

PHOENIX SACRAMENTO 10A PLUS

CS BUILD

2008/02/25

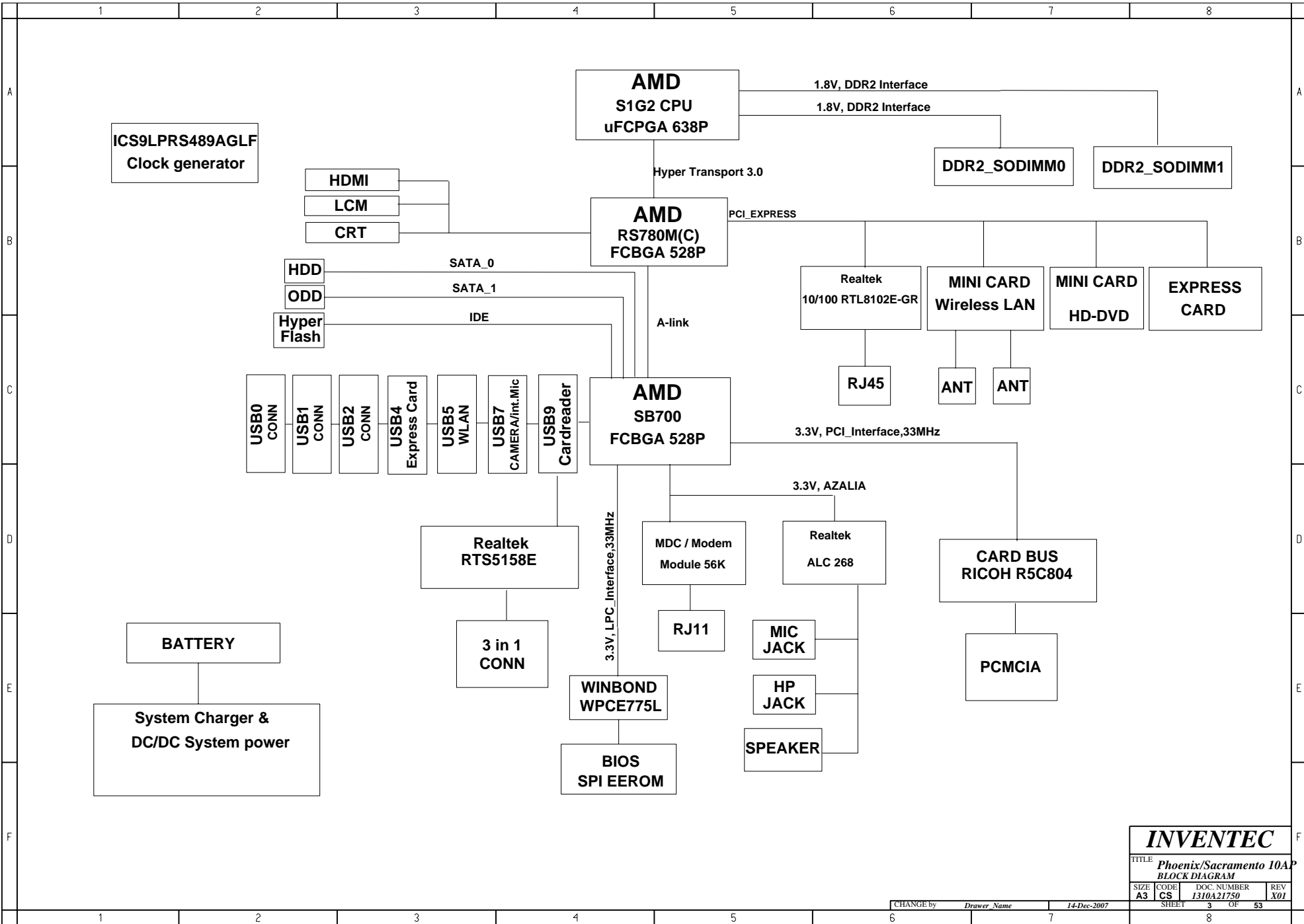
DATE	CHANGE NO.	REV

DRAWER	EE	DATE	POWER	DATE	INVENTEC TITLE <i>Phoenix/Sacramento 10A</i> COVER PAGE
DESIGN					
CHECK					
RESPONSIBLE					
SIZE =	3	VER :			SIZE A3 CODE CS DOC. NUMBER 1310A21750 REV X01
FILE NAME :	XXXX-XXXXXX-XX				SHEET 1 OF 53
P/N :	XXXXXXXXXXXX				

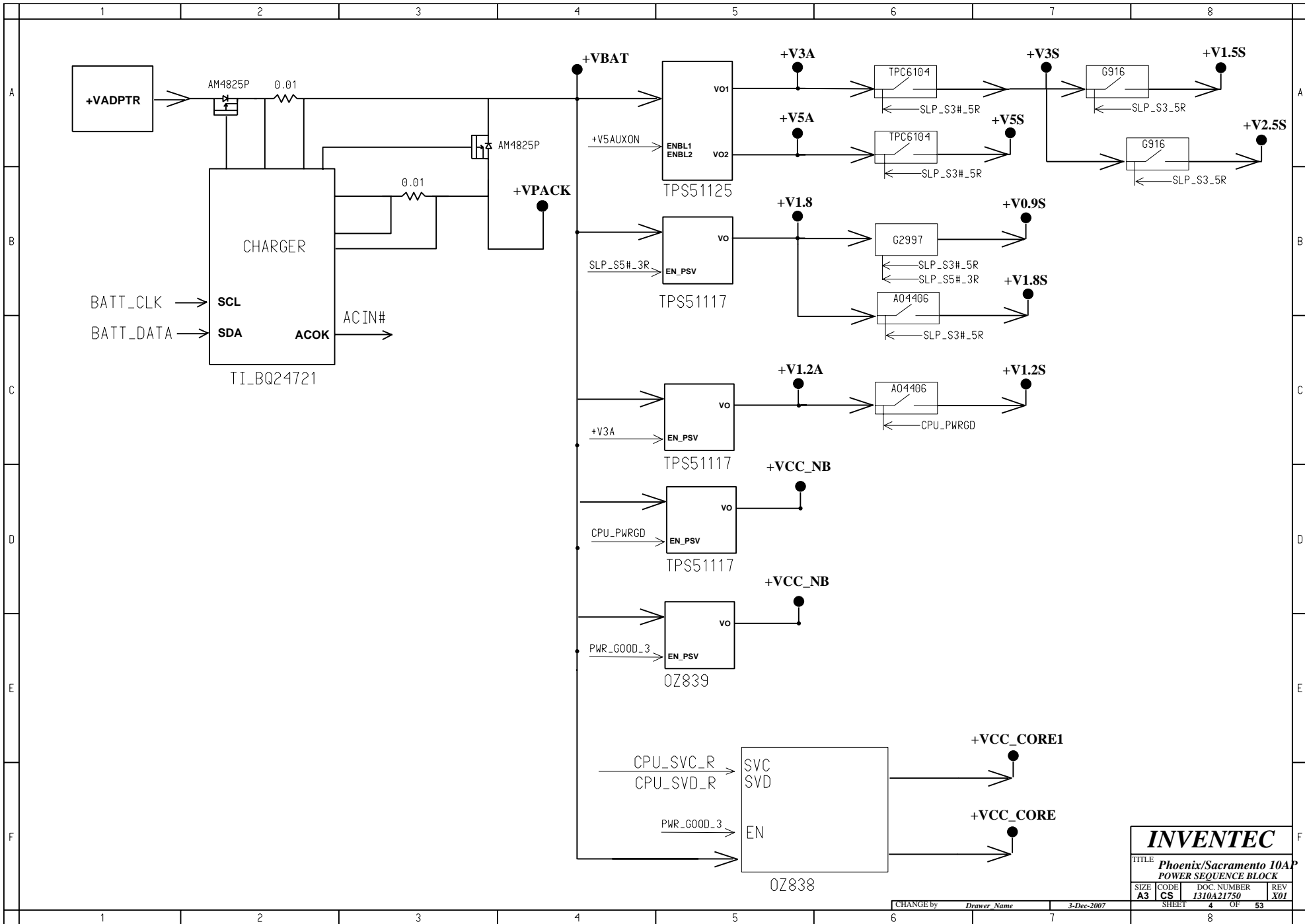
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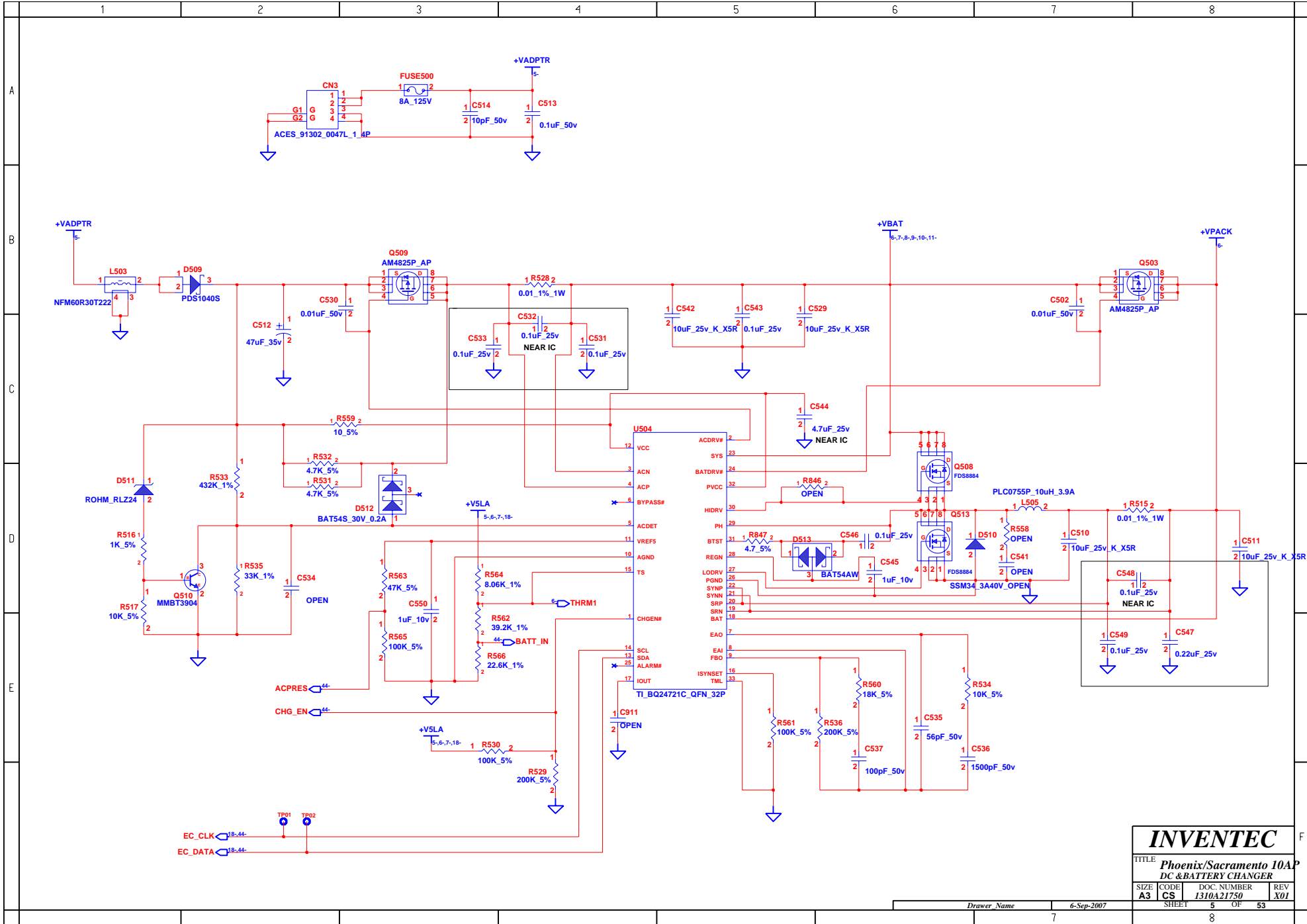
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<small>INDEX</small>			
<small>SIZE</small> A3	<small>CODE</small> CS	<small>DOC. NUMBER</small> 1310A21750	<small>REV</small> X01
<small>CHANGE by</small> <i>Drawer Name</i>		<small>28-Sep-2007</small>	
<small>SHEET</small>		<small>OF</small>	
2		53	



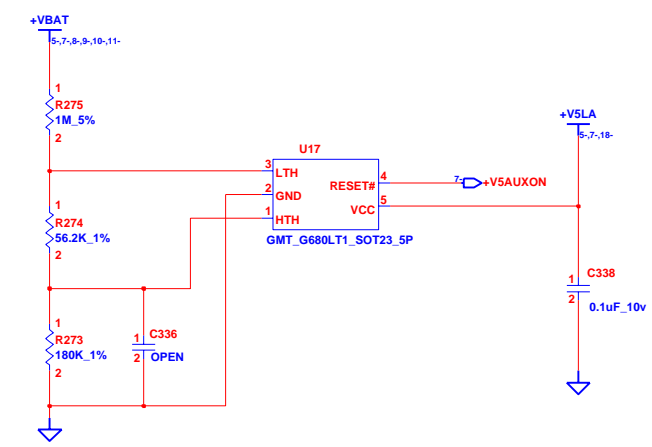
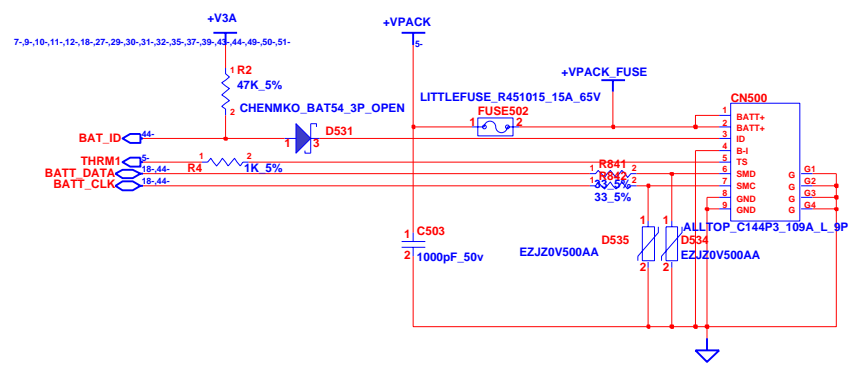
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TITLE <i>Phoenix/Sacramento 10A2P</i>			
BLOCK DIAGRAM			
SIZE A3	CODE CS	DOC. NUMBER <i>1310A21750</i>	REV X01
CHANGE by <i>Drawer Name</i>		<i>14-Dec-2007</i>	SHEET 3 OF 53



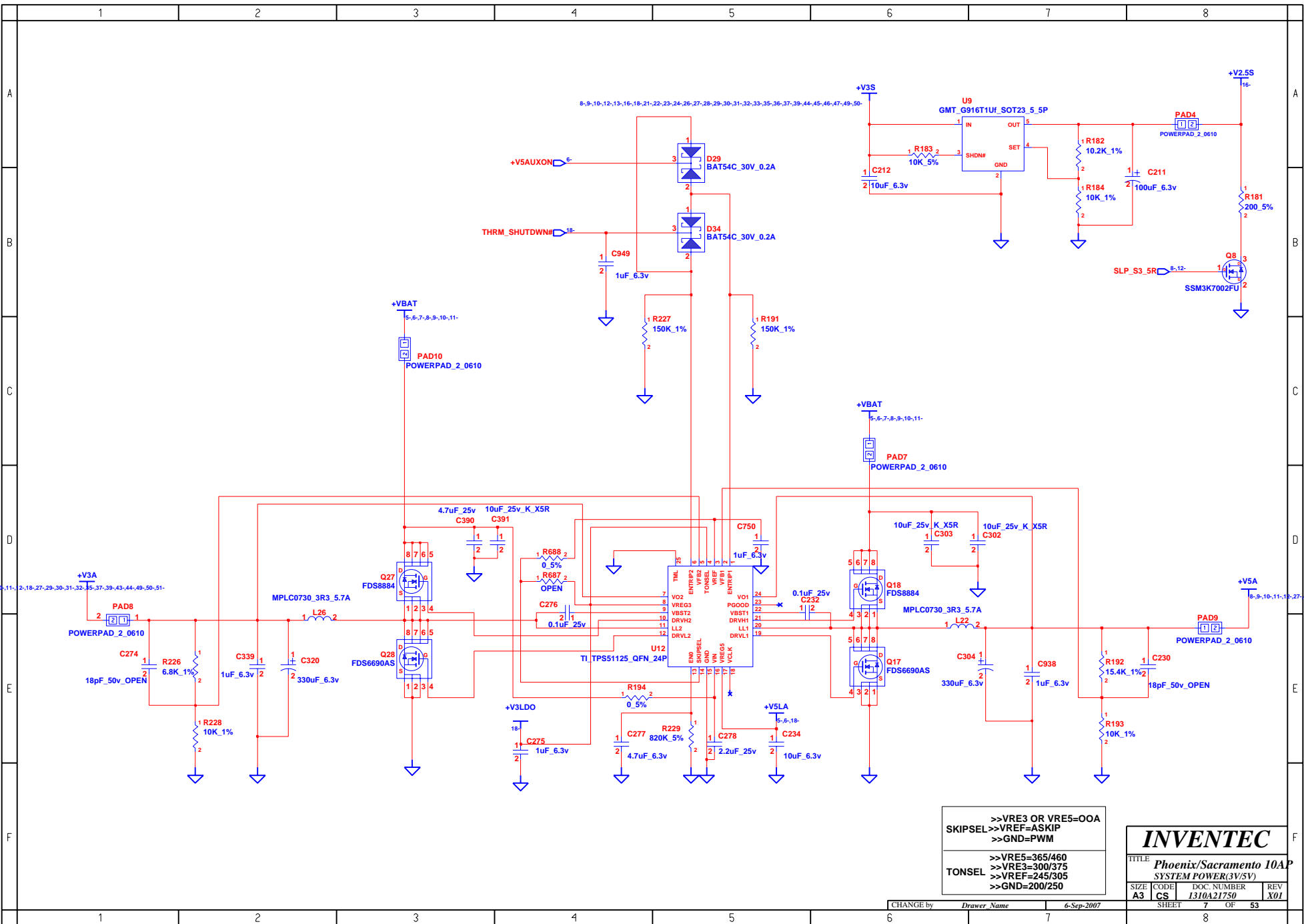
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TITLE Phoenix/Sacramento 10A			
POWER SEQUENCE BLOCK			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	3-Dec-2007
SHEET		4	OF 53



INVENTEC			
TITLE: Phoenix/Sacramento 10A² DC & BATTERY CHANGER			
SIZE: A3	CODE: CS	DOC. NUMBER: I310A21750	REV: X01
Drawer Name		6-Sep-2007	SHEET 5 OF 53
7		8	



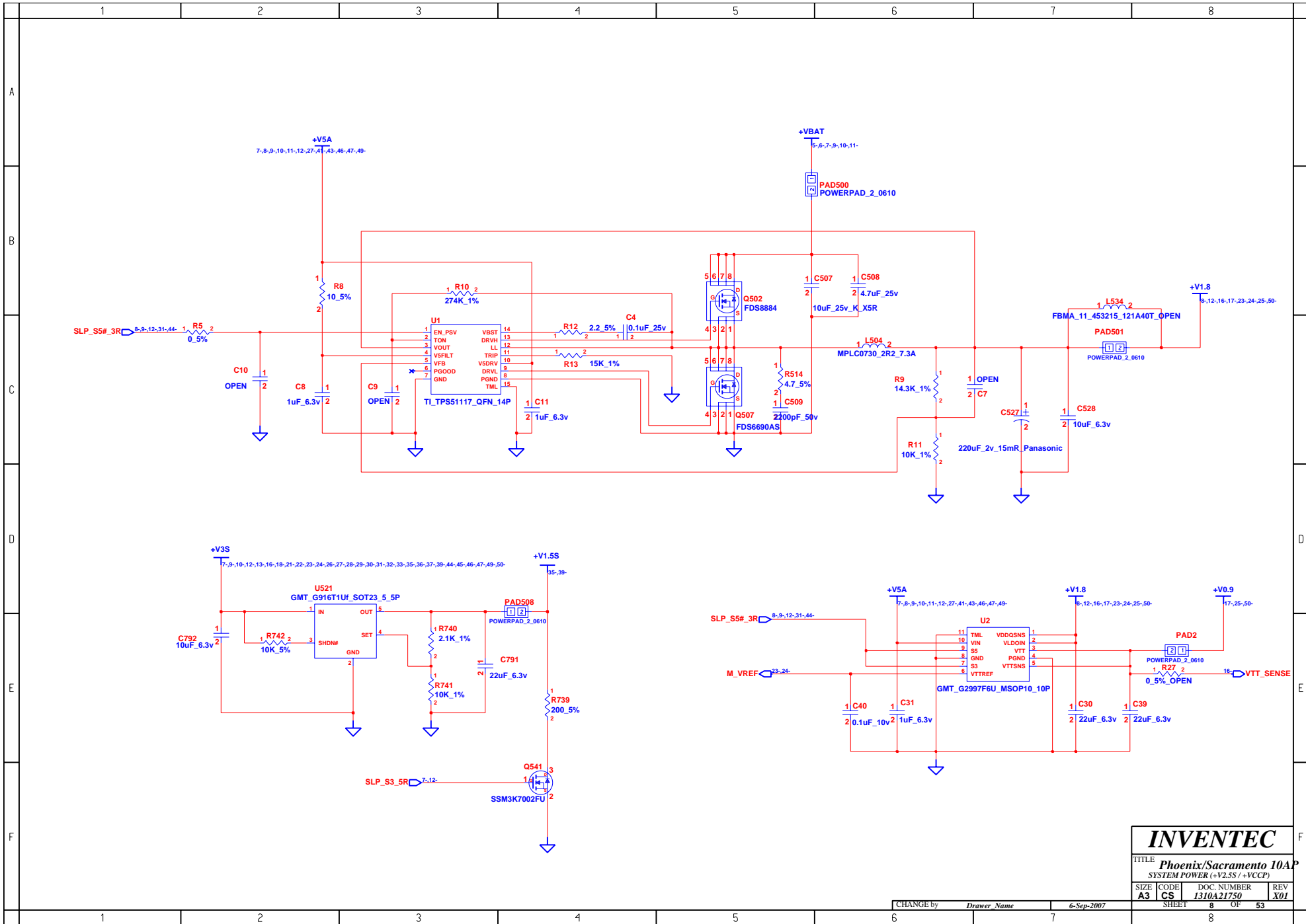
INVENTEC			
TITLE Phoenix/Sacramento 10A			
BATTERY CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01



>>VRE3 OR VRE5=00A
 SKIPSEL>>VREF=ASKIP
 >>GND=PWM
 >>VRE5=365/460
 >>VRE3=300/375
 >>VREF=245/305
 >>GND=200/250

INVENTEC			
TITLE Phoenix/Sacramento 10AP			
SYSTEM POWER(3V/5V)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
SHEET		OF	
7		53	

CHANGE by *Drawer Name* 6-Sep-2007

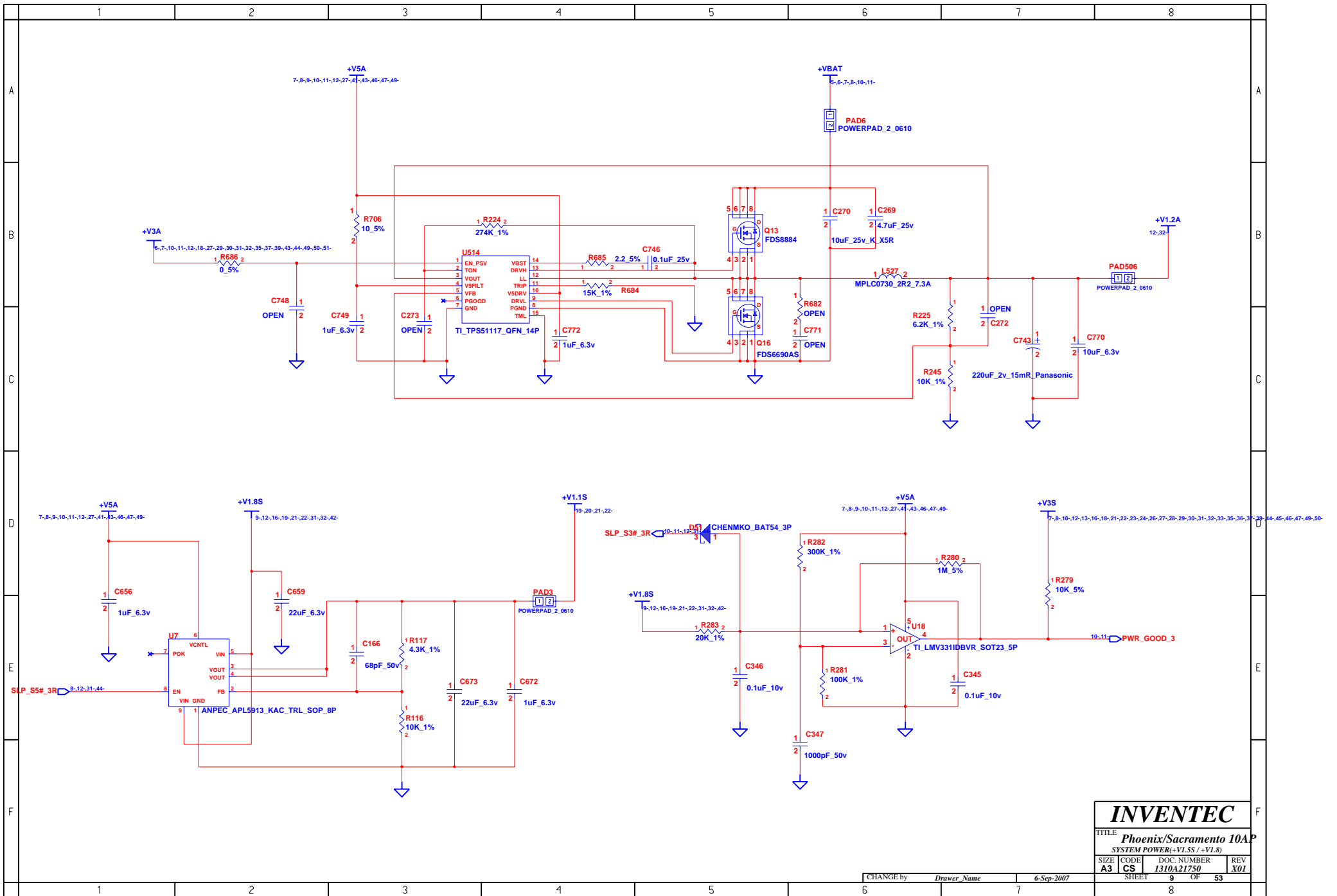


INVENTEC

TITLE: **Phoenix/Sacramento 10A**
SYSTEM POWER (+V2.5S / +VCCP)

