

Manaus10AB\ABG

X01 Build

2010.08.02

INVENTEC

TITLE
Berlin 10AD

SIZE A3	CODE CS	DOC. NUMBER <i>1310A2333201</i>	REV X01
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CHANGE by *Devin Hsieh* 2-Aug-2010

SHEET 1 OF 48

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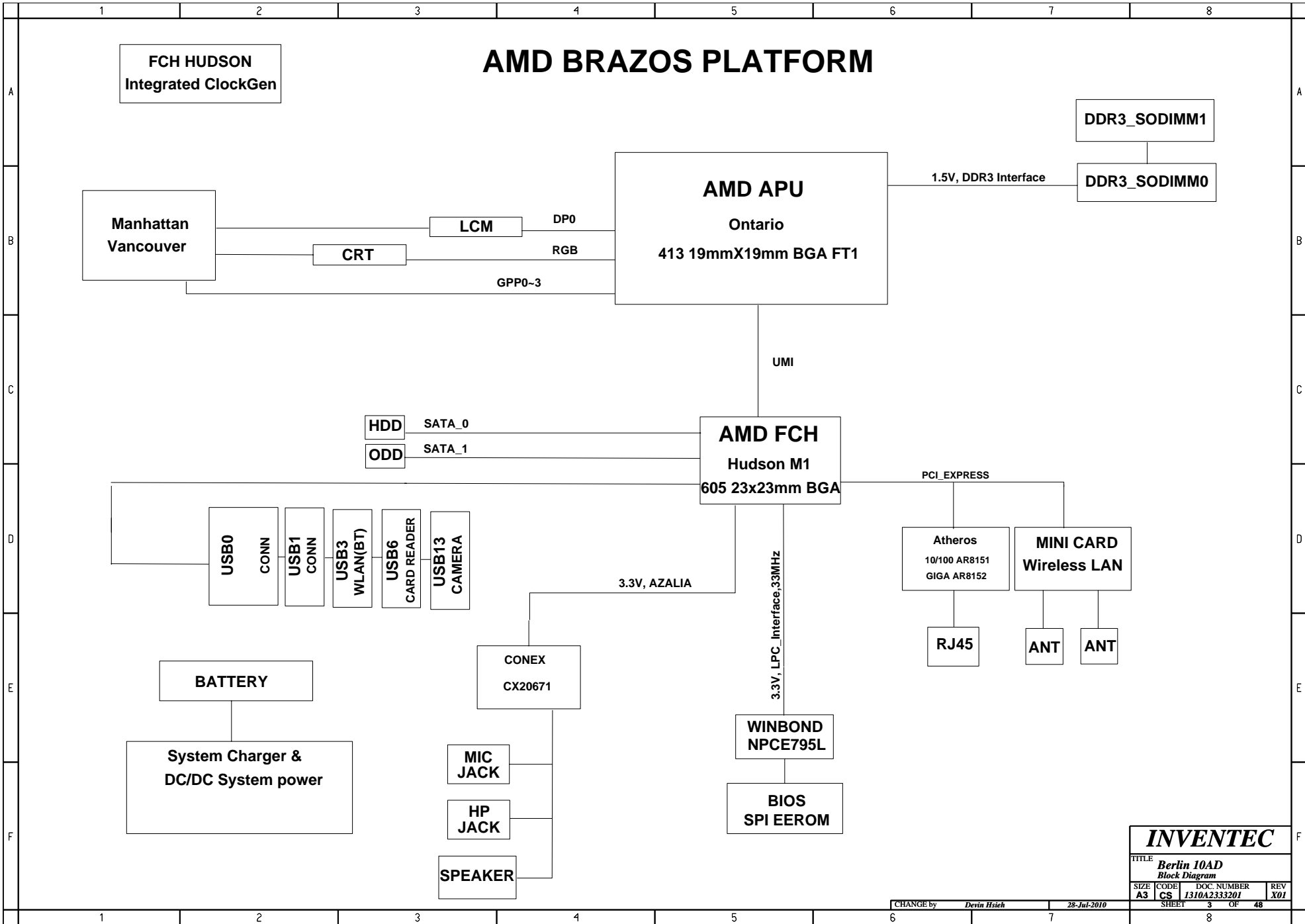
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<i>Berlin 10AD</i>			
<i>Index</i>			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01
CHANGE by		28-Jul-2010	
Devin Hsieh			
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AMD BRAZOS PLATFORM



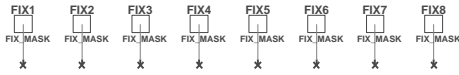
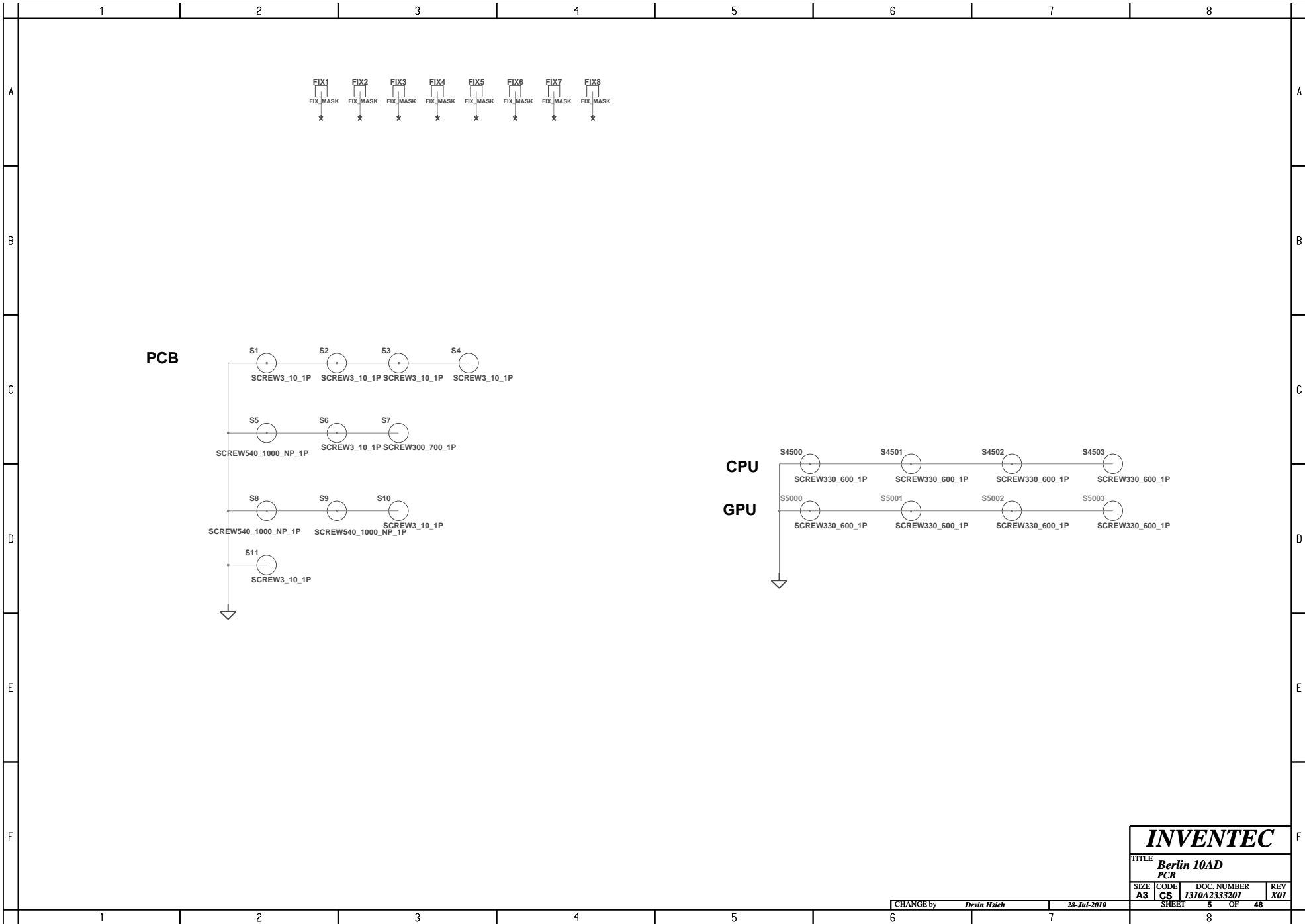
INVENTEC

TITLE			
Berlin 10AD			
Block Diagram			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01
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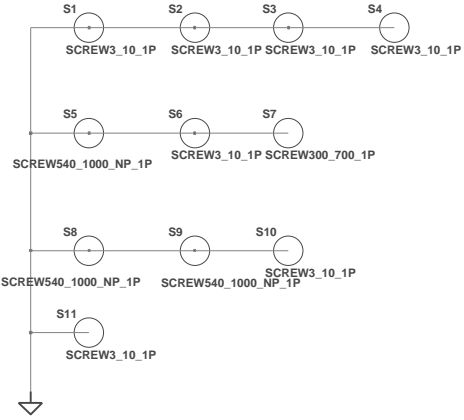
CHANGE by Devin Hsieh 28-Jul-2010

Update by power budget

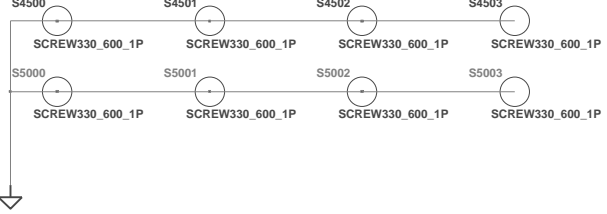
INVENTEC			
TITLE Berlin 10AD			
Power Sequence Block			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01
CHANGE by		2-Nov-2009	
Devin Hsieh			
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PCB



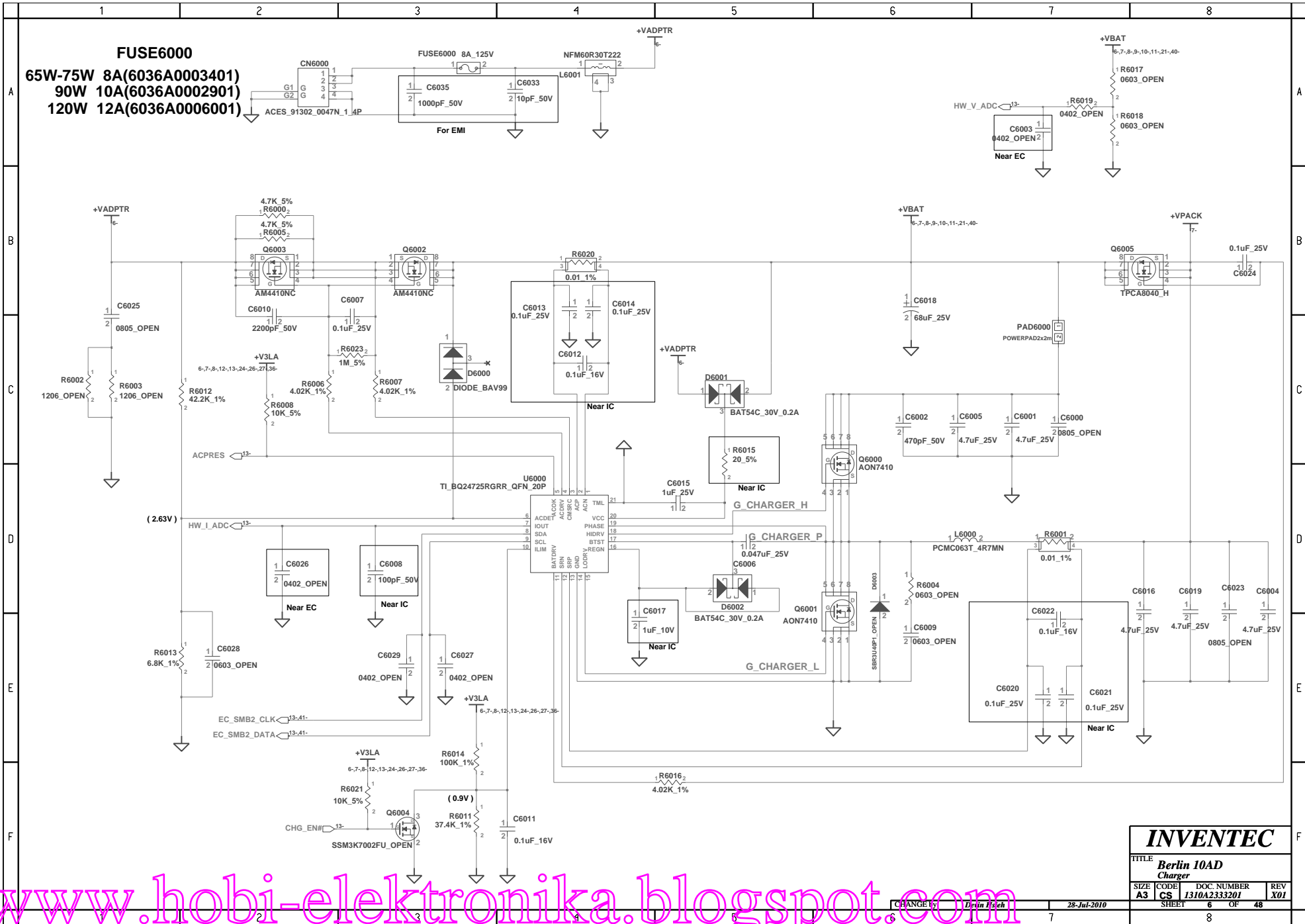
CPU



GPU

INVENTEC

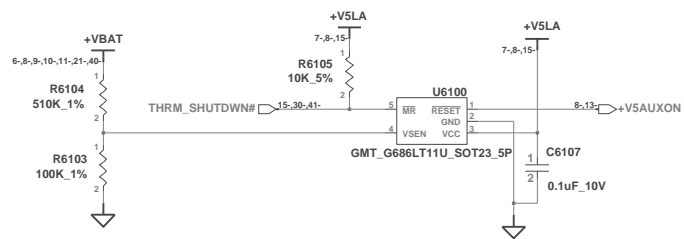
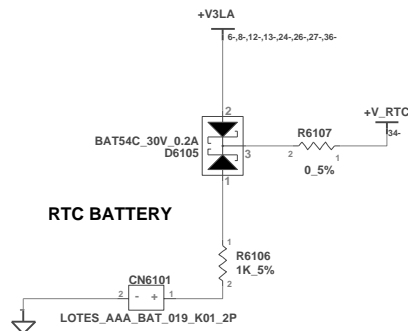
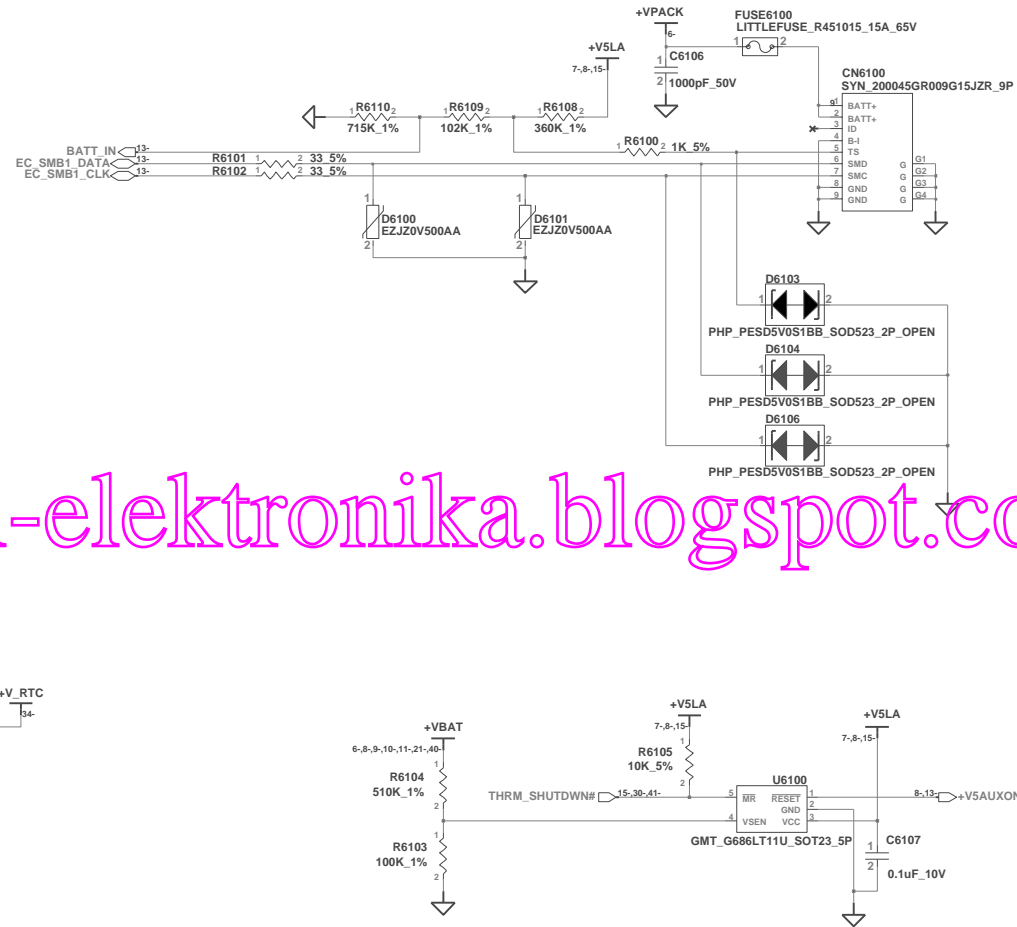
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Berlin 10AD			
PCB			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01
CHANGE by			SHEET
Devin Hsieh			5 OF 48
28-Jul-2010			8



FUSE6000
 65W-75W 8A(6036A0003401)
 90W 10A(6036A0002901)
 120W 12A(6036A0006001)

INVENTEC			
TITLE Berlin 10AD Charger			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devon Fisch</i>		28-Jul-2010	
SHEET 6		OF 48	

