

AMD

Angel Schematics Document

AMD Temash APU



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

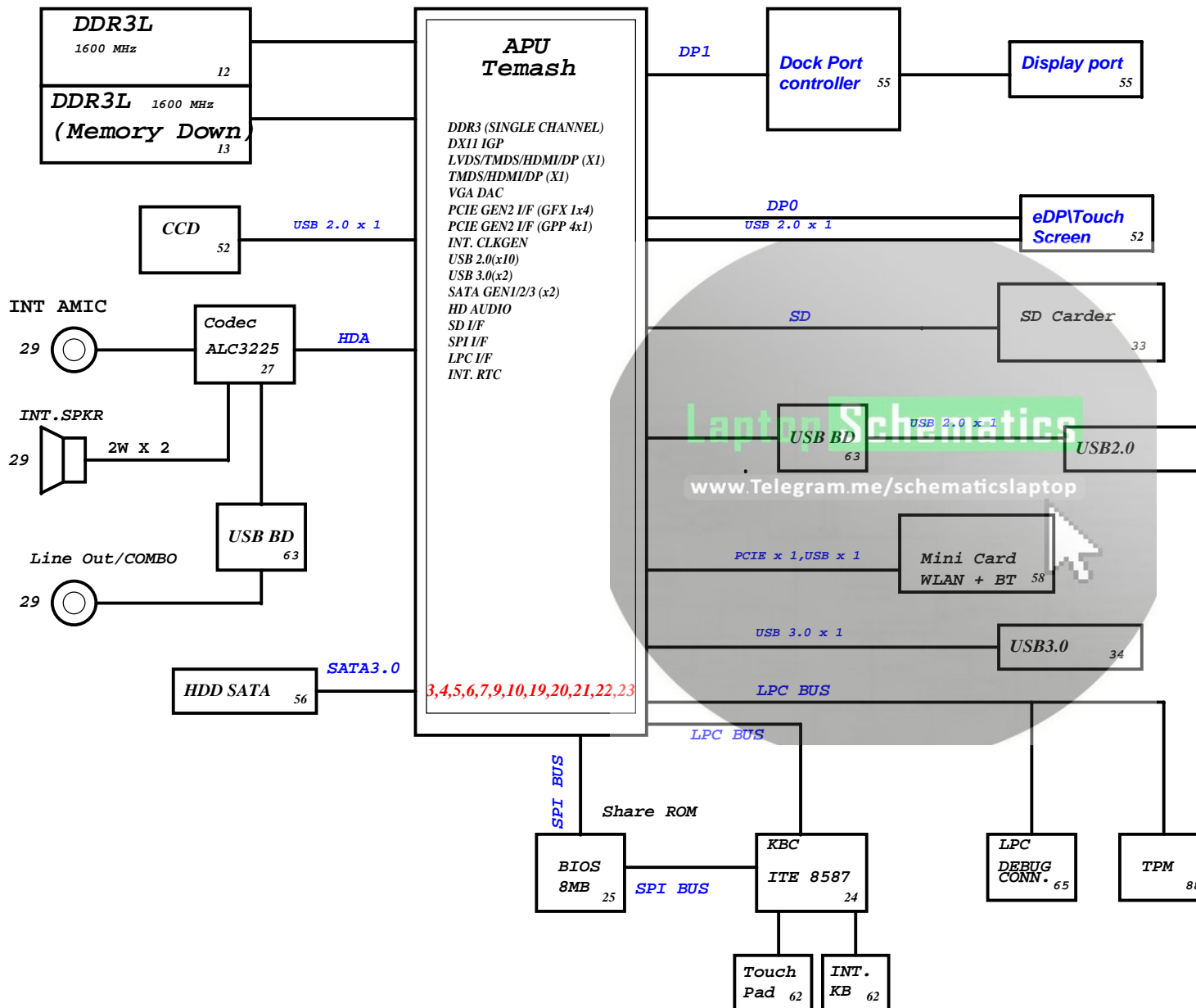
緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Cover Page			
Size A4	Document Number Angel		Rev
Date: Wednesday, February 20, 2013	Sheet	1	of 102

sualaptop365.edu.vn

Angel /KABINI

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

SYSTEM DC/DC		45
RT8245BTQW		
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	
CHARGER		44
BQ24737		
INPUTS	OUTPUTS	
DCBATOUT	CHG_PWR	
CPU DC/DC		46,47
ISL62771		
INPUTS	OUTPUTS	
DCBATOUT	APU_VDD	0.3~1.4V,8A
	VDDNB	0.7~1.325V,10A

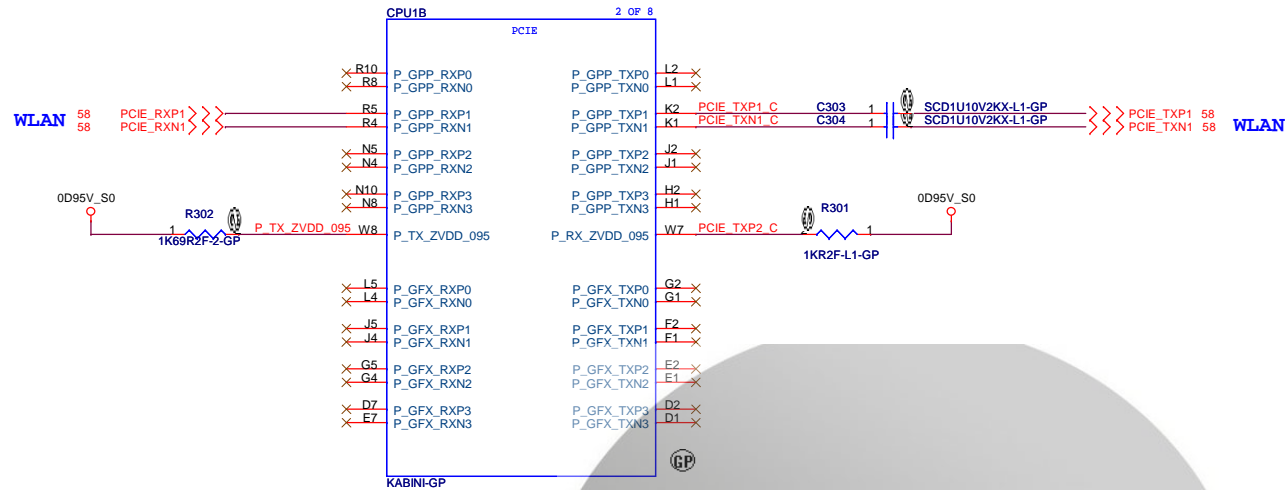


Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通 Wistron Corporation		Rev
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Block Diagram		Rev
Size A3	Document Number	
Date: Wednesday, February 20, 2013	Angel	
Sheet 2	of 102	

sualaptop365.edu.vn



PCIE Table

0	NC
1	WLAN
2	NC
3	NC

Laptop Schematics

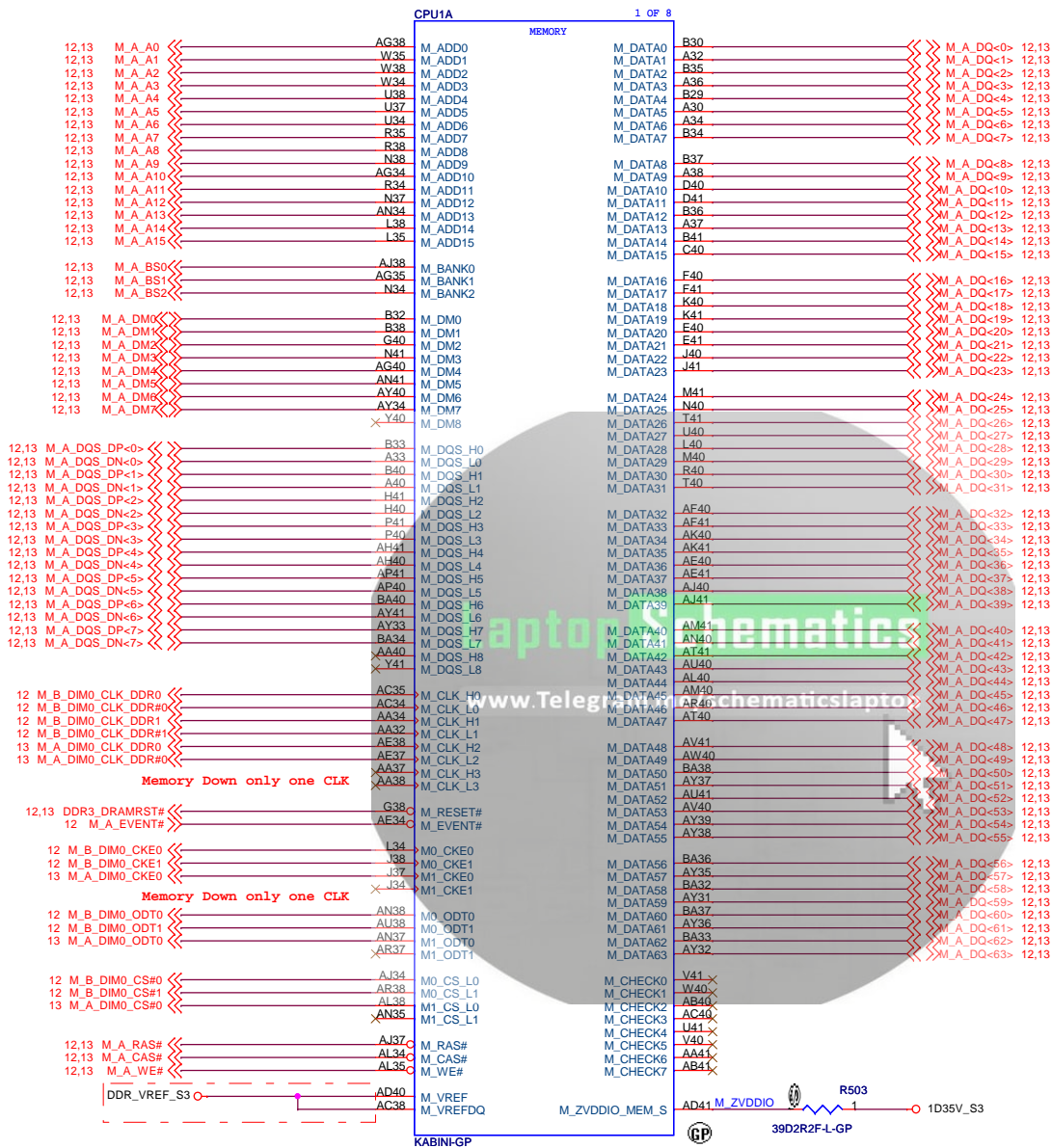
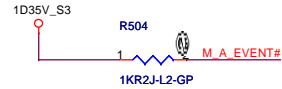
www.Telegram.me/schematics_laptop

Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

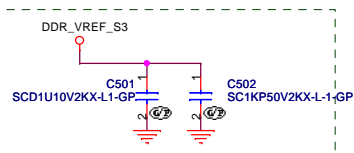
Angel second

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title		
CPU PCIE		
Size A3	Document Number	Rev
Date: Monday, February 18, 2013	Angel	
Sheet 3 of 102		

sualaptop365.edu.vn



APU_VREF_DQ



LAYOUT: place them close to APU

sualaptop365.edu.vn

Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title		
CPU DDR		
Size	Document Number	Rev
A3	Angel	
Date:	Monday, February 18, 2013	Sheet 5 of 102

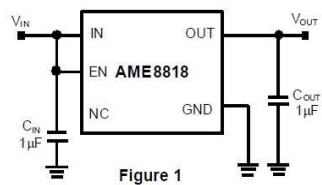
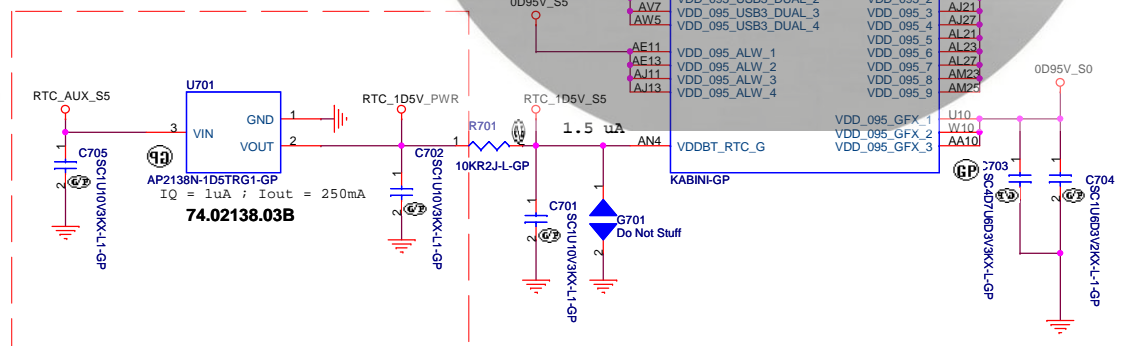


