

# *Hades\_HBS 860M SV*

## *Schematics Document*

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

EV

**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

A3

**Hades HBS 860M**

**SB**

Date:

Friday, April 11, 2014

Sheet

1

of

102

Dr-Bios.com

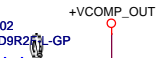


SSID = CPU

Layout Note:

Max Length : 400 Mil  
W/S (mil):12.0/15.0

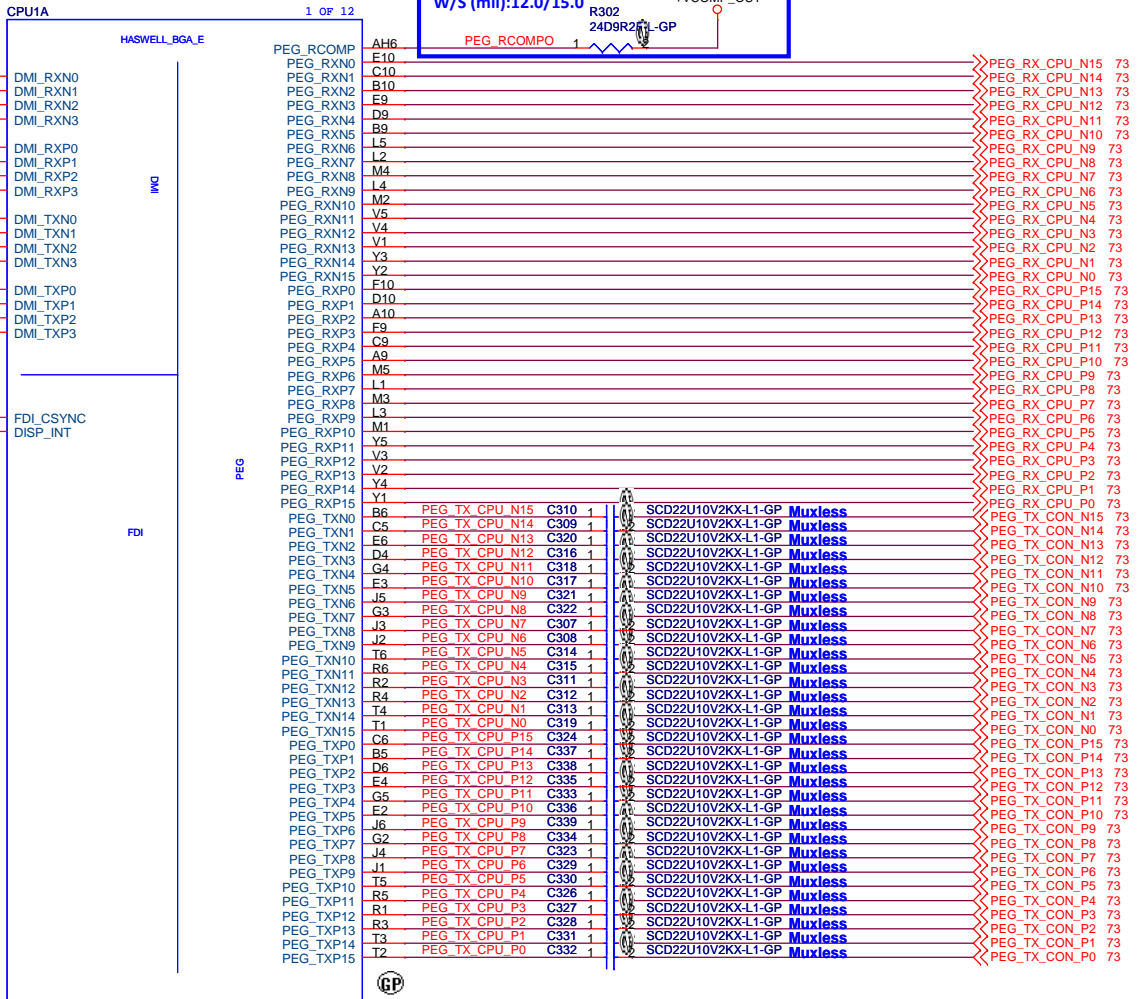
PEG\_RCOMPO 1



17	DMI_TX_CPU_N0	DMI_TX_CPU_N0	AB2	DMI_RXN0
17	DMI_TX_CPU_N1	DMI_TX_CPU_N1	AB3	DMI_RXN1
17	DMI_TX_CPU_N2	DMI_TX_CPU_N2	AC3	DMI_RXN2
17	DMI_TX_CPU_N3	DMI_TX_CPU_N3	AC1	DMI_RXN3
17	DMI_TX_CPU_P0	DMI_TX_CPU_P0	AB1	DMI_RXP0
17	DMI_TX_CPU_P1	DMI_TX_CPU_P1	AB4	DMI_RXP1
17	DMI_TX_CPU_P2	DMI_TX_CPU_P2	AC4	DMI_RXP2
17	DMI_TX_CPU_P3	DMI_TX_CPU_P3	AC2	DMI_RXP3
17	DMI_RX_CPU_N0	DMI_RX_CPU_N0	AF2	DMI_TXN0
17	DMI_RX_CPU_N1	DMI_RX_CPU_N1	AF4	DMI_TXN1
17	DMI_RX_CPU_N2	DMI_RX_CPU_N2	AG4	DMI_TXN2
17	DMI_RX_CPU_N3	DMI_RX_CPU_N3	AG2	DMI_TXN3
17	DMI_RX_CPU_P0	DMI_RX_CPU_P0	AF1	DMI_TXP0
17	DMI_RX_CPU_P1	DMI_RX_CPU_P1	AF3	DMI_TXP1
17	DMI_RX_CPU_P2	DMI_RX_CPU_P2	AG3	DMI_TXP2
17	DMI_RX_CPU_P3	DMI_RX_CPU_P3	AG1	DMI_TXP3

Layout Note:  
Max Length : 1000~8000 Mil  
Max VIA : 3

17	FDI_CS_SYNC_CPU	F11	FDI_CS_SYNC
17	FDI_INT_CPU	F12	DISP_INT



HASWELL-5-GP-NF  
71.HASWE.D0U

x16 Controller Negotiated Width	x8 Controller Negotiated Width	x4 Controller Negotiated Width	Processor	Physical Lanes															
				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
x16	Off	Off	Direct	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
x8	x8	Off	Direct	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
x8	x4	x4	Direct	0	1	2	3	4	5	6	7	0	1	2	3	0	1	2	3
x16	Off	Off	Reverse	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	0
x8	x8	Off	Reverse	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
x8	x4	x4	Reverse	3	2	1	0	3	2	1	0	3	2	1	0	3	2	1	0

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

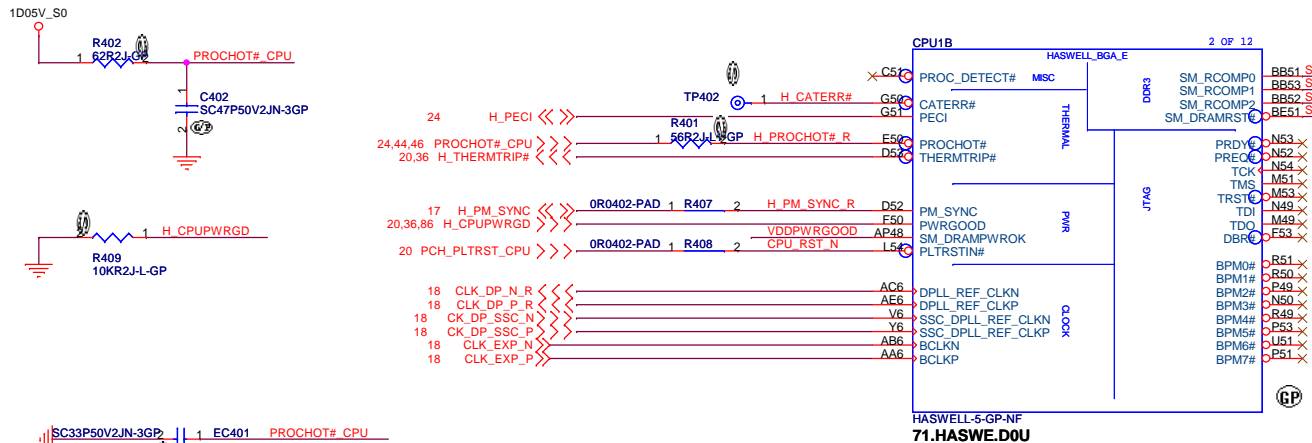
緯創資通 Wistron Corporation  
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: CPU (PCIE/DMI/FDI)

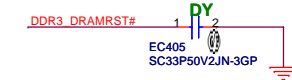
Size: Custom Document Number: Hades\_HBS 860M Rev: SB

Date: Friday, April 11, 2014 Sheet 3 of 102

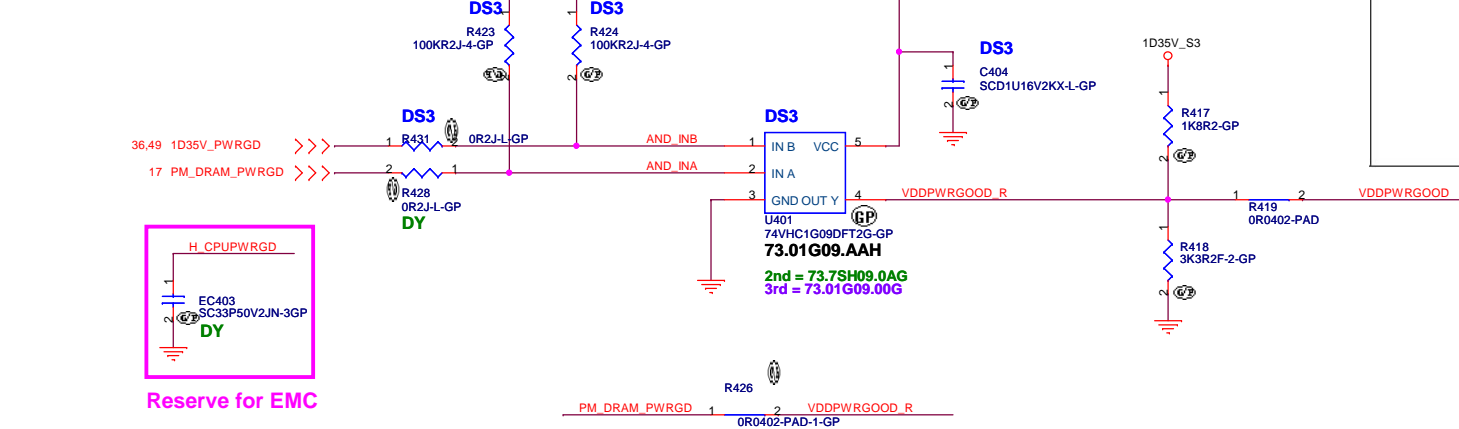
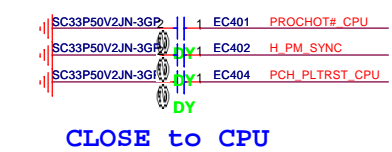
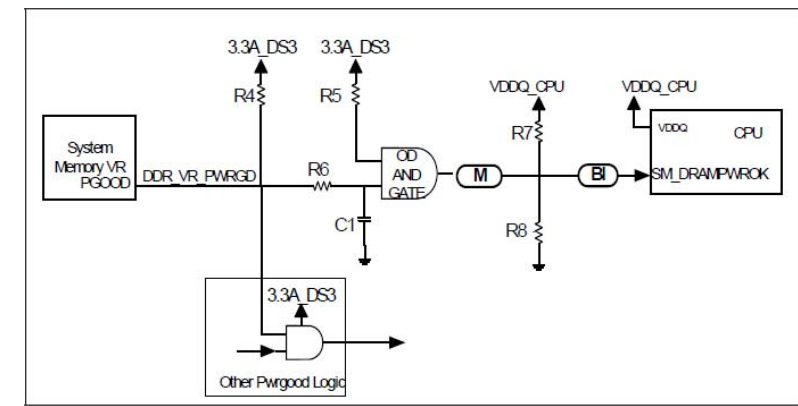
SSID = CPU



**S3 Power Reduction Circuit SM\_DRAMRST#**



**SM\_DRAMPWROK Topology for platforms supporting Deep S3**



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

<p>緯創資通 <b>Wistron Corporation</b></p> <p>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</p>	
<p>Title <b>CPU (THERMAL/CLOCK/PM)</b></p>	
Size Custom	Document Number <b>Hades_HBS 860M</b>
Date: Wednesday, May 28, 2014	Rev <b>SB</b>
Sheet 4	of 102



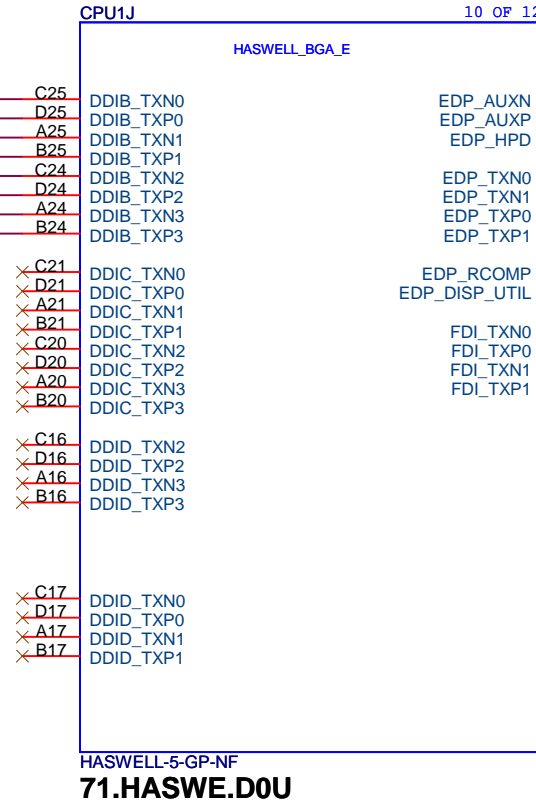




**SSID = CPU**

**HDMI**

54 HDMI\_DATA\_CPU\_N2  
54 HDMI\_DATA\_CPU\_P2  
54 HDMI\_DATA\_CPU\_N1  
54 HDMI\_DATA\_CPU\_P1  
54 HDMI\_DATA\_CPU\_N0  
54 HDMI\_DATA\_CPU\_P0  
54 HDMI\_DATA\_CPU\_N3  
54 HDMI\_DATA\_CPU\_P3



eDP\_AUX\_CPU\_N 52  
eDP\_AUX\_CPU\_P 52  
eDP\_HPDP\_CPU 52  
eDP\_TX\_CPU\_N0 52  
eDP\_TX\_CPU\_N1 52  
eDP\_TX\_CPU\_P0 52  
eDP\_TX\_CPU\_P1 52  
eDP\_TX\_CPU\_N2 52  
eDP\_TX\_CPU\_P2 52  
eDP\_TX\_CPU\_N3 52  
eDP\_TX\_CPU\_P3 52

+VCOMP\_OUT

**eDP 4 Lane**

+VCCIO\_OUT

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

緯創資通

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

Title		<b>CPU (DDI/EDP)</b>	
Size	Document Number	<b>Hades_HBS 860M</b>	Rev
A4			<b>SB</b>
Date:	Friday, April 11, 2014	Sheet	8 of 102

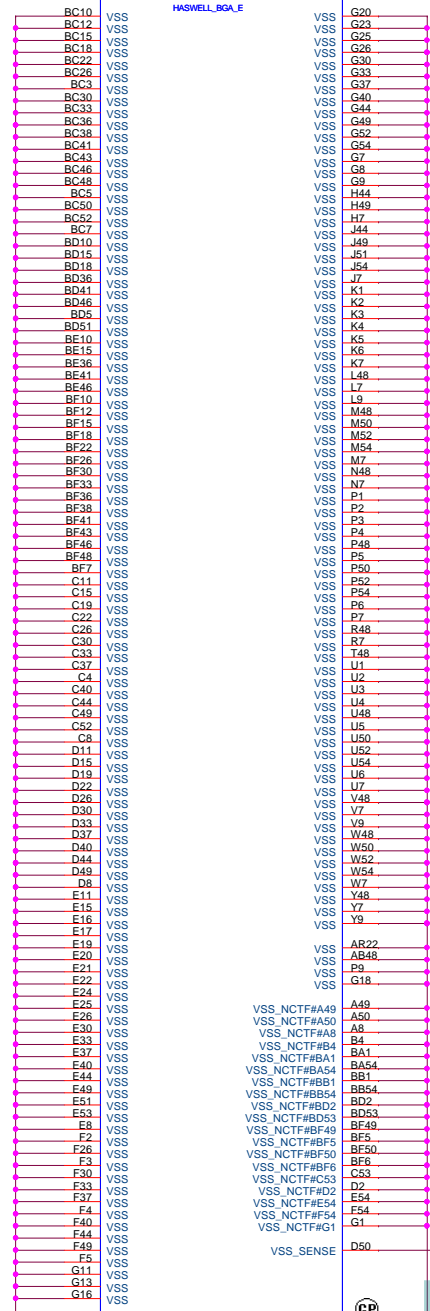
Dr-Bios.com



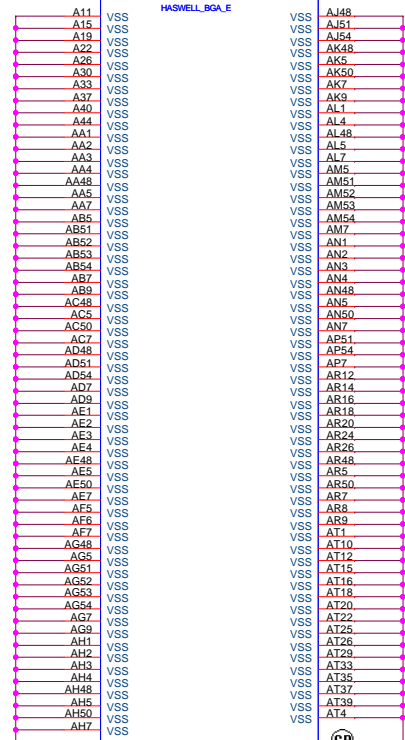
CPU1I 9 OF 12

CPU1G 7 OF 12

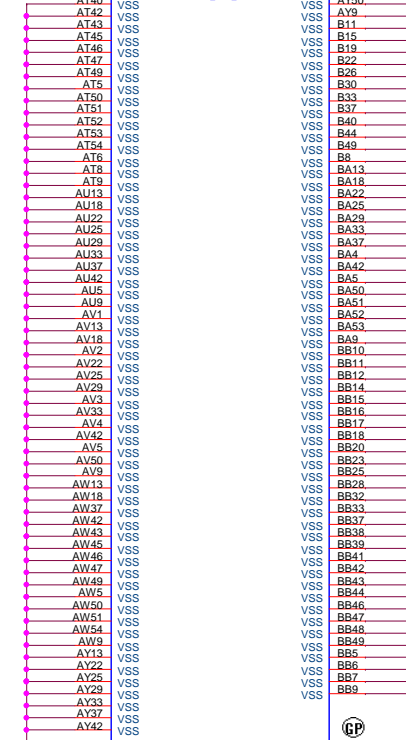
CPU1H 8 OF 12



71.HASWE.D0U



71.HASWE.D0U



71.HASWE.D0U

- VSS\_NCTF#A49 A49
- VSS\_NCTF#A50 A50
- VSS\_NCTF#A8 A8
- VSS\_NCTF#B4 BA1
- VSS\_NCTF#BA1 BA1
- VSS\_NCTF#BA54 BA54
- VSS\_NCTF#BB1 BB1
- VSS\_NCTF#BB54 BB54
- VSS\_NCTF#BD2 BD2
- VSS\_NCTF#BD53 BD53
- VSS\_NCTF#BF49 BF49
- VSS\_NCTF#BF5 BF5
- VSS\_NCTF#BF50 BF50
- VSS\_NCTF#BF6 BF6
- VSS\_NCTF#C53 C53
- VSS\_NCTF#D2 D2
- VSS\_NCTF#E54 E54
- VSS\_NCTF#F54 F54
- VSS\_NCTF#G1 G1

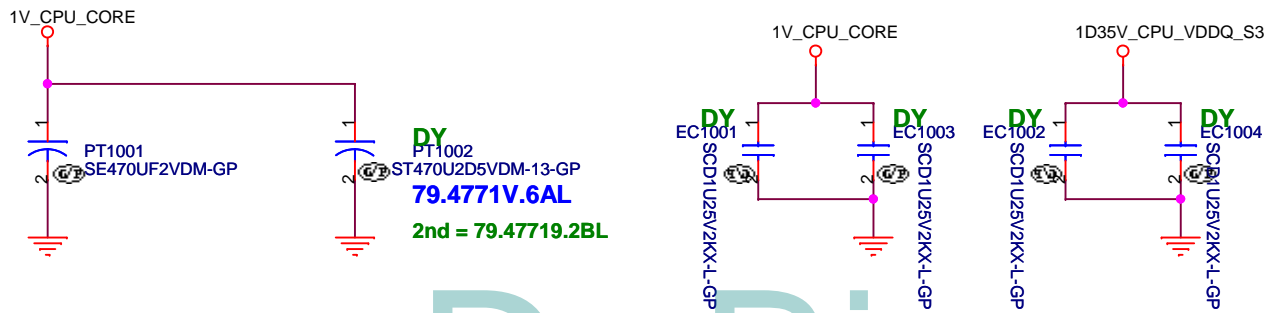
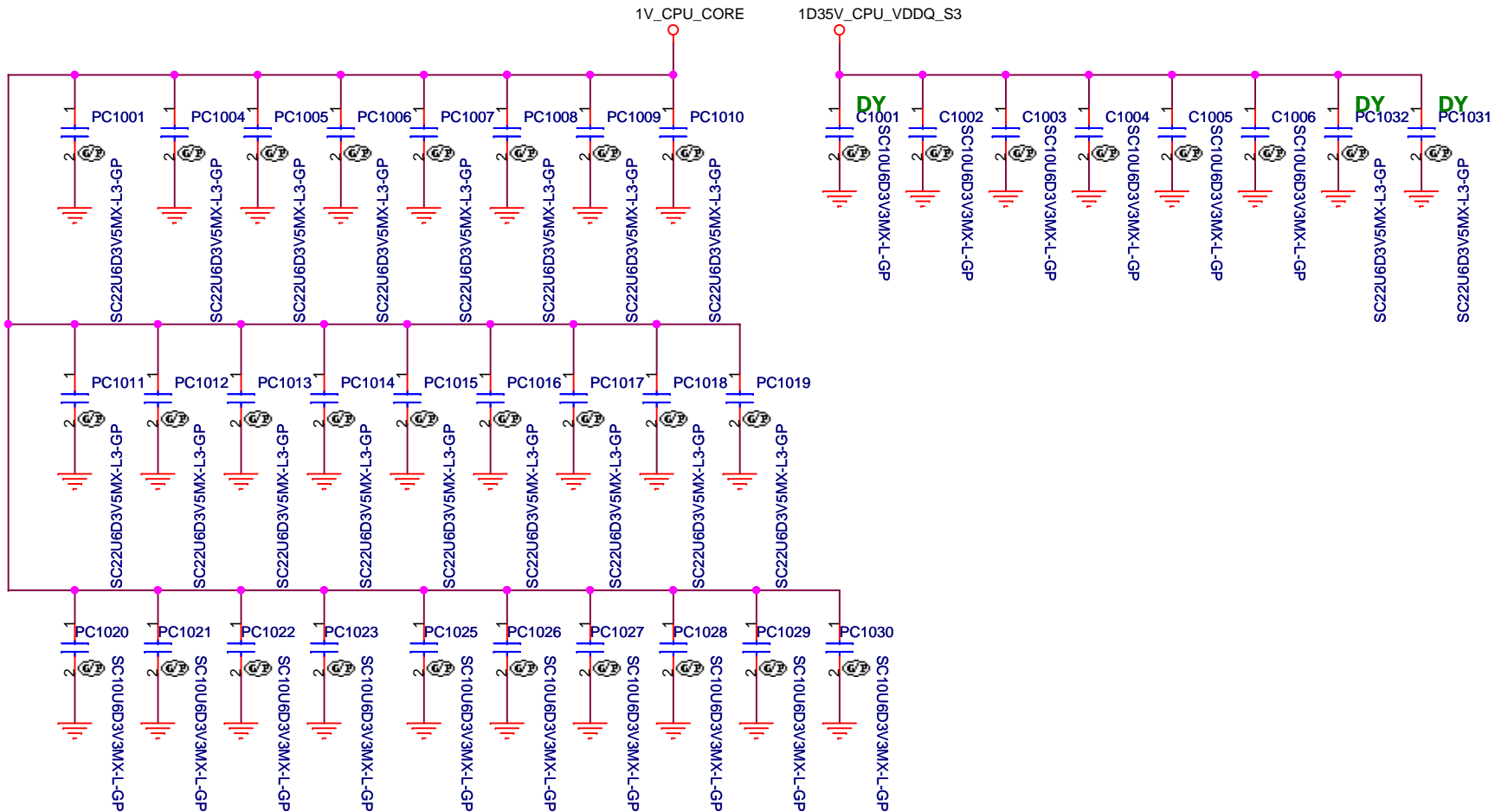
VSS\_SENSE

>>> VSS\_SENSE 746



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

<p>緯創資通 Wistron Corporation 21F, 86, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</p>	
<p>Title <b>CPU (VSS)</b></p>	
Size Custom	Document Number <b>Hades_HBS 860M</b>
Date: Friday, April 11, 2014	Rev <b>SB</b>
<p>Sheet 9 of 102</p>	



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

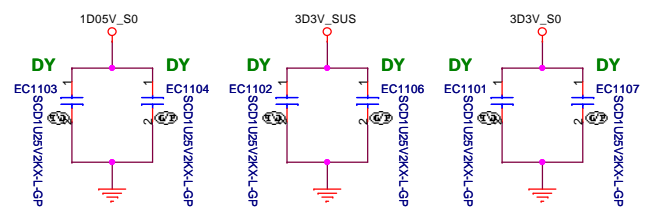
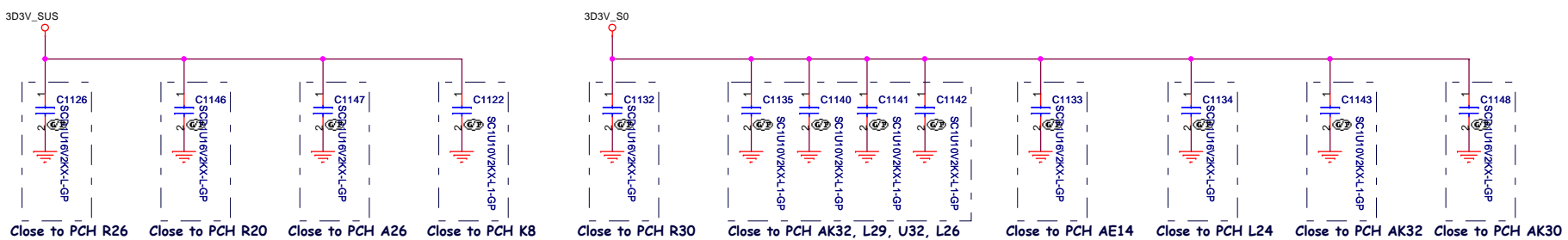
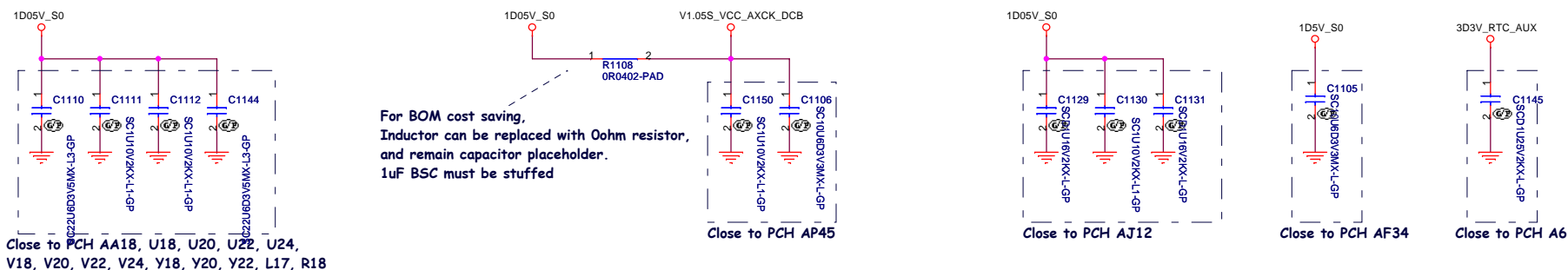
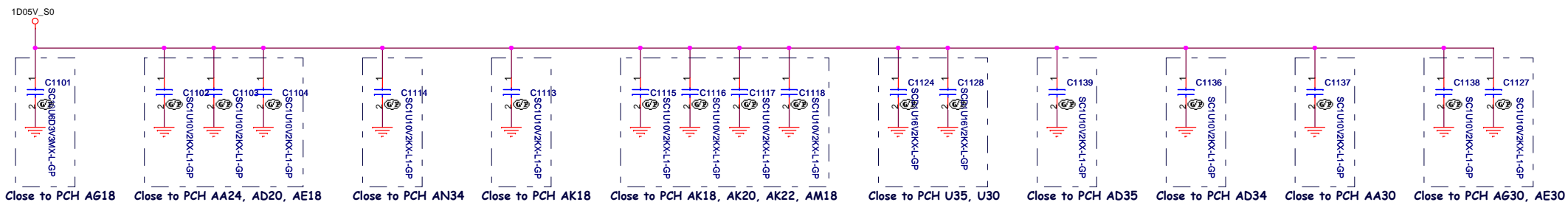
EV

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

Title **CPU (Power CAP1)**

Size A4	Document Number <b>Hades HBS 860M</b>	Rev <b>SB</b>
Date: Friday, April 11, 2014	Sheet 10 of	102

Dr-Bios.com

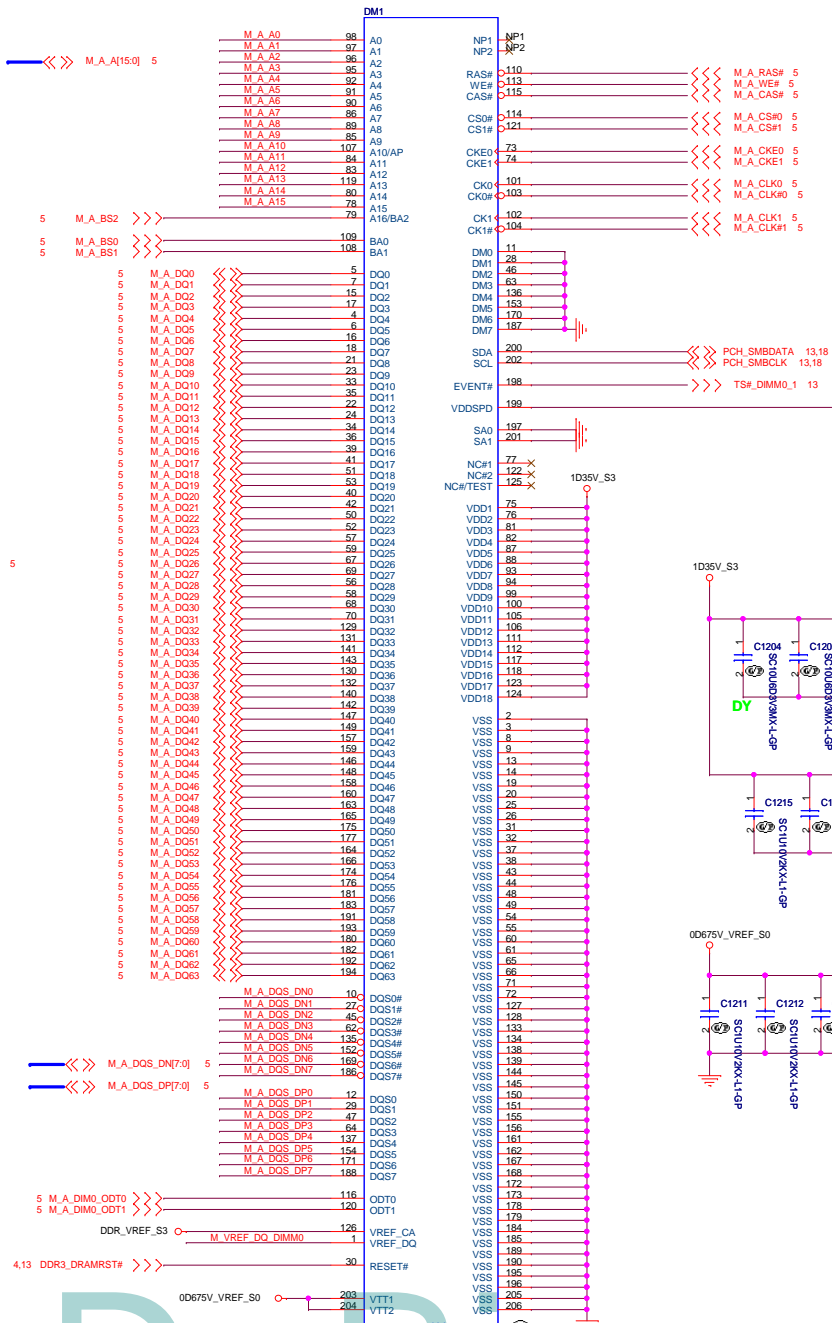
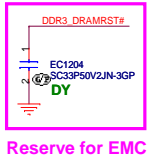
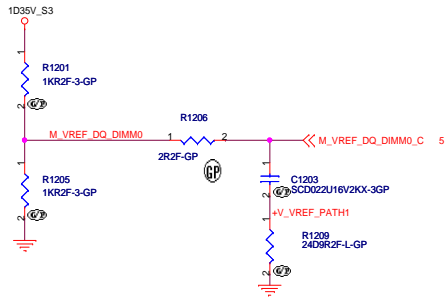
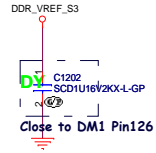


Wistron Confidential document. Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

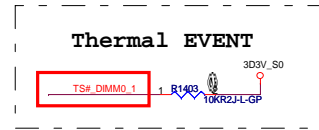
		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title: <b>CPU (Power CAP2)</b>		
Size: A3	Document Number: <b>Hades HBS 860M</b>	Rev: <b>SB</b>
Date: Wednesday, May 28, 2014	Sheet: 11	of 102

Dr-Bios.com

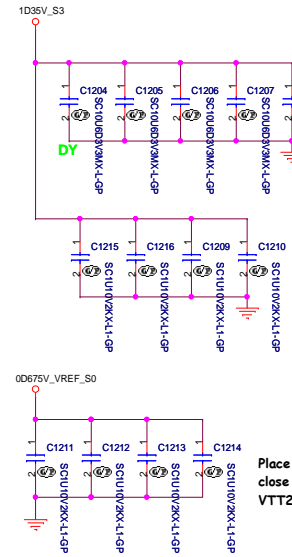
**SSID = MEMORY**



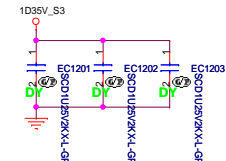
Note:  
 If SA0\_DIM0 = 0, SA1\_DIM0 = 0  
 SO-DIMMA SPD Address is 0xA0  
 SO-DIMMA TS Address is 0x30  
  
 If SA0\_DIM0 = 1, SA1\_DIM0 = 0  
 SO-DIMMA SPD Address is 0xA2  
 SO-DIMMA TS Address is 0x32



Layout Note:  
 Place these Caps near  
 SO-DIMMA.  
 SODIMM A DECOUPLING



Place these caps  
 close to VTT1 and  
 VTT2.



