

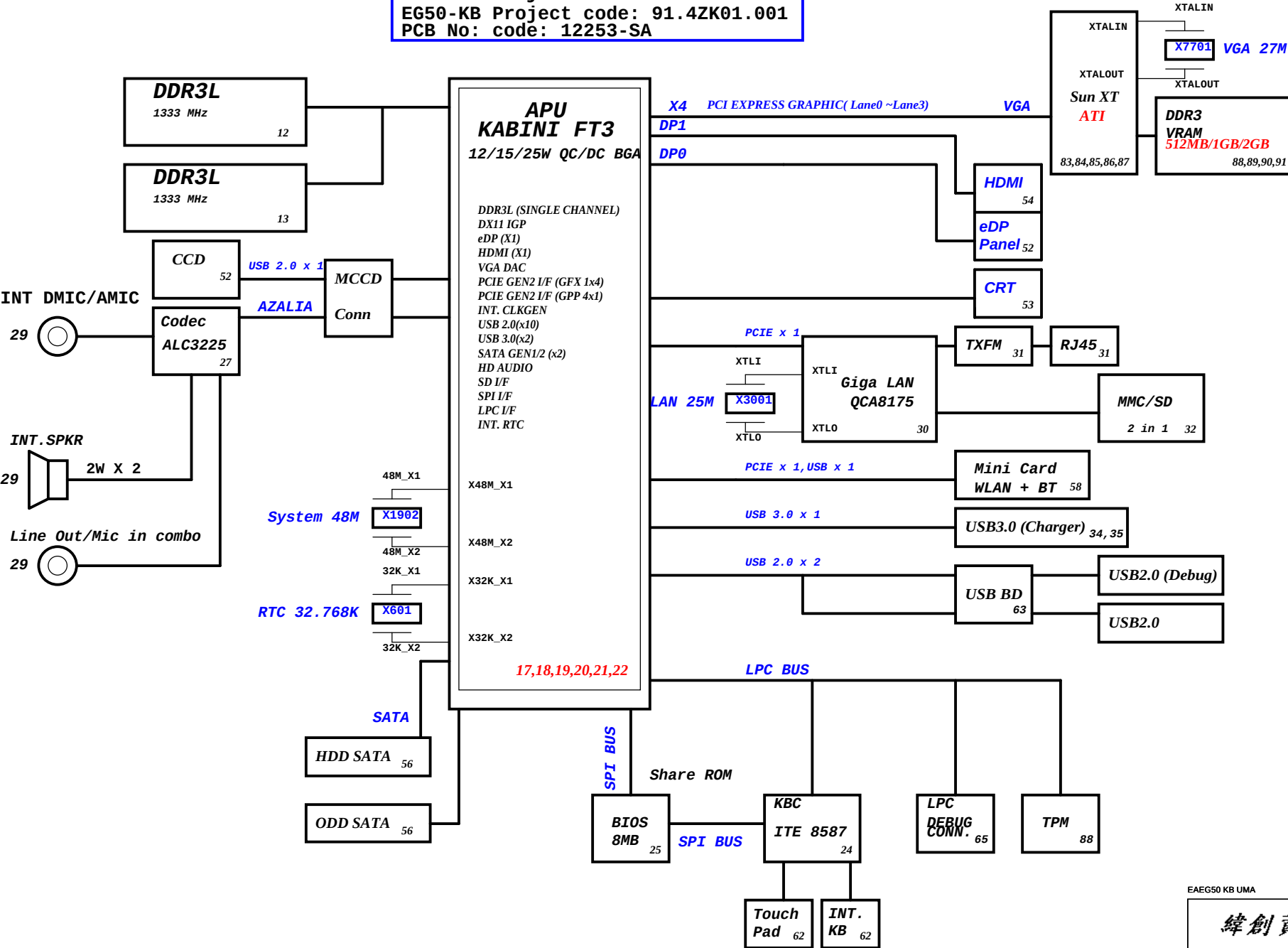
AMD KABINI EA/EG-40/50
PX /UMA Schematics Document
AMD FT3 APU
AMD GPU SUN XT M2/64bit

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		
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)	RT8207	
DCBATOUT	0D75_S0 (1.2A)		
SYSTEM DC/DC		RT8068	50
INPUTS	OUTPUTS		
3D3V_S5	1D8V_S5 (3.05A)	SY8208	48, 51
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		

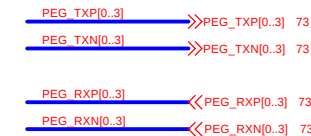
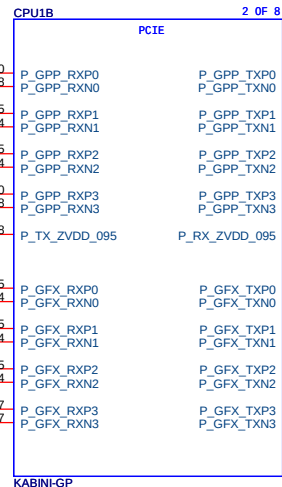
LAN + Card

WLAN

GFX x 4

71.KABIN.B0U
71.KABIN.C0U

IC CPU Kabini 4110 1.5GHz 15W4C FT3 ES2 BGA
IC CPU Kabini 5110 2.0GHz 25W4C FT3 ES2 BGA



PCIE Table

0	LAN + Card
1	WLAN
2	NC
3	NC

LAN + Card

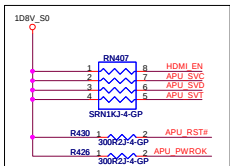
WLAN

GFX x 4

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.

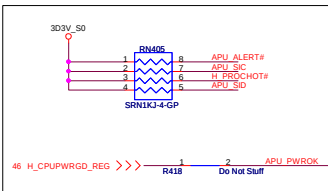
Title			CPU PCIE	
Size	Document Number	KABINI		Rev
A3	Monday, February 04, 2013	Sheet	3	of 102



20120821 Follow Larne

TABLE 6. PRE-PWROK METAL VID CODES

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

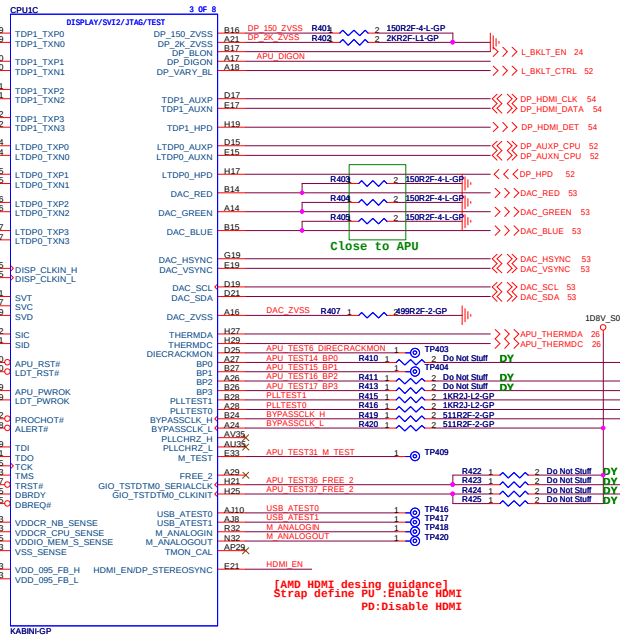
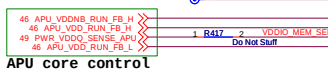
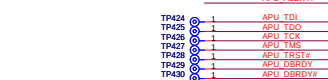
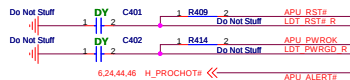


20120820 Follow Larne

APU HDMI

APU EDP

APU core control

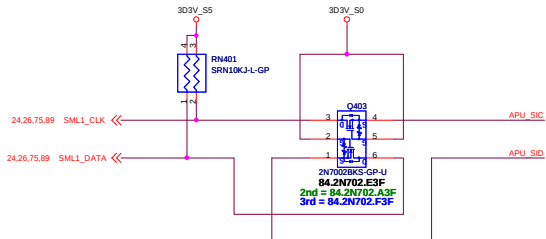
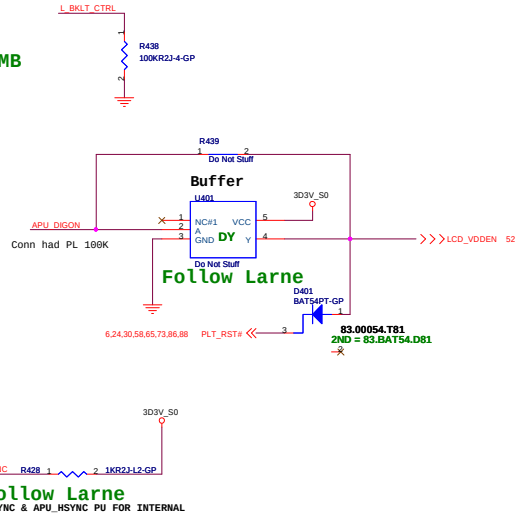


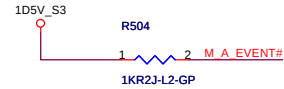
APU EDP

APU HDMI SMB

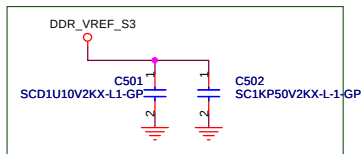
APU EDP

APU CRT

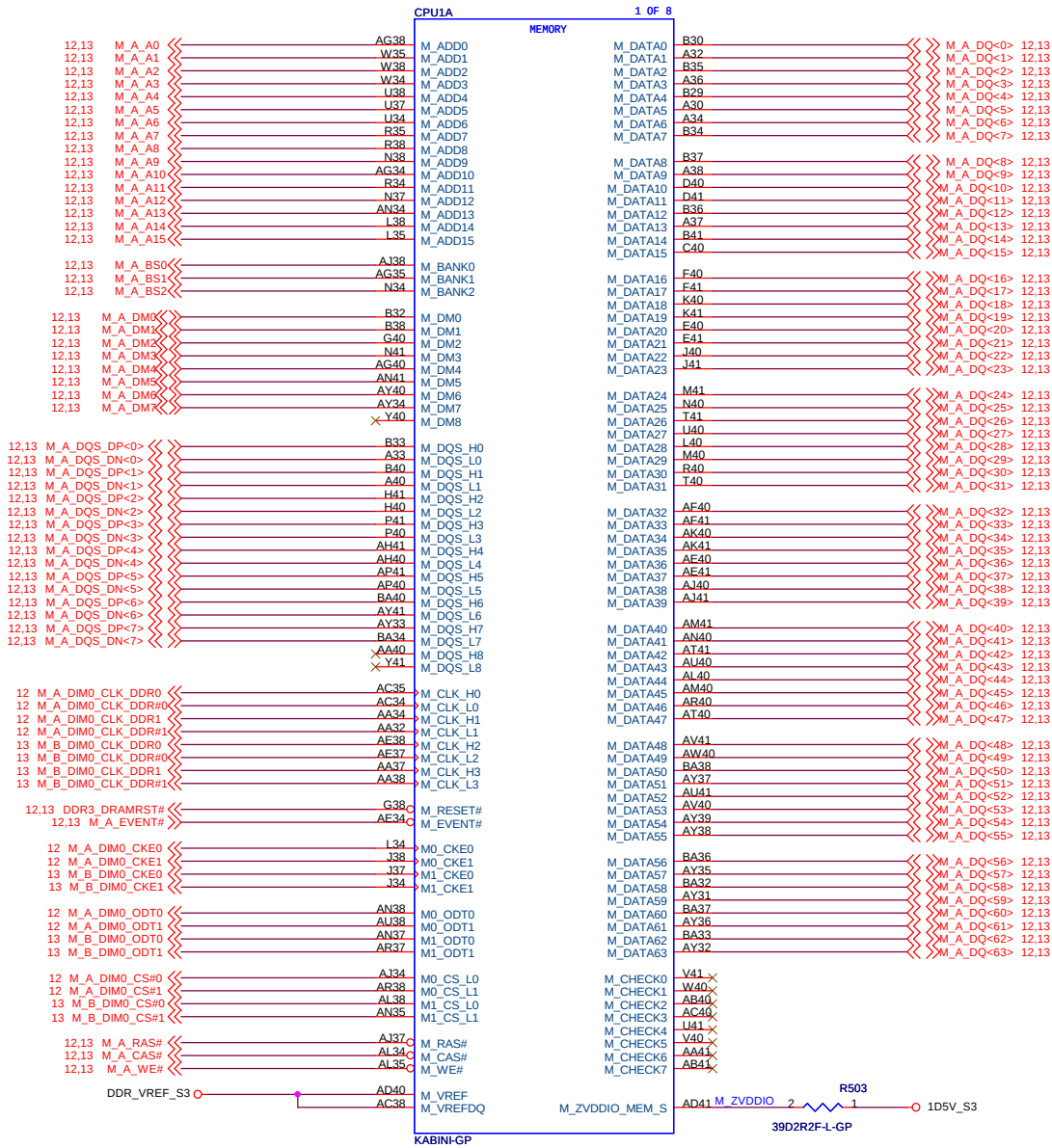




APU_VREF_DQ



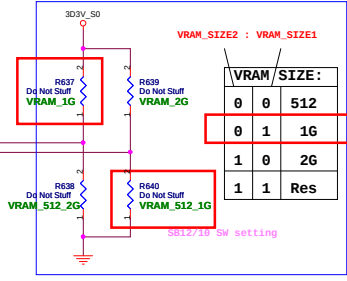
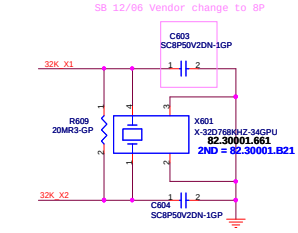
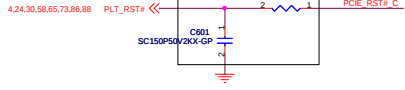
LAYOUT: place them close to APU



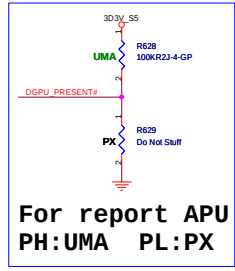
EAEG50 KB UMA

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

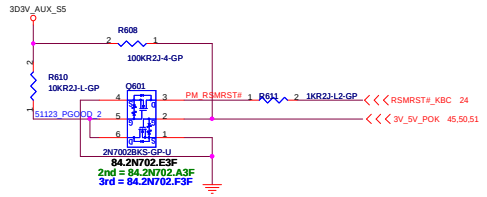
Title		
CPU DDR		
Size	Document Number	Rev
A3	KABINI	
Date:	Monday, February 04, 2013	Sheet 5 of 102



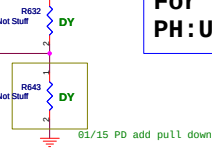
SUN only 4 bank for 16

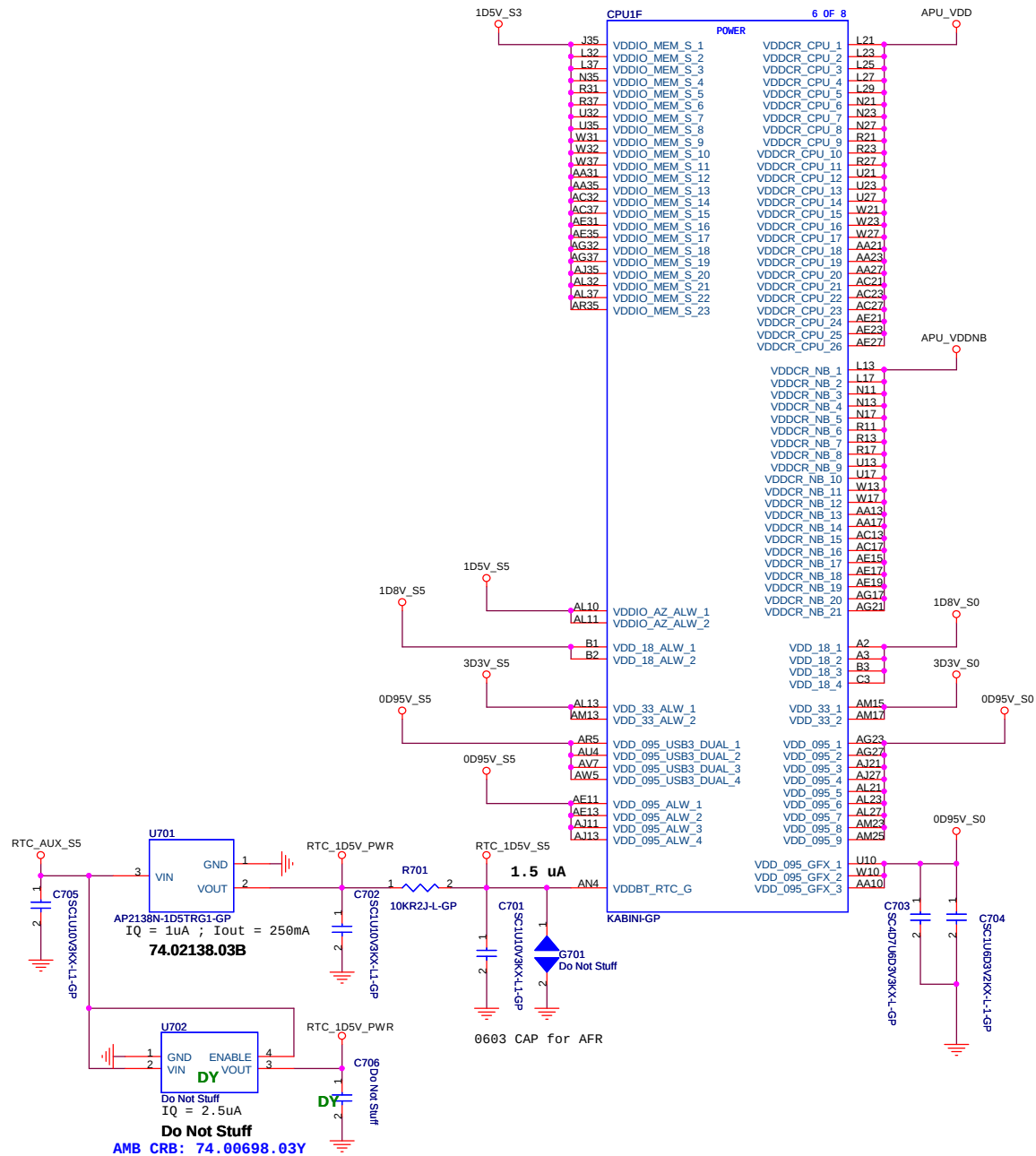


For report APU
PH:UMA PL:PX



HW setting MEM_1V5 H = 1.5V
L = 1.35V

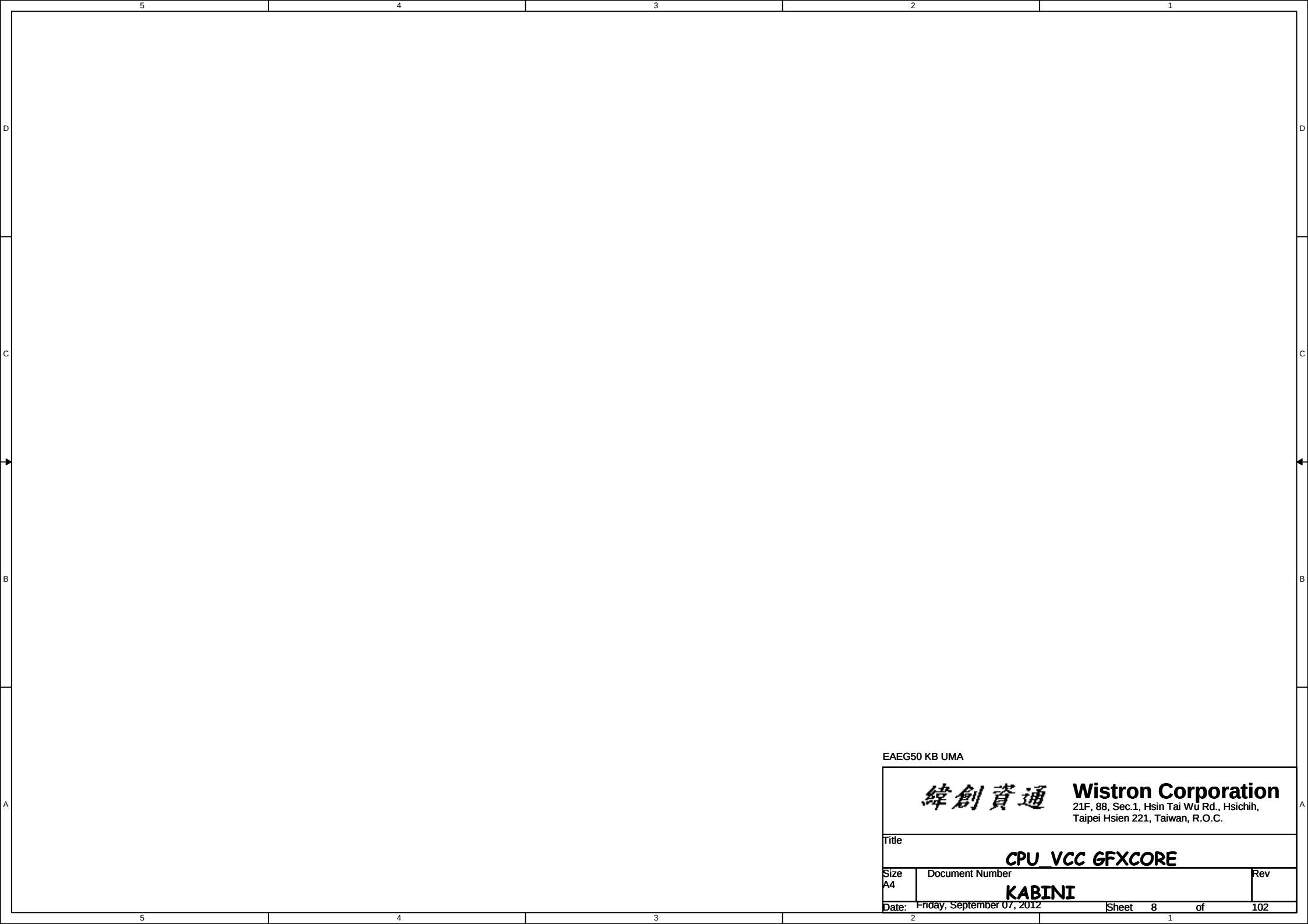




EAEG50 KB UMA

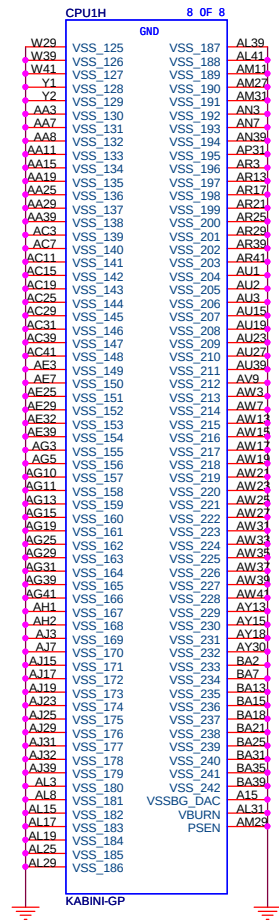
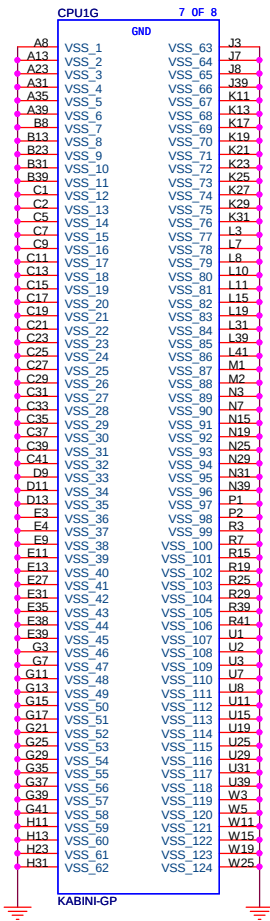
緯創資通 Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
 Taipei Hsien 221, Taiwan, R.O.C.

Title		
CPU VCC CORE		
Size	Document Number	Rev
A3	KABINI	
Date:	Tuesday, January 15, 2013	Sheet 7 of 102



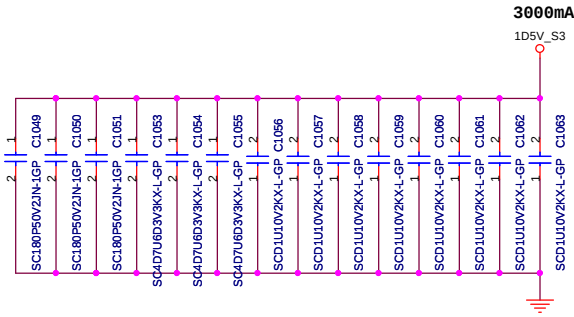
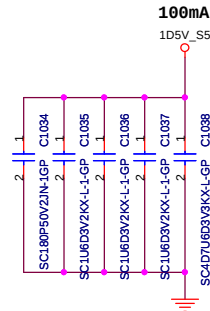
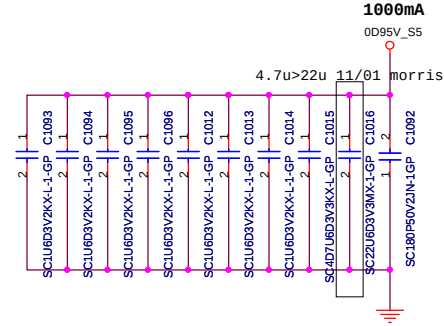
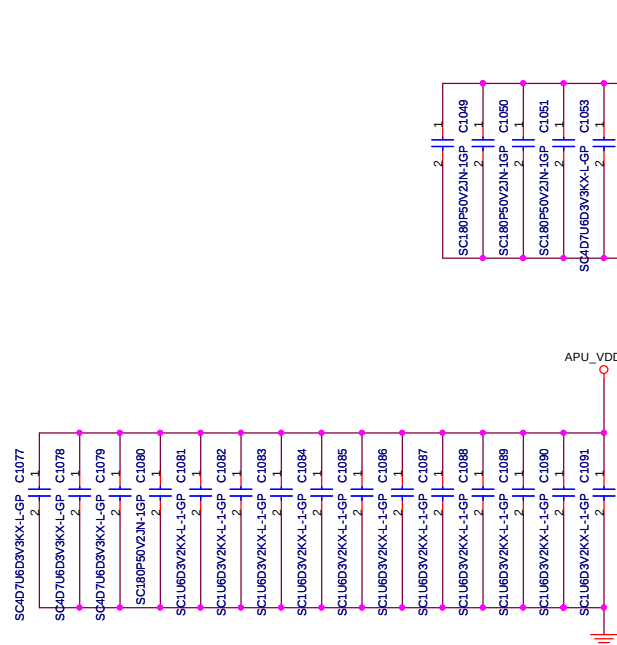
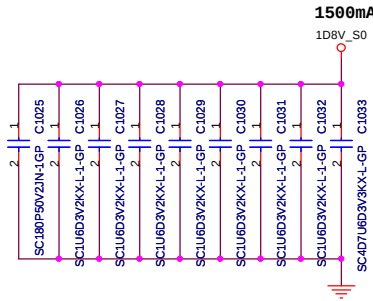
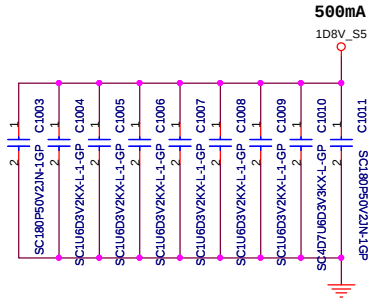
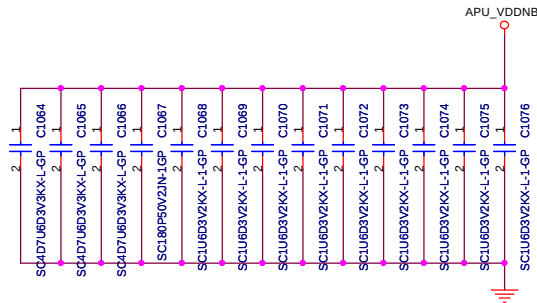
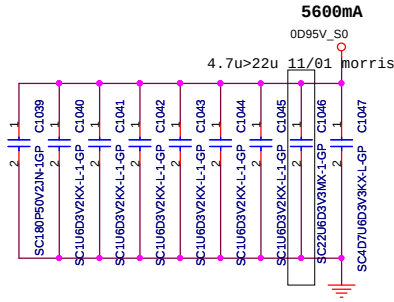
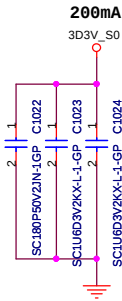
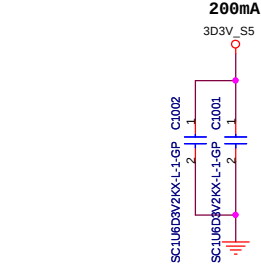
EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
CPU VCC GFXCORE	
Size	Document Number
A4	KABINI
Date	Rev
Friday, September 07, 2012	
Sheet	8 of 102



EAEG50 KB UMA

Title		
CPU VSS		
Size	Document Number	Rev
A3	KABINI	
Date:	Wednesday, November 28, 2012	Sheet 9 of 102



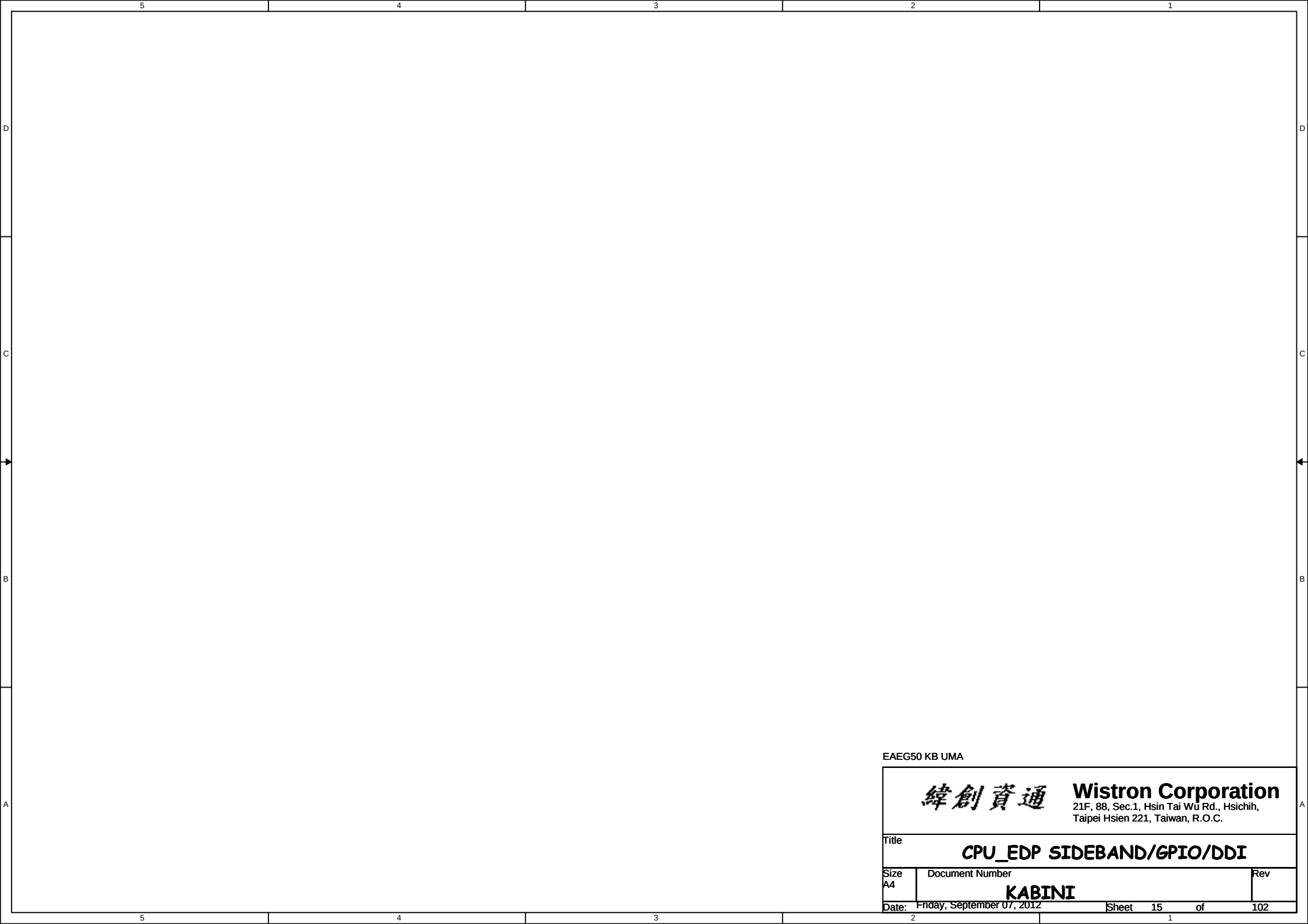
EAE650 KB UMA

5	4	3	2	1
D				
C				
B				
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				
CPU_POWER CAP2				
Size A	Document Number			Rev
KABINI				
Date: Friday, September 07, 2012		Sheet	11	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 DDR3 SODIMM 3		
Size A4	Document Number KABINI	Rev
Date: Friday, September 07, 2012		Sheet 14 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_EDP SIDEBAND/GPIO/DDI		
Size A4	Document Number KABINI	Rev
Date: Friday, September 07, 2012		Sheet 15 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		
CPU PCIE/USB		
Size	Document Number	Rev
A4	KABINI	
Date: Friday, September 07, 2012	Sheet 16 of	102