Figure 1



follow EA40-KB 20121025 2310

sualaptop365.edu.vn

Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

<p>緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</p>		
<p>Title: CPU VCC CORE</p>		
Size A3	Document Number	Rev
Date: Monday, February 18, 2013	Angel	Sheet 7 of 102

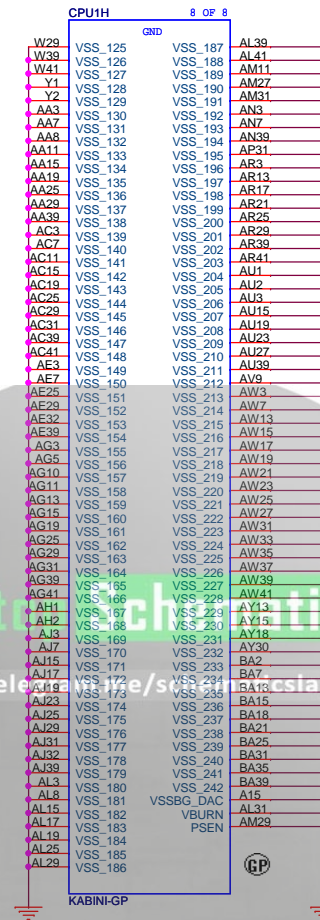
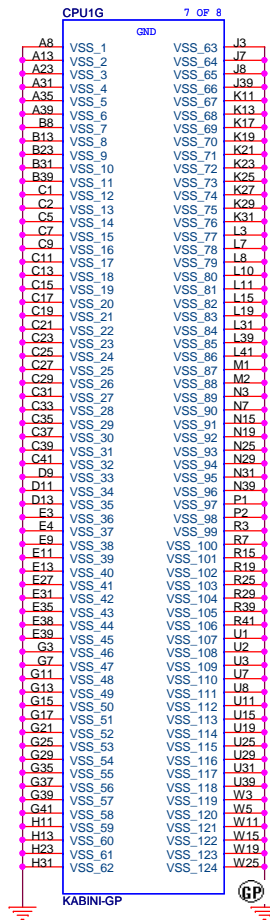


Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
CPU VCC GFXCORE			
Size A4	Document Number Angel		Rev
Date: Monday, February 18, 2013		Sheet 8 of	102

sualaptop365.edu.vn





Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title CPU_POWER CAP2			
Size A	Document Number Angel		Rev
Date: Monday, February 18, 2013		Sheet 11	of 102



<p>Angel second</p> <div>  <div> <p>Wistron Corporation 29F, 28F, Sec. 1, Xinyi 1st Hsu Rd., Hsuehshui, Taichung Hsien 221, Taiwan, R.O.C.</p> </div> </div>			
<p>File</p>			
<p>DDR3 SODIMM 2</p>			
Size	Document Number		Rev
A1	Angel		
Date	Monday, February 18, 2013		Sheet 13 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
DDR3 SODIMM 3			
Size	Document Number		Rev
A4	Angel		
Date: Monday, February 18, 2013		Sheet 14 of	102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title CPU_EDP SIDEBAND/GPIO/DDI		
Size A4	Document Number Angel	Rev
Date: Monday, February 18, 2013	Sheet 15 of	102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
CPU PCIE/USB			
Size	Document Number		Rev
A4	Angel		
Date:	Monday, February 18, 2013		Sheet 16 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title CPU DMI/FDI/PM			
Size A	Document Number Angel		Rev
Date: Monday, February 18, 2013		Sheet 17 of	102

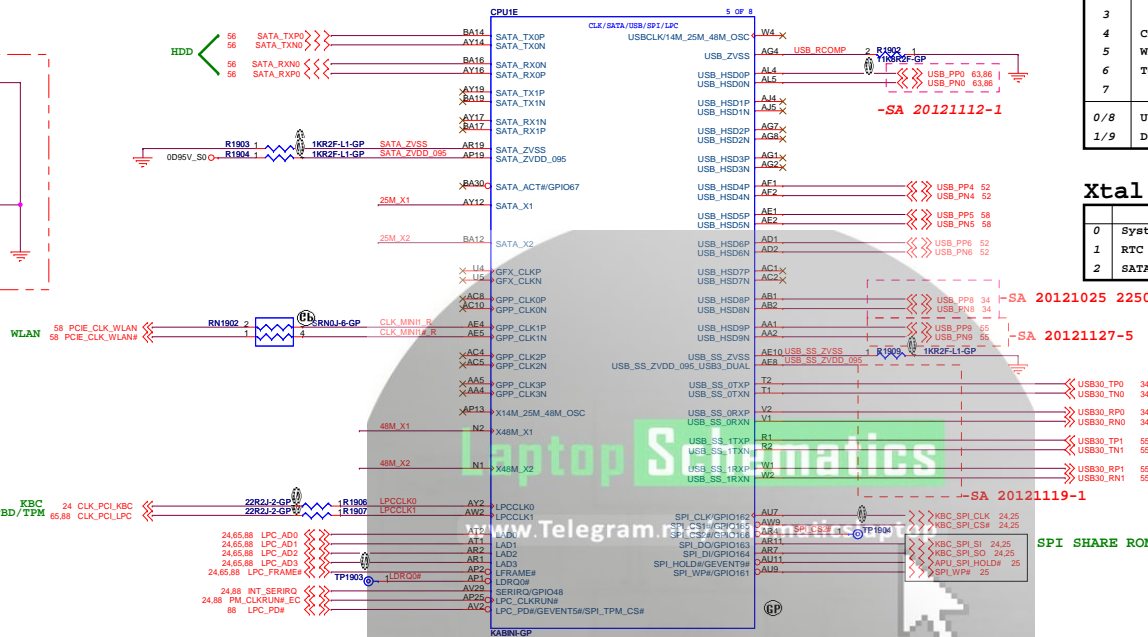


Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

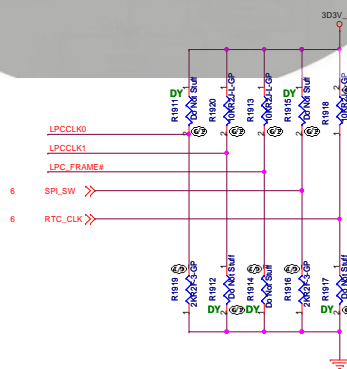
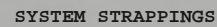
緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title CPU_PCIE/SMBUS/CLK/CL/SPI			
Size A	Document Number Angel		Rev
Date: Monday, February 18, 2013		Sheet 18 of	102

0	HDD
1	



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

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



SPI_SS					
	LPC_CLK0	LPC_CLK1	LFRAME_L	ENPCARD_PCIE_PAREN#	RTC_CLK
FULL HIGH	BOOT FAIL TIMER ENABLED	CLOCKEN ENABLED (DEFAULT)	SPI ROM (DEFAULT)	1.0V SPI ROM (DEFAULT)	NORMAL POWER UP/RESET TIMING (DEFAULT)
FULL LOW	BOOT FAIL TIMER DISABLED (DEFAULT)	CLOCKEN DISABLED	LPC ROM	1.0V SPI ROM	FAST POWER UP/RESET TIMING FOR SIMULATION

Title		
CPU SATA/USB/LPC/SP/CLK		
Size A2	Document Number	Rev
Angel		
Date:	Monday, February 18, 2013	Sheet 19 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
CPU GPIO/MISC			
Size	Document Number		Rev
A4	Angel		
Date:	Monday, February 18, 2013	Sheet	20 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
CPU POWER1			
Size A4	Document Number Angel		Rev
Date: Monday, February 18, 2013		Sheet 21	of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
CPU RSVD			
Size A4	Document Number Angel		Rev
Date: Monday, February 18, 2013	Sheet	22	of 102

sualaptop365.edu.vn



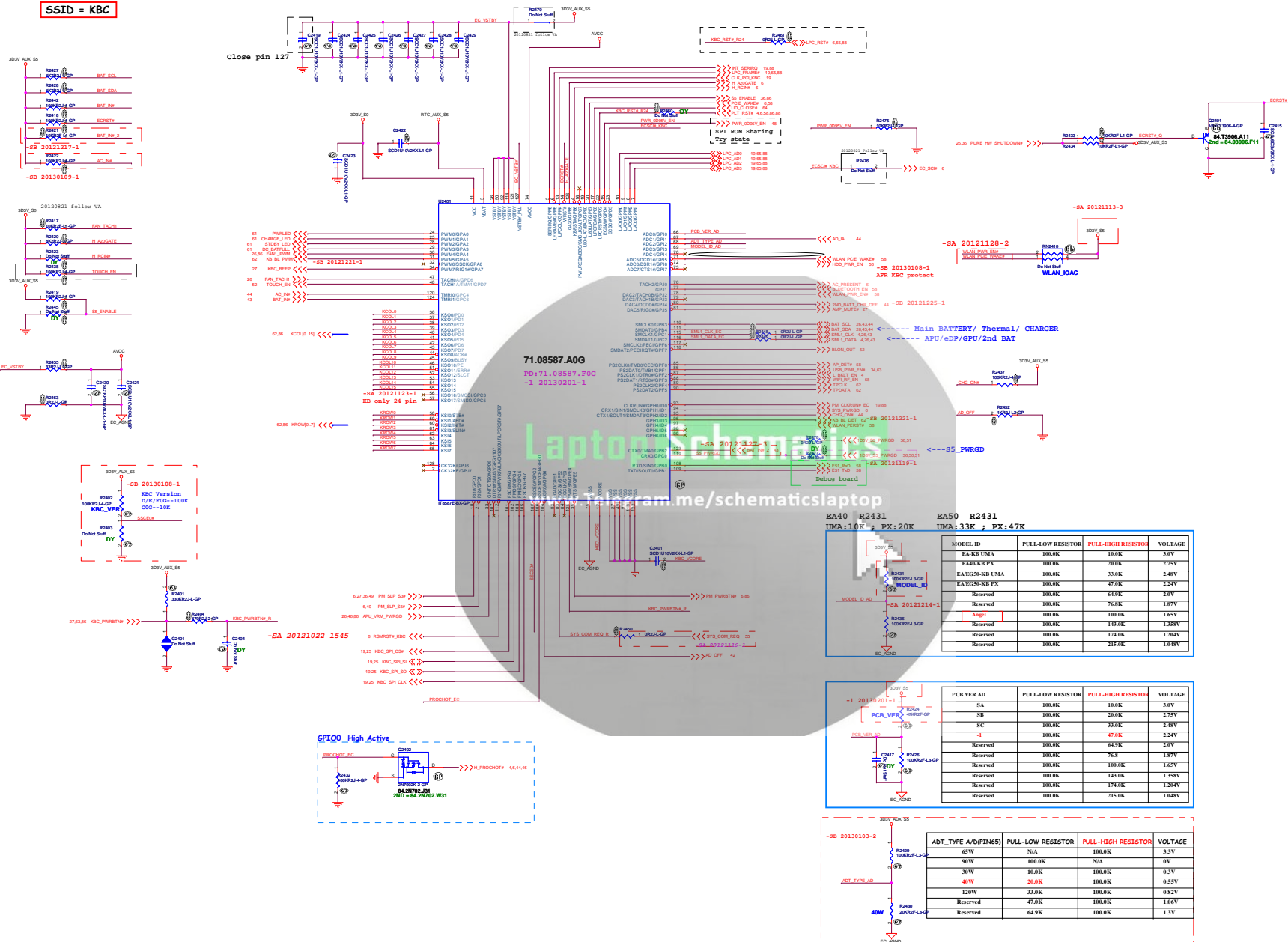
Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
CPU VSS			
Size A4	Document Number Angel		Rev
Date: Monday, February 18, 2013	Sheet	23	of 102

