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CT10R

CS Build

2010.12.16

DATE	CHANGE NO.	REV

	EE	DATE	POWER	DATE
DRAWER				
DESIGN				
CHECK				
RESPONSIBLE				

SIZE = A3 VER : A01

FILE NAME : CT10R-6050A6423901-MB-A01

P/N 6050A6423901

INVENTEC

TITLE *CT10R COVER*

SIZE	CODE	DOC. NUMBER	REV
A3	WS	*1310A2423901-0-MTR*	*AX1*

SHEET 1 OF 50

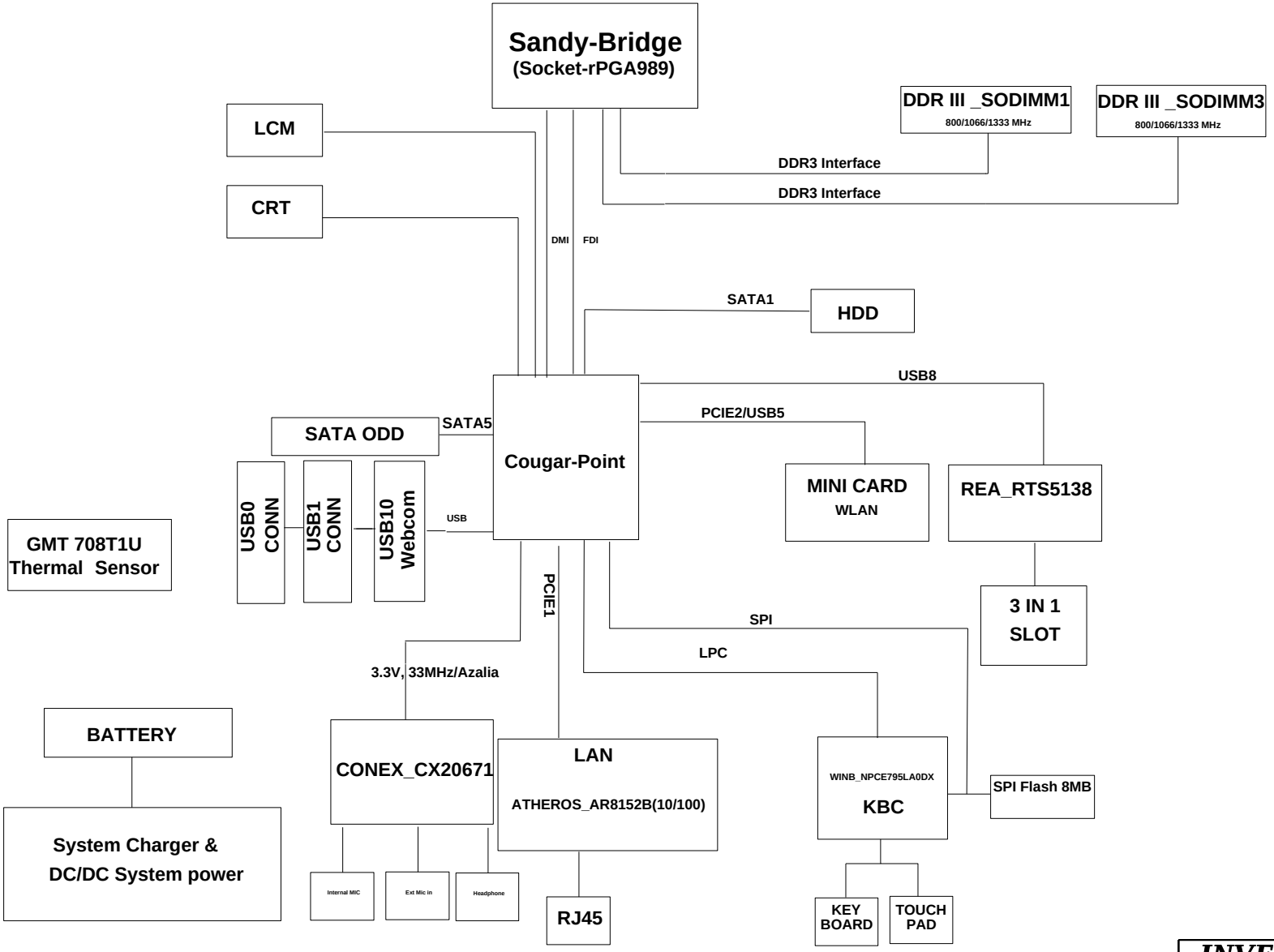
TABLE OF CONTENTS

PAGE		PAGE	
1.	COVER PAGE	28.	HALL SENSOR
2.	INDEX	29.	LED
3.	BLOCK DIAGRAM	30.	BLANK
4.	POWER SEQUENCE BLOCK	31.	DDR3 DIMM0
5.	PCB SCREW	32.	DDR3 DIMM1
6.	SYSTEM POWER	33.	CPU1
7.	SYSTEM POWER	34.	CPU2
8.	SYSTEM POWER	35.	CPU3
9.	SYSTEM POWER	36.	CPU4
10.	SYSTEM POWER	37.	CPU5
11.	SYSTEM POWER	38.	CPU6
12.	SYSTEM POWER	39.	PCH1
13.	BLANK	40.	PCH2
14.	SYSTEM POWER	41.	PCH3
15.	EC	42.	PCH4
16.	K/B TP/B CONN	43.	PCH5
17.	FAN & THERMAL	44.	PCH6
18.	LAN	45.	PCH7
19.	RJ45 & TRANSFORMER	46.	PCH8
20.	AUDIO CODEC	47.	PCH9
21.	AUDIO JACK & INTERNAL SPEAKER	48.	TOUCH PAD BOARD
22.	LCM CONN	49.	POWER BUTTON BOARD
23.	CRT CONN	50.	EMI
24.	SATA HDD/SSD & ODD		
25.	USB CONN		
26.	CARDREADER		
27.	WLAN/DEBUG CARD		

CHANGE by	Yeh, Webber	8-Nov-2010

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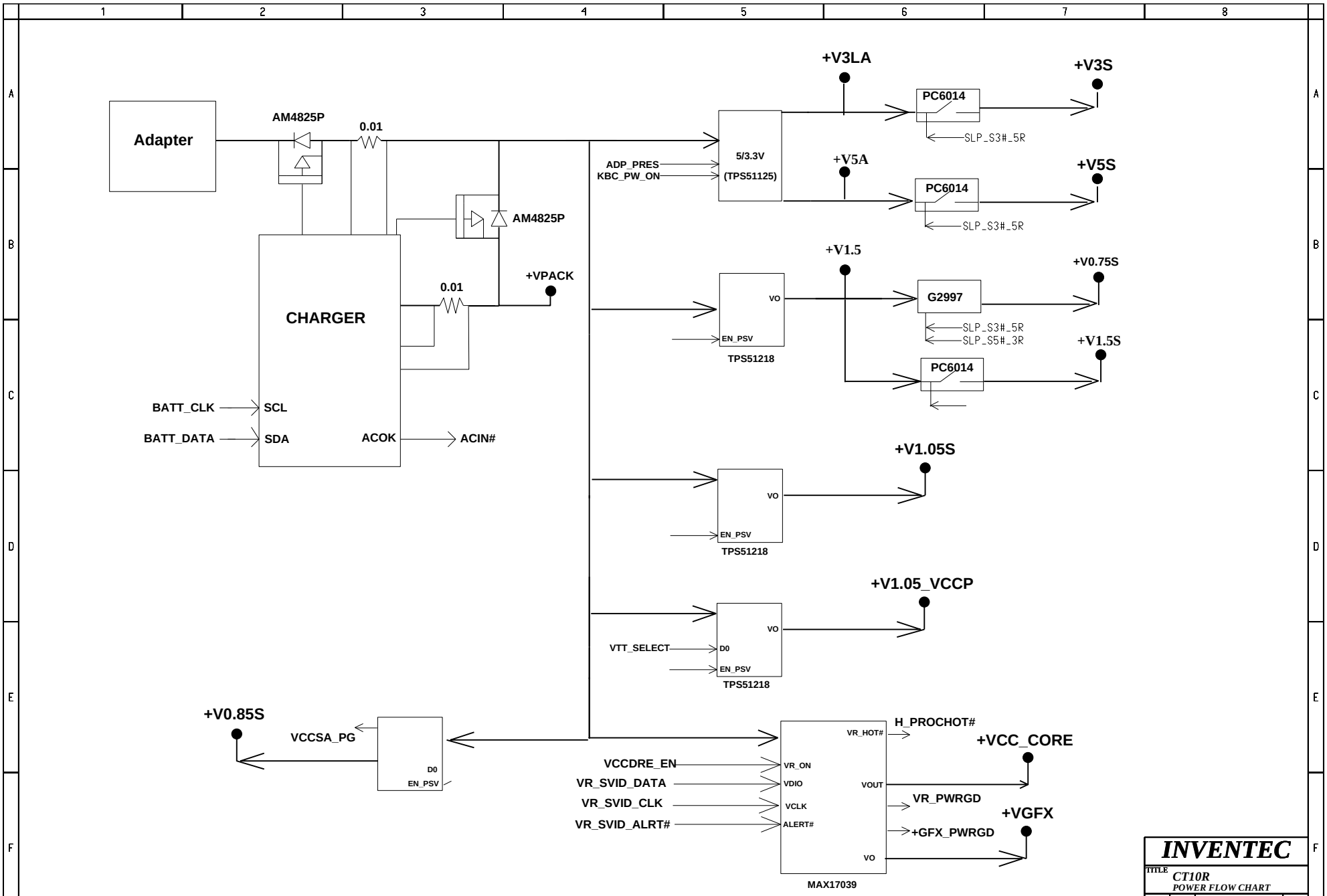
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SIZE	CODE	DOC. NUMBER	REV
A3	WS	1310A2423901-0-MTRAX1	
SHEET	2	OF	50



CHANGE by	Yeh, Webber	8-Nov-2010		

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TITLE	CT10R BLOCK DIAGRAM		
SIZE A3	CODE WS	DOC. NUMBER 1310A2423901-0-MTRAX1	REV
		SHEET 3 OF 50	



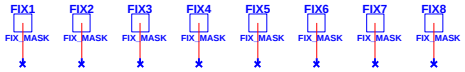
CHANGE by	Yeh, Webber	8-Nov-2010	

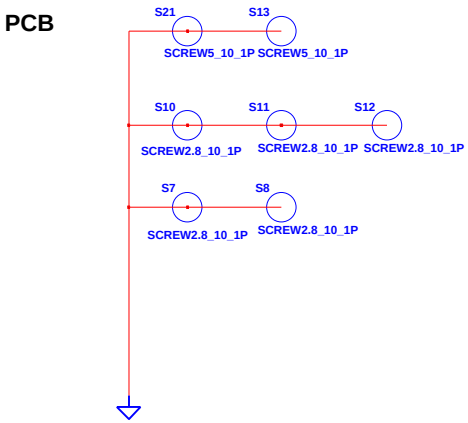
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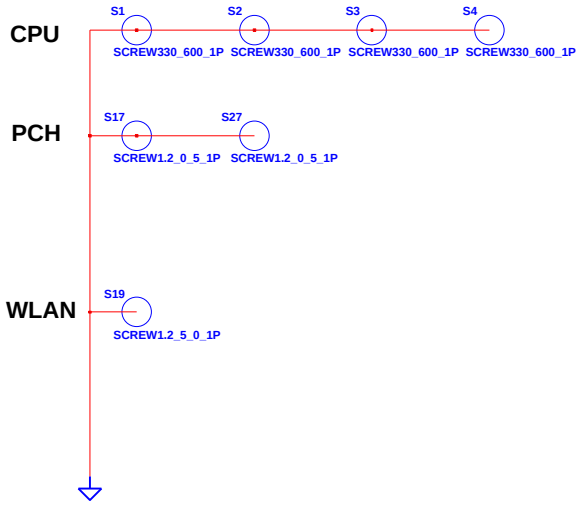
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POWER FLOW CHART

SIZE	CODE	DOC. NUMBER	REV
A3	WS	*1310A2423901-0-MTRAX1*	

SHEET 4 OF 50







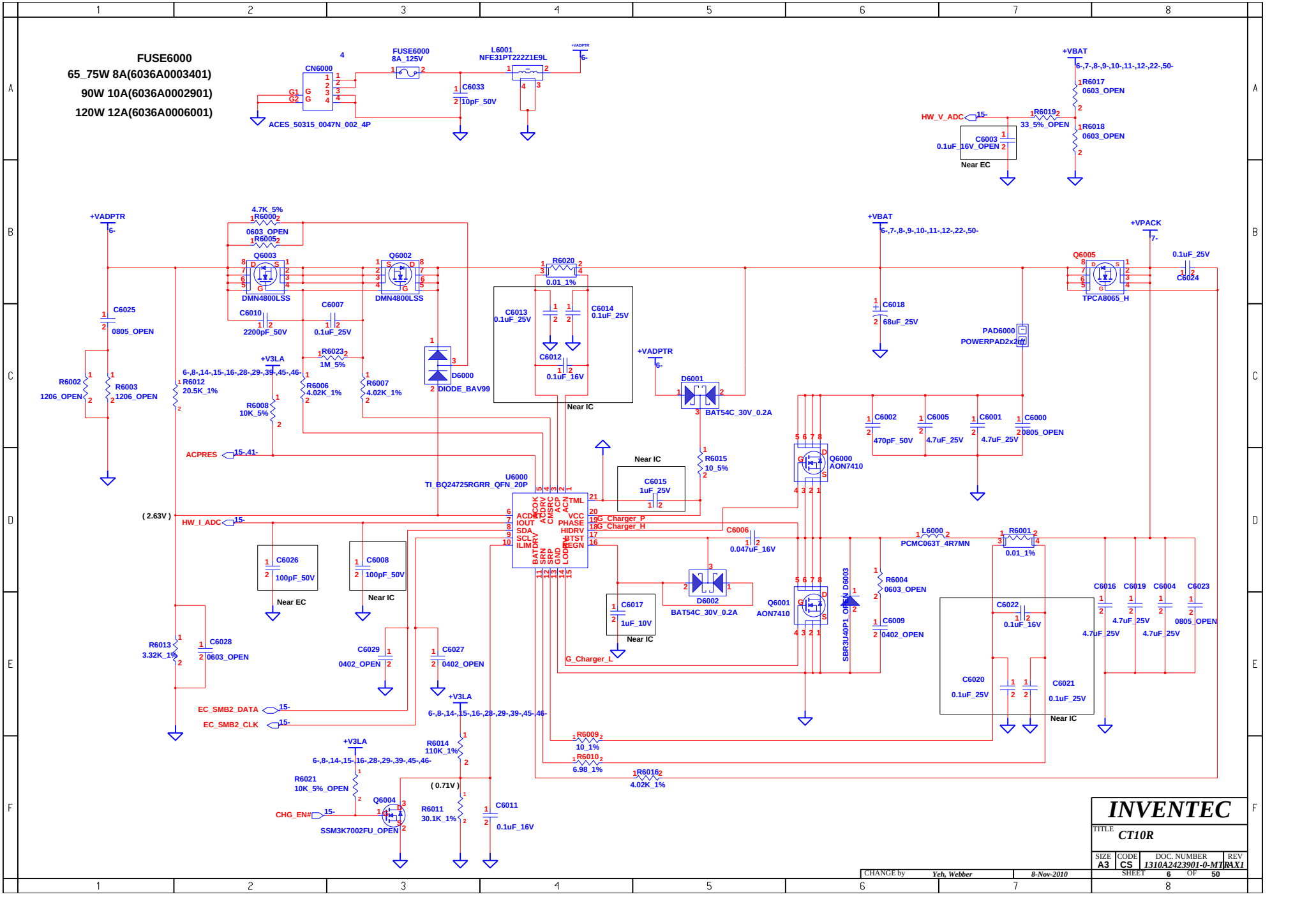
CHANGE by	*Yeh, Webber*	*8-Nov-2010*			

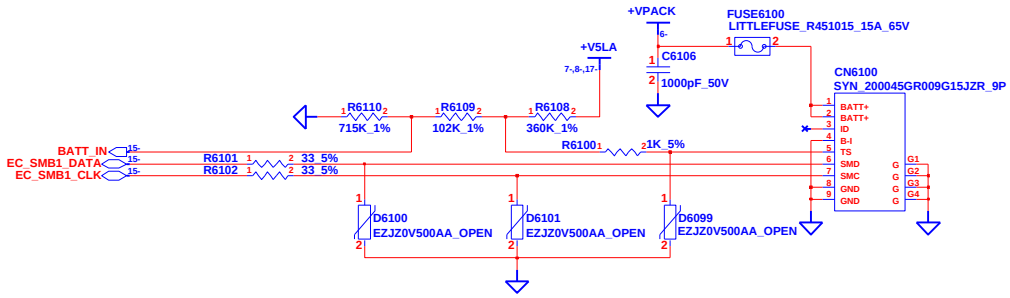
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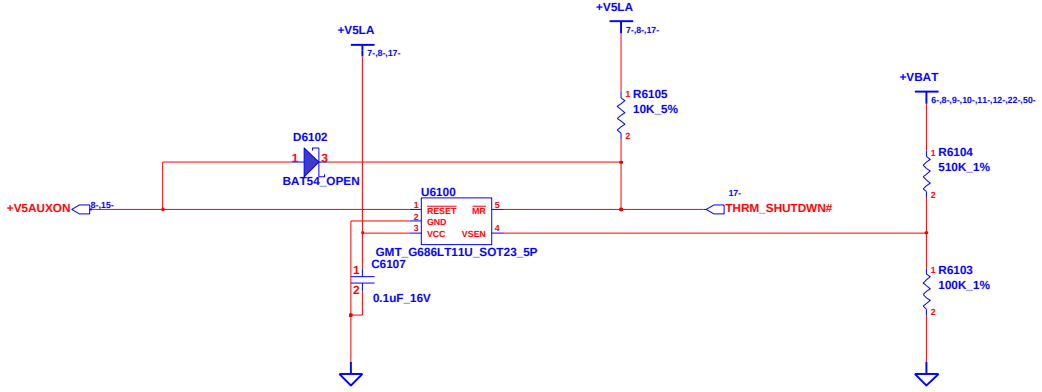
TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	

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FUSE6000
65_75W 8A(6036A0003401)
90W 10A(6036A0002901)
120W 12A(6036A0006001)
CN6000
ACES_50315_0047N_002_4P
FUSE6000
8A_125V
L6001
NFE31PT222Z1E9L
C6033
10pF_50V
+VADPTR
+VBAT
6-,7-,8-,9-,10-,11-,12-,22-,50-
R6017
0603_OPEN
R6018
0603_OPEN
R6019
33_5%_OPEN
HW_V_ADC
C6003
0.1uF_16V_OPEN
Near EC
+VPACK
7-
R6000
4.7K_5%
0603_OPEN
R6005
Q6003
Q6002
DMN4800LSS
C6010
2200pF_50V
C6007
0.1uF_25V
R6020
0.01_1%
C6013
0.1uF_25V
C6014
0.1uF_25V
C6012
0.1uF_16V
Near IC
Q6005
TPCA8065_H
C6024
0.1uF_25V
C6018
68uF_25V
PAD6000
POWERPAD2x2
C6025
0805_OPEN
R6002
1206_OPEN
R6003
1206_OPEN
+V3LA
6-,8-,14-,15-,16-,28-,29-,39-,45-,46-
R6012
20.5K_1%
R6023
1M_5%
R6006
4.02K_1%
R6007
4.02K_1%
R6008
10K_5%
D6000
DIODE_BAV99
D6001
BAT54C_30V_0.2A
R6015
10_5%
ACPRES
15-,41-
U6000
TI_BQ24725RGRR_QFN_20P
Near IC
C6015
1uF_25V
Q6000
AON7410
C6002
470pF_50V
C6005
4.7uF_25V
C6001
4.7uF_25V
C6000
0805_OPEN
(2.63V)
HW_I_ADC
15-
C6026
100pF_50V
Near EC
C6008
100pF_50V
Near IC
C6006
0.047uF_16V
L6000
PCMC063T_4R7MN
R6001
0.01_1%
G_Charger_P
G_Charger_H
G_Charger_L
C6017
1uF_10V
Near IC
D6002
BAT54C_30V_0.2A
Q6001
AON7410
SBR3U40P1_CH_D6003
R6004
0603_OPEN
C6009
0402_OPEN
C6016
C6019
C6004
C6023
4.7uF_25V
0805_OPEN
C6022
0.1uF_16V
C6020
0.1uF_25V
C6021
0.1uF_25V
Near IC
R6013
3.32K_1%
C6028
0603_OPEN
C6029
0402_OPEN
C6027
0402_OPEN
EC_SMB2_DATA
EC_SMB2_CLK
15-
R6009
10_1%
R6010
6.98_1%
R6016
4.02K_1%
R6014
110K_1%
(0.71V)
R6021
10K_5%_OPEN
Q6004
SSM3K7002FU_OPEN
CHG_EN#
R6011
30.1K_1%
C6011
0.1uF_16V
INVENTEC
TITLE
CT10R
SIZE A3
CODE CS
DOC. NUMBER 1310A2423901-0-MTRAX1
REV
SHEET 6 OF 50
CHANGE by Yeh, Webber 8-Nov-2010





