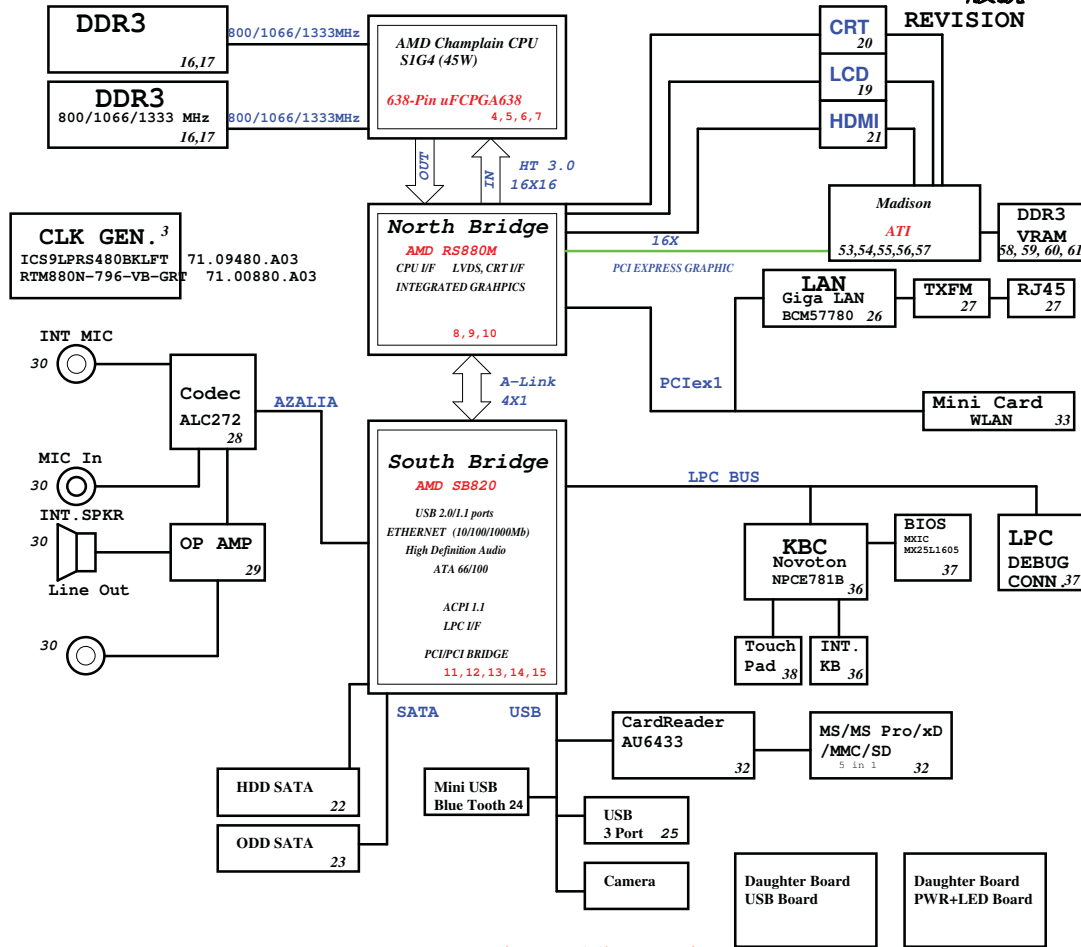


HM42-DN Block Diagram

Project code: 91.4HD01.001
 PCB P/N : 48.4GX01.0SA
 PCB 版號 : 09919 SA
 REVISION : PCB STACKUP



TOP _____
 VCC _____
 S _____
 GND _____
 BOTTOM _____

SYSTEM DC/DC	
RT8223	46
INPUTS	OUTPUTS
DCBATOUT	5V_S5 (5.5A)
	3D3V_S5 (5A)
SYSTEM DC/DC	
RT8209E	47
5V_S5	1D5V_S3 (1.4A)
RT9026	47
5V_S5	0D75_S3 (1.2A)
SYSTEM DC/DC	
RT8209E	48
INPUTS	OUTPUTS
DCBATOUT	1D1V_S0 (1.1A)
RT9025	48
3D3V_S5	1D1V_S5 (1.4A)
RT9025	49
5V_S5	1D1V_VGA
RT9161	49
3D3V_S0	2D5V_S0 (200mA)
RT9025	49
1D5V_S3	1D05V_S0 (1.4A)
CHARGER	
BQ24745	50
INPUTS	OUTPUTS
DCBATOUT	CHG_PWR
	18V 6.0A
	UP+5V
	5V 100mA
CPU DC/DC	
ISL6265AHR	45
INPUTS	OUTPUTS
DCBATOUT	VCC_CORE_S0
	0~1.55V 18A
	VDDNB
	0~1.55V 4A

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File: **BLOCK DIAGRAM**

Size: A3 Document Number: **JE40-DN** Rev: -3

Date: Friday, March 26, 2010 Sheet: 1 of 85

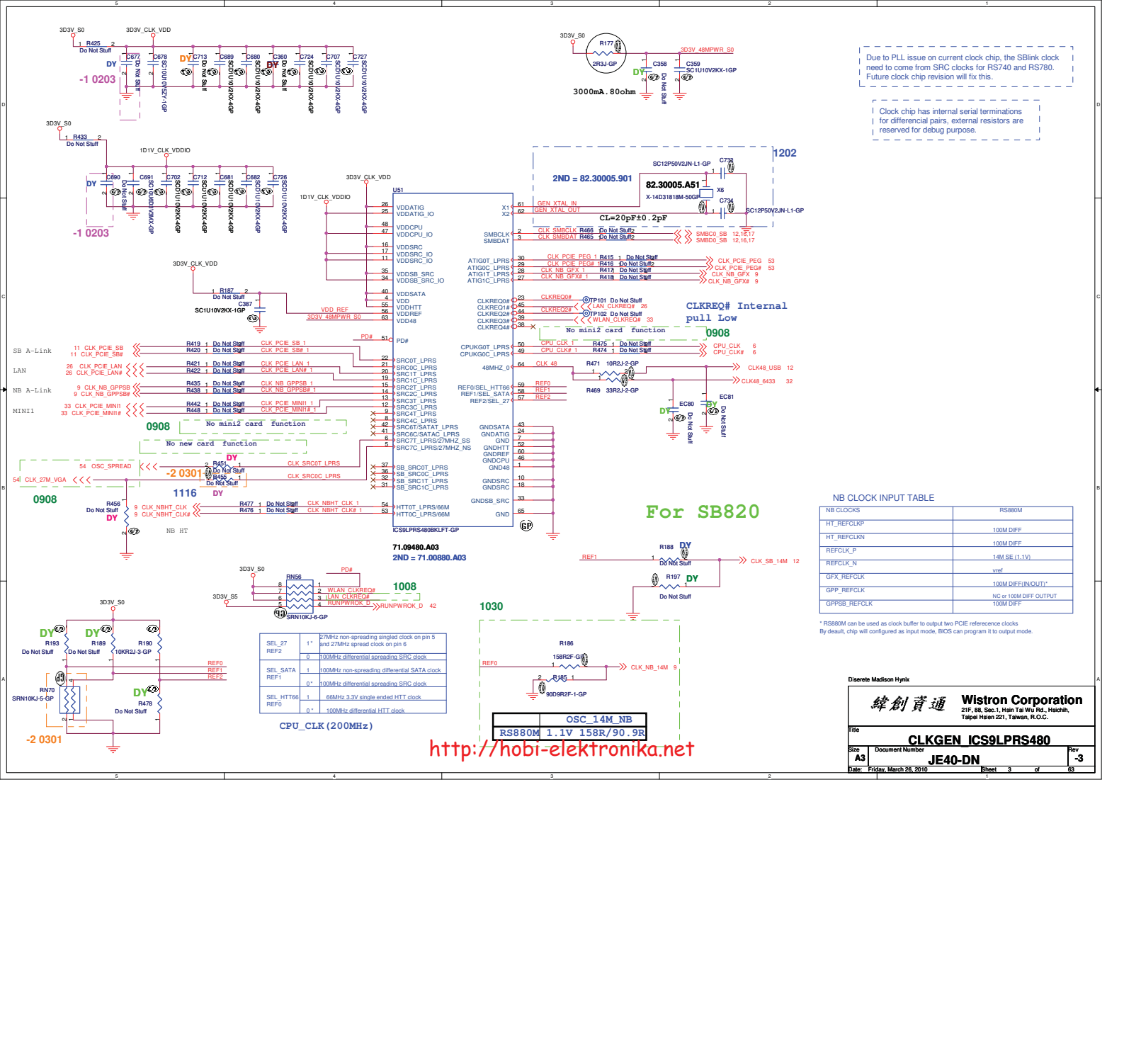
<http://hobi-elektronika.net>

<http://hobi-elektronika.net>

Discrete Memory Hynix

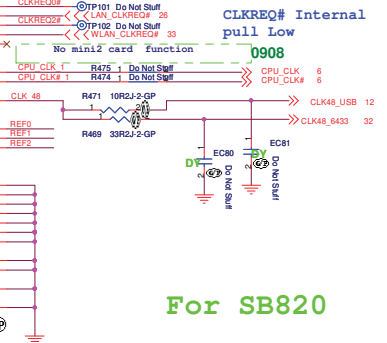
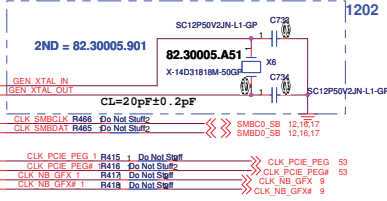
緯創資通 **Wistron Corporation**
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Title		
History		
Size	Document Number	Rev
A3	JE40-DN	-3
Date:	Friday, March 26, 2010	Sheet 2 of 63



Due to PLL issue on current clock chip, the SBlink clock need to come from SRC clocks for RS740 and RS780. Future clock chip revision will fix this.

Clock chip has internal serial terminations for differential pairs, external resistors are reserved for debug purpose.



For SB820

SEL_27	REF2	1*	27MHz non-spreading singled clock on pin 5
		0	and 27MHz spread clock on pin 6
SEL_SATA	REF1	1	100MHz non-spreading differential SATA clock
		0*	100MHz differential spreading SRC clock
SEL_HTT66	REF0	1	66MHz 3.3V single ended HTT clock
		0*	100MHz differential HTT clock

CPU_CLK (200MHz)

NB CLOCK INPUT TABLE

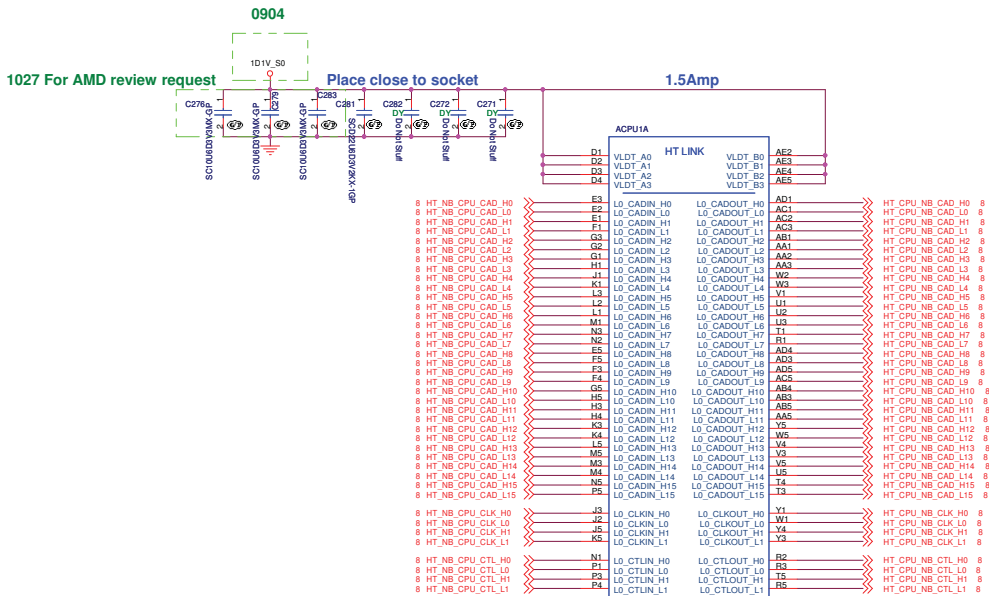
NB CLOCKS	RS880M
HT_REFCLKP	100M DIFF
HT_REFCLKN	100M DIFF
REFCLK_P	14M SE (1.1V)
REFCLK_N	vs0f
GFX_REFCLK	100M DIFF(OUTPUT)*
GPFP_REFCLK	NC or 100M DIFF OUTPUT
GPSPSB_REFCLK	100M DIFF

*RS880M can be used as clock buffer to output two PCIe reference clocks. By default, chip will configured as input mode. BIOS can program it to output mode.

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CLKGEN ICS9LPRS480		
File	Document Number	Rev
33	A3	-3
Date:	Friday, March 26, 2010	Sheet 3 of 35

<http://hobi-elektronika.net>



SKT-CPU638P-GP-U2
62.10055.111
2ND = 62.10055.181(ENG 未上)

SKT-BGA638H176

<http://hobi-elektronika.net>

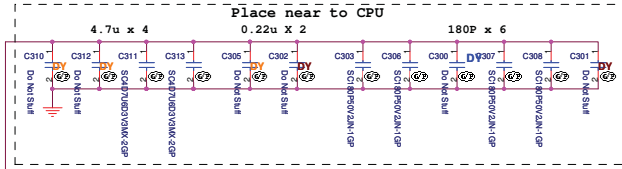
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Taipei Hsien 221, Taiwan, R.O.C.

Title CPU HT LINK I/F (1/4)

Doc No. A3 Document Number JE40-DN Rev -3

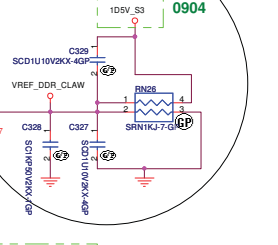
Date: Friday, March 26, 2010 Sheet 4 of 50



0904
105V 30

-1 0129
1500 mA

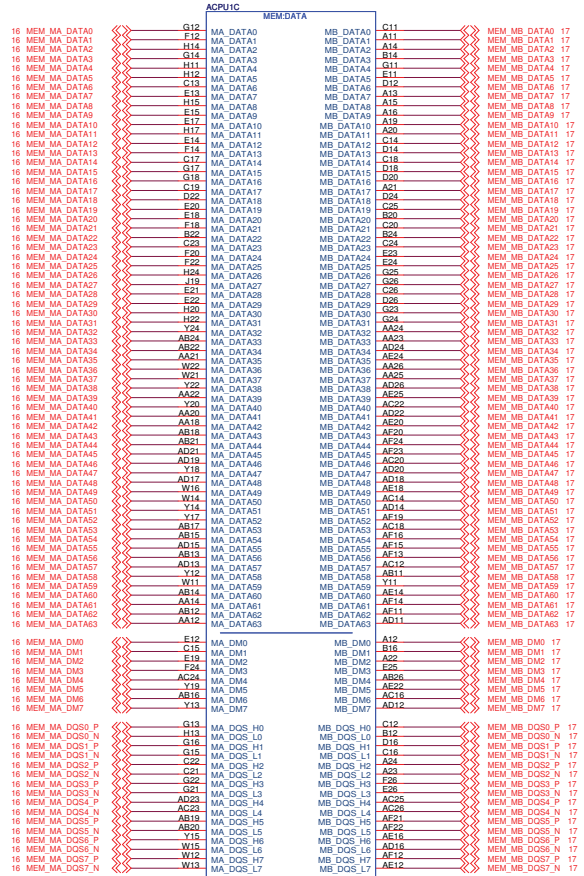
CLOSE TO CPU



SKT-CPU88P-GP-U2

62.10055.111

2ND = 62.10055.181



SKT-CPU88P-GP-U2

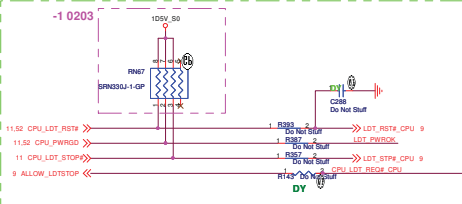
62.10055.111

Diemle Mediatec Hyink
2ND = 62.10055.181

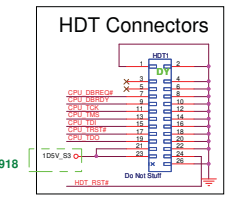
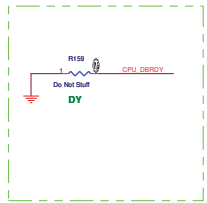
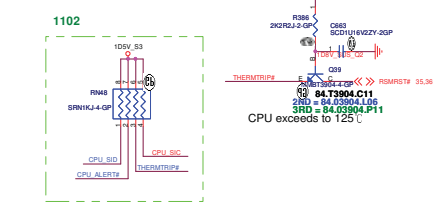
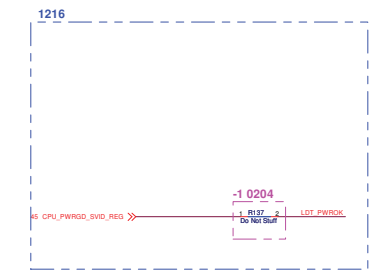
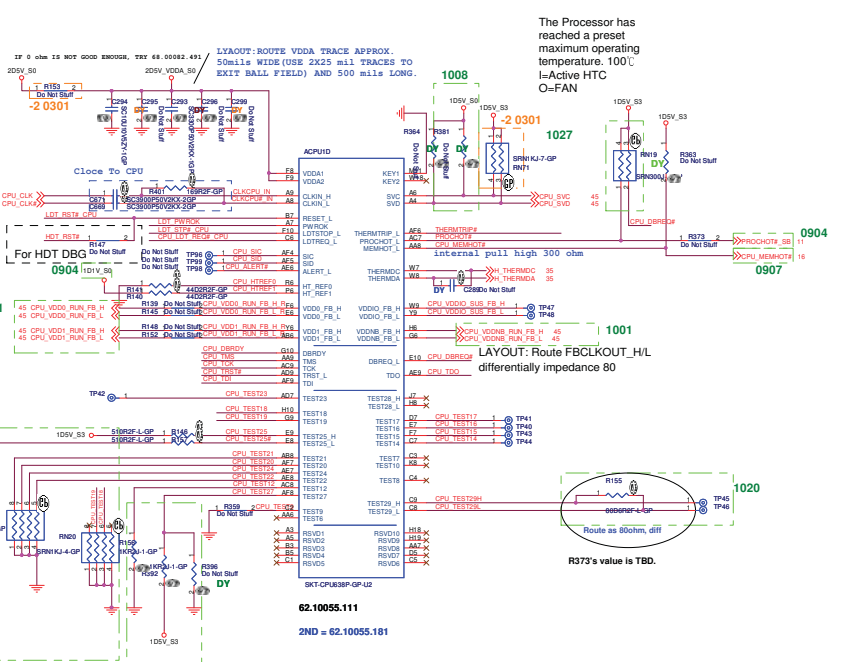
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Taipex Hsien 321, Taiwan, R.O.C.

