

	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	

Calcutta 10
CS Build (A01)

2010.04.09

INVENTEC			
TITLE <i>Calcutta10</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV <i>000</i>
CHANGE by <i>Drawer Name</i>		22-Mar-2010	
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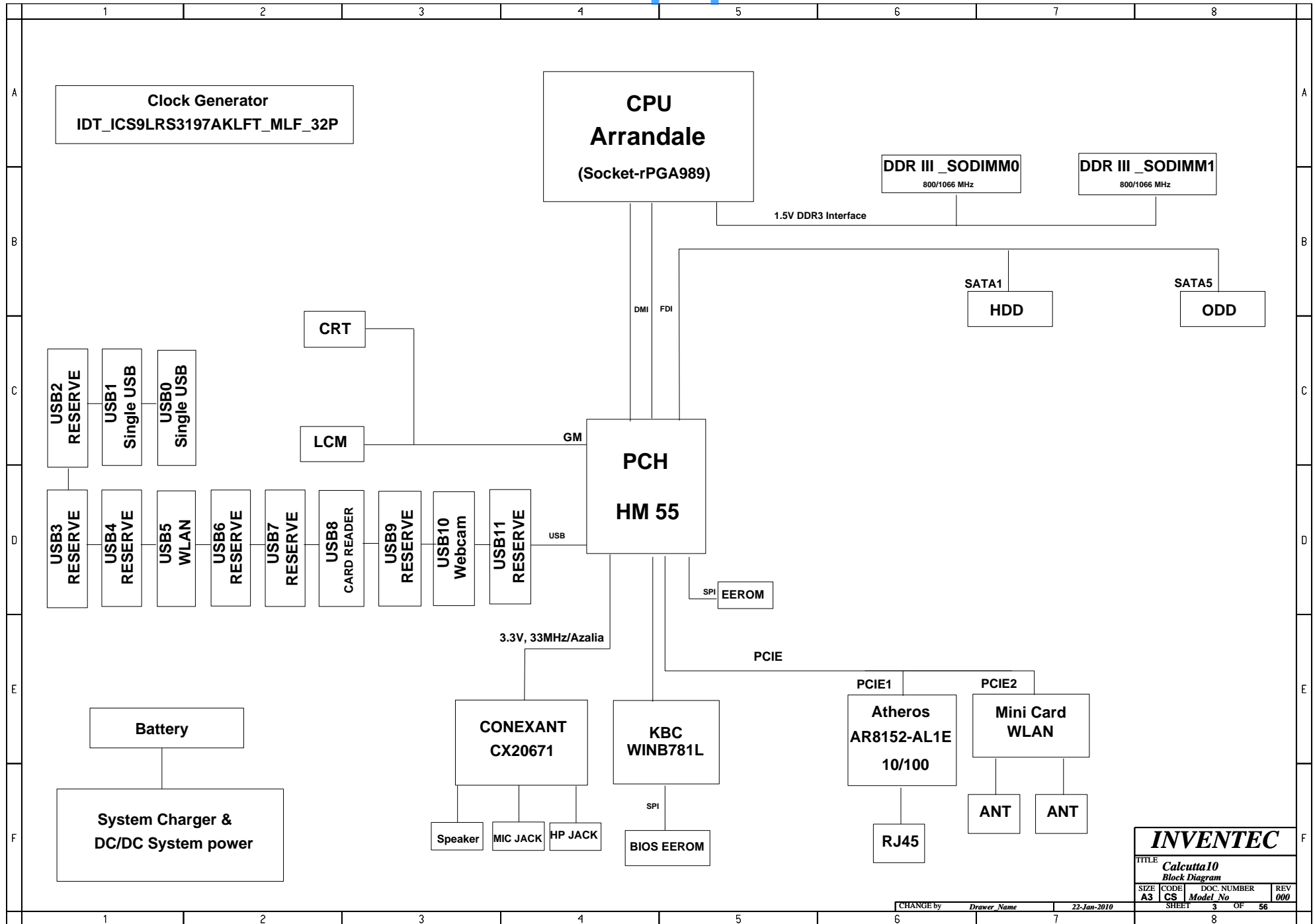
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31. BLANK
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35. DDR DIMM0
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INVENTEC

TITLE <i>Calcutta10 Index</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
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CHANGE by *Drawer Name* 7-Jan-2010



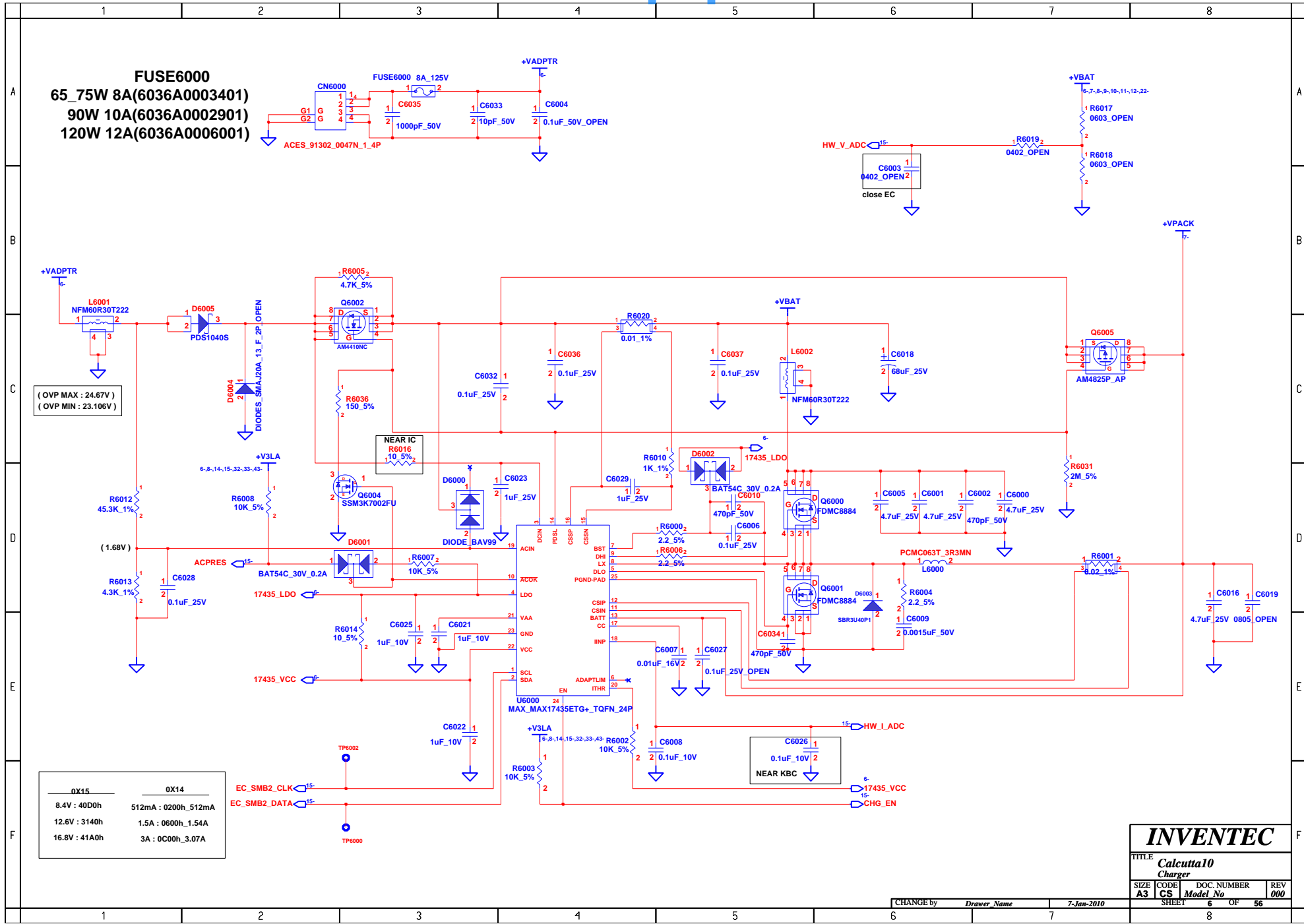
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Calcutta10			
Block Diagram			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		3	OF 56

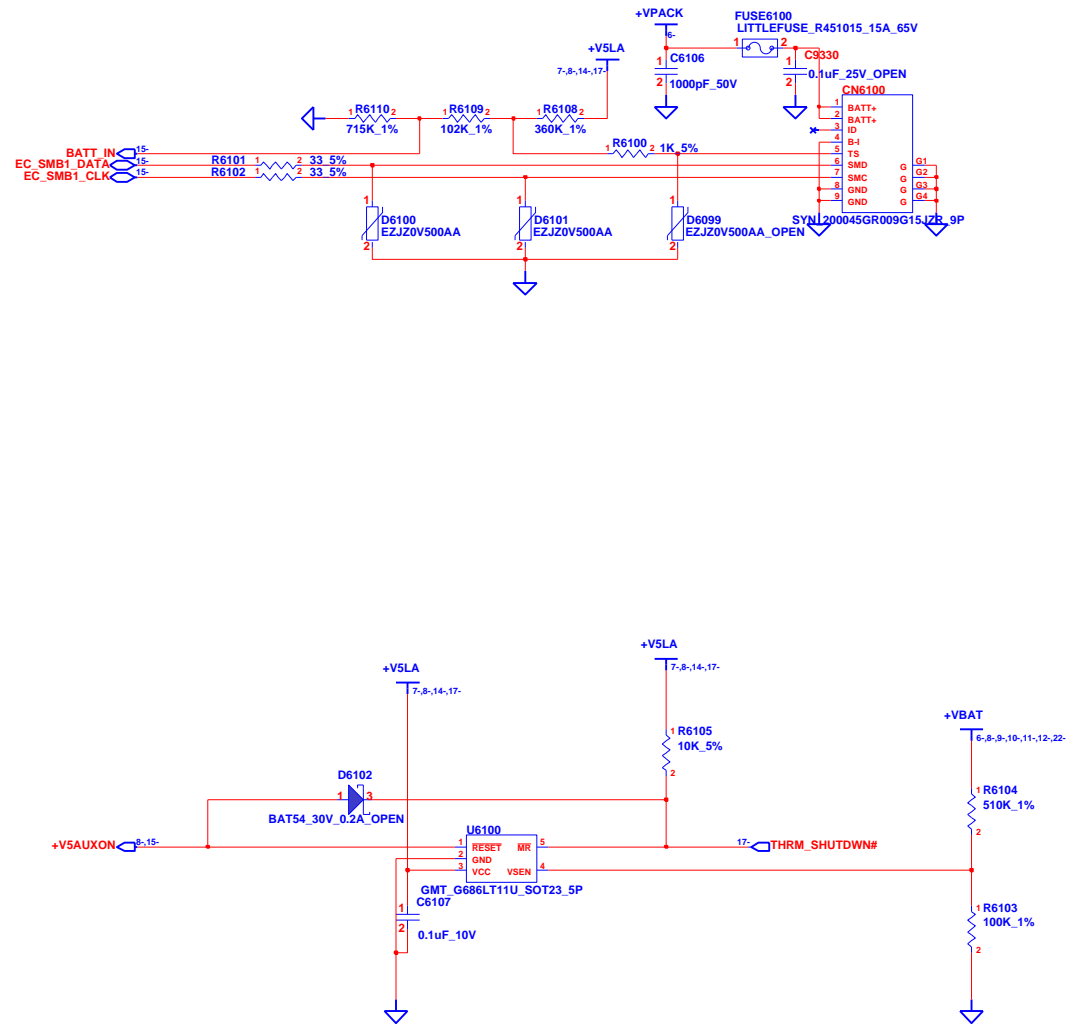
CHANGE by *Drawer Name* 22-Jan-2010

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A	<div><div>FIX9 FIX MASK ★</div><div>FIX10 FIX MASK ★</div><div>FIX3 FIX MASK ★</div><div>FIX4 FIX MASK ★</div><div>FIX5 FIX MASK ★</div><div>FIX6 FIX MASK ★</div><div>FIX7 FIX MASK ★</div><div>FIX8 FIX MASK ★</div></div>								
B									
C	<div><div>PCB</div><div><div>S21 SCREW5_10_1P</div><div>S13 SCREW5_10_1P</div><div>S10 SCREW2.8_10_1P</div><div>S11 SCREW2.8_10_1P</div><div>S12 SCREW2.8_10_1P</div><div>S7 SCREW2.8_10_1P</div><div>S8 SCREW2.8_10_1P</div></div><div>▼</div></div>								
D	<div><div>CPU</div><div><div>S1 SCREW330_600_1P</div><div>S2 SCREW330_600_1P</div><div>S3 SCREW330_600_1P</div><div>S4 SCREW330_600_1P</div></div><div>PCH</div><div><div>S5 SCREW1.2_0_5_1P</div><div>S6 SCREW1.2_0_5_1P</div></div><div>FAN</div><div><div>S22 SCREW1.2_0_5_1P</div></div><div>WLAN</div><div><div>S19 SCREW1.2_5_0_1P</div></div><div>▼</div></div>								
E									
F									
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INVENTEC