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

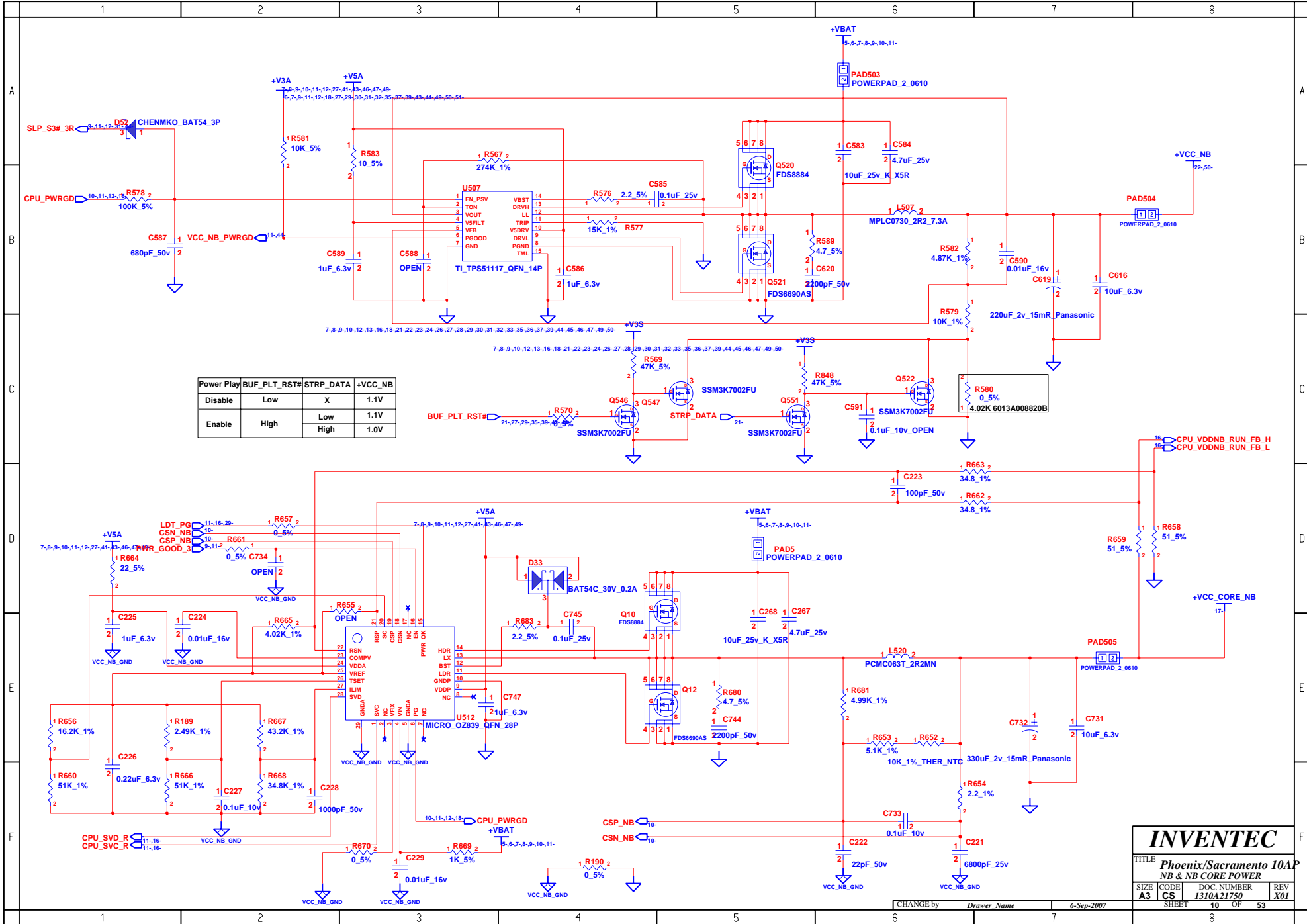
CHANGE by: *Drawer Name* 6-Sep-2007 SHEET 8 OF 53



INVENTEC

TITLE **Phoenix/Sacramento 10AP**
 SYSTEM POWER(+V1.55 / +V1.8)

SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
CHANGE by <i>Drawer Name</i>		6-Sep-2007	SHEET 9 OF 53

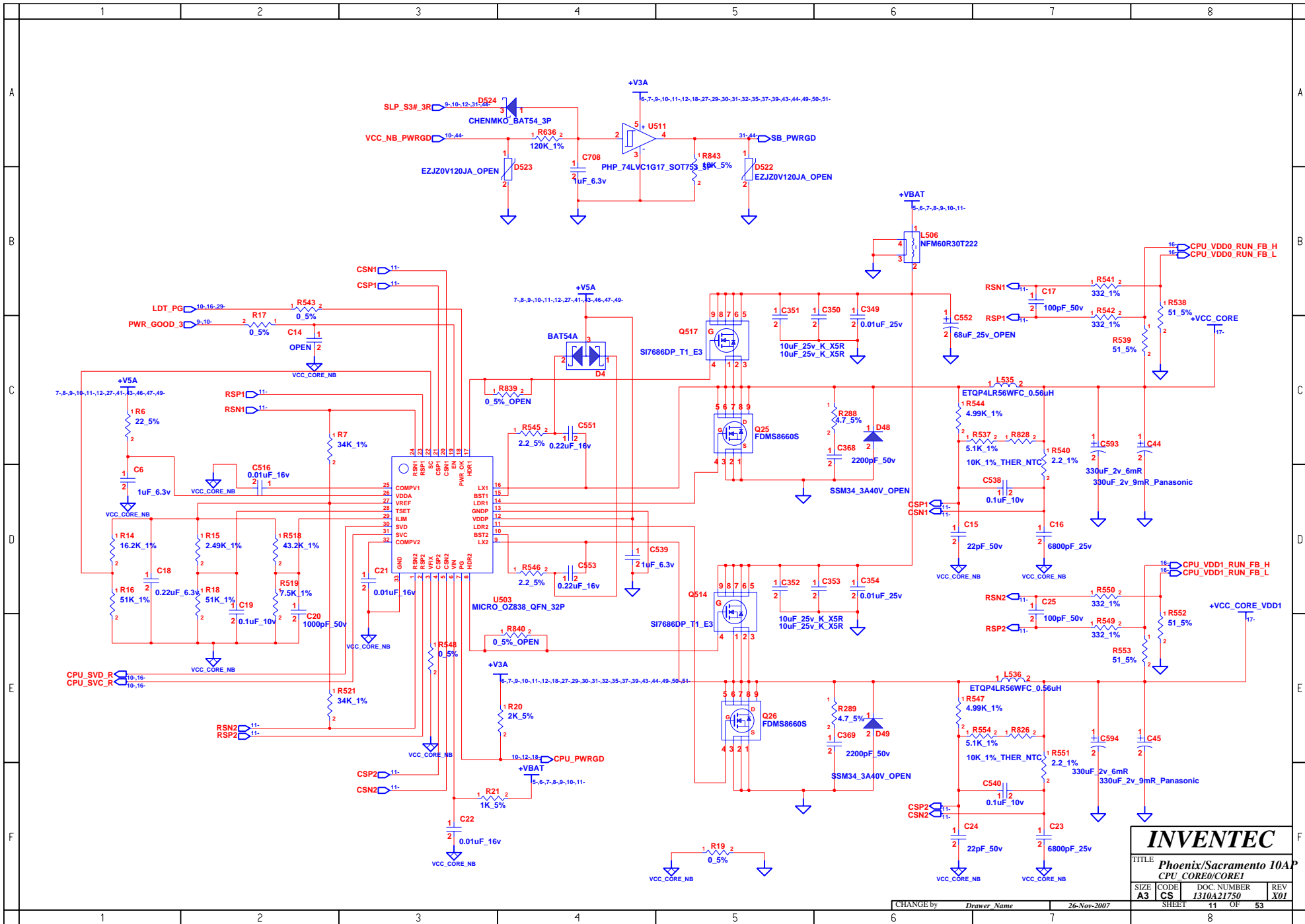


INVENTEC

TITLE: **Phoenix/Sacramento 10A NB & NB CORE POWER**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

CHANGE by: *Drawer Name* 6-Sep-2007 SHEET 10 OF 53



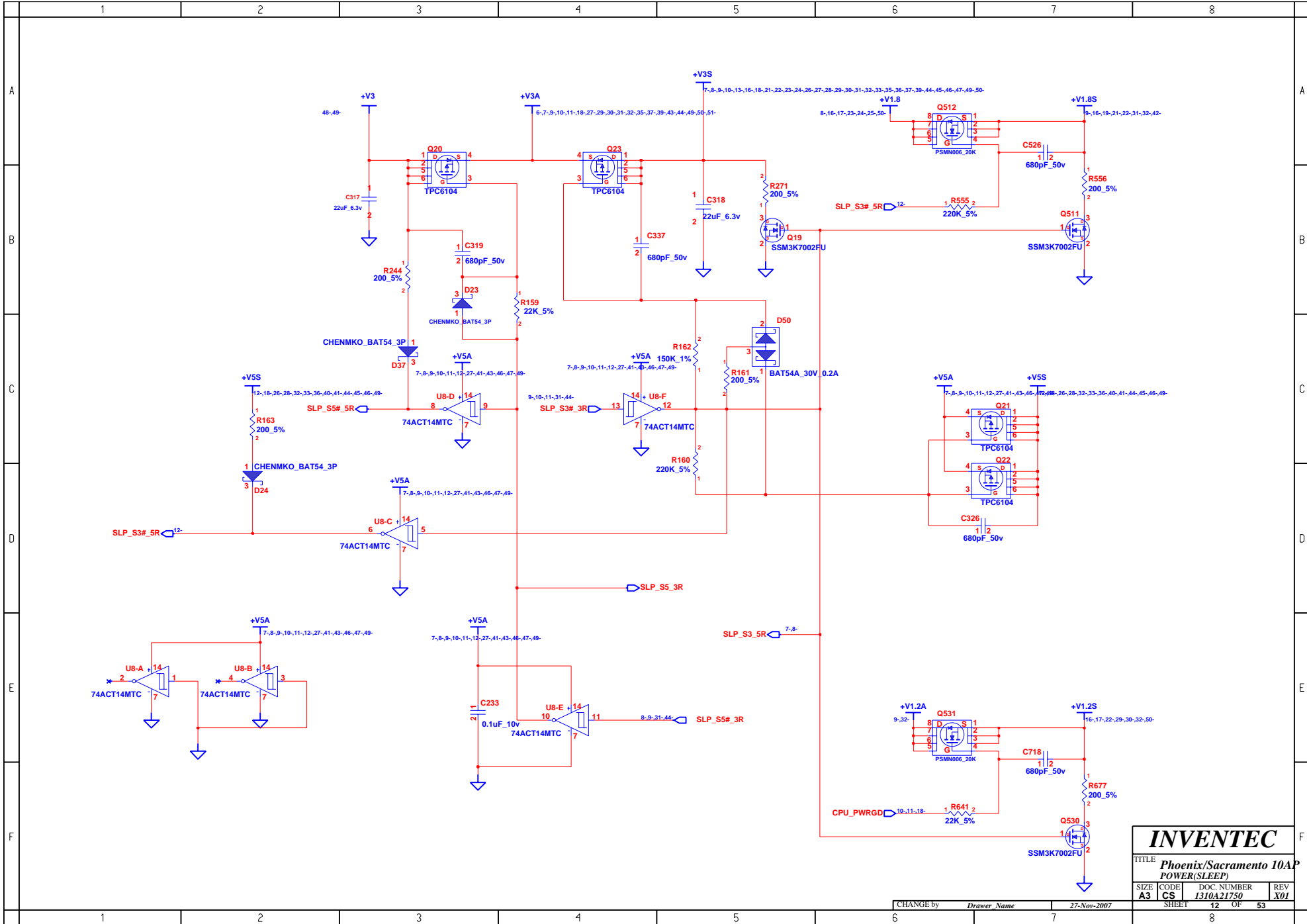
INVENTEC

TITLE: **Phoenix/Sacramento 10A CPU CORE0/CORE1**

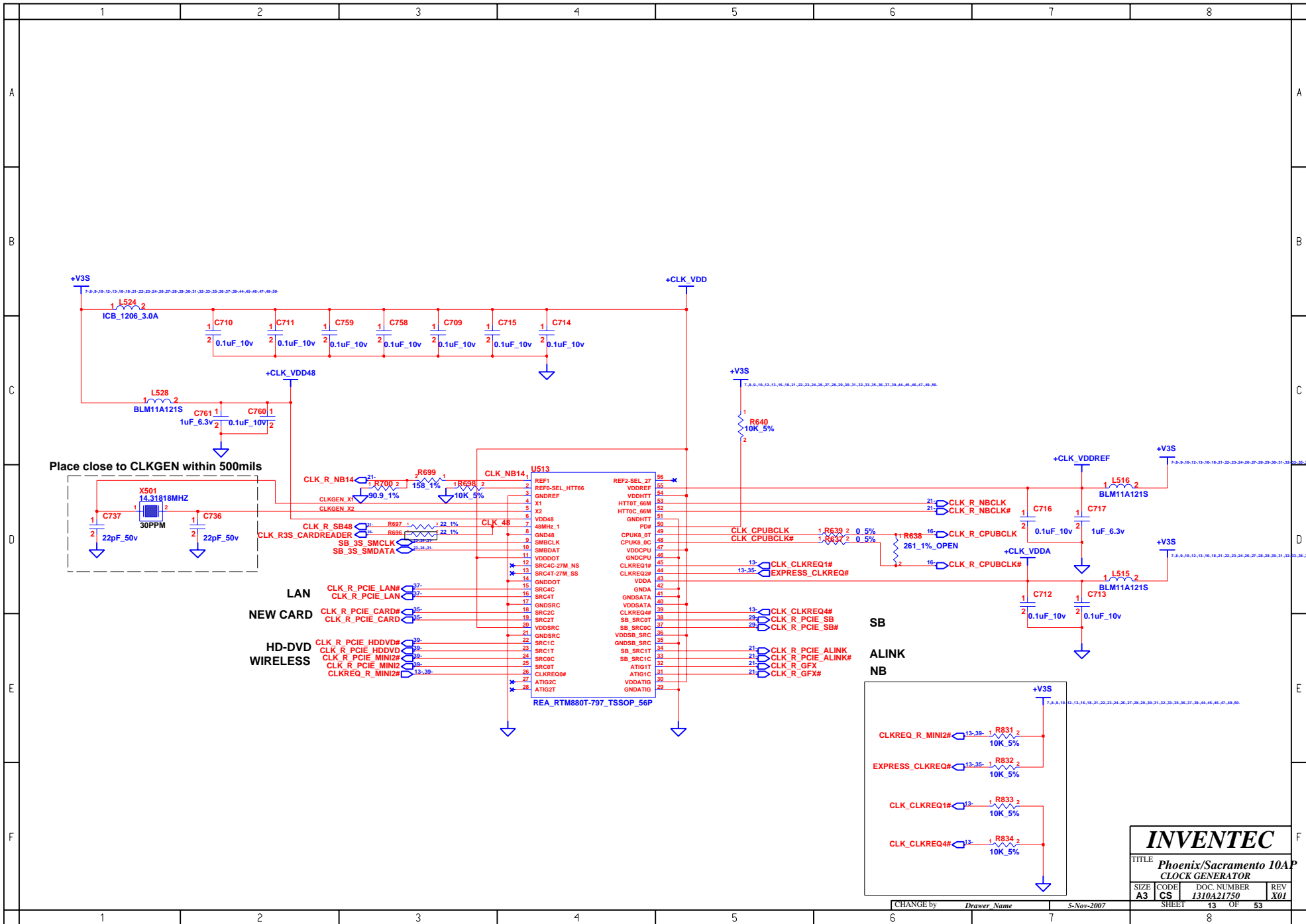
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

SHEET 11 OF 53

CHANGE by *Drawer Name* 26-Nov-2007



INVENTEC			
TITLE: Phoenix/Sacramento 10A POWER(SLEEP)			
SIZE A3	CODE CS	DOC. NUMBER I310A21750	REV X01
CHANGE by		Drawer Name	27-Nov-2007
SHEET		12	OF 53



Place close to CLKGEN within 500mils

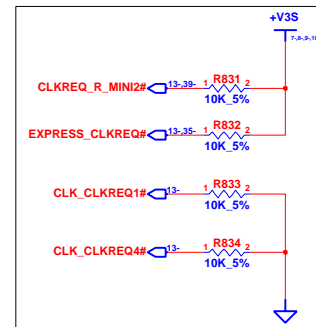
LAN
NEW CARD
HD-DVD WIRELESS

CLK_R_PCIE_LAN# 37-
 CLK_R_PCIE_LAN 37-
 CLK_R_PCIE_CARD# 35-
 CLK_R_PCIE_CARD 35-
 CLK_R_PCIE_HDDVD# 39-
 CLK_R_PCIE_HDDVD 39-
 CLK_R_PCIE_MINI2# 39-
 CLK_R_PCIE_MINI2 39-
 CLKREQ_R_MINI2# 13-39-
 CLKREQ_R_MINI2 13-39-

CLK_NB14# 21-
 CLK_NB14 21-
 CLK 48
 CLK_R_SB48# 21-
 CLK_R_SB48 21-
 CLK_R3S_CARDREADER# 21-
 CLK_R3S_CARDREADER 21-
 SB_3S_SMCLK# 21-38-31-
 SB_3S_SMDATA# 21-38-31-
 CLK_NB14# 21-
 CLK_NB14 21-
 CLK 48
 CLK_R_SB48# 21-
 CLK_R_SB48 21-
 CLK_R3S_CARDREADER# 21-
 CLK_R3S_CARDREADER 21-
 SB_3S_SMCLK# 21-38-31-
 SB_3S_SMDATA# 21-38-31-

REF2_SEL_27 *
 VDDREF 56
 VDDHIT 54
 HTTOT_66M 53
 M1 52
 X2 52
 GNDHIT 51
 P0W 49
 CPUK8_0T 48
 CPUK8_OC 48
 GND48 47
 SMBCLK 47
 VDDCPU 46
 GNDCPU 45
 CLKREQ1# 45
 CLKREQ2# 44
 VDDA 42
 GNDDOT 42
 GND4 41
 GND4 41
 GNDSDATA 40
 GNDSDATA 40
 SRC2C 39
 SRC2T 38
 SB_SRC0T 37
 SB_SRC0C 36
 VDDSB_SRC 35
 GND4 34
 SB_SRC1T 33
 SB_SRC1C 33
 ATIG1T 32
 ATIG1C 31
 VDDATIG 30
 GNDATIG 29

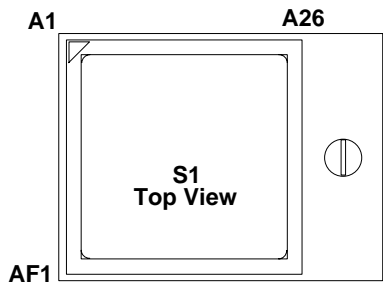
SB
ALINK
NB



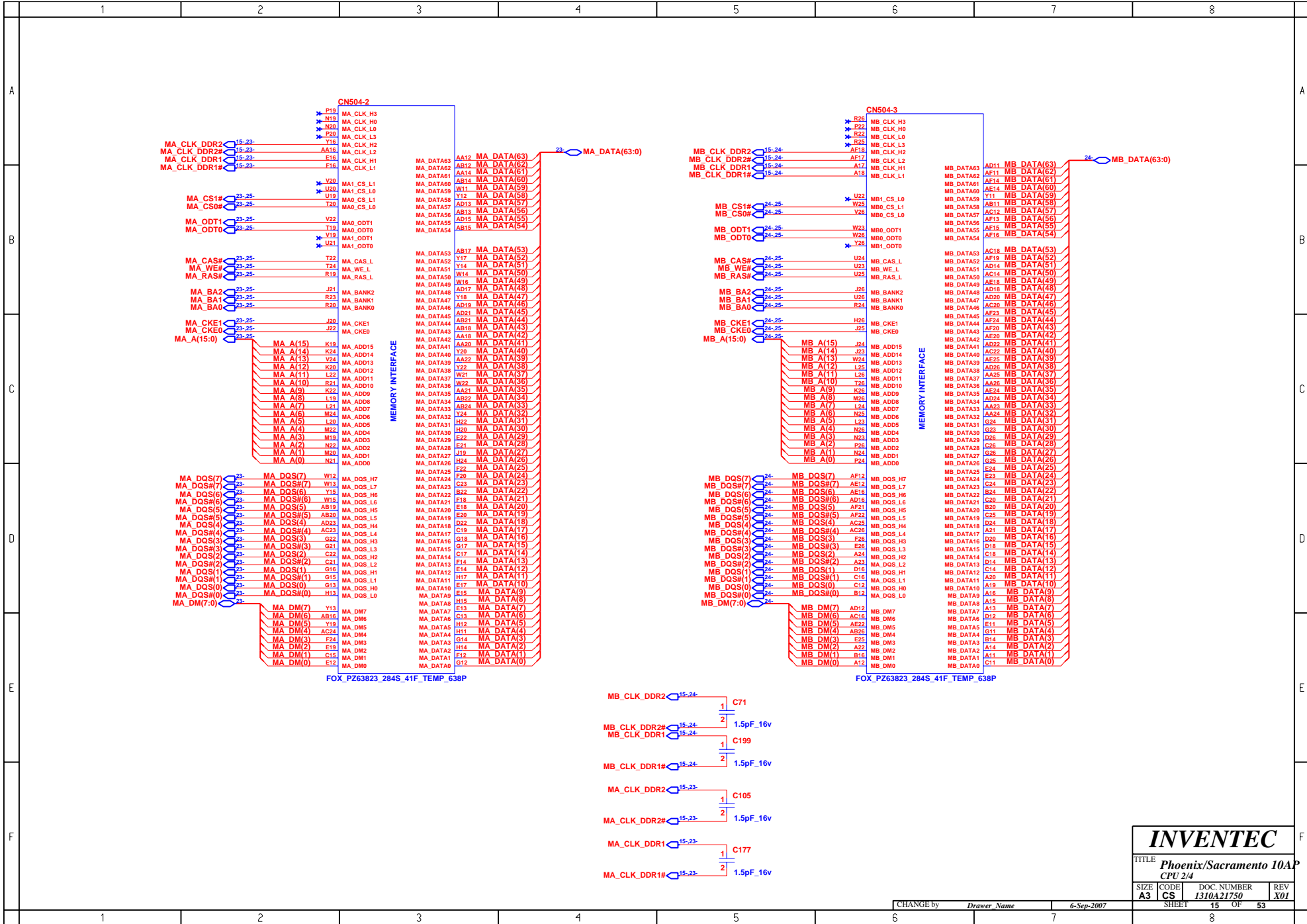
INVENTEC			
TITLE Phoenix/Sacramento 10A P CLOCK GENERATOR			
SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
CHANGE by Drawer Name		5-Nov-2007	SHEET 13 OF 53



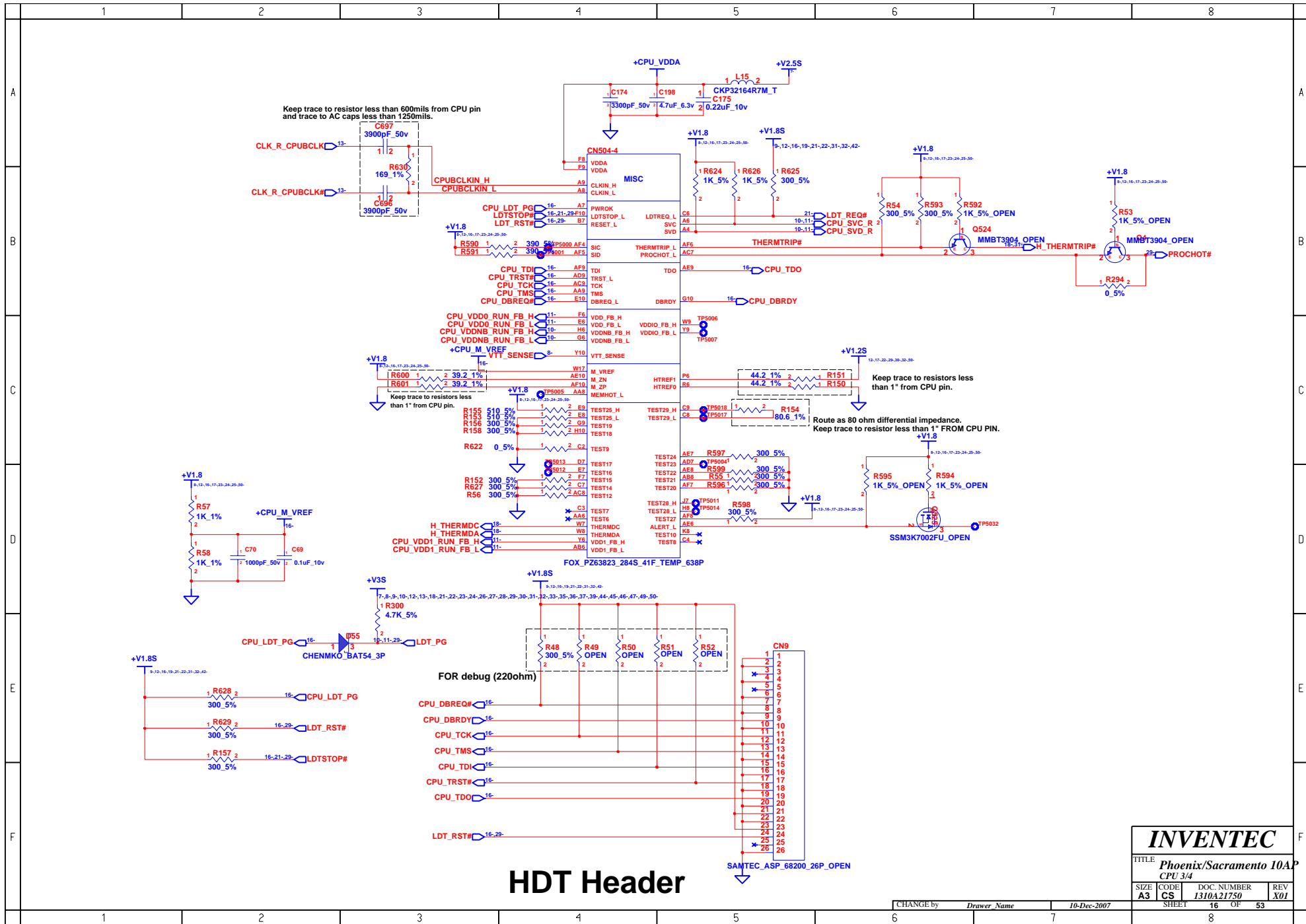
Layout: Add stitching caps if crossing plane split.