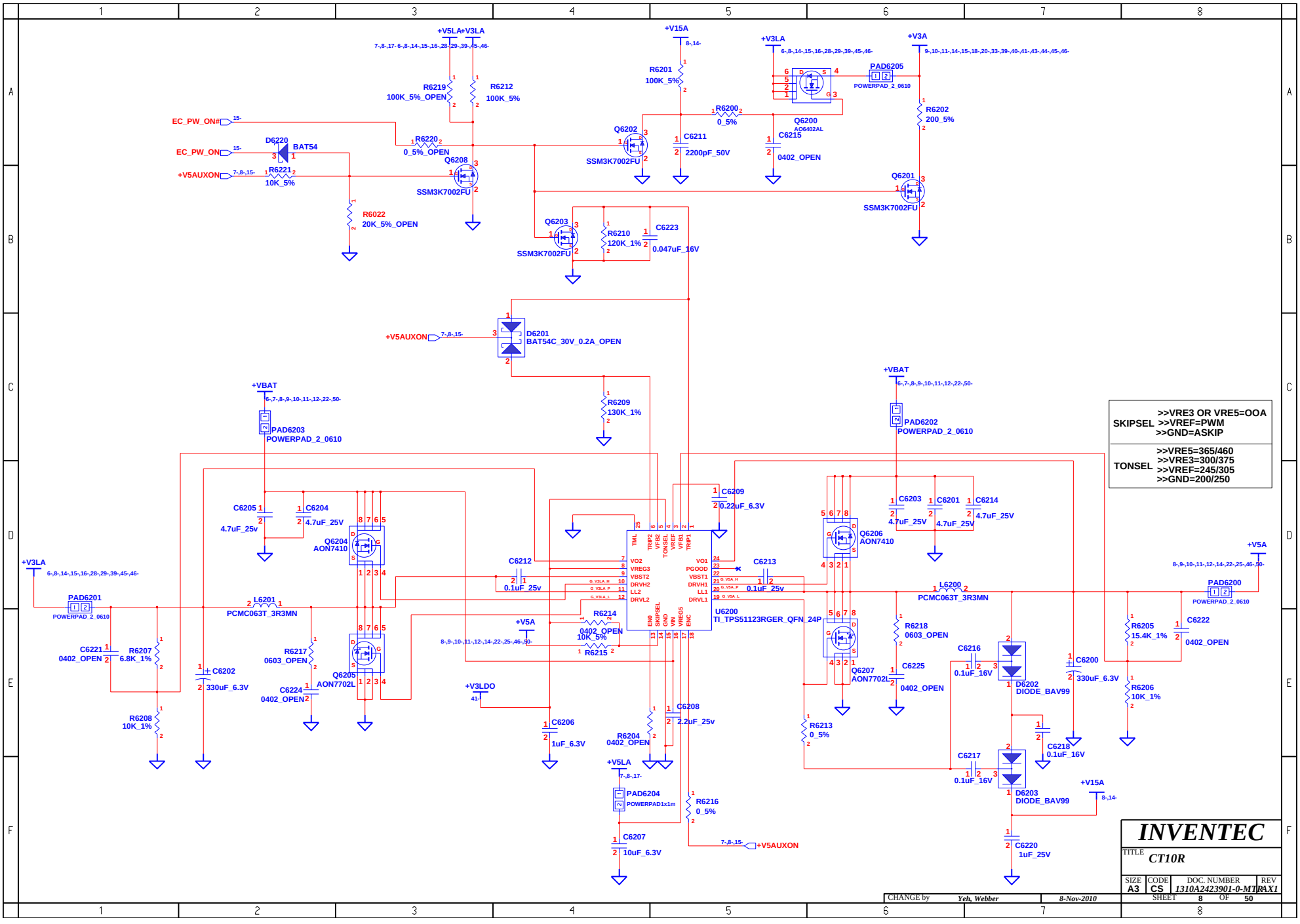
CHANGE by	Yeh, Webber	8-Nov-2010	

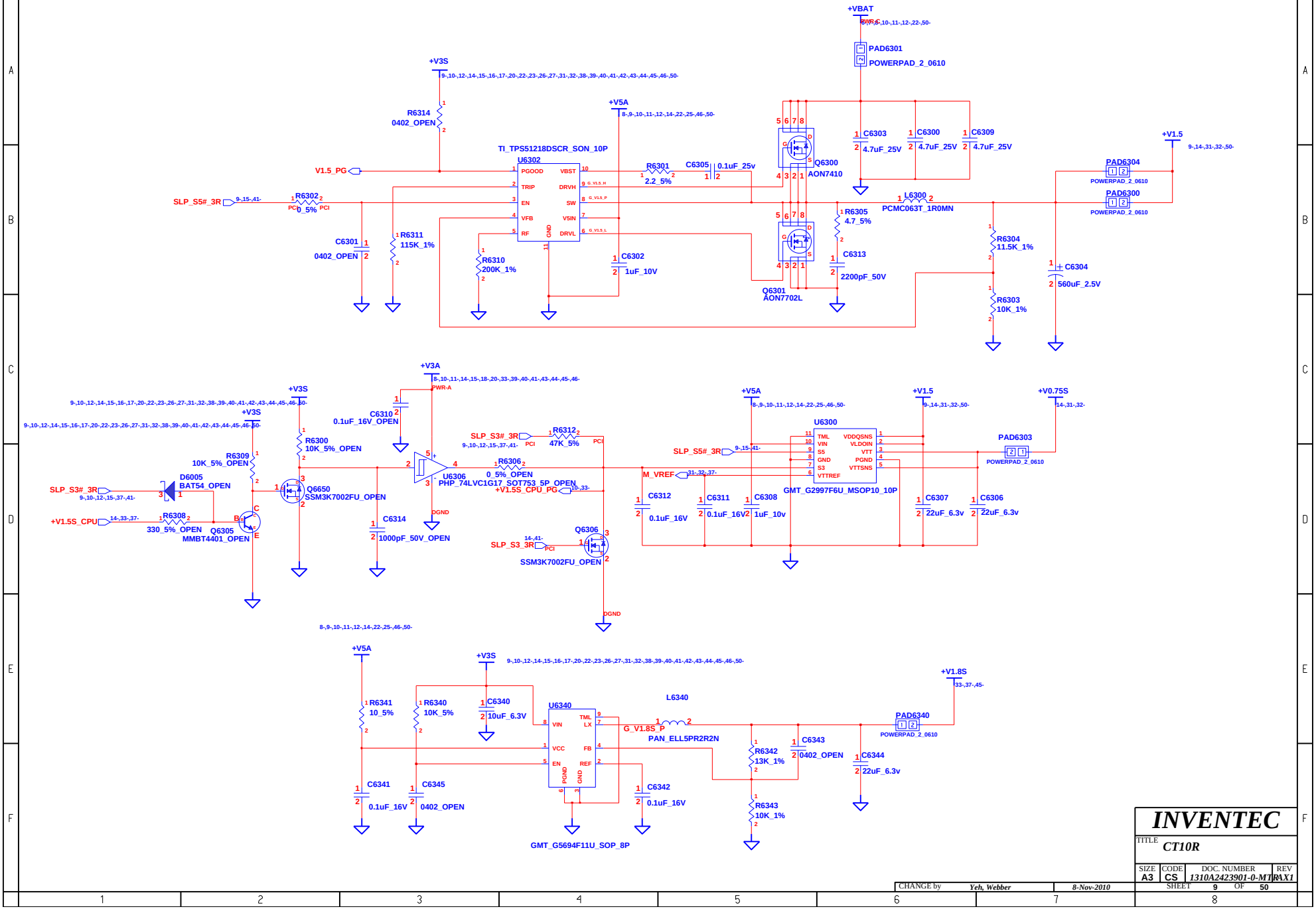
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TITLE: CT10R

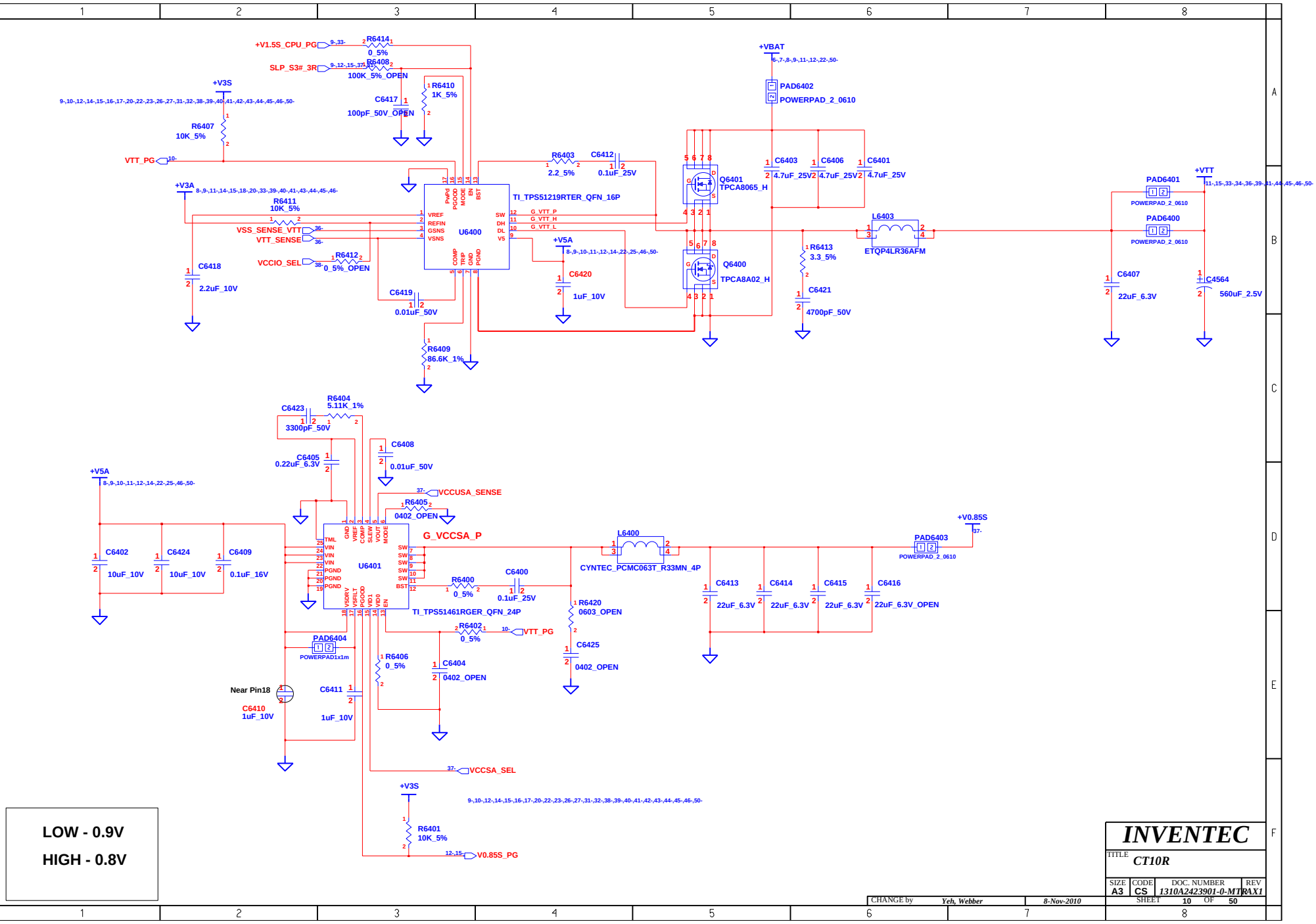
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

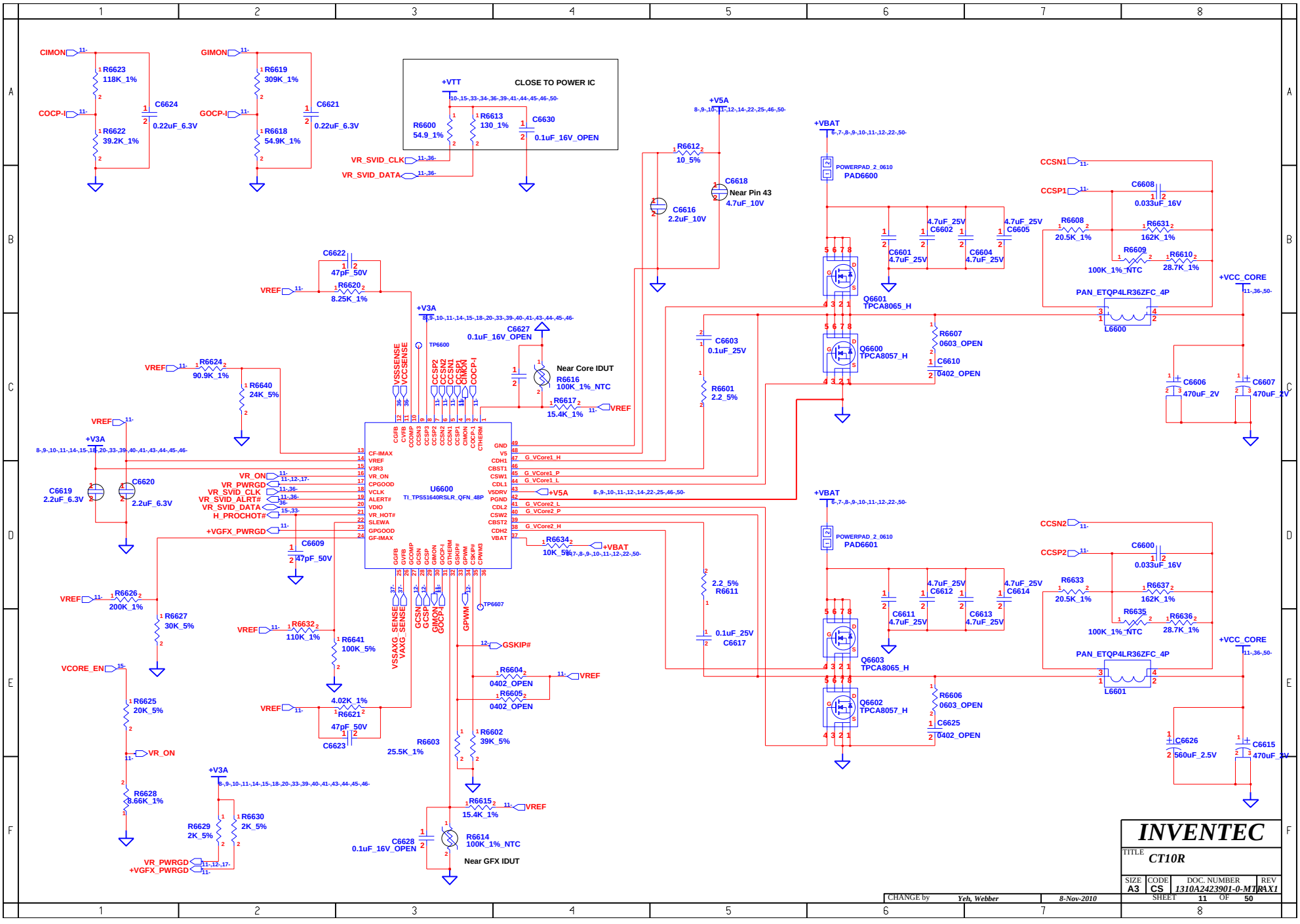
SHEET 7 OF 50

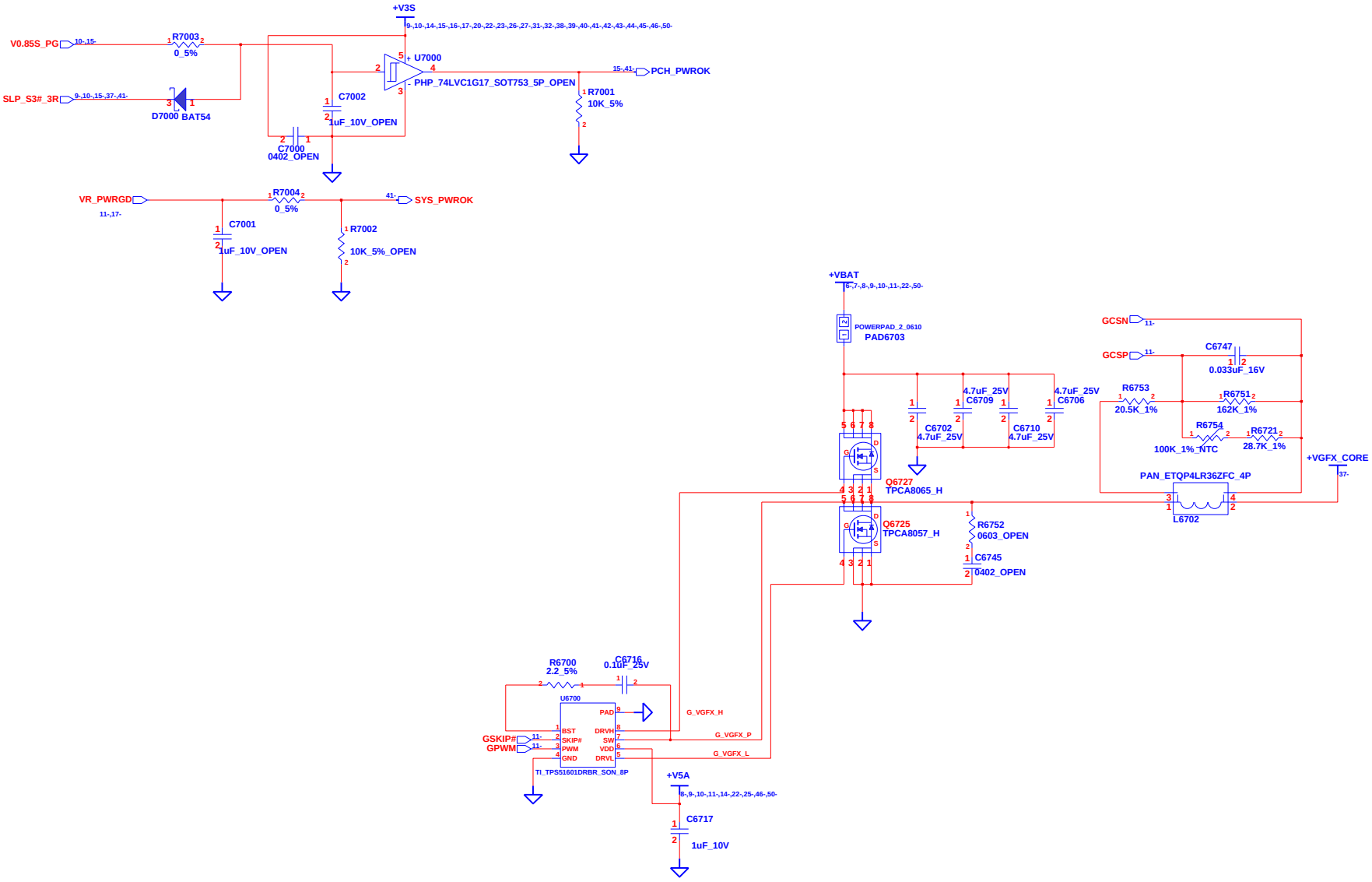

+V5LA +V3LA
R6219 100K_5%_OPEN
R6212 100K_5%
EC_PW_ON#
EC_PW_ON
+V5AUXON
D6220 BAT54
R6220 0_5%_OPEN
R6221 10K_5%
Q6208 SSM3K7002FU
R6022 20K_5%_OPEN
+V15A
R6201 100K_5%
Q6202 SSM3K7002FU
C6211 2200pF_50V
+V3LA
R6200 0_5%
Q6200 AO6402AL
C6215 0402_OPEN
PAD6205 POWERPAD_2_0610
+V3A
R6202 200_5%
Q6201 SSM3K7002FU
Q6203 SSM3K7002FU
R6210 120K_1%
C6223 0.047uF_16V
+V5AUXON
D6201 BAT54C_30V_0.2A_OPEN
R6209 130K_1%
+VBAT
PAD6203 POWERPAD_2_0610
PAD6202 POWERPAD_2_0610
SKIPSEL >>VRE3 OR VRE5=OOA >>VREF=PWM >>GND=ASKIP
TONSEL >>VRE5=365/460 >>VRE3=300/375 >>VREF=245/305 >>GND=200/250
C6205 4.7uF_25v
C6204 4.7uF_25V
Q6204 AON7410
C6209 0.22uF_6.3V
C6203 4.7uF_25V
C6201 4.7uF_25V
C6214 4.7uF_25V
Q6206 AON7410
+V5A
+V3LA
PAD6201 POWERPAD_2_0610
L6201 PCMC063T_3R3MN
C6212 0.1uF_25v
C6213 0.1uF_25v
L6200 PCMC063T_3R3MN
PAD6200 POWERPAD_2_0610
U6200 TI_TPS51123RGER_QFN_24P
R6214 0402_OPEN
10K_5%
R6215
R6218 0603_OPEN
C6225 0402_OPEN
Q6207 AON7702L
C6221 0402_OPEN
R6207 6.8K_1%
C6202 330uF_6.3V
R6217 0603_OPEN
C6224 0402_OPEN
Q6205 AON7702L
R6208 10K_1%
+V3LDO
C6206 1uF_6.3V
C6208 2.2uF_25v
R6204 0402_OPEN
R6213 0_5%
C6216 0.1uF_16V
D6202 DIODE_BAV99
C6200 330uF_6.3V
R6205 15.4K_1%
C6222 0402_OPEN
R6206 10K_1%
C6218 0.1uF_16V
C6217 0.1uF_16V
D6203 DIODE_BAV99
+V5LA
PAD6204 POWERPAD1x1m
R6216 0_5%
C6207 10uF_6.3V
+V5AUXON
+V15A
C6220 1uF_25V
INVENTEC
TITLE CT10R
SIZE A3 CODE CS DOC. NUMBER 1310A2423901-0-MTRAX1 REV
SHEET 8 OF 50
CHANGE by Yeh, Webber 8-Nov-2010



INVENTEC			
TITLE: CT10R			
SIZE: A3	CODE: CS	DOC. NUMBER: 1310A2423901-0-MTRAX1	REV: PAX1
CHANGE by: Yeh, Webber	8-Nov-2010	SHEET 9 OF 50	


+V1.5S_CPU_PG
SLP_S3#_3R
R6414 0_5%
R6408 100K_5%_OPEN
R6410 1K_5%
C6417 100pF_50V_OPEN
+V3S
R6407 10K_5%
VTT_PG
+V3A
R6411 10K_5%
VSS_SENSE_VTT
VTT_SENSE
VCCIO_SEL
R6412 0_5%_OPEN
C6418 2.2uF_10V
C6419 0.01uF_50V
R6409 86.6K_1%
U6400
TI_TPS51219RTER_QFN_16P
R6403 2.2_5%
C6412 0.1uF_25V
+VBAT
PAD6402 POWERPAD_2_0610
Q6401 TPCA8065_H
Q6400 TPCA8A02_H
C6403 4.7uF_25V
C6406 4.7uF_25V
C6401 4.7uF_25V
L6403 ETQP4LR36AFM
R6413 3.3_5%
C6421 4700pF_50V
+V5A
C6420 1uF_10V
PAD6401 POWERPAD_2_0610
PAD6400 POWERPAD_2_0610
+VTT
C6407 22uF_6.3V
C4564 560uF_2.5V
C6423 3300pF_50V
R6404 5.11K_1%
C6405 0.22uF_6.3V
C6408 0.01uF_50V
VCCUSA_SENSE
R6405 0402_OPEN
G_VCCSA_P
C6402 10uF_10V
C6424 10uF_10V
C6409 0.1uF_16V
U6401
TI_TPS51461RGER_QFN_24P
R6400 0_5%
C6400 0.1uF_25V
L6400 CYNTEC_PCMC063T_R33MN_4P
+V0.85S
PAD6403 POWERPAD_2_0610
C6413 22uF_6.3V
C6414 22uF_6.3V
C6415 22uF_6.3V
C6416 22uF_6.3V_OPEN
R6420 0603_OPEN
C6425 0402_OPEN
R6402 0_5%
VTT_PG
PAD6404 POWERPAD1x1m
R6406 0_5%
C6404 0402_OPEN
Near Pin18
C6411 1uF_10V
C6410 1uF_10V
VCCSA_SEL
+V3S
R6401 10K_5%
V0.85S_PG
LOW - 0.9V
HIGH - 0.8V
INVENTEC
TITLE CT10R
SIZE A3
CODE CS
DOC. NUMBER 1310A2423901-0-MTRAX1
REV
SHEET 10 OF 50
CHANGE by Yeh, Webber 8-Nov-2010


CIMON
R6623 118K_1%
COCP-I
R6622 39.2K_1%
C6624 0.22uF_6.3V
GIMON
R6619 309K_1%
GOCP-I
R6618 54.9K_1%
C6621 0.22uF_6.3V
+VTT
CLOSE TO POWER IC
R6600 54.9_1%
R6613 130_1%
C6630 0.1uF_16V_OPEN
VR_SVID_CLK
VR_SVID_DATA
+V5A
R6612 10_5%
C6618 Near Pin 43 4.7uF_10V
C6616 2.2uF_10V
+VBAT
POWERPAD_2_0610
PAD6600
PAD6601
Q6601 TPCA8065_H
Q6600 TPCA8057_H
Q6603 TPCA8065_H
Q6602 TPCA8057_H
4.7uF_25V
C6601 4.7uF_25V
C6602
C6604 4.7uF_25V
C6605
C6611 4.7uF_25V
C6612
C6613 4.7uF_25V
C6614
CCSN1
CCSP1
CCSN2
CCSP2
C6608 0.033uF_16V
C6600 0.033uF_16V
R6608 20.5K_1%
R6631 162K_1%
R6609 100K_1%_NTC
R6610 28.7K_1%
R6633 20.5K_1%
R6637 162K_1%
R6635 100K_1%_NTC
R6636 28.7K_1%
PAN_ETQP4LR36ZFC_4P
L6600
L6601
+VCC_CORE
C6606 470uF_2V
C6607 470uF_2V
C6626 560uF_2.5V
C6615 470uF_2V
C6603 0.1uF_25V
R6601 2.2_5%
R6607 0603_OPEN
C6610 0402_OPEN
R6611 2.2_5%
C6617 0.1uF_25V
R6606 0603_OPEN
C6625 0402_OPEN
C6622 47pF_50V
R6620 8.25K_1%
VREF
+V3A
C6627 0.1uF_16V_OPEN
Near Core IDUT
R6616 100K_1%_NTC
R6617 15.4K_1%
R6624 90.9K_1%
R6640 24K_5%
C6619 2.2uF_6.3V
C6620 2.2uF_6.3V
VR_ON
VR_PWRGD
VR_SVID_ALRT#
VR_SVID_DATA
H_PROCHOT#
+VGFX_PWRGD
C6609 47pF_50V
R6626 200K_1%
R6627 30K_5%
VCORE_EN
R6625 20K_5%
R6628 8.66K_1%
R6629 2K_5%
R6630 2K_5%
VR_PWRGD
+VGFX_PWRGD
R6632 110K_1%
R6641 100K_5%
R6621 4.02K_1%
C6623 47pF_50V
R6603 25.5K_1%
R6634 10K_5%
R6604 0402_OPEN
R6605 0402_OPEN
R6602 39K_5%
R6615 15.4K_1%
C6628 0.1uF_16V_OPEN
R6614 100K_1%_NTC
Near GFX IDUT
U6600
TI_TPS51640RSLR_QFN_48P
TP6600
TP6607
GSKIP#
VSSSENSE
VCCSENSE
VSSAXG_SENSE
VAXG_SENSE
GPWM
GTHERM
GOCP-I
GIMON
GCSN
GCSP
CIMON
COCP-I
CCSP2
CCSN2
CCSN1
CCSP1
CF-IMAX
VREF
V3R3
VR_ON
CPGOOD
VCLK
ALERT#
VDIO
VR_HOT#
SLEWA
GPGOOD
GF-IMAX
GND
V5
CDH1
CBST1
CSW1
CDL1
V5DRV
PGND
CDL2
CSW2
CBST2
CDH2
VBAT
G_VCore1_H
G_VCore1_P
G_VCore1_L
G_VCore2_L
G_VCore2_P
G_VCore2_H
INVENTEC
TITLE
CT10R
SIZE A3
CODE CS
DOC. NUMBER 1310A2423901-0-MTRAX1
REV
SHEET 11 OF 50
CHANGE by Yeh, Webber 8-Nov-2010



