

# AMD

## Angel Schematics Document

### AMD Temash APU

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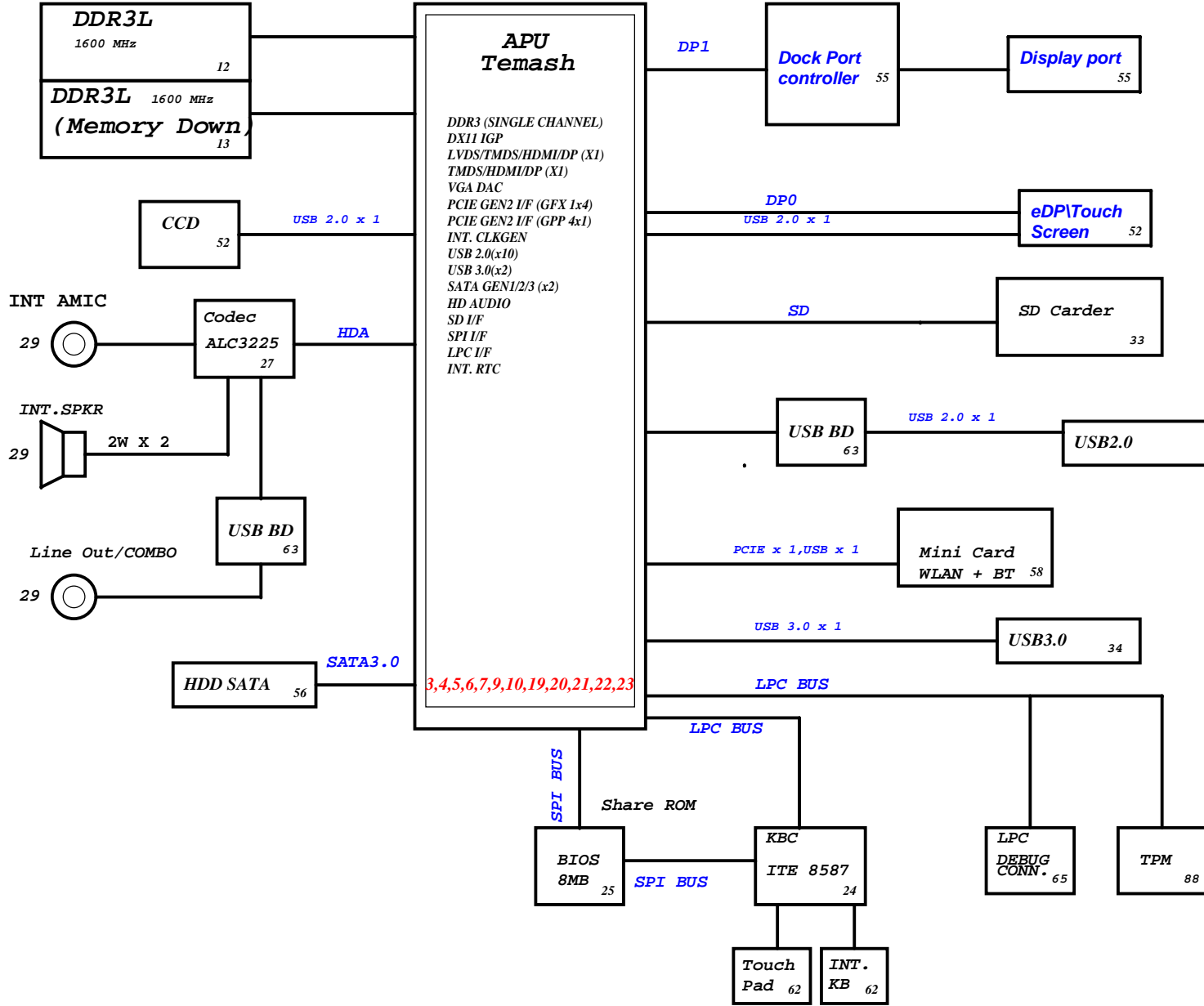
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Title <b>Cover Page</b>		
Size A4	Document Number <b>Angel</b>	Rev
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# Angel /KABINI

Angel Project code: 91.4LK01.001  
PCB No: code: 12281-1

<b>SYSTEM DC/DC</b> RT8245BTQW 45	
INPUTS	OUTPUTS
DCBATOUT	5V_S5 3D3V_S5
SYW232D 50	
3D3V_S5	1D8V_S5
RT8207M 49	
DCBATOUT	1D35V_S3
DCBATOUT	0D675V_S0
RT9025 51	
1D8V_S5	1D5V_S5
TPS51363 48	
DCBATOUT	0D95V_S5
<b>CHARGER</b> BQ24737 44	
INPUTS	OUTPUTS
DCBATOUT	CHG_PWR
<b>CPU DC/DC</b> ISL62771 46,47	
INPUTS	OUTPUTS
DCBATOUT	APU_VDD 0.3-1.4V, 8A VDDNB 0.7-1.325V, 10A



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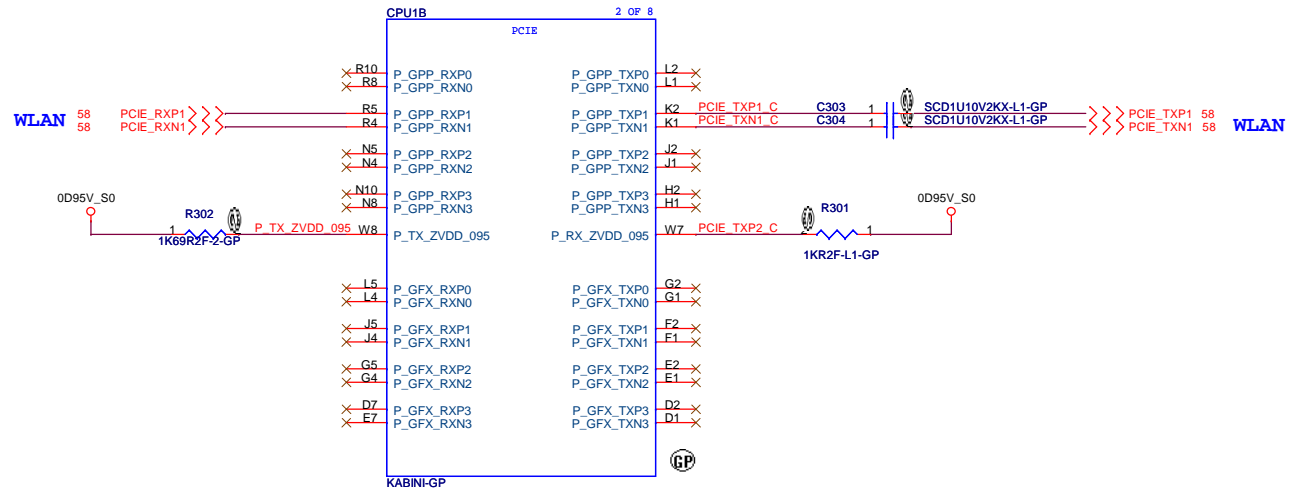
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Title: **Block Diagram**

Size A3 Document Number: **Angel** Rev: \_\_\_\_\_

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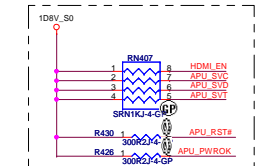
### PCIE Table

0	NC
1	WLAN
2	NC
3	NC

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Title		
<b>CPU PCIE</b>		
Size	Document Number	Rev
A3	Angel	
Date:	Monday, February 18, 2013	Sheet 3 of 102



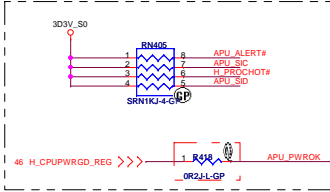
20120821 Follow Larne

TABLE 6. PRE-PWR0K METAL VID CODES

SVC	SVD	OUTPUT VOLTAGE (V)
0	0	1.1
0	1	1.0
1	0	0.9
1	1	0.8

APU Display

APU EDP

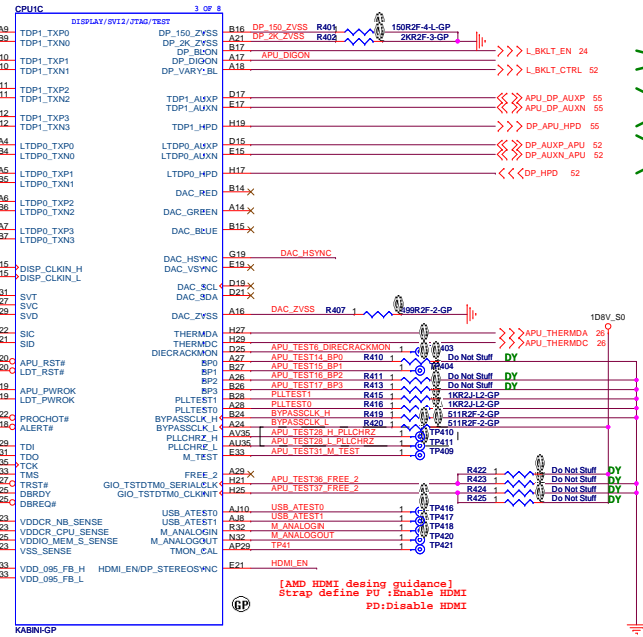
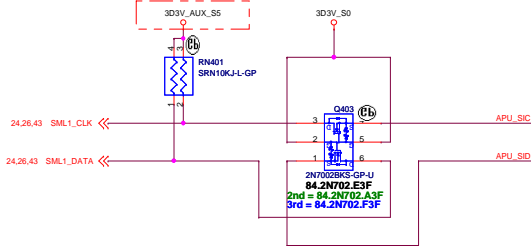


20120820 Follow Larne

APU core control

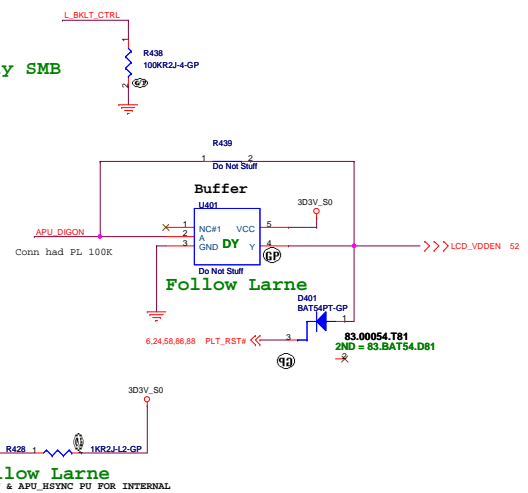
Add test point for AMD checklist

-SA 20121228-1

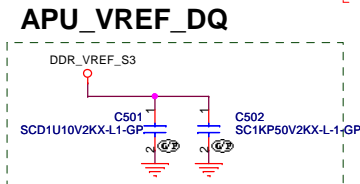
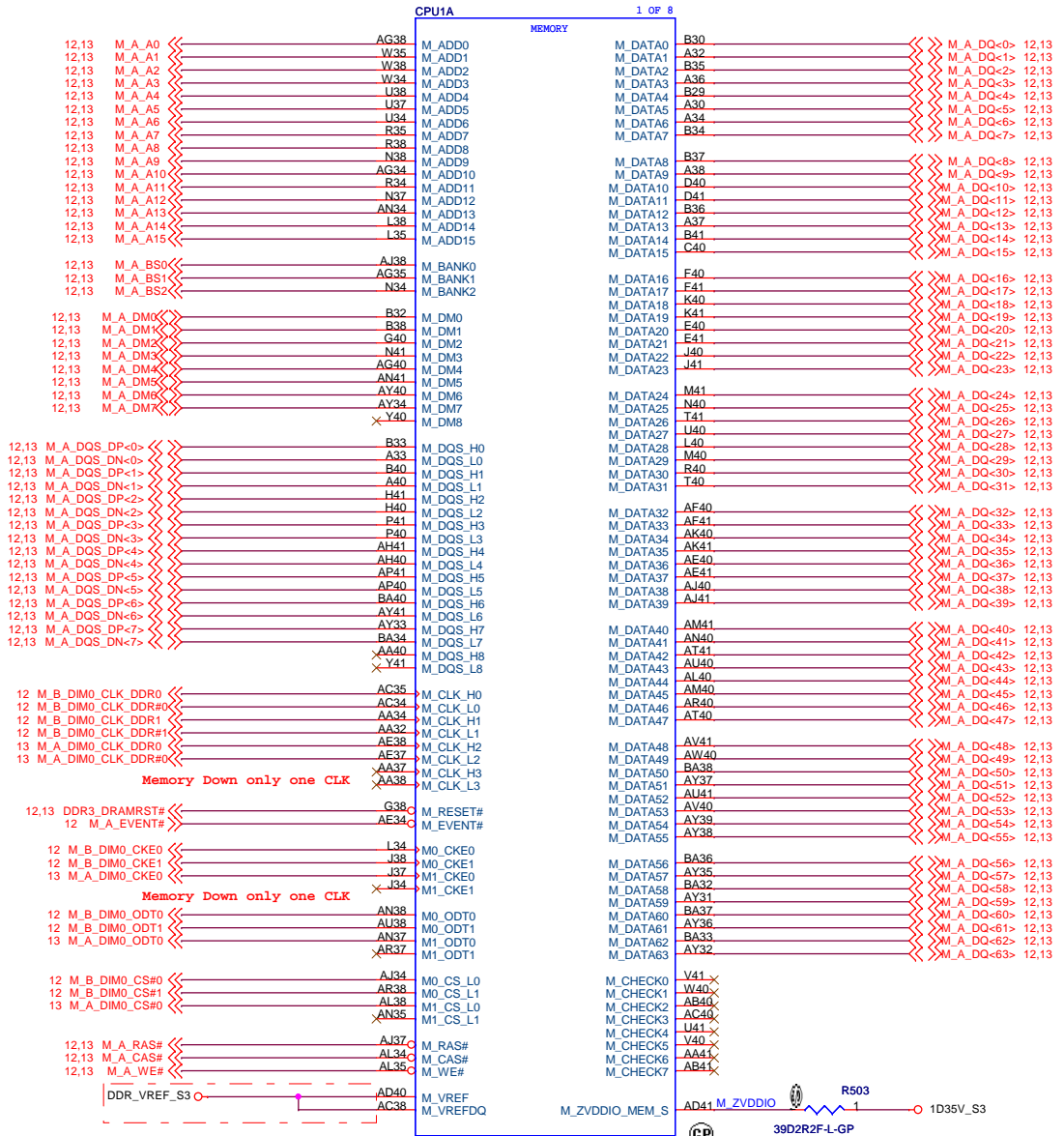
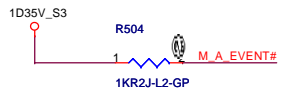


[AMD HDMI desing guidance]  
Strap define FU : Enable HDMI  
PD:Disable HDMI

APU EDP  
APU Dispaly SMB  
APU EDP



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LAYOUT: place them close to APU

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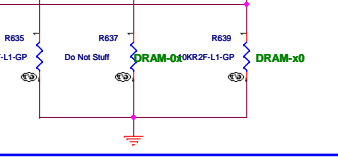
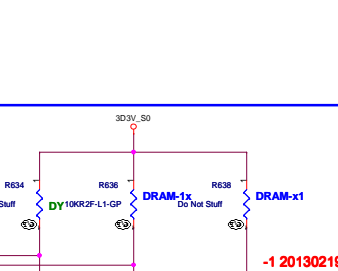
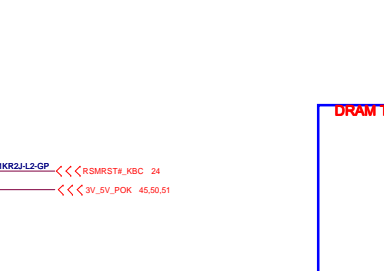
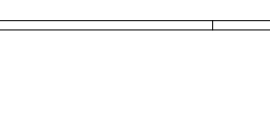
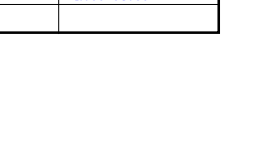
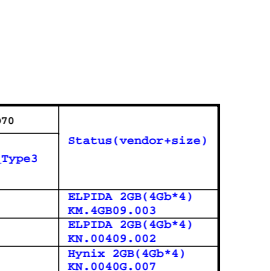
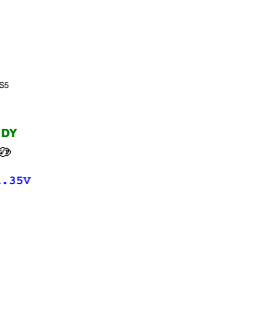
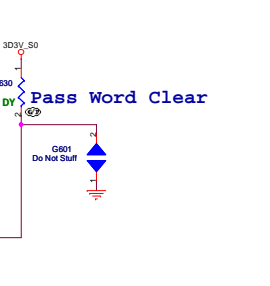
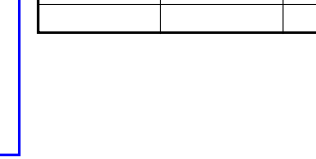
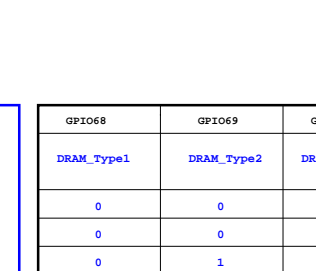
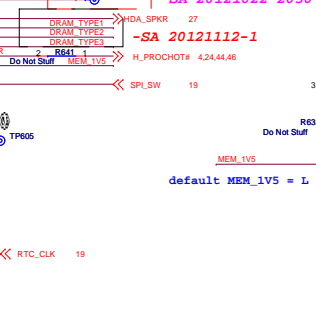
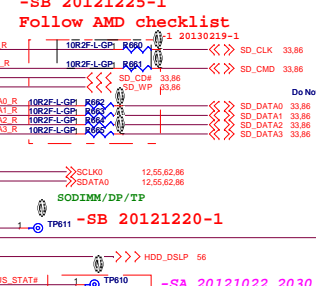
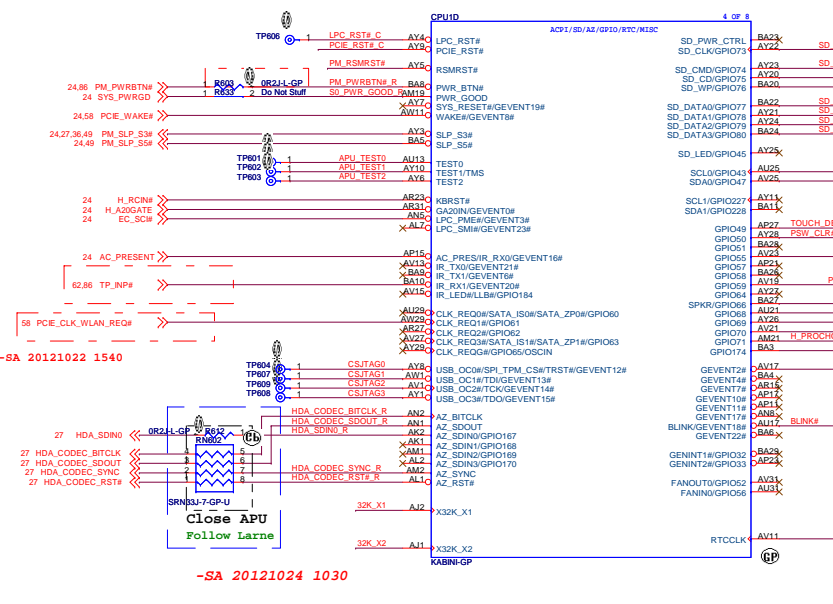
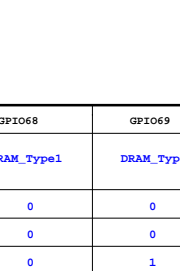
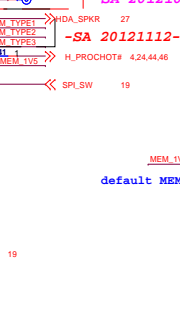
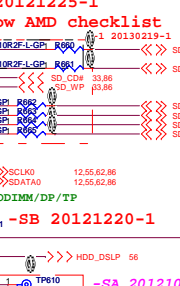
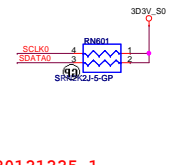
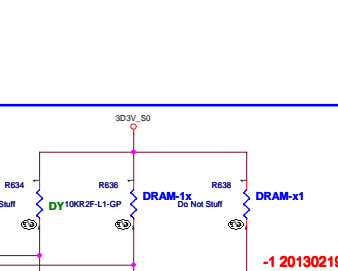
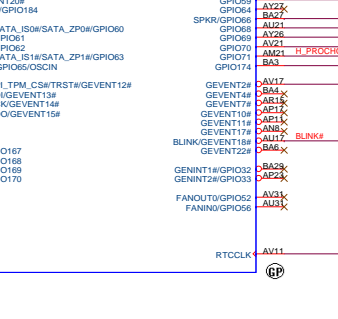
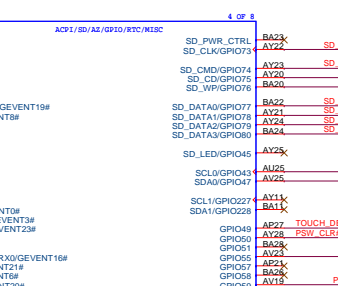
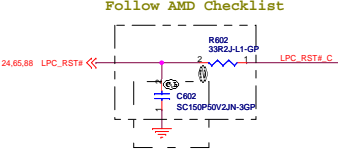
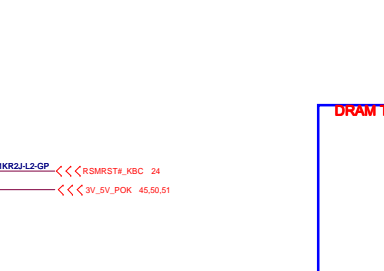
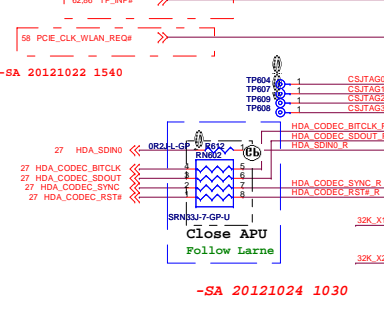
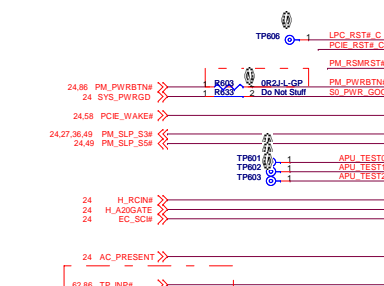
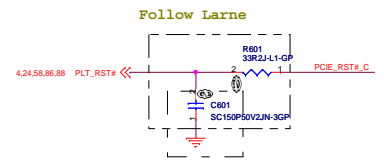
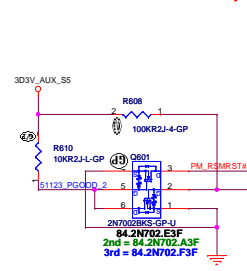
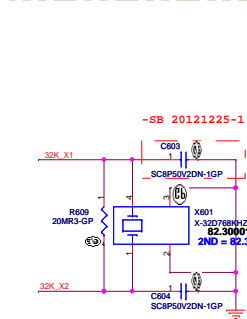
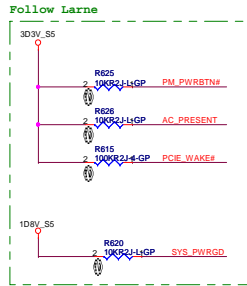
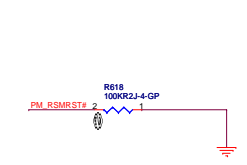
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Title: **CPU DDR**