INVENTEC			
TITLE Phoenix/Sacramento 10A			
CPU 14			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	17-Sep-2007
SHEET		14	OF 53

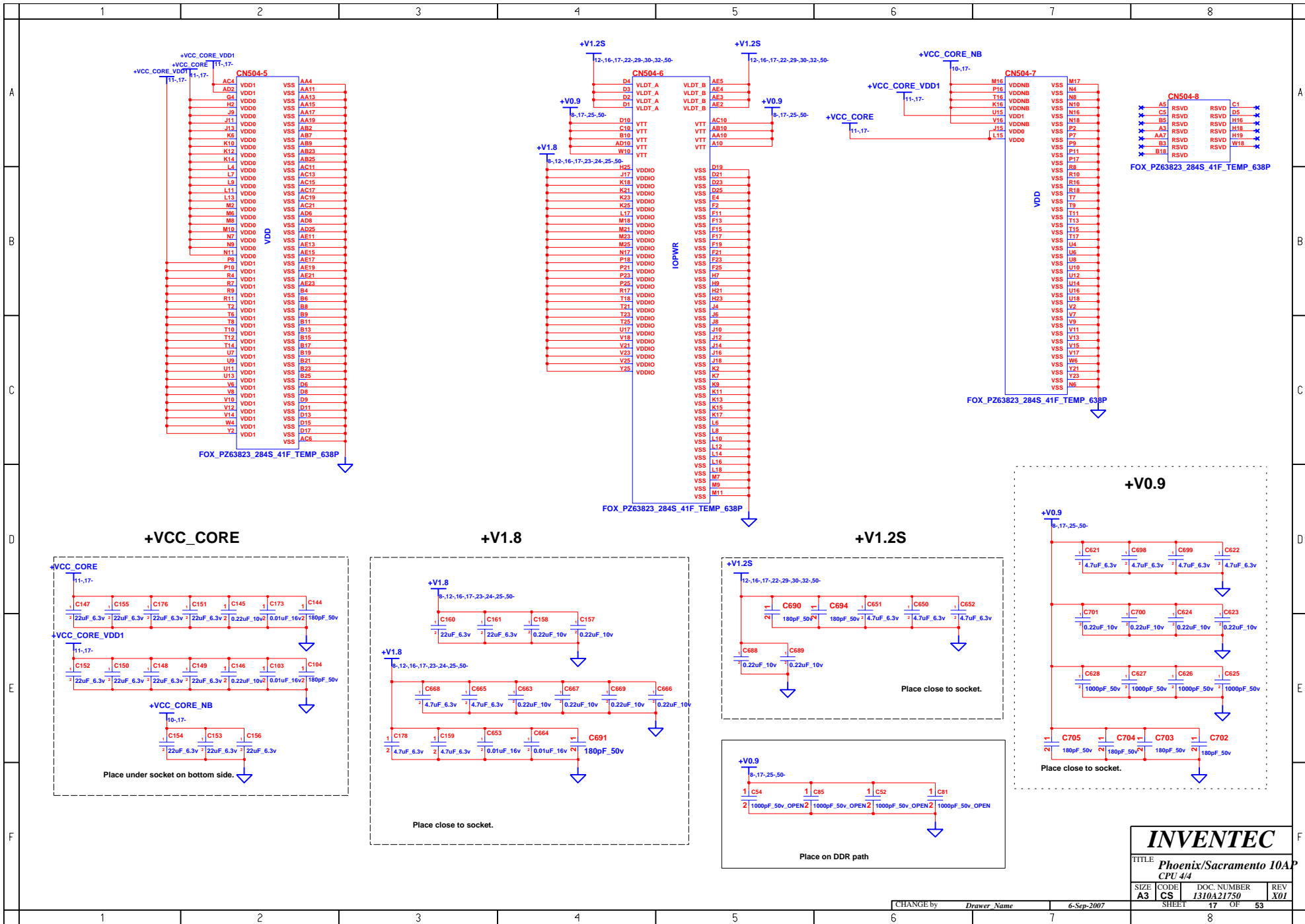


INVENTEC			
TITLE: Phoenix/Sacramento 10A			
CPU 2/4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		SHEET	OF
Drawer Name		15	53



HDT Header

INVENTEC			
TITLE: Phoenix/Sacramento 10A CPU 3/4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A21750	X01
CHANGE by		Drawer Name	10-Dec-2007
SHEET		16	OF 53



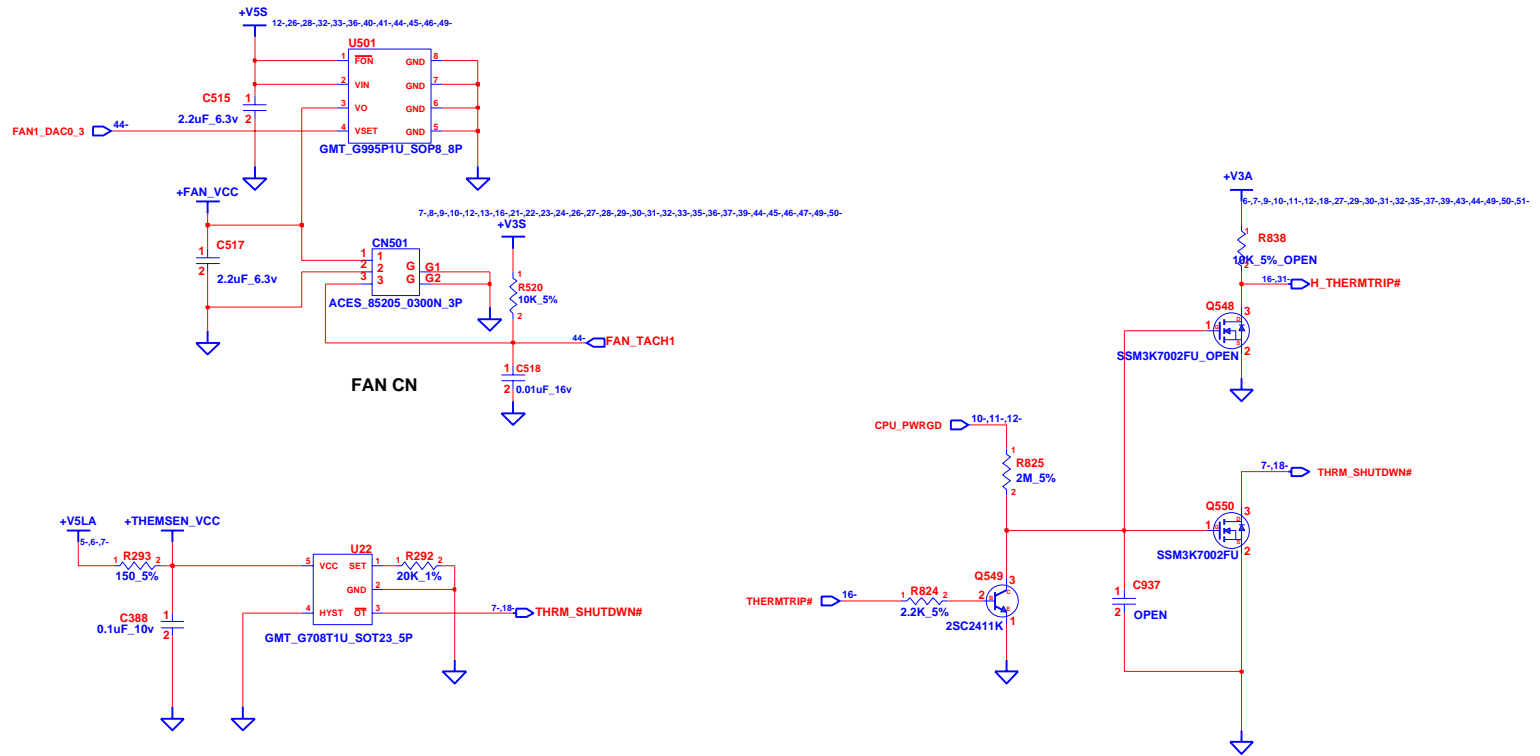
INVENTEC

TITLE: **Phoenix/Sacramento 10A P**
CPU 44

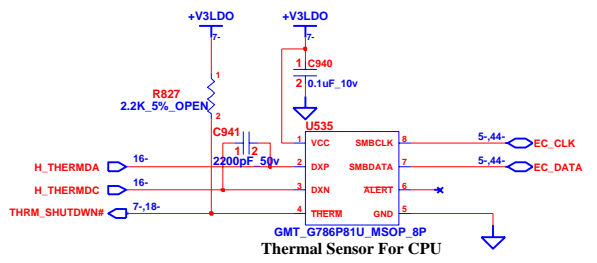
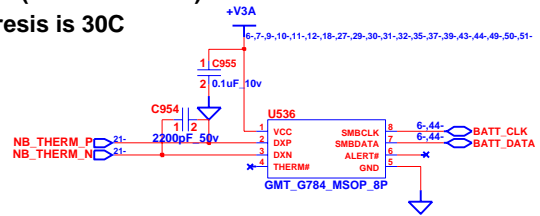
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

SHEET 17 OF 53

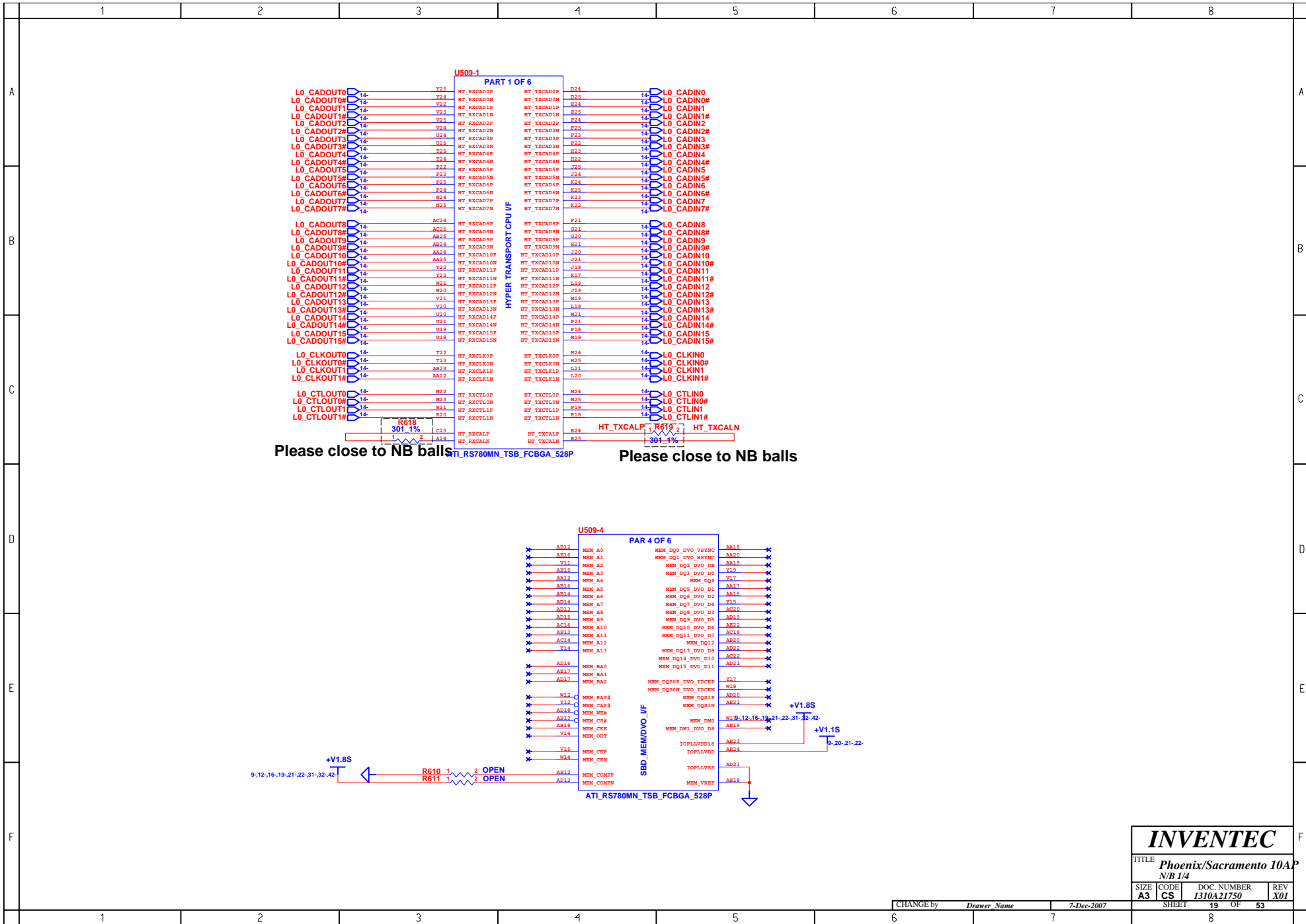
CHANGE by *Drawer Name* 6-Sep-2007



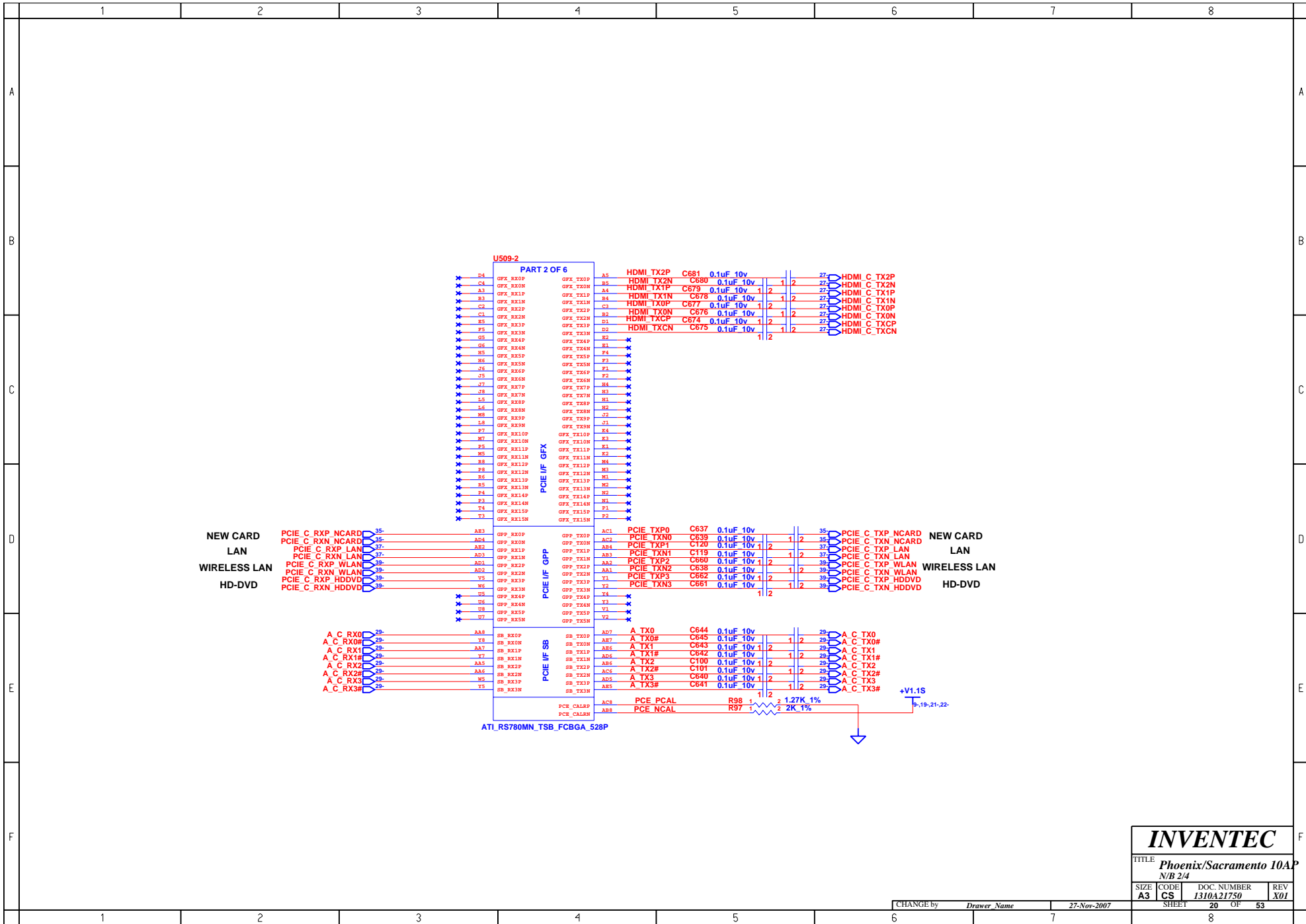
Thermal shutdown at 93C +/-3C from 60C to 100C
 $RSET=T(0.0012T-0.9308)+96.147$
Hysteresis is 30C



INVENTEC			
TITLE Phoenix/Sacramento 10A			
FAN & THERMAL CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01



INVENTEC			
TITLE Phoenix/Sacramento 10A			
N/B 1/4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	7-Dec-2007
SHEET		19	OF 53

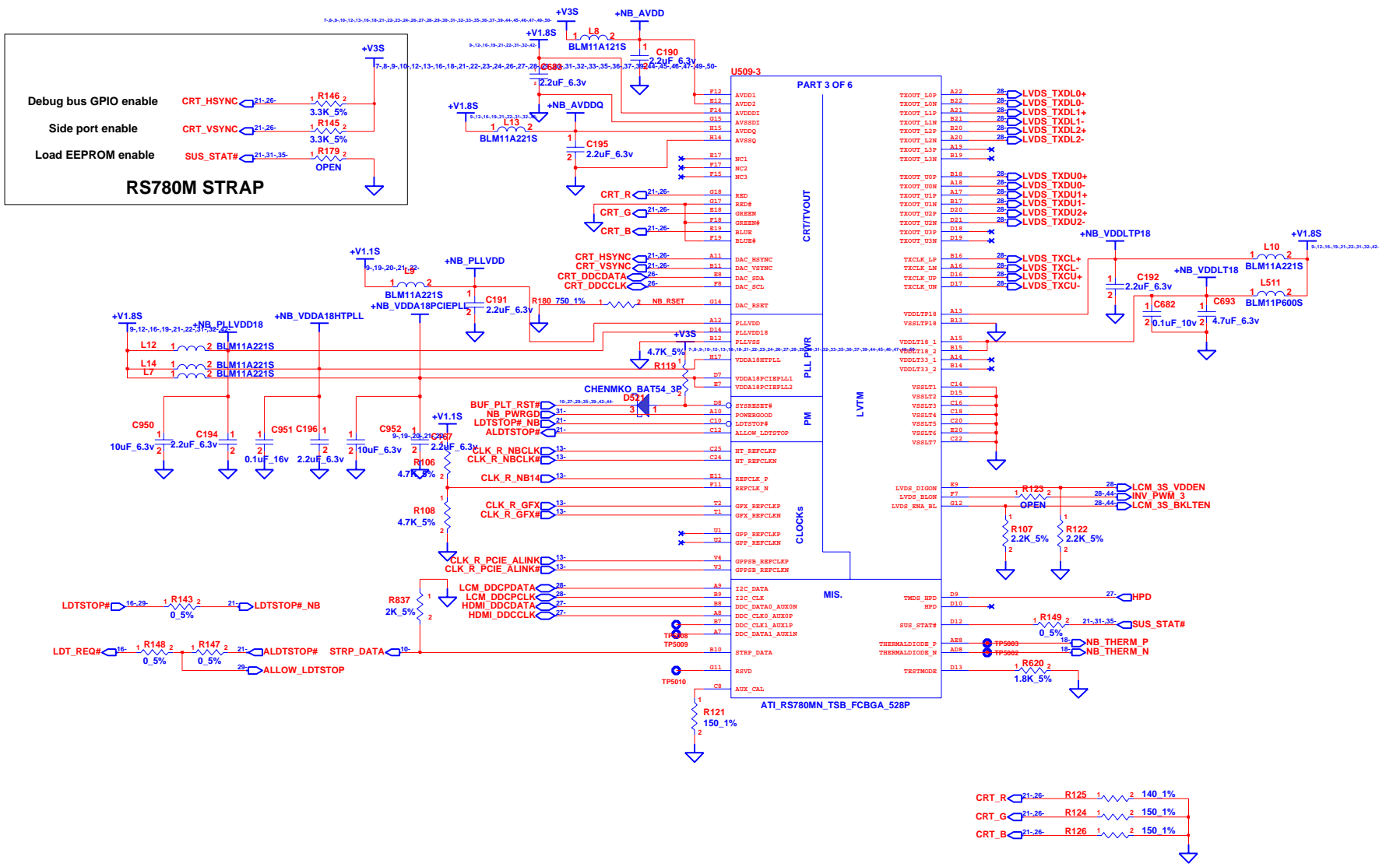
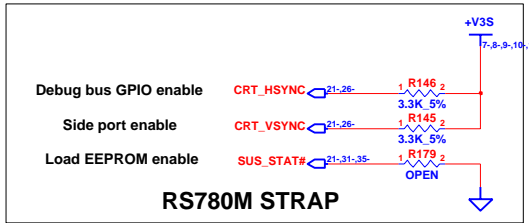


INVENTEC

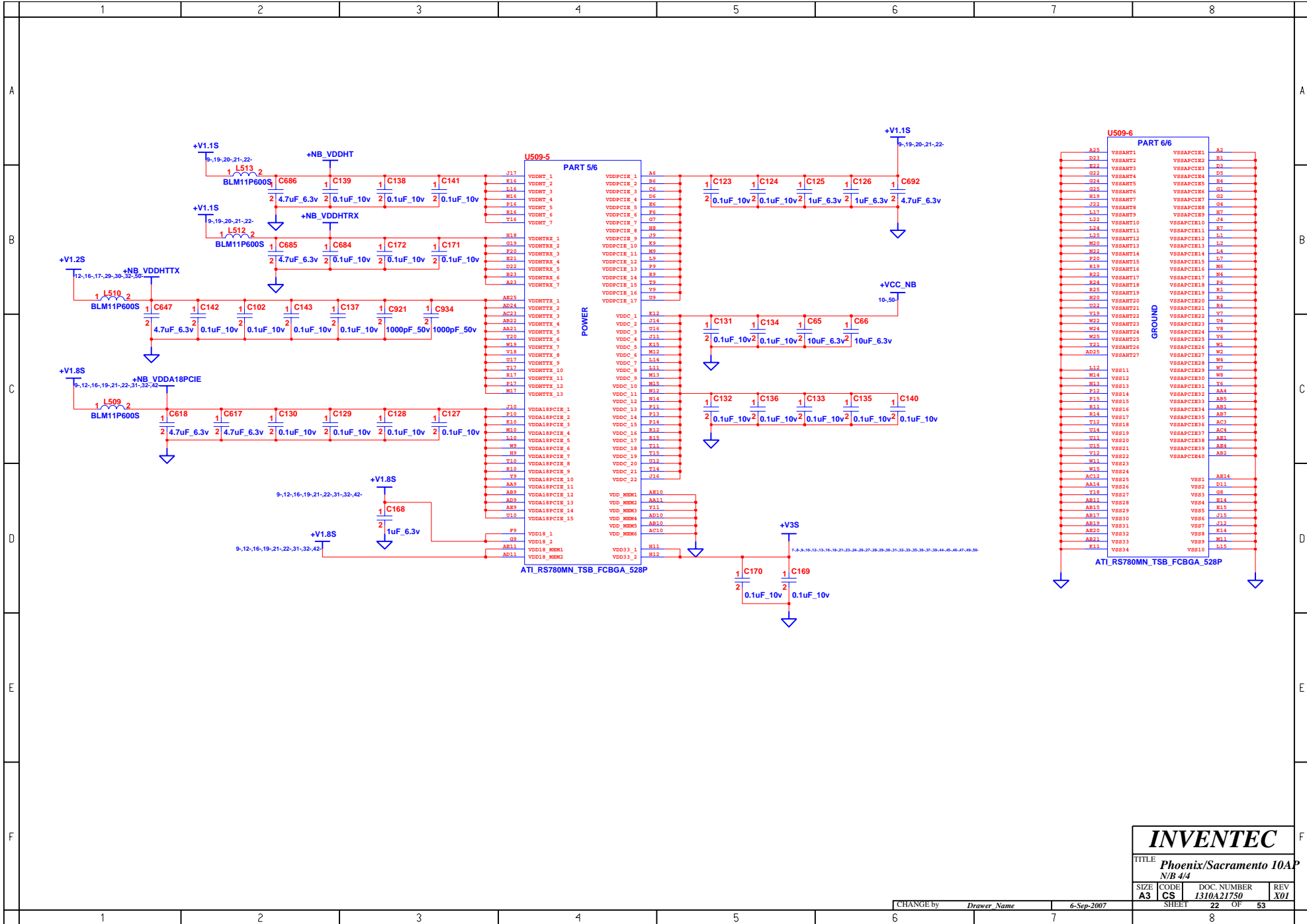
TITLE **Phoenix/Sacramento 10A**
N/B 2/4