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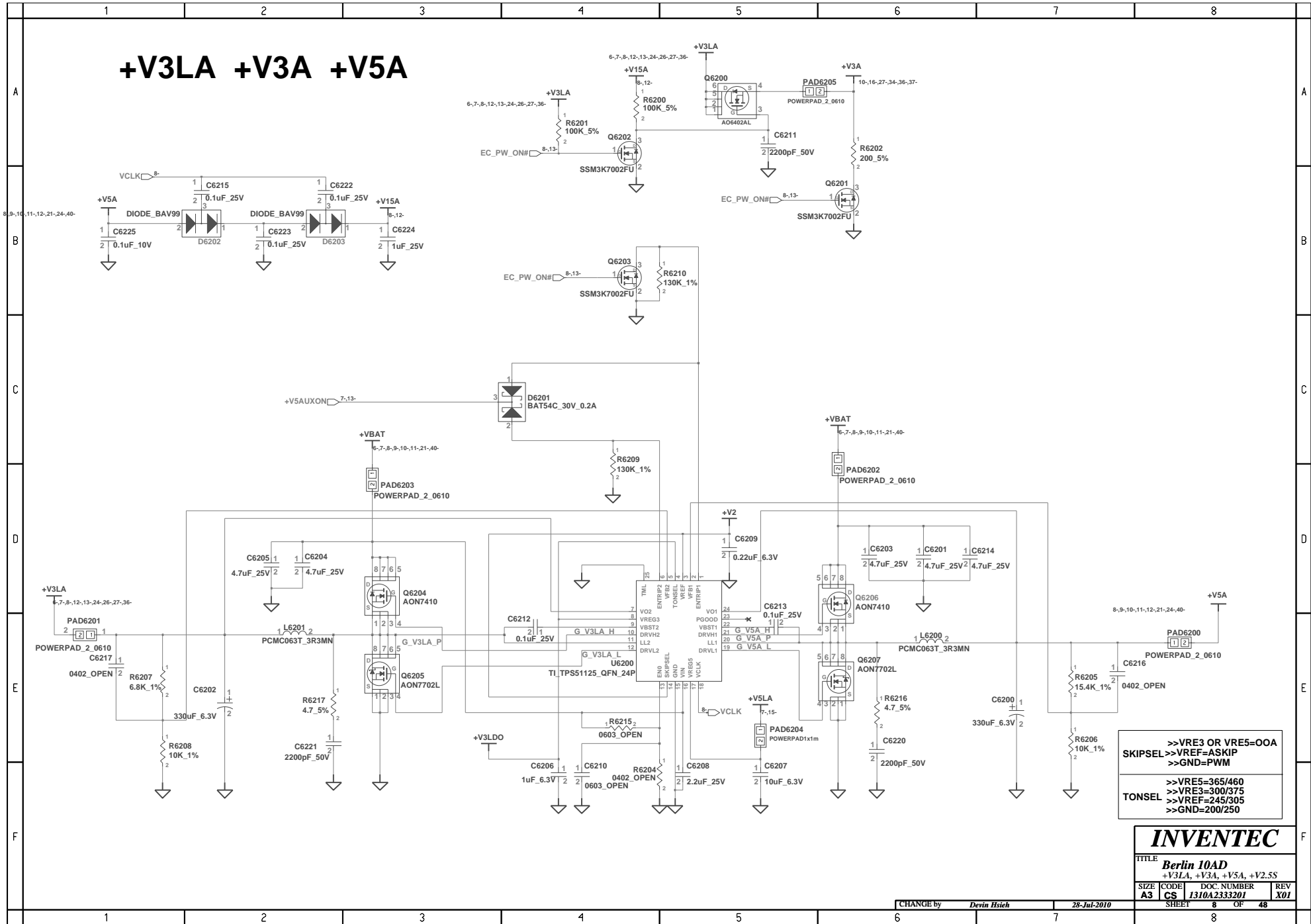
TITLE
**Berlin 10AD
Battery, Reset IC**

SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009	
SHEET 7		OF 48	

CHANGE by *Devin Hsieh* 2-Nov-2009

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+V3LA +V3A +V5A



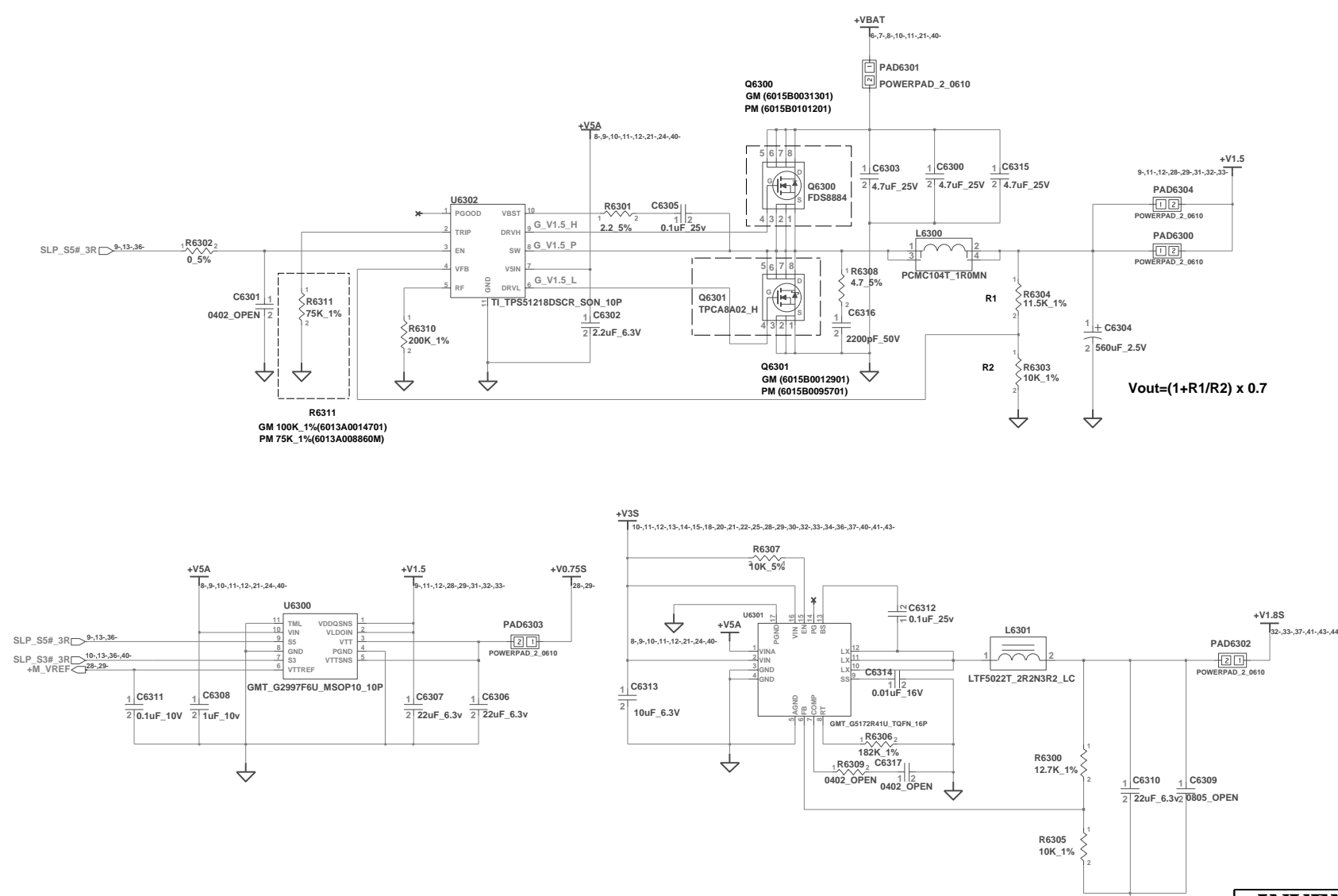
>>VRE3 OR VRE5=OOA
 SKIPSEL >>VREF=ASKIP
 >>GND=PWM

 >>VRE5=365/460
 >>VRE3=300/375
 >>VREF=245/305
 >>GND=200/250

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TITLE			
Berlin 10AD			
+V3LA, +V3A, +V5A, +V2.5S			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2333201	X01

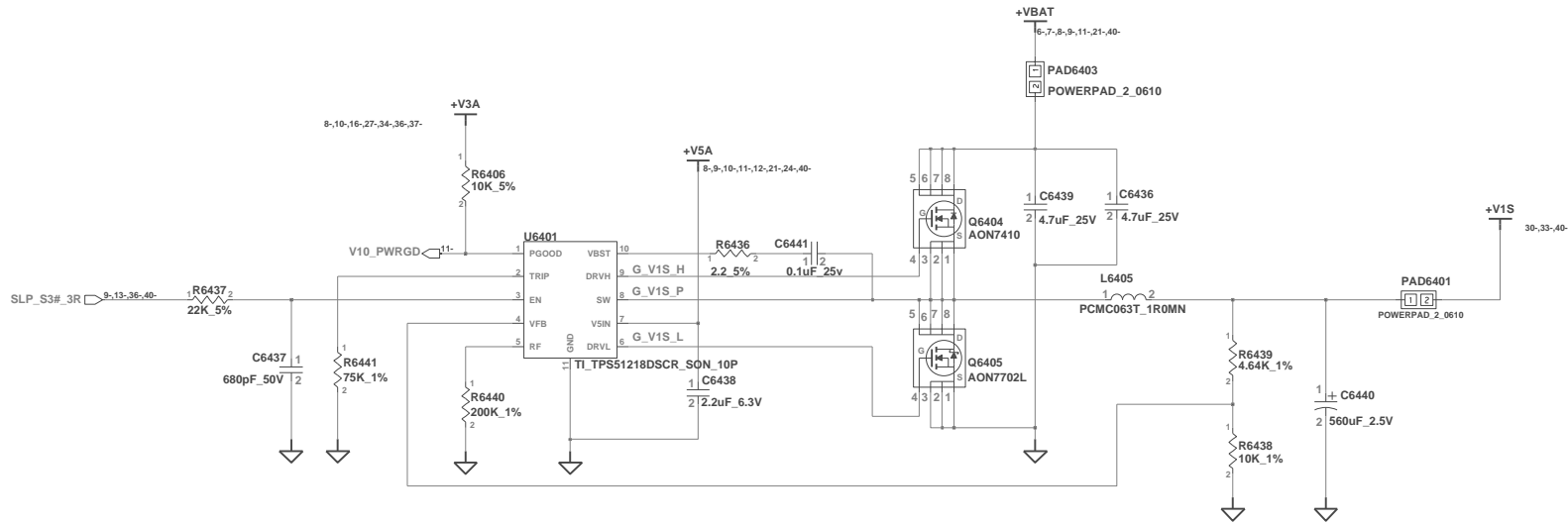
+V1.8S +V0.75S +V1.5



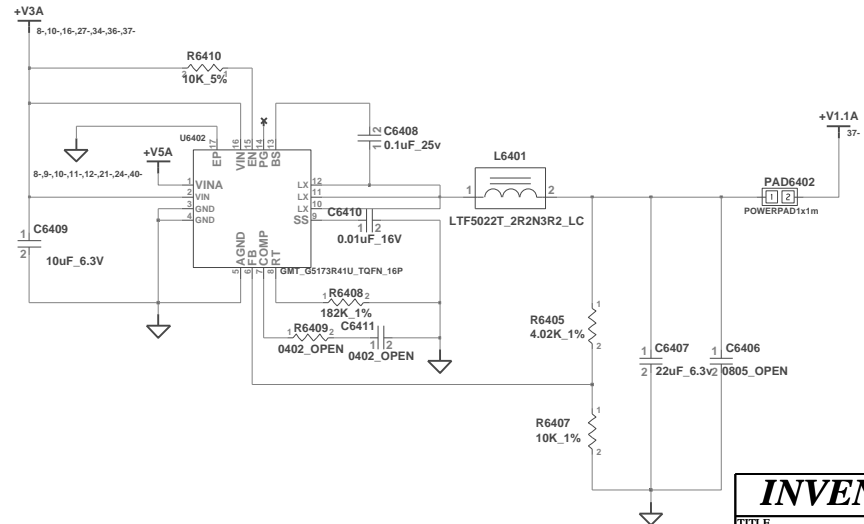
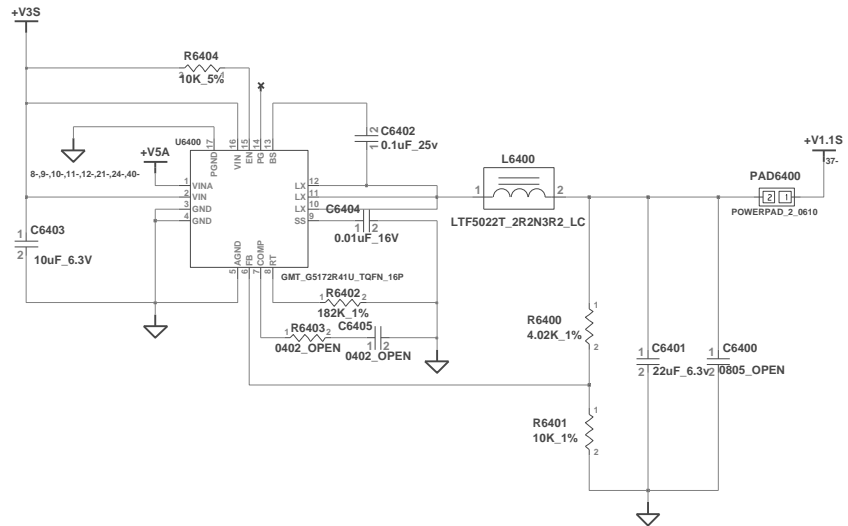
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TITLE Berlin 10AD			
+CPU_VDDR, +V0.75, +V1.5			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01
CHANGE by		2-Nov-2009	
SHEET		9 OF 48	

+V1.1A +V1S +V1.1S



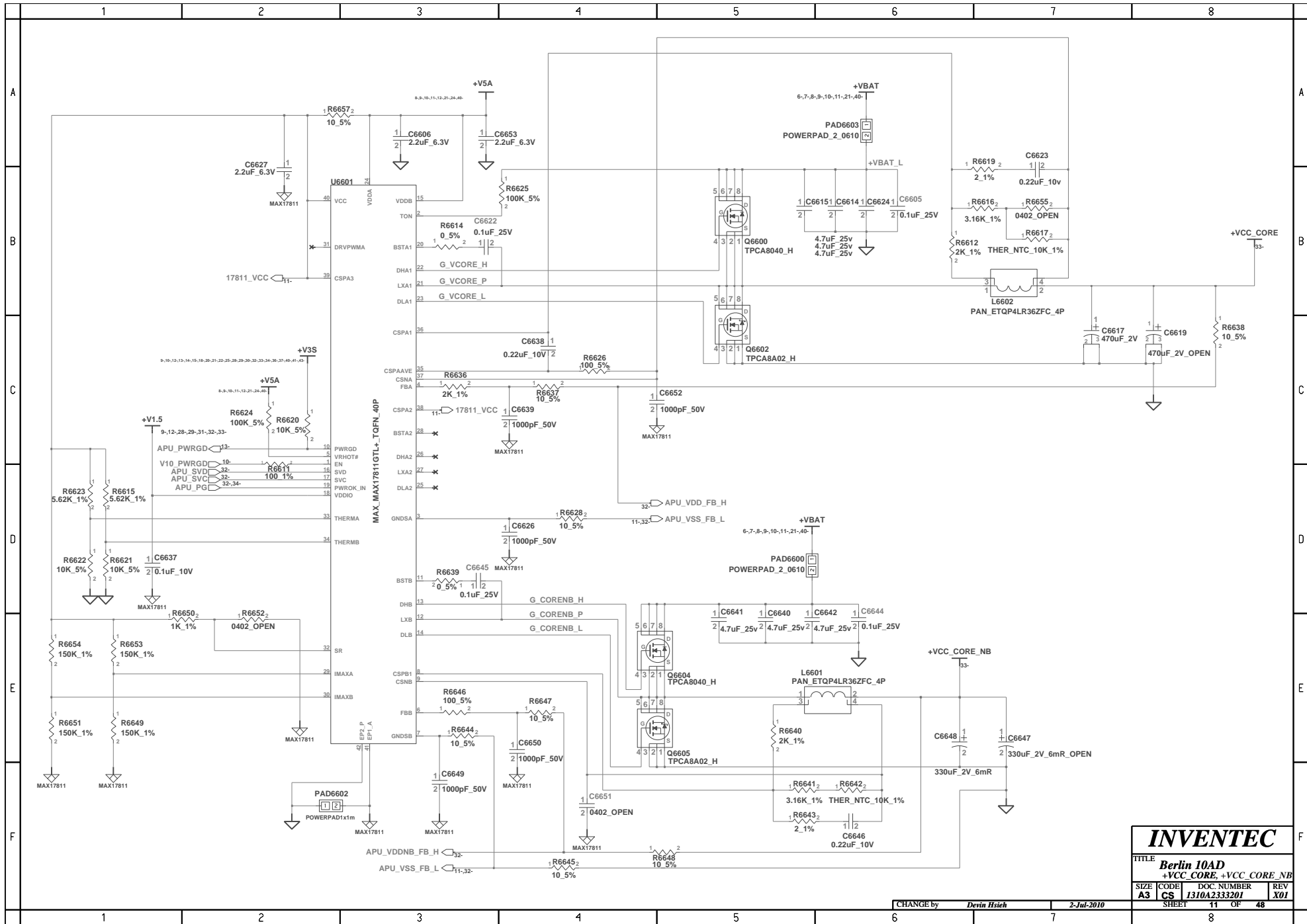
9, 11, 12, 13, 14, 15, 18, 20, 21, 22, 25, 28, 29, 30, 32, 33, 34, 36, 37, 40, 41, 43



INVENTEC

TITLE			
Berlin 10AD			
+V1.1A, +V1.1S, +V1.8S			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01
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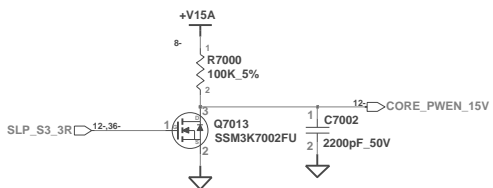
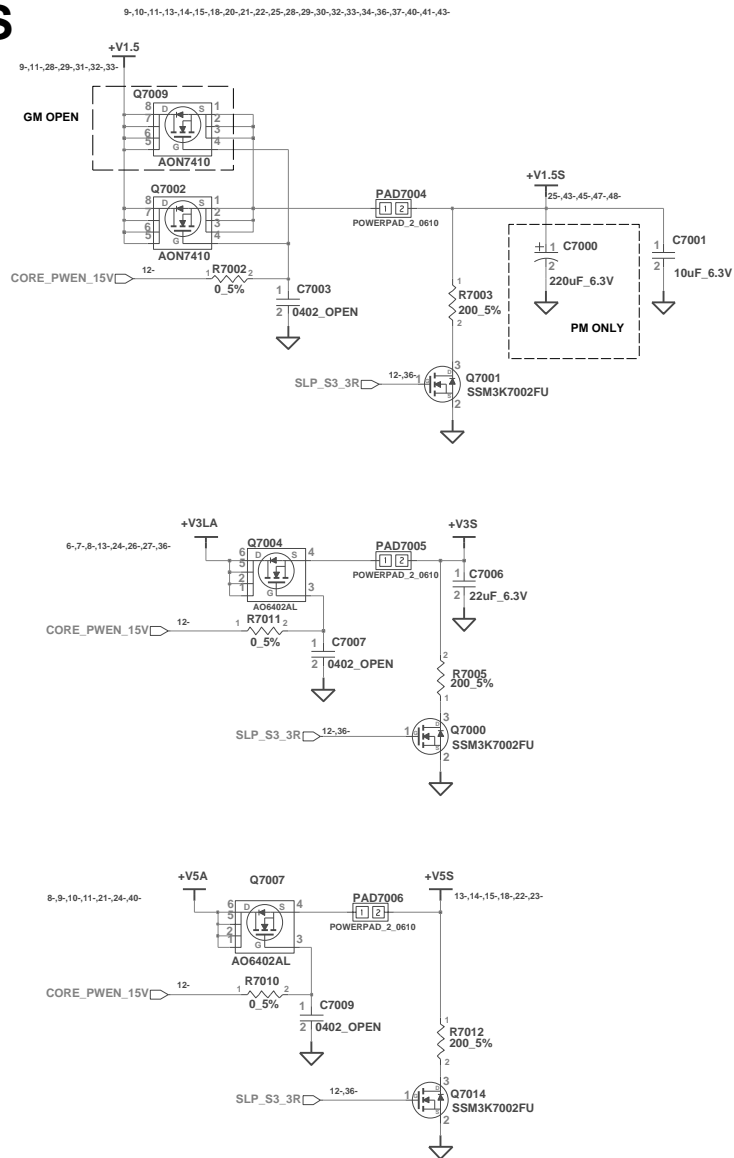
CHANGE by *Devin Hsieh* 2-Nov-2009



