

INVENTEC

Preliminary Test

2008/03/25

DATE	CHANGE NO.	REV
		2

DRAWER	EE	DATE	POWER	DATE	INVENTEC
DESIGN					
CHECK					TITLE PT10SC
RESPONSIBLE					
SIZE =	3	VER :			
FILE NAME	XXXXXXXXXXXX				DOC. NUMBER
					Model No
					REV
					X01
					SHEET 1 OF 63

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

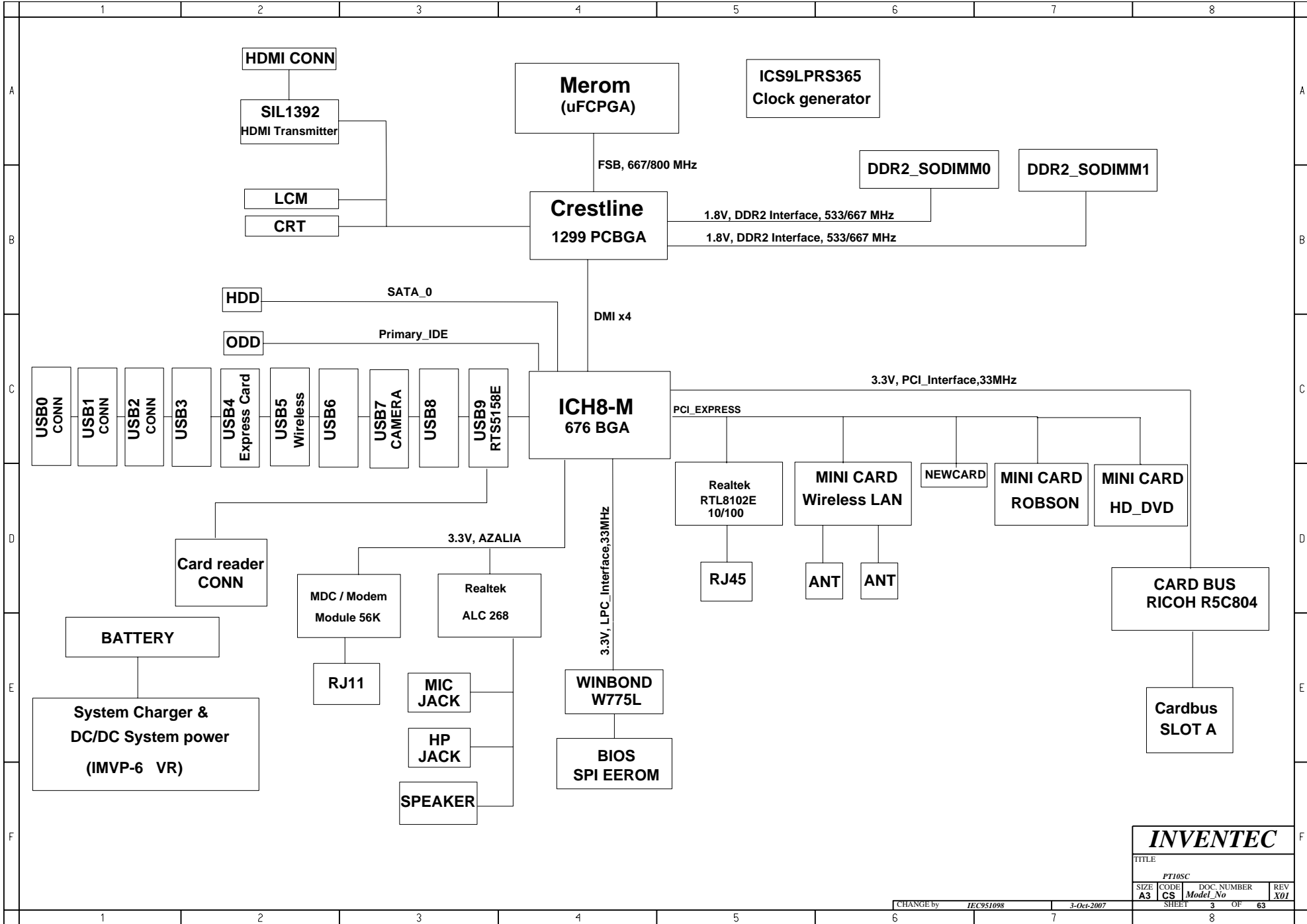
TABLE OF CONTENTS

PAGE	PAGE	PAGE
1.COVER PAGE	33. HDMI TRANSMITTER	58.MDC 1.5 CONN
2.INDEX	34.S/B ICH8 1	59.LED(M/B) & HOTKEY/B CONN
3.BLOCK DIAGRAM	35.S/B ICH8 2	60.PICK BUTTON BOARD
4.POWER SEQUENCE BLOCK	36.S/B ICH8 3	61.KILL SWITCH& HALL SENSOR
5-12.SYSTEM POWER	37.S/B ICH8 4	62.DRILL HOLE
13.CLOCK GENERATOR	38.S/B ICH8 5	63.EMI
14.CPU Merom1	40.3 IN 1 CARD SLOT	
15.CPU Merom2	41.CARDBUS CONTROLLER	
16.CPU Merom3	42.PCMCIA CONN	
17.CPU Merom4		
18.FAN & THERMAL CONTROLLER	43.EXPRESS CARD CONN	
19.N/B Crestline 1	44.LAN CONTROLLER	
20.N/B Crestline 2	45.RJ45 & TRANSFORMER	
21.N/B Crestline 3	46.ROBSON & WLAN	
22.N/B Crestline 4	47.SATA HDD1 CONN	
23.N/B Crescline 5	48.CAMERA CONN	
24.N/B Crestline 6	49.ODD CONN	
25.N/B Crestline 7	50.USB CONN	
26.DDR2 DIMM0	51. N/A	
27.DDR2 DIMM1	52.HD_DVD	
28.DDR DAMPING	53.KBC	
29.N/A	54.K/B & TP/B CONN	
30.CRT CONN	55.HDMI CONN	
31.N/A	56.AZALIA CODEC	
32.LCM CONN	57.AUDIO AMP & MIC & HP	

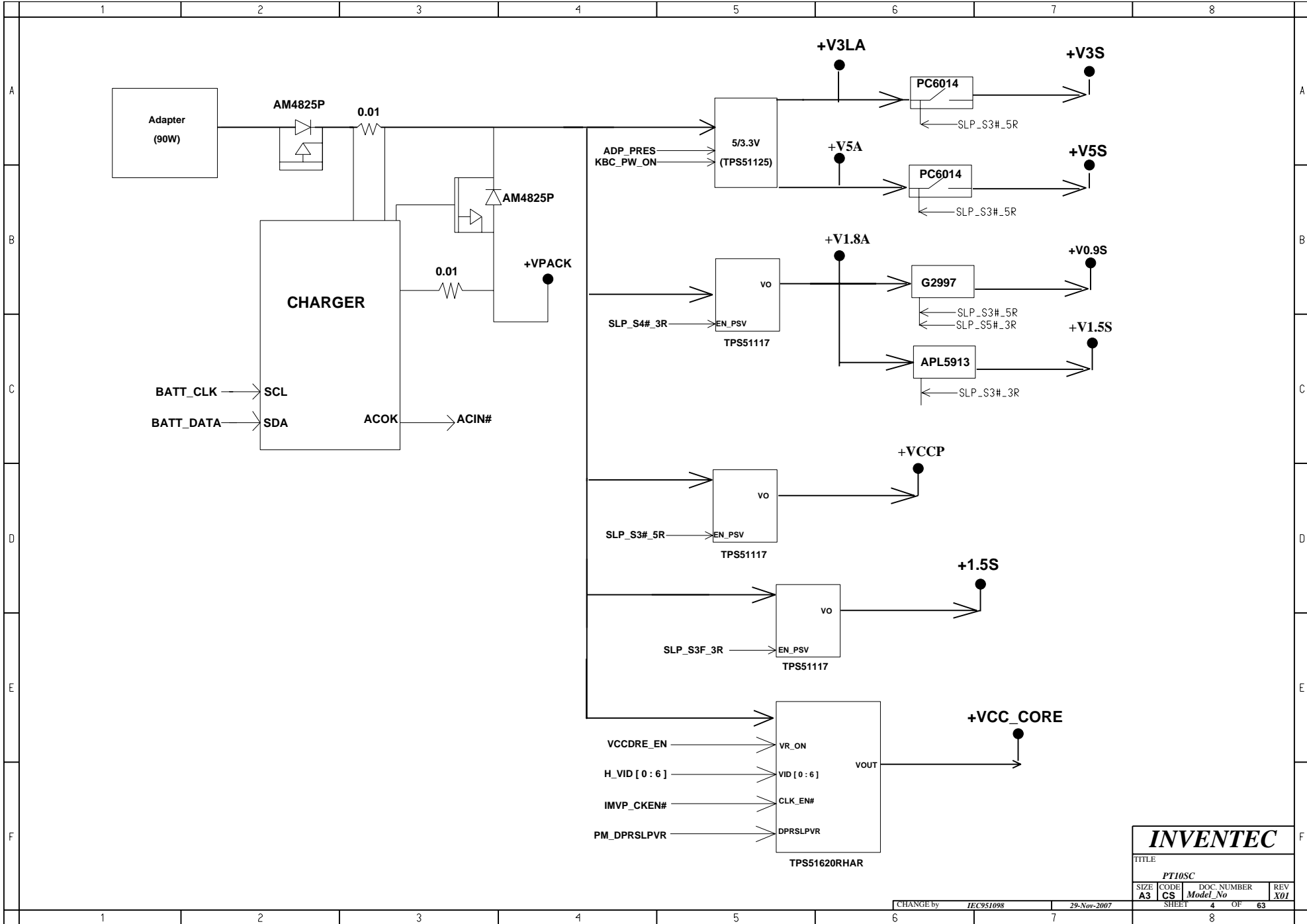
INVENTEC

TITLE			
PT10SC			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV X01
SHEET		2	OF 63

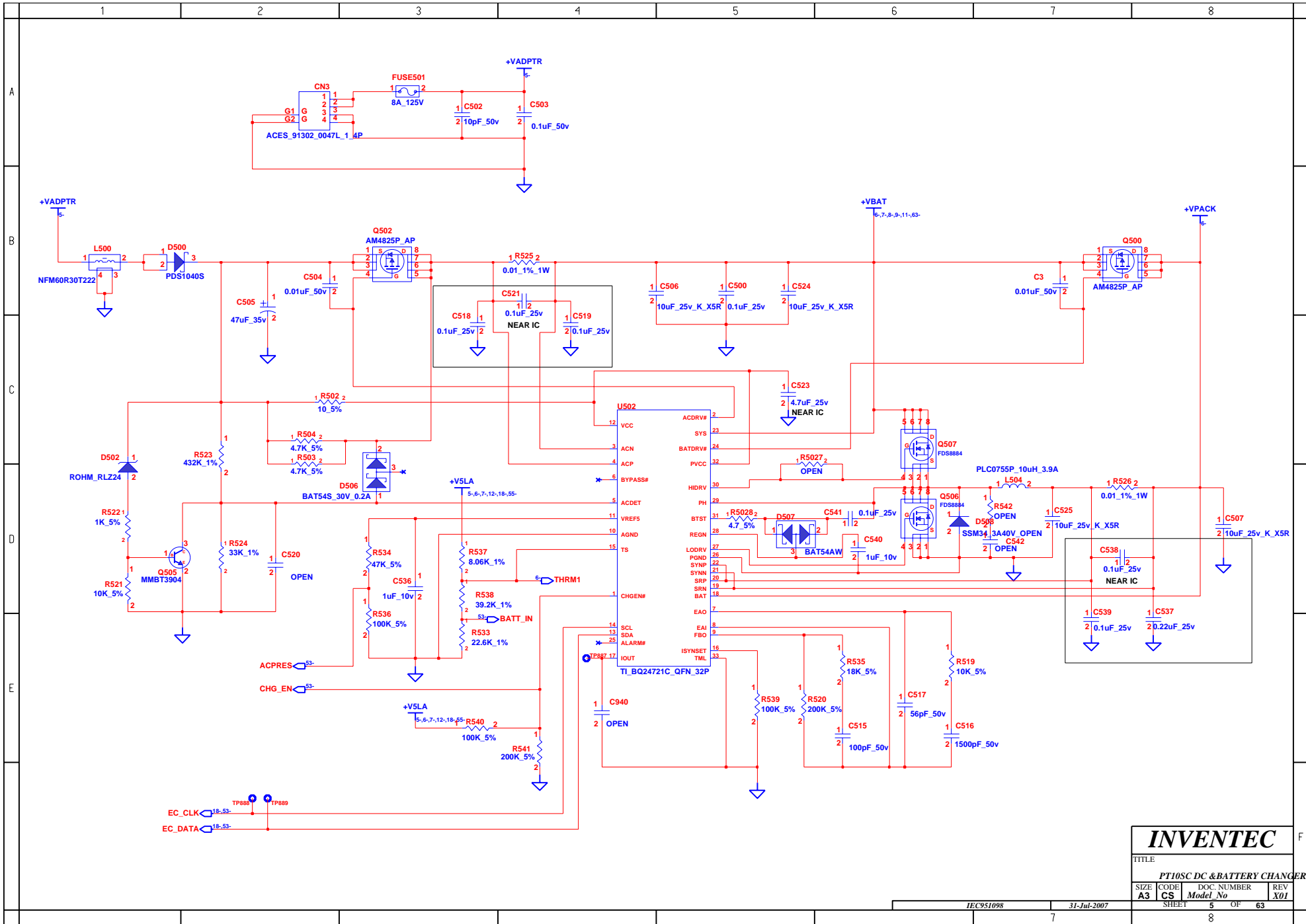
CHANGE by *IEC951098* 28-Aug-2007



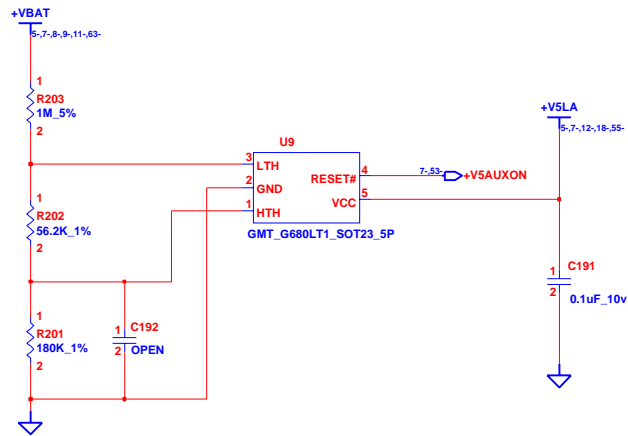
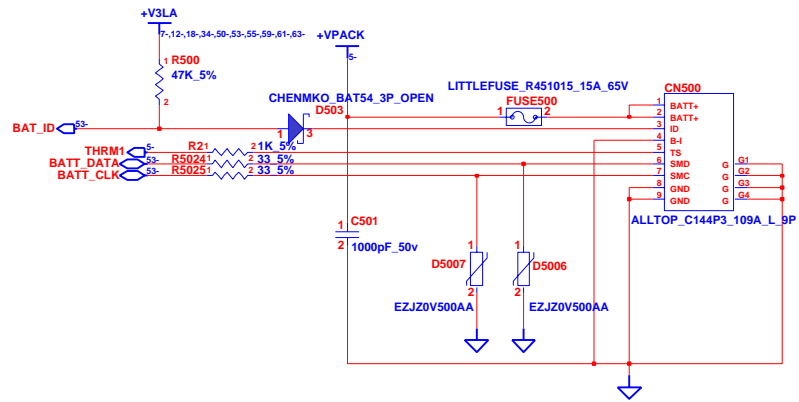
INVENTEC			
TITLE			
PT10SC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model_No	X01
CHANGE by		3-Oct-2007	
IEC951098		SHEET 3 OF 63	



INVENTEC			
TITLE			
PT10SC			
SIZE A3	CODE CS	DOC. NUMBER Model_No	REV X01
CHANGE by IEC951098		29-Nov-2007	
SHEET		4 OF 63	



INVENTEC			
TITLE			
PT10SC DC & BATTERY CHARGER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
IEC951098		31-Jul-2007	5 OF 63
		7	8

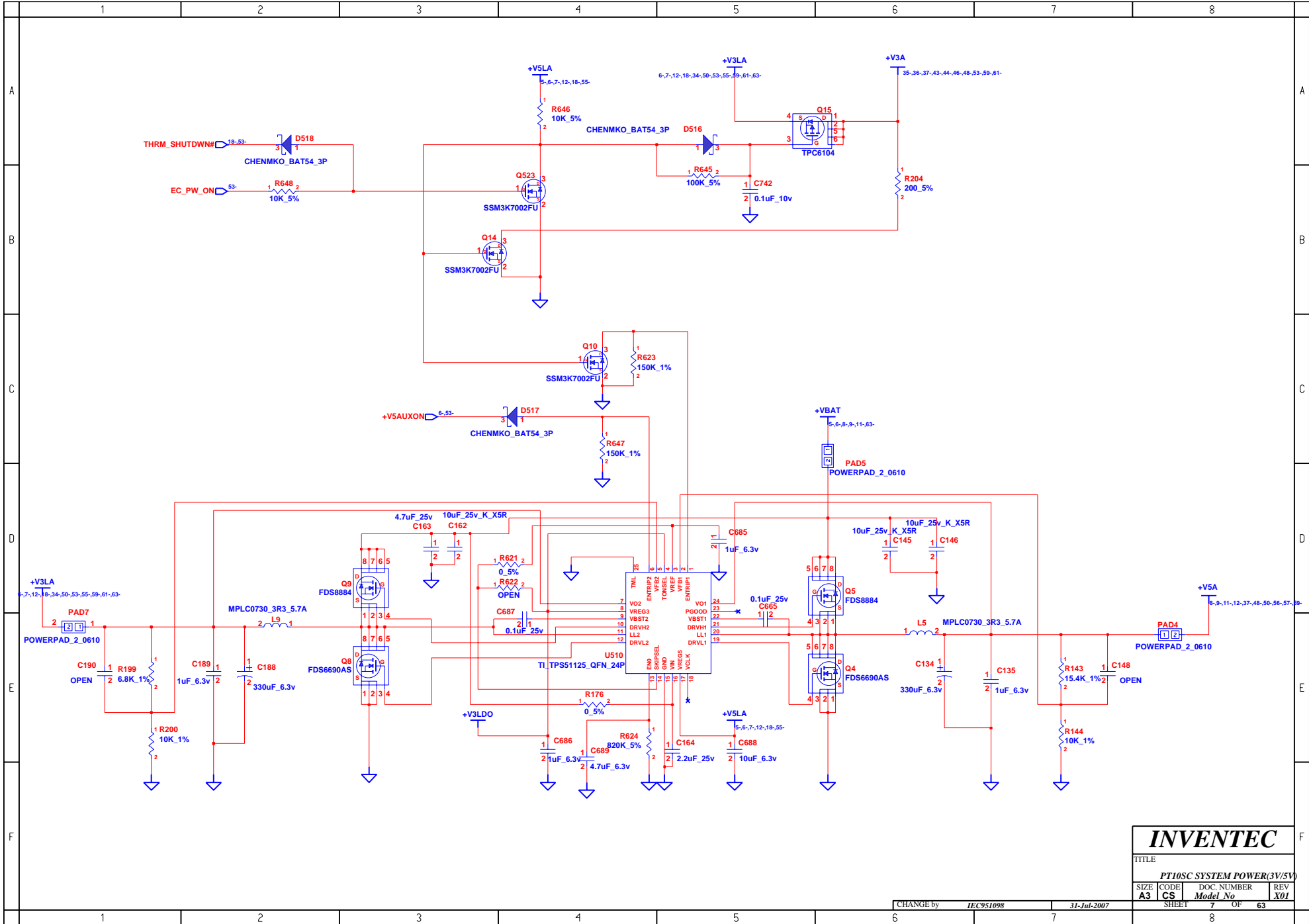


INVENTEC

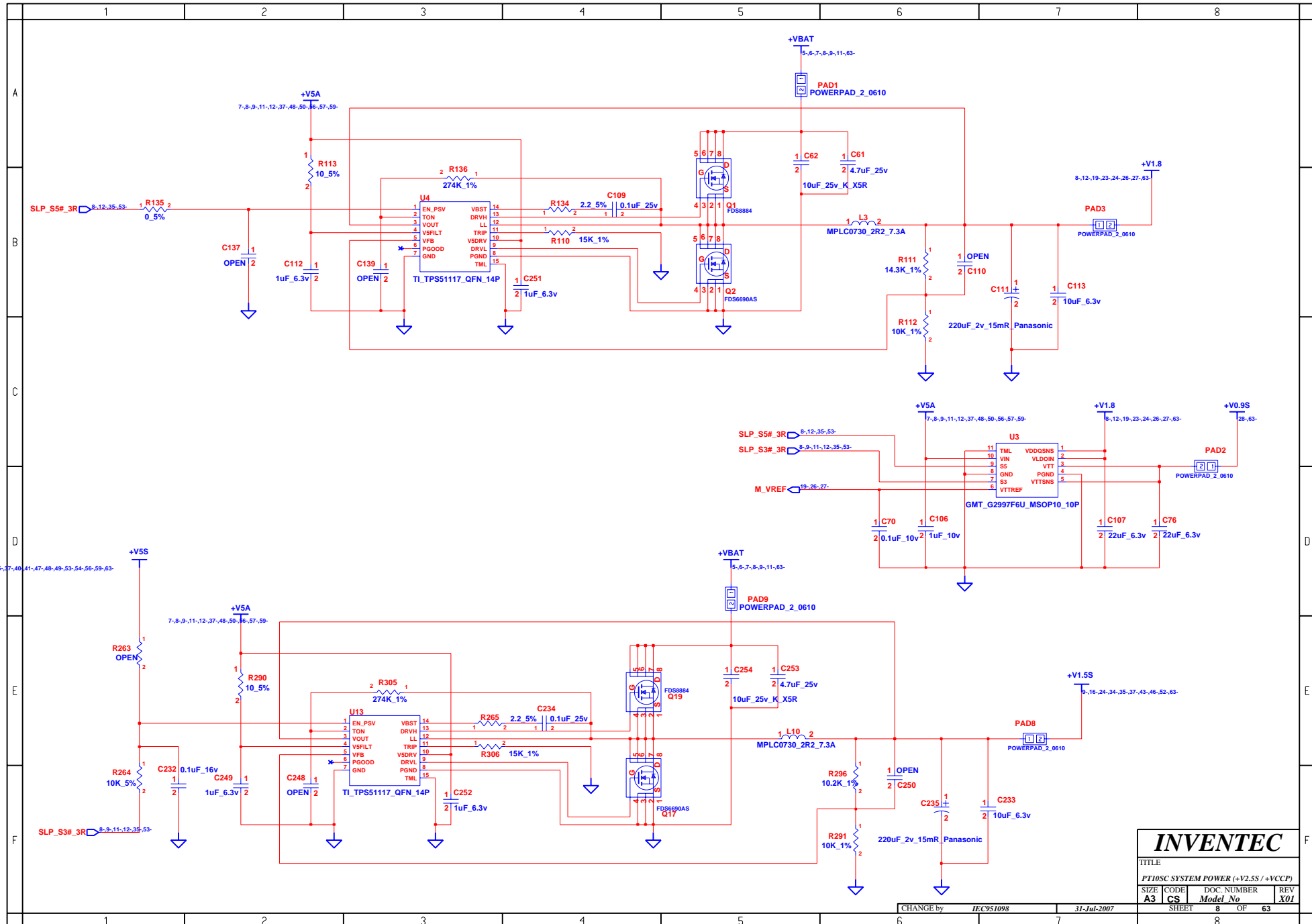
TITLE			
PT10SC BATTERY CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

CHANGE by IEC951098 31-Jul-2007

SHEET 6 OF 63



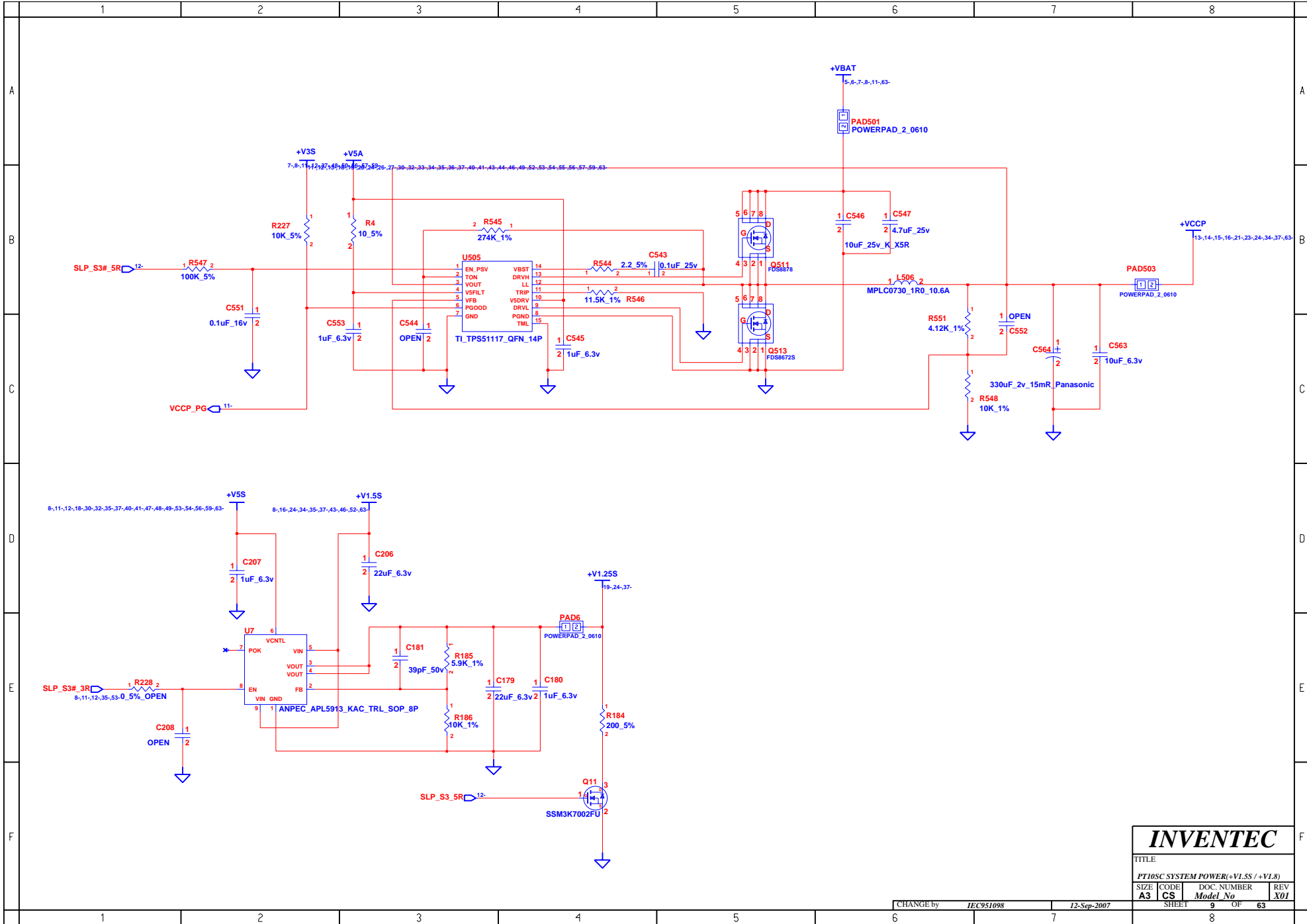
INVENTEC			
TITLE			
PT10SC SYSTEM POWER(3V/5V)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01