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

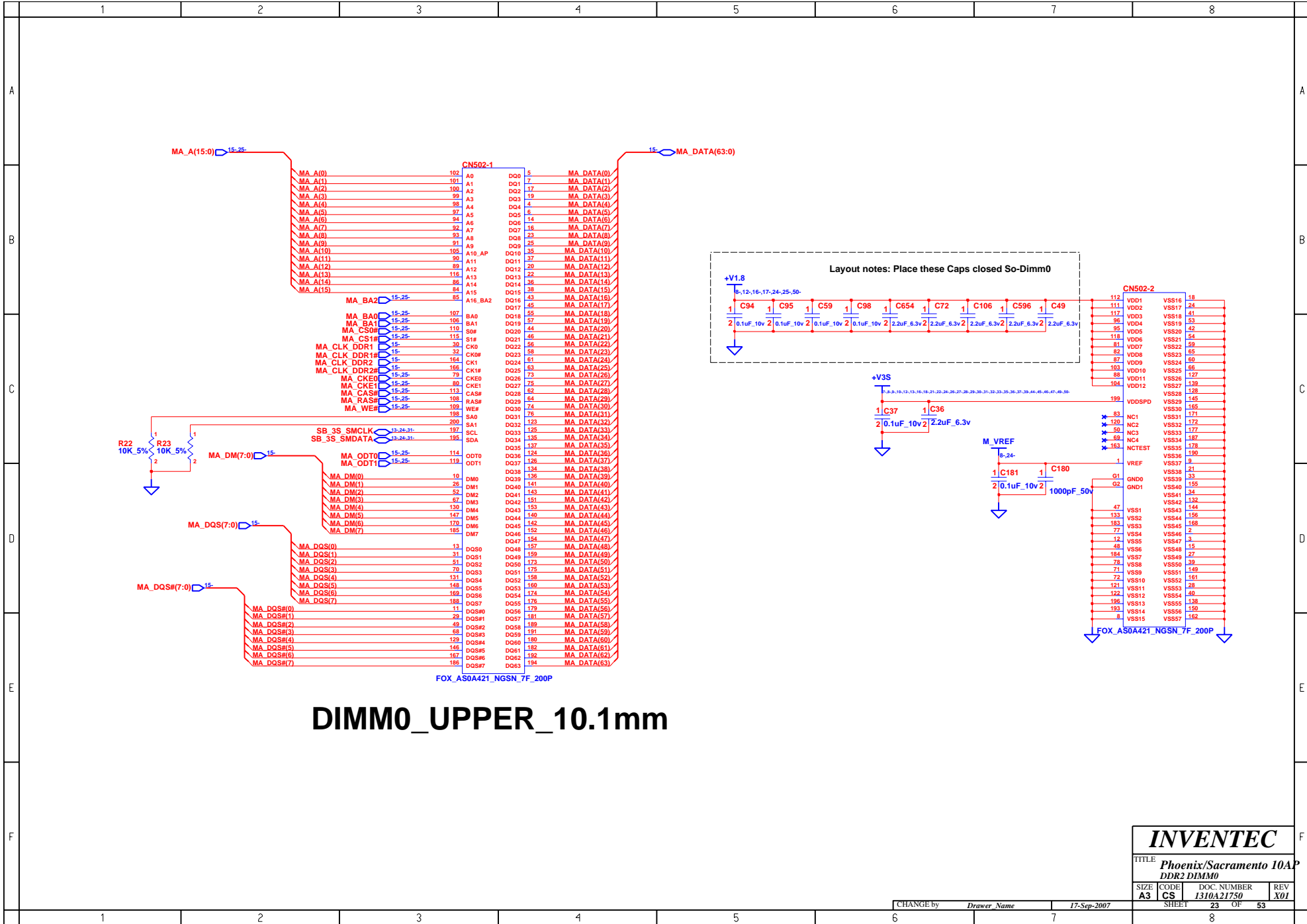
CHANGE by *Drawer Name* 27-Nov-2007 SHEET 20 OF 53



INVENTEC			
TITLE Phoenix/Sacramento 10A			
N/B 3/4			
SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
CHANGE by <i>Drawer Name</i>		29-Nov-2007	
SHEET 21		OF 53	



INVENTEC			
TITLE Phoenix/Sacramento 10A			
N/B 4/4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	6-Sep-2007
SHEET		22	OF 53

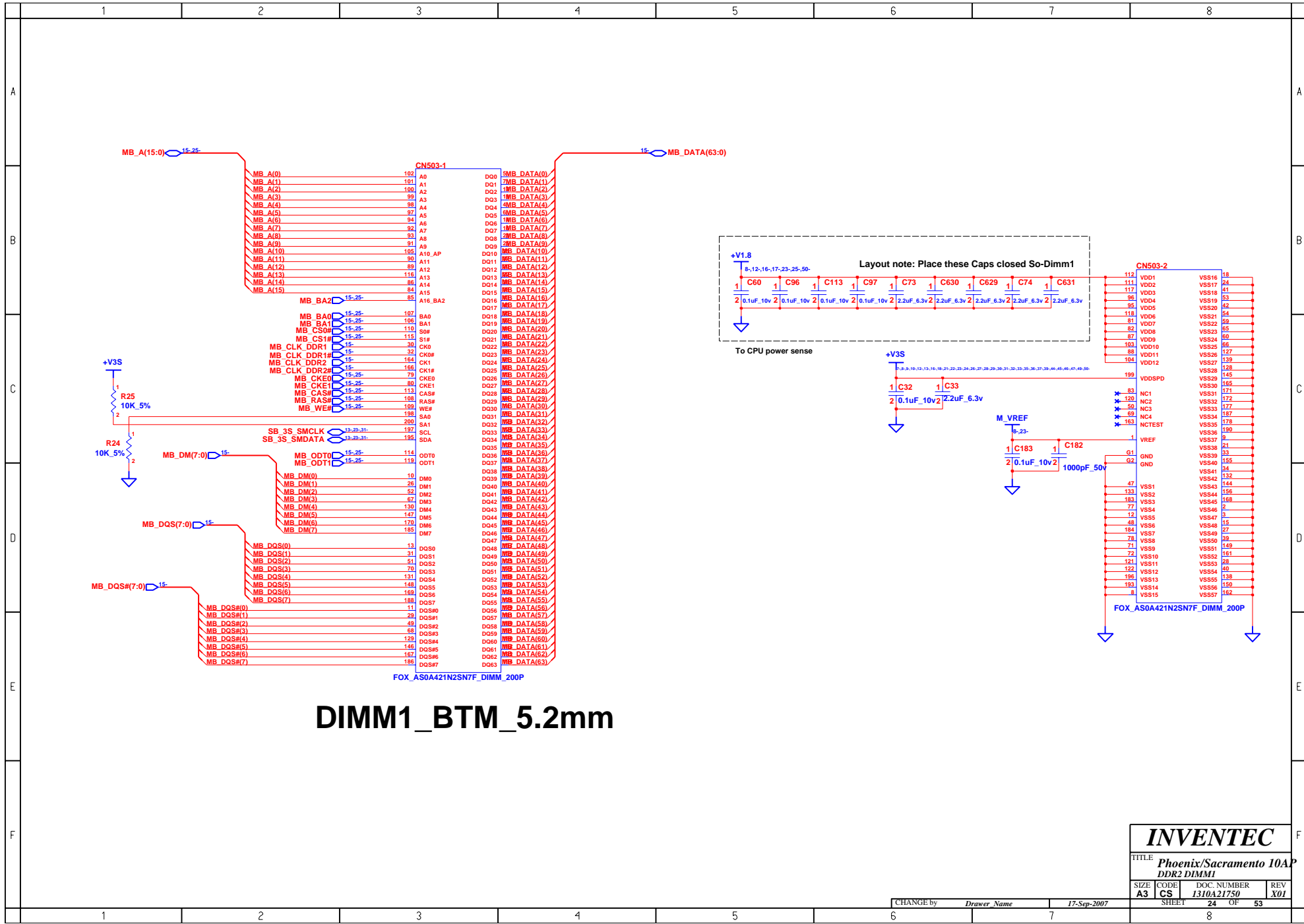


DIMM0_UPPER_10.1mm

INVENTEC

TITLE: **Phoenix/Sacramento 10A² DDR2 DIMM0**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01



DIMM1_BTM_5.2mm

FOX_AS0A421N2SN7F_DIMM_200P

Layout note: Place these Caps closed So-Dimm1

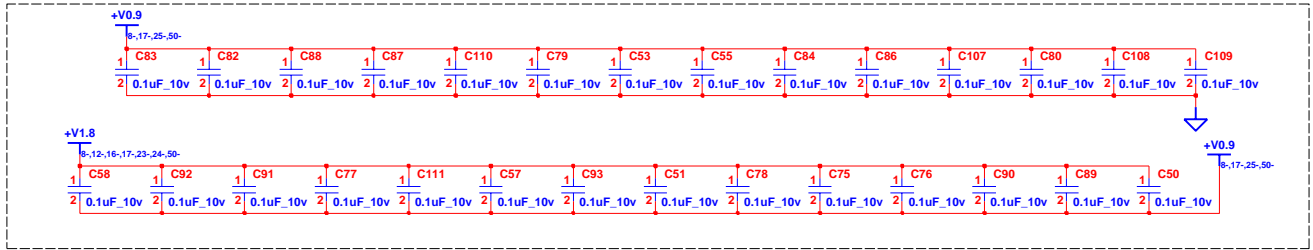
Cap	Value	Cap	Value	Cap	Value	Cap	Value
C60	0.1uF_10v	C96	0.1uF_10v	C113	0.1uF_10v	C97	0.1uF_10v
C73	2.2uF_6.3v	C630	2.2uF_6.3v	C629	2.2uF_6.3v	C74	2.2uF_6.3v
C631	2.2uF_6.3v						

To CPU power sense

CN503-2		FOX_AS0A421N2SN7F_DIMM_200P	
112	VDD2	18	VSS16
111	VDD3	24	VSS17
117	VDD3	41	VSS18
96	VDD4	53	VSS19
95	VDD6	42	VSS21
81	VDD7	59	VSS22
82	VDD8	65	VSS23
87	VDD9	60	VSS24
103	VDD10	66	VSS25
88	VDD11	127	VSS26
104	VDD12	139	VSS27
199	VDDSPD	128	VSS28
		145	VSS29
		165	VSS30
		171	VSS31
83	NC1	172	VSS32
50	NC2	177	VSS33
59	NC3	187	VSS34
59	NC4	178	VSS35
193	NCTEST	190	VSS6
		1	VREF
		61	VSS38
		92	VSS39
		92	VSS40
		34	VSS41
		132	VSS42
		47	VSS43
		133	VSS44
		183	VSS45
		183	VSS46
		77	VSS47
		77	VSS48
		12	VSS49
		48	VSS50
		184	VSS51
		78	VSS52
		71	VSS53
		72	VSS54
		121	VSS55
		122	VSS56
		196	VSS57
		193	VSS58
		8	VSS59
		8	VSS60
		8	VSS61
		8	VSS62

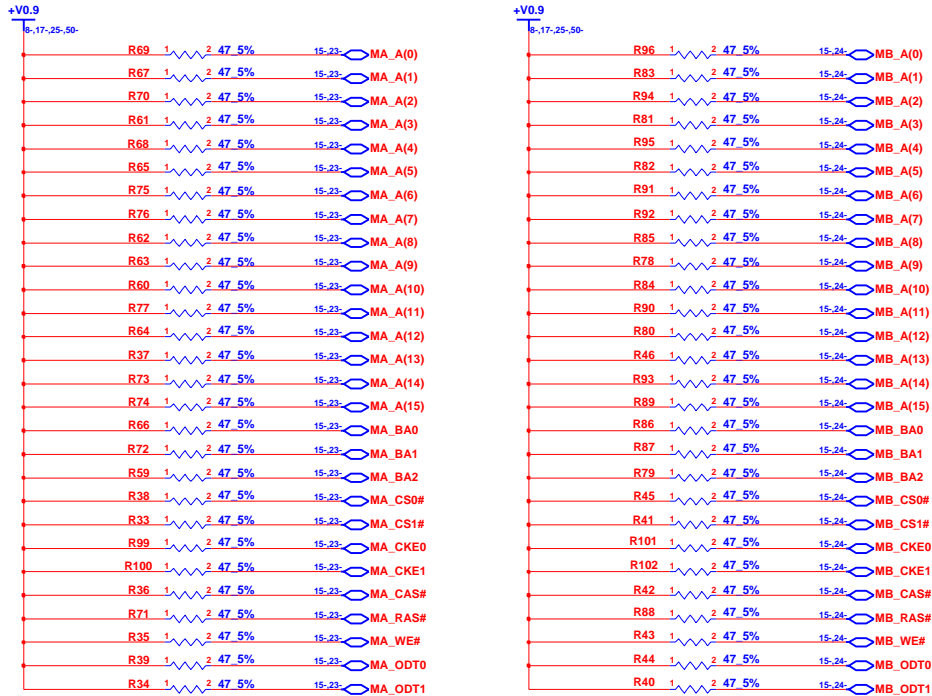
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TITLE: Phoenix/Sacramento 10A DDR2 DIMM1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

CHANGE by	Drawer Name	17-Sep-2007	SHEET 24 OF 53
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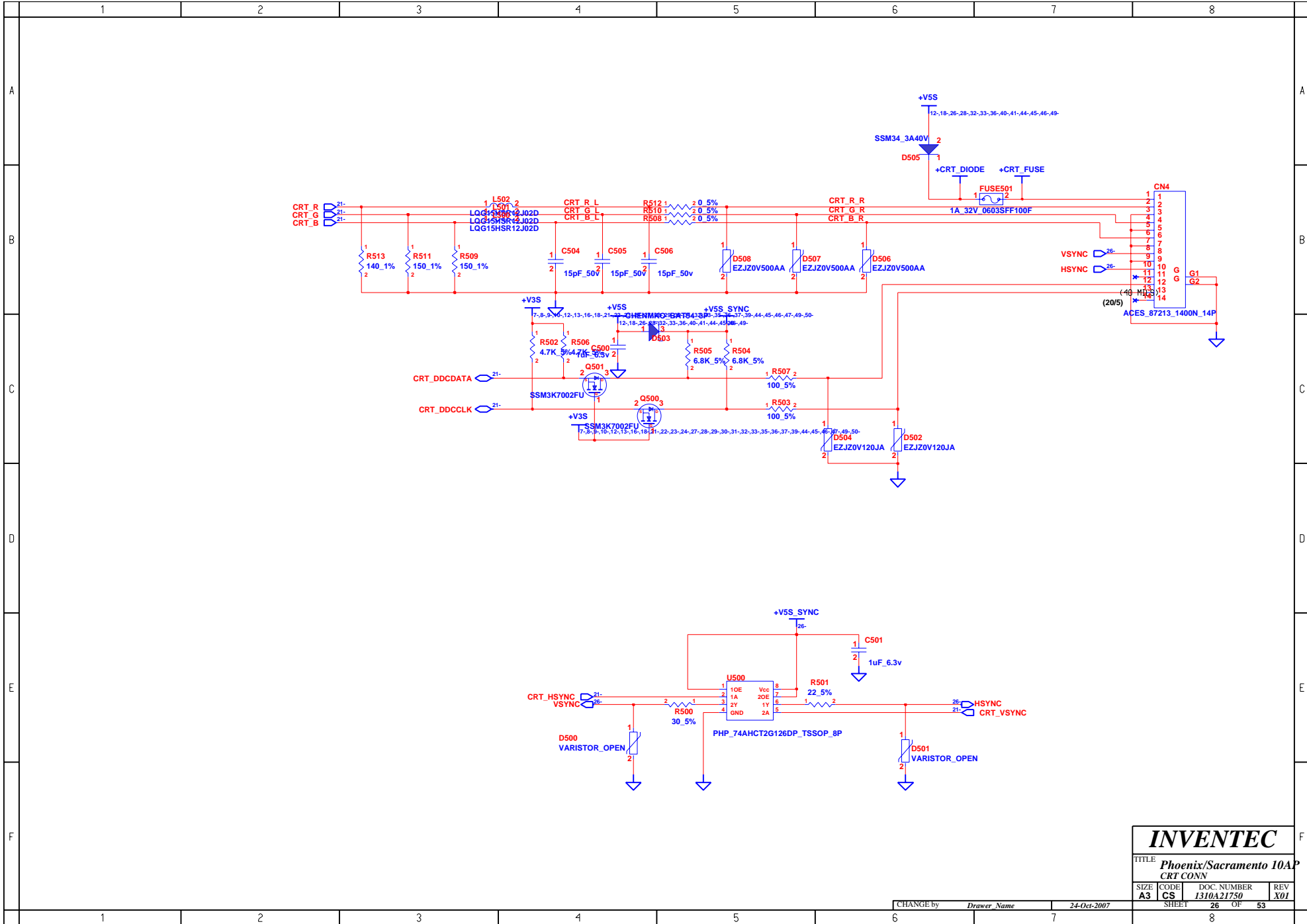


To CPU power sense

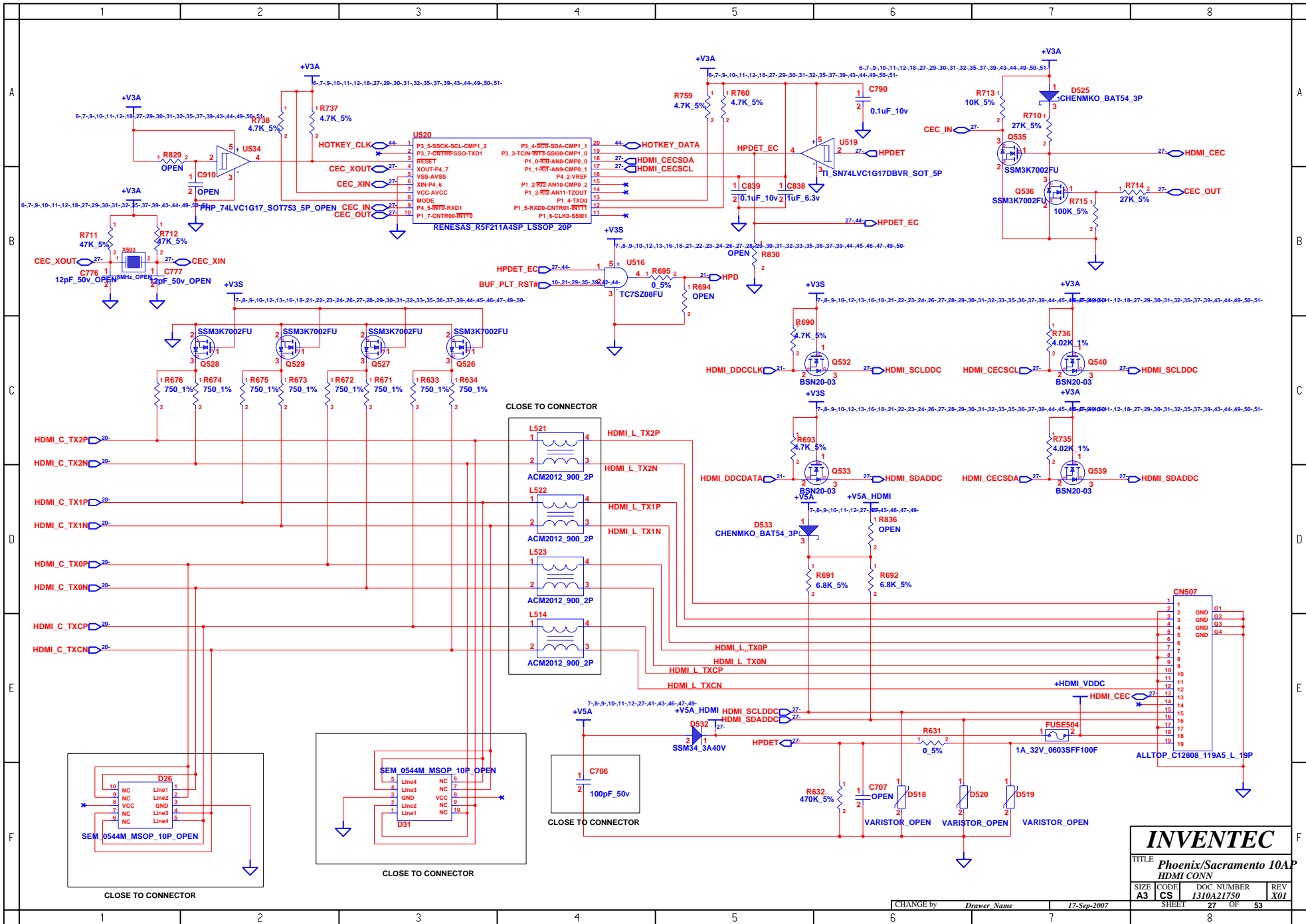
Place CAPs close to DIMM



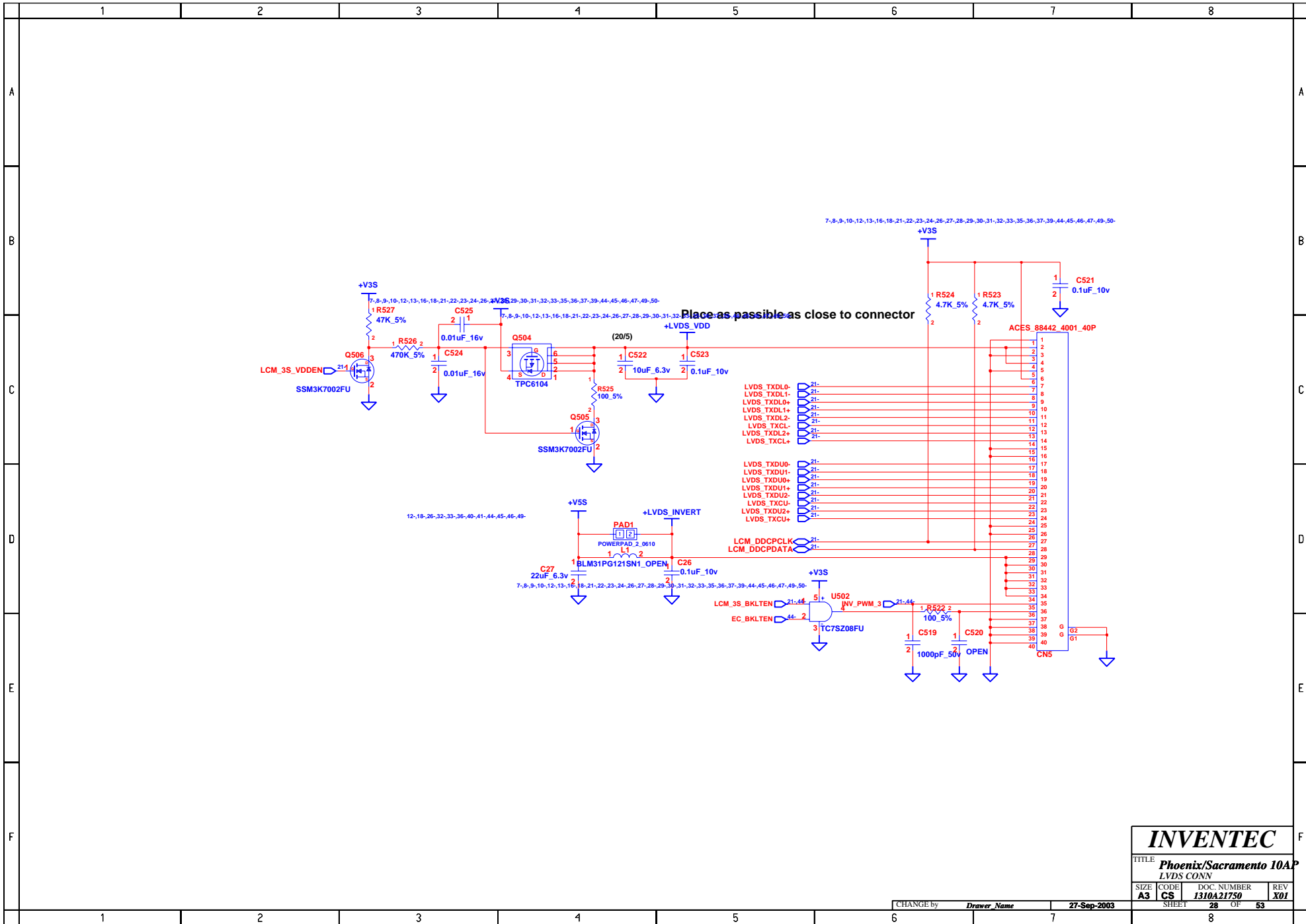
INVENTEC			
TITLE Phoenix/Sacramento 10A			
DDR TERMINATIONS			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	6-Sep-2007
SHEET		25	OF 53



