

Wistron-SKLU Schematics
Mihawk
REV : -2

DY : None Installed

Mihawk MB

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
A3

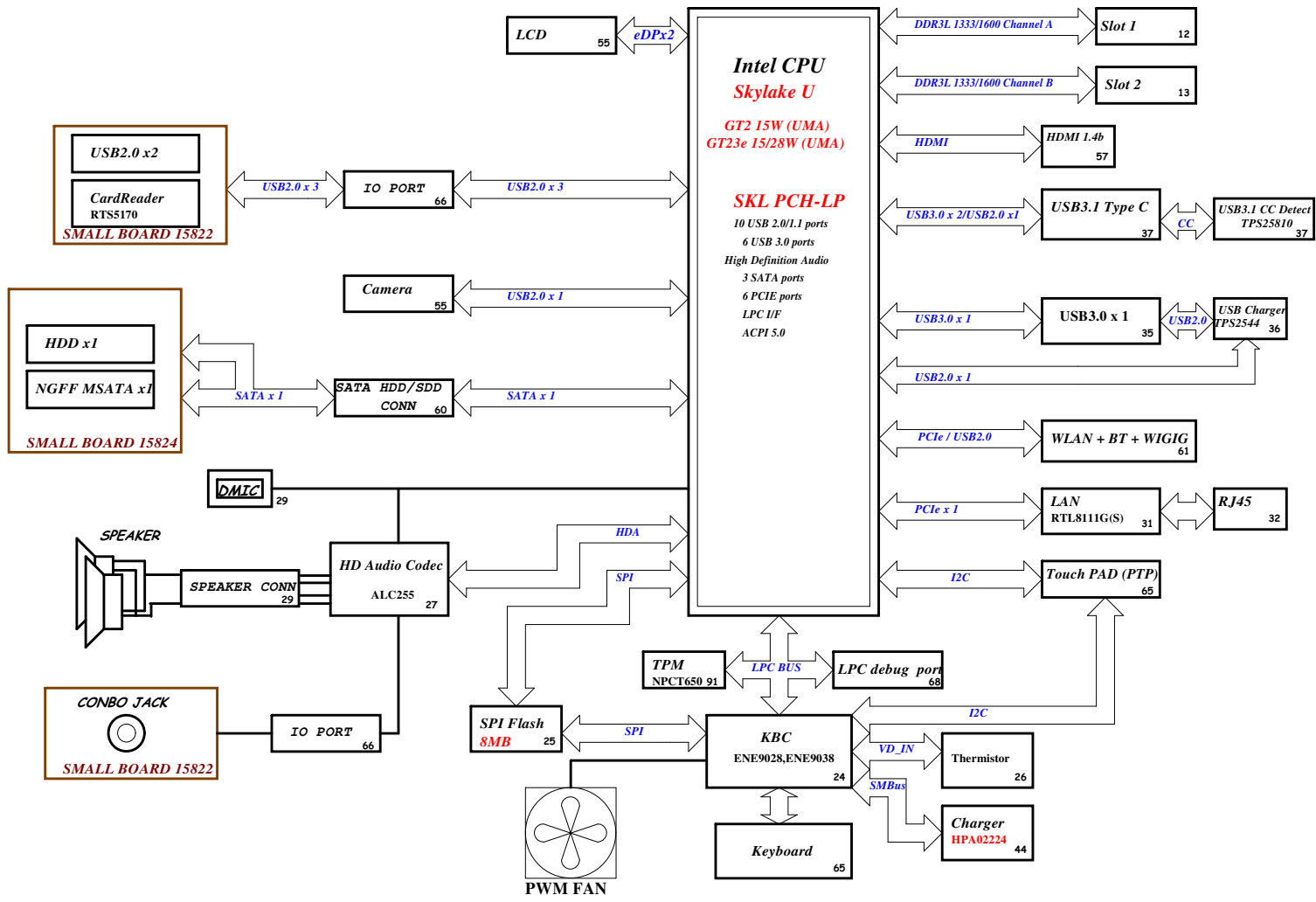
Document Number
Mihawk MB

Rev
-2

Date: Monday, August 10, 2015

Sheet 1 of 105

Project code:
Mihawk SL 13 --> 4PD06J010001
PCB P/N:15208
Revision: -1

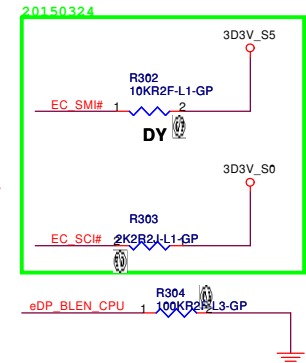


CHARGER HPA02224 44	
INPUTS	OUTPUTS
AD+	DCBATOUT
BT+	
SYSTEM DC/DC RT6575D 45	
INPUTS	OUTPUTS
DCBATOUT	3D3V_AUX_S5 5V_AUX_S5 5V_S5 3D3V_S5
CPU Core Power ISL95857HRTZ-T-GP 46	
INPUTS	OUTPUTS
DCBATOUT	VCC_CORE
DDR3L SUS RT8231AGQW-GP 51	
INPUTS	OUTPUTS
DCBATOUT	1D35V_S3 0D675V_S0
CPU 1D0V_S5 RT8231AGQW-GP 52	
INPUTS	OUTPUTS
DCBATOUT	1D0V_S5
CPU 1.8V_S5 RT8068A2QWID-GP-U 53	
INPUTS	OUTPUTS
DCBATOUT	1D8V_S5
Switches 40	
INPUTS	OUTPUTS
1D0V_S5	1D0V_EOP10_EDRAM
5V_S5	5V_S0
3D3V_S5	3D3V_S0
1D0V_S5	1V_VCCIO
	1V_VCCST
PCB LAYER 8-1.0-16d	
L1:Top	
L2:GND	
L3:Signal	
L4:Signal	
L5:GND	
L6:Signal	
L7:GND	
L8:Bottom	

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

Mihawk MB

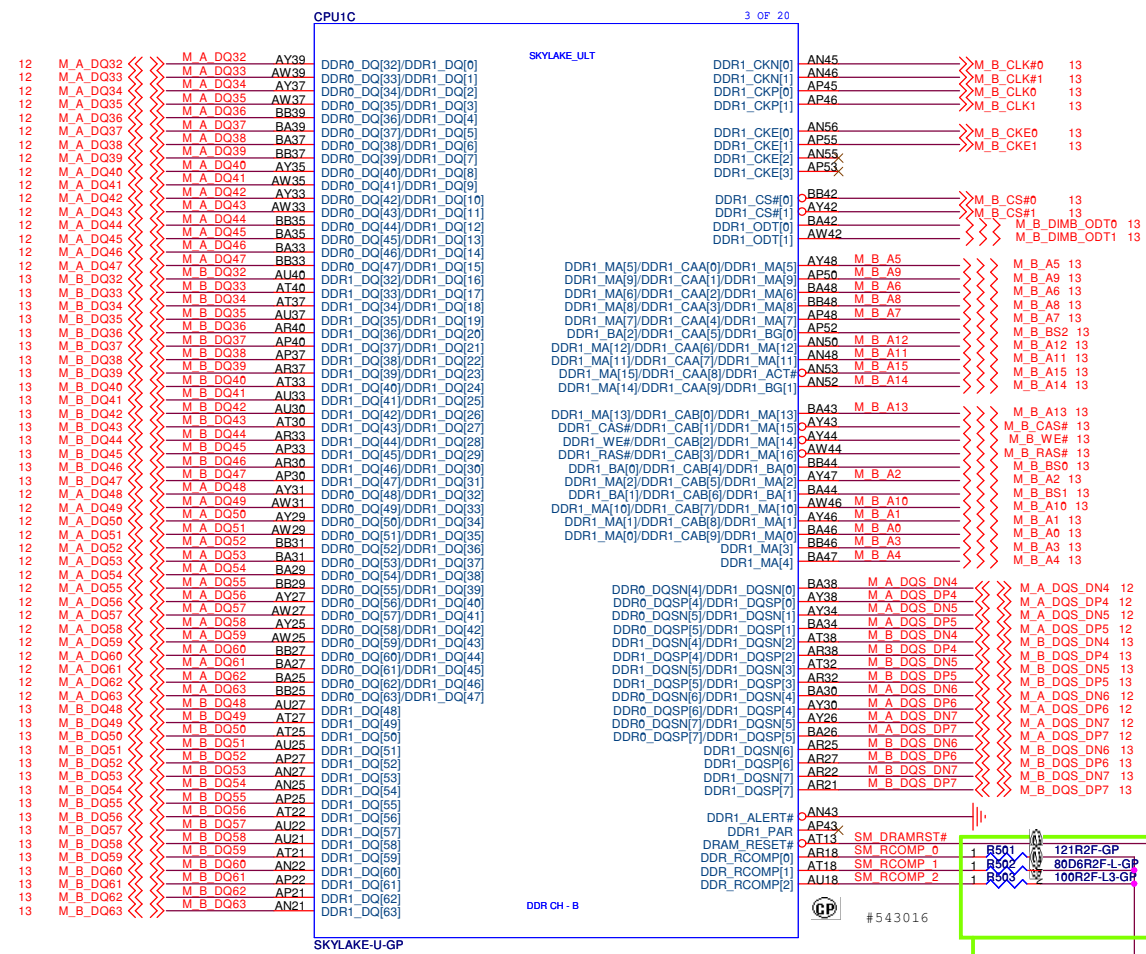
緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Block Diagram			
Size C	Document Number Mihawk MB	Rev -2	
Date:	Monday, August 10, 2015	Sheet	2 of 105



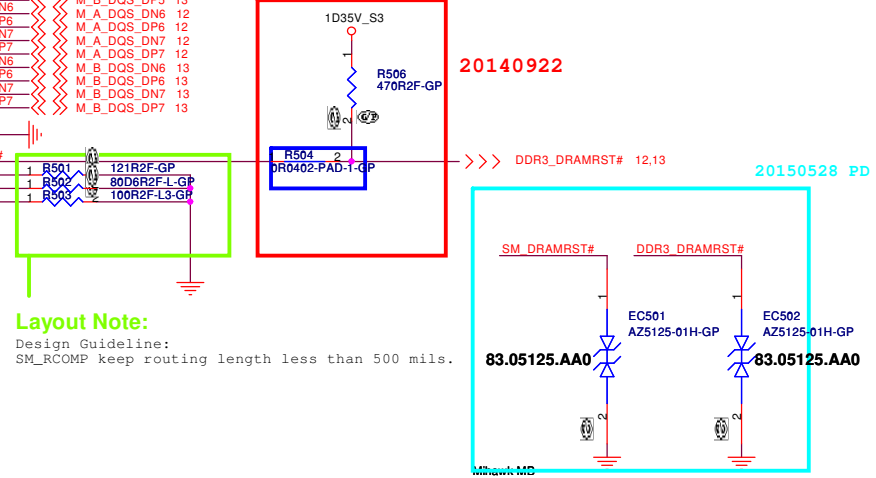
Signal	Trace Width	Isolation Spacing	Resistor Value	Length
eDP_RCOMP	20 mils	25 mils	24.9Ω ±1%	Max = 100 mils

Design Guideline:
Skylake processor signal eDP_RCOMP should be connected to the VCCIO rail via a single 24.9 $\pm 1\%$ resistor.

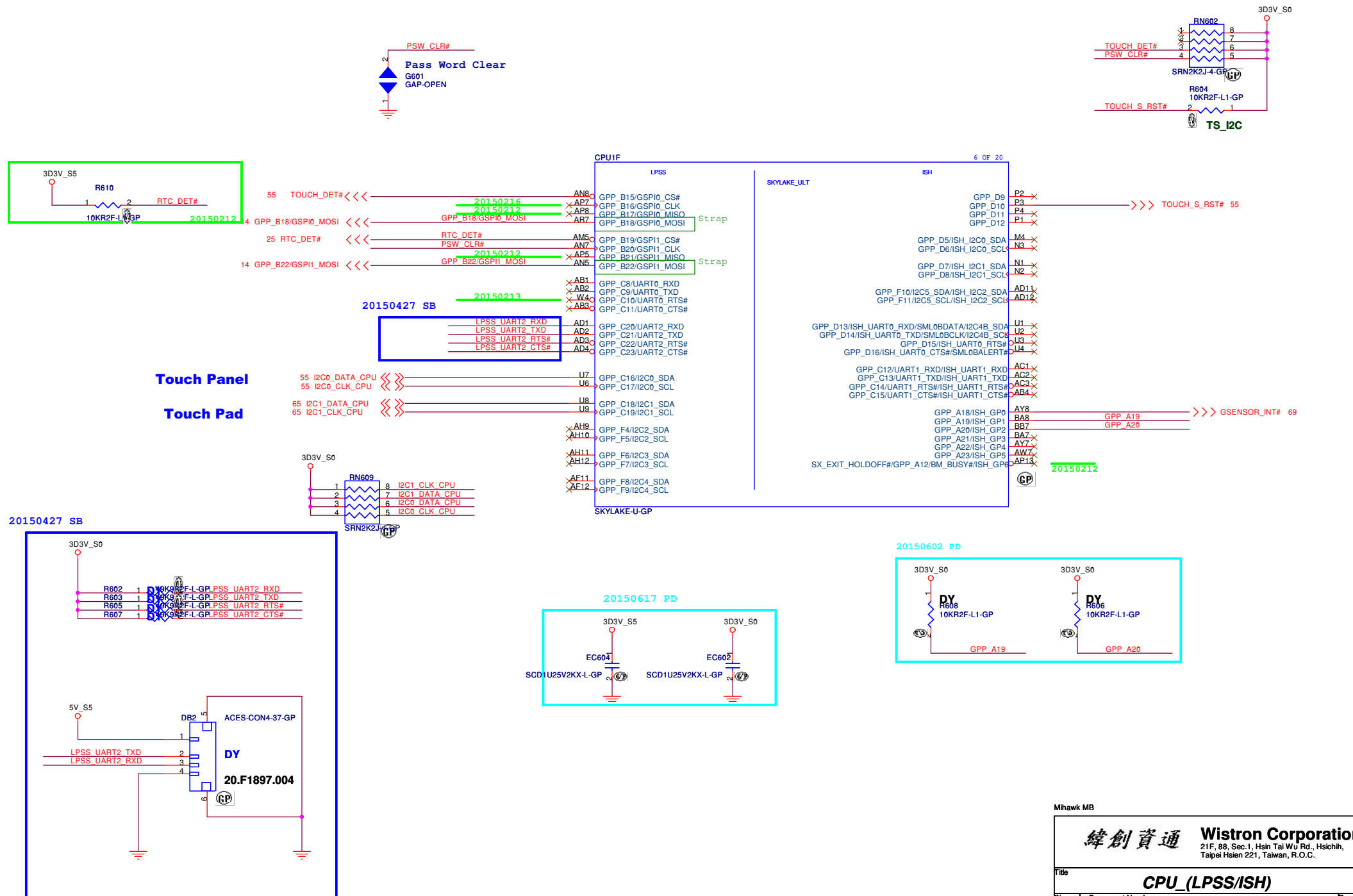
Main Func = CPU

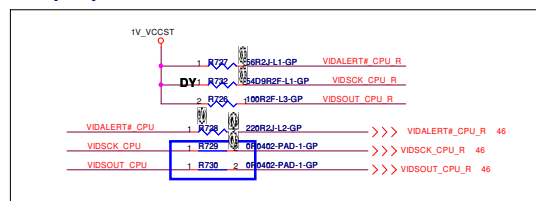
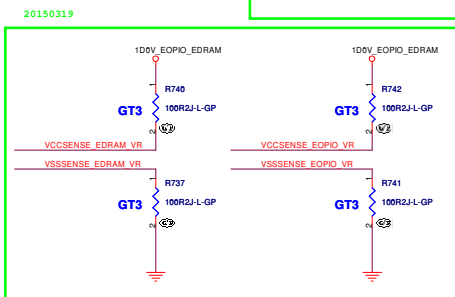
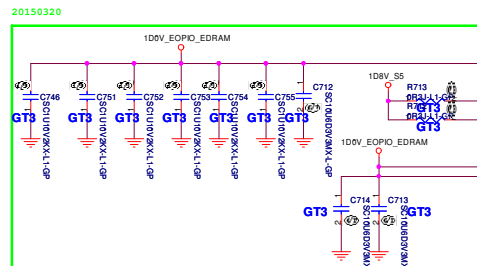


DDR3 COMPENSATION AND RESET SIGNALS

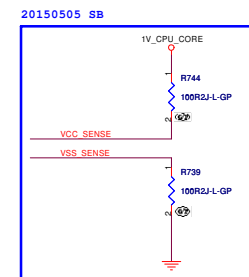
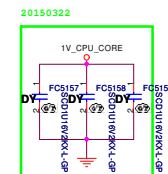
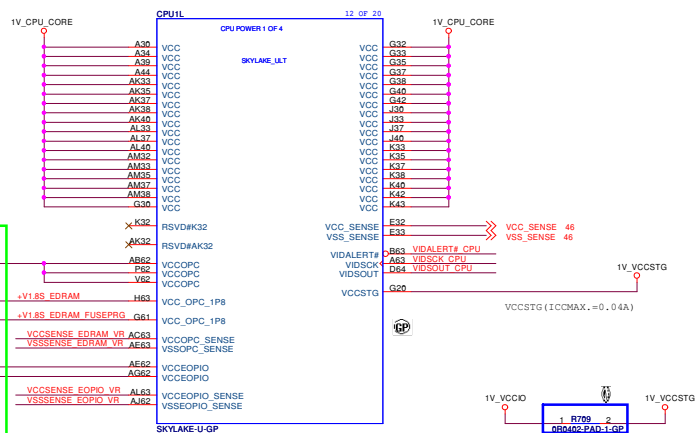


Main Func = PCH





CLOSE CPU



Layout Note:

1. Place close to CPU
2. VCC_SENSE/ VSS_SENSE impedance=50 ohm
3. Length match<25mil

SVID_543016:

Figure 10-7. Routing Illustration for SVID Topology

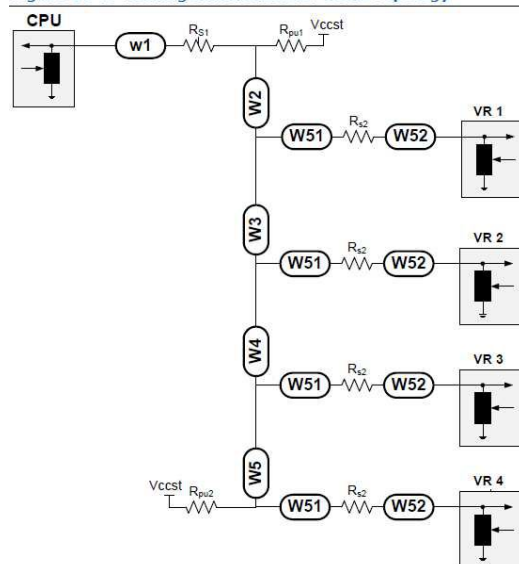
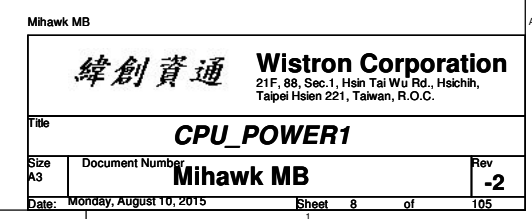


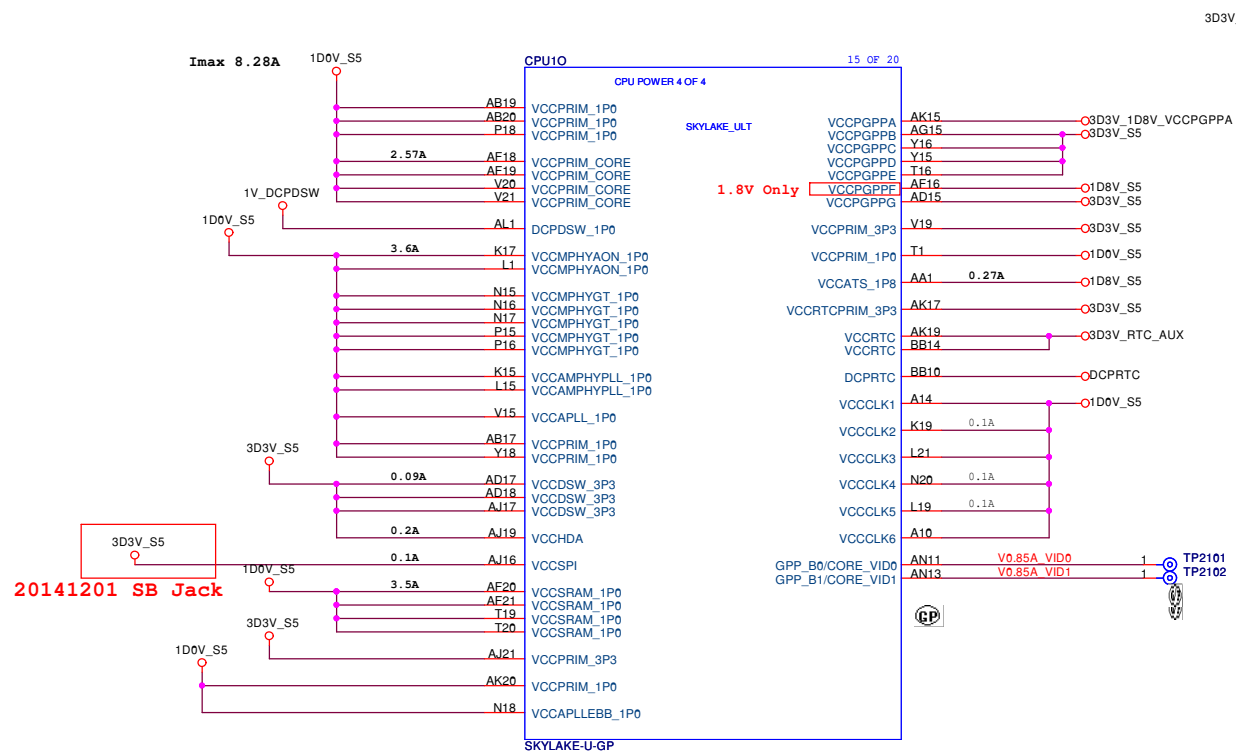
Table 10-10.SVID Bus Routing Guidelines

Signal	W1 [inches]	W2 [inches]	W3/4/5 [inches]	W2+W3+W4+W5 [inches]	W51 [inches]	W52 [inches]	R _{P51} [Ω]	R _{P52} [Ω]	R _{S1} [Ω]	R _{S2} [Ω]	V _{CC5} [V]
VIDSOUT	0.5-3	1-15	0.5-4	3-17	<0.1	<0.1	100	100	0	10	1.0
VIDSCK							Empty	45	0	50	
VIDALERT #							56	Empty	220	0	

WWW.AliSaler.Com



Main Func = PCH



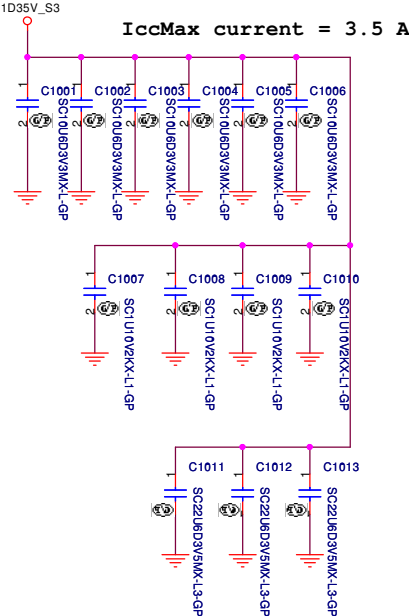
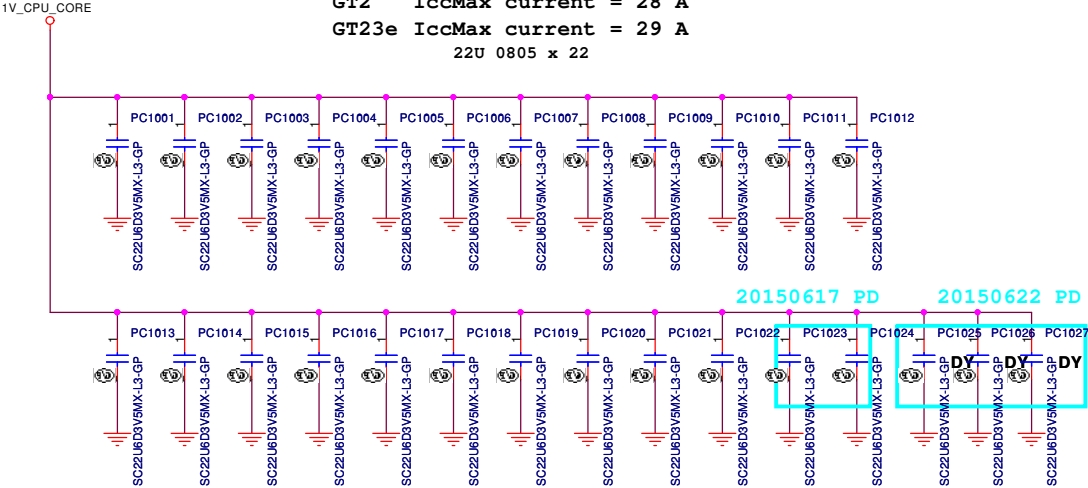
eSPI_508740:

Table 2: eSPI/LPC Pinlist for SKL-PCH				
SKL-PCH Pin Name	Direction	LPC Signal	eSPI Signal	Pin Description
GPP_A_0	In	RCINB	<GPIO>	
GPP_A_1	inout	LAD_0	ESPI_IO_[0]	LPC Cmd/Addr/Data or eSPI Data [0]
GPP_A_2	inout	LAD_1	ESPI_IO_[1]	LPC Cmd/Addr/Data or eSPI Data [1]
GPP_A_3	inout	LAD_2	ESPI_IO_[2]	LPC Cmd/Addr/Data or eSPI Data [2]
GPP_A_4	inout	LAD_3	ESPI_IO_[3]	LPC Cmd/Addr/Data or eSPI Data [3]
GPP_A_5	out	LFRAMEB	ESPI_CSB	LPC Frame or eSPI Chip Select
GPP_A_6	inout	SERIRQ	<GPIO>	
GPP_A_7	Iod	PIRQAB	<GPIO>	
GPP_A_9	out	LPC_CLKOUT_0	ESPI_CLK	
GPP_A_14	out	SUS_STATB	ESPI_RESETB	
GPP_C_5_SM L0ALERTB	input	ESPI_EN Pin Strap		eSPI Enable Pin Strap; sampled at RMSRST# deassertion 0: LPC; 1: eSPI
VCCPGPPA	-	3.3V	1.8V	Voltage for all GPIOs in GPP_A group

NOTE: All pin mappings are subject to change. Refer to the SKL-PCH EDS for final pin list.

