

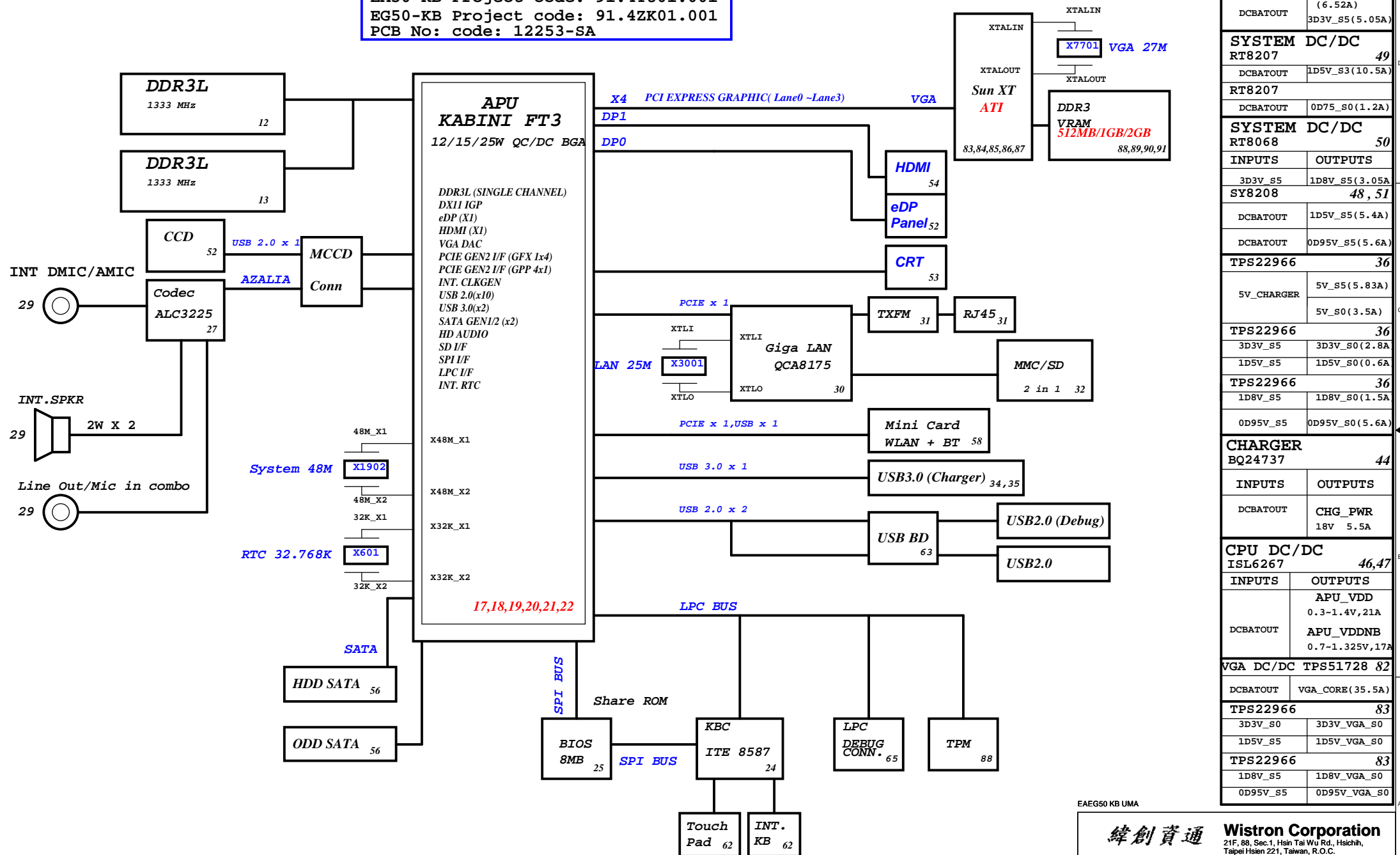
AMD KABINI EA/EG-40/50
PX /UMA Schematics Document
AMD FT3 APU
AMD GPU SUN XT M2/64bit

EAEG50 KB UMA

<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		
Cover Page		
Size	Document Number	Rev
A4	KABINI	
Date: Wednesday, October 24, 2012		Sheet 1 of 102

AMD KABINI

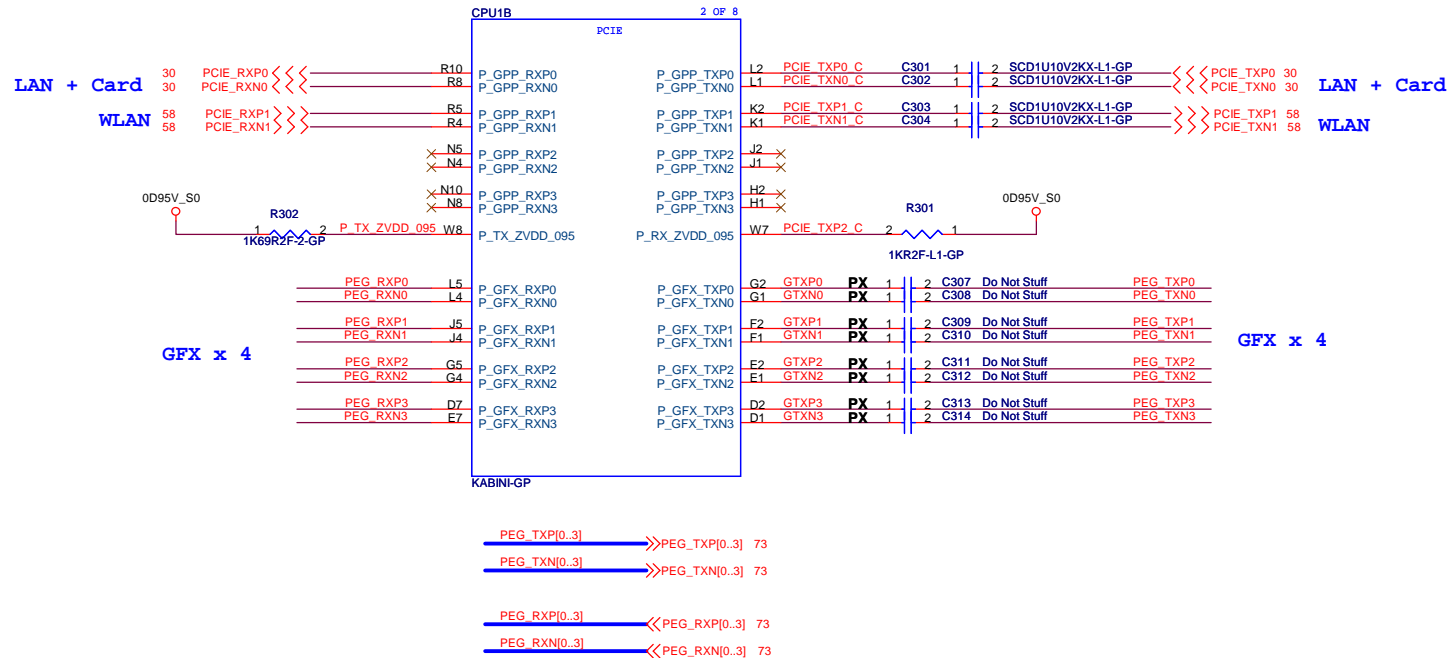
EA40-KB Project code: 91.4ZF01.001
PCB No: code: 12247-SA
EA50-KB Project code: 91.4YU01.001
EG50-KB Project code: 91.4ZK01.001
PCB No: code: 12253-SA



SYSTEM DC/DC		TPS51225	45
INPUTS	OUTPUTS		
DCBATOUT	5V_CHARGER (6.52A)	3D3V_S5 (5.05A)	
SYSTEM DC/DC		RT8207	49
DCBATOUT	1D5V_S3 (10.5A)		
DCBATOUT	0D75_S0 (1.2A)		
SYSTEM DC/DC		RT8068	50
INPUTS	OUTPUTS		
3D3V_S5	1D8V_S5 (3.05A)		
DCBATOUT	1D5V_S5 (5.4A)		
DCBATOUT	0D95V_S5 (5.6A)		
TPS22966			36
5V_CHARGER	5V_S5 (5.83A)		
	5V_S0 (3.5A)		
TPS22966			36
3D3V_S5	3D3V_S0 (2.8A)		
1D5V_S5	1D5V_S0 (0.6A)		
TPS22966			36
1D8V_S5	1D8V_S0 (1.5A)		
0D95V_S5	0D95V_S0 (5.6A)		
CHARGER		BQ24737	44
INPUTS	OUTPUTS		
DCBATOUT	CHG_PWR	18V 5.5A	
CPU DC/DC		ISL6267	46,47
INPUTS	OUTPUTS		
DCBATOUT	APU_VDD 0.3~1.4V, 21A		
	APU_VDDNB 0.7~1.325V, 17A		
VGA DC/DC		TPS51728	82
DCBATOUT	VGA_CORE (35.5A)		
TPS22966			83
3D3V_S0	3D3V_VGA_S0		
1D5V_S5	1D5V_VGA_S0		
TPS22966			83
1D8V_S5	1D8V_VGA_S0		
0D95V_S5	0D95V_VGA_S0		

EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title		
Block Diagram		
Size A3	Document Number	Rev
KABINI		
Date: Friday, February 01, 2013	Sheet 2 of	102



PCIE Table

0	LAN + Card
1	WLAN
2	NC
3	NC

71.KABIN.B0U IC CPU Kabini 4110 1.5GHZ 15W4C FT3 ES2 BGA
71.KABIN.C0U IC CPU Kabini 5110 2.0GHZ 25W4C FT3 ES2 BGA

EAEG50 KB UMA

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 KABINI	Rev
Date: Monday, February 04, 2013	Sheet 3 of	102

20120821 Follow Larne

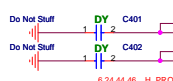
TABLE 6. PRE-PWROK METAL VIO CODES

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

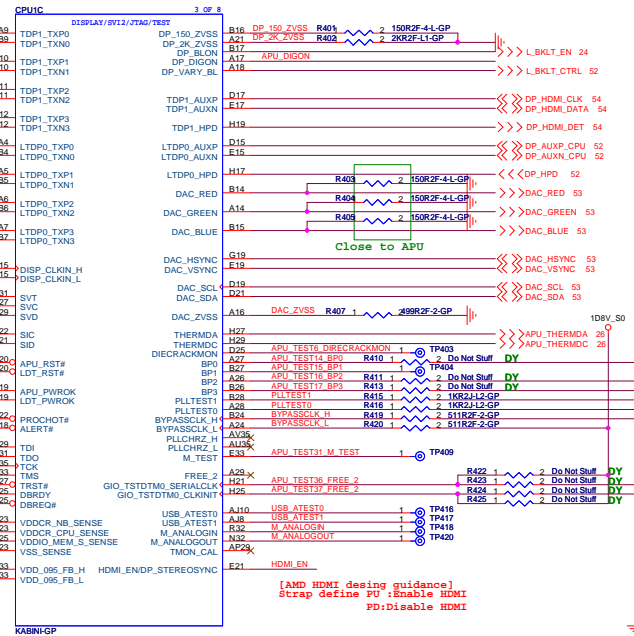
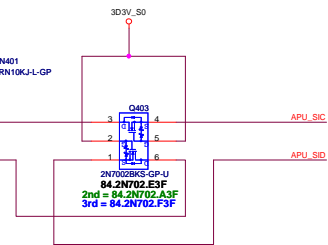
20120820 Follow Larne

APU HDMI <

APU EDP <



APU core control

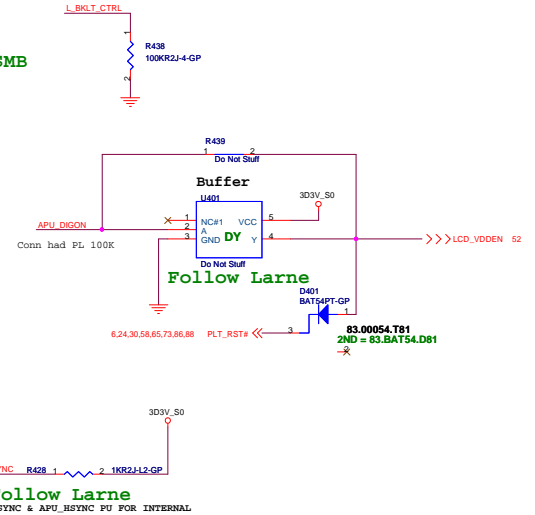


• APU EDP

• APU HDMI SMB

• APU EDP

> APU CRT

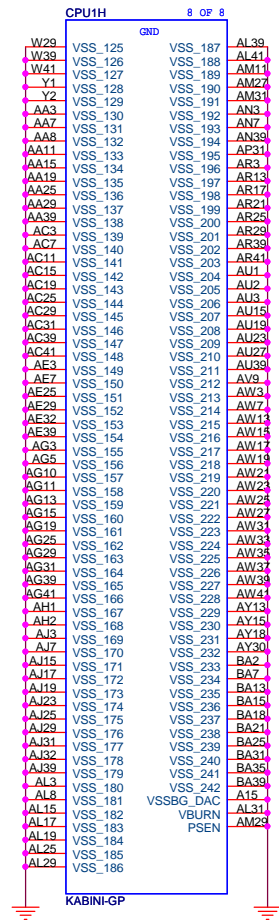
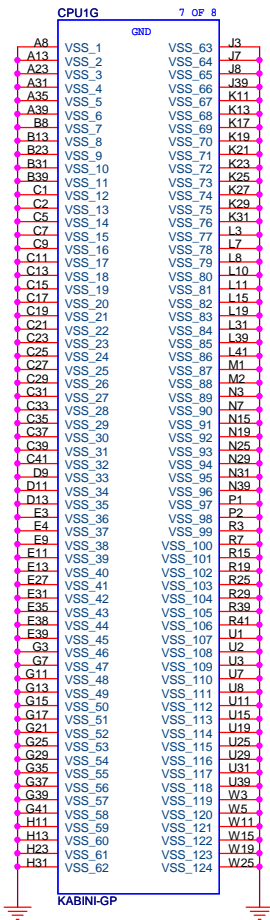


Follow Larne

DP_STEREO_SYNC & APU_HSYNC PU FOR INTERNAL

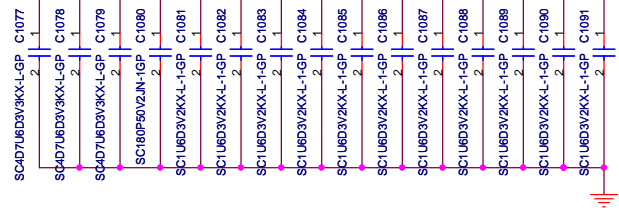
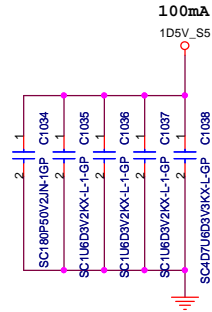
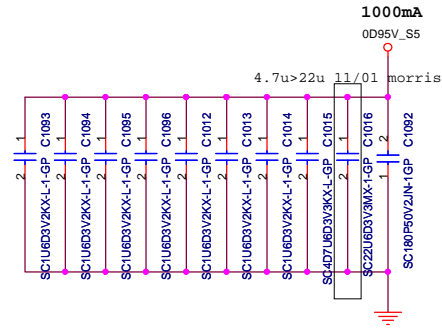
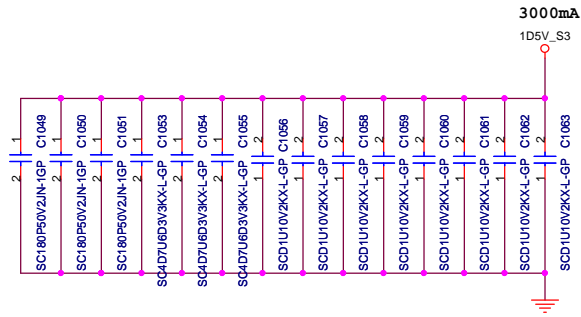
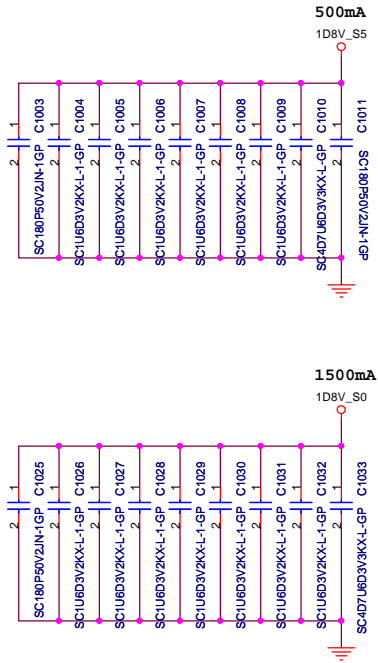
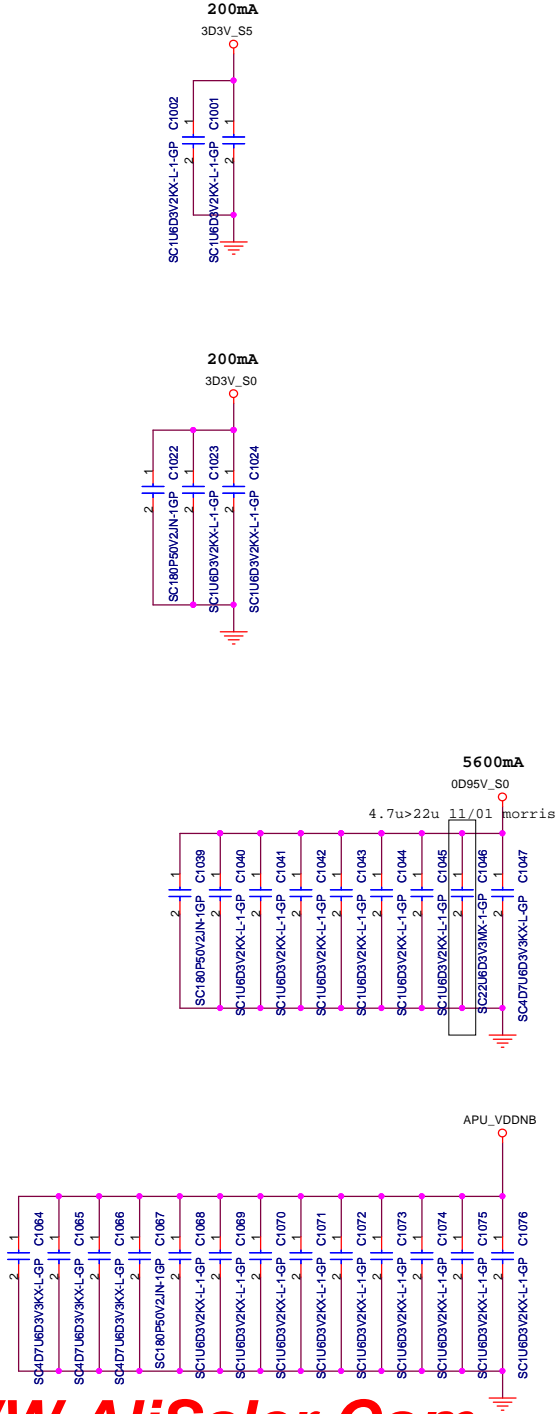
EAEG50 KB UMA

<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		
CPU VCC GFXCORE		
Size	Document Number	Rev
A4	KABINI	
Date:	Friday, September 07, 2012	Sheet 8 of 102



EAEG50 KB UMA

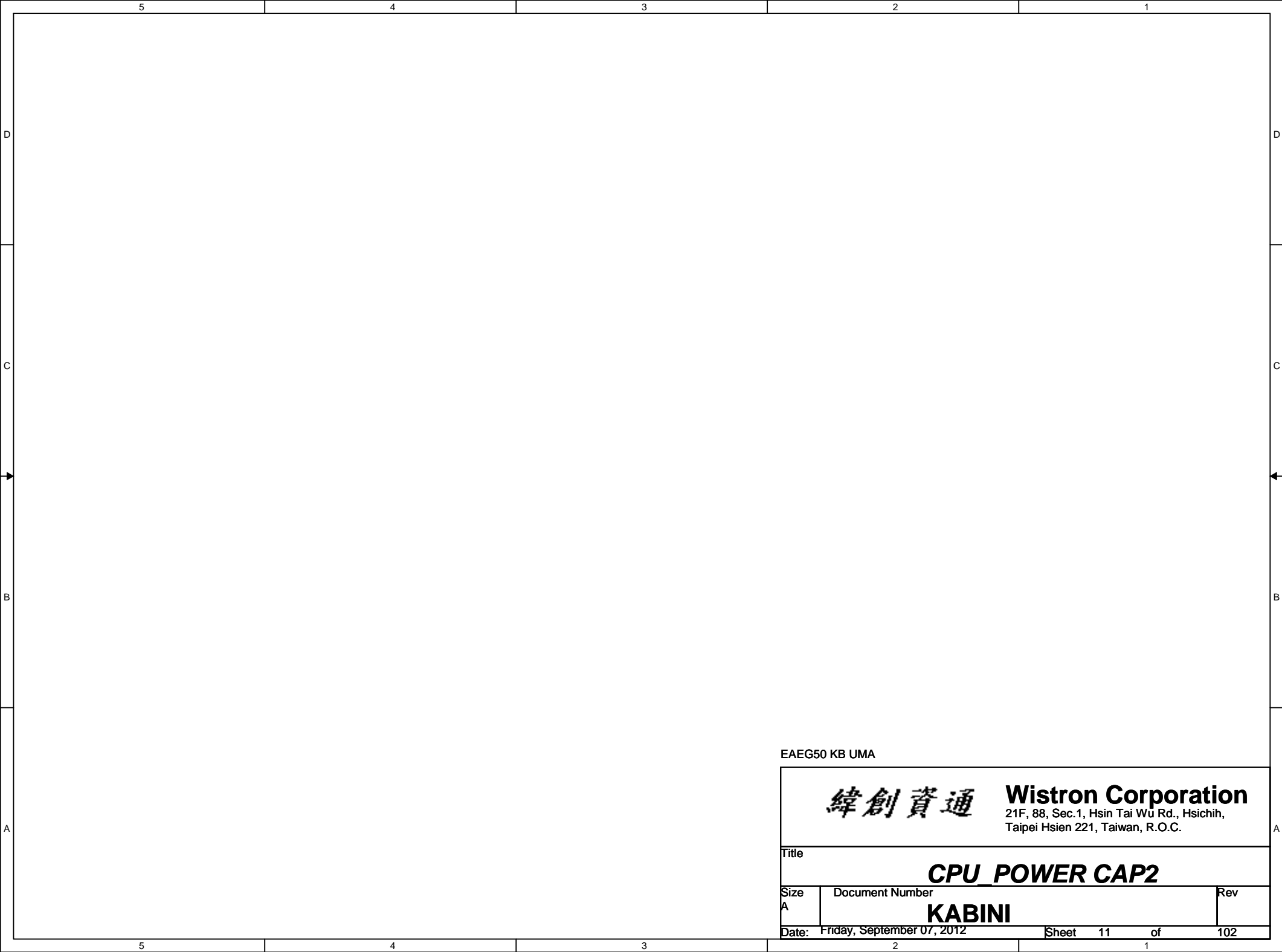
緯創資通 Wistron Corporation		
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title CPU VSS		
Size A3	Document Number KABINI	Rev
Date: Wednesday, November 28, 2012	Sheet 9 of	102

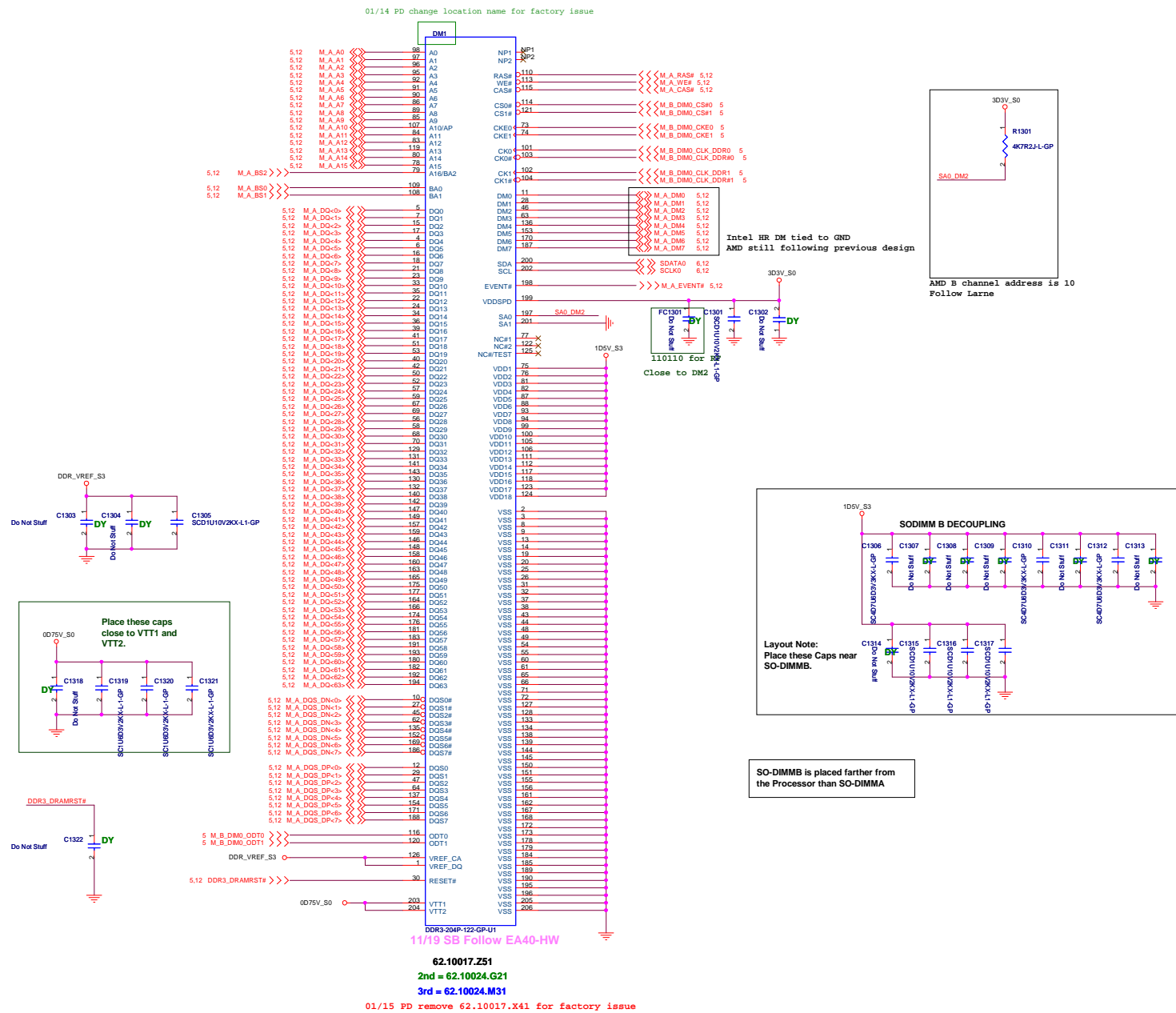


EAEG50 KB UMA

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

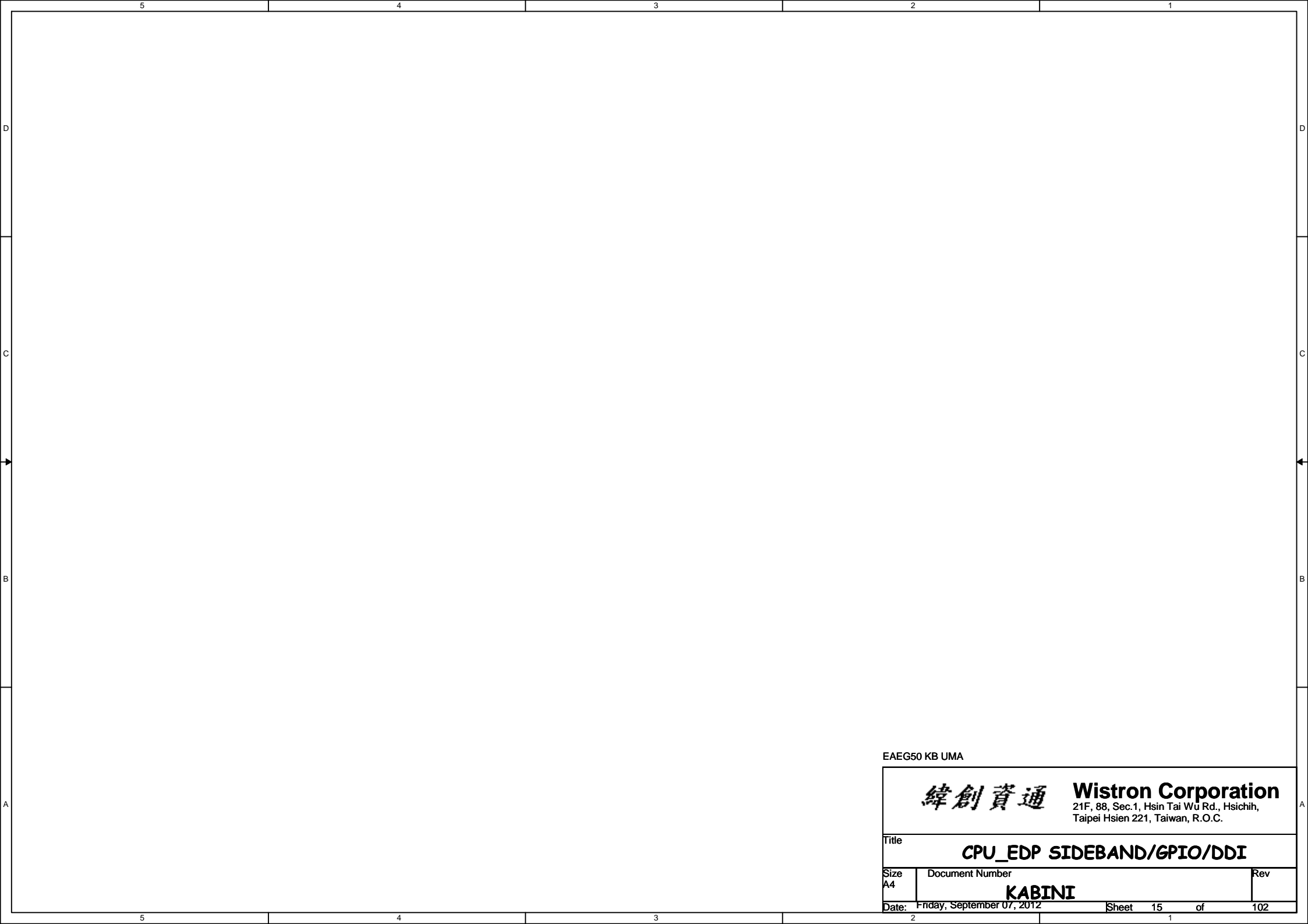
Title		
CPU POWER CAP1		
Size	Document Number	Rev
A3	KABINI	
Date:	1uesday, January 15, 2013	Sheet 10 of 102