5 M\_A\_DIM0\_ODT0 >>> 116  
 5 M\_A\_DIM0\_ODT1 >>> 120  
 5 M\_A\_DIM0\_ODT1 >>> 126  
 4.13 DDR3\_DRAMRST# >>> 30  
 0D675V\_VREF\_S0 >>> 203

392 398 204# SMD  
 DDR3-204P-263-GP-U  
**62.10024.S61**  
 2nd = 62.10024.M51  
 3rd = 62.10024.Q71  
 4th = 62.10017.L21

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

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsin 221, Taiwan, R.O.C.
Title: <b>DDR3-SODIMM1</b>		
Size Custom	Document Number	Rev SB
<b>Hades_HBS 860M</b>		
Date: Friday, April 11, 2014	Sheet	12 of 102

Dr-BSOS.COM



Dr-Bios.com

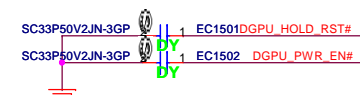
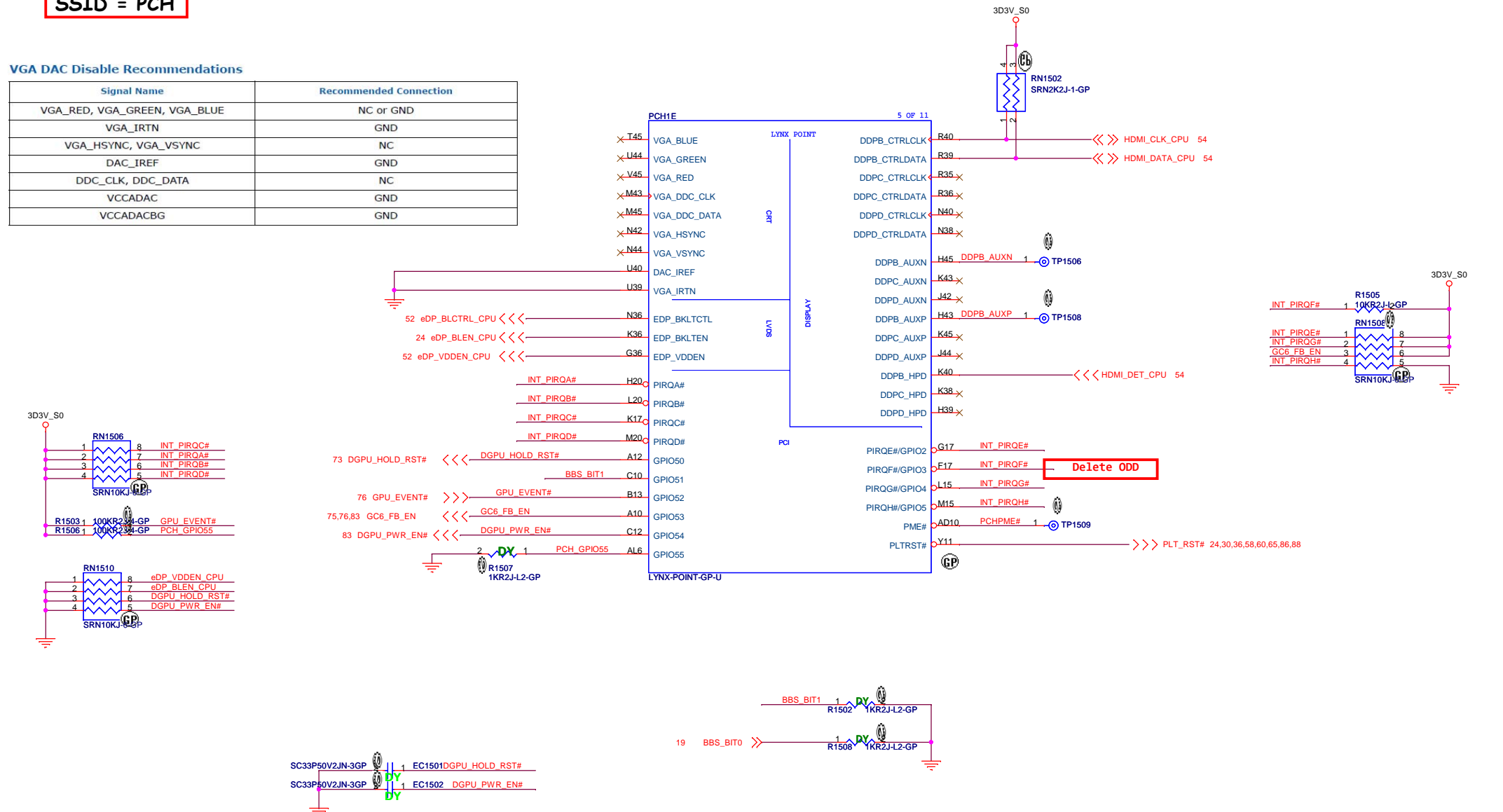
Wistron Confidential document, Anyone can not  
Duplicate, Modify, Forward or any other purpose  
Application without get Wistron permission

<b>緯創資通</b>		<b>Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipai Hsien 221, Taiwan, R.O.C.		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipai Hsien 221, Taiwan, R.O.C.	
<b>(Reserved) SODIMM_SODIMM4</b>			
Size	Document Number	Rev	
Custom	<b>Hades_HBS 860M</b>	<b>SB</b>	
Date:	Fri, Apr 11, 2014	Sheet	14 of 102

**SSID = PCH**

**VGA DAC Disable Recommendations**

Signal Name	Recommended Connection
VGA_RED, VGA_GREEN, VGA_BLUE	NC or GND
VGA_IRTN	GND
VGA_HSYNC, VGA_VSYNC	NC
DAC_IREF	GND
DDC_CLK, DDC_DATA	NC
VCCADAC	GND
VCCADACBG	GND



**BOOT BIOS Strap**

GPIO51	SATA1GP/GPIO19	BOOT BIOS Location
0	0	LPC
0	1	Reserved
1	0	Reserved
1	1	SPI (Default)

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

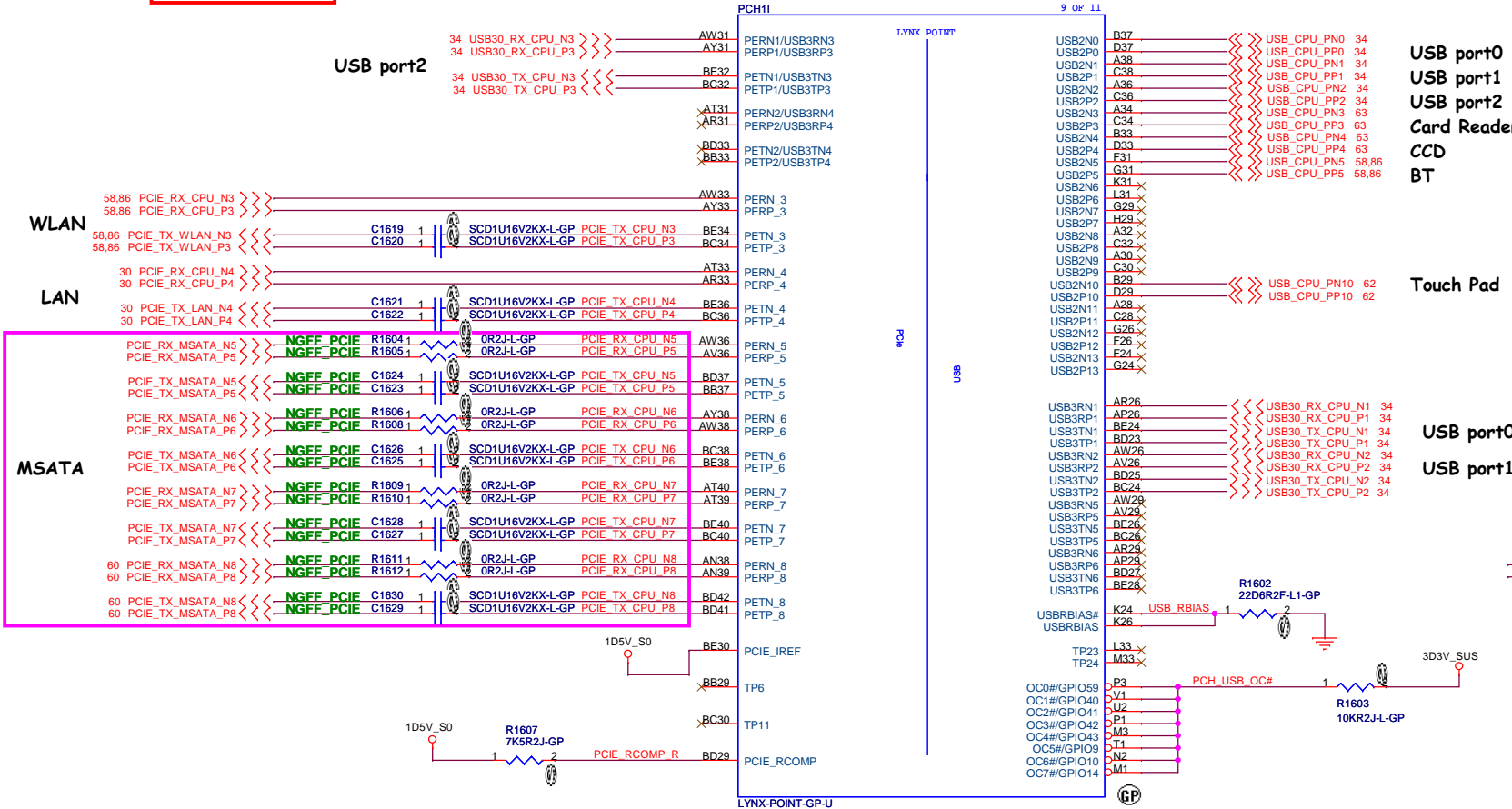
**Wistron Corporation**  
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

**CPU(EDP SIDE BAND/GPIO/DDI)**  
**Hades HBS 860M**

Title: \_\_\_\_\_  
 Size A3 Document Number \_\_\_\_\_ Rev \_\_\_\_\_  
 Date: Friday, April 11, 2014 Sheet 15 of 102

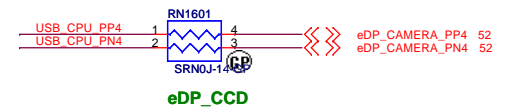
Dr-Bios.com

**SSID = PCH**



**USB 2.0 Table**

Pair	Device
0	USB3.0 Port0
1	USB3.0 Port1
2	USB3.0 Port3
3	Card Reader
4	CCD
5	BT
6	
7	
8	
9	
10	Touch Pad
11	
12	
13	



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

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

Title: **CPU (PCI/USB)**

Size: Custom | Document Number: **Hades HBS 860M** | Rev: **SB**

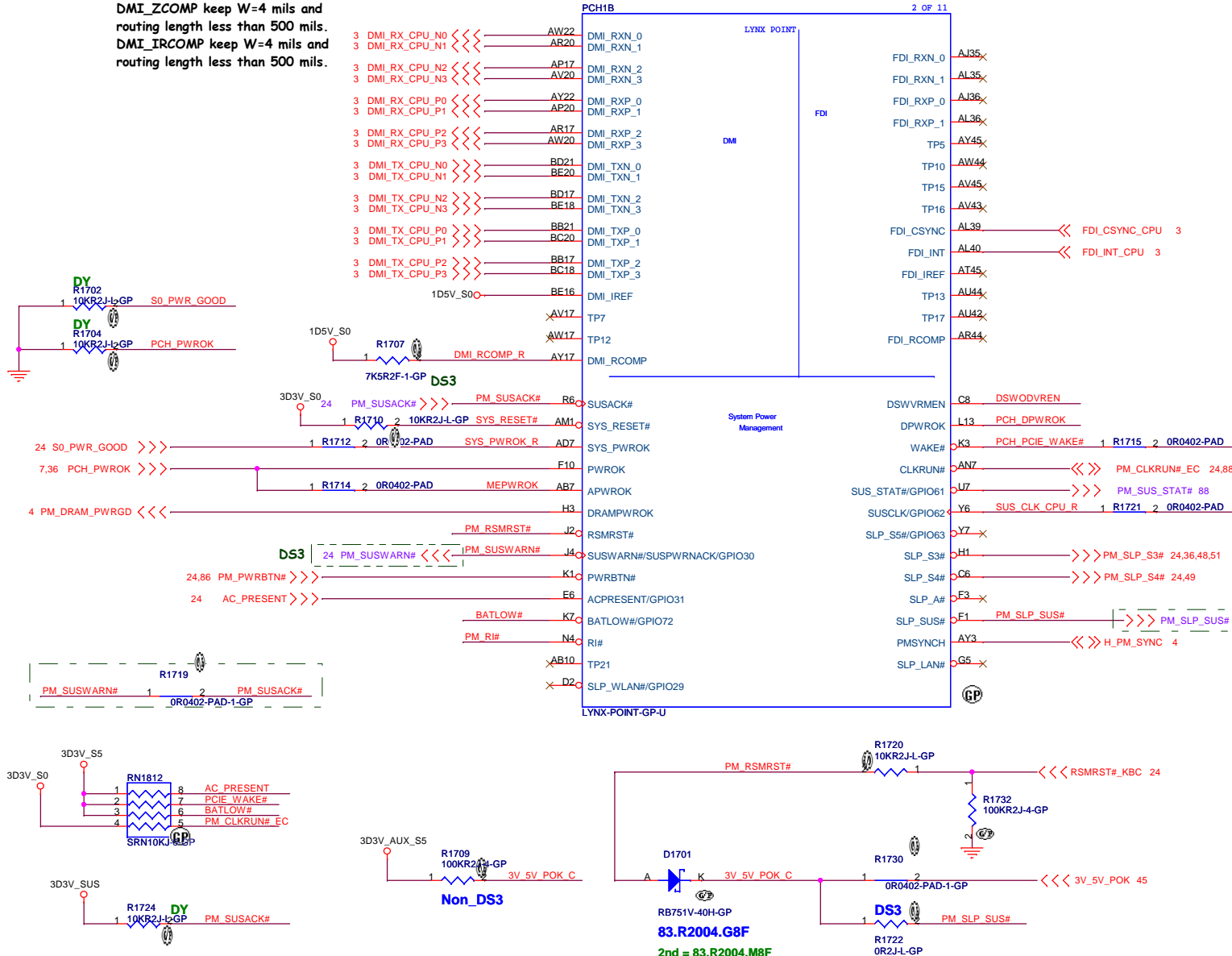
Date: Friday, May 23, 2014 | Sheet 16 of 102



# SSID = PCH

## Signal Routing Guideline:

DMI\_ZCOMP keep W=4 mils and routing length less than 500 mils.  
 DMI\_IRCOMP keep W=4 mils and routing length less than 500 mils.

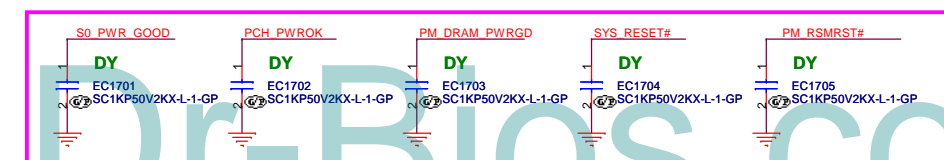
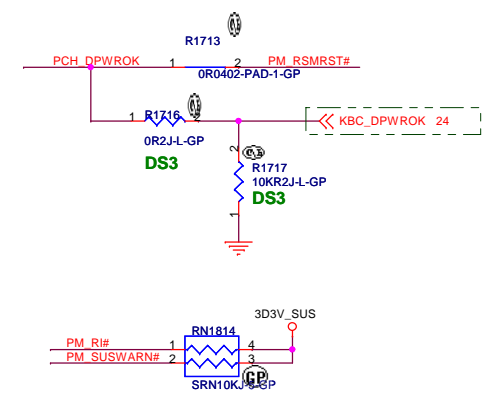


DSWODVREN - On Die DSW VR Enable	
HIGH	Enabled (DEFAULT)
LOW	Disabled

## Intel® FDI Signal Disabling and Termination Guidelines

Signal	Description	Disable Guidelines
FDI_RXP[0:1]	Intel FDI Receive Differential Pair on PCH	Float
FDI_TXN[0:1]	Intel FDI Transmit Differential Pair on Processor	Float
FDI_CSXNC	Intel FDI Composite Sync	Connect to Processor and PCH
DISP_INT	Intel FDI Hot Plug Interrupt	Connect to Processor and PCH
FDI_RCOMP	FDI Resistor Compensation	Float
FDI_IREF	FDI Reference Voltage	Float



Reserve for EMC

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

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

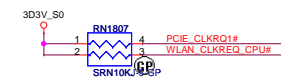
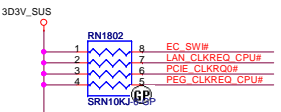
EV

Title: CPU (DMI/FDI/PM)

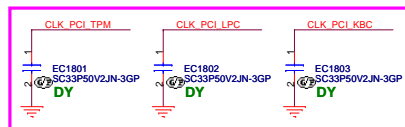
Size A3 Document Number: Hades\_HBS 860M Rev: SB

Date: Wednesday, May 28, 2014 Sheet 17 of 102

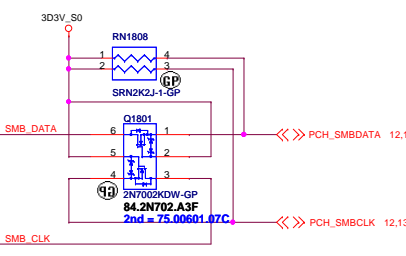
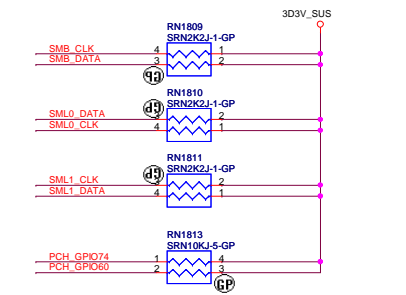
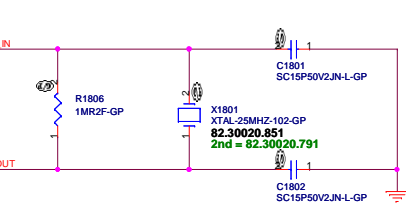
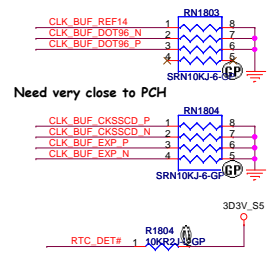
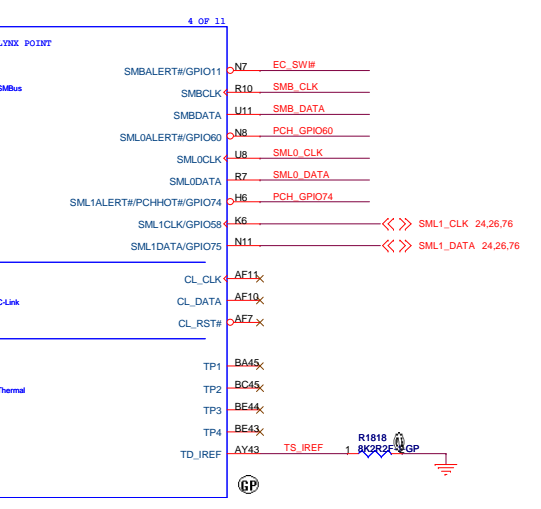
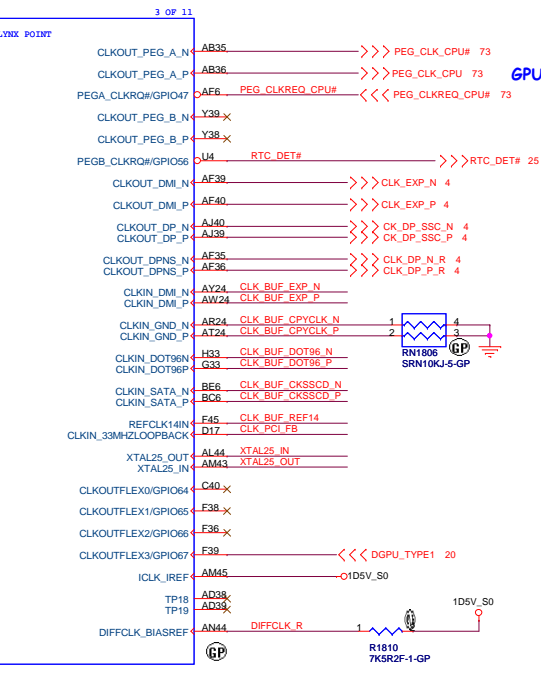
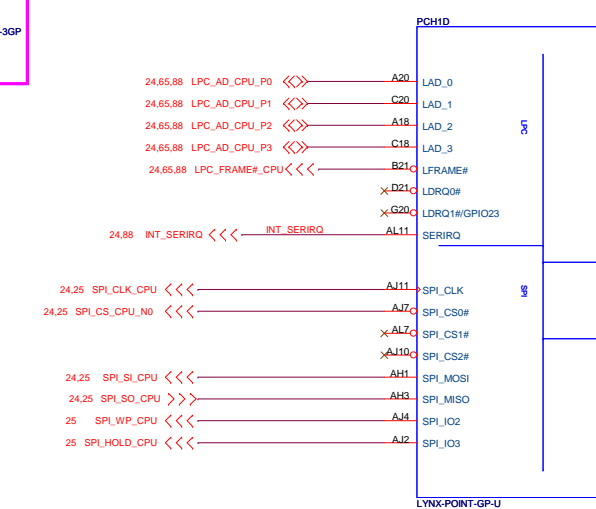
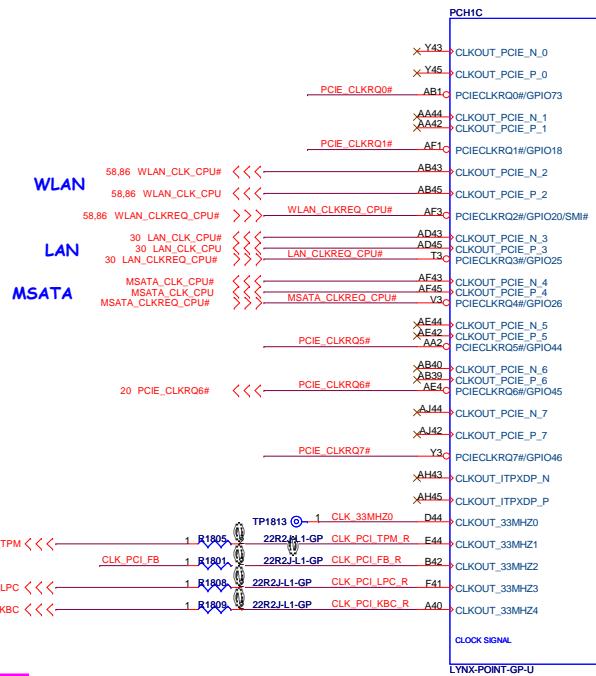
SSID = PCH



PCIECLKRQ1# and PCIECLKRQ2# Support 50 power only



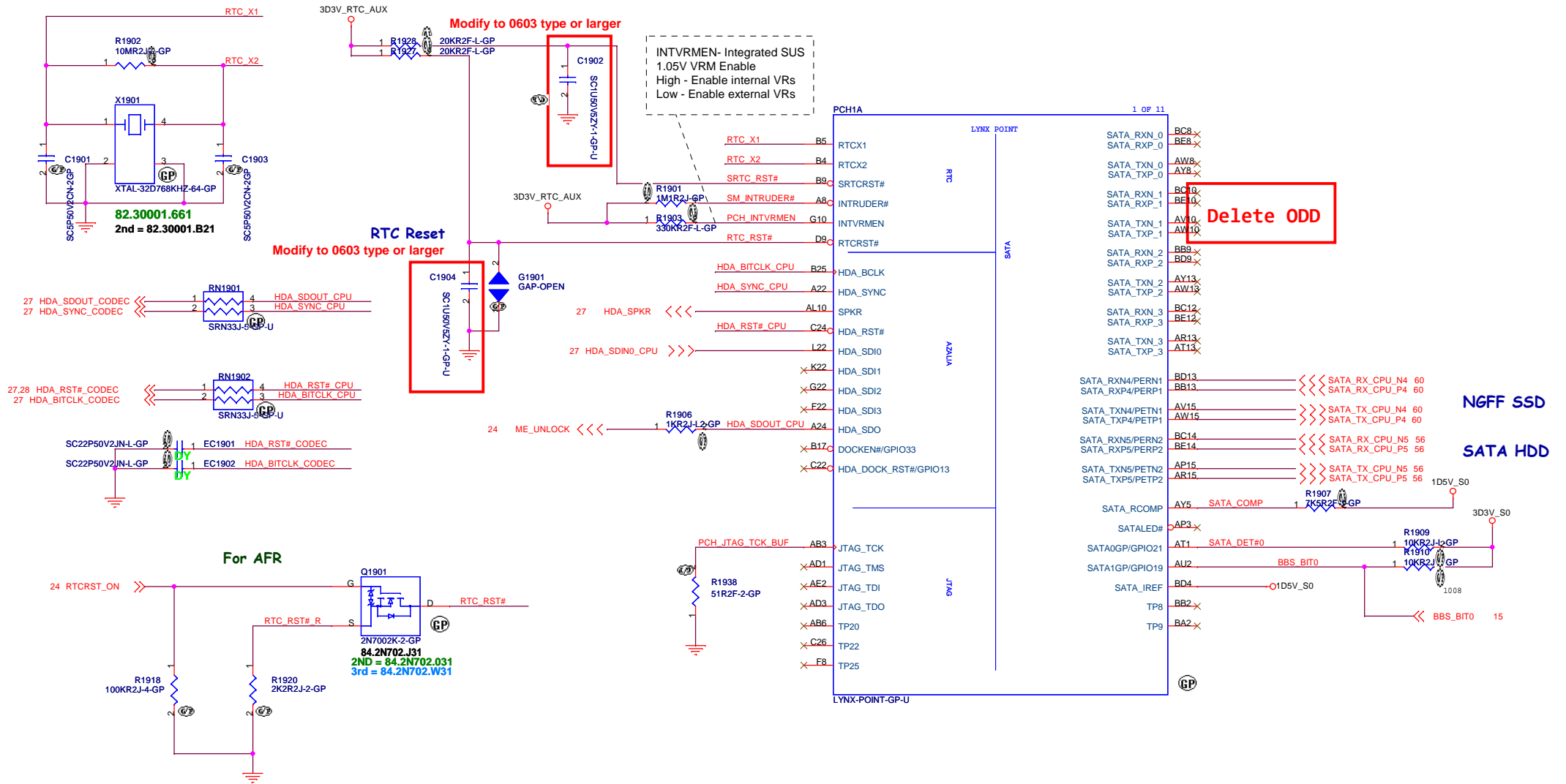
Reserve for EMC



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

Wistron Corporation logo and product information: CPU (PCI-E/SMBUS/CLOCK/CL) Hades\_HBS 860M, Rev SB, Date: Friday, April 11, 2014, Sheet 18 of 102

**SSID = PCH**



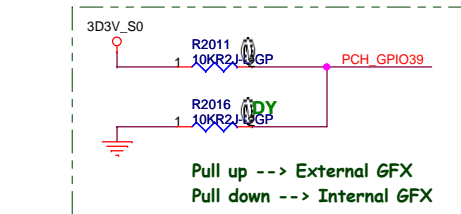
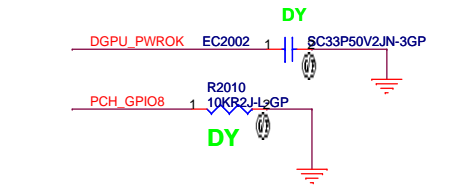
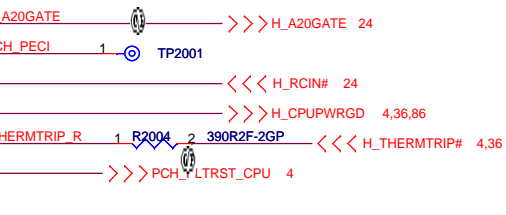
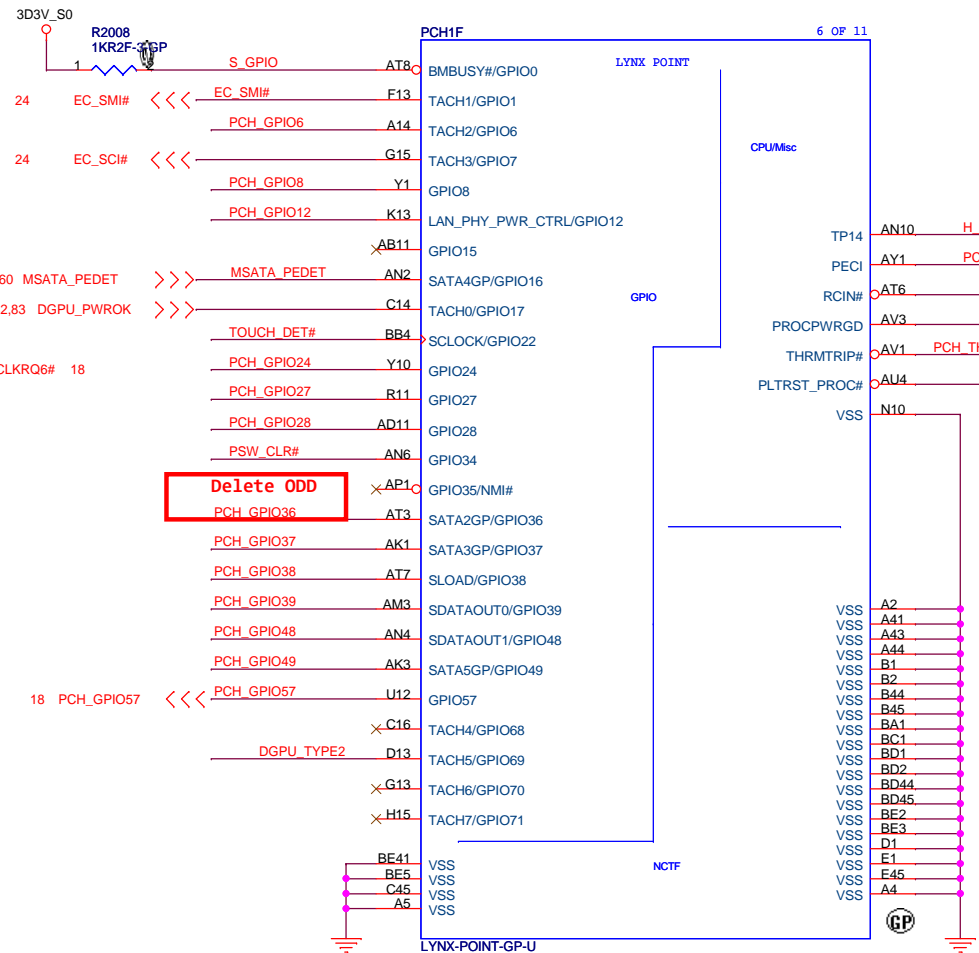
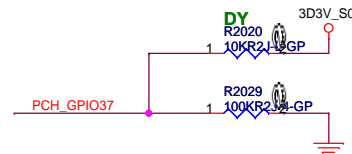
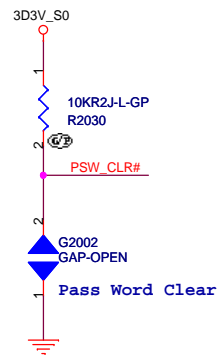
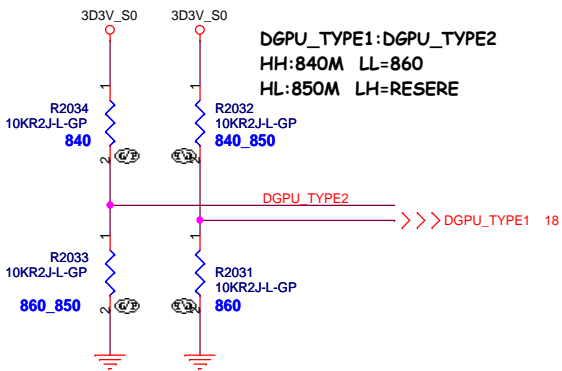
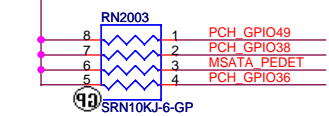
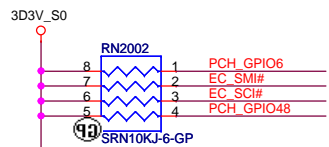
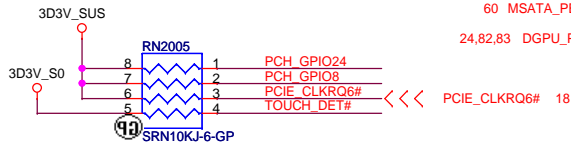
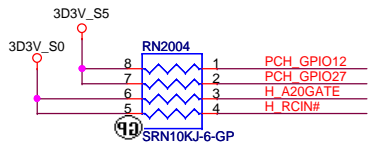
HDA\_SYNC: This strap is sampled on rising edge of RSMRST# and is used to sample 1.5V VccVRM supply mode. 1K external pull-up resistor is required on this signal on the board. Signal may have leakage paths via powered off devices (Audio Codec) and hence contend with the external pull-up. A blocking FET is recommended in such a case to isolate HDA\_SYNC from the Audio Codec device until after the Strap sampling is complete.