CHANGE by		
Yeh, Webber		*8-Nov-2010*

INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	

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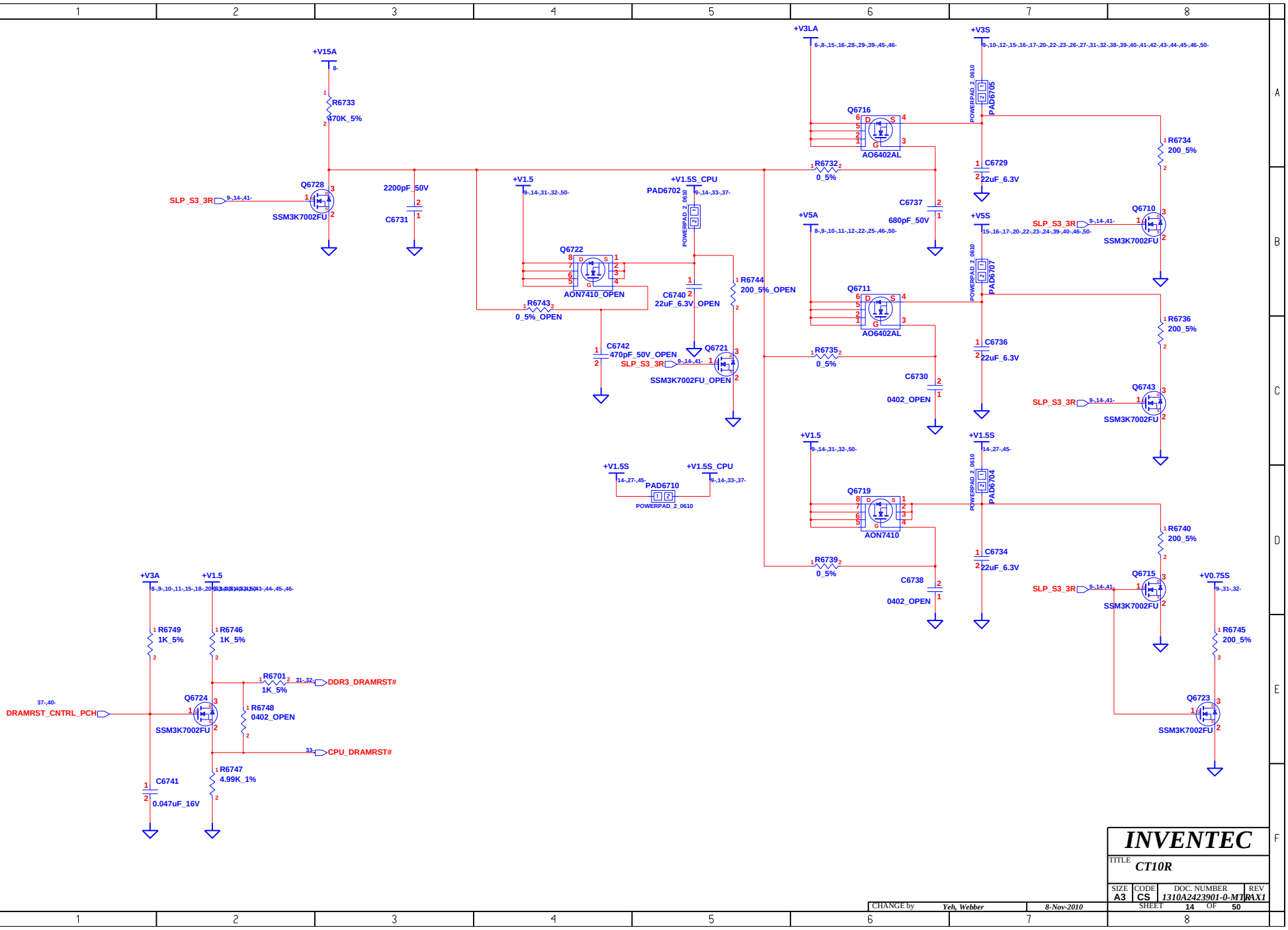
CHANGE by	*Yeh, Webber*	*8-Nov-2010*			

INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	*AX1*

SHEET 13 OF 50



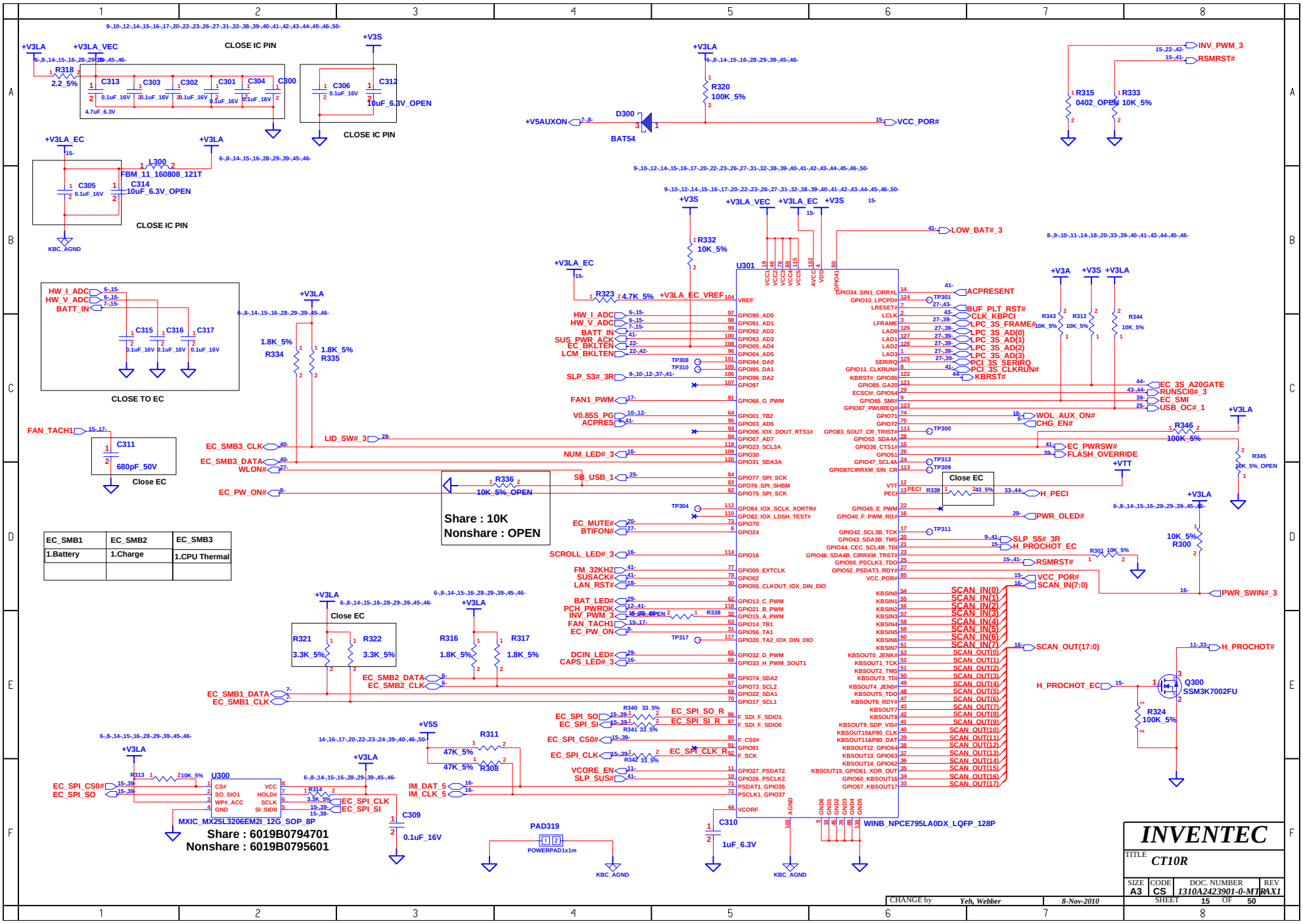
CHANGE by	Yeh, Webber	8-Nov-2010	

INVENTEC

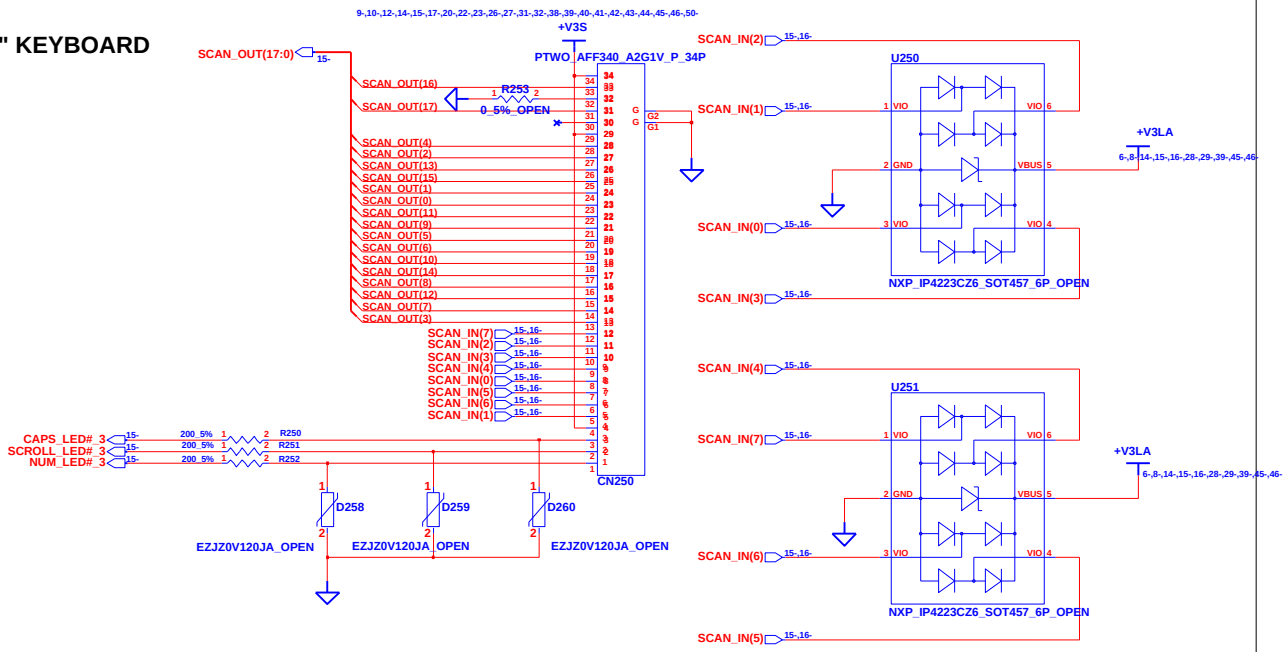
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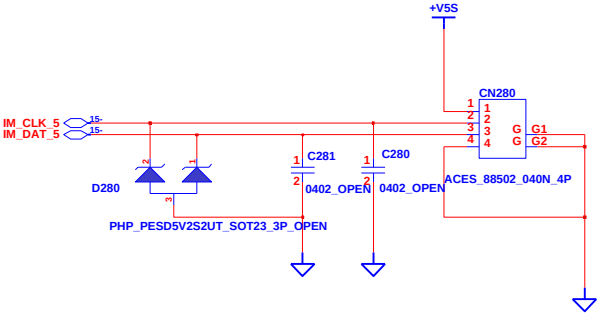
SHEET 14 OF 50


+V3LA
+V3LA_VEC
CLOSE IC PIN
R318 2.2_5%
C313 4.7uF_6.3V
C303 0.1uF_16V
C302 0.1uF_16V
C301 0.1uF_16V
C304 0.1uF_16V
C300 0.1uF_16V
+V3S
C306 0.1uF_16V
C312 10uF_6.3V_OPEN
CLOSE IC PIN
+V3LA_EC
+V3LA
L300 FBM_11_160808_121T
C305 0.1uF_16V
C314 10uF_6.3V_OPEN
CLOSE IC PIN
KBC_AGND
HW_I_ADC
HW_V_ADC
BATT_IN
C315 0.1uF_16V
C316 0.1uF_16V
C317 0.1uF_16V
CLOSE TO EC
+V3LA
1.8K_5% R334
1.8K_5% R335
FAN_TACH1
C311 680pF_50V
Close EC
EC_SMB3_CLK
EC_SMB3_DATA
WLON#
EC_PW_ON#
LID_SW#_3
R336 10K_5%_OPEN
Share : 10K
Nonshare : OPEN
EC_SMB1
EC_SMB2
EC_SMB3
1.Battery
1.Charge
1.CPU Thermal
+V3LA
Close EC
R321 3.3K_5%
R322 3.3K_5%
+V3LA
R316 1.8K_5%
R317 1.8K_5%
EC_SMB2_DATA
EC_SMB2_CLK
EC_SMB1_DATA
EC_SMB1_CLK
+V3LA
R313 10K_5%
U300
EC_SPI_CS0#
EC_SPI_SO
CS#
SO_SIO1
WP#_ACC
GND
VCC
HOLD#
SCLK
SI_SIO0
R314 3.3K_5%
EC_SPI_CLK
EC_SPI_SI
MXIC_MX25L3206EM2I_12G_SOP_8P
Share : 6019B0794701
Nonshare : 6019B0795601
C309 0.1uF_16V
+V5S
R311 47K_5%
R308 47K_5%
IM_DAT_5
IM_CLK_5
PAD319
POWERPAD1x1m
KBC_AGND
+V3LA
R320 100K_5%
+V5AUXON
D300 BAT54
VCC_POR#
INV_PWM_3
RSMRST#
R315 0402_OPEN
R333 10K_5%
+V3LA_VEC
+V3LA_EC
+V3S
R332 10K_5%
U301
+V3LA_EC
R323 4.7K_5%
+V3LA_EC_VREF
HW_I_ADC
HW_V_ADC
BATT_IN
SUS_PWR_ACK
EC_BKLTEN
LCM_BKLTEN
SLP_S3#_3R
FAN1_PWM
V0.85S_PG
ACPRES
NUM_LED#_3
SB_USB_1
EC_MUTE#
BTIFON#
SCROLL_LED#_3
FM_32KHZ
SUSACK#
LAN_RST#
BAT_LED#
PCH_PWROK
INV_PWM_3
FAN_TACH1
EC_PW_ON
DCIN_LED#
CAPS_LED#_3
EC_SPI_SO_R
EC_SPI_SI_R
EC_SPI_CS0#
EC_SPI_CLK
EC_SPI_CLK_R
VCORE_EN
SLP_SUS#
C310 1uF_6.3V
WINB_NPCE795LA0DX_LQFP_128P
LOW_BAT#_3
ACPRESENT
BUF_PLT_RST#
CLK_KBPCI
LPC_3S_FRAME#
LPC_3S_AD(0)
LPC_3S_AD(1)
LPC_3S_AD(2)
LPC_3S_AD(3)
PCI_3S_SERIRQ
PCI_3S_CLKRUN#
KBRST#
EC_3S_A20GATE
RUNSCI#_3
EC_SMI
USB_OC#_1
+V3A
+V3S
+V3LA
R343 10K_5%
R312 10K_5%
R344 10K_5%
WOL_AUX_ON#
CHG_EN#
R346 100K_5%
EC_PWRSW#
FLASH_OVERRIDE
+VTT
R345 10K_5%_OPEN
Close EC
R339 243_5%
H_PECI
+V3LA
10K_5% R300
PWR_OLED#
SLP_S5#_3R
H_PROCHOT_EC
RSMRST#
R301 10K_5%
VCC_POR#
SCAN_IN(7:0)
PWR_SWIN#_3
SCAN_IN(0)
SCAN_IN(1)
SCAN_IN(2)
SCAN_IN(3)
SCAN_IN(4)
SCAN_IN(5)
SCAN_IN(6)
SCAN_IN(7)
SCAN_OUT(17:0)
SCAN_OUT(0)
SCAN_OUT(1)
SCAN_OUT(2)
SCAN_OUT(3)
SCAN_OUT(4)
SCAN_OUT(5)
SCAN_OUT(6)
SCAN_OUT(7)
SCAN_OUT(8)
SCAN_OUT(9)
SCAN_OUT(10)
SCAN_OUT(11)
SCAN_OUT(12)
SCAN_OUT(13)
SCAN_OUT(14)
SCAN_OUT(15)
SCAN_OUT(16)
SCAN_OUT(17)
H_PROCHOT#
H_PROCHOT_EC
Q300 SSM3K7002FU
R324 100K_5%
INVENTEC
TITLE CT10R
SIZE A3
CODE CS
DOC. NUMBER 1310A2423901-0-MTRAX1
REV AX1
SHEET 15 OF 50
CHANGE by Yeh, Webber
8-Nov-2010

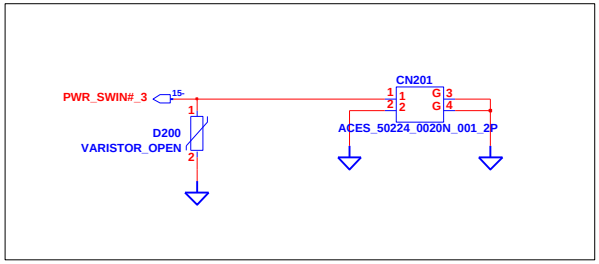
14" KEYBOARD



Touchpad Connector



POWER BOARD CONNECTOR



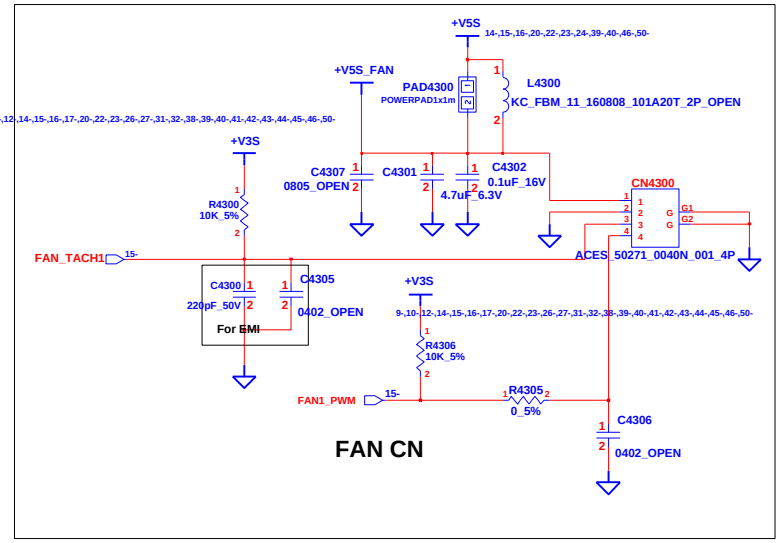
CHANGE by	Yeh, Webber	8-Nov-2010	

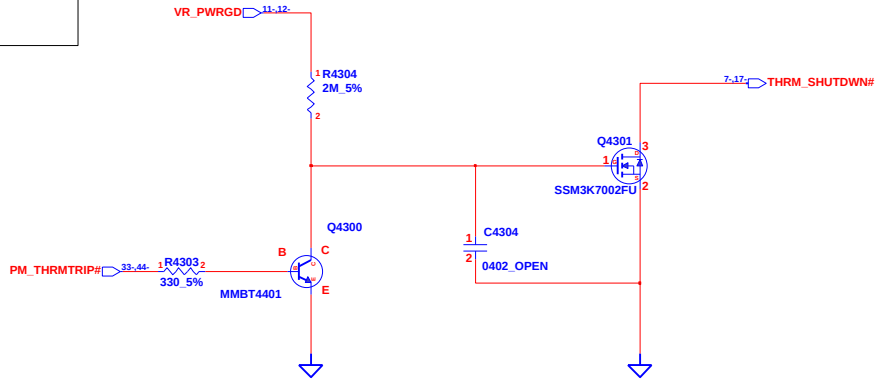
INVENTEC

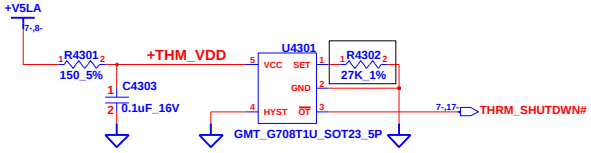
TITLE: CT10R

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

SHEET 16 OF 50







GM Thermal shoutdown at 83.2°C +/-3°C from 60°C to 100°C
PM Thermal shoutdown at 91.5°C +/-3°C from 60°C to 100°C
RSET=0.0012*T^2- 0.9308*T+96.147
Hysteresis is 30C