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File	CPU DDR (2/4)		Rev
Doc. No.	Document Number	JE40-DN	
Date:	Friday, March 26, 2010	Sheet	5 of 50



0929



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2/F, 88, Sec 1, Hsin Tai Wu Rd, Hsichon, Taipei 10521, Taiwan, R.O.C.	
File No:	CUU_Control&Debug_(3/4)
Rev:	Custom
Doc No:	JE40-DN
Date:	Friday, March 26, 2010
Sheet:	6 of 63

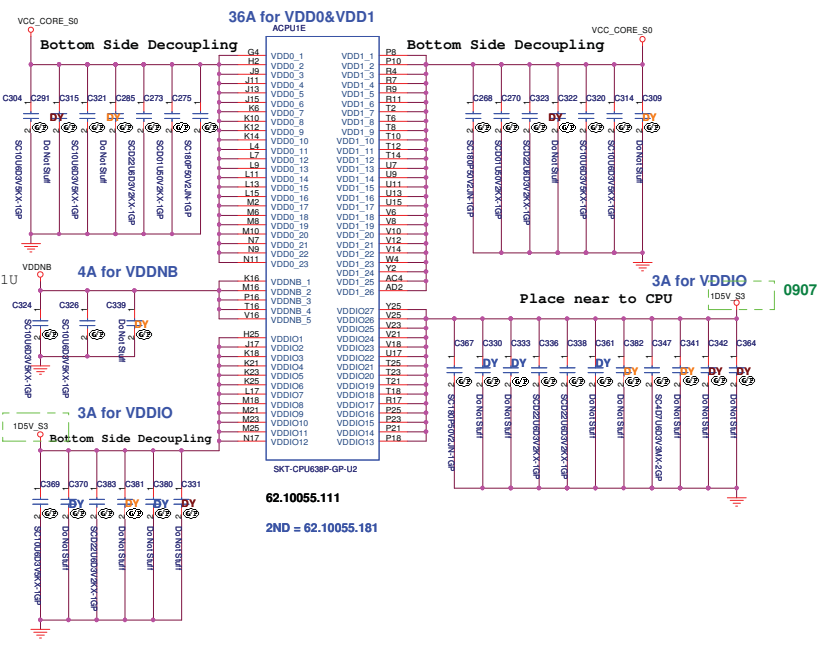
<http://hobi-elektronika.net>

ACPU1F		
AA4	VSS1	VSS66
AA11	VSS3	J10
AA13	VSS4	J16
AA17	VSS5	J14
AA19	VSS6	J16
AB2	VSS7	J18
AB7	VSS8	K2
AB23	VSS9	VSS74
AB23	VSS9	VSS74
AB23	VSS9	VSS74
AB25	VSS11	VSS76
AC11	VSS12	K13
AC13	VSS13	VSS78
AC17	VSS14	VSS79
AC19	VSS15	VSS80
AC19	VSS16	L10
AC21	VSS17	K17
AD6	VSS18	VSS83
AD6	VSS18	VSS83
AD25	VSS19	VSS84
AE11	VSS20	L18
AE13	VSS21	M7
AE15	VSS23	M9
AE17	VSS24	AC6
AE19	VSS25	M17
AE21	VSS26	N4
AE23	VSS26	VSS91
AE23	VSS26	VSS91
B4	VSS28	VSS93
B8	VSS29	VSS94
B8	VSS30	VSS95
B11	VSS31	VSS96
B11	VSS32	VSS97
B13	VSS33	VSS98
B15	VSS34	VSS99
B17	VSS35	VSS100
B21	VSS36	VSS101
B23	VSS37	VSS102
B25	VSS38	VSS103
B25	VSS39	VSS104
D6	VSS40	VSS105
D8	VSS41	VSS106
D9	VSS42	VSS107
D11	VSS43	VSS108
D13	VSS44	VSS109
D15	VSS45	VSS110
D17	VSS46	VSS111
D19	VSS47	VSS112
D21	VSS48	VSS113
D23	VSS49	VSS114
D25	VSS50	VSS115
E4	VSS51	VSS116
F2	VSS52	VSS117
F11	VSS53	VSS118
F15	VSS54	VSS119
F17	VSS55	VSS120
F21	VSS56	VSS121
F23	VSS59	VSS122
F23	VSS59	VSS122
H7	VSS60	VSS125
H9	VSS62	VSS127
H21	VSS63	VSS128
H23	VSS64	VSS129
J4	VSS65	VSS130

SKT-CPU638P-GP-U2

62.10055.111

2ND = 62.10055.181

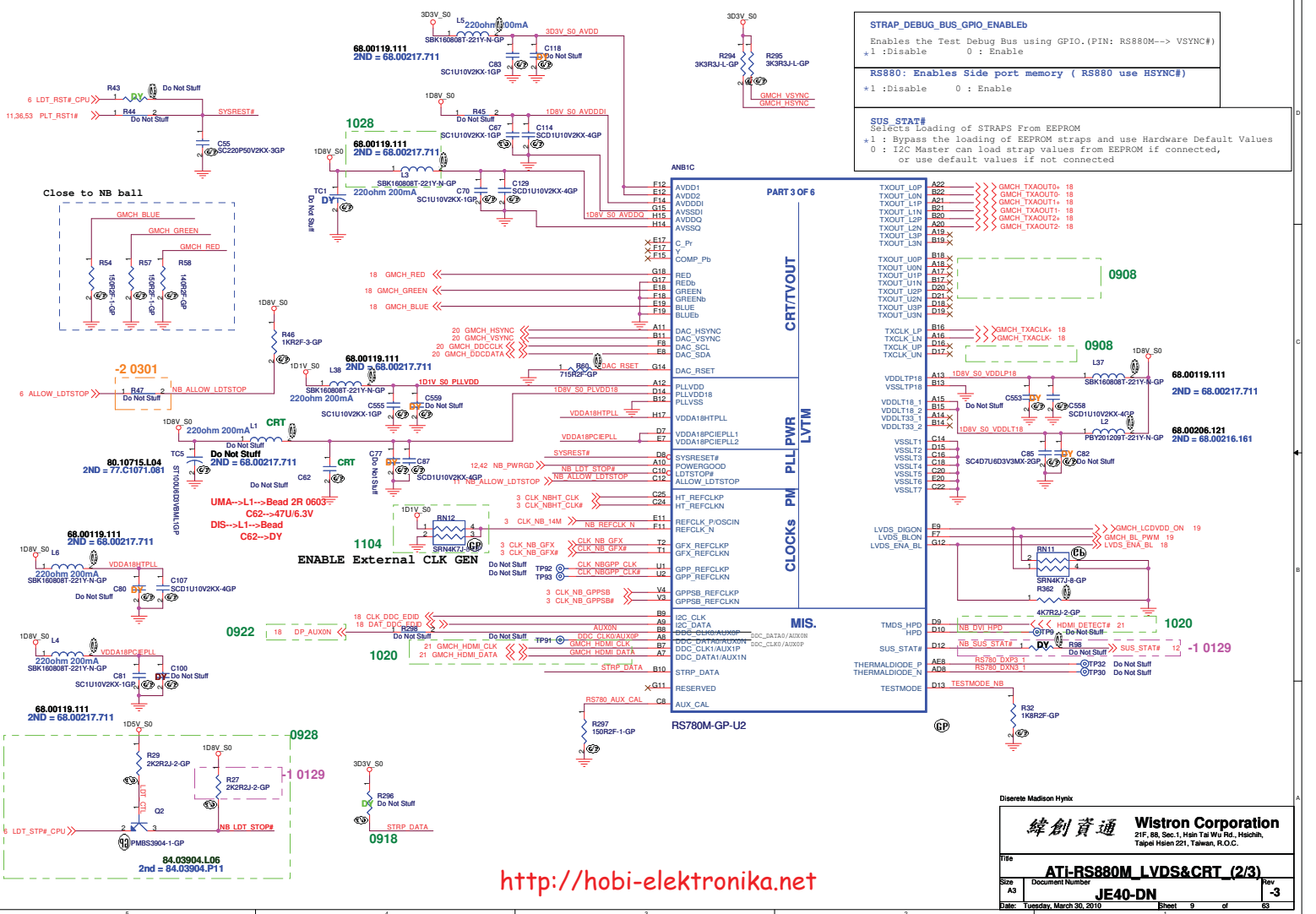


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File CPU_Power_(4/4)		
Size A3	Document Number JE40-DN	Rev -3
Date: Friday, March 26, 2010	Sheet 7 of	80



STRAP_DEBUG_BUS_GPIO_ENABLED
 Enables the Test Debug Bus using GPIO. (PIN: RS880M--> VSYNC#)
 #1 : Disable 0 : Enable

RS880: Enables Side port memory (RS880 use HSYNC#)
 #1 : Disable 0 : Enable

SUS_STAT#
 Selects Loading of STRAPS From EEPROM
 #1 : Bypass the loading of EEPROM straps and use Hardware Default Values
 0 : I2C Master can load strap values from EEPROM if connected,
 or use default values if not connected

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 Taipei Hsein 221, Taiwan, R.O.C.

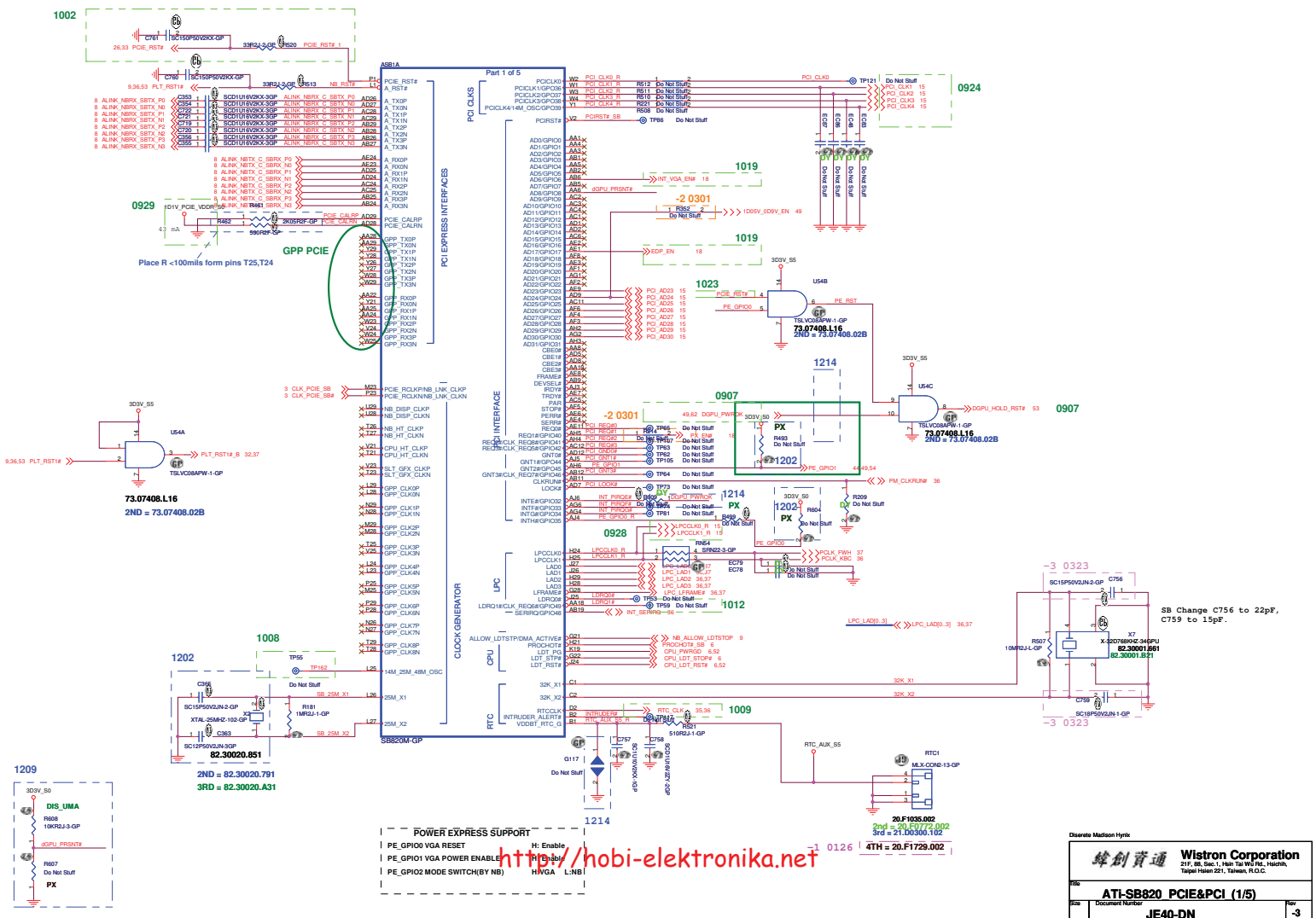
File: **ATI-RS880M_LVDS&CRT (2/3)**

Size	Document Number	Rev
A3	JE40-DN	-3

Date: Tuesday, March 30, 2010 Sheet 9 of 95

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1002



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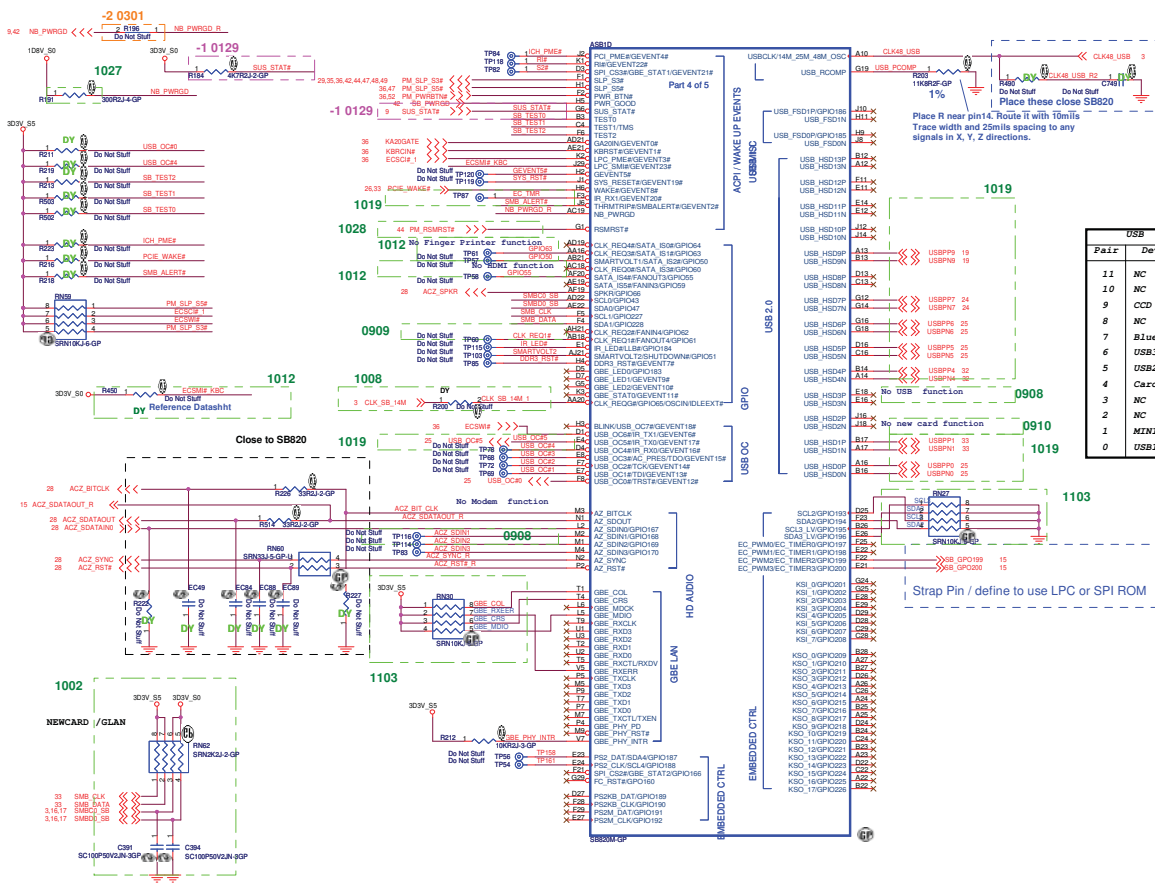
錸創利通 Wistron Corporation
 21F, 88, Sec.1, Nan Tai Wu Rd., Hsinchu, Taipei Hsinchu 301, Taiwan, R.O.C.

ATI-SB820 PCIE&PCI (1/5)

Document Number: **JE40-DN**

Rev: **-3**

Date: **11/28/2012** | Issue: **11** of **53**

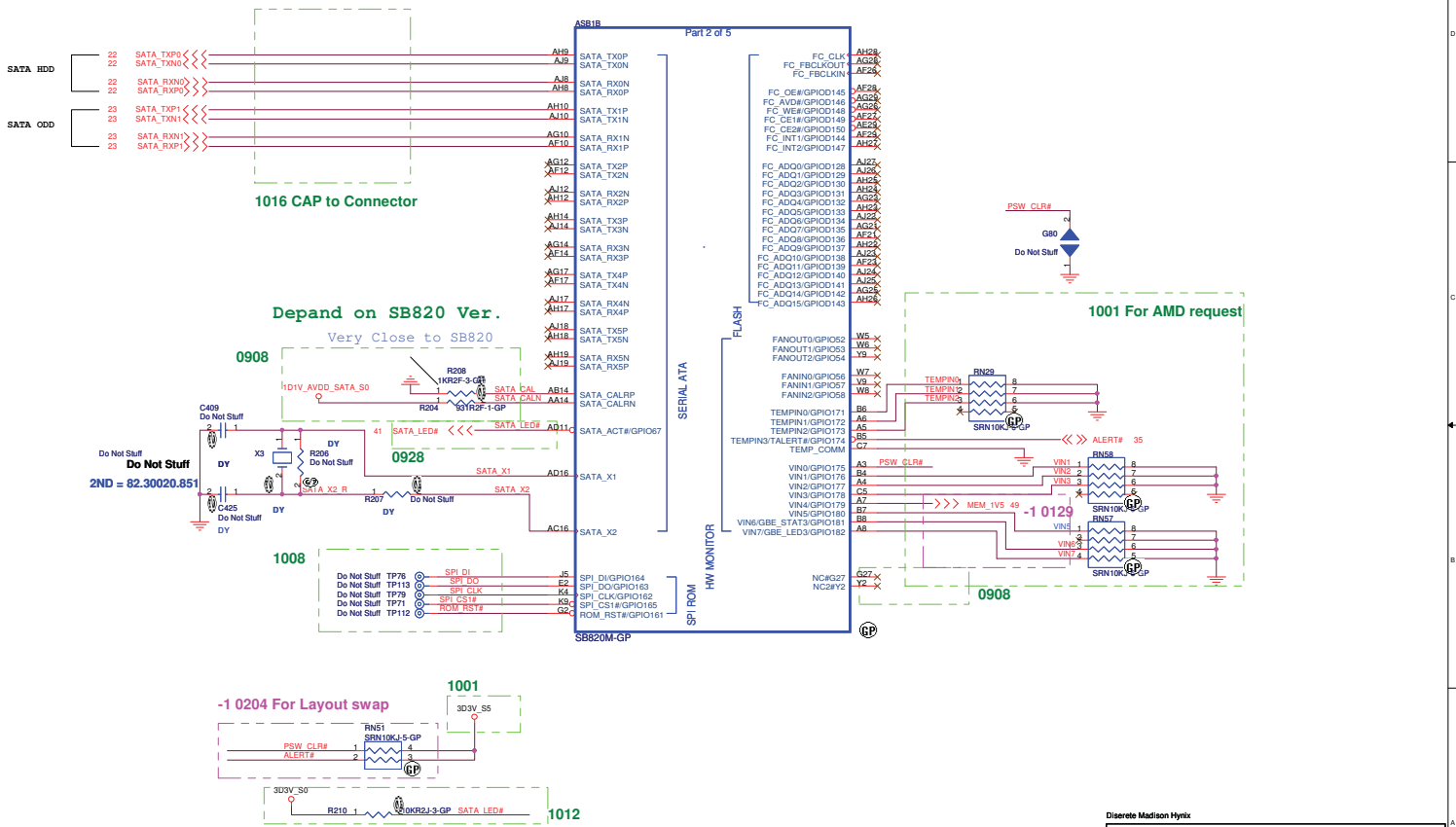


Discrete Medium Hxtr

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Rev	Document Number	Rev
Rev	ATI-SB820 USB&GPIO (2/5)	-3
Customer	JE40-DN	
Date: Friday, March 26, 2010	Sheet 12 of 19	

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Discrete Madison Hynix

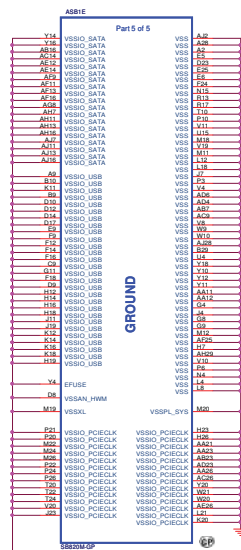
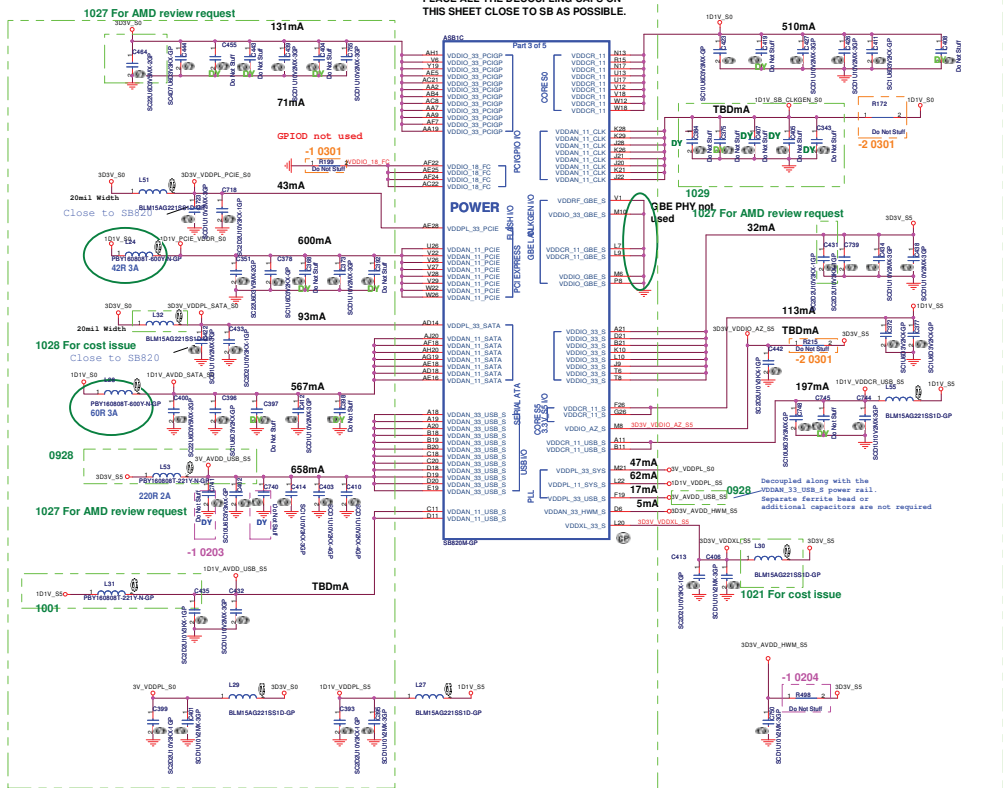
緯創資通 **Wistron Corporation**
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsuehshin,
Taippei Hsien 221, Taiwan, R.O.C.

Title **ATI-SB820 SATA-IDE (3/5)** Rev **-3**
Size **A3** Document Number **JE40-DN** Sheet 13 of 63
Date: Friday, March 26, 2010

PLACE ALL THE DECOUPLING CAPS ON THIS SHEET CLOSE TO SB AS POSSIBLE.

