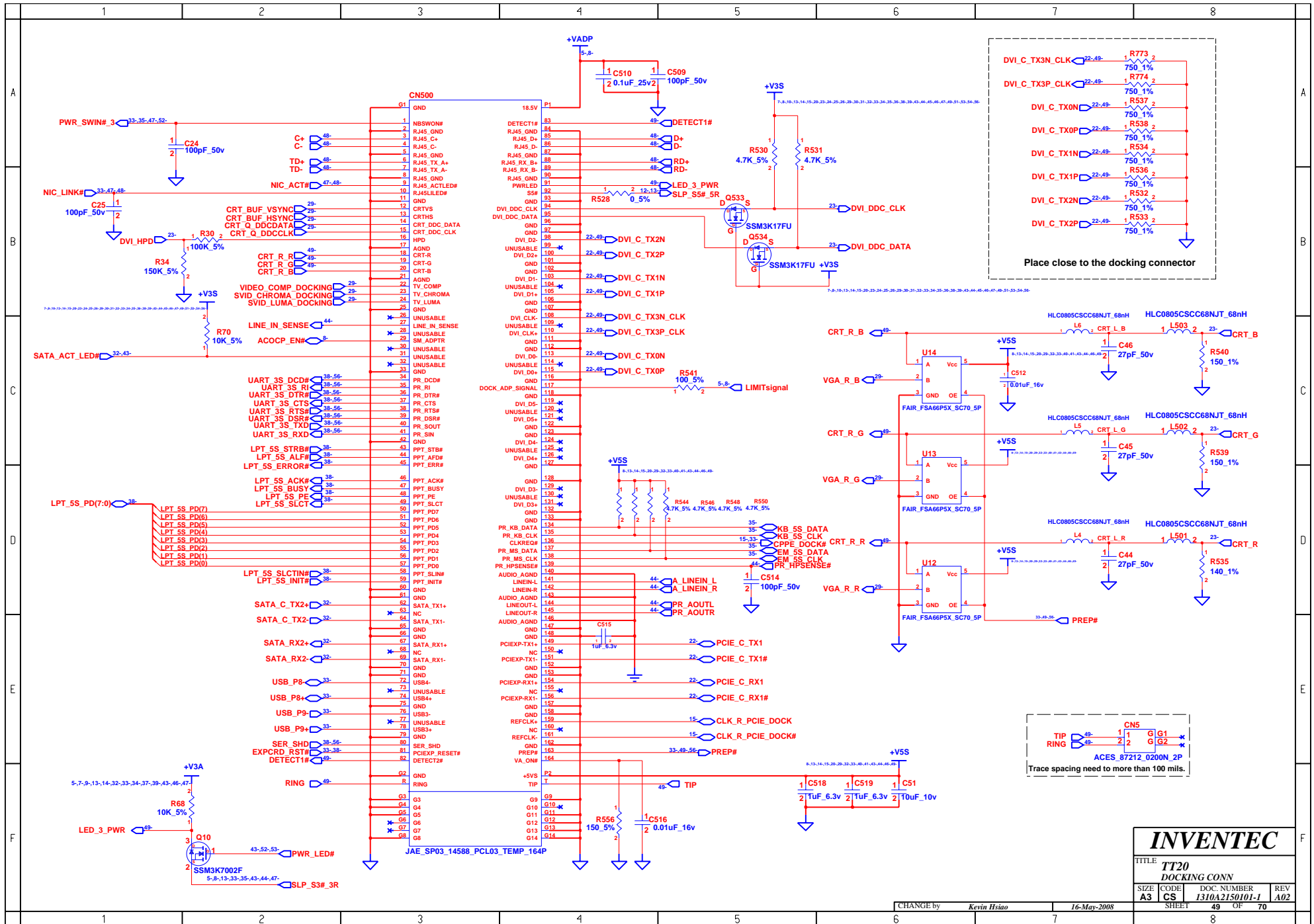
Wireless Bluetooth LED

INVENTEC

TITLE			
<i>TT20</i> <i>MINICARD</i>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101-1	A02
SHEET		46	OF 70



INVENTEC			
TITLE			
TT20 LAN RJ45 CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2150101-1	A02
CHANGE by		SHEET	
Kevin Hsiao		48 OF 70	



