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**INVENTEC**

TITLE <b>Romeo</b> Index			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>I310A23166-0-MTR</b>	REV <b>A01</b>
SHEET <b>2</b>		OF <b>66</b>	

CHANGE by *Evan Shih* 5-Feb-2010

# Inventec Confidential

## Arrandale/ Clarksfield (Socket-rPGA989)

**DDR3 SO-DIMM 1**  
800/1066/1333 MHz , 8GB maximum memory P20

**DDR3 SO-DIMM 2**  
800/1066/1333 MHz , 8GB maximum memory P21

## PCH

HM-55

**USB 0**  
ESATA+USB  
P33

**USB 1**  
Card Reader  
P44

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P42/P60

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**VGA**  
AMD Madison 128 bit

PEG

DDR3

DDR3

P13~18

FDI

DMI

LVDS

PCIE

PCIE

SATA

SATA

SATA

SMBUS

HDA

LPC

SPI

P22~30

HSPI

SPI

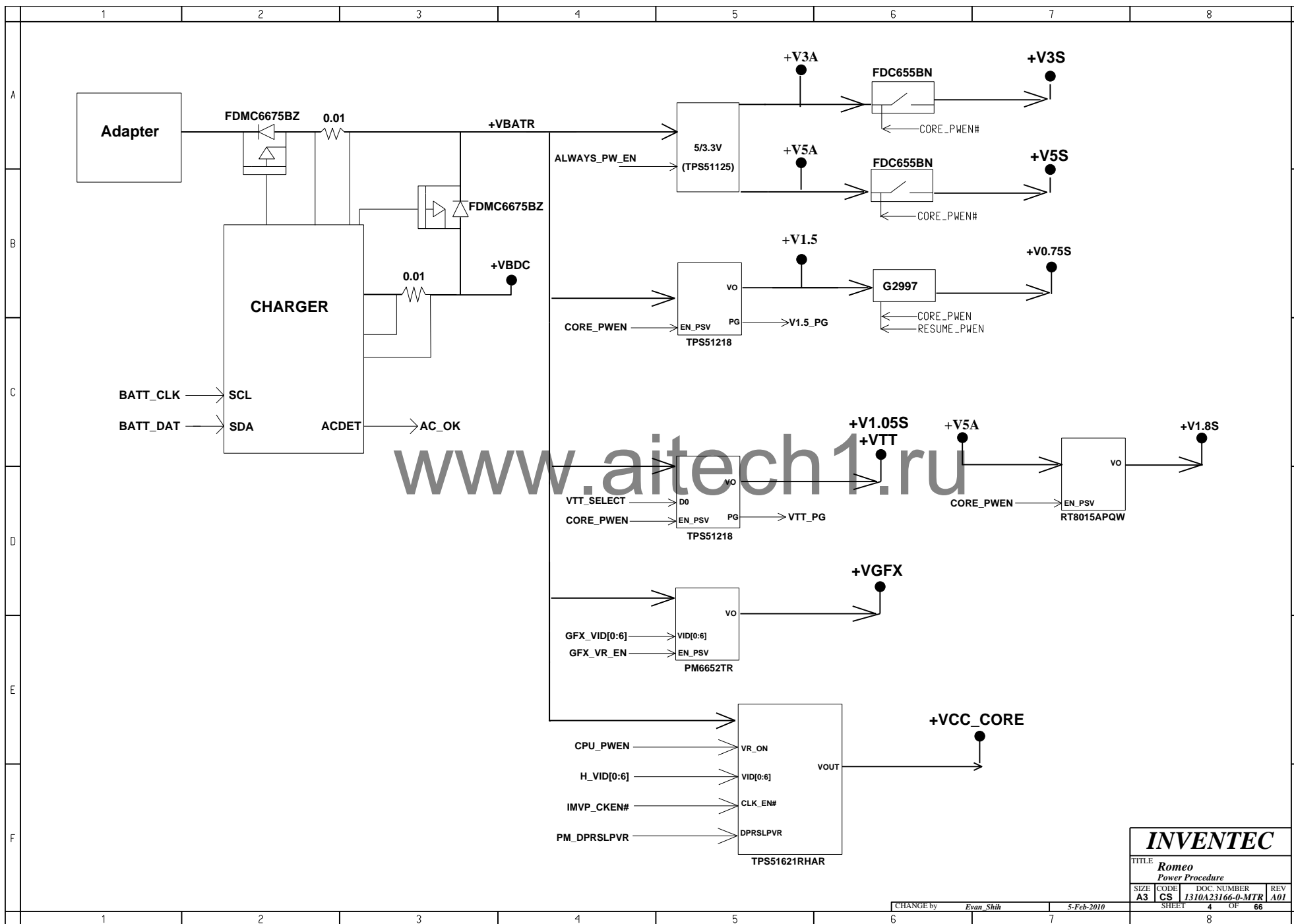
**INVENTEC**

TITLE  
**Romeo**  
Block Diagram

SIZE CODE DOC NUMBER REV  
A3 CS 1310A23166-0-MTR A01

SHEET 3 OF 66

CHANGE by Evan Shih 5-Feb-2010

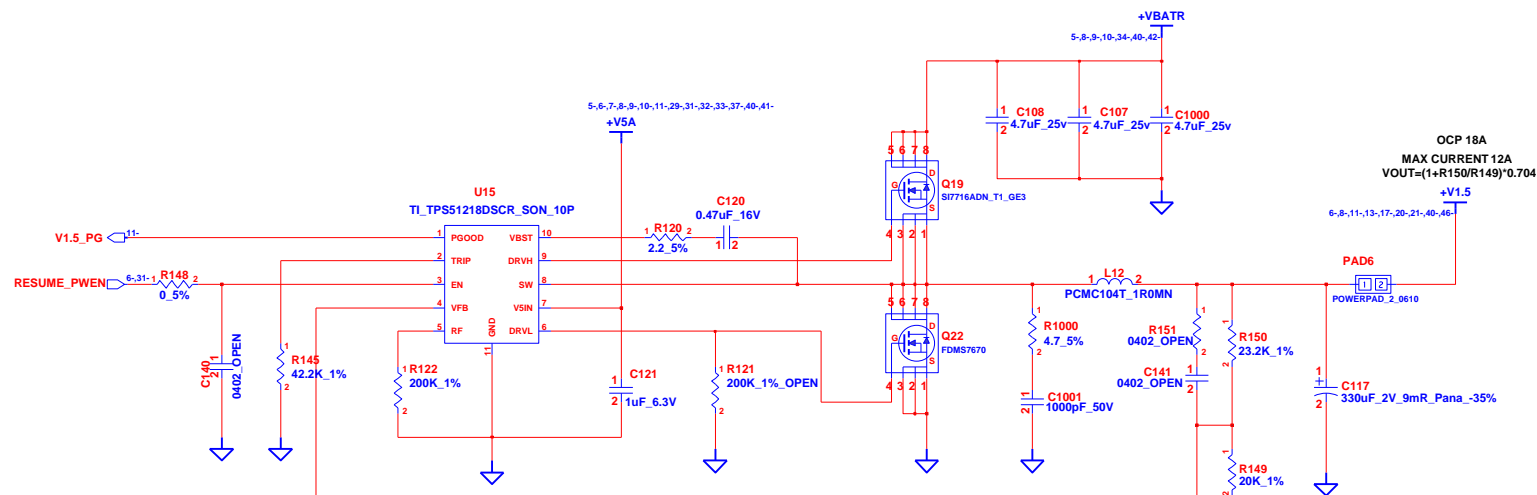


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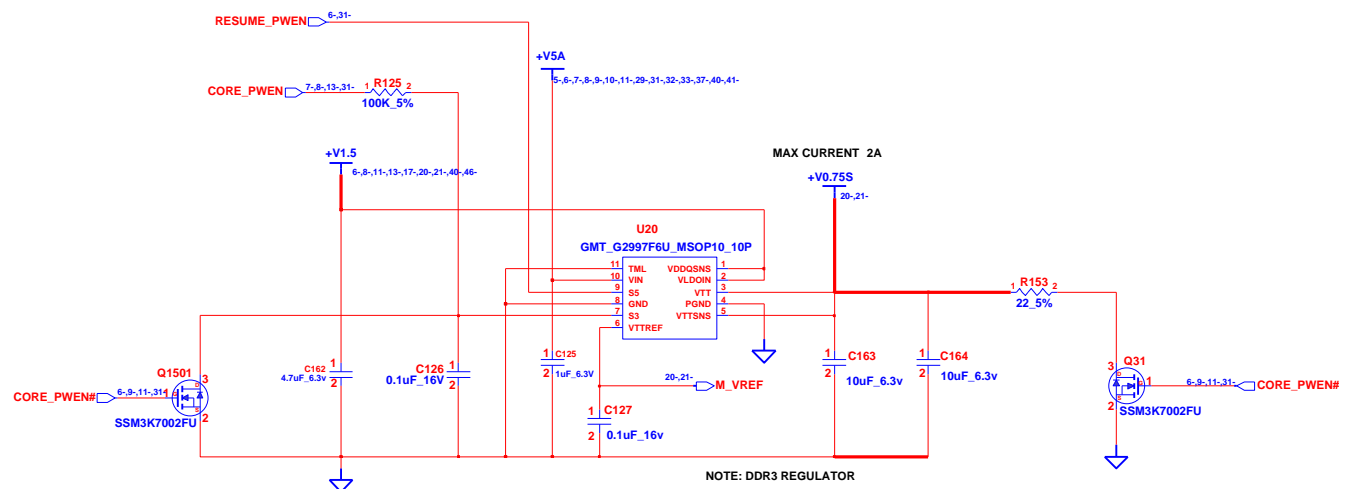
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Romeo			
Power Procedure			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23166-0-MTR	A01
SHEET		4	OF 66

CHANGE by: Evan Shih 5-Feb-2010



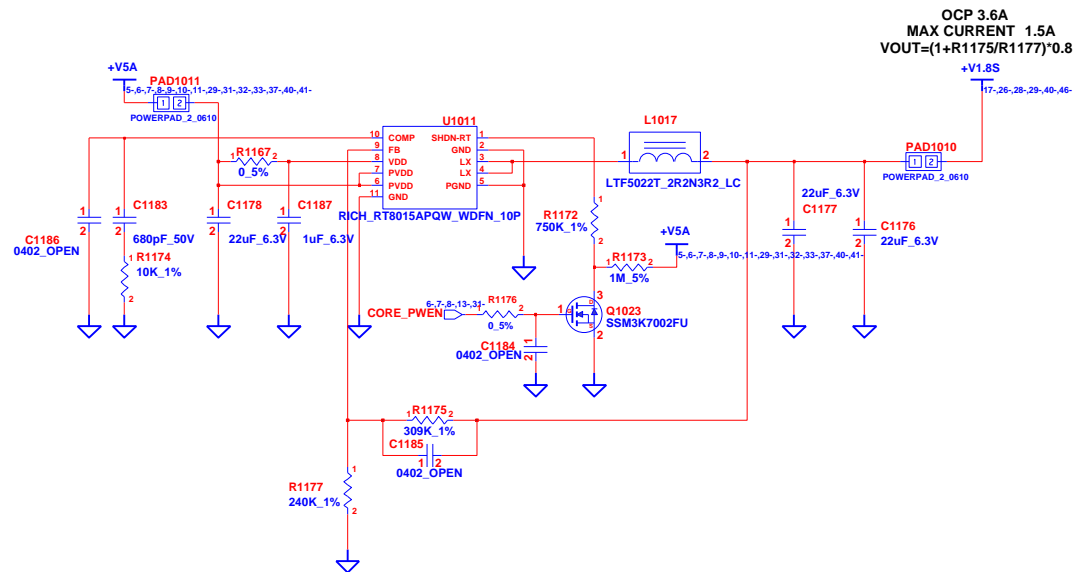


www.aitech1.ru

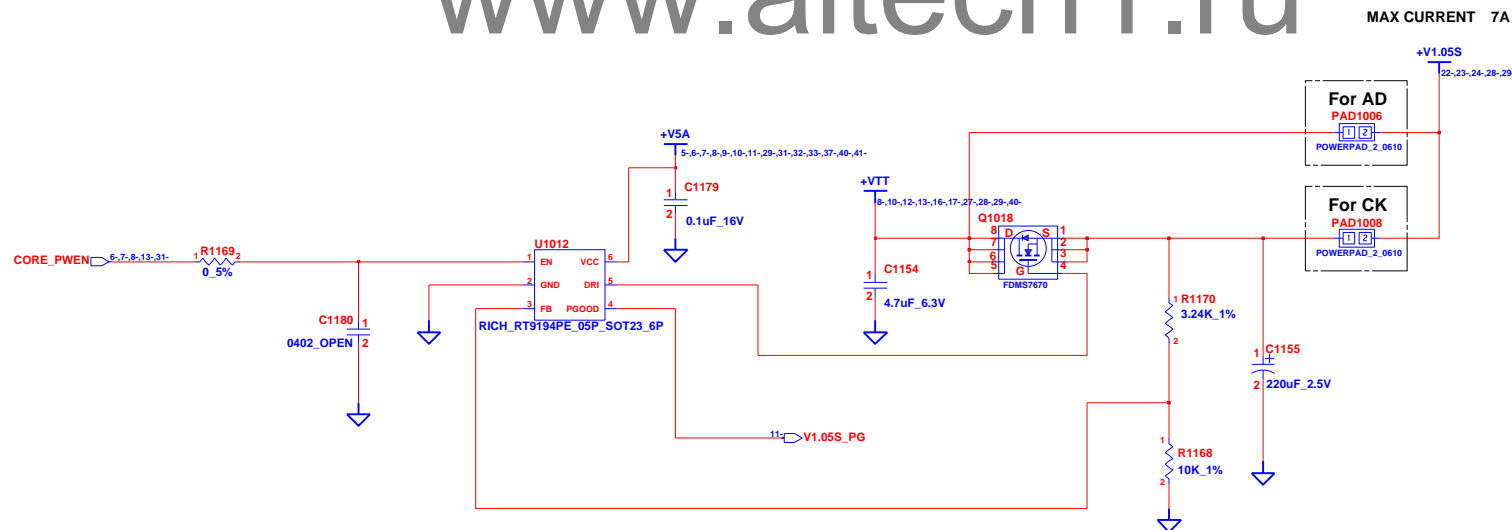


NOTE: DDR3 REGULATOR

INVENTEC			
TITLE			
Romeo			
+V1.5 & +V0.75			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23166-0-MTR	A01
CHANGE by		5-Feb-2010	
Evan Shih			
SHEET		6	OF 66
		8	



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**INVENTEC**

TITLE			
Romeo			
+V1.8S & +V1.05S			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23166-0-MTR	A01
SHEET		7	OF 66

