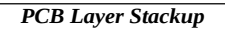
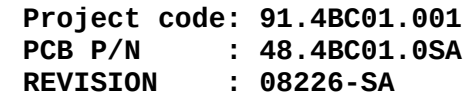


Yukon Block Diagram



L1: Signal 1
L2: VCC
L3: Inner Signal 2
L4: Inner Signal 3
L5: GND
L6: Signal 4

CPU V_CORE

INPUT	OUTPUT
<i>DCBATOUT</i>	<i>VCC_CORE_S0</i>

SYSTEM DC/DC

INPUT	OUTPUT
<i>DCBATOUT</i>	<i>1D2V_S0</i> <i>1D8V_S3</i>

SYSTEM DC/DC

INPUT	OUTPUT
DCBATOUT	5V_S5 3D3V_S5

SYSTEM LDO

INPUT	OUTPUT
1D8V_S3	0D9V_S3

SYSTEM LDO

INPUT	OUTPUT
3D3V_S5	1D2V_S5
3D3V_S0	2D5V_S0
3D3V_S0	1D5V_S0

SYSTEM LDO

INPUT	OUTPUT
DCBATOUT	5V_AUX_S5 3D3V_AUX_S5

Battery Charger

INPUTS	OUTPUTS
<i>AD+</i> <i>BAT+</i>	<i>DCBATOUT</i>

<Variant Name>



Wistron Incorporated
21F, 88, Hsin Tai Wu Rd
Hsichih, Taipei

Title	BLOCK DIAGRAM
-------	---------------

Size	Document Number
------	-----------------

A3 Yukon

Sheet 1 of 43

SA

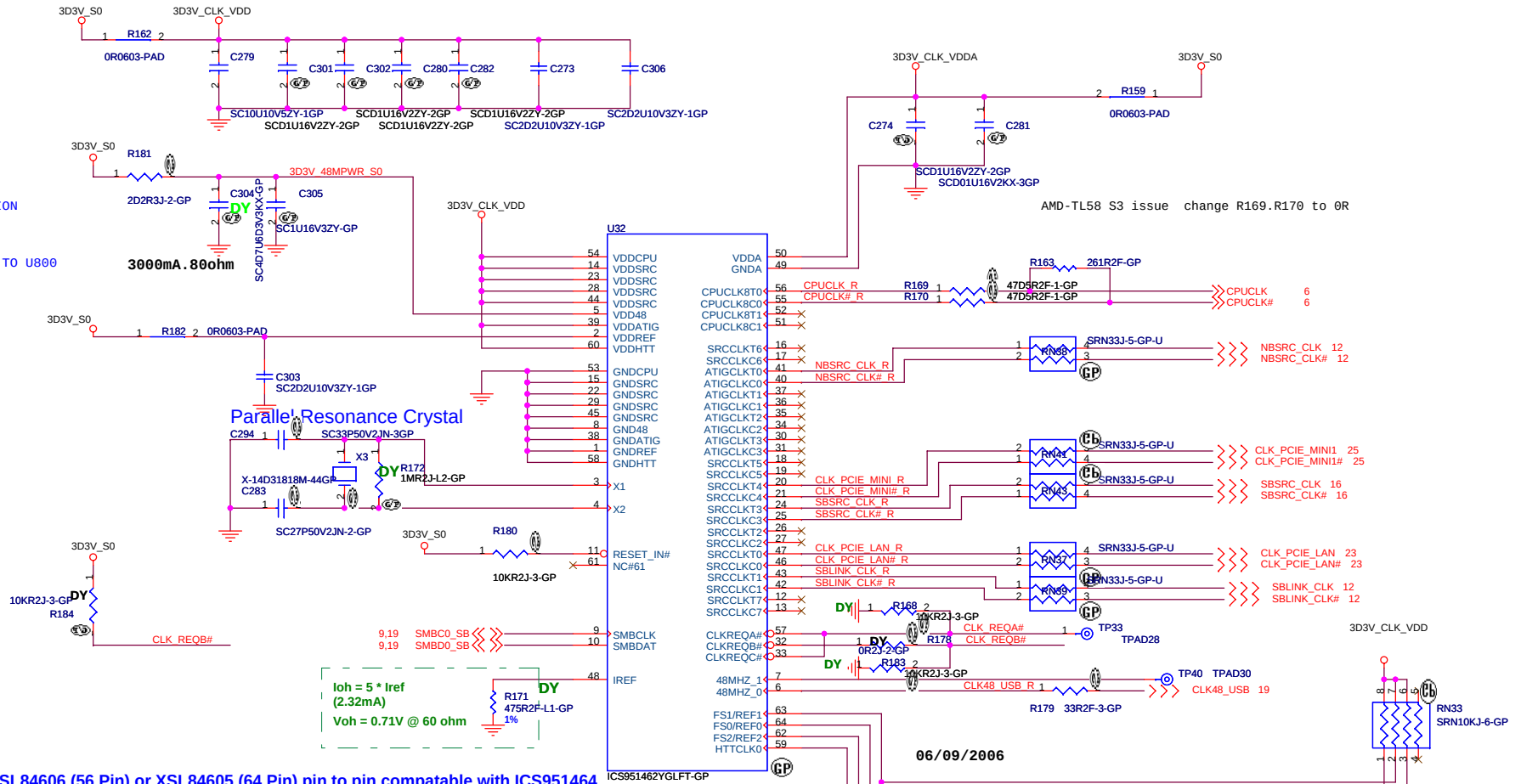
	5	4	3	2	1
D					
C					
B					
A					

<Core Design>

			
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
CHANGE HISTORY			
Size	Document Number		Rev
A3	Yukon		SA
Date:	Thursday, July 03, 2008	Sheet	2 of 43

1- PLACE ALL SERIAL TERMINATION
RESISTORS CLOSE TO U800

2- PUT DECOUPLING CAPS CLOSE TO U800
POWER PIN



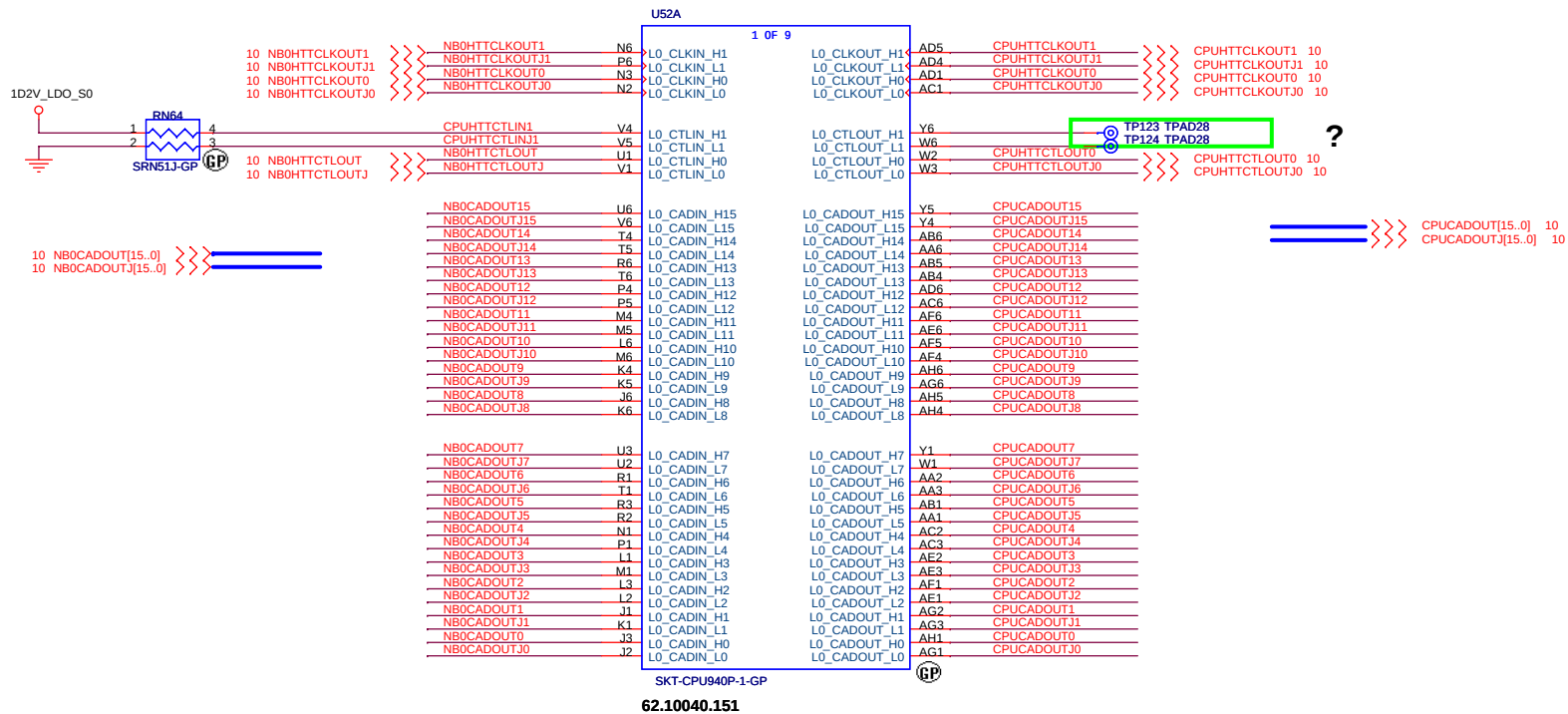
EXT CLK FREQUENCY SELECT TABLE(MHZ)

FS2	FS1	FS0	CPU	SRCCLK [2:1]	HTT	PCI	USB	COMMENT
0	0	0	Hi-Z	100.00	Hi-Z	Hi-Z	48.00	Reserved
0	0	1	X	100.00	X/3	X/6	48.00	Reserved
0	1	0	180.00	100.00	60.00	30.00	48.00	Reserved
0	1	1	220.00	100.00	36.56	73.12	48.00	Reserved
1	0	0	100.00	100.00	66.66	33.33	48.00	Reserved
1	0	1	133.33	100.00	66.66	33.33	48.00	Reserved
1	1	1	200.00	100.00	66.66	33.33	48.00	Normal ATHLON64 operation