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

S1002

SCREW2.8_6.5_8_1P

S1001

SCREW4.6_6.5_10_1P

S1010

SCREW2.8_6.5_8_1P

S1004

SCREW2.8_6.5_8_1P

S1006

SCREW3_5.1_0_1P

S1007

SCREW3_5.1_0_1P

S1018

SCREW3_6_3_1P

S12

SCREW5.2_0_6.7_1P

S1013

SCREW4.7_7_10_1P

S1000

SCREW4.6_6.5_8_1P

S1008

SCREW3.7_0_6_1P

S1009

SCREW3.7_0_6_1P

S1019

SCREW2.8_6.5_10_1P

S1016

SCREW2.8_7_10_1P

S1005

SCREW3_0_7_1P_TT

S1017

SCREW2.8_6.5_8_1P

S1003

SCREW2.8_6.5_8_1P

CP500

COPPER_3X2_EMI_BE_OPEN

CP1

COPPER_7X2.5X12

FIX1002

FIX_MASK

FIX1001

FIX_MASK

FIX1006

FIX_MASK

FIX1005

FIX_MASK

FIX1003

FIX_MASK

FIX1000

FIX_MASK

FIX1007

FIX_MASK

FIX1004

FIX_MASK

S1015

SCREW4_0_6_1P

S1012

SCREW4_0_6_1P

CPU's screws

INVENTEC

TITLE

TT20

SCREW

SIZE

A3

CODE

CS

DOC. NUMBER

I310A2150101-1

REV

A02

SHEET

50

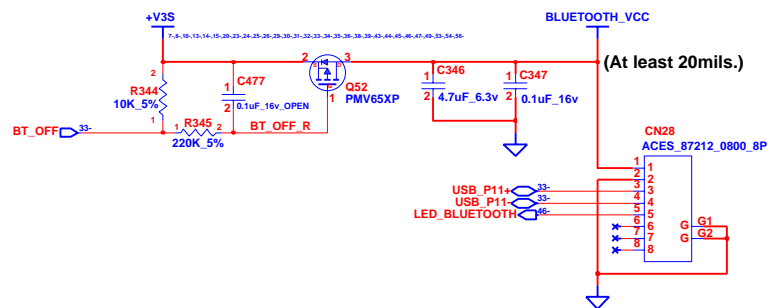
OF

70

CHANGE by

Kevin Hsiao

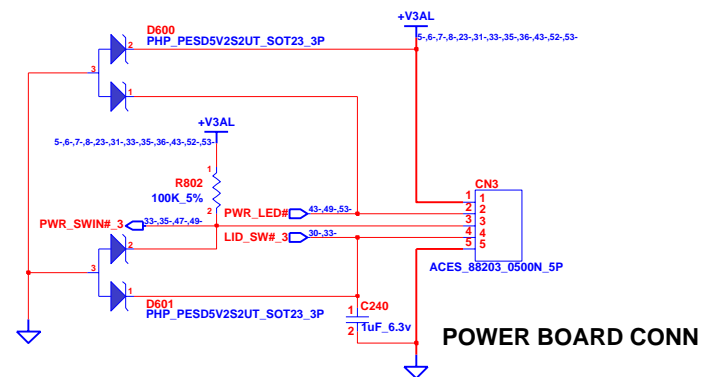
15-May-2008



INVENTEC

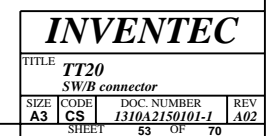
TITLE			
TT20			
BLUETOOTH			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02
SHEET		51	OF 70