INVENTEC

TITLE
 PT10SC SYSTEM POWER (+V2.5S / +VCCP)

SIZE A3	CODE CS	DOC. NUMBER Model No	REV X01
------------	------------	-------------------------	------------



INVENTEC				
TITLE				
PT10SC SYSTEM POWER(+V1.5S / +V1.8)				
SIZE	CODE	DOC. NUMBER	REV	
A3	CS	Model No	X01	

CHANGE by	IEC951098	12-Sep-2007	SHEET	9	OF	63
				8		

BLANK

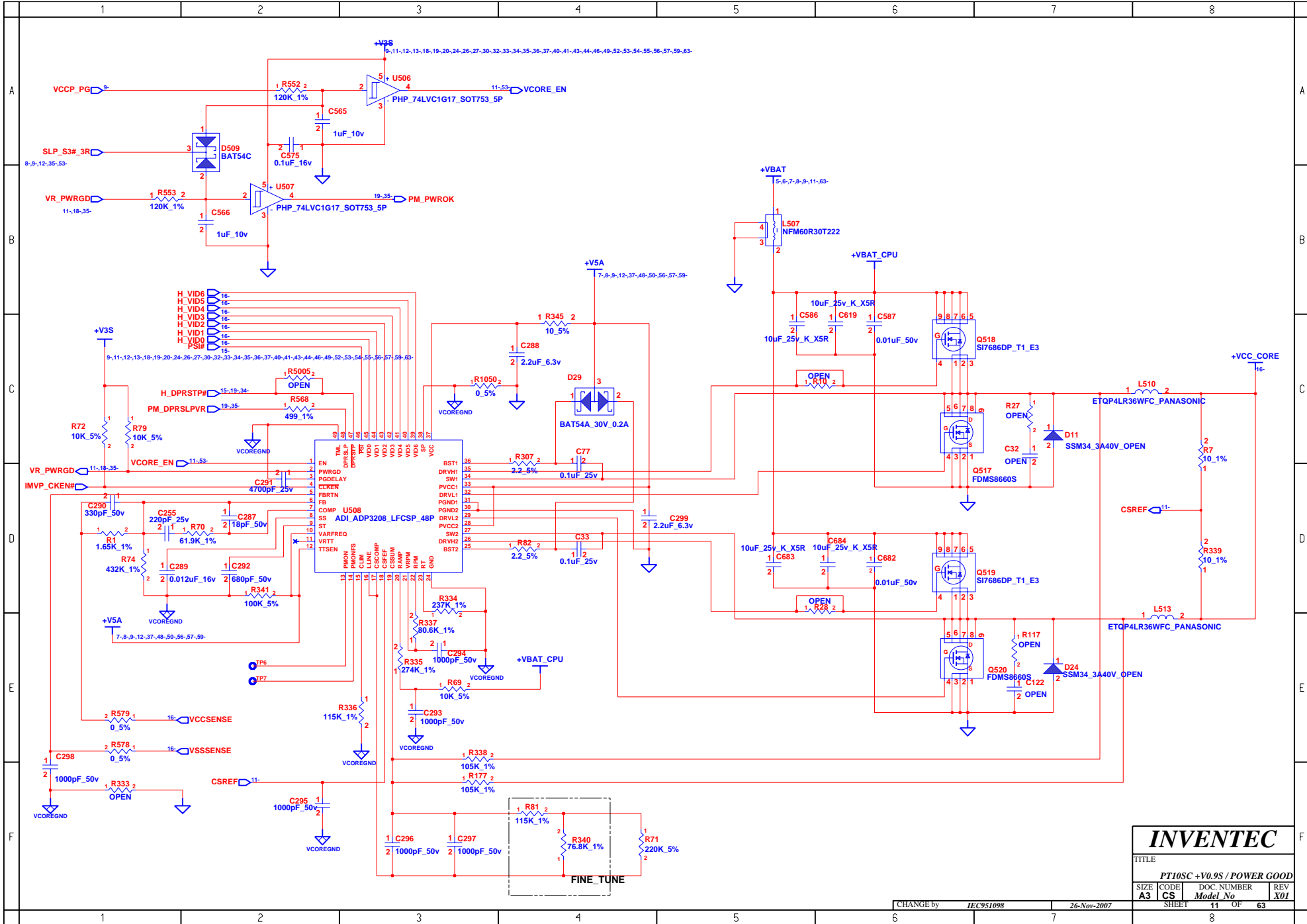
INVENTEC

TITLE
PT10SC CPU POWER(VCC_CORE)

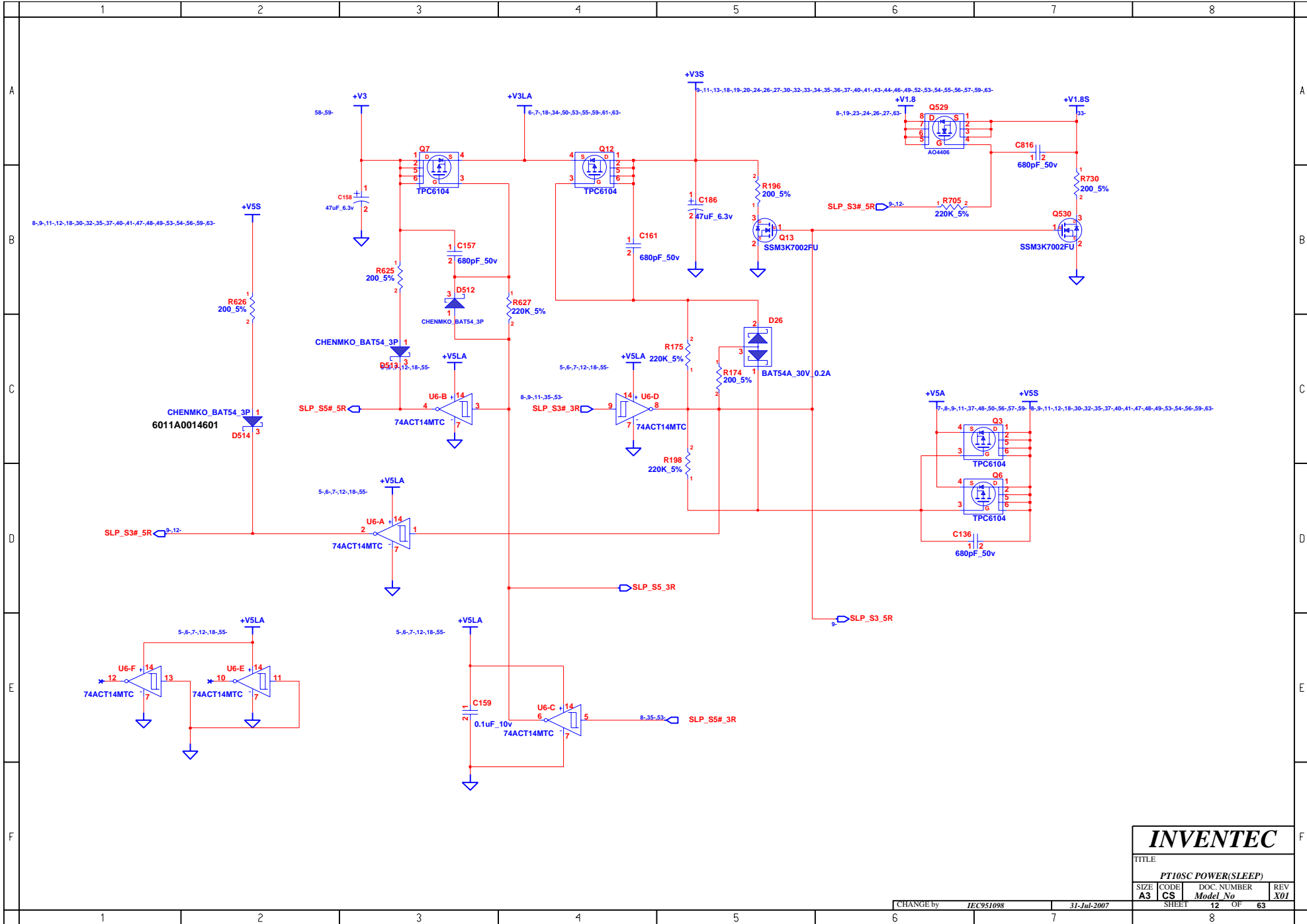
SIZE A3	CODE CS	DOC. NUMBER <i>Model No.</i>	REV X01
-------------------	-------------------	---------------------------------	-------------------

CHANGE by *IEC951098* 30-Nov-2007

SHEET 10 OF 63



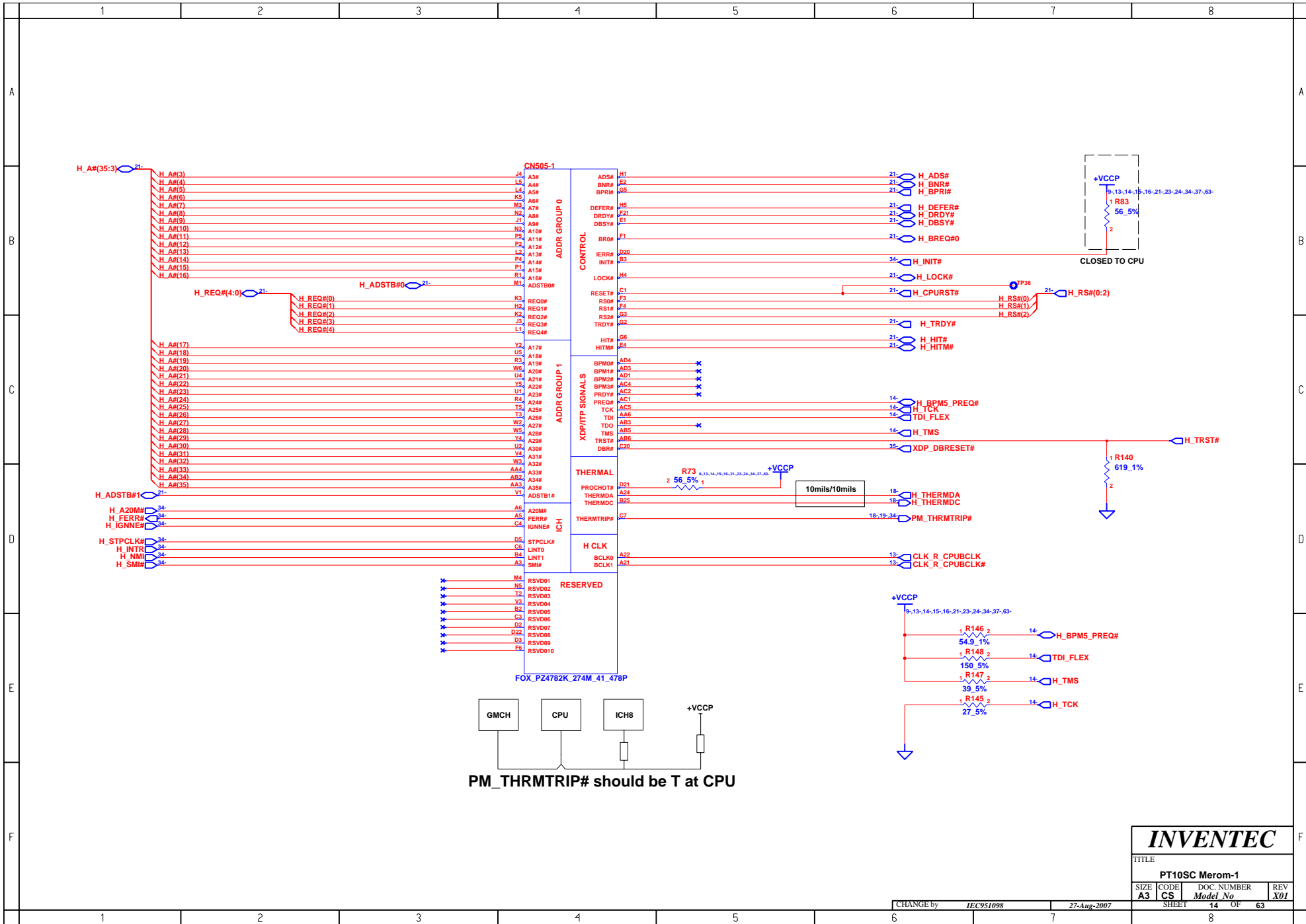
INVENTEC			
TITLE			
<i>PT10SC +V0.9S / POWER GOOD</i>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01



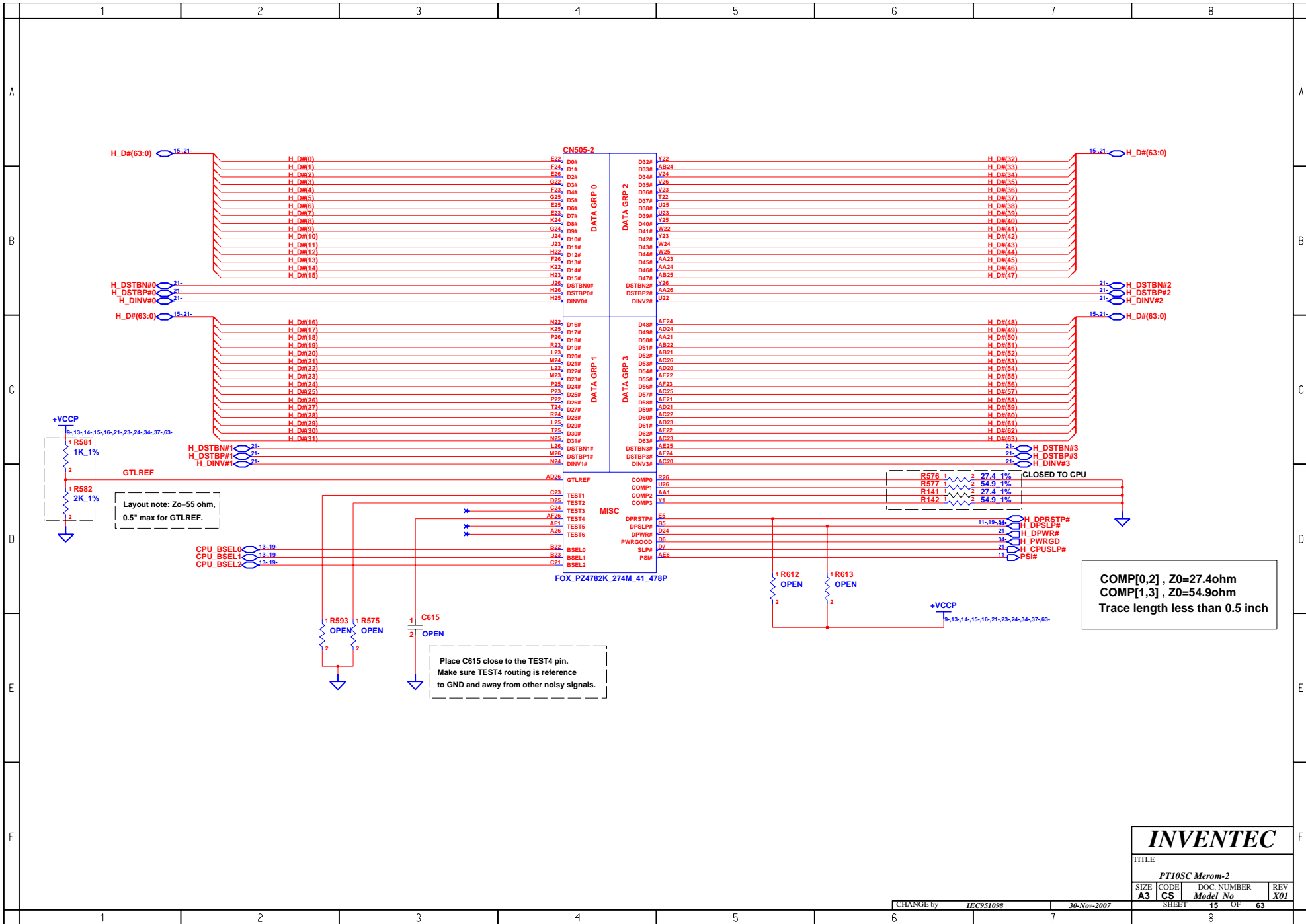
INVENTEC

TITLE			
PT10SC POWER(SLEEP)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

CHANGE by IEC951098 31-Jul-2007



INVENTEC			
TITLE			
PT10SC Merom-1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET 14 OF 63	
IEC951098		27-Aug-2007	

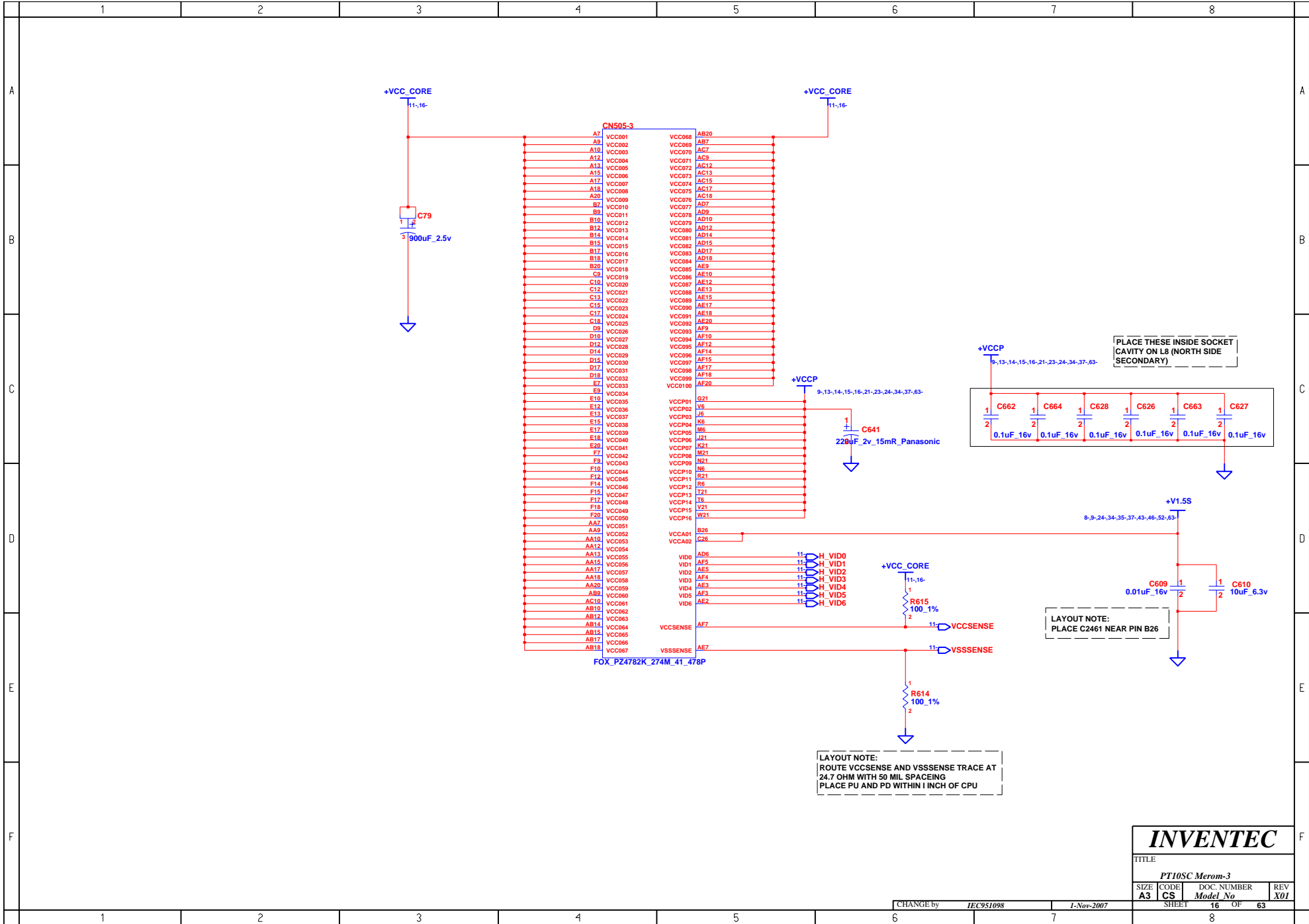


COMP[0,2], Z0=27.4ohm
 COMP[1,3], Z0=54.9ohm
 Trace length less than 0.5 inch

Layout note: Zo=55 ohm,
 0.5" max for GTLREF.

Place C615 close to the TEST4 pin.
 Make sure TEST4 routing is reference
 to GND and away from other noisy signals.

INVENTEC			
TITLE			
PT10SC Merom-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	30-Nov-2007
SHEET		15	OF 63



INVENTEC			
TITLE			
PT10SC Merom-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	J-Nov-2007
SHEET		16	OF 63

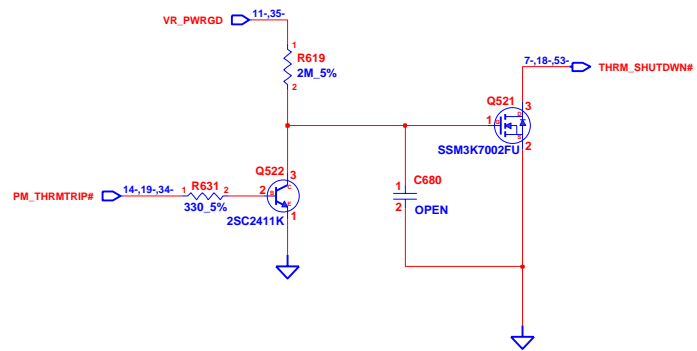
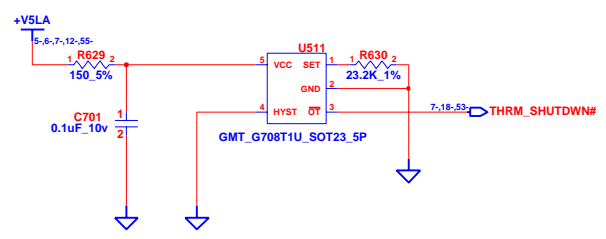
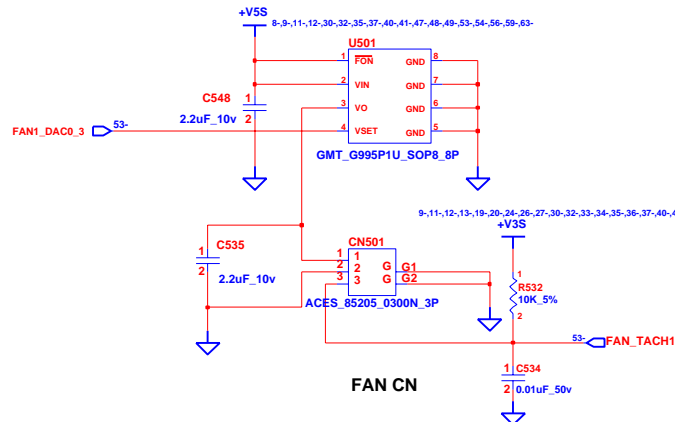
	1	2	3	4	5	6	7	8	
A	<p>CN505-4</p>								
B									
C									
D									
E									
F									

INVENTEC

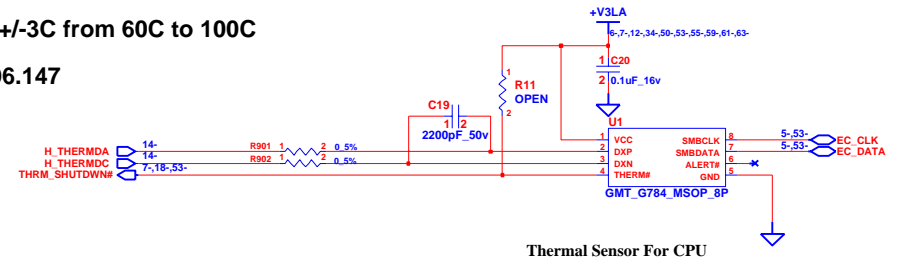
TITLE
PT10SC Merom-4

SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV X01
-------------------	-------------------	--------------------------------	-------------------