<Core Design>

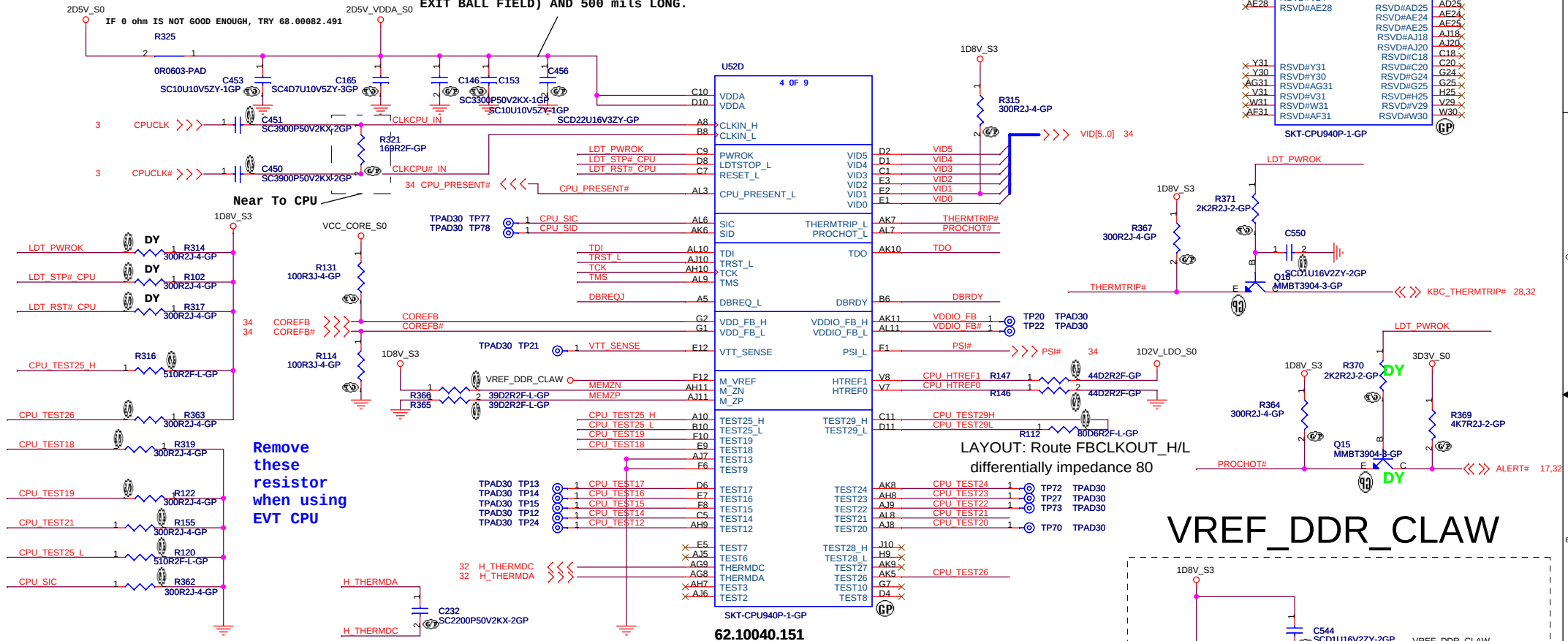
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			
CLKGEN ICS951412			
Size A3	Document Number	Rev SA	
Yukon			
Date: Thursday, July 03, 2008	Sheet 3	of 43	



3

LYAOUT:ROUTE VDDA TRACE APPROX.
50mils WIDE(USE 2X25 mil TRACES TO
EXIT BALL FIELD) AND 500 mils LONG.



Remove
these
resistor
when using
EVT CPU

LAYOUT: Route FBCLKOUT_H/L
differentially impedance 80

VREF_DDR_CLAW

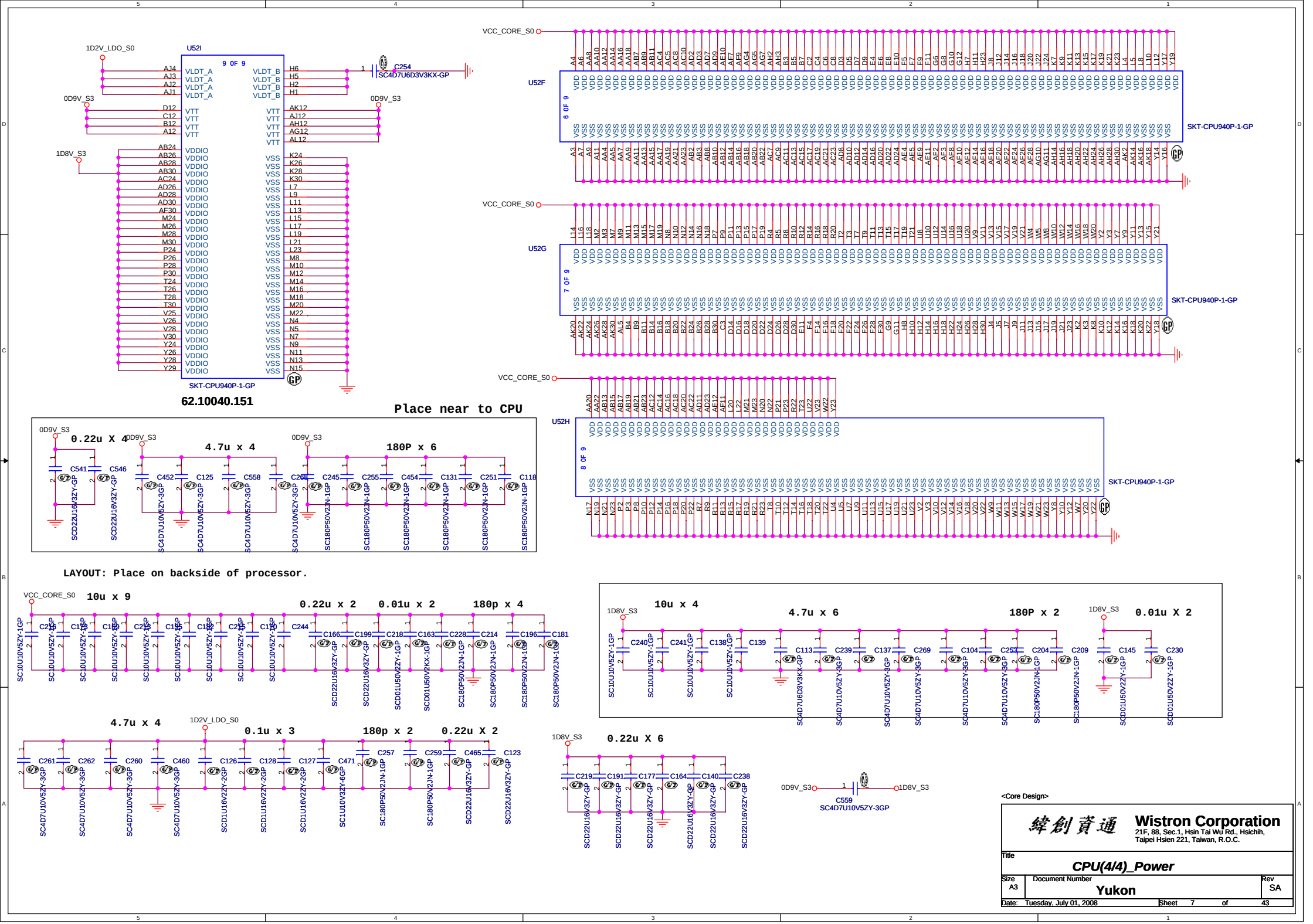
LAYOUT: Locate close to CPU

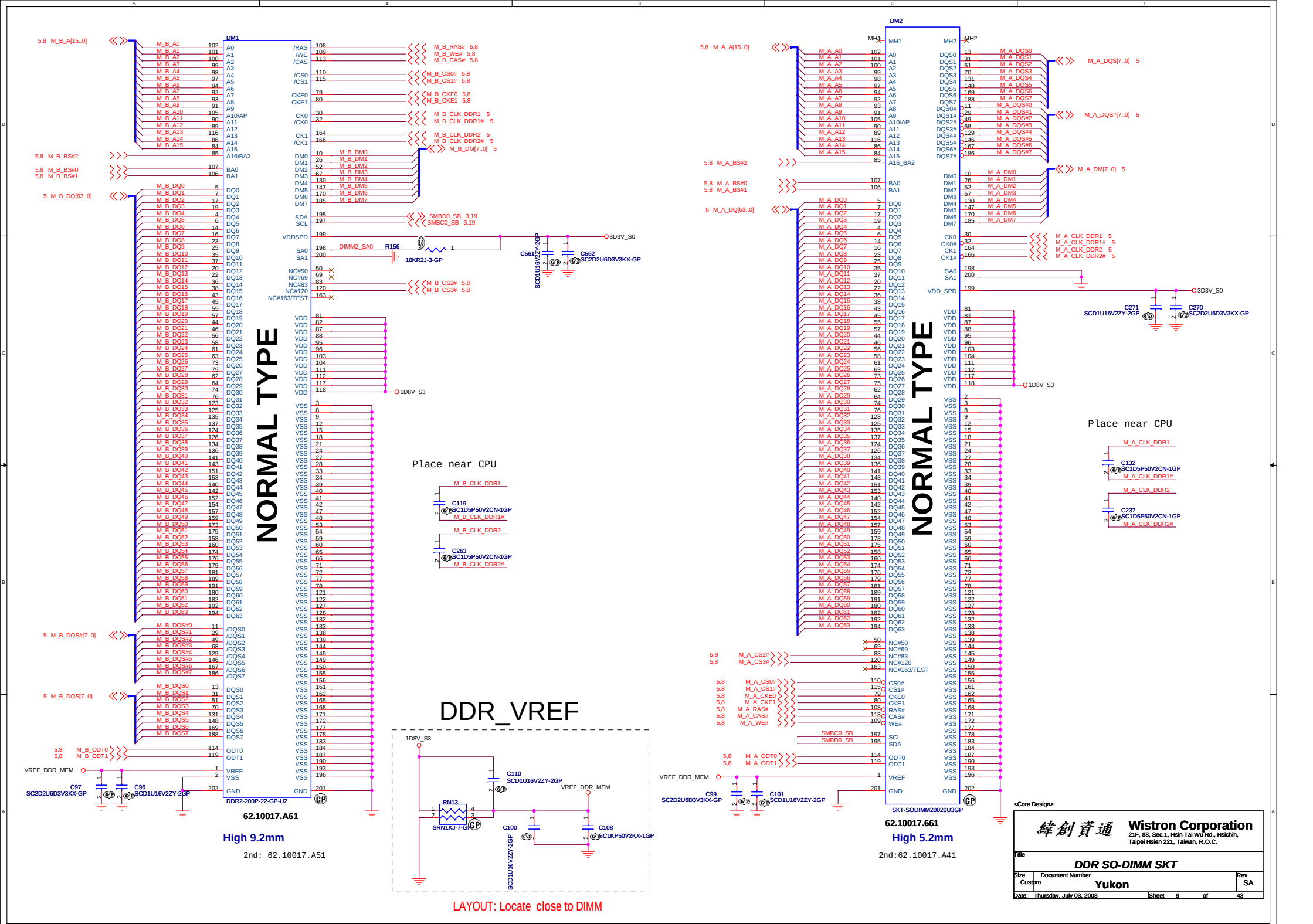
HDT Connectors

<Core Design>

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

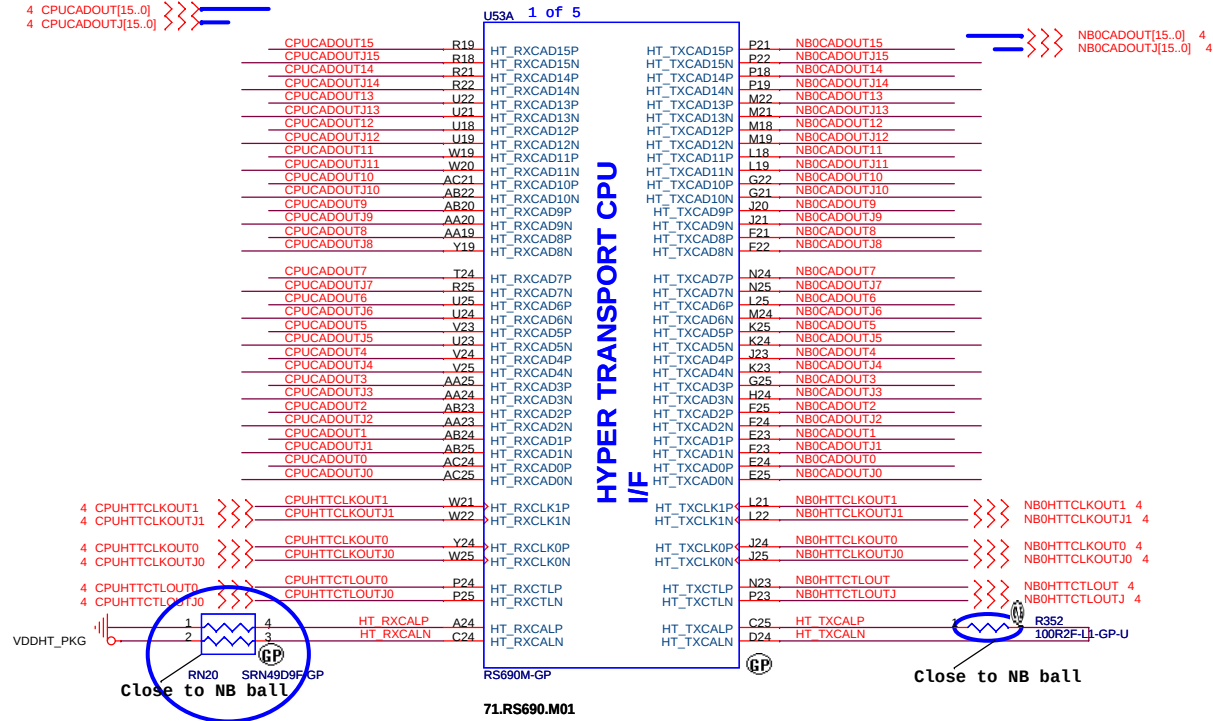
Title		
CPU(3/4)_Control & Debug		
Size	Document Number	Rev
A3	Yukon	SA
Date:	Thursday, July 03, 2008	Sheet 6 of 43