Size: A3 Document Number: **Angel** Rev: **5**

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GPIO68	GPIO69	GPIO70	Status(vendor+size)
DRAM_Type1	DRAM_Type2	DRAM_Type3	
0	0	0	ELPIDA 2GB(4Gb*4) KM.4GB09_003
0	0	1	ELPIDA 2GB(4Gb*4) KN.00409_002
0	1	0	Hynix 2GB(4Gb*4) KN.0040G_007

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File: **CPU (ACPI/SD/AZ/GPIO/RTC)**

Size: Document Number  
Custom: **Angel**  
Date: Thursday, February 21, 2013 Sheet 6 of 102

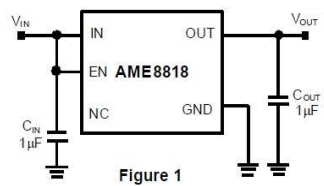
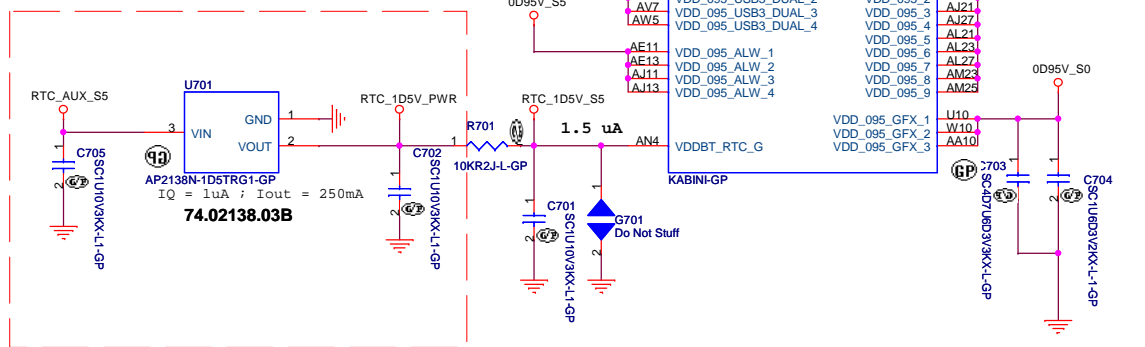
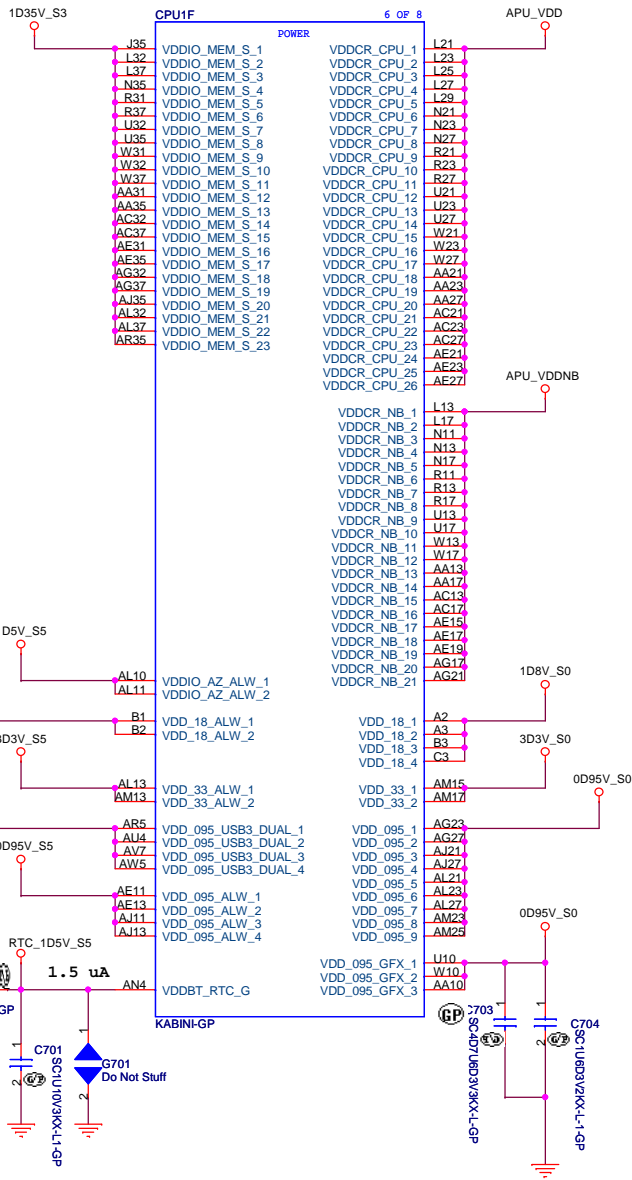


Figure 1



follow EA40-KB 20121025 2310



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Title <b>CPU VCC CORE</b>		
Size A3	Document Number <b>Angel</b>	Rev
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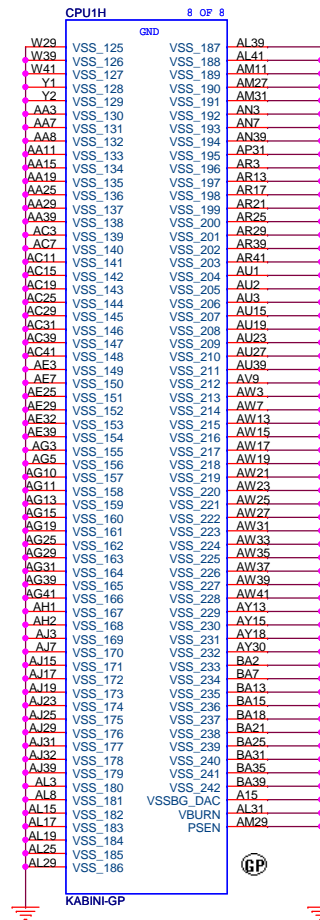
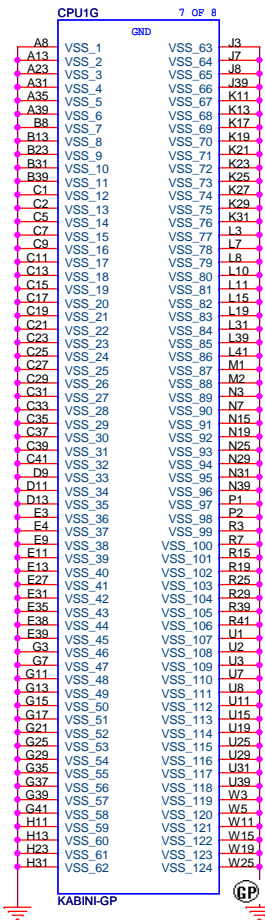
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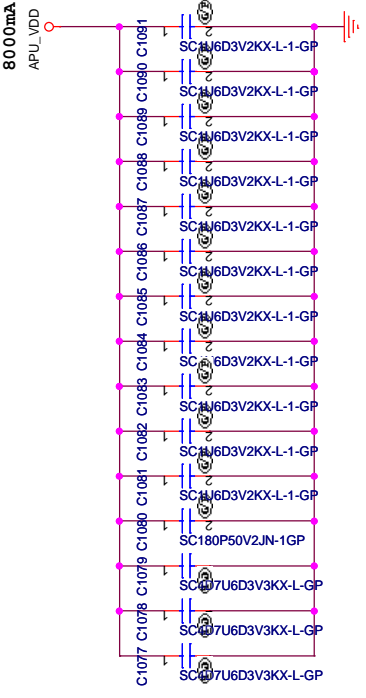
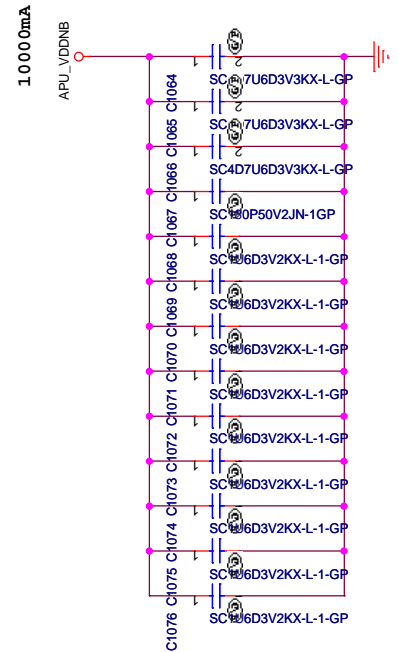
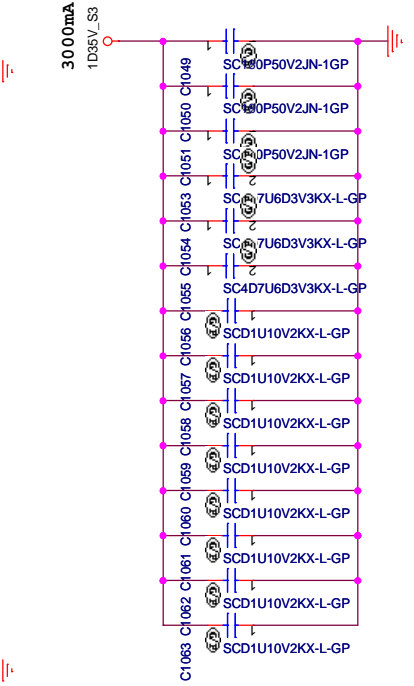
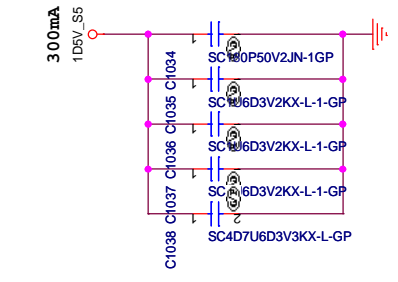
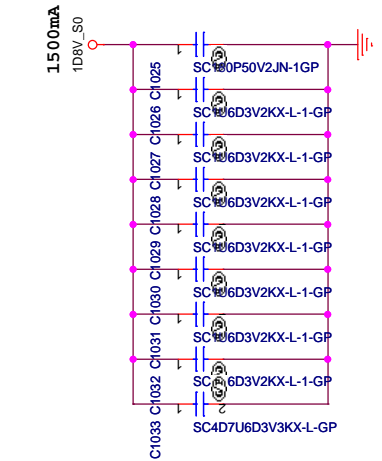
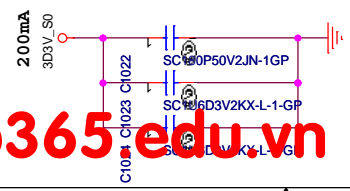
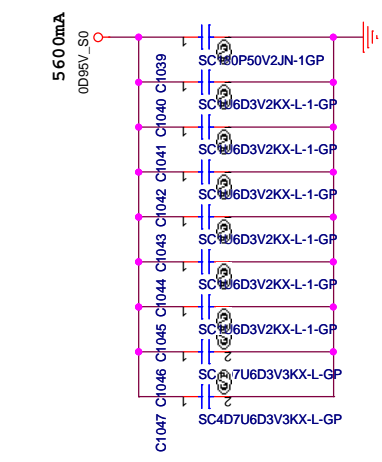
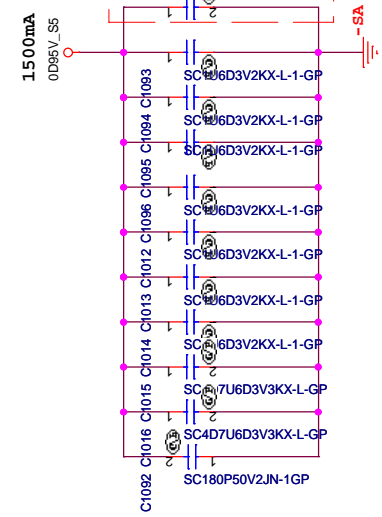
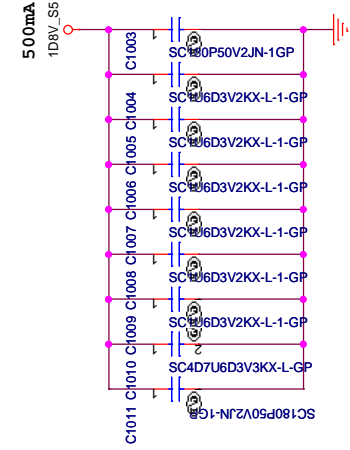
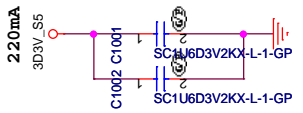
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<b>CPU VCC GFXCORE</b>		
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Title: **CPU POWER CAP1**

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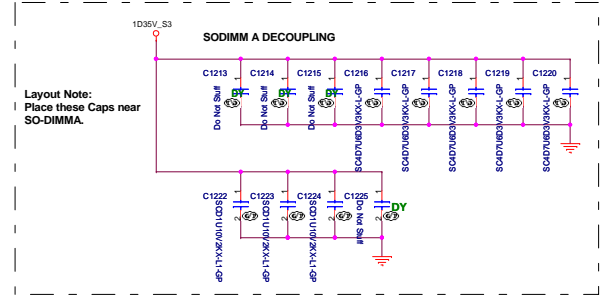
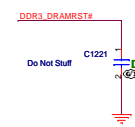
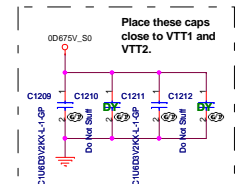
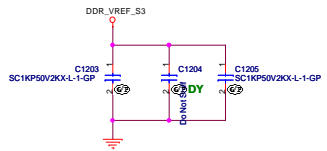
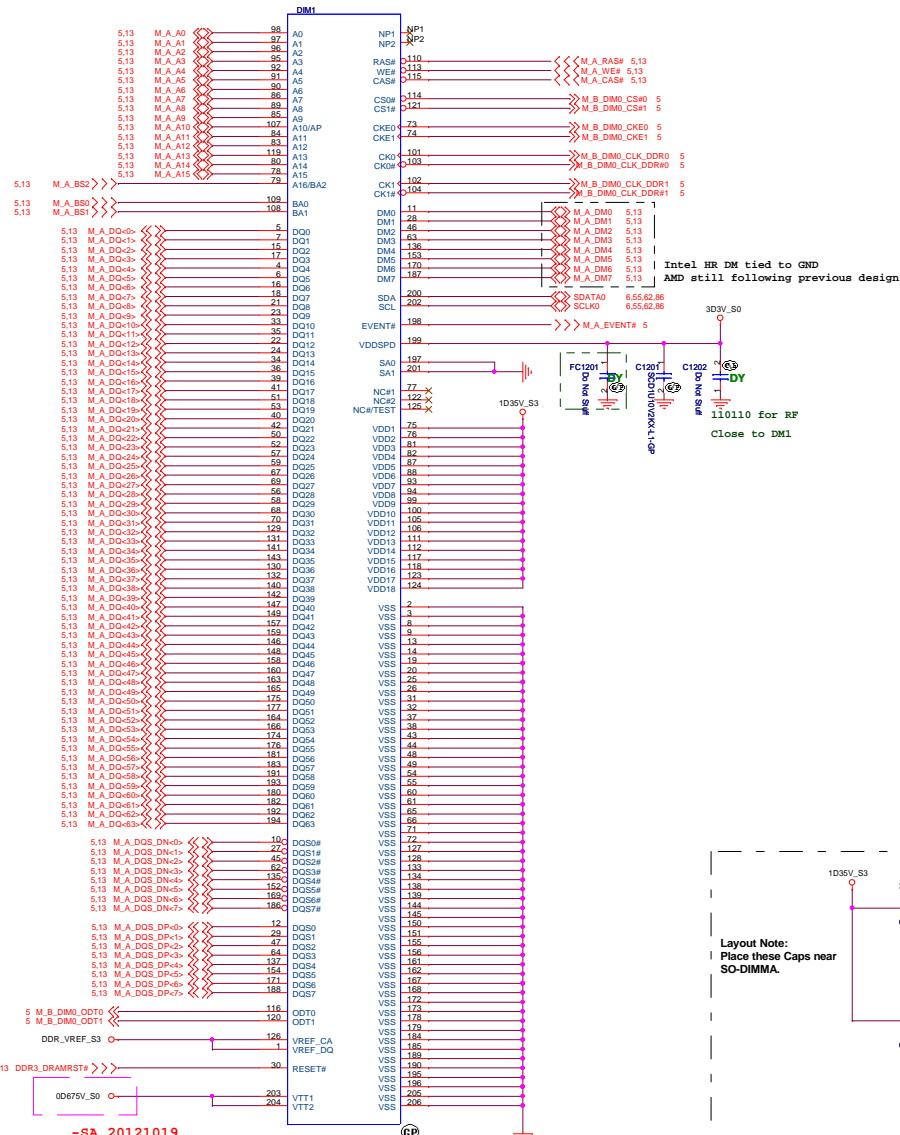
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<b>Title</b>	<b>CPU_POWER CAP2</b>
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A	<b>Angel</b>	

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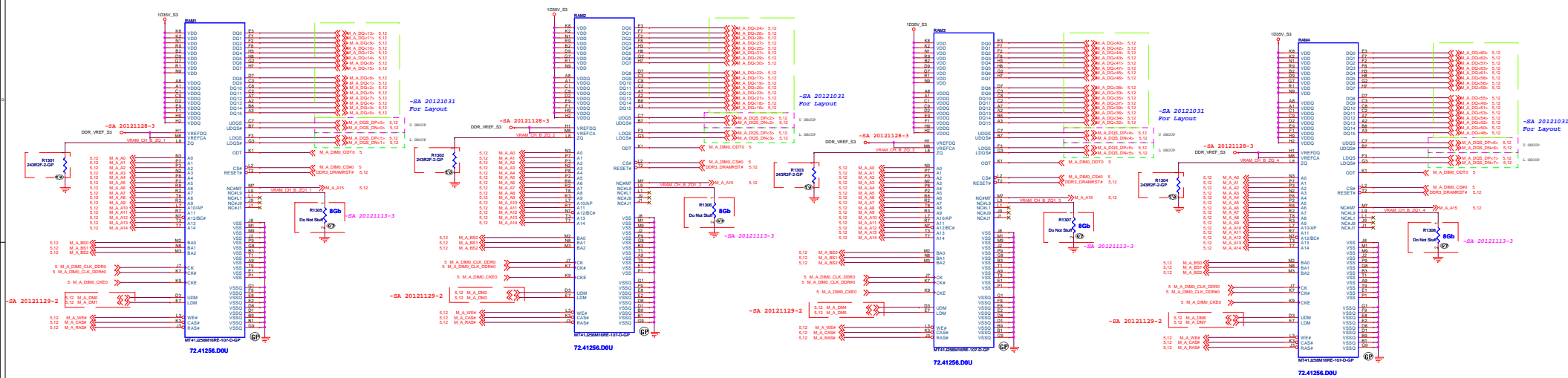


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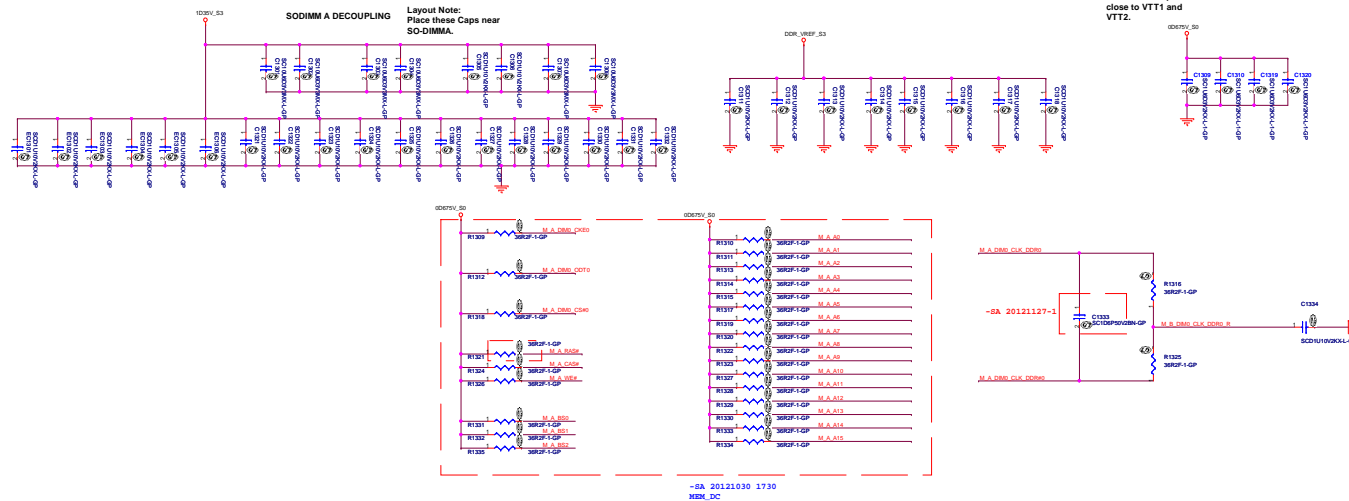
DDR3-204P-123-GP  
62.10017.Z61

2ND = 62.10024.M51  
3RD = 62.10017.X31  
4th = 62.10024.Q71

Follow JE50-SB  
H = 4mm



Trace should be at least 20 mils wide



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<b>Title</b>		
<b>DDR3 SODIMM 3</b>		

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Title	<b>CPU_EDP SIDEBAND/GPIO/DDI</b>
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<b>Title</b>		
<b>CPU PCIE/USB</b>		

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<b>Title</b>			
<b>CPU DMI/FDI/PM</b>			
<b>Size</b> A	<b>Document Number</b> <b>Angel</b>		<b>Rev</b>
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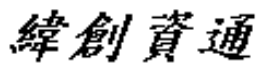
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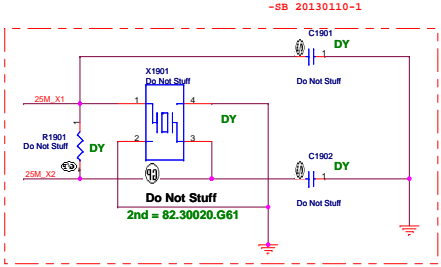
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<b>Title CPU_PCIE/SMBUS/CLK/CL/SPI</b>			
Size A	<b>Document Number</b> <b>Angel</b>		Rev
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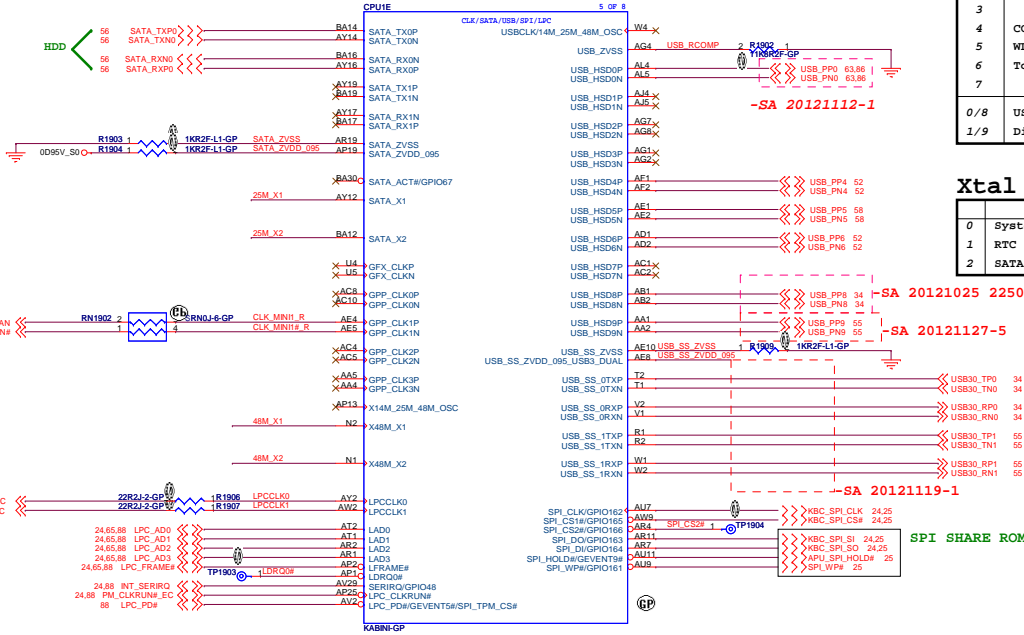
### SATA Table