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

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 DMI/FDI/PM	
Size A	Document Number KABINI
Date: Friday, September 07, 2012	Sheet 17 of 102

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

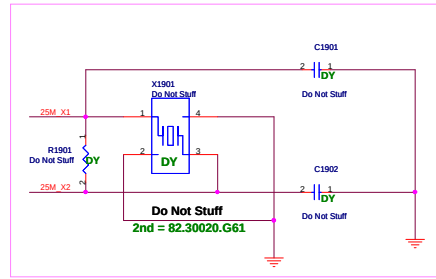
EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
TitleCPU_PCIE/SMBUS/CLK/CL/SPI			
SizeA	Document NumberKABINI		Rev
Date: Friday, September 07, 2012	Sheet	18 of	102

SATA Table

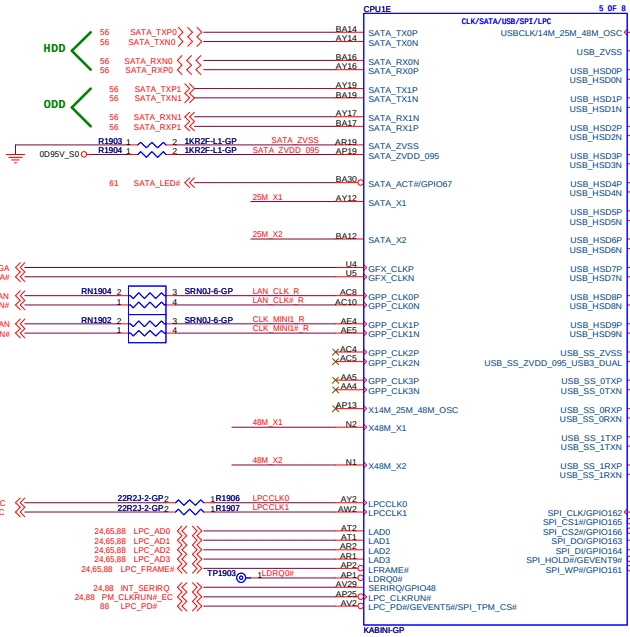
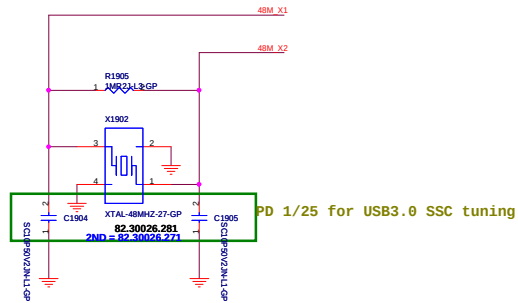
0	HDD
1	ODD

SB 11/27 25M XTAL Reserved for AMD

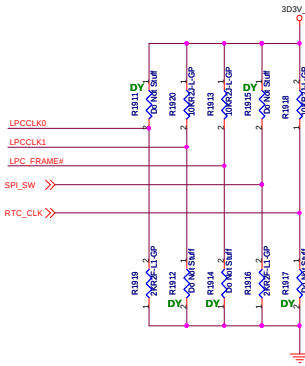


VGA 73 PCIE_CLK_VGA
73 PCIE_CLK_VGAH
Lan + Card Reader 30 PCIE_CLK_LAN
30 PCIE_CLK_LANH
WLAN 58 PCIE_CLK_WLAN
58 PCIE_CLK_WLANH

KBC 24.88 CLK_PCI_KBC
DBB/TPM 65.88 CLK_PCI_LPC



SYSTEM STRAPPINGS



	LPC_CLK0	LPC_CLK1	LFRAME#	EXPCARD_PCIE_PWREN#	RTC_CLK
FULL	BOOT FAIL TIMER ENABLED	CLNGEN ENABLED	SPI ROM	1.0V SPI ROM (DEFAULT)	NORMAL POWR UP/RESET TIMING (DEFAULT)
HIGH		DEFAULT	DEFAULT		
FULL	BOOT FAIL TIMER DISABLED	CLNGEN DISABLED	LPC ROM	3.0V SPI ROM (DEFAULT)	FAST POWER UP/RESET TIMING FOR SIMULATION
LOW		DEFAULT			

USB Table

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	

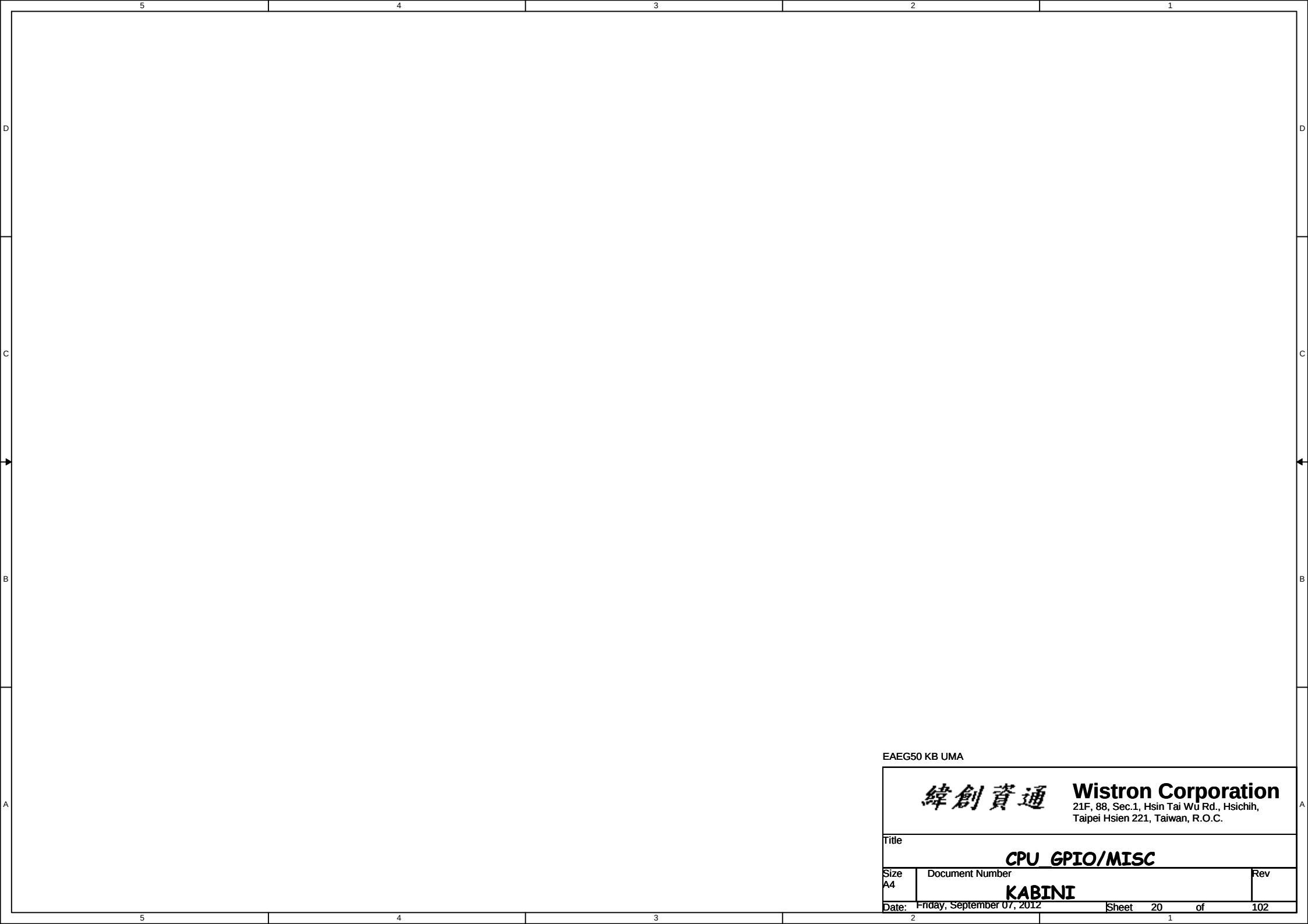
Xtal Table

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



SPI SHARE ROM

EAE650 KB UMA



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

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

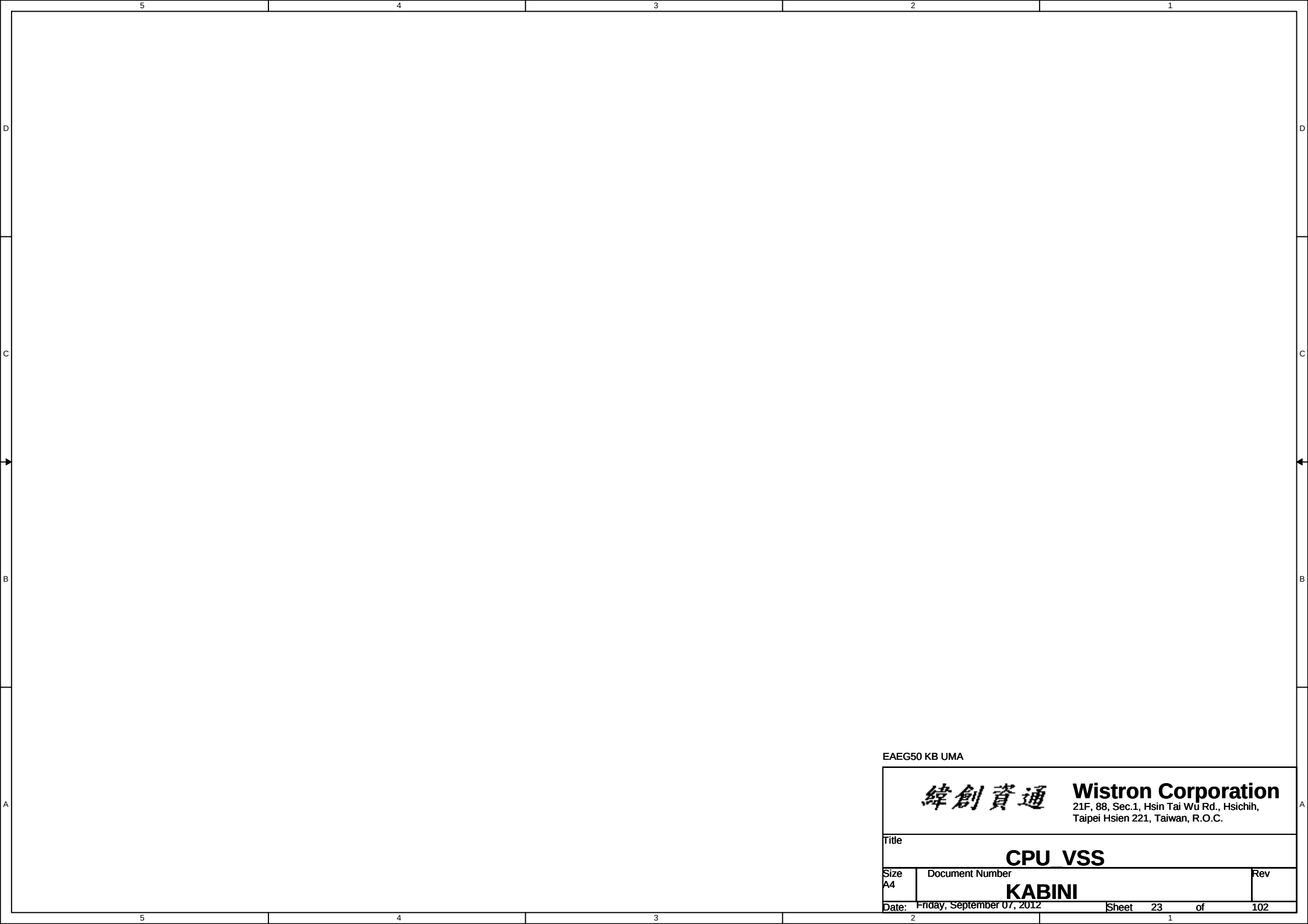
EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title		
CPU POWER1		
Size	Document Number	Rev
A4	KABINI	
Date:	Friday, September 07, 2012	Sheet 21 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		
CPU RSVD		
Size	Document Number	Rev
A4	KABINI	
Date:	Friday, September 07, 2012	Sheet 22 of 102



EAEG50 KB UMA

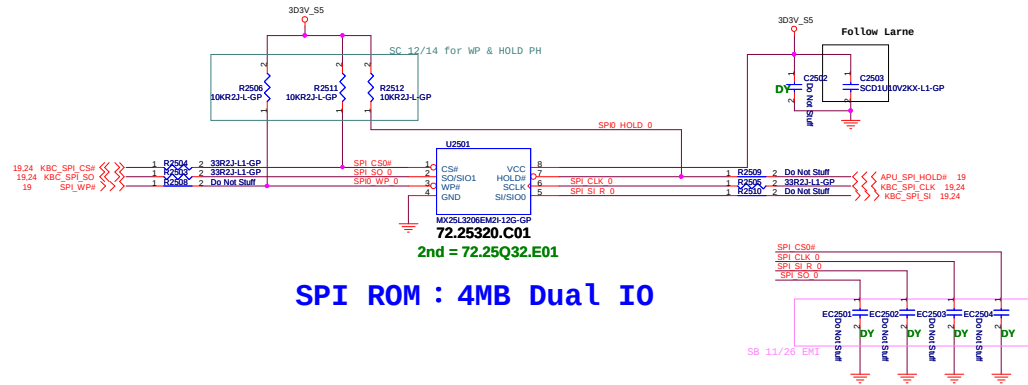
緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
CPU VSS	
Size	Document Number
A4	KABINI
Date	Rev
Friday, September 07, 2012	
Sheet 23 of 102	

SPI FLASH ROM (4M byte) for KBC

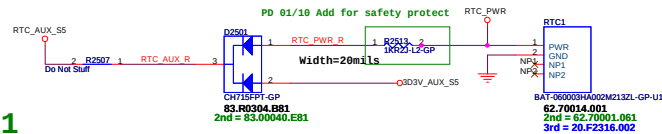
1st. MXIC : 72.25320.C01

2nd. WINBOND : 72.25Q32.E01

(手置件)請PCC移至DIP件



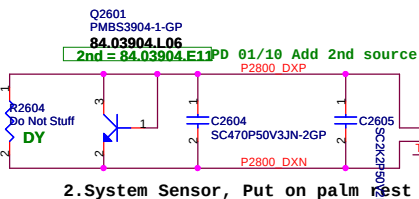
CR2032額外備料:
1.KTS: 23.20068.001
2.DBV: 23.22065.001



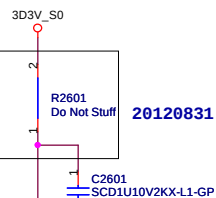
SSID = Thermal

Thermal sensor NCT 7718W

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

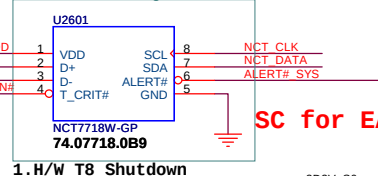


2. System Sensor, Put on palm test

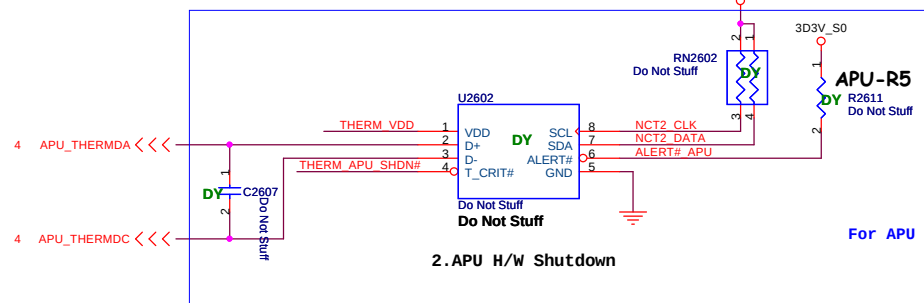


20120831

SC 12/12 for change Thermal SMBus with APU



1.H/W T8 Shutdown



2.APU H/W Shutdown

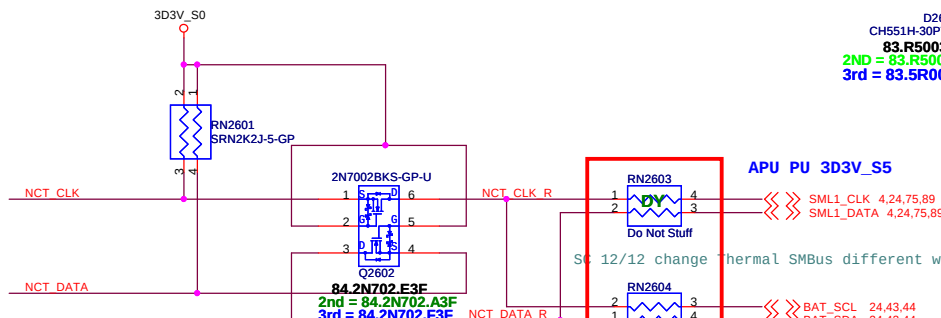
24,36 PURE_HW_SHUTDOWN# <<<

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
	79°C	89°C	99°C	109°C	119°C
	81°C	91°C	101°C	111°C	121°C
	83°C	93°C	103°C	113°C	123°C
	85°C	95°C	105°C	115°C	125°C

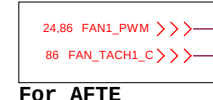
T_CRIT temperature strapping point

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

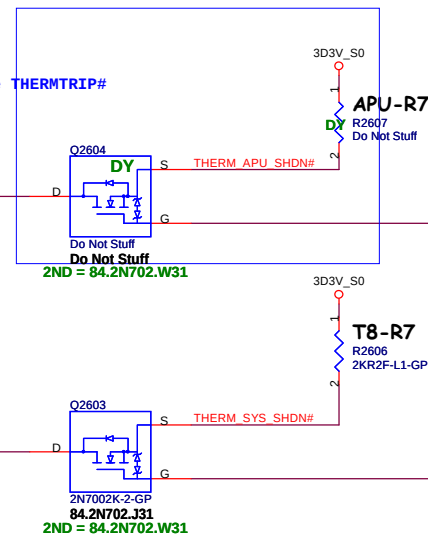


APU PU 3D3V_S5

SC EA50 DY RN2604 , mount RN2603



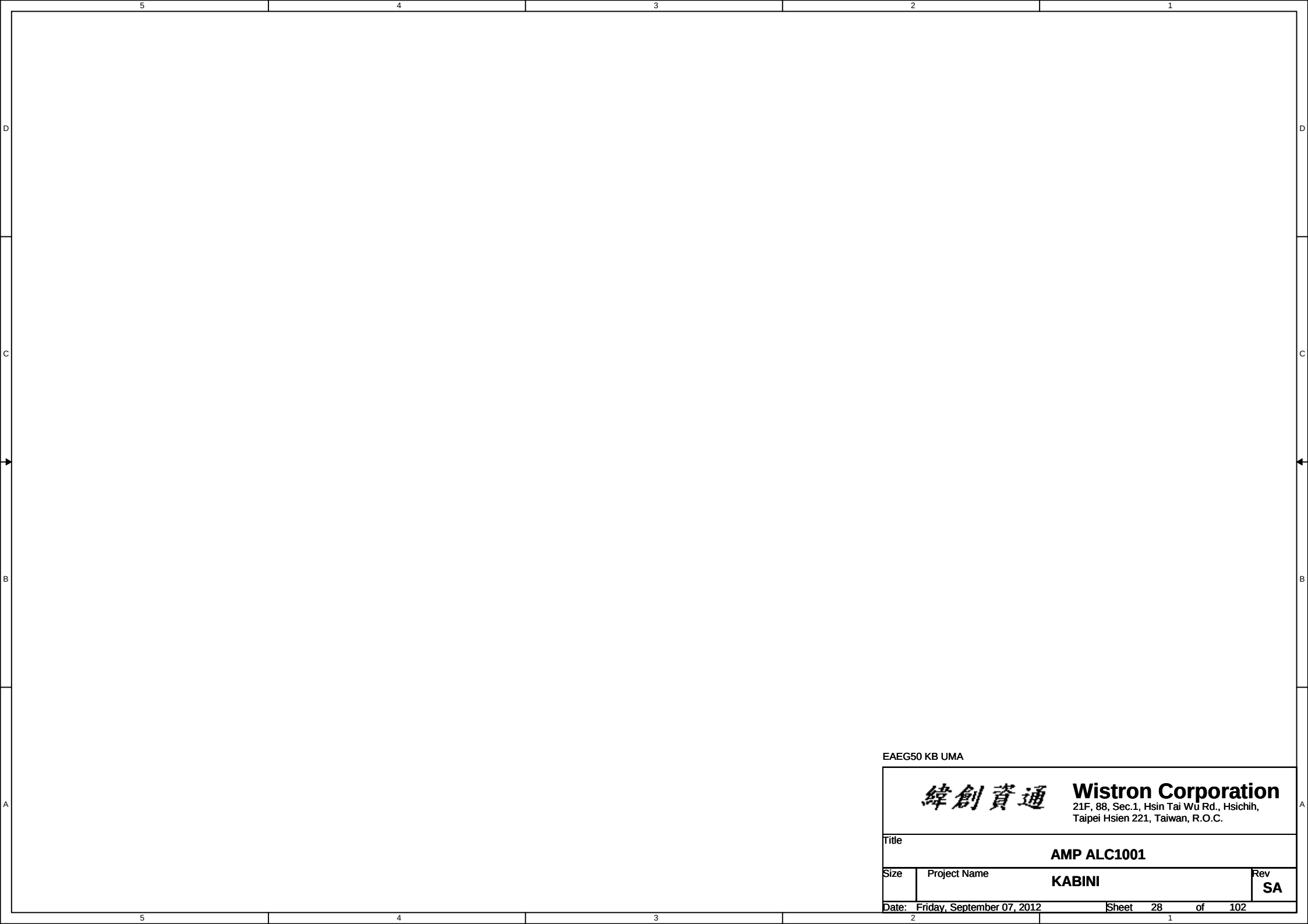
For AFTE



For APU Remote Die THERMTRIP#

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 Controller P2793	
Size	Project Name KABINI
Date: Monday, February 04, 2013	Sheet 26 of 102



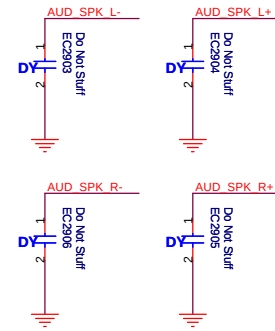
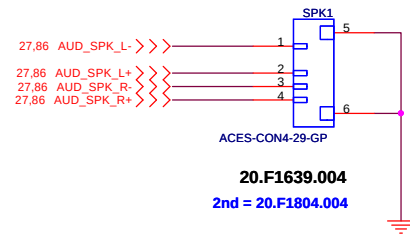
EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title AMP ALC1001		
Size	Project Name KABINI	Rev SA
Date: Friday, September 07, 2012		Sheet 28 of 102

SSID = AUDIO

Speaker

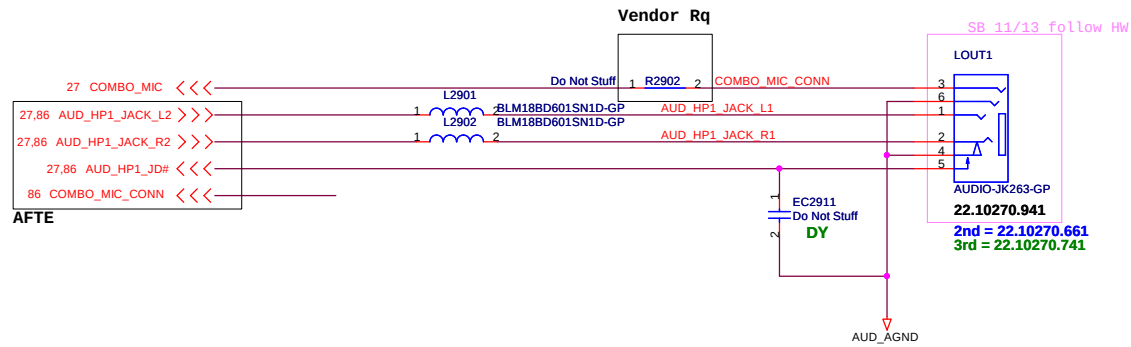
2W 4ohm X 2 speaker



Layout Note:

Trace width=40mil

Combo Jack

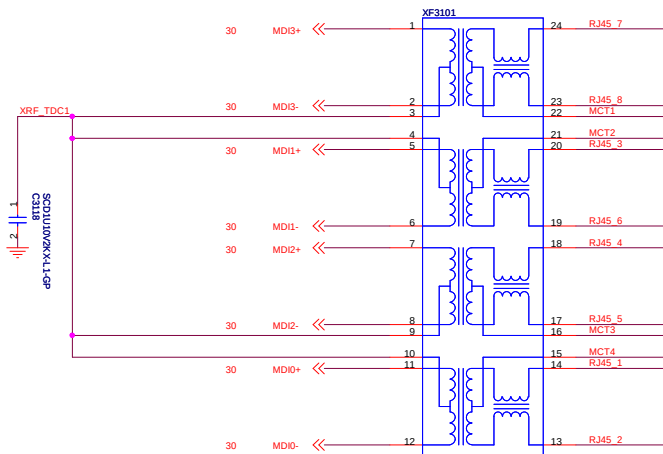


EAEG50 KB UMA

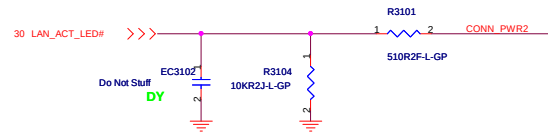
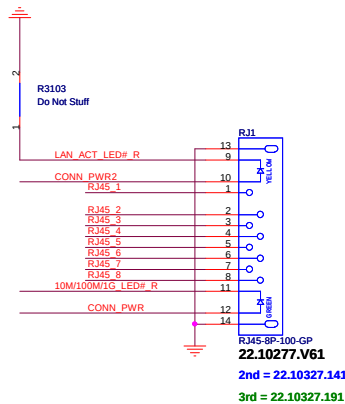
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

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

SSID = LAN



XF3101-270-GP-U
68.69241.301
2nd = 68.8115.30A
3rd = 68.00069.30A



86 RJ45_1 >>>

86 RJ45_2 >>>

86 RJ45_3 >>>

86 RJ45_4 >>>

86 RJ45_5 >>>

86 RJ45_6 >>>

86 RJ45_7 >>>

86 RJ45_8 >>>

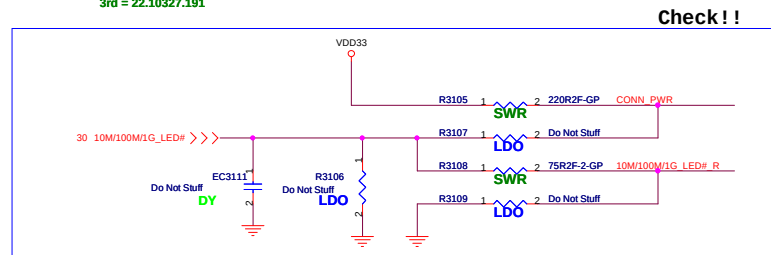
86 LAN_ACT_LED#_R >>>

86 10M/100M/1G_LED#_R >>>

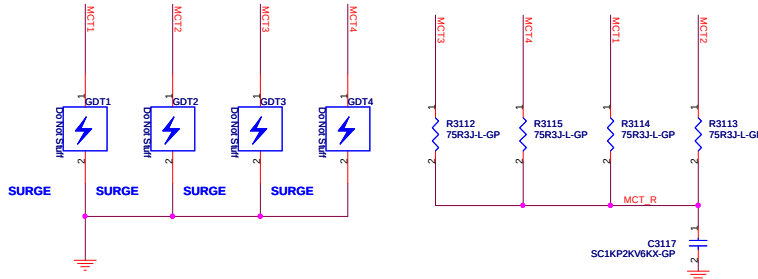
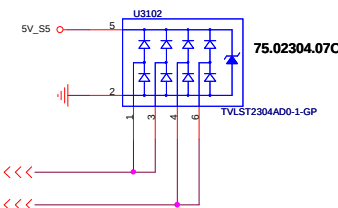
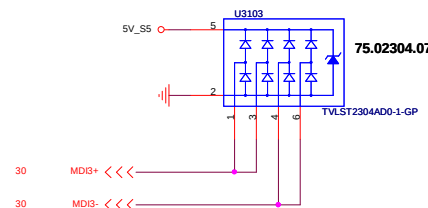
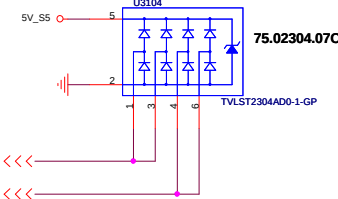
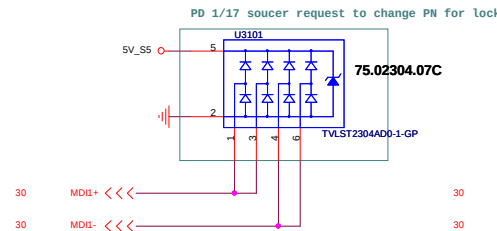
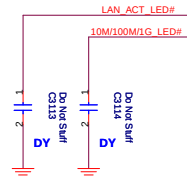
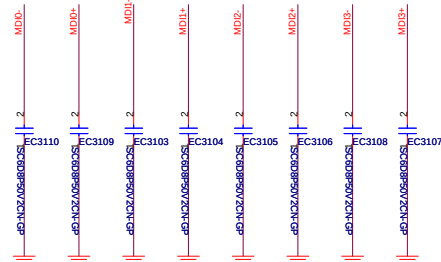
86 CONN_PWR >>>

86 CONN_PWR2 >>>

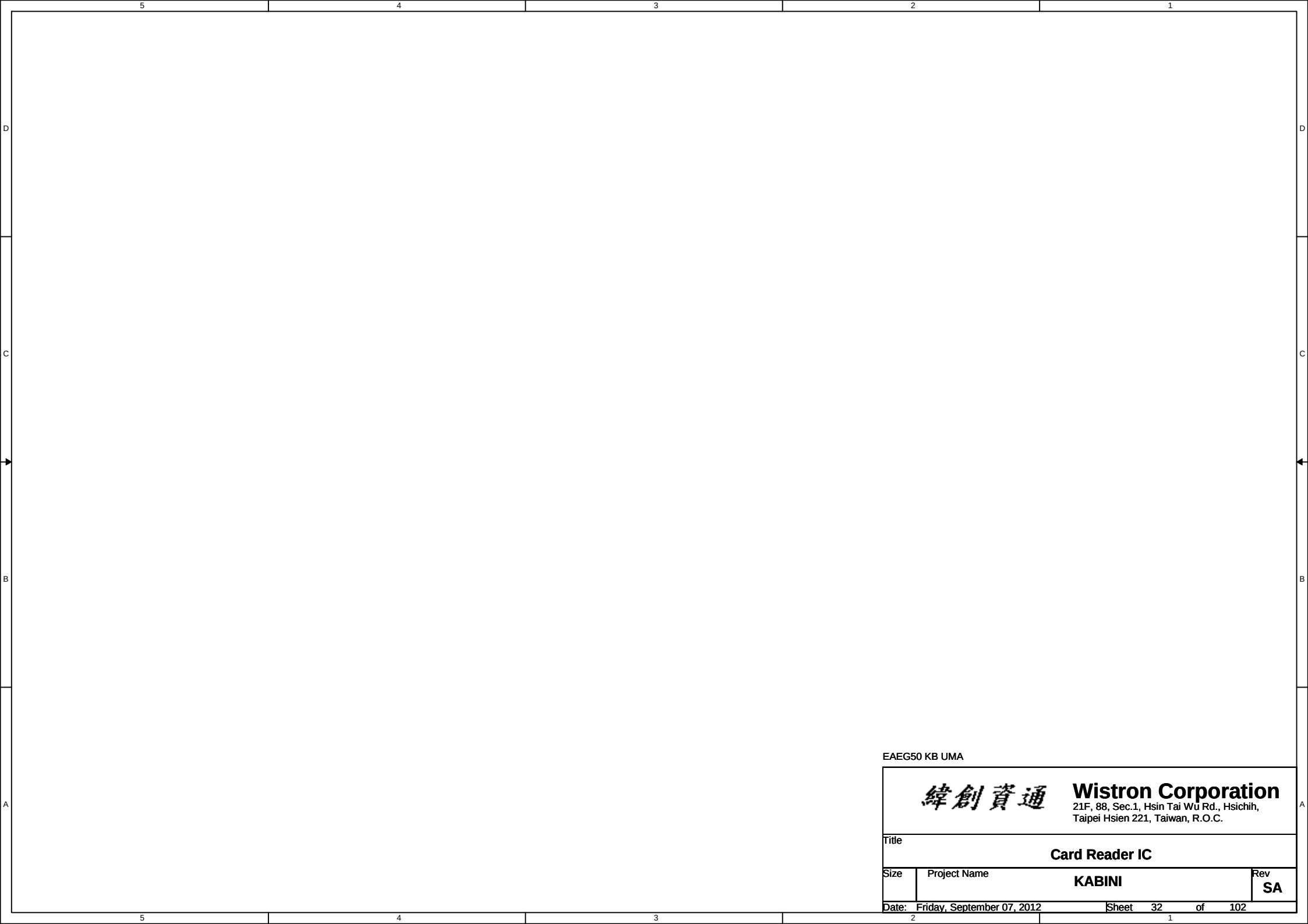
For AFTE



Check !!