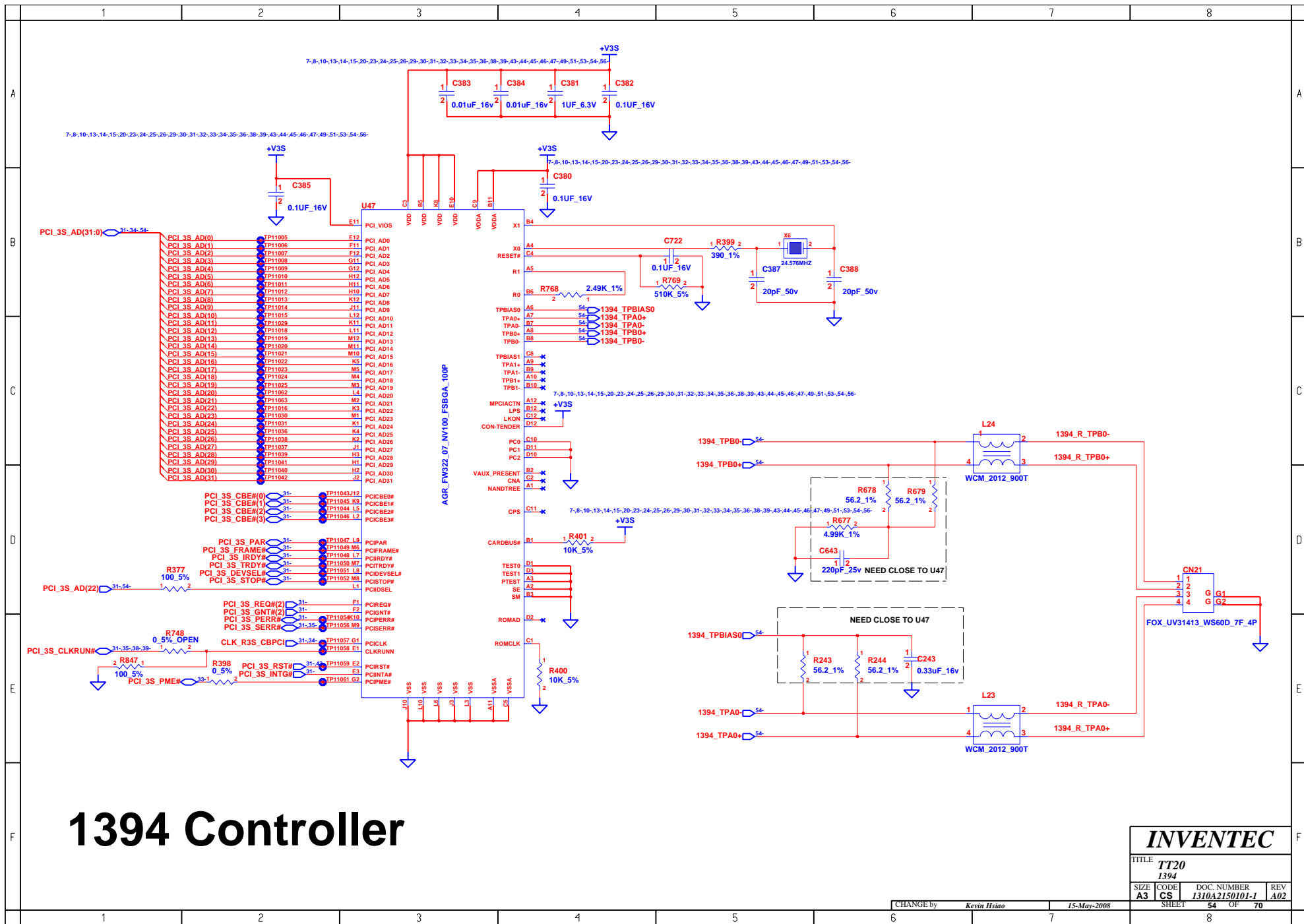
CHANGE by Kevin Hsiao 15-May-2008

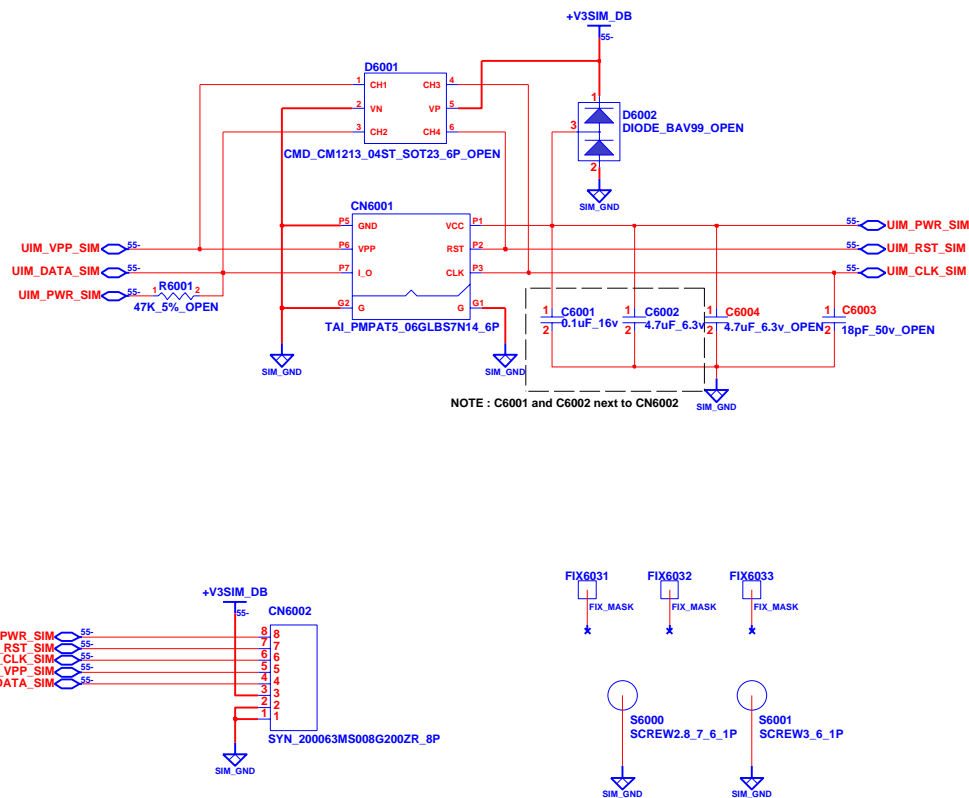


C240, D600 & D601 are using for ESD solution

INVENTEC			
TITLE TT20 LED/POWER SWITCH			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101-1	REV A02
CHANGE by Kevin Hsiao		15-May-2008	
SHEET 52		OF 70	