0909

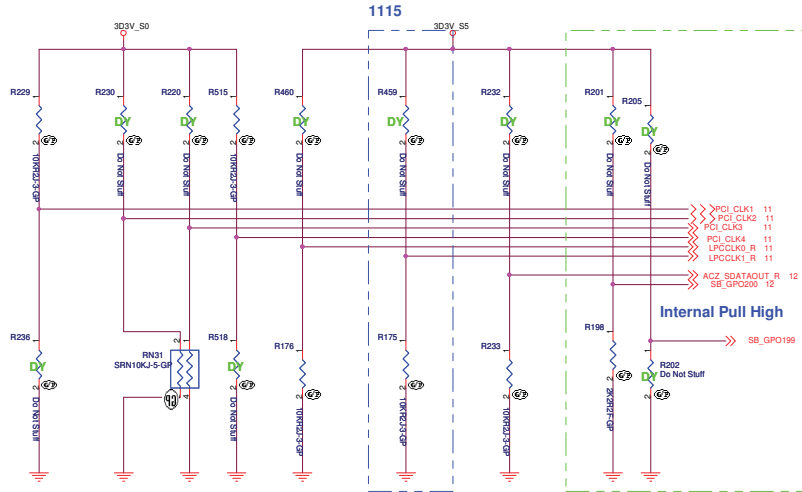
0909



緯創資通 Wistron Corporation
 21F, 28, Sec. 1, Hsin-Fu Rd., Hsinchu, Taiwan, R.O.C.
 Part No. **ATI-SB820 POWER&GND (4/5)**
 Customer **JE40-DN** Rev. **3**
 Date: Friday, March 26, 2010

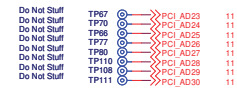
<http://hobi-elektronika.net>

REQUIRED SYSTEM STRAPS



1002

DEBUG STRAPS



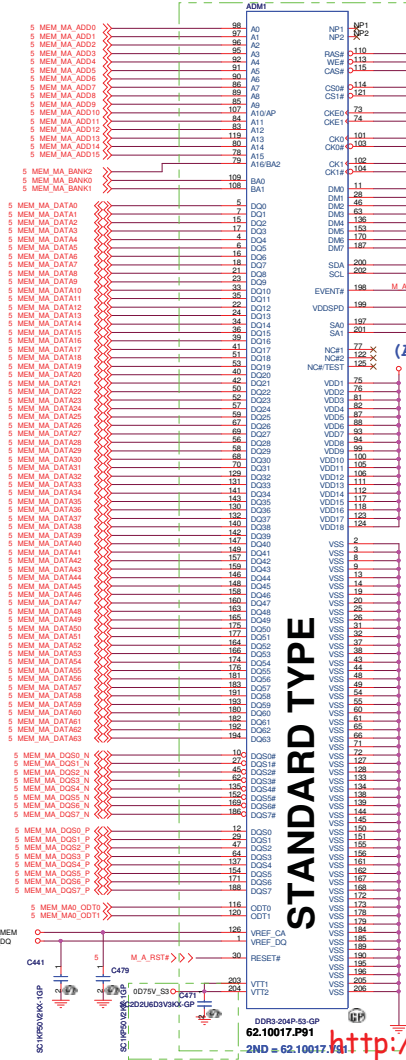
	PCI_CLK1	PCI_CLK2	PCI_CLK3	PCI_CLK4	LPC_CLK0	LPC_CLK1	AZ_SDOUT	GPIO200	GPIO199
PULL HIGH	ALLOW PCIe Gen2 DEFAULT	Watchdog Timer Enabled	USE DEBUG STRAP	non_Fusion CLOCK MODE DEFAULT	EC ENABLED DEFAULT	CLKGEN ENABLED DEFAULT	LOW POWER MODE	H,H = Reserved L,L = SPI ROM	
PULL LOW	FORCE PCIe Gen1	Watchdog Timer Disabled DEFAULT	IGNORE DEBUG STRAP DEFAULT	FUSION CLOCK MODE	EC DISABLED	CLKGEN DISABLED	PERFORMANCE MODE DEFAULT	L,H = LPC ROM (Default) L,L = FWB ROM	

	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL DEFAULT	DISABLE ILA AUTORUN DEFAULT	USE FC PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	DISABLE PCI MEM BOOT DEFAULT
PULL LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT

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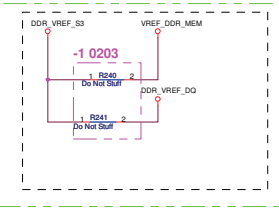
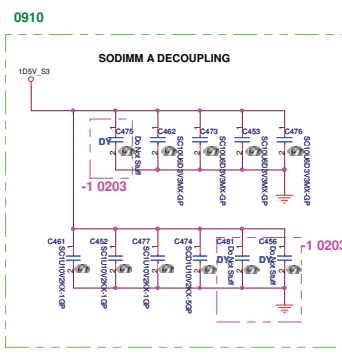
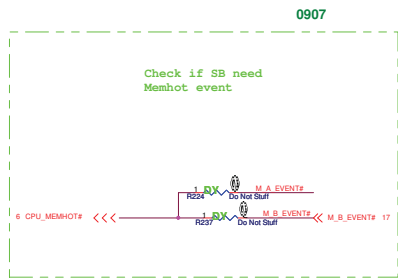
緯創資通		Wistron Corporation	
		<small>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsein 221, Taiwan, R.O.C.</small>	
Title			
ATI-SB820 STRAPPING (5/5)			
Size	Document Number	Rev	
A3	JE40-DN		-3
Date:	Friday, March 26, 2010	Sheet	15 of 83



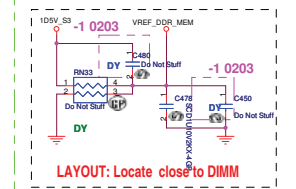
STANDARD TYPE

Layout Note:
Place these Caps near
SO-DIMMA.

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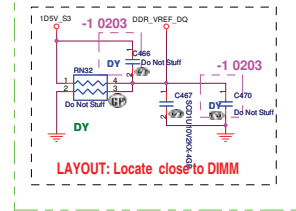


VREF_DDR_MEM



LAYOUT: Locate close to DIMM

DDR_VREF_DQ



LAYOUT: Locate close to DIMM

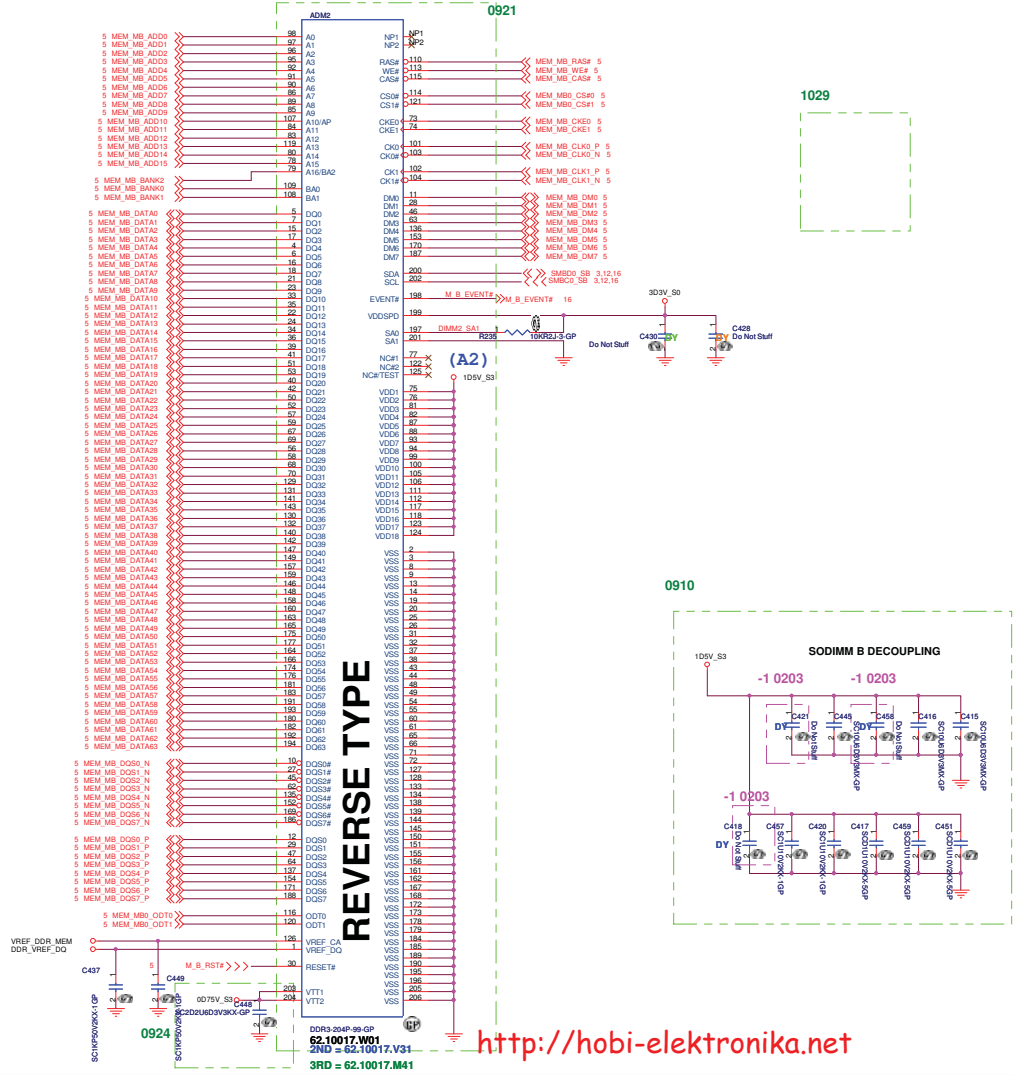
Discrete Madison Hynt:

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Doc No: **DDRIII SO-DIMM SKT 1**

Rev: **JE40-DN**

Date: Friday, March 26, 2010 Sheet 16 of 63

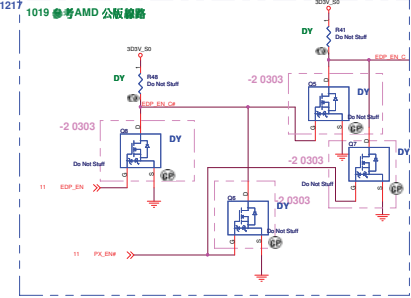


Discrete Madison Hertz

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File	DDRIII SO-DIMM SKT_2		Rev
Doc	Document Number		-3
Case	JE40-DN		
Date	Friday, March 28, 2010	Sheet	17 of 83

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Truth Table

Function	SEL
A _N to N _B 1	L
A _N to N _B 2	H

CRT

E	S	YA	YB	YC	YD	Function
H	X	Hb-Z	Hb-Z	Hb-Z	Hb-Z	Disable
L	L	IA0	IB0	IC0	ID0	S=0
L	H	IA1	IB1	IC1	ID1	S=1

Function Table

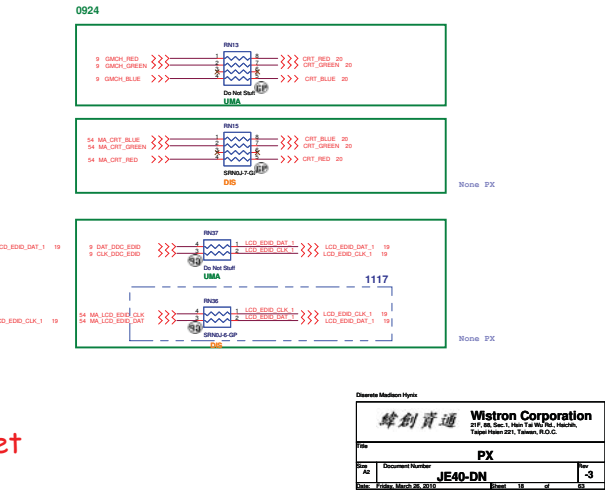
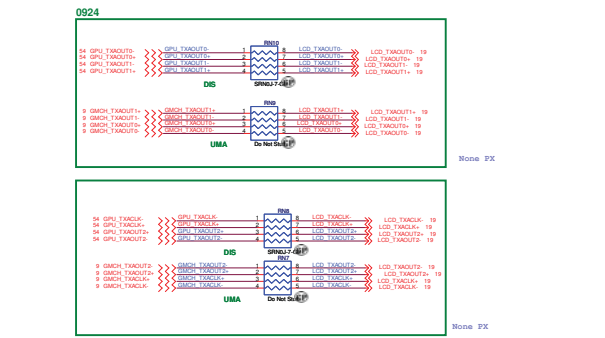
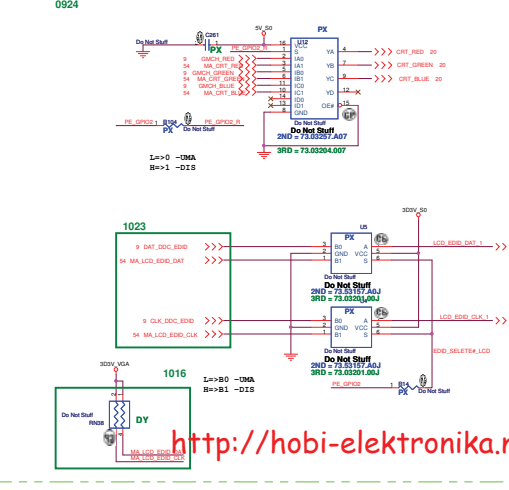
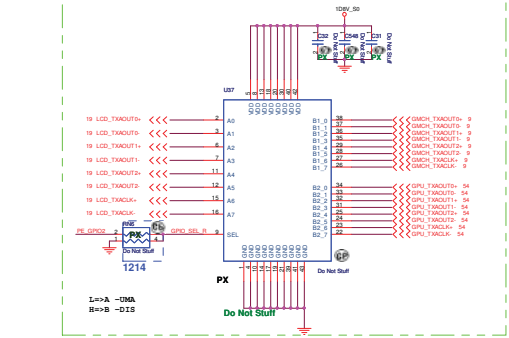
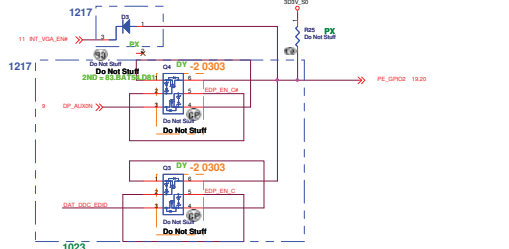
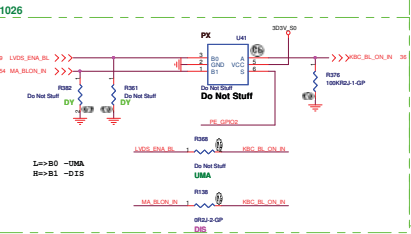
Input (B)	Function
L	B ₁ Connected to A
H	B ₁ Connected to A

H = HIGH Logic Level L = LOW Logic Level

Function Table

Input (B)	Function
L	B ₁ Connected to A
H	B ₁ Connected to A

H = HIGH Logic Level L = LOW Logic Level



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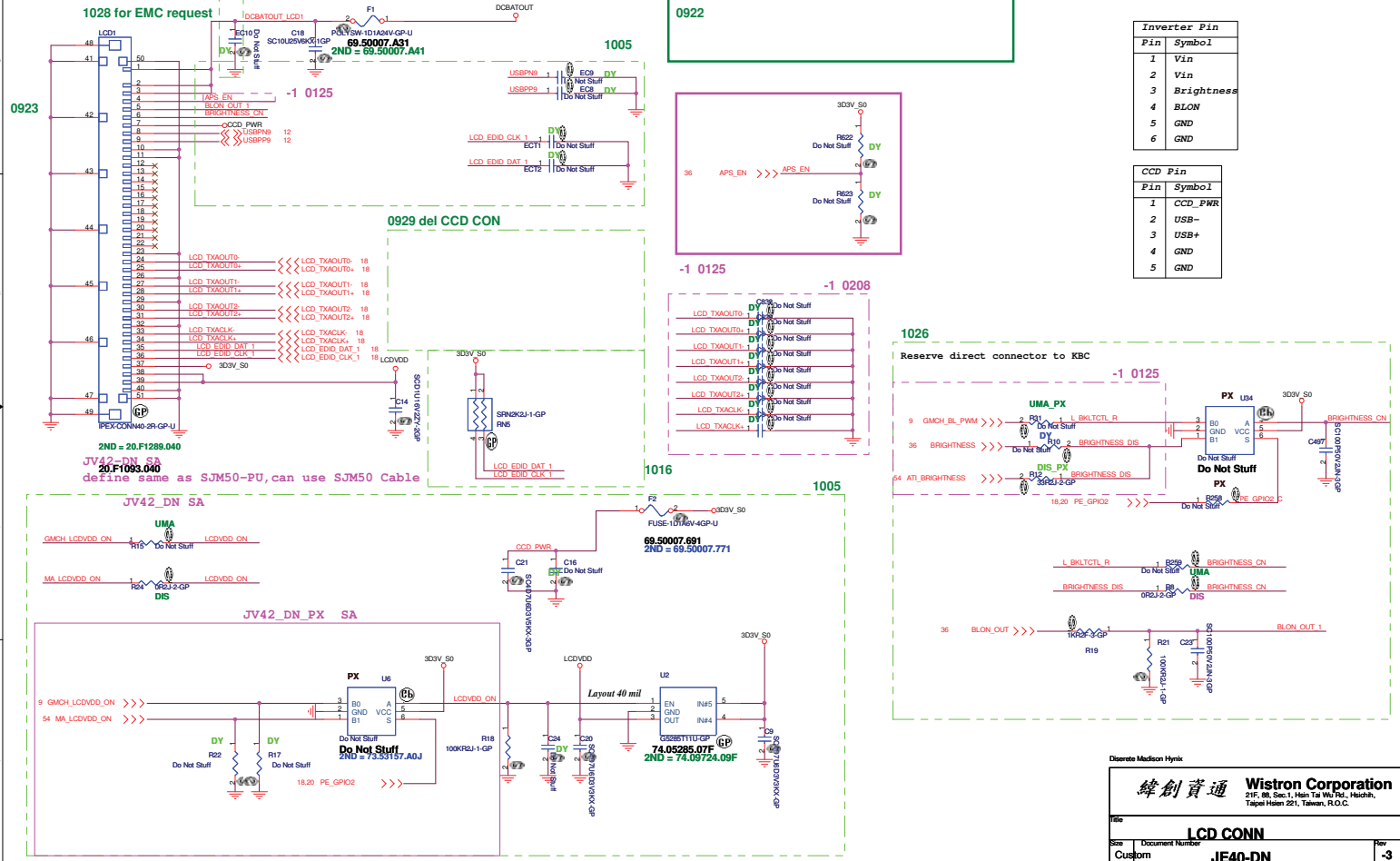
LCD/INVERTER/CCD CONN

Change PX

0922

Inverter Pin	
Pin	Symbol
1	Vin
2	Vin
3	Brightness
4	BLON
5	GND
6	GND

CCD Pin	
Pin	Symbol
1	CCD_PWR
2	USB-
3	USB+
4	GND
5	GND

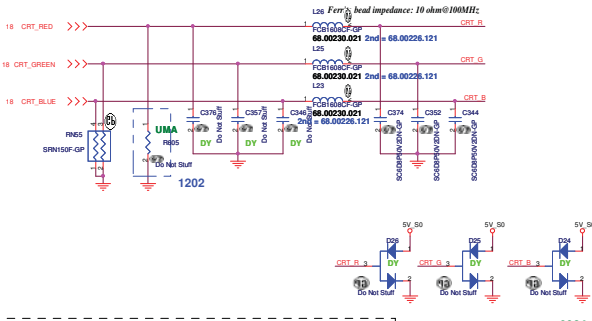


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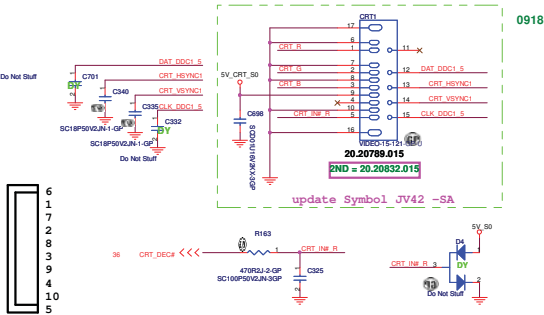
Title		LCD CONN	
Size	Document Number		
Custom	JE40-DN		
Date:	Friday, March 26, 2010	Sheet	19 of 63

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Layout Note:
 * Must be a ground return path between this ground and the ground on the VGA connector.
 Pi-filter & 150 Ohm pull-down resistors should be as close as to CRT CONN. RGB will hit 75 Ohm first, pi-filter, then CRT CONN.

