

# Manaus 10

## CS BUILD

2010.03.18

DATE	CHANGE NO.	REV

DRAWER	EE	DATE	POWER	DATE	<b>INVENTEC</b> TITLE <b>Berlin 10</b>
DESIGN					
CHECK					
RESPONSIBLE					
SIZE =	3	VER :			SIZE <b>A3</b> CODE <b>CS</b> DOC. NUMBER <b>ES</b> REV <b>AXI</b>
FILE NAME :	XXXX-XXXXXX-XX				SHEET 1 OF 61
P/N	XXXXXXXXXXXX				

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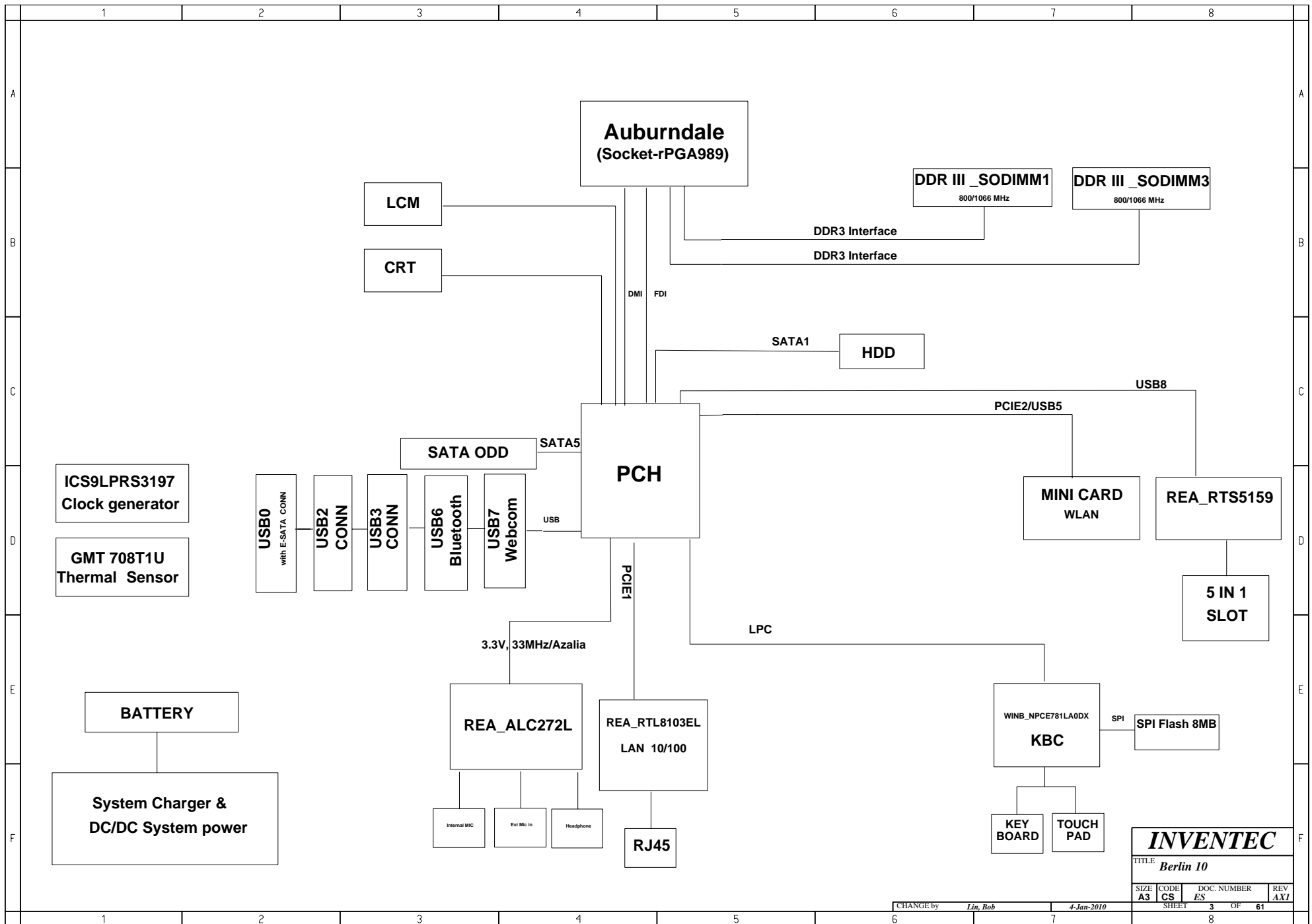
**INVENTEC**

TITLE **Berlin 10**

SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>ES</b>	REV <b>AXI</b>
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CHANGE by *Lin, Bob* 26-Jan-2010

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	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
						CHANGE by <i>Lin, Bob</i>		25-Nov-2009	
						6	7	8	

INVENTEC

TITLE  
Berlin 10

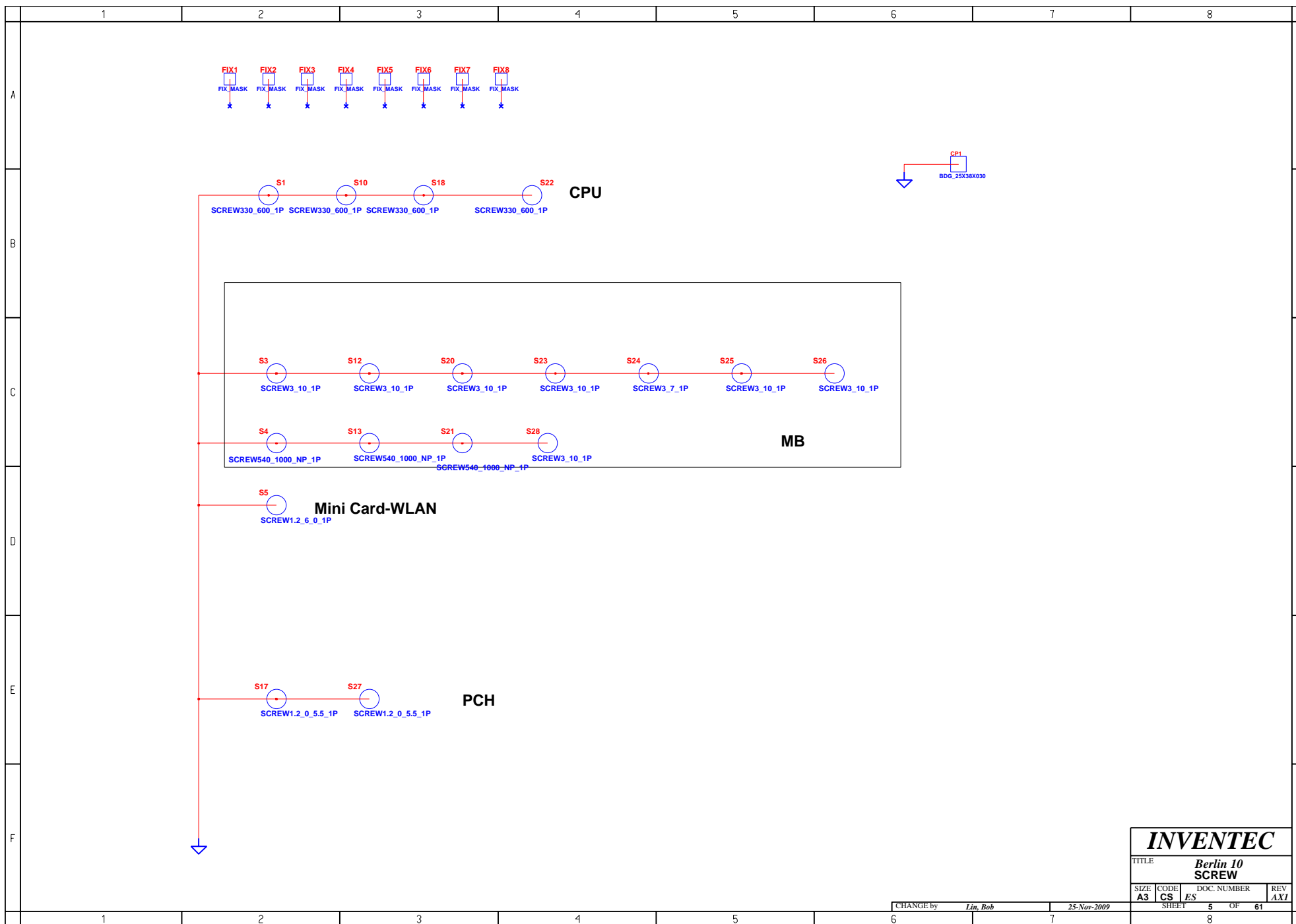
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A3

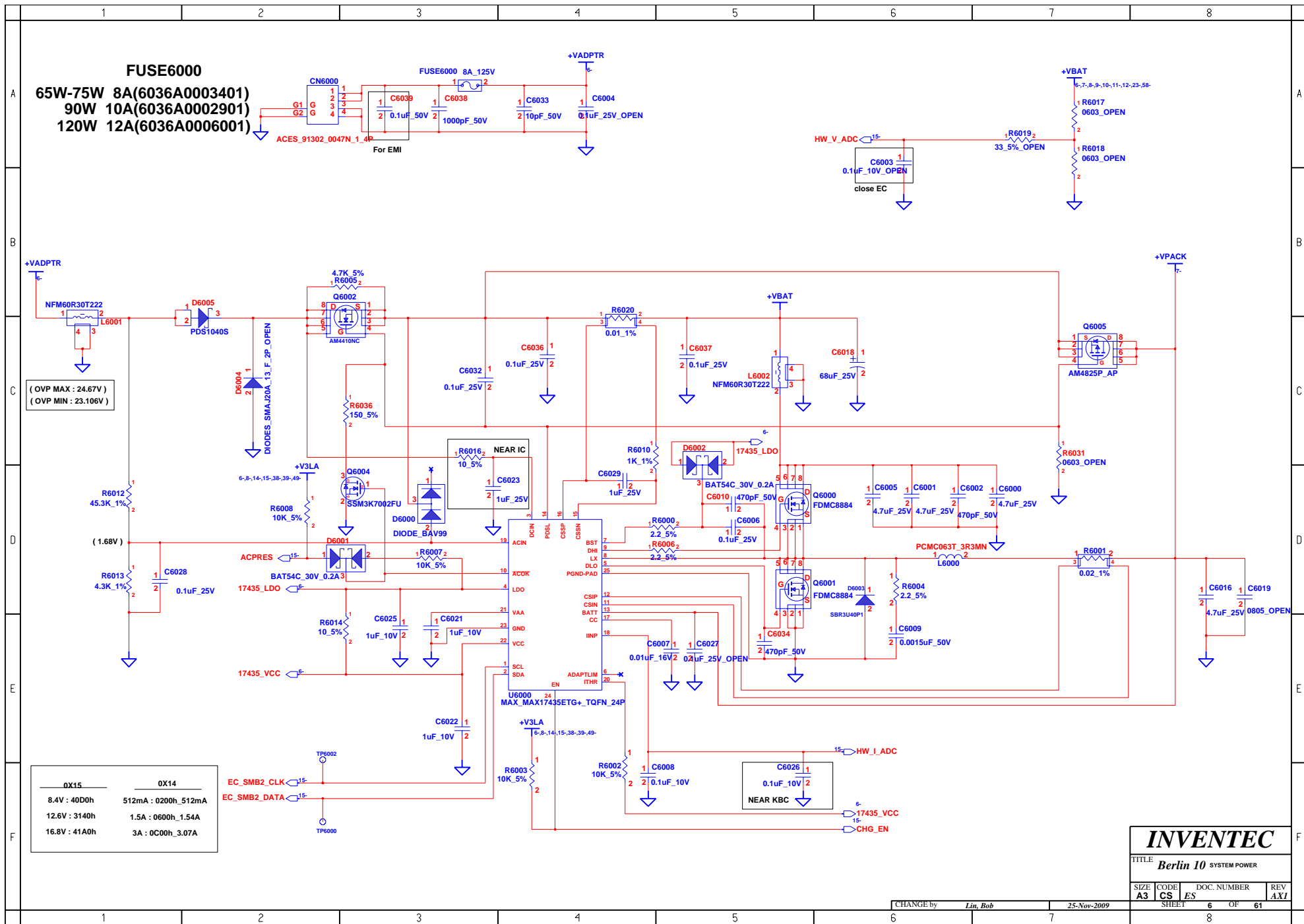
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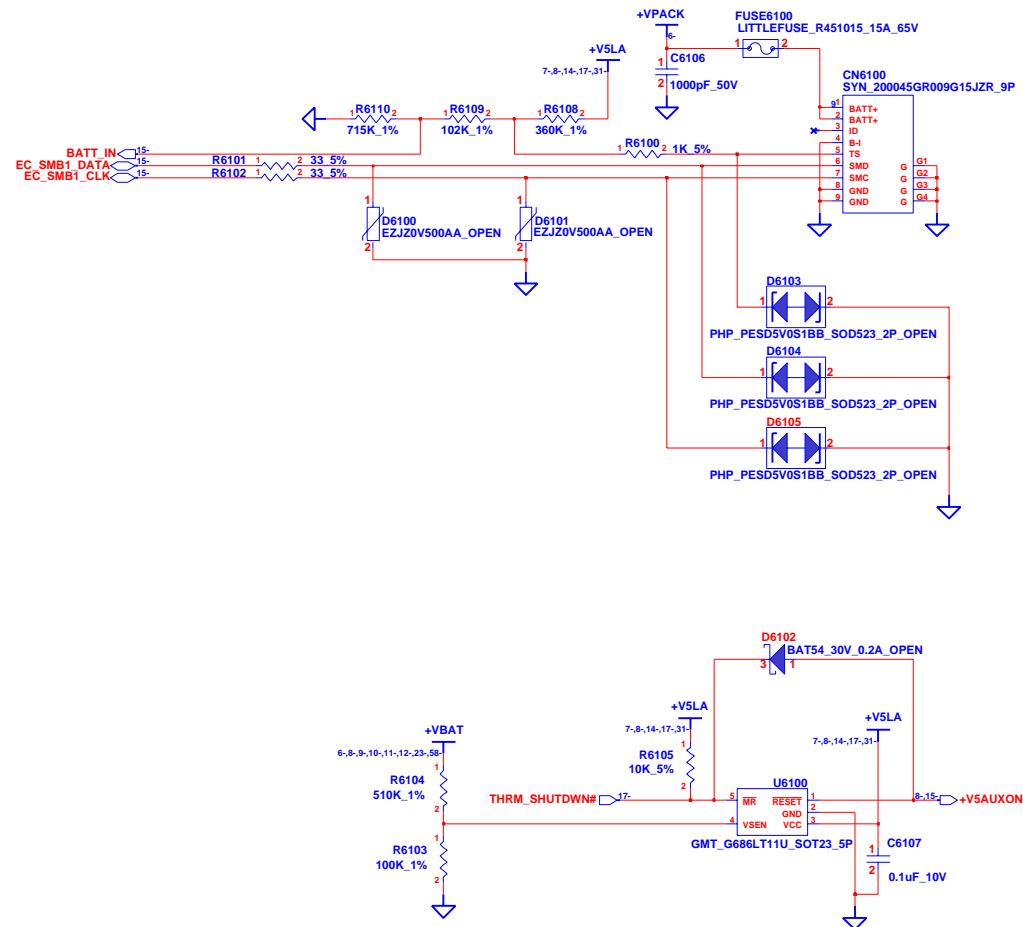
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REV  
AXI