EAEG50 KB UMA

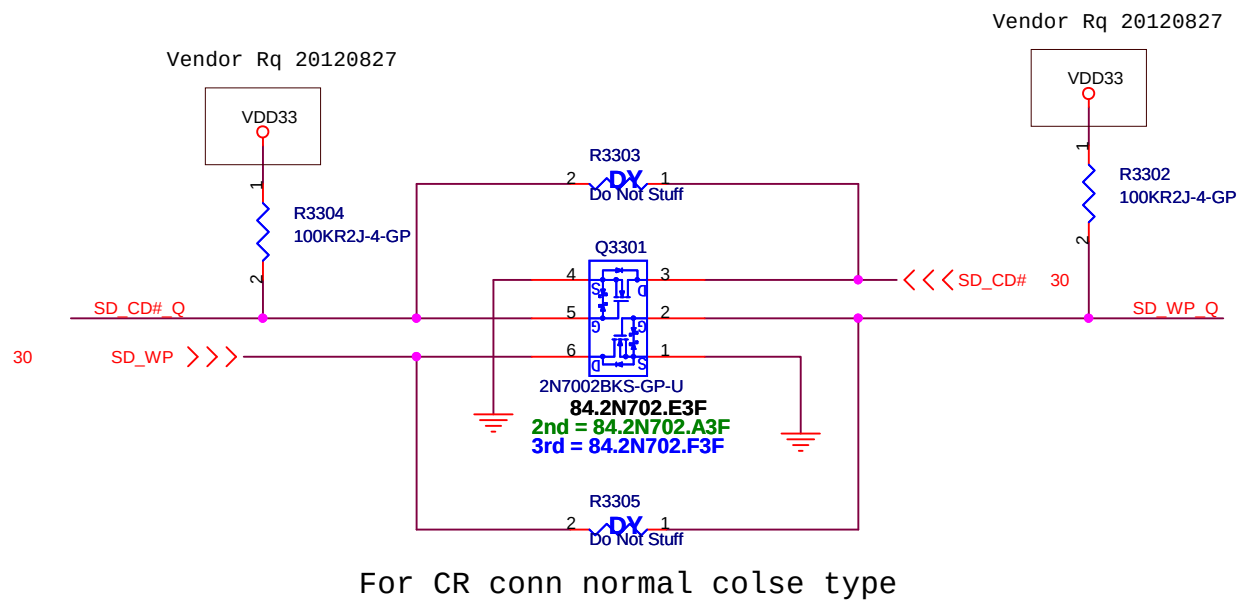
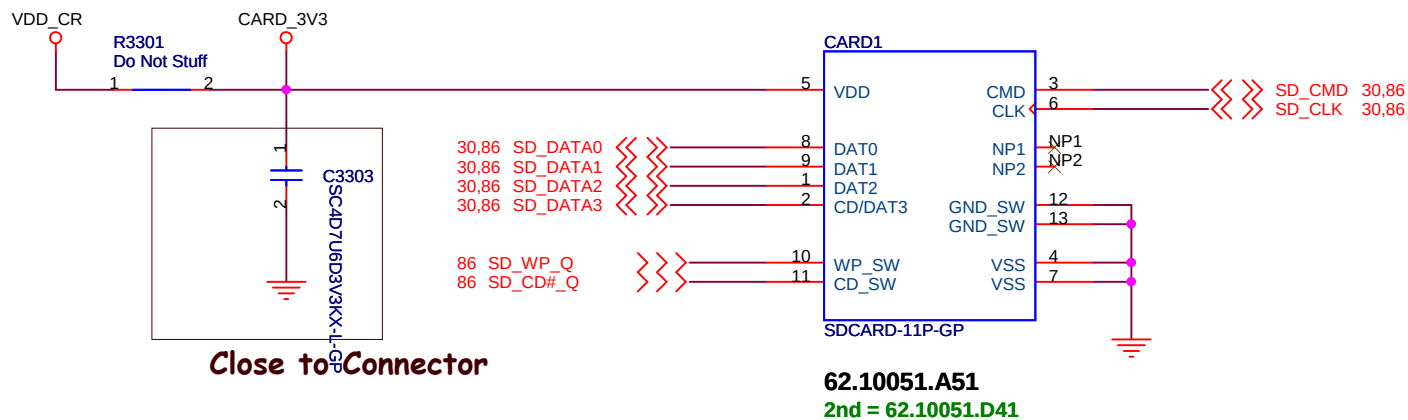


EAEG50 KB UMA

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 IC	
Size	Rev 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

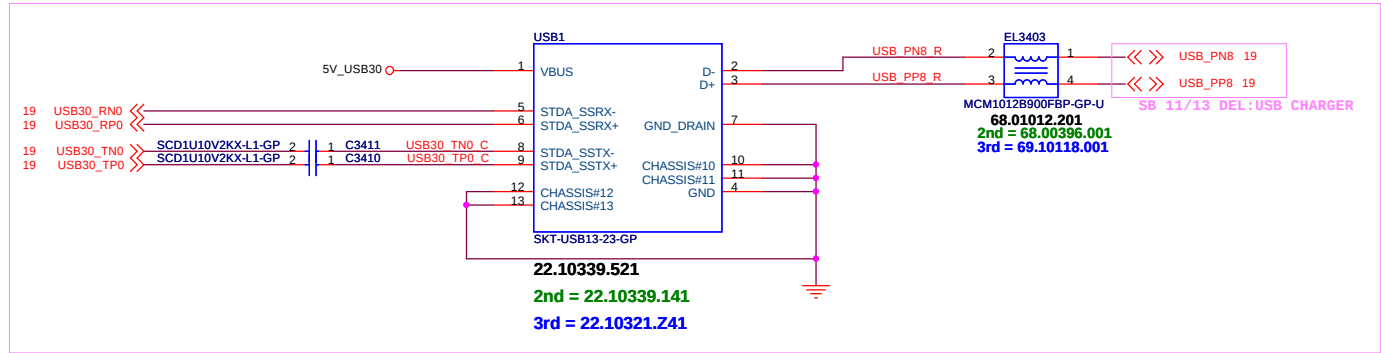
Rev

SA

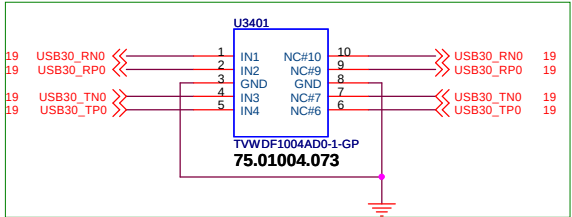
Date: Monday, February 04, 2013

Sheet 33 of 102

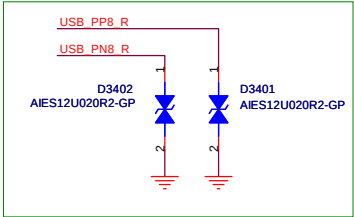
USB 2.0 CONTACT PIN		USB 3.0 CONTACT PIN	
PIN NO.	SIGNAL NAME	PIN NO.	SIGNAL NAME
1	VBUS	5	StdA_SSRX-
2	D-	6	StdA_SSRX+
3	D+	7	GND_DRAIN
4	GND	8	StdA_SSTX-
		9	StdA_SSTX+



SB 11/13 Change USB30 P/N

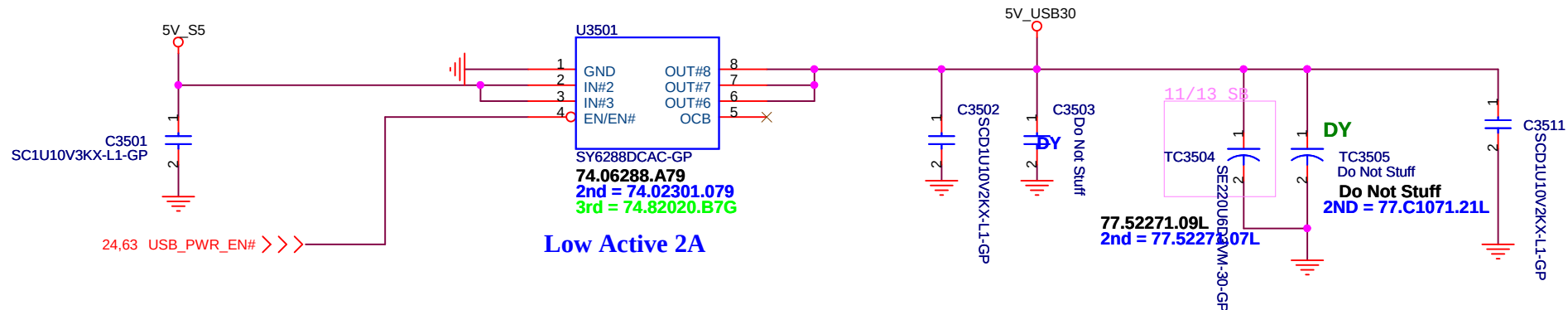


2/4 PD for Factory USB ESD issue.



1/28 PD for Factory USB ESD issue.

EAEG50 KB UMA



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

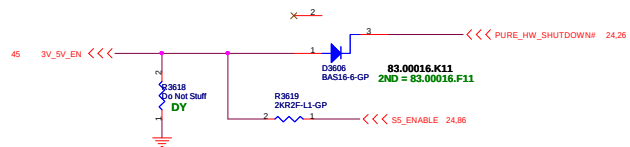
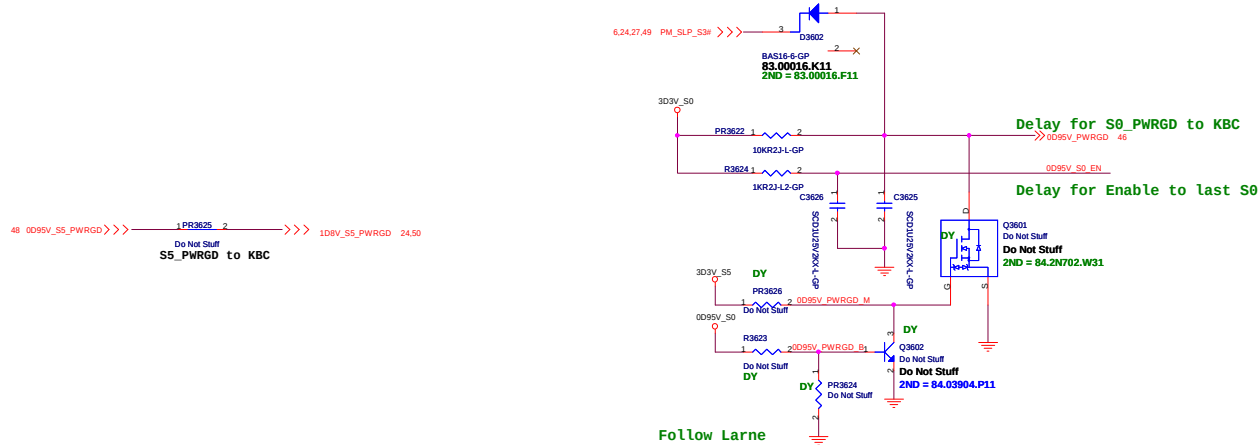
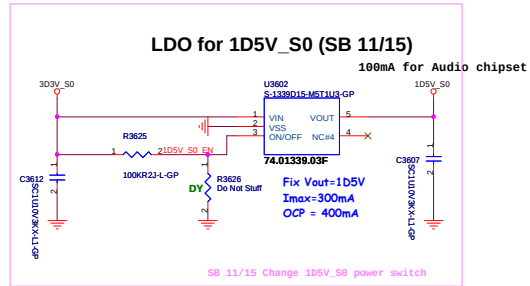
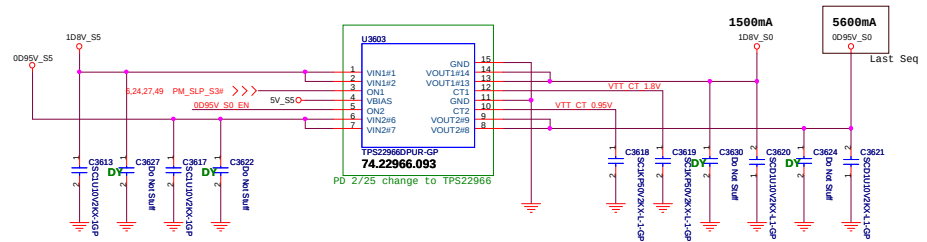
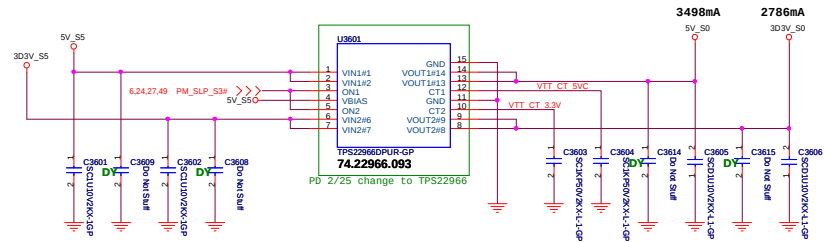
Rev

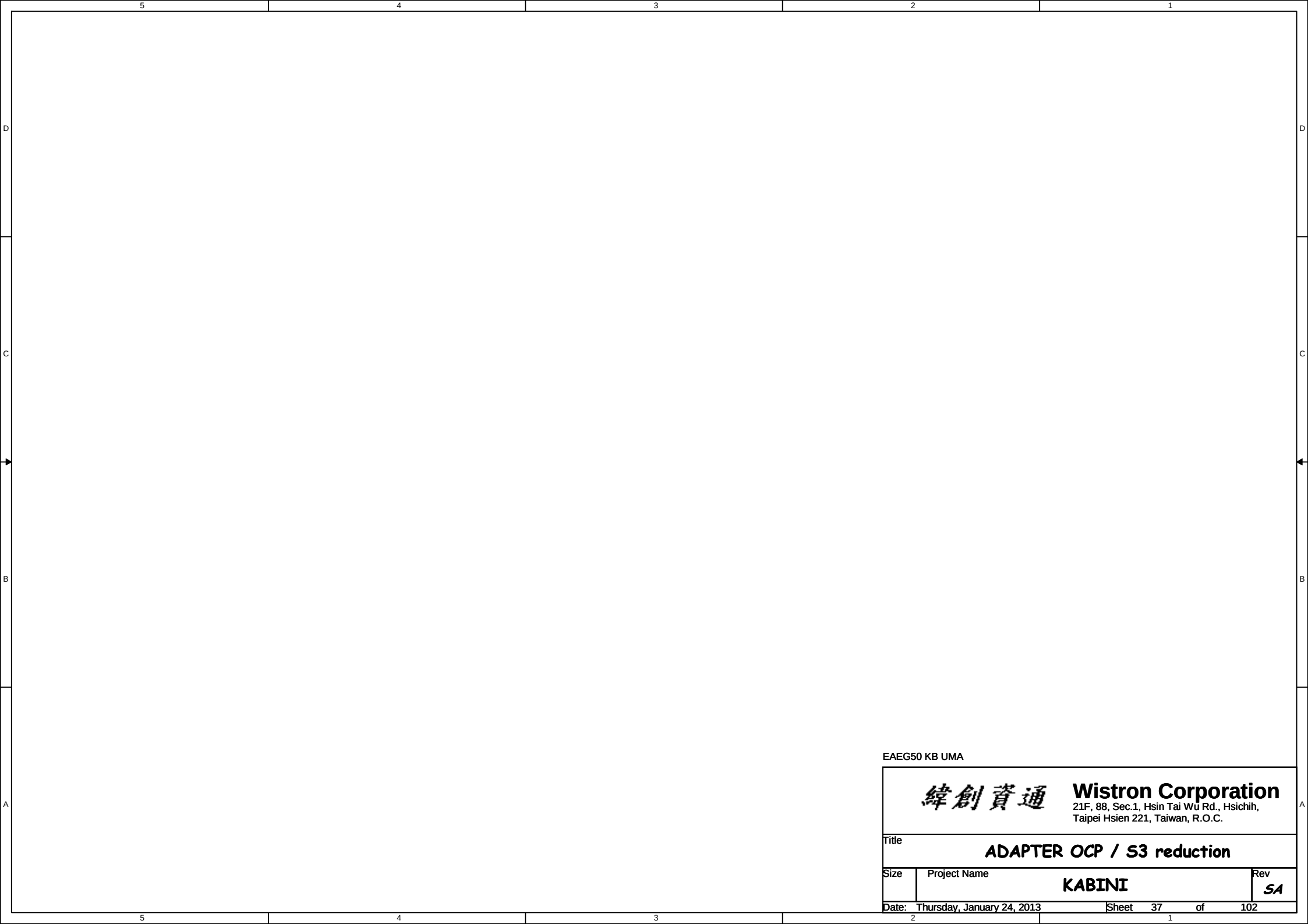
SA

Date: Monday, February 04, 2013

Sheet 35 of 102

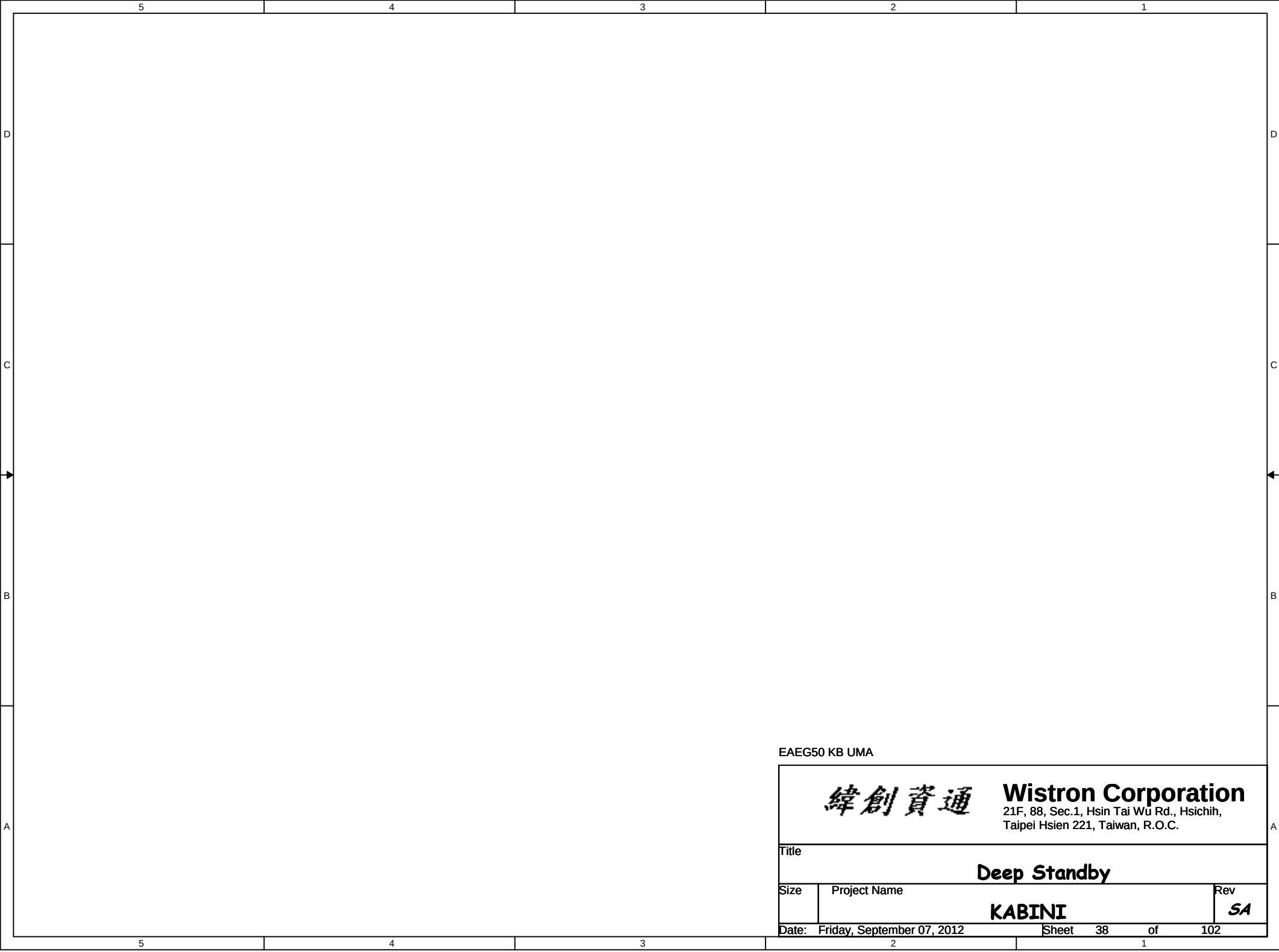
Power Sequence



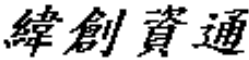


EAEG50 KB UMA

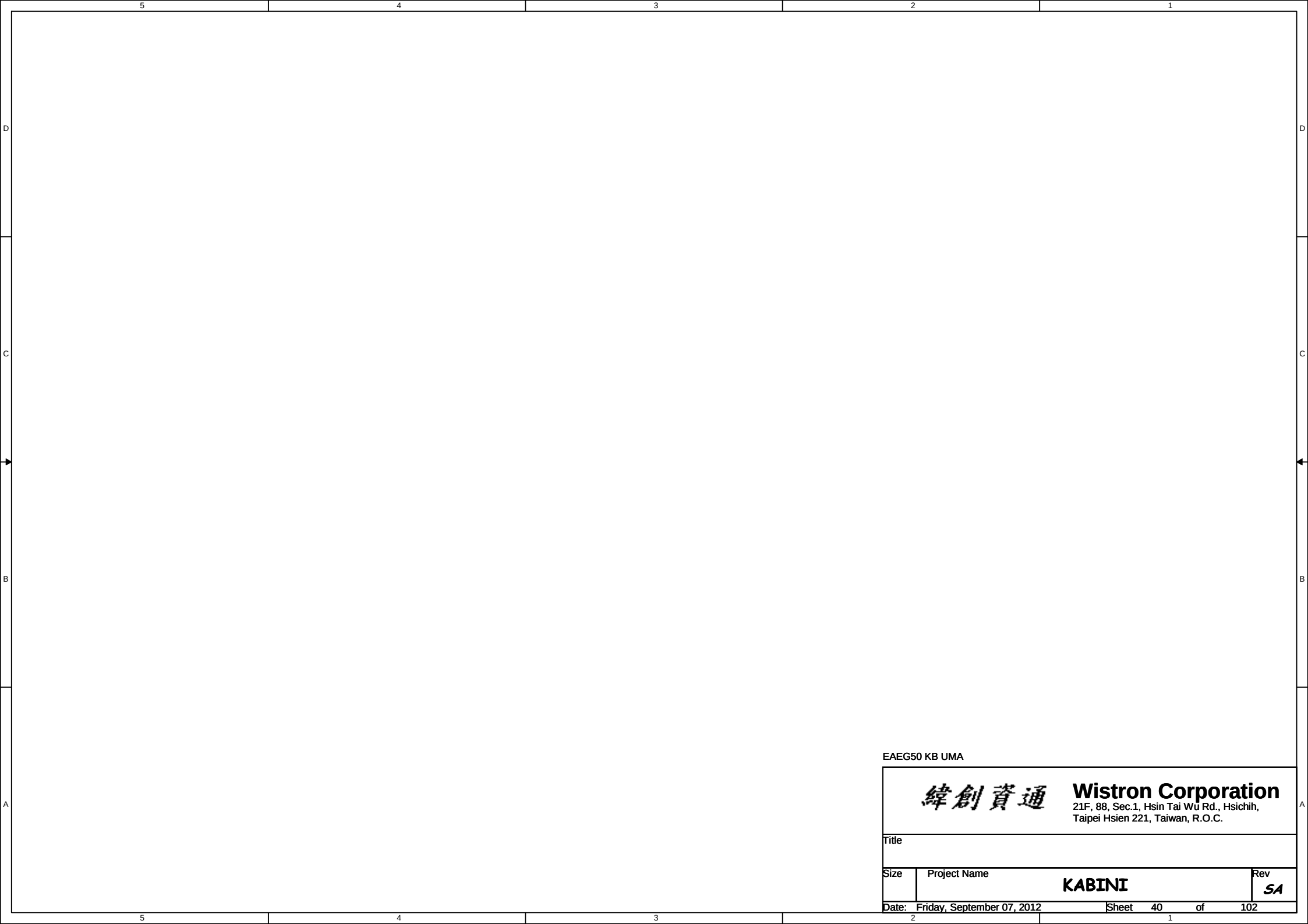
緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title ADAPTER OCP / S3 reduction		
Size	Project Name KABINI	Rev SA
Date: Thursday, January 24, 2013		Sheet 37 of 102



EAEG50 KB UMA

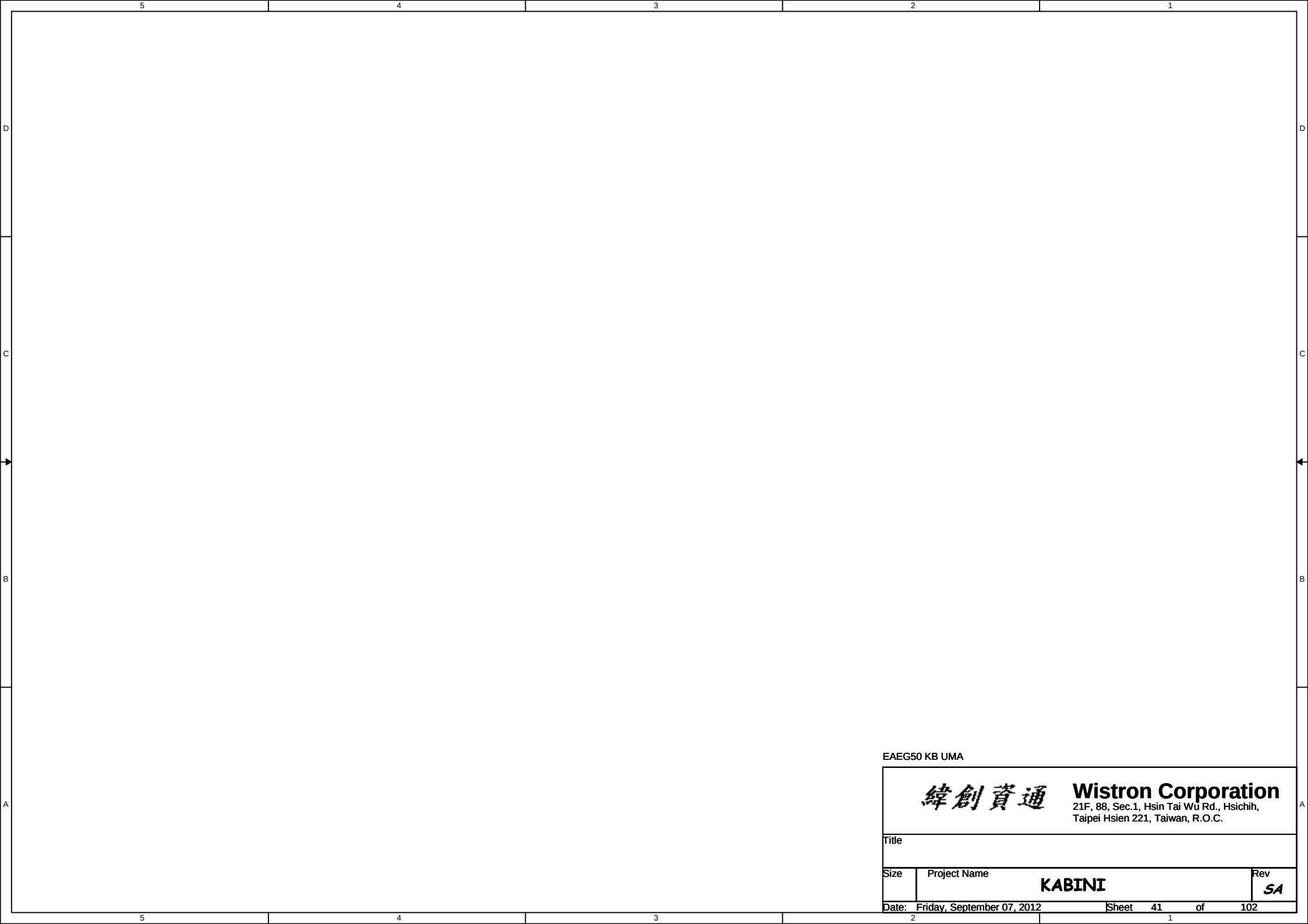
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Deep Standby			
Size	Project Name		Rev
	KABINI		SA
Date:	Friday, September 07, 2012		Sheet 38 of 102

	5	4	3	2	1
D					D
C					C
B					B
A				EAEG50 KB UMA	A
				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 KABINI SA	
	5	4	3	2	1



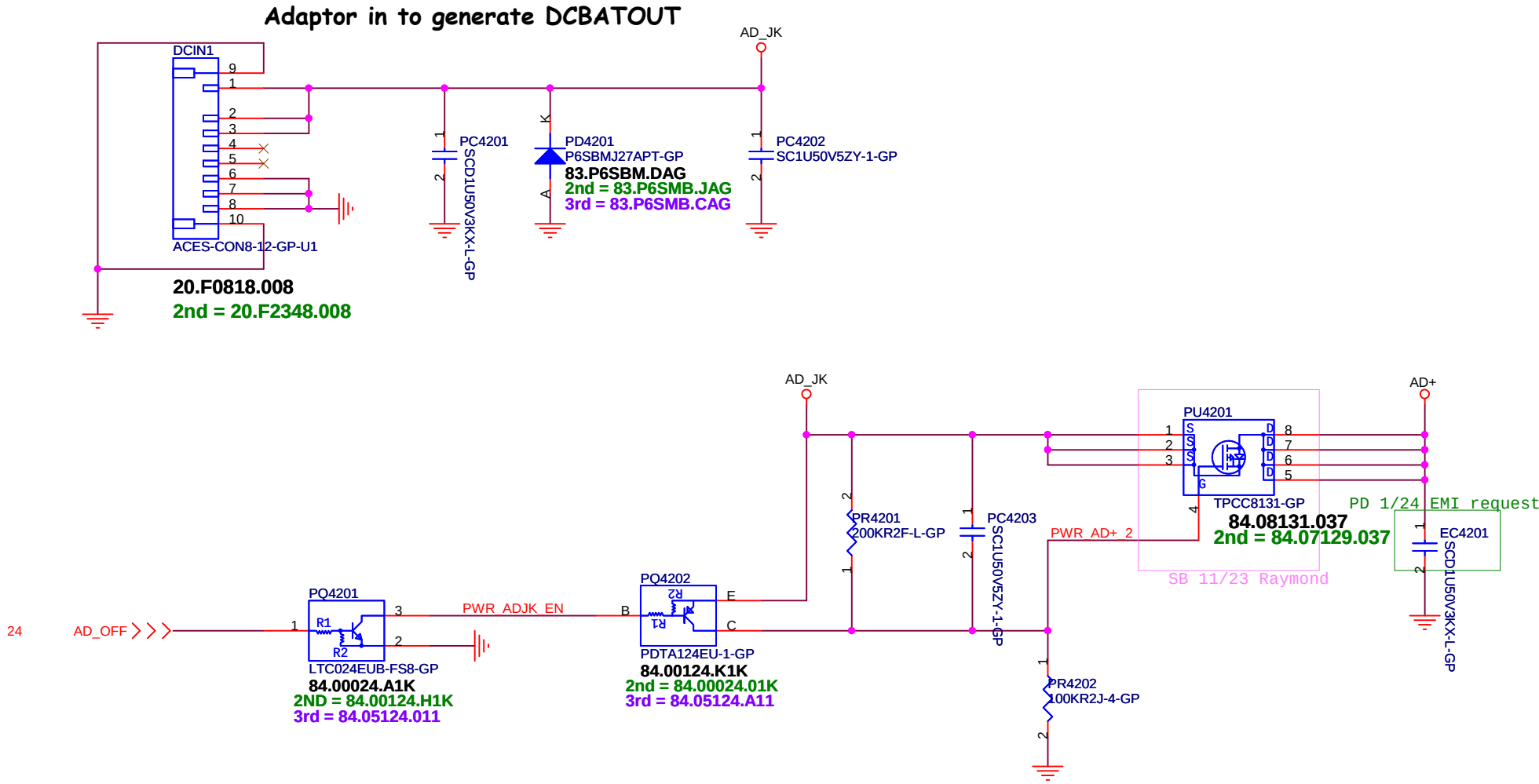
EAEG50 KB UMA

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 KABINI
Date: Friday, September 07, 2012	Rev SA
Sheet 40 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	
Size	Project Name KABINI
Date	Rev SA
Date: Friday, September 07, 2012	
Sheet 41 of 102	