0	HDD
1	



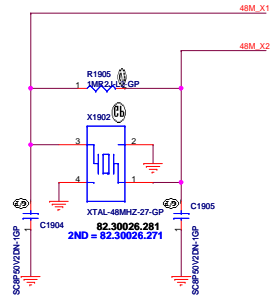
### USB Table

Pair	Device
0	USB2.0 (USB Conn)
1	
2	
3	
4	CCD (CCD Conn)
5	WLAN + BT (Mini PCI-E)
6	Touch (MB)
7	
0/8	USB3.0 (MB)/2.0
1/9	Display Port

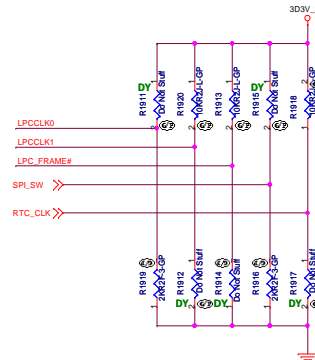


### Xtal Table

		CLK
0	System & USB	48M
1	RTC	32.768K
2	SATA	25M



### SYSTEM STRAPPINGS



		LPC_CLK0	LPC_CLK1	LFRAME#	EXPCARD_POE_PWREN#	RTC_CLK
FULL	BOOT FAIL TIMER ENABLED	SLNGEN ENABLED	SPI ROM	1.0V SPI ROM	NORMAL POWER UP/RESET TIMING	
HIGH		SLNGEN DISABLED	LPC ROM	3.0V SPI ROM	FAST POWER UP/RESET TIMING FOR SIMULATION	
FULL	BOOT FAIL TIMER DISABLED	SLNGEN ENABLED	LPC ROM	3.0V SPI ROM	FAST POWER UP/RESET TIMING FOR SIMULATION	
LOW		SLNGEN DISABLED	LPC ROM	3.0V SPI ROM	FAST POWER UP/RESET TIMING FOR SIMULATION	

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---	--

<b>Title</b>	<b>CPU GPIO/MISC</b>
--------------	----------------------

Size A4	Document Number <b>Angel</b>	Rev
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Date: Monday, February 18, 2013	Sheet 20 of	102
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---	---

<b>Title</b>		
<b>CPU POWER1</b>		

Size A4	Document Number <b>Angel</b>	Rev
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---------------------------------	-----------------

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---	---

<b>Title</b>		
<b>CPU RSVD</b>		

<b>Size</b> A4	<b>Document Number</b> <b>Angel</b>	<b>Rev</b>
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<b>Date:</b> Monday, February 18, 2013	<b>Sheet</b> 22 <b>of</b> 102
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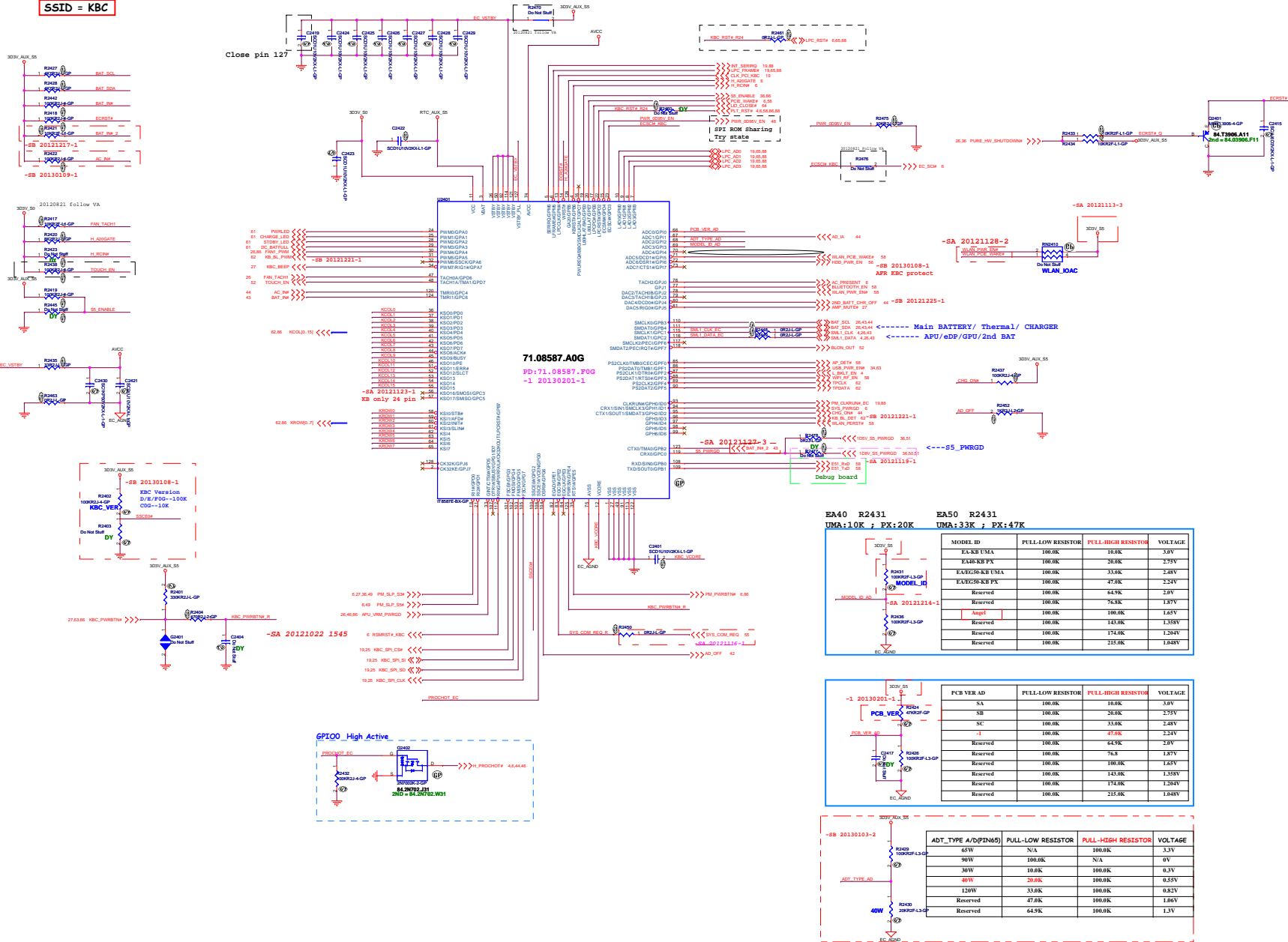
	<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
---	---

<b>Title</b>		
<b>CPU VSS</b>		

Size A4	Document Number <b>Angel</b>	Rev
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---------------------------------	-----------------

SSID = KBC



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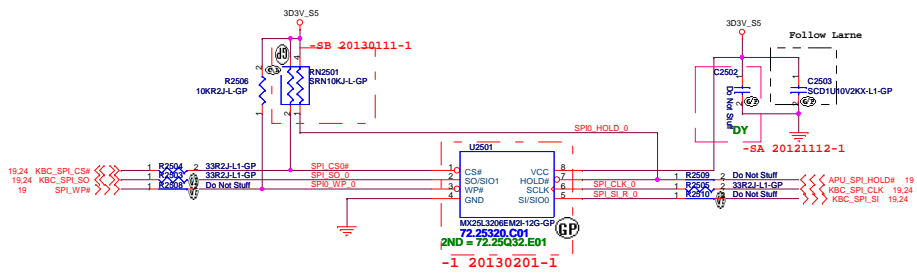


SSID = Flash.ROM    SPI FLASH ROM (8M byte) for KBC

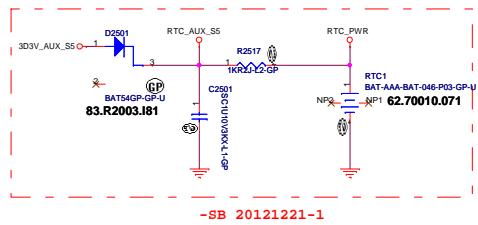
SPI ROM : 8MB

MXIC :      72.25320.C01 main

WINBOND : 72.25Q32.E01 2nd



SSID = RBAT



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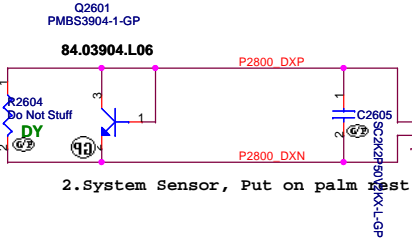
Angel second

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Title			
Project Name    Flash/RTC			
Size	Project Name    Angel		Rev 5B
Date:	Tuesday, February 19, 2013	Sheet    26	of    102

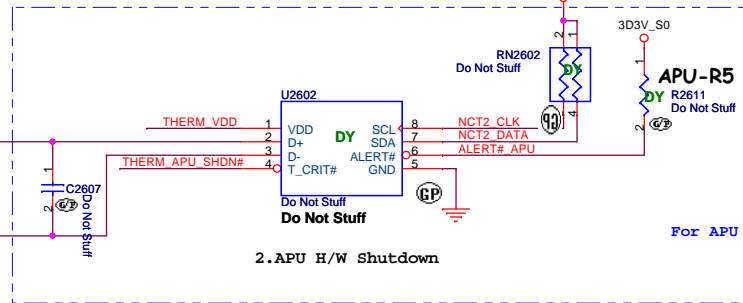
**SSID = Thermal**

# Thermal sensor NCT 7718W

Layout notice :  
Both DXN and DXP routing 10 mil  
trace width and 10 mil spacing.



## 1.H/W T8 Shutdown



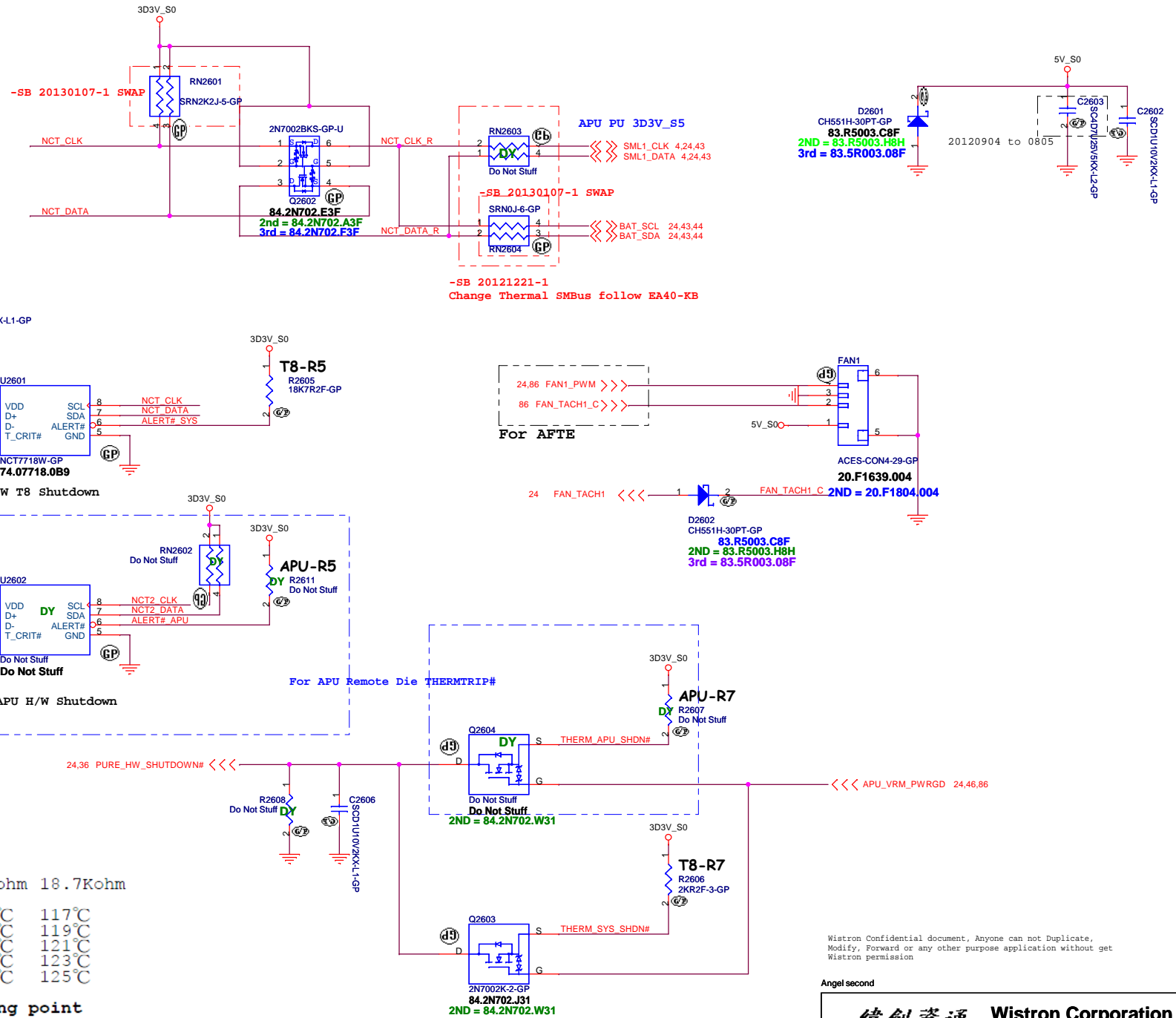
ALERT# /T CRIT#  
Pull-up Resistor

R5	2Kohm	7.5Kohm	10.5Kohm	14Kohm	18.7Kohm
77°C	87°C	97°C	107°C	117°C	
79°C	89°C	99°C	109°C	119°C	
81°C	91°C	101°C	111°C	121°C	
83°C	93°C	103°C	113°C	123°C	
85°C	95°C	105°C	115°C	125°C	

T\_CRIT temperature strapping point

T8=85 degree  
SYS=85 degree  
APU=125 degree

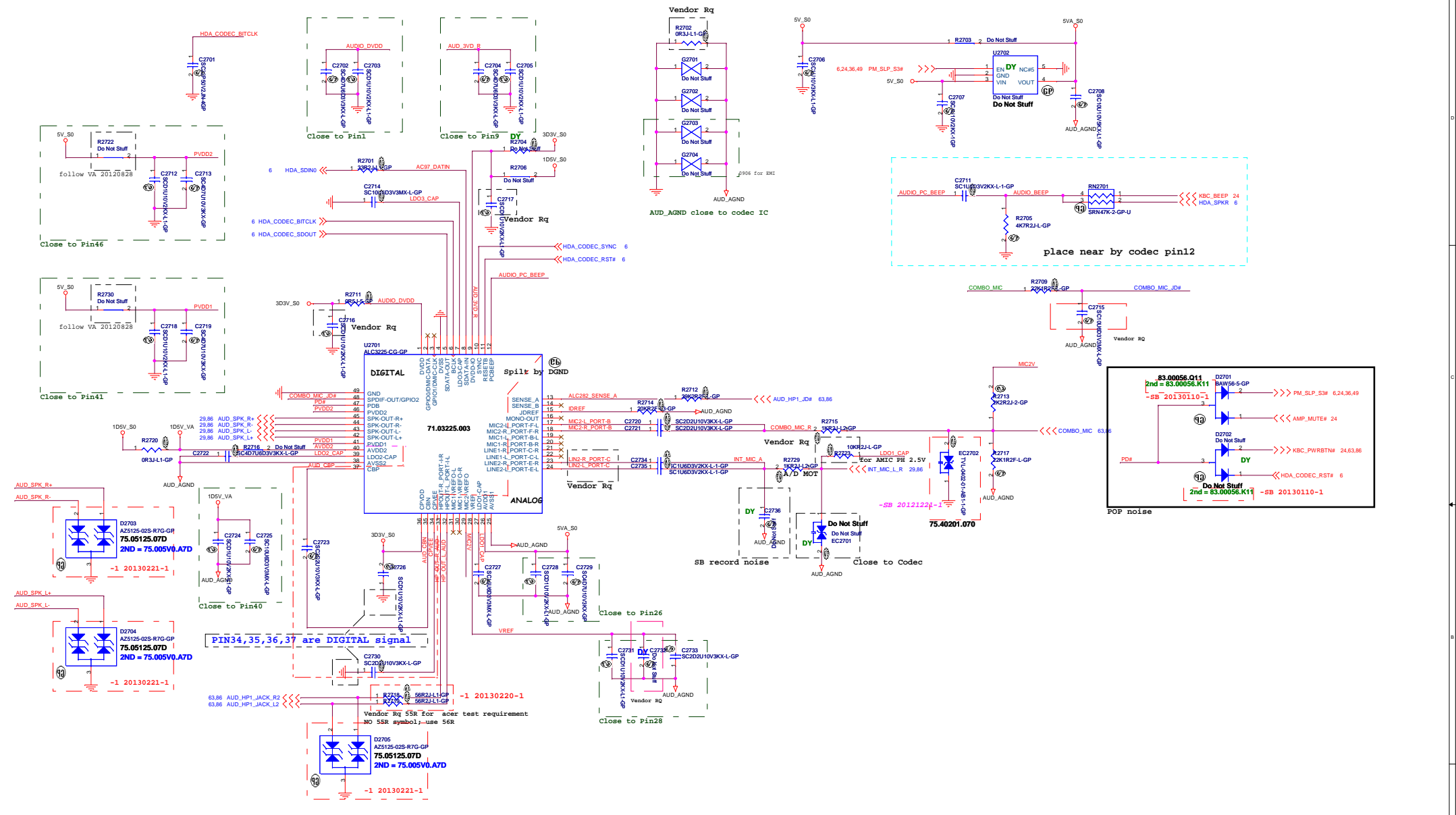
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Title <b>Thermal 7718/Fan Controller P2793</b>	
Size	Project Name <b>Angel</b>
Date: Monday, February 18, 2013	Rev <b>SB</b>
Sheet 26	of 102



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<b>Audio Codec</b>	
Project Name: Angel	
Rev: SB	
Date: Thursday, February 21, 2013	Sheet: 27 of 102

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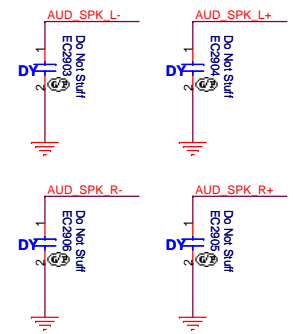
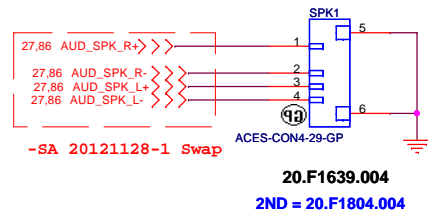
Angel second

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<b>Title</b> <b>AMP ALC1001</b>	
<b>Size</b>	<b>Project Name</b> <b>Angel</b>
<b>Date:</b> Monday, February 18, 2013	
<b>Rev</b> <b>SB</b>	
<b>Sheet 28 of 102</b>	

**SSID = AUDIO**

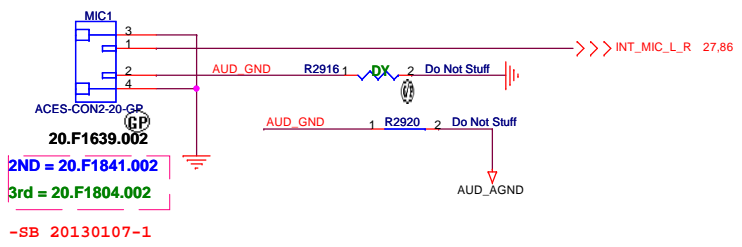
*Speaker*

2W 4ohm X 2 speaker



Layout Note:

Trace width=40mil



86 AUD\_GND <<<<  
For AFTE

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Title <b>Audio Jack</b>	
Size	Project Name <b>Angel</b> Rev <b>SB</b>
Date: Monday, February 18, 2013	Sheet 29 of 102

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Title		
RTL8411		
Size	Project Name	Rev
	Angel	SB
Date: Monday, February 18, 2013		
Sheet 30 of 102		

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		SB
Title		
LAN CONNECTOR		
Size	Project Name	Rev
	Angel	SB
Date: Monday, February 18, 2013		Sheet 31 of 102

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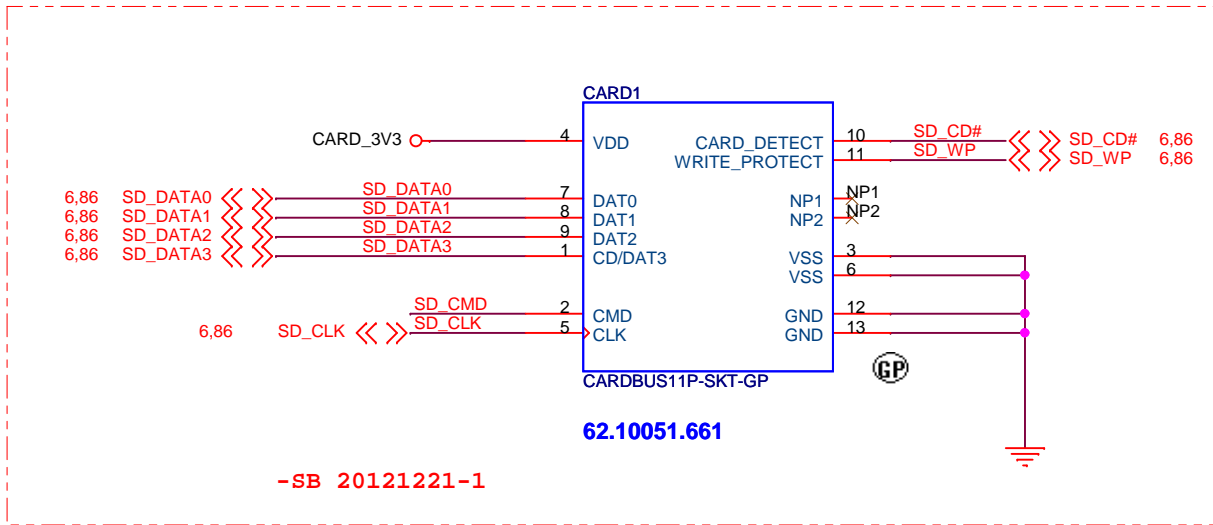
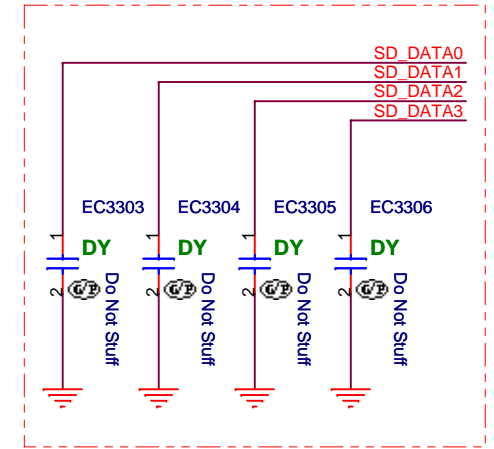
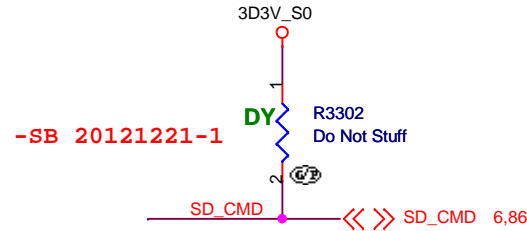
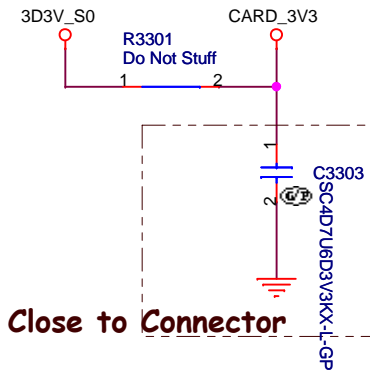
Angel second