EAEG50 KB UMA

<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 <div>DDR3 SODIMM 3</div>		
Size <div>A4</div>	Document Number <div>KABINI</div>	Rev
Date: Friday, September 07, 2012		Sheet 14 of 102



EAEG50 KB UMA

<div><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></div>		
TitleCPU_EDP SIDEBAND/GPIO/DDI		
SizeA4	Document NumberKABINI	Rev
Date: Friday, September 07, 2012	Sheet 15	of 102

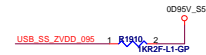
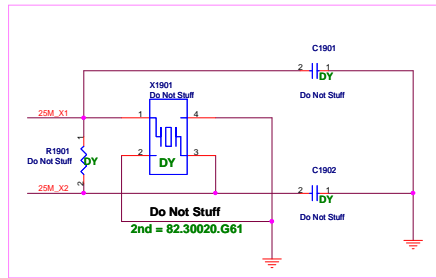
EAEG50 KB UMA

<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 <div>CPU PCIE/USB</div>		
Size <div>A4</div>	Document Number <div>KABINI</div>	Rev
Date: Friday, September 07, 2012		Sheet 16 of 102

5	4	3	2	1
D				
C				
B				
A				
EAEG50 KB UMA				
<div><div>緯創資通</div><div>Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div></div>				
Title				
CPU DMI/FDI/PM				
Size A	Document Number			Rev
KABINI				
Date: Friday, September 07, 2012		Sheet	17	of 102

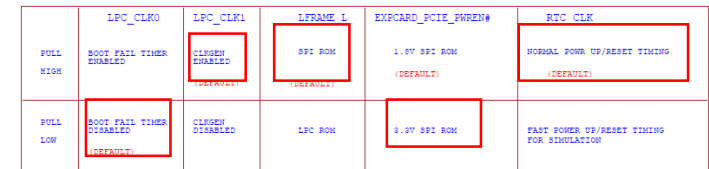
	5	4	3	2	1
D					D
C					C
B					B
A					A
<div>EAEG50 KB UMA</div> <div> <div> <div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div> </div> <div> <div>Title</div> <div>CPU_PCIE/SMBUS/CLK/CL/SPI</div> </div> <div> <div>Size A</div> <div>Document Number</div> <div>Rev</div> </div> <div> <div>Date: Friday, September 07, 2012</div> <div>Sheet 18 of 102</div> </div> </div>					

0	HDD
1	ODD



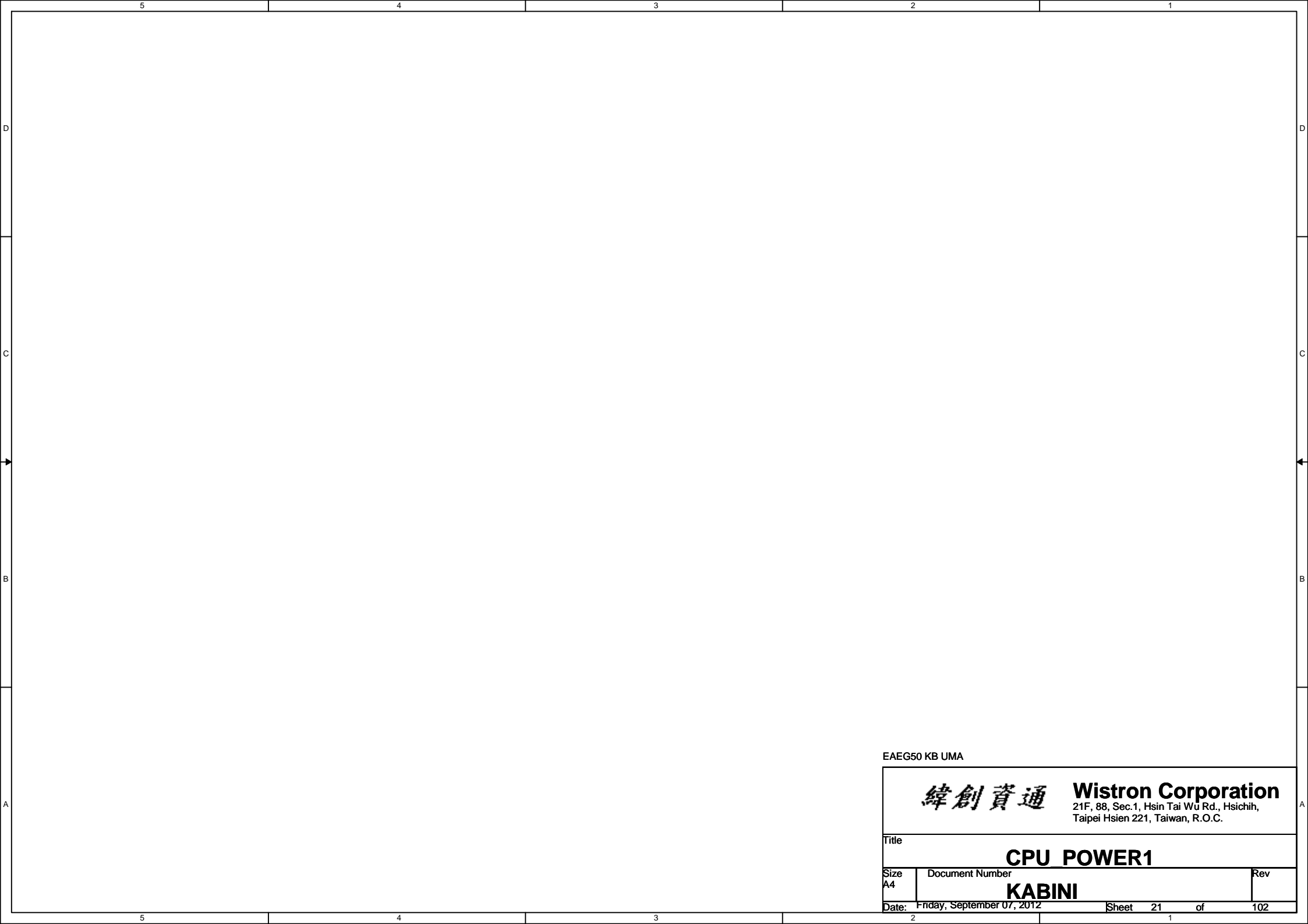
Pair	Device
0	USB2.0 Debug (DB Conn)
1	USB2.0 (DB Conn)
2	Touch Panel
3	
4	CCD (CCD Conn)
5	WLAN + BT (Mini PCI-E)
6	
7	
0/8	USB3.0 & USB 2.0 Charger (MB)
1/9	

		CLK
0	System & USB	48M
1	RTC	32.768K
2	SATA	25M
3	LAN	25M
4	VGA	27M



EAEG50 KB UMA

<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		
CPU GPIO/MISC		
Size	Document Number	Rev
A4	KABINI	
Date:	Friday, September 07, 2012	Sheet 20 of 102

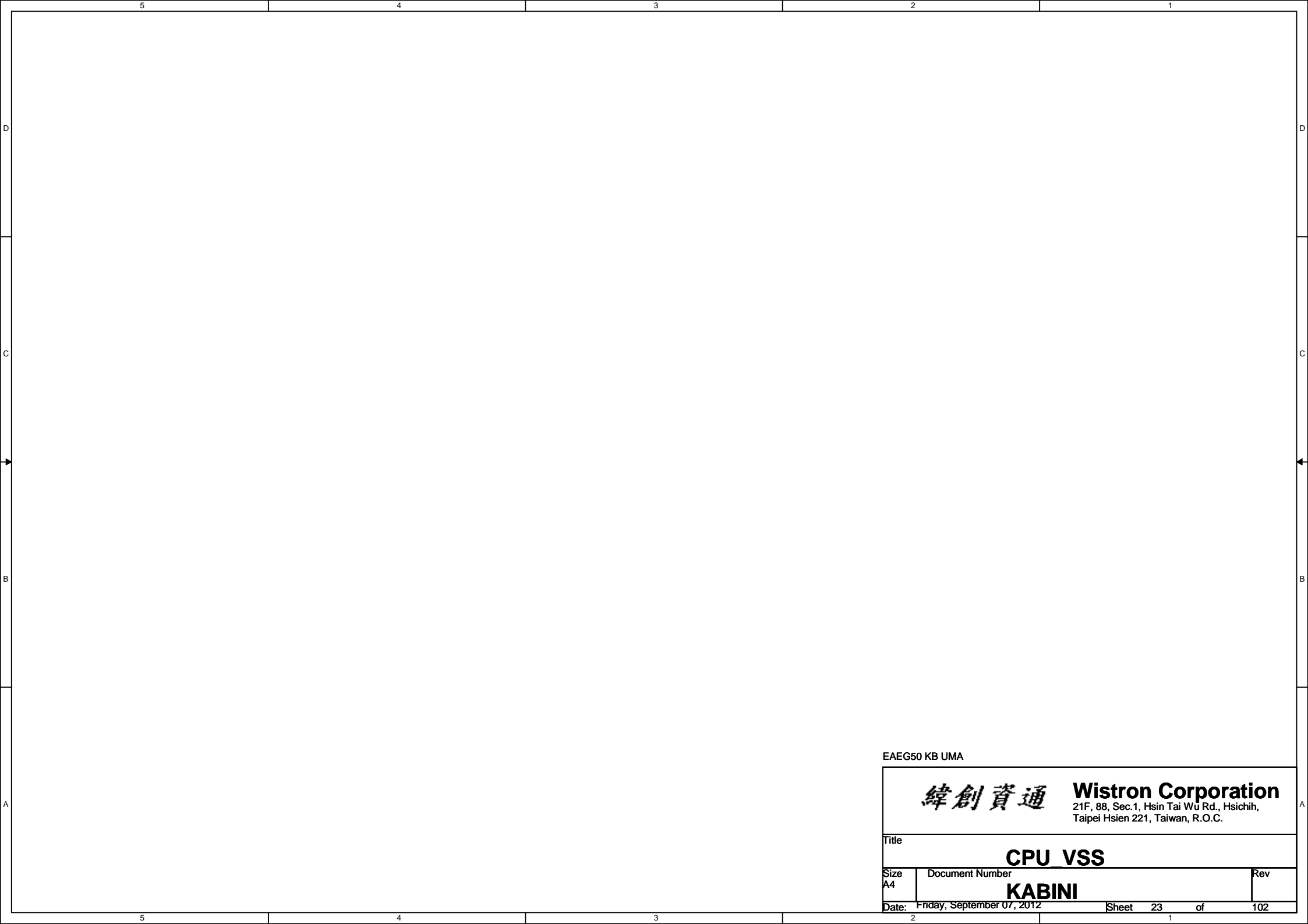


EAEG50 KB UMA

<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					
CPU POWER1					
Size	Document Number		Rev		
A4	KABINI				
Date:	Friday, September 07, 2012		Sheet 21 of 102		

EAEG50 KB UMA

<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		
CPU RSVD		
Size	Document Number	Rev
A4	KABINI	
Date:	Friday, September 07, 2012	Sheet 22 of 102

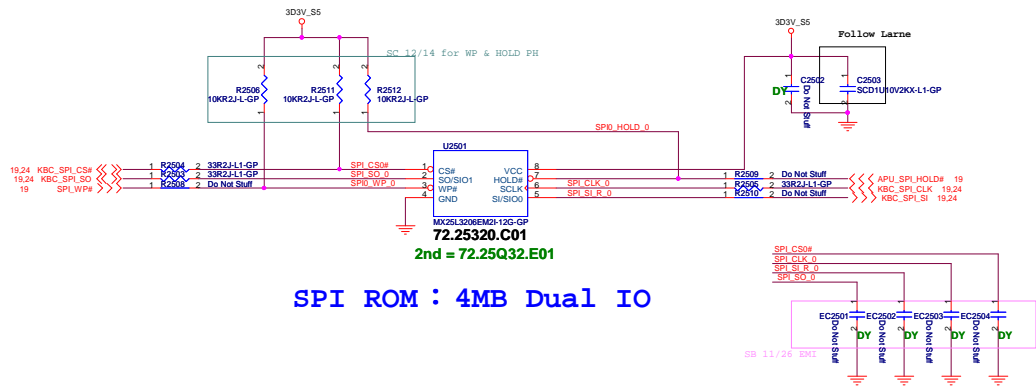


EAEG50 KB UMA

<div><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></div>	
Title	
CPU VSS	
Size	Document Number
A4	KABINI
Date	Rev
Friday, September 07, 2012	
Sheet	23 of 102

SSID = Flash.ROM SPI FLASH ROM (4M byte) for KBC

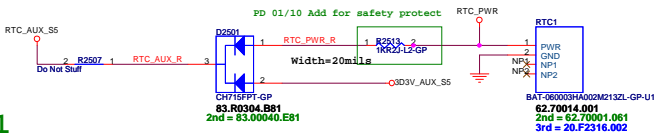
PD 1/28 SPI ROM : 4MB Dual IO
1st. MXIC : 72.25320.C01
2nd. WINBOND : 72.25Q32.E01
(手置件)請PCC移至DIP件



SPI ROM : 4MB Dual IO

SSID = RBAT

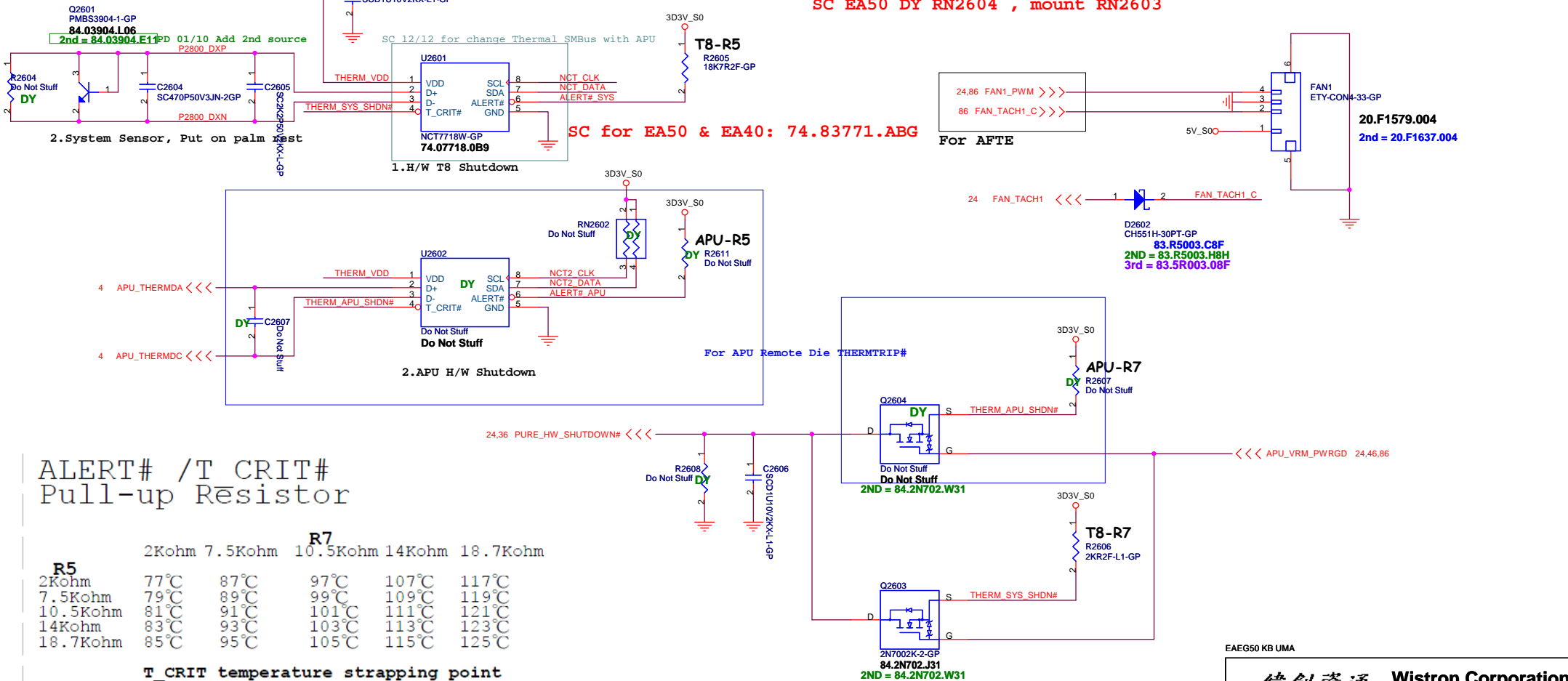
CR2032額外備料:
1.KTS: 23.20068.001
2.DBV: 23.22065.001



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

	R7				
	2Kohm	7.5Kohm	10.5Kohm	14Kohm	18.7Kohm
R5					
2Kohm	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

EAEG50 KB UMA

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 Controllor P2793
-------	--

Size	Project Name KABINI	Rev SA
Date: Monday, February 04, 2013	Sheet 26 of 102	

Rev
SA

5

4

3

2

1

D

D

C

C

B

B

A

A

EAEG50 KB UMA

緯創資通

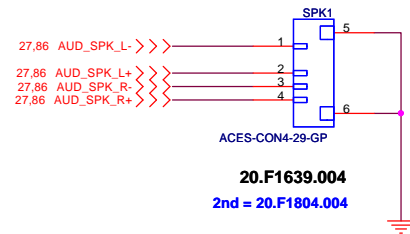
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			AMP ALC1001		
Size	Project Name				Rev
	KABINI				SA
Date: Friday, September 07, 2012			Sheet 28 of 102		

SSID = AUDIO

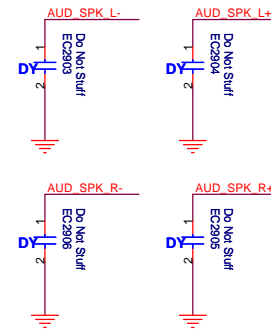
Speaker

2W 4ohm X 2 speaker

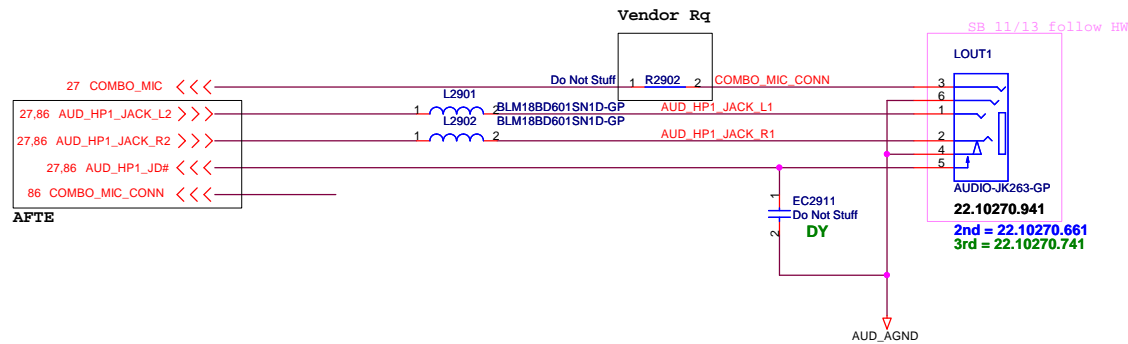


Layout Note:

Trace width=40mil



Combo Jack



EAEG50 KB UMA

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

Title		Audio Jack	
Size	Project Name	KABINI	
Date: Monday, February 04, 2013	Sheet 29 of 102	Rev	SA

Power-On-Strapping Table

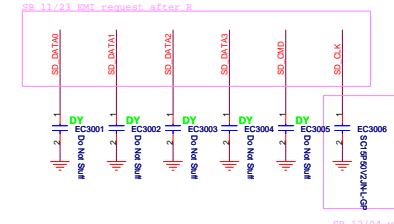
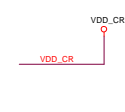
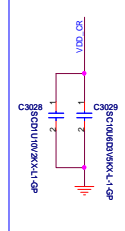
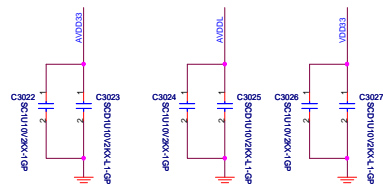
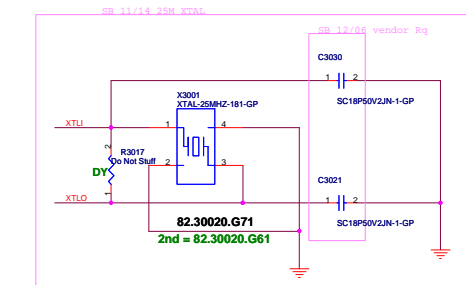
Pin	Description
LED[1]	1 Switch mode regulator (SWR) select 0 Linear regulator (LDO) select
LED[3]	1 25MHz clock input 0 48MHz clock input
[CRIO14, CRIO7]	10 1. Support xD, not support SPI. 2. Can support PPS, PPS at LED[0] or LED[1] or LED[2] which is selected by eFuse.
	01 1. Support SPI, not support xD. 2. Can support PPS, PPS at LED[0] or LED[1] or LED[2] which is selected by eFuse.
	11 1. Not support xD, not support SPI. 2. Only Support PPS, PPS always at CRIO13.

PPS is used for IEEE 1588 timing synchronization and is an output pin to output an accurate 1Hz clock. Currently this pin can be floating.

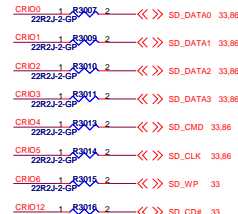
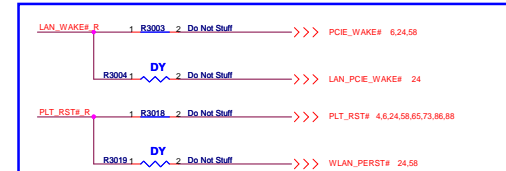
Check!!

ISOLATn is active low to isolate the whole chip to place in lowest power consumption mode.

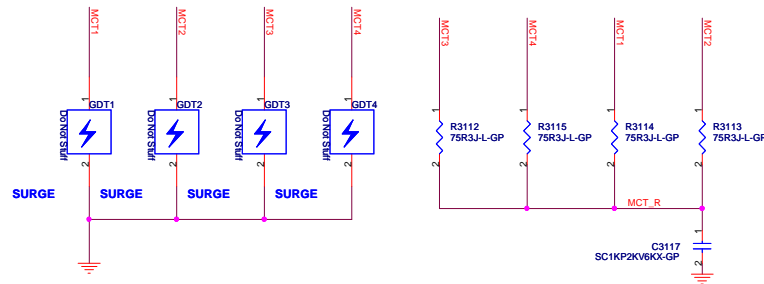
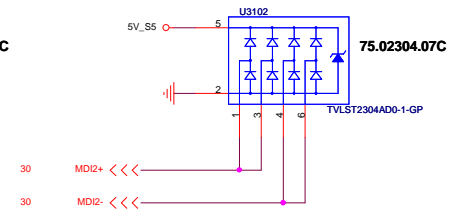
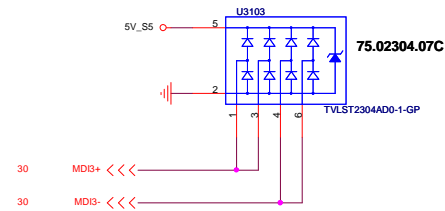
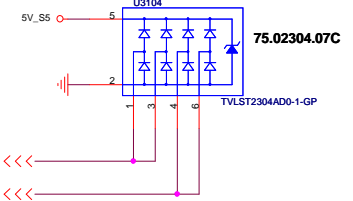
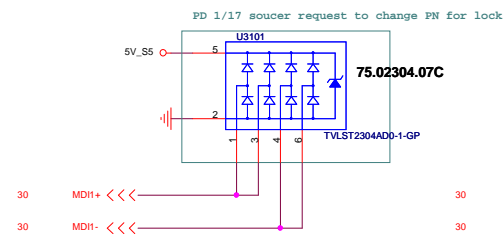
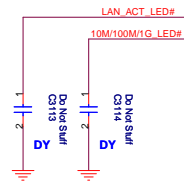
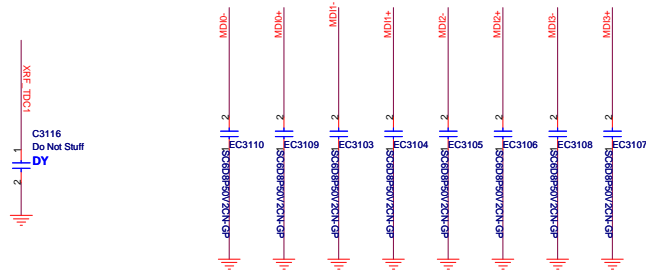
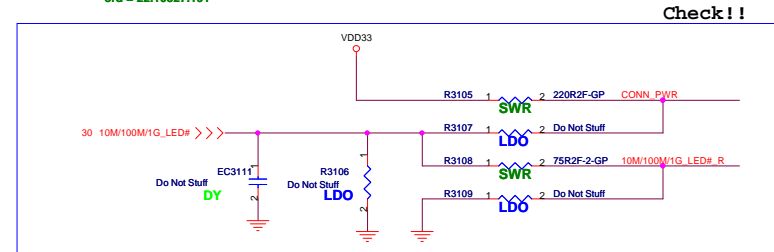
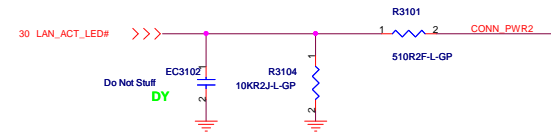
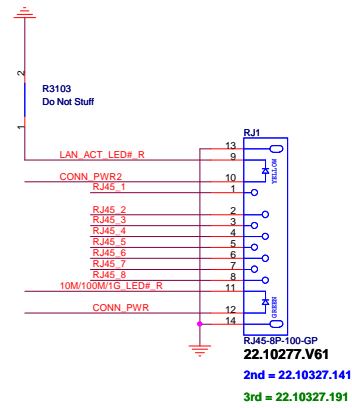
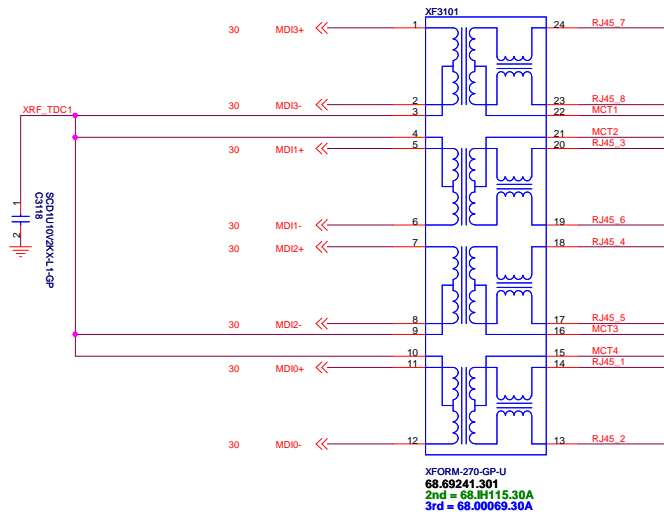
place at chip side FAE suggest



系統端已PH



SSID = LAN



```

86 RJ45_1 >>>_____
86 RJ45_2 >>>_____
86 RJ45_3 >>>_____
86 RJ45_4 >>>_____
86 RJ45_5 >>>_____
86 RJ45_6 >>>_____
86 RJ45_7 >>>_____
86 RJ45_8 >>>_____

86 LAN_ACT_LED#R >>>_____
86 10M/100M1G_LED#R >>>_____
86 CONN_PWR >>>_____
86 CONN_PWR2 >>>_____

```

For AFTE

Check!!