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

<b>緯創資通 Wistron Corporation</b>		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>GPU (RTC/LPC/SATA/HDA)</b>			
Size	Document Number	Rev	
Custom	<b>Hades HBS 860M</b>	<b>SB</b>	
Date:	Friday, April 11, 2014	Sheet	19 of 102

Dr-Bios.com

**SSID = PCH**



**PLL ON DIE VR ENABLE**

ENABLED -- HIGH (R2013 UNSTUFFED) DEFAULT  
DISABLED -- LOW (R2013 STUFFED)

**TLS Confidentiality**

0 = Disable Intel ME Crypto Transport Layer Security (TLS) cipher suite (no confidentiality)

1 = Enable Intel ME Crypto Transport Layer Security (TLS) cipher suite (with confidentiality)

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

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

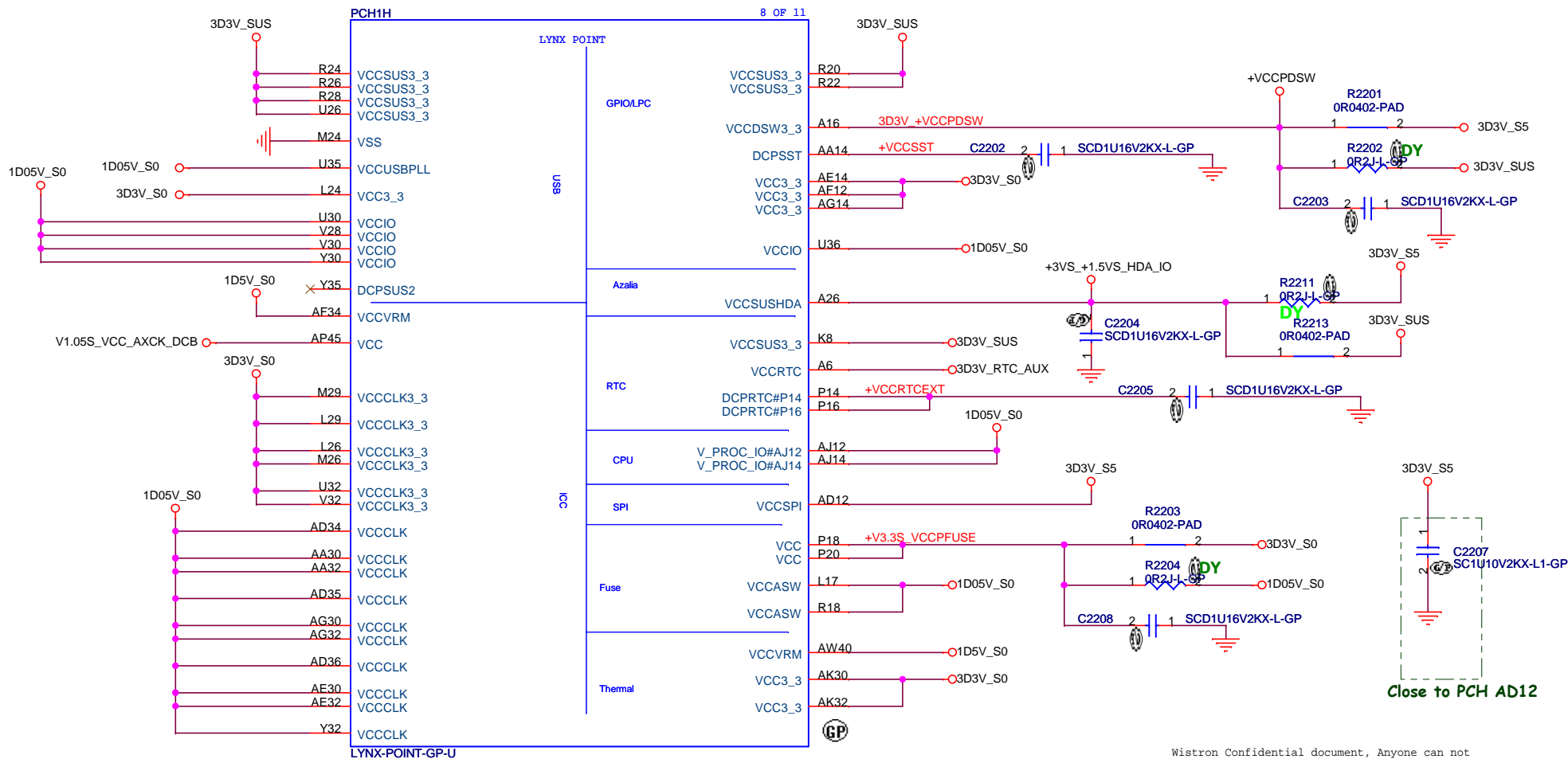
Title: **CPU (GPIO/MISC)**

Size Custom	Document Number	Rev
	<b>Hades_HBS 860M</b>	<b>SB</b>

Date: Thursday, May 29, 2014 Sheet 20 of 102



**SSID = PCH**

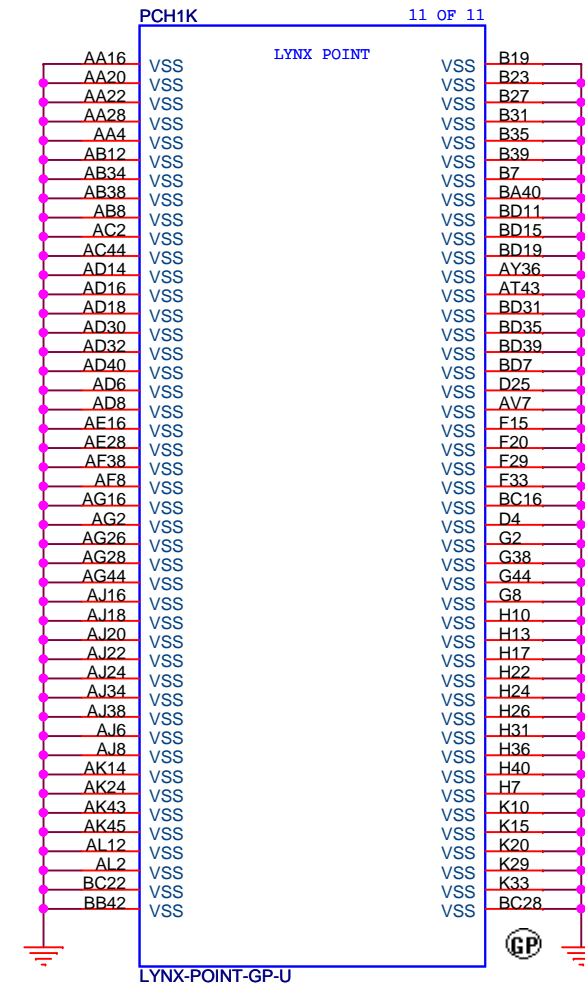
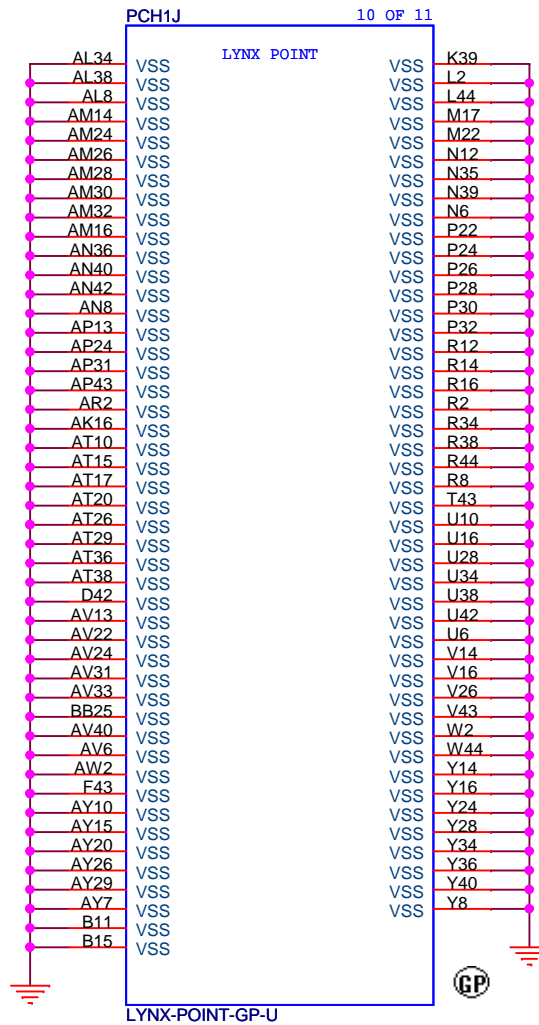


Close to PCH AD12

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

<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b>			
<b>CPU (RSVD)</b>			
Size	Document Number		Rev
Custom	<b>Hades_HBS 860M</b>		<b>SB</b>
Date: Wednesday, May 28, 2014		Sheet 22	of 102

**SSID = PCH**



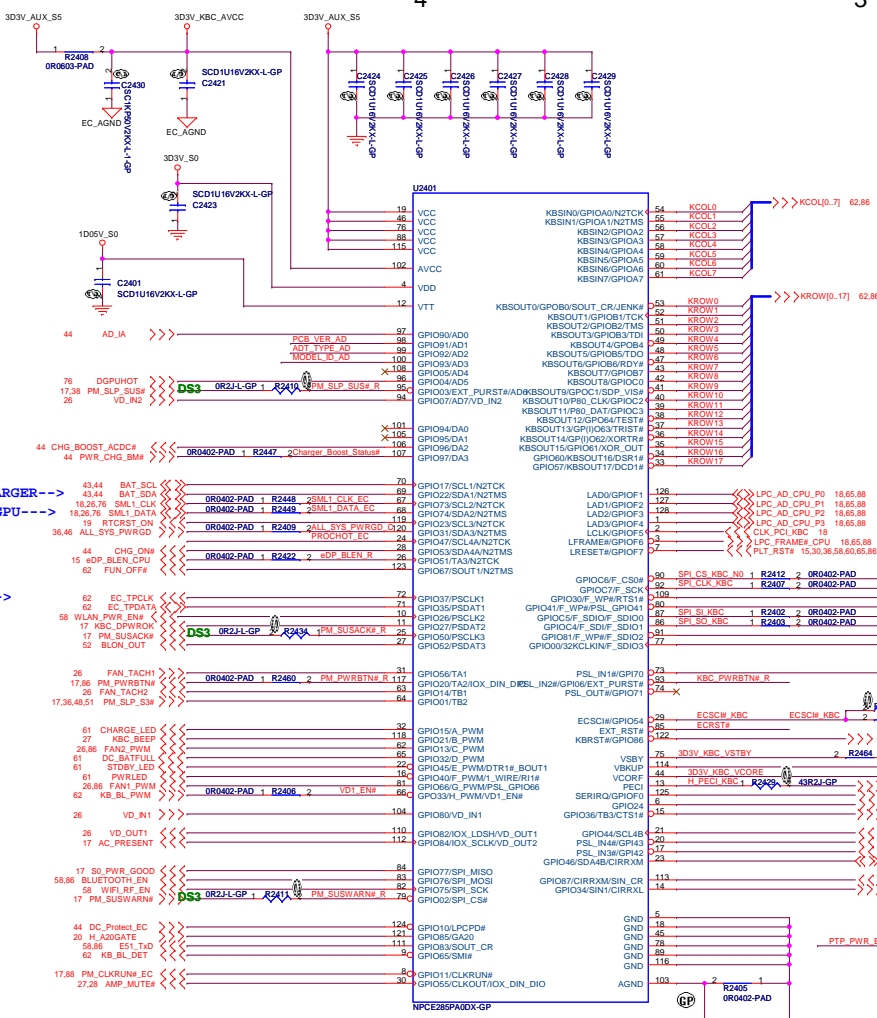
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose EVplication without get Wistron permission

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

Title		<b>CPU (VSS)</b>	
Size	Document Number	<b>Hades_HBS 860M</b>	
A4		Rev	<b>SB</b>
Date:	Friday, April 11, 2014	Sheet	23 of 102

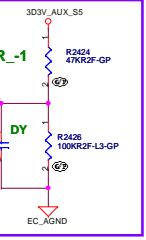
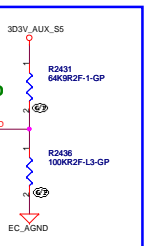
Dr-Bios.com

SSID = KBC



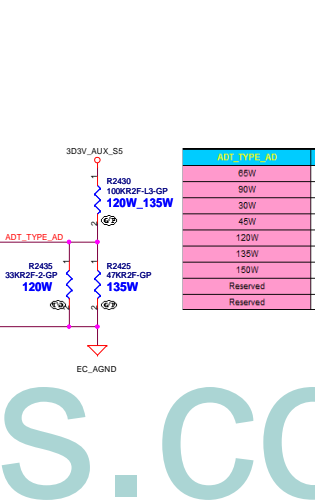
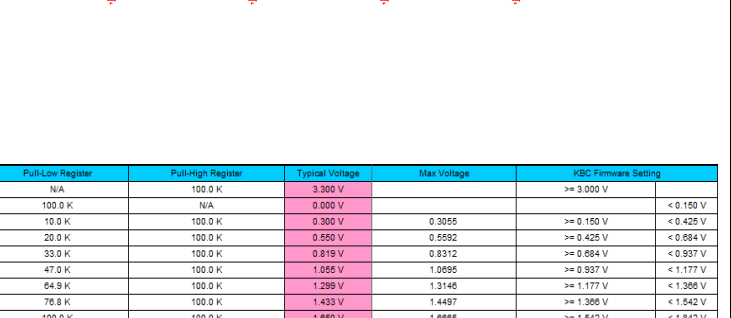
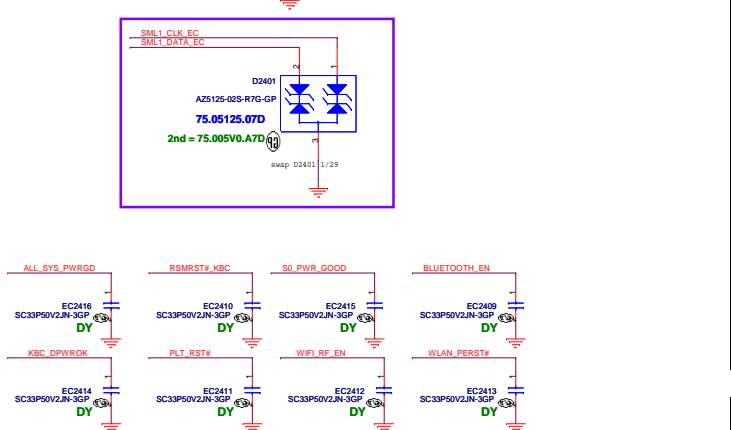
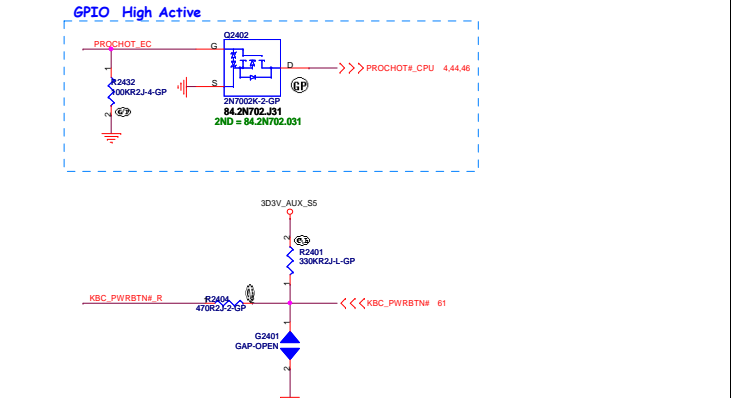
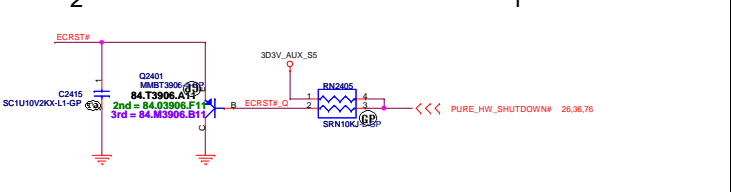
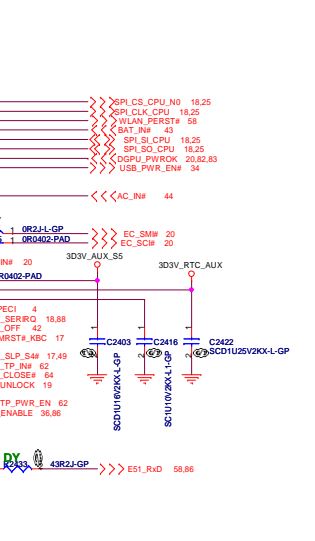
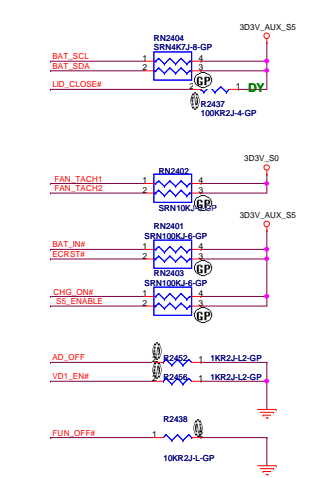
BATTERY / CHARGER-->  
Thermal/eDP/GPU-->

Touch Pad-->



Model_AU	Pull-Low Register	Pull-High Register	Typical Voltage	Max Voltage	KBC Firmware Setting
V430	100.0 K	10.0 K	3.0054		>= 2.875 V
Hades U1A	100.0 K	20.0 K	2.750 V	2.7591	>= 2.816 V < 2.875 V
Hades DIS 840	100.0 K	33.0 K	2.481 V	2.4935	>= 2.383 V < 2.616 V
Hades DIS 850	100.0 K	47.0 K	2.245 V	2.2592	>= 1.223 V < 2.383 V
Hades DIS 880	100.0 K	64.9 K	2.001 V	2.0169	>= 1.934 V < 2.123 V
Poseidon DIS 840	100.0 K	76.8 K	1.867 V	1.8827	>= 1.758 V < 1.934 V
Poseidon DIS 850	100.0 K	100.0 K	1.650 V	1.6665	>= 1.504 V < 1.758 V
Poseidon DIS 850	100.0 K	143.0 K	1.358 V	1.3740	>= 1.281 V < 1.504 V
Reserved for project use	100.0 K	174.0 K	1.204 V	1.2197	>= 1.126 V < 1.281 V
Reserved for project use	100.0 K	215.0 K	1.048 V	1.0620	>= 0.624 V < 1.126 V

Ver1	Pull-Low Register	Pull-High Register	Typical Voltage	Max Voltage	KBC Firmware Setting
SA	100.0 K	10.0 K	3.000 V	3.0054	>= 2.875 V
SB	100.0 K	20.0 K	2.750 V	2.7591	>= 2.616 V < 2.875 V
SC	100.0 K	33.0 K	2.481 V	2.4935	>= 2.383 V < 2.616 V
-1	100.0 K	47.0 K	2.245 V	2.2592	>= 1.223 V < 2.383 V
Reserved for project use	100.0 K	64.9 K	2.001 V	2.0169	>= 1.934 V < 2.123 V
Reserved for project use	100.0 K	76.8 K	1.867 V	1.8827	>= 1.758 V < 1.934 V
Reserved for project use	100.0 K	100.0 K	1.650 V	1.6665	>= 1.504 V < 1.758 V
Reserved for project use	100.0 K	143.0 K	1.358 V	1.3740	>= 1.281 V < 1.504 V
Reserved for project use	100.0 K	174.0 K	1.204 V	1.2197	>= 1.126 V < 1.281 V
Reserved for project use	100.0 K	215.0 K	1.048 V	1.0620	>= 0.524 V < 1.126 V



AUT_VIN#_AU	Pull-Low Register	Pull-High Register	Typical Voltage	Max Voltage	KBC Firmware Setting
95W	N/A	100.0 K	3.300 V		>= 3.000 V
90W	100.0 K	N/A	0.000 V		< 0.150 V
30W	10.0 K	100.0 K	0.300 V	0.3055	>= 0.150 V < 0.425 V
45W	20.0 K	100.0 K	0.550 V	0.5592	>= 0.425 V < 0.584 V
120W	33.0 K	100.0 K	0.819 V	0.8312	>= 0.684 V < 0.937 V
135W	47.0 K	100.0 K	1.059 V	1.0695	>= 0.937 V < 1.177 V
150W	64.9 K	100.0 K	1.299 V	1.3146	>= 1.177 V < 1.295 V
Reserved	76.8 K	100.0 K	1.433 V	1.4497	>= 1.281 V < 1.542 V
Reserved	100.0 K	100.0 K	1.650 V	1.6665	>= 1.542 V < 1.842 V

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

**緯創資通** Wistron Corporation  
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsien 301, Taiwan, R.O.C.  
**KBC\_NPC285PA0DX**  
 Hades\_HBS 860M  
 Date: Wednesday, May 26, 2016 Sheet 24 of 102

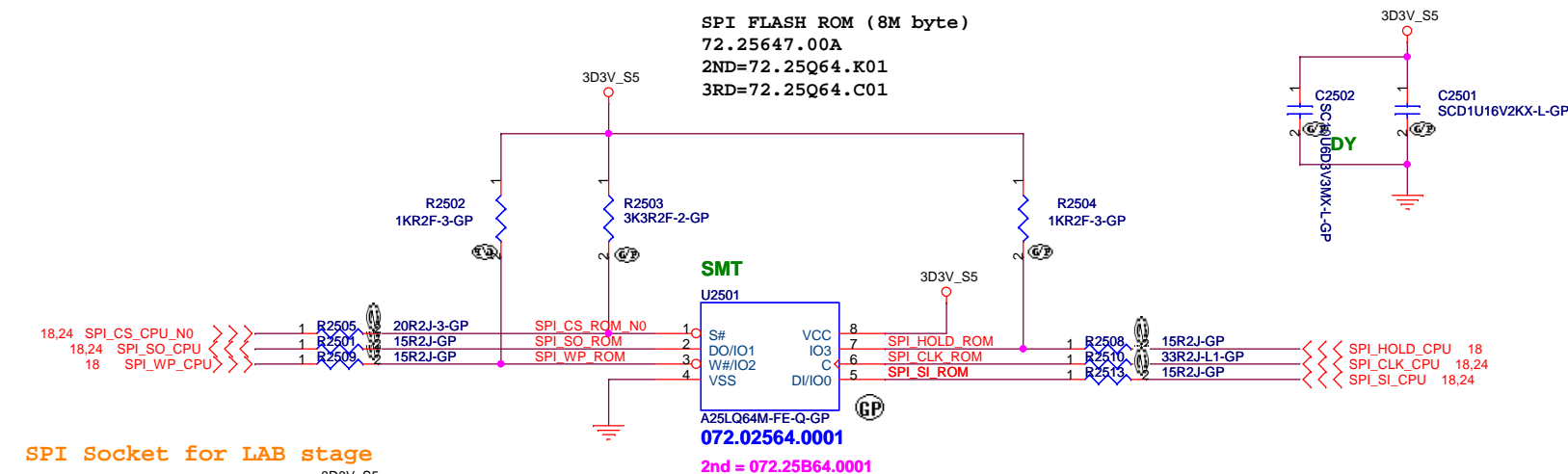


**SSID = Flash.ROM**

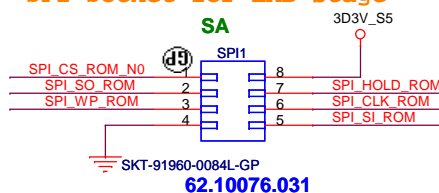
# SPI FLASH ROM (8M byte) for PCH

*SPI ROM Equal length need to less than 500mil*

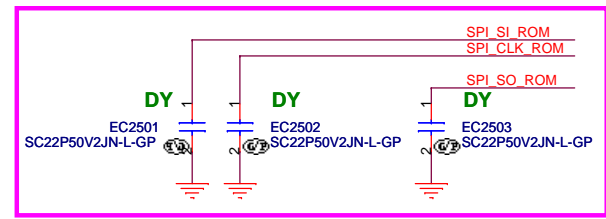
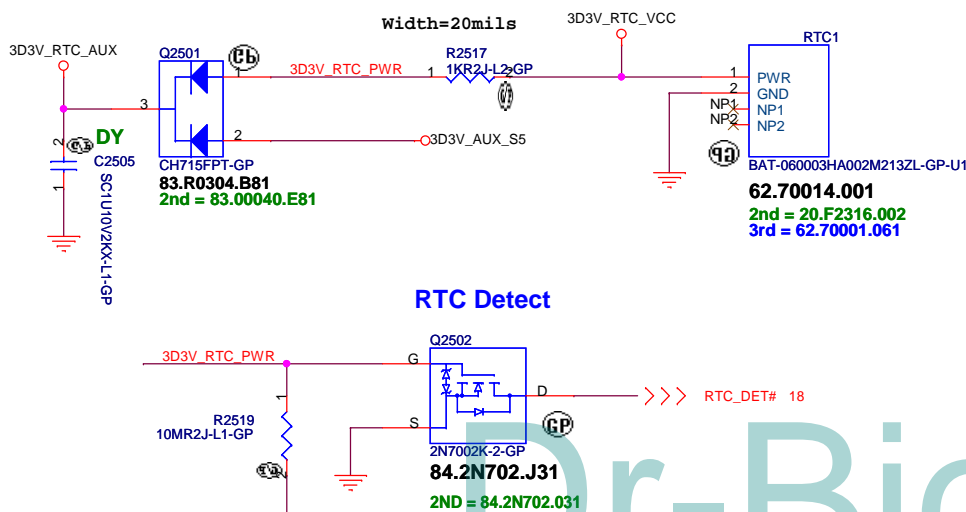
SPI FLASH ROM (8M byte)  
72.25647.00A  
2ND=72.25Q64.K01  
3RD=72.25Q64.C01



## SPI Socket for LAB stage



**SSID = RBAT**



Reserve for EMC

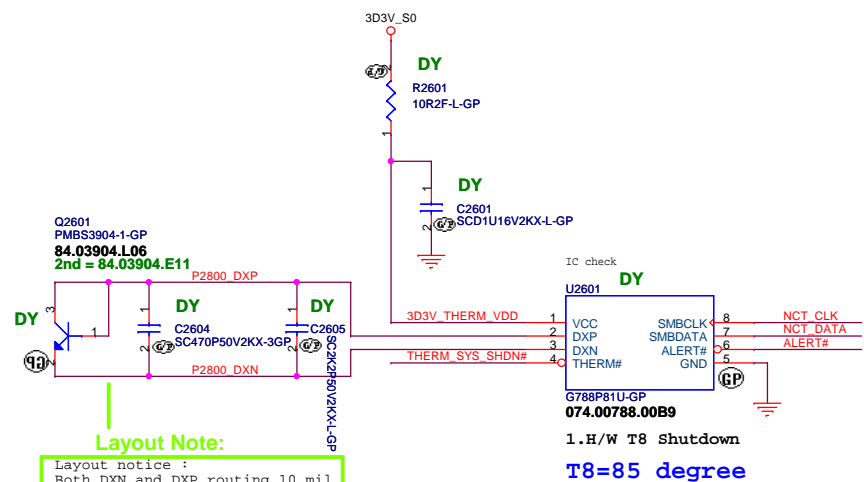
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission  
EV

緯創資通 Wistron Corporation		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title: <b>Flash(KBC+PCH)/RTC</b>			
Size Custom	Document Number	Rev	
	<b>Hades HBS 860M</b>	<b>SB</b>	
Date: Friday, April 11, 2014	Sheet 25 of 102		

# Dr-Bios.com

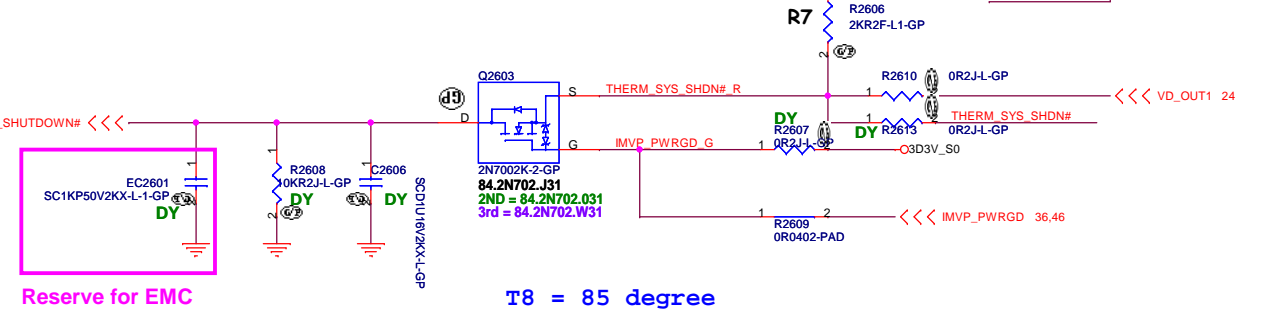
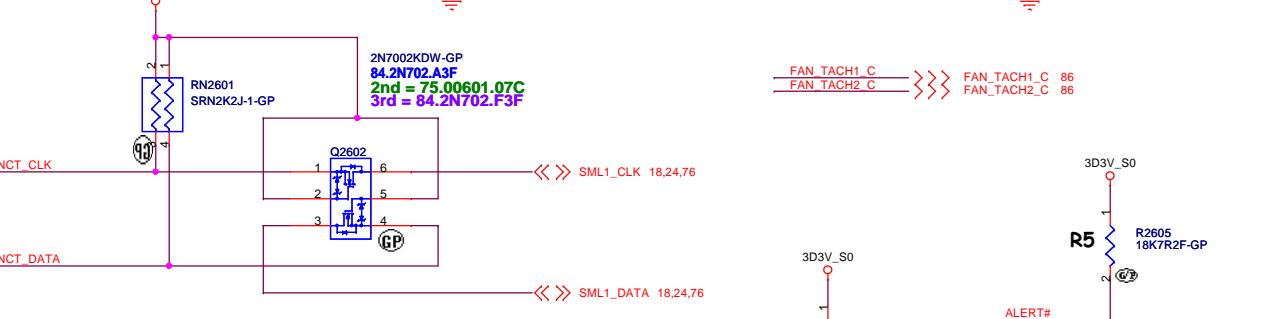
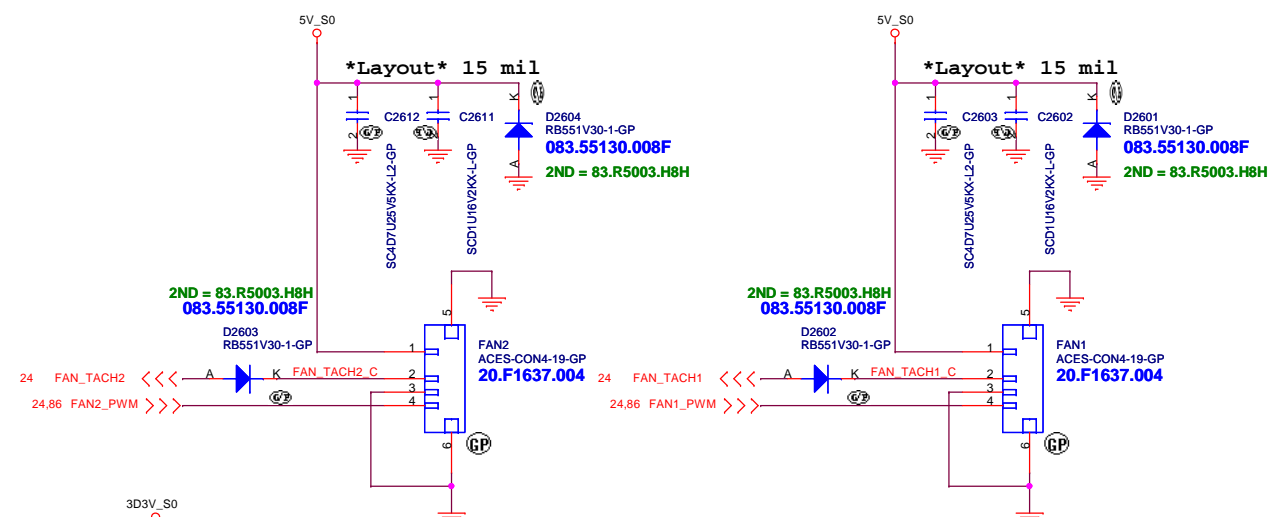
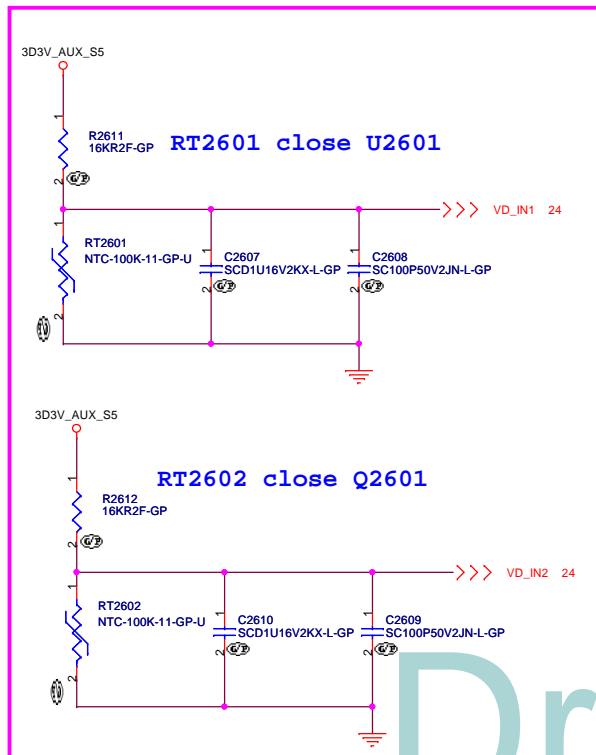
**SSID = Thermal**