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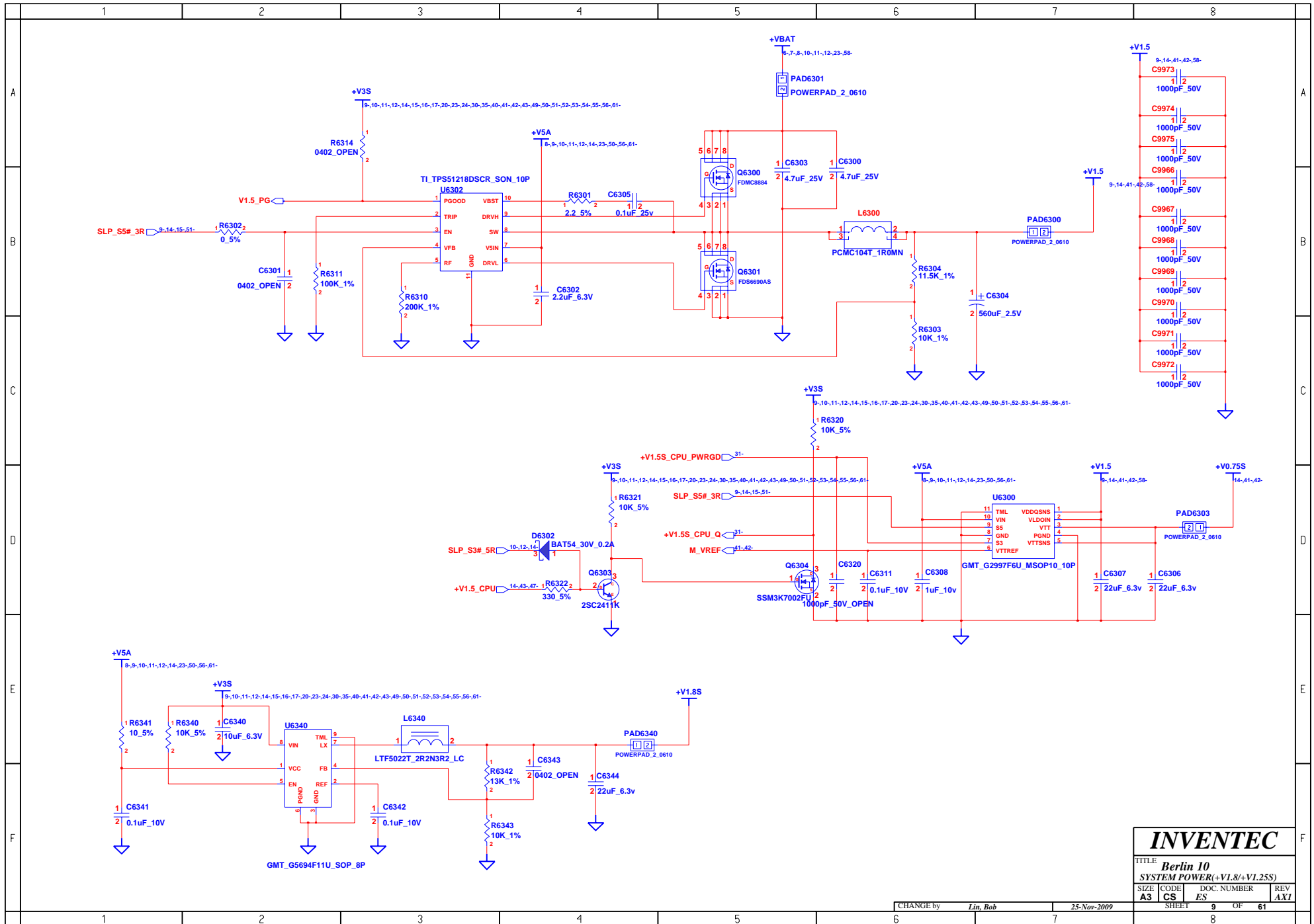




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SELECT & BATTERY CONN			
SIZE: A3	CODE: CS	DOC. NUMBER: ES	REV: AXI
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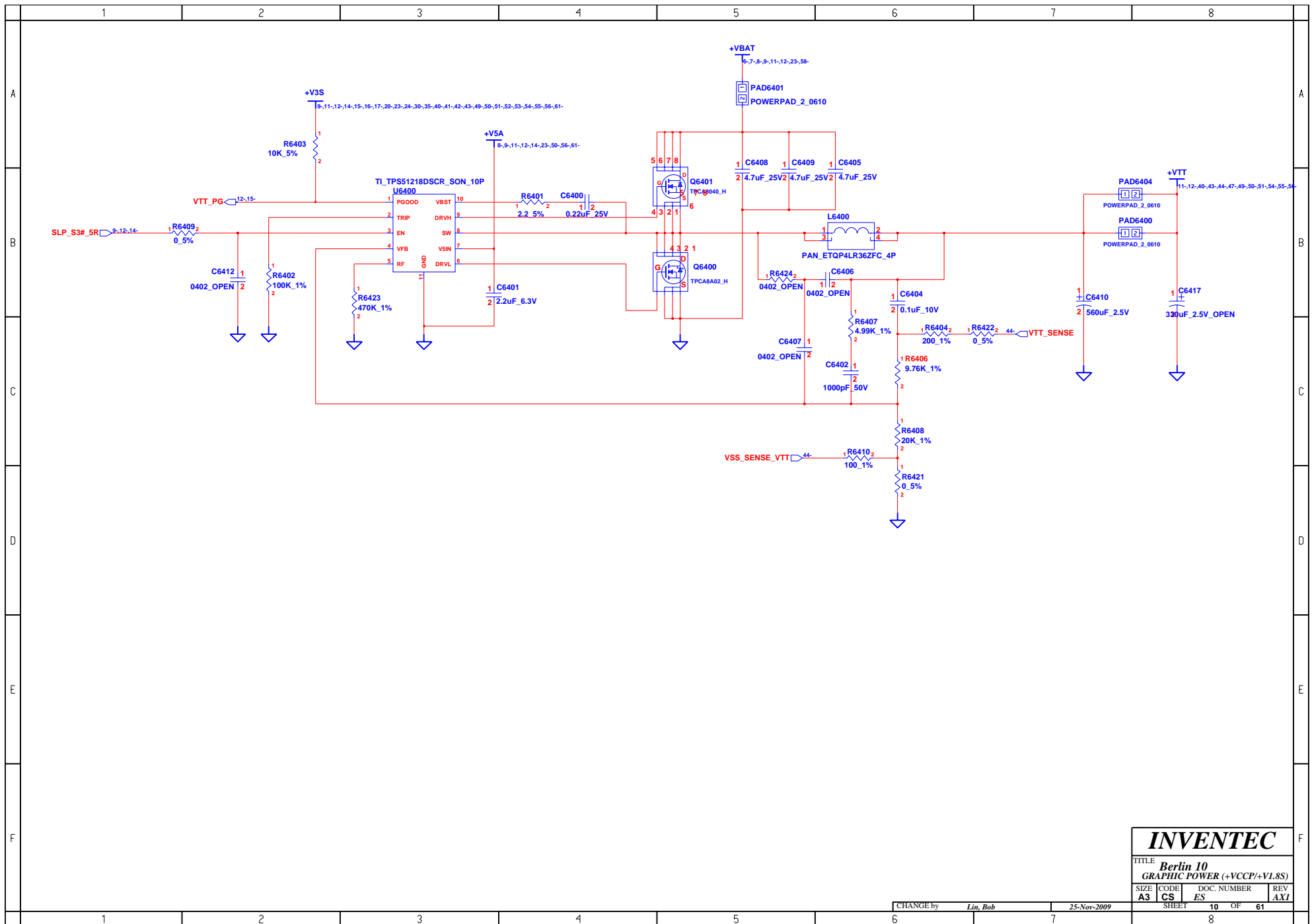


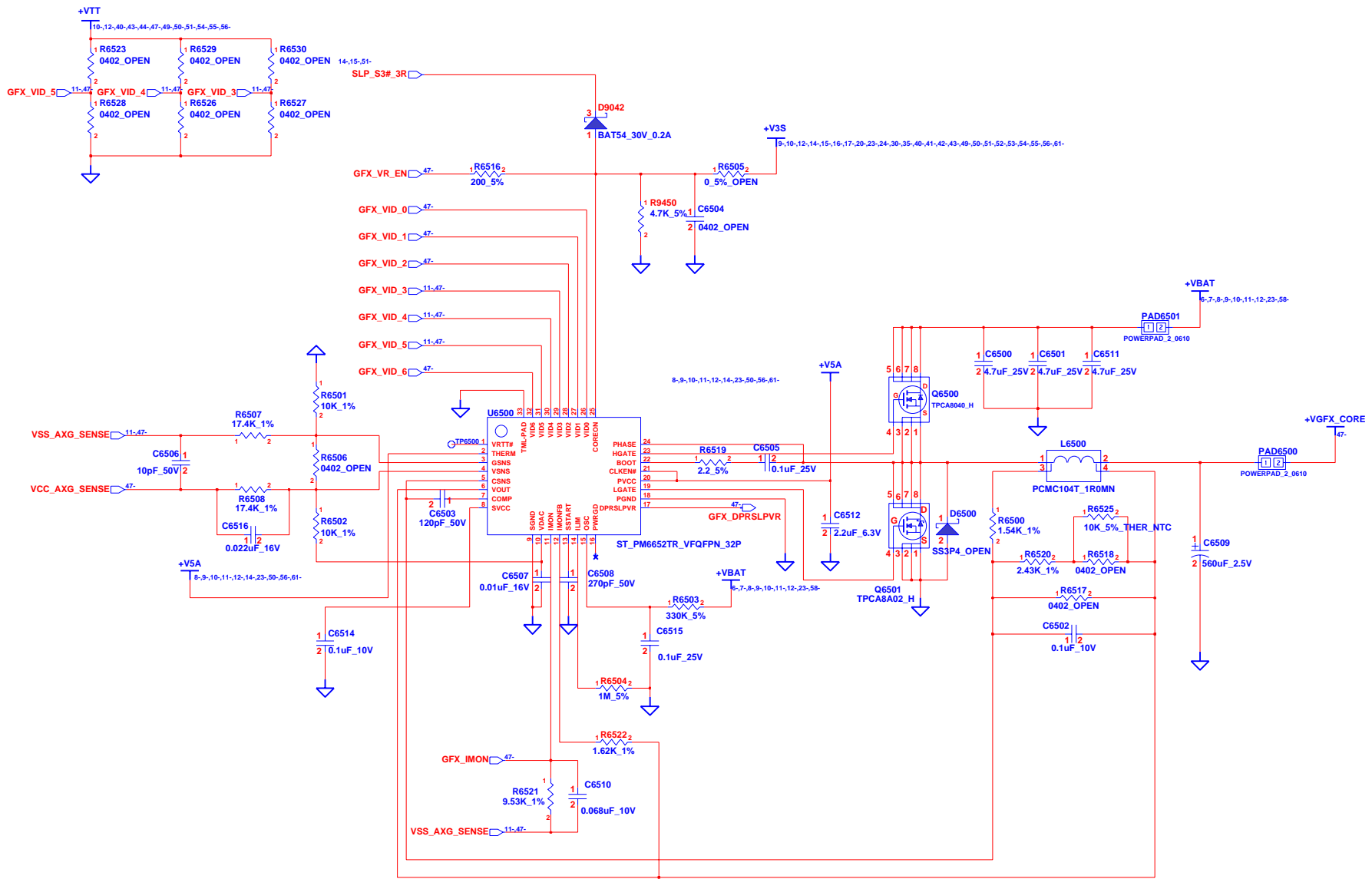
**INVENTEC**

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Berlin 10			
SYSTEM POWER(+V1.8/+V1.25S)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI

CHANGE by Lin, Bob 25-Nov-2009

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INVENTEC			
TITLE: Berlin 10 SYSTEM POWER(+VGFX_CORE)			
SIZE: A3	CODE: CS	DOC. NUMBER: ES	REV: AXI
CHANGE by: Lin, Bob		25-Nov-2009	
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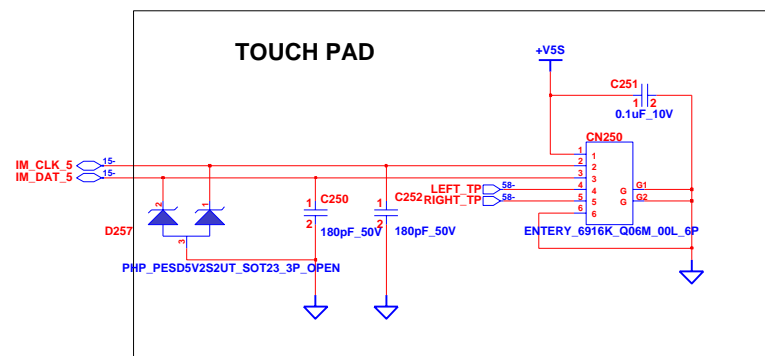
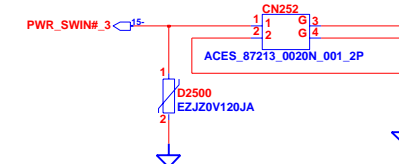
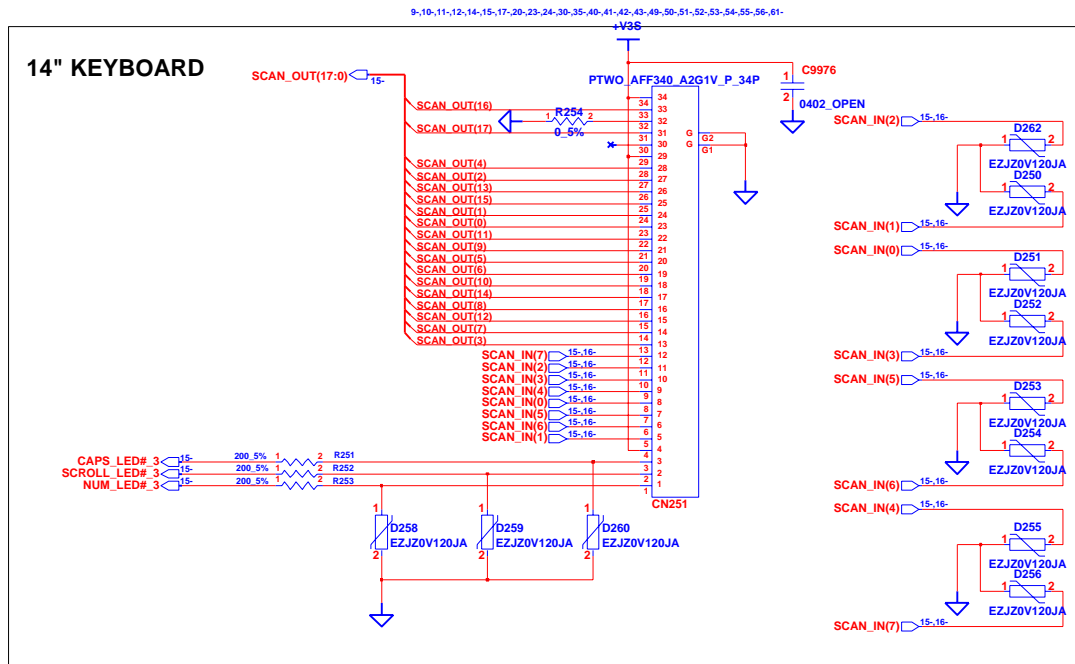
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TITLE <i>Berlin 10</i> <b>VGA POWER</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <i>ES</i>	REV <i>AXI</i>
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CHANGE by *Ljn, Bob* 25-Nov-2009

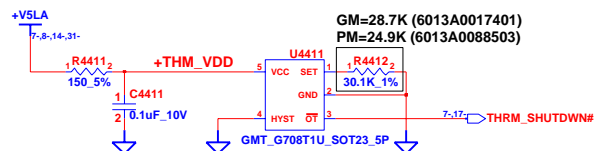
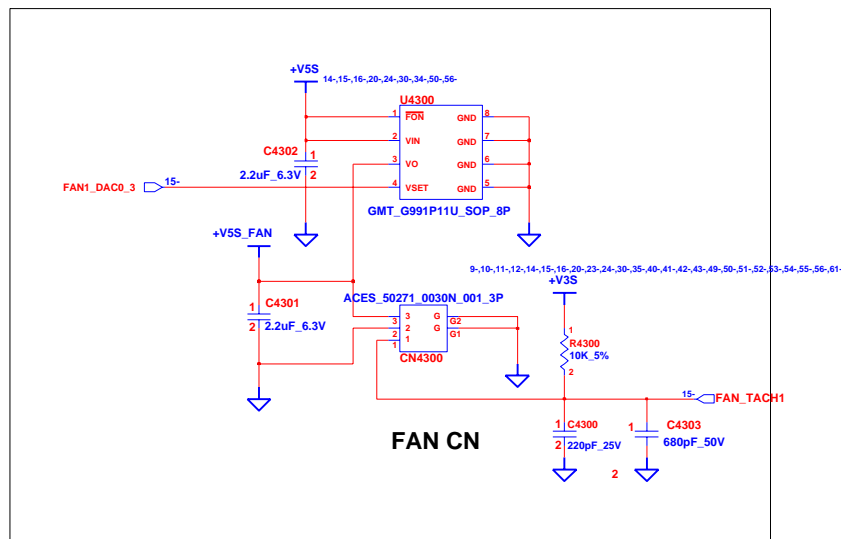




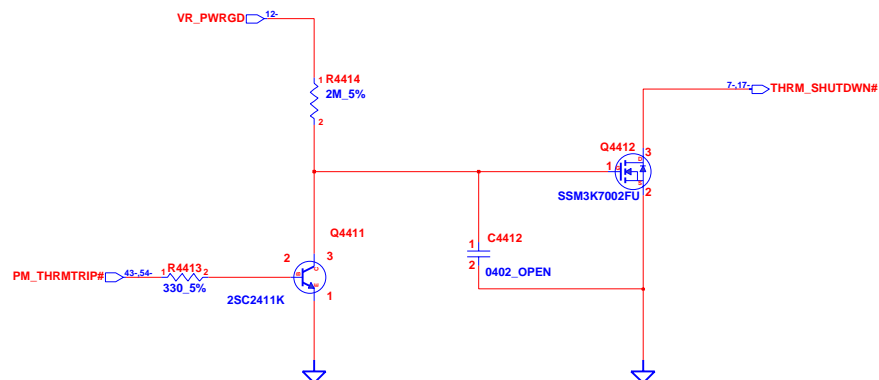


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Berlin 10			
K/B & TP/B CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
CHANGE by		25-Nov-2009	
Lin, Bob			
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		8	





