

1 2 3 4 5 6 7 8

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Perugia 10MG DDR3 PreMP Build(A02)

2009.08.17

A

A

B

B

C

C

D

D

E

E

F

F

DATE	CHANGE NO.	REV

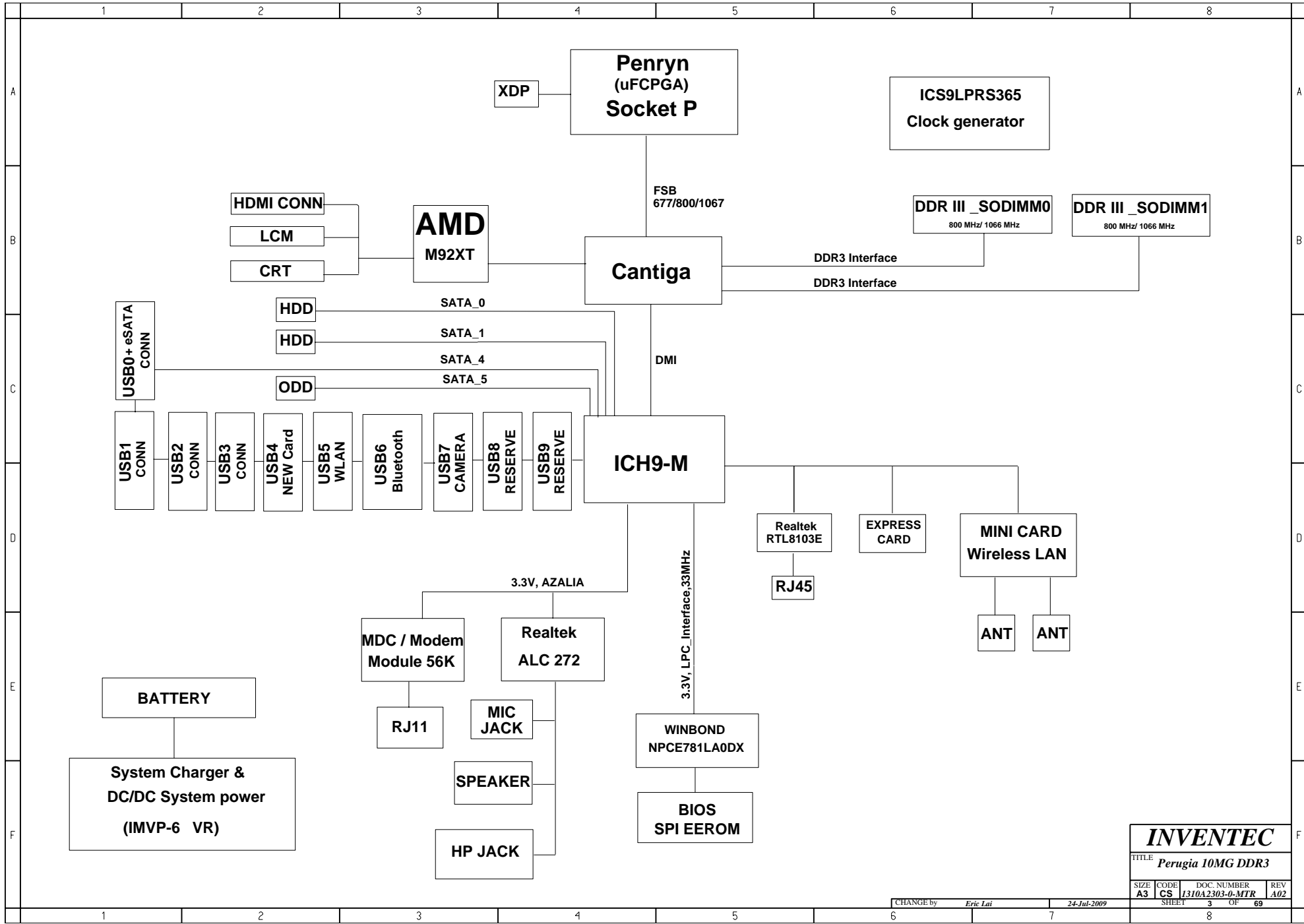
DRAWER	EE	DATE	POWER	DATE	INVENTEC <i>Perugia 10MG DDR3</i>
DESIGN	Eric Lai		Bin-Zhi Lo		
CHECK	Eric Lai		Bin-Zhi Lo		
RESPONSIBLE	Spring Liu		Bo-Yuan Shih		
TITLE					
SIZE =	A3			VER : A02	SIZE
FILE NAME :	PG10MG-6050A2303101-MB-A02-MP			CODE	DOC. NUMBER
P/N	6050A2303101			A3 CS	1310A2303-0-MTR
					REV
					A02
					SHEET
					1 OF 69

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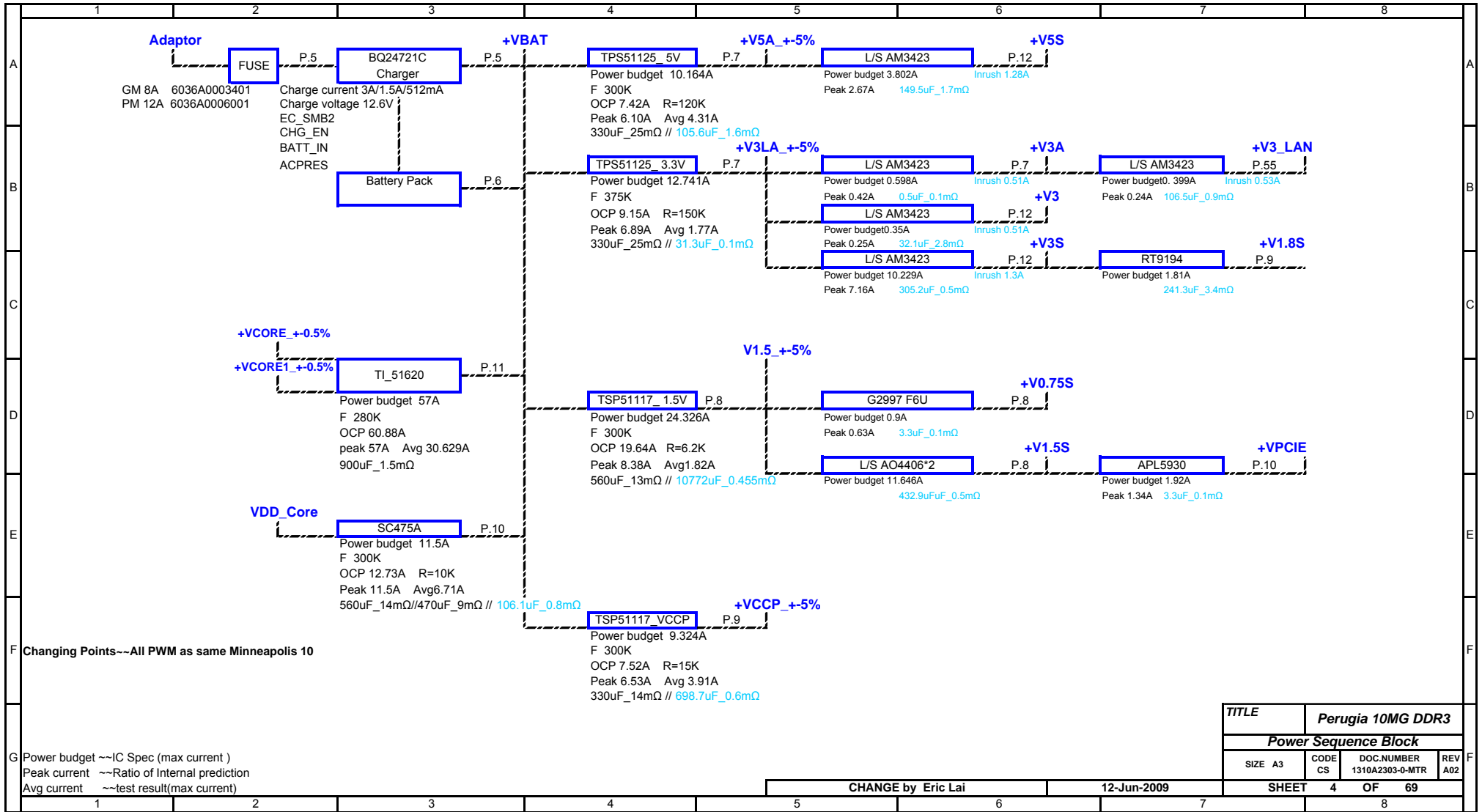
PAGE	PAGE	PAGE
1.COVER PAGE	31.VGA-3	55.LAN CONTROLLER
2.INDEX	32.VGA-4	56.RJ45 & TRANSFORMER
3.BLOCK DIAGRAM	33.VGA-5	57.HDMI & CEC
4.POWER SEQUENCE BLOCK	34.VGA-6	58.HDMI CONN
5-12.SYSTEM POWER	35.VRAM_0	59.USB Card Reader
13.CLOCK GENERATOR	36.VRAM_1	60.Express Card
14.PENRYN-1	37.3D Sensor	61.WLAN /Debug
15.PENRYN-2	38.CRT CONN	62.MDC 1.5 CONN
16.PENRYN-3	39.LCM CONN	63.LED(M/B) & HOTKEY/B CONN
17.PENRYN-4	40.ICH9-1	64.KILL SWITCH& HALL SENSOR
18.FAN & THERMAL CONTROLLER	41.ICH9-2	65.Screw
19.CANTIGA-1	42.ICH9-3	66.EMI
20.CANTIGA-2	43.ICH9-4	67.Hotkey board
21.CANTIGA-3	44.ICH9-5	68.Touch pad board
22.CANTIGA-4	45.SATA HDD CONN	69.Power board
23.CANTIGA-5	46.ODD CONN	
24.CANTIGA-6	47.USB CONN	
25.CANTIGA-7	48.ESATA CONN	
26.DDR3 DIMM0	49.Camera	
27.DDR3 DIMM1	50.BLUE TOOTH CONN	
28.	51.KBC	
29.VGA-1	52.K/B & TP/B CONN	
30.VGA-2	53.Audio Codec	
	54.Audio AMP/MIC/Speaker	

INVENTEC			
TITLE <i>Perugia 10MG DDR3</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>1310A2303-0-MTR</i>	REV A02
CHANGE by <i>Eric Lai</i>		11-Aug-2009	
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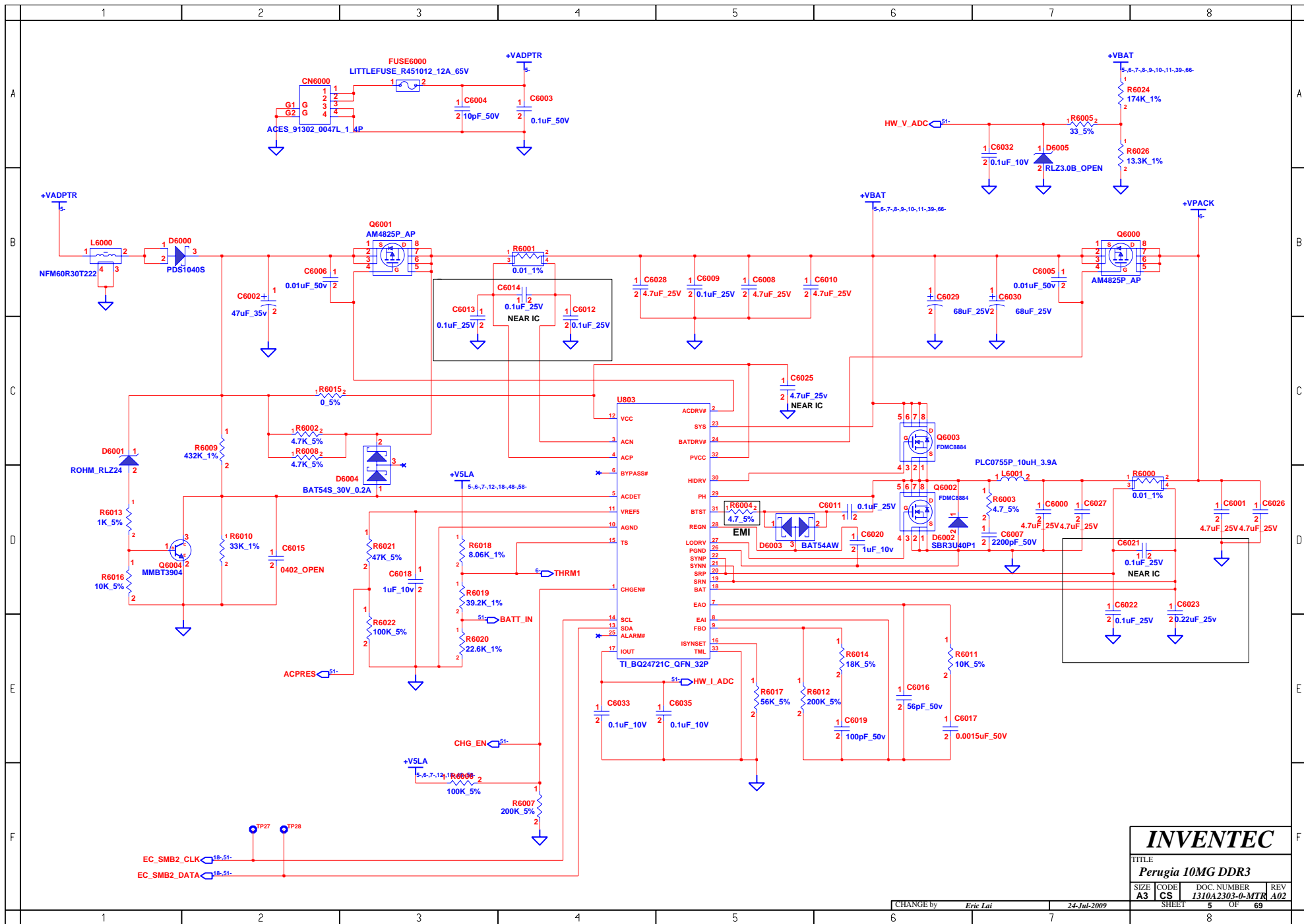
INVENTEC			
TITLE <i>Perugia 10MG DDR3</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>1310A2303-0-MTR</i>	REV A02
SHEET 3		OF 69	

CHANGE by *Eric Lai* 24-Jul-2009



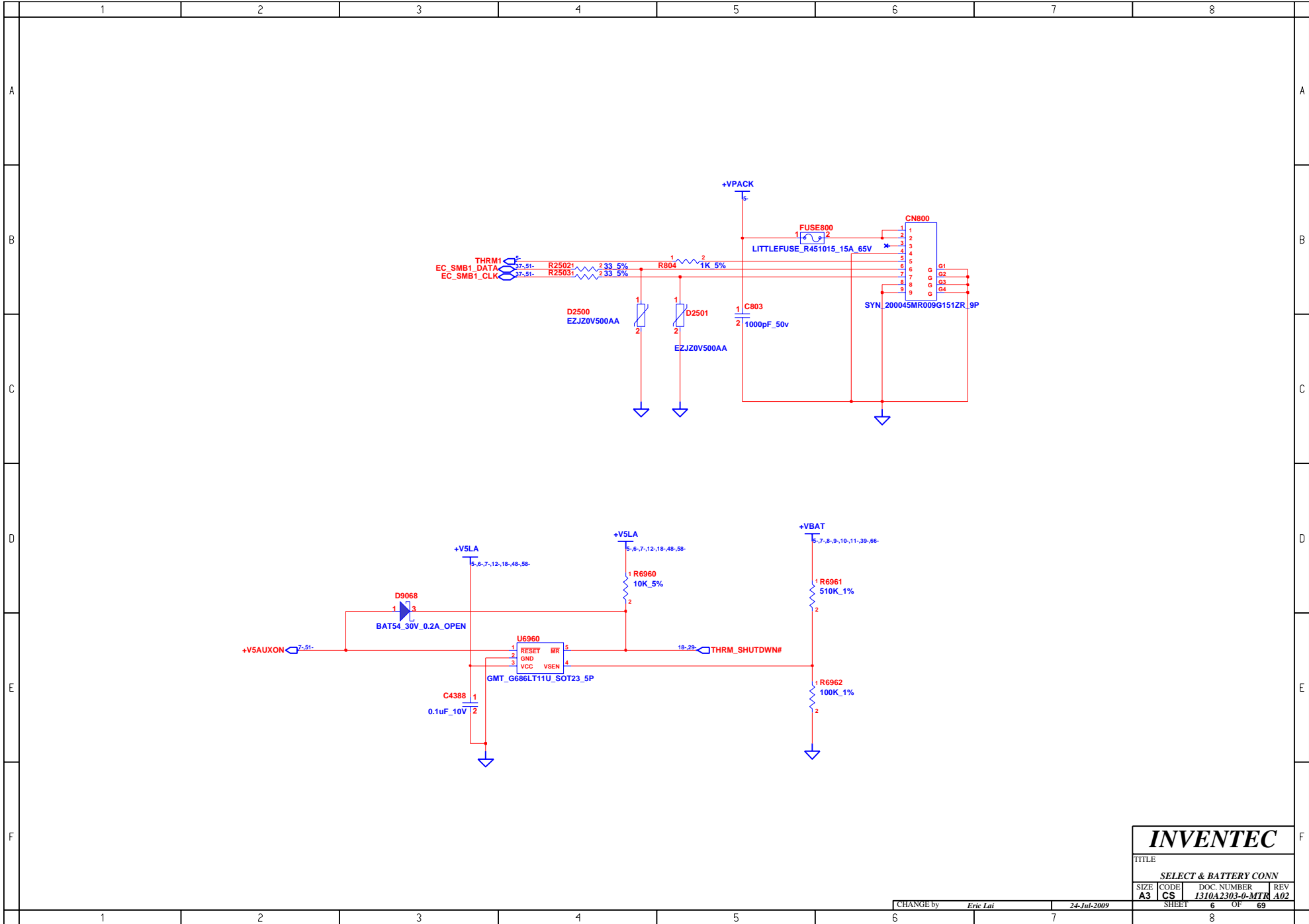
TITLE		Perugia 10MG DDR3		
Power Sequence Block				
SIZE	A3	CODE	CS	DOC.NUMBER
				1310A2303-0-MTR
REV	A02			

G Power budget ~IC Spec (max current)
 Peak current ~Ratio of Internal prediction
 Avg current ~test result(max current)



INVENTEC

TITLE		
Perugia 10MG DDR3		
SIZE	CODE	DOC. NUMBER
A3	CS	I310A2303-0-MTR
REV		REV
A02		A02

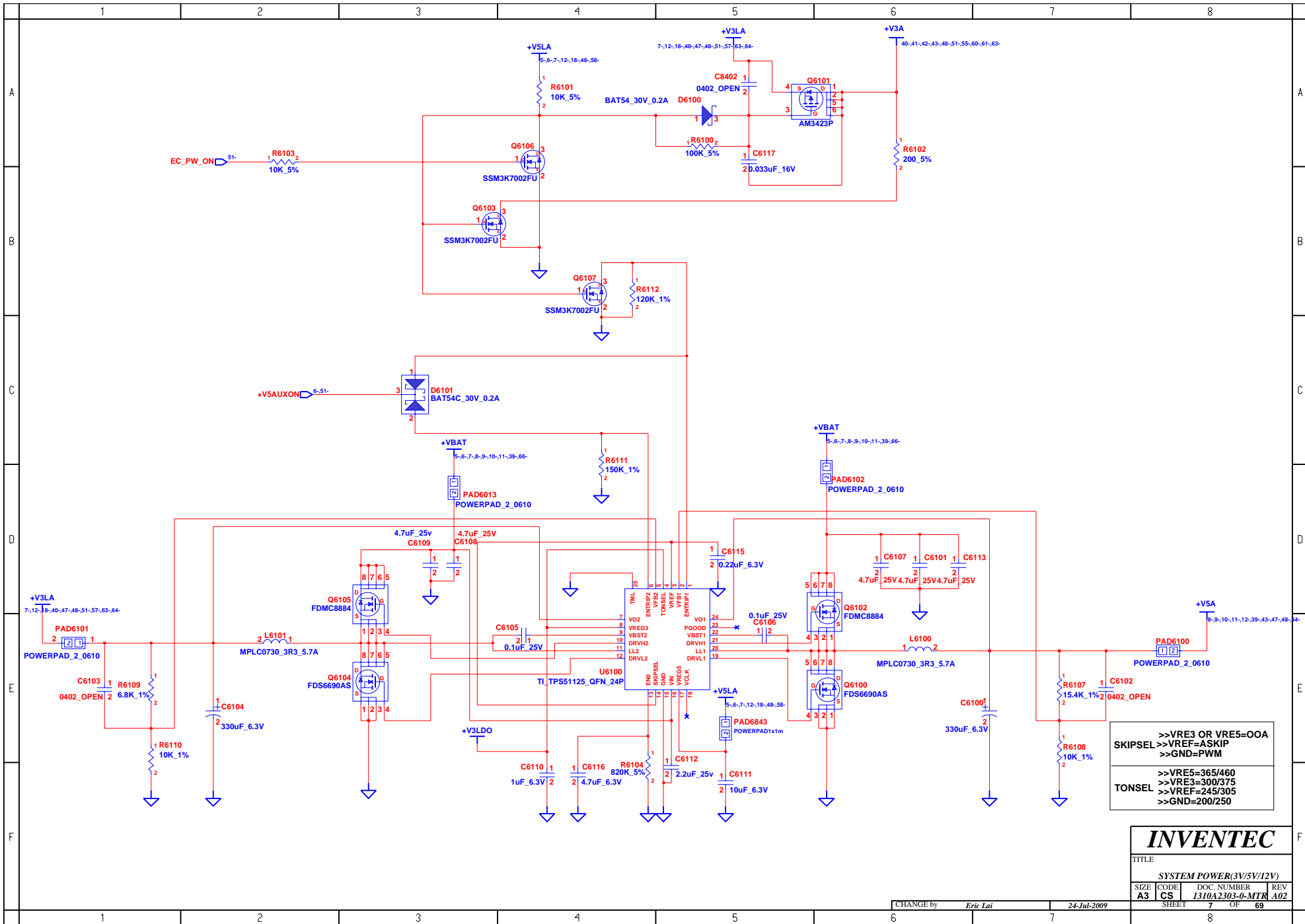


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TITLE		
SELECT & BATTERY CONN		
SIZE	CODE	DOC. NUMBER
A3	CS	1310A2303-0-MTR
SHEET		REV
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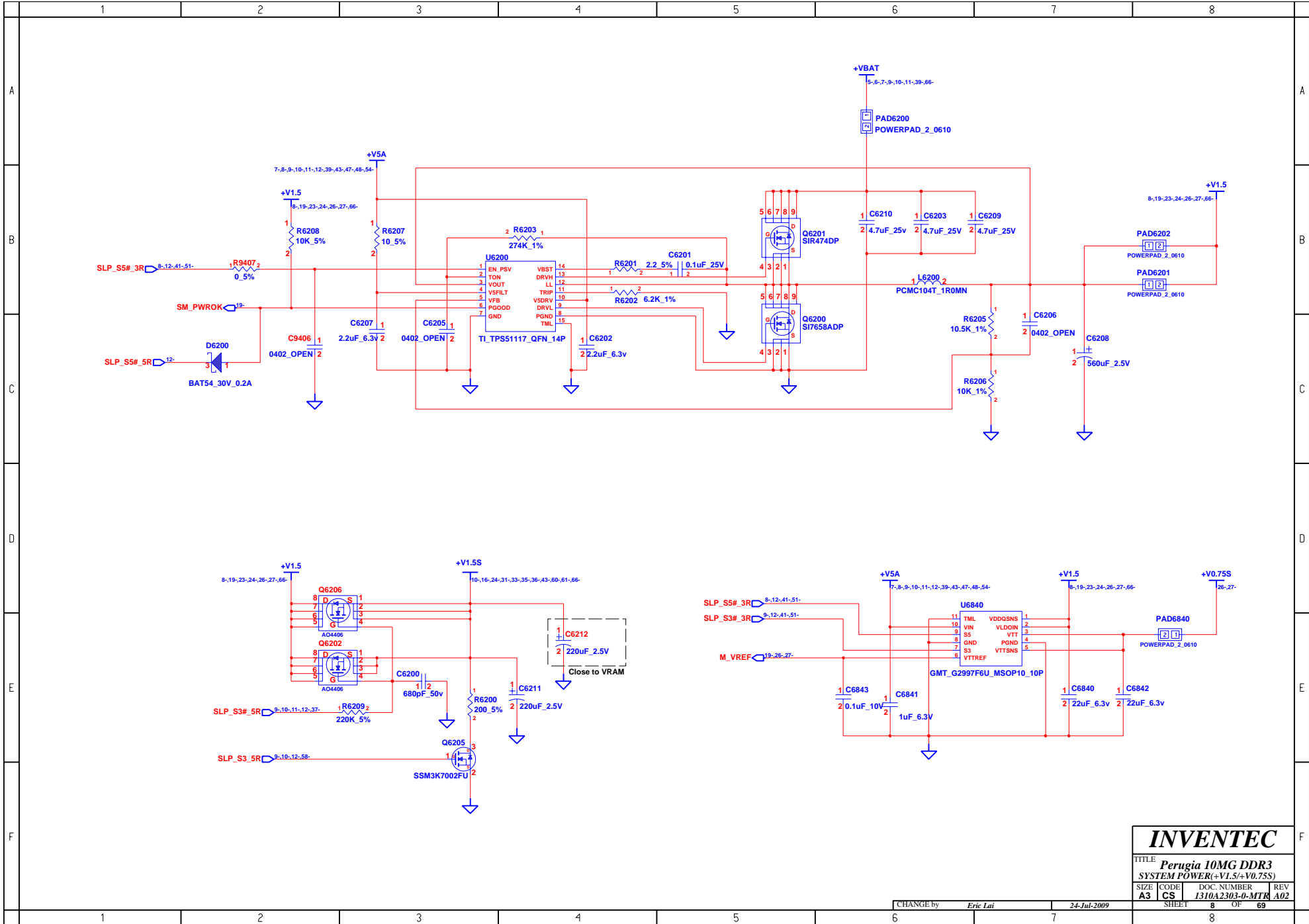


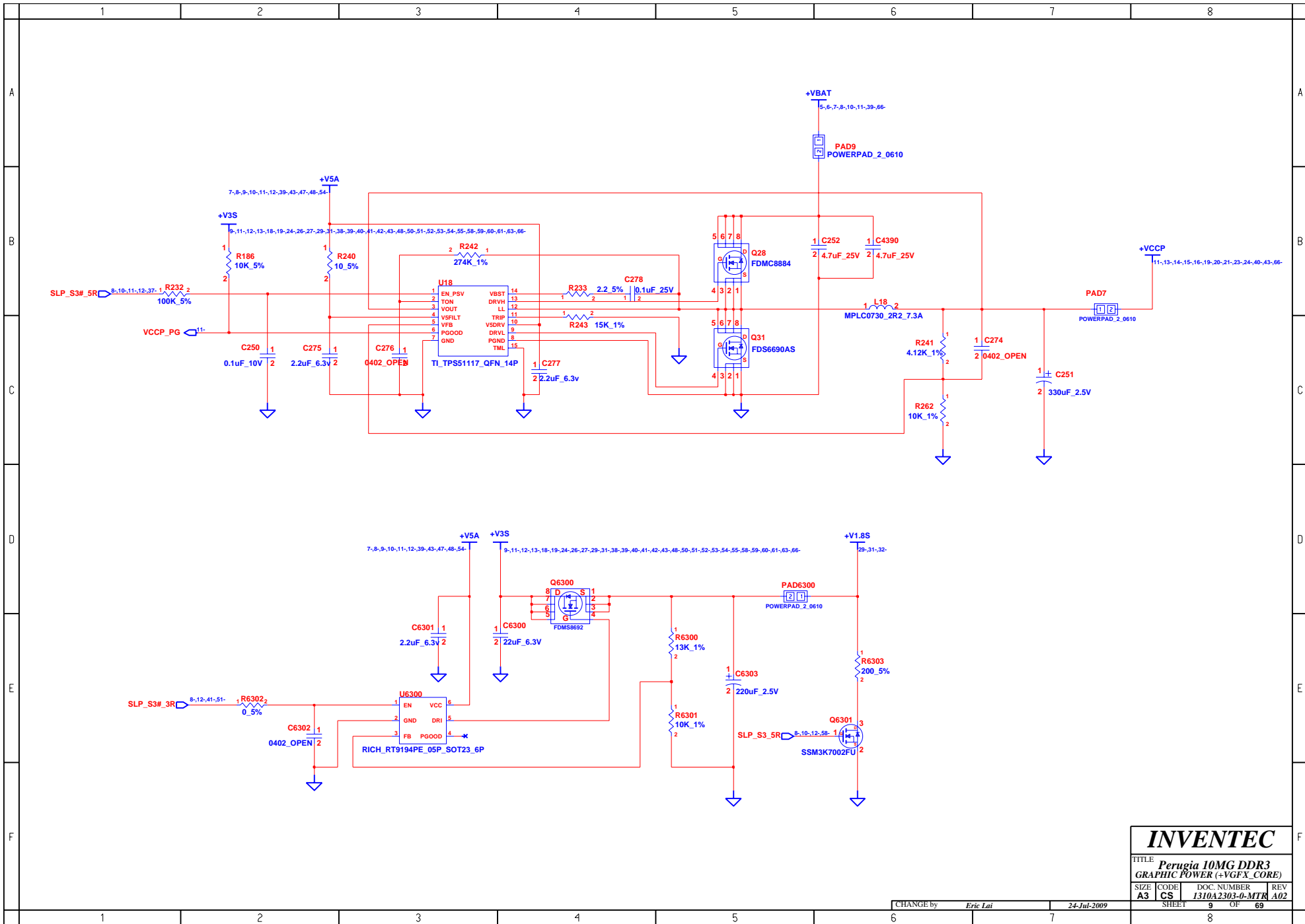
>>VRE3 OR VRE5=OOA
SKIPSEL>>VREF=ASKIP
>>GND=PWM
>>VRE5=365/460
>>VRE3=300/375
TONSEL >>VREF=245/305
>>GND=200/250

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TITLE			
SYSTEM POWER(3V/5V/12V)			
SIZE	CODE	DOC NUMBER	REV
A3	CS	I310A2303-0-MTR	A02
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7		69	

CHANGE by Eric Lai 24-Jul-2009



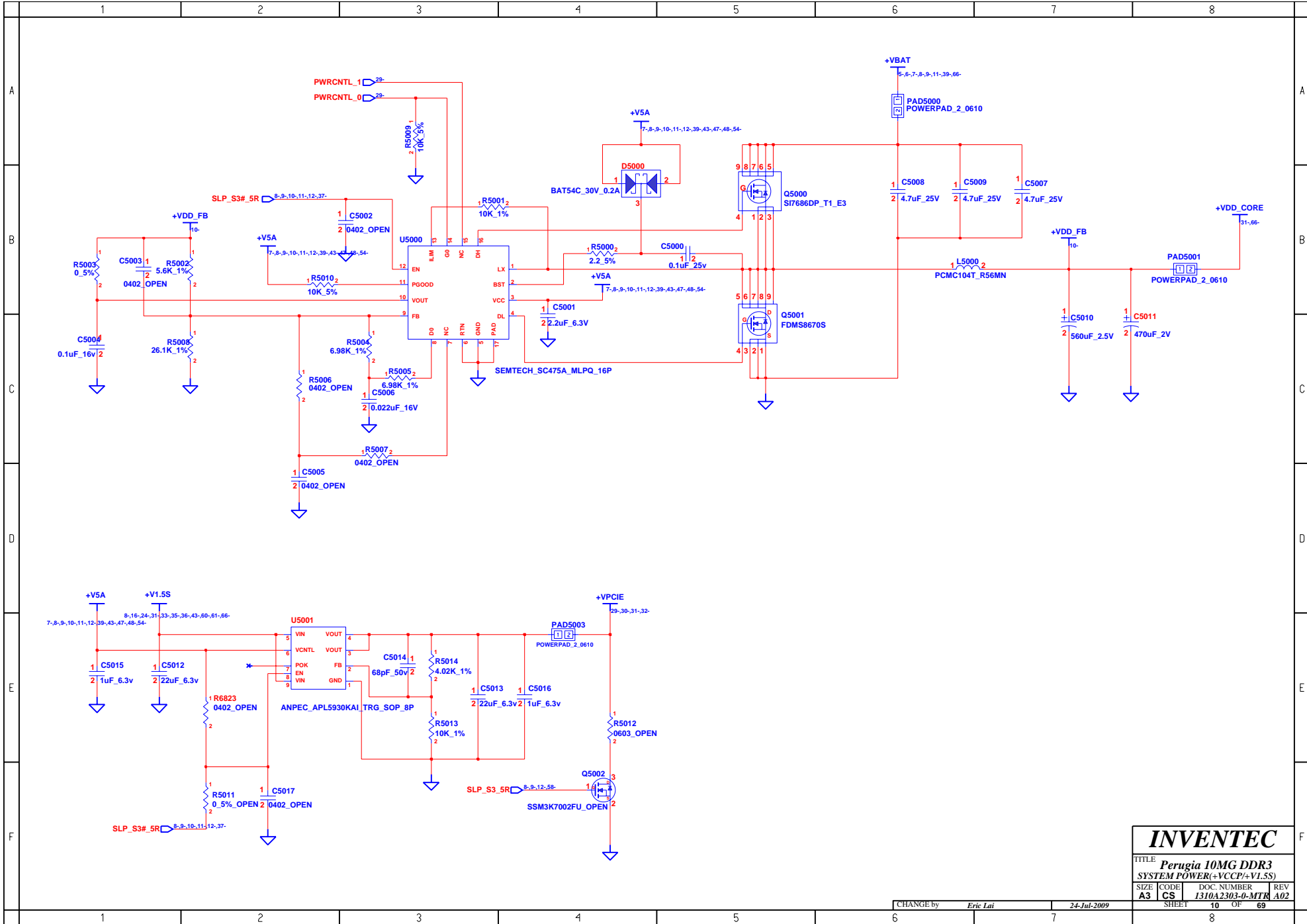


INVENTEC

TITLE **Perugia 10MG DDR3 GRAPHIC POWER (+VGF_X_CORE)**

SIZE A3	CODE CS	DOC NUMBER I310A2303-G-MTR	REV A02
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CHANGE by Eric Lai	24-Jul-2009	SHEET 9 OF 69
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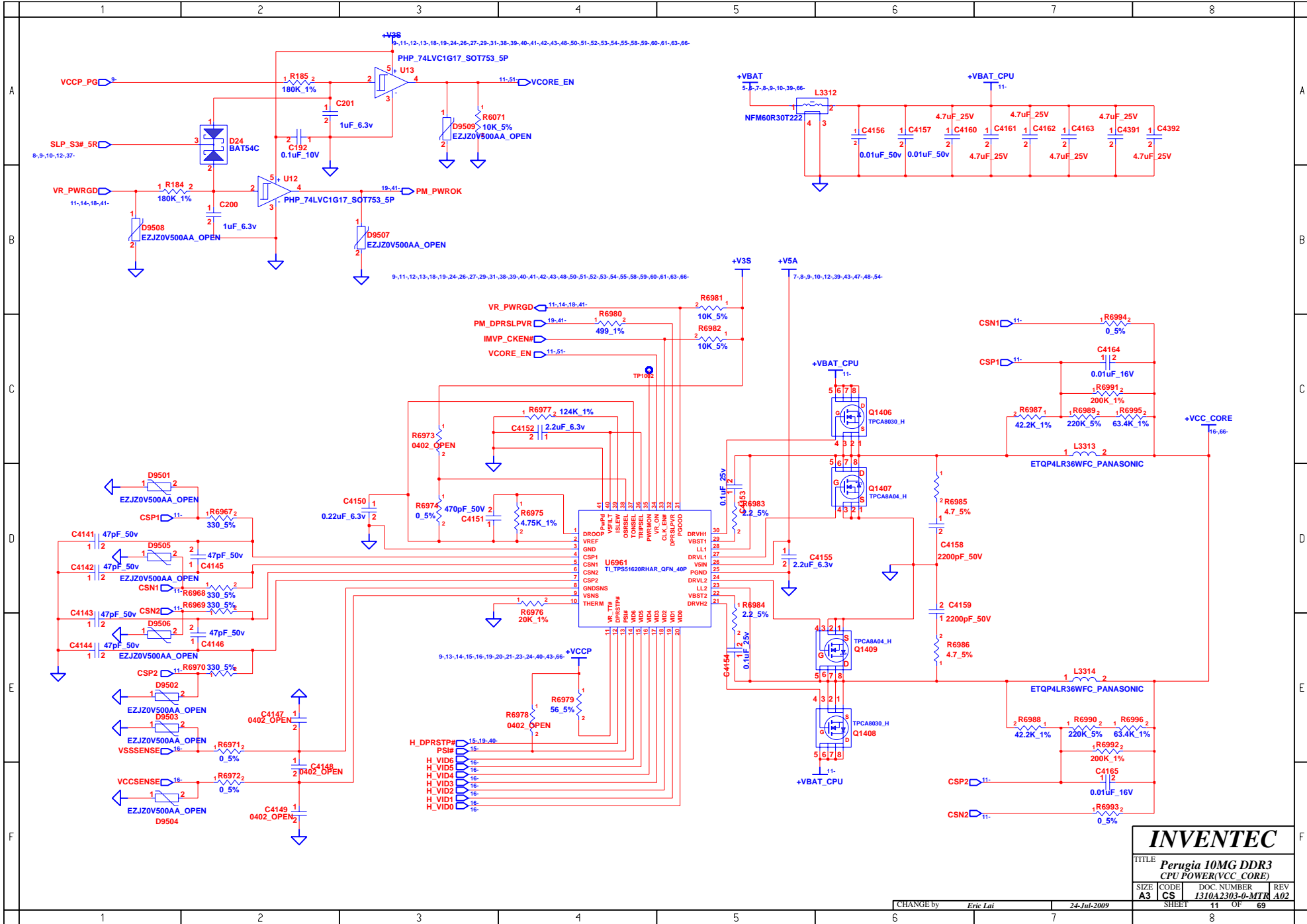
INVENTEC