sualaptop365.edu.vn

SSID = KBC

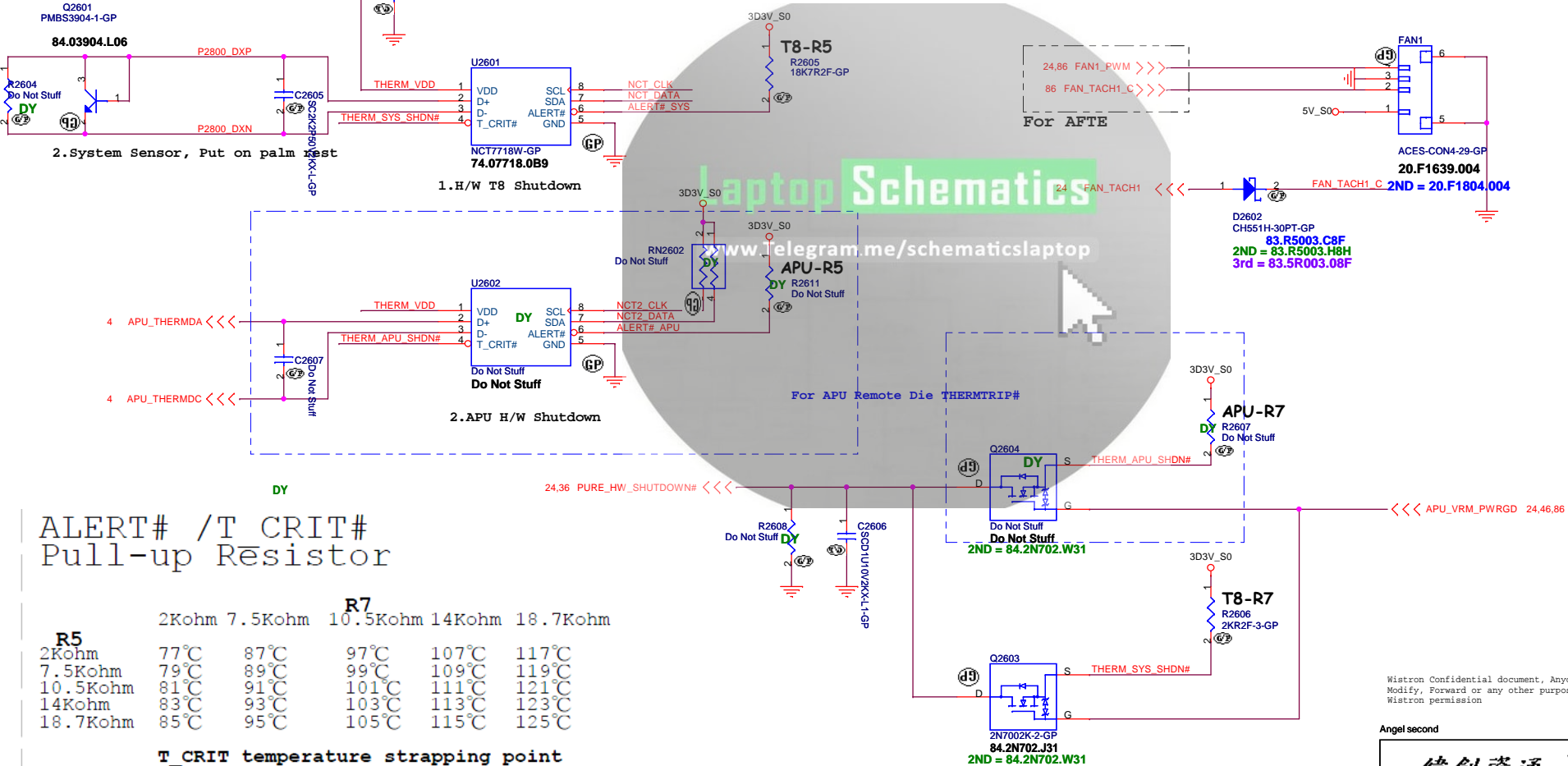


sualaptop365.edu.vn

SSID = Thermal

Thermal sensor NCT 7718W

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



ALERT# /T CRIT#
Pull-up Resistor

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

T_CRIT temperature strapping point

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

sualaptop365.edu.vn

Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title Thermal 7718/Fan Controller P2793			
Size	Project Name	Rev	SB
Date: Monday, February 18, 2013	Angel	Sheet 26	of 102





Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

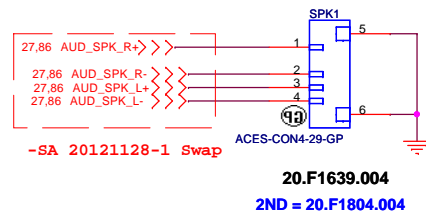
緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
AMP ALC1001			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	28 of 102

sualaptop365.edu.vn

SSID = AUDIO

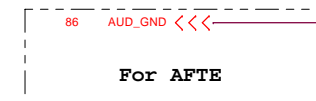
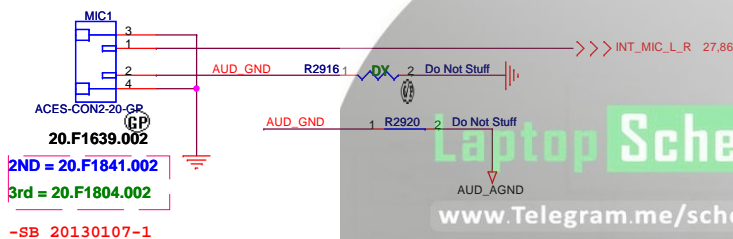
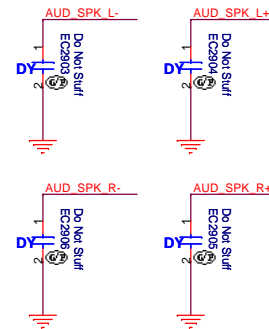
Speaker

2W 4ohm X 2 speaker



Layout Note:

Trace width=40mil



Laptop Schematics
www.Telegram.me/schematicslaptop

Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

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

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsuehsh, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
RTL8411			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013			
		Sheet	30 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

Title		緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Size	Project Name	Rev	
	LAN CONNECTOR	Angel	SB
Date:	Monday, February 18, 2013	Sheet	31 of 102



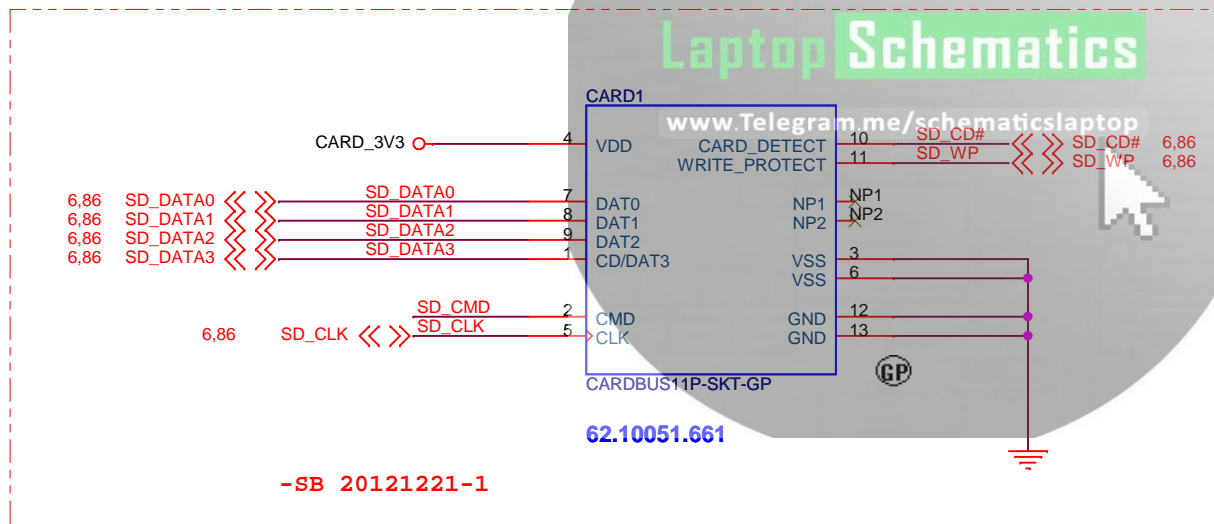
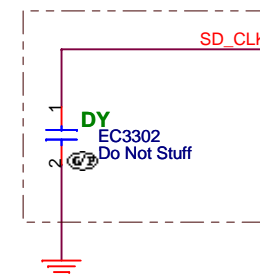
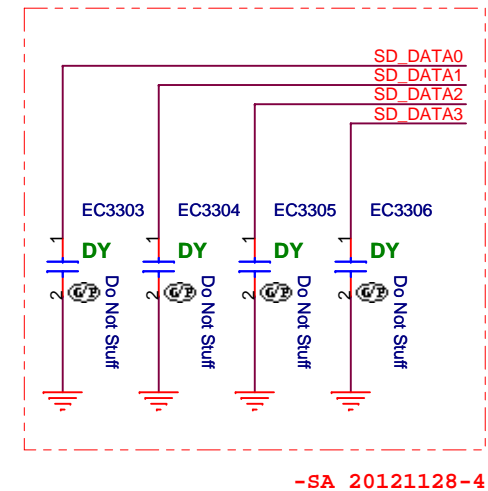
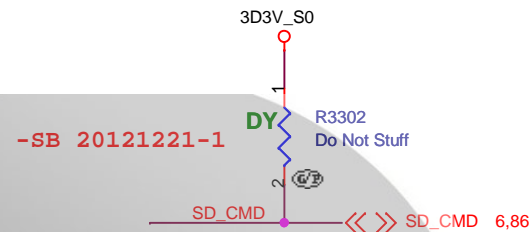
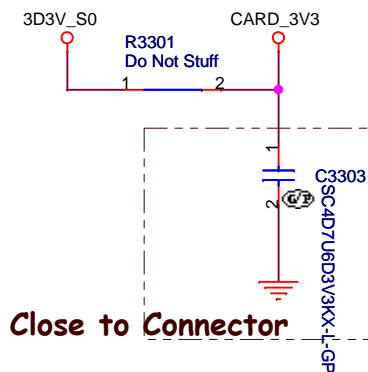
Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Card Reader IC			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	32 of 102

SSID = SDIO

SD//MS Card Reader



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

CARD Reader CONN

Size	Project Name
------	--------------

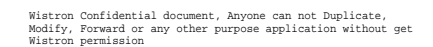
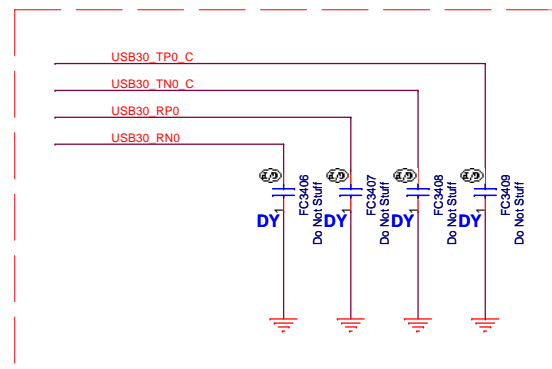
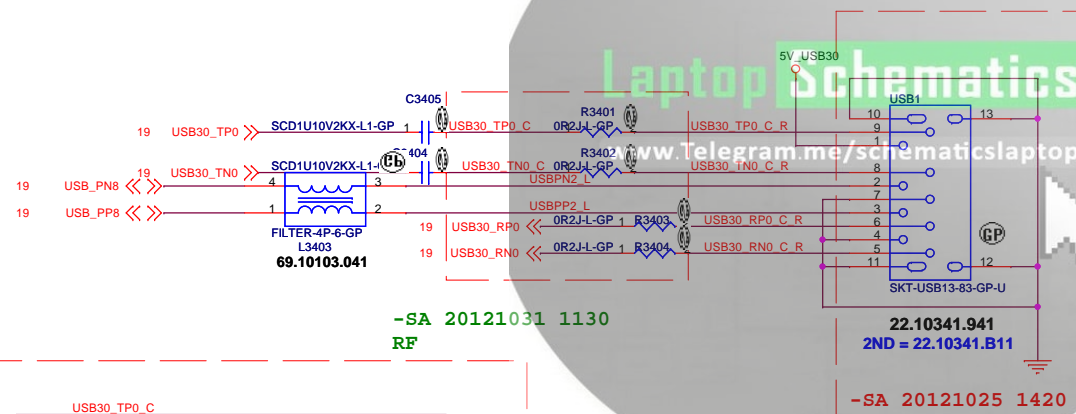
Angel

