

Manaus10AB\ABG

X01 Build

2010.08.02

INVENTEC

TITLE
Berlin 10AD

SIZE A3	CODE CS	DOC. NUMBER 1310A2333201	REV X01
SHEET		1	OF 48

CHANGE by *Devin Hsieh* 2-Aug-2010

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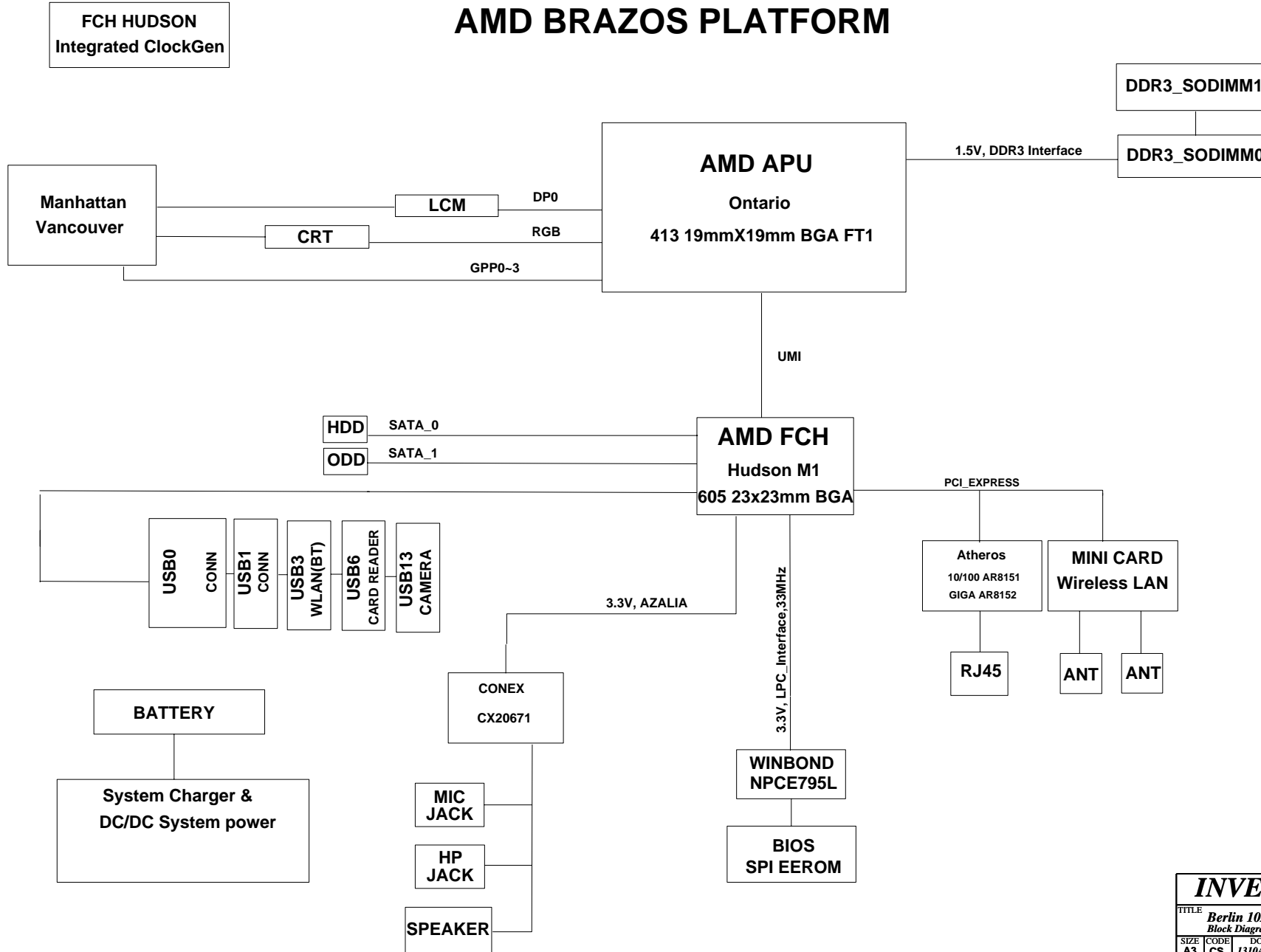
28. DDR2 DIMM0
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INVENTEC

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Berlin 10AD			
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SHEET		2	OF 48

CHANGE by **Devin Hsieh** 28-Jul-2010

AMD BRAZOS PLATFORM



INVENTEC			
TITLE Berlin 10AD Block Diagram			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		28-Jul-2010	
SHEET 3		OF 48	

Update by power budget

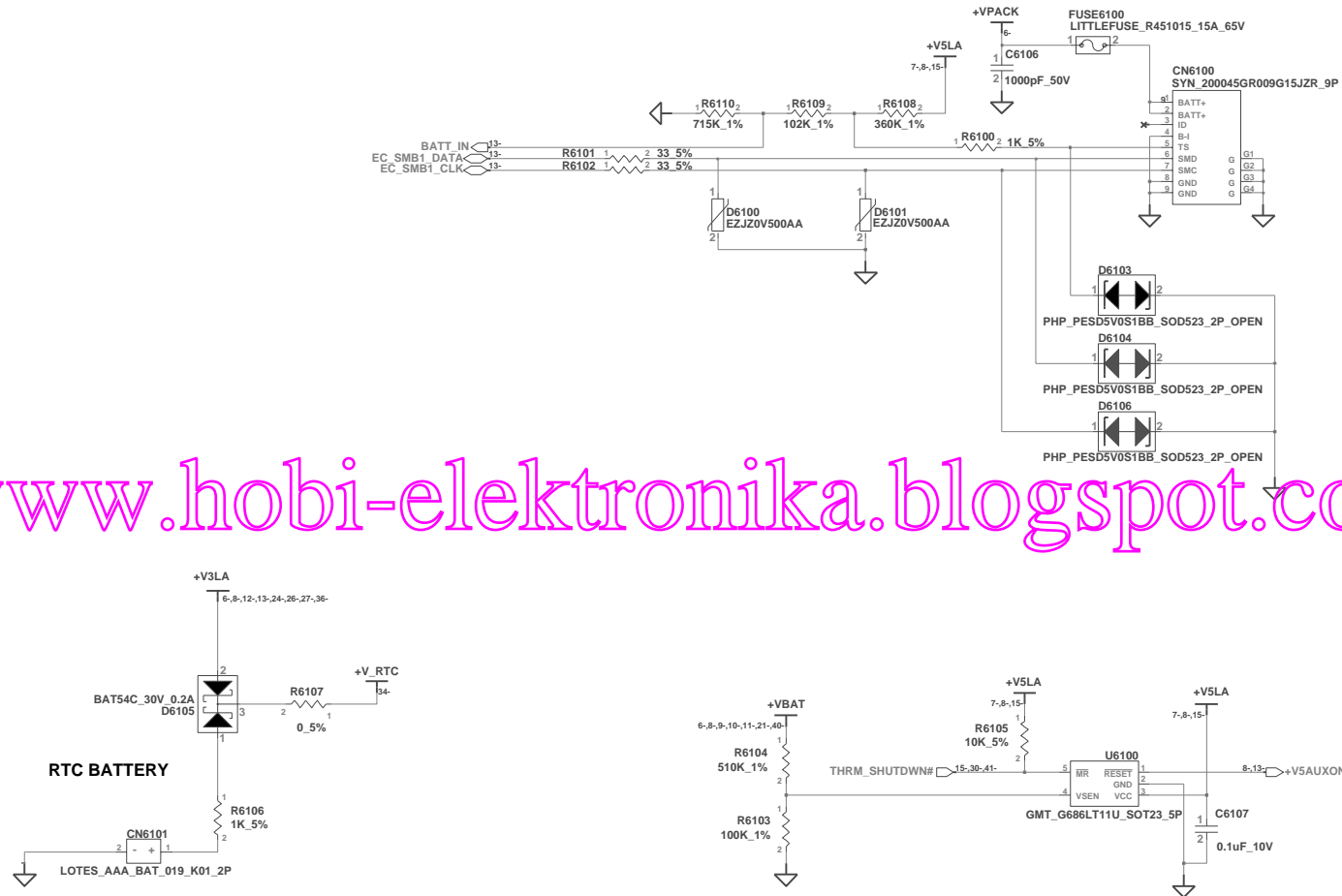
INVENTEC			
TITLE Berlin 10AD <i>Power Sequence Block</i>			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by <i>Devin Hsieh</i>		2-Nov-2009	
SHEET		4	OF 48



INVENTEC			
TITLE Berlin 10AD PCB			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by Devin Hsieh		28-Jul-2010	
SHEET 5		OF 48	