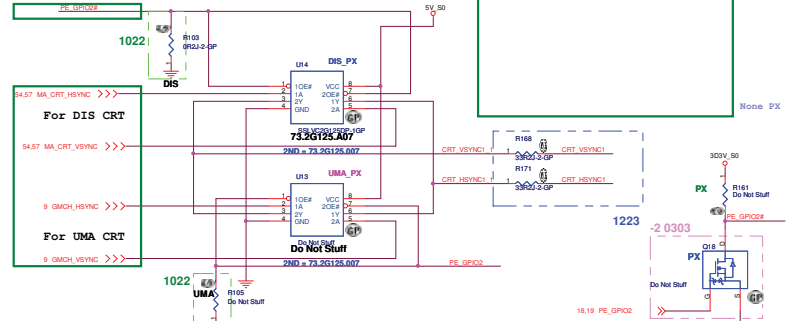
CRT I/F & CONNECTOR



- 6
- 7
- 2
- 8
- 3
- 4
- 1.0
- 5

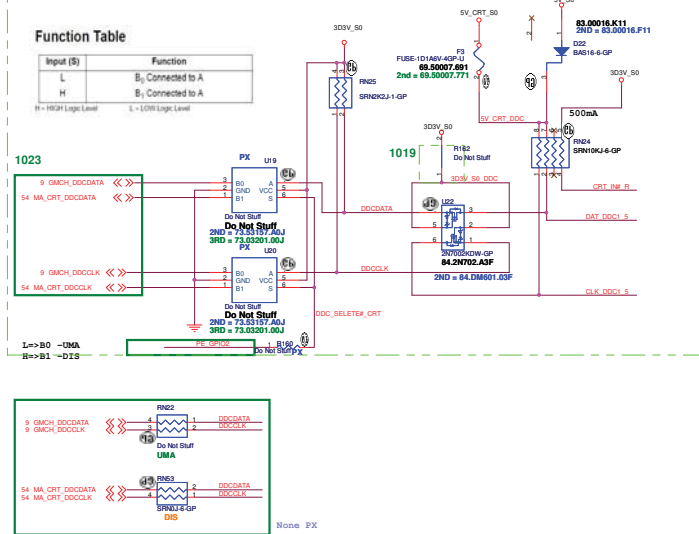
1012

Hsync & Vsync level shift

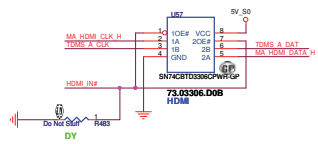
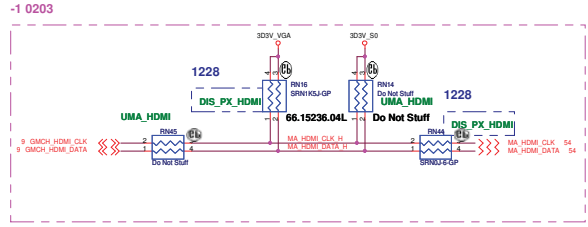
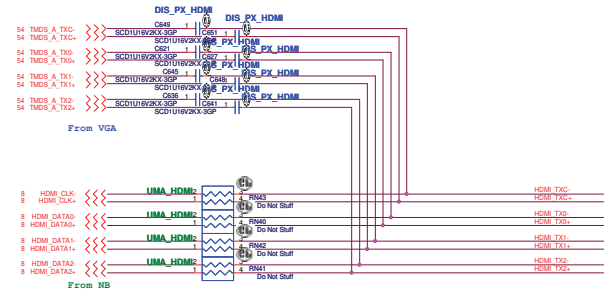
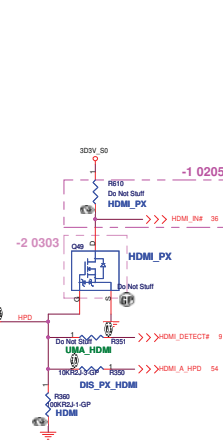
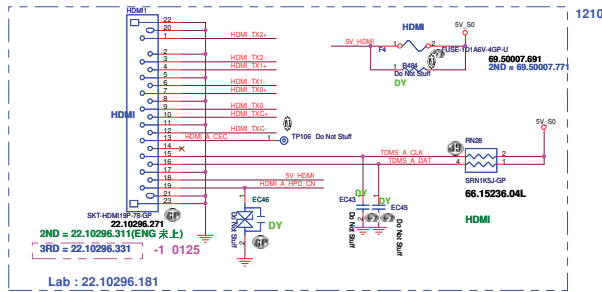
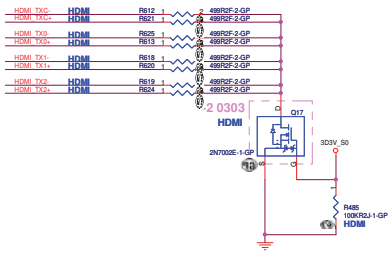


0924

DDC_CLK & DATA level shift



<http://hobi-elektronika.net>



<http://hobi-elektronika.net>

Discrete Medium Hybrid

緯創資通 Wistron Corporation
 21F, 6F, 5th Fl., Hsin Tai Wu Rd., Hsinchu,
 300th Hsinchu 301, Taiwan, R.O.C.

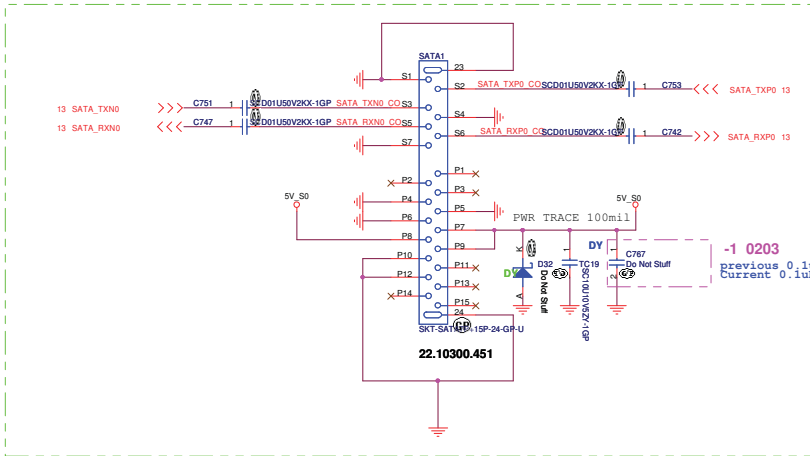
File: **HDMI Connector**

Rev: **JE40-DN**

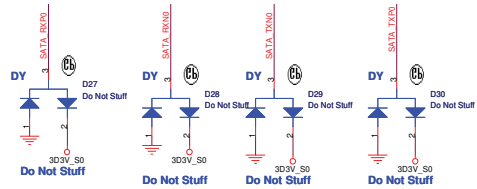
Date: 15th March 2015 Page: 1 of 3

SATA Connector

0923



-1 0203
 previous 0.1uF 0603 25V Y5V
 Current 0.1uF 0603 50V Y5V

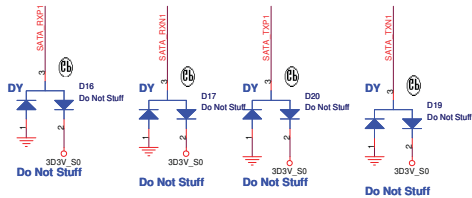
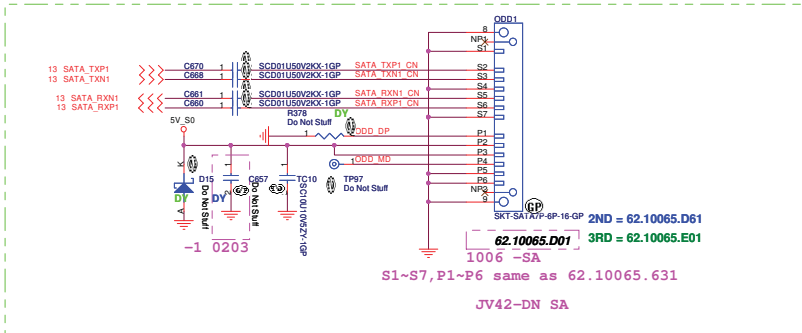


<http://hobi-elektronika.net>

Discrete Madison Hynix		緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsien 221, Taiwan, R.O.C.	
File			
HDD			
Size	Document Number	Rev	
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ODD Connector

1009



<http://hobi-elektronika.net>

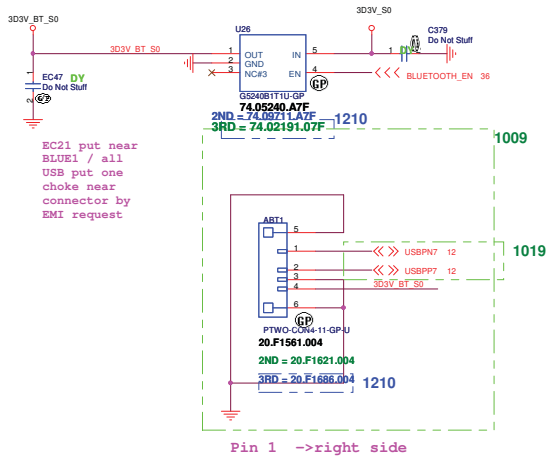
Discrete Madison Hynix

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

File		
ODD		
Size	Document Number	Rev
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BLUETOOTH MODULE

1.5A / High Active Voltage 2V

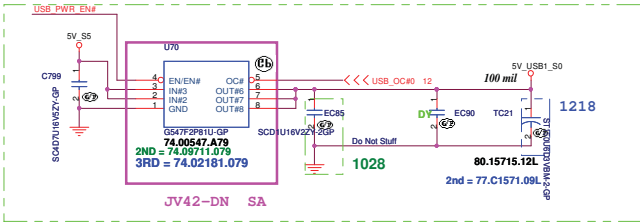


<http://hobi-elektronika.net>

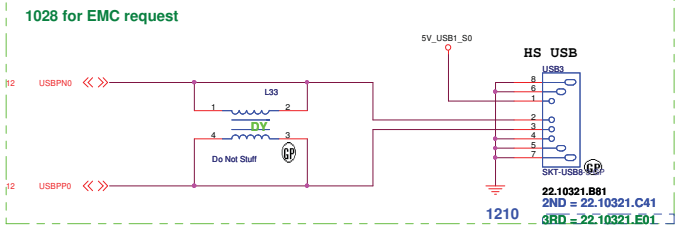
Discrete Madison Hyrix

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

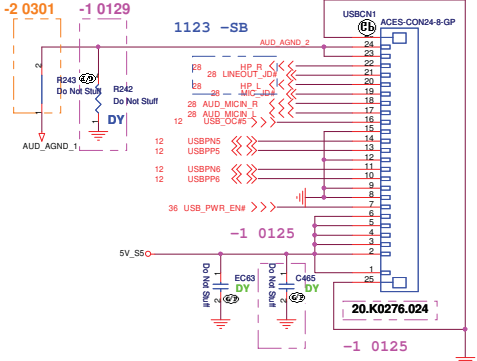
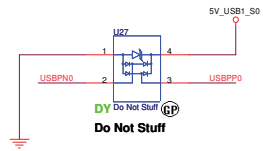
Title			BLUETOOTH
Size	Document Number	Rev	
	JE40-DN	-3	
Date:	Friday, March 26, 2010	Sheet	34 of 63



0914



Pin1 -> right side
 22.10218.T51 Pin1 -> left side (JV42-DN)
 change Net sequence



Eng stuff 20.K0216.024 Pin1 -> left side
 PD change to 20.K0276.024 Pin1 -> left side
 so do not swap net

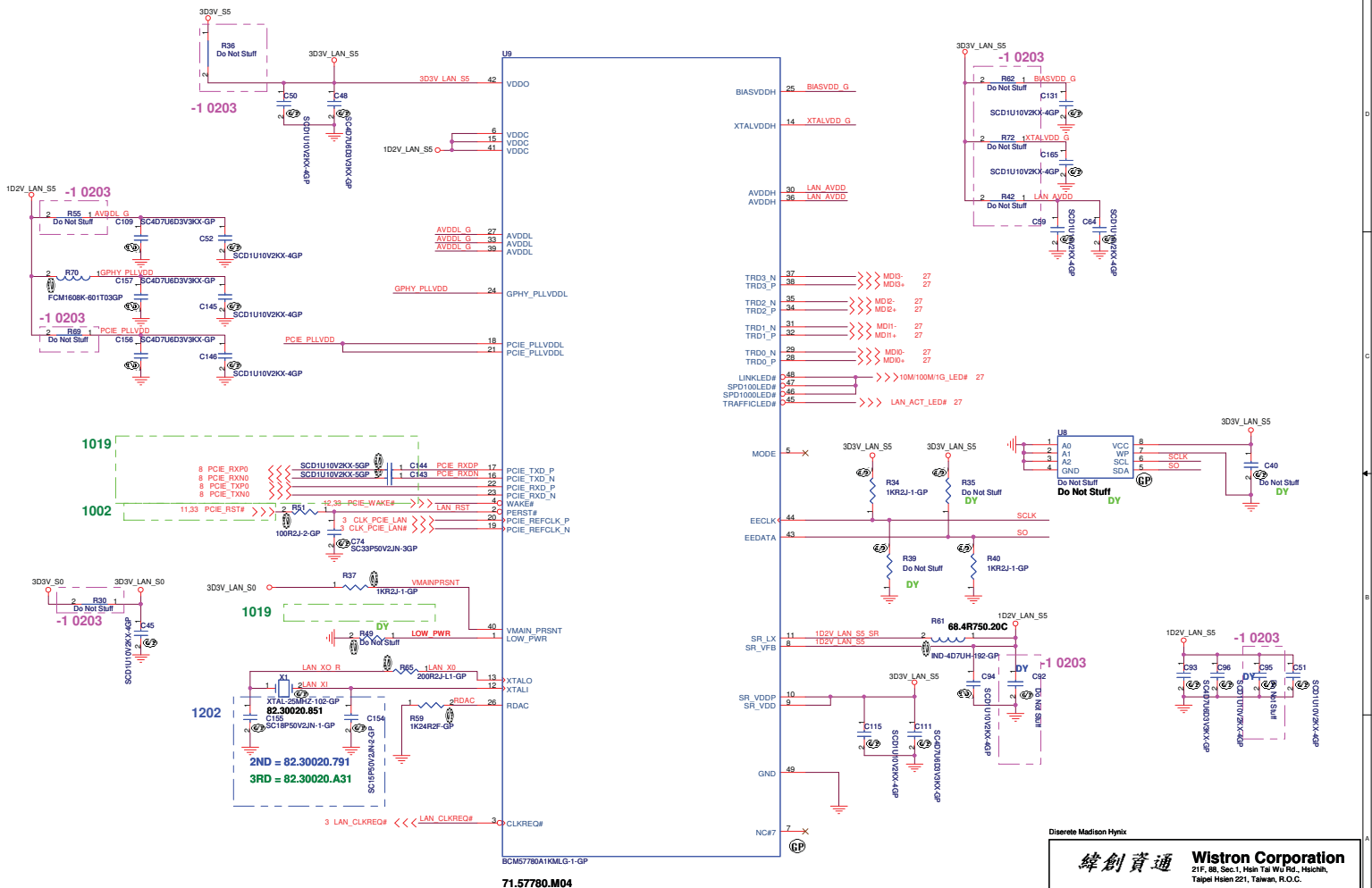
<http://hobi-elektronika.net>



0910

Discrete Madison Hynix

緯創資通		Wistron Corporation	
		21F, 88, Sec. 1, Hsin Ta Wu Rd., Hsinchu, Taipei Hsien 321, Taiwan, R.O.C.	
USB			
File	Document Number		Rev
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71.57780.M04

<http://hobi-elektronika.net>

Discrete Madison Hynix

緯創資通 Wistron Corporation
 21F, 88, Sec. 1, Hsin Ta Wu Rd., Hsinchu, Taipei Hsin 321, Taiwan, R.O.C.

File: **BCM57780**

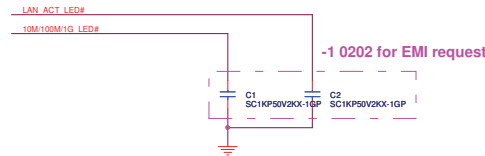
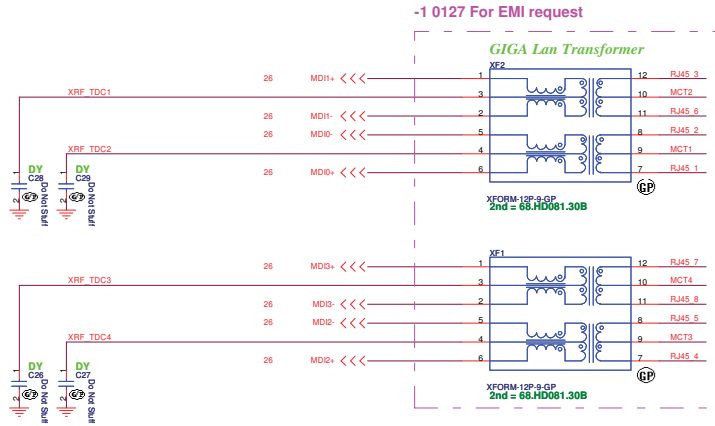
Size	Document Number	Rev
A3	JE40-DN	-3

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LAN Connector

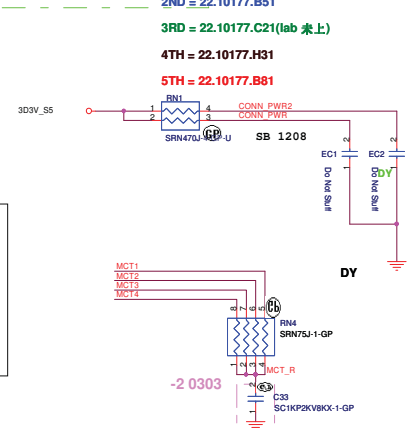
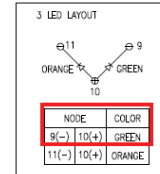
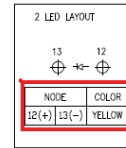
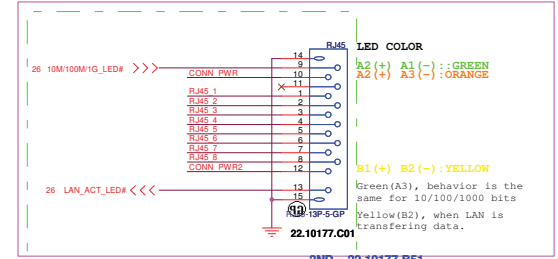
LAN Connector

- 1.route on bottom as differential pairs.
- 2.Tx+/Tx- are pairs. Rx+/Rx- are pairs.
- 3.No vias, No 90 degree bends.
- 4.pairs must be equal lengths.
- 5.6mil trace width, 12mil separation.
- 6.36mil between pairs and any other trace.
- 7.Must not cross ground moat,except RJ-45 moat.



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0923

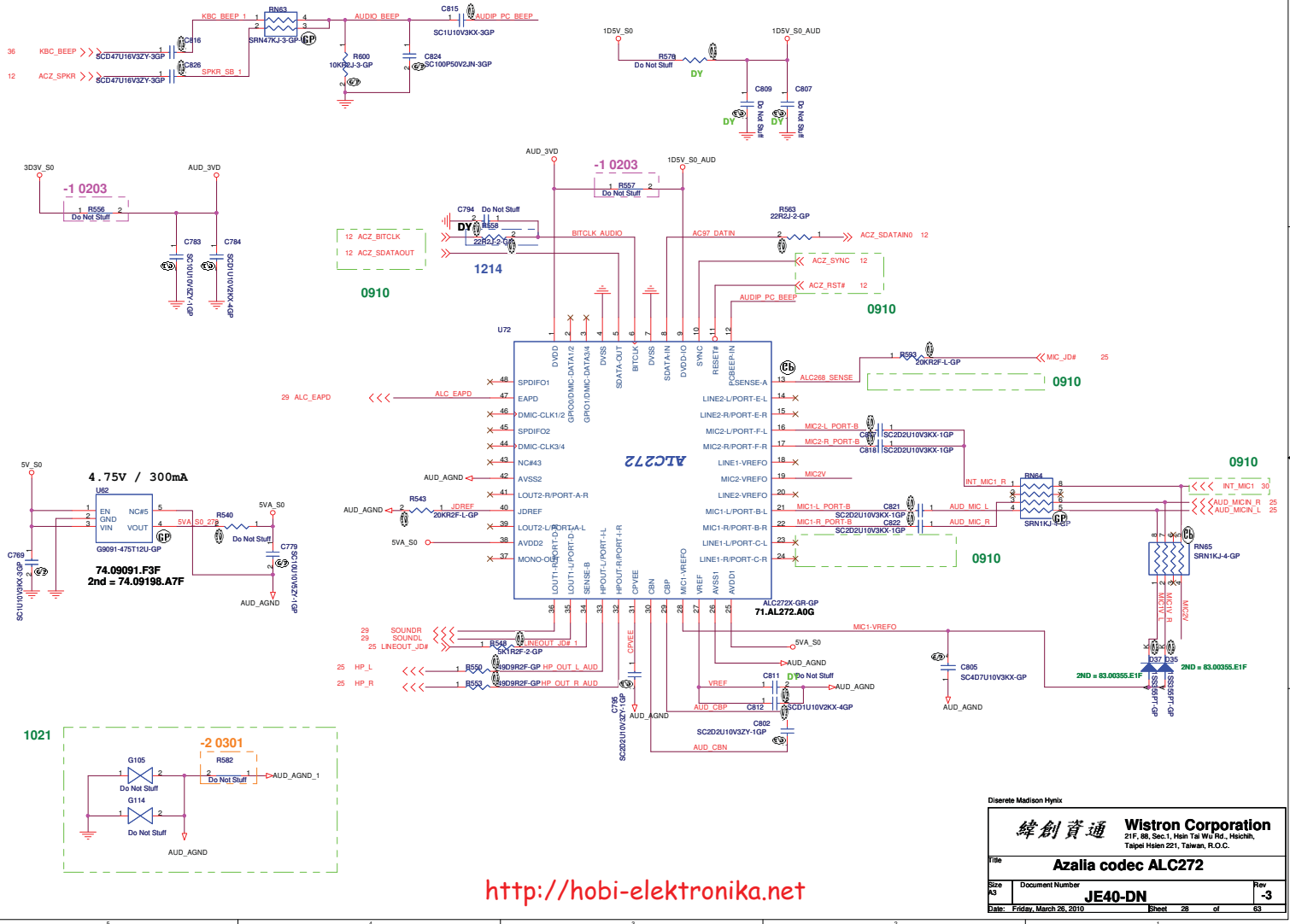


Discrete Madison Hynix

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

LAN CONN		
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Discrete Madison Hynix