INVENTEC			
TITLE Berlin 10AD			
+VCC_CORE, +VCC_CORE_NB			
SIZE	CODE	DOC NUMBER	REV
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11		48	

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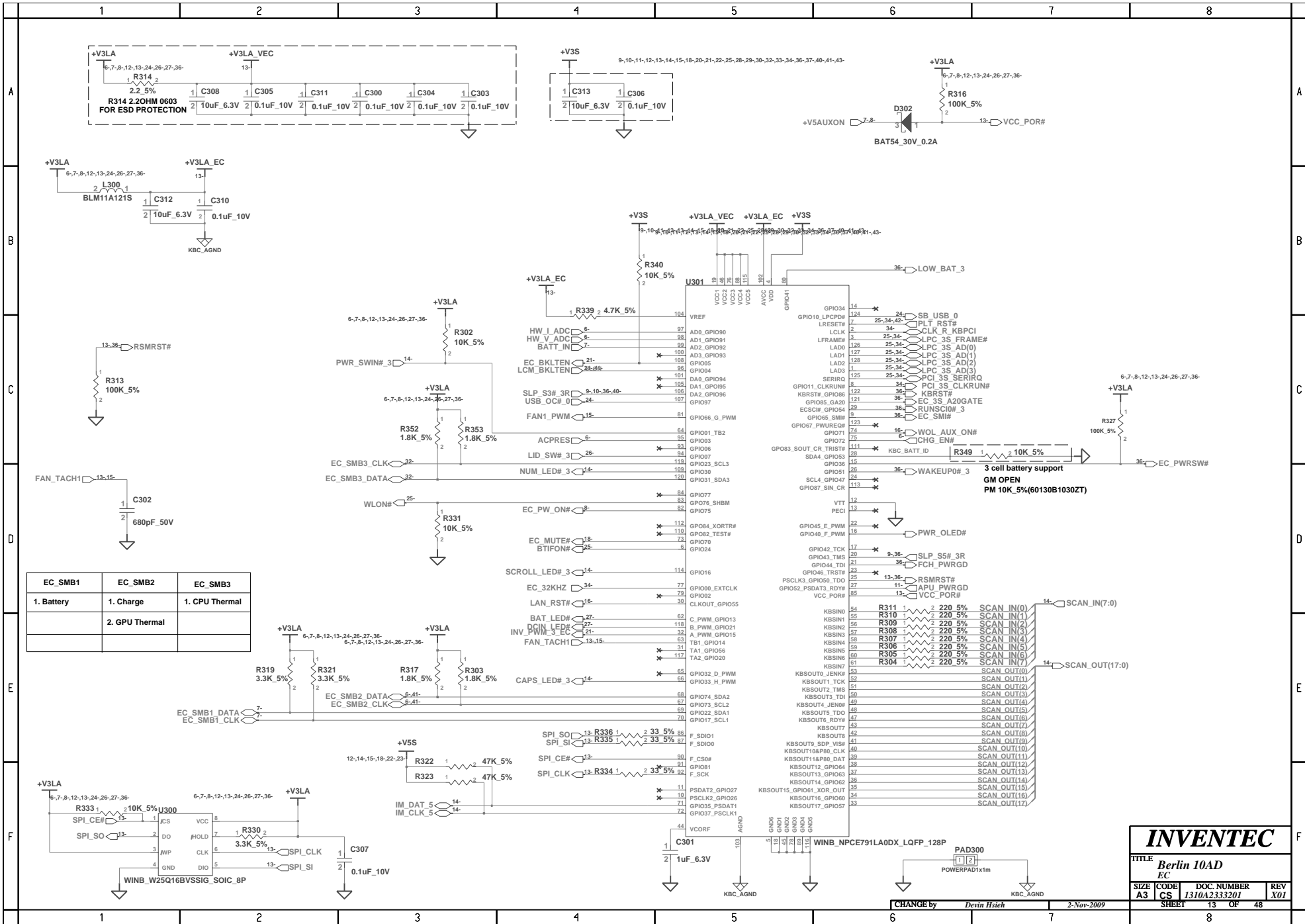
+V3 +V5S +V3S +V1.5S



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TITLE			
Berlin 10AD			
+V3 +V5S +V3S +V1.5S			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01



EC_SMB1	EC_SMB2	EC_SMB3
1. Battery	1. Charge	1. CPU Thermal
	2. GPU Thermal	

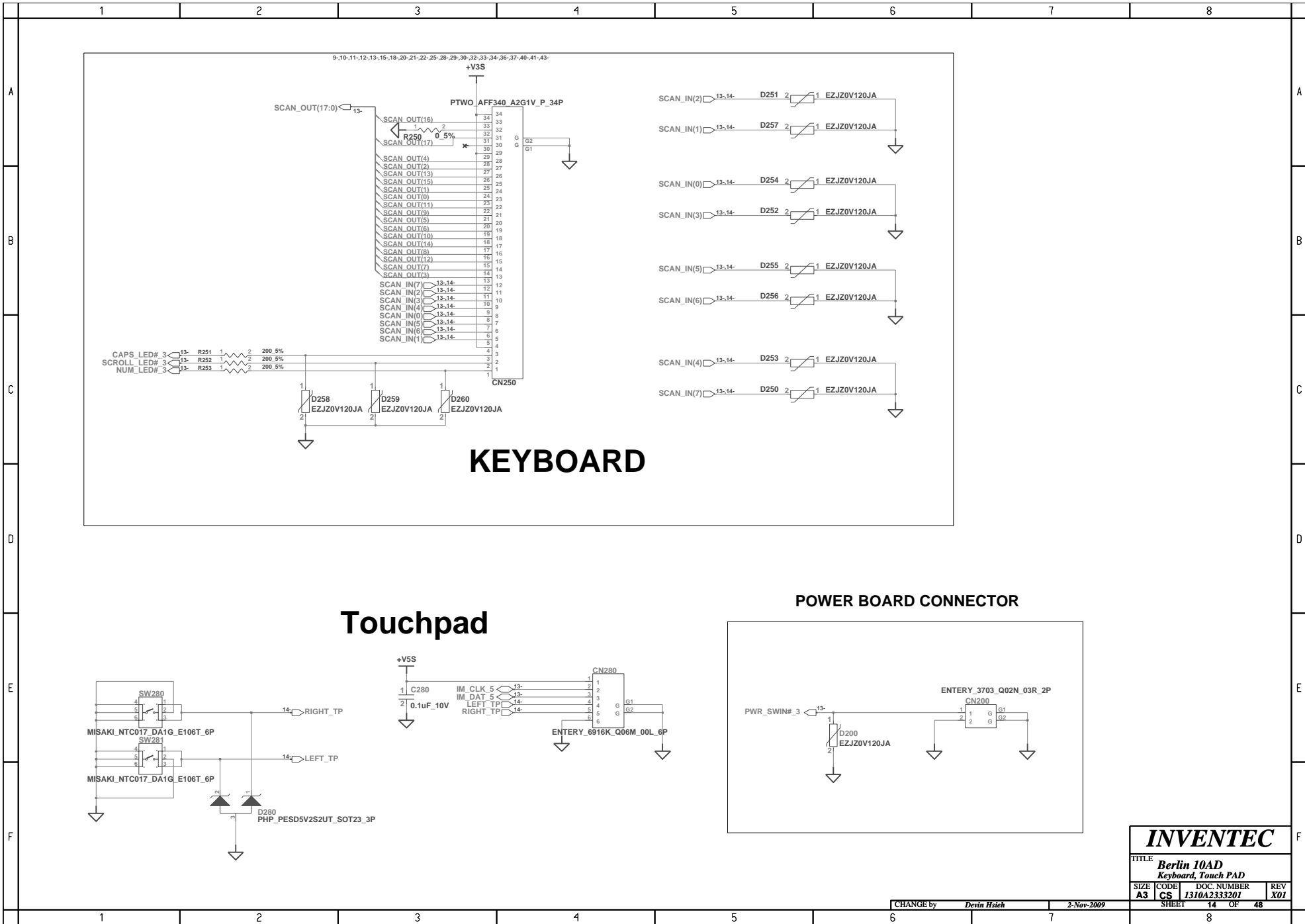
INVENTEC

TITLE: Berlin 10AD
EC

SIZE	CODE	DOC NUMBER	REV
A3	CS	I310A2333201	X01

CHANGE by: Devin Hsieh 2-Nov-2009

SHEET 13 OF 48

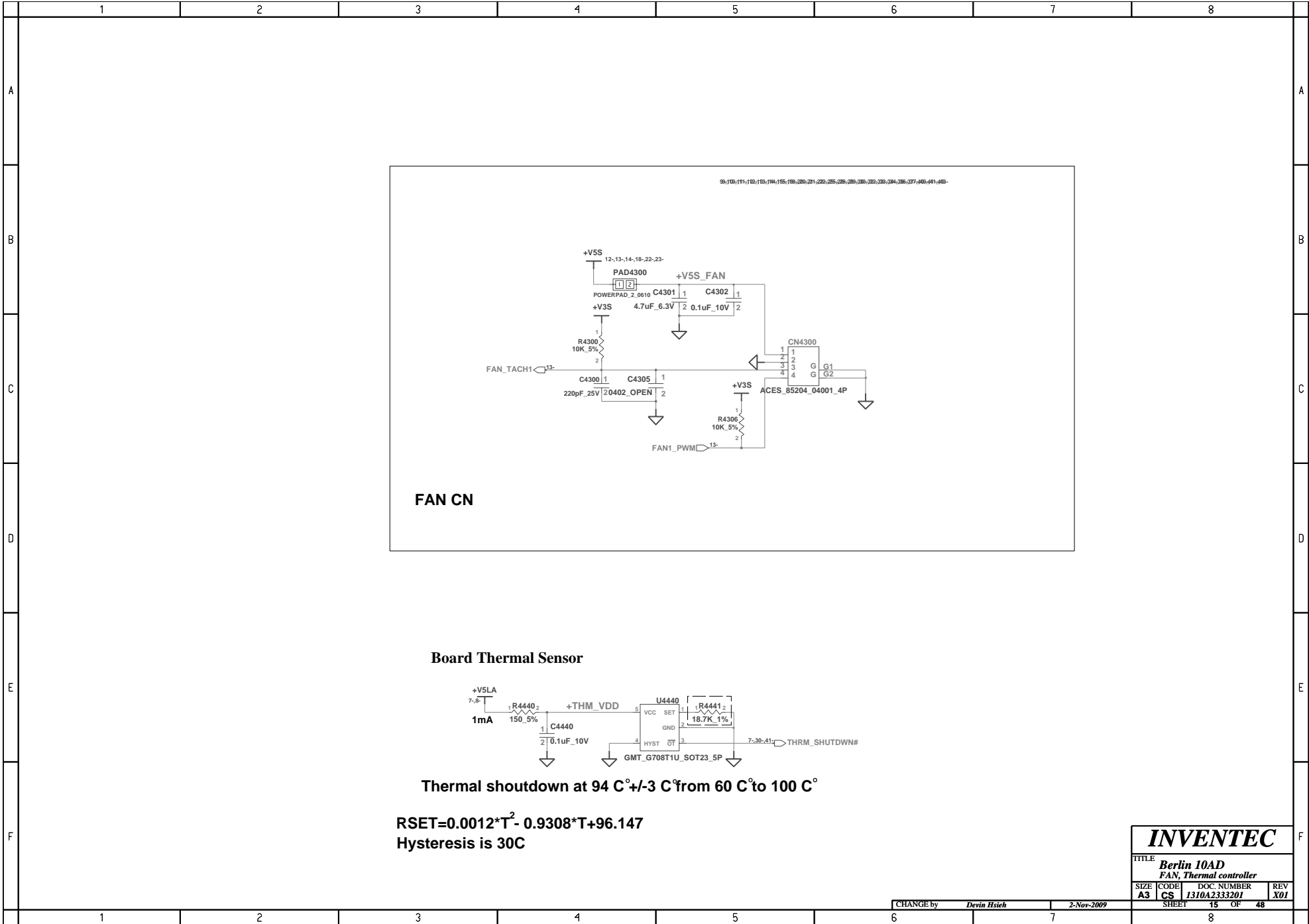


KEYBOARD

Touchpad

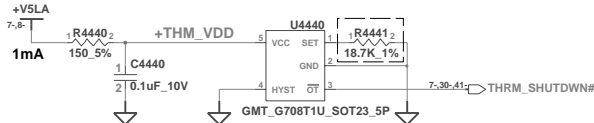
POWER BOARD CONNECTOR

INVENTEC			
TITLE Berlin 10AD Keyboard, Touch PAD			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009	
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FAN CN