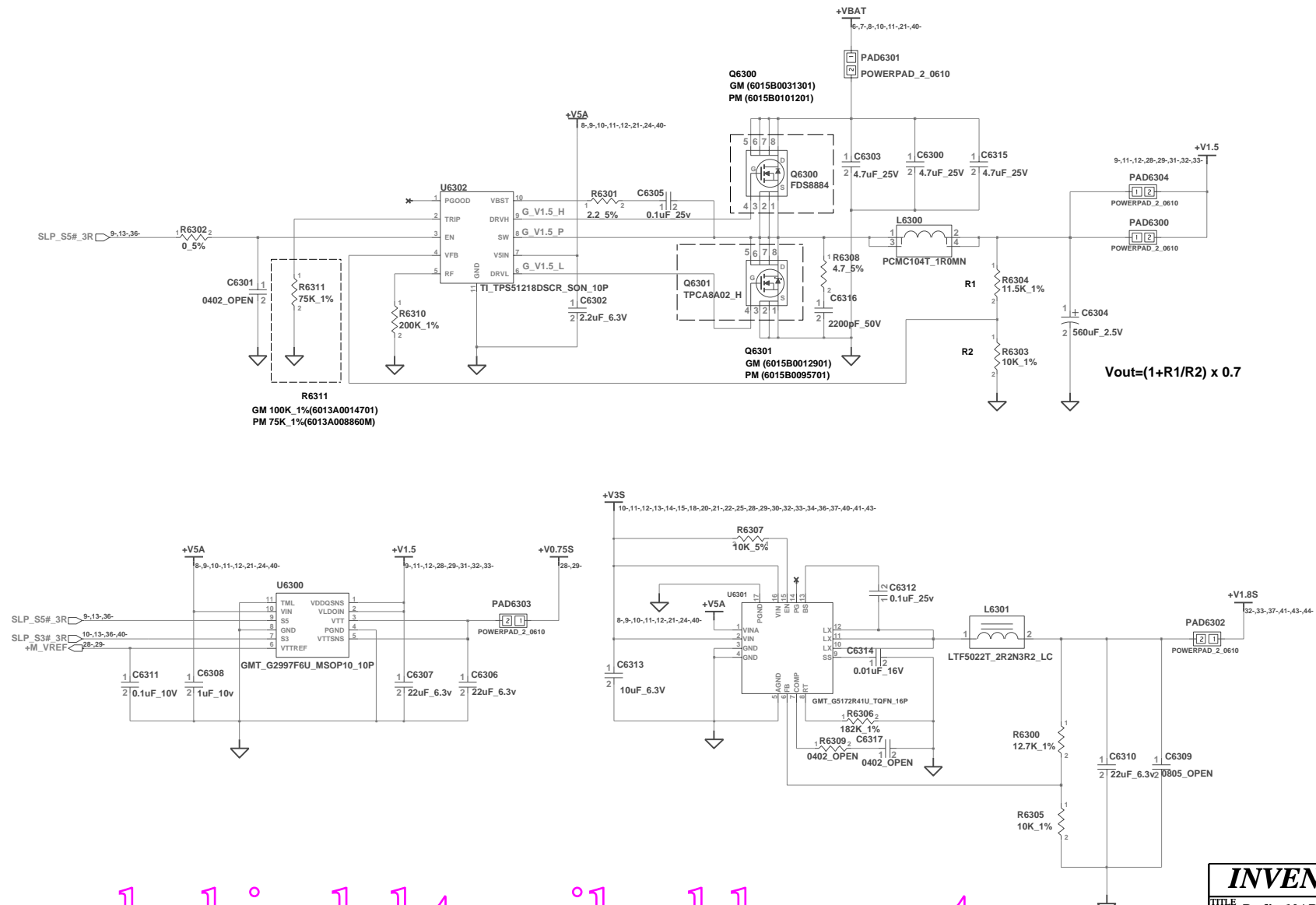


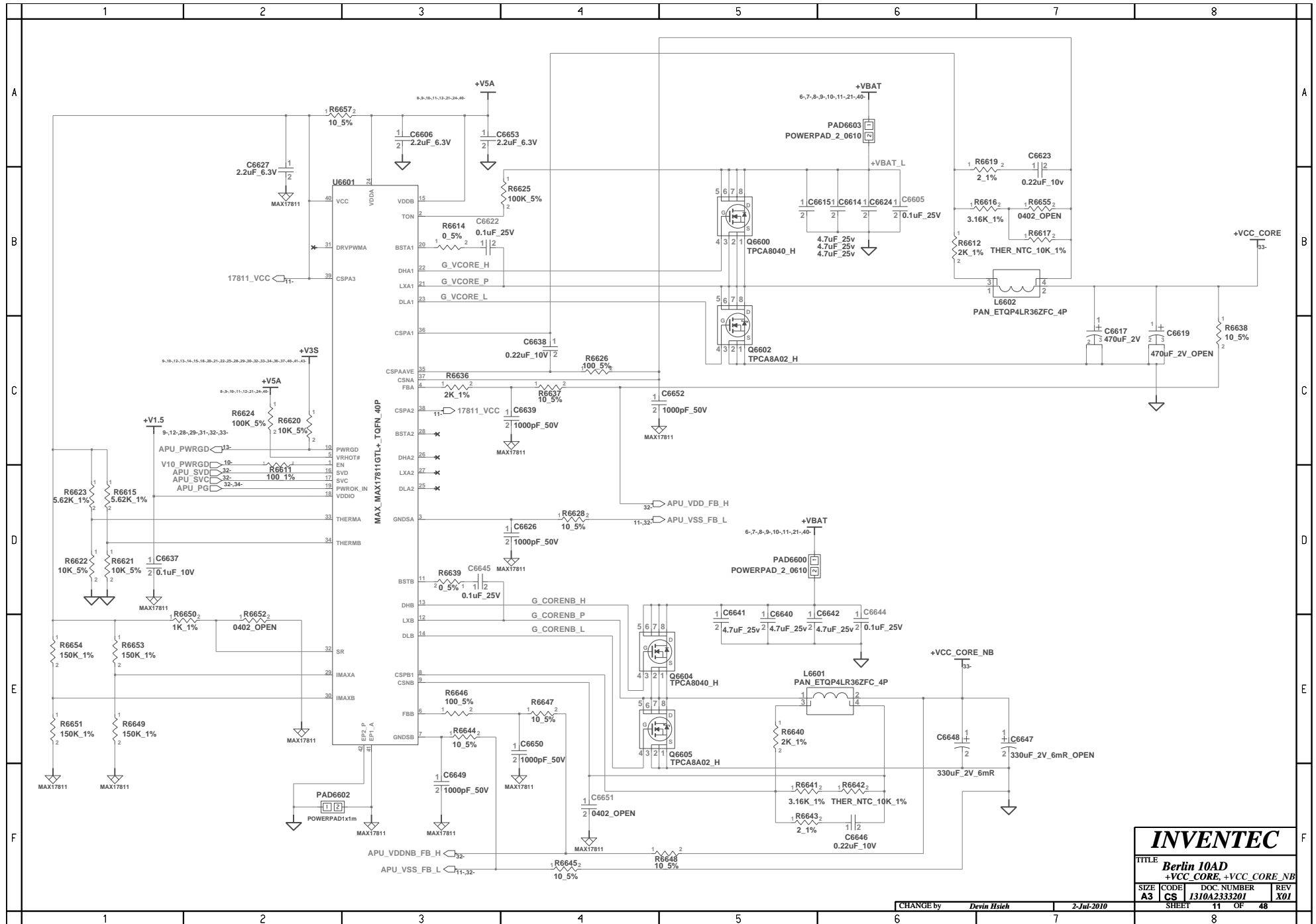
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INVENTEC			
TITLE Berlin 10AD Battery, Reset IC			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
CHANGE by Devin Hsieh		2-Nov-2009	
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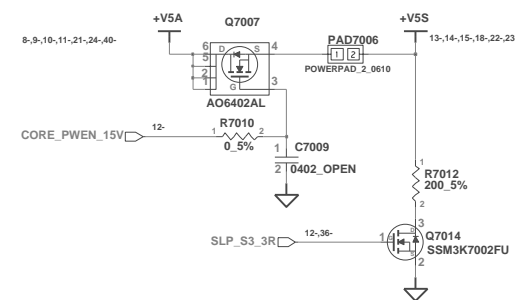
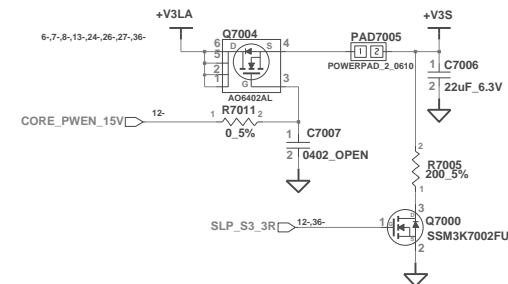
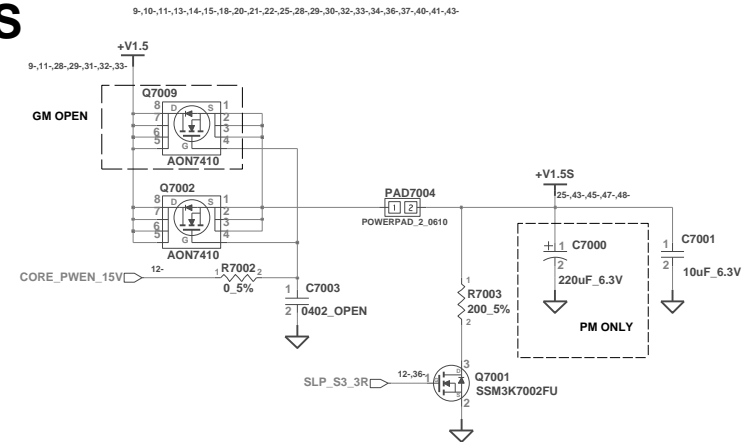
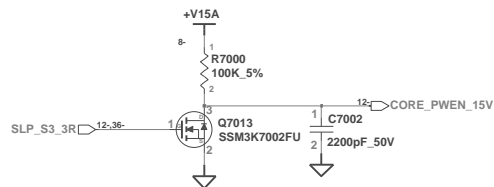
+V1.8S +V0.75S +V1.5





INVENTEC				
TITLE				
Berlin 10AD				
+VCC_CORE, +VCC_CORE_NB				
SIZE	CODE	DOC NUMBER	REV	
A3	CS	I310A2333201	X01	
CHANGE by		Devin Hsieh	2-Jul-2010	
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+V3 +V5S +V3S +V1.5S



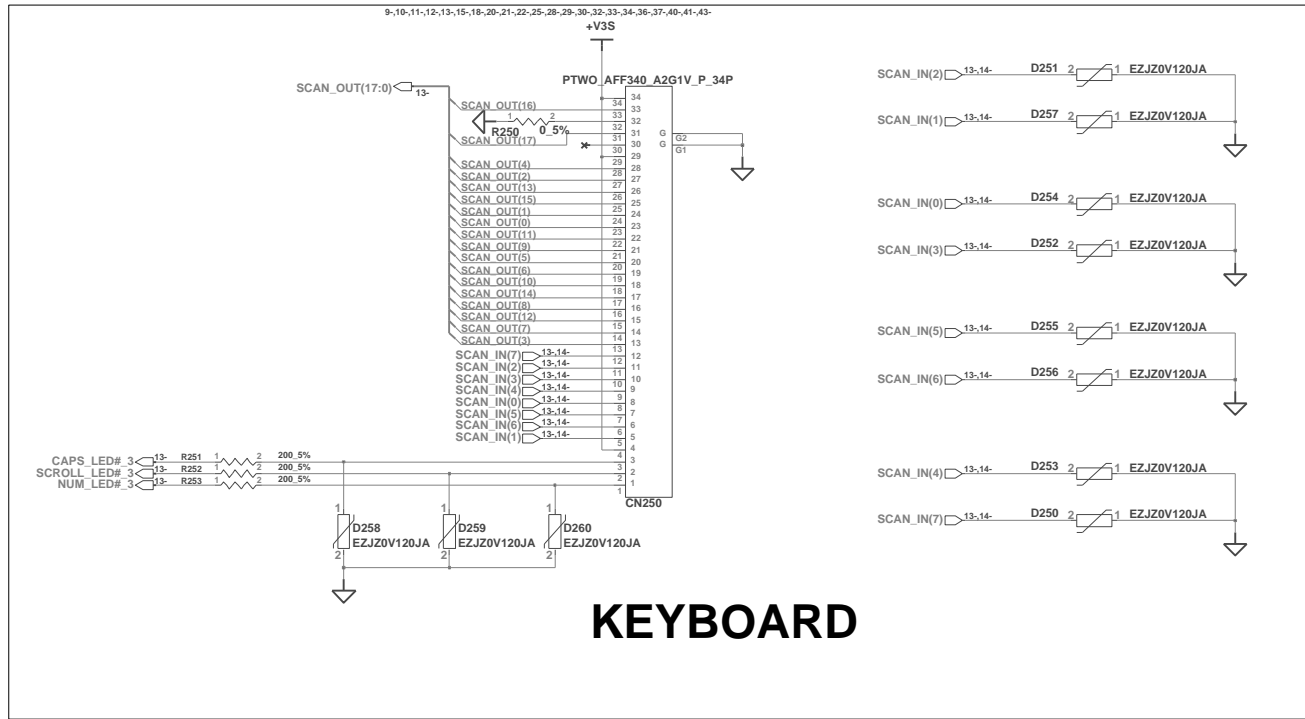
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TITLE
Berlin 10AD
+V3 +V5S +V3S +V1.5S
SIZE CODE DOC NUMBER REV
A3 CS 1310A2333201 X01