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<b>Title</b> <b>Card Reader IC</b>		
<b>Size</b>	<b>Project Name</b> <b>Angel</b>	<b>Rev</b> <b>SB</b>
<b>Date:</b> Monday, February 18, 2013		<b>Sheet</b> 32 <b>of</b> 102

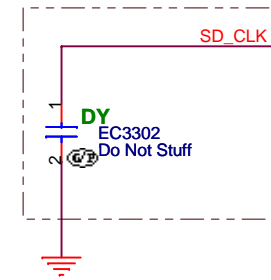


**SSID = SDIO**

# SD//MS Card Reader



-SA 20121128-4



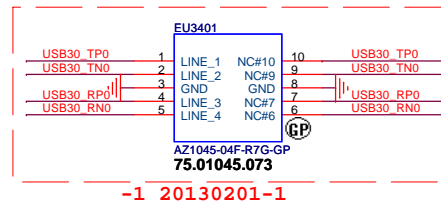
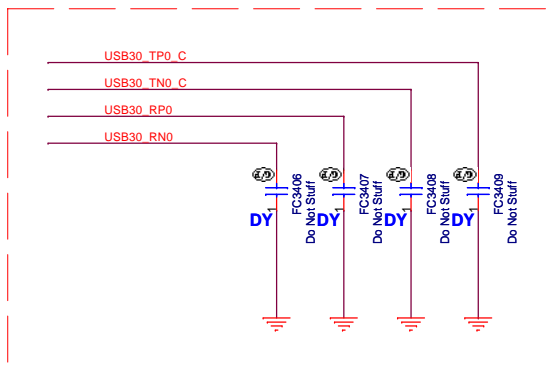
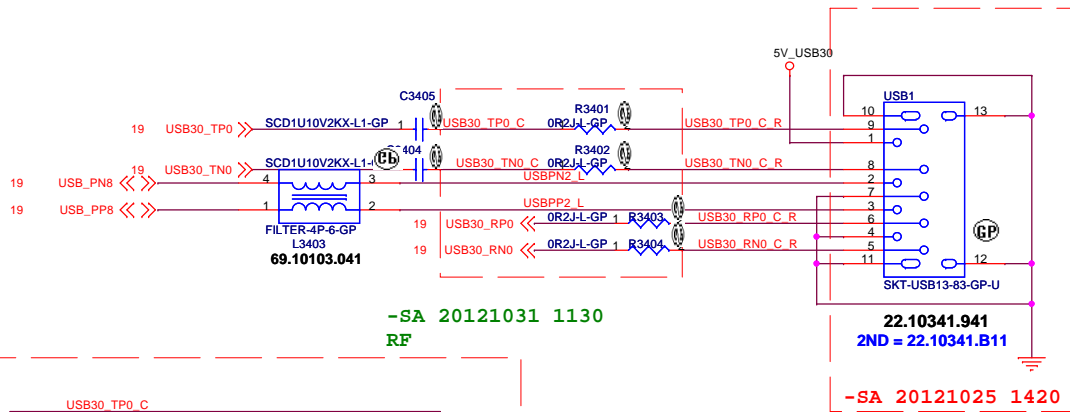
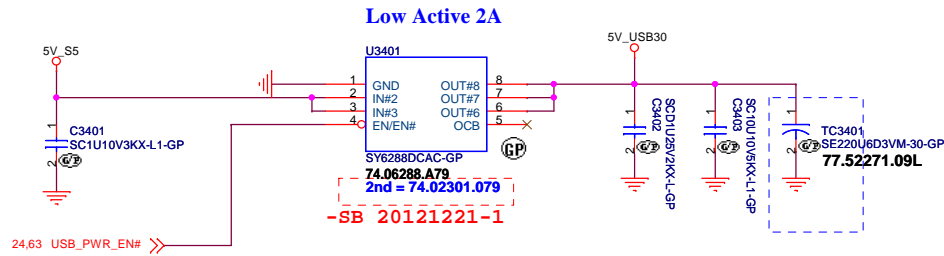
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Title: **CARD Reader CONN**

Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>



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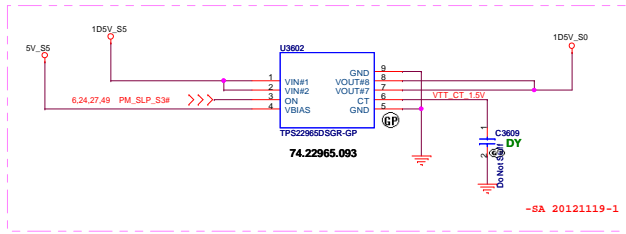
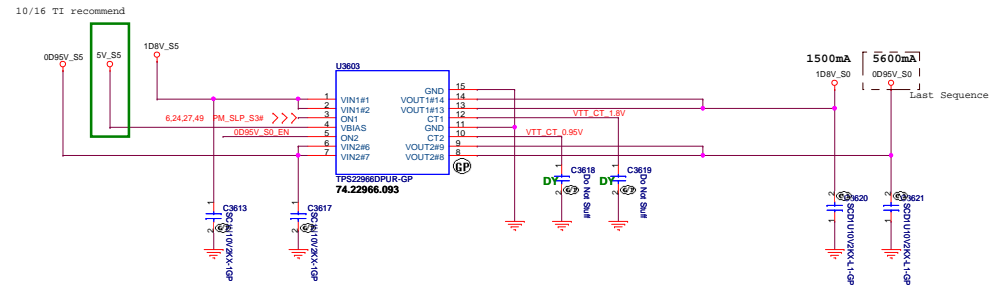
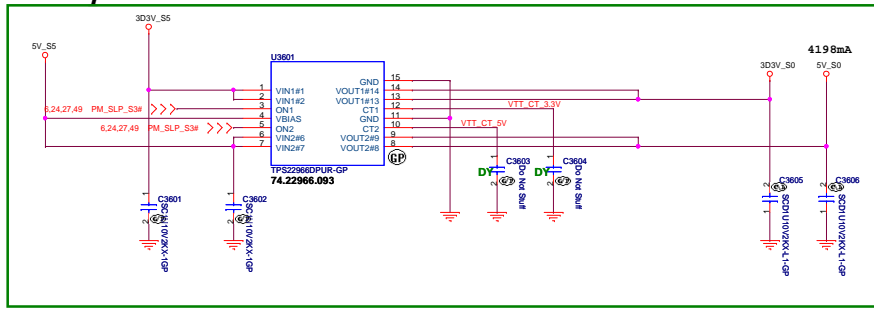
<b>緯創資通 Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>USB 3.0 Port</b>	
Size	Project Name <b>Angel</b>
Date: Monday, February 18, 2013	Rev <b>SB</b>
Sheet 34	of 102

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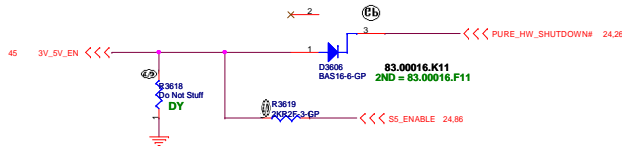
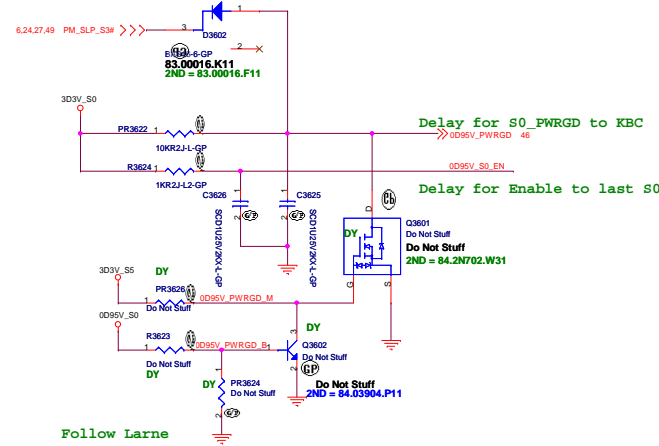
Angel second

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<b>Title</b> <b>USB_Charger</b>	
<b>Size</b>	<b>Project Name</b> <b>Angel</b>
<b>Date:</b> Monday, February 18, 2013	
<b>Rev</b> <b>SB</b>	
<b>Sheet 35 of 102</b>	

# Power Sequence



S5\_PWRGD to XBC



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<b>Power Plane Enable</b>	
Title Project Name Size Date: Monday, February 18, 2013	Rev 5B Sheet 36 of 102

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Title	<b>ADAPTER OCP / S3 reduction</b>
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Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>

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5

4

3

2

1

D

D

C

C

B

B

A

A

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Title			
<b>Deep Standby</b>			
Size	Project Name		Rev
	<b>Angel</b>		<b>SB</b>
Date:	Monday, February 18, 2013	Sheet	38 of 102

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5

4

3

2

1

5

4

3

2

1

D

D

C

C

B

B

A

A

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Title		<b>1D05_M</b>
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Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>

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5

4

3

2

1

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Title

Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>



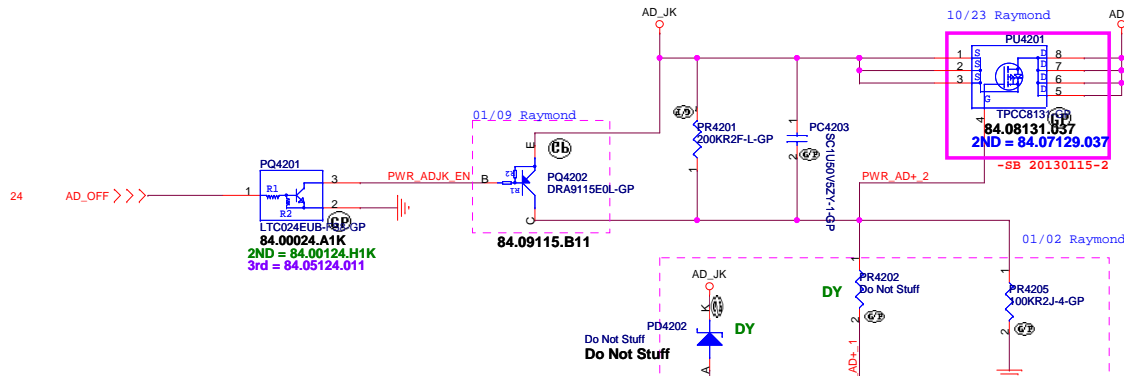
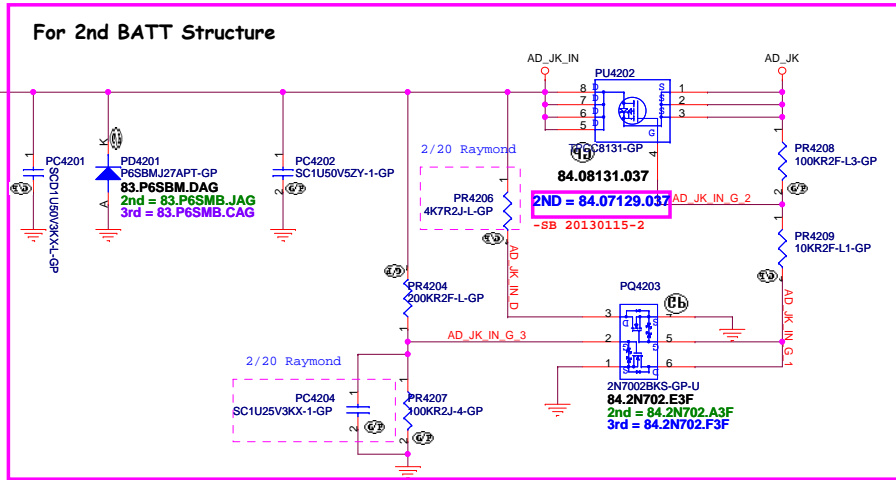
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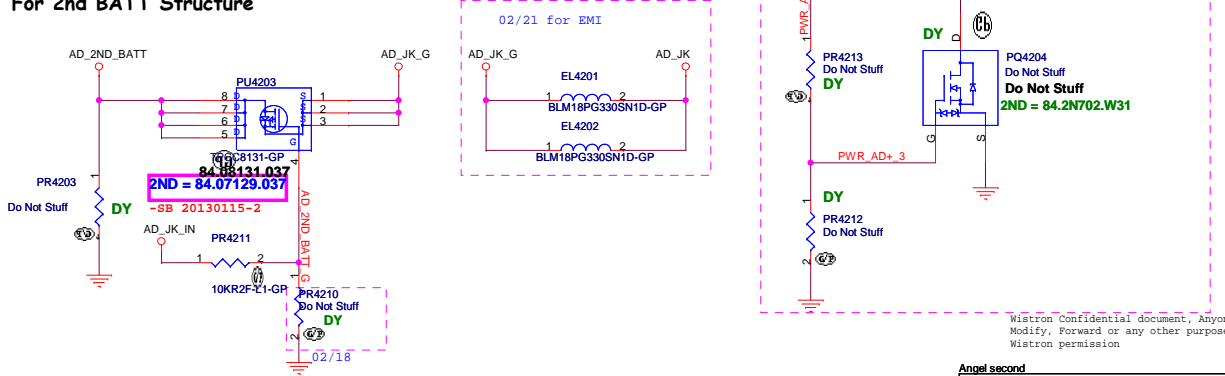
	<p><b>Wistron Corporation</b>          21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,          Taipei Hsien 221, Taiwan, R.O.C.</p>
---	--

Title

Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>



**For 2nd BATT Structure**

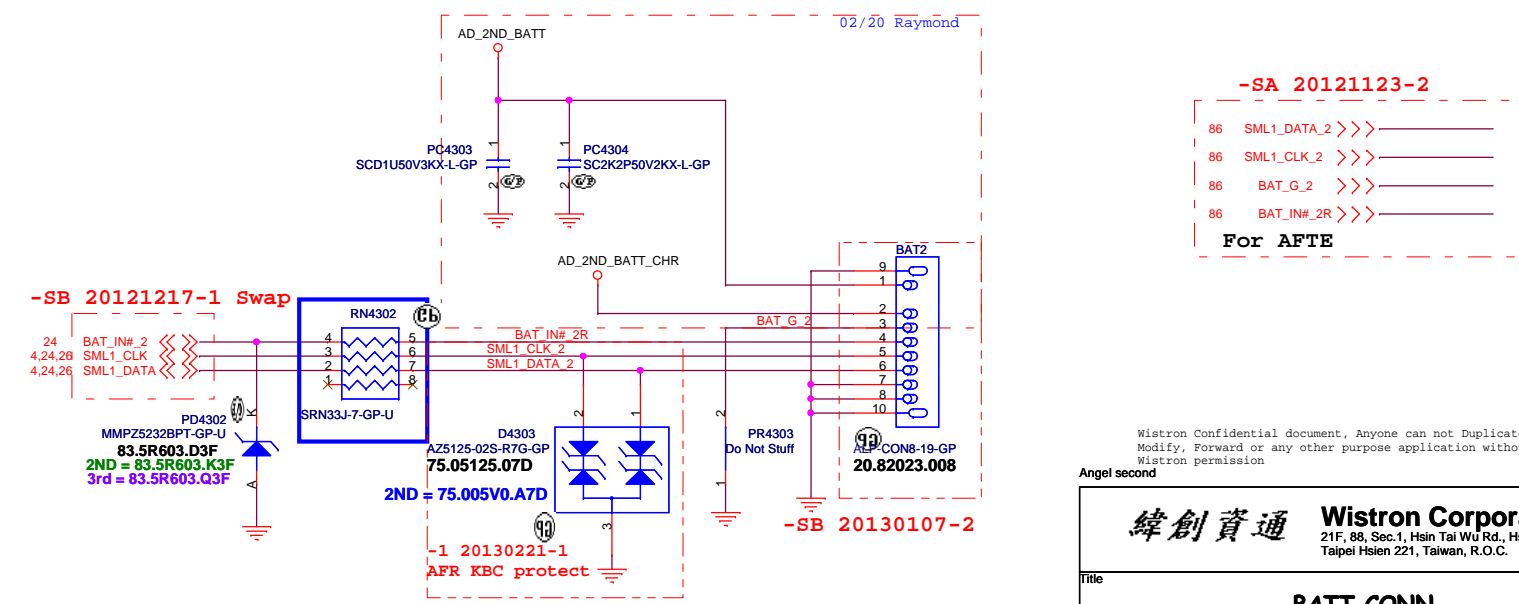
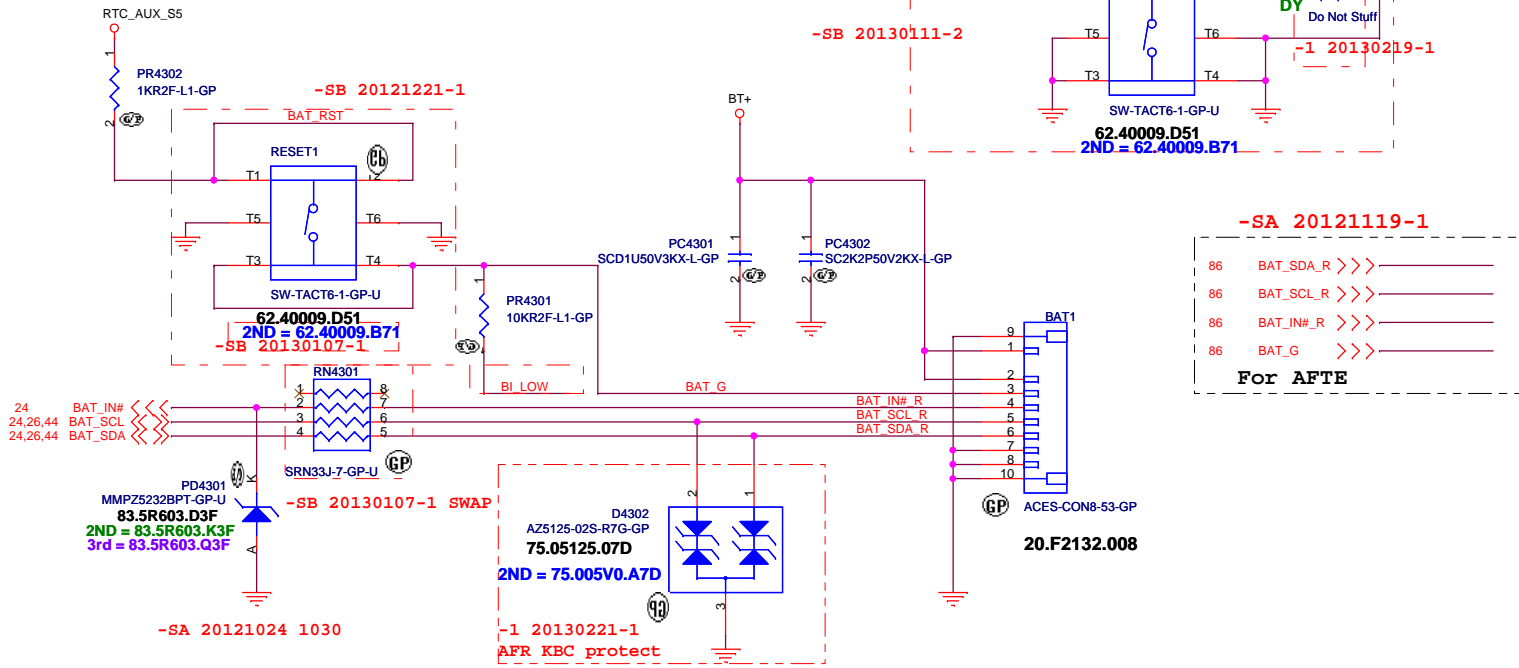


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<b>DCIN JACK</b>	
<b>Angel</b>	
<b>SB</b>	
Title	
Size	Project Name
Date	Thursday, February 21, 2013
Sheet	42 of 102

# BATTERY CONNECTOR



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Title: **BATT CONN**

Size	Project Name	Rev
	Angel	SB

Date: Thursday, February 21, 2013 Sheet 43 of 102

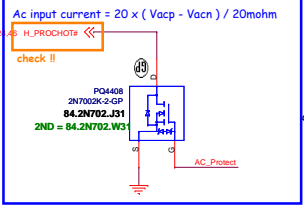
**SSID = Charger**

PR4407, PR4401 12/19 Raymond

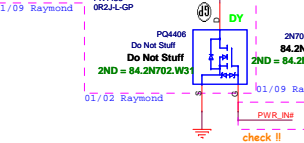
AD+ total power	R1	R2
40w	47K	100K
65w	137K	100K

Change the table to stop charge!