TITLE **Perugia 10MG DDR3 SYSTEM POWER(+VCCP/+V1.5S)**

SIZE A3	CODE CS	DOC NUMBER I310A2303-0-MTR	REV A02
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CHANGE by *Eric Lai* 24-Jul-2009

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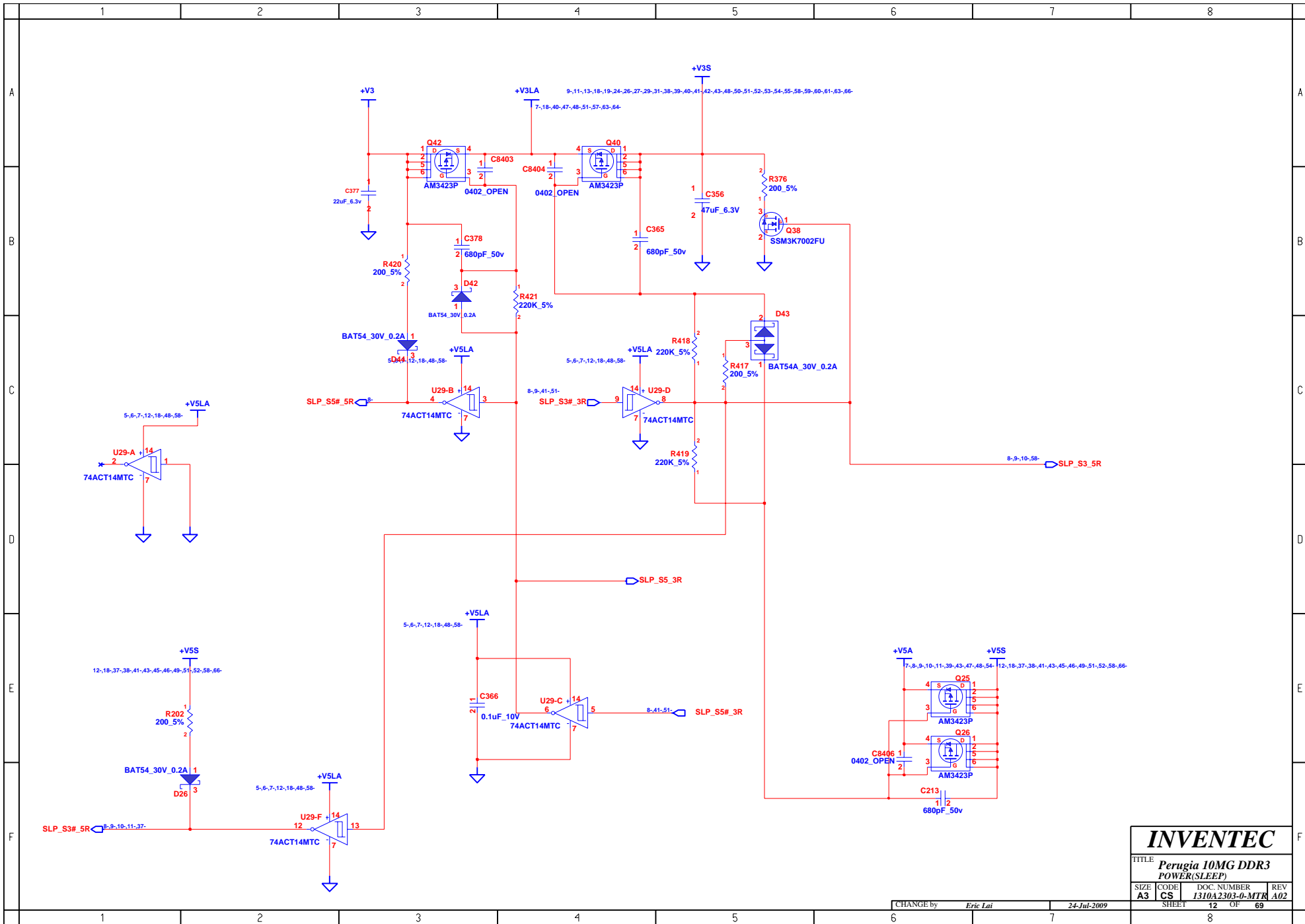
INVENTEC

TITLE: **Perugia 10MG DDR3 CPU POWER(VCC_CORE)**

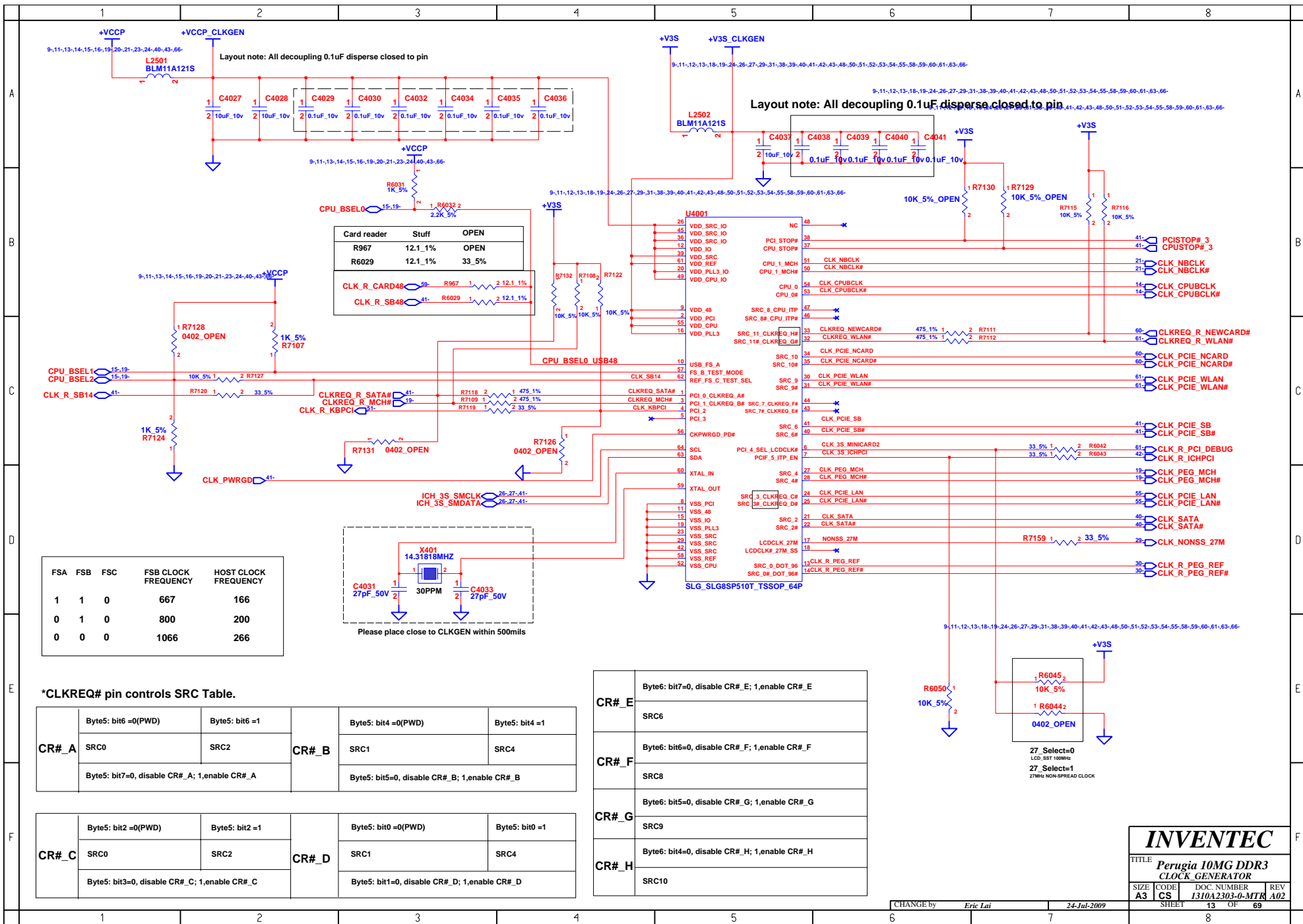
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2303-0-MTR	A02

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CHANGE by Eric Lai 24-Jul-2009



INVENTEC			
TITLE Perugia 10MG DDR3 POWER(SLEEP)			
SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
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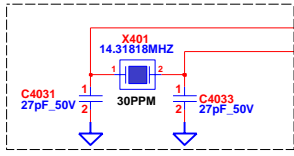


Layout note: All decoupling 0.1uF disperse closed to pin

Layout note: All decoupling 0.1uF disperse closed to pin

Card reader	Stuff	OPEN
R967	12.1_1%	OPEN
R6029	12.1_1%	33_5%

FSA	FSB	FSC	FSB CLOCK FREQUENCY	HOST CLOCK FREQUENCY
1	1	0	667	166
0	1	0	800	200
0	0	0	1066	266



*CLKREQ# pin controls SRC Table.

CR#_A	Byte5: bit6=0(PWD)	Byte5: bit6=1	CR#_B	Byte5: bit4=0(PWD)	Byte5: bit4=1
	SRC0	SRC2		SRC1	SRC4
Byte5: bit7=0, disable CR#_A; 1,enable CR#_A			Byte5: bit5=0, disable CR#_B; 1,enable CR#_B		

CR#_C	Byte5: bit2=0(PWD)	Byte5: bit2=1	CR#_D	Byte5: bit0=0(PWD)	Byte5: bit0=1
	SRC0	SRC2		SRC1	SRC4
Byte5: bit3=0, disable CR#_C; 1,enable CR#_C			Byte5: bit1=0, disable CR#_D; 1,enable CR#_D		

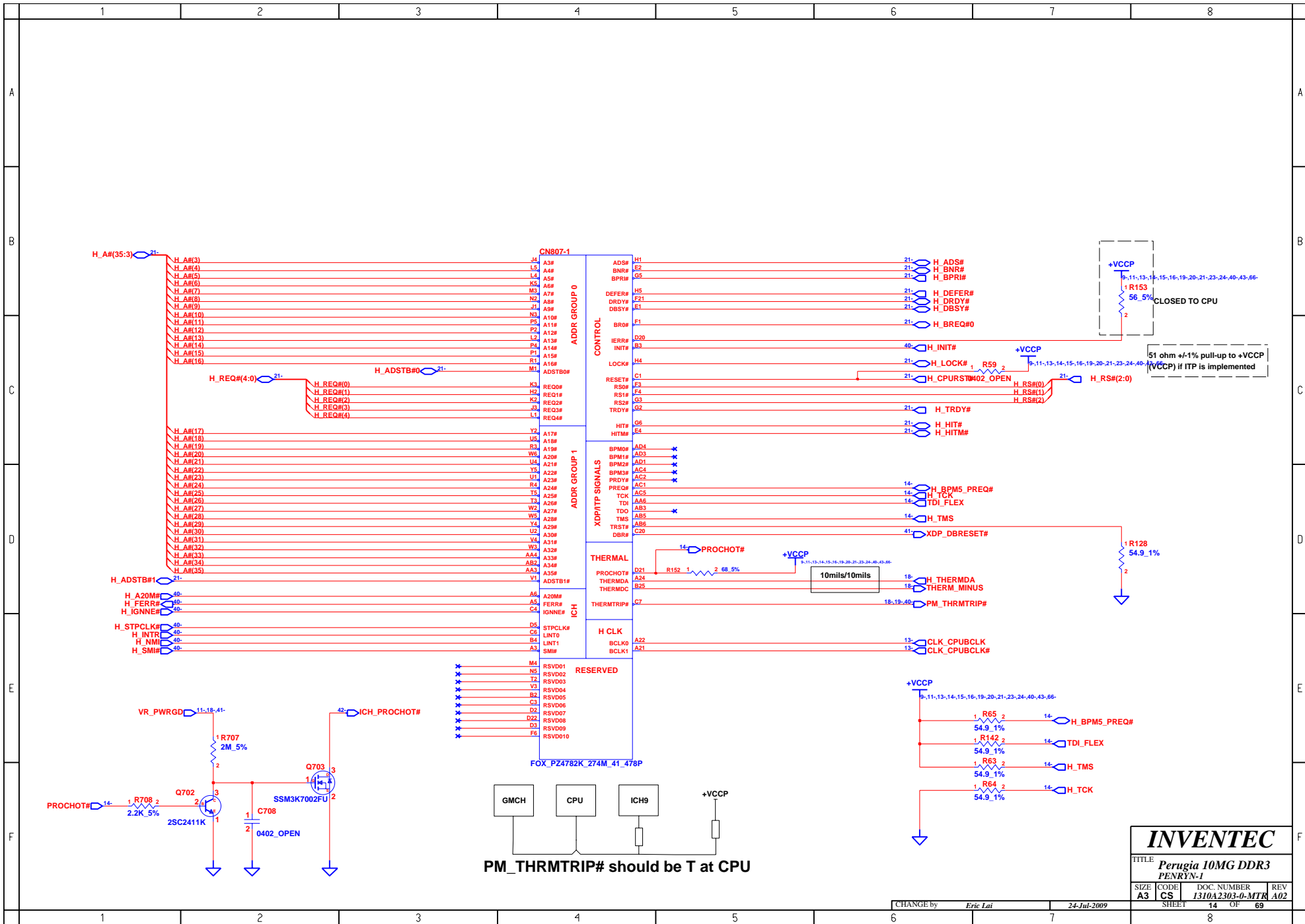
CR#_E	Byte6: bit7=0, disable CR#_E; 1,enable CR#_E
SRC6	
CR#_F	Byte6: bit6=0, disable CR#_F; 1,enable CR#_F
SRC8	
CR#_G	Byte6: bit5=0, disable CR#_G; 1,enable CR#_G
SRC9	
CR#_H	Byte6: bit4=0, disable CR#_H; 1,enable CR#_H
SRC10	

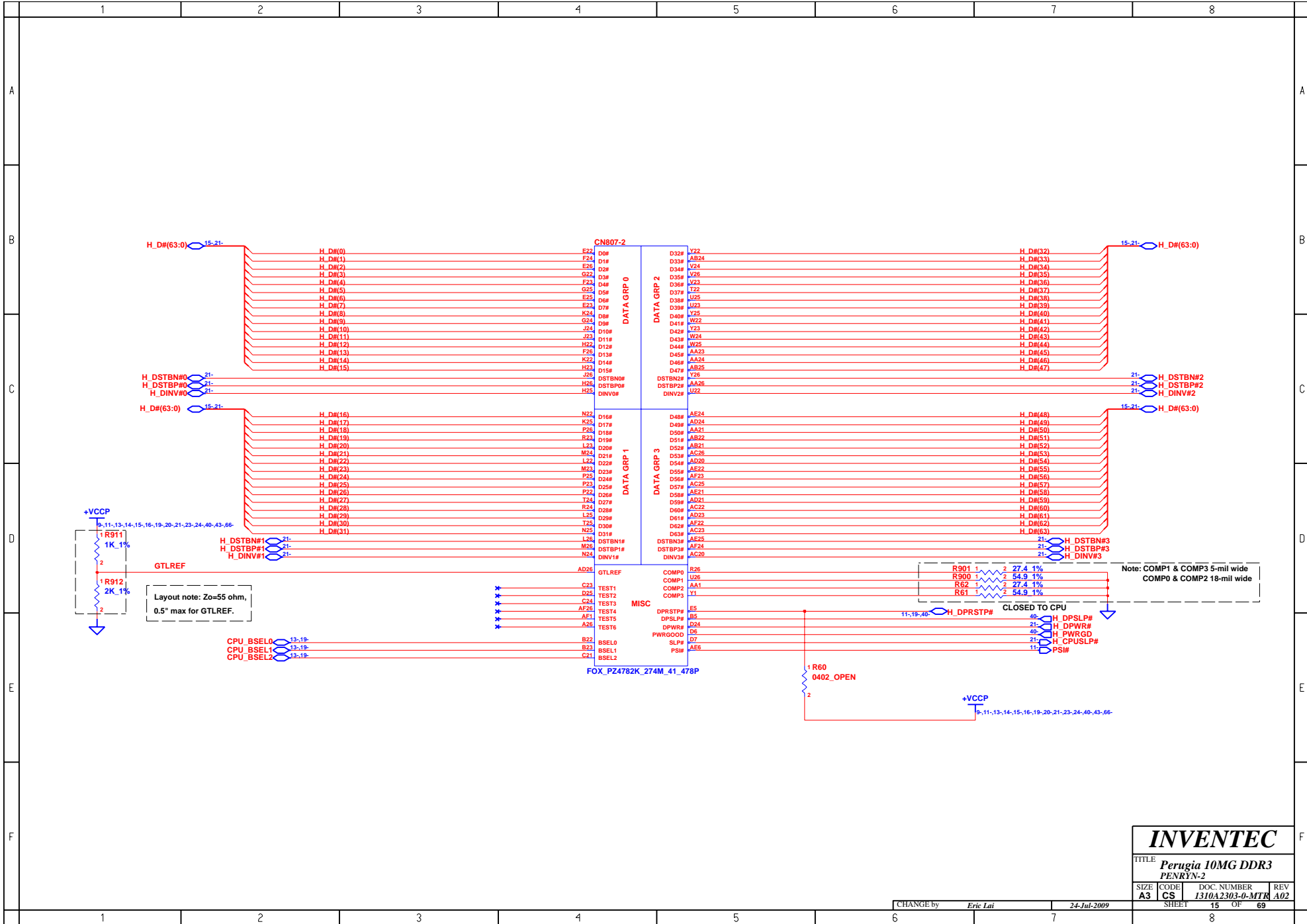
INVENTEC

TITLE: Perugia 10MG DDR3 CLOCK GENERATOR

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02

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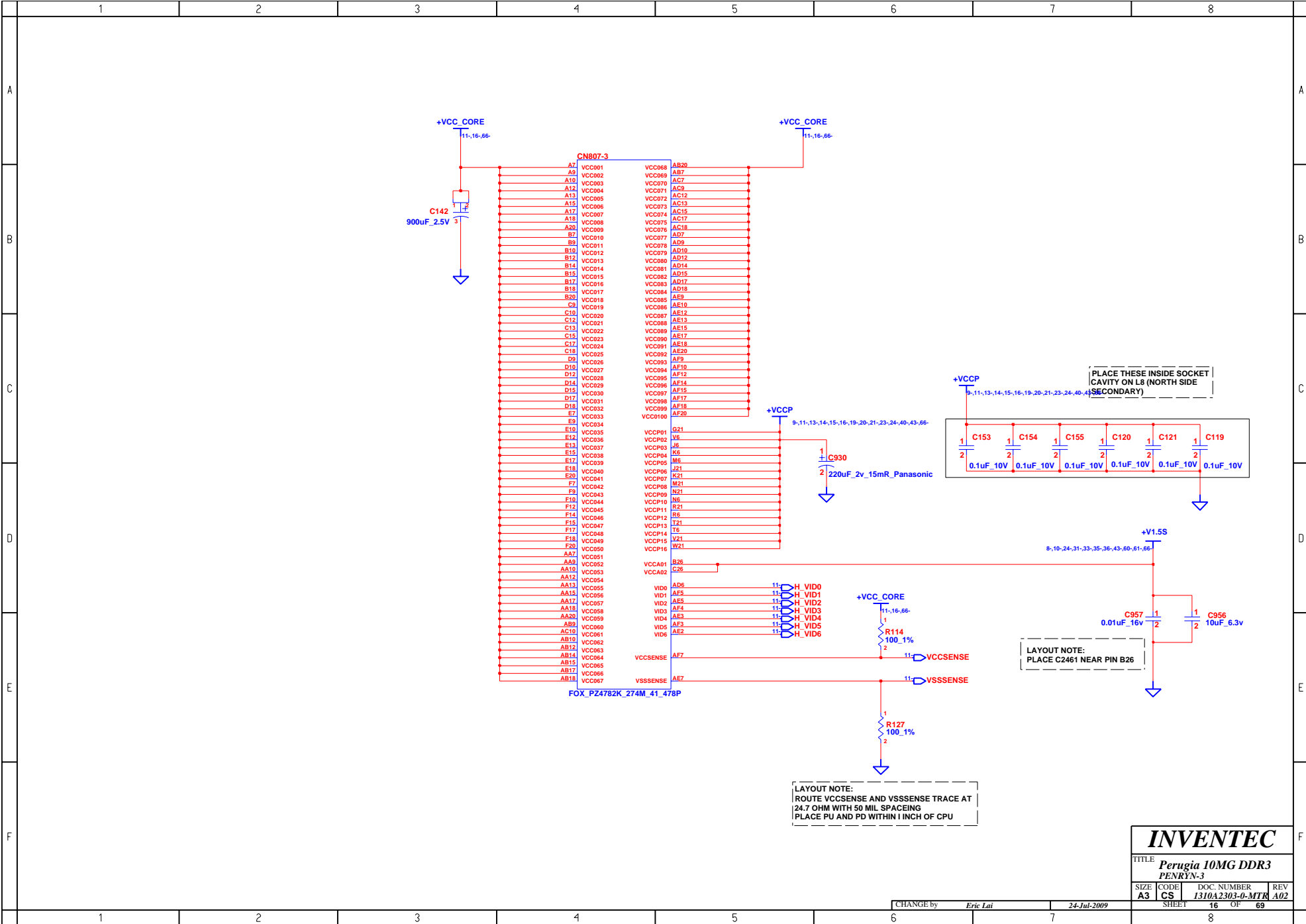


INVENTEC

TITLE
Perugia 10MG DDR3
PENRYN-2

SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
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CHANGE by Eric Lai 24-Jul-2009 SHEET 15 OF 69



INVENTEC

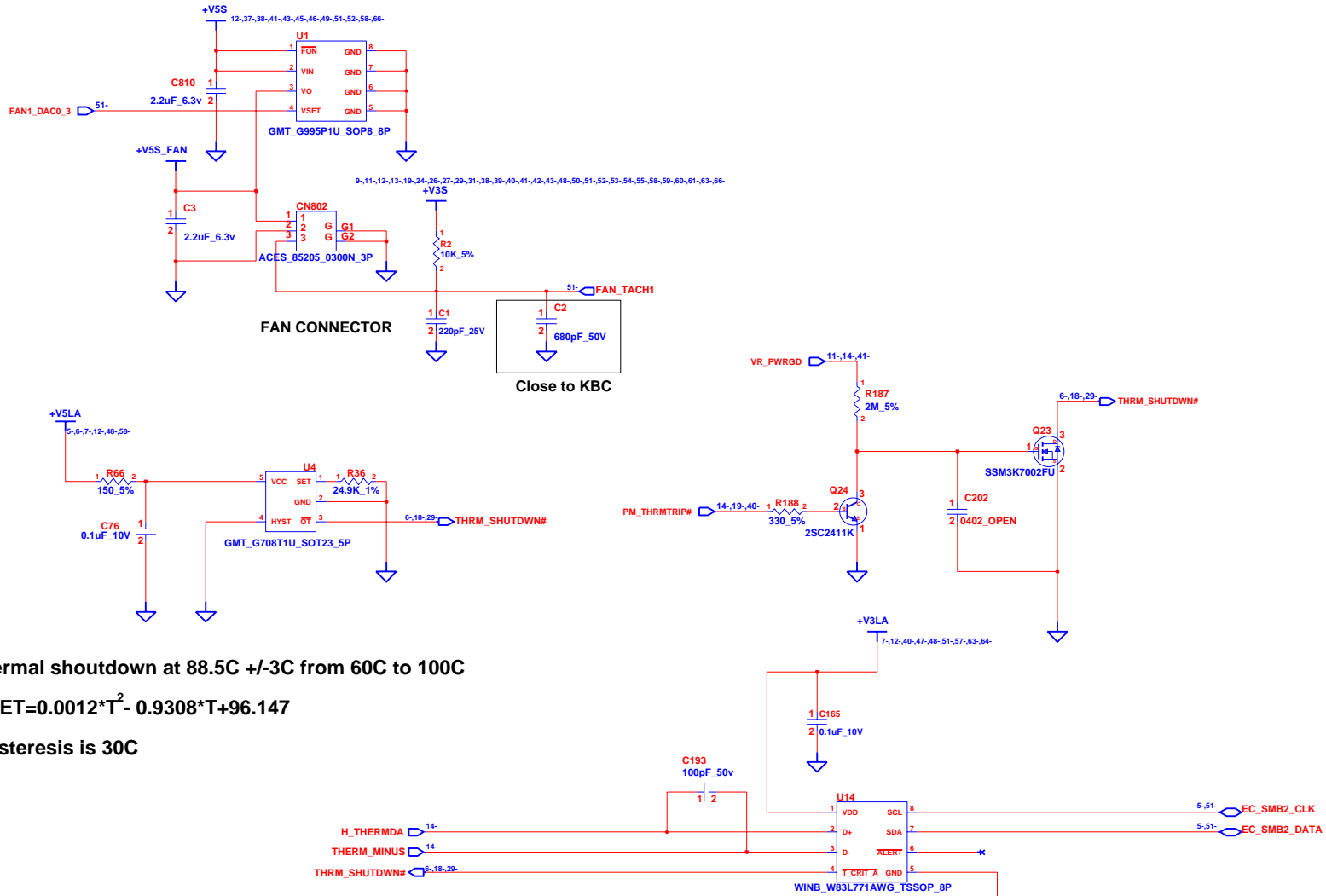
TITLE
Perugia 10MG DDR3
 PENRYN-3

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02

CHANGE by Eric Lai 24-Jul-2009

	1	2	3	4	5	6	7	8																																																																																																																																																																																																																																																																																																																																											
A	<p style="text-align: center;">CNR07-4</p> <table border="1" style="margin: auto;"> <tr><td>A4</td><td>VSS001</td><td>VSS002</td><td>P6</td></tr> <tr><td>A8</td><td>VSS002</td><td>VSS003</td><td>P21</td></tr> <tr><td>A11</td><td>VSS003</td><td>VSS004</td><td>P24</td></tr> <tr><td>A14</td><td>VSS004</td><td>VSS005</td><td>R2</td></tr> <tr><td>A16</td><td>VSS005</td><td>VSS006</td><td>R5</td></tr> <tr><td>A19</td><td>VSS006</td><td>VSS007</td><td>R22</td></tr> <tr><td>A23</td><td>VSS007</td><td>VSS008</td><td>R25</td></tr> <tr><td>AF2</td><td>VSS008</td><td>VSS009</td><td>T1</td></tr> <tr><td>B6</td><td>VSS009</td><td>VSS010</td><td>T4</td></tr> <tr><td>B8</td><td>VSS010</td><td>VSS011</td><td>T23</td></tr> <tr><td>B11</td><td>VSS011</td><td>VSS012</td><td>T28</td></tr> <tr><td>B13</td><td>VSS012</td><td>VSS013</td><td>U3</td></tr> <tr><td>B16</td><td>VSS013</td><td>VSS014</td><td>U6</td></tr> <tr><td>B19</td><td>VSS014</td><td>VSS015</td><td>U21</td></tr> <tr><td>B21</td><td>VSS015</td><td>VSS016</td><td>U24</td></tr> <tr><td>B24</td><td>VSS016</td><td>VSS017</td><td>V2</td></tr> <tr><td>C5</td><td>VSS017</td><td>VSS018</td><td>V5</td></tr> <tr><td>C8</td><td>VSS018</td><td>VSS019</td><td>V22</td></tr> <tr><td>C11</td><td>VSS019</td><td>VSS020</td><td>V25</td></tr> <tr><td>C14</td><td>VSS020</td><td>VSS021</td><td>W1</td></tr> <tr><td>C16</td><td>VSS021</td><td>VSS022</td><td>W4</td></tr> <tr><td>C19</td><td>VSS022</td><td>VSS023</td><td>W23</td></tr> <tr><td>C2</td><td>VSS023</td><td>VSS024</td><td>W26</td></tr> <tr><td>C22</td><td>VSS024</td><td>VSS025</td><td>Y3</td></tr> <tr><td>C25</td><td>VSS025</td><td>VSS026</td><td>Y6</td></tr> <tr><td>D1</td><td>VSS026</td><td>VSS027</td><td>Y21</td></tr> <tr><td>D4</td><td>VSS027</td><td>VSS028</td><td>Y24</td></tr> <tr><td>D8</td><td>VSS028</td><td>VSS029</td><td>AA2</td></tr> <tr><td>D11</td><td>VSS029</td><td>VSS030</td><td>AA5</td></tr> <tr><td>D13</td><td>VSS030</td><td>VSS031</td><td>AA8</td></tr> <tr><td>D16</td><td>VSS031</td><td>VSS032</td><td>AA11</td></tr> <tr><td>D19</td><td>VSS032</td><td>VSS033</td><td>AA14</td></tr> <tr><td>D23</td><td>VSS033</td><td>VSS034</td><td>AA16</td></tr> <tr><td>D26</td><td>VSS034</td><td>VSS035</td><td>AA19</td></tr> <tr><td>E3</td><td>VSS035</td><td>VSS036</td><td>AA22</td></tr> <tr><td>E6</td><td>VSS036</td><td>VSS037</td><td>AA25</td></tr> <tr><td>E8</td><td>VSS037</td><td>VSS038</td><td>AB1</td></tr> <tr><td>E11</td><td>VSS038</td><td>VSS039</td><td>AB4</td></tr> <tr><td>E14</td><td>VSS039</td><td>VSS040</td><td>AB8</td></tr> <tr><td>E16</td><td>VSS040</td><td>VSS041</td><td>AB11</td></tr> <tr><td>E19</td><td>VSS041</td><td>VSS042</td><td>AB13</td></tr> <tr><td>E21</td><td>VSS042</td><td>VSS043</td><td>AB16</td></tr> <tr><td>E24</td><td>VSS043</td><td>VSS044</td><td>AB18</td></tr> <tr><td>F5</td><td>VSS044</td><td>VSS045</td><td>AB23</td></tr> <tr><td>F8</td><td>VSS045</td><td>VSS046</td><td>AB26</td></tr> <tr><td>F11</td><td>VSS046</td><td>VSS047</td><td>AC3</td></tr> <tr><td>F13</td><td>VSS047</td><td>VSS048</td><td>AC6</td></tr> <tr><td>F16</td><td>VSS048</td><td>VSS049</td><td>AC8</td></tr> <tr><td>F19</td><td>VSS049</td><td>VSS050</td><td>AC11</td></tr> <tr><td>F2</td><td>VSS050</td><td>VSS051</td><td>AC14</td></tr> <tr><td>F22</td><td>VSS051</td><td>VSS052</td><td>AC16</td></tr> <tr><td>F25</td><td>VSS052</td><td>VSS053</td><td>AC19</td></tr> <tr><td>G4</td><td>VSS053</td><td>VSS054</td><td>AC21</td></tr> <tr><td>G11</td><td>VSS054</td><td>VSS055</td><td>AC24</td></tr> <tr><td>G23</td><td>VSS055</td><td>VSS056</td><td>AD2</td></tr> <tr><td>G26</td><td>VSS056</td><td>VSS057</td><td>AD5</td></tr> <tr><td>H3</td><td>VSS057</td><td>VSS058</td><td>AD8</td></tr> <tr><td>H6</td><td>VSS058</td><td>VSS059</td><td>AD11</td></tr> <tr><td>H21</td><td>VSS059</td><td>VSS060</td><td>AD13</td></tr> <tr><td>H24</td><td>VSS060</td><td>VSS061</td><td>AD16</td></tr> <tr><td>J4</td><td>VSS061</td><td>VSS062</td><td>AD19</td></tr> <tr><td>J5</td><td>VSS062</td><td>VSS063</td><td>AD22</td></tr> <tr><td>J22</td><td>VSS063</td><td>VSS064</td><td>AD25</td></tr> <tr><td>J25</td><td>VSS064</td><td>VSS065</td><td>AE1</td></tr> <tr><td>K1</td><td>VSS065</td><td>VSS066</td><td>AE4</td></tr> <tr><td>K4</td><td>VSS066</td><td>VSS067</td><td>AE8</td></tr> <tr><td>K23</td><td>VSS067</td><td>VSS068</td><td>AE11</td></tr> <tr><td>K26</td><td>VSS068</td><td>VSS069</td><td>AE14</td></tr> <tr><td>L3</td><td>VSS069</td><td>VSS070</td><td>AE16</td></tr> <tr><td>L6</td><td>VSS070</td><td>VSS071</td><td>AE19</td></tr> <tr><td>L21</td><td>VSS071</td><td>VSS072</td><td>AE23</td></tr> <tr><td>L24</td><td>VSS072</td><td>VSS073</td><td>AE26</td></tr> <tr><td>M2</td><td>VSS073</td><td>VSS074</td><td>AF</td></tr> <tr><td>M5</td><td>VSS074</td><td>VSS075</td><td>AF6</td></tr> <tr><td>M22</td><td>VSS075</td><td>VSS076</td><td>AF8</td></tr> <tr><td>M25</td><td>VSS076</td><td>VSS077</td><td>AF11</td></tr> <tr><td>N1</td><td>VSS077</td><td>VSS078</td><td>AF13</td></tr> <tr><td>N4</td><td>VSS078</td><td>VSS079</td><td>AF16</td></tr> <tr><td>N23</td><td>VSS079</td><td>VSS080</td><td>AF19</td></tr> <tr><td>N26</td><td>VSS080</td><td>VSS081</td><td>AF21</td></tr> <tr><td>F3</td><td>VSS081</td><td>VSS082</td><td>AF25</td></tr> <tr><td></td><td></td><td></td><td>VSS083</td><td>AF28</td></tr> </table> <p style="text-align: center;">FOX_PZ4782K_274M_41_478P</p>									A4	VSS001	VSS002	P6	A8	VSS002	VSS003	P21	A11	VSS003	VSS004	P24	A14	VSS004	VSS005	R2	A16	VSS005	VSS006	R5	A19	VSS006	VSS007	R22	A23	VSS007	VSS008	R25	AF2	VSS008	VSS009	T1	B6	VSS009	VSS010	T4	B8	VSS010	VSS011	T23	B11	VSS011	VSS012	T28	B13	VSS012	VSS013	U3	B16	VSS013	VSS014	U6	B19	VSS014	VSS015	U21	B21	VSS015	VSS016	U24	B24	VSS016	VSS017	V2	C5	VSS017	VSS018	V5	C8	VSS018	VSS019	V22	C11	VSS019	VSS020	V25	C14	VSS020	VSS021	W1	C16	VSS021	VSS022	W4	C19	VSS022	VSS023	W23	C2	VSS023	VSS024	W26	C22	VSS024	VSS025	Y3	C25	VSS025	VSS026	Y6	D1	VSS026	VSS027	Y21	D4	VSS027	VSS028	Y24	D8	VSS028	VSS029	AA2	D11	VSS029	VSS030	AA5	D13	VSS030	VSS031	AA8	D16	VSS031	VSS032	AA11	D19	VSS032	VSS033	AA14	D23	VSS033	VSS034	AA16	D26	VSS034	VSS035	AA19	E3	VSS035	VSS036	AA22	E6	VSS036	VSS037	AA25	E8	VSS037	VSS038	AB1	E11	VSS038	VSS039	AB4	E14	VSS039	VSS040	AB8	E16	VSS040	VSS041	AB11	E19	VSS041	VSS042	AB13	E21	VSS042	VSS043	AB16	E24	VSS043	VSS044	AB18	F5	VSS044	VSS045	AB23	F8	VSS045	VSS046	AB26	F11	VSS046	VSS047	AC3	F13	VSS047	VSS048	AC6	F16	VSS048	VSS049	AC8	F19	VSS049	VSS050	AC11	F2	VSS050	VSS051	AC14	F22	VSS051	VSS052	AC16	F25	VSS052	VSS053	AC19	G4	VSS053	VSS054	AC21	G11	VSS054	VSS055	AC24	G23	VSS055	VSS056	AD2	G26	VSS056	VSS057	AD5	H3	VSS057	VSS058	AD8	H6	VSS058	VSS059	AD11	H21	VSS059	VSS060	AD13	H24	VSS060	VSS061	AD16	J4	VSS061	VSS062	AD19	J5	VSS062	VSS063	AD22	J22	VSS063	VSS064	AD25	J25	VSS064	VSS065	AE1	K1	VSS065	VSS066	AE4	K4	VSS066	VSS067	AE8	K23	VSS067	VSS068	AE11	K26	VSS068	VSS069	AE14	L3	VSS069	VSS070	AE16	L6	VSS070	VSS071	AE19	L21	VSS071	VSS072	AE23	L24	VSS072	VSS073	AE26	M2	VSS073	VSS074	AF	M5	VSS074	VSS075	AF6	M22	VSS075	VSS076	AF8	M25	VSS076	VSS077	AF11	N1	VSS077	VSS078	AF13	N4	VSS078	VSS079	AF16	N23	VSS079	VSS080	AF19	N26	VSS080	VSS081	AF21	F3	VSS081	VSS082	AF25				VSS083	AF28	
A4										VSS001	VSS002	P6																																																																																																																																																																																																																																																																																																																																							
A8										VSS002	VSS003	P21																																																																																																																																																																																																																																																																																																																																							
A11										VSS003	VSS004	P24																																																																																																																																																																																																																																																																																																																																							
A14										VSS004	VSS005	R2																																																																																																																																																																																																																																																																																																																																							
A16										VSS005	VSS006	R5																																																																																																																																																																																																																																																																																																																																							
A19										VSS006	VSS007	R22																																																																																																																																																																																																																																																																																																																																							
A23										VSS007	VSS008	R25																																																																																																																																																																																																																																																																																																																																							
AF2										VSS008	VSS009	T1																																																																																																																																																																																																																																																																																																																																							
B6										VSS009	VSS010	T4																																																																																																																																																																																																																																																																																																																																							
B8										VSS010	VSS011	T23																																																																																																																																																																																																																																																																																																																																							
B11										VSS011	VSS012	T28																																																																																																																																																																																																																																																																																																																																							
B13										VSS012	VSS013	U3																																																																																																																																																																																																																																																																																																																																							
B16										VSS013	VSS014	U6																																																																																																																																																																																																																																																																																																																																							
B19										VSS014	VSS015	U21																																																																																																																																																																																																																																																																																																																																							
B21										VSS015	VSS016	U24																																																																																																																																																																																																																																																																																																																																							
B24										VSS016	VSS017	V2																																																																																																																																																																																																																																																																																																																																							
C5	VSS017	VSS018	V5																																																																																																																																																																																																																																																																																																																																																
C8	VSS018	VSS019	V22																																																																																																																																																																																																																																																																																																																																																
C11	VSS019	VSS020	V25																																																																																																																																																																																																																																																																																																																																																
C14	VSS020	VSS021	W1																																																																																																																																																																																																																																																																																																																																																
C16	VSS021	VSS022	W4																																																																																																																																																																																																																																																																																																																																																
C19	VSS022	VSS023	W23																																																																																																																																																																																																																																																																																																																																																
C2	VSS023	VSS024	W26																																																																																																																																																																																																																																																																																																																																																
C22	VSS024	VSS025	Y3																																																																																																																																																																																																																																																																																																																																																
C25	VSS025	VSS026	Y6																																																																																																																																																																																																																																																																																																																																																
D1	VSS026	VSS027	Y21																																																																																																																																																																																																																																																																																																																																																
D4	VSS027	VSS028	Y24																																																																																																																																																																																																																																																																																																																																																
D8	VSS028	VSS029	AA2																																																																																																																																																																																																																																																																																																																																																
D11	VSS029	VSS030	AA5																																																																																																																																																																																																																																																																																																																																																
D13	VSS030	VSS031	AA8																																																																																																																																																																																																																																																																																																																																																
D16	VSS031	VSS032	AA11																																																																																																																																																																																																																																																																																																																																																
D19	VSS032	VSS033	AA14																																																																																																																																																																																																																																																																																																																																																
D23	VSS033	VSS034	AA16																																																																																																																																																																																																																																																																																																																																																
D26	VSS034	VSS035	AA19																																																																																																																																																																																																																																																																																																																																																
E3	VSS035	VSS036	AA22																																																																																																																																																																																																																																																																																																																																																
E6	VSS036	VSS037	AA25																																																																																																																																																																																																																																																																																																																																																
E8	VSS037	VSS038	AB1																																																																																																																																																																																																																																																																																																																																																
E11	VSS038	VSS039	AB4																																																																																																																																																																																																																																																																																																																																																
E14	VSS039	VSS040	AB8																																																																																																																																																																																																																																																																																																																																																
E16	VSS040	VSS041	AB11																																																																																																																																																																																																																																																																																																																																																
E19	VSS041	VSS042	AB13																																																																																																																																																																																																																																																																																																																																																
E21	VSS042	VSS043	AB16																																																																																																																																																																																																																																																																																																																																																
E24	VSS043	VSS044	AB18																																																																																																																																																																																																																																																																																																																																																
F5	VSS044	VSS045	AB23																																																																																																																																																																																																																																																																																																																																																
F8	VSS045	VSS046	AB26																																																																																																																																																																																																																																																																																																																																																
F11	VSS046	VSS047	AC3																																																																																																																																																																																																																																																																																																																																																
F13	VSS047	VSS048	AC6																																																																																																																																																																																																																																																																																																																																																
F16	VSS048	VSS049	AC8																																																																																																																																																																																																																																																																																																																																																
F19	VSS049	VSS050	AC11																																																																																																																																																																																																																																																																																																																																																
F2	VSS050	VSS051	AC14																																																																																																																																																																																																																																																																																																																																																
F22	VSS051	VSS052	AC16																																																																																																																																																																																																																																																																																																																																																
F25	VSS052	VSS053	AC19																																																																																																																																																																																																																																																																																																																																																
G4	VSS053	VSS054	AC21																																																																																																																																																																																																																																																																																																																																																
G11	VSS054	VSS055	AC24																																																																																																																																																																																																																																																																																																																																																
G23	VSS055	VSS056	AD2																																																																																																																																																																																																																																																																																																																																																
G26	VSS056	VSS057	AD5																																																																																																																																																																																																																																																																																																																																																
H3	VSS057	VSS058	AD8																																																																																																																																																																																																																																																																																																																																																
H6	VSS058	VSS059	AD11																																																																																																																																																																																																																																																																																																																																																
H21	VSS059	VSS060	AD13																																																																																																																																																																																																																																																																																																																																																
H24	VSS060	VSS061	AD16																																																																																																																																																																																																																																																																																																																																																
J4	VSS061	VSS062	AD19																																																																																																																																																																																																																																																																																																																																																
J5	VSS062	VSS063	AD22																																																																																																																																																																																																																																																																																																																																																
J22	VSS063	VSS064	AD25																																																																																																																																																																																																																																																																																																																																																
J25	VSS064	VSS065	AE1																																																																																																																																																																																																																																																																																																																																																
K1	VSS065	VSS066	AE4																																																																																																																																																																																																																																																																																																																																																
K4	VSS066	VSS067	AE8																																																																																																																																																																																																																																																																																																																																																
K23	VSS067	VSS068	AE11																																																																																																																																																																																																																																																																																																																																																
K26	VSS068	VSS069	AE14																																																																																																																																																																																																																																																																																																																																																
L3	VSS069	VSS070	AE16																																																																																																																																																																																																																																																																																																																																																
L6	VSS070	VSS071	AE19																																																																																																																																																																																																																																																																																																																																																
L21	VSS071	VSS072	AE23																																																																																																																																																																																																																																																																																																																																																
L24	VSS072	VSS073	AE26																																																																																																																																																																																																																																																																																																																																																
M2	VSS073	VSS074	AF																																																																																																																																																																																																																																																																																																																																																
M5	VSS074	VSS075	AF6																																																																																																																																																																																																																																																																																																																																																
M22	VSS075	VSS076	AF8																																																																																																																																																																																																																																																																																																																																																
M25	VSS076	VSS077	AF11																																																																																																																																																																																																																																																																																																																																																
N1	VSS077	VSS078	AF13																																																																																																																																																																																																																																																																																																																																																
N4	VSS078	VSS079	AF16																																																																																																																																																																																																																																																																																																																																																
N23	VSS079	VSS080	AF19																																																																																																																																																																																																																																																																																																																																																
N26	VSS080	VSS081	AF21																																																																																																																																																																																																																																																																																																																																																
F3	VSS081	VSS082	AF25																																																																																																																																																																																																																																																																																																																																																
			VSS083	AF28																																																																																																																																																																																																																																																																																																																																															
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INVENTEC			
TITLE Perugia 10MG DDR3 PENRYN-4			
SIZE A3	CODE CS	DOC. NUMBER 1310A2303-G-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 17		OF 69	