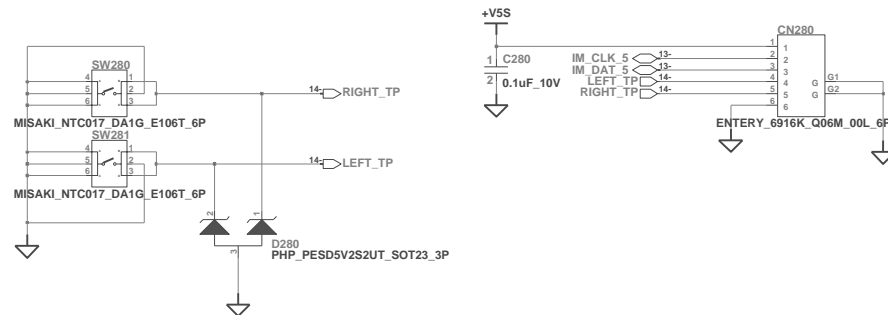
CHANGE by **Devlin Hsieh** 2-Nov-2009

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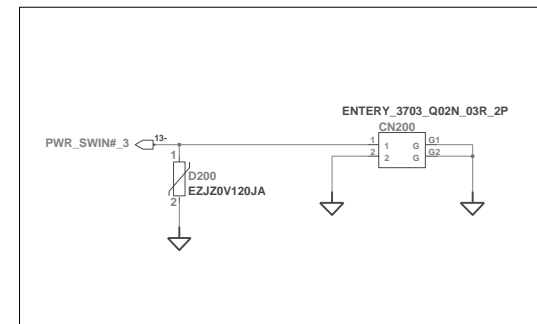


KEYBOARD

Touchpad



POWER BOARD CONNECTOR



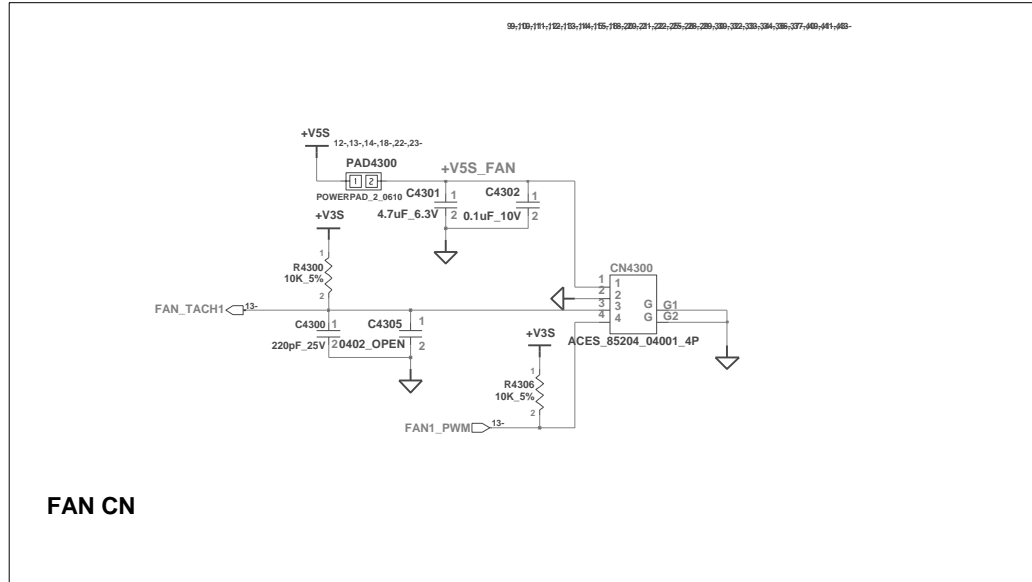
INVENTEC

TITLE
Berlin 10AD
Keyboard, Touch PAD

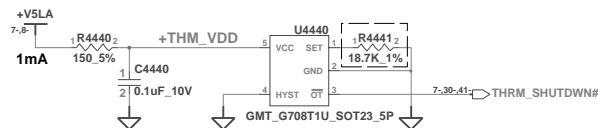
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2333201	X01

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Board Thermal Sensor



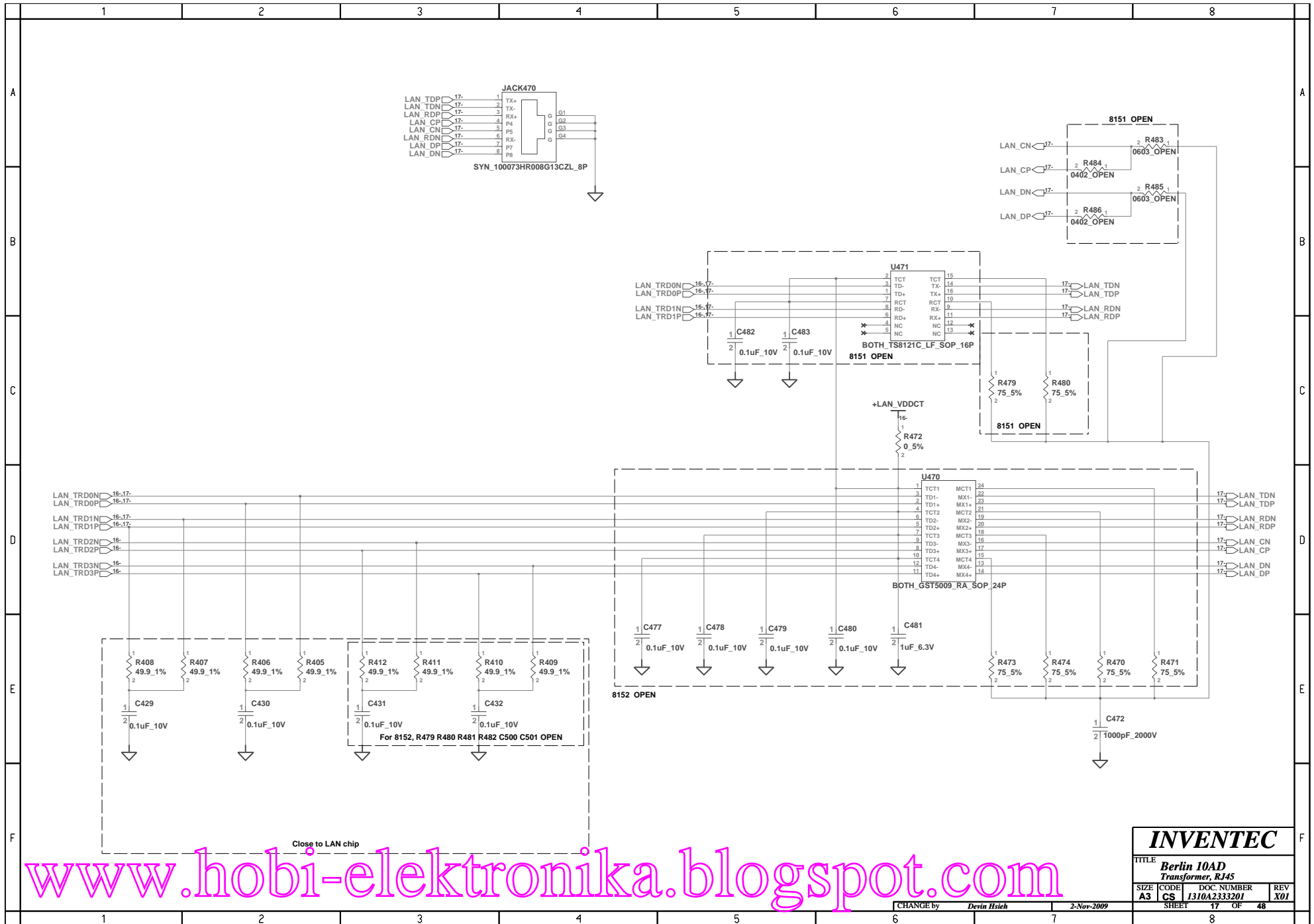
Thermal shutdown at 94 C° +/- 3 C° from 60 C° to 100 C°

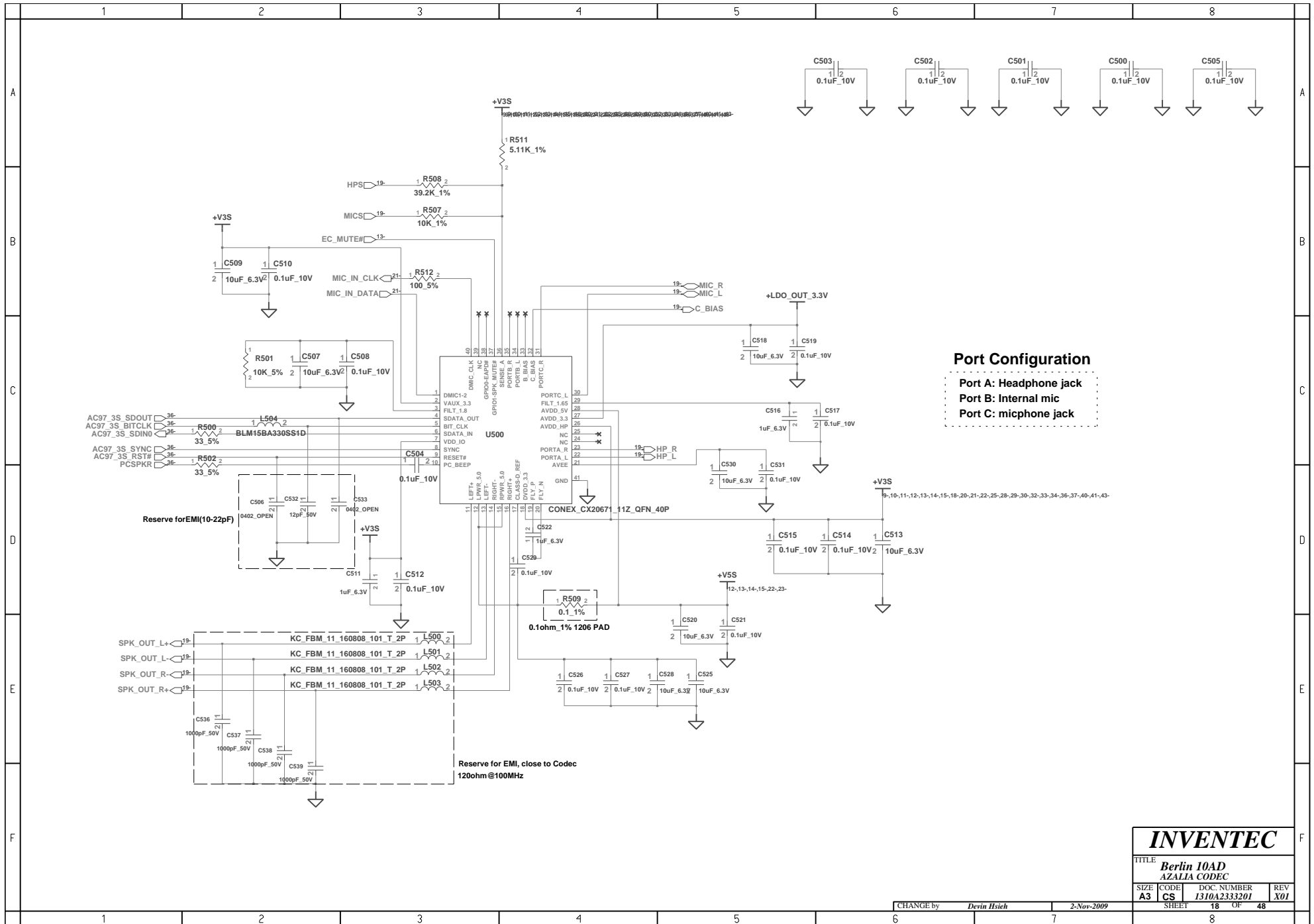
$$RSET = 0.0012 * T^2 - 0.9308 * T + 96.147$$

Hysteresis is 30C

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Berlin 10AD			
FAN, Thermal controller			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I310A2333201	X01
CHANGE by		SHEET	
Devin Hsieh		15 OF 48	