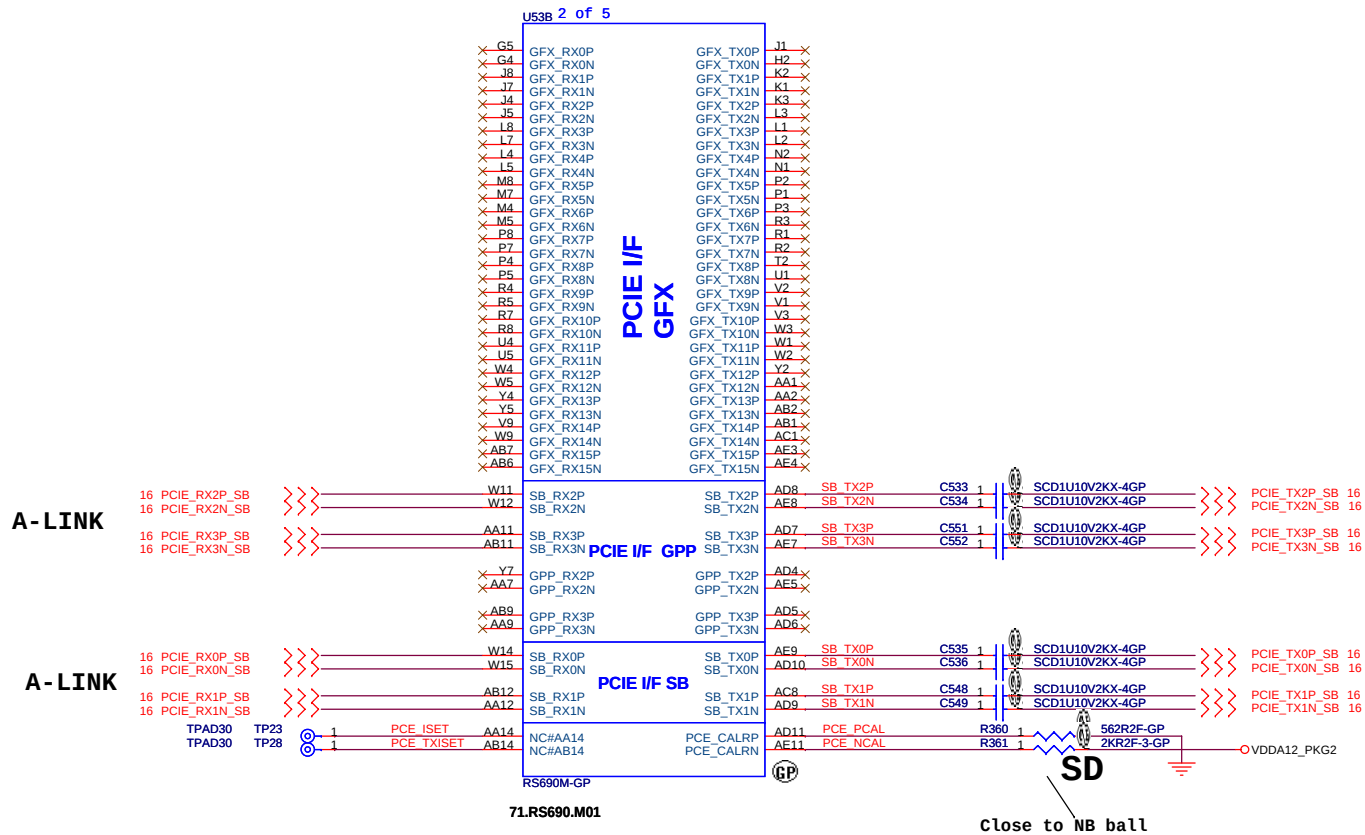
CLAW HAMMER TO NB

NB TO CLAW HAMMER



<Core Design>

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
NB-RS690M HT			
Size	Document Number	Rev	
A3		SA	
Date:	Thursday, July 03, 2008	Sheet	10 of 43

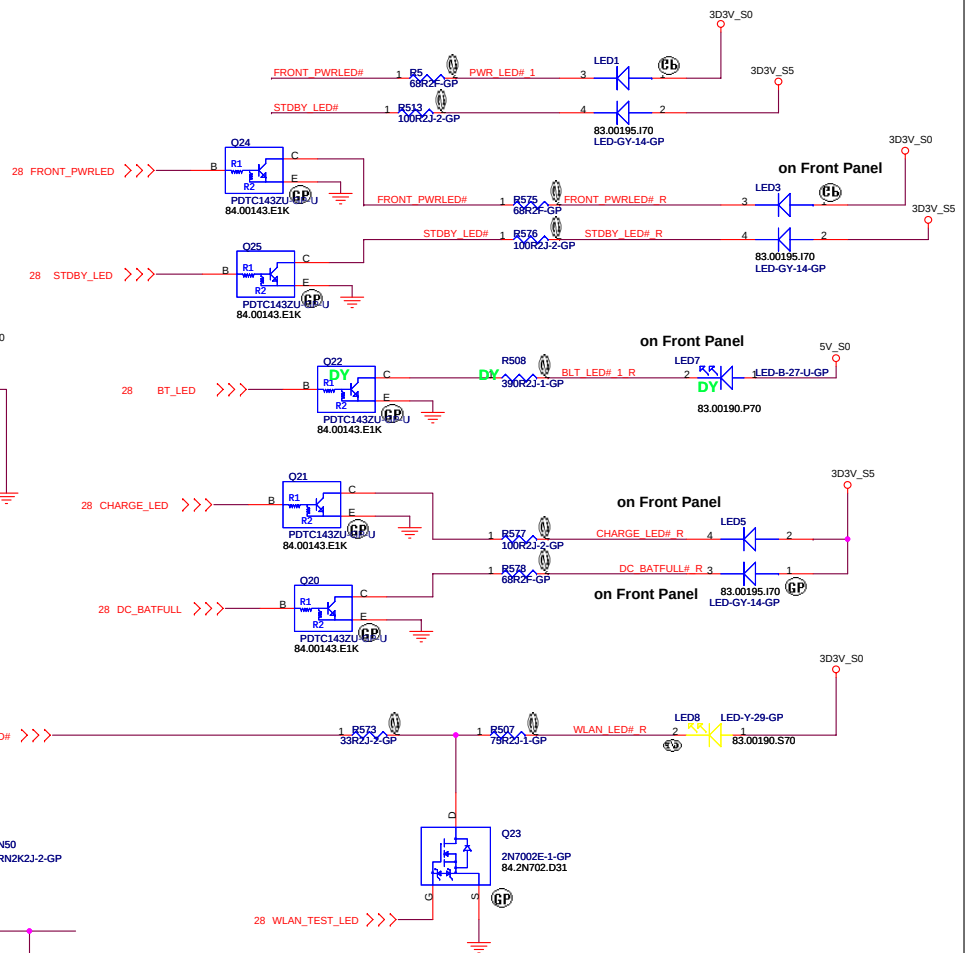


A-LINK
CLOSE TO NB

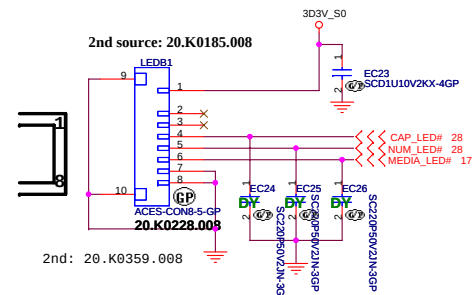
<Core Design>

緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
NB-RS690M MEM/PCIE LINK I/F			
Size	Document Number		Rev
A3	Yukon		SA
Date:	Thursday, July 03, 2008	Sheet 11 of 43	

