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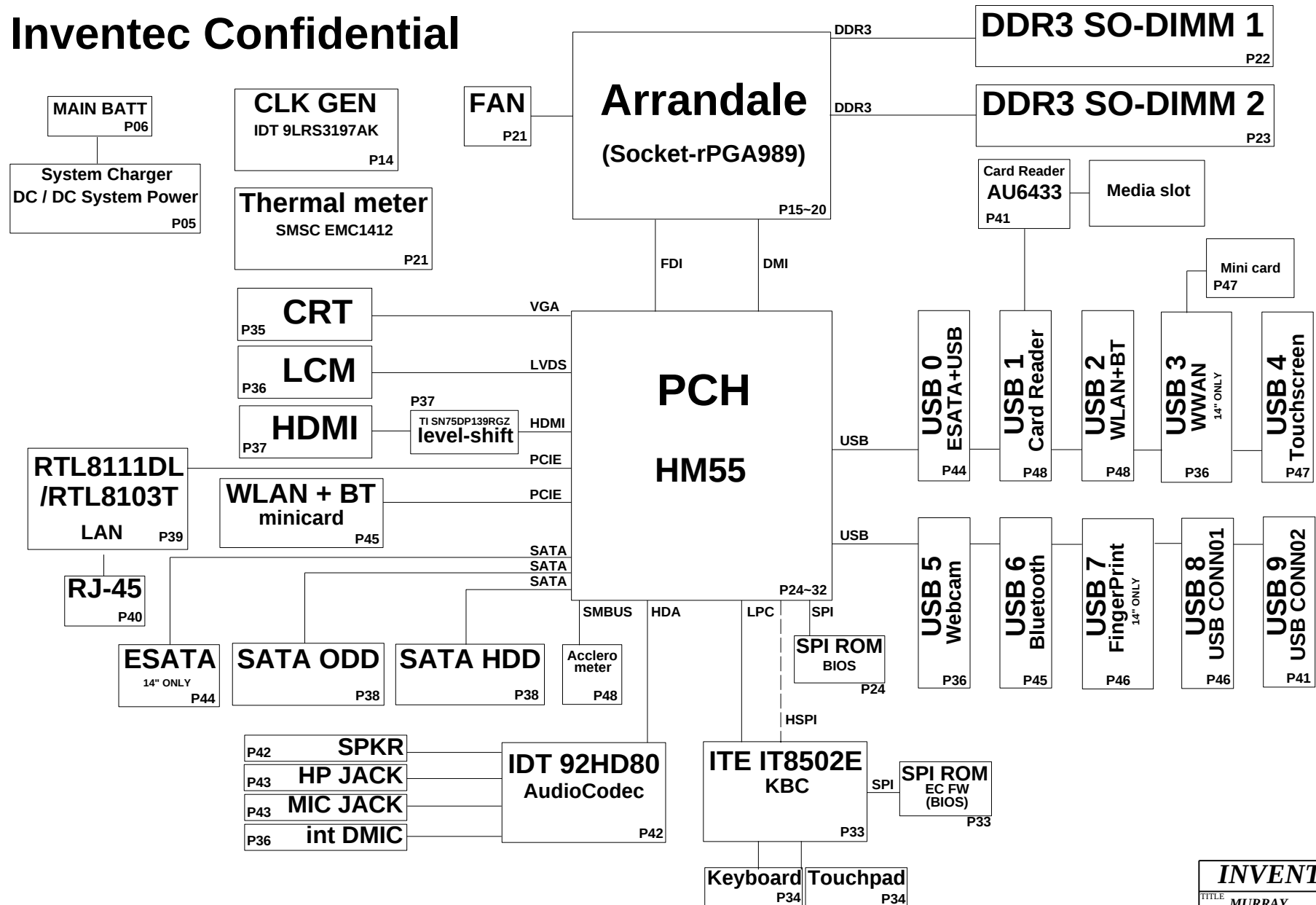
INVENTEC

TITLE MURRAY Index			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
SHEET		2	OF 48

CHANGE by **Chou, Leo** 1-Mar-2010

8

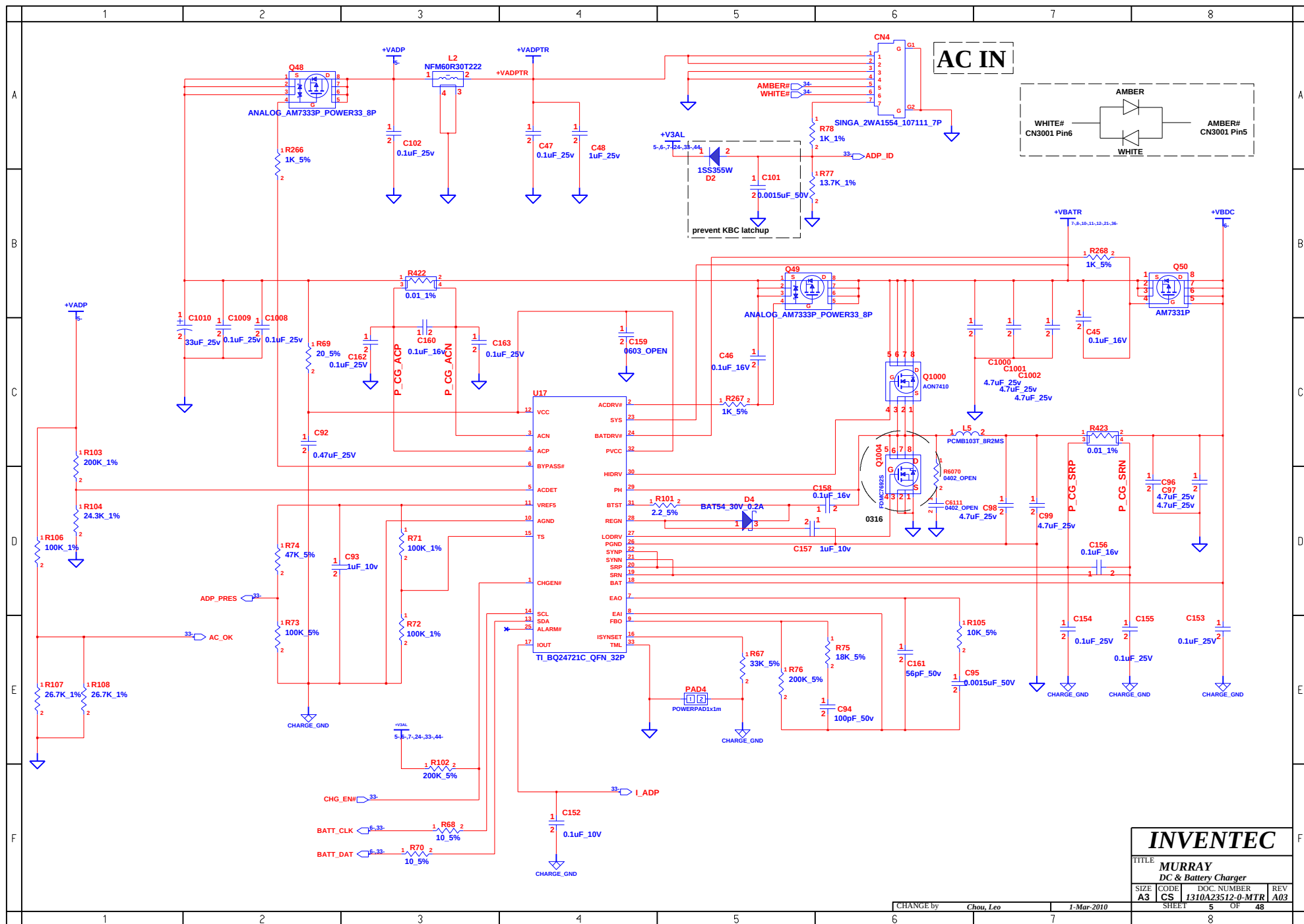
Inventec Confidential

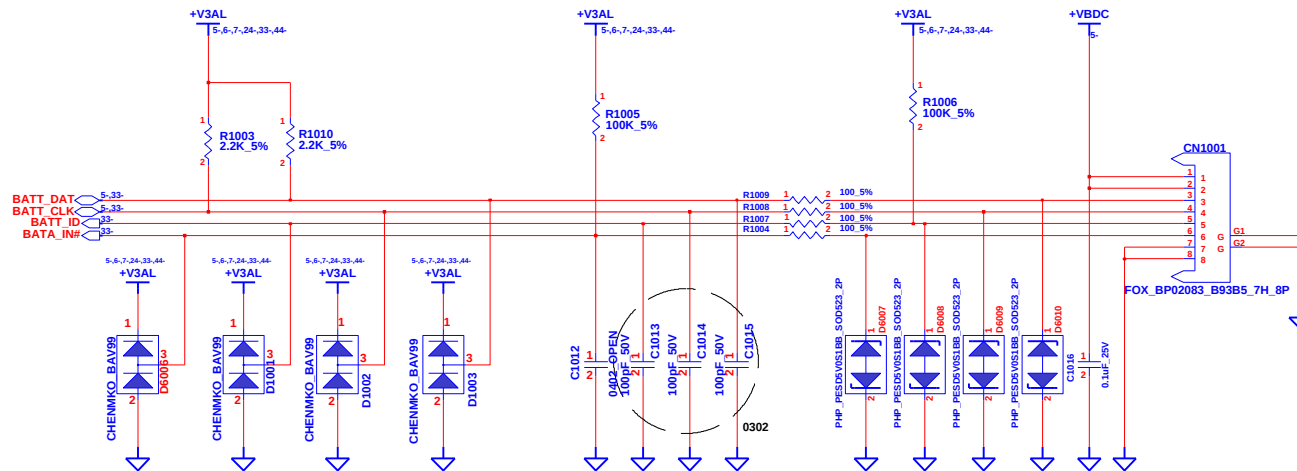


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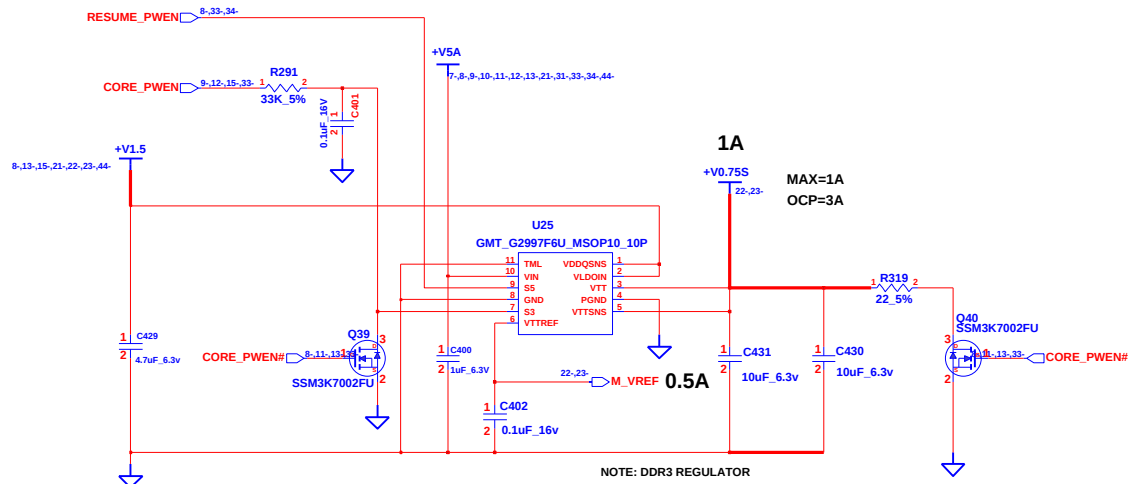
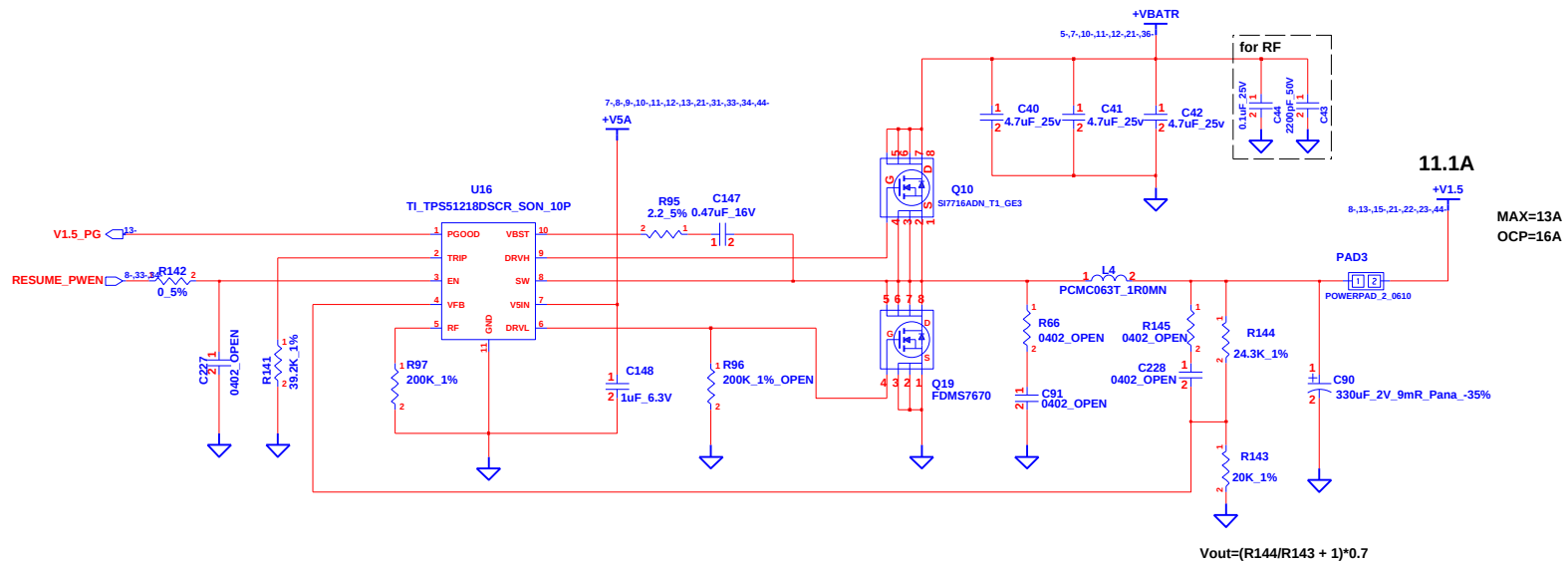
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MURRAY			
Block Diagram			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		3	OF 48