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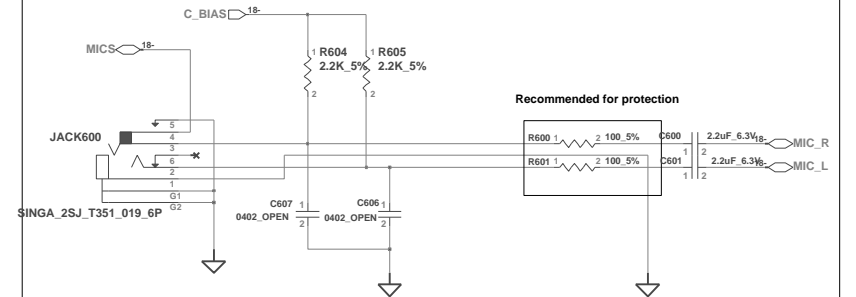
TITLE
**Berlin 10AD
AZALIA CODEC**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2333201	X01

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CHANGE by Devin Hsieh 2-Nov-2009

	Port C
	External microphone



PHP_PESD5V2S2UT_SOT23_3P_OPEN

D600

Port A Headphone

SINGA_2SJ_T351_019 6P

JACK601

Recommended for protection

HP_L 18- R602 1 2 5.1 5% 1 L600 1 2 MMZ1608D241 CT

HP_R 18- R603 1 2 5.1 5% 1 L601 1 2 MMZ1608D241 CT

HPS 18-

C602 1 1 470pF_50V 2 2 470pF_50V

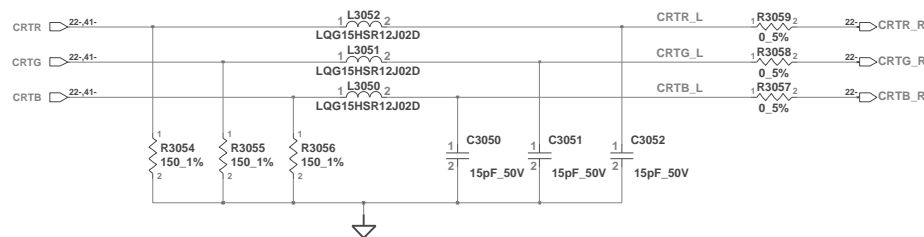
TITLE	Berlin 10AD MIC & SPEAKER
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SIZE A3	CODE CS	DOC. NUMBER <i>1310A2333201</i>	REV <i>X01</i>
SHEET 19 OF 48			

CRTR_APU 32- R5837 1 2 0.5% 22-41- CRTR
 CRTG_APU 32- R5838 1 2 0.5% 22-41- CRTG
 CRTB_APU 32- R5839 1 2 0.5% 22-41- CRTB

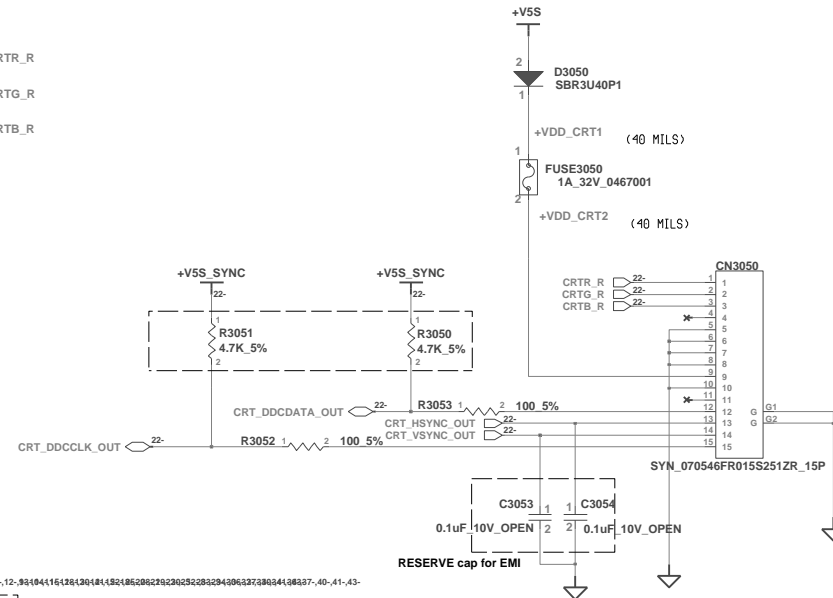
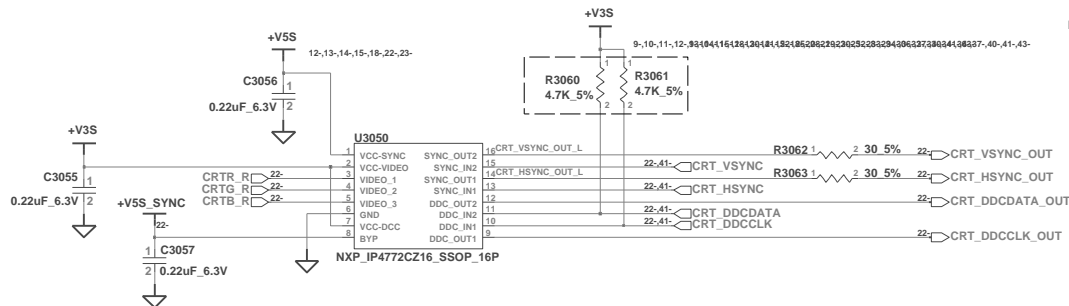
CRT_VSYNC_APU 32- R5840 1 2 0.5% 22-41- CRT_VSYNC
 CRT_HSYNC_APU 32- R5841 1 2 0.5% 22-41- CRT_HSYNC
 CRT_DDCCDATA_APU 32- R5842 1 2 0.5% 22-41- CRT_DDCCDATA
 CRT_DDCCCLK_APU 32- R5843 1 2 0.5% 22-41- CRT_DDCCCLK

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



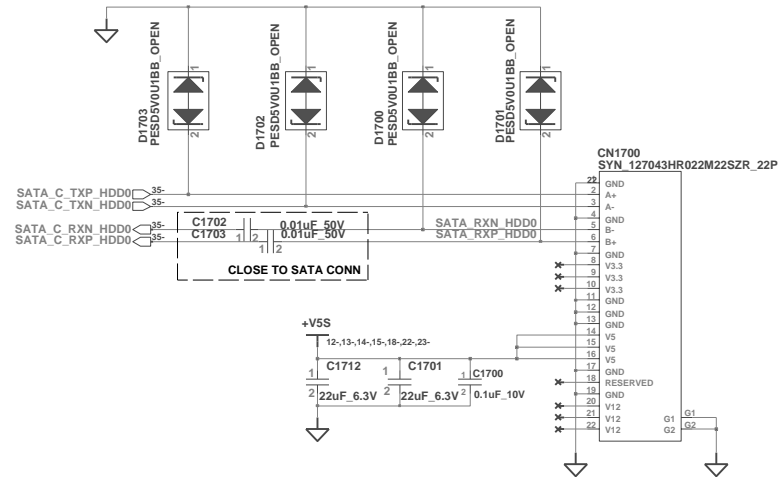
INVENTEC

TITLE
Berlin 10AD
CRT

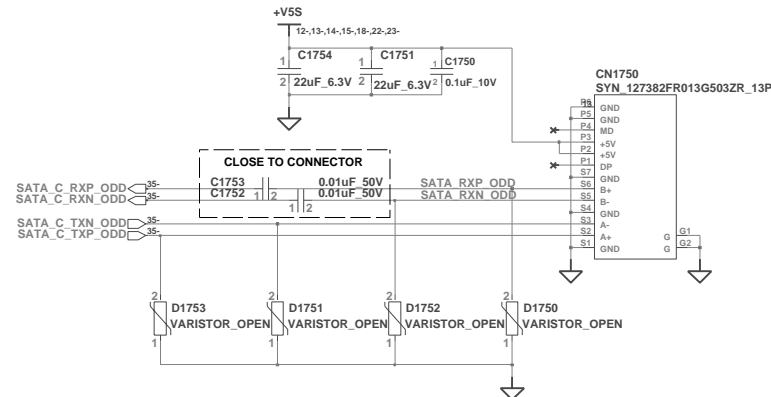
SIZE **A3** CODE **CS** DOC NUMBER **I310A2333201** REV **X01**