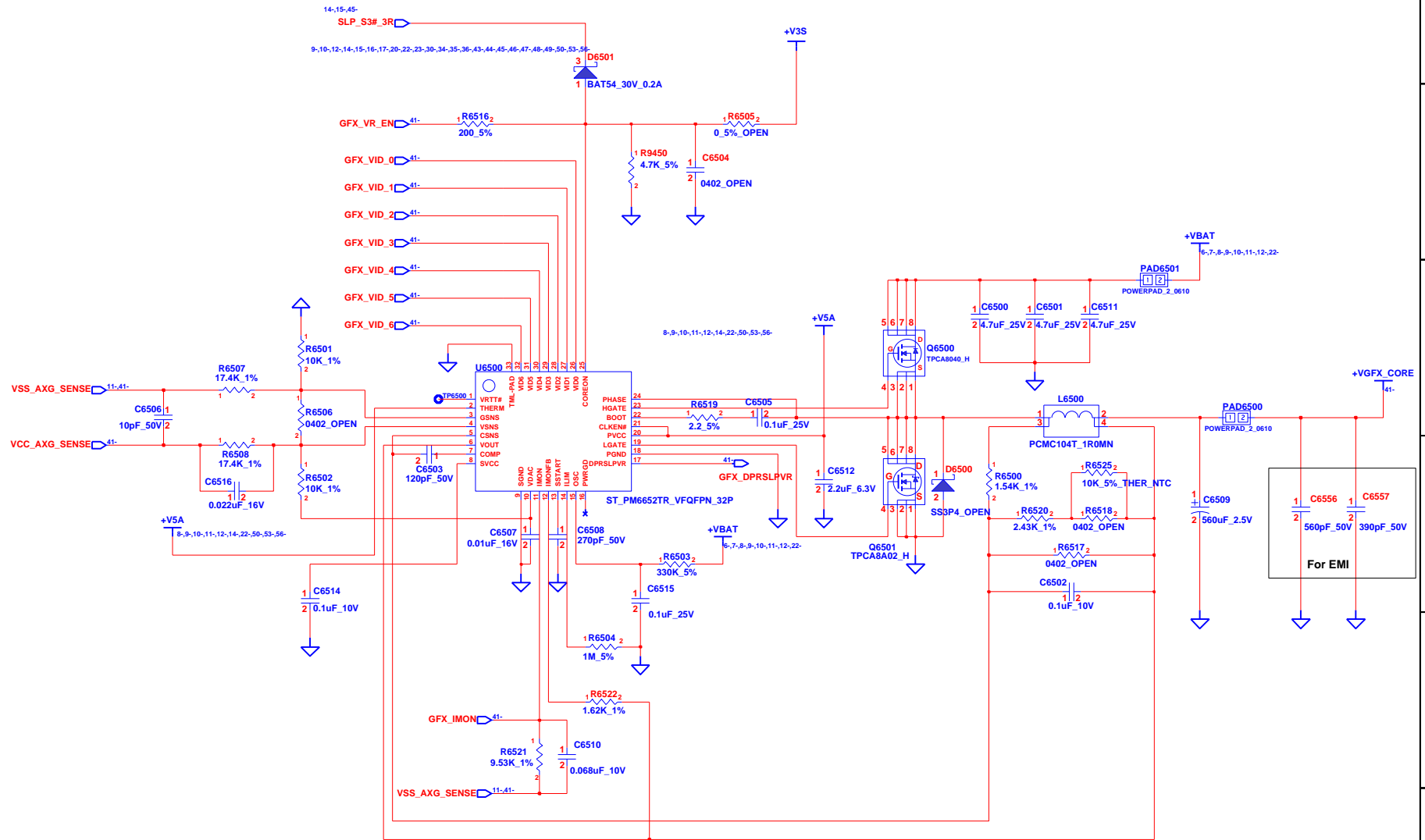
TITLE			
Calcutta10			
PCB			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
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INVENTEC			
TITLE			
Calcutta10			
Battery, Reset IC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		7	OF 56

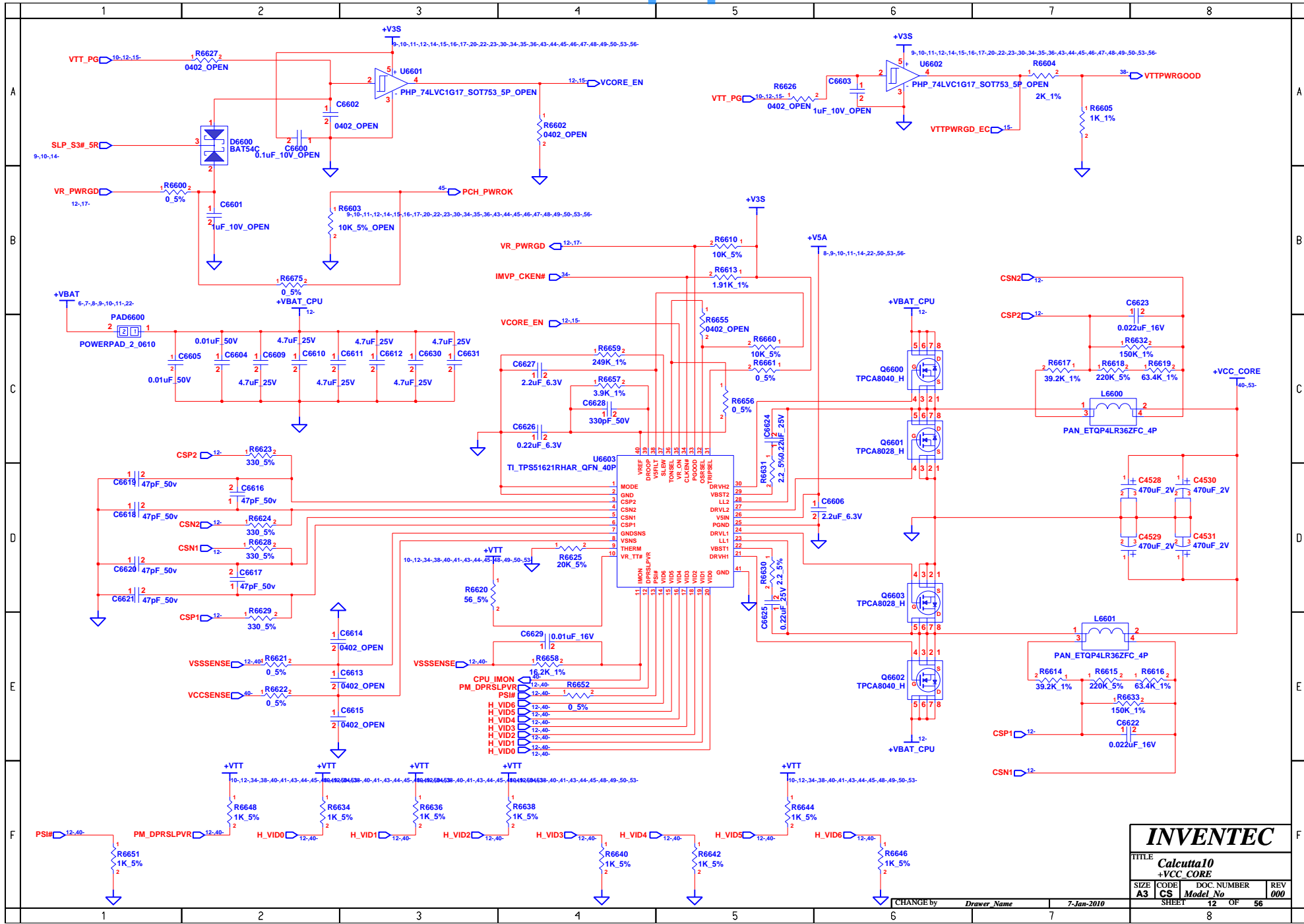
CHANGE by *Drawer Name* 7-Jan-2010



INVENTEC

TITLE			
Calcutta10 +VGFX_CORE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by	Drawer Name	7-Jan-2010
SHEET	11	OF 56



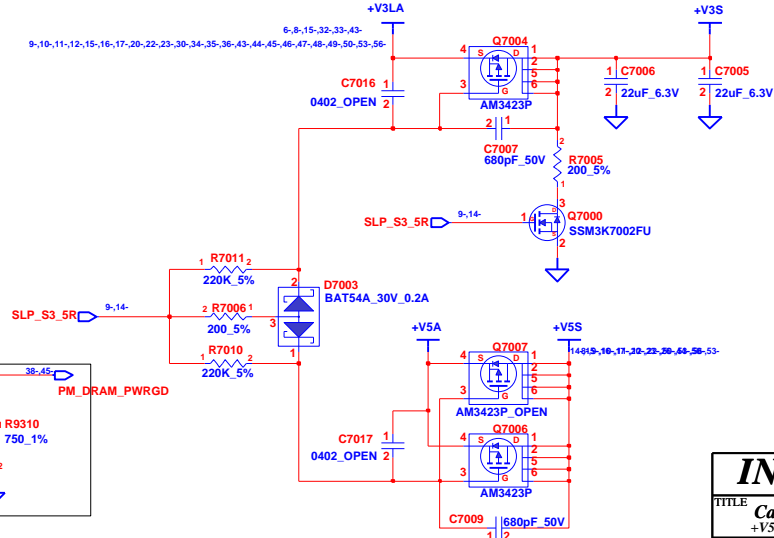
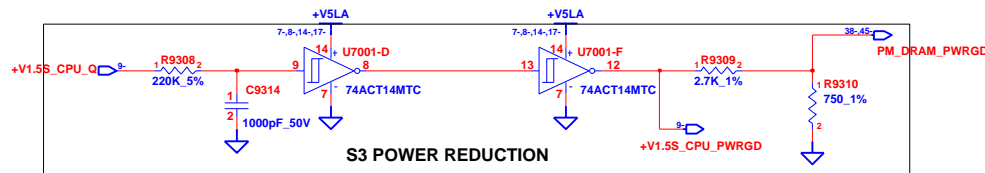
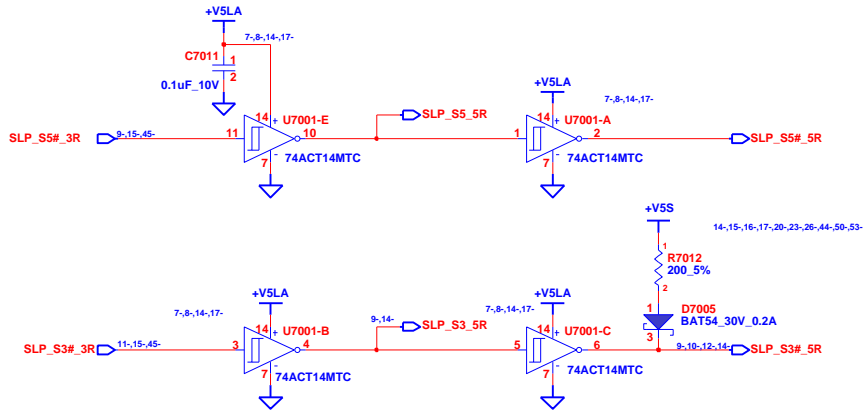
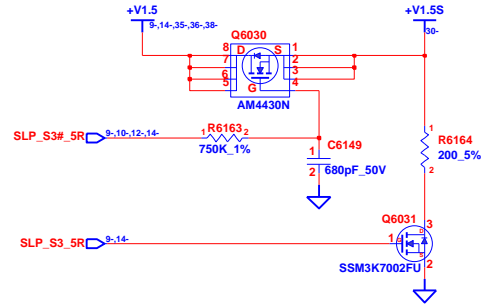
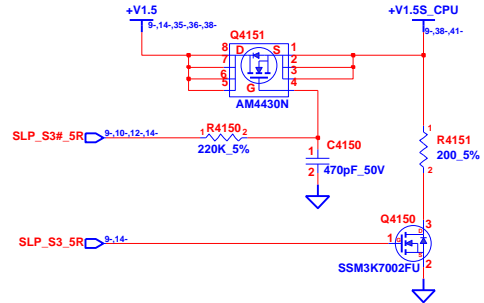
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Calcutta10			
+VCC_CORE			
SIZE	CODE	DOC NUMBER	REV
A3	CS	Model No	000
CHANGE by		Drawer Name	7-Jan-2010
SHEET		12	OF 56