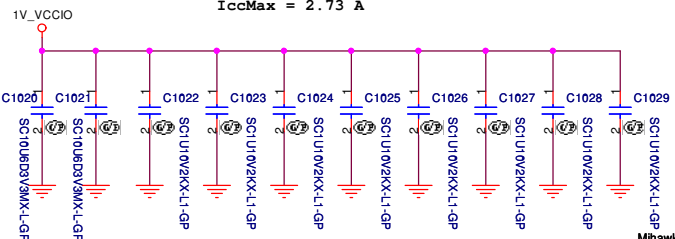
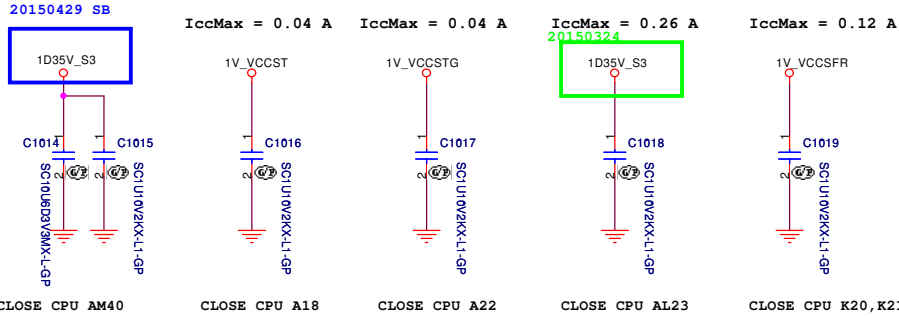
Main Func = CPU

GT2 IccMax current = 28 A
GT23e IccMax current = 29 A
22U 0805 x 22



U22 15W	IA	750MHz	33A (28A)	23A (21A)	2.1mΩ (2.35mΩ)	3CA (TBD)	200mv/30us	1X0.15uH	2X330uF/9mW	30X22uF
	GT	750KHz	40A (31A)	18A (18A)	3.1mΩ	36A (TBD)	70mv/10us	1X0.15uH	2X330uF/9mW	24X22uF
								Or	1x330uF/9mW	36x22uF
	SA	750KHz	6A (5A)	6A (4A)	10.3mΩ	4A (TBD)	200mv/30us	1X0.42uH	None	5X22uF

VDDQ	2x 10 uF 0402 (Placeholder)		Place on secondary side, underneath the package
	4x 1 uF 0201 (Placeholder)		
		4x 10 uF 0402	Place as close to the package as possible
		3 x 22 uF 0603	Place as close to the package as possible



緯創資通

Wistron Corporation

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

TitleCPU_(Power CAP1)

SizeA3

Document NumberMihawk MB

Rev-2

DateMonday, August 10, 2015

Sheet10 of 105

Main Func = CPU

1V_VCCGT

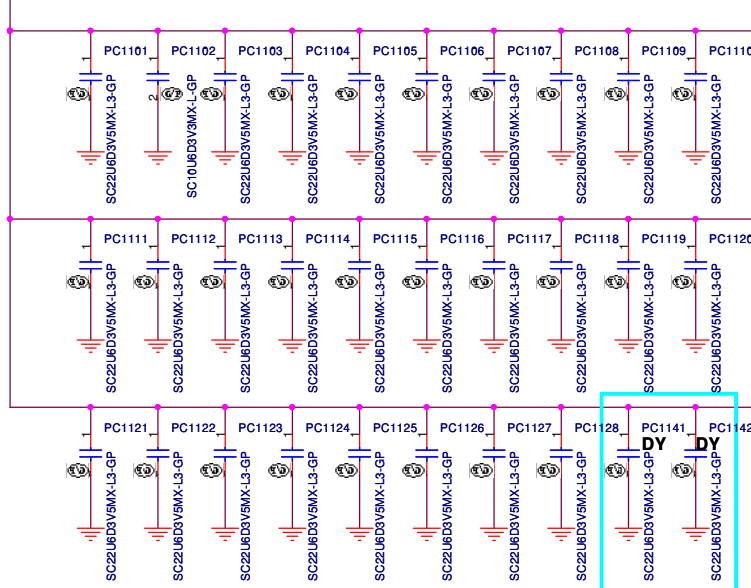
GT

GT2

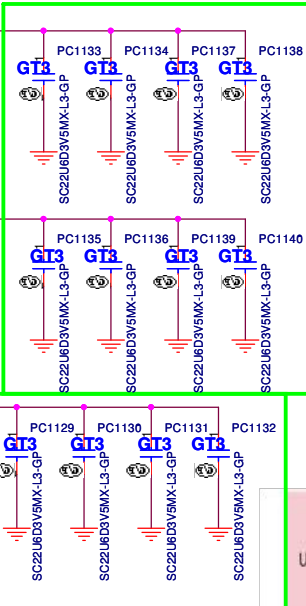
IccMax current = 31 A

GT23e

IccMax current = 64 A



20150617 PD



1V_VCCSA

VCCSA

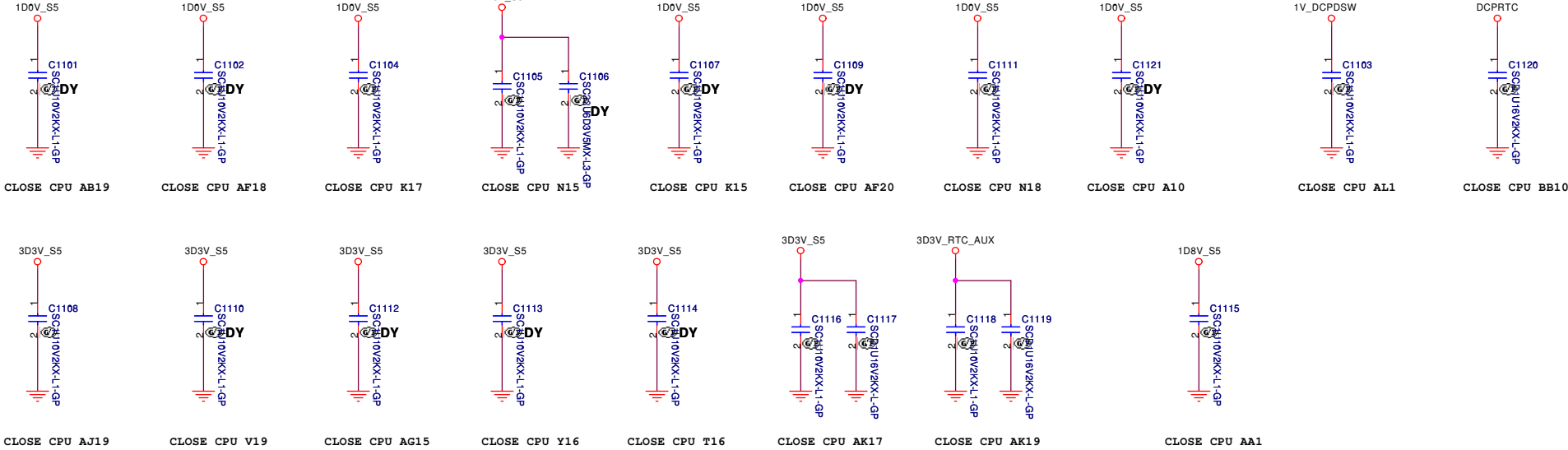
ICCMAX . =7A

20150617 PD

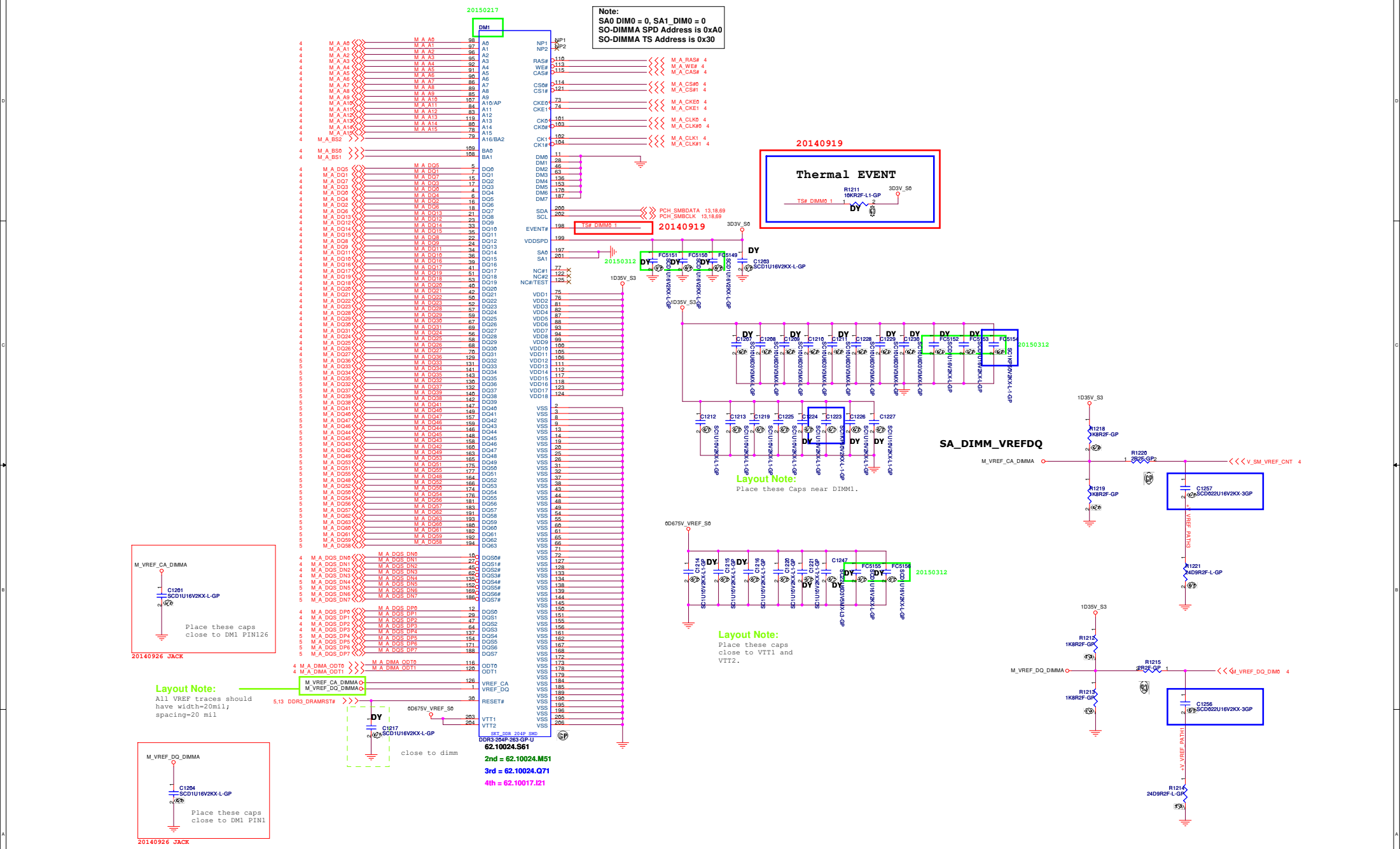


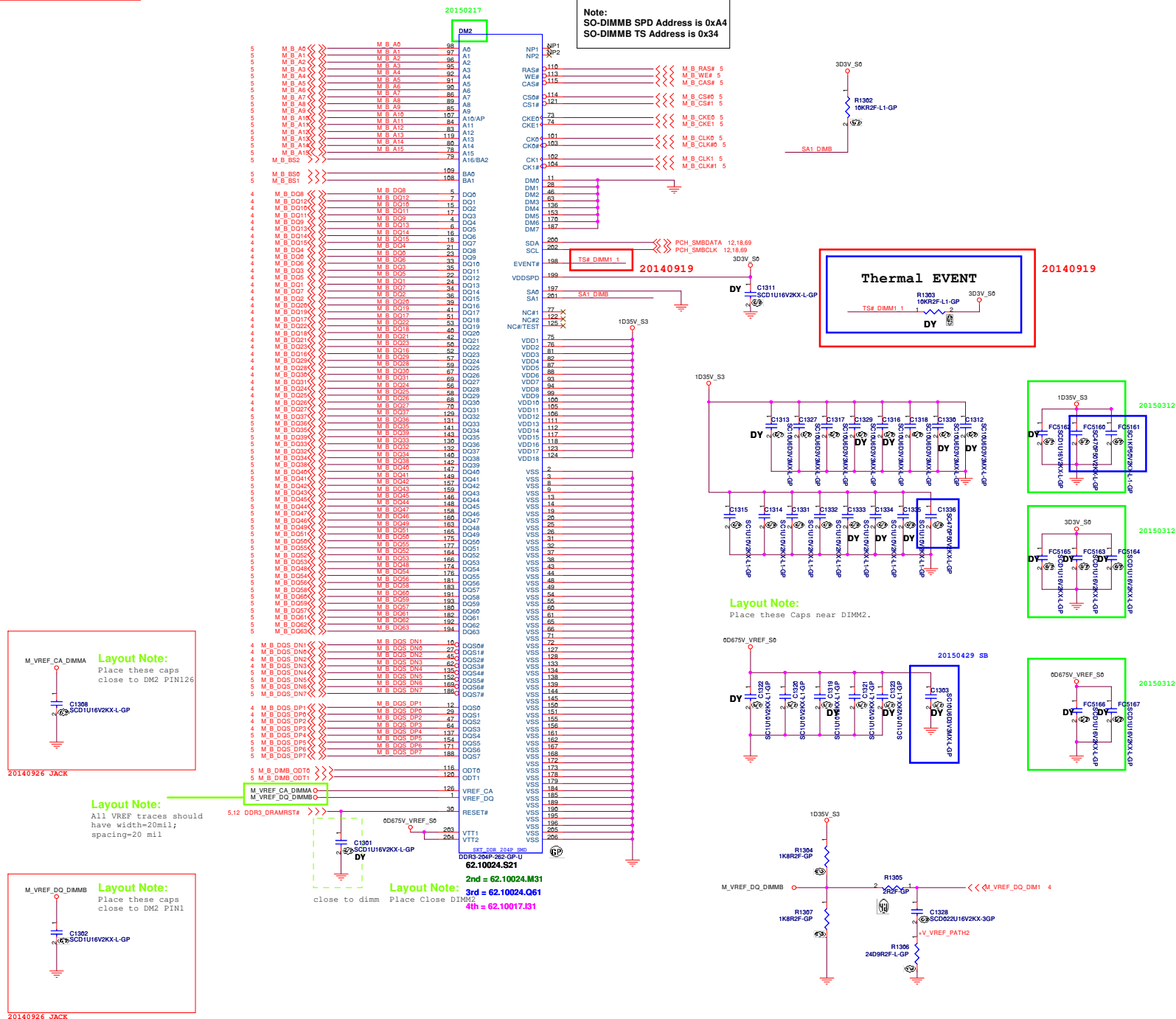
DY

U22 15W	IA	750MHz	33A (28A)	23A (21A)	2.1mΩ (2.35mΩ)	30A (TBD)	200mv/30us	1X0.15uH	2X330uF/9mW	30X22uF
	GT	750KHz	40A(31A)	18A (18A)	3.1mΩ	38A (TBD)	70mv/10us	1X0.15uH	2X330uF/9mW	24X22uF
	SA	750KHz	6A (5A)	6A (4A)	10.3mΩ	4A (TBD)	200mv/30us	1X0.42uH	None	5X22uF



Mihawk MB





SSID = STRAP

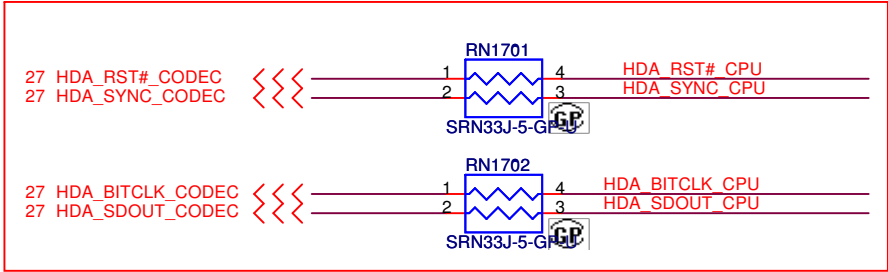
STRAP RESISTORS SHOULD BE PLACED CLOSE TO SOC
SHOULD BE PLACED OUTSIDE KOZ AREA

Description	Display Port B Detected	Display Port C Detected	Reserved	No reboot	Boot BIOS strap bit BBS	Flash descriptor security override	Display Port D Detected
GPIO	GPP_E19	GPP_E21	SPI0_MISO	GPP_B18	GPP_B22	HDA_SDO	GPP_E23
Schematic							
High	Detected	Detected		Enable	LPC	Disable	Detected
Low	Not Detected	Not Detected		Disable	SPI	Enable	Not Detected
	internal pull-down	internal pull-down	internal pull-up	internal pul-down	internal pull-down	internal pull-down	internal pull-down

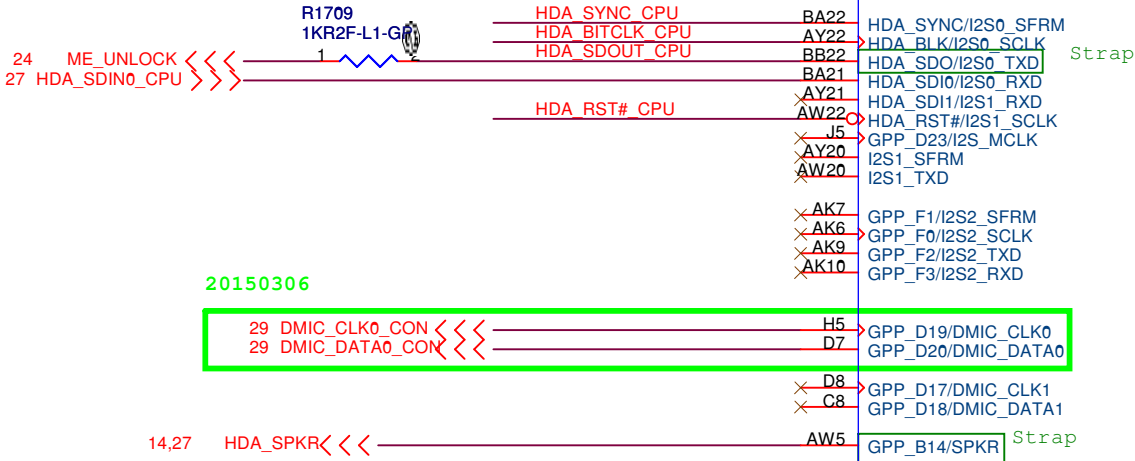
Description	Top Swap Override	Reserved	Reserved	Reserved	TLS Confidentiality	eSPI or LPC	Reserved
GPIO	GPP_B14	SPI0_MOSI	SPI0_IO2	SPI0_IO3	GPP_C2	GPP_C5	GPP_B23
Schematic							
High	Enable				Enable	eSPI	
Low	Disable				Disable	LPC	
	internal pull-down	internal pull-up	internal pull-up	internal pull-up	internal pull-down	internal pull-down	internal pull-down

[illegible][illegible]

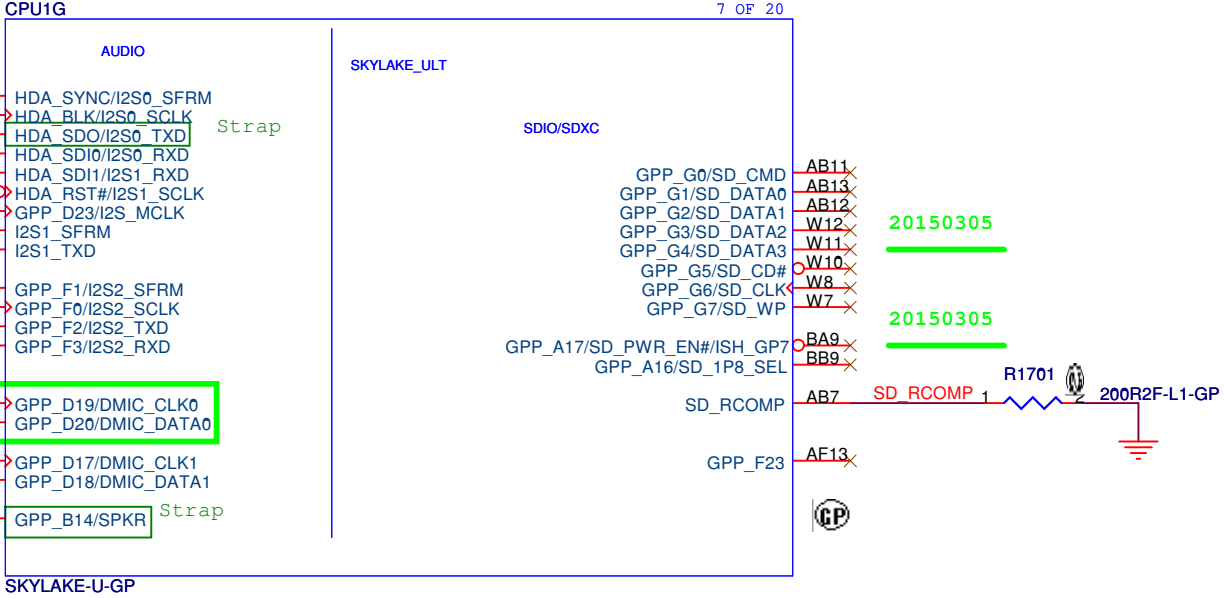
Main Func = PCH



20141021 Jack

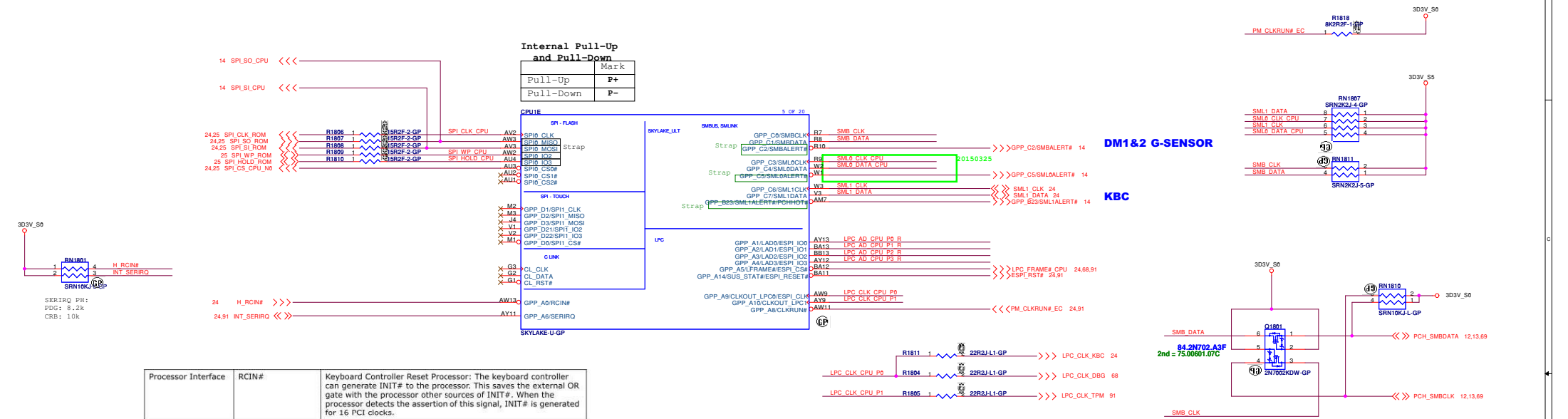


20150306



Mihawk MB

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title CPU_(AUDIO/SDIO/SDXC)			
Size A4	Document Number	Mihawk MB	
Date: Monday, August 10, 2015	Sheet 17	of	105



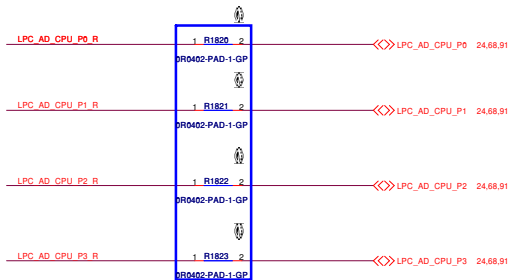
20.9 Serial Interrupt

The PCH supports a serial IRQ scheme. This allows a single signal to be used to report interrupt requests. The signal used to transmit this information is shared between the PCH and all participating peripherals. The signal line, SERIRQ, is synchronous to 24 MHz CLKOUT_LPC, and follows the sustained tri-state protocol that is used by all PCI signals. This means that if a device has driven SERIRQ low, it will first drive it high synchronous to PCI clock and release it the following PCI clock. The serial IRQ protocol defines this sustained tri-state signaling in the following fashion:

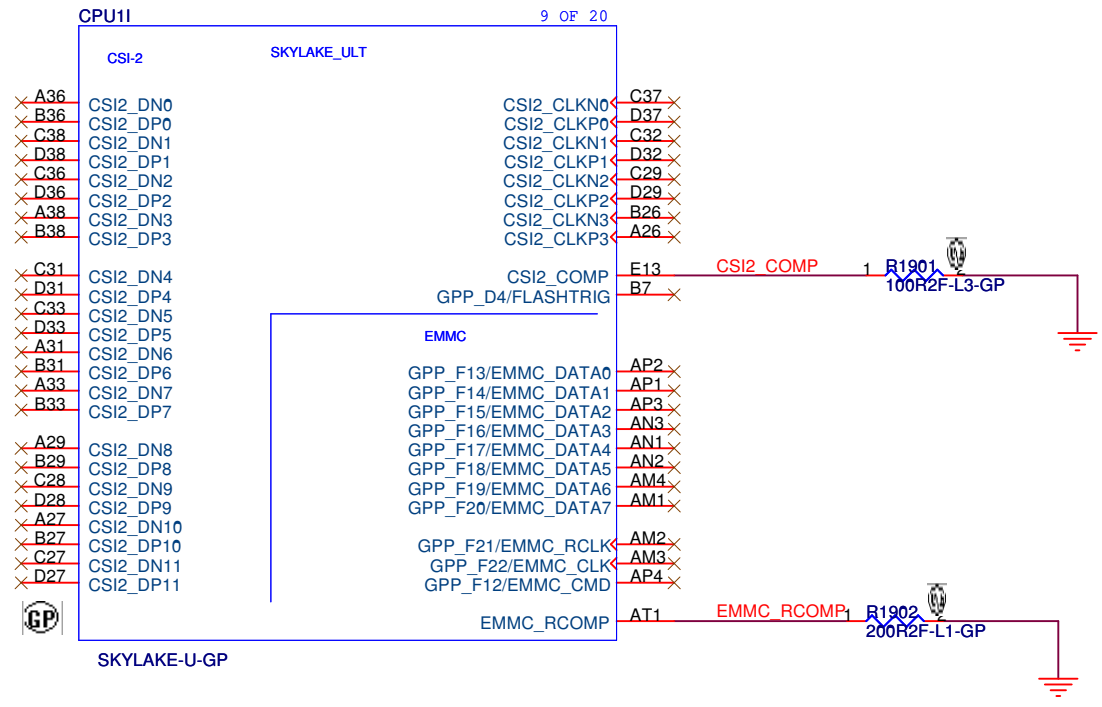
- **S - Sample Phase**, Signal driven low
- **R - Recovery Phase**, Signal driven high
- **T - Turn-around Phase**, Signal released

The PCH supports a message for 21 serial interrupts. These represent the 15 ISA interrupts (IRQ0-1, 3-15), the four PCI interrupts, and the control signals SMI# and IOCHK#. The serial IRQ protocol does not support the additional APIC interrupts (20-23).

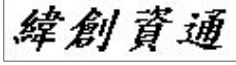
Note: IRQ14 and IRQ15 are special interrupts and maybe used by the GPIO controller when it is running GPIO driver mode. When the GPIO controller operates in GPIO driver mode, IRQ14 and IRQ15 shall not be utilized by the SERIRQ stream nor mapped to other interrupt sources, and instead come from the GPIO controller. If the GPIO controller is entirely in ACPI mode, these interrupts can be mapped to other devices accordingly.