CHANGE by Chou, Leo 1-Mar-2010





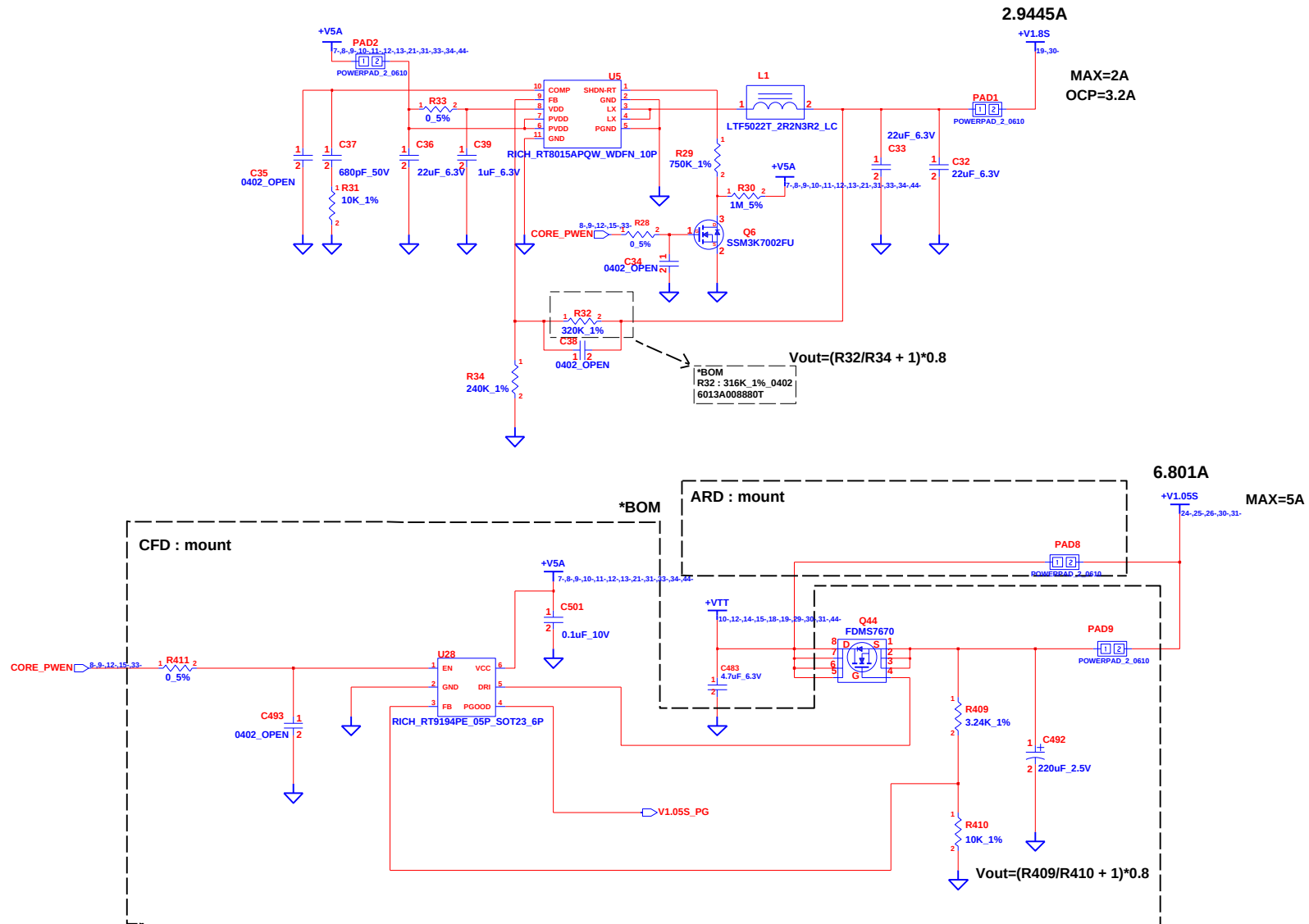
INVENTEC			
TITLE			
MURRAY			
Battery CONN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
CHANGE by		Chou, Leo	1-Mar-2010
SHEET		6	OF 48
		8	



INVENTEC

TITLE			
MURRAY			
+V1.5 & +V0.75			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		8	OF 48

CHANGE by Chou, Leo 1-Mar-2010

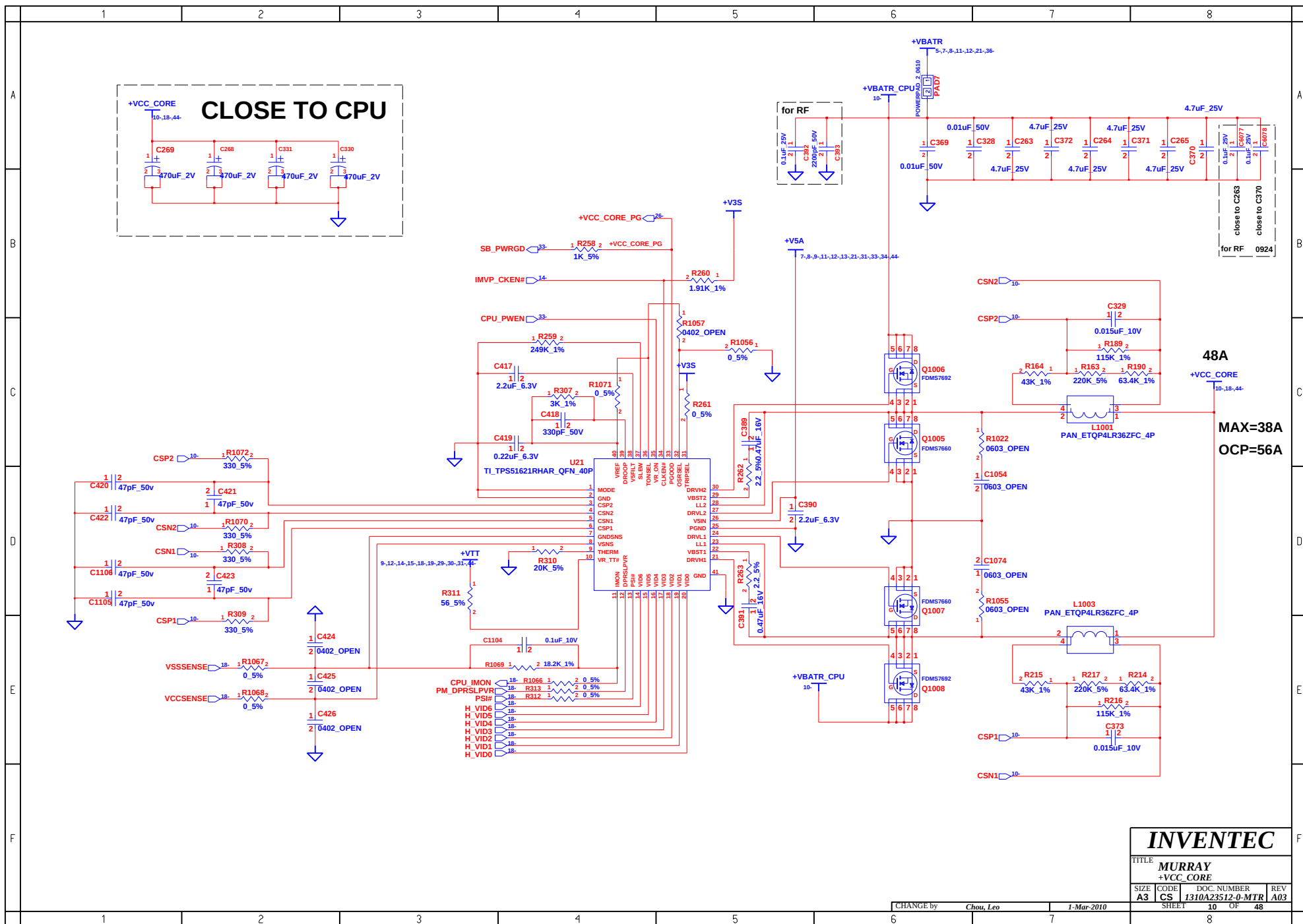


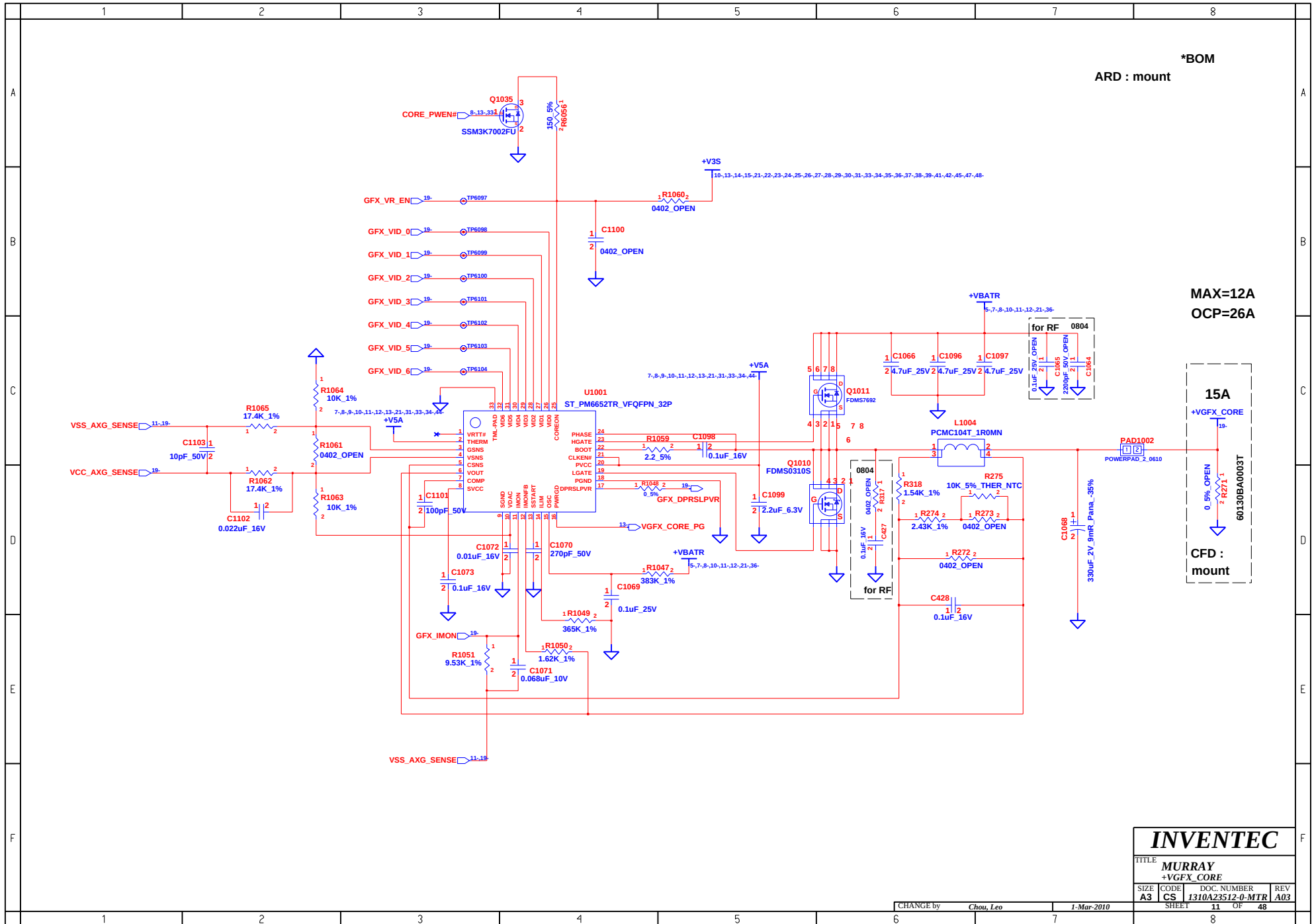
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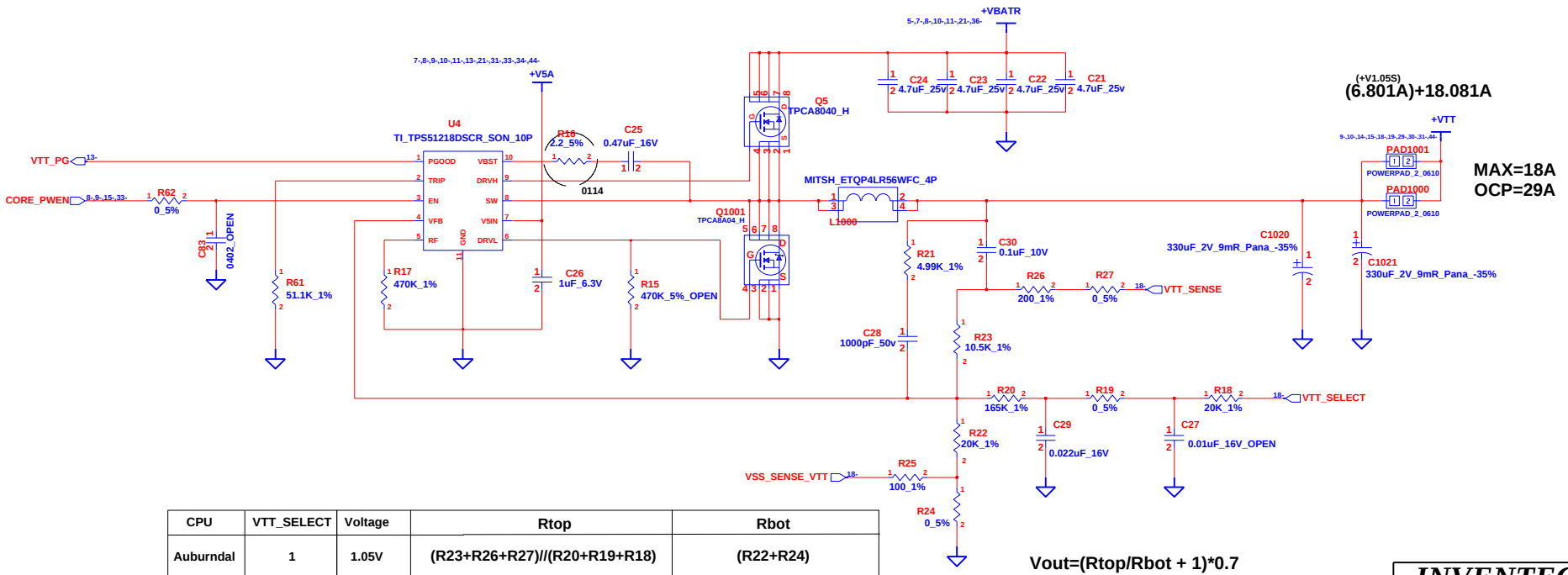
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MURRAY			
+V1.8S & +V1.05S			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		9	OF 48

CHANGE by Chou, Leo 1-Mar-2010

8





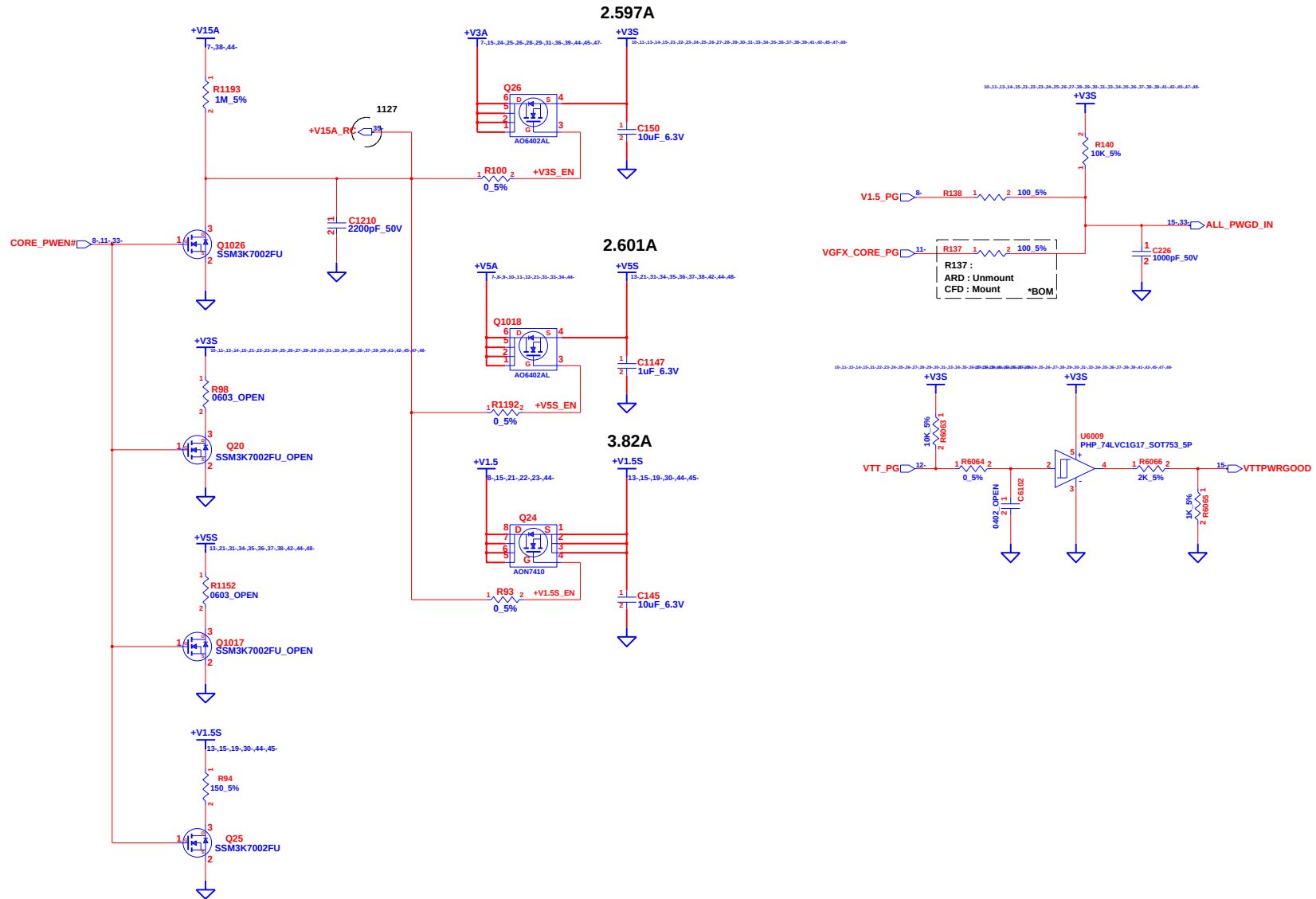


CPU	VTT_SELECT	Voltage	Rtop	Rbot
Auburndal	1	1.05V	$(R23+R26+R27)/(R20+R19+R18)$	$(R22+R24)$
Clarksfield	0	1.1V	$(R23+R26+R27)$	$(R22+R24)/(R20+R19+R18)$