Thermal shutdown at 88.5C +/-3C from 60C to 100C

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

Hysteresis is 30C

Thermal Sensor For CPU
LAYOUT NOTES: PUT THE THERMAL SENSOR CLOSE TO CPU

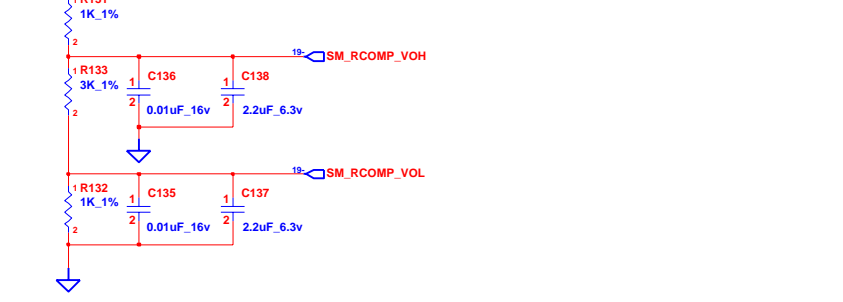
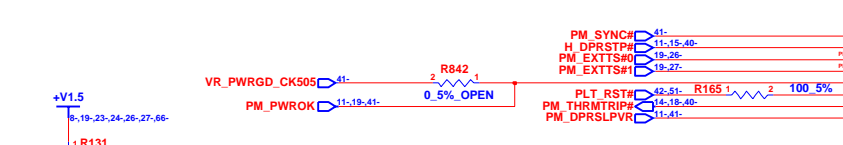
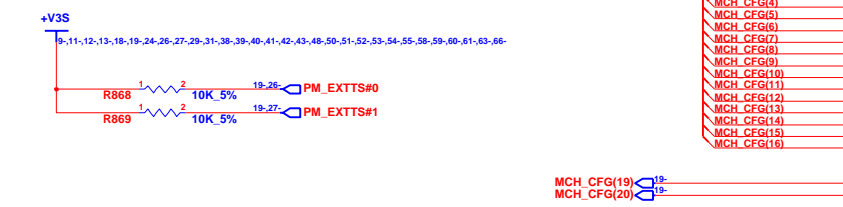
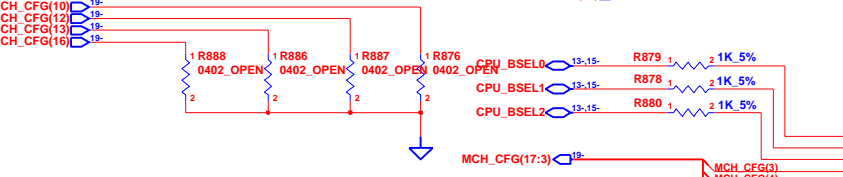
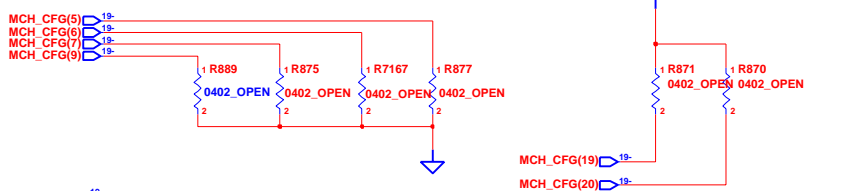
INVENTEC			
TITLE Perugia 10MG DDR3 THERMAL&FAN CONTROLLER			
SIZE A3	CODE CS	DOC NUMBER I310A2303-0-MTR	REV A02
CHANGE by Eric Lai		24-Jul-2009	
SHEET 18		OF 69	

MCH_CFG(5)	LOW=DMiX2 HIGH=DMiX4	MCH_CFG(7) (CPU Strap)	LOW=RSVD HIGH=Mobile CPU	MCH_CFG(9) PCIE Graphics Lane	LOW=Reverse Lane HIGH=Normal operation
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NOTE : USE 4K-OHM RESISTOR WHEN INSTALLING PULL-UP/PULL-DOWN RESISTOR ON ANY MCH-CFG CONNECTION/PINS.

MCH_CFG(13:12) XOR/ALLZ	00=PARTIAL CLOCK GATING DISABLE 01=XOR MODE ENABLE 10=ALL-Z MODE ENABLE 11=NORMAL OPERATION	MCH_CFG(16) (FSB Dynamic ODT)	LOW=Dynamic ODT Disable HIGH=Dynamic ODT Enable	MCH_CFG(6)	LOW=TPM Enable HIGH=TPM Disable
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NOTE: CFG[2:0] STRP : 010b : 800 MT/S
011b : 667 MT/S

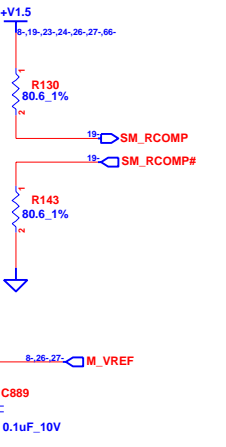
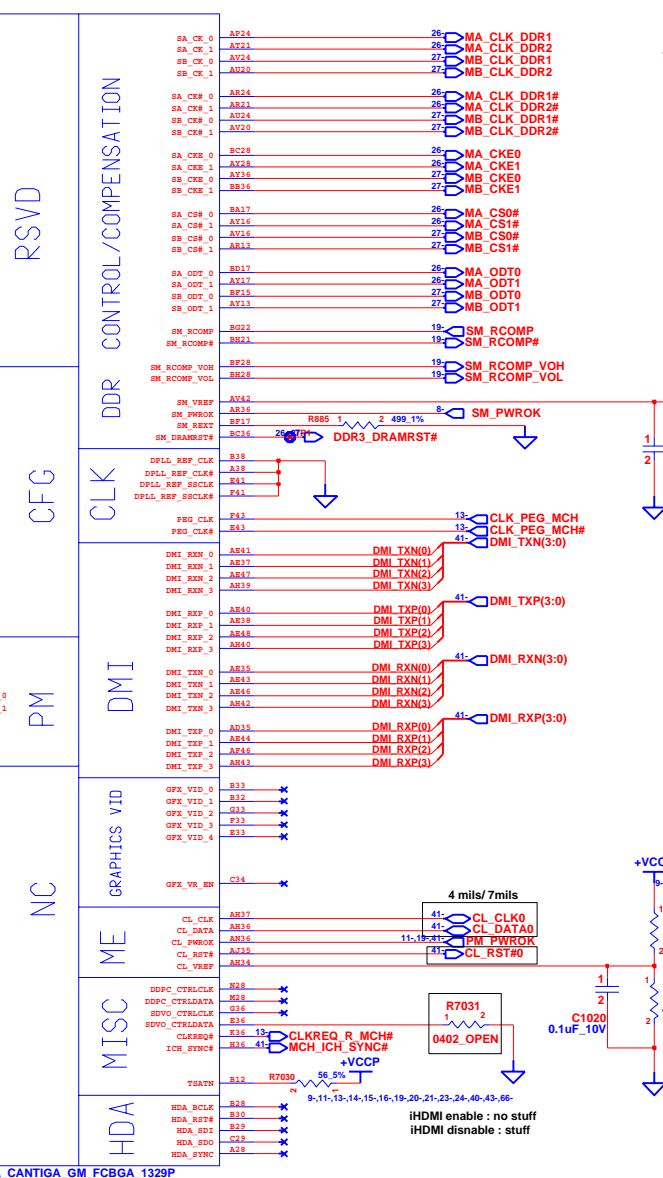


MCH_CFG(20)
DIGITAL DISPLAY PORT(SDVO/DP/HDMI)
CONCURRENT WITH PCIE

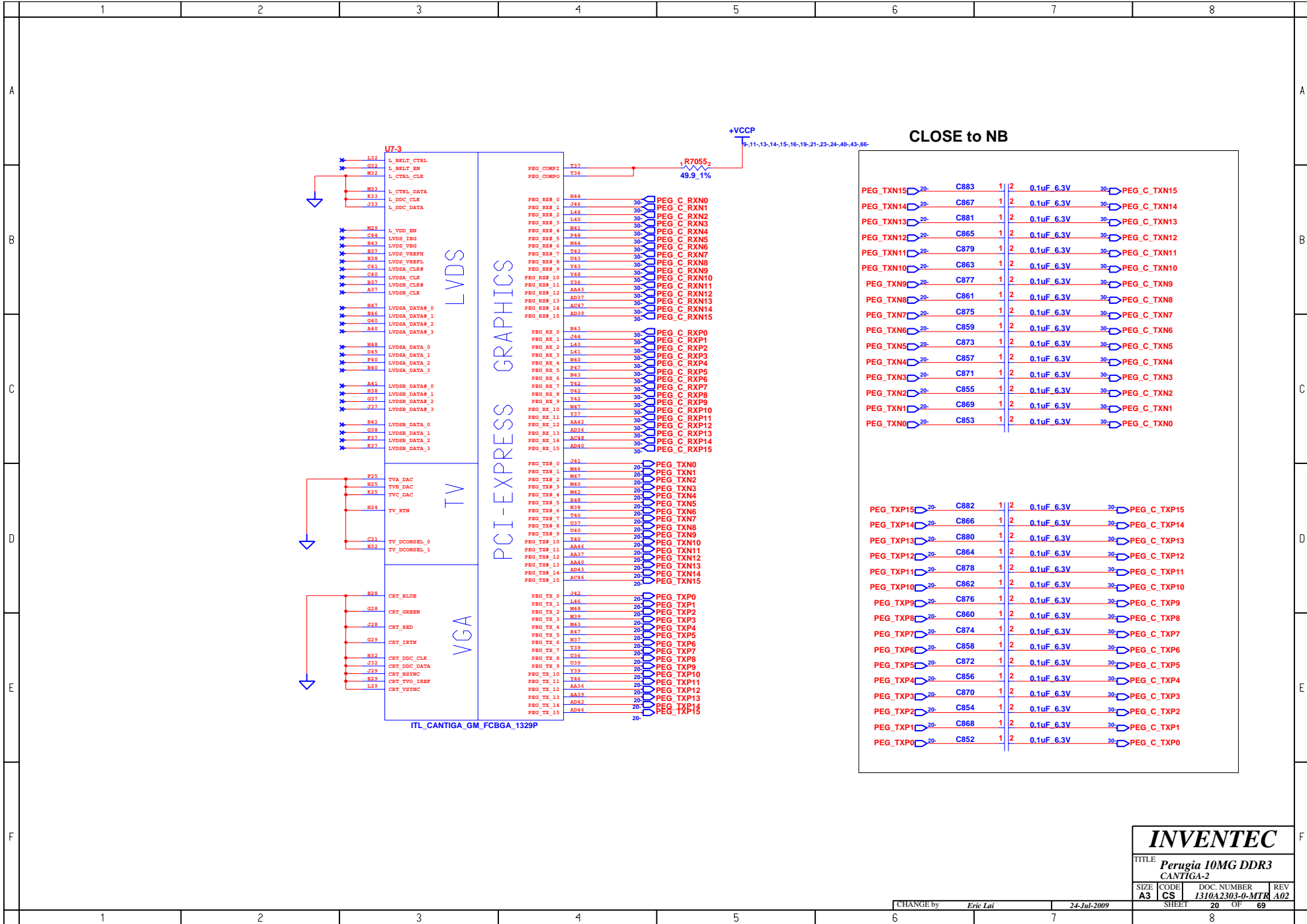
LOW=ONLY DIGITAL DISPLAY PORT (SDVO/DP/HDMI)OR PCIE IS OPERATIONAL
HIGH= DIGITAL DISPLAY PORT (SDVO/DP/HDMI)AND PCIE ARE OPERATING VIA THE PEG PORT

MCH_CFG(19)
LOW=NORMAL
HIGH=LANES REVERSED

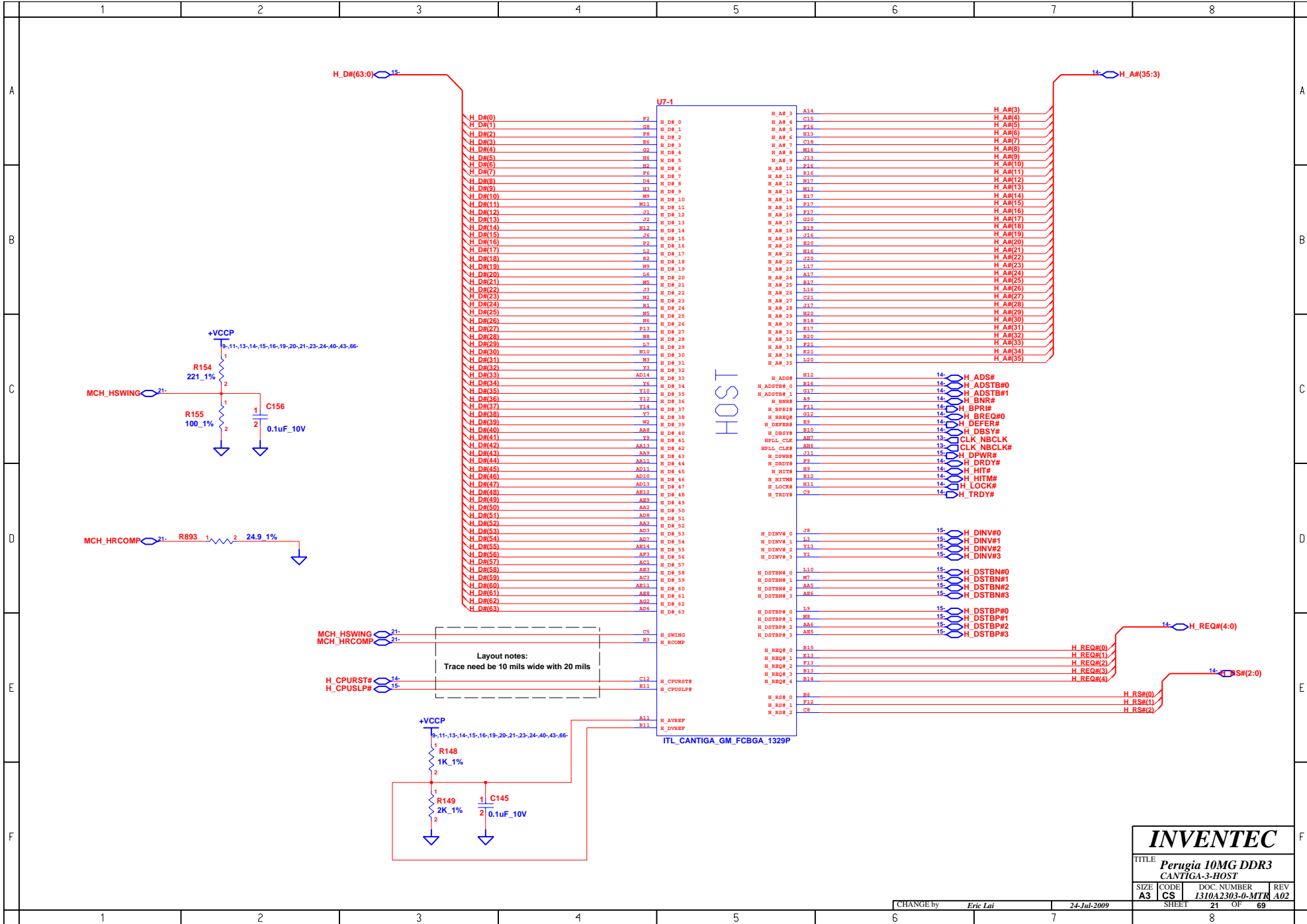
U7-2	M36	RSVD1	SA_CK_0	AP24	26	MA_CLK_DDR1
	M36	RSVD2	SA_CK_1	AP21	26	MA_CLK_DDR2
	M37	RSVD3	SB_CK_0	AP24	27	MB_CLK_DDR1
	M37	RSVD4	SB_CK_1	AU29	27	MB_CLK_DDR2
	M38	RSVD5	SA_CK_0	AP24	26	MA_CLK_DDR1#
	M38	RSVD6	SA_CK_1	AU24	27	MA_CLK_DDR2#
	M39	RSVD7	SB_CK_0	AV20	27	MB_CLK_DDR1#
	M39	RSVD8	SB_CK_1	AV20	27	MB_CLK_DDR2#
	M40	RSVD9	SA_CKE_0	AP21	26	MA_CKE0
	M40	RSVD10	SA_CKE_1	AU24	27	MA_CKE1
	M41	RSVD11	SB_CKE_0	AY16	27	MB_CKE0
	M41	RSVD12	SB_CKE_1	BB16	27	MB_CKE1
	M42	RSVD13	SA_CS#_0	BA17	26	MA_CS0#
	M42	RSVD14	SA_CS#_1	AY16	26	MA_CS1#
	M43	RSVD15	SB_CS#_0	AY16	27	MB_CS0#
	M43	RSVD16	SB_CS#_1	AA43	27	MB_CS1#
	M44	RSVD17	SA_ODT_0	BD17	26	MA_ODT0
	M44	RSVD18	SA_ODT_1	AE15	27	MA_ODT1
	M45	RSVD19	SB_ODT_0	AY13	27	MB_ODT0
	M45	RSVD20	SB_ODT_1	AY13	27	MB_ODT1
	M46	RSVD21	SM_RC0MP	BN22	19	SM_RC0MP
	M46	RSVD22	SM_RC0MP#	BN21	19	SM_RC0MP#
	M47	RSVD23	SM_RC0MP_VOH	BP28	19	SM_RC0MP_VOH
	M47	RSVD24	SM_RC0MP_VOS	BP28	19	SM_RC0MP_VOS
	M48	RSVD25	SM_VREF	AV42	19	SM_VREF
	M49	RSVD26	SM_PWR0K	AP17	26	SM_PWR0K
	M50	RSVD27	SM_RST#	BC15	26	SM_RST#
	M51	RSVD28	SM_DRAM0ST#	BC15	26	SM_DRAM0ST#
	M52	RSVD29	DP1L_REF_CLK	B38	26	DP1L_REF_CLK
	M53	RSVD30	DP1L_REF_SCLK	B41	26	DP1L_REF_SCLK
	M54	RSVD31	DP1L_REF_SCKL#	F41	26	DP1L_REF_SCKL#
	M55	RSVD32	FBG_CLK	F43	26	FBG_CLK
	M56	RSVD33	FBG_CLK#	F43	26	FBG_CLK#
	M57	RSVD34	DMI_TXN(0)	AB41	41	DMI_TXN(0)
	M58	RSVD35	DMI_TXN(1)	AB37	41	DMI_TXN(1)
	M59	RSVD36	DMI_TXN(2)	AB47	41	DMI_TXN(2)
	M60	RSVD37	DMI_TXN(3)	AB39	41	DMI_TXN(3)
	M61	RSVD38	DMI_TXP(0)	AE40	41	DMI_TXP(0)
	M62	RSVD39	DMI_TXP(1)	AE38	41	DMI_TXP(1)
	M63	RSVD40	DMI_TXP(2)	AE48	41	DMI_TXP(2)
	M64	RSVD41	DMI_TXP(3)	AE49	41	DMI_TXP(3)
	M65	RSVD42	DMI_RXN(0)	AE41	41	DMI_RXN(0)
	M66	RSVD43	DMI_RXN(1)	AE43	41	DMI_RXN(1)
	M67	RSVD44	DMI_RXN(2)	AE46	41	DMI_RXN(2)
	M68	RSVD45	DMI_RXN(3)	AE42	41	DMI_RXN(3)
	M69	RSVD46	DMI_RXP(0)	AD45	41	DMI_RXP(0)
	M70	RSVD47	DMI_RXP(1)	AE44	41	DMI_RXP(1)
	M71	RSVD48	DMI_RXP(2)	AE46	41	DMI_RXP(2)
	M72	RSVD49	DMI_RXP(3)	AE43	41	DMI_RXP(3)
	M73	RSVD50	GPX_VID_0	B32	26	GPX_VID_0
	M74	RSVD51	GPX_VID_1	B32	26	GPX_VID_1
	M75	RSVD52	GPX_VID_2	G33	26	GPX_VID_2
	M76	RSVD53	GPX_VID_3	F33	26	GPX_VID_3
	M77	RSVD54	GPX_VID_4	E33	26	GPX_VID_4
	M78	RSVD55	GPX_VR_EN	C34	26	GPX_VR_EN
	M79	RSVD56	CL_CLK	AH17	41	CL_CLK
	M80	RSVD57	CL_DATA	AH16	41	CL_DATA
	M81	RSVD58	CL_PWR0K	AN16	41	CL_PWR0K
	M82	RSVD59	CL_RST#	AQ25	41	CL_RST#
	M83	RSVD60	CL_VREF	AD24	41	CL_VREF
	M84	RSVD61	DDPC_CTRLCLK	B28	26	DDPC_CTRLCLK
	M85	RSVD62	DDPC_CTRLDATA	B28	26	DDPC_CTRLDATA
	M86	RSVD63	SDVO_CTRLCLK	B36	26	SDVO_CTRLCLK
	M87	RSVD64	SDVO_CTRLDATA	B36	26	SDVO_CTRLDATA
	M88	RSVD65	CLKREQ_R_MCH#	E36	26	CLKREQ_R_MCH#
	M89	RSVD66	MCH_ICH_SYNC#	B36	41	MCH_ICH_SYNC#
	M90	RSVD67	TSATH	B32	26	TSATH
	M91	RSVD68	HDA_BCLK	B28	26	HDA_BCLK
	M92	RSVD69	HDA_SFR	B30	26	HDA_SFR
	M93	RSVD70	HDA_IDI	B29	26	HDA_IDI
	M94	RSVD71	HDA_SDO	C24	26	HDA_SDO
	M95	RSVD72	HDA_SYNC	A28	26	HDA_SYNC



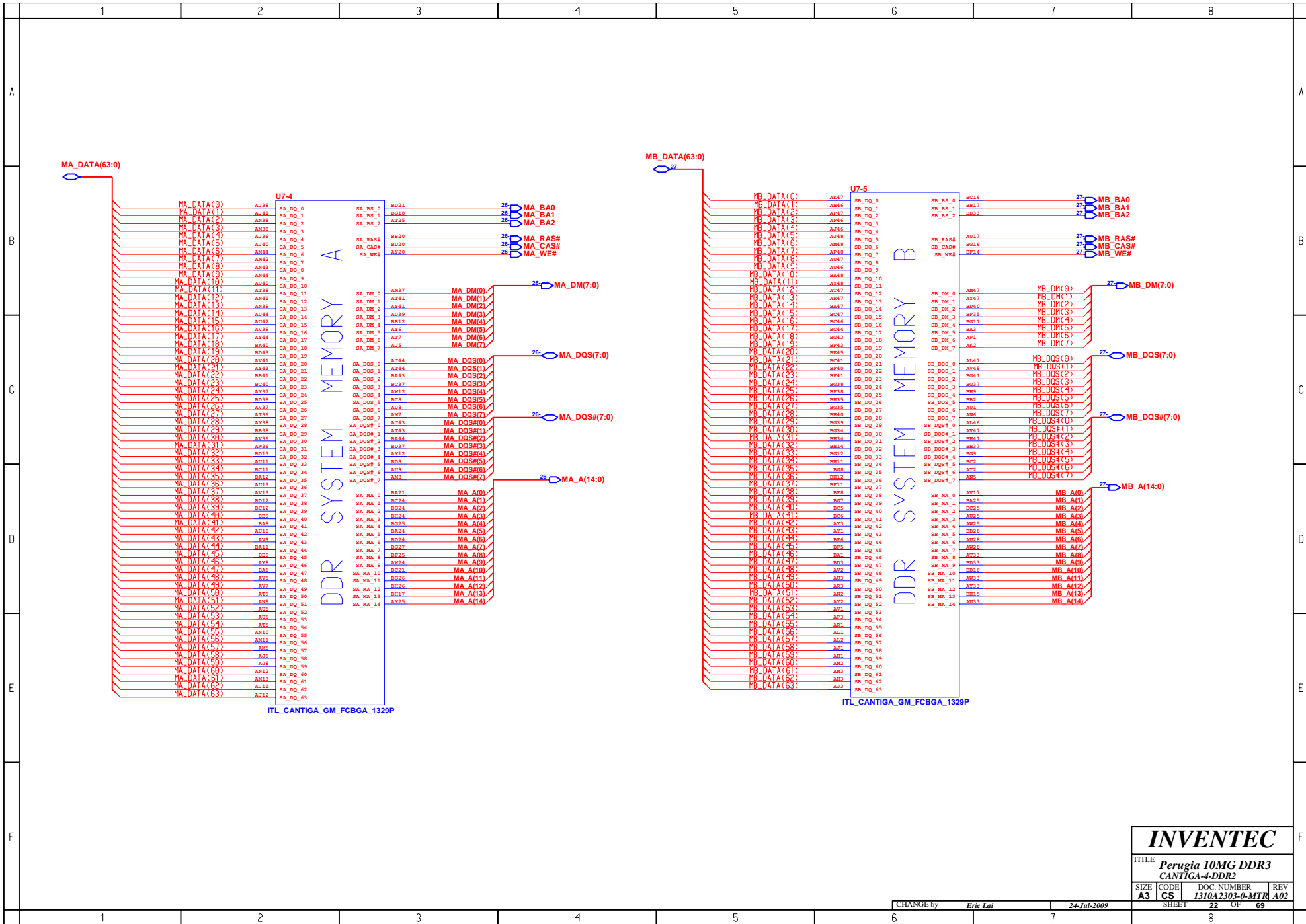
INVENTEC			
TITLE: Perugia 10MG DDR3 CANTIGA-1			
SIZE: A3	CODE: CS	DOC. NUMBER: 1310A2303-0-MTR	REV: A02
SHEET: 19		OF: 69	



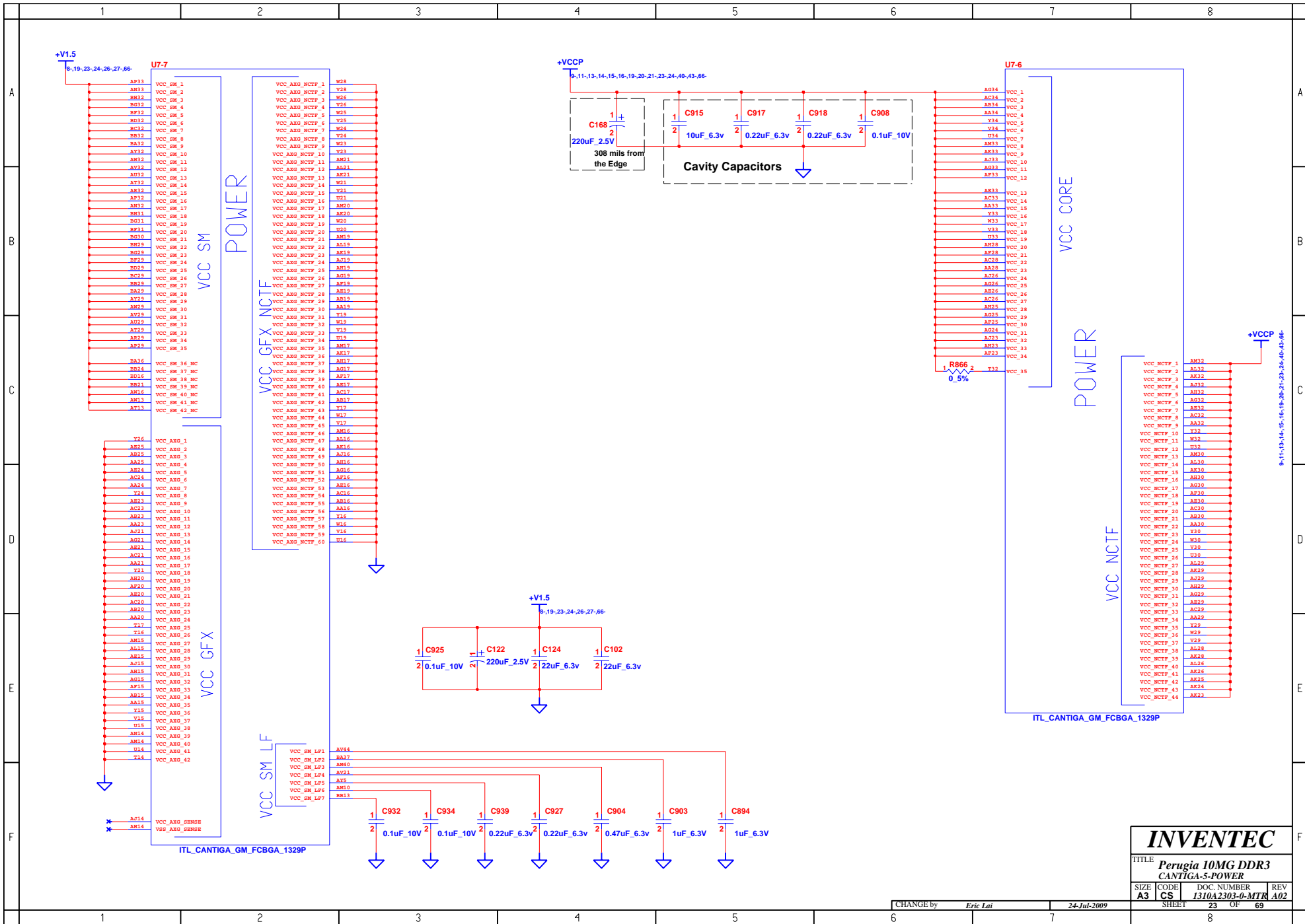
INVENTEC			
TITLE Perugia 10MG DDR3 CANTIGA-2			
SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
CHANGE by Eric Lai		24-Jul-2009	
SHEET 20		OF 69	