PD 1/17 soucer request to change PN for lock

75.02304.07C

LST2304AD0-1-GP

75.02304.07C

75.02304.07C

EAEG50 KB UMA

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

Title			
LAN CONNECTOR			
Size	Project Name		Rev
	KABINI		SA
Date:	Monday, February 04, 2013		Sheet 31 of 102

5

4

3

2

1

D

D

C

C

B

B

A

A

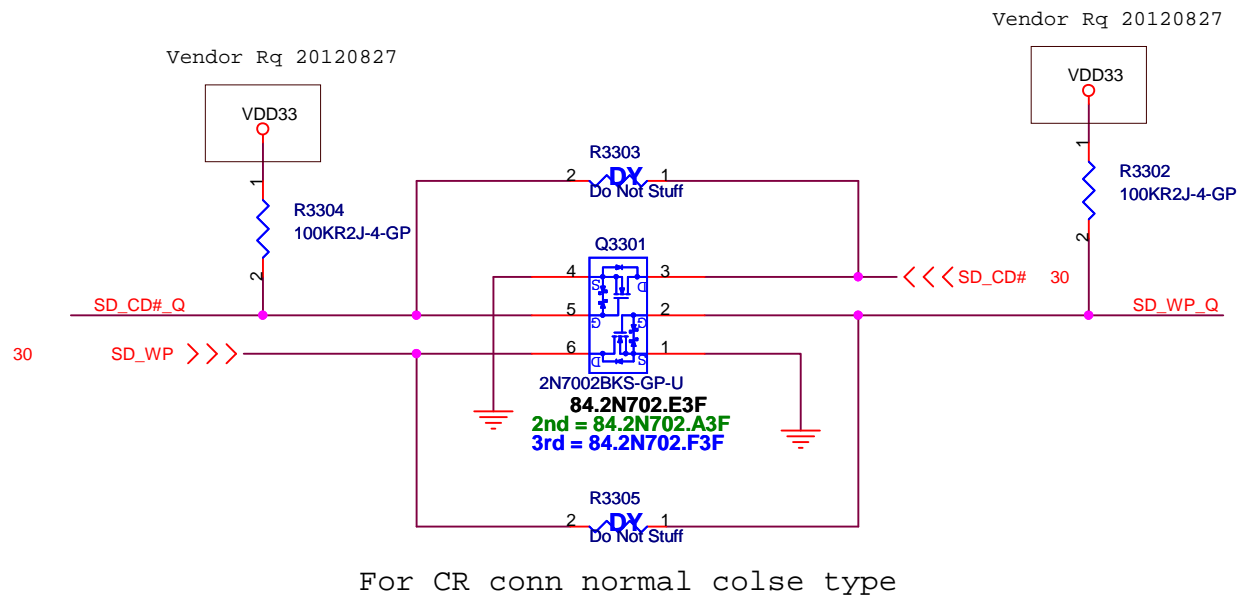
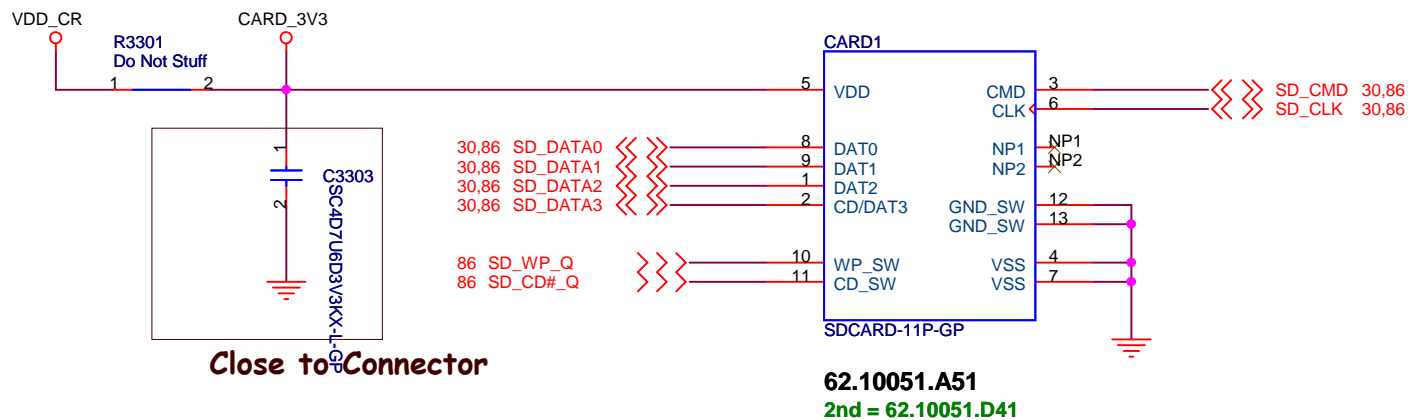
WWW.AliSaler.Com

EAEG50 KB UMA

<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					
Card Reader IC					
Size	Project Name		Rev		
	KABINI		SA		
Date:	Friday, September 07, 2012		Sheet 32 of 102		

SSID = SDIO

SD//MS Card Reader



EAEG50 KB UMA

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

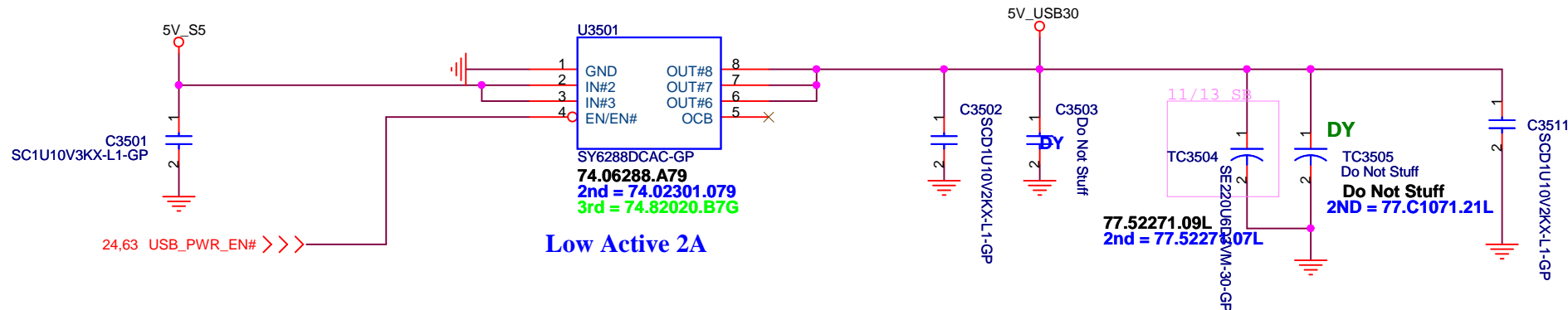
KABINI

Rev

SA

Date: Monday, February 04, 2013

Sheet 33 of 102



EAEG50 KB UMA

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

KABINI

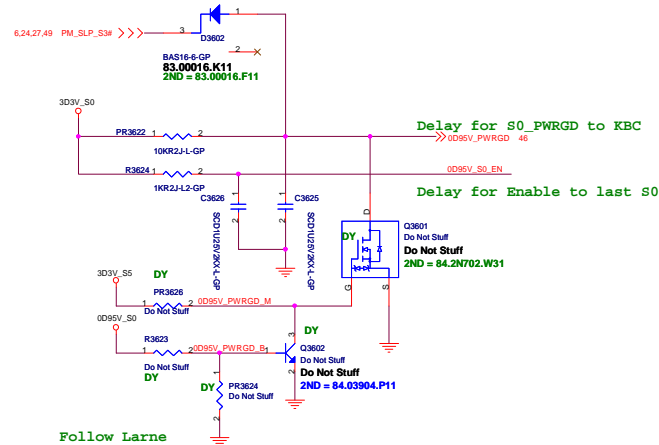
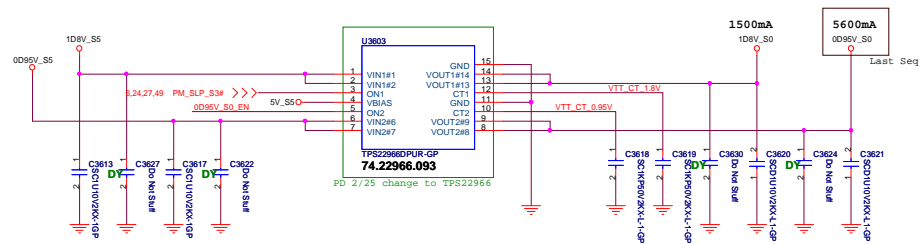
Rev

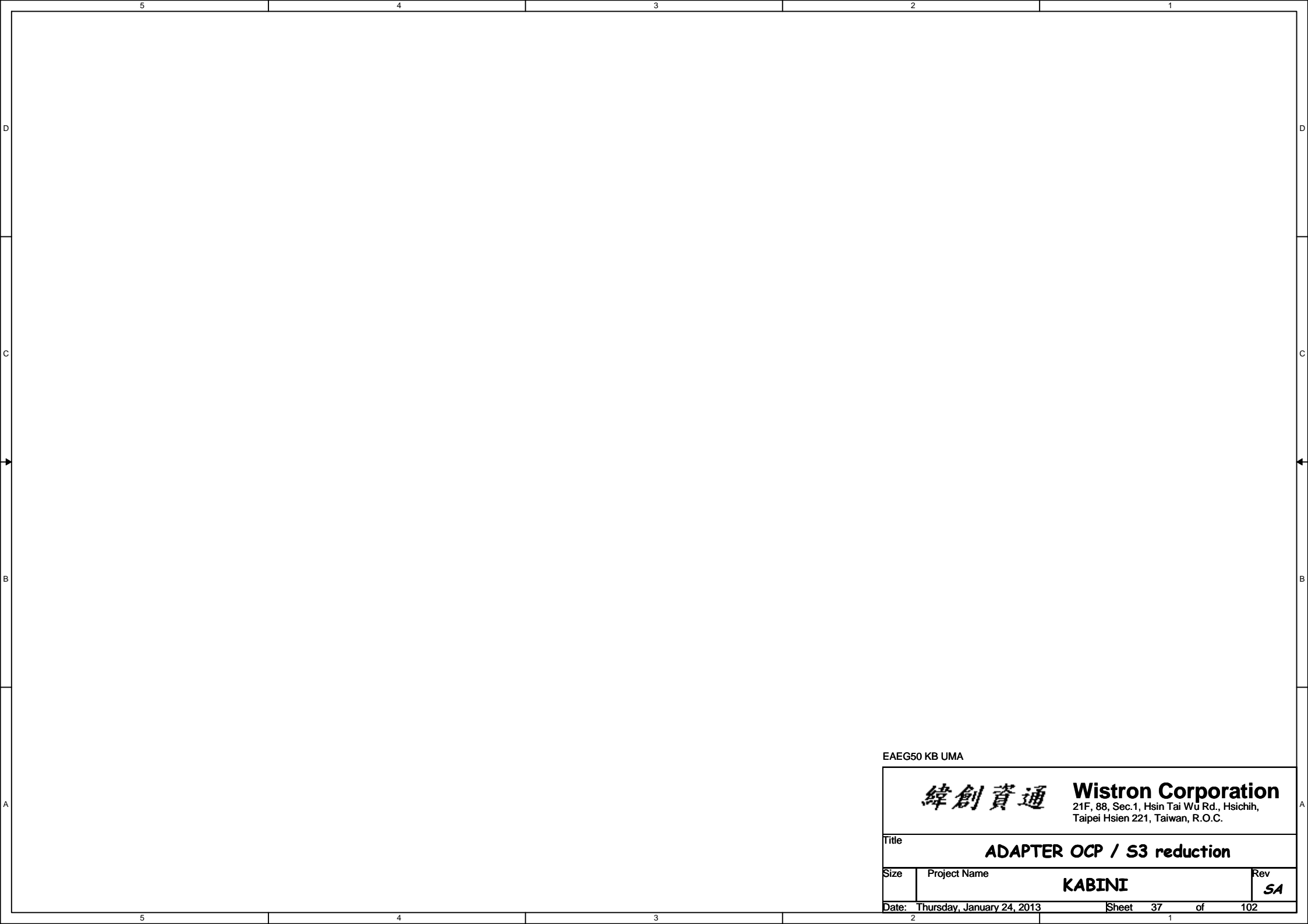
SA

Date: Monday, February 04, 2013


Sheet 35 of 102

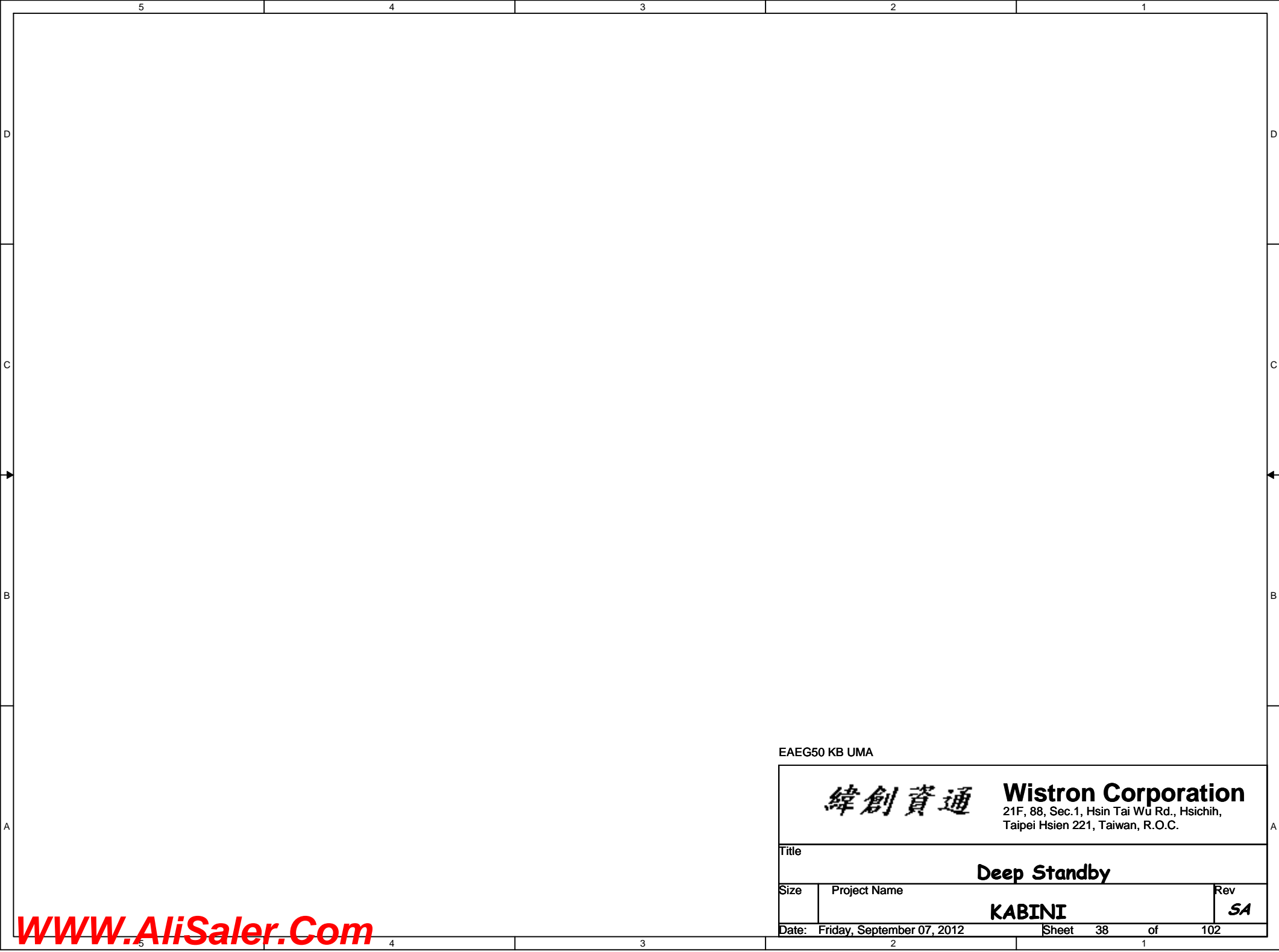
WWW.AliSaler.Com





EAEG50 KB UMA

		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 KABINI		Rev SA
Date: Thursday, January 24, 2013		Sheet	37 of 102



EAEG50 KB UMA

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		Rev
	KABINI		SA
Date:	Friday, September 07, 2012		Sheet 38 of 102

	5	4	3	2	1
D					D
C					C
B					B
A					A
	5	4	3	2	1

EAEG50 KB UMA

<div> <div>緯創資通</div> <div> Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C. </div> </div>	
Title	
1D05_M	
Size	<div>Project Name</div> <div>KABINI</div>
	<div>Rev</div> <div>SA</div>
Date:	<div>Friday, September 07, 2012</div> <div> Sheet 39 of 102 </div>

5

4

3

2

1

D

D

C

C

B

B

A

A

EAEG50 KB UMA

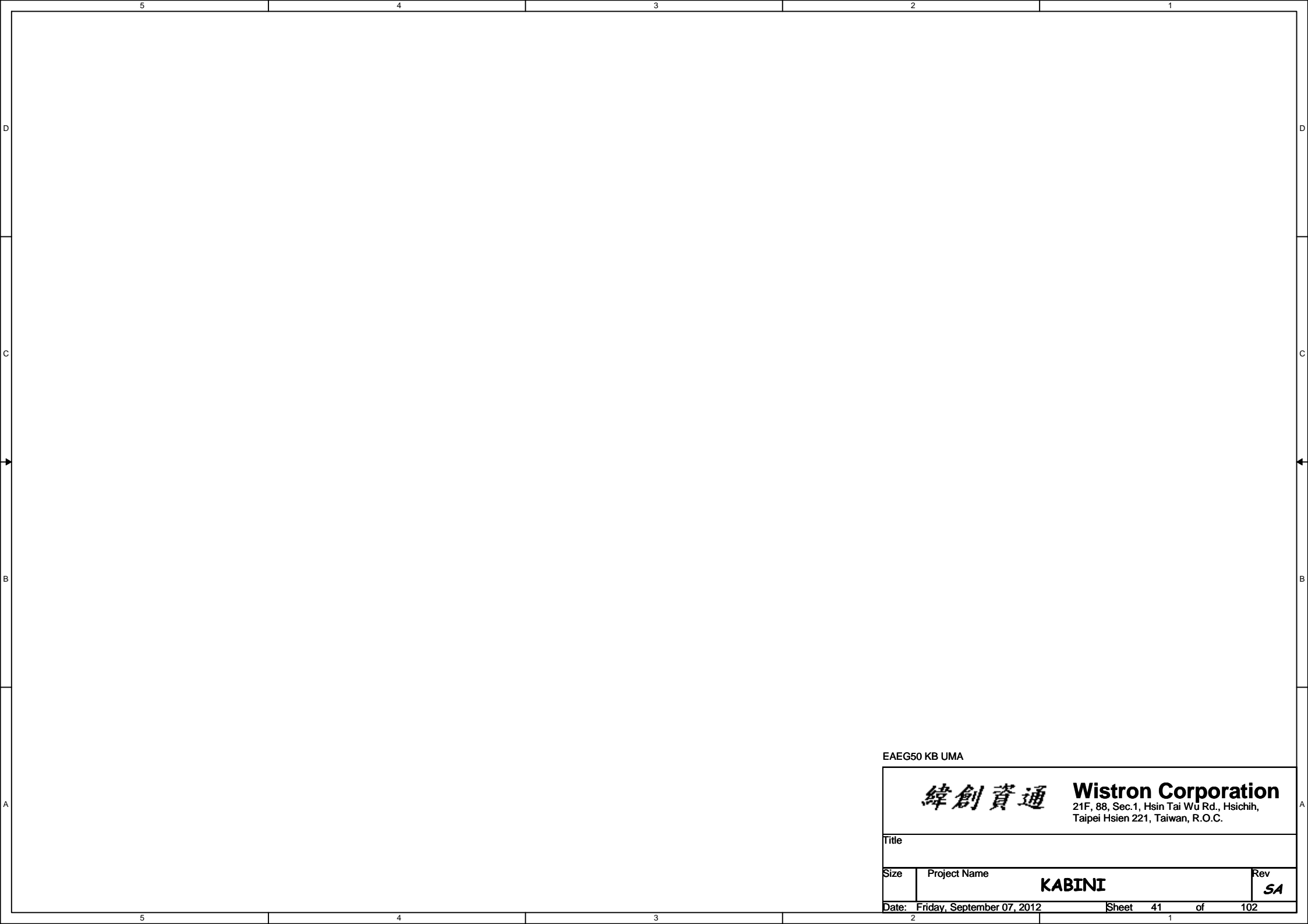
緯創資通

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

Title

Size	Project Name	Rev
	KABINI	SA

Date: Friday, September 07, 2012 Sheet 40 of 102

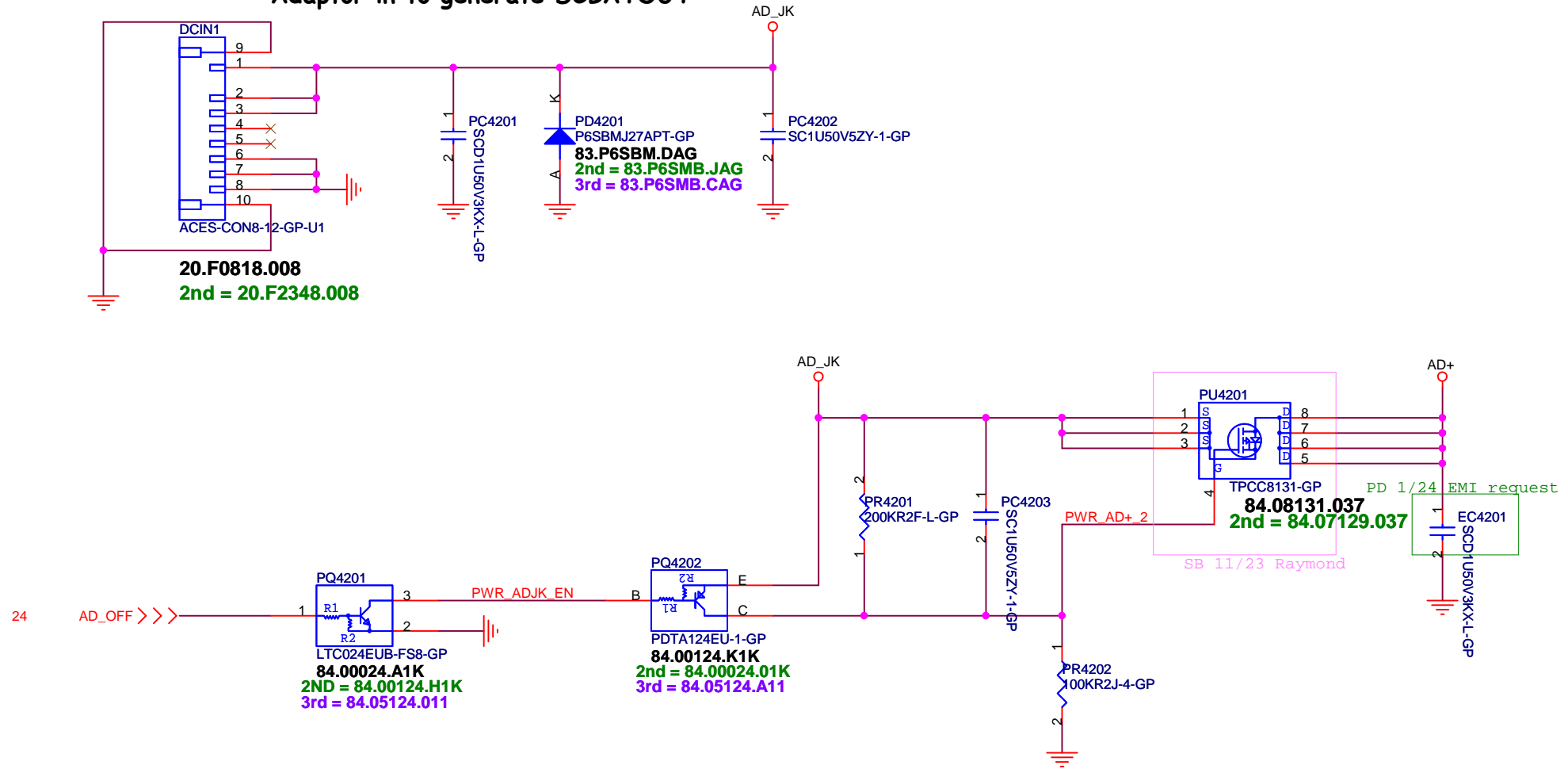


EAEG50 KB UMA

<div><div>緯創資通</div><div>Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div></div>		
Title		
Size	Project Name	Rev
	KABINI	SA
Date: Friday, September 07, 2012		Sheet 41 of 102

ANNIE solution

Adaptor in to generate DCBATOUT



EAEG50 KB UMA

緯創資通

Wistron Corporation

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

Title

DCIN JACK

Size

Project Name

KABINI

Rev

SA

Date: Tuesday, February 19, 2013

Sheet 42 of 102

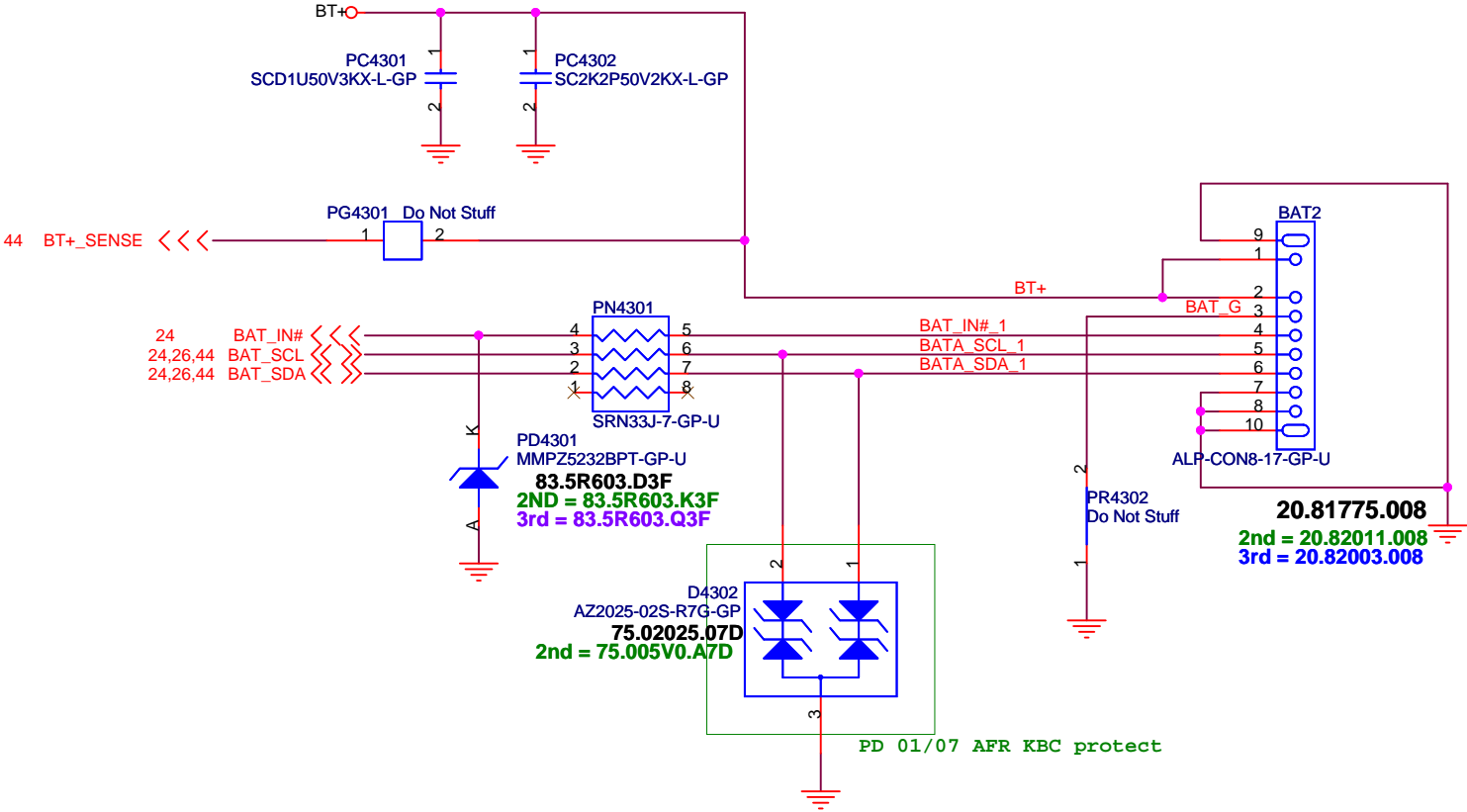
2

1

BATTERY CONNECTOR

86	BATA_SDA_1	>>>	_____
86	BATA_SCL_1	>>>	_____
86	BAT_IN#_1	>>>	_____
86	BAT_G	>>>	_____

For AFTE



EAEG50 KB UMA

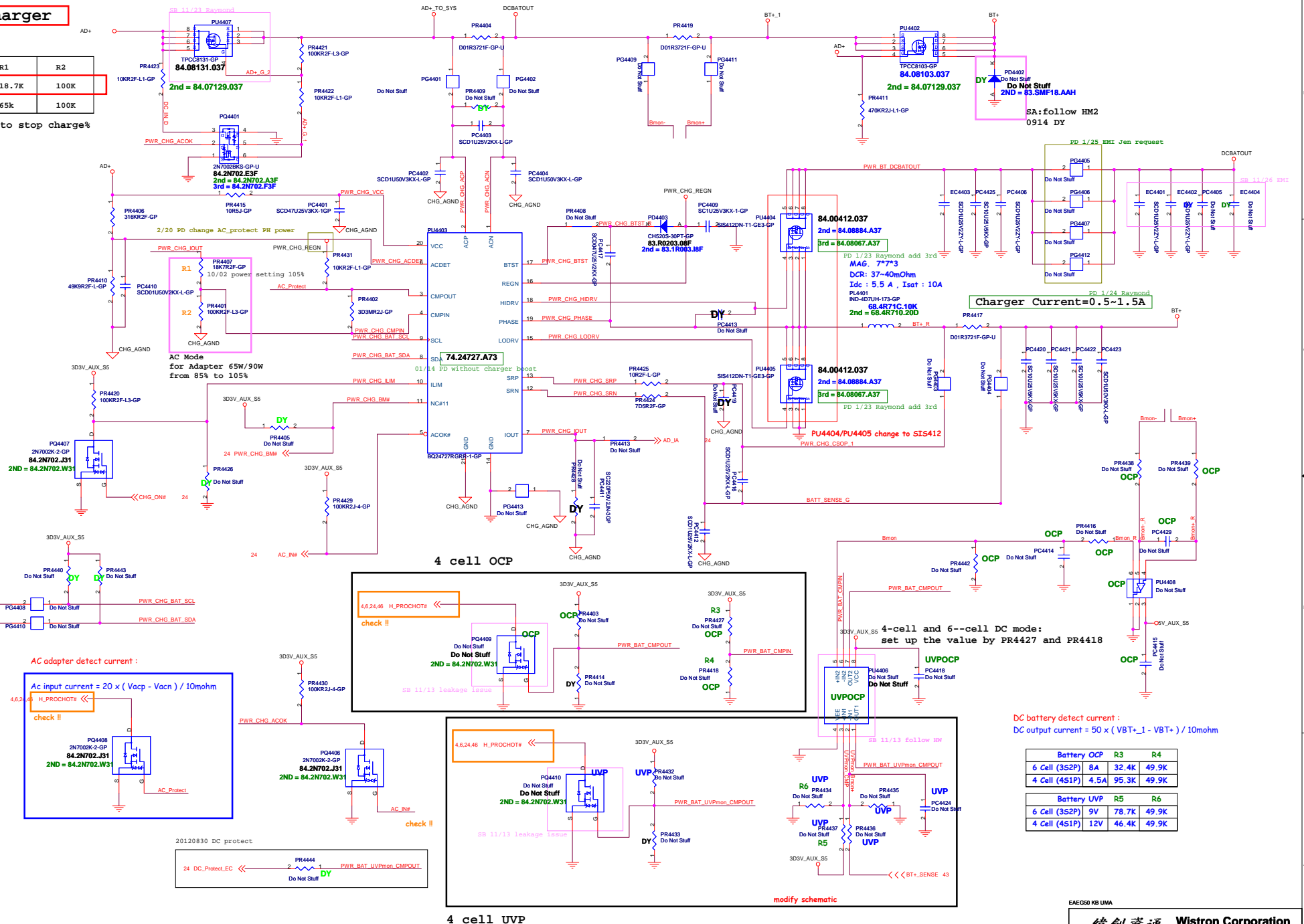
緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title			
BATT CONN			
Size	Project Name		Rev
	KABINI		SA
Date: Wednesday, February 20, 2013		Sheet	43 of 102