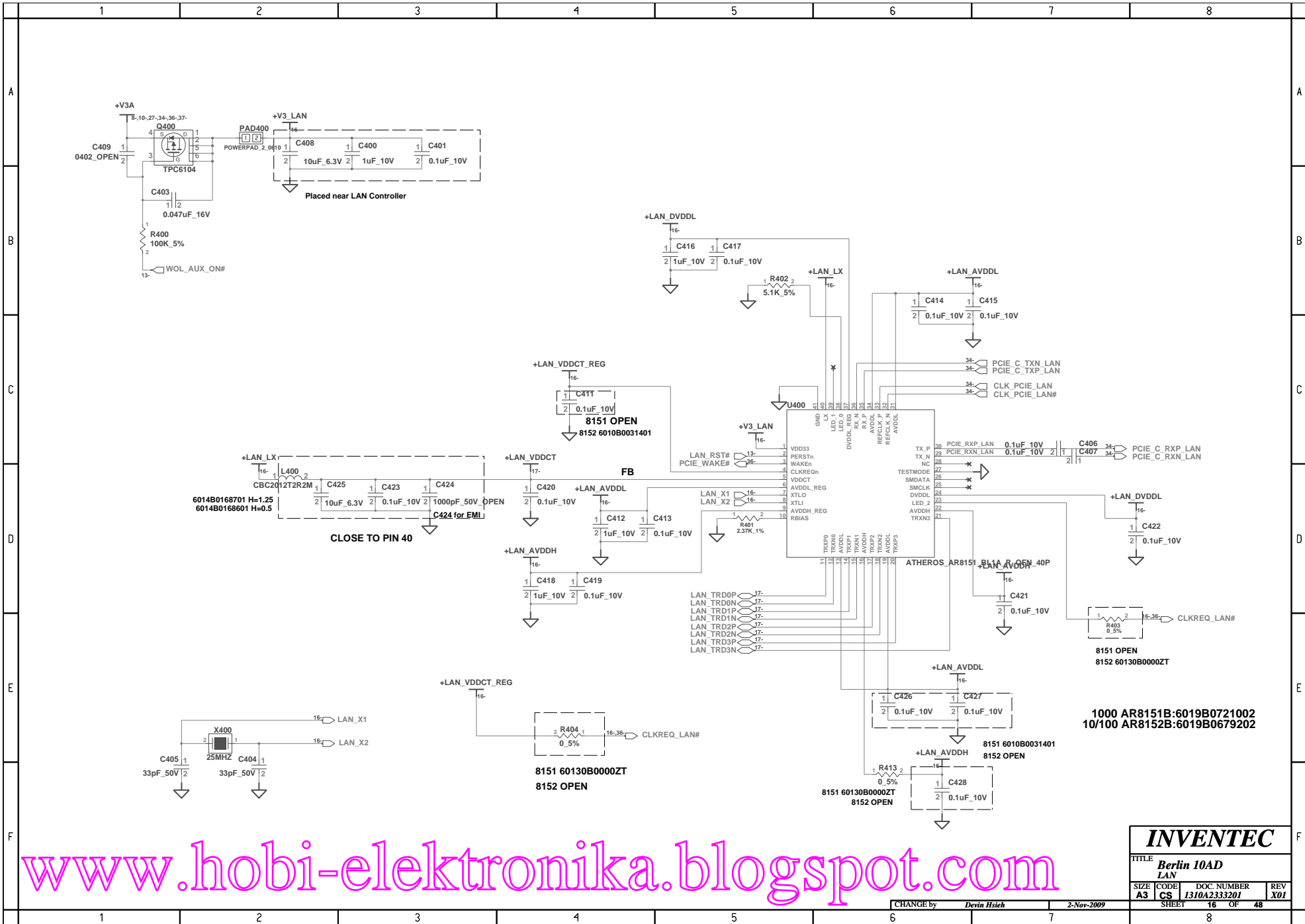
Board Thermal Sensor



Thermal shutdown at 94 C° +/-3 C° from 60 C° to 100 C°

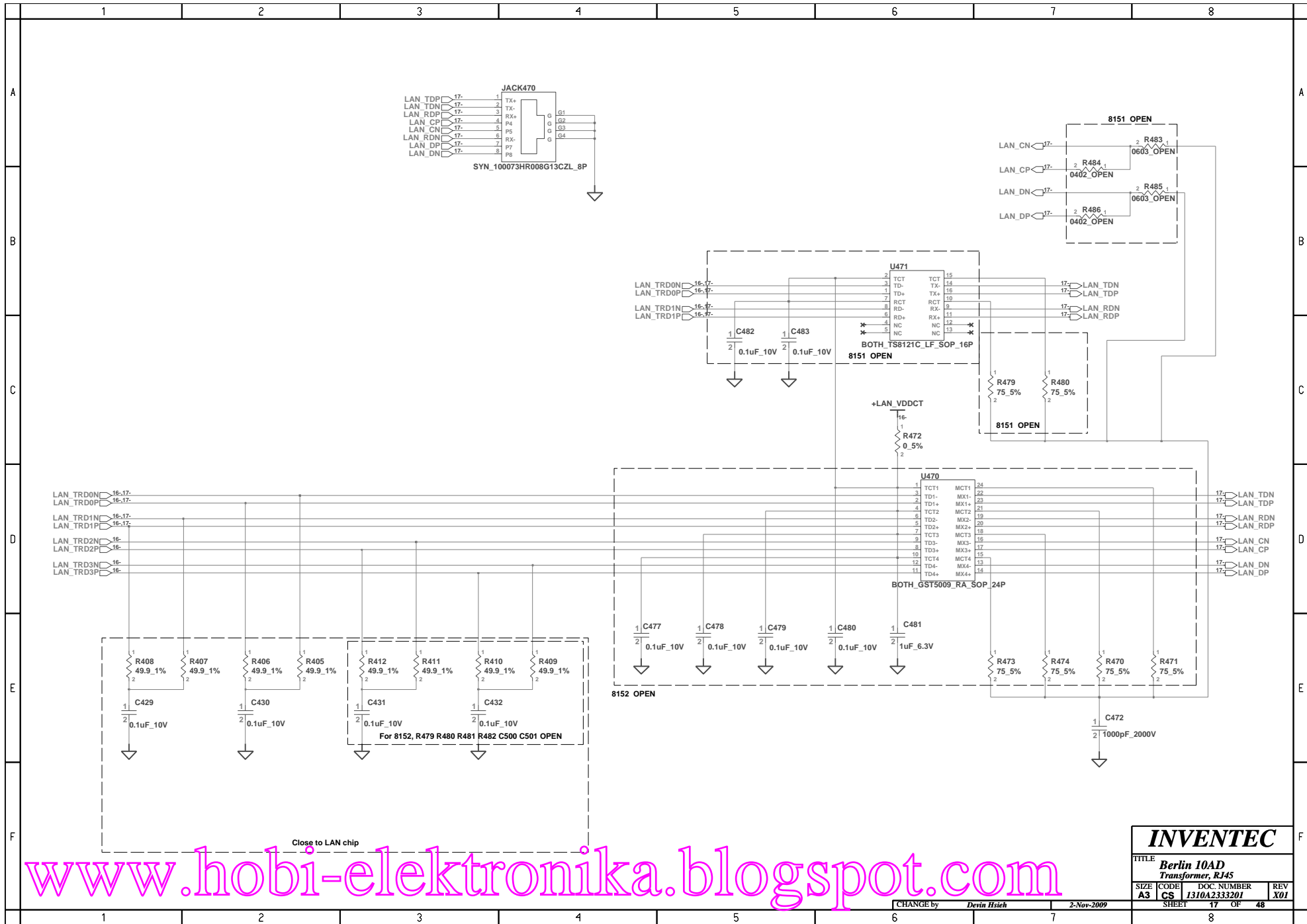
$RSET=0.0012*T^2 - 0.9308*T+96.147$
 Hysteresis is 30C

INVENTEC			
TITLE <i>Berlin 10AD</i> <i>FAN, Thermal controller</i>			
SIZE A3	CODE CS	DOC NUMBER <i>J310A2333201</i>	REV X01
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009	
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INVENTEC			
TITLE Berlin 10AD			
LAN			
SIZE A3	CODE CS	DOC NUMBER J310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009	
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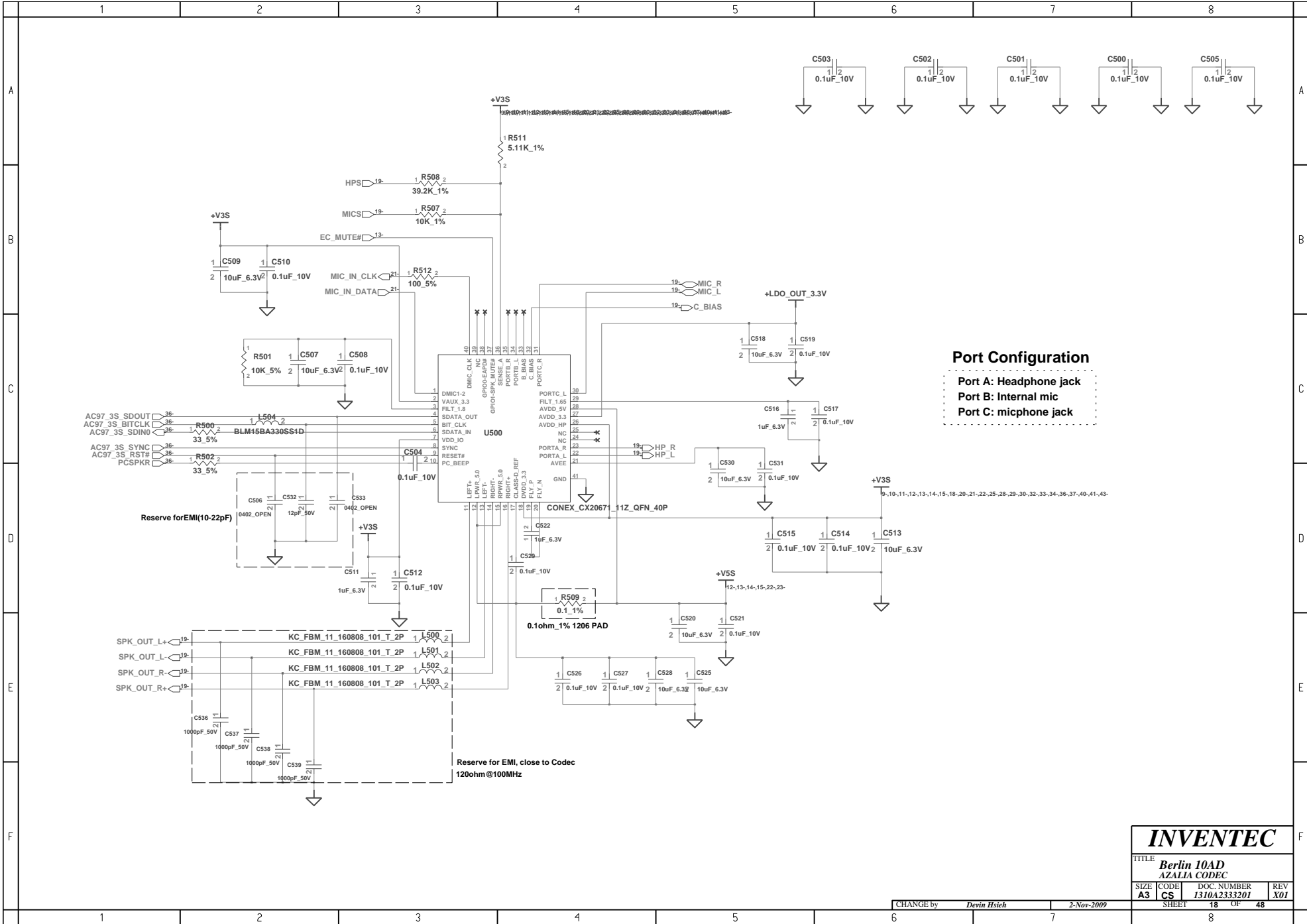


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INVENTEC

TITLE
**Berlin 10AD
 Transformer, RJ45**

SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devlin Hsieh</i>		2-Nov-2009	
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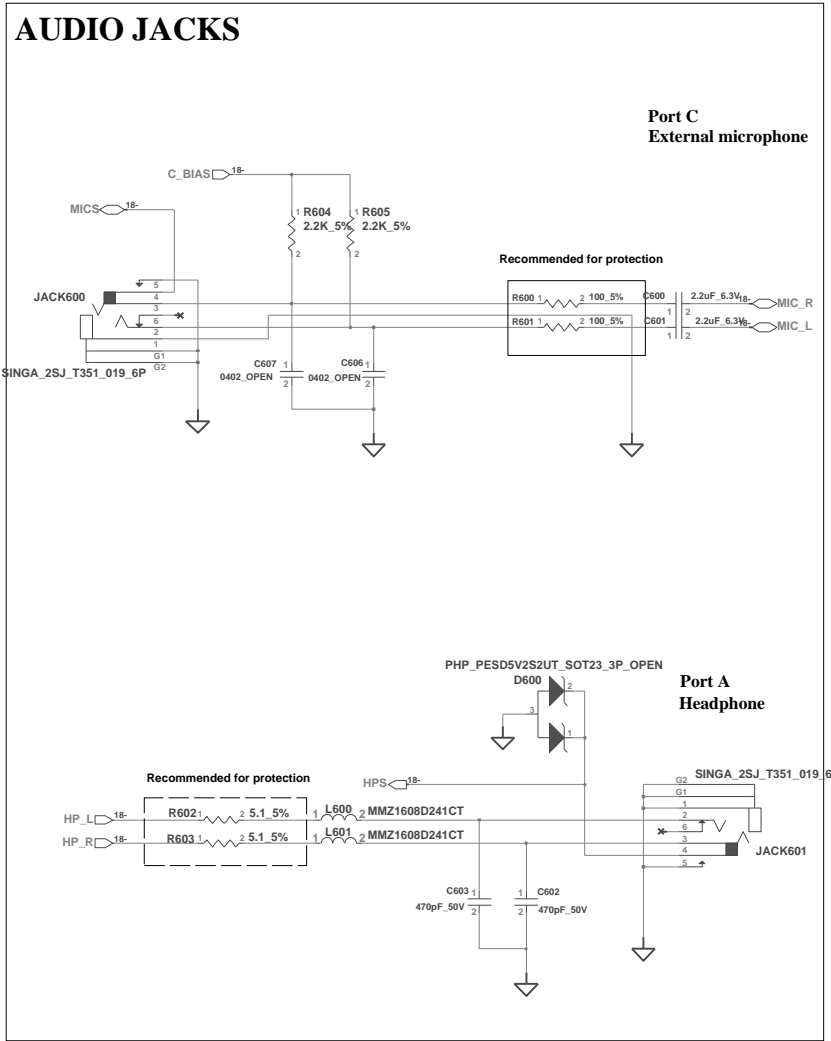
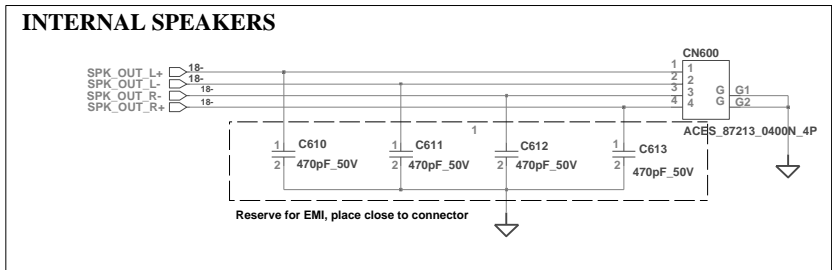
Port Configuration

- Port A: Headphone jack
- Port B: Internal mic
- Port C: microphone jack

INVENTEC

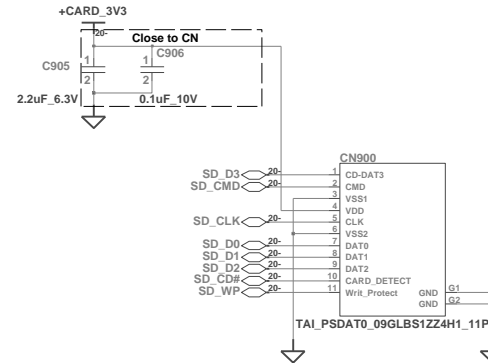
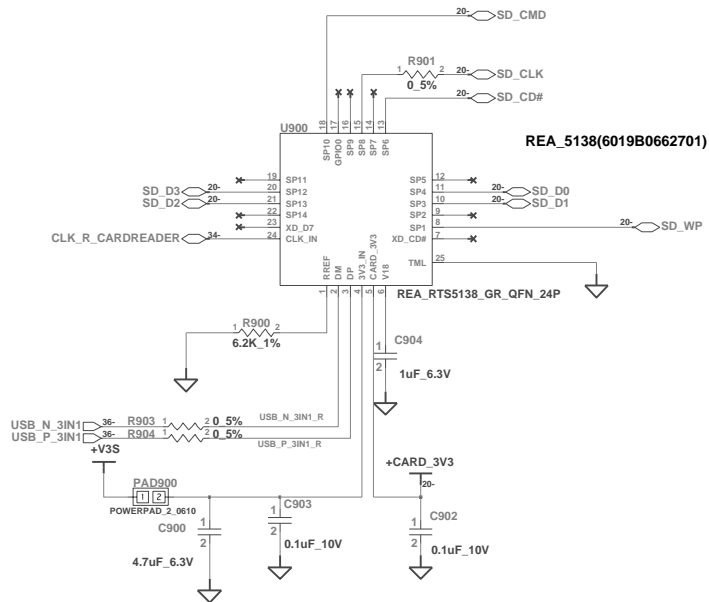
TITLE
Berlin 10AD
AZALIA CODEC

SIZE A3	CODE CS	DOC NUMBER 1310A2333201	REV X01
CHANGE by <i>Devlin Hsieh</i>		2-Nov-2009	
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INVENTEC			
TITLE Berlin 10AD MIC & SPEAKER			
SIZE A3	CODE CS	DOC NUMBER 1310A233201	REV X01
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009	
SHEET 19		OF 48	

CARD READER & USB BOARD



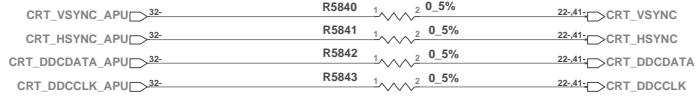
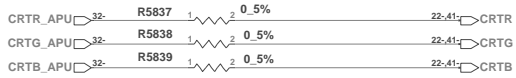
INVENTEC

TITLE
Berlin 10AD
MDC

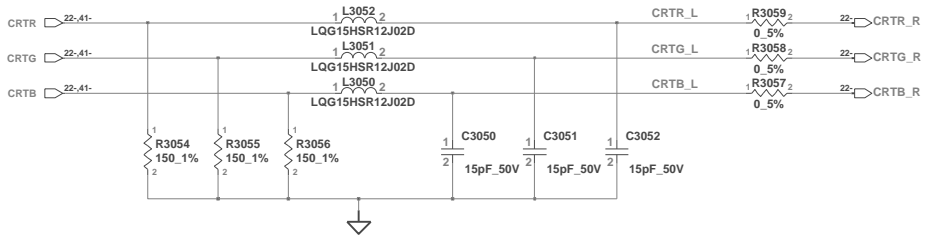
SIZE A3	CODE CS	DOC NUMBER J310A2333201	REV X01
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CHANGE by *Devin Hsieh* 28-Jul-2010

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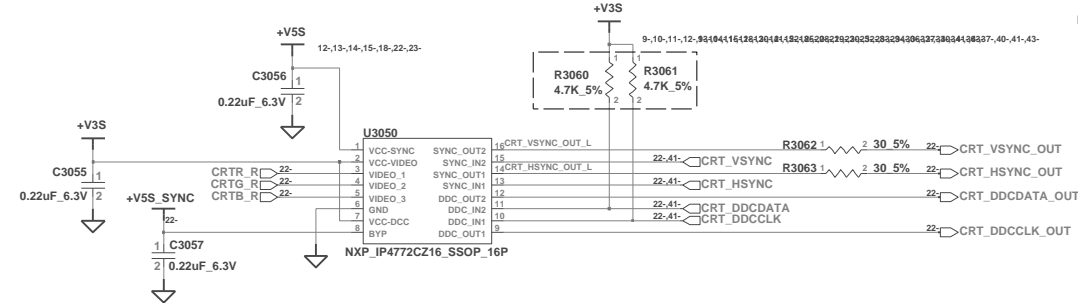
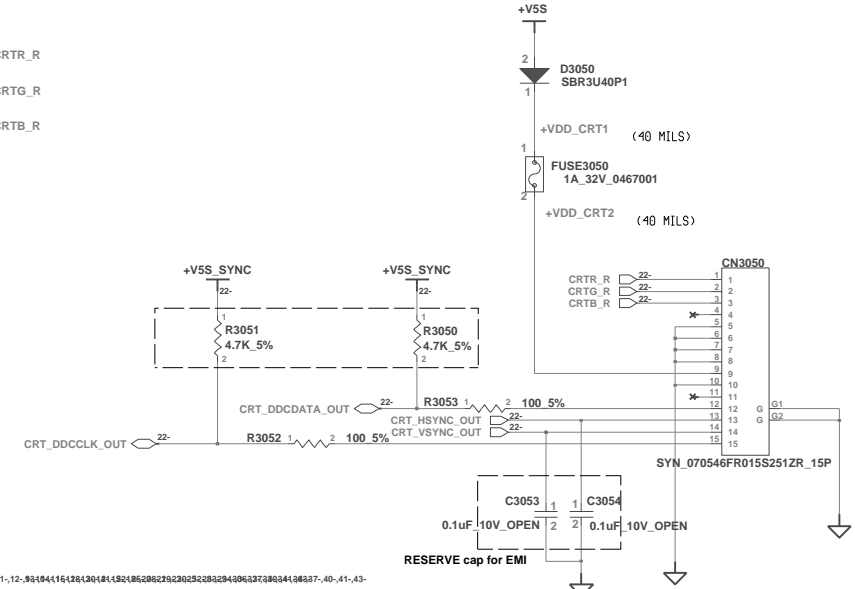


