

Manaus 10

CS BUILD

2010.03.18

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

DATE	CHANGE NO.	REV
1	2	

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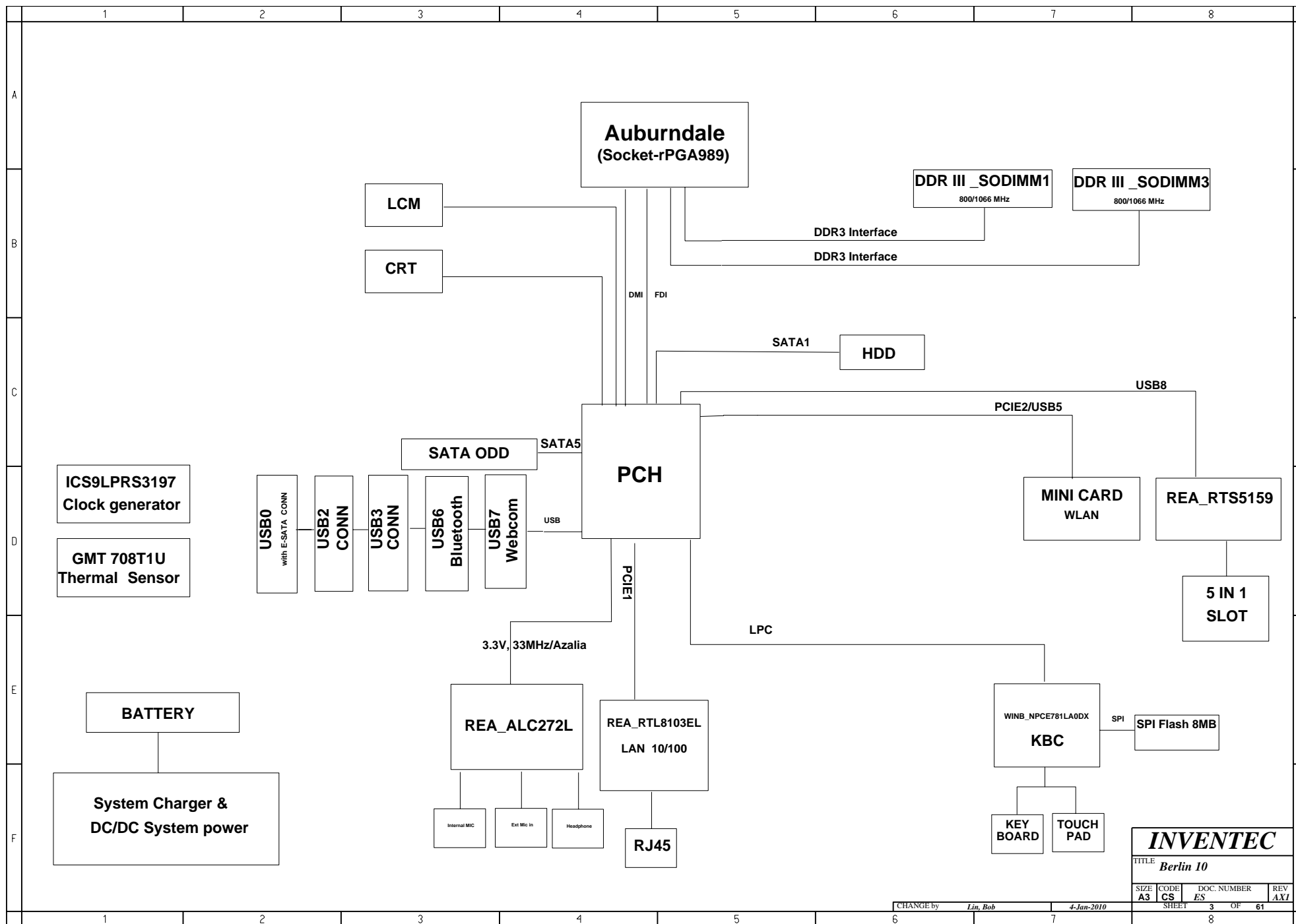
INVENTEC

TITLE **Berlin 10**

SIZE A3	CODE CS	DOC. NUMBER ES	REV AXI
SHEET		2	OF 61

CHANGE by *Lin, Bob* 26-Jan-2010

8



	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

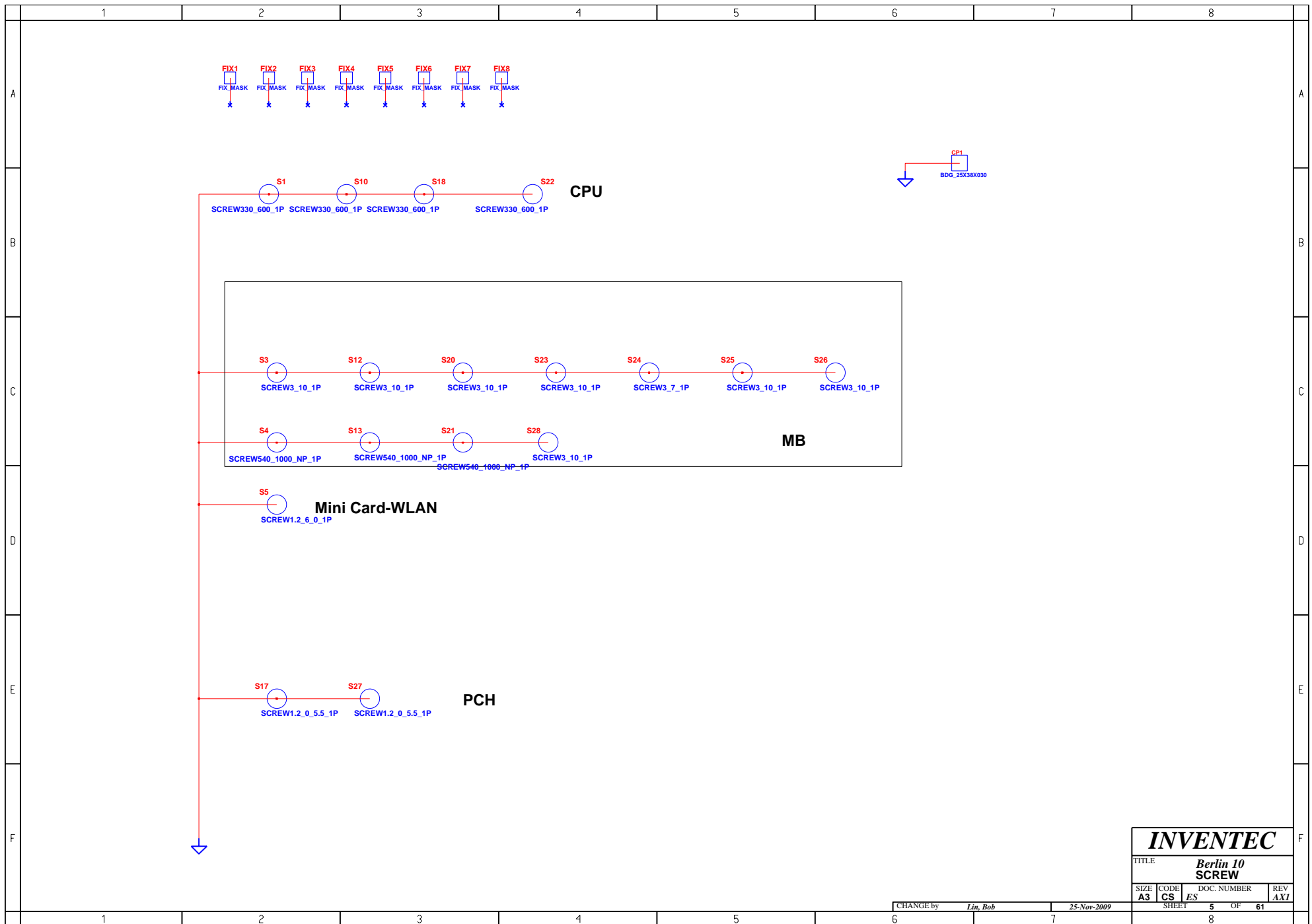
SIZE
A3

CODE
CS

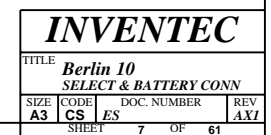
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ES