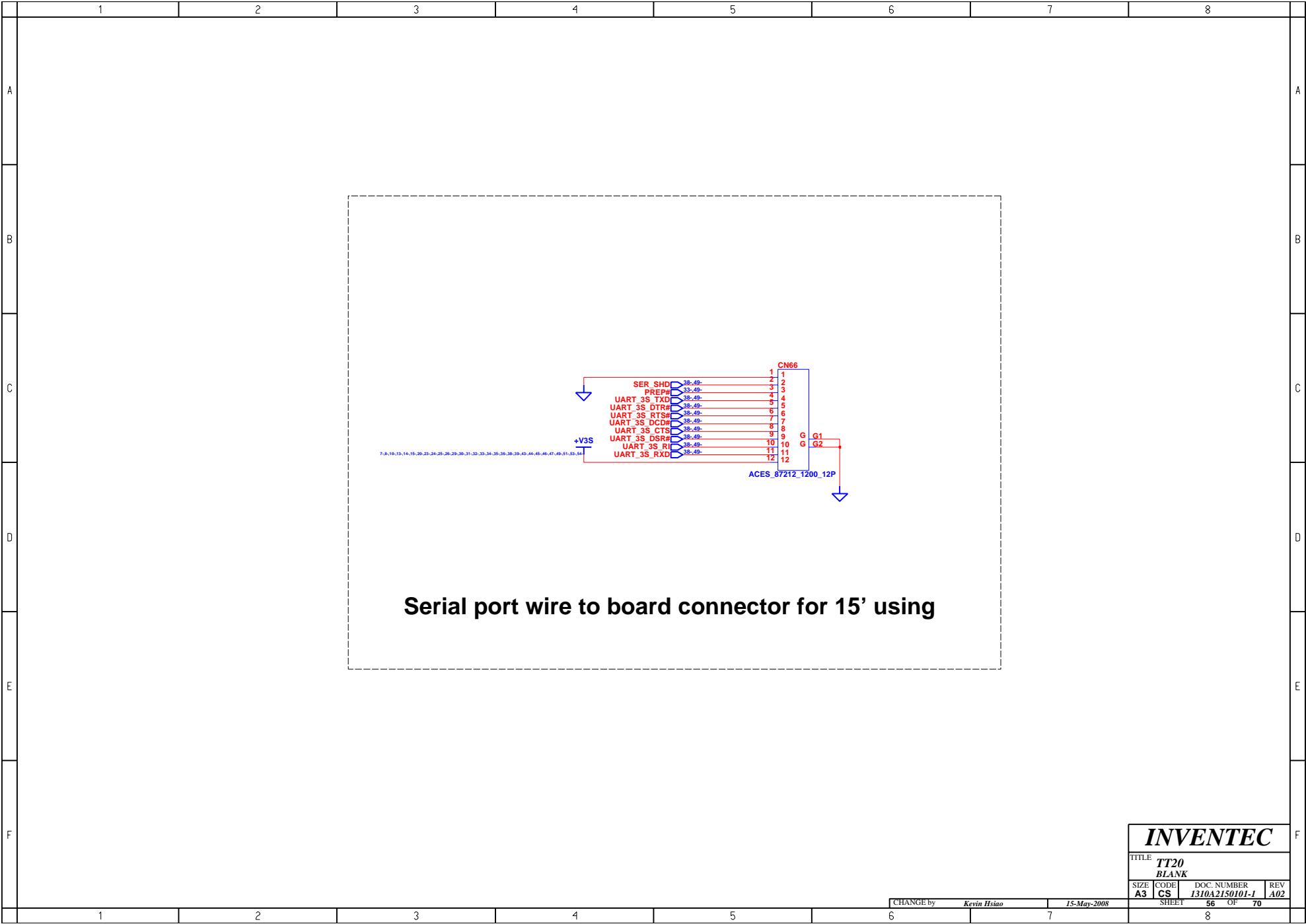
SIM CARD Daughter Board

INVENTEC

TITLE			
TT20 SIM CARD Daughter Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02

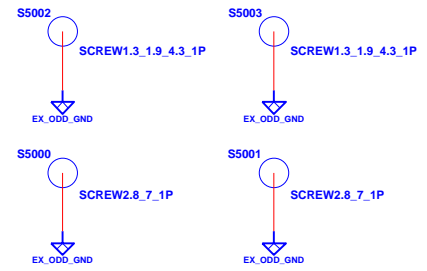
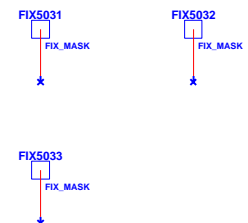
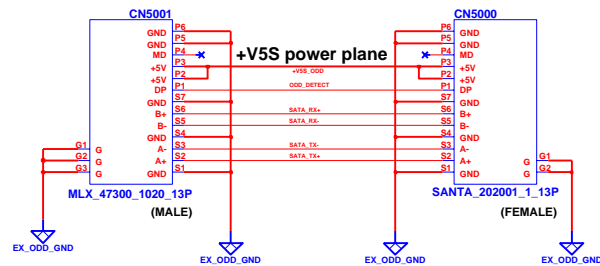
CHANGE by Kevin Hsiao 15-May-2008

SHEET 55 OF 70



7 IN 1 & USB DAUGHTER BOARD(Tai Twun)

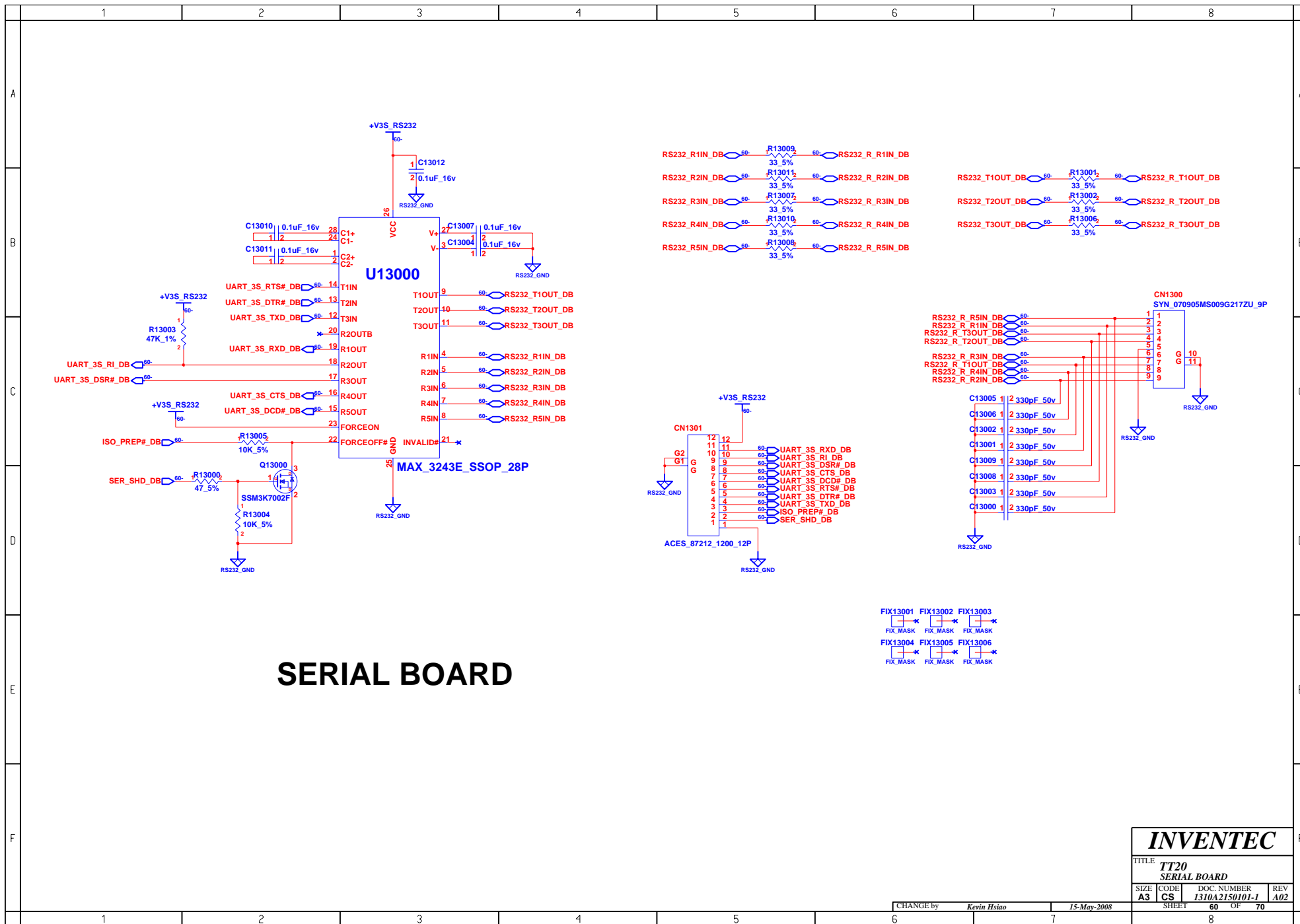
INVENTEC			
TITLE TT20 7 IN 1 & USB Daughter Board (TT)			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101-1	REV A02
CHANGE by Kevin Hsiao		15-May-2008	
SHEET 58		OF 70	