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

BT+ 

PC4301 SCD1U50V3KX-L-GP

PC4302 SC2K2P50V2KX-L-GP

PG4301 Do Not Stuff

44 BT+_SENSE <<<

24 BAT_IN# <<<

24,26,44 BAT_SCL <<<

24,26,44 BAT_SDA <<<

PN4301

SRN33J-7-GP-U

PD4301 MMPZ5232BPT-GP-U

83.5R603.D3F

2ND = 83.5R603.K3F

3rd = 83.5R603.Q3F

D4302 AZ2025-02S-R7G-GP

75.02025.07D

2nd = 75.005V0.A7D

PD 01/07 AFR KBC protect

BAT+ 

BAT IN# 1

BATA_SCL 1

BATA_SDA 1

BAT G

BAT2

ALP-CON8-17-GP-U

PR4302 Do Not Stuff

20.81775.008

2nd = 20.82011.008

3rd = 20.82003.008

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

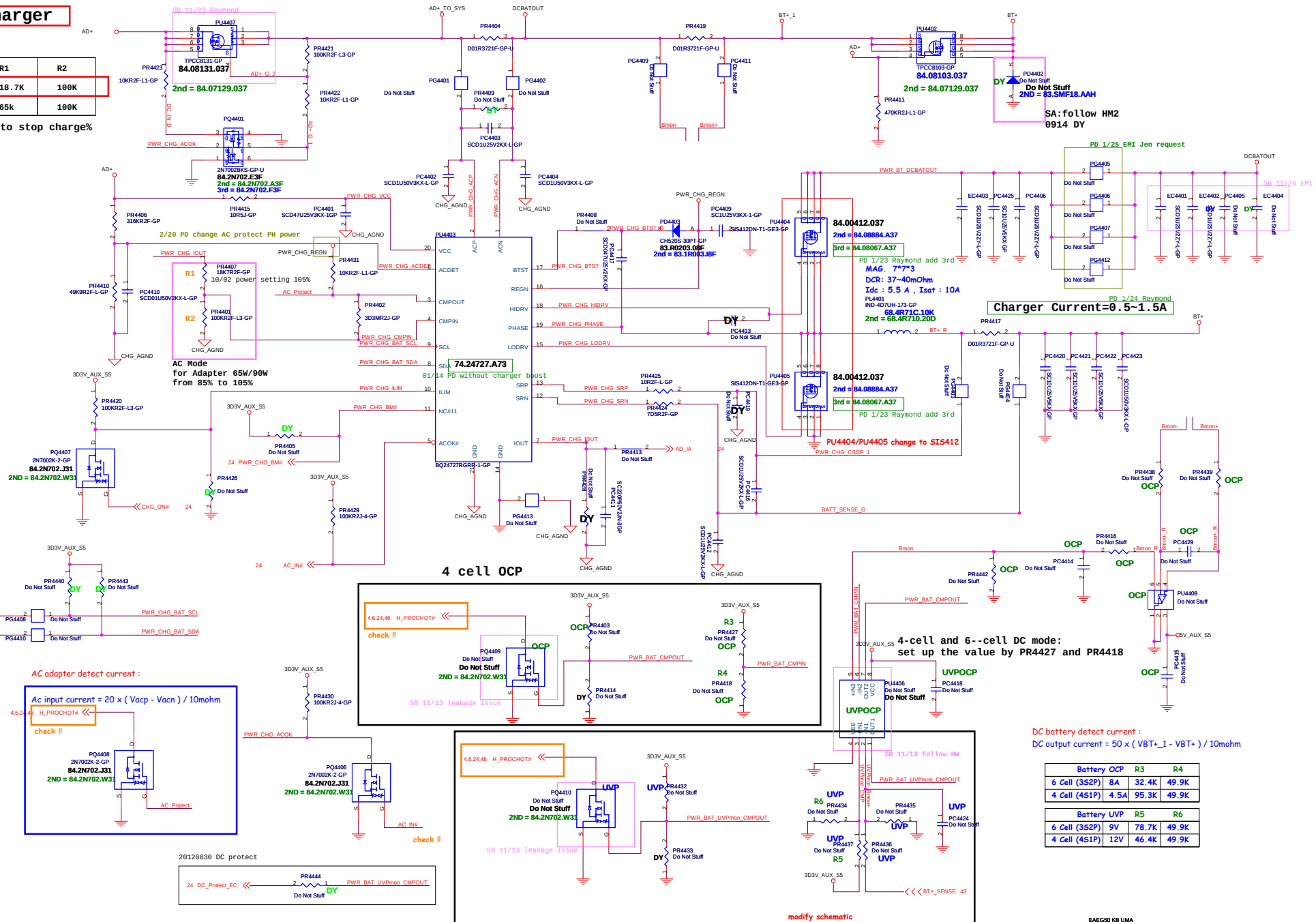
SSID = Charger

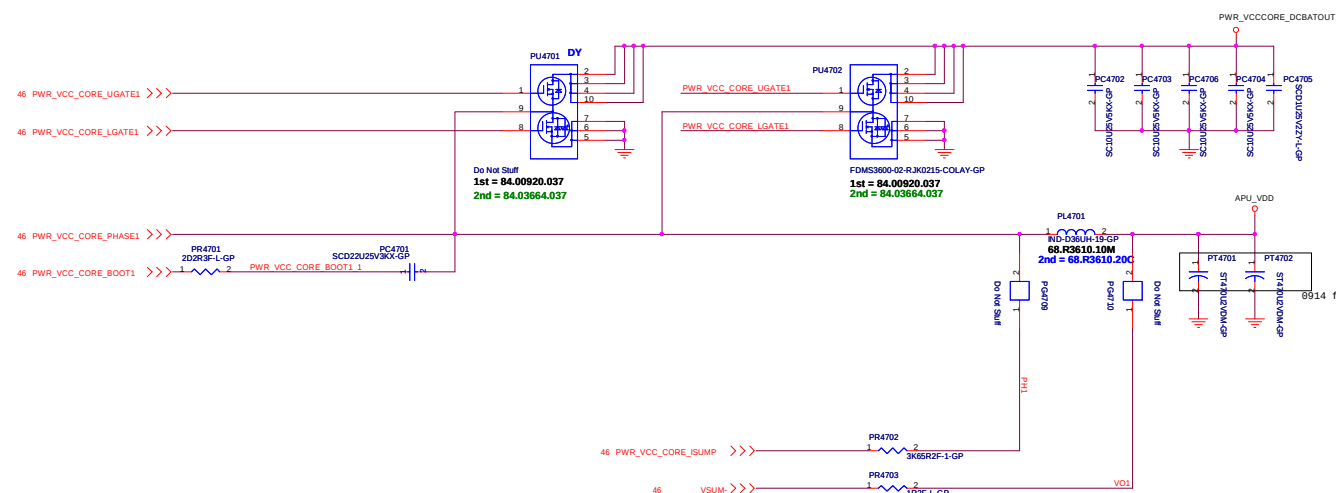
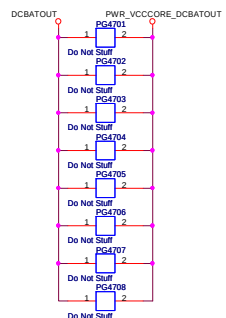
AD+

PR4407, PR4401

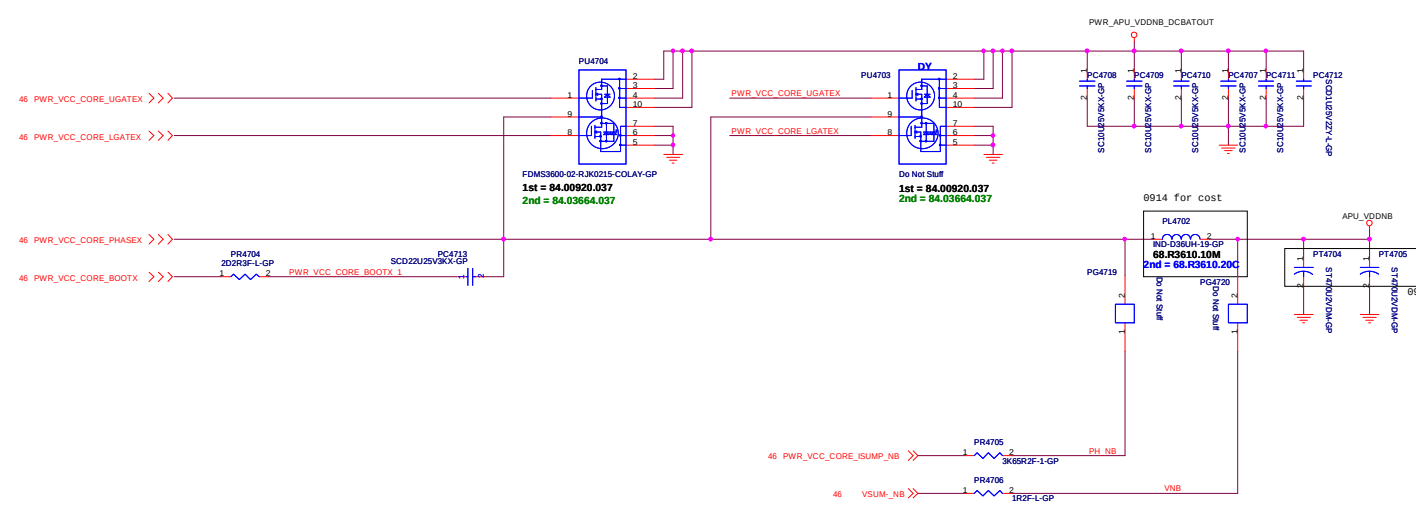
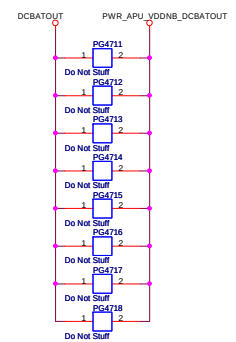
AD+ total power	R1	R2
65w 105%	18.7K	100K
90w	65k	100K

Change the table to stop charge%

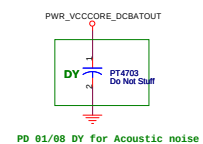




Iccmax=21A
TDC=16.8A
OCP>26.3A

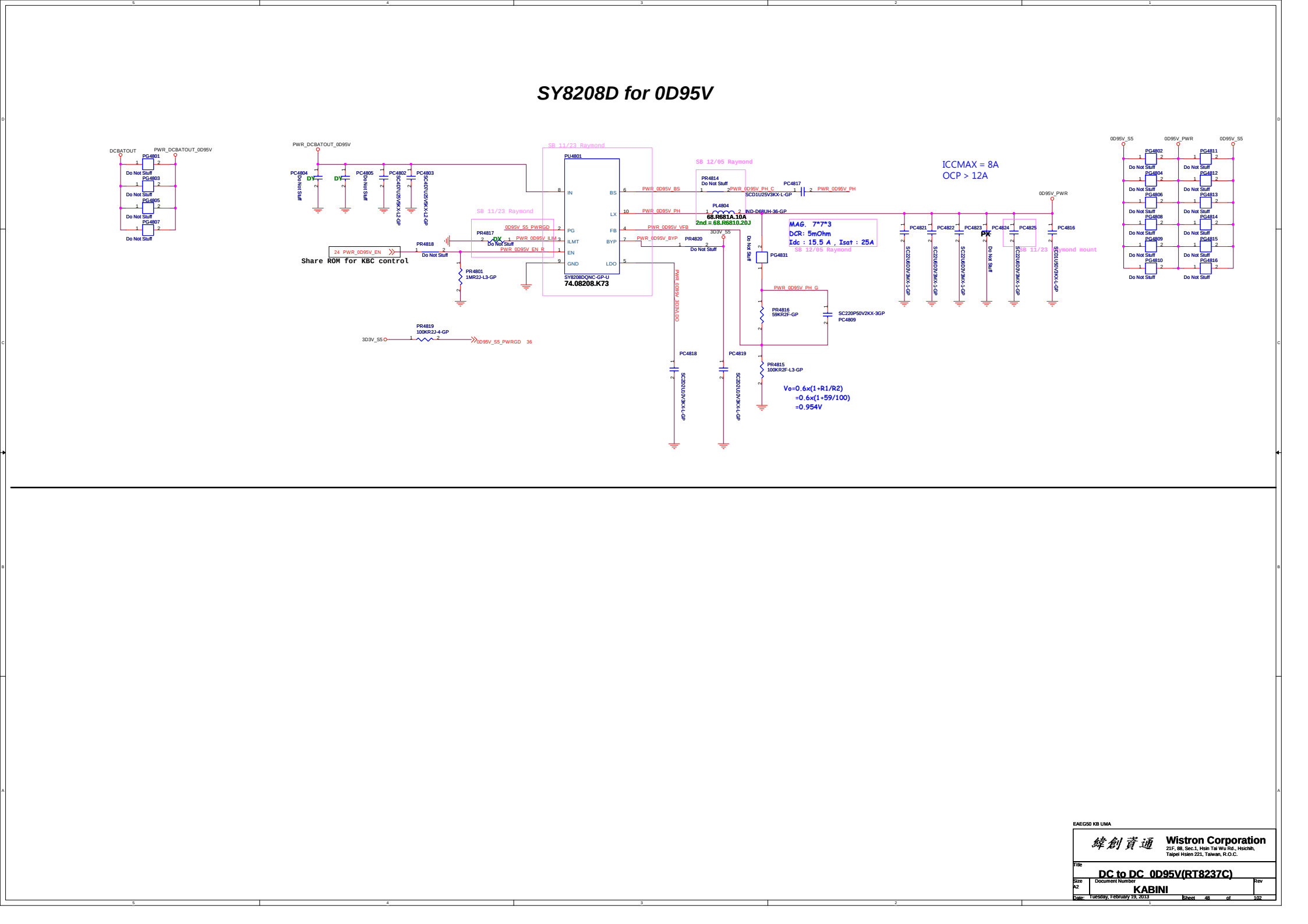


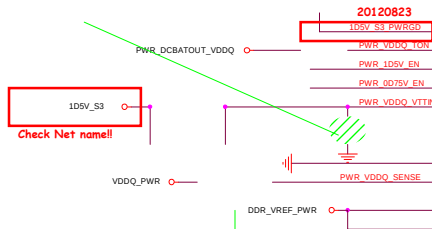
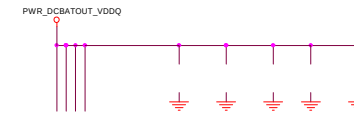
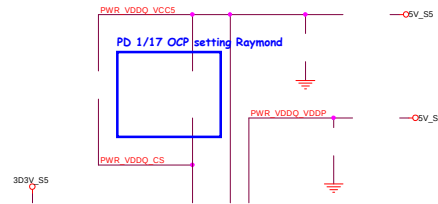
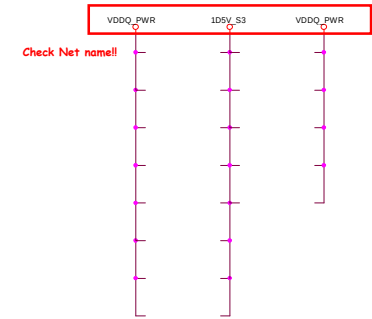
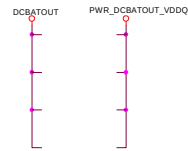
Iccmax=17A
TDC=13.6A
OCP>21.3A



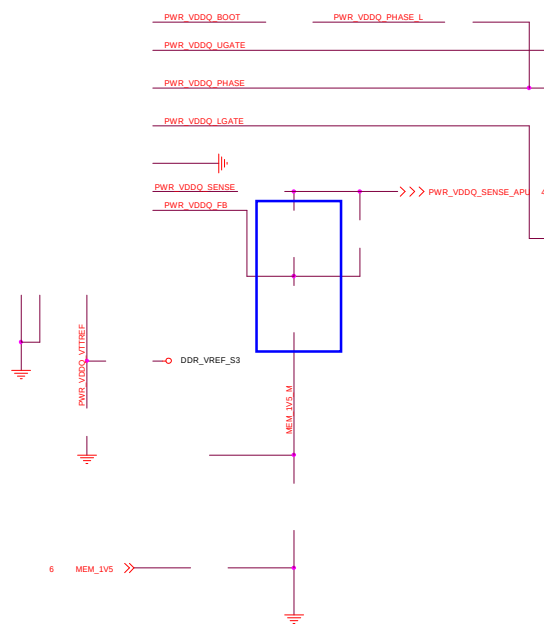
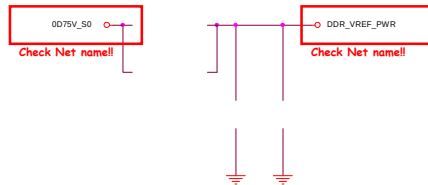
[illegible][illegible]

[illegible]

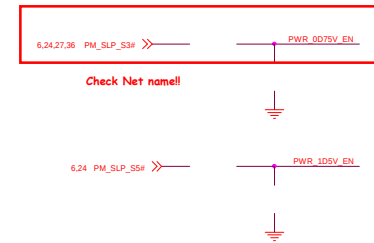
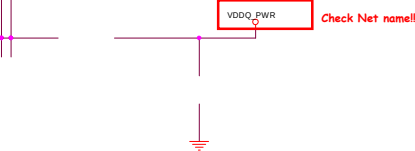




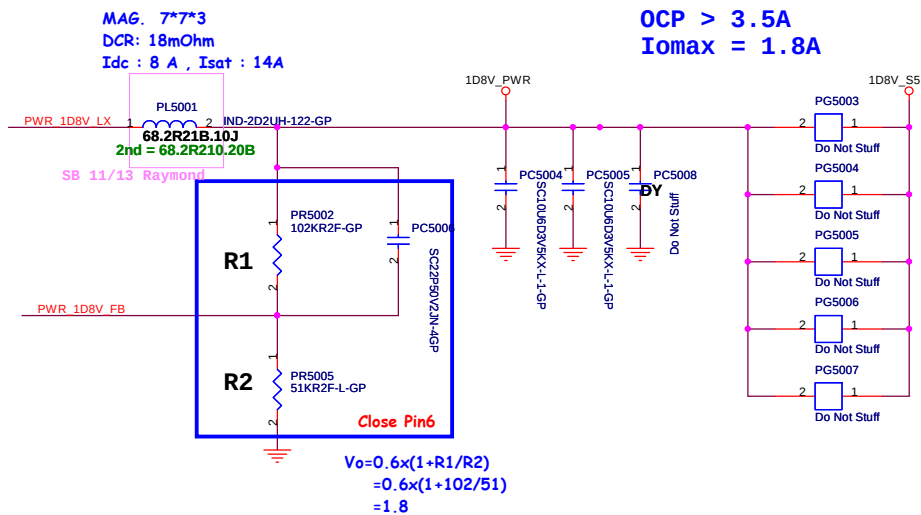
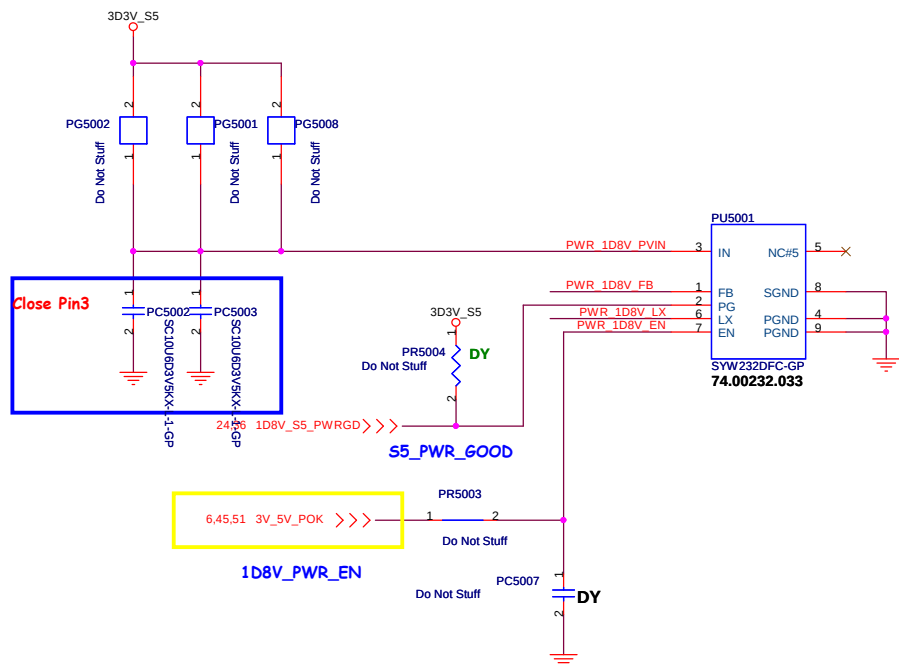
Iomax=1A
OCP>1.5A
Close to output cap pin1, not
inside of the output cap



CYNTec. 0.68uH 7*7*3
DCR= 5 ~ 5.5 mohm
Idc=15.5A, Isat=25A



SSID = PWR.Plane.Regulator_1p8v

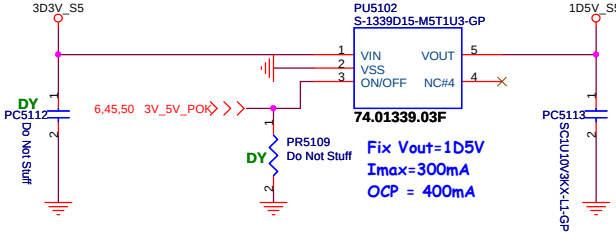


EAEG50 KB UMA

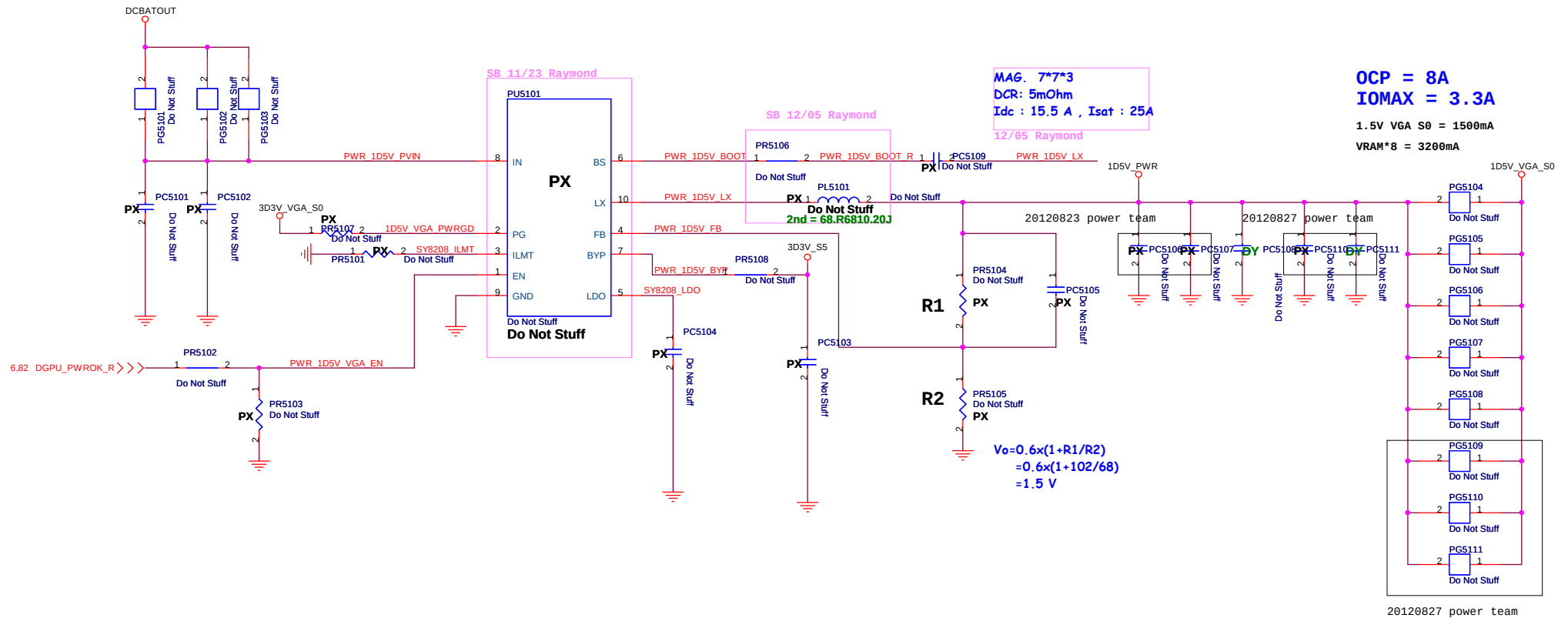
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title		1D8V_S0 SYW232	
Size	Document Number	KABINI	
A3			
Date:	Monday, February 04, 2013	Sheet	50 of 102

LDO for 1D5V_S5 (SB 11/13)

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


SY8208D for 1D5V_VGA_S0 (SB 11/13)



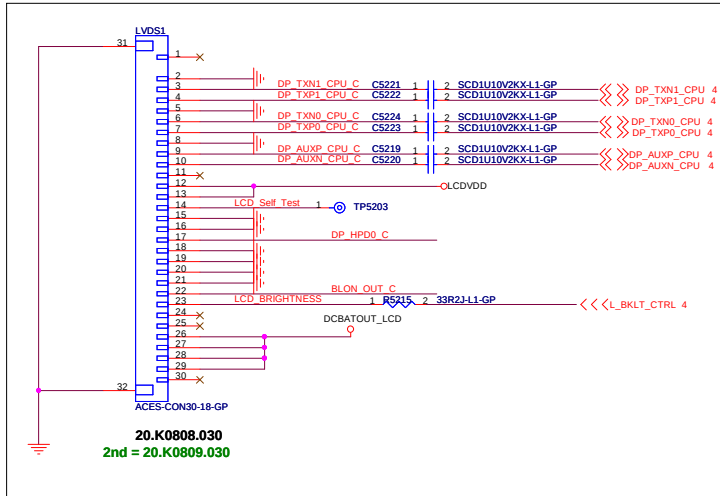
EAE G50 KB UMA

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

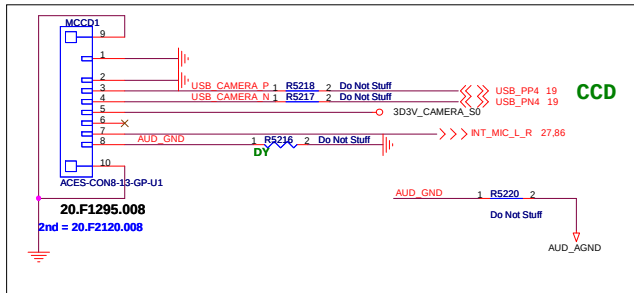
Title			
1D5V_S5 SY8208D			
Size A3	Document Number	Rev	
	KABINI		
Date:	Tuesday, February 19, 2013	Sheet 51 of 102	

SSID = VIDEO

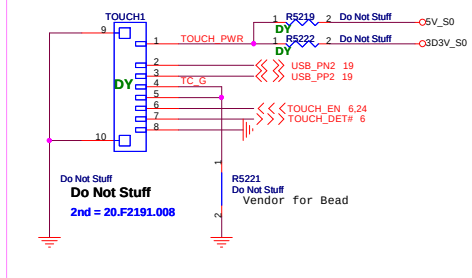
eDP Conn.



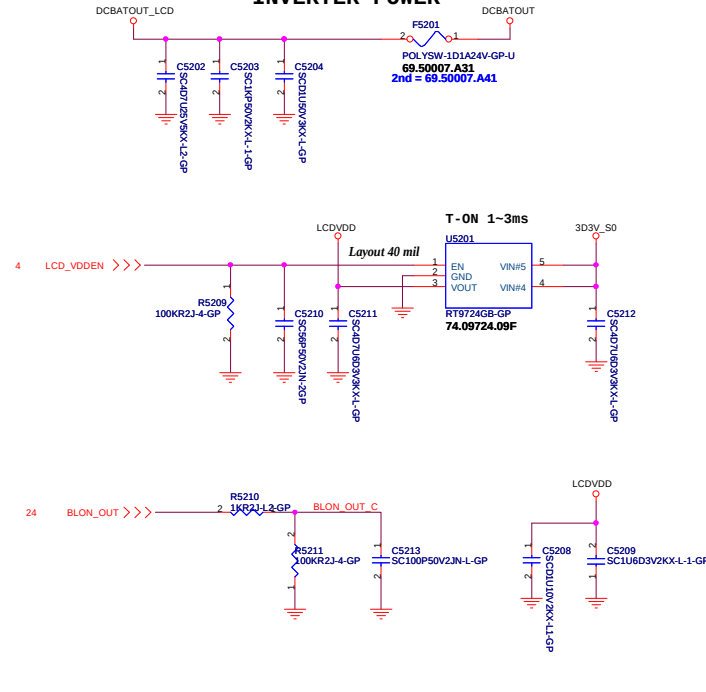
Camera+MIC Conn.



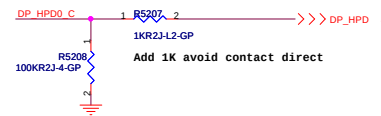
Touch Conn.



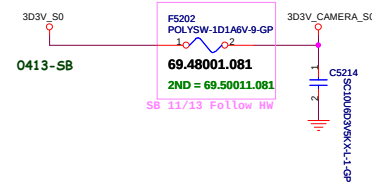
INVERTER POWER



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 <<<

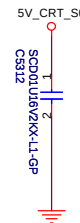
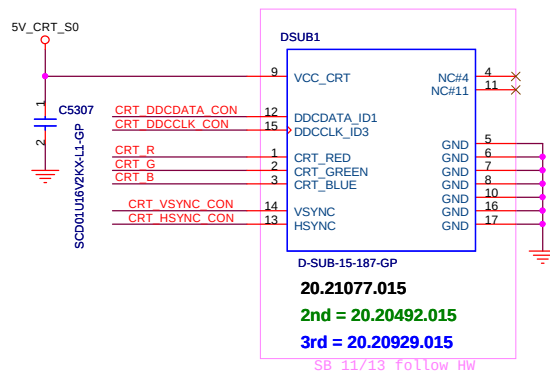
For AFTE

EAEG50 KB UMA

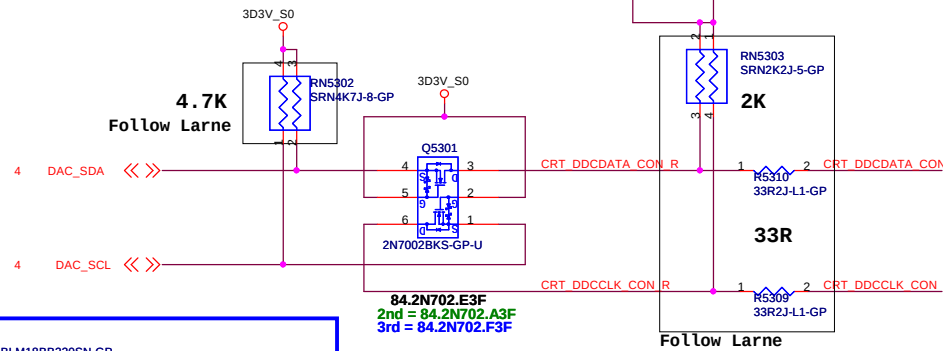
緯創資通

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

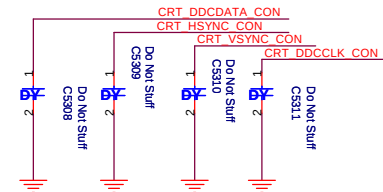
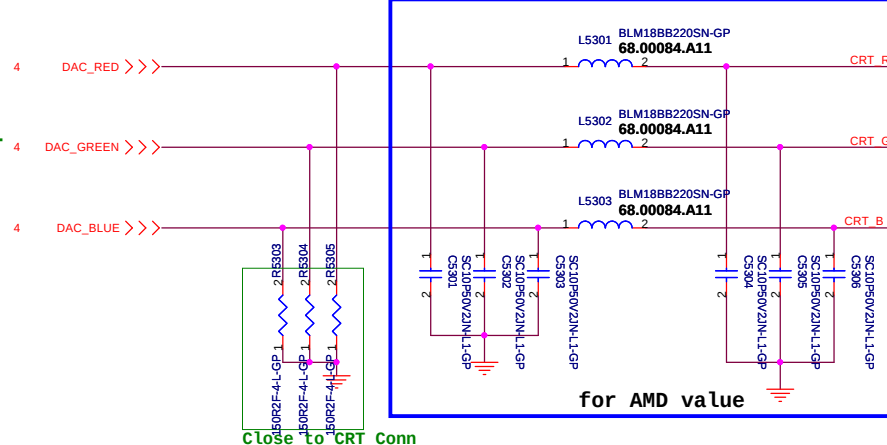
Title		
LCD Connector		
Size	Project Name	Rev
	KABINI	SA
Date	Monday, February 25, 2013	Sheet
		52 of 102