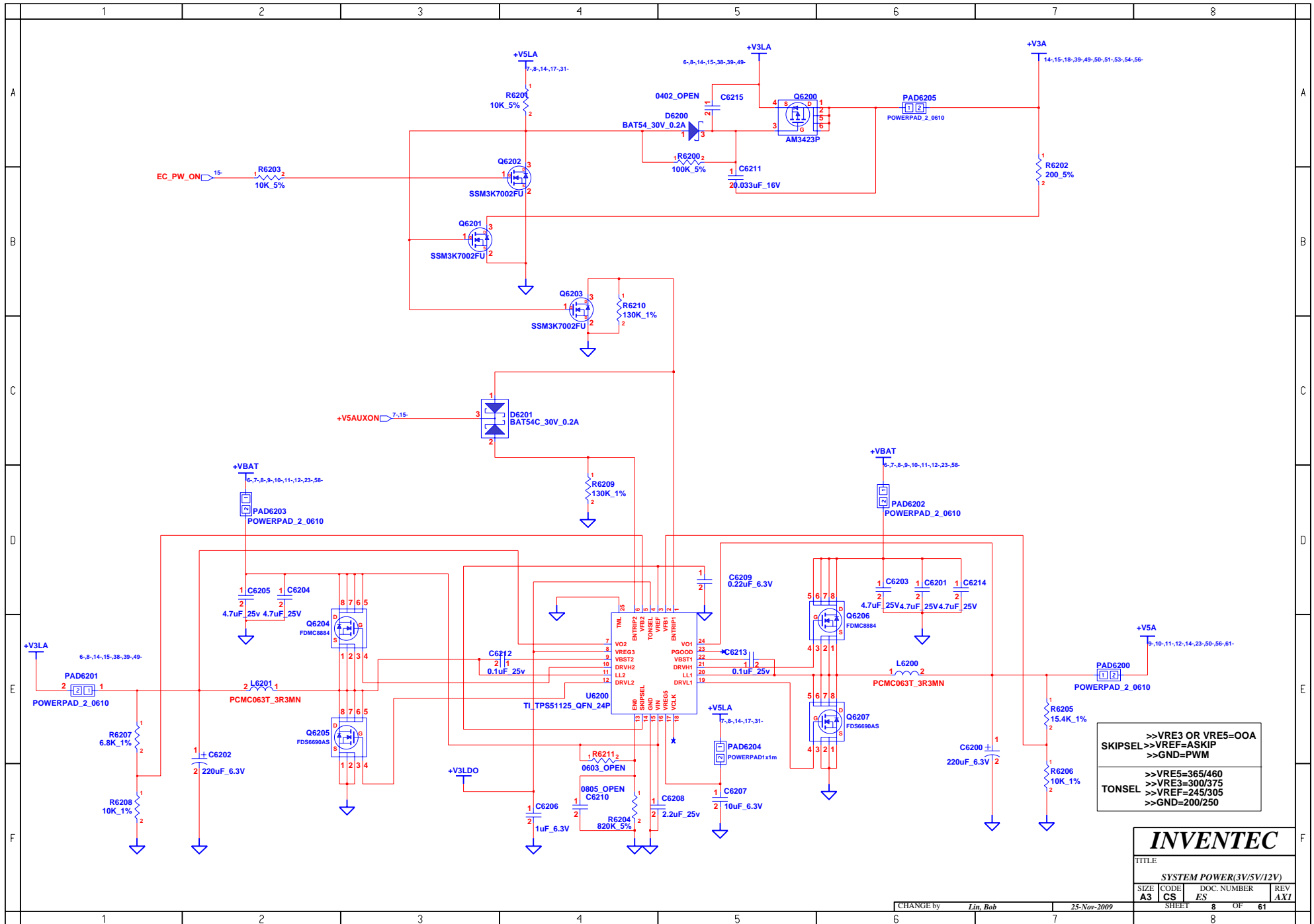
REV
AXI

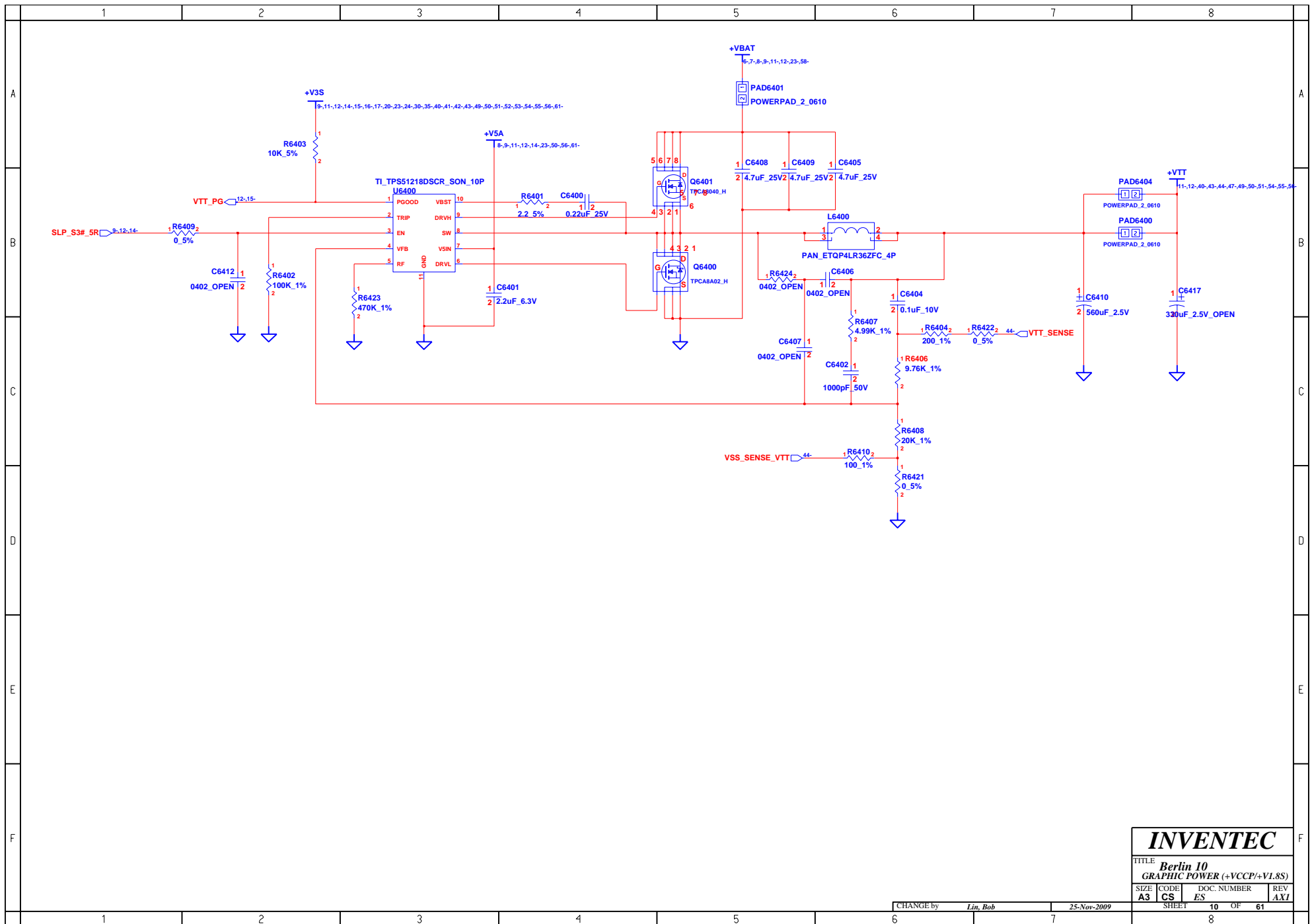
SHEET 4 OF 61

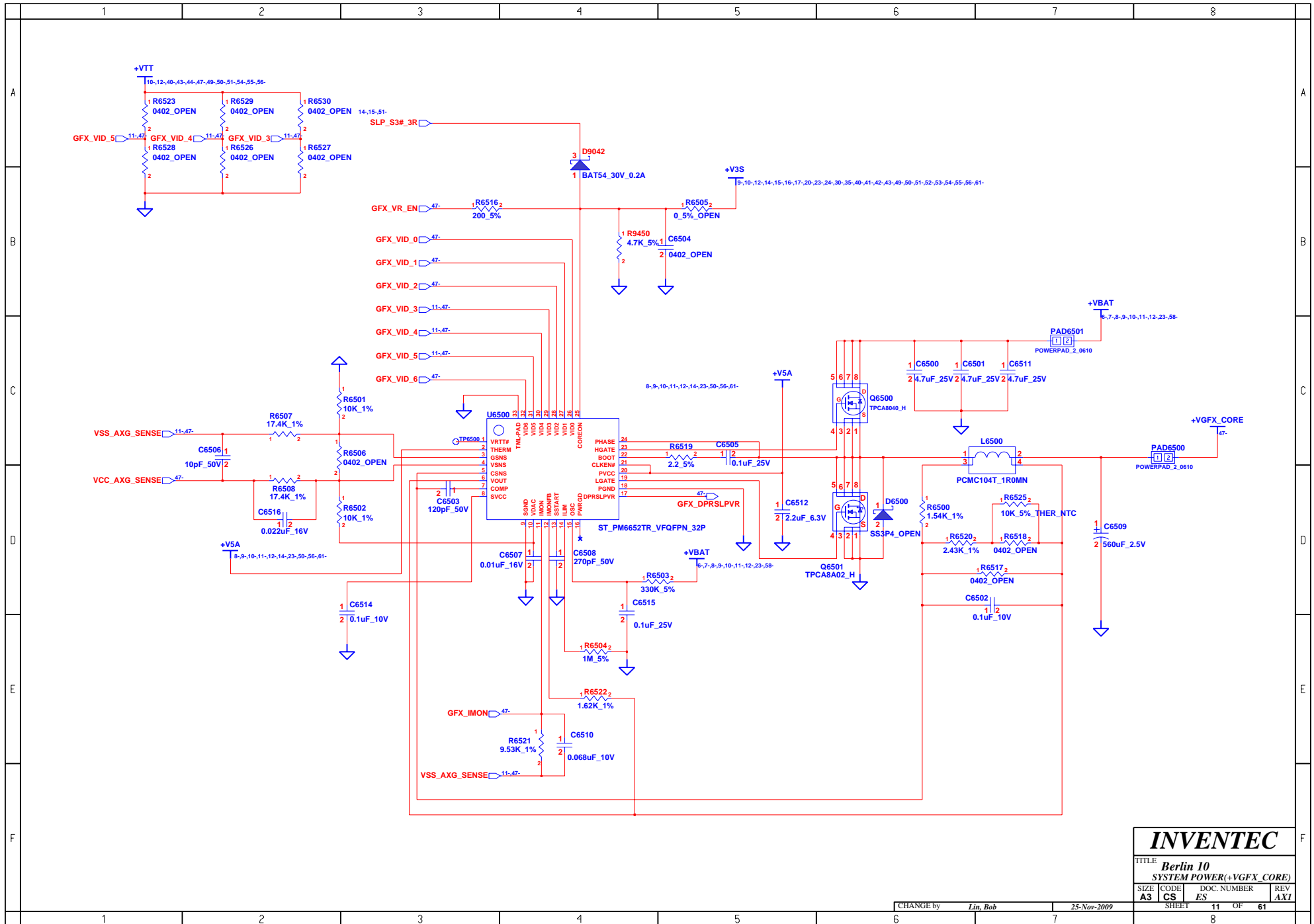


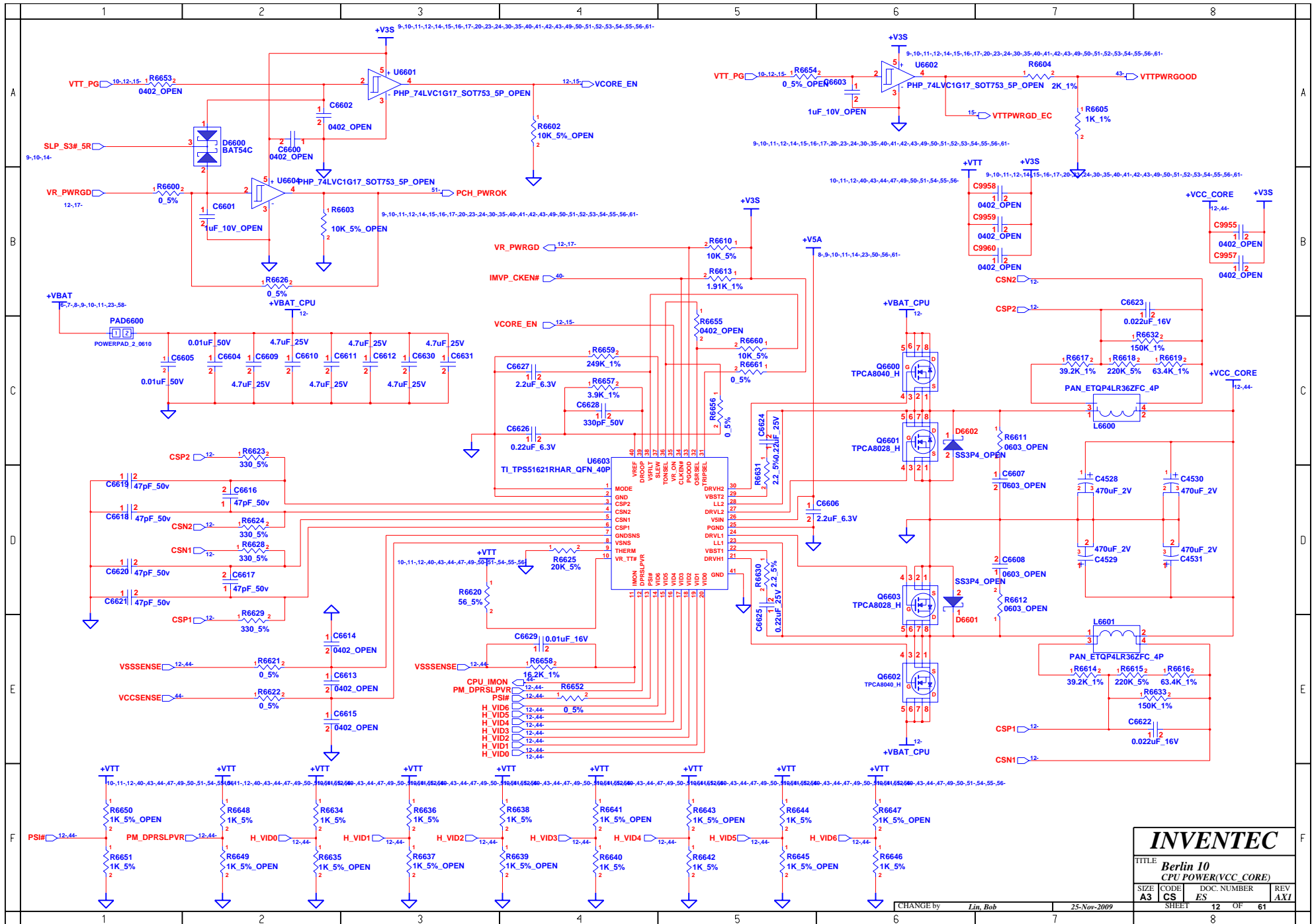






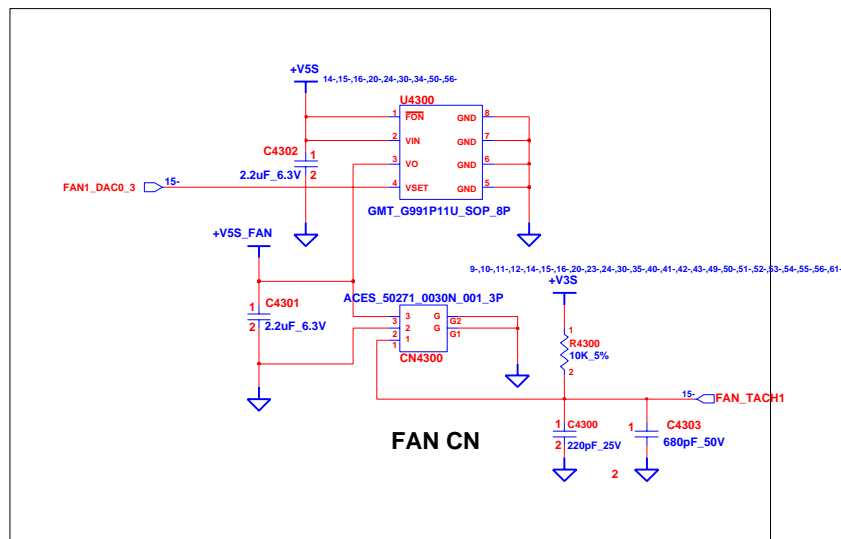




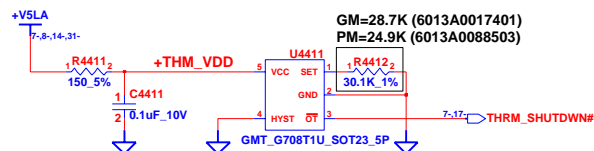


	1	2	3	4	5	6	7	8	
A	<div>skip</div>								A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

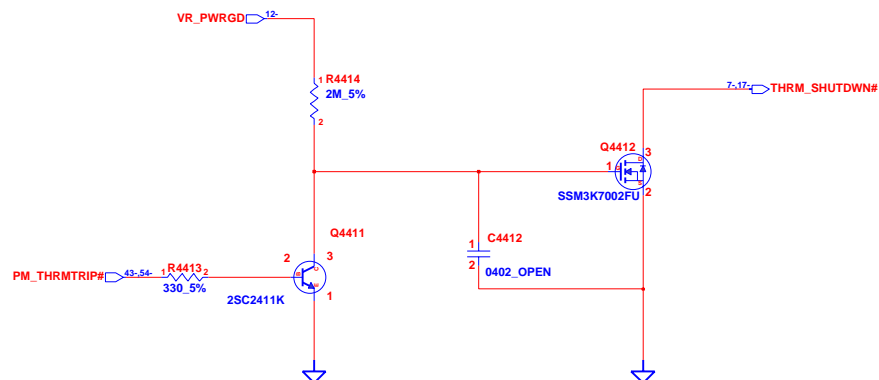
INVENTEC			
TITLE Berlin 10 VGA POWER			
SIZE A3	CODE CS	DOC. NUMBER ES	REV AXI
CHANGE by Lin, Bob		25-Nov-2009	
SHEET 13		OF 61	



FAN CN



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
 $RSET=0.0012 \times T^2 - 0.9308 \times T + 96.147$
 Hysteresis is 30C