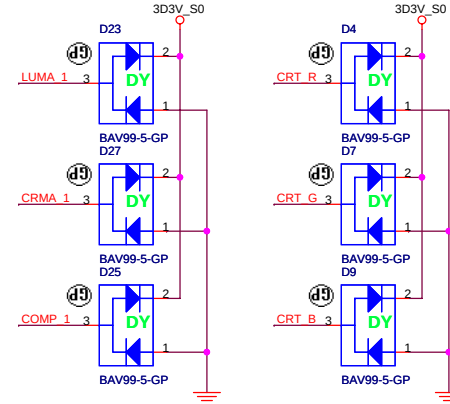
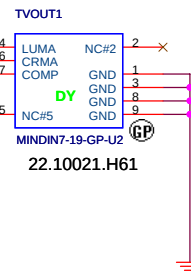
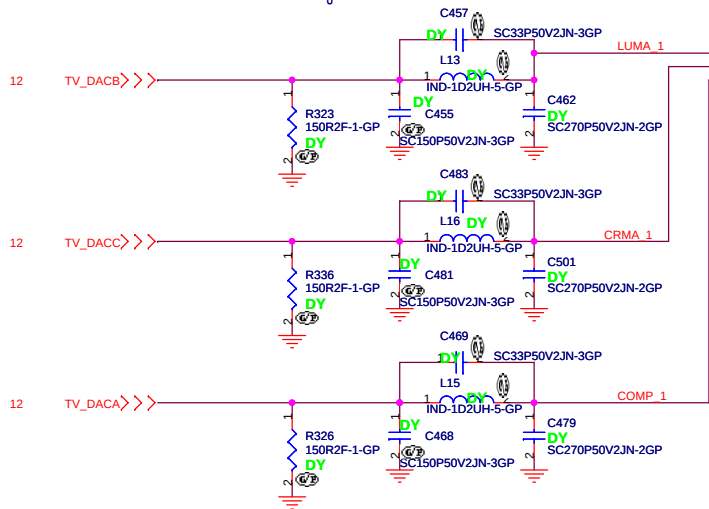
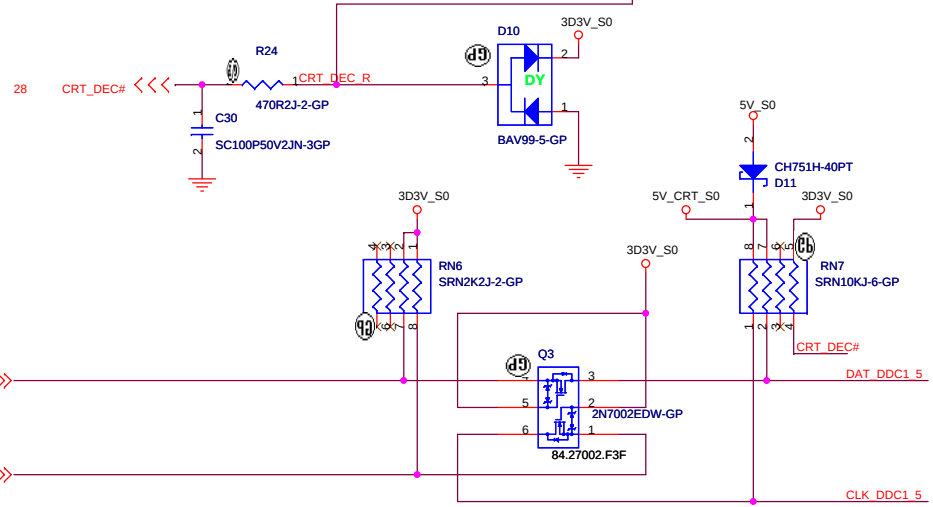
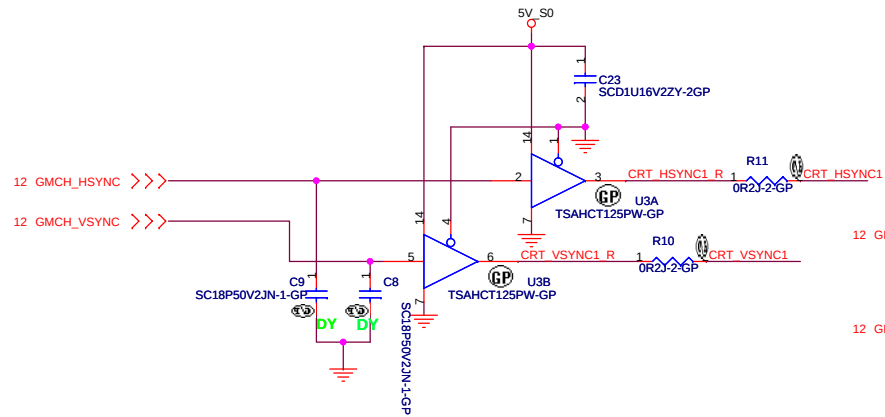
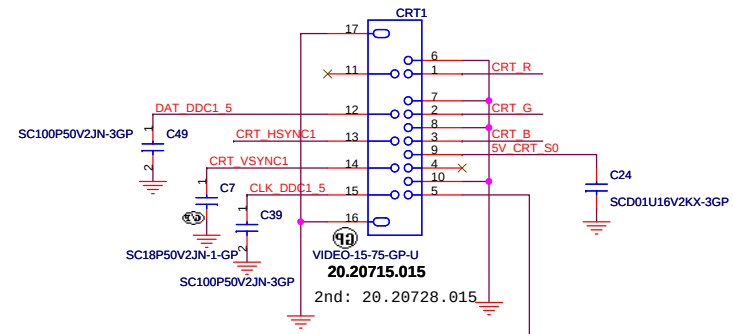
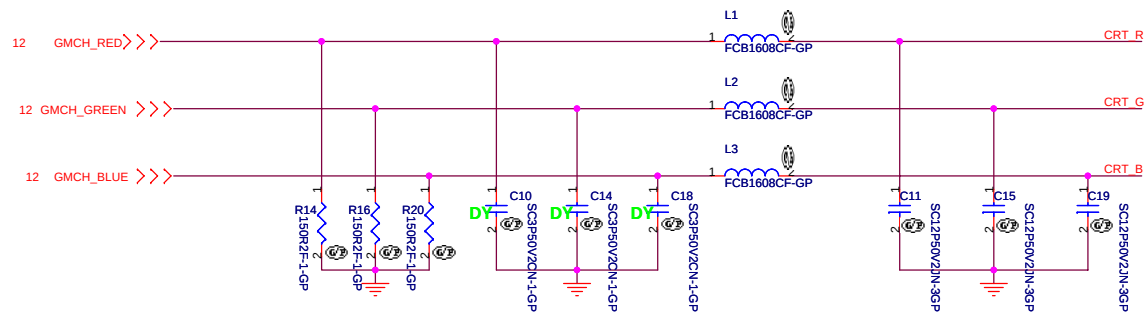




LED BD

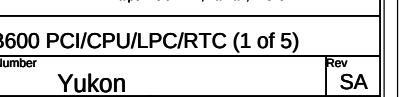
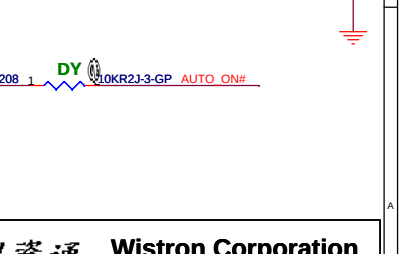
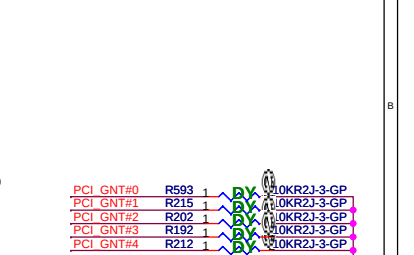
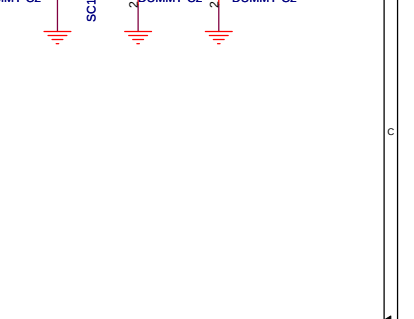
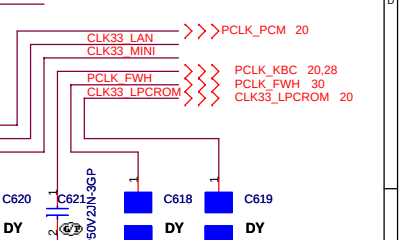
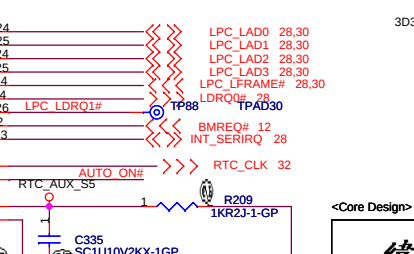
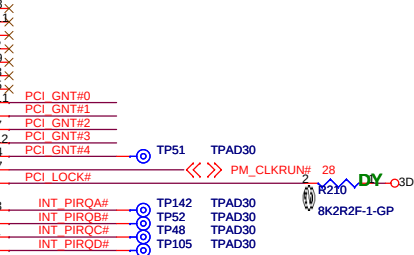
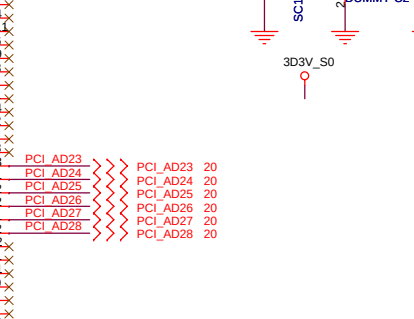
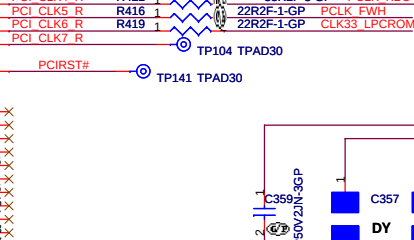
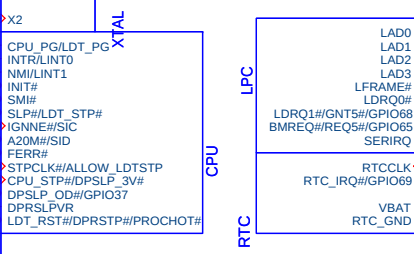
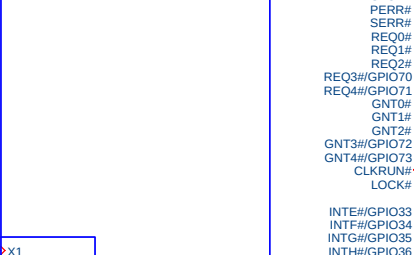
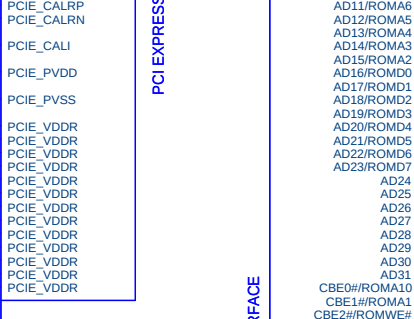
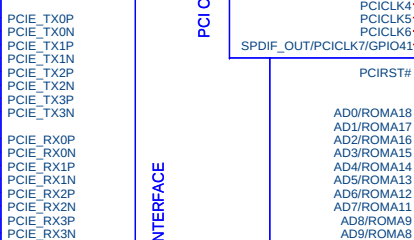
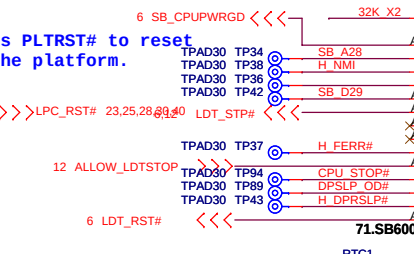
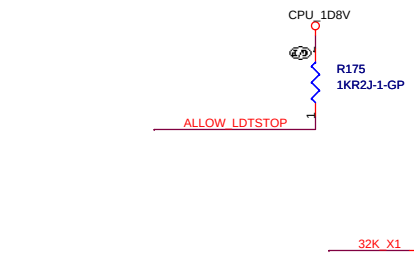
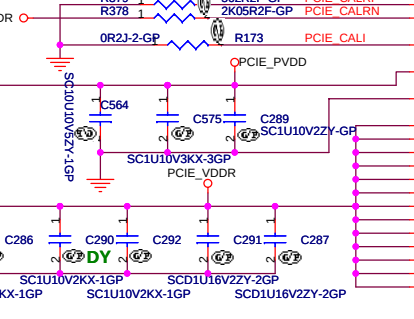
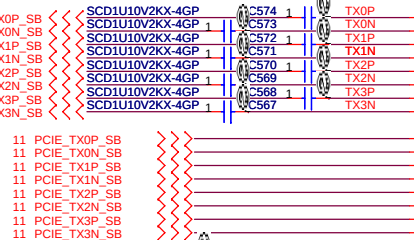
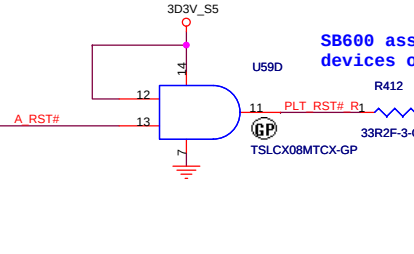
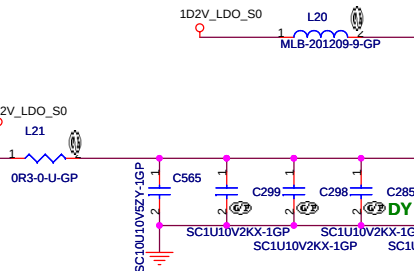
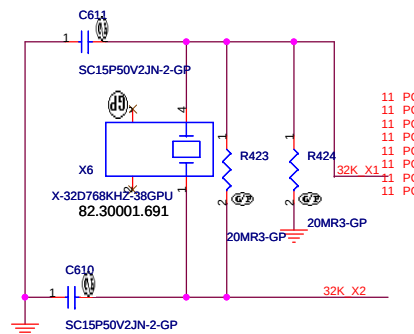