CHANGE by **Devlin Hsieh** 2-Nov-2009

SHEET **22** OF **48**



SATA HDD0



SATA ODD

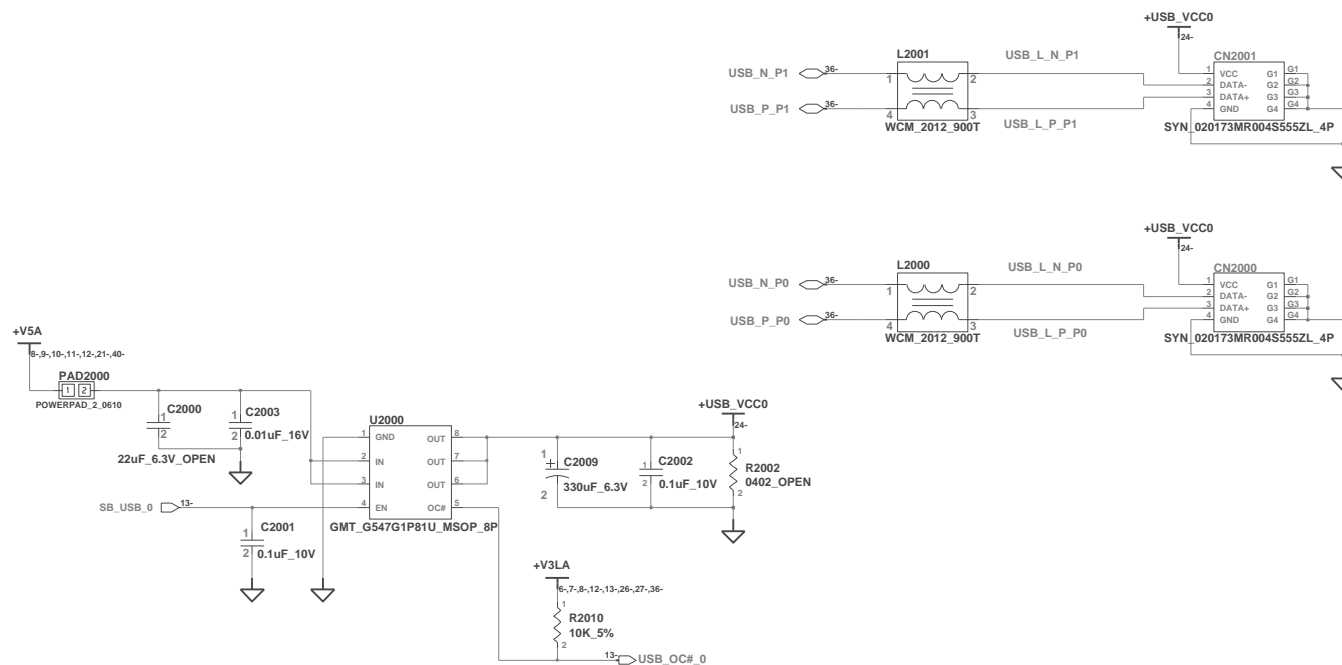
INVENTEC

TITLE
Berlin 10AD
SATA HDD, SATA ODD

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2333201	X01

CHANGE by *Devin Hsieh* 2-Nov-2009

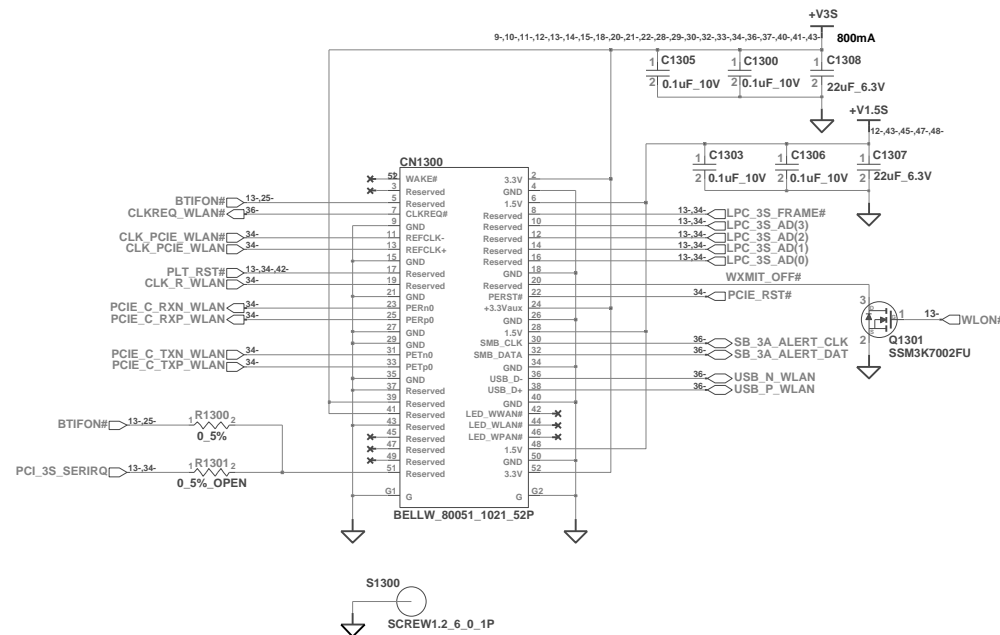
SHEET 23 OF 48



INVENTEC			
TITLE Berlin 10AD e-SATA			
SIZE A3	CODE CS	DOC NUMBER I310A2333201	REV X01
SHEET 24		OF 48	

CHANGE by Devin Hsieh 2-Nov-2009

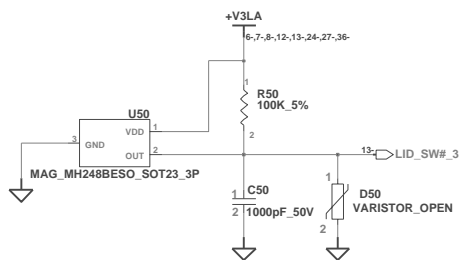
Wireless & BT & Debug card



INVENTEC			
TITLE			
Berlin 10AD WLAN			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2333201	X01
SHEET		25	OF 48

CHANGE by Devin Hsieh 2-Nov-2009

HALL SENSOR



INVENTEC

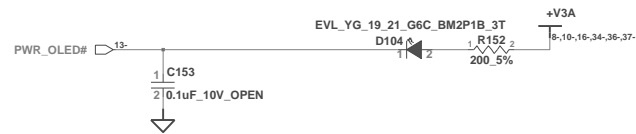
TITLE **Berlin 10AD**
HALL SENSOR

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2333201	X01

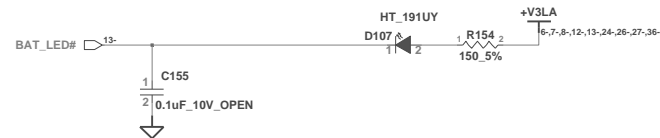
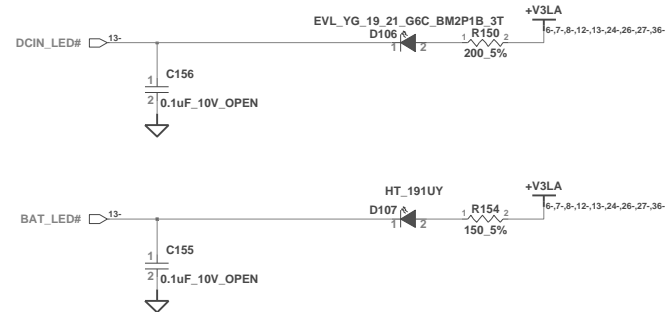
CHANGE by *Devin Hsieh* 2-Nov-2009

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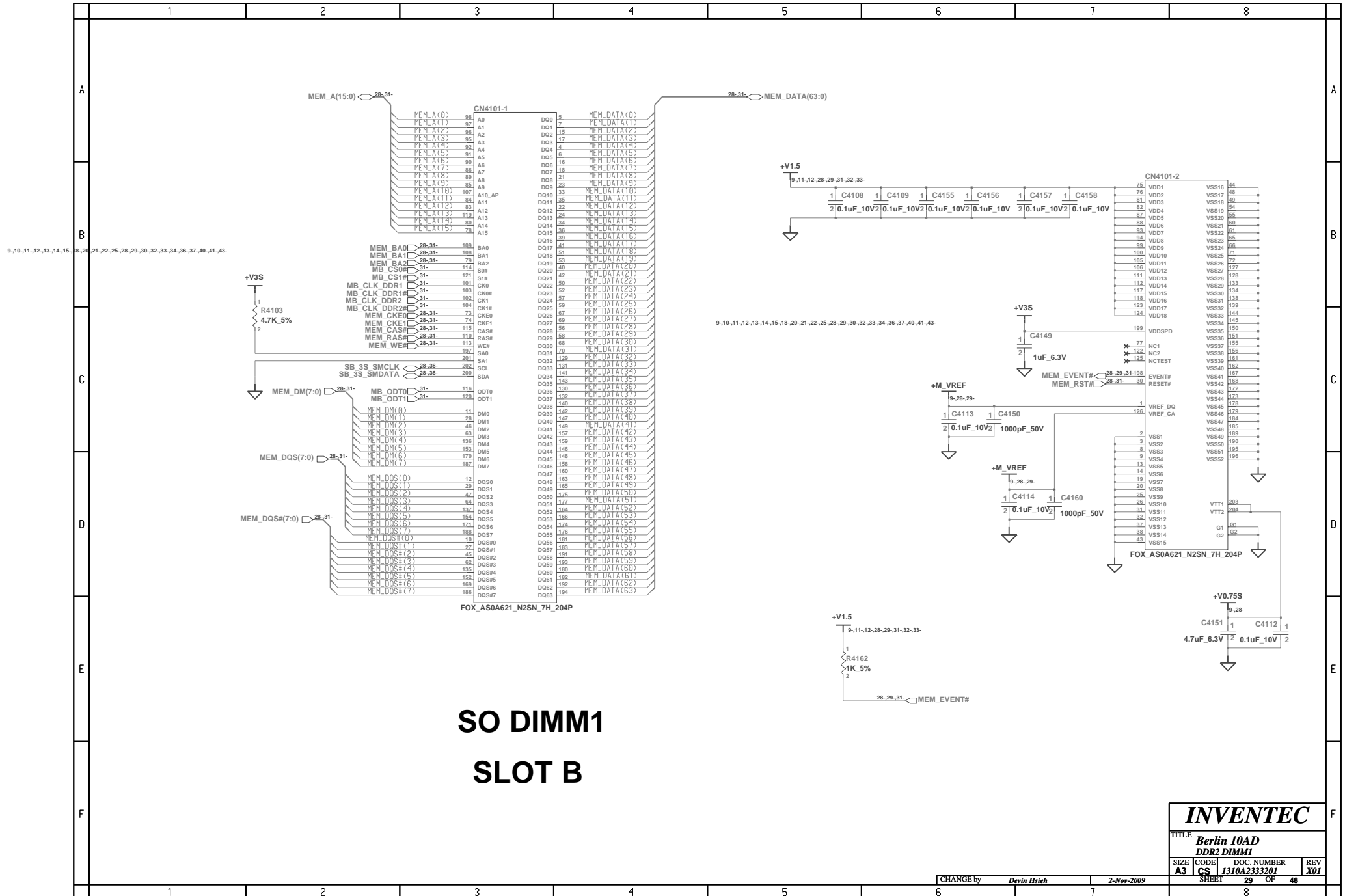
POWER LED

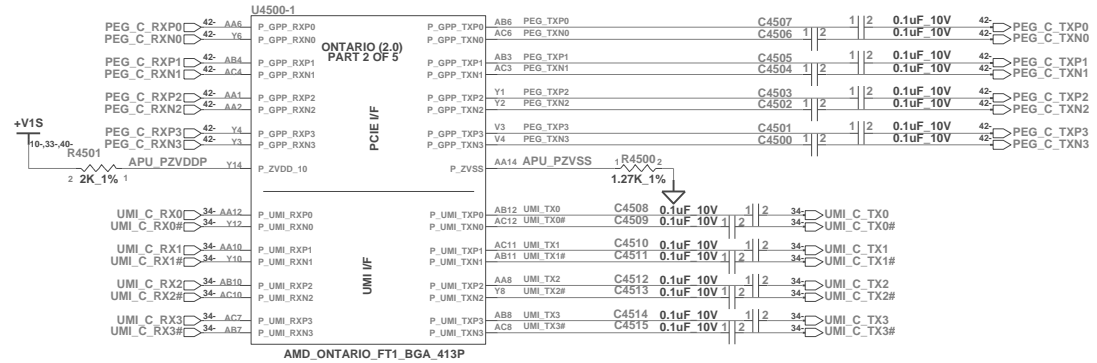
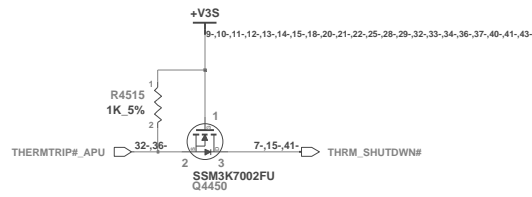


BATTERY LED

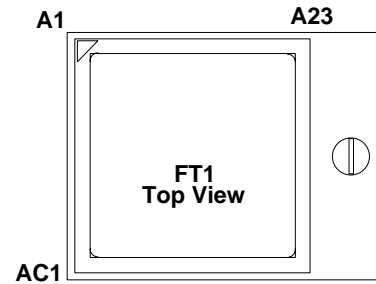


INVENTEC			
TITLE Berlin 10AD LED			
SIZE A3	CODE CS	DOC. NUMBER I310A2333201	REV X01
CHANGE by Devin Hsieh		2-Nov-2009	SHEET 27 OF 48