CRT DDCDATA & DDCCLK level shift

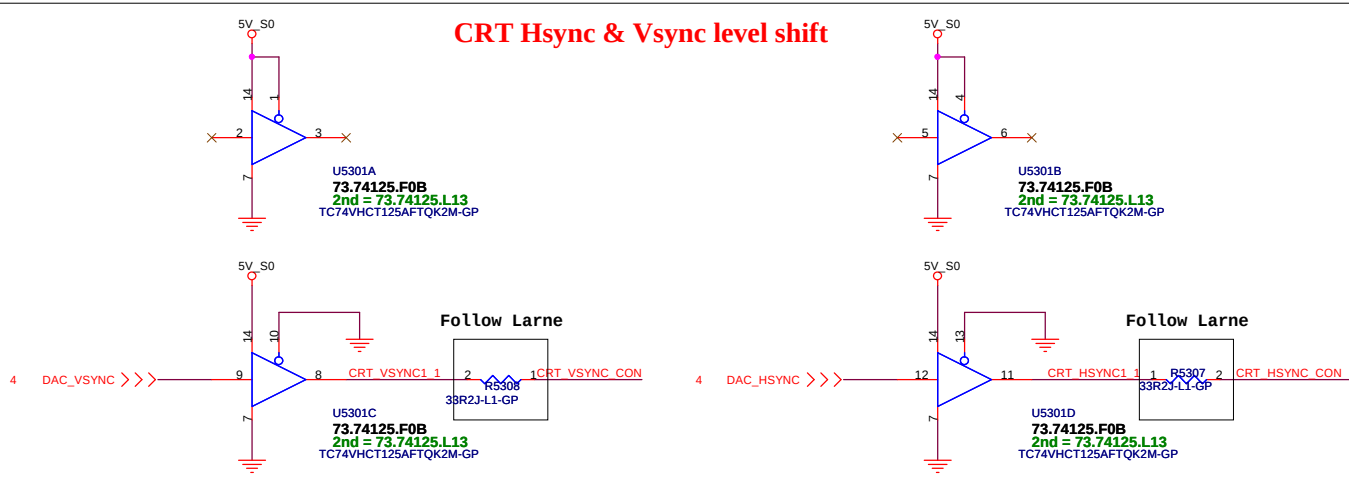


APU to CRT



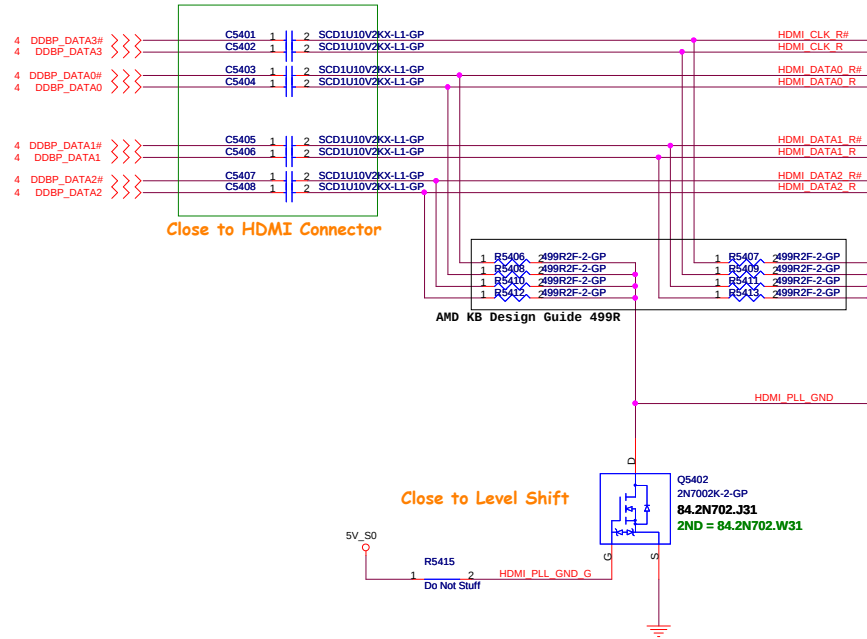
10/16 follow COMAL

CRT Hsync & Vsync level shift

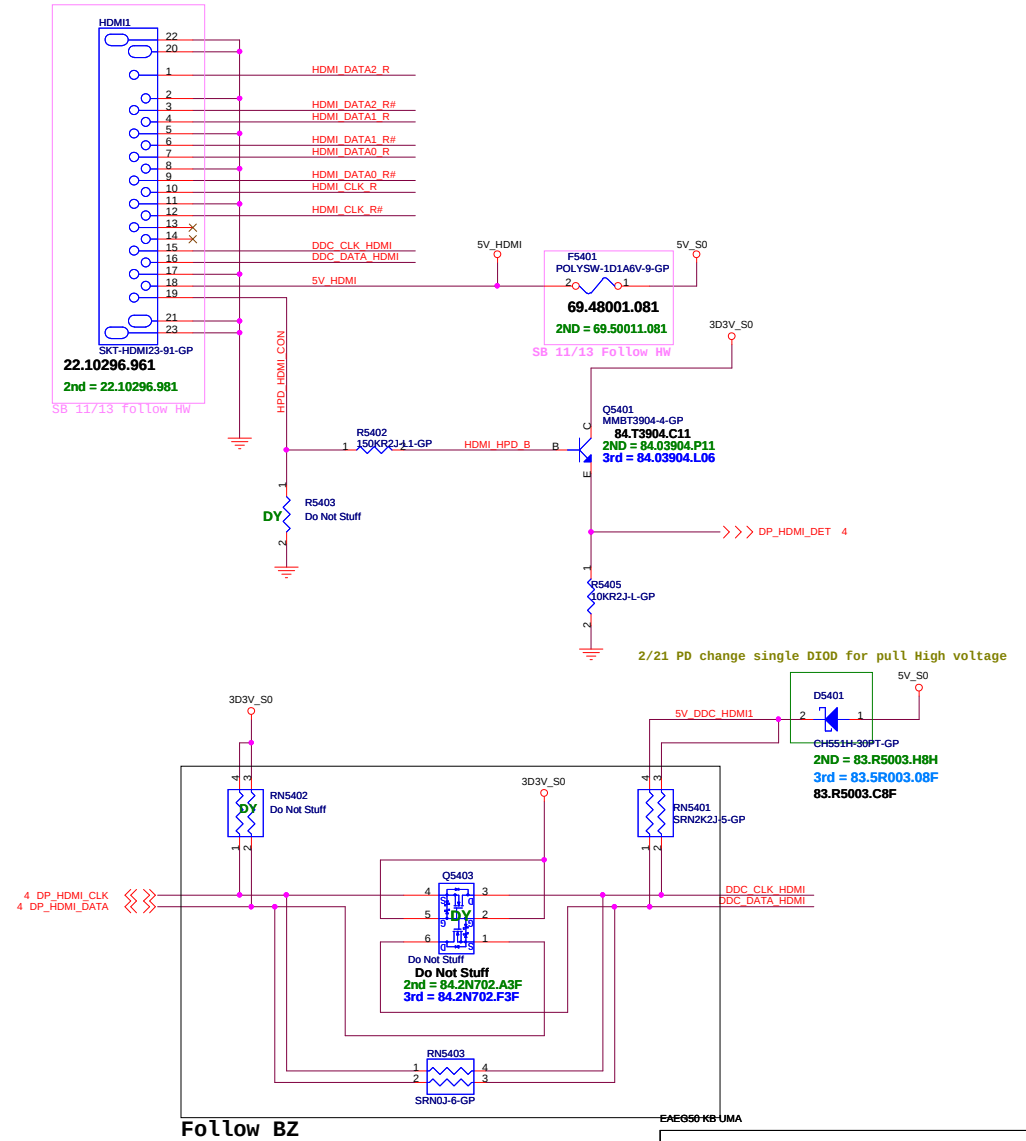


EAEG50 KB UMA

SSID = VIDEO HDMI Level Shifter & CONNECTOR

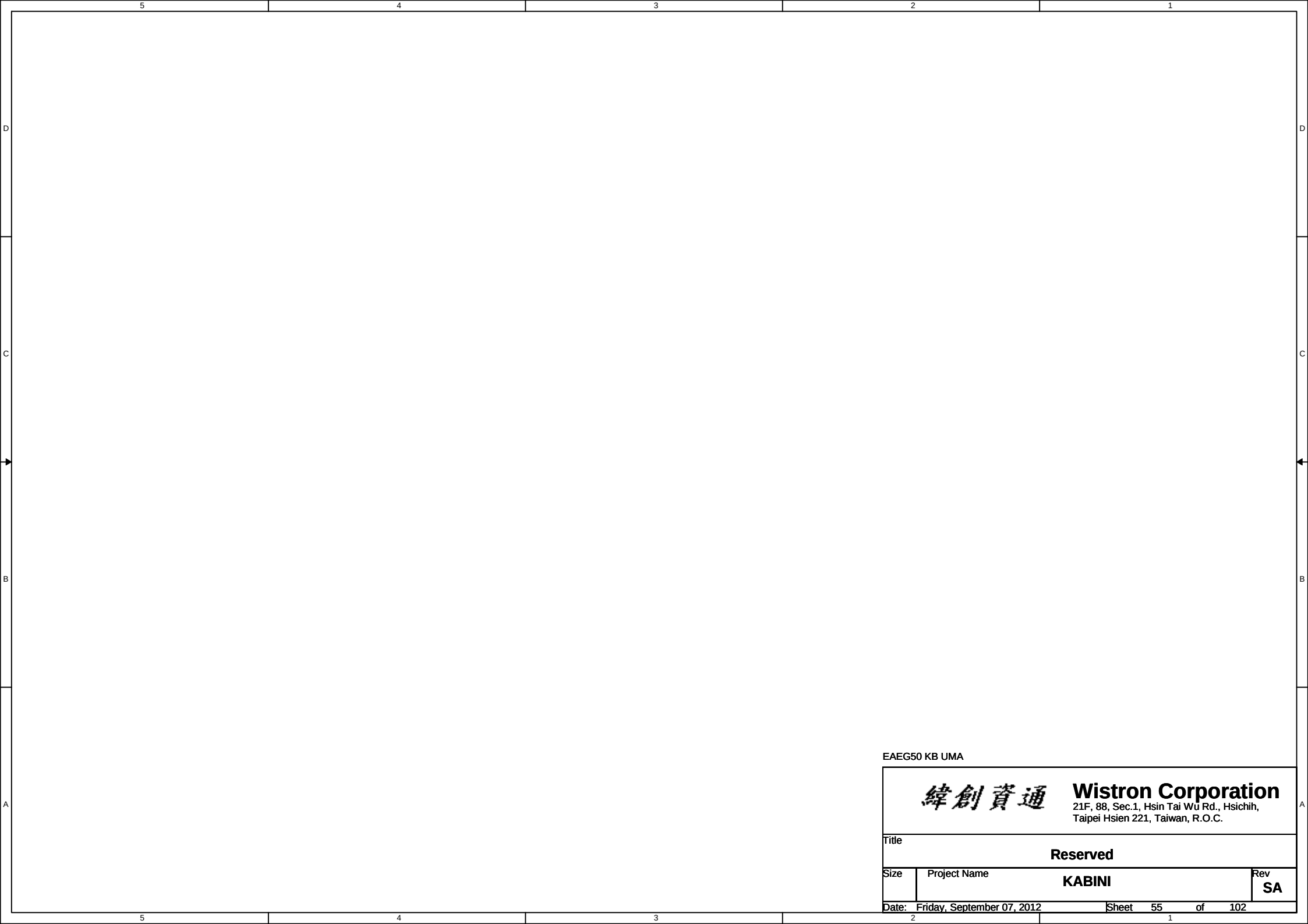


HDMI CONN



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

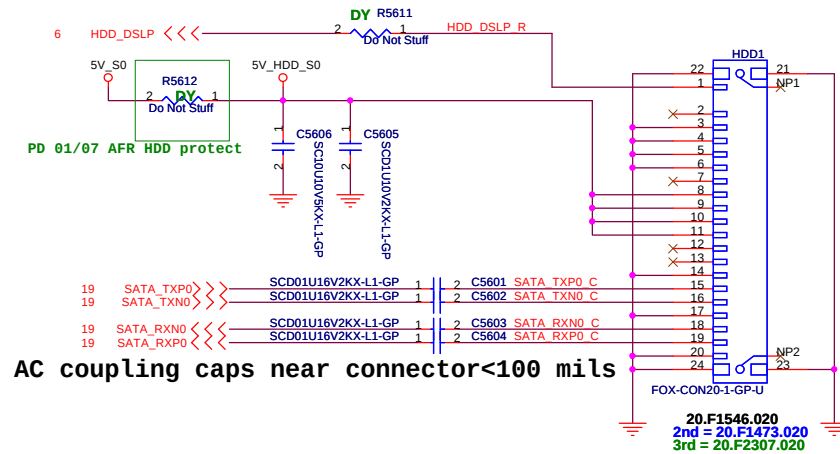
Title			
HDMI Level Shifter/Connector			
Size	Project Name	Rev	
		SA	
Date:	Thursday, February 21, 2013	Sheet	54 of 102



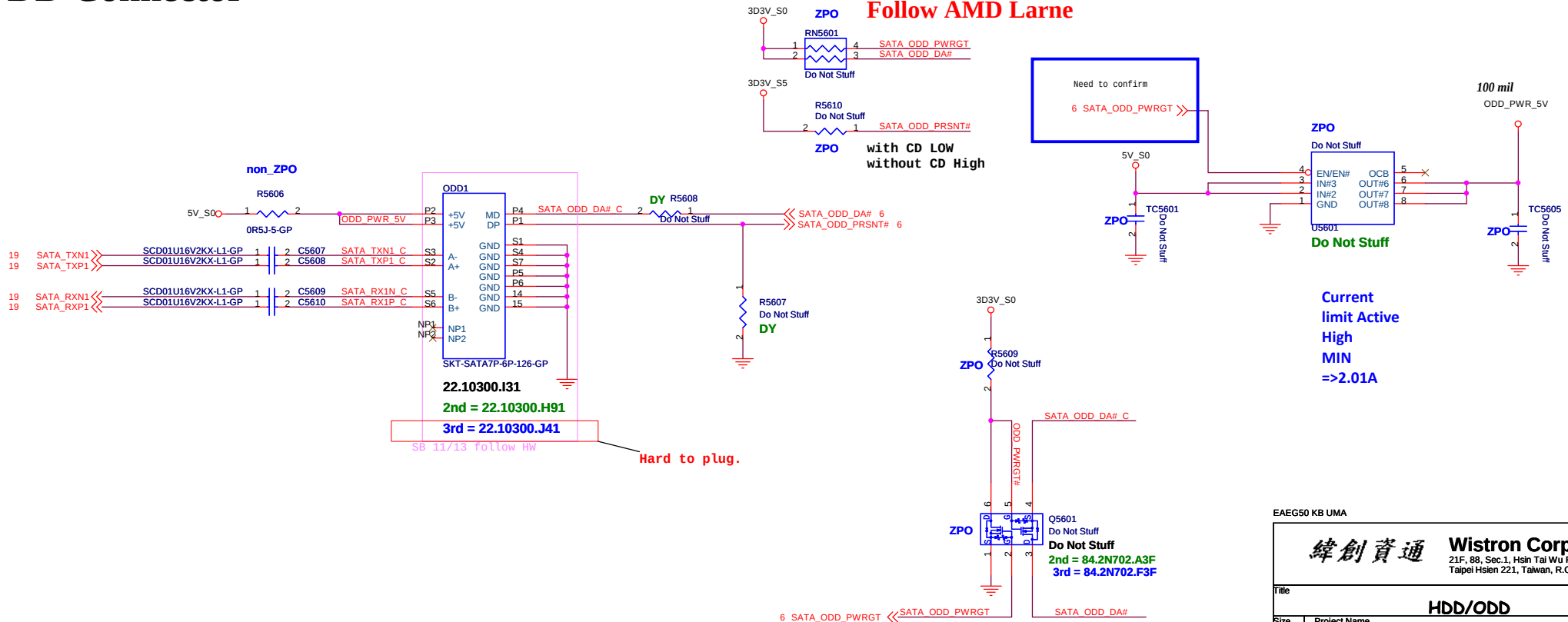
EAEG50 KB UMA

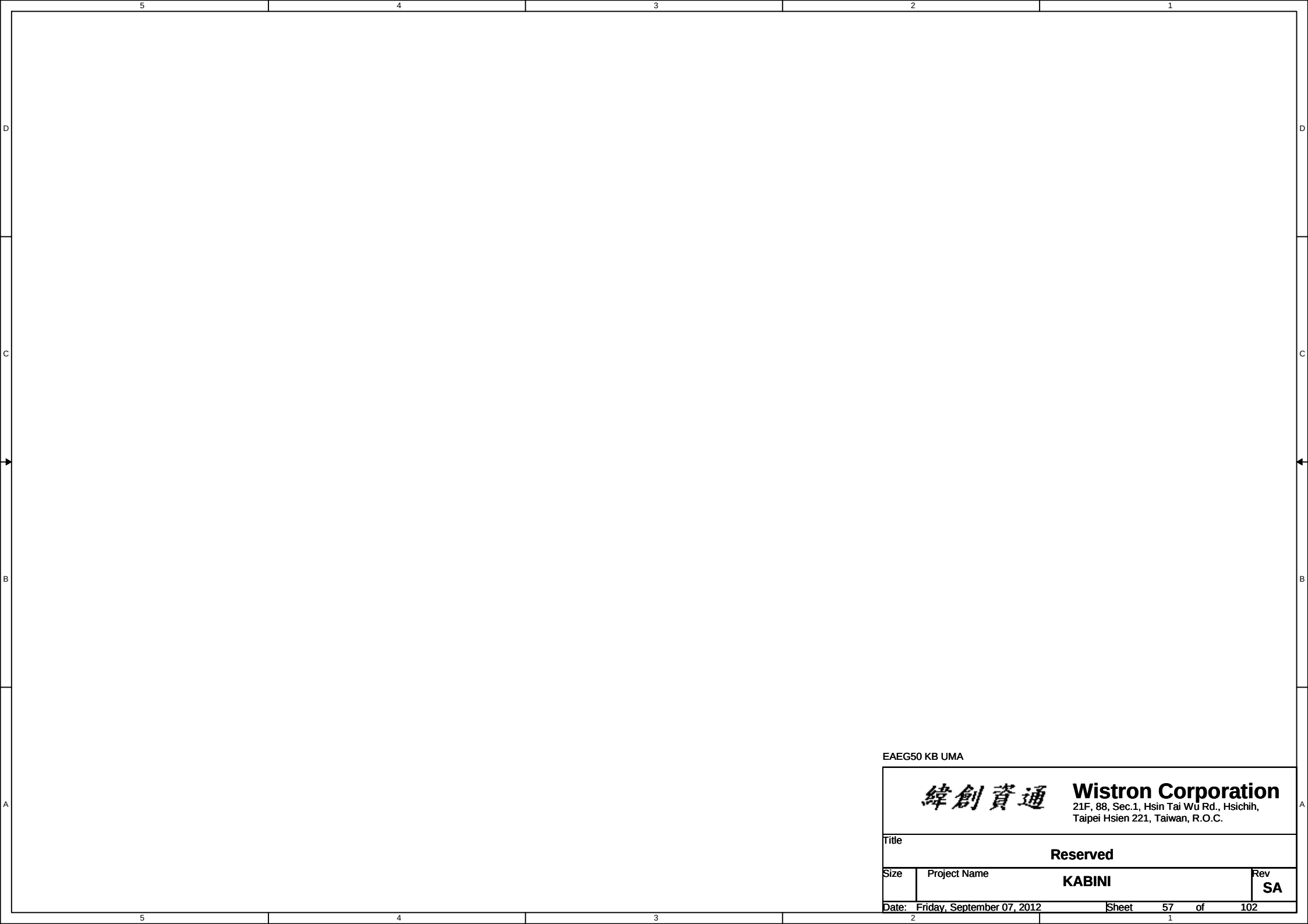
緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
Reserved	
Size	Rev
Project Name	SA
Date: Friday, September 07, 2012	
Sheet	55 of 102

SATA HDD Connector



SATA Zero Power ODD Follow AMD Larne

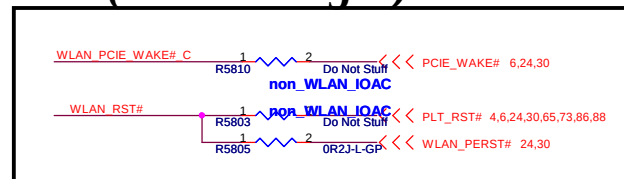
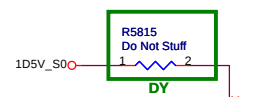




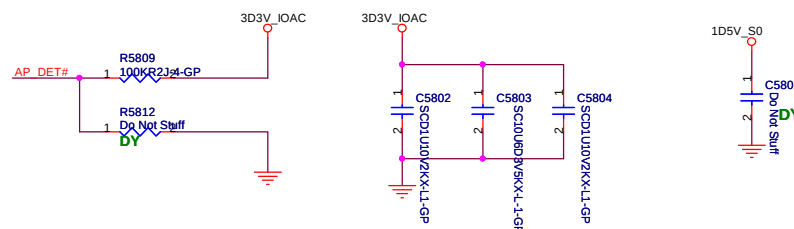
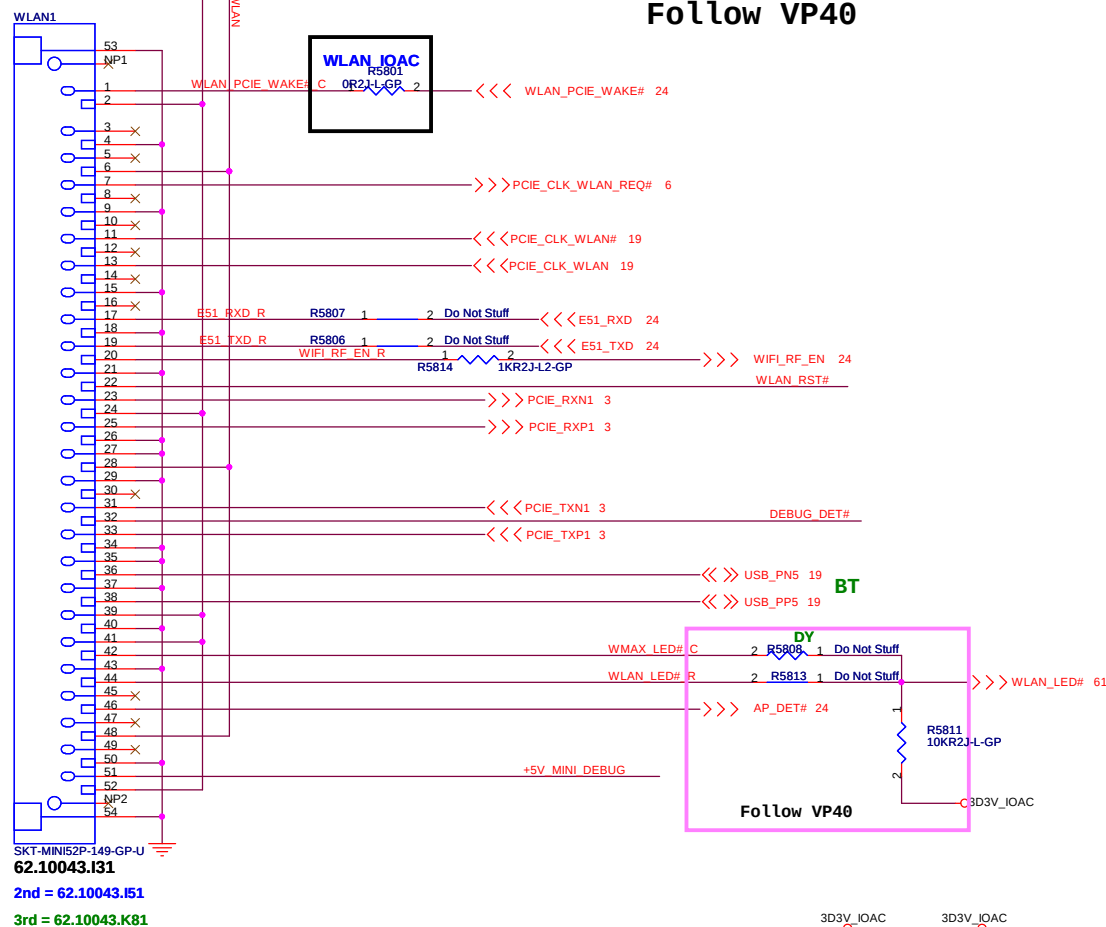
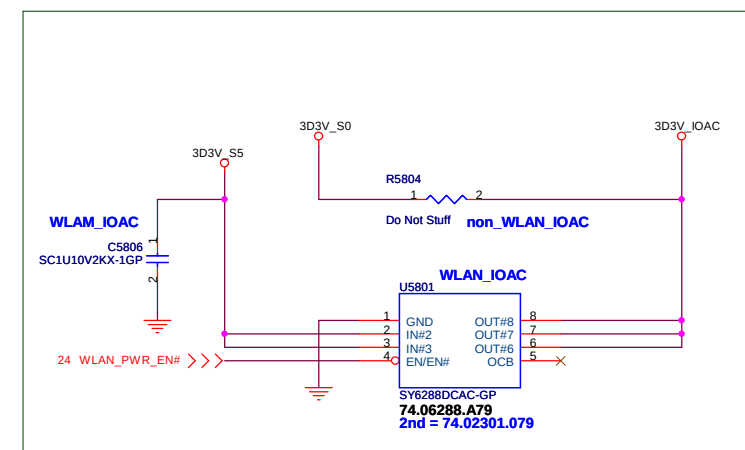
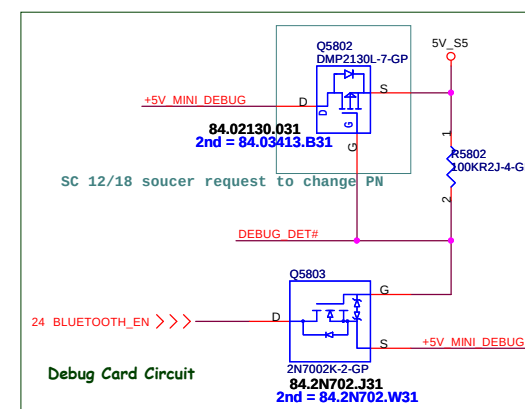
EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title		
Reserved		
Size	Project Name	Rev
	KABINI	SA
Date: Friday, September 07, 2012		Sheet 57 of 102

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



Follow VP40



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

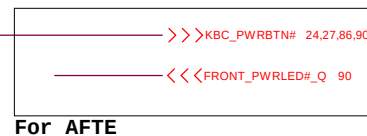
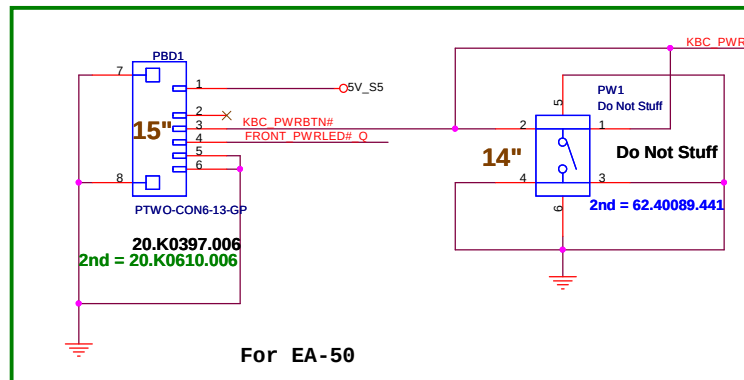
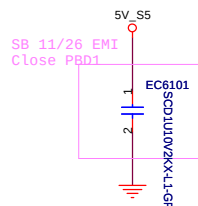
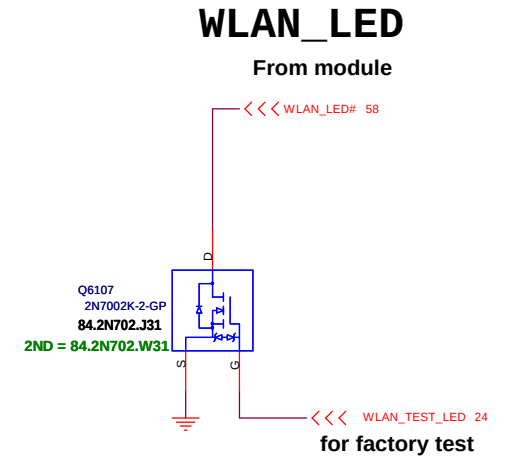
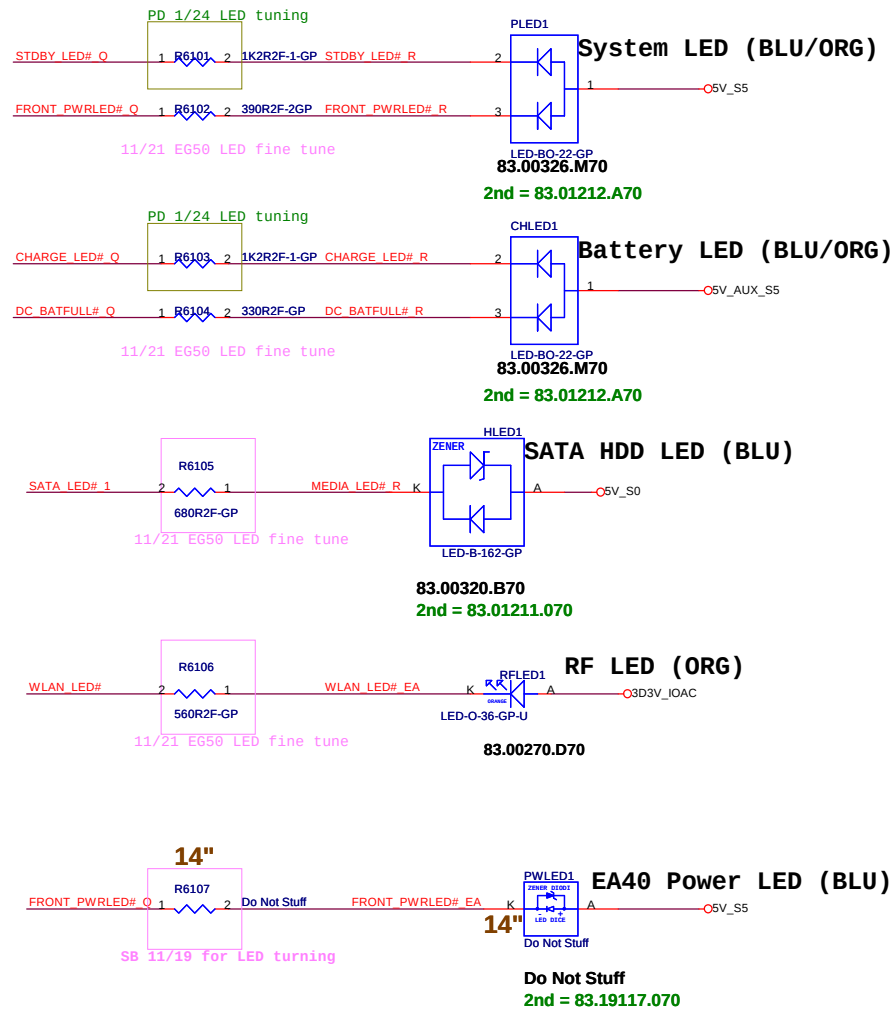
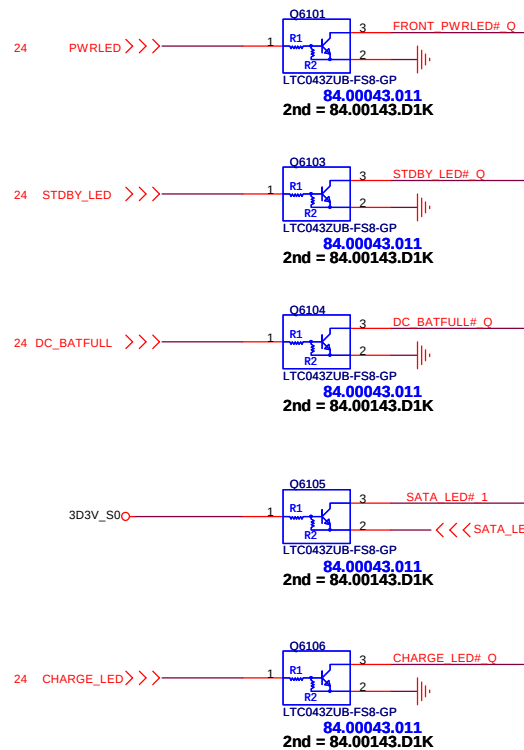
SSID = mSATA

Mini Card Connector(mSATA)

EAEG50 KB UMA

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 KABINI	Rev SA
Date: Friday, September 07, 2012		Sheet 60 of 102

SSID = User.Interface



EAEG50 KB UMA

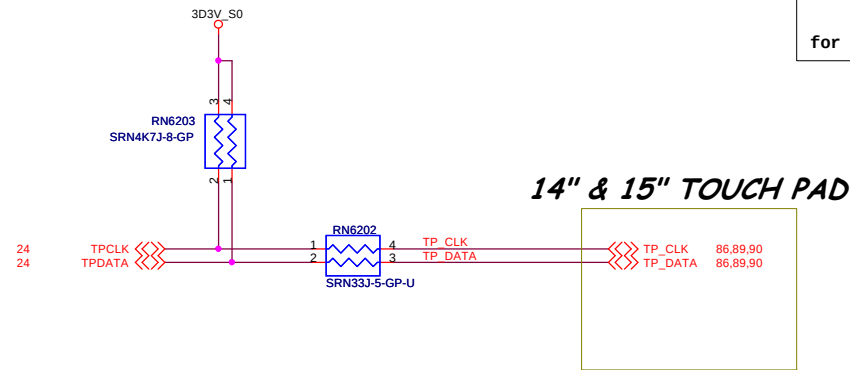
緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title		
LED Bard/Power Button		
Size	Project Name	Rev
	KABINI	SA
Date: Monday, February 04, 2013	Sheet 61	of 102