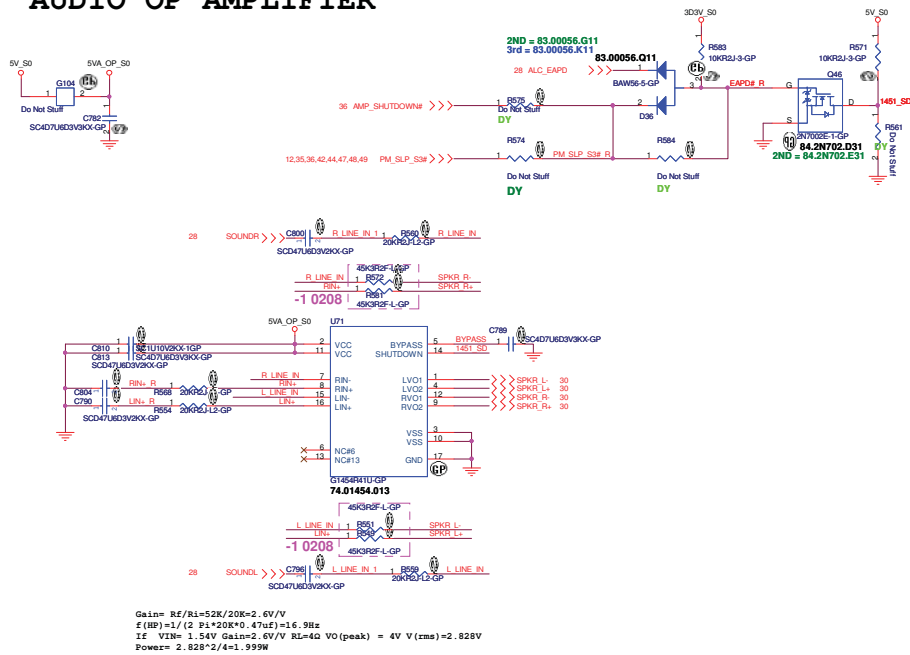
緯創資通 Wistron Corporation
 21F, 88, Sec. 1, Hsin Ta Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

File: **Azalia codec ALC272**

Size: **JE40-DN** Rev: **-3**

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AUDIO OP AMPLIFIER



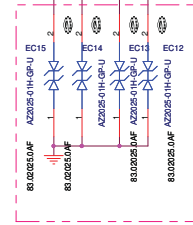
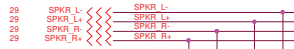
Discrete Madicon Hynix

Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Heichih, Taipei Hsin 251, Taiwan, R.O.C.	
AUDIO AMP	
Doc	Rev
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JE40-DN	
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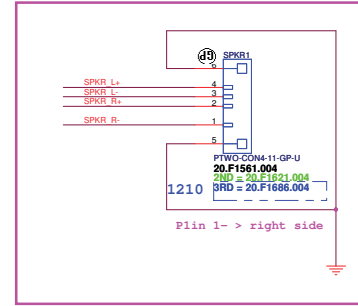
<http://hobi-elektronika.net>

Internal Speaker

0914



-1 0125 for EMI request



JV42-DN SA

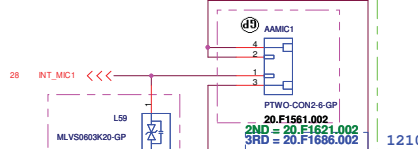
LINE OUT

0911

0910

1016

Internal Mic



-1 0209 For MIC issue

JV42-DN PX

Pin 1 -> right side

20.F1240.002 Pin1->left side

same as JV70-CP

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Discrete Madison Hynix

緯創資通 Wistron Corporation
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 Taipei Hsein 221, Taiwan, R.O.C.

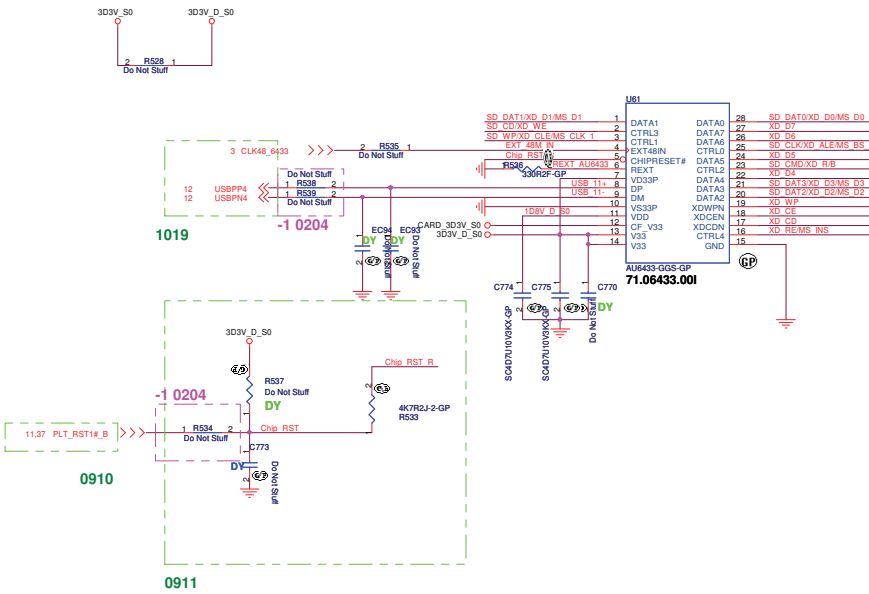
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Size	Document Number	Rev	
AUDIO JACK			
JE40-DN			-3
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No Modem Function

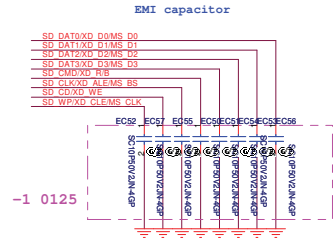
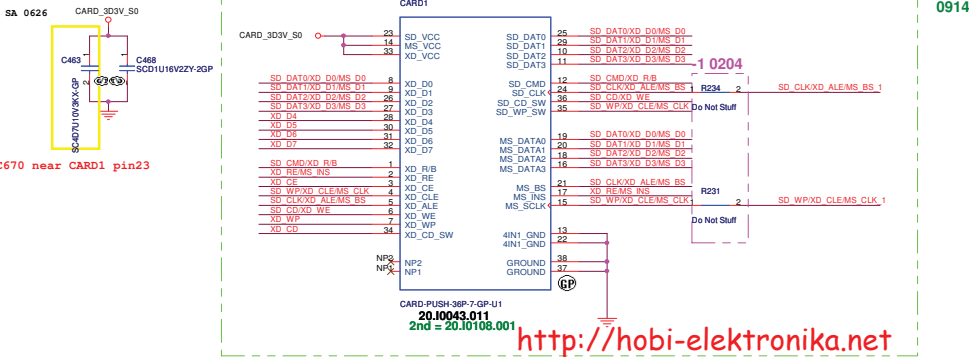
<http://hobi-elektronika.net>

Discrete Madison Hyrix

緯創資通		Wistron Corporation	
		21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Tapei Hsien 221, Taiwan, R.O.C.	
Title		MDC	
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5 IN1 CARD-READER (SD/MMC/MS/MS PRO/XD)



Discrete Madison Hyrx

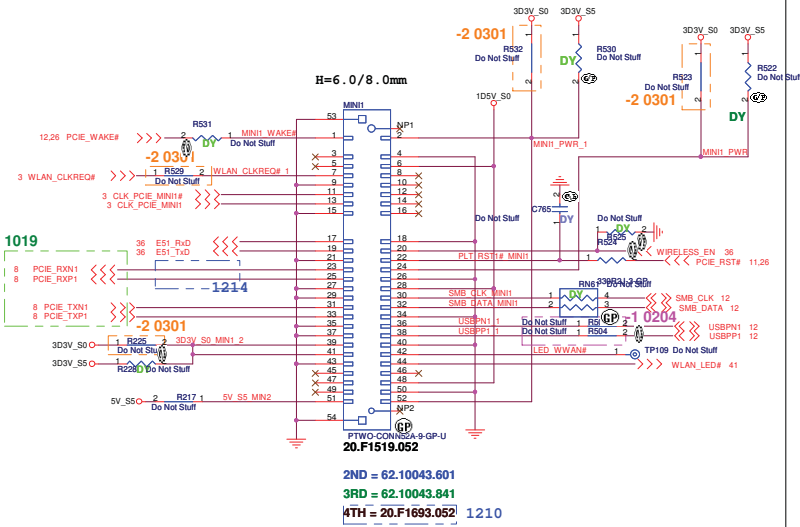
緯創資通		Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsein 321, Taiwan, R.O.C.			
FILE			
CARDREADER			
JE40-DN			
-3			
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<http://hobi-elektronika.net>

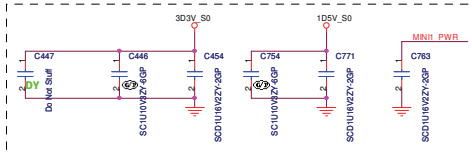
Mini Card Connector(WLAN)

No Mini Card Function (Robson2 and 3G)

0923



Place near MINI1



<http://hobi-elektronika.net>

Discrete Madison Hynix

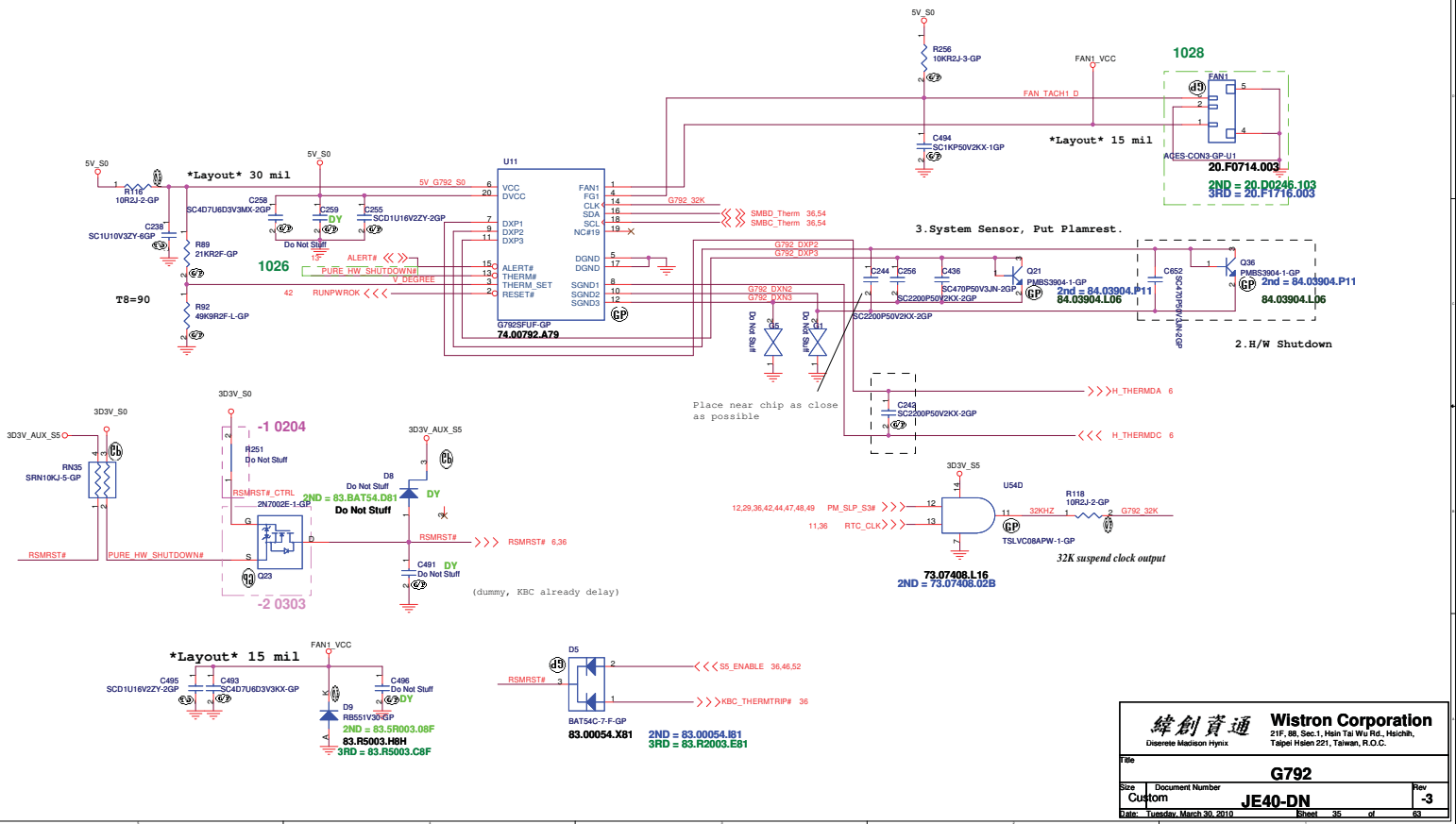
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File		
MINI CARD		
Size	Document Number	Rev
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No NEWCARD Function

<http://hobi-elektronika.net>

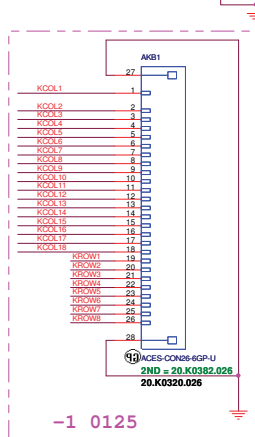
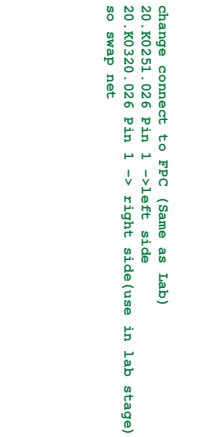
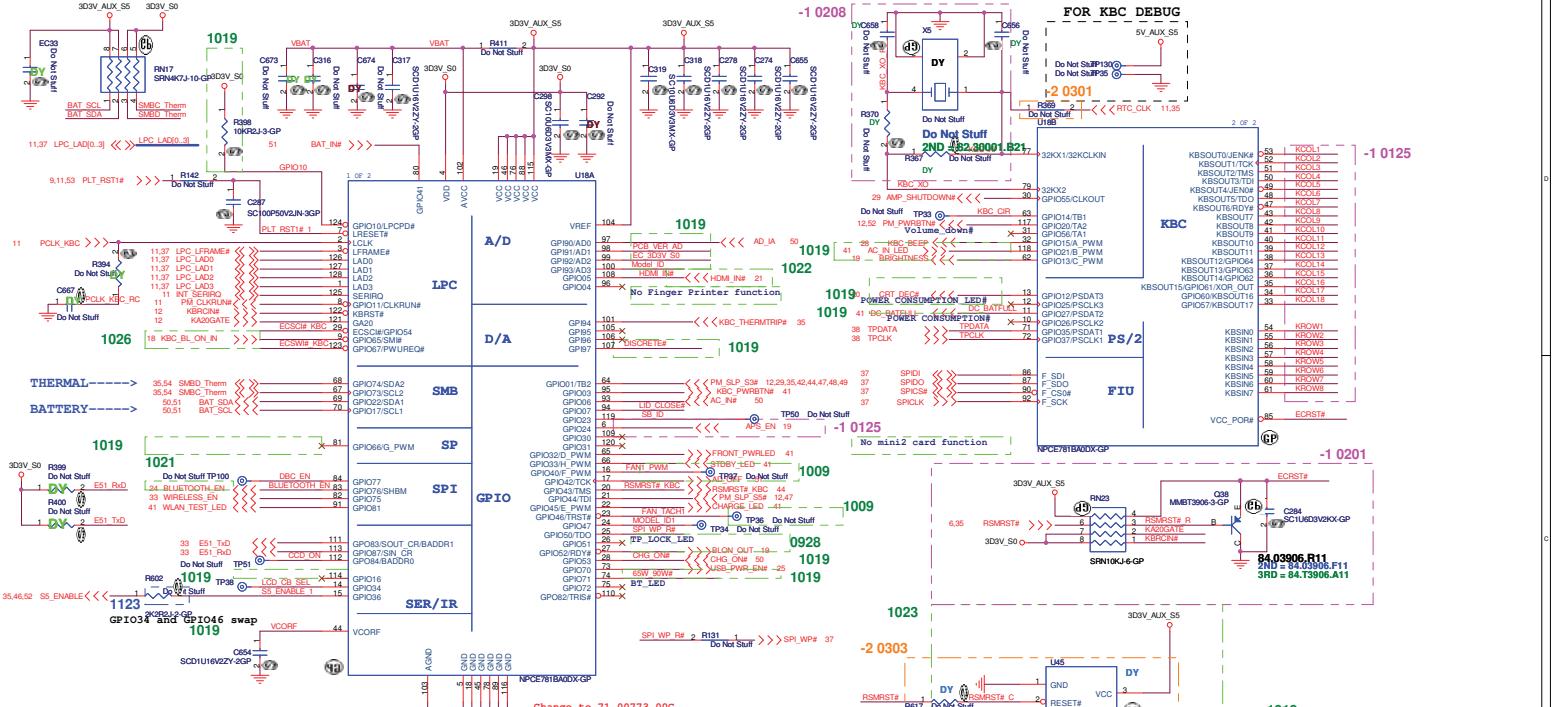
Discrete Madison Hynix

緯創資通		Wistron Corporation	
<small>21F, 88, Sec 1, Hsin Ta Wu Rd., Hsinchu, Taipei Hsien 321, Taiwan, R.O.C.</small>		<small>21F, 88, Sec 1, Hsin Ta Wu Rd., Hsinchu, Taipei Hsien 321, Taiwan, R.O.C.</small>	
File			
NEW CARD			
Size	Document Number	Rev	-3
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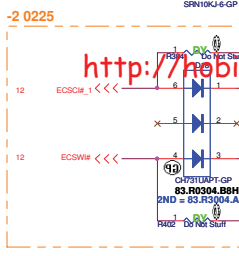
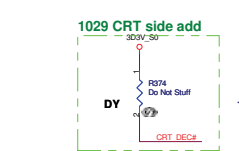
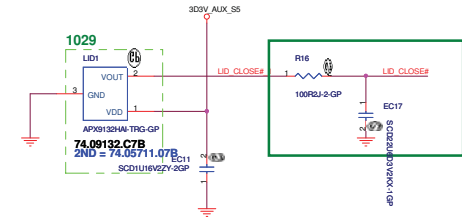


緯創資通		Wistron Corporation	
<small>Discrete Madison Hynix</small>		<small>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsin 221, Taiwan, R.O.C.</small>	
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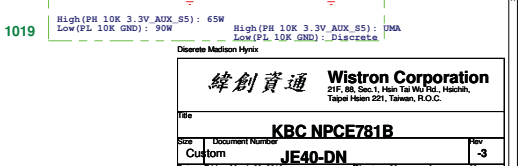
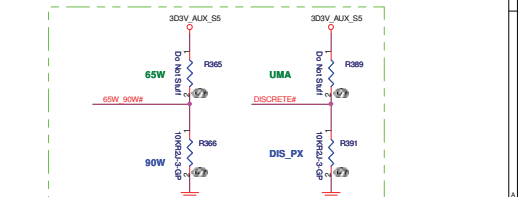
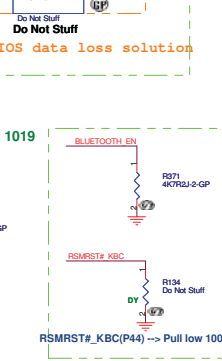
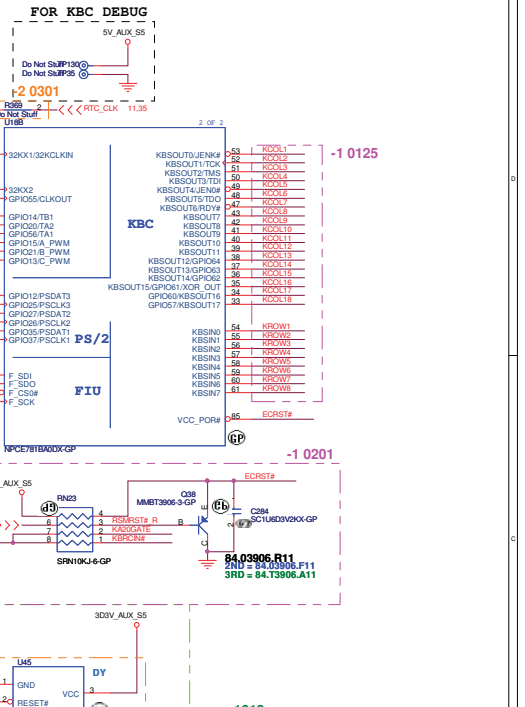
<http://hobi-elektronika.net>



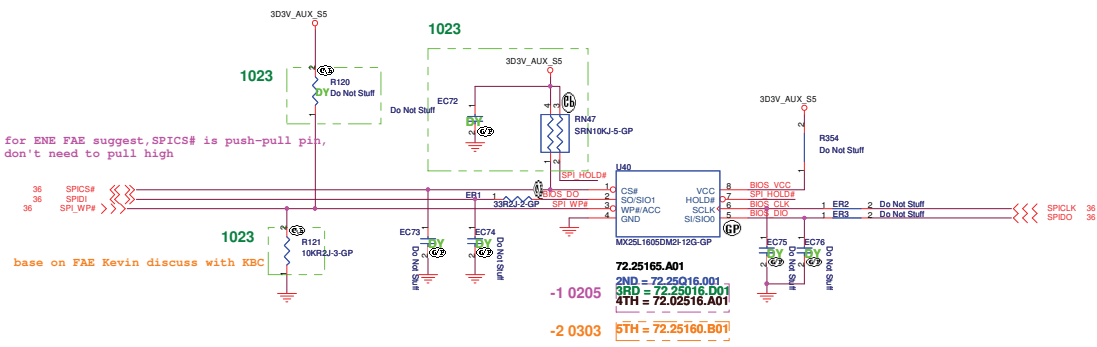
LID SWITCH



Pull-High Resistor (303V_AUX_S5)	Voltage
1.0 K	3.0 V
2.0 K	2.75 V
3.0 K	2.54 V
4.7 K	2.24 V
6.98 K	1.94 V
8.2 K	1.81 V
10.0 K	1.65 V



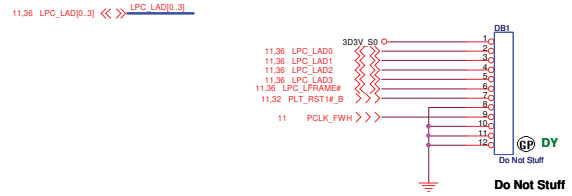
緯創資通 Wistron Corporation
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsinchu, Taiwan, R.O.C.