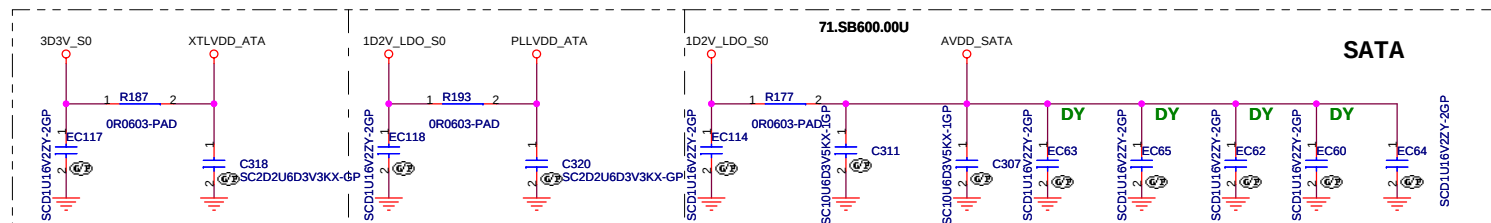
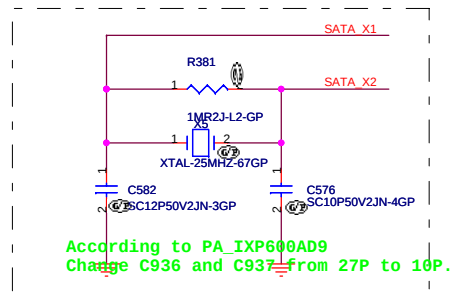
<variant Name>			
		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
LCD CONN & LED			
Size	Document Number	Rev SA	
Yukon			
Date:	Thursday, July 03 2008	Sheet 14	of 43



緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichin, Taipei Hsien 221, Taiwan, R.O.C.	
Title: CRT/TV Connector	
Size:	Document Number:
Date: Thursday, July 03, 2008	
Sheet 15 of 43	
Rev: SA	

Place these components close to U13 and use ground guard for 32K_X1 and 32K_X2.

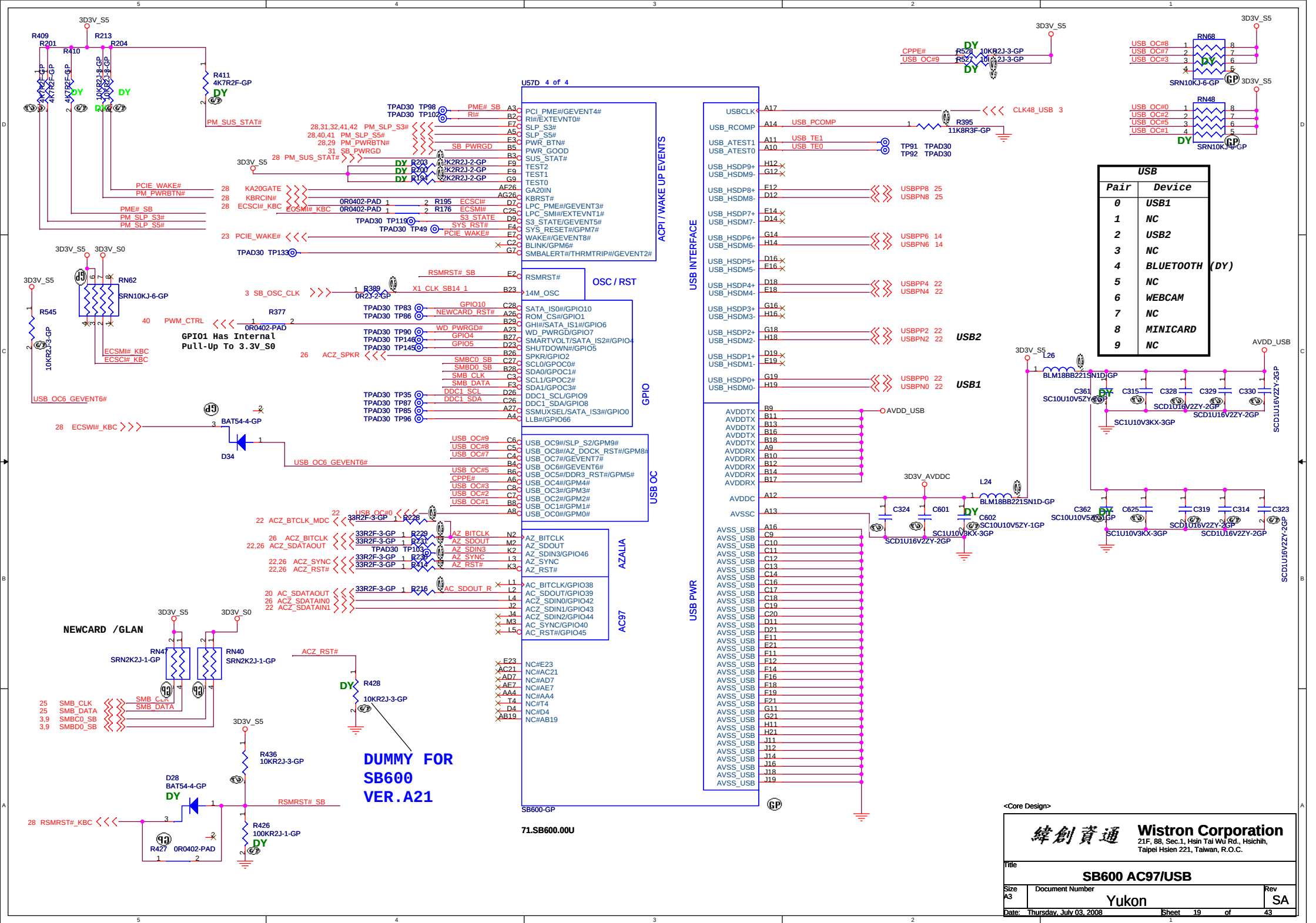




緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			
SB600 ACPI/GPIO/SATA/IDE (2 of 5)			
Size A3	Document Number		Rev
	Yukon		SA
Date: Thursday, July 03, 2008	Sheet	17	of 43







REQUIRED SYSTEM STRAPS

				SB600	
	AC_SDOUT	PCI_CLK4	PCI_CLK6	PCI_CLK0	PCI_CLK1
PULL HIGH	USE DEBUG STRAPS	USE INT. PLL48	CPU IF=K8 DEFAULT	ROM TYPE: H, H = PCI ROM H, L = SPI ROM L, H = LPC ROM L, L = FWH ROM	DEFAULT
PULL LOW	IGNORE DEBUG STRAPS DEFAULT	USE EXT. 48MHZ DEFAULT	CPU IF=P4		

SB600 HAS 15K INTERNAL PU FOR PCI_AD[23..28]



DEBUG STRAPS

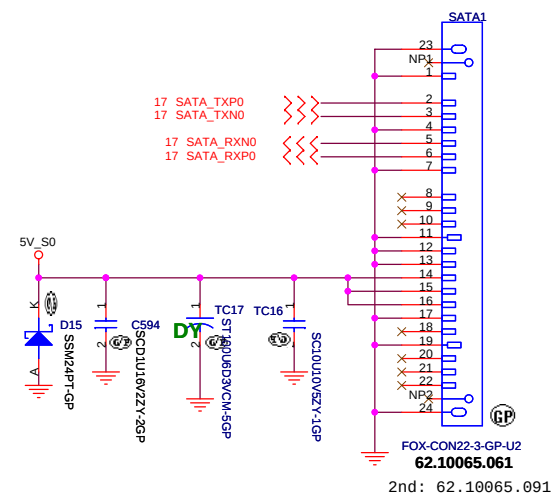
		PCI_AD31	PCI_AD30	PCI_AD29	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
STRAP HIGH		RESERVED	RESERVED	RESERVED	USE LONG RESET DEFAULT	USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	BOOT FAIL TIMER DISABLE DEFAULT
STRAP LOW					USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	BOOT FAIL TIMER ENABLE

<Core Design>

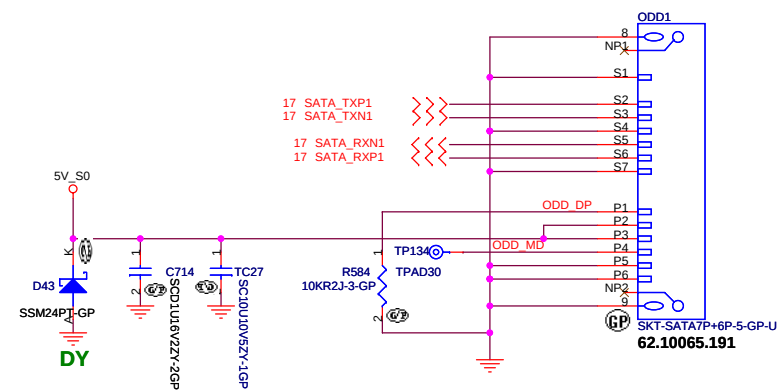
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

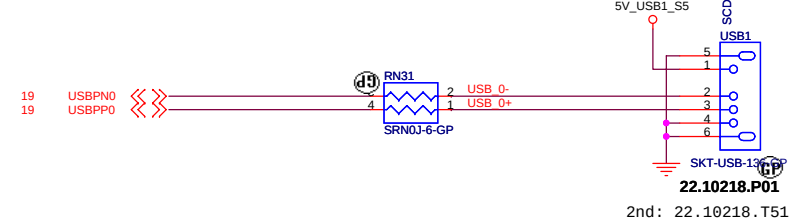
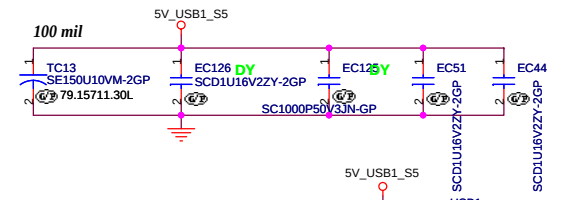
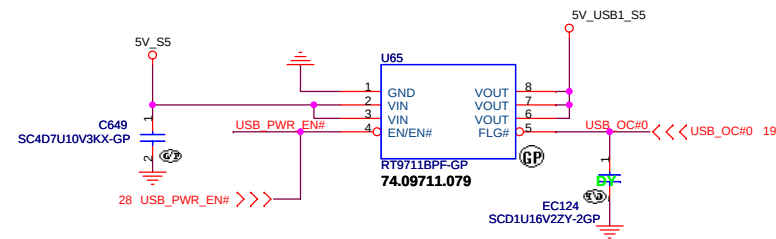
Title			
SB600 STRAPPING PIN			
Size A3	Document Number	Yukon	Rev SA
Date: Thursday, July 03, 2008	Sheet	20	of 43

SATA HD Connector

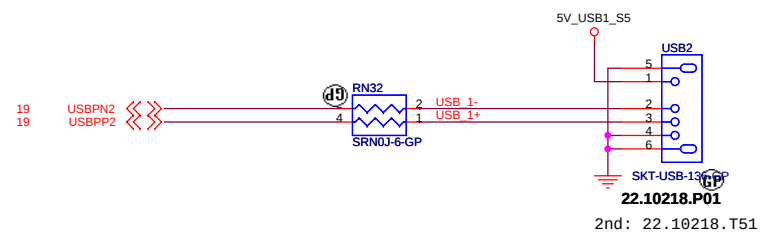
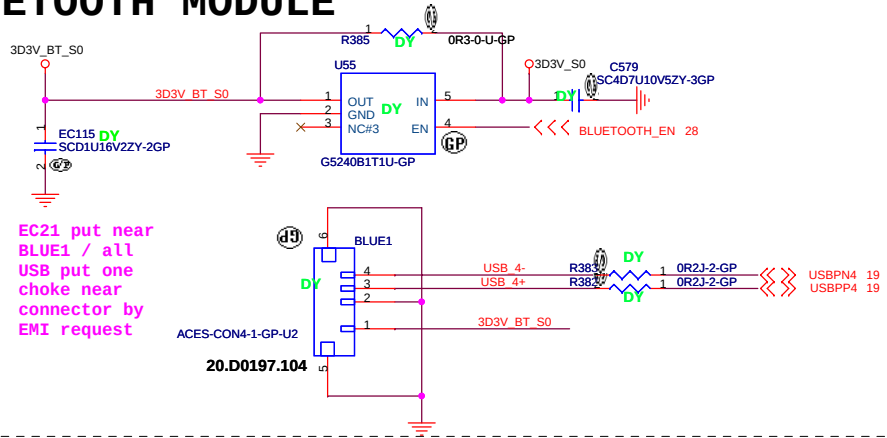