GM Thermal shutdown at 80.8°C +/-3°C from 60°C to 100°C  
 PM Thermal shutdown at 86°C +/-3°C from 60°C to 100°C  
 $RSET=0.0012 \cdot T^2 - 0.9308 \cdot T + 96.147$   
 Hysteresis is 30C

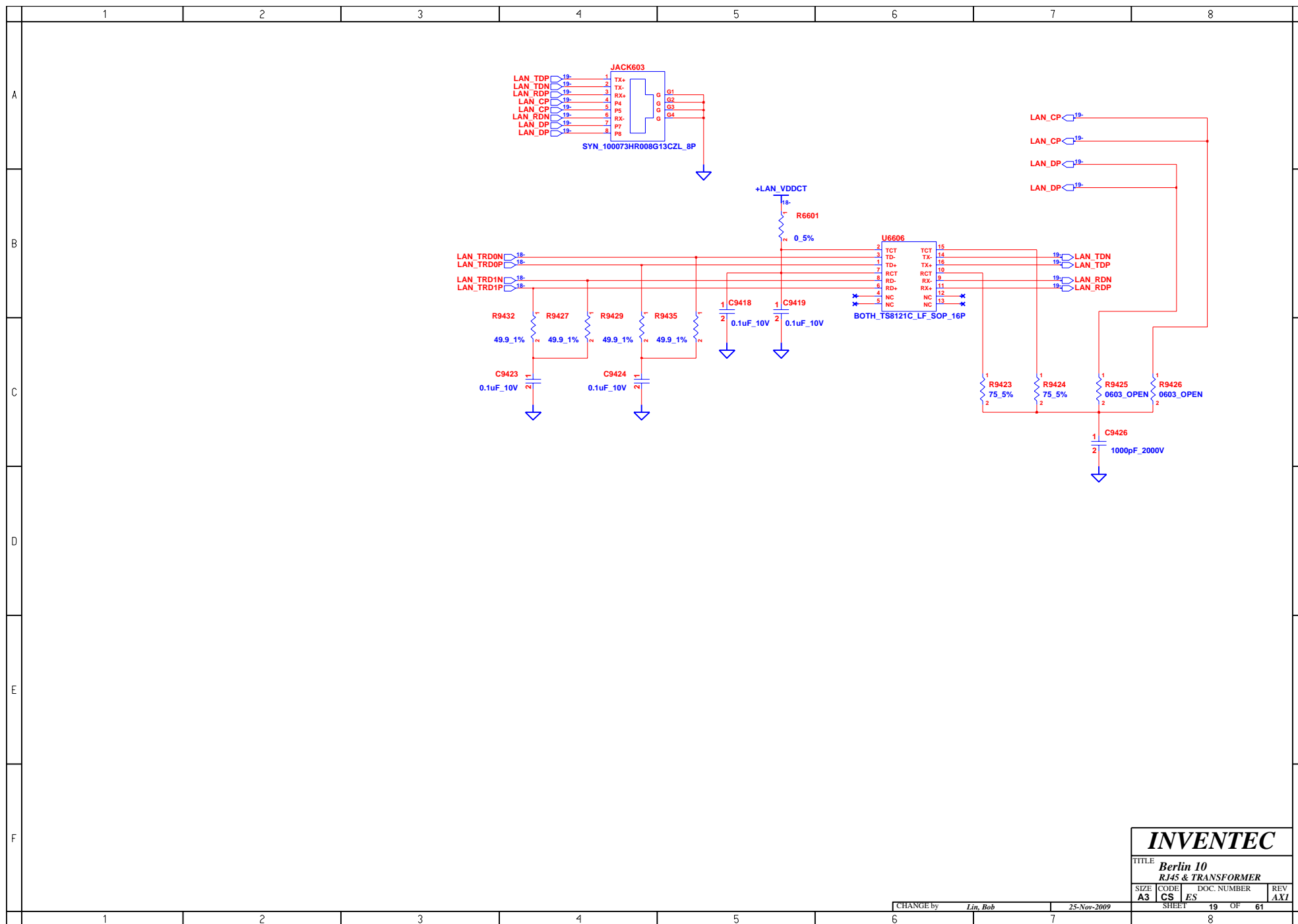


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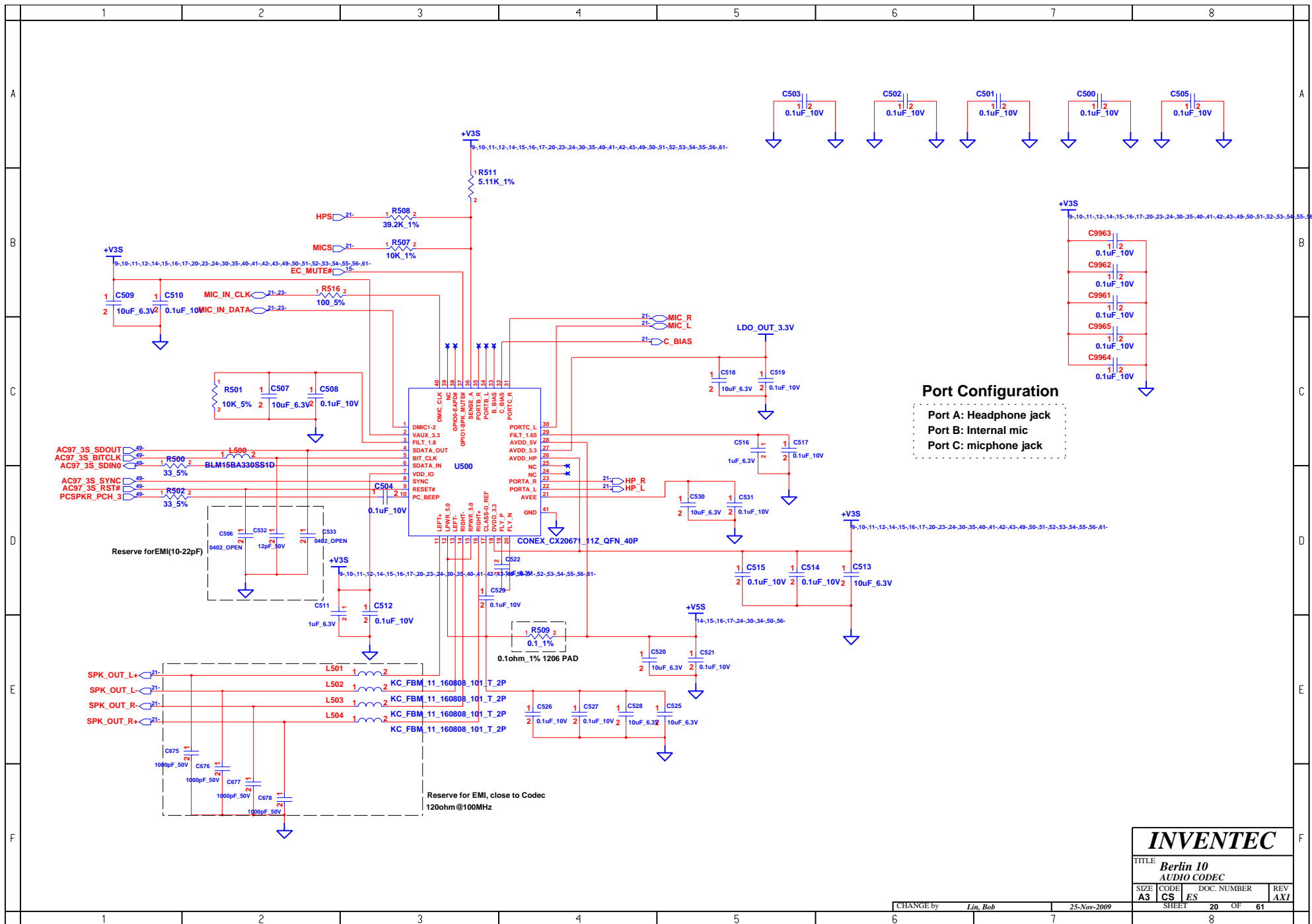
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**Berlin 10**  
 FAN, Thermal controller  
 SIZE CODE DOC. NUMBER REV  
 A3 CS ES 17 OF 61 AXI

CHANGE by Lin, Bob 25-Nov-2009





INVENTEC			
TITLE			
Berlin 10			
RJ45 & TRANSFORMER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
CHANGE by		25-Nov-2009	
Lin, Bob			
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		8	



**INVENTEC**

TITLE <b>Berlin 10 AUDIO CODEC</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>ES</b>	REV <b>AXI</b>
SHEET <b>20</b>		OF <b>61</b>	
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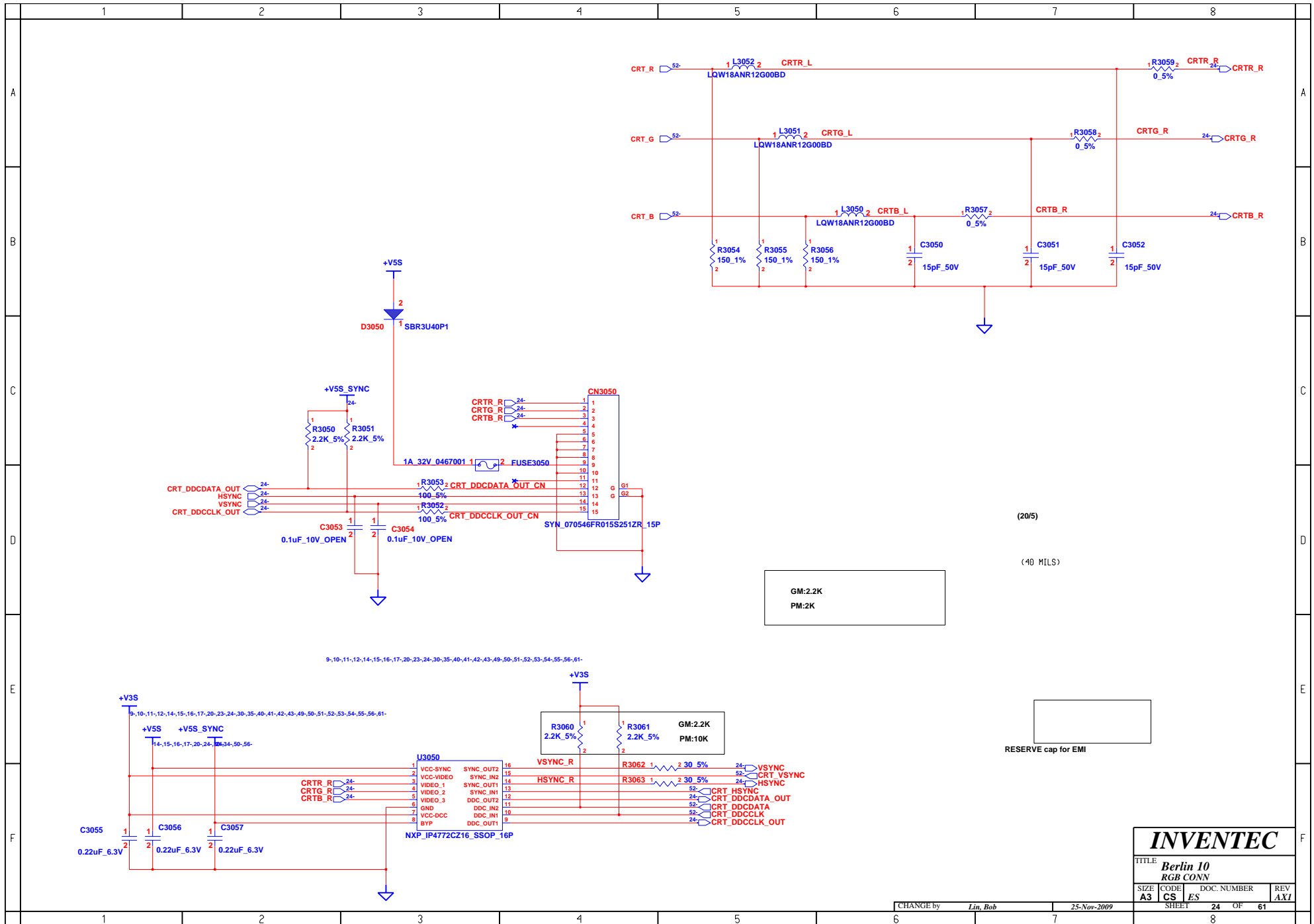


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MDC			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>ES</b>	REV <b>AXI</b>
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CHANGE by *Lin, Bob* 4-Jan-2010







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D									D
E									E
F									F
						CHANGE by <i>Lin, Bob</i>		25-Nov-2009	
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TITLE

*Berlin 10*

SIZE

*A3*

CODE

*CS*

DOC. NUMBER

*ES*

REV

*AXI*

SHEET

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OF

61

INVENTEC

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						CHANGE by <i>Lin, Bob</i>		4-Jan-2010	
1	2	3	4	5	6	7	8		