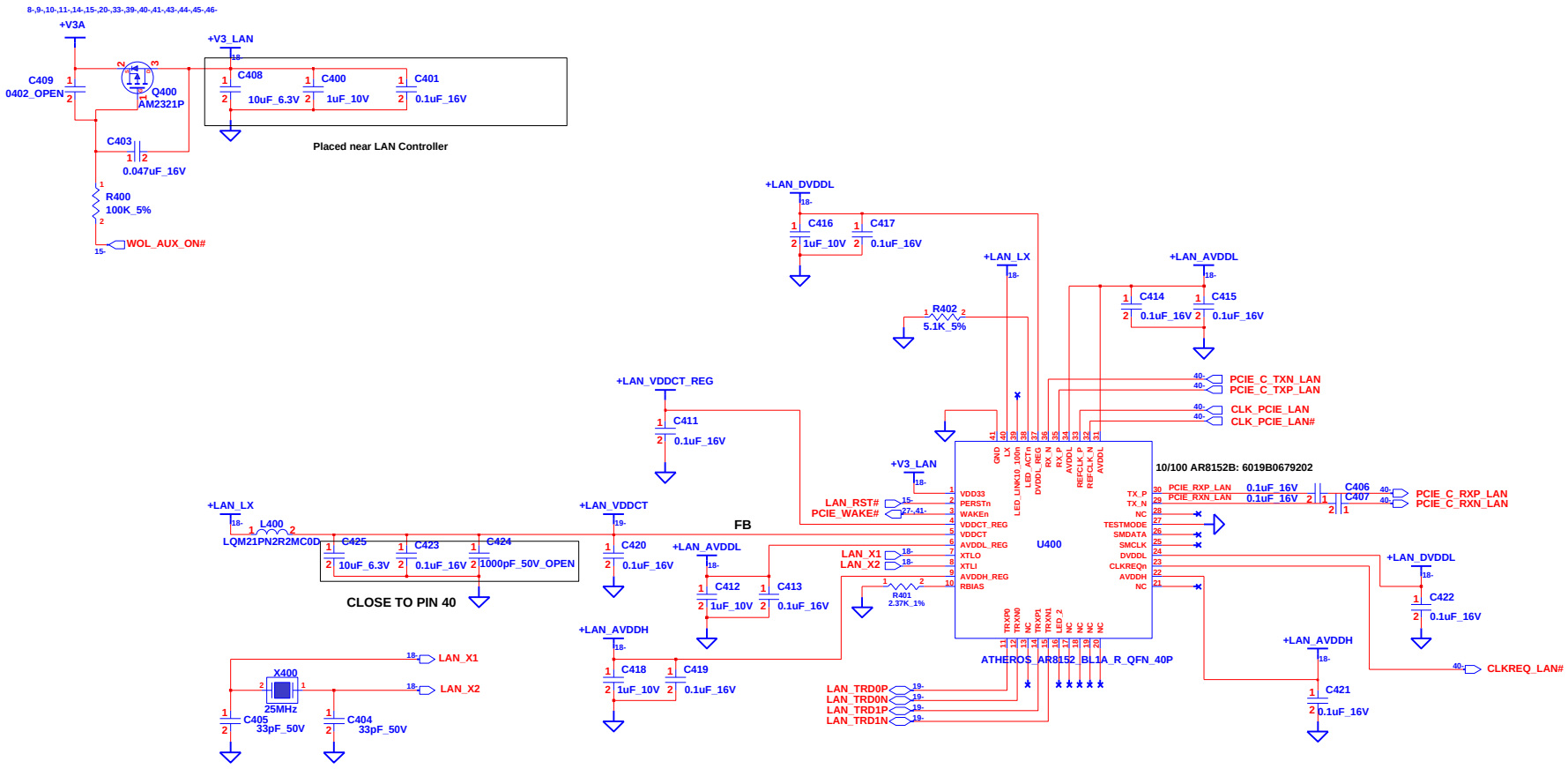
CHANGE by	Yeh, Webber	8-Nov-2010	

INVENTEC

TITLE: *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	

SHEET 17 OF 50



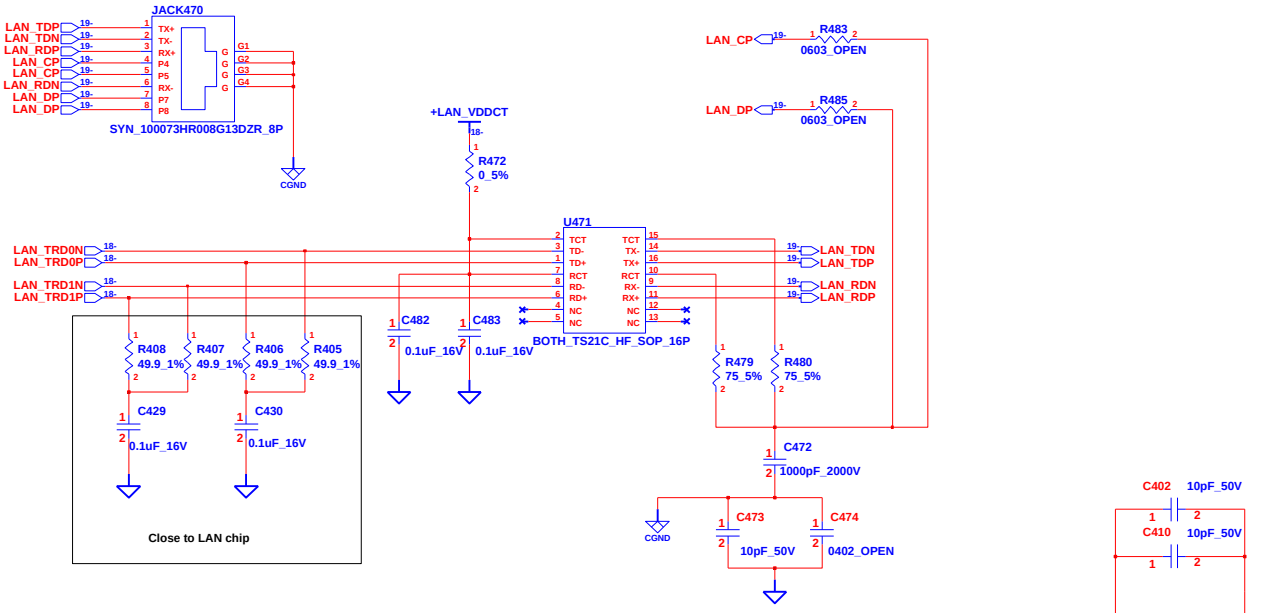
CHANGE by	Yeh, Webber	8-Nov-2010	

INVENTEC

TITLE: CT10R

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

SHEET 18 OF 50



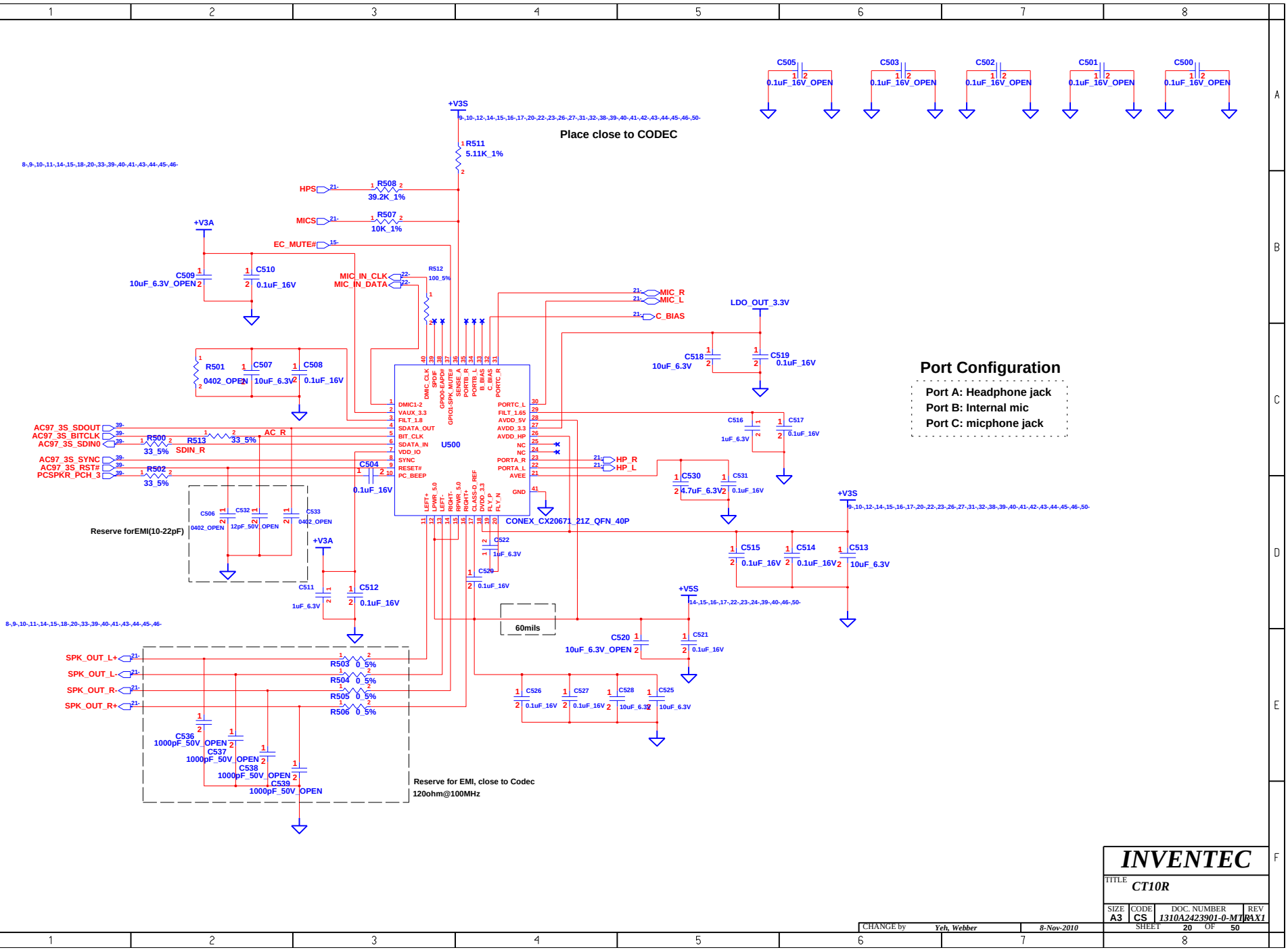
CHANGE by		
Yeh, Webber	*8-Nov-2010*	

INVENTEC

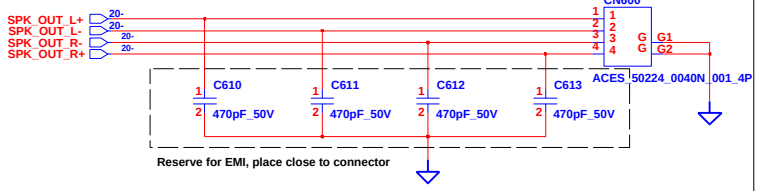
TITLE: *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	

SHEET 19 OF 50

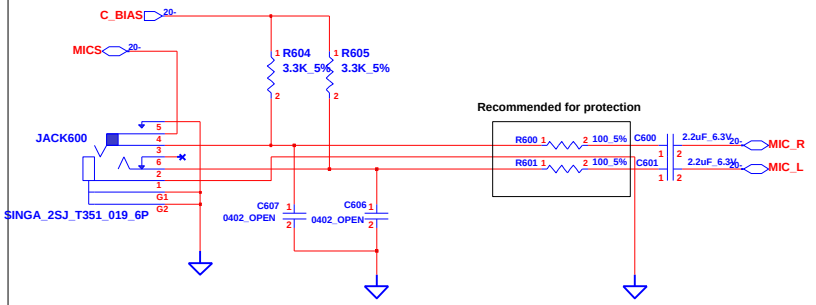

Place close to CODEC
+V3S
R511 5.11K_1%
HPS
R508 39.2K_1%
MICS
R507 10K_1%
+V3A
EC_MUTE#
C509 10uF_6.3V_OPEN
C510 0.1uF_16V
MIC_IN_CLK
MIC_IN_DATA
R512 100_5%
R501 0402_OPEN
C507 10uF_6.3V
C508 0.1uF_16V
AC97_3S_SDOUT
AC97_3S_BITCLK
AC97_3S_SDIN0
AC97_3S_SYNC
AC97_3S_RST#
PCSPKR_PCH_3
R500 33_5%
R513 33_5%
SDIN_R
AC_R
R502 33_5%
C504 0.1uF_16V
U500
CONEX_CX20671_21Z_QFN_40P
MIC_R
MIC_L
C_BIAS
LDO_OUT_3.3V
C518 10uF_6.3V
C519 0.1uF_16V
C516 1uF_6.3V
C517 0.1uF_16V
HP_R
HP_L
C530 4.7uF_6.3V
C531 0.1uF_16V
C506 0402_OPEN
C532 12pF_50V_OPEN
C533 0402_OPEN
Reserve forEMI(10-22pF)
C522 1uF_6.3V
C529 0.1uF_16V
C511 1uF_6.3V
C512 0.1uF_16V
60mils
C515 0.1uF_16V
C514 0.1uF_16V
C513 10uF_6.3V
+V5S
C520 10uF_6.3V_OPEN
C521 0.1uF_16V
C526 0.1uF_16V
C527 0.1uF_16V
C528 10uF_6.3V
C525 10uF_6.3V
SPK_OUT_L+
SPK_OUT_L-
SPK_OUT_R-
SPK_OUT_R+
R503 0_5%
R504 0_5%
R505 0_5%
R506 0_5%
C536 1000pF_50V_OPEN
C537 1000pF_50V_OPEN
C538 1000pF_50V_OPEN
C539 1000pF_50V_OPEN
Reserve for EMI, close to Codec
120ohm@100MHz
C505 0.1uF_16V_OPEN
C503 0.1uF_16V_OPEN
C502 0.1uF_16V_OPEN
C501 0.1uF_16V_OPEN
C500 0.1uF_16V_OPEN
Port Configuration
Port A: Headphone jack
Port B: Internal mic
Port C: micphone jack
INVENTEC
TITLE CT10R
SIZE A3
CODE CS
DOC. NUMBER 1310A2423901-0-MTRAX1
REV PAX1
SHEET 20 OF 50
CHANGE by Yeh, Webber 8-Nov-2010

INTERNAL SPEAKERS

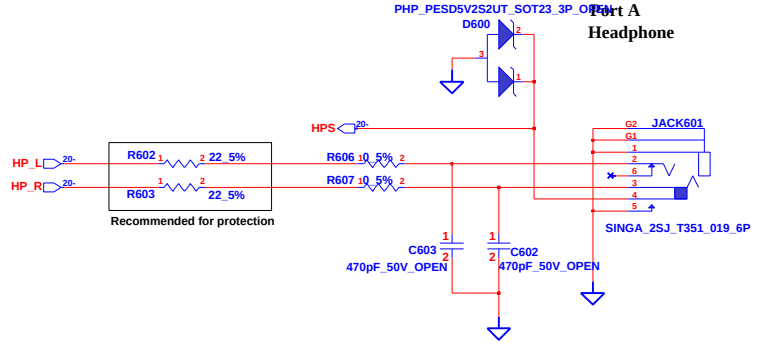


AUDIO JACKS

Port C
External microphone



Port A
Headphone



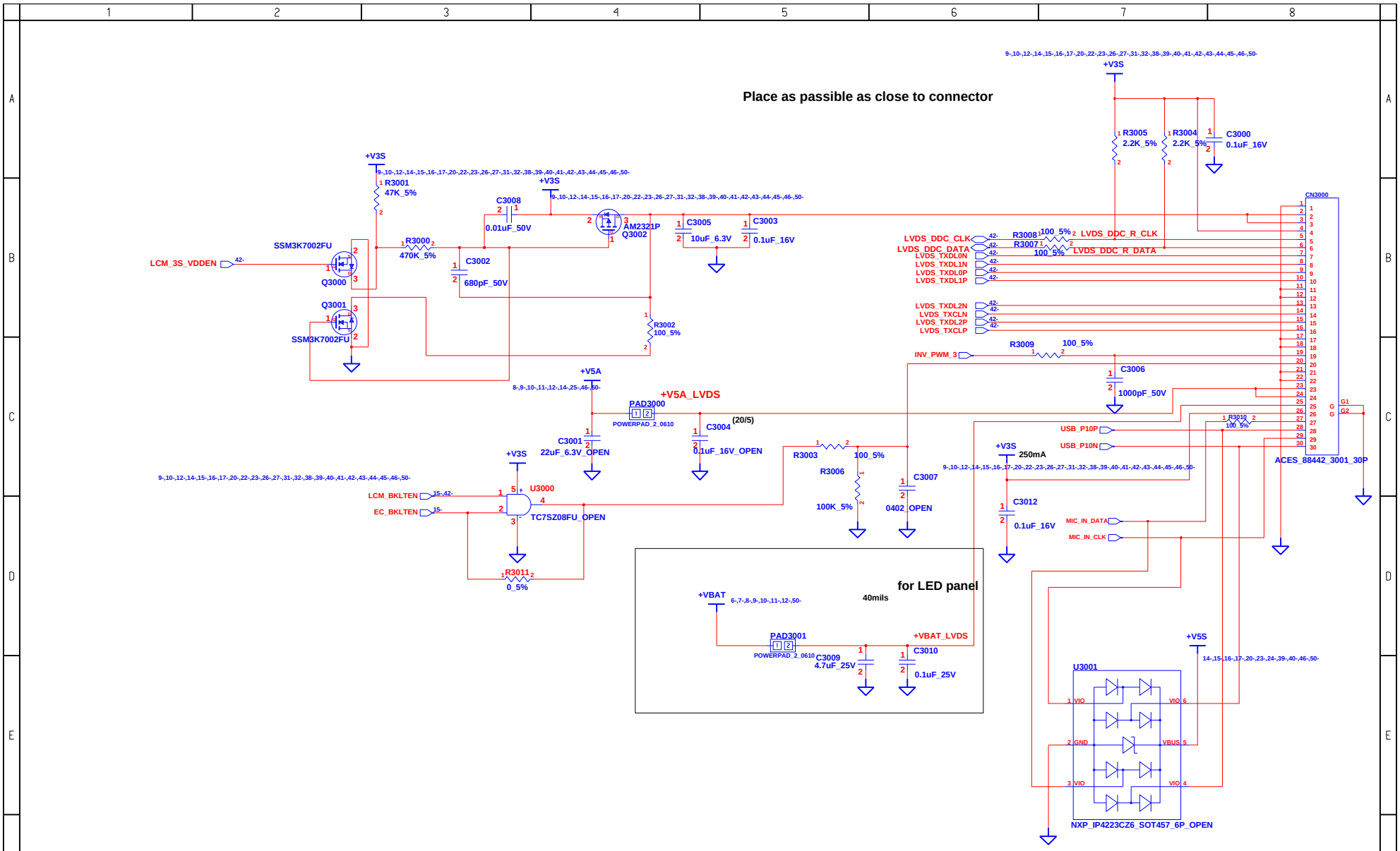
CHANGE by	Yeh, Webber	8-Nov-2010	

INVENTEC

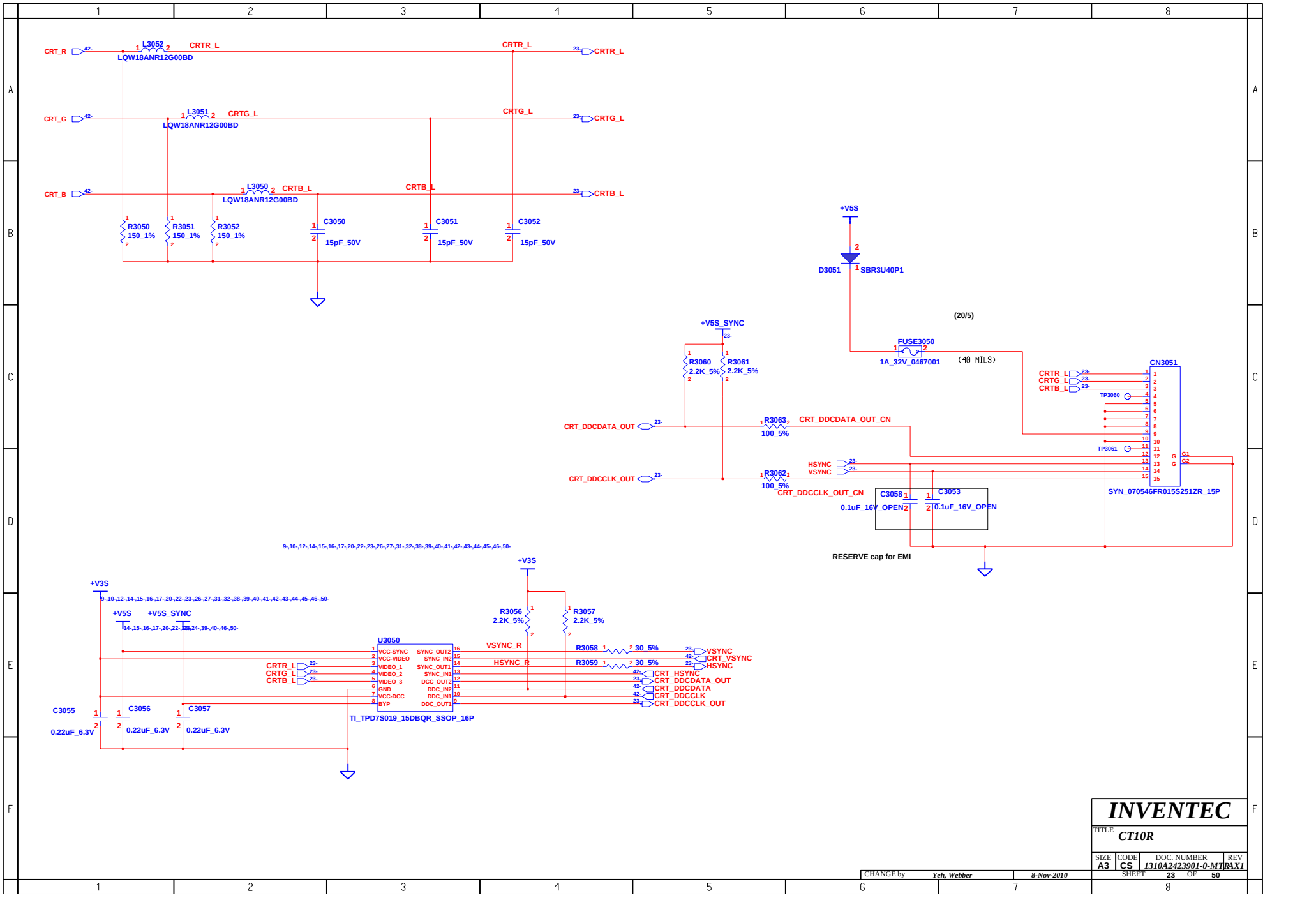
TITLE: *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

SHEET 21 OF 50



INVENTEC	
TITLE	CT10R
SIZE	A3
CODE	CS
DOC. NUMBER	1310A2423901-0-MTPAX1
REV	
SHEET	22 OF 50
CHANGE by	Yeh, Webber
	8-Nov-2010



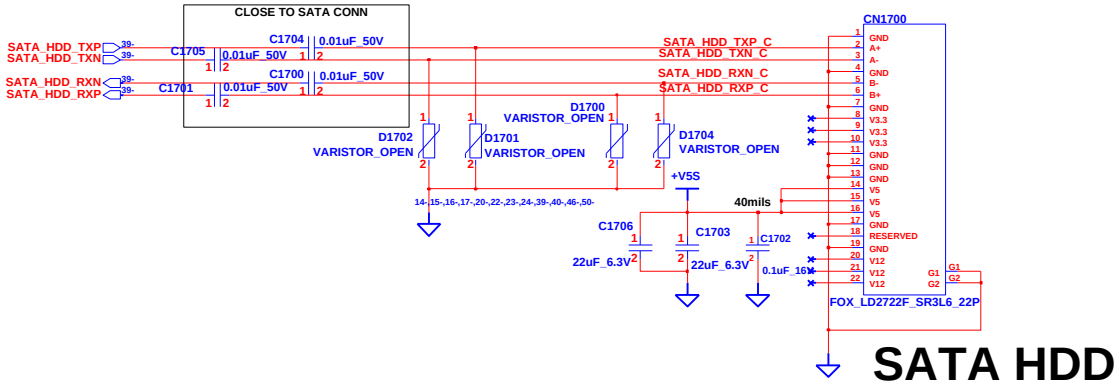
CHANGE by	Yeh, Webber	8-Nov-2010	

INVENTEC

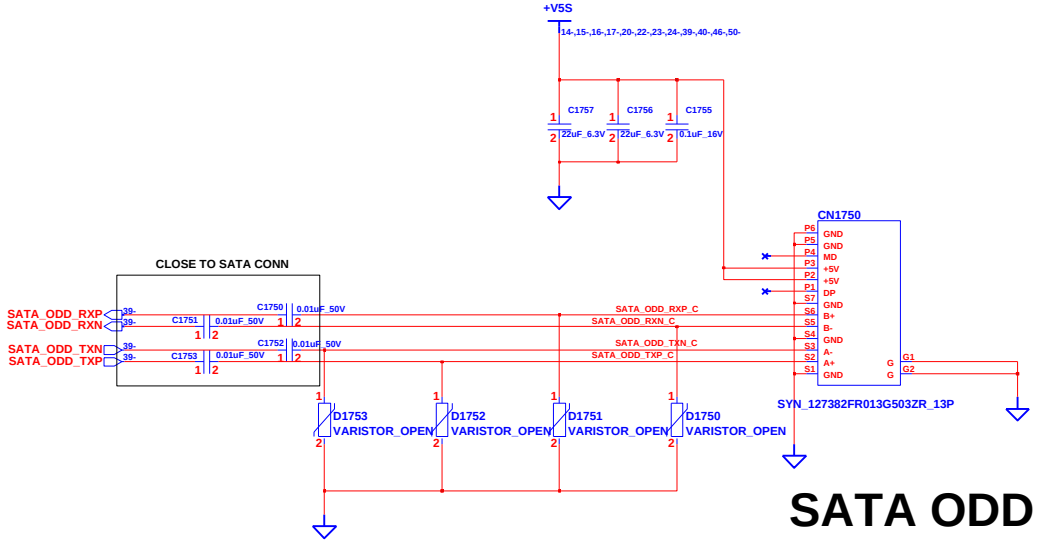
TITLE: CT10R

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

SHEET 23 OF 50



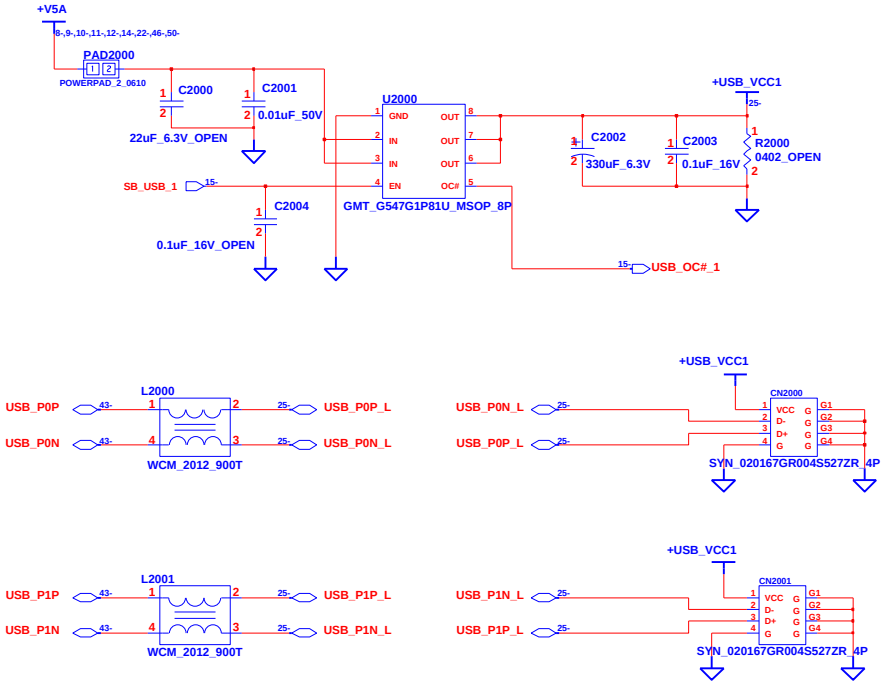
SATA HDD



SATA ODD

INVENTEC			
TITLE: CT10R			
SIZE: A3	CODE: CS	DOC. NUMBER: 1310A2423901-0-MTRAX1	REV: PAX1
CHANGE by: Yeh, Webber	8-Nov-2010	SHEET 24 OF 50	