SSID = Charger

PR4407,PR4401

AD+ total power	R1	R2
65w 105%	18.7K	100K
90w	65k	100K

Change the table to stop charge%



Battery OCP	R3	R4
6 Cell (3S2P)	8A	32.4K
4 Cell (4S1P)	4.5A	95.3K

Battery UVP	R5	R6
6 Cell (3S2P)	9V	78.7K
4 Cell (4S1P)	12V	46.4K

EAEG0 KB UMA

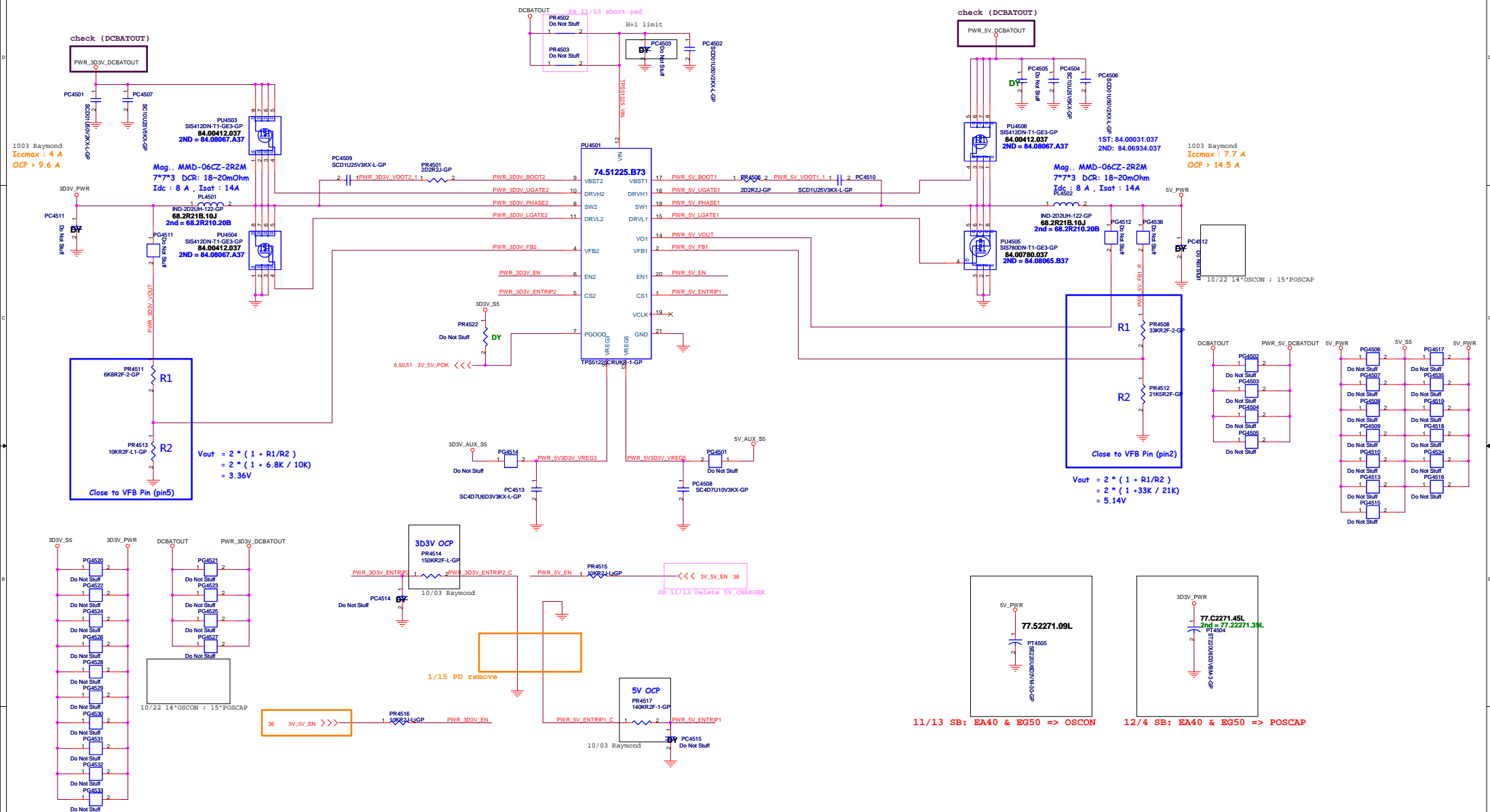
緯創資通 Wistron Corporation
21F, 8B, Sec.1, Hsin Tai Wu Rd., Hsuehshui, Taipei Hsien 221, Taiwan, R.O.C.

CHARGER BQ24737		
File	KABINI	
Size	Document Number	Rev
A2		
Date	Wednesday, February 20, 2013	Sheet 44 of 102

Cut off itself

check (UVP)

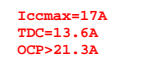
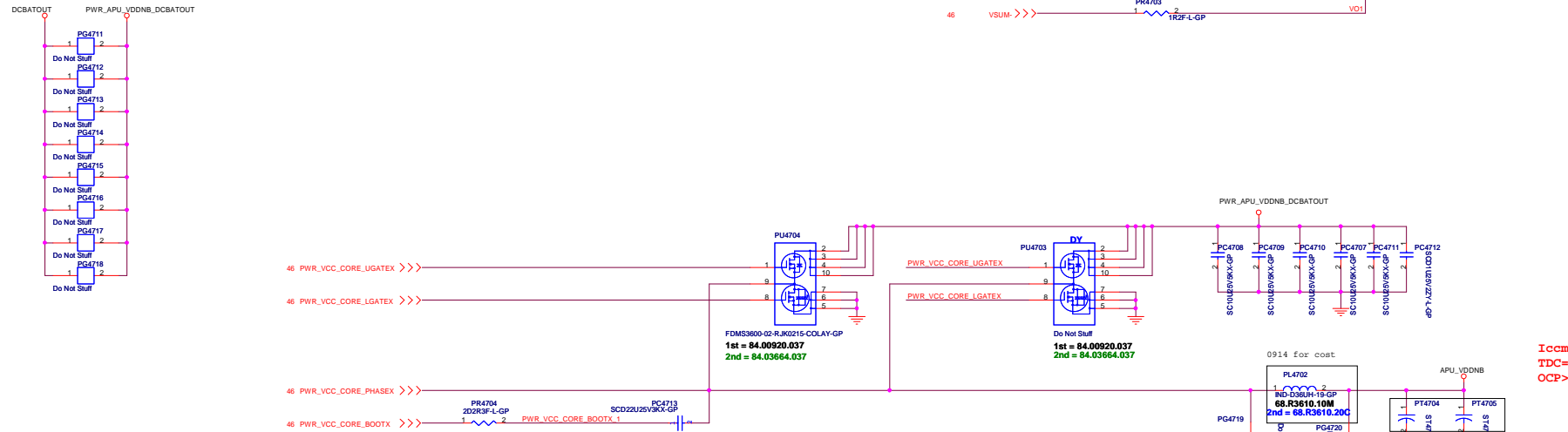
```
check (DCBATOUT)
```



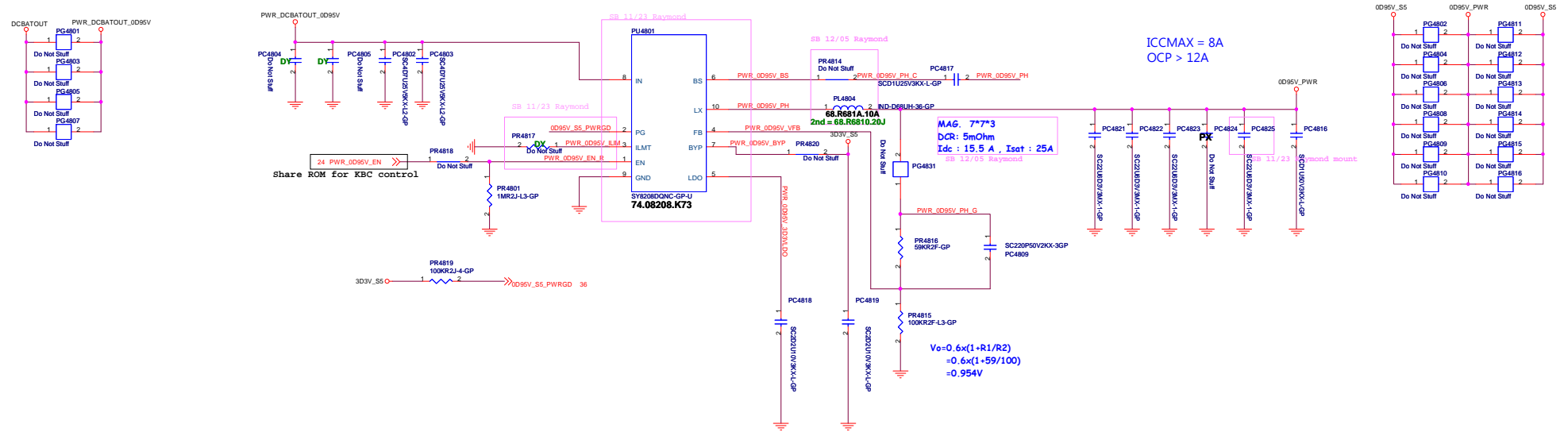
EAEG50 KB UMA

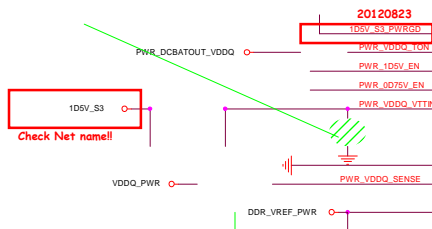
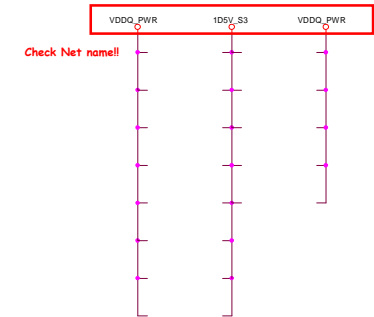
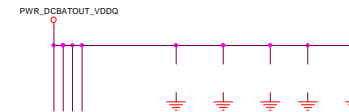
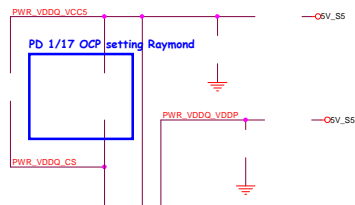
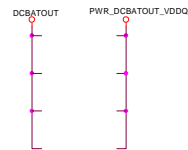
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			
TPS51225 5V/3D3V			
Size A2	Document Number		Rev
	KABINI		
Date:	Monday, February 04, 2013	Sheet 45 of	102

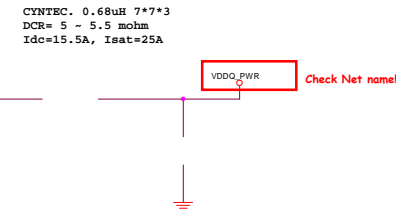
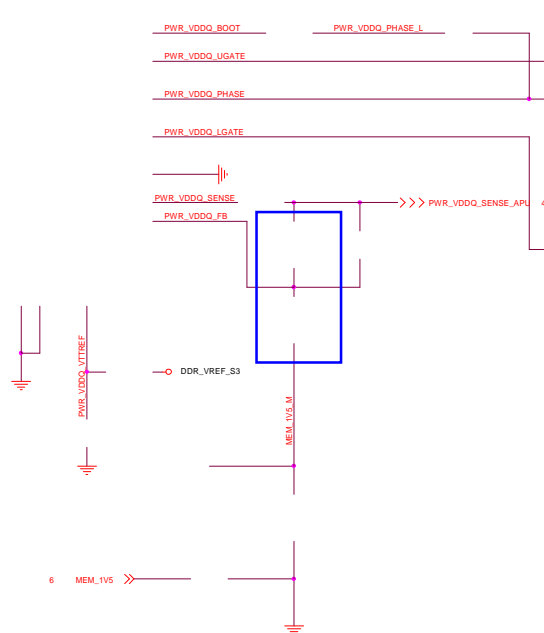
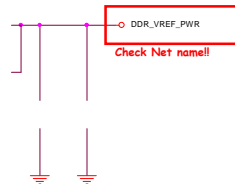


SY8208D for 0D95V

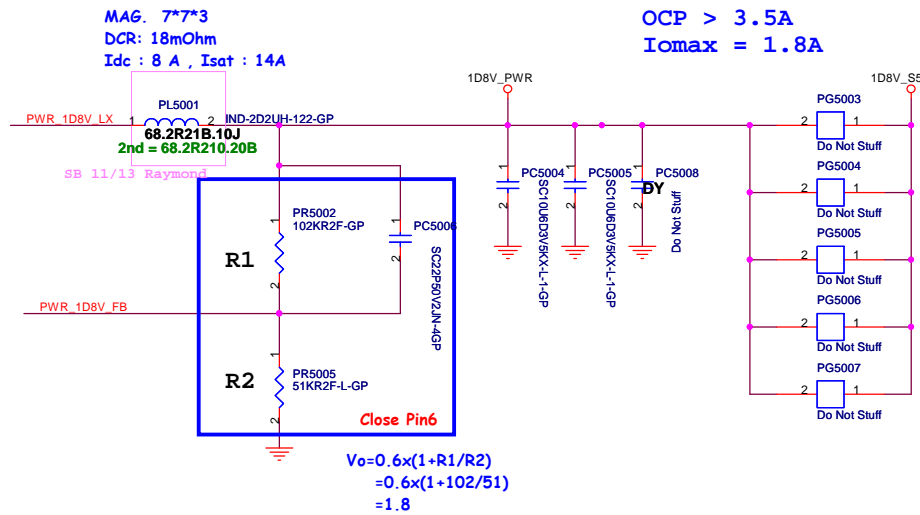
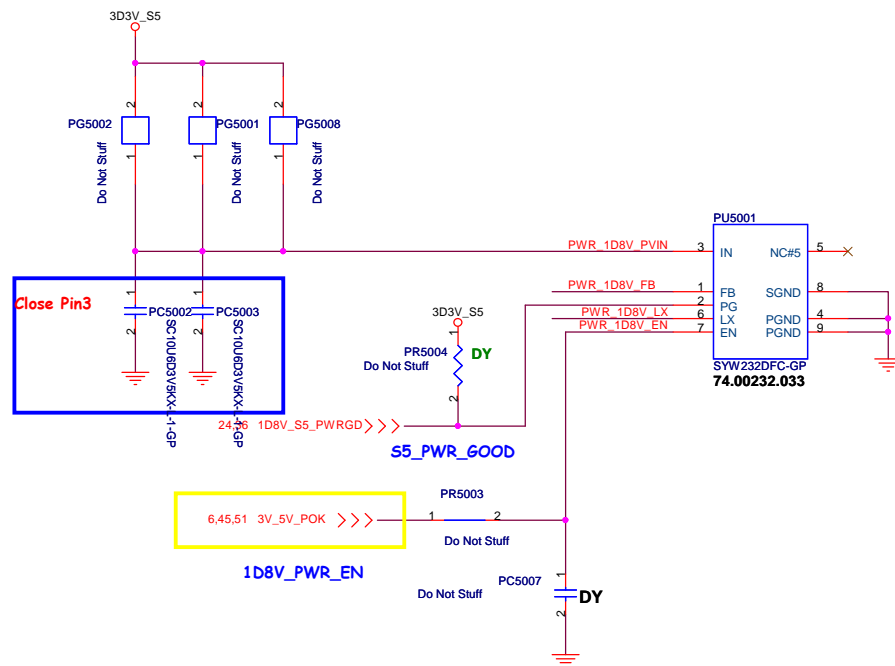




Iomax=1A
OCP>1.5A
Close to output cap pin1, not
inside of the output cap



```
SSID = PWR.Plane.Regulator_1p8v
```



EAEG50 KB UMA

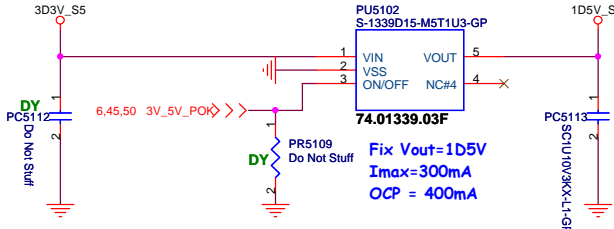
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	1D8V_S0 SYW232
-------	----------------

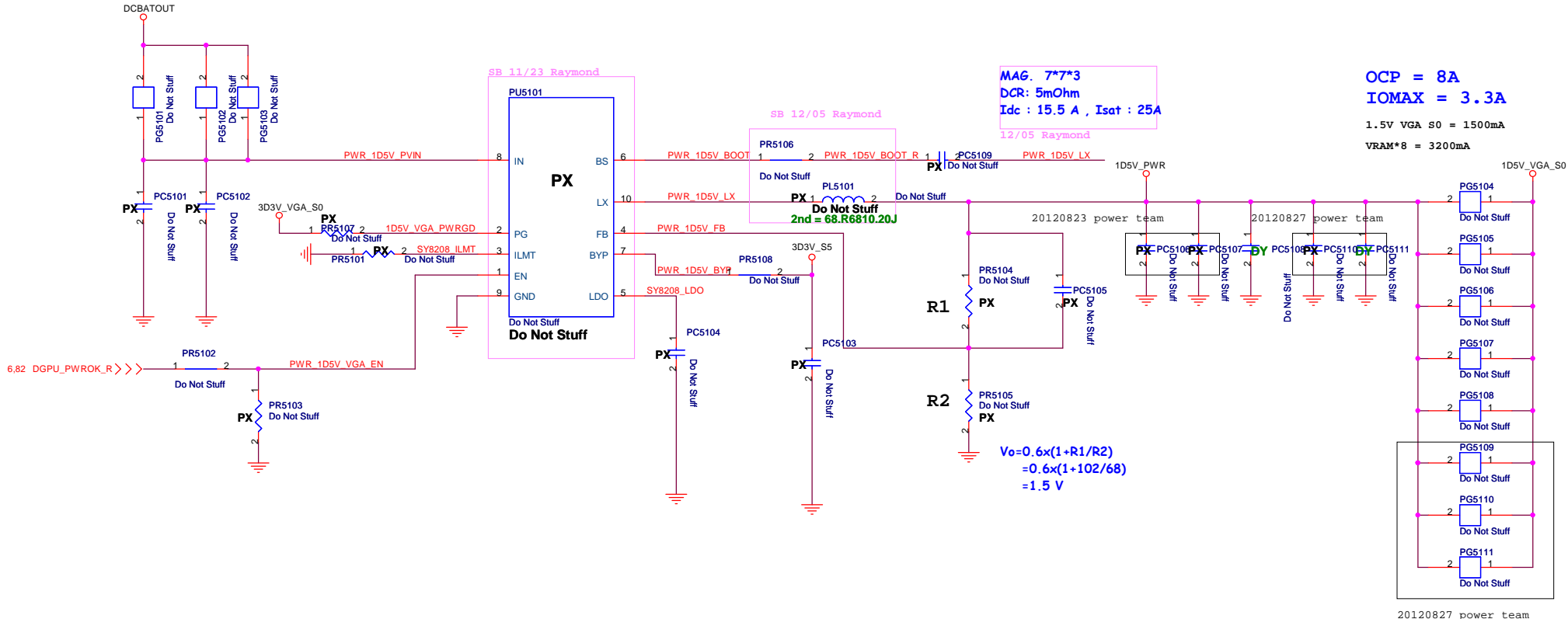
Size A3	Document Number KABINI	Rev
------------	----------------------------------	-----

Date: Monday, February 04, 2013 Sheet 50 of 102

LDO for 1D5V_S5 (SB 11/13)

$$1.5V \text{ S0} = 100mA(VDDIO_AZ) + 100mA(Audio) + 600mA(Minicard \text{ DY}) = 200mA$$


SY8208D for 1D5V_VGA_S0 (SB 11/13)



20120827 power team

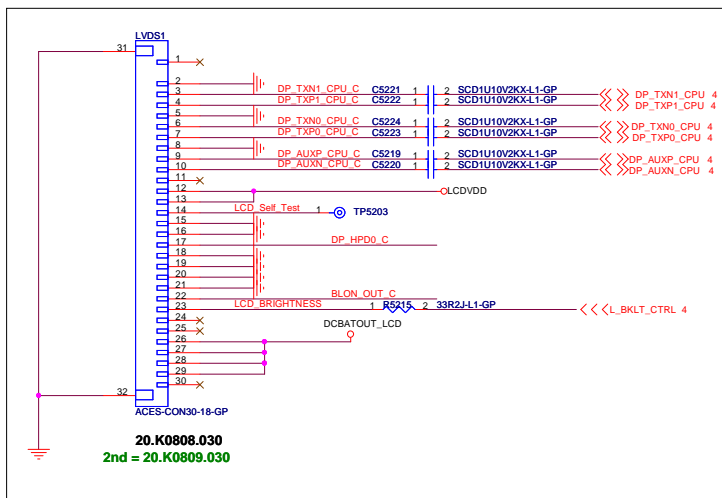
EAEG50 KB UMA

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 SY8208D			
Size	Document Number					Rev	
A3	KABINI						
Date:	Tuesday, February 19, 2013			Sheet	51	of	102

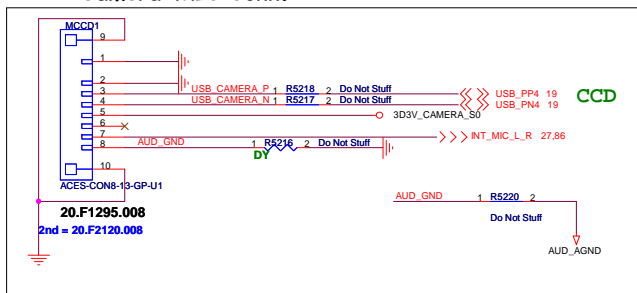
SSID = VIDEO

eDP Conn.



10/04 change to 20.K0808.030 for ME request

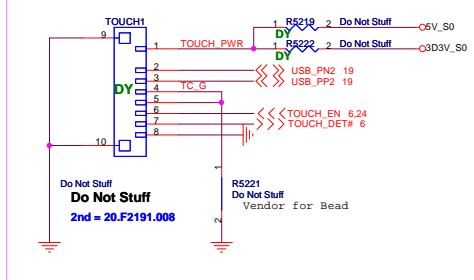
Camera+MIC Conn.



10/03 change to 8pin for del DMIC

10/15 change to 20.F1295.008 follow HW

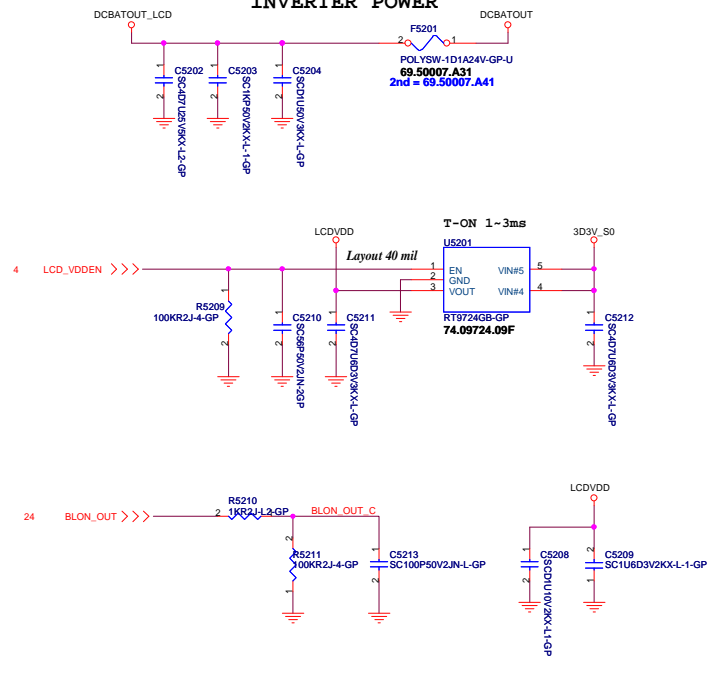
Touch Conn.