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

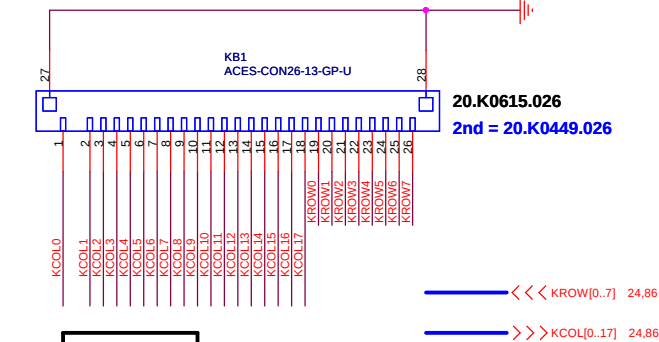
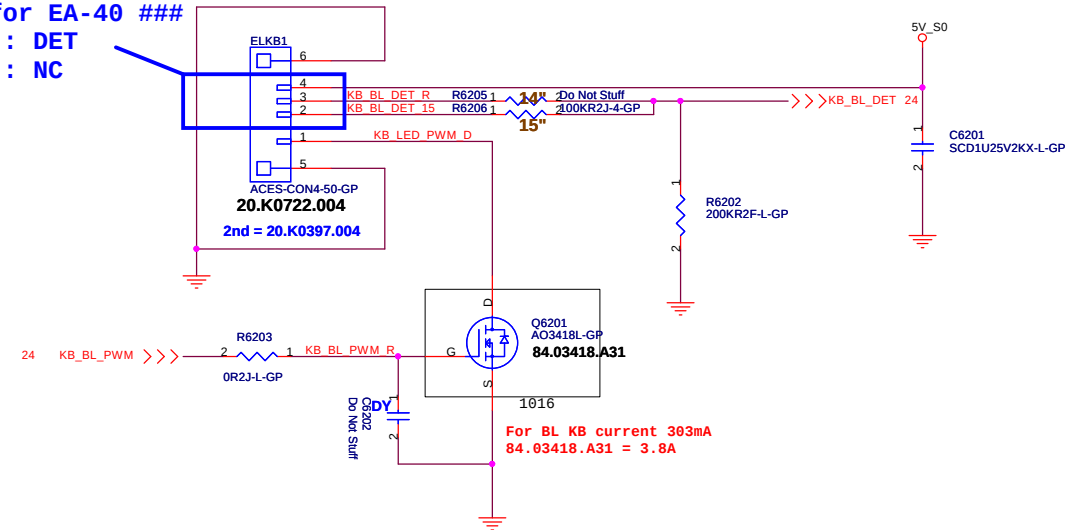
14"& 15" use the same KB

for EA/EG-50

Pin3 : NC
Pin2 : DET

for EA-40

Pin3 : DET
Pin2 : NC

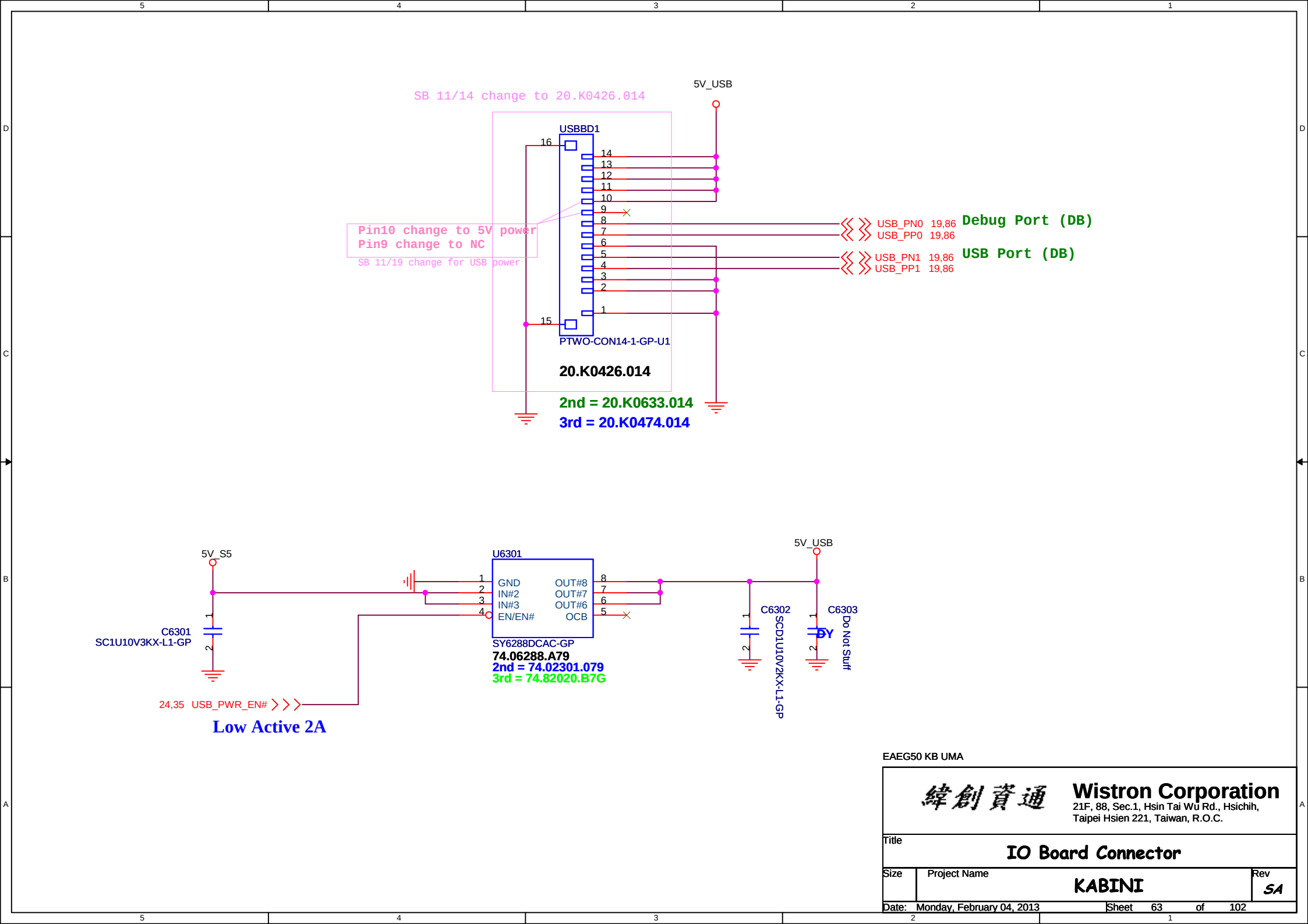


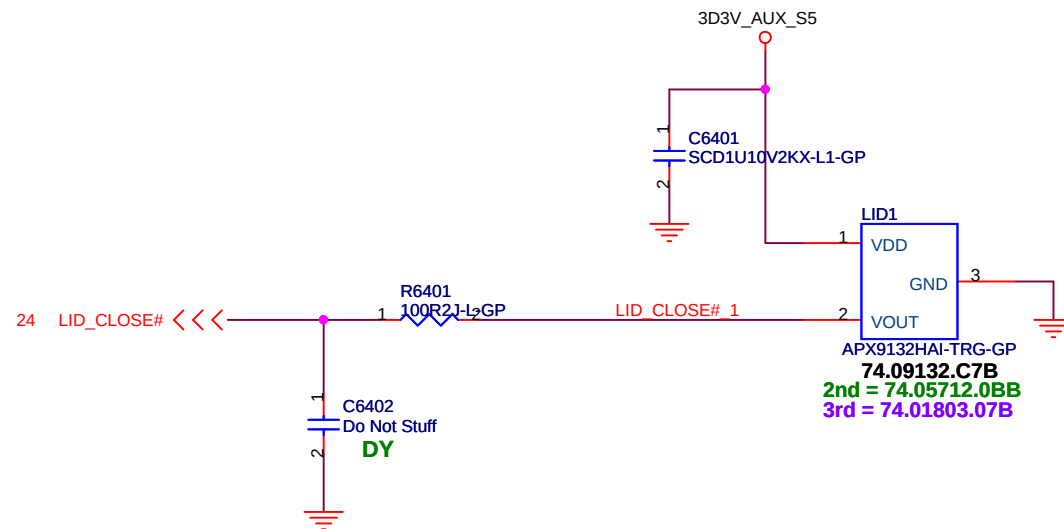
26 **K/B** 1 MB PIN DEFINE 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
KB PIN DEFINE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

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

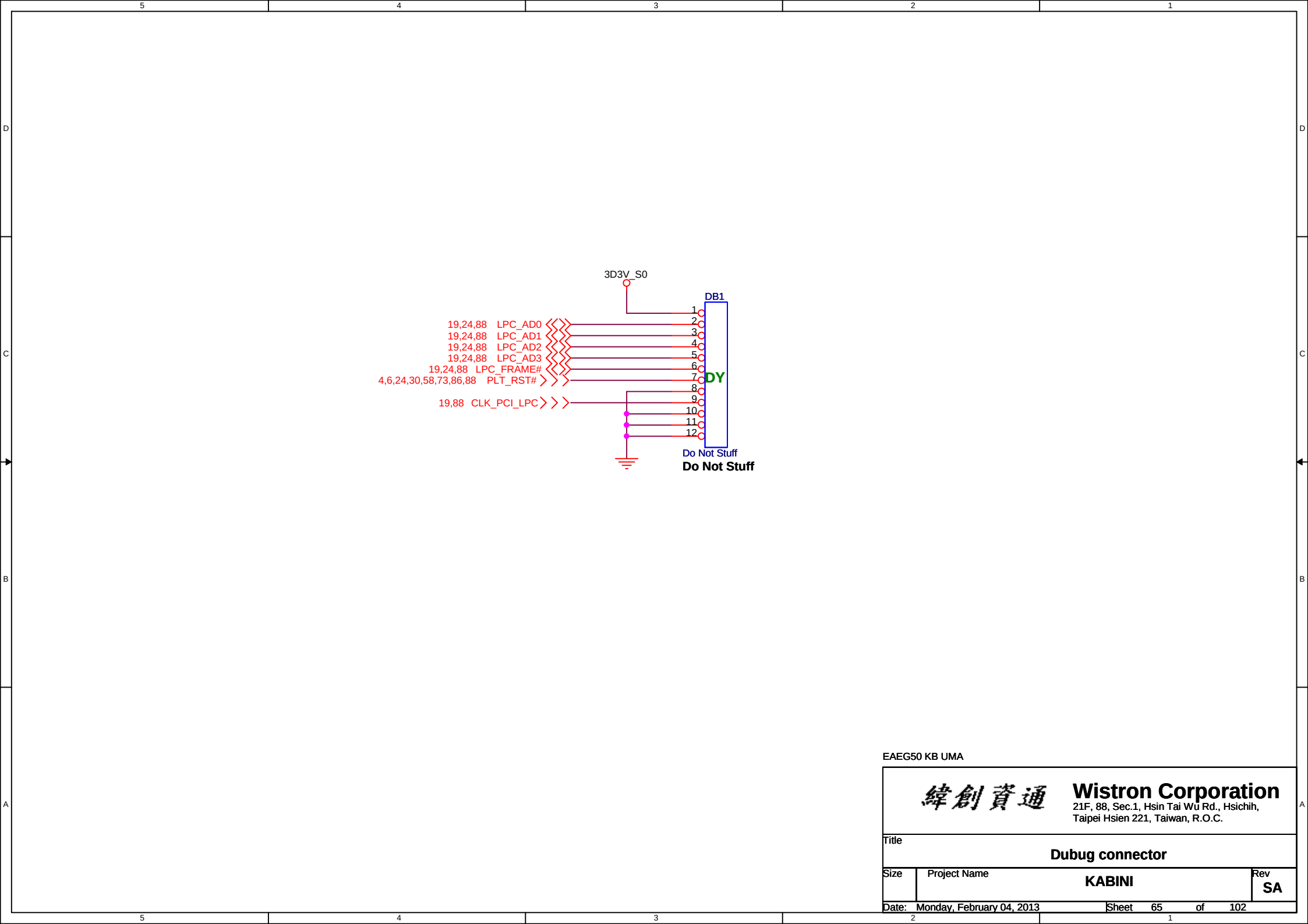
Project Name

KABINI

Rev
SA

Date: **Monday, February 04, 2013**

Sheet **64** of **102**

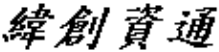


EAEG50 KB UMA

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

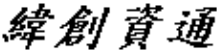
(Blanking)

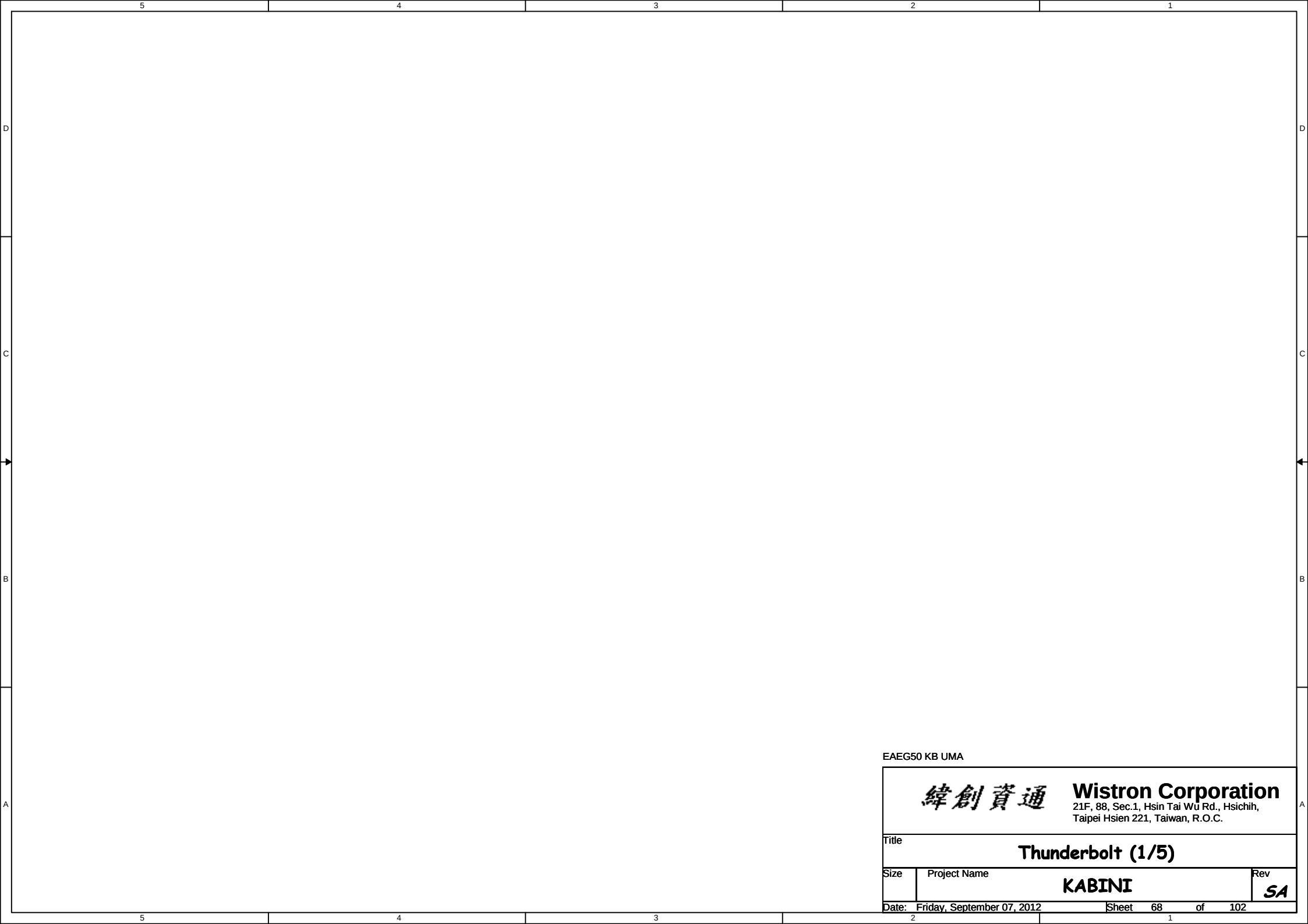
EAEG50 KB UMA

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Reserved			
Size	Project Name		Rev
	KABINI		SA
Date: Friday, September 07, 2012		Sheet 66 of 102	

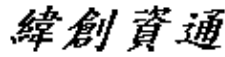
SSID = User.Interface

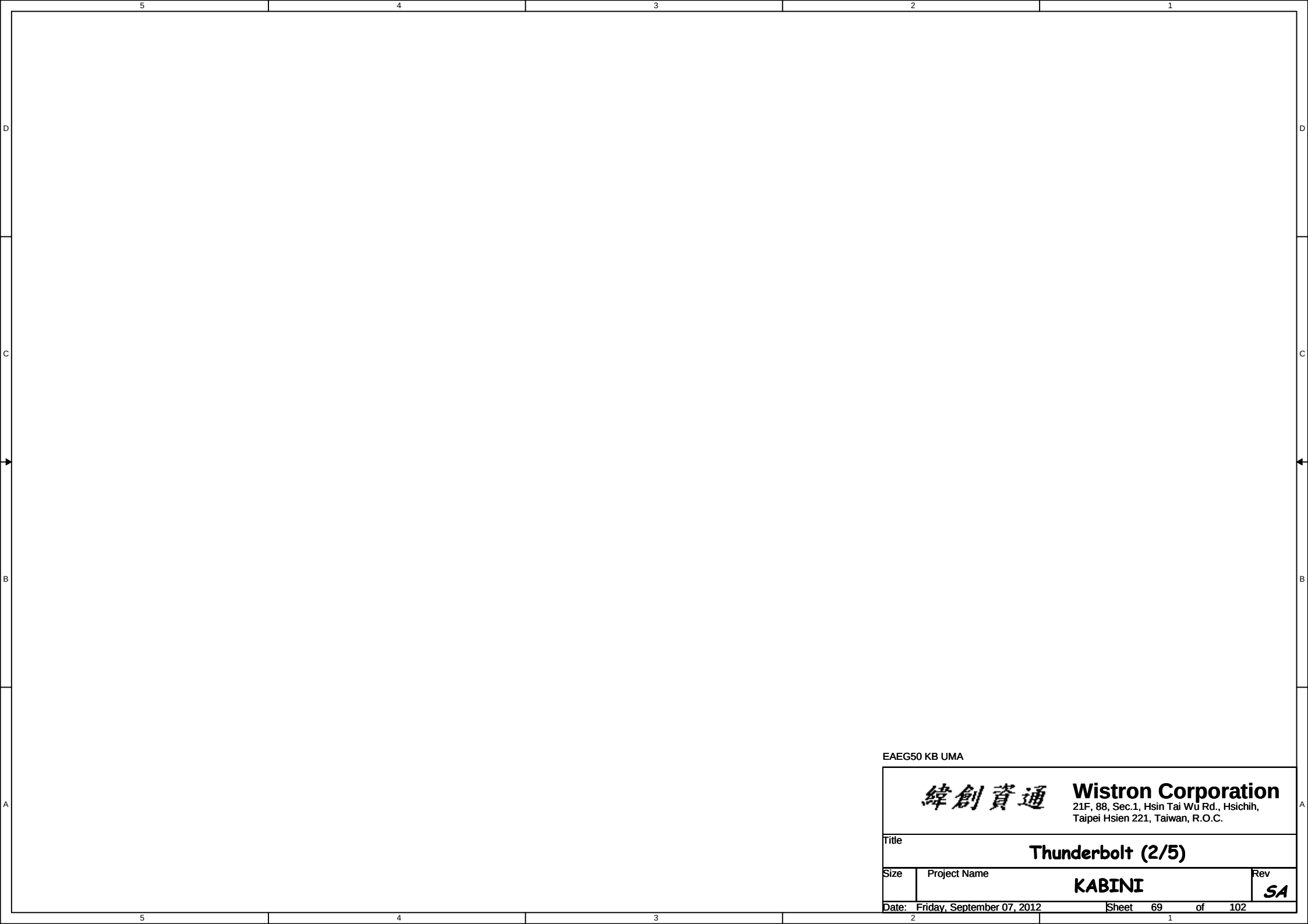
EAEG50 KB UMA

		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



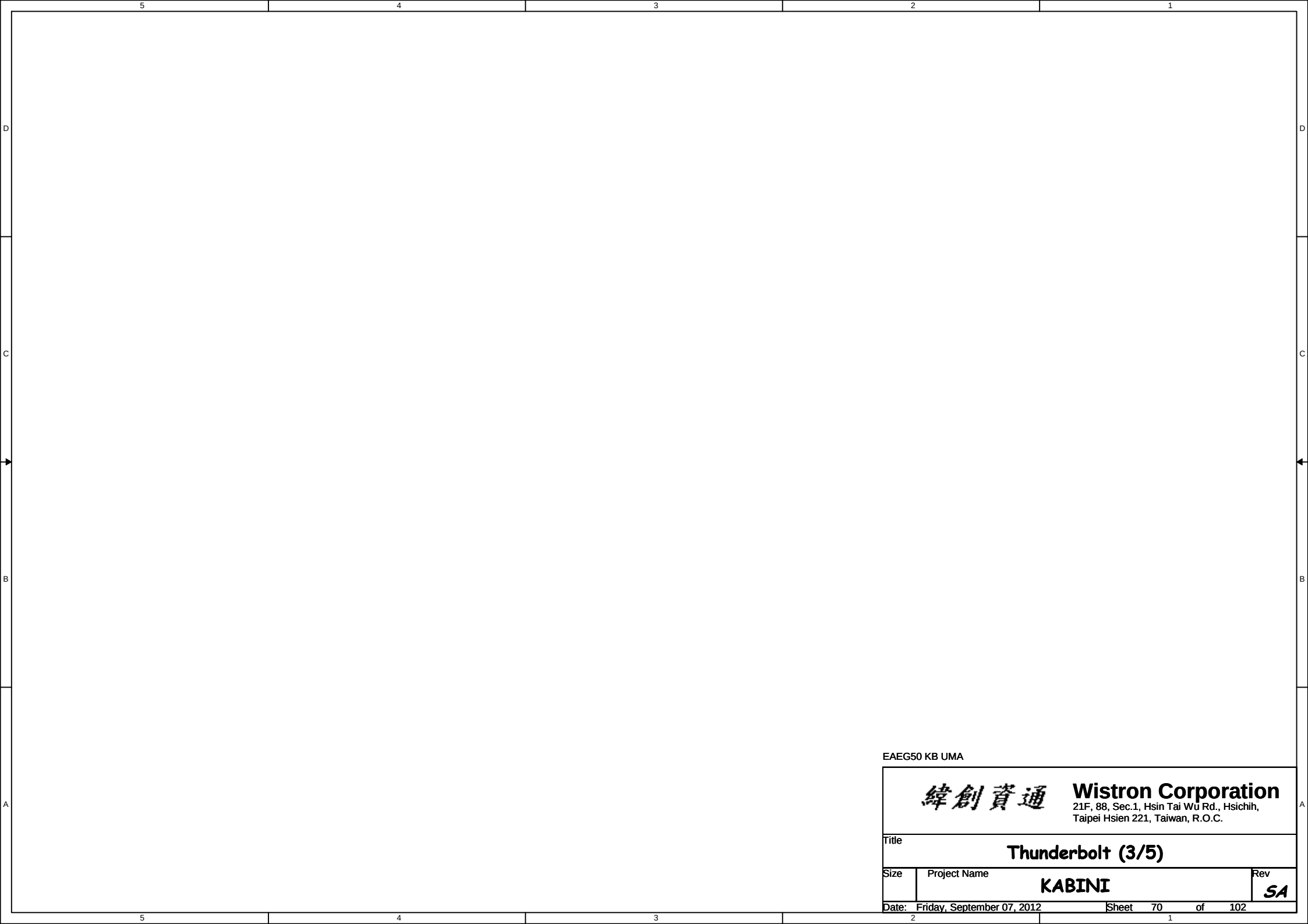
EAEG50 KB UMA

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title Thunderbolt (1/5)		
Size	Project Name KABINI	Rev SA
Date: Friday, September 07, 2012		Sheet 68 of 102

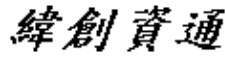


EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
TitleThunderbolt (2/5)	
Size	Project NameKABINI
Date: Friday, September 07, 2012	RevSA
Sheet 69 of 102	



EAEG50 KB UMA

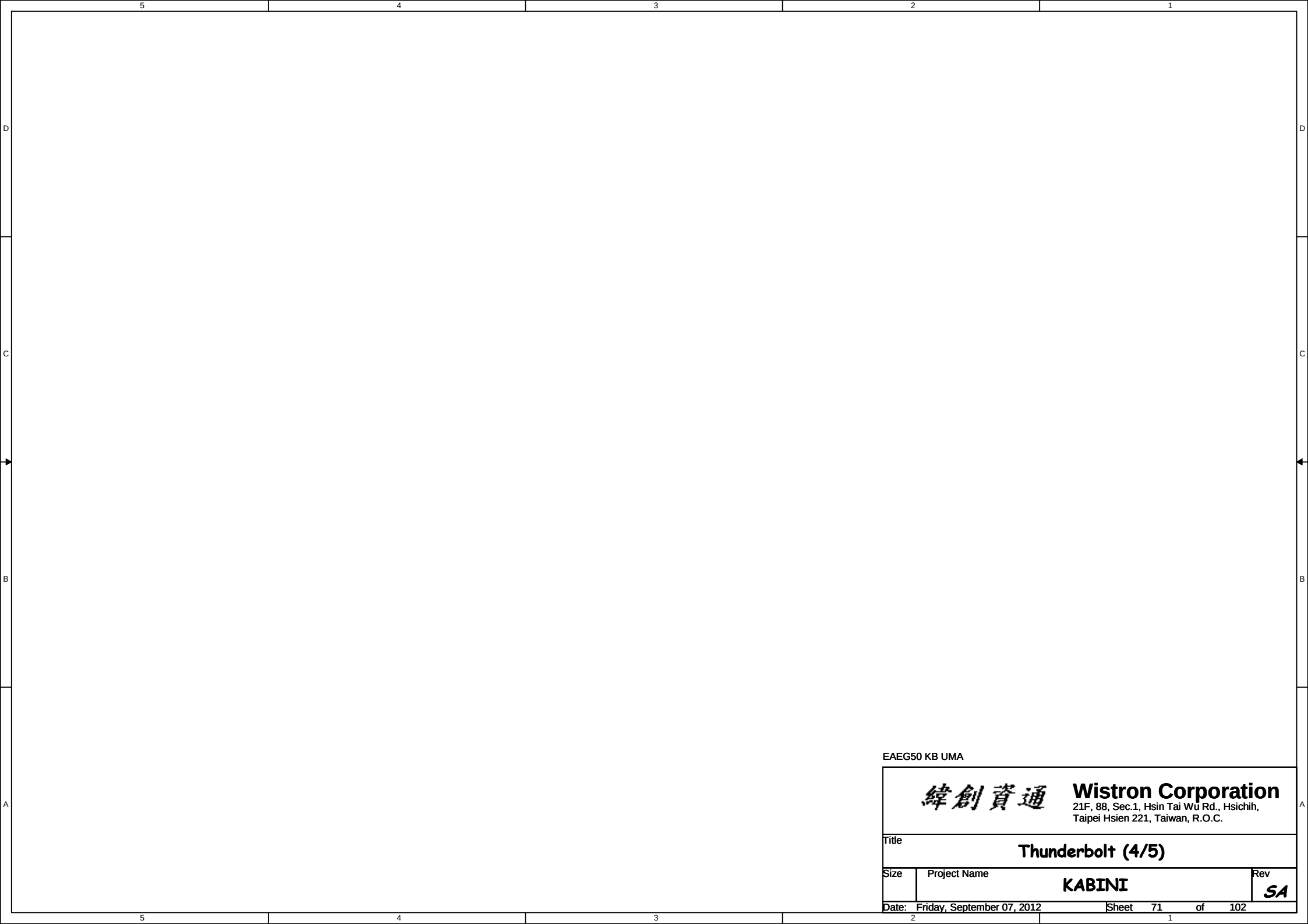


Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

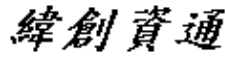
Title

Thunderbolt (3/5)

Size	Project Name	Rev
	KABINI	SA



EAEG50 KB UMA

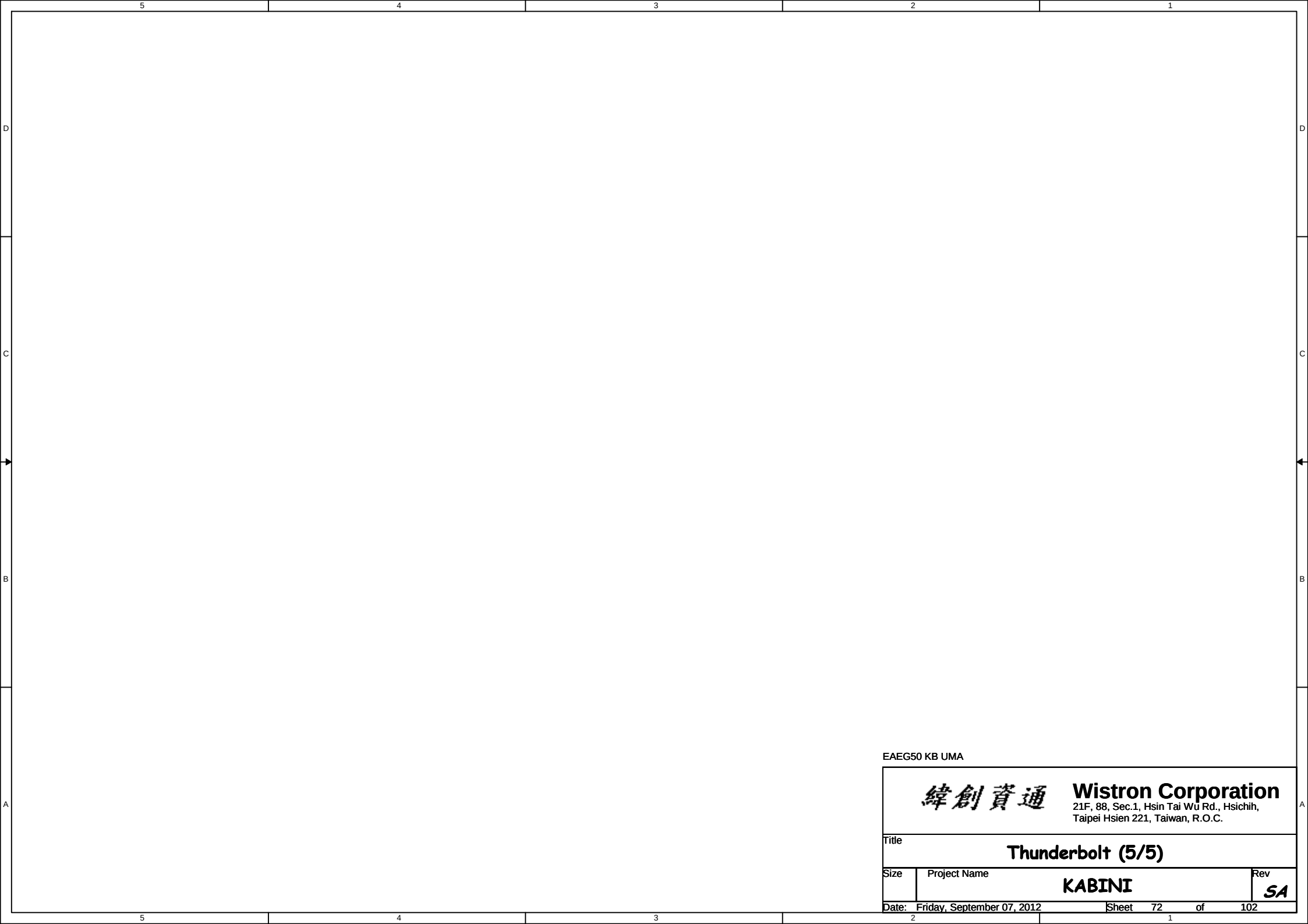


Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title

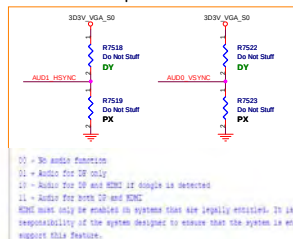
Thunderbolt (4/5)

Size	Project Name	Rev
	KABINI	SA



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.	
TitleThunderbolt (5/5)	
Size	Project NameKABINI
Date: Friday, September 07, 2012	RevSA
Sheet 72 of 102	



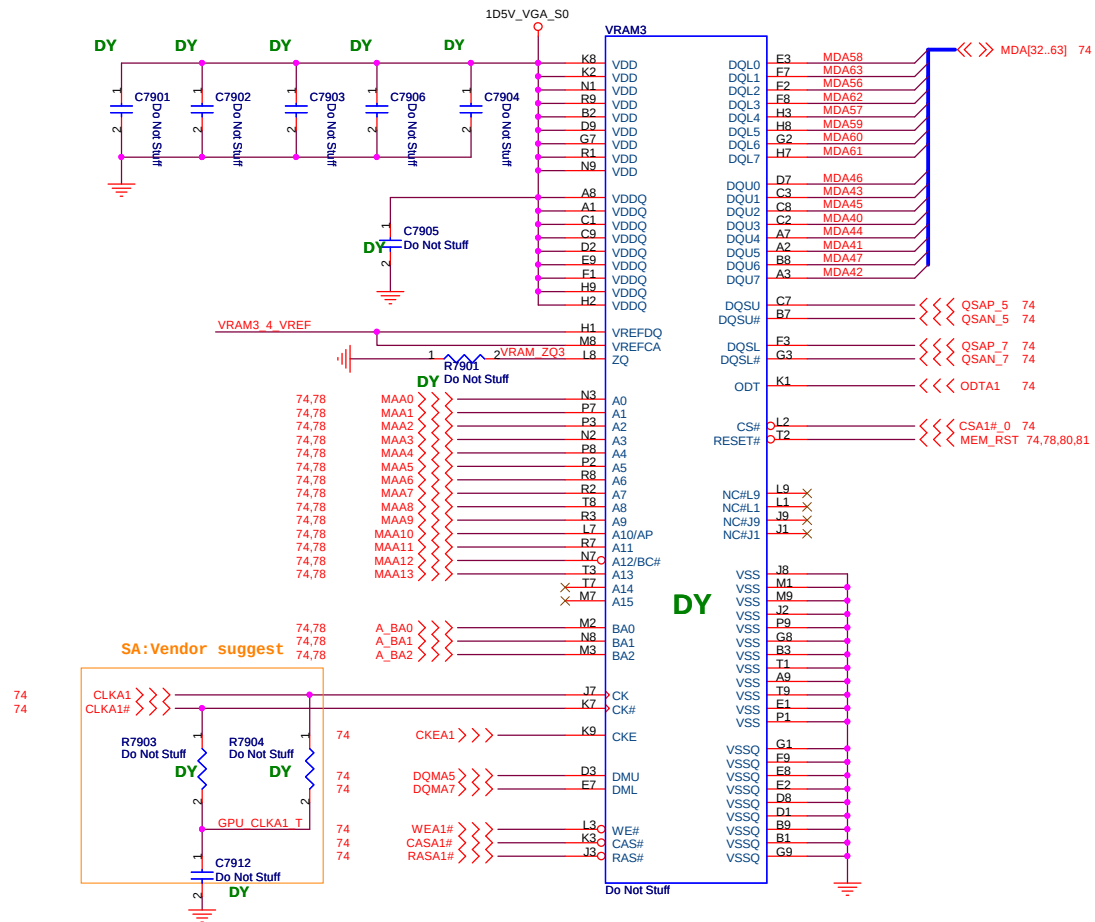
Note: AUD[1] (on HSYNC) and AUD[0] (on VSYNC) still need to be properly pin strapped even in a MIPS-based design.