**AC adapter detect current :**



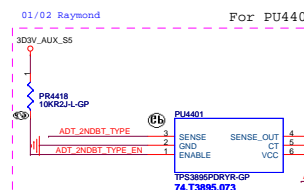
**303V\_AUX\_S5**



**24.26.43 BAT\_SCL <<> 24.26.43 BAT\_SDA <<>**



**For 2nd BATT Structure**

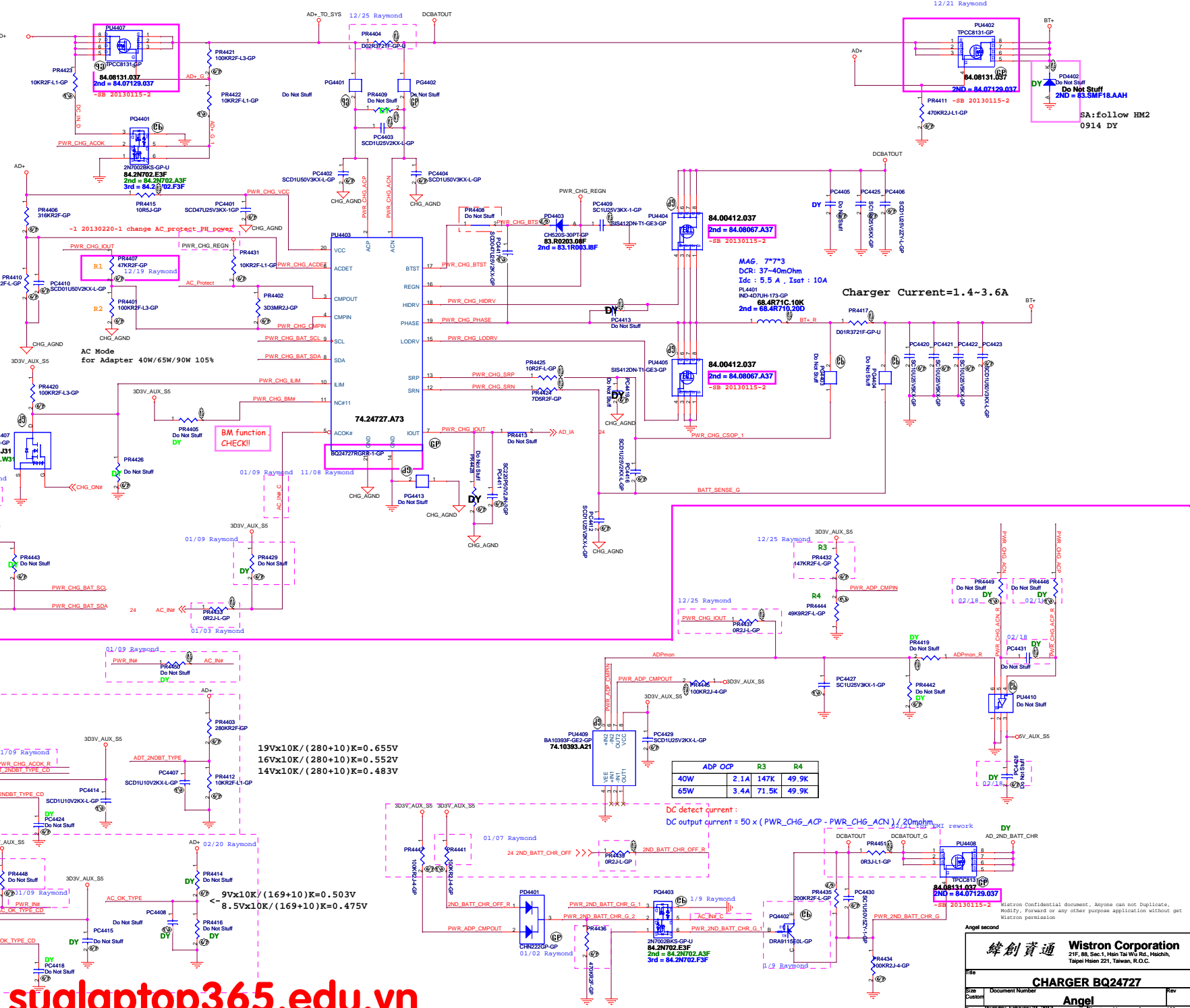
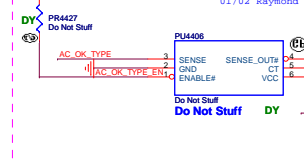


$$19\text{V} \times 10\text{K} / (280 + 10)\text{K} = 0.655\text{V}$$

$$16\text{V} \times 10\text{K} / (280 + 10)\text{K} = 0.552\text{V}$$

$$14\text{V} \times 10\text{K} / (280 + 10)\text{K} = 0.483\text{V}$$

**For KBC signal**



MAG: 777\*3  
DCR: 37-40mOhm  
Idc : 5.5 A , Isat : 10A  
PL4401 IND-407JH-173-GP  
68.4R71C.10K  
1nd = 68.4R710.20D

**Charger Current=1.4~3.6A**

ADP OCP	R3	R4
40W	2.1A	147K
65W	3.4A	71.5K

**DC detect current :**  
DC output current =  $50 \times (PWR\_CHG\_ACP - PWR\_CHG\_ACN) / 20\text{mohm}$

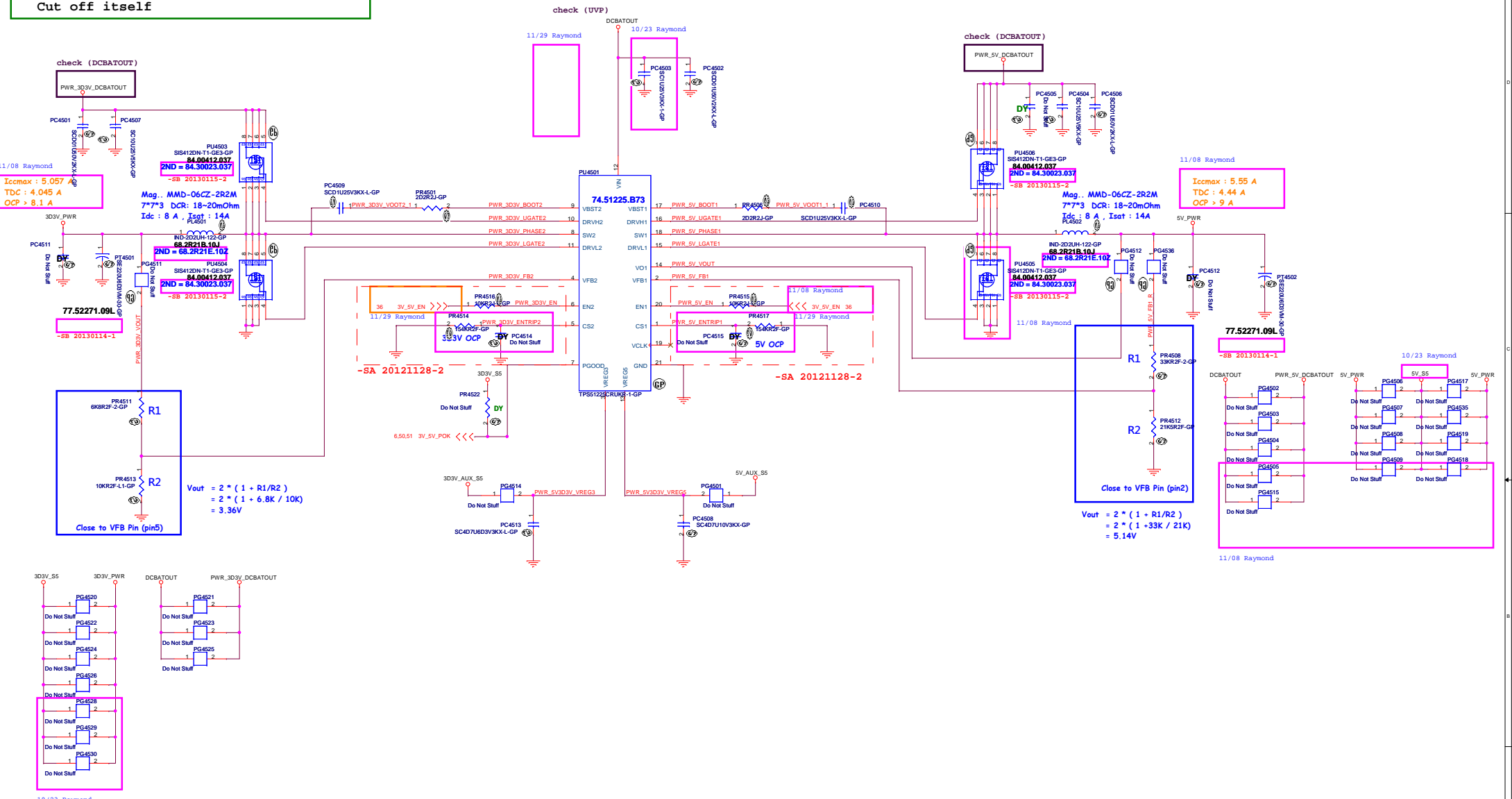
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**CHARGER BQ24727**

Angel  
Date: Thursday, February 21, 2013

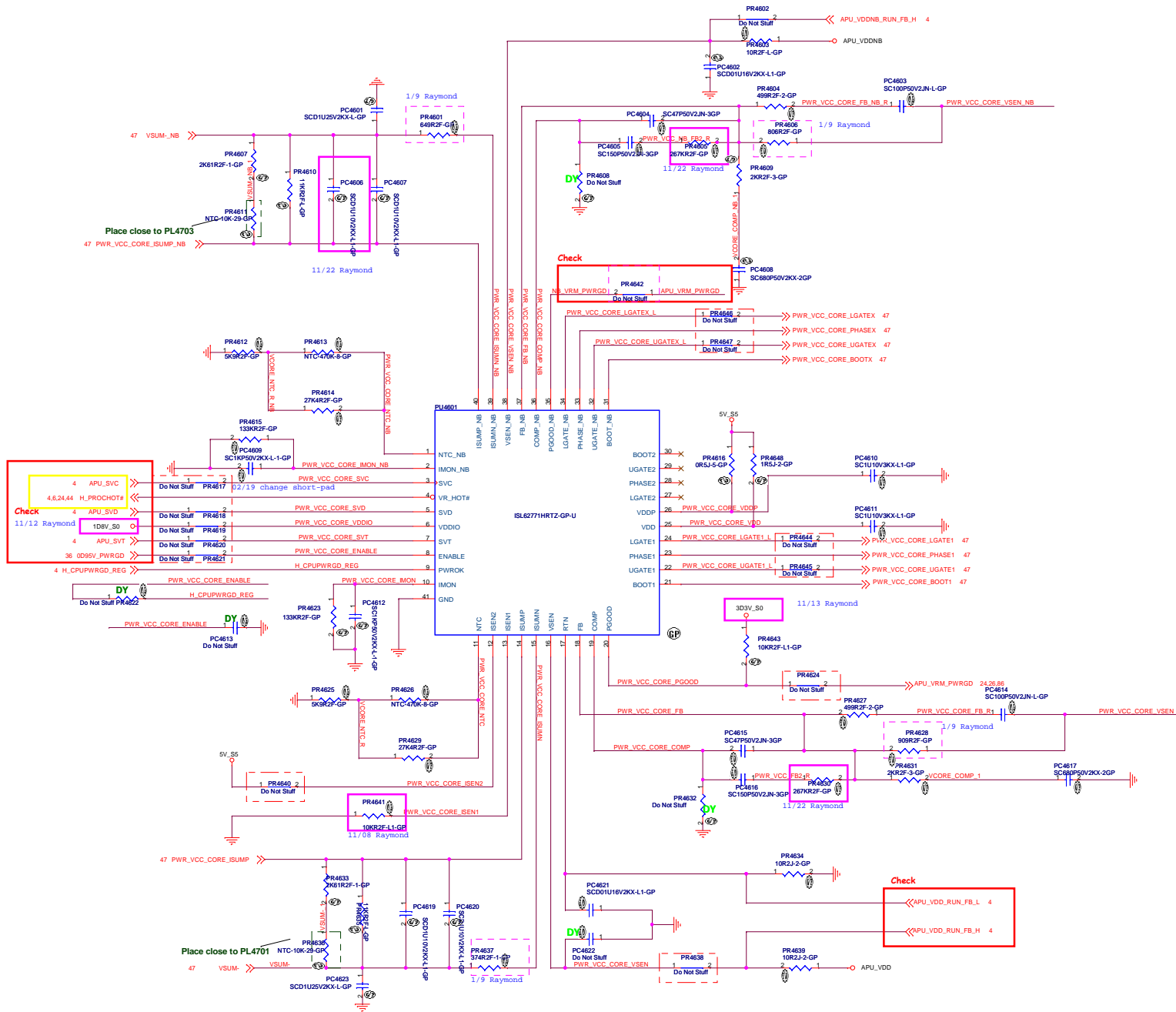
SSID = PWR.Plane.Regulator\_3p3v5v  
Cut off itself



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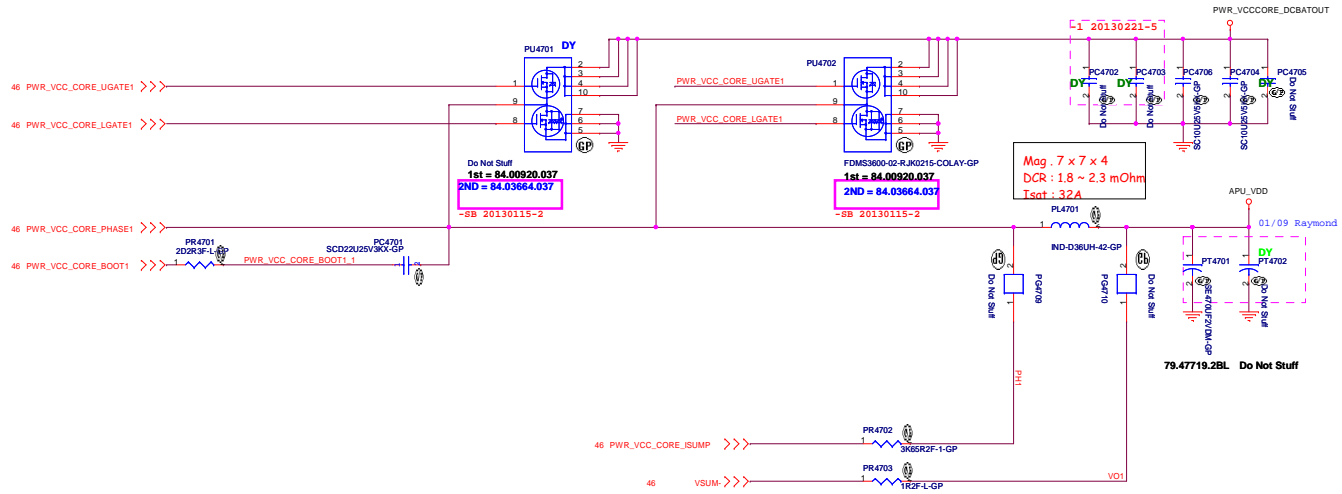
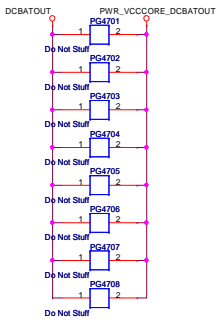
Angel second		
<b>緯創資通 Wistron Corporation</b>		
21F, 8F, Sec.1, Hsin Tai Wu Rd., Hsichang, Taipei Hsien 221, Taiwan, R.O.C.		
<b>TPS51225 5V/3D3V</b>		
Title	Angel	
Size A2	Document Number	Rev
Date: Monday, February 16, 2013	Sheet 46	of 102



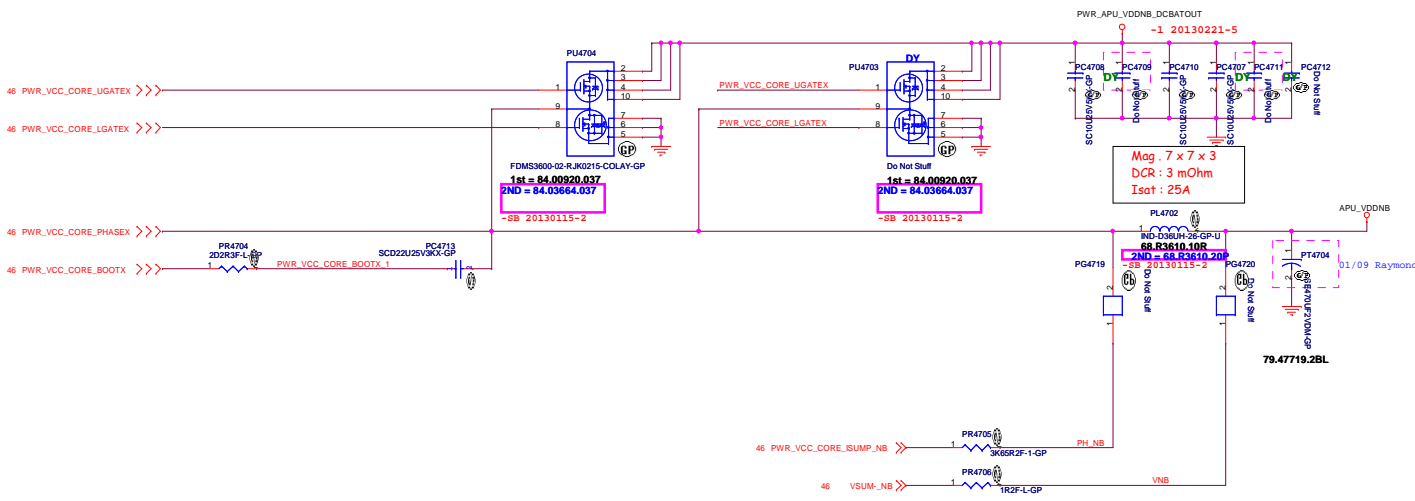
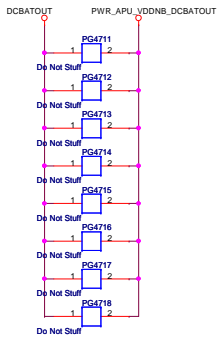
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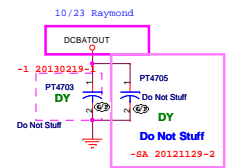
<b>緯創資通 Wistron Corporation</b> 21F, 8F, Sec 1, Hsin Tai Wu Rd., Hsichia, Taipei Hsien 221, Taiwan, R.O.C.		
<b>ISL62771 CPUCORE(1/2)</b>		
File	Document Number	Rev
	Angel	
Date: Wednesday, February 20, 2013	Sheet 46	of 102



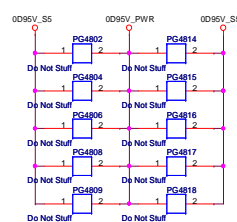
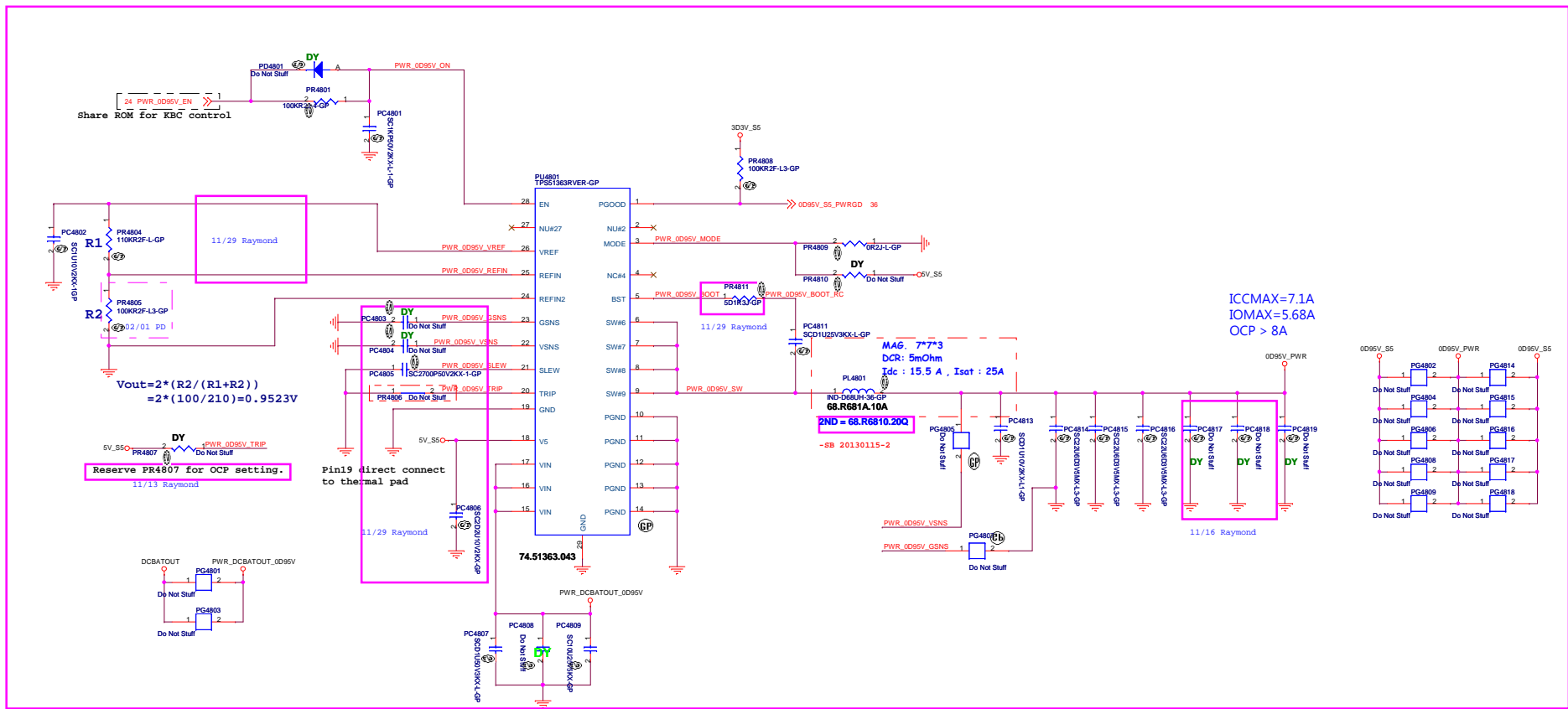
Iccmax=10A  
TDC=8A  
OCP>25A