**Thermal sensor GMT G788**



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

2.System Sensor, Put on palm rest



**ALERT# /T CRIT# Pull-up Resistor**

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

**T\_CRIT temperature strapping point**

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

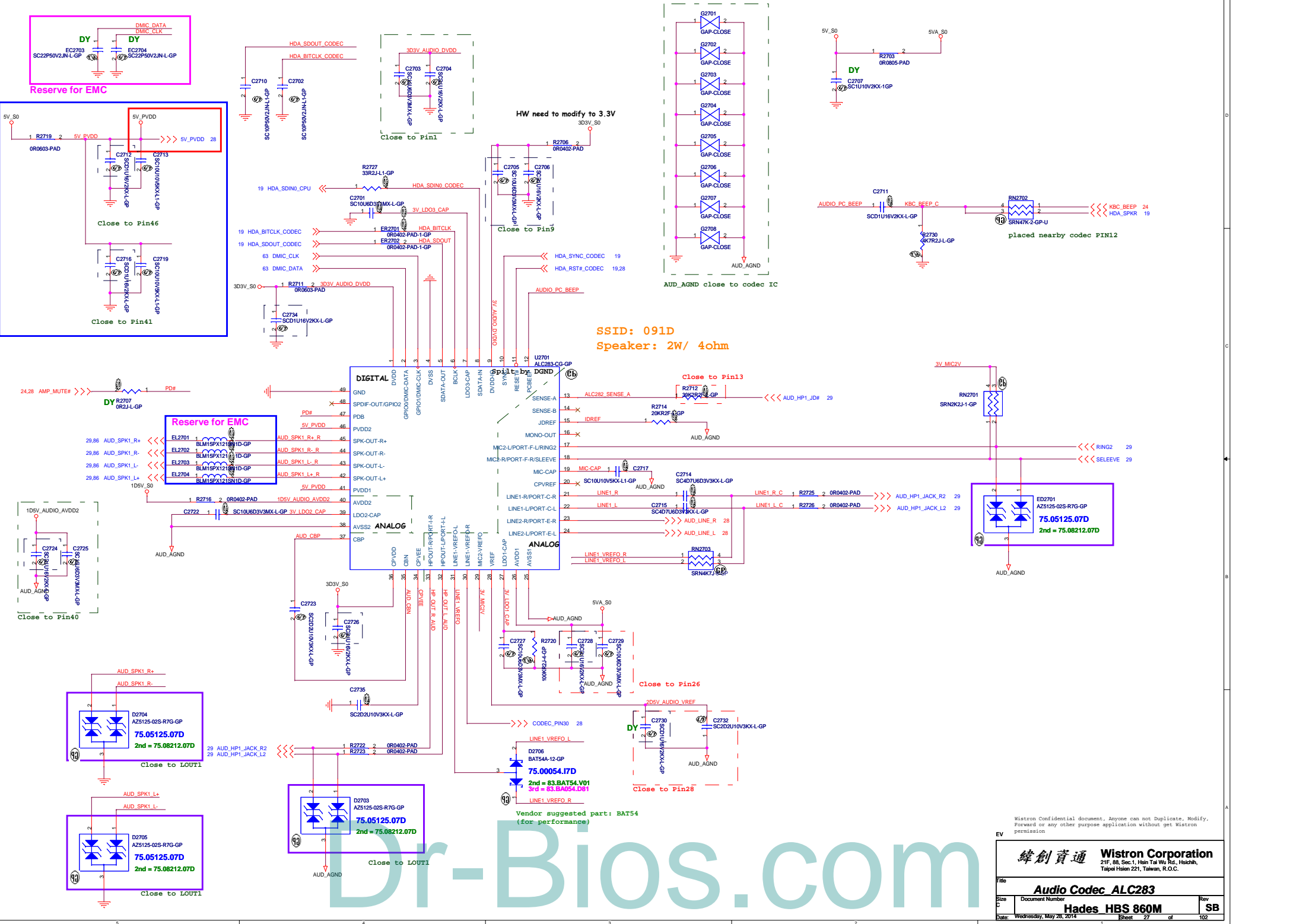
EW

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

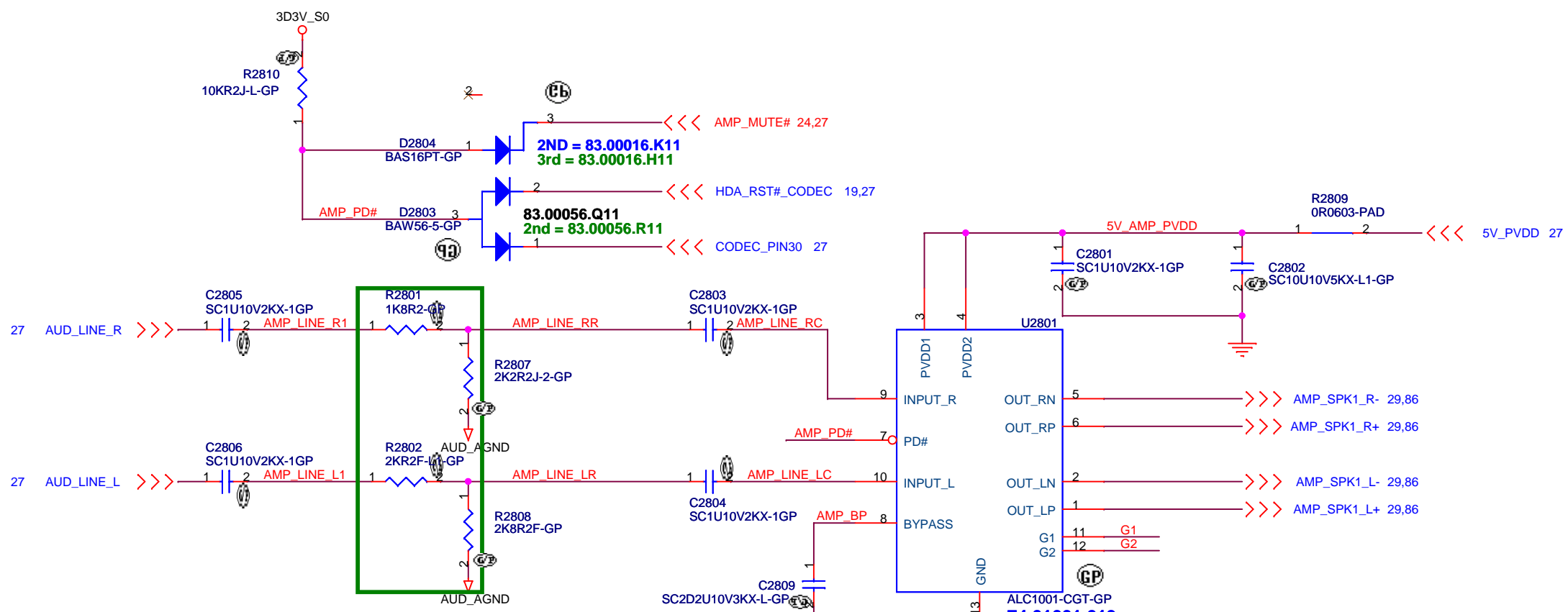
Title: **Thermal 7718/Fan Controller P2793**

Size: A3 Document Number: **Hades HBS 860M** Rev: **SB**

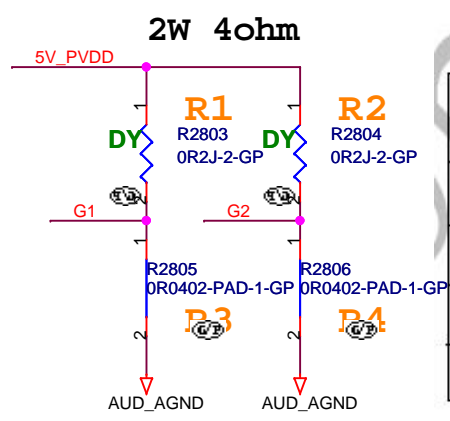
Date: Wednesday, May 28, 2014 Sheet: 26 of 102



Dr-Bios.com

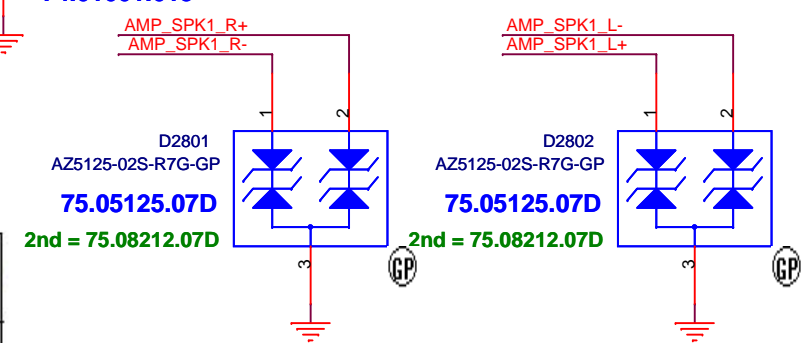


Reserve for input attenuation  
to have optimized output power  
2Watt



Output Gain Table

R1	R2	R3	R4	Gain (Differential)
NC	NC	0	0	11dB
0	NC	NC	0	14dB
NC	0	0	NC	19dB
0	0	NC	NC	25dB



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

EV

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

Title: **Audio AMP ALC1001**

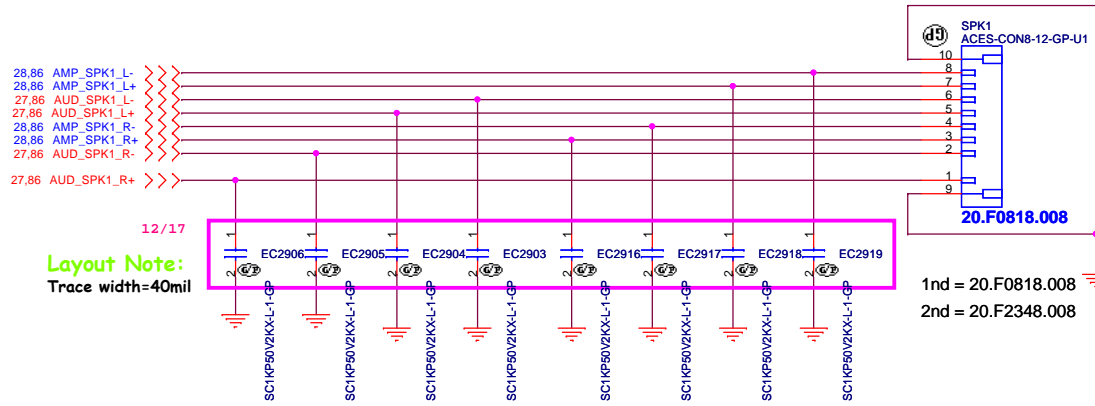
Size A4 | Document Number: **Hades HBS 860M** | Rev: **SB**

Date: Wednesday, May 28, 2014 | Sheet 28 of 102

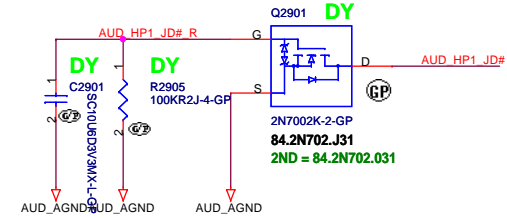
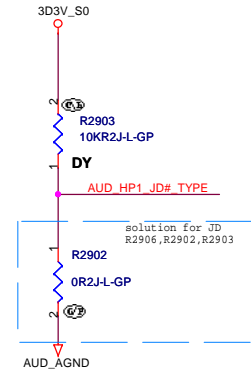
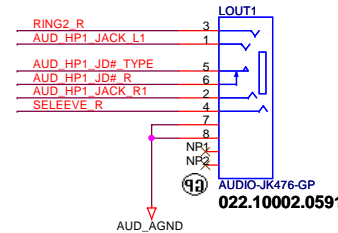
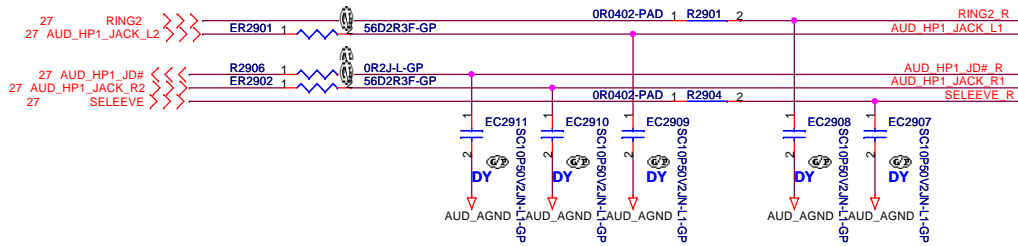
Dr-Bios.com

**SSID = AUDIO**

**Speaker**



**Combo Jack**



- 86 SELEEVE\_R
- 86 AUD\_HP1\_JACK\_L1
- 86 AUD\_HP1\_JD#\_TYPE
- 86 AUD\_HP1\_JD#\_R
- 86 AUD\_HP1\_JACK\_R1
- 86 RING2\_R
- SELEEVE\_R
- AUD\_HP1\_JACK\_L1
- AUD\_HP1\_JD#\_TYPE
- AUD\_HP1\_JD#\_R
- AUD\_HP1\_JACK\_R1
- RING2\_R

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

EW

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**

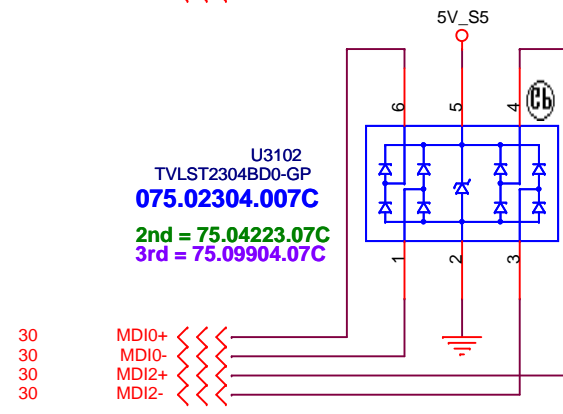
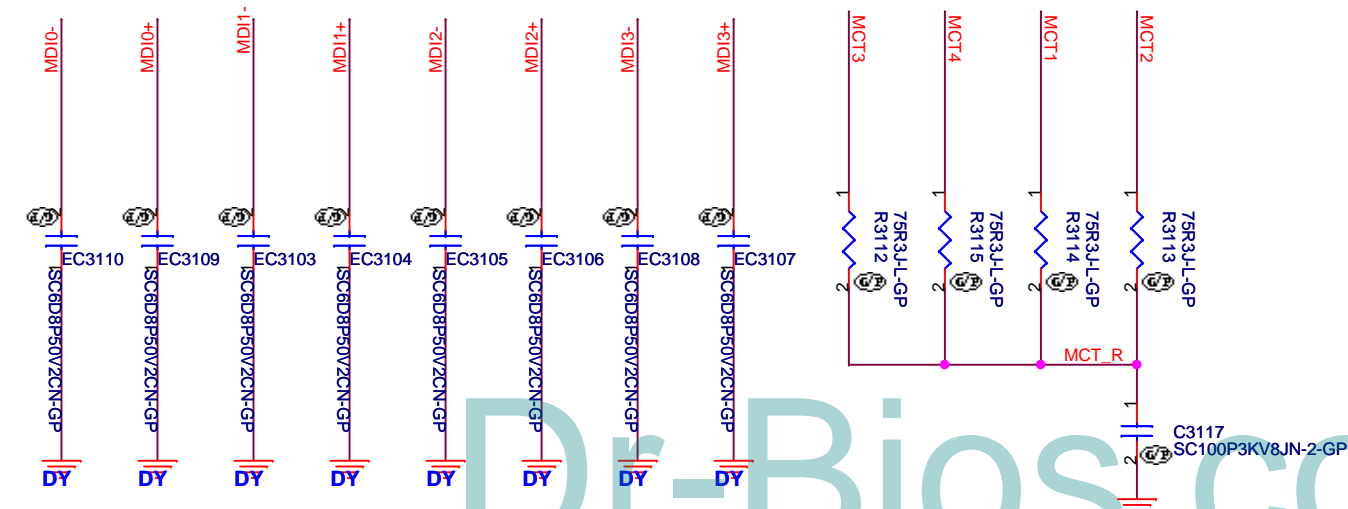
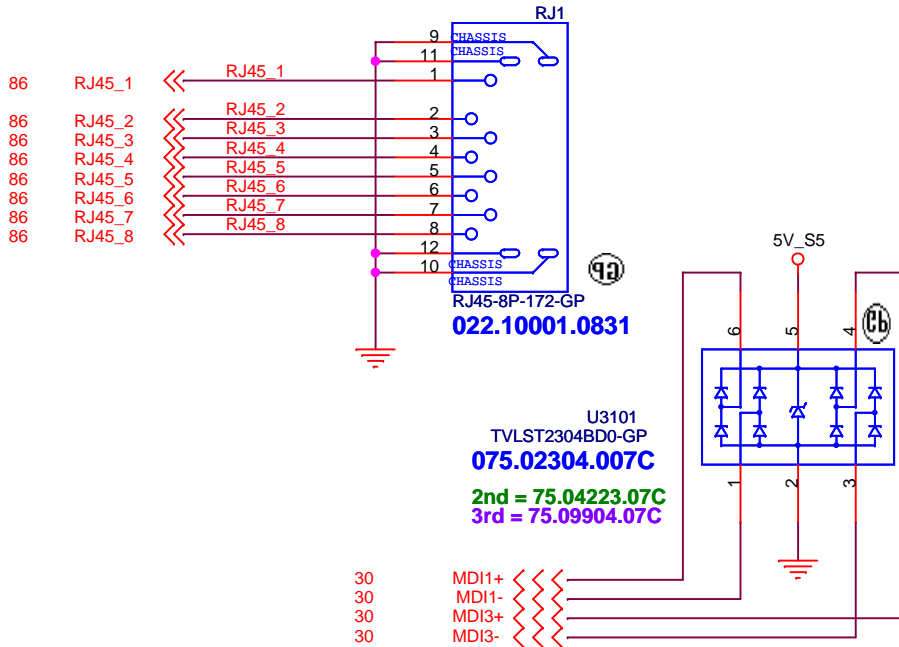
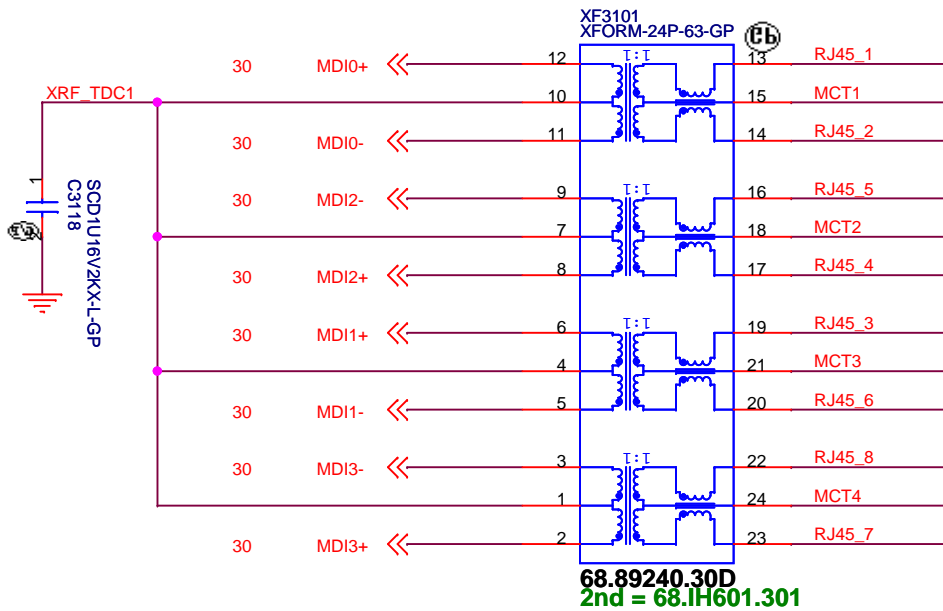
Size: Document Number  
 Custom: Hades HBS 860M Rev: SB

Date: Wednesday, May 28, 2014 Sheet: 29 of 102

Dr-Bios.com



**SSID = LAN**



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

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

Title <b>(LAN+VGA) CONNECTOR</b>		
Size A4	Document Number <b>Hades HBS 860M</b>	Rev <b>SB</b>
Date Wednesday, May 28, 2014	Sheet 31	of 102

Dr-Bios.com

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

EV

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

Title **RTS5170(CARD READER)**

Size A4 Document Number **Hades HBS 860M** Rev **SB**

Date: Friday, April 11, 2014 Sheet 32 of 102

Dr-Bios.com



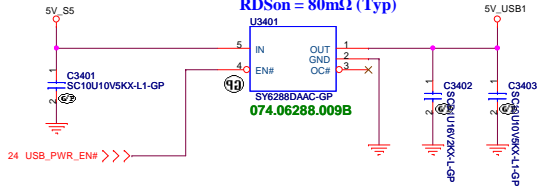
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

EV

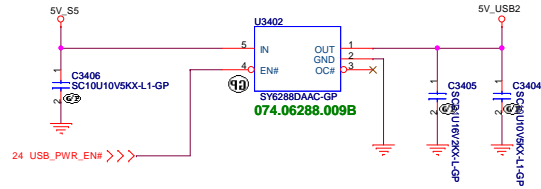
<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b>			
<b>Card Reader CONN (Reserved)</b>			
<b>Size</b>	<b>Document Number</b>		<b>Rev</b>
Custom	<b>Hades_HBS 860M</b>		<b>SB</b>
<b>Date:</b>	Friday, April 11, 2014	<b>Sheet</b> 33	<b>of</b> 102

Dr-Bios.com

**Low Active 2A**  
RDSon = 80mΩ (Typ)



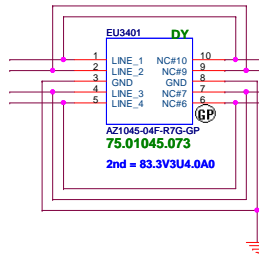
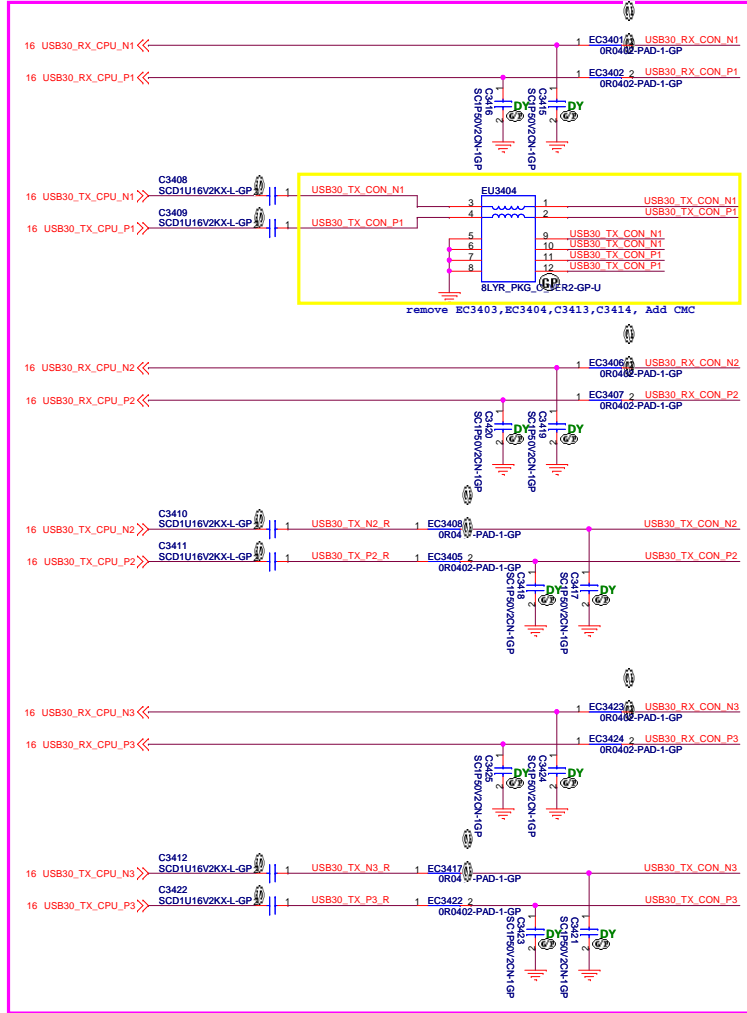
**Low Active 2A**  
RDSon = 80mΩ (Typ)



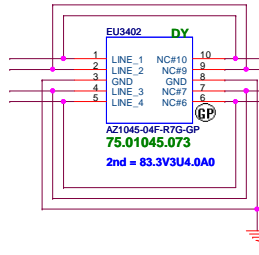
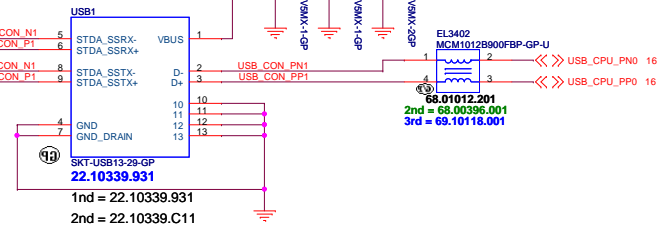
**USB 3.0 Connector Pin definition**

1	POWER
2	USB 2.0 D-
3	USB 2.0 D+
4	GND
5	StdA_SSRX- SuperSpeed RX
6	StdA_SSRX+
7	GND
8	StdA_SSTX- SuperSpeed TX
9	StdA_SSTX+

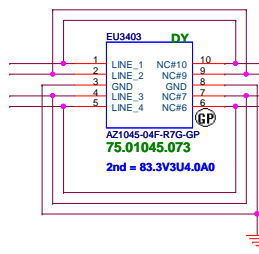
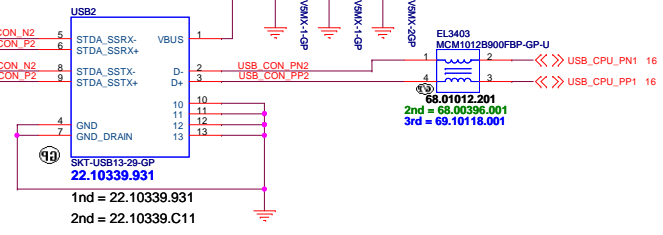
**Reserve for RF**



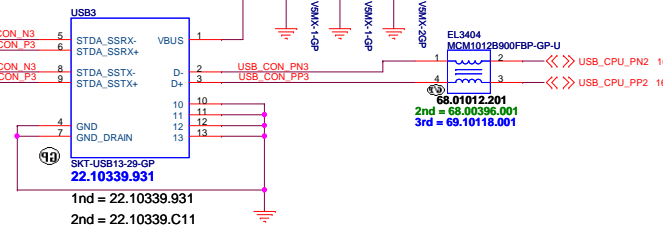
**USB3.0 (Port 0)**



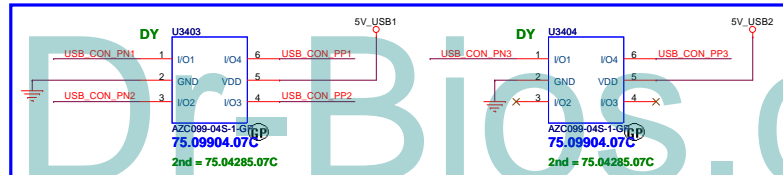
**USB3.0 (Port 1)**



**USB3.0 (Port 2)**



**ESD for USB**



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

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

**USB 3.0 Port**

Document Number: **Hades\_HBS 860M** Rev: **SB**

Date: Tuesday, May 27, 2014 Sheet: 34 of 102

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

EV

緯創資通

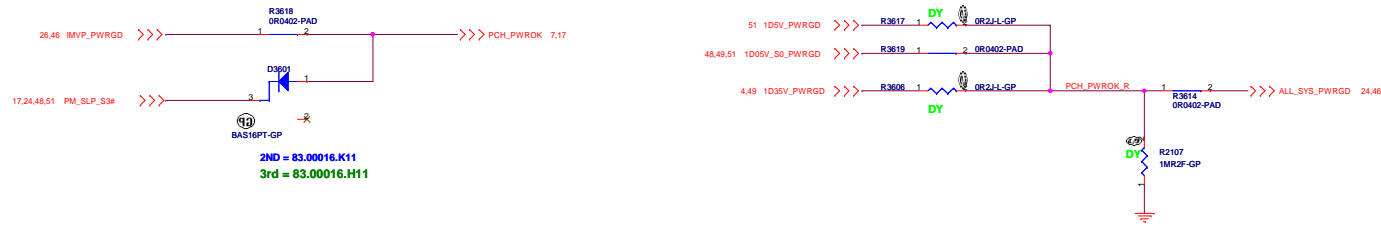
**Wistron Corporation**

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

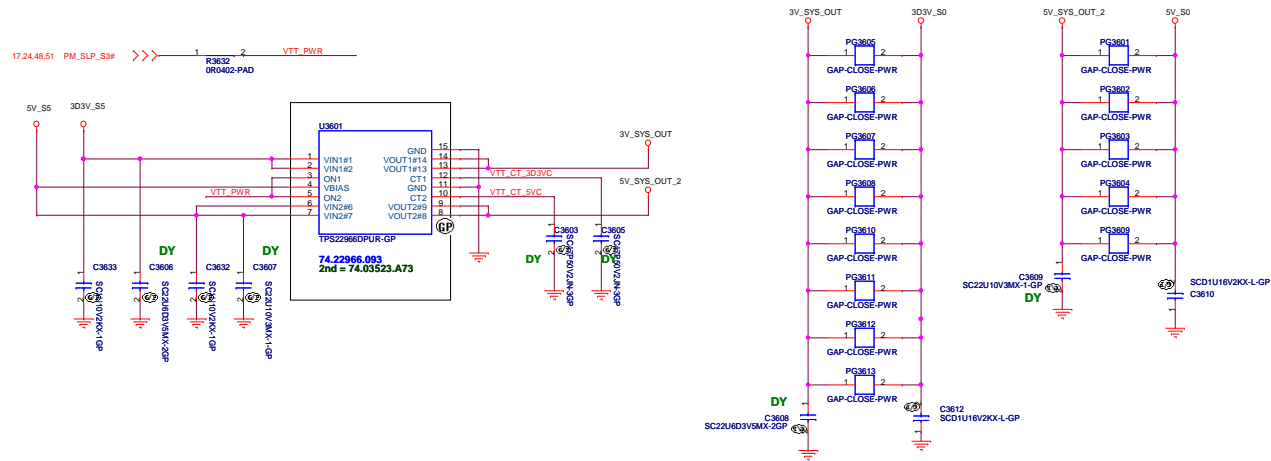
Title		
<b>USB CHARGER</b>		
Size	Document Number	Rev
A4	<b>Hades HBS 860M</b>	<b>SB</b>
Date:	Friday, April 11, 2014	Sheet 35 of 102

Dr-Bios.com

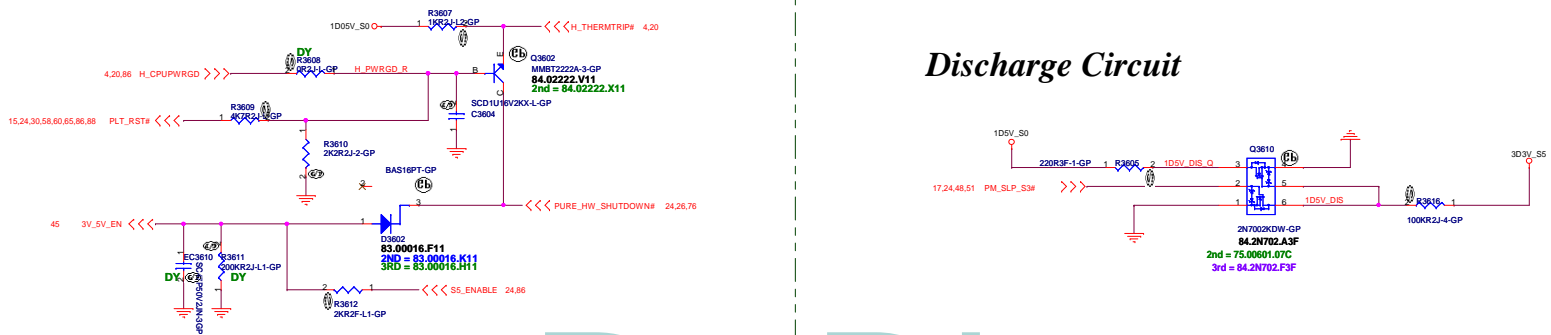
## Power Sequence



## ANNIE Run Power



## Discharge Circuit



Dr-Bios.com

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

EV		緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsiehsh, Taipei Hsien Z21, Taiwan, R.O.C.			
File	Power Plane Enable & SEQUENCE				Rev.
Size	Document Number				SB
		Hades HBS 860M			
Date:	Wednesday, May 26, 2011	Page:	39	of	102

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

EV

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  
 Custom

Document Number

**Hades HBS 860M**

Rev

**SB**

Date: Friday, April 11, 2014

Sheet 37 of

102

Dr-Bios.com

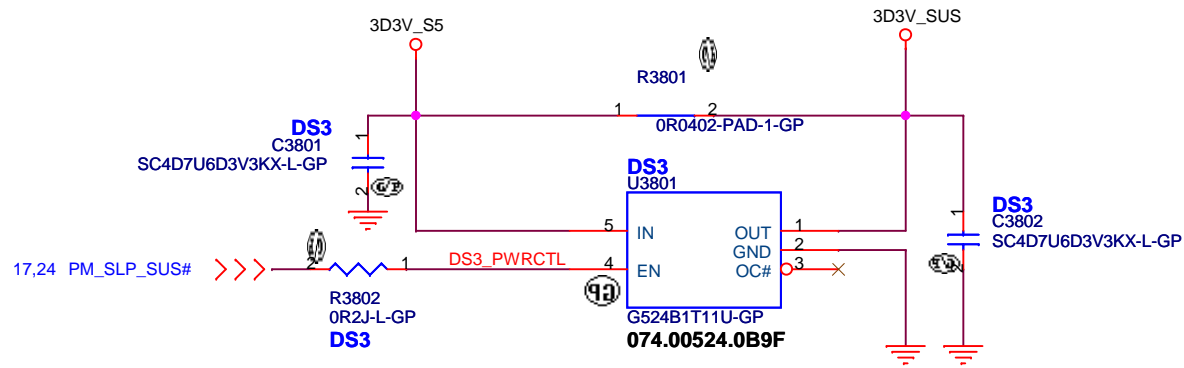
5

4

3

2

1



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

緯創資通

**Wistron Corporation**

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

Title

**DS3**

Size  
A4

Document Number

**Hades HBS 860M**

Rev

**SB**

Date: Thursday, May 22, 2014

Sheet 38 of 102

Dr-Bios.com

# Power Sequence

Dr-Bios.com

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

EV

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	Document Number	Rev	
Custom	Hades HBS 860M	SB	
Date: Friday, April 11, 2014	Sheet 39	of 102	