INVENTEC

TITLE

Berlin 10

HDMI Level Shifter

SIZE

A3

CODE

CS

DOC. NUMBER

ES

REV

AXI

SHEET

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61

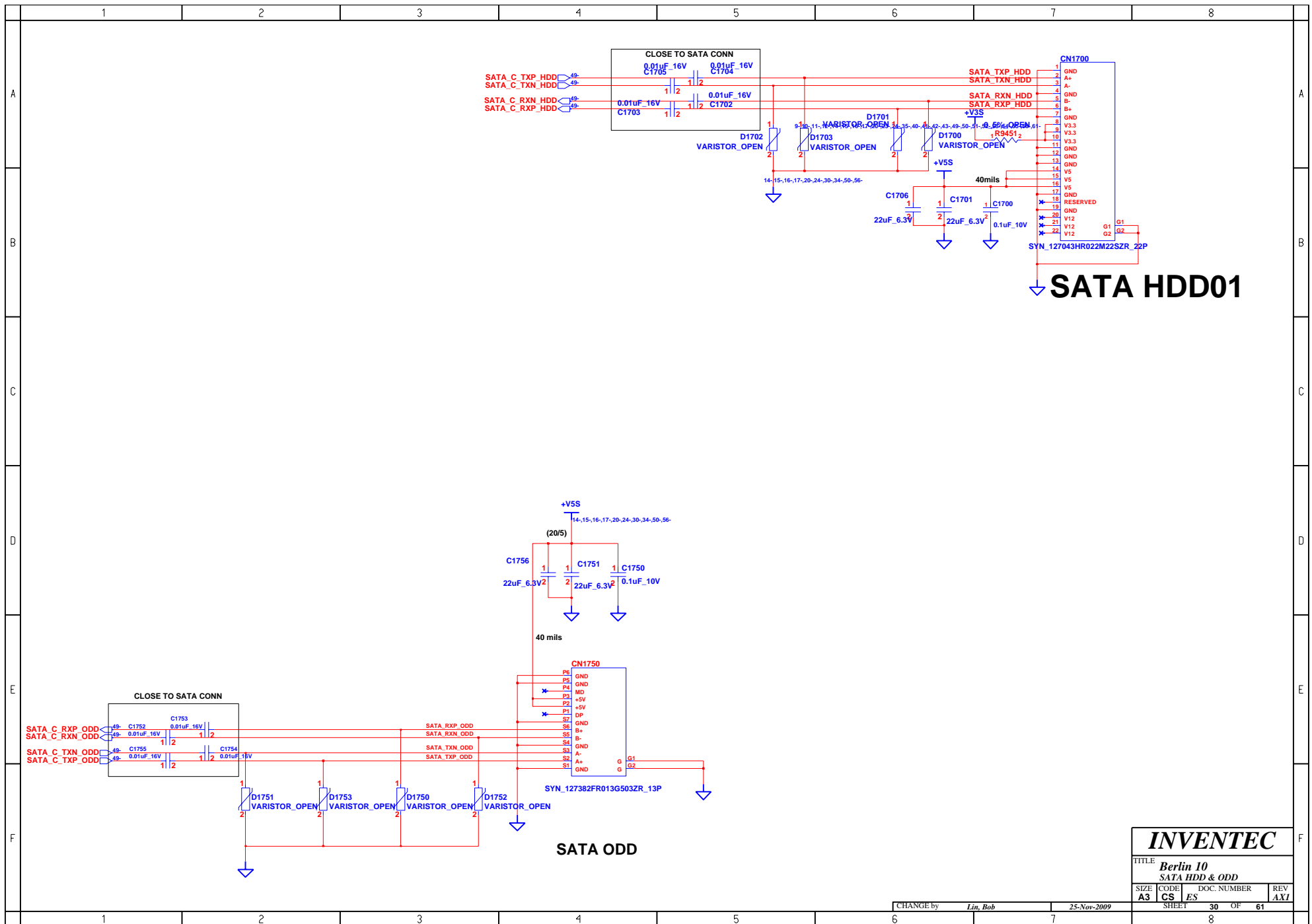
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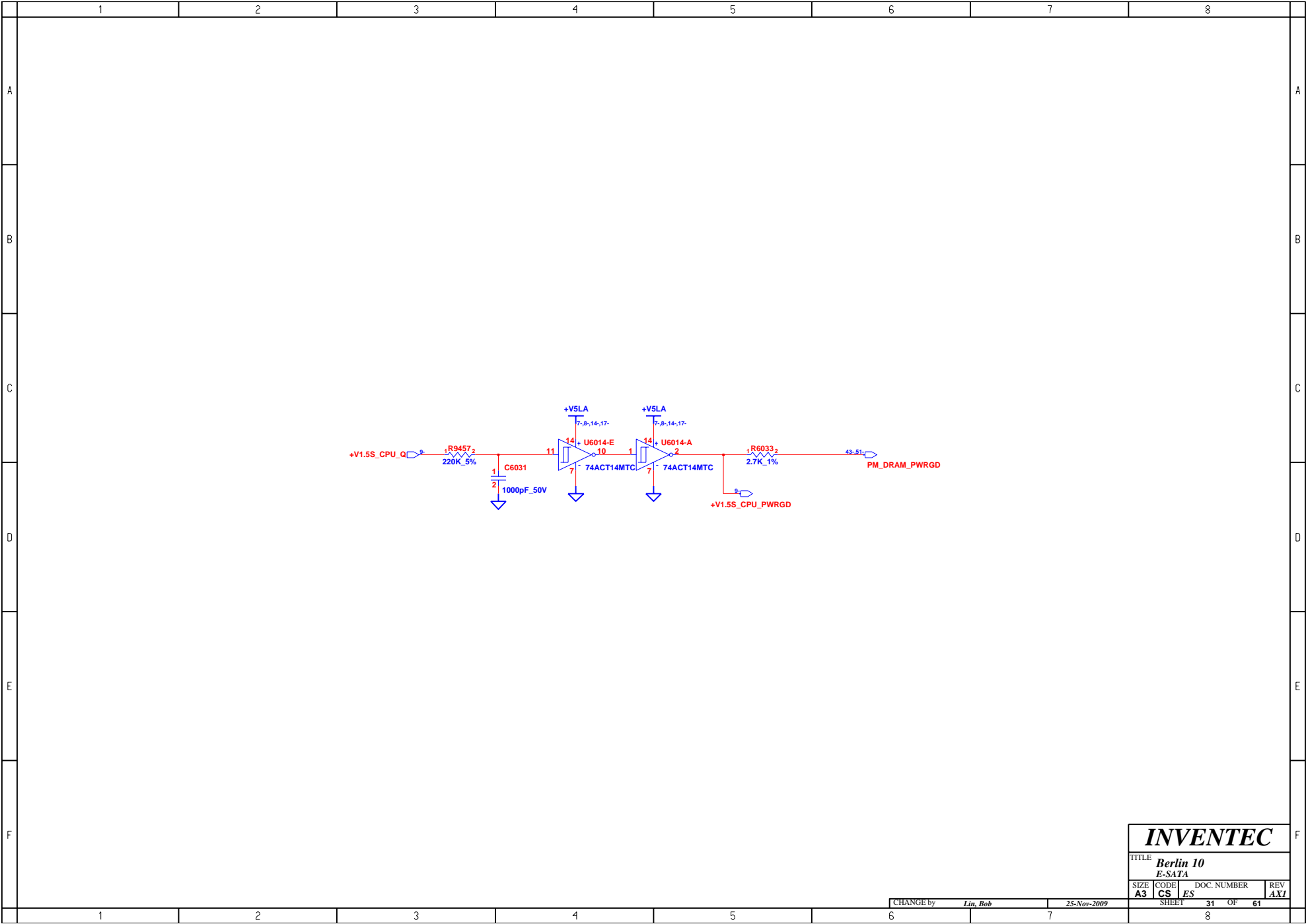
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TITLE Berlin 10 EXPRESS CARD																										
SIZE A3	CODE CS	DOC. NUMBER ES	REV AXI																							
SHEET		28	OF 61																							
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C									C
D									D
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F									F
						CHANGE by <i>Lin, Bob</i>		<i>4-Jan-2010</i>	
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<b>INVENTEC</b>			
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TITLE Berlin 10 USB CONN																									
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SHEET		32	OF 61																						
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F									F
						CHANGE by <i>Lin, Bob</i>		4-Jan-2010	
1	2	3	4	5	6	7	8		

TITLE

*Berlin 10 Bluetooth*

SIZE

**A3**

CODE

**CS**

DOC. NUMBER

*ES*

REV

**AXI**

CHANGE by

*Lin, Bob*

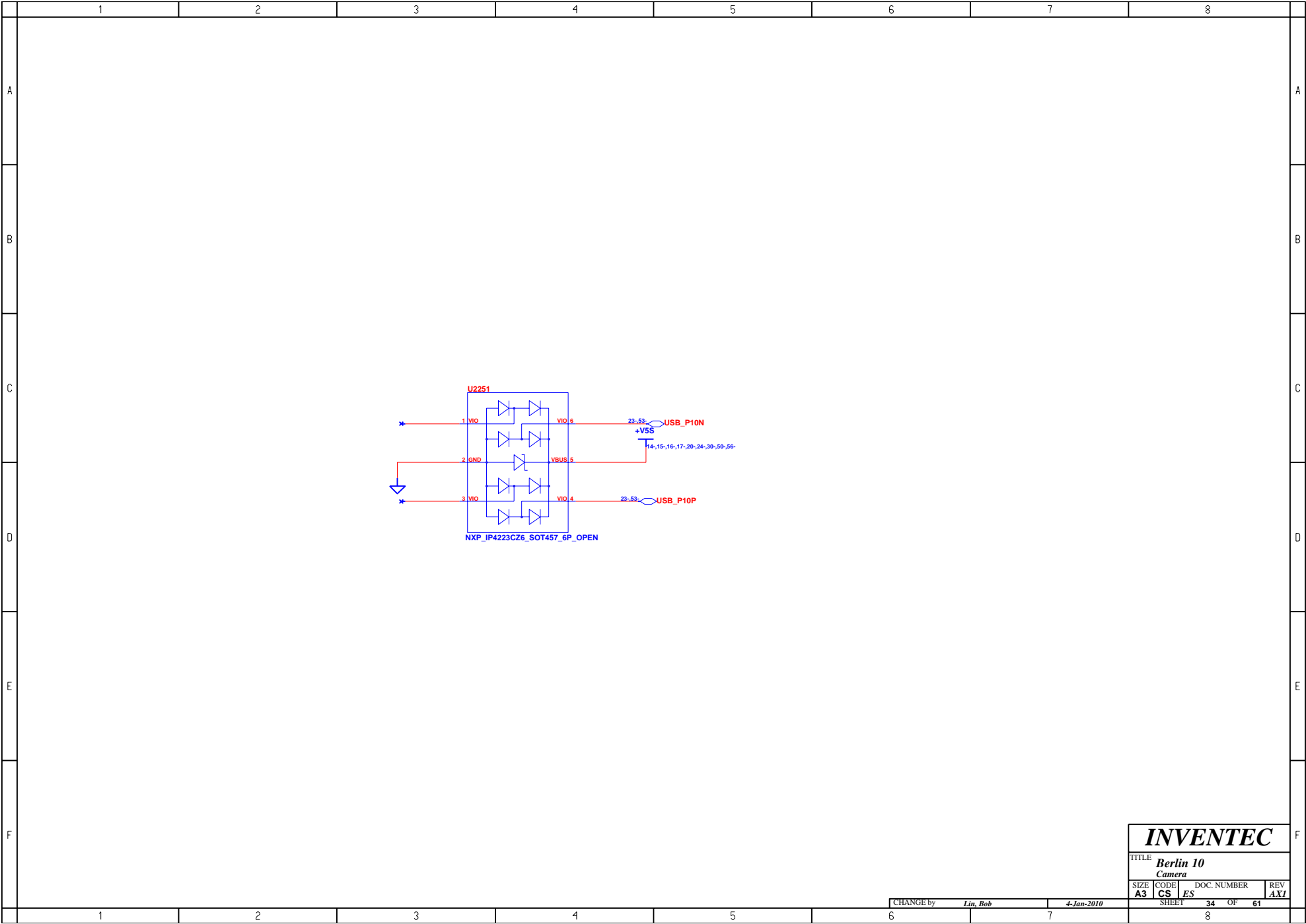
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SHEET

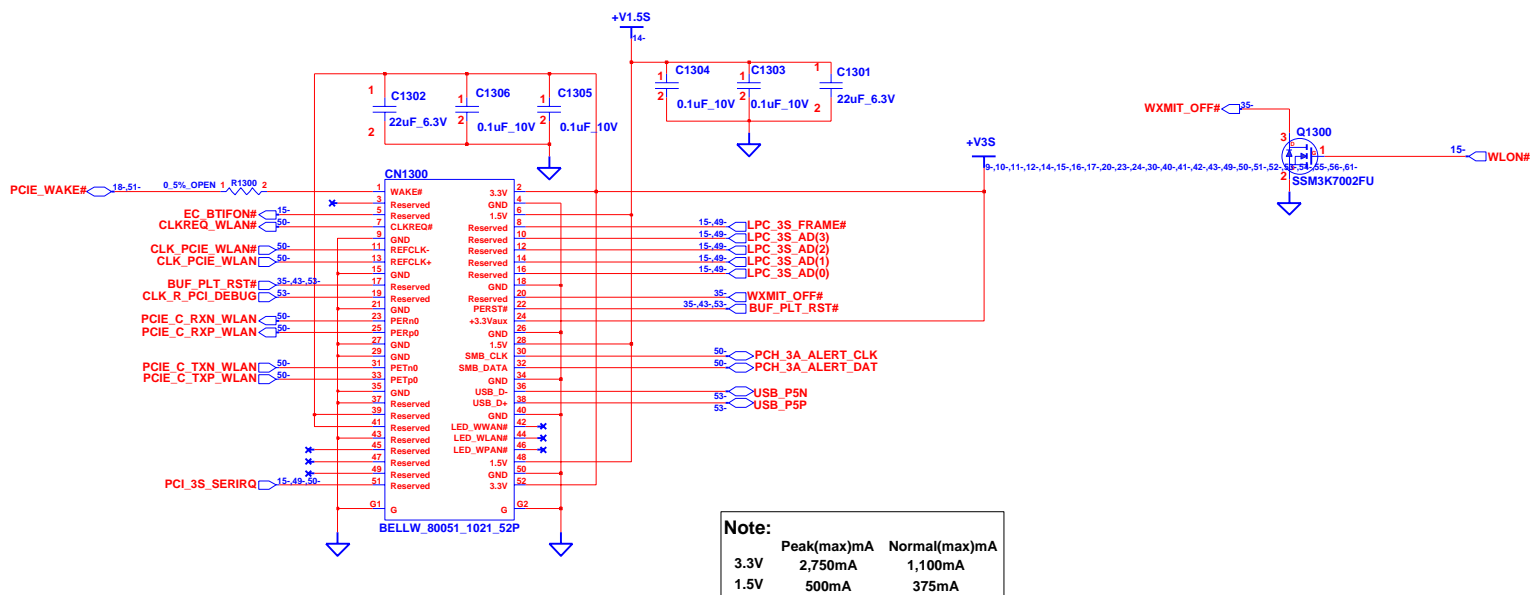
33

OF

61



# Wireless & Debug card



MINI CARD 1

**Note:**

	Peak(max)mA	Normal(max)mA
3.3V	2,750mA	1,100mA
1.5V	500mA	375mA

<b>INVENTEC</b>			
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SHEET: 35		OF: 61	