Iccmax=10A  
TDC=8A  
OCP>15A



### TPS51363 for OD95V

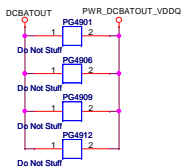


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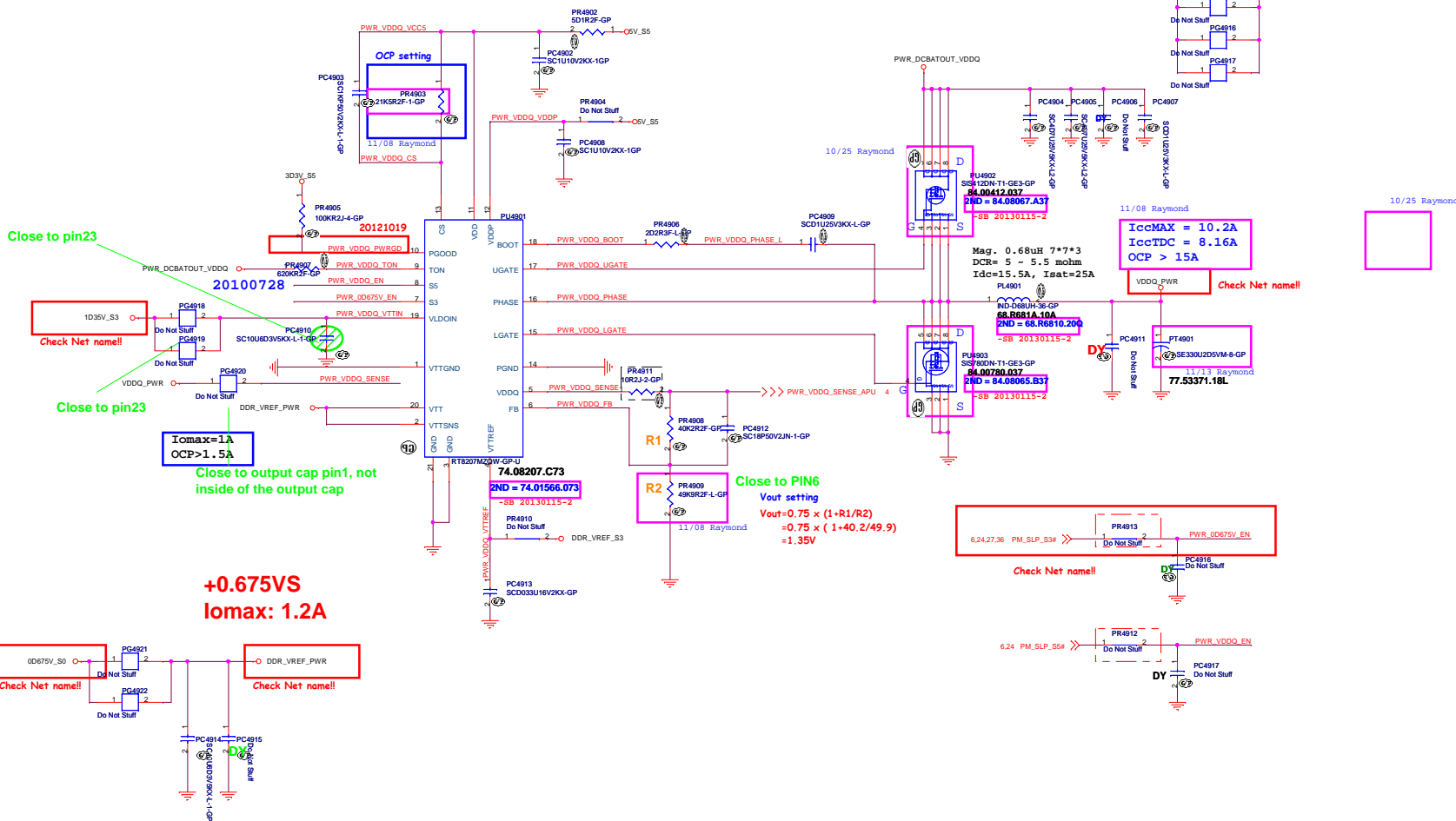
Angel second		
緯創資通 Wistron Corporation		
21F, 8th, Sec.1, Hsin Tai Wu Rd., Hsichuan, Taipei Hsien 221, Taiwan, R.O.C.		
Title DC to DC OD95V(TPS51363)		
Size A2	Document Number	Rev
Angel		
Date: Tuesday, February 18, 2015	Sheet 48	of 102



SSID = PWR.Plane.Regulator\_1p2v0p6v



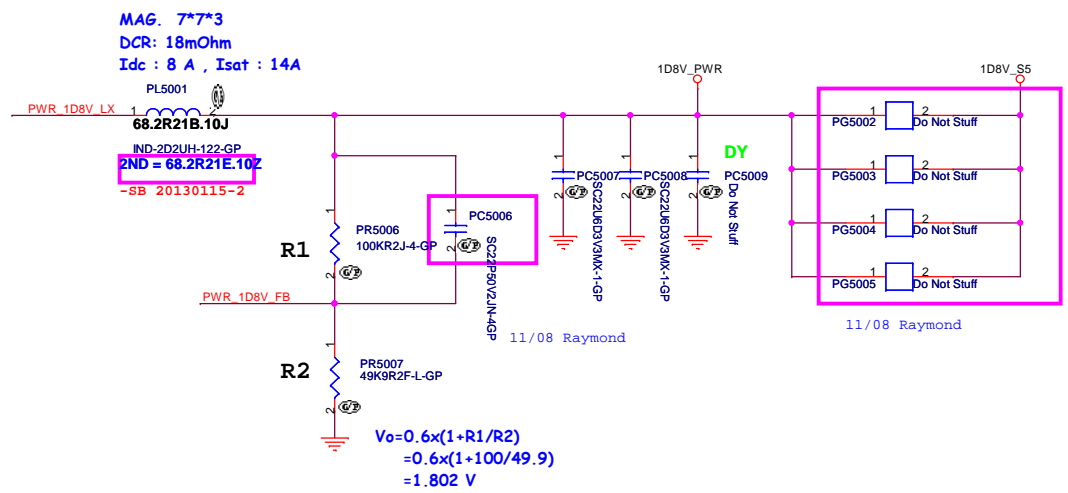
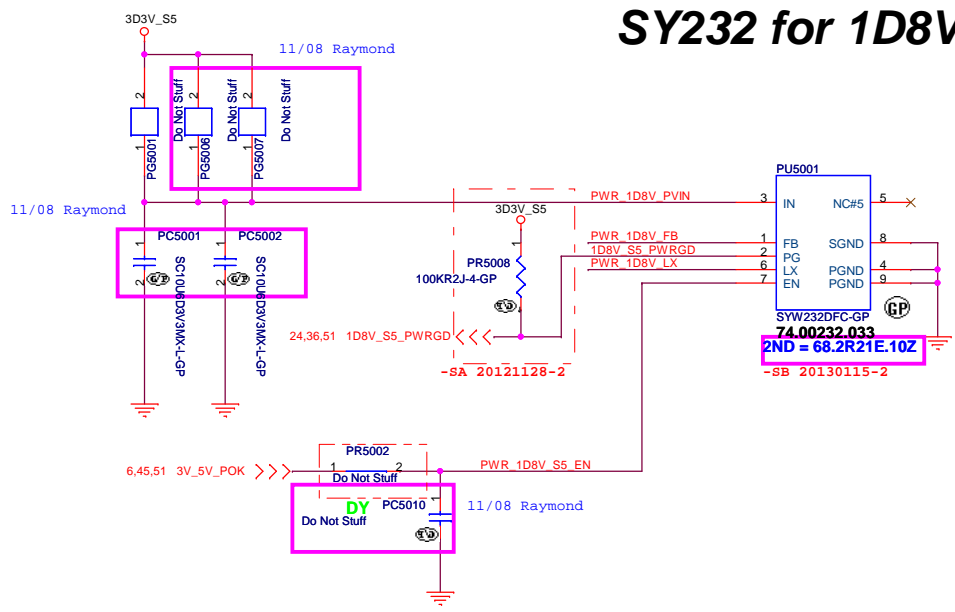
## RT8207M for VDDQ



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<b>RT8207</b>	
File	Rev
Size	Document Number
A2	Angel
Date: Tuesday, February 18, 2015	Sheet 49 of 102

# SY232 for 1D8V\_S5

OCP = 3.5A  
IOMAX = 2.9A  
TDC=2.3A



MAG. 7\*7\*3  
DCR: 18mOhm  
Idc : 8 A , Isat : 14A

PL5001  
68.2R21B.10J  
IND-2D2UH-122-GP  
2ND = 68.2R21E.10Z  
-SB 20130115-2

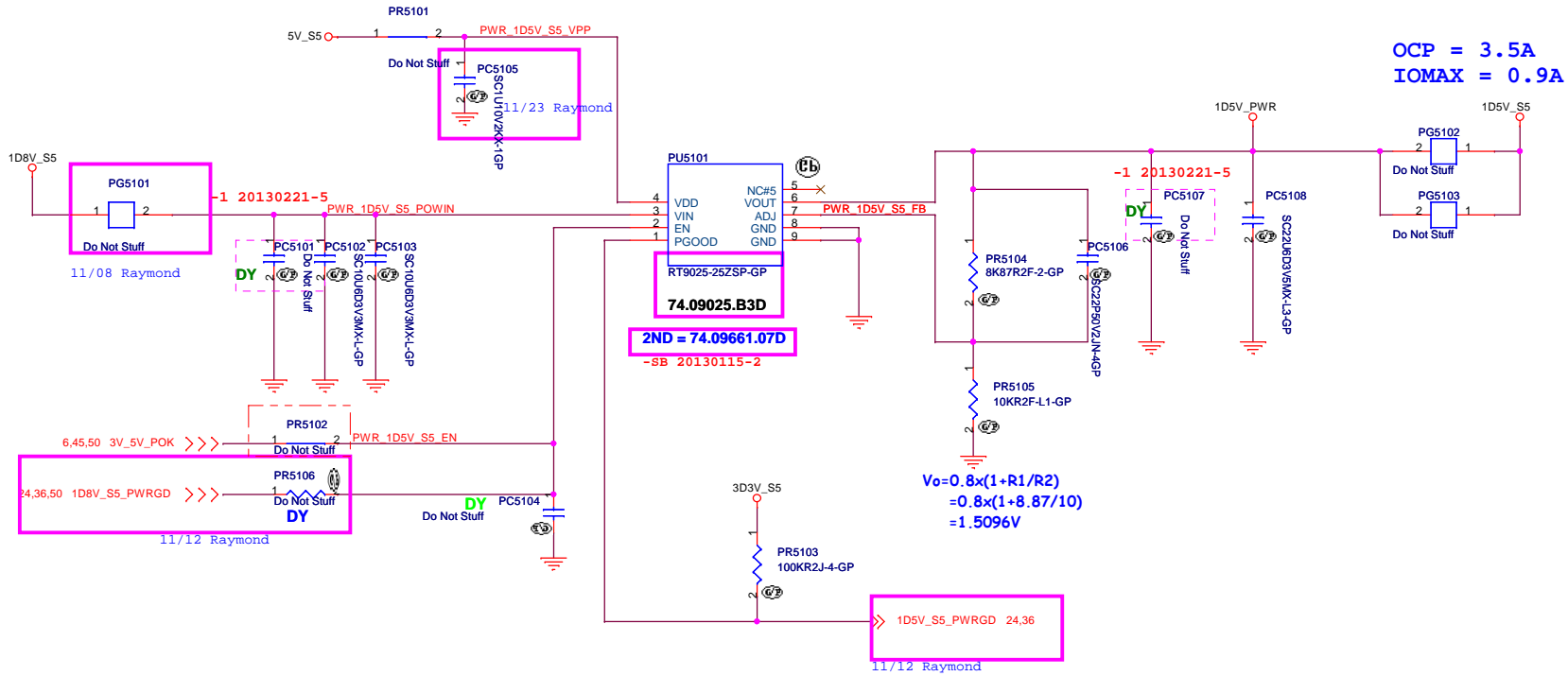
$$V_o = 0.6 \times (1 + R1/R2) = 0.6 \times (1 + 100/49.9) = 1.802 \text{ V}$$

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Title	1D8V_S5 SY232	
Size A3	Document Number	Rev
	Angel	
Date: Tuesday, February 19, 2013	Sheet 50	of 102

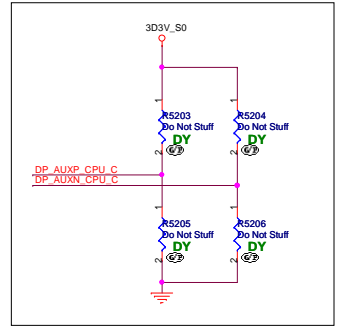
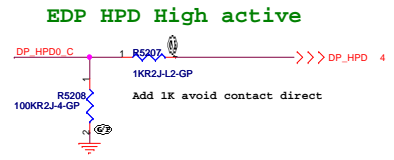
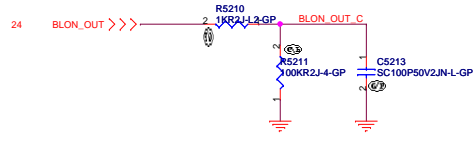
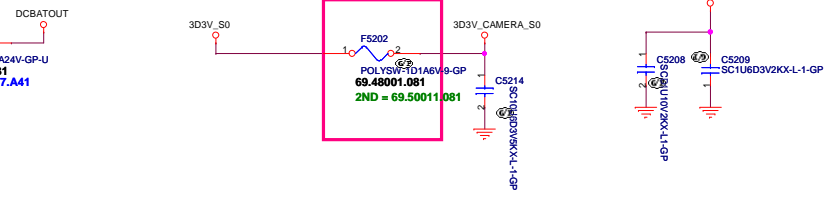
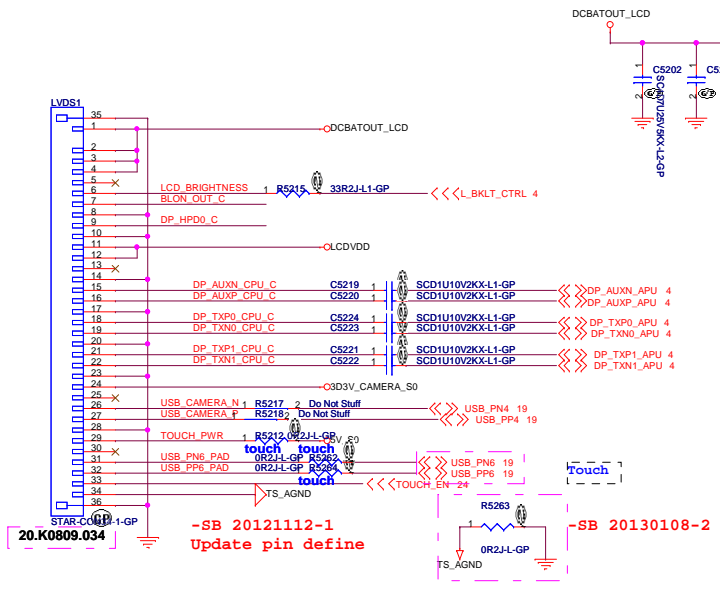
# RT9025 for 1D5V\_S5



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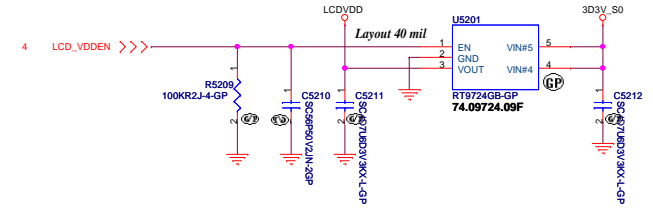
 <b>Wistron Corporation</b> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b> 1D5V_S5 RT9025	
<b>Size</b> A3	<b>Document Number</b> Angel
<b>Date:</b> Thursday, February 21, 2013	
Sheet 51 of 102	



- 86 DP\_HPDD\_C >>>
- 86 BLON\_OUT\_C >>>
- 86 LCD\_BRIGHTNESS >>>
- 86 DP\_TXP0\_CPU\_C >>>
- 86 DP\_TXN0\_CPU\_C >>>
- 86 DP\_TXP0\_CPU\_C >>>
- 86 DP\_TXN0\_CPU\_C >>>
- 86 DP\_AUXP\_CPU\_C >>>
- 86 DP\_AUXN\_CPU\_C >>>

For AFTE

PIN define	
1	VUSB_5V
2	USB_DM
3	USB_DP
4	UA_PA4
5	GND
6	GND



-SB 20121217-1

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<b>LCD Connector</b>			
<b>Angel</b>			
Title	Project Name		Rev
			<b>SB</b>
Date:	Tuesday, February 19, 2013	Sheet	52 of 102

5

4

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Taipei Hsien 221, Taiwan, R.O.C.

Title **CRT Board Connector**

Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>

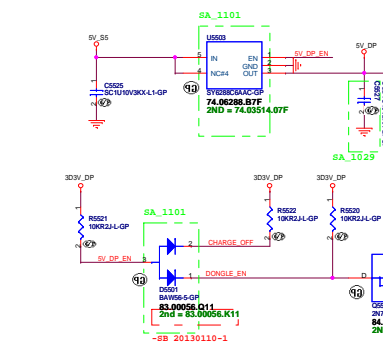
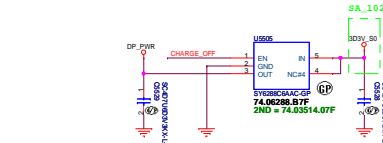
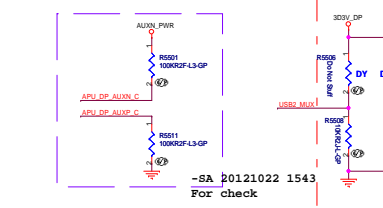
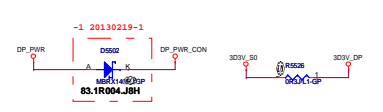
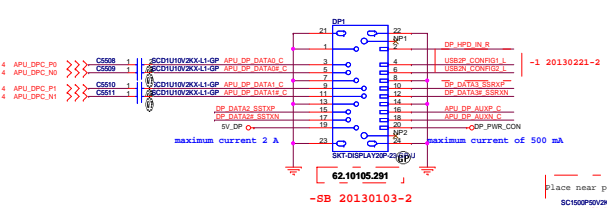
Date: Monday, February 18, 2013 Sheet 53 of 102

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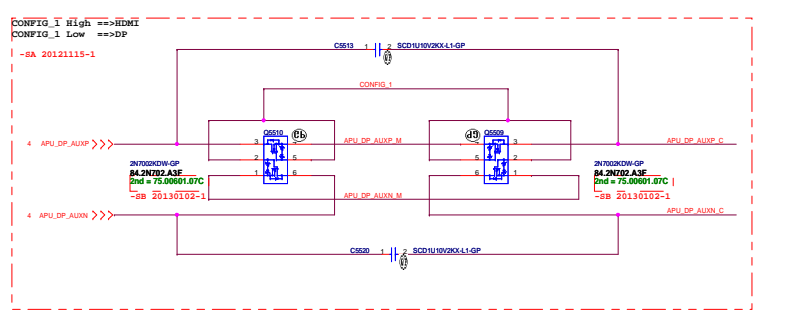
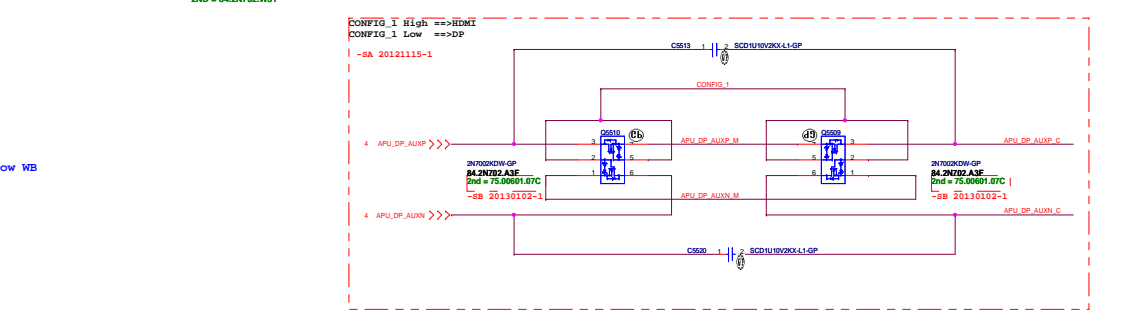
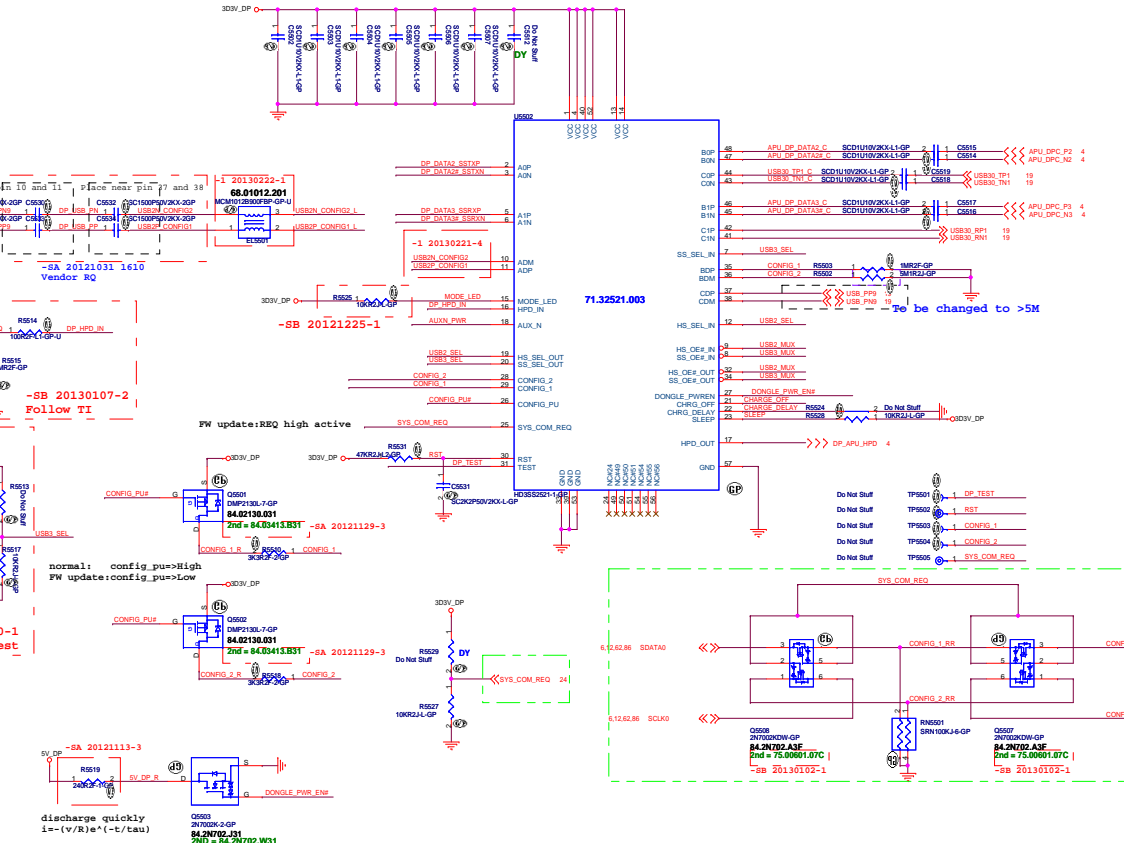
Angel second

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Title			
<b>HDMI Level Shifter/Connector</b>			
Size	Project Name		Rev
	<b>Angel</b>		<b>SB</b>
Date:	Monday, February 18, 2013	Sheet	54 of 102



Dongle_PWREN	CHARGE_OFF	CHARGE_DELAY	Notebook Adaptor	DP Cable	LB Cable	DP_PWR	DP_RETURN
Display Mode Cable connected	1	1	0	Don't care	x	3.3V_OUT	GND
Display Mode = no cable connected	1	1	0	Don't care	NC	3.3V_OUT	GND
DOCKPORT no charging mode	0	0	0	x	x	Floating	Floating
DOCKPORT charging mode (valid only if LB cable is plugged in)	0	0	1	x	x	5V12V19V_IN	5V12V19V_IN
USB Charging/Dongle mode	0	1	0	0	x	3.3V_OUT	5V_OUT