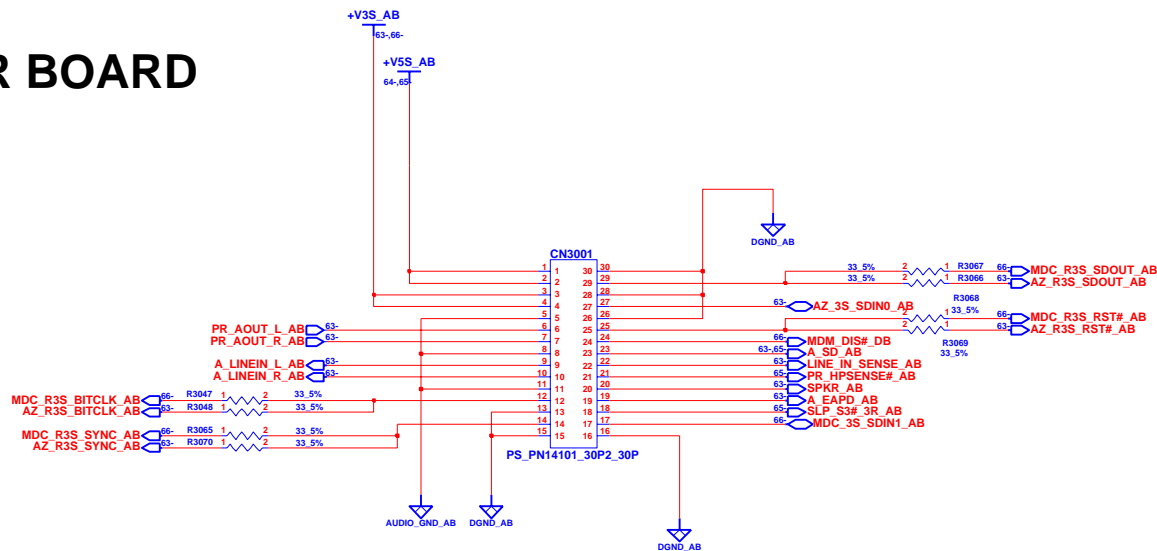
15" only

ODD Extension Board

INVENTEC			
TITLE TT20			
ODD Extension Board			
SIZE A3	CODE CS	DOC. NUMBER 1310A2150101-1	REV A02
CHANGE by Kevin Hsiao		15-May-2008	
SHEET 59		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 |



INVENTEC

TITLE		
TT20		
AUDIO CONNECTOR		
SIZE	CODE	DOC. NUMBER
A3	CS	1310A2150101-1
SHEET		REV
62		A02

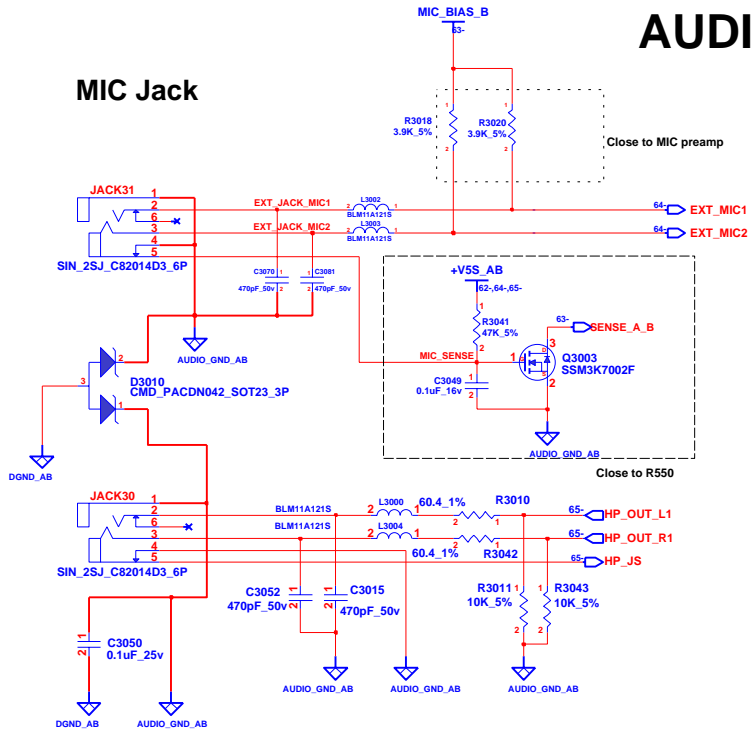
CHANGE by Kevin Hsiao 15-May-2008

AUDIO DAUGHTER BOARD

[illegible]