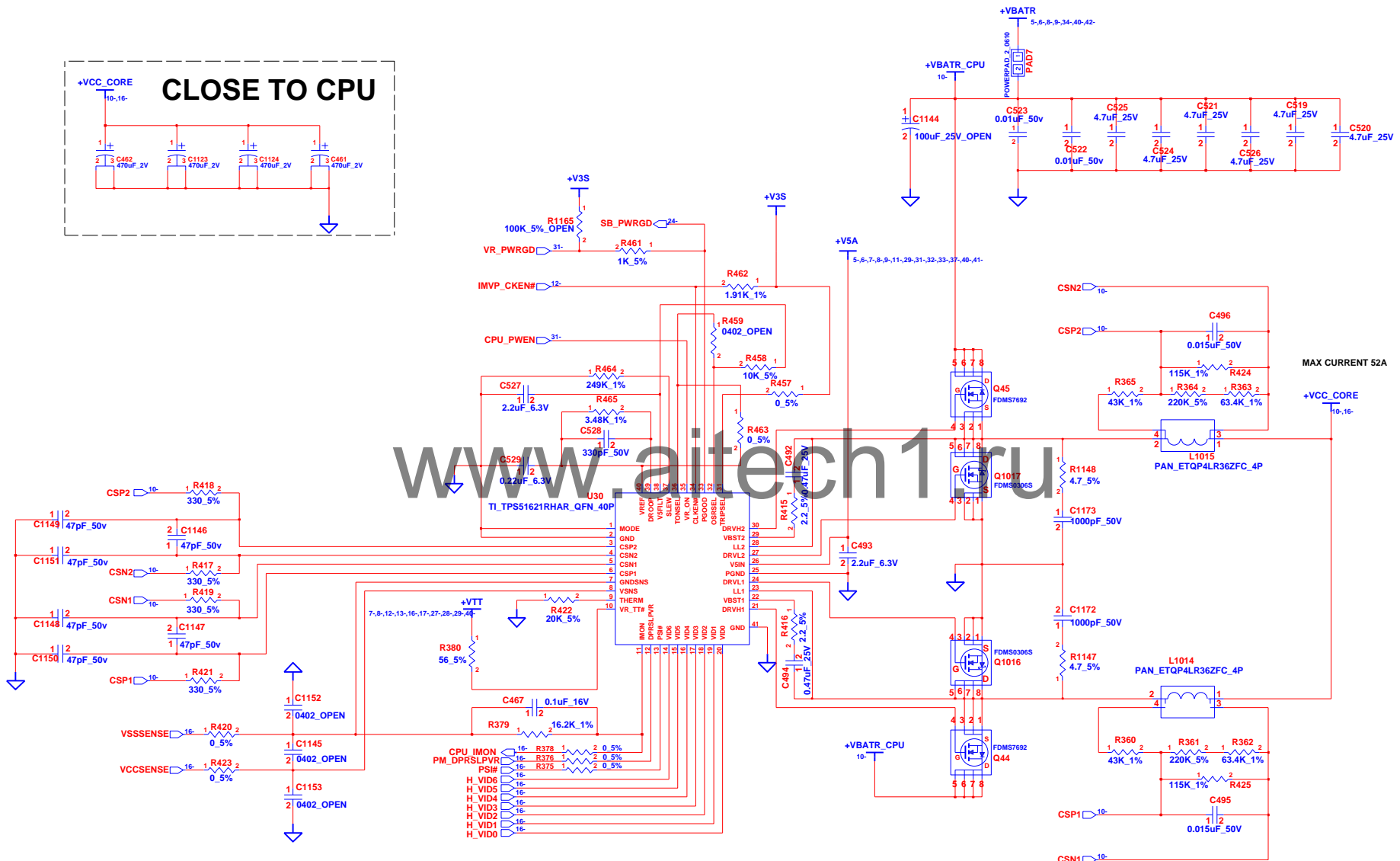
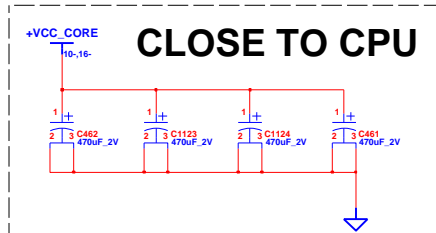
CHANGE by Evan Shih 5-Feb-2010

www.qdzbxw.com





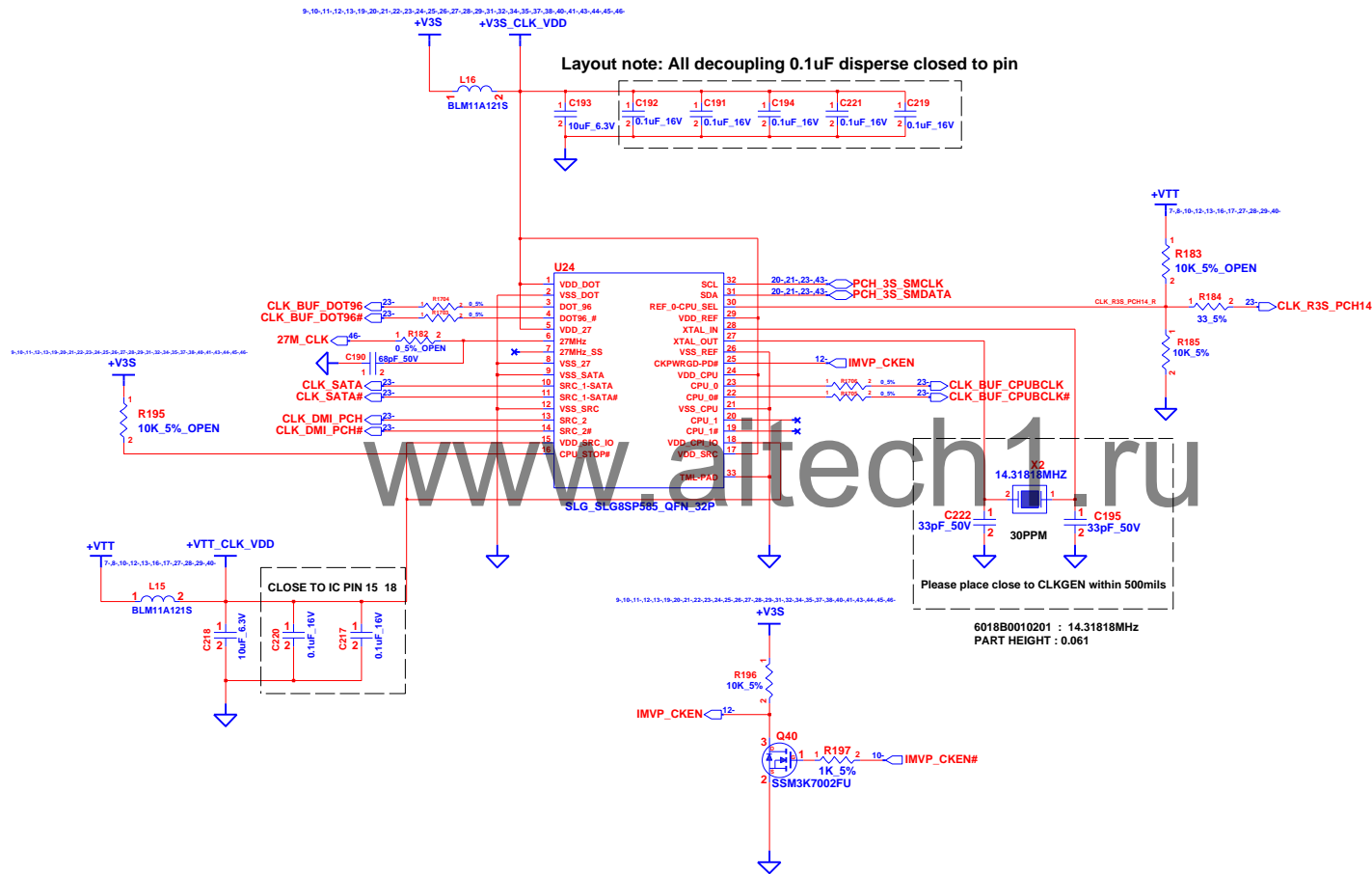




**INVENTEC**

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Romeo			
+VCC_CORE			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23166-0-MTR	A01
CHANGE by		5-Feb-2010	
Evan Shih			
SHEET		10	OF 66

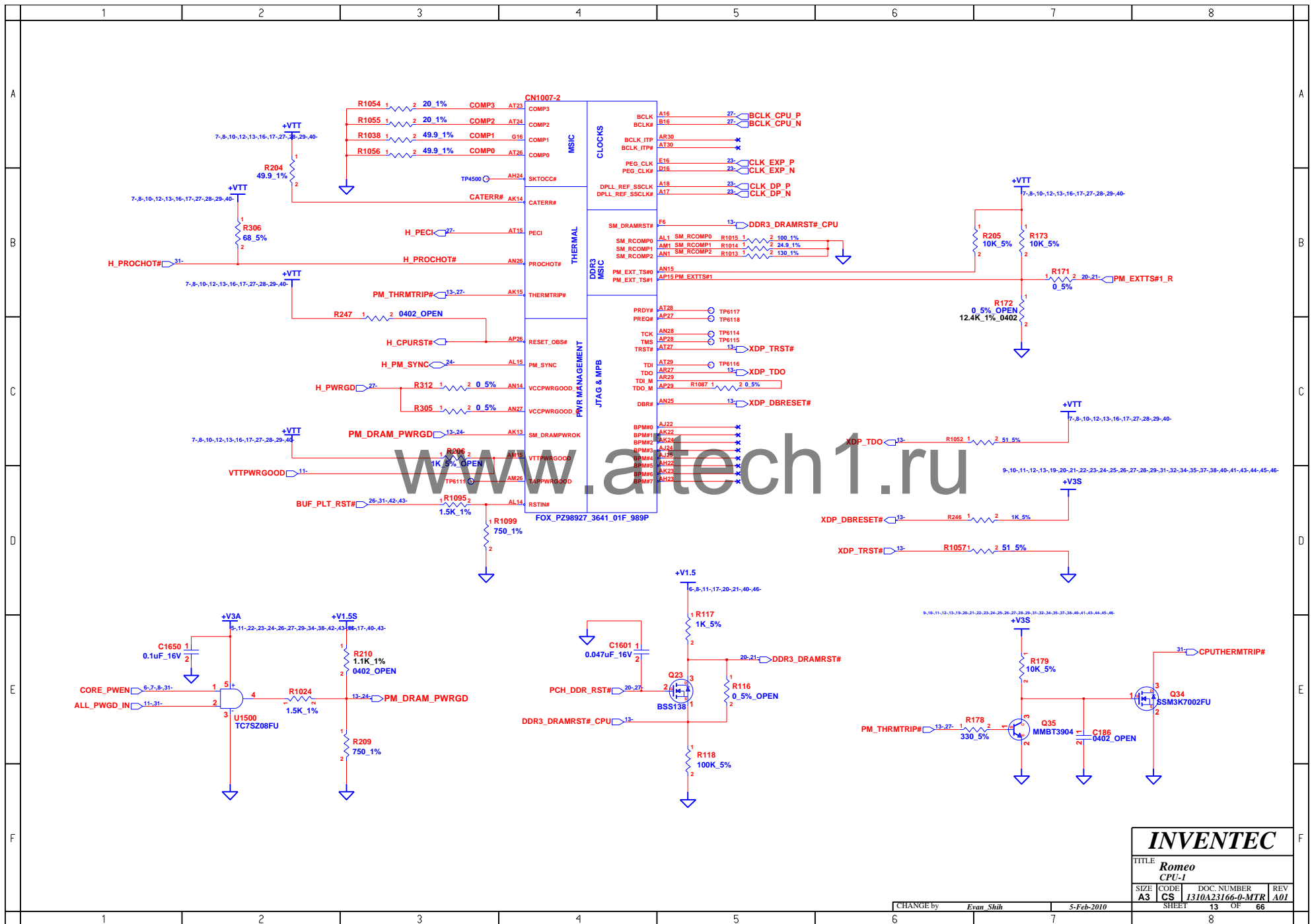


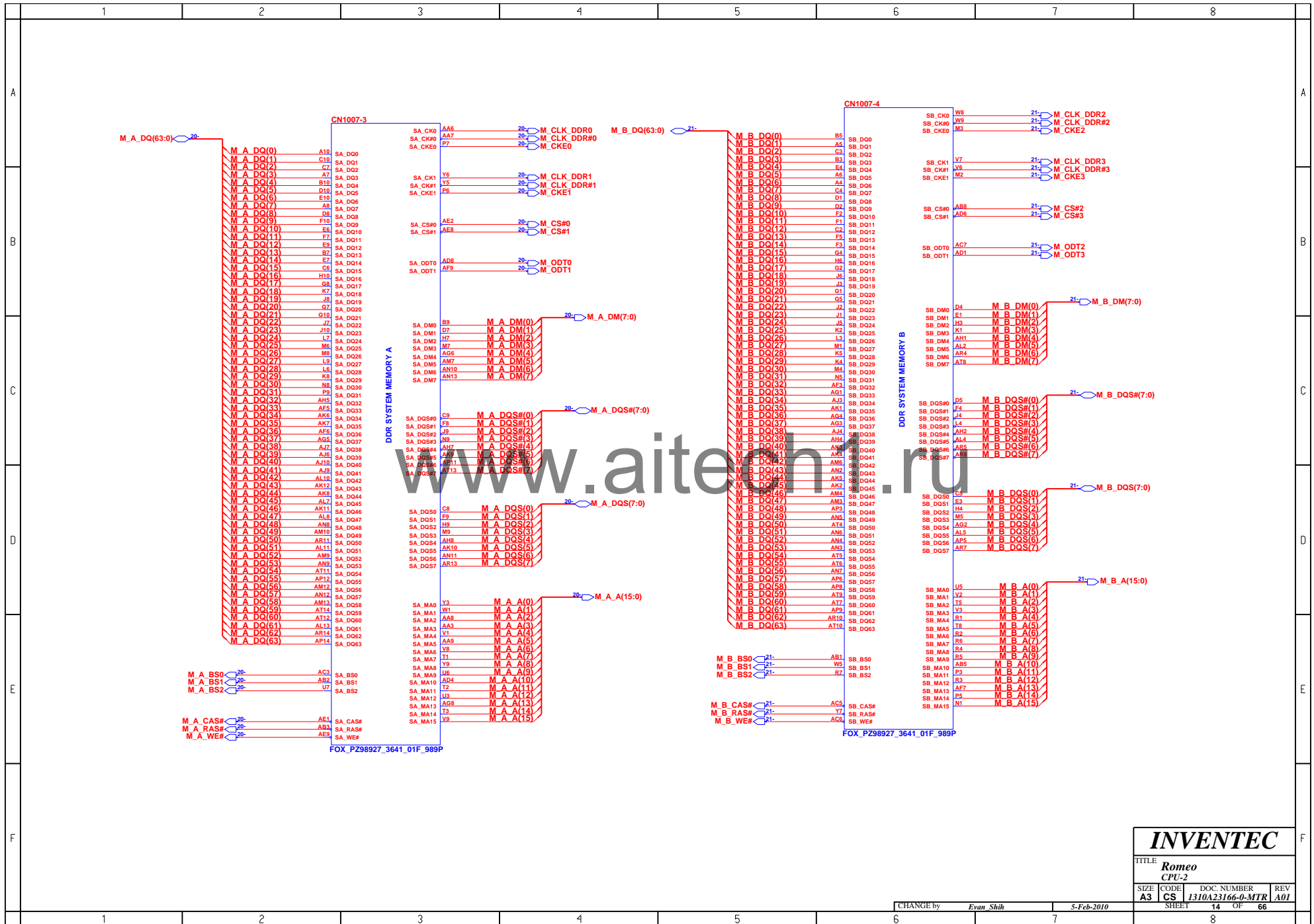


**INVENTEC**

TITLE			
Romeo CLK GEN			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23166-0-MTR	A01
SHEET		12	OF 66