Rev
SB

Date: Monday, February 18, 2013

Sheet 33 of 102

sualaptop365.edu.vn



緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Rev
SB

Sheet 34 of 102

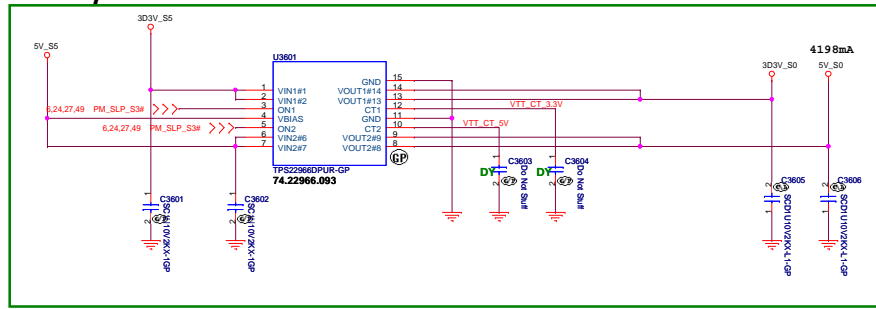


Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

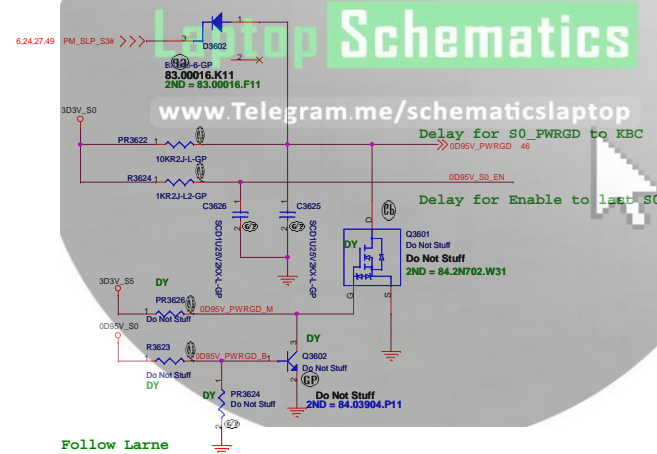
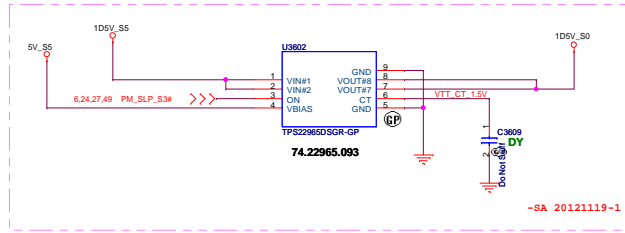
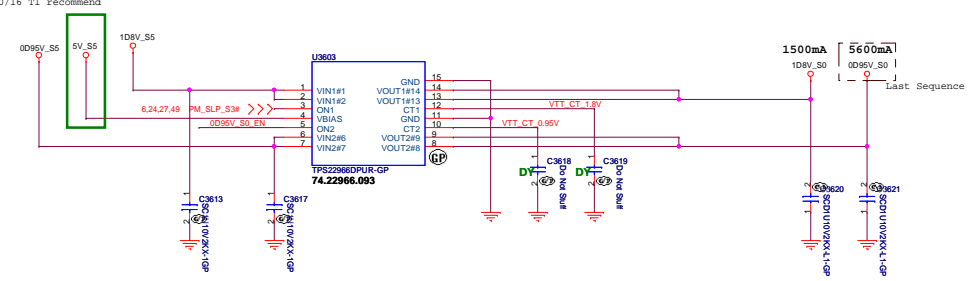
Angel second

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title USB_Charger			
Size	Project Name Angel		Rev SB
Date: Monday, February 18, 2013		Sheet	35 of 102

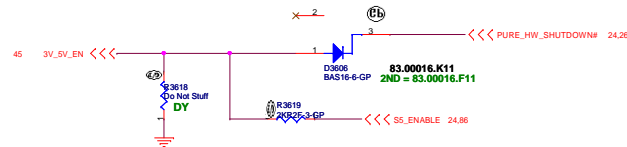
Power Sequence



10/16 TI recommend



S5_PWRGD to KBC



Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

緯創資通 Wistron Corporation	
21F, 8B, Sec 1, Hsin Tai Wu Rd., Hsueh, Taipei Hsien 221, Taiwan, R.O.C.	
Title Power Plane Enable	
Size	Project Name
Angel	Rev 5B
Date: Monday, February 18, 2013	Sheet 36 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
ADAPTER OCP / S3 reduction			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	37 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title Deep Standby			
Size	Project Name Angel		Rev SB
Date:	Monday, February 18, 2013	Sheet	38 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
1D05_M			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013		Sheet 39 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

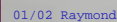
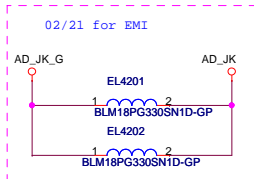
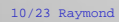
緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 40	of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

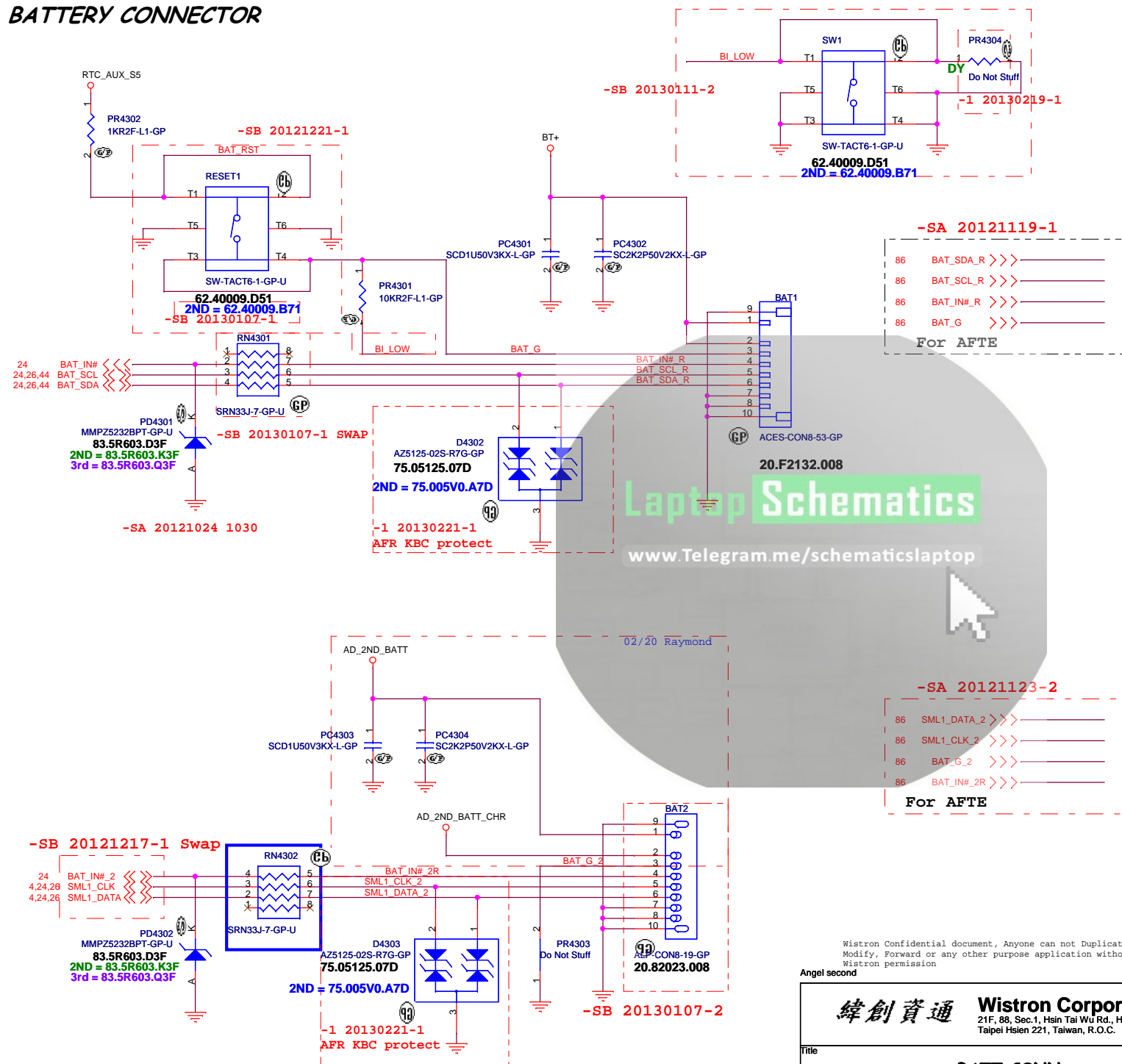
緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	41 of 102



Angel second

Title			
DCIN JACK			
Size	Project Name	Rev	
	Angel		SB
Date:	Thursday, February 21, 2013	Sheet	42 of 102

BATTERY CONNECTOR



sualaptop365.edu.vn

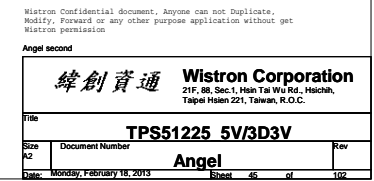
Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

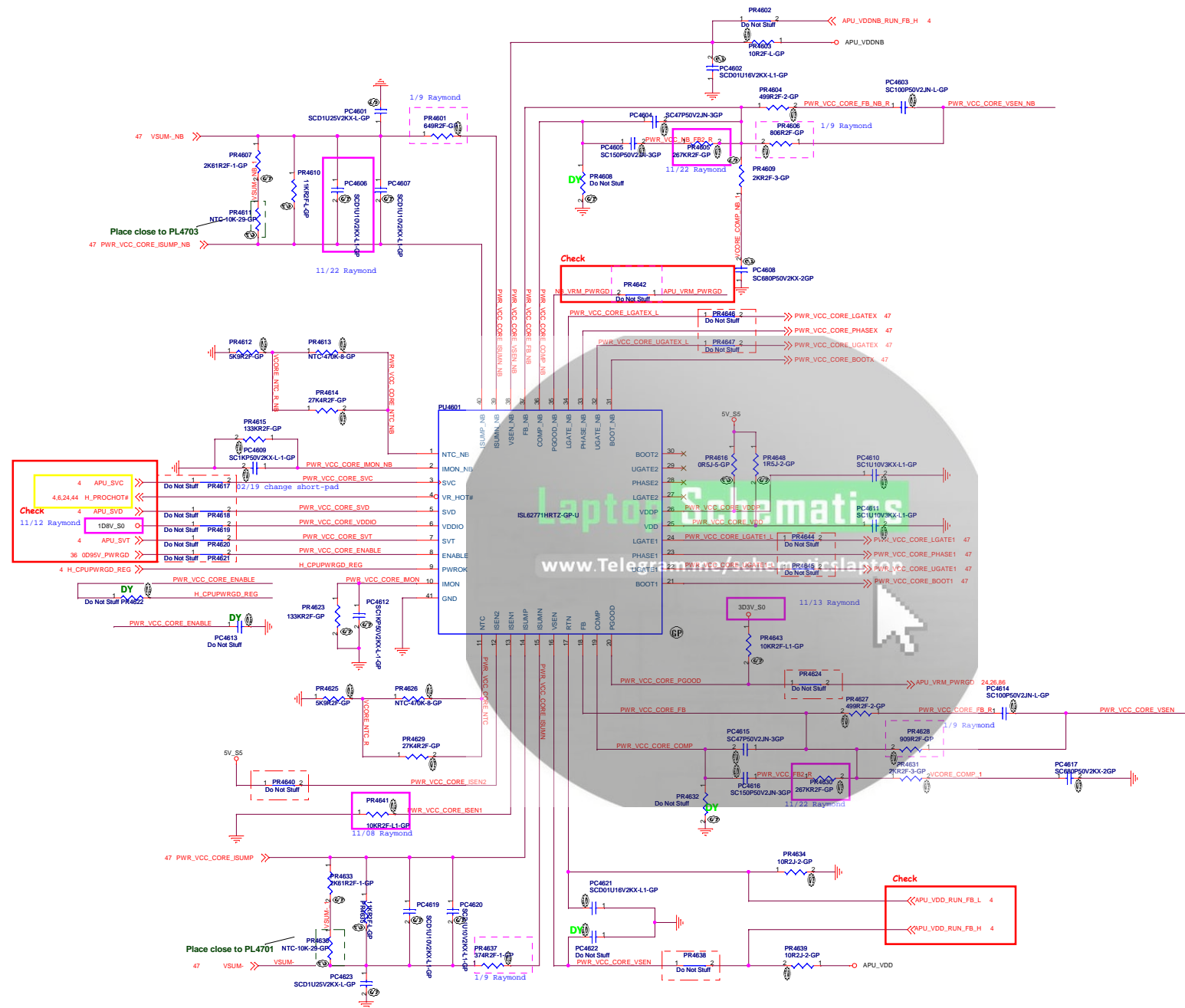
Angel second

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			
BATT CONN			
Size	Project Name	Rev	
	Angel	SE	
Date:	Thursday, February 21, 2013	Sheet	43 of 102

Cut off itself

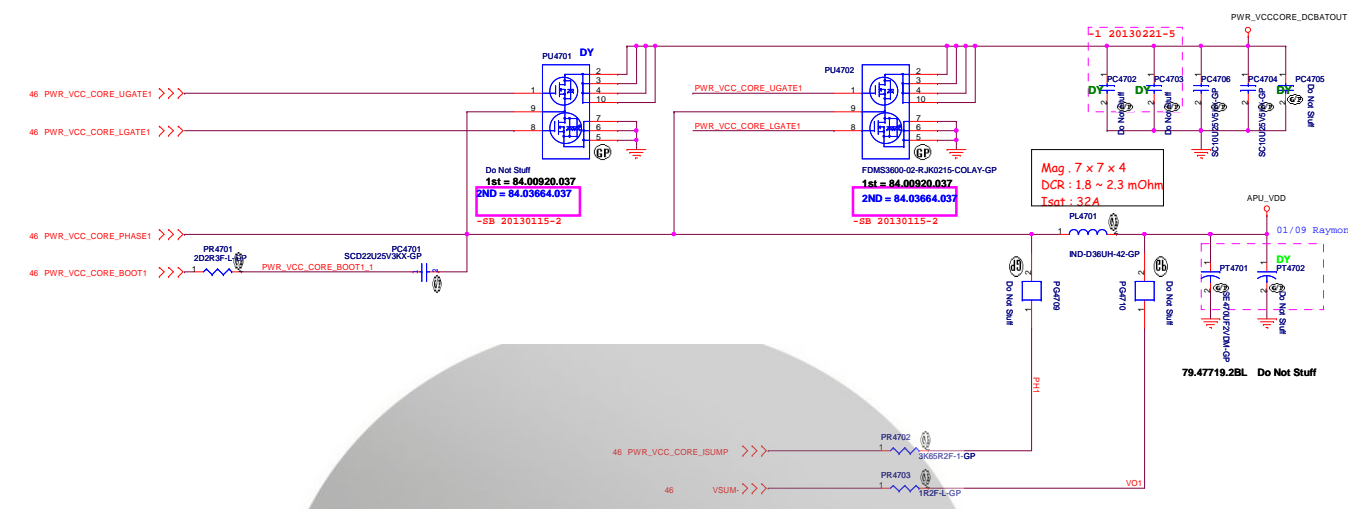
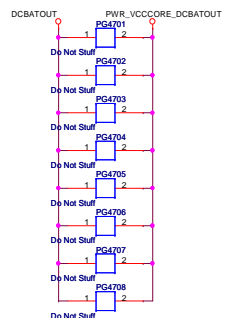




