

# *INVENTEC*

Preliminary Test

**2008/03/25**

DATE	CHANGE NO.	REV
		2

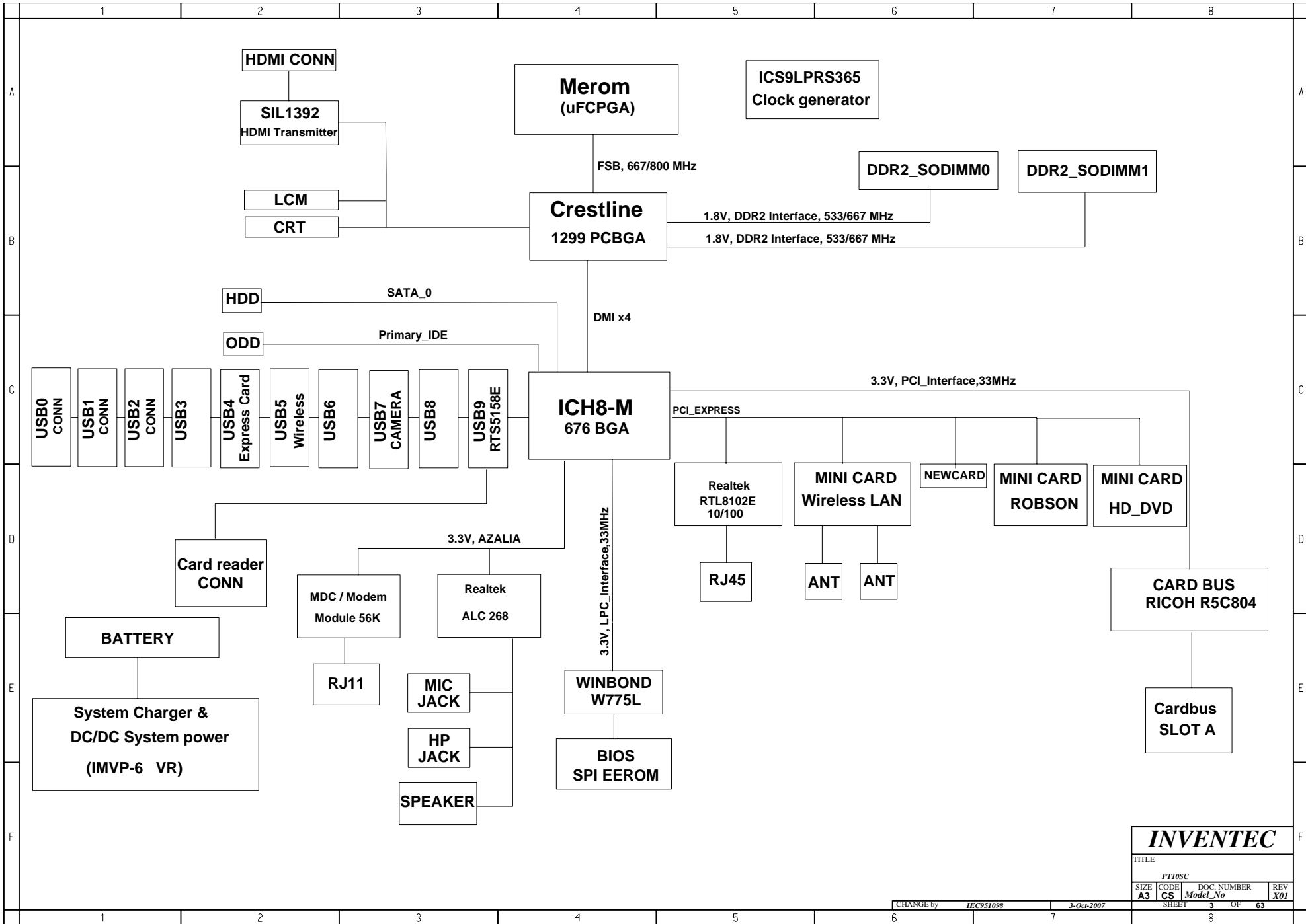
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DESIGN					
CHECK					TITLE PT10SC
RESPONSIBLE					
SIZE =	3	VER :			
FILE NAME	XXXXXXXXXXXX				DOC. NUMBER
					Model No
					REV
					X01
					SHEET 1 OF 63

	1	2	3	4	5	6	7	8
A								
B								
C								
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E								
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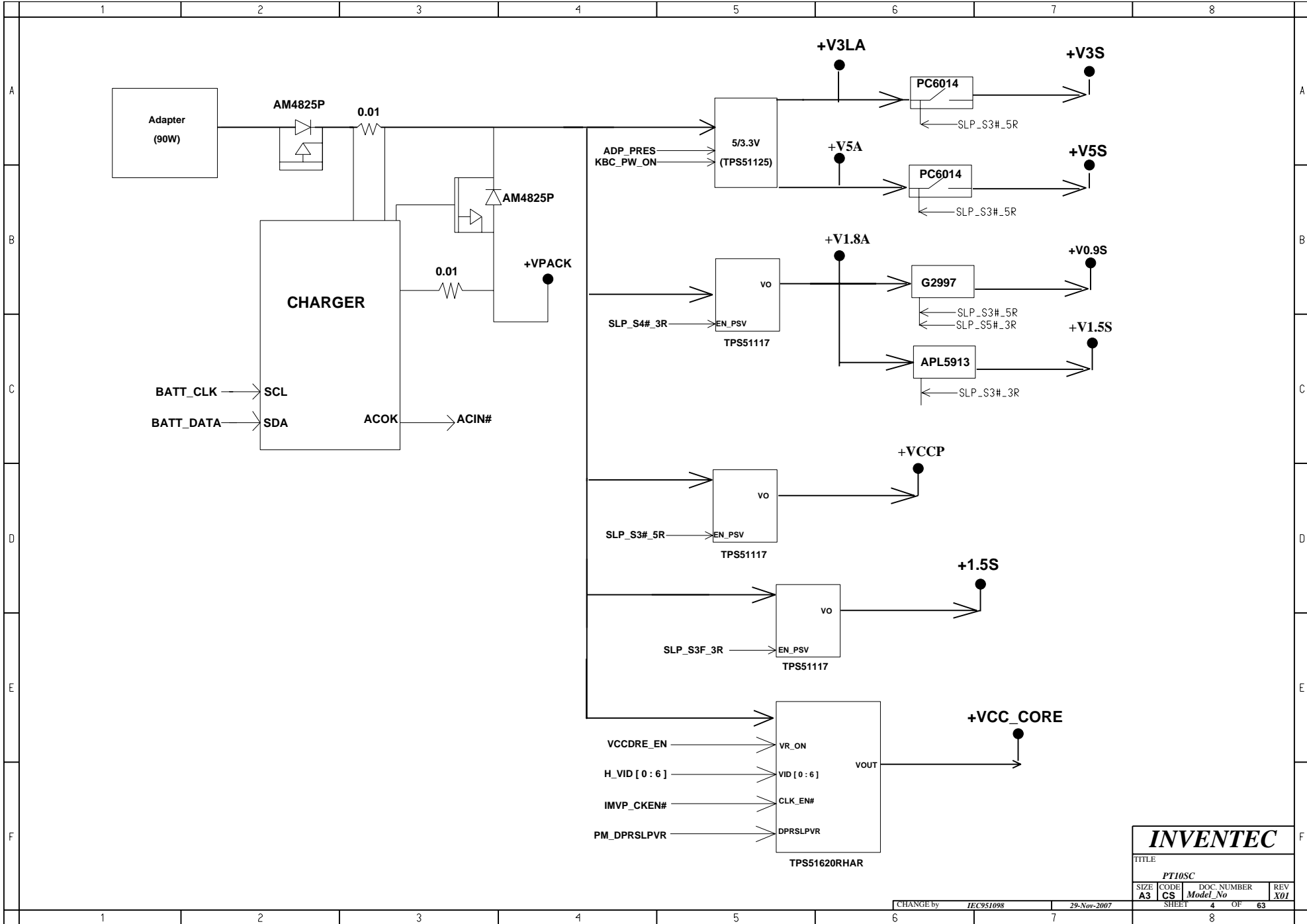
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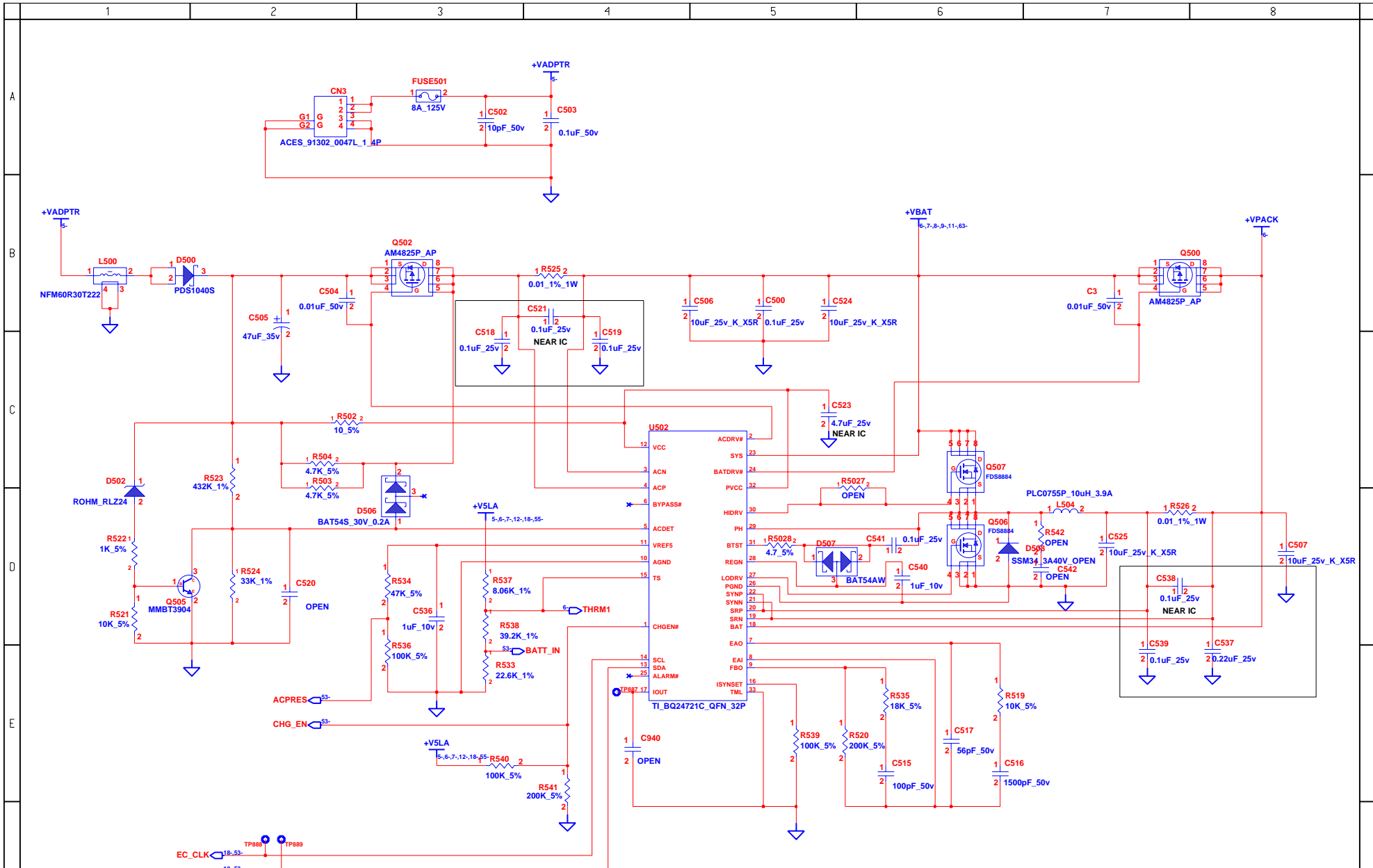
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PT10SC			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <i>Model No</i>	REV <b>X01</b>
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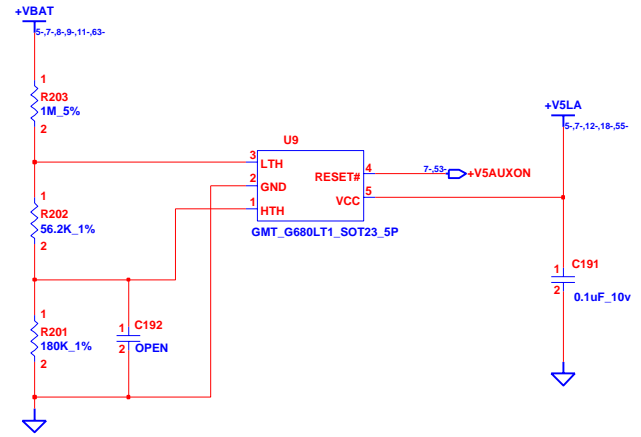
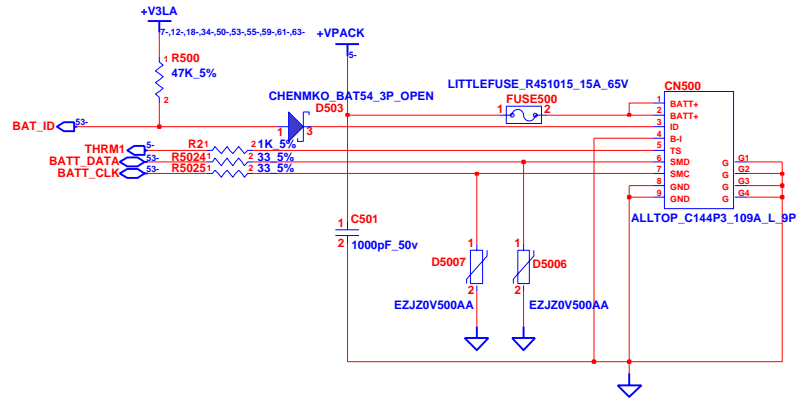
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PT10SC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model_No	X01
CHANGE by		3-Oct-2007	
IEC951098		SHEET 3 OF 63	



<b>INVENTEC</b>			
TITLE			
PT10SC			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <i>Model_No</i>	REV <b>X01</b>
CHANGE by <i>IEC951098</i>		29-Nov-2007	
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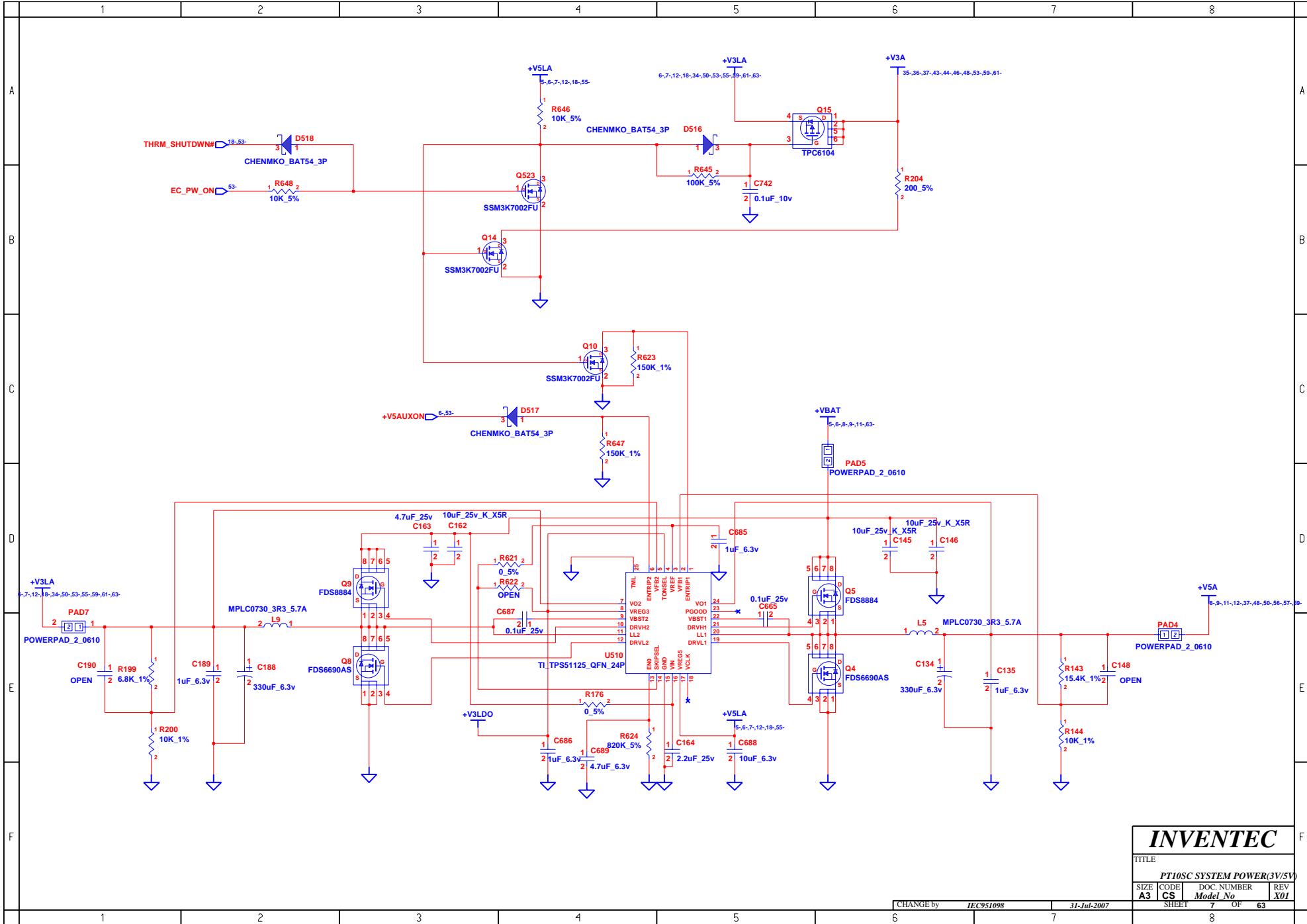


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A3	CS	Model No	X01
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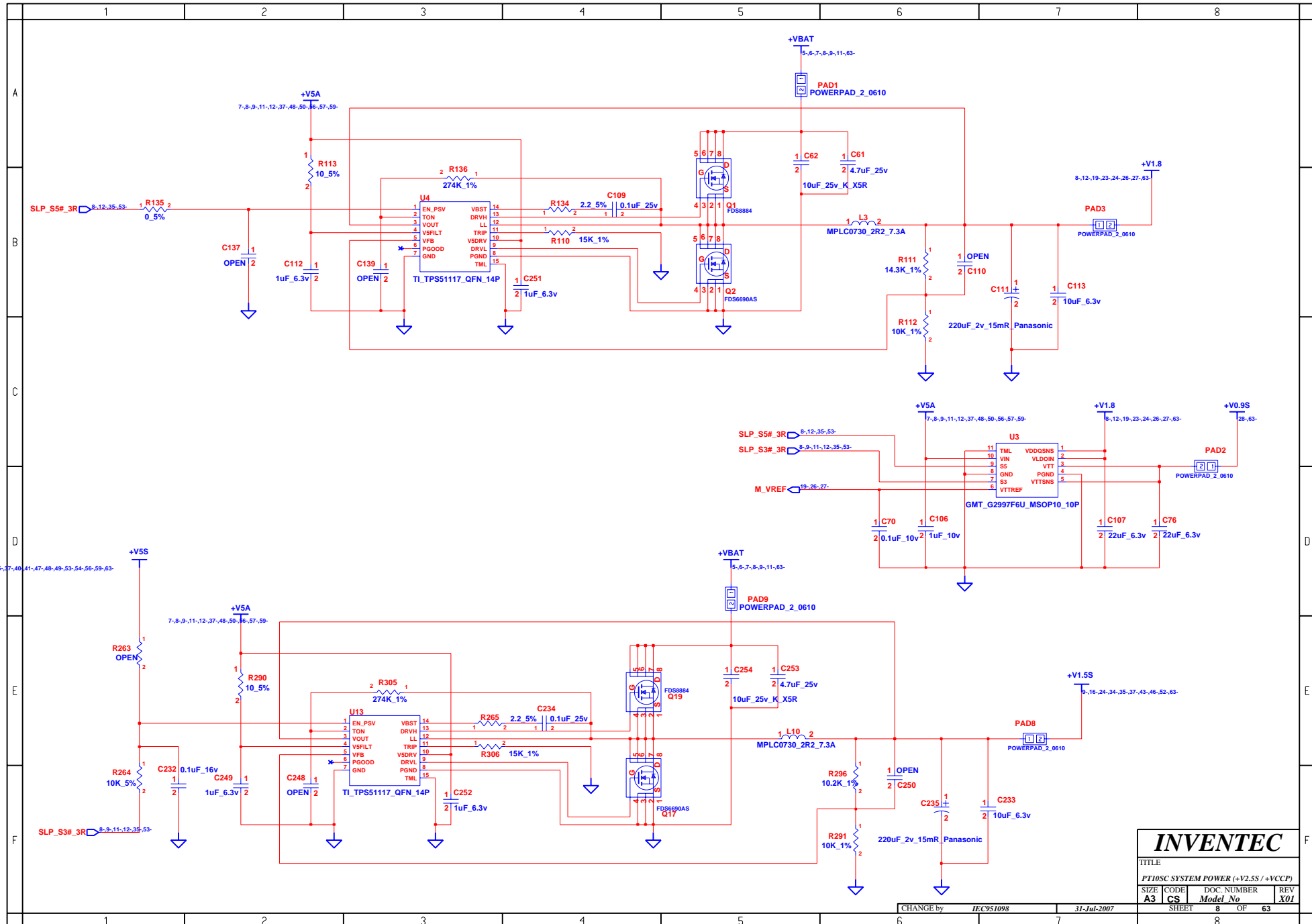