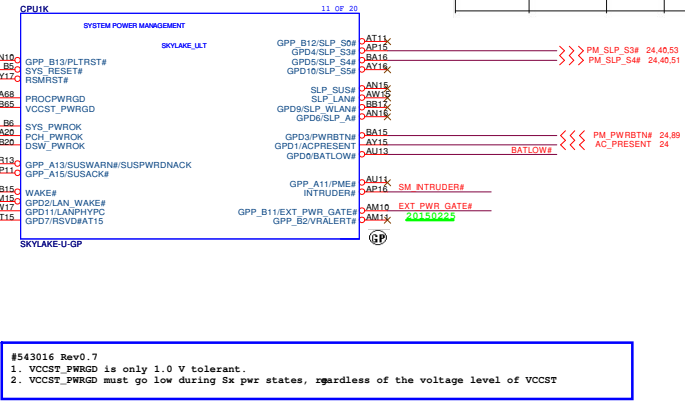
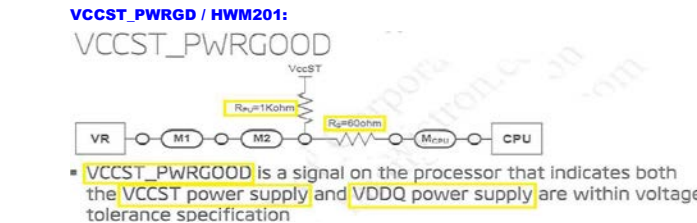
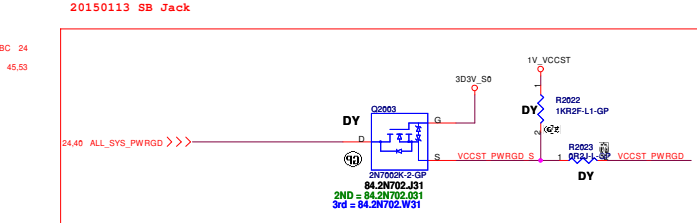
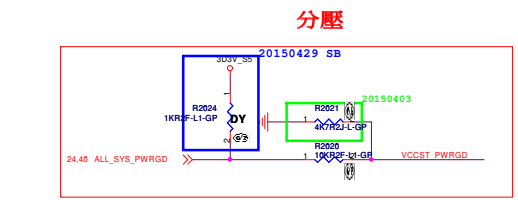
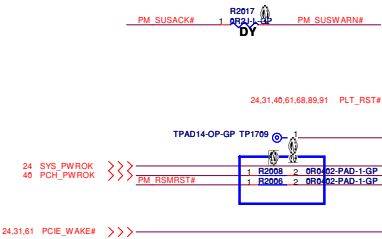
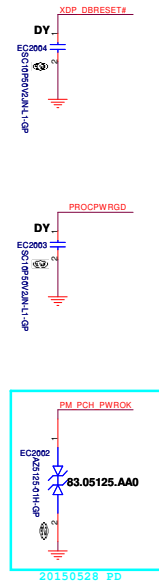
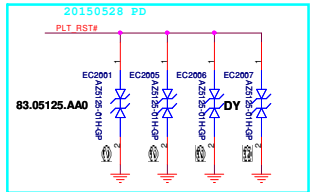
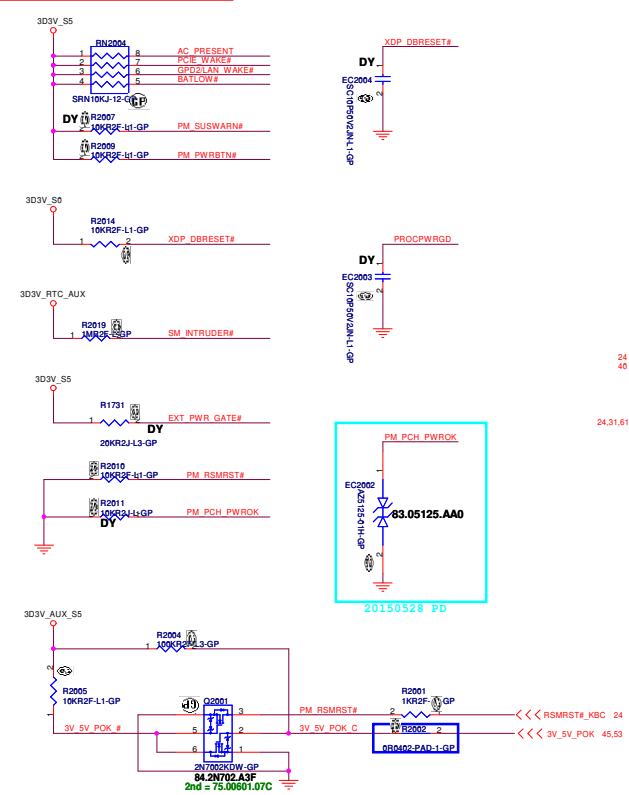
Main Func = PCH



Mihawk MB

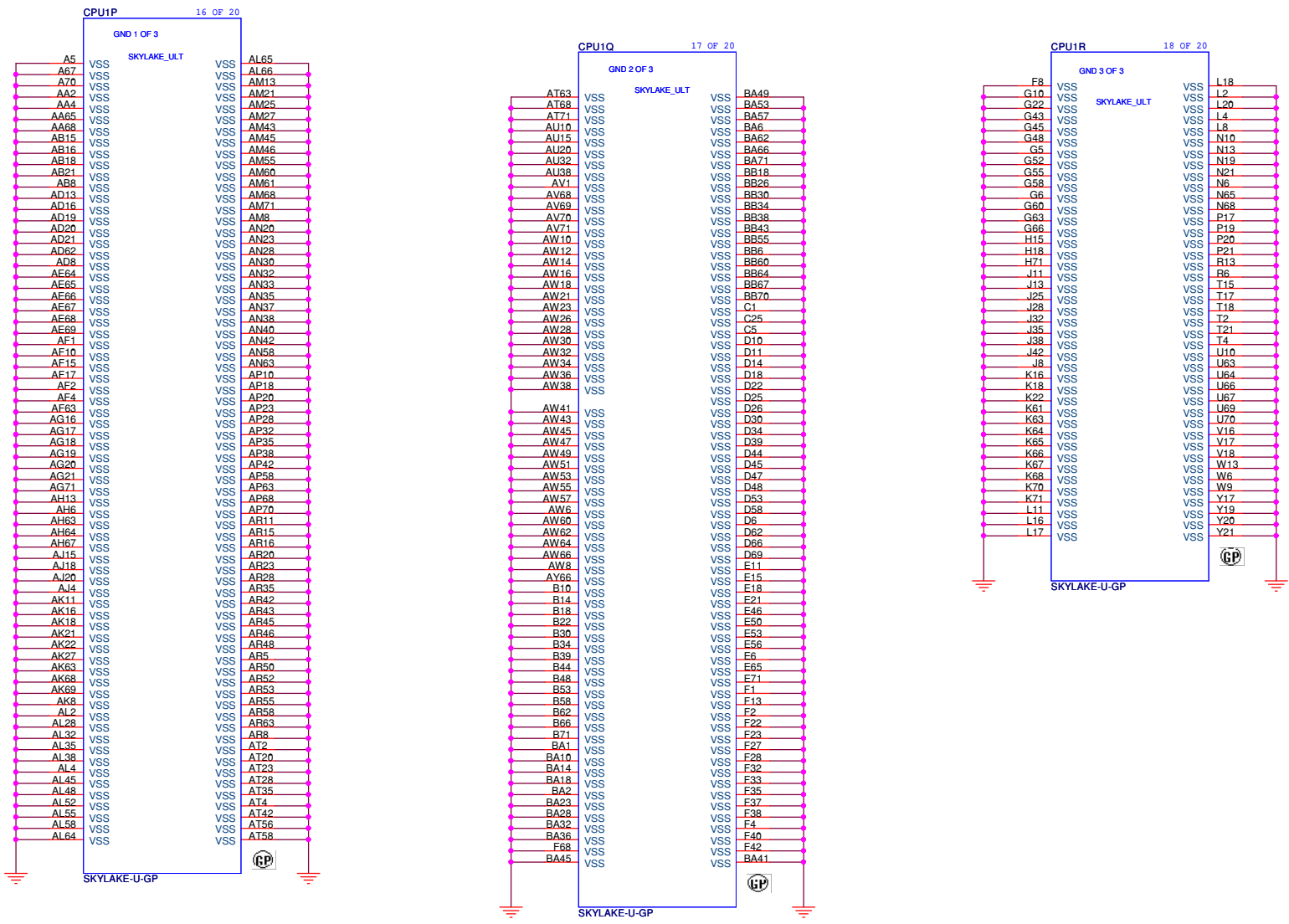
 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title CPU_(CS-2/EMMC)		
Size A4	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015		Sheet 19 of 105

Main Func = PCH

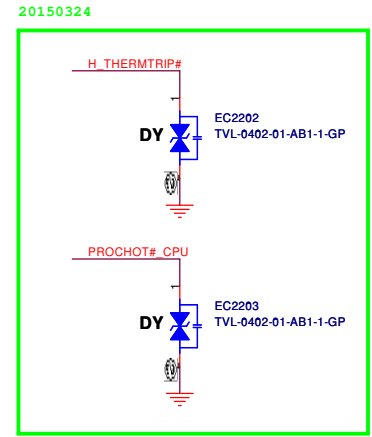
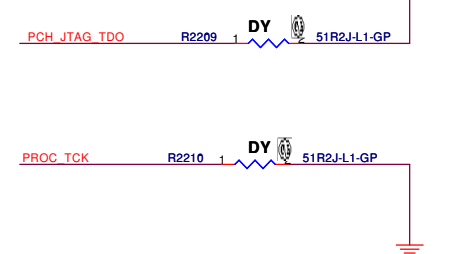
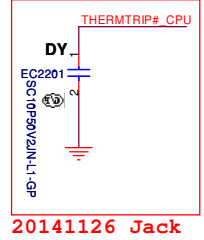
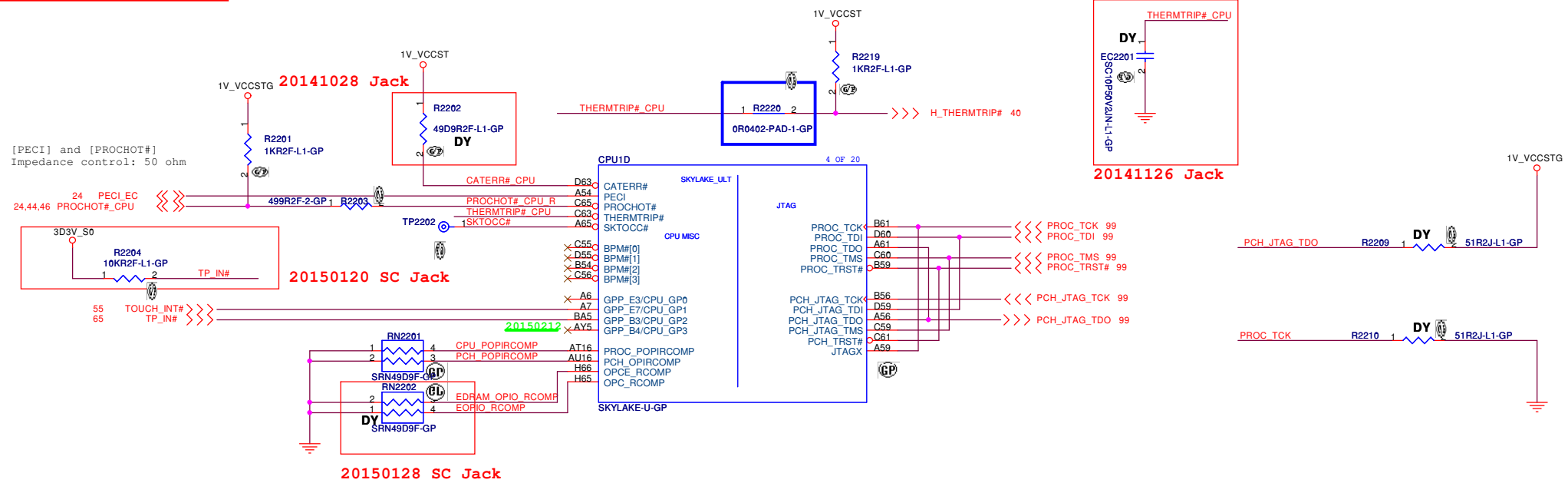


Name	Internal Pull-Up/ Pull-Down (Note 1)	De-Glitch (Note 2)		Multiplexed With	Default
		Input	Output		
GPP_A13	None	No	Yes	LPC mode: SUSWRN#/ SUSWRDNACK eSPI mode: None	SUSWRN#/ SUSWRDNACK (LPC mode) GPI (eSPI mode)
GPP_A14	None	No	Yes	LPC mode: SUS_STAT# eSPI mode: ESPI_RESET#	SUS_STAT# (LPC mode) ESPI_RESET# (eSPI mode)
GPP_A15	None	No	Yes	LPC mode: SUS_ACK# eSPI mode: None	SUS_ACK# (LPC mode) GPI (eSPI mode)

Main Func = PCH



Main Func = CPU



PROCHOT#	Processor Hot: PROCHOT# goes active when the processor temperature monitoring sensor(s) detects that the processor has reached its maximum safe operating temperature. This indicates that the processor Thermal Control Circuit (TCC) has been activated, if enabled. This signal can also be driven to the processor to activate the TCC.	I/O	GTL I OD O	SE	All processor lines
THERMTRIP#	Thermal Trip: The processor protects itself from catastrophic overheating by use of an internal thermal sensor. This sensor is set well above the normal operating temperature to ensure that there are no false trips. The processor will stop all executions when the junction temperature exceeds approximately 130 °C. This is signaled to the system by the THERMTRIP# pin. Refer to the appropriate platform design guide for termination requirements.	O	OD	SE	All processor lines

Main Func = CPU

Configuration Signals: The CFG signals have a default value of '1' if not terminated on the board. Refer to the appropriate platform design guide for pull-down recommendations when a logic low is desired.

Intel recommends placing test points on the board for CFG pins.

- **CFG[0]:** Stall reset sequence after PCU PLL lock until de-asserted:
 - 1 = (Default) Normal Operation; No stall.
 - 0 = Stall.
- **CFG[1]:** Reserved configuration lane.
- **CFG[2]:** PCI Express* Static x16 Lane Numbering Reversal.
 - 1 = Normal operation
 - 0 = Lane numbers reversed.
- **CFG[3]:** Reserved configuration lane.
- **CFG[4]:** eDP enable:
 - 1 = Disabled.
 - 0 = Enabled.
- **CFG[6:5]:** PCI Express* Bifurcation
 - 00 = 1 x8, 2 x4 PCI Express*
 - 01 = reserved
 - 10 = 2 x8 PCI Express*
 - 11 = 1 x16 PCI Express*
- **CFG[7]:** PEG Training:
 - 1 = (default) PEG Train immediately following RESET# de assertion.
 - 0 = PEG Wait for BIOS for training.
- **CFG[19:8]:** Reserved configuration lanes.

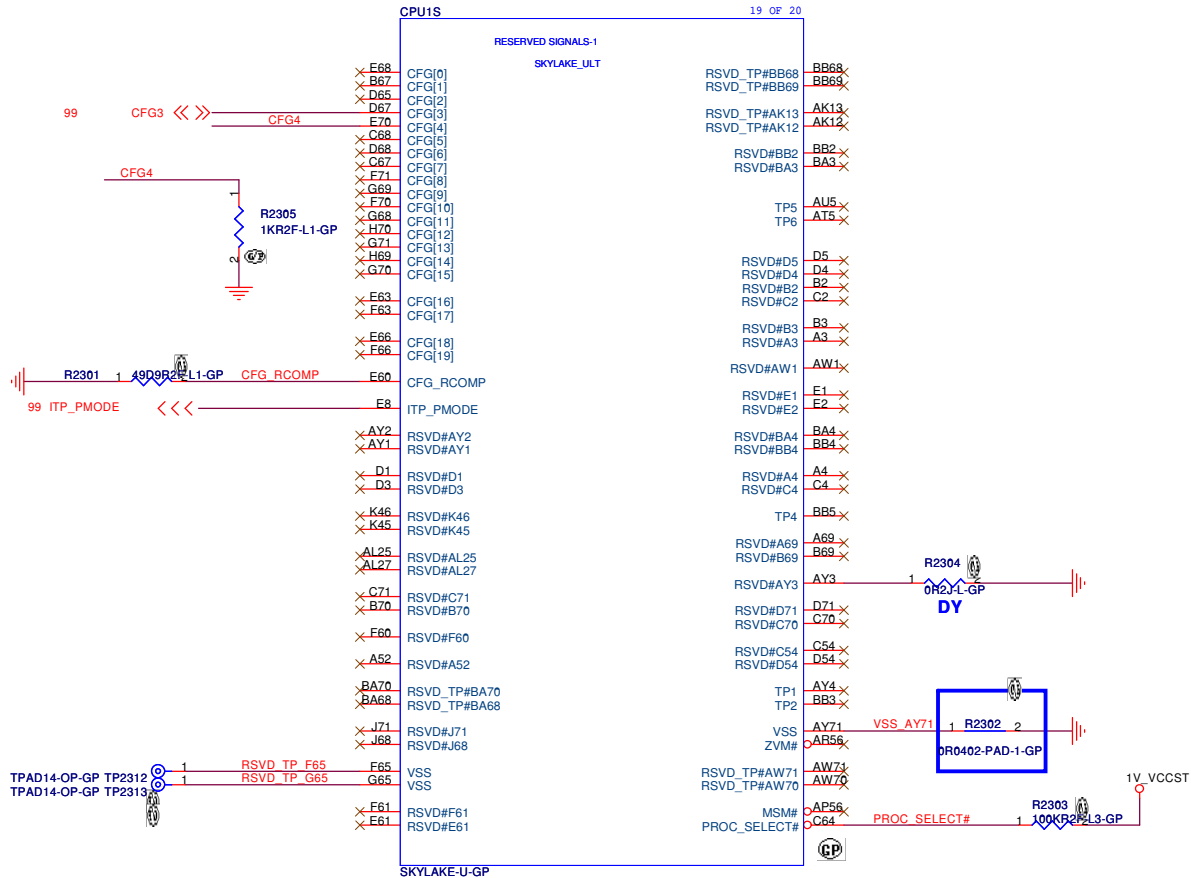
All processor lines.
CFG[2], CFG[6:5] and
CFG[7] are relevant
for H and S-processor
line only and test point
may be placed on the
board for them.

CFG[19:0]

I/O

GTL

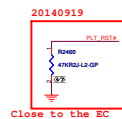
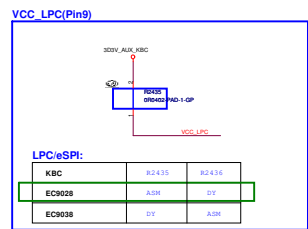
SE



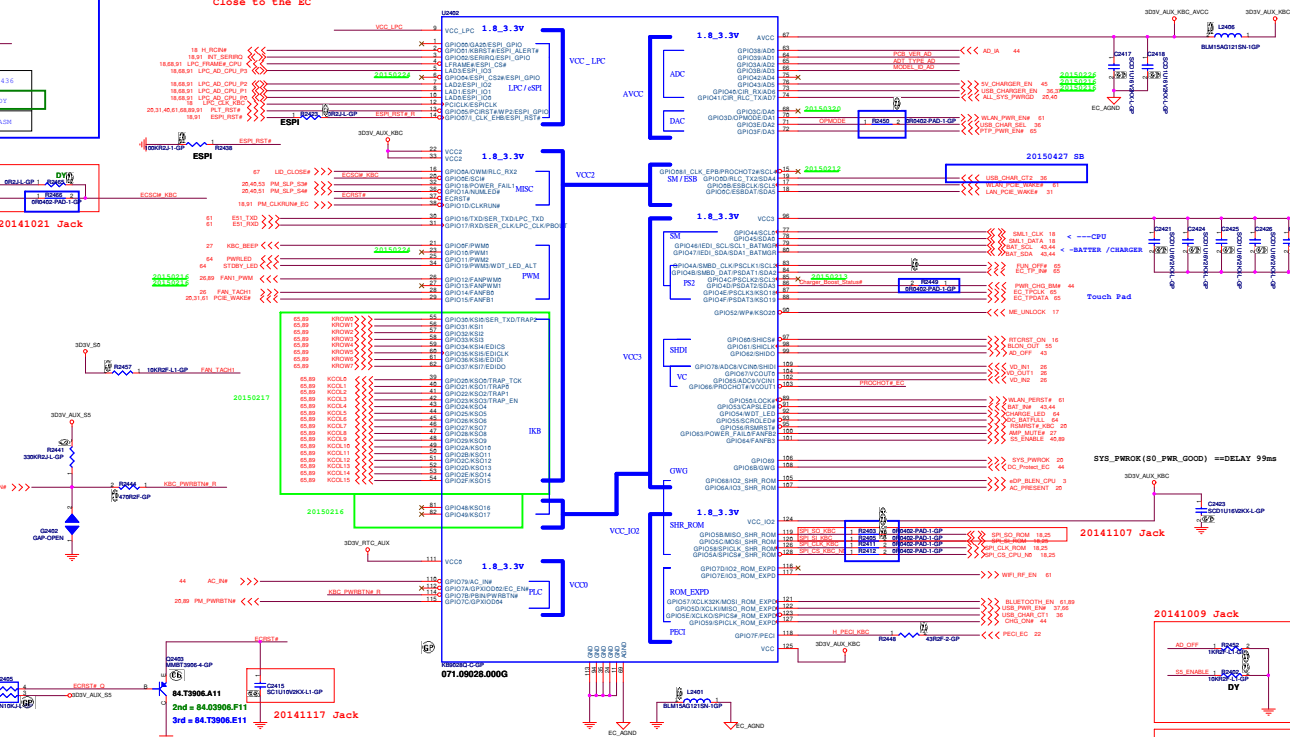
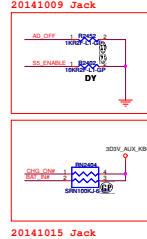
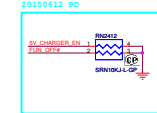
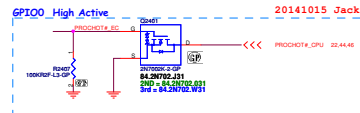
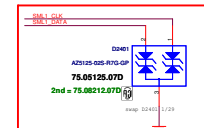
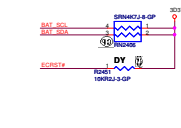
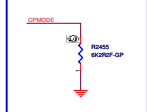
PROC_SELECT#	Processor Select: This pin is for compatibility with future platforms. It should be unconnected for SKL.				N/A	All processor lines
--------------	---	--	--	--	-----	---------------------

Mihawk MB

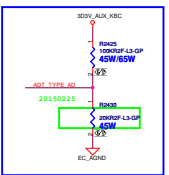
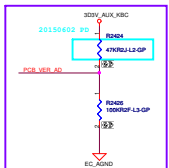
SSID = KBC



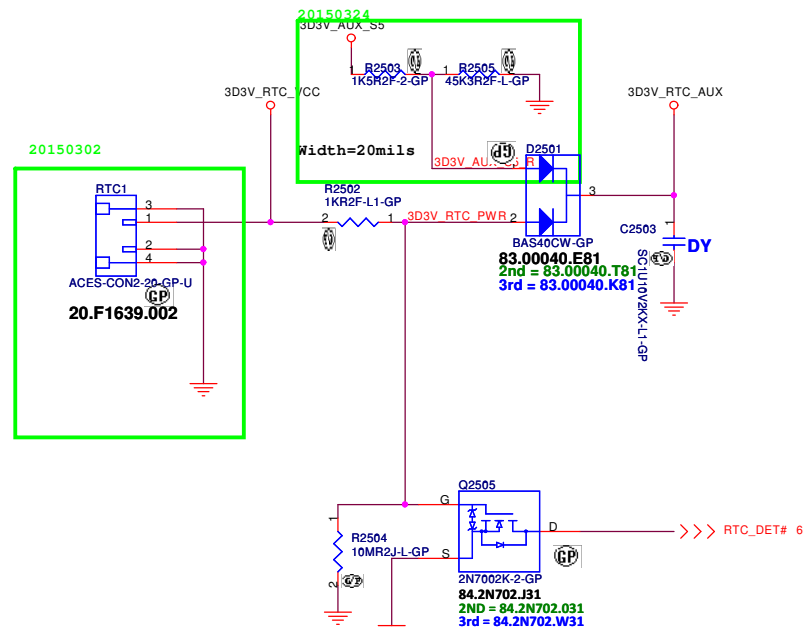
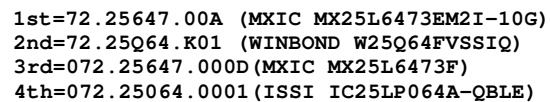
EC9028	ASN(LPC)
EC9038	DY(eSPI)

[illegible][illegible]

M0901-30-40	Full-Pull Capacity	Full-Pull Capacity	Typical Volume	Max. Volume	FBC Timers Setting
USA	100.0 k	10.0 k	3,000 lb	3,000 lb	± 2.0%
Reserved for project use	100.0 k	20.0 k	2,780 lb	2,780 lb	± 2.0%
Reserved for project use	100.0 k	2.40 k	2,400 lb	2,385 lb	± 2.0%
Reserved for project use	100.0 k	27.0 k	2,400 lb	2,280 lb	± 2.3%
Reserved for project use	100.0 k	54.0 k	2,000 lb	2,017 lb	± 1.9%
Reserved for project use	100.0 k	1.80 k	1,800 lb	1,750 lb	± 1.9%
Reserved for project use	100.0 k	1.60 k	1,600 lb	1,607 lb	± 1.70%
Reserved for project use	100.0 k	143.0 k	1,300 lb	1,374 lb	± 1.9%
Reserved for project use	100.0 k	13.0 k	1,300 lb	1,120 lb	± 2.3%
Reserved for project use	100.0 k	210.0 k	1,000 lb	1,062 lb	± 6.2%



Main Func = RTC

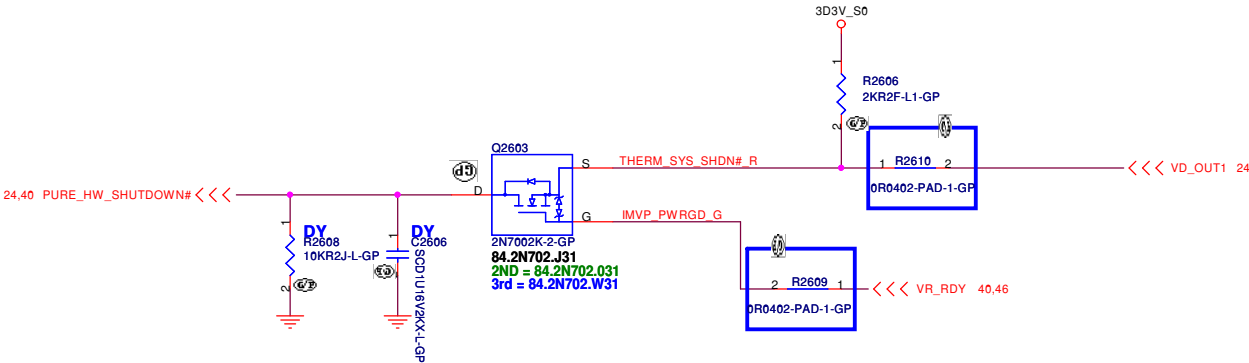
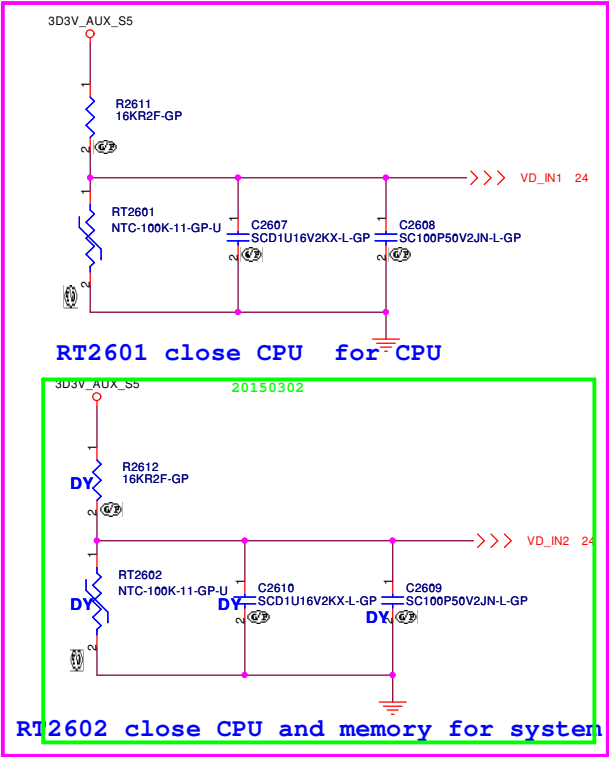
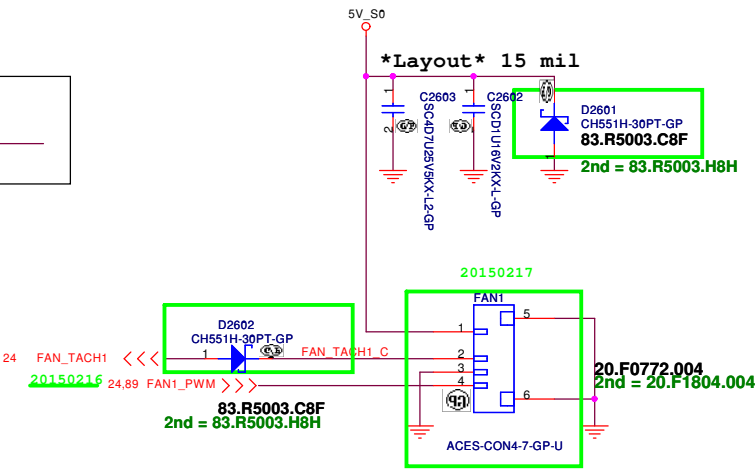


Title			
Flash(KBC+PCH)/RTC			
Size A3	Document Number		Rev
	Mihawk MB		-2
Date:	Monday, August 10, 2015	Sheet 25 of	105

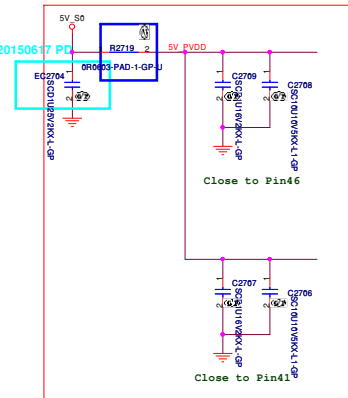
Main Func = Thermal Sensor

AFTP TESTPOINT

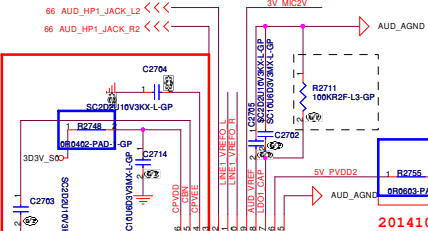
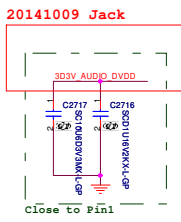
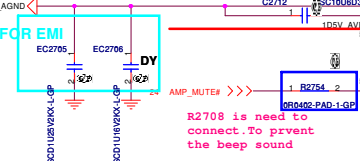
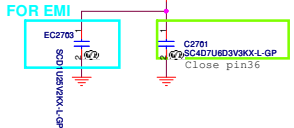
89 FAN_TACH1_C <<< FAN_TACH1_C



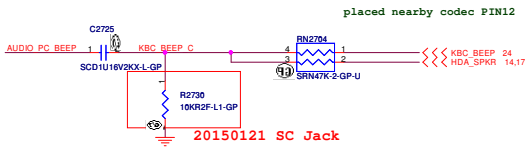
SSID = 104C



20141009 Jack



20141030 Jack



Layout Note:
Place close to Pin 26

Layout Note:
Place close to Pin 13

Layout Note:
75.05125.07D
2nd = 75.08212.07D

Width>40mil, to improve Headphone Crosstalk noise
Change it to sharp will be better.
Add 2 vias (>0.5A) when trace layer change.