USB 2.0



CHANGE by		
Yeh, Webber	*8-Nov-2010*	

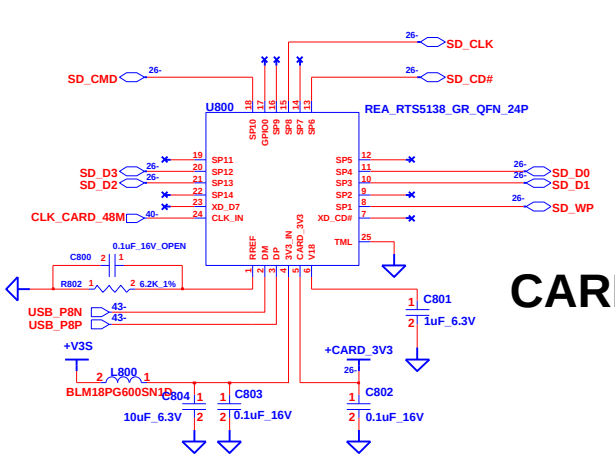
INVENTEC

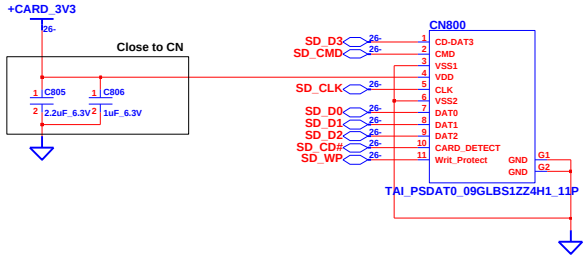
TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	*PAX1*

SHEET 25 OF 50

CARD READER





CHANGE by		
Yeh, Webber	*8-Nov-2010*	

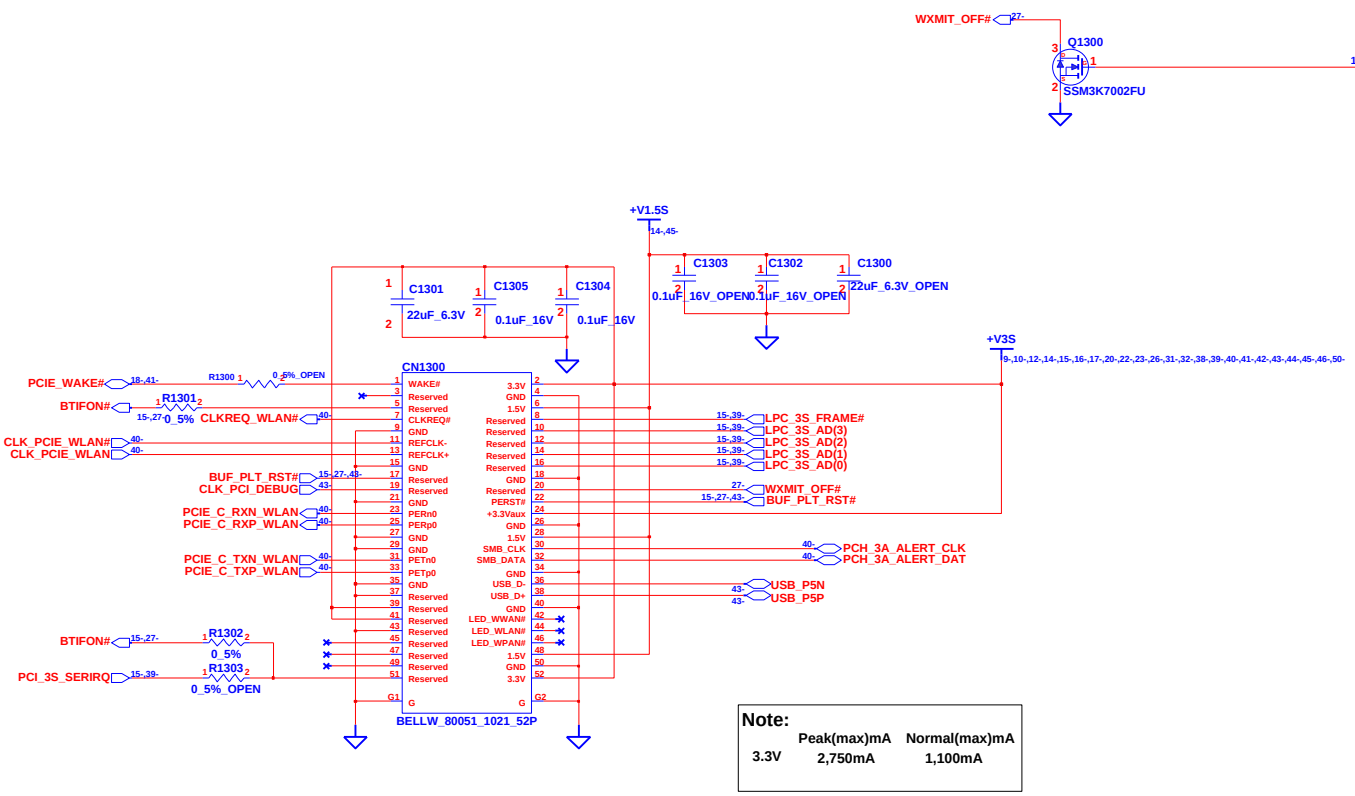
INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	*PAX1*

SHEET 26 OF 50

Wireless & Debug card



Note:

	Peak(max)mA	Normal(max)mA
3.3V	2,750mA	1,100mA

MINI CARD 1

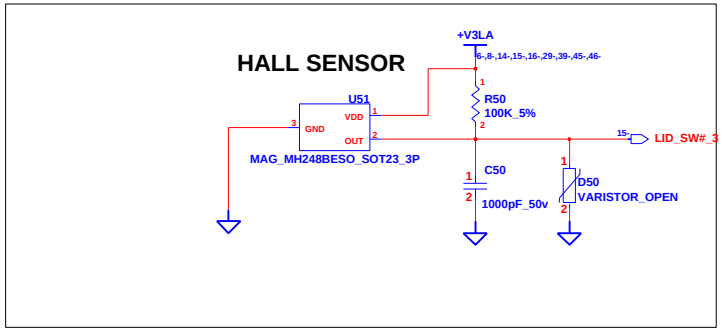
CHANGE by	Yeh, Webber	8-Nov-2010	

INVENTEC

TITLE: CT10R

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

SHEET 27 OF 50



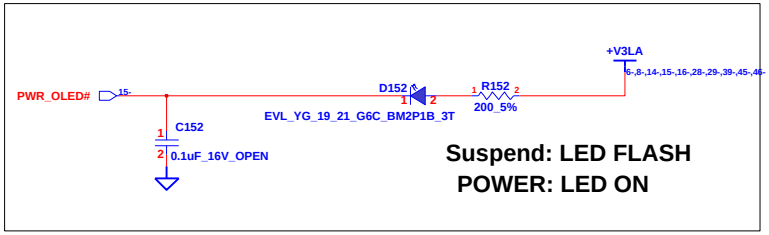
CHANGE by	Yeh, Webber	8-Nov-2010	

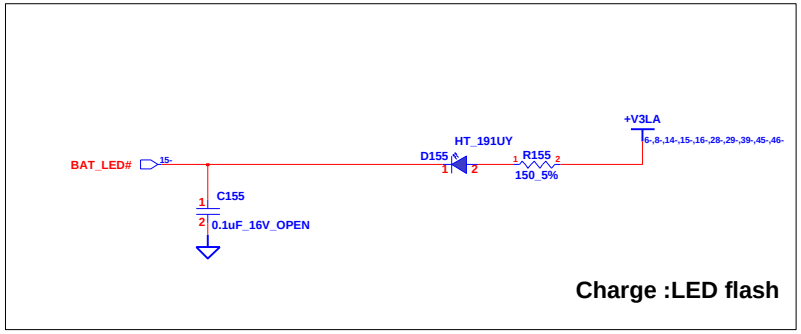
INVENTEC

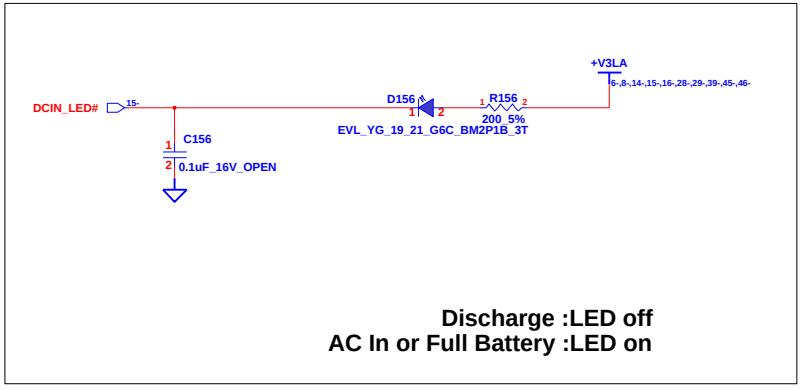
TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

SHEET 28 OF 50







CHANGE by	*Yeh, Webber*	*8-Nov-2010*		

INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	

SHEET 29 OF 50

A							
B							
C							
D							
E							
F							

CHANGE by *Yeh, Webber* *8-Nov-2010*

INVENTEC

TITLE *CT10R*
CLKGEN

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	*PAX1*

SHEET 30 OF 50

CHA

9-,10-,12-,14-,15-,16-,17-,20-,22-,23-,26-,27-,31-,32-,38-,39-,40-,41-,42-,43-,44-,45-,46-,50-

M_A_A(15:0) 35-

M_A_A(0) 98
M_A_A(1) 97
M_A_A(2) 96
M_A_A(3) 95
M_A_A(4) 92
M_A_A(5) 91
M_A_A(6) 90
M_A_A(7) 86
M_A_A(8) 89
M_A_A(9) 85
M_A_A(10) 107
M_A_A(11) 84
M_A_A(12) 83
M_A_A(13) 119
M_A_A(14) 80
M_A_A(15) 78

CN4100-1

A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10_AP A11 A12 A13 A14 A15

M_A_BS0 35- 109 BA0
M_A_BS1 35- 108 BA1
M_A_BS2 35- 79 BA2
M_CS#0 35- 114 S0#
M_CS#1 35- 121 S1#
M_CLK_DDR0 35- 101 CK0
M_CLK_DDR#0 35- 103 CK0#
M_CLK_DDR1 35- 102 CK1
M_CLK_DDR#1 35- 104 CK1#
M_CKE0 35- 73 CKE0
M_CKE1 35- 74 CKE1
M_A_CAS# 35- 115 CAS#
M_A_RAS# 35- 110 RAS#
M_A_WE# 35- 113 WE#
SA0_DIM0 31- 197 SA0
SA1_DIM0 31- 201 SA1
PCH_3S_SMCLK 32-,40- 202 SCL
PCH_3S_SMDATA 32-,40- 200 SDA
M_ODT0 35- 116 ODT0
M_ODT1 35- 120 ODT1

11 28 46 63 136 153 170 187 DM0 DM1 DM2 DM3 DM4 DM5 DM6 DM7

M_A_DQS(7:0) 35-

M_A_DQS(0) 12
M_A_DQS(1) 29
M_A_DQS(2) 47
M_A_DQS(3) 64
M_A_DQS(4) 132
M_A_DQS(5) 154
M_A_DQS(6) 171
M_A_DQS(7) 188

DQS0 DQS1 DQS2 DQS3 DQS4 DQS5 DQS6 DQS7

M_A_DQS#(7:0) 35-

M_A_DQS#(0) 10
M_A_DQS#(1) 27
M_A_DQS#(2) 45
M_A_DQS#(3) 62
M_A_DQS#(4) 135
M_A_DQS#(5) 152
M_A_DQS#(6) 169
M_A_DQS#(7) 186

DQS#0 DQS#1 DQS#2 DQS#3 DQS#4 DQS#5 DQS#6 DQS#7

DQ0 DQ1 DQ2 DQ3 DQ4 DQ5 DQ6 DQ7 DQ8 DQ9 DQ10 DQ11 DQ12 DQ13 DQ14 DQ15 DQ16 DQ17 DQ18 DQ19 DQ20 DQ21 DQ22 DQ23 DQ24 DQ25 DQ26 DQ27 DQ28 DQ29 DQ30 DQ31 DQ32 DQ33 DQ34 DQ35 DQ36 DQ37 DQ38 DQ39 DQ40 DQ41 DQ42 DQ43 DQ44 DQ45 DQ46 DQ47 DQ48 DQ49 DQ50 DQ51 DQ52 DQ53 DQ54 DQ55 DQ56 DQ57 DQ58 DQ59 DQ60 DQ61 DQ62 DQ63

5 7 15 17 4 6 16 18 21 23 33 35 22 24 34 36 39 41 51 53 40 42 50 52 57 59 67 69 56 58 68 70 129 131 141 143 130 132 140 142 147 149 157 159 146 148 158 160 163 165 175 177 164 166 174 176 181 183 191 193 180 182 192 194

M_A_DQ(63:0) 35-

M_A_DQ(0)
M_A_DQ(1)
M_A_DQ(2)
M_A_DQ(3)
M_A_DQ(4)
M_A_DQ(5)
M_A_DQ(6)
M_A_DQ(7)
M_A_DQ(8)
M_A_DQ(9)
M_A_DQ(10)
M_A_DQ(11)
M_A_DQ(12)
M_A_DQ(13)
M_A_DQ(14)
M_A_DQ(15)
M_A_DQ(16)
M_A_DQ(17)
M_A_DQ(18)
M_A_DQ(19)
M_A_DQ(20)
M_A_DQ(21)
M_A_DQ(22)
M_A_DQ(23)
M_A_DQ(24)
M_A_DQ(25)
M_A_DQ(26)
M_A_DQ(27)
M_A_DQ(28)
M_A_DQ(29)
M_A_DQ(30)
M_A_DQ(31)
M_A_DQ(32)
M_A_DQ(33)
M_A_DQ(34)
M_A_DQ(35)
M_A_DQ(36)
M_A_DQ(37)
M_A_DQ(38)
M_A_DQ(39)
M_A_DQ(40)
M_A_DQ(41)
M_A_DQ(42)
M_A_DQ(43)
M_A_DQ(44)
M_A_DQ(45)
M_A_DQ(46)
M_A_DQ(47)
M_A_DQ(48)
M_A_DQ(49)
M_A_DQ(50)
M_A_DQ(51)
M_A_DQ(52)
M_A_DQ(53)
M_A_DQ(54)
M_A_DQ(55)
M_A_DQ(56)
M_A_DQ(57)
M_A_DQ(58)
M_A_DQ(59)
M_A_DQ(60)
M_A_DQ(61)
M_A_DQ(62)
M_A_DQ(63)

FOX_AS0A621_N2RN_7H_204P

Layout NOTE: Place these Caps near SO-DIMM0 power pin

+V1.5 9-,14-,32-,50-

C4141 330uF_6.3V_OPEN
C4114 1uF_6.3V
C4111 1uF_6.3V
C4112 1uF_6.3V
C4113 1uF_6.3V
C4115 10uF_6.3V
C4116 10uF_6.3V
C4117 10uF_6.3V
C4118 10uF_6.3V
C4119 10uF_6.3V
C4120 10uF_6.3V

+V3S

C4102 2.2uF_6.3V
C4101 0.1uF_16V

M_VREF 9-,31-,32-,37-
TACO 0205
C4106 2.2uF_6.3V
C4105 0.1uF_16V

M_VREF 9-,31-,32-,37-
TACO 0205
C4104 2.2uF_6.3V
C4103 0.1uF_16V

CN4100-2

VDD1 VDD2 VDD3 VDD4 VDD5 VDD6 VDD7 VDD8 VDD9 VDD10 VDD11 VDD12 VDD13 VDD14 VDD15 VDD16 VDD17 VDD18
75 76 81 82 87 88 93 94 99 100 105 106 111 112 117 118 123 124

VDDSPD 199

NC1 NC2 NCTEST
77 122 125

PM_EXTTS#1_R 31-,32-
DDR3_DRAMRST# 14-,32-
EVENT# RESET#
198 30

VREF_DQ VREF_CA
1 126

VSS1 VSS2 VSS3 VSS4 VSS5 VSS6 VSS7 VSS8 VSS9 VSS10 VSS11 VSS12 VSS13 VSS14 VSS15
2 3 8 9 13 14 19 20 25 26 31 32 37 38 43

VSS16 VSS17 VSS18 VSS19 VSS20 VSS21 VSS22 VSS23 VSS24 VSS25 VSS26 VSS27 VSS28 VSS29 VSS30 VSS31 VSS32 VSS33 VSS34 VSS35 VSS36 VSS37 VSS38 VSS39 VSS40 VSS41 VSS42 VSS43 VSS44 VSS45 VSS46 VSS47 VSS48 VSS49 VSS50 VSS51 VSS52
44 48 49 54 56 60 61 65 66 71 72 127 128 133 134 138 139 144 145 150 151 155 156 161 162 167 168 172 173 178 179 184 185 189 190 195 196

VTT1 VTT2
203 204

G1 G2
G1 G2

FOX_AS0A621_N2RN_7H_204P

+V0.75S 9-,14,-32-

Place these caps close to VTT1 and VTT2

C4110 1uF_6.3V
C4109 1uF_6.3V
C4107 1uF_6.3V
C4108 1uF_6.3V
C4100 1uF_6.3V

Note:Place C4100 on common path for both DIMM's

9-,10-,12-,14-,15-,16-,17-,20-,22-,23-,26-,27-,31-,32-,38-,39-,40-,41-,42-,43-,44-,45-,46-,50-

+V3S

R4102 10K_5%_OPEN
R4105 10K_5%_OPEN
31- SA0_DIM0
31- SA1_DIM0
R4100 10K_5%
R4101 10K_5%

NOTE:

IF SA0_DIM0=0 , SA1_DIM0=0
SO-DIMMA SPD ADDRESS IS 0xA0
SO-DIMMA TS ADDRESS IS 0x30

IF SA0_DIM0=1 , SA1_DIM0=0
SO-DIMMA SPD ADDRESS IS 0xA2
SO-DIMMA TS ADDRESS IS 0x32

TACO 0205

+V3S

R4104 10K_5%

PM_EXTTS#1_R 31-,32-

9-,10-,12-,14-,15-,16-,17-,20-,22-,23-,26-,27-,31-,32-,38-,39-,40-,41-,42-,43-,44-,45-,46-,50-