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B									B
C									C
D									D
E									E
F									F
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INVENTEC			
TITLE Calcutta10			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Drawer Name		7-Jan-2010	
SHEET 13		OF 56	

+V5S +V3S +V1.5S +V1.5S_CPU

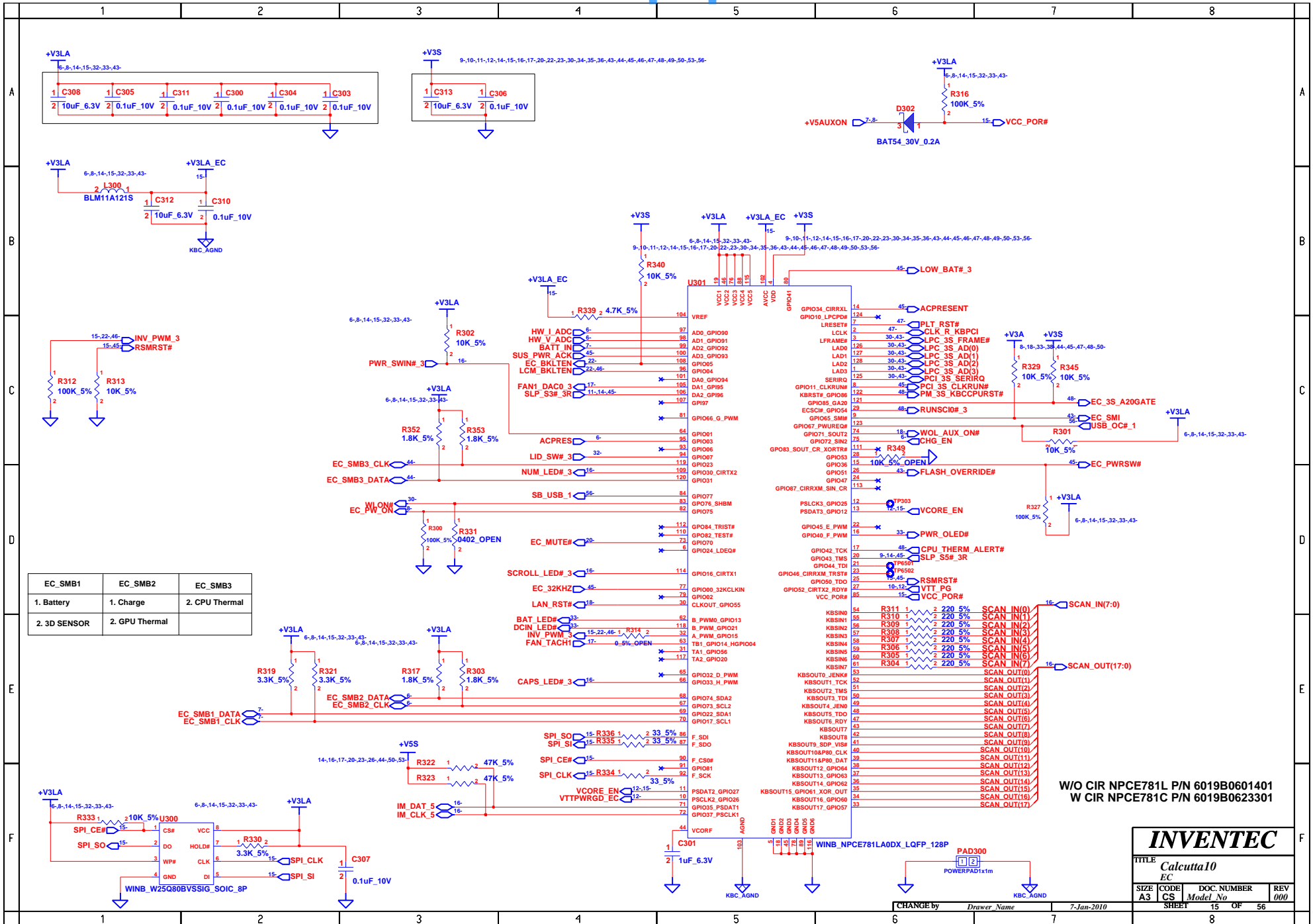
S3 POWER REDUCTION



INVENTEC

TITLE			
Calcutta10			
+V5S +V3S +V1.5S			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		14	OF 56

CHANGE by *Drawer Name* 7-Jan-2010

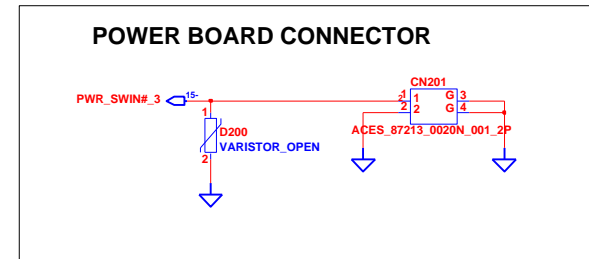
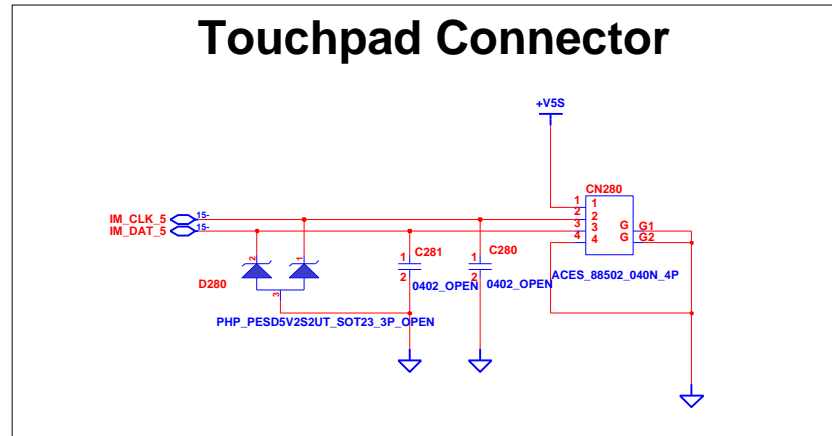
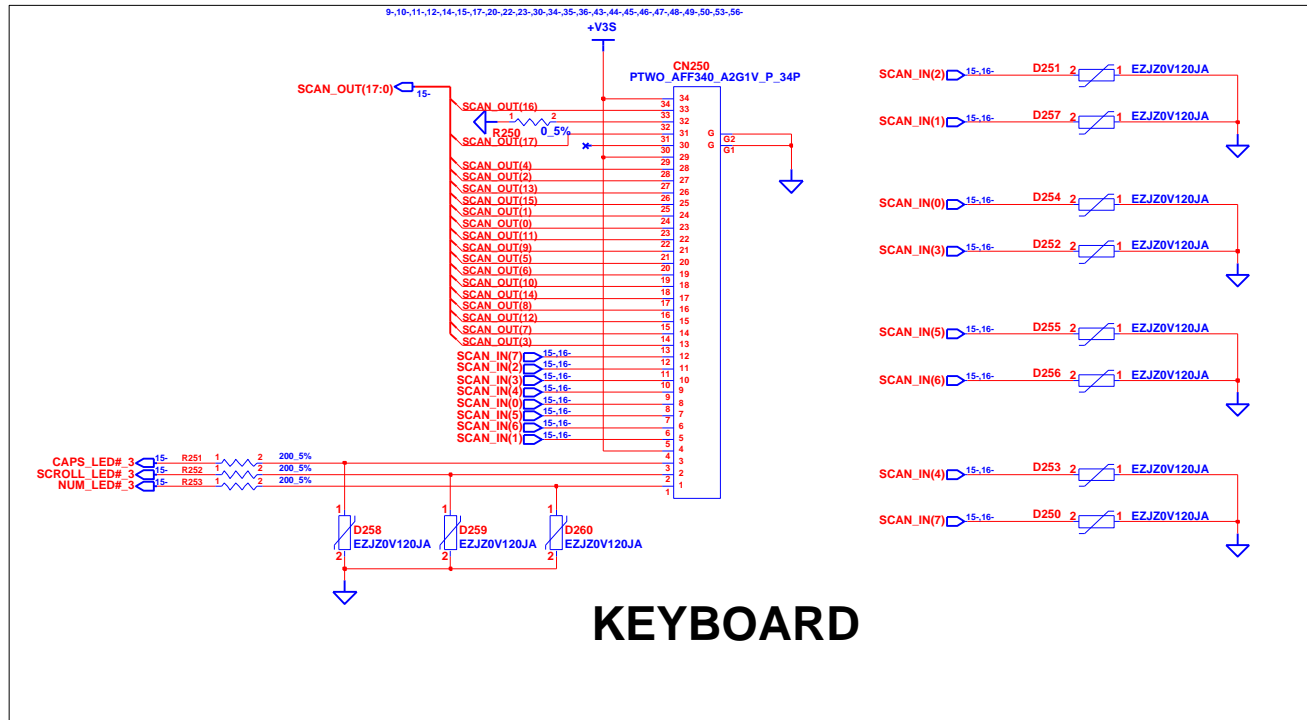


W/O CIR NPCE781L P/N 6019B0601401
W CIR NPCE781C P/N 6019B0623301

INVENTEC

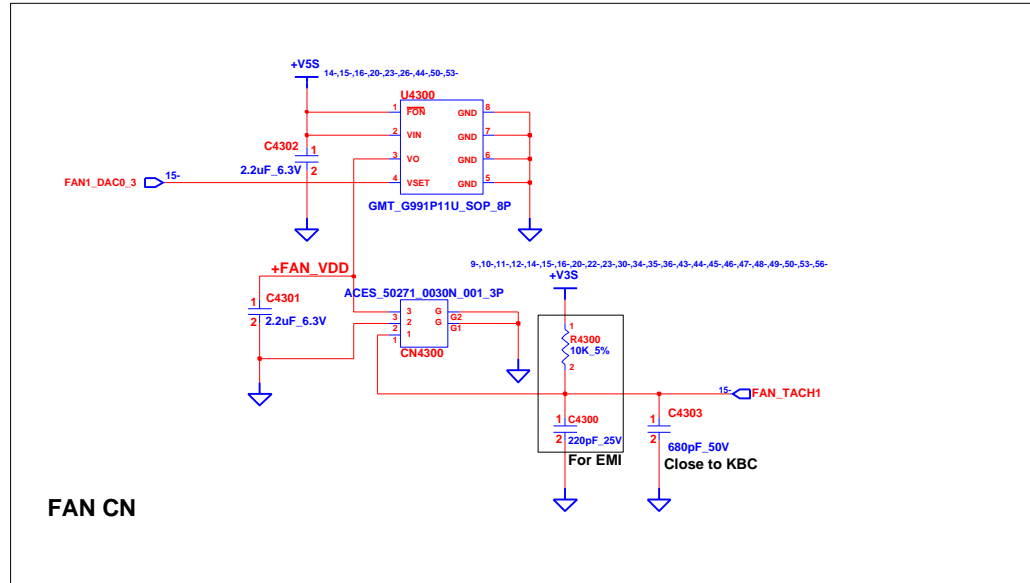
TITLE			
Calcutta10			
EC			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		15	OF 56

CHANGE by Drawer Name 7-Jan-2010

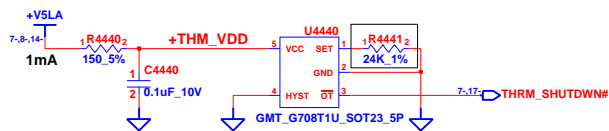


INVENTEC			
TITLE			
Calcutta10			
Keyboard, Touch PAD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		16	OF 56