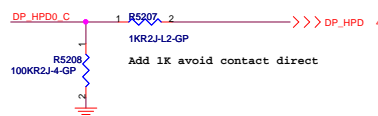
SB 12/12 DUMMY for ME issue

SC NO support

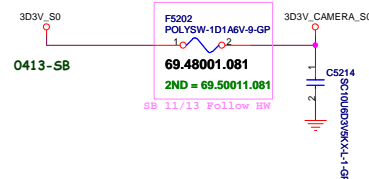
INVERTER POWER



EDP HPD High active



Camera Power



86 AUD_GND <<<

86 DP_HP00_C >>>

86 BLON_OUT_C >>>

86 LCD_BRIGHTNESS >>>

86 DP_TXN1_CPU_C >>>

86 DP_TXP1_CPU_C >>>

86 DP_TXN0_CPU_C >>>

86 DP_TXP0_CPU_C >>>

86 DP_AUXP_CPU_C <<<

86 DP_AUXN_CPU_C <<<

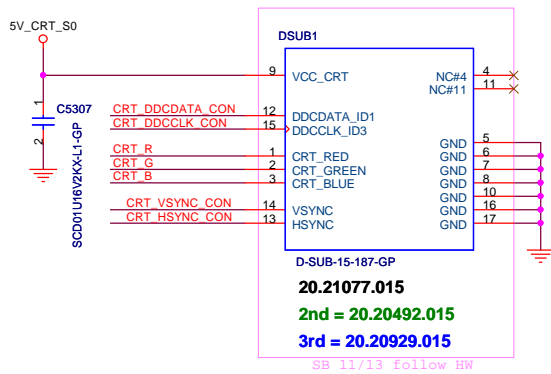
For AFTE

EAEG50 KB UMA

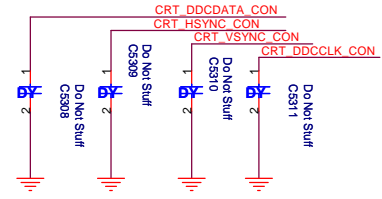
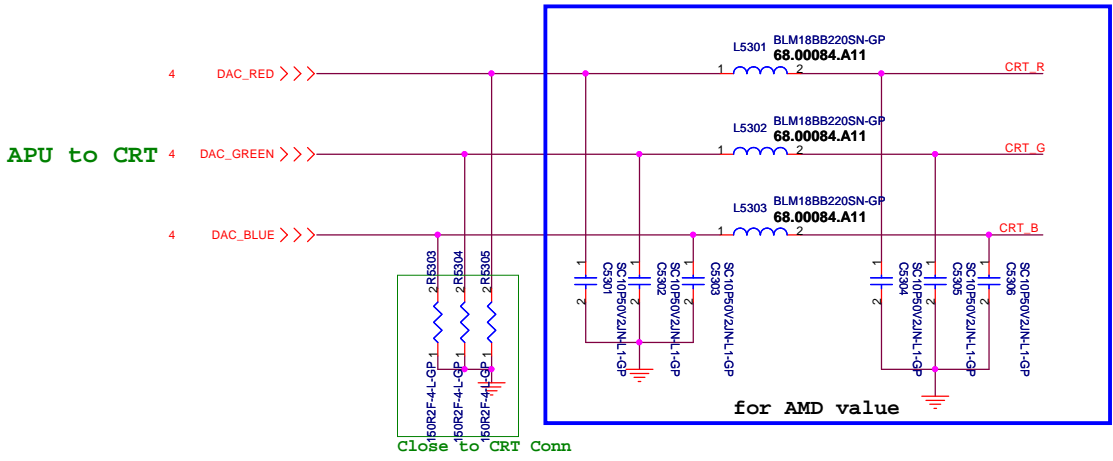
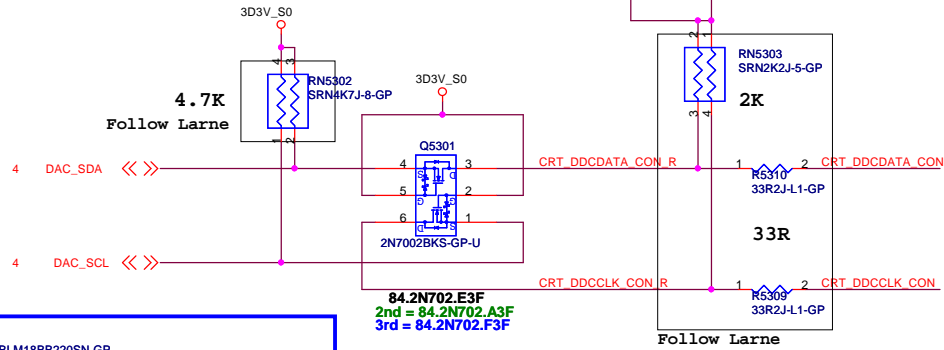
緯創資通

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

Title		
LCD Connector		
Size	Project Name	Rev
	KABINI	SA
Date: Monday, February 25, 2013		
Sheet 52 of 102		

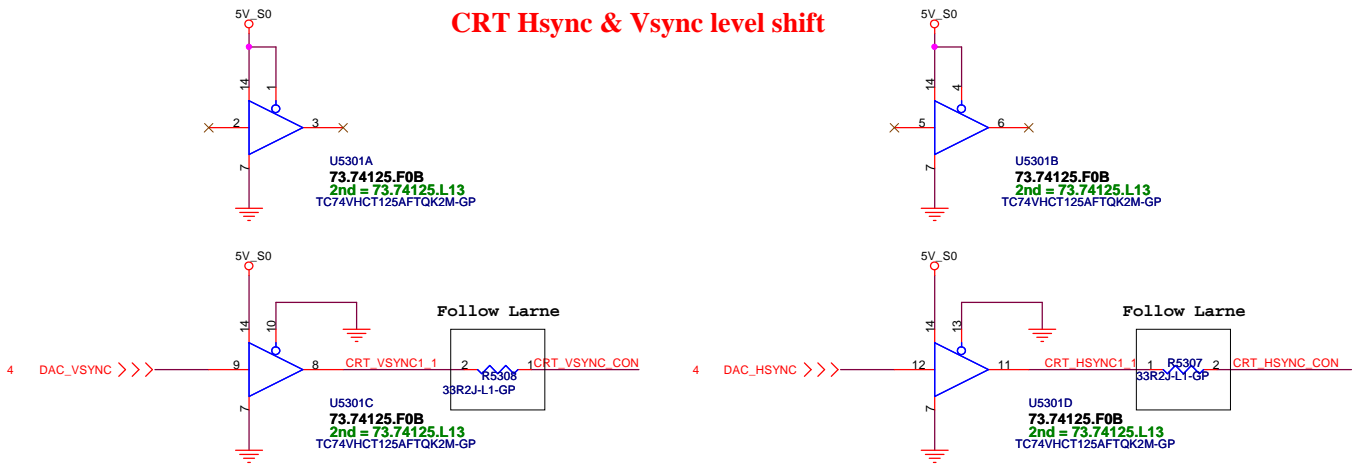


CRT DDCDATA & DDCCLK level shift



10/16 follow COMAL

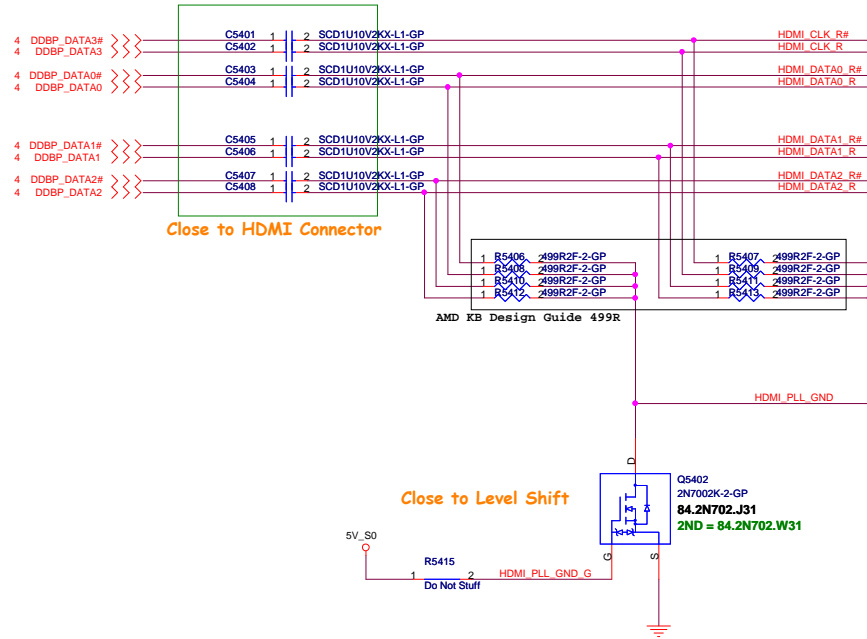
CRT Hsync & Vsync level shift



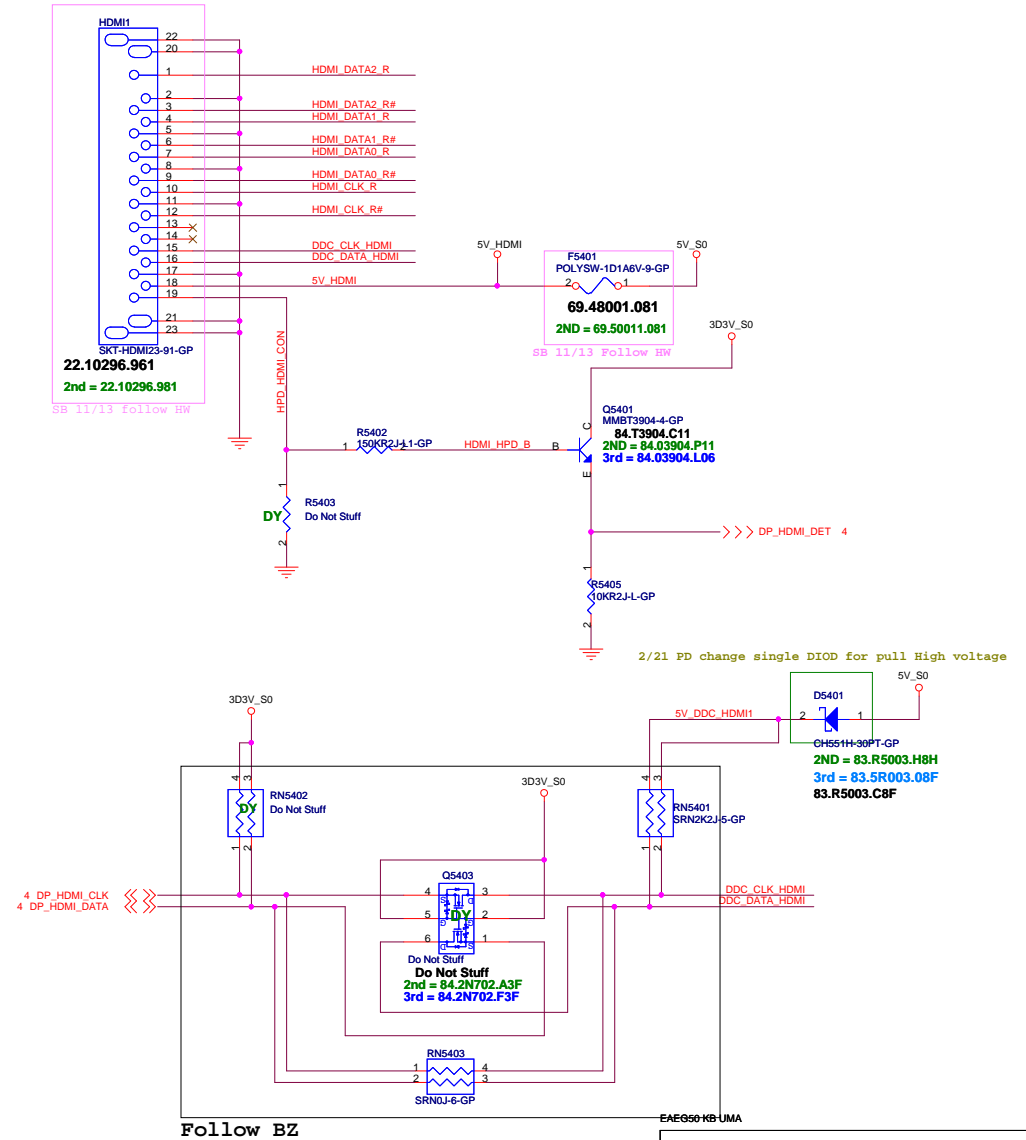
EAEG50 KB UMA

SSID = VIDEO

HDMI Level Shifter & CONNECTOR



HDMI CONN



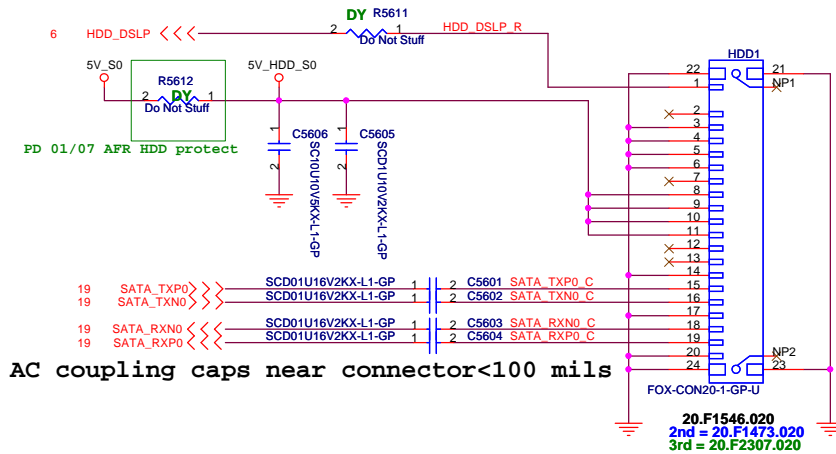
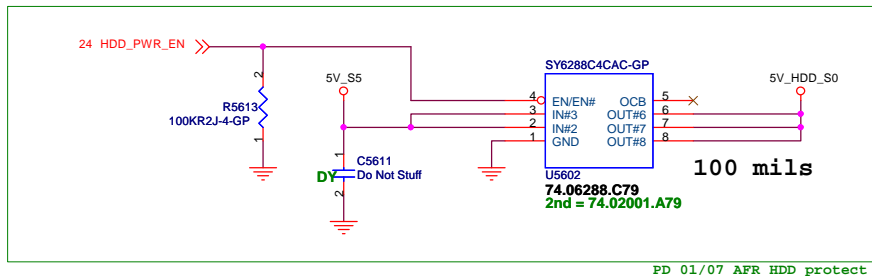
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

HDMI Level Shifter/Connector			
Size	Project Name	KABINI	Rev SA
Date: Thursday, February 21, 2013	Sheet	54	of 102

5					4					3					2					1						
D																										
C																										
B																										
A																										
EAEG50 KB UMA																										
<div><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></div>																										
Title <div>Reserved</div>																										
Size		Project Name																Rev		SA						
Date:		Friday, September 07, 2012																Sheet		55		of		102		
5					4					3					2					1						

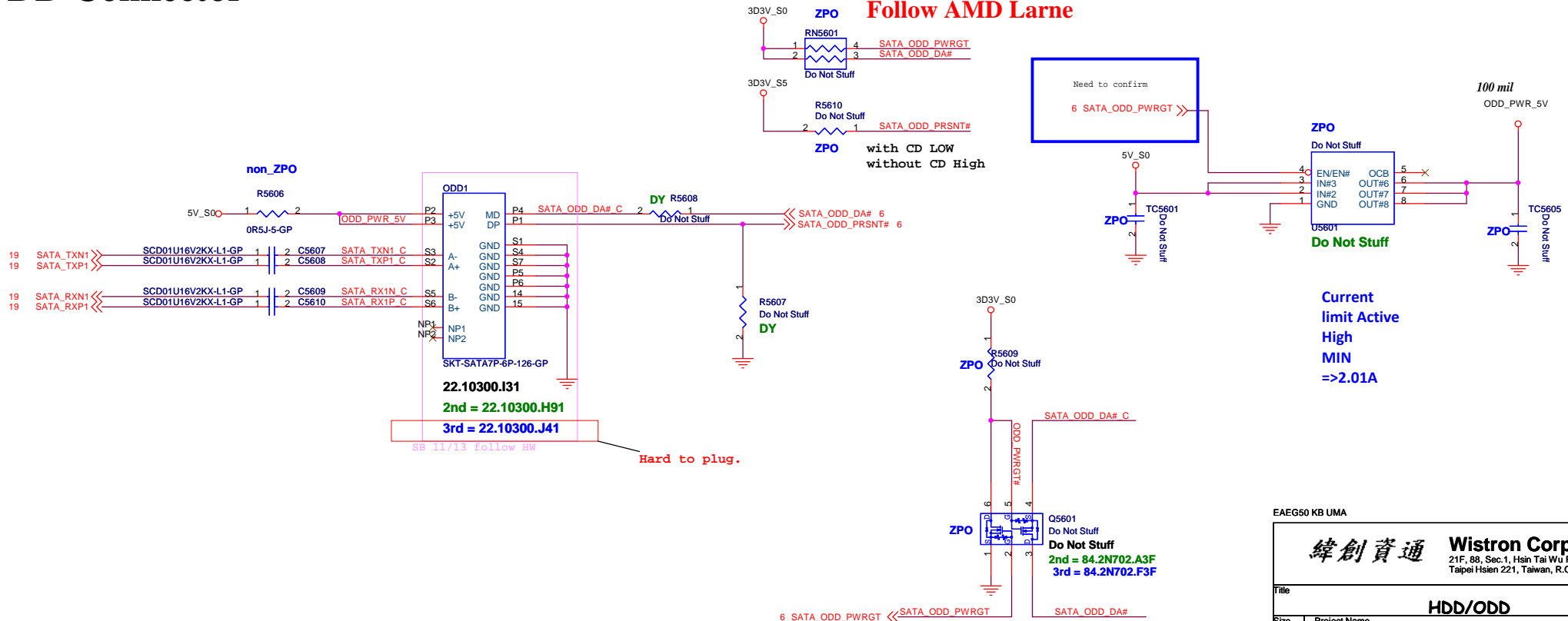
SSID = SATA

SATA HDD Connector



ODD Connector

SATA Zero Power ODD Follow AMD Larne



EAEG50 KB UMA

緯創資通

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

Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	Page
Title	Author	Date	

HDD/ODD

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

[illegible]

KABINI

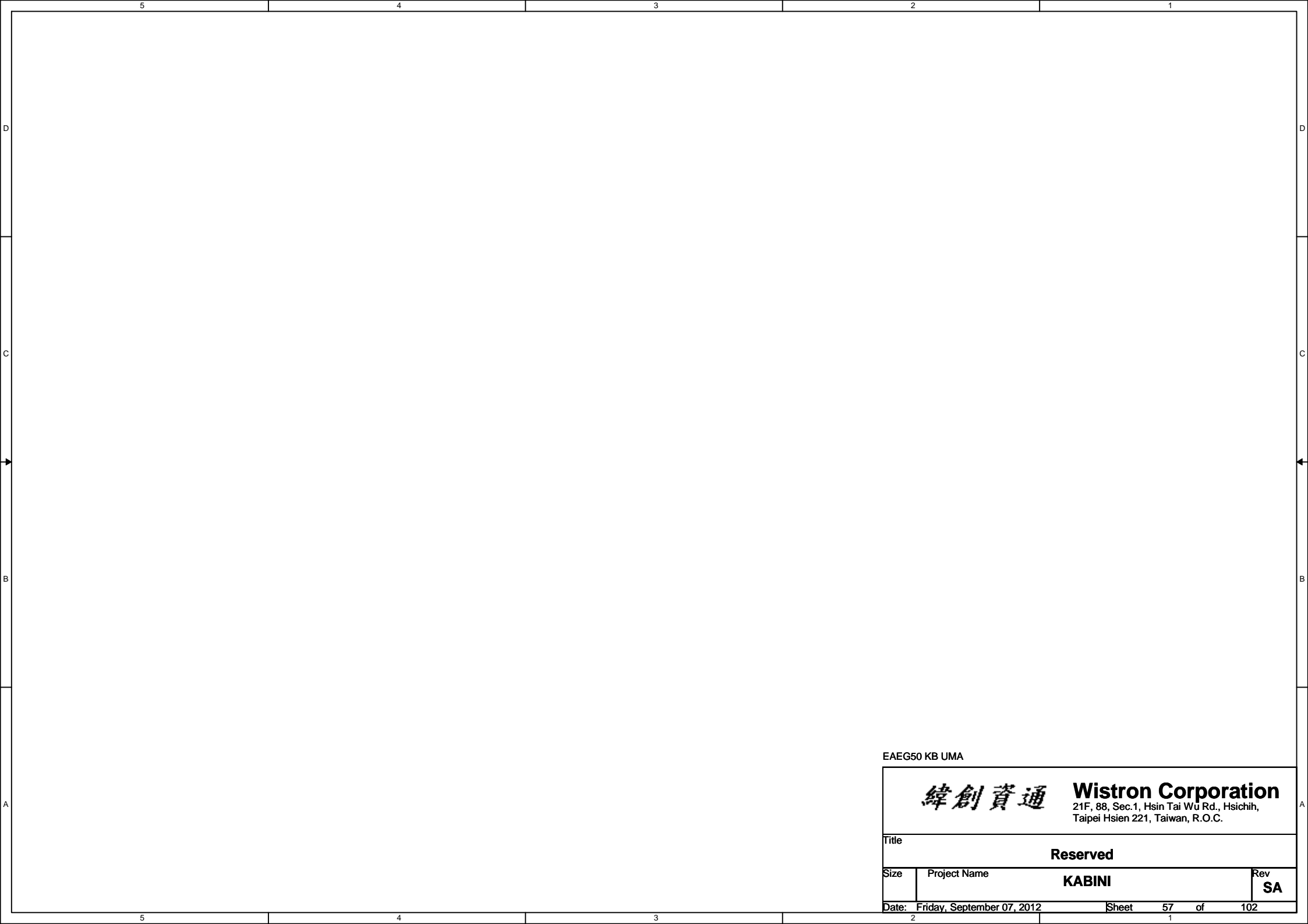
Rev	
SA	

Date: Monday, February 04, 2013

Sheet 56 of 102

1

WWW.AliSaler.Com



EAEG50 KB UMA

<div><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></div>		
Title		
Reserved		
Size	Project Name	Rev
	KABINI	SA
Date: Friday, September 07, 2012		Sheet 57 of 102

SSID = Wireless

Mini Card Connector(WWAN)

EAEG50 KB UMA

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

KABINI

Rev

SA

Date: Friday, September 07, 2012

Sheet 59 of 102

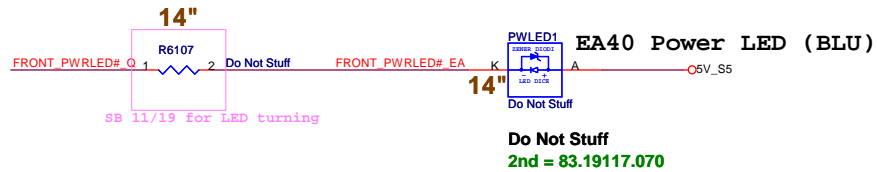
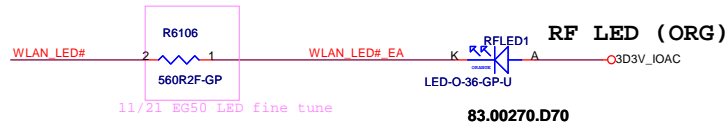
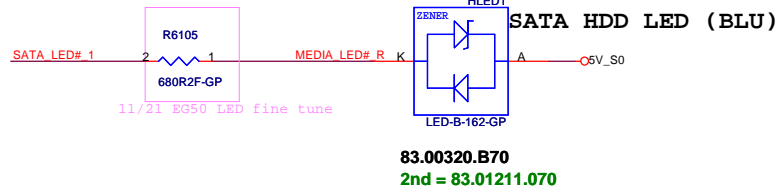
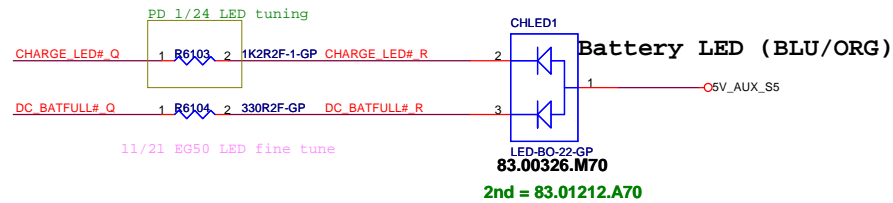
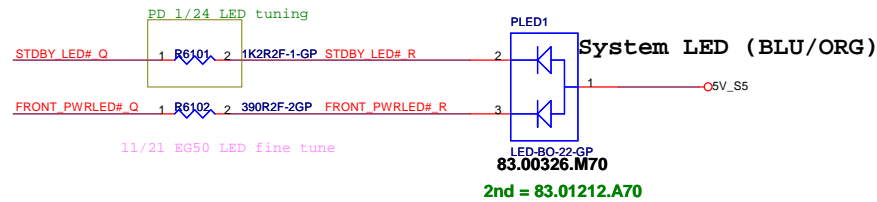
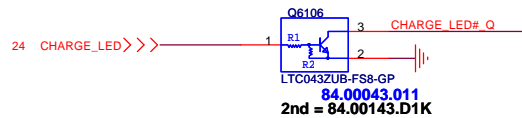
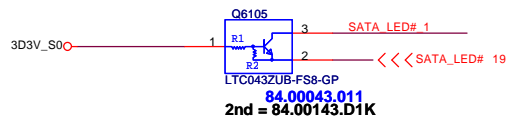
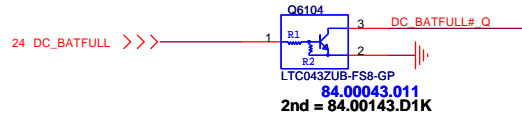
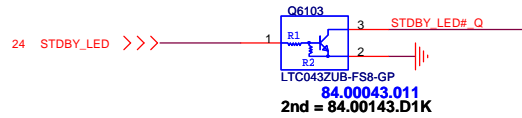
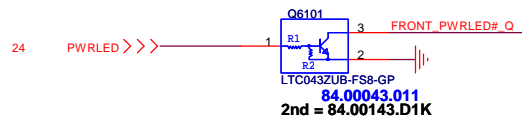
SSID = mSATA

Mini Card Connector(mSATA)

EAEG50 KB UMA

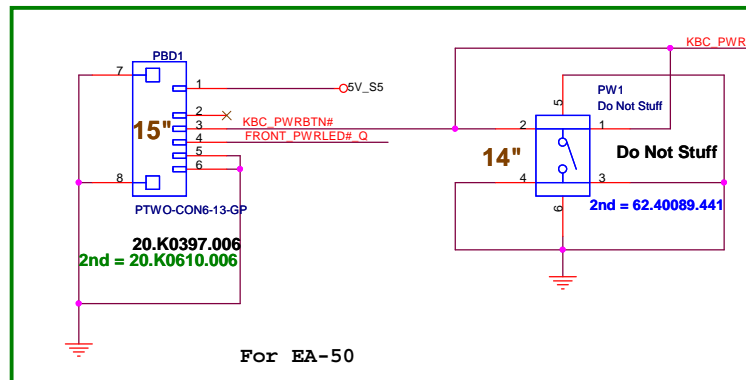
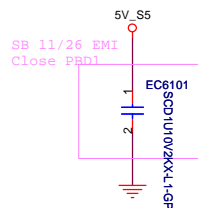
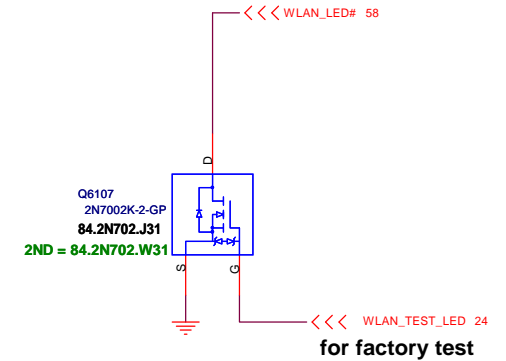
<div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div>		
Title mSATA Connector		
Size	Project Name KABINI	Rev SA
Date: Friday, September 07, 2012		Sheet 60 of 102

SSID = User.Interface



WLAN_LED

From module



EAEG50 KB UMA

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

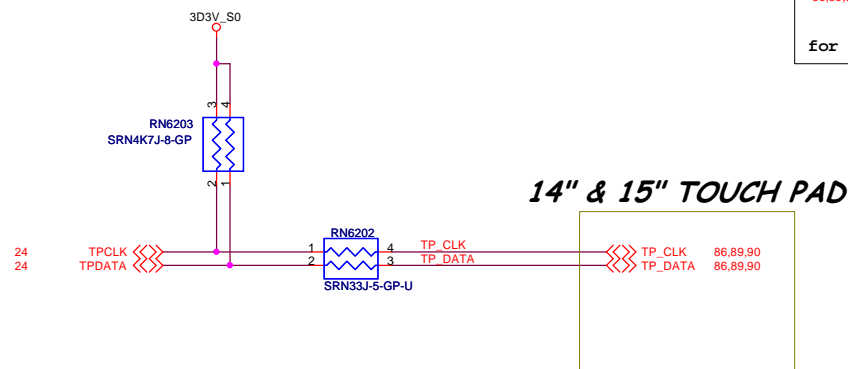
Title				
LED Bard/Power Button				
Size	Project Name			Rev
	KABINI			SA
Date:	Monday, February 04, 2013		Sheet 61 of 102	

SSID = KBC

Internal KeyBoard Connector

86,89,90 TP_DATA >>>
86,89,90 TP_CLK >>>
86,89,90 SWR >>>
86,89,90 SWL >>>

for AFTP



PD 1/14 Different 14" & 15" TOUCH PAD reversion

14" & 15" use the same KB

for EA/EG-50

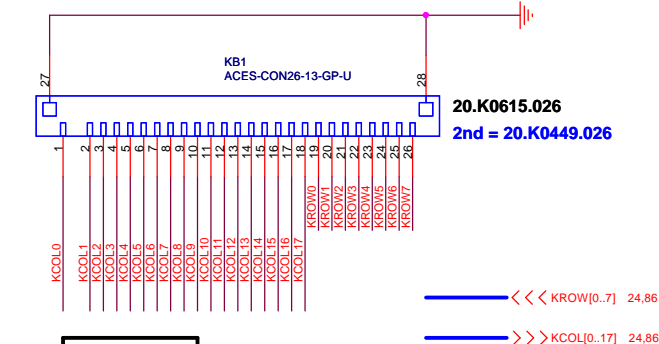
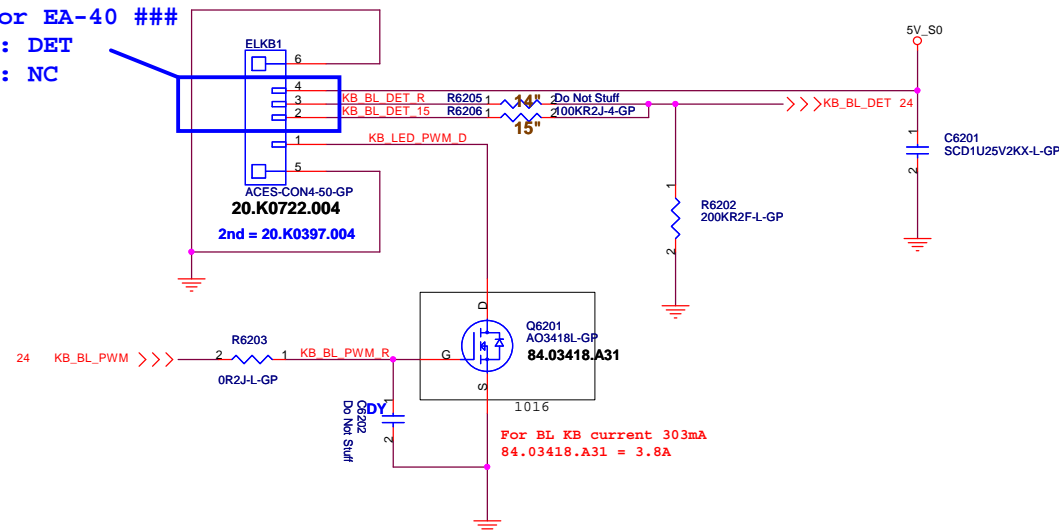
Pin3 : NC