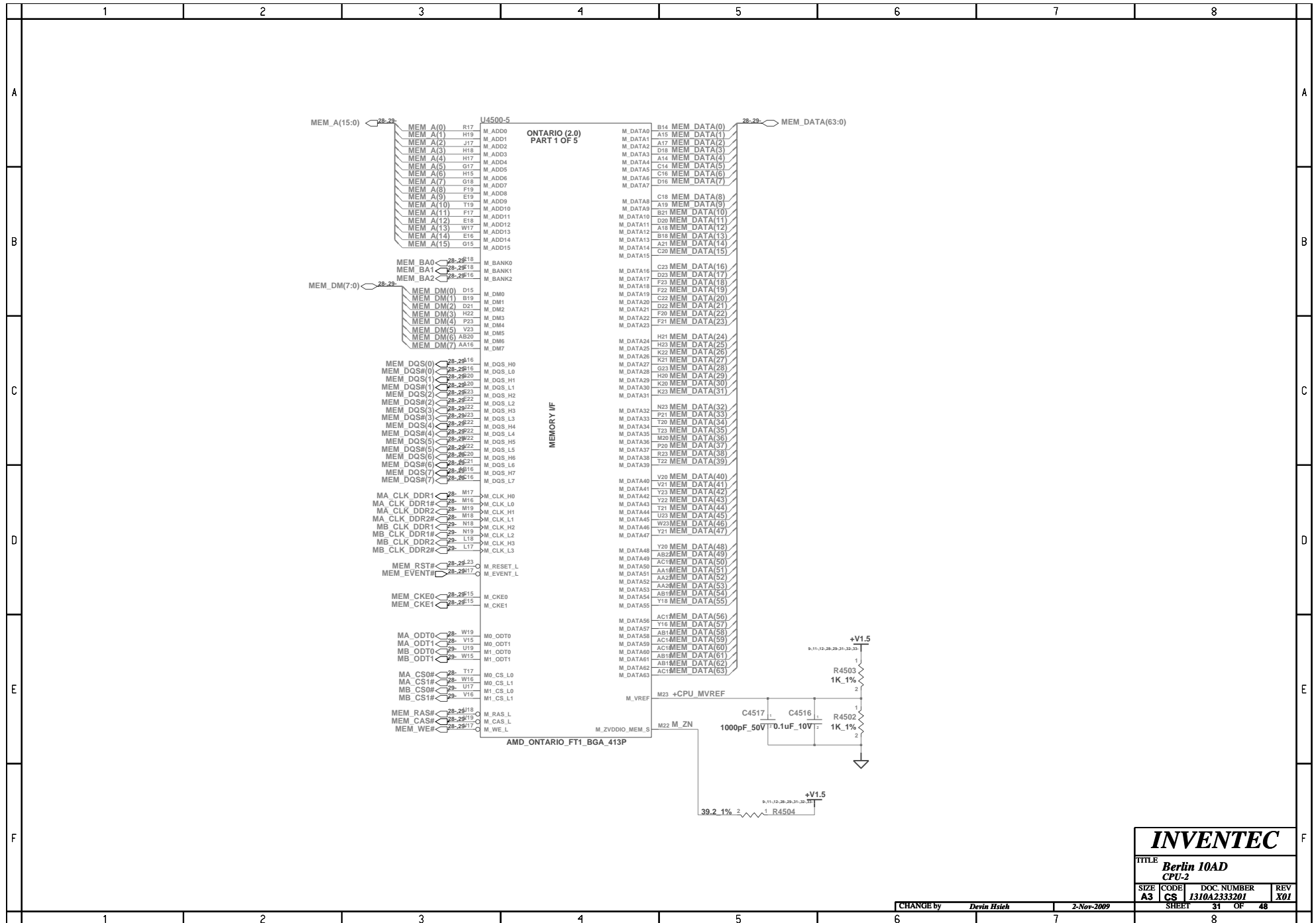




Layout: Add stitching caps if crossing plane split.



INVENTEC			
TITLE			
Berlin 10AD			
CPU-1			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2333201	X01
CHANGE by		3-May-2010	
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INVENTEC

TITLE
Berlin 10AD
CPU-2

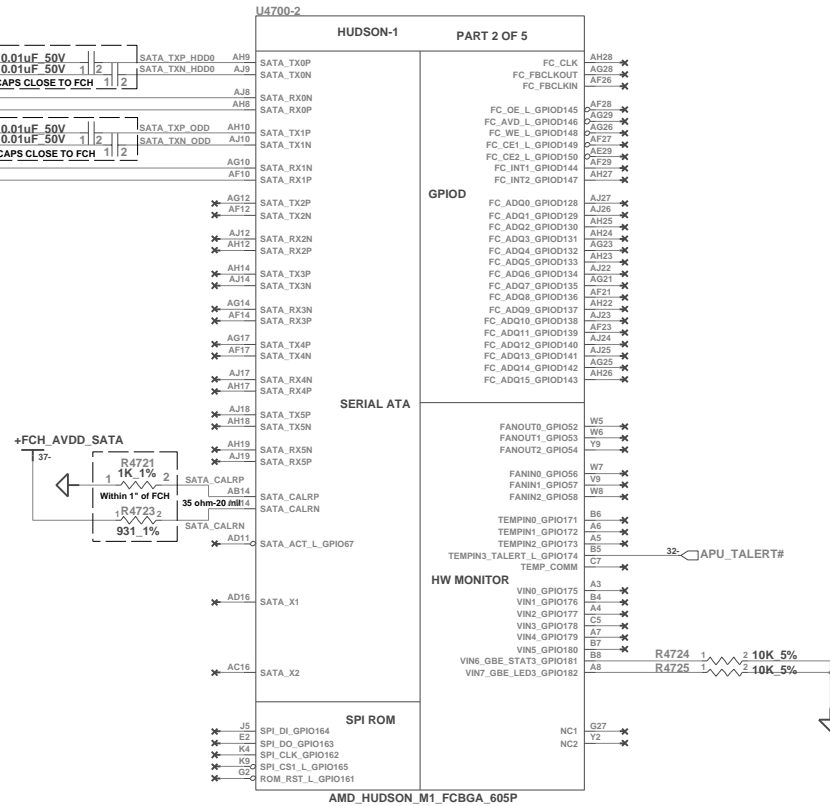
SIZE A3	CODE CS	DOC NUMBER 1310A2333201	REV X01
SHEET		31	OF 48



CHANGE by	<i>Devin Hsieh</i>	<i>13-Apr-2010</i>
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SATA HDD0

SATA ODD



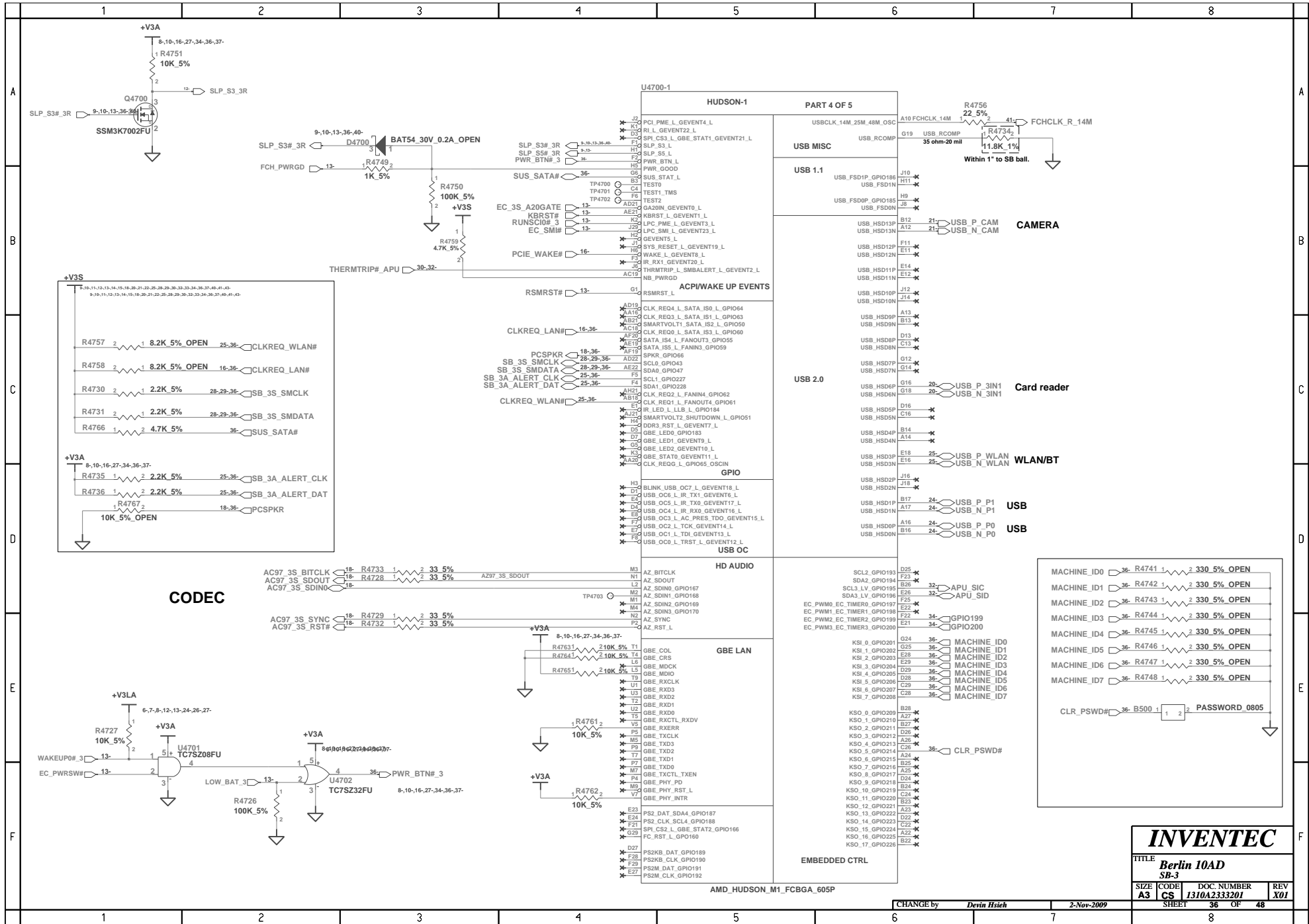
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TITLE
Berlin 10AD
SB-2

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2333201	X01

CHANGE by **Devin Hsieh** 1-Jun-2010

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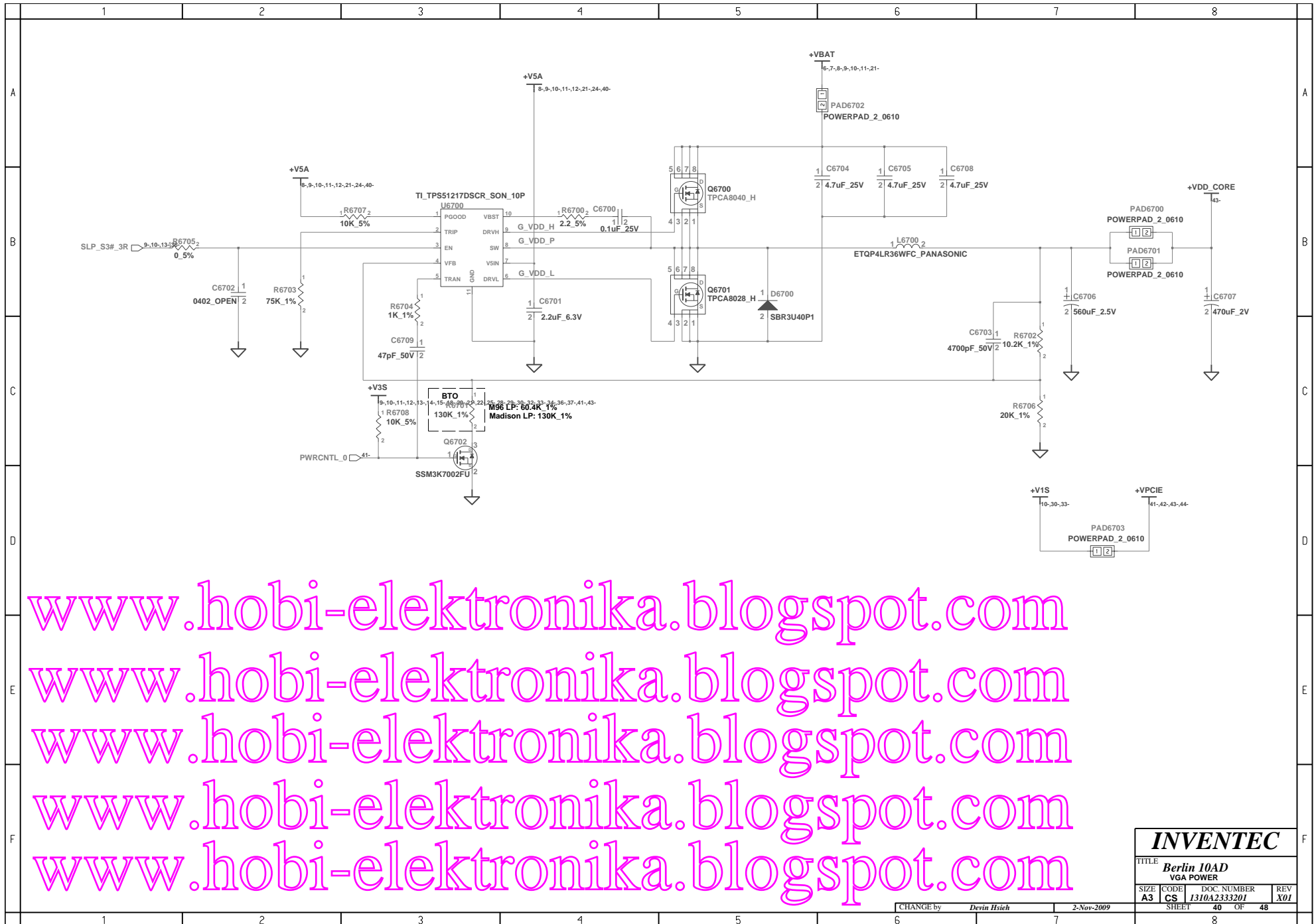