SATA ODD Connector

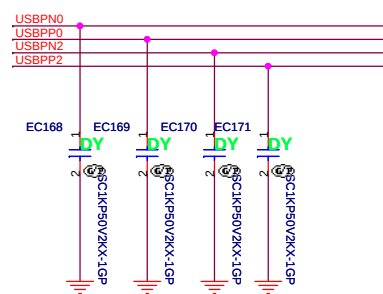
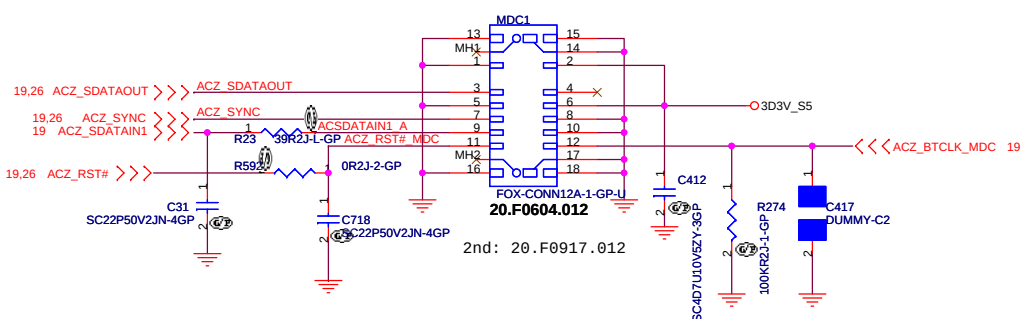




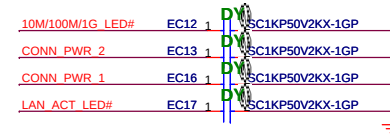
BLUETOOTH MODULE



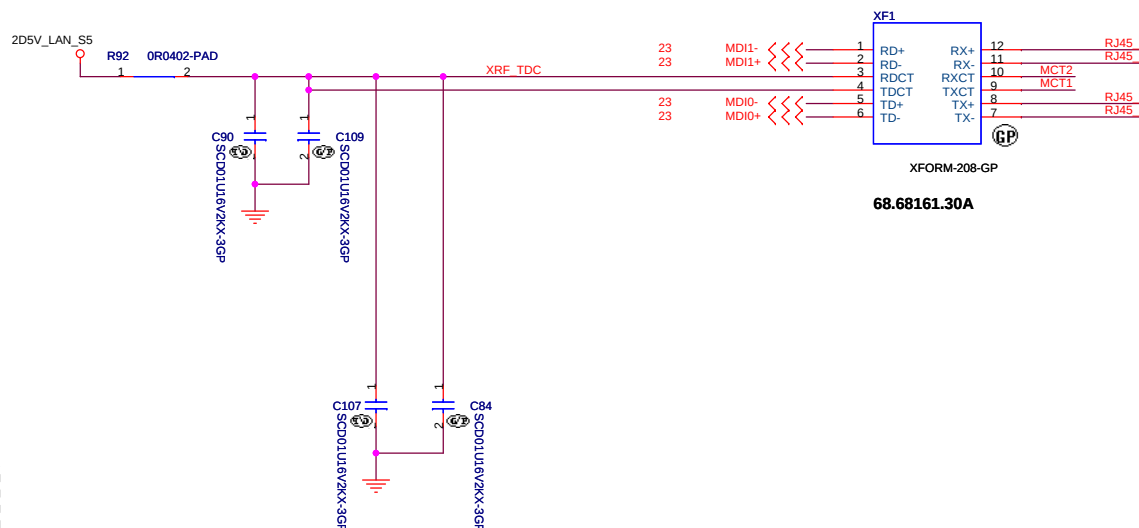
MDC 1.5 CONN



LAN Connector



10/100 Lan Transformer

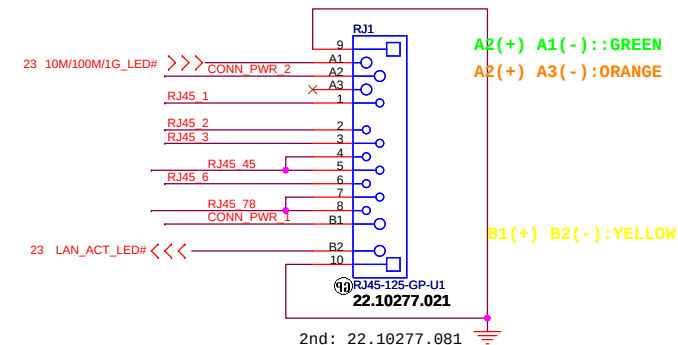
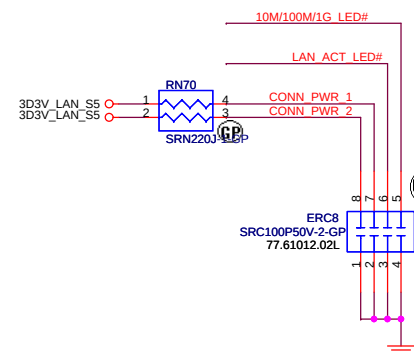
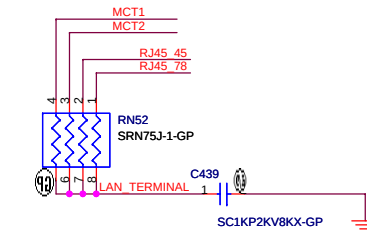


- 1.route on bottom as differential pairs.
- 2.Tx+/Tx- are pairs. Rx+/Rx- are pairs.
- 3.No vias, No 90 degree bends.
- 4.pairs must be equal lengths.
- 5.6mil trace width,12mil separation.
- 6.36mil between pairs and any other trace.
- 7.Must not cross ground moat,except RJ-45 moat.

RJ11 signal must leave the other signal or power plane 100mil.

DOC_TIP,DOC_RING,TIP,RING:
W/S : 10/100 @ Surface layers
10/20 @ Inner layers

10/100 LAN Transformer	RJ45 PIN
TD+ --> TX+	RJ45-1
TD- --> TX-	RJ45-2
RD+ --> RX+	RJ45-3
RD- --> RX-	RJ45-6

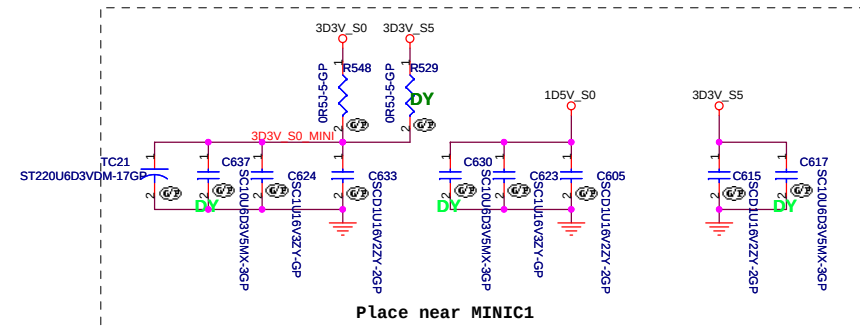
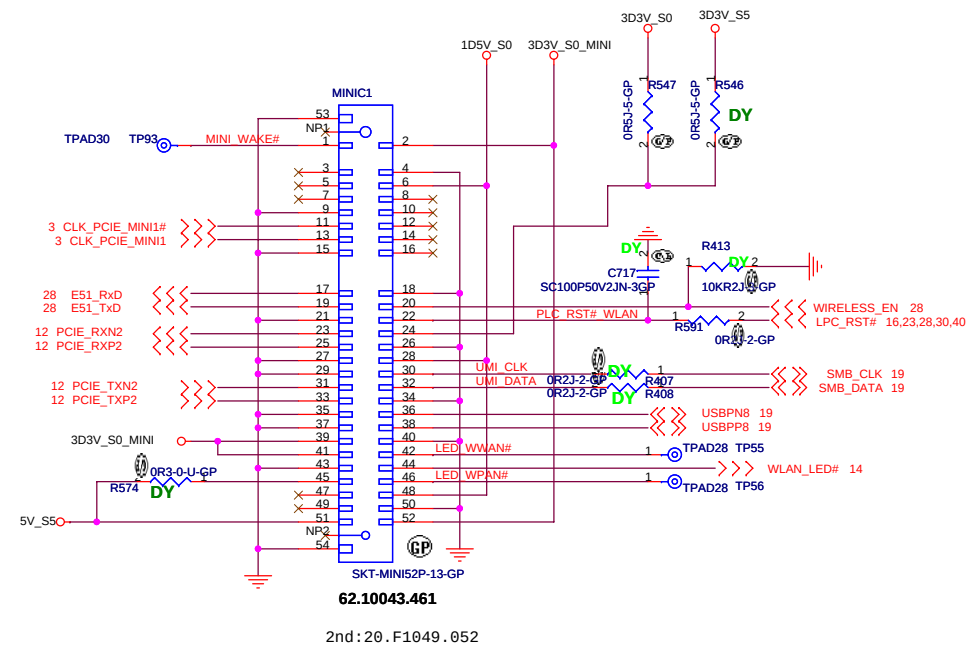


<Variant Name>

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

Title LAN Connector		
Size A3	Document Number Yukon	Rev SA
Date: Thursday, July 03, 2008	Sheet 24 of 43	