CHANGE by Evan Shih 5-Feb-2010

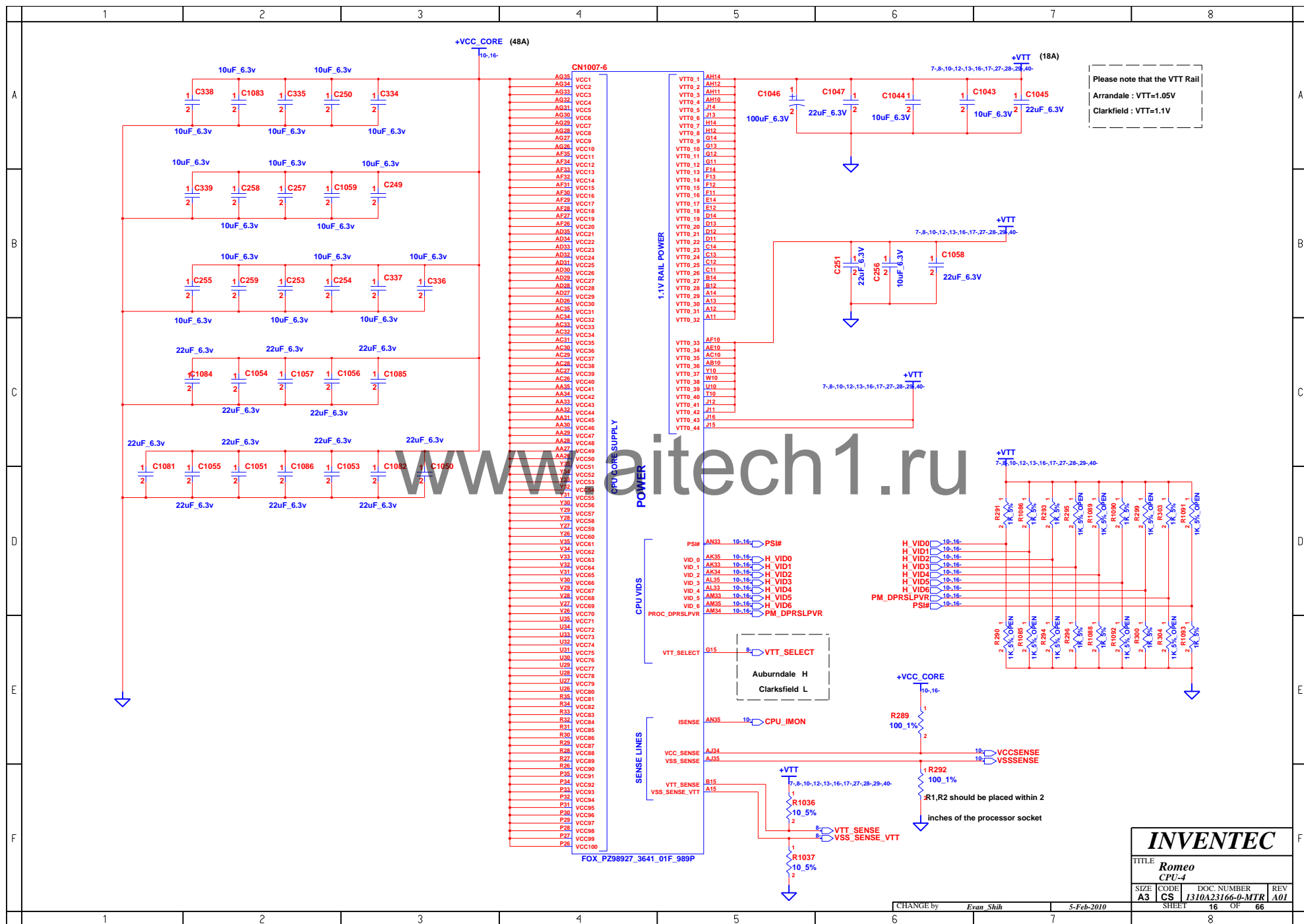




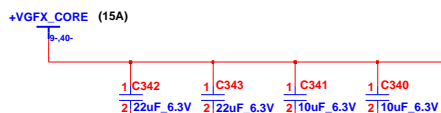
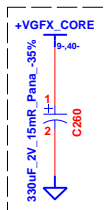
**INVENTEC**

TITLE <b>Romeo CPU-2</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A23166-0-MTR</b>	REV <b>A01</b>
CHANGE by <b>Evan Shih</b>		5-Feb-2010	
SHEET <b>14</b>		OF <b>66</b>	

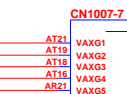
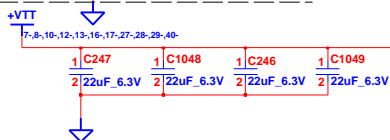
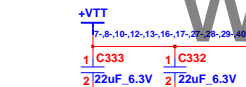


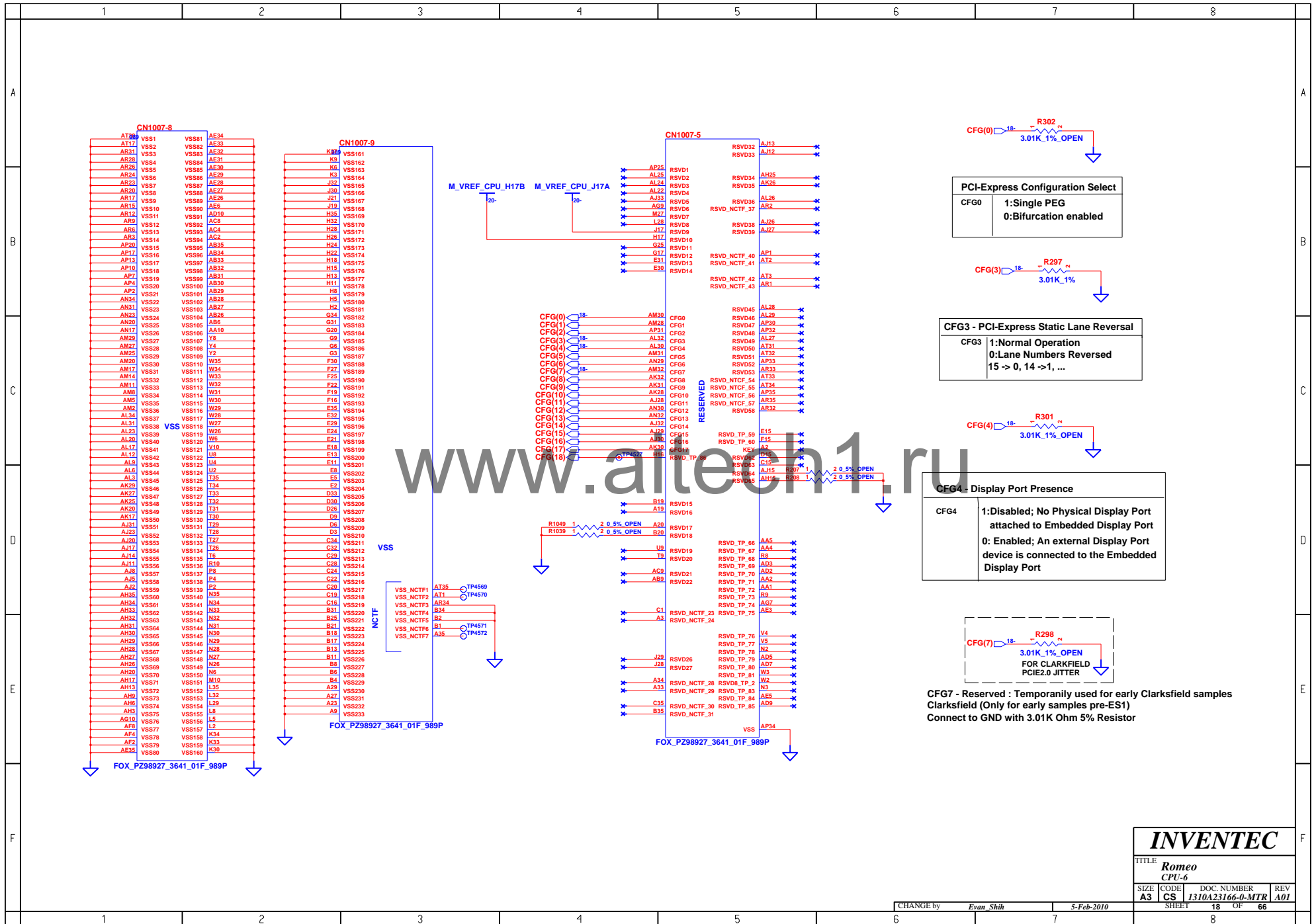






Please note that the VTT Rail Values are  
Auburndale VTT=1.05V  
Clarksfield VTT=1.1V





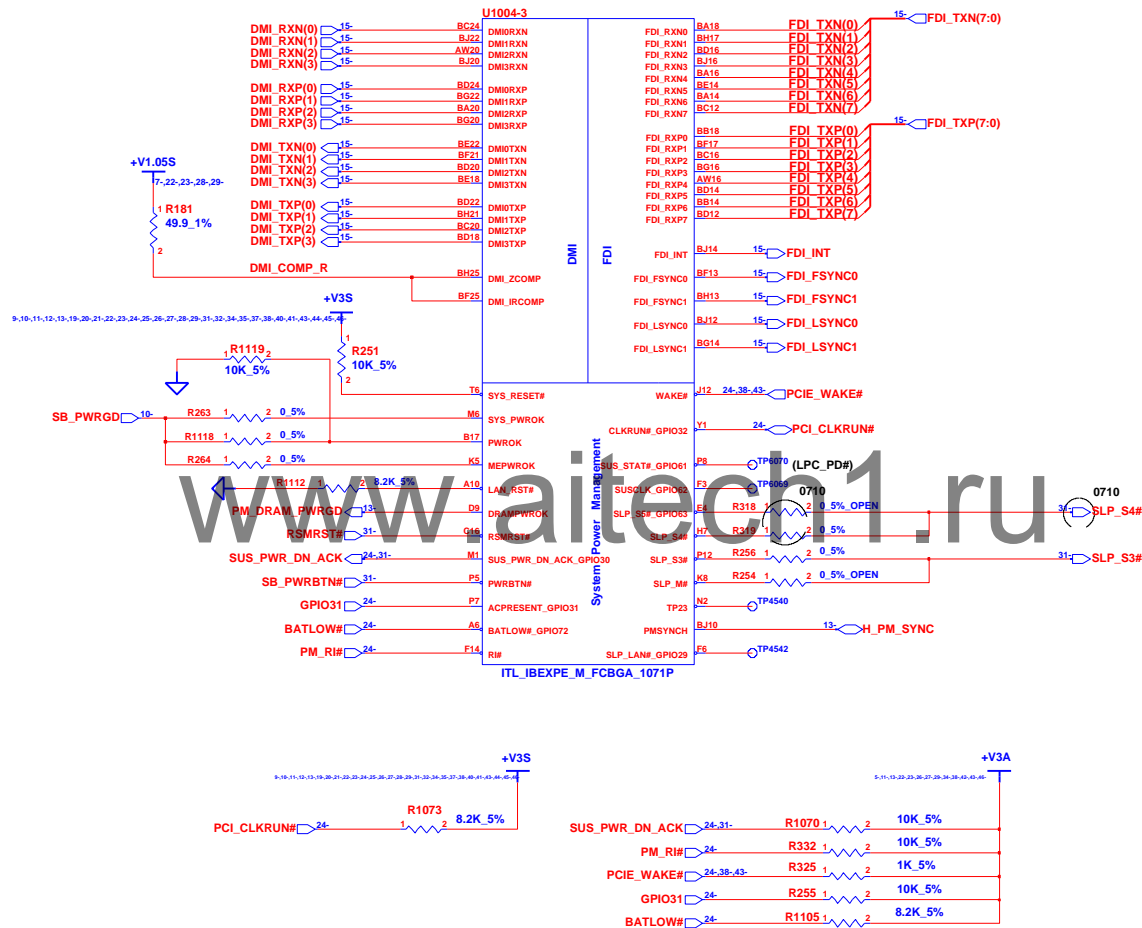










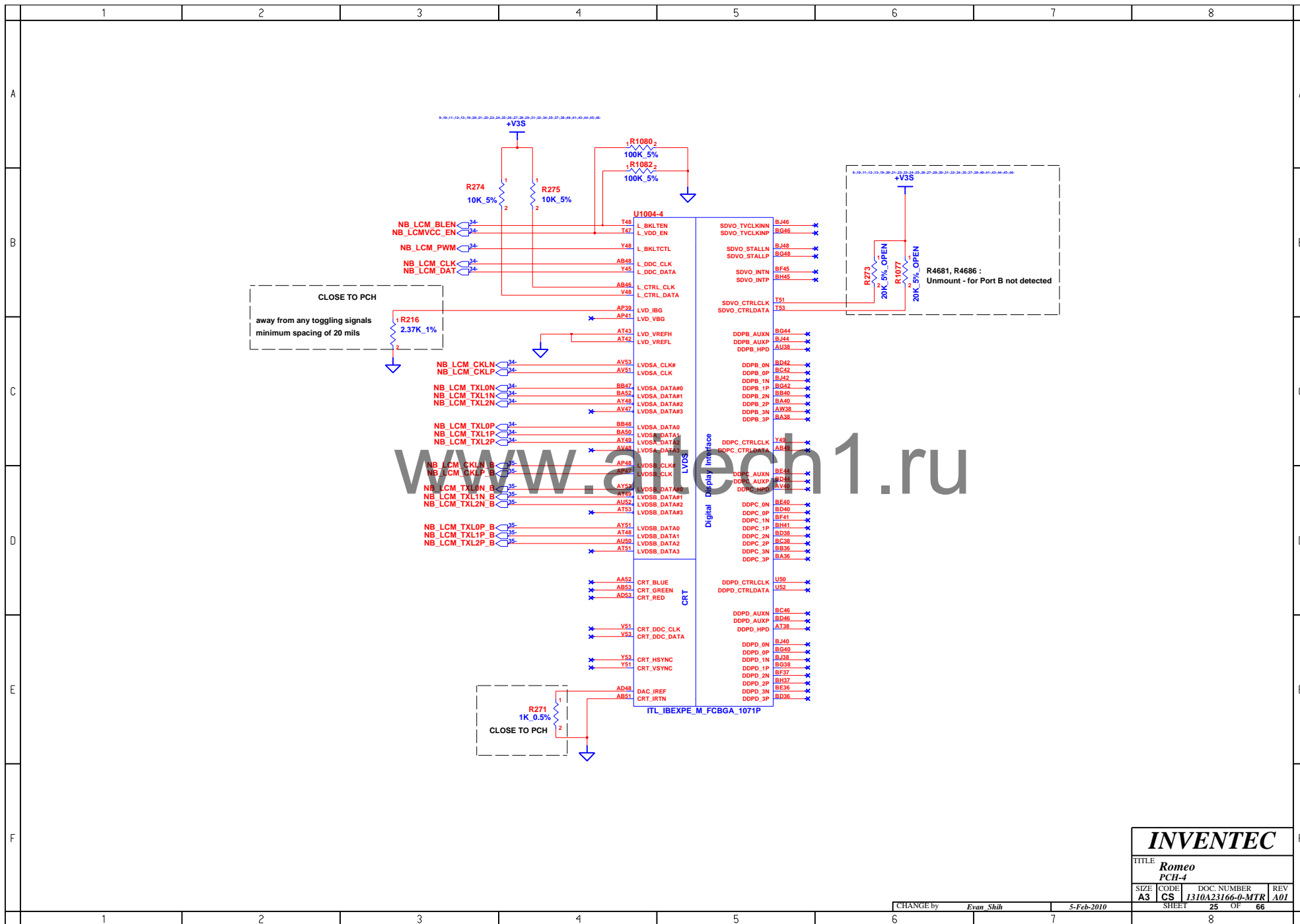


**INVENTEC**

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SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A23166-0-MTR</b>	REV <b>A01</b>
SHEET <b>24</b>		OF <b>66</b>	