INVENTEC

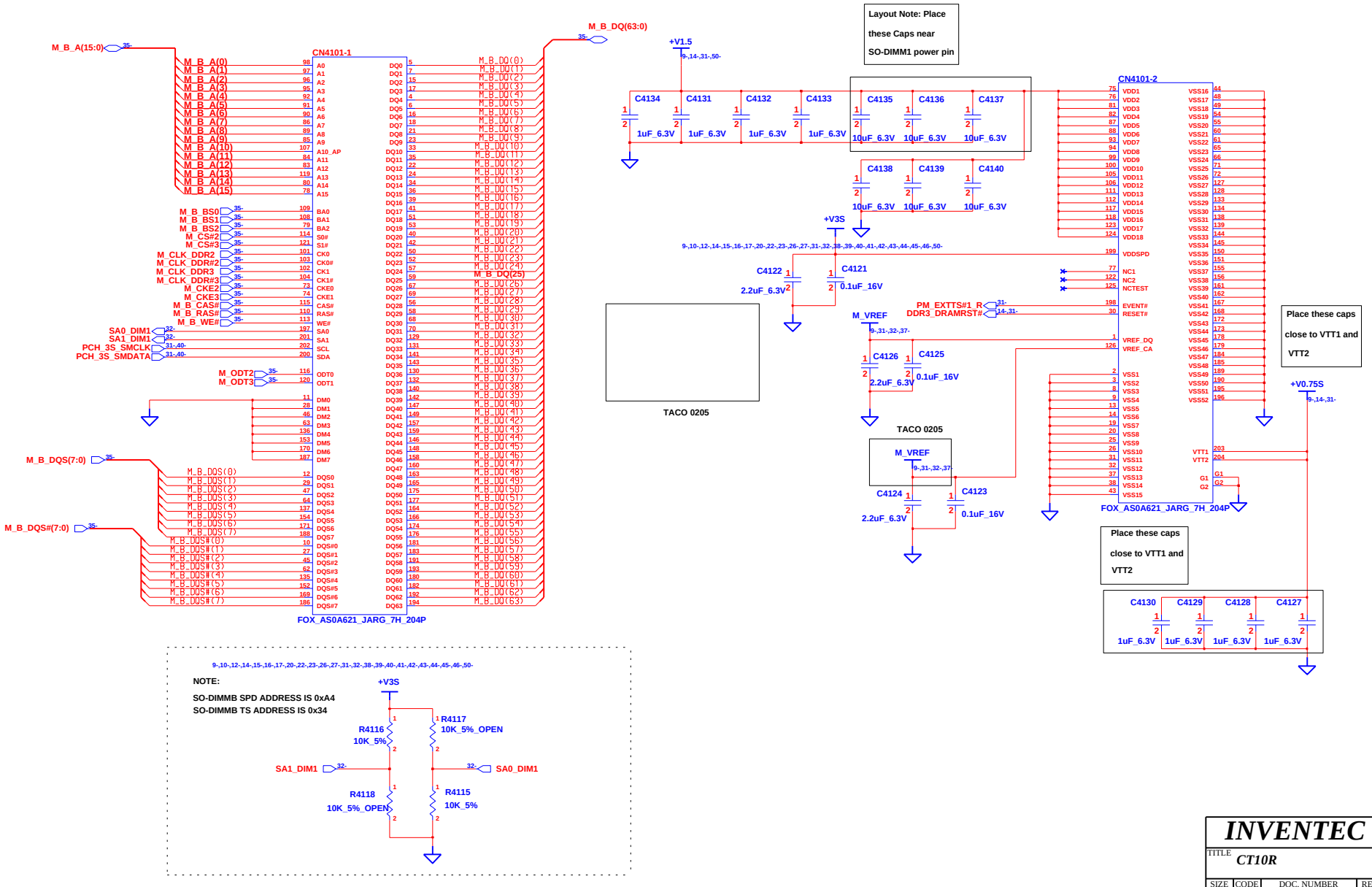
TITLE CT10R

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

SHEET 31 OF 50

CHANGE by Yeh, Webber 8-Nov-2010

CHB



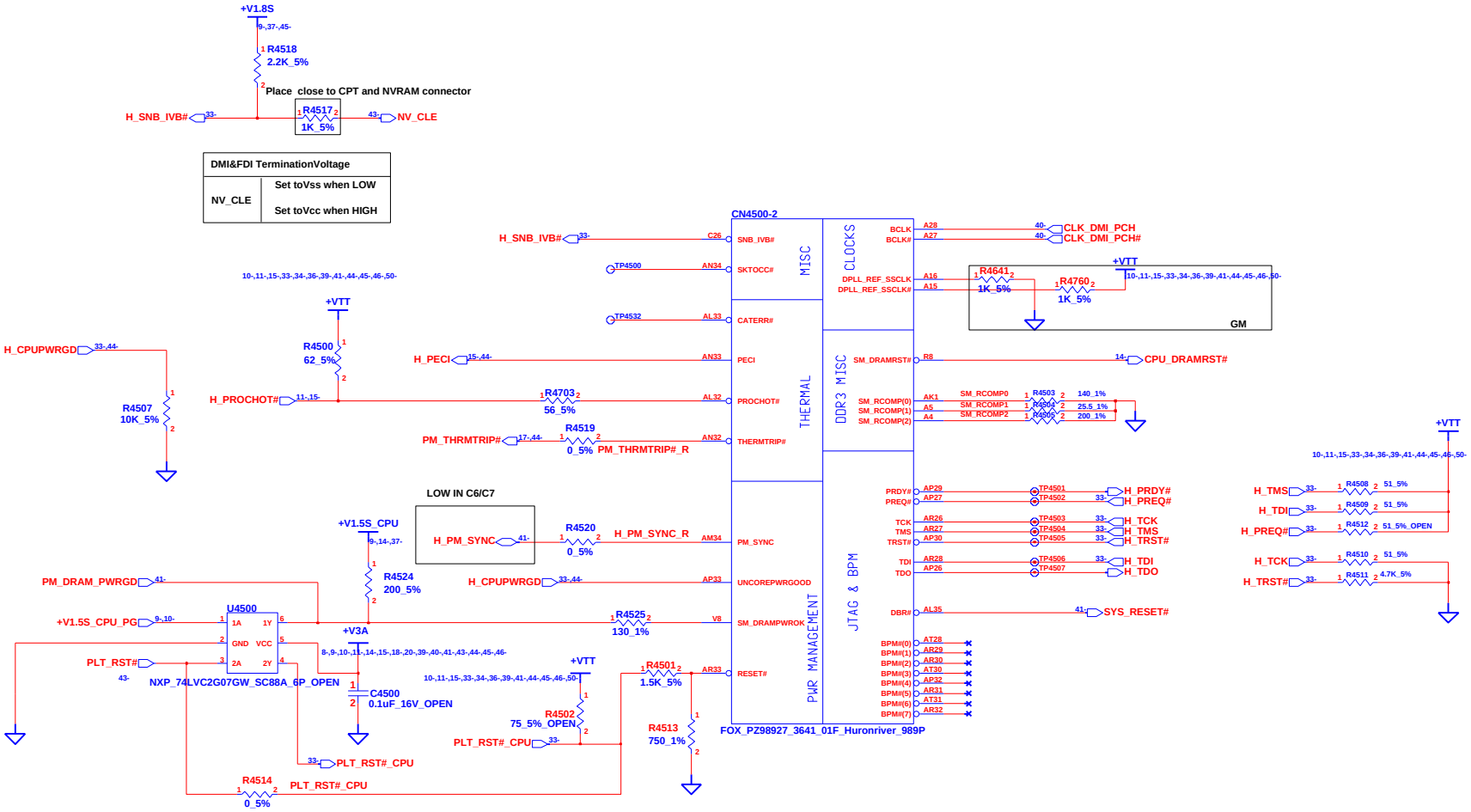
CHANGE by		
Yeh, Webber		*8-Nov-2010*

INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	

SHEET 32 OF 50

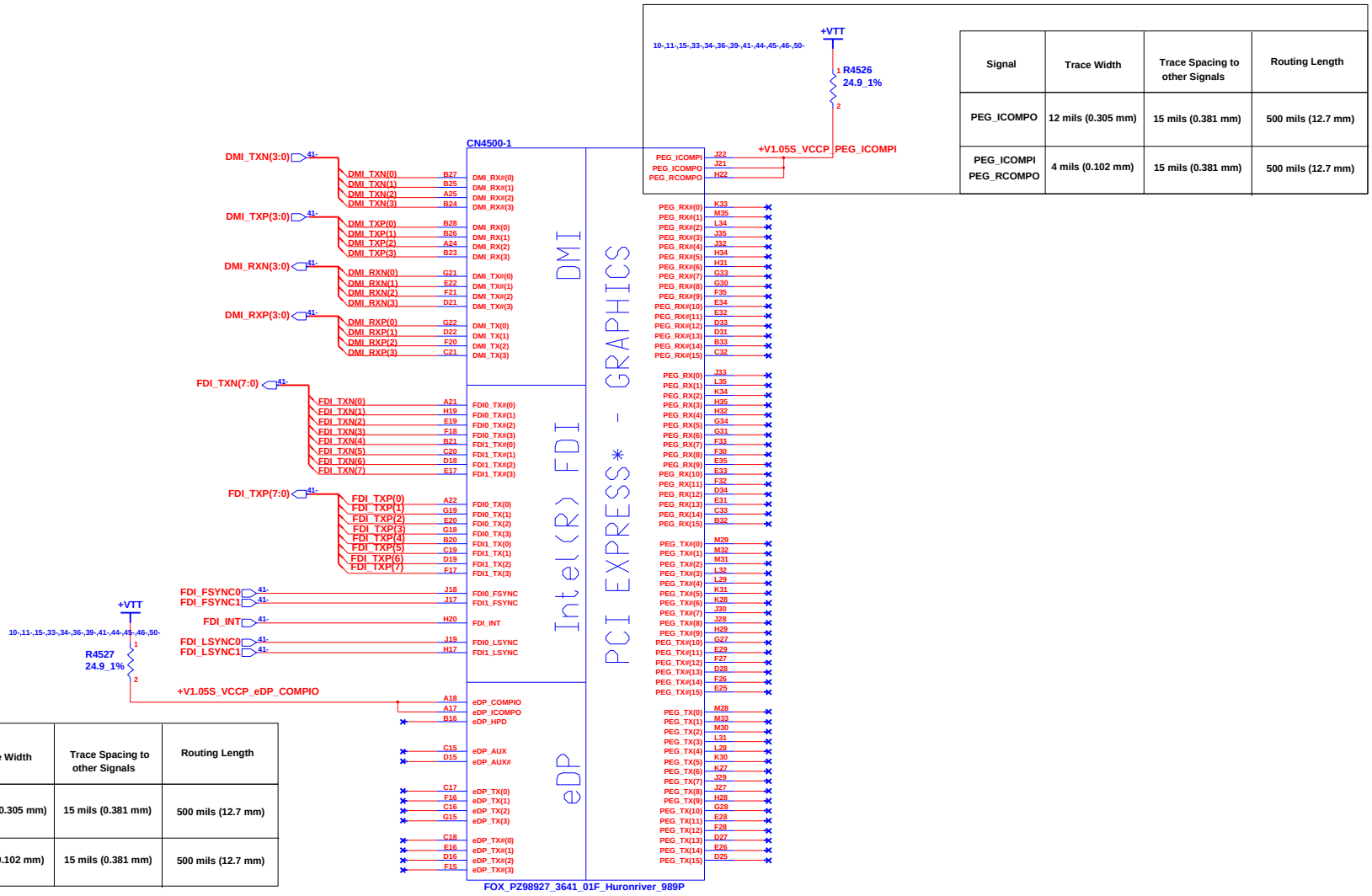


CHANGE by	Yeh, Webber	8-Nov-2010		

SIZE	CODE	DOC. NUMBER		REV
A3	CS	1310A2423901-0-MTRAX1		
SHEET	33	OF	50	

INVENTEC

TITLE CT10R



Signal	Trace Width	Trace Spacing to other Signals	Routing Length
PEG_ICOMPO	12 mils (0.305 mm)	15 mils (0.381 mm)	500 mils (12.7 mm)
PEG_ICOMPI PEG_RCOMPO	4 mils (0.102 mm)	15 mils (0.381 mm)	500 mils (12.7 mm)

Signal	Trace Width	Trace Spacing to other Signals	Routing Length
DP_ICOMPO	12 mils (0.305 mm)	15 mils (0.381 mm)	500 mils (12.7 mm)
DP_COMPIO	4 mils (0.102 mm)	15 mils (0.381 mm)	500 mils (12.7 mm)

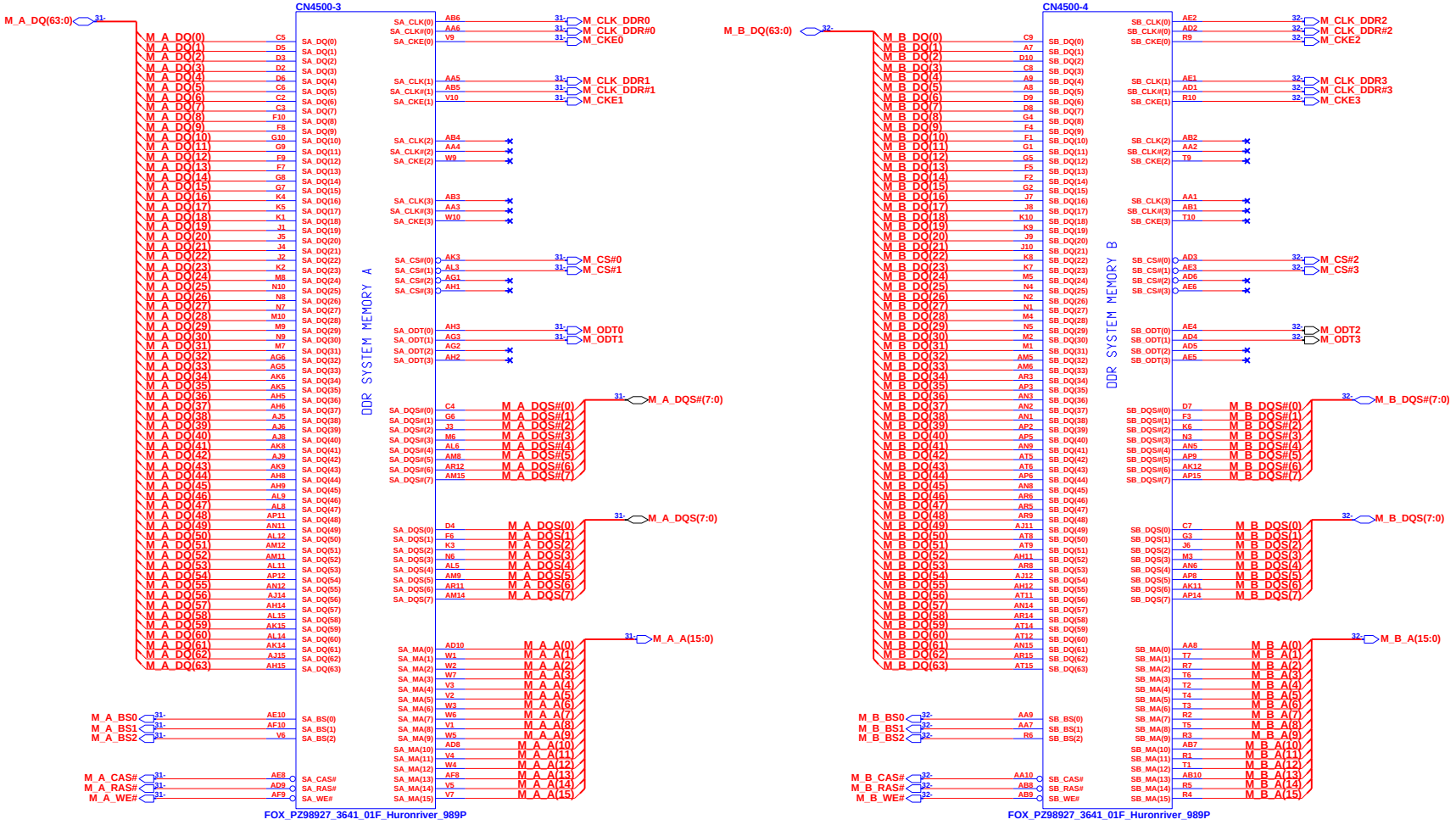
CHANGE by *Yeh, Webber* *8-Nov-2010*

INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTP*	*AX1*

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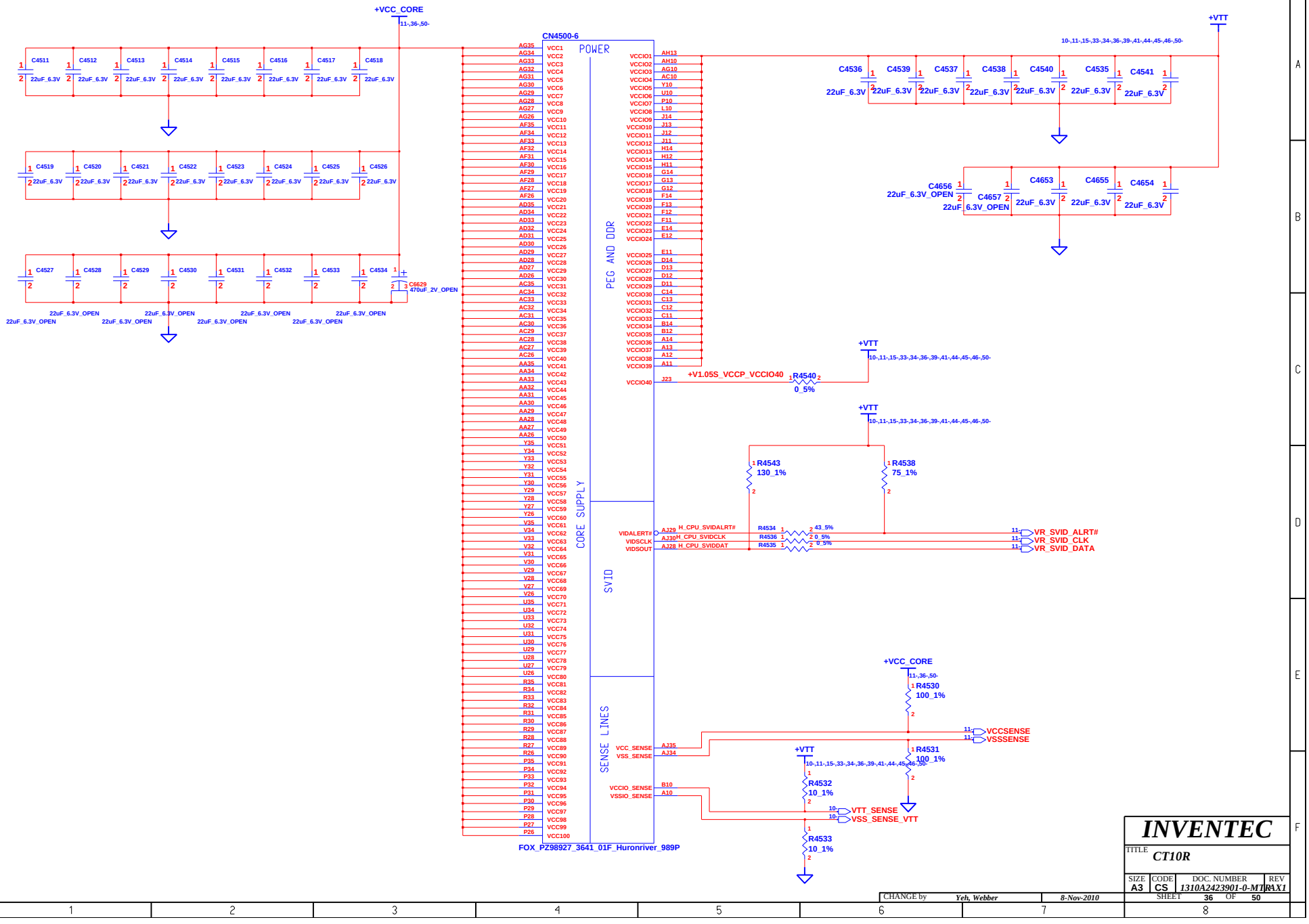
CHANGE by		
	Yeh, Webber	8-Nov-2010

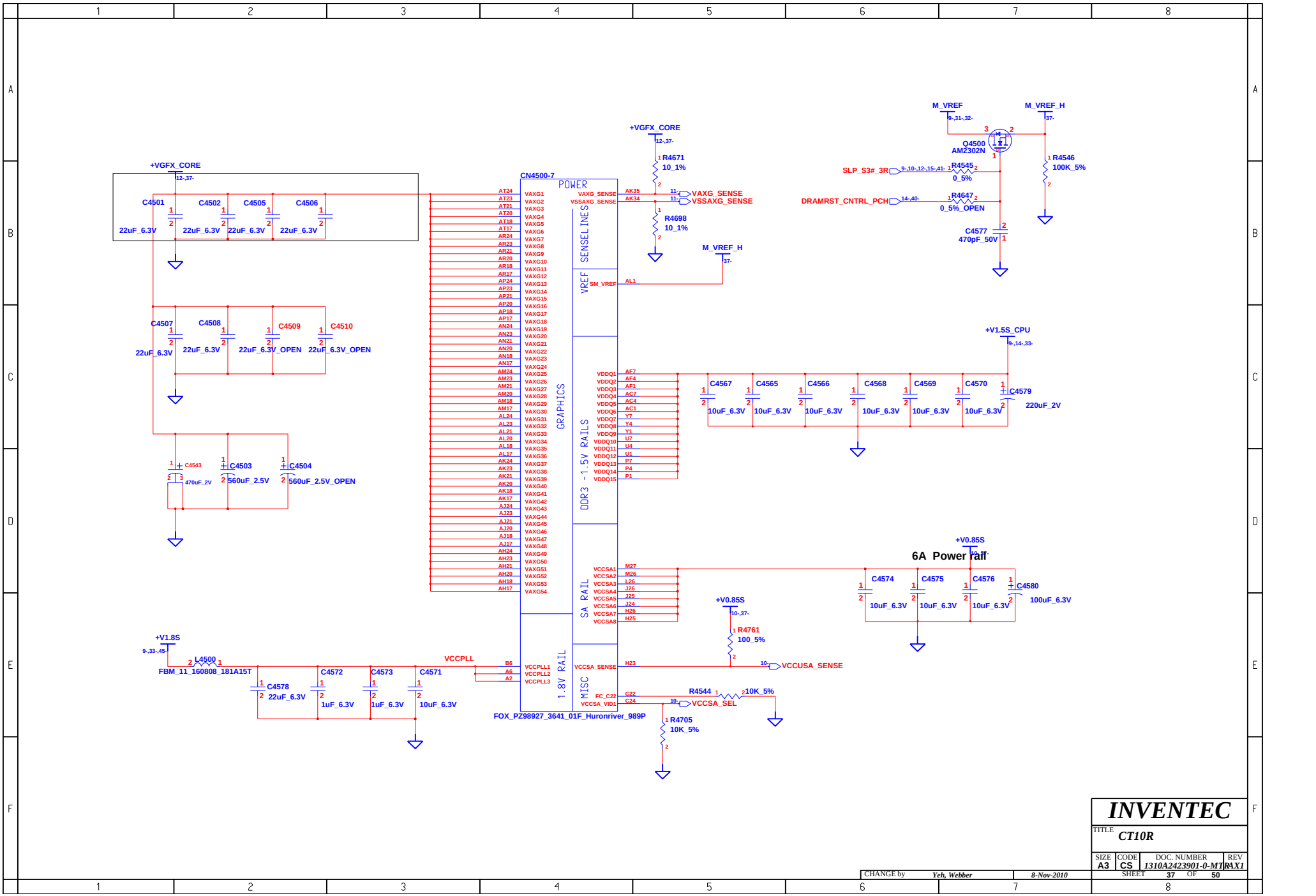
INVENTEC

TITLE: *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

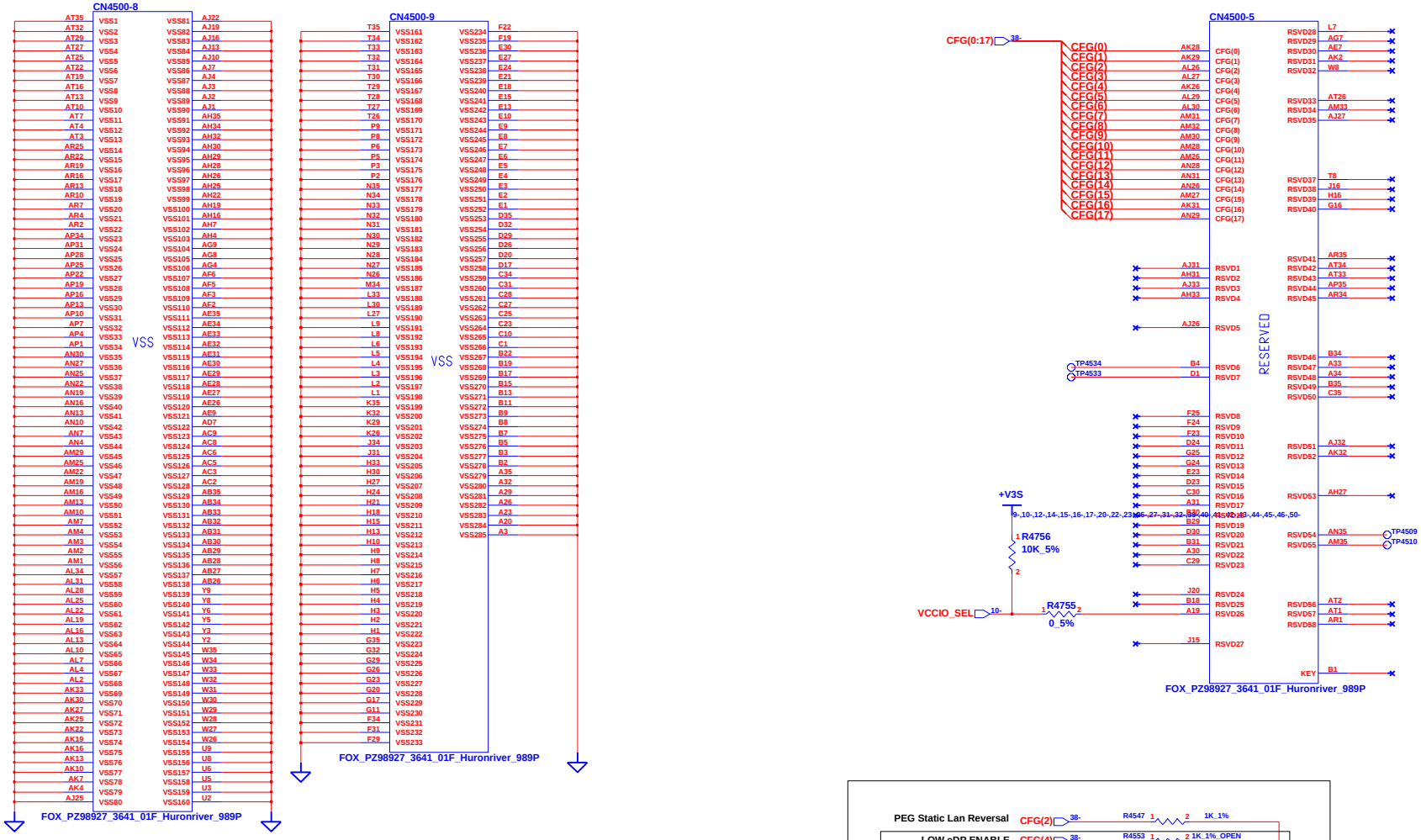
SHEET 35 OF 50

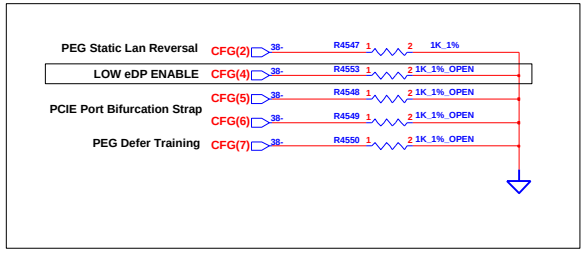

+VCC_CORE
11-,36-,50-
C4511 C4512 C4513 C4514 C4515 C4516 C4517 C4518
22uF_6.3V
C4519 C4520 C4521 C4522 C4523 C4524 C4525 C4526
C4527 C4528 C4529 C4530 C4531 C4532 C4533 C4534
C6629
470uF_2V_OPEN
22uF_6.3V_OPEN
CN4500-6
POWER
PEG AND DDR
CORE SUPPLY
SVID
SENSE LINES
FOX_PZ98927_3641_01F_Huronriver_989P
+VTT
10-,11-,15-,33-,34-,36-,39-,41-,44-,45-,46-,50-
C4536 C4539 C4537 C4538 C4540 C4535 C4541
C4656 C4657 C4653 C4655 C4654
22uF_6.3V_OPEN
+V1.05S_VCCP_VCCIO40
R4540
0_5%
R4543
130_1%
R4538
75_1%
H_CPU_SVIDALRT#
H_CPU_SVIDCLK
H_CPU_SVIDDAT
R4534 43_5%
R4536 0_5%
R4535 0_5%
VR_SVID_ALRT#
VR_SVID_CLK
VR_SVID_DATA
R4530
100_1%
VCCSENSE
VSSSENSE
R4531
100_1%
R4532
10_1%
R4533
10_1%
VTT_SENSE
VSS_SENSE_VTT
INVENTEC
CT10R
SIZE A3
CODE CS
DOC. NUMBER 1310A2423901-0-MTPAX1
REV
SHEET 36 OF 50
CHANGE by Yeh, Webber 8-Nov-2010



TITLE	CT10R
SIZE	A3
CODE	CS
DOC. NUMBER	1310A2423901-0-MTRAX1
REV	X1
SHEET	37 OF 50
CHANGE by	Yeh, Webber
	8-Nov-2010

INVENTEC





STRAP PIN

PEG Static Lane Reversal	
CFG(2)	1: (Default) Normal operation 0: Lane Reversed
LOW eDP ENABLE	
CFG(4)	1: (Default) eDP Disabled 0: eDP Enabled
PEG Defer Training	
CFG(7)	1: (Default) PEG Train immediately following xxRESETB de assertion 0: PEG Wait for BIOS for training
PCIE Port Bifurcation Straps	
CFG[6:5]	11: (Default) x16 - Device 1 function 1 and 2 disabled 10: x8, x8 - Device 1 function 1 enabled ; function 2 disabled 01: Reserved - (Device 1 function 1 disabled ; function 2 enabled 00: x8, x4, x4 - Device 1 function 1 and 2 enabled