INVENTEC

TITLE MURRAY Reserve Page			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
SHEET 12		OF 48	

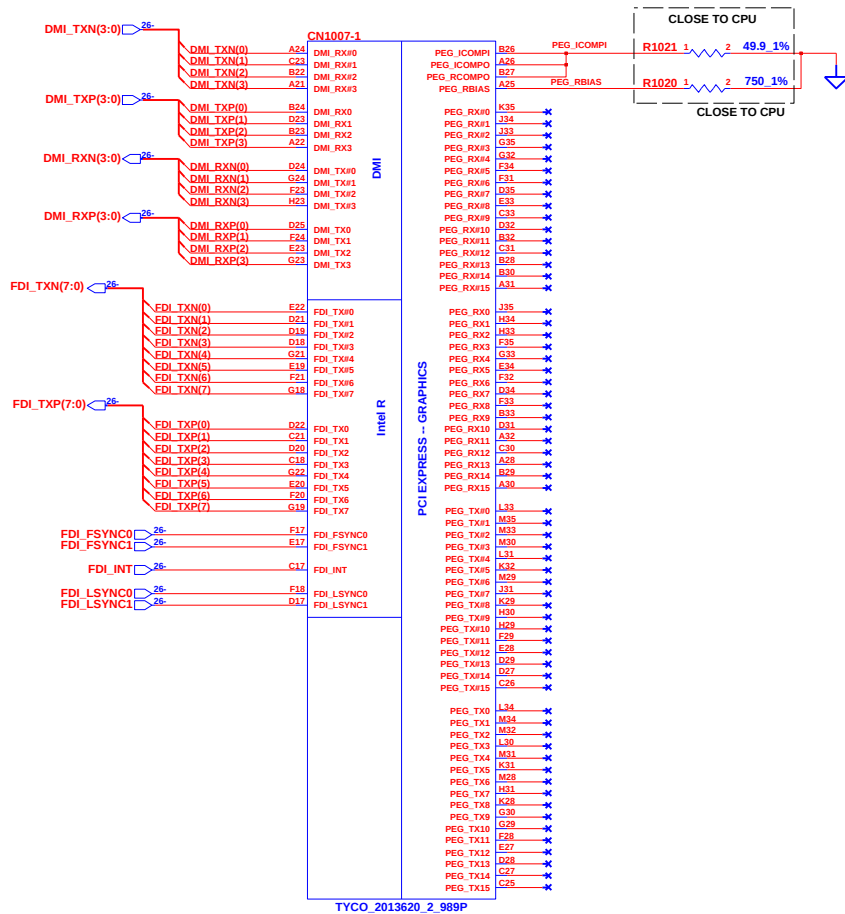
CHANGE by **Chou, Leo** 1-Mar-2010



INVENTEC

TITLE MURRAY +V5S & +V3S			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
CHANGE by <i>Chou, Leo</i>		1-Mar-2010	
SHEET		13	OF 48

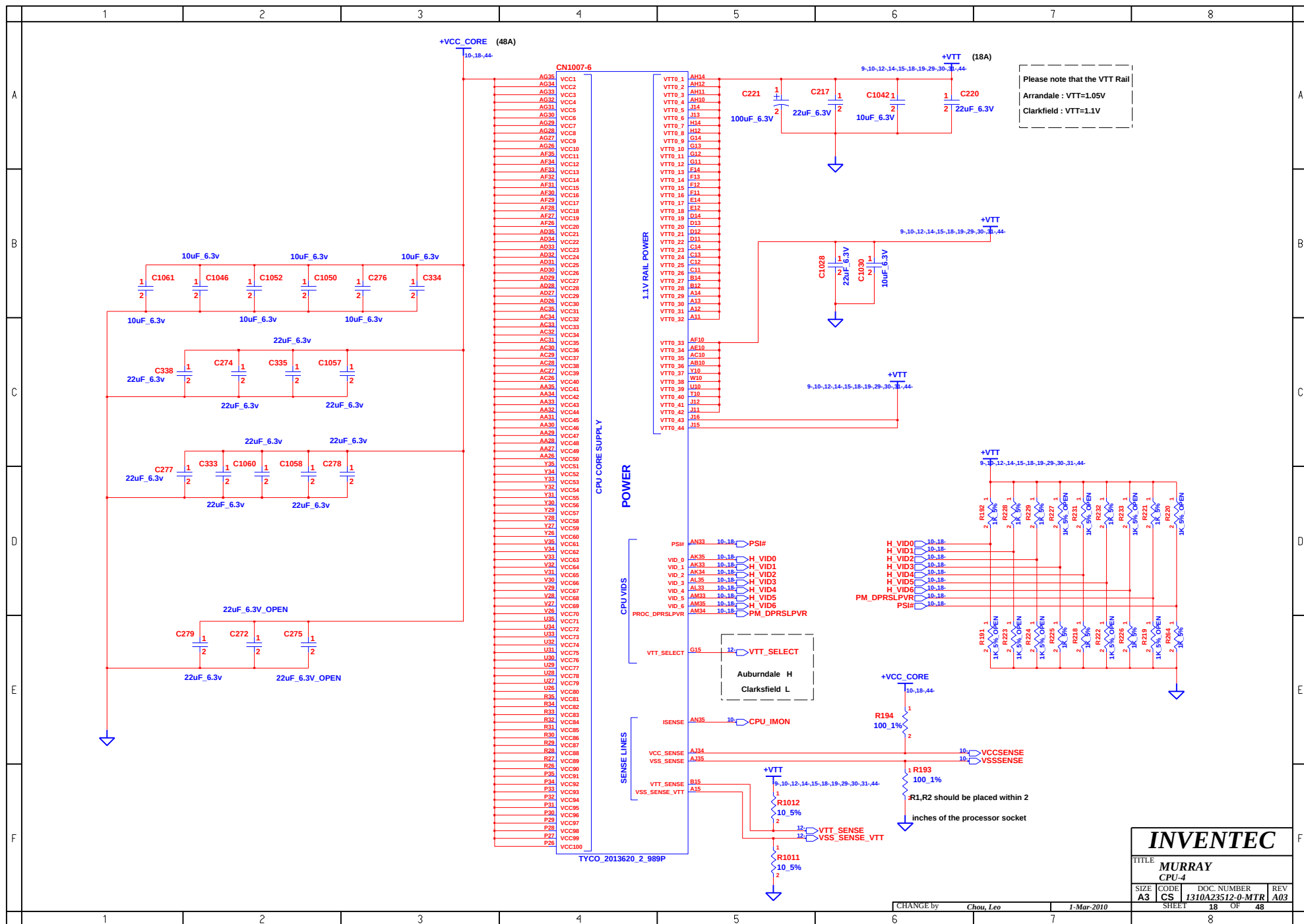
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MURRAY CLK GEN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		14	OF 48

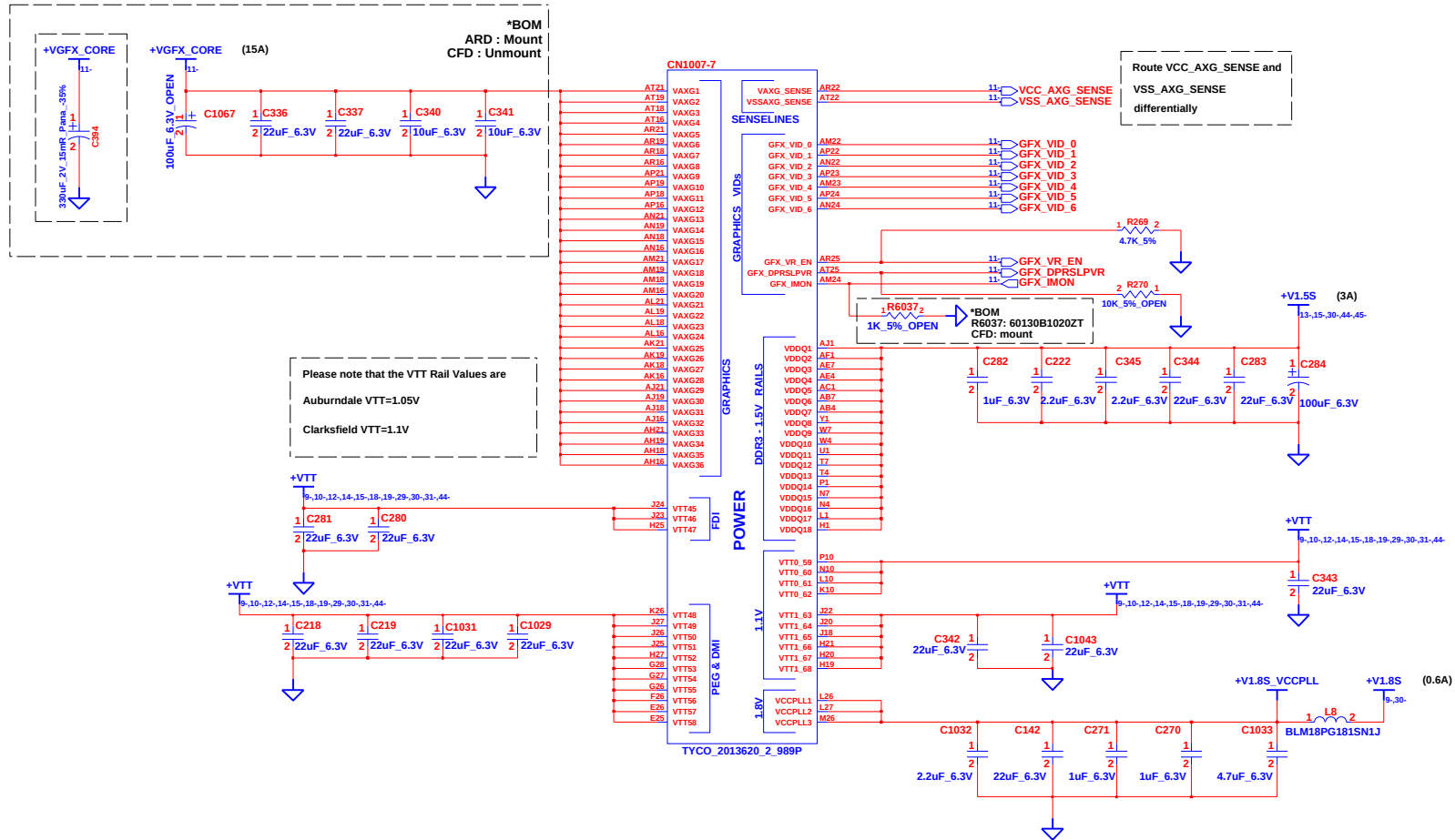


INVENTEC

TITLE			
MURRAY			
CPU-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		17	OF 48

CHANGE by Chou, Leo 1-Mar-2010

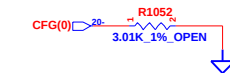
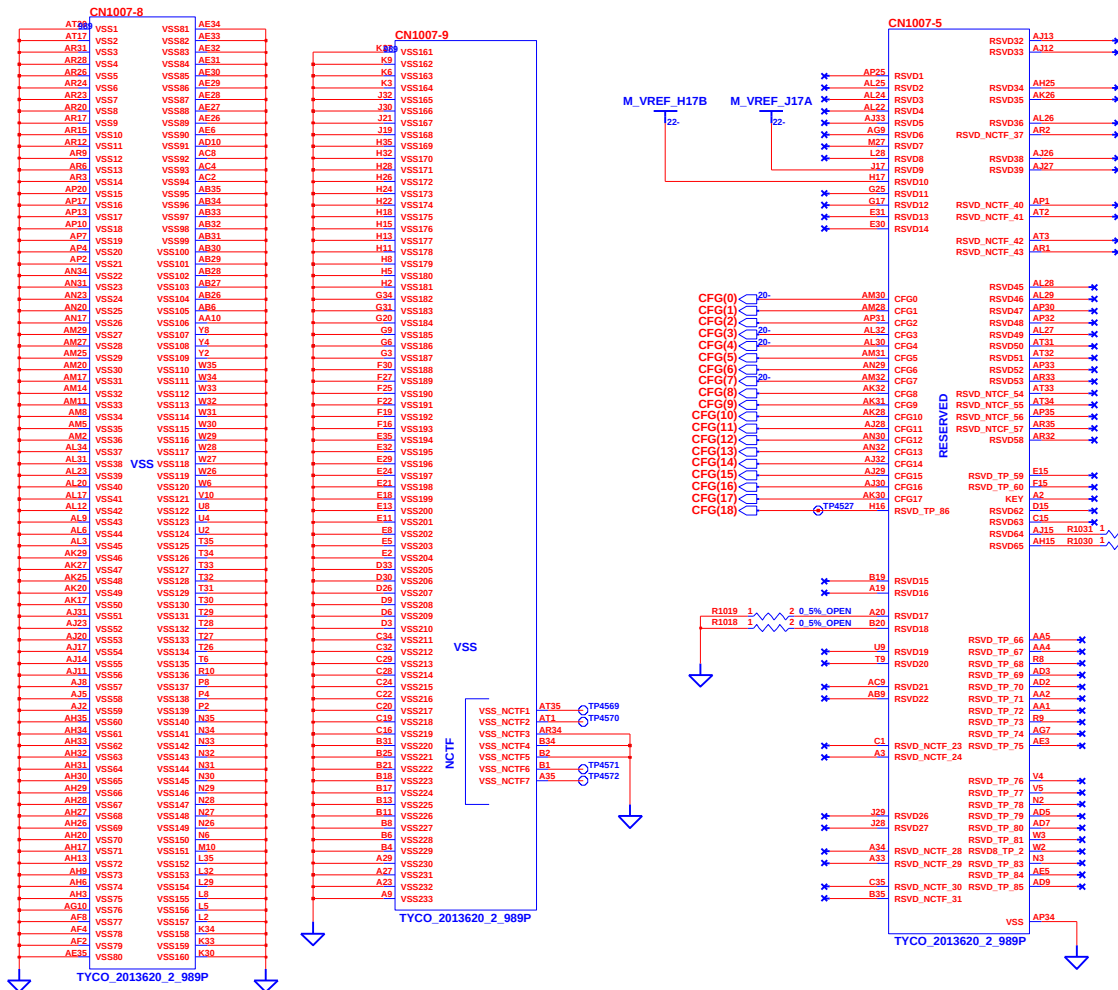




INVENTEC

TITLE			
MURRAY			
CPU-5			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		19	OF 48

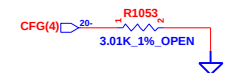
CHANGE by Chou, Leo 1-Mar-2010



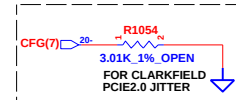
PCI-Express Configuration Select	
CFG0	1:Single PEG 0:Bifurcation enabled



CFG3 - PCI-Express Static Lane Reversal	
CFG3	1:Normal Operation 0:Lane Numbers Reversed 15 -> 0, 14 -> 1, ...