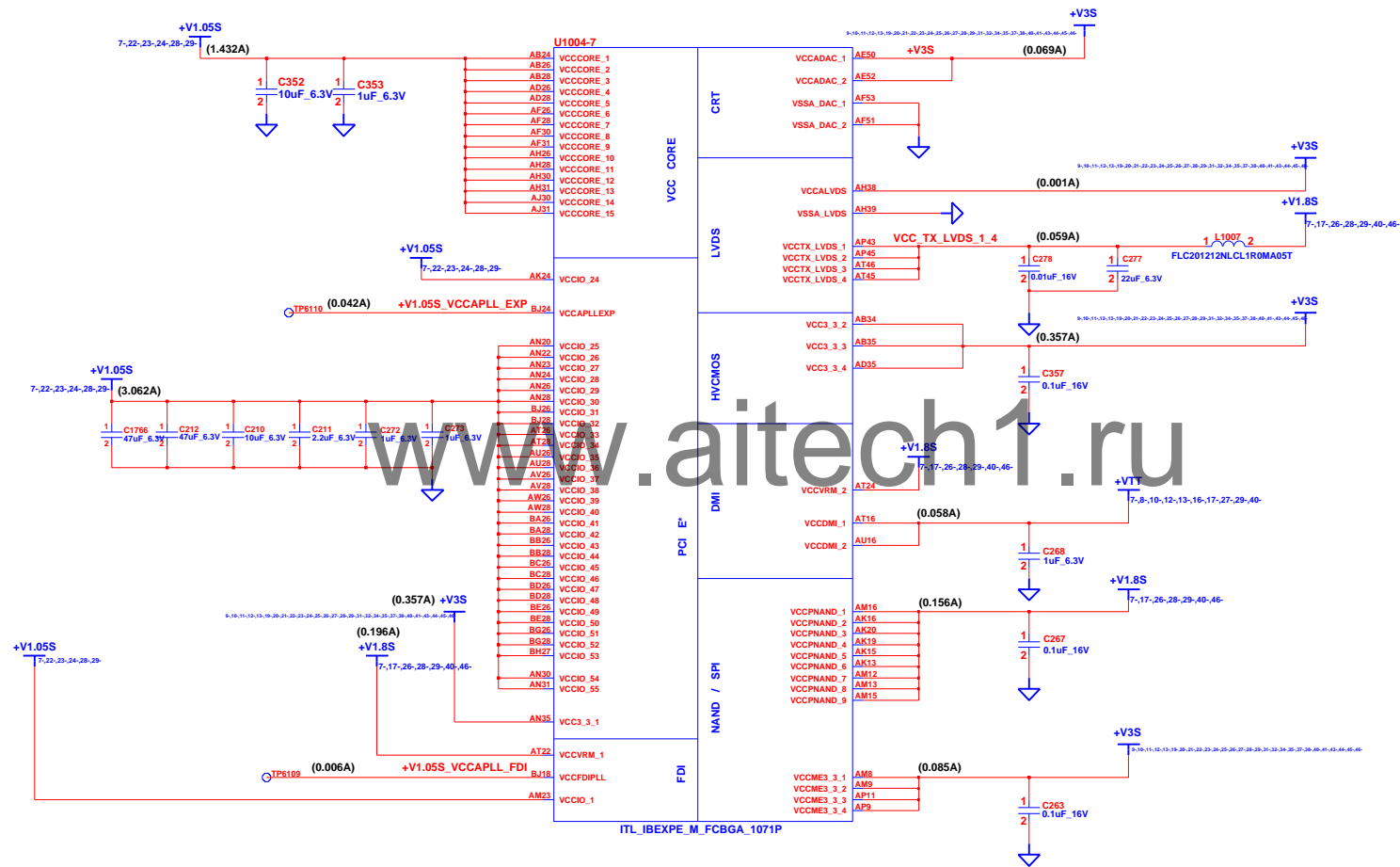
CHANGE by *Evan Shih* 5-Feb-2010











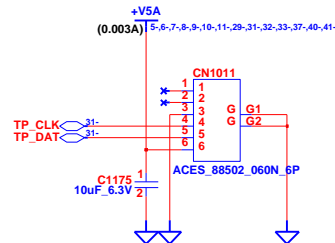
INVENTEC			
TITLE Romeo PCH-7			
SIZE A3	CODE CS	DOC. NUMBER 1310A23166-0-MTR	REV A01
CHANGE by Evan Shih		5-Feb-2010	
SHEET 28		OF 66	



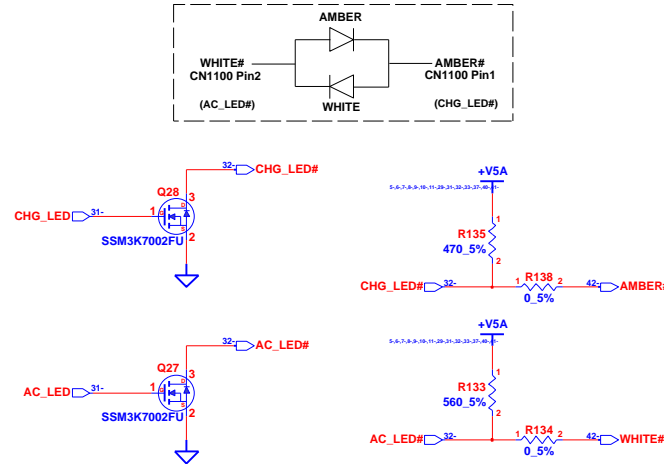
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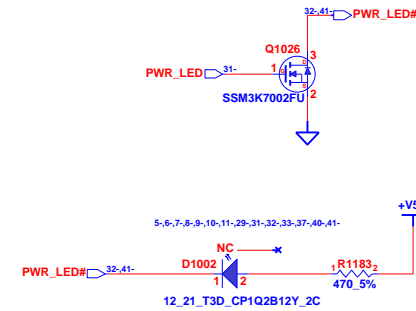
## TouchPad Module CONN



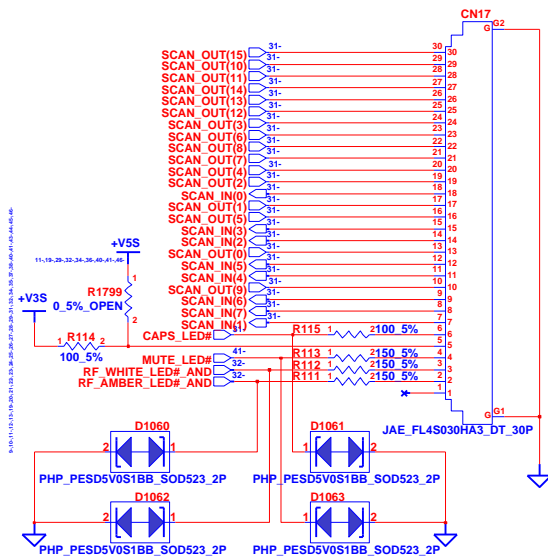
## DC-JACK LED



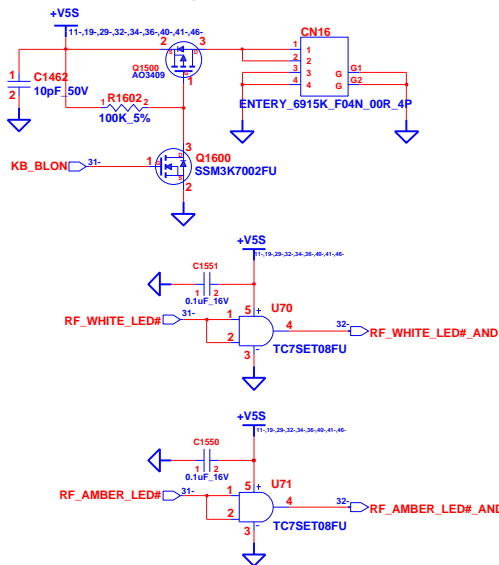
## POWER LED



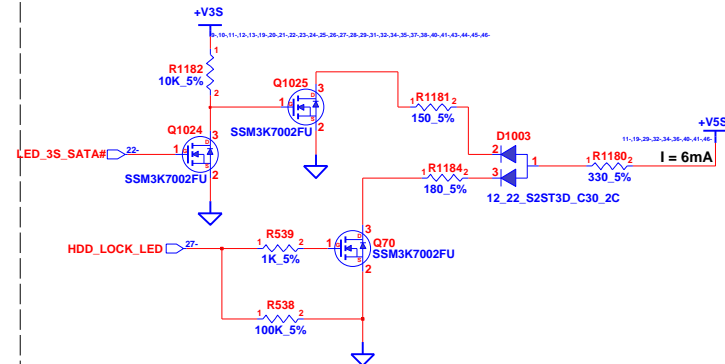
## KeyBoard CONN (30 pin)



## Backlight connector



## SATA LED & HDD-HALTED LED

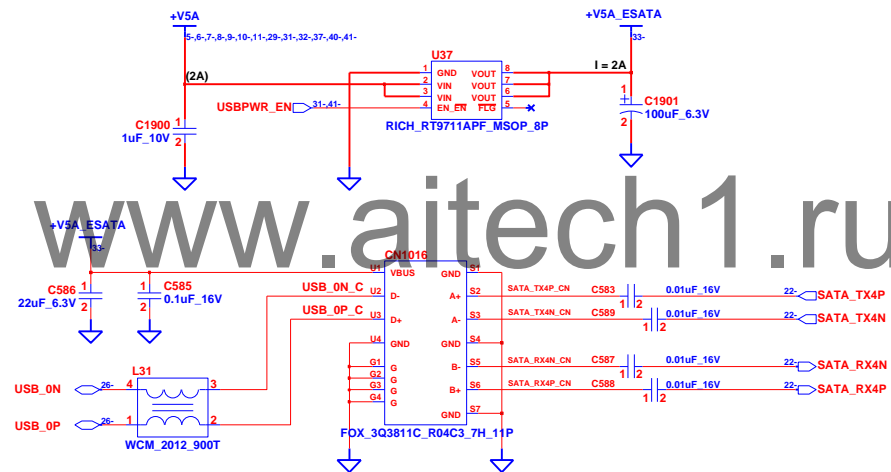


**INVENTEC**

TITLE <b>Romeo</b> Keyboard & Touchpad			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC NUMBER <b>1310A23166-0-MTR</b>	REV <b>A01</b>
SHEET <b>32</b>		OF <b>66</b>	

CHANGE by *Evan Shih* 5-Feb-2010





TITLE			
<i>Romeo</i> <i>CRT</i>			
SIZE	CODE	DOC. NUMBER	REV
<b>A3</b>	<b>CS</b>	<i>1310A23166-0-MTR</i>	<i>A01</i>
SHEET		33	OF 66

CHANGE by	<i>Evan Shih</i>	<i>5-Feb-2010</i>
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<b>INVENTEC</b>			
TITLE <i>Romeo</i>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <i>1310A23166-0-MTR</i>	REV <b>A01</b>
SHEET		35 OF	66