CHANGE by *Drawer Name* 7-Jan-2010



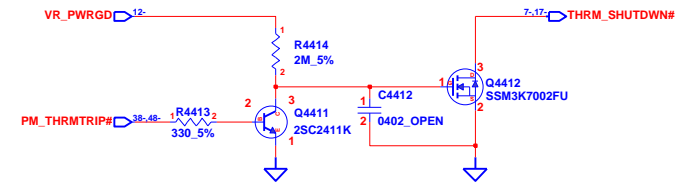
Board Thermal Sensor



Thermal shutdown at 85 C° +/- 3 C° from 60 C° to 100 C°

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

Hysteresis is 30C

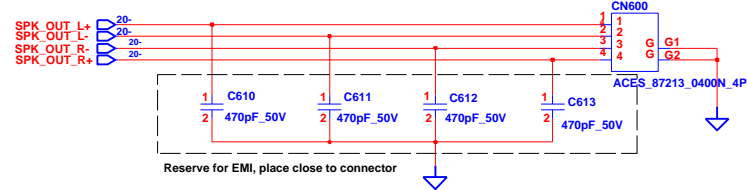


INVENTEC

TITLE			
Calcutta10			
FAN, Thermal controller			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		OF	56
		17	8

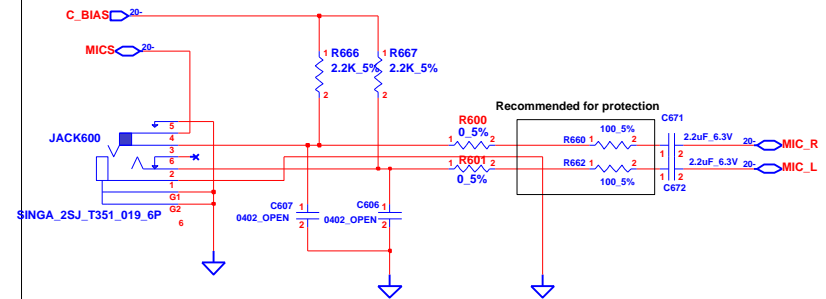
CHANGE by *Drawer Name* 7-Jan-2010

INTERNAL SPEAKERS

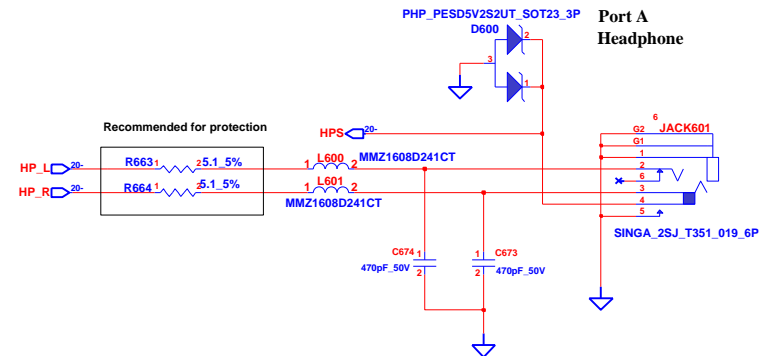


AUDIO JACKS

Port C External microphone

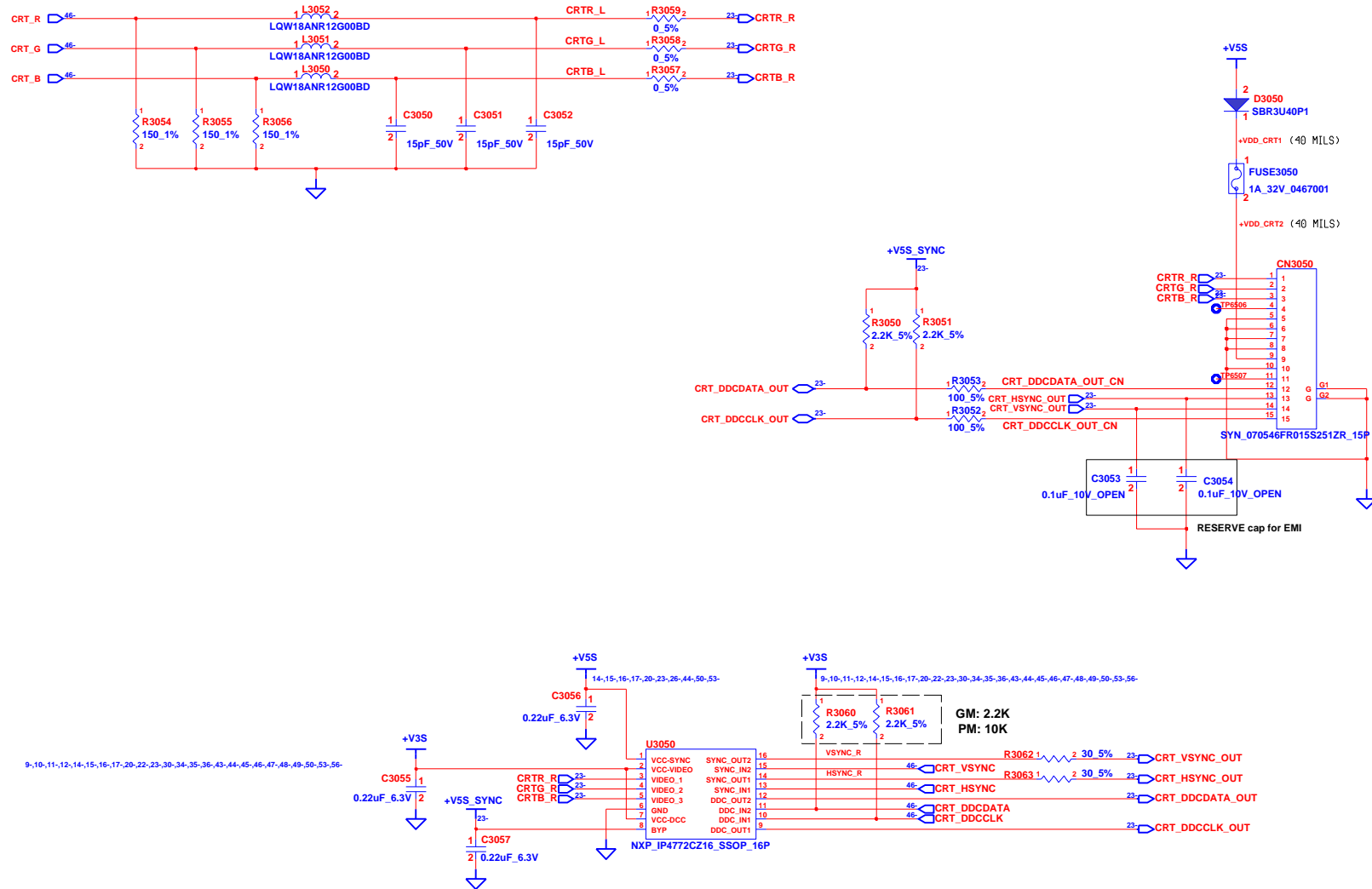


Port A Headphone



INVENTEC

TITLE			
Calcutta10 AUDIO JACK			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
CHANGE by		7-Jan-2010	
DRAWER		21	OF 56



INVENTEC			
TITLE			
Calcutta10			
CRT			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		23	OF 56

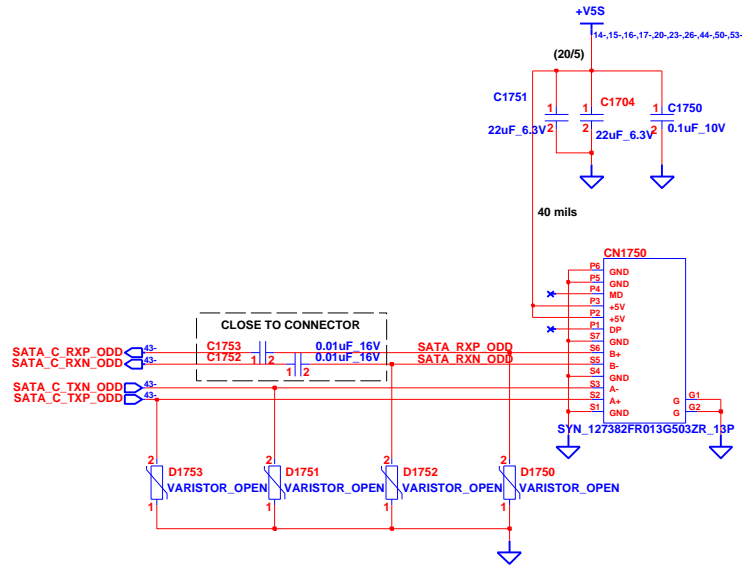
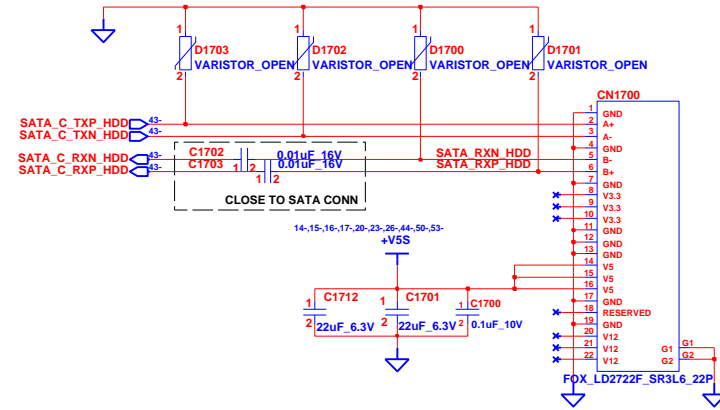
CHANGE by *Drawer Name* 7-Jan-2010

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

INVENTEC			
TITLE Calcutta10 HDMI LEVEL SHIFTER			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
SHEET		24	OF 56

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C									C
D									D
E									E
F									F
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INVENTEC			
TITLE <i>Calcutta10 HDMI</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV <i>000</i>
CHANGE by <i>Drawer Name</i>		7-Jan-2010	
SHEET		25	OF 56



INVENTEC

TITLE			
Calcutta10			
SATA HDD, SATA ODD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by *Drawer Name* 7-Jan-2010

SHEET 26 OF 56

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

INVENTEC

TITLE

Calcutta10

CARD READER & USB CNTR

SIZE

A3

CODE

CS

DOC. NUMBER

Model No

REV

000

CHANGE by

Drawer Name

7-Jan-2010

SHEET

27

OF

56

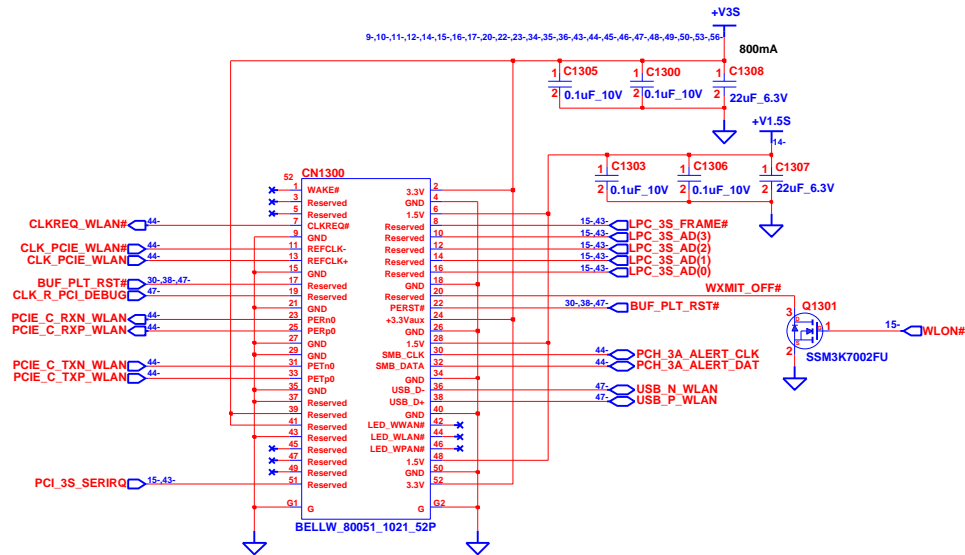
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F									F
	1	2	3	4	5	6	7	8	

INVENTEC			
TITLE Calcutta10 USB & eSATA COMBO			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
SHEET		28	OF 56

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C									C
D									D
E									E
F									F
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INVENTEC			
TITLE <i>Calcutta10 BlueTooth</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV <i>000</i>
CHANGE by <i>Drawer Name</i>		7-Jan-2010	
SHEET		29	OF 56

Wireless & Debug card



INVENTEC

TITLE			
Calcutta10			
WLAN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		30	OF 56

CHANGE by *Drawer Name* 7-Jan-2010

8

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C									C
D									D
E									E
F									F
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INVENTEC			
TITLE <i>Calcutta10</i>			
3G			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		31	OF 56