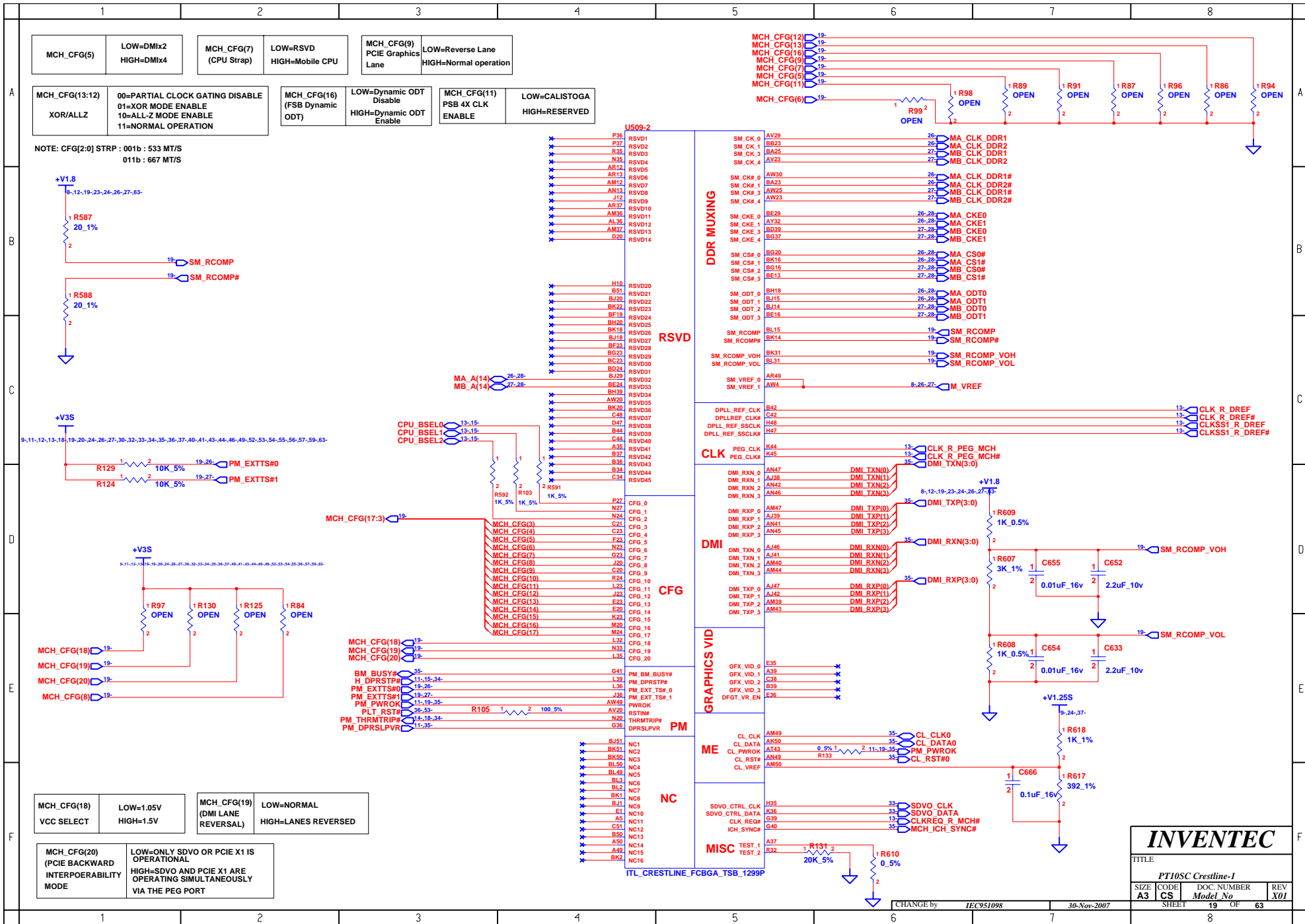
	1	2	3	4	5	6	7	8	
--	---	---	---	---	---	---	---	---	--



Thermal shoutdown at 89C +/-3C from 60C to 100C
 $RSET=0.0012*T^2 - 0.9308*T+96.147$
 Hysteresis is 30C

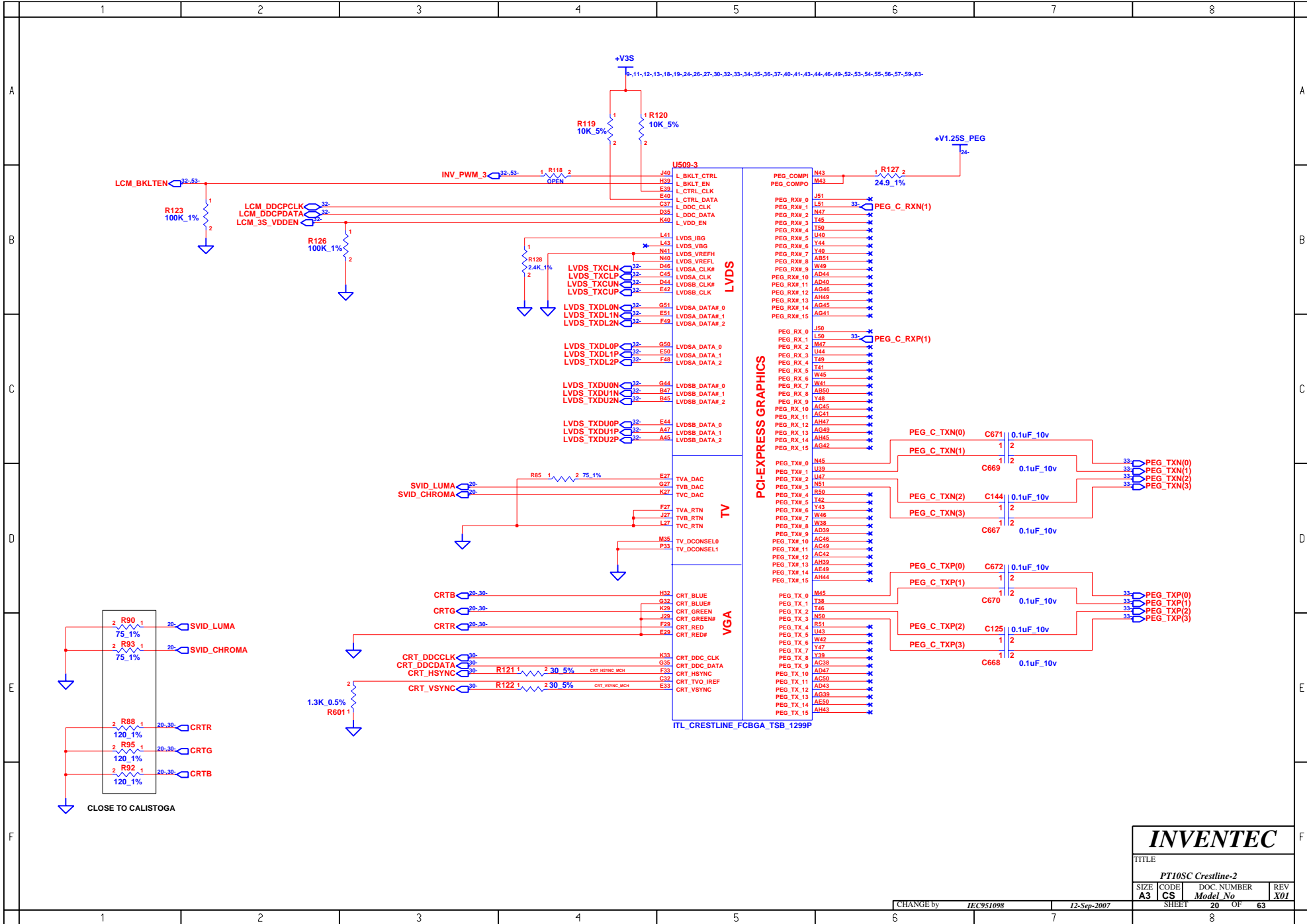


INVENTEC			
TITLE			
PT10SC THERMAL&FAN CONTROLLER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	29.Sep-2007
SHEET		18	OF 63



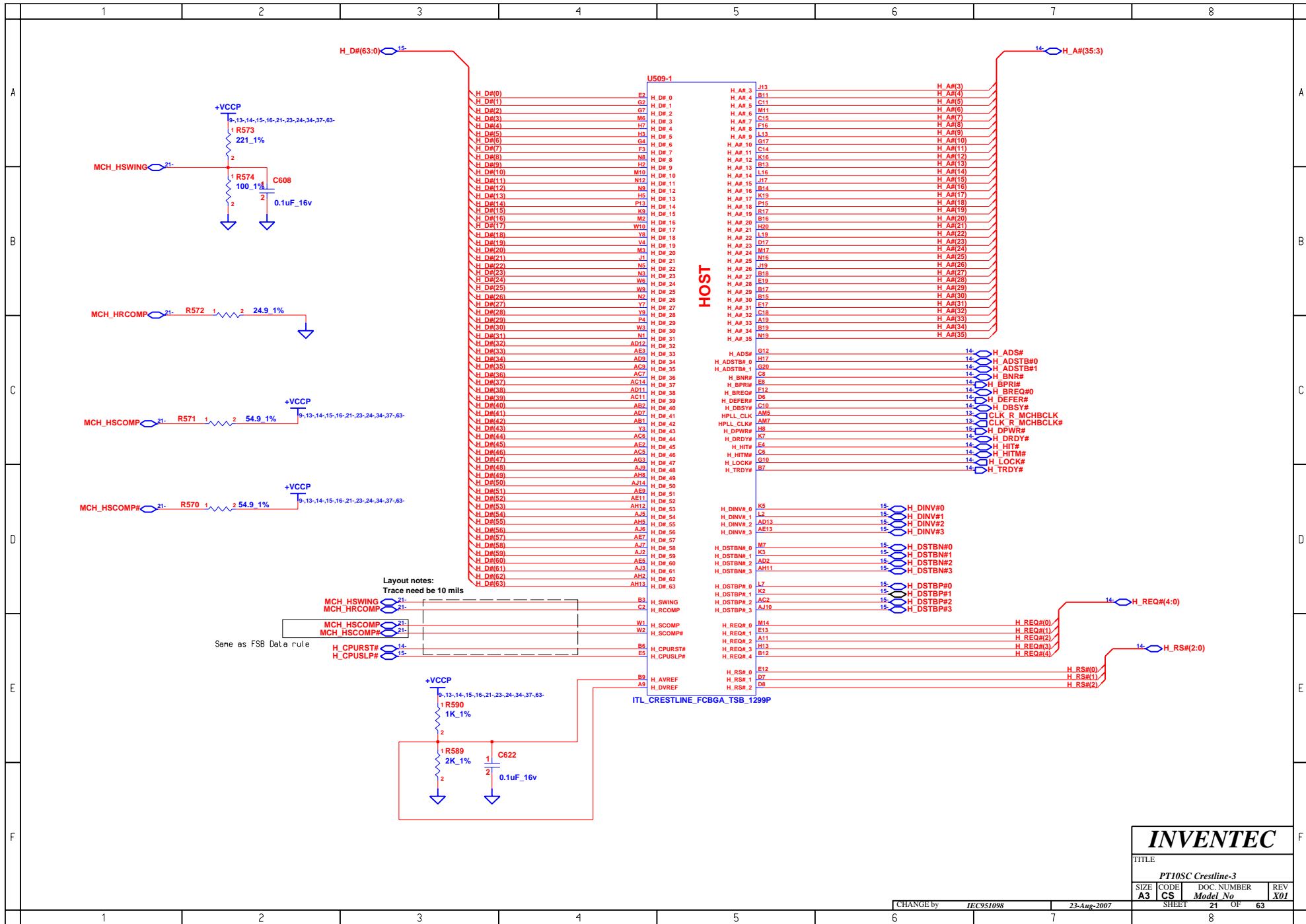
INVENTEC

TITLE
PT10SC Crestline-1

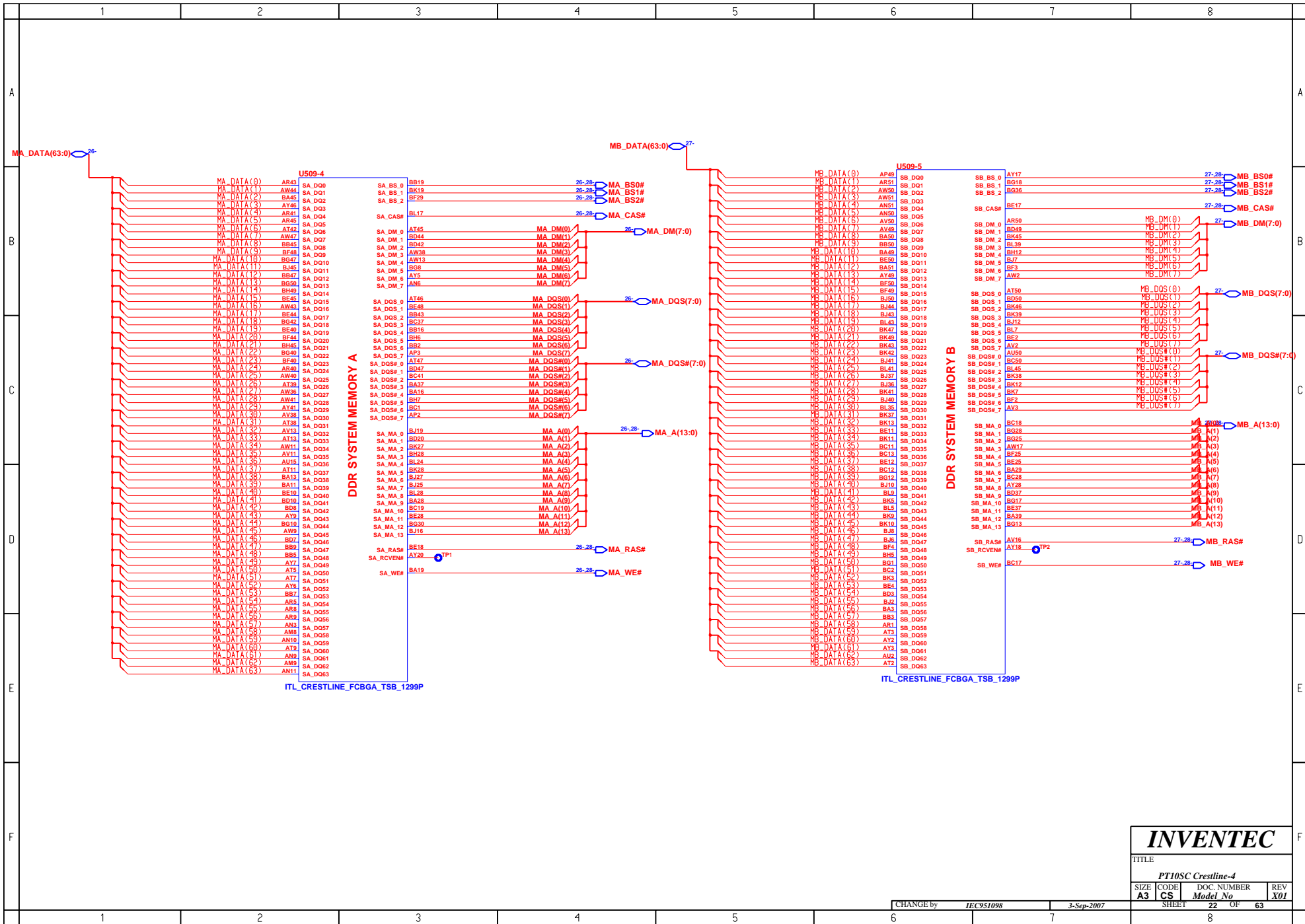


INVENTEC

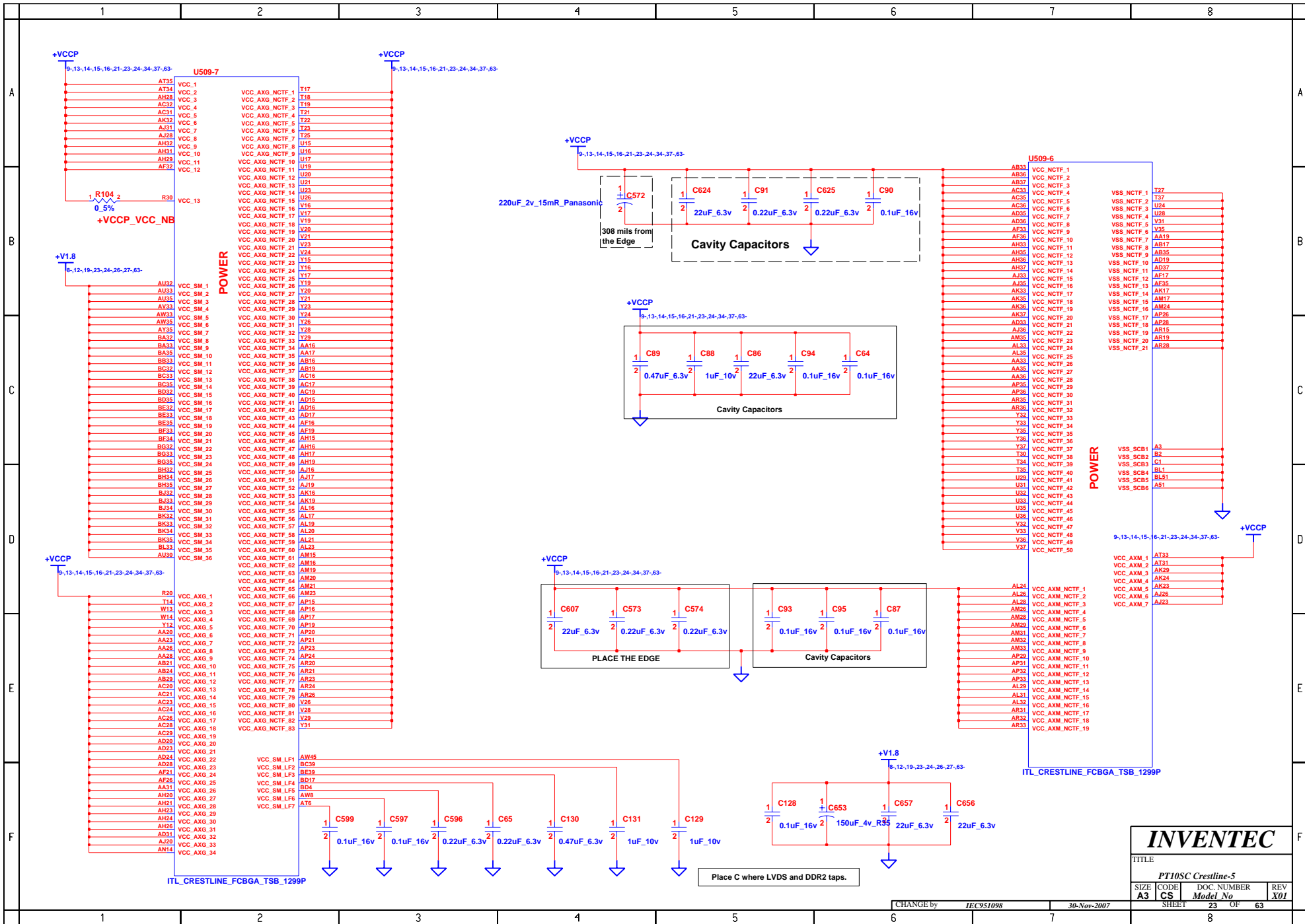
TITLE			
PT10SC Crestline-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	OF
IEC951098		20	63
12-Sep-2007			



INVENTEC			
TITLE			
PT10SC Crestline-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	23-Aug-2007
SHEET		21	OF 63

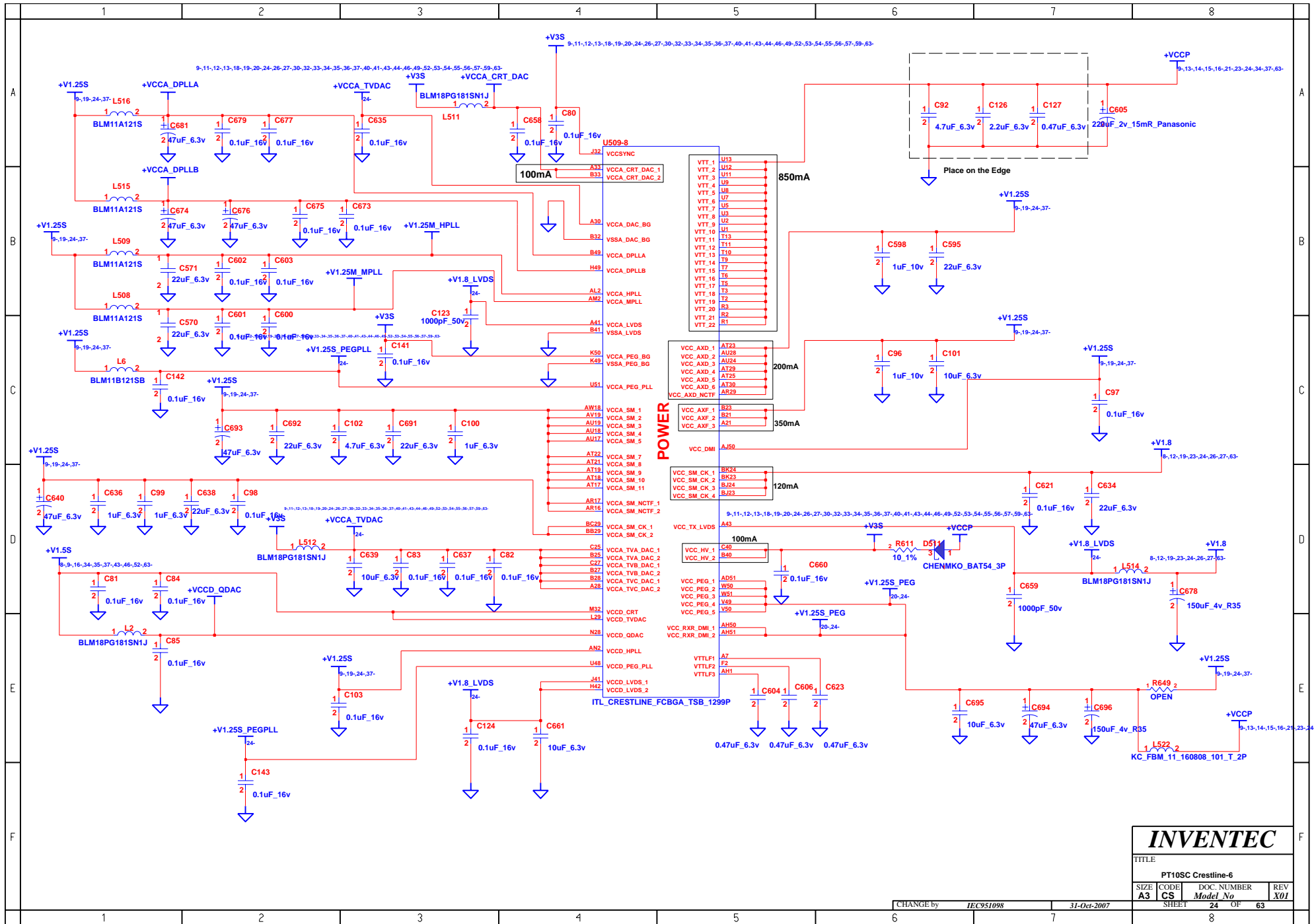


INVENTEC			
TITLE			
PT10SC Crestline-4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		22 OF 63	
3-Sep-2007		8	

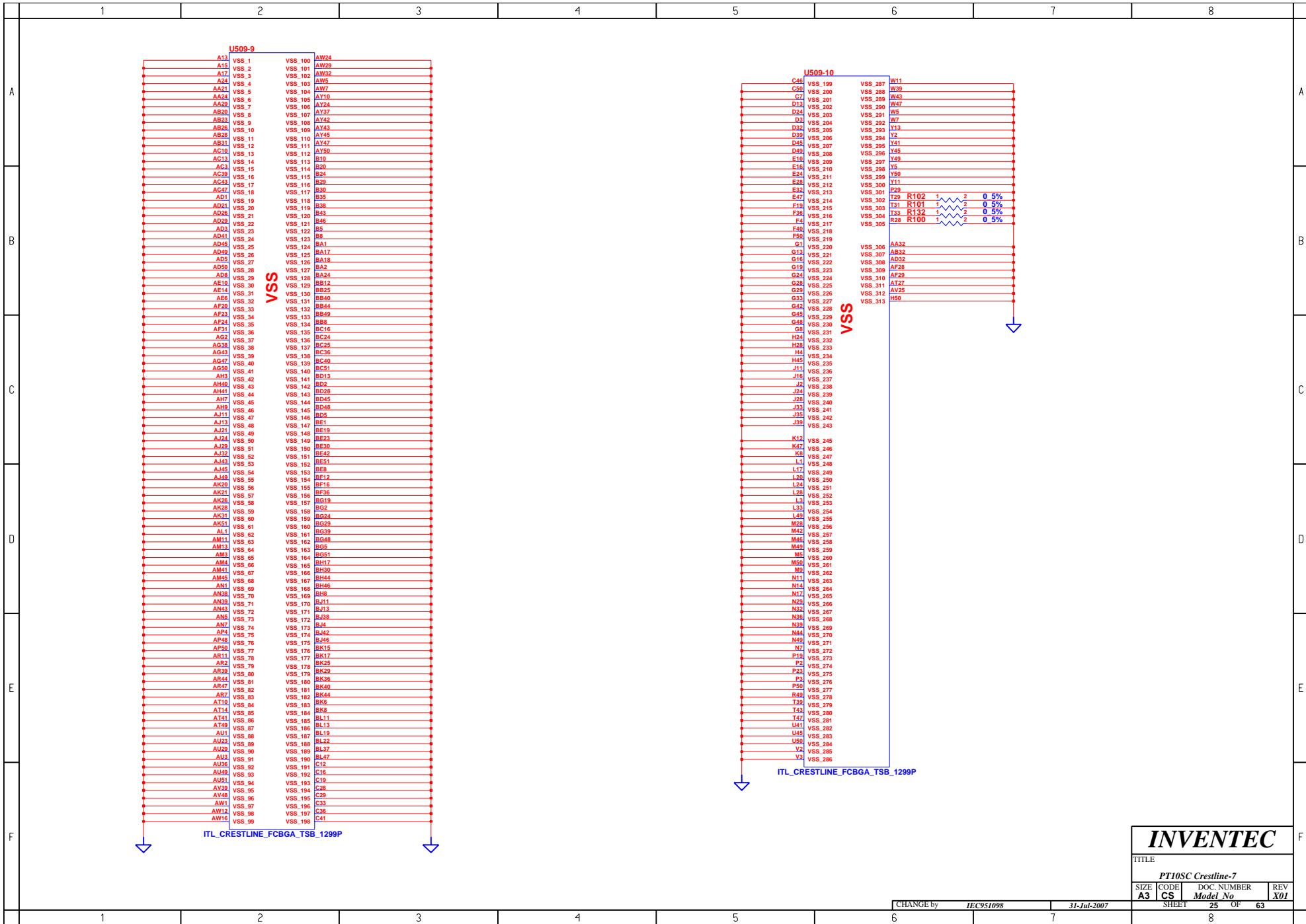


INVENTEC			
TITLE			
PT10SC Crestline-5			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		23 OF 63	
30-Nov-2007		8	

Place C where LVDS and DDR2 taps.