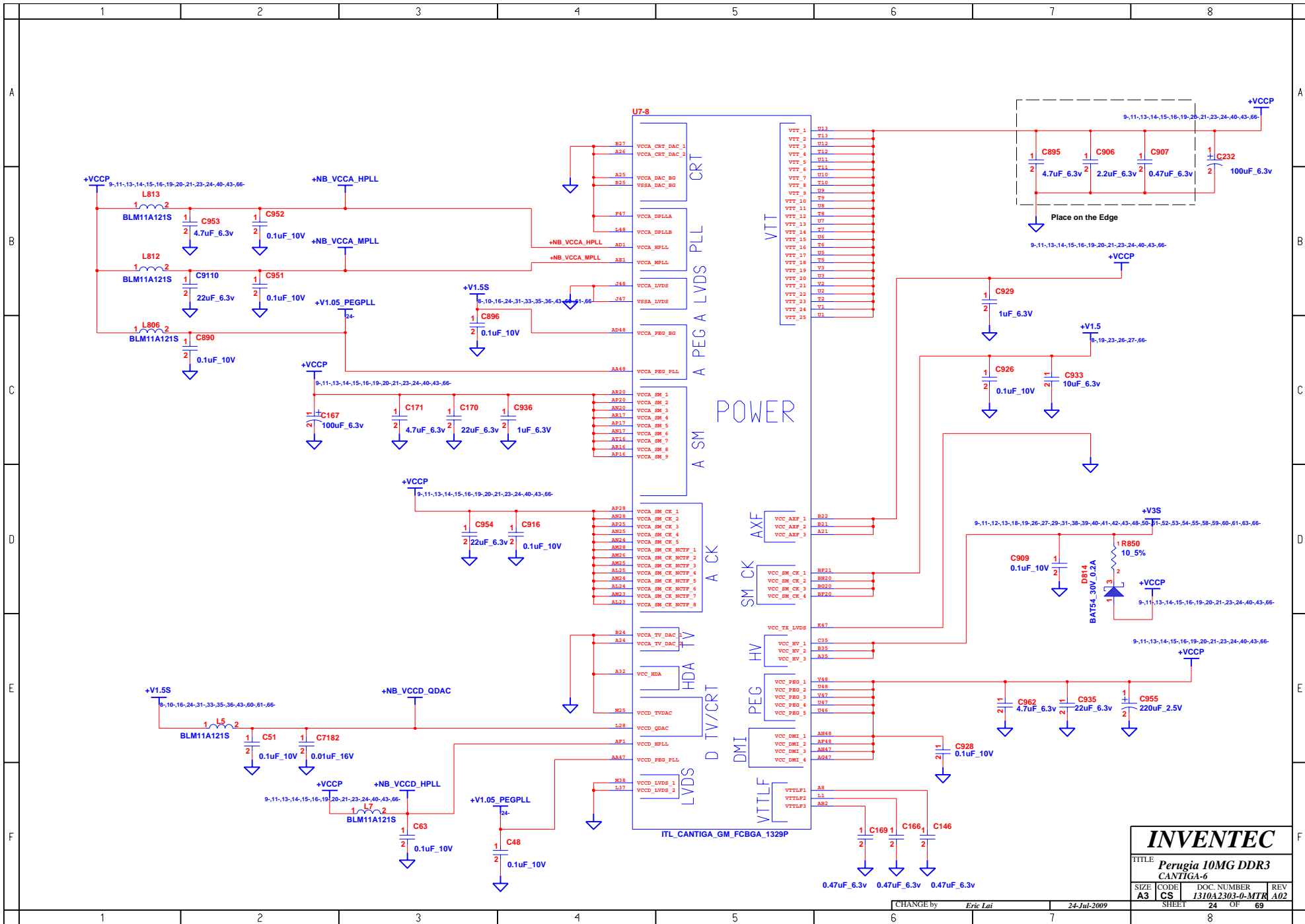
INVENTEC			
TITLE Perugia 10MG DDR3 CANTIGA-3-HOST			
SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 21		OF 69	



INVENTEC				
TITLE Perugia 10MG DDR3 CANTIGA-4-DDR2				
SIZE	CODE	DOC. NUMBER	MTR	REV
A3	CS	1310A2303-0-MTR	A02	
CHANGE by <i>Eric Lai</i>			24-Jul-2009	
SHEET 22			OF 69	

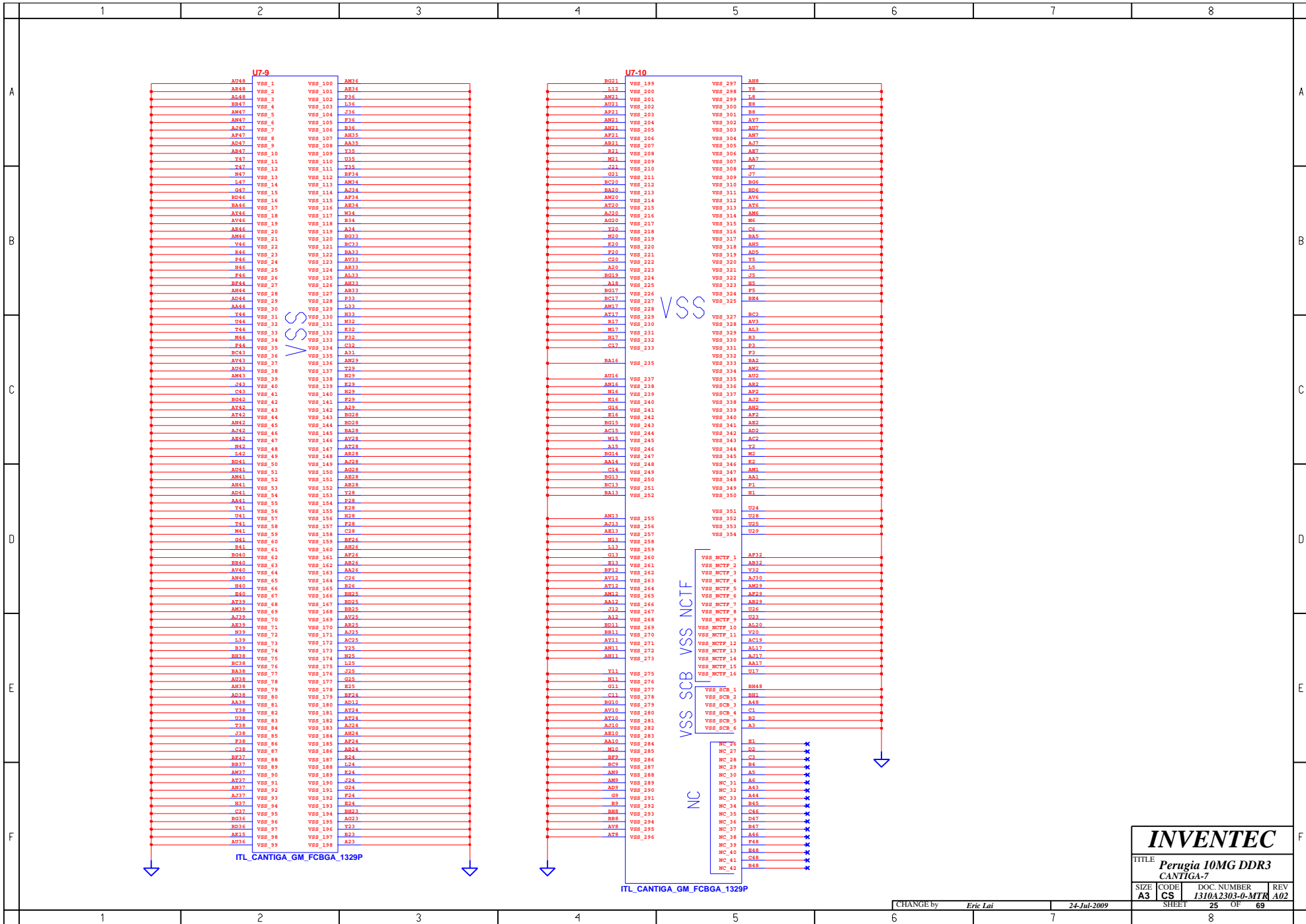


INVENTEC			
TITLE Perugia 10MG DDR3 CANTIGA-5-POWER			
SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET		23 OF 69	



POWER

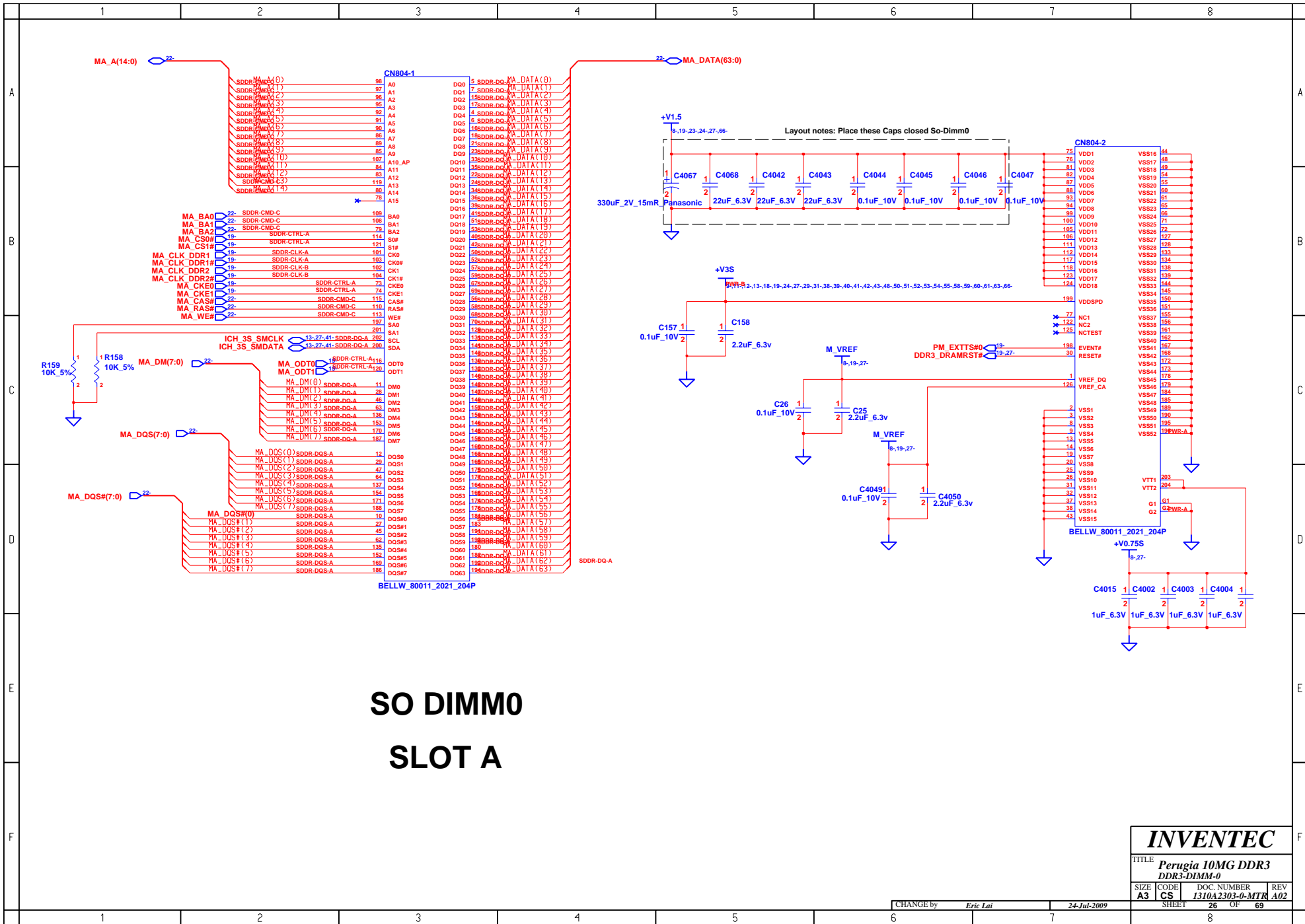
INVENTEC			
TITLE Perugia 10MG DDR3 CANTIGA-6			
SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
CHANGE by Eric Lai		24-Jul-2009	
SHEET 24		OF 69	

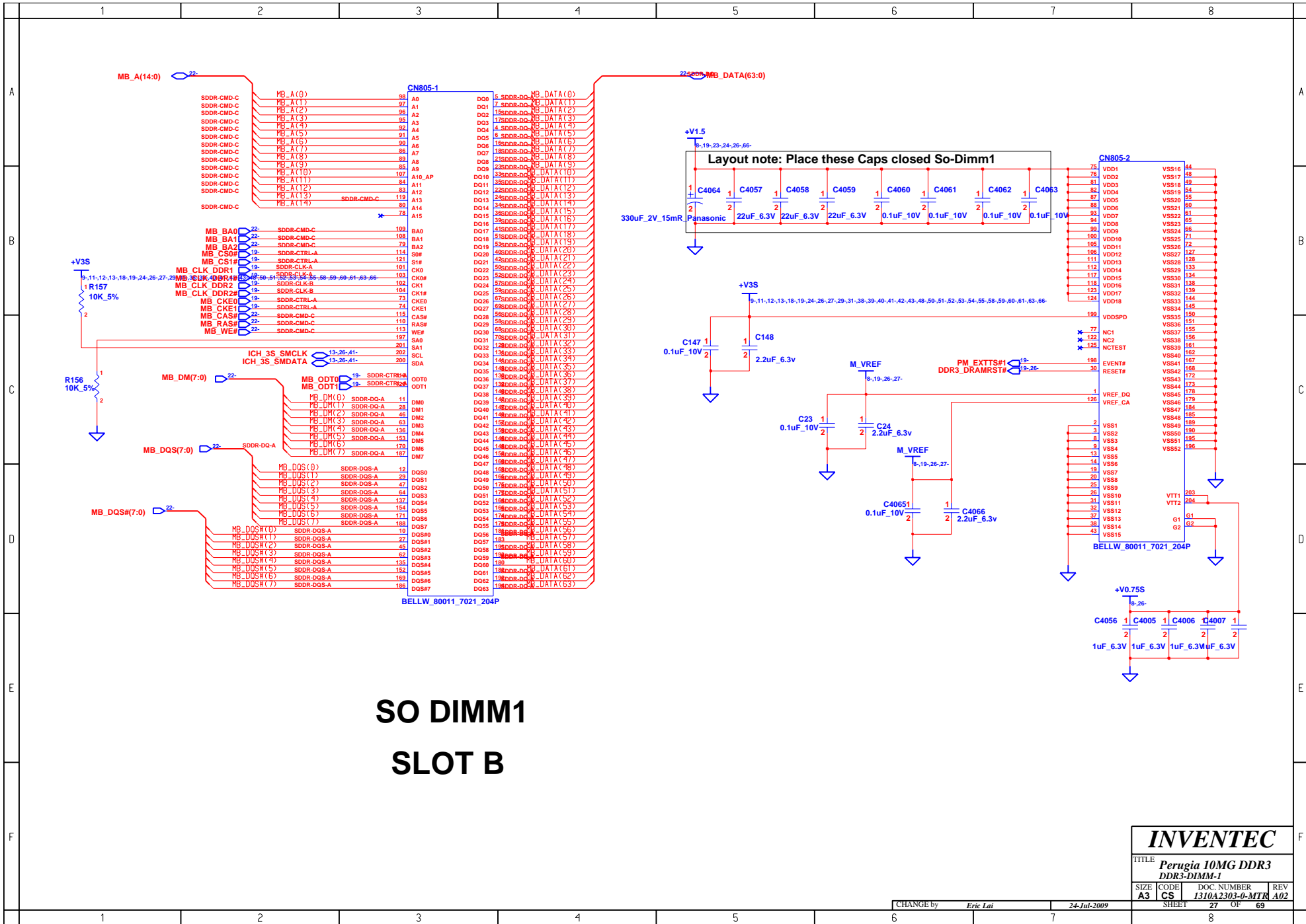


INVENTEC

TITLE
Perugia 10MG DDR3
CANTIGA-7

SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
SHEET 25		OF 69	

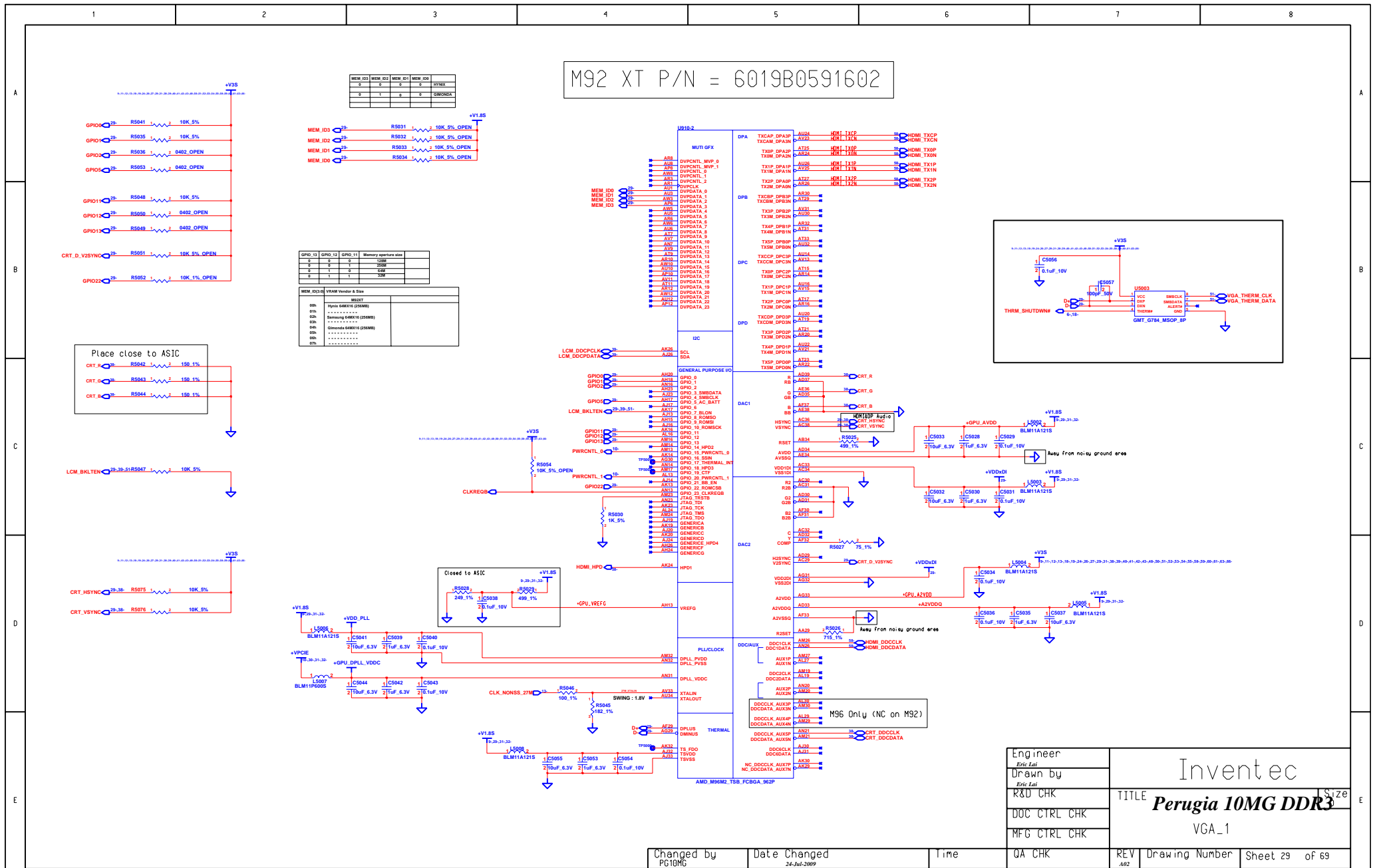




	1	2	3	4	5	6	7	8	
A									A
B									B
C									C
D									D
E									E
F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE Perugia 10MG DDR3 DDR2-DAMPING			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02
CHANGE by Eric Lal		27-Sep-2003	
SHEET		28	OF 69

M92 XT P/N = 6019B0591602



MEM_ID0	MEM_ID1	MEM_ID2	MEM_ID3	MEM_ID4	MEM_ID5	MEM_ID6	MEM_ID7	MEM_ID8	MEM_ID9
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

GPIO_ID0	GPIO_ID1	GPIO_ID2	GPIO_ID3	GPIO_ID4	GPIO_ID5	GPIO_ID6	GPIO_ID7	GPIO_ID8	GPIO_ID9
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

MEM_ID0	MEM_ID1	MEM_ID2	MEM_ID3	MEM_ID4	MEM_ID5	MEM_ID6	MEM_ID7	MEM_ID8	MEM_ID9
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

Place close to ASIC

CRT_D_VSYNCP 29-38 R5051 1 2 10K 5% OPEN

CRT_G 29-38 R5043 1 2 150 1%

CRT_B 29-38 R5044 1 2 150 1%

Closed to ASIC

R5029 249.1% 1 C5038 499.1%

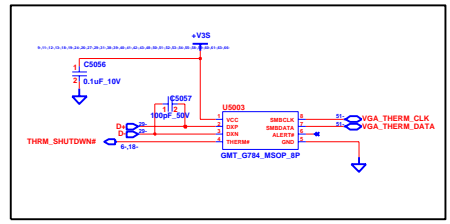
2 0.1uF 10V

M96 Only (NC on M92)

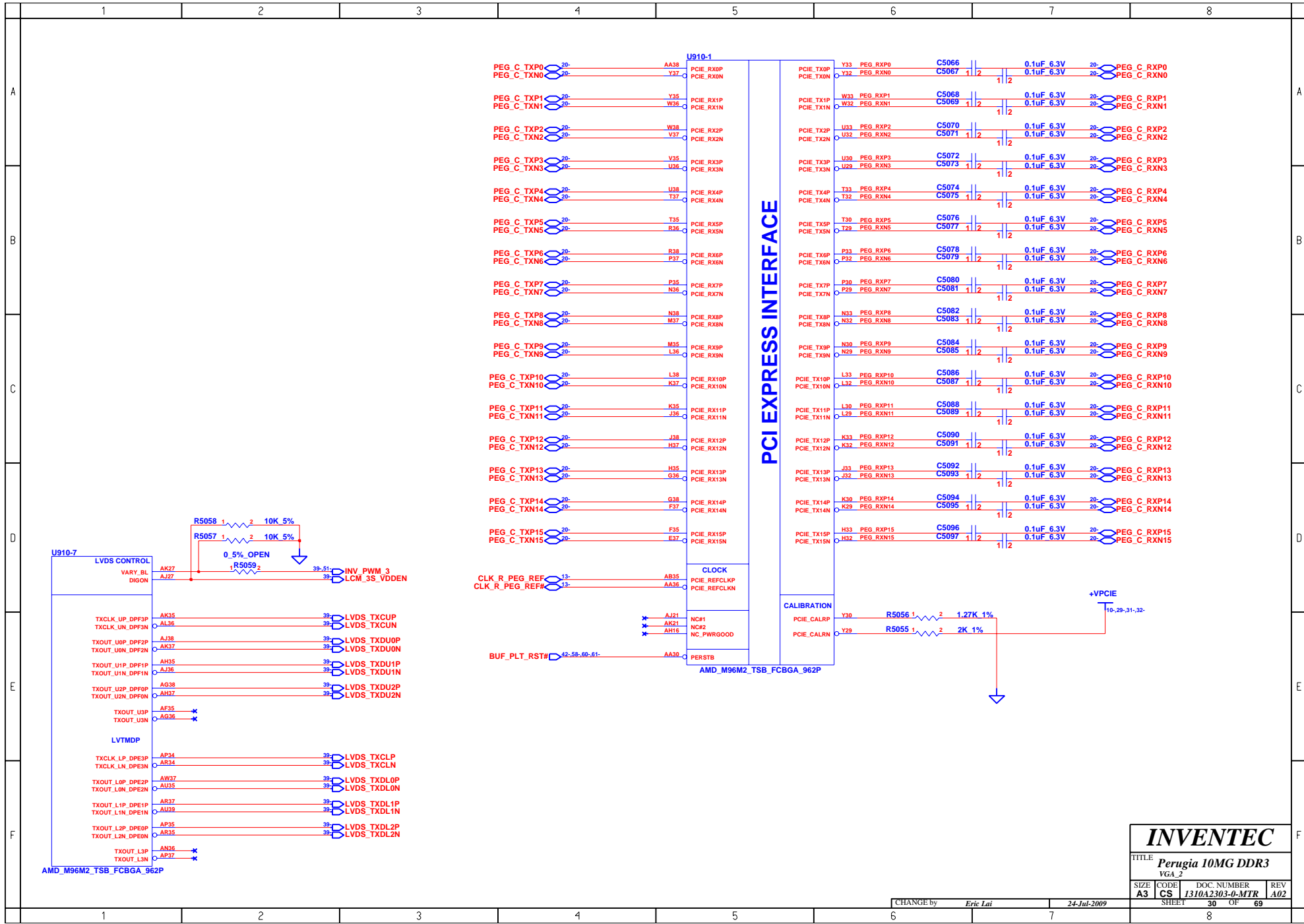
DDCCLK_AUX3P DDCDATA_AUX3N

DDCCLK_AUX4P DDCDATA_AUX4N

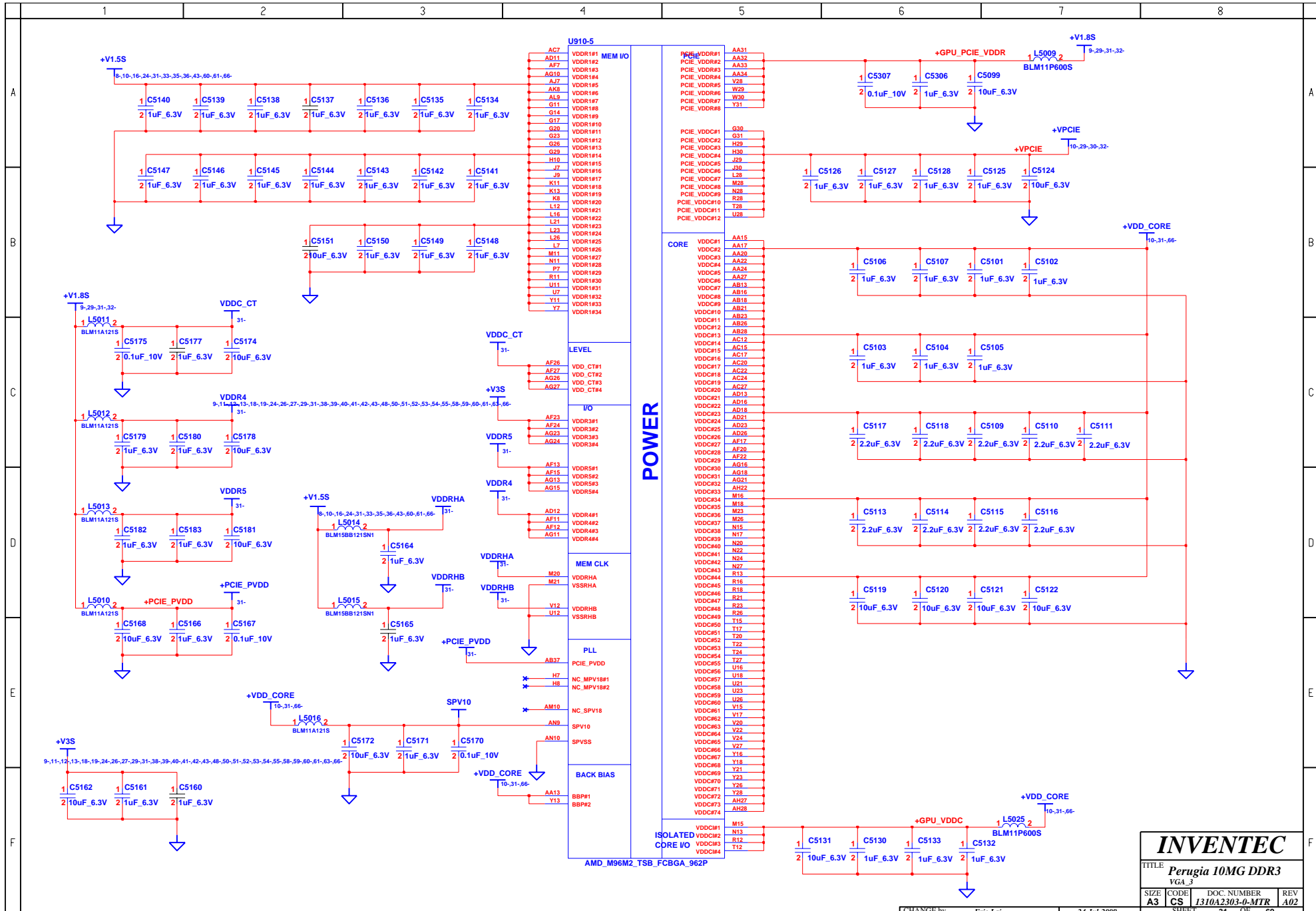
DDCCLK_AUX5P DDCDATA_AUX5N



Engineer <i>Eric Lai</i>	Inventec TITLE Perugia 10MG DDR3 VGA_1		
Drawn by <i>Eric Lai</i>			
R&D_CHK			
DOC_CTRL_CHK			
MFG_CTRL_CHK			
QA_CHK	REV A02	Drawing Number	Sheet 29 of 69



INVENTEC			
TITLE Perugia 10MG DDR3 VGA_2			
SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 30		OF 69	

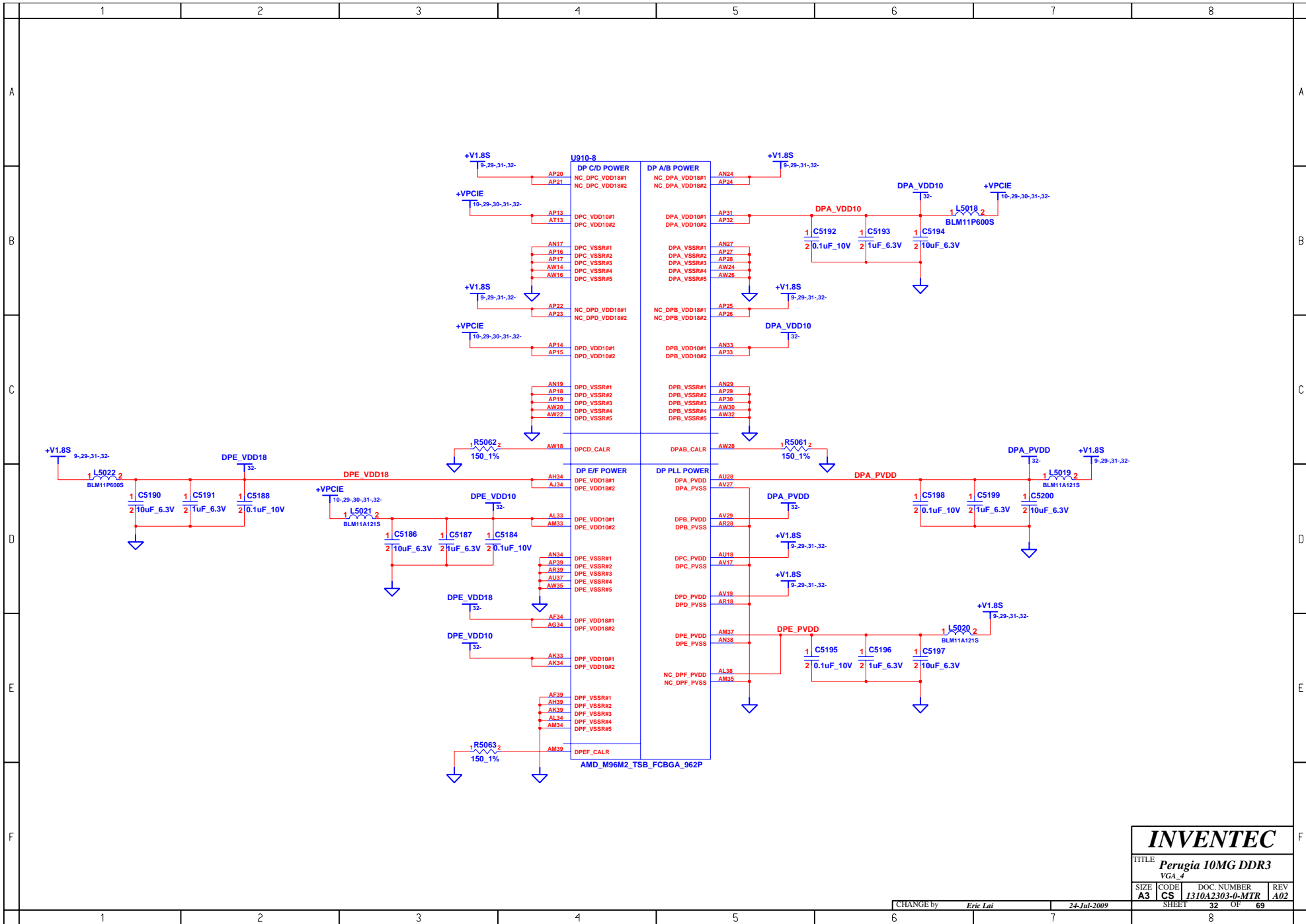


INVENTEC

TITLE
Perugia 10MG DDR3
VGA_3

SIZE A3	CODE CS	DOC NUMBER 1310A2303-0-MTR	REV A02
SHEET 31	OF 69		

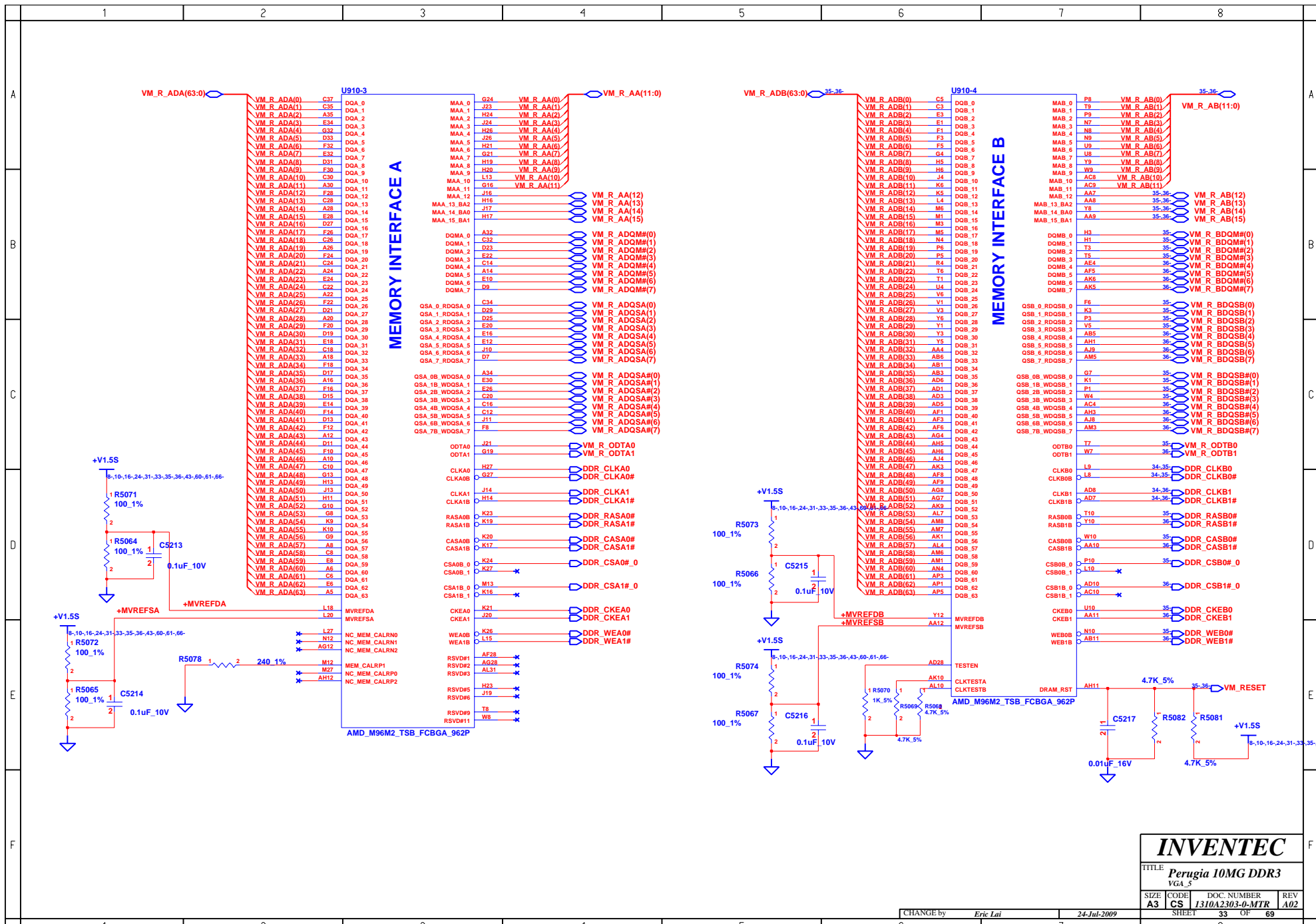
CHANGE by Eric Lai 24-Jul-2009



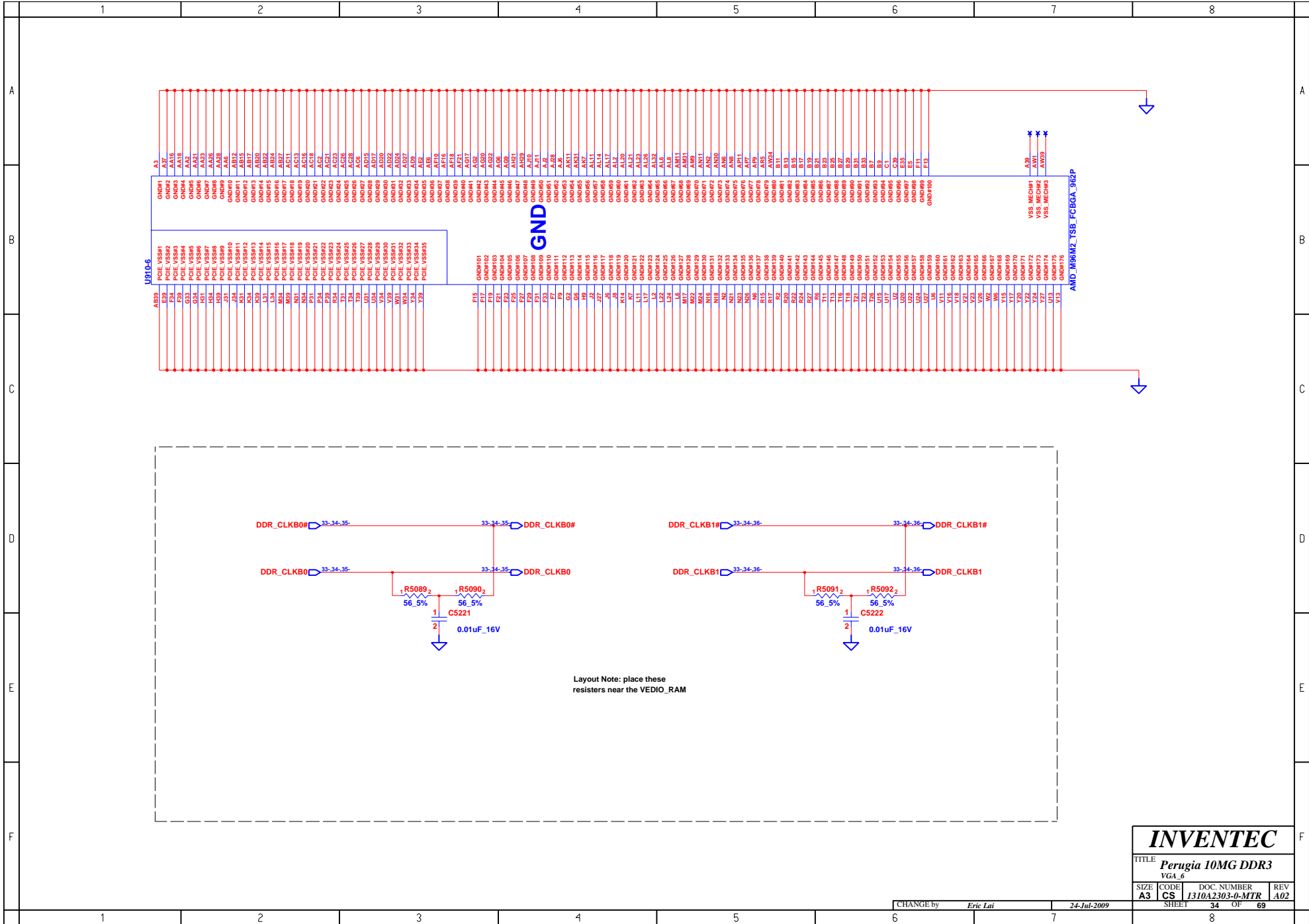
INVENTEC

TITLE			
Perugia 10MG DDR3			
VGA_4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02
SHEET		32	OF 69