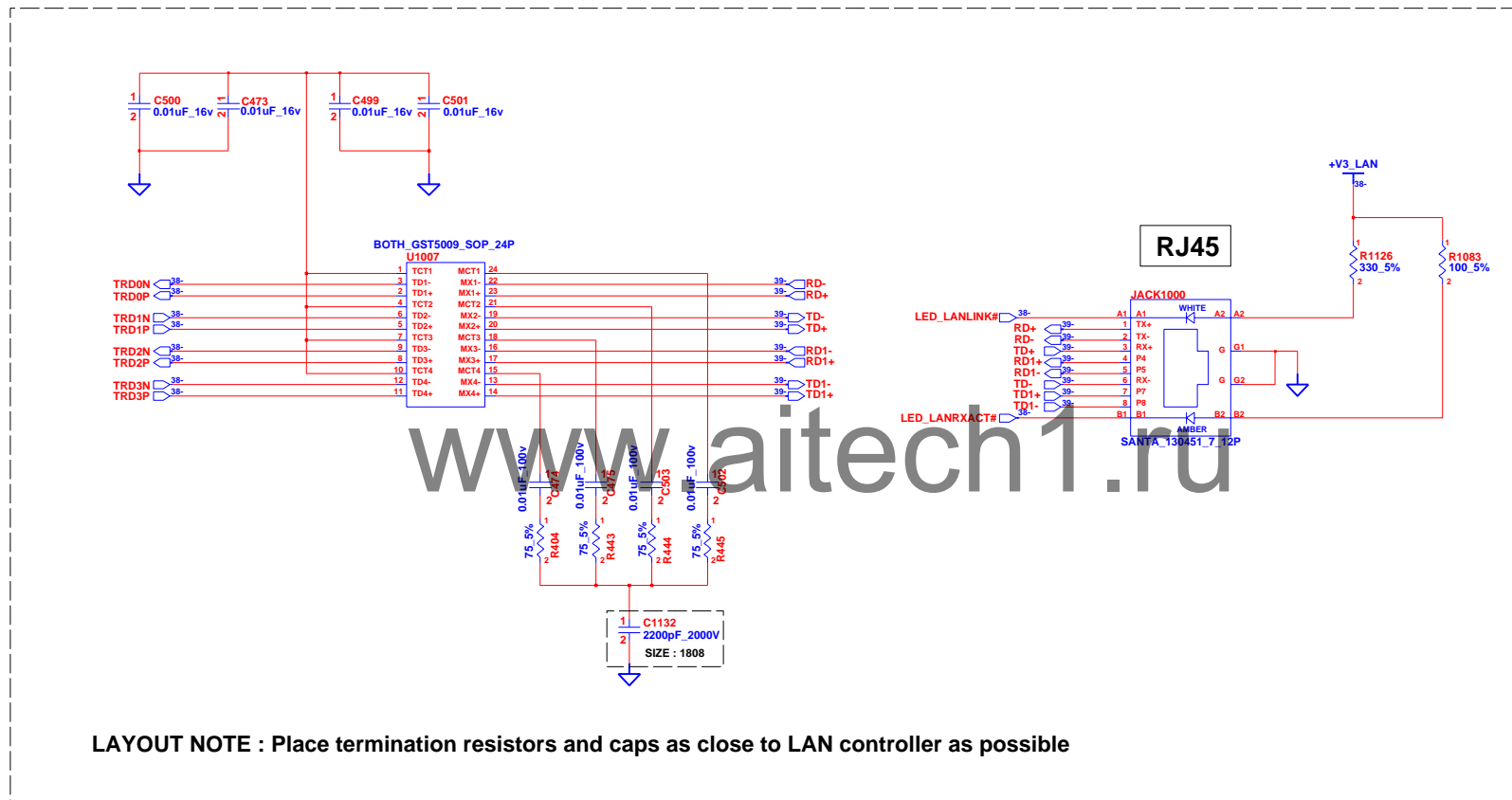
# Mini Display Port

www.aitech1.ru

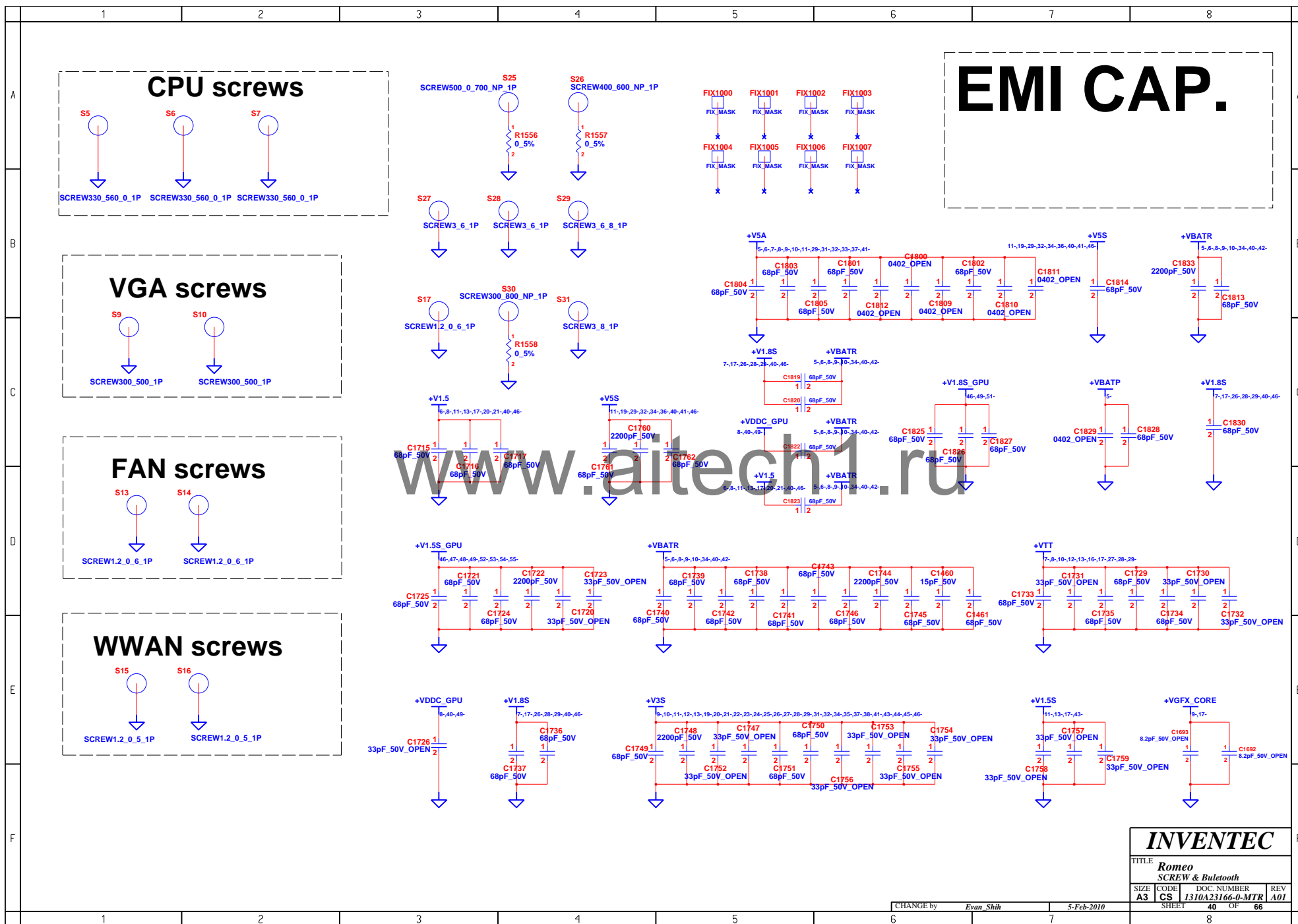
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TITLE			
Romeo DisplayPort			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	I310A23166-0-MTR	A01
CHANGE by		Evan Shih	5-Feb-2010
SHEET		37	OF 66

CHANGE by	<i>Evan Shih</i>	<i>5-Feb-2010</i>
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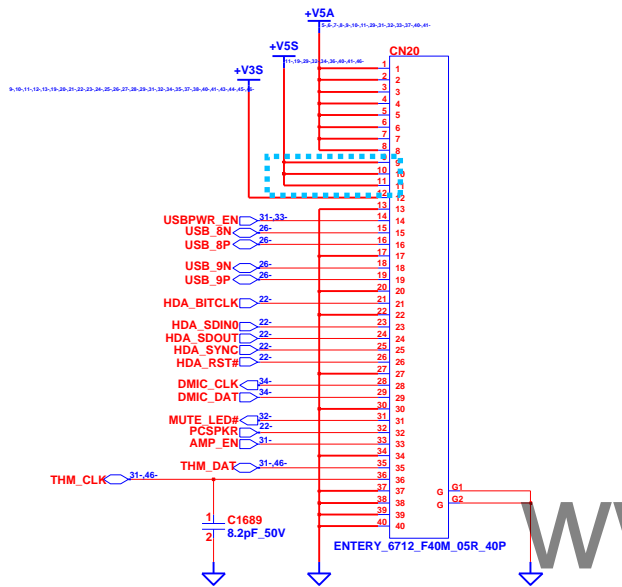


INVENTEC			
TITLE Romeo RJ-45			
SIZE A3	CODE CS	DOC. NUMBER 1310A23166-0-MTR	REV A01
CHANGE by Evan Shih		5-Feb-2010	
SHEET		39 OF 66	

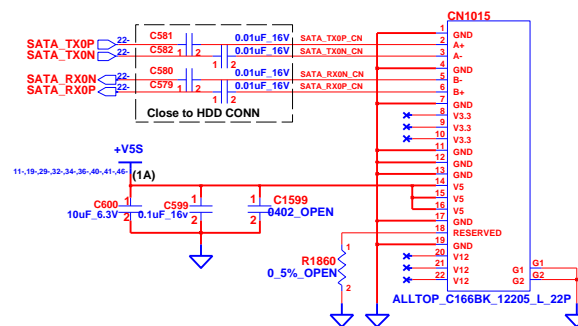




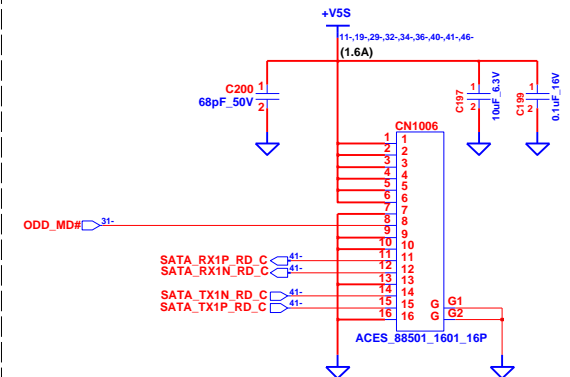
## AU Board CN on MB



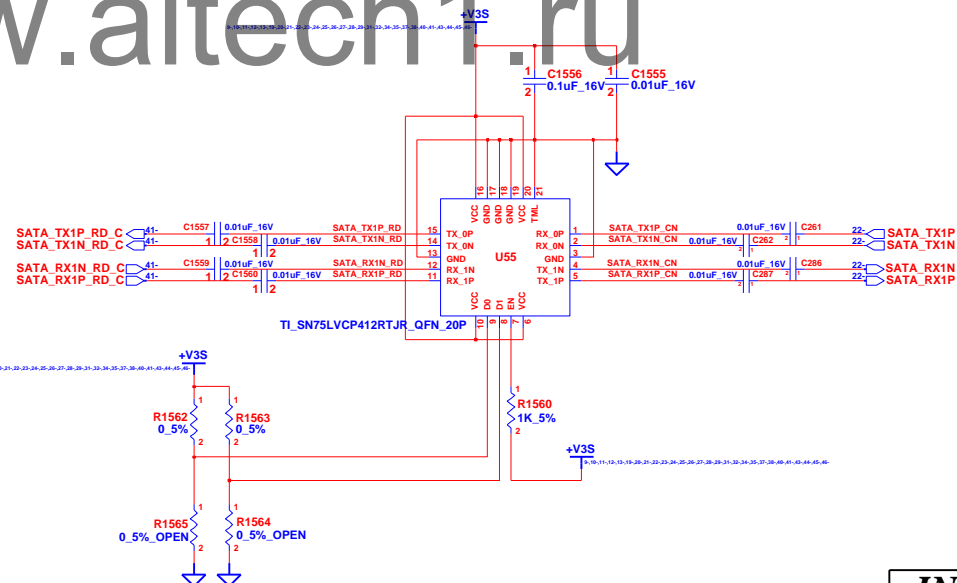
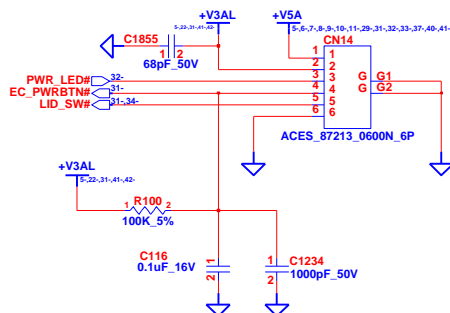
## SATA HDD CONN



## SATA ODD FFC CONN on MB



## PBN Cable CN on MB



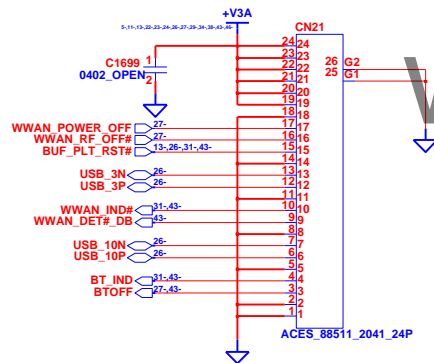
**INVENTEC**

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SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A23166-0-MTR</b>	REV <b>A01</b>
SHEET <b>41</b>		OF <b>66</b>	

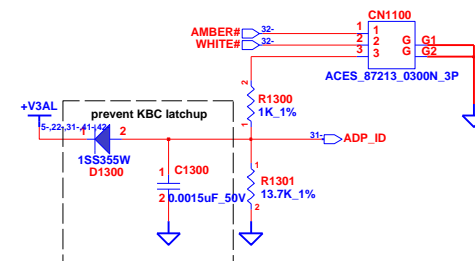
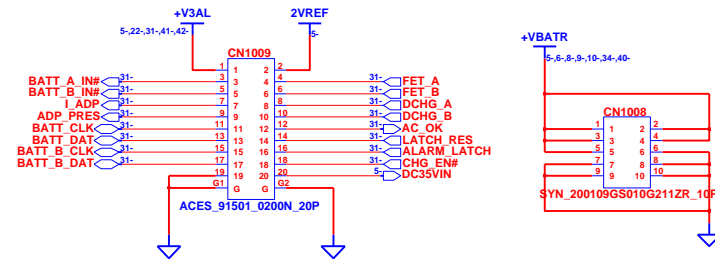
CHANGE by *Evan Shih* 5-Feb-2010

## WC Board CN on MB

### WWAN & BT



## CHG Board CN on MB

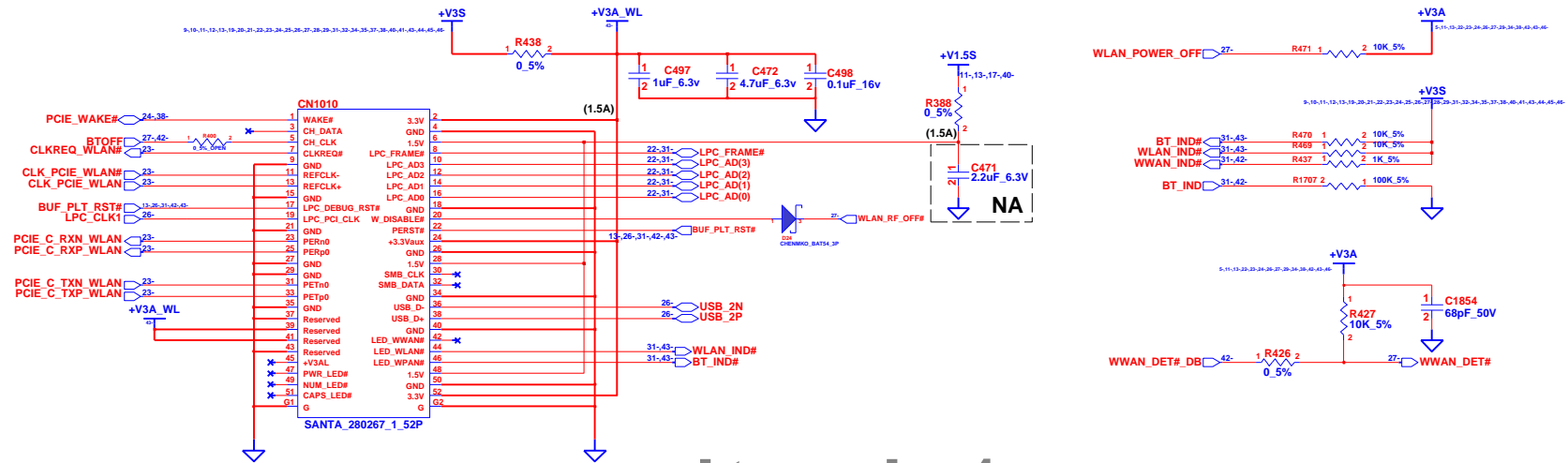


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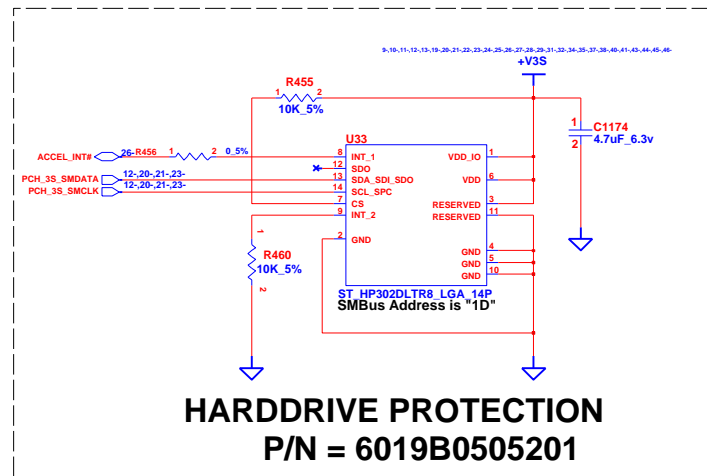
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SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A23166-0-MTR</b>	REV <b>A01</b>
SHEET <b>42</b>		OF <b>66</b>	