3rd 4th source LAB ENG未上

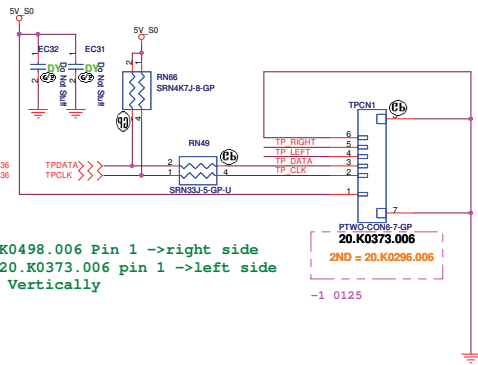
**16M Bits
SPI FLASH ROM**

GOLDEN FINGER FOR DEBUG BOARD

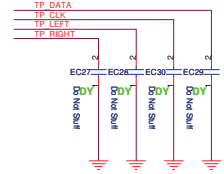


<http://hobi-elektronika.net>

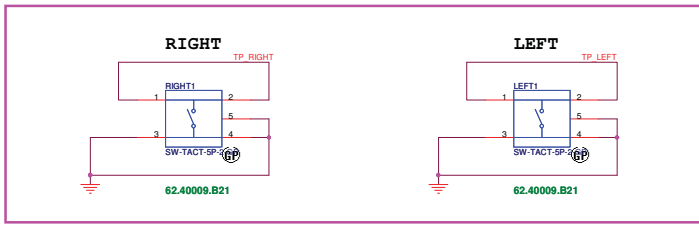
Discrete Madison Hynix		緯創資通 Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
File			
BIOS			
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Eng stuff 20.K0498.006 Pin 1 -->right side
 PD change to 20.K0373.006 pin 1 -->left side
 so net mirror Vertically



-1 0205



No Finger printer Function

<http://hobi-elektronika.net>

Discrete Madison Hynix

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

Title **Touch PAD**

Size A3	Document Number JE40-DN	Rev -3
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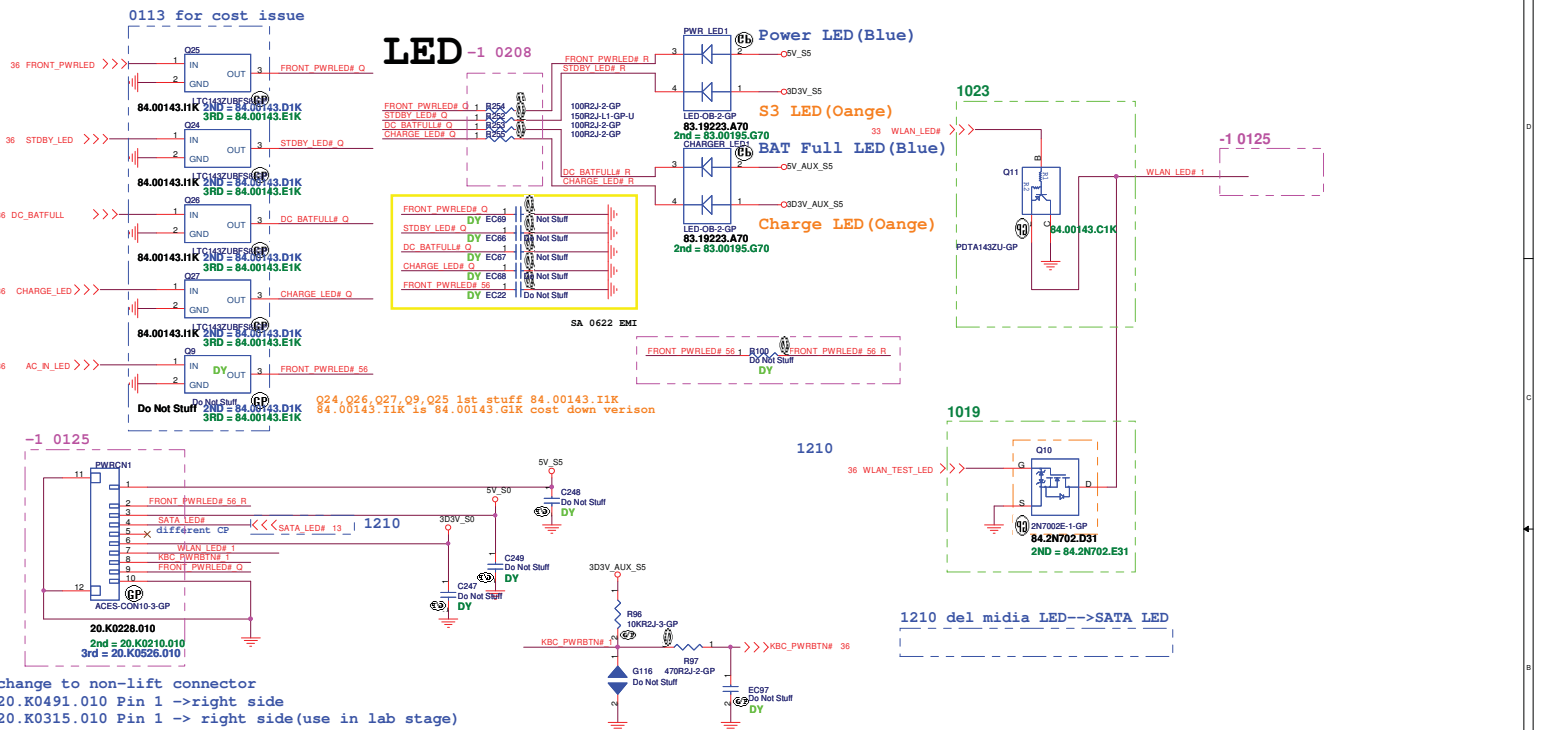
NONE BOARD

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緯創資通		Wistron Corporation	
<small>21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</small>		<small>21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</small>	
File			
NONE BOARD			
Size	Document Number	Rev	
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緯創資通		Wistron Corporation	
23F, 88, Sec. 2, Hsueh-Tai Rd., Hsinshu, Taipei Hsien 231, Taiwan, R.O.C.		23F, 88, Sec. 2, Hsueh-Tai Rd., Hsinshu, Taipei Hsien 231, Taiwan, R.O.C.	
Rev		Rev	
Document Number		SWITCH	
A2		JE40-DN	
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Do Not Stuff
 024,026,027,09,Q25 1st stuff 84.00143.I1K
 84.00143.I1K is 84.00143.G1K cost down version

change to non-lift connector
 20.K0491.010 Pin 1 ->right side
 20.K0315.010 Pin 1 -> right side(use in lab stage)

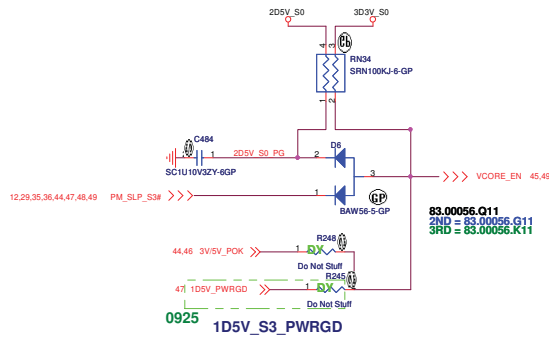
Pin 1	5V_S5	
Pin 2	FRONT_PWRLED#_56_R	AC IN
Pin 3	5V_S0	
Pin 4	SATA_LED#	HDD
Pin 5	NA	
Pin 6	3D3V_S0	
Pin 7	WLAN_LED#_R	WLAN
Pin 8	KBC_PWRBTN#_1	Power button
Pin 9	FRONT_PWRLED#_Q	Power LED
Pin 10	GND	

<http://hobi-elektronika.net>

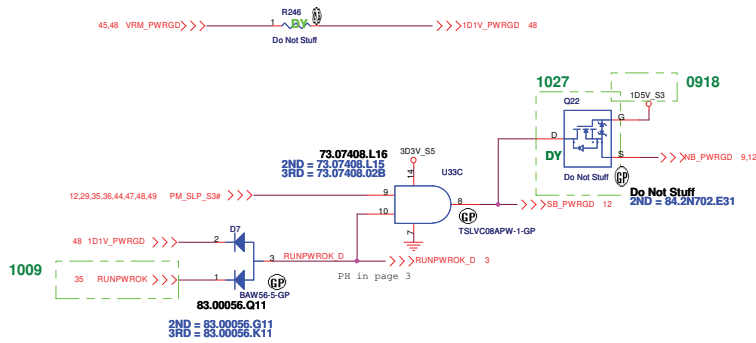
緯創資通 **Wistron Corporation**
 21F, 88, Sec.1, Hsin Ta Wu Rd., Hsichih,
 Taipei Hsien 221, Taiwan, R.O.C.

File
LED
JE40-DN

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P/H @ 1D8V_S3 PAGE



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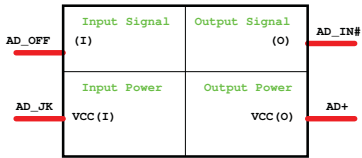
Discrete Madison Hynix

緯創資通

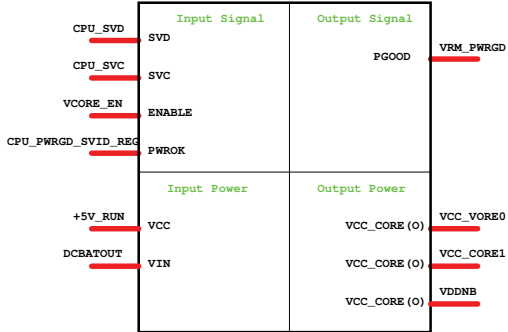
Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsinchu,
 Taipei Hsien 221, Taiwan, R.O.C.

Title			POWER ON LOGIC
Size	Document Number	Rev	
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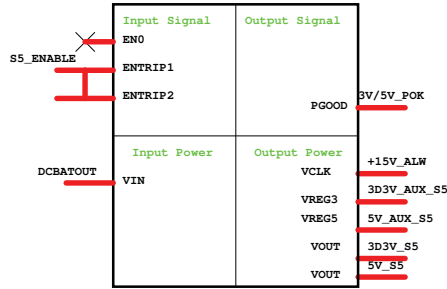
Adapter



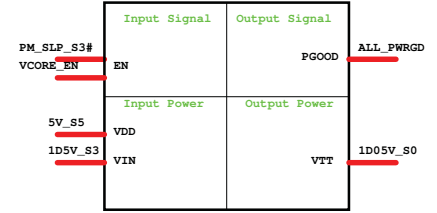
CPU_CORE ISL6265HRTZ



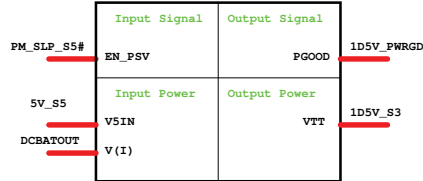
DCDC 5V/3D3V(RT8223)



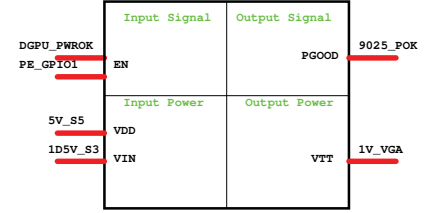
DCDC 1D05V_S0(RT9025)



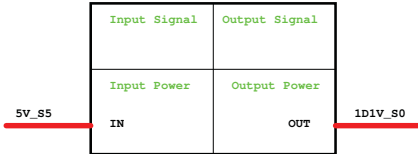
DCDC 1D5V(RT8209E)



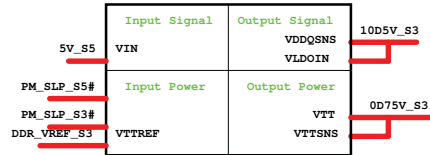
DCDC 1V_VGA(RT9025)



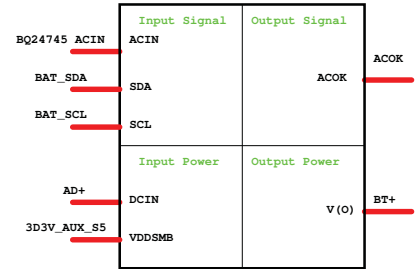
1D1V LDO RT8209E



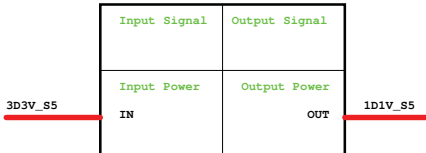
0D75V LDO RT9026



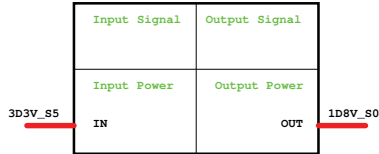
CHARGER BQ24745



1D1V LDO RT9025



1D8V LDO RT8015A



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Discrete Madison Hynix

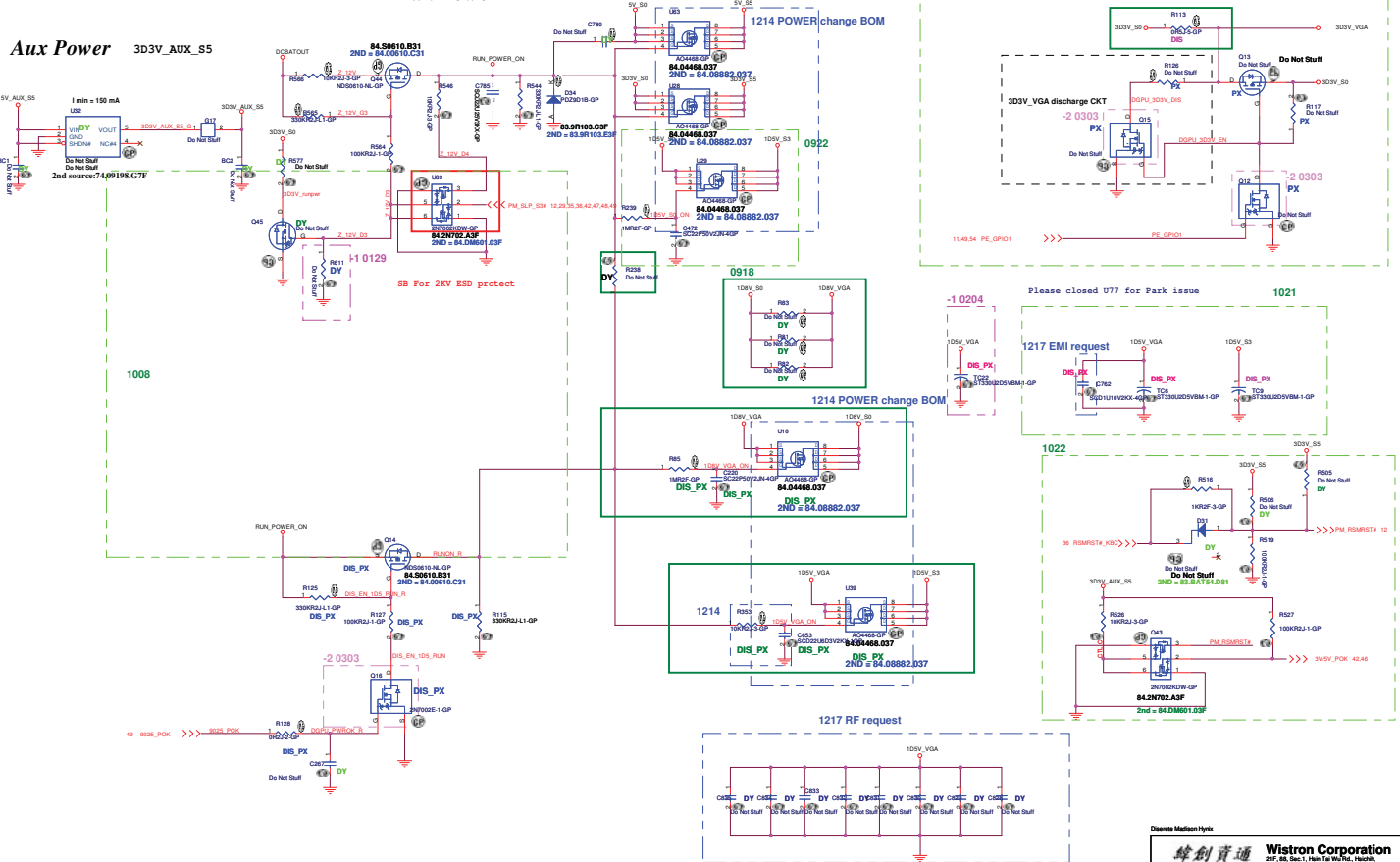
緯創資通 Wistron Corporation
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Taippei Hsien 221, Taiwan, R.O.C.

File			Power Block Diagram	
Size	Document Number	JE40-DN		Rev
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			83	

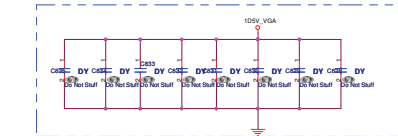
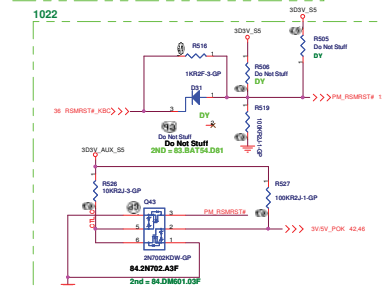
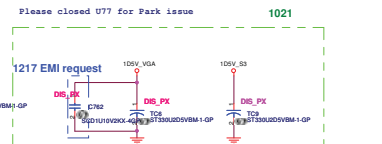
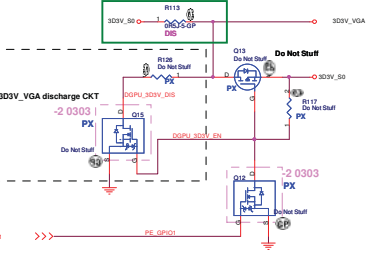
Aux Power

3D3V_AUX_S5

Run Power



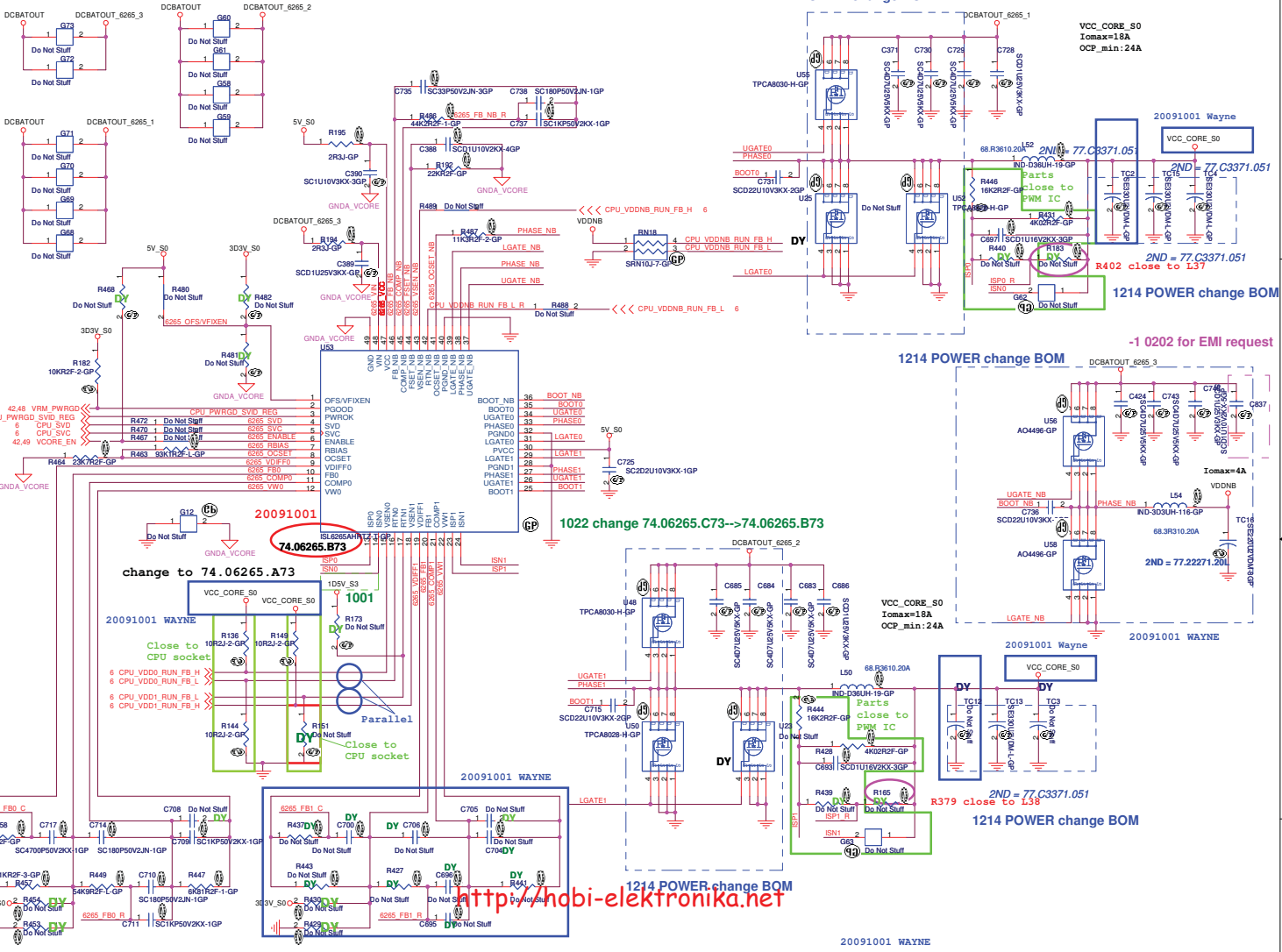
+3VS to 3.3V_DELAY Transfer



Wistron Corporation
 25F, Sec. 2, Hsin-Fu Rd., Hsinchu, Taiwan, R.O.C.
WIN AND AUX POWER
 Doc: JE40-DN Rev: 44 # 3
 Date: 2012/03/28