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

EV

緯創資通

**Wistron Corporation**

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

Title

**Connected Standby1**

Size

Document Number

Rev

A

**Hades HBS 860M**

**SB**

Date: Friday, April 11, 2014

Sheet 40 of 102

Dr-Bios.com



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

EV

緯創資通

**Wistron Corporation**

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

Title

**Connected Standby2**

Size

Document Number

Rev

A

**Hades HBS 860M**

**SB**

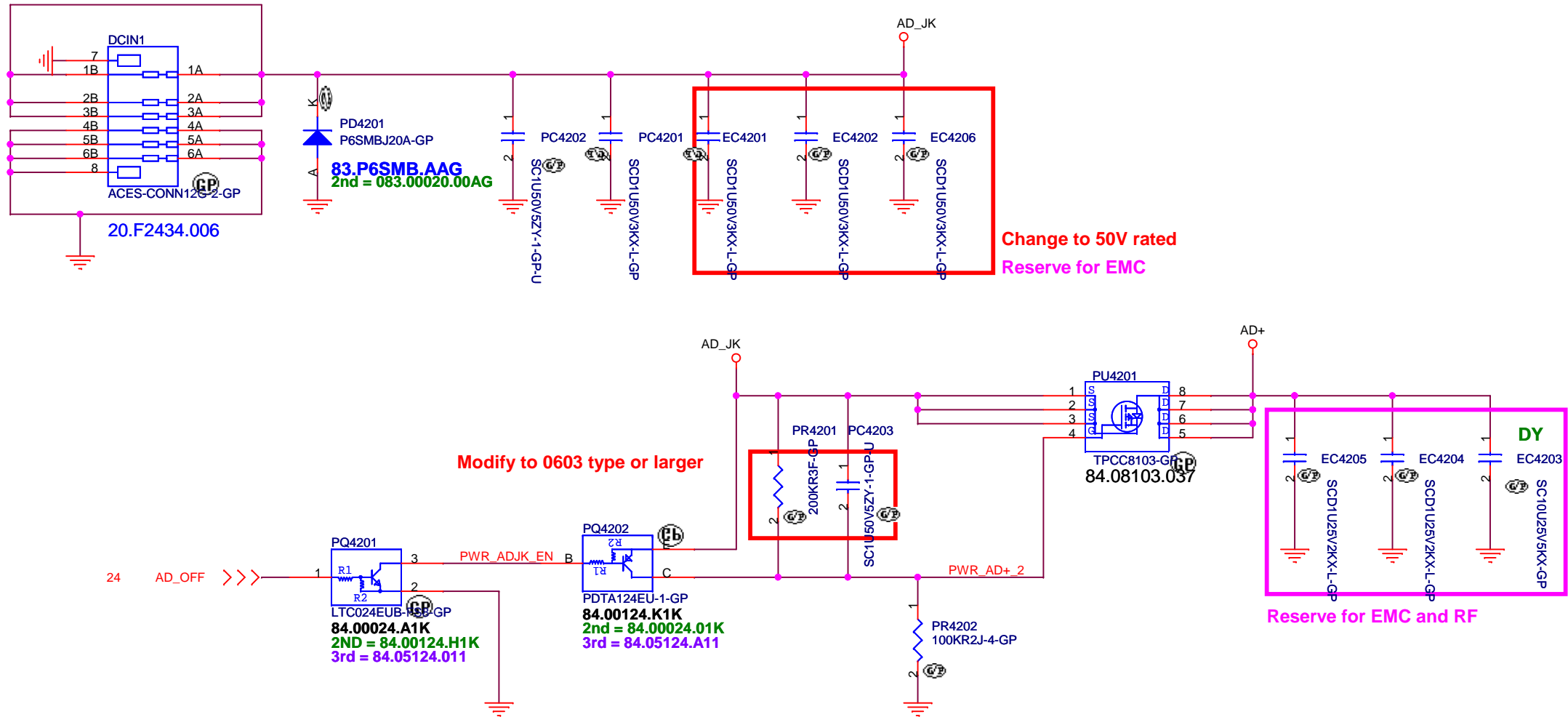
Date: Friday, April 11, 2014

Sheet 41 of 102

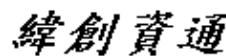
Dr-Bios.com

# ANNIE solution

## Adaptor in to generate DCBATOUT

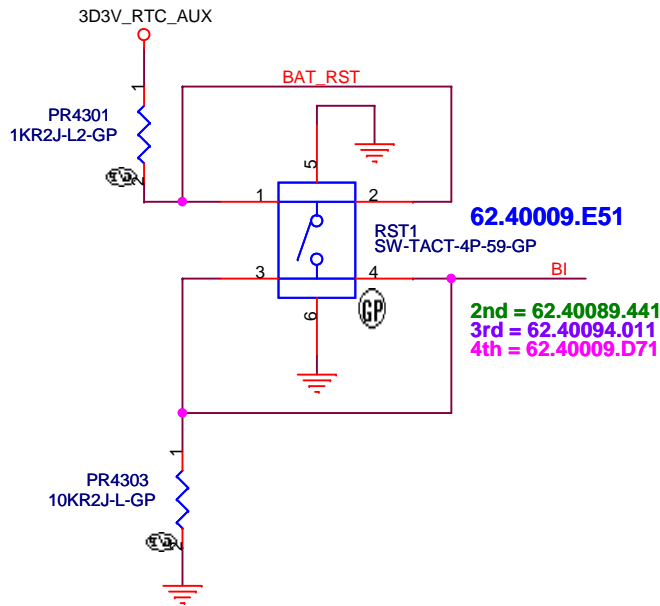


Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

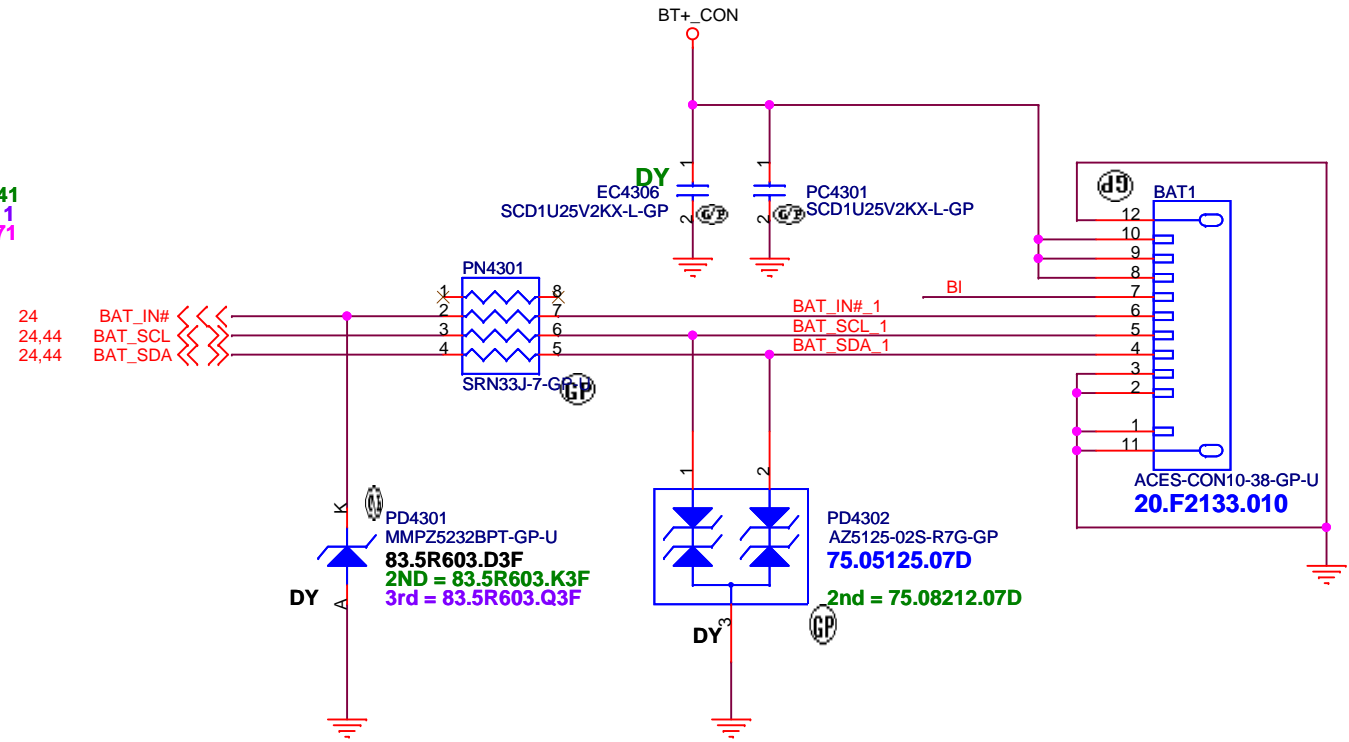
		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>DCIN JACK</b>			
Size A4	Document Number <b>Hades HBS 860M</b>	Rev <b>SB</b>	
Date: Thursday, May 15, 2014	Sheet 42	of	102

Dr-Bios.com

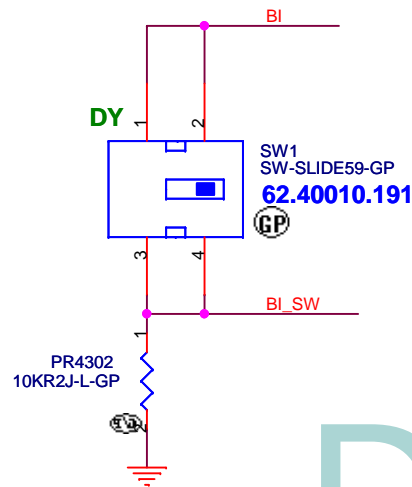
### Battery Reset



### Battery Connector



### Battery Insert



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

EV

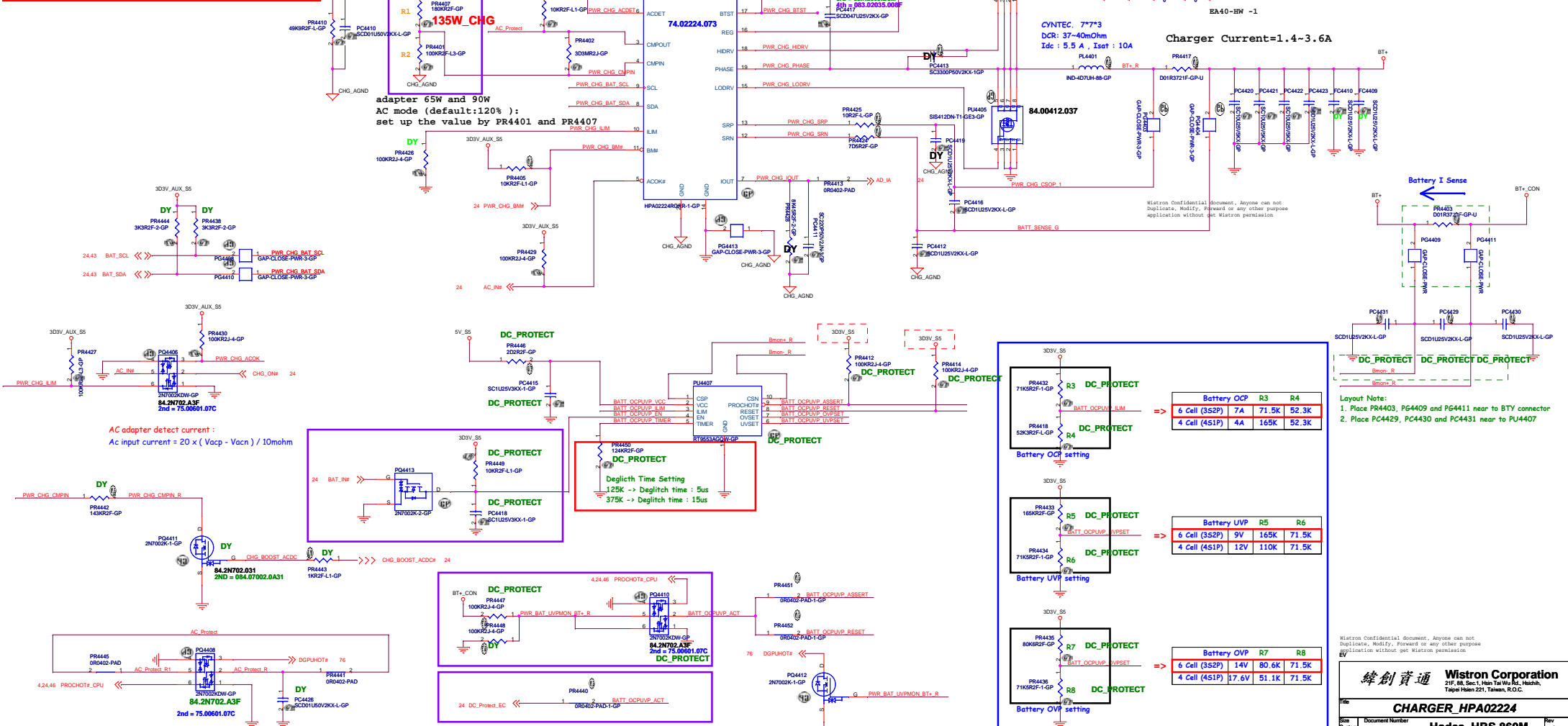
**緯創資通** **Wistron Corporation**  
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title <b>BATT CONN</b>		
Size A4	Document Number <b>Hades HBS 860M</b>	Rev <b>SB</b>
Date Friday, April 11, 2014	Sheet 43	of 102

Dr-Bios.com

SSID = Charger

Part	Qty	Ref	Value	Notes
84.2N702.A3F	1	PR4401	2N7002KDW-GP	
84.2N702.A3F	1	PR4407	2N7002KDW-GP	
84.2N702.A3F	1	PR4408	2N7002KDW-GP	
84.2N702.A3F	1	PR4409	2N7002KDW-GP	
84.2N702.A3F	1	PR4410	2N7002KDW-GP	
84.2N702.A3F	1	PR4411	2N7002KDW-GP	
84.2N702.A3F	1	PR4412	2N7002KDW-GP	
84.2N702.A3F	1	PR4413	2N7002KDW-GP	
84.2N702.A3F	1	PR4414	2N7002KDW-GP	
84.2N702.A3F	1	PR4415	2N7002KDW-GP	
84.2N702.A3F	1	PR4416	2N7002KDW-GP	
84.2N702.A3F	1	PR4417	2N7002KDW-GP	
84.2N702.A3F	1	PR4418	2N7002KDW-GP	
84.2N702.A3F	1	PR4419	2N7002KDW-GP	
84.2N702.A3F	1	PR4420	2N7002KDW-GP	
84.2N702.A3F	1	PR4421	2N7002KDW-GP	
84.2N702.A3F	1	PR4422	2N7002KDW-GP	
84.2N702.A3F	1	PR4423	2N7002KDW-GP	
84.2N702.A3F	1	PR4424	2N7002KDW-GP	
84.2N702.A3F	1	PR4425	2N7002KDW-GP	
84.2N702.A3F	1	PR4426	2N7002KDW-GP	
84.2N702.A3F	1	PR4427	2N7002KDW-GP	
84.2N702.A3F	1	PR4428	2N7002KDW-GP	
84.2N702.A3F	1	PR4429	2N7002KDW-GP	
84.2N702.A3F	1	PR4430	2N7002KDW-GP	
84.2N702.A3F	1	PR4431	2N7002KDW-GP	
84.2N702.A3F	1	PR4432	2N7002KDW-GP	
84.2N702.A3F	1	PR4433	2N7002KDW-GP	
84.2N702.A3F	1	PR4434	2N7002KDW-GP	
84.2N702.A3F	1	PR4435	2N7002KDW-GP	
84.2N702.A3F	1	PR4436	2N7002KDW-GP	
84.2N702.A3F	1	PR4437	2N7002KDW-GP	
84.2N702.A3F	1	PR4438	2N7002KDW-GP	
84.2N702.A3F	1	PR4439	2N7002KDW-GP	
84.2N702.A3F	1	PR4440	2N7002KDW-GP	
84.2N702.A3F	1	PR4441	2N7002KDW-GP	
84.2N702.A3F	1	PR4442	2N7002KDW-GP	
84.2N702.A3F	1	PR4443	2N7002KDW-GP	
84.2N702.A3F	1	PR4444	2N7002KDW-GP	
84.2N702.A3F	1	PR4445	2N7002KDW-GP	
84.2N702.A3F	1	PR4446	2N7002KDW-GP	
84.2N702.A3F	1	PR4447	2N7002KDW-GP	
84.2N702.A3F	1	PR4448	2N7002KDW-GP	
84.2N702.A3F	1	PR4449	2N7002KDW-GP	
84.2N702.A3F	1	PR4450	2N7002KDW-GP	
84.2N702.A3F	1	PR4451	2N7002KDW-GP	
84.2N702.A3F	1	PR4452	2N7002KDW-GP	
84.2N702.A3F	1	PR4453	2N7002KDW-GP	
84.2N702.A3F	1	PR4454	2N7002KDW-GP	
84.2N702.A3F	1	PR4455	2N7002KDW-GP	
84.2N702.A3F	1	PR4456	2N7002KDW-GP	
84.2N702.A3F	1	PR4457	2N7002KDW-GP	
84.2N702.A3F	1	PR4458	2N7002KDW-GP	
84.2N702.A3F	1	PR4459	2N7002KDW-GP	
84.2N702.A3F	1	PR4460	2N7002KDW-GP	
84.2N702.A3F	1	PR4461	2N7002KDW-GP	
84.2N702.A3F	1	PR4462	2N7002KDW-GP	
84.2N702.A3F	1	PR4463	2N7002KDW-GP	
84.2N702.A3F	1	PR4464	2N7002KDW-GP	
84.2N702.A3F	1	PR4465	2N7002KDW-GP	
84.2N702.A3F	1	PR4466	2N7002KDW-GP	
84.2N702.A3F	1	PR4467	2N7002KDW-GP	
84.2N702.A3F	1	PR4468	2N7002KDW-GP	
84.2N702.A3F	1	PR4469	2N7002KDW-GP	
84.2N702.A3F	1	PR4470	2N7002KDW-GP	
84.2N702.A3F	1	PR4471	2N7002KDW-GP	
84.2N702.A3F	1	PR4472	2N7002KDW-GP	
84.2N702.A3F	1	PR4473	2N7002KDW-GP	
84.2N702.A3F	1	PR4474	2N7002KDW-GP	
84.2N702.A3F	1	PR4475	2N7002KDW-GP	
84.2N702.A3F	1	PR4476	2N7002KDW-GP	
84.2N702.A3F	1	PR4477	2N7002KDW-GP	
84.2N702.A3F	1	PR4478	2N7002KDW-GP	
84.2N702.A3F	1	PR4479	2N7002KDW-GP	
84.2N702.A3F	1	PR4480	2N7002KDW-GP	
84.2N702.A3F	1	PR4481	2N7002KDW-GP	
84.2N702.A3F	1	PR4482	2N7002KDW-GP	
84.2N702.A3F	1	PR4483	2N7002KDW-GP	
84.2N702.A3F	1	PR4484	2N7002KDW-GP	
84.2N702.A3F	1	PR4485	2N7002KDW-GP	
84.2N702.A3F	1	PR4486	2N7002KDW-GP	
84.2N702.A3F	1	PR4487	2N7002KDW-GP	
84.2N702.A3F	1	PR4488	2N7002KDW-GP	
84.2N702.A3F	1	PR4489	2N7002KDW-GP	
84.2N702.A3F	1	PR4490	2N7002KDW-GP	
84.2N702.A3F	1	PR4491	2N7002KDW-GP	
84.2N702.A3F	1	PR4492	2N7002KDW-GP	
84.2N702.A3F	1	PR4493	2N7002KDW-GP	
84.2N702.A3F	1	PR4494	2N7002KDW-GP	
84.2N702.A3F	1	PR4495	2N7002KDW-GP	
84.2N702.A3F	1	PR4496	2N7002KDW-GP	
84.2N702.A3F	1	PR4497	2N7002KDW-GP	
84.2N702.A3F	1	PR4498	2N7002KDW-GP	
84.2N702.A3F	1	PR4499	2N7002KDW-GP	
84.2N702.A3F	1	PR4500	2N7002KDW-GP	



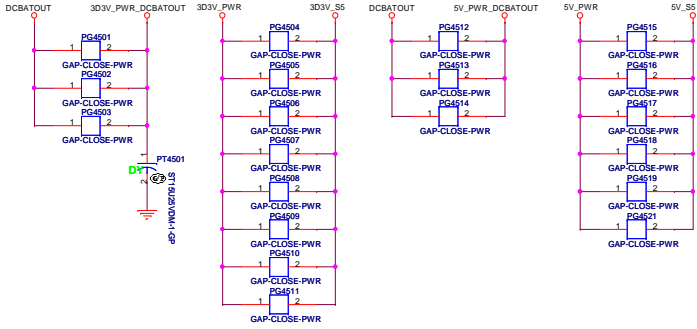
Dr-Bios.com

緯創資通 Wistron Corporation  
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinshih, Taipei 11211, Taiwan, R.O.C.

Doc: CHARGER\_HPA02224  
 Hades\_HBS 860M

Rev: SB

SSID = PWR.Plane.Regulator\_3p3v5v



High Side  
84.00412.037 SIS412  
Vgs @ 4.5V,  
Id = 12A,  
Rds(on) = 24 ~ 30mohm

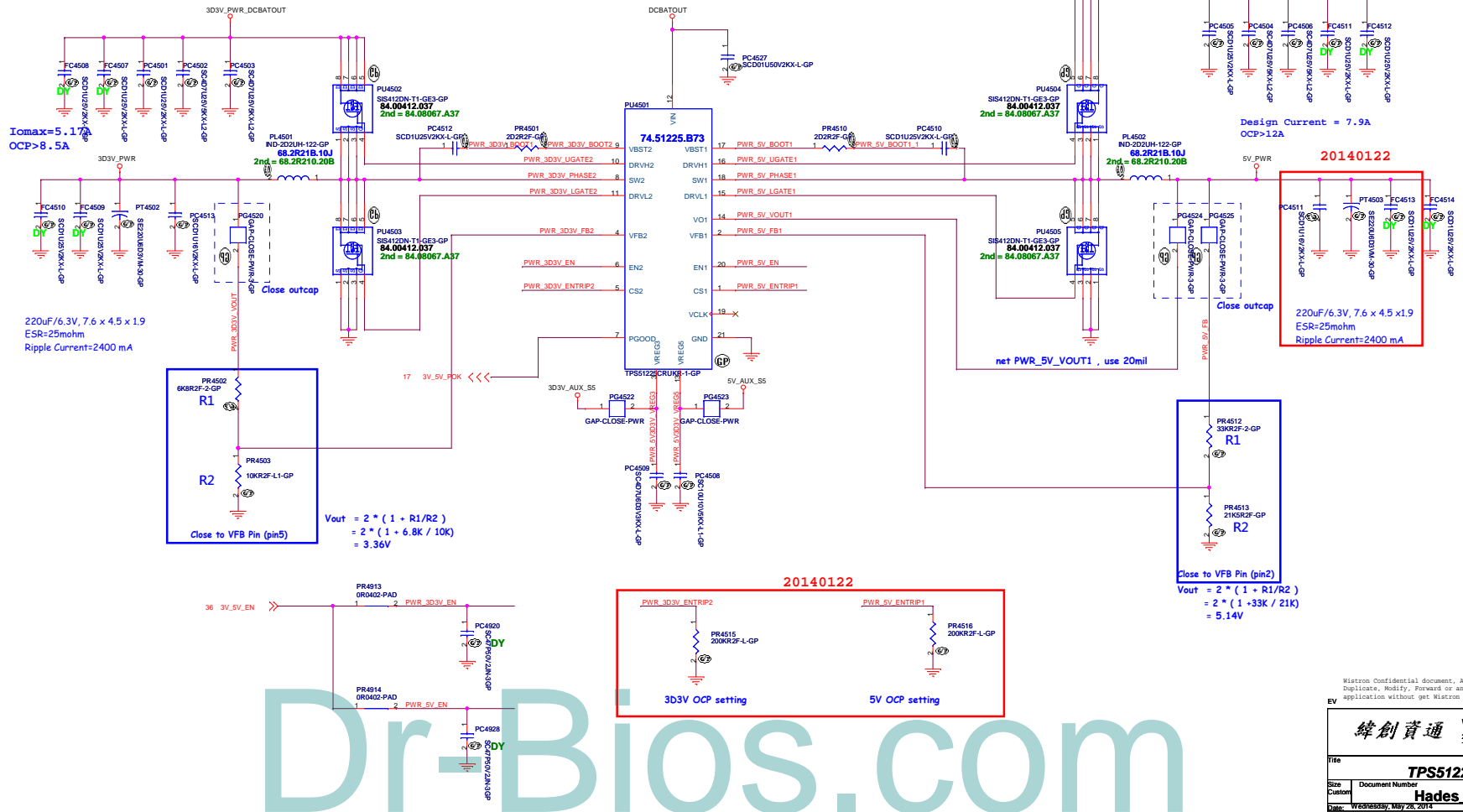
Low Side  
84.00412.037 SIS412  
Vgs @ 4.5V,  
Id = 12A,  
Rds(on) = 24 ~ 30mohm

Choke  
MagLayers. 7x7x3 ,2R2  
Dcr : 18 ~ 20 mOhm  
Idc : 8A Isat : 14 A

High Side  
84.00412.037 SIS412  
Vgs @ 4.5V,  
Id = 12A,  
Rds(on) = 24 ~ 30mohm

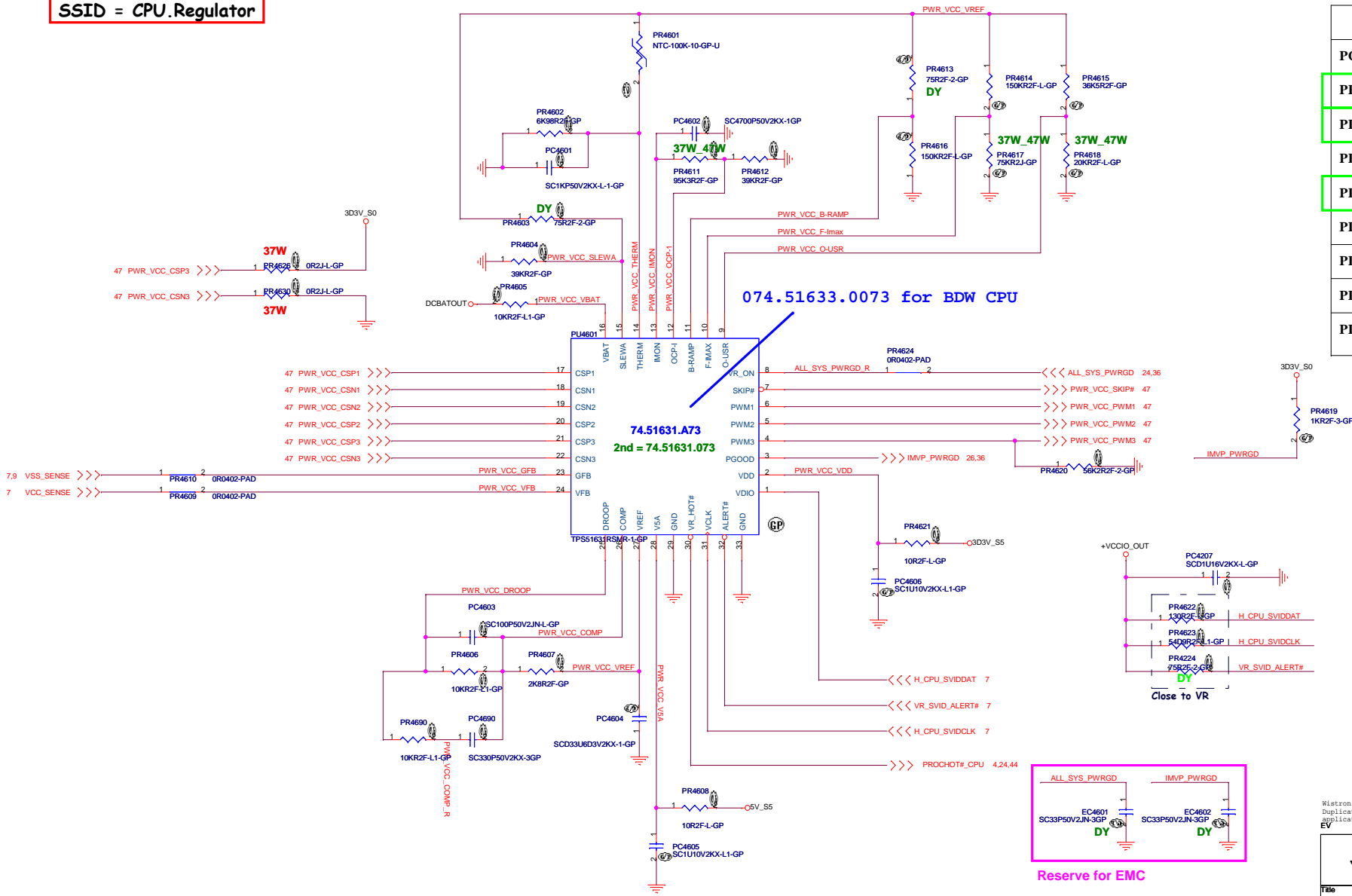
Low Side  
84.00412.037 SIS412  
Vgs @ 4.5V,  
Id = 12A,  
Rds(on) = 24 ~ 30mohm

Choke  
MagLayers. 7x7x3 ,2R2  
Dcr : 18 ~ 20 mOhm  
Idc : 8A Isat : 14 A



Dr-Bios.com

**SSID = CPU\_Regulator**



	47W	37W
PC4602	4.7nF	4.7nF
PR4611	78.47224.2FL	78.47224.2FL
PR4614	95.3k	165k
PR4617	64.95325.6DL	64.16535.6DL
PR4618	150k	274k
PR4615	64.15035.6DL	64.27435.6DL
PR4617	75k	75k
PR4615	36.5k	64.9k
PR4618	64.36525.6DL	64.64925.6DL
PR4618	20k	20k
PR4618	64.20025.6DL	64.20025.6DL
PR4626	DY	0R
PR4626		63.R0034.L0L
PR4630	DY	0R
PR4630		63.R0034.L0L
PR4602	6.98k	6.98k
PR4602	64.69815.6DL	64.69815.6DL

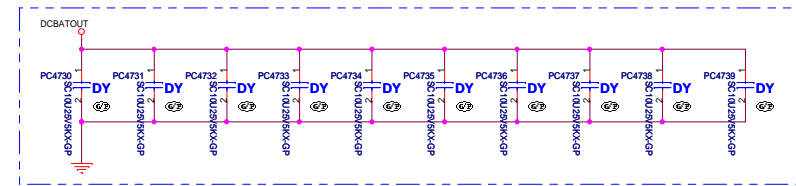
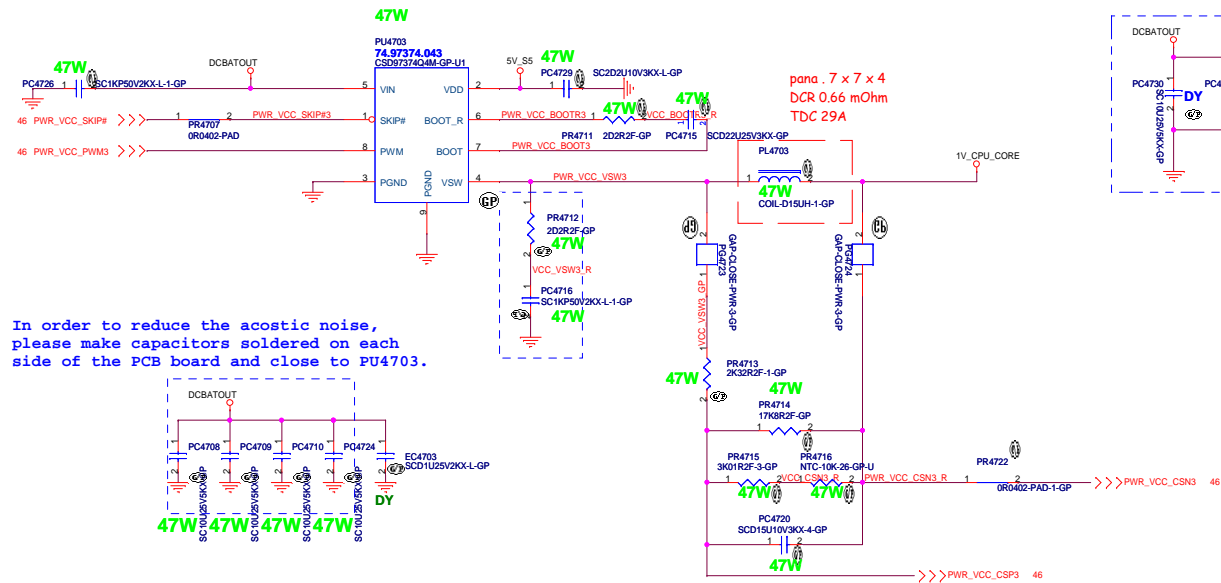
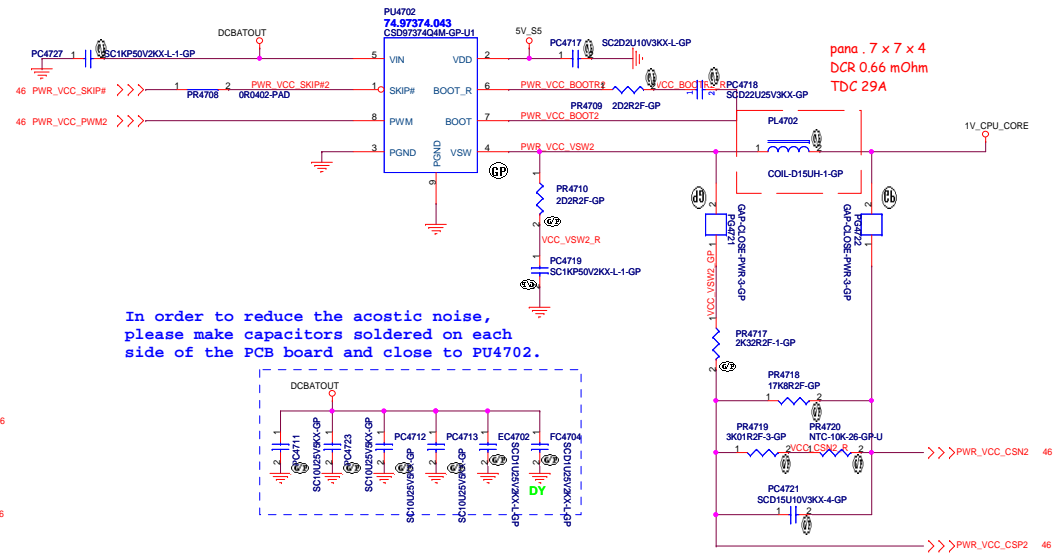
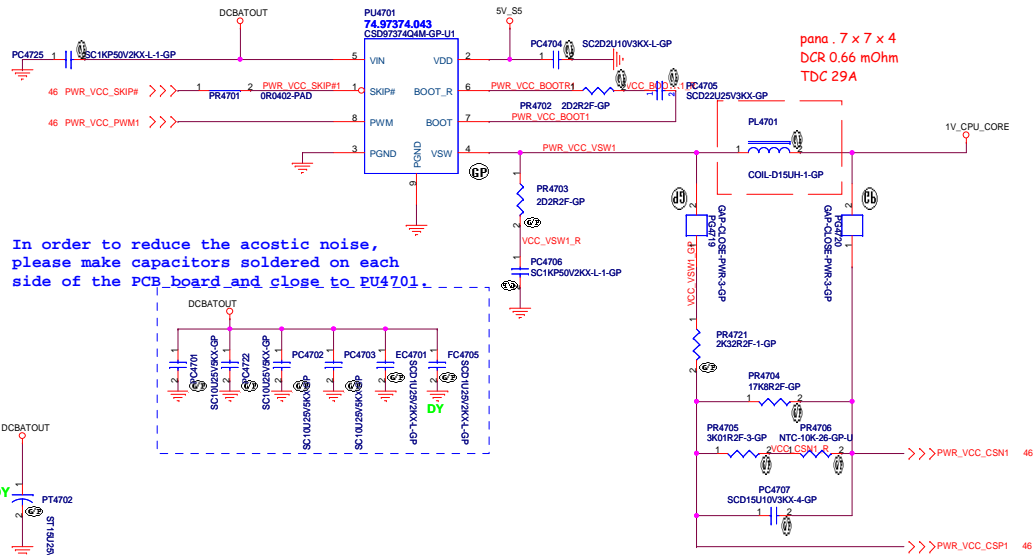
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission EV

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

Title: **TPSS1624 CPU CORE (1/2)**

Size: Custom Document Number: **Hades HBS 860M** Rev: **SB**

Date: Thursday, May 23, 2014 Sheet 46 of 102



Wistron Confidential document. Anyone can not duplicate, Modify, forward or any others purpose application without get Wistron permission.