Mini Card Connector



bom1

緯創資通

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

	Title
--	-------

MINI CARD / NEW CARD

Size

	Document Number
--	-----------------

Yukon

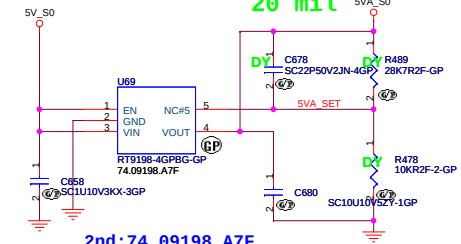
Rev

Date: Thursday, July 03, 2008

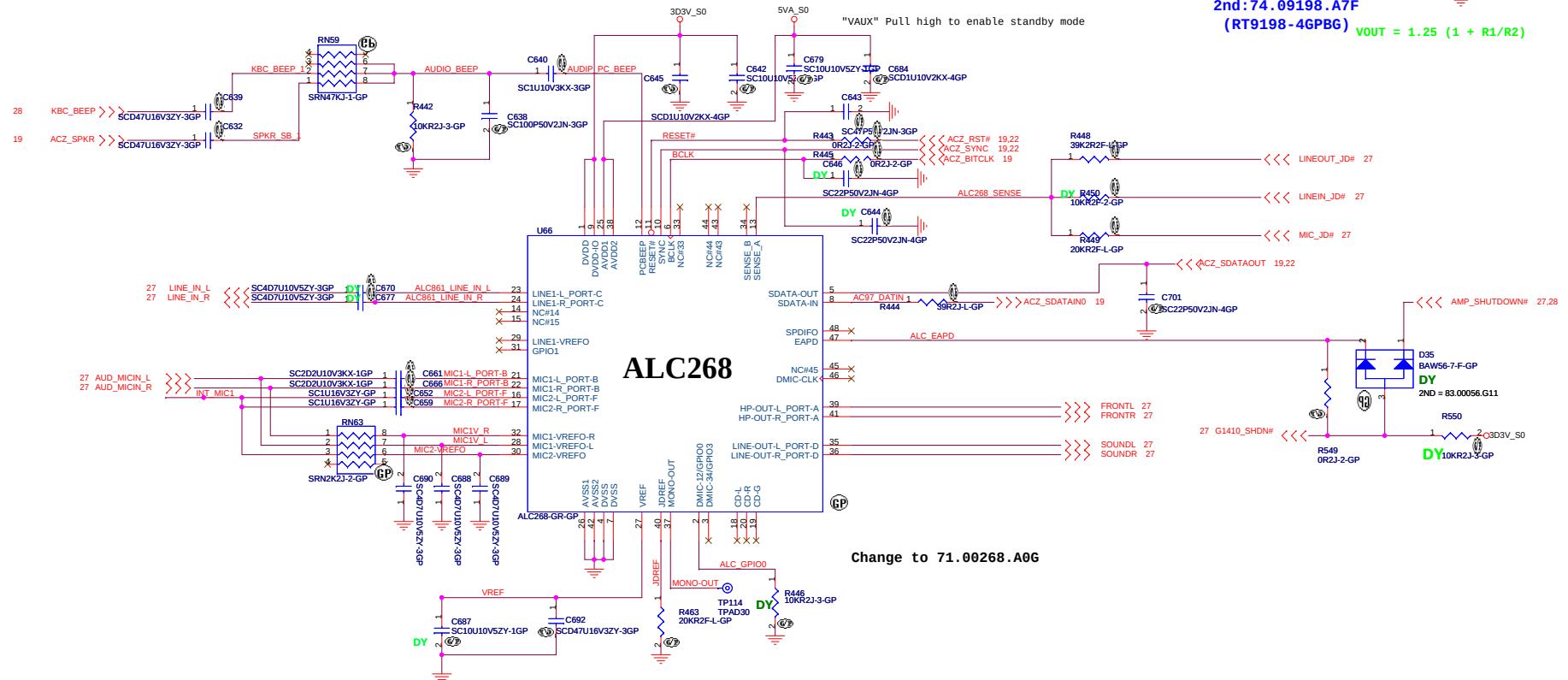
Sheet 25 of 43

POWER GENERATE

Layout
20 mil

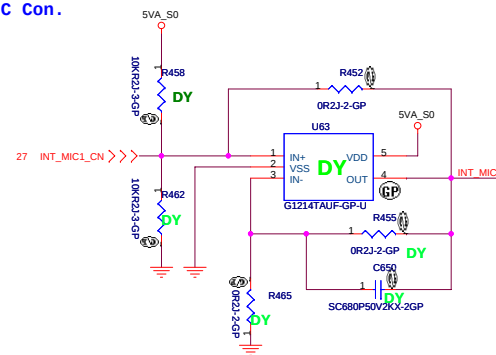


2nd: 74.09198.A7F
(RT9198-4GPBG) $V_{OUT} = 1.25 (1 + R1/R2)$



Change to 71.00268.A0G

Near INTMIC Con.



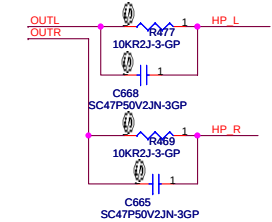
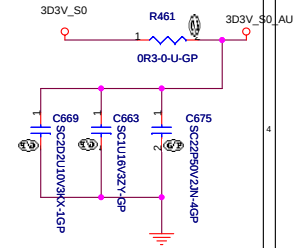
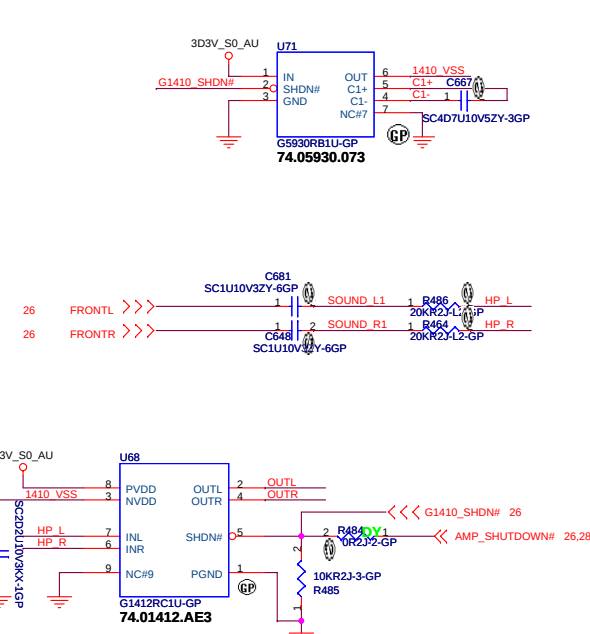
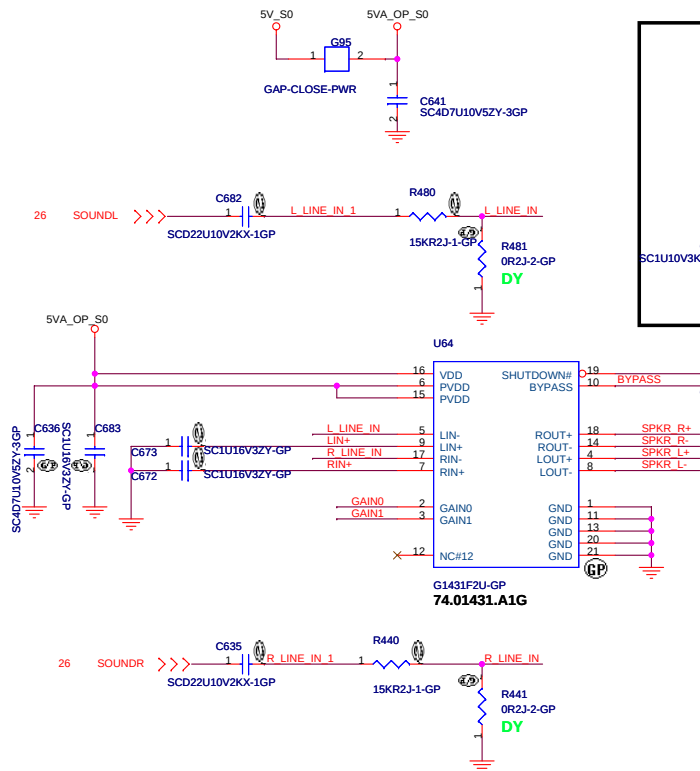
<Variant Name>

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

Title	AZALIA CODEC - ALC268
-------	------------------------------

Size	Document Number	Rev
	Yukon	SA

Date: Thursday, July 03, 2008 Sheet 26 of 43



Internal Speaker

SPKR L-
SPKR L+
SPKR R-
SPKR R+

EC162 EC164 EC163 EC165

SCKX50/ZXK-1GP SCKX50/ZXK-1GP SCKX50/ZXK-1GP SCKX50/ZXK-1GP

2nd: 20.F0984.004

SPKR1 ACES-CON4-1-GP-U2
20.D0197.104

use Varistor for ESD solution

MIC IN

26 AUD_MICIN_R <<< 1 2 R493 1KR21-1-GP AUD_MIC_R

26 AUD_MICIN_L <<< 1 2 R495 1KR21-1-GP AUD_MIC_L

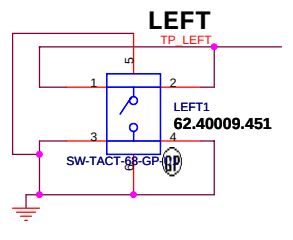
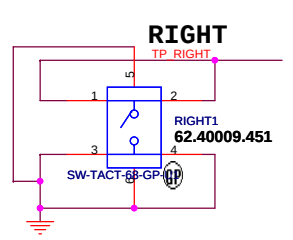
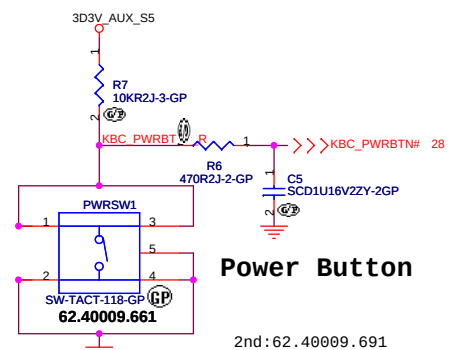
DVY UKGK21-3-GP R496 R494 UKGK21-3-GP DVY