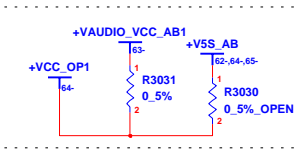
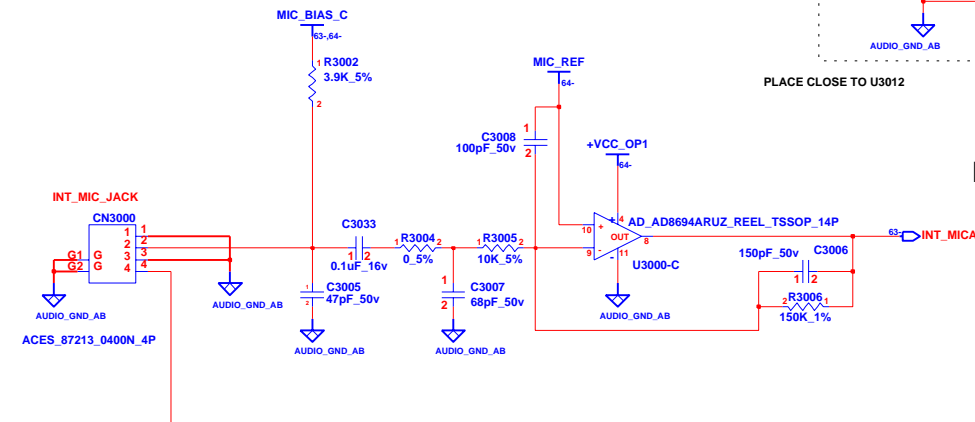
AUDIO DAUGHTER BOARD

MIC Jack

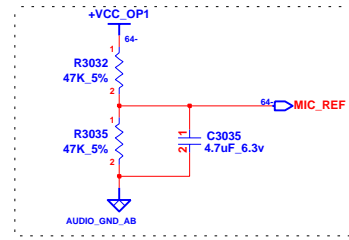


Earphone Jack

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

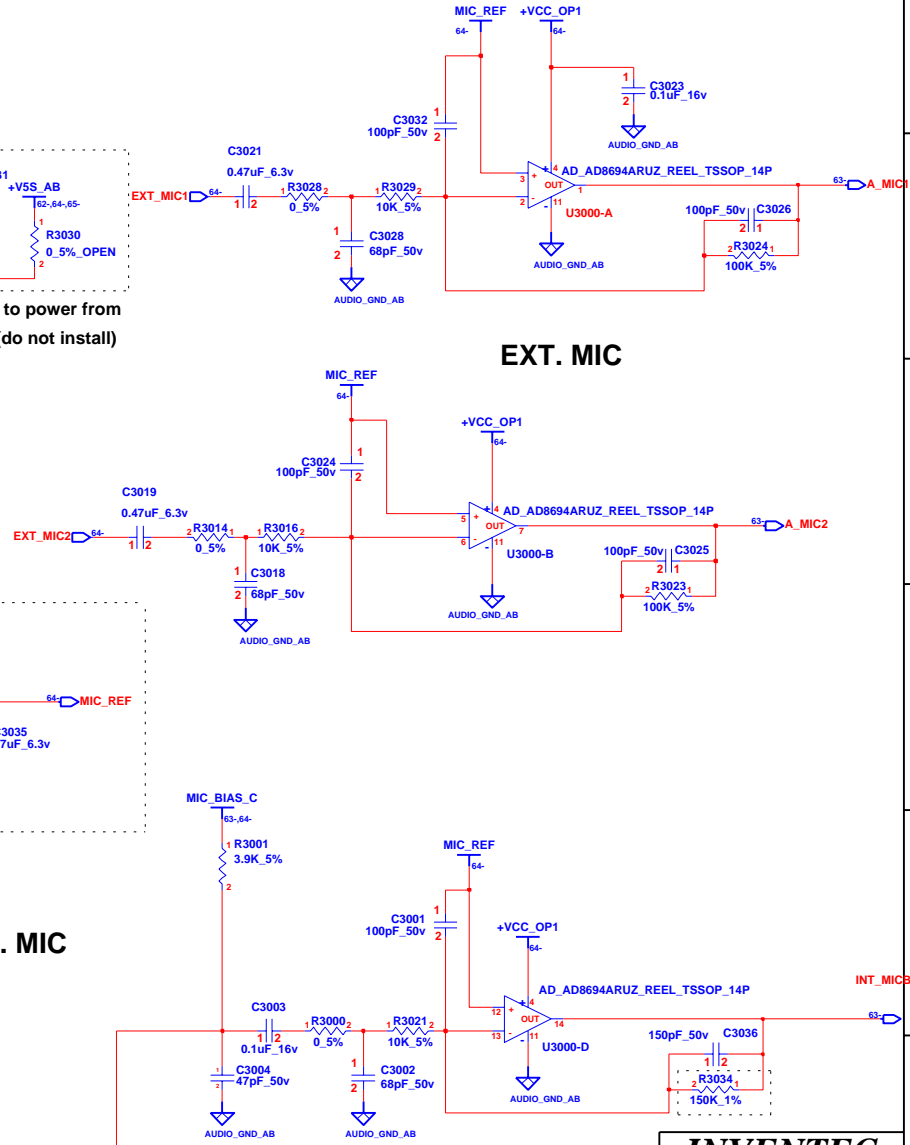


Add option resistor to power from +V5S_AB if needed(do not install)