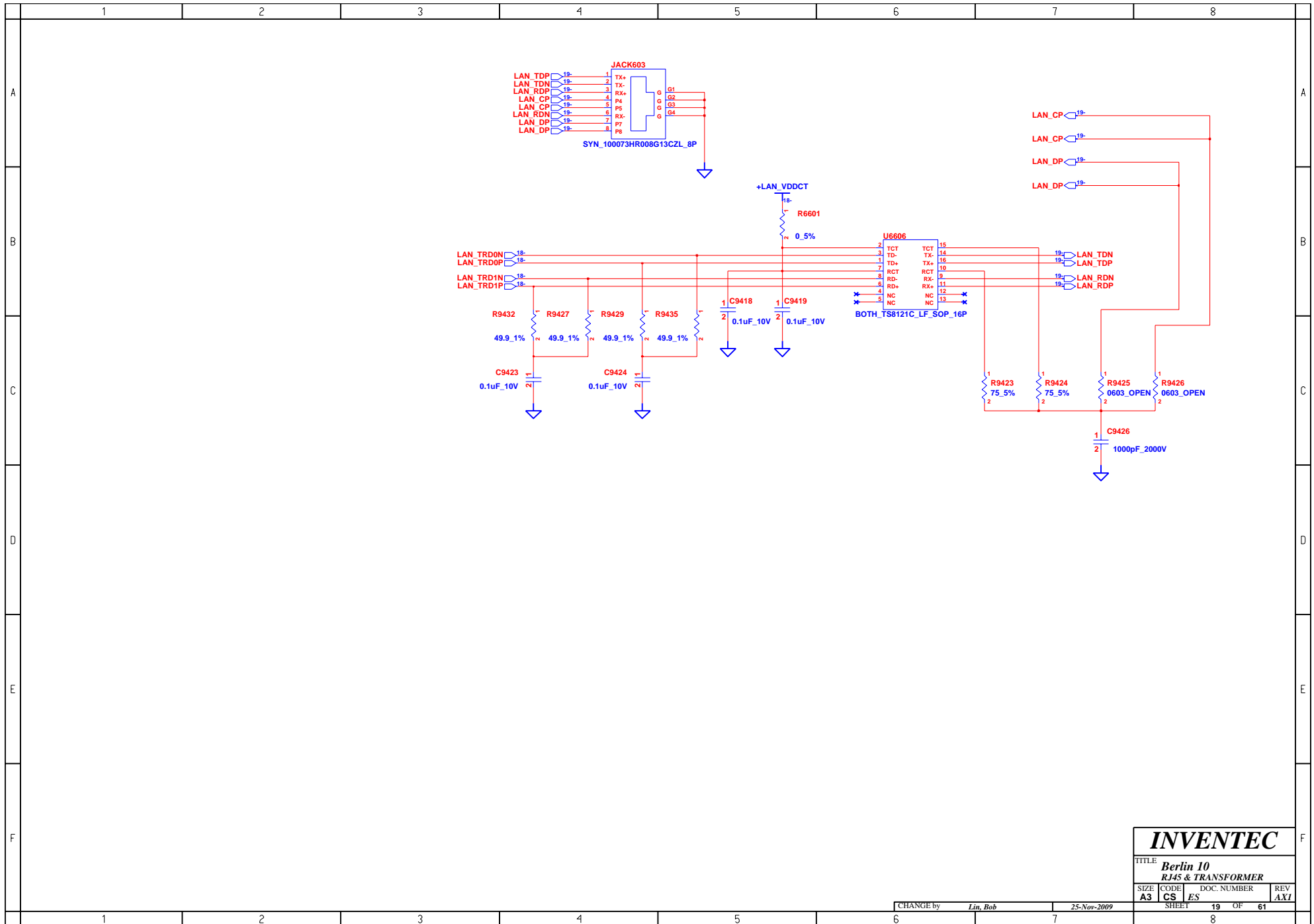


INVENTEC

TITLE			
Berlin 10			
FAN,Thermal controller			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI

CHANGE by Lin, Bob 25-Nov-2009

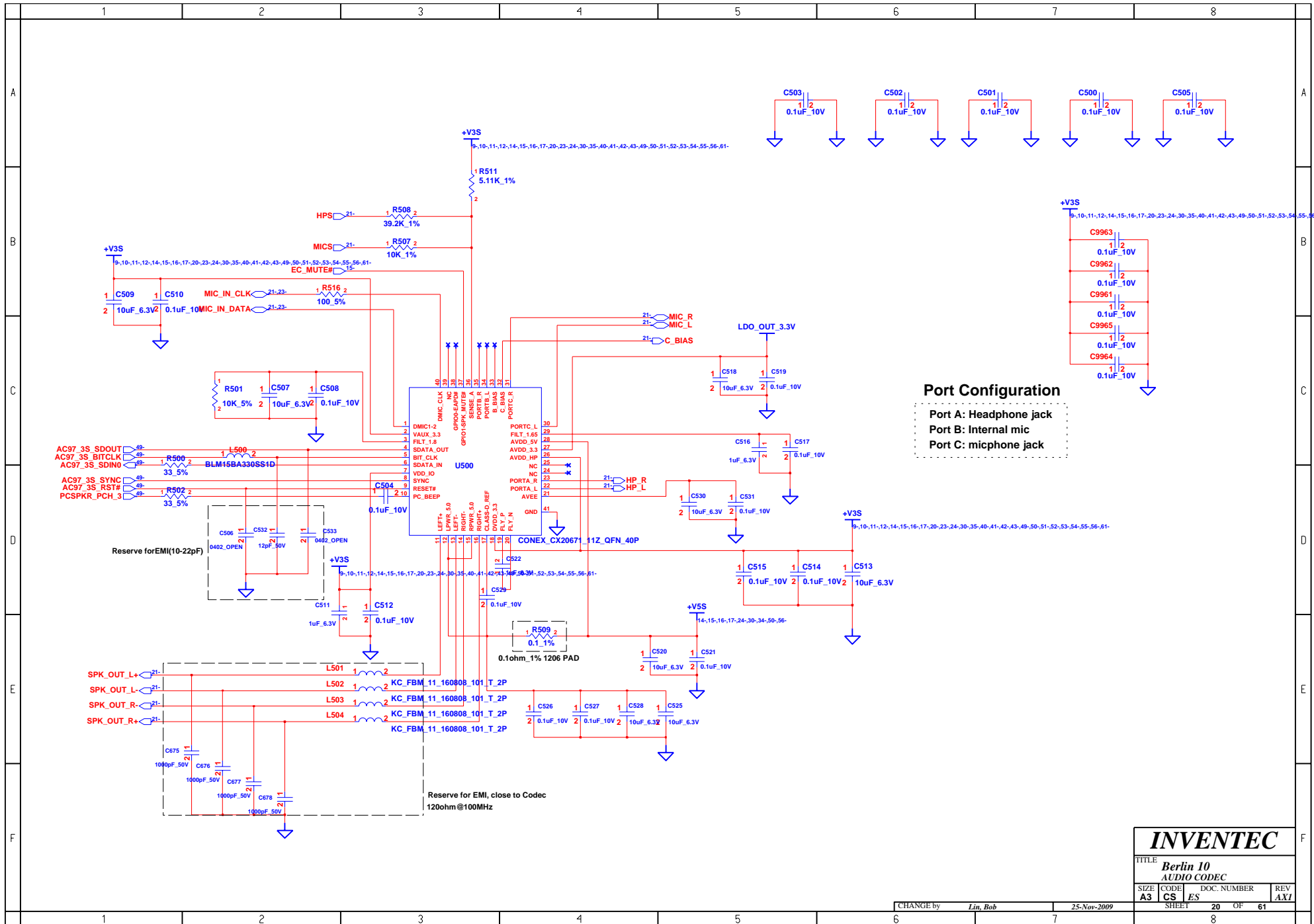
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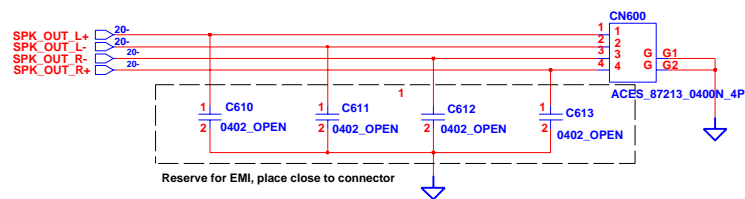
INVENTEC

TITLE			
Berlin 10			
RJ45 & TRANSFORMER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
SHEET		19	OF 61

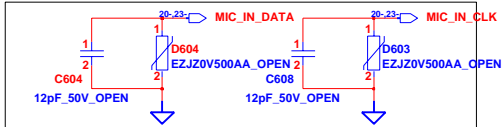
CHANGE by Lin, Bob 25-Nov-2009



INTERNAL SPEAKERS

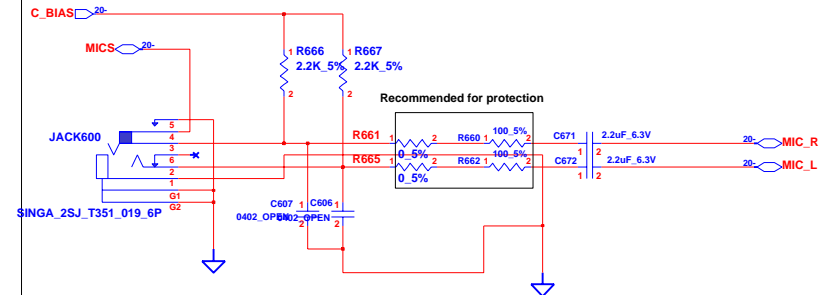


INTERNAL MIC

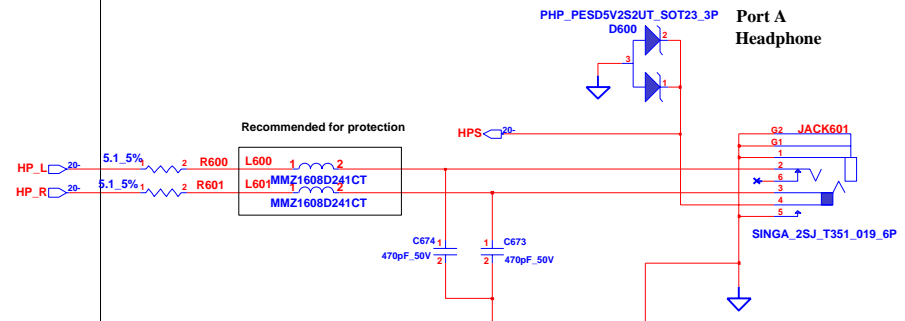


AUDIO JACKS

Port C External microphone



Port A Headphone



INVENTEC

TITLE			
Berlin 10			
AUDIO AMP&MIC&SPEAKER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI

CHANGE by Lin, Bob 25-Nov-2009

SHEET 21 OF 61

	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 Berlin 10			
MDC			
SIZE A3	CODE CS	DOC. NUMBER ES	REV AXI
SHEET		22	OF 61

CHANGE by Lin, Bob 4-Jan-2010

	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	
1	2	3	4	5	6	7	8		

INVENTEC

TITLE *Berlin 10*
CEC

SIZE **A3**

CODE **CS**

DOC. NUMBER *ES*

REV *AXI*

SHEET 25 OF 61

	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>		4-Jan-2010	
1	2	3	4	5	6	7	8		

INVENTEC			
TITLE <i>Berlin 10 HDMI Level Shifter</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>ES</i>	REV <i>AXI</i>
SHEET		26	OF 61

	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>		4-Jan-2010	
						6	7	8	

INVENTEC			
TITLE <i>Berlin 10 HDMI CONN</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>ES</i>	REV <i>AXI</i>
SHEET		27	OF 61

	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>		4-Jan-2010	
1	2	3	4	5	6	7	8		