Men don't have ALLY3-ALLY4 function

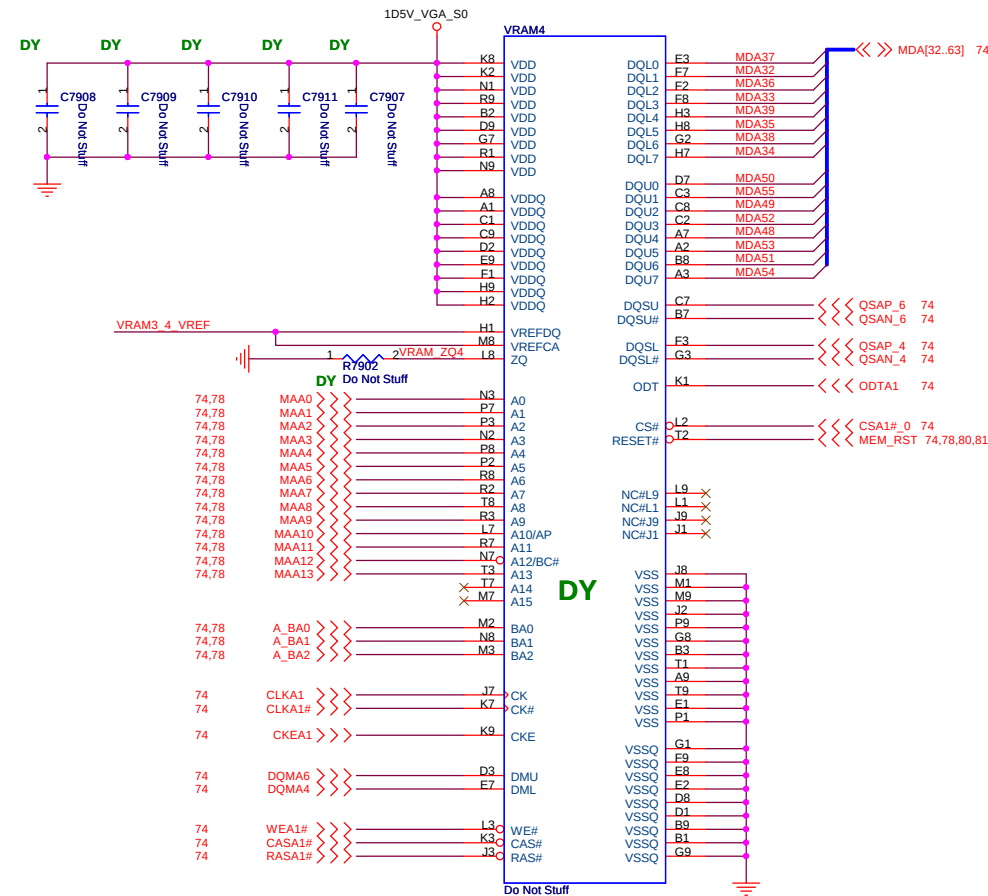
Note: 0402 1% resistors are required.

PS 1[1]=0 => KABINI only PCIe GEN2 is supported

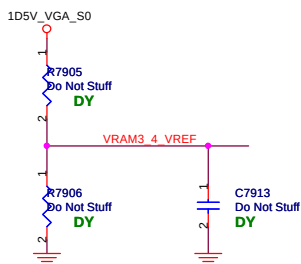




Do Not Stuff

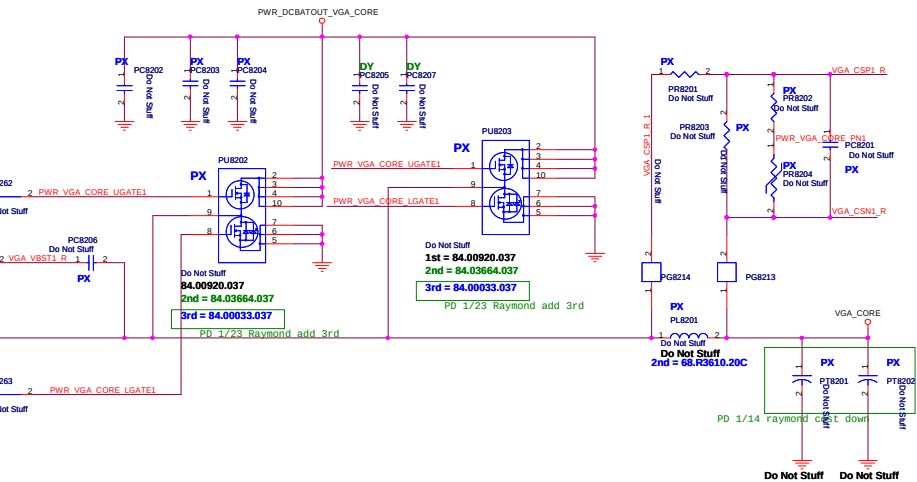
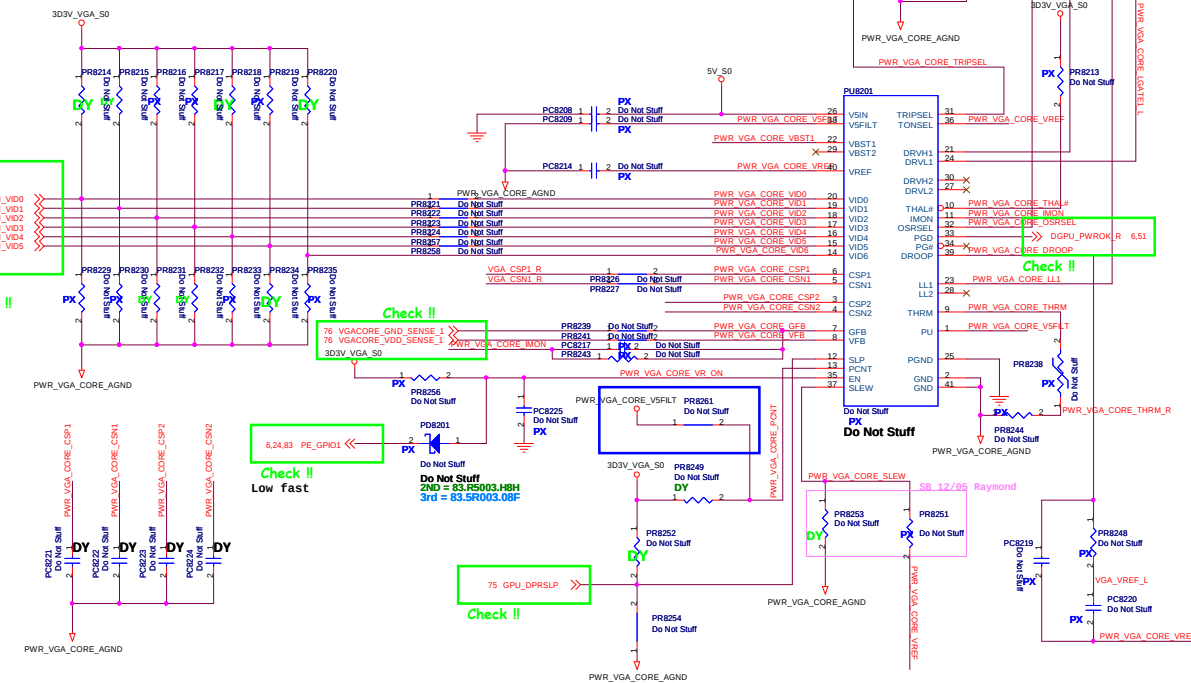
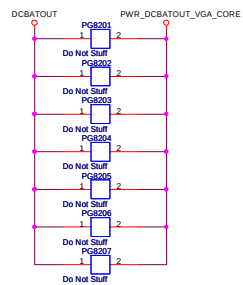


Do Not Stuff



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 3,4		
Size	Project Name	Rev
	KABINI	5A
Date:	Monday, February 04, 2013	Sheet 79 of 102

SSID = PWR.Plane.Regulator_GFX

Vga_core
Iccmax=26A
OCP>35A

<<< DGPU_V

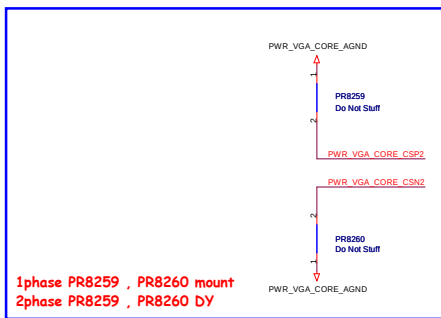
Check !!

Check !!

6,24,83 PE_G
Check !!
Low fast

75 GPU_DPRS

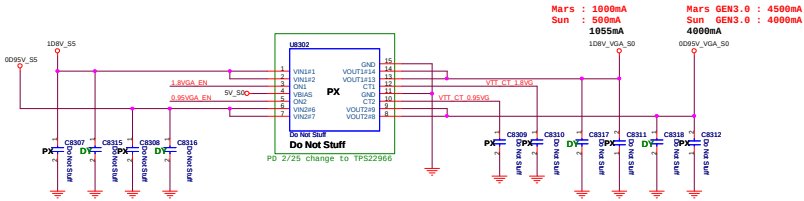
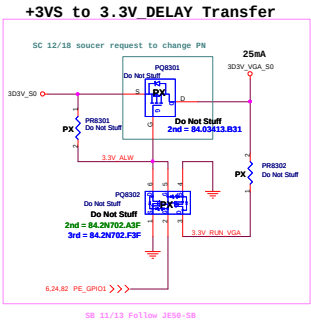
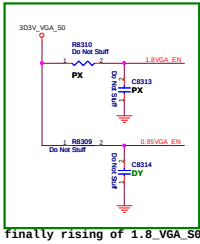
Check !!

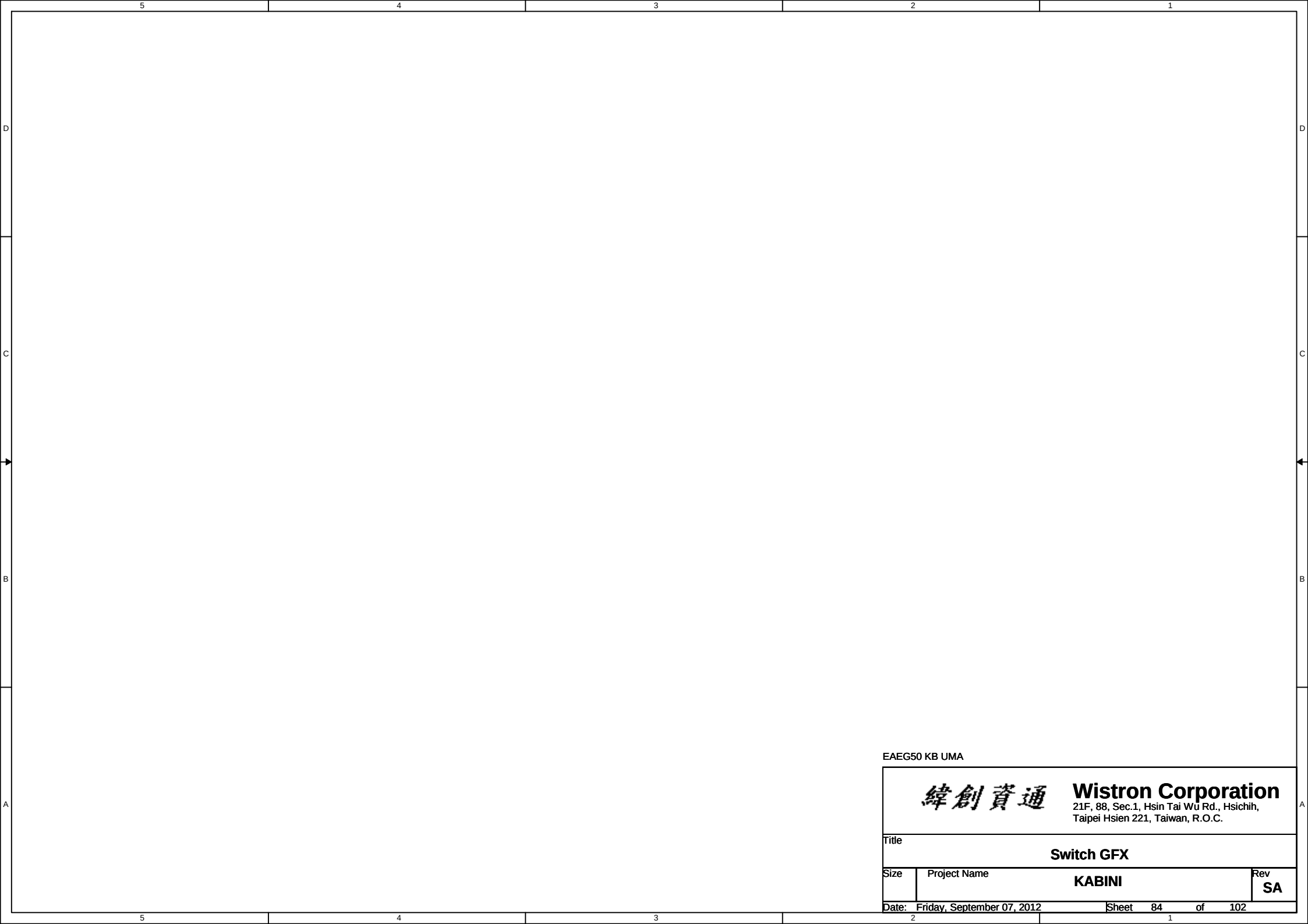


1phase PR8259 , PR8260 mount
2phase PR8259 , PR8260 DY

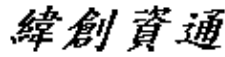
APL3523 for VGA_Power

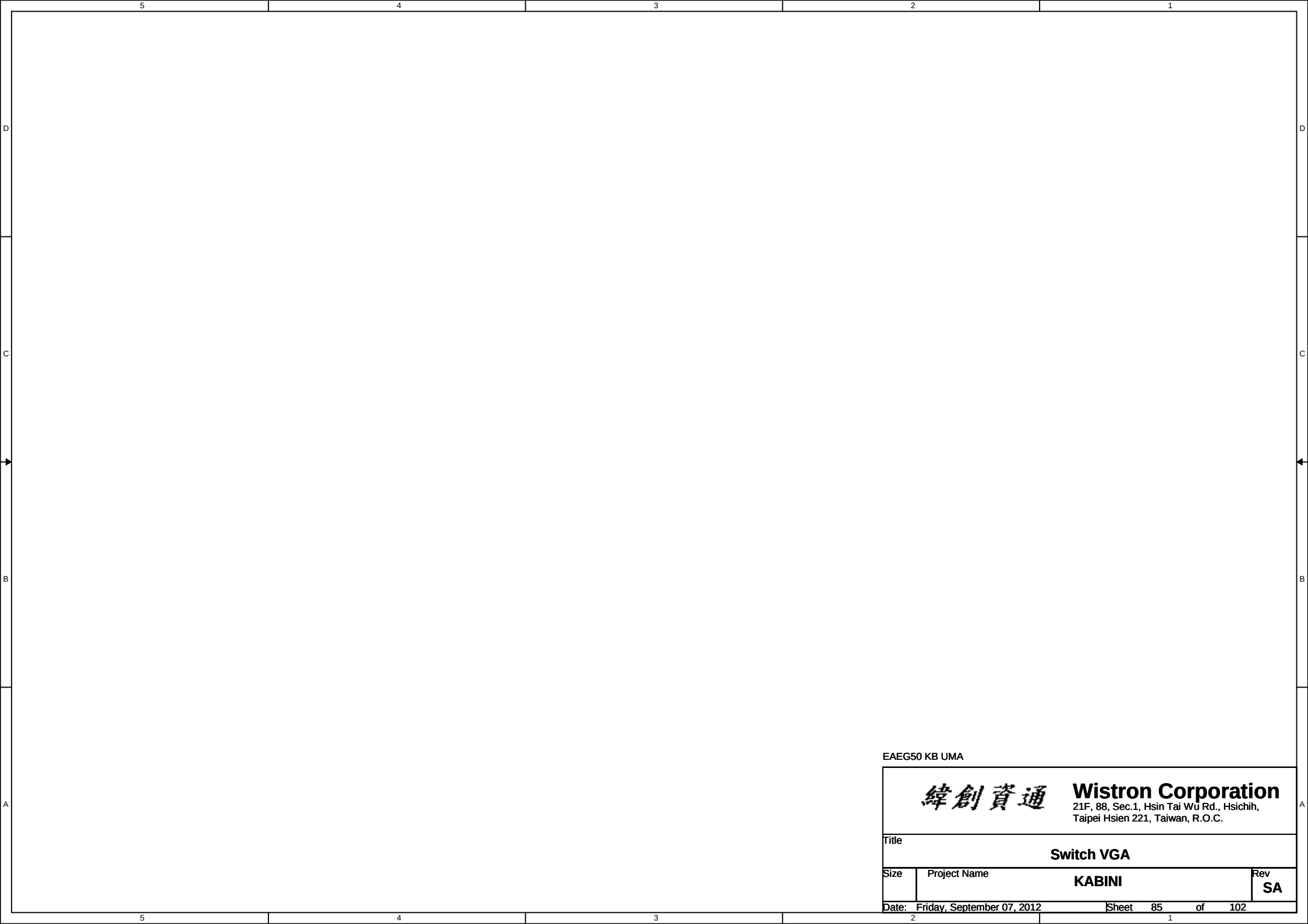
	PE_GP100	PE_GP101
dGPU mode	H	H
IGPU	L	L
IGPU with BACO	H	H



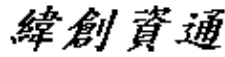


EAEG50 KB UMA

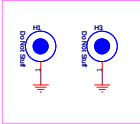
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Switch GFX			
Size	Project Name		Rev
	KABINI		SA
Date: Friday, September 07, 2012		Sheet 84 of 102	



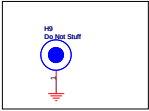
EAEG50 KB UMA

		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	

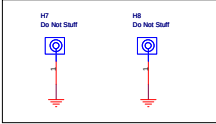
SB 11/14 follow HW for factory issue



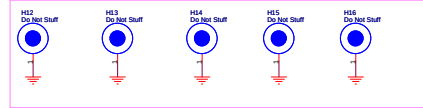
ZZ.00PAD.D01



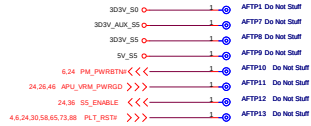
ZZ.00PAD.E01



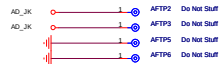
SB 11/20 ZZ.00pad.2T1 for change BKT size



Check test point



Test Point放在Dimm Door打開可量測處



DC IN connector



Battery connector



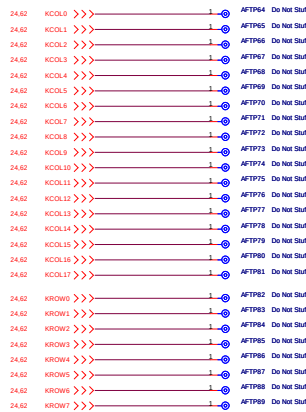
Speaker connector



HP connector



FAN connector



Normal KB connector



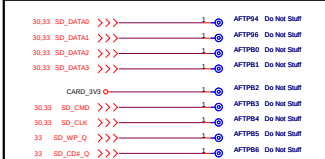
Touch Pad connector



EDP + MIC connector



LAN_RJ45 connector



Card reader connector

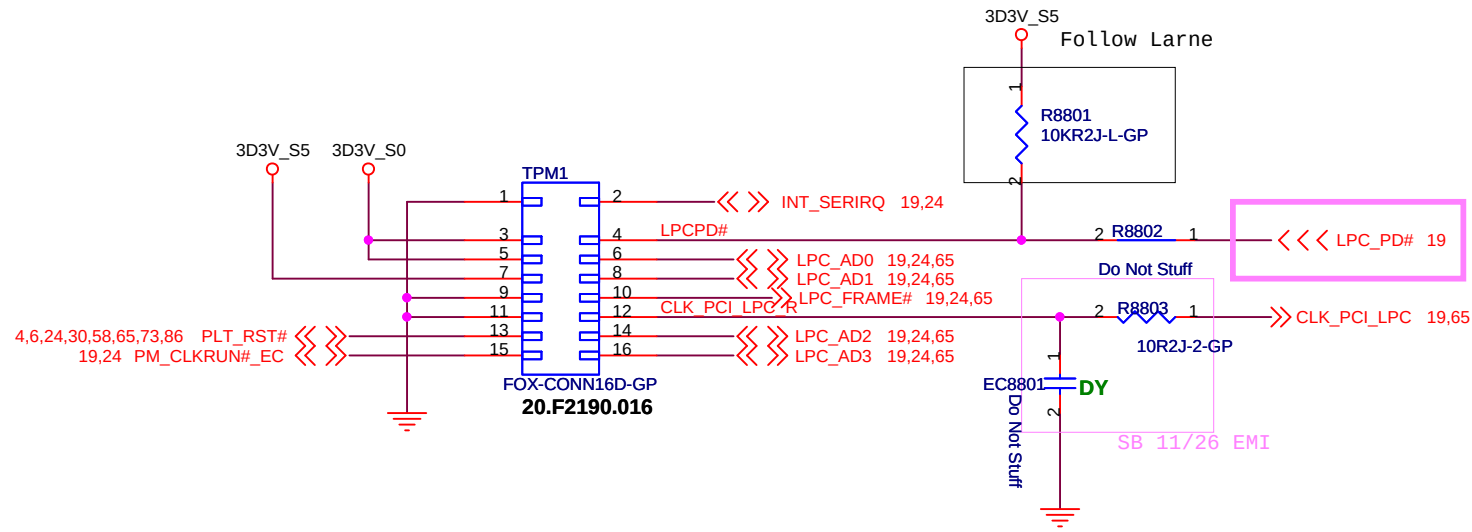


USBBD connector

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

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			
NFC			
Size	Project Name		Rev
	KABINI		SA
Date:	Friday, September 07, 2012		Sheet 87 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

TPM

Size

Project Name

KABINI

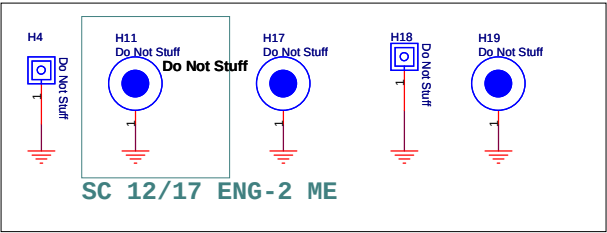
Rev

SA

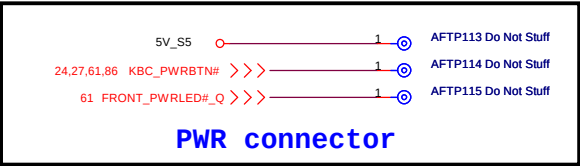
Date: Monday, February 04, 2013

Sheet 88 of 102

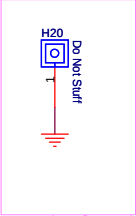
H4 & H11 & H17 & H18 & H19 for EG50



PWRBD AFTP for EG50

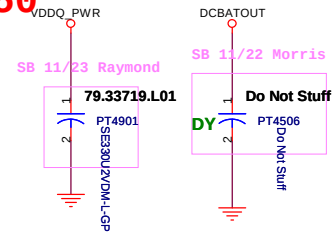
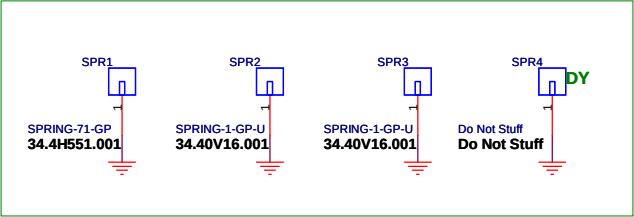


ZZ.00PAD.571



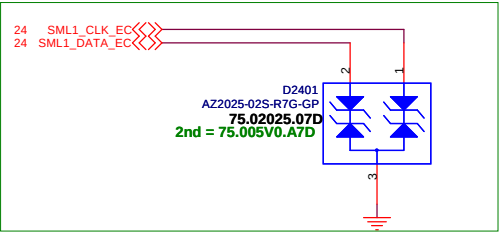
SB 11/20 location same with 14" H2

PD 1/23 EMI Jen



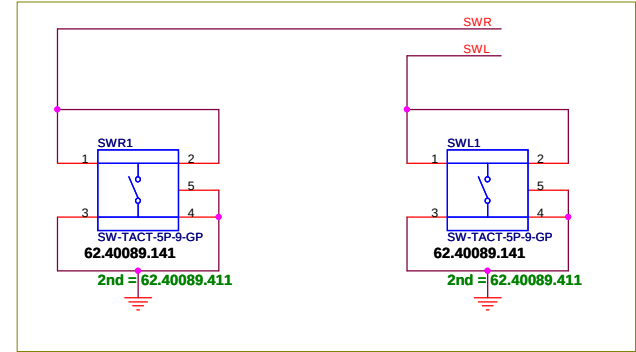
SB 11/23 3mm high limit in EG50

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

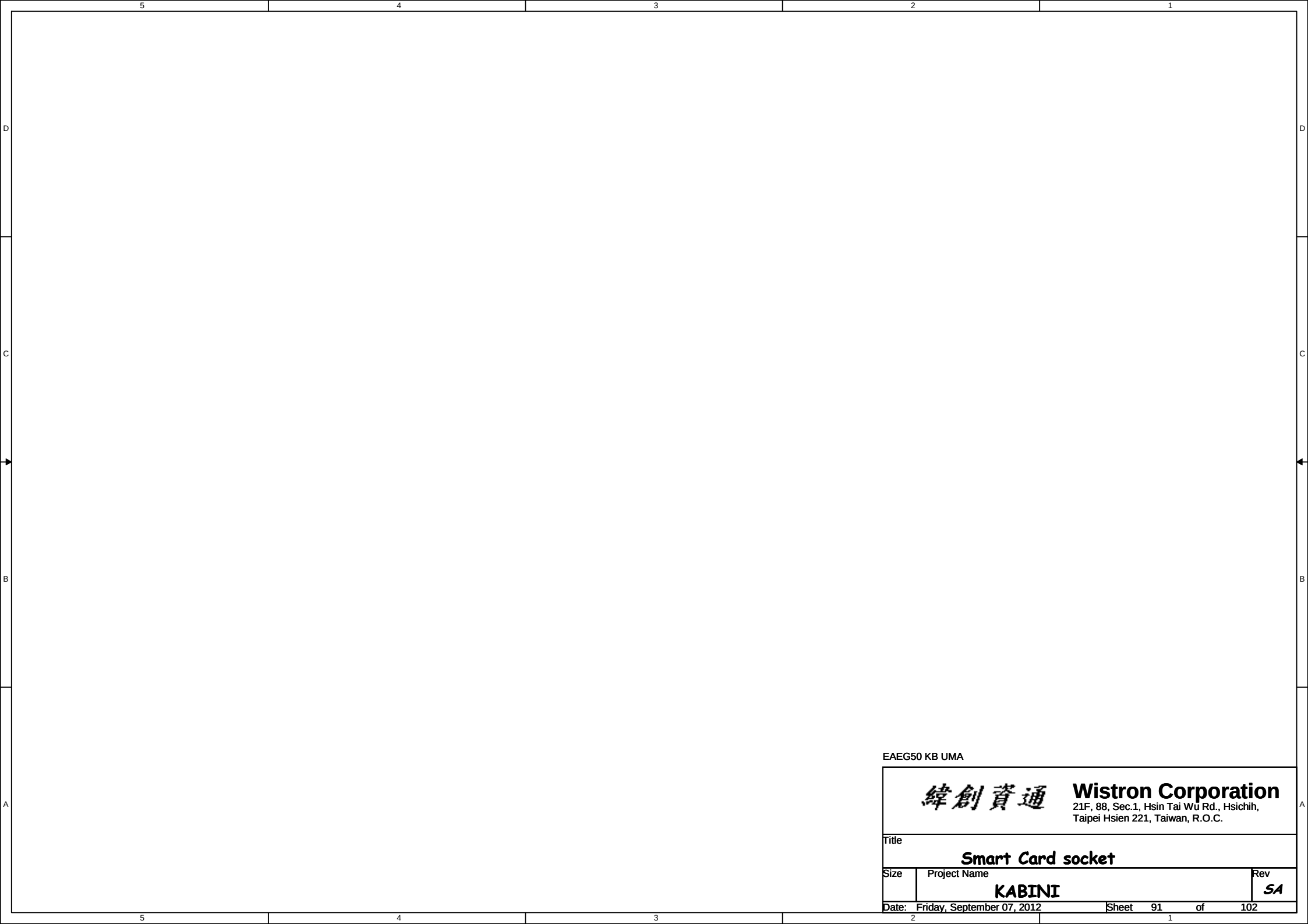


24,62,86	KCOL0	>>>
24,62,86	KCOL1	>>>
24,62,86	KCOL2	>>>
24,62,86	KCOL3	>>>
24,62,86	KCOL4	>>>
24,62,86	KCOL5	>>>
24,62,86	KCOL6	>>>
24,62,86	KCOL7	>>>
24,62,86	KCOL8	>>>
24,62,86	KCOL9	>>>
24,62,86	KCOL10	>>>
24,62,86	KCOL11	>>>
24,62,86	KCOL12	>>>
24,62,86	KCOL13	>>>
24,62,86	KCOL14	>>>
24,62,86	KCOL15	>>>
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	>>>

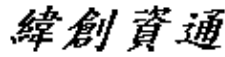
For AFTE

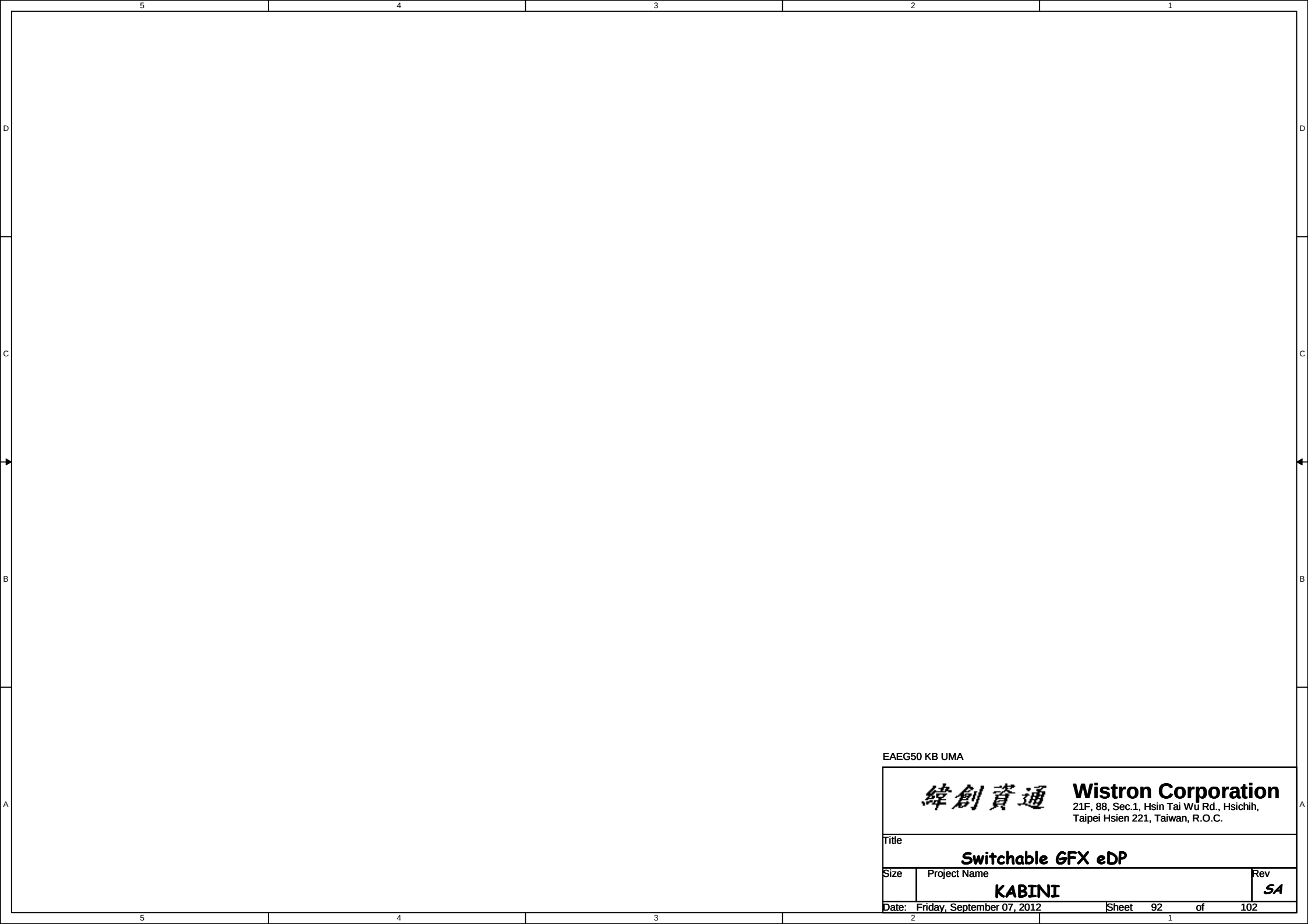


PD 1/21
SWL1 / SWR1 1st change to 62.40089.141, 2nd change to 62.40089.411 ,
because 160kg change to 100kg.