PLACE CLOSE TO U3012

INT. MIC



EXT. MIC

INVENTEC

TITLE	TT20
SIZE	A3
CODE	CS
DOC. NUMBER	1310A2150101-1
REV	A02

CHANGE by Kevin Hsiao 15-May-2008

SHEET 64 OF 70

AUDIO DAUGHTER BOARD

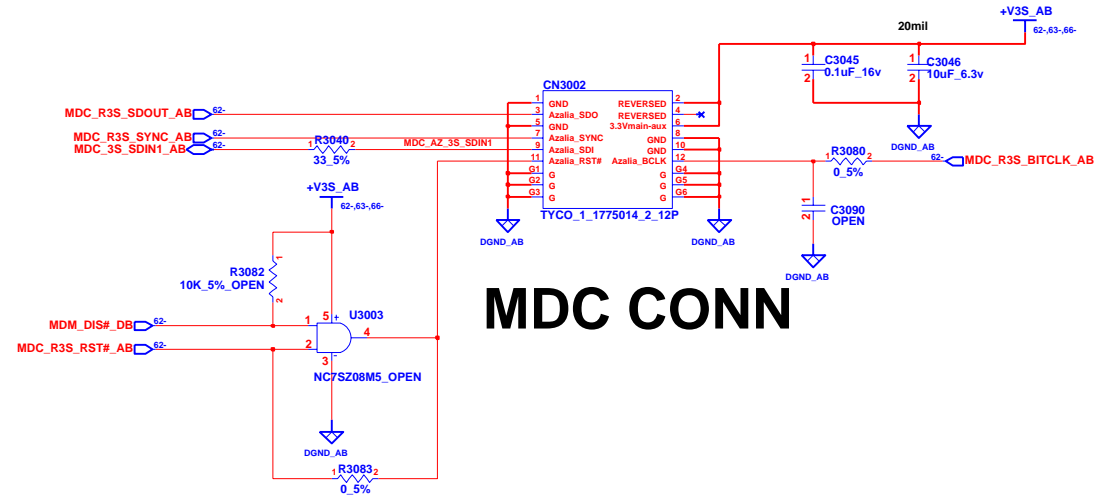
Colse to internal speaker.

TITLE			
<i>TT20</i> <i>AUDIO AMP & INT SPEAKER</i>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	<i>1310A2150101-1</i>	<i>A02</i>
SHEET		65	OF 70

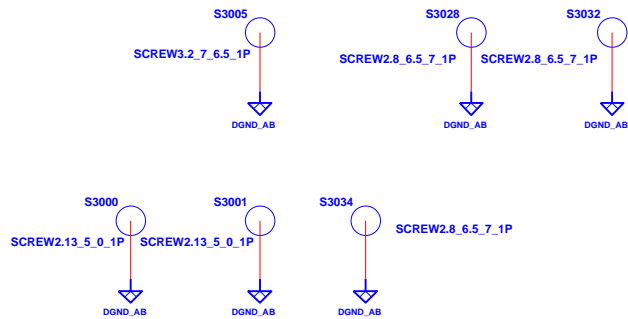
CHANGE by	<i>Kevin Hsiao</i>	<i>15-May-2008</i>
-----------	--------------------	--------------------

♀

AUDIO DAUGHTER BOARD



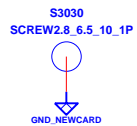
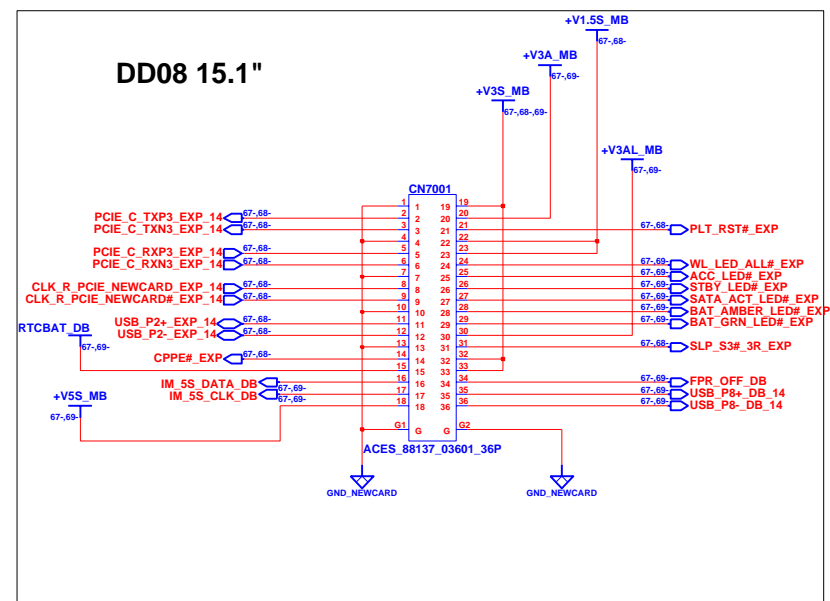
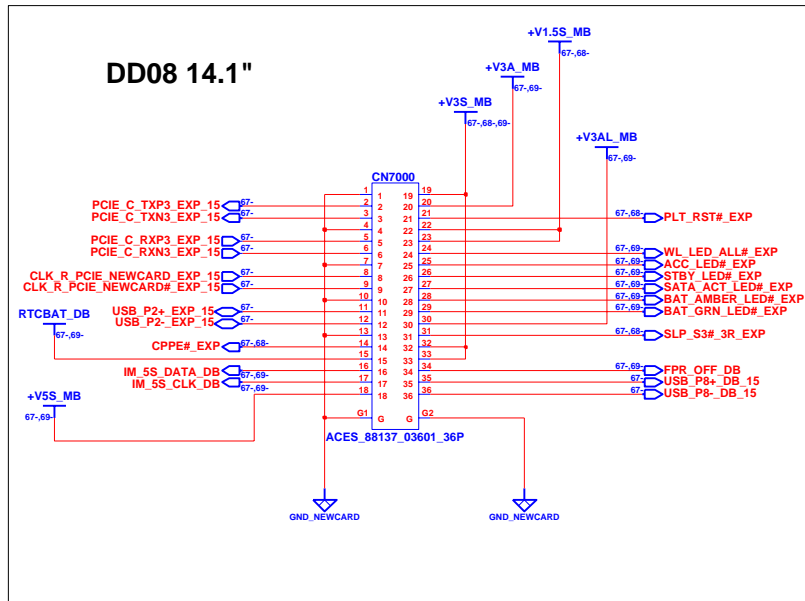
MDC CONN