INVENTEC

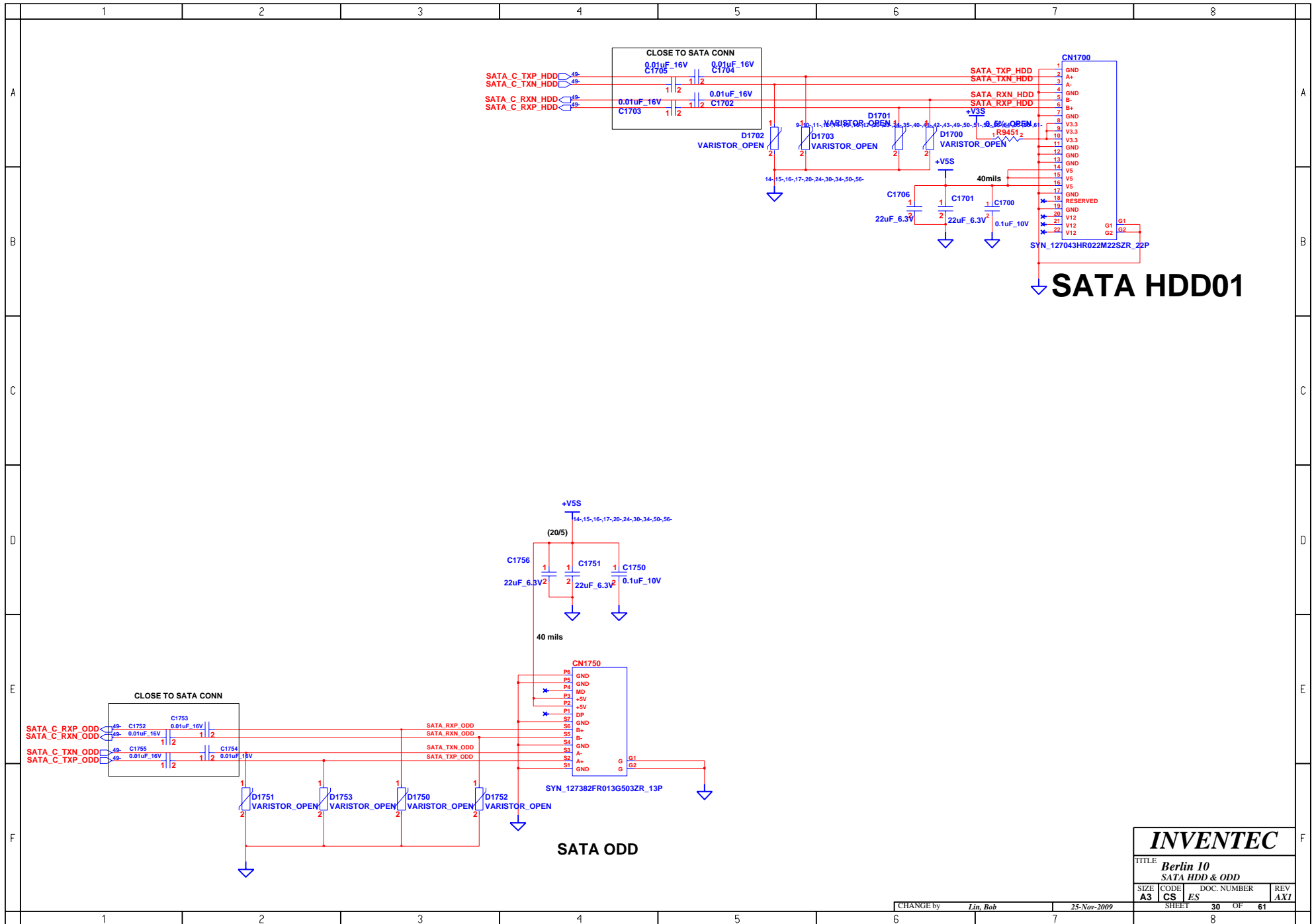
TITLE
Berlin 10
EXPRESS CARD

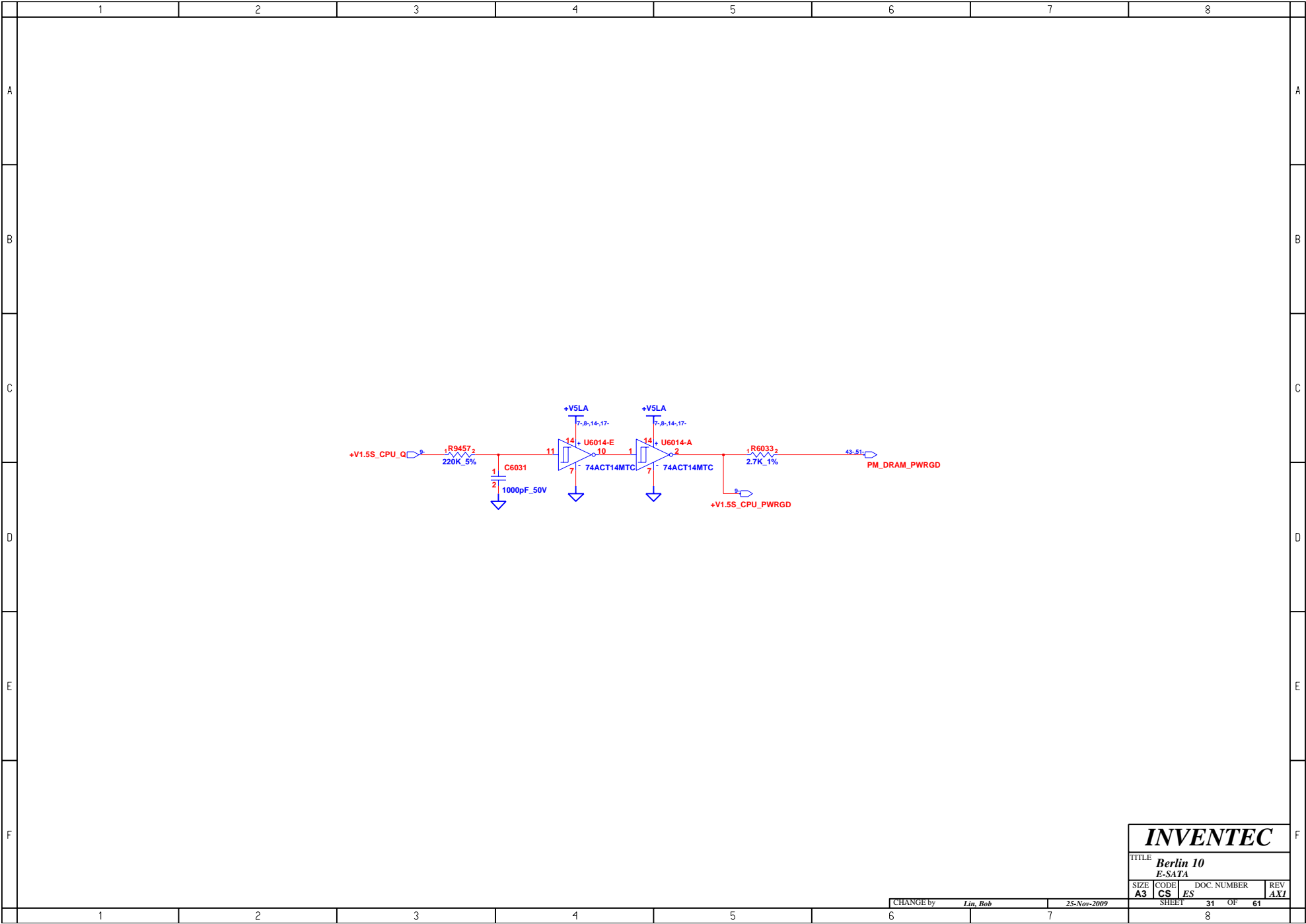
SIZE A3	CODE CS	DOC. NUMBER <i>ES</i>	REV <i>AXI</i>
SHEET		28	OF 61

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

INVENTEC			
TITLE Berlin 10 <i>Cardreader</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>ES</i>	REV <i>AXI</i>
SHEET 29 OF 61			

CHANGE by *Ljn, Bob* 4-Jan-2010





	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>		<i>4-Jan-2010</i>	
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE <i>Berlin 10</i> <i>USB CONN</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>ES</i>	REV <i>AXI</i>
SHEET 32 OF 61			

	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>		4-Jan-2010	
1	2	3	4	5	6	7	8		

INVENTEC

TITLE *Berlin 10 Bluetooth*

SIZE **A3**

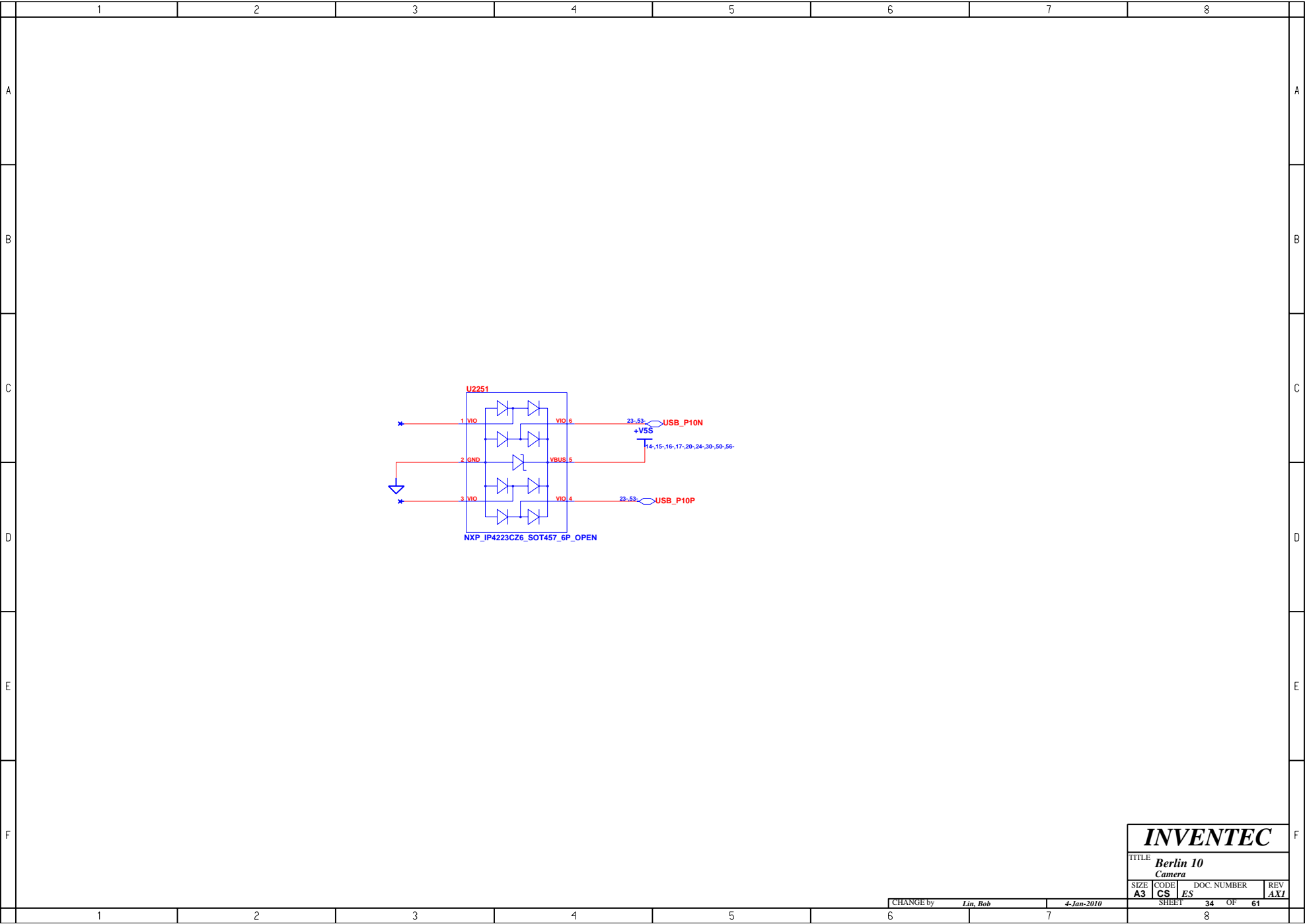
CODE **CS**

DOC. NUMBER *ES*

REV *AXI*

SHEET 33

OF 61



INVENTEC

TITLE			
Berlin 10			
Camera			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
SHEET 34 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

INVENTEC			
TITLE Berlin 10 WLAN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AX1
SHEET		35	OF 61

CHANGE by Lin, Bob 25-Nov-2009

TITLE			
Berlin 10			
WLAN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
SHEET		35	OF 61

CHANGE by	<i>Lin, Bob</i>	25-Nov-2009
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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>		4-Jan-2010	
1	2	3	4	5	6	7	8		