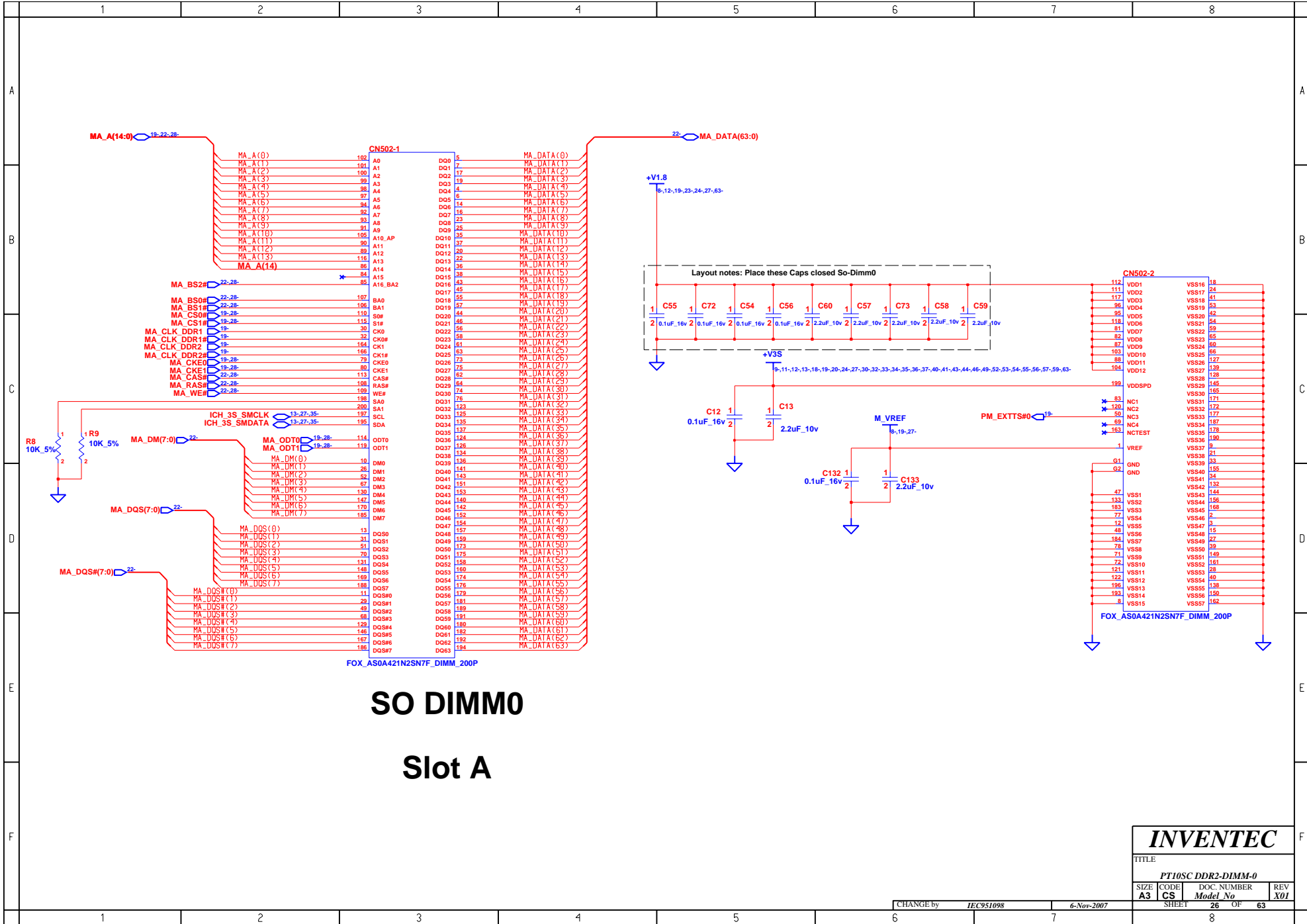
INVENTEC			
TITLE			
PT10SC Crestline-6			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		DATE	SHEET
IEC951098		31-Oct-2007	24 OF 63



INVENTEC

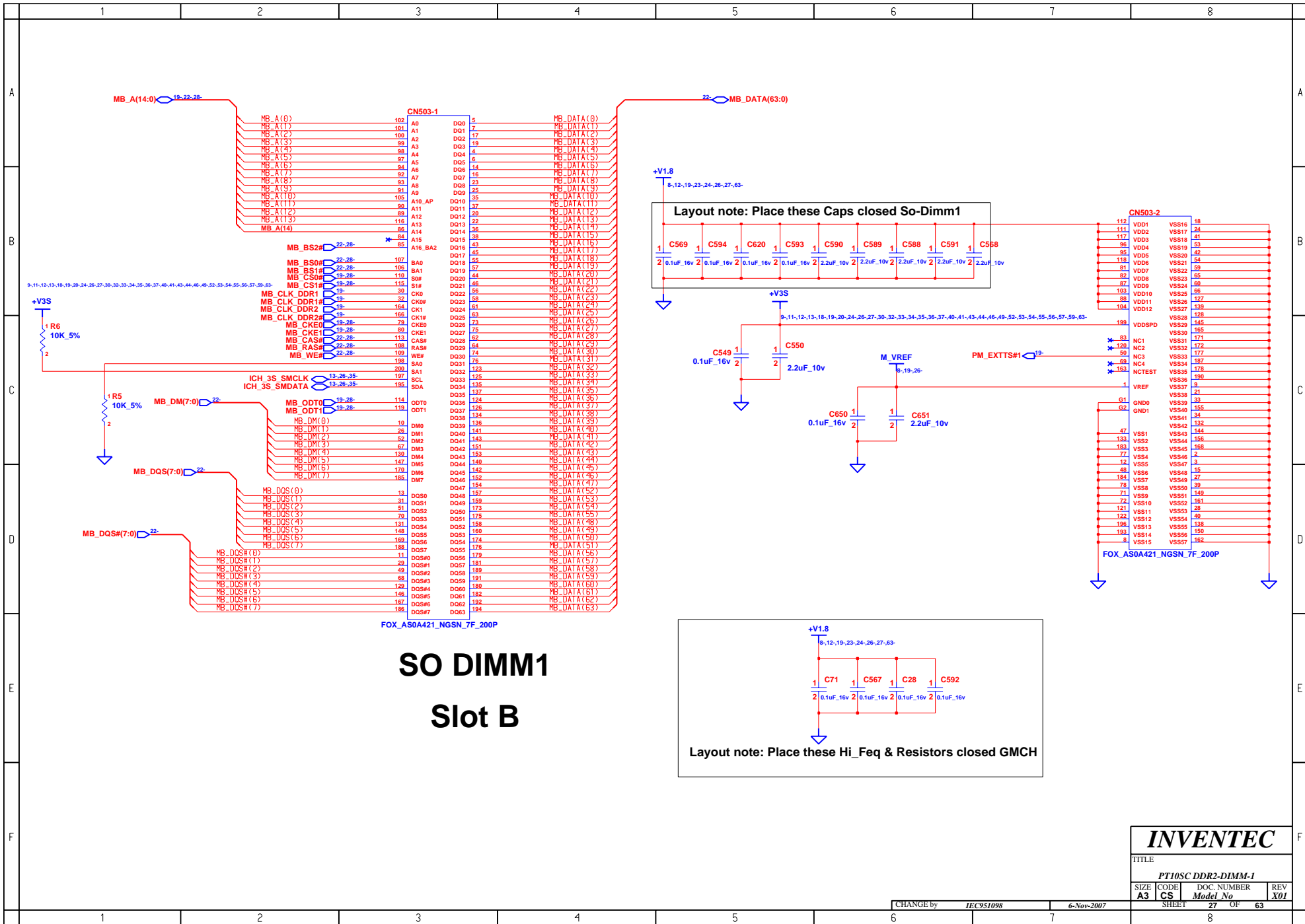
TITLE			
PT10SC Crestline-7			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

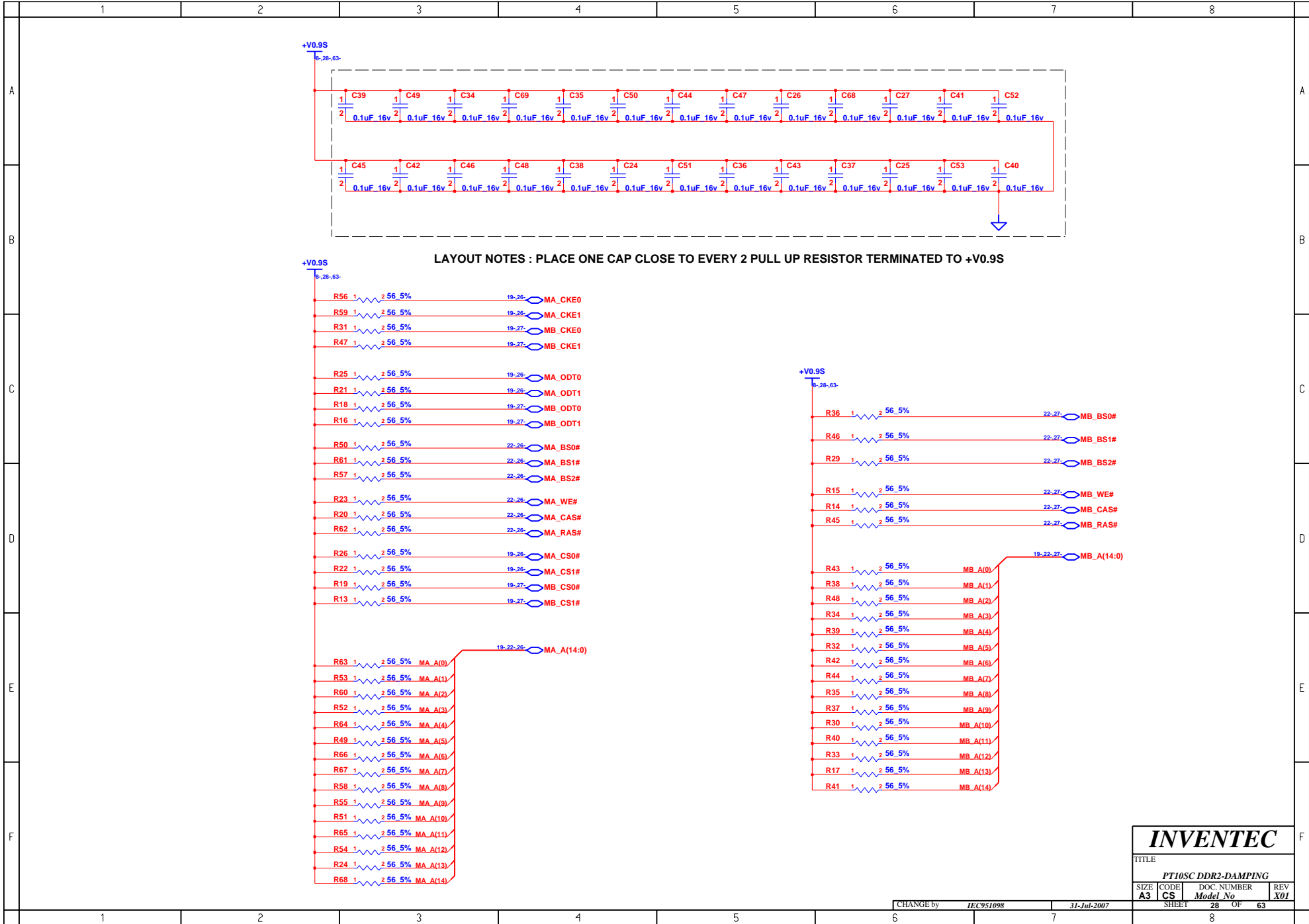
CHANGE by IEC951098 31-Jul-2007



SO DIMM0 Slot A

INVENTEC			
TITLE			
PT10SC DDR2-DIMM-0			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		6-Nov-2007	
IEC951098		SHEET 26 OF 63	
1		8	



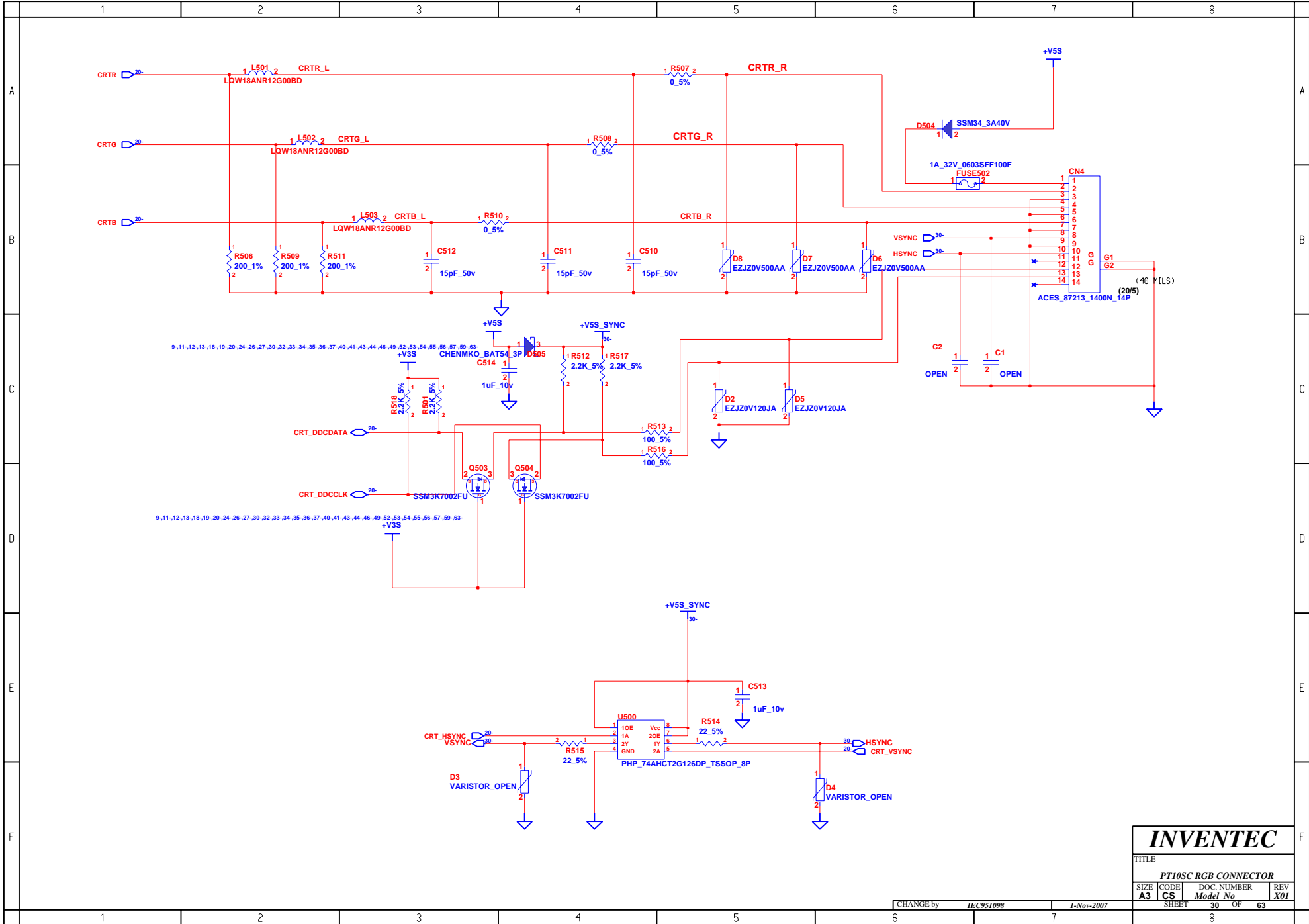


INVENTEC			
TITLE			
PT10SC DDR2-DAMPING			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	OF
IEC951098		28	63
31-Jul-2007		8	

BLANK

INVENTEC				
TITLE				
PT10SC MXM CONN				
SIZE	CODE	DOC. NUMBER	REV	
A3	CS	Model No	29	X01
SHEET			OF	63
			8	

CHANGE by *IEC951098* 30-Nov-2007

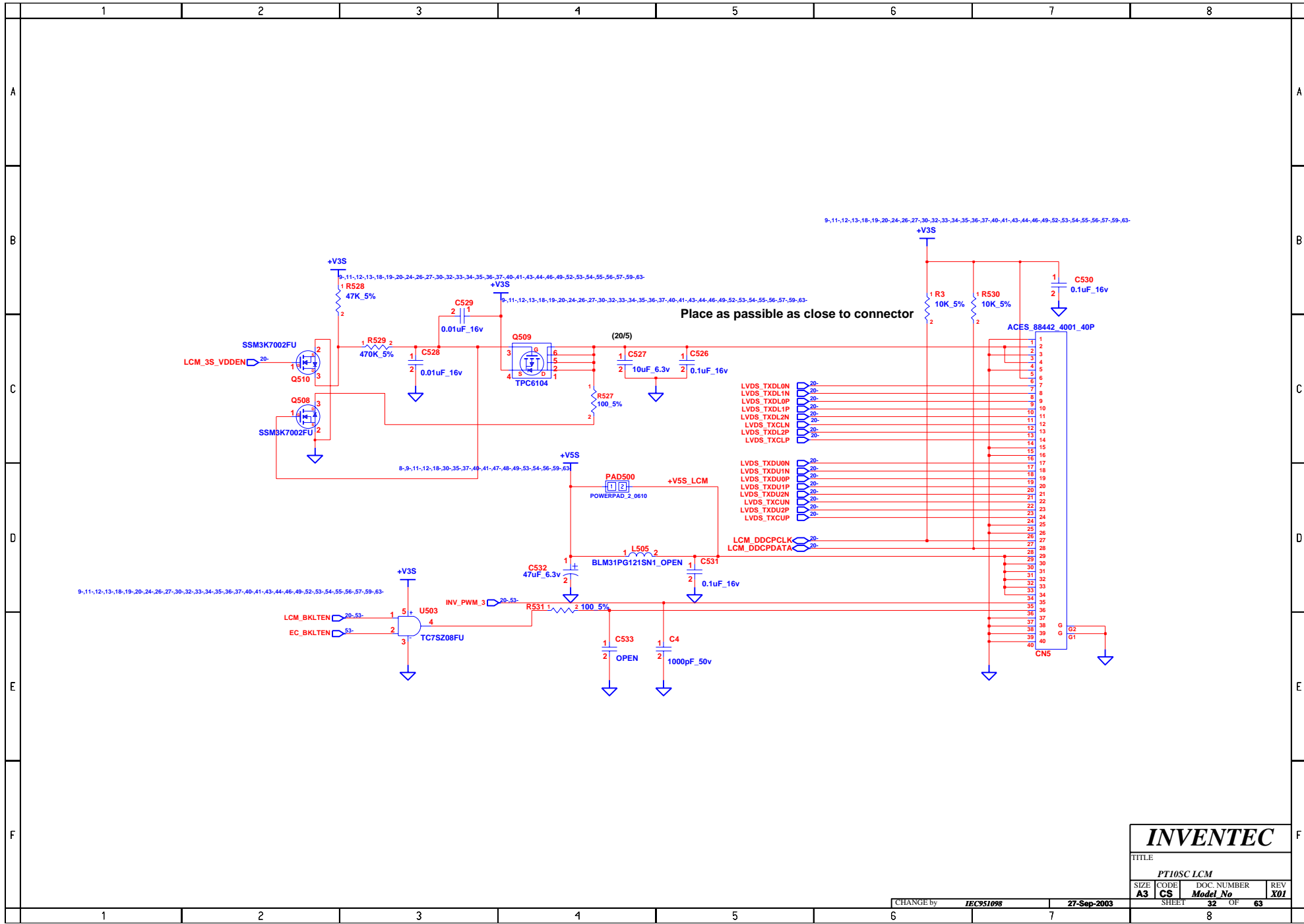


INVENTEC			
TITLE			
PT10SC RGB CONNECTOR			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		I-Nov-2007	
IEC951098		SHEET 30 OF 63	

BLANK

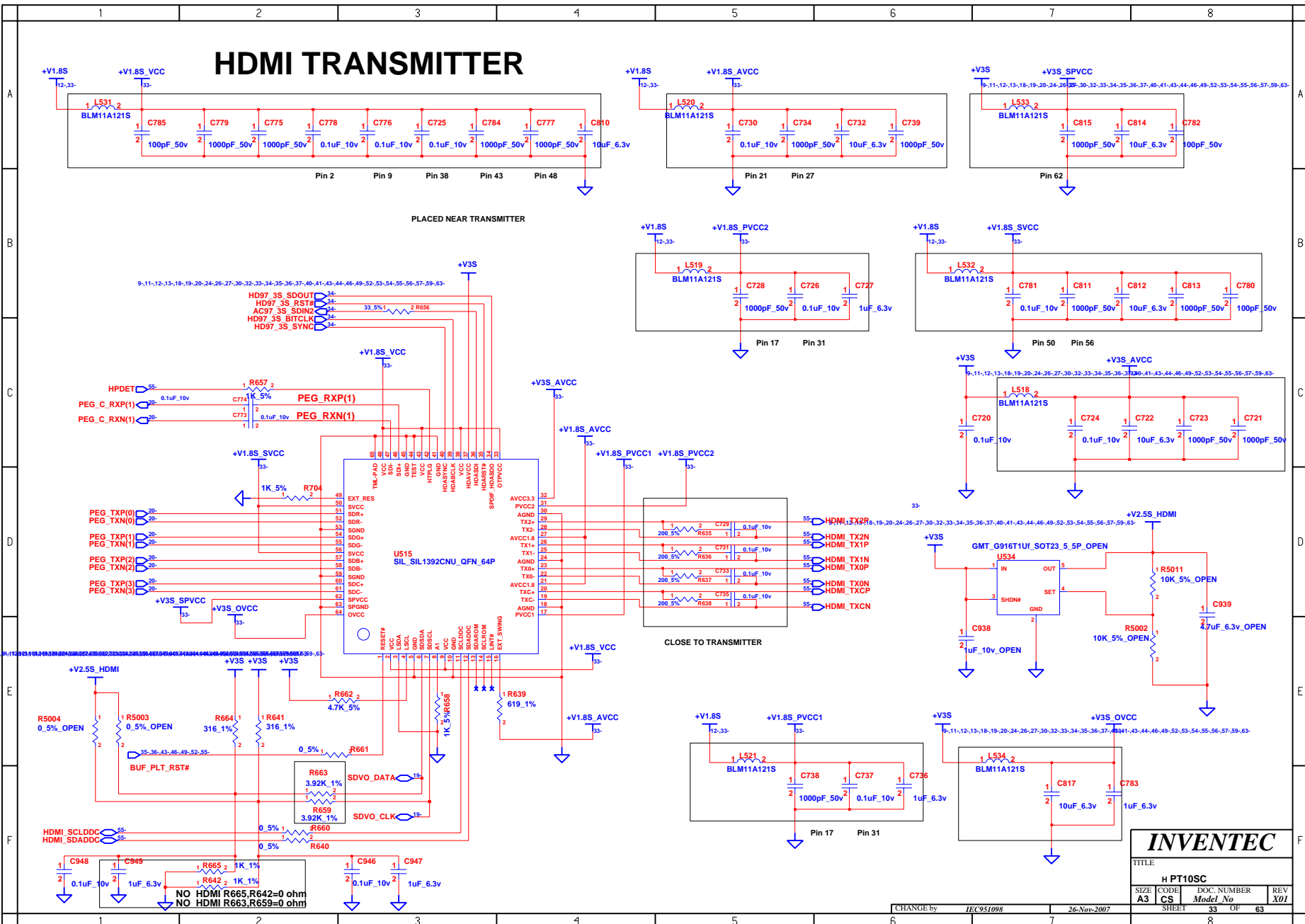
INVENTEC			
TITLE			
<i>PT10SC S-Video CONN</i>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	<i>Model No</i>	X01
CHANGE by		30-Nov-2007	
IEC951098		SHEET 31 OF 63	