- 29 DMIC_DATA_CON >>>
- 29 DMIC_CLK_CON >>>
- 17 HDA_SDOUT_CODEC >>>
- 17 HDA_BITCLK_CODEC >>>
- 17 HDA_SDIN0_CPU <<<
- 17 HDA_SYNC_CODEC >>>
- 17 HDA_RST0_CODEC >>>

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

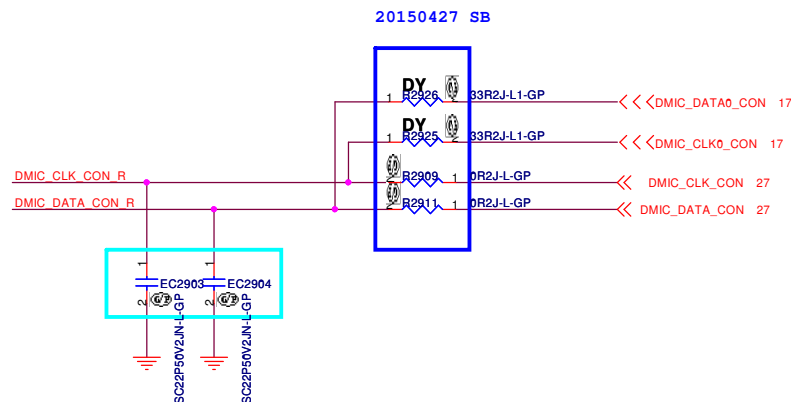
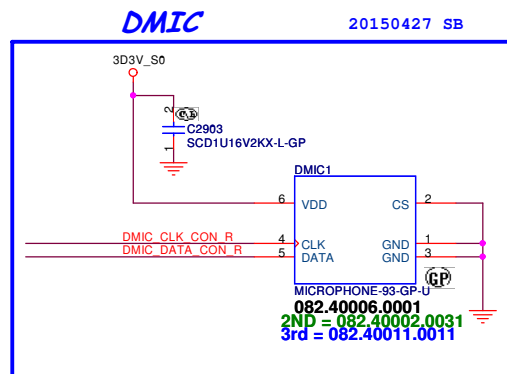
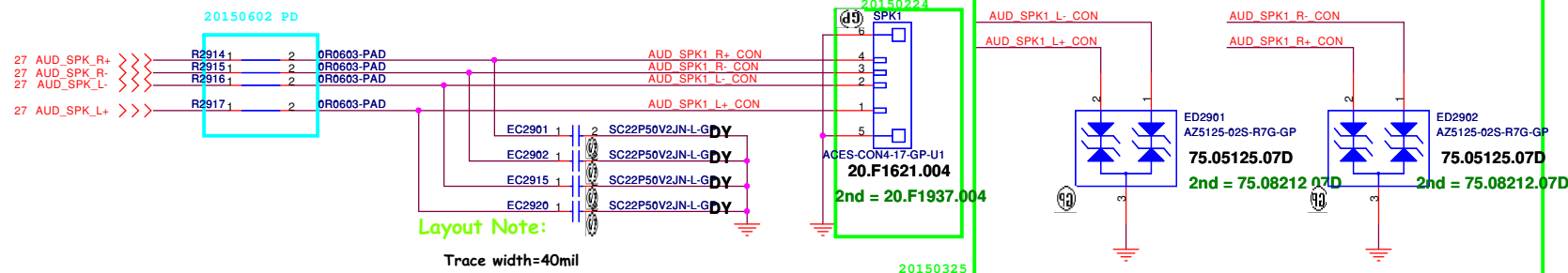
<div><div>緯創資通</div><div>Wistron Corporation</div><div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div></div>		
Title		
Audio AMP 1001		
Size	Document Number	Rev
A4	Mihawk MB	-2
Date: Monday, August 10, 2015		Sheet 28 of 105

SSID = AUDIO

Speaker

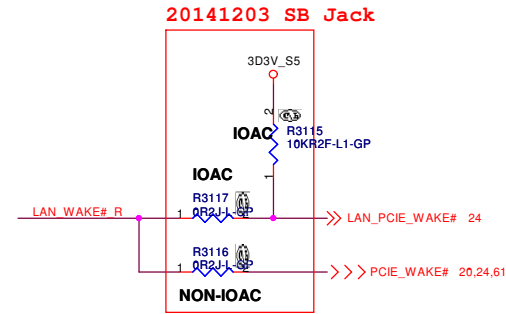
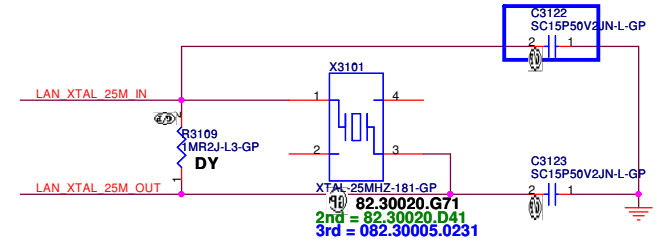
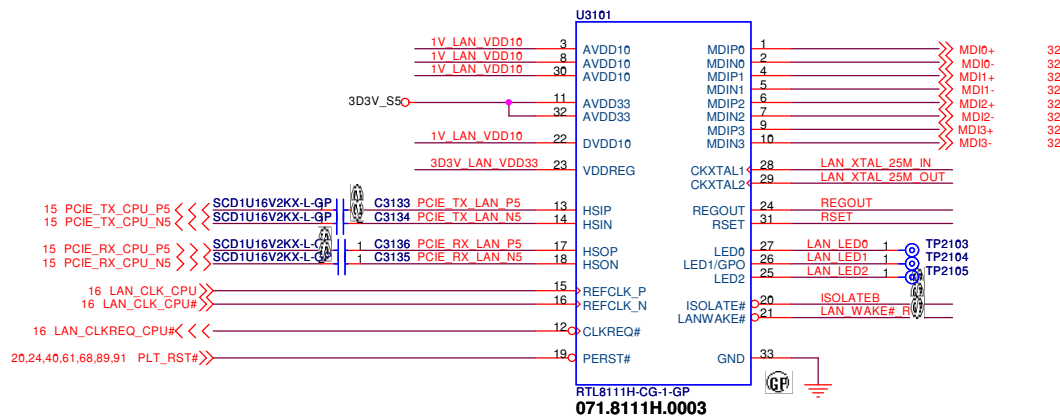
AUD_SPK1_L_-CON <<< AUD_SPK1_L_-CON 89
AUD_SPK1_L+_CON <<< AUD_SPK1_L+_CON 89
AUD_SPK1_R_-CON <<< AUD_SPK1_R_-CON 89
AUD_SPK1_R+_CON <<< AUD_SPK1_R+_CON 89

AFTP TESTPOINT



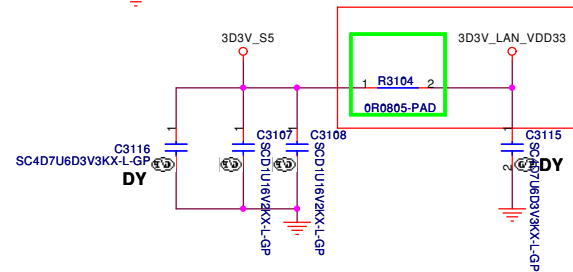
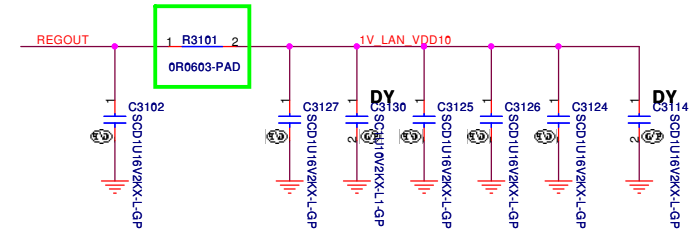
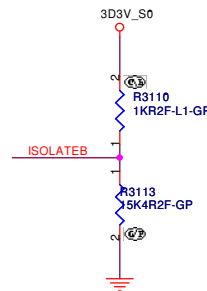
Mihawk MB

	5	4	3	2	1	
D						D
C						C
B						B
A						A
<div>Mihawk MB</div> <div> <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> <div>Title</div> <div> <div>Size A</div> <div>Document Number Mihawk MB</div> <div>Rev -2</div> </div> <div>Date: Monday, August 10, 2015Sheet 30 of 105</div> </div> <div> </div>						
	5	4	3	2	1	



Layout:
For RTL8111G(S)
* Place C3121 to C3124 close to each VDD10 pin--38,

C3124: close to Pin8
C3125: close to Pin30
C3126: close to Pin3
C3127: close to Pin22



20141030 Jack

C3108.C3115: close to Pin32
C3107.C3116: close to Pin11

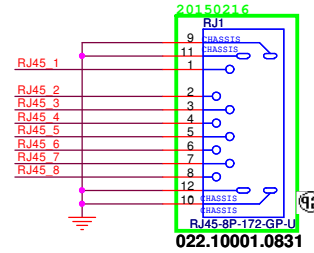
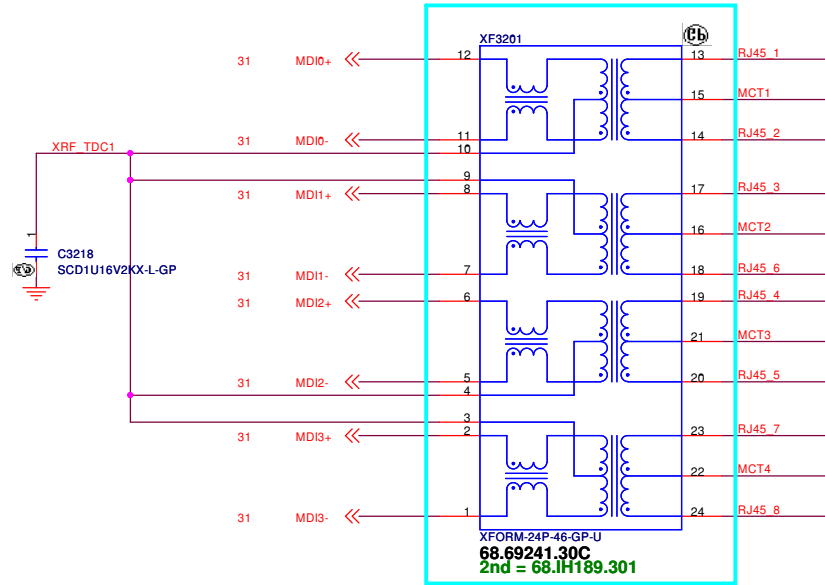
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Mihawk MB

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title LAN(RTL8111H)	
Size A3	Document Number Mihawk MB
Date: Monday, August 10, 2015	Sheet 31 of 105
Rev -2	

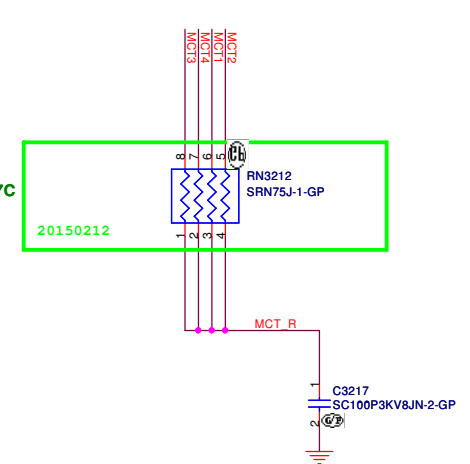
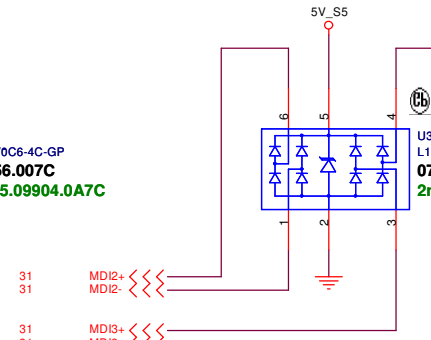
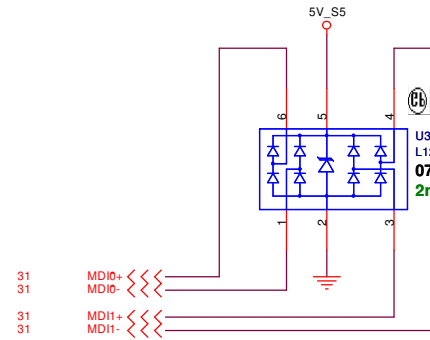
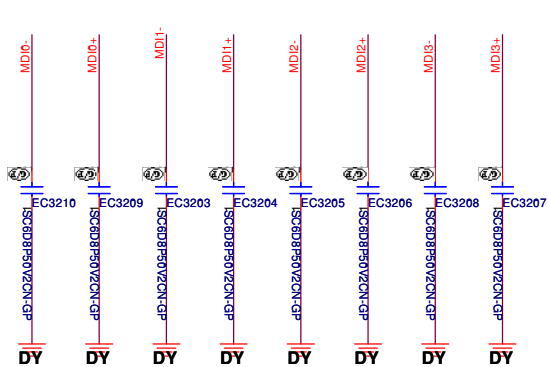
SSID = LAN

20150623 PD



AFTP TESTPOINT

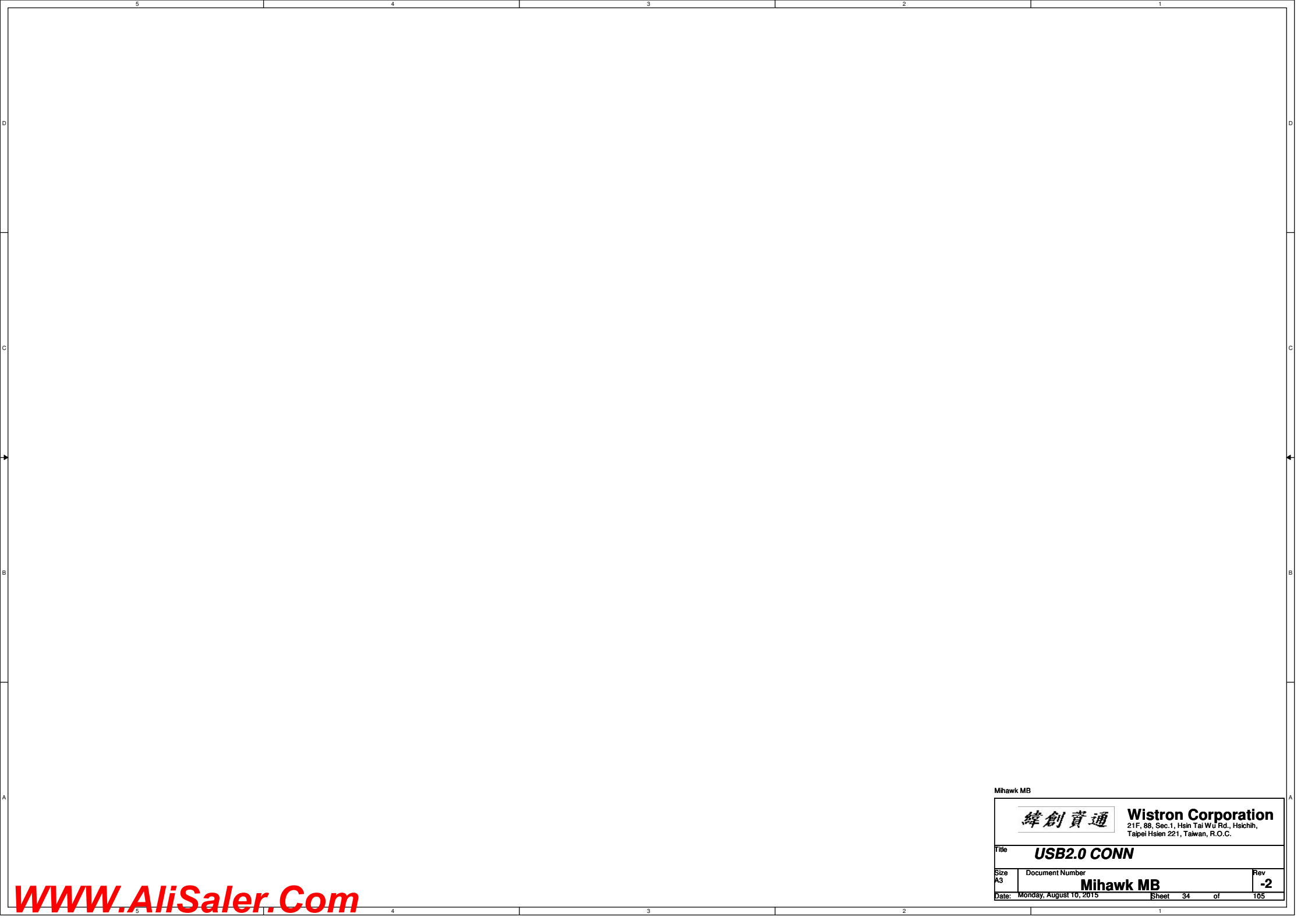
RJ45_1	RJ45_1	89
RJ45_2	RJ45_2	89
RJ45_3	RJ45_3	89
RJ45_4	RJ45_4	89
RJ45_5	RJ45_5	89
RJ45_6	RJ45_6	89
RJ45_7	RJ45_7	89
RJ45_8	RJ45_8	89



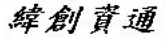
Mihawk MB

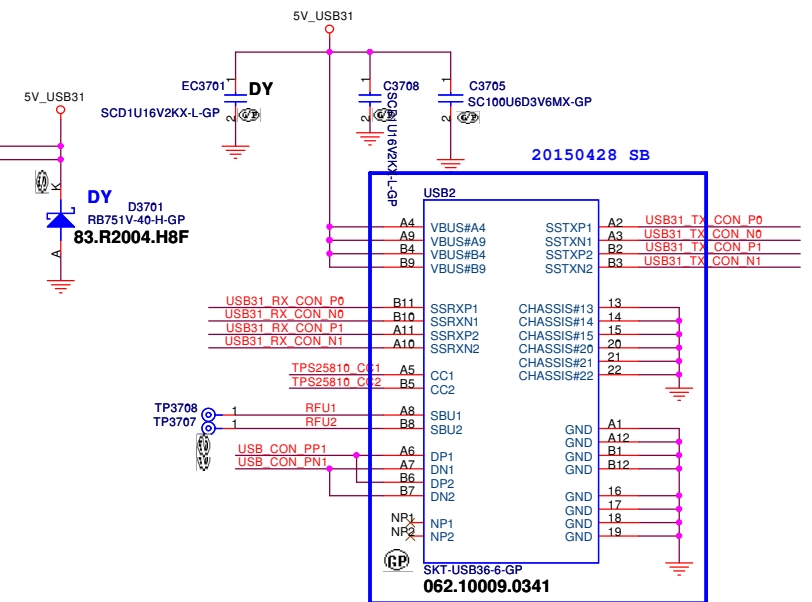
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			(LAN+VGA) CONNECTOR
Size	Document Number	Rev	
A3	Mihawk MB	-2	
Date:	Monday, August 10, 2015	Sheet	32 of 105

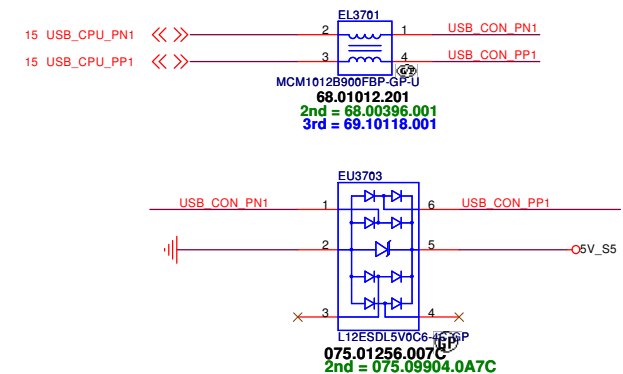
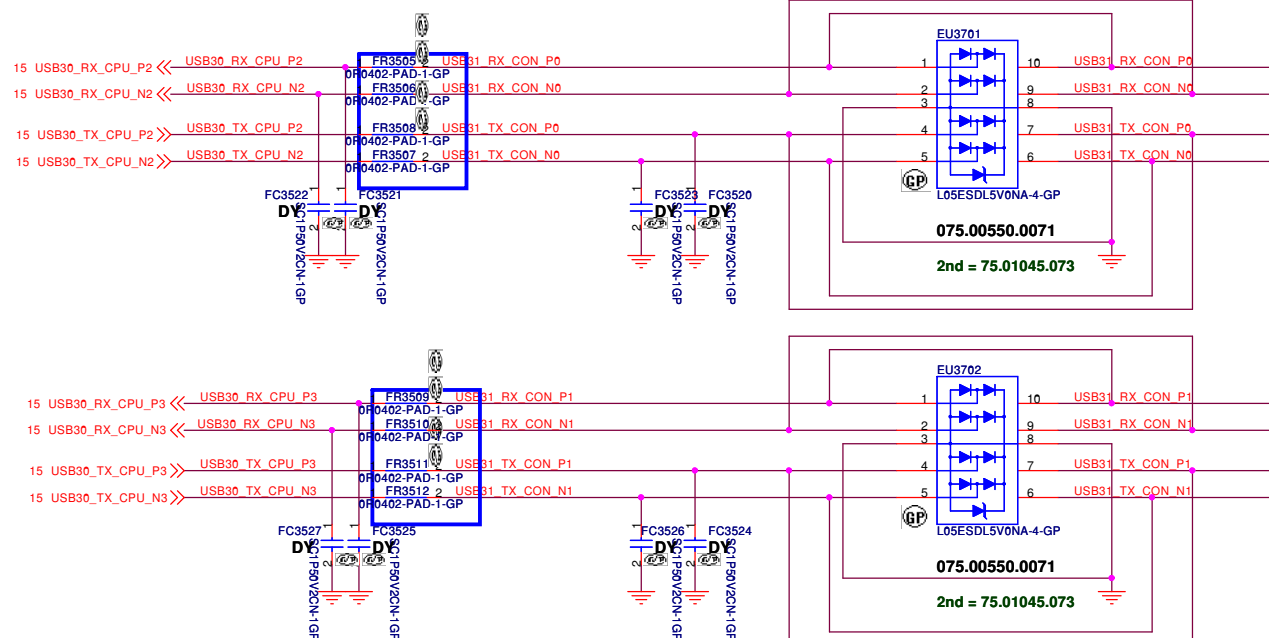
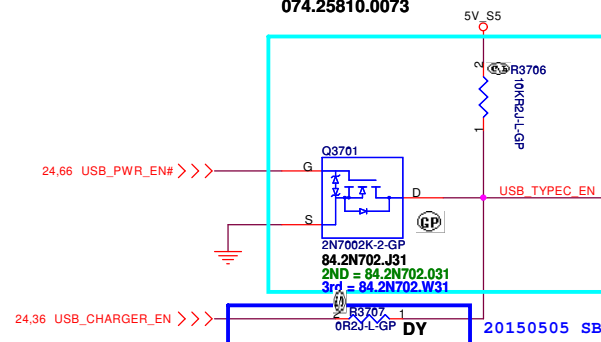


Mihawk MB

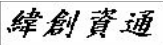
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title USB2.0 CONN			
Size A3	Document Number Mihawk MB		Rev -2
Date: Monday, August 10, 2015		Sheet 34 of	105



CHG	CHG_HI	CC Capability Broadcast	Current Limit	Load Detect Threshold
0	0	STD	1.67 A	NA
0	1	STD	1.67 A	NA
1	0	1.5 A	1.67 A	NA
1	1	3.0 A	3.34 A	1.77 A



Mihawk MB



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

Title

USB Redriver

Size
A3

Document Number
Mihawk MB

Rev
-2

Date: Monday, August 10, 2015

Sheet 38 of 105

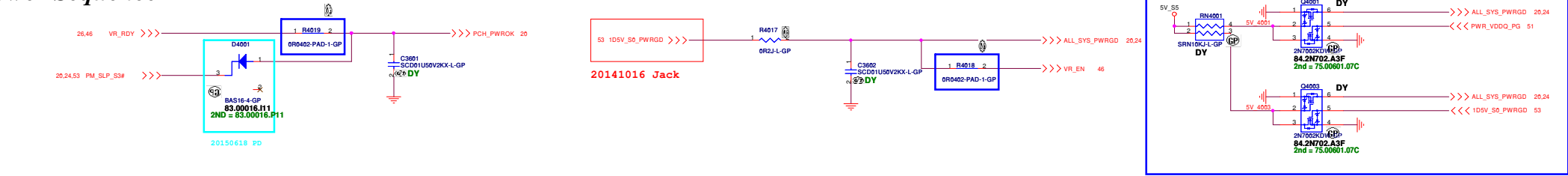
5	4	3	2	1
D				D
C				C
B				B
A				A
5	4	3	2	1

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

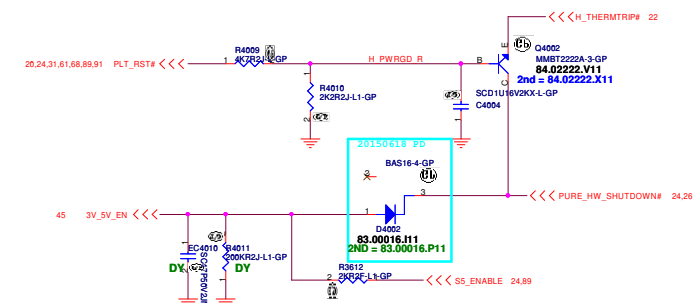
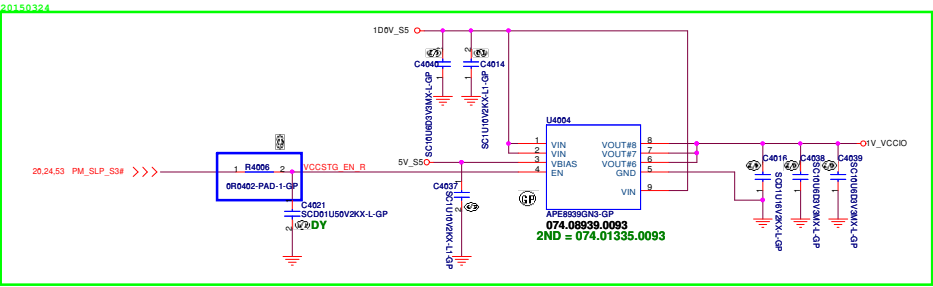
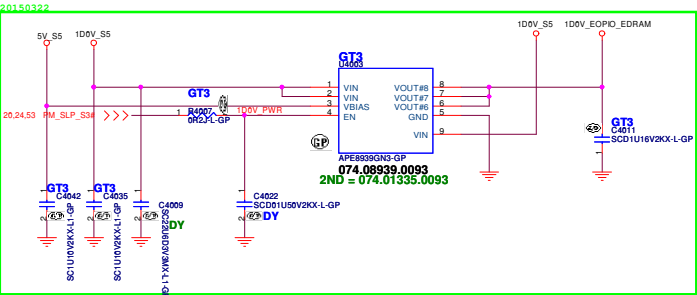
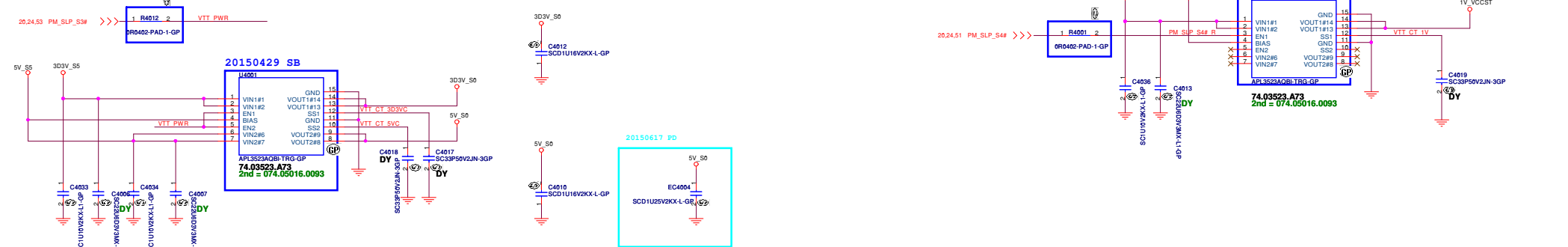
Mihawk MB

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Size Custom	Document Number		Rev
Date		Monday, August 10, 2015	
Sheet		39	of
105		-2	

Power Sequence



ANNIE Run Power



5	4	3	2	1
D				
C				
B				
A				

Mihawk MB

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

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title DS3		
Size A4	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015		Sheet 41 of 105

Mihawk MB

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

A3

Document Number

Mihawk MB

Rev

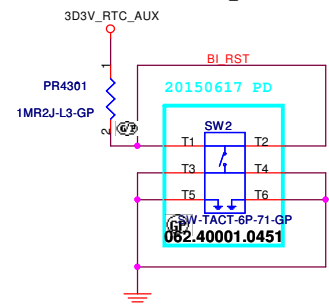
-2

Date: Monday, August 10, 2015

Sheet 42 of 105

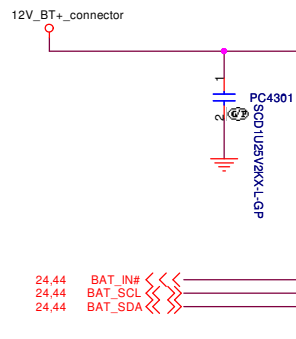
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Battery Reset

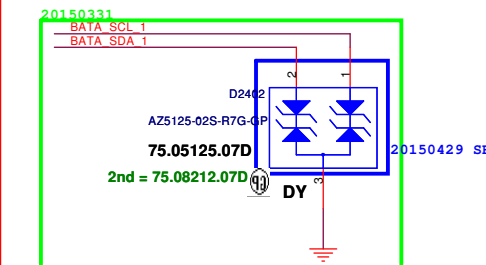
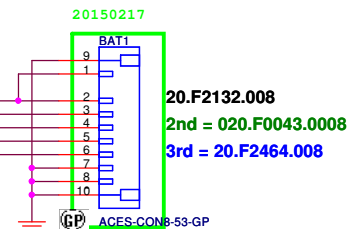


89 BI_RST <<< _____
 89 BAT_IN#_1 <<< _____
 89 BI <<< _____
 89 BATA_SCL_1 >>> _____
 89 BATA_SDA_1 >>> _____

20141013 Jack

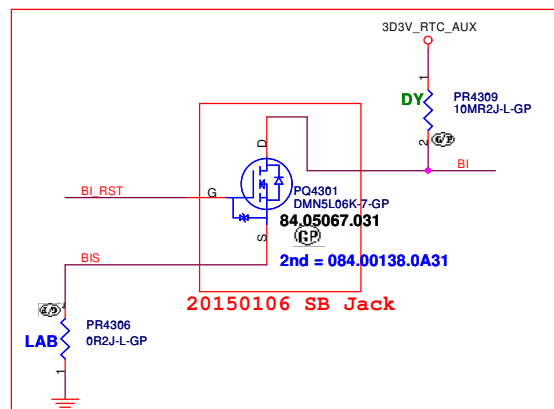
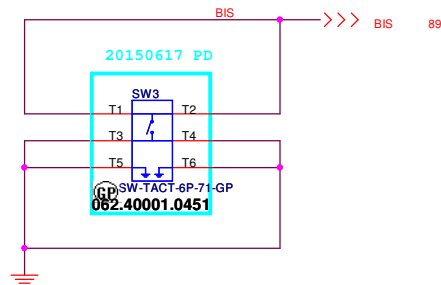