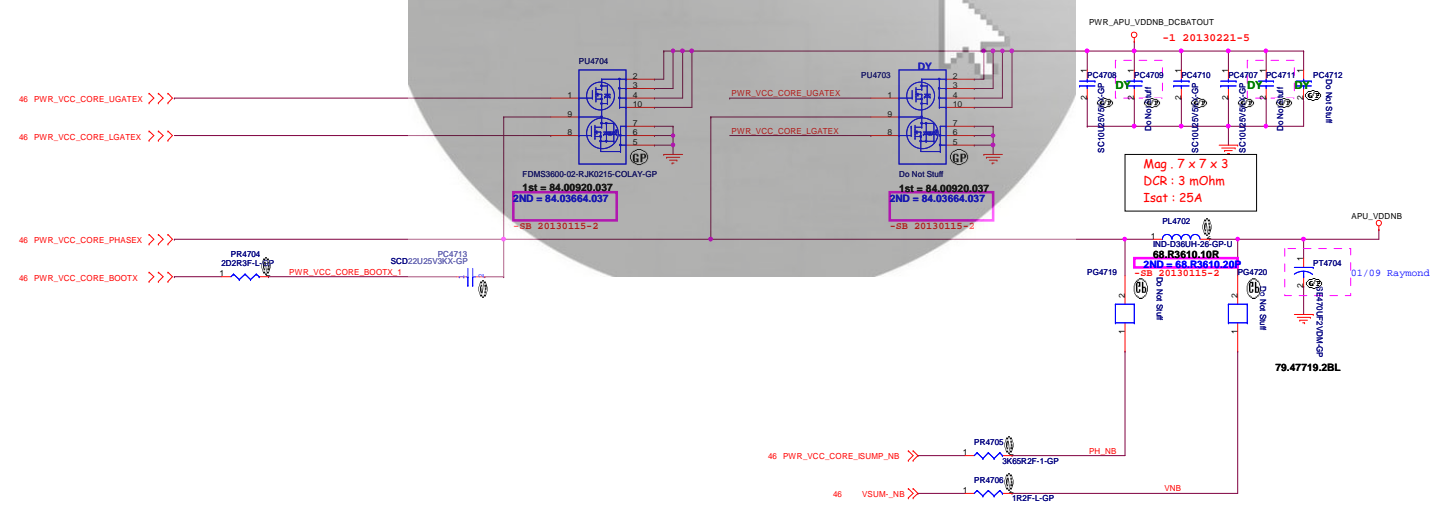
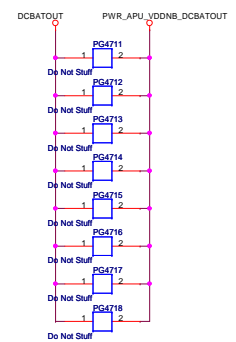
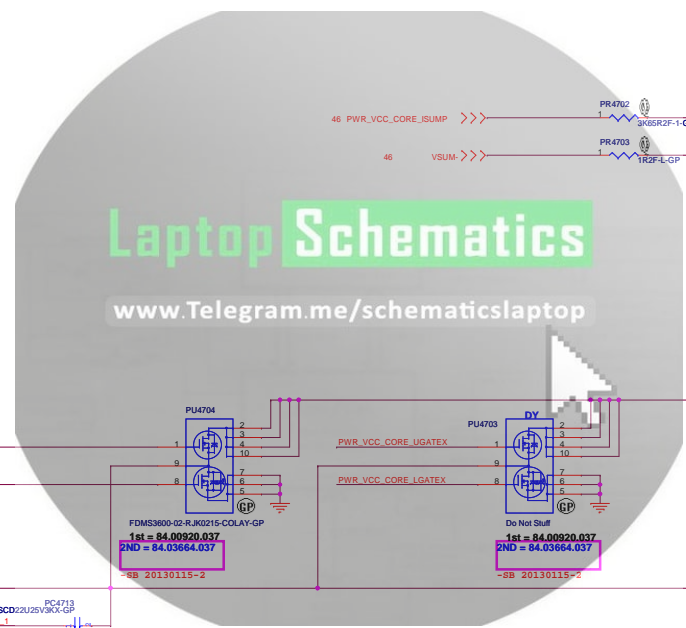
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsuehshui, Taipei Hsien 221, Taiwan, R.O.C.			
ISL62771 CPUCORE(1/2)			
File	Document Number	Rev	
Size	A2	Angel	
Date	Wednesday, February 20, 2013	Sheet	46 of 102

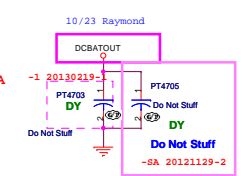
sualaptop365.edu.vn



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

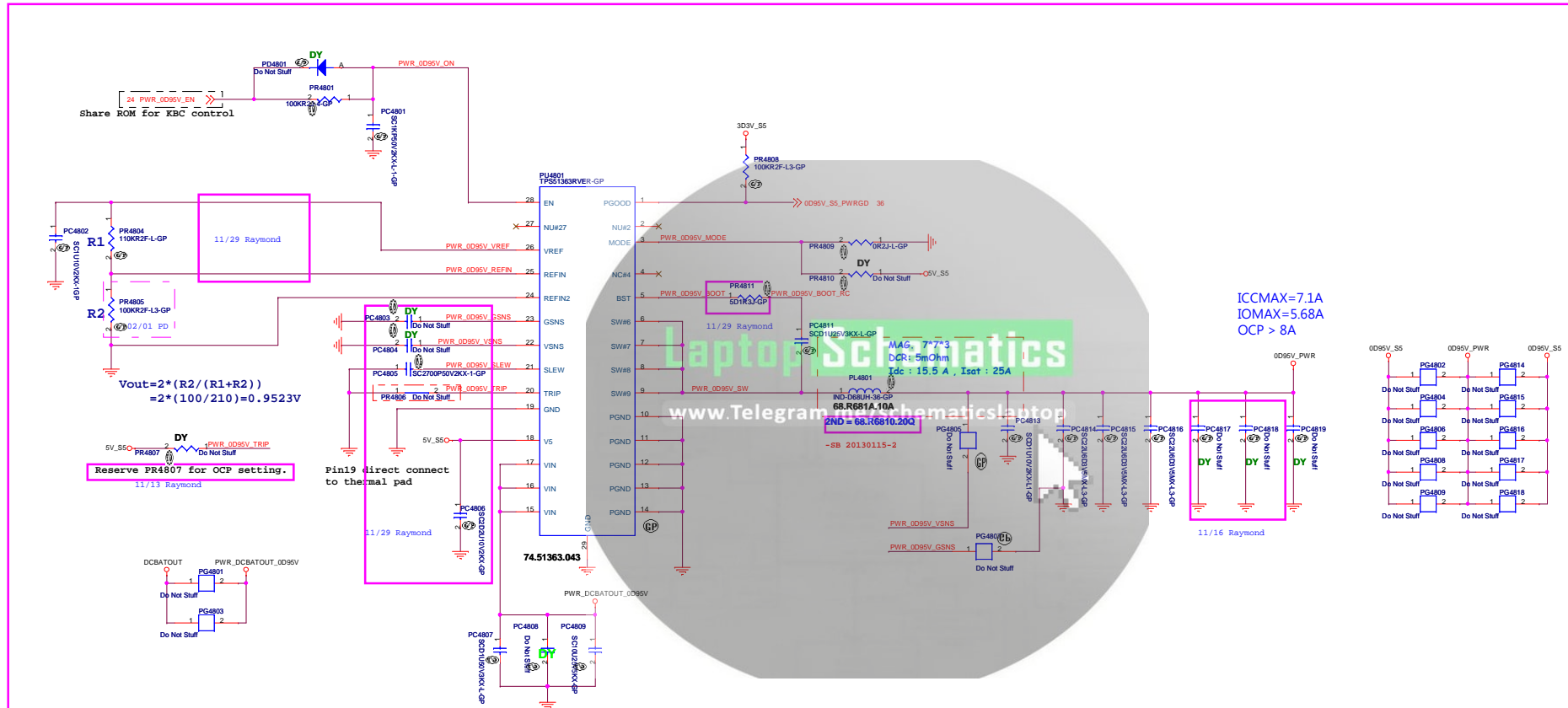


Iccmax=10A
TDC=8A
OCP>15A



sualaptop365.edu.vn

TPS51363 for 0D95V

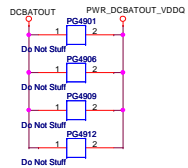
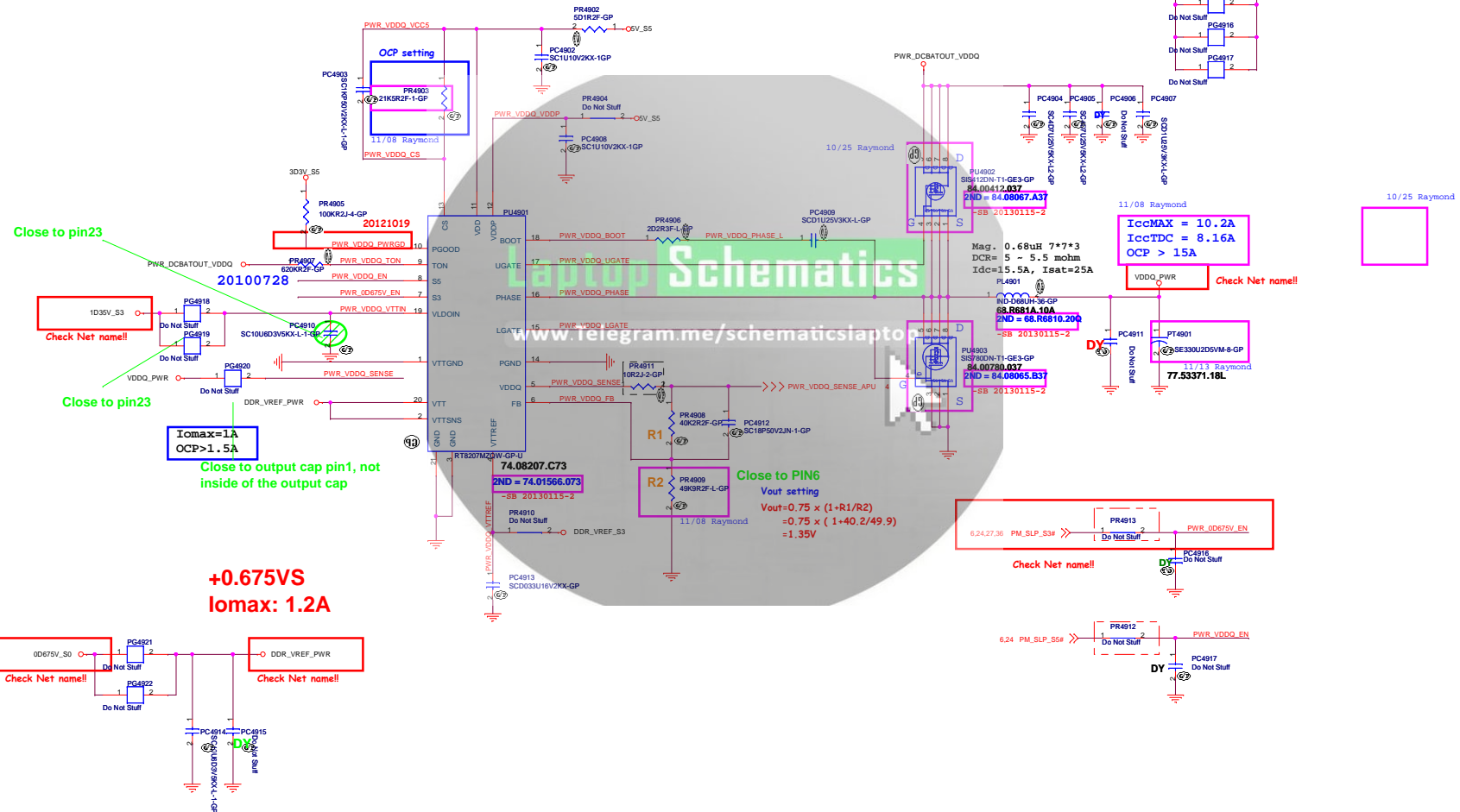


Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 8B, Sec.1, Hsin Tai Wu Rd., Hsuehshui, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
DC to DC 0D95V(TPS51363)			
Size	Document Number	Rev	
A2	Angel		
Date	Tuesday, February 19, 2013	Sheet	46 of 102

```
SSID = PWR.Plane.Regulator_1p2v0p6v
```

**RT8207M for VDDQ**

+0.675VS
Iomax: 1.2A

sualaptop365.edu.vn

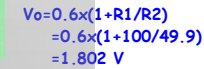
Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

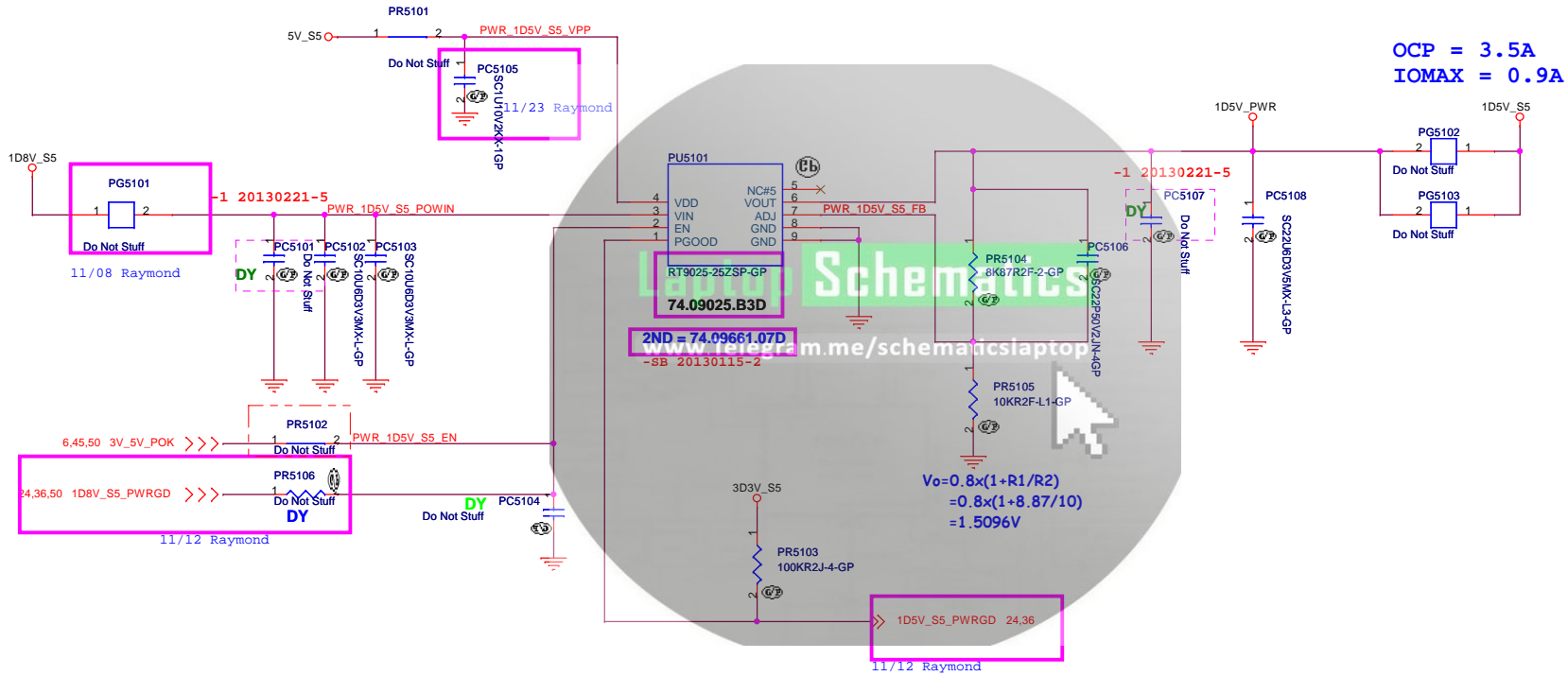
Title			
RT8207			
Size A2	Document Number	Rev	
	Angel		
Date:	Tuesday, February 19, 2013	Sheet	49 of 102

TDC=2.3A



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

RT9025 for 1D5V_S5



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title				1D5V_S5 RT9025			
Size A3	Document Number					Rev	
	Angel						
Date: Thursday, February 21, 2013				Sheet 51		of 102	





Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
CRT Board Connector			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013		Sheet 53 of 102

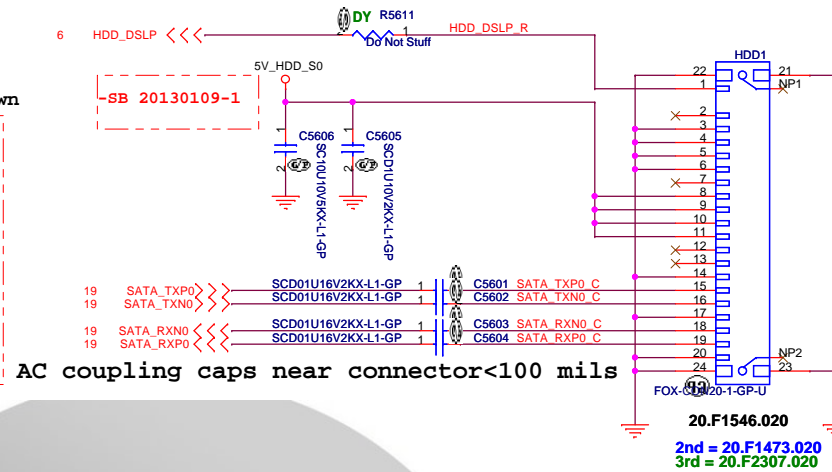


Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
HDMI Level Shifter/Connector			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013		Sheet 54 of 102

SATA HDD Connector

[illegible]

www.Telegram.me/schematics_laptop

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Size		HDD/ODD Angel	
Project Name		Rev SB	
Date:	Monday, February 18, 2013	Sheet	56 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

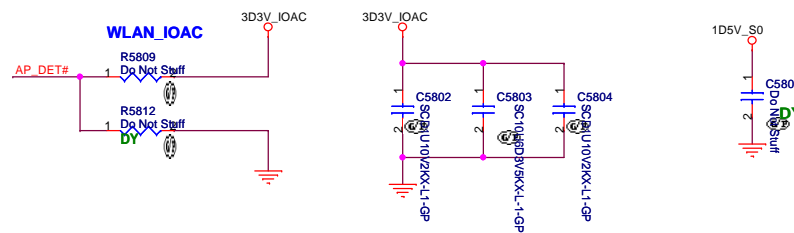
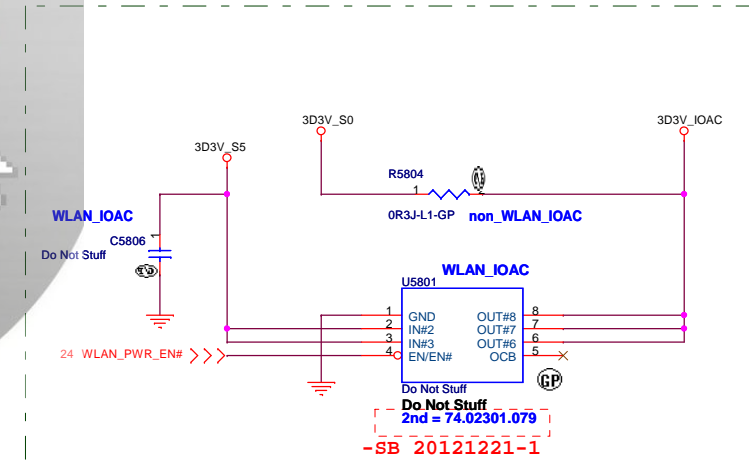
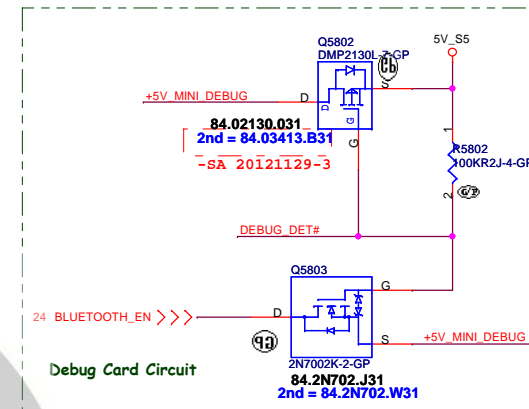
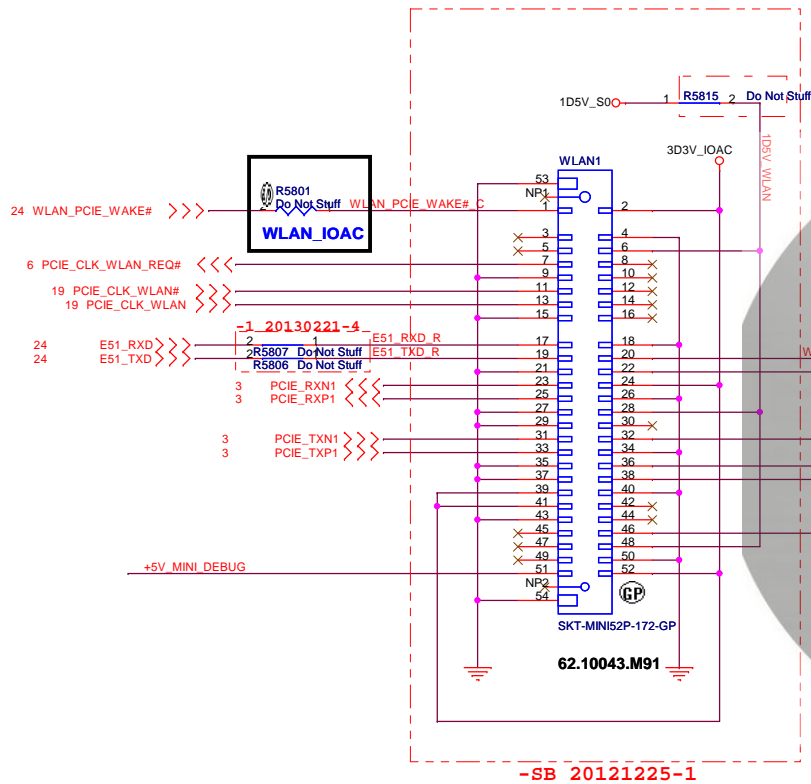
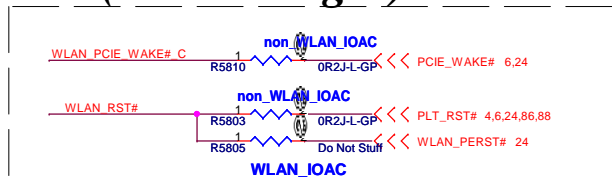
Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Reserved			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	57 of 102

sualaptop365.edu.vn

SSID = Wireless

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



Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

偉創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title			
MINICARD(WLAN)			
Size	Project Name	Rev	
	Angel	SB	
Date:	Thursday, February 21, 2013	Sheet	58 of 102

sualaptop365.edu.vn

SSID = Wireless

Mini Card Connector(WWAN)



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
WWAN CONN			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 59	of 102

sualaptop365.edu.vn

SSID = mSATA

Mini Card Connector(mSATA)



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

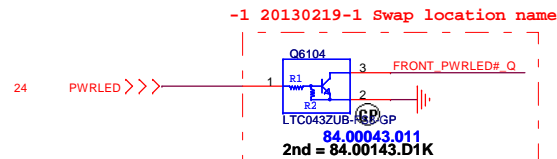
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			
mSATA Connector			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 60 of 102	