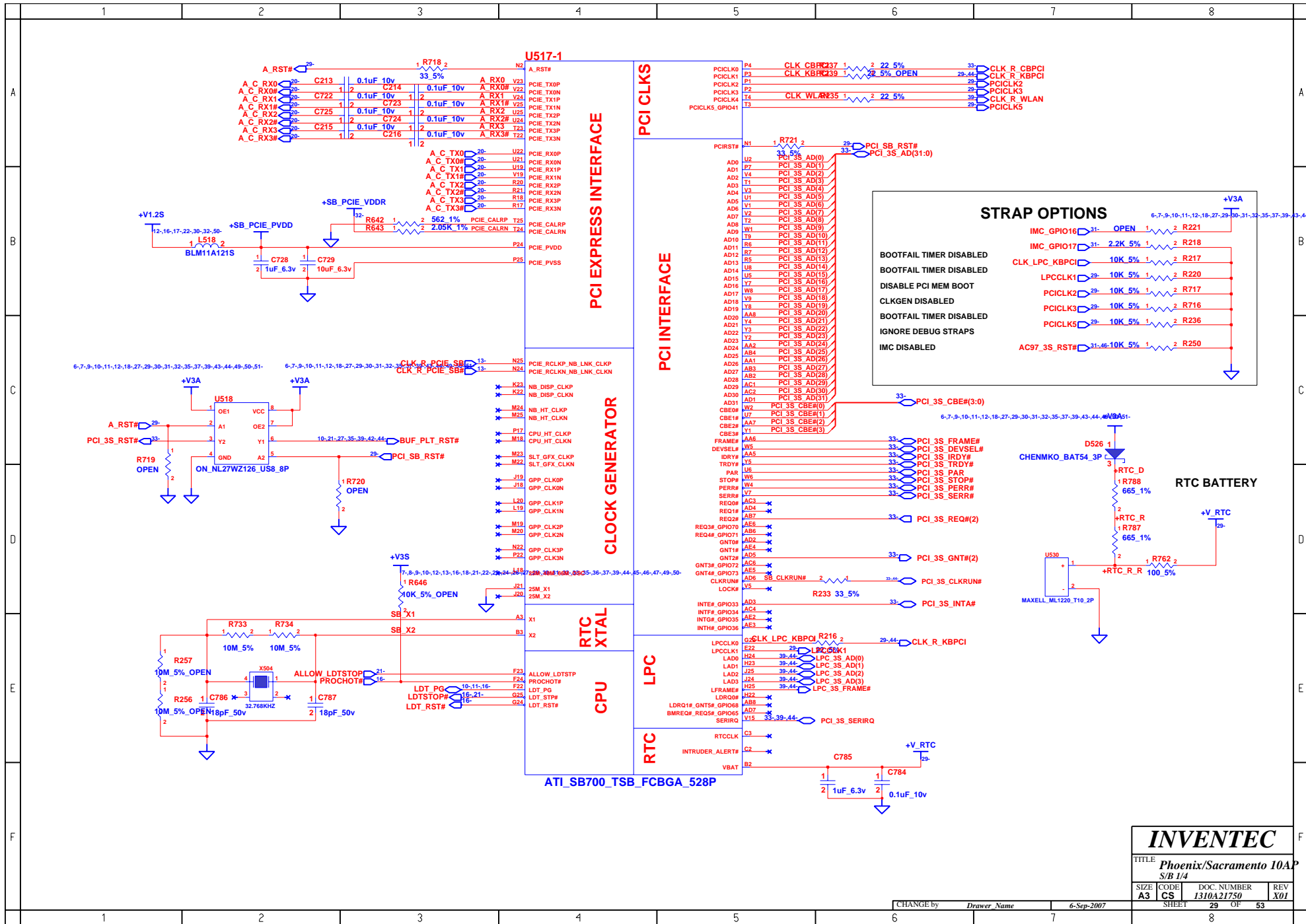
INVENTEC			
TITLE: Phoenix/Sacramento 10A			
CRT CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01



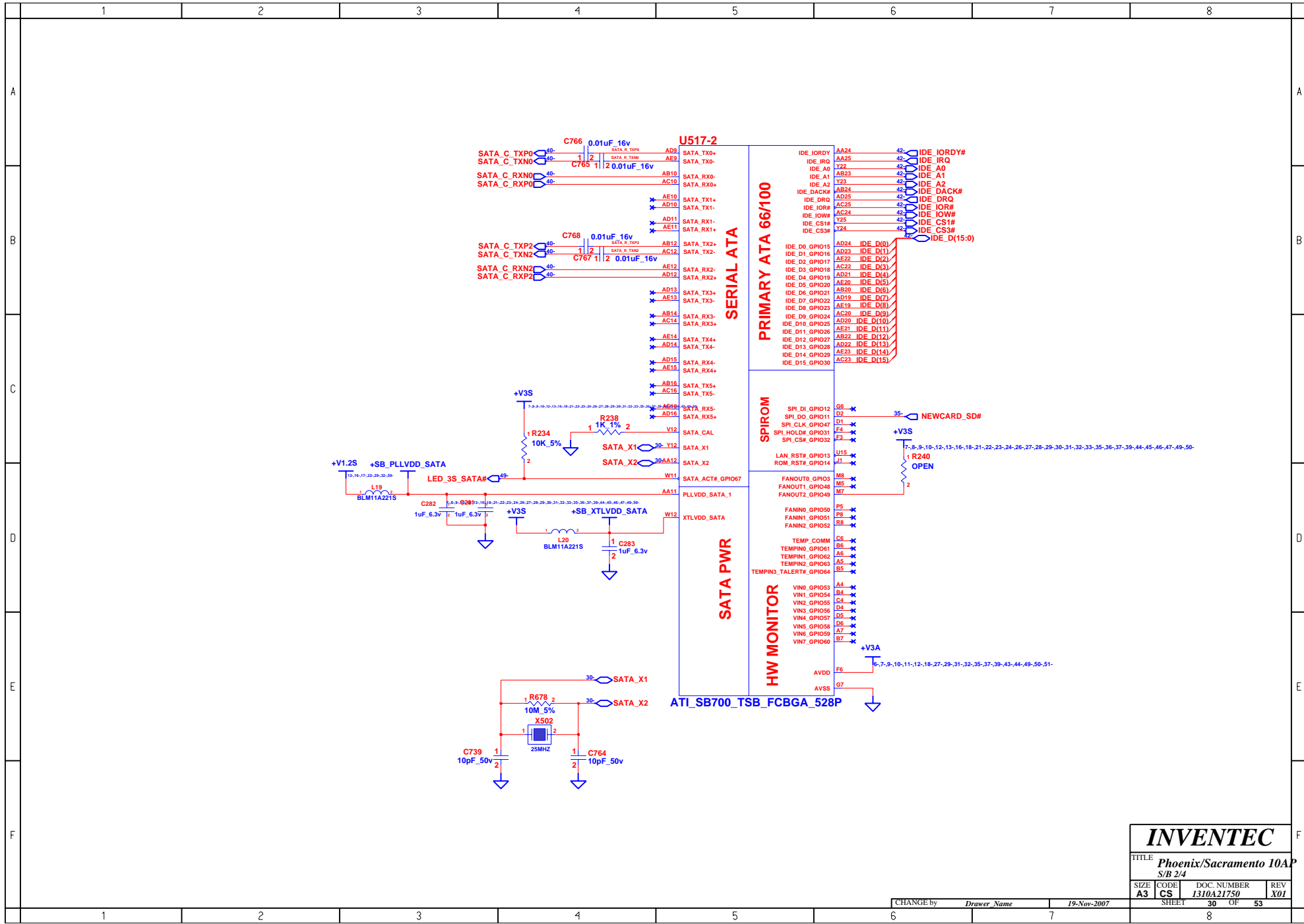
INVENTEC			
TITLE Phoenix/Sacramento 10AP			
HDMI CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
CHANGE by <i>Drawer Name</i>		17-Sep-2007	SHEET 27 OF 53



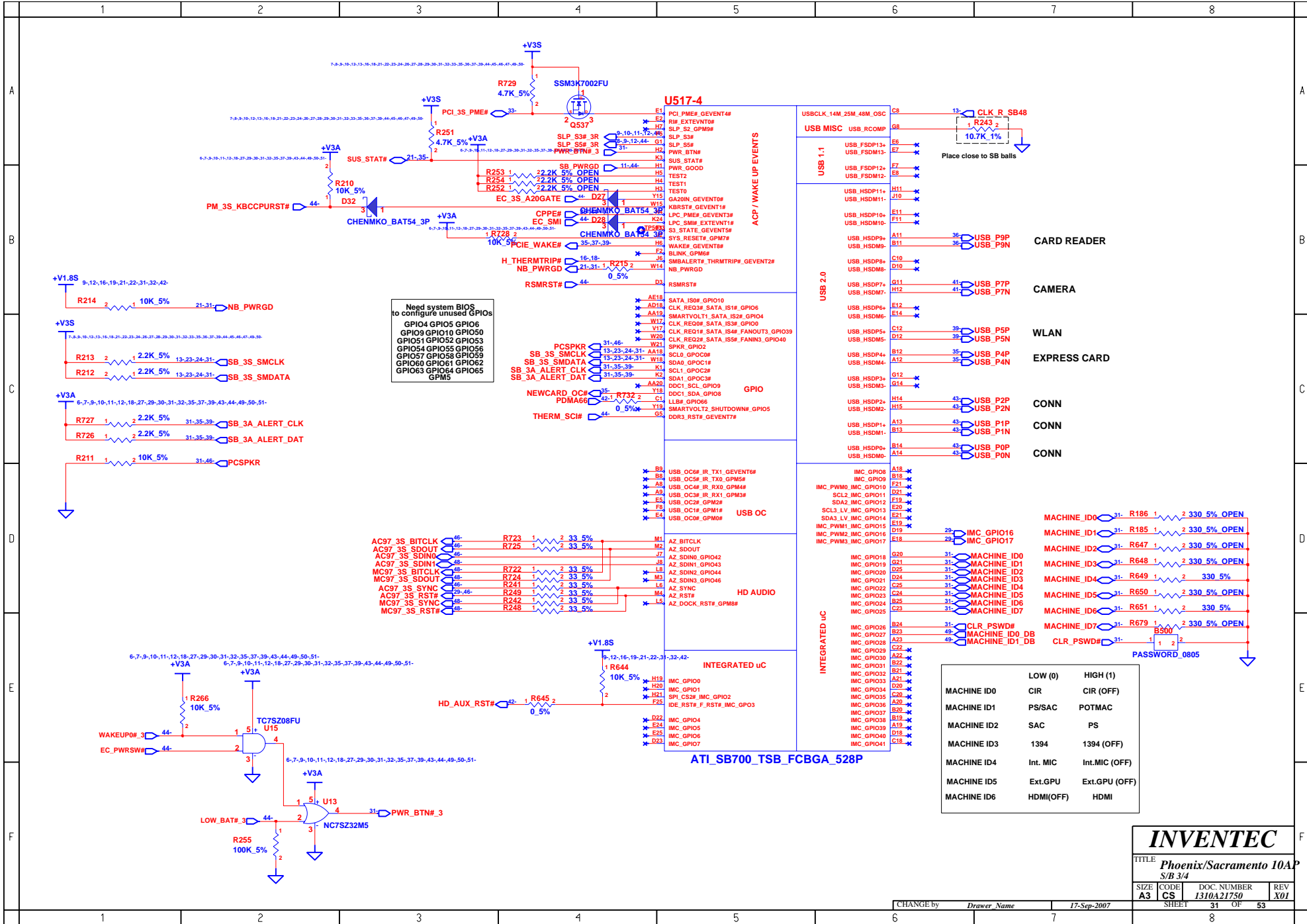
INVENTEC			
TITLE Phoenix/Sacramento 10A P			
LVDS CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by <i>Drawer Name</i>		27-Sep-2003	SHEET 28 OF 53



INVENTEC			
TITLE Phoenix/Sacramento 10A P			
S/B 1/4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by <i>Drawer Name</i>		6-Sep-2007	SHEET 29 OF 53
			8



INVENTEC			
TITLE Phoenix/Sacramento 10A P			
S/B 2/4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	19-Nov-2007
SHEET		30	OF 53



Need system BIOS to configure unused GPIOs

- GPIO4 GPIO5 GPIO6
- GPIO9 GPIO10 GPIO50
- GPIO51 GPIO52 GPIO53
- GPIO54 GPIO55 GPIO56
- GPIO57 GPIO58 GPIO59
- GPIO60 GPIO61 GPIO62
- GPIO63 GPIO64 GPIO65
- GPIO66

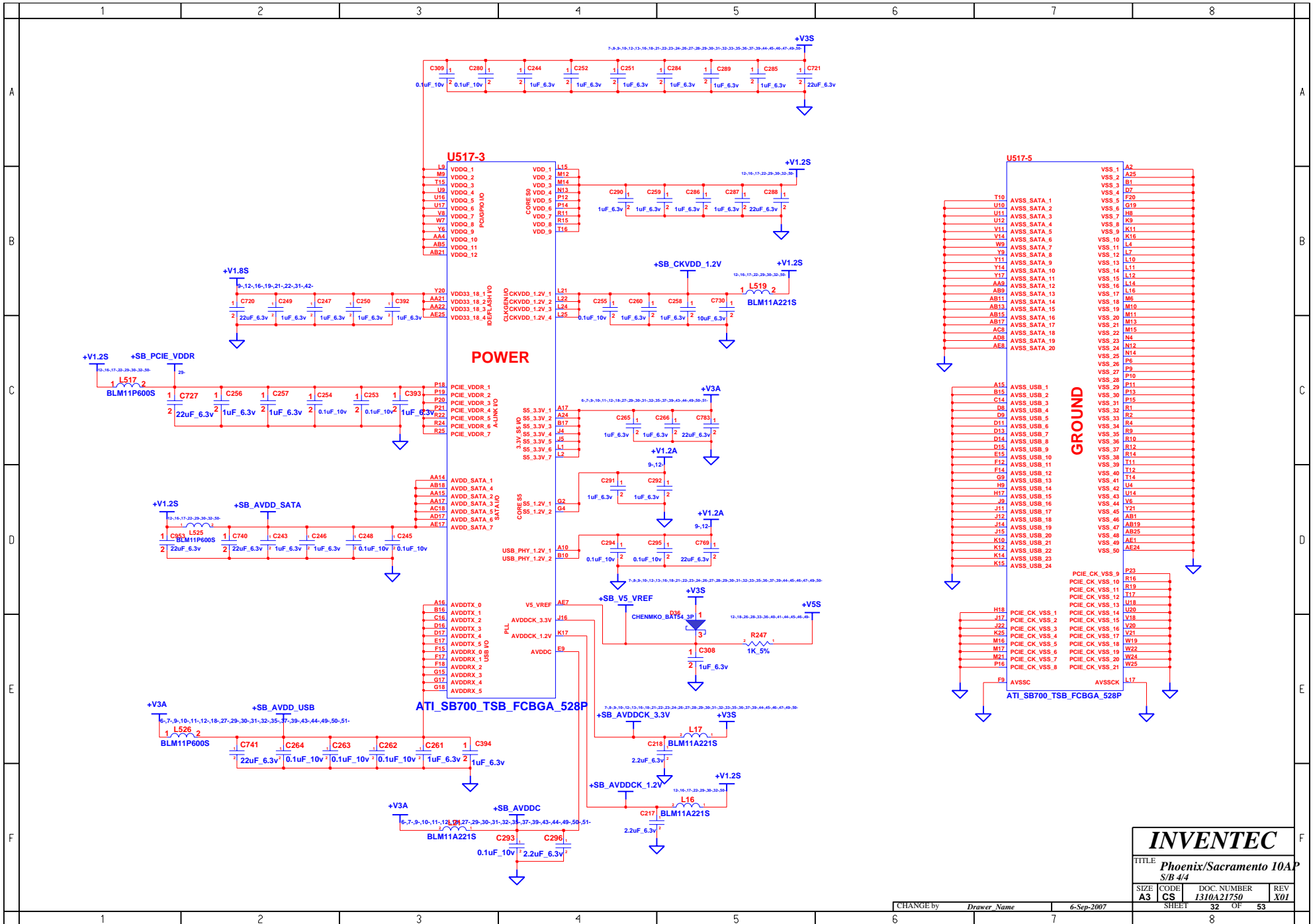
	LOW (0)	HIGH (1)
MACHINE ID0	CIR	CIR (OFF)
MACHINE ID1	PS/SAC	POTMAC
MACHINE ID2	SAC	PS
MACHINE ID3	1394	1394 (OFF)
MACHINE ID4	Int.MIC	Int.MIC (OFF)
MACHINE ID5	Ext.GPU	Ext.GPU (OFF)
MACHINE ID6	HDMI(OFF)	HDMI

INVENTEC

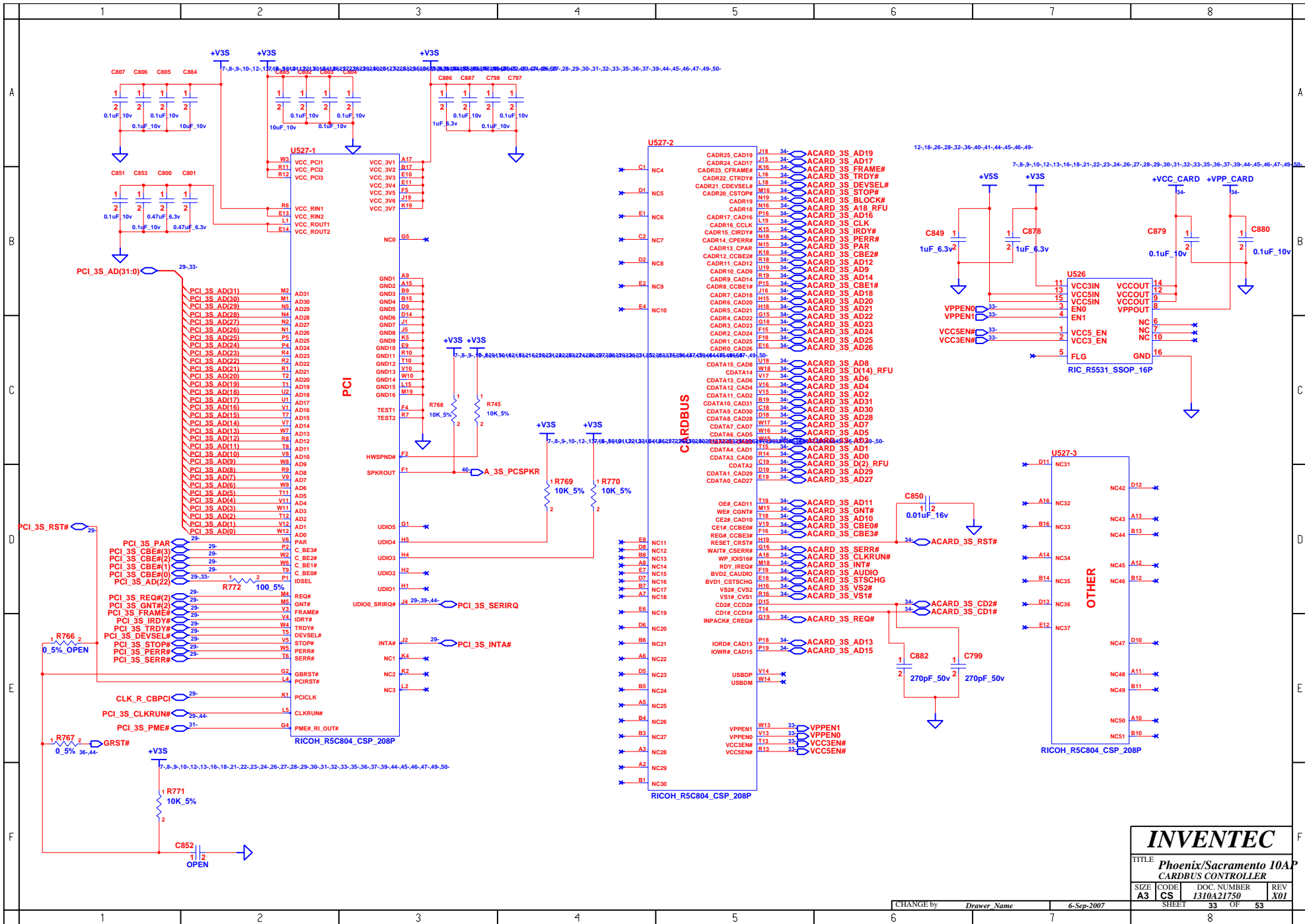
TITLE: Phoenix/Sacramento 10A P
S/B 3/4

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

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INVENTEC			
TITLE: Phoenix/Sacramento 10A			
S/B 4/4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A21750	X01
SHEET		32	OF 53

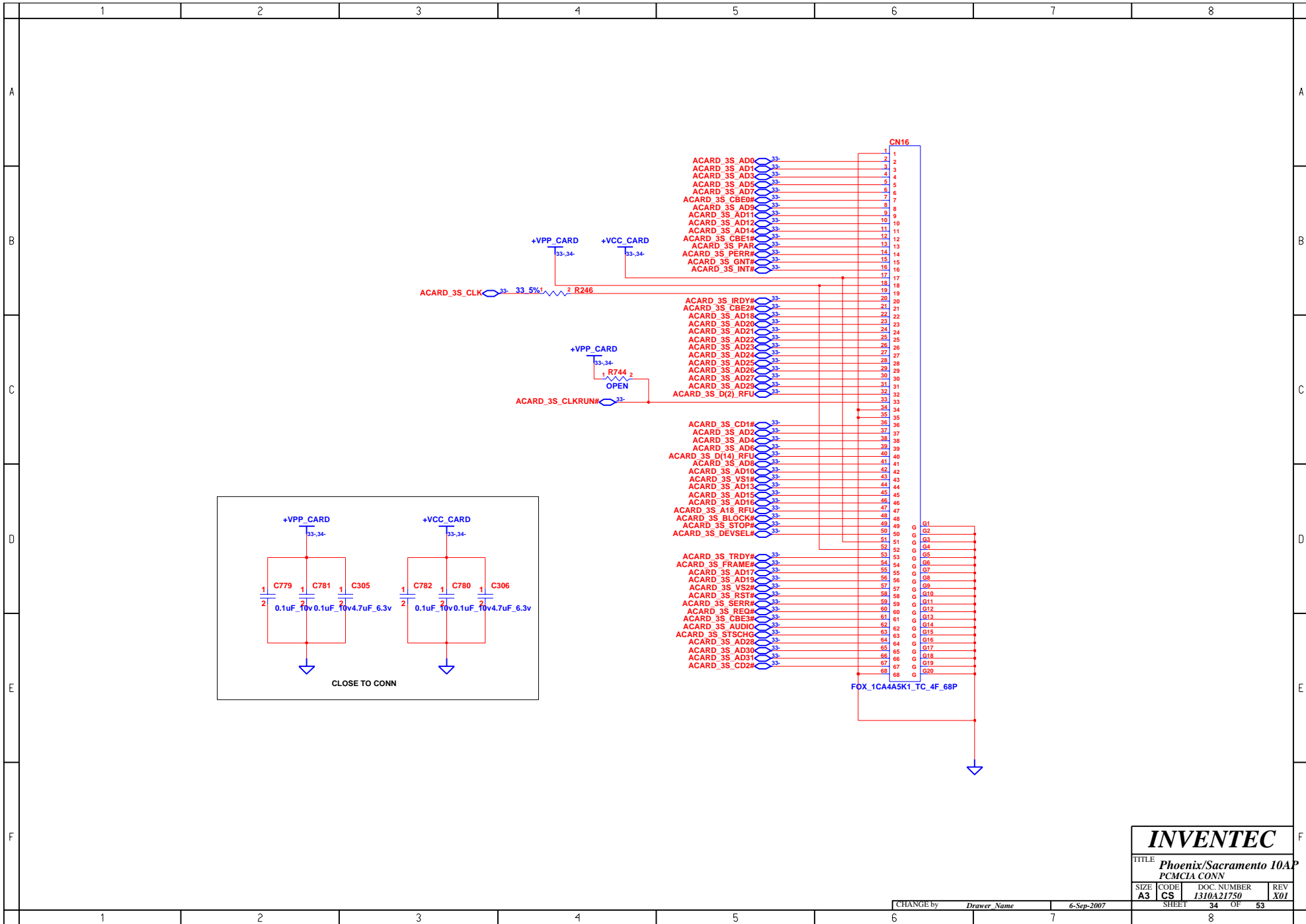


INVENTEC

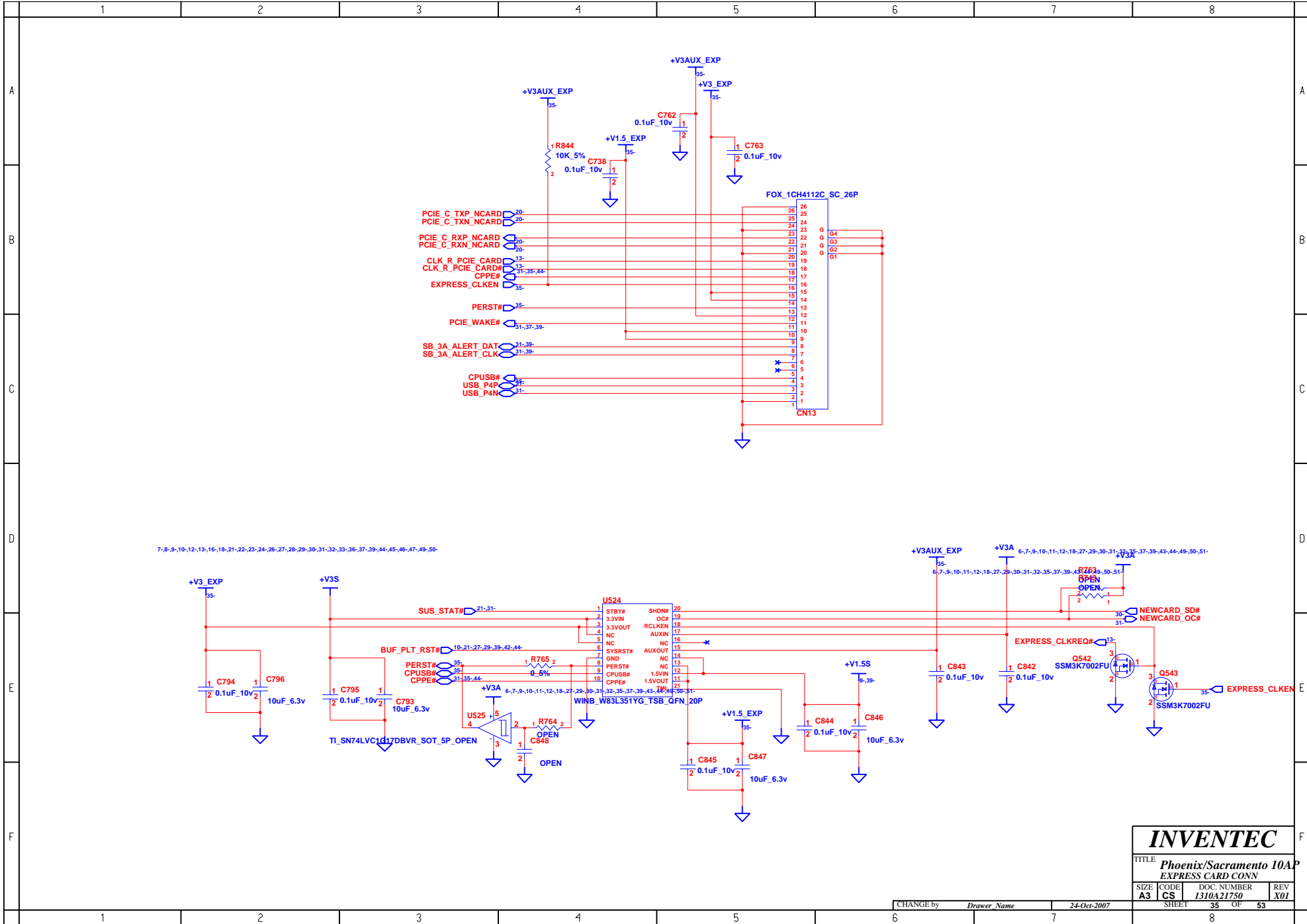
TITLE: **Phoenix/Sacramento 10A CARBUS CONTROLLER**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