	1	2	3	4	5	6	7	8	
A	<div>EMI</div>								A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE Berlin 10AD EMI			
SIZE A3	CODE CS	DOC. NUMBER I310A2333201	REV X01
SHEET 38		OF 48	

CHANGE by Devin Hsieh 5-Jul-2010

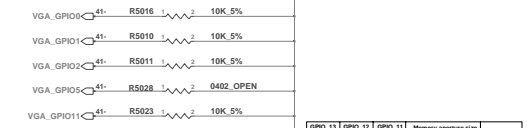
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Berlin 10AD Pick Button Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2333201	X01
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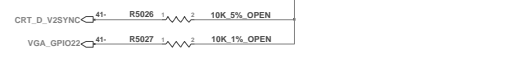
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INVENTEC			
TITLE: Berlin 10AD VGA POWER			
SIZE A3	CODE CS	DOC NUMBER J310A2333201	REV X01
CHANGE by: Devin Hsieh		2-Nov-2009	
SHEET 40		OF 48	

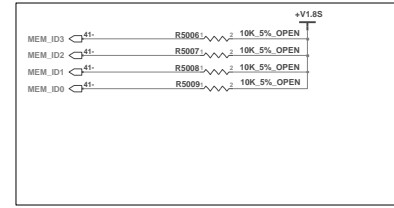
PARK XT-S3 P/N = 6019B0730201



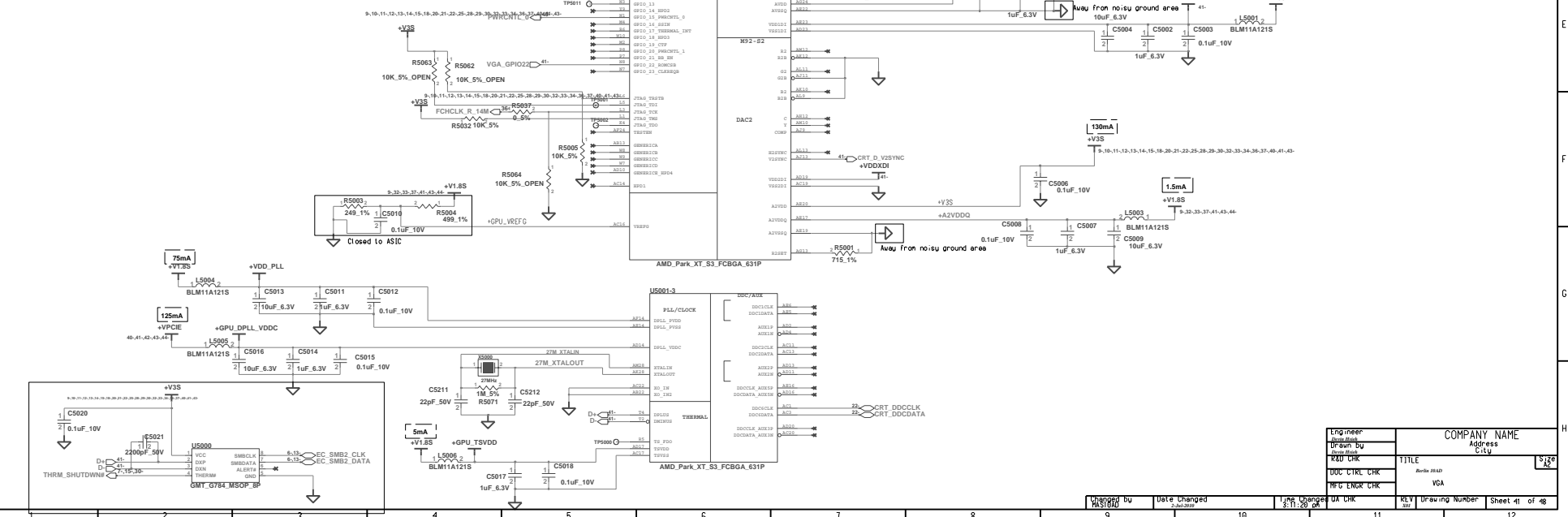
GPIO_13	GPIO_12	GPIO_11	Memory aperture size
0	0	0	128M
0	0	1	256M
0	1	0	512M
0	1	1	1024M

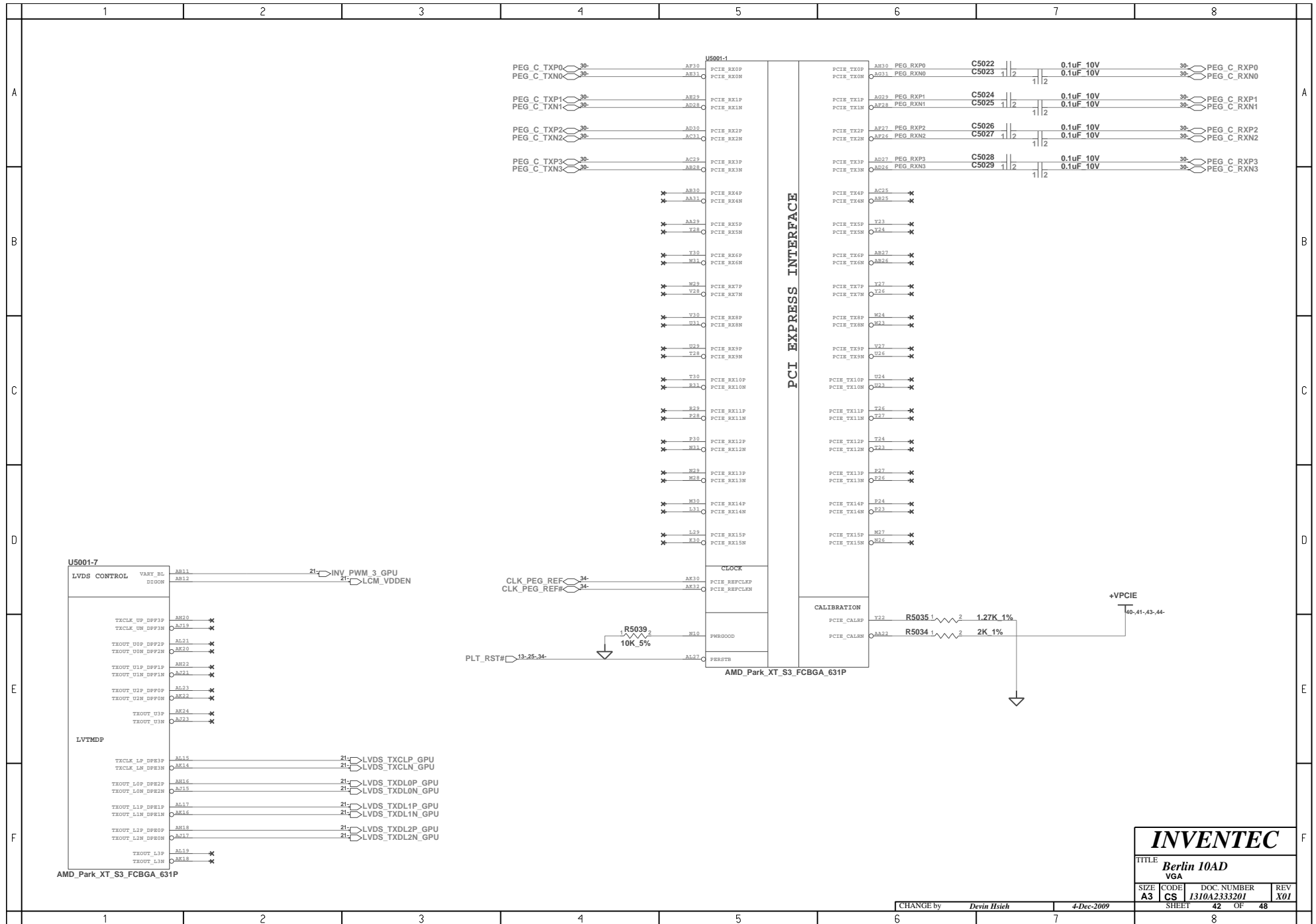


Pin Base Straps																							
GPIO_0	Transmitter Power Saving Enable	0 : 50% Tx output swing (default) 1 : Full Tx output swing																					
GPIO_1	PCIe transmitter De-emphasis	0 : De-emphasis disabled (default) 1 : De-emphasis enabled																					
GPIO_2	GEN1/GEN2 enable	0 : GEN1 (default) 1 : GEN2																					
GPIO_8 GPIO_21	Must be low during reset	Left unconnected																					
GPIO_9	VGA Disable	0 : Enable (default) 1 : Disable																					
GPIO_11[1:13]	Memory aperture size	<table><tr><th>GPIO_13</th><th>GPIO_12</th><th>GPIO_11</th><th>Memory aperture size</th></tr><tr><td>0</td><td>0</td><td>0</td><td>128M</td></tr><tr><td>0</td><td>0</td><td>1</td><td>256M</td></tr><tr><td>0</td><td>1</td><td>0</td><td>512M</td></tr><tr><td>0</td><td>1</td><td>1</td><td>1024M</td></tr></table>		GPIO_13	GPIO_12	GPIO_11	Memory aperture size	0	0	0	128M	0	0	1	256M	0	1	0	512M	0	1	1	1024M
GPIO_13	GPIO_12	GPIO_11	Memory aperture size																				
0	0	0	128M																				
0	0	1	256M																				
0	1	0	512M																				
0	1	1	1024M																				
GPIO_22	Enable external BIOS ROM device	0 : Disable (default) 1 : Enable																					
HSYNC[1] VSYNC[0]	Audio[1:0]	00 : No audio function 01 : Audio for DP and HDMI if dongle is detected 10 : Audio for DP 11 : Audio for DP and HDMI																					