Pin2 : DET

for EA-40

Pin3 : DET

Pin2 : NC

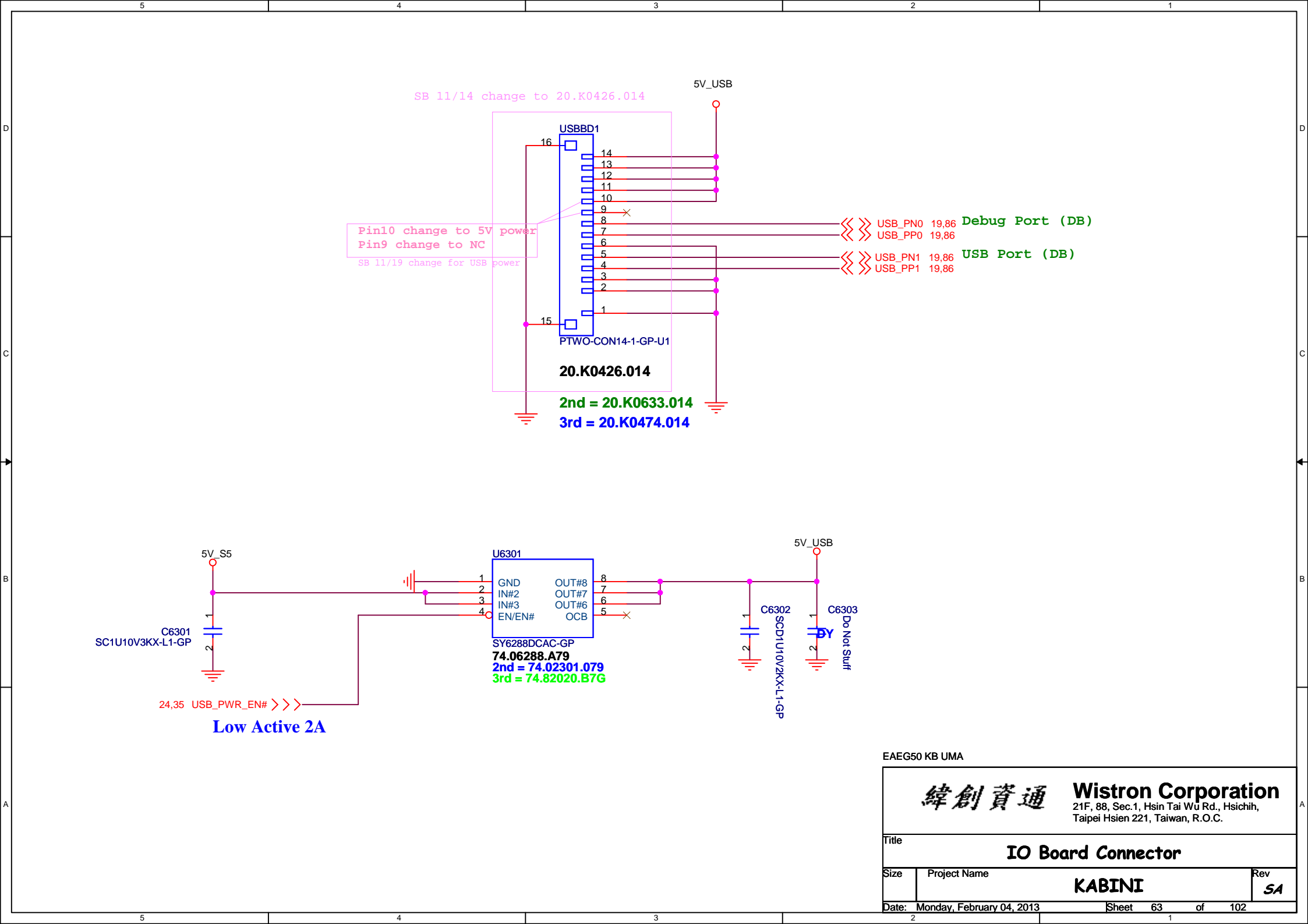


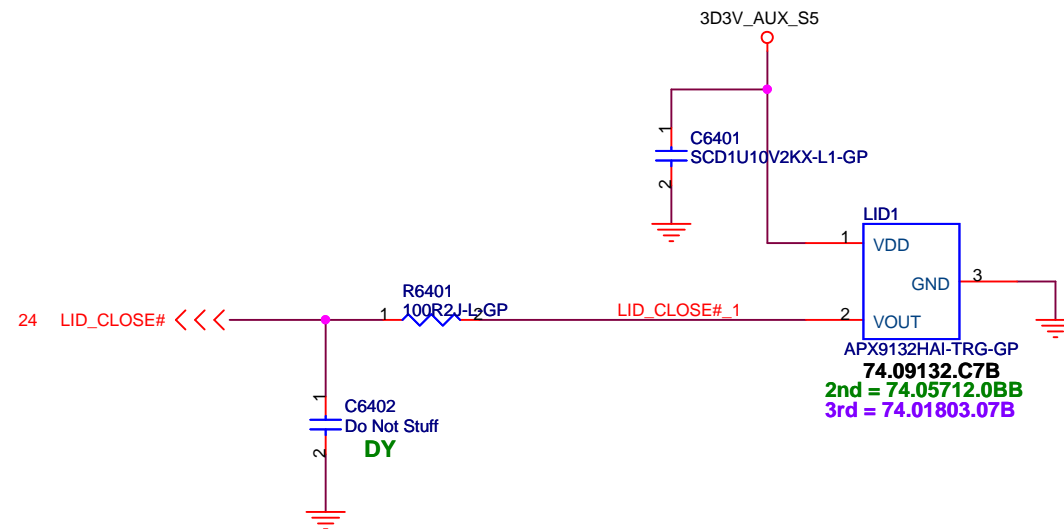
26 **K/B** 1 MB PIN DEFINE 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
KB PIN DEFINE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

EAEG50 KB UMA

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

Title Key Board/Touch Pad
Size Project Name KABINI Rev SA
Date: Tuesday, February 19, 2013 Sheet 62 of 102





EAEG50 KB UMA

緯創資通

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

Title

Hall Sensor

Size

Project Name

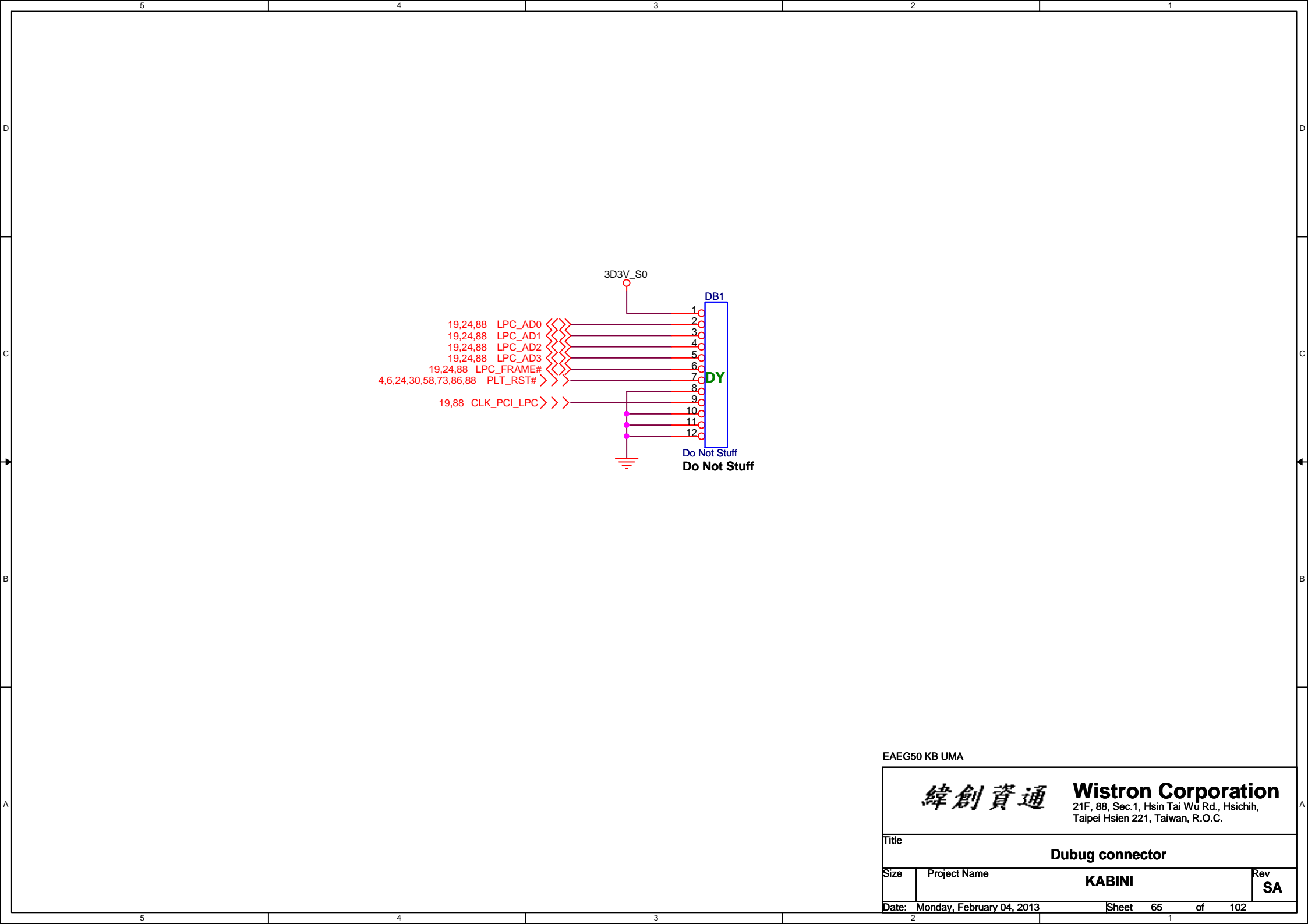
KABINI

Rev


SA

Date: Monday, February 04, 2013

Sheet 64 of 102



EAEG50 KB UMA

		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
	KABINI		SA
Date:	Monday, February 04, 2013	Sheet	65 of 102

(Blanking)

EAEG50 KB UMA

<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			
Reserved			
Size	Project Name		Rev
	KABINI		SA
Date: Friday, September 07, 2012		Sheet 66 of 102	

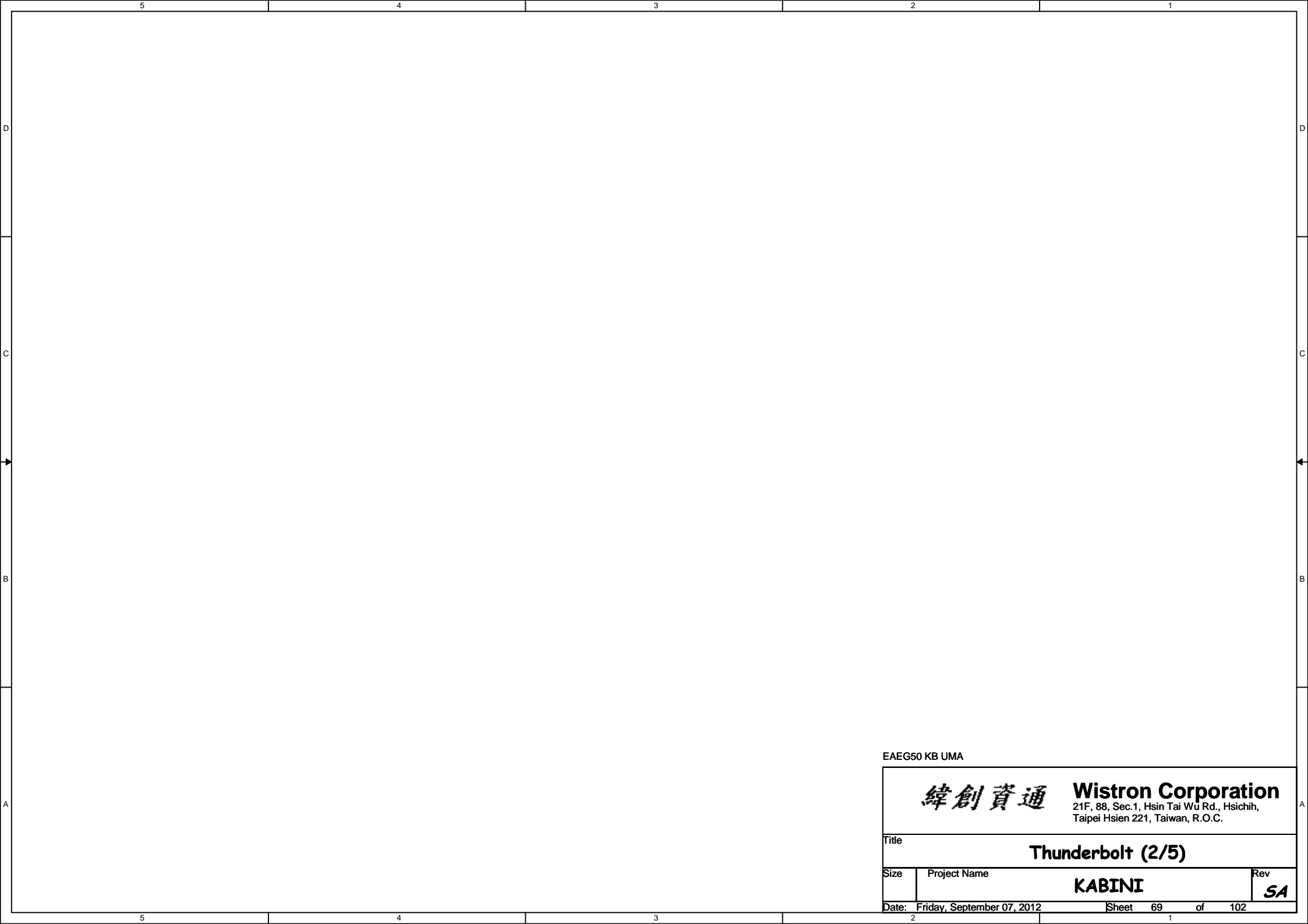
SSID = User.Interface

EAEG50 KB UMA

		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
	KABINI		SA
Date: Friday, September 07, 2012		Sheet	67 of 102

EAEG50 KB UMA

<div><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></div>		
TitleThunderbolt (1/5)		
Size	Project NameKABINI	RevSA
Date: Friday, September 07, 2012		Sheet 68 of 102



5

4

3

2

1

D

D

C

C

B

B

A

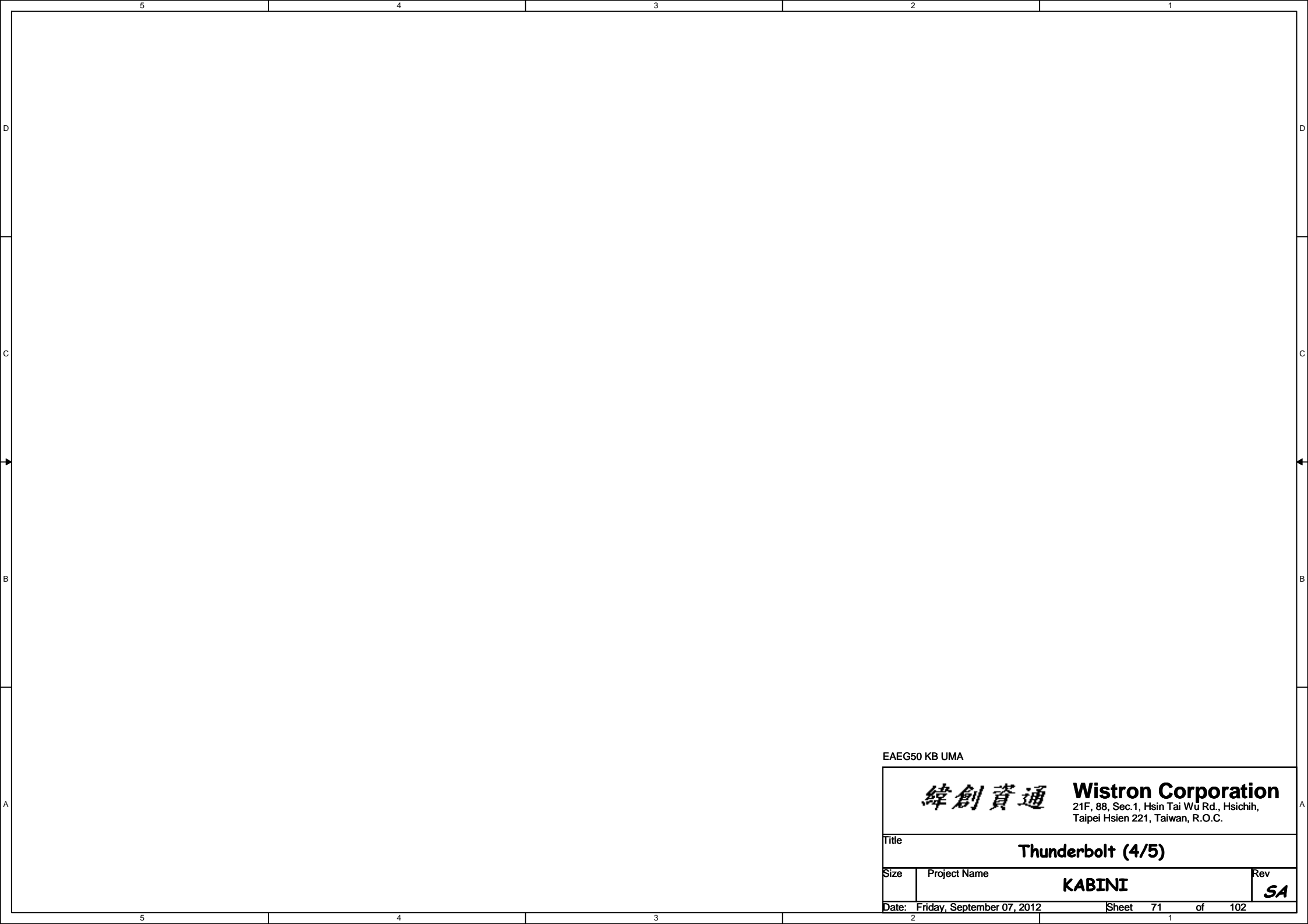
A

EAEG50 KB UMA

緯創資通

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

Title			Thunderbolt (3/5)		
Size	Project Name				Rev
	KABINI				SA
Date:		Friday, September 07, 2012			Sheet 70 of 102



EAEG50 KB UMA



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

Title

Thunderbolt (4/5)

Size	Project Name	Rev
	KABINI	SA

5

4

3

2

1

D

D

C

C

B

B

A

A

EAEG50 KB UMA

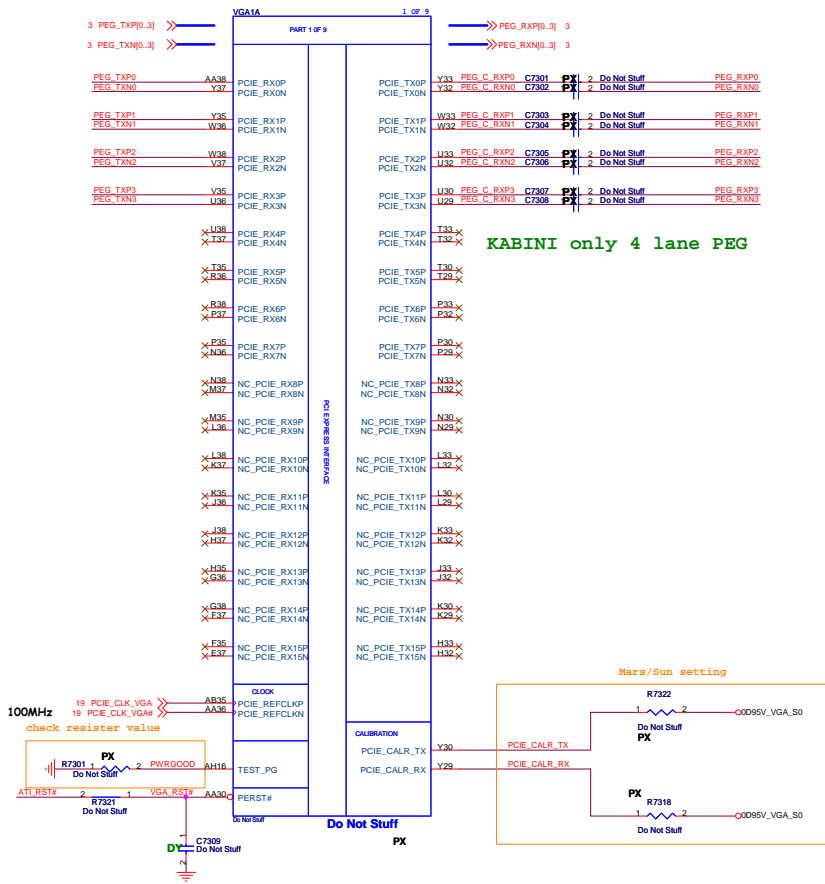
緯創資通

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
	KABINI	SA

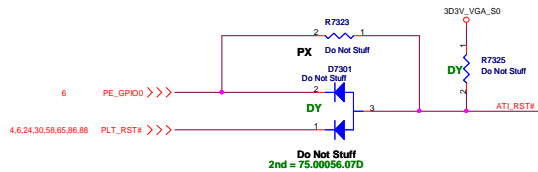
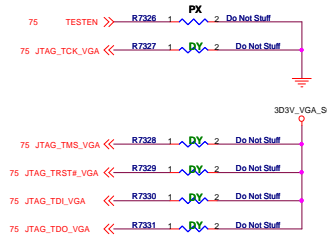
Date: Friday, September 07, 2012	Sheet 72 of 102
----------------------------------	-----------------



KABINI only 4 lane PEG

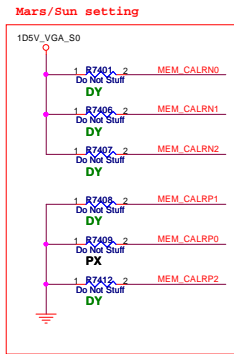
JTAG SIGNAL OPTION

Signal	Normal mode	Debug mode	pilot run mode
TESTEN	"0" (PD)	"1" (PU)	"0" (PD)
JTAG_TRST#	"1" (PU)	"1" (PU)	NC
JTAG_TCK	"0" (PD)	"1" (PU)	NC
JTAG_TMS	"1" (PU)	"1" (PU)	NC

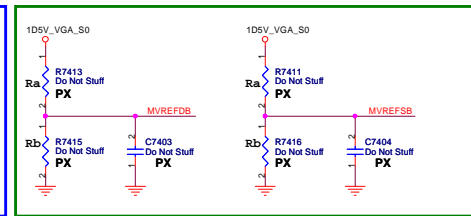
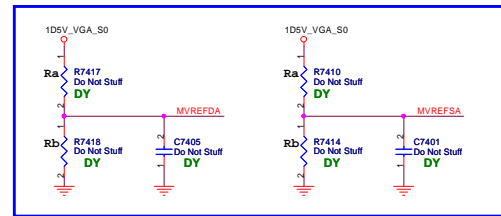


	PE_GPIO0
dGPU mode	H
IGPU	L
IGPU with BACO	H

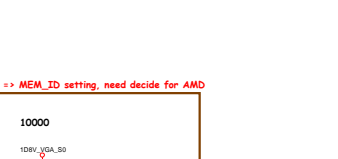
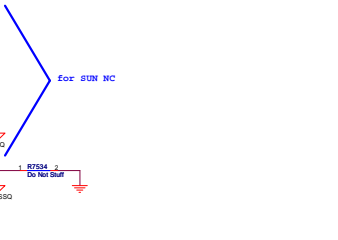
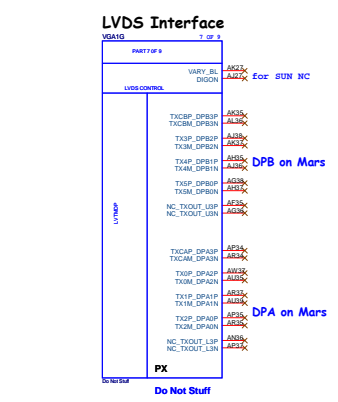
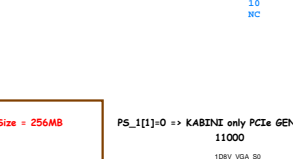
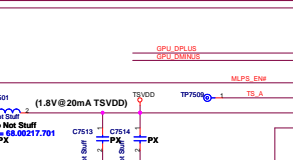
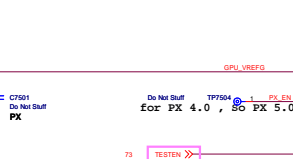
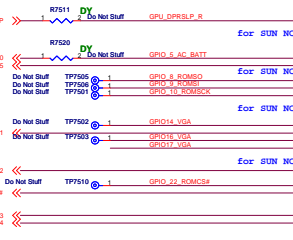
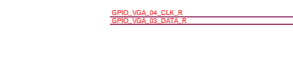
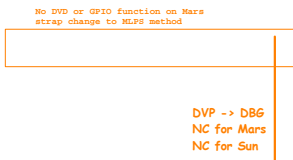
EAE650 KB UMA



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

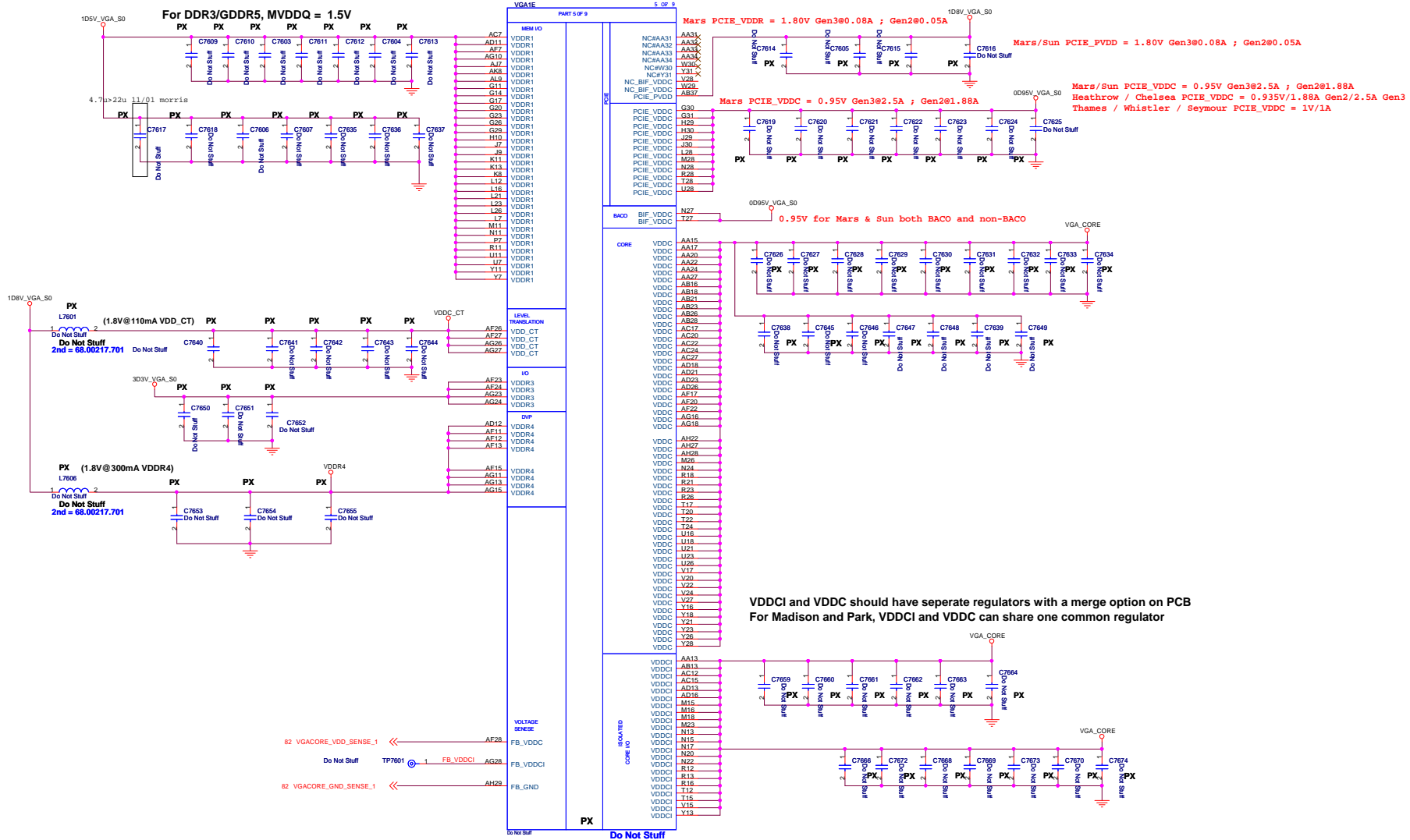


Title			
GPU_Digitalout			
Size	Project Name		Rev
	KABINI		SA
Date:	Monday, February 04, 2013	Sheet	74 of 102

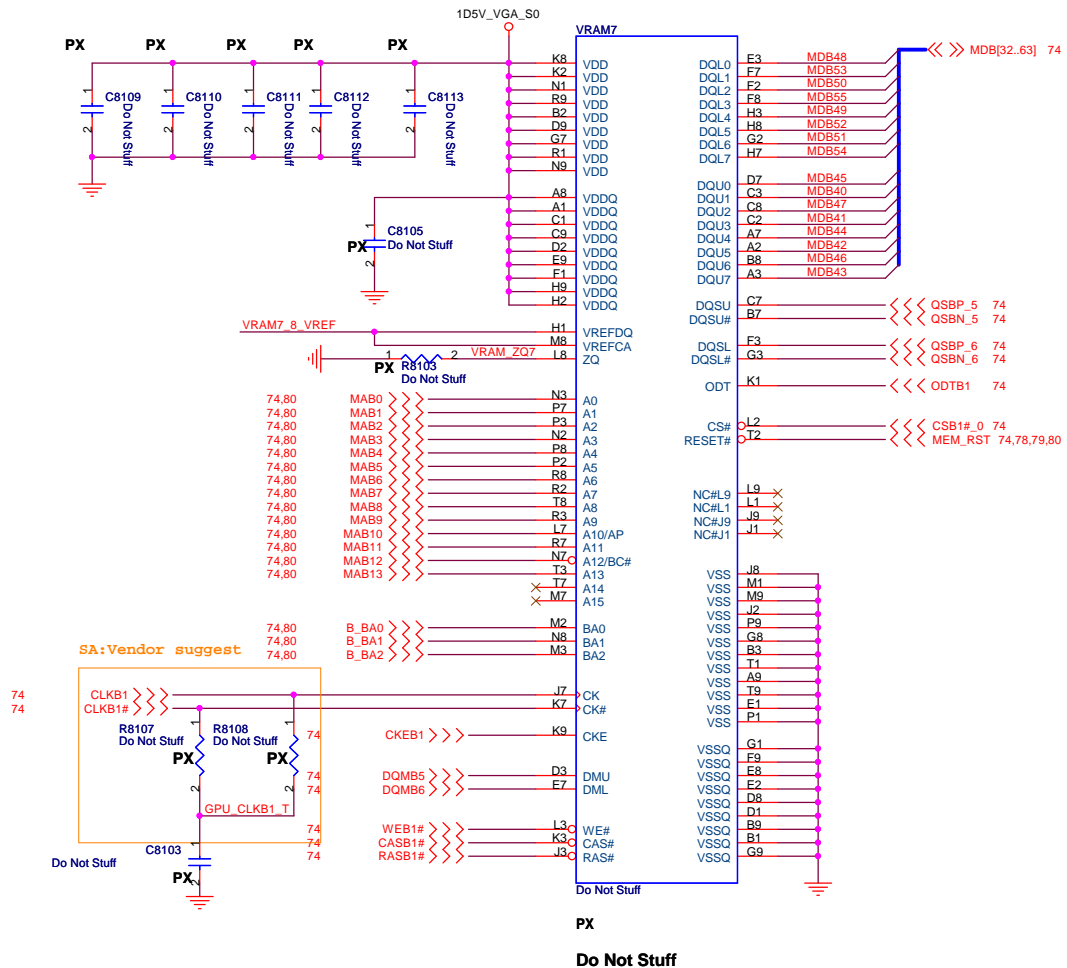


Bit	Strap Name	Description	Settings
PG_264	STRAP_EIP_VGA_DSE	VGA details determines whether or not the card will be recognized as the system's VGA controller through the STRAPCARD Read in the PCI configuration space. 0 = VGA controller capacity enabled. 1 = The device will not be recognized as the system's VGA controller.	0
PG_283	SSEL		SSEL
PG_311	BOARD_CONFIG0		
PG_319	BOARD_CONFIG1	Board configuration related settings, such as the memory ID.	Design dependent; see the description.
PG_378	BOARD_CONFIG2	Determines the maximum number of digital display audio endpoints that will be presented in the IO, and more. This should be set to the maximum number of digital display audio output that can be enabled simultaneously in the product, which is limited by the ADSP silicon itself, the number and type of connectors on the board (e.g., HDMI), and the number of units for each DT connector the DP MITL link supports of the video driver. Chained endpoints should be disabled. This string is needed as an active low binary as follows to service new available all endpoints: 111 = No visible endpoints. 110 = One visible endpoint. 101 = Two visible endpoints. 100 = Three visible endpoints. 011 = Four visible endpoints. 010 = Five visible endpoints. 001 = Six visible endpoints. 000 = All endpoints are visible.	Design dependent; see the description.