CHANGE by Eric Lai 24-Jul-2009



INVENTEC			
TITLE Perugia 10MG DDR3			
VGA_5			
SIZE A3	CODE CS	DOC NUMBER 1310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET		33 OF 69	



ABR9	PCIE_VSSH1	GNDP1	A3
P4	PCIE_VSSH2	GNDP2	AA16
F39	PCIE_VSSH3	GNDP3	AA18
G33	PCIE_VSSH4	GNDP4	AA19
H31	PCIE_VSSH5	GNDP5	AA2
H54	PCIE_VSSH6	GNDP6	AA23
I54	PCIE_VSSH7	GNDP7	AA26
I59	PCIE_VSSH8	GNDP8	AA28
J34	PCIE_VSSH9	GNDP9	AA29
K31	PCIE_VSSH10	GNDP10	AA32
L30	PCIE_VSSH11	GNDP11	AA35
L34	PCIE_VSSH12	GNDP12	AA37
M33	PCIE_VSSH13	GNDP13	AB15
N31	PCIE_VSSH14	GNDP14	AB16
N34	PCIE_VSSH15	GNDP15	AB17
P4	PCIE_VSSH16	GNDP16	AB22
P4	PCIE_VSSH17	GNDP17	AB24
Q4	PCIE_VSSH18	GNDP18	AC11
Q4	PCIE_VSSH19	GNDP19	AC13
R4	PCIE_VSSH20	GNDP20	AC16
R4	PCIE_VSSH21	GNDP21	AC18
S3	PCIE_VSSH22	GNDP22	AC2
S3	PCIE_VSSH23	GNDP23	AC21
T34	PCIE_VSSH24	GNDP24	AC23
T34	PCIE_VSSH25	GNDP25	AC28
V39	PCIE_VSSH26	GNDP26	AC29
V44	PCIE_VSSH27	GNDP27	AC3
V44	PCIE_VSSH28	GNDP28	AC31
V39	PCIE_VSSH29	GNDP29	AD22
W4	PCIE_VSSH30	GNDP30	AD27
W4	PCIE_VSSH31	GNDP31	AD29
X34	PCIE_VSSH32	GNDP32	AE
X34	PCIE_VSSH33	GNDP33	AE2
Y39	PCIE_VSSH34	GNDP34	AE2
Y39	PCIE_VSSH35	GNDP35	AE2
F15	GNDP01	GNDP01	AF16
F16	GNDP02	GNDP02	AF18
F21	GNDP03	GNDP03	AF19
F23	GNDP04	GNDP04	AF22
F23	GNDP05	GNDP05	AF24
F27	GNDP06	GNDP06	AF27
F29	GNDP07	GNDP07	AF29
F31	GNDP08	GNDP08	AJ10
F31	GNDP09	GNDP09	AJ11
F31	GNDP10	GNDP10	AJ12
F31	GNDP11	GNDP11	AK
F31	GNDP12	GNDP12	AK2
G2	GNDP13	GNDP13	AK2
G2	GNDP14	GNDP14	AK2
H2	GNDP15	GNDP15	AK2
H2	GNDP16	GNDP16	AK2
H2	GNDP17	GNDP17	AK2
H2	GNDP18	GNDP18	AK2
H2	GNDP19	GNDP19	AK2
H2	GNDP20	GNDP20	AK2
H2	GNDP21	GNDP21	AK2
H2	GNDP22	GNDP22	AK2
H2	GNDP23	GNDP23	AK2
H2	GNDP24	GNDP24	AK2
H2	GNDP25	GNDP25	AK2
H2	GNDP26	GNDP26	AK2
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H2	GNDP28	GNDP28	AK2
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H2	GNDP30	GNDP30	AK2
H2	GNDP31	GNDP31	AK2
H2	GNDP32	GNDP32	AK2
H2	GNDP33	GNDP33	AK2
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H2	GNDP39	GNDP39	AK2
H2	GNDP40	GNDP40	AK2
H2	GNDP41	GNDP41	AK2
H2	GNDP42	GNDP42	AK2
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H2	GNDP85	GNDP85	AK2
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H2	GNDP88	GNDP88	AK2
H2	GNDP89	GNDP89	AK2
H2	GNDP90	GNDP90	AK2
H2	GNDP91	GNDP91	AK2
H2	GNDP92	GNDP92	AK2
H2	GNDP93	GNDP93	AK2
H2	GNDP94	GNDP94	AK2
H2	GNDP95	GNDP95	AK2
H2	GNDP96	GNDP96	AK2
H2	GNDP97	GNDP97	AK2
H2	GNDP98	GNDP98	AK2
H2	GNDP99	GNDP99	AK2
H2	GNDP100	GNDP100	AK2

* * *
 VSS_MECH01
 VSS_MECH02
 VSS_MECH03

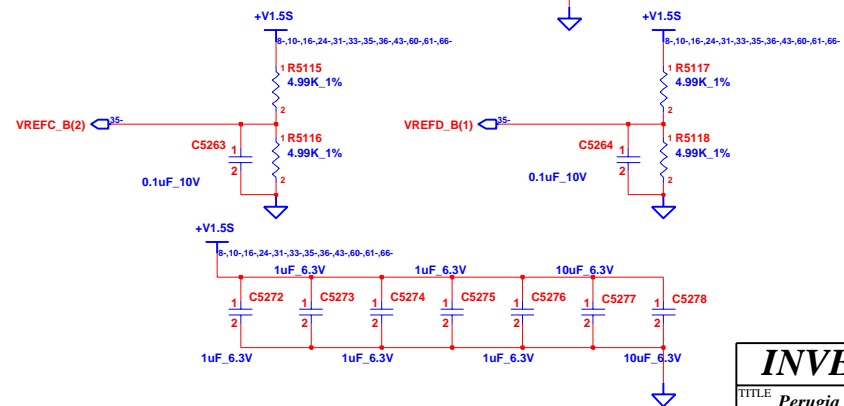
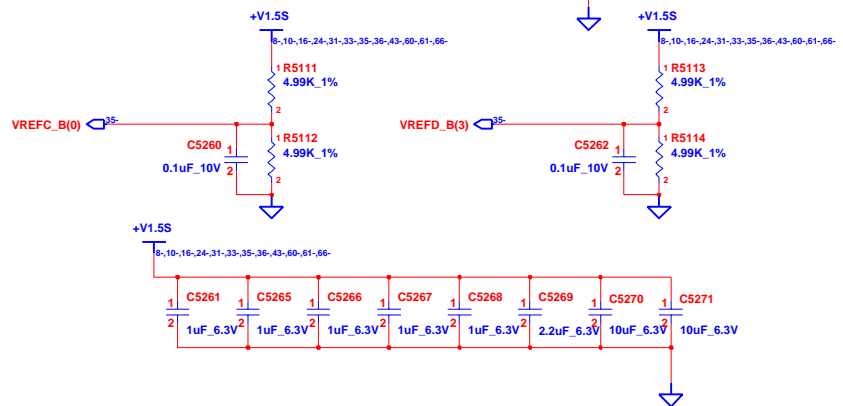
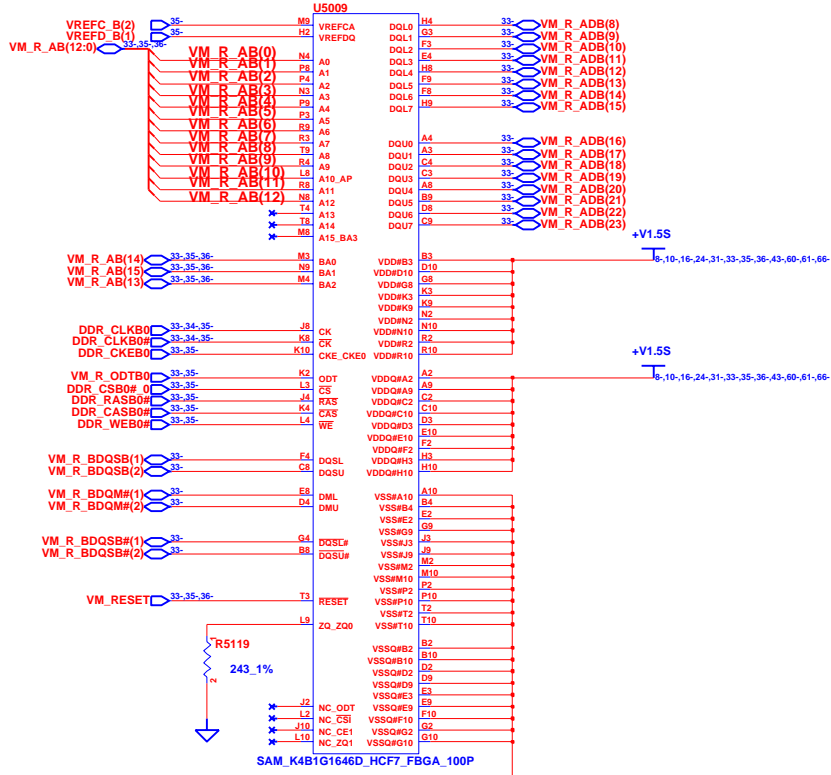
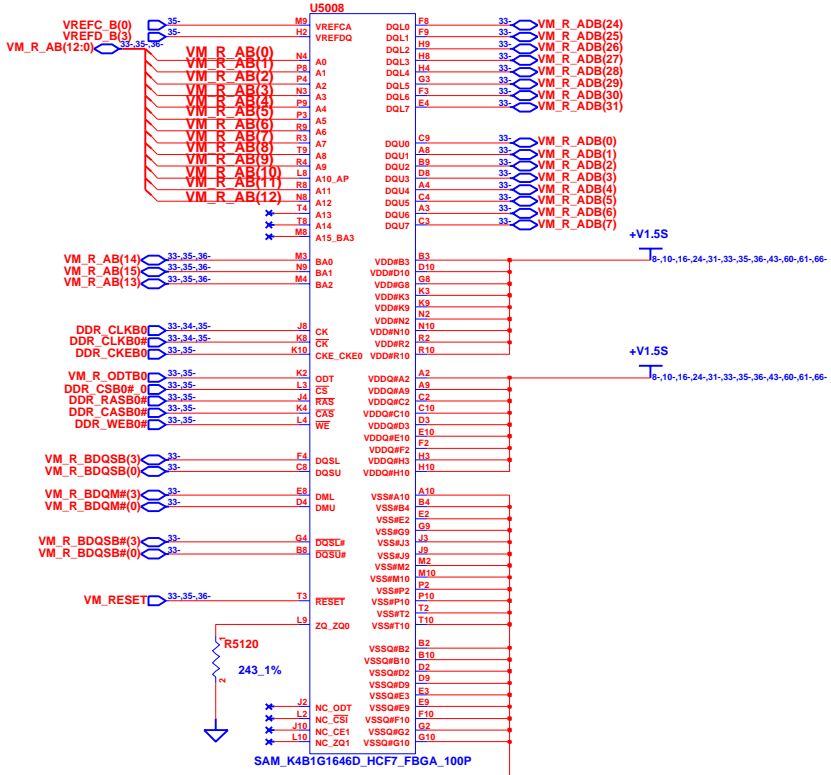
AMD_M96M2_TSB_FCBGA_36P



Layout Note: place these resistors near the VEDIO_RAM

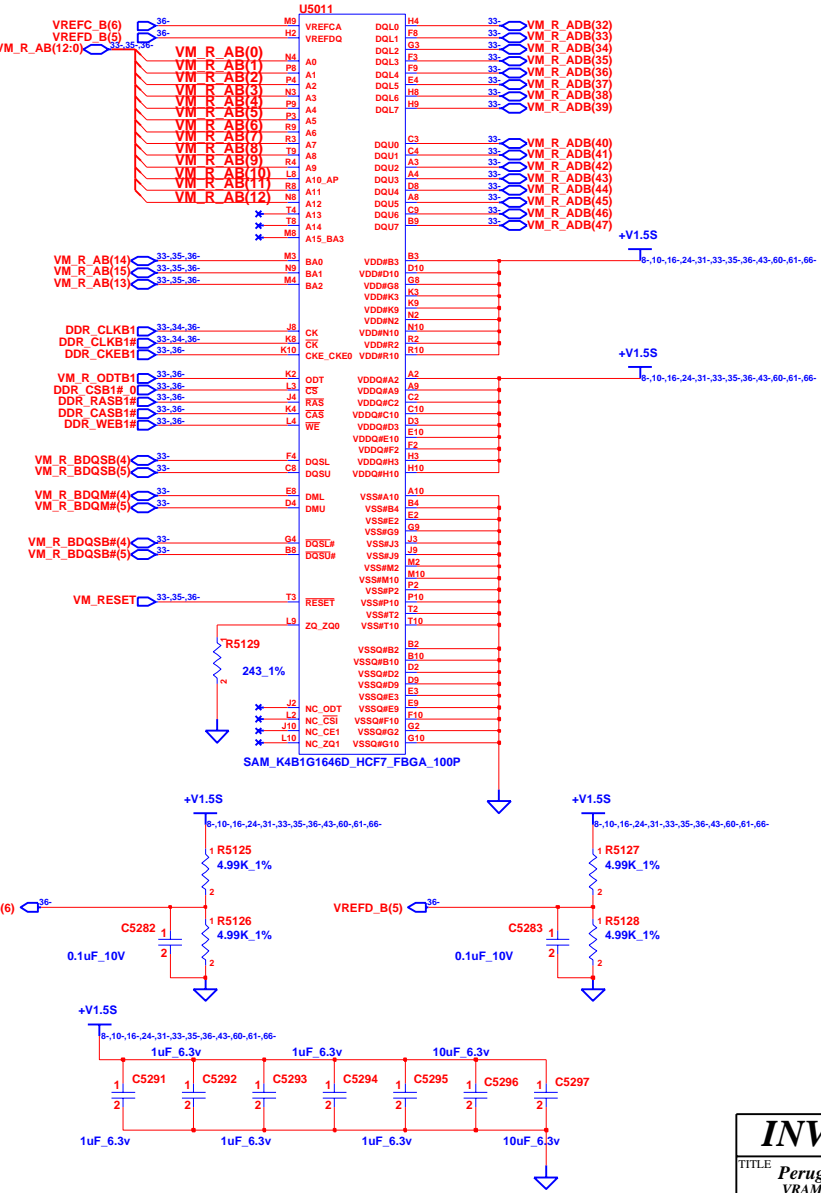
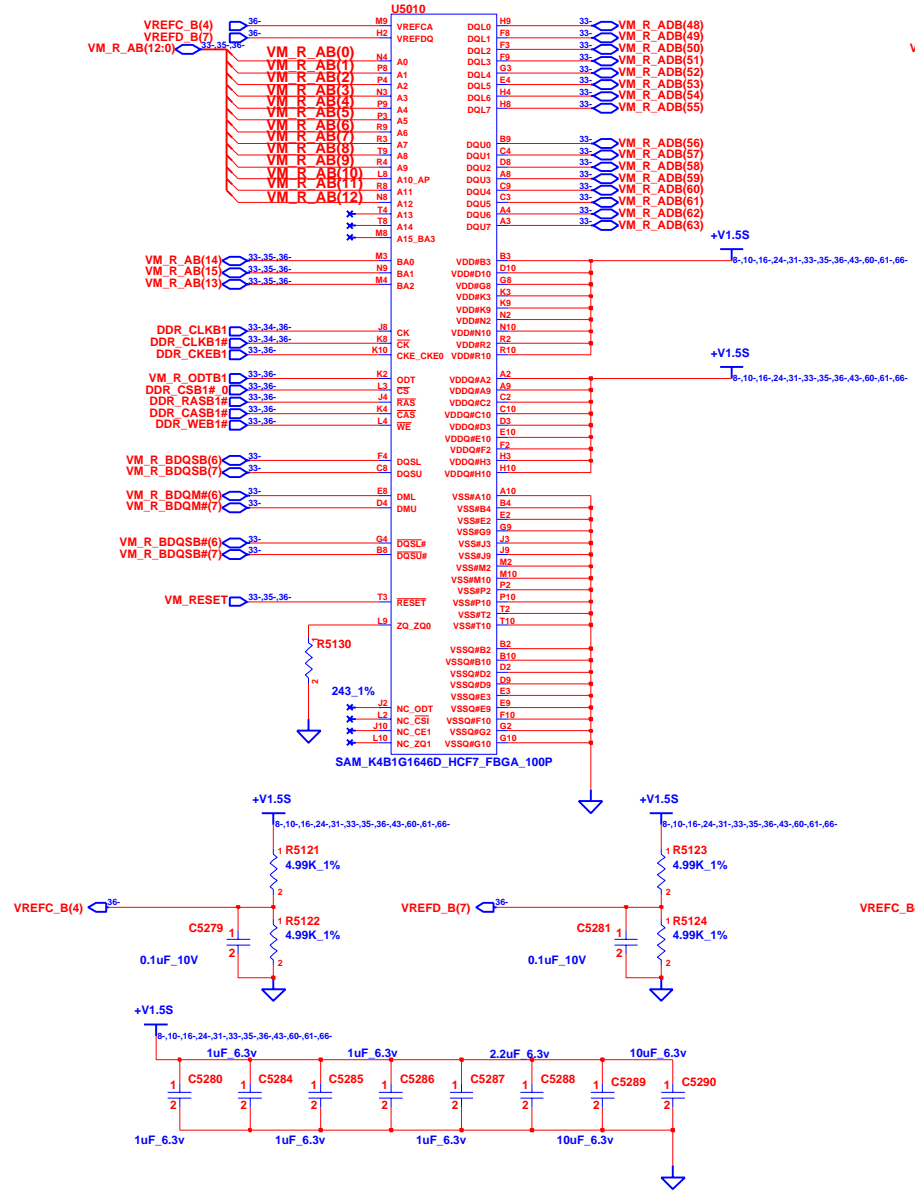
INVENTEC			
TITLE Perugia 10MG DDR3			
VGA_6			
SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
CHANGE by Eric Lai		24-Jul-2009	
SHEET 34		OF 69	

M92 Use channel B

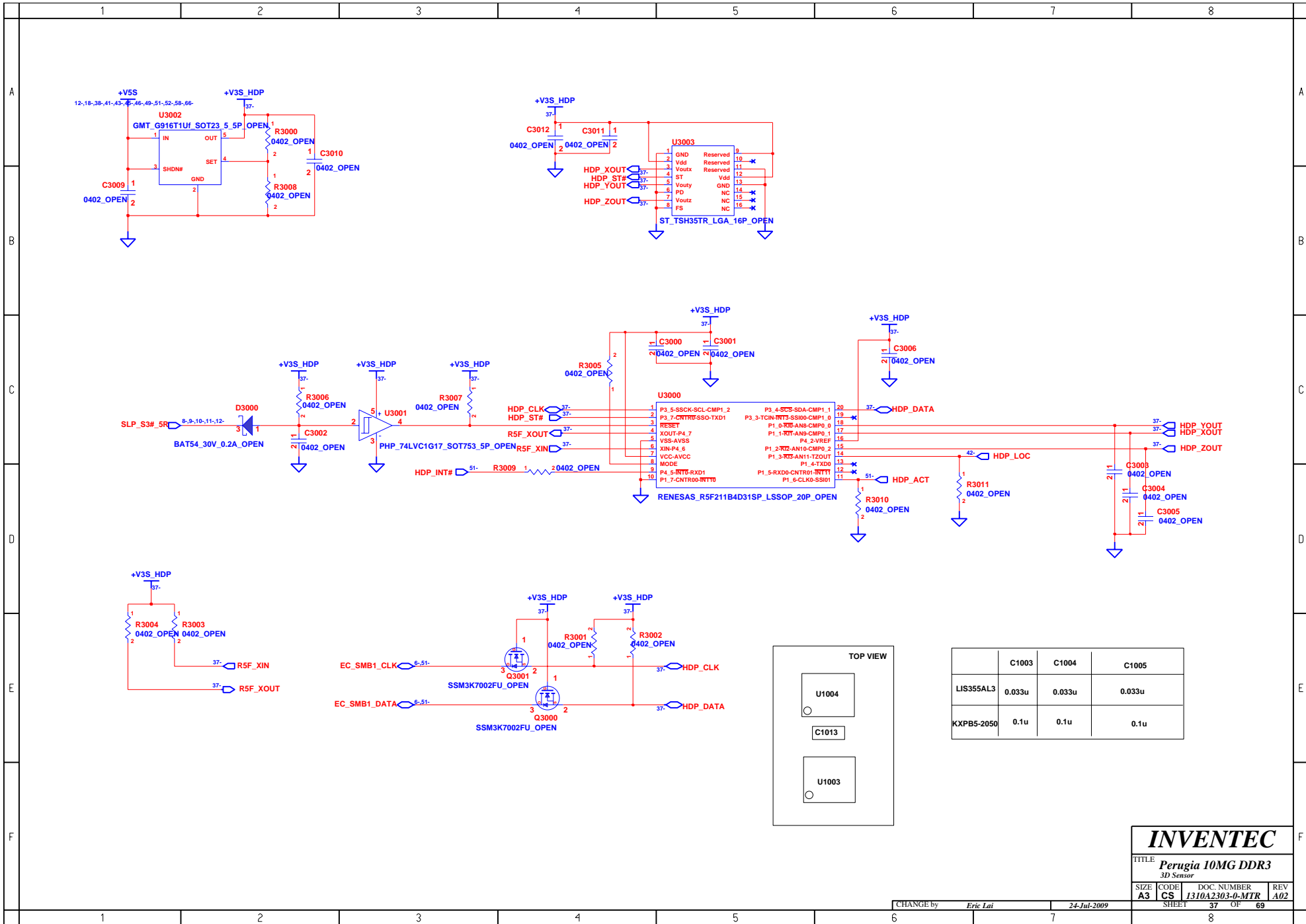


INVENTEC			
TITLE Perugia 10MG DDR3			
VRAM_0			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02
CHANGE by		24-Jul-2009	
Eric Lai		35 OF 69	

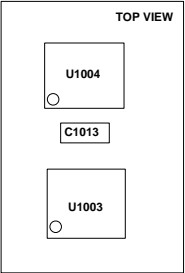
M92 Use channel B



INVENTEC			
TITLE: Perugia 10MG DDR3			
VRAM_1			
SIZE: A3	CODE: CS	DOC. NUMBER: 1310A2303-0-MTR	REV: A02
CHANGE by: <i>Eric Lai</i>		24-Jul-2009	
SHEET: 36		OF: 69	



	C1003	C1004	C1005
LIS355AL3	0.033u	0.033u	0.033u
KXPB5-2050	0.1u	0.1u	0.1u



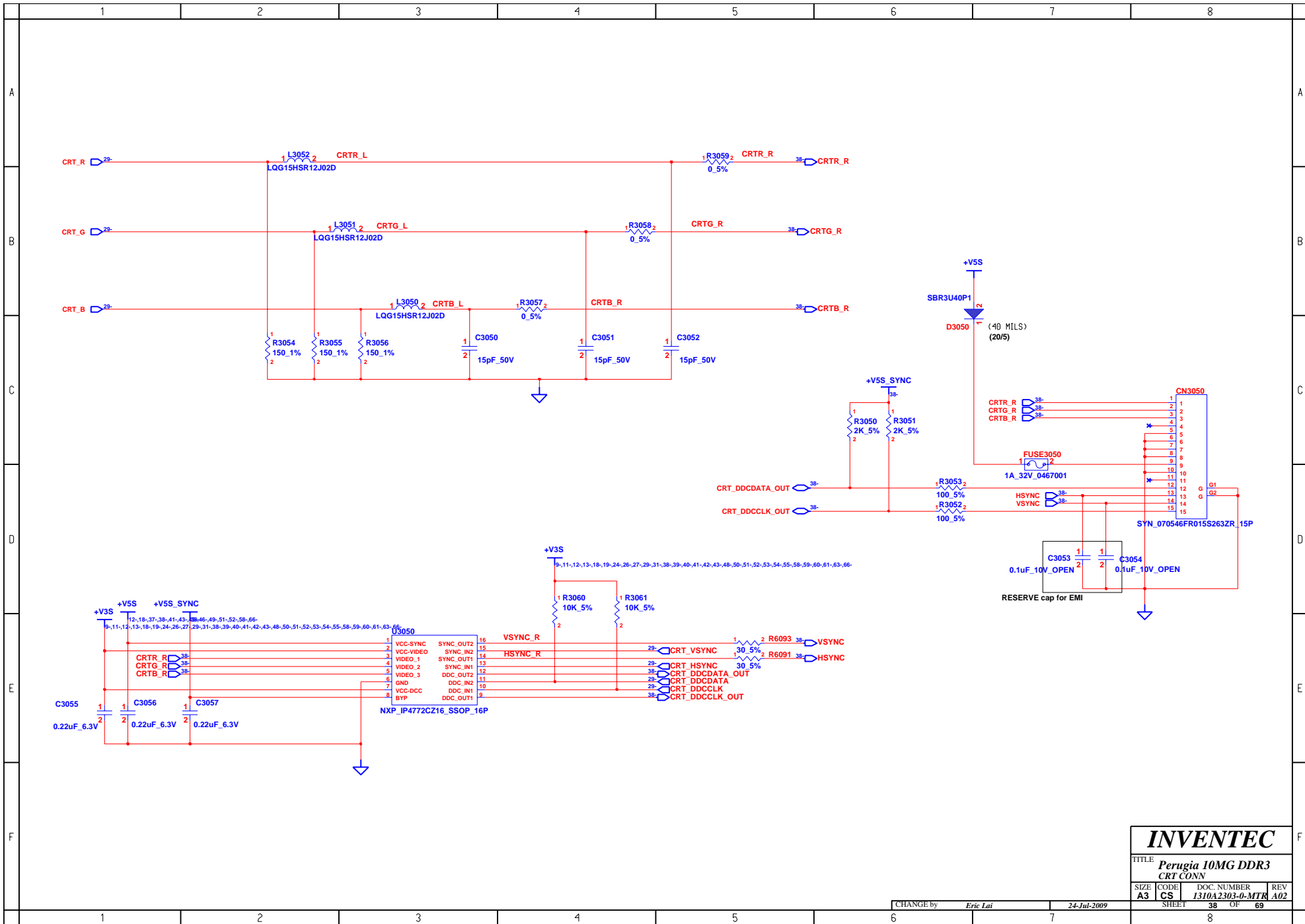
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TITLE
Perugia 10MG DDR3
3D Sensor

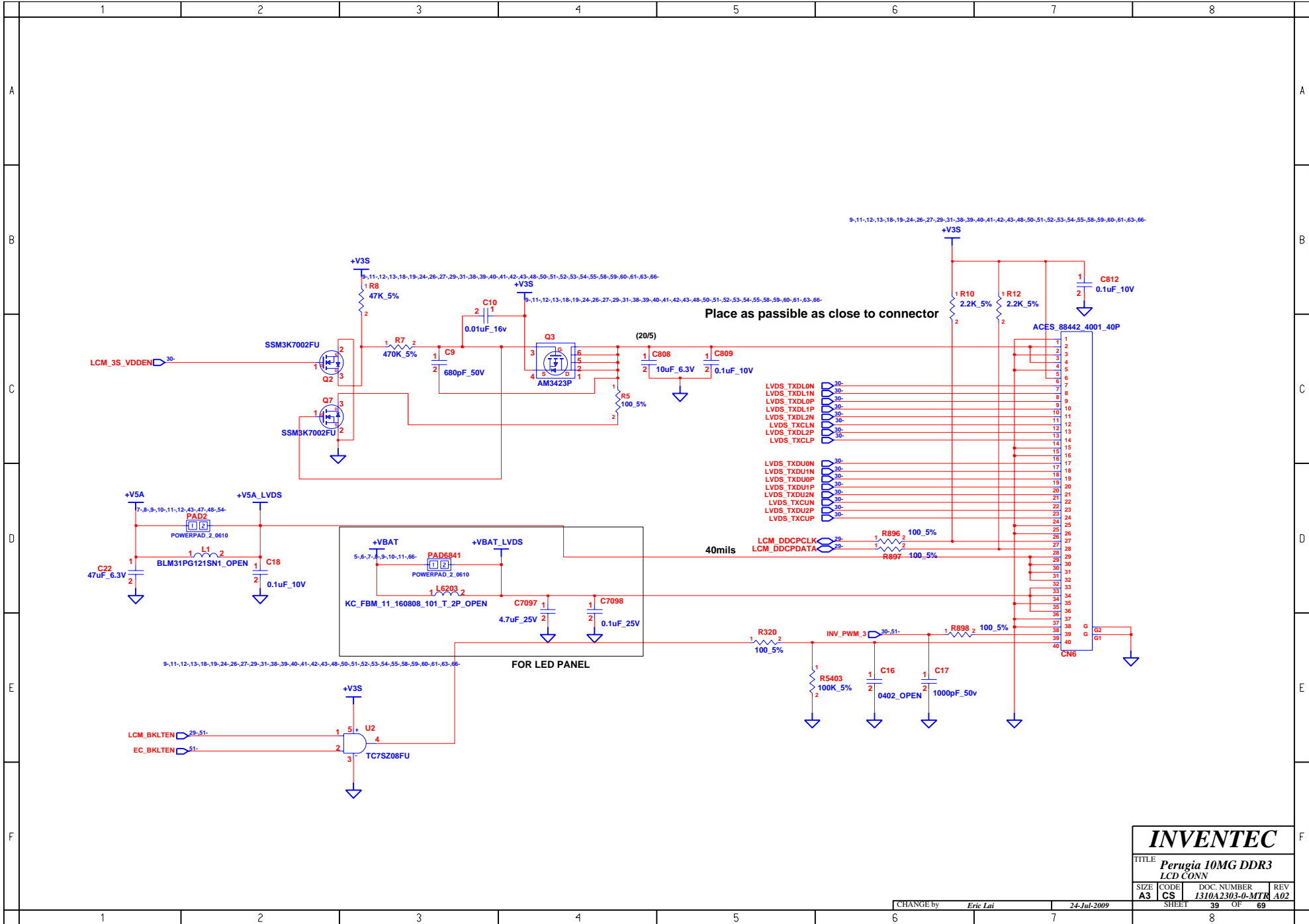
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02

CHANGE by Eric Lai 24-Jul-2009

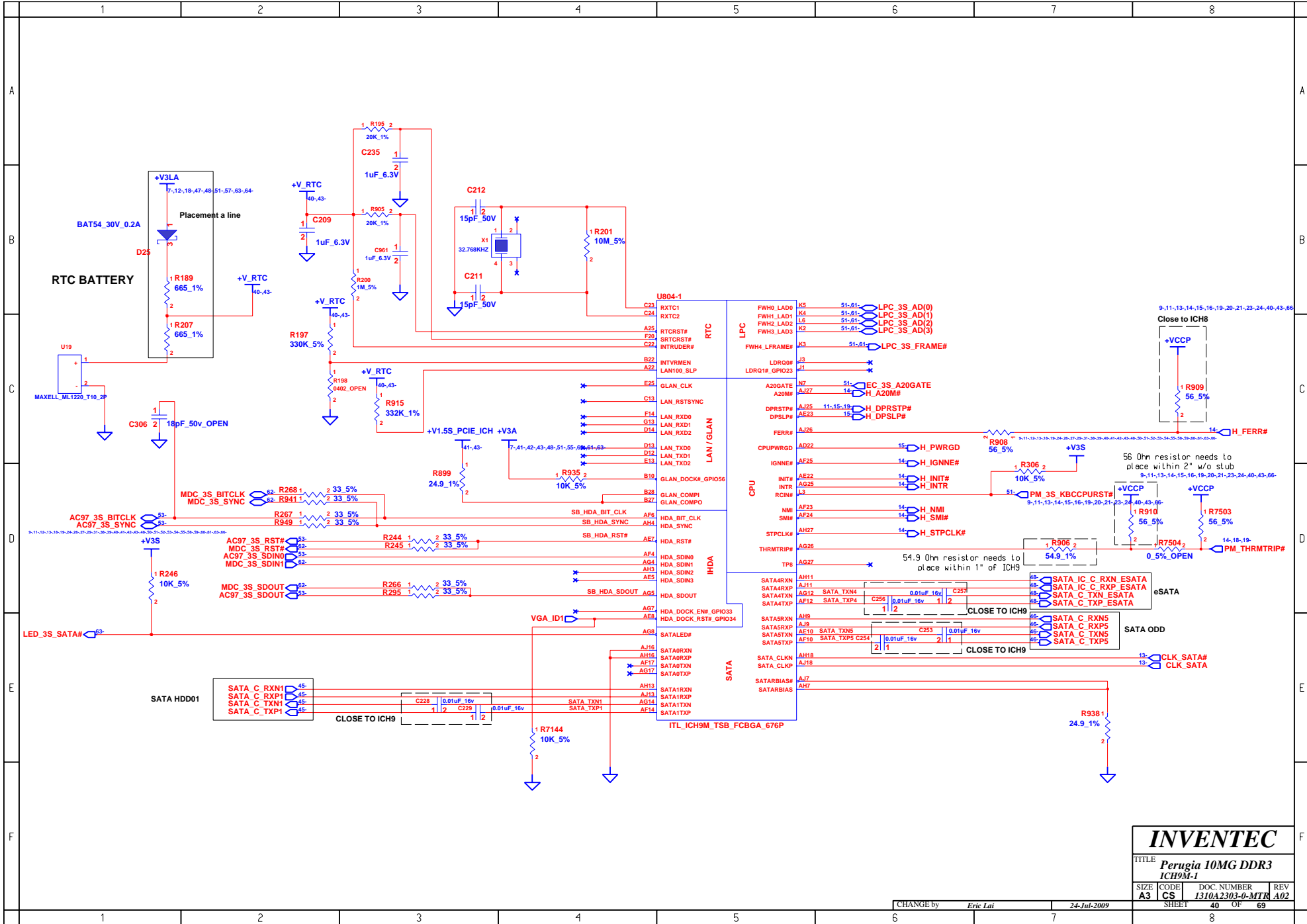
SHEET 37 OF 69



INVENTEC			
TITLE Perugia 10MG DDR3 CRT CONN			
SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 38		OF 69	



INVENTEC			
TITLE Perugia 10MG DDR3 LCD CONN			
SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 39		OF 69	