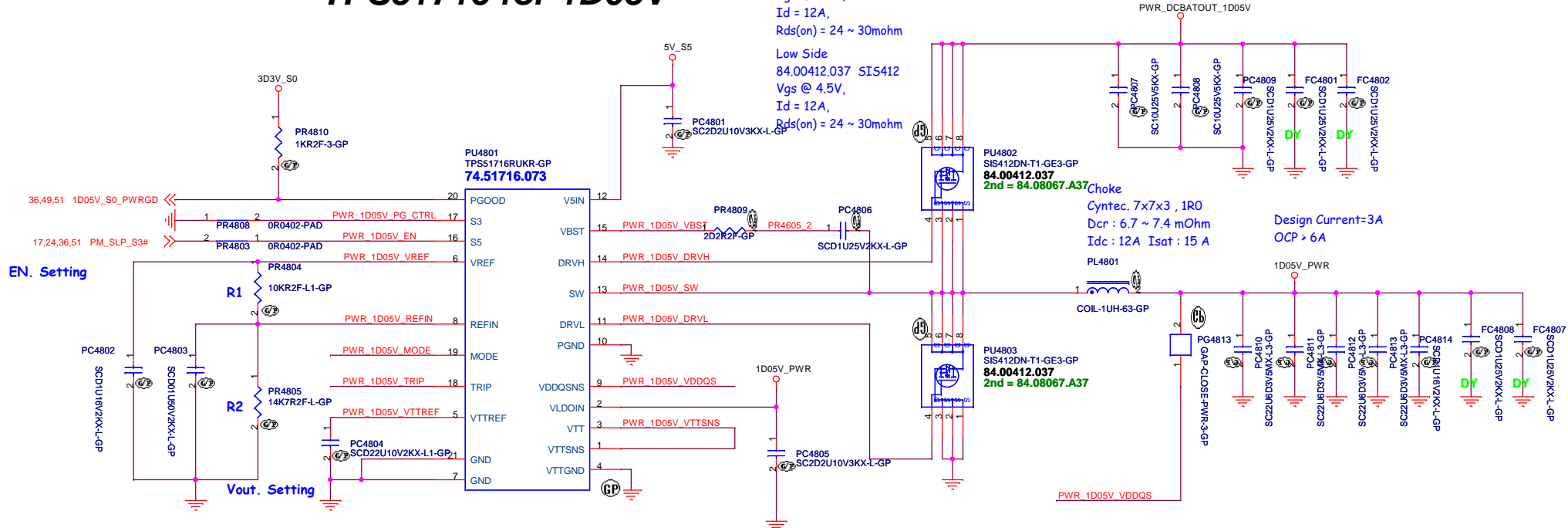
<b>緯創資通</b>		<b>Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Haidih, Taipei Hsien 221, Taiwan, R.O.C.		21F, 88, Sec.1, Hsin Tai Wu Rd., Haidih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>CSD97374_CPUCORE(2/2)</b>			
Title	Document Number		Rev
Size	Hades_HBS 860M		SB
Custom	Date: Wednesday, May 28, 2014		Sheet 47 of 102

Dr-Bios.com

# TPS51716 for 1D05V

High Side  
84.00412.037 SIS412  
Vgs @ 4.5V,  
Id = 12A,  
Rds(on) = 24 ~ 30mohm

Low Side  
84.00412.037 SIS412  
Vgs @ 4.5V,  
Id = 12A,  
Rds(on) = 24 ~ 30mohm



EN. Setting

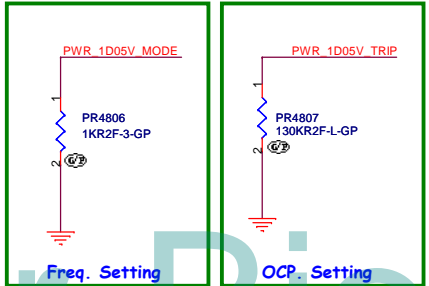
Vout. Setting

Choke  
Cyntec, 7x7x3, 1R0  
Dcr : 6.7 ~ 7.4 mOhm  
Idc : 12A Isat : 15 A

Design Current=3A  
OCP \* 6A

MODE	PR5006	Frequency	Discharge Mode
	33k ohm	500kHz	Non-tracking Discharge
	22k ohm	670kHz	
	12k ohm	670kHz	Tracking Discharge
	1k ohm	500kHz	

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



Dr-Bios.com

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

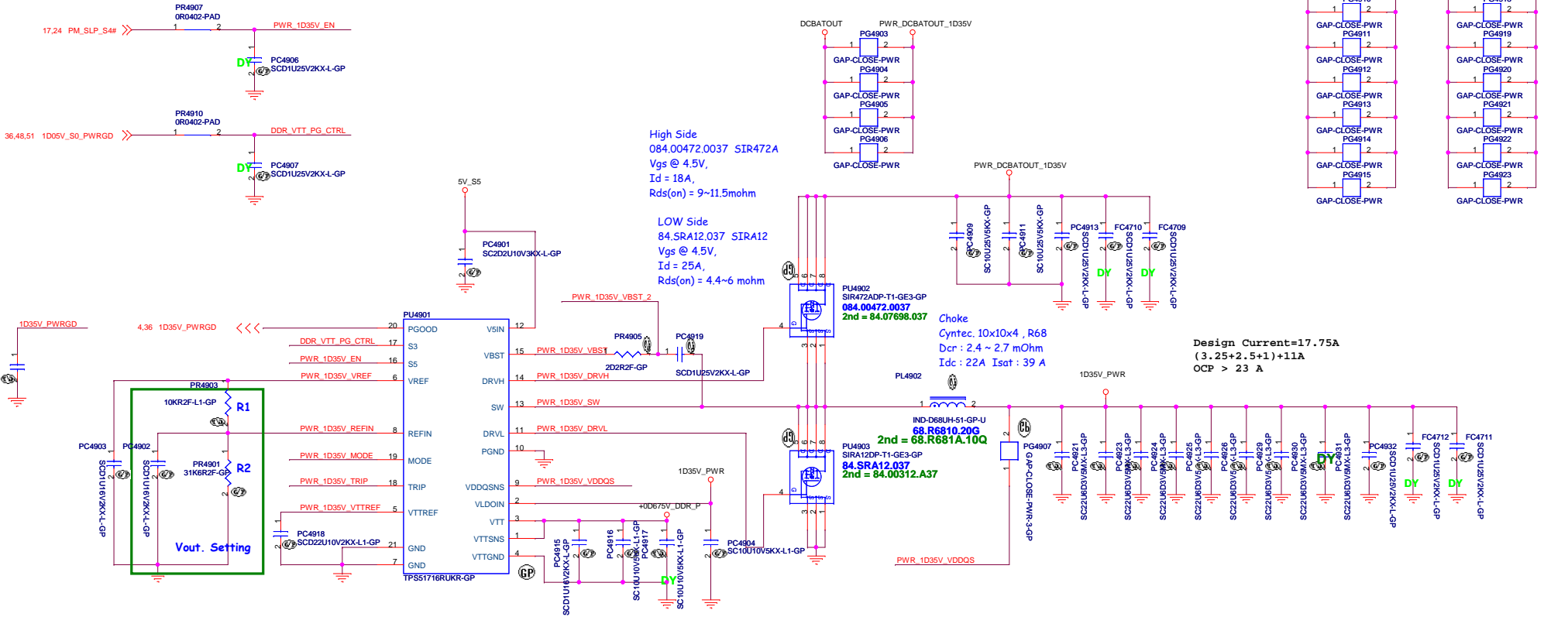
EV

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

Title <b>DC to DC 1D05V (TPS51716)</b>		
Size A3	Document Number <b>Hades HBS 860M</b>	Rev <b>SB</b>
Date: Wednesday, May 28, 2014	Sheet 48 of 102	

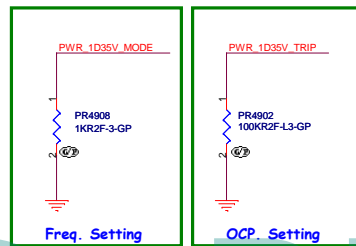


**SSID = PWR.Plane.Regulator\_1p35v0p675v**



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

MODE		
PR4908	Frequency	Discharge Mode
33k ohm	500kHz	Non-tracking Discharge
22k ohm	670kHz	
12k ohm	670kHz	Tracking Discharge
1k ohm	500kHz	



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

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

Title		<b>TPSS1716 (VDDQ VTT)</b>	
Size	Document Number	<b>Hades_HBS 860M</b>	
Custom		Rev	<b>SB</b>
Date:	Wednesday, May 26, 2014	Sheet	49 of 102

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

EV

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 TLV62065**

Size A4	Document Number <b>Hades HBS 860M</b>	Rev <b>SB</b>
------------	--	------------------

Date: Friday, April 11, 2014 Sheet 50 of 102

Dr-Bios.com

5

4

3

2

1





Dr-Bios.com

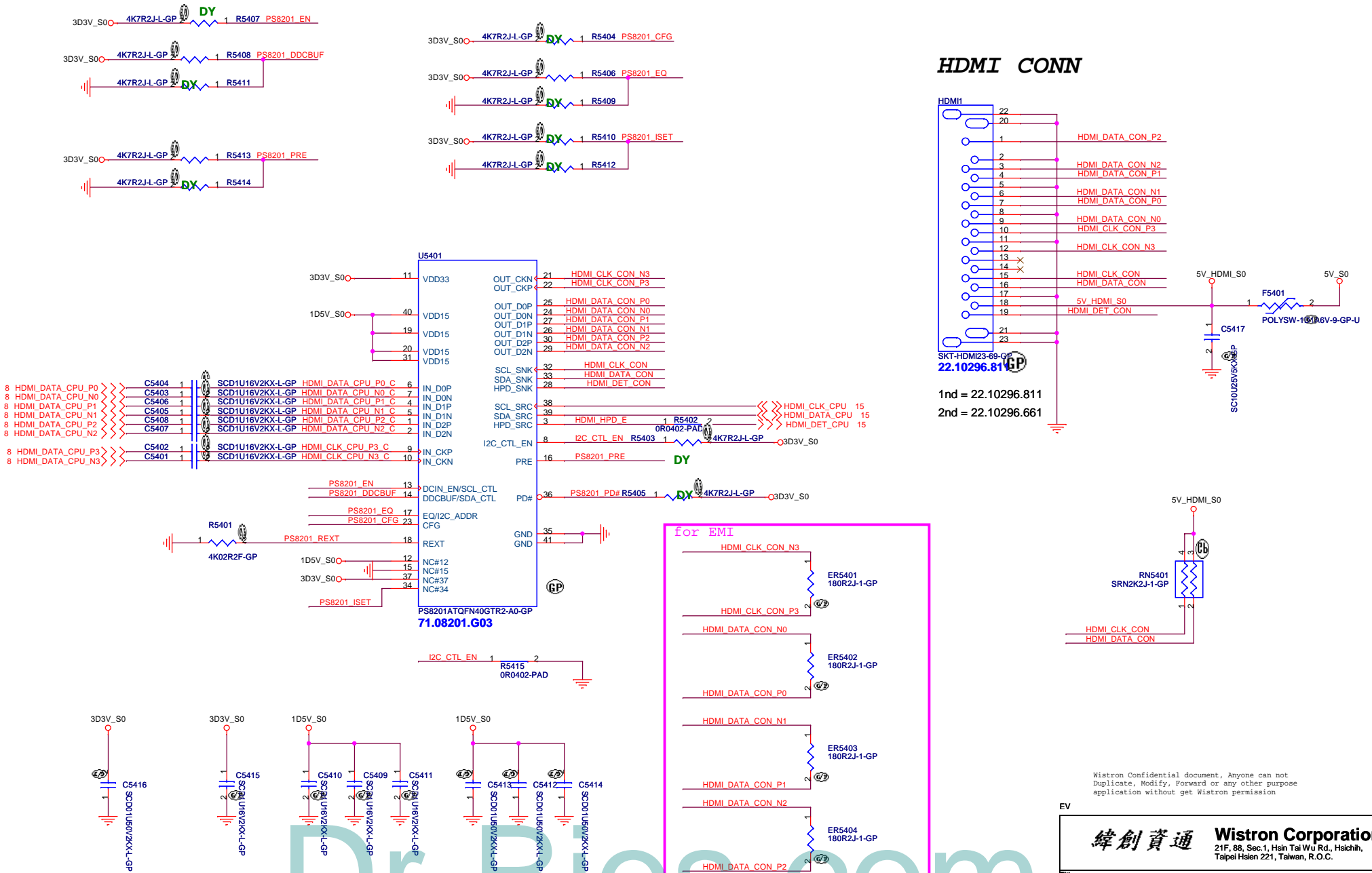
Wistron Confidential document. Anyone can not  
Duplicate, Modify, Forward or any other purpose  
application without get Wistron permission

EV

緯創資通		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>CRT Board Connector (Reserved)</b>			
Size	Document Number		Rev
A3	<b>Hades HBS 860M</b>		<b>SB</b>
Date:	Friday, April 11, 2014	Sheet	53 of 102

SSID = VIDEO

# HDMI Level Shifter & CONNECTOR



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

Dr-Bios.com

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

EV

緯創資通

**Wistron Corporation**

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

Title

**Display Port**

Size

Document Number

Rev

Custom

**Hades HBS 860M**

**SB**

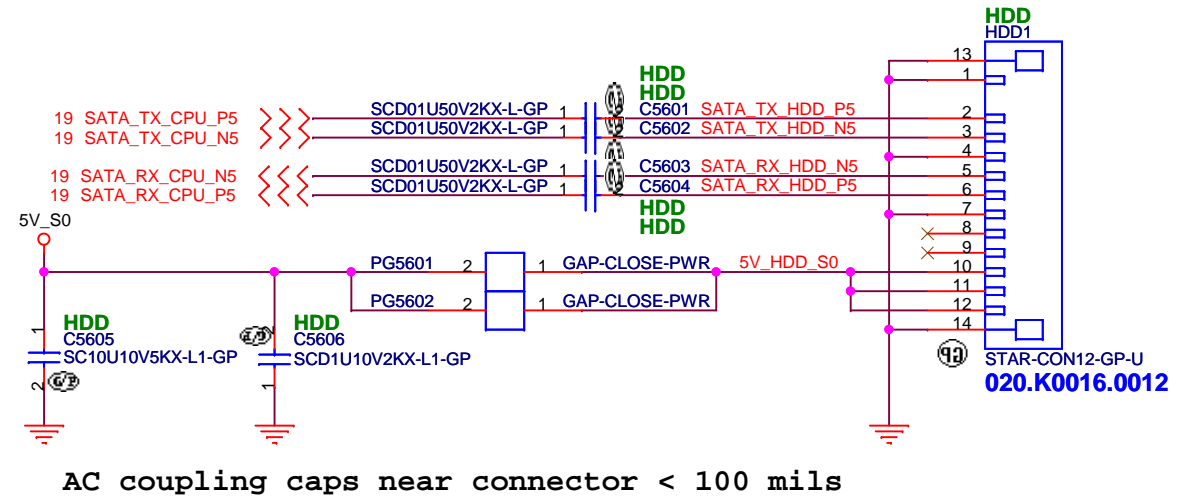
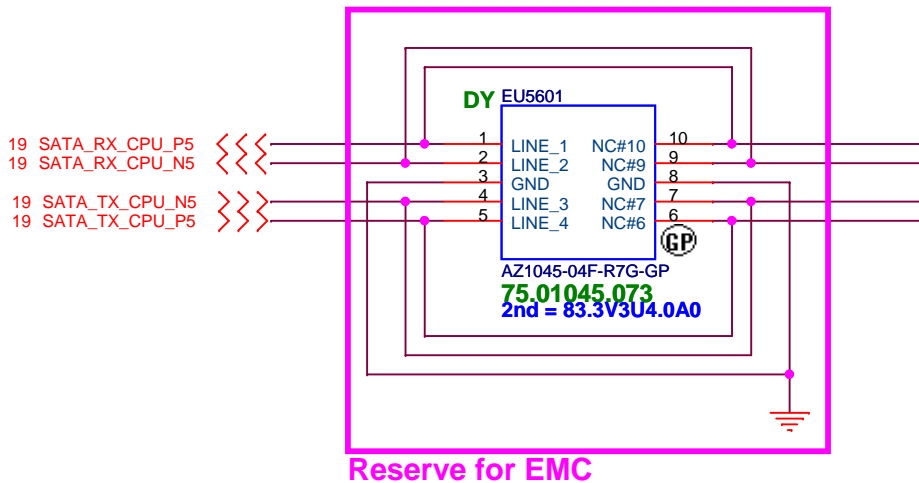
Date: Friday, April 11, 2014

Sheet 55 of 102

Dr-Bios.com

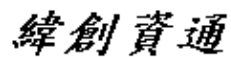
**SSID = SATA**

# SATA HDD Connector



# SATA ODD Connector

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

 <b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>HDD / ODD</b>	
Title <b>HDD / ODD</b>	Document Number <b>Hades HBS 860M</b>
Size A4	Rev <b>SB</b>
Date: Friday, April 11, 2014	Sheet 56 of 102

Dr-Bios.com



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

EV

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

Title **E-SATA**

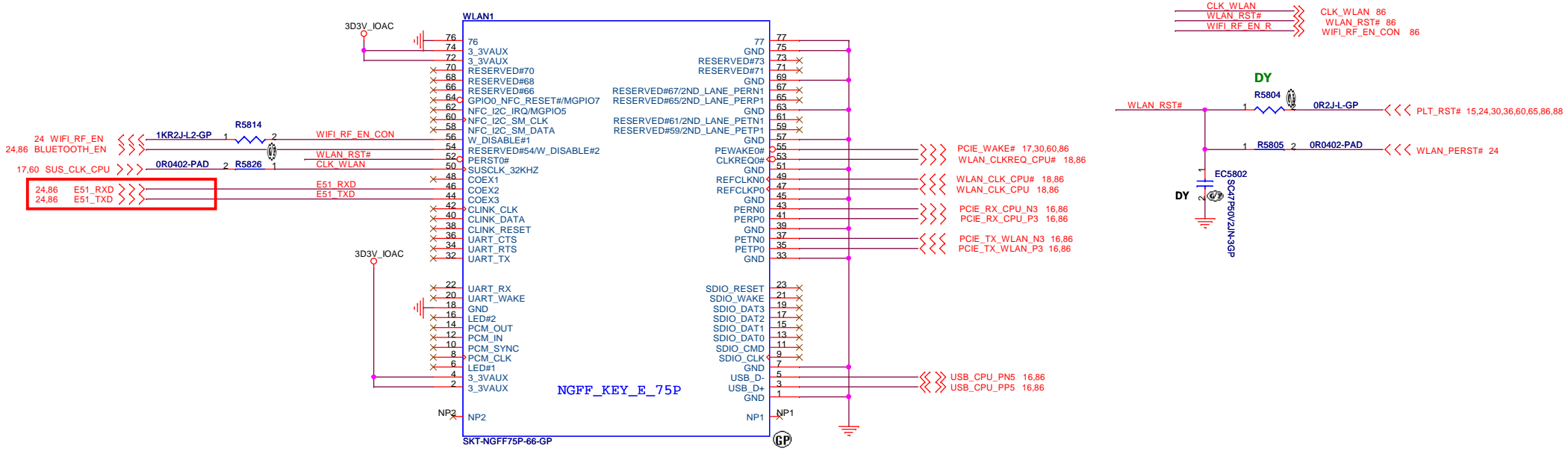
Size A4 Document Number **Hades HBS 860M** Rev **SB**

Date: Friday, April 11, 2014 Sheet 57 of 102

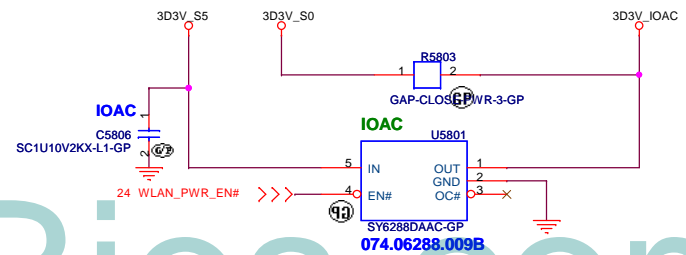
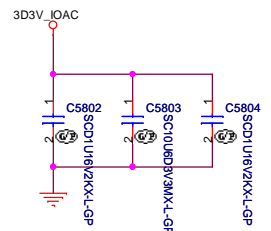
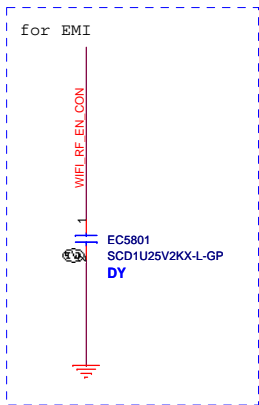
Dr-Bios.com

SSID = Wireless

# NGFF Connector (802.11a/b/g/n)



1nd = 062.10007.0161  
 2nd = 062.10003.0401



Dr-Bios.com

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

緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	MINICARD(WLAN)		
Size	Document Number	Rev	
Custom	Hades HBS 860M	SB	
Date: Wednesday, May 28, 2014	Sheet 58	of 102	

**SSID = Wireless**

# *Mini Card Connector(mSATA)*

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

EV

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

A4

Document Number

**Hades HBS 860M**

Rev

**SB**

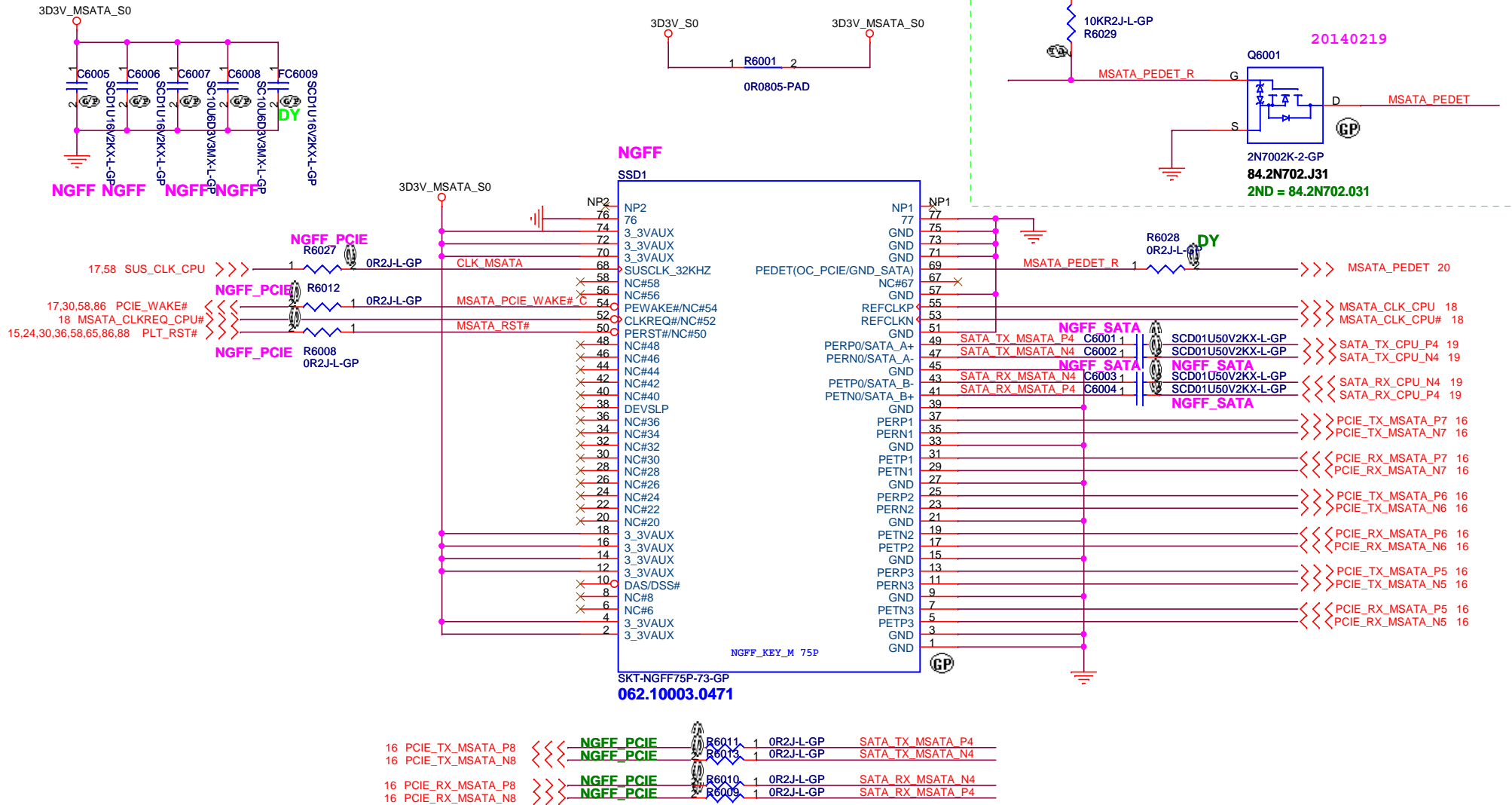
Date: Friday, April 11, 2014

Sheet 59 of 102

Dr-Bios.com

**SSID = m-SATA**

# Mini Card Connector (NGFF m-SATA)



## SATA/PCIe Gen 2 and Gen 3 Capacitor Values

Condition	PCIe Only	SATA Only	PCIe/SATA
PCH Tx	100 nF	10 nF	100 nF
PCH Rx	None	10 nF <sup>2</sup>	None <sup>3</sup>

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

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

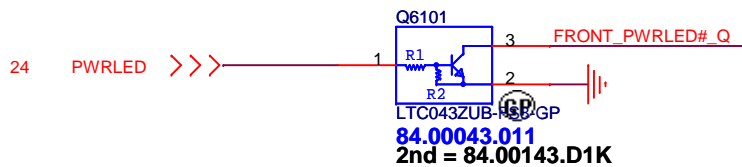
Title: **NGFF m-SATA Connector**

Size: Document Number  
 Custom: **Hades\_HBS 860M** Rev: **SB**

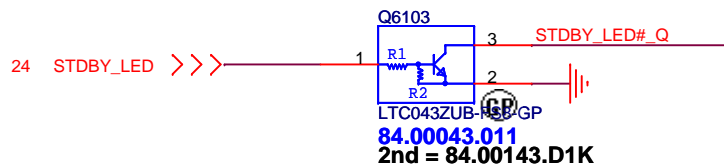
Date: Wednesday, May 28, 2014 Sheet 60 of 102

**SSID = User.Interface**

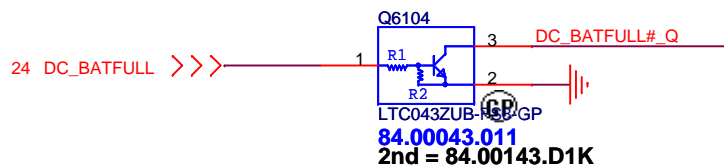
### Power Button\_LED



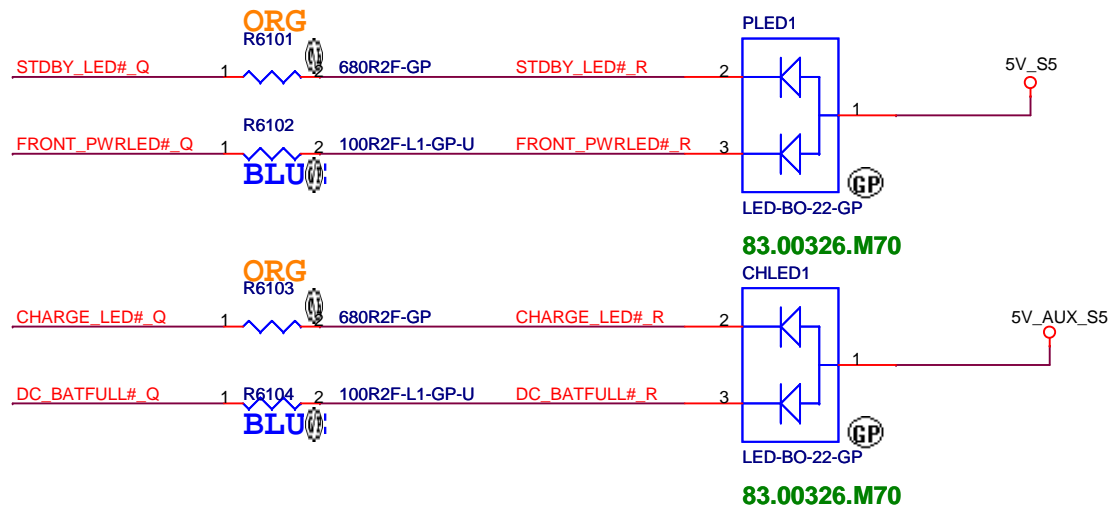
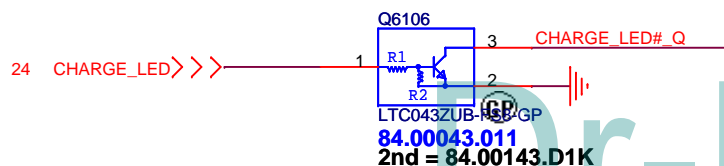
### Power STDBY\_LED



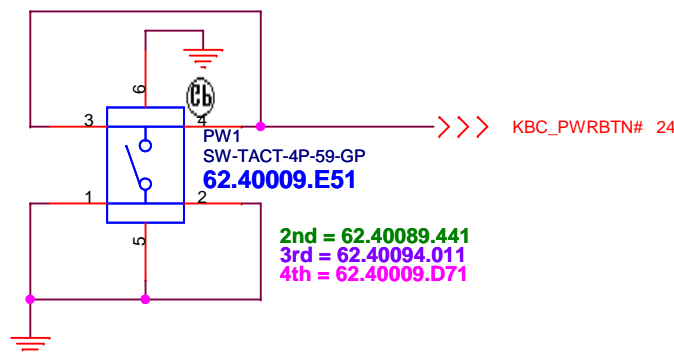
### Battery LED2 (DC\_BATFULL)



### Battery LED1 (CHARGE)



### Power Button

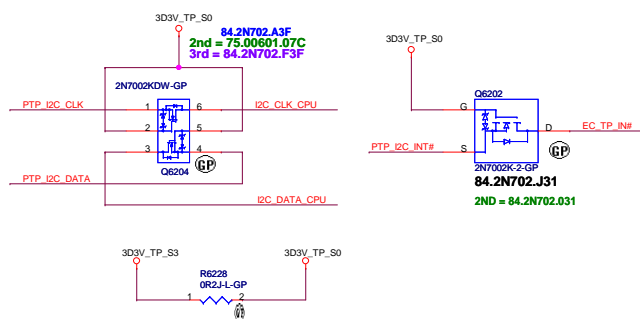


Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose Evplication without get Wistron permission

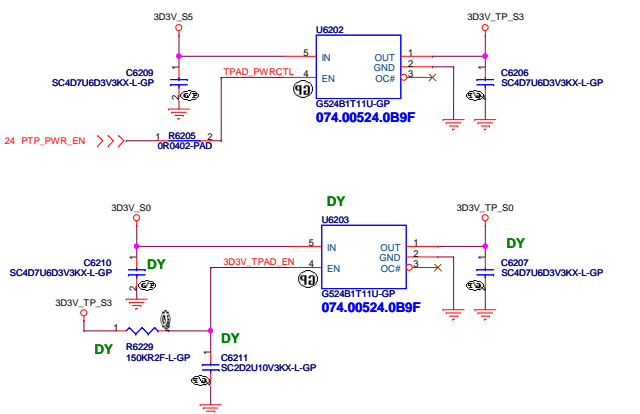
**緯創資通 Wistron Corporation**  
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title <b>LED Bard/Power Button</b>		
Size A4	Document Number <b>Hades HBS 860M</b>	Rev <b>SB</b>
Date Monday, May 26, 2014	Sheet 61	of 102

Dr-Bios.com



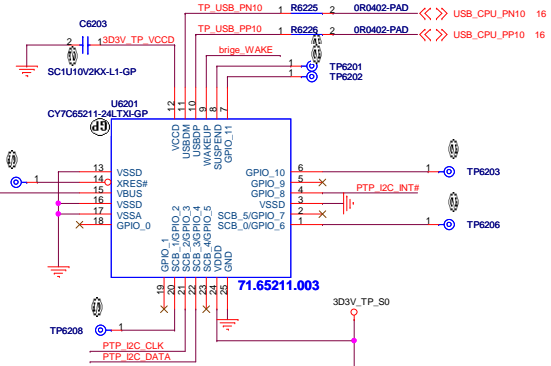
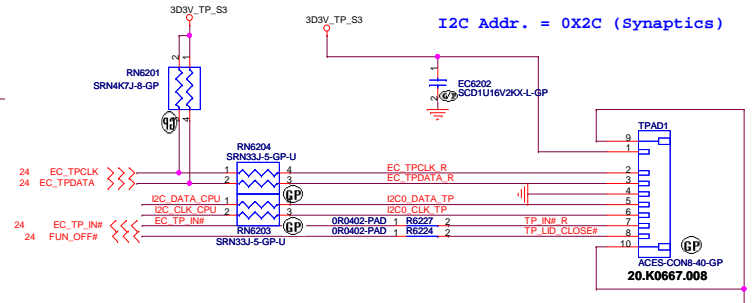
Firmware adds to delay 90ms to access TP device



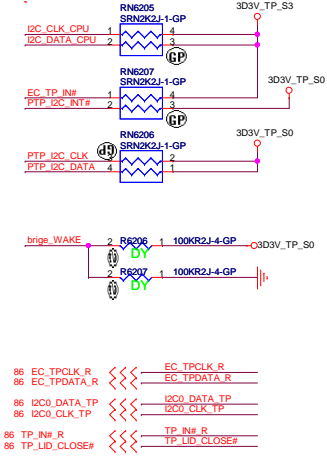
### Precision Touch Pad

I2C Addr. = 0X2C (Synaptics)

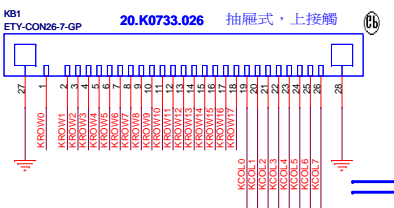
Pin Number	Pin Definition
1	VCC (3.3V_S0 / 3.3V_S5)
2	PS/2 Clock
3	PS/2 Data
4	GND
5	I2C Data
6	I2C Clock
7	Interrupt# / Wake#
8	Button# / LID_CLOSED#



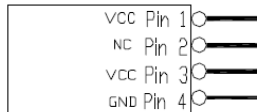
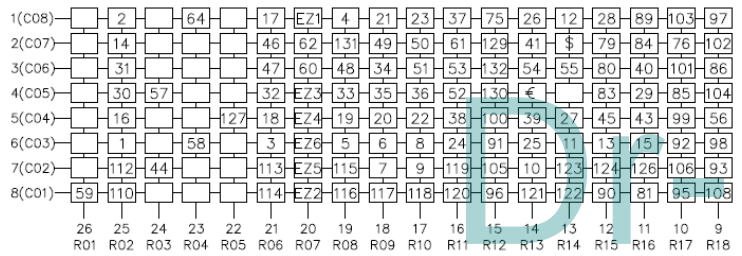
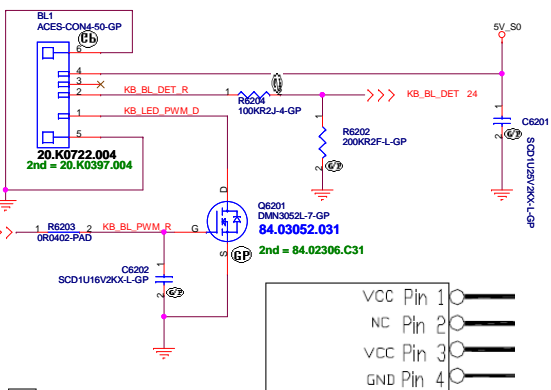
NEW F/W PN:071.65211.0003



### Internal KeyBoard Connector



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



KB\_LED\_PWM\_D <<<< KB\_LED\_PWM\_D 86  
 KB\_LED\_PWM\_R <<<< KB\_LED\_PWM\_R 86

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

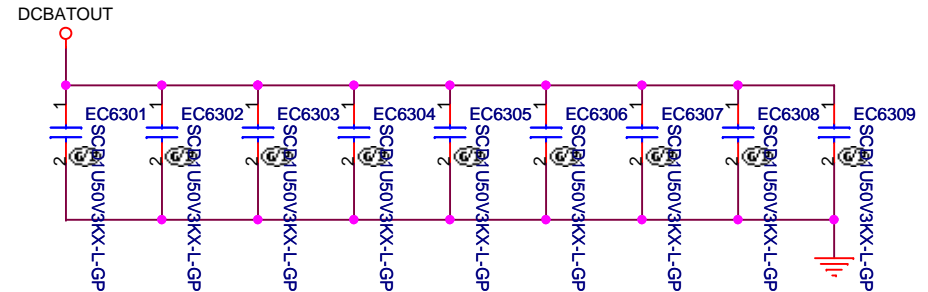
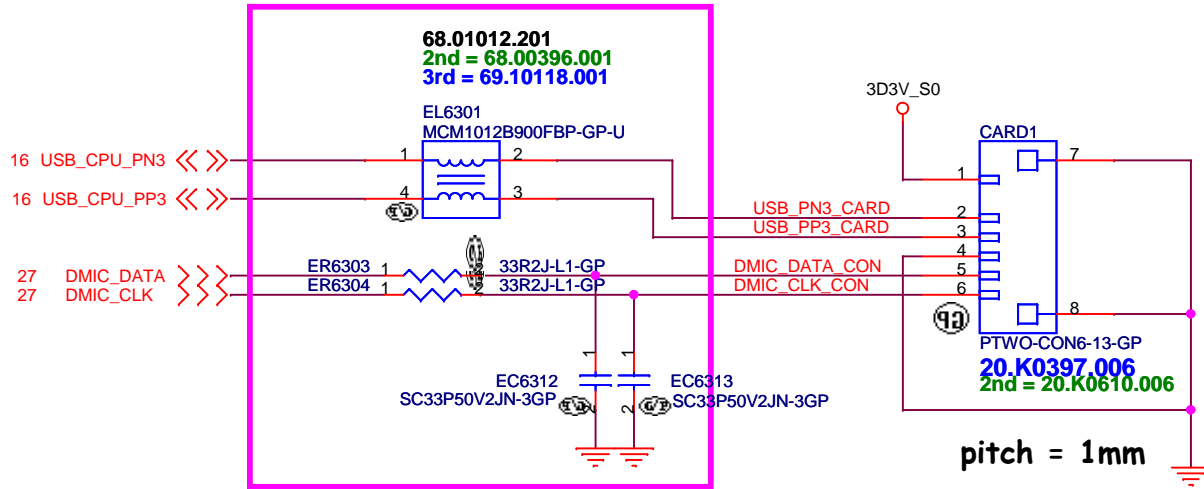
EV

緯創資通 Wistron Corporation  
 21F, 86, Sec.1, Hsin Tai Wu Rd., Heichih, Taipei Hsien 221, Taiwan, R.O.C.