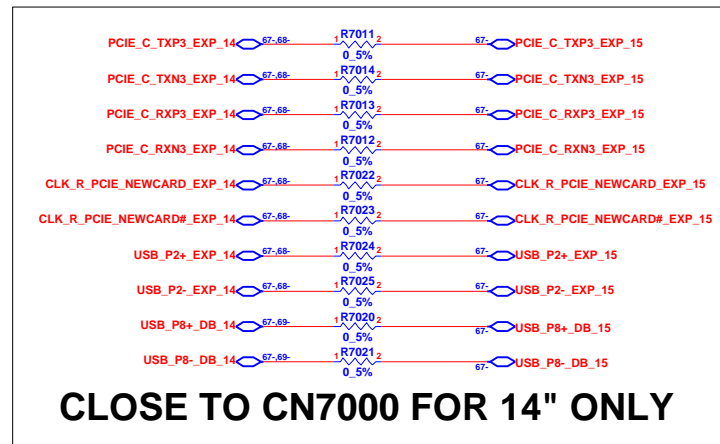
INVENTEC

TITLE TT20			
MDC CONNECTOR			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101-1	REV A02
SHEET 66		OF 70	

CHANGE by *Kevin Hsiao* 15-May-2008



- | | |
|-----------------------|------------------|
| 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 +VSS | 36 USB_P8- |



EXPRESS CARD DAUGHTER BOARD

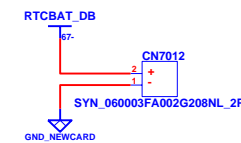
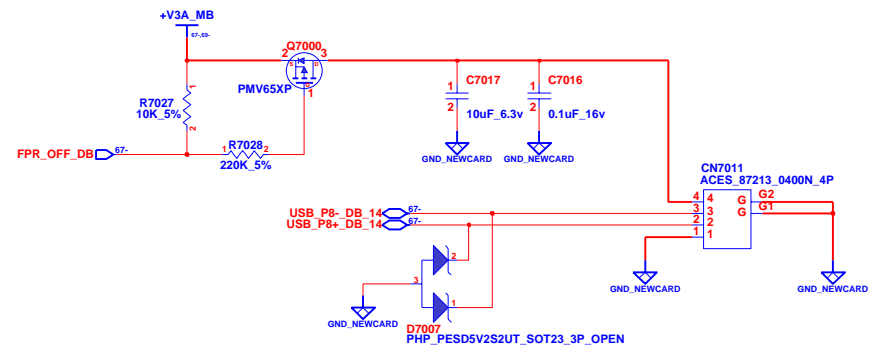
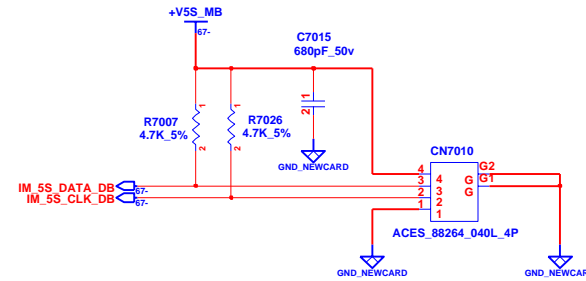
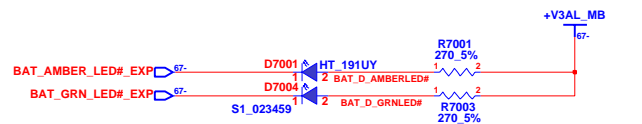
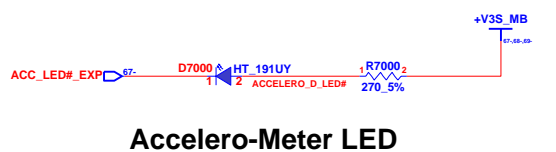
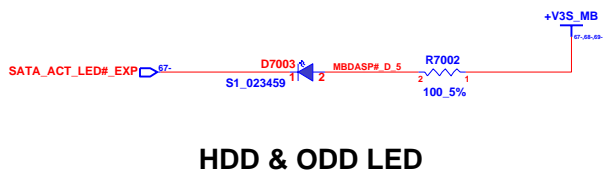
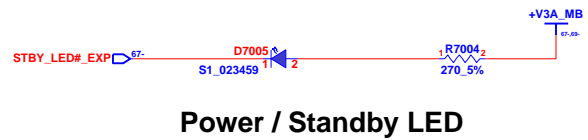
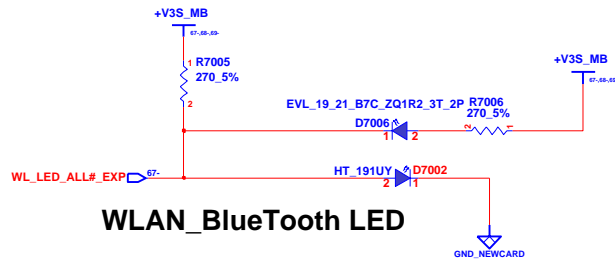
INVENTEC

TITLE TT20			
NEW CARD CONNECTOR			
SIZE A3	CODE CS	DOC. NUMBER I310A2150101-1	REV A02

CHANGE by *Kevin Hsiao* 26-May-2008

SHEET 67 OF 70

EXPRESS CARD DAUGHTER BOARD



INVENTEC

TITLE			
TT20			
NEW CARD LED			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2150101-1	A02

CHANGE by Kevin Hsiao 16-May-2008

SHEET 69 OF 70