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TITLE			
<b>PT10SC BATTERY CONN</b>			
SIZE	CODE	DOC. NUMBER	REV
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CHANGE by	IEC951098	31-Jul-2007	SHEET	6	OF	63
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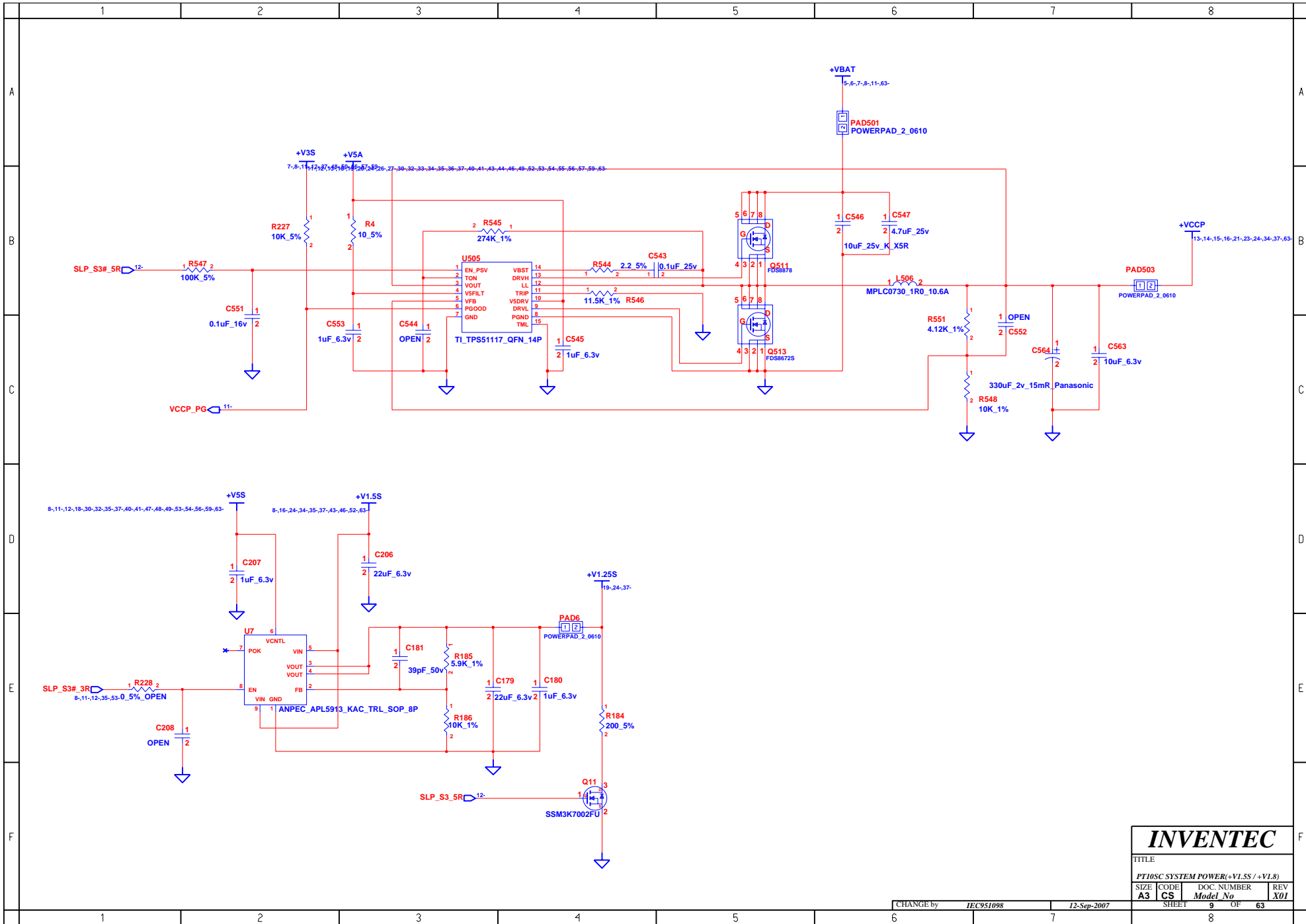


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PT10SC SYSTEM POWER(3V/5V)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
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		31-Jul-2007	



<b>INVENTEC</b>			
TITLE			
PT10SC SYSTEM POWER (+V2.5S / +VCCP)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01





<b>INVENTEC</b>				
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	OF 63
			9	8

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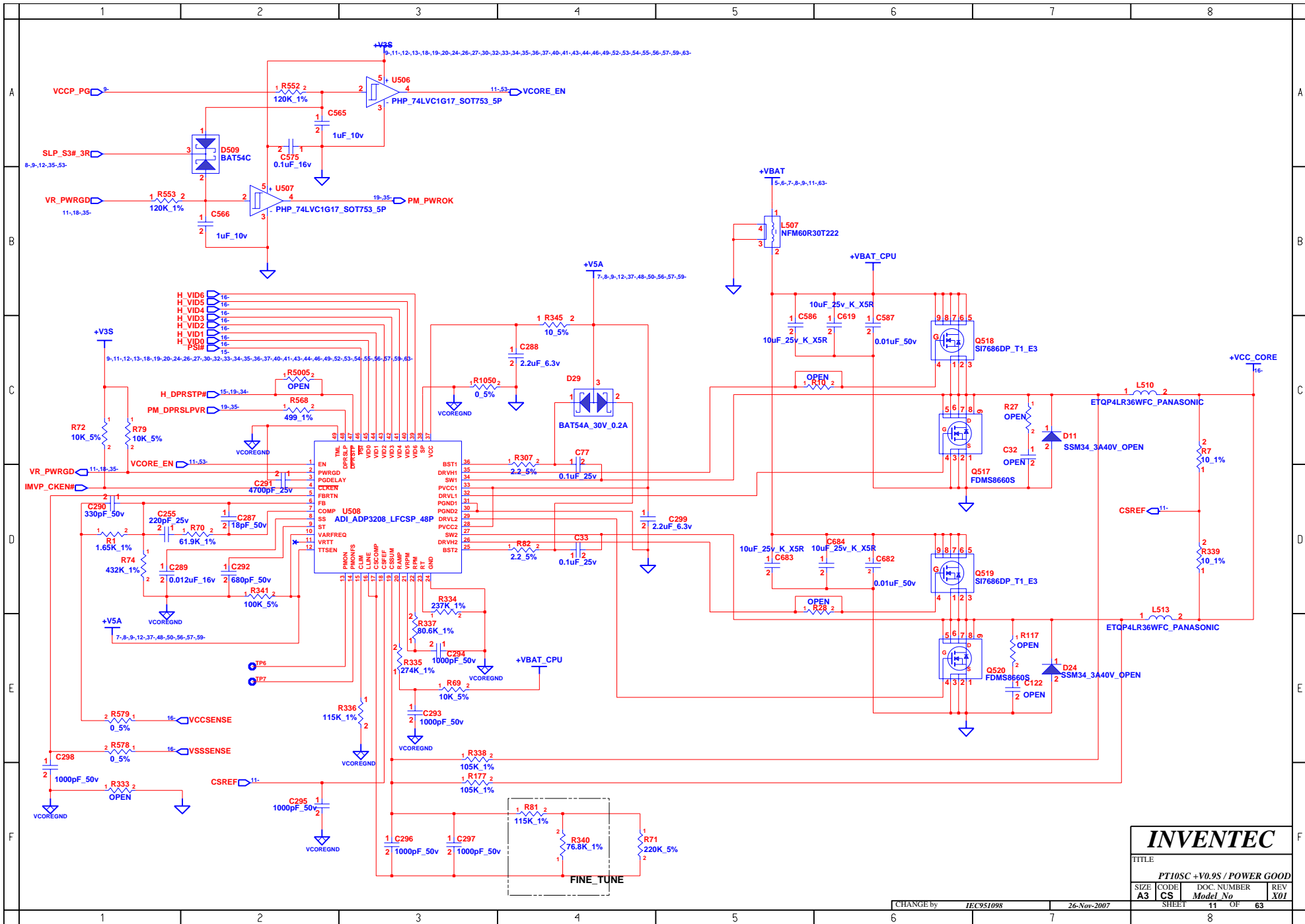
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**PT10SC CPU POWER(VCC\_CORE)**

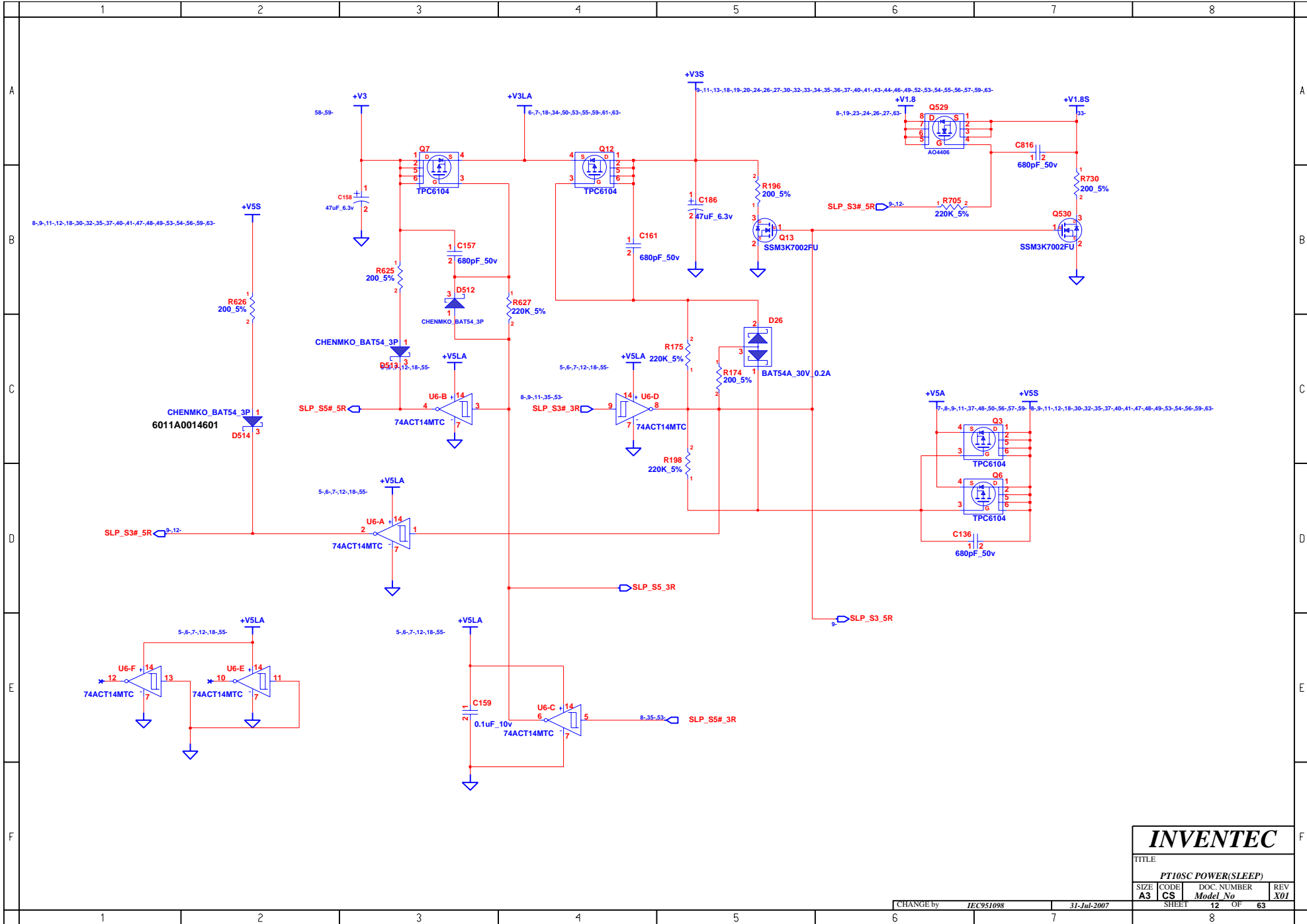
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CHANGE by **IEC951098** 30-Nov-2007

SHEET **10** OF **63**



<b>INVENTEC</b>			
TITLE			
PT10SC +V0.9S / POWER GOOD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		DATE	
IEC951098		26-Nov-2007	
SHEET		OF	
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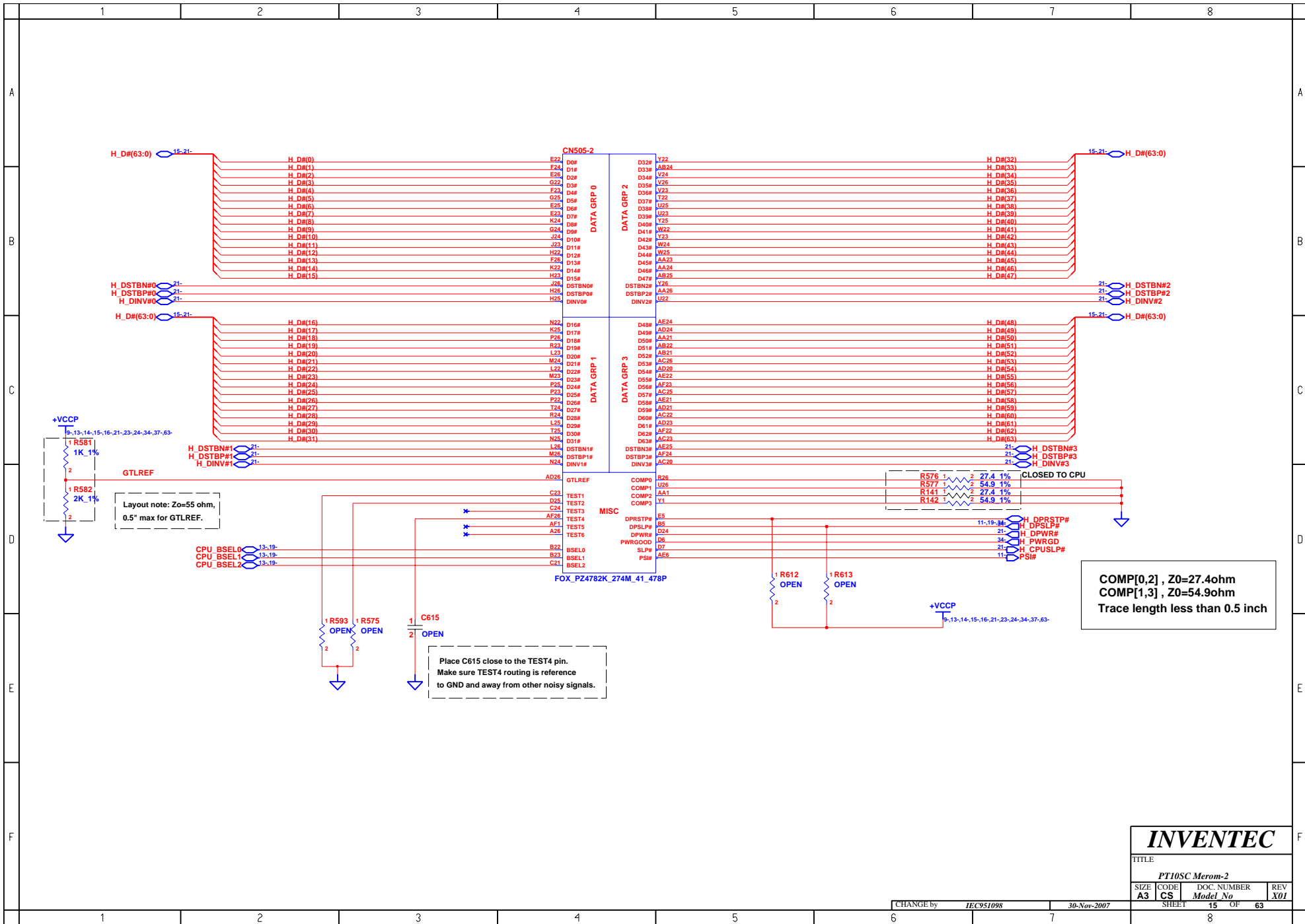
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PT10SC POWER(SLEEP)			
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A3	CS	Model No	X01

CHANGE by IEC951098 31-Jul-2007







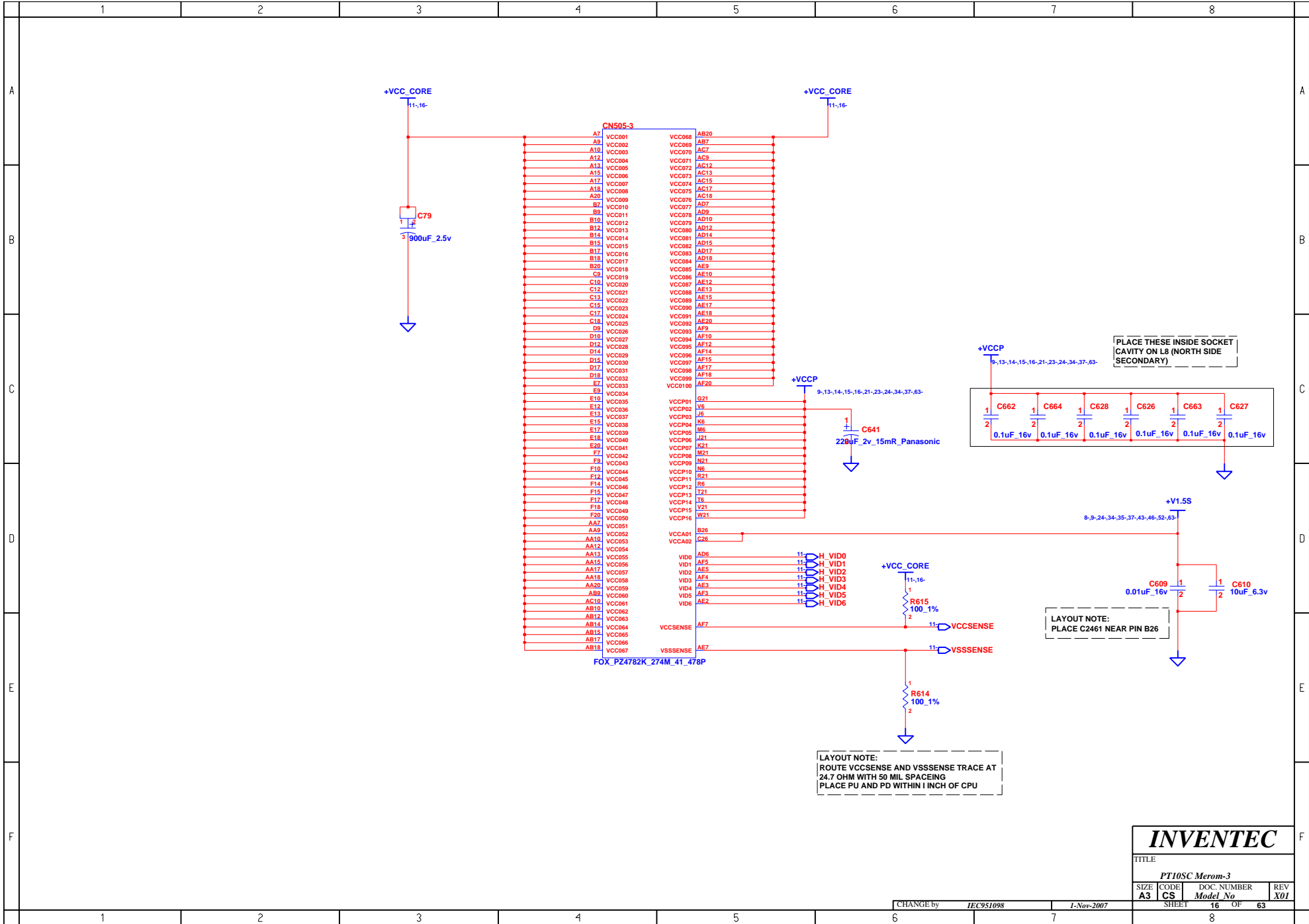
COMP[0,2], Z0=27.4ohm  
 COMP[1,3], Z0=54.9ohm  
 Trace length less than 0.5 inch

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

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

# INVENTEC

TITLE			
PT10SC Merom-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01



PLACE THESE INSIDE SOCKET CAVITY ON L8 (NORTH SIDE SECONDARY)

LAYOUT NOTE: PLACE C2461 NEAR PIN B26

LAYOUT NOTE: ROUTE VCCSENSE AND VSSSENSE TRACE AT 24.7 OHM WITH 50 MIL SPACING PLACE PU AND PD WITHIN 1 INCH OF CPU

# INVENTEC

TITLE			
PT10SC Merom-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01



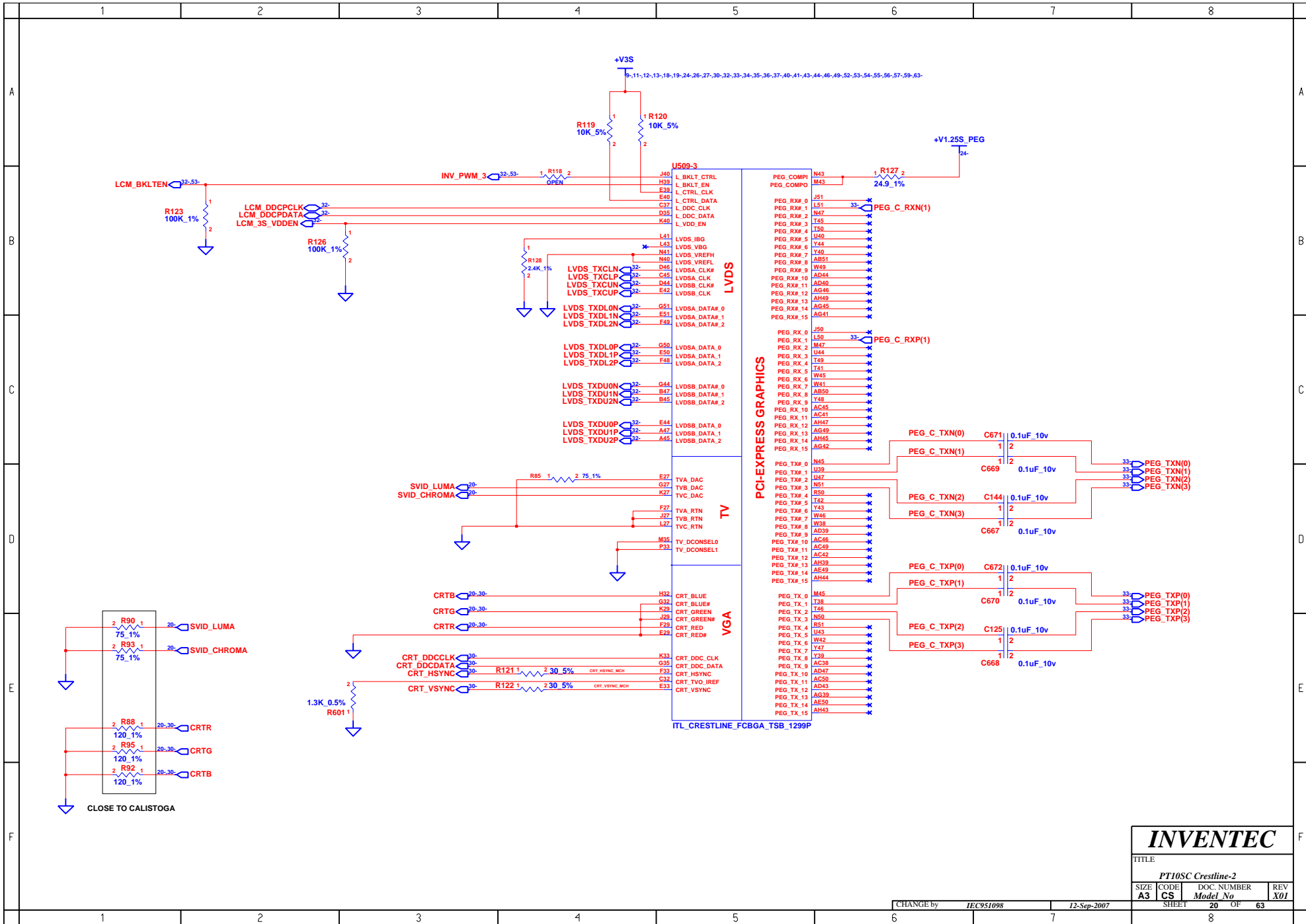
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**INVENTEC**