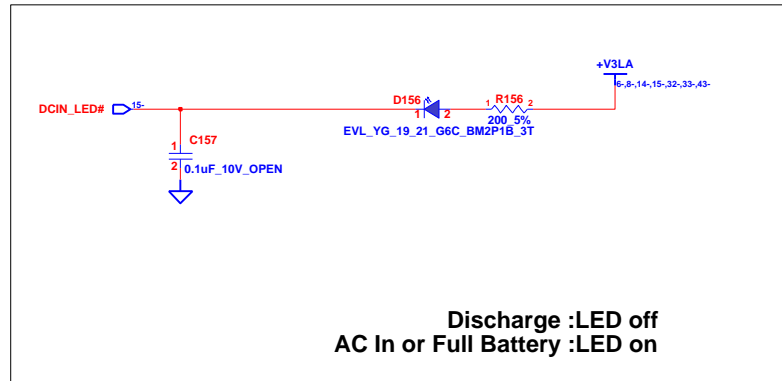
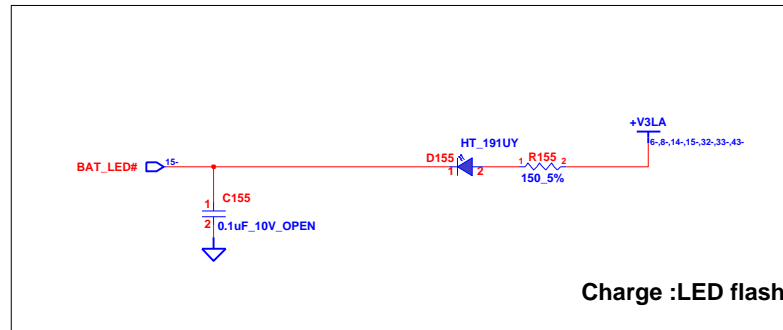
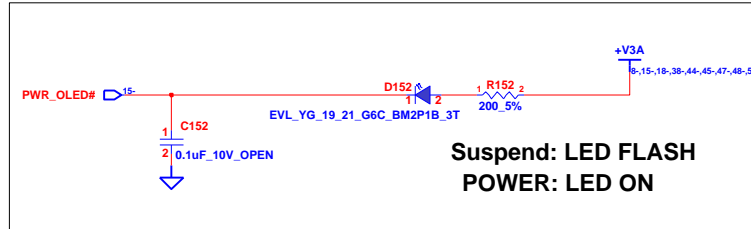
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B									B
C									C
D									D
E									E
F									F

HALL SENSOR

CHANGE by				Drawer Name		7-Jan-2010	
SIZE				CODE		DOC. NUMBER	
A3				CS		Model No	
SHEET				32		OF 56	

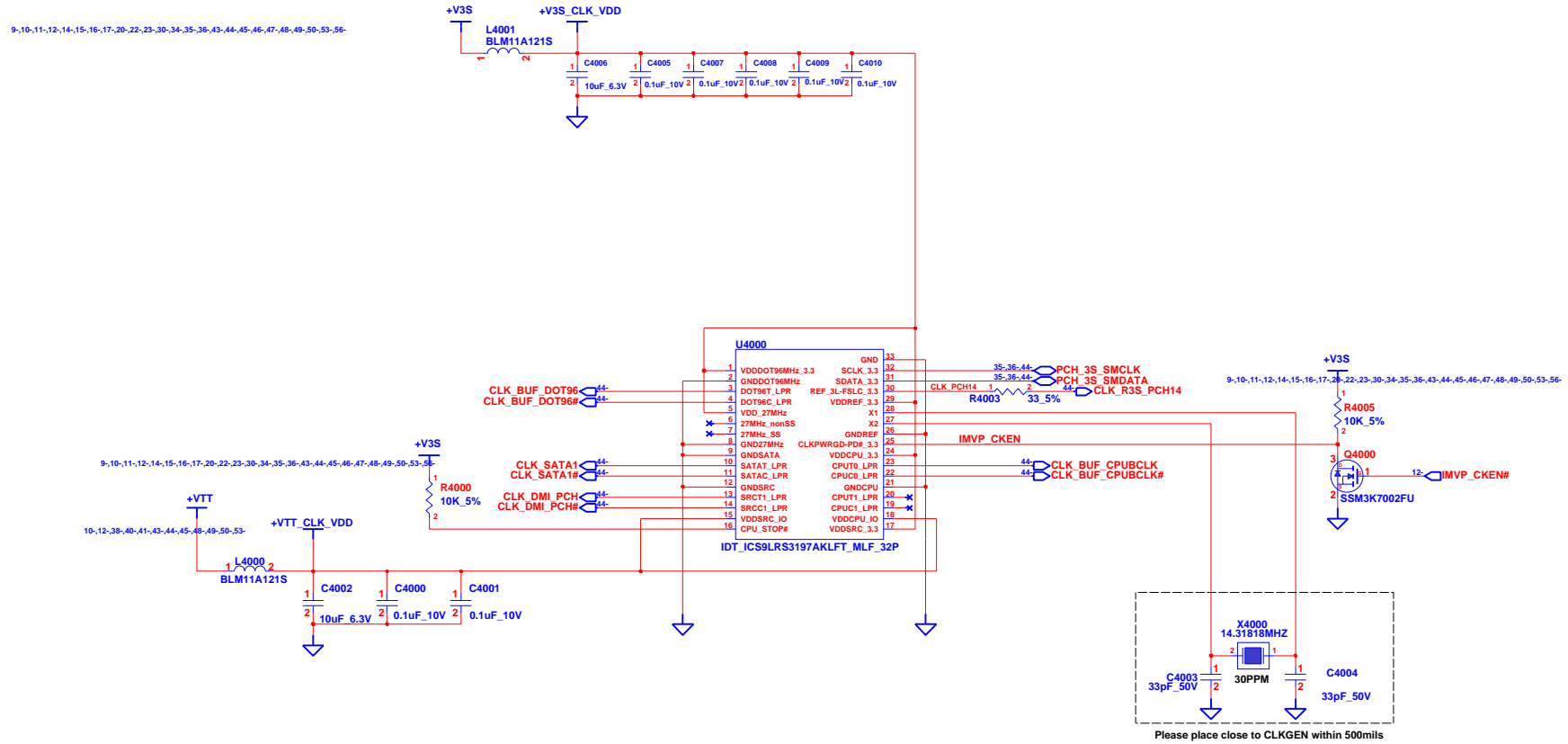
INVENTEC

TITLE			
Calcutta10			
Hall Sensor			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET 32 OF 56			



INVENTEC			
TITLE <i>Calcutta10 LED</i>			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
SHEET 33		OF 56	

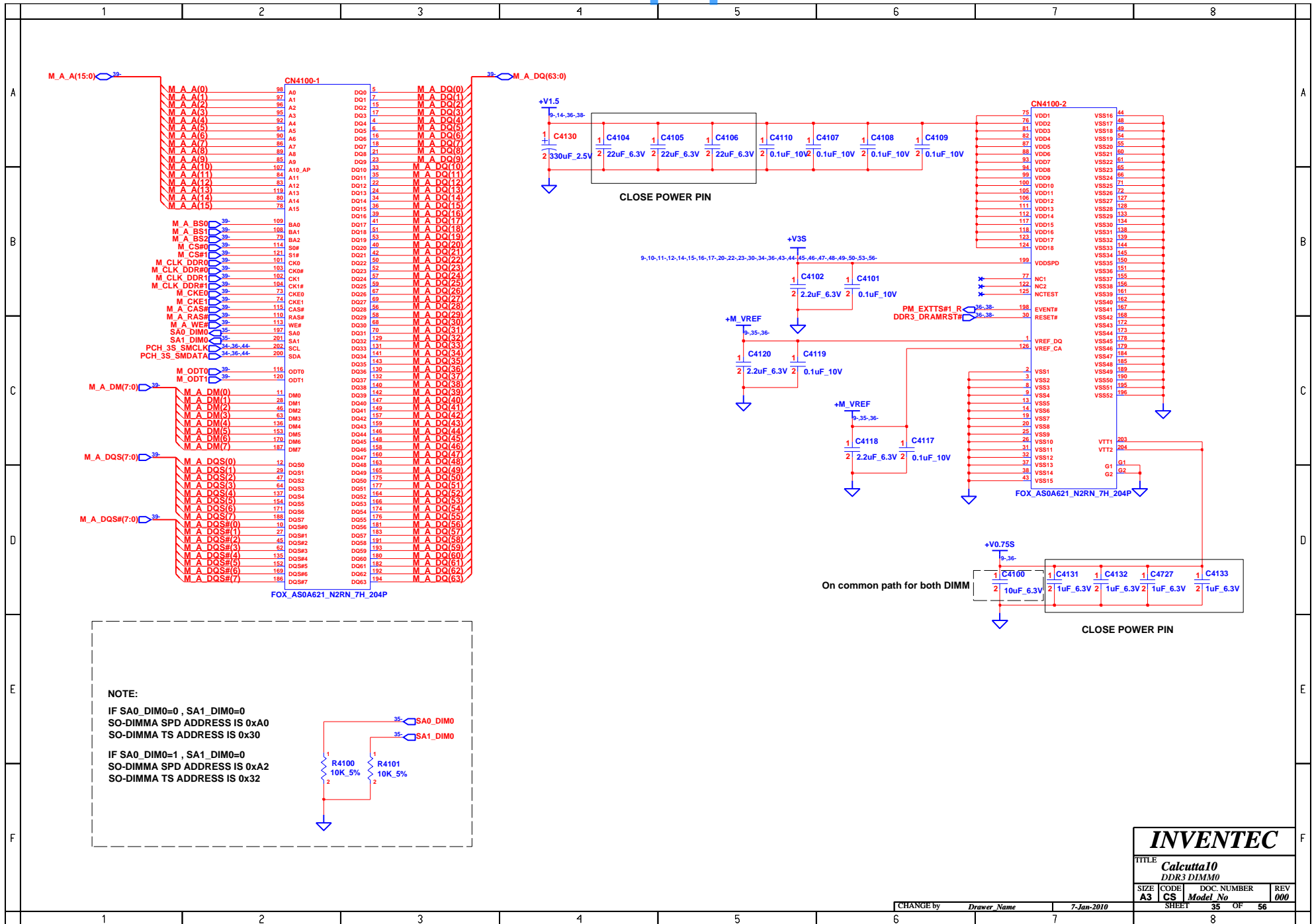
CHANGE by *Drawer Name* 7-Jan-2010



INVENTEC

TITLE			
Calcutta10			
Clock Generator			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		34	OF 56