CHANGE by *Evan Shih* 5-Feb-2010

# WLAN CONN (MINICARD)



www.aitech1.ru



HARDDRIVE PROTECTION  
P/N = 6019B0505201

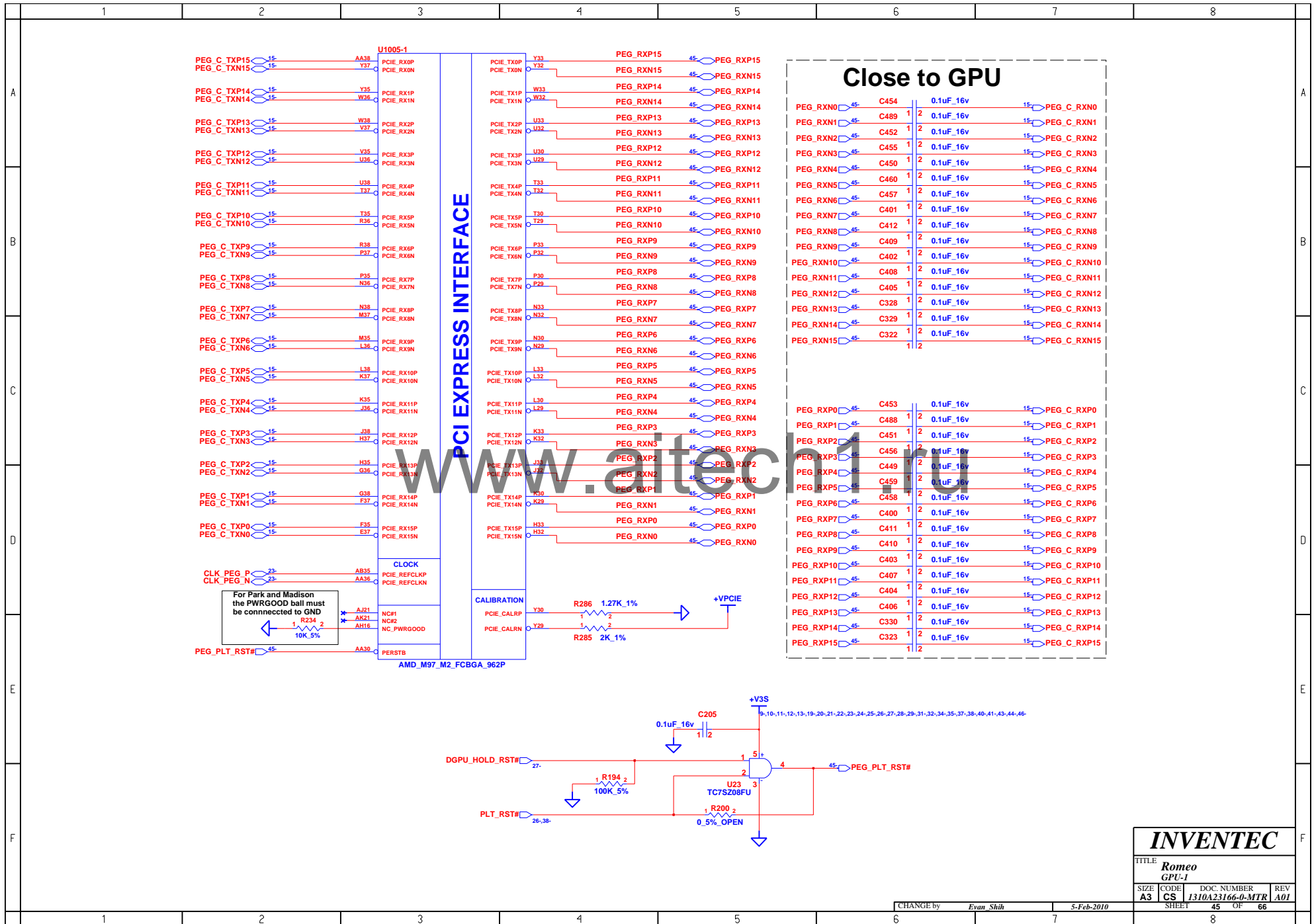
INVENTEC

TITLE			
Romeo			
WLAN & HDD Lock			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23166-0-MTR	A01
SHEET		43	OF 66

CHANGE by Evan Shih 5-Feb-2010

www.qdzbxw.com







# Channel A

DDR3/GDDR3Memory Stuff Option

	GDDR5	GDDR3	DDR3
MVDDQ	1.5V	1.8V/1.5V	1.5V
Ra	40.2R	40.2R	40.2R
Rb	100R	100R	100R

FOR M97,Broadway,Madiso and Park ONLY

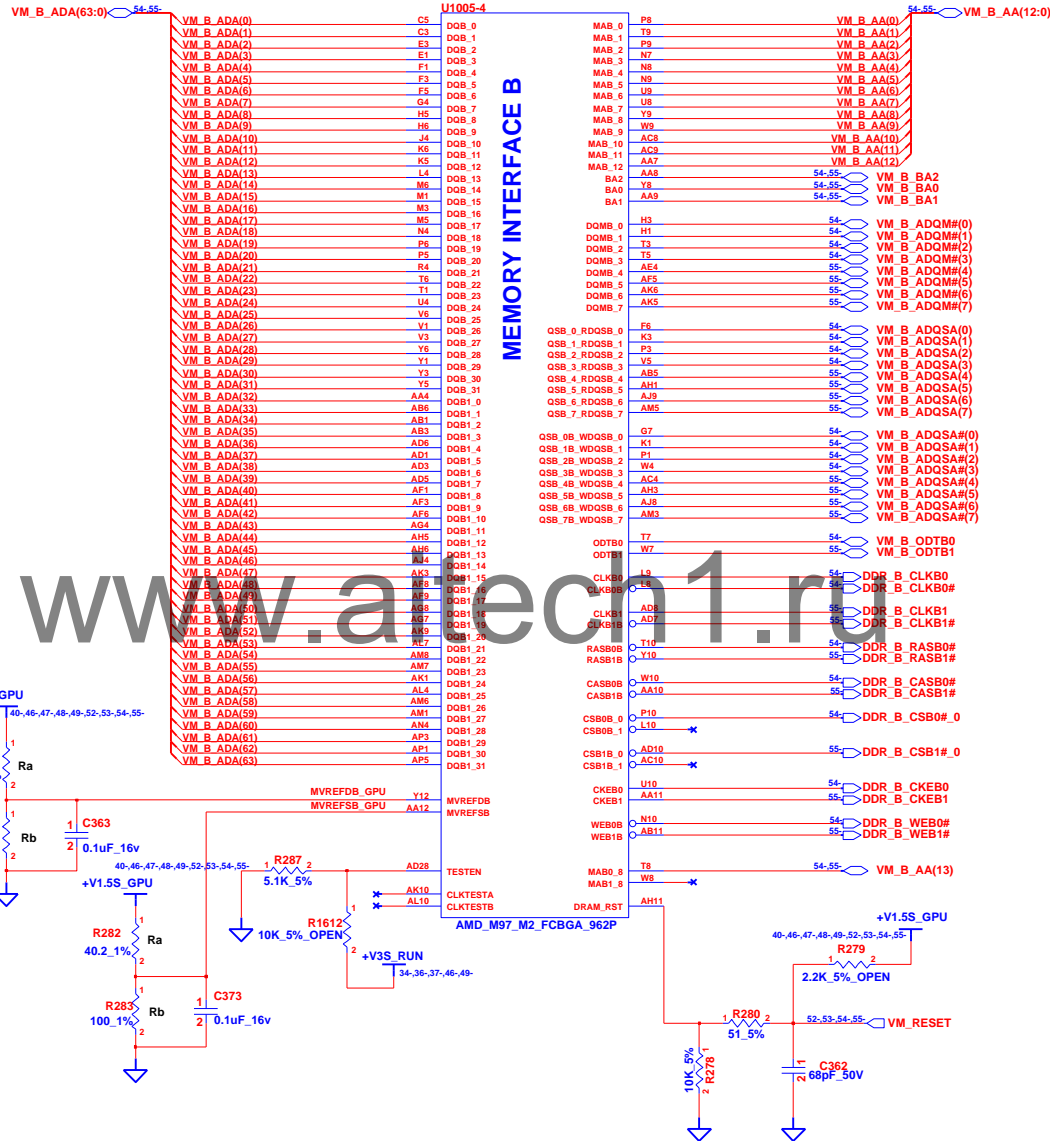
**INVENTEC**

TITLE <b>Romeo GPU-3</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A23166-0-MTR</b>	REV <b>A01</b>
CHANGE by <i>Evan Shih</i>		5-Feb-2010	
SHEET <b>47</b>		OF <b>66</b>	