INVENTEC

TITLE *Berlin 10*
3D sensor

SIZE **A3**

CODE **CS**

DOC. NUMBER *ES*

REV *AXI*

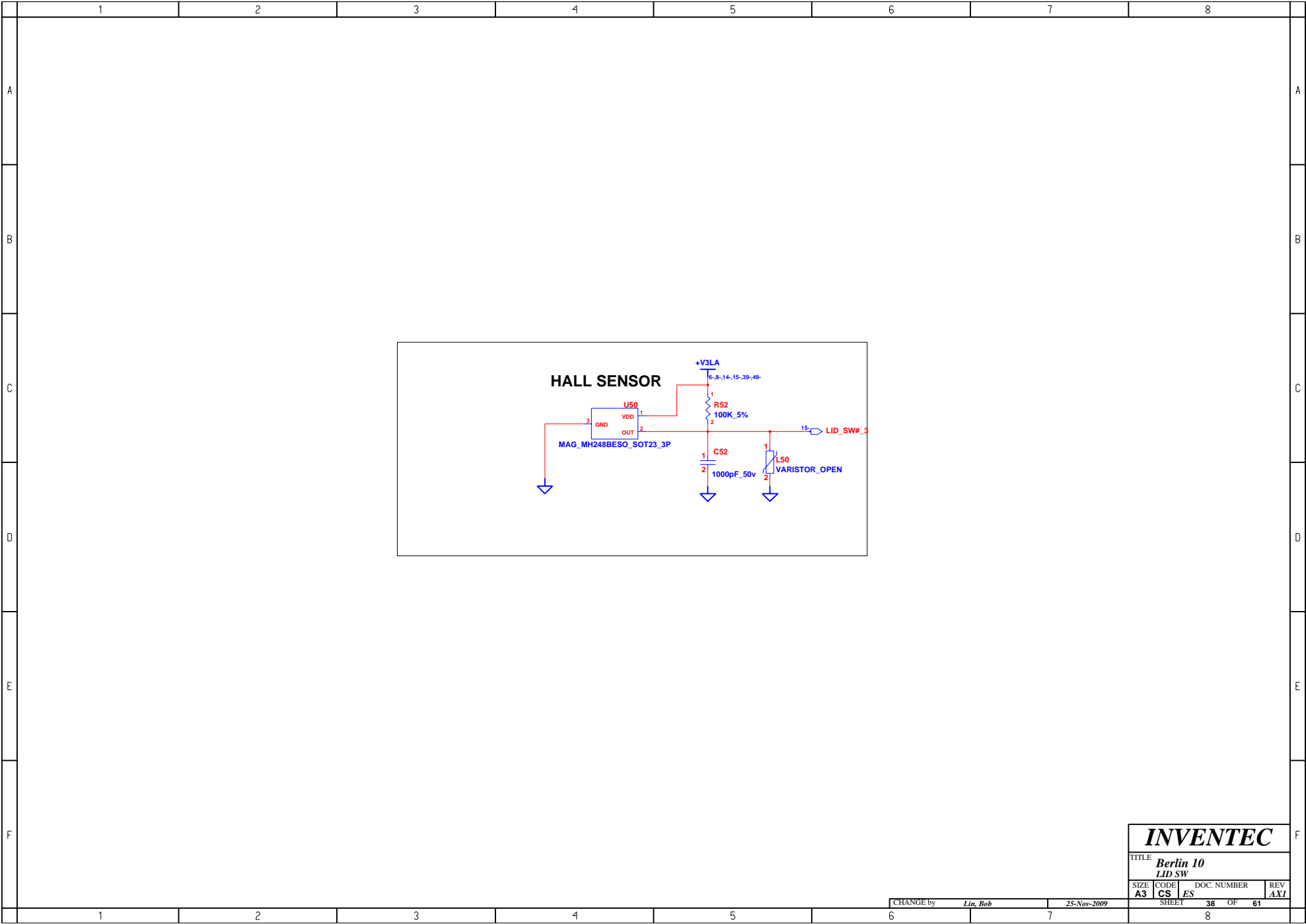
CHANGE by *Lin, Bob*

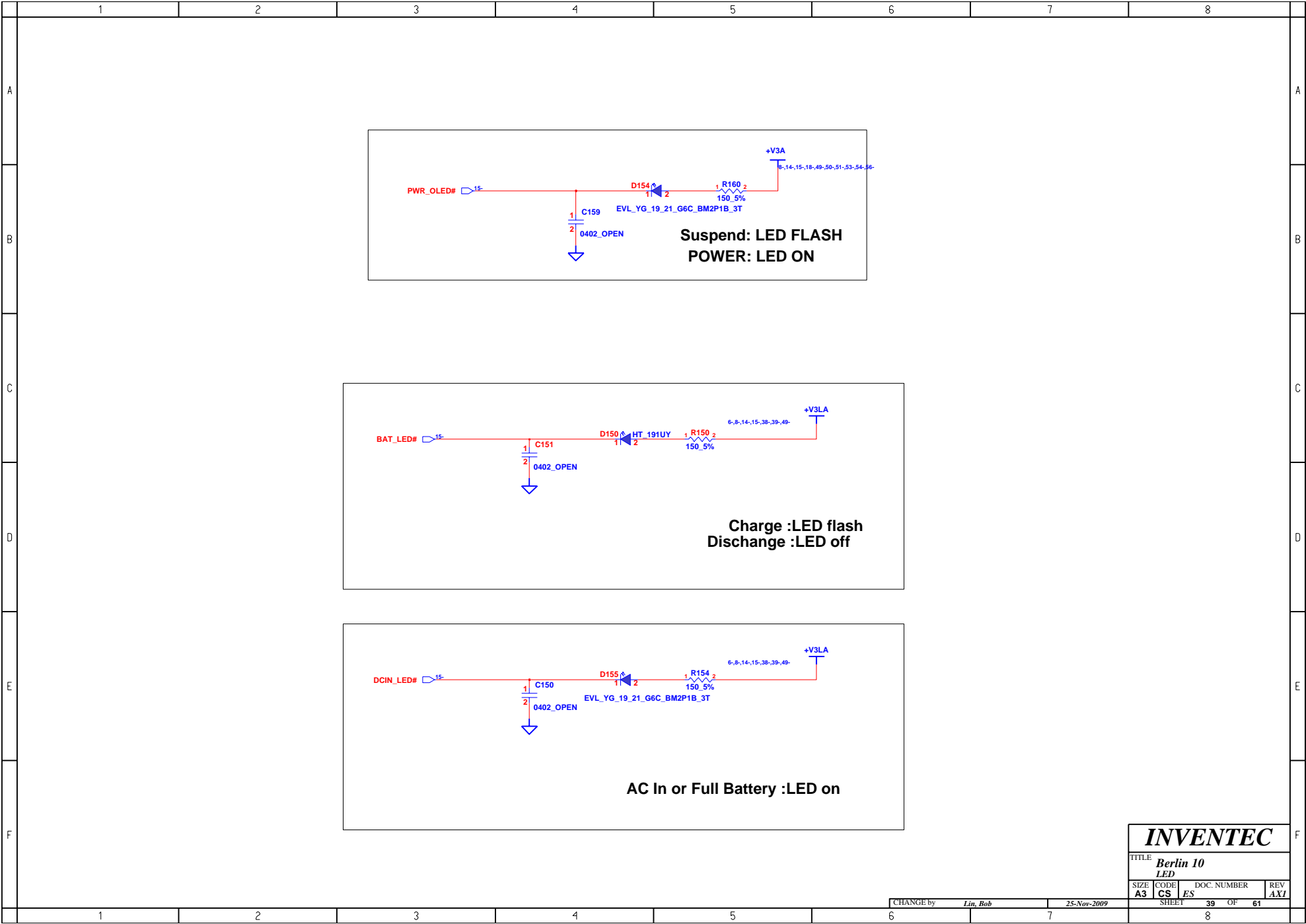
4-Jan-2010

SHEET **36** OF **61**

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

INVENTEC			
TITLE Berlin 10 KILL SW			
SIZE A3	CODE CS	DOC. NUMBER ES	REV AXI
CHANGE by Ljn, Bob		4-Jan-2010	
SHEET		37	OF 61