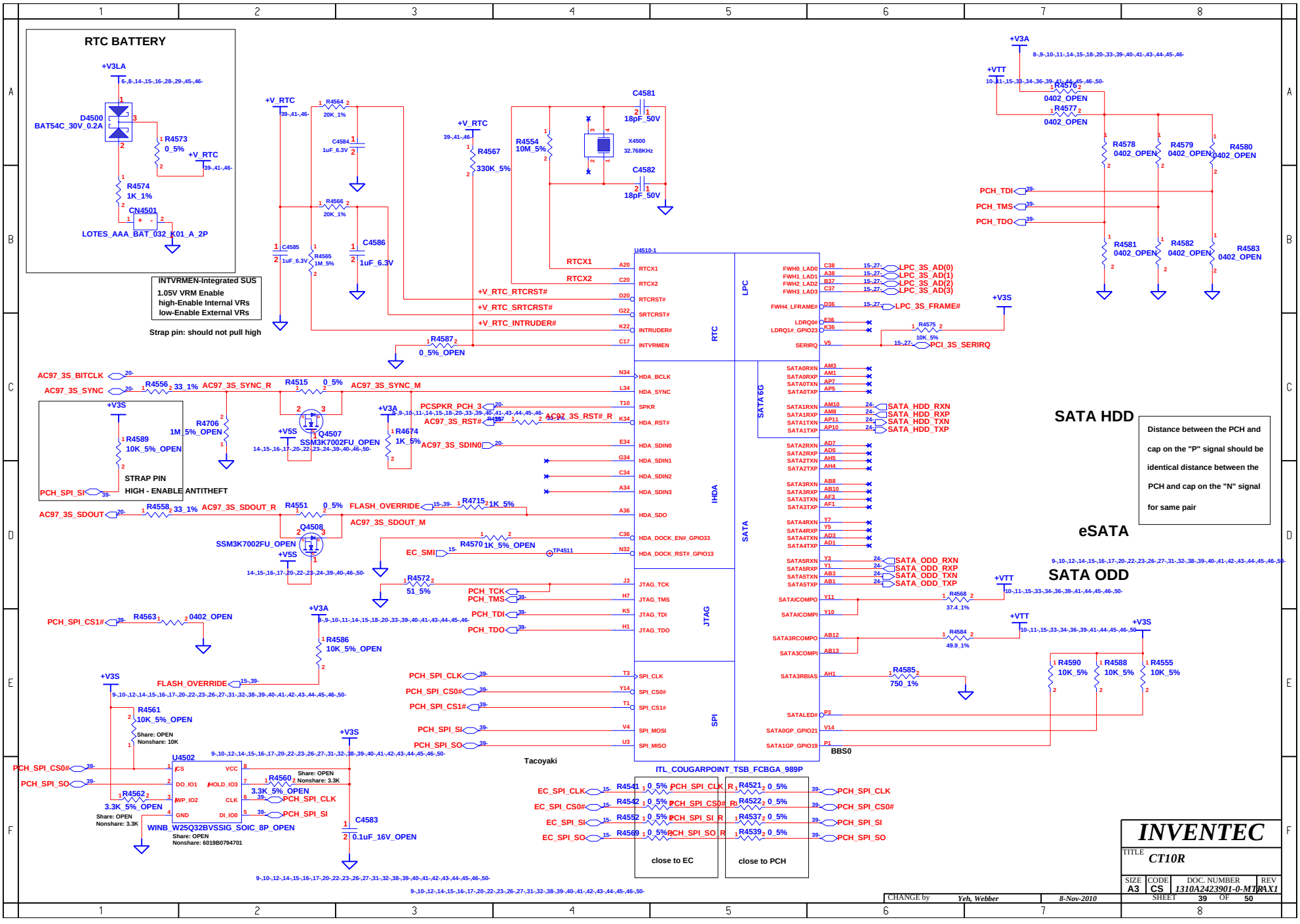
CHANGE by		
Yeh, Webber	*8-Nov-2010*	

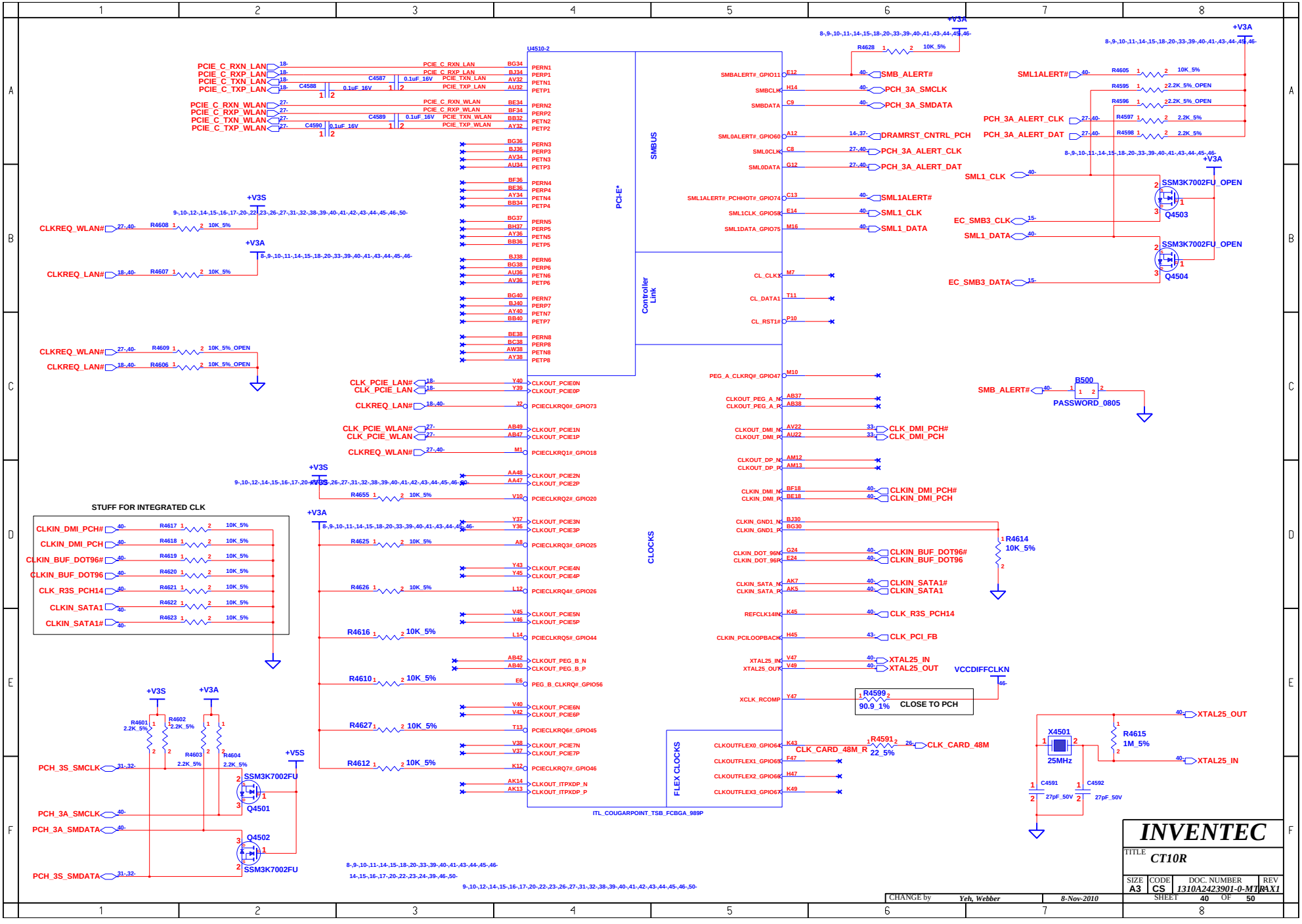
INVENTEC

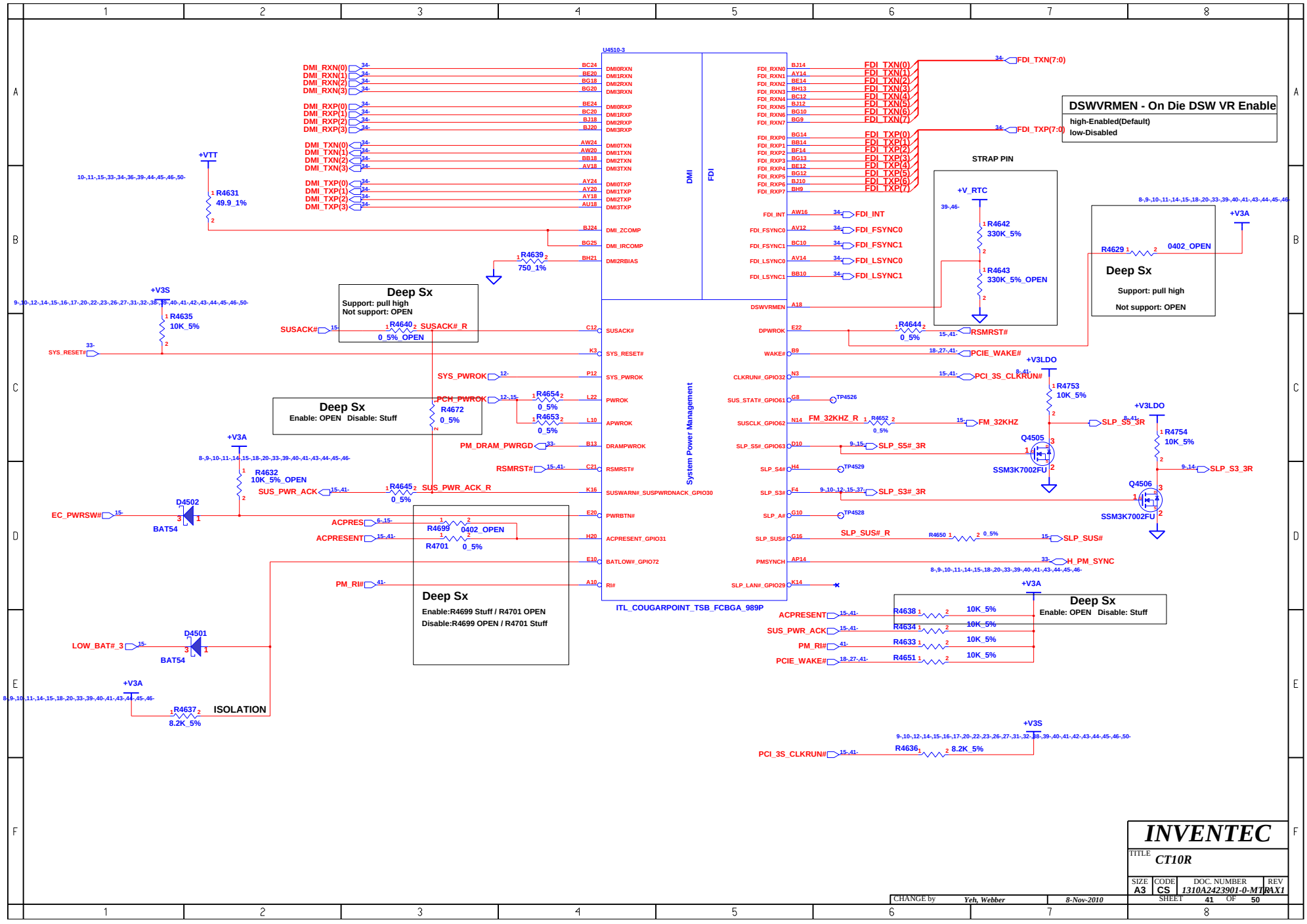
TITLE: *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTP*	*AX1*

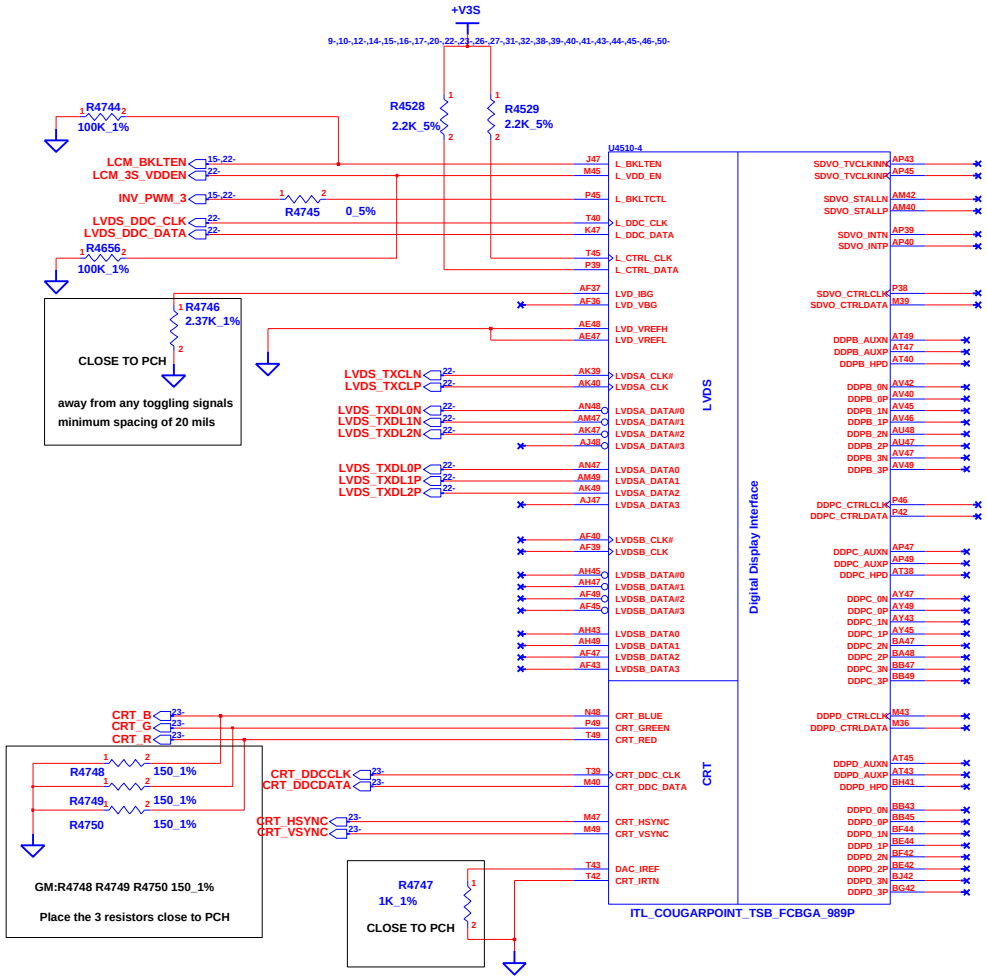
SHEET 38 OF 50


RTC BATTERY
+V3LA
D4500
BAT54C_30V_0.2A
R4573
0_5%
+V_RTC
R4574
1K_1%
CN4501
LOTES_AAA_BAT_032_K01_A_2P
INTVRMEN-Integrated SUS
1.05V VRM Enable
high-Enable Internal VRs
low-Enable External VRs
Strap pin: should not pull high
R4564
20K_1%
C4584
1uF_6.3V
R4566
20K_1%
C4585
R4565
1M_5%
C4586
1uF_6.3V
R4567
330K_5%
R4554
10M_5%
X4500
32.768KHz
C4581
18pF_50V
C4582
18pF_50V
R4587
0_5%_OPEN
RTCX1
RTCX2
+V_RTC_RTCRST#
+V_RTC_SRTCRST#
+V_RTC_INTRUDER#
U4510-1
RTC
IHDA
SATA
JTAG
SPI
LPC
SATA6G
AC97_3S_BITCLK
AC97_3S_SYNC
R4556
33_1%
AC97_3S_SYNC_R
R4515
0_5%
AC97_3S_SYNC_M
R4706
1M_5%_OPEN
Q4507
SSM3K7002FU_OPEN
R4674
1K_5%
AC97_3S_RST#
AC97_3S_RST#_R
AC97_3S_SDIN0
PCSPKR_PCH_3
R4589
10K_5%_OPEN
STRAP PIN
HIGH - ENABLE ANTITHEFT
PCH_SPI_SI
AC97_3S_SDOUT
R4558
33_1%
AC97_3S_SDOUT_R
R4551
0_5%
FLASH_OVERRIDE
R4715
1K_5%
Q4508
SSM3K7002FU_OPEN
AC97_3S_SDOUT_M
EC_SMI
R4570
1K_5%_OPEN
TP4511
R4572
51_5%
PCH_TCK
PCH_TMS
PCH_TDI
PCH_TDO
PCH_SPI_CS1#
R4563
0402_OPEN
R4586
10K_5%_OPEN
R4561
10K_5%_OPEN
Share: OPEN
Nonshare: 10K
PCH_SPI_CLK
PCH_SPI_CS0#
PCH_SPI_CS1#
PCH_SPI_SI
PCH_SPI_SO
U4502
WINB_W25Q32BVSSIG_SOIC_8P_OPEN
Share: OPEN
Nonshare: 6019B0794701
R4562
3.3K_5%_OPEN
R4560
3.3K_5%_OPEN
Share: OPEN
Nonshare: 3.3K
C4583
0.1uF_16V_OPEN
Tacoyaki
ITL_COUGARPOINT_TSB_FCBGA_989P
EC_SPI_CLK
EC_SPI_CS0#
EC_SPI_SI
EC_SPI_SO
R4541
R4542
R4552
R4569
PCH_SPI_CLK_R
PCH_SPI_CS0#_R
PCH_SPI_SI_R
PCH_SPI_SO_R
close to EC
R4521
R4522
R4537
R4539
close to PCH
+V3A
+VTT
R4576
0402_OPEN
R4577
0402_OPEN
R4578
0402_OPEN
R4579
0402_OPEN
R4580
0402_OPEN
R4581
0402_OPEN
R4582
0402_OPEN
R4583
0402_OPEN
PCH_TDI
PCH_TMS
PCH_TDO
+V3S
R4575
10K_5%
PCI_3S_SERIRQ
LPC_3S_AD(0)
LPC_3S_AD(1)
LPC_3S_AD(2)
LPC_3S_AD(3)
LPC_3S_FRAME#
SATA_HDD_RXN
SATA_HDD_RXP
SATA_HDD_TXN
SATA_HDD_TXP
SATA HDD
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
eSATA
SATA_ODD_RXN
SATA_ODD_RXP
SATA_ODD_TXN
SATA_ODD_TXP
SATA ODD
R4568
37.4_1%
R4584
49.9_1%
R4585
750_1%
R4590
10K_5%
R4588
10K_5%
R4555
10K_5%
BBS0
INVENTEC
TITLE
CT10R
SIZE A3
CODE CS
DOC. NUMBER 1310A2423901-0-MTRAX1
REV
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CHANGE by Yeh, Webber
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PCIE_C_RXN_LAN
PCIE_C_RXP_LAN
PCIE_C_TXN_LAN
PCIE_C_TXP_LAN
PCIE_C_RXN_WLAN
PCIE_C_RXP_WLAN
PCIE_C_TXN_WLAN
PCIE_C_TXP_WLAN
C4588
C4587
C4590
C4589
0.1uF_16V
U4510-2
PCI-E*
SMBUS
Controller Link
CLOCKS
FLEX CLOCKS
ITL_COUGARPOINT_TSB_FCBGA_989P
+V3A
+V3S
+V5S
CLKREQ_WLAN#
CLKREQ_LAN#
R4608
R4607
R4609
R4606
10K_5%_OPEN
CLK_PCIE_LAN#
CLK_PCIE_LAN
CLK_PCIE_WLAN#
CLK_PCIE_WLAN
PCIECLKRQ0#_GPIO73
PCIECLKRQ1#_GPIO18
PCIECLKRQ2#_GPIO20
PCIECLKRQ3#_GPIO25
PCIECLKRQ4#_GPIO26
PCIECLKRQ5#_GPIO44
PEG_B_CLKRQ#_GPIO56
PCIECLKRQ6#_GPIO45
PCIECLKRQ7#_GPIO46
STUFF FOR INTEGRATED CLK
CLKIN_DMI_PCH#
CLKIN_DMI_PCH
CLKIN_BUF_DOT96#
CLKIN_BUF_DOT96
CLK_R3S_PCH14
CLKIN_SATA1
CLKIN_SATA1#
R4617
R4618
R4619
R4620
R4621
R4622
R4623
R4601
R4602
R4603
R4604
PCH_3S_SMCLK
PCH_3S_SMDATA
PCH_3A_SMCLK
PCH_3A_SMDATA
SSM3K7002FU
Q4501
Q4502
SMBALERT#_GPIO11
SMBCLK
SMBDATA
SML0ALERT#_GPIO60
SML0CLK
SML0DATA
SML1ALERT#_PCHHOT#_GPIO74
SML1CLK_GPIO58
SML1DATA_GPIO75
SMB_ALERT#
PCH_3A_SMCLK
PCH_3A_SMDATA
DRAMRST_CNTRL_PCH
PCH_3A_ALERT_CLK
PCH_3A_ALERT_DAT
SML1ALERT#
SML1_CLK
SML1_DATA
R4628
R4605
R4595
R4596
R4597
R4598
2.2K_5%_OPEN
2.2K_5%
Q4503
Q4504
EC_SMB3_CLK
EC_SMB3_DATA
CL_CLK
CL_DATA1
CL_RST1#
PEG_A_CLKRQ#_GPIO47
CLKOUT_PEG_A_N
CLKOUT_PEG_A_P
CLKOUT_DMI_N
CLKOUT_DMI_P
CLKOUT_DP_N
CLKOUT_DP_P
CLKIN_DMI_PCH#
CLKIN_DMI_PCH
CLKIN_GND1_N
CLKIN_GND1_P
CLKIN_DOT_96N
CLKIN_DOT_96P
CLKIN_BUF_DOT96#
CLKIN_BUF_DOT96
CLKIN_SATA_N
CLKIN_SATA_P
CLKIN_SATA1#
CLKIN_SATA1
REFCLK14IN
CLK_R3S_PCH14
CLKIN_PCILOOPBACK
CLK_PCI_FB
XTAL25_IN
XTAL25_OUT
XCLK_RCOMP
R4599
90.9_1%
CLOSE TO PCH
VCCDIFFCLKN
CLKOUTFLEX0_GPIO64
CLKOUTFLEX1_GPIO65
CLKOUTFLEX2_GPIO66
CLKOUTFLEX3_GPIO67
CLK_CARD_48M_R
CLK_CARD_48M
R4591
22_5%
SMB_ALERT#
B500
PASSWORD_0805
X4501
25MHz
R4615
1M_5%
C4591
C4592
27pF_50V
R4614
10K_5%
CHANGE by
Yeh, Webber
8-Nov-2010
INVENTEC
TITLE
CT10R
SIZE
A3
CODE
CS
DOC. NUMBER
1310A2423901-0-MTRAX1
REV
SHEET
40
OF
50



INVENTEC			
TITLE	CT10R		
SIZE A3	CODE CS	DOC. NUMBER 1310A2423901-0-MTRAX1	REV
CHANGE by Yeh, Webber	8-Nov-2010	SHEET 41 OF 50	