EAEG50 KB UMA

		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

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

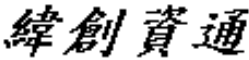
KABINI

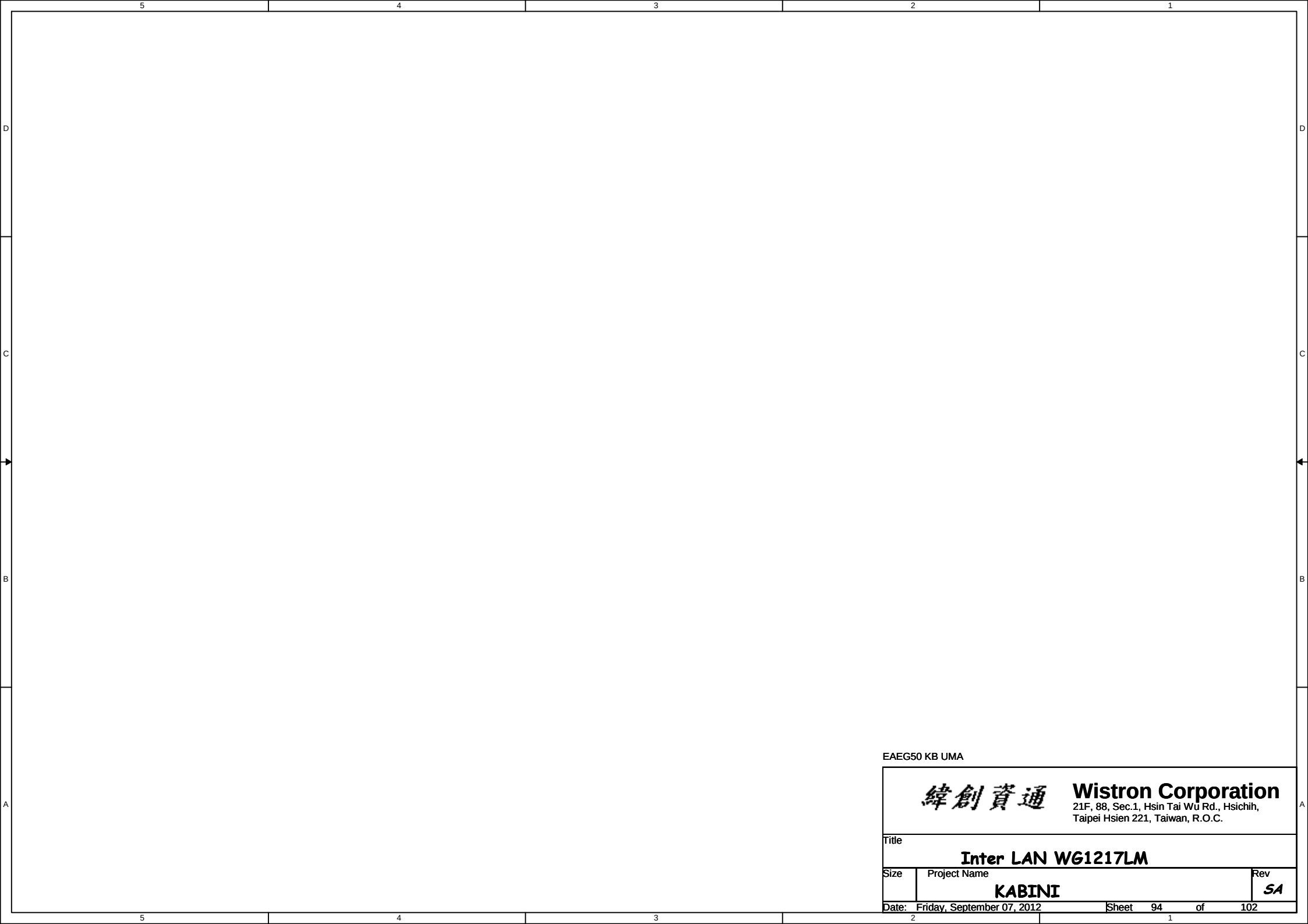
Rev

SA

Date: Friday, September 07, 2012

Sheet 92 of 102

	5	4	3	2	1
D					D
C					C
B					B
A				EAEG50 KB UMA  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 Date: Friday, September 07, 2012 Sheet 93 of 102 KABINI SA	A
	5	4	3	2	1



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

Inter LAN WG1217LM

Size

Project Name

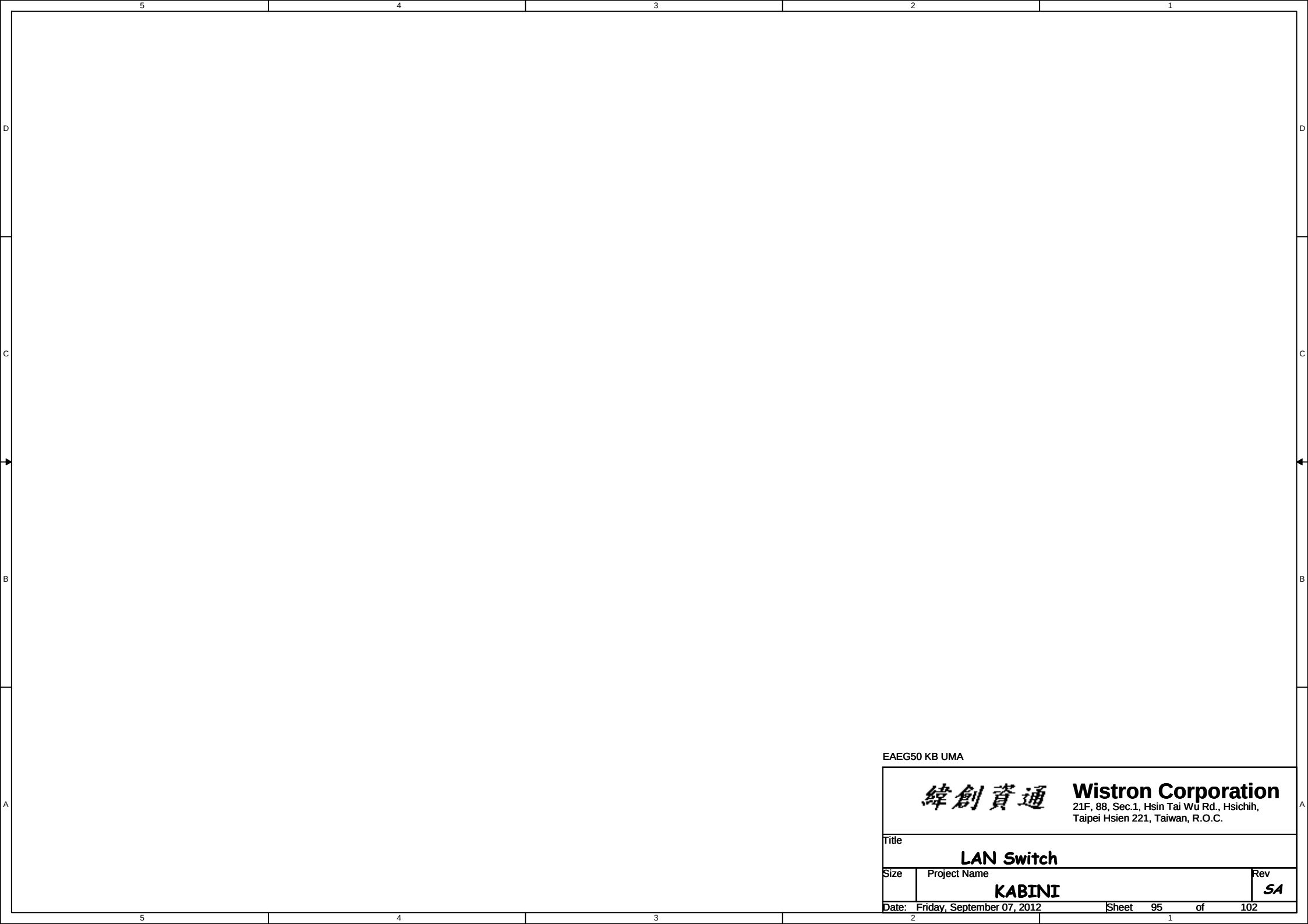
KABINI

Rev

SA

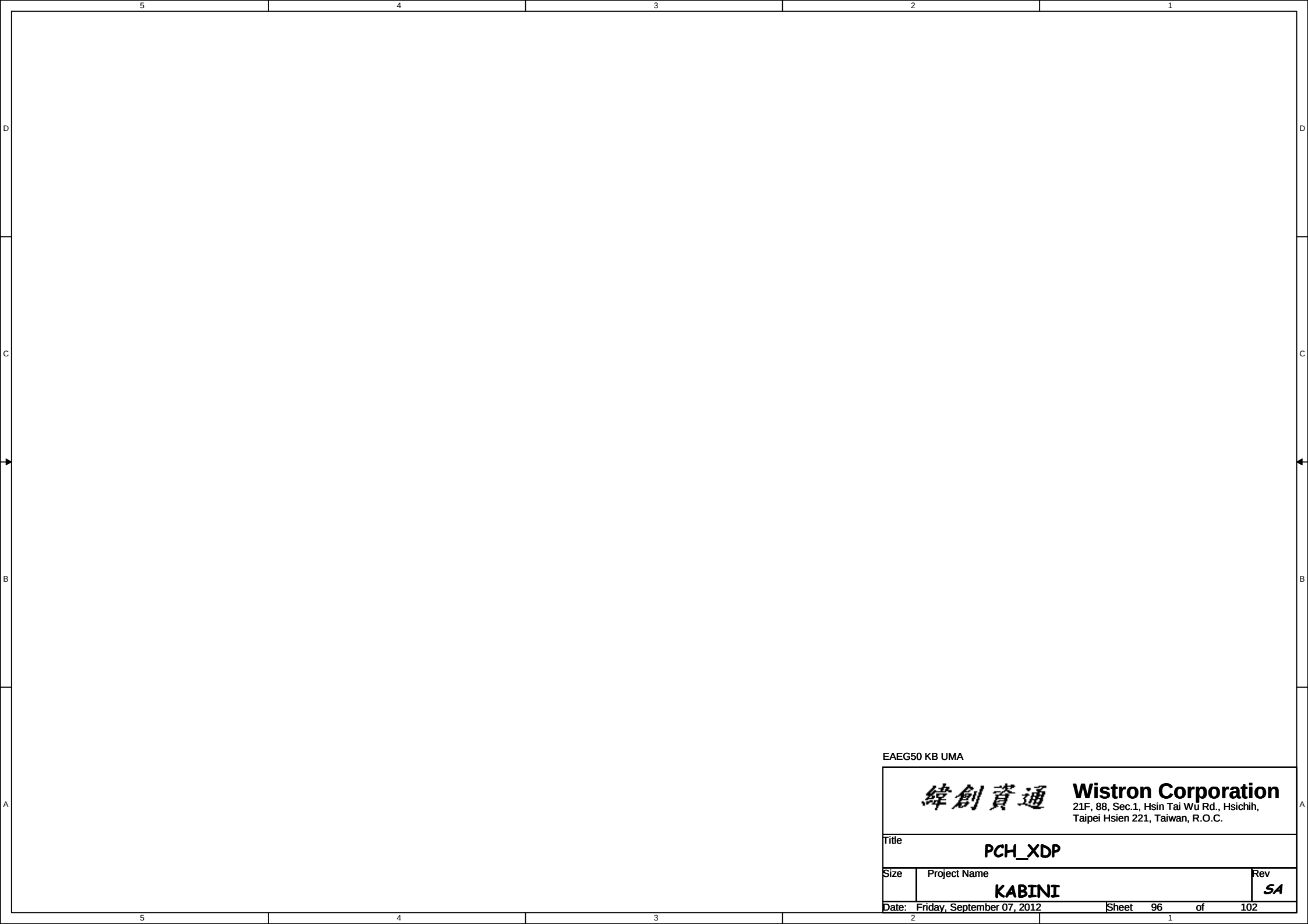
Date: Friday, September 07, 2012

Sheet 94 of 102



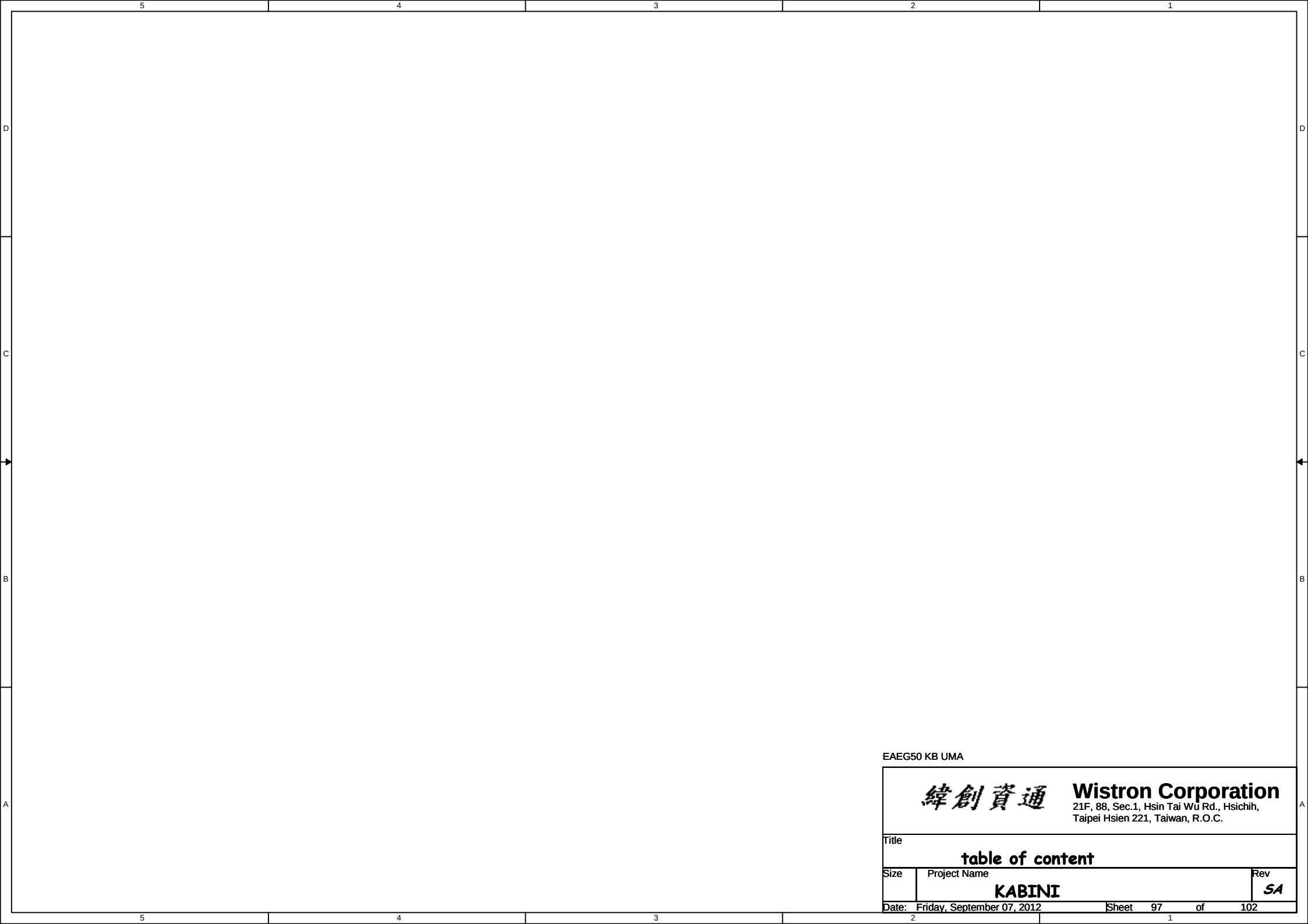
EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
LAN Switch	
Size	Rev
Project Name	
KABINI	
SA	
Date: Friday, September 07, 2012	Sheet 95 of 102



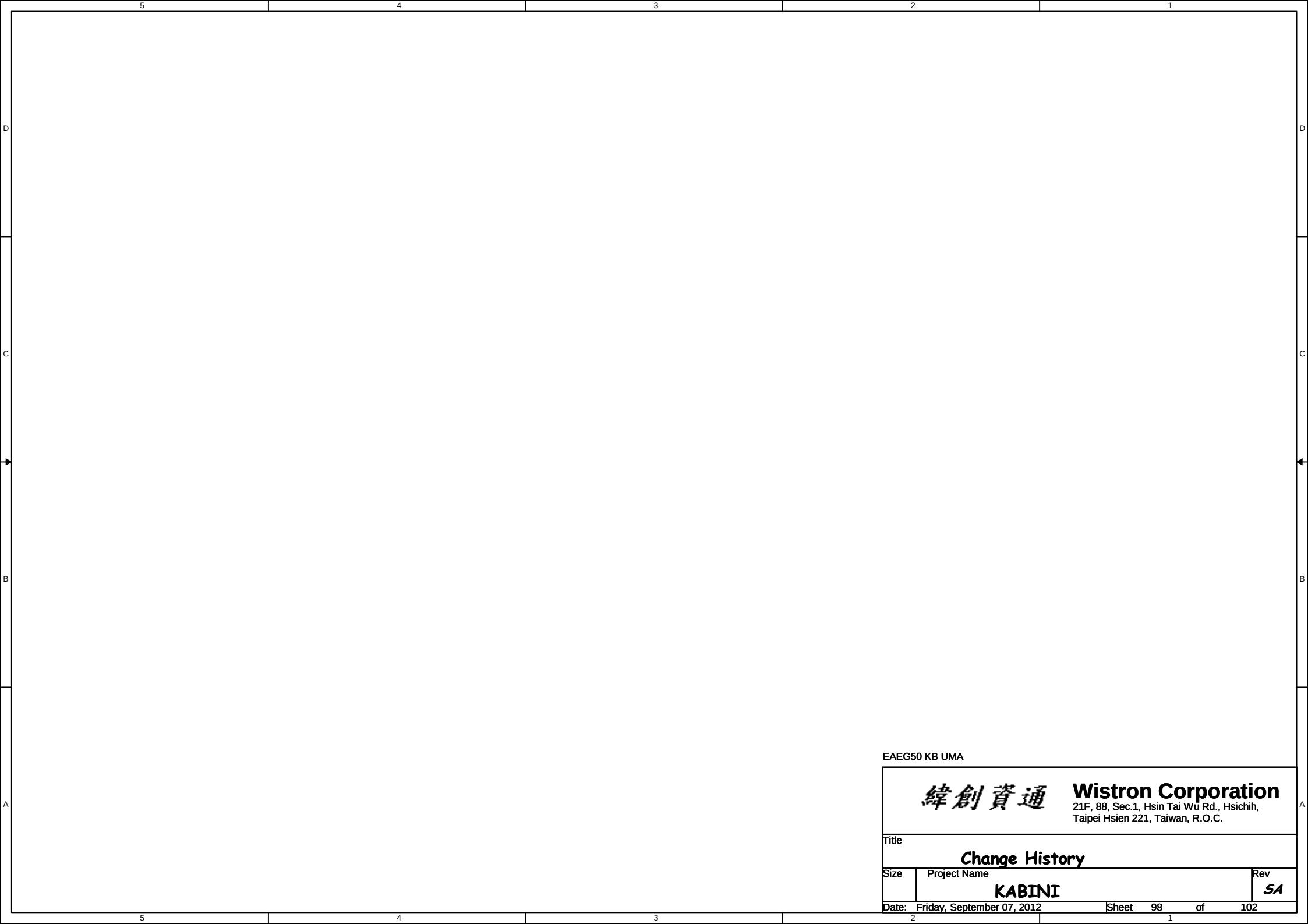
EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
TitlePCH_XDP	
Size	Project NameKABINI
Date: Friday, September 07, 2012	RevSA
Sheet 96 of 102	



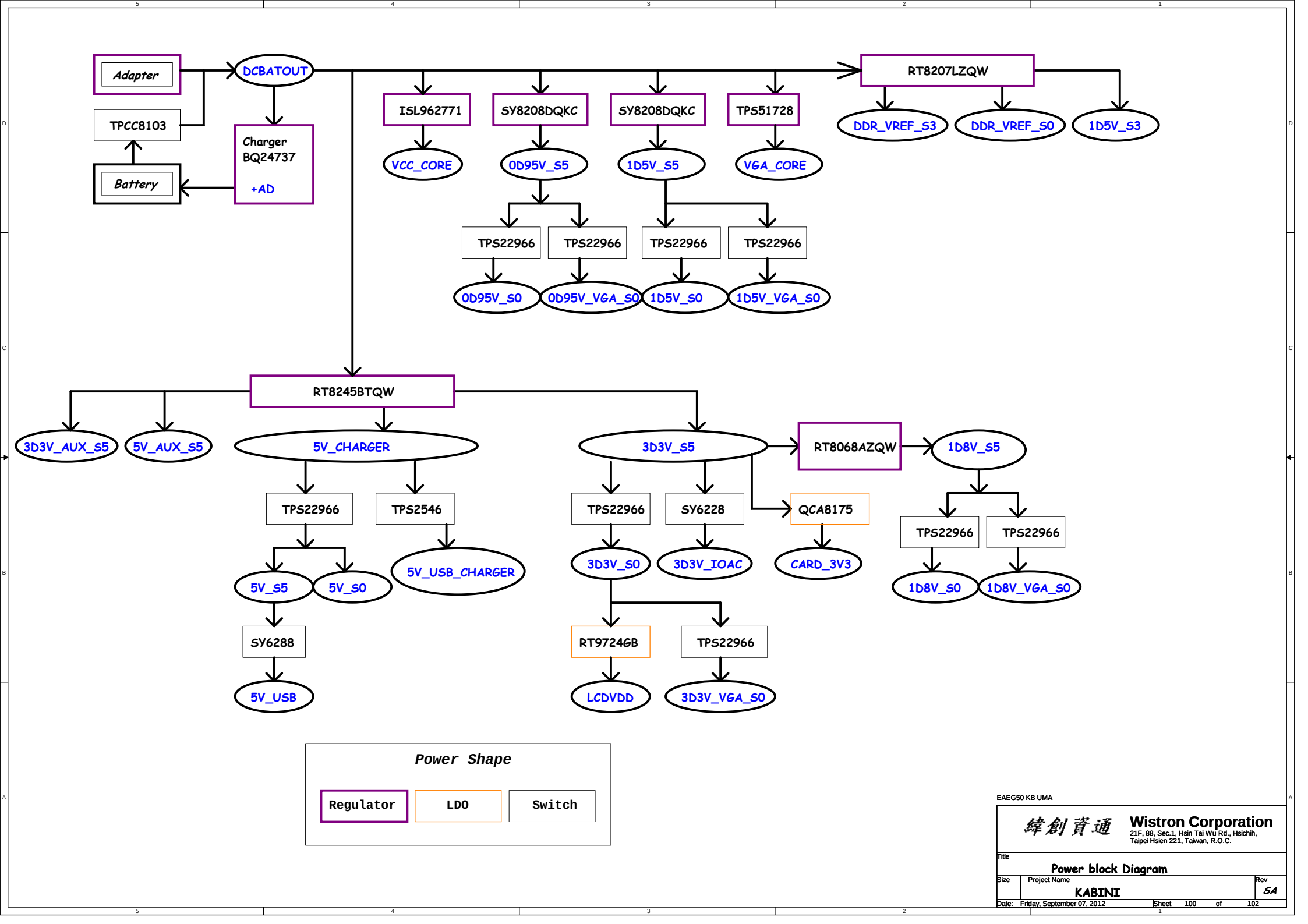
EAEG50 KB UMA

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
table of content	
Size	Rev
Project Name	
KABINI	
SA	
Date: Friday, September 07, 2012	Sheet 97 of 102

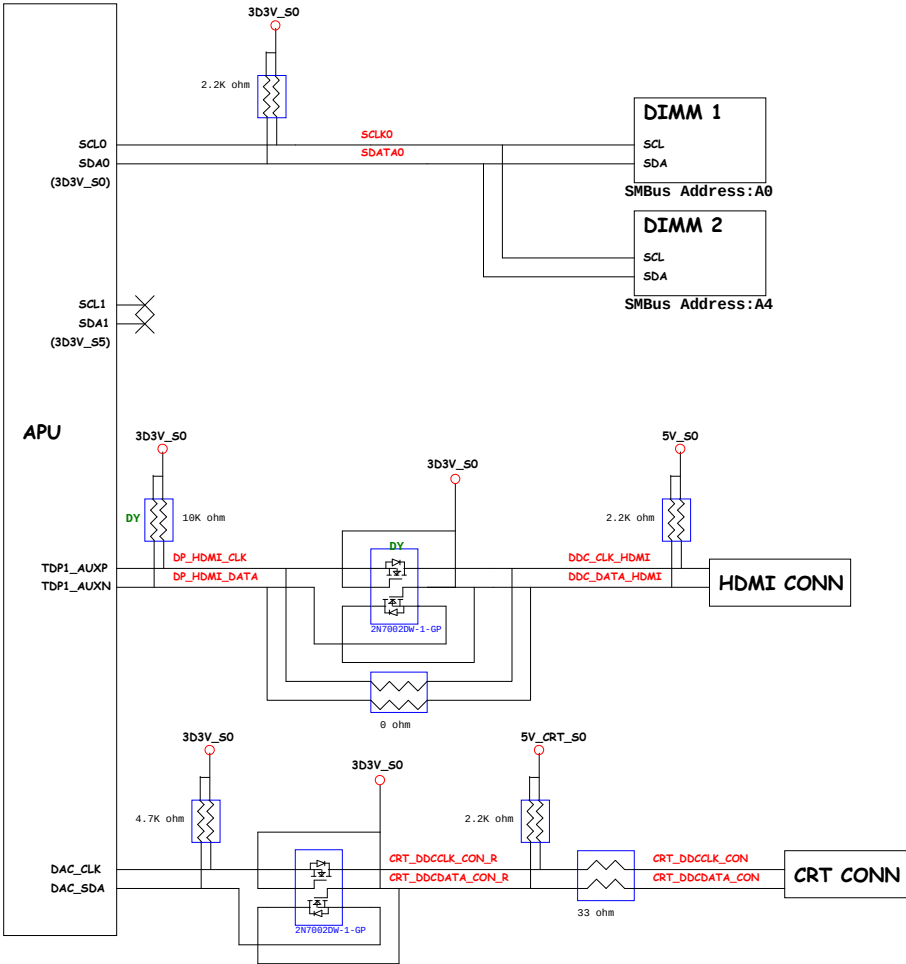


EAEG50 KB UMA

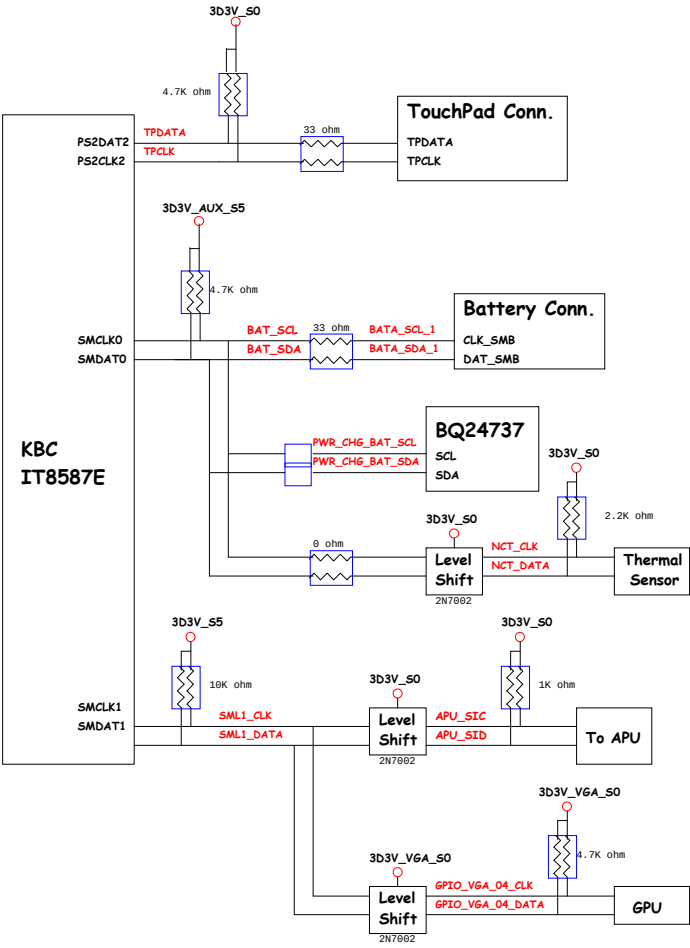
緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
Change History	
Size	Rev
Project Name	
KABINI	
SA	
Date: Friday, September 07, 2012	Sheet 98 of 102



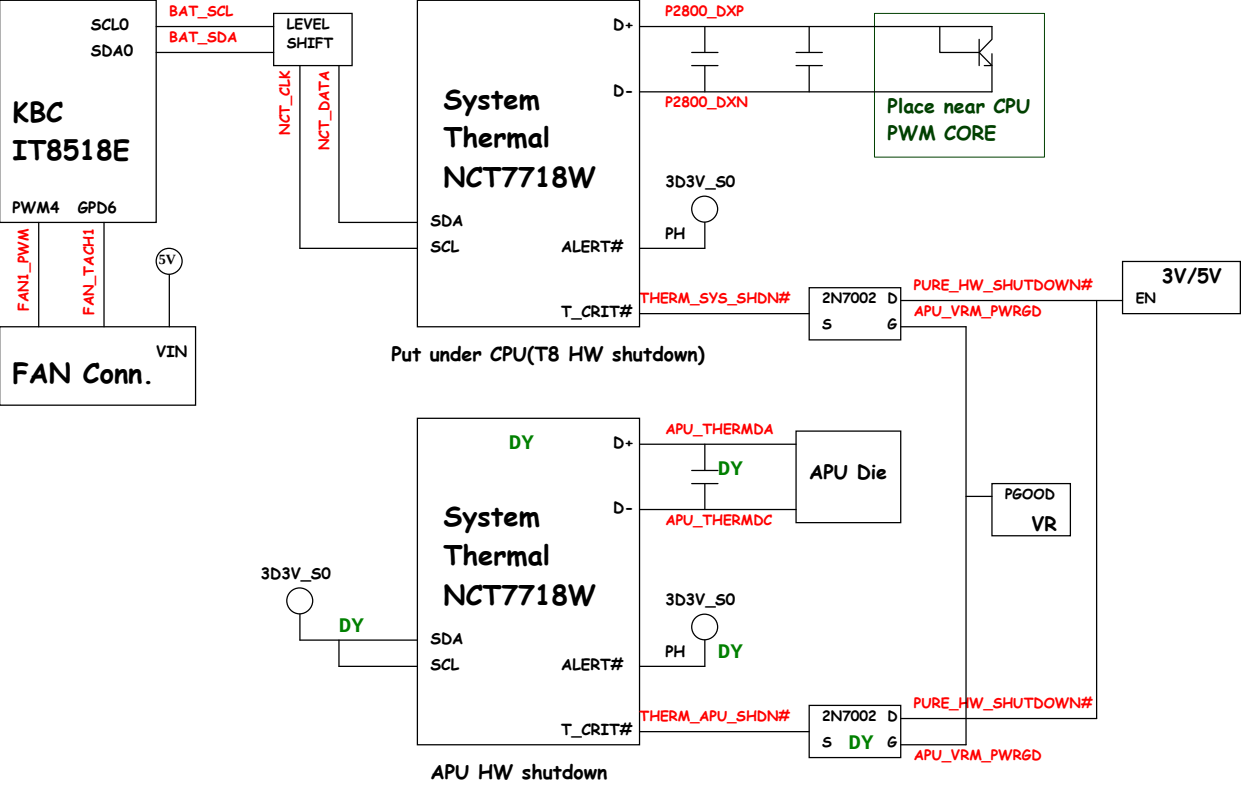
SMBus Block Diagram



KBC SMBus Block Diagram



Thermal Block Diagram



Audio Block Diagram