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File: Display Port

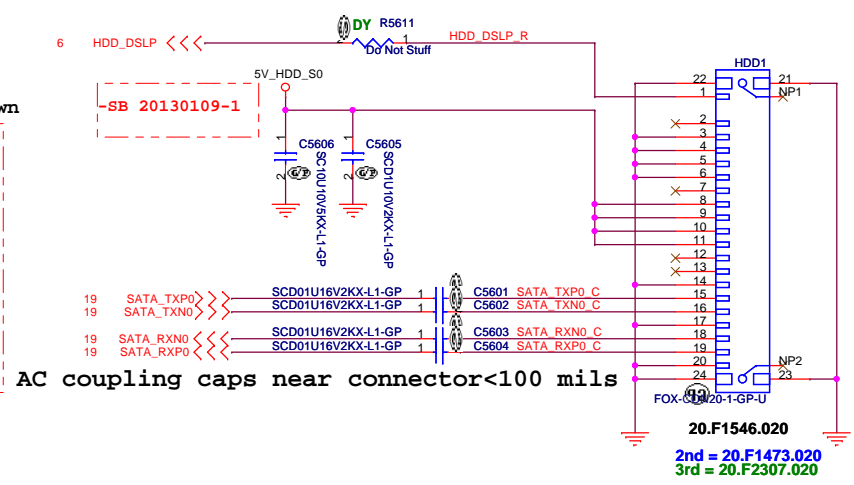
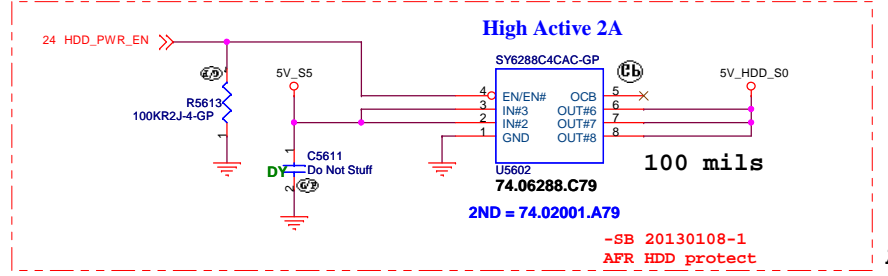
Date: Friday, February 22, 2013 15:36:10

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SSID = SATA

# SATA HDD Connector

Delay HDD power off timing for 800ms~900ms after SATA controller shut down



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<b>HDD/ODD</b>			
Title		Rev	
Size	Project Name	Angel	
Date: Monday, February 18, 2013		Sheet 56	of 102

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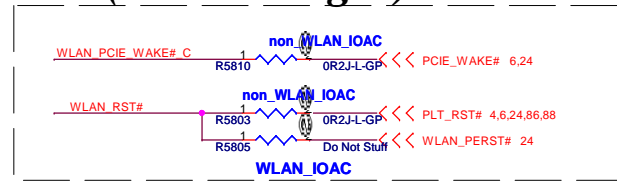
	<p><b>Wistron Corporation</b>          21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,          Taipei Hsien 221, Taiwan, R.O.C.</p>
---	--

<b>Title</b>	
<b>Reserved</b>	

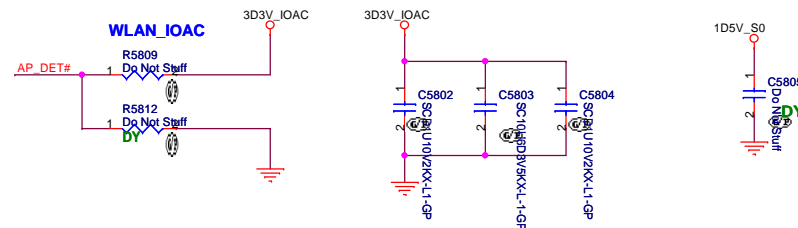
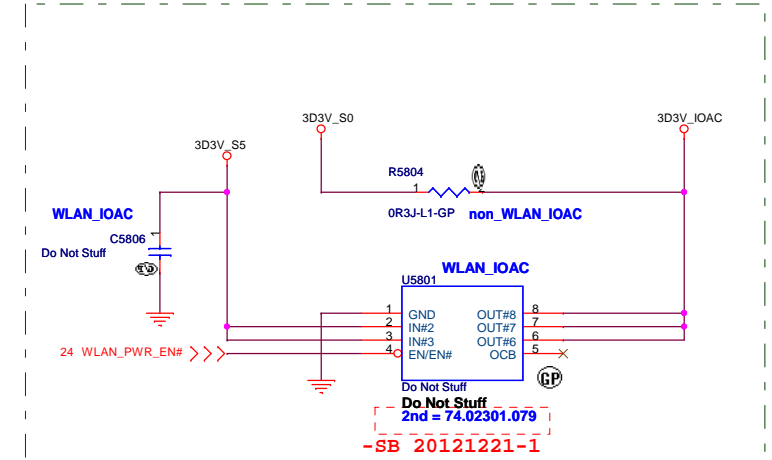
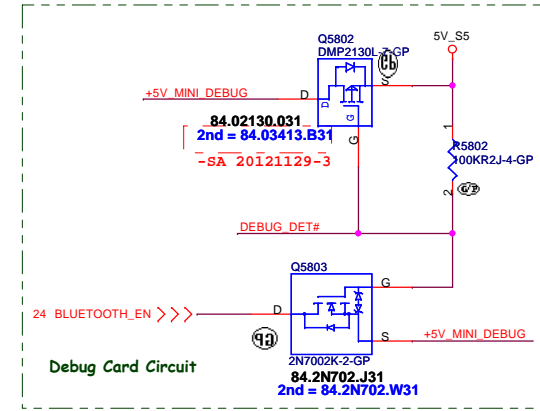
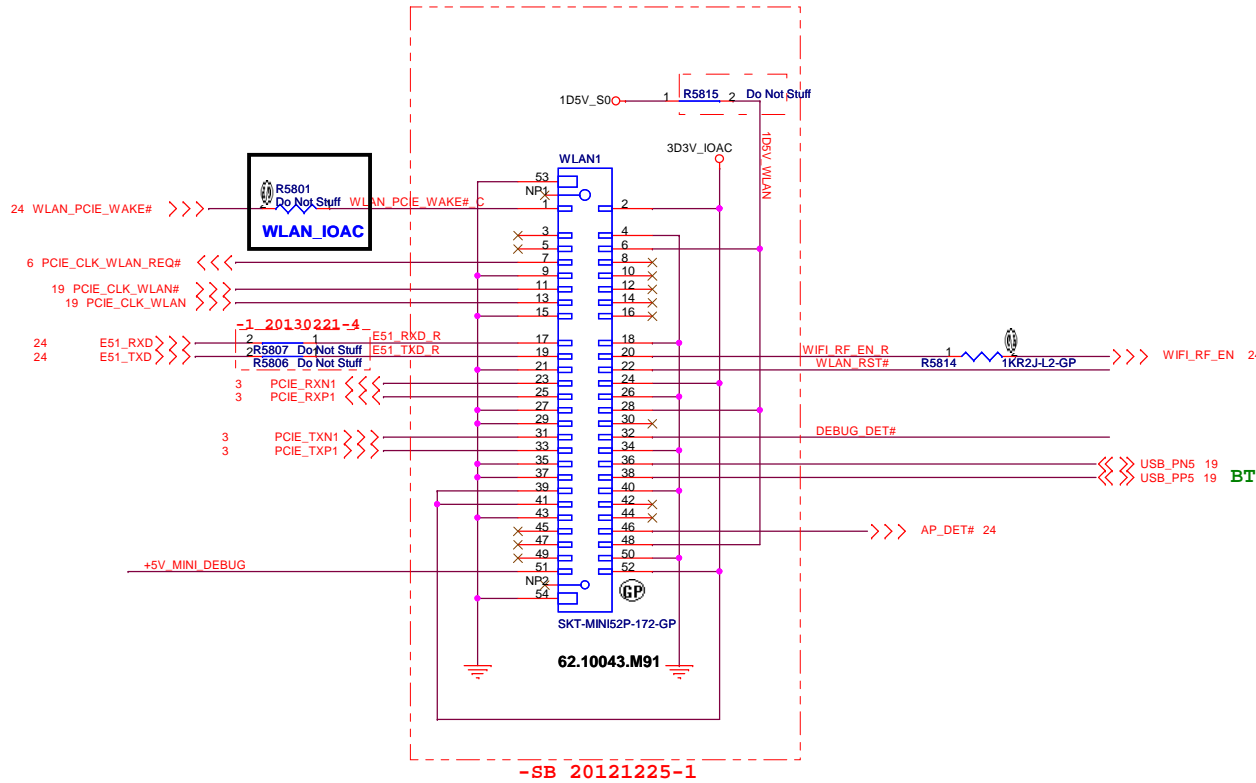
<b>Size</b>	<b>Project Name</b>	<b>Rev</b>
	<b>Angel</b>	<b>SB</b>

SSID = Wireless

# Mini Card Connector(802.11a/b/g/n)



Follow VP40



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Title: MINICARD(WLAN)

Size	Project Name	Rev
	Angel	SB

Date: Thursday, February 21, 2013 Sheet 58 of 102

**SSID = Wireless**

# *Mini Card Connector(WWAN)*

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Title			
<b>WWAN CONN</b>			
Size	Project Name		Rev
	<b>Angel</b>		<b>SB</b>
Date: Monday, February 18, 2013		Sheet	59 of 102

SSID = mSATA

# Mini Card Connector(mSATA)

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Taipei Hsien 221, Taiwan, R.O.C.

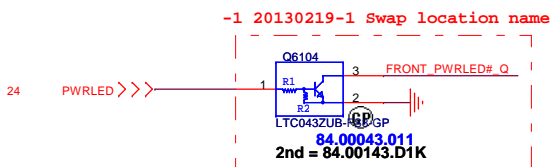
Title **mSATA Connector**

Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>

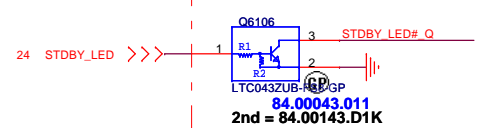
Date: Monday, February 18, 2013 Sheet 60 of 102

SSID = User.Interface

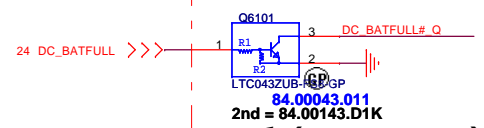
### Power button LED



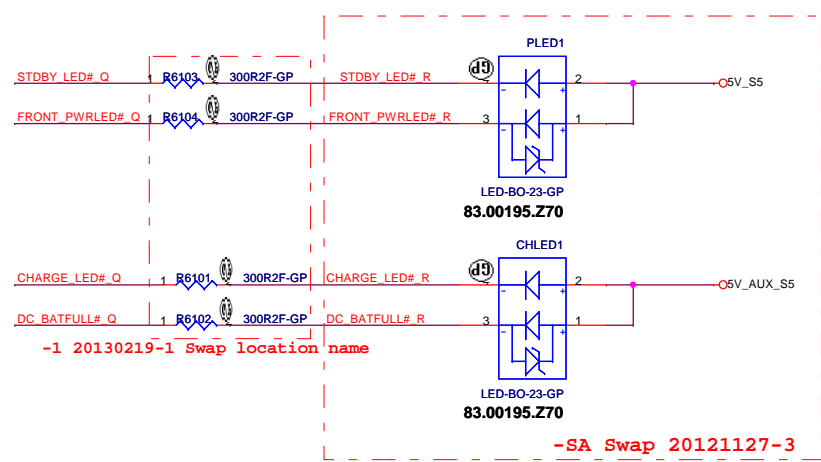
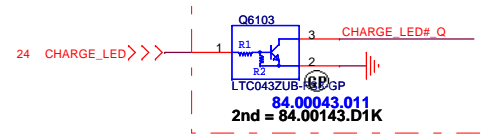
### Power STDBY\_LED



### Battery LED2(DC\_BATFULL)



### Battery LED1(CHARGE)



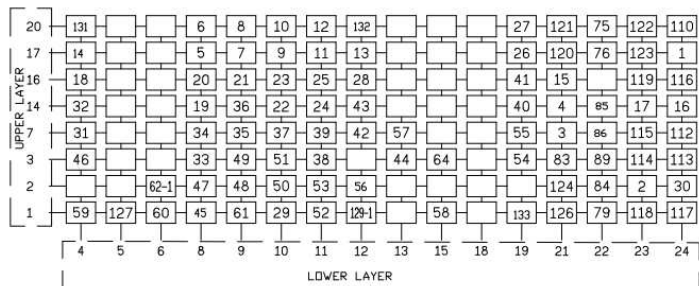
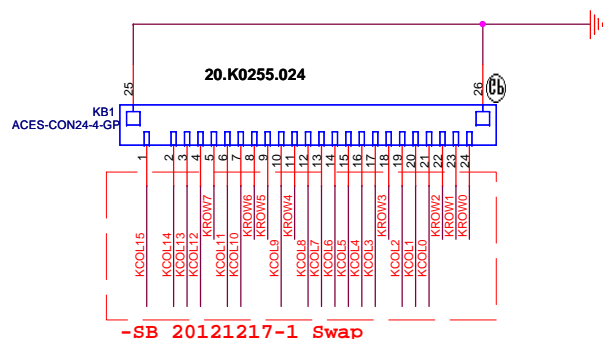
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Title	
LED Bard/Power Button	
Size	Project Name
	Angel
Date: Tuesday, February 19, 2013	Sheet 61 of 102
Rev	SB

**SSID = KBC**

**Internal Keyboard Connector**



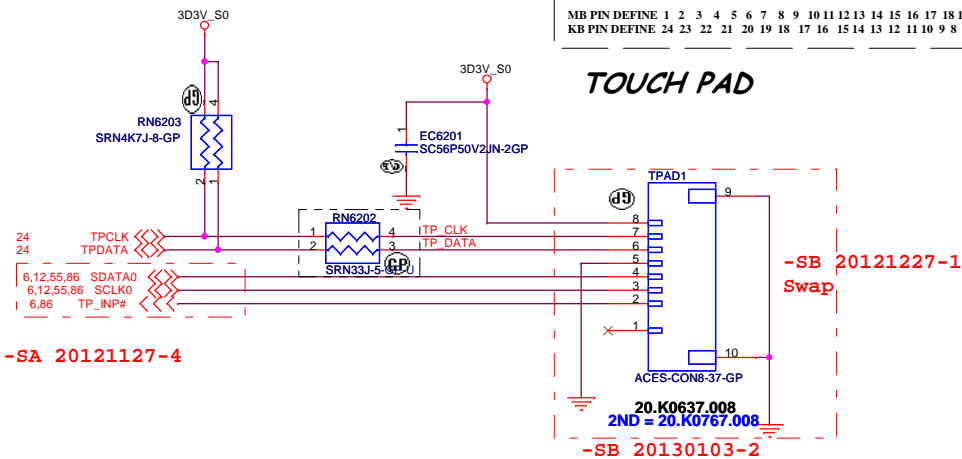
24 **K/B** 1

←←← KROW[0..7] 24,86

→→→ KCOL[0..15] 24,86

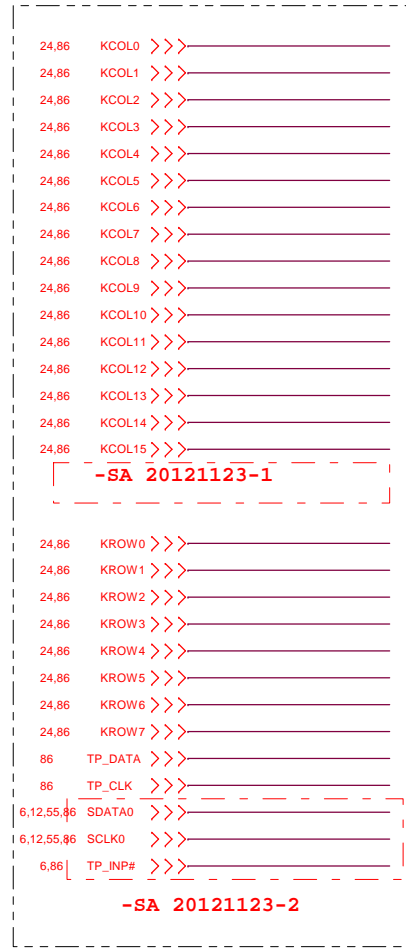
MB PIN DEFINE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
 KB PIN DEFINE 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

**TOUCH PAD**

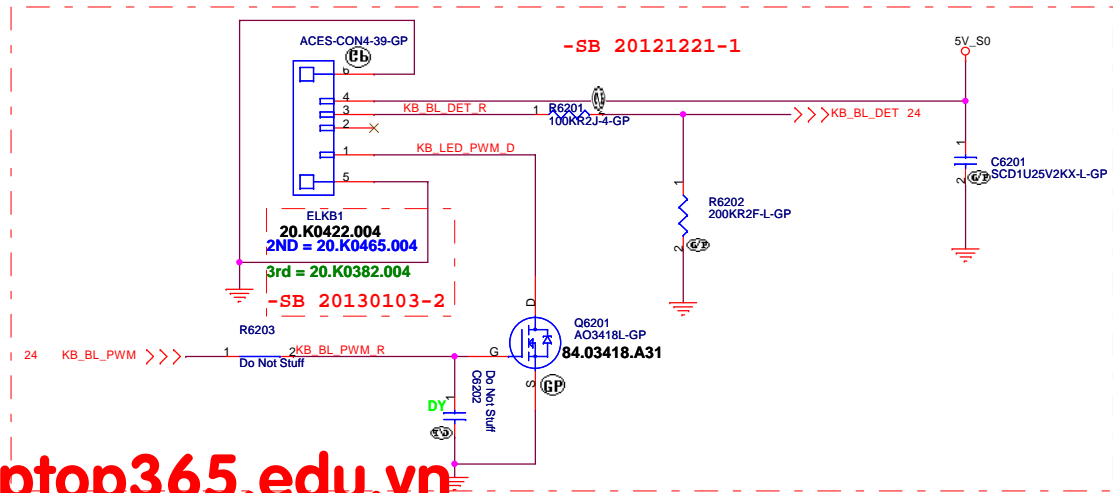


-SA 20121127-4

-SB 20130103-2



For AFTE



-SB 20130103-2

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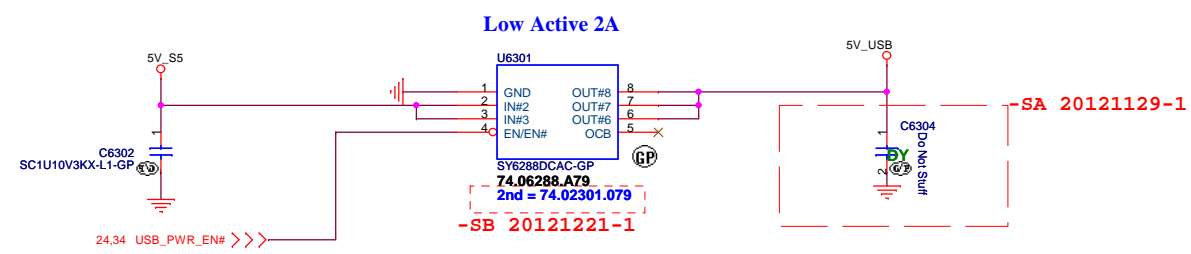
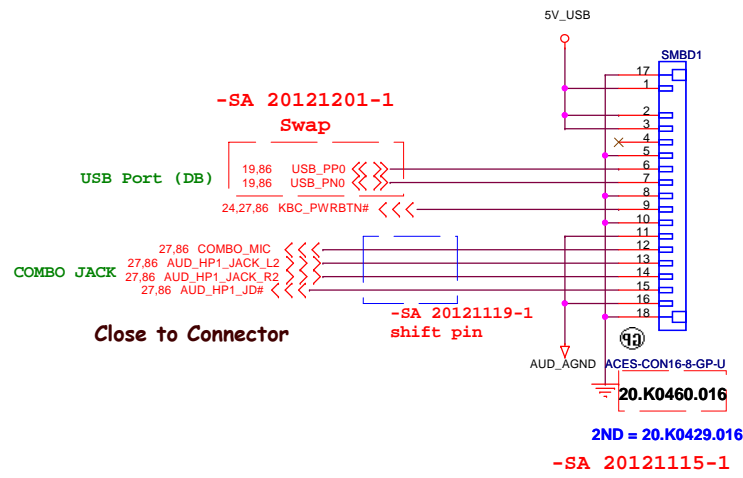
Angel second

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Title: **Key Board/Touch Pad**

Size: Project Name: **Angel** Rev: **SB**

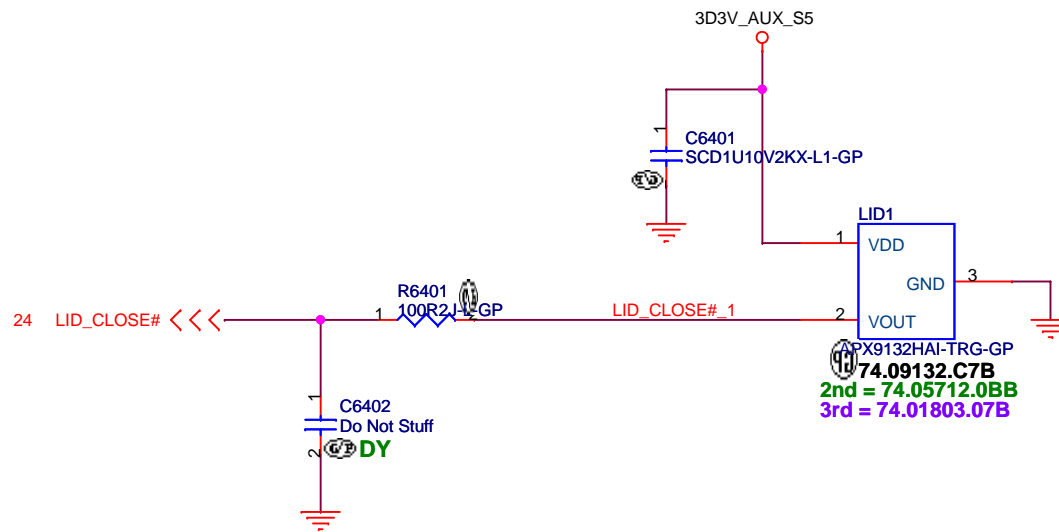
Date: Monday, February 18, 2013 Sheet 62 of 102



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<b>IO Board Connector</b>	
Title	
Size	Project Name
	<b>Angel</b>
Date: Monday, February 18, 2013	Rev <b>SB</b>
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<b>Title</b>			
<b>Hall Sensor</b>			
Size	Project Name		Rev
	<b>Angel</b>		<b>SB</b>
Date:	Monday, February 18, 2013	Sheet	64 of 102

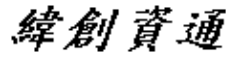




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<b>Title</b> Dubug connector	
Size	Project Name
	Angel
Date:	Rev
Monday, February 18, 2013	SB
Sheet 65 of 102	

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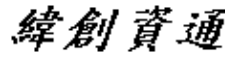
Angel second

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
Reserved		
Size	Project Name	Rev
	Angel	SB
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SSID = User.Interface

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Title		
<b>G Sensor</b>		
Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>
Date:	Monday, February 18, 2013	Sheet 67 of 102

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<b>Title</b> DP SWITCH (1/3)			
Size	Project Name		Rev
	<b>Angel</b>		<b>SB</b>
Date: Monday, February 18, 2013		Sheet	68 of 102

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Title	<b>DP SWITCH (2/3)</b>
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Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>

Date: Monday, February 18, 2013	Sheet 69 of 102
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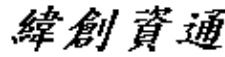
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Title		<b>Thunderbolt (3/3)</b>
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Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>

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<b>Title</b>	
<b>DP SWITCH (4/4)</b>	
<b>Size</b>	<b>Project Name</b>
	<b>Angel</b>
<b>Date</b>	<b>Rev</b>
Monday, February 18, 2013	<b>SB</b>
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Title	<b>Thunderbolt (5/5)</b>
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Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>



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Title			
GPU PCIE/STRAPPING			
Size	Project Name	Rev	SB
	Angel		
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Title			
GPU Digitalout			
Size	Project Name	Rev	
	Angel	SP	
Date: Monday, February 18, 2013		Sheet 74 of 102	