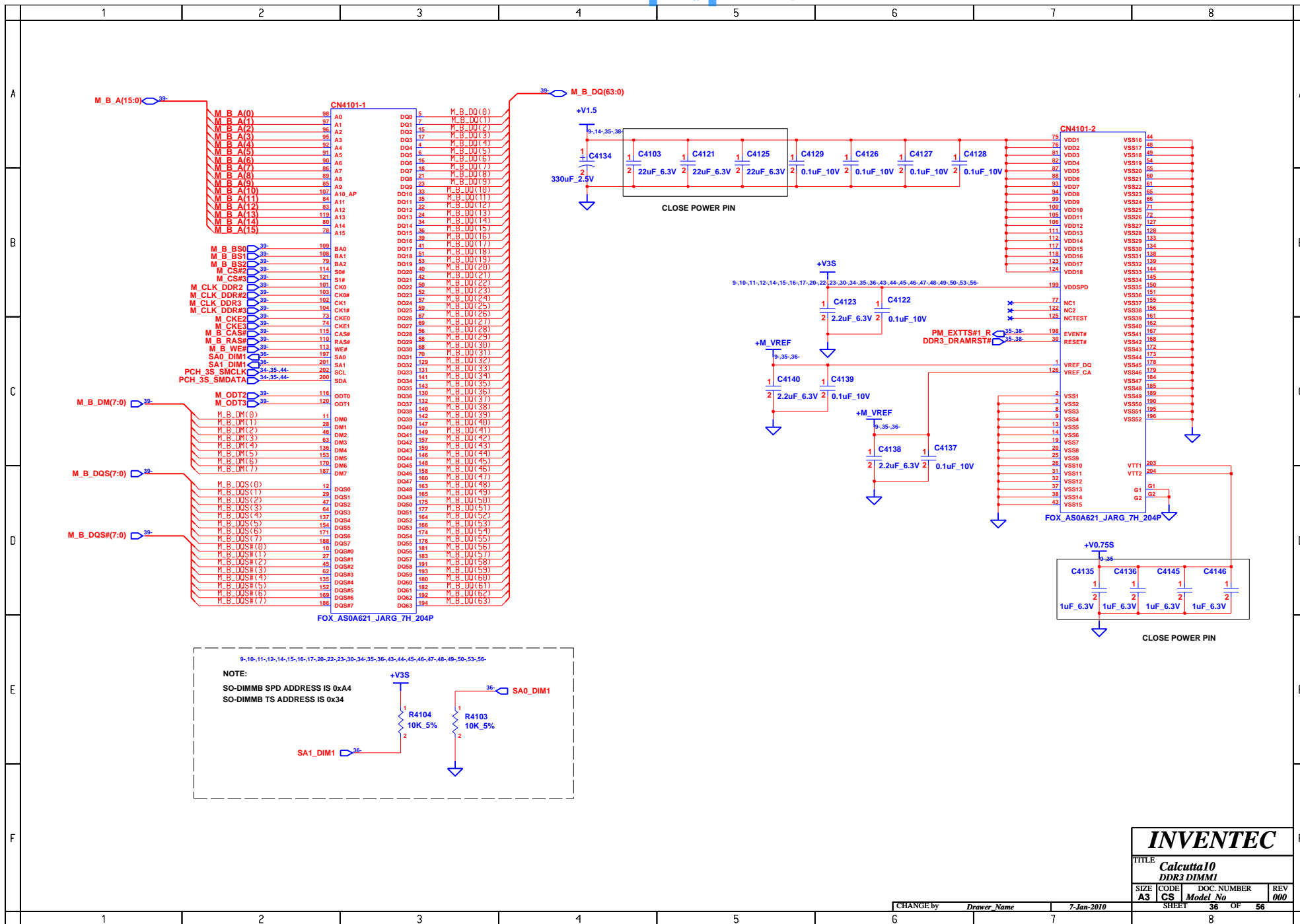
CHANGE by *Drawer Name* 7-Jan-2010



INVENTEC

TITLE			
Calcutta10			
DDR3 DIMM0			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		35	OF 56

CHANGE by *Drawer Name* 7-Jan-2010



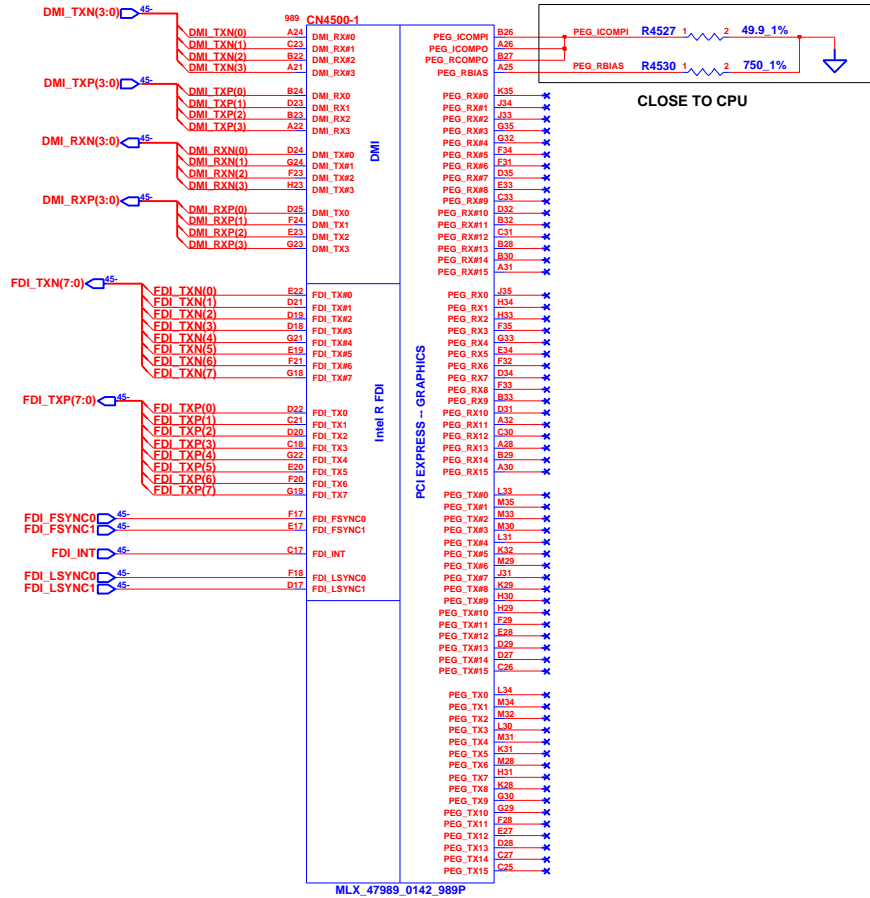
INVENTEC

TITLE: **Calcutta10**
DDR3 DIMM1

SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

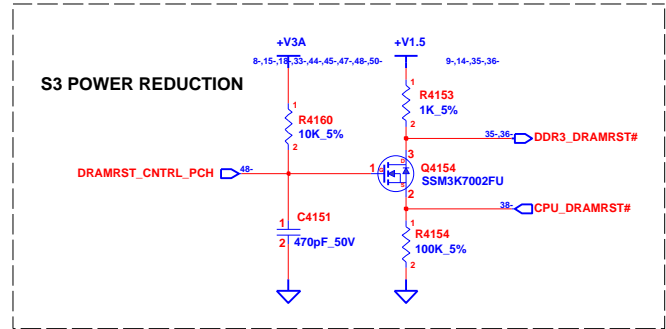
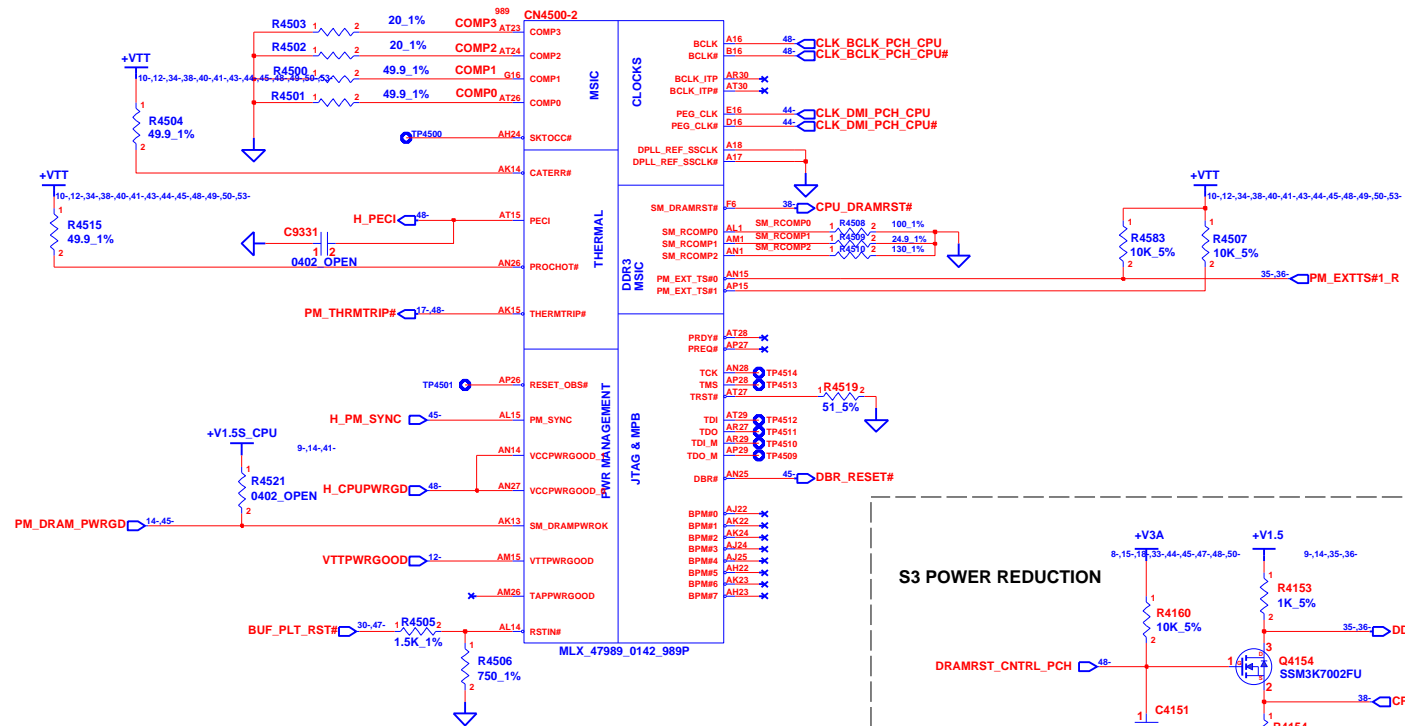
CHANGE by: *Drawer Name* 7-Jan-2010

SHEET 36 OF 56



INVENTEC			
TITLE			
Calcutta10			
CPU-1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		37	OF 56

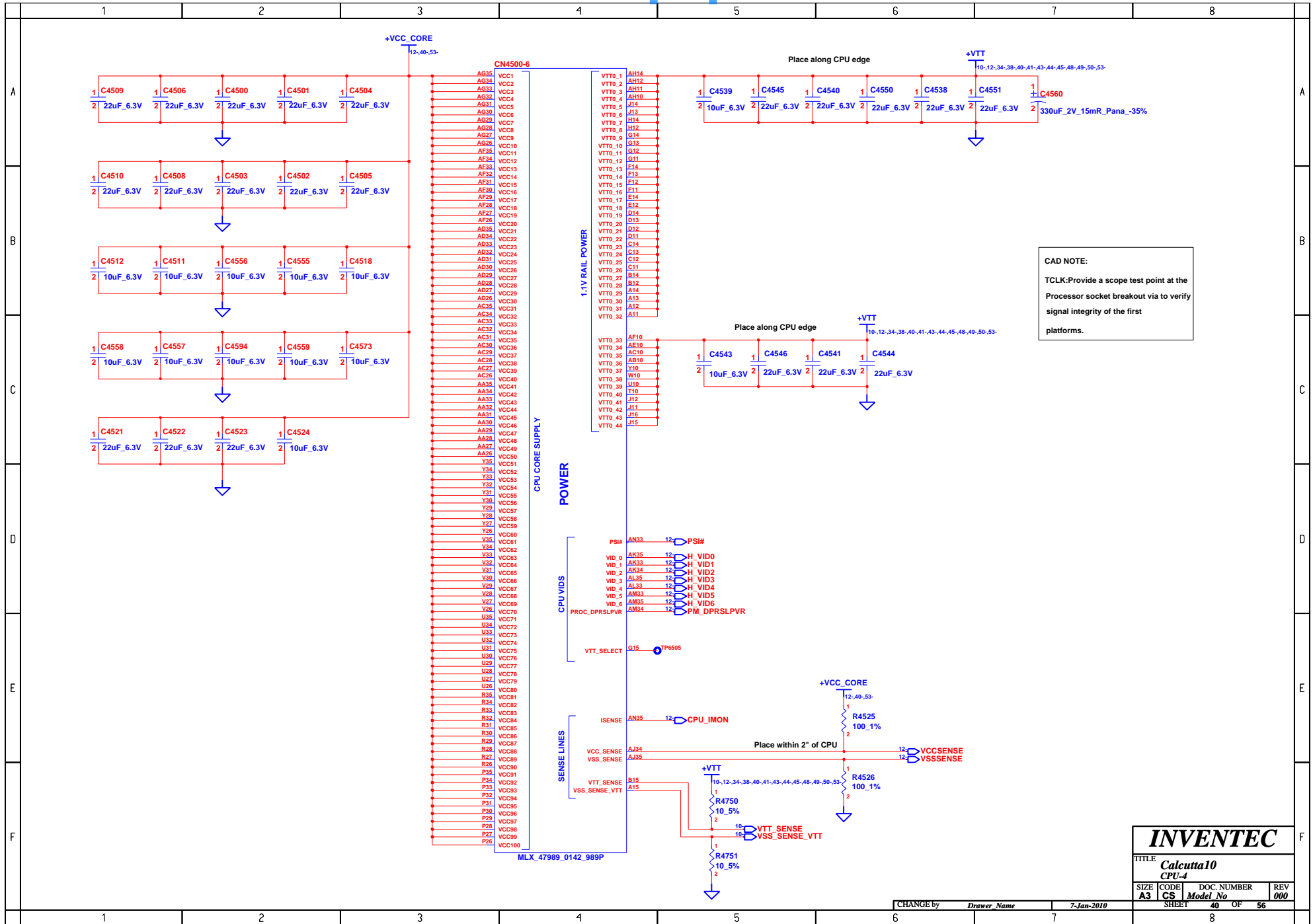
CHANGE by *Drawer Name* 7-Jan-2010



INVENTEC

TITLE			
Calcutta10			
CPU-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		38	OF 56