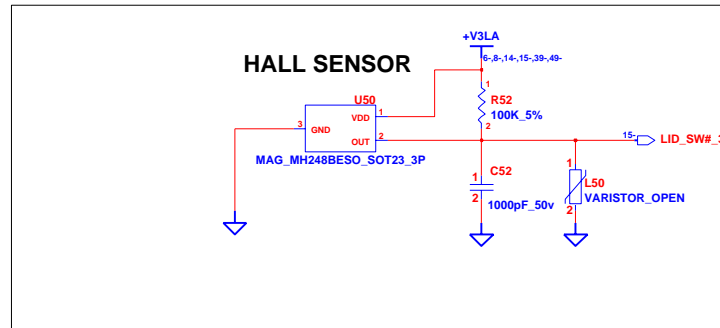
CHANGE by Lin, Bob 25-Nov-2009

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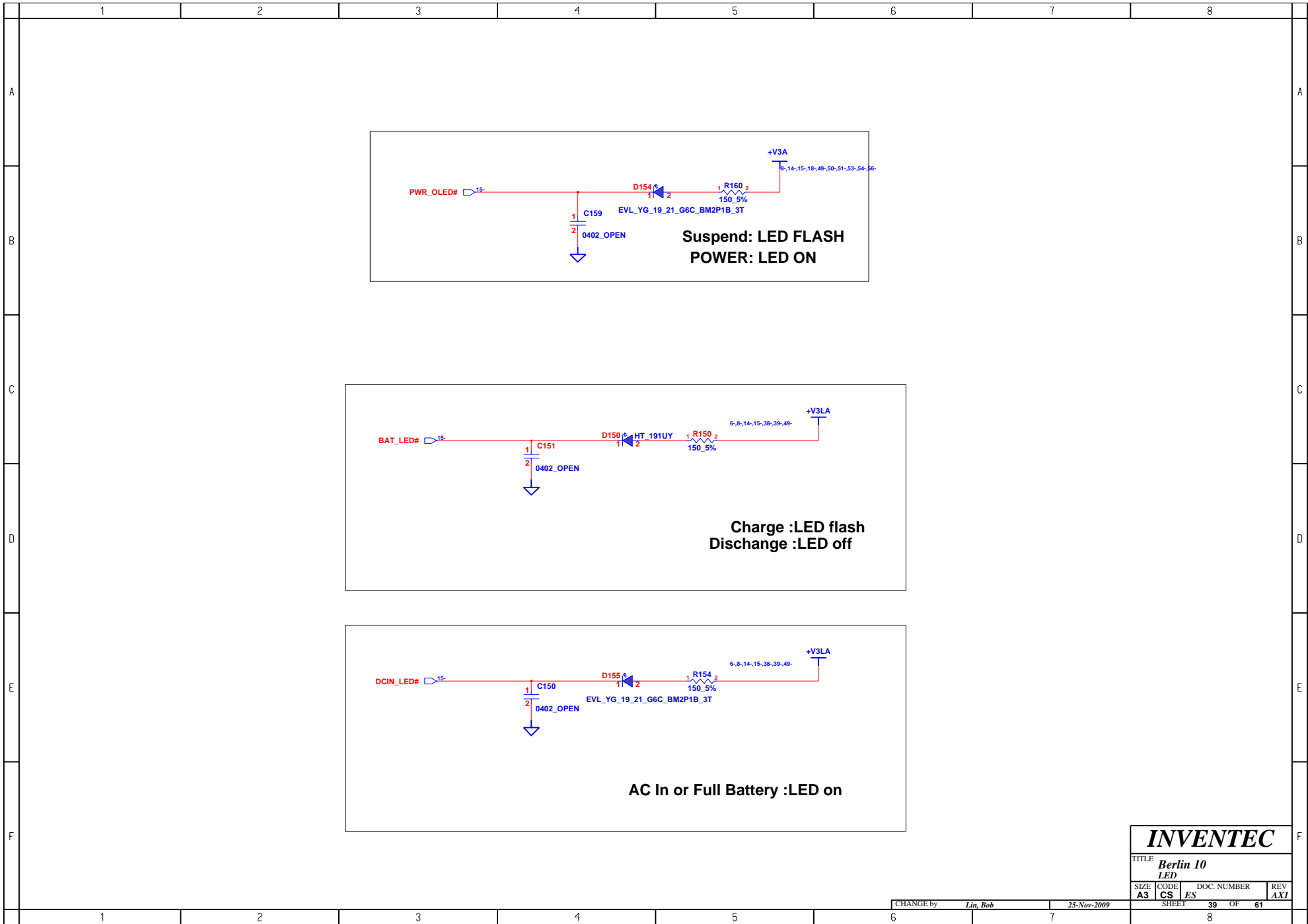
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						CHANGE by		Lin, Bob	4-Jan-2010																
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TITLE Berlin 10 KILL SW																									
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SHEET		37	OF 61																						
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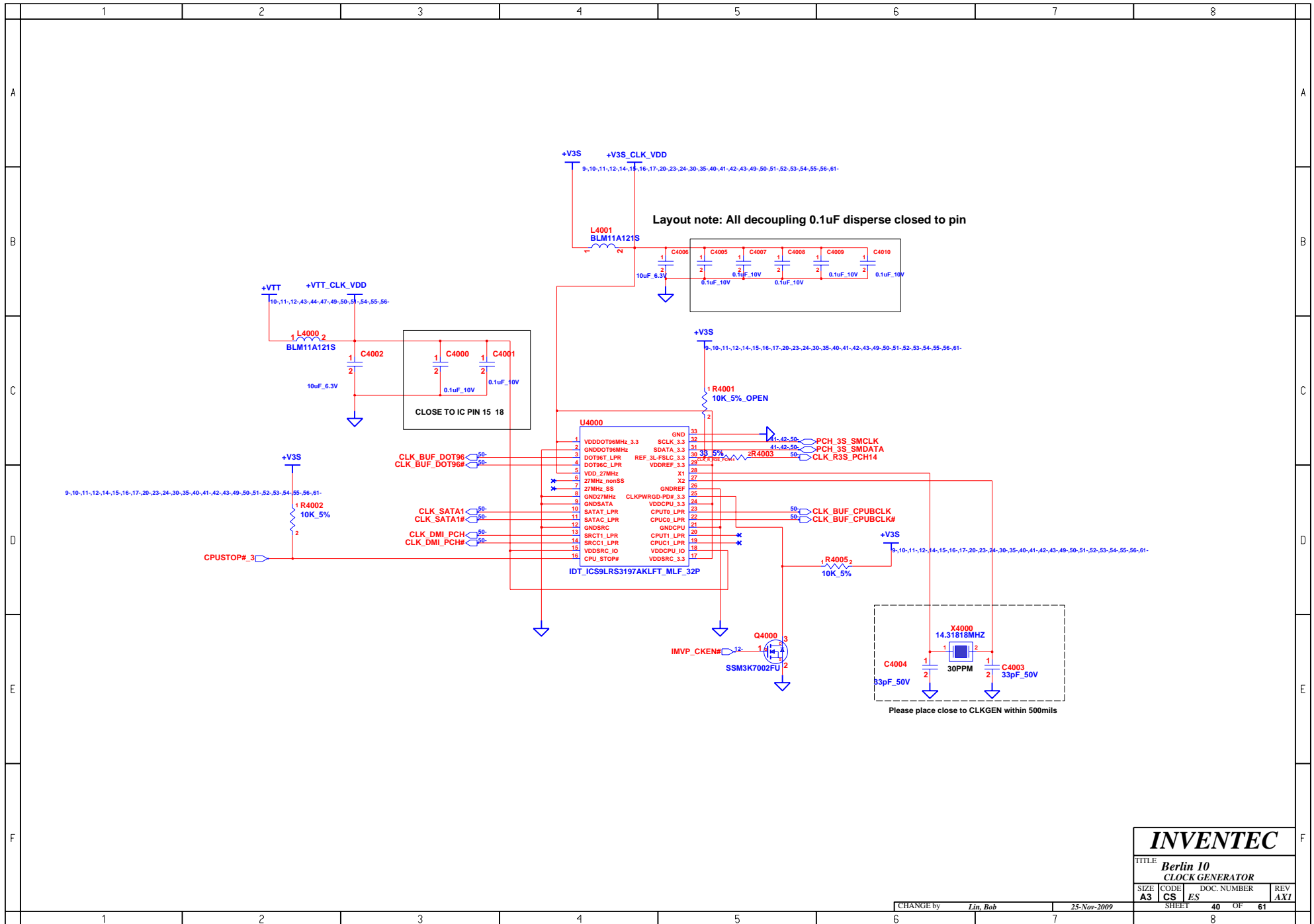
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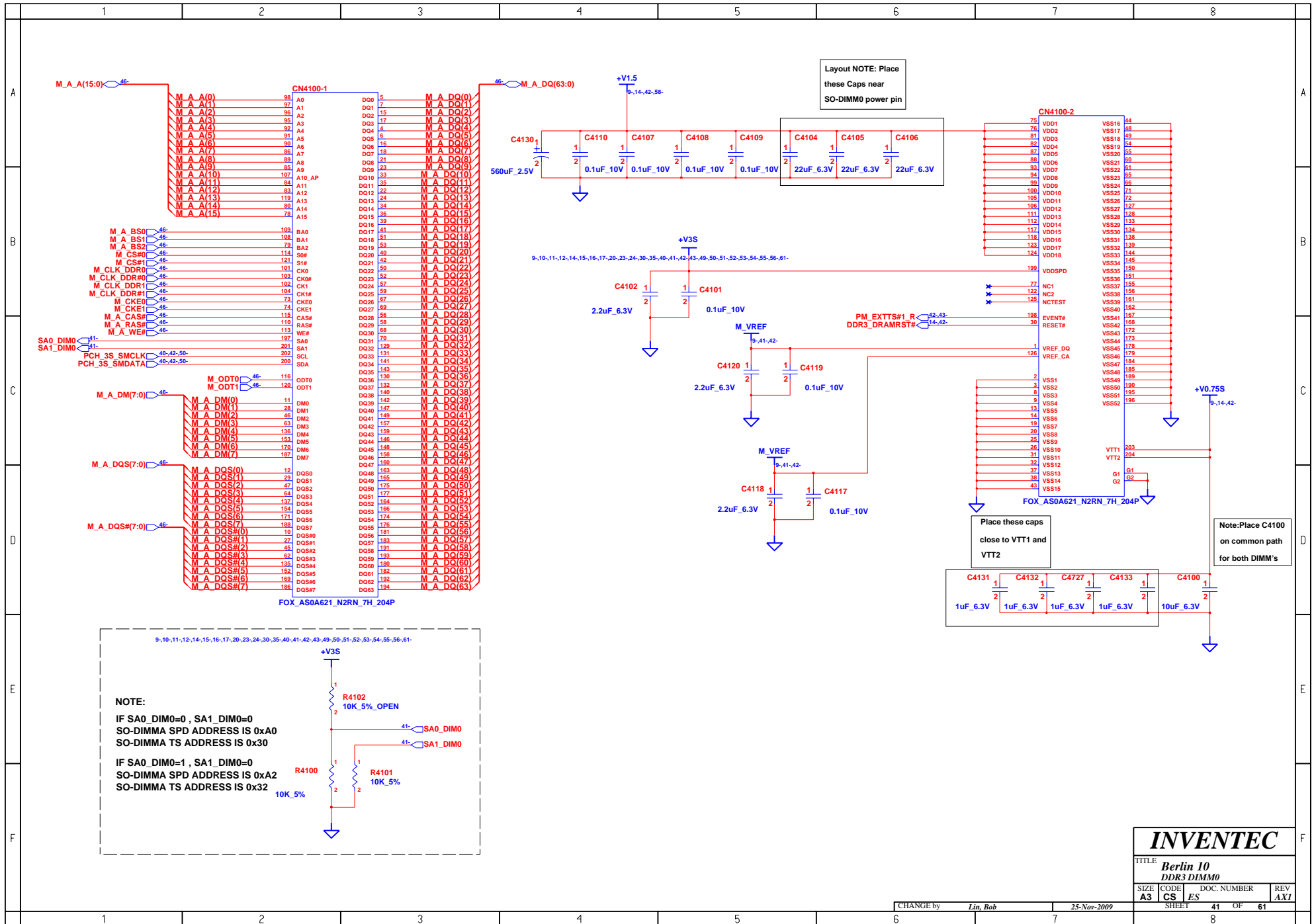
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Berlin 10 LED			
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A3	CS	ES	AXI
SHEET		39 OF	61

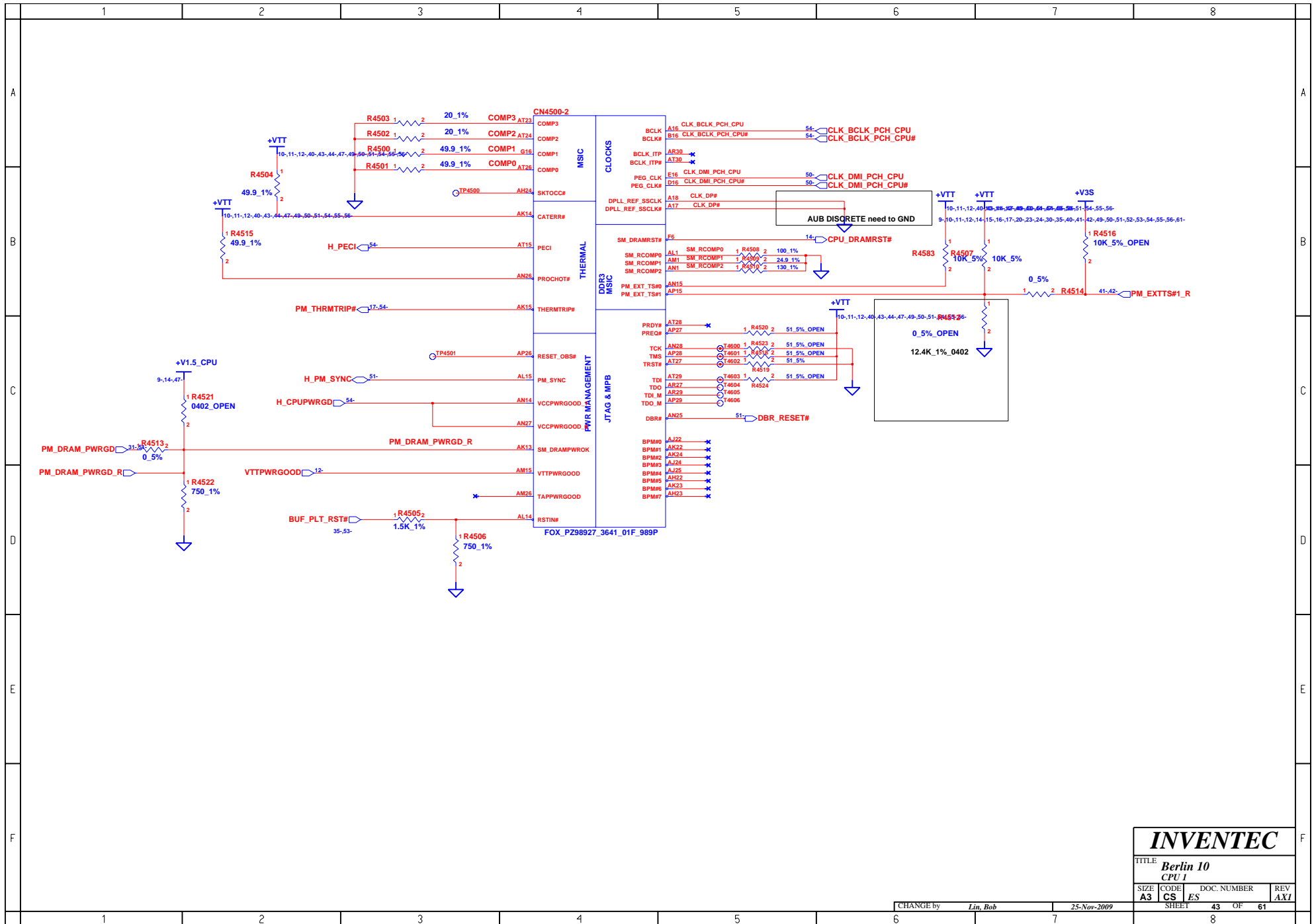
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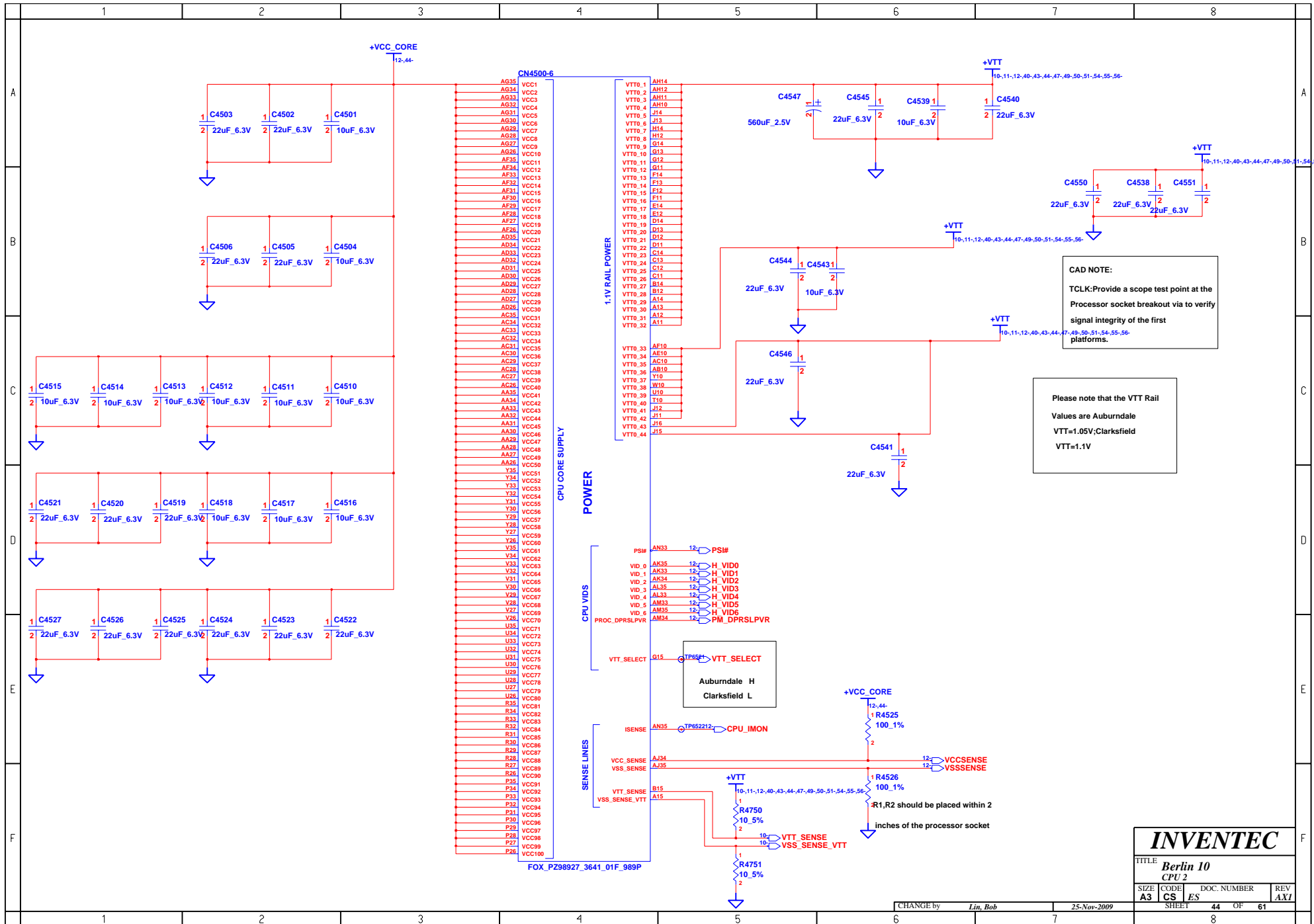