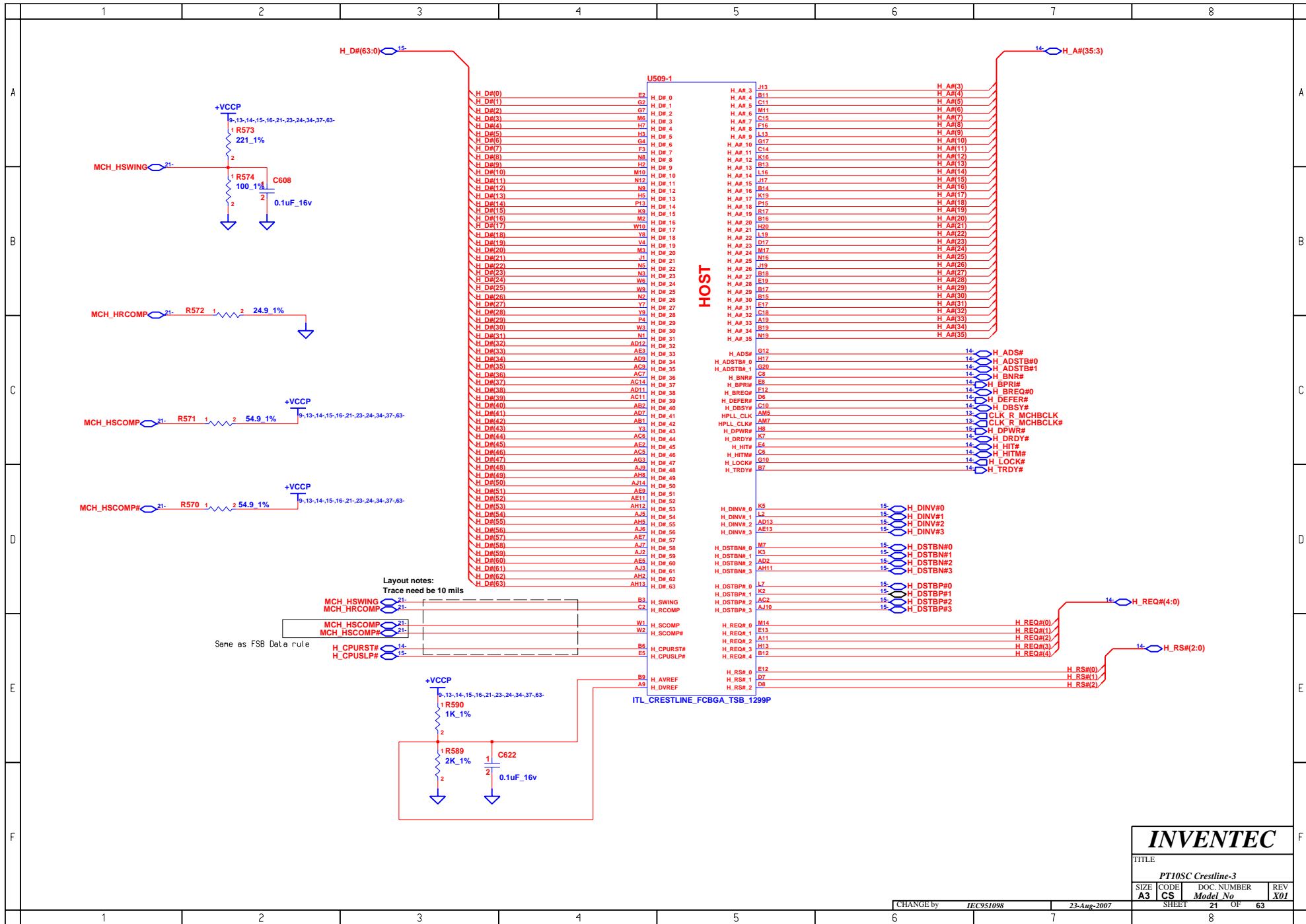
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PT10SC Merom-4			
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A3	CS	Model No	X01





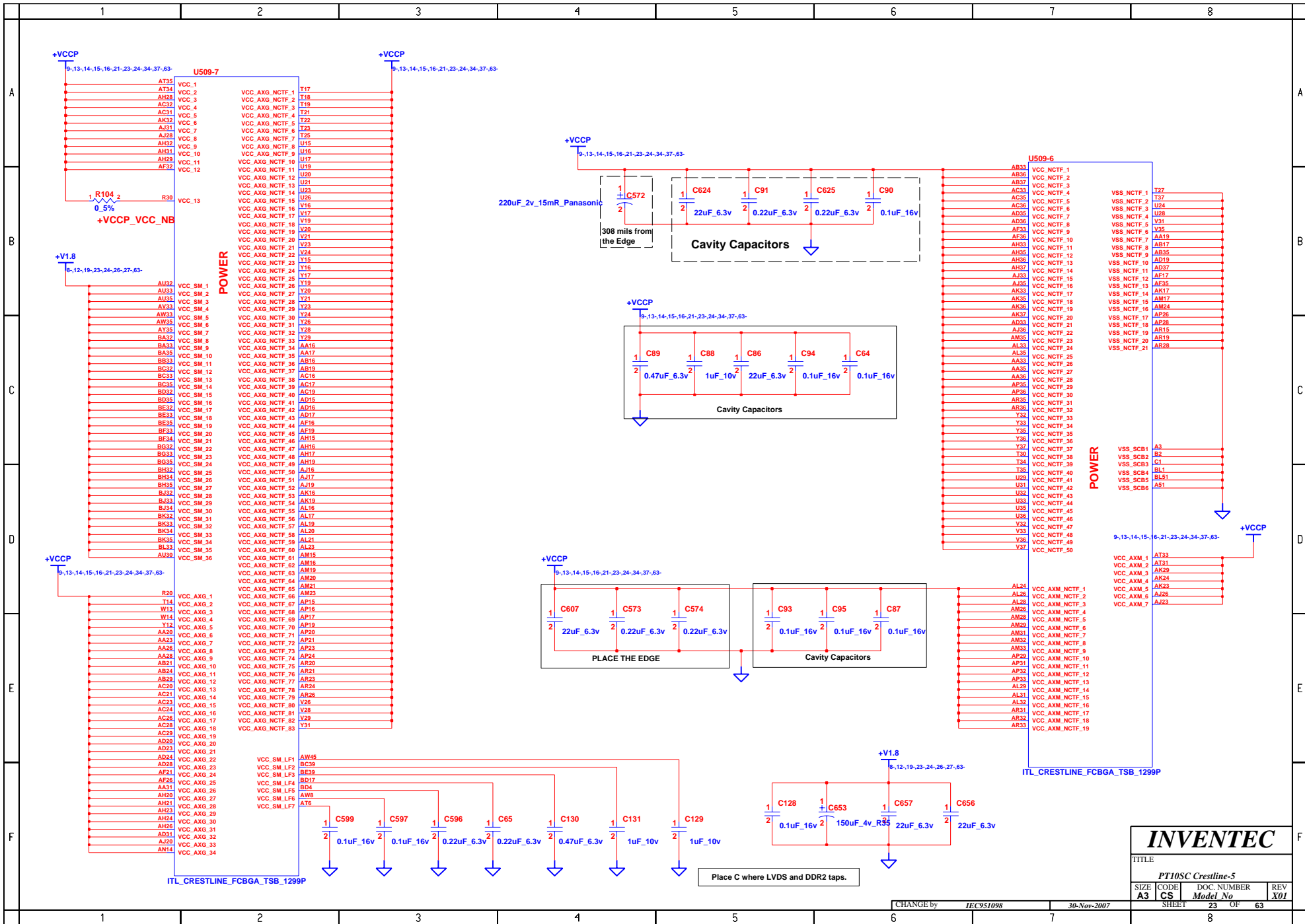


<b>INVENTEC</b>			
TITLE			
PT10SC Crestline-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IEC951098	12-Sep-2007
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<b>INVENTEC</b>			
TITLE			
PT10SC Crestline-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
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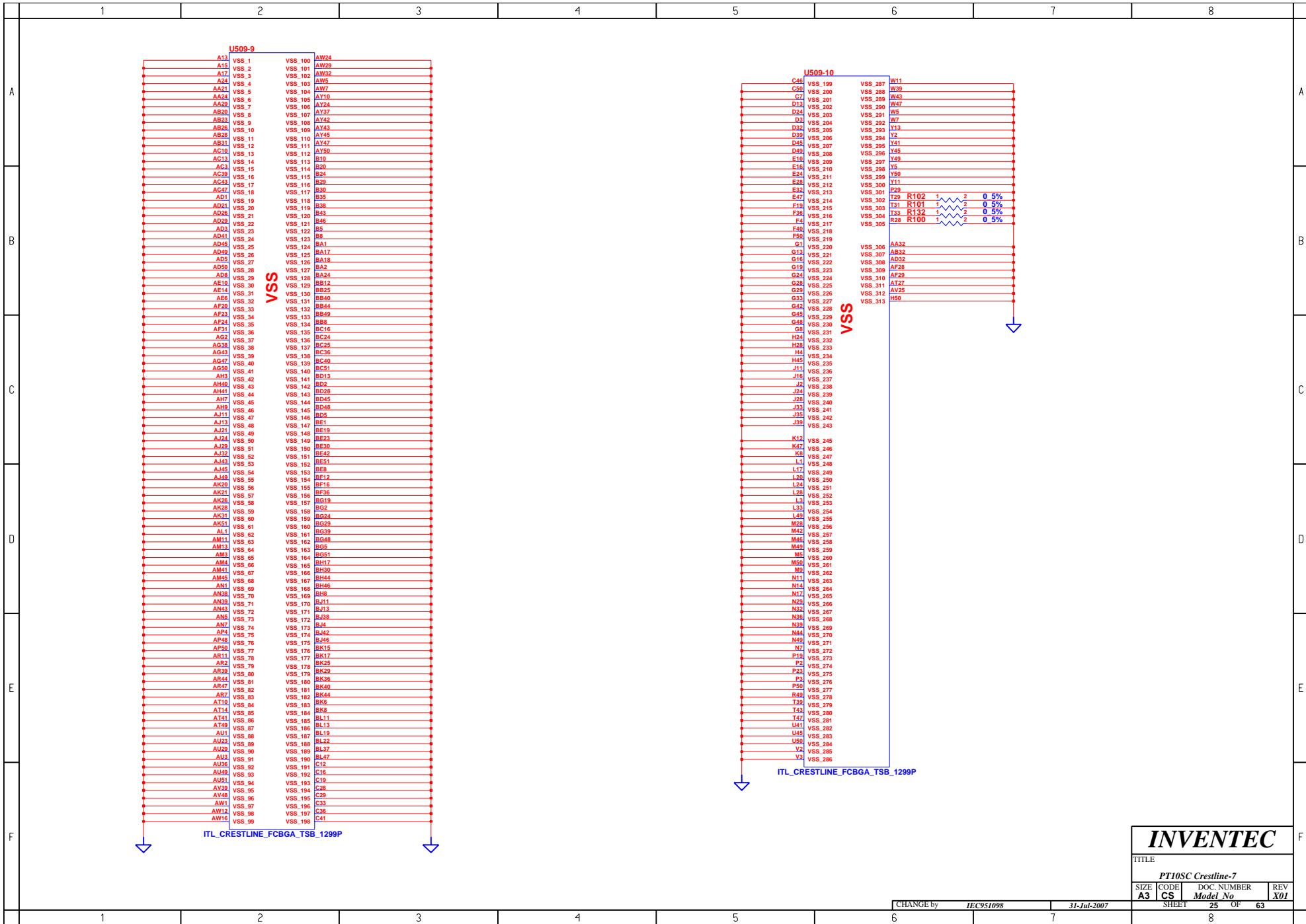




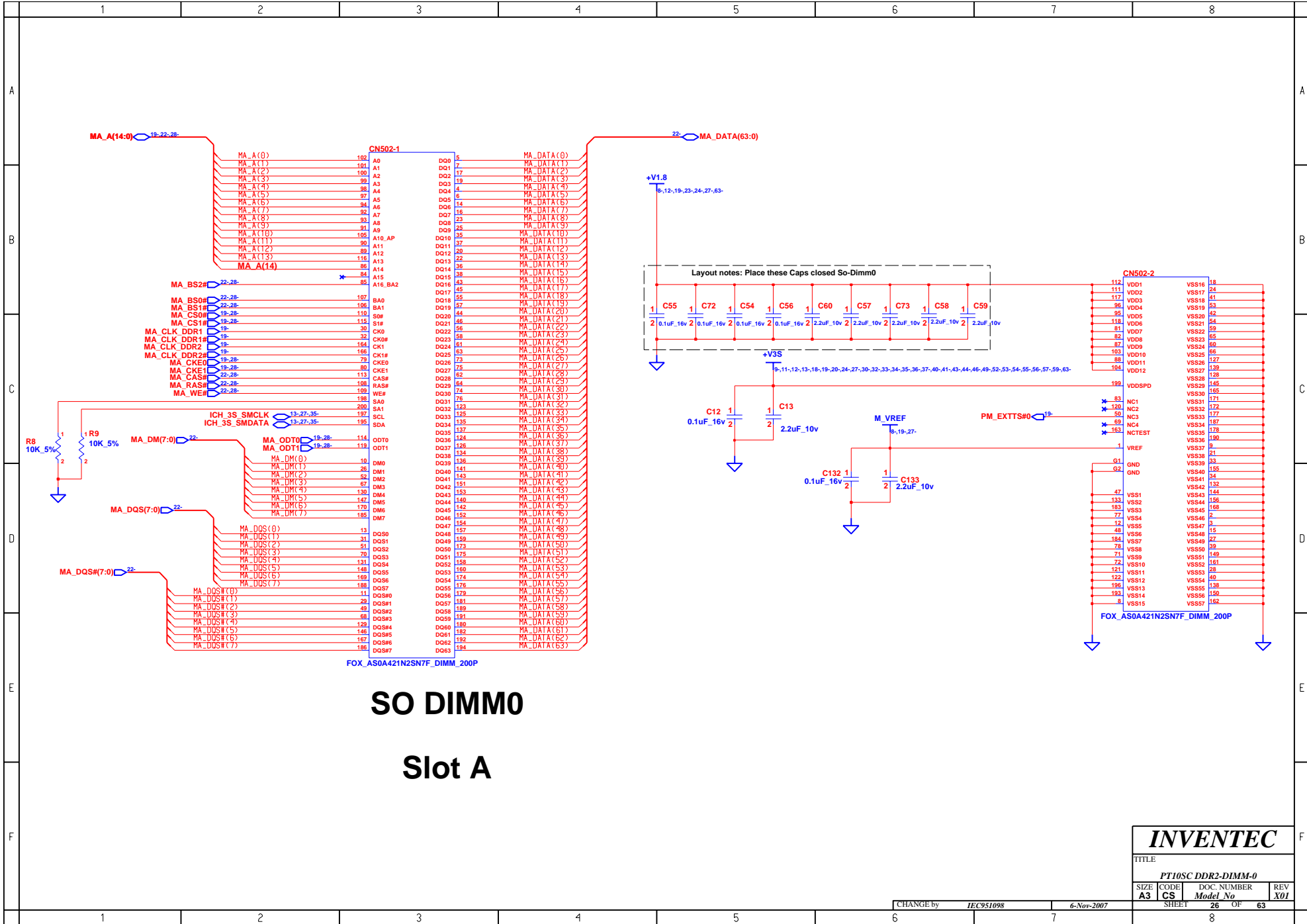
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TITLE			
PT10SC Crestline-5			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
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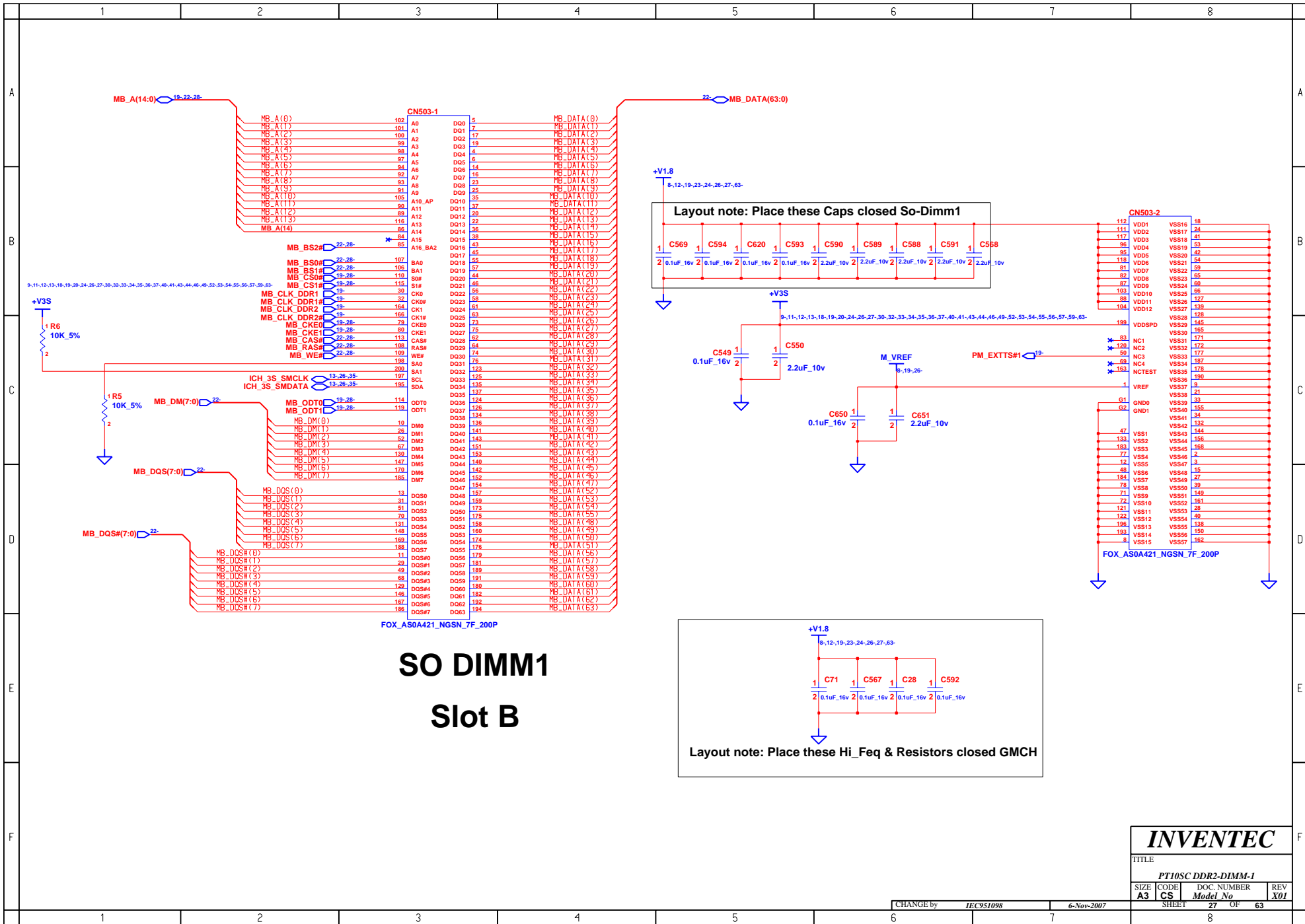


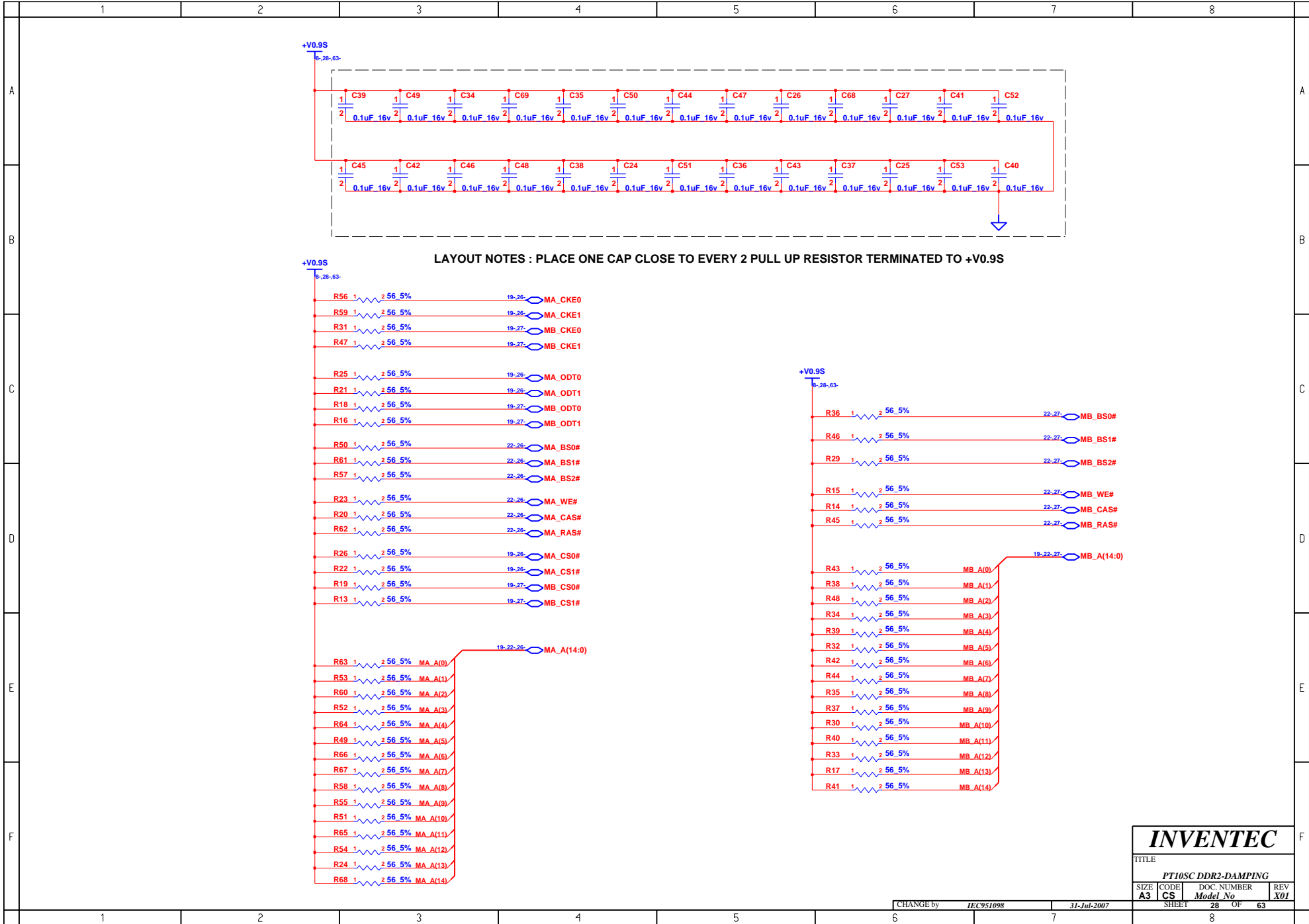
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A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		25 OF 63	
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# SO DIMM0 Slot A