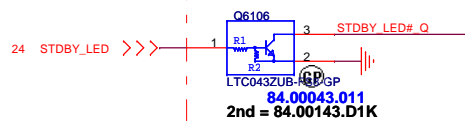
sualaptop365.edu.vn

SSID = User.Interface

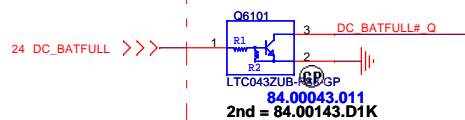
Power button LED



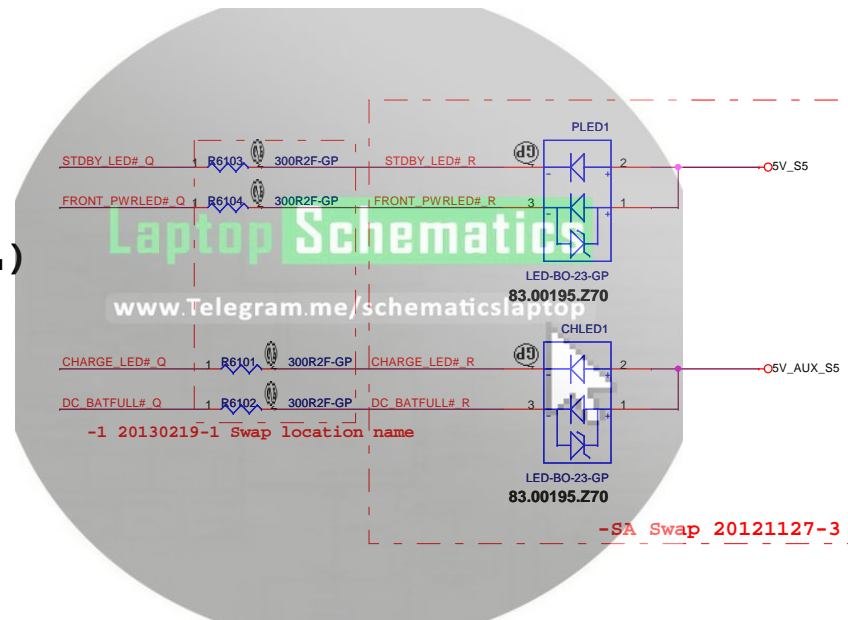
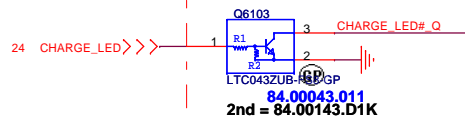
Power STDBY_LED



Battery LED2(DC_BATFULL)



Battery LED1(CHARGE)

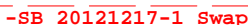


Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title LED Bard/Power Button			
Size	Project Name	Rev	SB
Date: Tuesday, February 19, 2013		Sheet	61 of 102

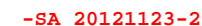
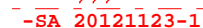
Internal KeyBoard Connector



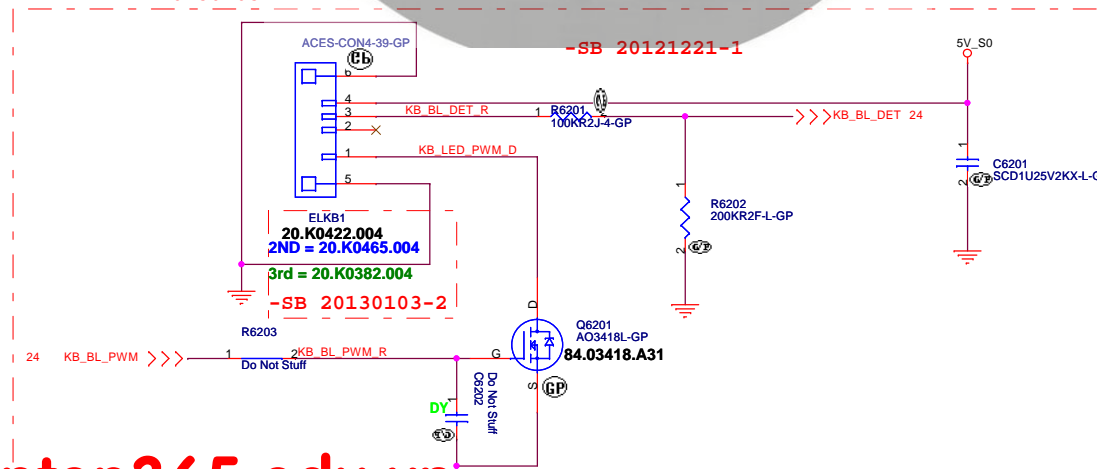
MB PIN DEFINE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
KB PIN DEFINE	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

Laptop Schematics

www.Telegram.me/schematics_laptop



For AFTE



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Title																													

Key Board/Touch Pad

Size

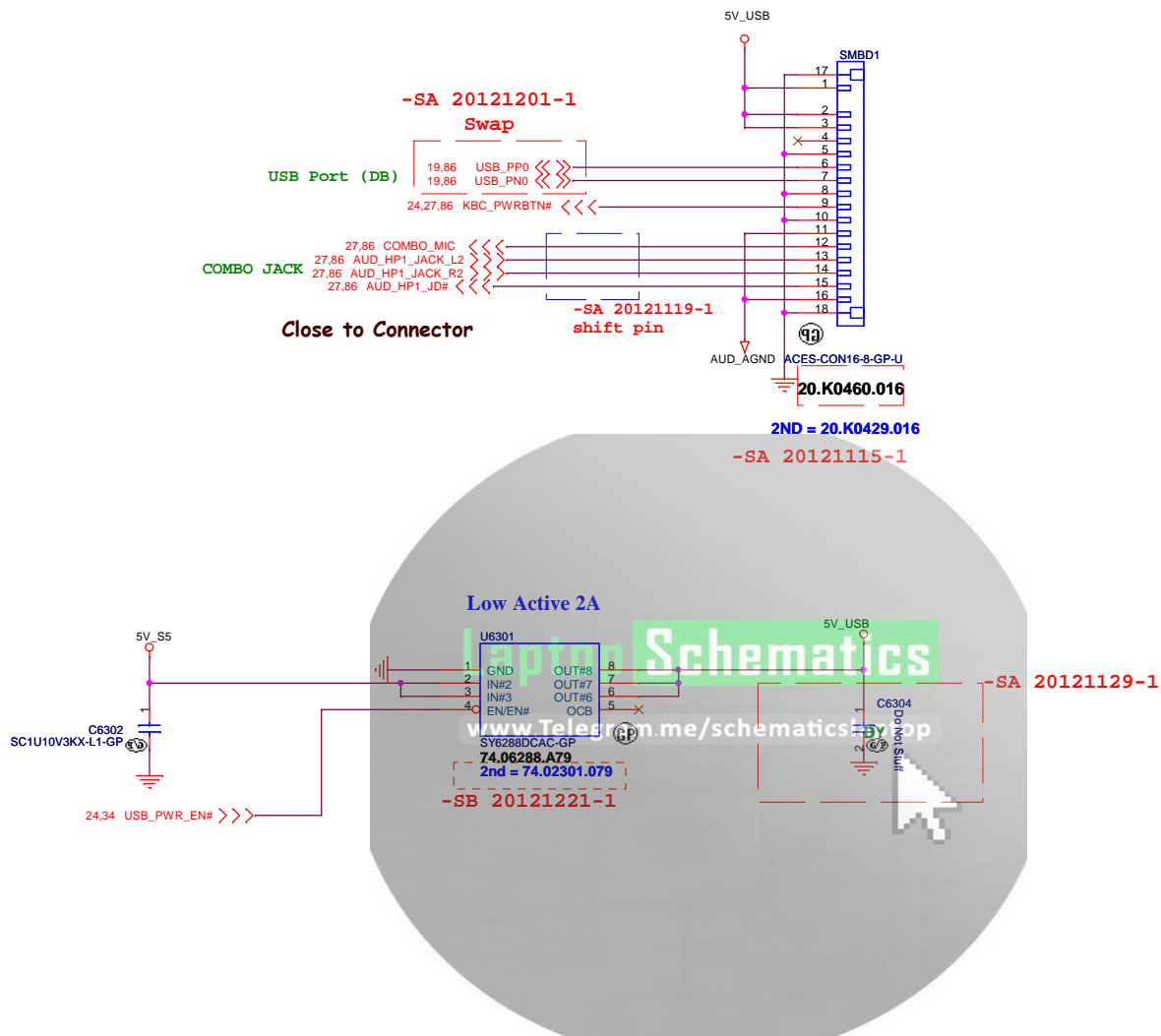
	Project Name
--	---------------------

Angel

Rev	
SB	

Date: Monday, February 18, 2013

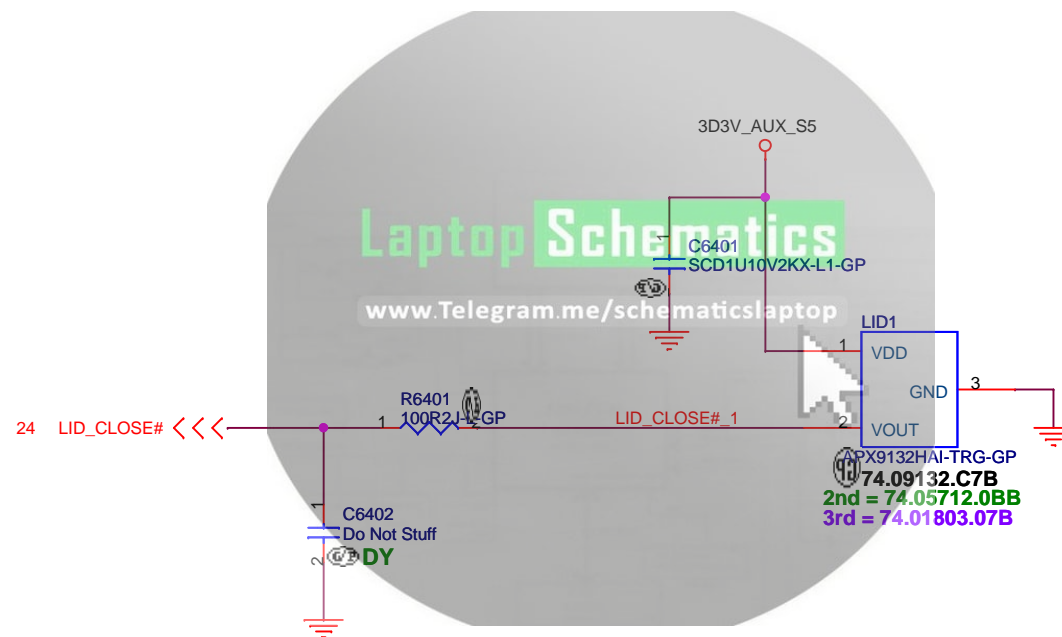
Sheet 62 of 102



Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
IO Board Connector			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 63 of 102	

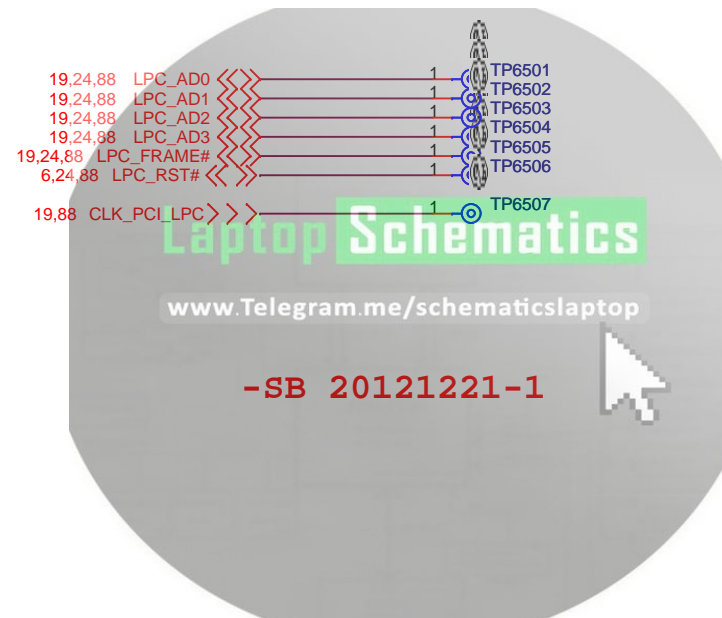


Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

<div>緯創資通</div>		<div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>	
Title			
Hall Sensor			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013	Sheet	64 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Dubug connector			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	65 of 102

sualaptop365.edu.vn

(Blanking)



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Reserved			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	66 of 102

sualaptop365.edu.vn

SSID = User.Interface



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
G Sensor			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 67	of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
DP SWITCH (1/3)			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	68 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
DP SWITCH (2/3)			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	69 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Thunderbolt (3/3)			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 70	of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title DP SWITCH (4/4)			
Size	Project Name Angel		Rev SB
Date: Monday, February 18, 2013		Sheet 71	of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Thunderbolt (5/5)			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 72	of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsuehshien, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
GPU PCIE/STRAPPING			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013	Sheet 73	of 102



Wistron Confidential document. Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
GPU_Digitalout			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 74	of 102



Wistron Confidential document. Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinshu,
Tapei Hsien 221, Taiwan, R.O.C.