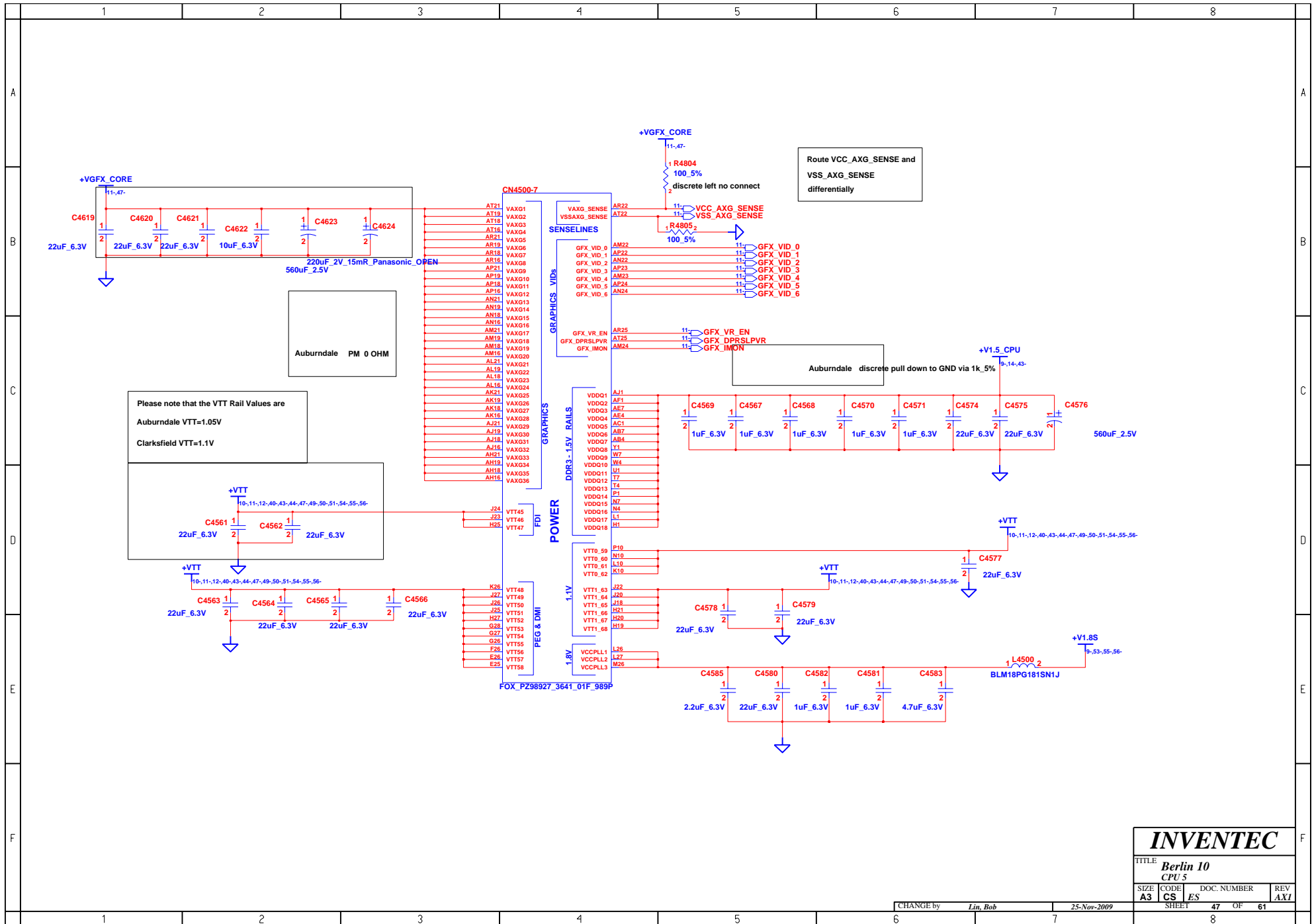


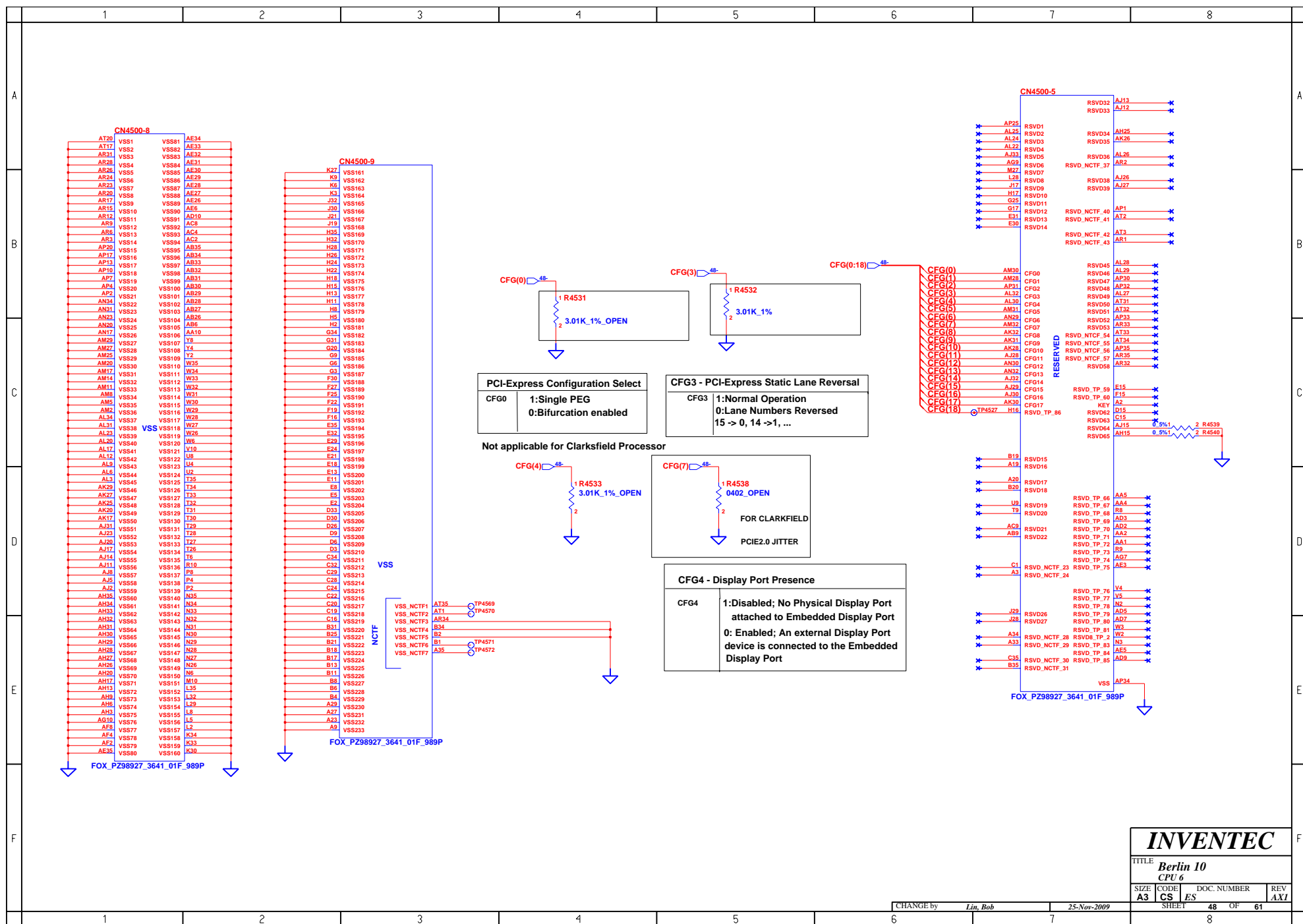




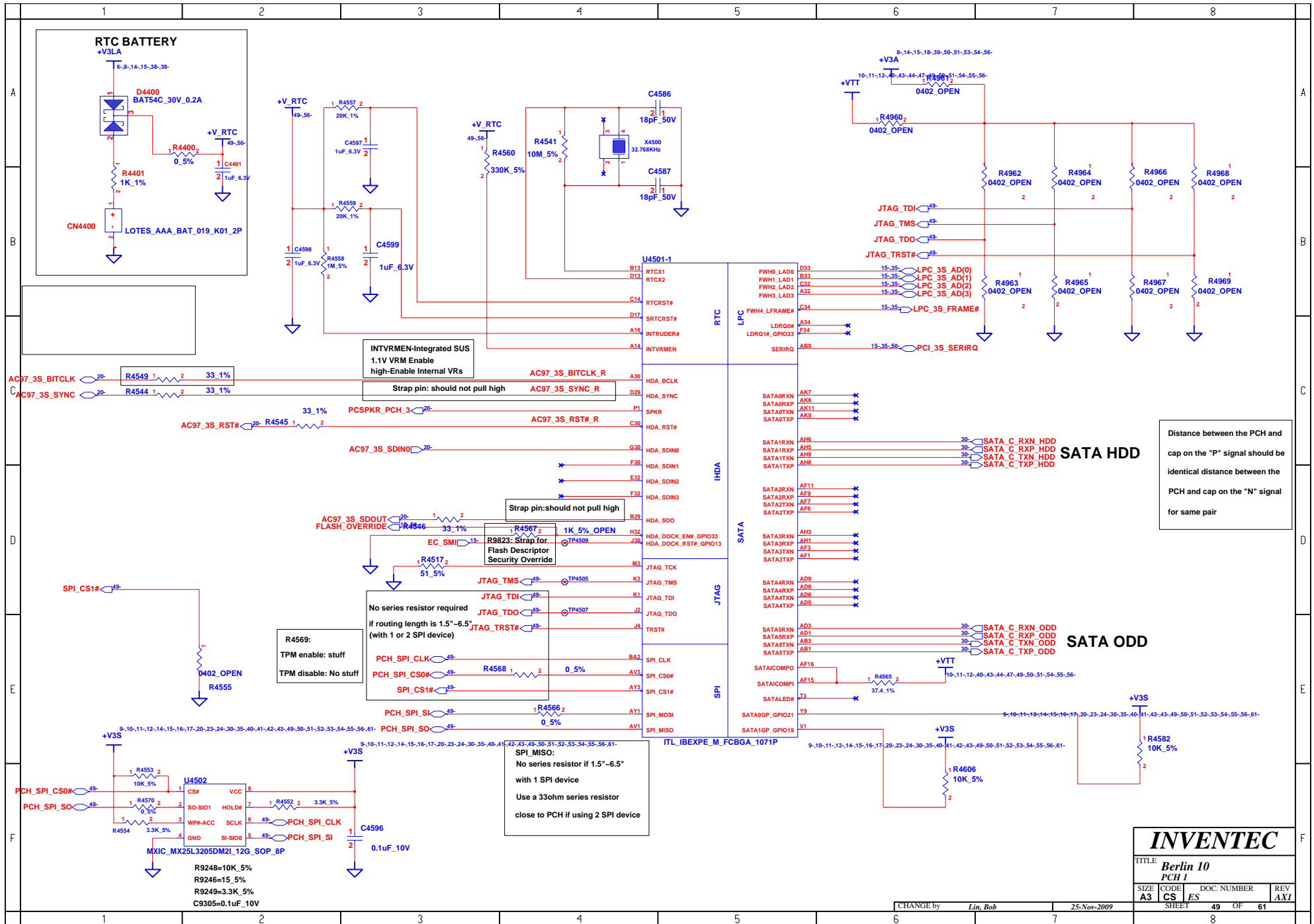
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Berlin 10				
CPU 3				
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A3	CS	ES	AXI	
CHANGE by		25-Nov-2009	SHEET	
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		61		