<b>INVENTEC</b>			
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	
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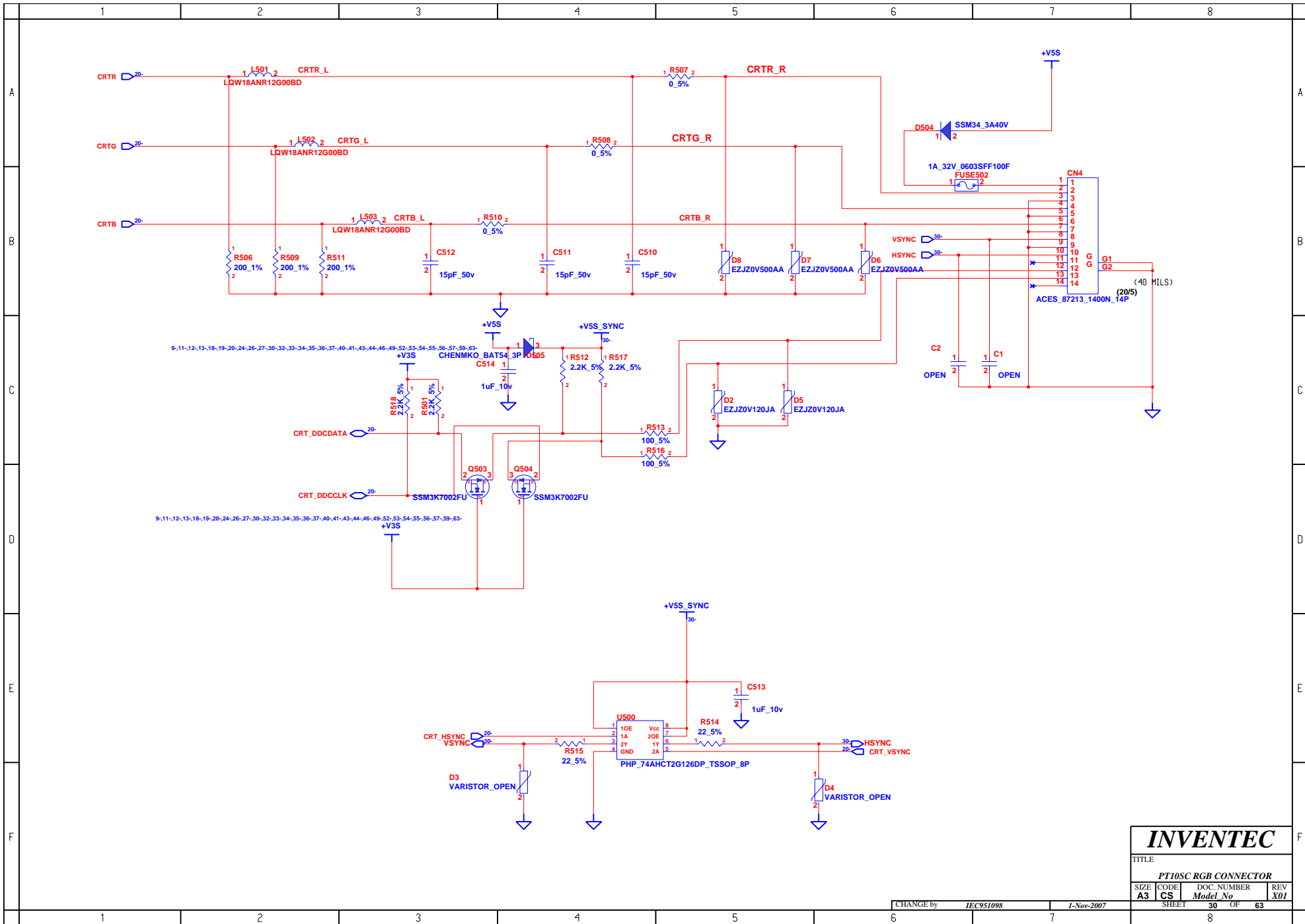


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PT10SC DDR2-DAMPING			
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TITLE				
PT10SC MXM CONN				
SIZE	CODE	DOC. NUMBER	REV	
A3	CS	Model No	X01	
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<b>INVENTEC</b>			
TITLE			
<b>PT10SC RGB CONNECTOR</b>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
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CHANGE by IEC951098 J-Nov-2007

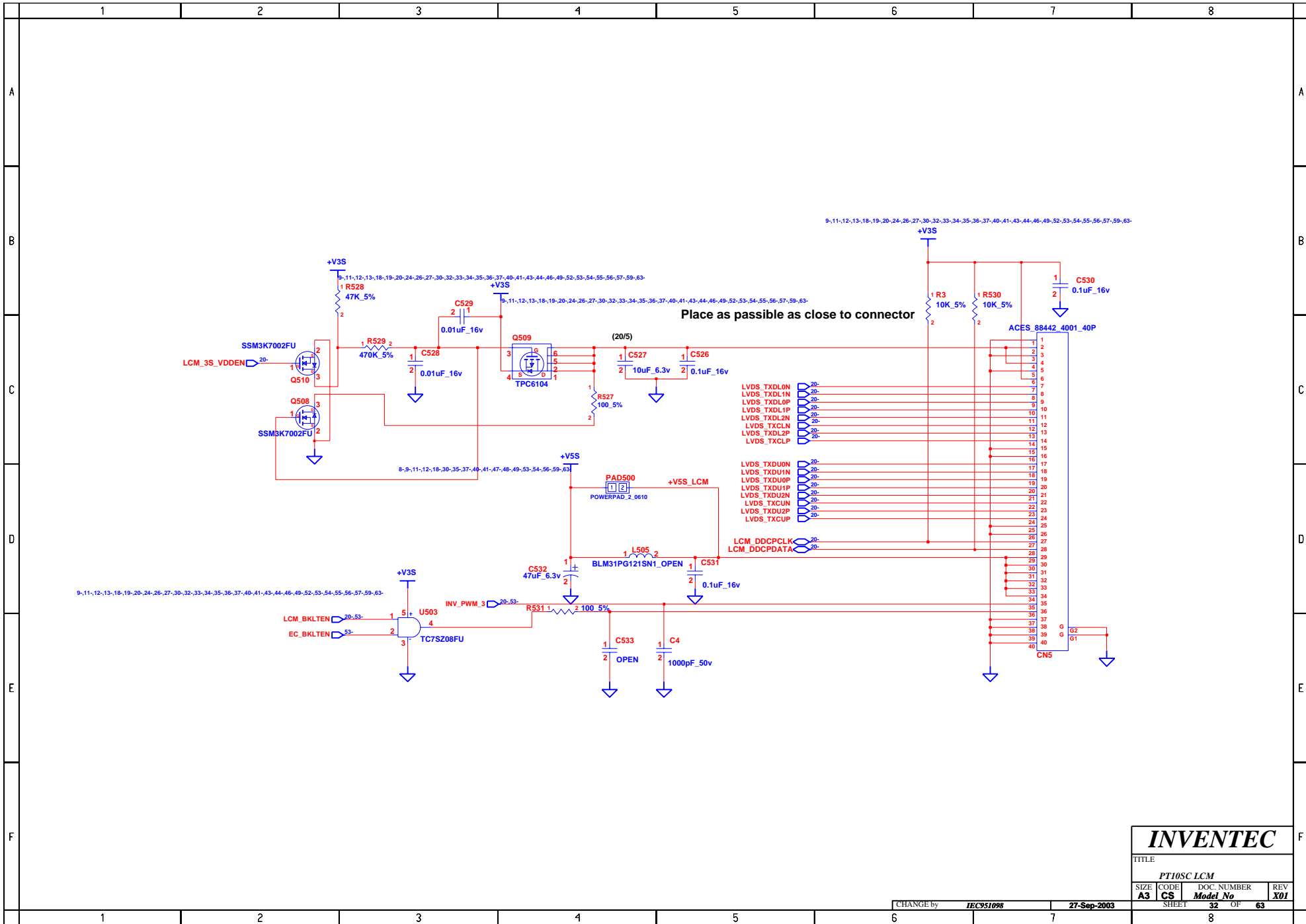
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**INVENTEC**

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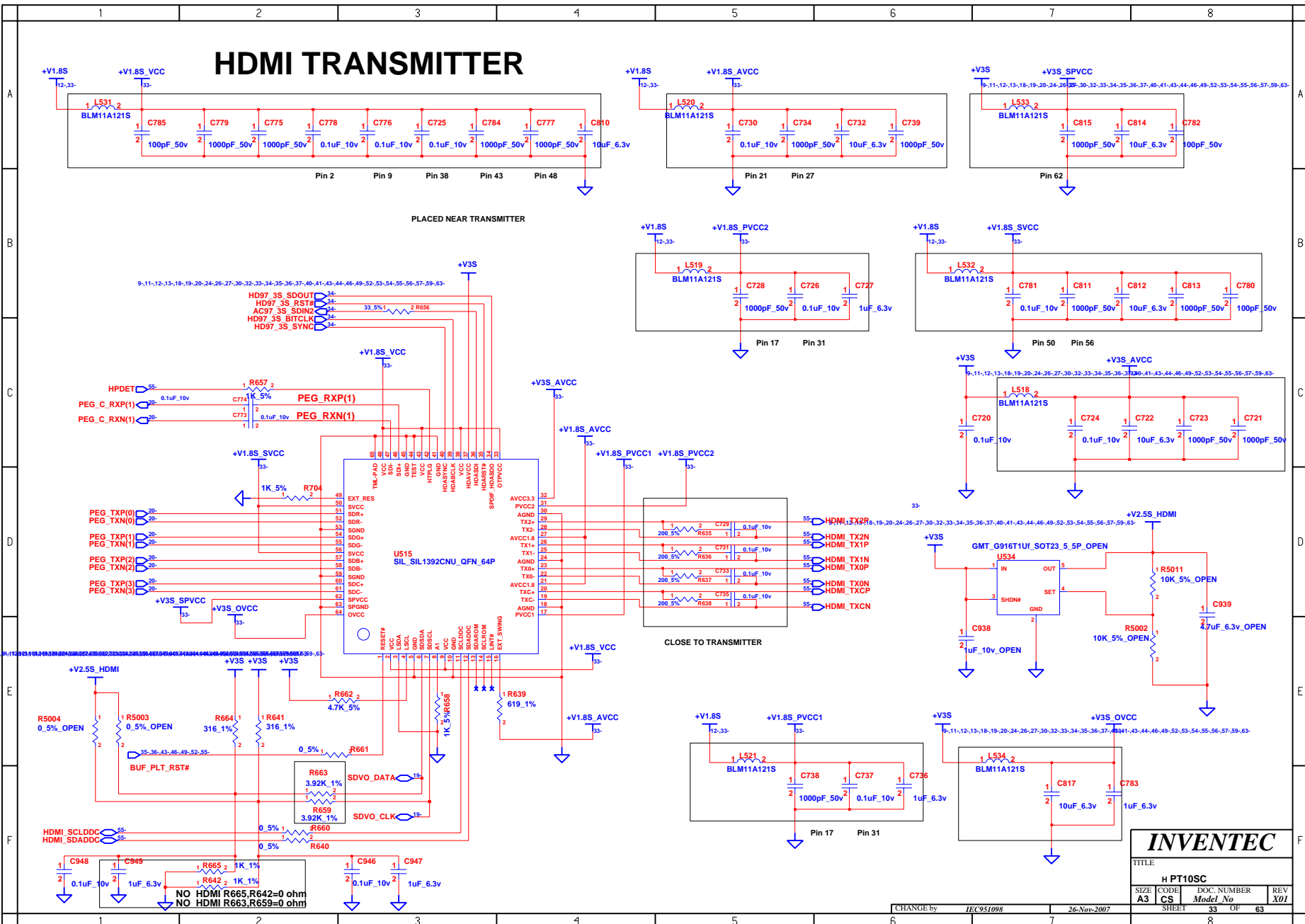
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<b>INVENTEC</b>			
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PT10SC LCM			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		JEC951098	27-Sep-2003
SHEET		32	OF 63



# HDMI TRANSMITTER



PLACED NEAR TRANSMITTER

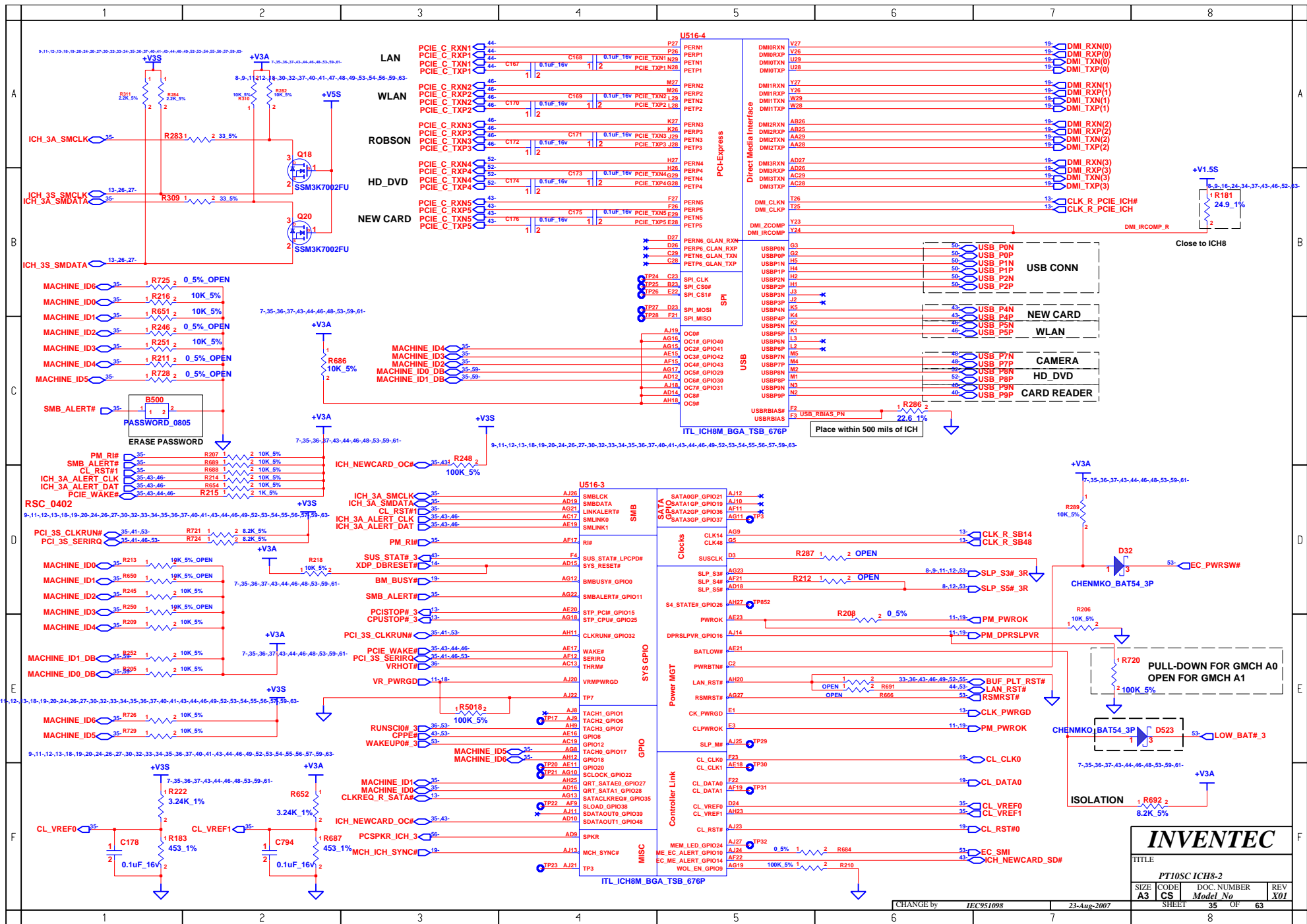
CLOSE TO TRANSMITTER

**INVENTEC**

TITLE			
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SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
SHEET		33	OF 63

CHANGE by: IEC951098 26-Nov-2007



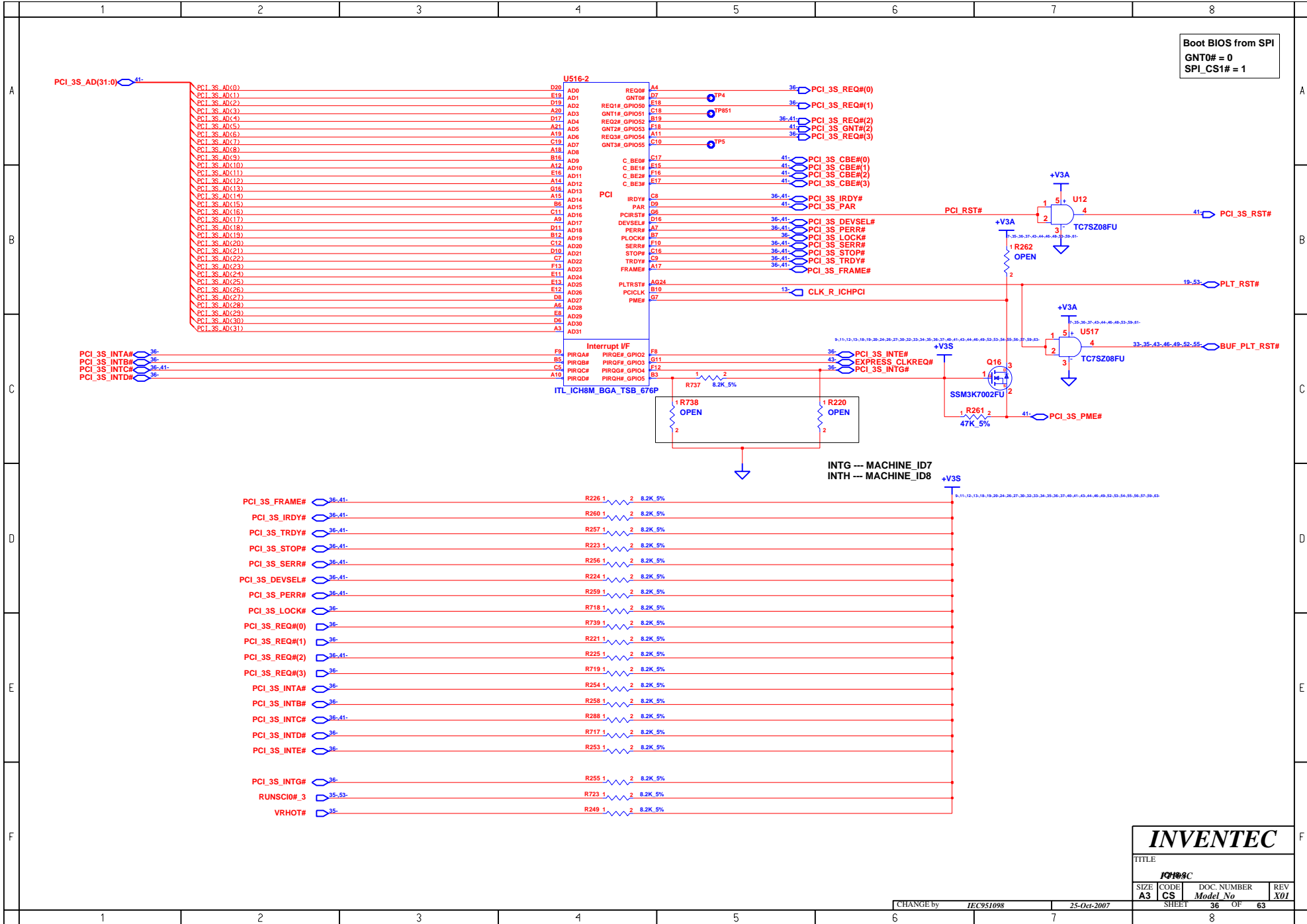


**INVENTEC**

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**PT10SC ICH-2**

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

CHANGE by *IEC951098* 23-Aug-2007



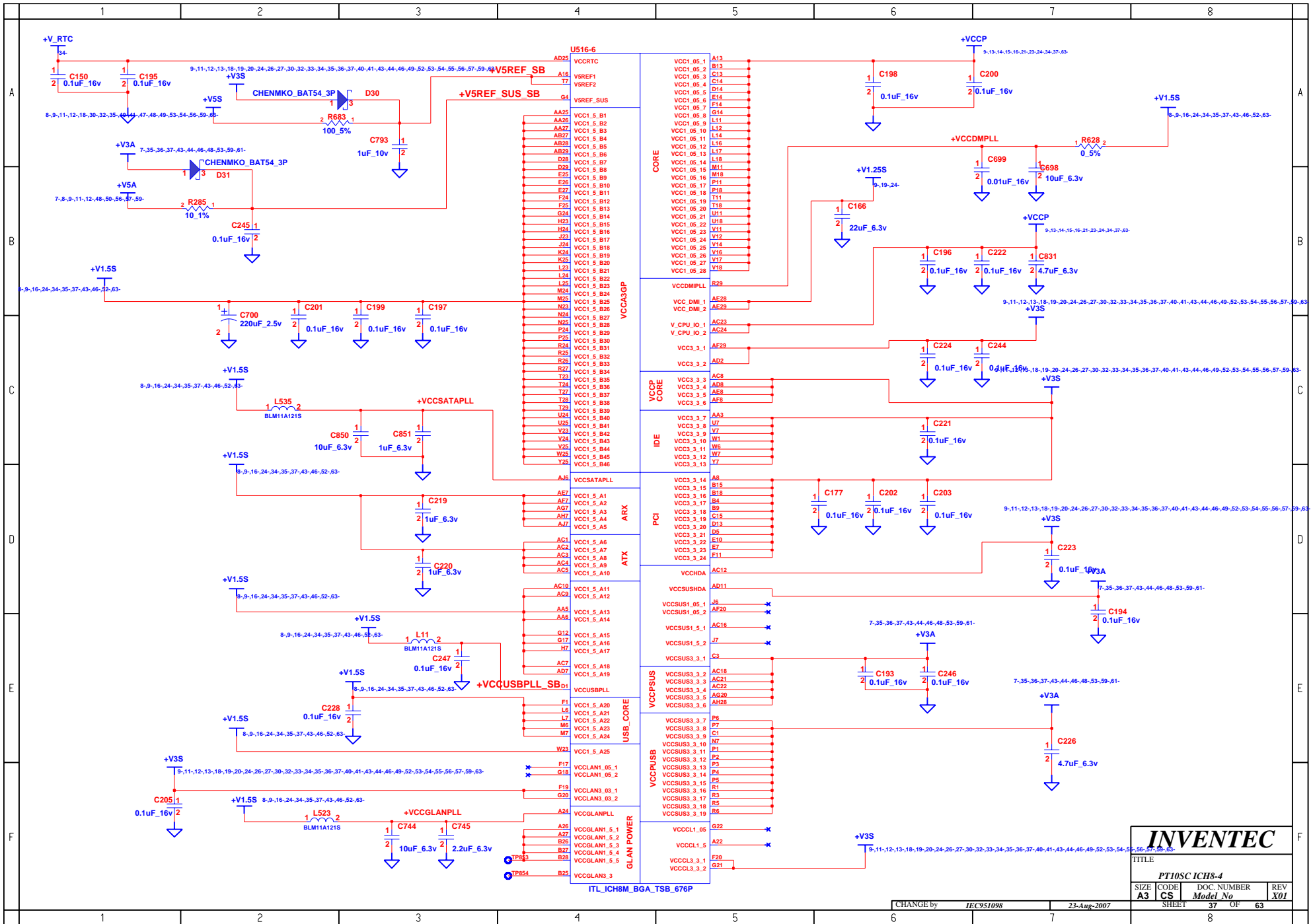
Boot BIOS from SPI  
 GNT0# = 0  
 SPI\_CS1# = 1