# Channel B

DDR3/GDDR3Memory Stuff Option

	GDDR5	GDDR3	DDR3
MVDDQ	1.5V	1.8V/1.5V	1.5V
Ra	40.2R	40.2R	40.2R
Rb	100R	100R	100R

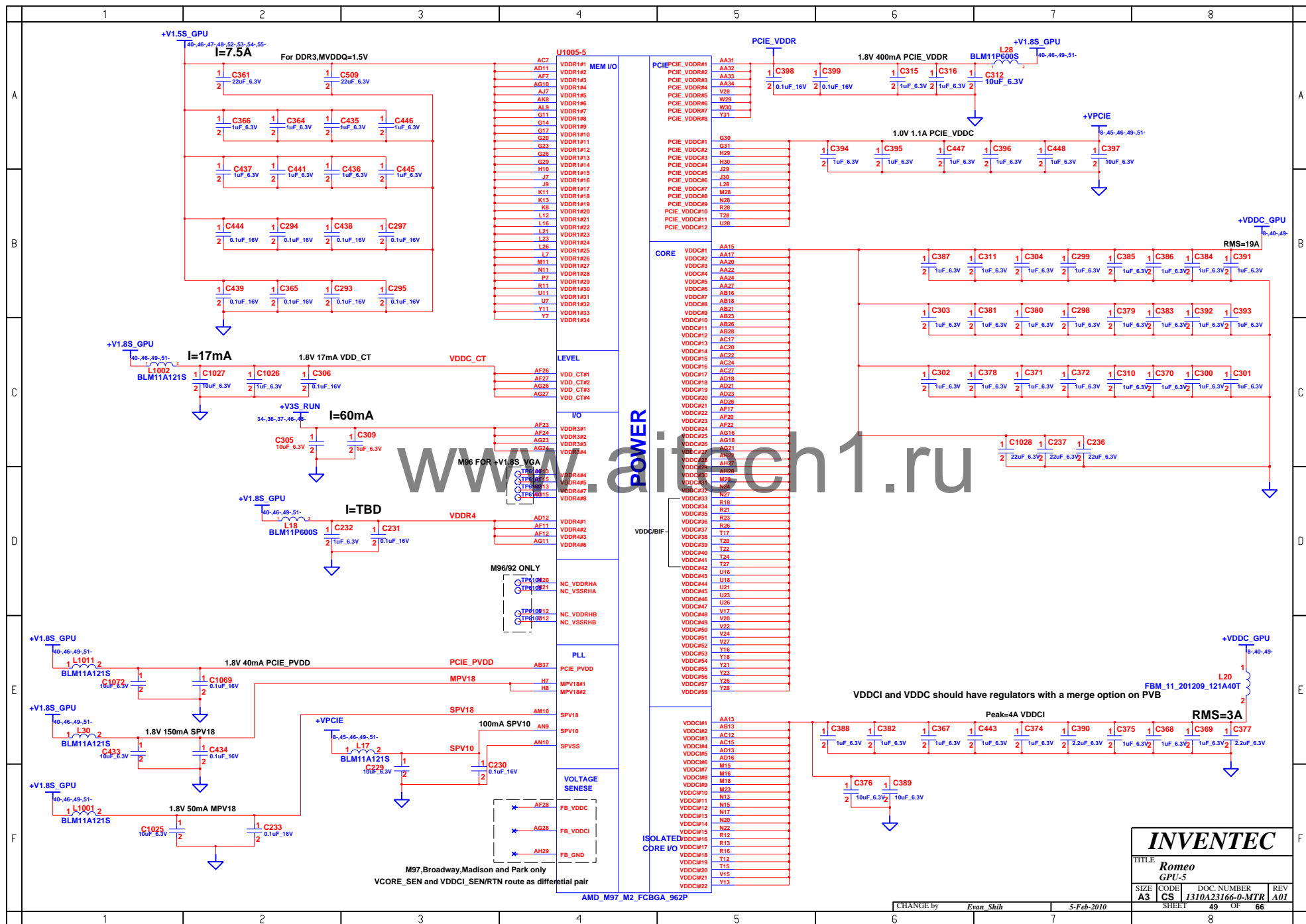


INVENTEC

TITLE Romeo GPU-4			
SIZE A3	CODE CS	DOC. NUMBER 1310A23166-0-MTR	REV A01
SHEET 48		OF 66	

CHANGE by Evan Shih 5-Feb-2010

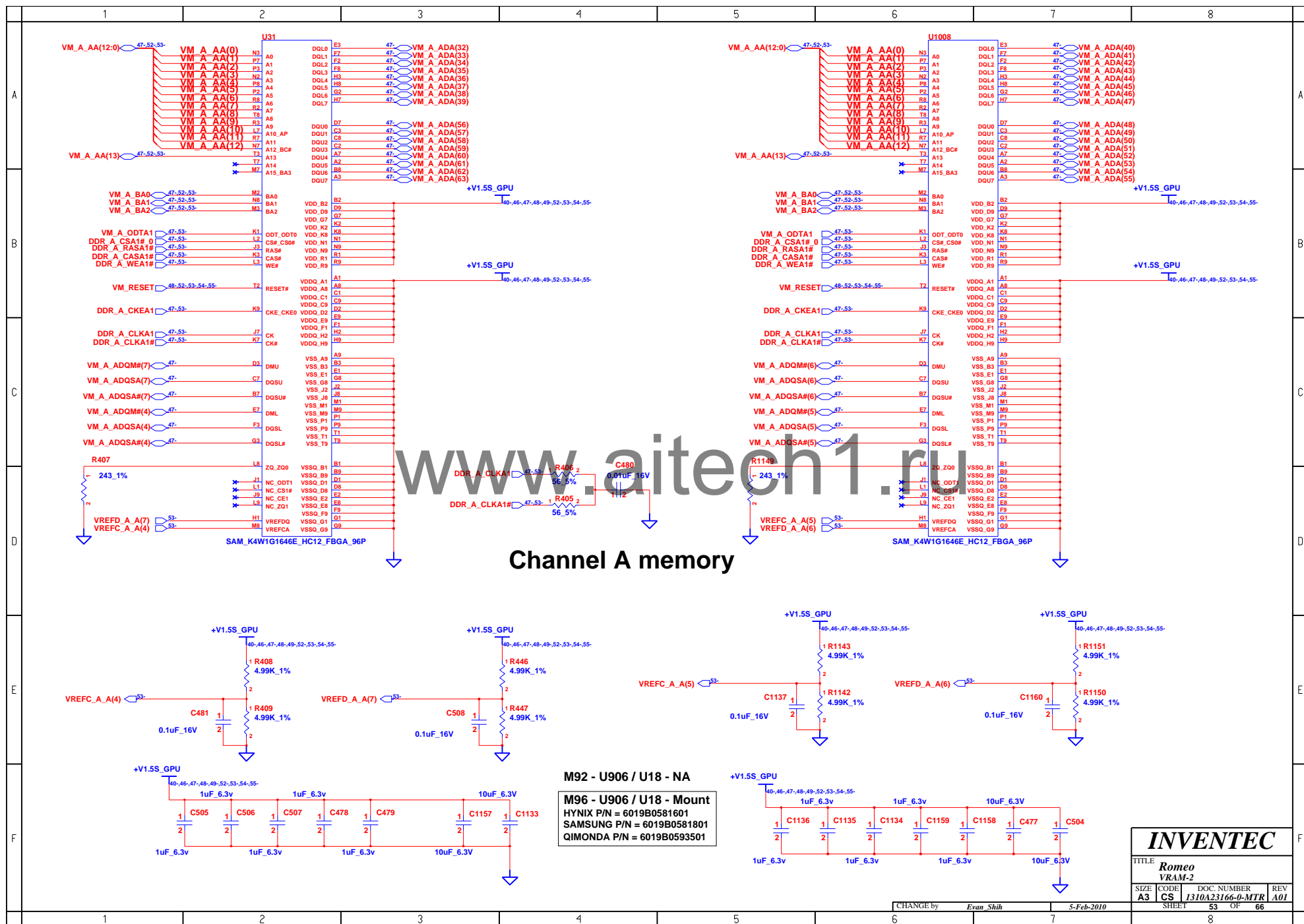




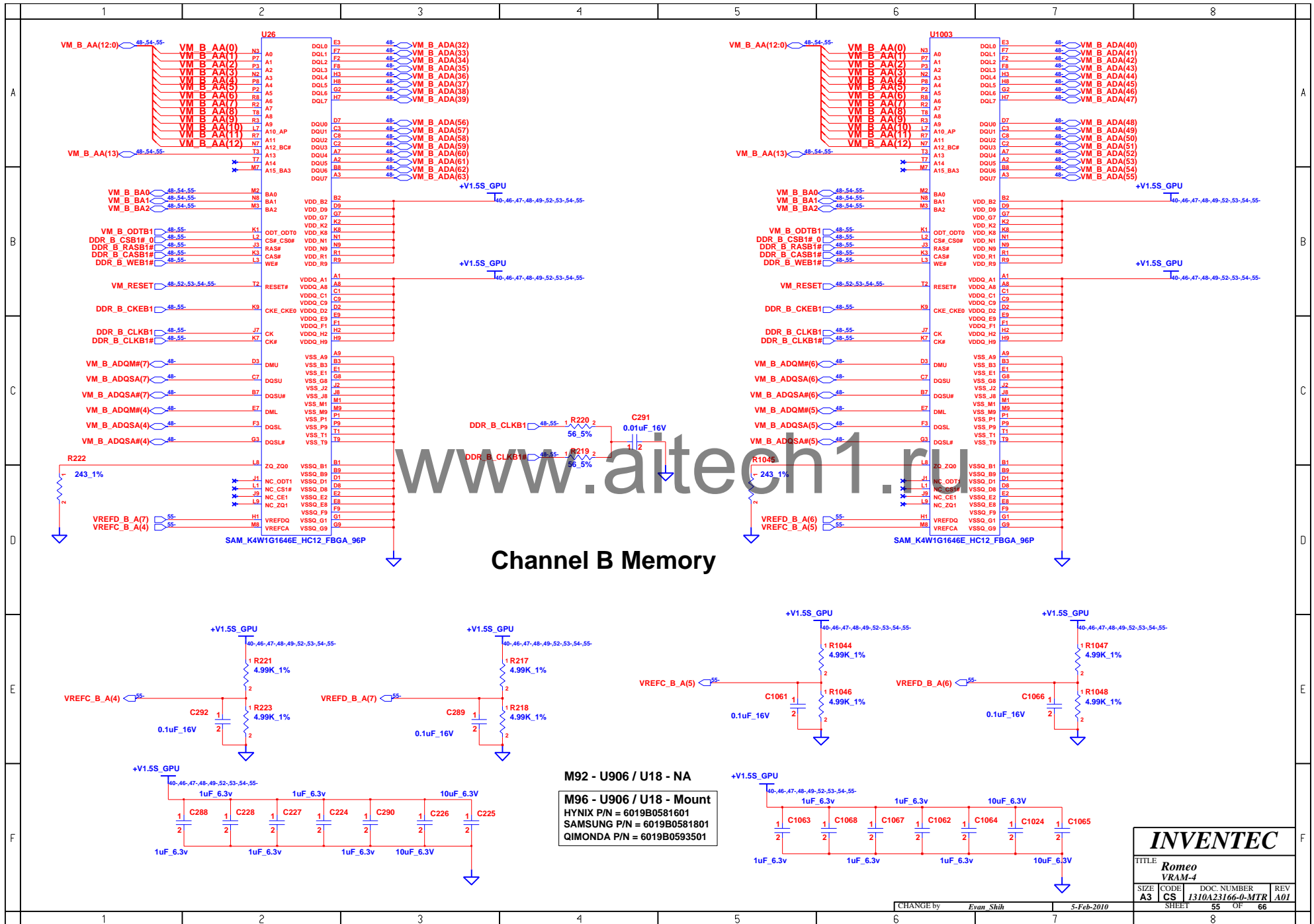
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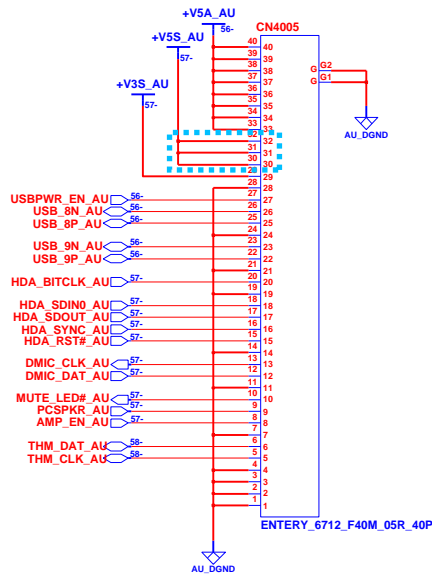




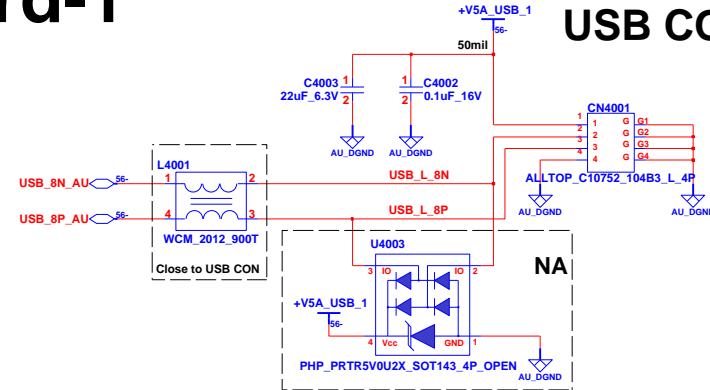


# AU Board-1

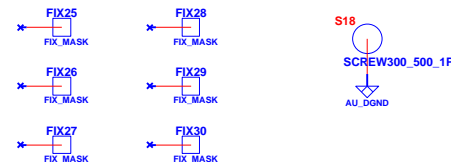
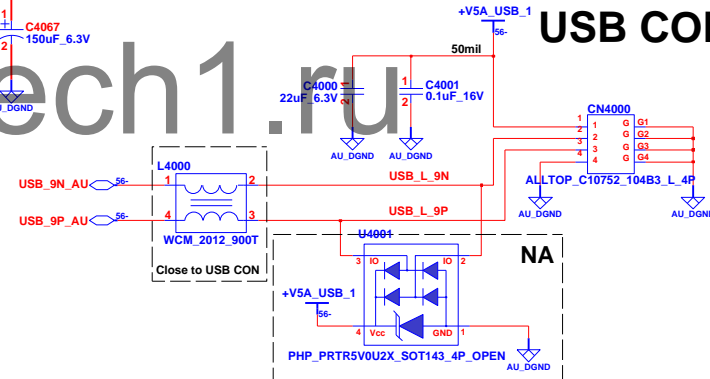
## AU Board CN on DB



## USB CONN01



## USB CONN02



**INVENTEC**

TITLE: **Romeo**  
AUDIO & USB Board

SIZE: **A3** CODE: **CS** DOC. NUMBER: **1310A23165-0-MTR** REV: **A01**

CHANGE by: **Evan Shih** 5-Feb-2010

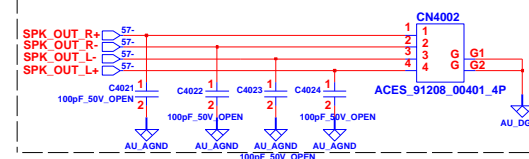
SHEET: **56** OF: **66**



[illegible]

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

## INT-SPEAKER CONN

**INVENTEC**

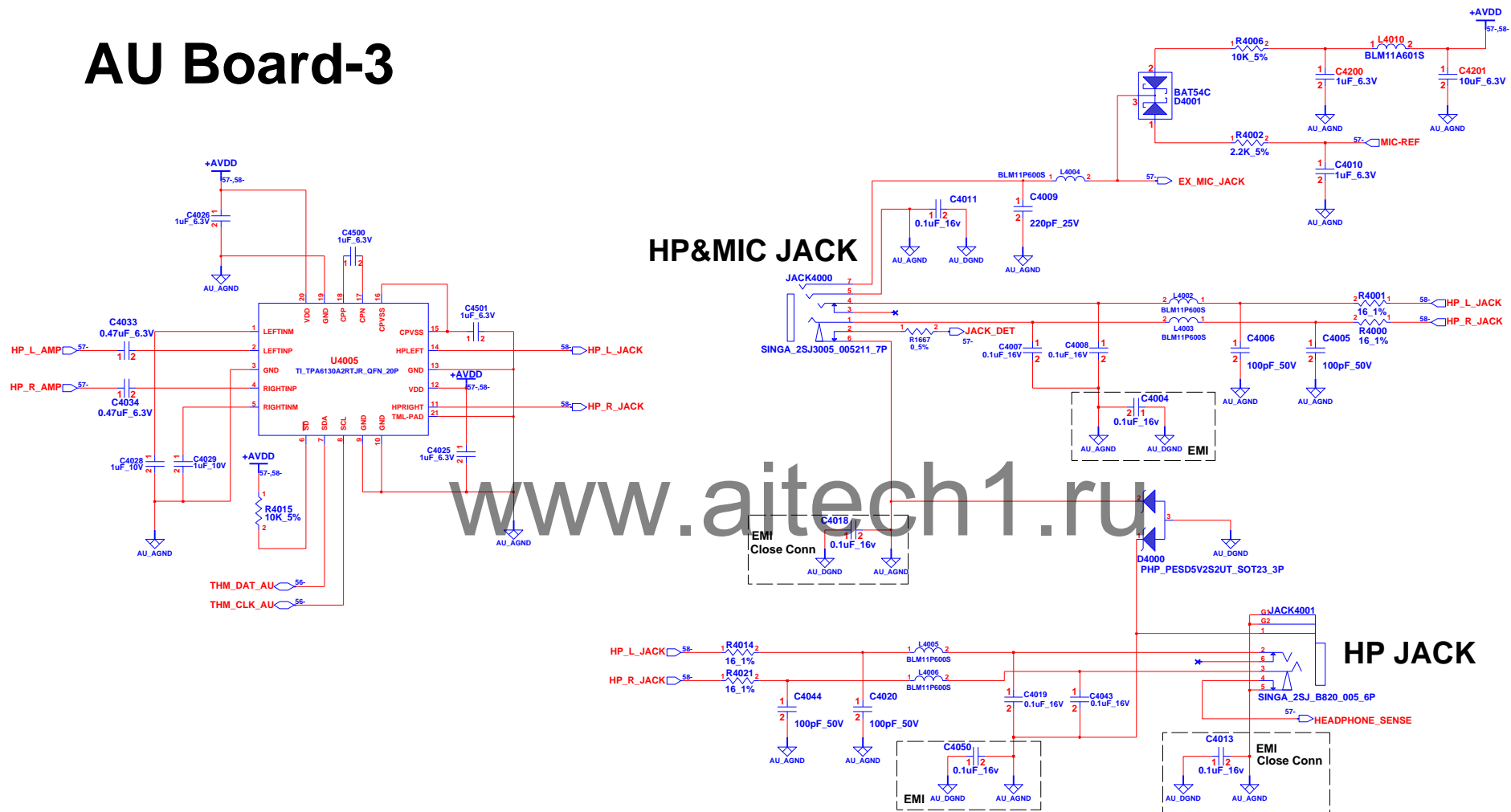
TITLE			
<b>Romeo</b> <b>AUDIO &amp; USB Board</b>			
SIZE	CODE	DOC. NUMBER	REV
<b>A3</b>	<b>CS</b>	<b>1310A23165-0-MTR</b>	<b>A01</b>

CHANGE by	<i>Evan Shih</i>	<i>10-Feb-2010</i>
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# AU Board-3

## HP&MIC JACK

## HP JACK



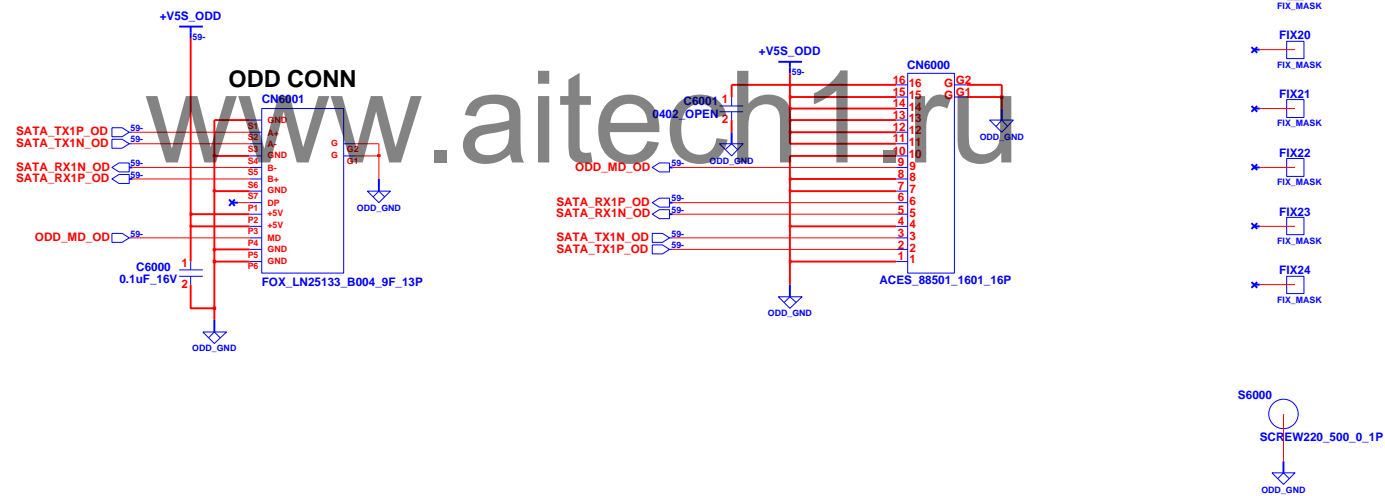
**INVENTEC**

TITLE			
Romeo			
AUDIO & USB Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23165-0-MTR	A01
SHEET		58	OF 66

CHANGE by Evan Shih 5-Feb-2010

# SATA ODD

## ODD Board



**INVENTEC**

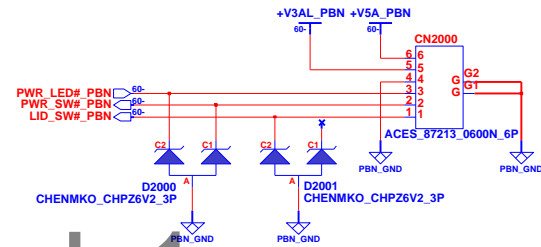
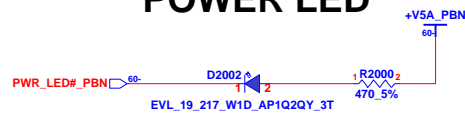
TITLE  
**Romeo**  
**ODD EXT BOARD**

SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23162-0-MTR	A01

CHANGE by	Evan Shih	5-Feb-2010
SHEET	59	OF 66

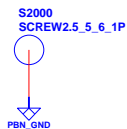
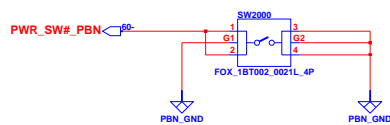
# Power Button

## POWER LED

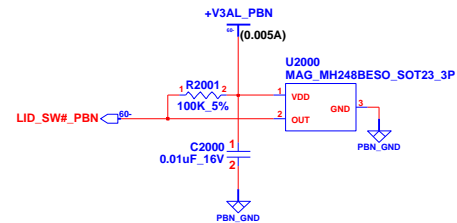


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## POWER BUTTON



## LID SWITCH



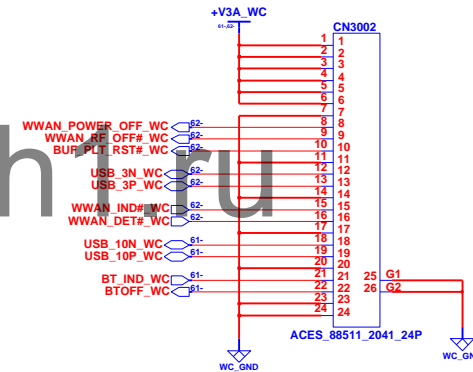
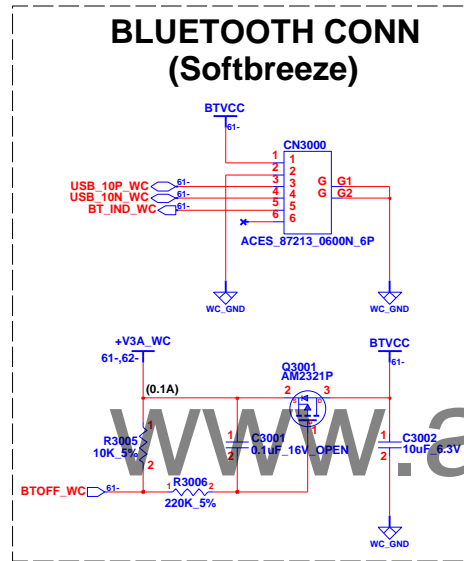
**INVENTEC**