Note: AUD1 (on H1SYNC) and AUD10 (on V1SYNC) still need to be properly pin strapped even in a MLPS-based design.



EAE650 KB UMA

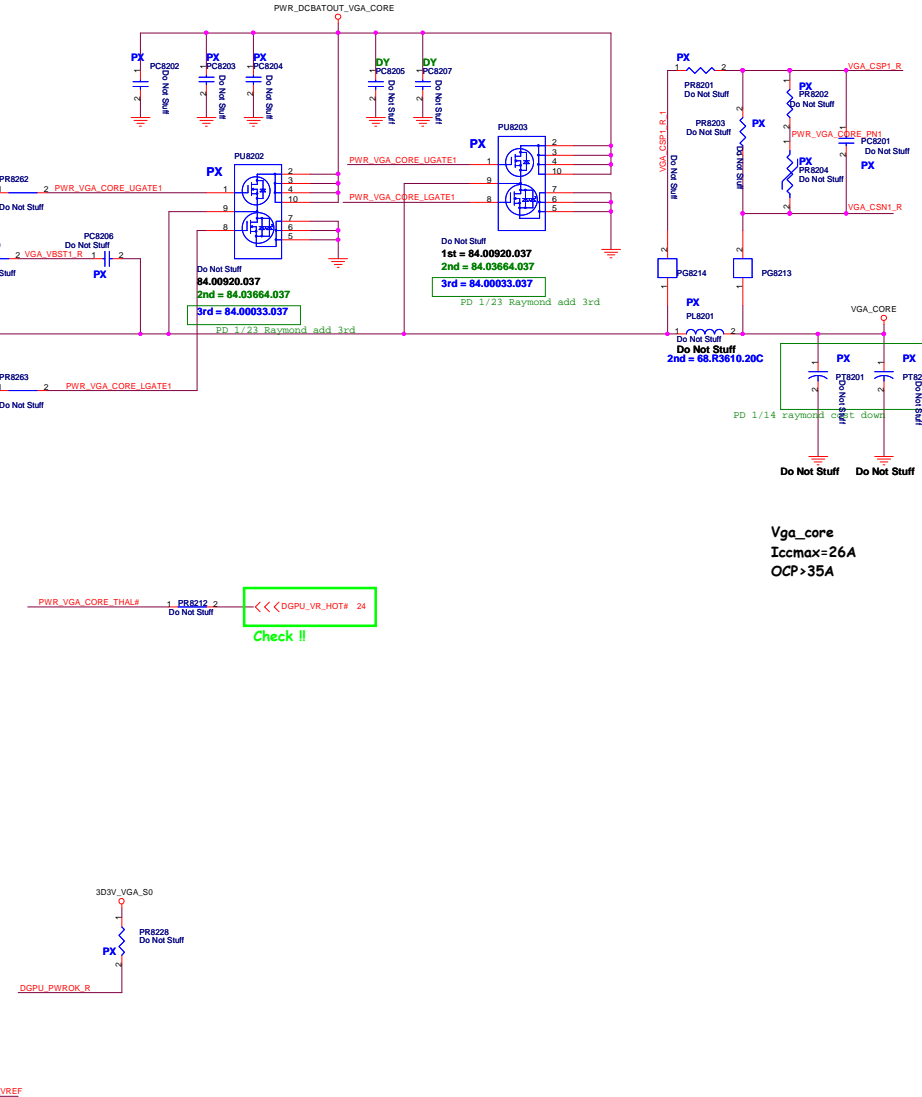
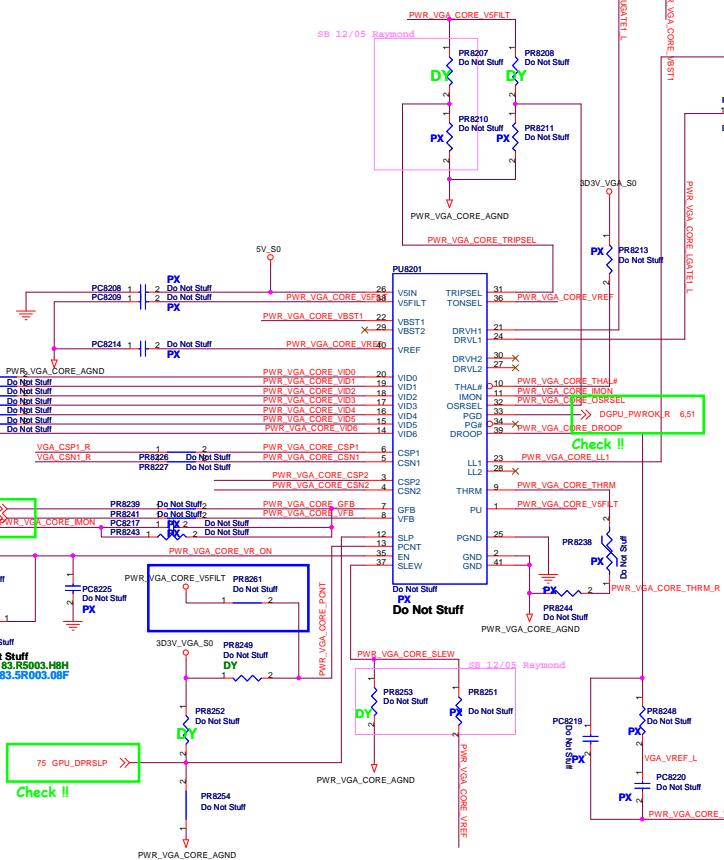
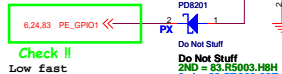
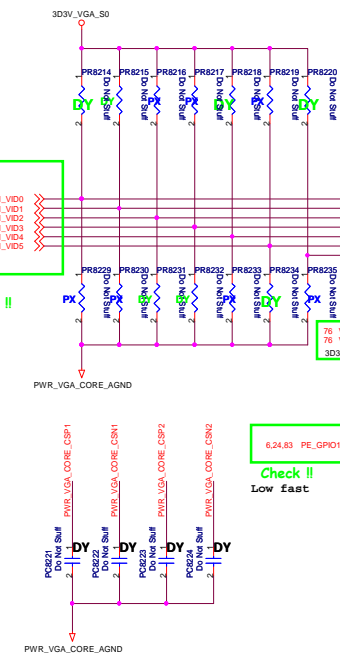
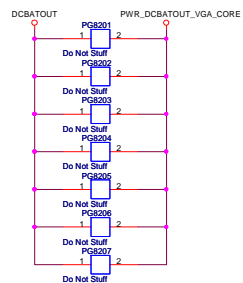


EG50 VRAM: 72.52G63.C0U (VR.2GB0G.005)
IC VRAM H5TQ2G63DFR-11C FBGA 96P 128M*16 x4

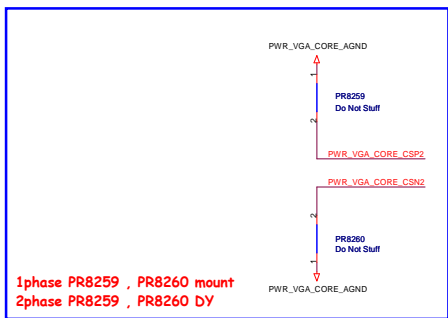
EAEG50 KB UMA

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
	KABINI	SA
Date:	Monday, February 04, 2013	Sheet 81 of 102

```
SSID = PWR.Plane.Regulator_GFX
```

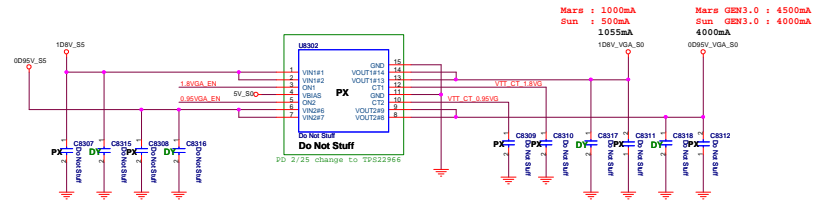
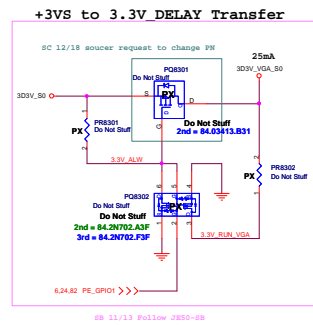
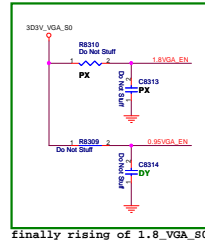


Vga_core
Iccmax=26A
OCP>35A



APL3523 for VGA_Power

	PE_GPI00	PE_GPI01
dGPU mode	H	H
IGPU	L	L
IGPU with BACO	H	H



5

4

3

2

1

D

D

C

C

B

B

A

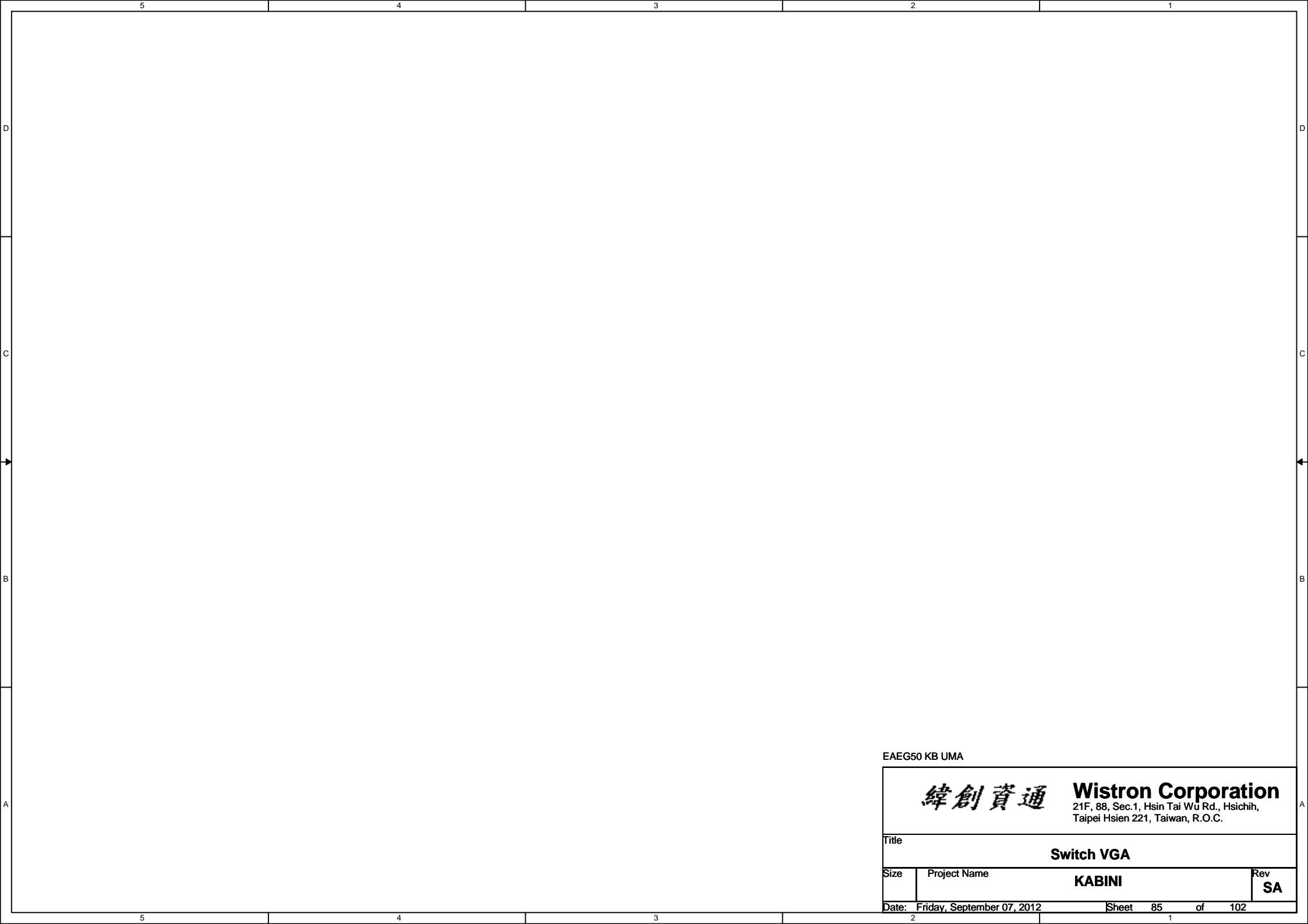
A

EAEG50 KB UMA

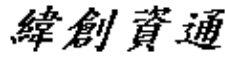
緯創資通

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
	KABINI				SA
Date: Friday, September 07, 2012			Sheet 84 of 102		

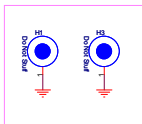


EAEG50 KB UMA

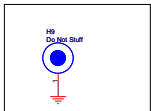
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Switch VGA			
Size	Project Name		Rev
	KABINI		SA
Date: Friday, September 07, 2012		Sheet 85 of 102	

ZZ.00PAD.2N1

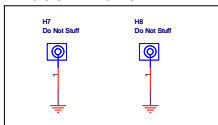
SB 11/14 follow HW for factory issue



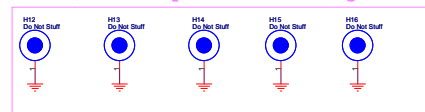
ZZ.00PAD.D01



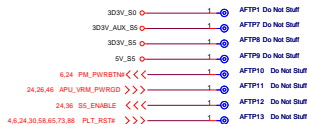
ZZ.00PAD.E01



SB 11/20 ZZ.00pad.2T1 for change BKT size



Check test point



Test Point放在Dimm Door打開可量測處

10/15 follow HW



EDP + MIC connector



LAN_RJ45 connector

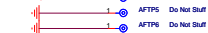


Card reader connector



USBBD connector

DC IN connector



Battery connector



Speaker connector



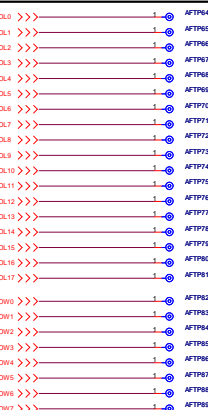
HP connector



FAN connector



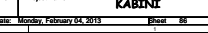
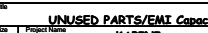
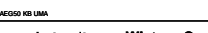
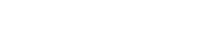
FAN connector



Normal KB connector



Touch Pad connector



EAE090 KB UAA

緯創資通 Wistron Corporation

21F, 8th, Sec. 1, Hsin-Tai Rd., Hsinchu, Taipei Hsien 321, Taiwan, R.O.C.

Rev. 1

UNUSED PARTS/EMI Capacitors

Project Name: KABINI

Date: Monday, February 04, 2013

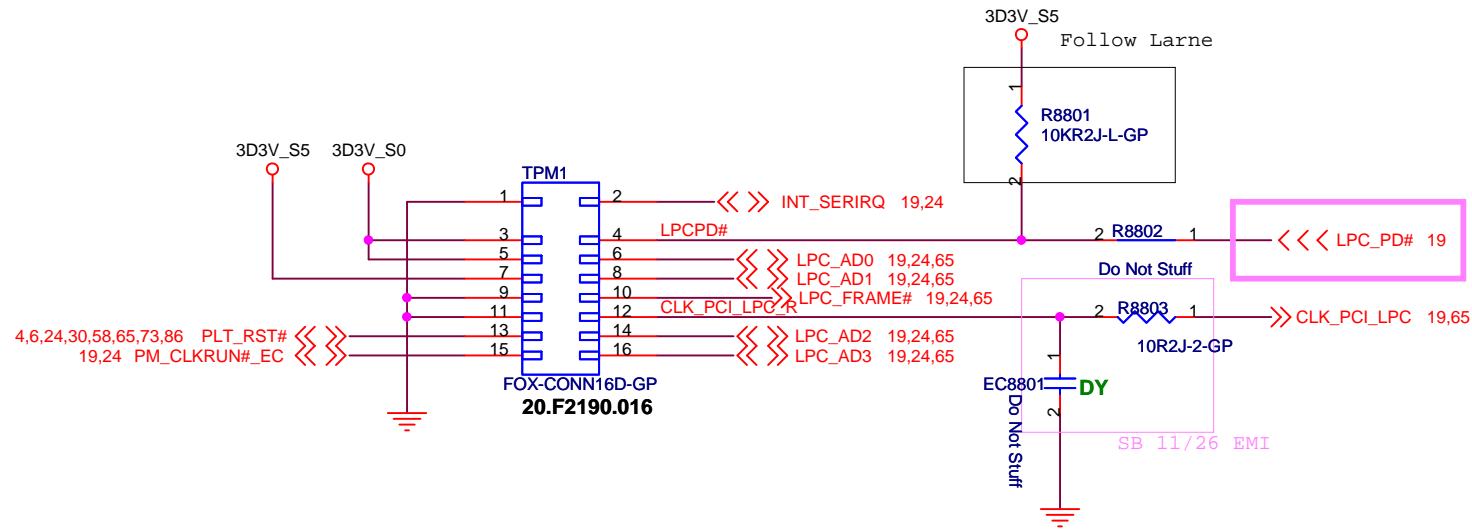
Page: 88 of 100

Rev. 54

5	4	3	2	1
D				D
C				C
B				B
A				A
5	4	3	2	1

EAEG50 KB UMA

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
NFC			
Size	Project Name		Rev
	KABINI		SA
Date:	Friday, September 07, 2012	Sheet 87 of 102	



EAE50 KB UMA

緯創資通

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

Title

TPM

Size

Project Name

KABINI

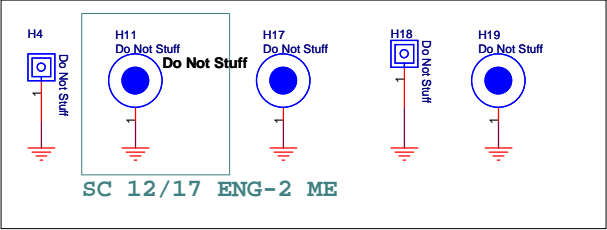
Rev

SA

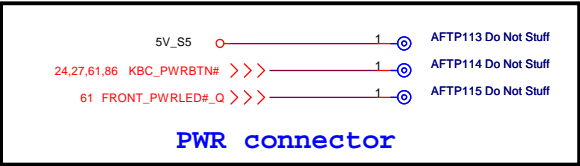
Date: Monday, February 04, 2013

Sheet 88 of 102

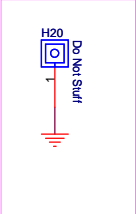
H4 & H11 & H17 & H18 & H19 for EG50



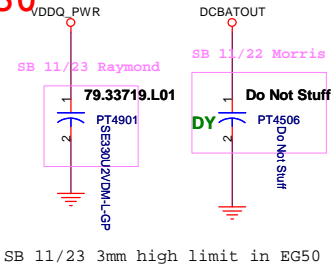
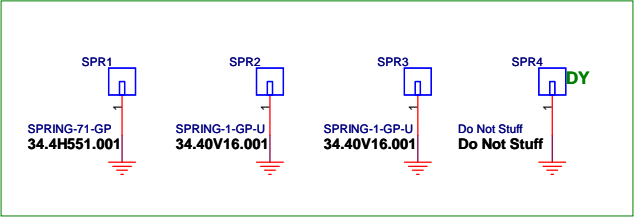
PWRBD AFTP for EG50



ZZ.00PAD.571

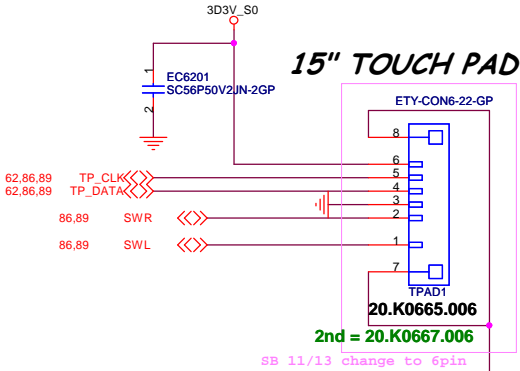
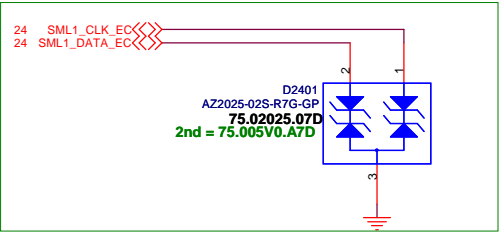


PD 1/23 EMI Jen



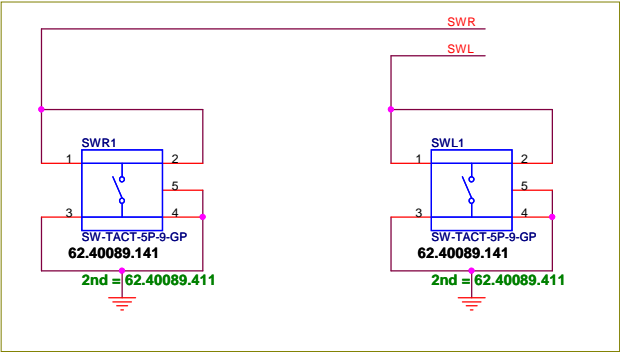
SB 11/23 3mm high limit in EG50

PD 01/31 Different Net name in 14" & 15" for placement



24,62,86	KCOL0	>>>
24,62,86	KCOL1	>>>
24,62,86	KCOL2	>>>
24,62,86	KCOL3	>>>
24,62,86	KCOL4	>>>
24,62,86	KCOL5	>>>
24,62,86	KCOL6	>>>
24,62,86	KCOL7	>>>
24,62,86	KCOL8	>>>
24,62,86	KCOL9	>>>
24,62,86	KCOL10	>>>
24,62,86	KCOL11	>>>
24,62,86	KCOL12	>>>
24,62,86	KCOL13	>>>
24,62,86	KCOL14	>>>
24,62,86	KCOL15	>>>
24,62,86	KCOL16	>>>
24,62,86	KCOL17	>>>
24,62,86	KROW0	>>>
24,62,86	KROW1	>>>
24,62,86	KROW2	>>>
24,62,86	KROW3	>>>
24,62,86	KROW4	>>>
24,62,86	KROW5	>>>
24,62,86	KROW6	>>>
24,62,86	KROW7	>>>

For AFTE



PD 1/21
SWL1 / SWR1 1st change to 62.40089.141, 2nd change to 62.40089.411 ,
because 160kg change to 100kg.