Battery Connector



20150120 SC Jack

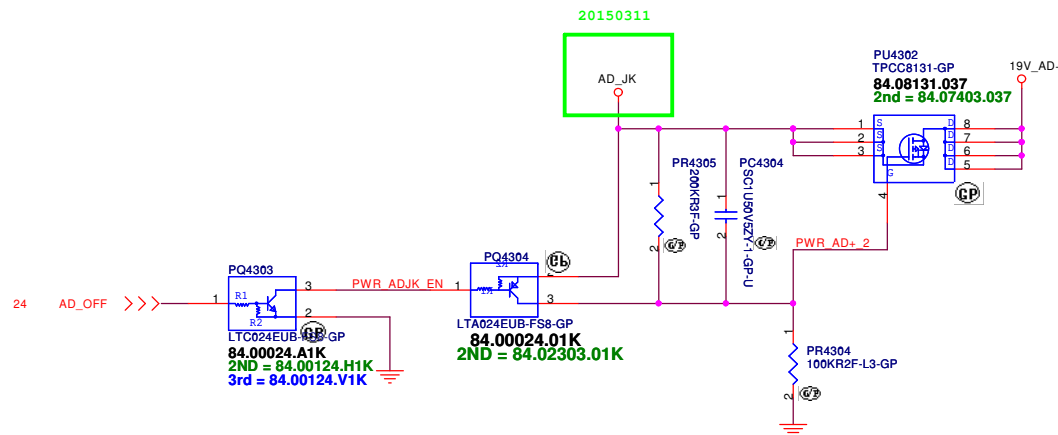
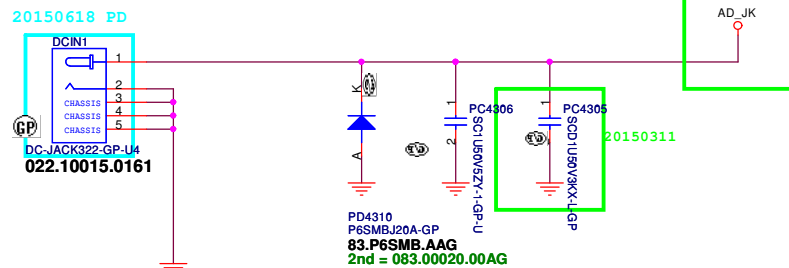
Battery Insert



20150106 SB Jack

ANNIE solution

Adaptor in to generate DCBATOUT



Mihawk MB

緯創資通

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

Title **DC IN/BATT CONN**

Size A3 Document Number

Mihawk MB

Rev

-2

Date: Monday, August 10, 2015

Sheet 43 of 105

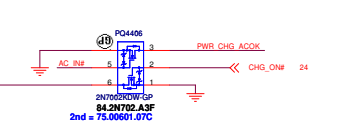
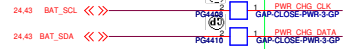
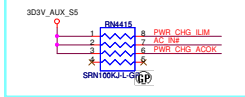
SSID = Charger

The 45W adapter AC protect can change to 120% (2.8M)

	2W	7W	15W	30W	45W	65W	85W	100W
AC Adapter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AC Protect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

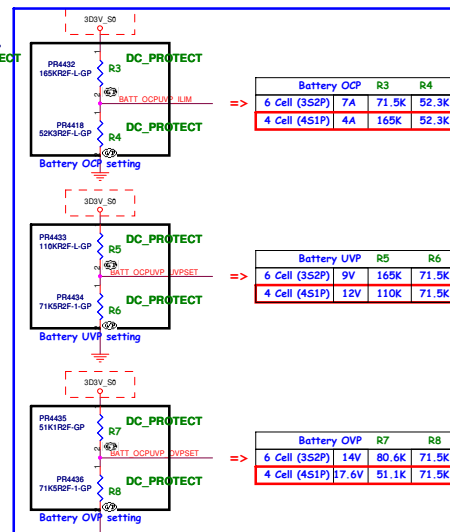
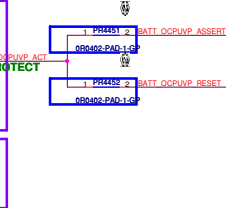
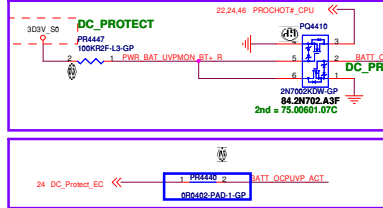
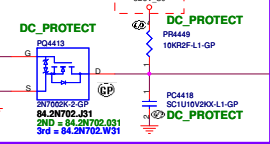
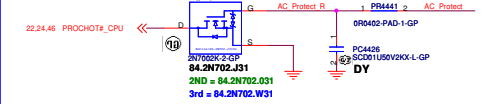
	45W	65W
PR4404	20M (64.80205, 79L)	10M (64.80105, 79L)
PR4407	88.7K (64.88725, 60L)	16.2K (64.16225, 60L)
PR4401	100K (64.10035, 13L)	100K (64.10035, 13L)

20150612 PD



AC adapter detect current :
Ac input current = $20 \times (V_{acp} - V_{acn}) / 10\text{mohm}$

20150413 SB



Battery OCP	R3	R4
6 Cell (352P)	7A	71.5K
4 Cell (451P)	4A	165K

Battery UVP	R5	R6
6 Cell (352P)	9V	165K
4 Cell (451P)	12V	110K

Battery OVP	R7	R8
6 Cell (352P)	14V	80.6K
4 Cell (451P)	17.6V	51.1K

- Layout Note:
- Place PR4403, PR4409 and PR4411 near to BTY connector
 - Place PC4429, PC4430 and PC4431 near to PU4407

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

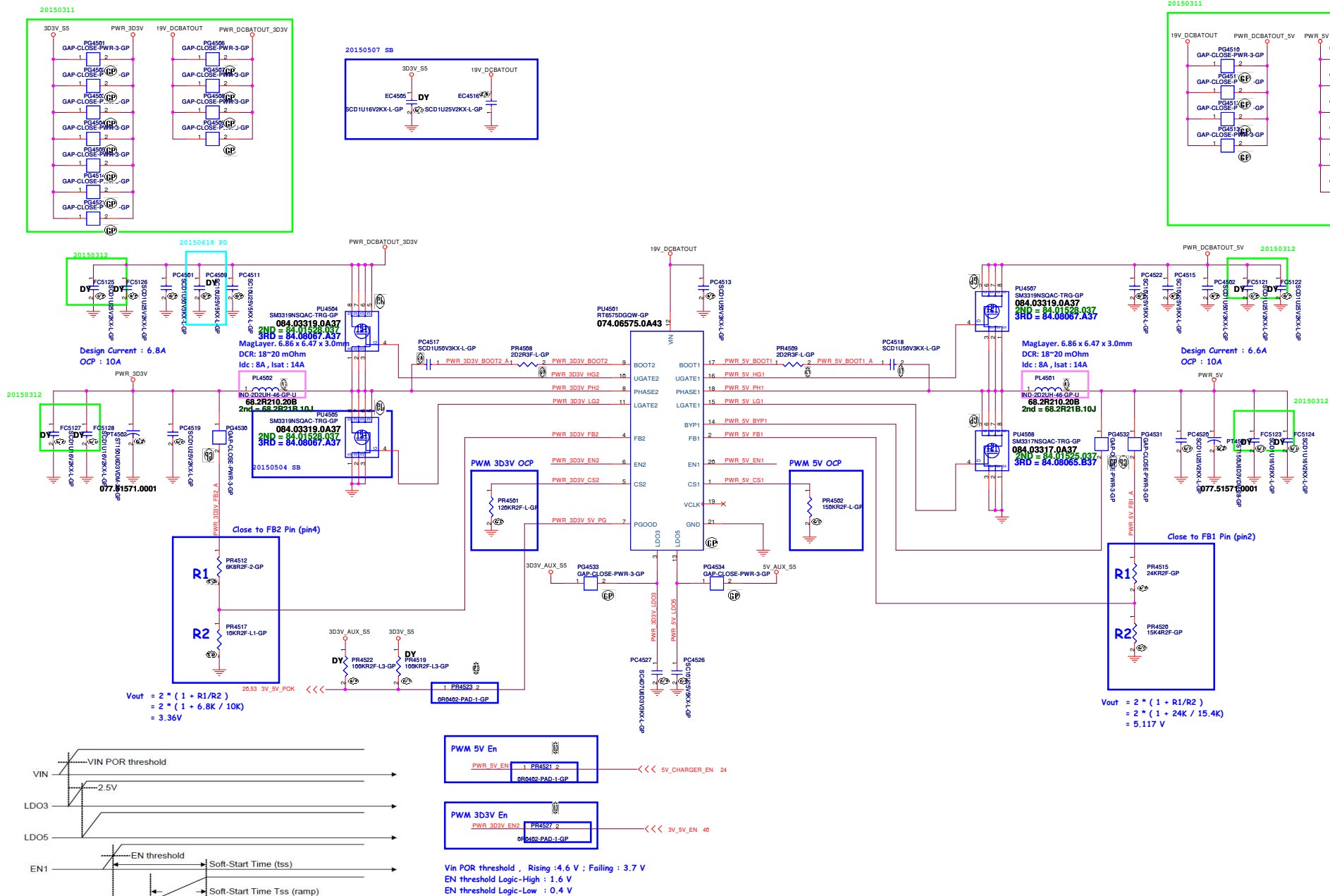
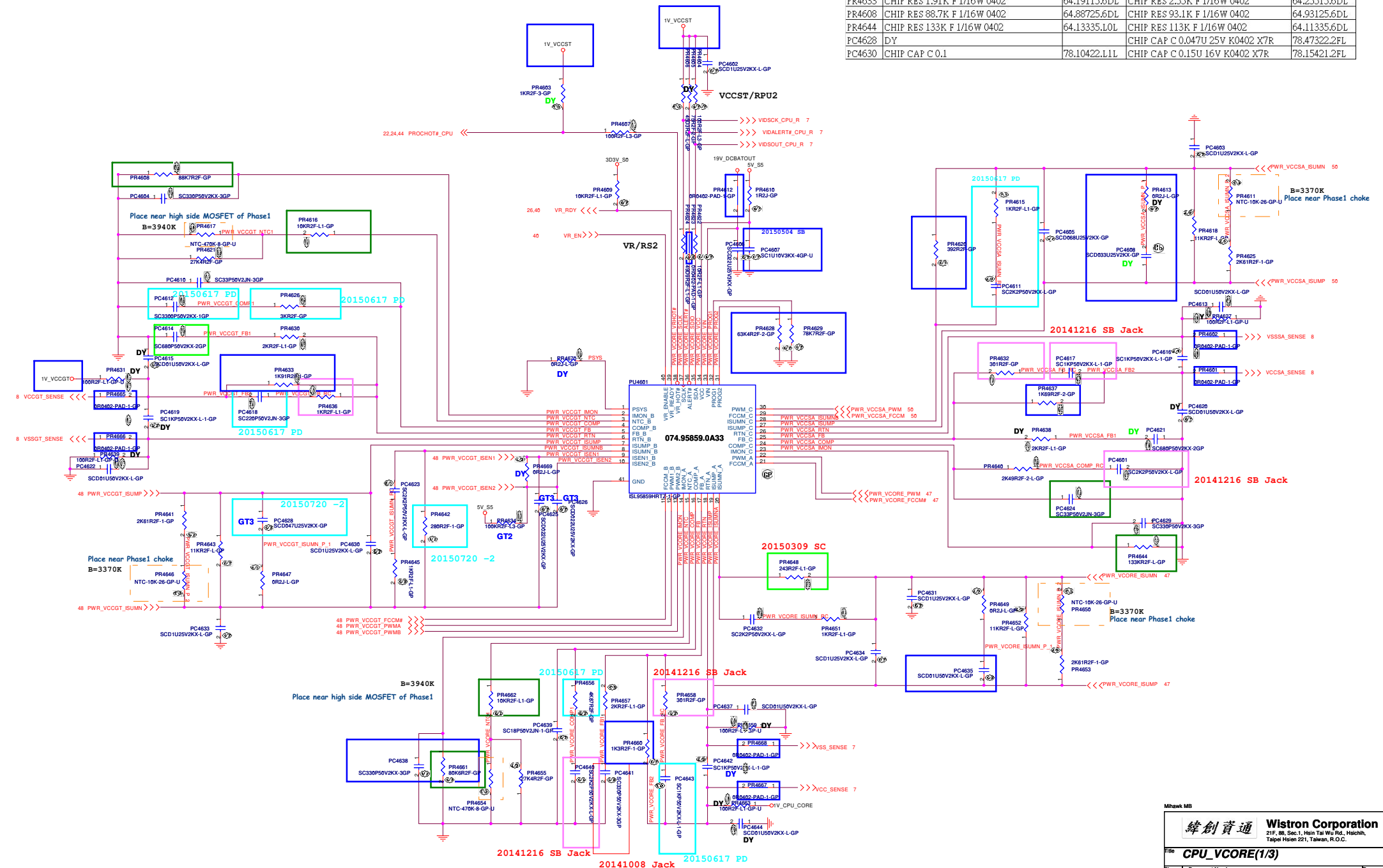


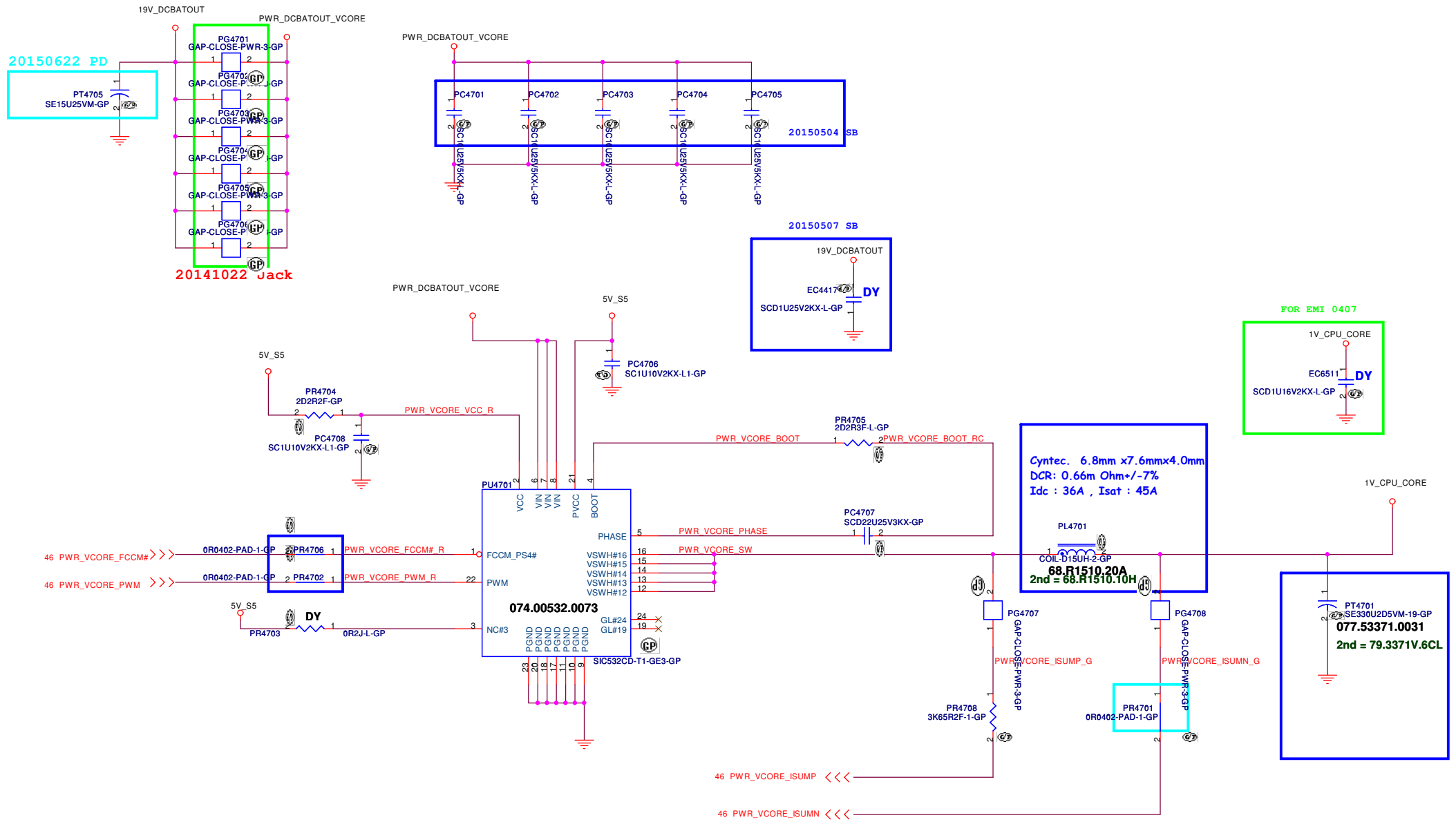
Figure 6. RT6575B Timing

```
Main Func = CPU_CORE
```

	U22	U23e
PR4629	CHIP RES 78.7K F 1/16W 0402	64.78725.6DL
PR4634	CHIP RES 100K F 1/16W 0402 13" REEL	64.10035.13L
PR4642	CHIP RES 280 F 1/16W 0402	64.28005.6DL
PR4633	CHIP RES 1.91K F 1/16W 0402	64.19115.6DL
PR4608	CHIP RES 88.7K F 1/16W 0402	64.88725.6DL
PR4644	CHIP RES 133K F 1/16W 0402	64.13335.10L
PC4628	DY	CHIP CAP C 0.047U 25V K0402 X7R
PC4630	CHIP CAP C 0.1	CHIP CAP C 0.15U 16V K0402 X7R

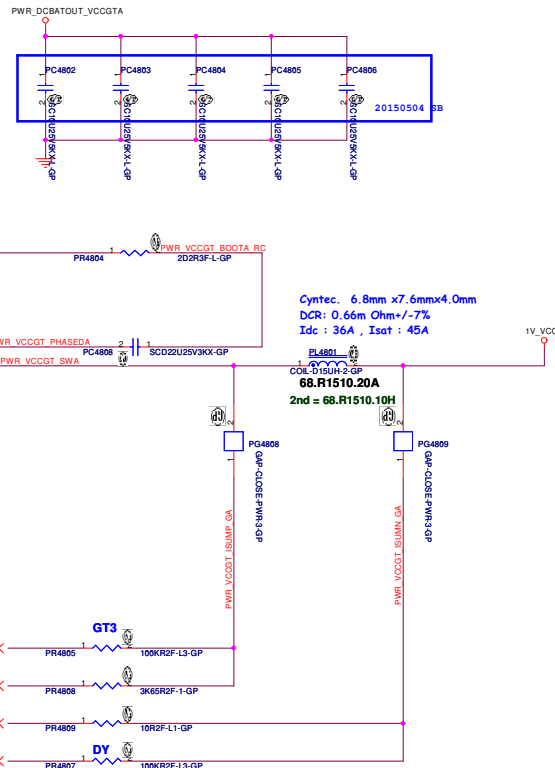


Main Func = CPU_CORE



Mihawk MB

WWW.AliSaler.Com



1V_VCCGT

GT3

PT4802

SE330U2D5VM-19-GP

077.53371.0031


2nd = 79.3371V.6CL

緯創資通

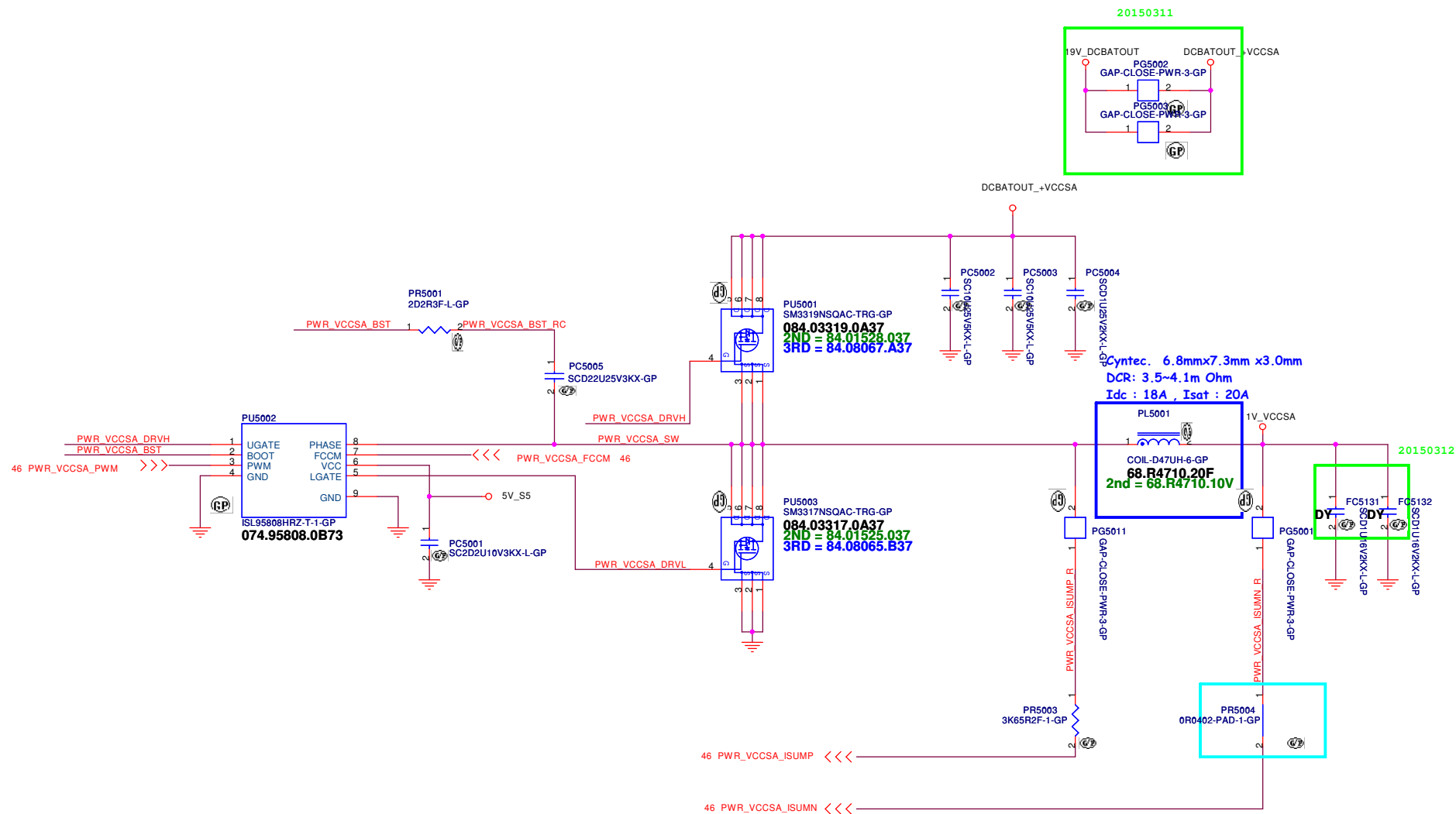
Size A2	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015	Sheet 48 of 105	



Mihawk MB

		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title VCCGTUS			
Size A2	Document Number Mihawk MB		Rev -2
Date: Monday, August 10, 2015		Sheet 49 of	106

```
Main Func = CPU_CORE
```



Mihawk MB

緯創資通

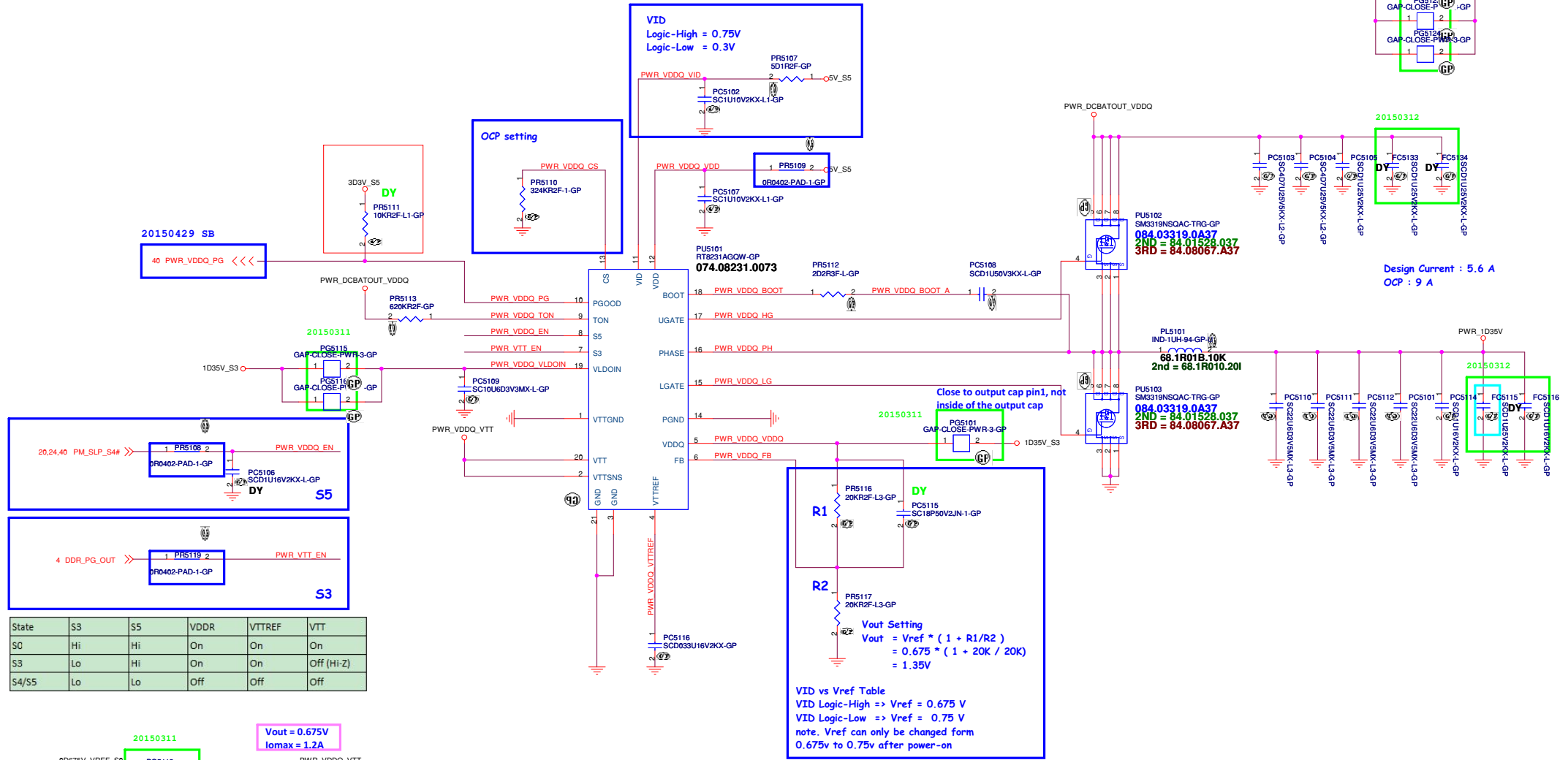
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	VCCSA
-------	--------------