<http://hobi-elektronika.net>

1214 POWER change BOM

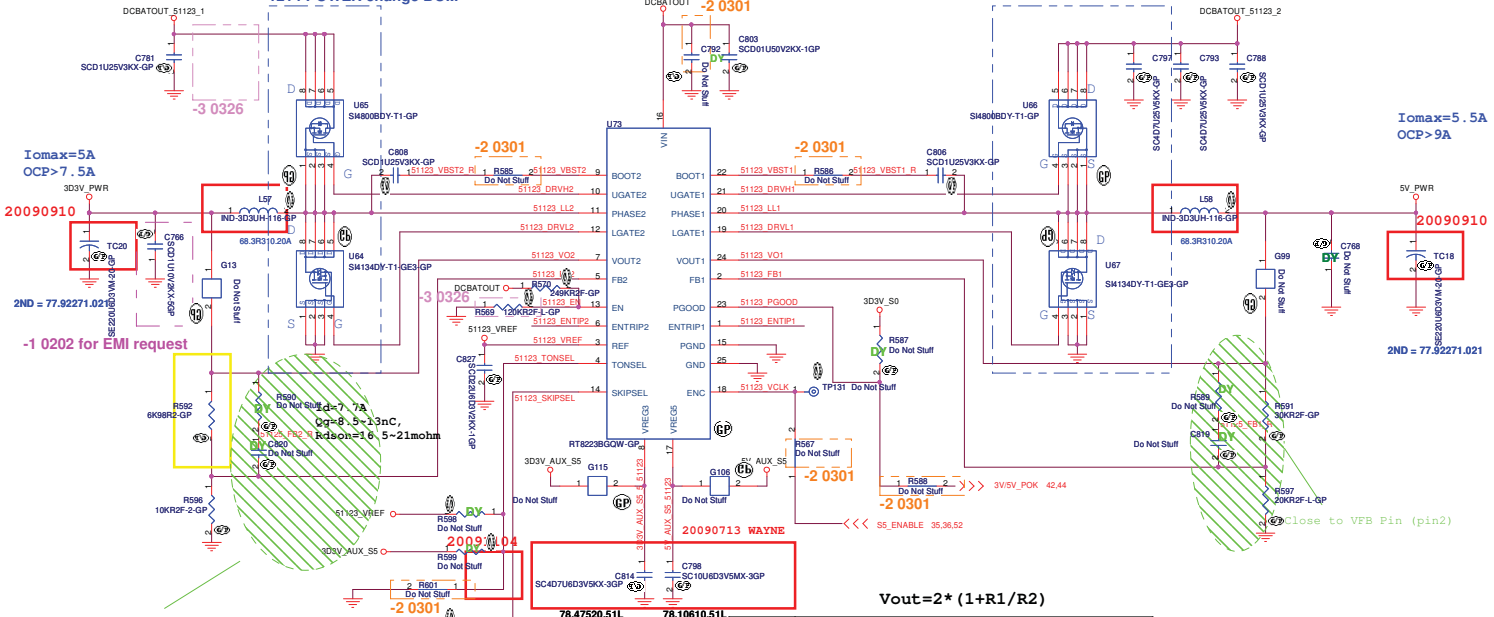
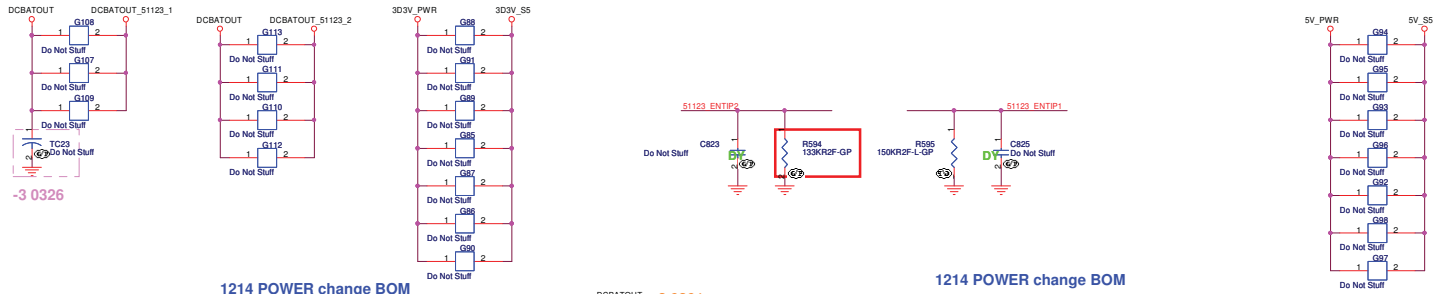


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Title	CPU Vcore(ISL6265HR)	
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	GND	VREF	VREG3	VREG5
SKIPSEL	AUTOSKIP	PWM	00A AUTOSKIP	00A AUTOSKIP
TONSEL	200k/CH1 250k/CH2	245k/CH1 305k/CH2	300k/CH1 375k/CH2	365k/CH1 460k/CH2

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Discrete Madison Hynix

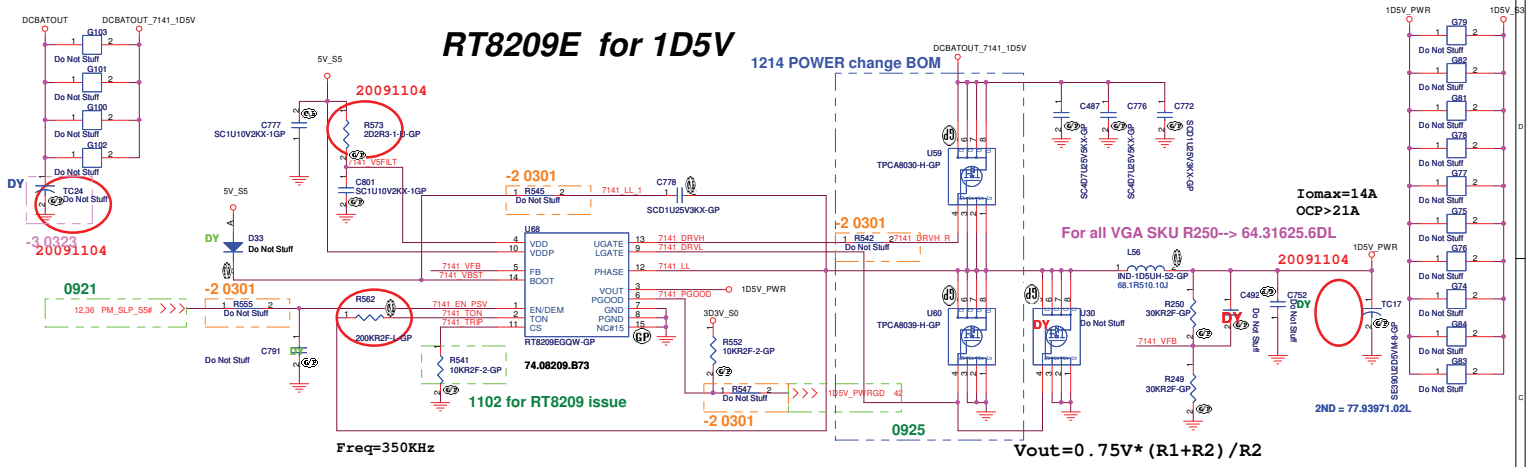
緯創資通 Wistron Corporation
21F, 88, Sec. 1, Hsin Ta Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

File: **RT8223 5V/3D3V**

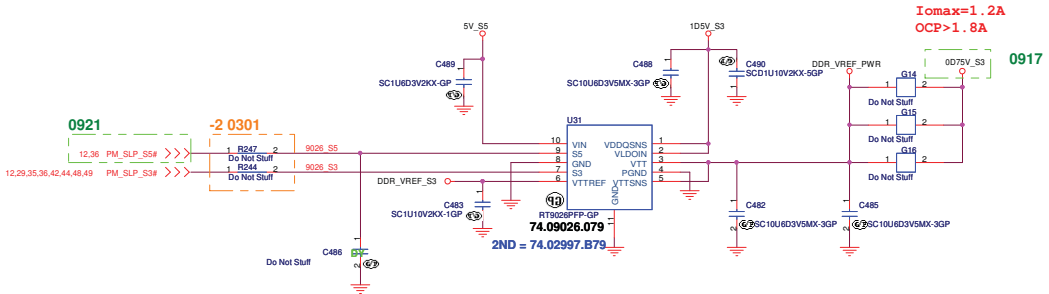
Size: Document Number **JE40-DN** Rev **-3**

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RT8209E for 1D5V



RT9026 for 0D75V_S3



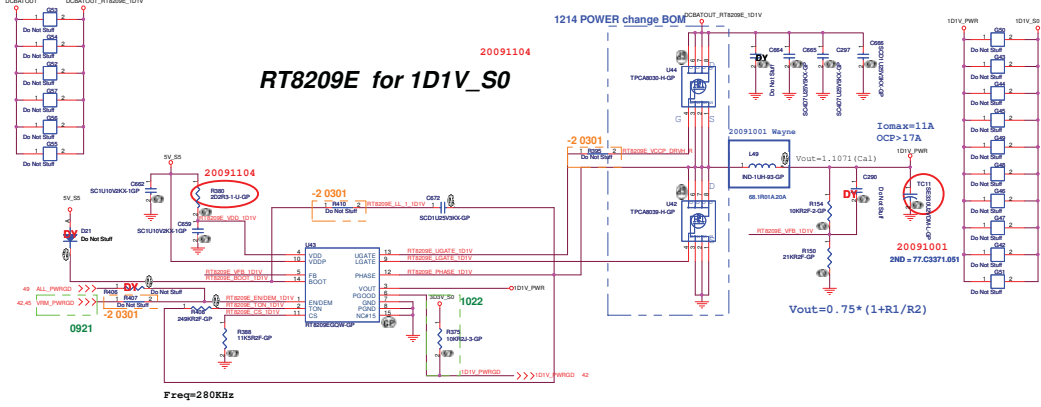
<http://hobi-elektronika.net>

Discrete Madison Hynix	
緯創資通 Wistron Corporation	
21F, 8th, Sec.1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsin 221, Taiwan, R.O.C.	
File	RT8209E_1D5V
Size	Document Number
	JE40-DN
Date:	Monday, March 29, 2010 10:47:47 AM
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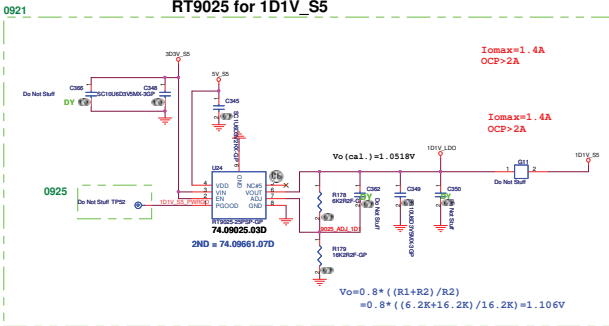
0917

RT2809E for 1D1V_S0

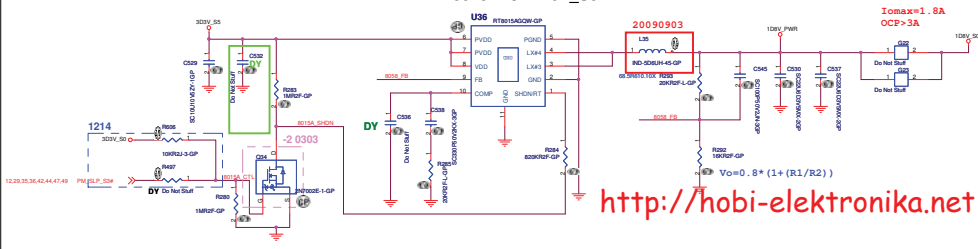
20091104



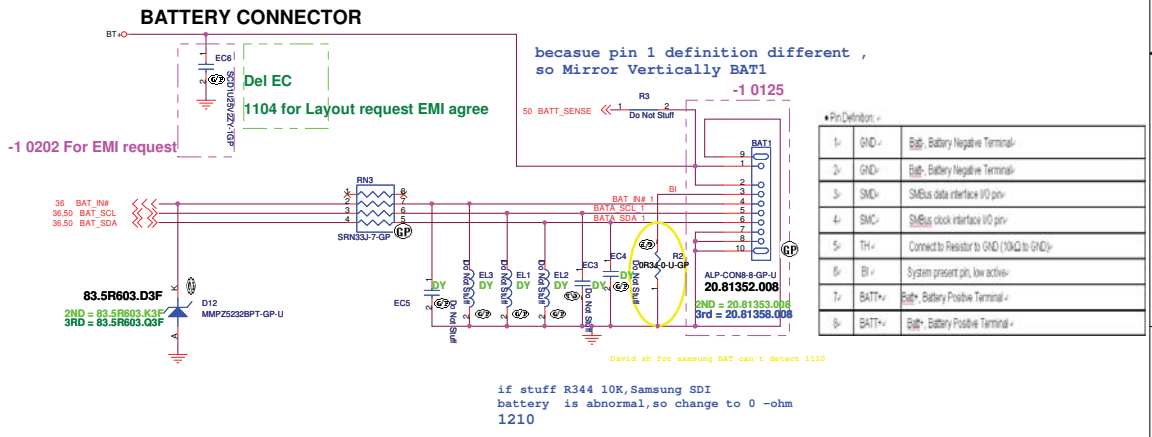
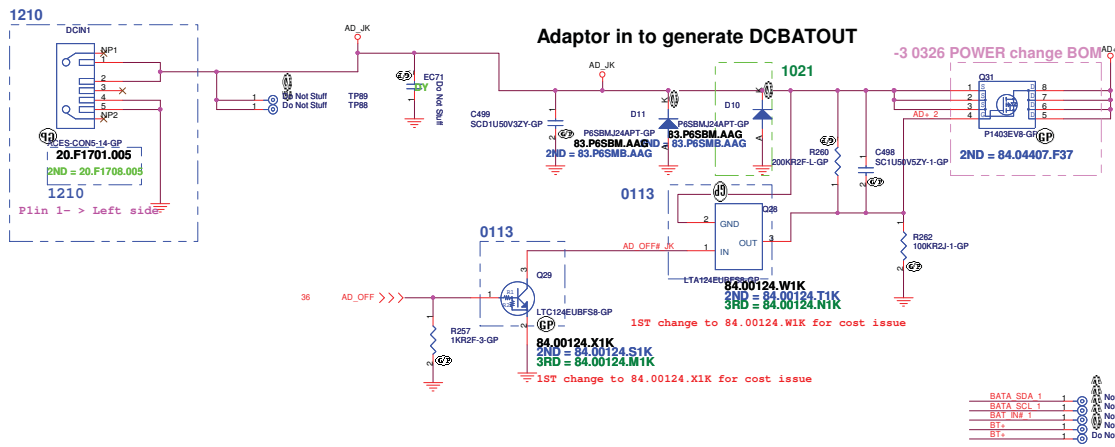
RT9025 for 1D1V_S5



RT8015A for 1D8V_S0



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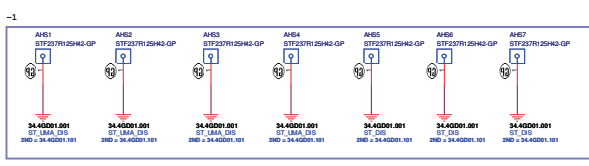
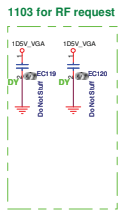
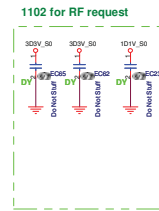
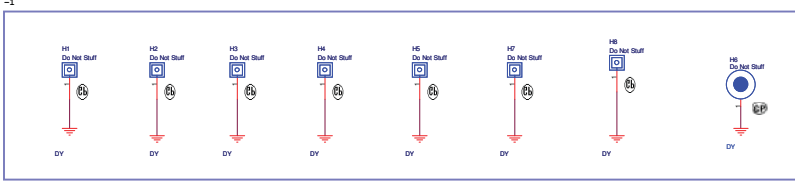
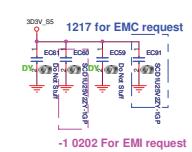
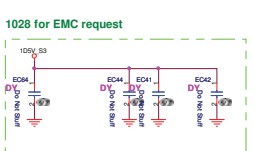
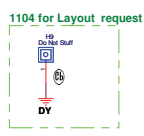
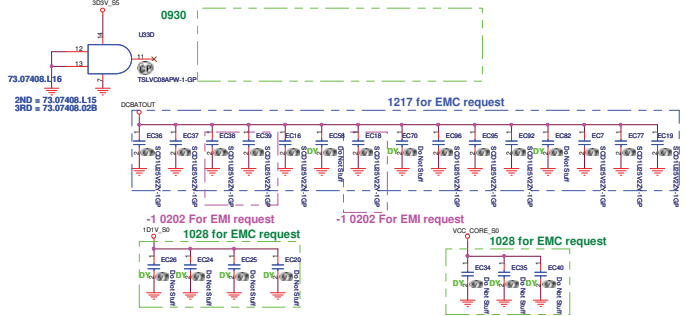


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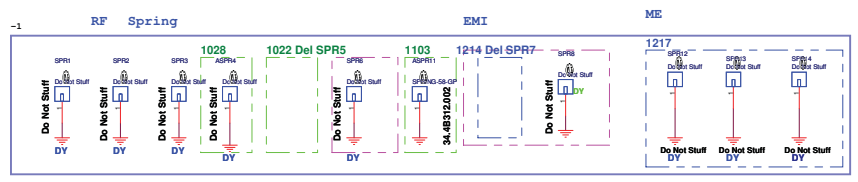
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Check test point

- 30V_50 TP120 Do Not Stuff
- 30V_AUX_50 TP125 Do Not Stuff
- 30V_55 TP123 Do Not Stuff
- 5V_55 TP122 Do Not Stuff
- 12.36 PM_POWER <<<< TP124 Do Not Stuff
- 6.11 CPU_POWER <<<< TP127 Do Not Stuff
- 35.34 SS_ENABLE <<<< TP126 Do Not Stuff
- 6.11 CPU_LED_RST <<<< TP128 Do Not Stuff

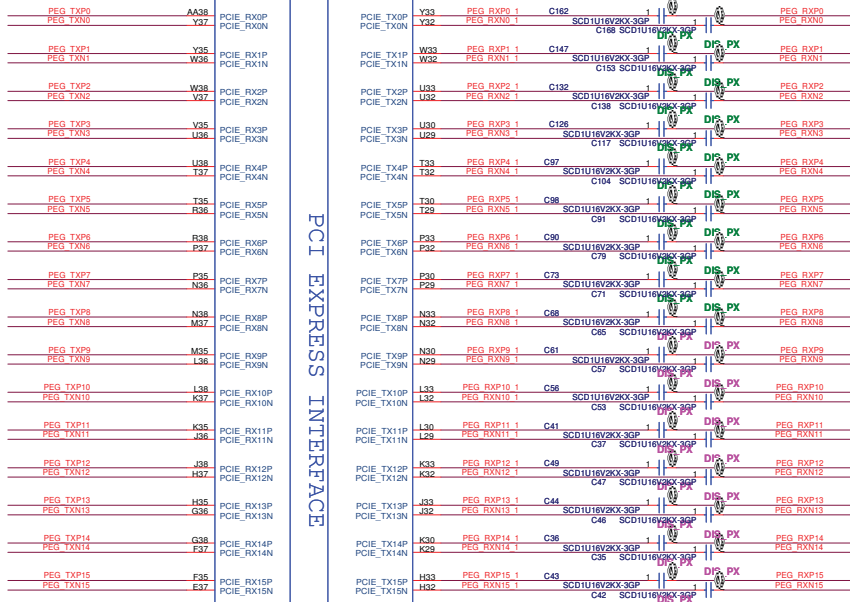
Test Point放在Dimm Door打開可量測處



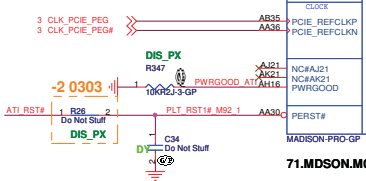
<http://hobi-elektronika.net>

8 PEG_TXP[15..0] << PEG_TXP[15..0]
 8 PEG_TXN[15..0] << PEG_TXN[15..0]

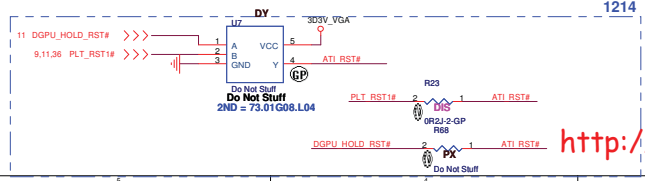
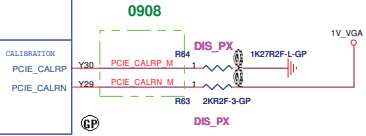
8 PEG_RXP[15..0] << PEG_RXP[15..0]
 8 PEG_RXN[15..0] << PEG_RXN[15..0]