GM/PM CO-LAYOUT



Level-shift PU values

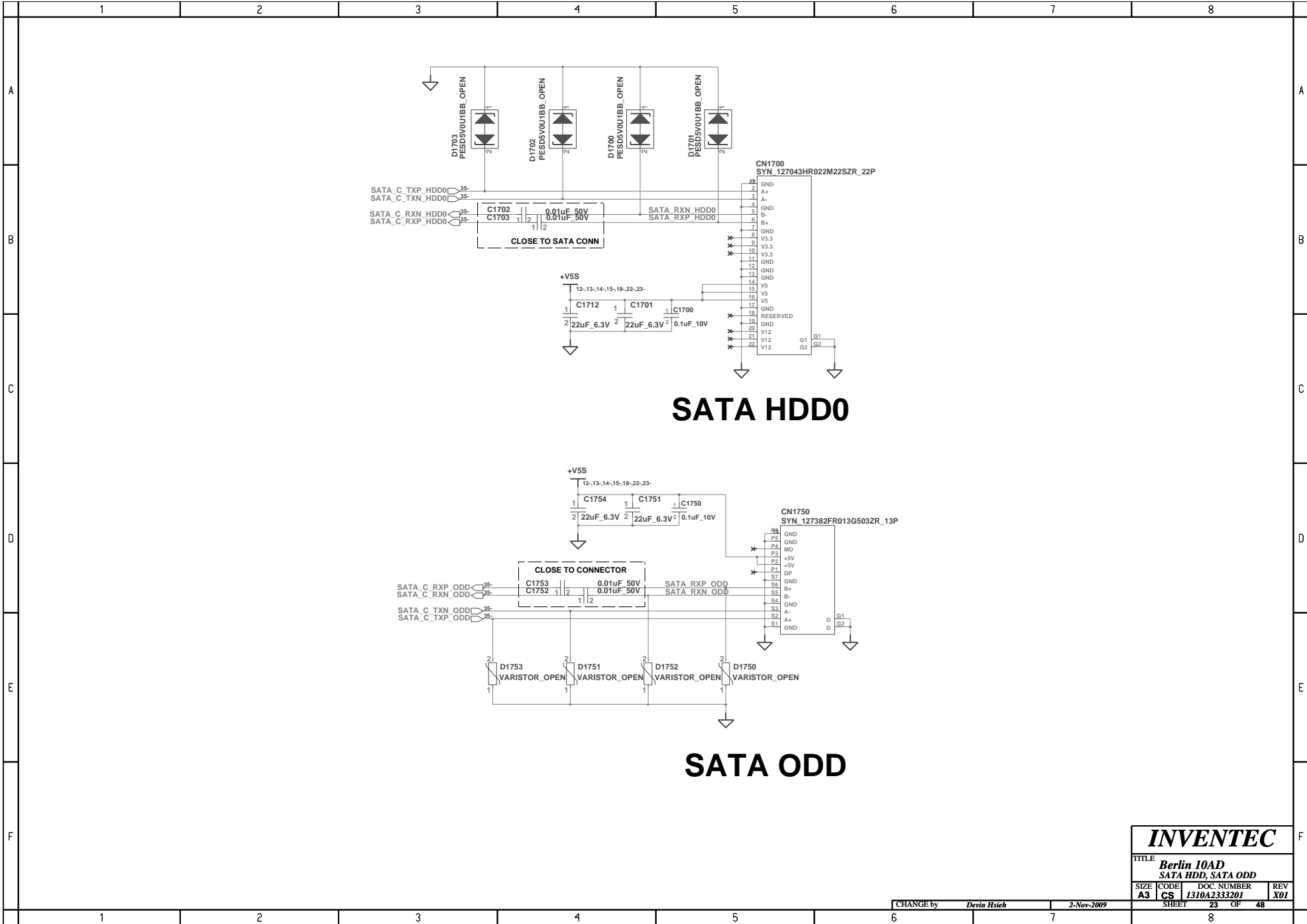
	3 V	5 V
FCH	4.7K_5% 60130B4720ZT	4.7K_5% 60130B4720ZT
GPU	10K_5% 60130B1030ZT	2K_5% 60130B2020ZT



INVENTEC
 TITLE
Berlin 10AD
CRT

SIZE	CODE	DOC NUMBER	REV
A3	CS	I310A2333201	X01

CHANGE by *Devlin Hsieh* 2-Nov-2009



SATA HDD0

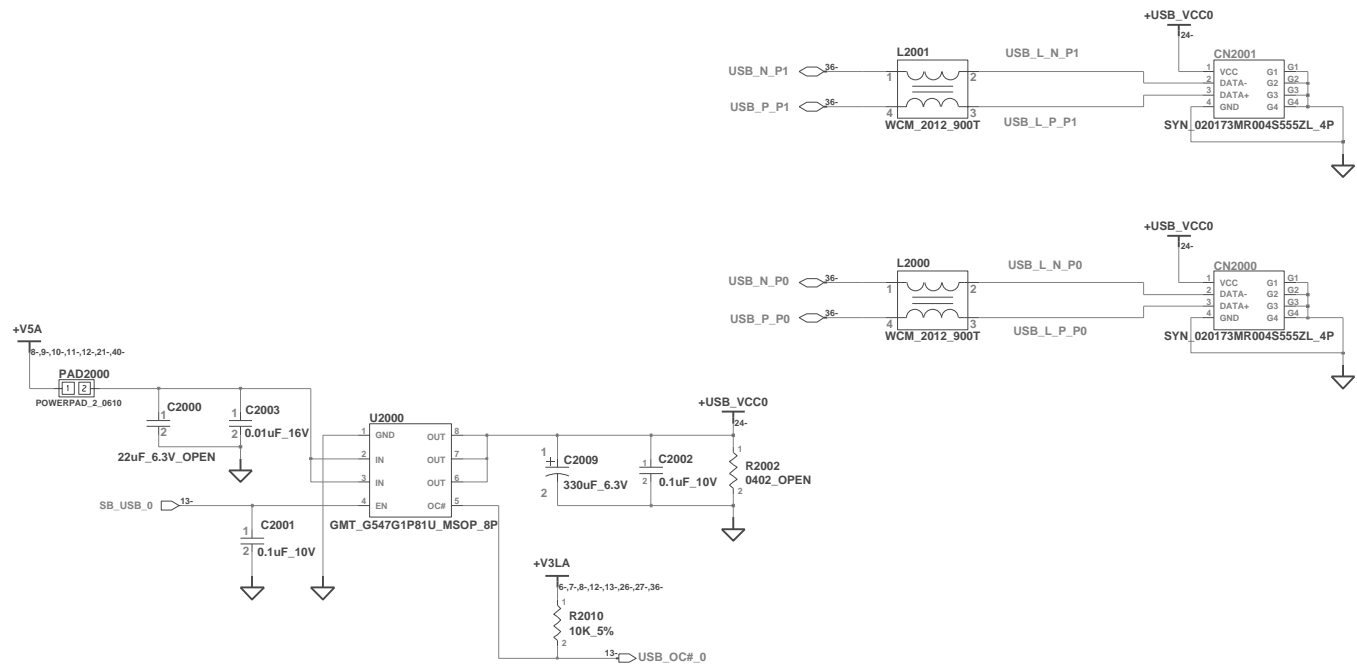
SATA ODD

INVENTEC

TITLE
Berlin 10AD
SATA HDD, SATA ODD

SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009	
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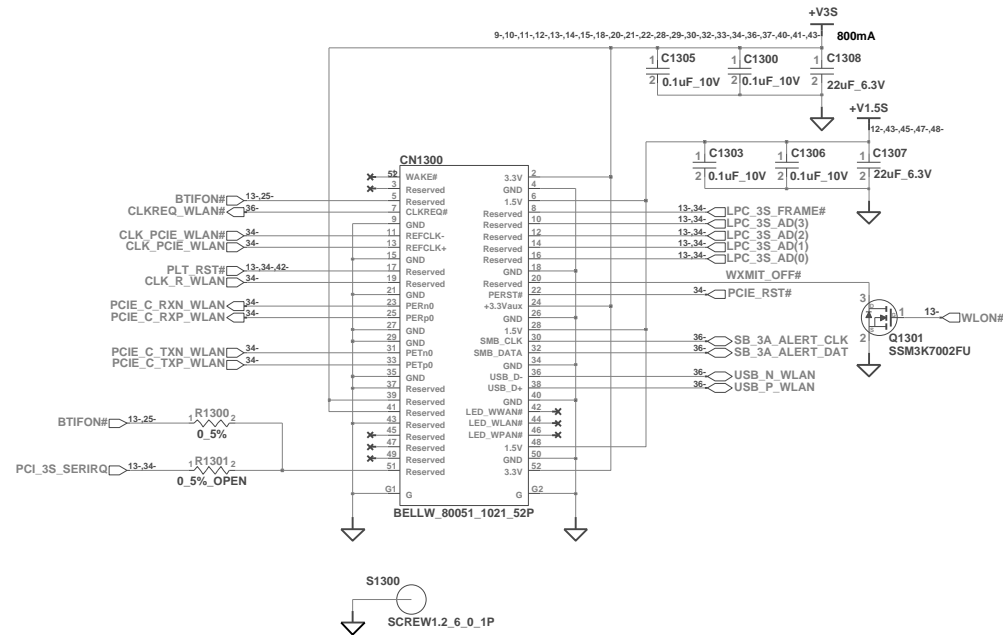


INVENTEC

TITLE			
Berlin 10AD			
e-SATA			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01
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Wireless & BT & Debug card



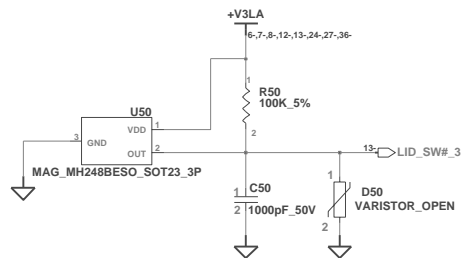
INVENTEC

TITLE			
Berlin 10AD			
WLAN			
SIZE	CODE	DOC NUMBER	REV
A3	CS	J310A2333201	X01
CHANGE by		SHEET	
Devlin Hsieh		25 OF 48	

2-Nov-2009

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HALL SENSOR

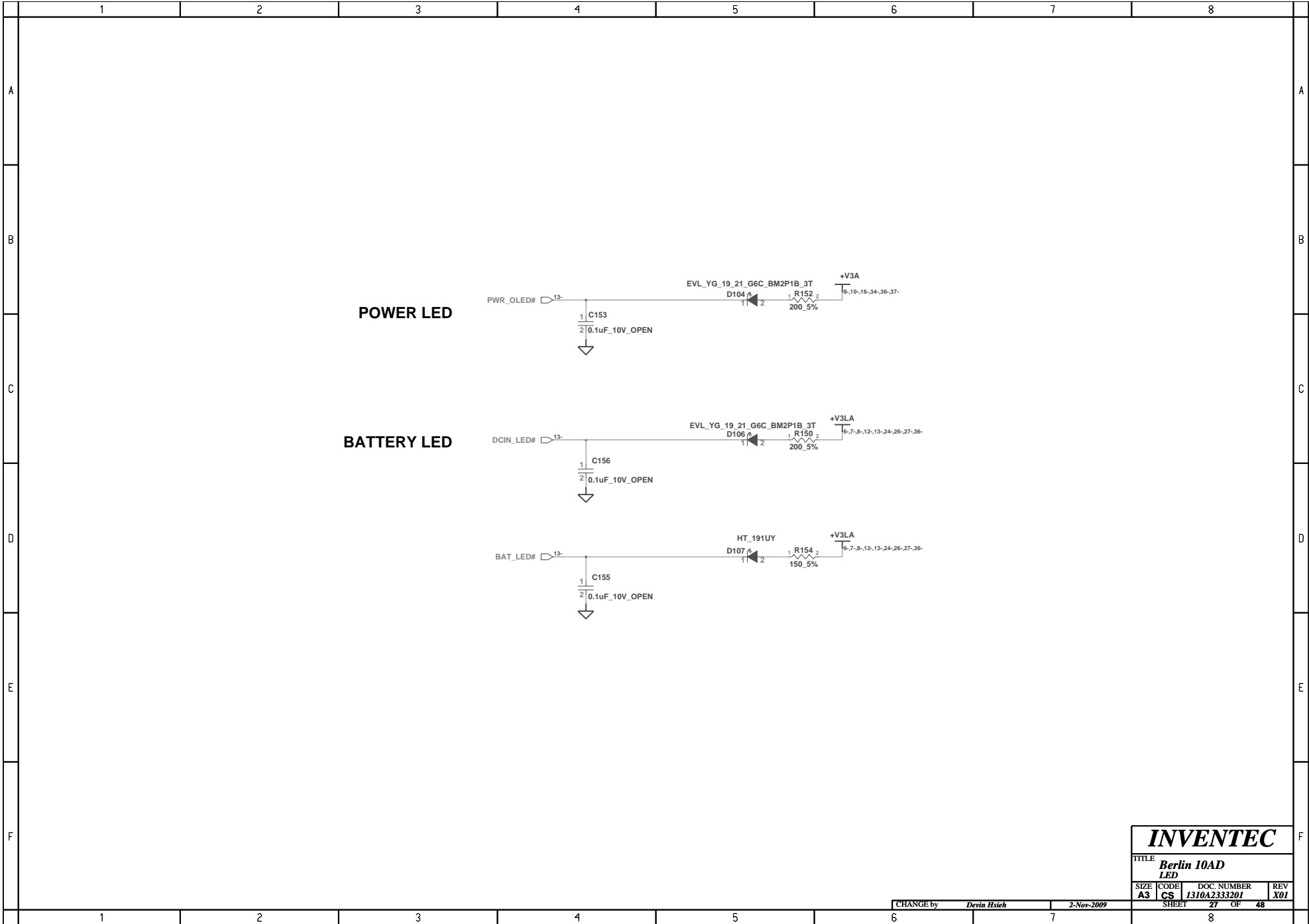


INVENTEC

TITLE
Berlin 10AD
HALL SENSOR

SIZE A3	CODE CS	DOC NUMBER J310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009	
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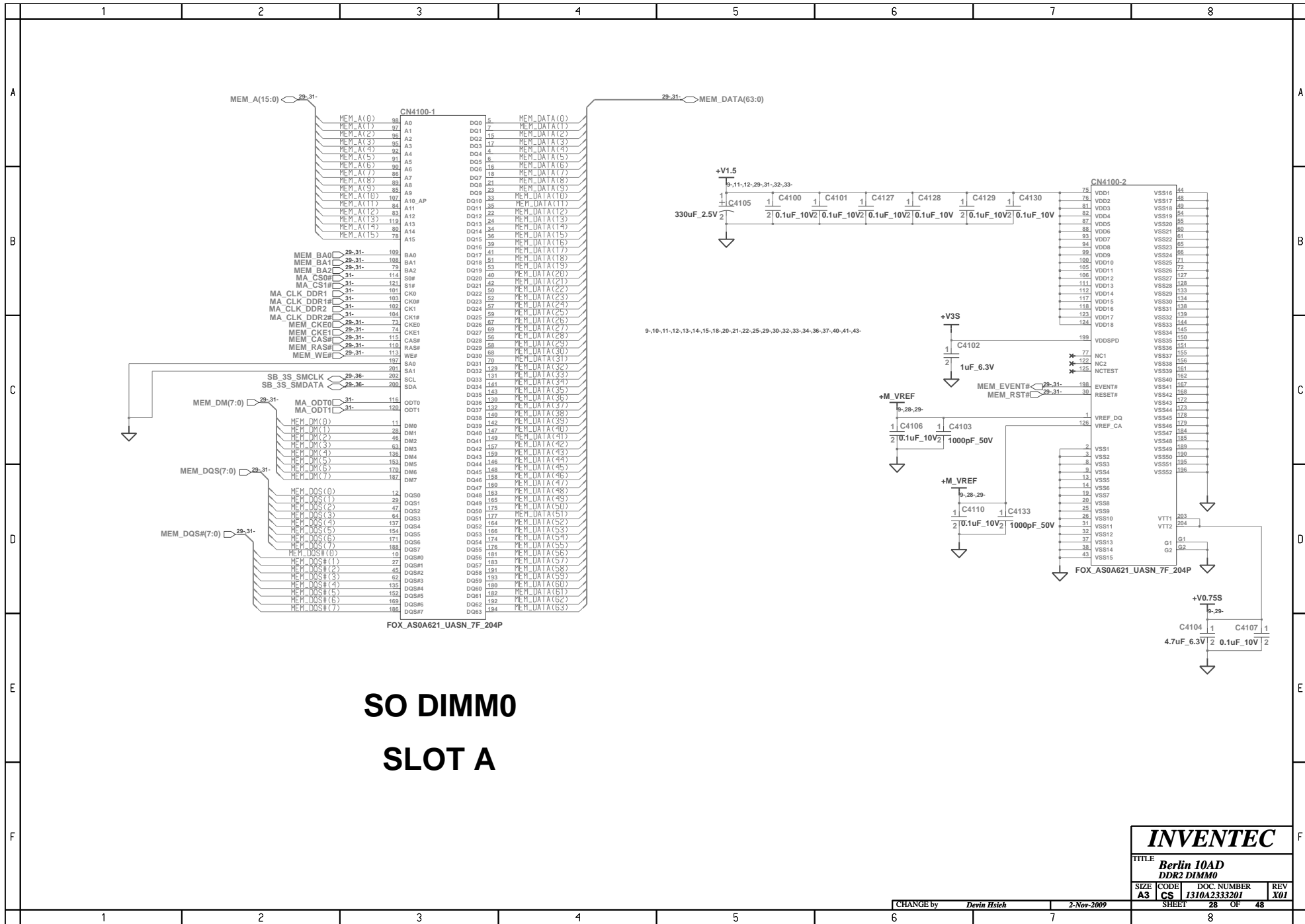
INVENTEC

TITLE **Berlin 10AD LED**

SIZE A3	CODE CS	DOC NUMBER J310A2333201	REV X01
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CHANGE by *Devin Hsieh* 2-Nov-2009