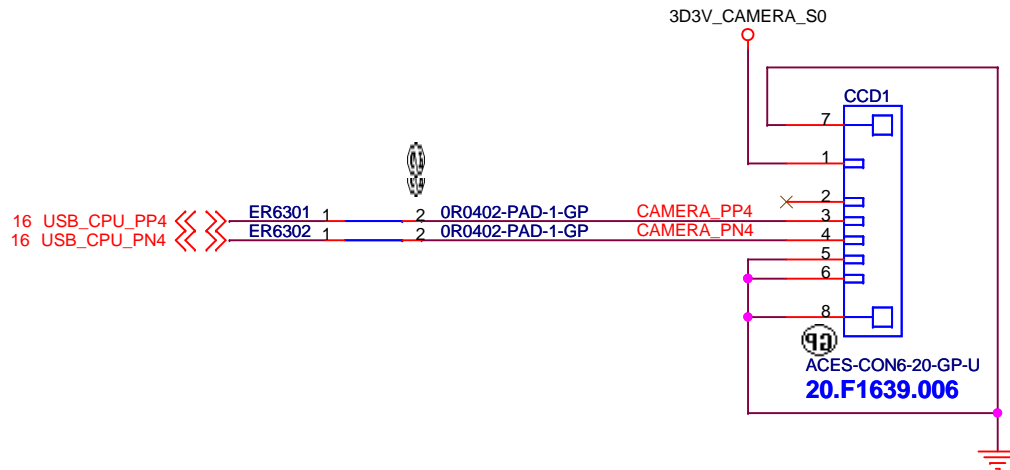
Title: **Key Board/Touch Pad**

Size: Document Number  
 Custom: **Hades\_HBS\_860M** Rev: **SB**

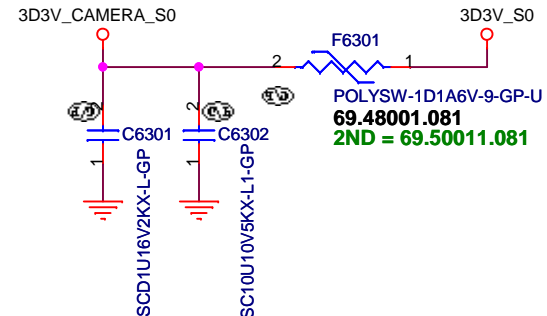
Date: Wednesday, June 14, 2014 Sheet: 62 of 102



Reserve for EMC



### Camera Power



86 USB\_PN3\_CARD <<<< USB\_PN3\_CARD  
 86 USB\_PP3\_CARD <<<< USB\_PP3\_CARD  
 86 DMIC\_DATA\_CON <<<< DMIC\_DATA\_CON  
 86 DMIC\_CLK\_CON <<<< DMIC\_CLK\_CON

86 CAMERA\_PP4 <<<< CAMERA\_PP4  
 86 CAMERA\_PN4 <<<< CAMERA\_PN4

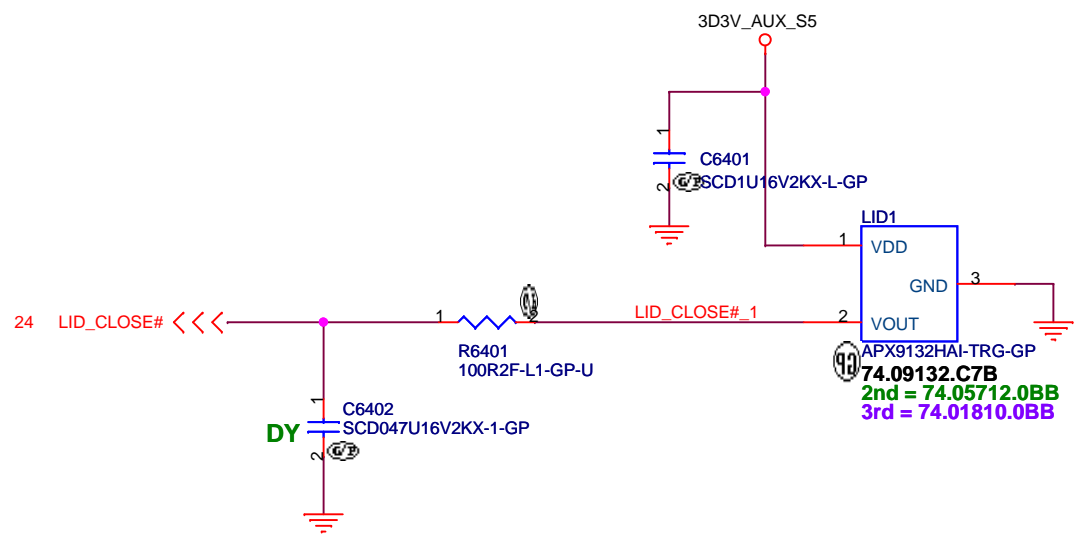
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

EV

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

Title		<b>IO Board Connector</b>	
Size	Document Number	<b>Hades_HBS 860M</b>	
Date	Wednesday, May 21, 2014	Sheet	63 of 102
		Rev	<b>SB</b>

Dr-Bios.com



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

EV

<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title <b>Hall Sensor</b>			
Size A4	Document Number <b>Hades HBS 860M</b>		Rev <b>SB</b>
Date: Friday, April 11, 2014	Sheet 64	of	102

Dr-Bios.com





(Blanking)

Dr-Bios.com

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

EV

<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>SENSOR HUB</b>			
Size	Document Number		Rev
A3	<b>Hades HBS 860M</b>		<b>SB</b>
Date:	Friday, April 11, 2014	Sheet	66 of 102

# Free Fall 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 NB as possible as you can

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

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

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

EV

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

Document Number

Rev

A

**Hades HBS 860M**

**SB**

Date: Friday, April 11, 2014

Sheet 67 of

102

Dr-Bios.com

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

EV

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

Title		
<b>Thunderbolt (1/5)</b>		
Size	Document Number	Rev
Custom	<b>Hades HBS 860M</b>	<b>SB</b>
Date:	Friday, April 11, 2014	Sheet 68 of 102

Dr-Bios.com



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

EV

<b>緯創資通</b>		<b>Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b>			
<b>Thunderbolt (2/5)</b>			
<b>Size</b>	<b>Document Number</b>	<b>Rev</b>	
Custom	<b>Hades HBS 860M</b>	<b>SB</b>	
<b>Date:</b>	<b>Friday, April 11, 2014</b>	<b>Sheet</b>	<b>69 of 102</b>

Dr-Bios.com

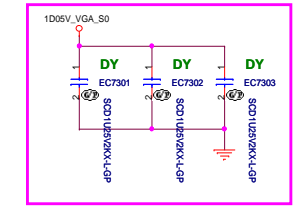
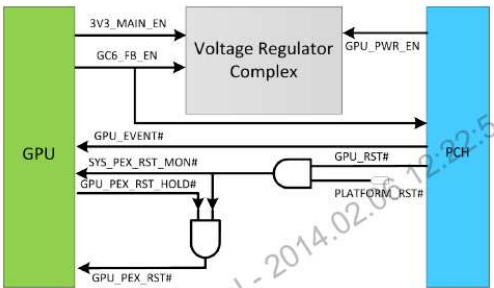
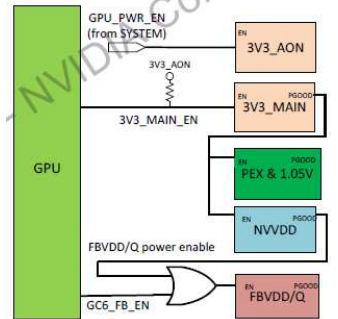
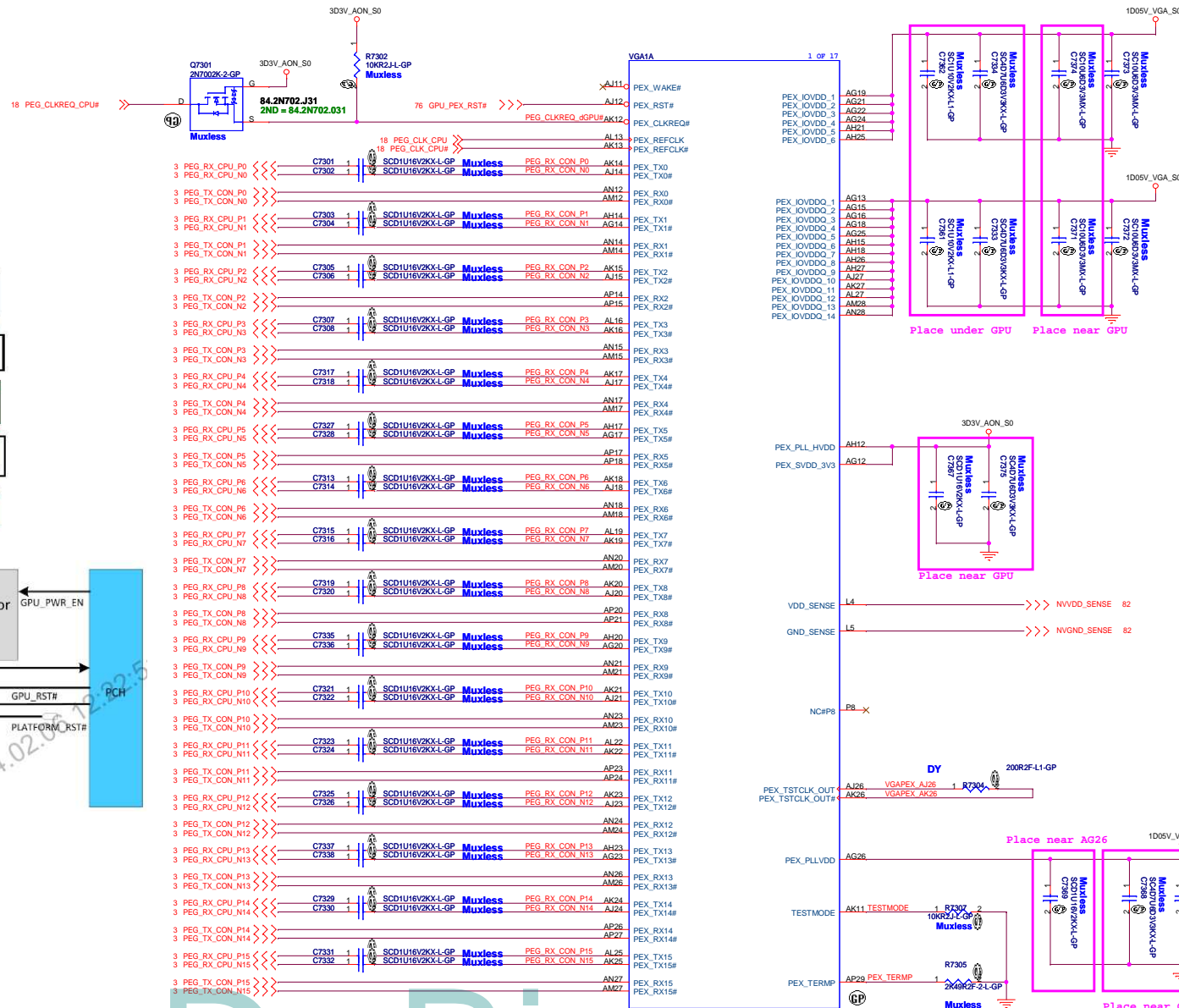
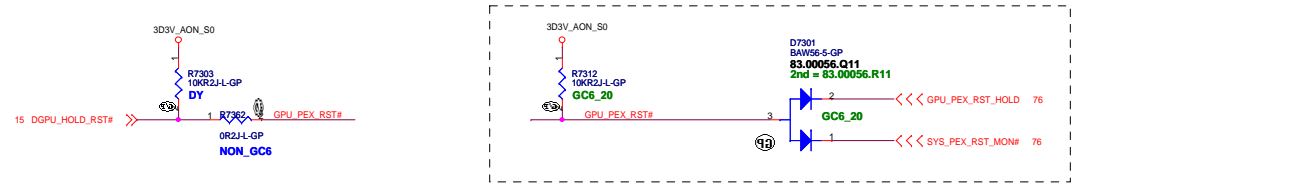


Wistron Confidential document. Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

EV

<b>緯創資通</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Title</b>			
<b>Thunderbolt (4/5)</b>			
<b>Size</b>	<b>Document Number</b>	<b>Rev</b>	
Custom	<b>Hades_HBS 860M</b>	<b>SB</b>	
<b>Date:</b>	Friday, April 11, 2014	<b>Sheet</b>	71 of 102

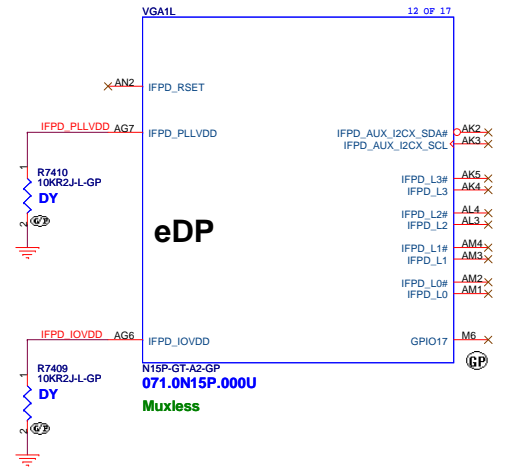
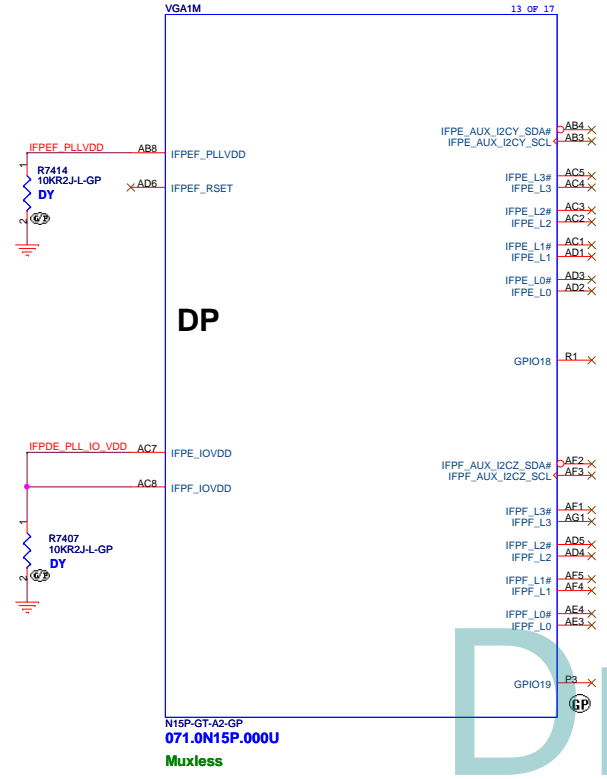
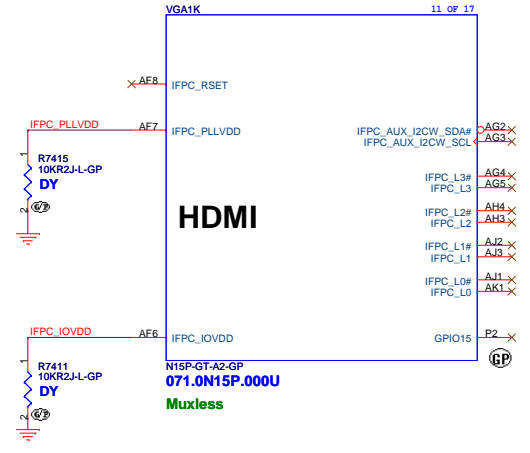
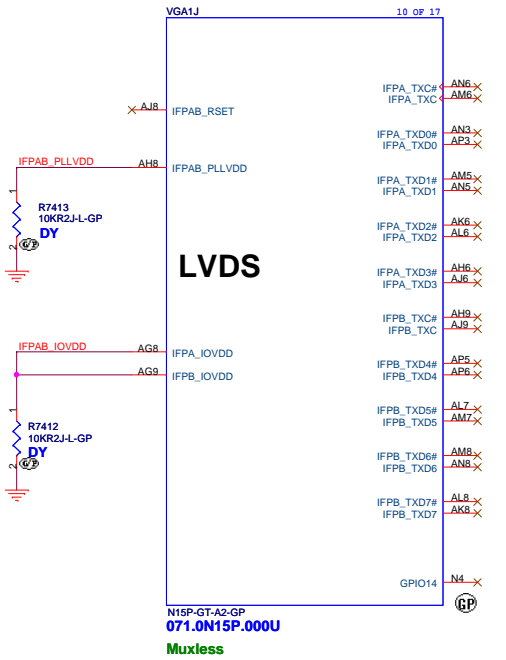
Dr-Bios.com



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

		<b>Wistron Corporation</b> 21F, 8F, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsien 301, Taiwan, R.O.C.
<b>GPU(PEG)</b>		
File	Document Number	Rev
Size	Hades_HBS_860M	SB
Customer	Friday, April 11, 2014	Sheet 72 of 102

Dr-Bios.com 071.0N15P.000 Muxless



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

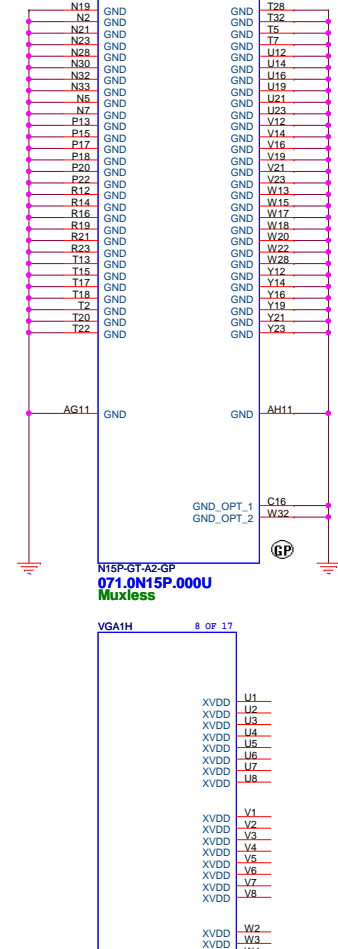
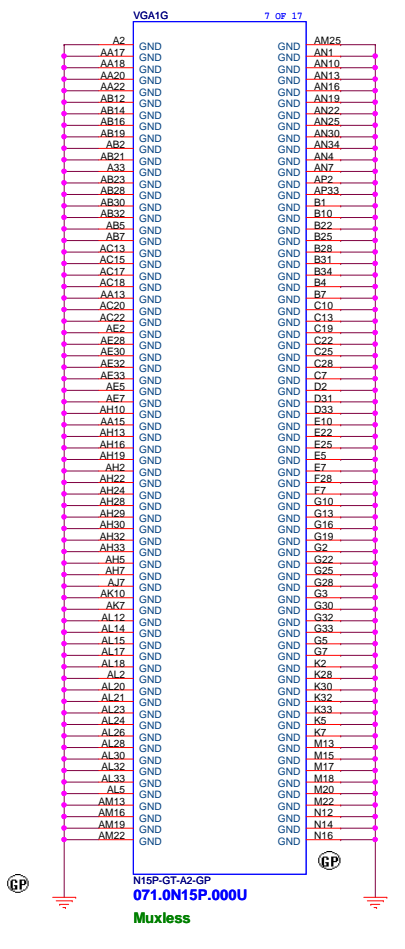
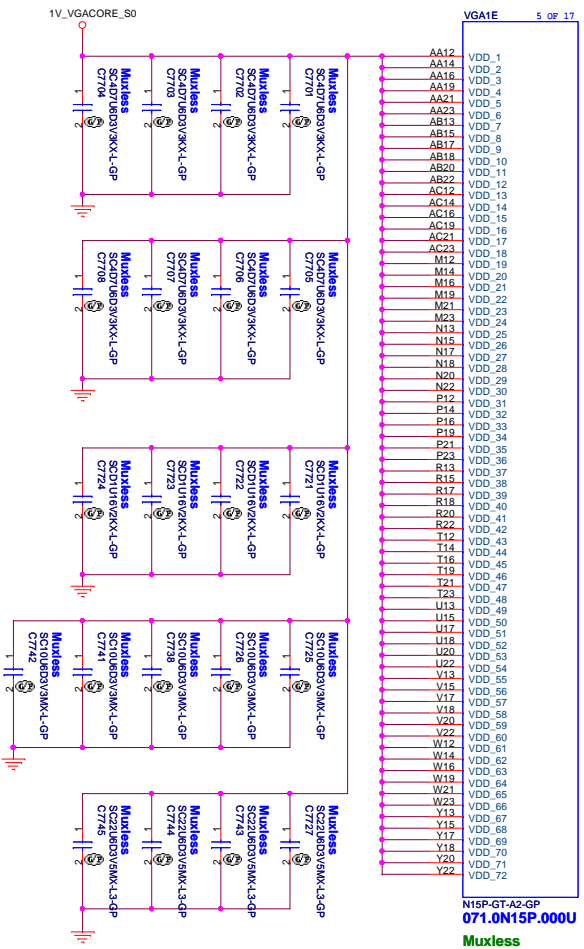
EV		
緯創資通 Wistron Corporation		
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title	<b>GPU (DIGITALOUT)</b>	
Size	Document Number	Rev
Custom	<b>Hades HBS 860M</b>	<b>SB</b>
Date:	Friday, April 11, 2014	Sheet 74 of 102

Dr-Bios.com

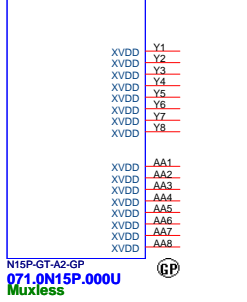
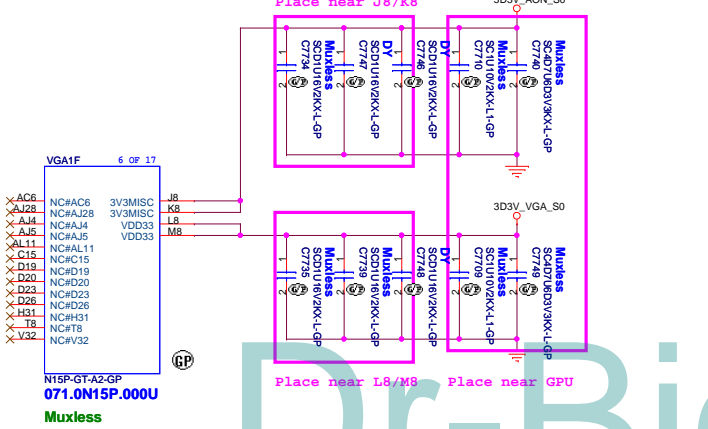








4.7uF (X6S)	15
1uF (X6S)	8
22uF (X5R)	7
4.7uF (X5R)	5
330uF (POS)	1



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

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

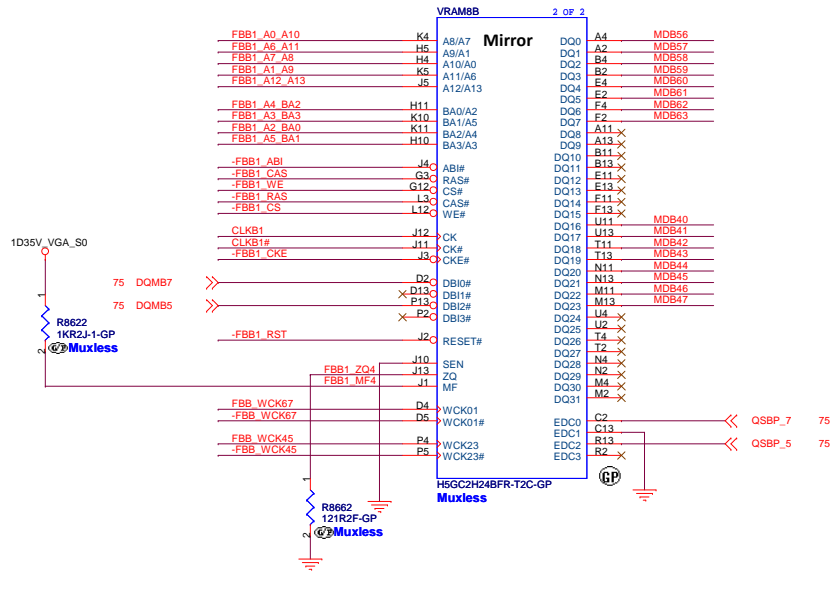
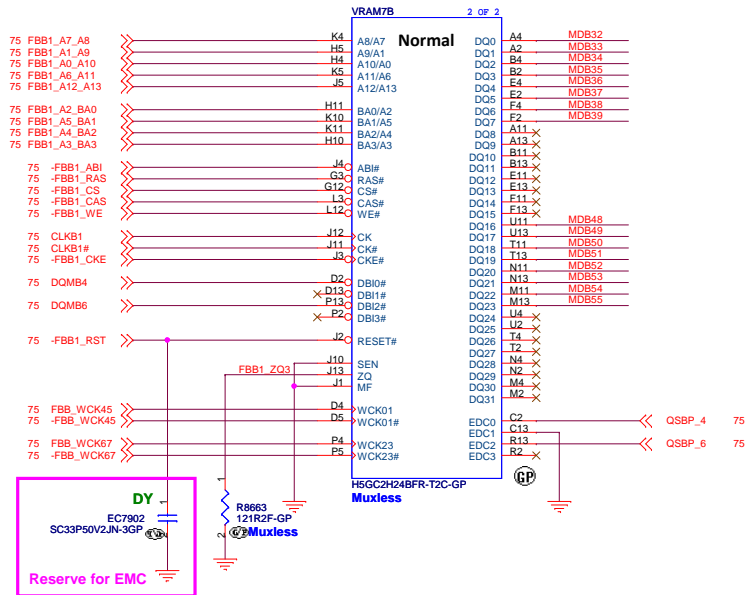
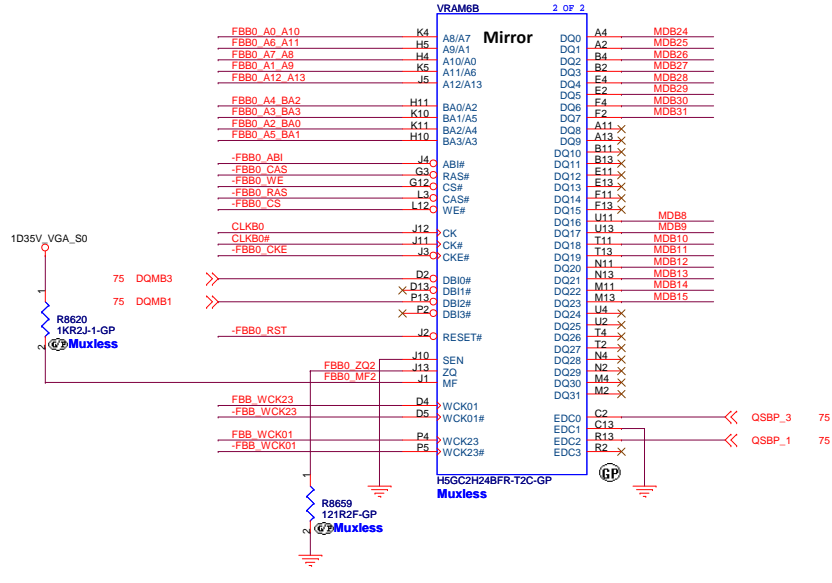
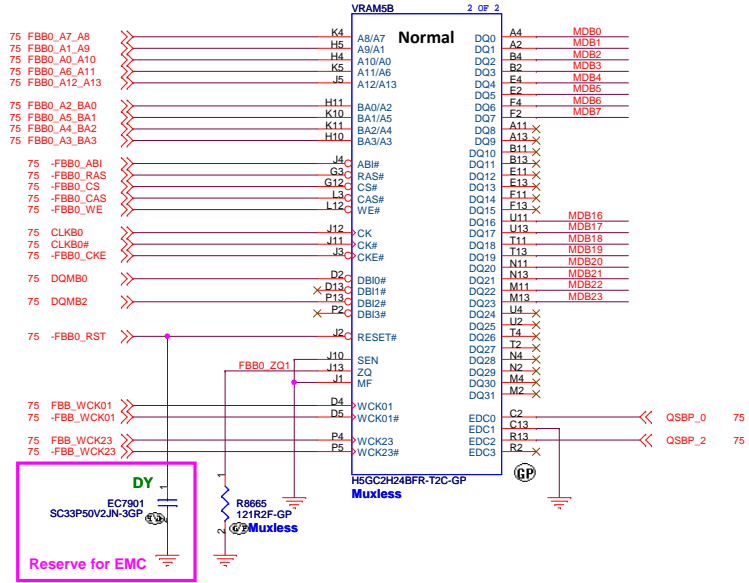
Title: **GPU (POWER/GND)**

Size: Custom Document Number: **Hades HBS 860M** Rev: **SB**

Date: Thursday, May 22, 2014 Sheet: 77 of 102



MDBI[63..0] 75



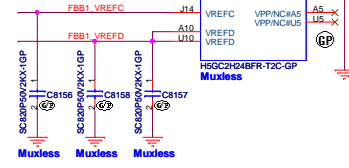
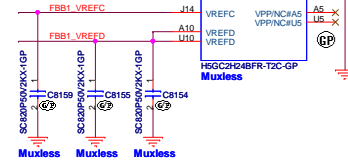
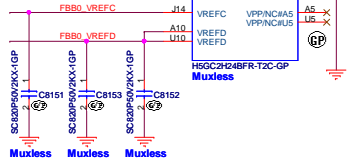
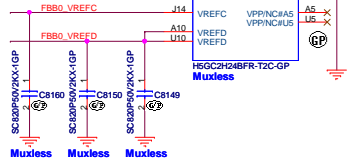
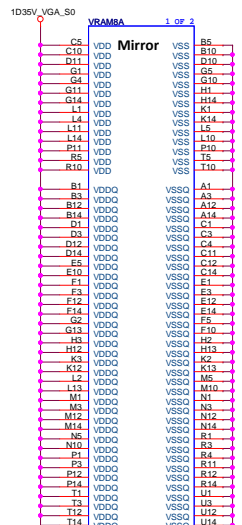
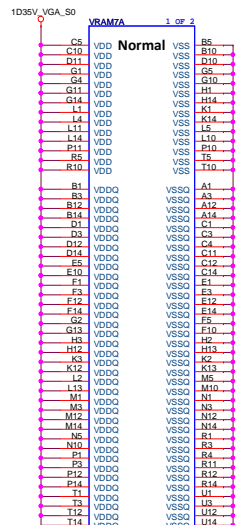
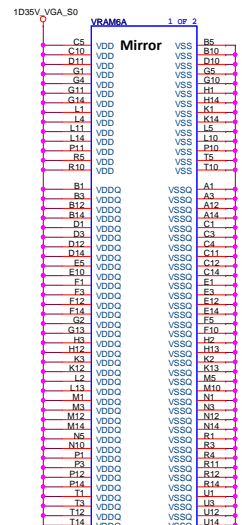
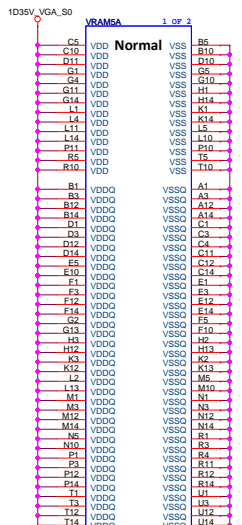
Dr-Bios.com

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

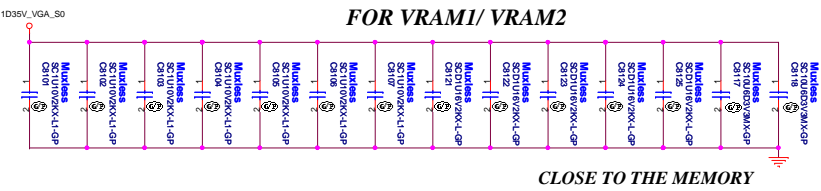
緯創資通 Wistron Corporation  
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Heien 221, Taiwan, R.O.C.