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

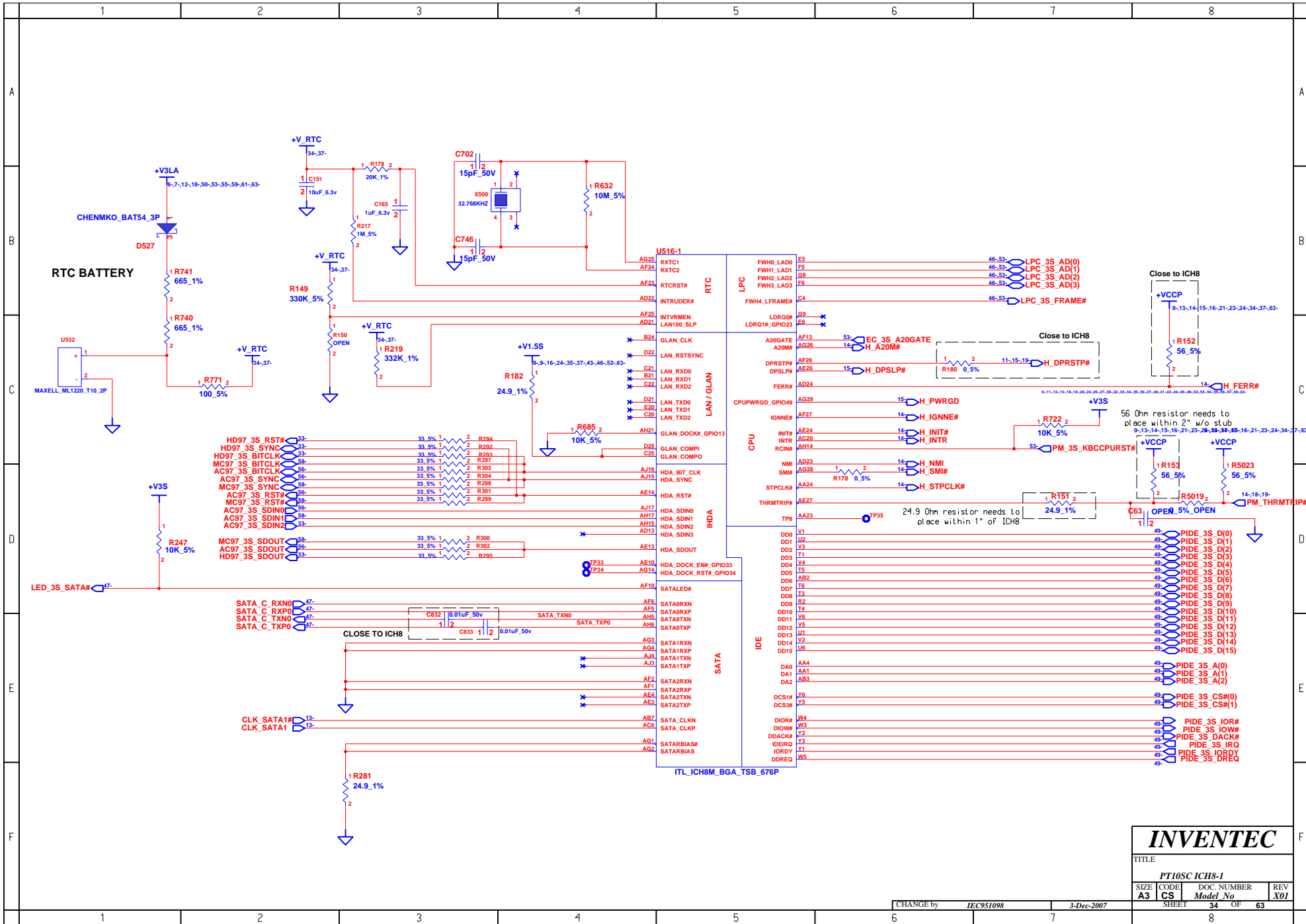


INVENTEC			
TITLE			
PT10SC LCM			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		JEC951098	27-Sep-2003
SHEET		32	OF 63

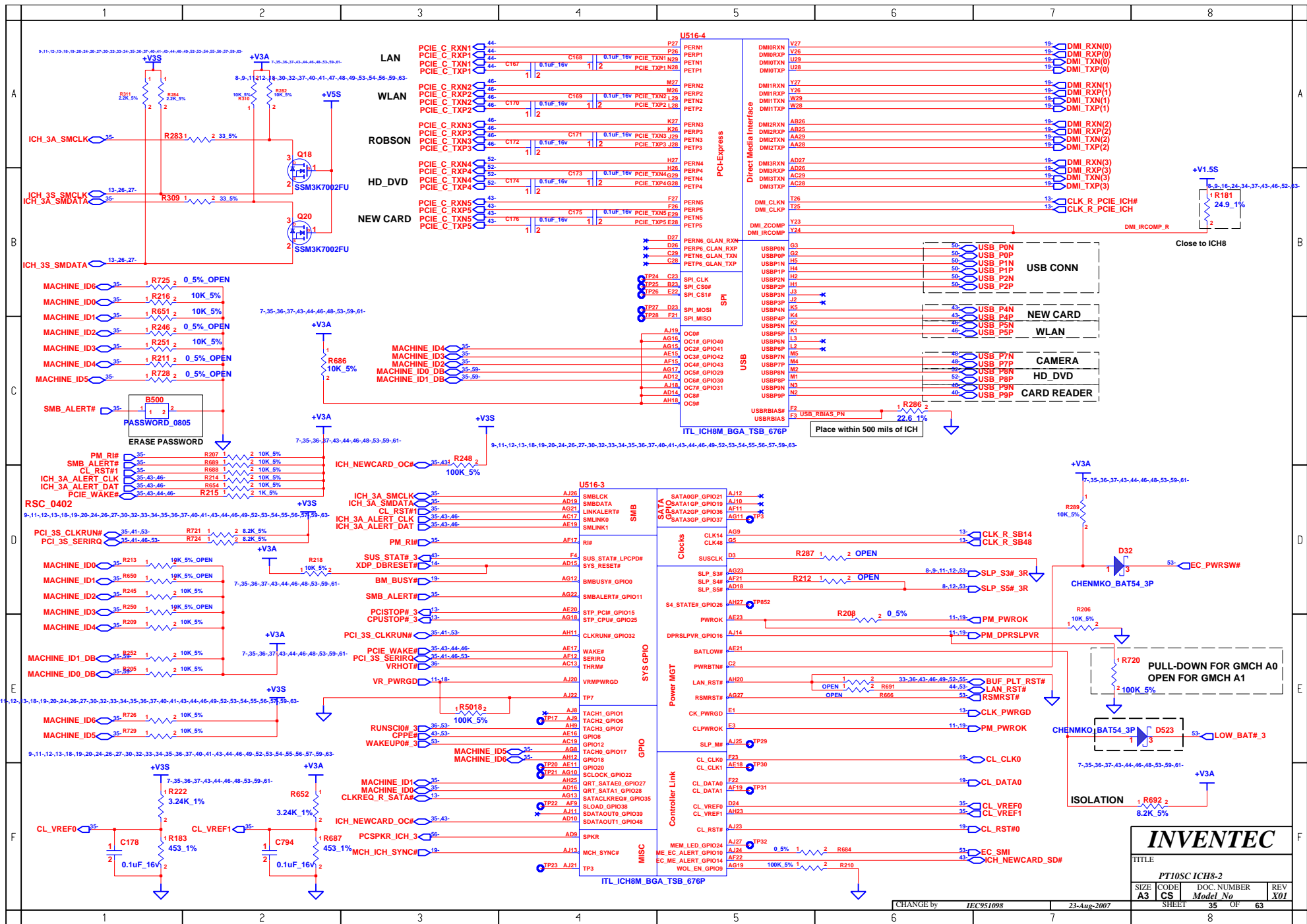
HDMI TRANSMITTER



INVENTEC				
TITLE				
H PT10SC				
SIZE	CODE	DOC. NUMBER	REV	
A3	CS	Model No	X01	
CHANGE by			SHEET	OF
IEC951098			33	63
26-Nov-2007			8	



INVENTEC			
TITLE			
PT10SC ICH8-1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		3-Dec-2007	
		SHEET	34 OF 63

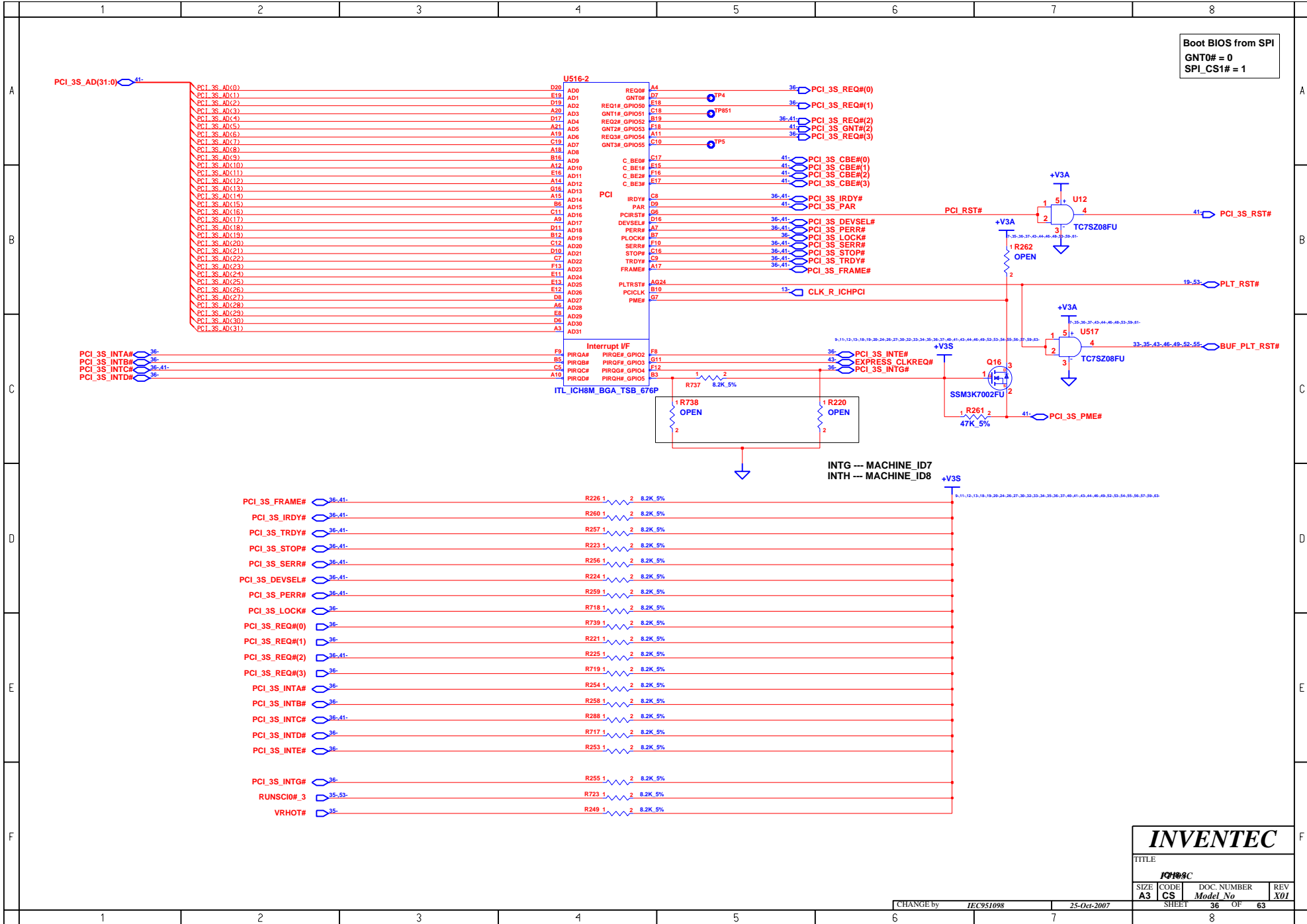


INVENTEC

TITLE
PT10SC ICH-2

SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV X01
SHEET		35 OF 63	

CHANGE by IEC/951098 23-Aug-2007



INVENTEC

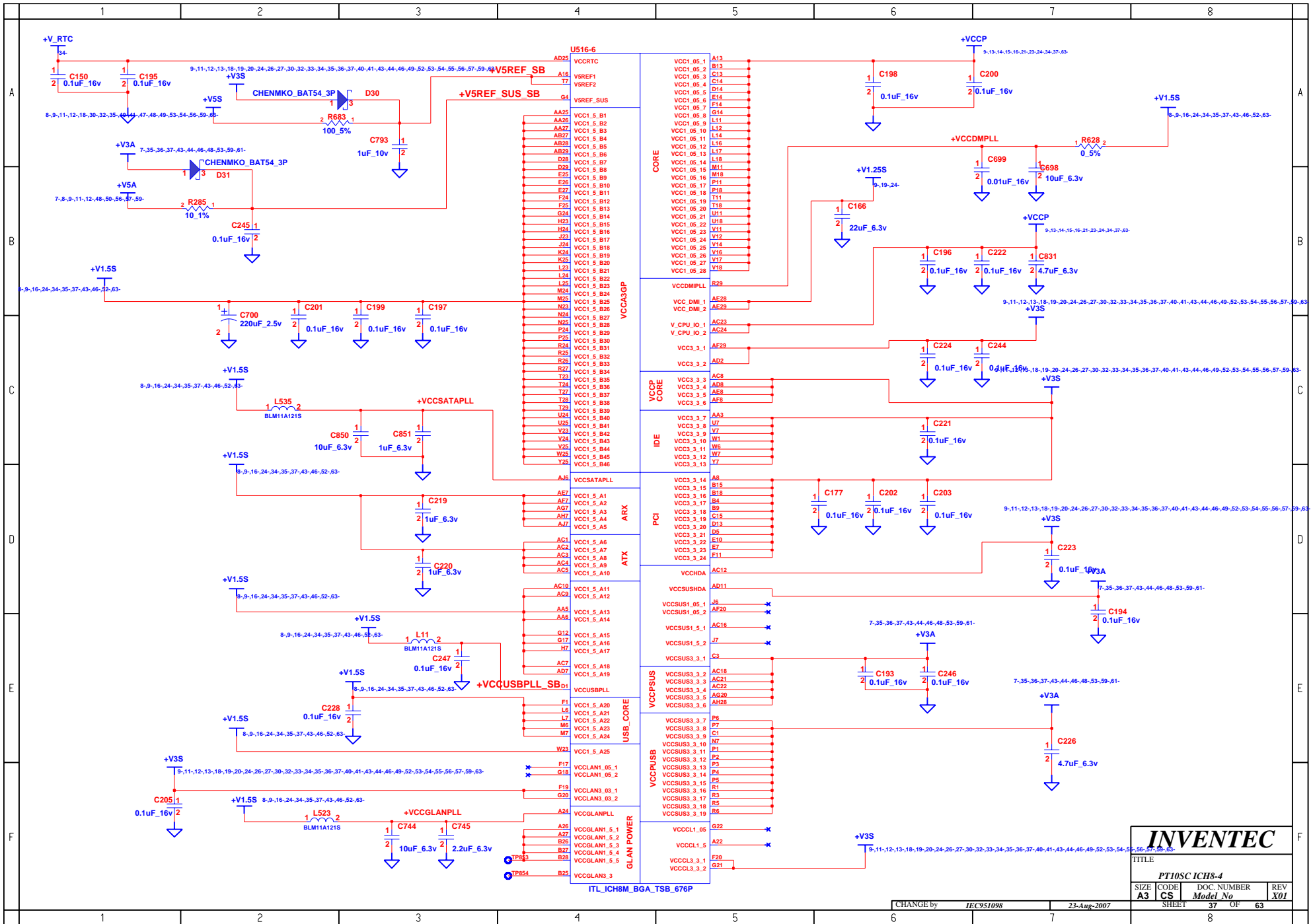
TITLE

ICP1098C

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

SHEET 36 OF 63

CHANGE by IEC951098 25-Oct-2007



INVENTEC			
TITLE			
PT10SC ICH8-4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
SHEET		OF	
37		63	

CHANGE by IEC951098 23-Aug-2007

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

U516-5

A23	VSS001	VSS009	K7
A5	VSS002	VSS100	L1
AA2	VSS003	VSS101	L13
AA2	VSS004	VSS102	L15
AA5	VSS005	VSS103	L26
AB1	VSS006	VSS104	L27
AB24	VSS007	VSS105	L4
AC11	VSS008	VSS106	L5
AC14	VSS009	VSS107	M12
AC25	VSS010	VSS108	M13
AC26	VSS011	VSS109	M14
AC27	VSS012	VSS110	M15
AD17	VSS013	VSS111	M16
AD20	VSS014	VSS112	M17
AD28	VSS015	VSS113	M23
AD29	VSS016	VSS114	M28
AD3	VSS017	VSS115	M29
AD4	VSS018	VSS116	M3
AD6	VSS019	VSS117	N1
AE1	VSS020	VSS118	N11
AE12	VSS021	VSS119	N12
AE2	VSS022	VSS120	N13
AE22	VSS023	VSS121	N14
AE1	VSS024	VSS122	N15
AE25	VSS025	VSS123	N16
AE5	VSS026	VSS124	N17
AE6	VSS027	VSS125	N18
AE9	VSS028	VSS126	N26
AF14	VSS029	VSS127	N27
AF16	VSS030	VSS128	N4
AF18	VSS031	VSS129	N5
AF3	VSS032	VSS130	N6
AF4	VSS033	VSS131	P12
AG5	VSS034	VSS132	P13
AG6	VSS035	VSS133	P14
AH10	VSS036	VSS134	P15
AH13	VSS037	VSS135	P16
AH16	VSS038	VSS136	P17
AH19	VSS039	VSS137	P23
AH2	VSS040	VSS138	P28
AF28	VSS041	VSS139	P29
AH22	VSS042	VSS140	R11
AH24	VSS043	VSS141	R12
AH26	VSS044	VSS142	R13
AH3	VSS045	VSS143	R14
AH4	VSS046	VSS144	R15
AH8	VSS047	VSS145	R16
AJ5	VSS048	VSS146	R17
B11	VSS049	VSS147	R18
B14	VSS050	VSS148	R28
B17	VSS051	VSS149	R4
B2	VSS052	VSS150	T12
B20	VSS053	VSS151	T13
B22	VSS054	VSS152	T14
BB	VSS055	VSS153	T15
C24	VSS056	VSS154	T16
C26	VSS057	VSS155	T17
CA27	VSS058	VSS156	T2
C6	VSS059	VSS157	U12
D12	VSS060	VSS158	U13
D15	VSS061	VSS159	U14
D18	VSS062	VSS160	U15
D2	VSS063	VSS161	U16
D4	VSS064	VSS162	U17
E21	VSS065	VSS163	U23
E24	VSS066	VSS164	U26
E4	VSS067	VSS165	U27
E9	VSS068	VSS166	U3
F16	VSS069	VSS167	U8
E23	VSS070	VSS168	V13
F28	VSS071	VSS169	V15
F29	VSS072	VSS170	V28
F7	VSS073	VSS171	V29
G1	VSS074	VSS172	W2
E2	VSS075	VSS173	W26
G10	VSS076	VSS174	W27
G13	VSS077	VSS175	V28
G19	VSS078	VSS176	V29
G23	VSS079	VSS177	Y4
G25	VSS080	VSS178	AB4
G26	VSS081	VSS179	AB33
G27	VSS082	VSS180	AB5
H25	VSS083	VSS181	AB6
H28	VSS084	VSS182	AD5
H29	VSS085	VSS183	U4
H3	VSS086	VSS184	W24
H6	VSS087	VSS NCTF_01	A1
J1	VSS088	VSS NCTF_02	A2
J6	VSS089	VSS NCTF_03	A28
J26	VSS090	VSS NCTF_04	A29
J27	VSS091	VSS NCTF_05	AH1
J4	VSS092	VSS NCTF_06	AH29
J5	VSS093	VSS NCTF_07	AJ1
K23	VSS094	VSS NCTF_08	AJ2
K28	VSS095	VSS NCTF_09	AJ28
K29	VSS096	VSS NCTF_10	AJ29
K3	VSS097	VSS NCTF_11	B1
K6	VSS098	VSS NCTF_12	B29

ITL_ICH8M_BGA_TSB_676P

INVENTEC

TITLE

PT10SC ICH8-5

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

SHEET 38 OF 63

	1	2	3	4	5	6	7	8
--	---	---	---	---	---	---	---	---

BLANK

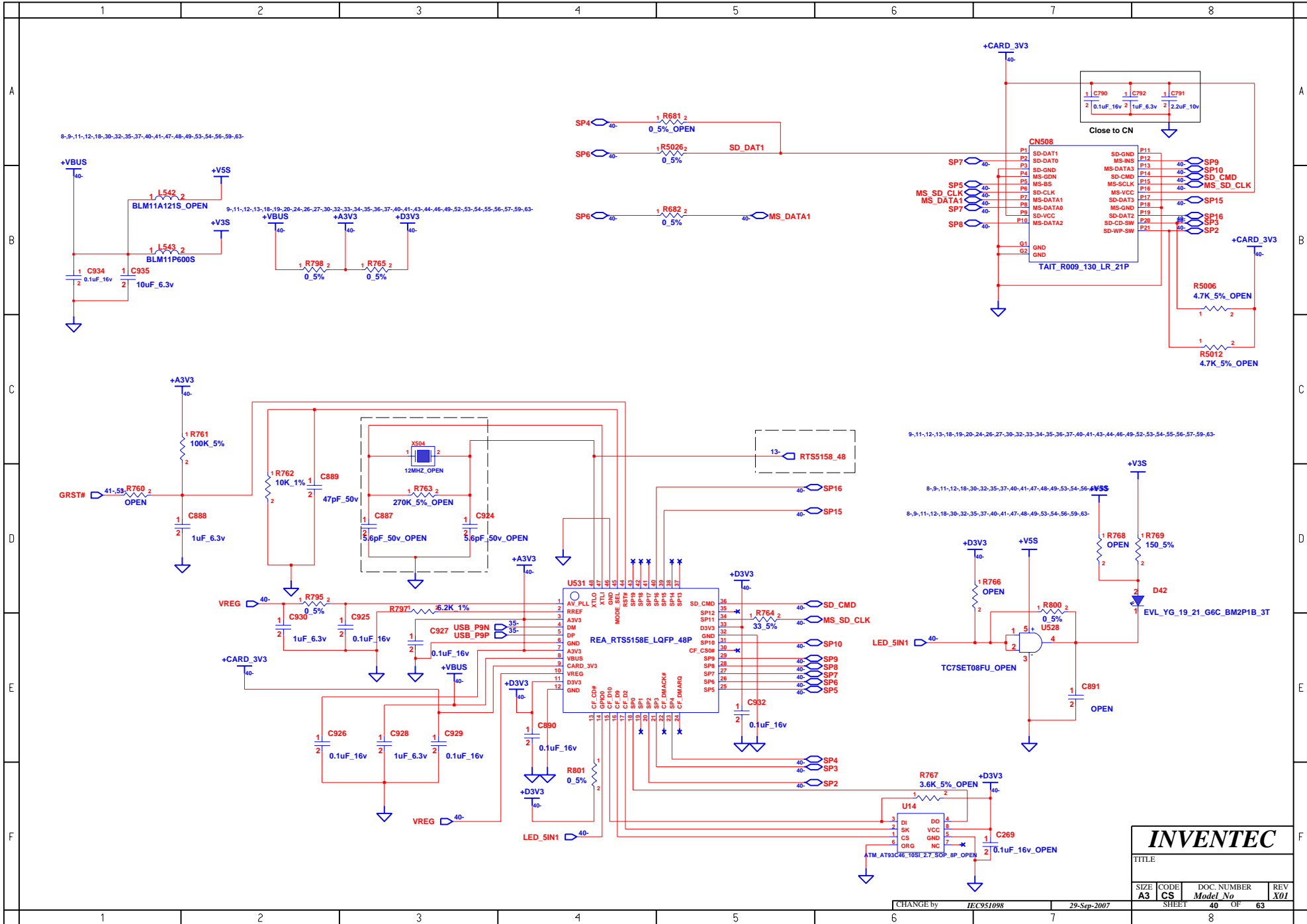
INVENTEC

TITLE

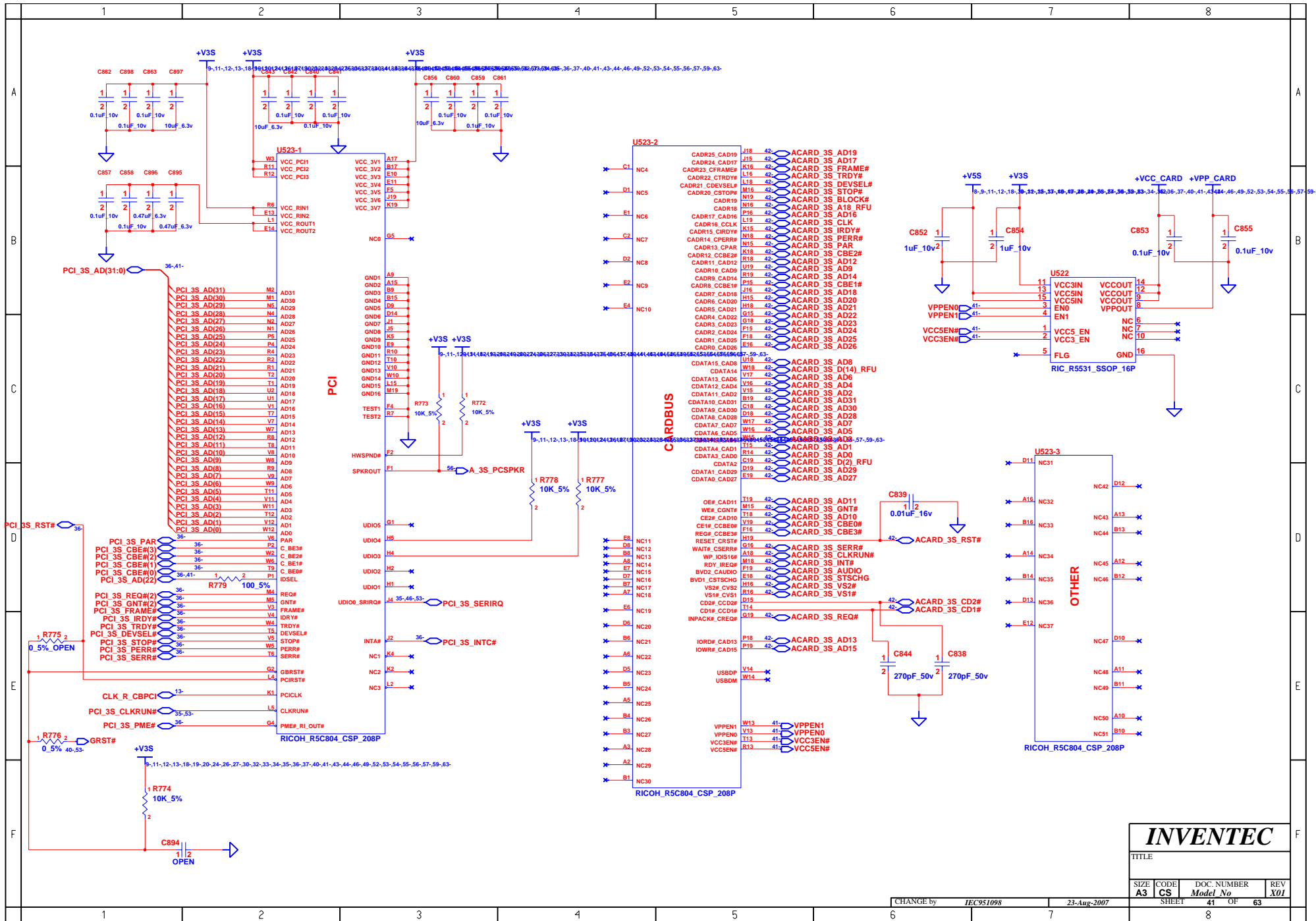
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