CFG4 - Display Port Presence	
CFG4	1:Disabled; No Physical Display Port attached to Embedded Display Port 0: Enabled; An external Display Port device is connected to the Embedded Display Port



CFG7 - Reserved : Temporarily used for early Clarkfield samples
Clarkfield (Only for early samples pre-ES1)
Connect to GND with 3.01K Ohm 5% Resistor

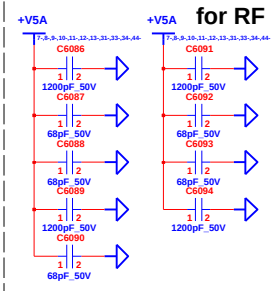
INVENTEC

TITLE			
MURRAY CPU-6			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		20	OF 48

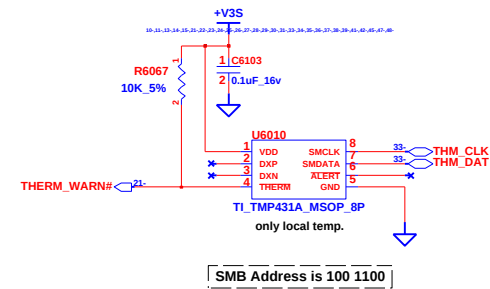
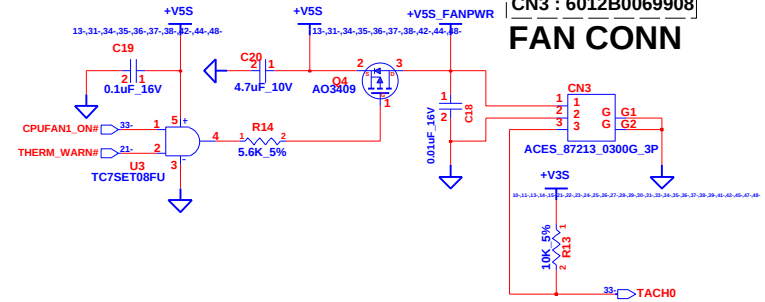
CHANGE by Chou, Leo 1-Mar-2010

8

for RF



*BOM
CN3 : 6012B0069908
FAN CONN



SMB Address is 100 1100

INVENTEC

TITLE MURRAY Thermal, Fan & XDP			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
SHEET 21		OF 48	

CHANGE by Chou, Leo 1-Mar-2010

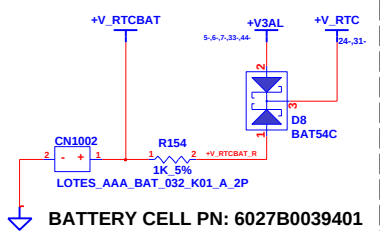
CN1005 (lower) : 6026B0121102
***BOM**

TITLE			
MURRAY			
DDR3-2			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		23	OF 48

*BOM (for HP)
PCH(HM55) : 6019B0713401

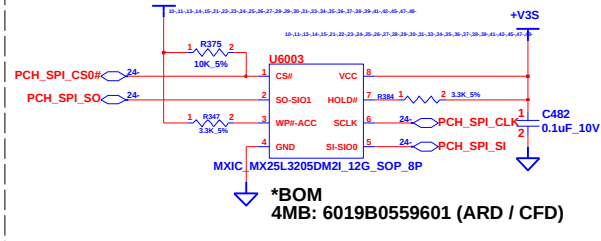
INTVRMEN :
Integrated SUS 1.1V VRM Enable
High - Enable Internal VRs

RTC BATTERY



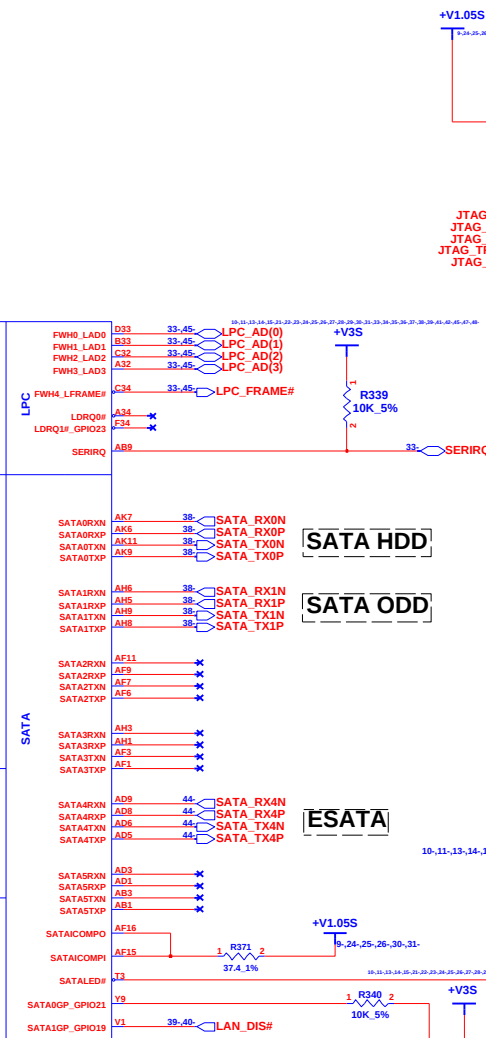
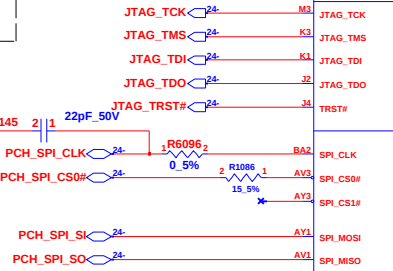
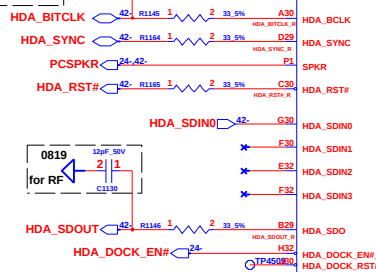
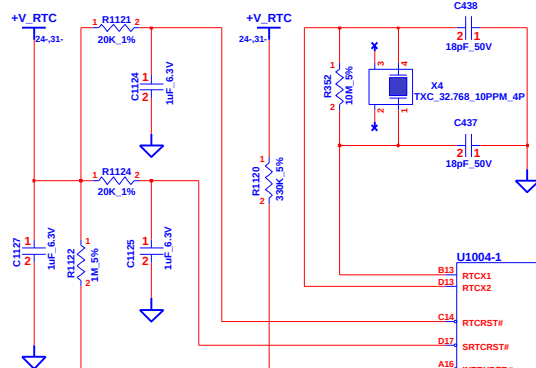
SPI_MISO:
No series resistor if 1.5"-6.5"
with 1 SPI device
Use a 33ohm series resistor
close to PCH if using 2 SPI device

Close TO PCH



Flash Descriptor Security Override
HDA_DOCK_EN# Low : Enable
High : Disable

R13911: Disable NO REBOOT
R4569 : TPM disable: No stuff



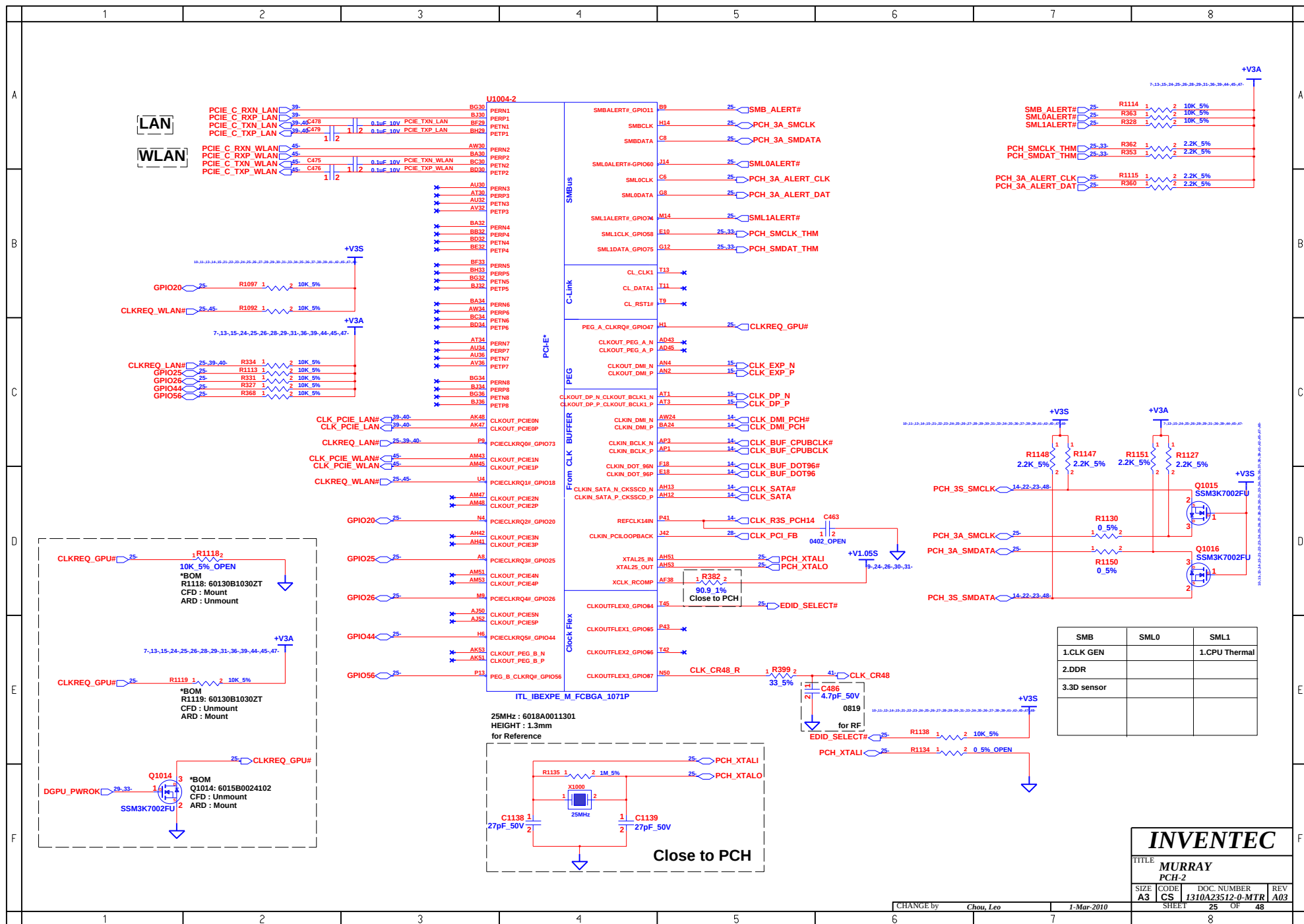
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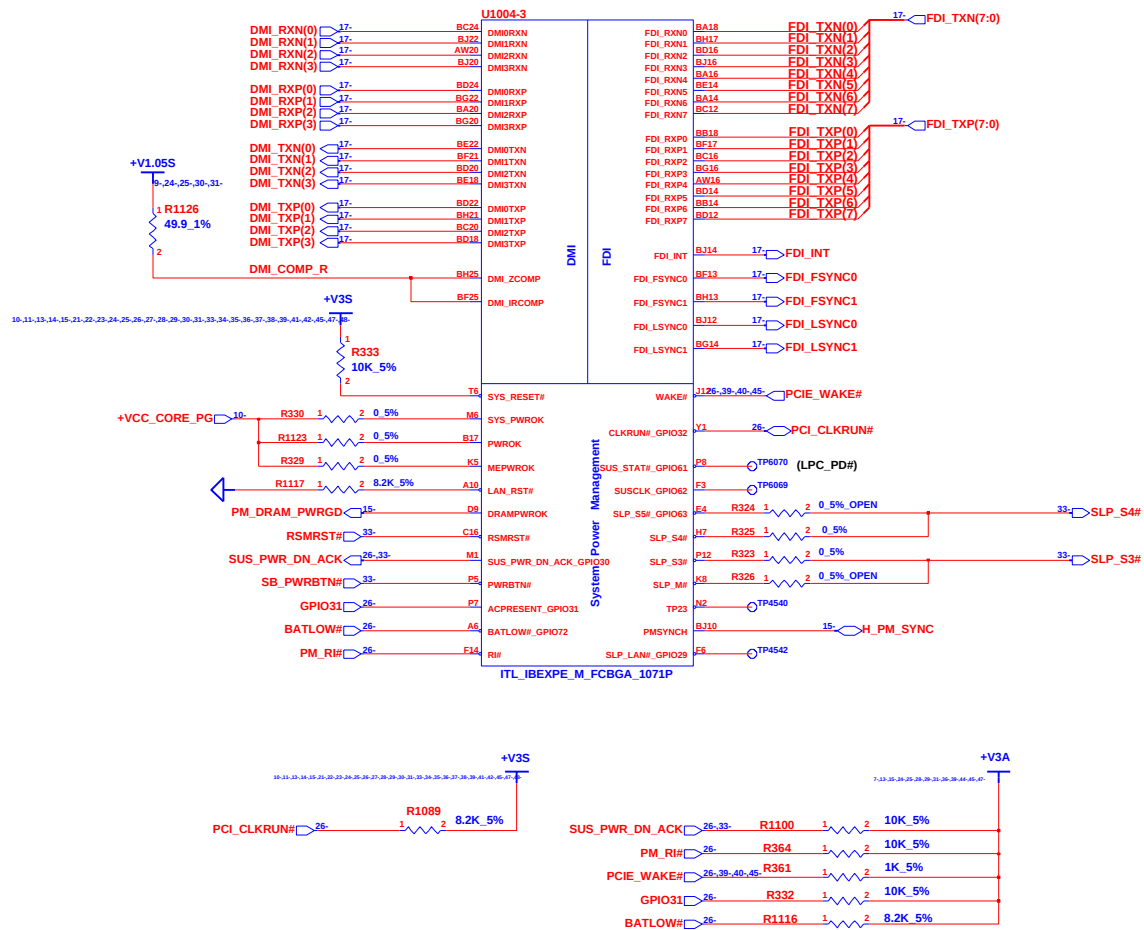
TITLE
MURRAY
PCH-1