**INVENTEC**

TITLE			
IOP109C			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

CHANGE by IEC951098 25-Oct-2007

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<b>INVENTEC</b>			
TITLE			
PT10SC ICH8-4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
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CHANGE by IEC951098 23-Aug-2007

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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

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**INVENTEC**

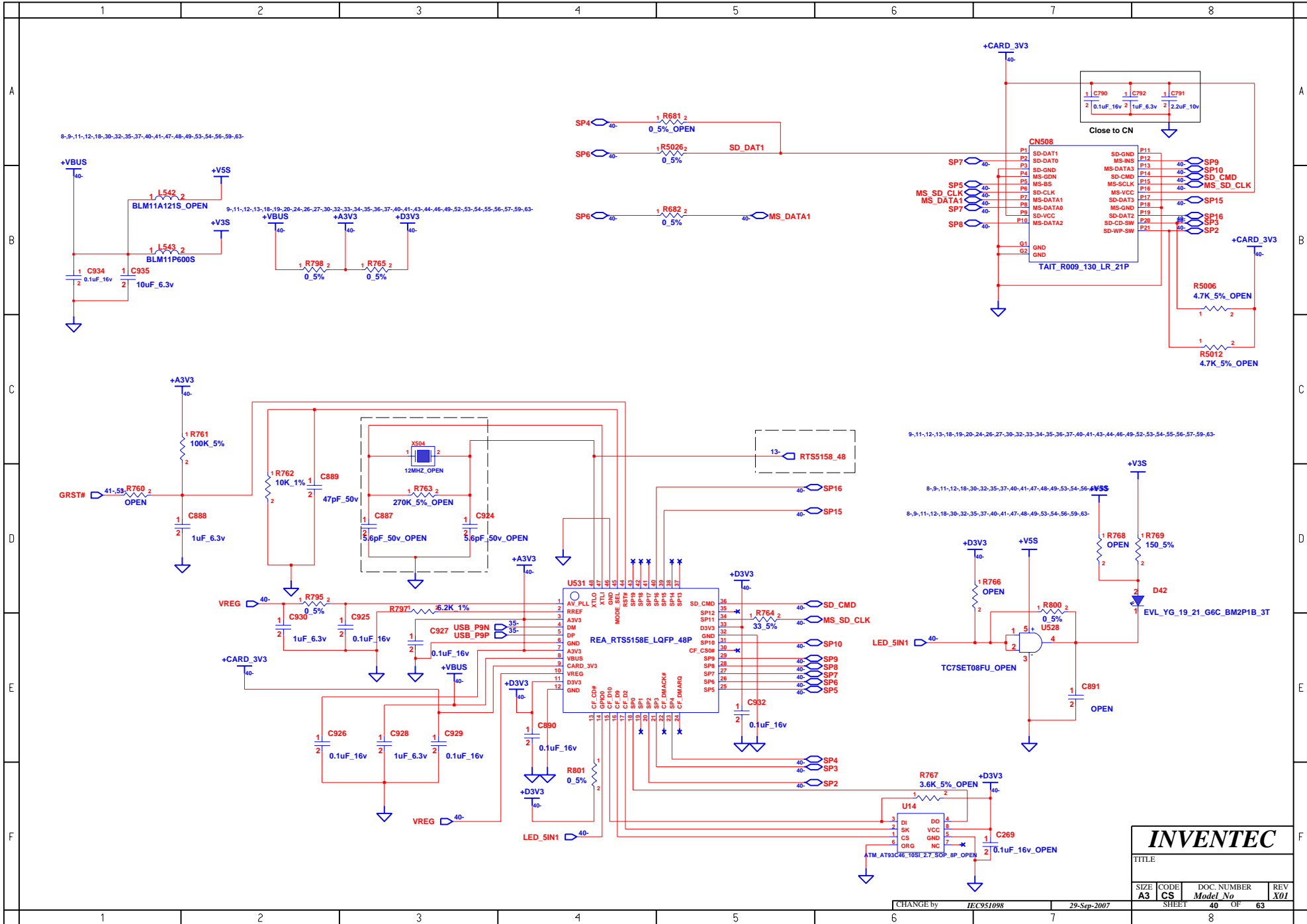
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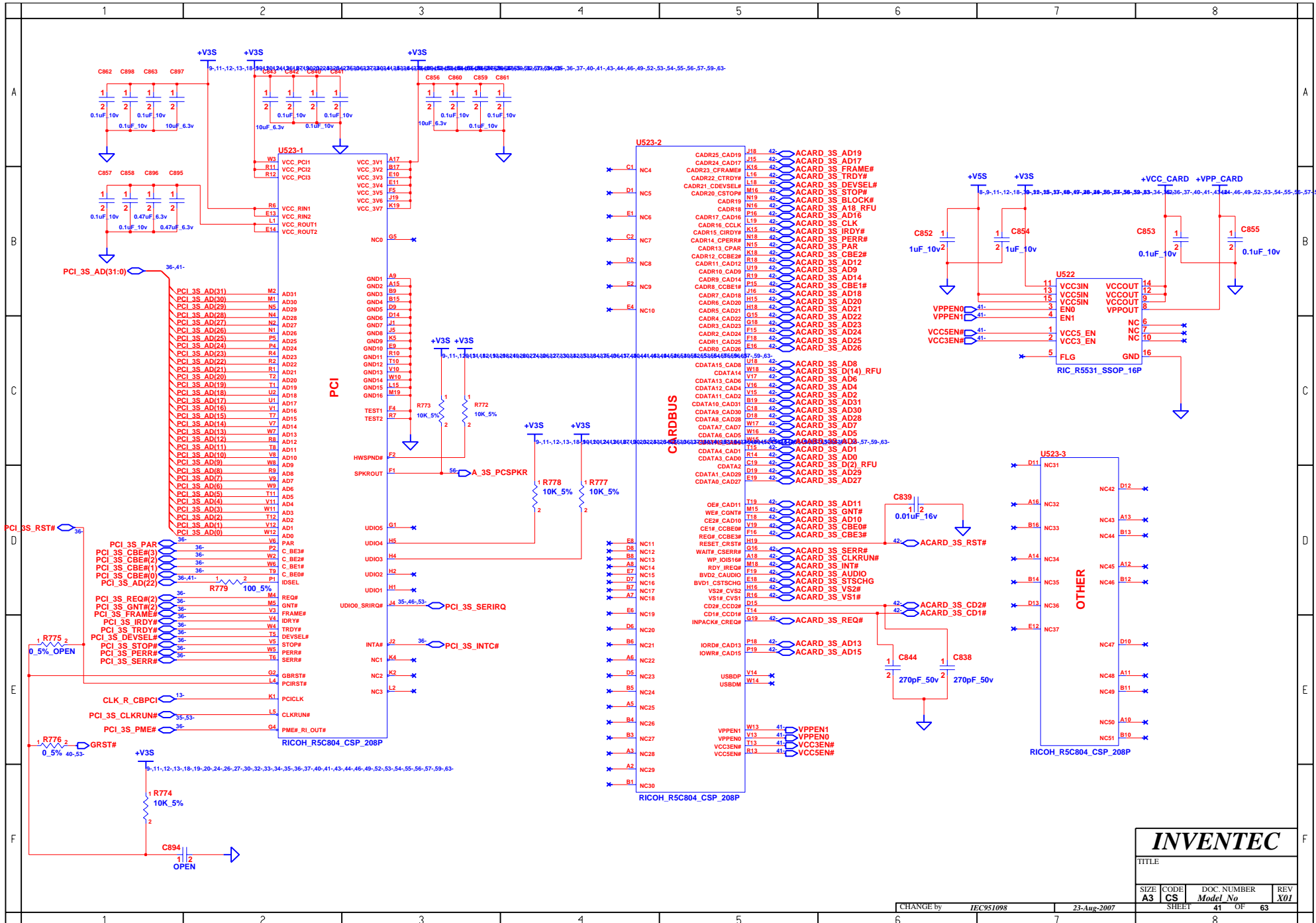
SHEET 39 OF 63

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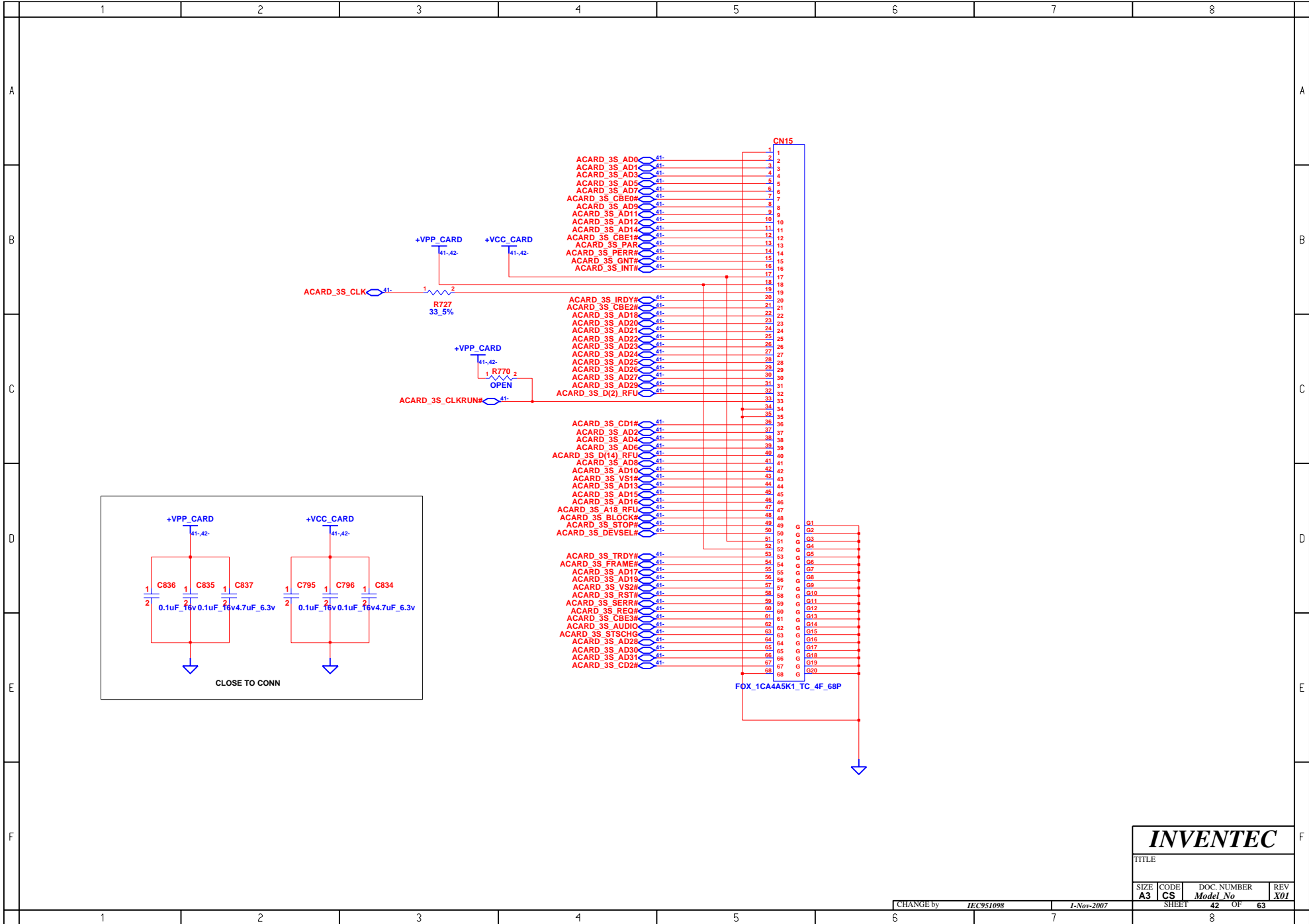


<b>INVENTEC</b>			
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SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	OF
IEC951098		40	63
29-Sep-2007			





<b>INVENTEC</b>			
TITLE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
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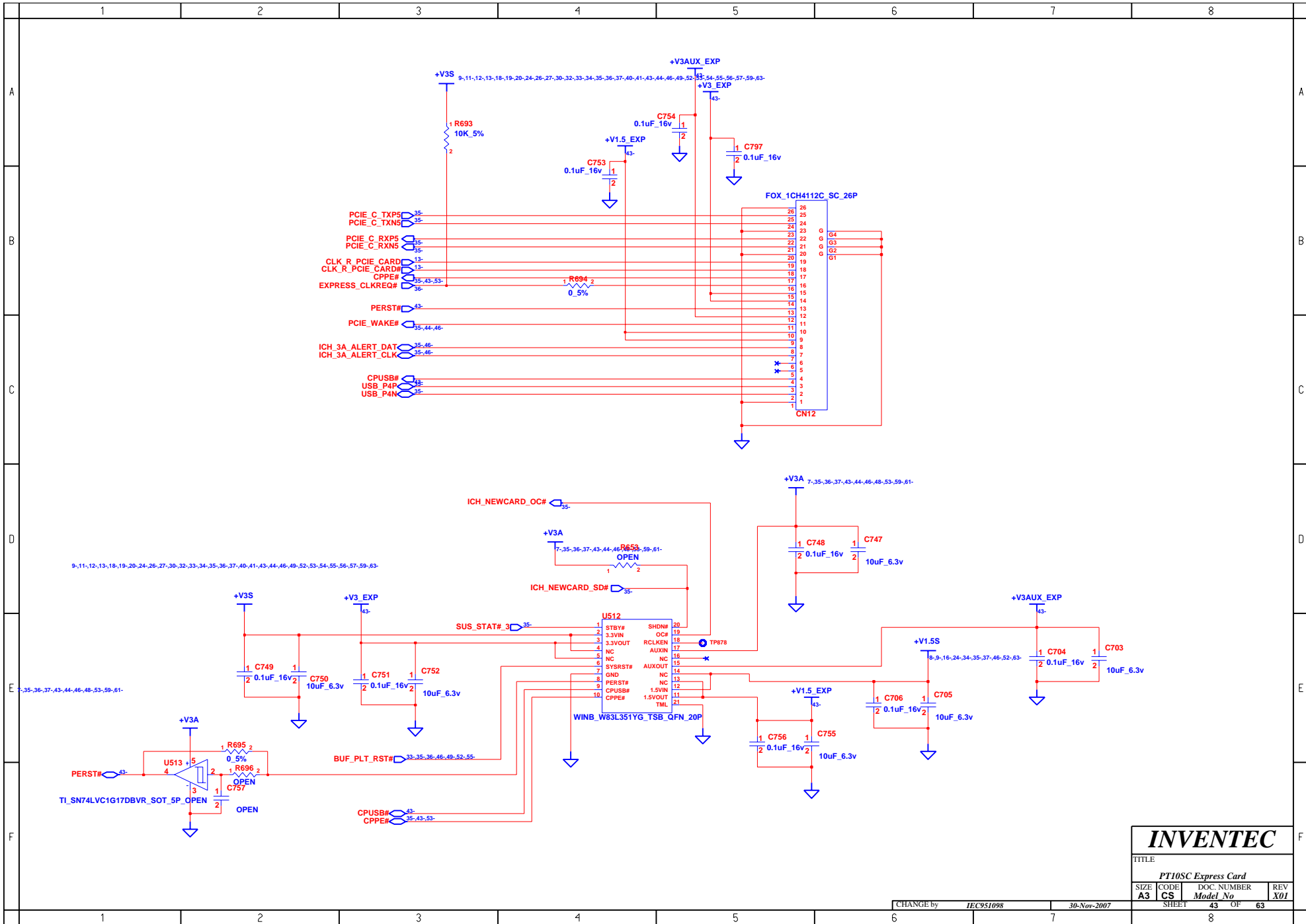


**INVENTEC**

TITLE

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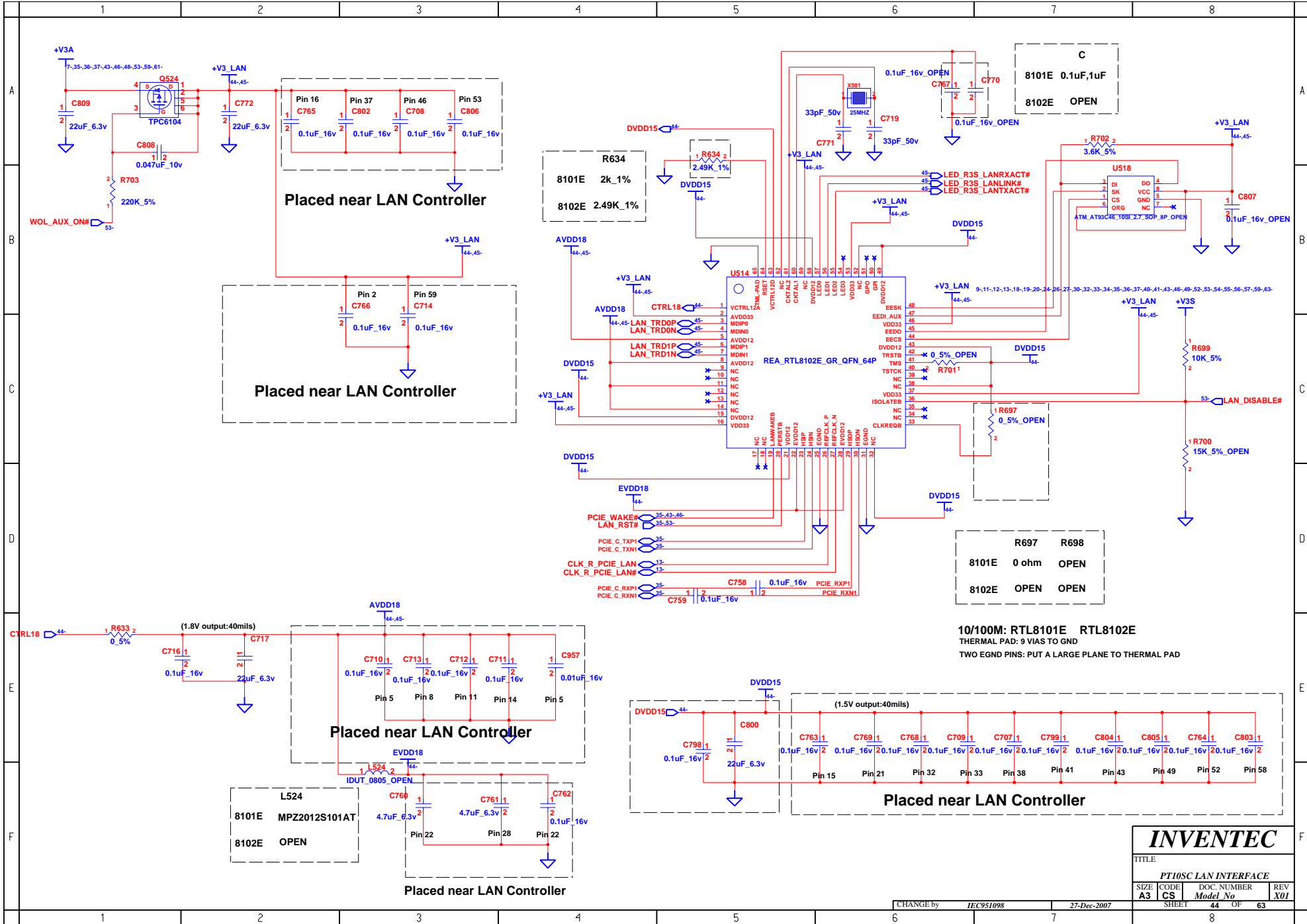
CHANGE by *IEC951098* *1-Nov-2007*



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

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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 EGGND PINS: PUT A LARGE PLANE TO THERMAL PAD