TITLE			
Romeo			
Power SW Board			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23174-0-MTR	A01
SHEET		60	OF 66

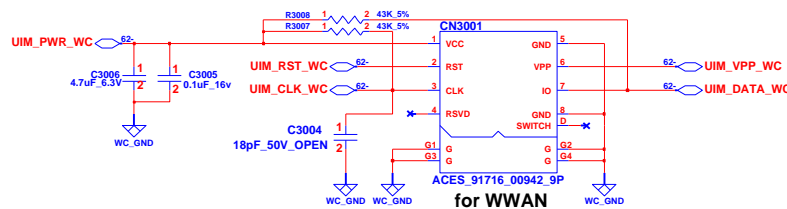
CHANGE by Evan Shih 5-Feb-2010

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# WC Board-1



## SIM CARD CONN

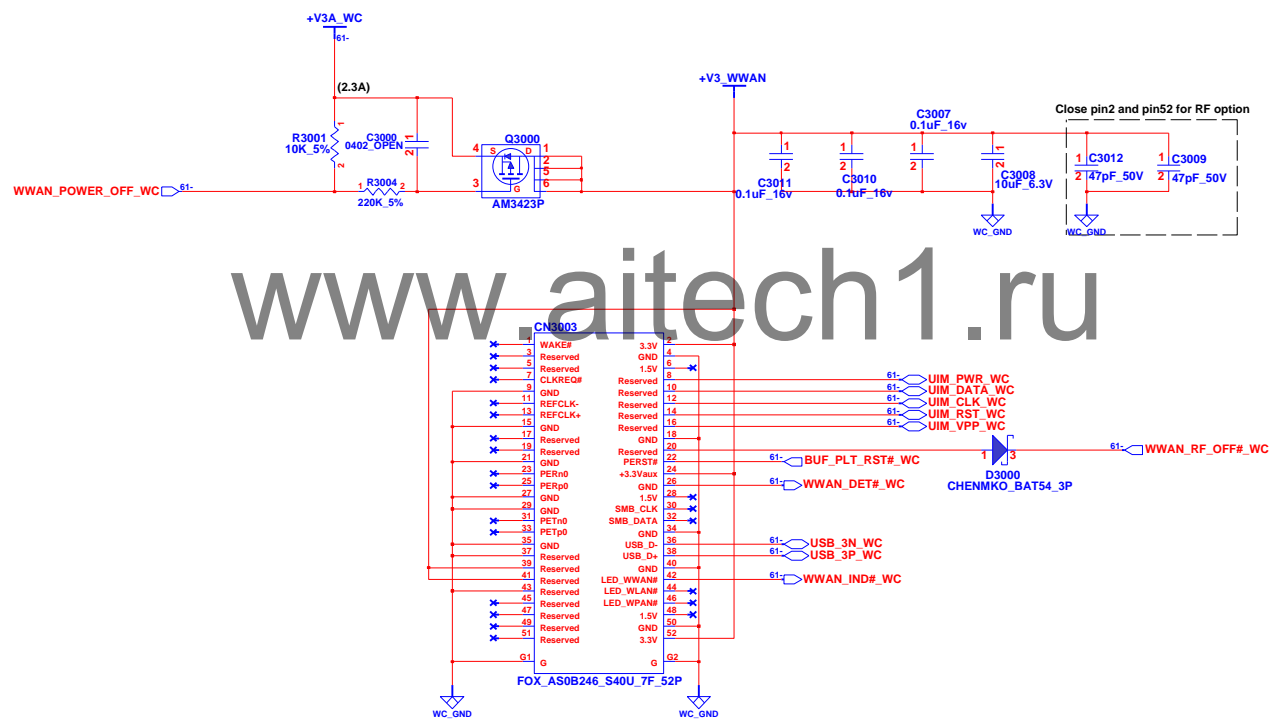


INVENTEC			
TITLE Romeo WIRELESS Board			
SIZE A3	CODE CS	DOC. NUMBER 1310A23164-0-MTR	REV A01
SHEET 61		OF 66	

CHANGE by: Evan Shih 5-Feb-2010

# WC Board-2

## WWAN



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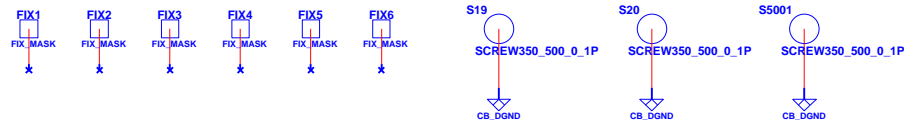
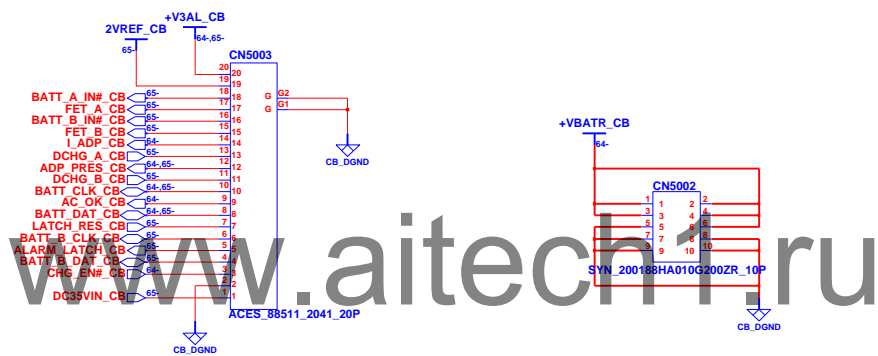
**INVENTEC**

TITLE <b>Romeo WIRELESS Board</b>			
SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A23164-0-MTR</b>	REV <b>A01</b>
SHEET <b>62</b>		OF <b>66</b>	

CHANGE by *Evan Shih* 5-Feb-2010

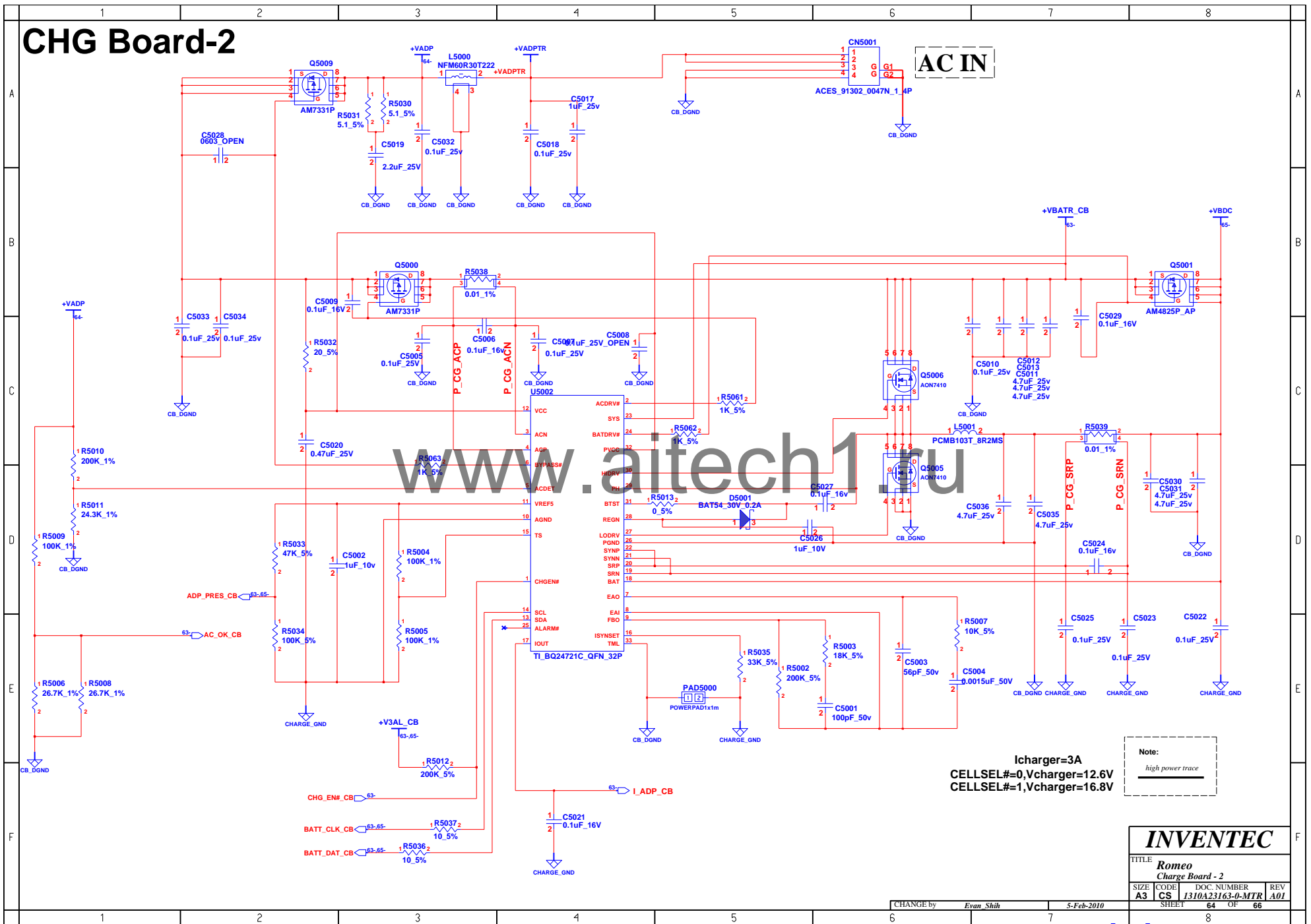
www.qdzbxw.com

# CHG Board-1



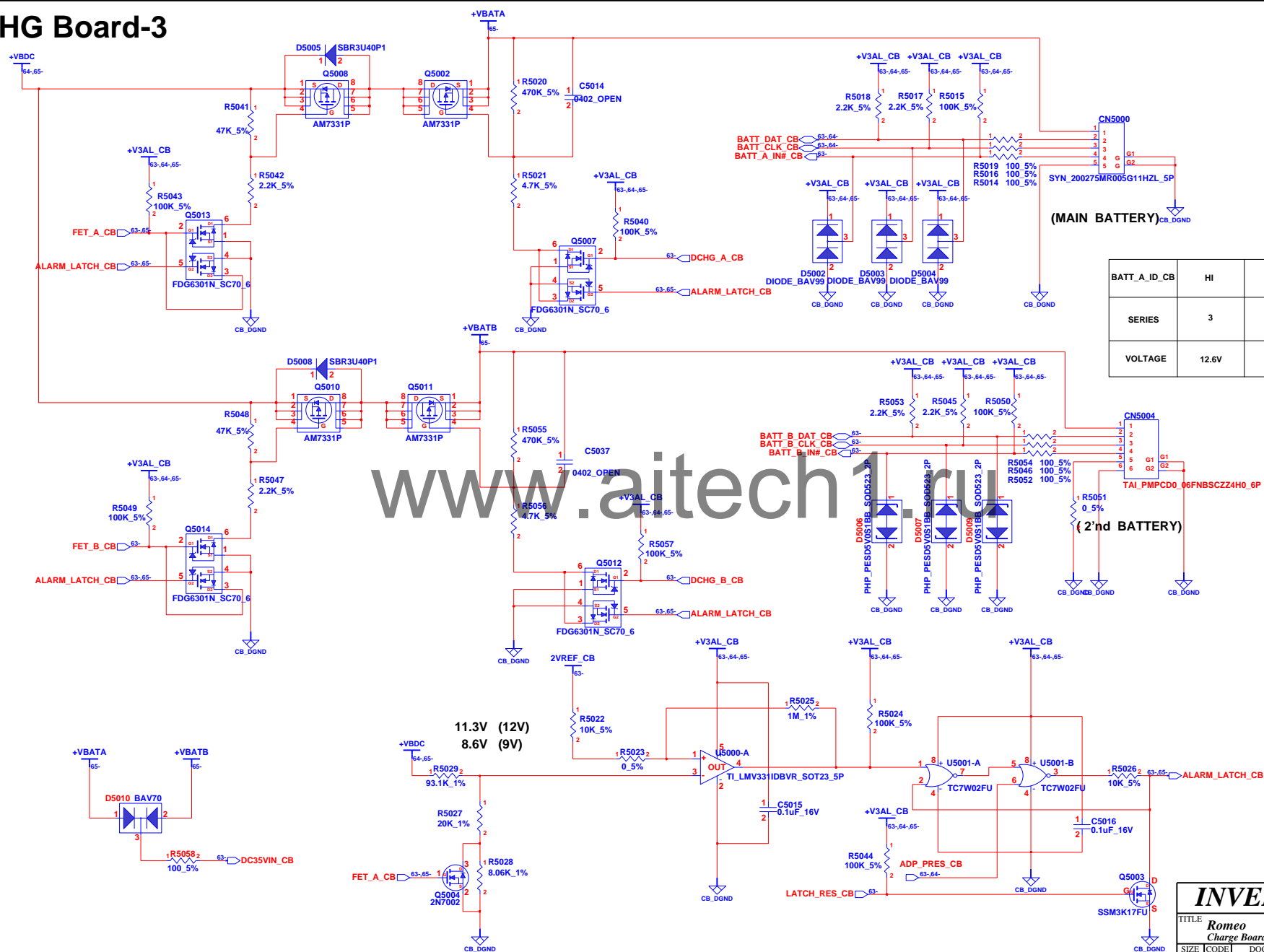
INVENTEC			
TITLE			
Romeo			
Charge Board - 1			
SIZE	CODE	DOC. NUMBER	REV
A3	CS	1310A23163-0-MTR	A01
CHANGE by		5-Feb-2010	
Evan Shih			
SHEET		63	OF 66

# CHG Board-2





## CHG Board-3



<b>BATT_A_ID_CB</b>	<b>HI</b>	<b>LOW</b>
<b>SERIES</b>	<b>3</b>	<b>4</b>
<b>VOLTAGE</b>	<b>12.6V</b>	<b>16.8V</b>

**INVENTEC**

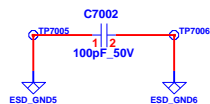
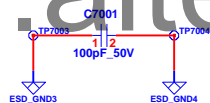
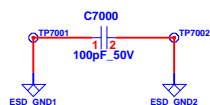
TITLE	<b><i>Romeo Charge Board - 3</i></b>
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SIZE <b>A3</b>	CODE <b>CS</b>	DOC. NUMBER <b>1310A23163-0-MTR</b>	REV <b>A01</b>
SHEET <b>65</b> OF <b>66</b>			

CHANGE by	<i>Evan Shih</i>	<i>3-Feb-2010</i>
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# EMC Board

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INVENTEC			
TITLE <i>Romeo</i> EMC			
SIZE A3	CODE CS	DOC. NUMBER 1310A23671-0-MTR	REV A01
CHANGE by EV145I		5-Feb-2010	SHEET 66 OF 66

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