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03

SHEET 24 OF 48

CHANGE by Chou, Leo 1-Mar-2010



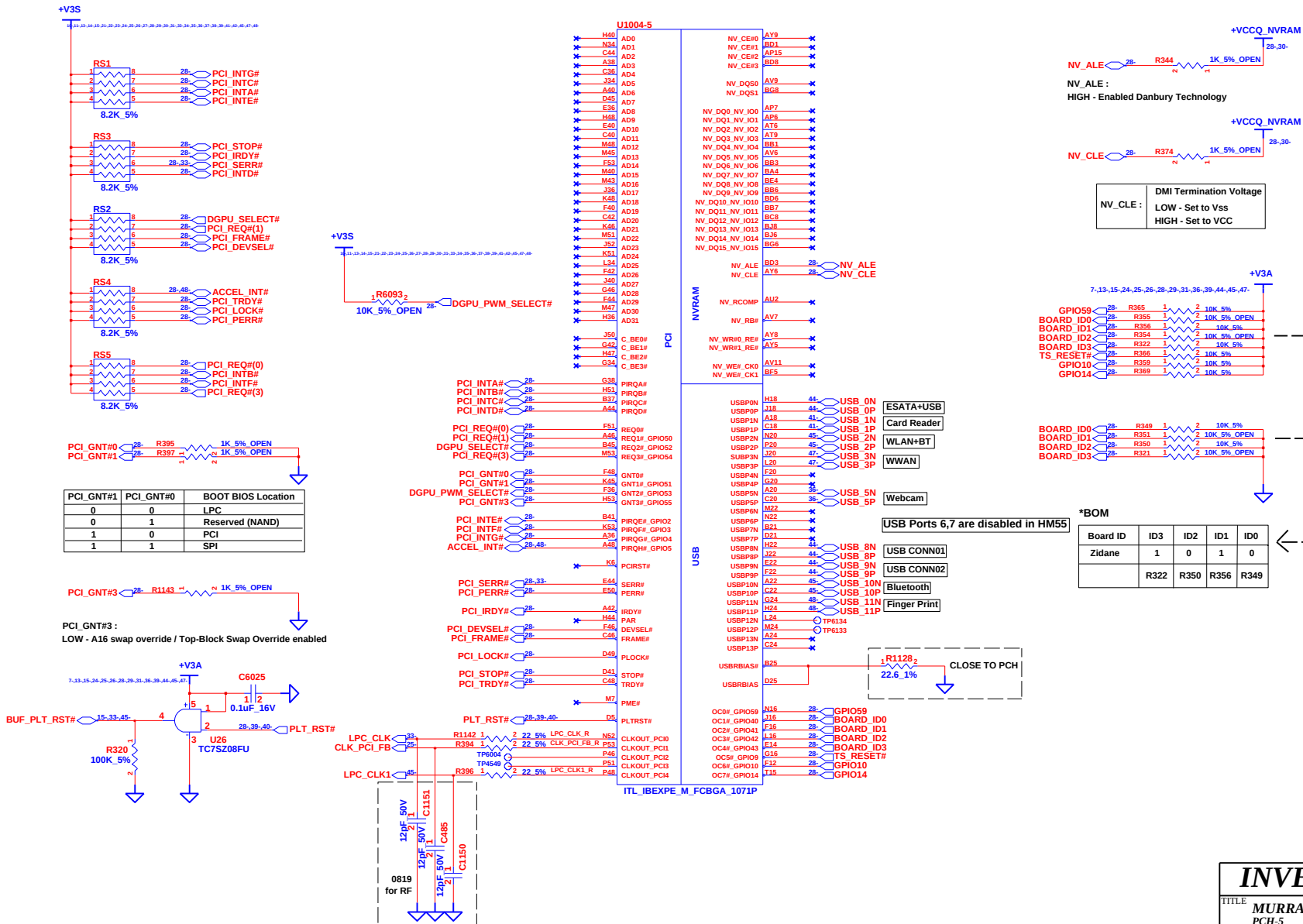


INVENTEC

TITLE			
MURRAY			
PCH-3			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		26	OF 48

CHANGE by Chou, Leo 1-Mar-2010

TITLE			
MURRAY PCH-4			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		27 OF	48



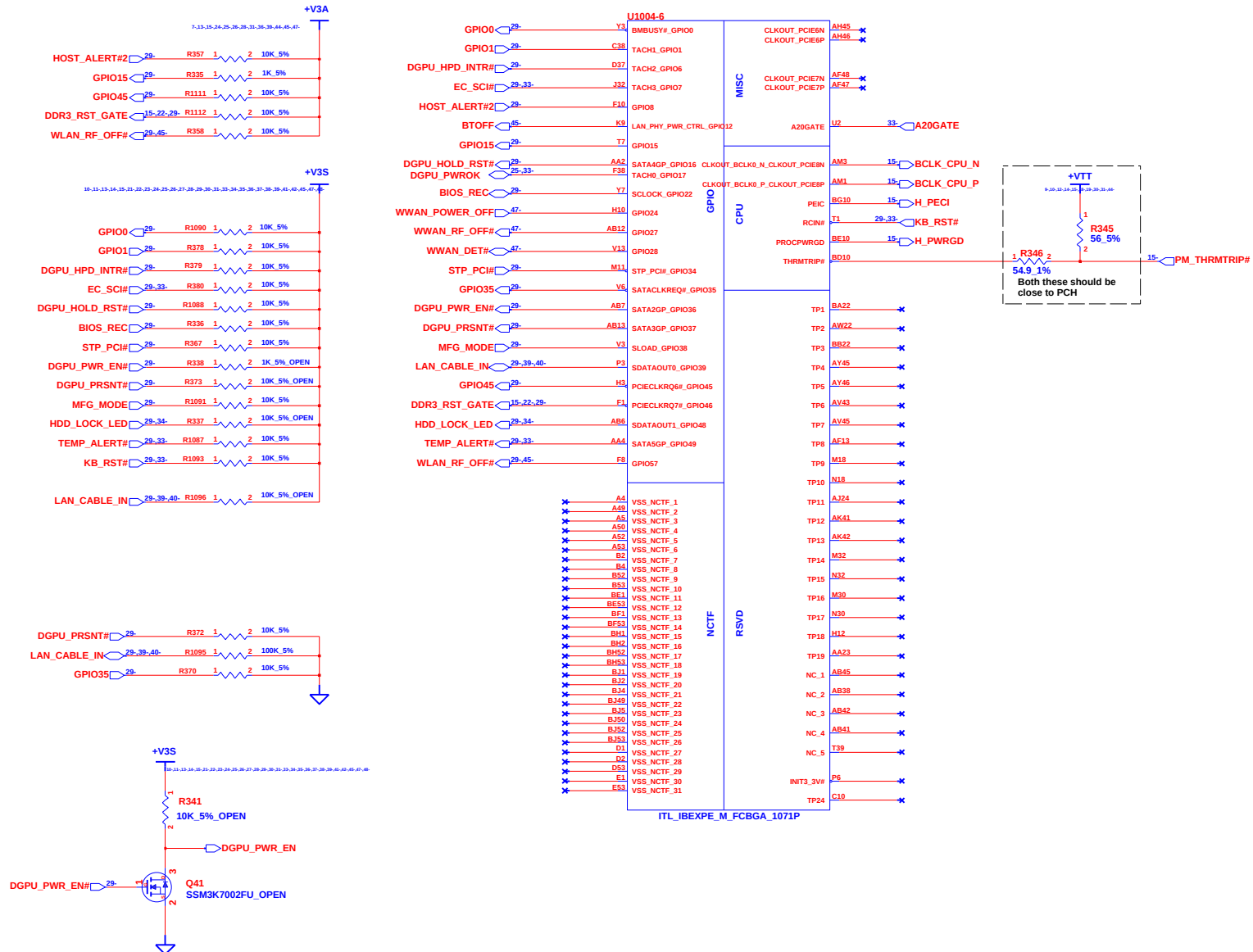
INVENTEC

TITLE
MURRAY
PCH-5

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03

CHANGE by Chou, Leo 1-Mar-2010

SHEET 28 OF 48

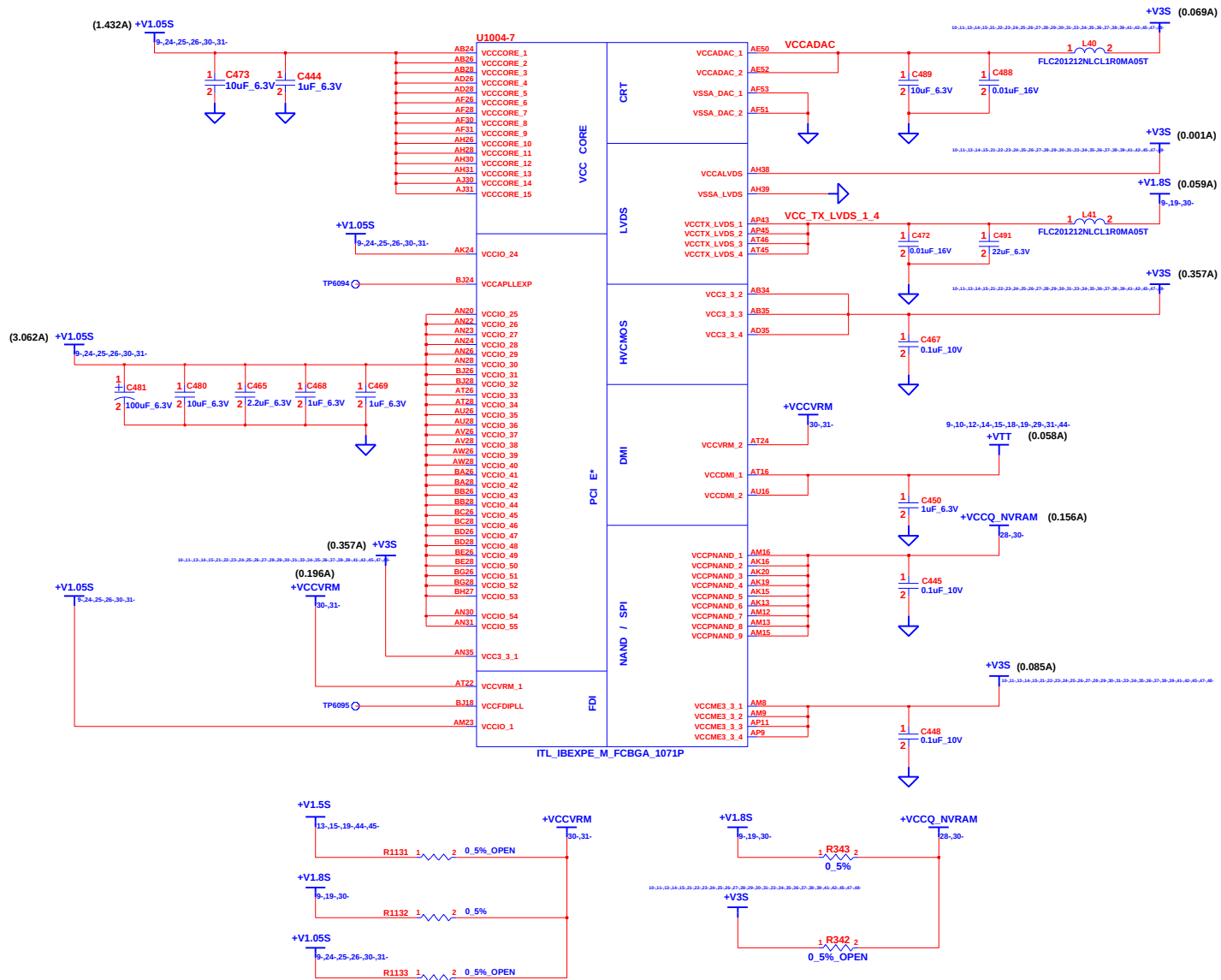


INVENTEC

TITLE			
MURRAY			
PCH-6			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		29	OF 48

CHANGE by Chou, Leo 1-Mar-2010

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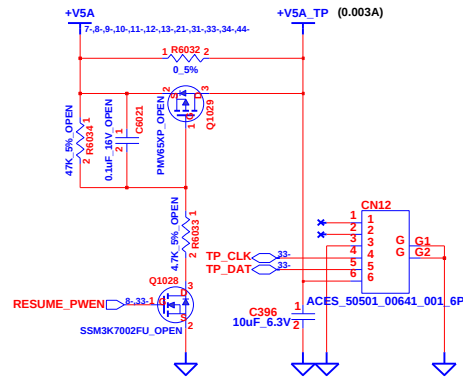
HDA_SYNC signal is used as a strap
to select whether VccVRM is connected to 1.8V or 1.5V

INVENTEC

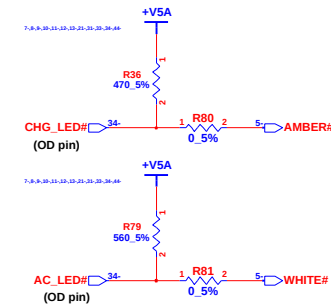
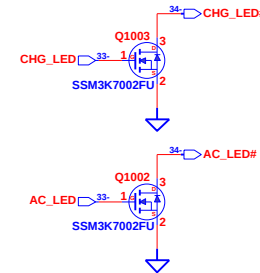
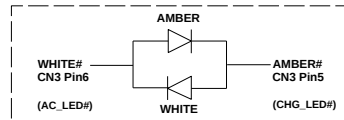
TITLE MURRAY PCH-7			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
SHEET 30		OF 48	

CHANGE by Chou, Leo 1-Mar-2010

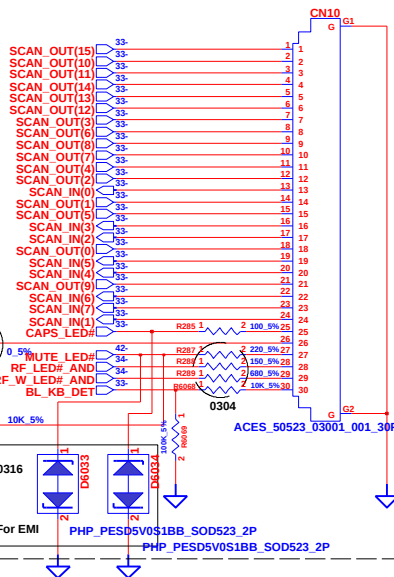
TouchPad Module CONN



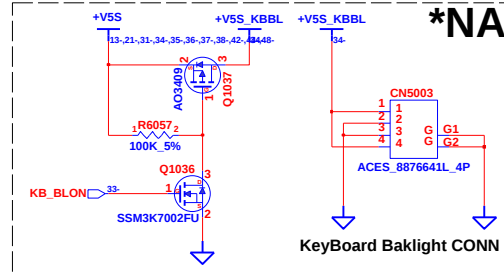
DC-JACK LED



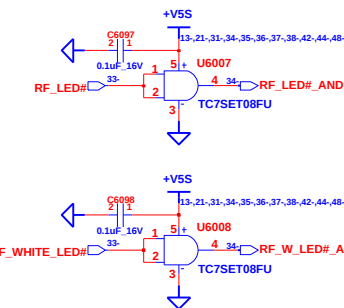
KeyBoard CONN (30 pin)



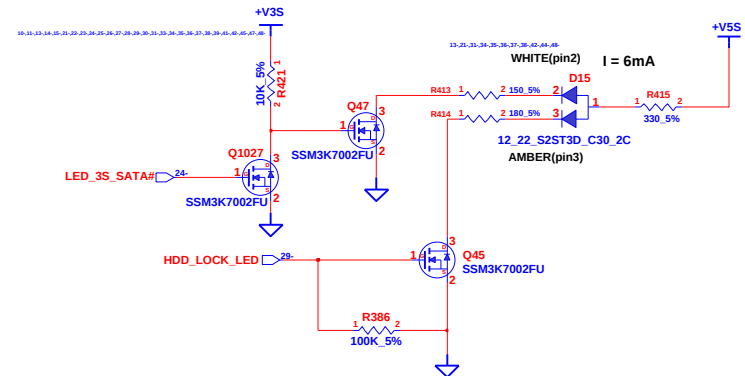
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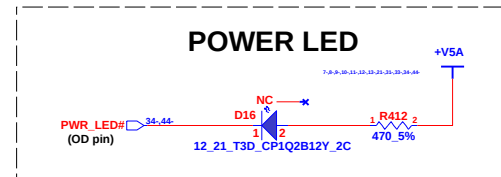
KeyBoard Baklight CONN