CHANGE by: *Drawer Name* 6-Sep-2007 SHEET 33 OF 53



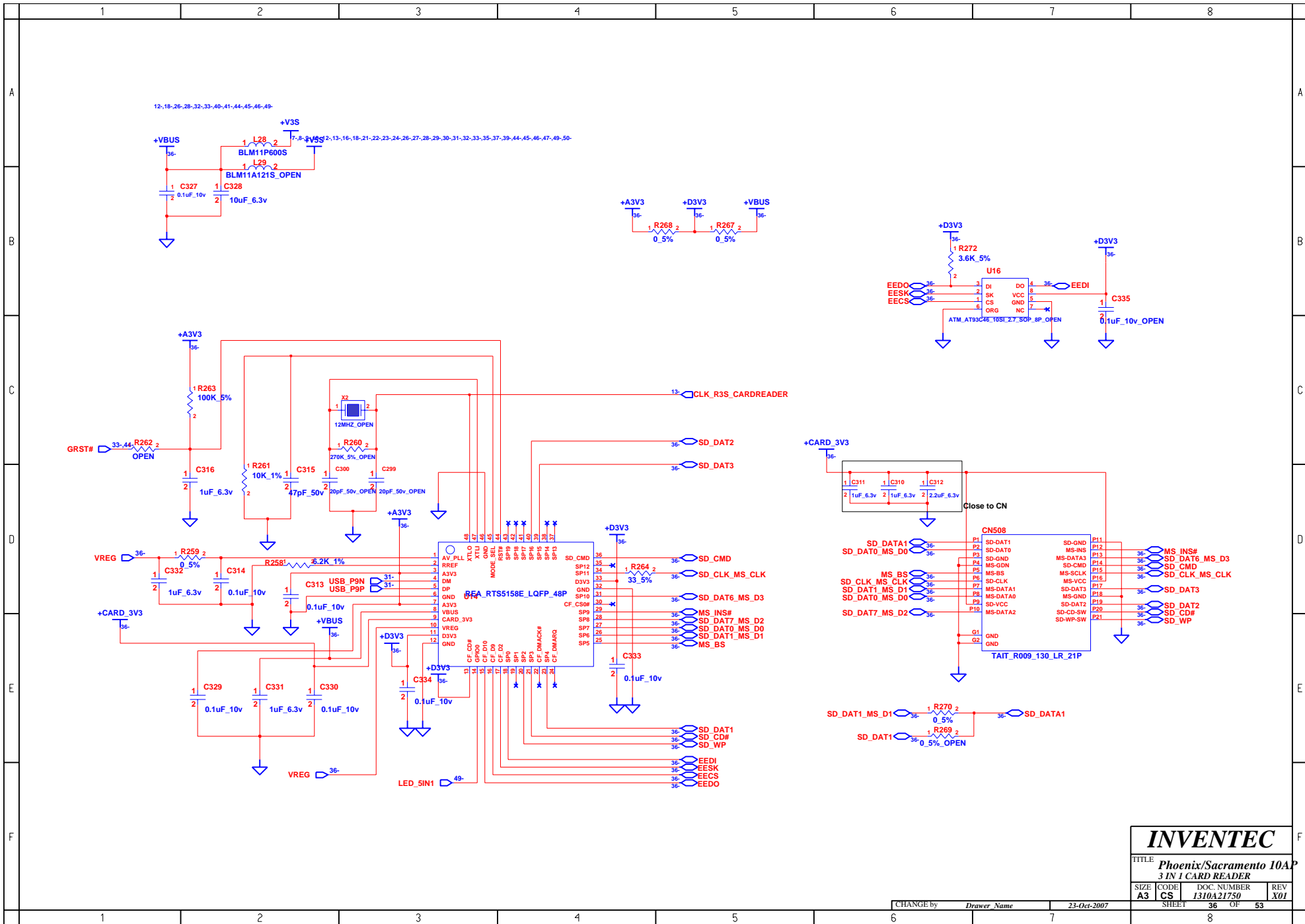
INVENTEC			
TITLE Phoenix/Sacramento 10A			
PCMCLIA CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
CHANGE by <i>Drawer Name</i>		6-Sep-2007	SHEET 34 OF 53



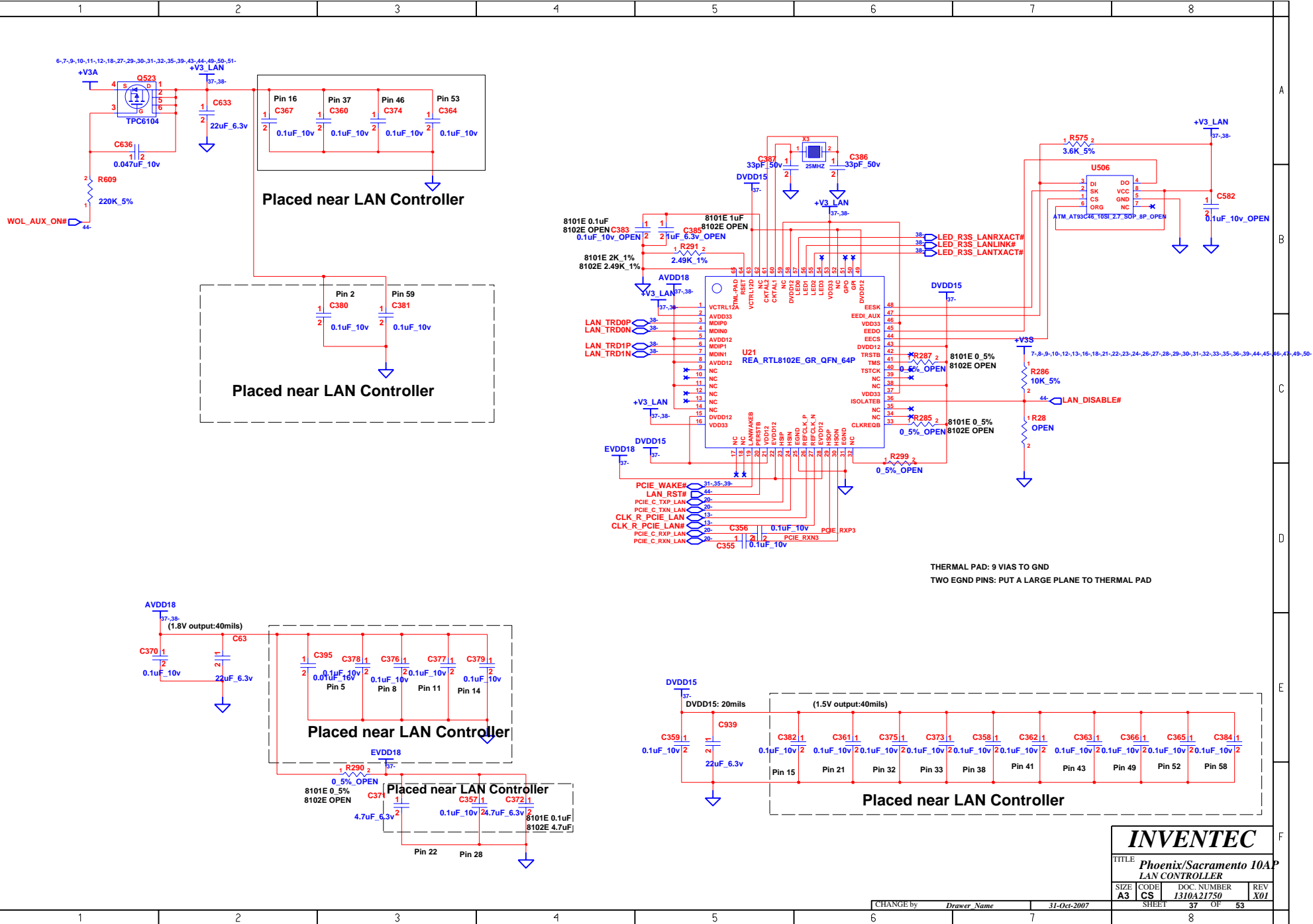
INVENTEC

TITLE: **Phoenix/Sacramento 10A EXPRESS CARD CONN**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01



INVENTEC			
TITLE: Phoenix/Sacramento 10A 3 IN 1 CARD READER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01



Placed near LAN Controller

Placed near LAN Controller

Placed near LAN Controller

Placed near LAN Controller

Placed near LAN Controller

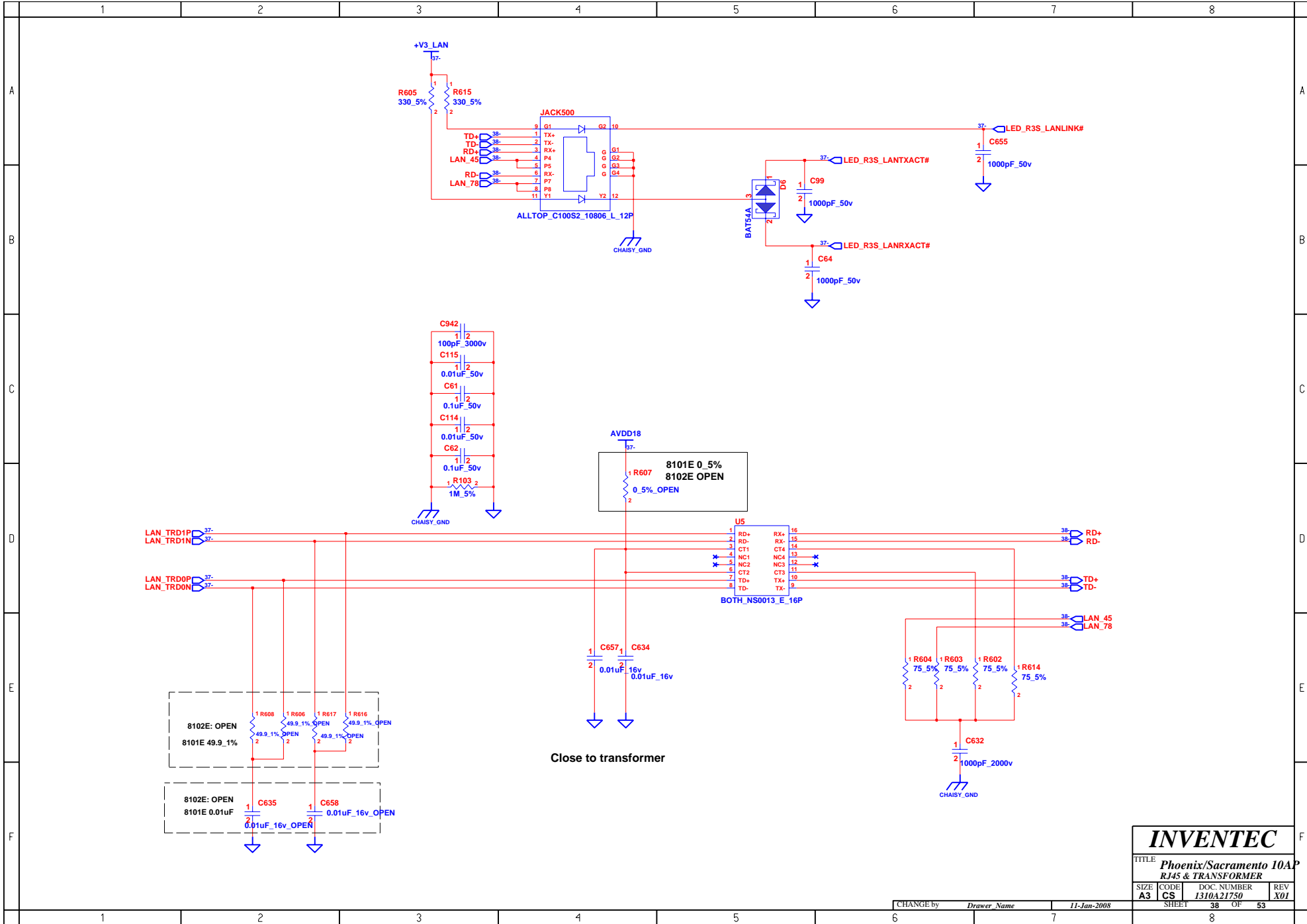
INVENTEC

TITLE: **Phoenix/Sacramento 10AP LAN CONTROLLER**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

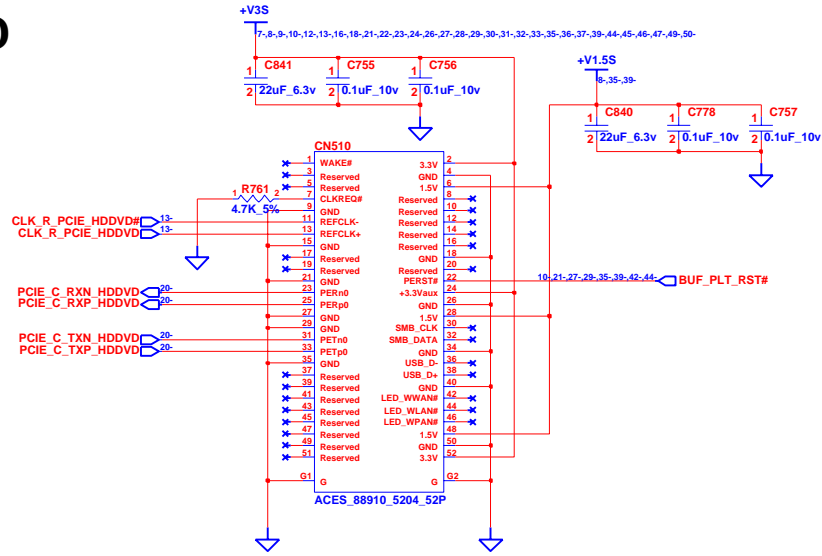
CHANGE by *Drawer Name* 31-Oct-2007

SHEET 37 OF 53

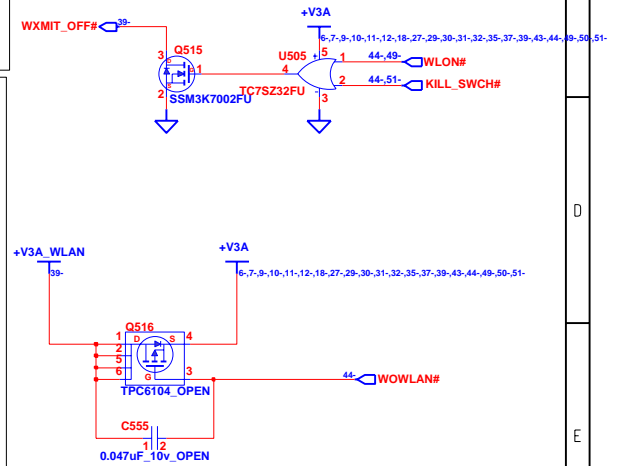
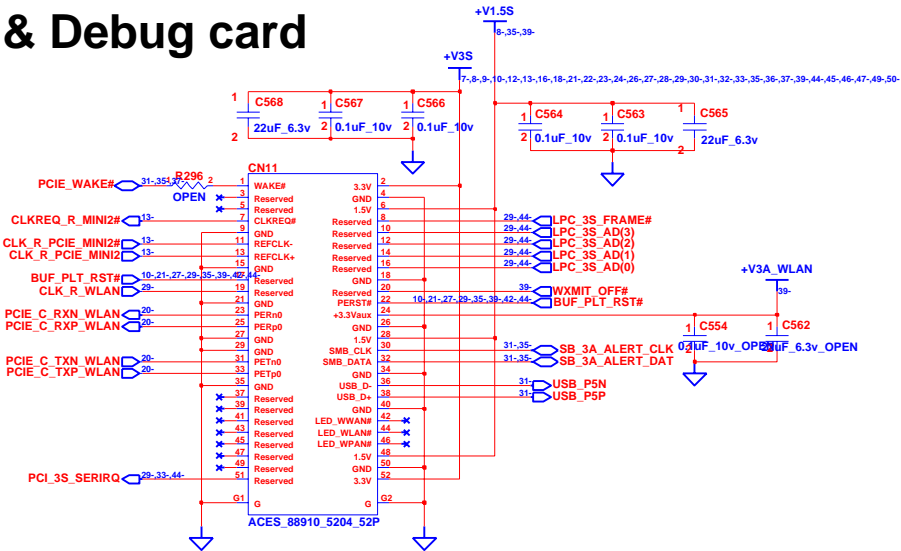


INVENTEC			
TITLE: Phoenix/Sacramento 10A RJ45 & TRANSFORMER			
SIZE: A3	CODE: CS	DOC. NUMBER: 1310A21750	REV: X01
CHANGE by: Drawer Name		11-Jan-2008	SHEET 38 OF 53