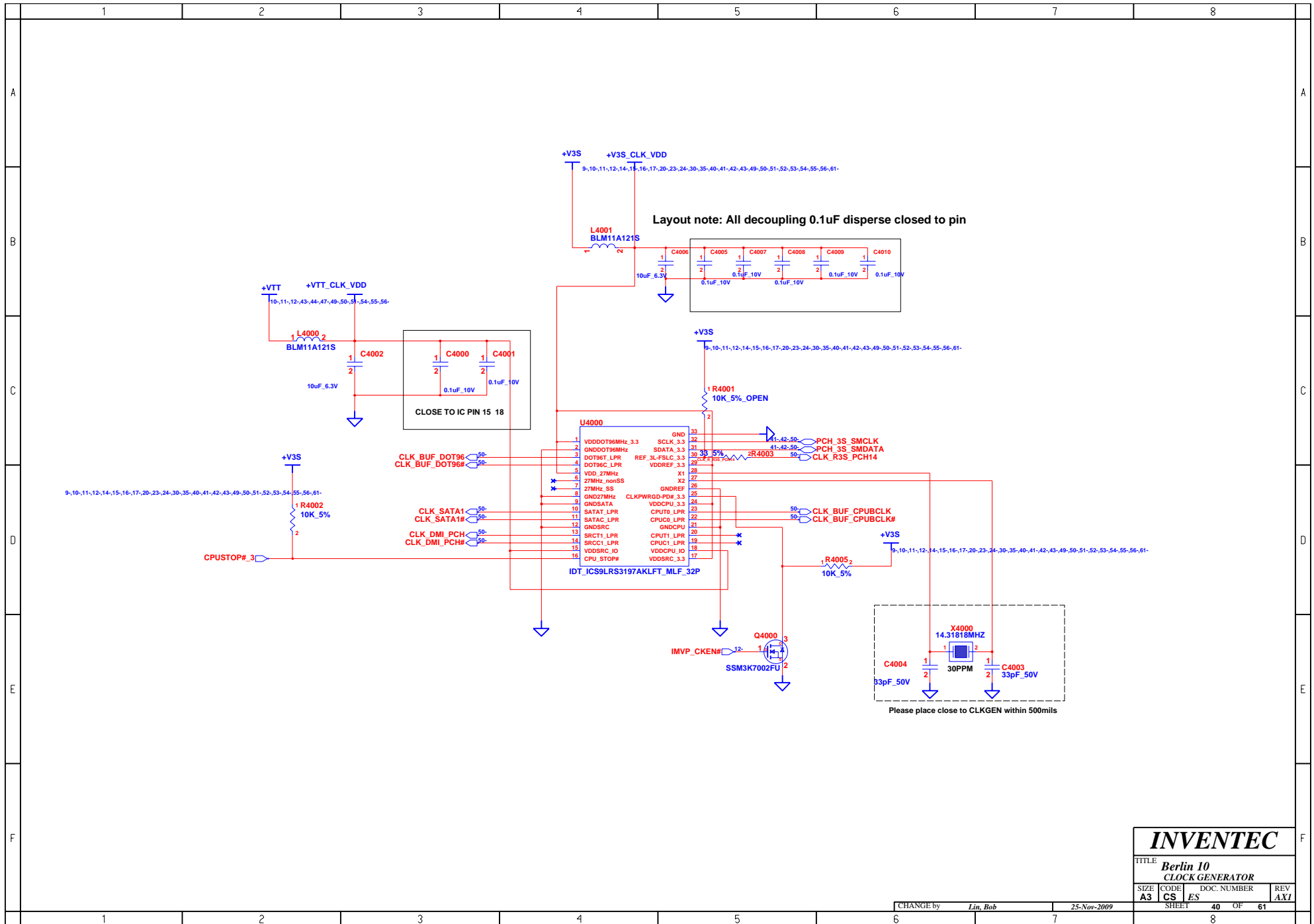


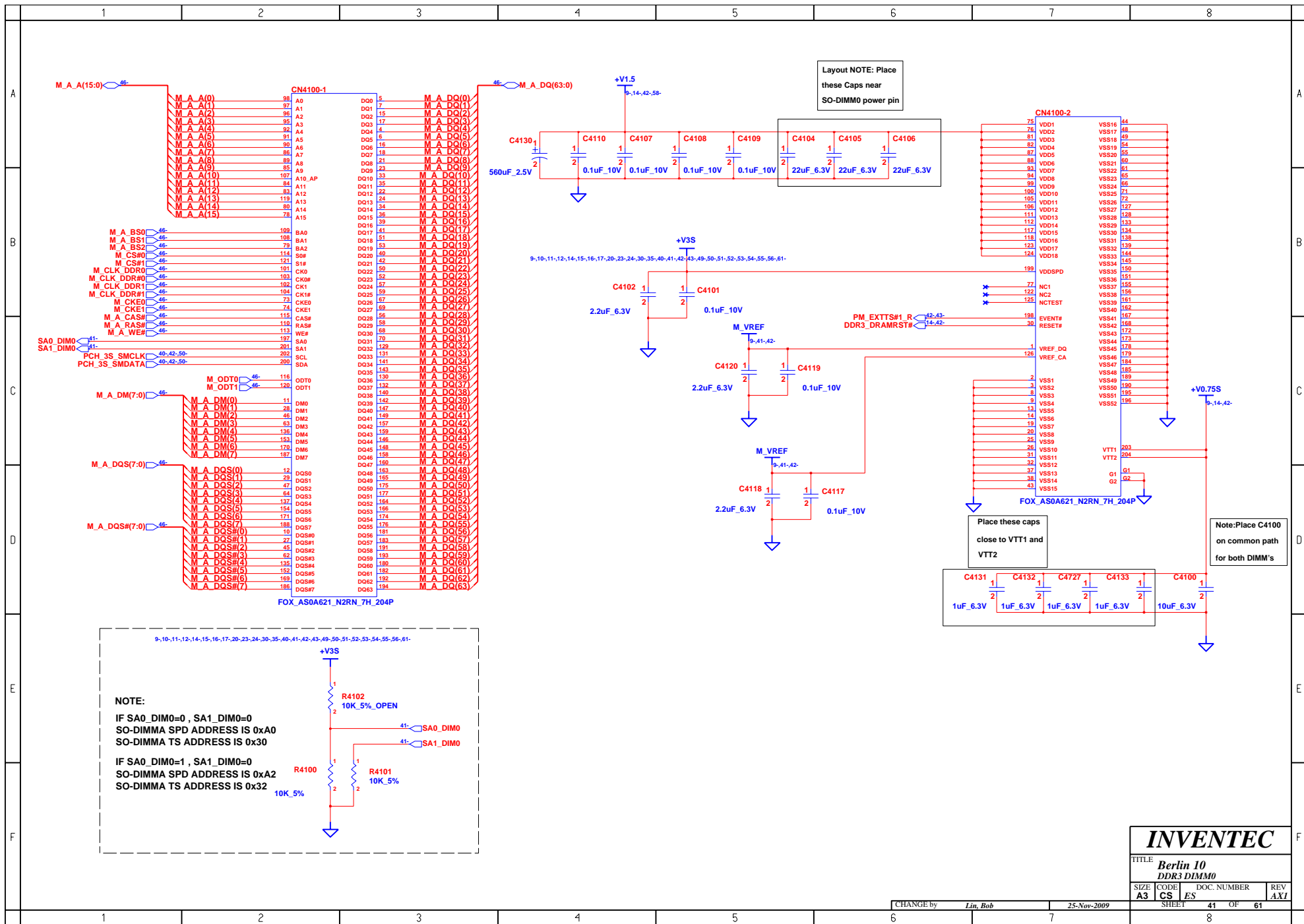


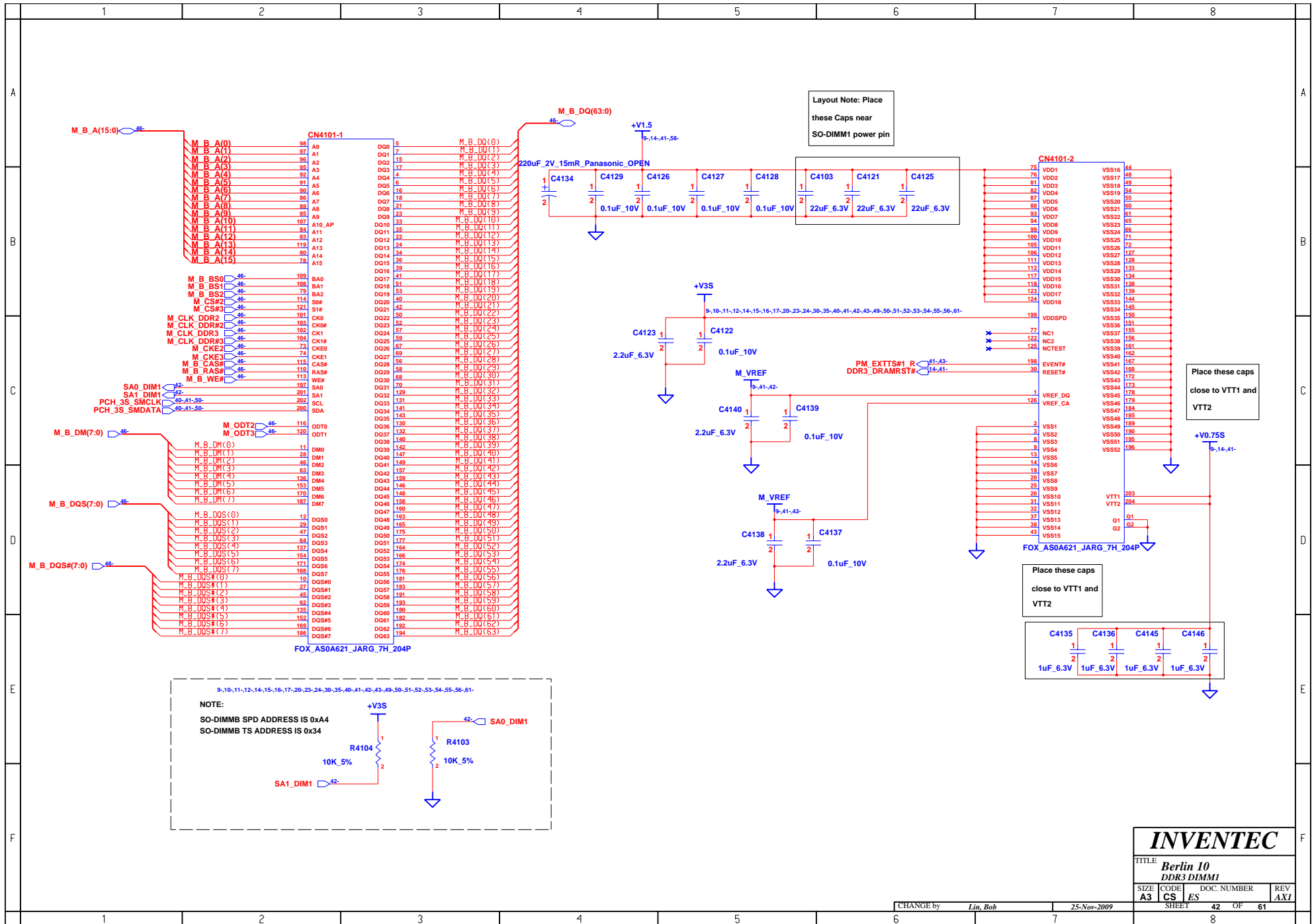
INVENTEC

TITLE			
Berlin 10 LED			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
SHEET		39 OF	61