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File			
GPU_VRAM I/F			
Size	Project Name	Rev	Rev
	Angel		50
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Title			
GPU GPIO/STRAP			
Size	Project Name	Rev	SB
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Title			
GPU_POWER/GND			
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Title			
VRAM 1,2			
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	Angel	SB	
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Title			
VRAM 3,4			
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Title			
VRAM 5,6			
Size	Project Name	Rev	
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Title			
<b>VRAM 7,8</b>			
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<b>VGA CORE</b>		
Title		
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Title			
<b>DISCRETE VGA POWER</b>			
Doc Name	Document Number	Rev	SB
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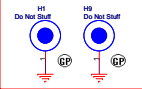
 <b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
<b>Title</b> Switch GFX		
<b>Size</b>	Project Name <b>Angel</b>	<b>Rev</b> <b>SB</b>
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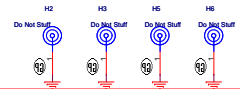
		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b> Switch VGA			
Size	Project Name		Rev
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ZZ.00PAD.921

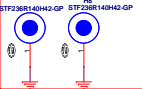


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-SB 20130103-1



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-SA 20121129-1

34.4GZ09.201

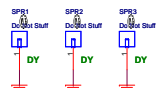


-1 20130201-1

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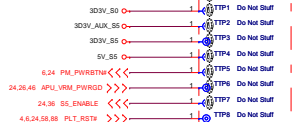


-SB 20121228-1

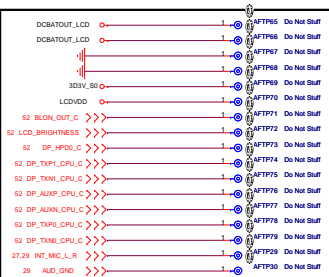


-SB 20130110-1

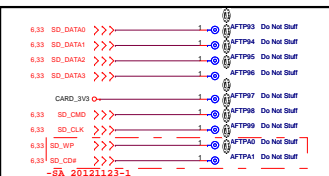
Check test point



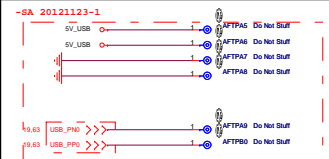
Test Point放在Dimm Door打開可量測處



EDP + MIC connector



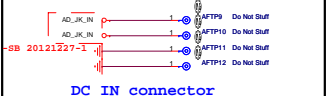
Card reader connector



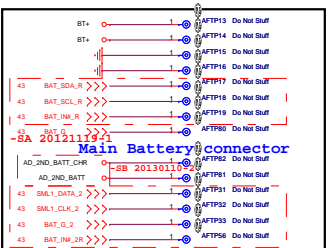
USBDD connector



PWR connector

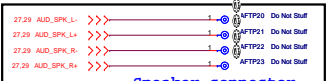


DC IN connector

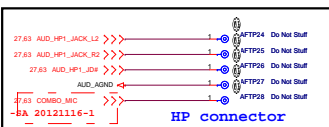


Main Battery connector

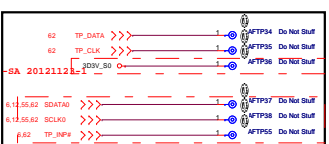
Second Battery connector



Speaker connector



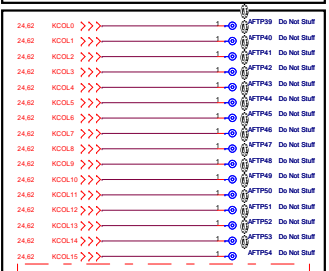
HP connector



Touch Pad connector



FAN connector



Normal KB connector

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<b>NFC</b>			
Size	Project Name	Rev	
	<b>Angel</b>	<b>SB</b>	
Date:	Monday, February 18, 2013	Sheet	87 of 102

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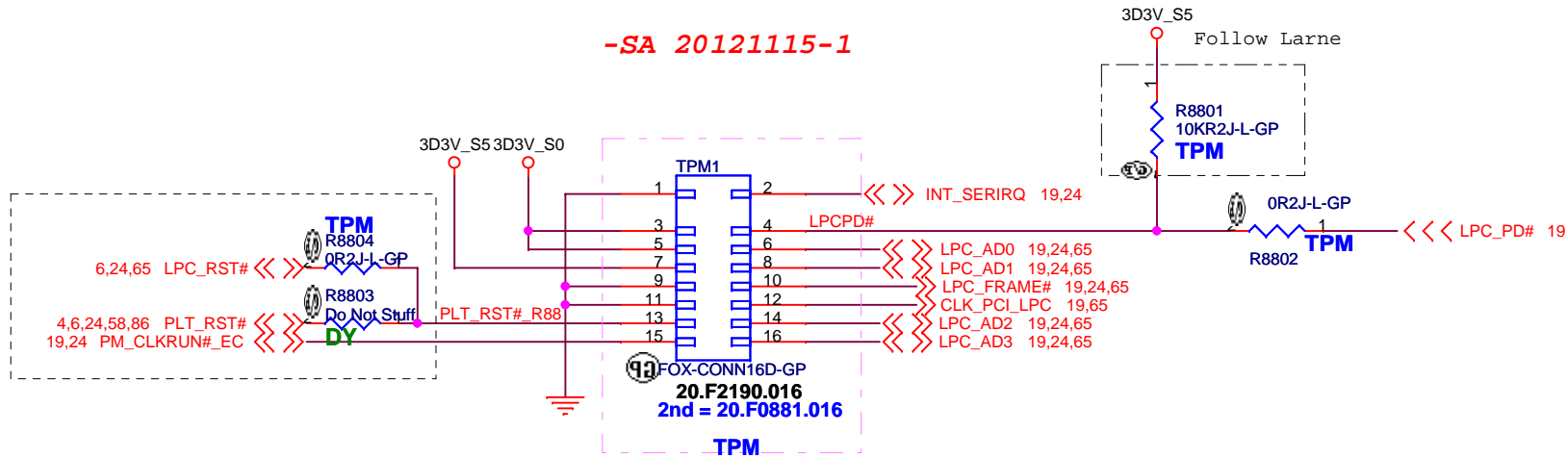
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-SA 20121115-1



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<b>TPM</b>	
Size	Project Name
	<b>Angel</b>
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Title	<b>Finger Print</b>
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Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>

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<p>Title</p> <p><b>Express Card</b></p>		
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<p><b>Title</b></p> <p style="font-size: 1.2em;"><b>Smart Card socket</b></p>		
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	<b>Angel</b>	<b>SB</b>

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<p><b>Switchable GFX eDP</b></p>		
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	<b>Angel</b>	<b>SB</b>

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Title			
<b>Bottom Docking</b>			
Size	Project Name		Rev
	<b>Angel</b>		<b>SB</b>
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<p><b>Title</b></p> <p><b>Inter LAN WG1217LM</b></p>		
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	<b>Angel</b>	<b>SB</b>

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<b>Title</b> <b>LAN Switch</b>	
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Size	Project Name	Rev
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Title	<b>PCH_XDP</b>
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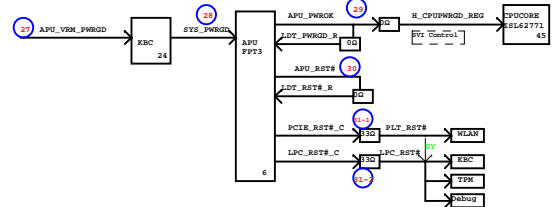
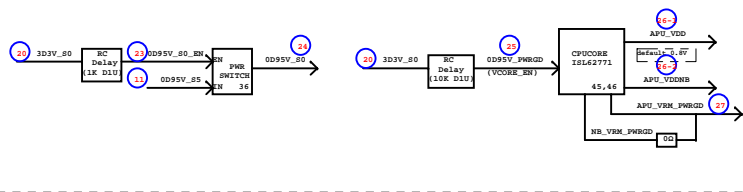
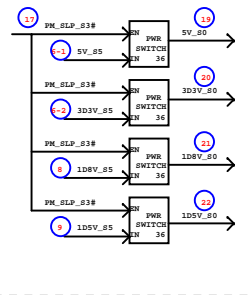
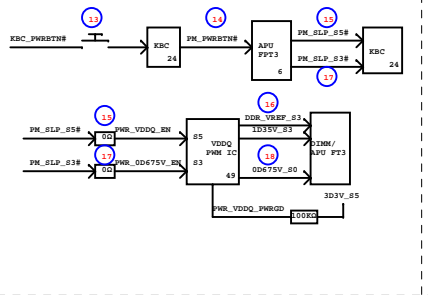
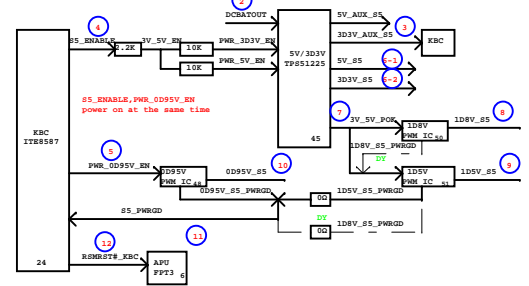
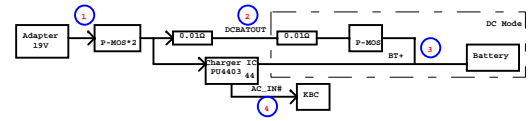
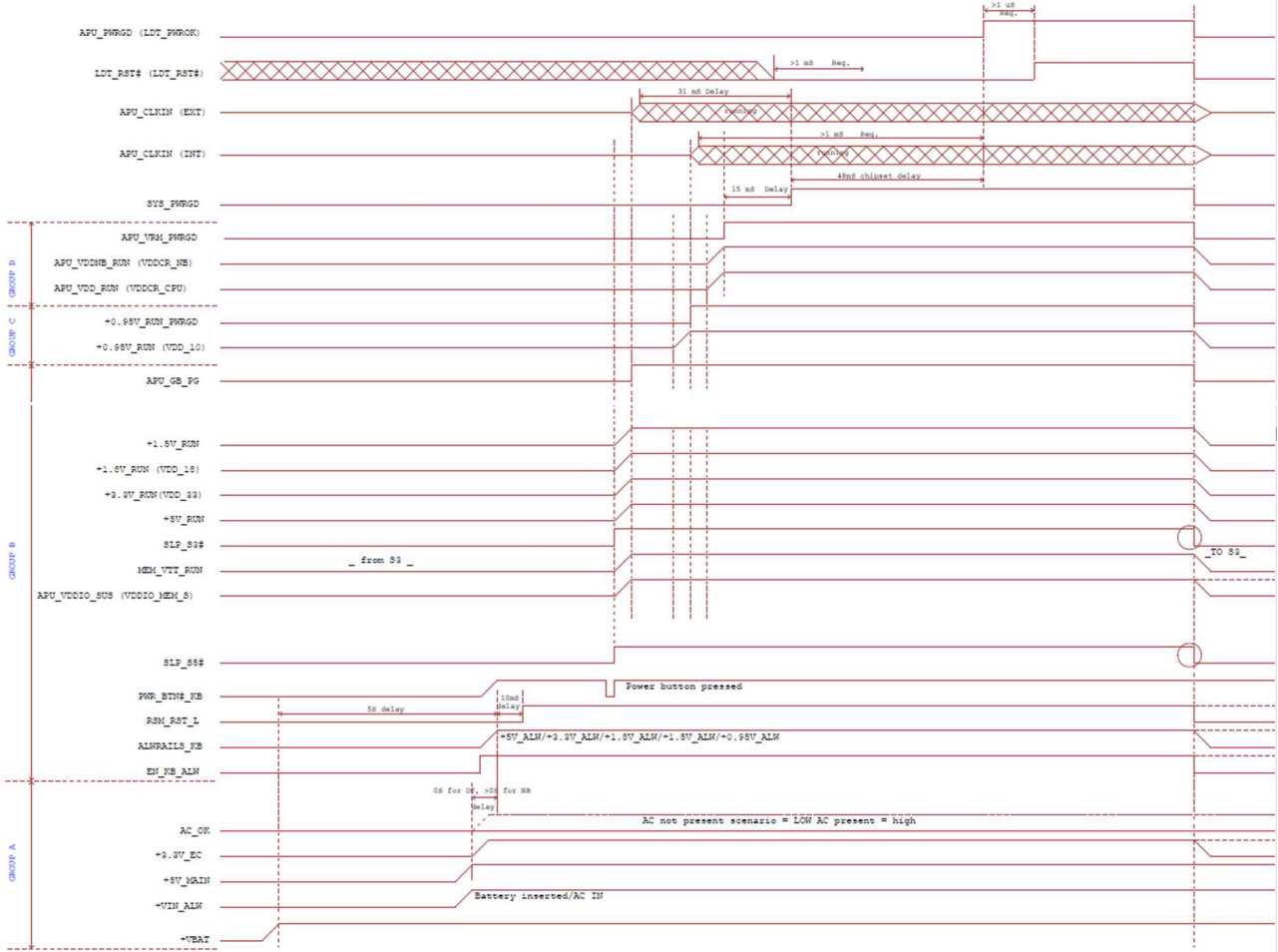
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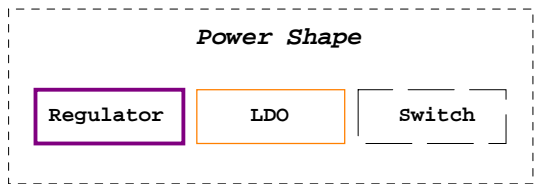
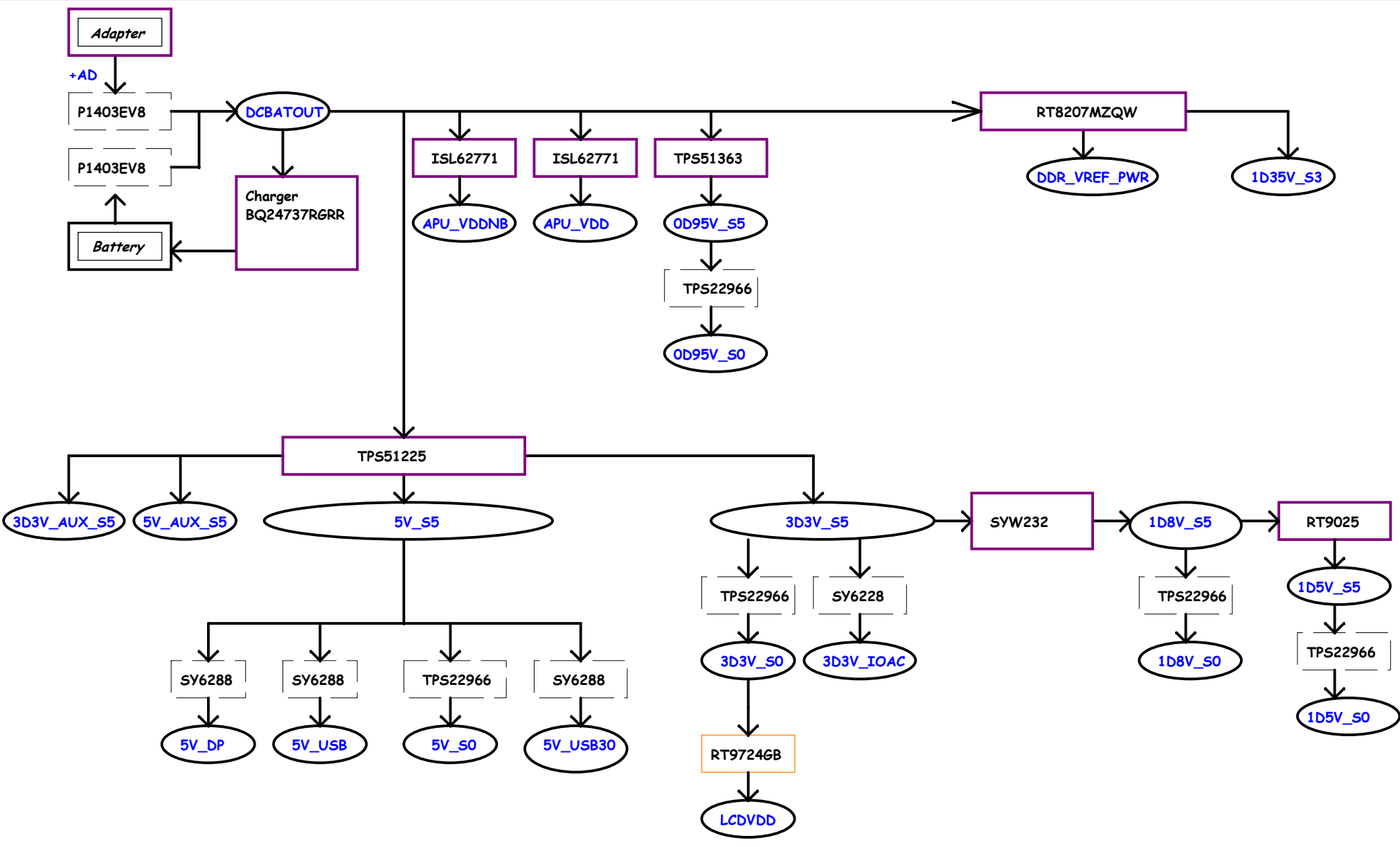
<b>Change History</b>		
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Size	Project Name	Rev
	<b>Angel</b>	<b>SB</b>

# Power-up Sequencing for the KABINI Platform from Mechanical Off



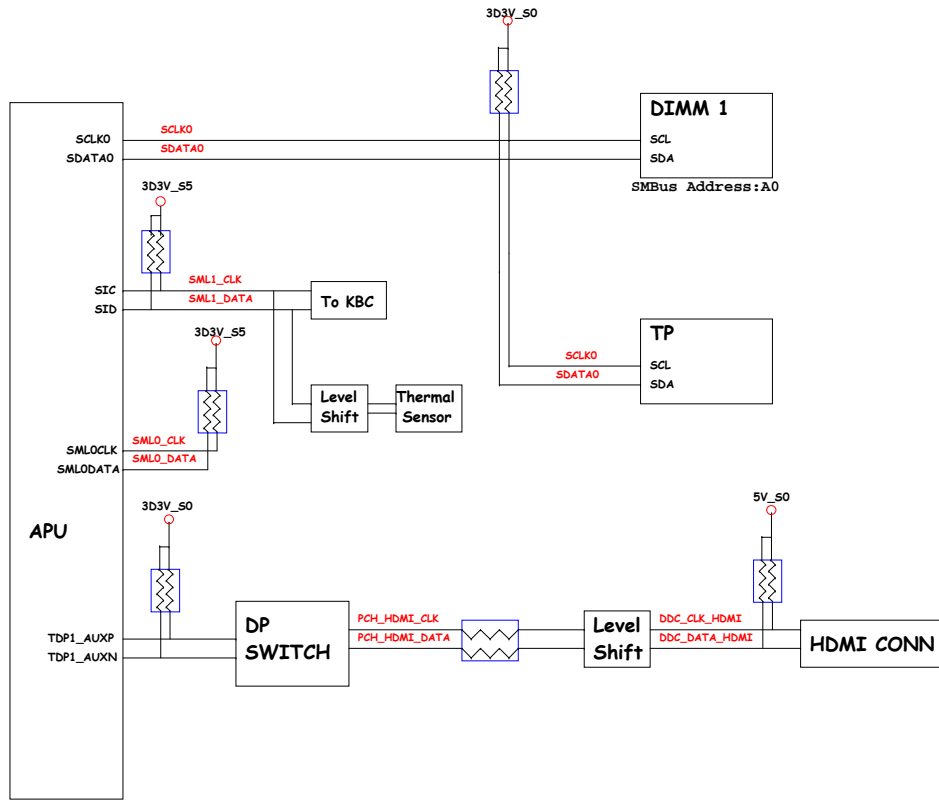
Wistron Corporation	
2F, 28, Sect 1, Hsin Tai Rd, Taipei, Taiwan, R.O.C.	
File	Power Sequence
Project Name	Angel
Rev.	01
Rev. Date	2011.03.15
Drawn By	WJ
Checked By	WJ
Approved By	WJ



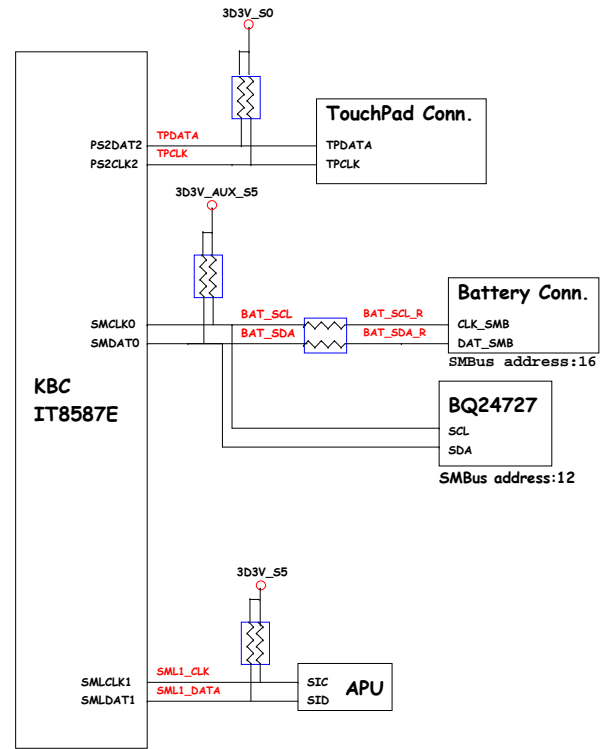
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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title		
<b>Power block Diagram</b>		
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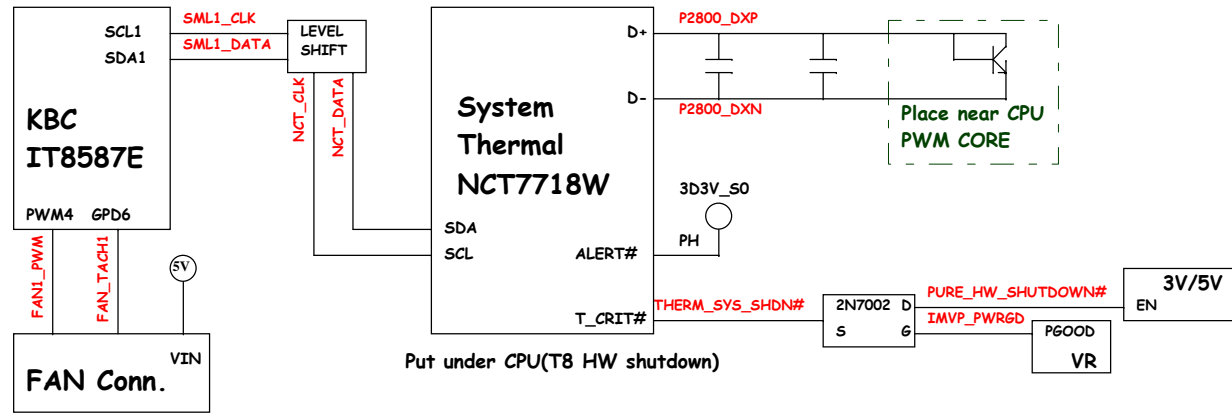
# APU SMBus Block Diagram



# KBC SMBus Block Diagram



# Thermal Block Diagram



# Audio Block Diagram