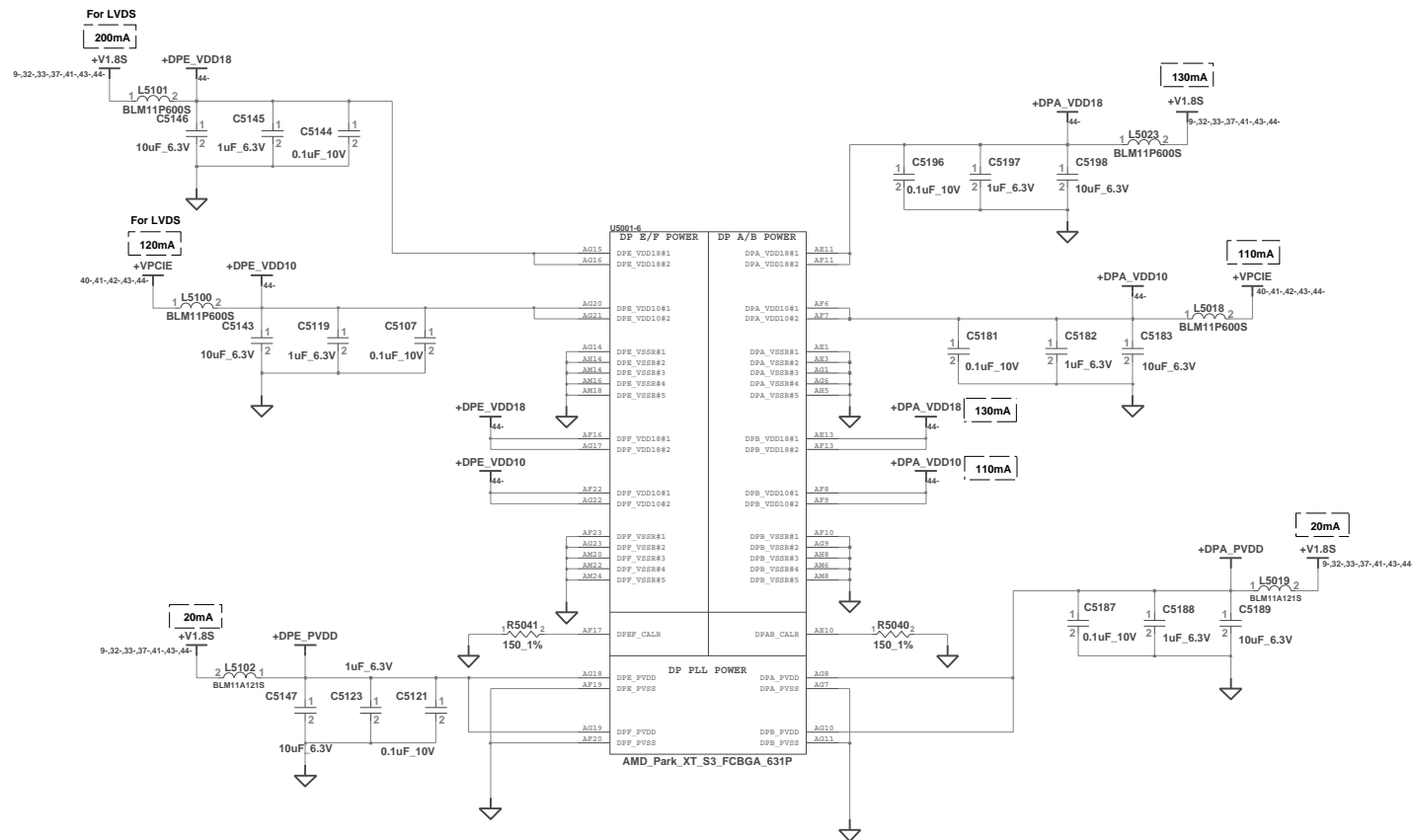


MEM_ID0-3	VRAM Vendor & Size
00h	Hylix 64MX16 (512MB)
01h	Hylix 64MX16 (512MB)
02h	Samsung 64MX16 (512MB)
03h	Samsung 64MX16 (512MB)
04h	Hylix 128MX16 (1GB)
05h	Samsung 128MX16 (1GB)
06h	*****
07h	*****



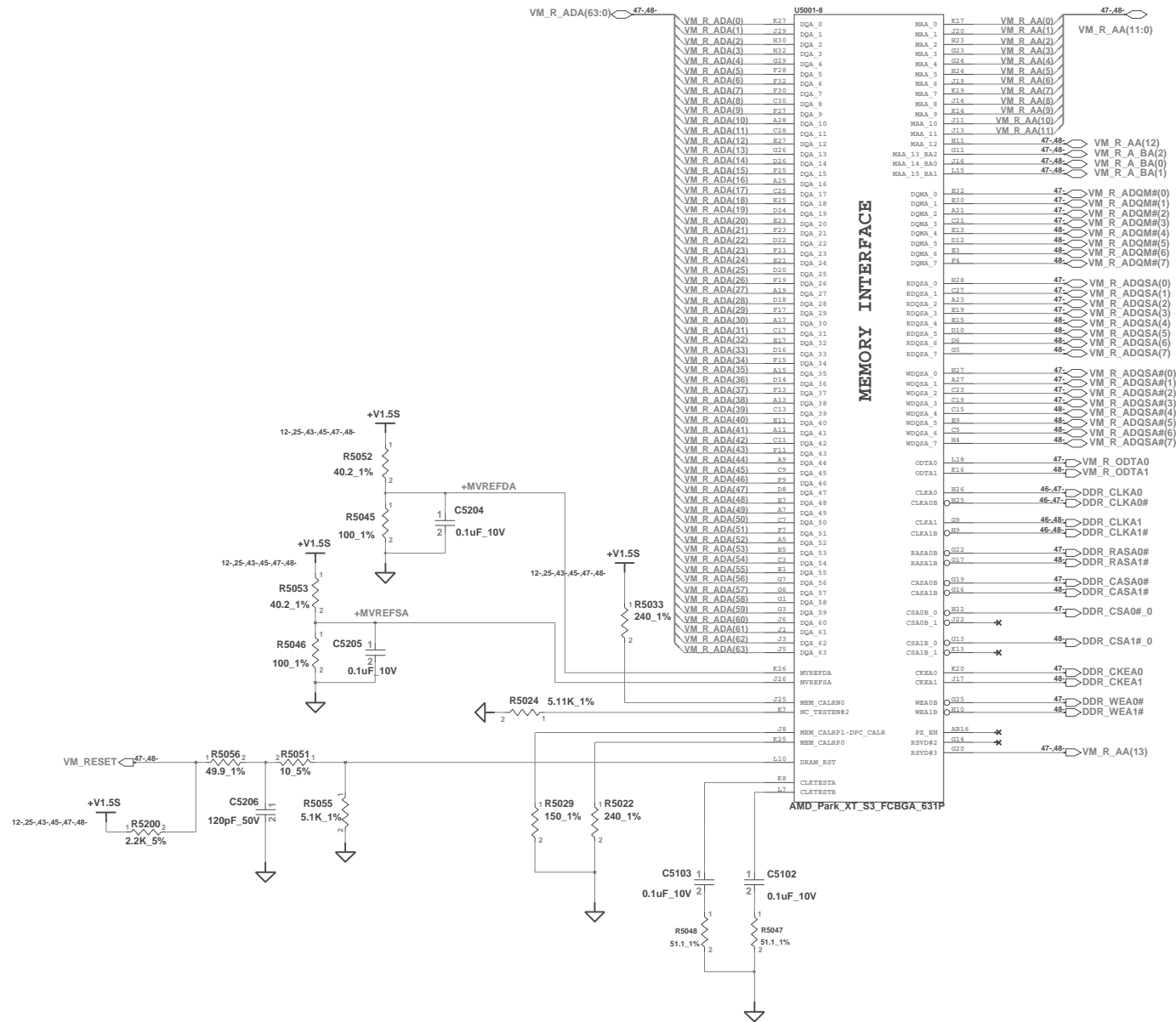


INVENTEC			
TITLE			
Berlin 10AD			
VGA			
SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2333201	X01
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TITLE: Berlin 10AD			
VGA			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2333201	X01
CHANGE by		2-Nov-2009	
SHEET		44	OP 48



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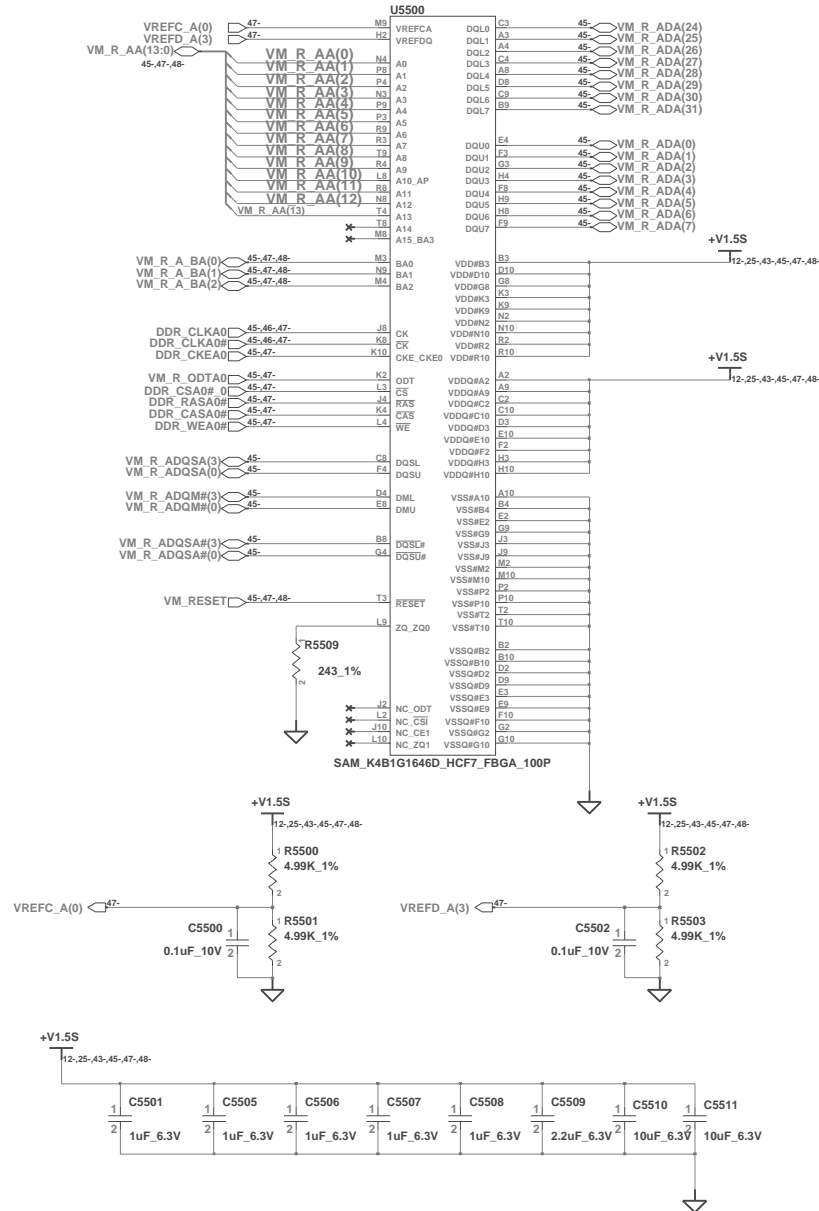
TITLE
Berlin 10AD
VGA

SIZE	CODE	DOC NUMBER	REV
A3	CS	1310A2333201	X01

CHANGE by *Devlin Hsieh* 2-Nov-2009

SHEET 45 OF 48

PARK Use channel A



INVENTEC			
TITLE			
AMD-Sabine			
SIZE	CODE	DOC. NUMBER	REV
A3	CS		
SHEET			
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CHANGE by BL10AD 29-Apr-2010