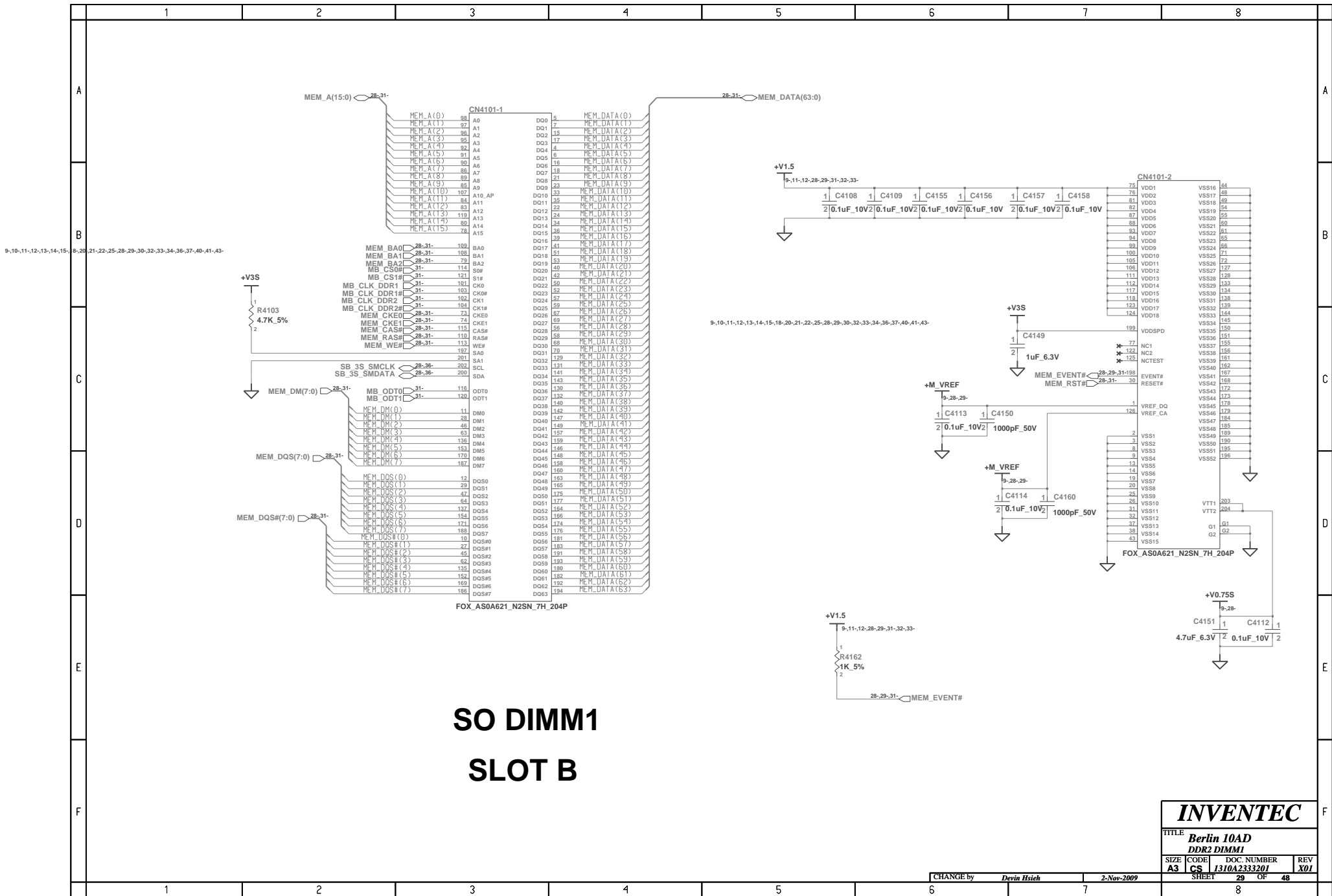
SHEET 27 OF 48

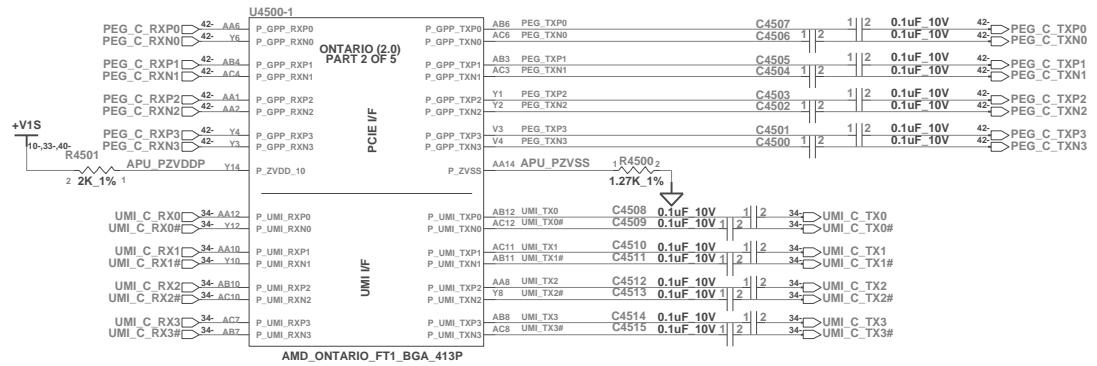
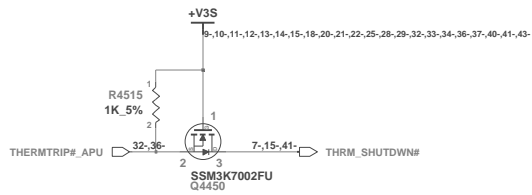


INVENTEC

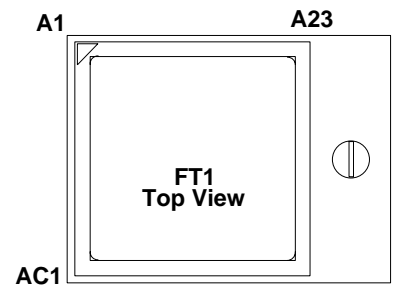
TITLE
**Berlin 10AD
 DDR2 DIMM0**

SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devlin Hsieh</i>		2-Nov-2009	
SHEET 28		OF 48	

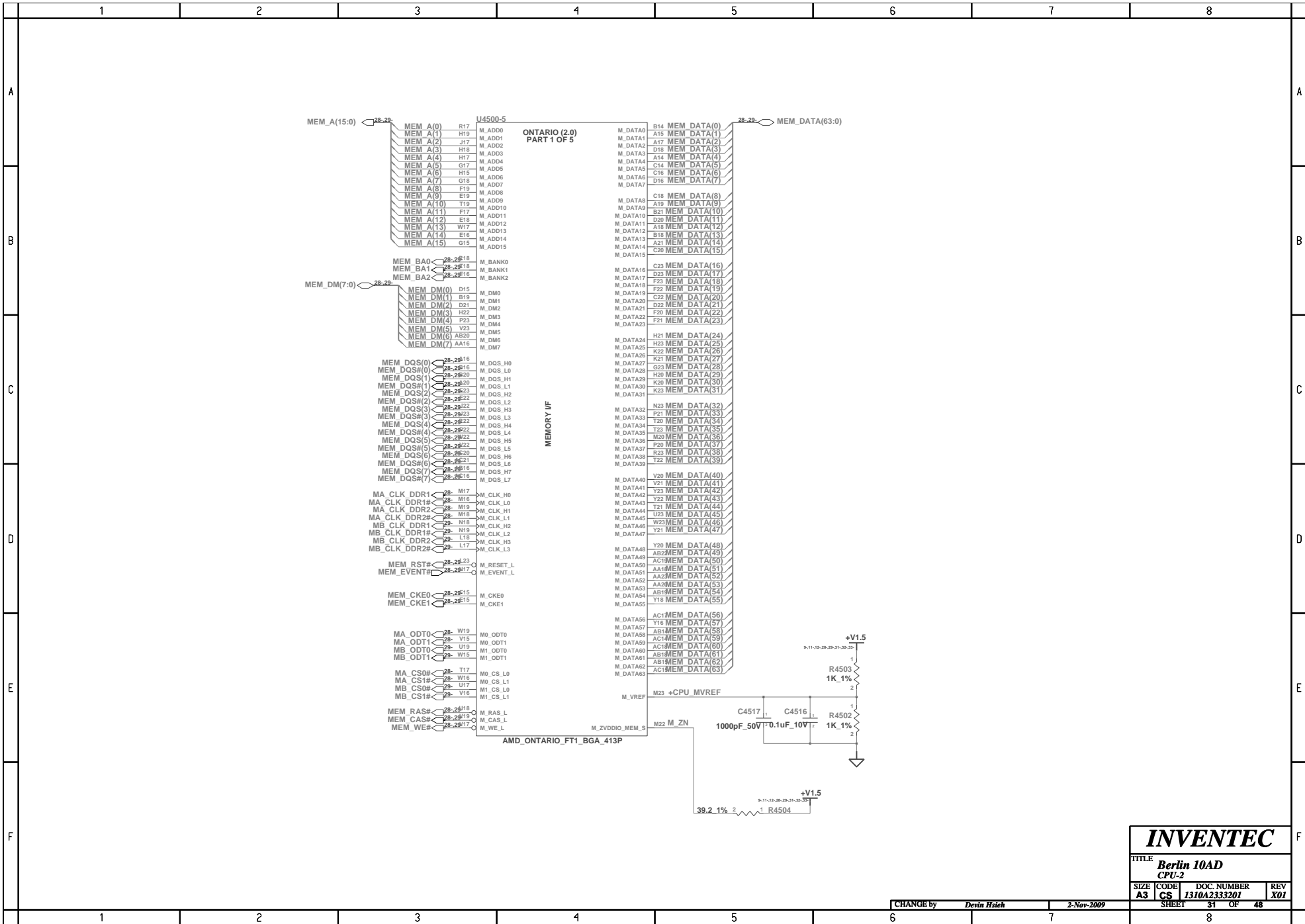




Layout: Add stitching caps if crossing plane split.

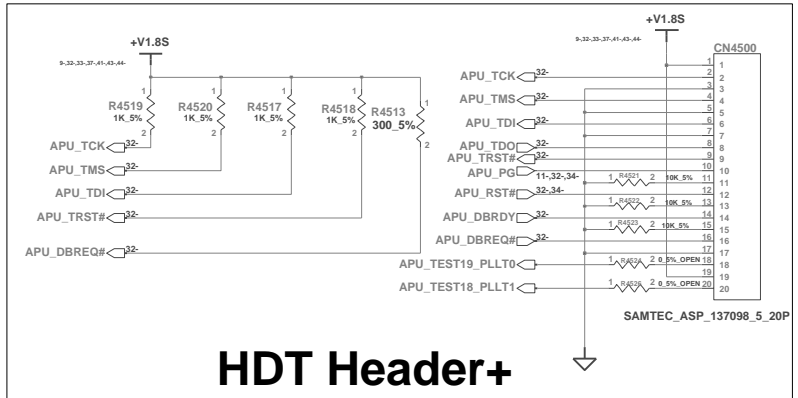
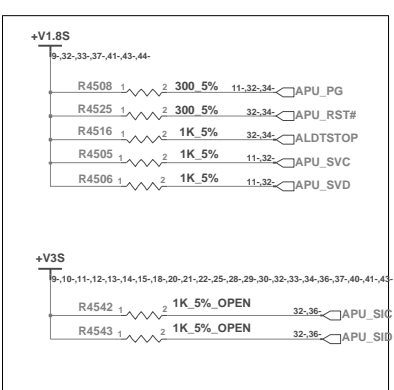
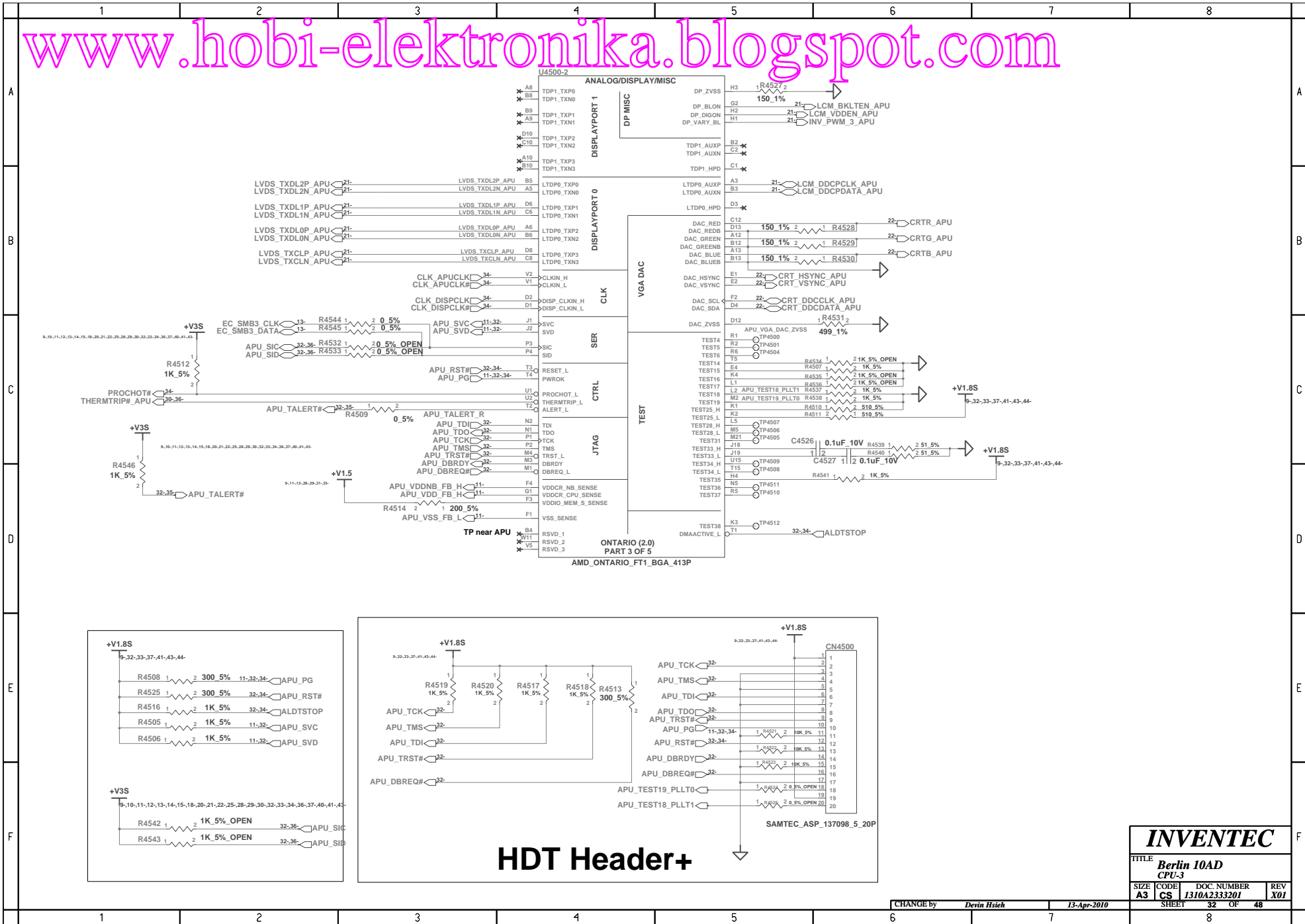


INVENTEC			
TITLE Berlin 10AD CPU-1			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		3-May-2010	
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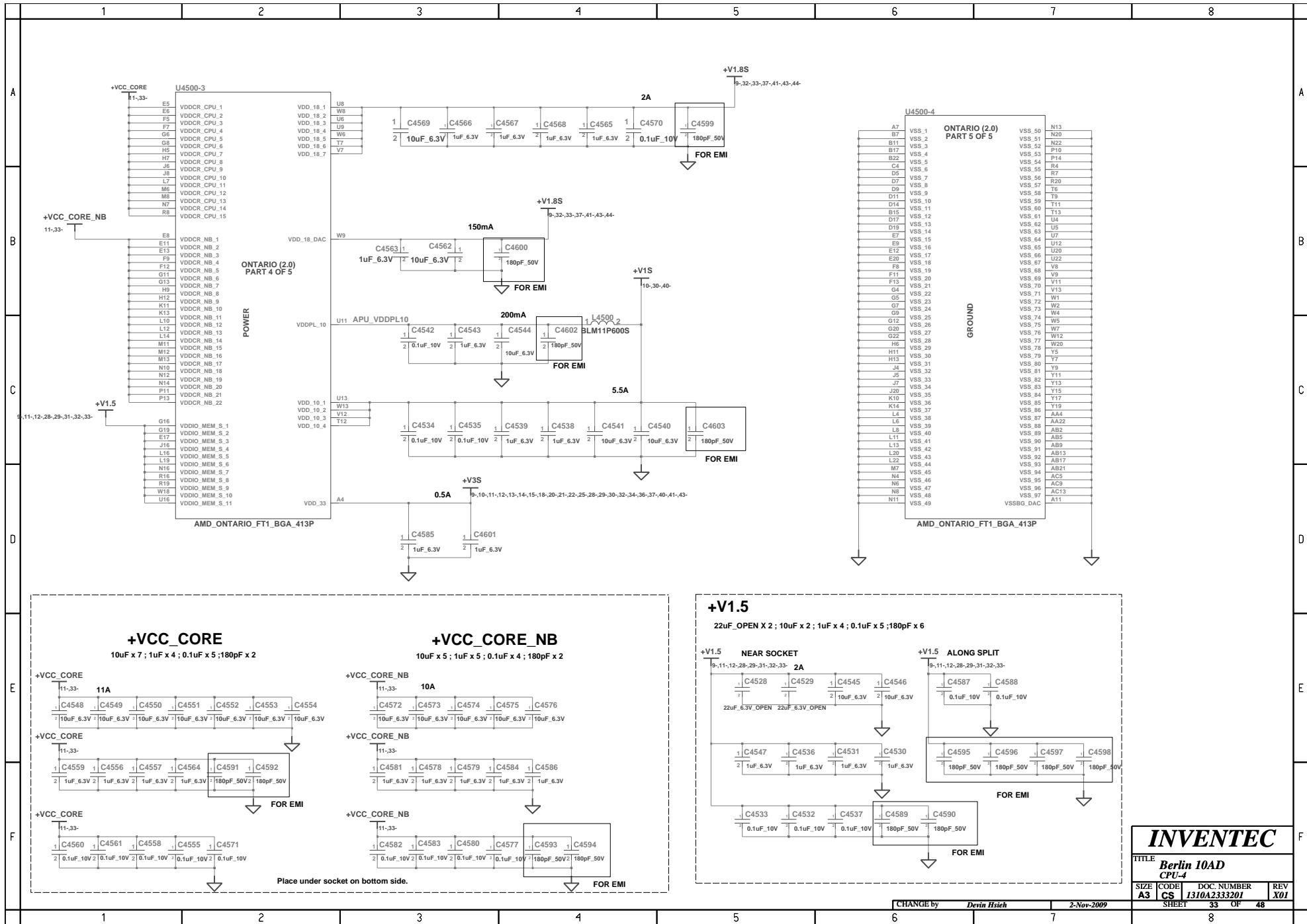
INVENTEC			
TITLE			
Berlin 10AD			
CPU-2			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I310A2333201	X01
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CHANGE by *Devin Hsieh* 2-Nov-2009