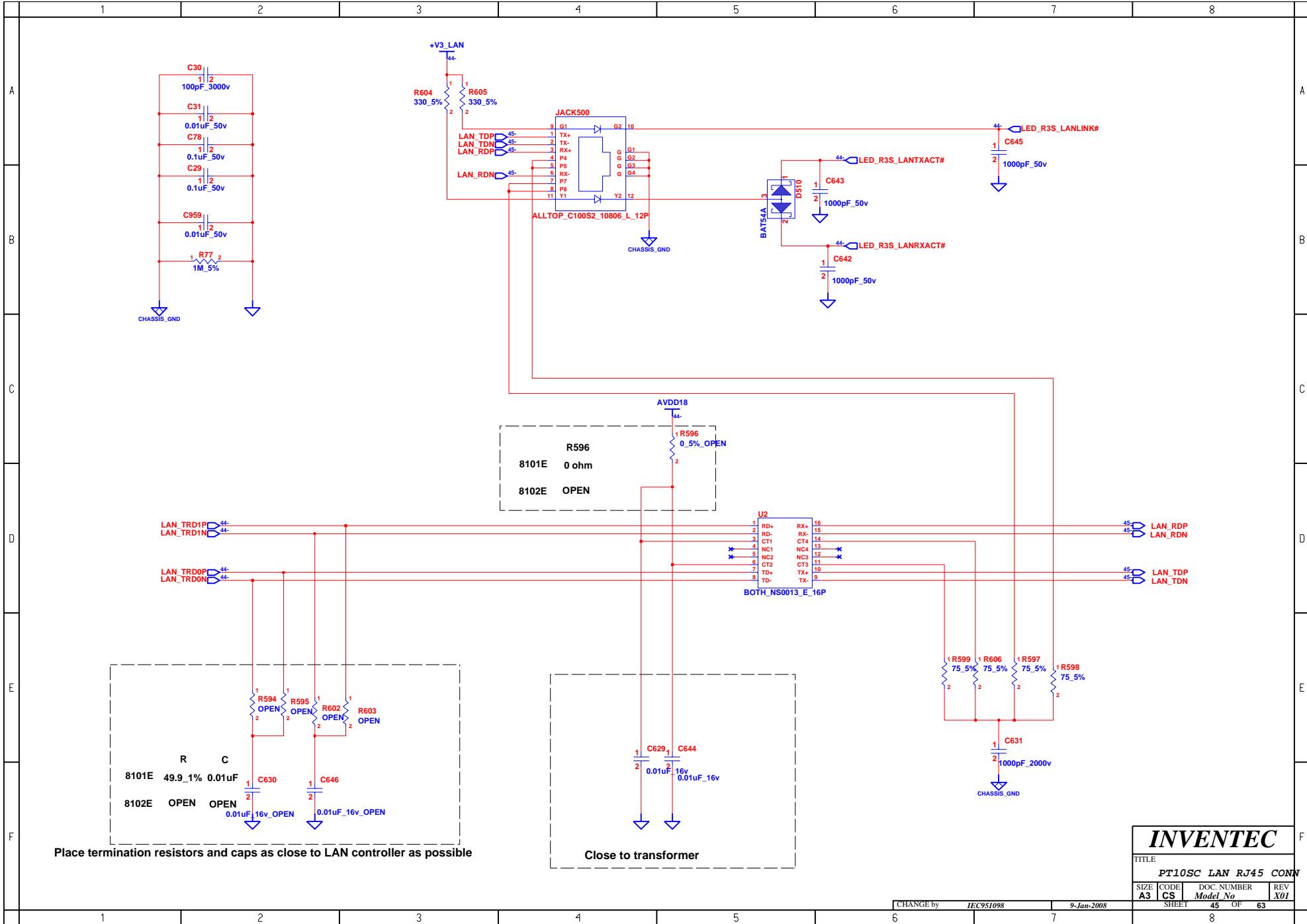
R697	R698
8101E 0 ohm	OPEN
8102E OPEN	OPEN

**INVENTEC**

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

CHANGE by IEC951098 27-Dec-2007

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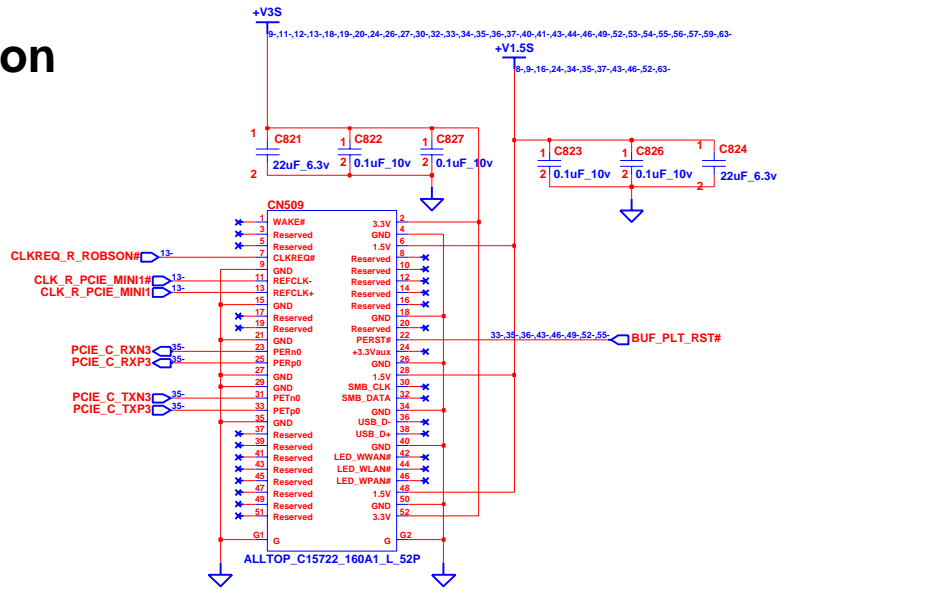


Place termination resistors and caps as close to LAN controller as possible

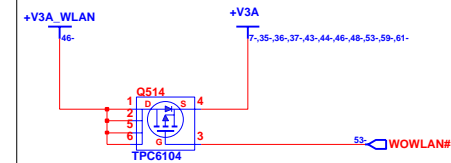
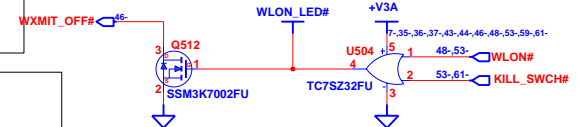
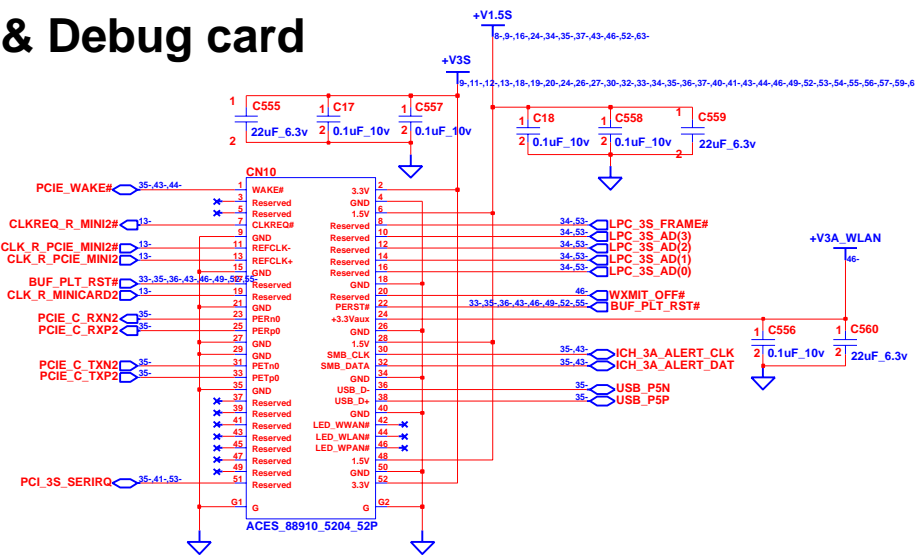
Close to transformer

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

# Robson

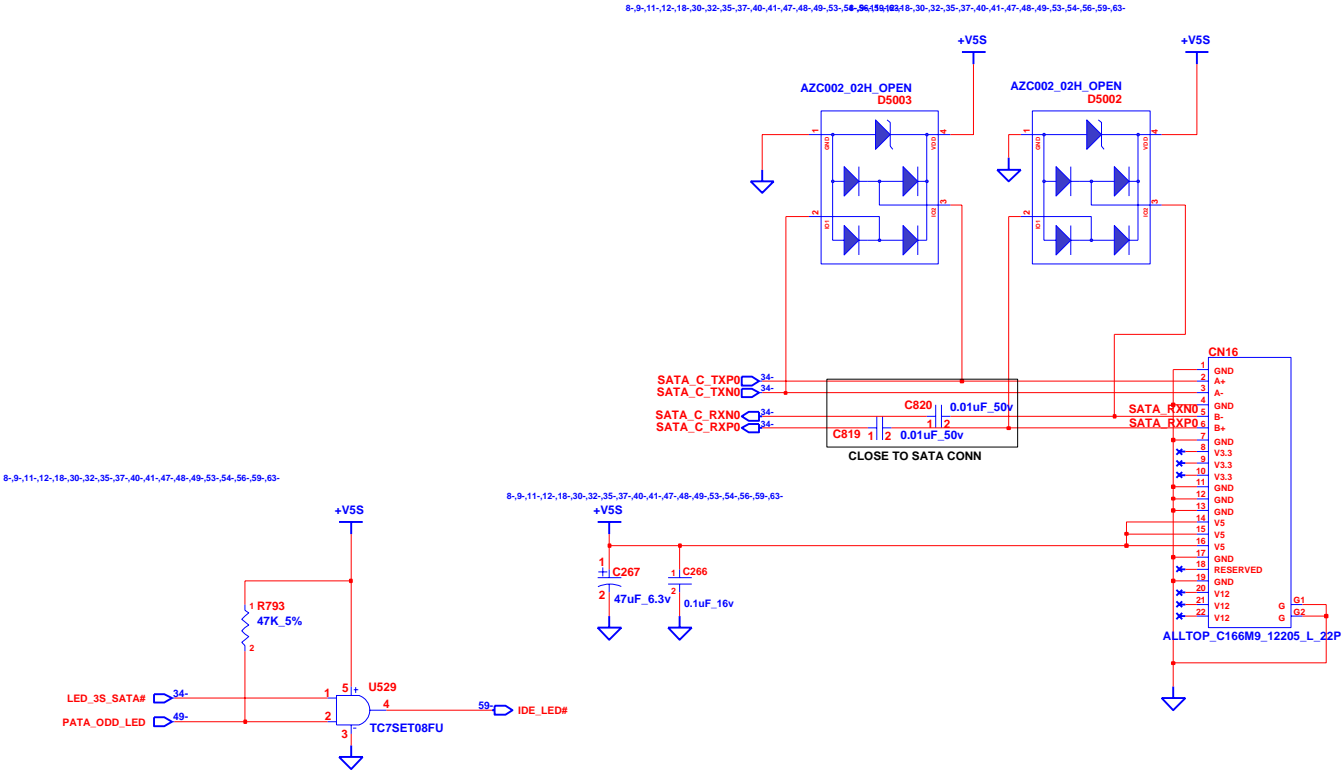


# Wireless & Debug card



<b>INVENTEC</b>			
TITLE			
PT10SC Robson & WLAN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		46 OF 63	
4-Dec-2007		8	

# SATA HDD01

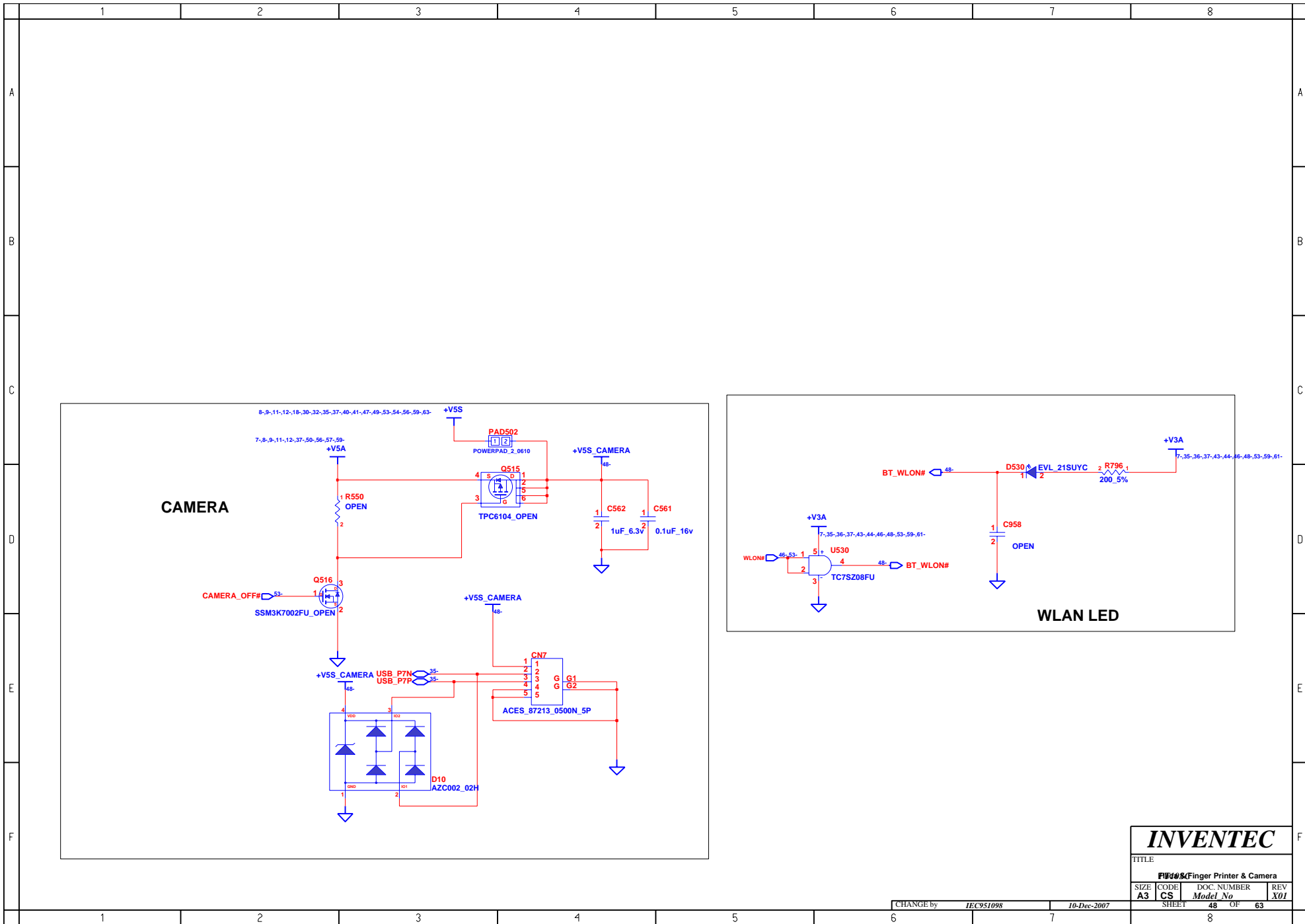


**INVENTEC**

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

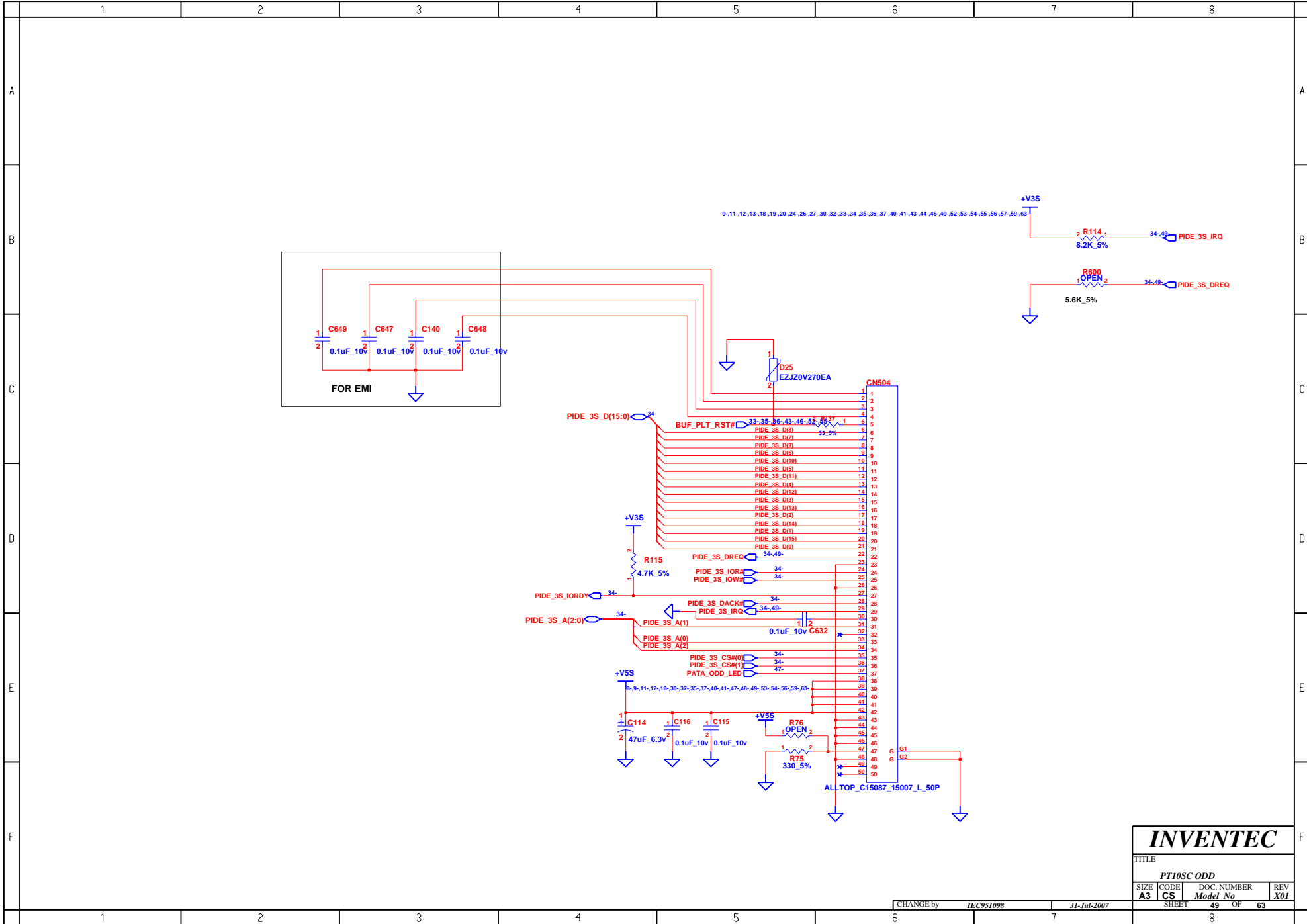
CHANGE by IEC951098 30-Nov-2007

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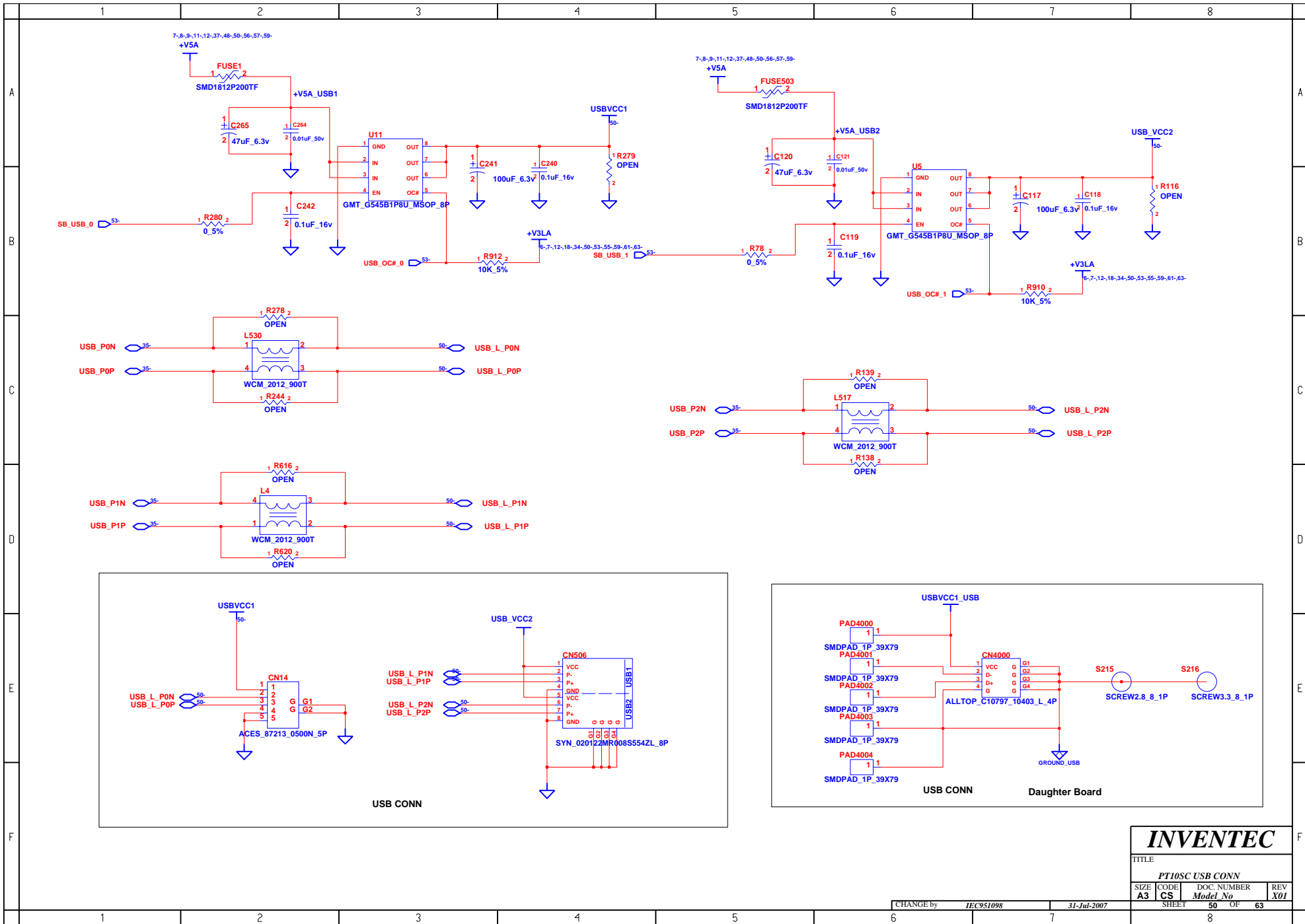


<b>INVENTEC</b>			
TITLE			
FW008/Finger Printer & Camera			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		48 OF 63	
		10-Dec-2007	