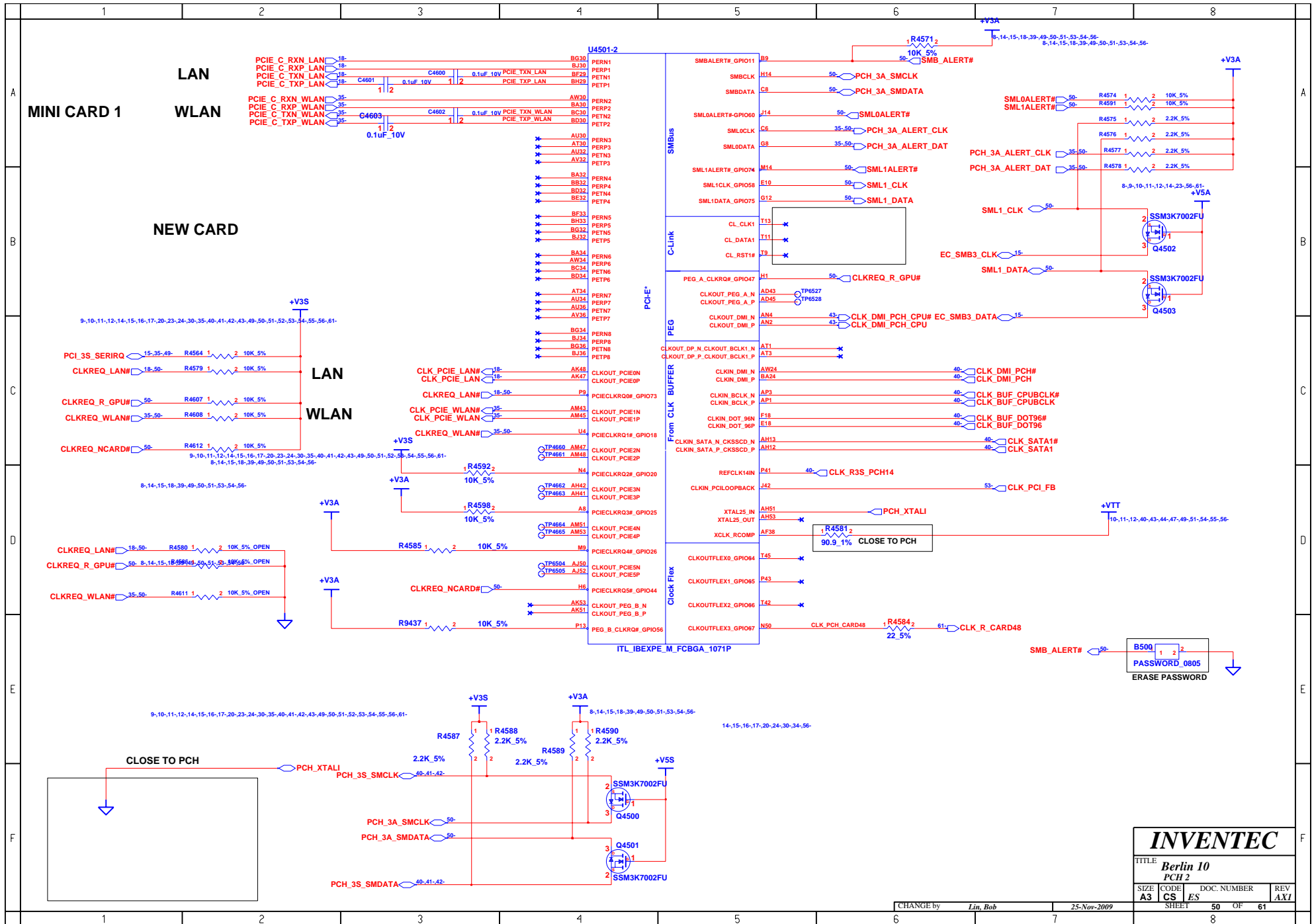


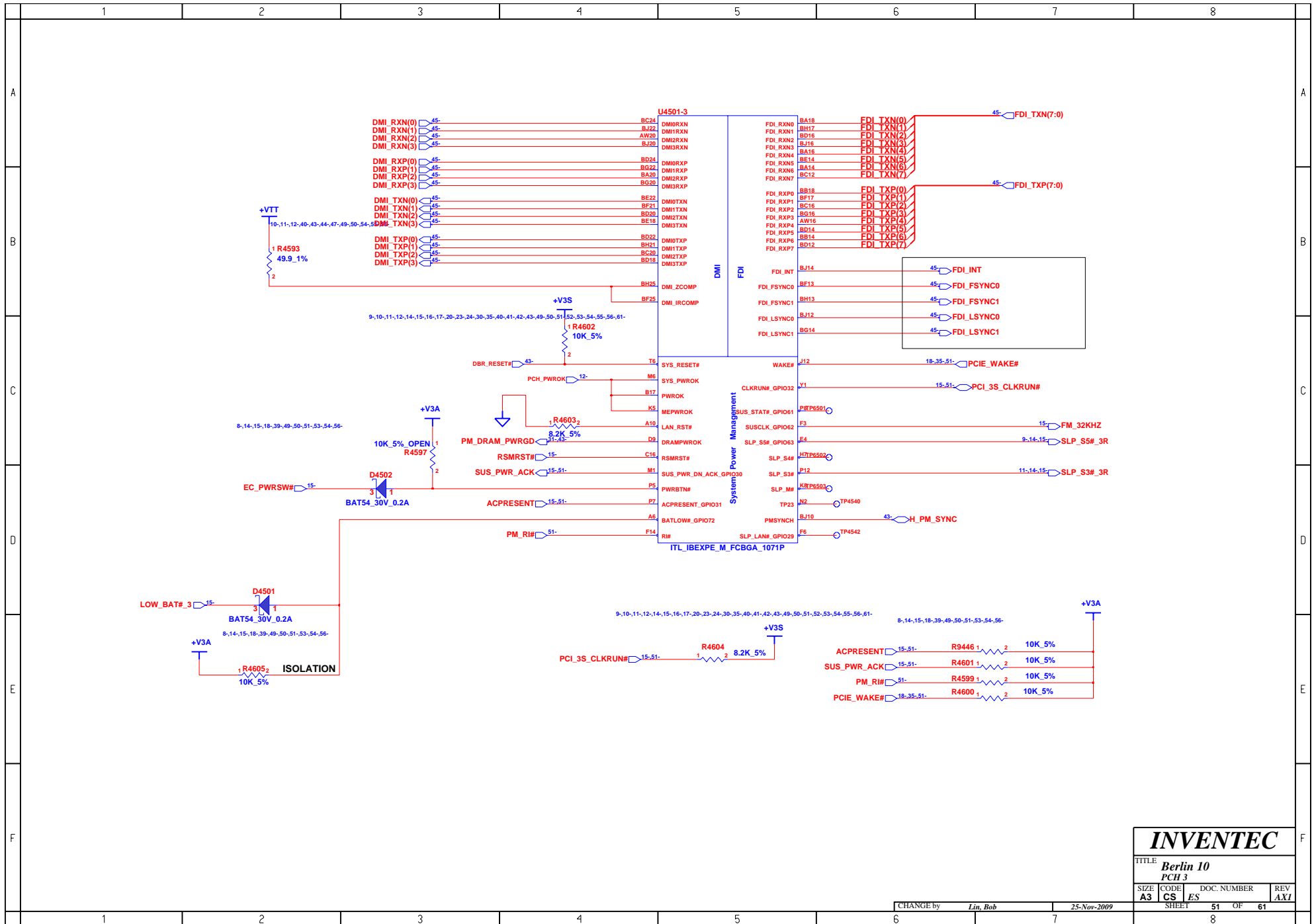








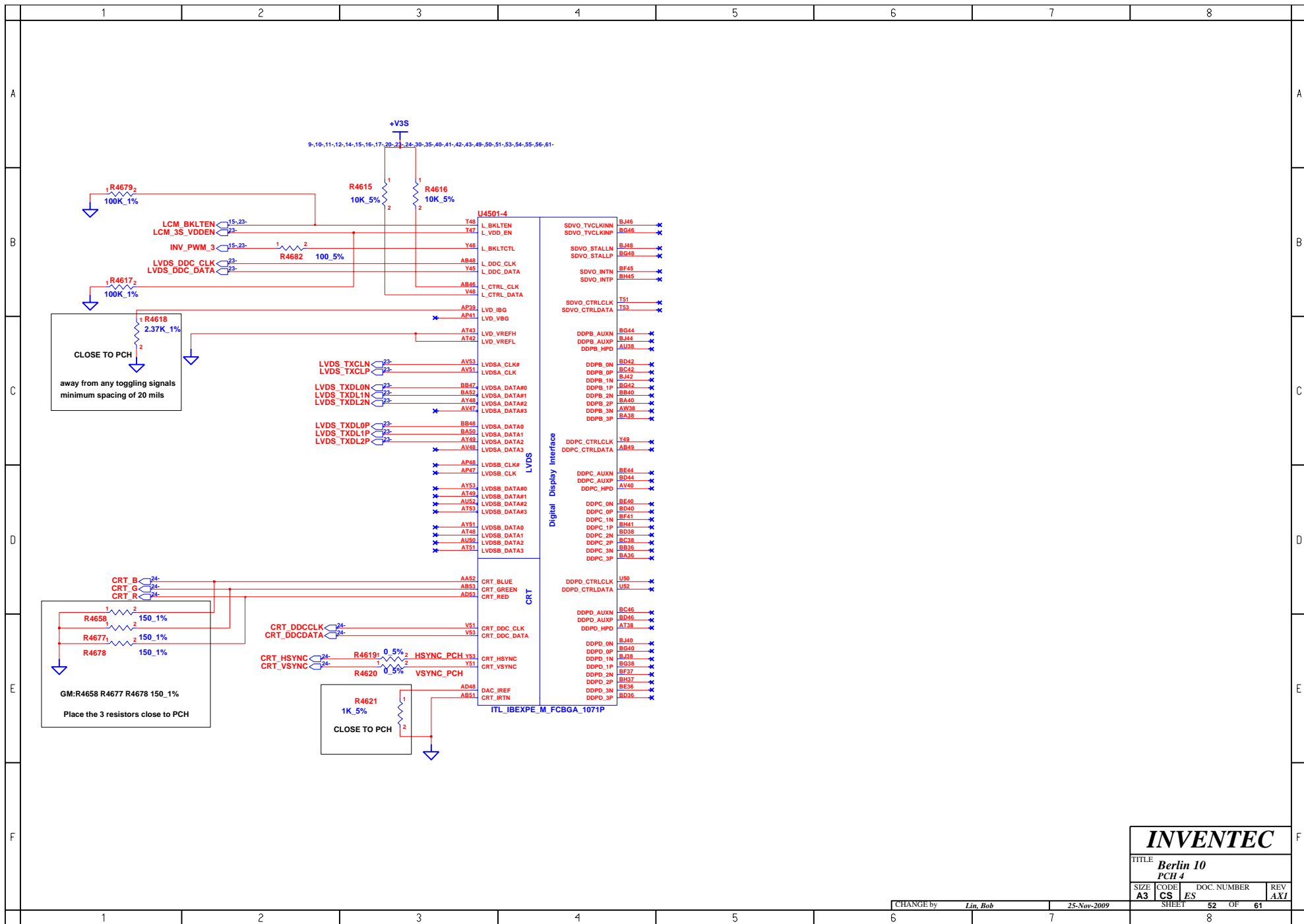




**INVENTEC**

TITLE			
Berlin 10			
PCH 3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
SHEET		51 OF	61

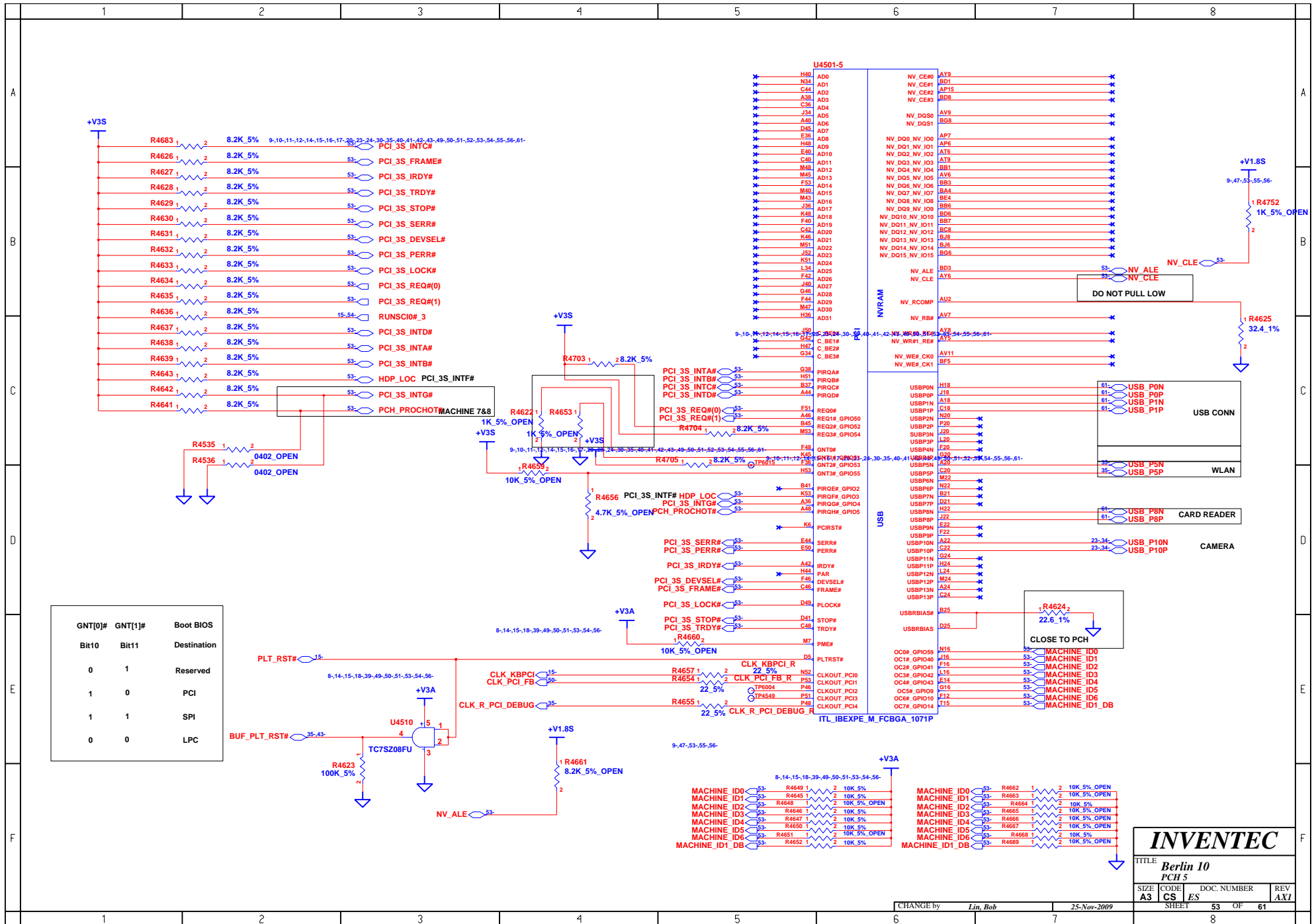
CHANGE by Lin, Bob 25-Nov-2009

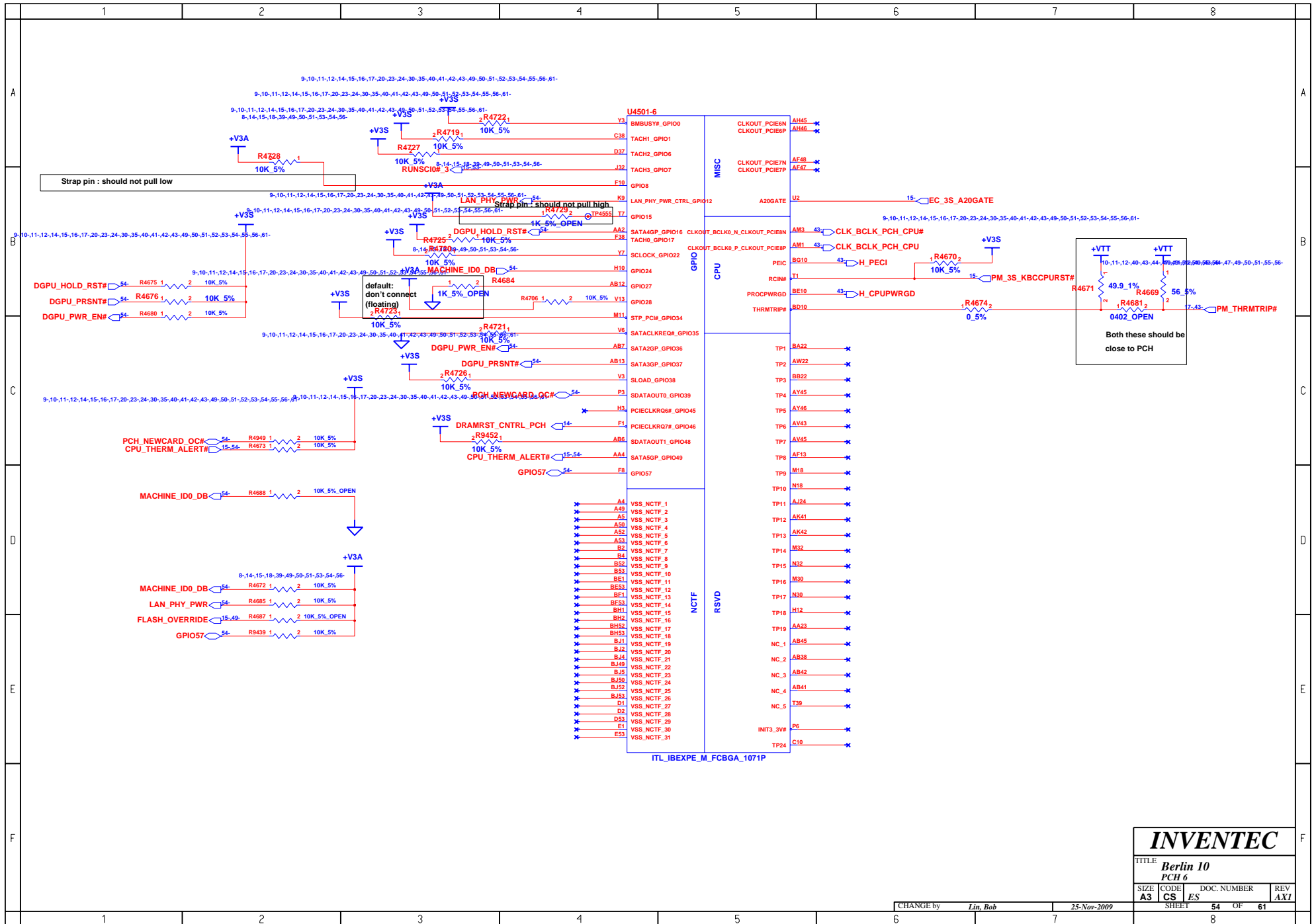


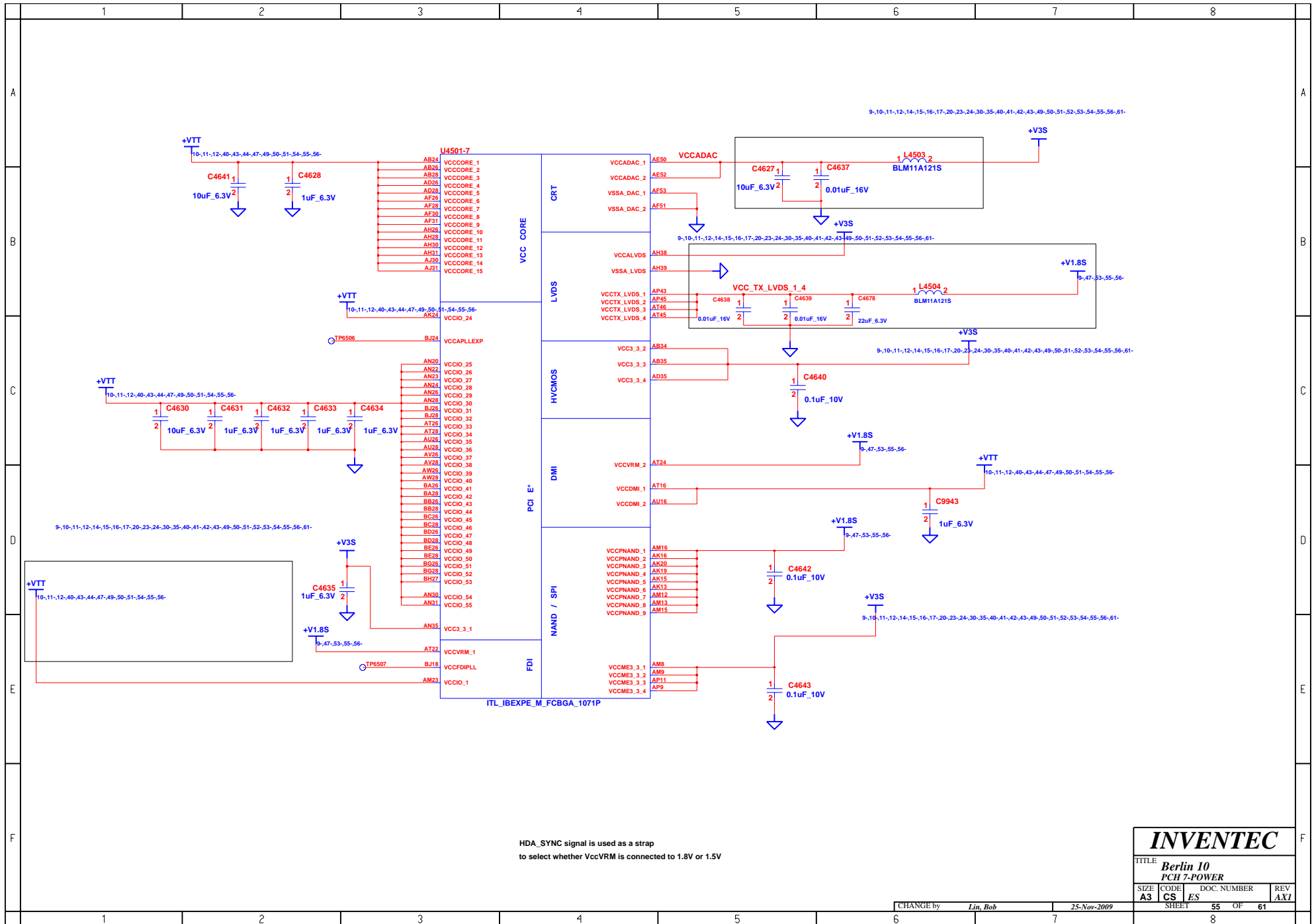
INVENTEC

TITLE			
Berlin 10			
PCH 4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
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CHANGE by Lin, Bob 25-Nov-2009