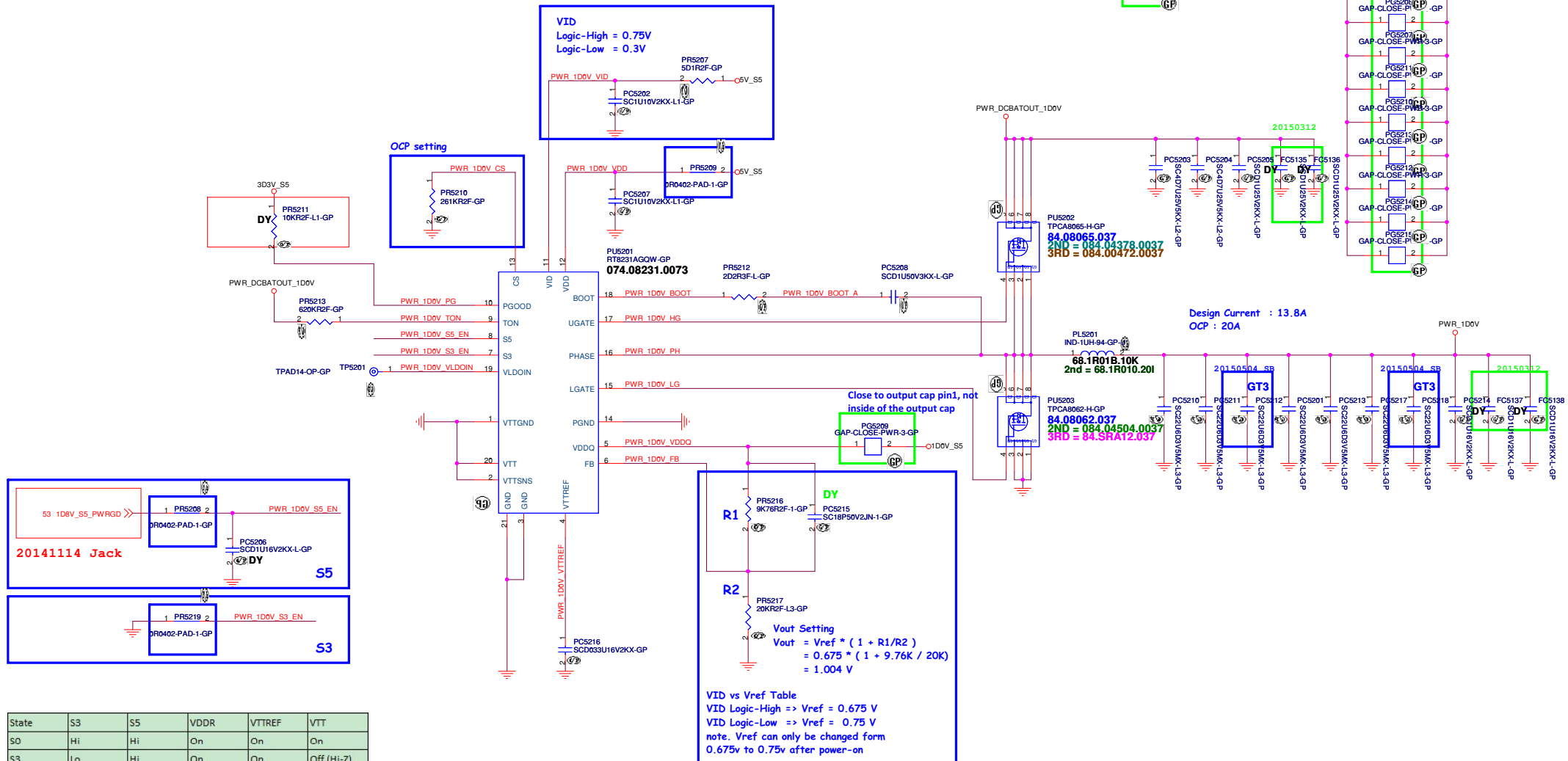
Size A3	Document Number Mihawk MB
------------	-------------------------------------

Rev

Date: Tuesday, August 18, 2015 Sheet 50 of 105



State	S3	S5	VDDR	VTTREF	VTT
S0	Hi	Hi	On	On	On
S3	Lo	Hi	On	On	Off (Hi-Z)
S4/S5	Lo	Lo	Off	Off	Off



5

4

3

2

1

D

D

C

C

B

B

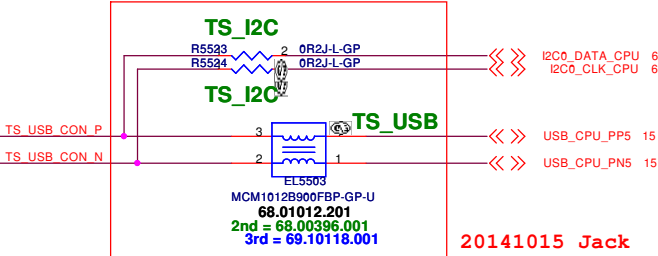
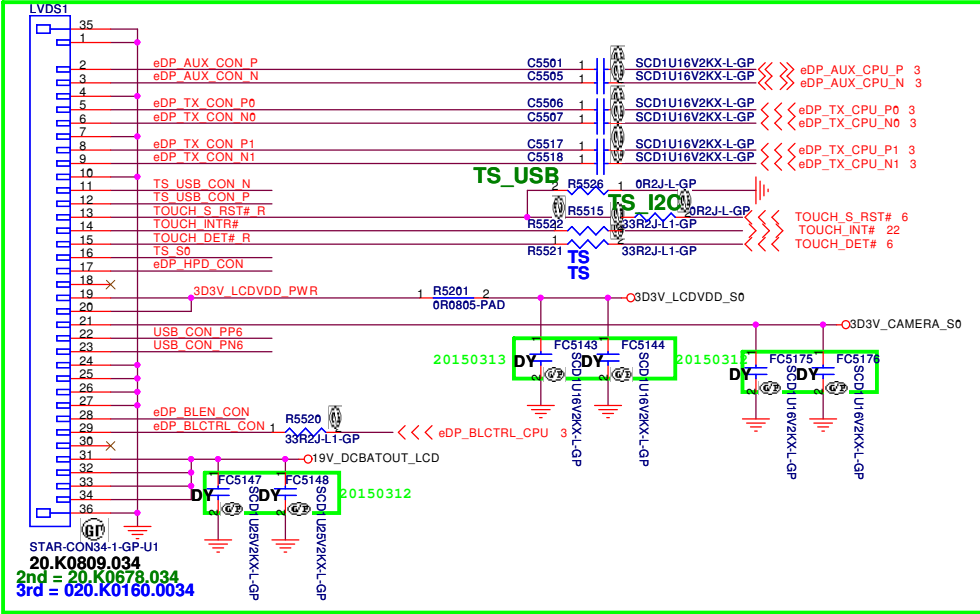
A

A

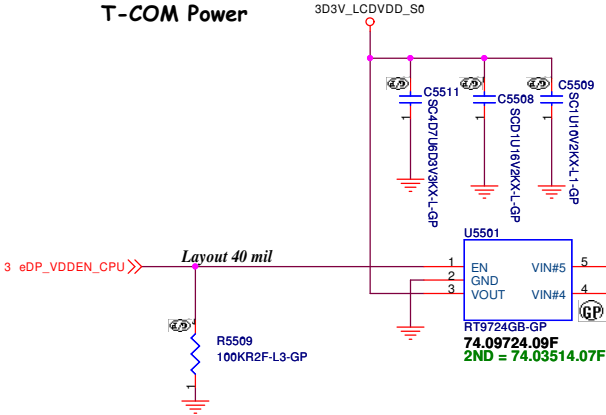
Mihawk MB

<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 Reserved		
Size A4	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015		Sheet 54 of 105

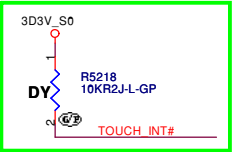
Main Func = LCD



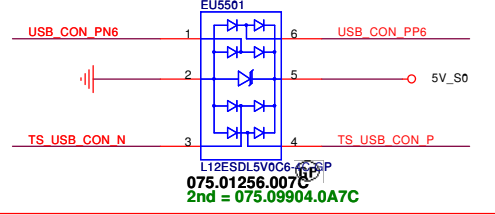
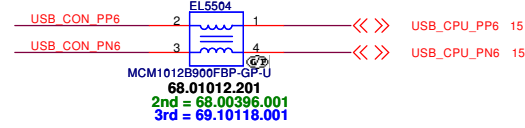
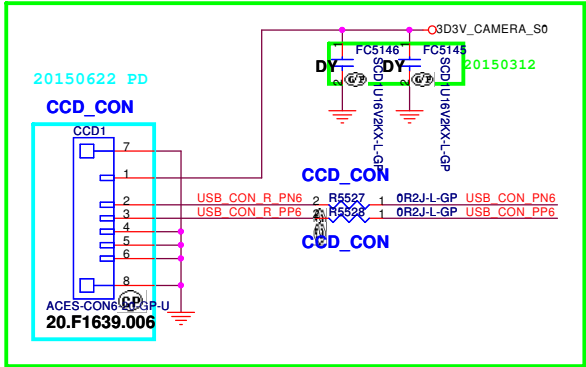
T-COM Power



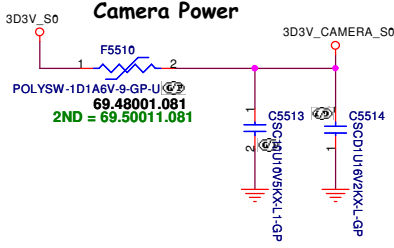
20150325



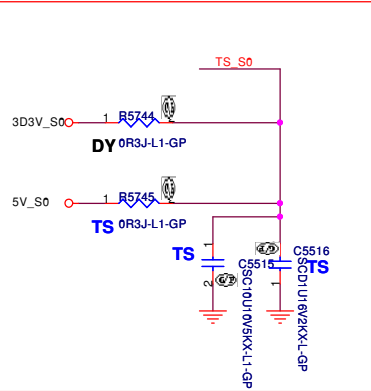
20150405



Camera Power

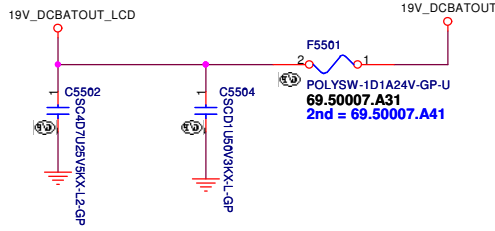


Touch panel Power

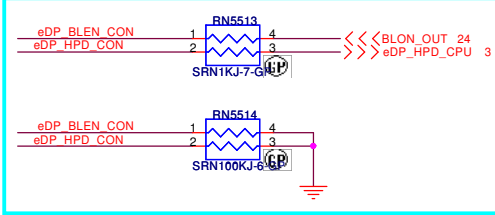


20141016 Jack

Inverter Power



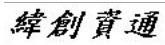
20150612 PD



AFTP TESTPOINT

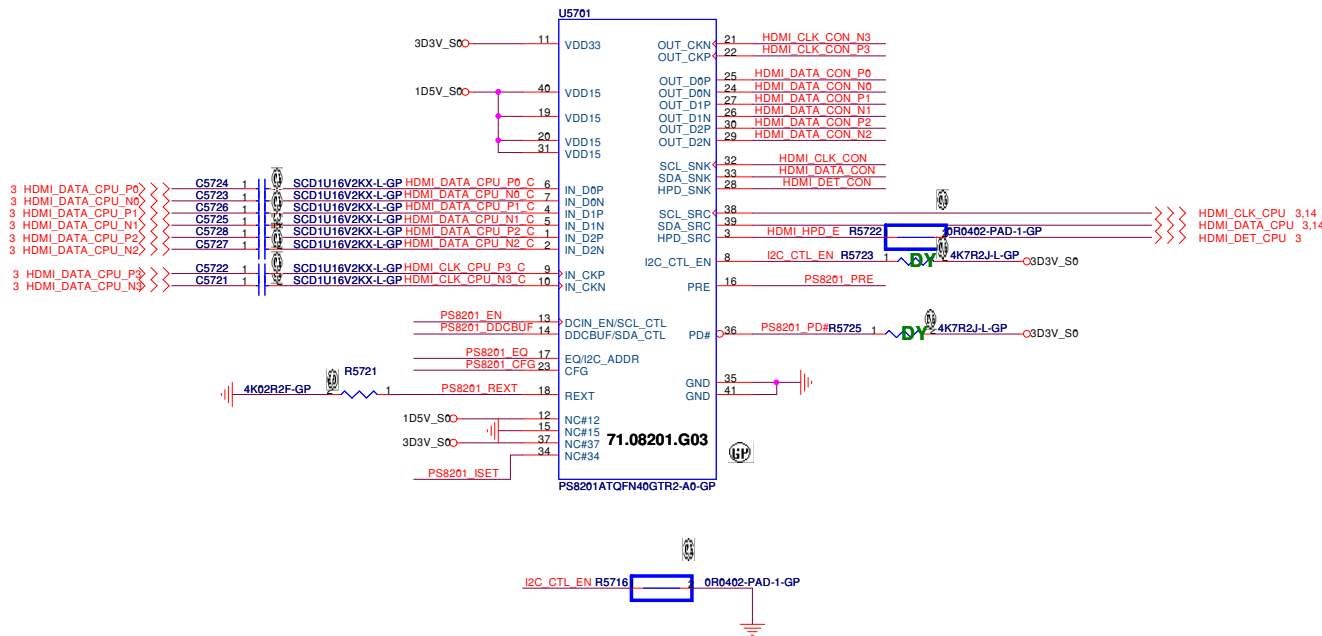
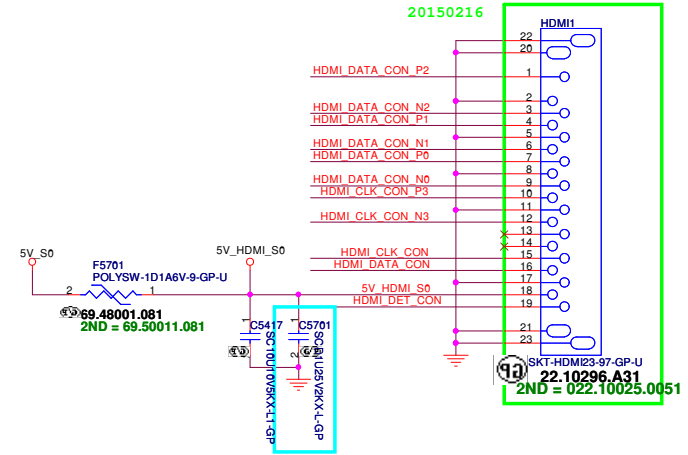
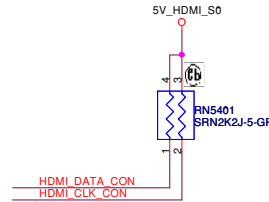
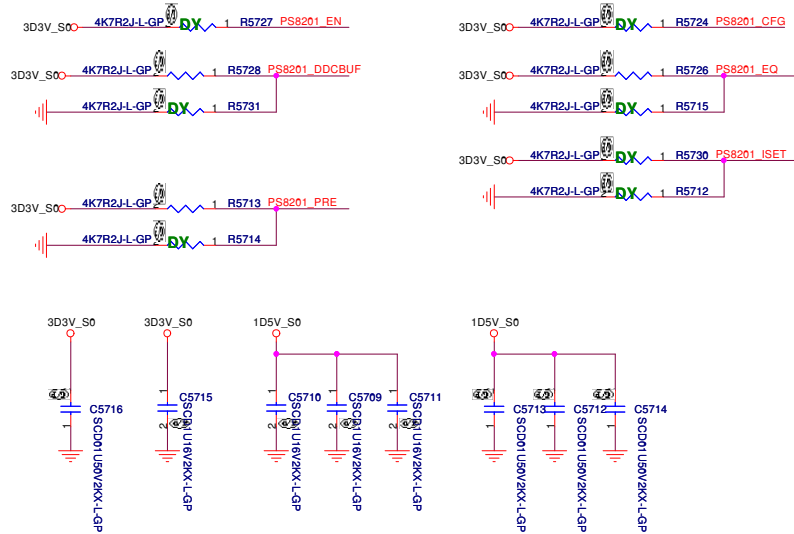
5	4	3	2	1
D				
C				
B				
A				

Mihawk MB

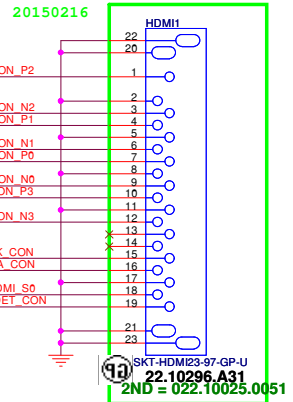
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title VGA RTD2168			
Size A3	Document Number Mihawk MB		Rev -2
Date: Monday, August 10, 2015	Sheet	56 of	105

SSID = VIDEO

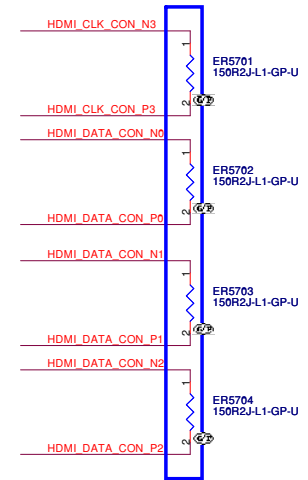
HDMI Level Shifter & CONNECTOR



HDMI CONN



20150507 SB



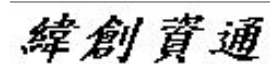
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

Mihawk MB

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/Conn			
Size	Document Number	Rev	
Custom	Mihawk MB	-2	
Date	Monday, August 10, 2015	Sheet	57 of 105

	5	4	3	2	1	
D						D
C						C
B						B
A						A
<div>Mihawk MB</div> <div> <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> <div>Title</div> <div> <div>Size A</div> <div>Document Number Mihawk MB</div> <div>Rev -2</div> </div> <div> Date: Monday, August 10, 2015 Sheet 58 of 105 </div> </div> <div></div>						
	5	4	3	2	1	

Mihawk MB



Wistron Corporation

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

Title

DVI

Size

A

Document Number

Mihawk MB

Rev	
-----	--

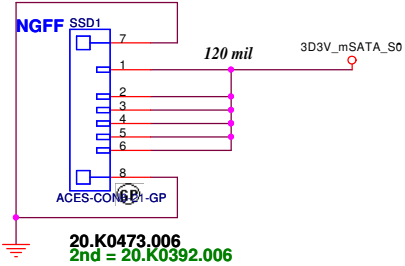
-2

Date: Monday, August 10, 2015

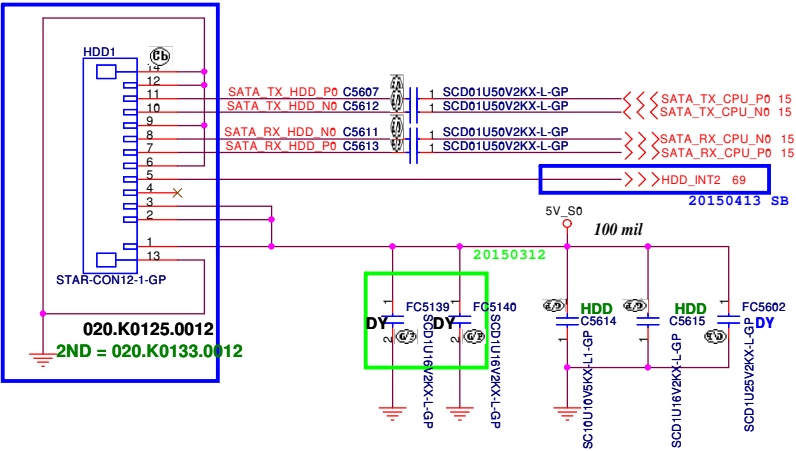
Sheet 59 of 105

SATA HDD / SSD Connector

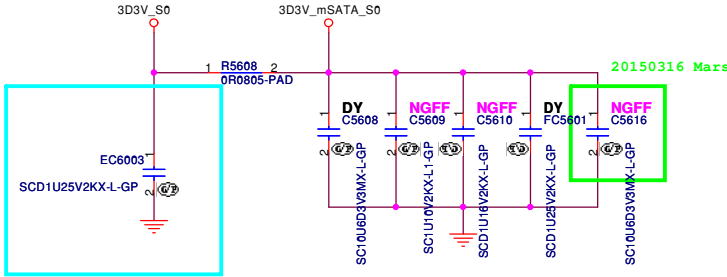
20150216



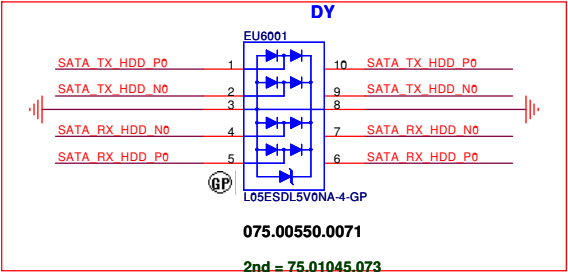
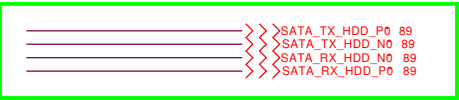
20150427 SB



AC coupling caps near connector<100 mils
Delay HDD power off timing for 800ms~900ms after SAA controller shut down.



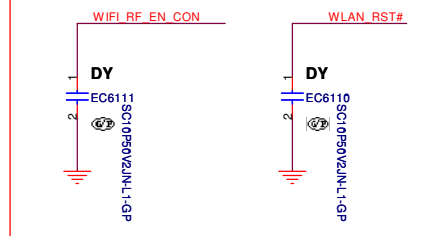
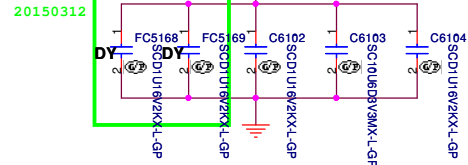
20150316 Mars



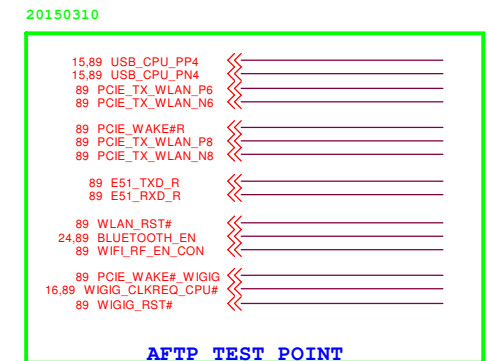
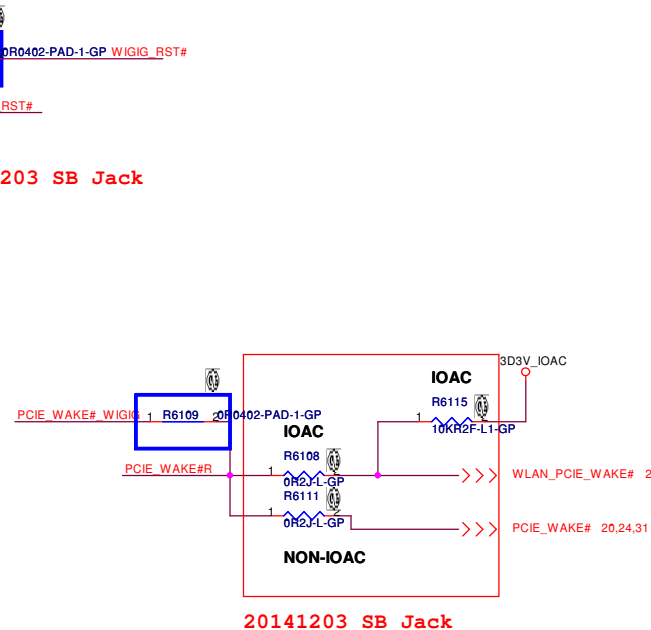
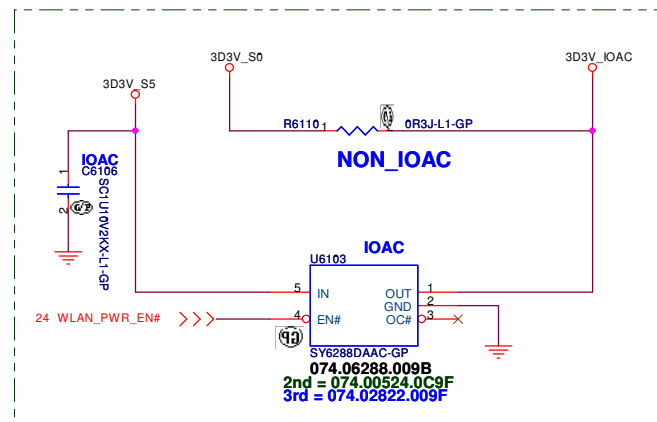
20150305 SC Jack

Mihawk MB

SSID = Wireless



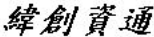
20141016 Jack



	5	4	3	2	1	
D						D
C						C
B						B
A						A
<div>Mihawk MB</div> <div> <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> <div> <div>Title</div> <div>Wireless Charging</div> </div> <div> <div>Size</div> <div>A</div> </div> <div> <div>Document Number</div> <div>Mihawk MB</div> </div> <div> <div>Rev</div> <div>-2</div> </div> <div> <div>Date:</div> <div>Monday, August 10, 2015</div> <div>Sheet</div> <div>62</div> <div>of</div> <div>105</div> </div> </div>						

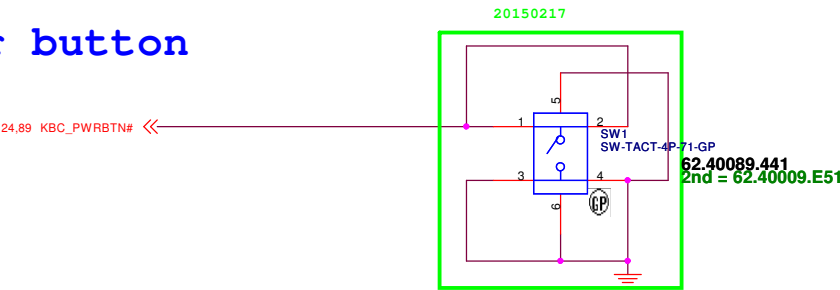
SSID = mSATA

Mihawk MB

		Wistron Corporation <small>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</small>	
Title mSTAT			
Size A3	Document Number Mihawk MB		Rev -2
Date: Monday, August 10, 2015	Sheet 63	of 105	

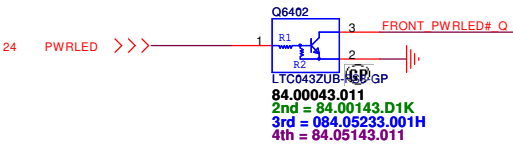
Main Func = Power BTN

Power button

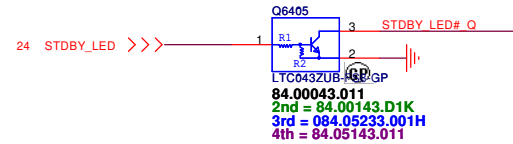


Main Func = Battery LED

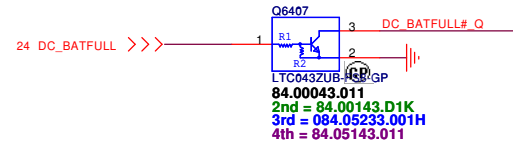
Power Button_LED



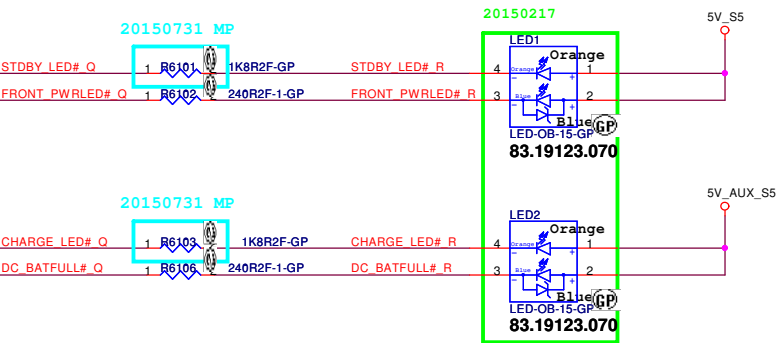
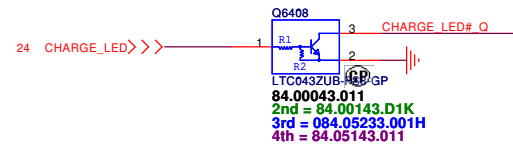
Power STDBY_LED



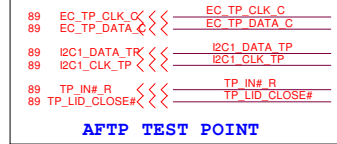
Battery LED2 (DC_BATFULL)



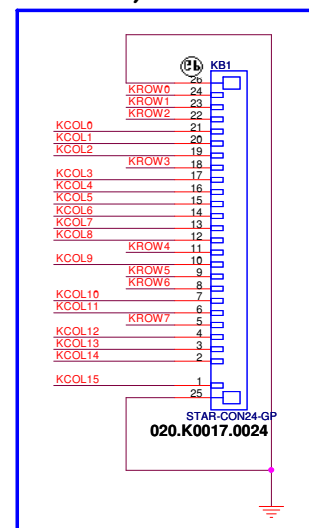
Battery LED1 (CHARGE)



I2C Addr. = 0X2C (Synaptics)



Page 30 of 30



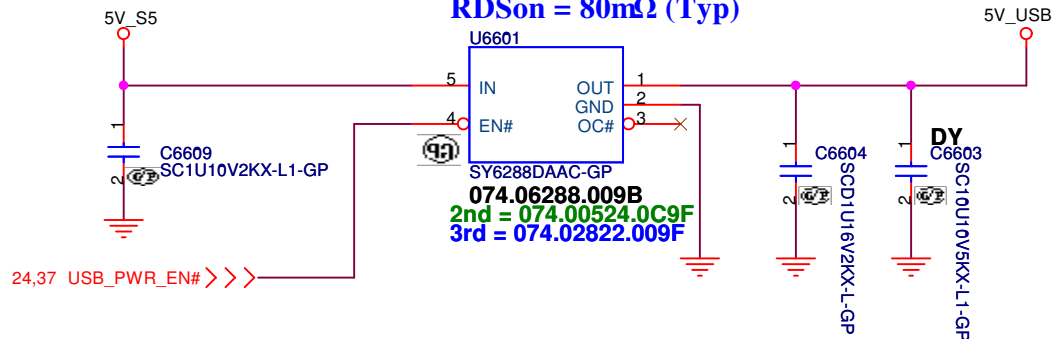
_____	_____	KROW0	24,89
_____	_____	KROW1	24,89
_____	_____	KROW2	24,89
_____	_____	KROW3	24,89
_____	_____	KROW4	24,89
_____	_____	KROW5	24,89
_____	_____	KROW6	24,89
_____	_____	KROW7	24,89
_____	_____	KCOL0	24,89
_____	_____	KCOL1	24,89
_____	_____	KCOL2	24,89
_____	_____	KCOL3	24,89
_____	_____	KCOL4	24,89
_____	_____	KCOL5	24,89
_____	_____	KCOL6	24,89
_____	_____	KCOL7	24,89
_____	_____	KCOL8	24,89
_____	_____	KCOL9	24,89
_____	_____	KCOL10	24,89
_____	_____	KCOL11	24,89
_____	_____	KCOL12	24,89
_____	_____	KCOL13	24,89
_____	_____	KCOL14	24,89
_____	_____	KCOL15	24,89