<b>INVENTEC</b>			
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

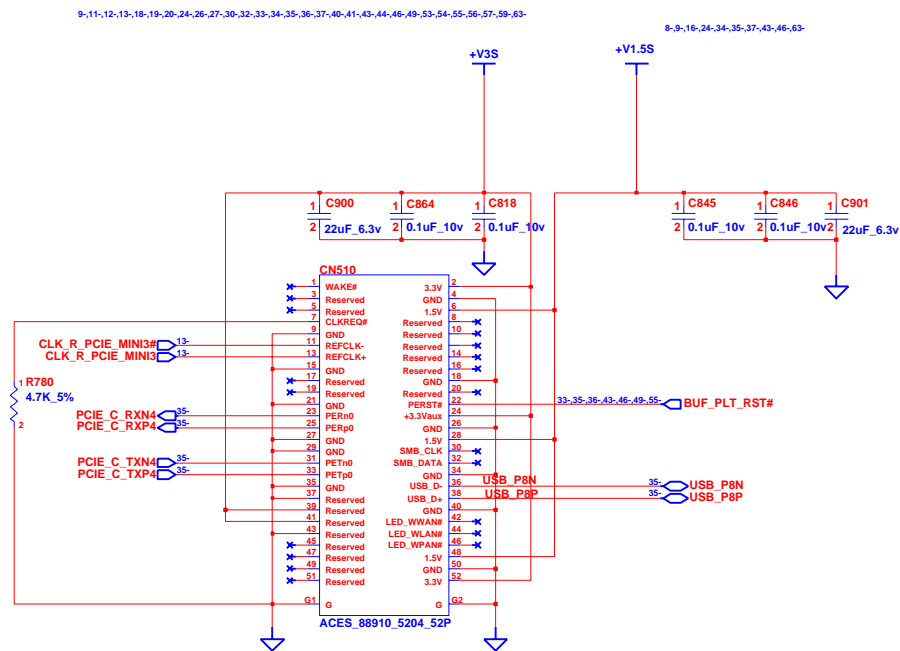
SHEET 50 OF 63

**BLANK**

<b>INVENTEC</b>			
TITLE			
<i>PT10SC BLUETOOTH</i>			
SIZE	CODE	DOC. NUMBER	REV
<b>A3</b>	<b>CS</b>	<i>Model No</i>	<b>X01</b>
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

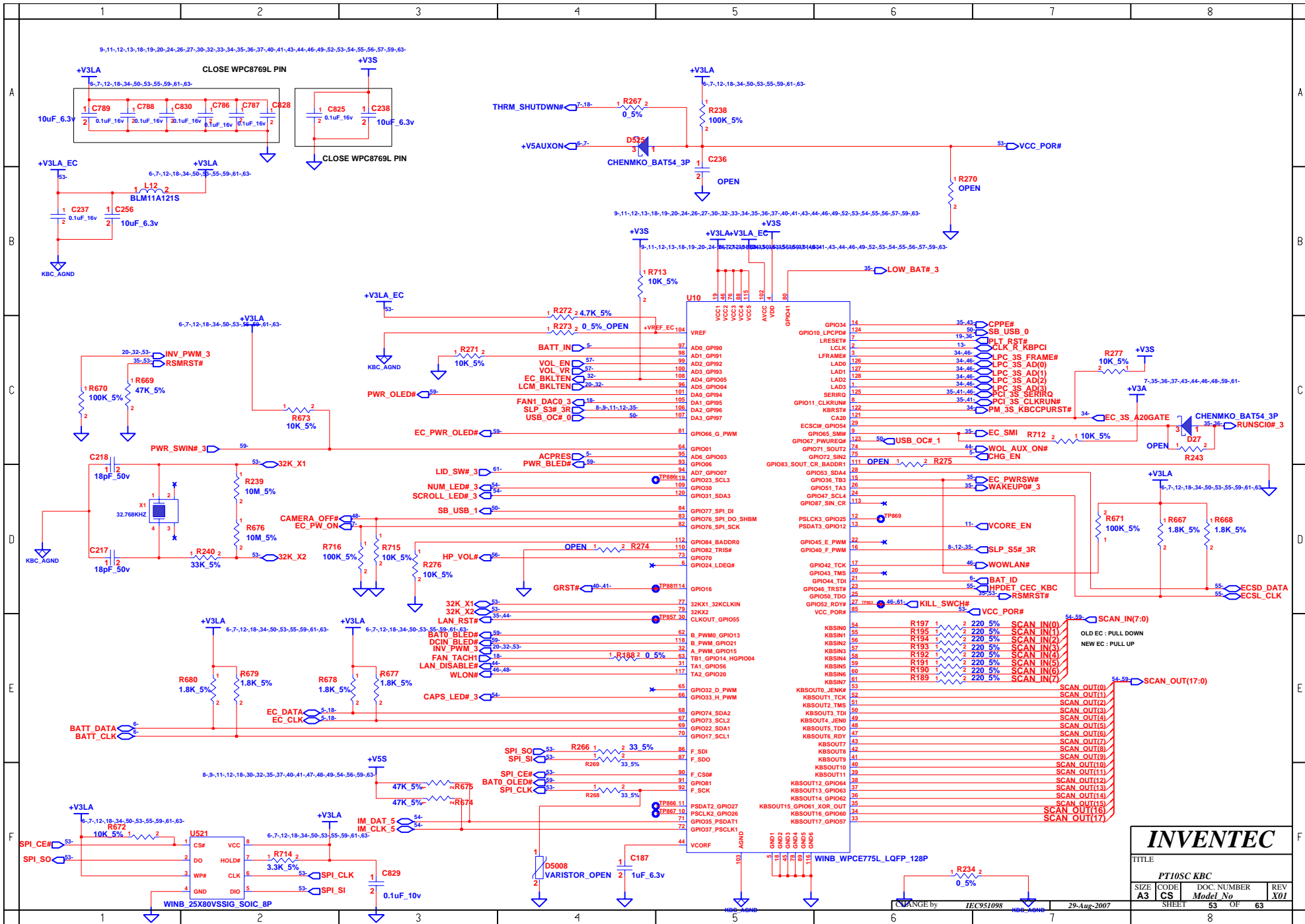


**INVENTEC**

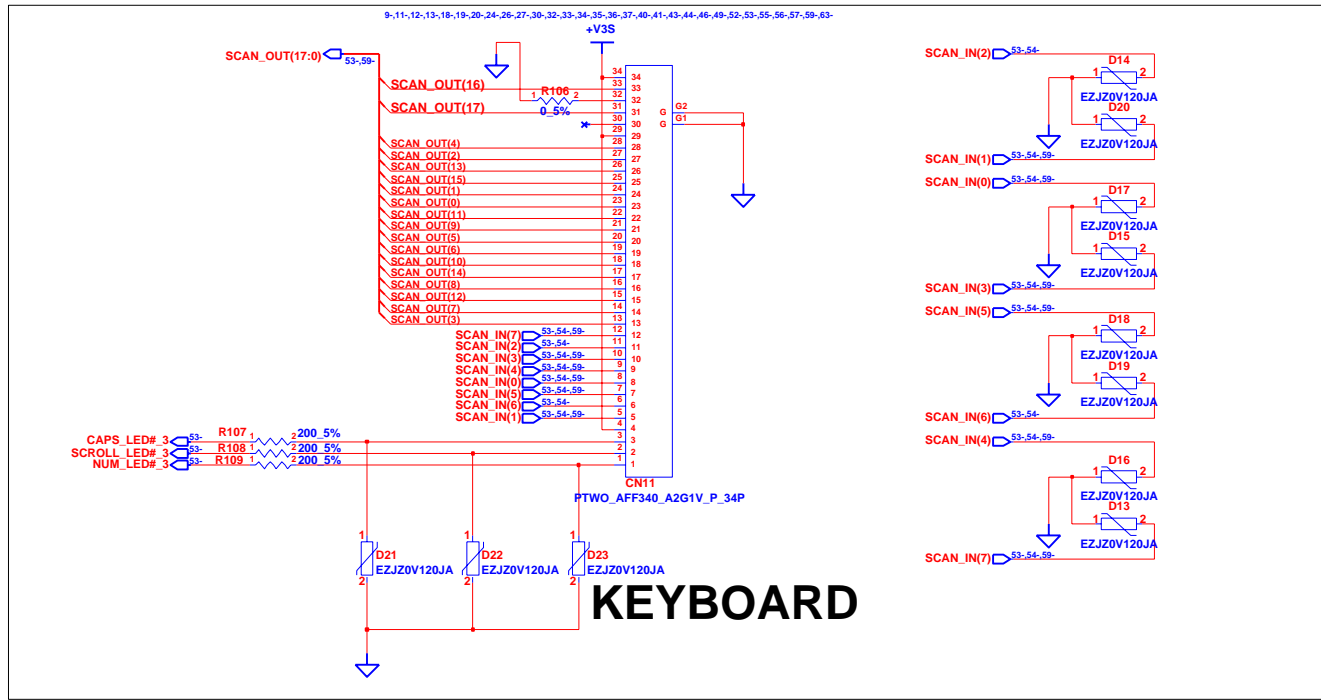
TITLE			
PT10SC 3G_SIM			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

CHANGE by IEC951098 27-Dec-2007

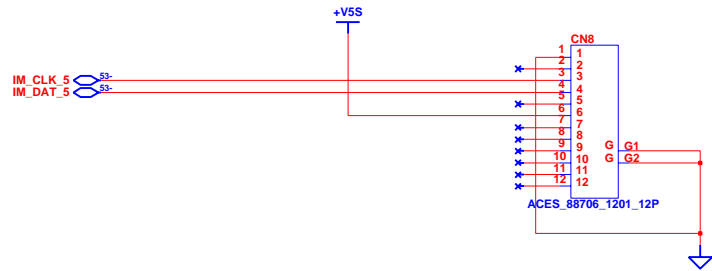
SHEET 52 OF 63



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

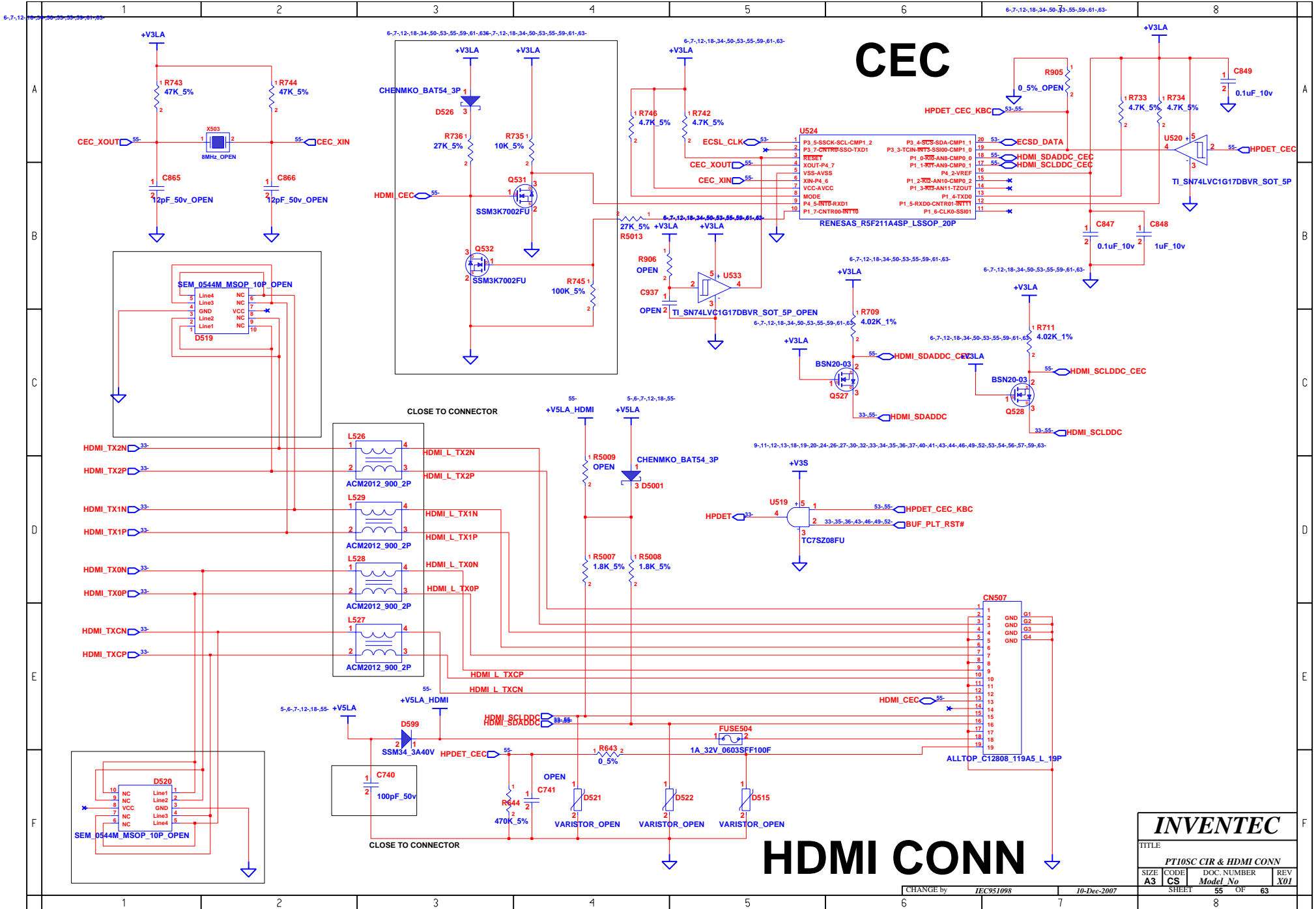


# KEYBOARD



<b>INVENTEC</b>			
TITLE			
PT105C INT.KBC/POINT DEVICES			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		54 OF 63	

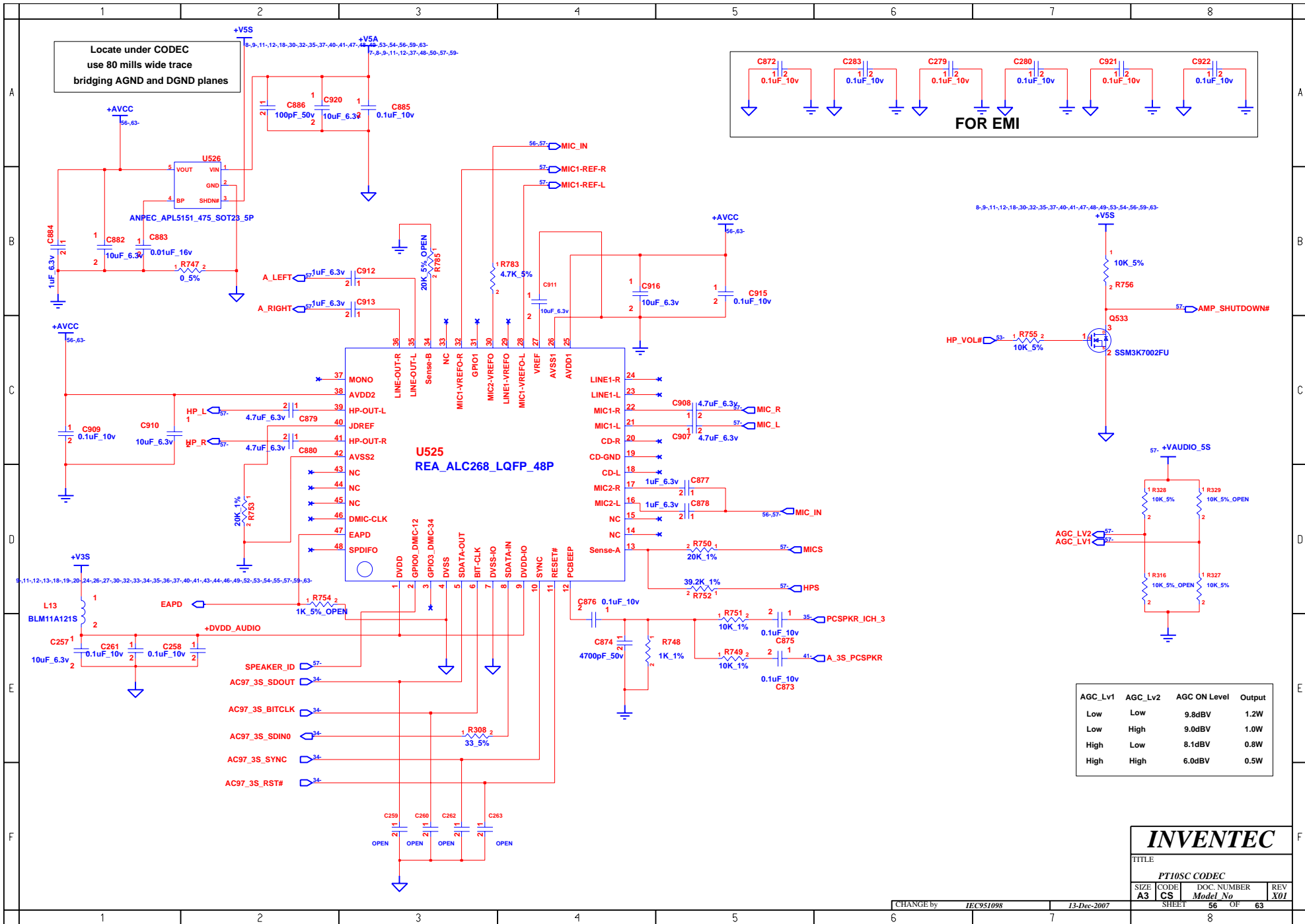
	1	2	3	4	5	6	7	8
A								
B								
C								
D								
E								
F								
	1	2	3	4	5	6	7	8



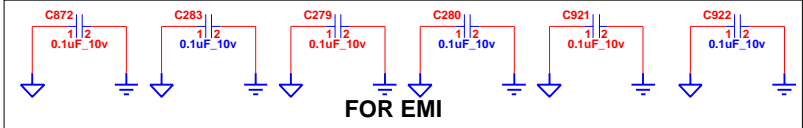
# CEC

# HDMI CONN

<b>INVENTEC</b>			
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

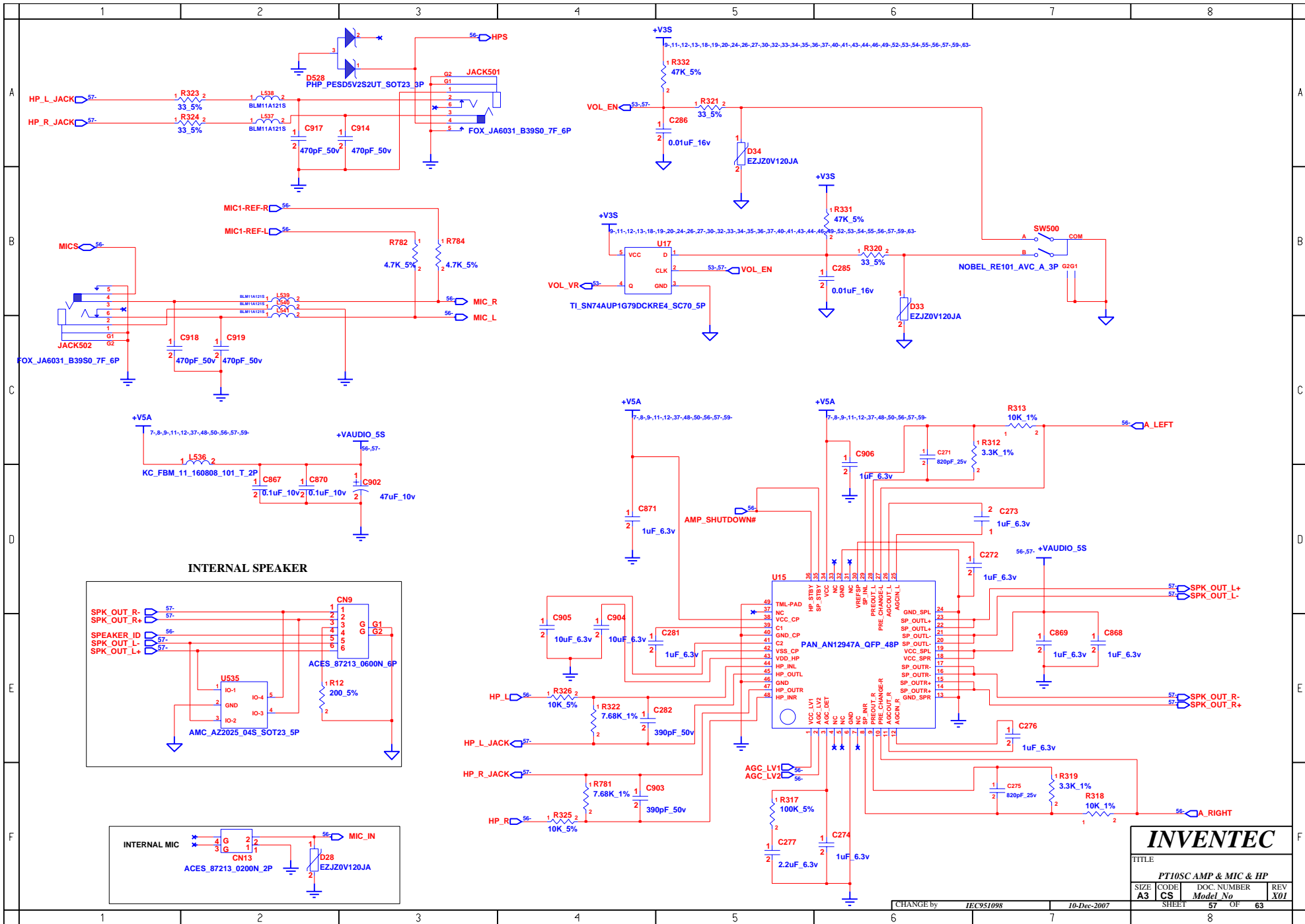


AGC_Lv1	AGC_Lv2	AGC ON Level	Output
Low	Low	9.8dBV	1.2W
Low	High	9.0dBV	1.0W
High	Low	8.1dBV	0.8W
High	High	6.0dBV	0.5W