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**U4501-9**

AB16 VSS\_0

AA19 VSS\_1 VSS\_80 AK30

AA20 VSS\_2 VSS\_81 AK31

AA22 VSS\_3 VSS\_82 AK32

AM19 VSS\_4 VSS\_83 AK34

AA24 VSS\_5 VSS\_84 AK35

AA26 VSS\_6 VSS\_85 AK38

AA28 VSS\_7 VSS\_86 AK43

AA30 VSS\_8 VSS\_87 AK46

AA31 VSS\_9 VSS\_88 AK49

AA32 VSS\_10 VSS\_89 AK5

AB11 VSS\_11 VSS\_90 AL2

AB15 VSS\_12 VSS\_91 AL52

AB23 VSS\_13 VSS\_92 AM11

AB30 VSS\_14 VSS\_93 BB44

AB31 VSS\_15 VSS\_94 BB44

AB32 VSS\_16 VSS\_95 AD24

AB39 VSS\_17 VSS\_96 AM20

AB43 VSS\_18 VSS\_97 AM22

AB47 VSS\_19 VSS\_98 AM24

AB5 VSS\_20 VSS\_99 AM26

AB8 VSS\_21 VSS\_100 AM28

AC2 VSS\_22 VSS\_101 BA42

AC52 VSS\_23 VSS\_102 AM30

AD11 VSS\_24 VSS\_103 AM31

AD12 VSS\_25 VSS\_104 AM32

AD16 VSS\_26 VSS\_105 AM34

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AD32 VSS\_30 VSS\_109 AM42

AD34 VSS\_31 VSS\_110 AU20

AU22 VSS\_32 VSS\_111 AM46

AD42 VSS\_33 VSS\_112 AV22

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AH15 VSS\_54 VSS\_133 AT41

AH16 VSS\_55 VSS\_134 AT47

AH24 VSS\_56 VSS\_135 AT7

AH32 VSS\_57 VSS\_136 AV12

AV18 VSS\_58 VSS\_137 AV16

AH43 VSS\_59 VSS\_138 AV20

AH47 VSS\_60 VSS\_139 AV24

AH7 VSS\_61 VSS\_140 AV30

AJ19 VSS\_62 VSS\_141 AV34

AJ2 VSS\_63 VSS\_142 AV38

AJ20 VSS\_64 VSS\_143 AV42

AJ22 VSS\_65 VSS\_144 AV46

AJ23 VSS\_66 VSS\_145 AV49

AJ26 VSS\_67 VSS\_146 AV5

AJ28 VSS\_68 VSS\_147 AV8

AJ32 VSS\_69 VSS\_148 AW14

AJ34 VSS\_70 VSS\_149 AW18

AT5 VSS\_71 VSS\_150 BP2

AA1 VSS\_72 VSS\_151 BP9

AK12 VSS\_73 VSS\_152 AW32

AM41 VSS\_74 VSS\_153 AW36

AN19 VSS\_75 VSS\_154 AW40

AK26 VSS\_76 VSS\_155 AW52

AK22 VSS\_77 VSS\_156 AT11

AK23 VSS\_78 VSS\_157 AT43

AK38 VSS\_79 VSS\_158 AT47

ITL\_IBEXPE\_M\_FCBGA\_1071P

**U4501-10**

AV7 VSS\_159 VSS\_259 H49

B17 VSS\_160 VSS\_260 H5

B19 VSS\_161 VSS\_261 J24

B21 VSS\_162 VSS\_262 K11

B23 VSS\_163 VSS\_263 K43

B31 VSS\_164 VSS\_264 K47

B33 VSS\_165 VSS\_265 K7

B39 VSS\_166 VSS\_266 L14

B43 VSS\_167 VSS\_267 L18

B47 VSS\_168 VSS\_268 L2

B7 VSS\_169 VSS\_269 L22

BG12 VSS\_170 VSS\_270 L32

BB14 VSS\_171 VSS\_271 L36

BB16 VSS\_172 VSS\_272 L40

BB20 VSS\_173 VSS\_273 L52

BB24 VSS\_174 VSS\_274 M12

BB30 VSS\_175 VSS\_275 M16

BB34 VSS\_176 VSS\_276 M20

BB38 VSS\_177 VSS\_277 N38

BB42 VSS\_178 VSS\_278 M34

BB46 VSS\_179 VSS\_279 M38

BB5 VSS\_180 VSS\_280 M42

BC10 VSS\_181 VSS\_281 M46

BC14 VSS\_182 VSS\_282 M49

BC18 VSS\_183 VSS\_283 M5

BC3 VSS\_184 VSS\_284 M8

BC22 VSS\_185 VSS\_285 N24

BC34 VSS\_186 VSS\_286 P11

BC38 VSS\_187 VSS\_287 AD15

BC40 VSS\_188 VSS\_288 P22

BC44 VSS\_189 VSS\_289 P30

BC50 VSS\_190 VSS\_290 P32

BD4 VSS\_191 VSS\_291 P34

BD48 VSS\_192 VSS\_292 P42

BD49 VSS\_193 VSS\_293 P45

BD5 VSS\_194 VSS\_294 P47

BE1 VSS\_195 VSS\_295 R2

BE16 VSS\_196 VSS\_296 R52

BE20 VSS\_197 VSS\_297 T12

BE24 VSS\_198 VSS\_298 T41

BE30 VSS\_199 VSS\_299 T46

BE34 VSS\_200 VSS\_300 T49

BE38 VSS\_201 VSS\_301 T5

BE4 VSS\_202 VSS\_302 T8

BE46 VSS\_203 VSS\_303 U00

BE48 VSS\_204 VSS\_304 U31

BE50 VSS\_205 VSS\_305 U32

BE6 VSS\_206 VSS\_306 U34

BE8 VSS\_207 VSS\_307 P38

BF3 VSS\_208 VSS\_308 V11

BF48 VSS\_209 VSS\_309 P16

BF50 VSS\_210 VSS\_310 V19

BG15 VSS\_211 VSS\_311 V20

BG24 VSS\_212 VSS\_312 V22

BG4 VSS\_213 VSS\_313 V30

BG48 VSS\_214 VSS\_314 V31

BH1 VSS\_215 VSS\_315 V32

BH15 VSS\_216 VSS\_316 V34

BH19 VSS\_217 VSS\_317 V35

BH23 VSS\_218 VSS\_318 V38

BH31 VSS\_219 VSS\_319 V43

BH35 VSS\_220 VSS\_320 V45

BH39 VSS\_221 VSS\_321 V46

BH43 VSS\_222 VSS\_322 V47

BH47 VSS\_223 VSS\_323 V49

BH7 VSS\_224 VSS\_324 V5

C12 VSS\_225 VSS\_325 V7

C50 VSS\_226 VSS\_326 V8

D51 VSS\_227 VSS\_327 W2

E12 VSS\_228 VSS\_328 W52

E20 VSS\_229 VSS\_329 Y11

E24 VSS\_230 VSS\_330 Y12

E24 VSS\_231 VSS\_331 Y15

E30 VSS\_232 VSS\_332 Y19

E34 VSS\_233 VSS\_333 Y23

E38 VSS\_234 VSS\_334 Y28

E42 VSS\_235 VSS\_335 Y30

E46 VSS\_236 VSS\_336 Y31

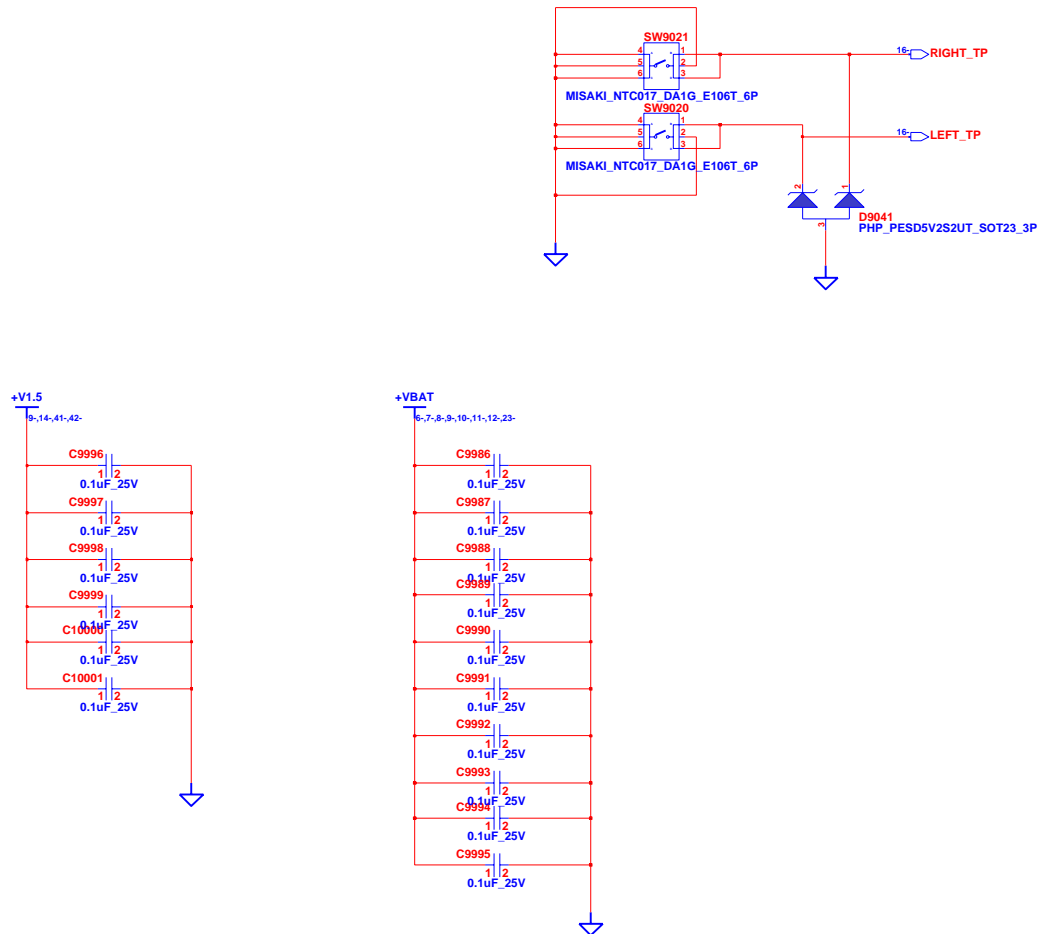
E48 VSS\_237 VSS\_337 Y32

E5 VSS\_238 VSS\_338 Y38

E8

# PICK BUTTON and EMI

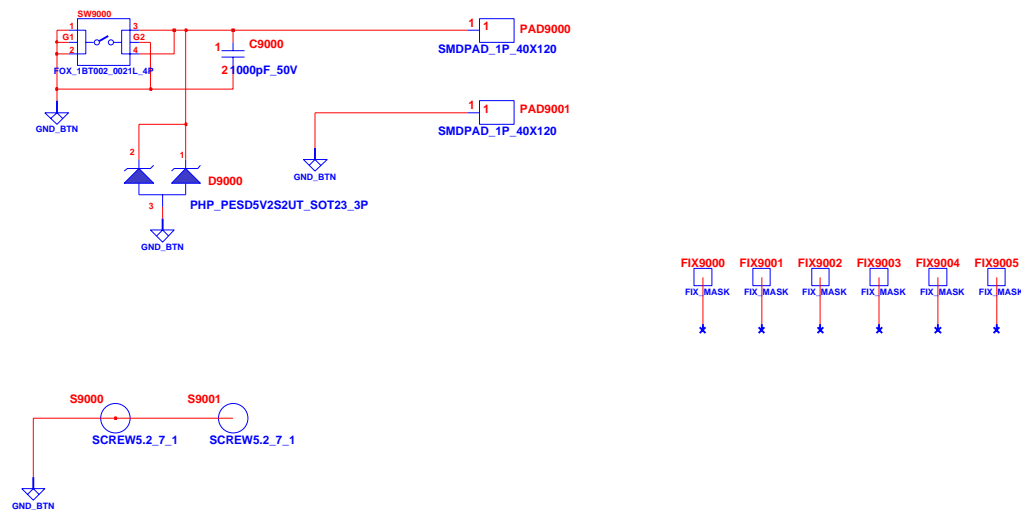
(For - Touchpad Module, Touchpad Switch )



INVENTEC			
TITLE: Berlin 10 Hot key board			
SIZE: A3	CODE: CS	DOC. NUMBER: ES	REV: AXI
SHEET: 58		OF: 61	

	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
						CHANGE by		Lin, Bob	5-Jan-2010
						6	7	8	
						INVENTEC			
						TITLE Berlin 10 Touch pad			
						SIZE A3	CODE CS	DOC. NUMBER ES	REV AXI
						SHEET 59 OF 61			
	1	2	3	4	5	6	7	8	

# POWER BUTTON

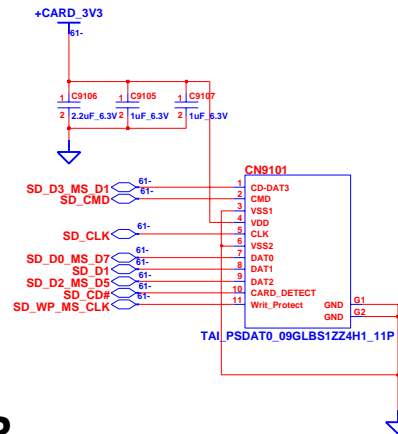
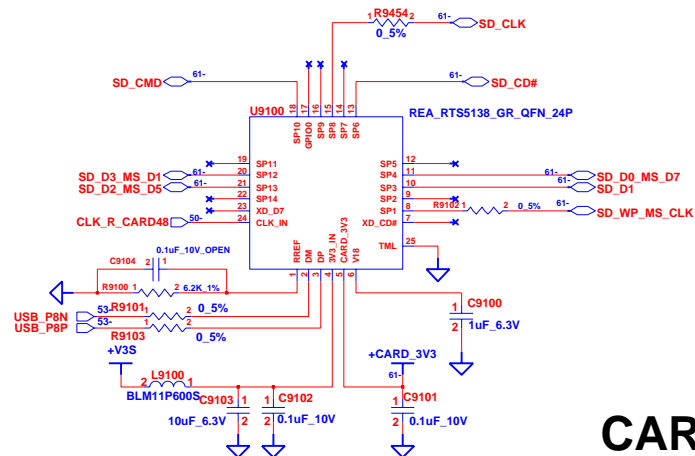
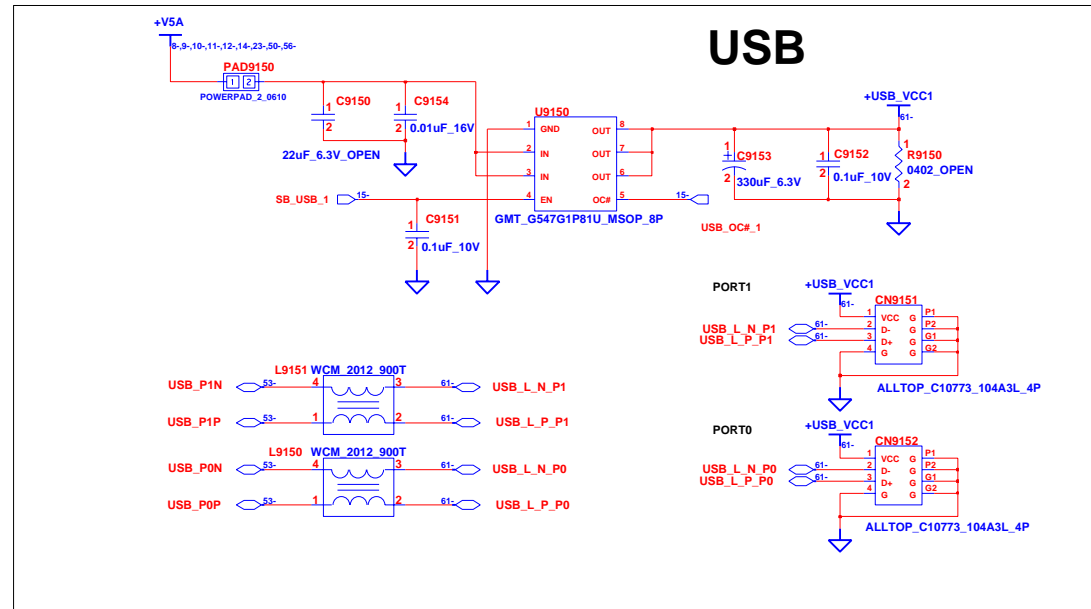


# EMI

INVENTEC			
TITLE <b>Berlin 10</b>			
EMI			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>ES</b>	REV <b>AXI</b>
SHEET <b>60</b>		OF <b>61</b>	

CHANGE by *Lin, Bob* 17-Mar-2010

# CARD READER & USB



## CARD READER

INVENTEC			
TITLE: Berlin 10			
SIZE: A3	CODE: CS	DOC. NUMBER: ES	REV: AXI
CHANGE by: Lin, Bob		25-Nov-2009	
SHEET: 61		OF: 61	
1		8	