CHANGE by IEC951098 30-Nov-2007

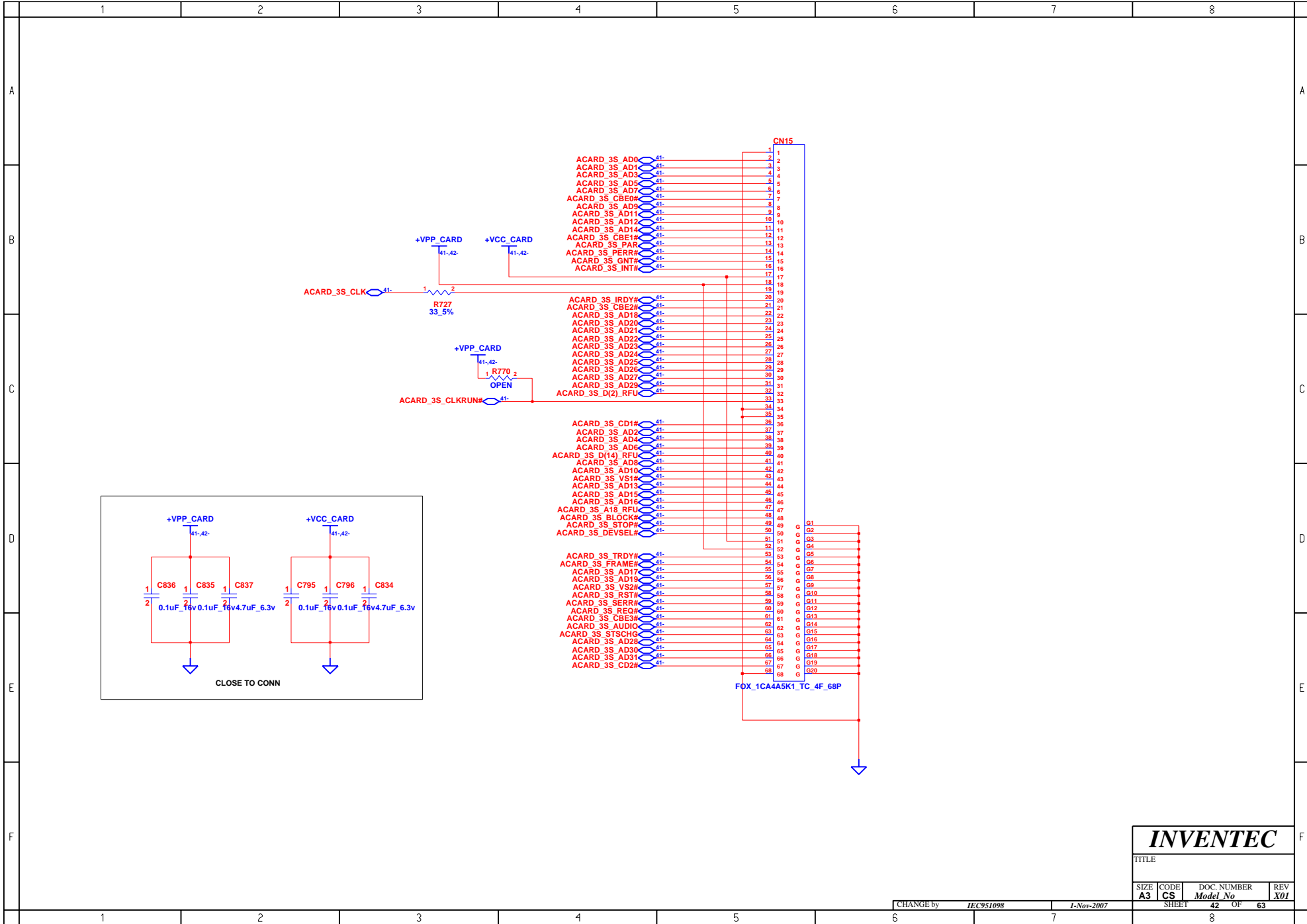
SHEET 39 OF 63



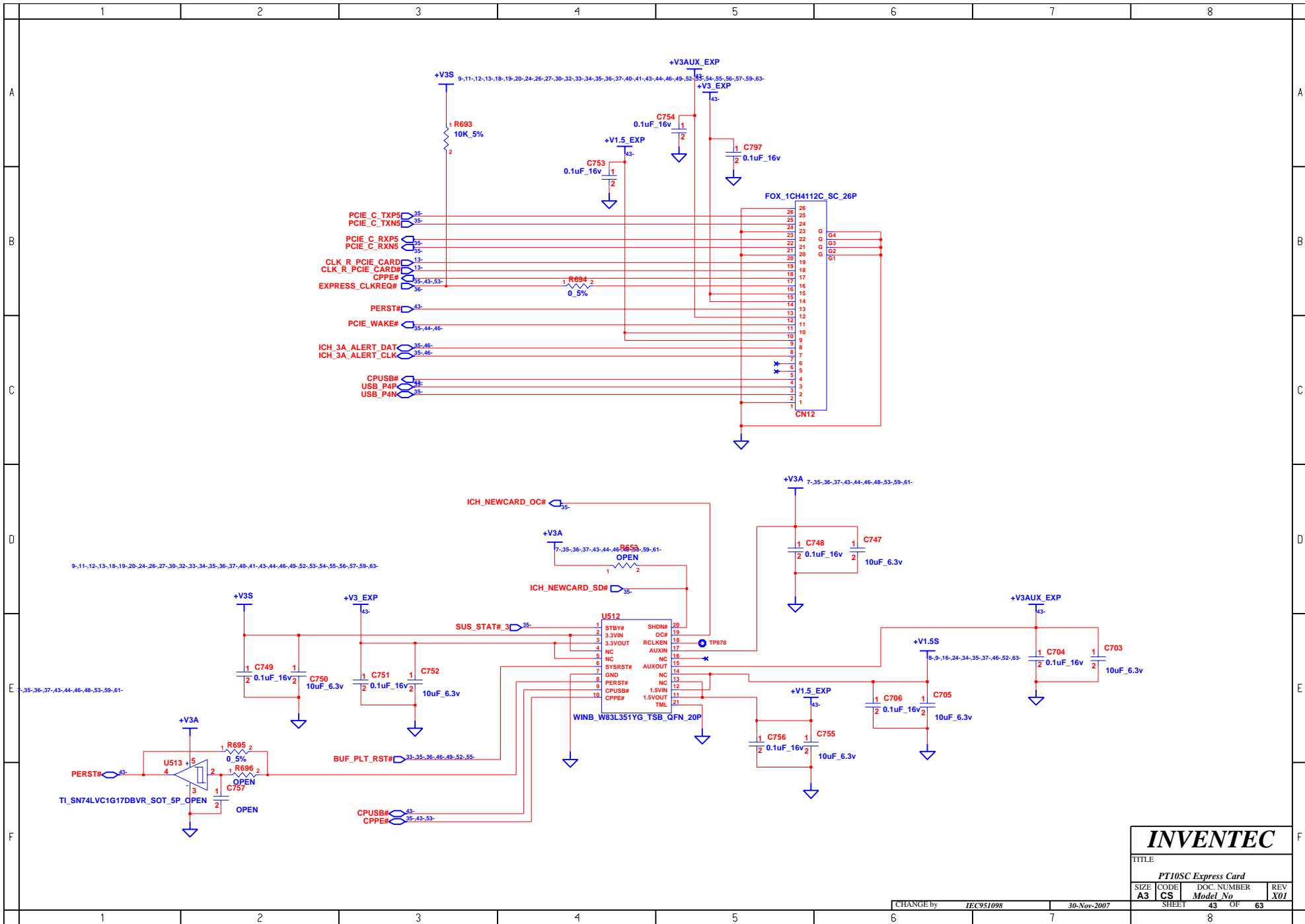
INVENTEC			
TITLE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		40 OF 63	
29-Sep-2007		8	



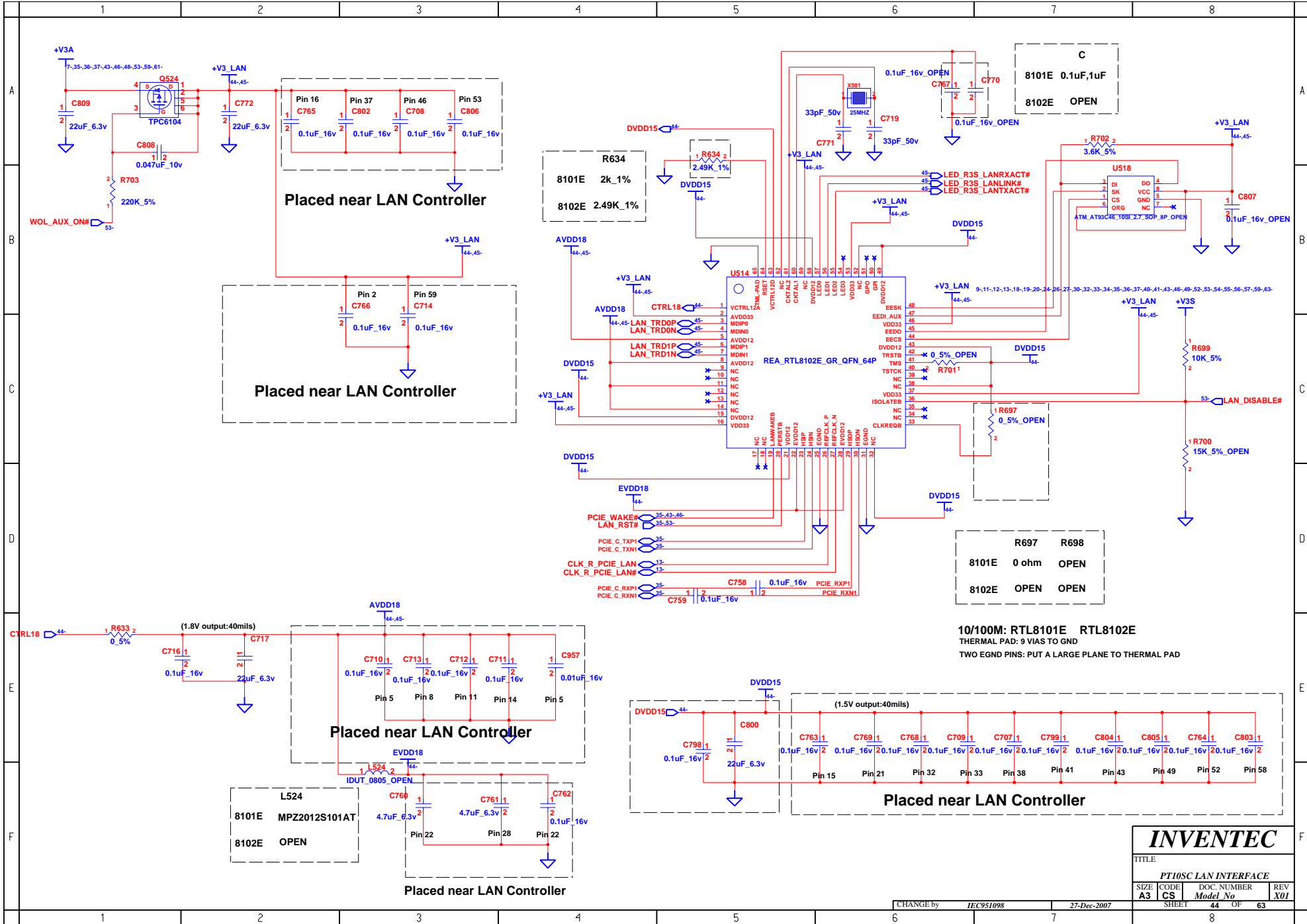
INVENTEC			
TITLE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	23-Aug-2007
SHEET		41	OF 63



INVENTEC			
TITLE			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV X01
CHANGE by <i>IEC951098</i>		1-Nov-2007	
SHEET		42	OF 63
1		8	



INVENTEC			
TITLE			
PT10SC Express Card			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV X01



Placed near LAN Controller

Placed near LAN Controller

Placed near LAN Controller

Placed near LAN Controller

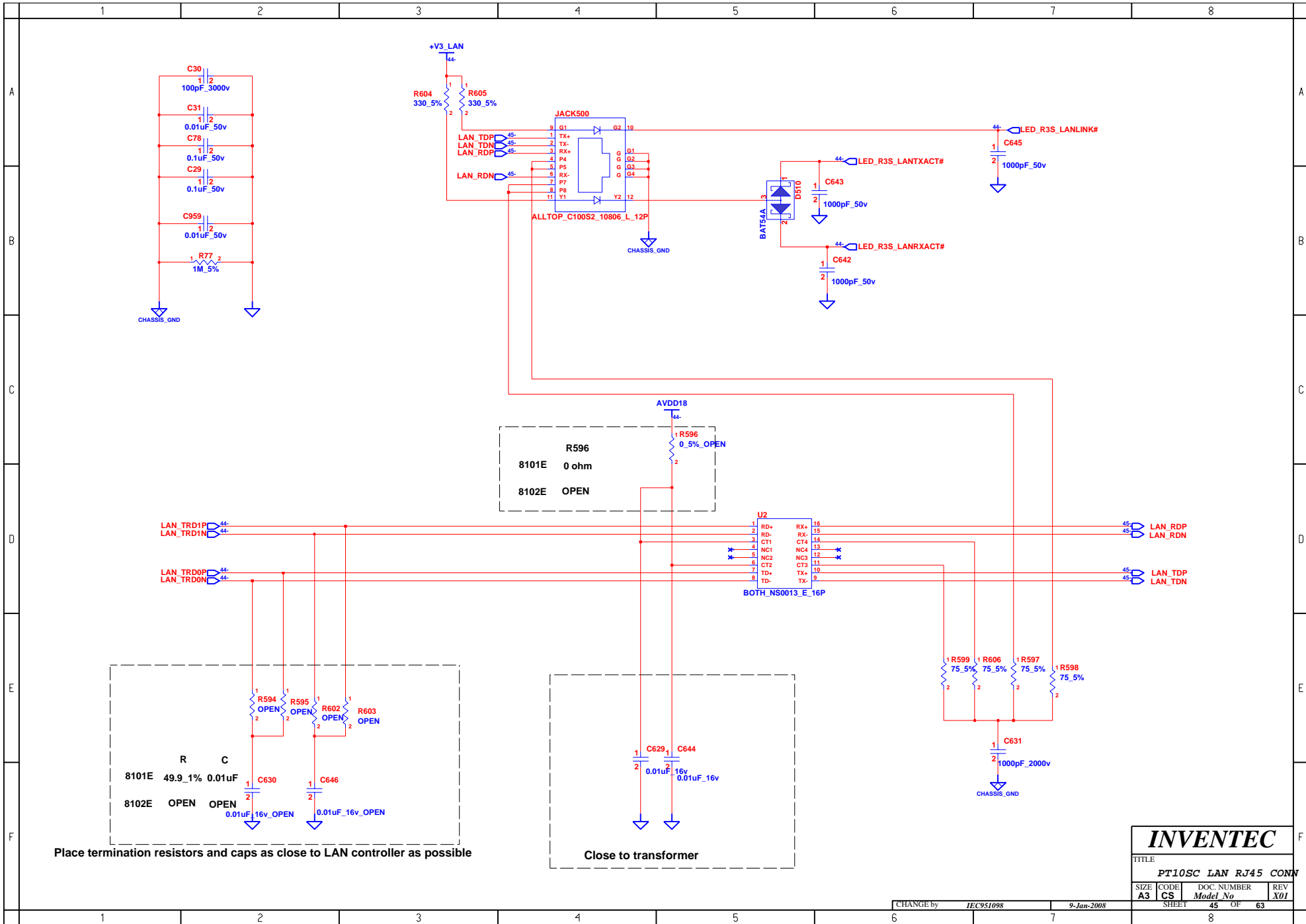
10/100M: RTL8101E RTL8102E
THERMAL PAD: 9 VIAS TO GND
TWO EGND PINS: PUT A LARGE PLANE TO THERMAL PAD

INVENTEC

TITLE			
PT10SC LAN INTERFACE			
SIZE	CODE	DOC NUMBER	REV
A3	CS	Model No	X01

CHANGE by IEC951098 27-Dec-2007

SHEET 44 OF 63

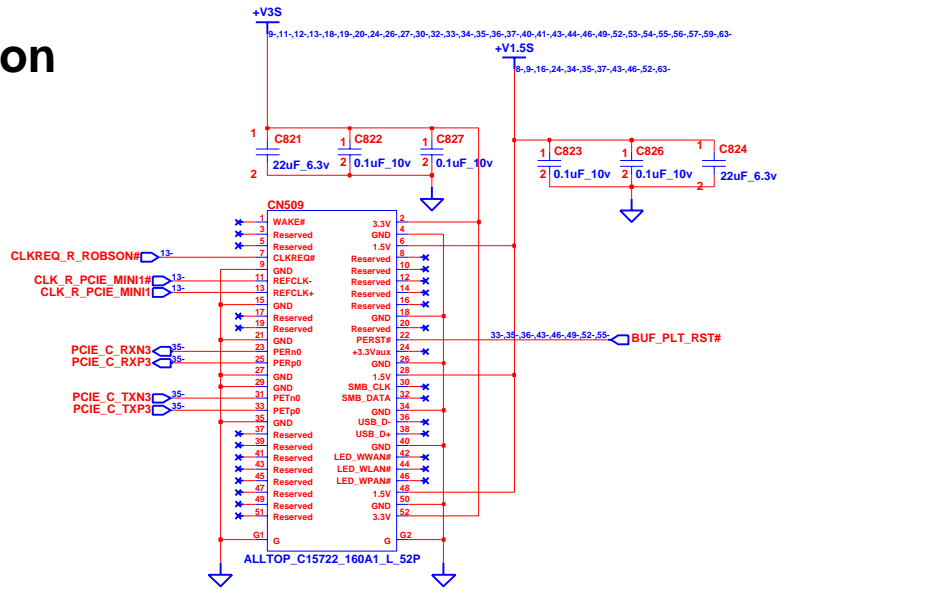


Place termination resistors and caps as close to LAN controller as possible

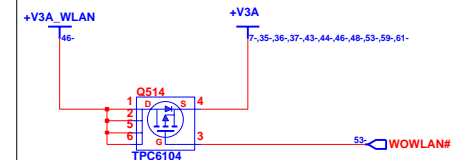
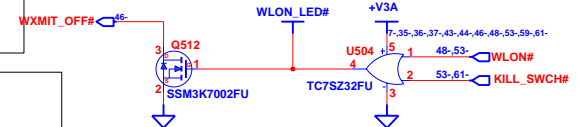
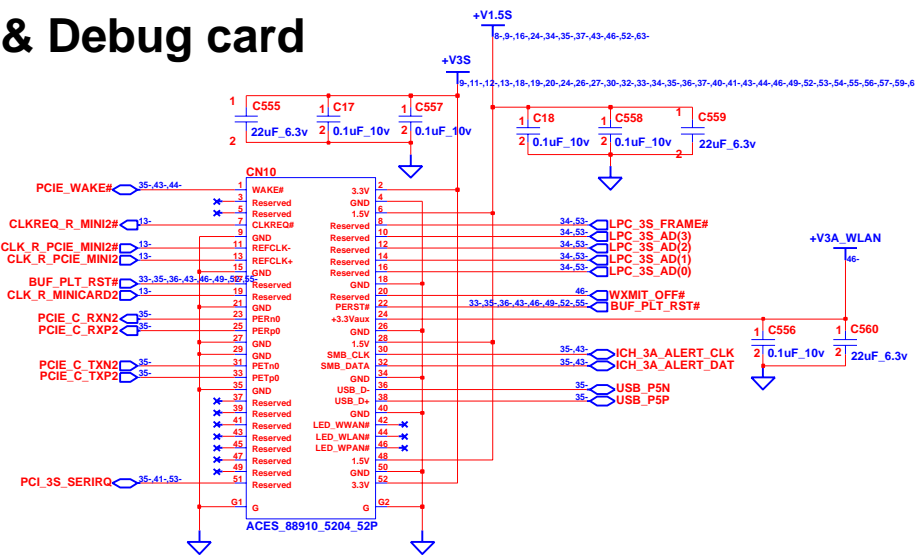
Close to transformer

INVENTEC			
TITLE			
PT10SC LAN RJ45 CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	9-Jan-2008
SHEET		45	OF 63