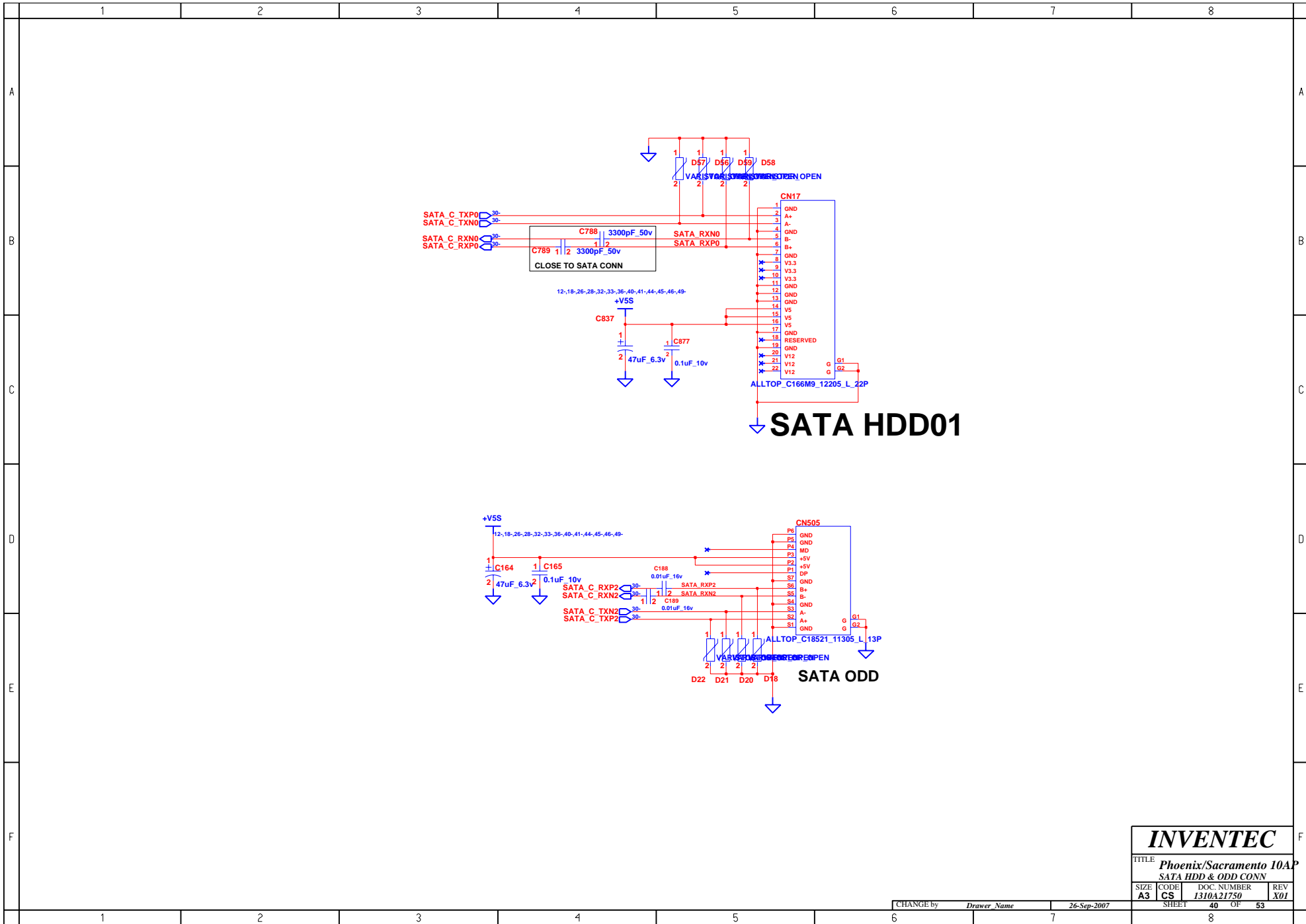
HD-DVD



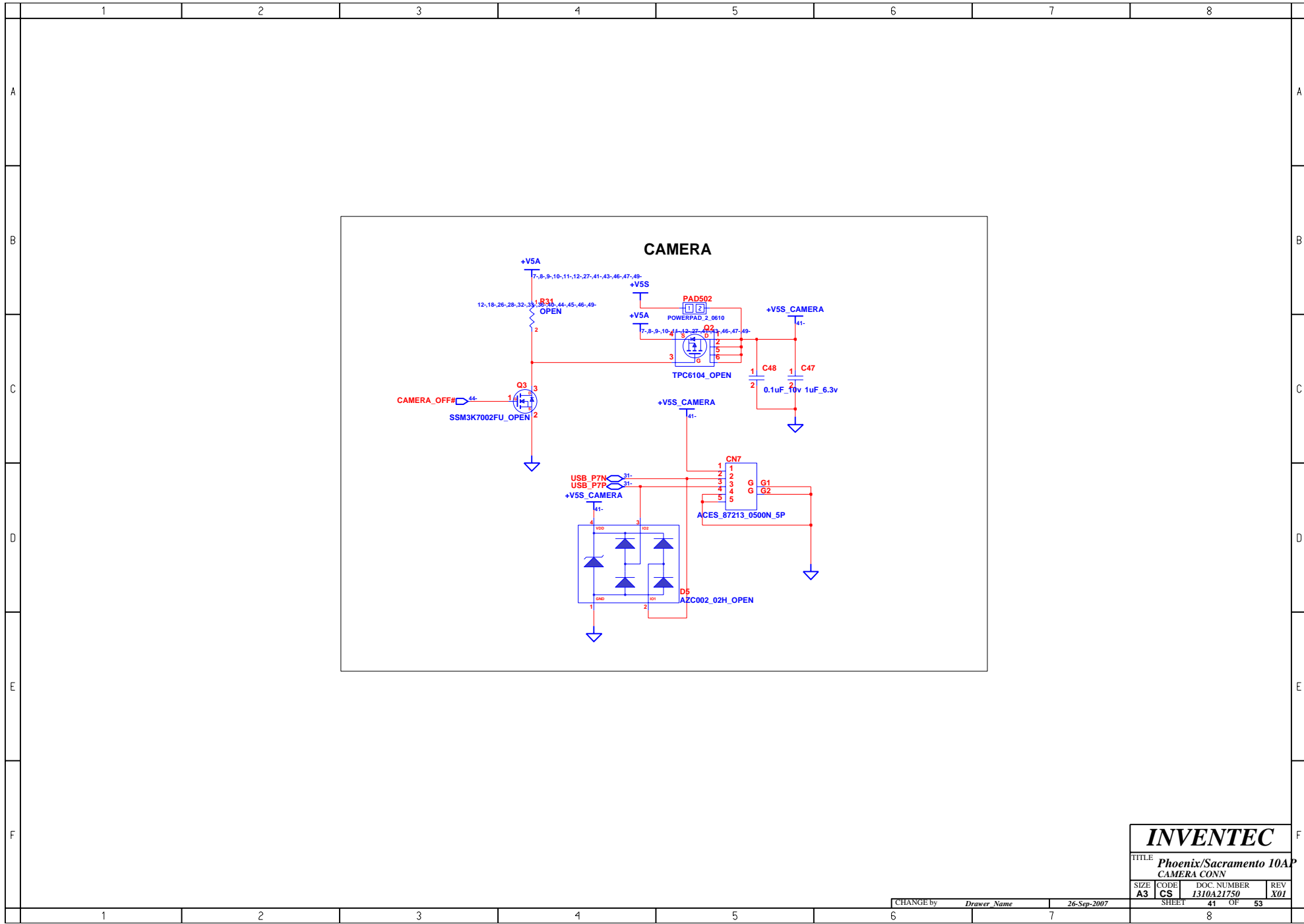
Wireless & Debug card



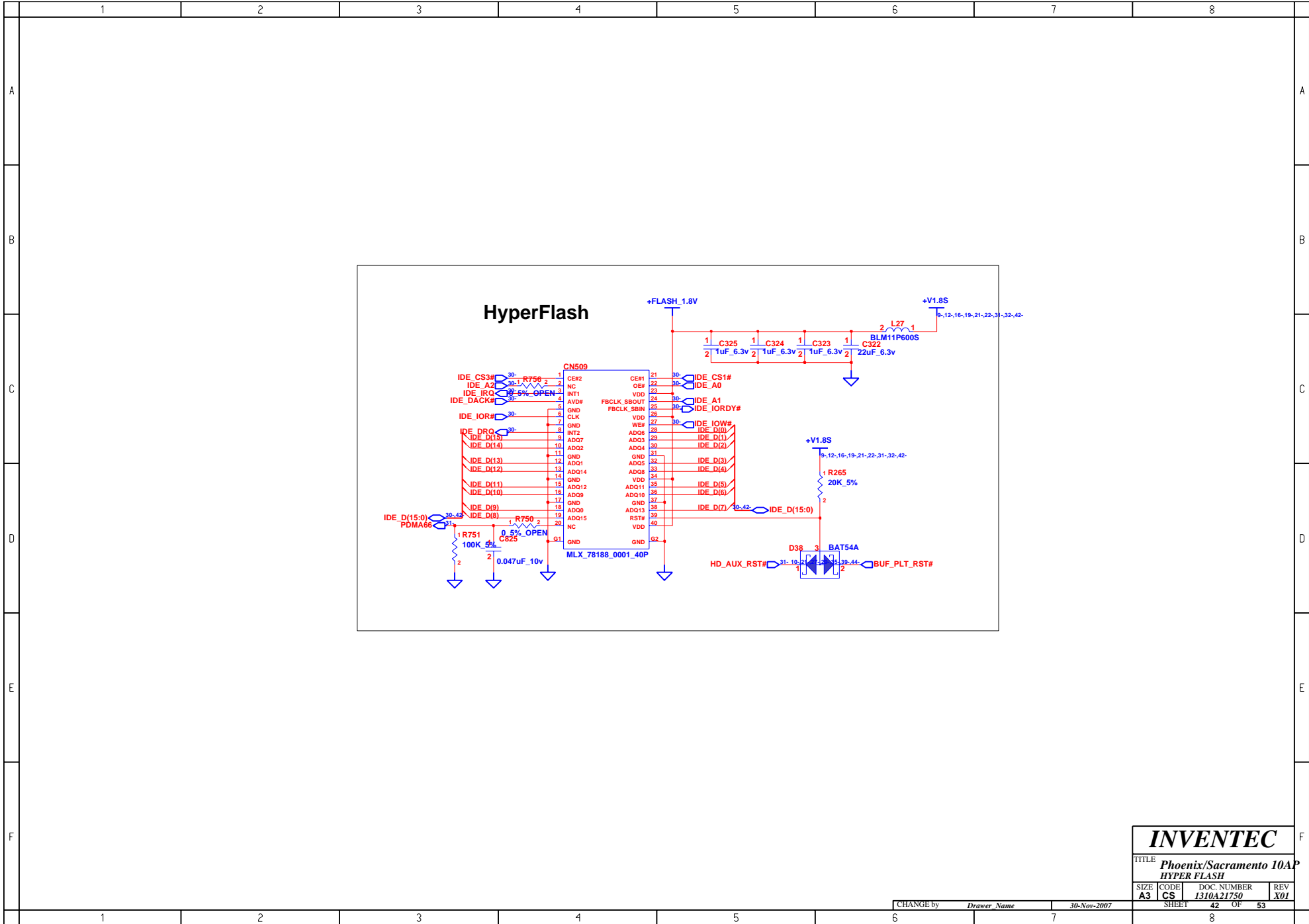
INVENTEC			
TITLE: Phoenix/Sacramento 10A			
WLAN & HD-DVD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01



INVENTEC			
TITLE Phoenix/Sacramento 10A			
SATA HDD & ODD CONN			
SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
CHANGE by <i>Drawer Name</i>		26-Sep-2007	SHEET 40 OF 53



INVENTEC			
TITLE Phoenix/Sacramento 10A			
CAMERA CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	26-Sep-2007
SHEET		41	OF 53



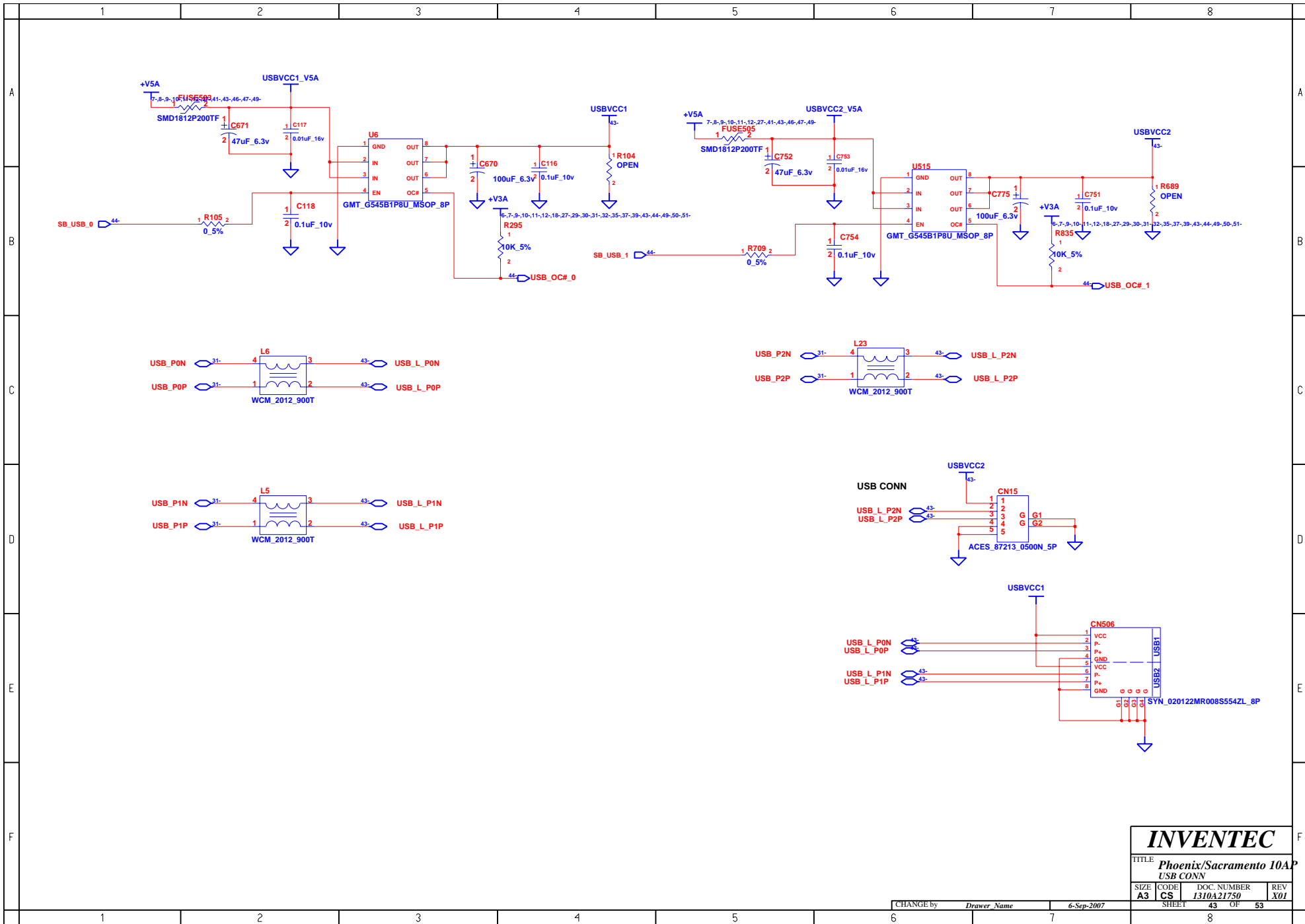
INVENTEC

TITLE **Phoenix/Sacramento 10A
HYPER FLASH**

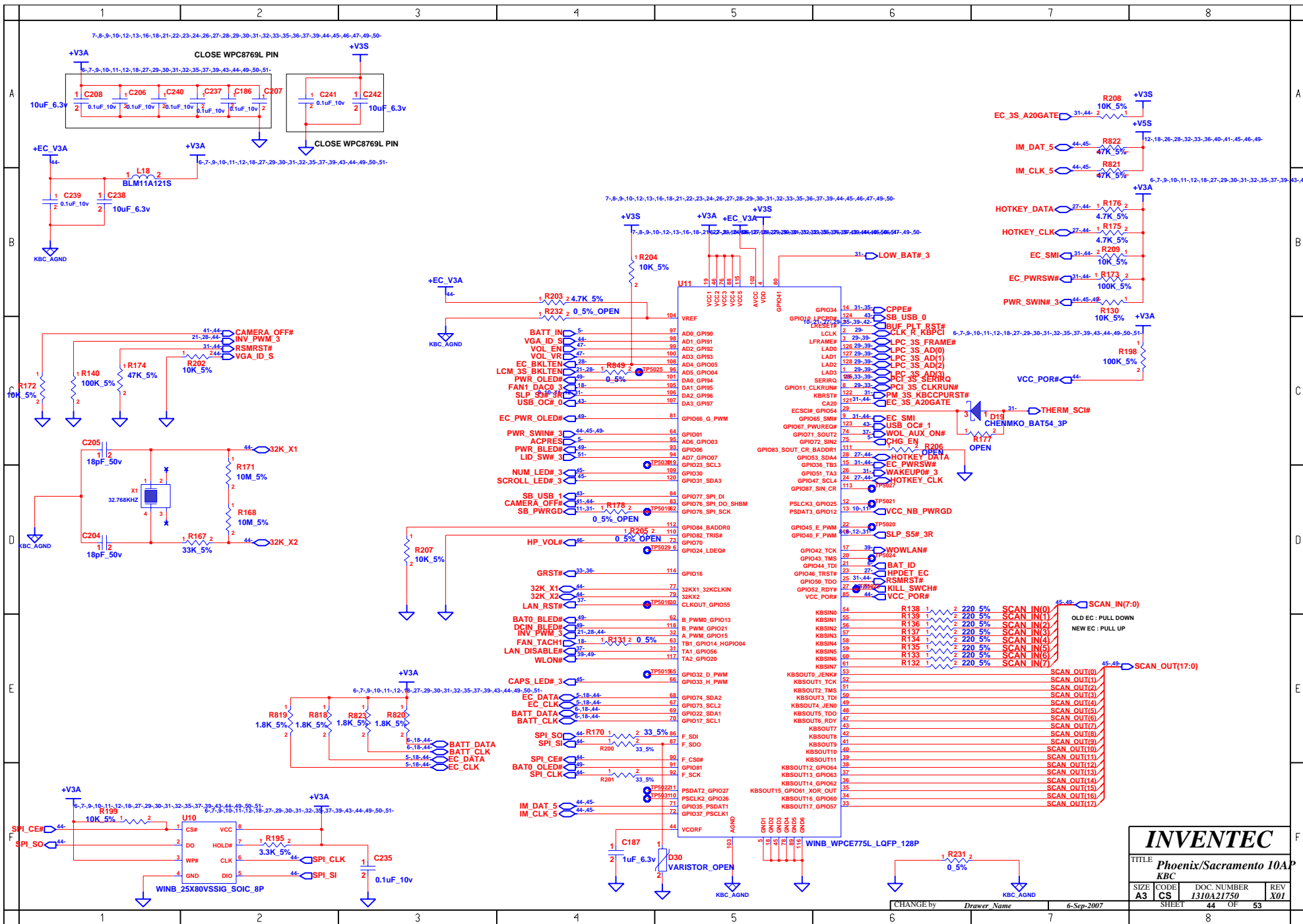
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01

CHANGE by *Drawer Name* 30-Nov-2007

SHEET 42 OF 53

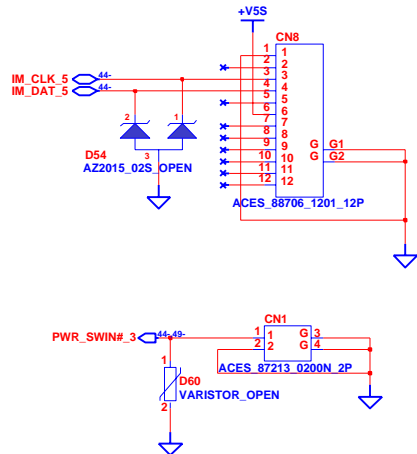
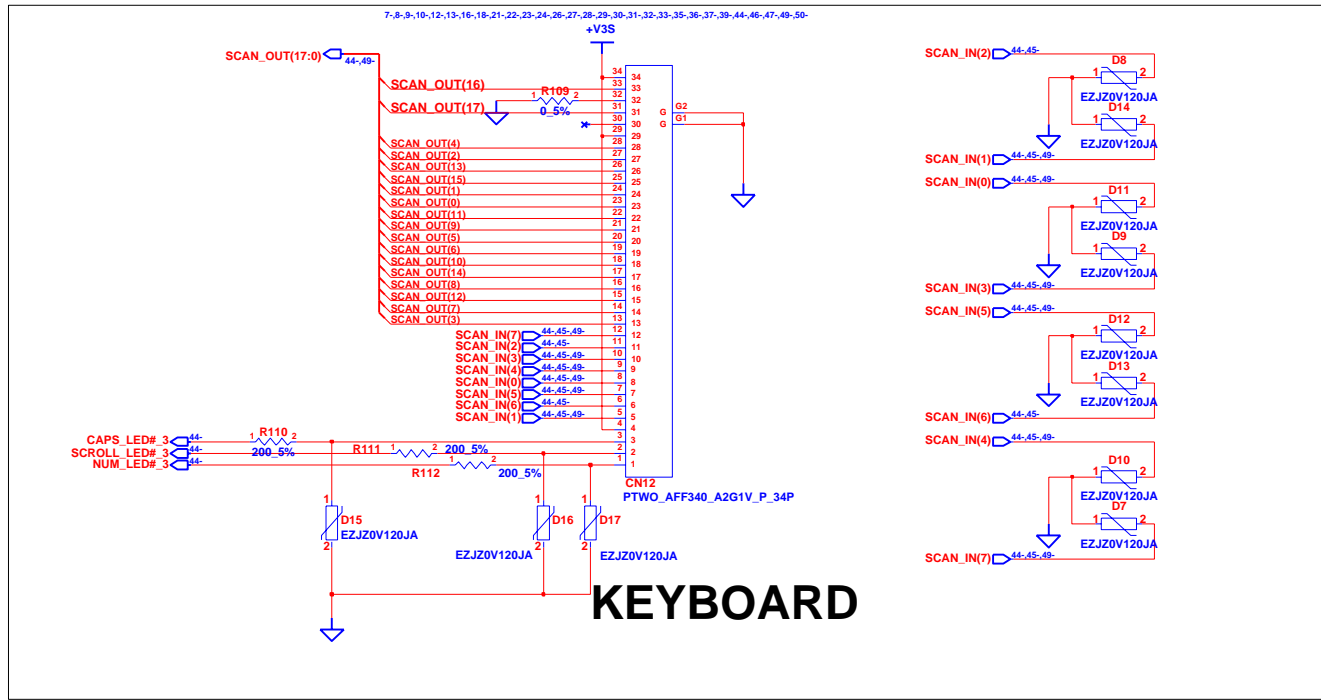


INVENTEC			
TITLE: Phoenix/Sacramento 10A P			
USB CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	6-Sep-2007
SHEET		43	OF 53



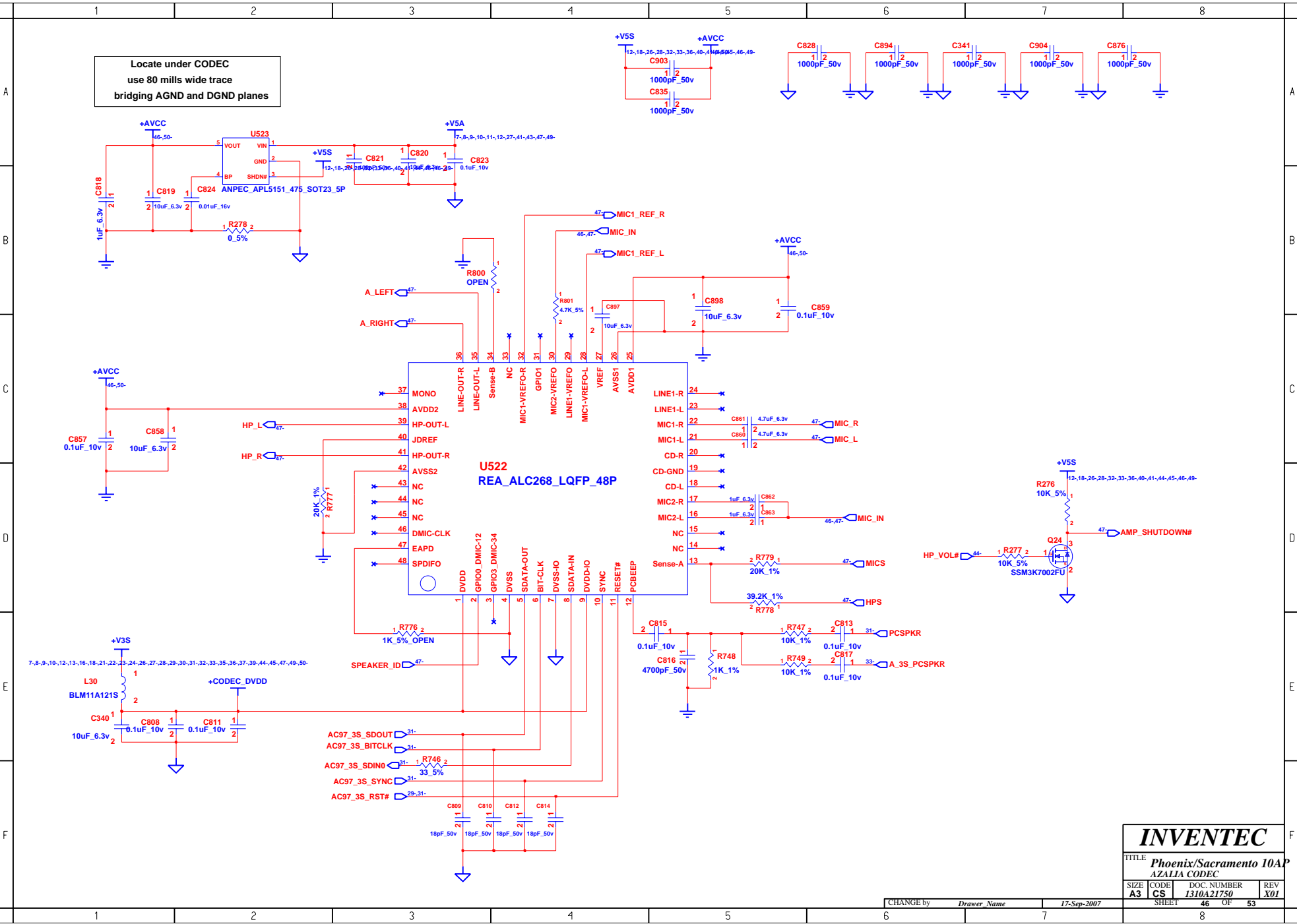
INVENTEC			
TITLE Phoenix/Sacramento 10A			
KBC			
SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
SHEET 44		OF 53	

CHANGE by *Drawer Name* 6-Sep-2007

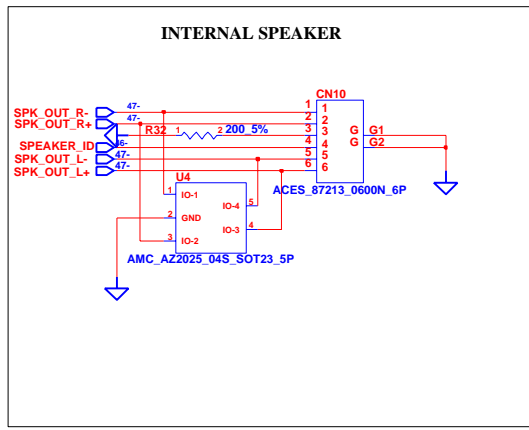
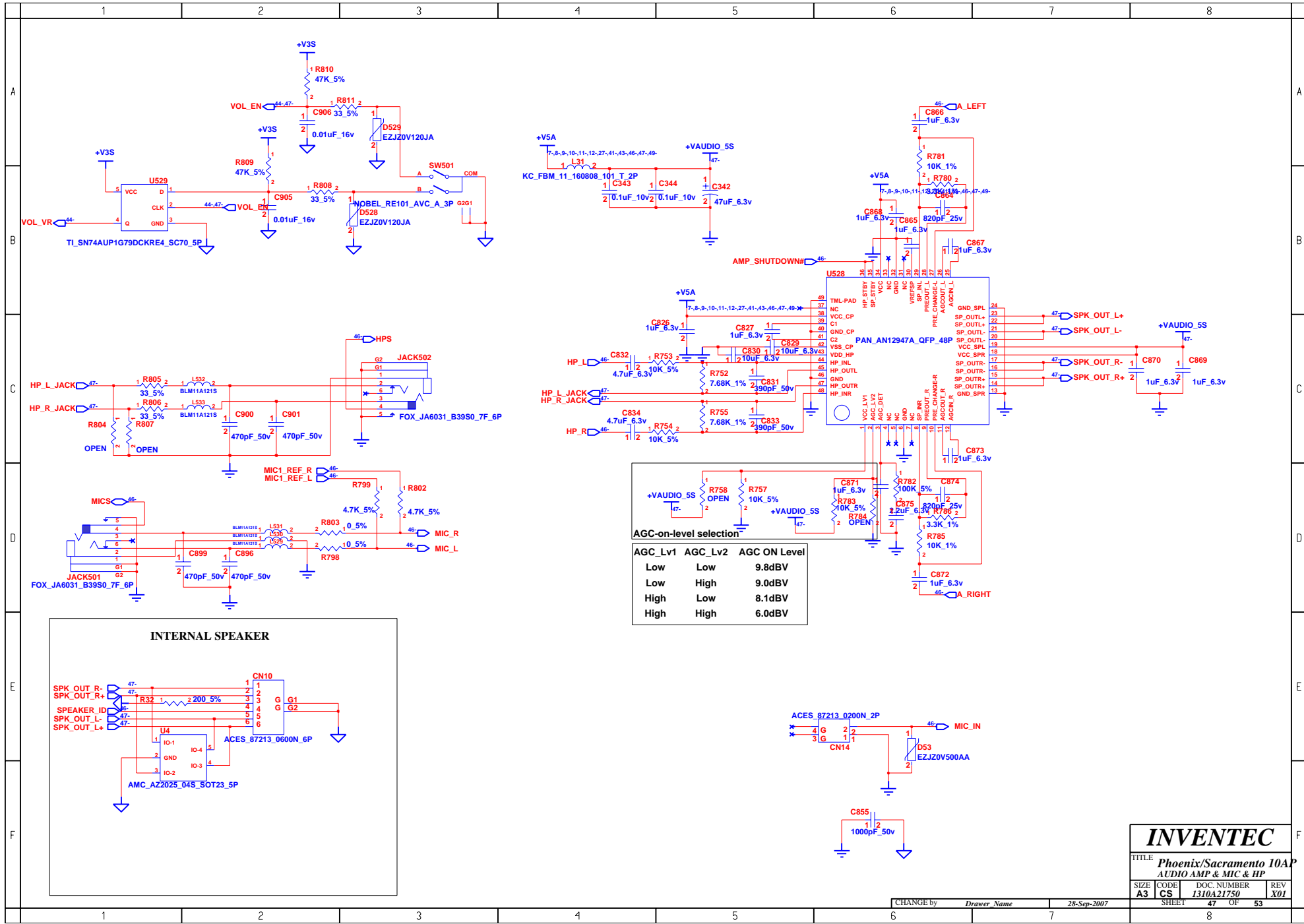


INVENTEC			
TITLE: Phoenix/Sacramento 10A			
KBC & TP/B CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A21750	X01
CHANGE by		Drawer Name	1-Oct-2007
SHEET		45	OF 53