SATA LED & HDD-HALTED LED



POWER LED

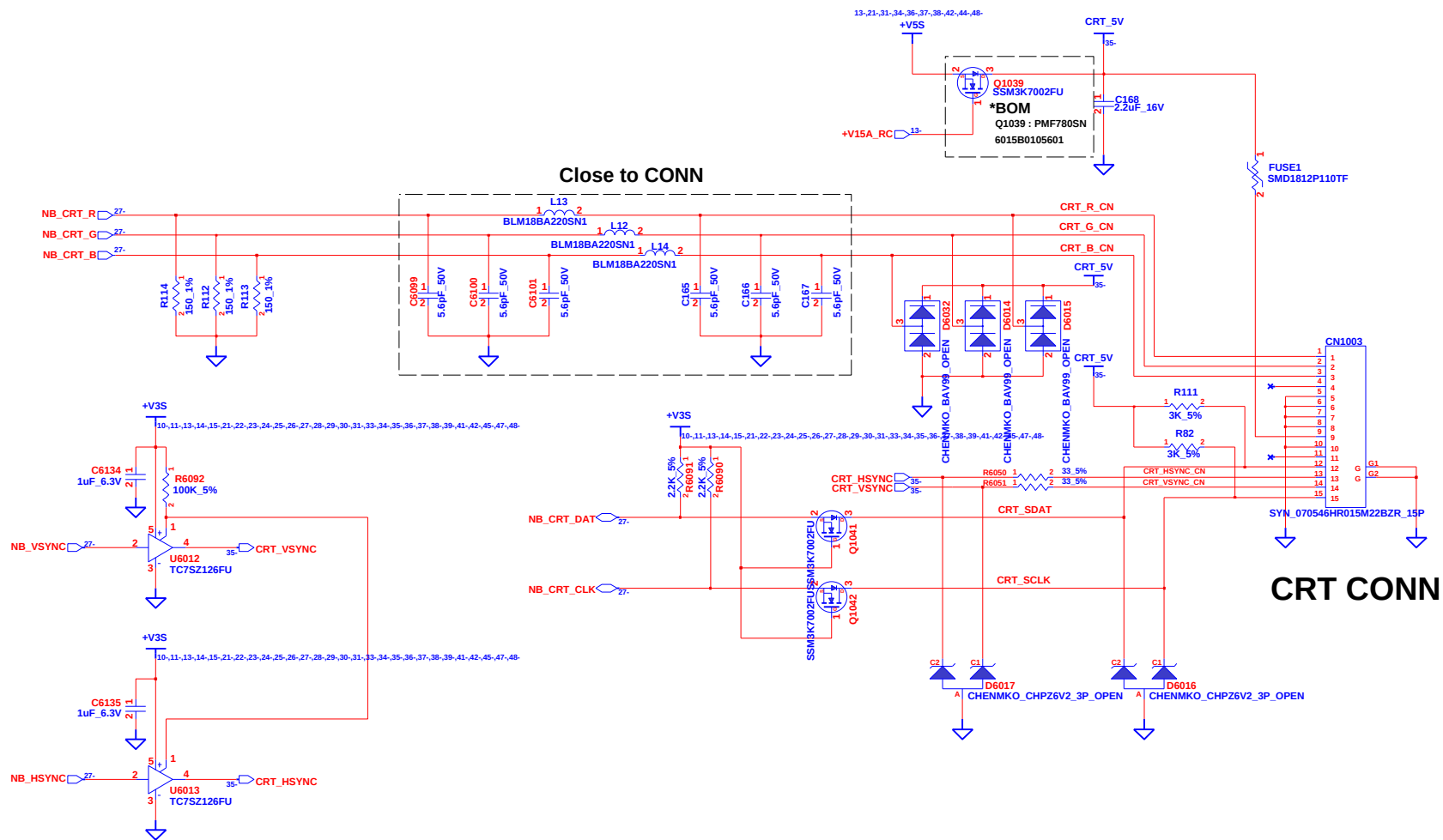


INVENTEC

TITLE		
MURRAY		
Keyboard & TouchPad		
SIZE	CODE	DOC. NUMBER
A3	CS	1310A23512-0-MTR
SHEET		REV
34		A03

CHANGE by Chou, Leo 1-Mar-2010

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INVENTEC

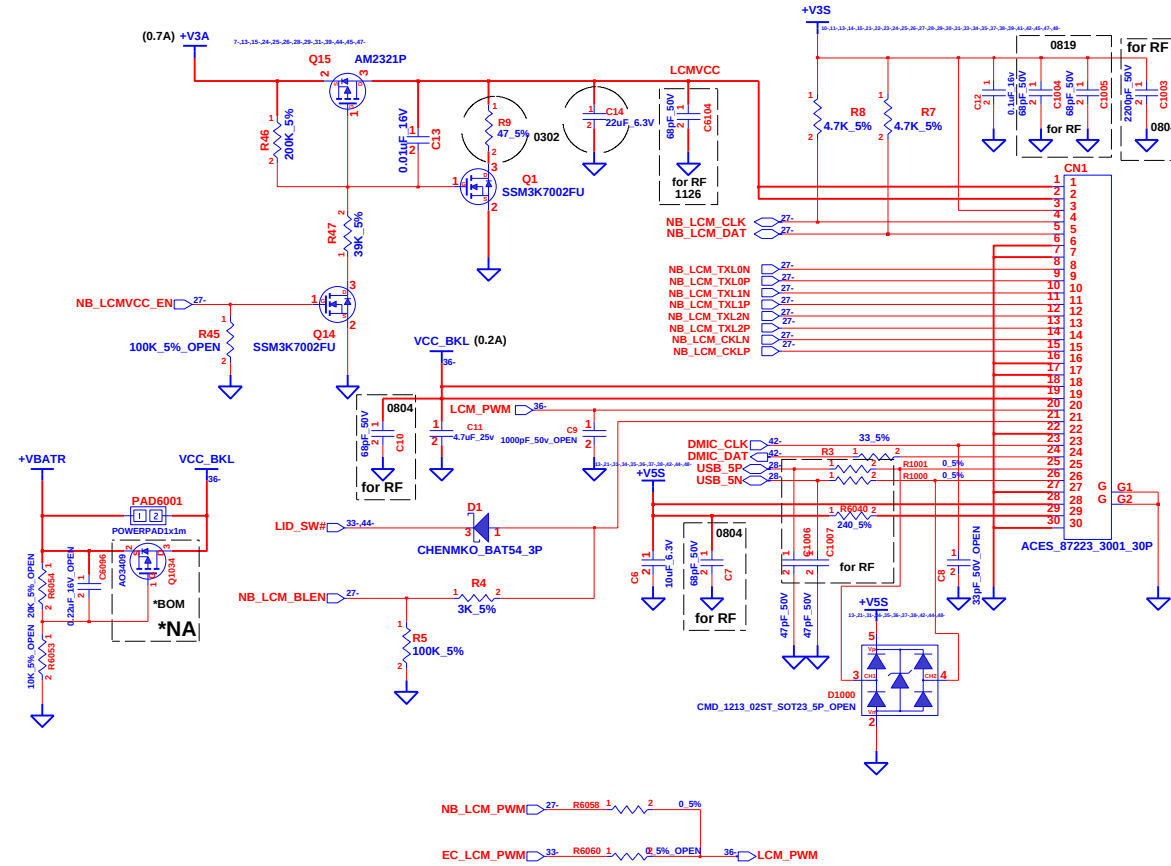
TITLE			
MURRAY			
CRT			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		35	OF 48

CHANGE by Chou, Leo 1-Mar-2010

LCM CONN (30pin)

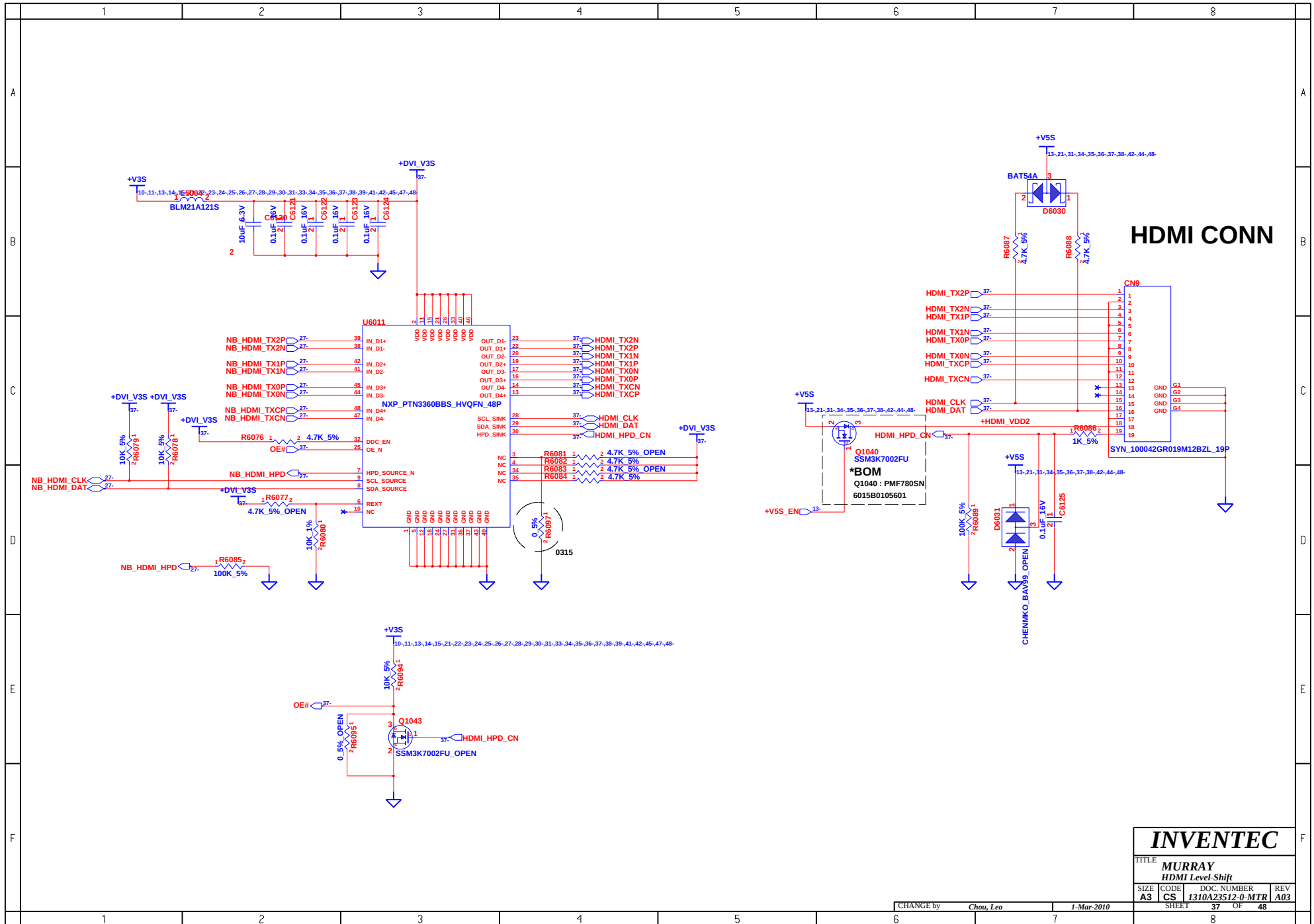
(6012B0348301)

*BOM



INVENTEC

TITLE			
MURRAY			
LCM			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
CHANGE by		Chou, Leo	1-Mar-2010
SHEET		36	OF 48

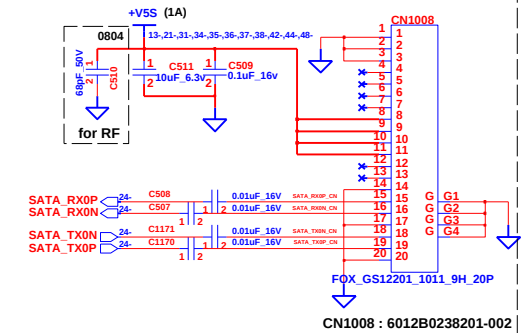


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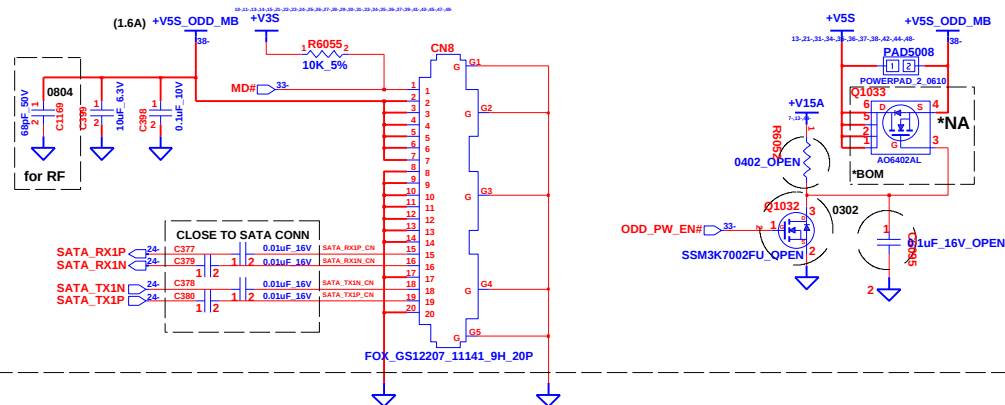
TITLE			
MURRAY			
HDMI Level-Shift			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		37	OF 48

CHANGE by Chou, Leo 1-Mar-2010

SATA HDD FPC CONN on MB



SATA ODD FPC CONN on MB

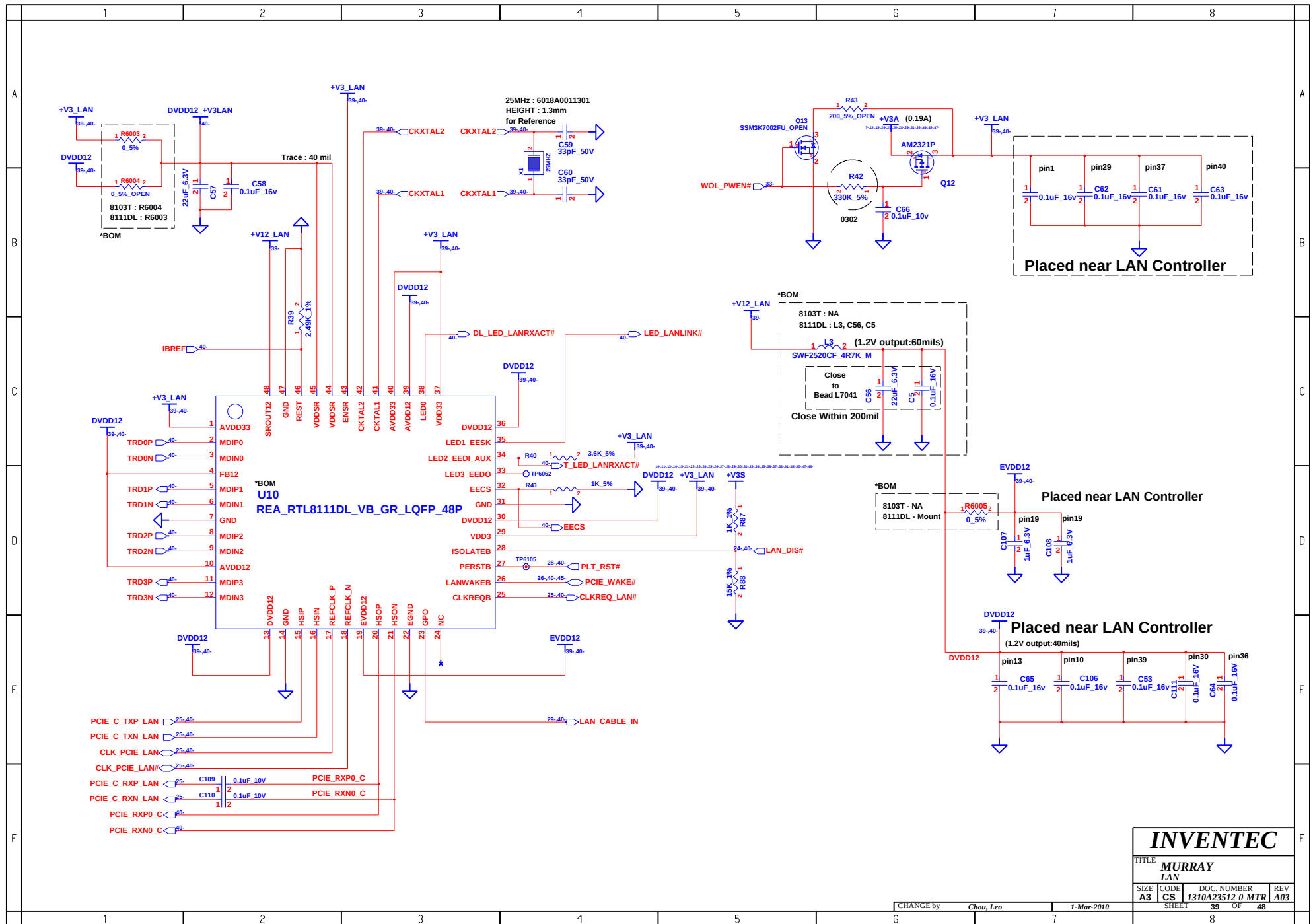


INVENTEC

TITLE			
MURRAY			
SATA HDD & ODD			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		38	OF 48