Robson

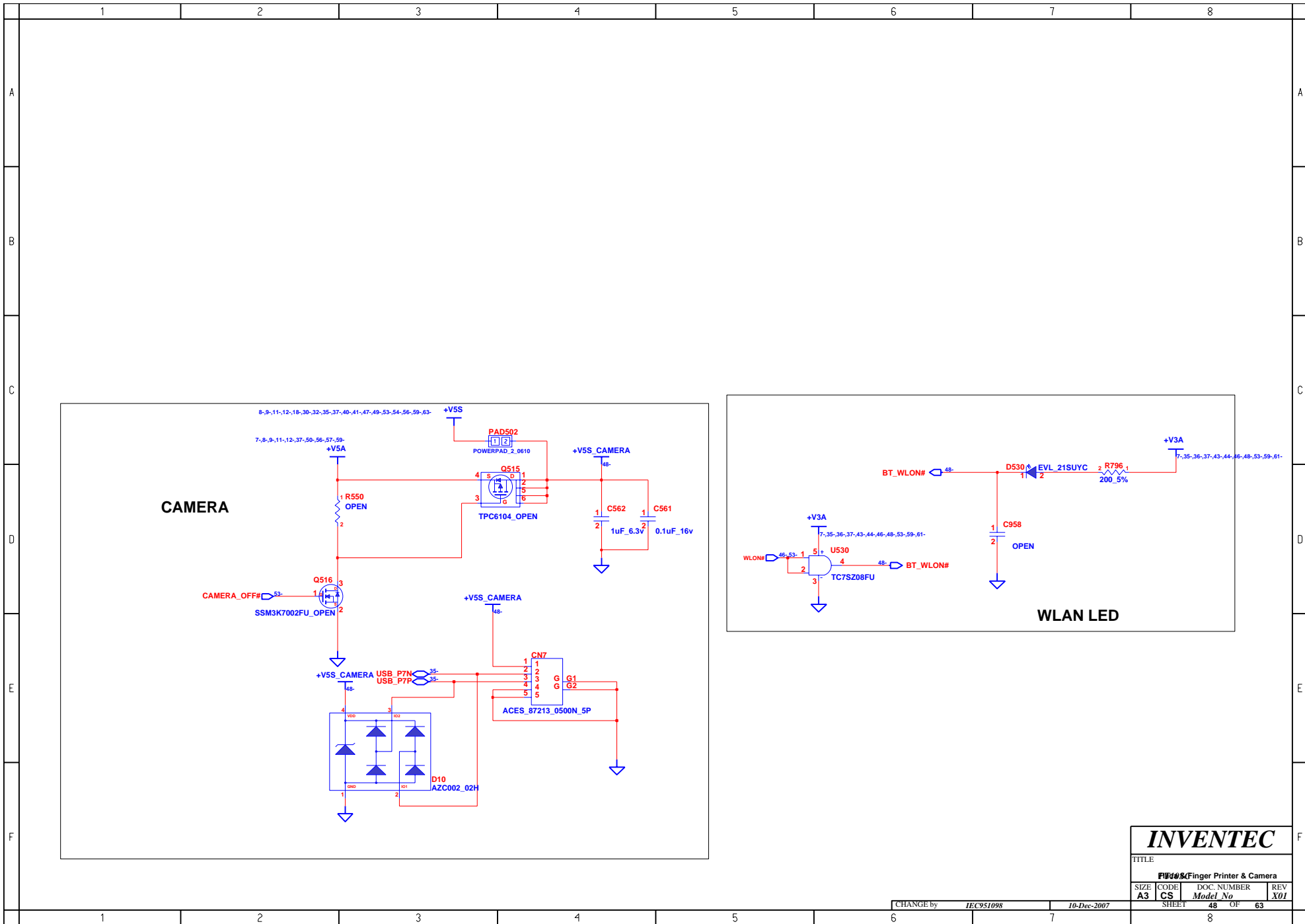


Wireless & Debug card

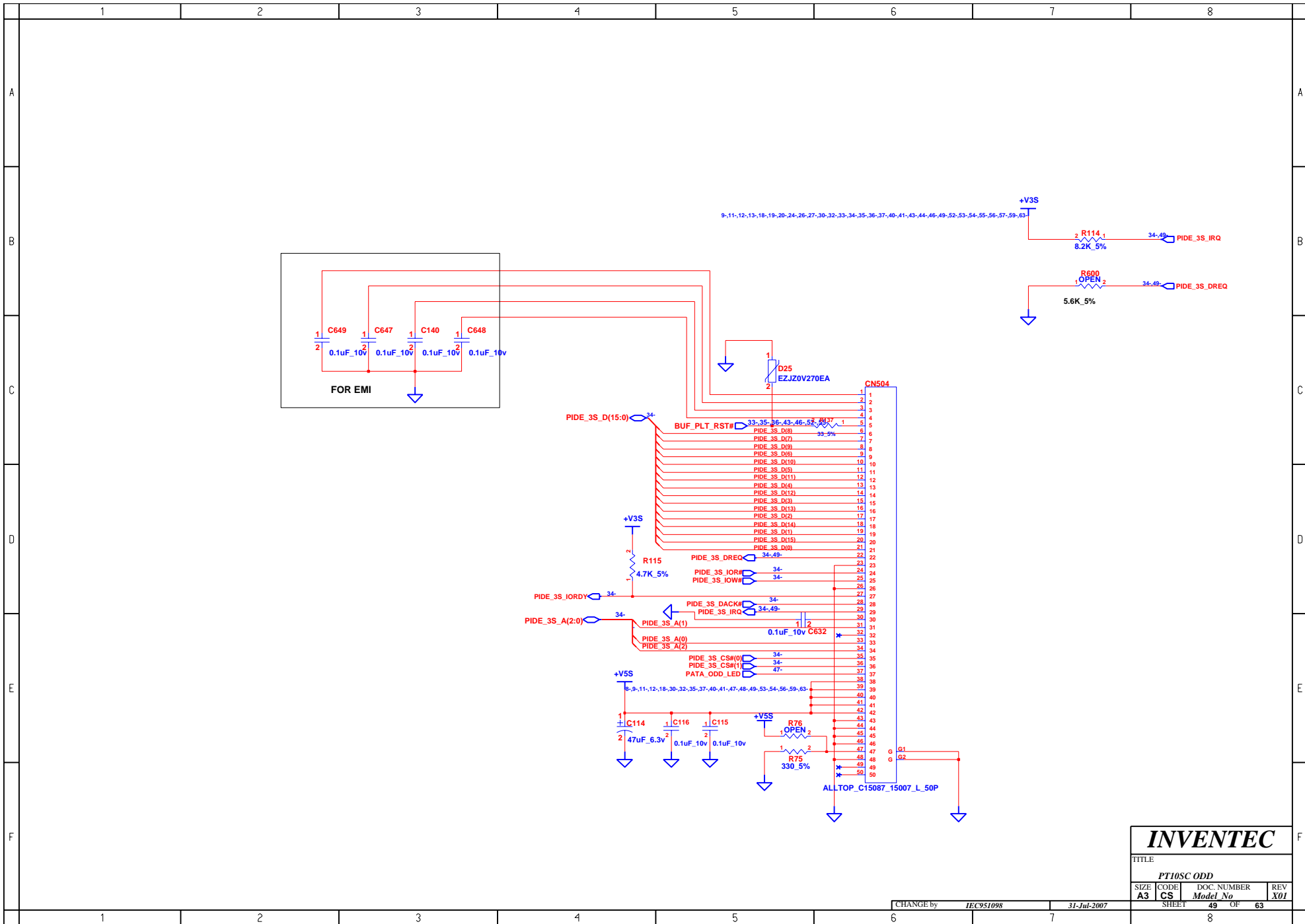


INVENTEC

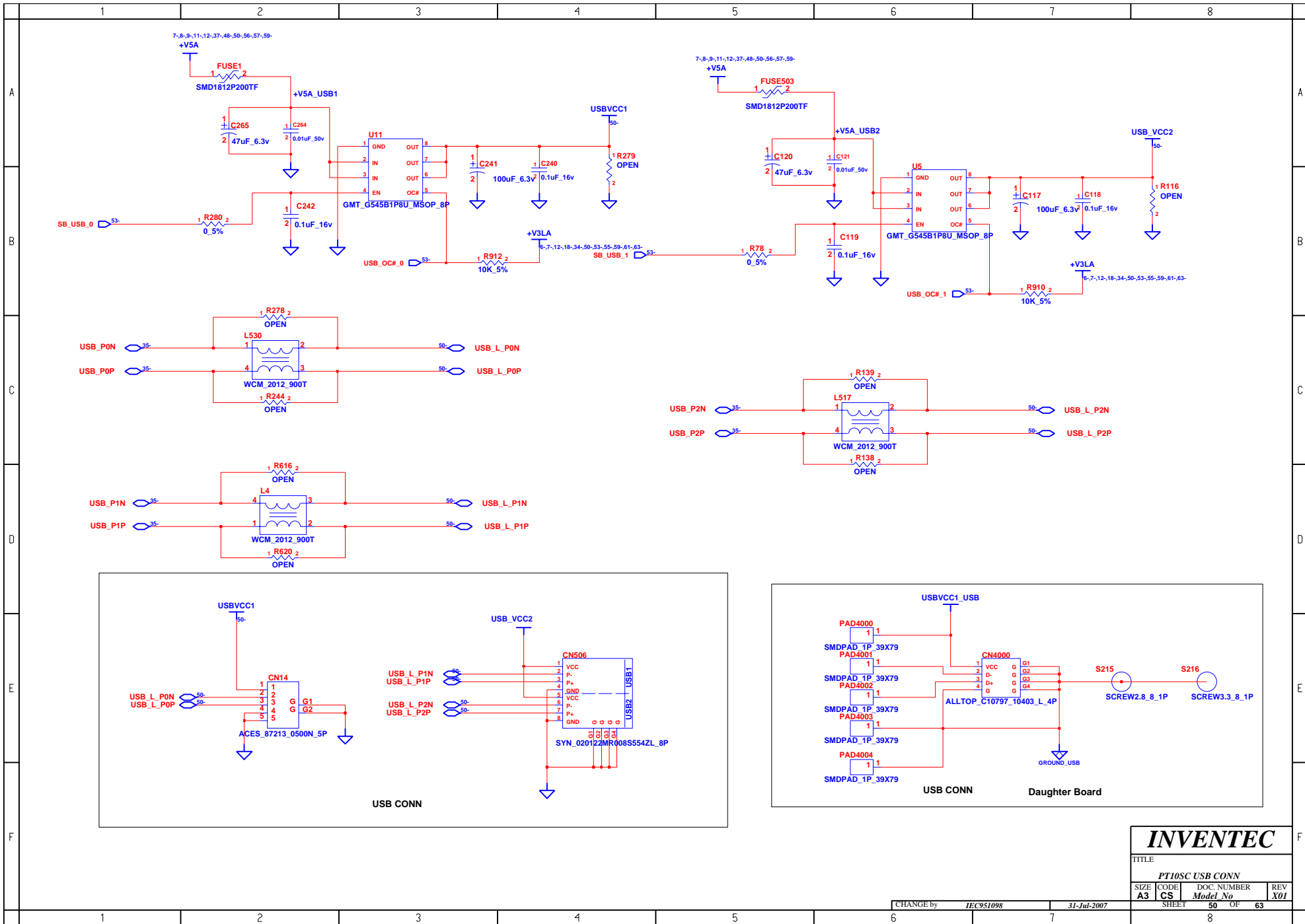
TITLE			
PT10SC Robson & WLAN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
SHEET		OF	63
46		8	



INVENTEC			
TITLE			
FW908C Finger Printer & Camera			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		48 OF 63	
		10-Dec-2007	



INVENTEC			
TITLE			
PT10SC ODD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01



INVENTEC

TITLE			
PT10SC USB CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

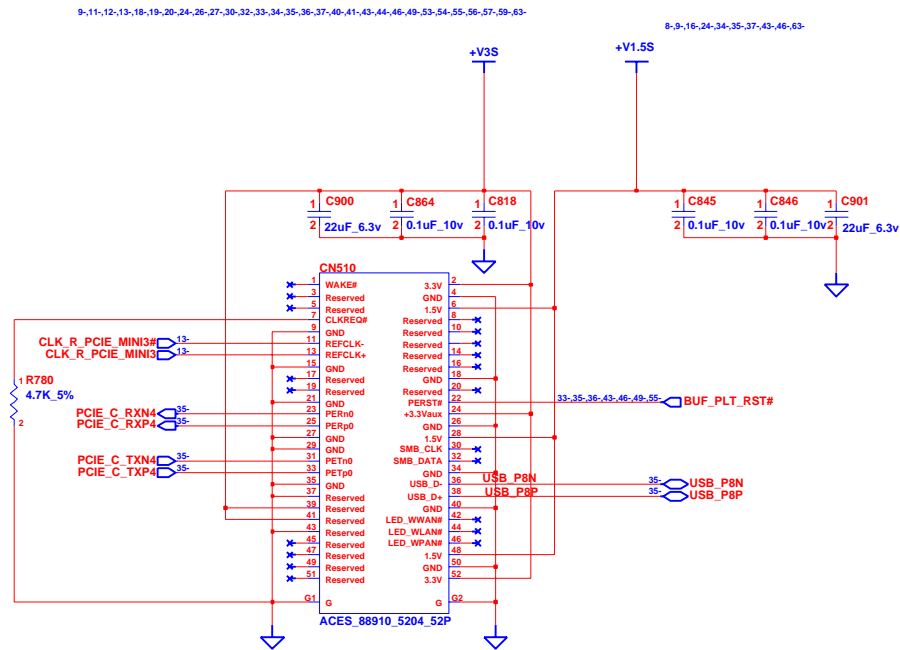
CHANGE by	IEC951098	31-Jul-2007	SHEET 50 OF 63
-----------	-----------	-------------	----------------

BLANK

INVENTEC			
TITLE			
<i>PT10SC BLUETOOTH</i>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	<i>Model No</i>	X01
CHANGE by		30-Nov-2007	
<i>IEC951098</i>			
SHEET		51	OF 63

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

HD_DVD

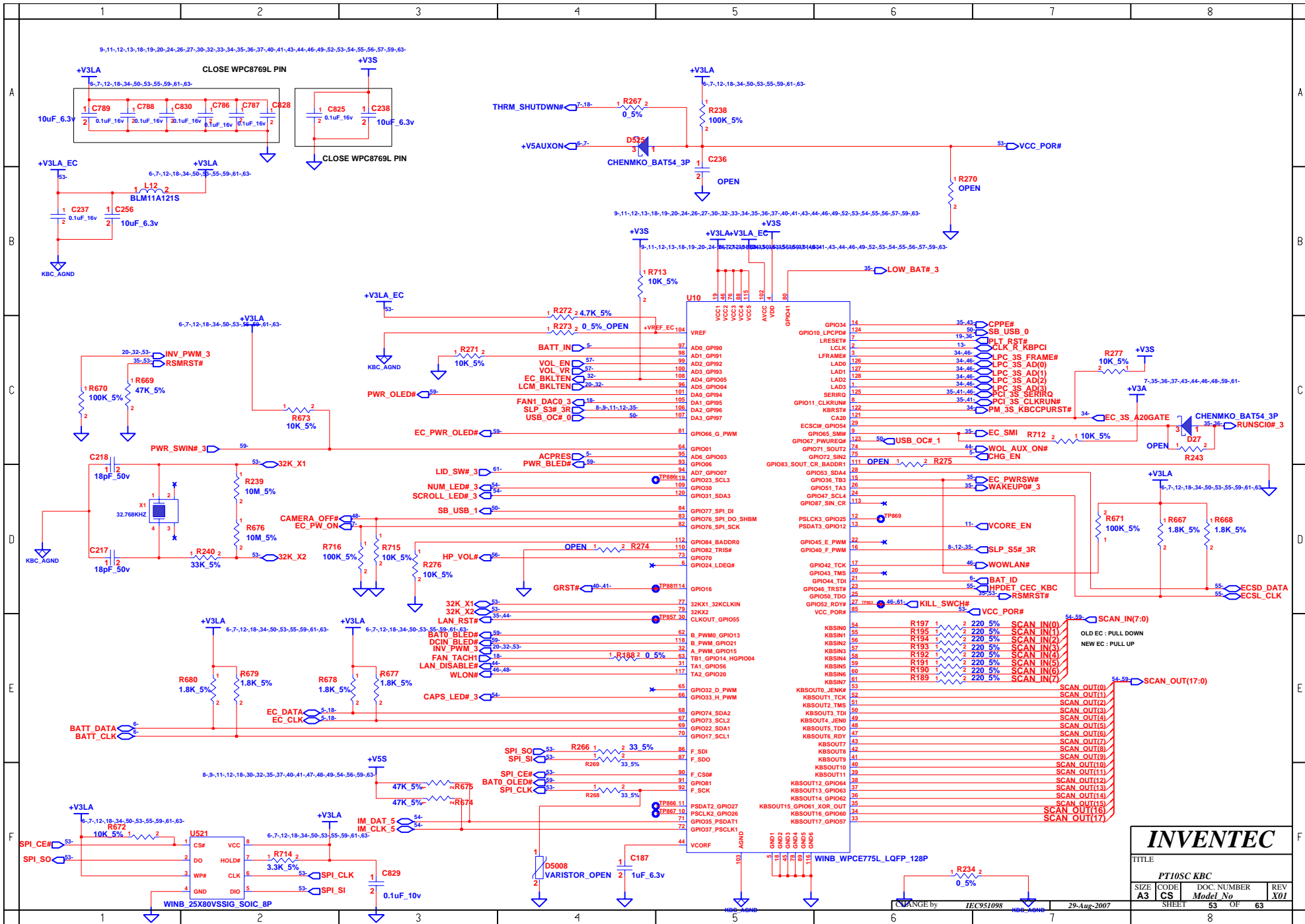


INVENTEC

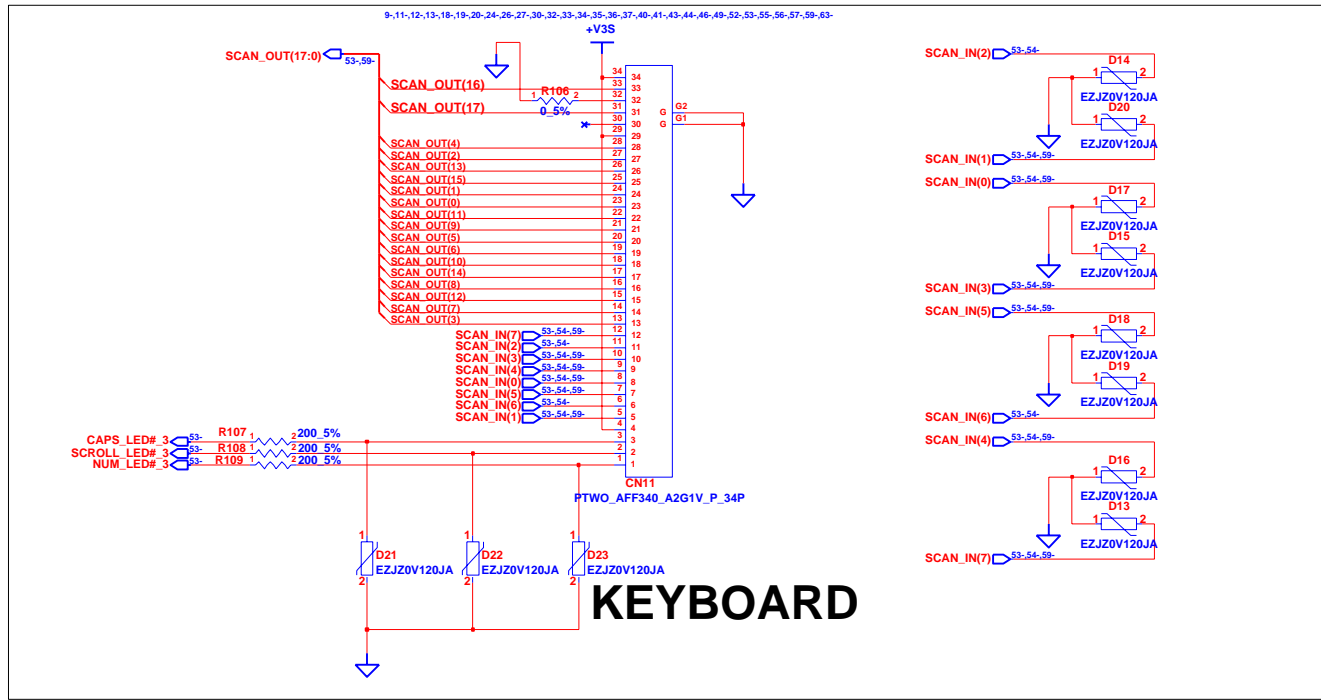
TITLE			
PT10SC 3G_SIM			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	27-Dec-2007
SHEET		52	OF 63

CHANGE by IEC951098 27-Dec-2007

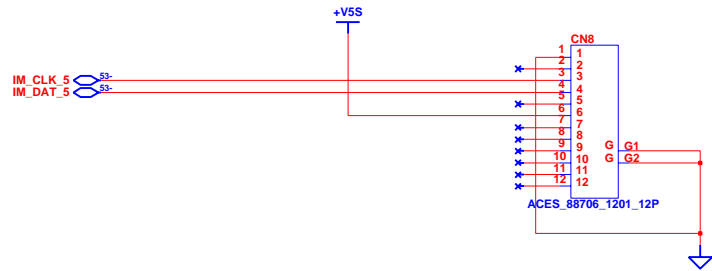
SHEET 52 OF 63



INVENTEC			
TITLE			
PT10SC KBC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	29-Aug-2007
SHEET		53	OF 63



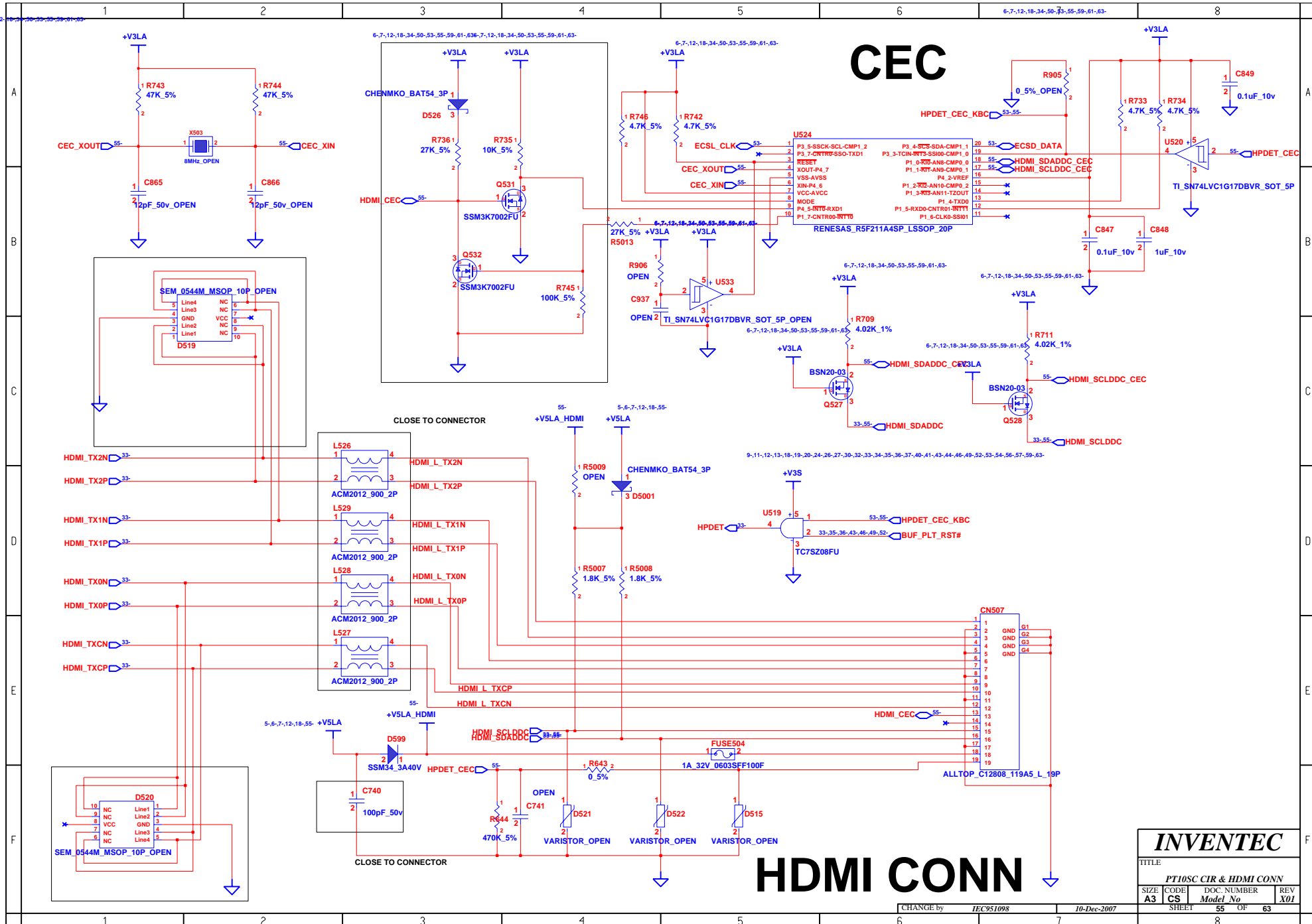
KEYBOARD



INVENTEC			
TITLE			
PT10SC INT.KBC/POINT DEVICES			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		54 OF 63	

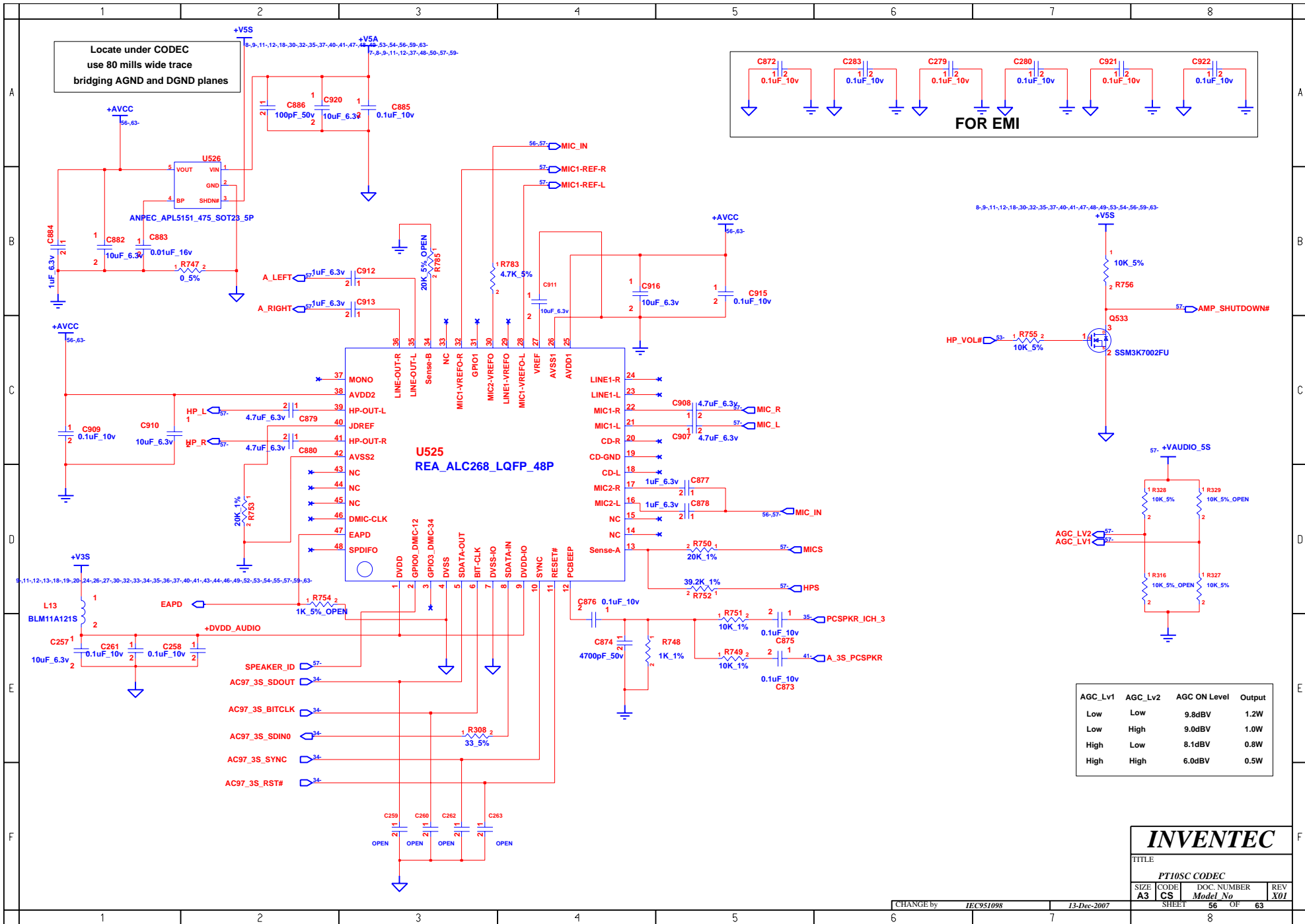
	1	2	3	4	5	6	7	8
A								
B								
C								
D								
E								
F								
	1	2	3	4	5	6	7	8

CEC

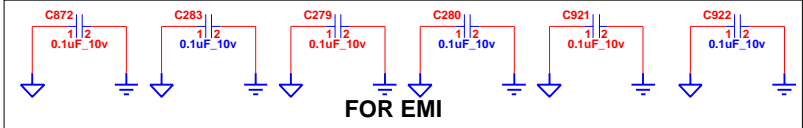


HDMI CONN

INVENTEC			
TITLE			
PT10SC CIR & HDMI CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	10-Dec-2007
SHEET		55	OF 63