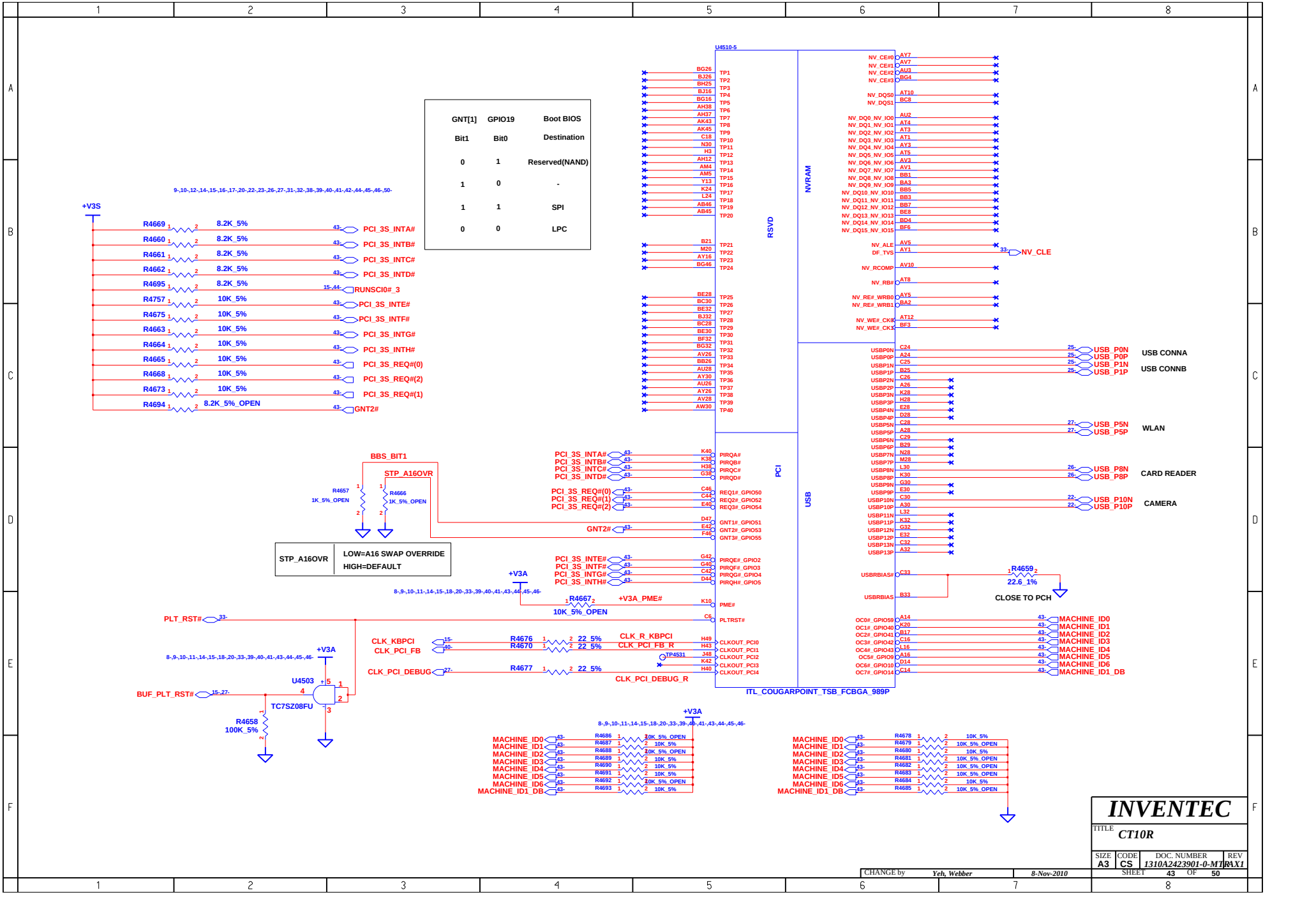
CHANGE by		
Yeh, Webber	*8-Nov-2010*	

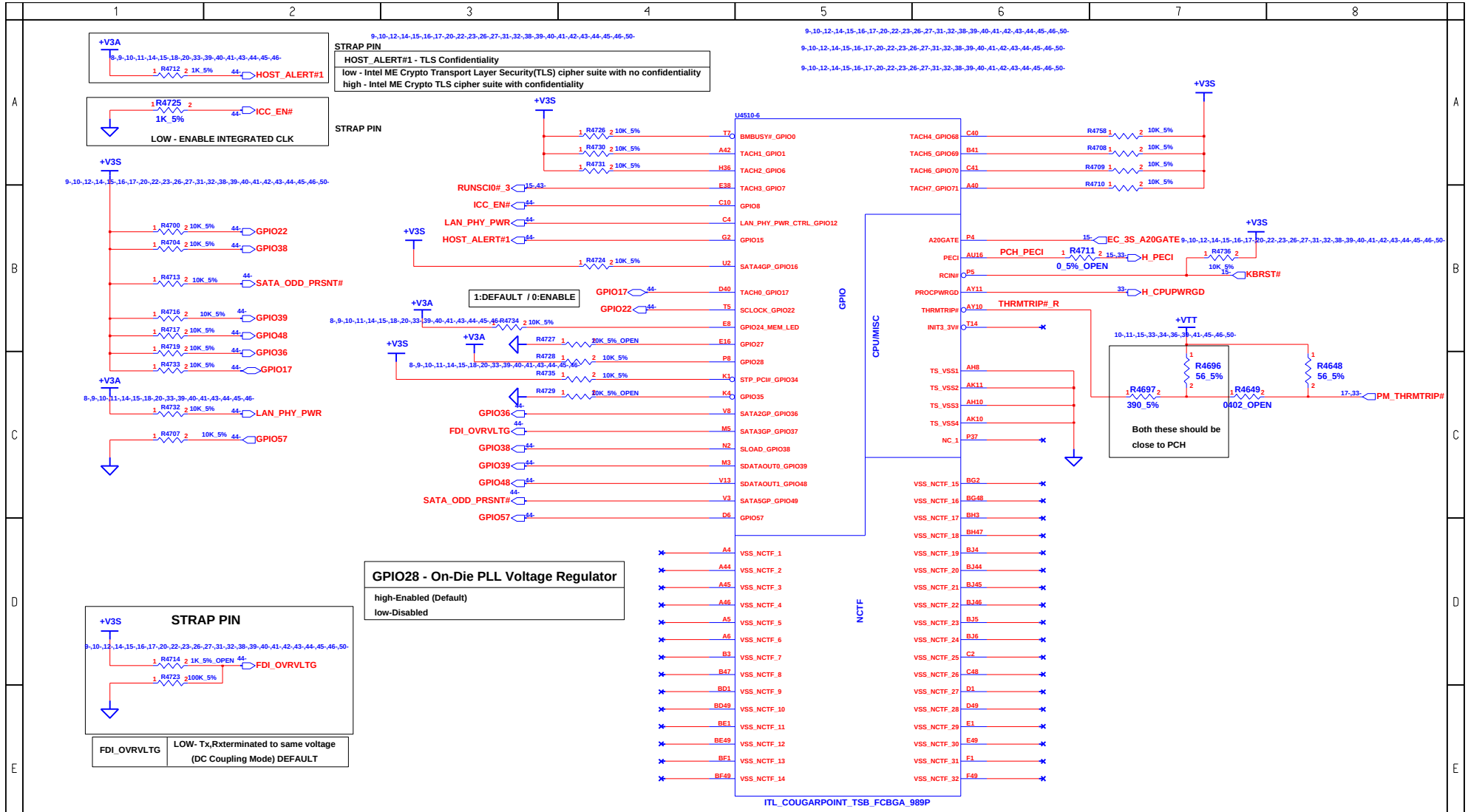
INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	

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U4510-5
NVRAM
RSVD
PCI
USB
ITL_COUGARPOINT_TSB_FCBGA_989P
+V3S
+V3A
R4669 8.2K_5% PCI_3S_INTA#
R4660 8.2K_5% PCI_3S_INTB#
R4661 8.2K_5% PCI_3S_INTC#
R4662 8.2K_5% PCI_3S_INTD#
R4695 8.2K_5% RUNSCI0#_3
R4757 10K_5% PCI_3S_INTE#
R4675 10K_5% PCI_3S_INTF#
R4663 10K_5% PCI_3S_INTG#
R4664 10K_5% PCI_3S_INTH#
R4665 10K_5% PCI_3S_REQ#(0)
R4668 10K_5% PCI_3S_REQ#(2)
R4673 10K_5% PCI_3S_REQ#(1)
R4694 8.2K_5_OPEN GNT2#
GNT[1] GPIO19 Boot BIOS
Bit1 Bit0 Destination
0 1 Reserved(NAND)
1 0 -
1 1 SPI
0 0 LPC
BBS_BIT1
STP_A16OVR
R4657 1K_5%_OPEN
R4666 1K_5%_OPEN
STP_A16OVR LOW=A16 SWAP OVERRIDE
HIGH=DEFAULT
PCI_3S_INTA#
PCI_3S_INTB#
PCI_3S_INTC#
PCI_3S_INTD#
PCI_3S_REQ#(0)
PCI_3S_REQ#(1)
PCI_3S_REQ#(2)
GNT2#
PCI_3S_INTE#
PCI_3S_INTF#
PCI_3S_INTG#
PCI_3S_INTH#
PIRQA#
PIRQB#
PIRQC#
PIRQD#
REQ1#_GPIO50
REQ2#_GPIO52
REQ3#_GPIO54
GNT1#_GPIO51
GNT2#_GPIO53
GNT3#_GPIO55
PIRQE#_GPIO2
PIRQF#_GPIO3
PIRQG#_GPIO4
PIRQH#_GPIO5
R4667 10K_5%_OPEN
+V3A_PME#
PME#
PLTRST#
PLT_RST#
CLK_KBPCI
CLK_PCI_FB
R4676 22_5%
R4670 22_5%
CLK_R_KBPCI
CLK_PCI_FB_R
TP4531
CLK_PCI_DEBUG
R4677 22_5%
CLK_PCI_DEBUG_R
CLKOUT_PCI0
CLKOUT_PCI1
CLKOUT_PCI2
CLKOUT_PCI3
CLKOUT_PCI4
U4503
TC7SZ08FU
BUF_PLT_RST#
R4658 100K_5%
NV_CE#0
NV_CE#1
NV_CE#2
NV_CE#3
NV_DQS0
NV_DQS1
NV_DQ0_NV_IO0
NV_DQ1_NV_IO1
NV_DQ2_NV_IO2
NV_DQ3_NV_IO3
NV_DQ4_NV_IO4
NV_DQ5_NV_IO5
NV_DQ6_NV_IO6
NV_DQ7_NV_IO7
NV_DQ8_NV_IO8
NV_DQ9_NV_IO9
NV_DQ10_NV_IO10
NV_DQ11_NV_IO11
NV_DQ12_NV_IO12
NV_DQ13_NV_IO13
NV_DQ14_NV_IO14
NV_DQ15_NV_IO15
NV_ALE
DF_TVS
NV_CLE
NV_RCOMP
NV_RB#
NV_RE#_WRB0
NV_RE#_WRB1
NV_WE#_CK0
NV_WE#_CK1
USBP0N USB_P0N
USBP0P USB_P0P
USBP1N USB_P1N
USBP1P USB_P1P
USB CONNA
USB CONNB
USBP5N USB_P5N
USBP5P USB_P5P
WLAN
USBP8N USB_P8N
USBP8P USB_P8P
CARD READER
USBP10N USB_P10N
USBP10P USB_P10P
CAMERA
USBRBIAS#
USBRBIAS
R4659 22.6_1%
CLOSE TO PCH
MACHINE_ID0
MACHINE_ID1
MACHINE_ID2
MACHINE_ID3
MACHINE_ID4
MACHINE_ID5
MACHINE_ID6
MACHINE_ID1_DB
INVENTEC
TITLE CT10R
SIZE A3
CODE CS
DOC. NUMBER 1310A2423901-0-MTRAX1
REV AX1
SHEET 43 OF 50
CHANGE by Yeh, Webber 8-Nov-2010



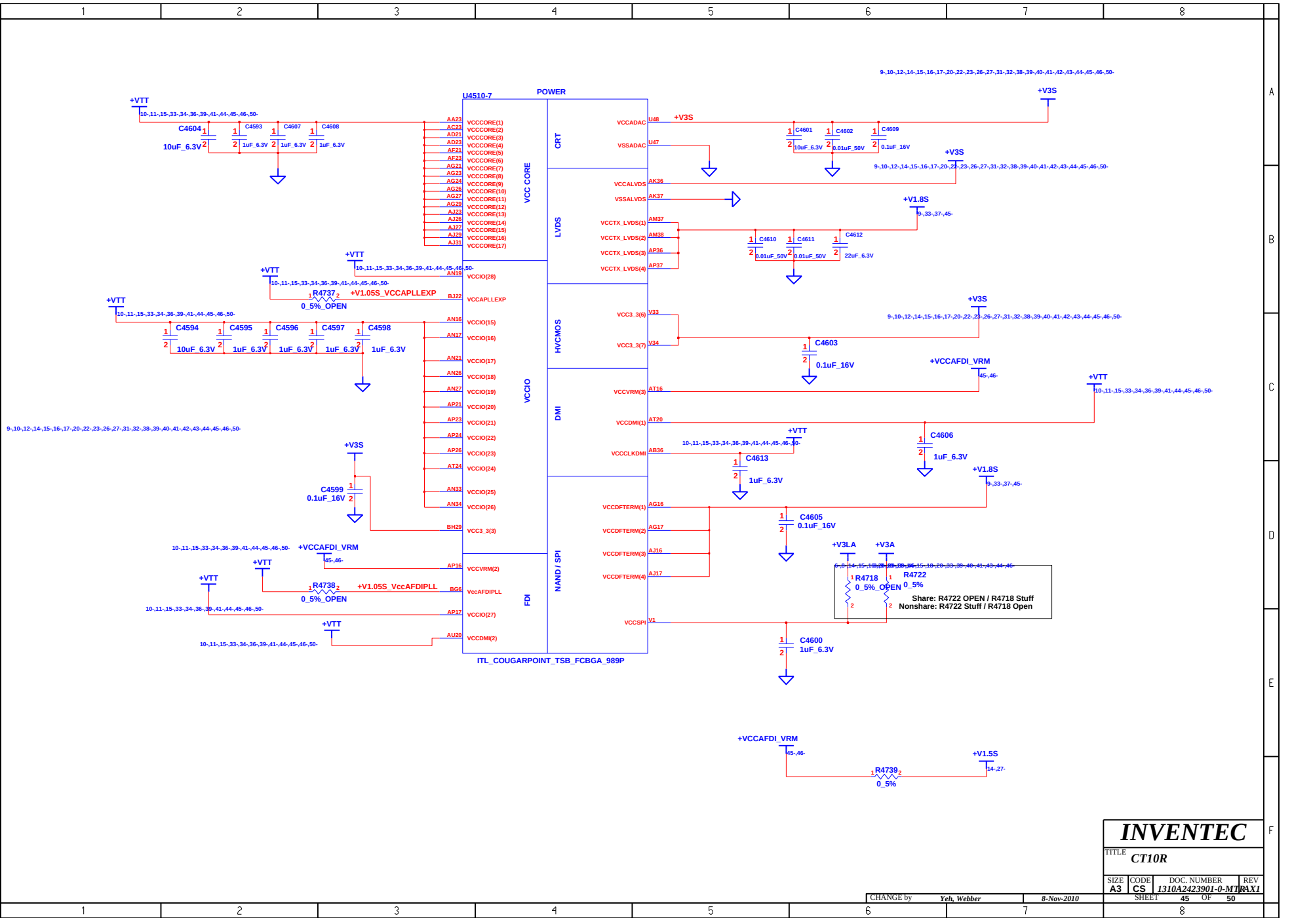
CHANGE by	Yeh, Webber
	8-Nov-2010

INVENTEC

TITLE: CT10R

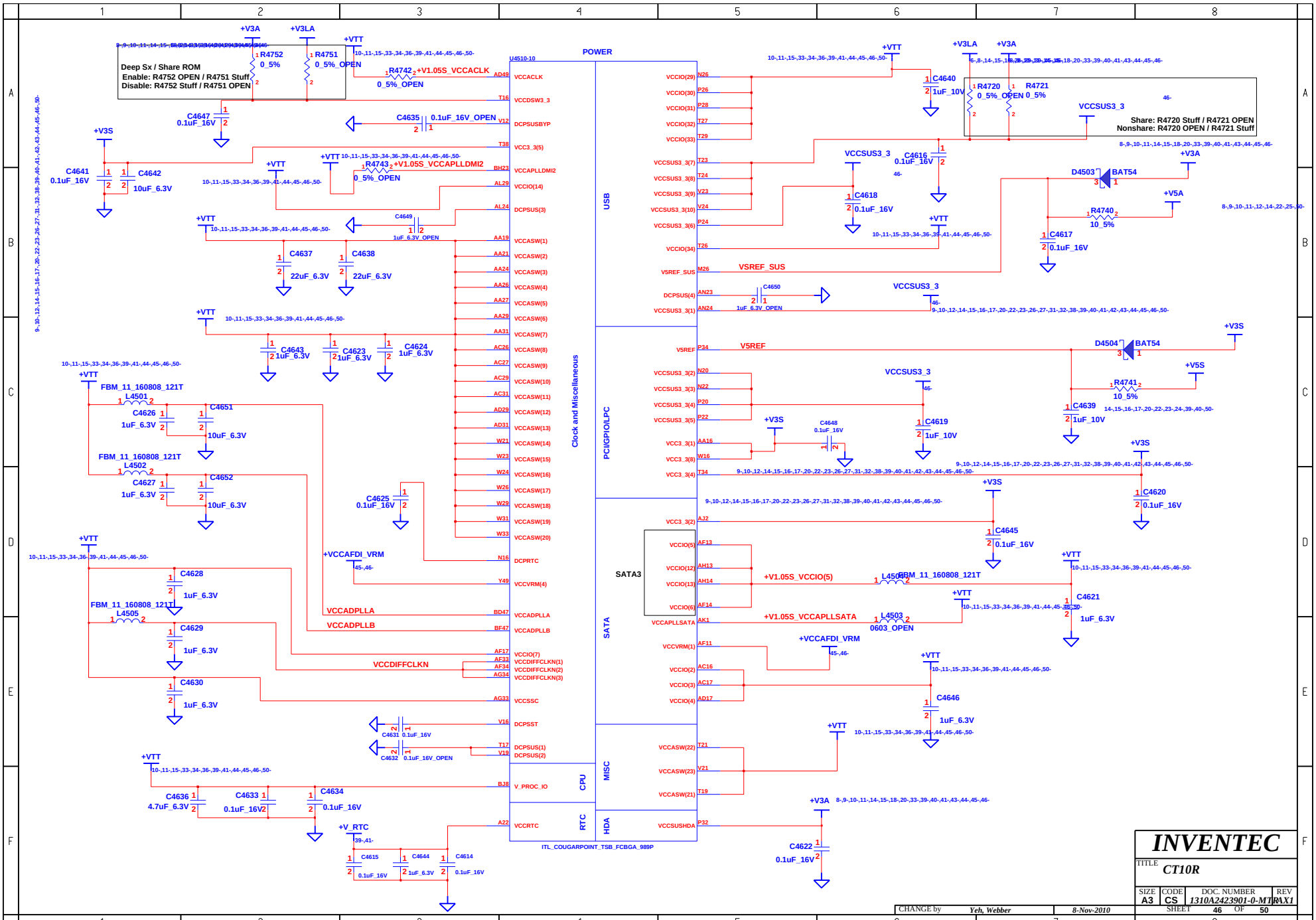
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

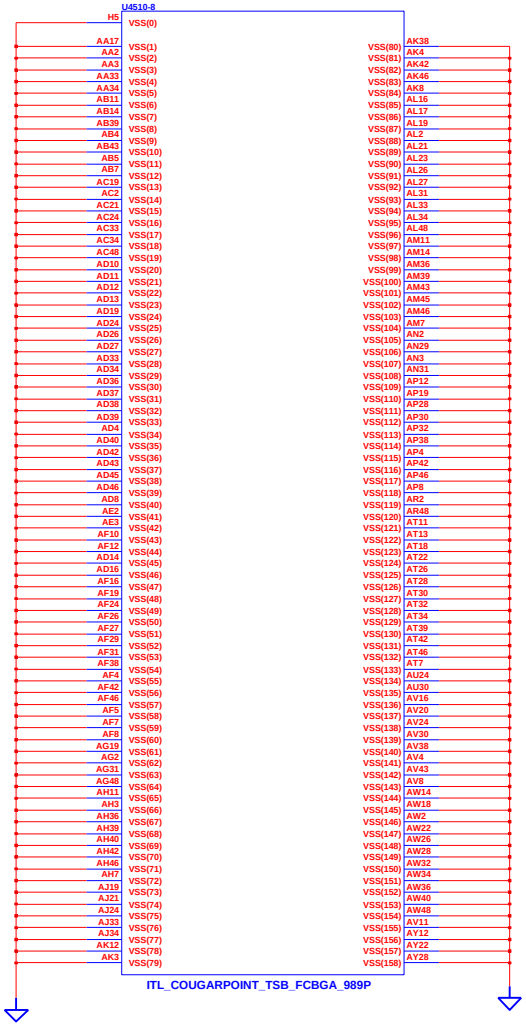
SHEET 44 OF 50



TITLE	CT10R
SIZE	A3
CODE	CS
DOC. NUMBER	1310A2423901-0-MTPAX1
REV	X1
SHEET	45 OF 50
CHANGE by	Yeh, Webber
	8-Nov-2010

INVENTEC


Deep Sx / Share ROM
Enable: R4752 OPEN / R4751 Stuff
Disable: R4752 Stuff / R4751 OPEN
Share: R4720 Stuff / R4721 OPEN
Nonshare: R4720 OPEN / R4721 Stuff
POWER
Clock and Miscellaneous
USB
PCI/GPIO/LPC
SATA
SATA3
MISC
CPU
RTC
HDA
ITL_COUGARPOINT_TSB_FCBGA_989P
INVENTEC
CT10R
1310A2423901-0-MTRAX1
CHANGE by
Yeh, Webber
8-Nov-2010
SIZE A3
CODE CS
SHEET 46 OF 50



CHANGE by Yeh, Webber 8-Nov-2010

INVENTEC

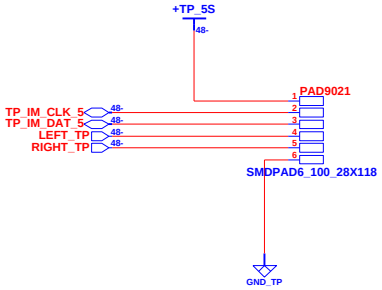
TITLE CT10R

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

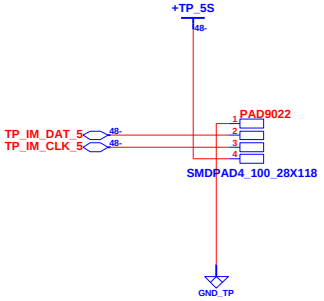
SHEET 47 OF 50

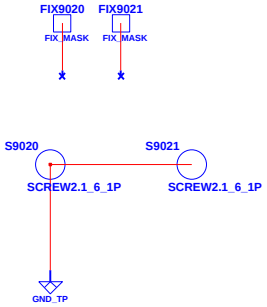
TOUCH PAD SWITCH BOARD

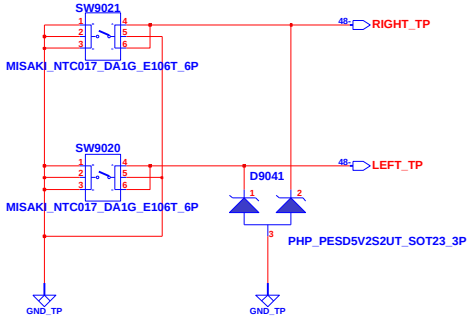
Connect to Touchpad Module



Connect to Mainboard's TP connector







CHANGE by	Yeh, Webber	8-Nov-2010	

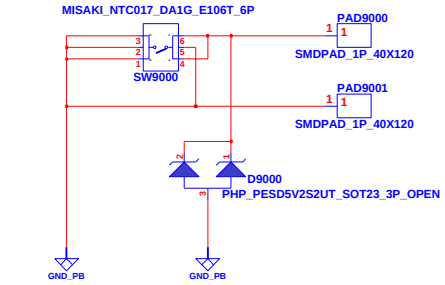
INVENTEC

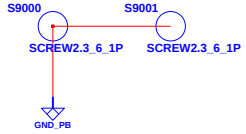
TITLE: *CT10R*

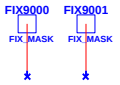
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2423901-0-MTRAX1	

SHEET 48 OF 50

POWER BOARD







CHANGE by	*Yeh, Webber*	*8-Nov-2010*	

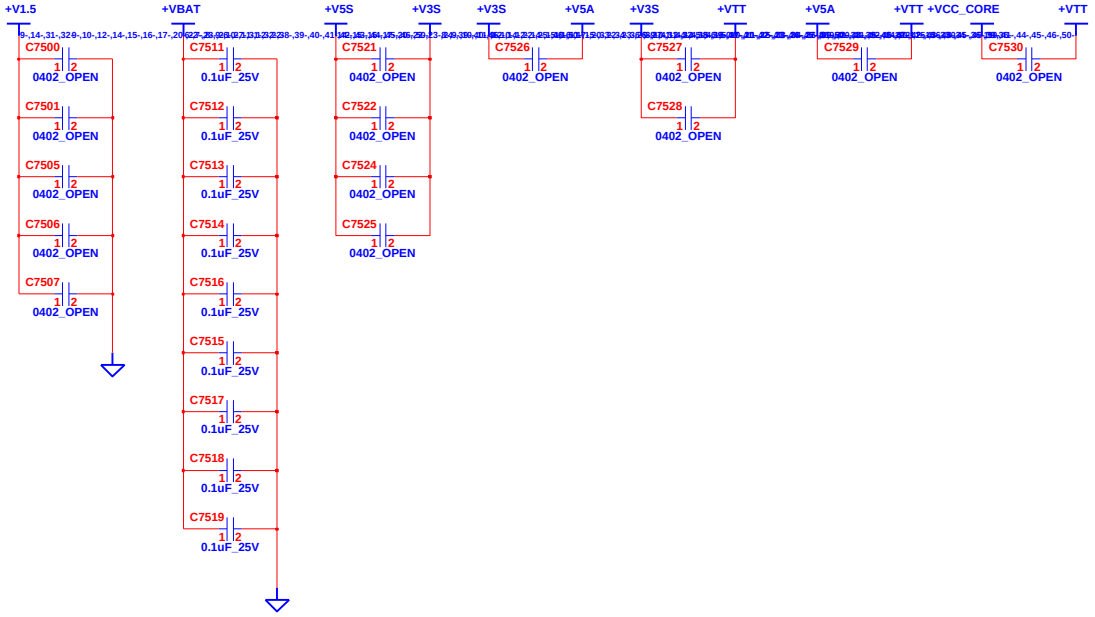
INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	*AX1*

SHEET 49 OF 50

EMI



CHANGE by		
Yeh, Webber	*8-Nov-2010*	

INVENTEC

TITLE *CT10R*

SIZE	CODE	DOC. NUMBER	REV
A3	CS	*1310A2423901-0-MTRAX1*	

SHEET 50 OF 50