CHANGE by Chou, Leo 1-Mar-2010

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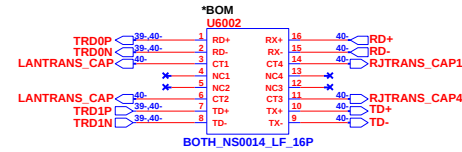
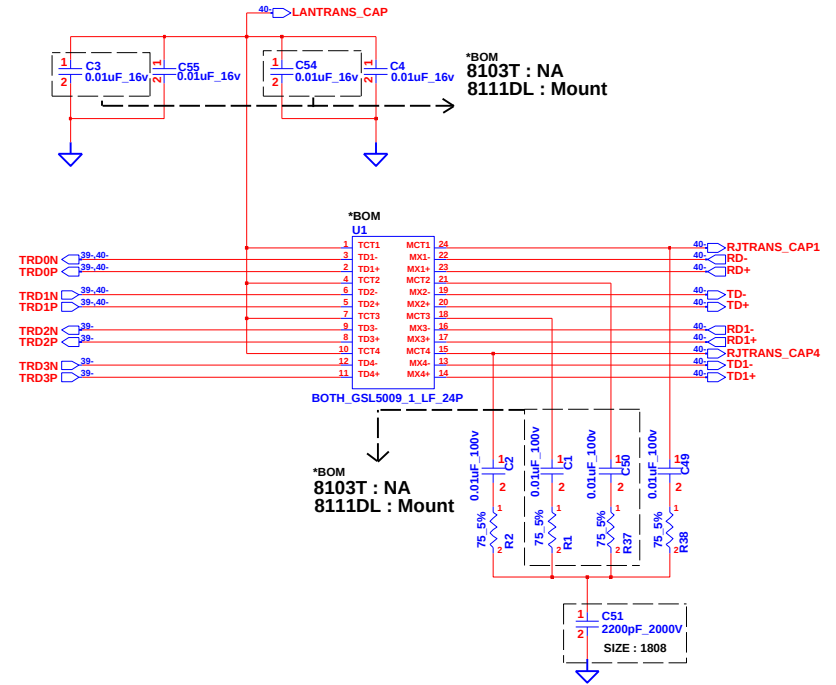
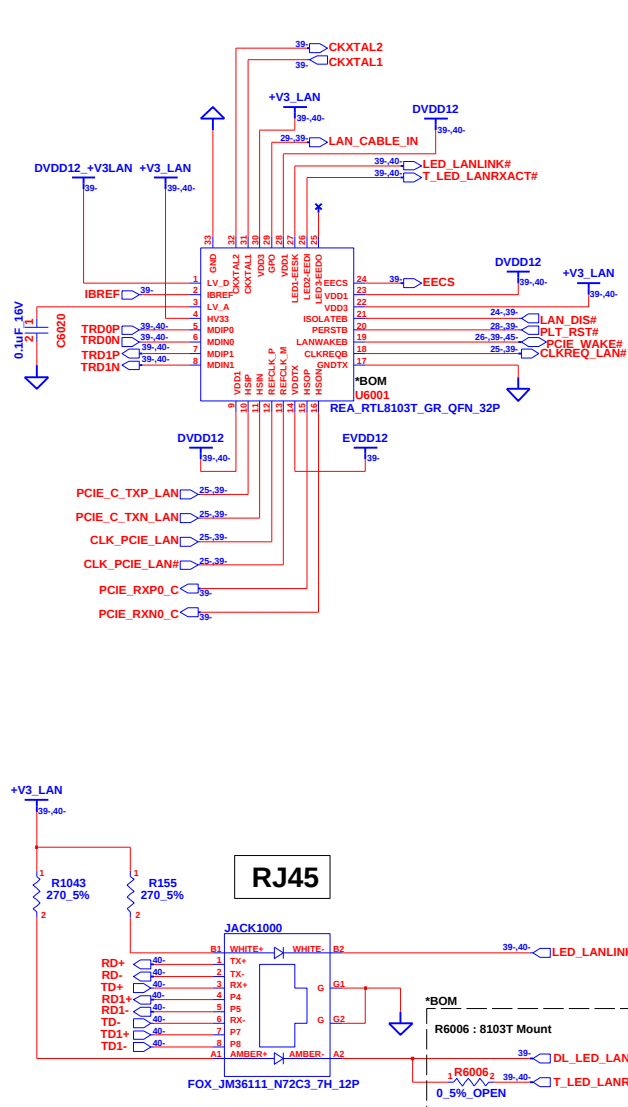


INVENTEC

TITLE MURRAY LAN			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
SHEET		39	OF 48

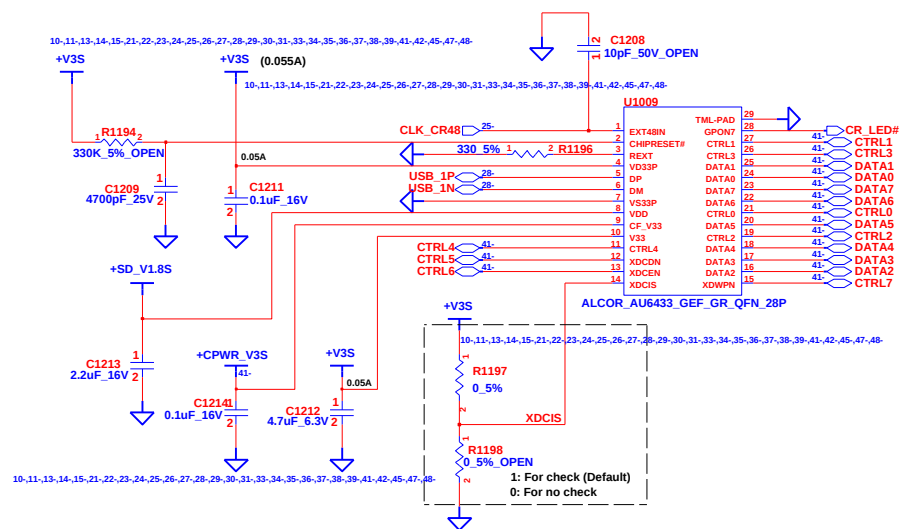
CHANGE by Chou, Leo 1-Mar-2010

LAYOUT NOTE : Place termination resistors and caps as close to LAN controller as possible

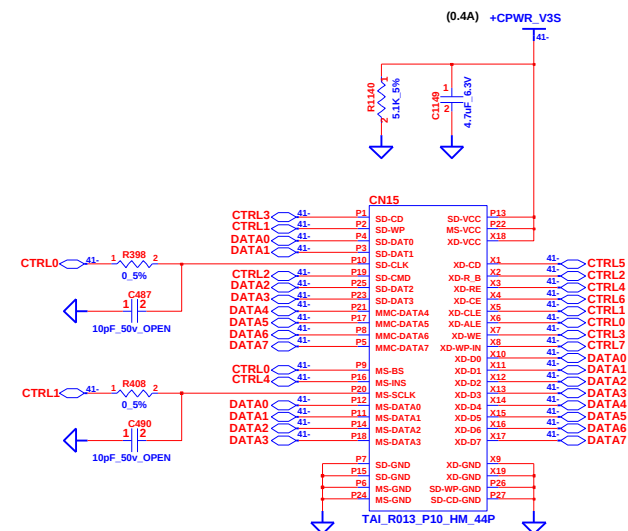


INVENTEC				
TITLE MURRAY				
RJ-45				
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03	
CHANGE by Chou, Leo		1-Mar-2010		
		SHEET 40 OF 48		

*BOM
U1009 : AU6437B52-GEF-GR
6019B0723601



Card Reader CONN



INVENTEC

TITLE MURRAY Card Reader			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
SHEET 41		OF 48	

CHANGE by Chou, Leo 1-Mar-2010

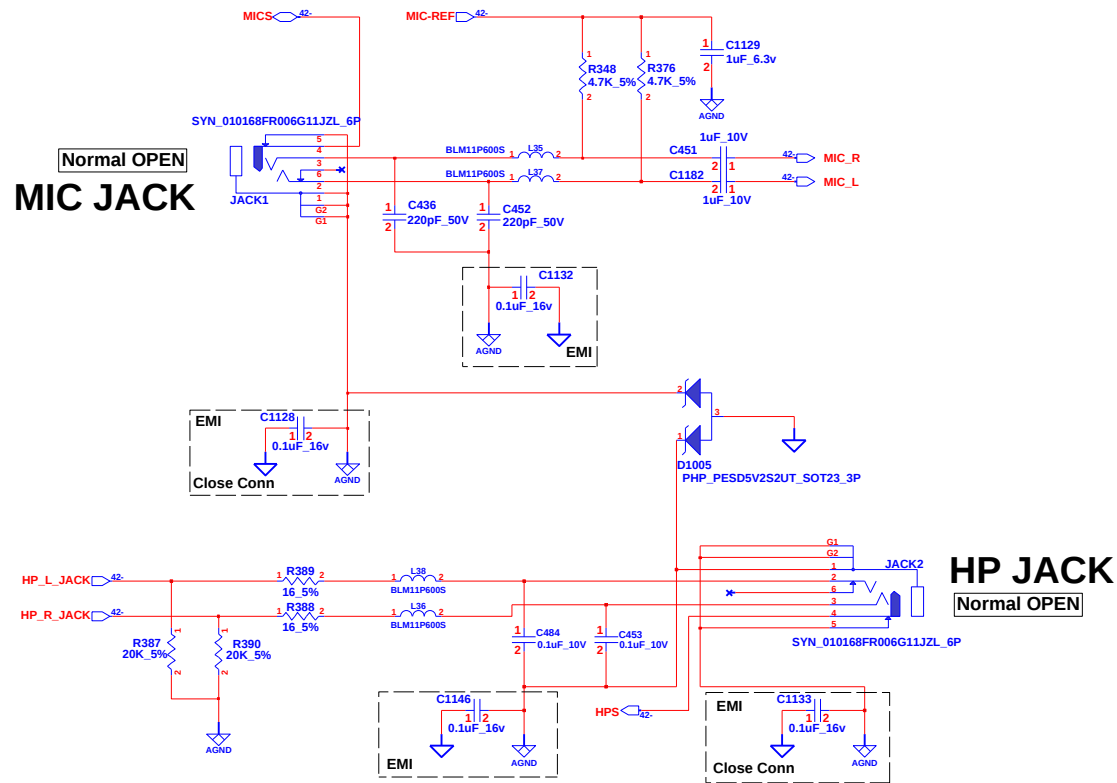
PORT	Discription	Sense
A	NO USE	
B	Headphone	HPS
C	Microphone	MICS
D	SPKR	
E	NO USE	
F	NO USE	

INT-SPEAKER CONN



INVENTEC

TITLE MURRAY <i>Audio Codec</i>			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
SHEET 42		OF 48	



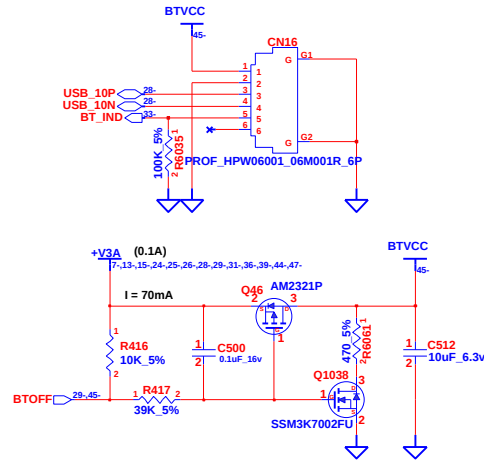
INVENTEC

TITLE			
MURRAY			
HP JACK & MIC JACK			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		43	OF 48

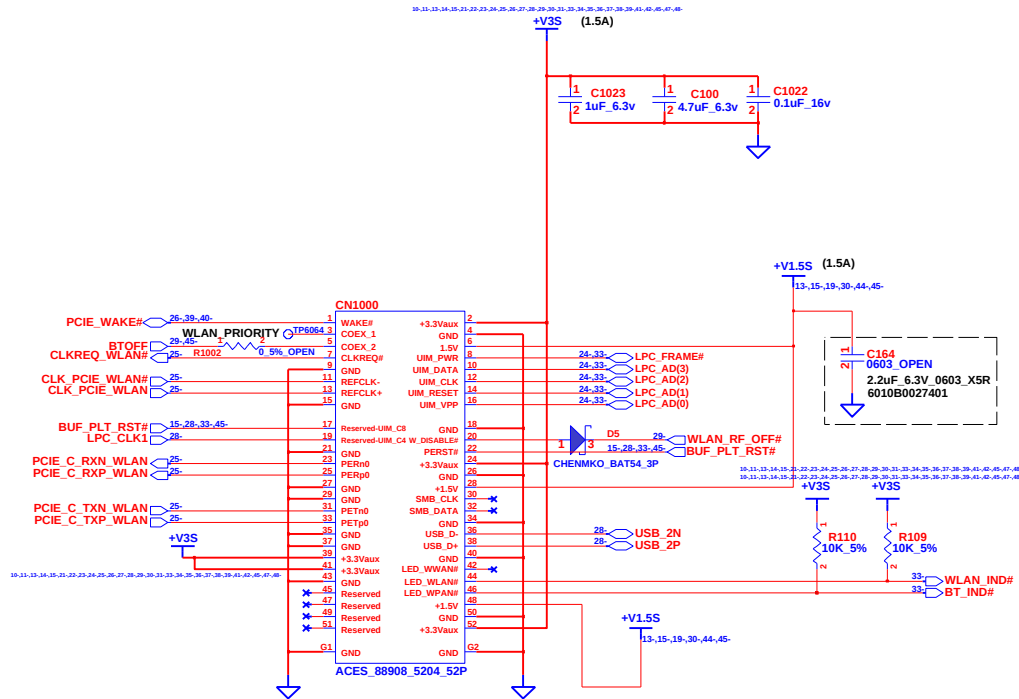
CHANGE by Chou, Leo 1-Mar-2010

8

BLUETOOTH CONN



WLAN CONN (MINICARD)



***BOM**
CN1000 : 6026B0184301

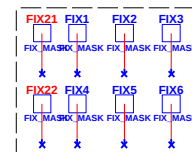
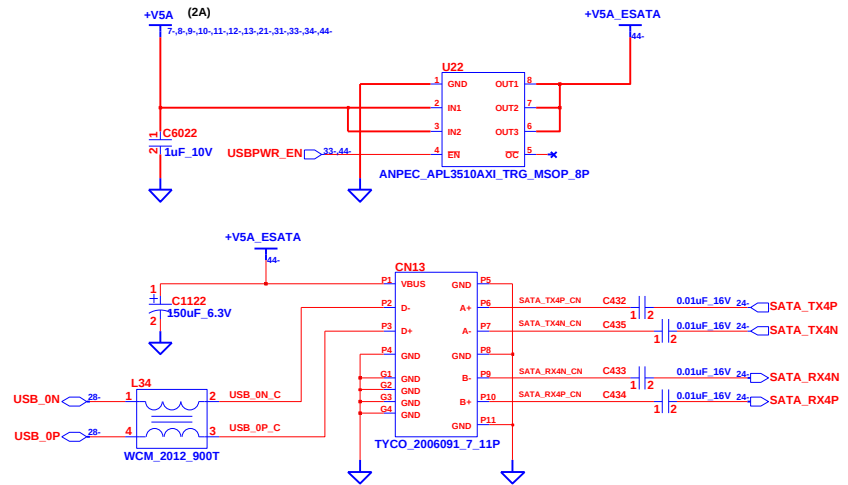
INVENTEC