PCI EXPRESS INTERFACE



MADISON-PRO-GP
71.MDSON.M01
 DIS_PX



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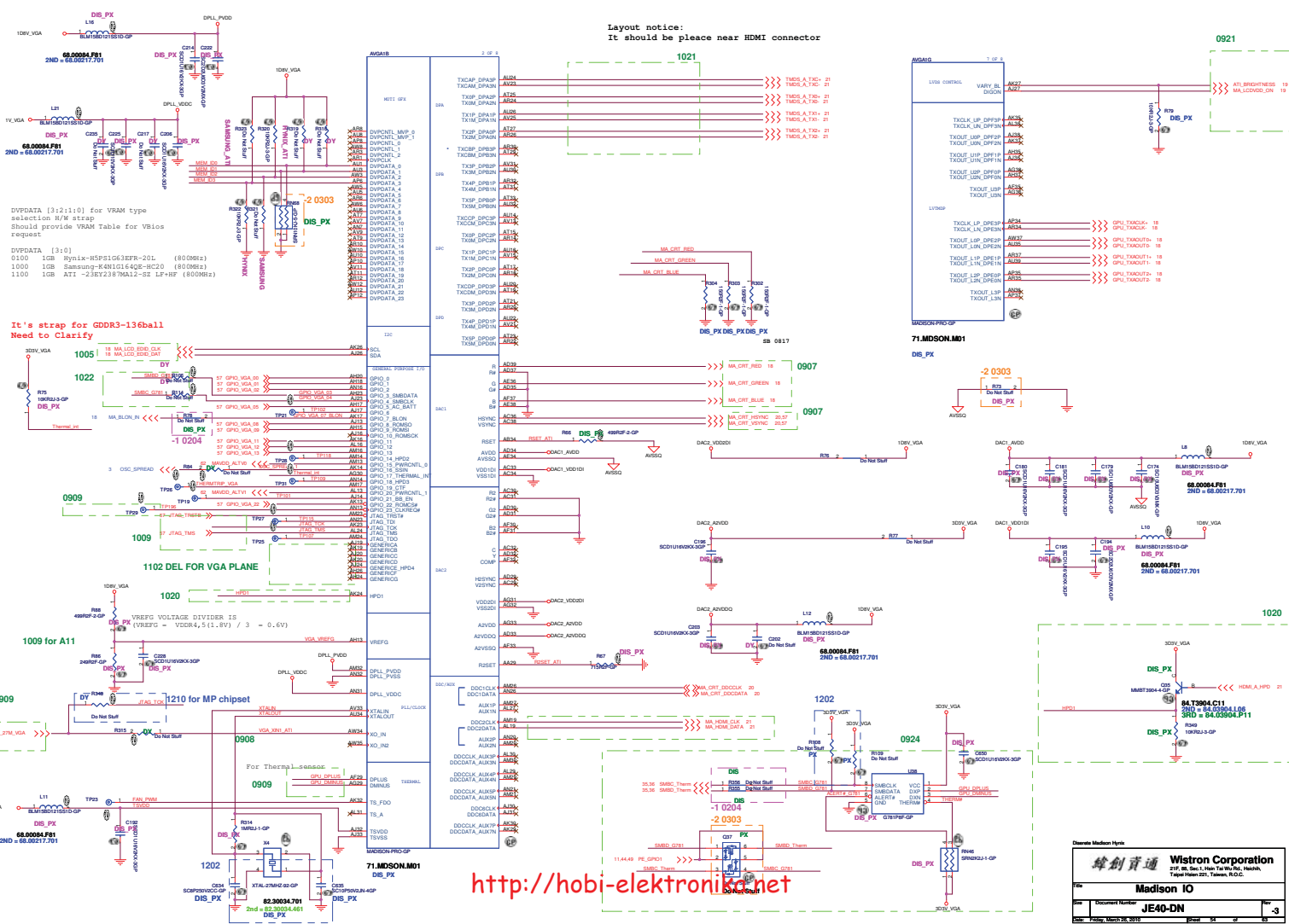
Discrete Madison Hyntx

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

Title		Madison PCIE	
Size	Document Number	JE40-DN	
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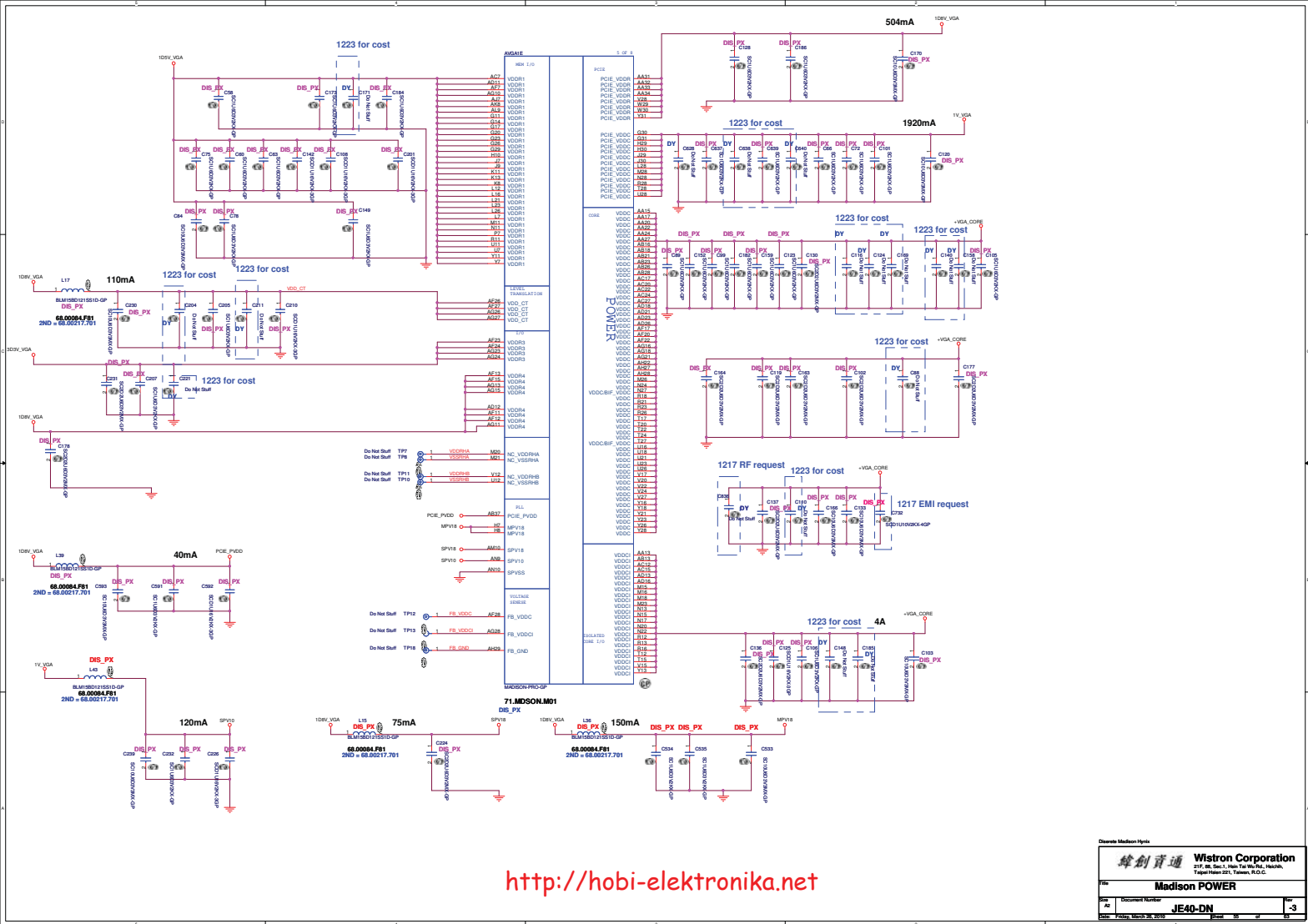
3

Layout notice:
It should be placed near HDMI connector

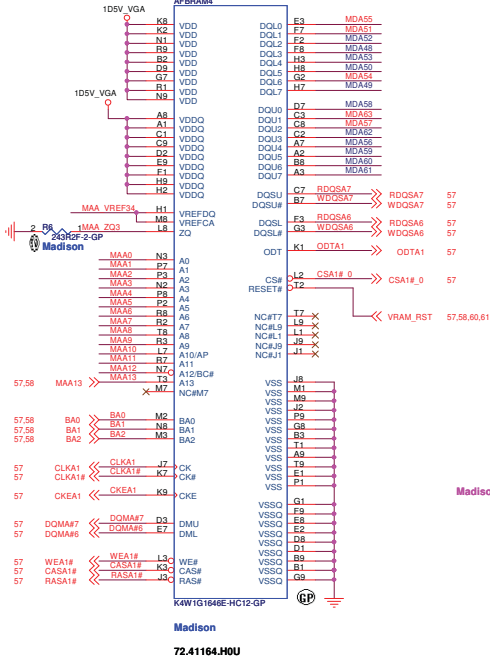
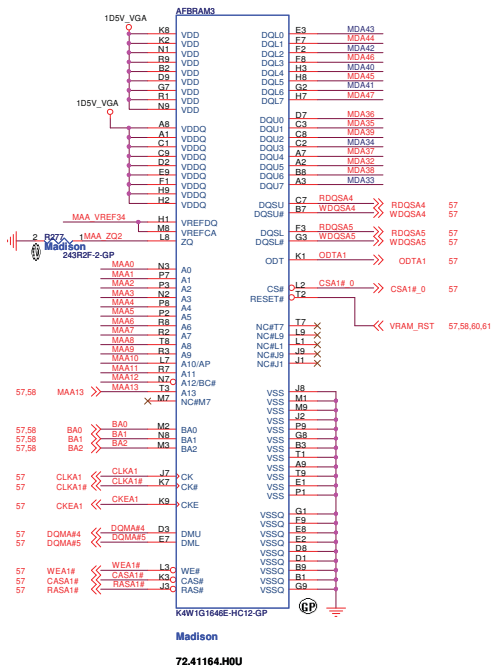


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 21F, 88, Sec. 1, Hsin-Tsuei Rd., Hsinchu, Taiwan 305, R.O.C.
 Madison IO
 JE40-D01
 3

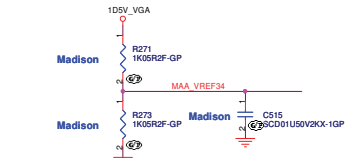
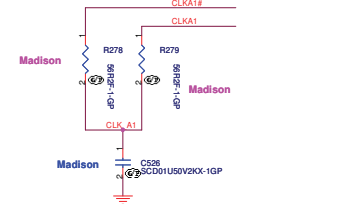


DDR3



SAMSUNG: 72.41164.HOU
HYNIX: 72.51G63.COU

- 57.58 DQMA[0..7] <<>
- 57.58 RDQSA[0..7] <<>
- 57.58 WDOSA[0..7] <<>
- 57.58 MAA[0..12] <<> MAA[0..12]
- 57.58 MDA[0..63] <<> MDA[0..63]



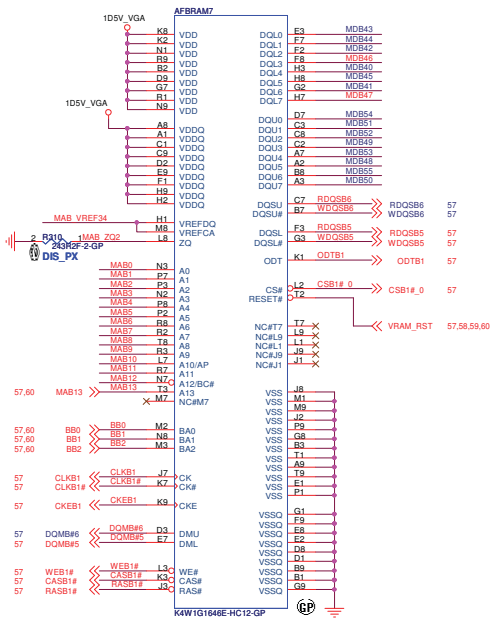
Discrete Madison Hynix

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21F, 88, Sec. 1, Hsin Ta Wu Rd., Hsinchu, Taipei Hsin 321, Taiwan, R.O.C.

File	VRAM(2/4)		Rev
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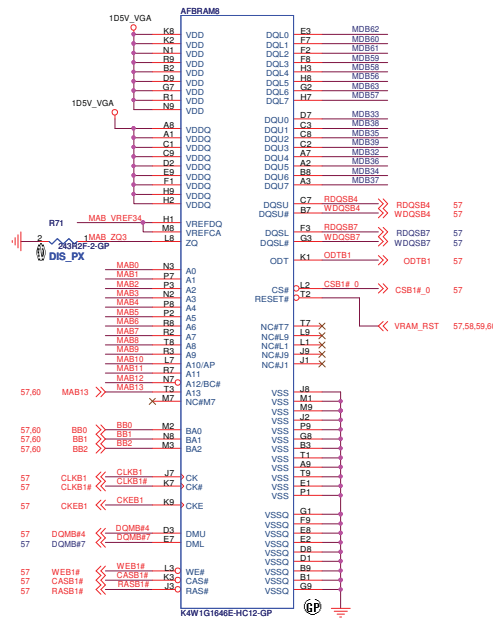
DDR3



DIS_PX
72.41164.H0U

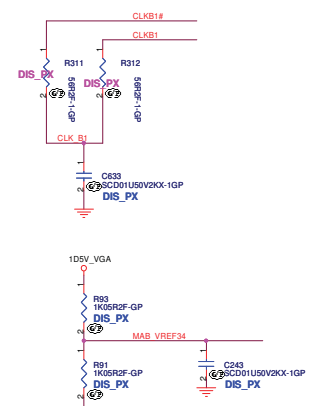
- 57.60 D0MB[0..7] <<>
- 57.60 RDQS[0..7] <<>
- 57.60 WDQS[0..7] <<>
- 57.60 MAB[0..12] <<>
- 57.60 MD[0..63] <<>

SAMSUNG: 72.41164.H0U
HYNIX: 72.51G63.C0U



DIS_PX
72.41164.H0U

- 57.60 D0MB[0..7] <<>
- 57.60 RDQS[0..7] <<>
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- 57.60 MAB[0..12] <<>
- 57.60 MD[0..63] <<>



Discrete Madison Hynix

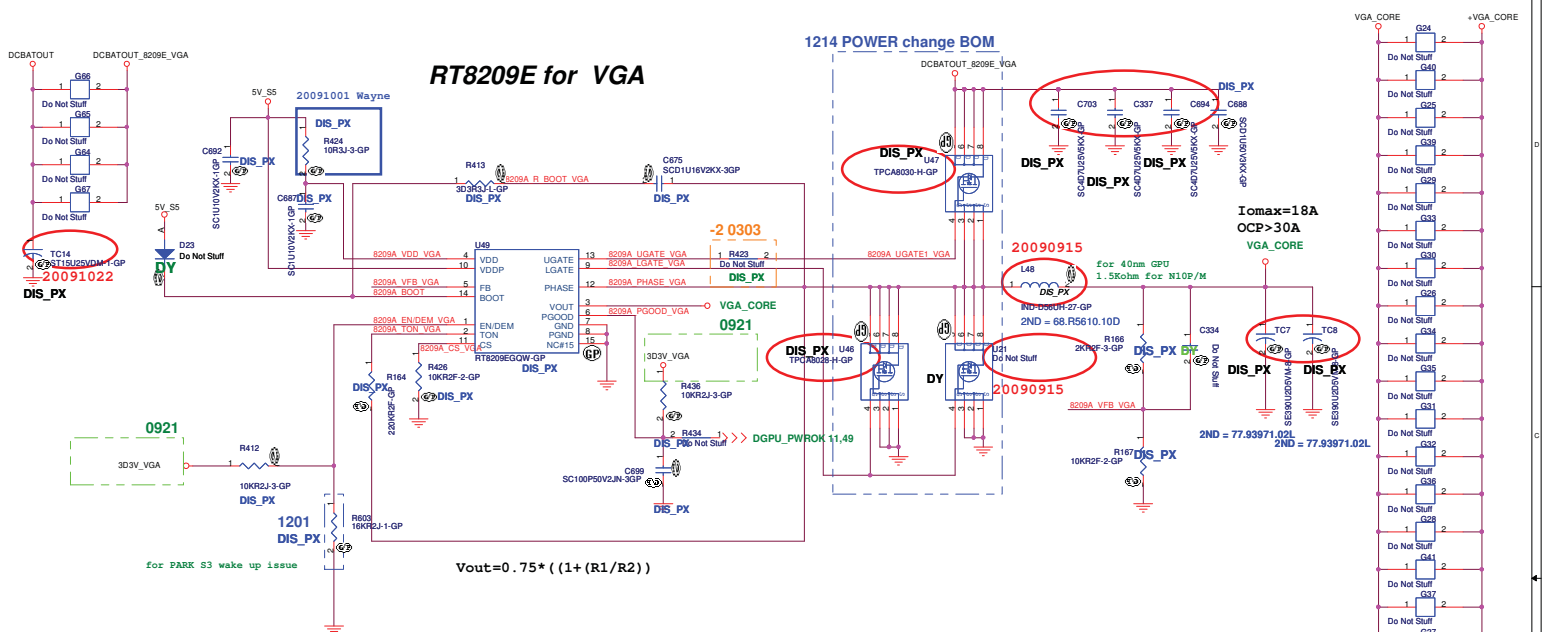
緯創資通 Wistron Corporation
21F, 88, Sec. 1, Hsin Ta Wu Rd., Hsinchu, Taipei Hsin 321, Taiwan, R.O.C.

File: **VRAM(4/4)**

Size: A3 Document Number: **JE40-DN** Rev: -3

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RT8209E for VGA

1214 POWER change BOM

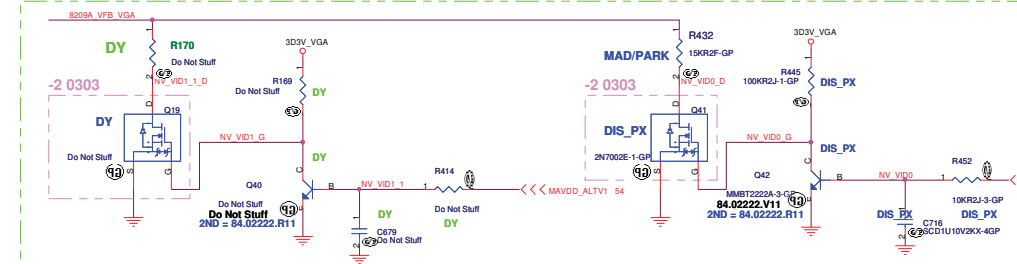
-2 0303

20090915

**Iomax=18A
OCP>30A
VGA_CORE**

$V_{out} = 0.75 * ((1 + (R1/R2)))$

1022 Reference JV50CP-1



NB
RS780-->RS880M
71.RS780.M02-->71.RS880.M02

SB
SB820M-1-GP
71.SB820.00U-->71.SB820.M03

SATA_CALRP
A11: 80歐姆 1% resistor to GND
A12: TBD歐姆 1% resistor to GND

SATA_CALRN
A11:A11: 931歐姆 1% resistor to VDDAN_11_SATA
A12: TBD歐姆 1% resistor to VDDAN_11_SATA.

VGA
Madison--> PN:71.MDSON.M01
Park--> PN:71.0PARK.M04

VRAM
Samsung-->VRAM FBRAM1~8 PN:VR.1GB0B.006
Hynix--> VRAM FBRAM1~8 PN:VR.1GB0G.004
ATI--> VRAM FBRAM1~8 PN: VR.1GB0T.002

CRT
UMA-->L1-->2R 0603
C62-->47U/6.3V
DIS-->L1-->Bead(L1 68.00217.711 L1608-UH38 SBK160808T-221Y-N-GP)
C62-->DY
PX--> 133 歐姆 (R58 63.10334.1DL R402H16 133R2F-GP)

R605(MAD/PARK/PX)
Madison-->R605 64.15005.6DL R402H16150R2F-L-GP
Park -->R605 64.15005.6DL R402H16150R2F-L-GP
PX -->R605 64.15005.6DL R402H16150R2F-L-GP

HDMI
UMA -->R612 R613 R618 R619 R620 R621 R624 R625 64.71505.6DL R402H16715R2F-2-GP

R432(MAD/PARK)
Madison-->15KR2F 64.15025.6DL
Park-->R432 64.68115.6DL R402H16 6.81KR2F

BOM
1st -> All SKU

R250
Madison-->R250 64.32425.6DL R402H16 32K4R2F
Park -->R250 64.32425.6DL R402H16 32K4R2F
PX -->R250 64.32425.6DL R402H16 32K4R2F

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NOTE			
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