Mihawk MB

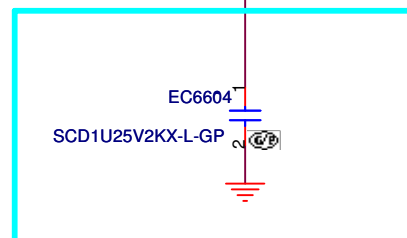
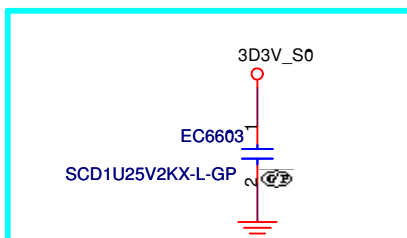
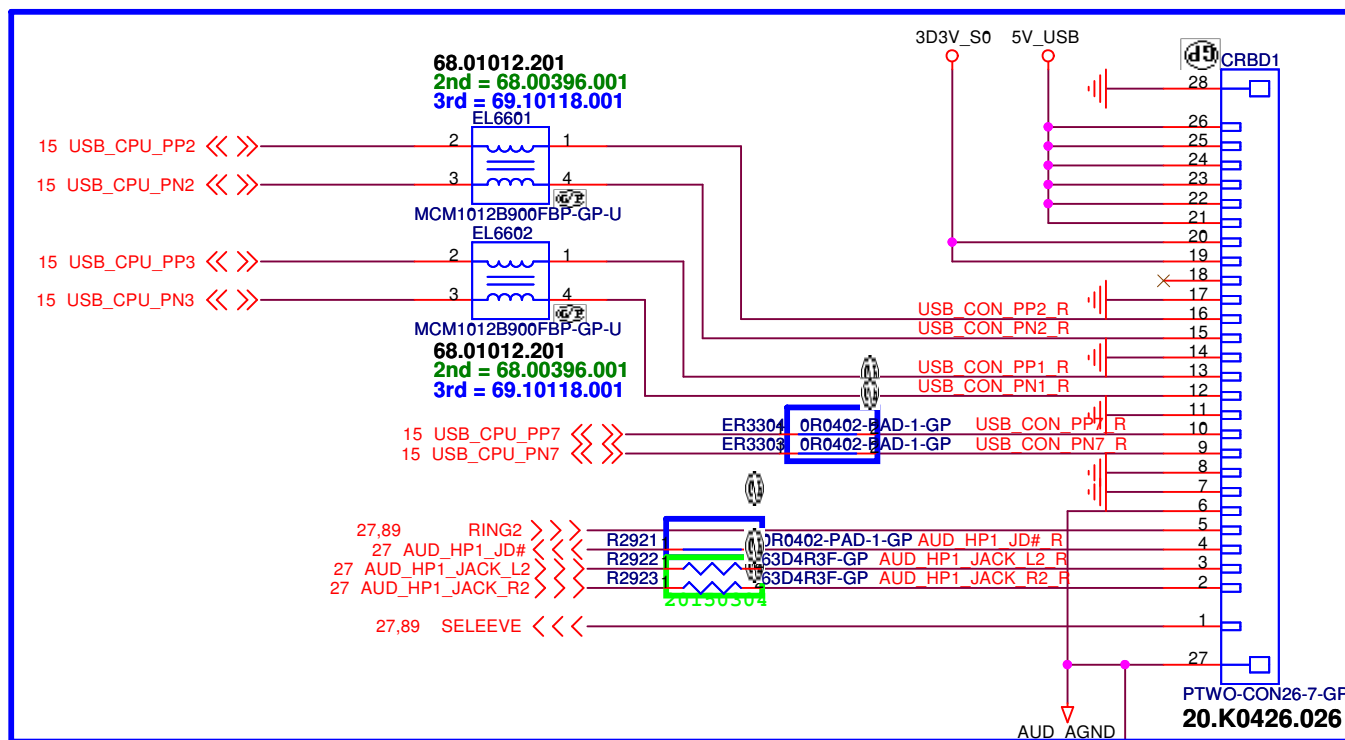
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			
Key Board/Touch Pad			
Size Custom	Document Number		Rev
	Mihawk MB		-2
Date:	Monday, August 10, 2015	Sheet 65 of	105

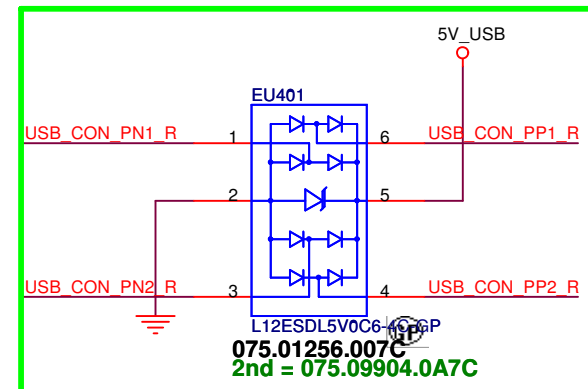
Low Active 2A
RDSon = 80mΩ (Typ)



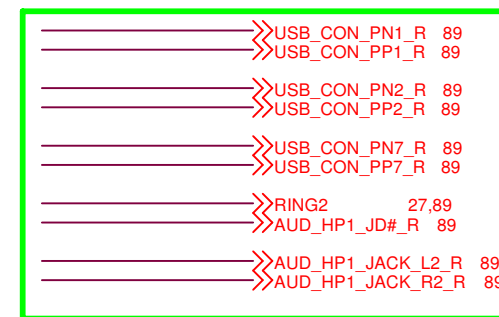
20150511 SB



20150331



20150310



AFTP TESTPOINT

Mihawk MB

緯創資通

Wistron Corporation

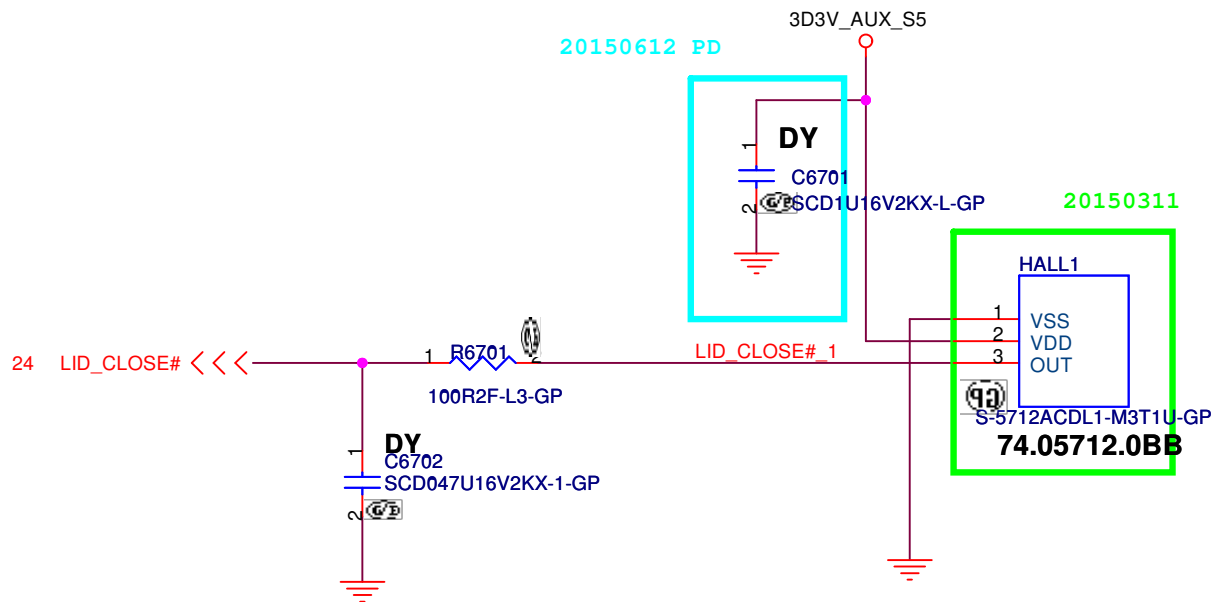
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title **Key Board/Touch Pad**

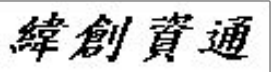
Size A4 Document Number **Mihawk MB**

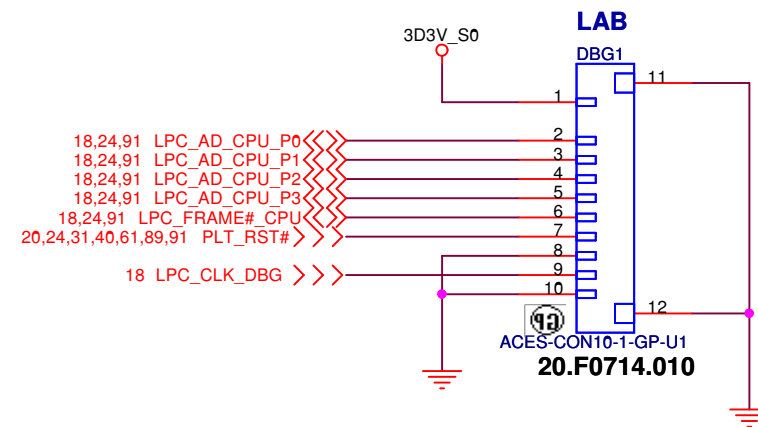
Date: Monday, August 10, 2015 Sheet 66 of 105

Rev **-2**



Mihawk MB

 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title Security Guard connector	
Size A	Document Number Mihawk MB
Date: Monday, August 10, 2015	Rev -2
Sheet 67 of 105	



Mihawk MB

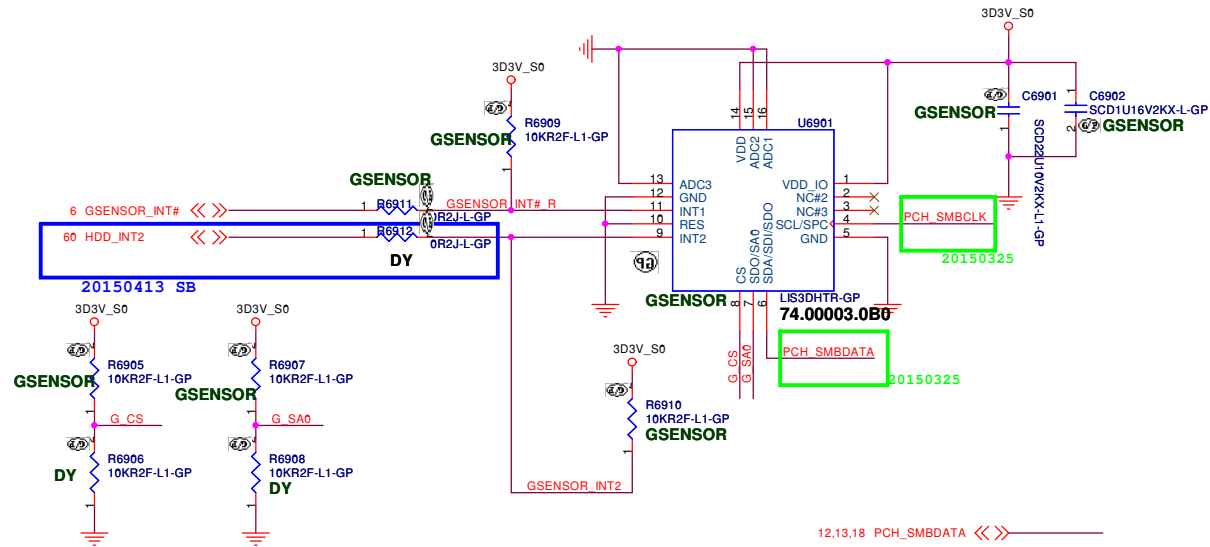
			Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title Dubug connector					
Size A4	Document Number Mihawk MB				Rev -2
Date: Monday, August 10, 2015		Sheet 68		of 105	

SSID = User.Interface

G Sensor

Note

- no via, trace, under the sensor (keep out area around 2mm)
- stay away from the screw hole or metal shield soldering joints
- design PCB pad based on our sensor LGA pad size add 0.1mm)
- solder stencil opening to 90% of the PCB pad size
- mount the sensor near the center of mass of the MB as possible as you can



SDO="H"; address="3Ah"
*SDO="L"; address="38h"

*CS="H"; mode="I2C"
CS="L"; mode="SPI"

Mihawk MB

緯創資通

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

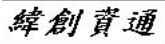
Title **G-SENSOR**

Size A3 Document Number **Mihawk MB**
Date: Monday, August 10, 2015

Rev **-2**
Sheet 69 of 105

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

Mihawk MB

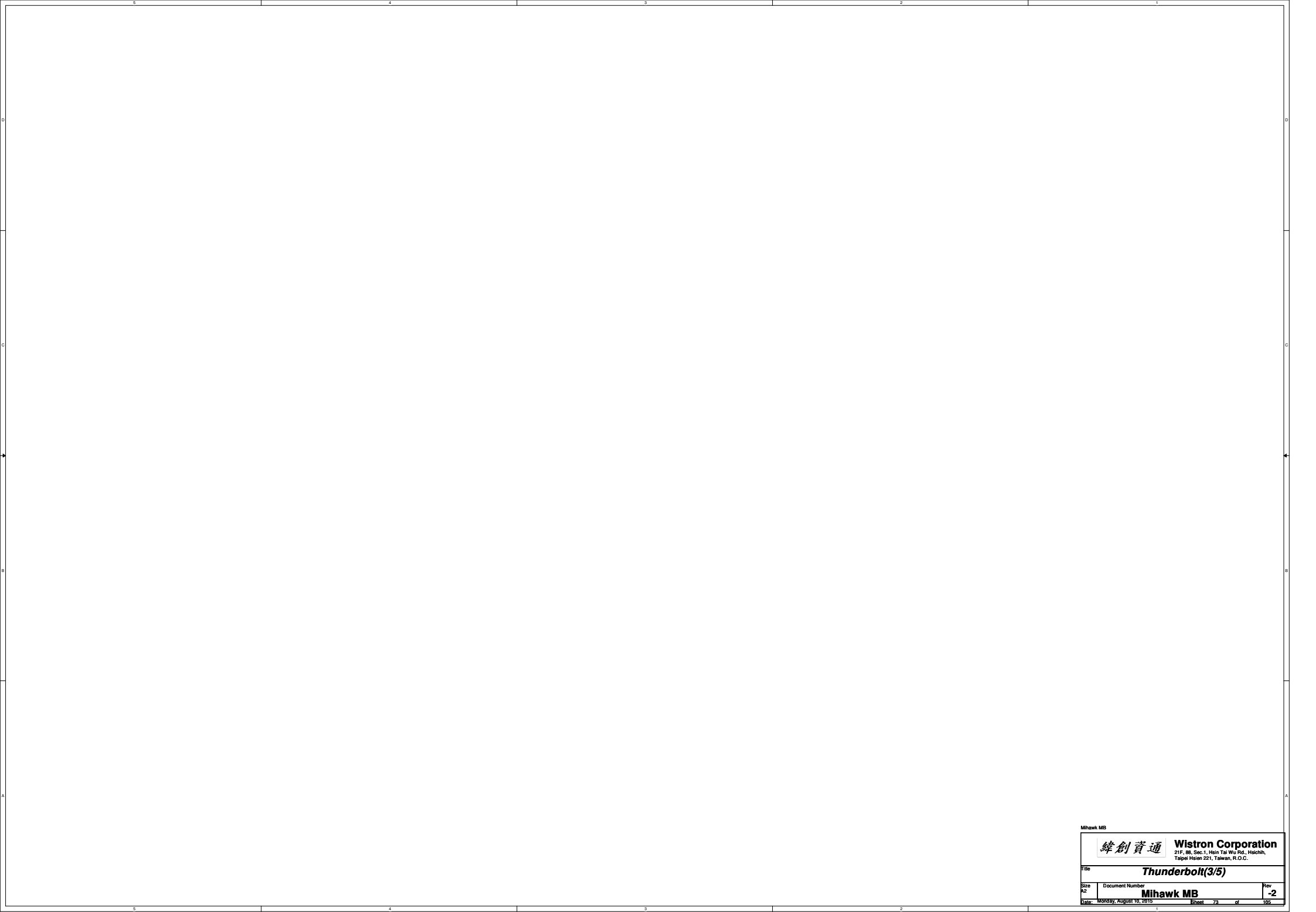
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title Hall Sensor			
Size A3	Document Number Mihawk MB		Rev -2
Date: Monday, August 10, 2015		Sheet 70 of	105



Mihawk MB

<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>Thunderbolt(1/5)</div>			
<div>Size PC</div>	<div>Document Number Mihawk MB</div>		<div>Rev -2</div>
<div>Date: Monday, August 14, 2017 10:00:00 AM Sheet 71 of 185</div>			

Mihawk MB	
<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(2/5)	
Size A2	Document Number Mihawk MB
Date: Monday, August 1st, 2015	Rev: 2
Sheet 22 of 105	



Mihawk MB

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 A2

Document Number

Mihawk MB

Rev

-2

Date

Monday, August 16, 2010

Sheet

73

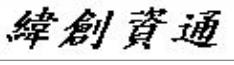
of

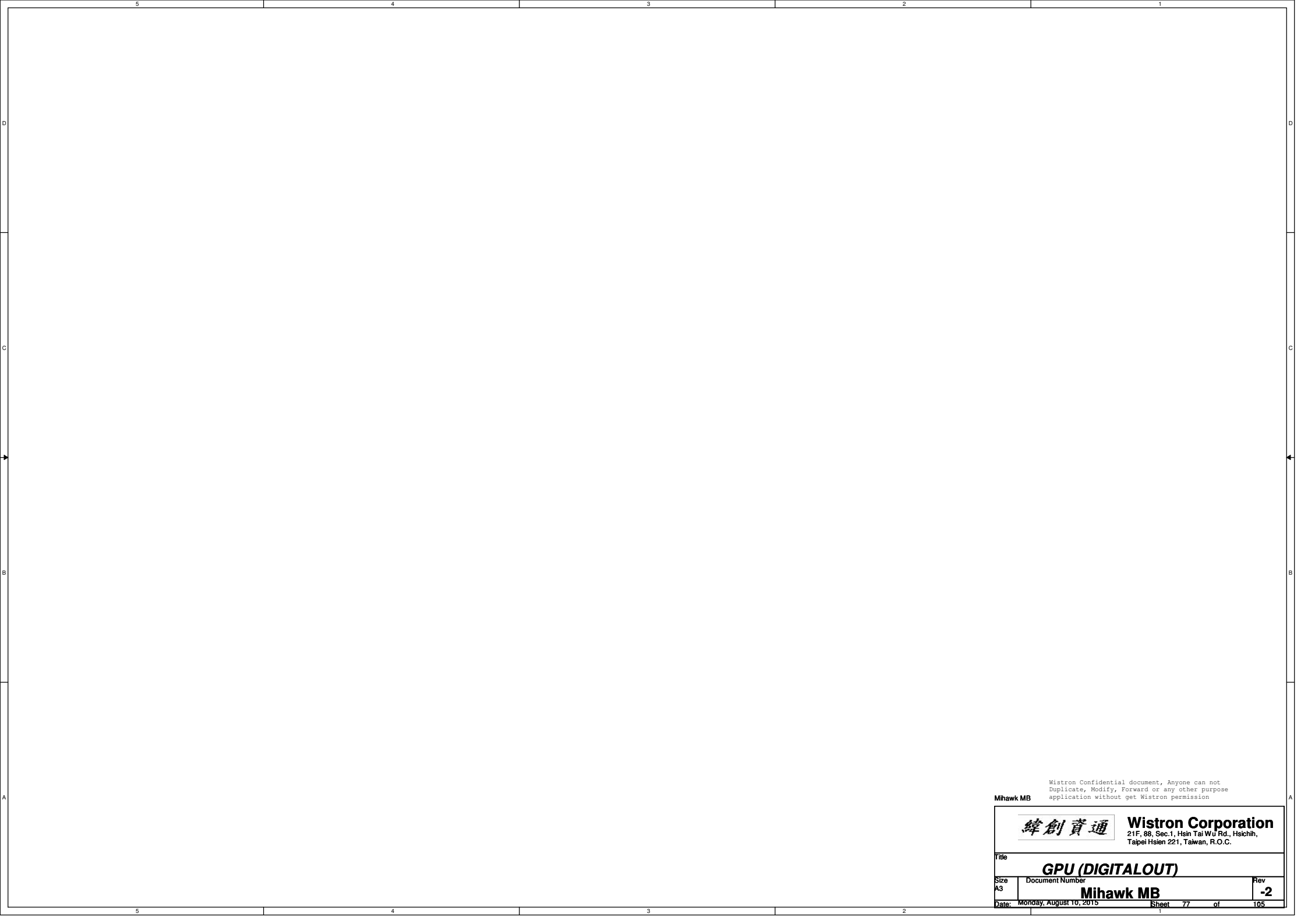
109

5	4	3	2	1
D				
C				
B				
A				

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

Mihawk MB

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title Thunderbolt (5/5)		
Size A4	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015		Sheet 75 of 105



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

Mihawk MB

緯創資通

Wistron Corporation

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

Title

GPU (DIGITALOUT)

Size
A3

Document Number

Date: Monday, August 10, 2015

Rev
-2

Sheet 77 of 105

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

Mihawk MB

緯創資通

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

Title

GPU (POWER/GND)

Size A2

Document Number

Rev

Mihawk MB

-2

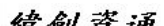
Edin. MONDAY, August 1st 2015

Sheet 80 of 105

5	4	3	2	1
D				
C				
B				
A				
				Mihawk MB
				<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>GPU-VRAM3,4 (2/4)</div></div><div><div>Size Custom</div><div>Document Number</div><div>Mihawk MB</div><div>Rev -2</div></div><div><div>Date: Monday, August 10, 2015</div><div>Sheet 82 of 105</div></div></div>
5	4	3	2	1

	5	4	3	2	1
D					
C					
B					
A					

Mihawk MB

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
GPU-VRAM7,8 (4/4)			
Size	Document Number		Rev
Custom	Mihawk MB		-2
Date:	Monday, August 10, 2015	Sheet 83 of	105

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

Mihawk MB

緯創資通

Wistron Corporation

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

Title

GPU-VRAM7,8 (4/4)

Size Custom

Document Number

Rev

Mihawk MB

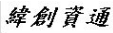
-2

Date: Monday, August 10, 2015

Sheet 84 of 105

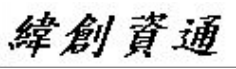


Mihawk MB

		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title VGA_CORE			
Size	Document Number		Rev
A2	Mihawk MB		-2
Scale	M09039, August 1st, 2015		Sheet 85 of 105

5	4	3	2	1
D				
C				
B				
A				

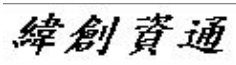
Mihawk MB

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title DISCHARGE		
Size A4	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015		Sheet 87 of 105

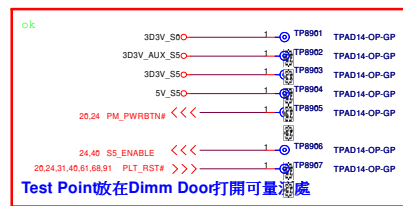
5	4	3	2	1
D				
C				
B				
A				

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

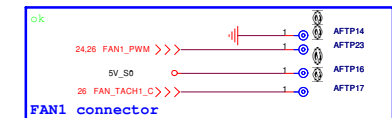
Mihawk MB

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title Switchable GFX LCD(2/2)		
Size A4	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015		Sheet 88 of 105

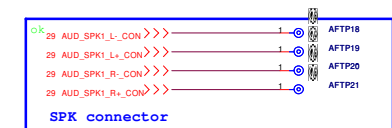
Check test point



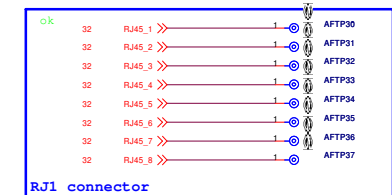
20141103 Jack



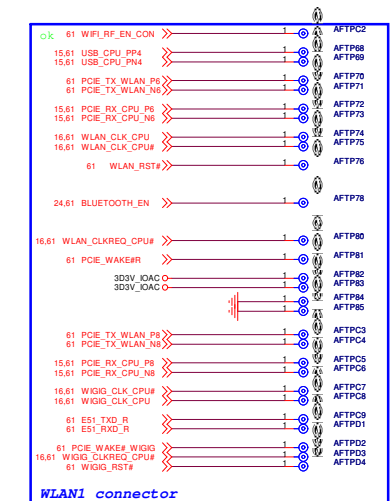
FAN1 connector



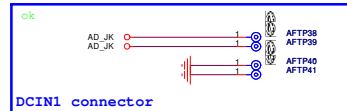
SPK connector



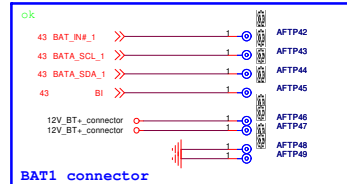
RJ1 connector



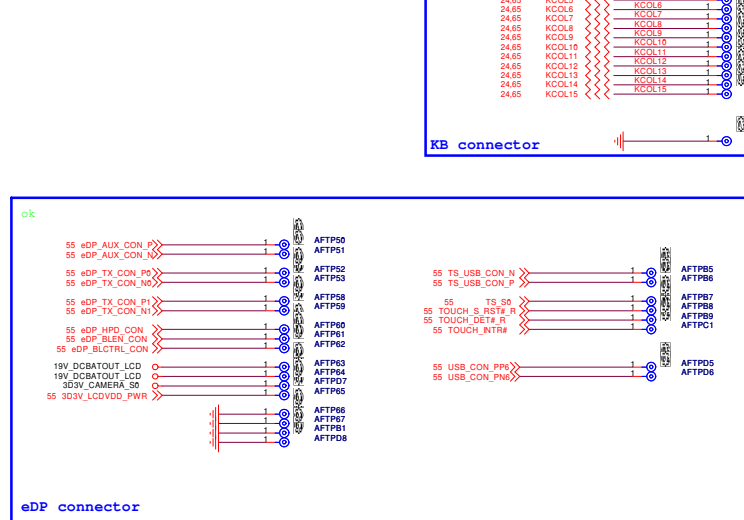
WLAN1 connector



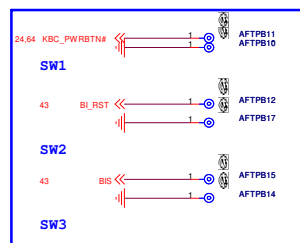
DCIN1 connector



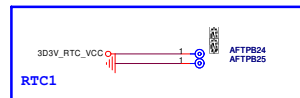
BAT1 connector



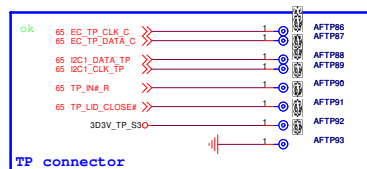
eDP connector



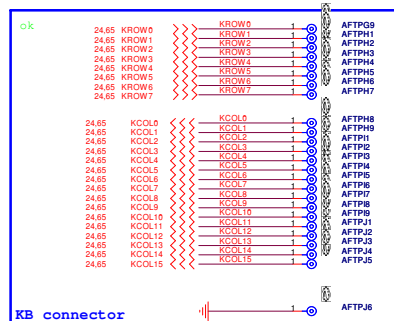
SW:



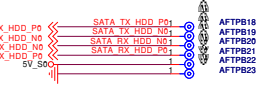
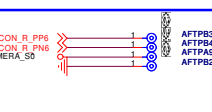
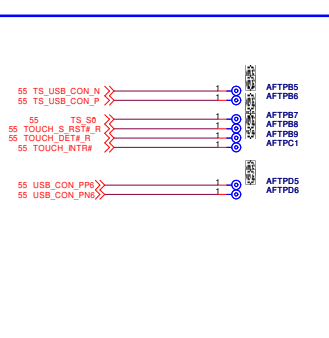
RTC1



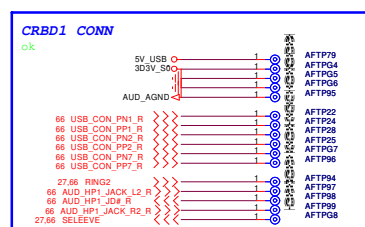
TP connector



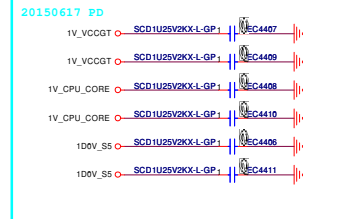
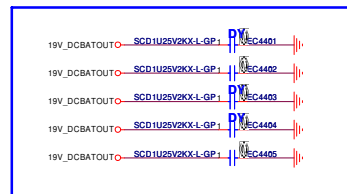
KB connector