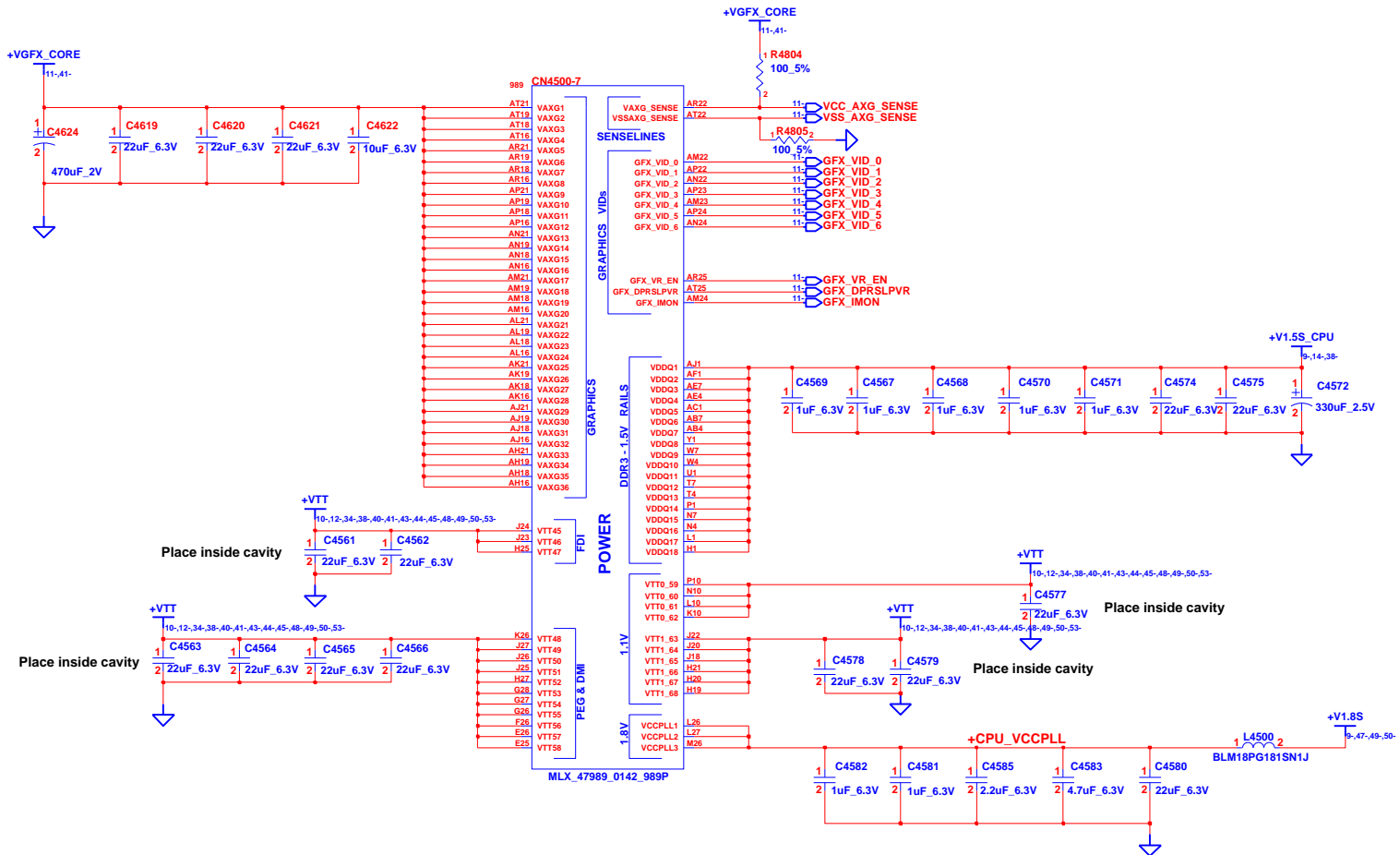
CHANGE by Drawer Name 7-Jan-2010

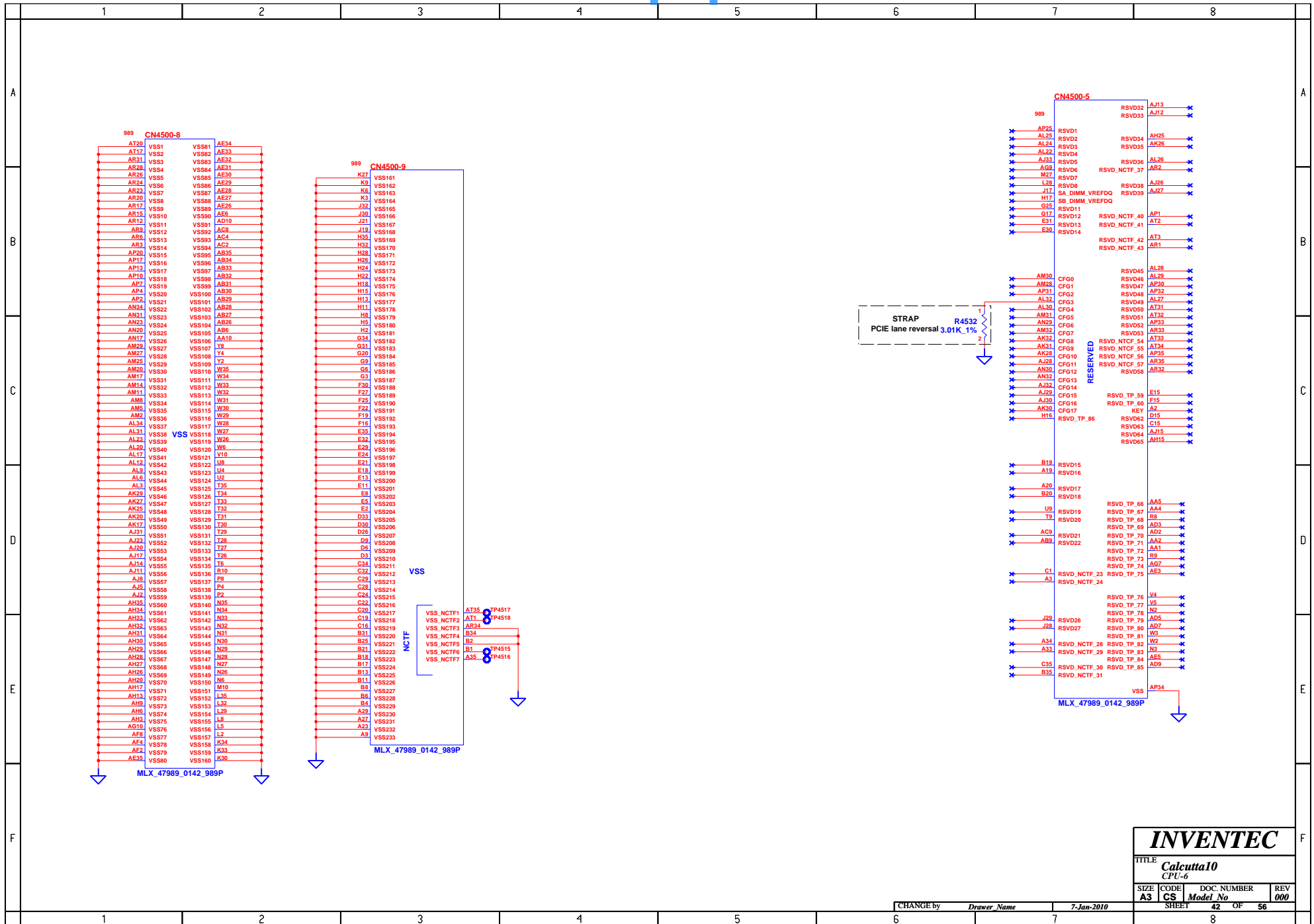


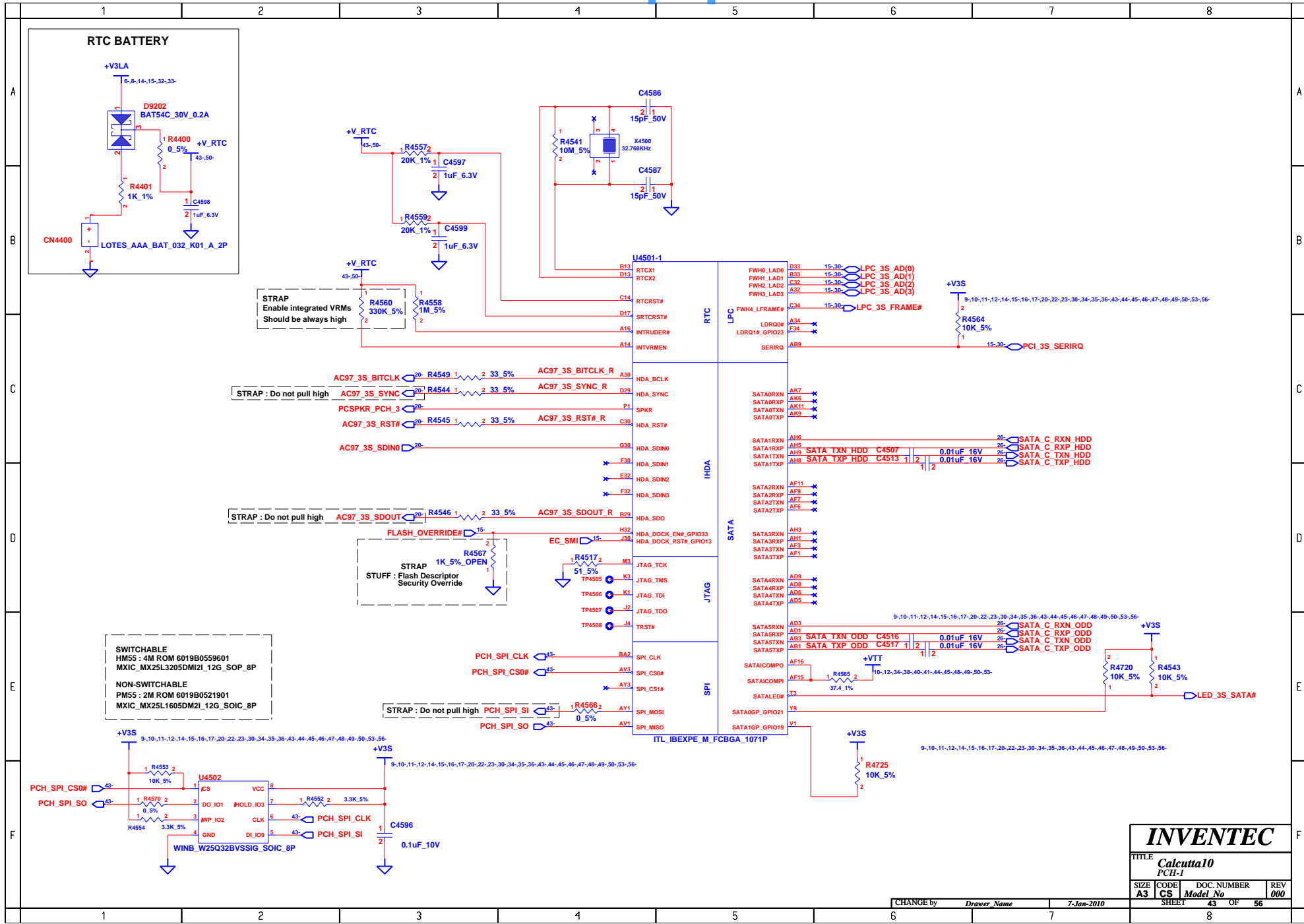
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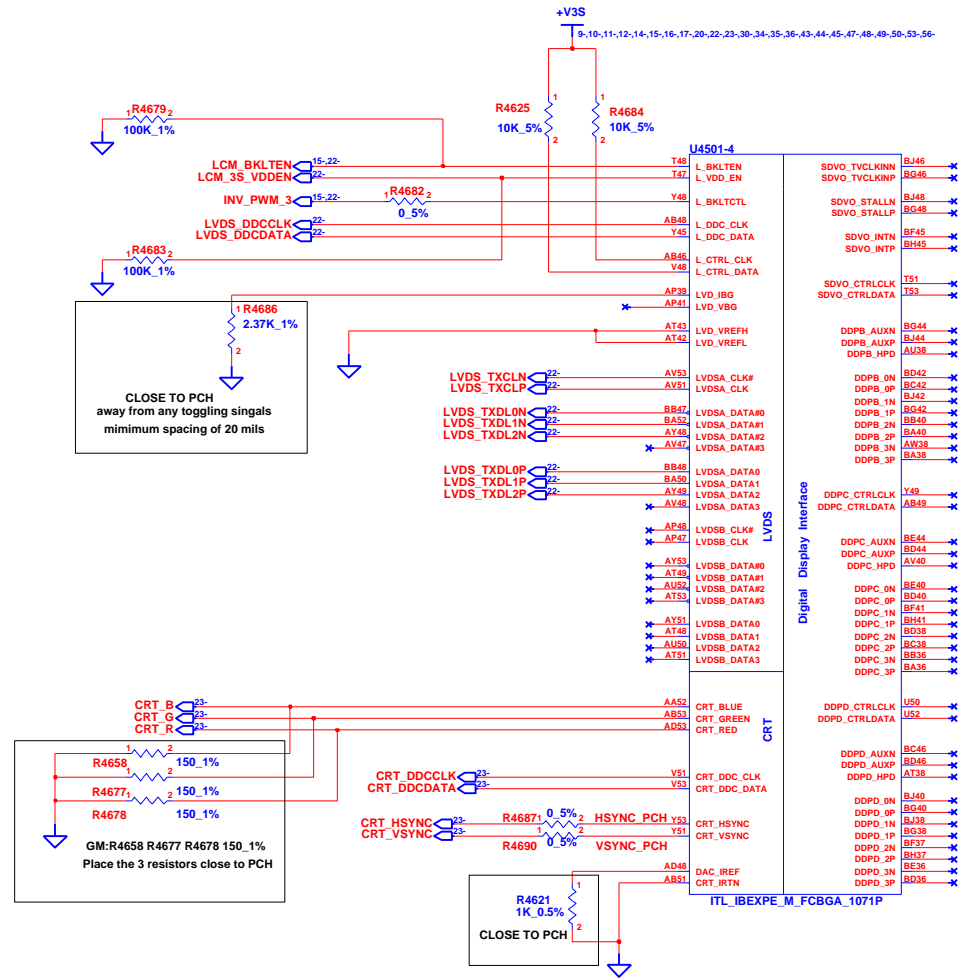
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SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
SHEET 40		OF 56	