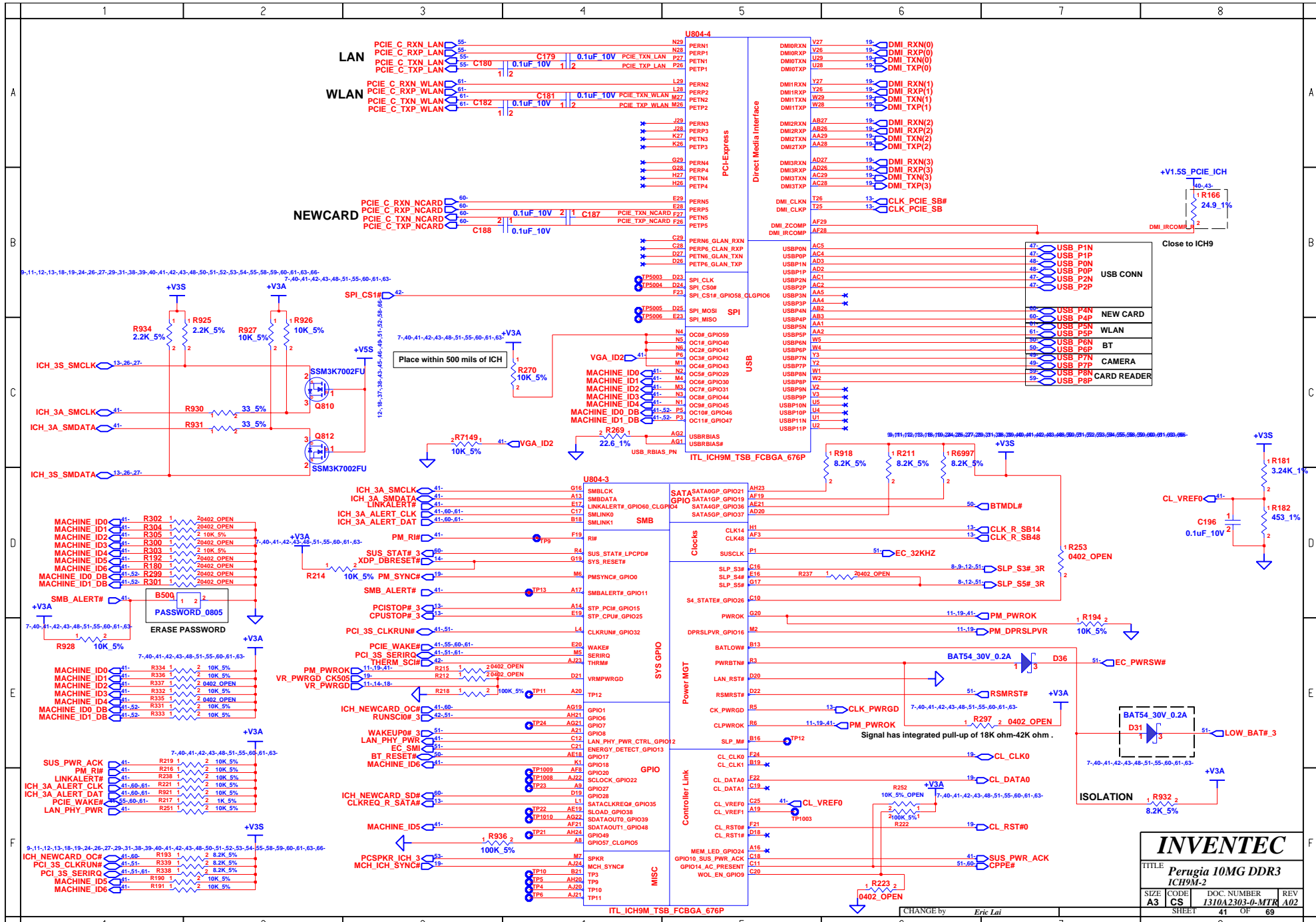


INVENTEC

TITLE
**Perugia 10MG DDR3
ICH9M-1**

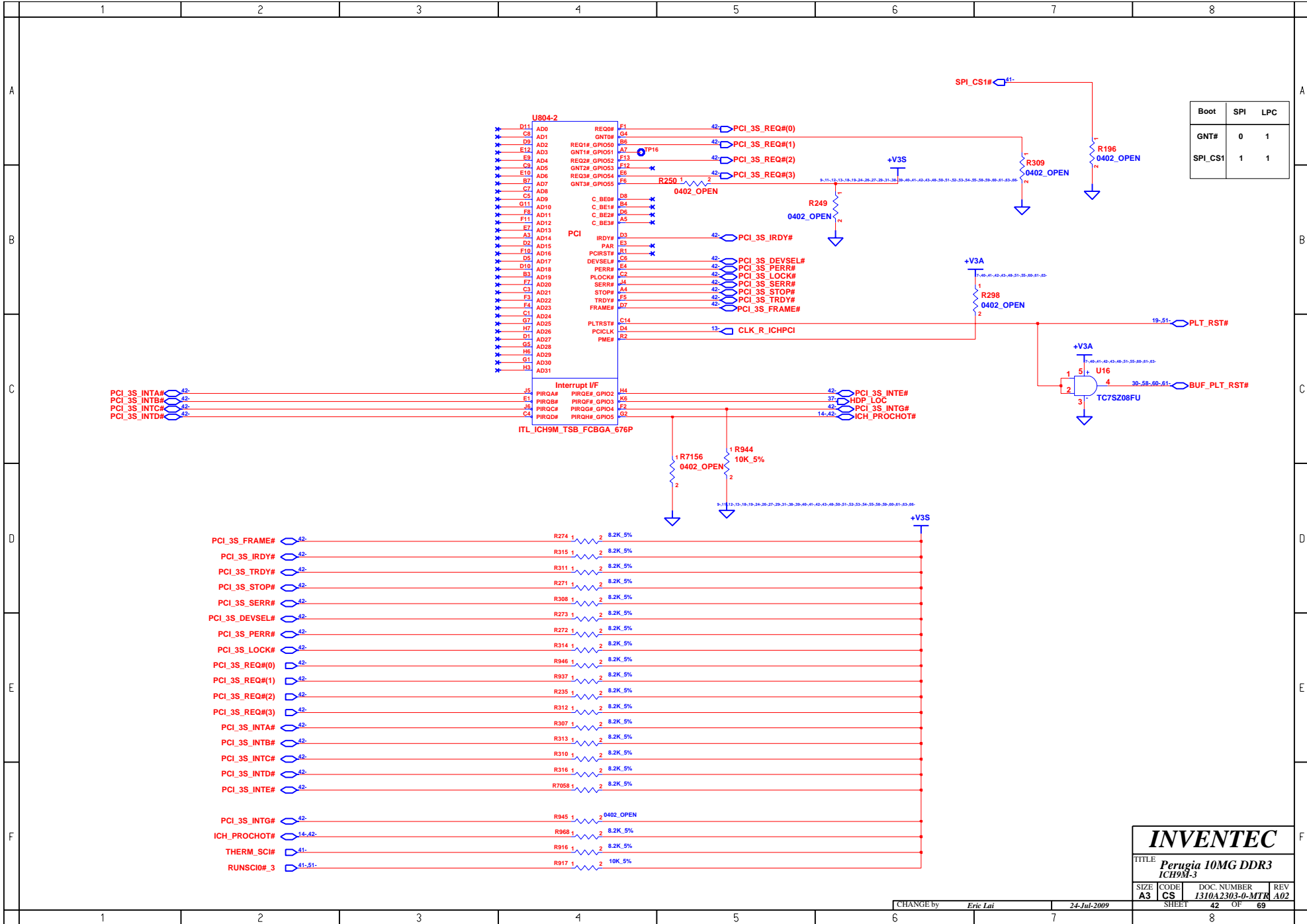
SIZE	CODE	DOC. NUMBER	MTR	REV
A3	CS	I310A2303-0-MTR	A02	

CHANGE by *Eric Lai* 24-Jul-2009 SHEET 40 OF 69



INVENTEC			
TITLE Perugia 10MG DDR3 ICH9M-2			
SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
SHEET 41		OF 69	

CHANGE by *Eric Lai*



Boot	SPI	LPC
GNT#	0	1
SPI_CS1#	1	1

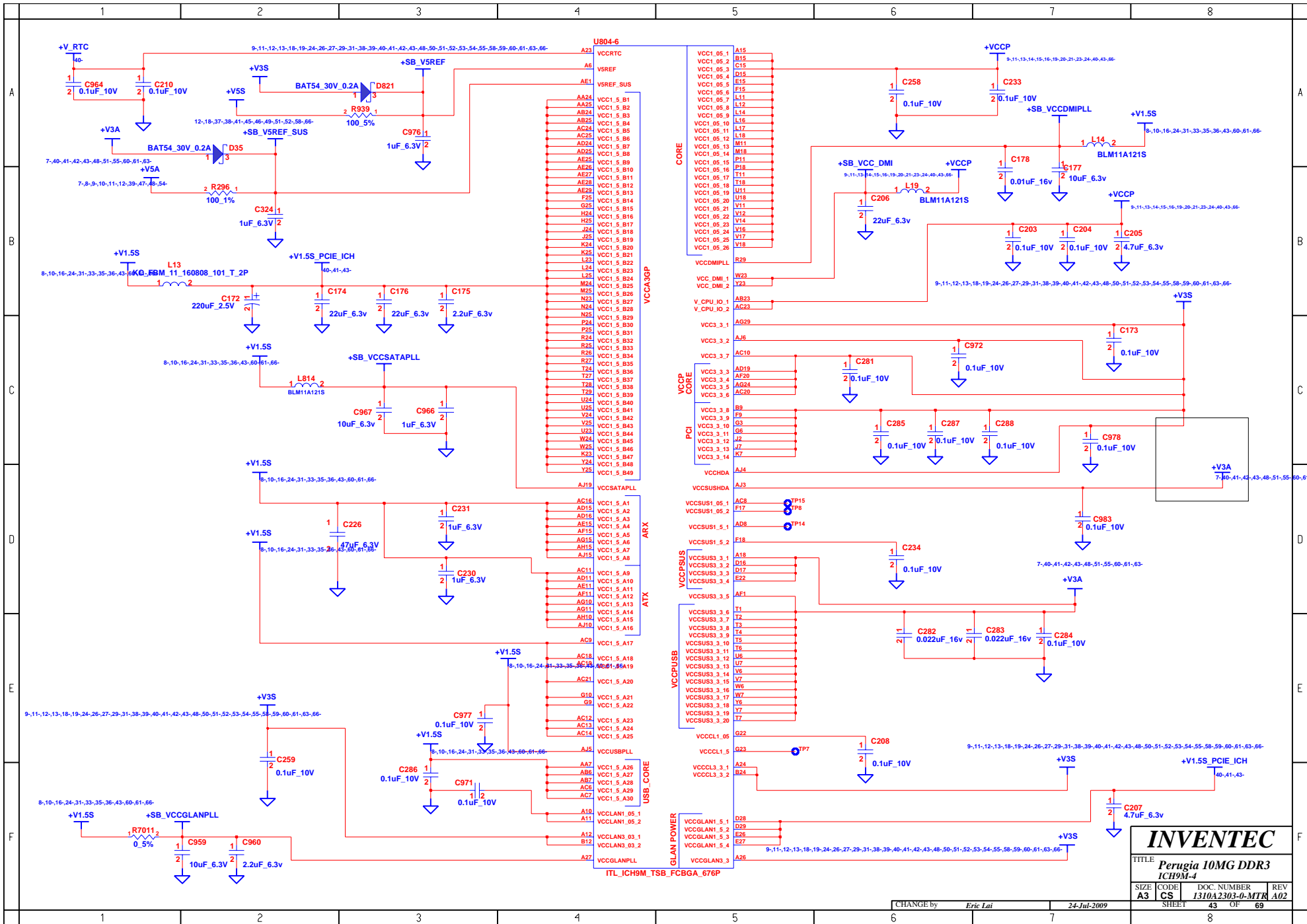
INVENTEC

TITLE
Perugia 10MG DDR3
ICH9M-3

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2303-0-MTR	A02

CHANGE by Eric Lai 24-Jul-2009

SHEET 42 OF 69



INVENTEC

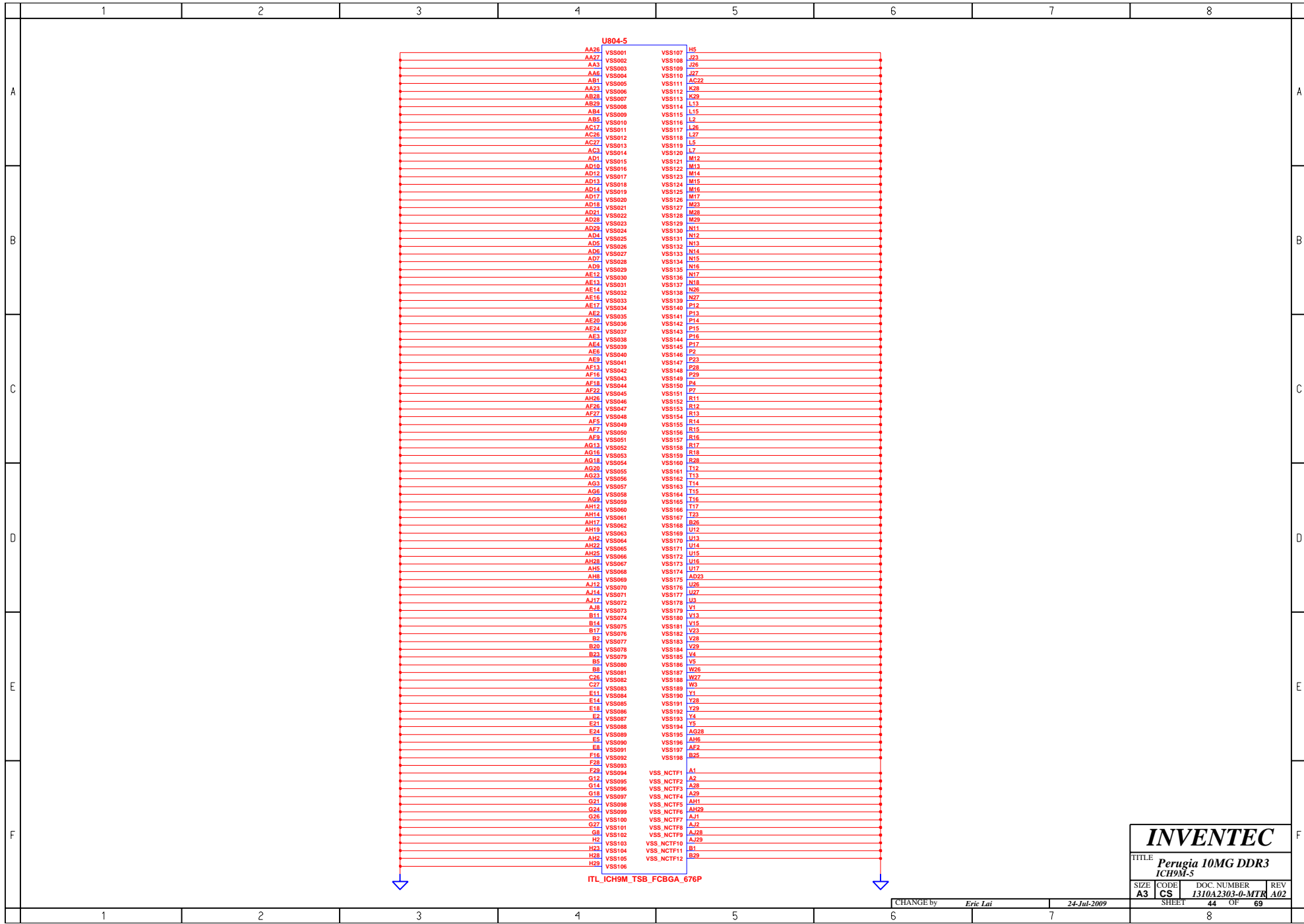
TITLE: Perugia 10MG DDR3 ICH9M-4

SIZE CODE DOC. NUMBER REV

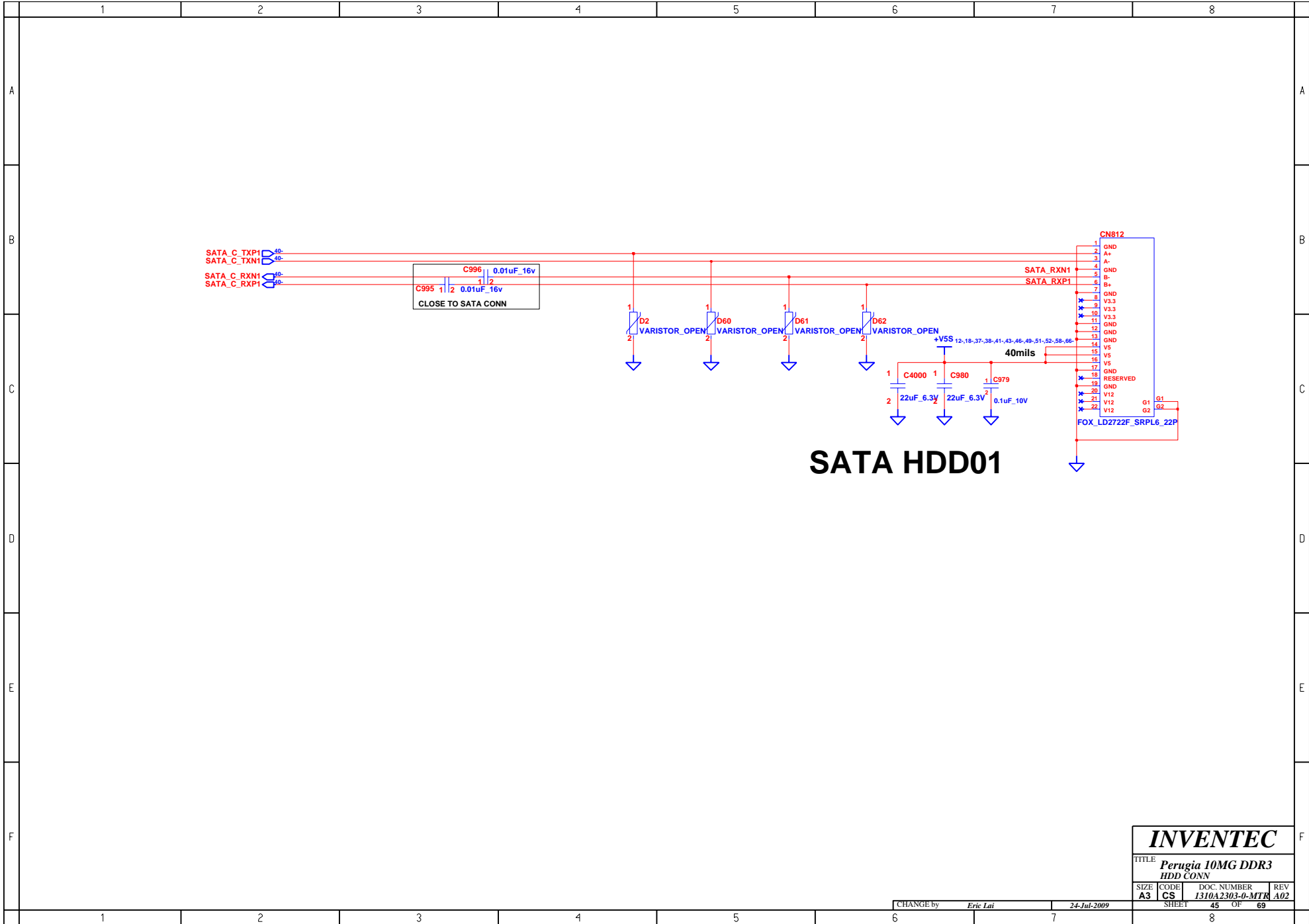
A3 CS 1310A2303-0-MTR A02

SHEET 43 OF 69

CHANGE by Eric Lai 24-Jul-2009



INVENTEC			
TITLE <i>Perugia 10MG DDR3 ICH9M-5</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>1310A2303-0-MTR</i>	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 44		OF 69	



SATA HDD01

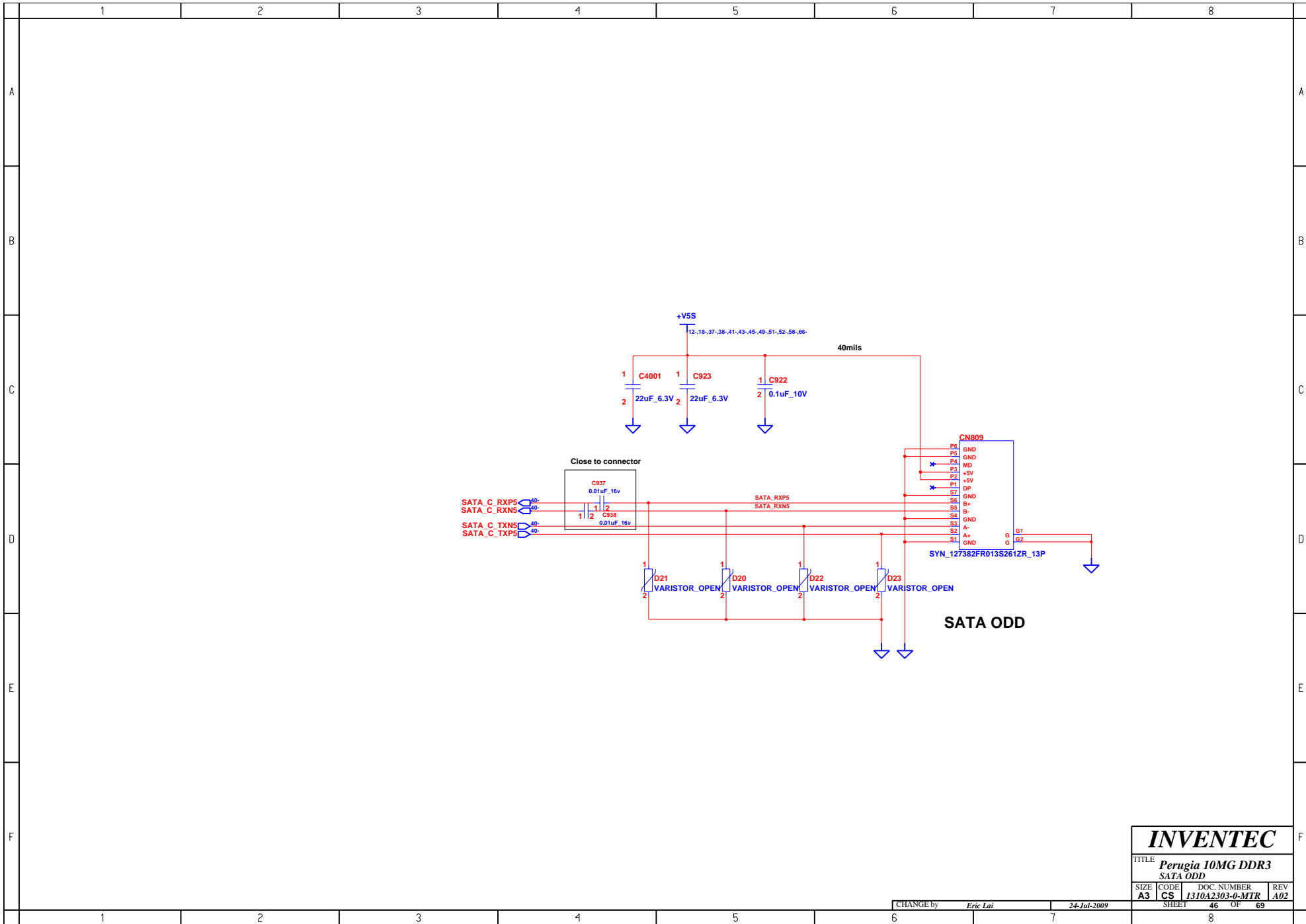
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TITLE *Perugia 10MG DDR3
HDD CONN*

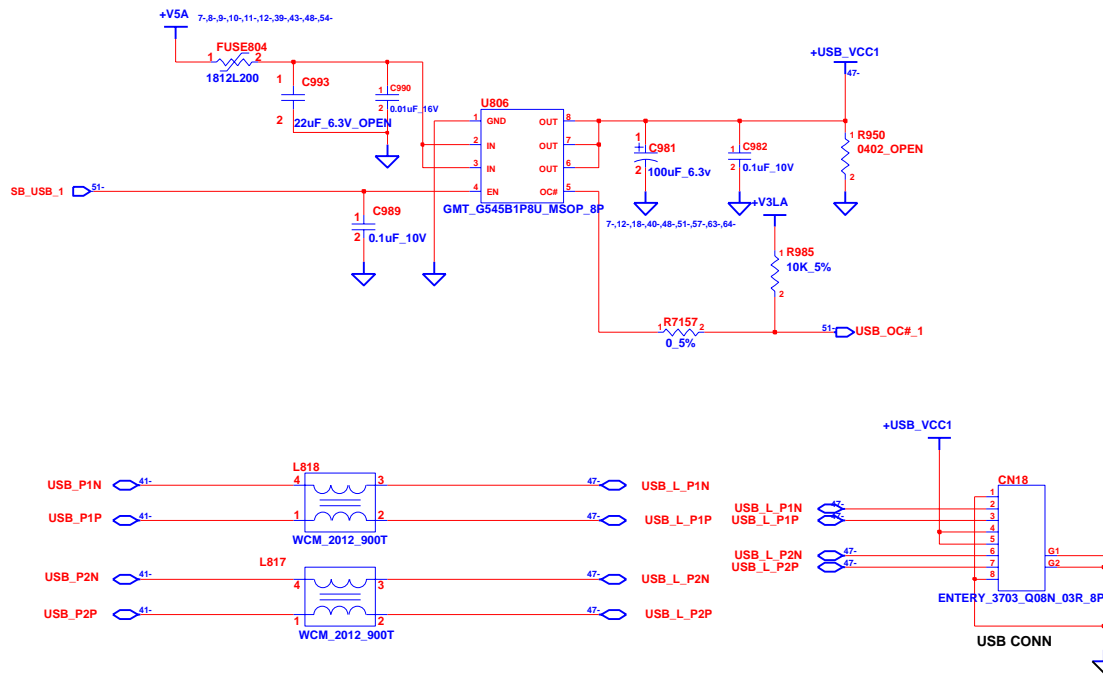
SIZE A3	CODE CS	DOC. NUMBER <i>1310A2303-0-MTR</i>	REV A02
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CHANGE by *Eric Lai* 24-Jul-2009

SHEET 45 OF 69



INVENTEC			
TITLE Perugia 10MG DDR3 SATA ODD			
SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 46		OF 69	



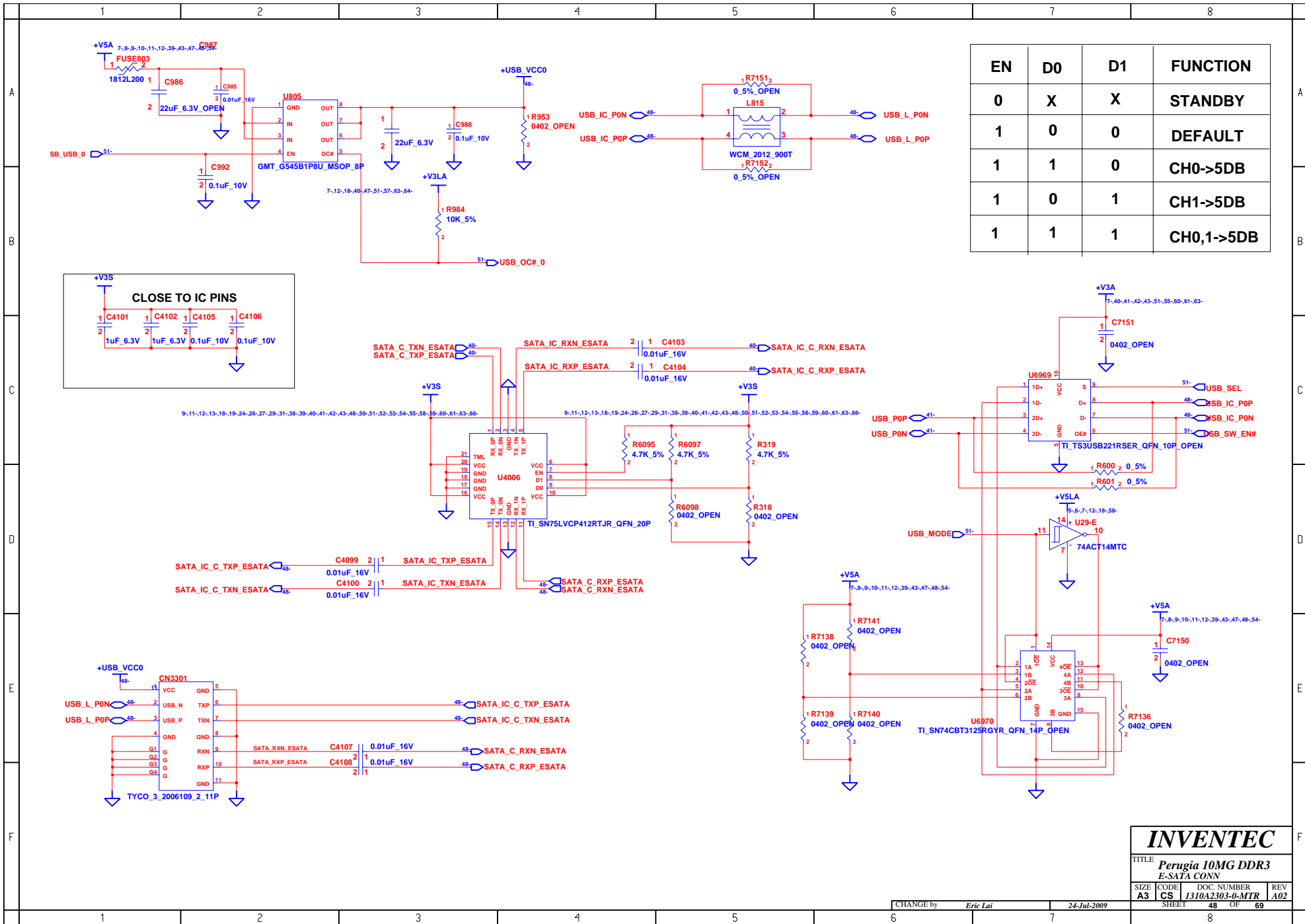
INVENTEC

TITLE
Perugia 10MG DDR3
 USB CONN/USB(DB)

SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
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CHANGE by *Eric Lai* 24-Jul-2009

SHEET 47 OF 69



EN	D0	D1	FUNCTION
0	X	X	STANDBY
1	0	0	DEFAULT
1	1	0	CH0->5DB
1	0	1	CH1->5DB
1	1	1	CH0,1->5DB

INVENTEC

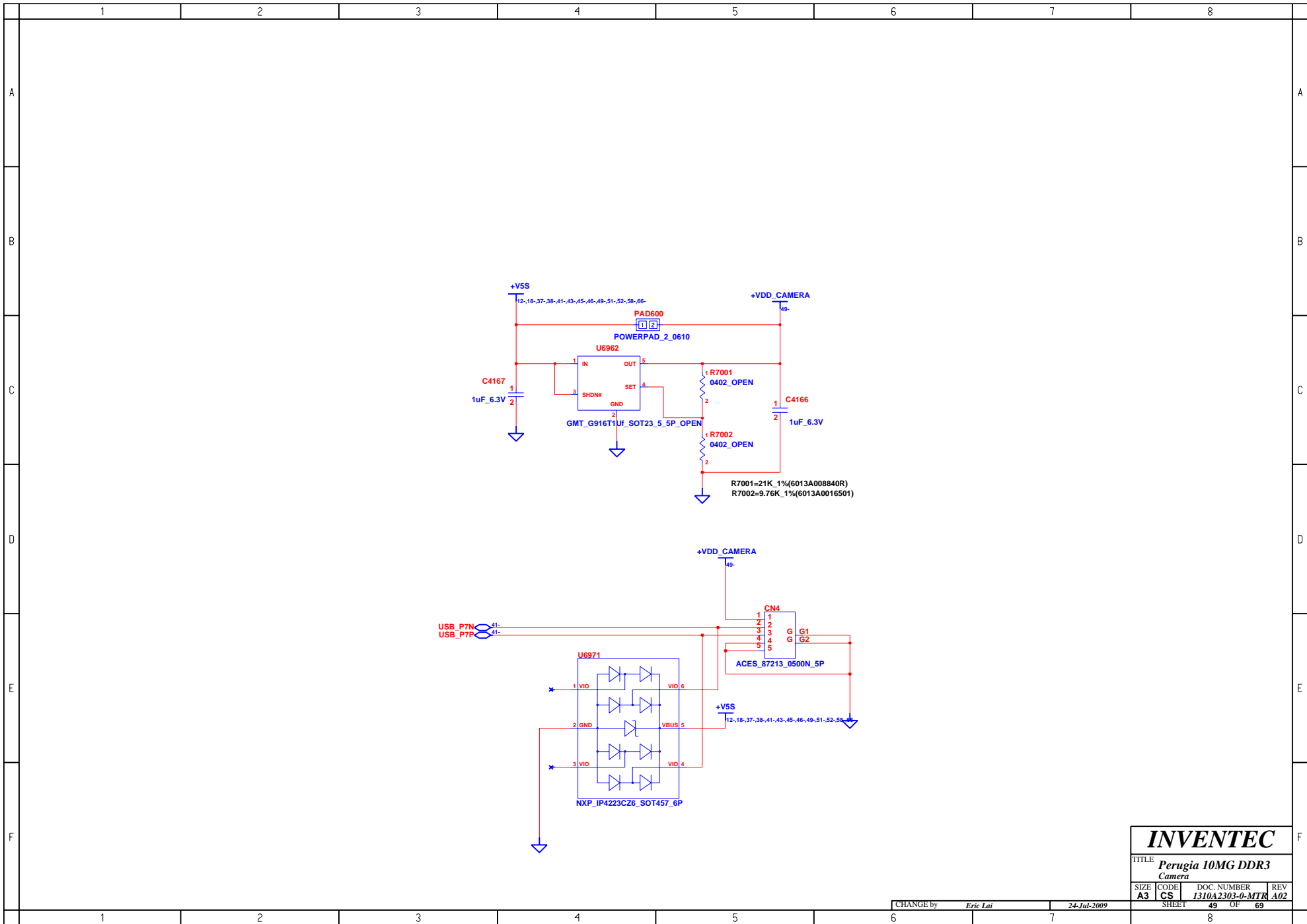
TITLE
Perugia 10MG DDR3
E-SATA CONN

SIZE CODE DOC NUMBER REV
A3 CS 1310A2303-0-MTR A02

CHANGE by Eric Lai

24-Jul-2009

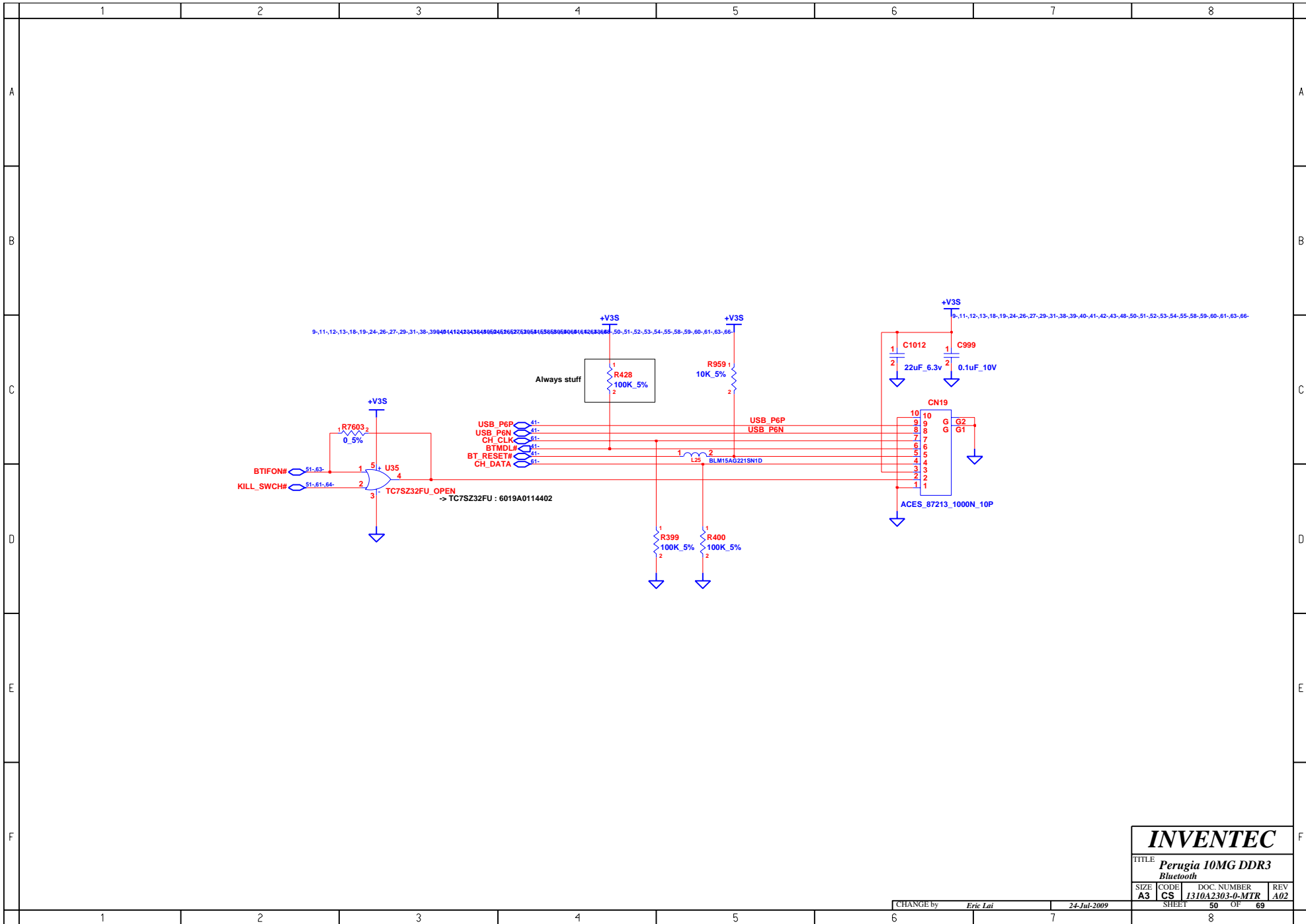
SHEET 48 OF 69



INVENTEC

TITLE			
Perugia 10MG DDR3			
Camera			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02
SHEET		49	OF 69