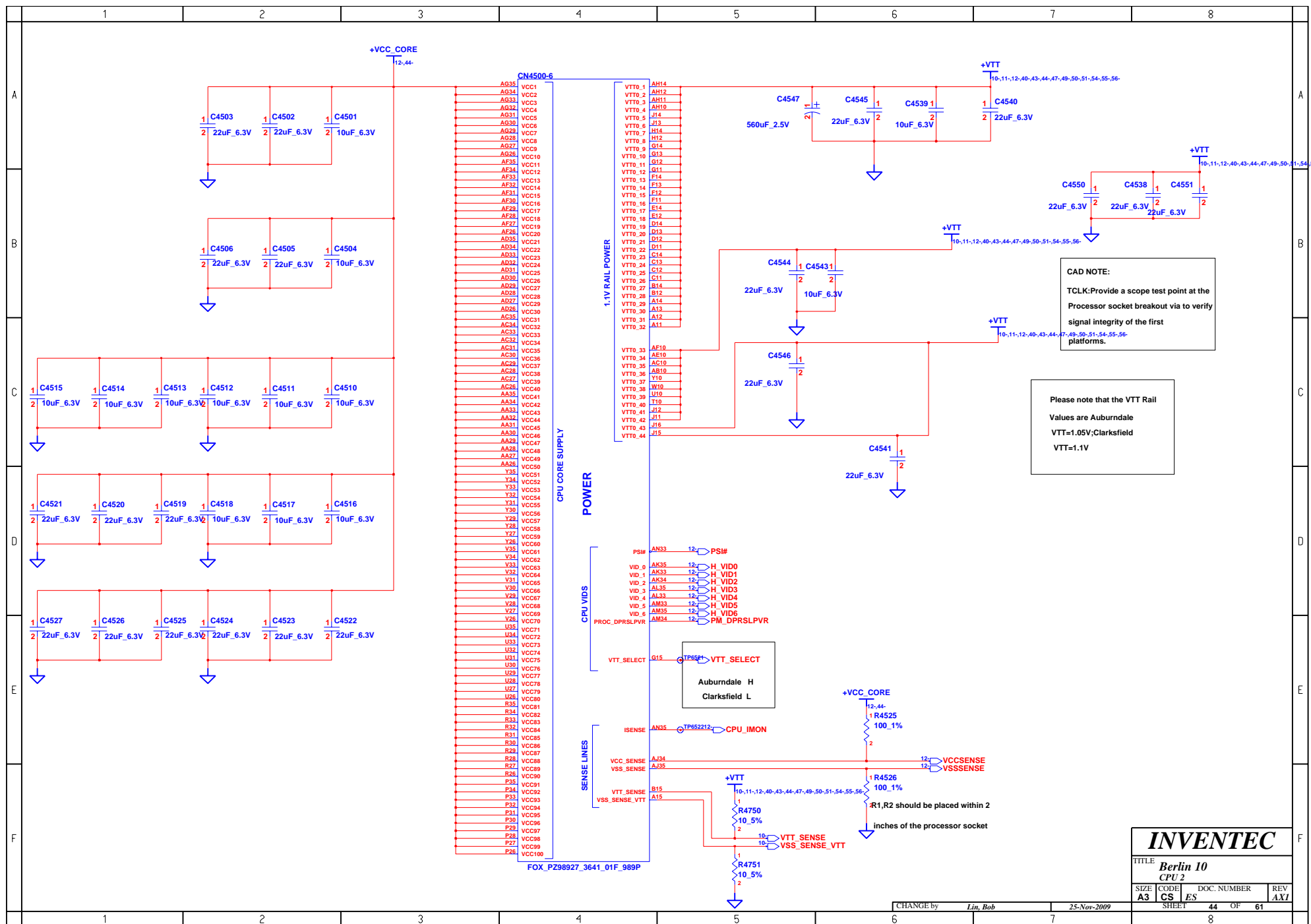
CHANGE by Lin, Bob 25-Nov-2009







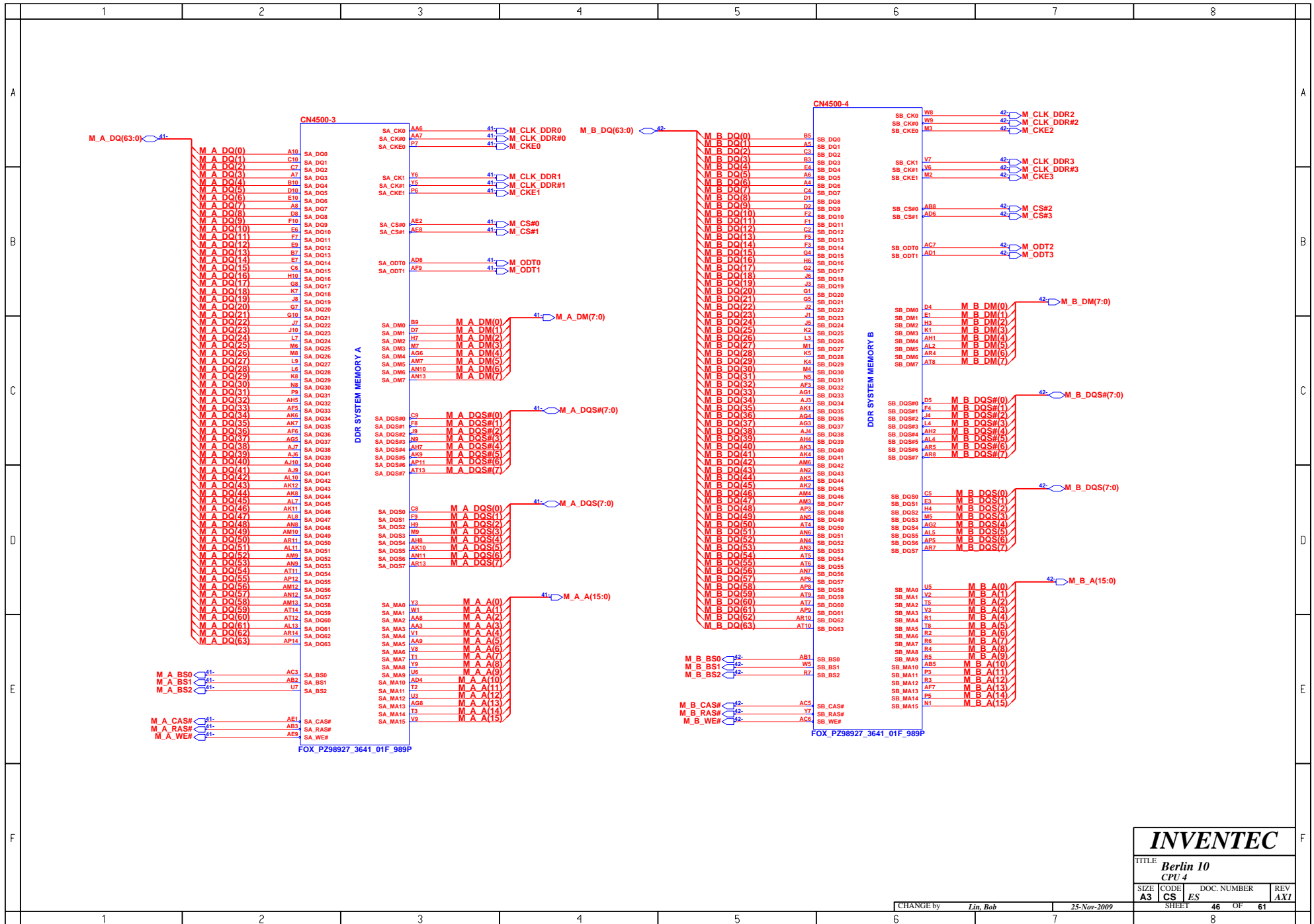


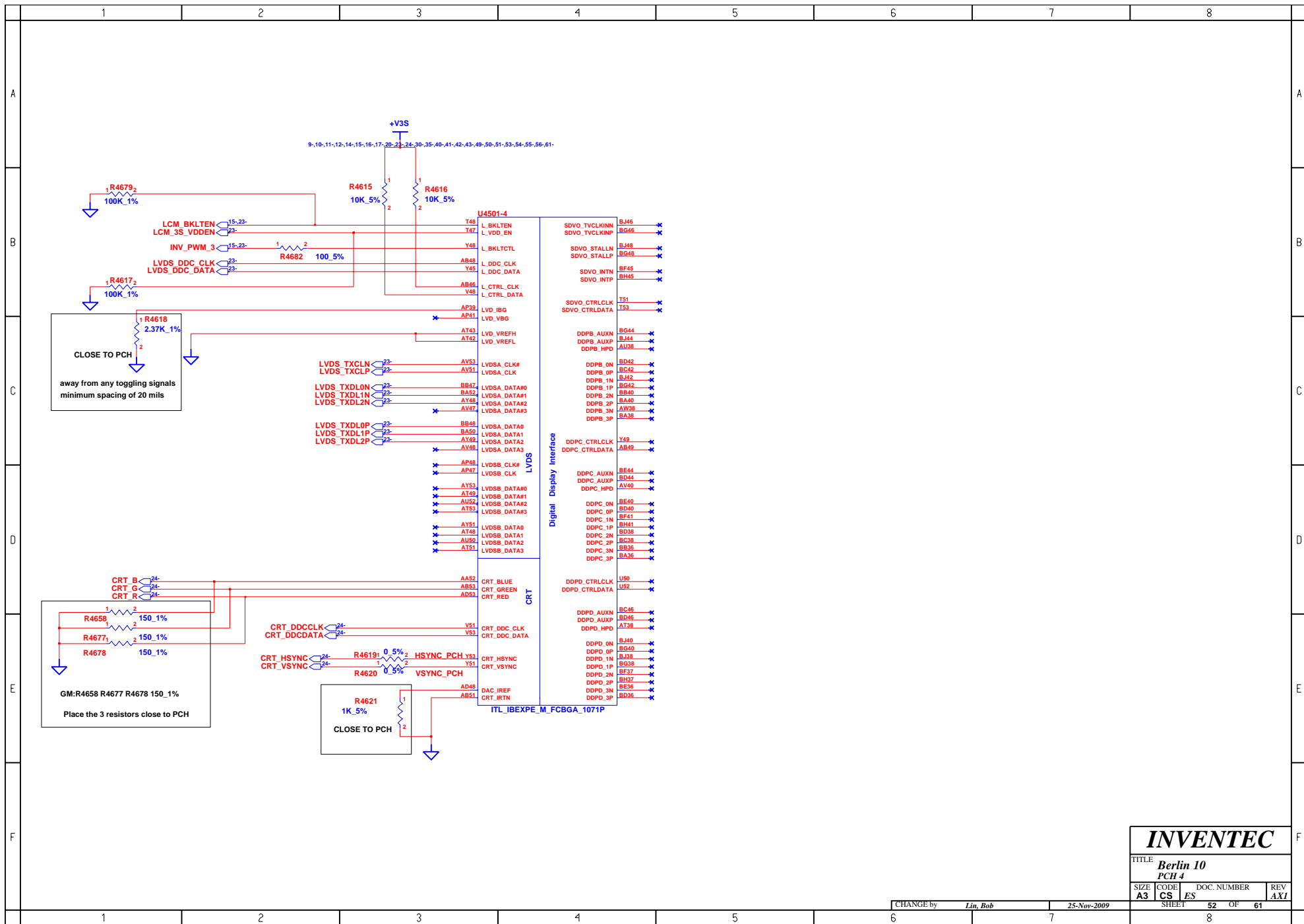




INVENTEC				
TITLE Berlin 10 CPU 3				
SIZE A3	CODE CS	DOC. NUMBER ES	REV AXI	
SHEET		45 OF	61	

CHANGE by *Ljn, Bob* 25-Nov-2009





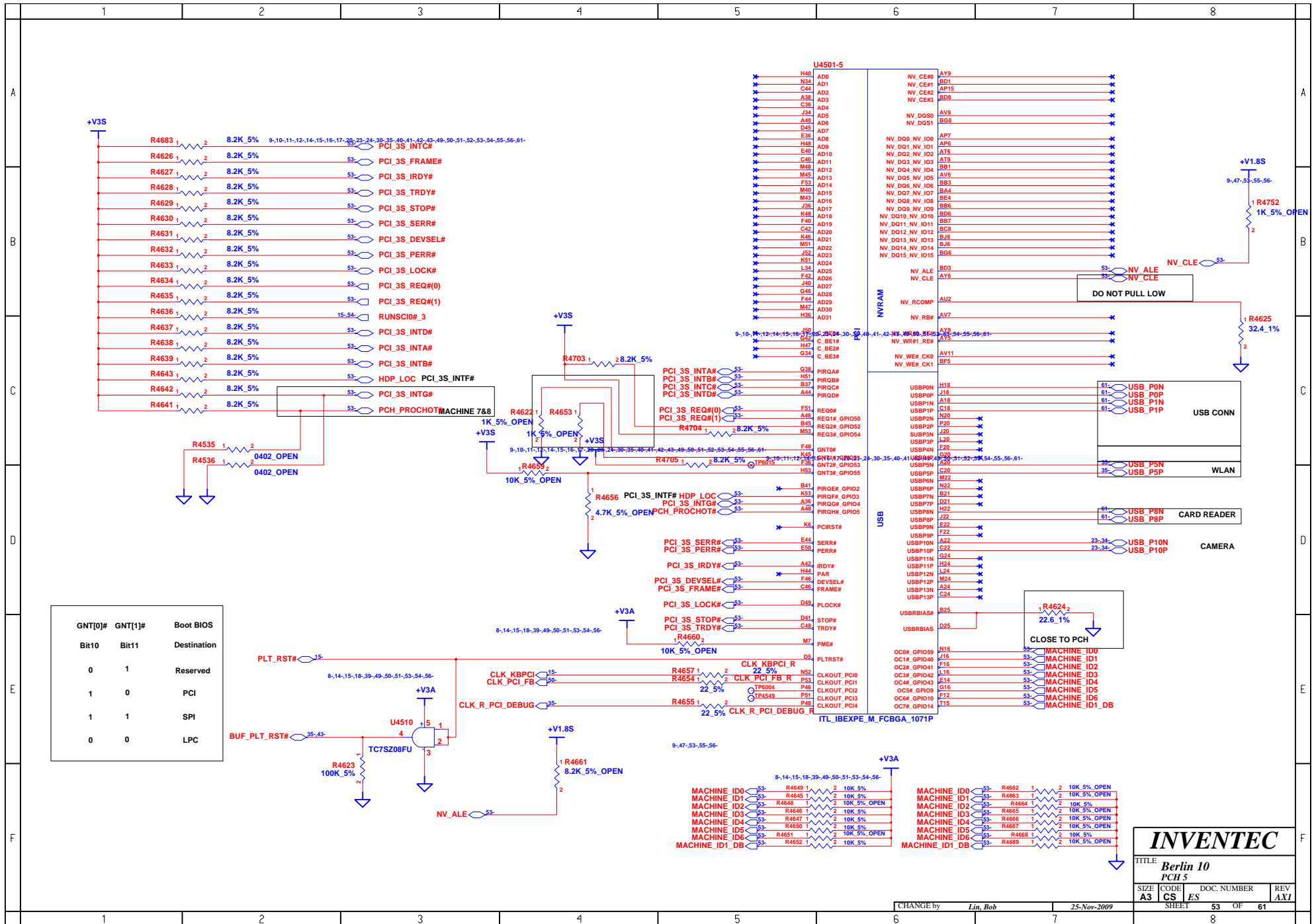
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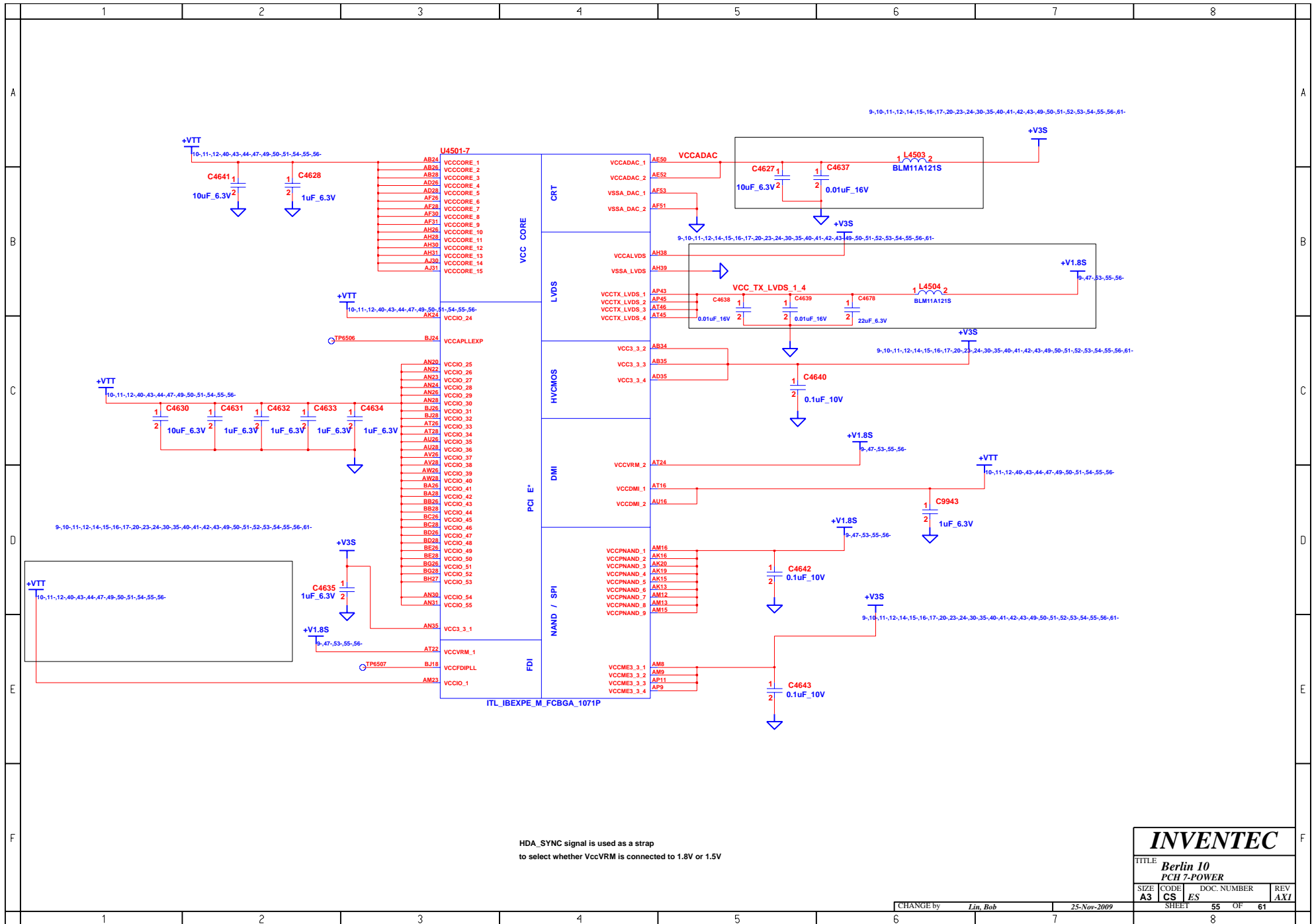
TITLE
Berlin 10
PCH 4

SIZE	CODE	ES	DOC. NUMBER	REV
A3	CS	ES	52	AXI

CHANGE by Lin, Bob 25-Nov-2009

SHEET 52 OF 61





INVENTEC

TITLE			
Berlin 10			
PCH 7-POWER			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
SHEET		55 OF	61

CHANGE by Ljn, Bob 25-Nov-2009

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The diagram illustrates the pin connections for two connectors, U4501-9 and U4501-10, on a PCB. The layout is organized into columns corresponding to the connector pins.

U4501-9 Pin Assignments:

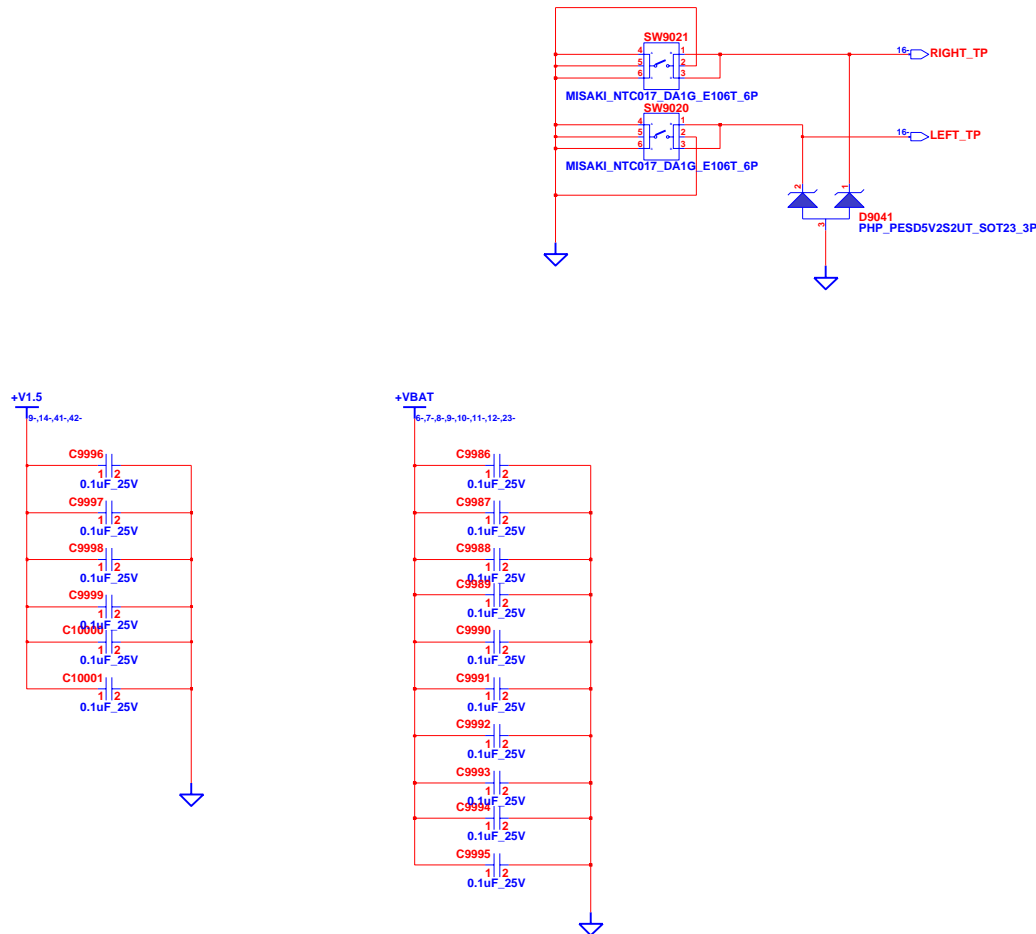
- Pin 1: AA19, VSS.1, VSS.80, AK30
- Pin 2: AA20, VSS.2, VSS.81, AK31
- Pin 3: AA22, VSS.3, VSS.82, AK32
- Pin 4: AM19, VSS.4, VSS.83, AK34
- Pin 5: AA24, VSS.5, VSS.84, AK35
- Pin 6: AA26, VSS.6, VSS.85, AK38
- Pin 7: AA28, VSS.7, VSS.86, AK43
- Pin 8: AA30, VSS.8, VSS.87, AK46
- Pin 9: AA31, VSS.9, VSS.88, AK49
- Pin 10: AA32, VSS.10, VSS.89, AK5
- Pin 11: AB11, VSS.11, VSS.90, AK8
- Pin 12: AB15, VSS.12, VSS.91, AL2
- Pin 13: AB23, VSS.13, VSS.92, AL52
- Pin 14: AB30, VSS.14, VSS.93, AM11
- Pin 15: AB31, VSS.15, VSS.94, BB44
- Pin 16: AB32, VSS.16, VSS.95, AD24
- Pin 17: AB39, VSS.17, VSS.96, AM20
- Pin 18: AB43, VSS.18, VSS.97, AM22
- Pin 19: AB47, VSS.19, VSS.98, AM24
- Pin 20: AB5, VSS.20, VSS.99, AM26
- Pin 21: AB8, VSS.21, VSS.100, AM28
- Pin 22: AC2, VSS.22, VSS.101, BA42
- Pin 23: AC52, VSS.23, VSS.102, AM30
- Pin 24: AD11, VSS.24, VSS.103, AM31
- Pin 25: AD12, VSS.25, VSS.104, AM32
- Pin 26: AD16, VSS.26, VSS.105, AM34
- Pin 27: AD23, VSS.27, VSS.106, AM35
- Pin 28: AD30, VSS.28, VSS.107, AM38
- Pin 29: AD31, VSS.29, VSS.108, AM39
- Pin 30: AD32, VSS.30, VSS.109, AM42
- Pin 31: AD34, VSS.31, VSS.110, AU20
- Pin 32: AU22, VSS.32, VSS.111, AM46
- Pin 33: AD42, VSS.33, VSS.112, AV22
- Pin 34: AD46, VSS.34, VSS.113, AM40
- Pin 35: AD49, VSS.35, VSS.114, AM7
- Pin 36: AD7, VSS.36, VSS.115, AA50
- Pin 37: AE2, VSS.37, VSS.116, BB10
- Pin 38: AE4, VSS.38, VSS.117, AN32
- Pin 39: AF12, VSS.39, VSS.118, AN50
- Pin 40: Y13, VSS.40, VSS.119, AN52
- Pin 41: AH49, VSS.41, VSS.120, AP12
- Pin 42: AU4, VSS.42, VSS.121, AP42
- Pin 43: AF35, VSS.43, VSS.122, AP46
- Pin 44: AF13, VSS.44, VSS.123, AP49
- Pin 45: AN34, VSS.45, VSS.124, AP5
- Pin 46: AE45, VSS.46, VSS.125, AP8
- Pin 47: AF46, VSS.47, VSS.126, AR2
- Pin 48: AF49, VSS.48, VSS.127, AR52
- Pin 49: AF5, VSS.49, VSS.128, AT11
- Pin 50: AF8, VSS.50, VSS.129, BA12
- Pin 51: AG2, VSS.51, VSS.130, AH48
- Pin 52: AH11, VSS.52, VSS.131, AT32
- Pin 53: AH15, VSS.53, VSS.132, AT36
- Pin 54: AH16, VSS.54, VSS.133, AT41
- Pin 55: AH24, VSS.55, VSS.134, AT47
- Pin 56: VSS.56, VSS.135, VSS.137, AT7
- Pin 57: AH32, VSS.57, VSS.136, AV12
- Pin 58: AV18, VSS.58, VSS.137, AV16
- Pin 59: AH43, VSS.59, VSS.138, AV20
- Pin 60: AH47, VSS.60, VSS.139, AV24
- Pin 61: AH7, VSS.61, VSS.140, AV30
- Pin 62: AJ19, VSS.62, VSS.141, AV34
- Pin 63: AJ2, VSS.63, VSS.142, AV38
- Pin 64: AJ20, VSS.64, VSS.143, AV42
- Pin 65: AJ22, VSS.65, VSS.144, AV46
- Pin 66: AJ23, VSS.66, VSS.145, AV49
- Pin 67: AJ26, VSS.67, VSS.146, AV5
- Pin 68: AJ29, VSS.68, VSS.147, AV8
- Pin 69: AJ32, VSS.69, VSS.148, AW14
- Pin 70: AJ34, VSS.70, VSS.149, AW18
- Pin 71: AT5, VSS.71, VSS.150, AW2
- Pin 72: AJ4, VSS.72, VSS.151, BF9
- Pin 73: AK12, VSS.73, VSS.152, AW32
- Pin 74: AM41, VSS.74, VSS.153, AW36
- Pin 75: AN19, VSS.75, VSS.154, AW40
- Pin 76: AK26, VSS.76, VSS.155, AW52
- Pin 77: AK22, VSS.77, VSS.156, AT11
- Pin 78: AK23, VSS.78, VSS.157, AT43
- Pin 79: AK38, VSS.79, VSS.158, AT47