EAEG50 KB UMA

5

4

3

2

1

D

D

C

C

B

B

A

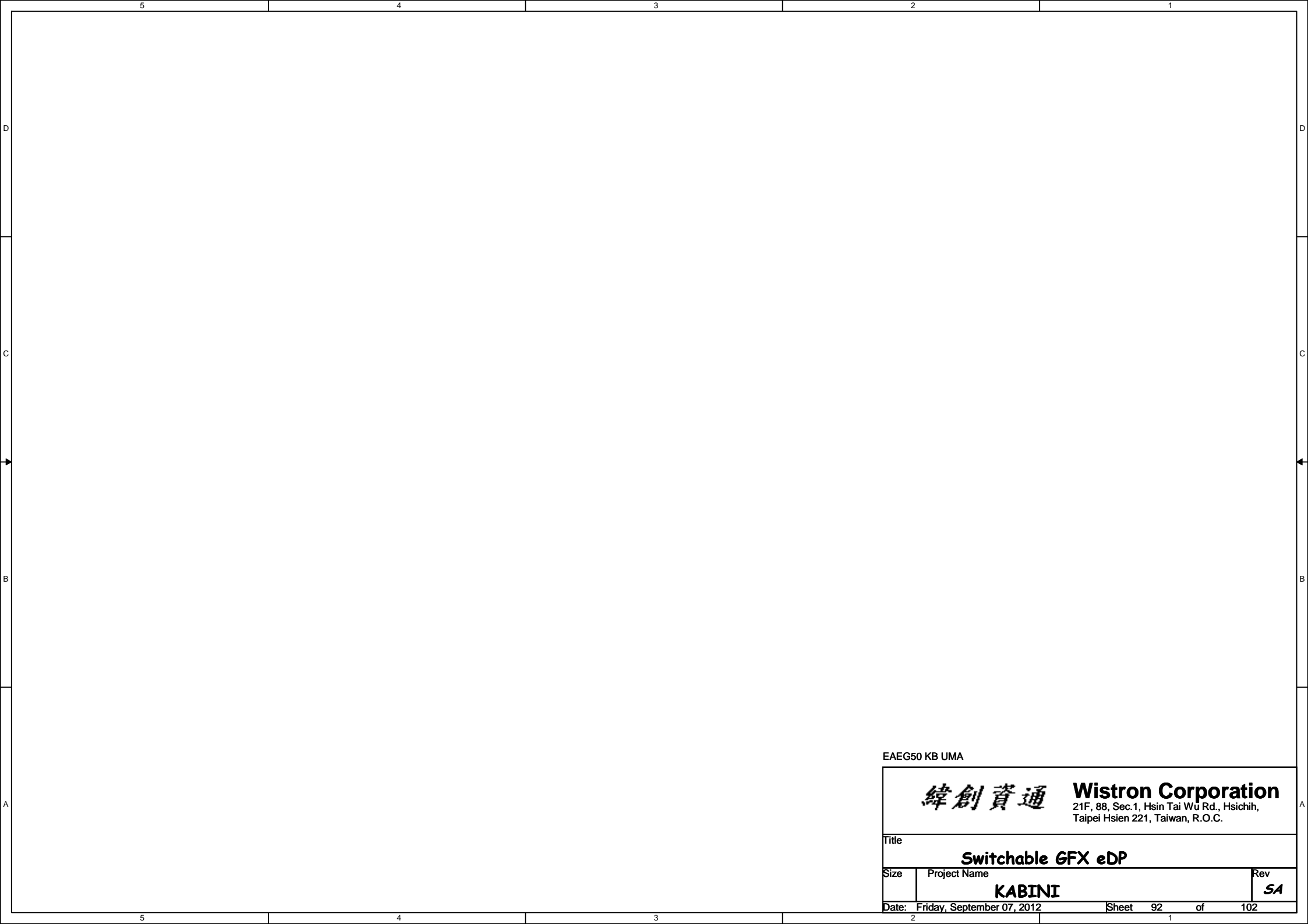
A

EAEG50 KB UMA

緯創資通

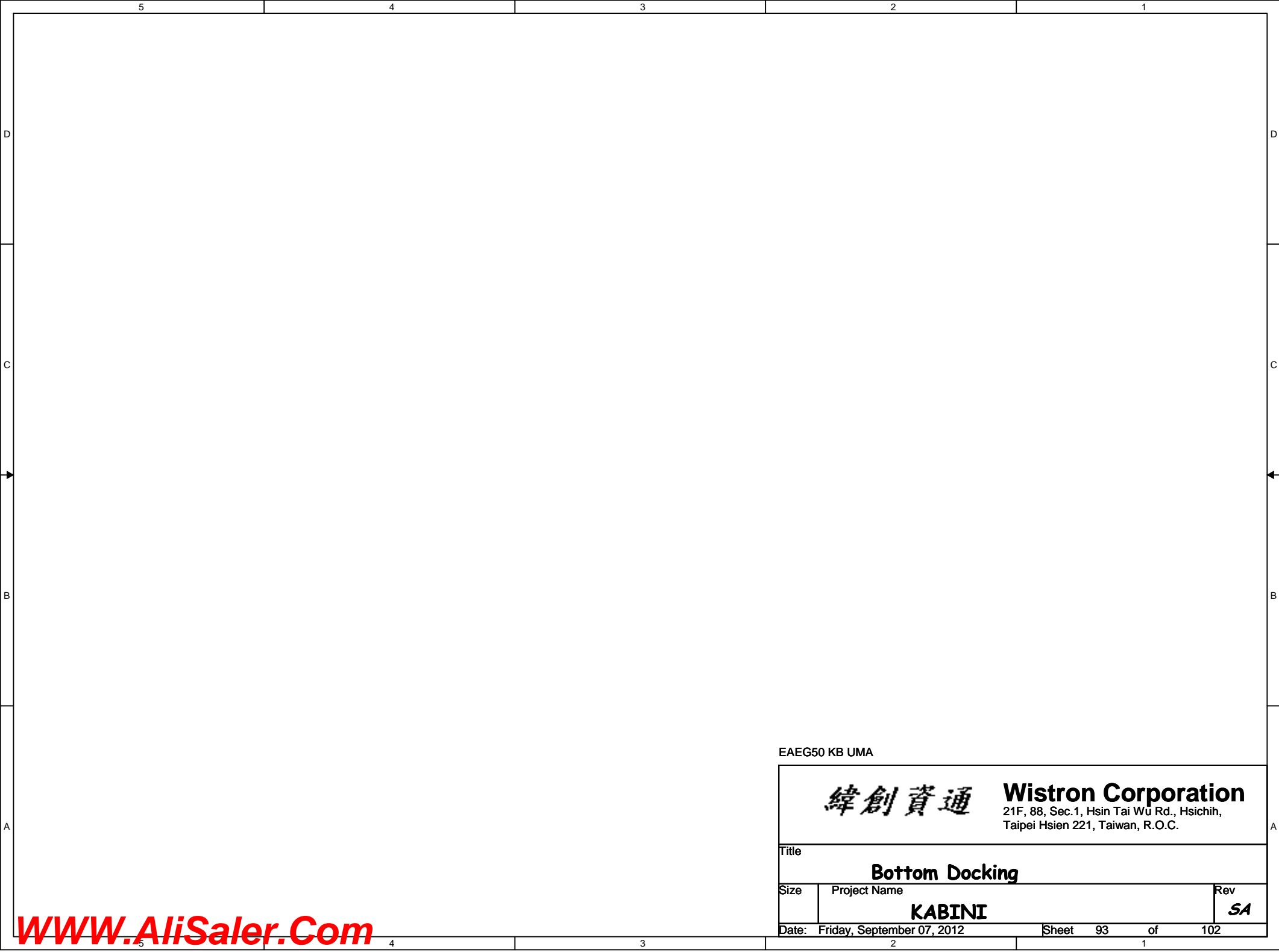
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			Smart Card socket		
Size	Project Name				Rev
	KABINI				SA
Date: Friday, September 07, 2012		Sheet 91 of 102			



EAEG50 KB UMA

		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
	KABINI		SA
Date: Friday, September 07, 2012		Sheet	92 of 102

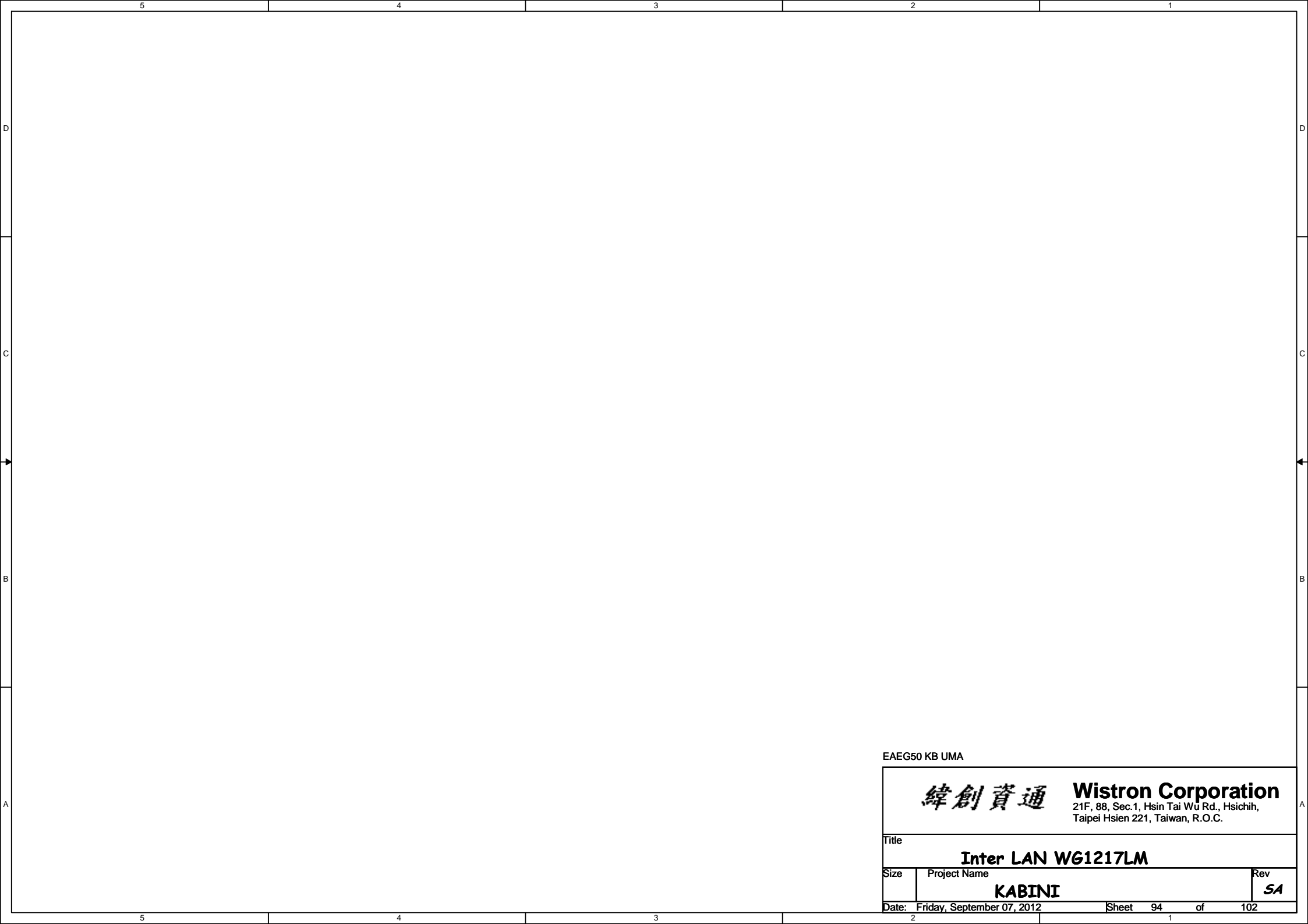


EAEG50 KB UMA

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
	KABINI		SA
Date:	Friday, September 07, 2012	Sheet	93 of 102



EAEG50 KB UMA

<div><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></div>	
Title	
Inter LAN WG1217LM	
Size	Rev
Project Name	
KABINI	
SA	
Date: Friday, September 07, 2012	Sheet 94 of 102

5

4

3

2

1

D

D

C

C

B

B

A

A

EAEG50 KB UMA

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

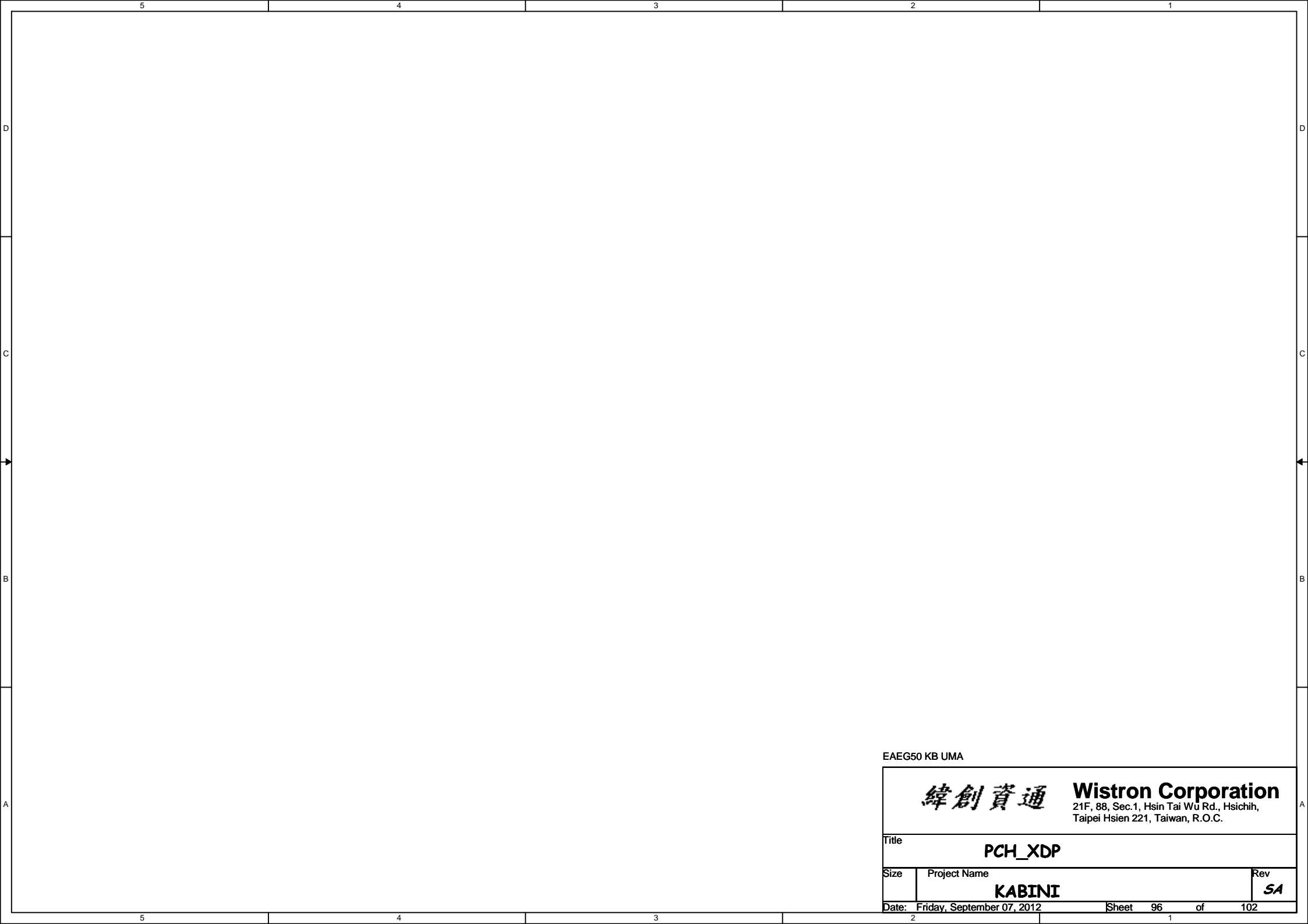
Size	Project Name	Rev
------	--------------	-----

KABINI

SA

Date: Friday, September 07, 2012	Sheet 95 of 102
----------------------------------	-----------------

WWW.AliSaler.Com

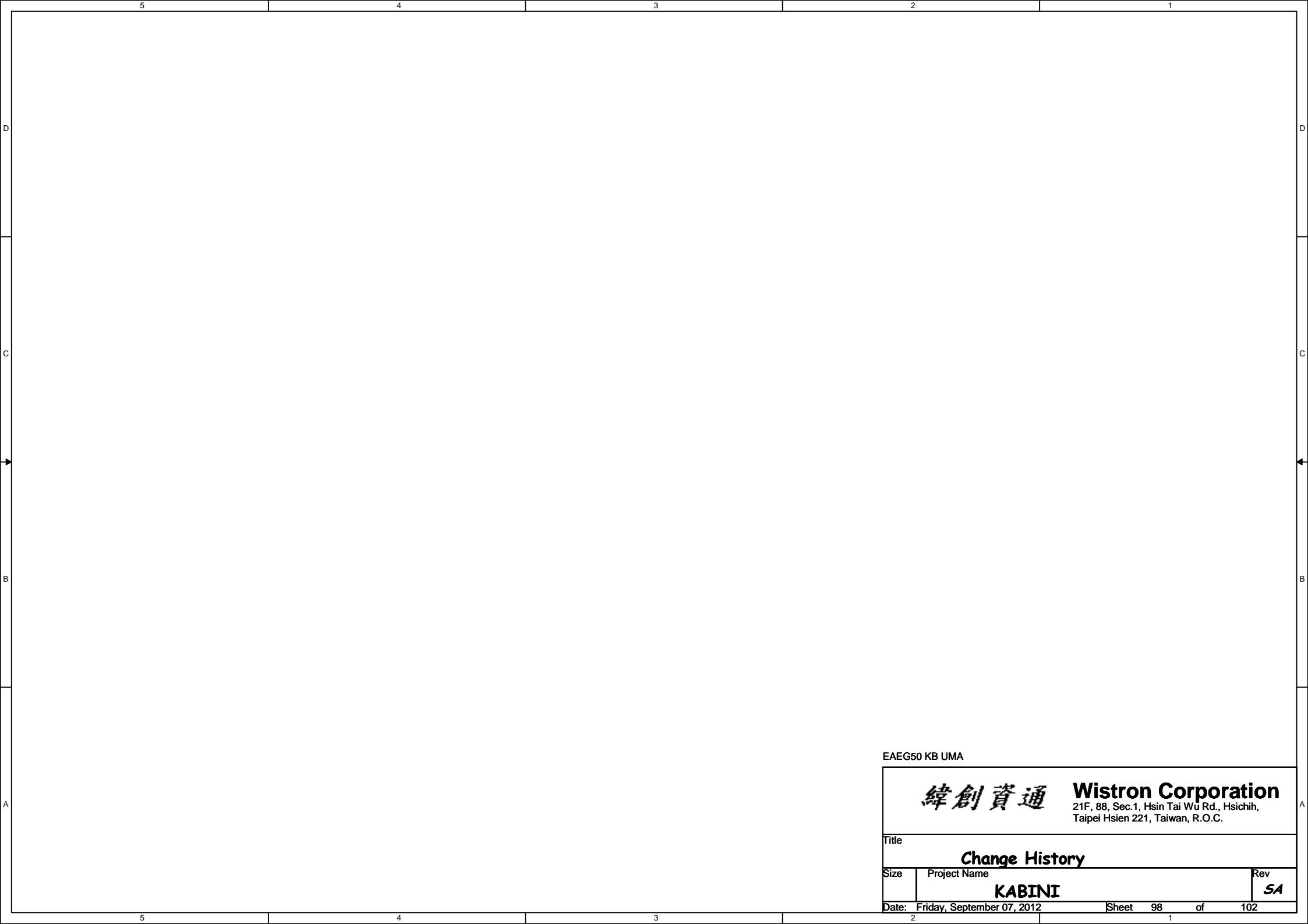


EAEG50 KB UMA

<div><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></div>	
Title PCH_XDP	
Size	Project Name KABINI
Date: Friday, September 07, 2012	Rev SA
Sheet 96 of 102	

EAEG50 KB UMA

<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			
table of content			
Size	Project Name		Rev
	KABINI		SA
Date:	Friday, September 07, 2012	Sheet 97 of	102



EAEG50 KB UMA

緯創資通

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

Title

Change History

Size

Project Name

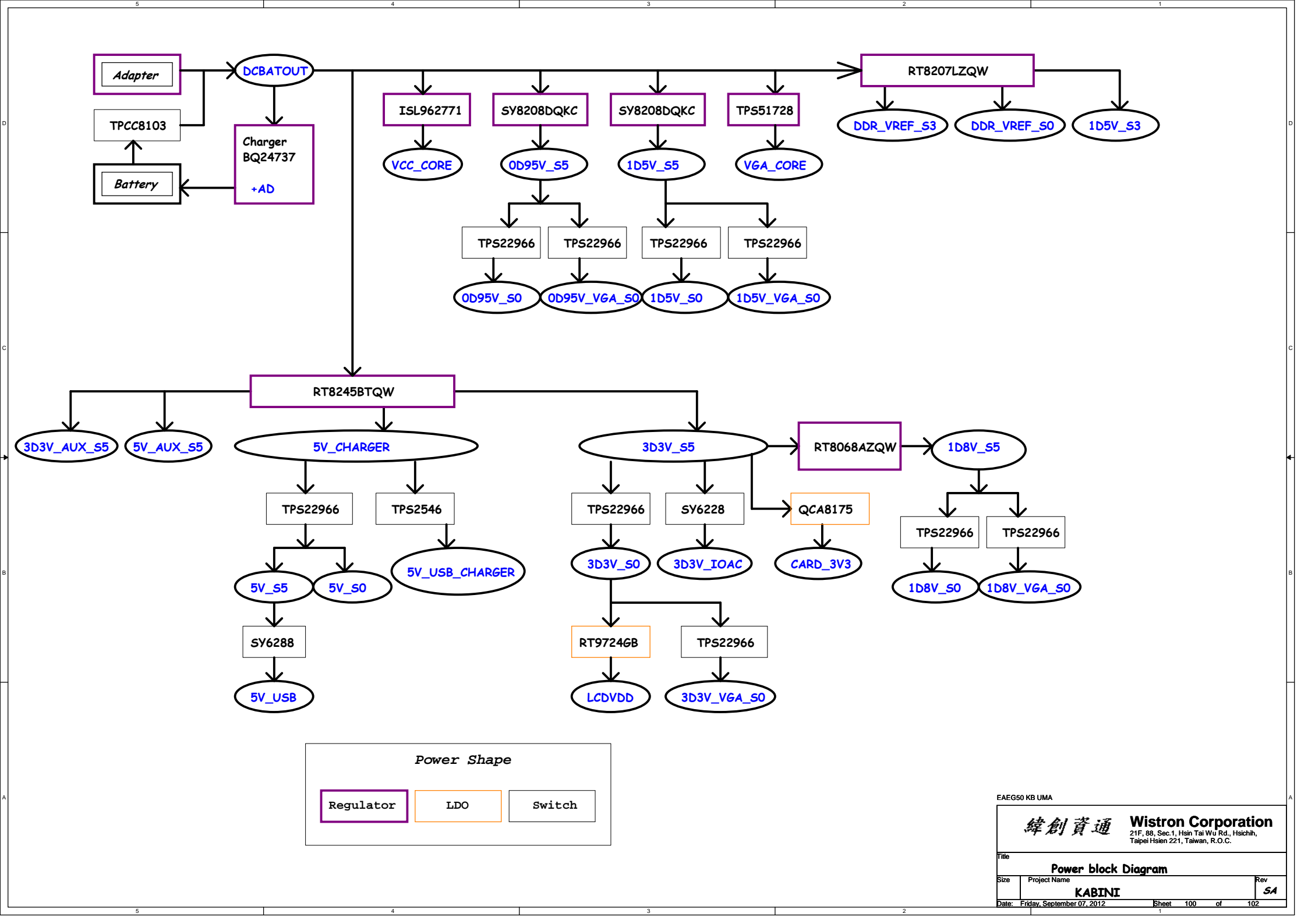
KABINI

Rev

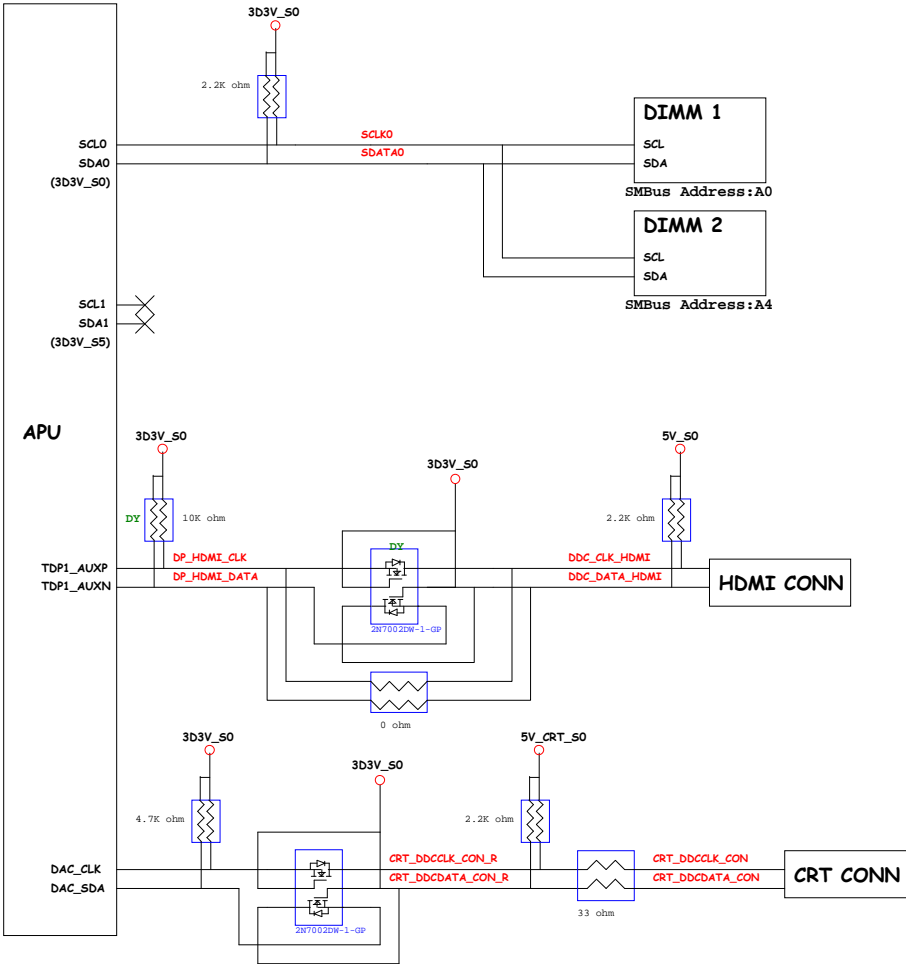
SA

Date: Friday, September 07, 2012

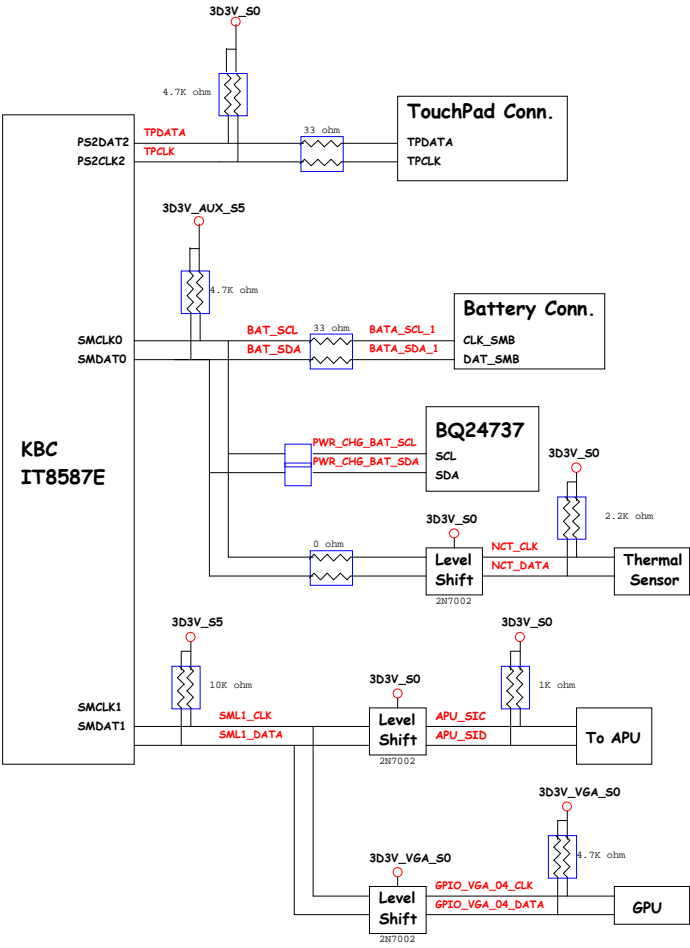
Sheet 98 of 102



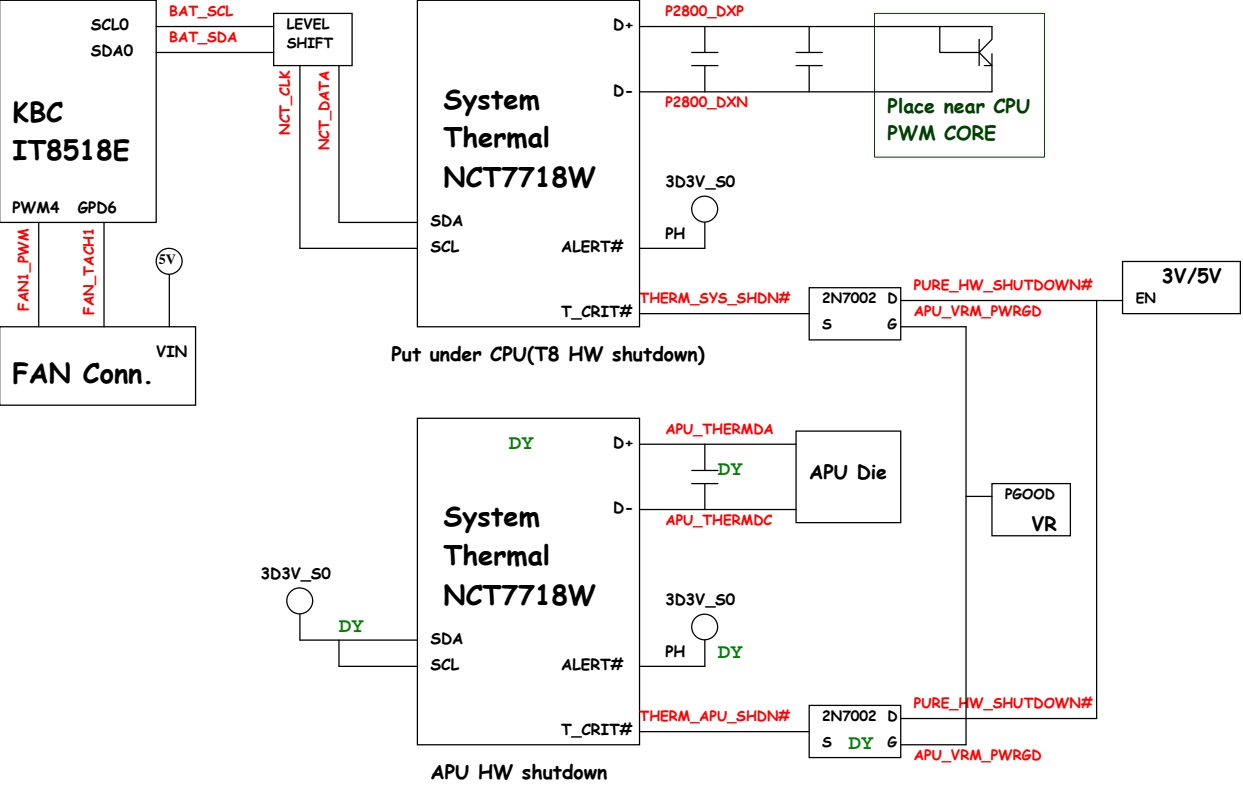
SMBus Block Diagram



KBC SMBus Block Diagram



Thermal Block Diagram



Audio Block Diagram