CHANGE by Eric Lai 24-Jul-2009



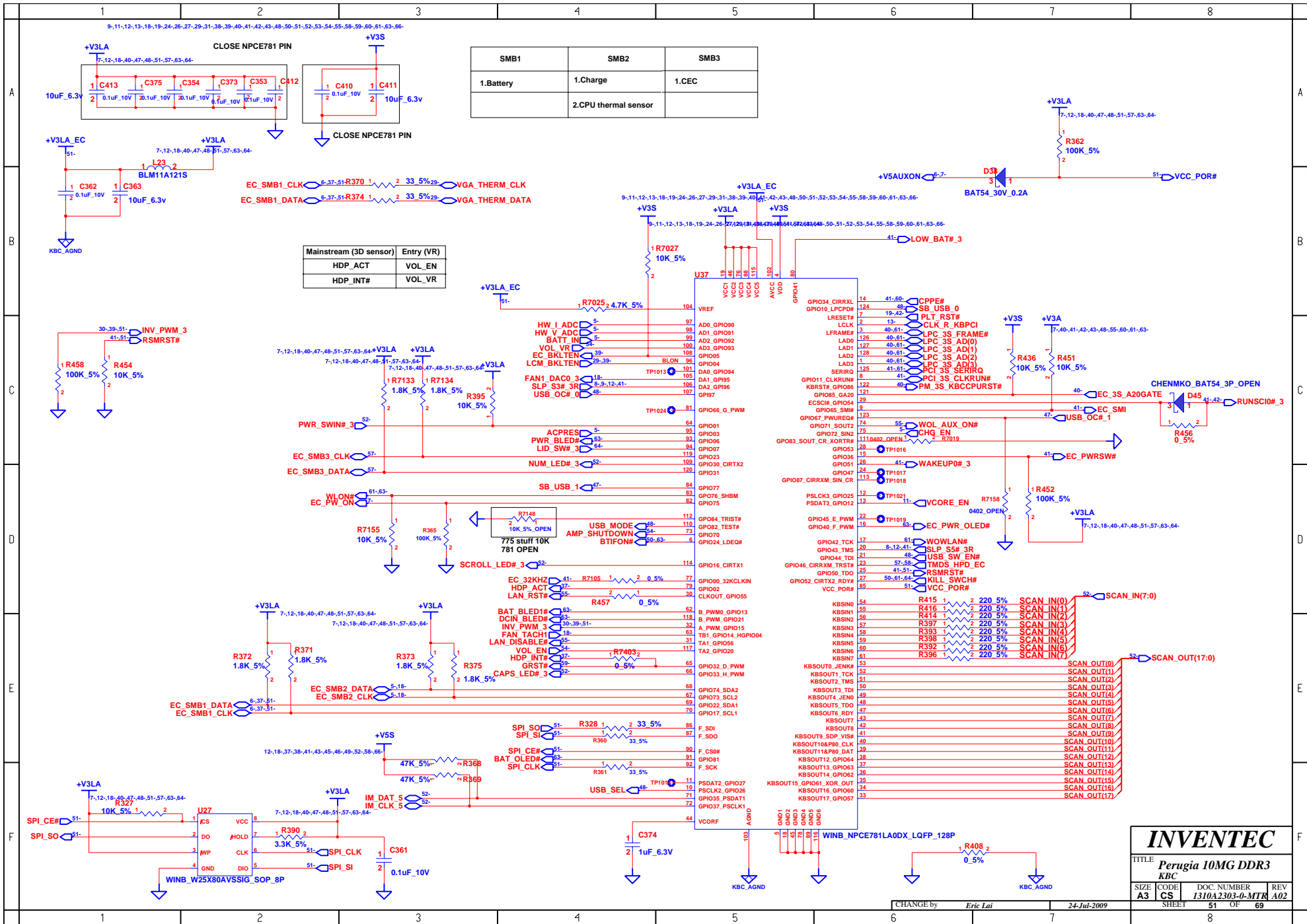
INVENTEC

TITLE
Perugia 10MG DDR3
Bluetooth

SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
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CHANGE by Eric Lai 24-Jul-2009

SHEET 50 OF 69



INVENTEC

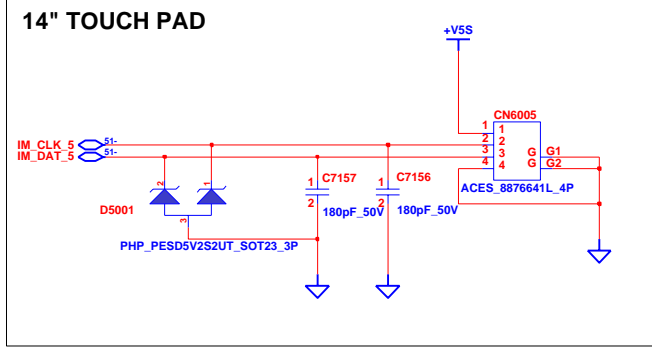
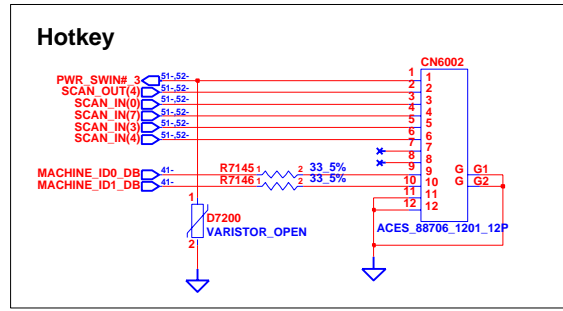
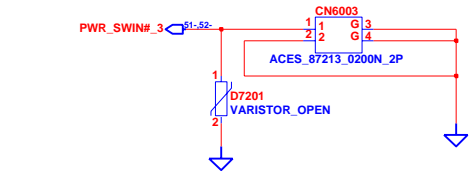
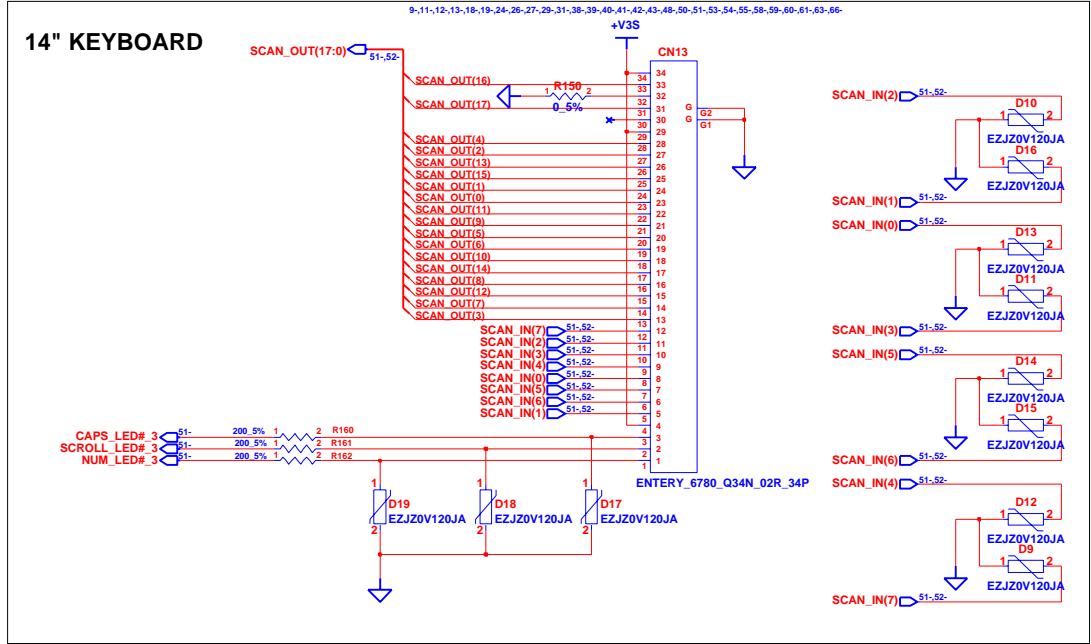
TITLE: Perugia 10MG DDR3
KBC

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02

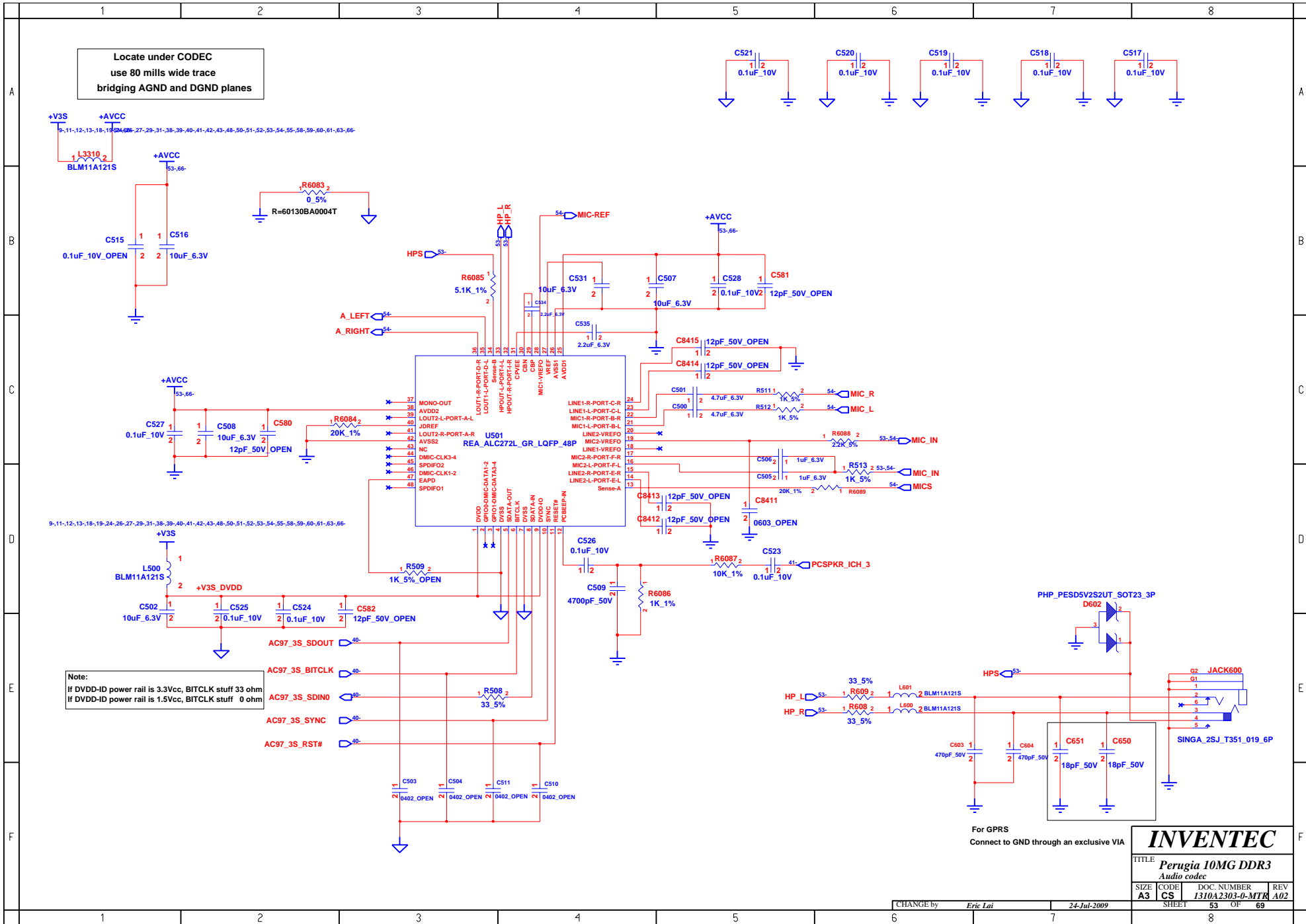
SHEET 51 OF 69

CHANGE by Eric Lai 24-Jul-2009

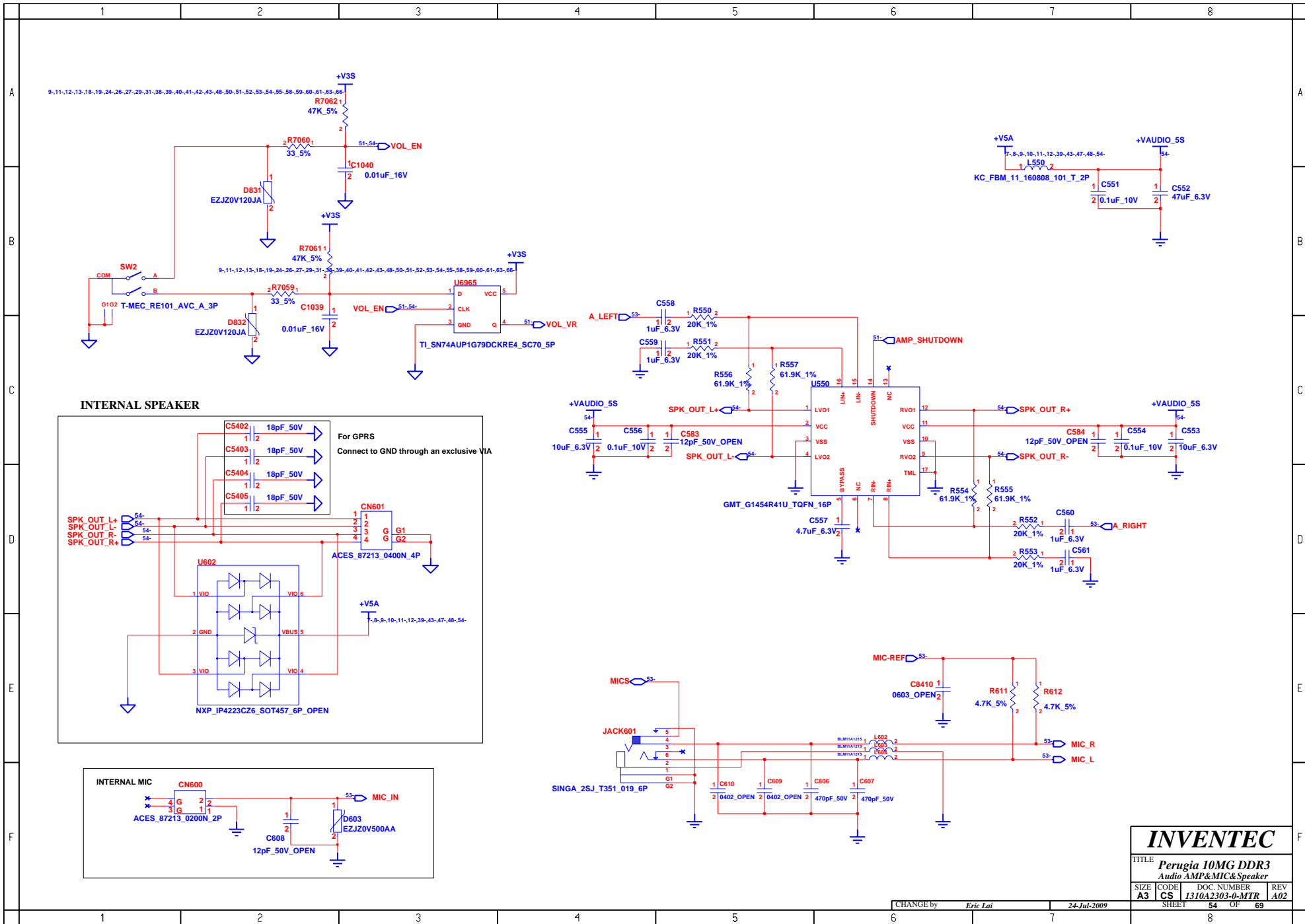
14" KEYBOARD



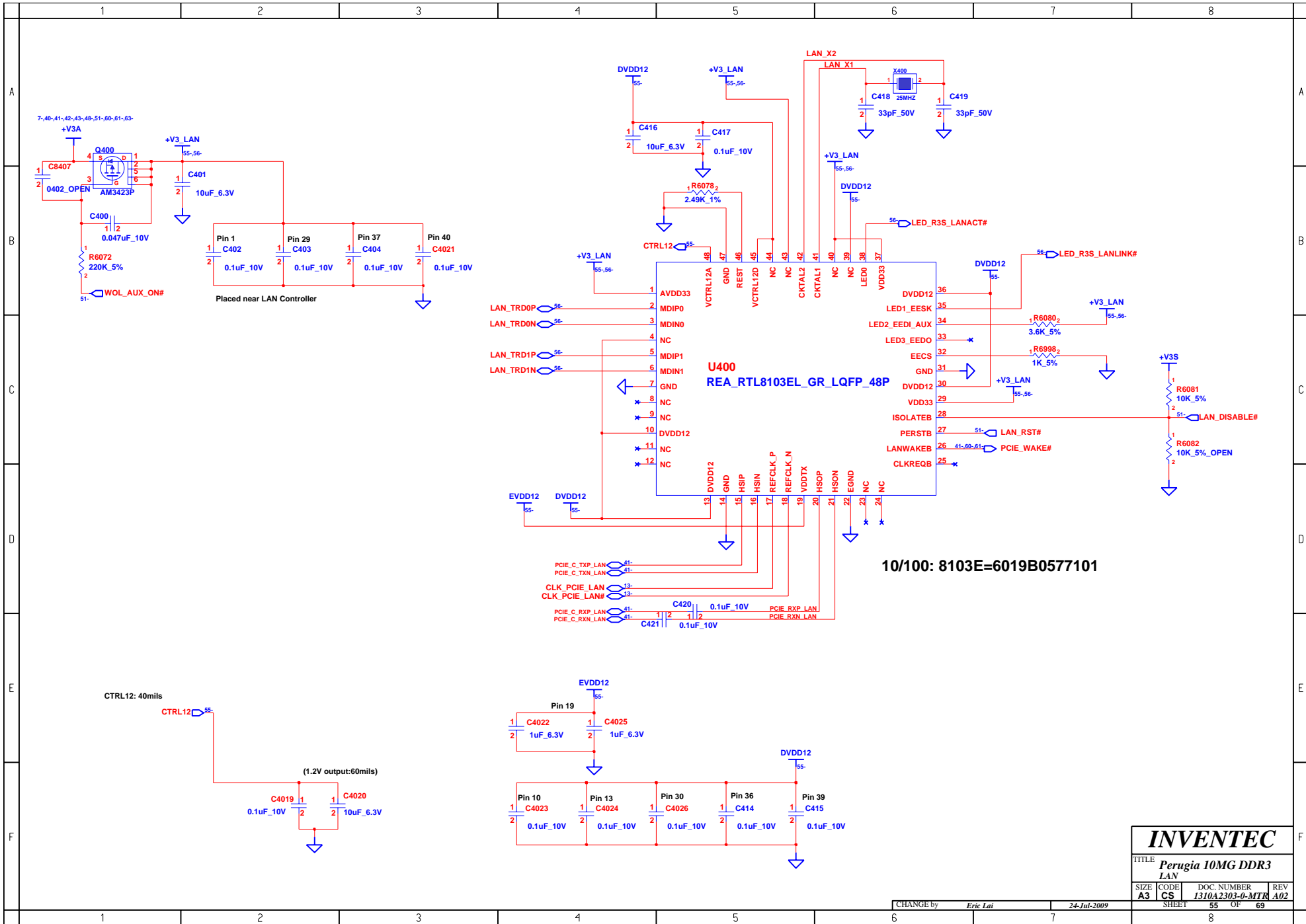
INVENTEC			
TITLE <i>Perugia 10MG DDR3</i>			
K/B & TP/B CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 52		OF 69	



INVENTEC			
TITLE Perugia 10MG DDR3 Audio codec			
SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
CHANGE by Eric Lai		24-Jul-2009	
SHEET 53		OF 69	



INVENTEC			
TITLE Perugia 10MG DDR3 Audio AMP&MIC&Speaker			
SIZE A3	CODE CS	DOC NUMBER 1310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 54		OF 69	



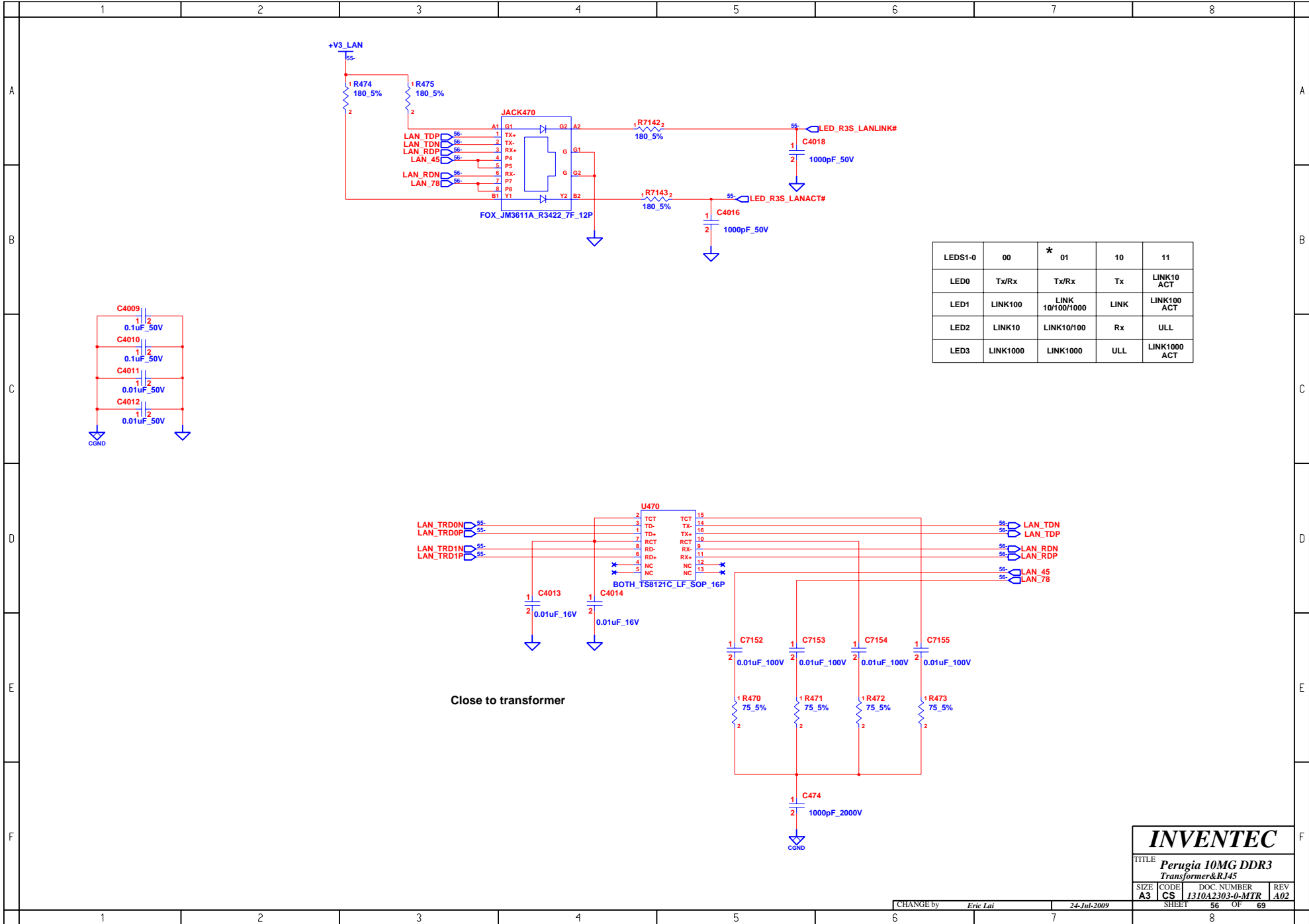
INVENTEC

TITLE
Perugia 10MG DDR3
LAN

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02

CHANGE by Eric Lai 24-Jul-2009

SHEET 55 OF 69



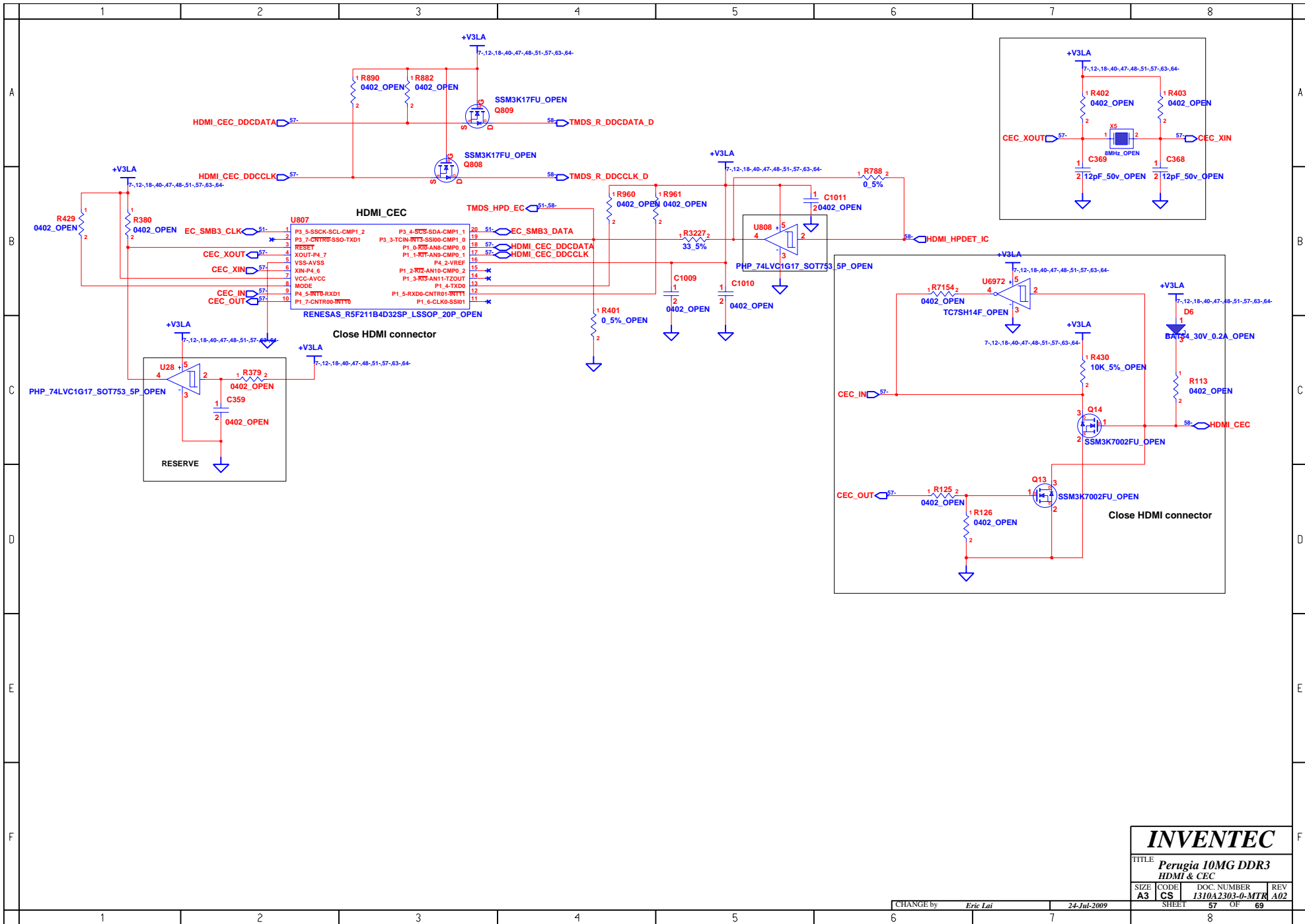
LEDS1-0	00	* 01	10	11
LED0	Tx/Rx	Tx/Rx	Tx	LINK10 ACT
LED1	LINK100	LINK 10/100/1000	LINK	LINK100 ACT
LED2	LINK10	LINK10/100	Rx	ULL
LED3	LINK1000	LINK1000	ULL	LINK1000 ACT

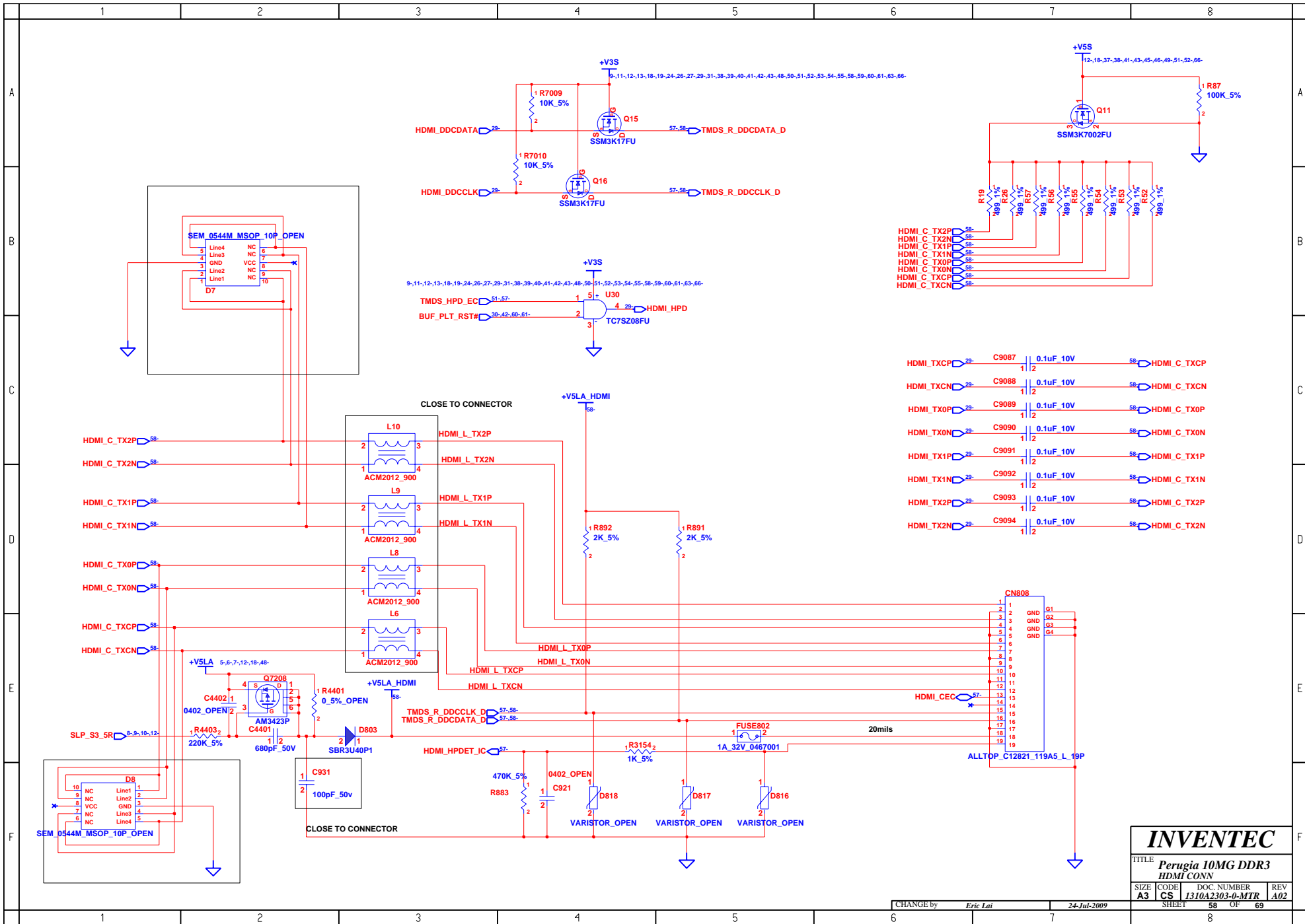
INVENTEC

TITLE
Perugia 10MG DDR3
Transformer&RJ45

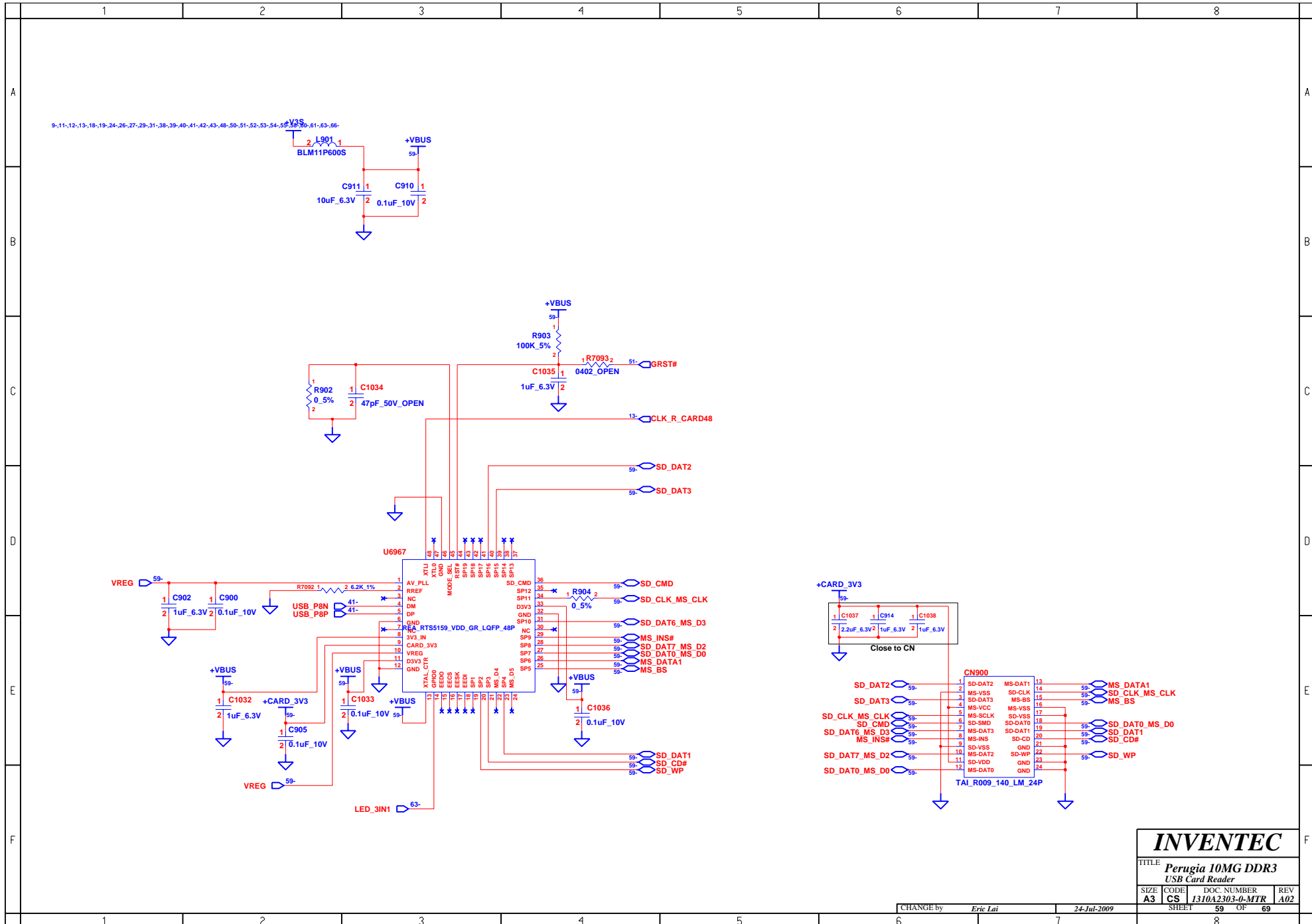
SIZE CODE DOC NUMBER REV
A3 CS 1310A2303-0-MTR A02

CHANGE by Eric Lai 24-Jul-2009 SHEET 56 OF 69





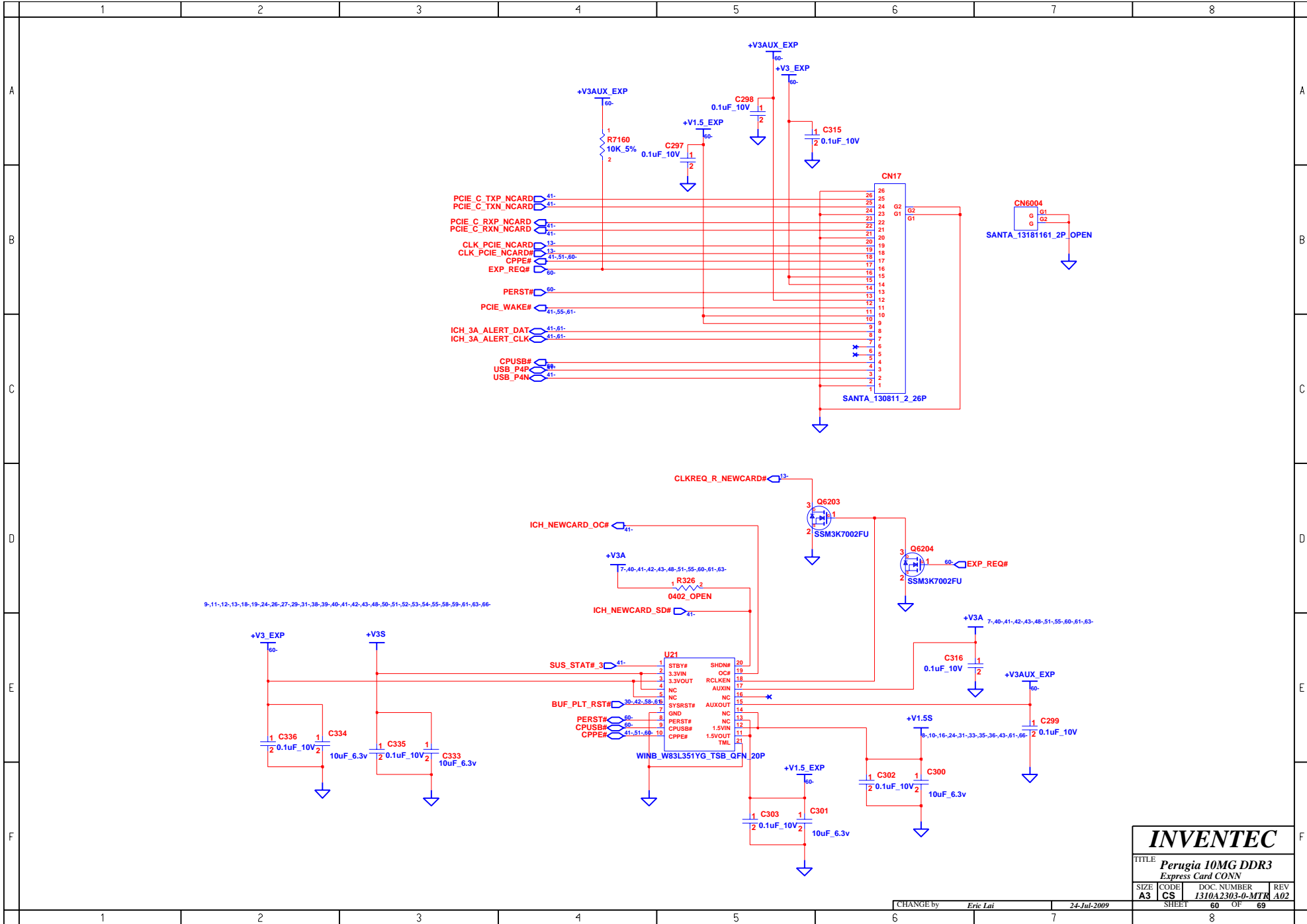
INVENTEC			
TITLE Perugia 10MG DDR3 HDMI CONN			
SIZE A3	CODE CS	DOC NUMBER 1310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 58		OF 69	