U4501-10 Pin Assignments:

- Pin 1: AY7, VSS.159, H49
- Pin 2: B17, VSS.160, J5
- Pin 3: B15, VSS.161, J24
- Pin 4: B19, VSS.162, K11
- Pin 5: B21, VSS.163, VSS.263, K43
- Pin 6: B31, VSS.164, VSS.264, K47
- Pin 7: B35, VSS.165, VSS.265, K7
- Pin 8: B39, VSS.166, VSS.266, L14
- Pin 9: B4, VSS.167, VSS.267, L18
- Pin 10: B47, VSS.168, VSS.268, L2
- Pin 11: B7, VSS.169, VSS.269, L22
- Pin 12: BG12, VSS.170, VSS.270, L32
- Pin 13: BB14, VSS.171, VSS.271, L36
- Pin 14: BB15, VSS.172, VSS.272, L40
- Pin 15: BB20, VSS.173, VSS.273, L52
- Pin 16: BB24, VSS.174, VSS.274, M12
- Pin 17: BB30, VSS.175, VSS.275, M16
- Pin 18: BB34, VSS.176, VSS.276, M20
- Pin 19: BB38, VSS.177, VSS.277, N38
- Pin 20: BB42, VSS.178, VSS.278, M34
- Pin 21: BB46, VSS.179, VSS.279, M38
- Pin 22: BB5, VSS.180, VSS.280, M42
- Pin 23: BC10, VSS.181, VSS.281, M46
- Pin 24: BC14, VSS.182, VSS.282, M49
- Pin 25: BC18, VSS.183, VSS.283, M5
- Pin 26: BC3, VSS.184, VSS.284, M8
- Pin 27: BC22, VSS.185, VSS.285, N24
- Pin 28: BC26, VSS.186, VSS.286, P11
- Pin 29: BC30, VSS.187, VSS.287, AD15
- Pin 30: BC34, VSS.188, VSS.288, P22
- Pin 31: BC44, VSS.189, VSS.289, P30
- Pin 32: BC58, VSS.190, VSS.290, P32
- Pin 33: BD4, VSS.191, VSS.291, P34
- Pin 34: BD48, VSS.192, VSS.292, P42
- Pin 35: BD49, VSS.193, VSS.293, P45
- Pin 36: BD4, VSS.194, VSS.294, P47
- Pin 37: BE15, VSS.195, VSS.295, R2
- Pin 38: BE18, VSS.196, VSS.296, B52
- Pin 39: BE20, VSS.197, VSS.297, T12
- Pin 40: BE24, VSS.198, VSS.298, T41
- Pin 41: BE30, VSS.199, VSS.299, T46
- Pin 42: BE34, VSS.200, VSS.300, T49
- Pin 43: BE38, VSS.201, VSS.301, T5
- Pin 44: BE40, VSS.202, VSS.302, T8
- Pin 45: BE44, VSS.203, VSS.303, U30
- Pin 46: BE48, VSS.204, VSS.304, U31
- Pin 47: BE50, VSS.205, VSS.305, U32
- Pin 48: BE54, VSS.206, VSS.306, U34
- Pin 49: BE58, VSS.207, VSS.307, P38
- Pin 50: BF3, VSS.208, VSS.308, V11
- Pin 51: BF48, VSS.209, VSS.309, P16
- Pin 52: BG1, VSS.210, VSS.310, V19
- Pin 53: BG18, VSS.211, VSS.311, V20
- Pin 54: BG24, VSS.212,

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
CHANGE by: Lin, Bob		7-Jan-2010	
SHEET: 58		OF: 61	
		8	

	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>		5-Jan-2010	
1	2	3	4	5	6	7	8		

INVENTEC

TITLE

Berlin 10

Touch pad

SIZE

A3

CODE

CS

DOC. NUMBER

ES

REV

AXI

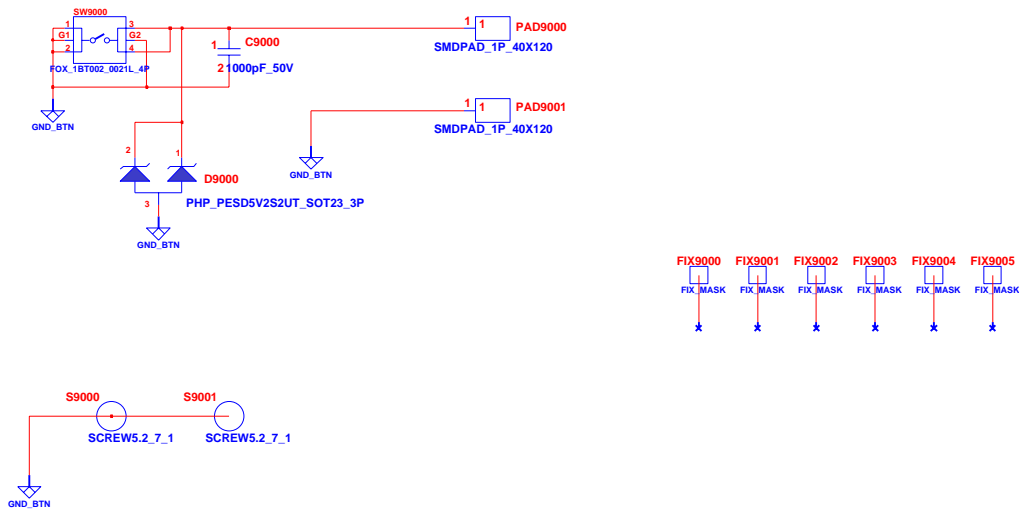
SHEET

59

OF

61

POWER BUTTON

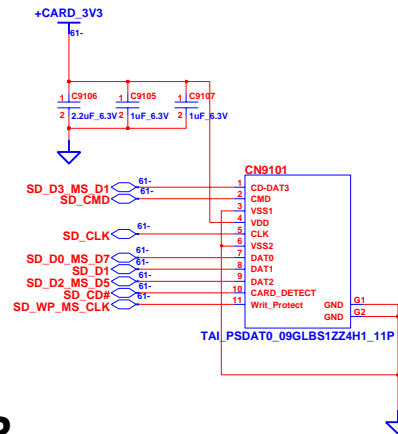
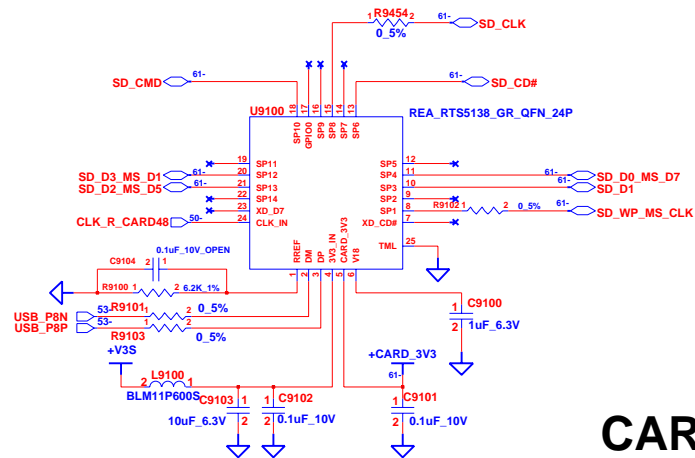
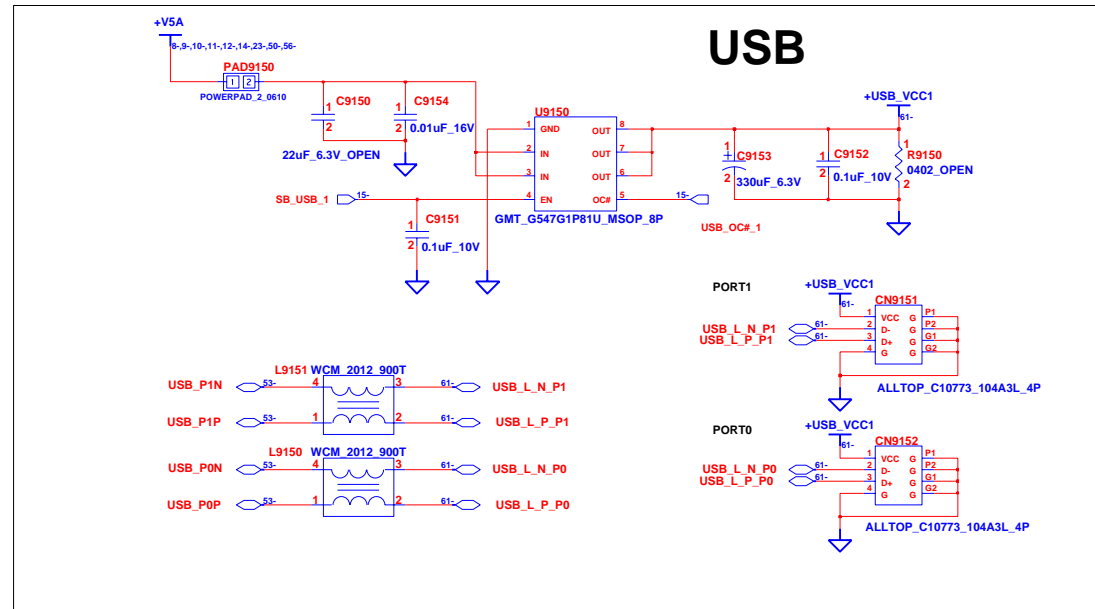


EMI

INVENTEC

TITLE			
Berlin 10			
EMI			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	ES	AXI
SHEET		60 OF	61

CARD READER & USB



INVENTEC

TITLE
Berlin 10

SIZE CODE DOC. NUMBER REV
A3 CS ES

CHANGE by **Ljn_Bob** 25-Nov-2009

SHEET **61** OF **61**

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