Title: VRAM B  
Size: Document Number: Hades\_HBS 860M Rev: SB  
Date: Friday, April 11, 2014 Sheet: 79 of 102



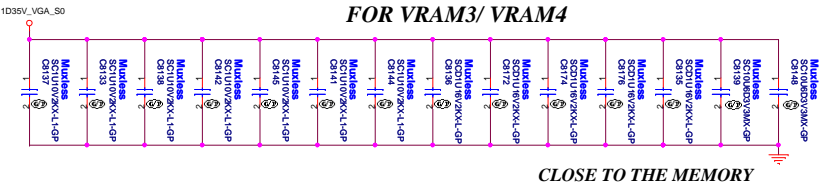


**FOR VRAM1/ VRAM2**

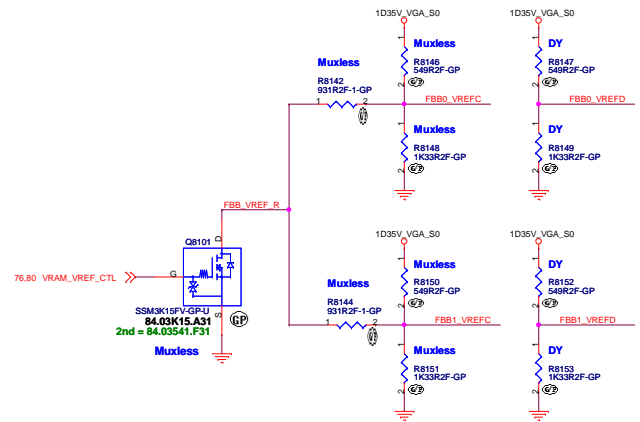


CLOSE TO THE MEMORY

**FOR VRAM3/ VRAM4**



CLOSE TO THE MEMORY



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

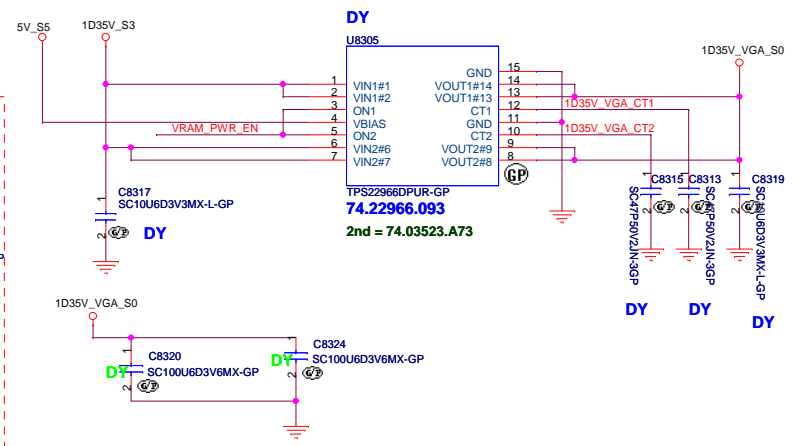
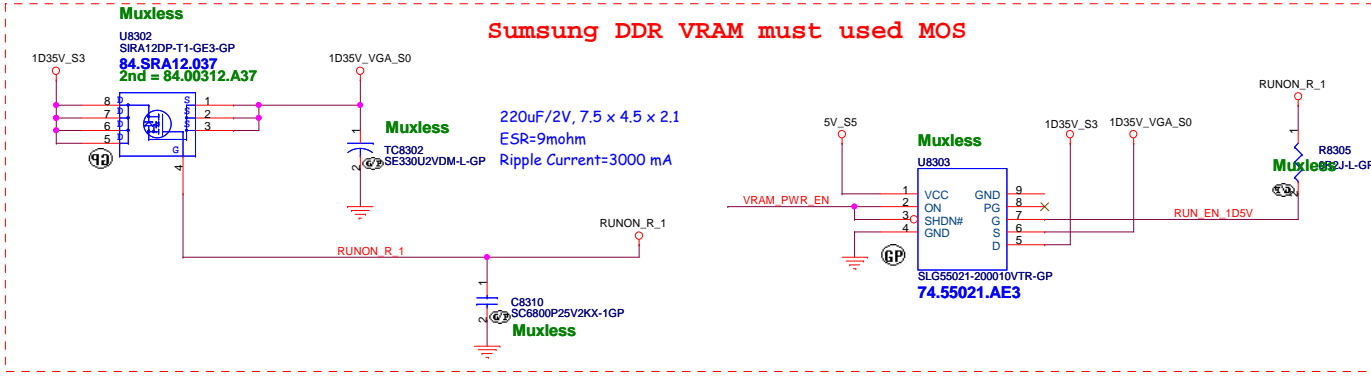
<b>緯創資通</b>		<b>Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title		<b>VGA Power B</b>	
Size	Document Number	Hades_HBS 860M	Rev
Customer			SB
Date:	Friday, April 11, 2014	Sheet	R1 of 102



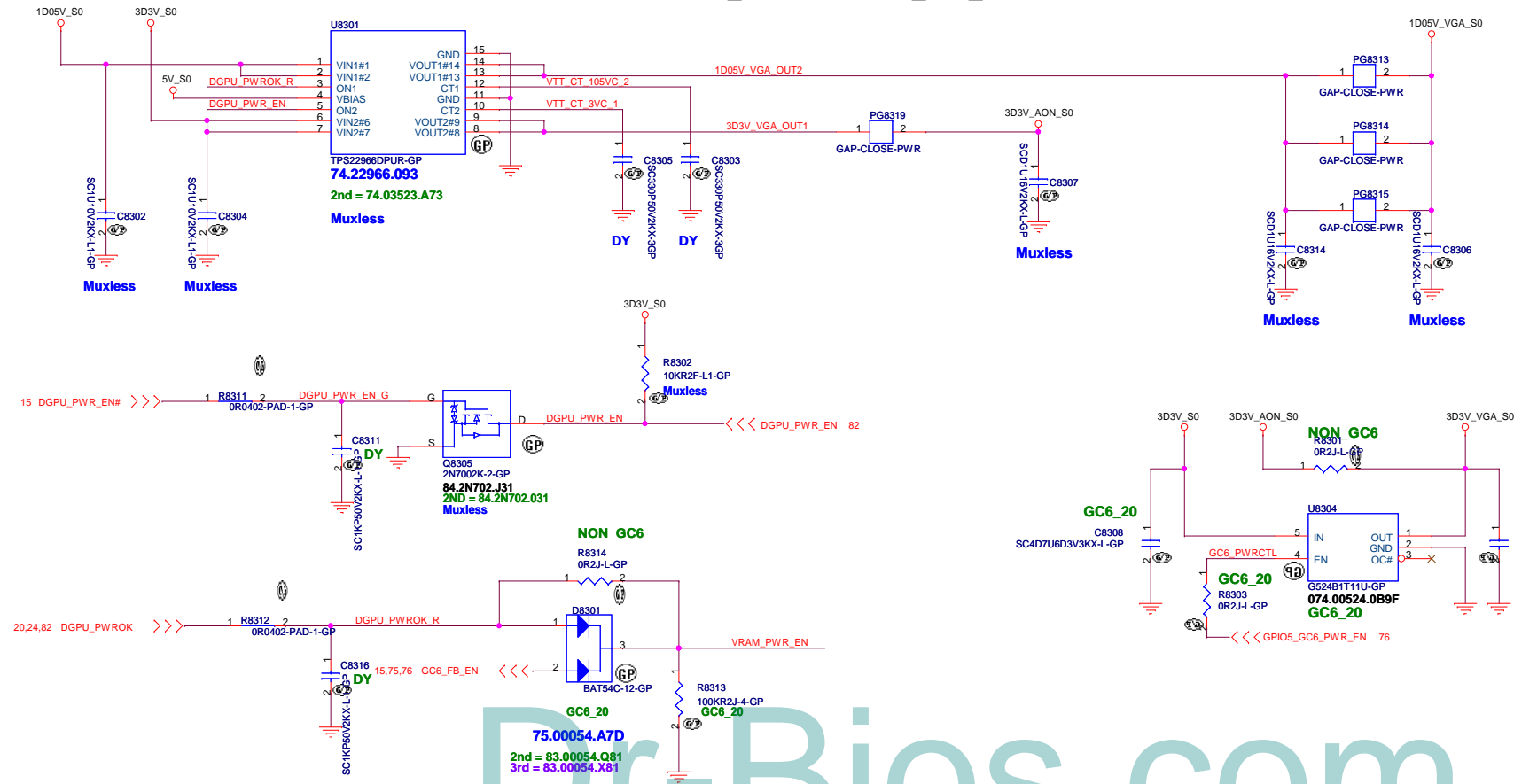




# TPS22966 for VGA\_1D35V(For VRAM GDDR5)



## 3D3V\_S0 to 3D3V\_VGA\_S0 1D05V\_VTT to 1D05V\_VGA\_S0



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

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

Title: **DISCRETE VGA POWER**

Size: Custom Document Number: Hades HBS 860M Rev: SB

Date: Wednesday, June 04, 2014 Sheet: 83 of 102



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

EV

緯創資通

**Wistron Corporation**

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

Title		
<b>Switchable GFX LCD(1/2)</b>		
Size	Document Number	Rev
A4	<b>Hades HBS 860M</b>	<b>SB</b>
Date:	Friday, April 11, 2014	Sheet 84 of 102

Dr-Bios.com

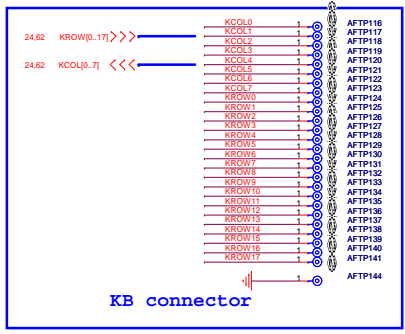
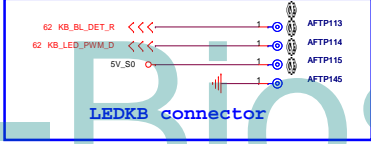
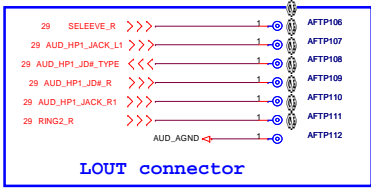
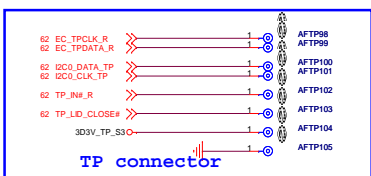
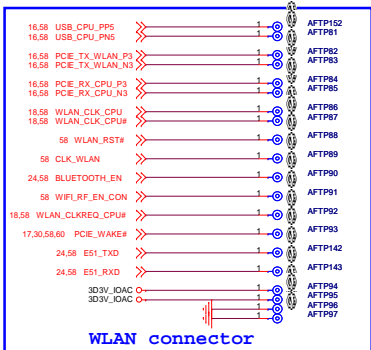
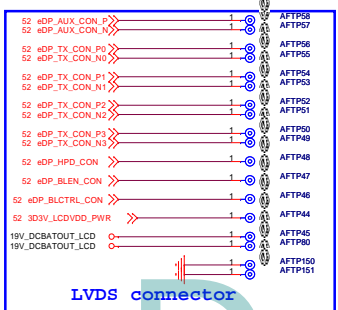
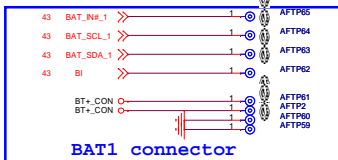
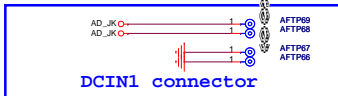
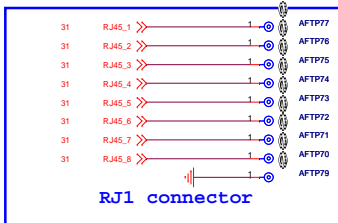
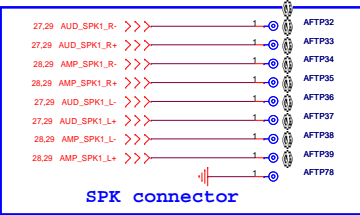
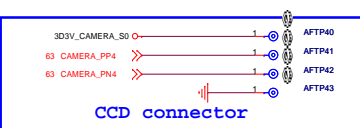
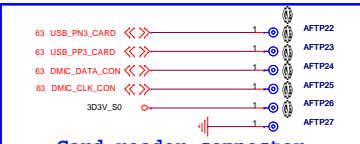
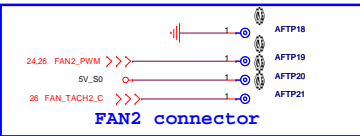
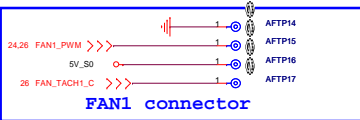
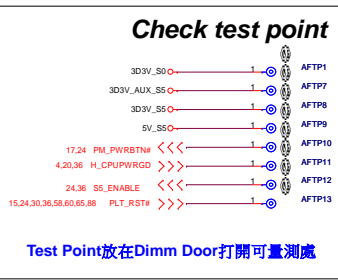
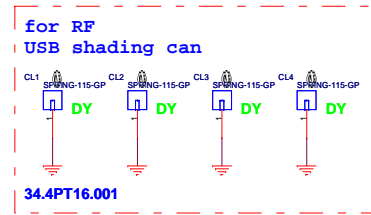
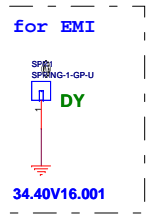
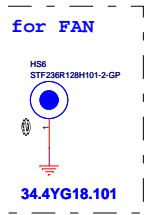
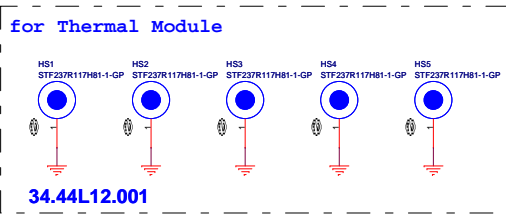
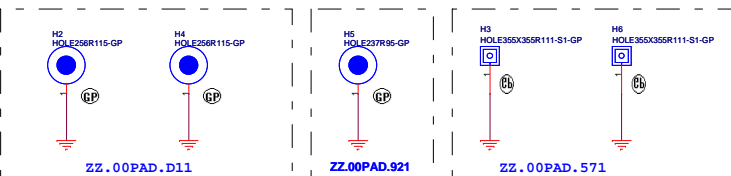
5

4

3

2

1

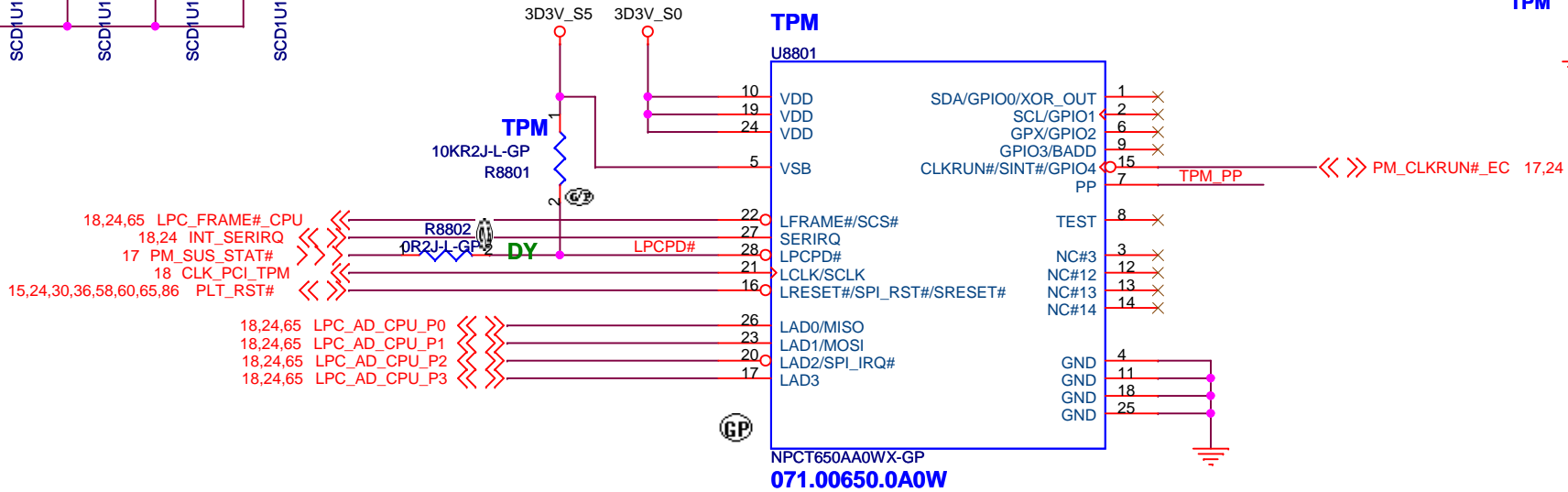
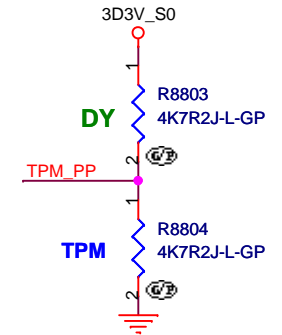
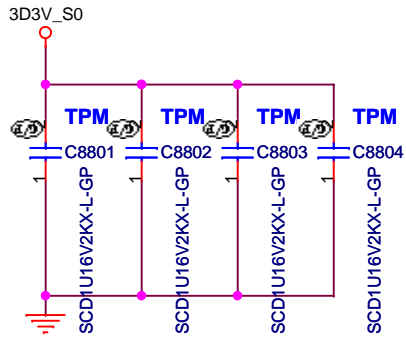


Dr-Bios.com

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

EV

<b>緯創資通</b>		<b>Wistron Corporation</b>	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.			
Title <b>NFC</b>			
Size	Document Number	Rev	
Custom	<b>Hades HBS 860M</b>	<b>SB</b>	
Date:	Friday, April 11, 2014	Sheet 87	of 102



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

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

Title **TPM (SLB655T)**

Size A4 Document Number **Hades HBS 860M** Rev **SB**

Date: Friday, April 11, 2014 Sheet 88 of 102

Dr-Bios.com

Pin	XDP Signal Name	Target Signal	I/O	Device	Pin	XDP Signal Name	Target Signal	I/O	Device
1	OBSFN_A0	Open	I/O		2	OBSFN_A1	Open	I/O	
3	GND	GND	NA		4	OBSDATA_A[0]	Open	I/O	
5	OBSDATA_A[1]	Open	I/O		6	GND	GND	NA	
7	OBSDATA_A[2]	Open	I/O		8	OBSDATA_A[3]	Open	I/O	
9	GND	GND	NA		10	HOOK0 <sup>1</sup>	RSMRST#	I	System
11	HOOK1	BP_PWRGD_RST# <sup>1</sup>	O	System	12	HOOK2	Open	NA	
13	HOOK3	Open	NA		14	HOOK4 <sup>1</sup>	1.05V core	NA	
15	HOOK5	Open	NA		16	VCCOBS_AB	3.3V SUS	I	System
17	HOOK6	RSMRST# <sup>1</sup>	O	System	18	HOOK7	DBR# <sup>1</sup>	O	System
19	GND	GND	NA		20	TDO	JTAG_TDO	I	PCH
21	TRSTn	Open	NA		22	TDI	JTAG_TDI	O	PCH
23	TMS	JTAG_TMS	O	PCH	24	TCK1	Open	NA	
25	GND	GND	NA		26	TCK0	JTAG_TCK	O	PCH

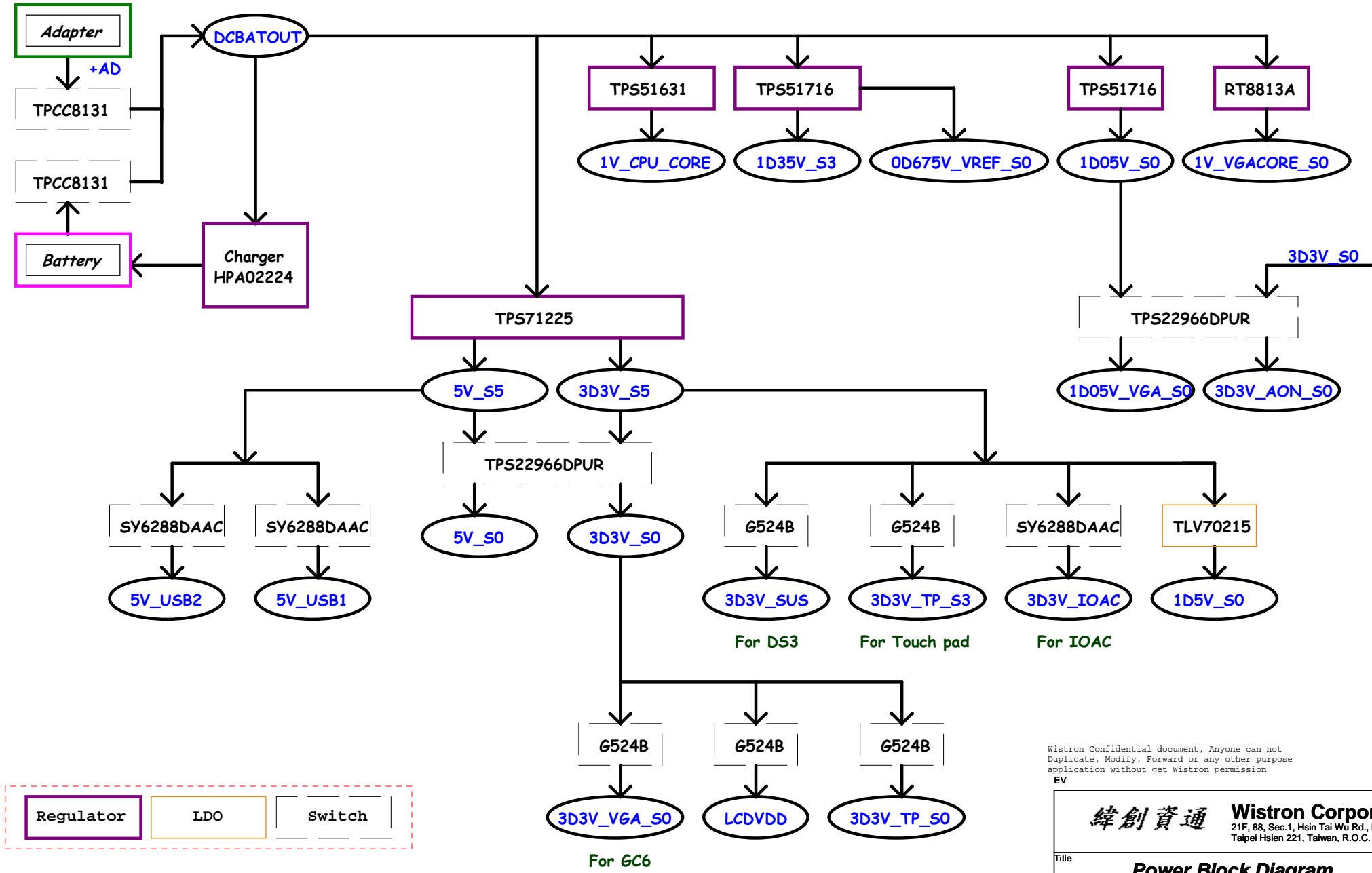
Wistron Confidential document, Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

EV

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

Title		
<b>PCH_XDP</b>		
Size	Document Number	Rev
A4	<b>Hades HBS 860M</b>	<b>SB</b>
Date:	Friday, April 11, 2014	Sheet 96 of 102





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

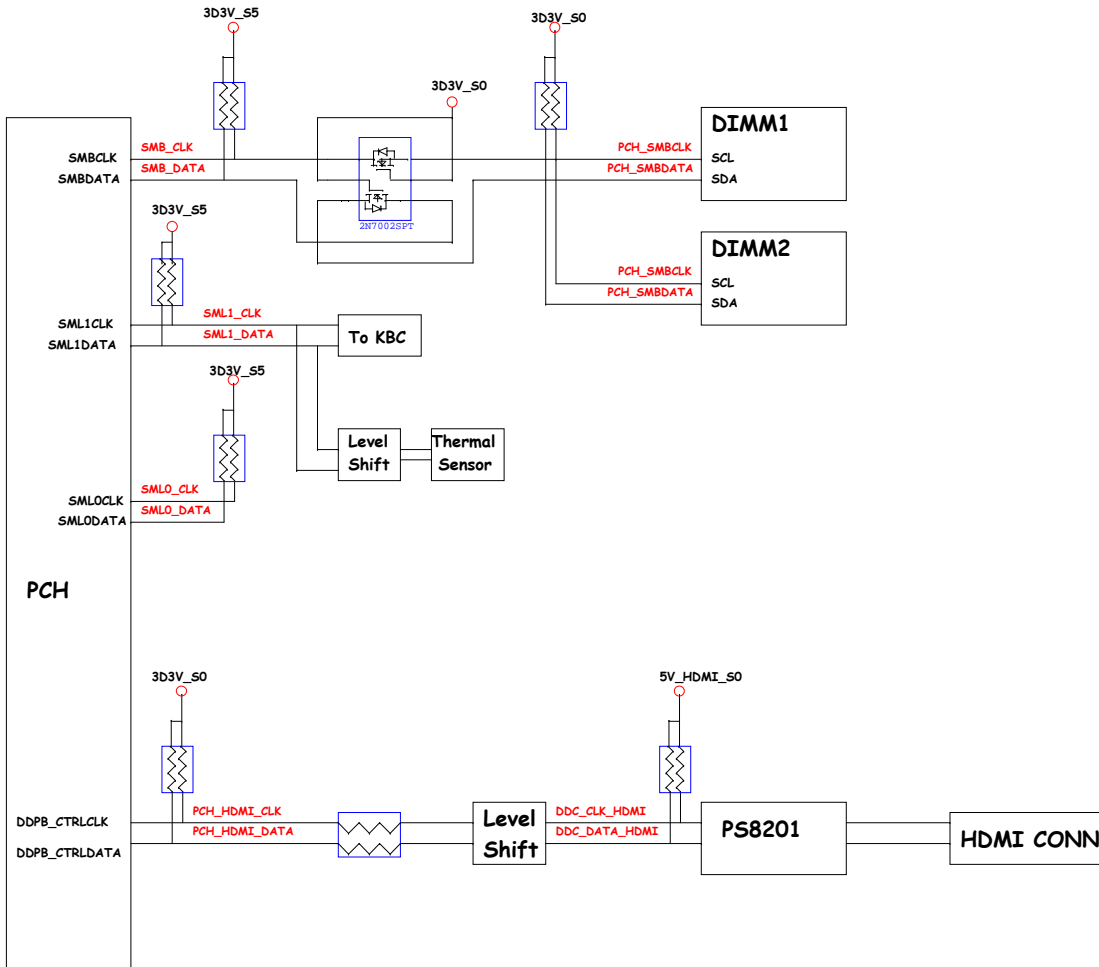
**緯創資通** Wistron Corporation  
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title			<b>Power Block Diagram</b>		
Size	Document Number				Rev
Custom	<b>Hades_HBS 860M</b>				<b>SB</b>
Date:	Friday, April 11, 2014	Sheet	100	of	102

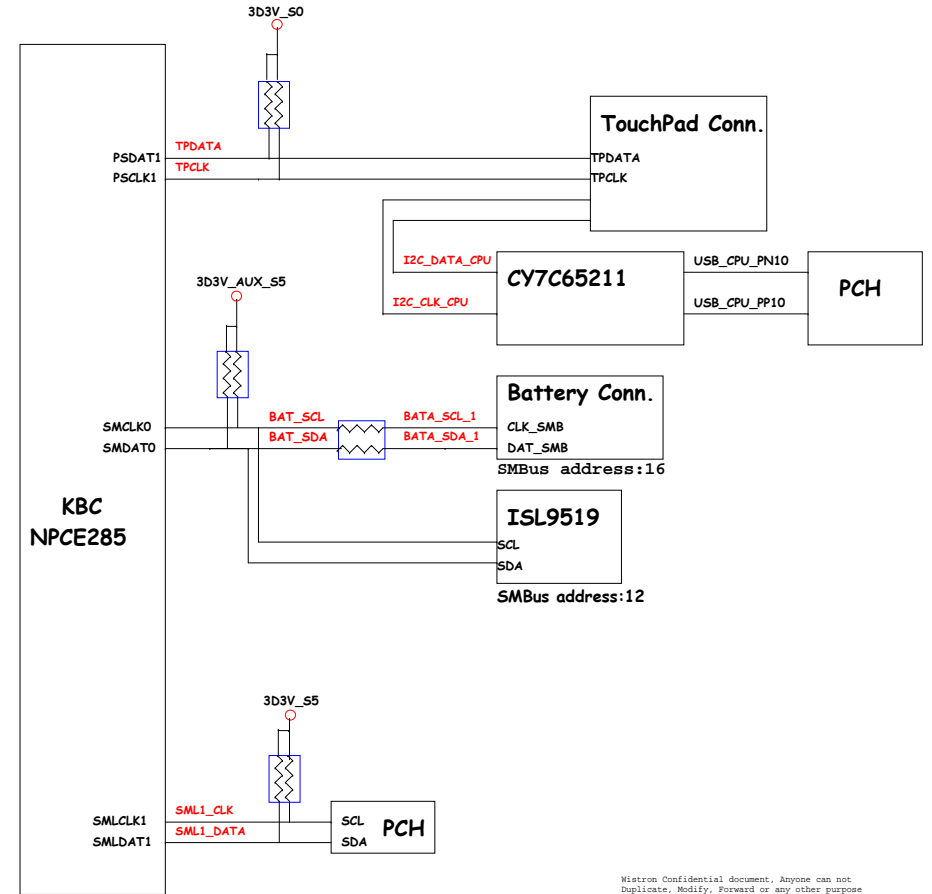
Dr-Bios.com



# PCH SMBus Block Diagram



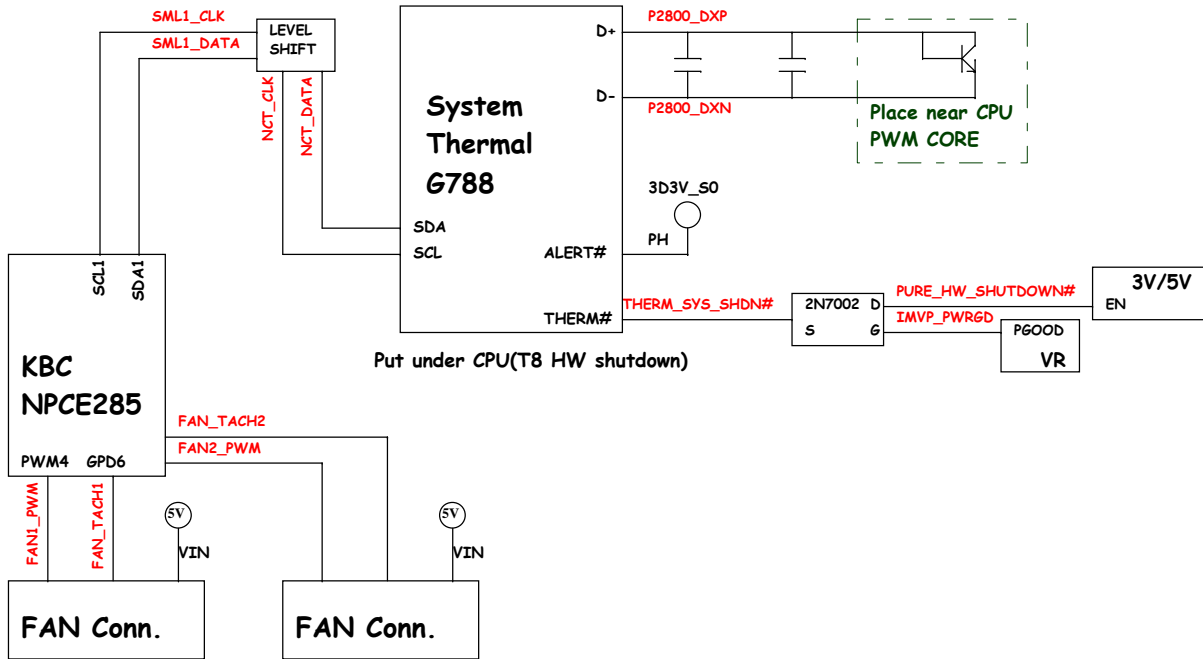
# KBC SMBus Block Diagram



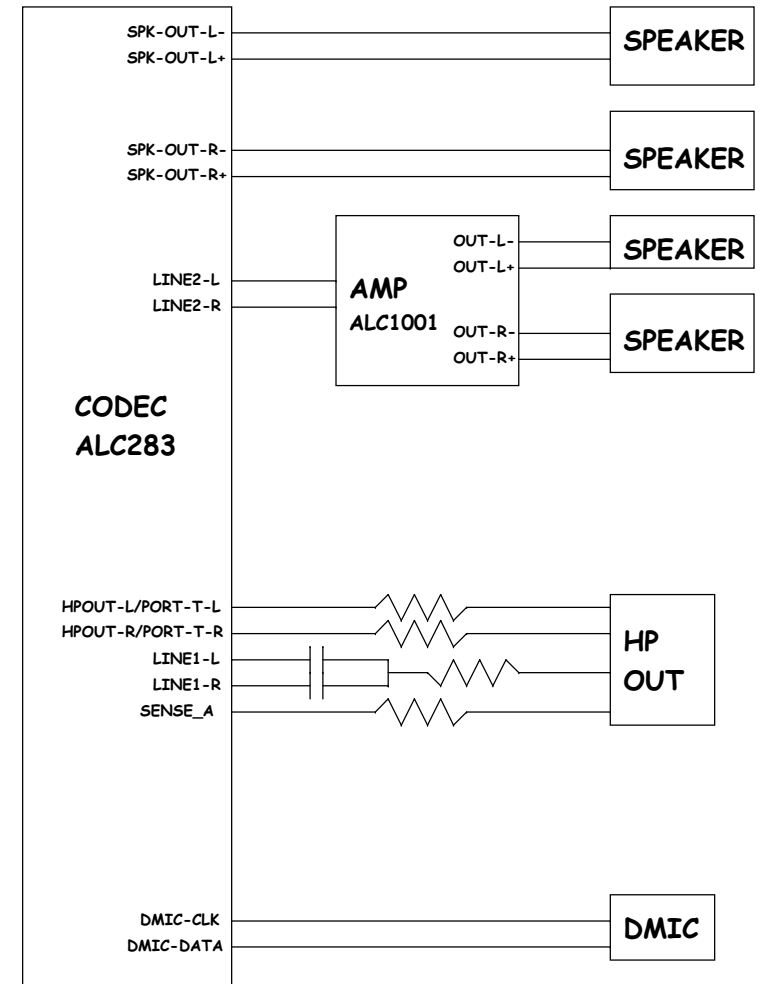
Wistron Confidential document. Anyone can not Duplicate, Modify, Forward or any other purpose application without get Wistron permission

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title: <b>SMBUS BLOCK DIAGRAM</b>			
Size: Custom	Document Number: <b>Hades HBS 860M</b>	Rev: <b>SB</b>	
Date: <b>Fri May, April 11, 2014</b>	Sheet: <b>101</b> of		102

# Thermal Block Diagram



# Audio Block Diagram



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

<b>緯創資通 Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
<b>Title THERMAL/AUDIO BLOCK DIAGRAM</b>		
Size Custom	Document Number <b>Hades HBS 860M</b>	Rev <b>SB</b>
Date: Friday, April 11, 2014	Sheet 102 of	102