INVENTEC

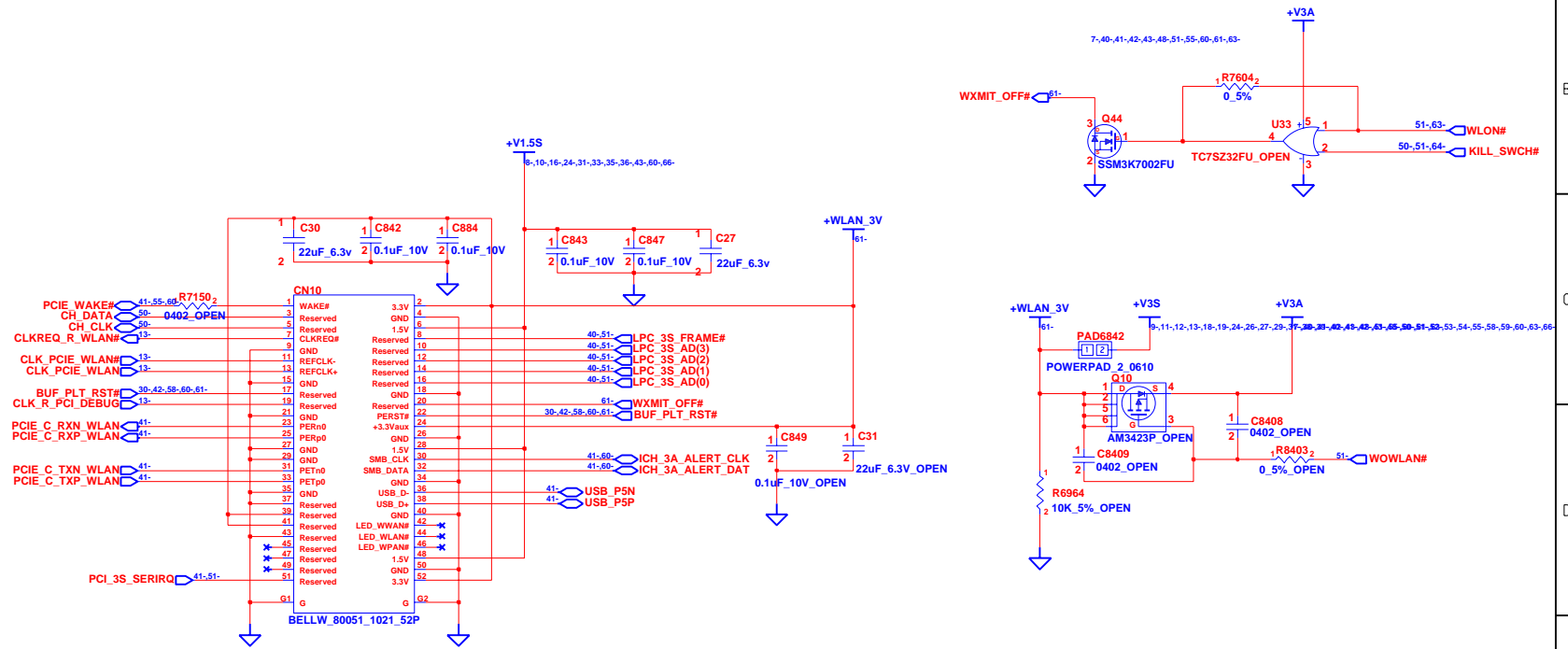
TITLE
**Perugia 10MG DDR3
USB Card Reader**

SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
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INVENTEC			
TITLE Perugia 10MG DDR3 Express Card CONN			
SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
SHEET 60		OF 69	

Wireless & Debug card



INVENTEC

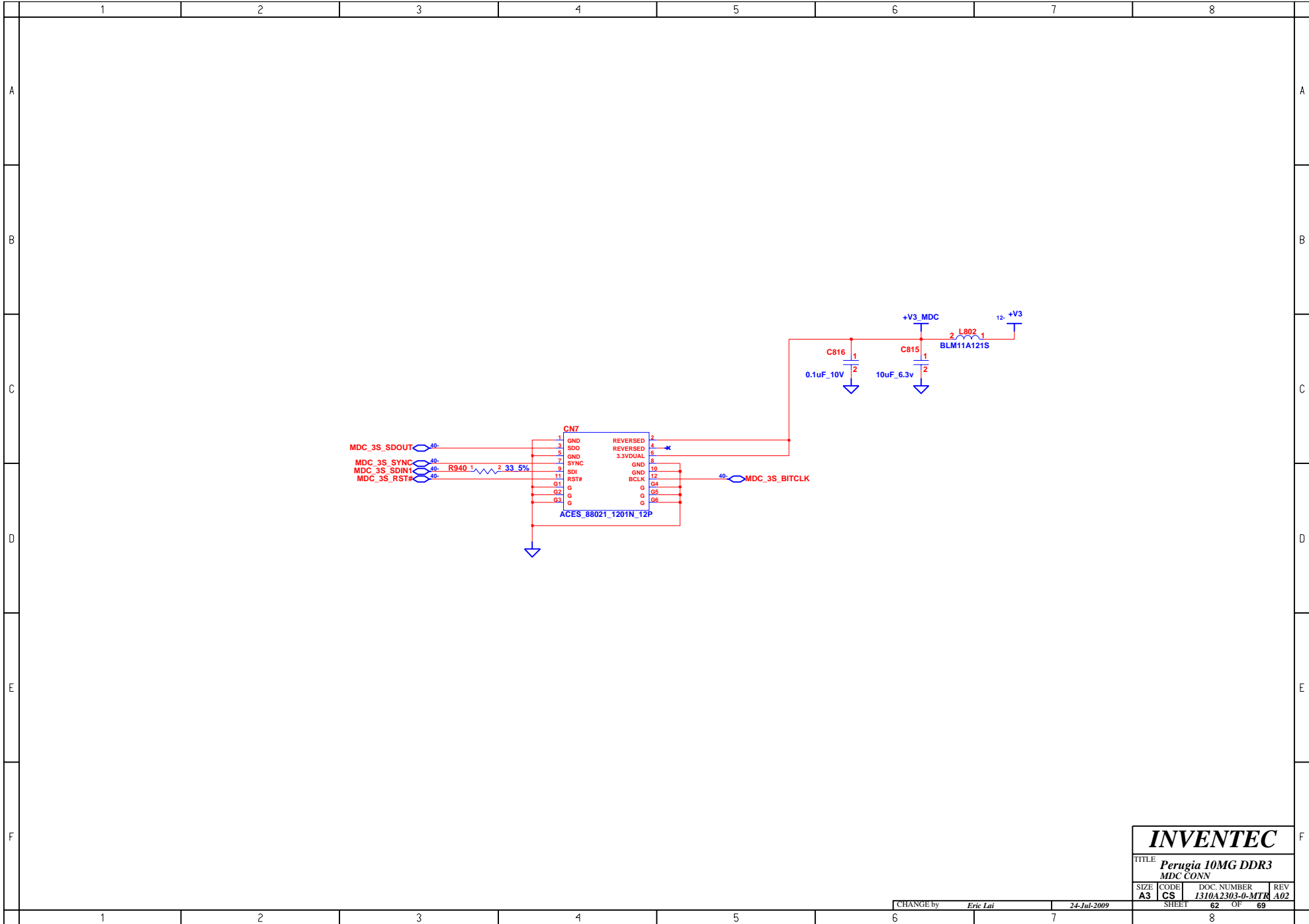
TITLE **Perugia 10MG DDR3**
Wireless & debug card

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2303-0-MTR	A02

CHANGE by Eric Lai

24-Jul-2009

SHEET 61 OF 69



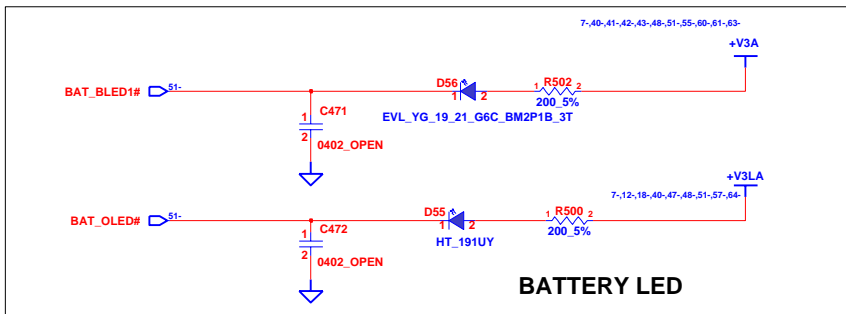
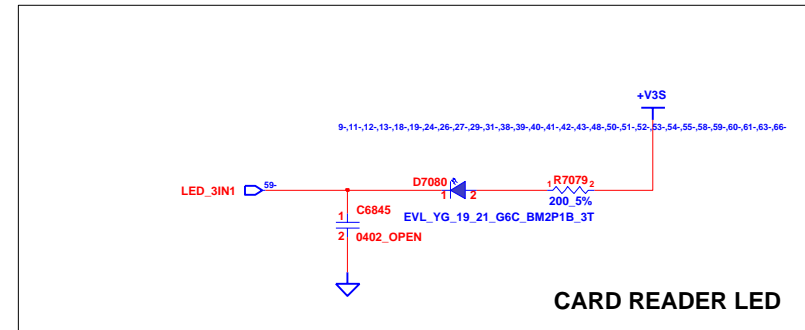
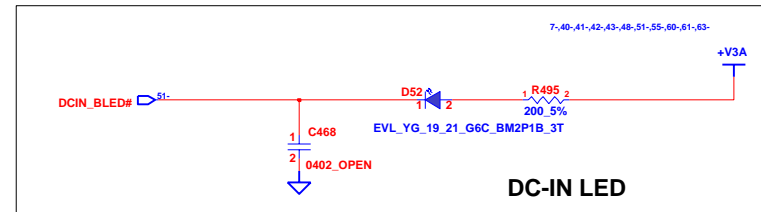
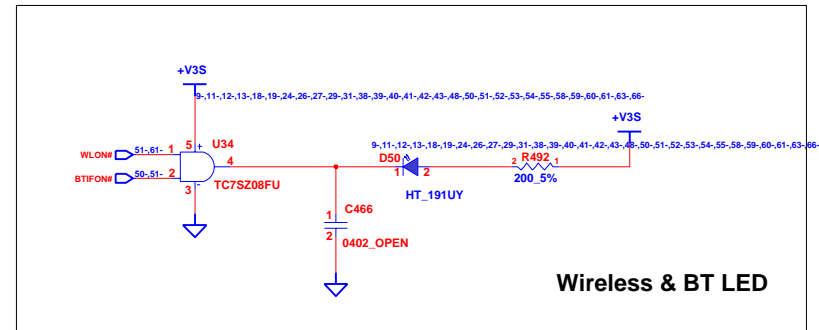
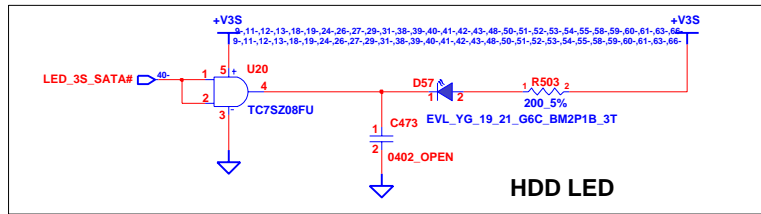
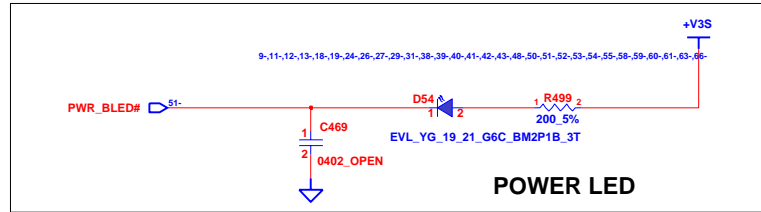
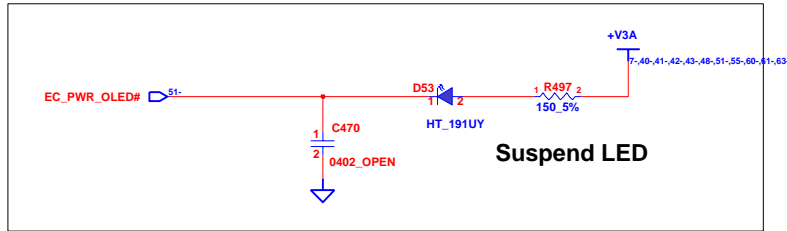
INVENTEC

TITLE **Perugia 10MG DDR3
MDC CONN**

SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
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CHANGE by *Eric Lai* 24-Jul-2009

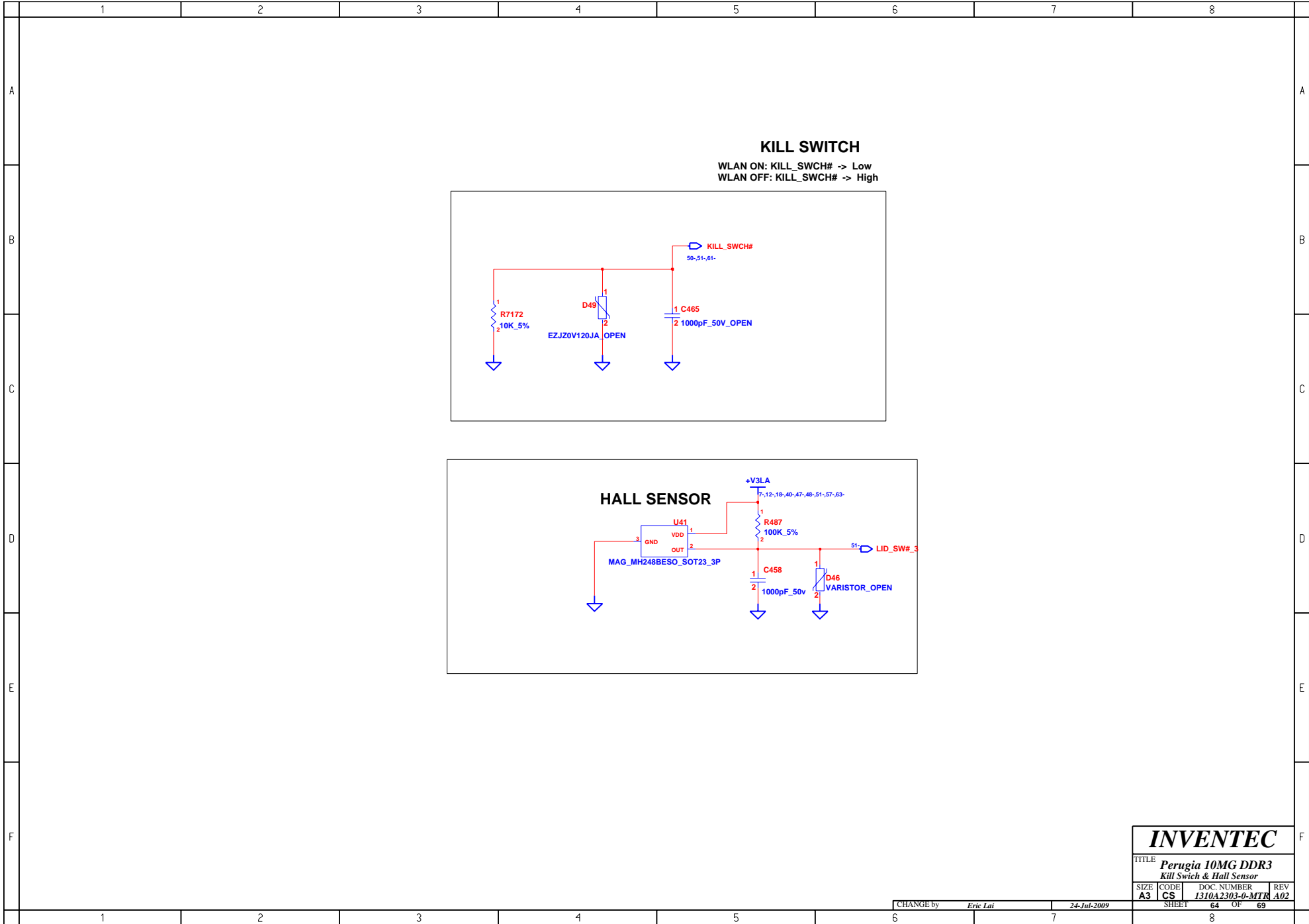
SHEET 62 OF 69



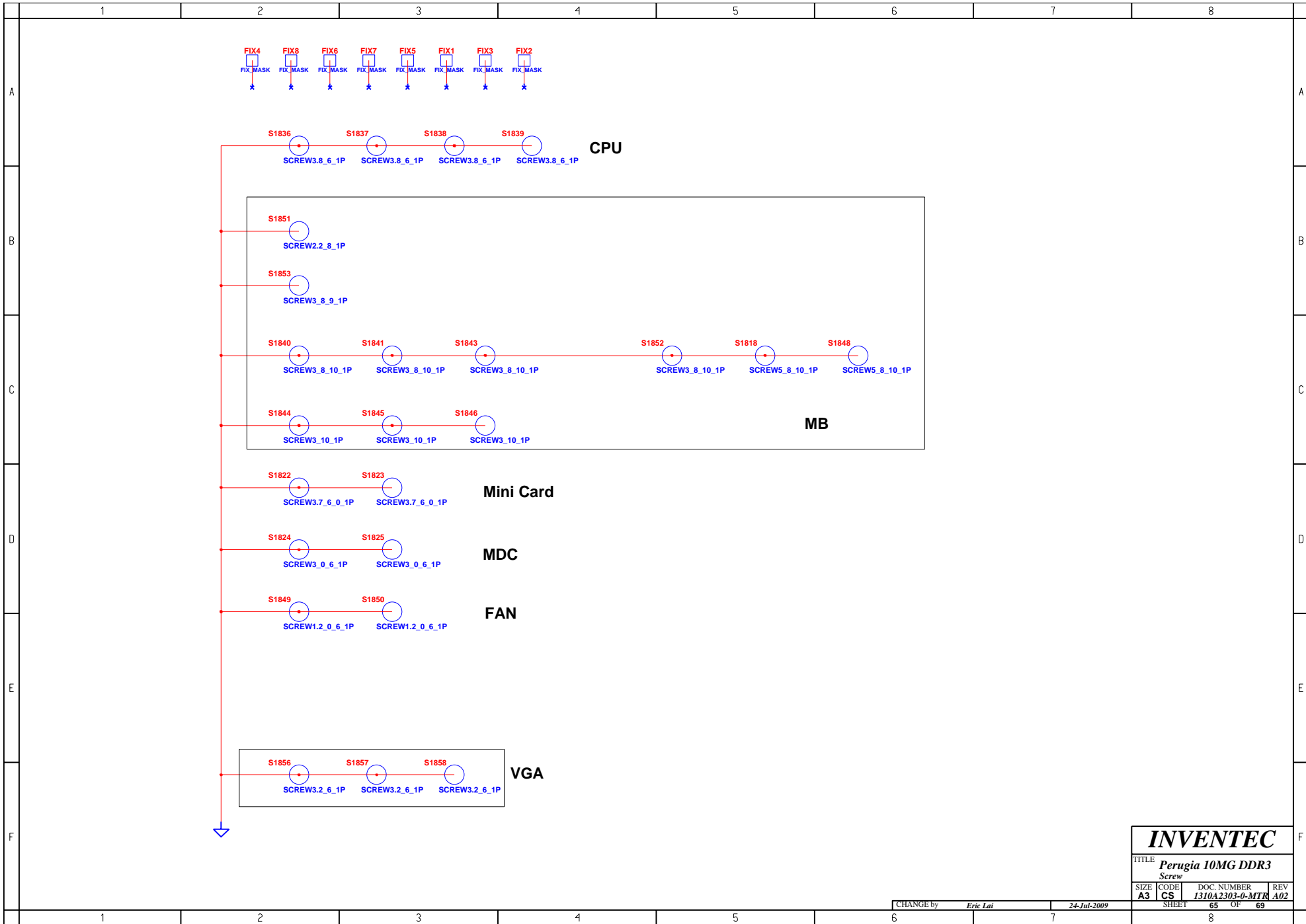
INVENTEC

TITLE			
Perugia 10MG DDR3 LED & Hotkey CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2303-0-MTR	A02
SHEET		63	OF 69

CHANGE by Eric Lai 24-Jul-2009

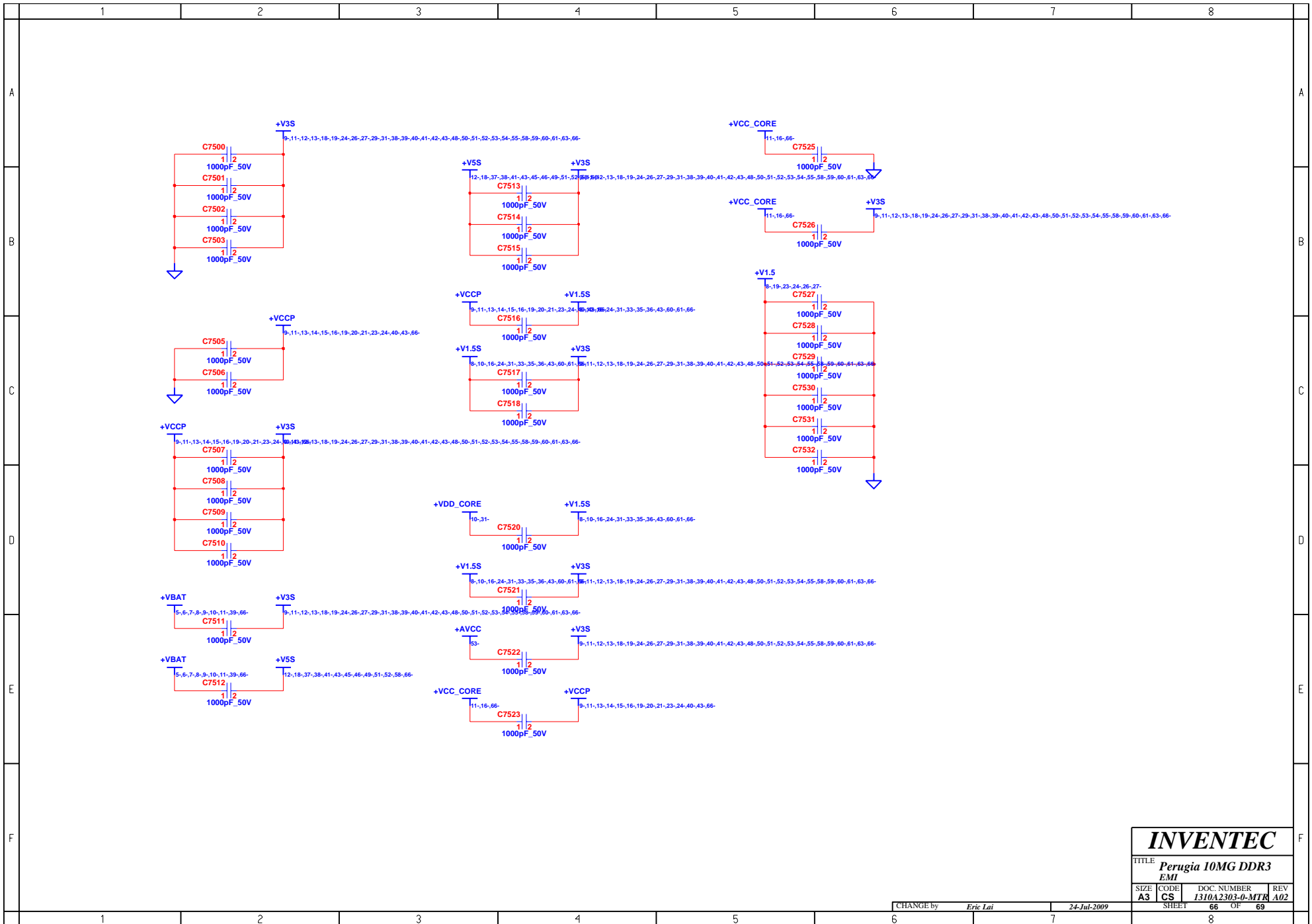


INVENTEC			
TITLE: Perugia 10MG DDR3 Kill Swich & Hall Sensor			
SIZE A3	CODE CS	DOC. NUMBER 1310A2303-0-MTR	REV A02
CHANGE by <i>Eric Lai</i>		24-Jul-2009	
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INVENTEC			
TITLE <i>Perugia 10MG DDR3</i>			
Screw			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02
CHANGE by		SHEET	
Eric Lai		65 OF 69	

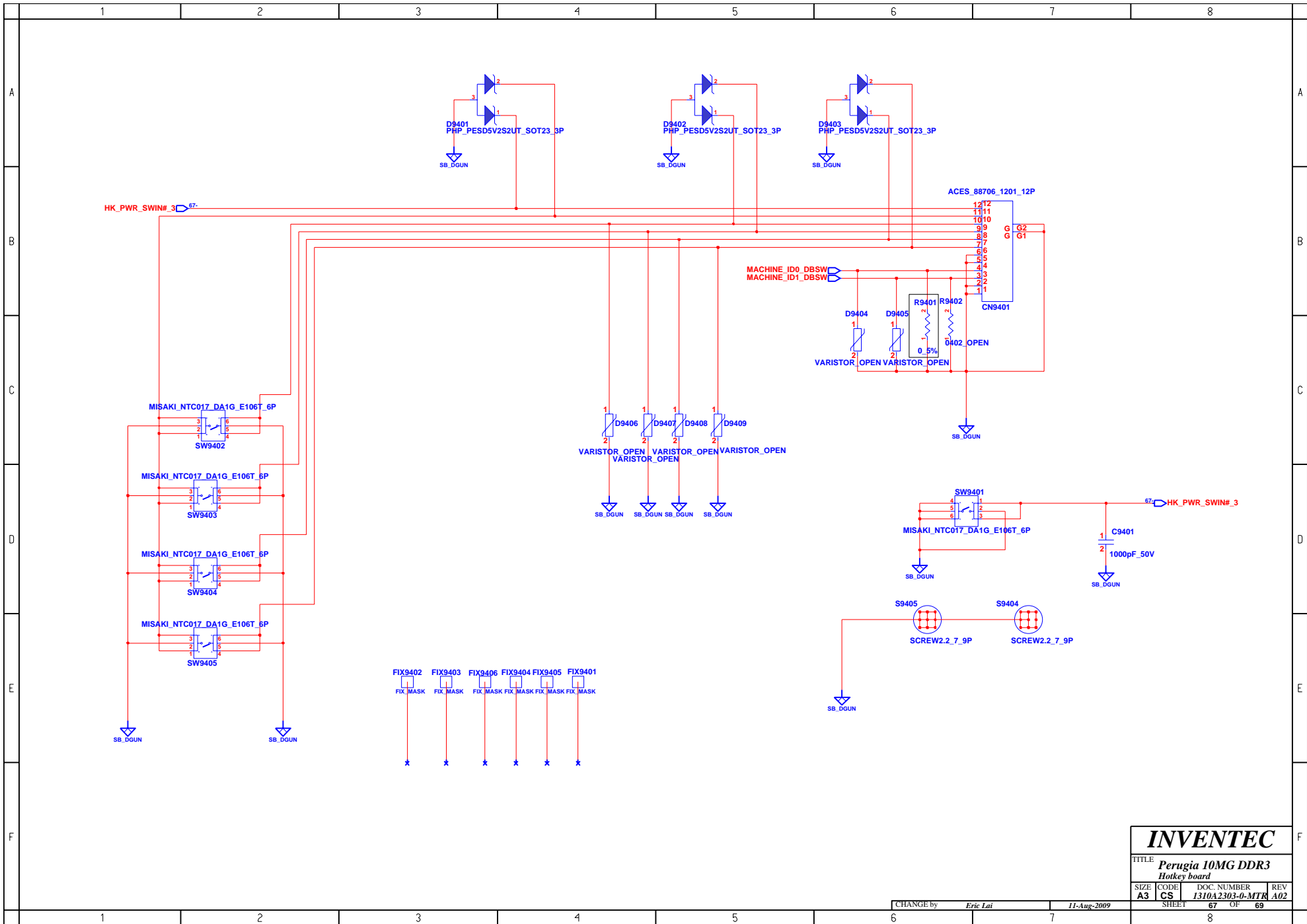
24-Jul-2009



INVENTEC

TITLE
**Perugia 10MG DDR3
EMI**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A2303-0-MTR	A02



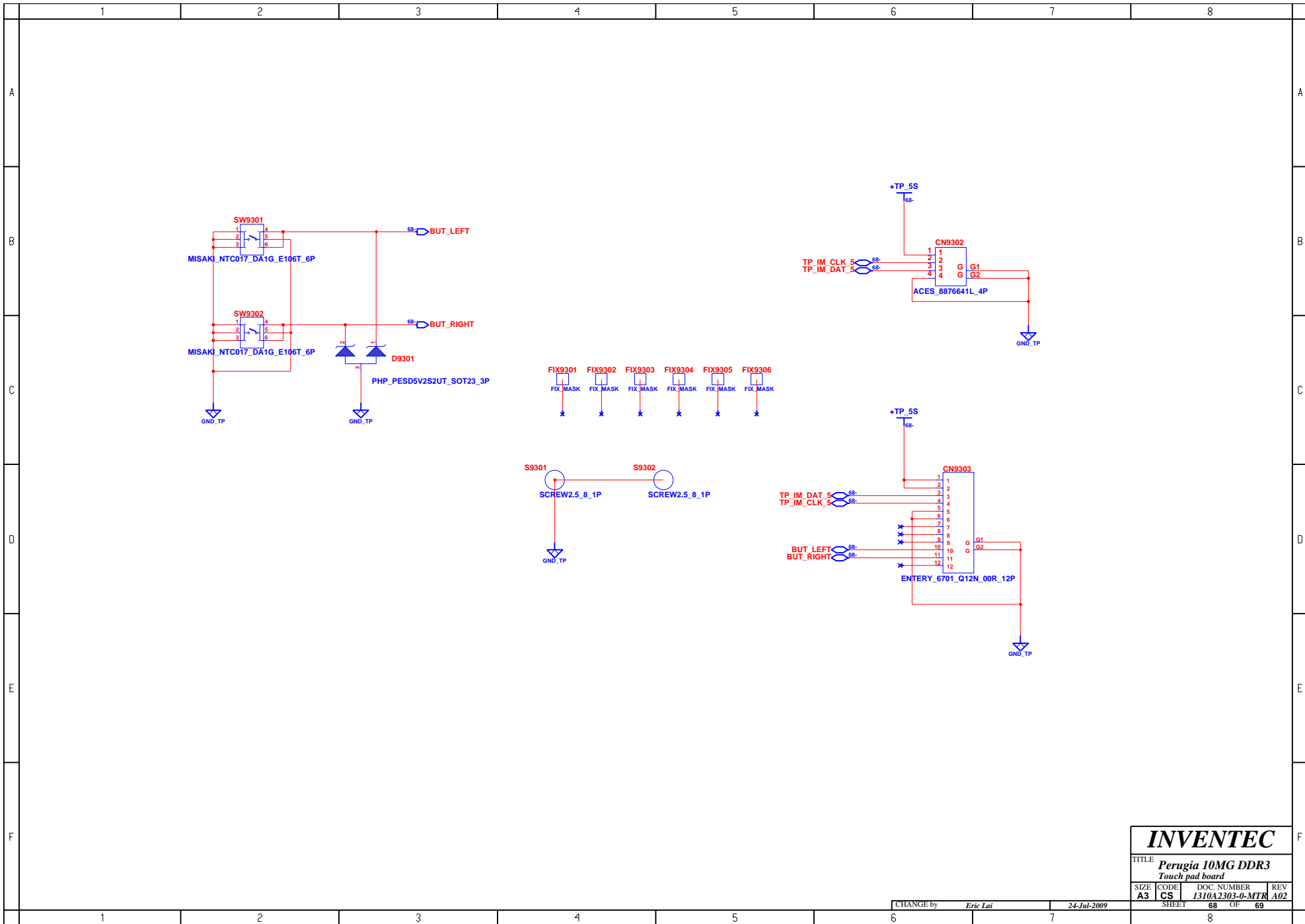
INVENTEC

TITLE
Perugia 10MG DDR3
 Hotkey board

SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
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CHANGE by *Eric Lai* 11-Aug-2009

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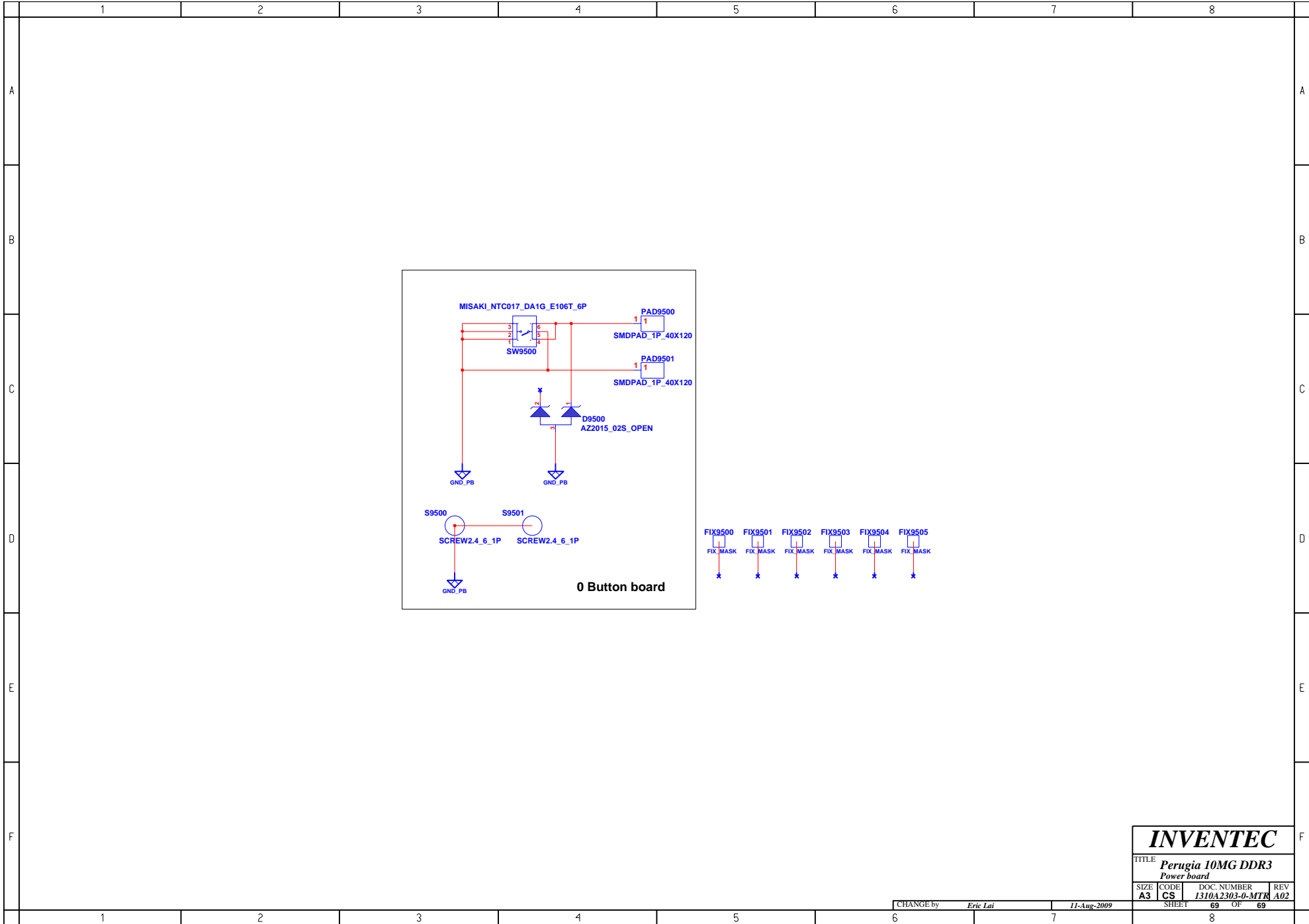
INVENTEC

TITLE **Perugia 10MG DDR3**
Touch pad board

SIZE A3	CODE CS	DOC. NUMBER I310A2303-0-MTR	REV A02
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CHANGE by *Eric Lai* 24-Jul-2009

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INVENTEC

TITLE **Perugia 10MG DDR3 Power board**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A2303-0-MTR	A02

CHANGE by	Eric Lai	11-Aug-2009	SHEET	69	OF	69
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