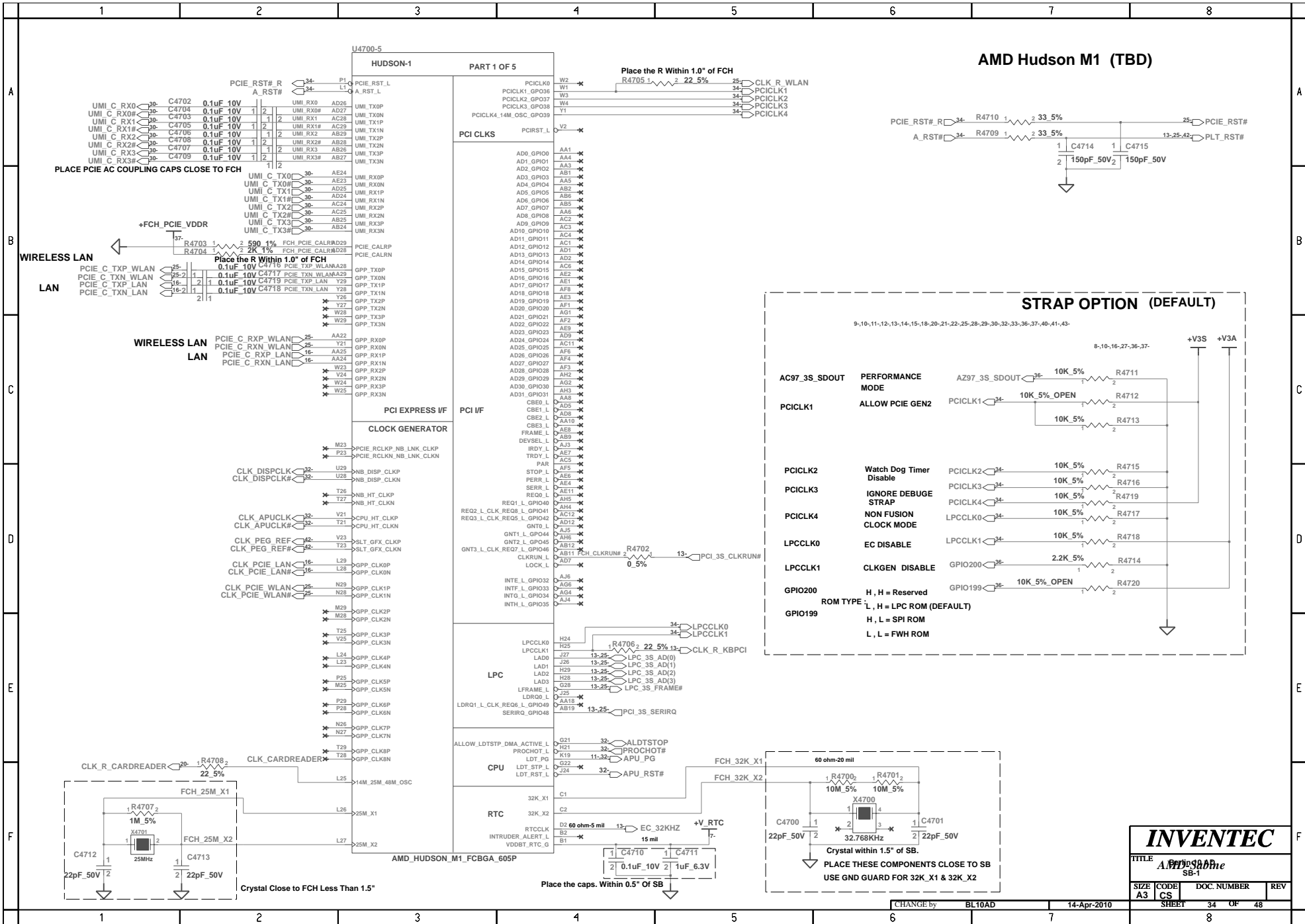


HDT Header+

INVENTEC			
TITLE Berlin 10AD CPU-3			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
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INVENTEC				
TITLE Berlin 10AD CPU-4				
SIZE A3	CODE CS	DOC NUMBER J310A2333201	REV X01	
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009		
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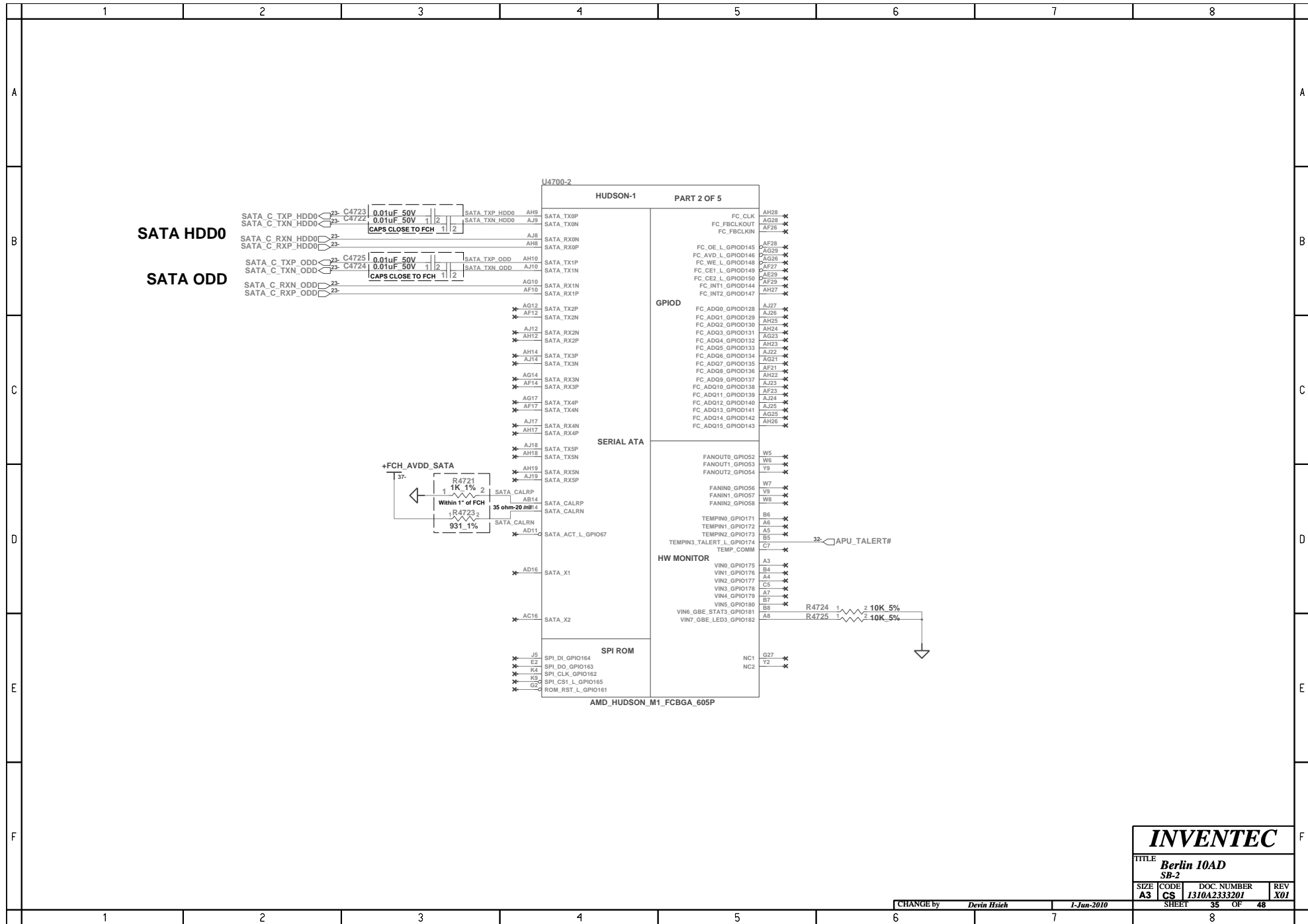


INVENTEC

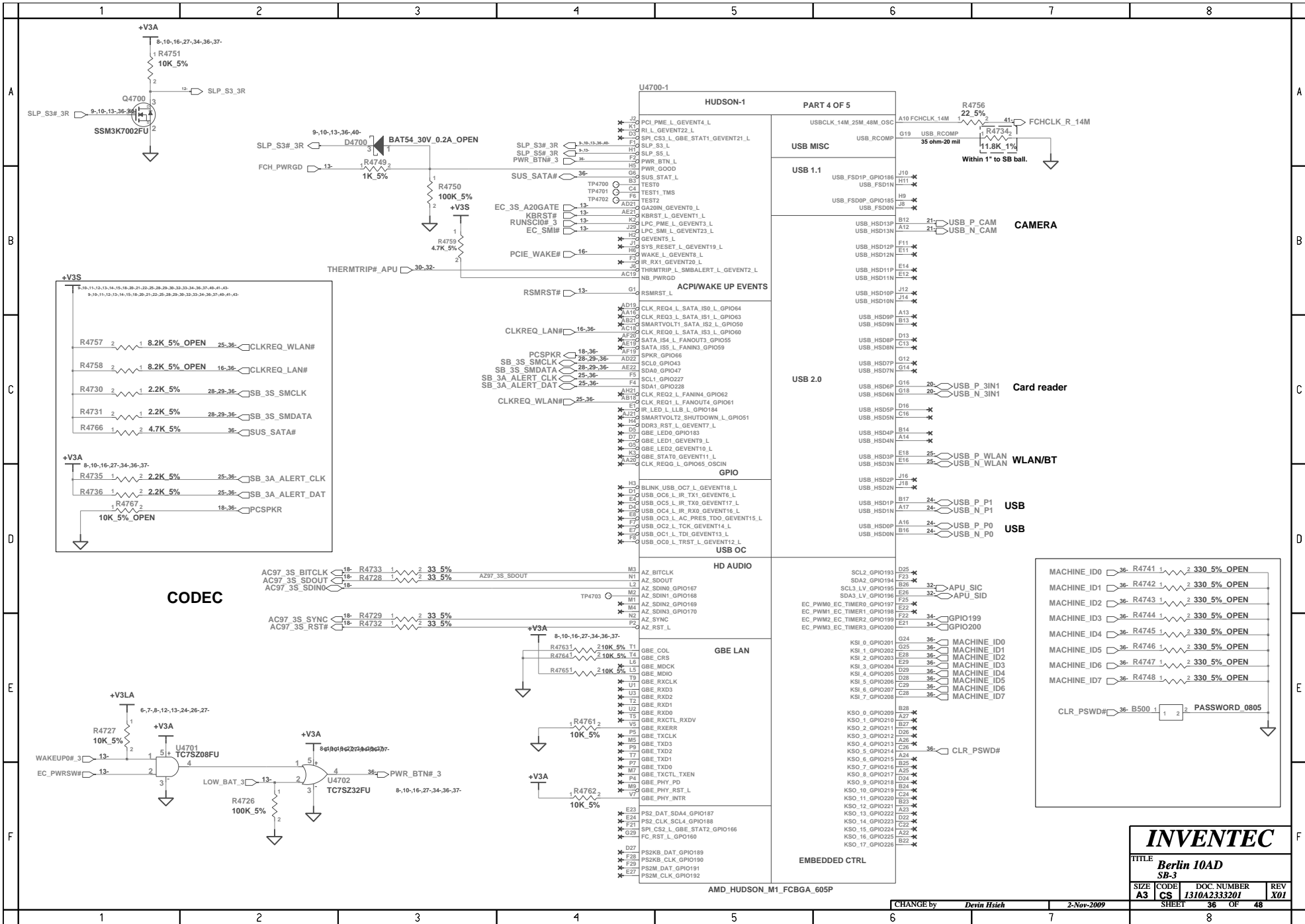
TITLE: *AMD Hudson M1*
 SB-1

SIZE A3	CODE CS	DOC NUMBER 34	REV 48
SHEET		OF	

CHANGE by: BL10AD
 14-Apr-2010
 8



INVENTEC			
TITLE Berlin 10AD SB-2			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		1-Jun-2010	
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INVENTEC			
TITLE Berlin 10AD			
SB-3			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
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CHANGE by *Devin Hsieh* 2-Nov-2009

AMD_HUDSON_M1_FCBGA_605P

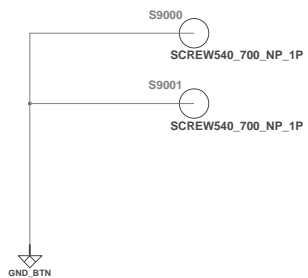
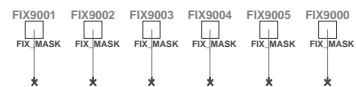
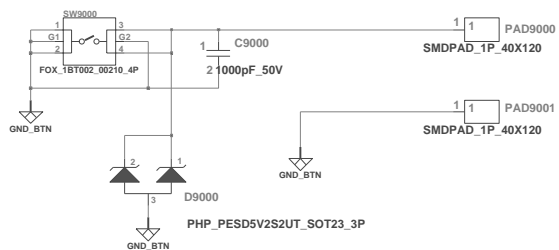
EMI

INVENTEC

TITLE			
<i>Berlin 10AD</i>			
<i>EMI</i>			
SIZE	CODE	DOC NUMBER	REV
A3	CS	<i>J310A2333201</i>	<i>X01</i>
SHEET		38	OF 48

CHANGE by *Devin Hsieh* 5-Jul-2010

POWER BUTTON

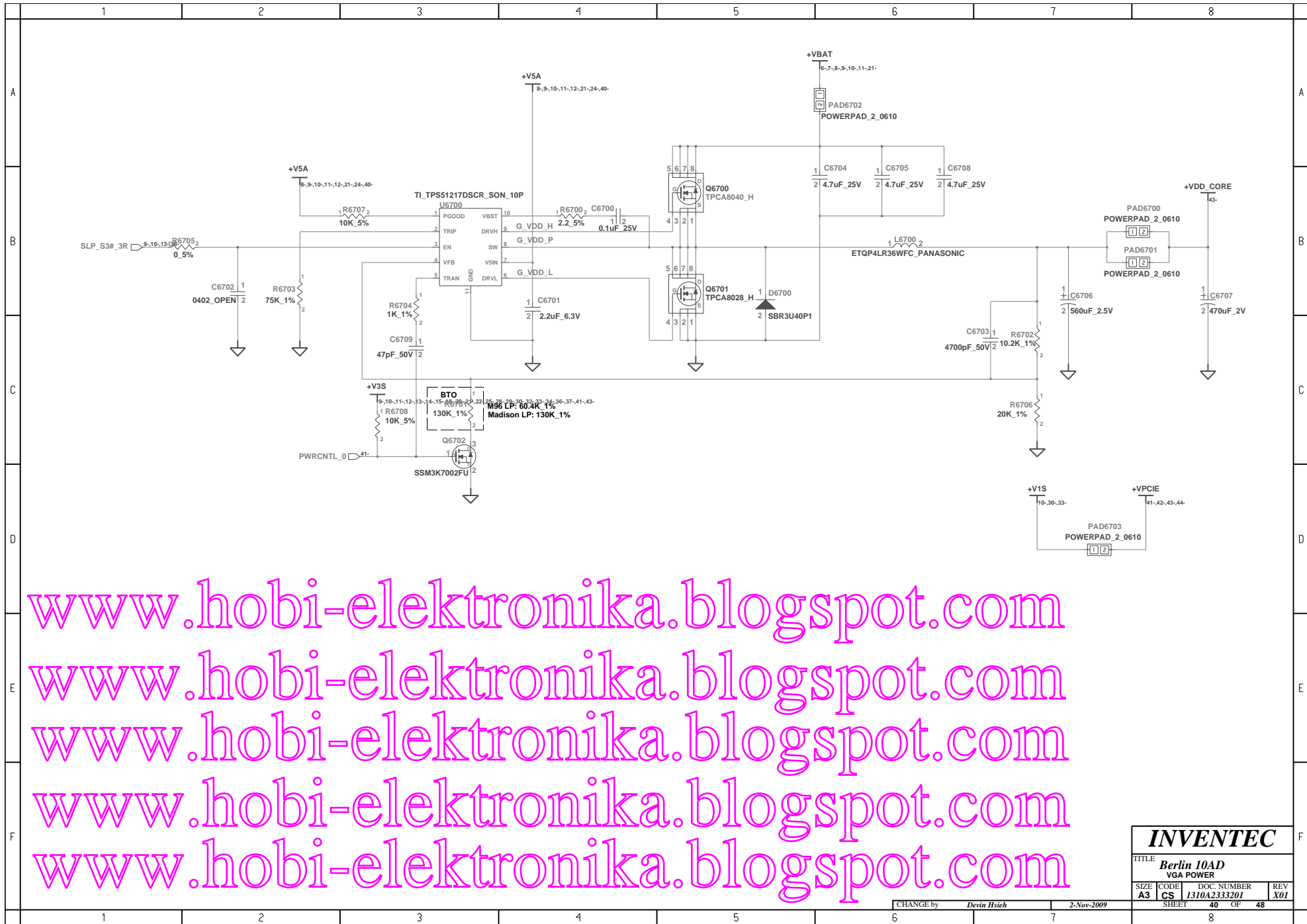


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TITLE
Berlin 10AD
Pick Button Board

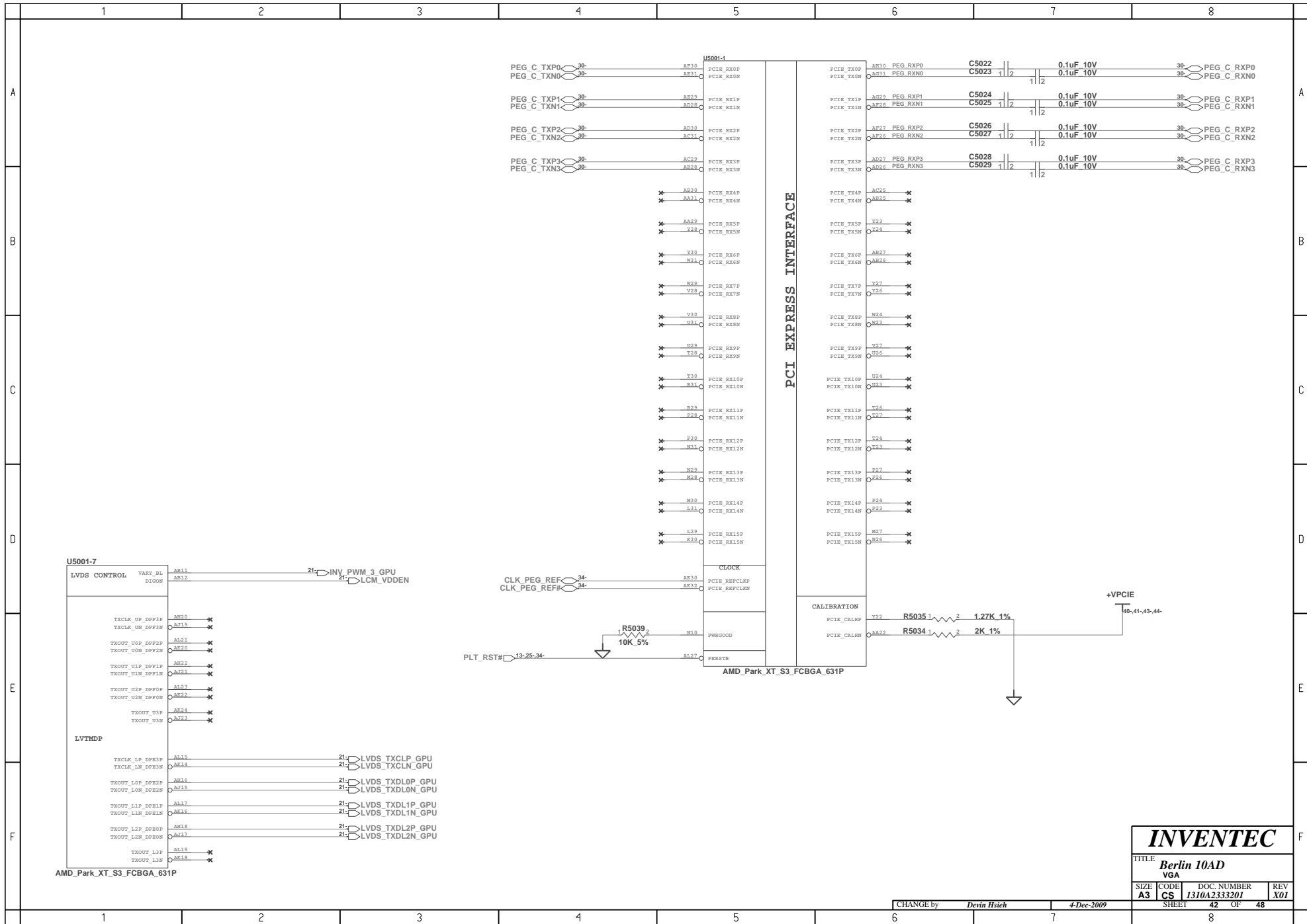
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CHANGE by <i>Devin Hsieh</i>		28-Jul-2010	
SHEET		39	OF 48