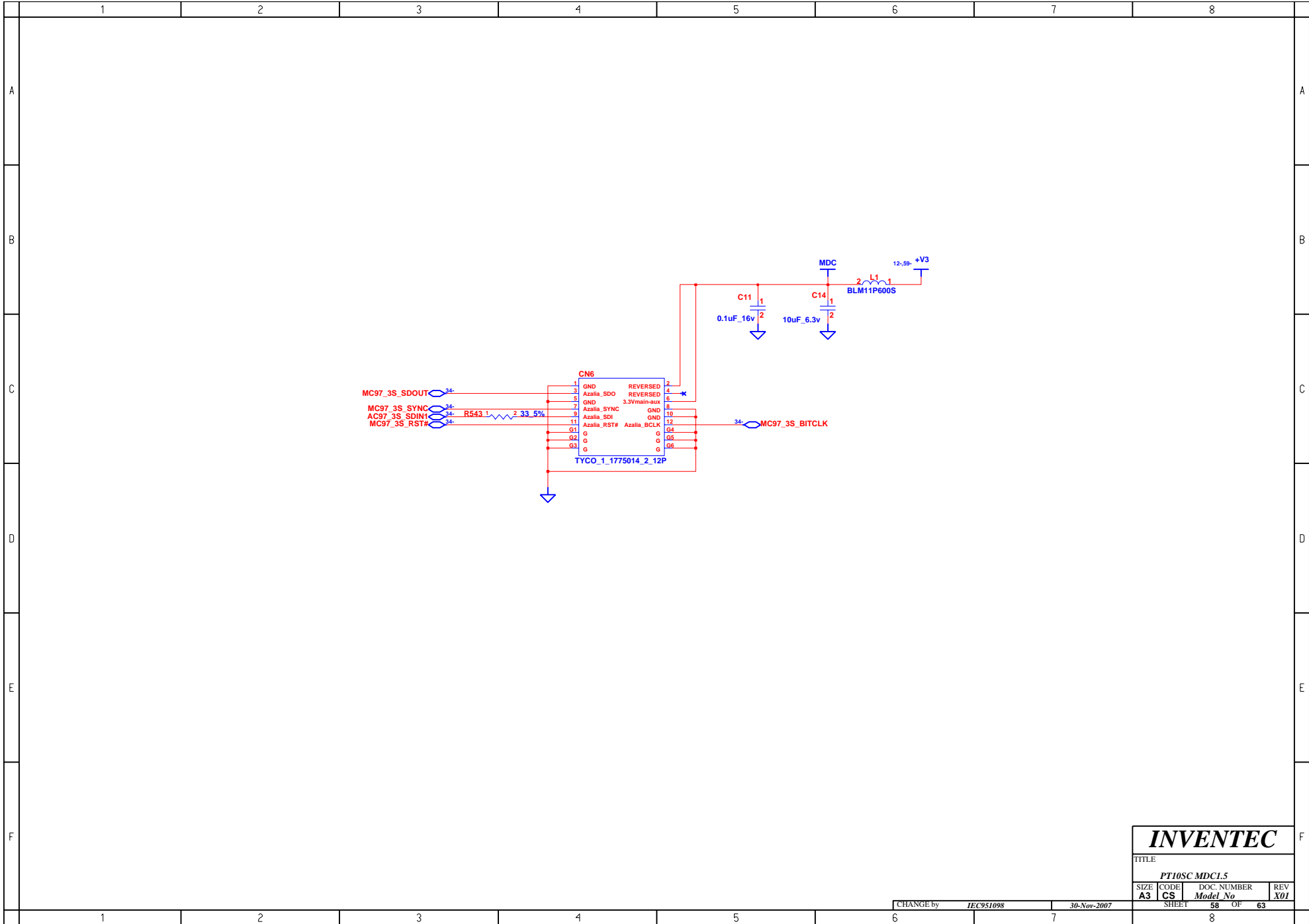
**INVENTEC**

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





<b>INVENTEC</b>			
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**

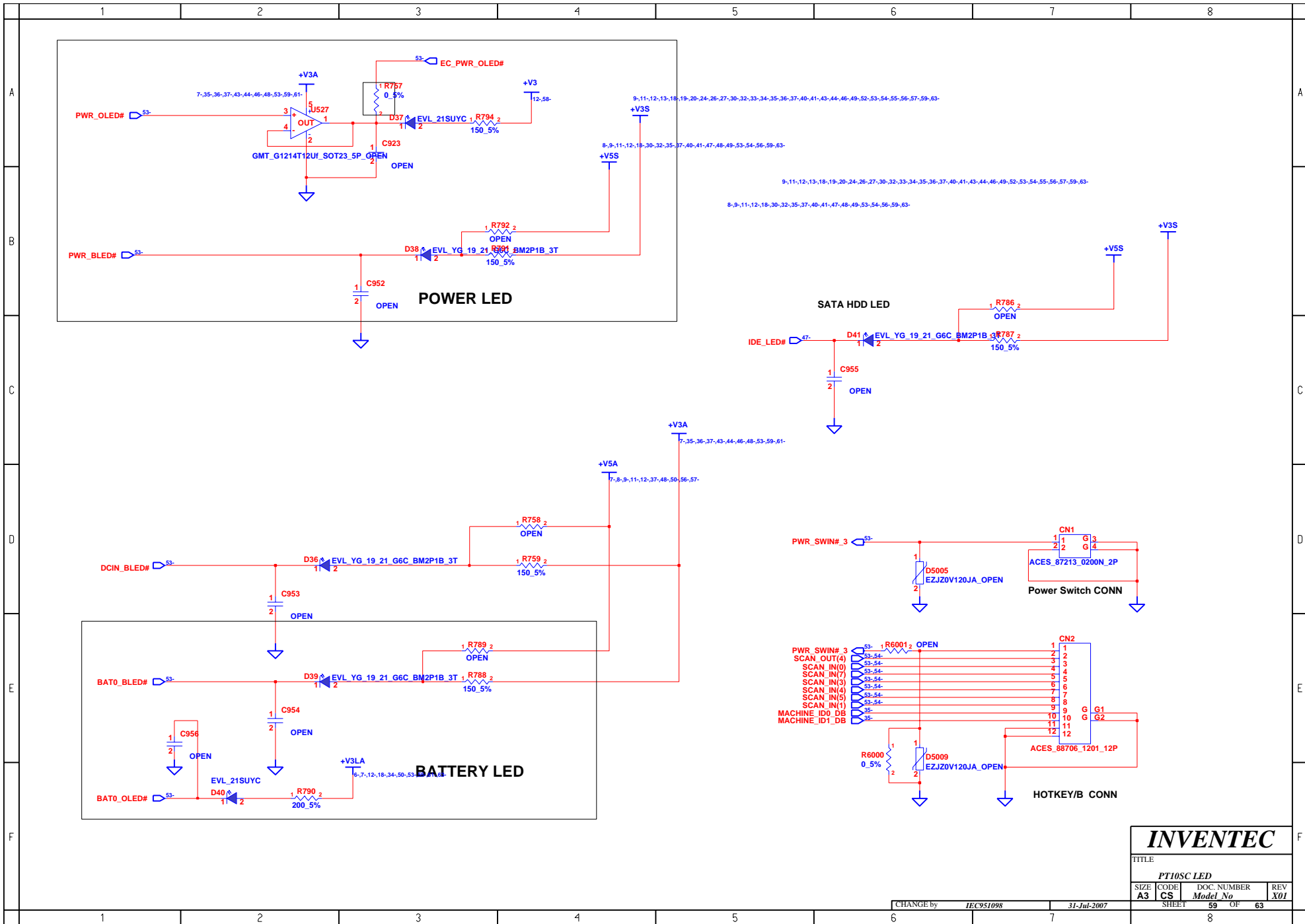
TITLE

PT10SC MDCL.5

SIZE A3	CODE CS	DOC. NUMBER Model No	REV X01
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CHANGE by IEC951098 30-Nov-2007

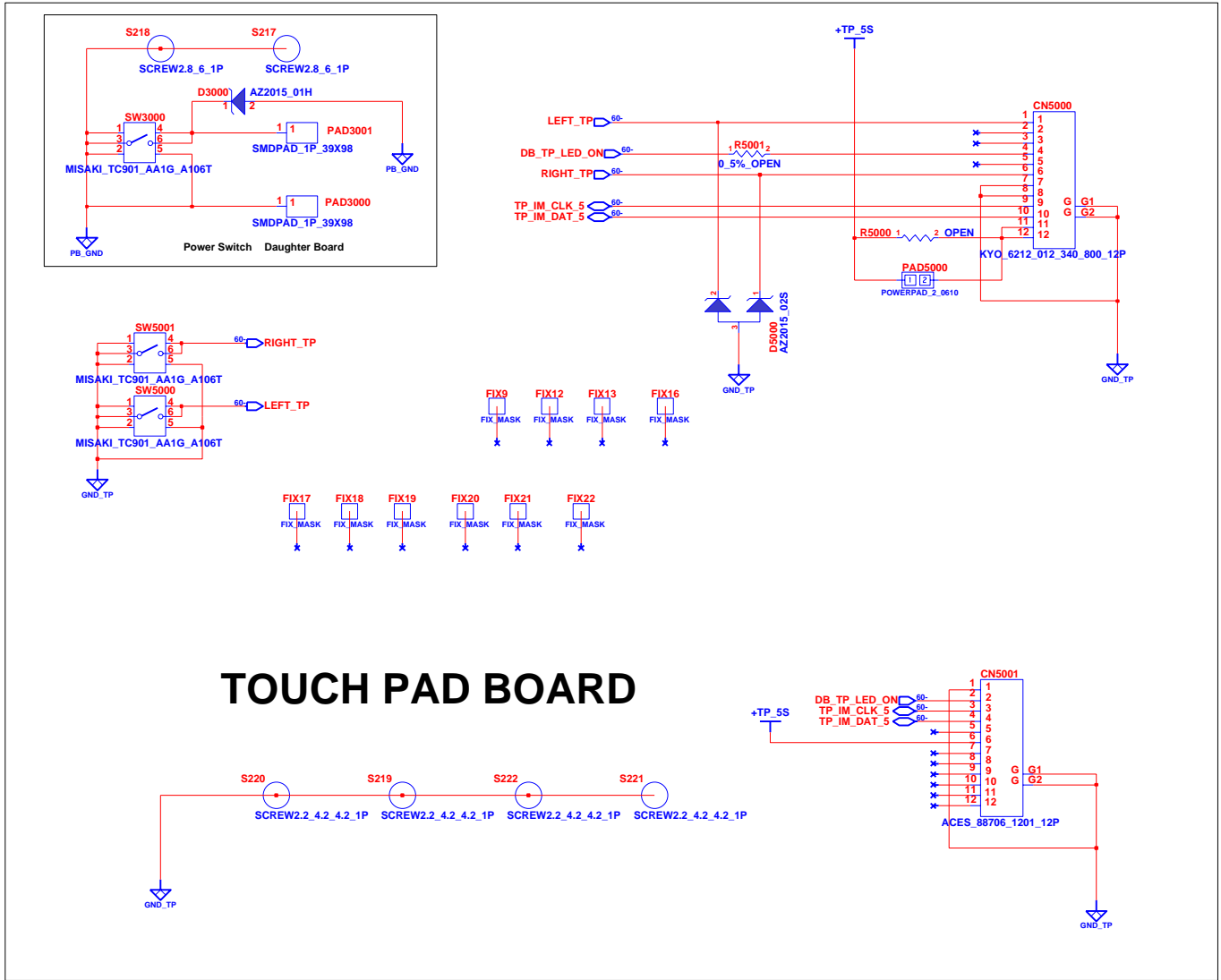
SHEET 58 OF 63



# INVENTEC

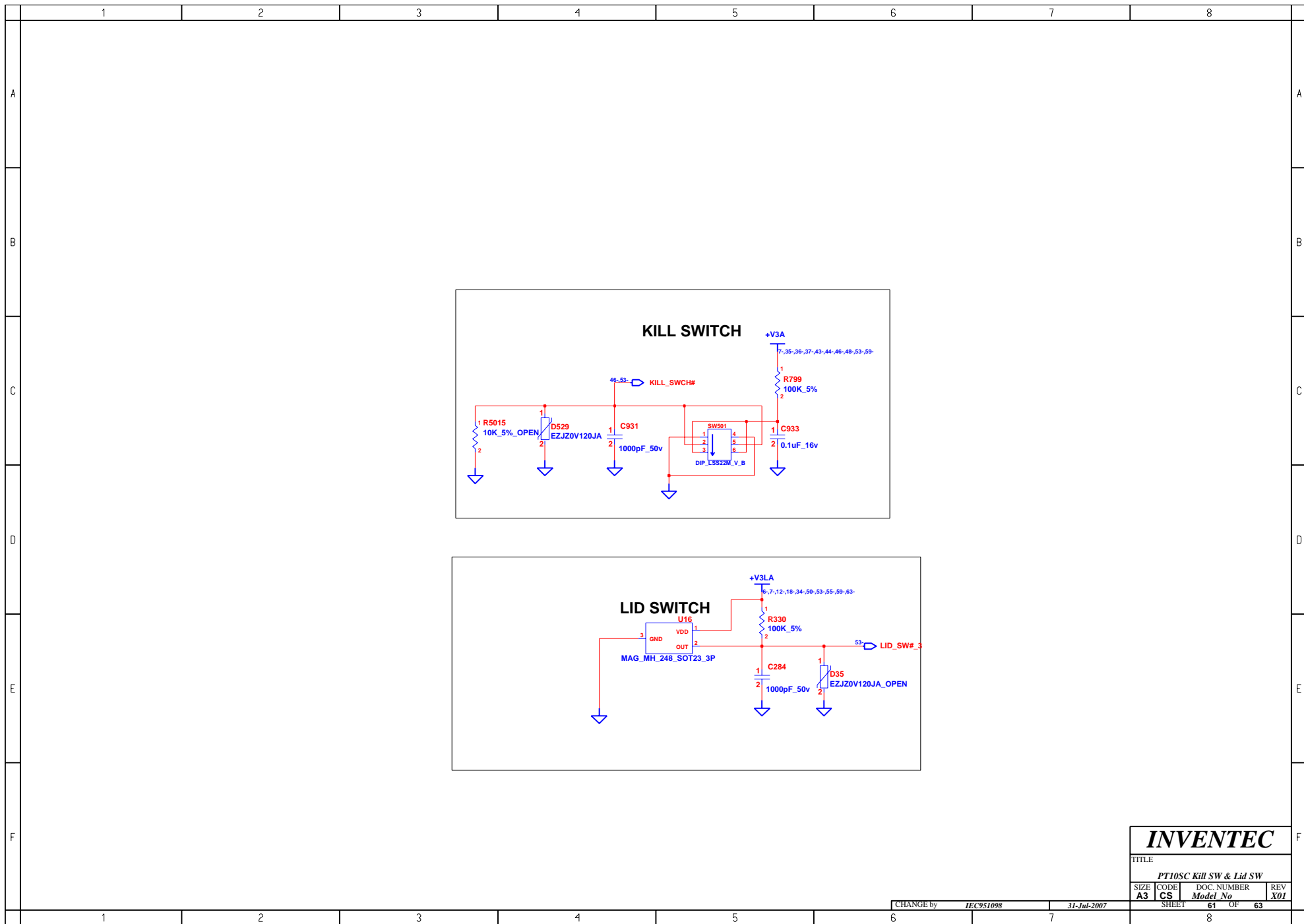
TITLE			
PT10SC LED			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01

CHANGE by IEC951098 31-Jul-2007

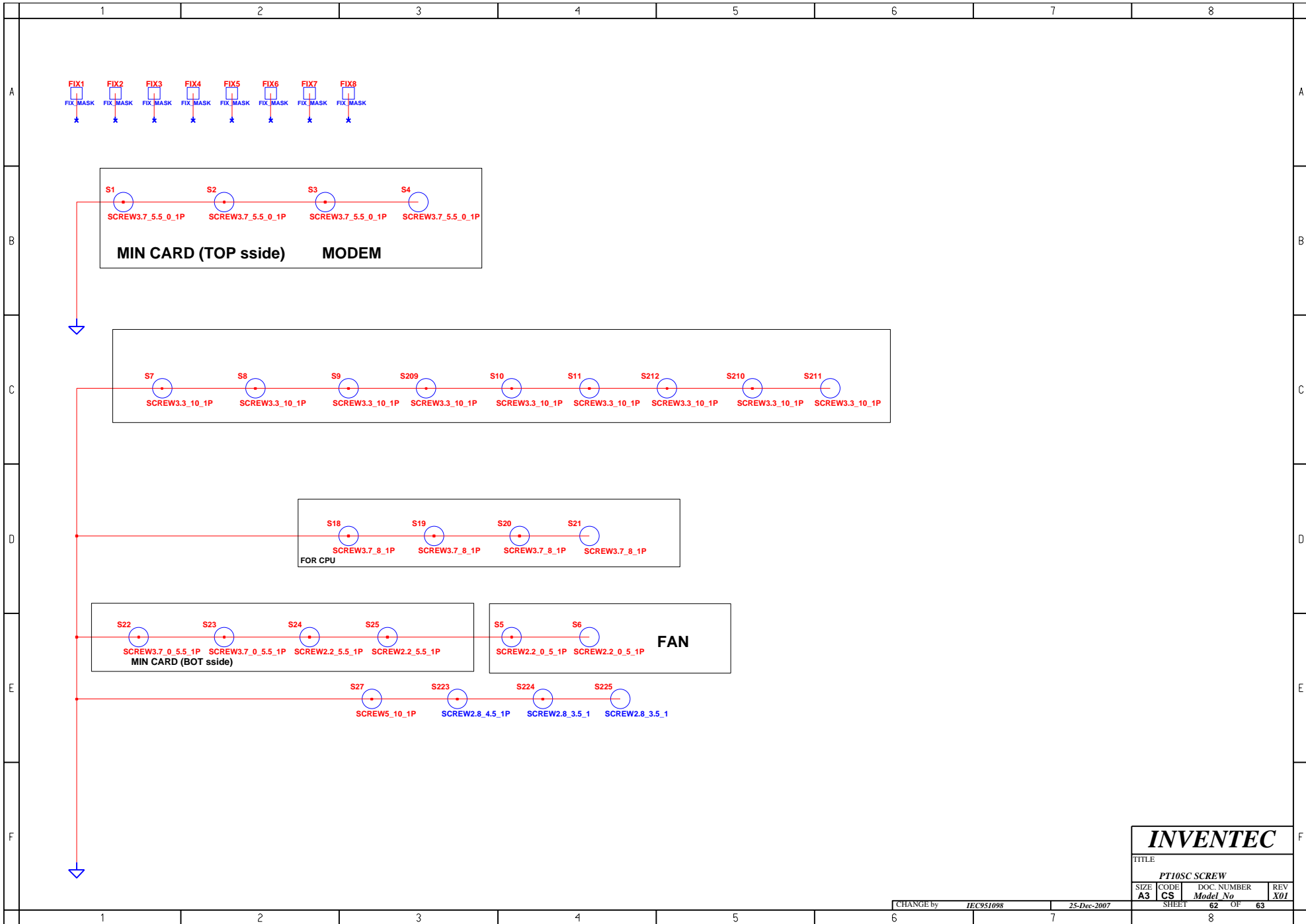


# TOUCH PAD BOARD

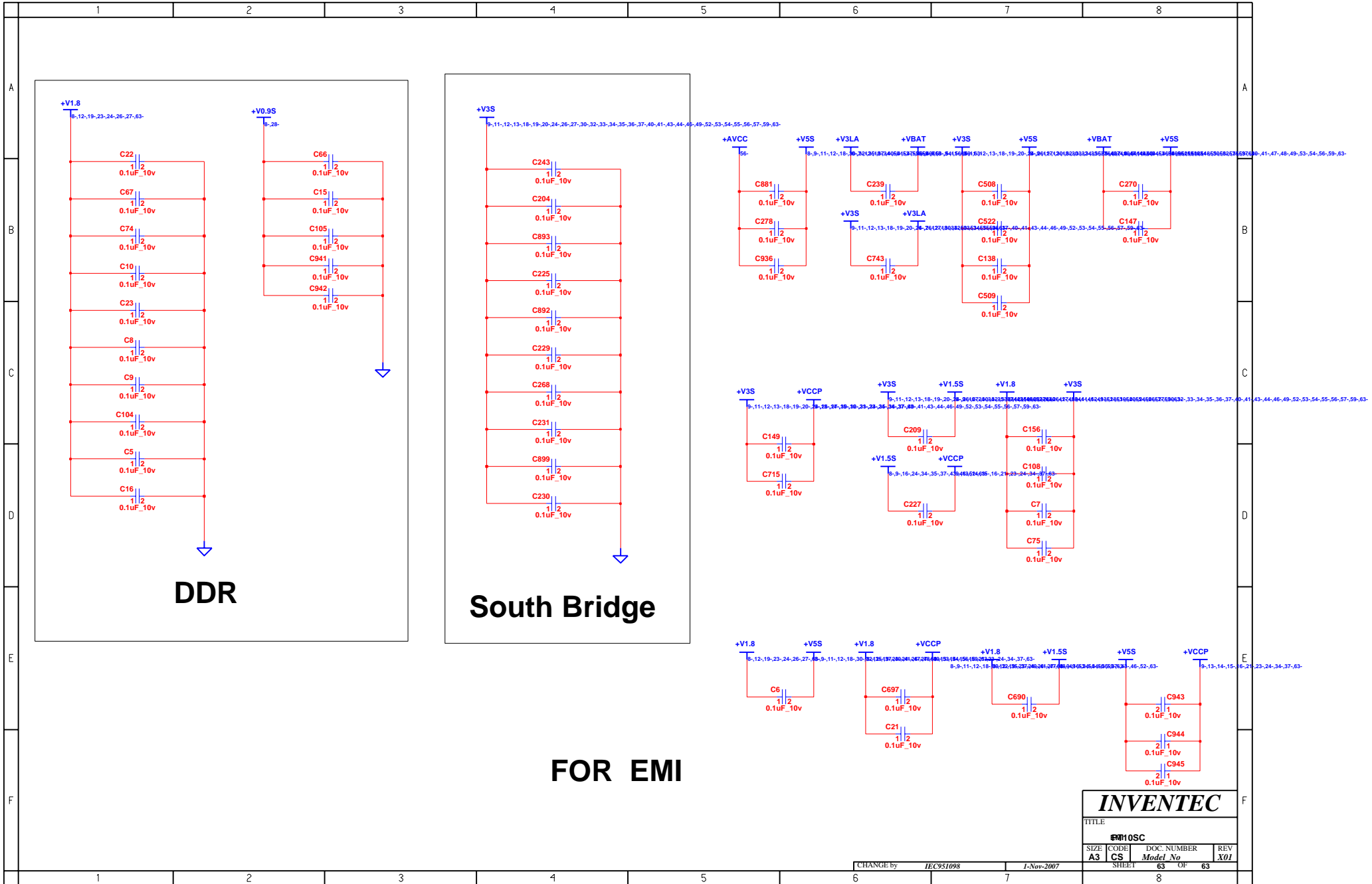
<b>INVENTEC</b>			
TITLE			
Touch Pad Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		SHEET	
IEC951098		60 OF 63	
5-Nov-2007		8	



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



<b>INVENTEC</b>			
TITLE			
<b>PT10SC SCREW</b>			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		25-Dec-2007	
IEC951098		SHEET 62 OF 63	



DDR

South Bridge

FOR EMI

<b>INVENTEC</b>			
TITLE			
#M10SC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	X01
CHANGE by		IECVS1098	L-Nov-2007
SHEET		63	OF 63