CHANGE by *Drawer Name* 7-Jan-2010







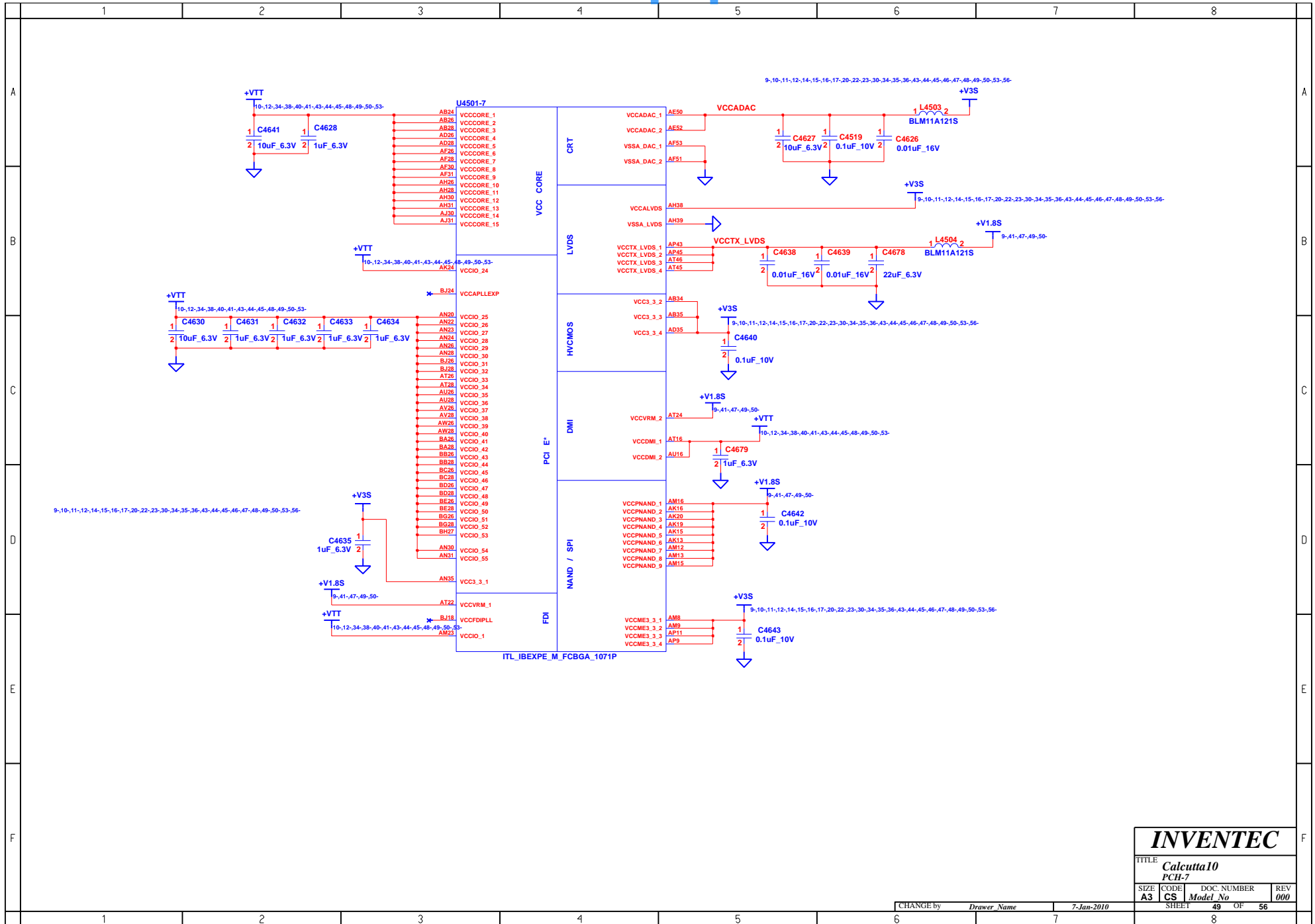


CLOSE TO PCH
away from any toggling signals
minimum spacing of 20 mils

GM:R4658 R4677 R4678 150_1%
Place the 3 resistors close to PCH

R4621
1K_0.5%
CLOSE TO PCH

INVENTEC			
TITLE Calcutta10 PCH-4			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Drawer Name		7-Jan-2010	
SHEET 46		OF 56	

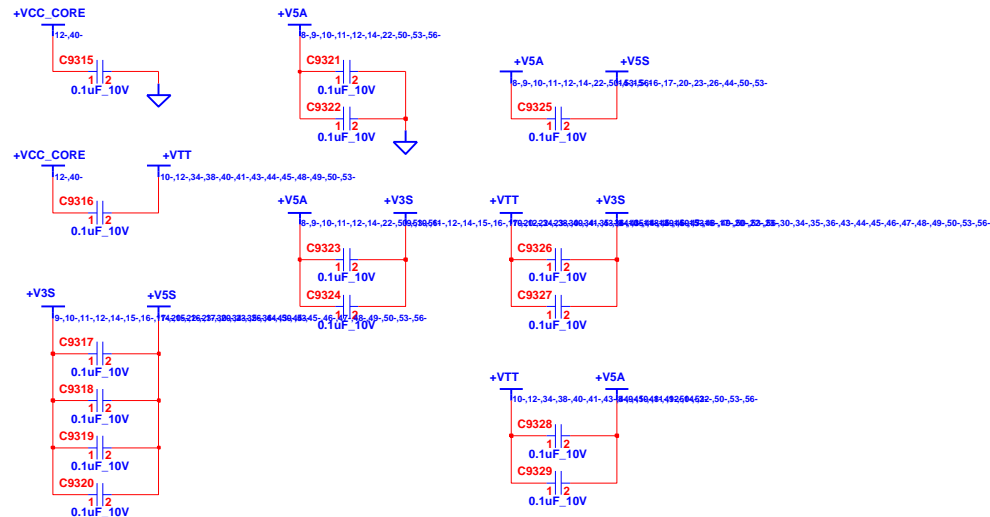


INVENTEC			
TITLE Calcutta10 PCH-7			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
CHANGE by Drawer Name		7-Jan-2010	
SHEET		49	OF 56

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

INVENTEC			
TITLE Calcutta10 3D SENSOR			
SIZE A3	CODE CS	DOC. NUMBER Model No	REV 000
SHEET		52	OF 56

EMI



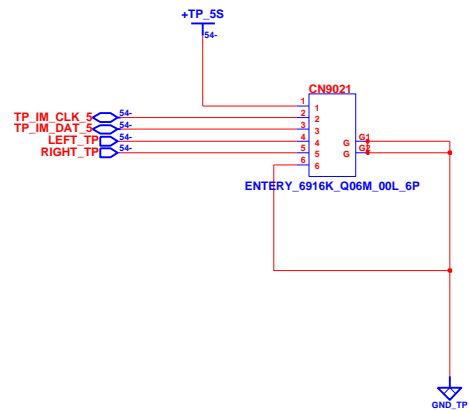
INVENTEC

TITLE Calcutta10 EMI			
SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV 000
SHEET		53	OF 56

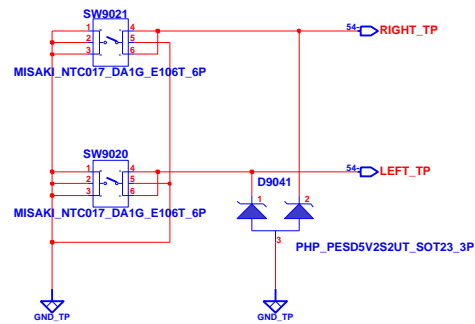
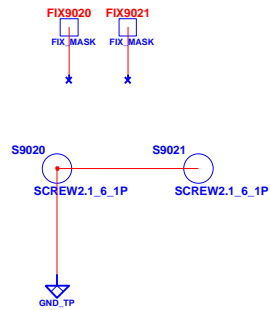
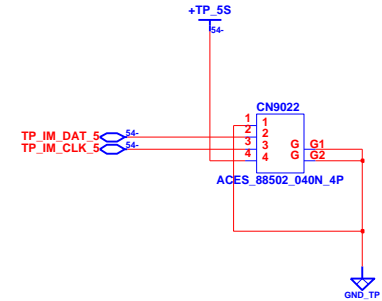
CHANGE by *Drawer Name* 7-Jan-2010

TOUCH PAD SWITCH BOARD

Connect to Touchpad Module



Connect to Mainboard's TP connector

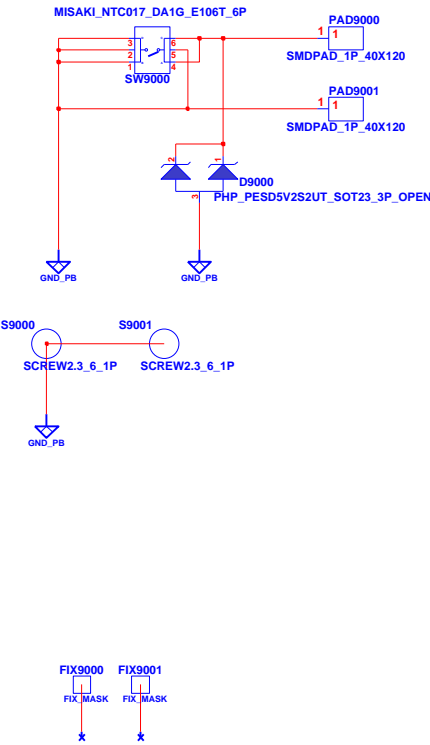


INVENTEC

TITLE			
Calcutta10 TP SWITCH BOARD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000
SHEET		54	OF 56

CHANGE by *Drawer Name* 2-Mar-2010

POWER BOARD



INVENTEC

TITLE			
Calcutta10 POWER BOARD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	Model No	000

CHANGE by *Drawer Name* 24-Feb-2010

SHEET 55 OF 56

CARD READER

INVENTEC

TITLE	Calcutta10 Carder Reader/USB
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SIZE A3	CODE CS	DOC. NUMBER <i>Model No</i>	REV <i>000</i>
SHEET		56	OF 56

CHANGE by	<i>Drawer Name</i>	<i>7-Jan-2010</i>
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