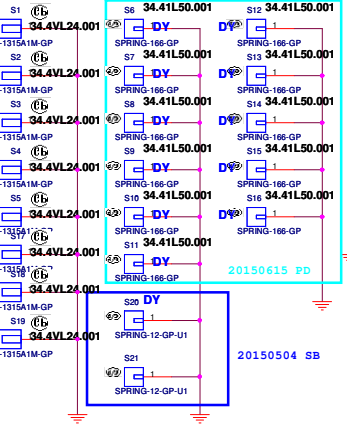
100



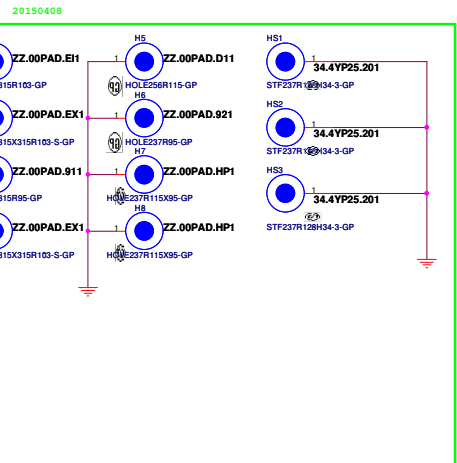
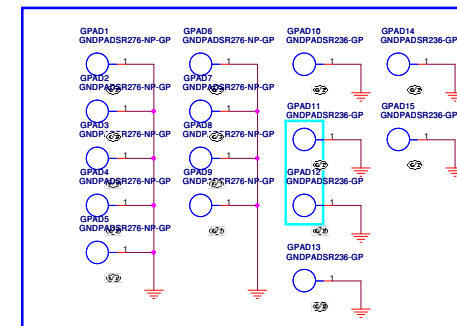
CRBD1 *CONN*



DE CLIP



1315A1M-GP	S21	20150504 SB
------------	-----	-------------

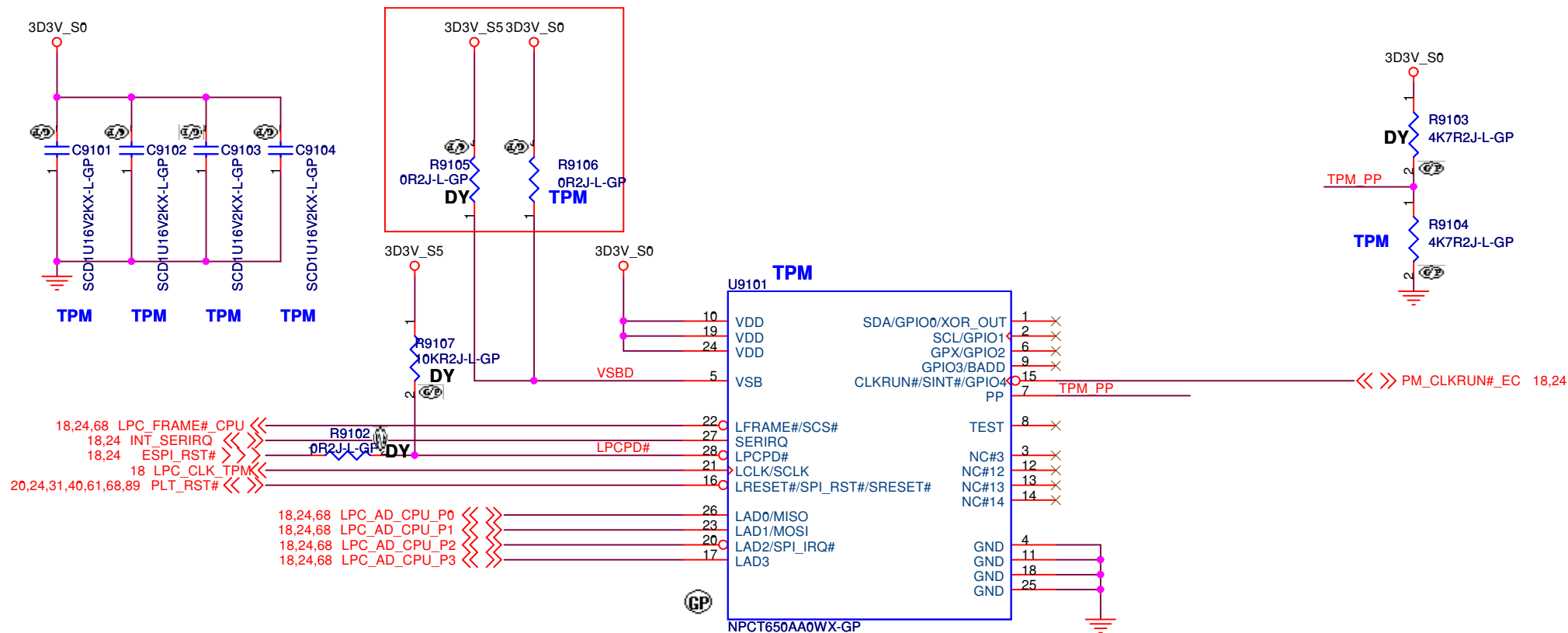


5	4	3	2	1
D				
C				
B				
A				

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

Mihawk MB

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 Custom	Document Number Mihawk MB		Rev -2
Date:	Monday, August 10, 2015	Sheet 90 of	105



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

Mihawk MB

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 A4	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015	Sheet 91 of 105	

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

Mihawk MB

緯創資通

Wistron Corporation

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

Title

Finger Print

Size
A4

Document Number
Mihawk MB

Rev
-2

Date: Monday, August 10, 2015

Sheet 92 of 105

5	4	3	2	1
D				D
C				C
B				B
A				A
<div> <div> Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission Mihawk MB </div> <div> <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> <div> <div>Title</div> <div>Smart Card socket</div> </div> <div> <div>Size A</div> <div>Document Number</div> <div>Rev</div> <div> Mihawk MB -2 </div> </div> <div> <div>Date: Monday, August 10, 2015</div> <div>Sheet 94 of 105</div> </div> </div> </div>				
5	4	3	2	1

5	4	3	2	1
D				D
C				C
B				B
A				A
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission				
Mihawk MB				
<div><div><div>緯創資通</div></div><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><div>Title</div><div>Switchable GFX eDP</div></div>				
<div><div><div>Size A</div><div>Document Number</div><div>Rev</div></div><div><div>Mihawk MB</div><div>-2</div></div></div>				
<div><div>Date: Monday, August 10, 2015</div><div>Sheet 95 of 105</div></div>				
5	4	3	2	1

5	4	3	2	1
D				D
C				C
B				B
A				A
<div> <div> Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission Mihawk MB <div> <div> 緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C. </div> <div> <div> Title Bottom Docking </div> <div> <div> Size A Document Number Mihawk MB Rev -2 </div> <div> Date: Monday, August 10, 2015 Sheet 96 of 105 </div> </div> </div> </div> </div></div>				
5	4	3	2	1

	A	B	C	D	E
4					
3					
2					
1					

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


Mihawk MB

<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>Inter LAN WG1217LM</div>		
Size <div>A4</div>	Document Number <div>Mihawk MB</div>	Rev <div>-2</div>
Date: Monday, August 10, 2015		Sheet 97 of 105

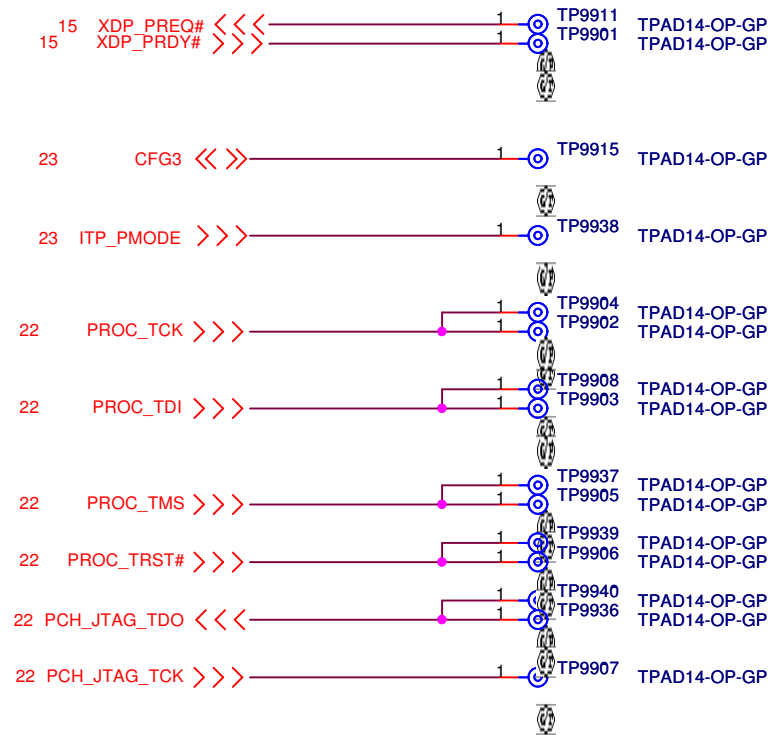
5	4	3	2	1
D				D
C				C
B				B
A				A

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

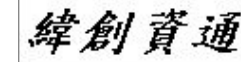
Mihawk MB

<div>  <div> Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C. </div> </div>	
<div> <div>Title</div> <div>LAN Switch</div> </div>	
<div> <div>Size</div> <div>A</div> </div>	<div> <div>Document Number</div> <div>Mihawk MB</div> </div>
<div> <div>Date: Monday, August 10, 2015</div> <div> <div>Sheet</div> <div>98</div> <div>of</div> <div>105</div> </div> <div> <div>Rev</div> <div>-2</div> </div> </div>	

Main Func = Debug



Mihawk MB



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

Title **CPU_XDP**

Size A4	Document Number Mihawk MB	Rev -2
------------	-------------------------------------	------------------

A

B

C

D

E

4

3

2

1

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

Mihawk MB



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

Title ***table of content***

Size A4	Document Number Mihawk MB	Rev -2
Date: Monday, August 10, 2015	Sheet 100 of	105

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

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

Mihawk MB

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

A3

Document Number

Mihawk MB

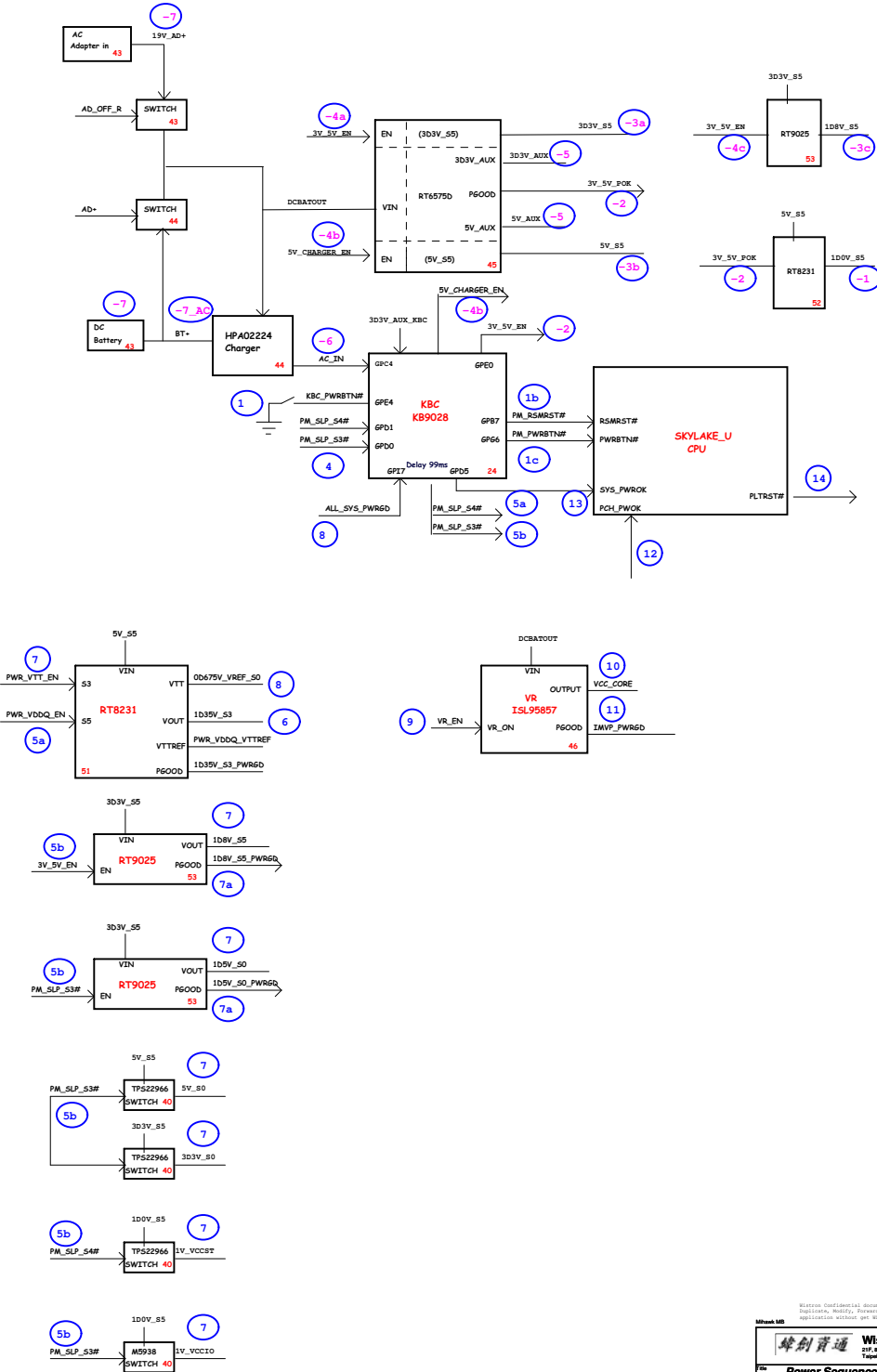
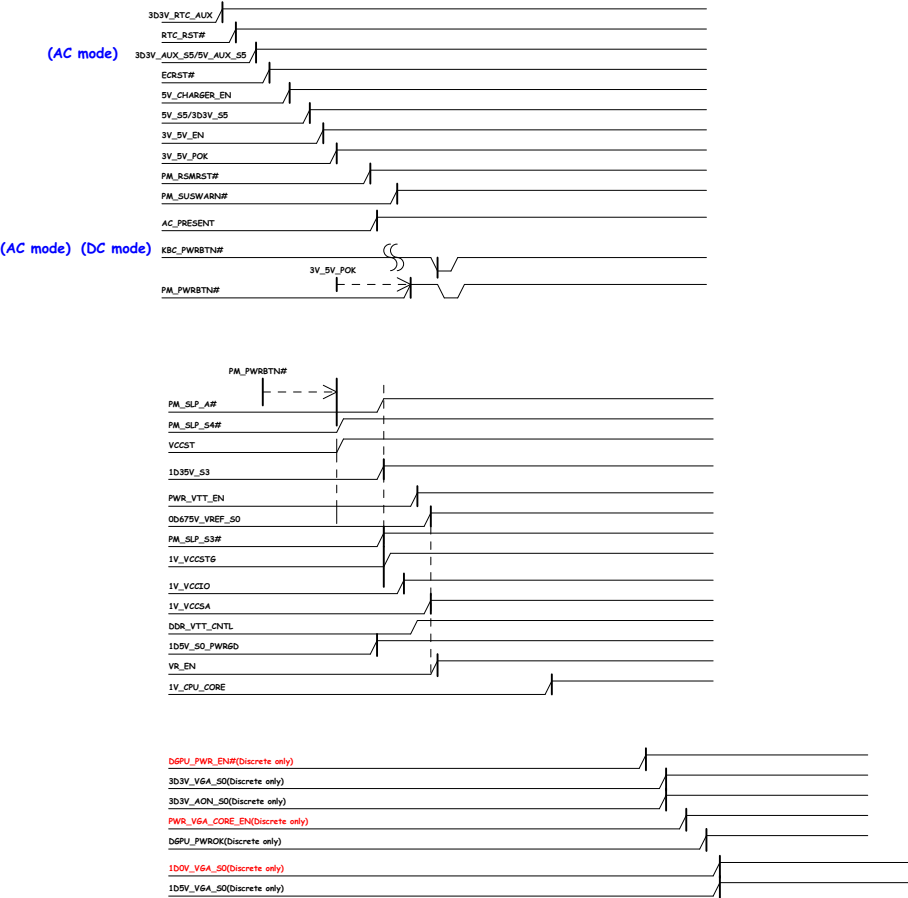
Rev

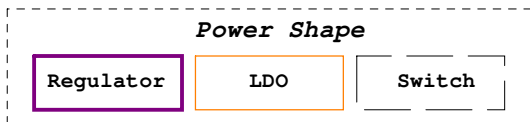
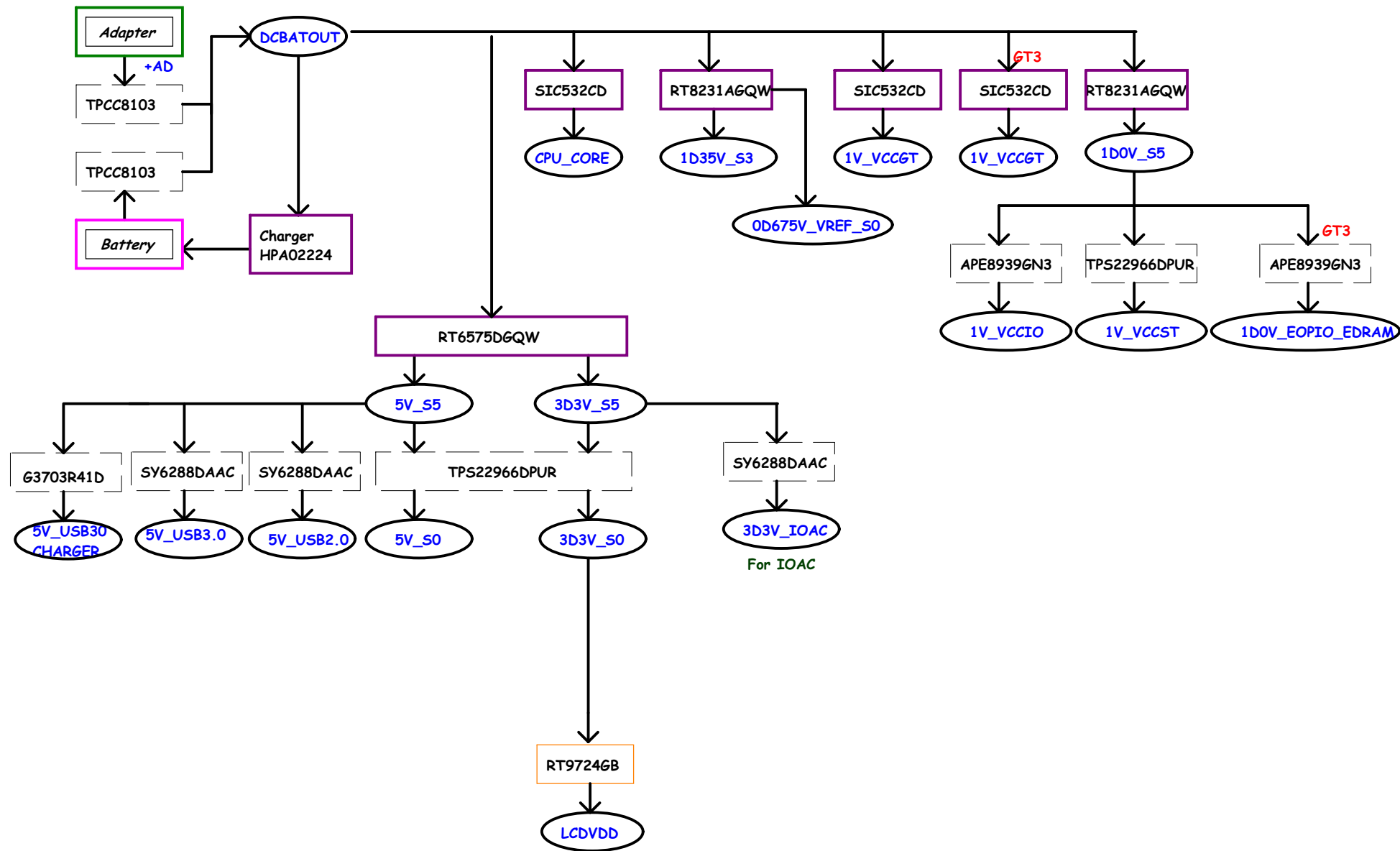
-2

Date: Monday, August 10, 2015

Sheet 101 of 105

Intel-Power Up Sequence





SMBus Block Diagram

KBC SMBus Block Diagram

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

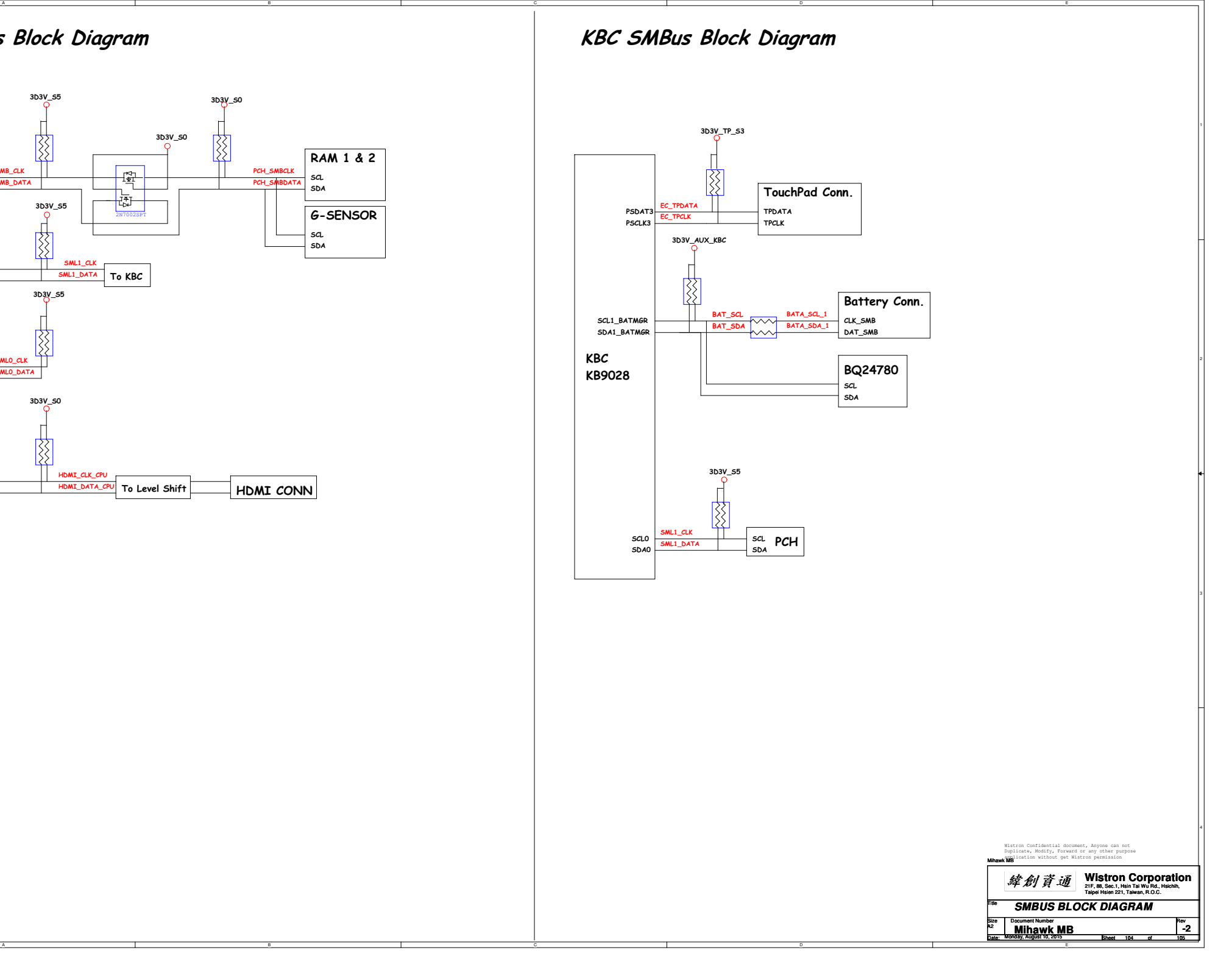
Mihawk MB

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

SMBUS BLOCK DIAGRAM

Size A2 **Document Number** **Mihawk MB** **Rev** **-2**

Date **2015/03/10** **Sheet** **104** **of** **105**



SMBus Block Diagram

KBC SMBus Block Diagram

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

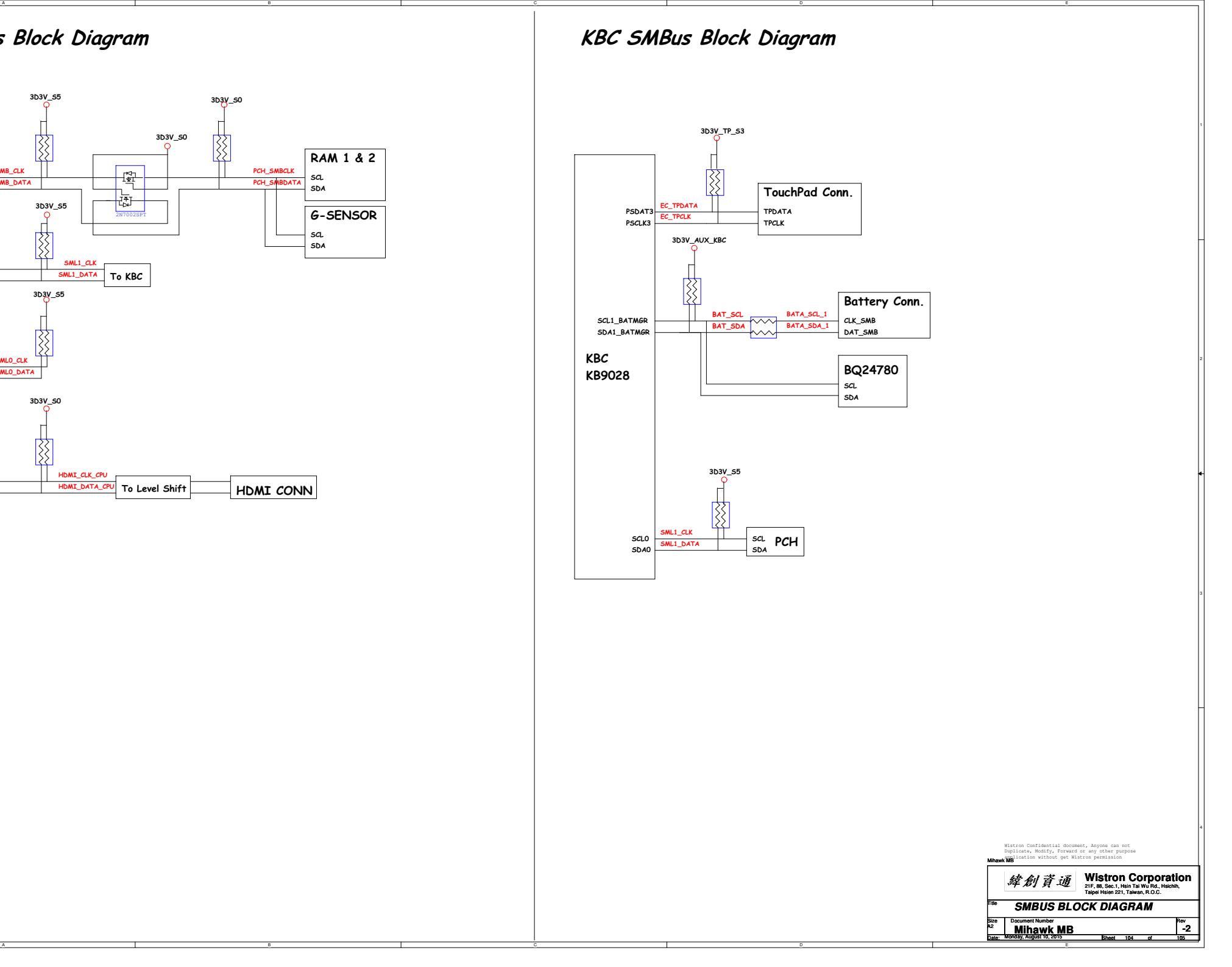
Mihawk MB

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

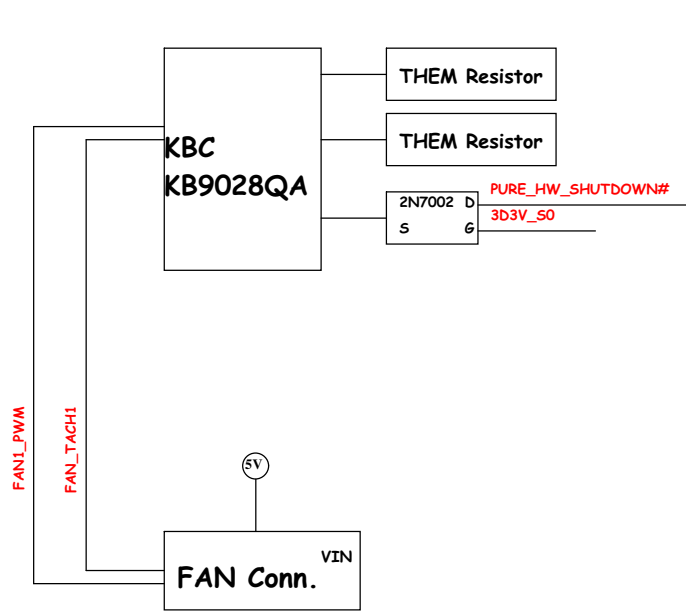
SMBUS BLOCK DIAGRAM

Size A2 **Document Number** **Mihawk MB** **Rev** **-2**

Date **2015.10.15** **Sheet** **104** **of** **105**



Thermal Block Diagram



Audio Block Diagram