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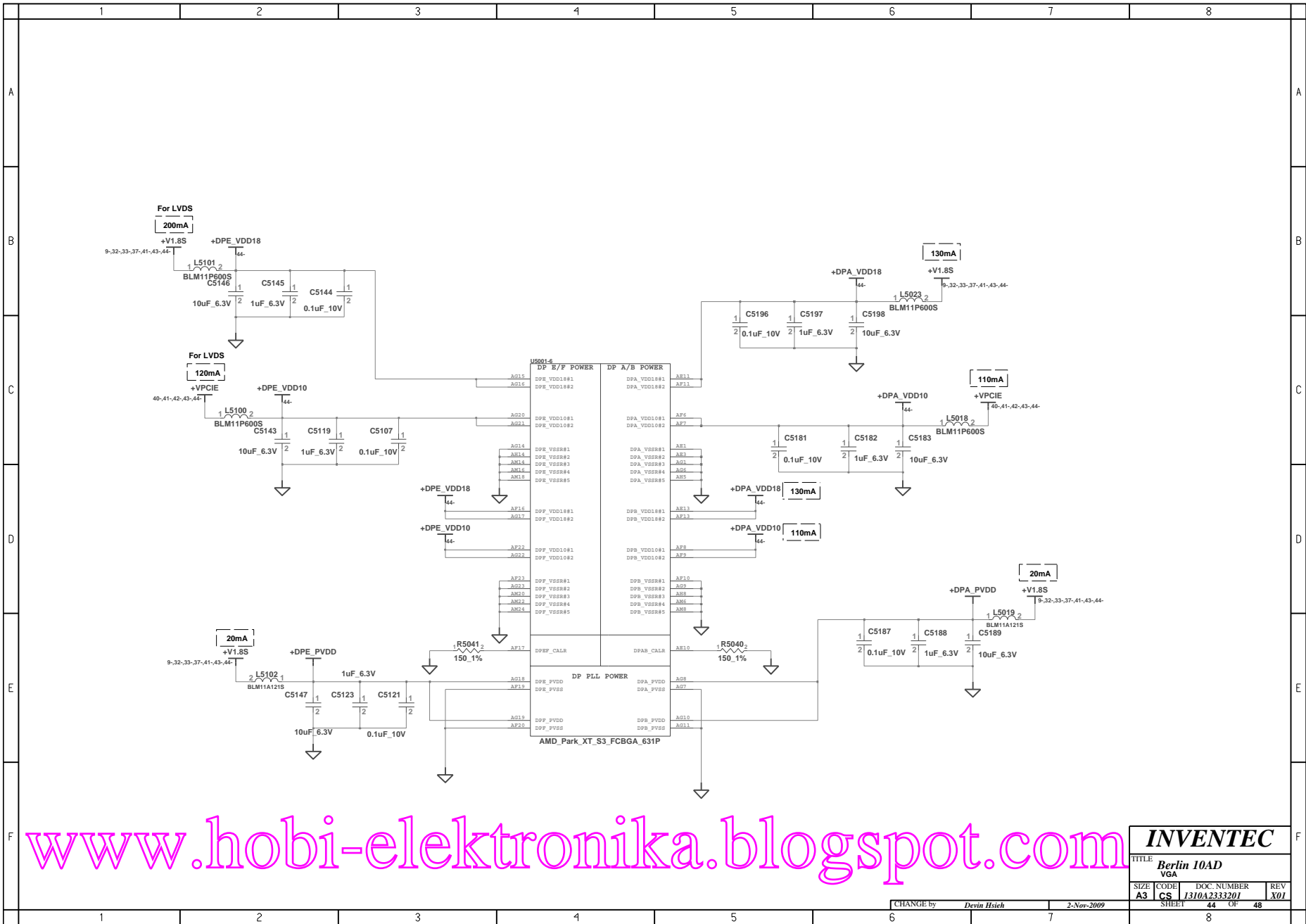


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INVENTEC			
TITLE: Berlin 10AD			
VGA POWER			
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CHANGE by		2-Nov-2009	
SHEET		40	OF 48

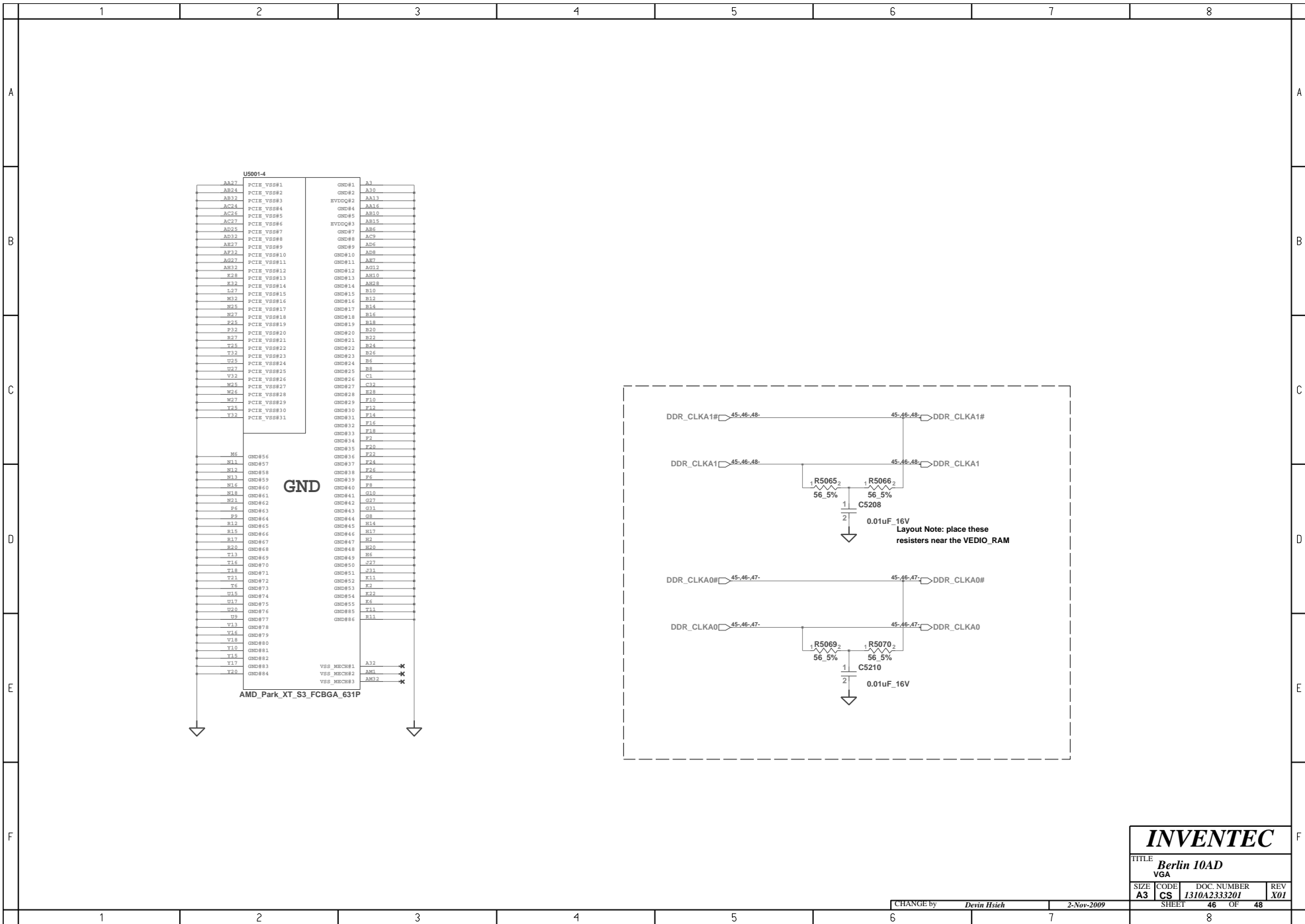


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VGA			
SIZE A3	CODE CS	DOC NUMBER J310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		4-Dec-2009	
SHEET		42 OF 48	
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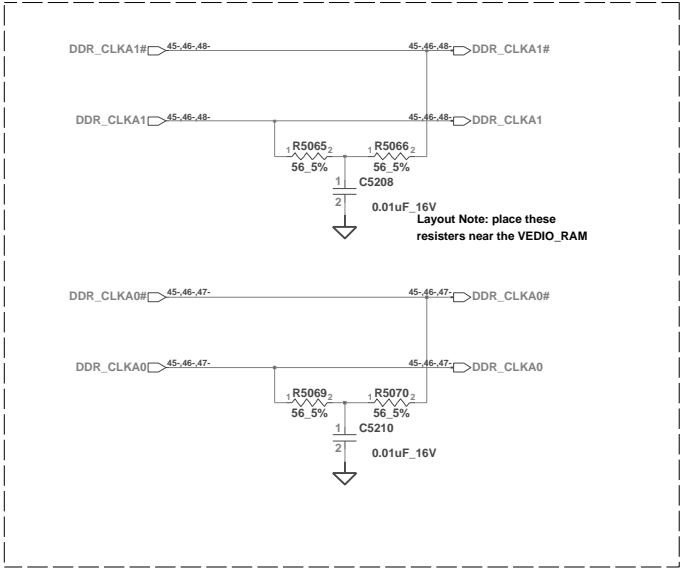
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CHANGE by Devin Hsieh			2-Nov-2009
SHEET 44			OF 48



U5001-4

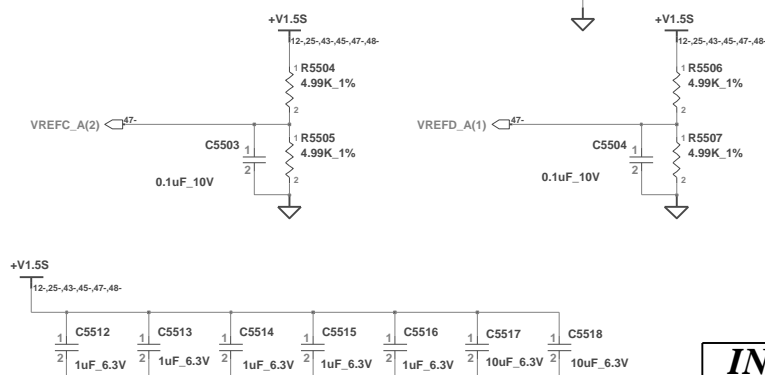
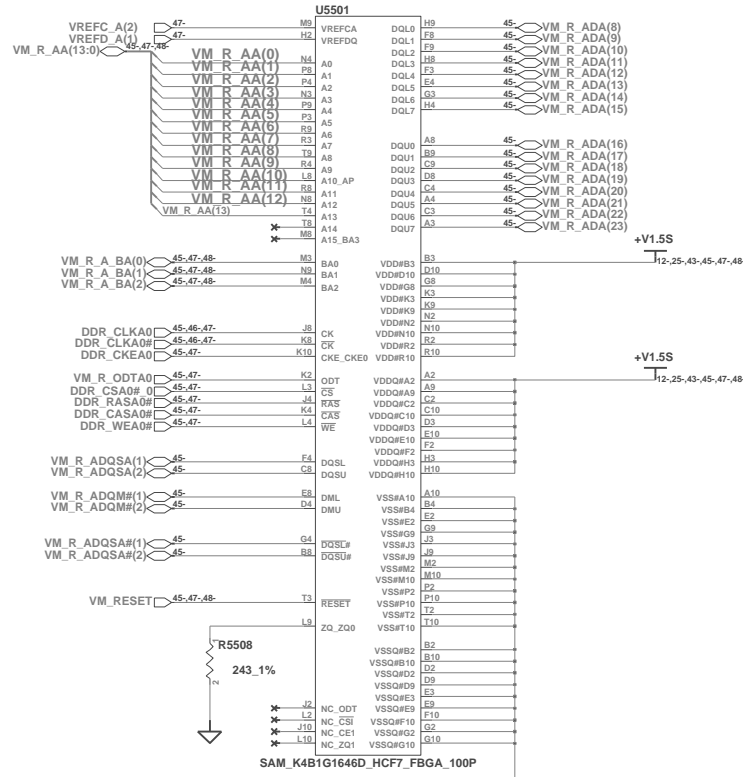
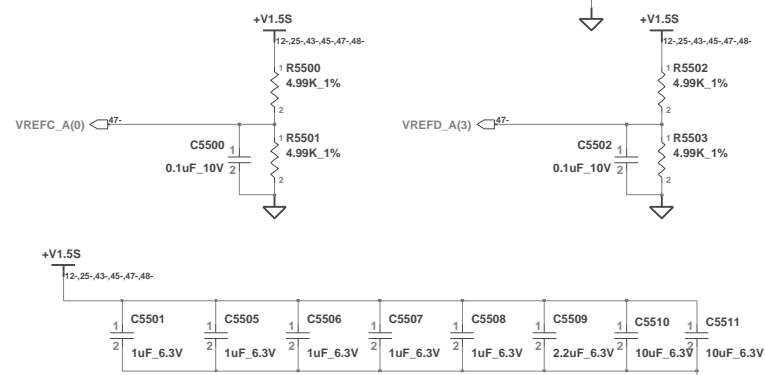
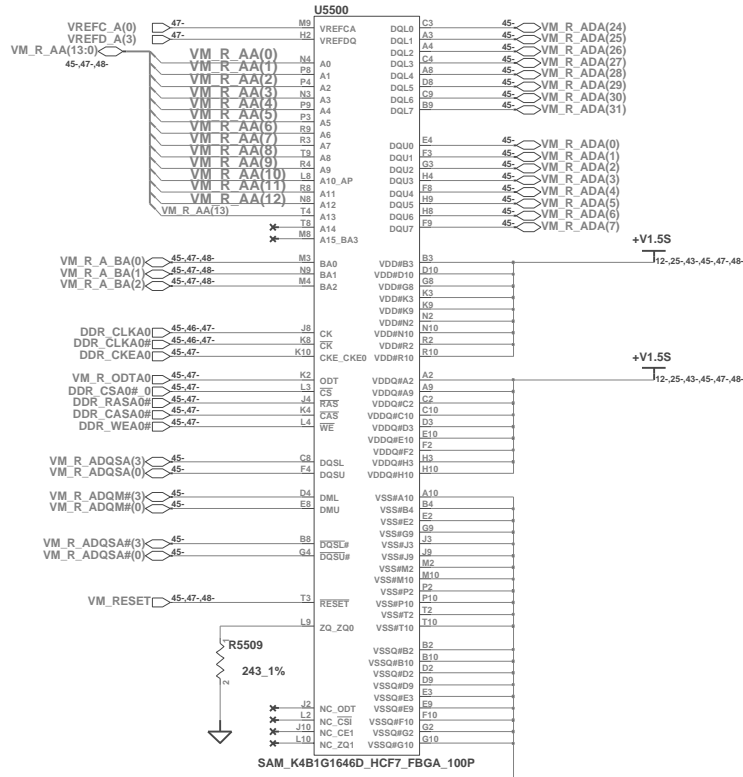
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AC24	PCIE_VSS#4	GND#4	AA16
AC26	PCIE_VSS#5	GND#5	AB10
AC27	PCIE_VSS#6	EVDQ#3	AB15
AD25	PCIE_VSS#7	GND#7	AB6
AD32	PCIE_VSS#8	GND#8	AC9
AE27	PCIE_VSS#9	GND#9	AD6
AF25	PCIE_VSS#10	GND#10	AD8
AG27	PCIE_VSS#11	GND#11	AE7
AH32	PCIE_VSS#12	GND#12	AG12
FA8	PCIE_VSS#13	GND#13	AH10
FA9	PCIE_VSS#14	GND#14	AH8E
LA7	PCIE_VSS#15	GND#15	B10
MA2	PCIE_VSS#16	GND#16	B12
MA4	PCIE_VSS#17	GND#17	B14
MA7	PCIE_VSS#18	GND#18	B16
PA4	PCIE_VSS#19	GND#19	B18
PA7	PCIE_VSS#20	GND#20	B20
PA9	PCIE_VSS#21	GND#21	B22
TA2	PCIE_VSS#22	GND#22	B24
TA3	PCIE_VSS#23	GND#23	B26
UA5	PCIE_VSS#24	GND#24	B6
UA7	PCIE_VSS#25	GND#25	B8
VA2	PCIE_VSS#26	GND#26	C1
VA5	PCIE_VSS#27	GND#27	C12
VA6	PCIE_VSS#28	GND#28	B28
VA7	PCIE_VSS#29	GND#29	F10
VA8	PCIE_VSS#30	GND#30	F12
VA9	PCIE_VSS#31	GND#31	F14
		GND#32	F16
		GND#33	F18
		GND#34	F2
		GND#35	F20
		GND#36	E22
		GND#37	E24
		GND#38	F26
		GND#39	F8
		GND#40	G10
		GND#41	G27
		GND#42	G31
		GND#43	H8
		GND#44	H14
		GND#45	H17
		GND#46	H2
		GND#47	H20
		GND#48	H6
		GND#49	J27
		GND#50	J27
		GND#51	J31
		GND#52	K11
		GND#53	K3
		GND#54	K22
		GND#55	K6
		GND#56	T11
		GND#57	R11
		GND#78	
		GND#79	
		GND#80	
		GND#81	
		GND#82	
		GND#83	A32
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		VSS_MECH#2	AM1
		VSS_MECH#3	AM12

AMD_Park_XT_S3_FCBGA_631P



INVENTEC				
TITLE Berlin 10AD				
VGA				
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01	
CHANGE by Devin Hsieh		2-Nov-2009		SHEET 46 OF 48

PARK Use channel A



INVENTEC

TITLE
 AMD-Sabine

SIZE	CODE	DOC. NUMBER	REV
A3	CS	47 OF 48	