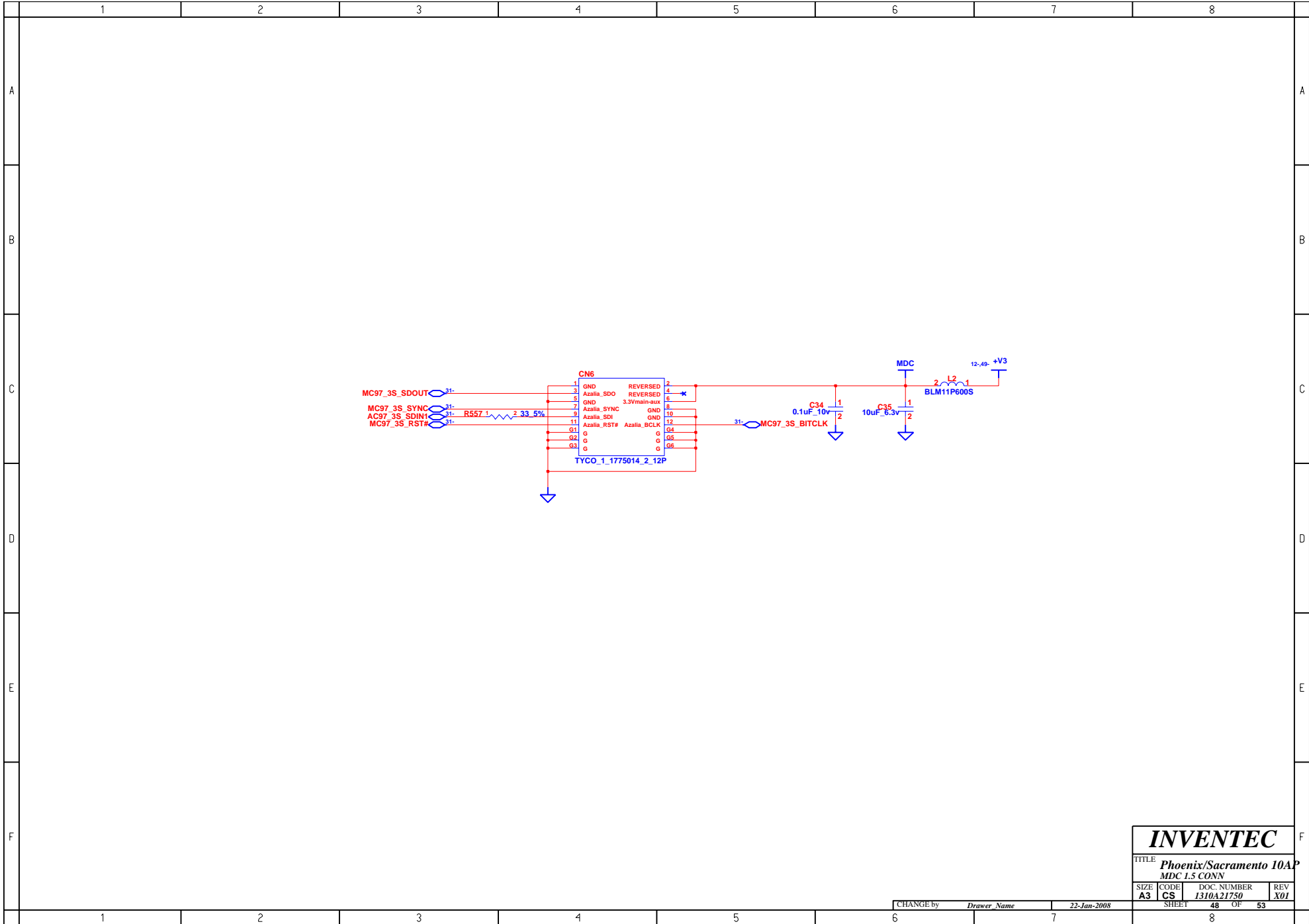
Locate under CODEC
use 80 mills wide trace
bridging AGND and DGND planes



INVENTEC			
TITLE Phoenix/Sacramento 10A AZALIA CODEC			
SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
CHANGE by Drawer Name		17-Sep-2007	
SHEET 46		OF 53	



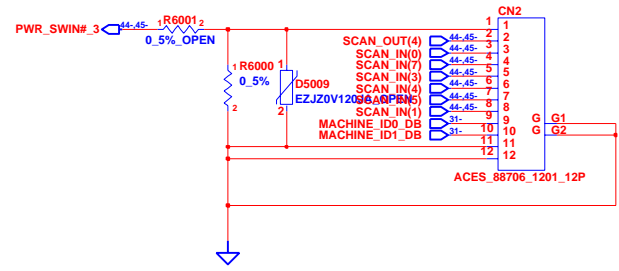
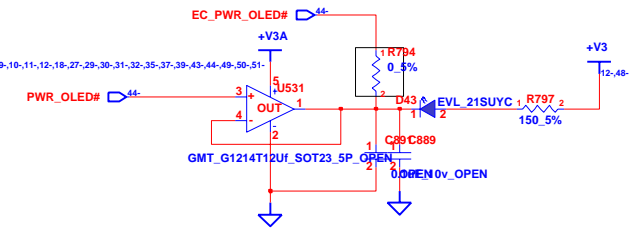
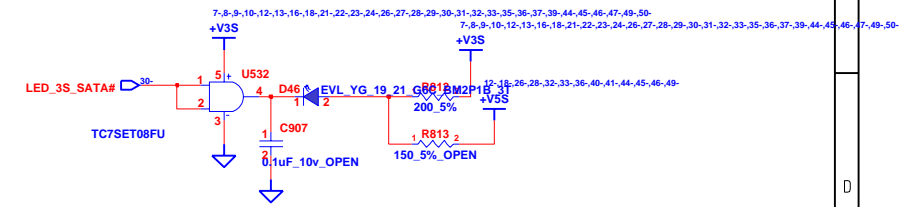
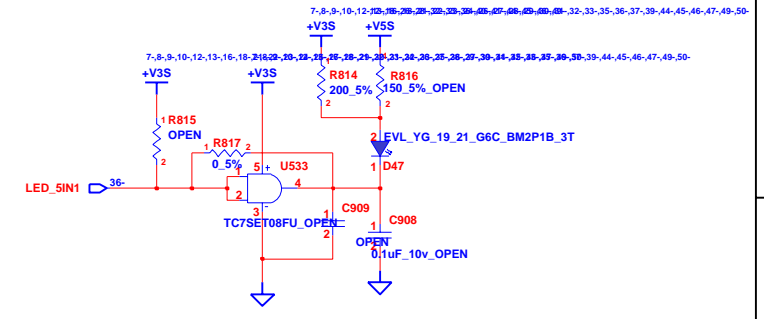
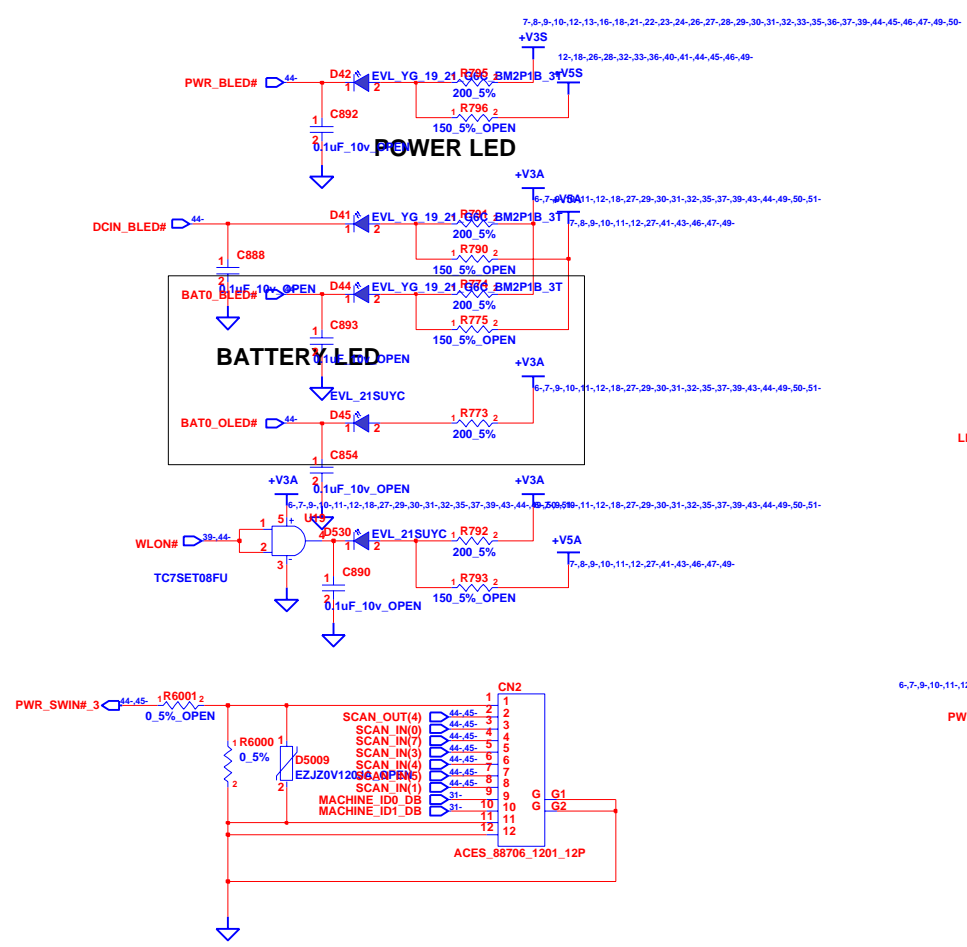
INVENTEC			
TITLE: Phoenix/Sacramento 10A			
AUDIO AMP & MIC & HP			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A21750	X01
CHANGE by		Drawer Name	28-Sep-2007
SHEET		47	OF 53



INVENTEC

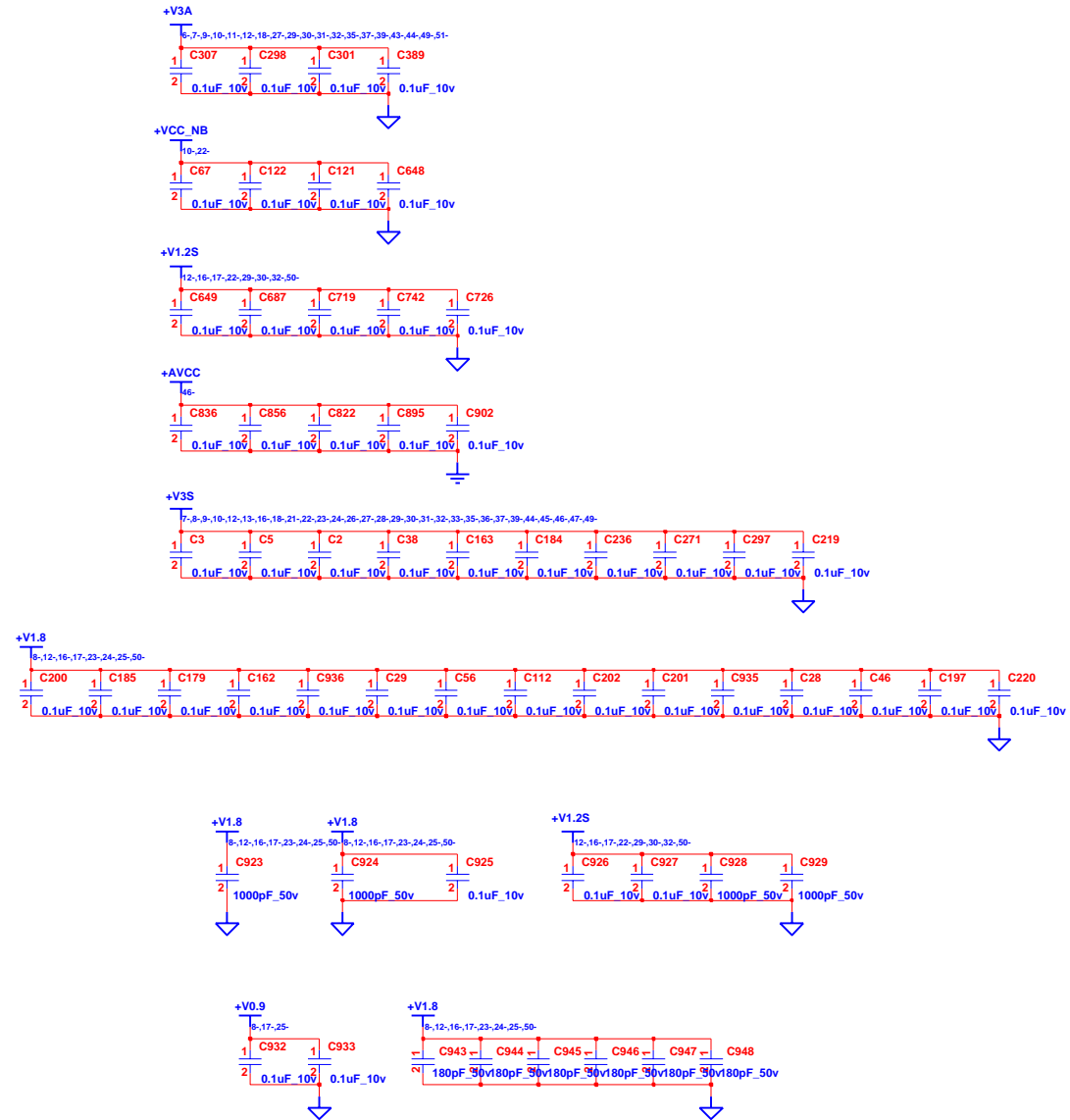
TITLE **Phoenix/Sacramento 10A
MDC 1.5 CONN**

SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
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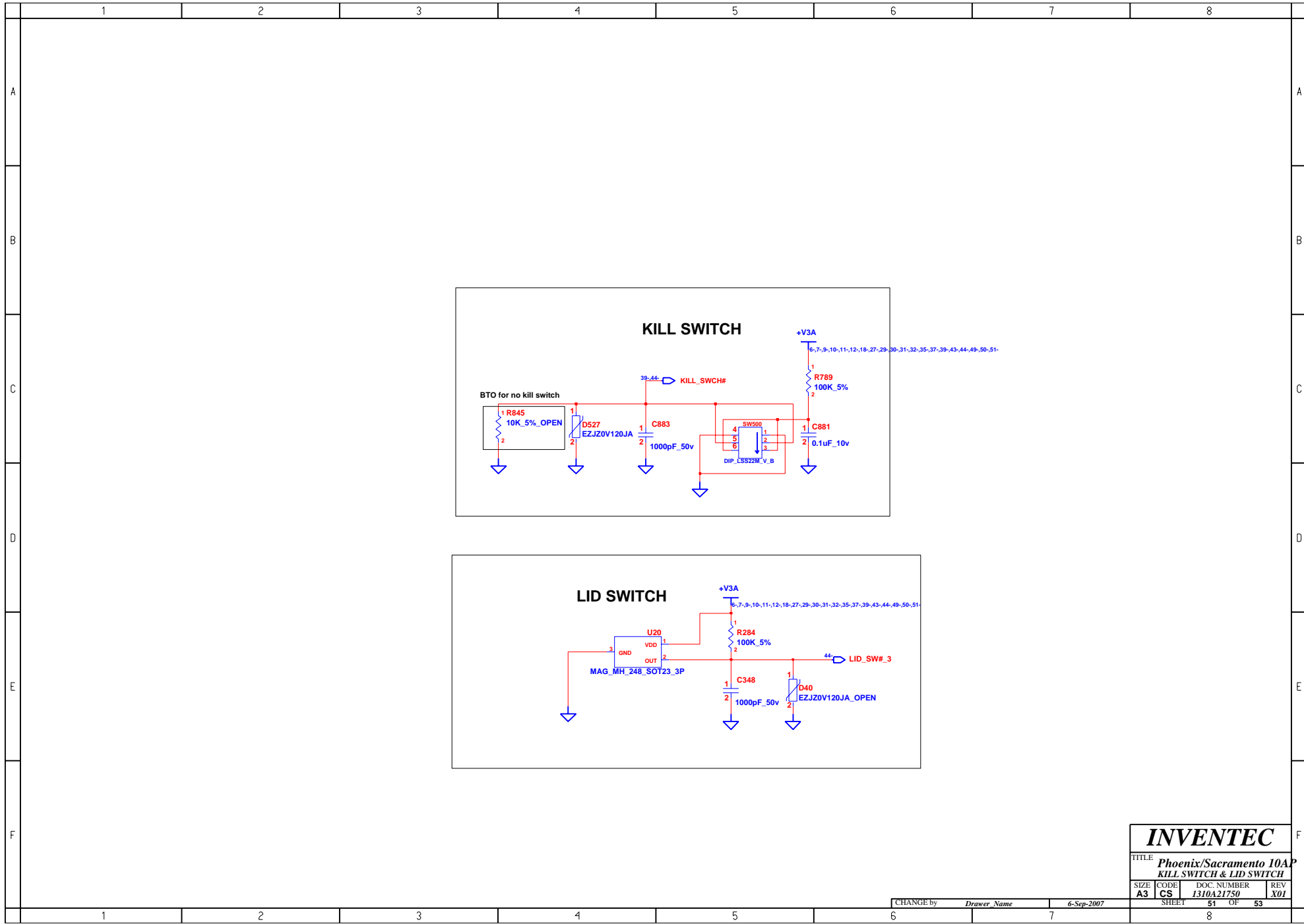


INVENTEC			
TITLE Phoenix/Sacramento 10A			
LED & HOTKEY/B CONN			
SIZE A3	CODE CS	DOC. NUMBER I310A21750	REV X01
CHANGE by <i>Drawer Name</i>		17-Sep-2007	
SHEET		49 OF 53	

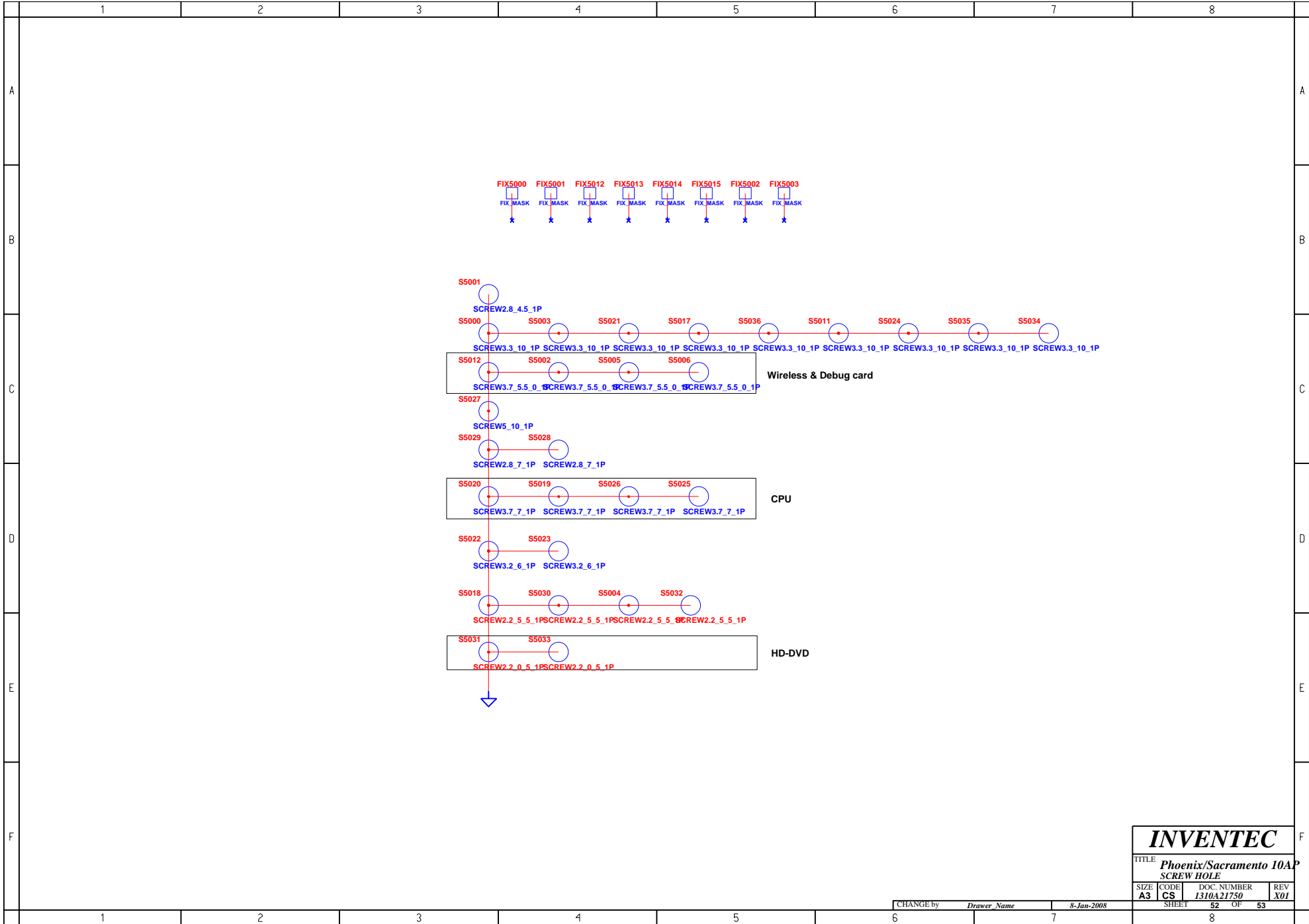
EMI CAPACITOR



INVENTEC			
TITLE Phoenix/Sacramento 10A TOUCH PAD BOARD			
SIZE A3	CODE CS	DOC. NUMBER I310A21750	REV X01
CHANGE by <i>Drawer Name</i>		28-Sep-2007	SHEET 50 OF 53



INVENTEC			
TITLE Phoenix/Sacramento 10A			
KILL SWITCH & LID SWITCH			
SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
CHANGE by <i>Drawer Name</i>		6-Sep-2007	SHEET 51 OF 53



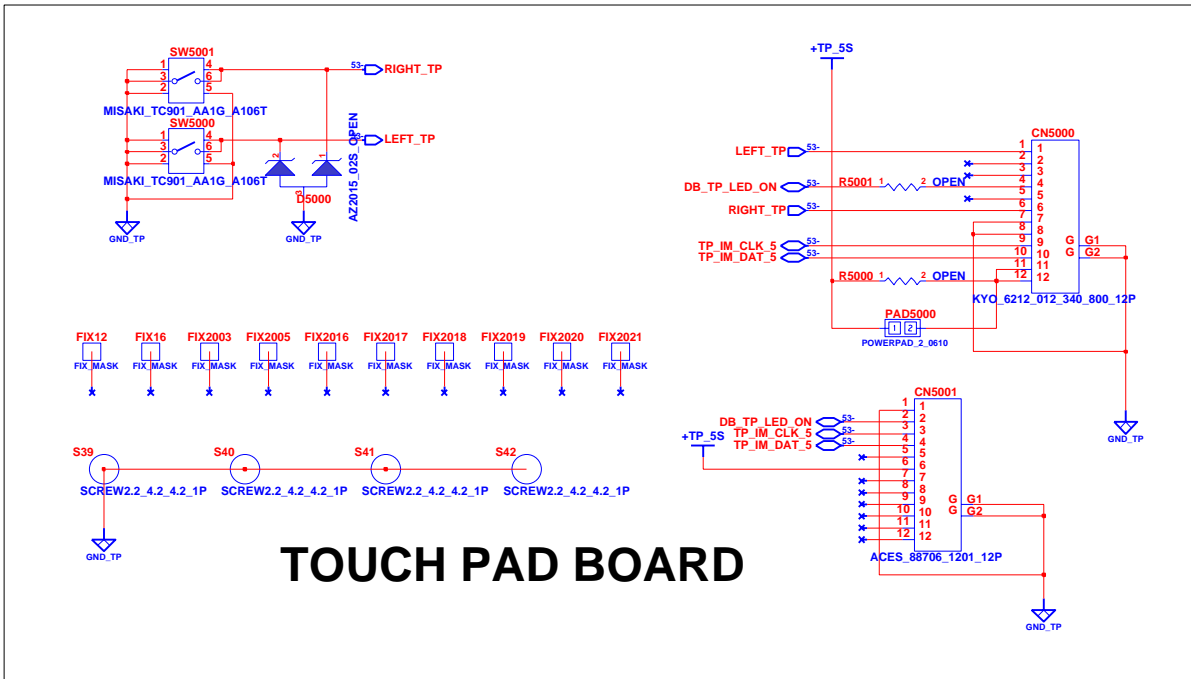
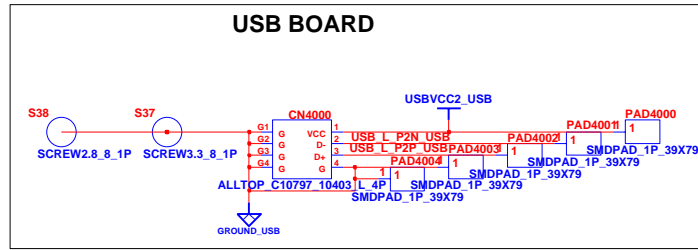
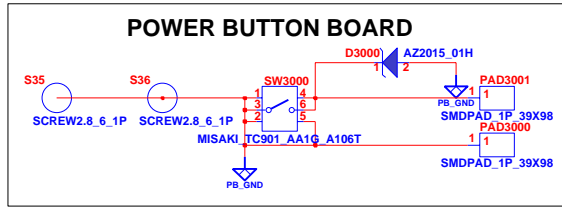
INVENTEC

TITLE **Phoenix/Sacramento 10A**
SCREW HOLE

SIZE A3	CODE CS	DOC. NUMBER 1310A21750	REV X01
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CHANGE by *Drawer Name* 8-Jan-2008

SHEET 52 OF 53



INVENTEC			
TITLE Phoenix/Sacramento 10A			
DAUGHTER BOARD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS		
CHANGE by		25-Feb-2008	
		SHEET 53	OF 53