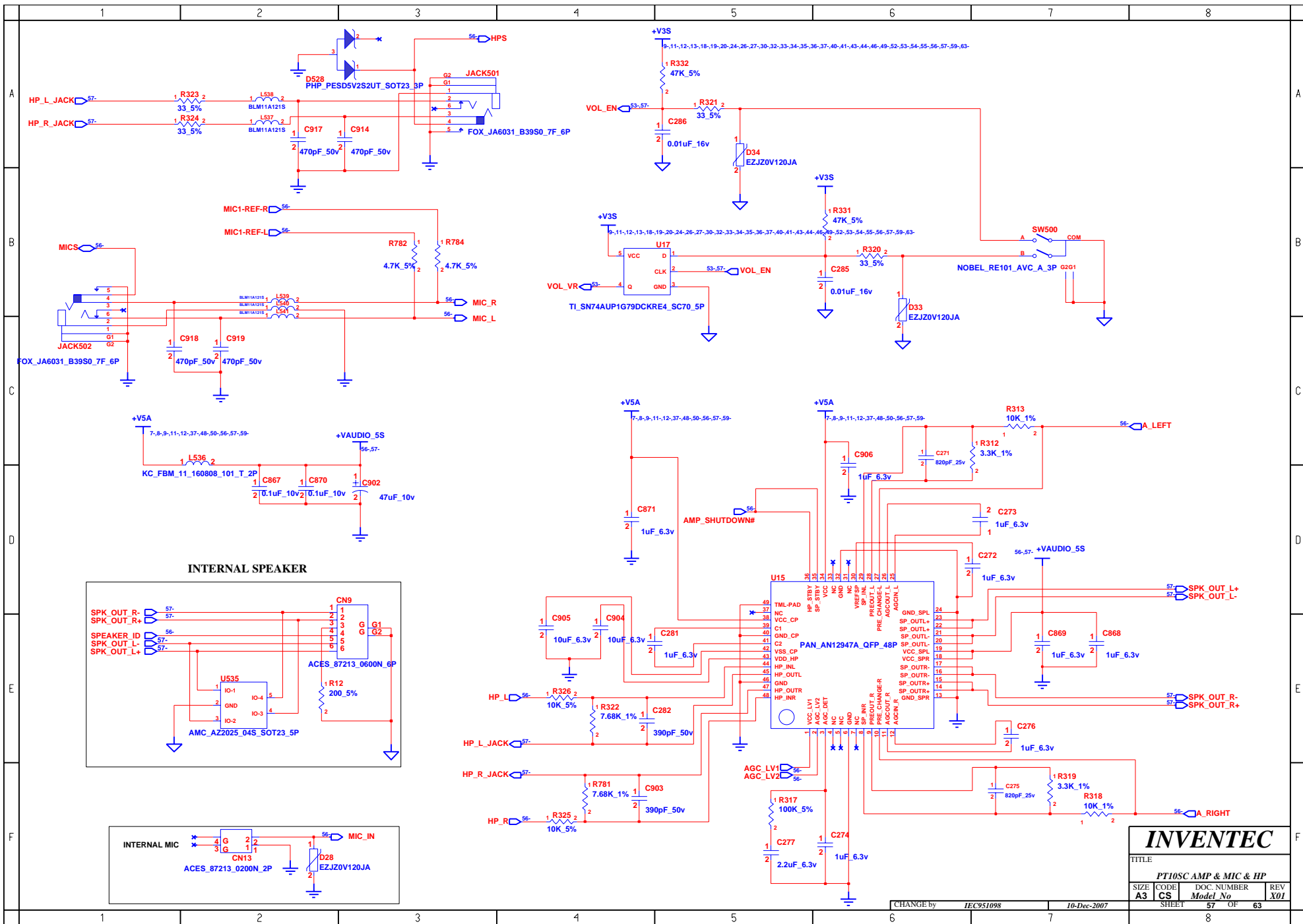
Locate under CODEC
use 80 mills wide trace
bridging AGND and DGND planes



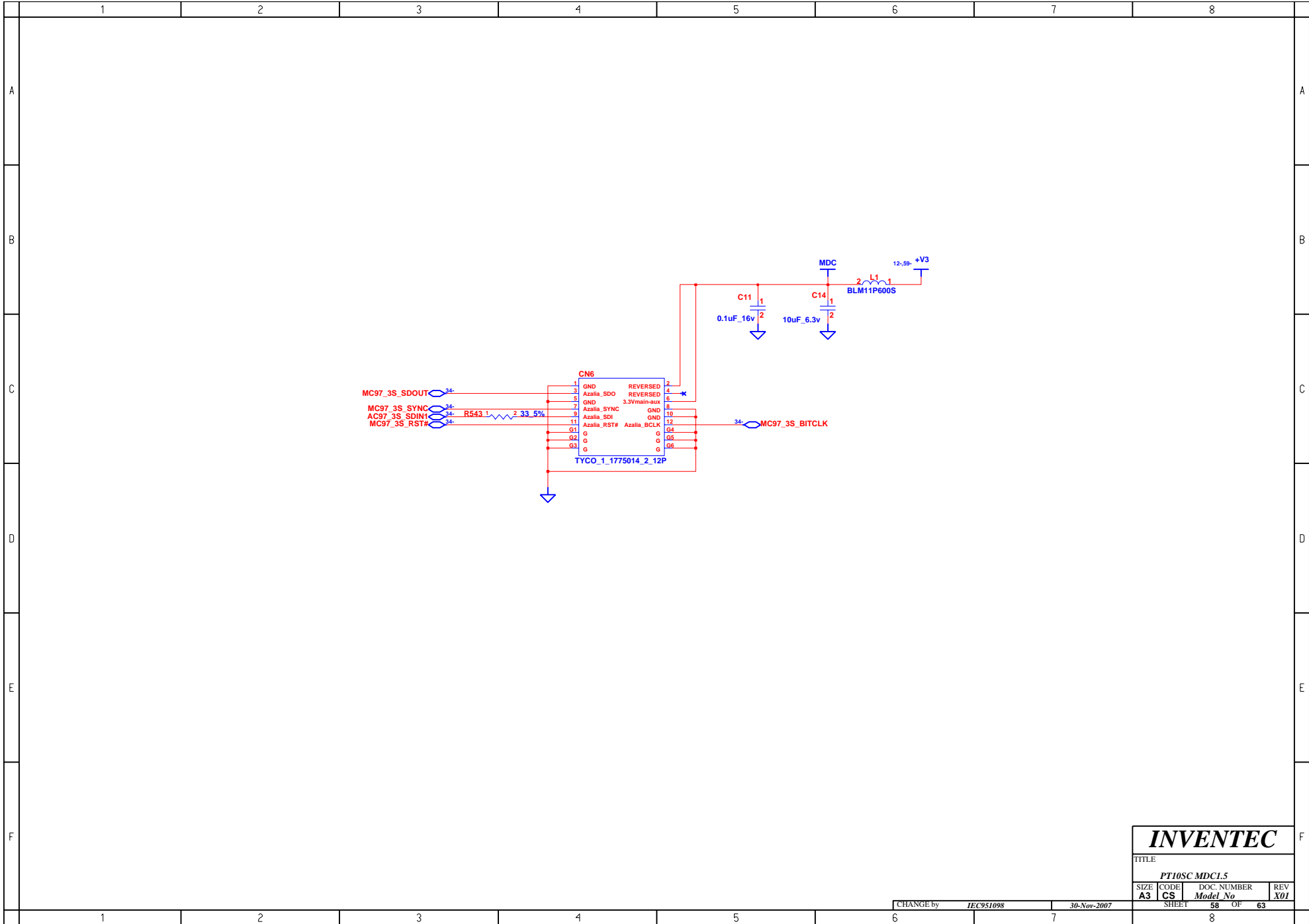
AGC_Lv1	AGC_Lv2	AGC ON Level	Output
Low	Low	9.8dBV	1.2W
Low	High	9.0dBV	1.0W
High	Low	8.1dBV	0.8W
High	High	6.0dBV	0.5W

INVENTEC

TITLE			
PT10SC CODEC			
SIZE	CODE	DOC NUMBER	REV
A3	CS	Model No	X01

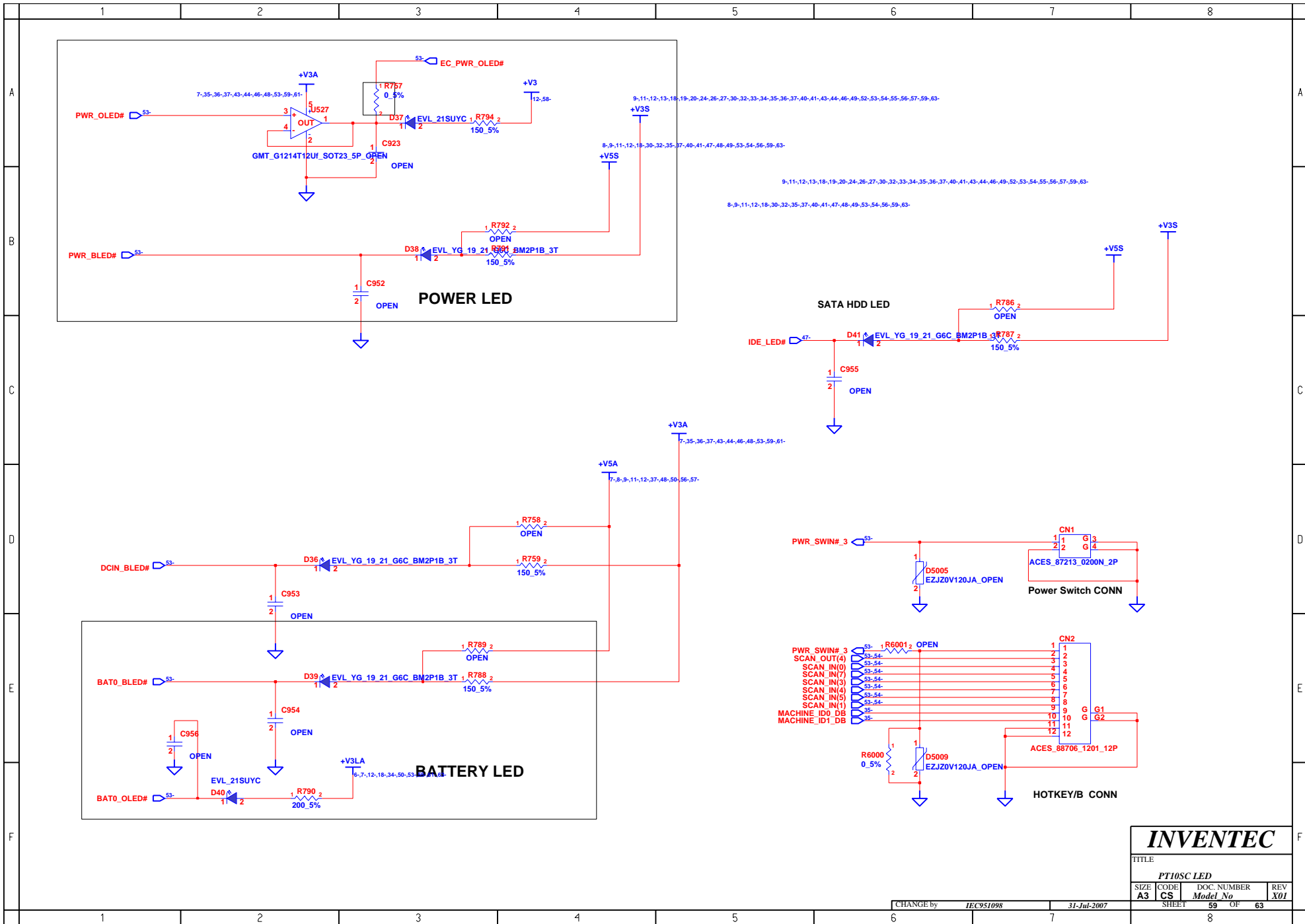


INVENTEC			
TITLE			
PT10SC AMP & MIC & HP			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		57 OF 63	
10-Dec-2007			

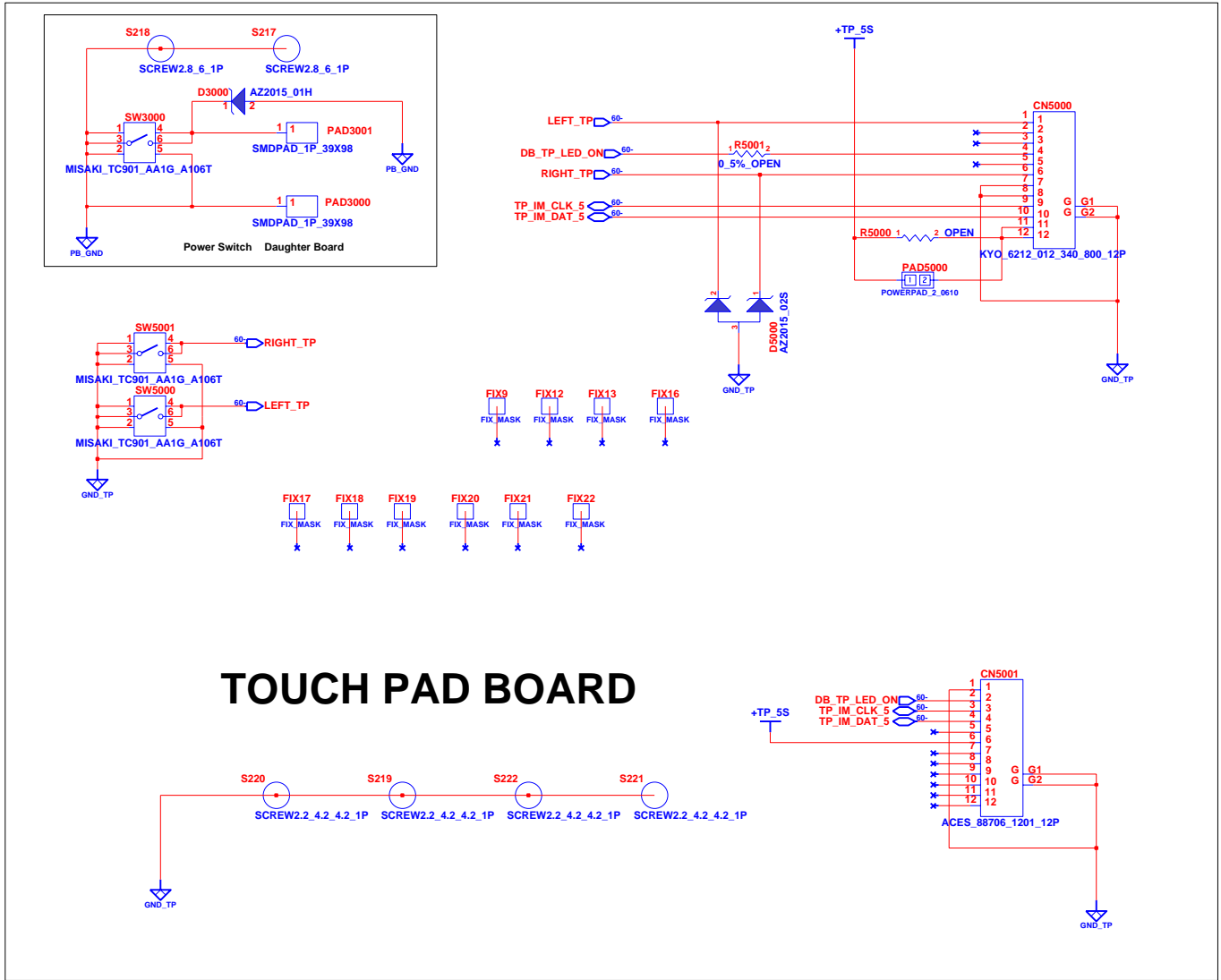


INVENTEC

TITLE			
PT10SC MDCL.5			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

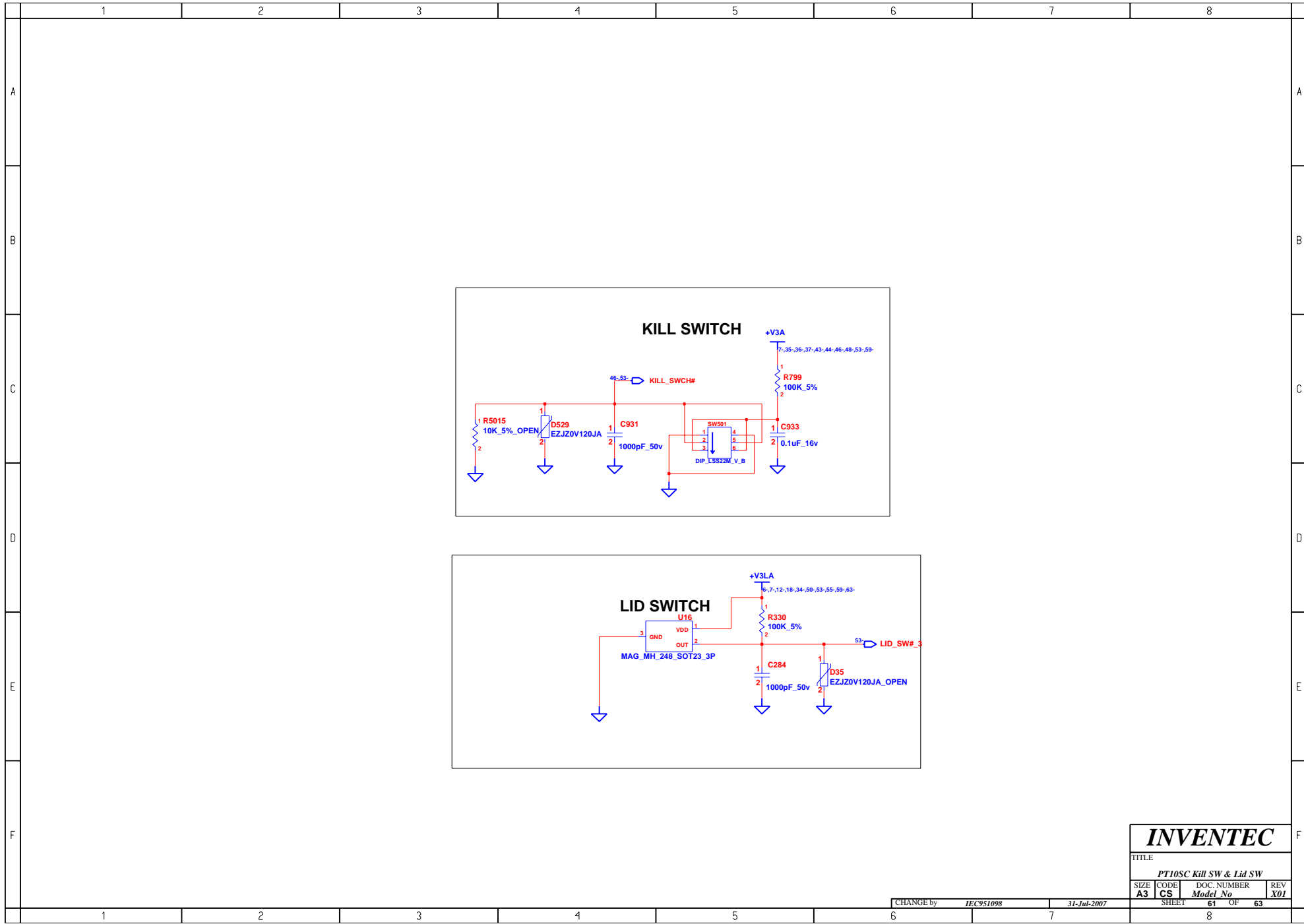


INVENTEC			
TITLE			
PT10SC LED			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		31-Jul-2007	
IEC951098		59 OF 63	
SHEET		8	

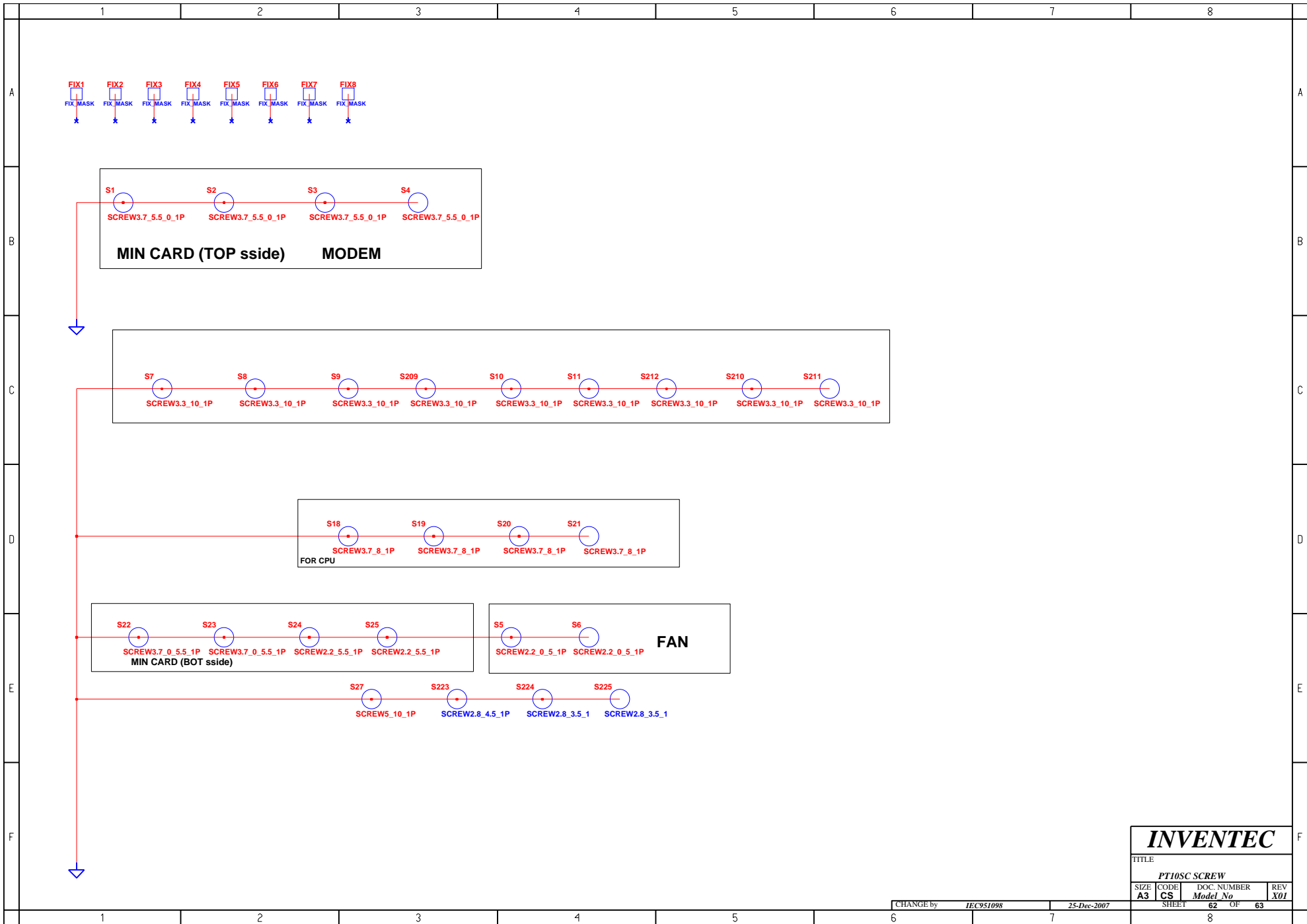


TOUCH PAD BOARD

INVENTEC			
TITLE			
Touch Pad Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		60 OF 63	
		DATE	
		5-Nov-2007	



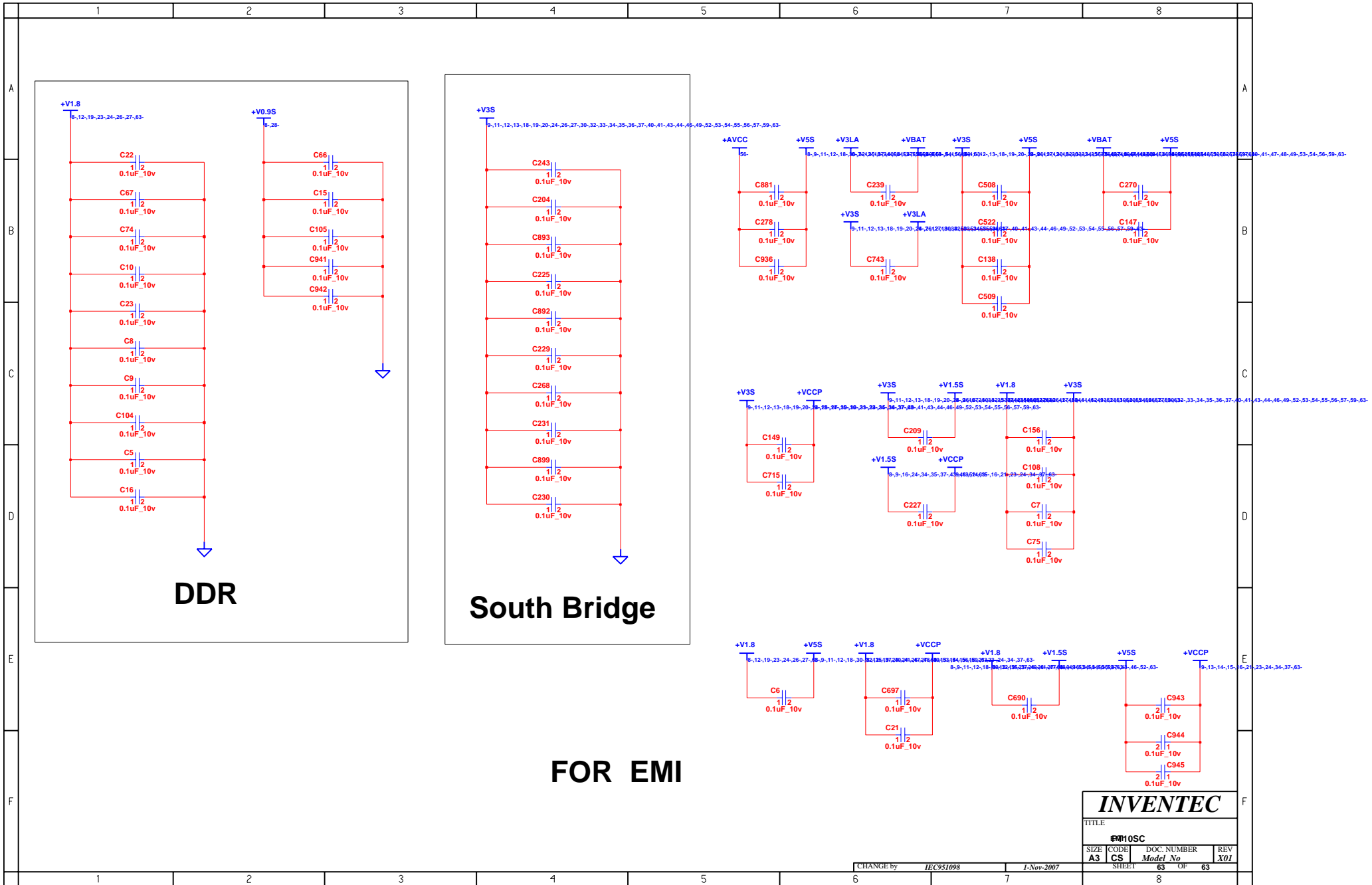
INVENTEC			
TITLE			
PT10SC Kill SW & Lid SW			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		61 OF 63	
31-Jul-2007		8	



INVENTEC

TITLE			
PT10SC SCREW			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
SHEET		62	OF 63

CHANGE by IEC951098 25-Dec-2007



DDR

South Bridge

FOR EMI

INVENTEC

TITLE			
EM10SC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
SHEET		63	OF 63

CHANGE by IECYS1098 L-Nov-2007