GPU_VRAM I/F			
File		Rev	
Project Name		Angel	
Date	Monday, February 18, 2013	Revised	75 of 102





Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsuehshan, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
GPU_POWER/GND			
Size	Project Name		Rev
	Angel		5B
Date: Monday, February 18, 2013		Sheet 77 of 102	



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
VRAM 1,2			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013		Sheet 78 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
VRAM 3,4			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013		Sheet 79 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
VRAM 5,6			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013	Sheet 80 of 102	



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
VRAM 7,8			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013		Sheet 81 of 102



Laptop Schematics

www.Telegram.me/schematics_laptop



Wistron Confidential document. Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wld Bldg, Hsinshu,		Taipei 10001 201, Taiwan, R.O.C.	
Title			
DISCRETE VGA POWER			
Doc Number		Angel	
Date: 2009/1/20		Page: 83 of 100	

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Switch GFX			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	84 of 102

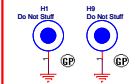


Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

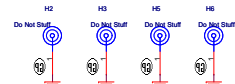
緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title Switch VGA			
Size	Project Name Angel		Rev SB
Date: Monday, February 18, 2013		Sheet	85 of 102

ZZ.00PAD.921

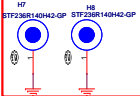


ZZ.00PAD.931

-SB 20130103-1



34.4LK01.001



-SA 20121129-1

34.4GZ09.201

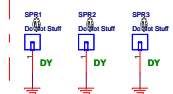


-1 20130201-1

Do Not Stuff



-SB 20121228-1



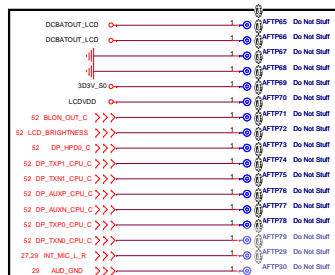
-SB 20130110-1

Check test point



-SB 20130110-2

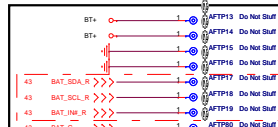
Test Point放在Dimm Door打開可量測處



EDP + MIC connector



DC IN connector



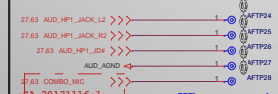
Main Battery connector



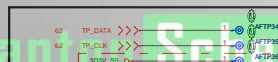
Second Battery connector



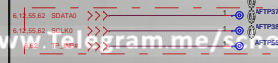
Speaker connector



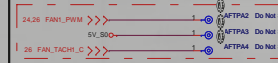
HP connector



Touch Pad connector

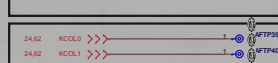


FAN connector



-SA 20121123-1

Card reader connector



USBBD connector



PWR connector



-SA 20121123-1

Normal KB connector

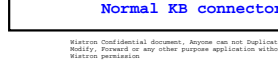


Fan connector

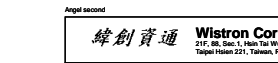


-SA 20121123-1

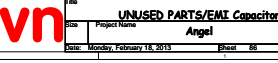
Card reader connector



USBBD connector



PWR connector



-SA 20121123-1

Normal KB connector

sualaptop365.edu.vn

Wistron Confidential document. Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Angel second

緯創資通 Wistron Corporation
21F, 8F, 8C, 1, Hsin-Tai Rd, Hsinchu, Taipei Hsin 221, Taiwan, R.O.C.

UNUSED PARTS/FMT Capacitors
Project Name: Angel
Date: Monday, February 15, 2015
Page: 88 of 100



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
NFC			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013		Sheet 87 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Finger Print			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 89	of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Express Card			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	90 of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Smart Card socket			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	91 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Switchable GFX eDP			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 92	of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Bottom Docking			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013	Sheet	93 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Inter LAN WG1217LM			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet	94 of 102



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
LAN Switch			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 95	of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title PCH_XDP			
Size	Project Name		Rev
	Angel		SB
Date: Monday, February 18, 2013		Sheet 96	of 102

sualaptop365.edu.vn



Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

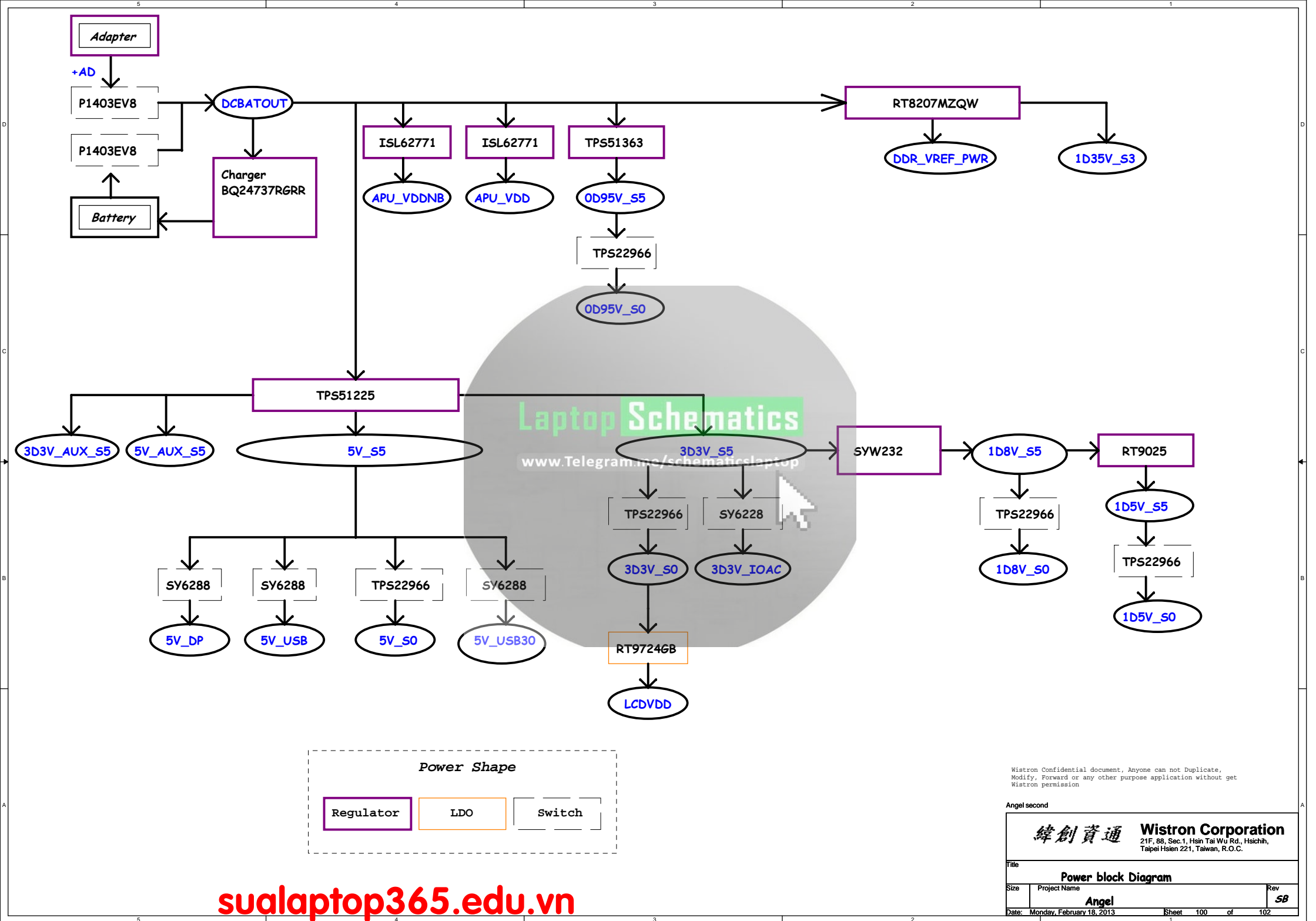
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
table of content			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013	Sheet 97 of	102



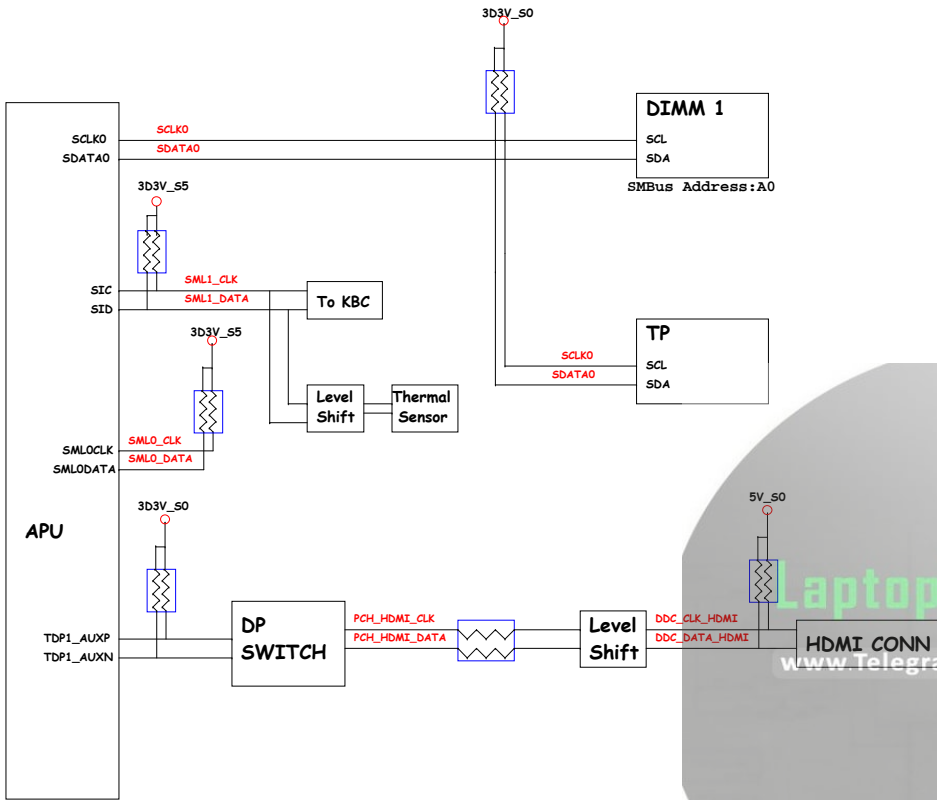
Wistron Confidential document, Anyone can not Duplicate,
Modify, Forward or any other purpose application without get
Wistron permission

Angel second

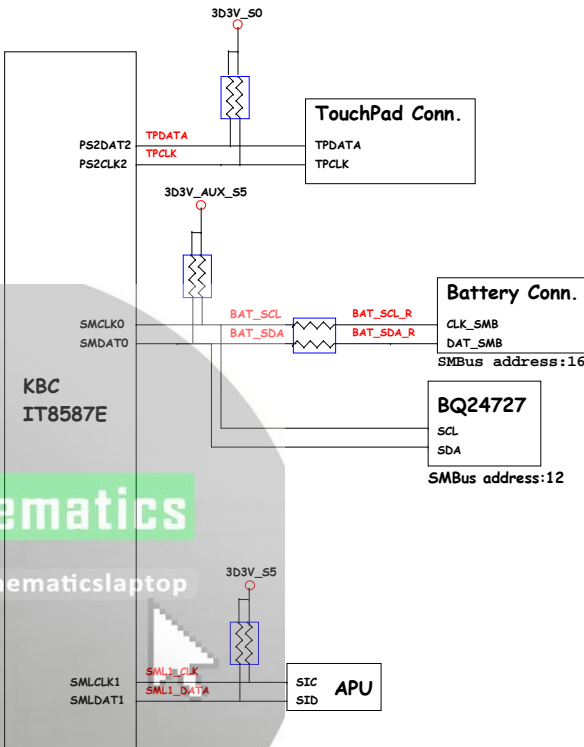
<div>緯創資通</div>		<div>Wistron Corporation</div>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Change History			
Size	Project Name		Rev
	Angel		SB
Date:	Monday, February 18, 2013	Sheet 98 of	102



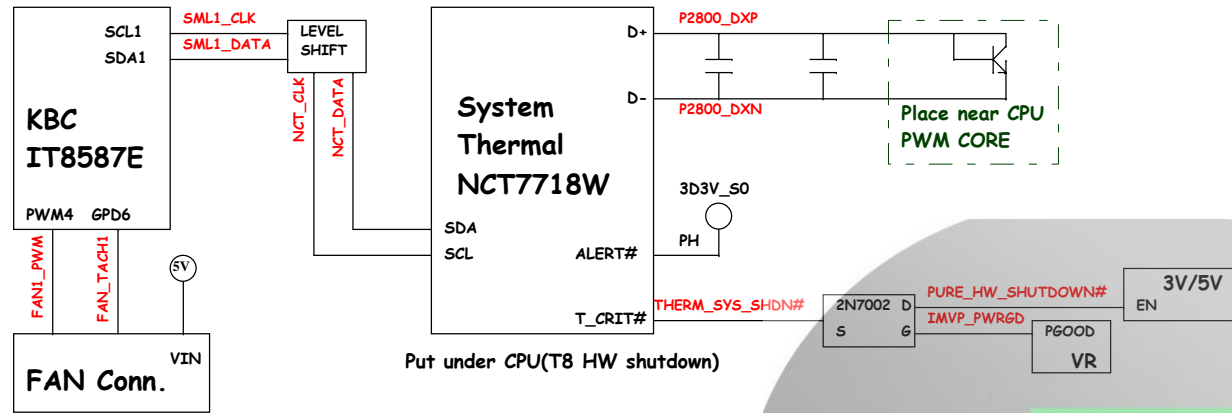
APU SMBus Block Diagram



KBC SMBus Block Diagram



Thermal Block Diagram



Audio Block Diagram