TITLE MURRAY WLAN, BT & WebCAM			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
SHEET 45		OF 48	

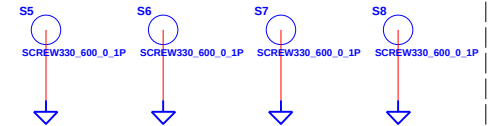
CHANGE by **Chou, Leo** 1-Mar-2010

8

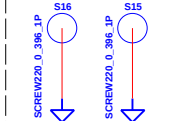
ESATA CONN (without Re-Driver chip)



CPU's screws



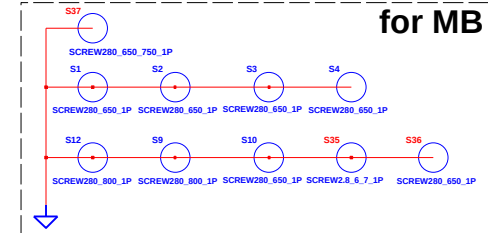
for PCH



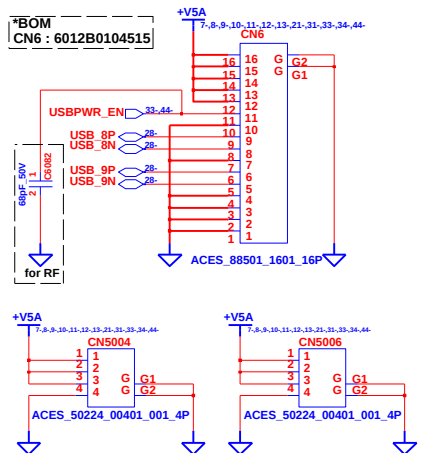
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*BOM

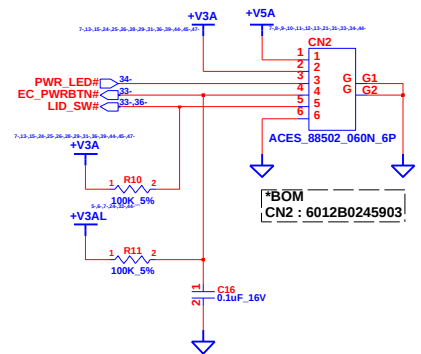
for MB



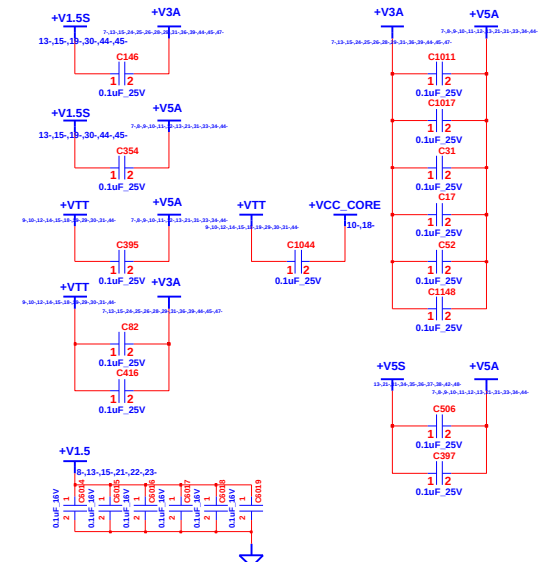
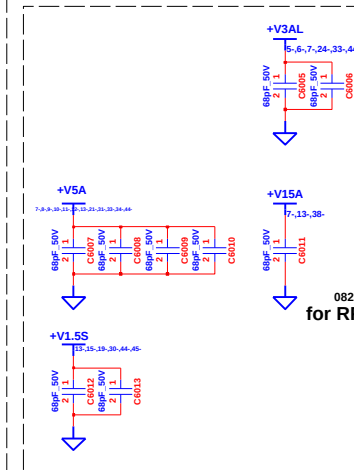
USB BOARD Cable on MB



PBN Cable CN on MB



EMI CAPS

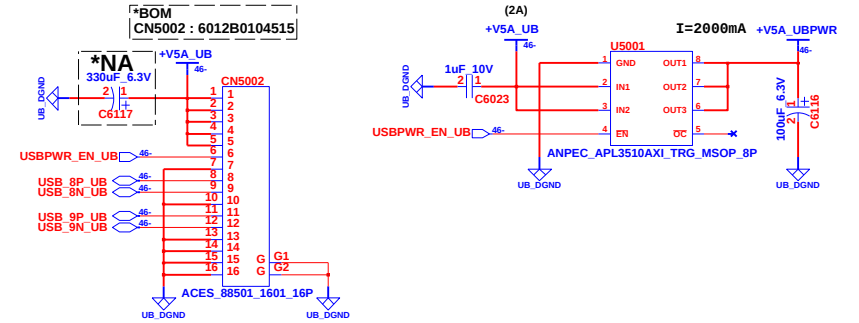


INVENTEC

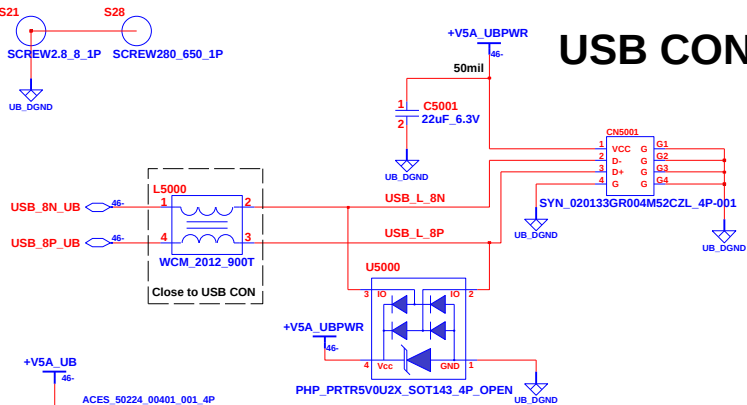
TITLE MURRAY ESATA, SCREW & LID			
SIZE A3	CODE CS	DOC. NUMBER 1310A23512-0-MTR	REV A03
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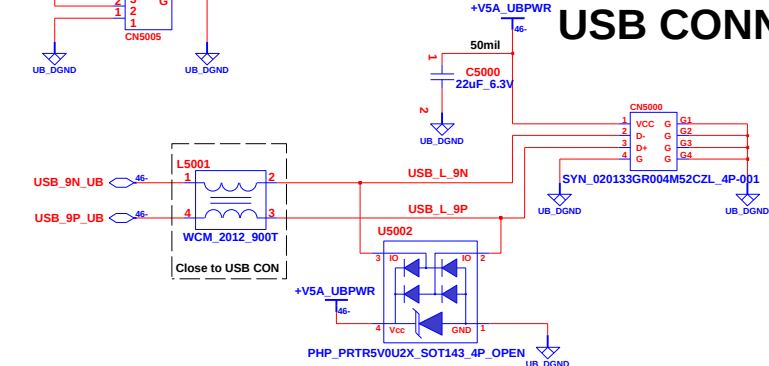
USB BOARD



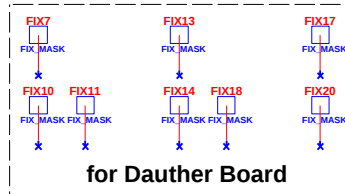
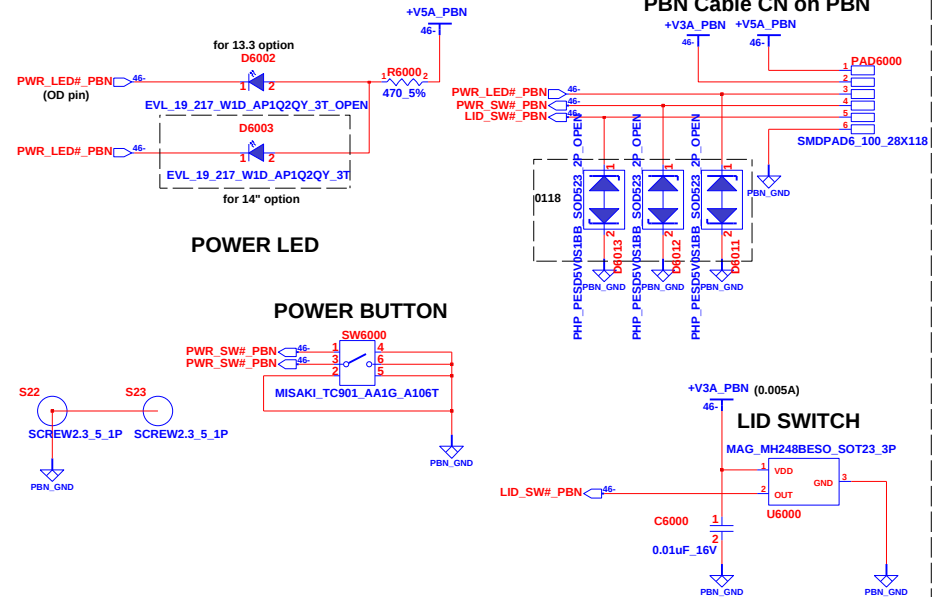
USB CONN01



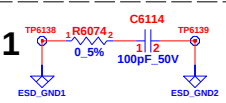
USB CONN02



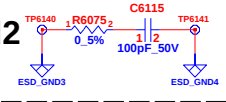
Power Button Board



EMC Board1



EMC Board2

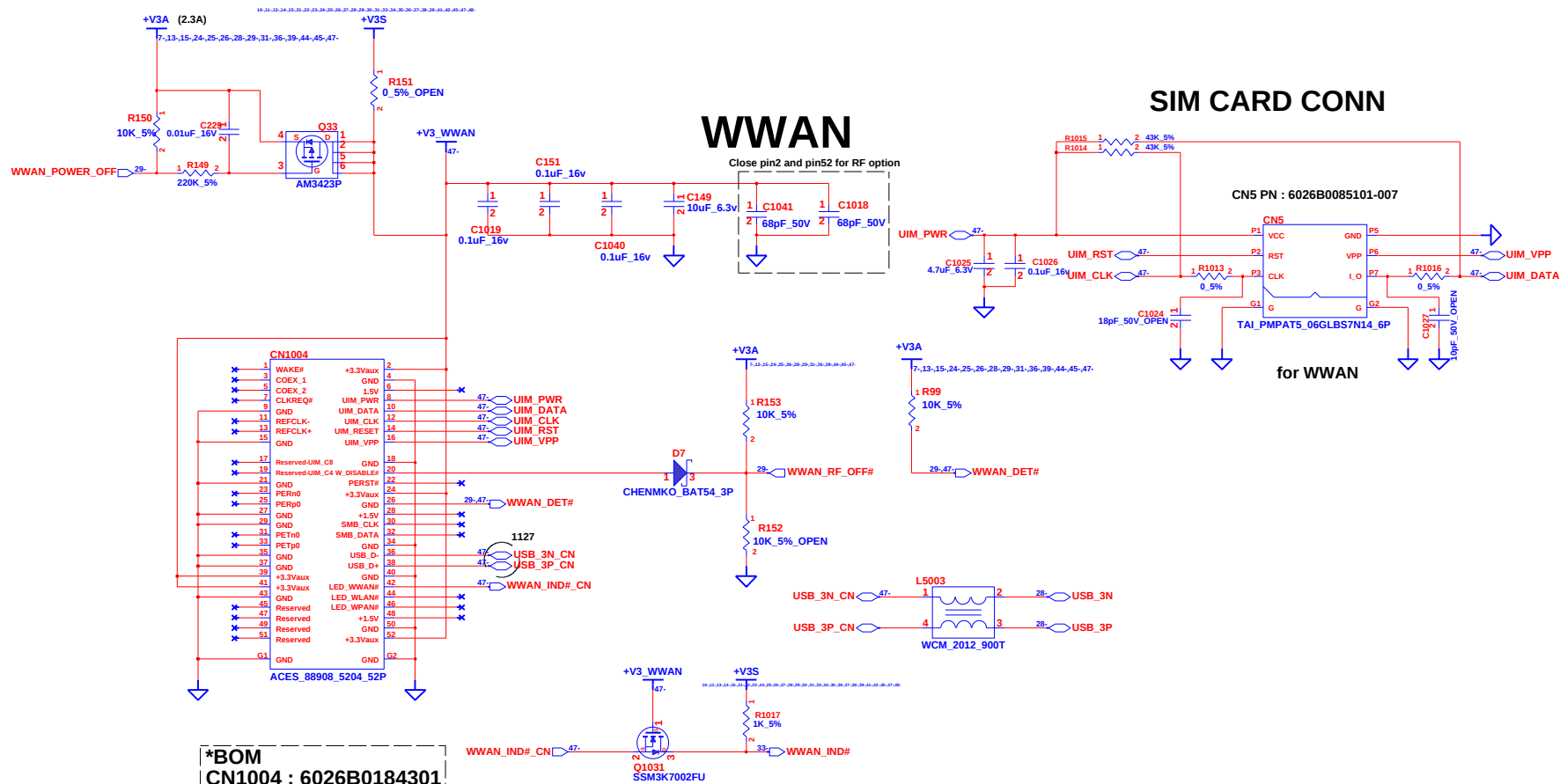


INVENTEC

TITLE	MURRAY		
	USB, PowerButton (DB)		
SIZE	A3	DOC. NUMBER	REV
CS	1310A23512-0-MTR		A03
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OPTION PART

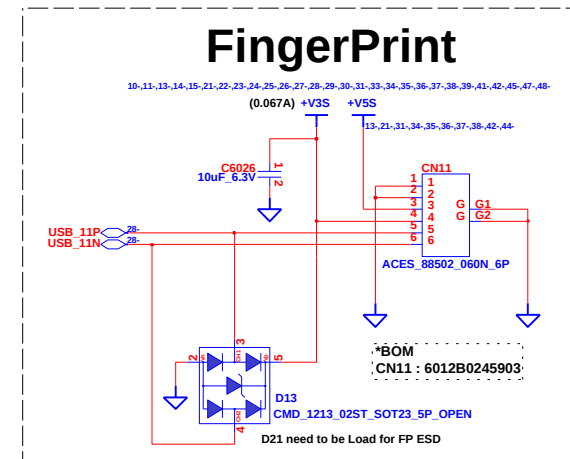
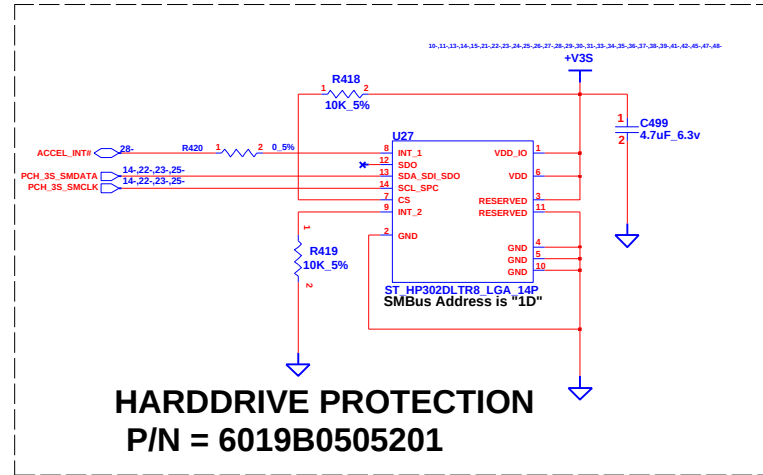


INVENTEC

TITLE			
MURRAY			
WWAN(Optional)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
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OPTION PART

**INVENTEC**

TITLE			
MURRAY			
Touchscreen, FP & HD LOCK(Option)			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23512-0-MTR	A03
SHEET		48	OF 48

CHANGE by Chou, Leo 1-Mar-2010