EC131 SC1KP50V2KX-1GP EC130 SC1KP50V2KX-1GP DVY DVY

PHONE-JK233-GP-US 22.10133.B01

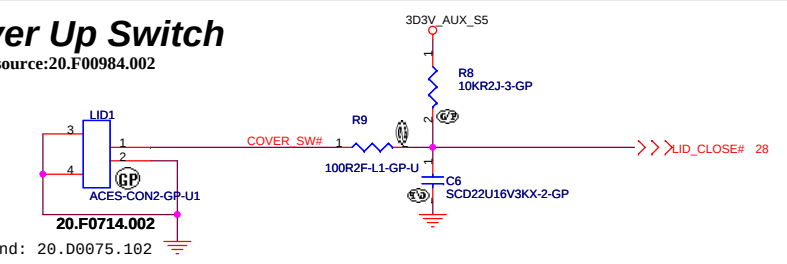
2nd: 22.10251.401

2nd: 22.10251.511

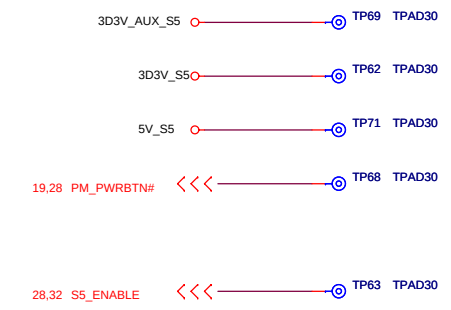


Cover Up Switch

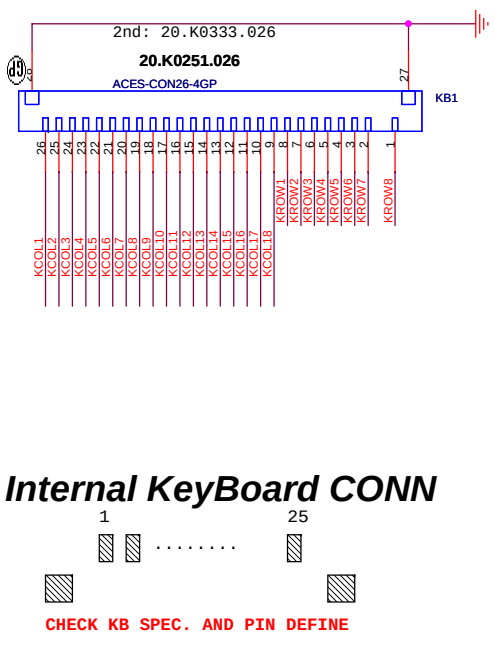
2nd source: 20.F00984.002



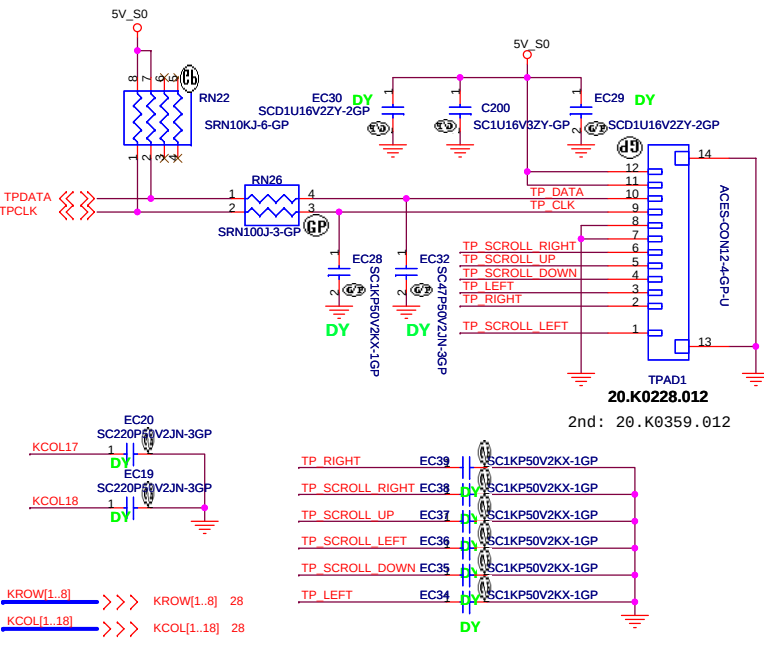
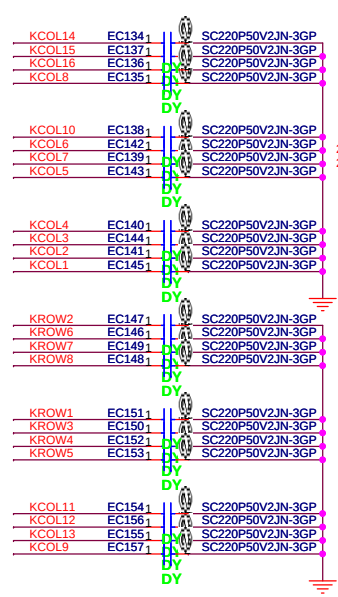
Check test point



Test Point 放在 Dimm Door 打開可量測處



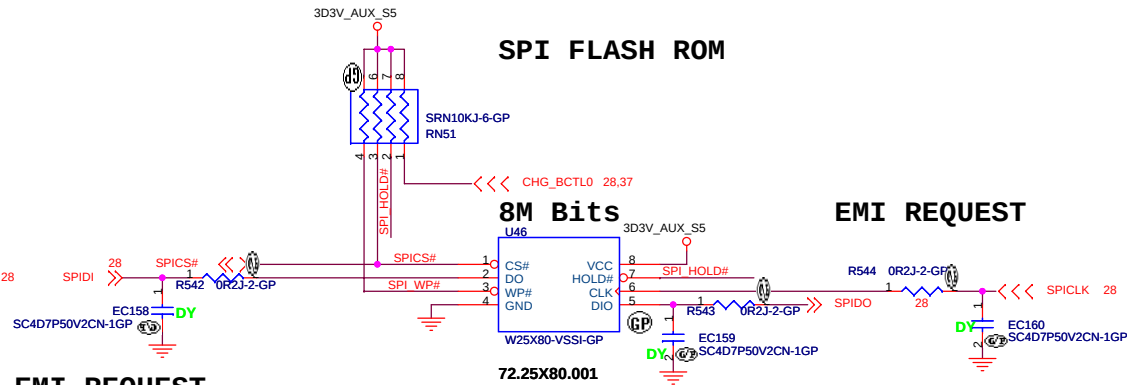
EMI Bypass cap.



SPI FLASH ROM

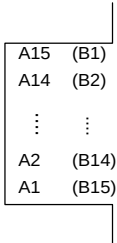
8M Bits

EMI REQUEST



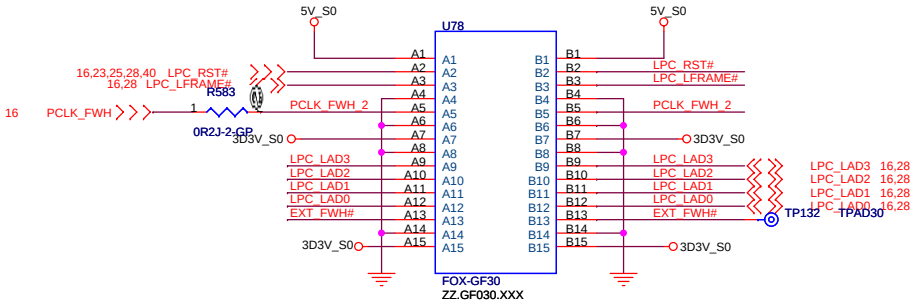
EMI REQUEST

TOP VIEW

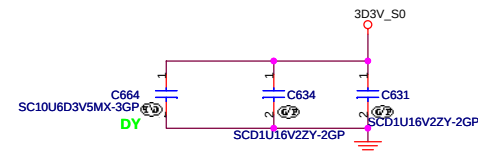


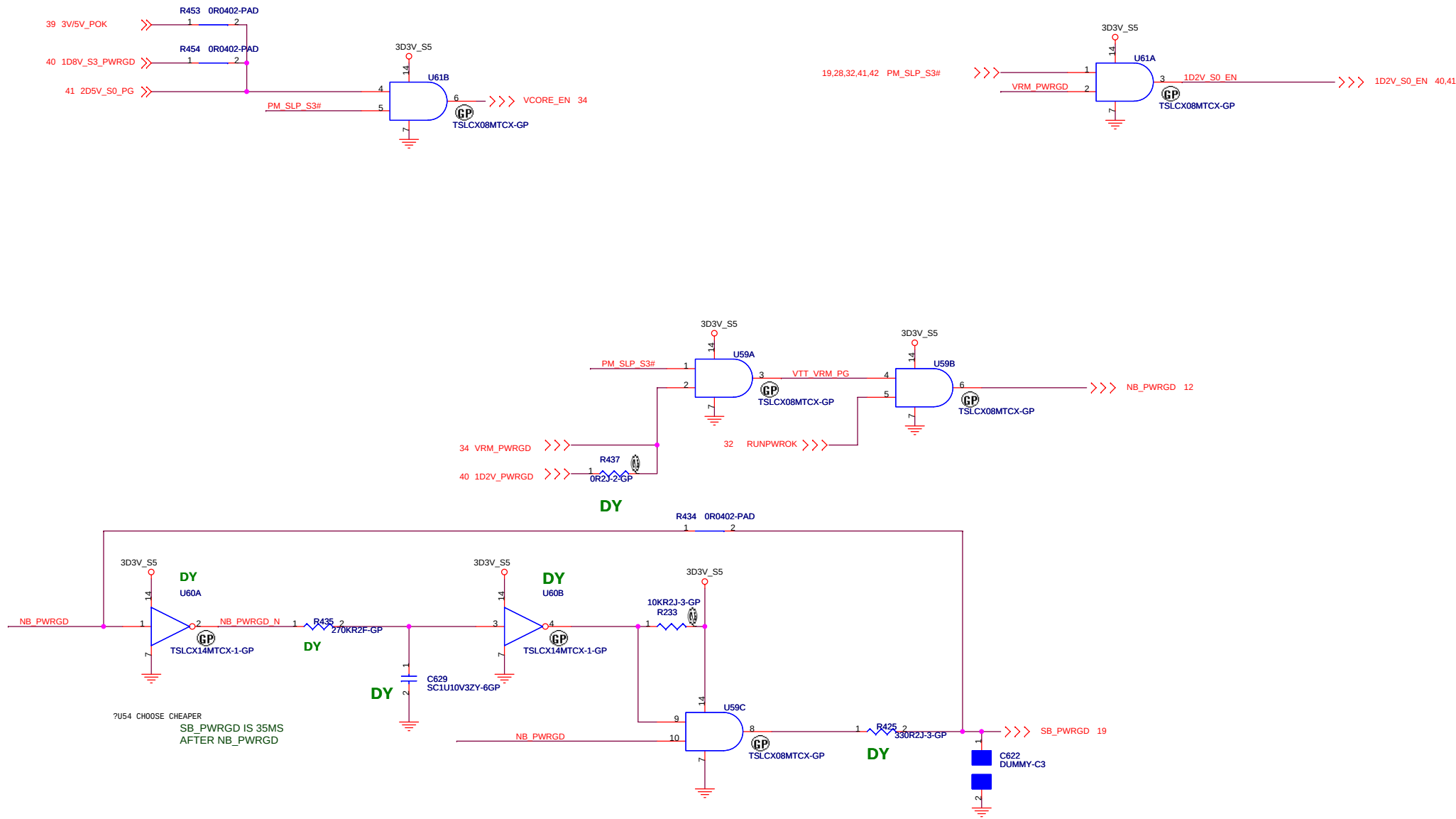
(BOTTOM VIEW)

GOLDEN FINGER FOR DEBUG BOARD



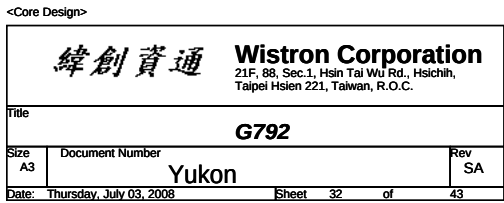
Boot Device must have ID[3:0] = 0000
Has internal pull-down resistors
All may be left floated
FPET7 Elec. P3-46



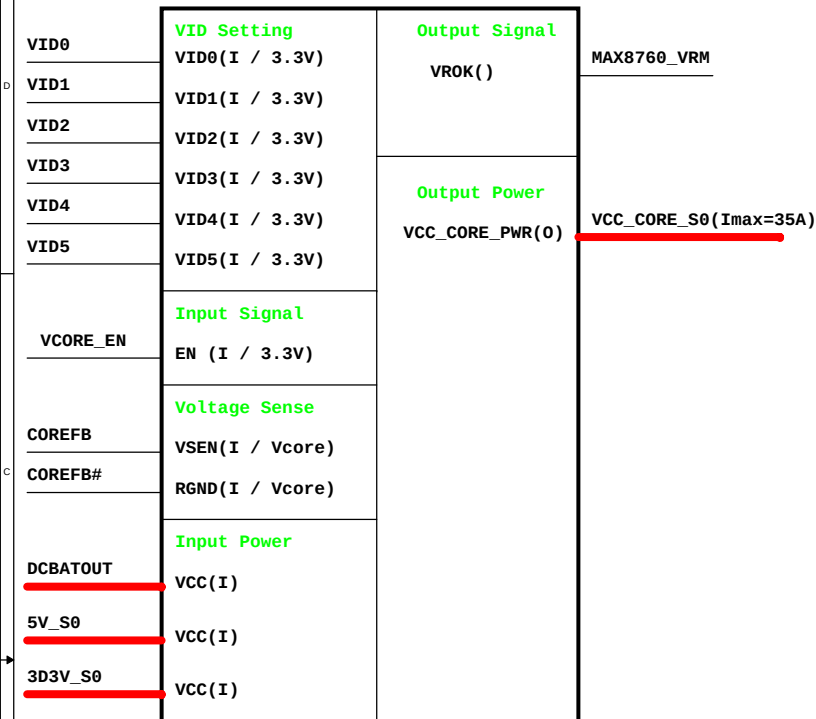


<Core Design>

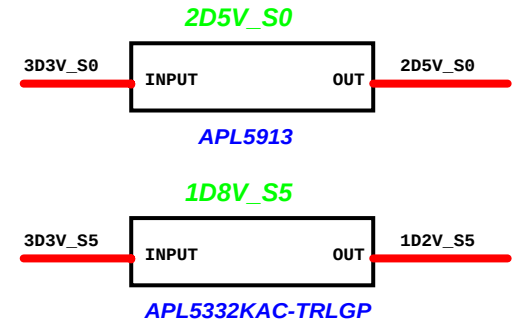
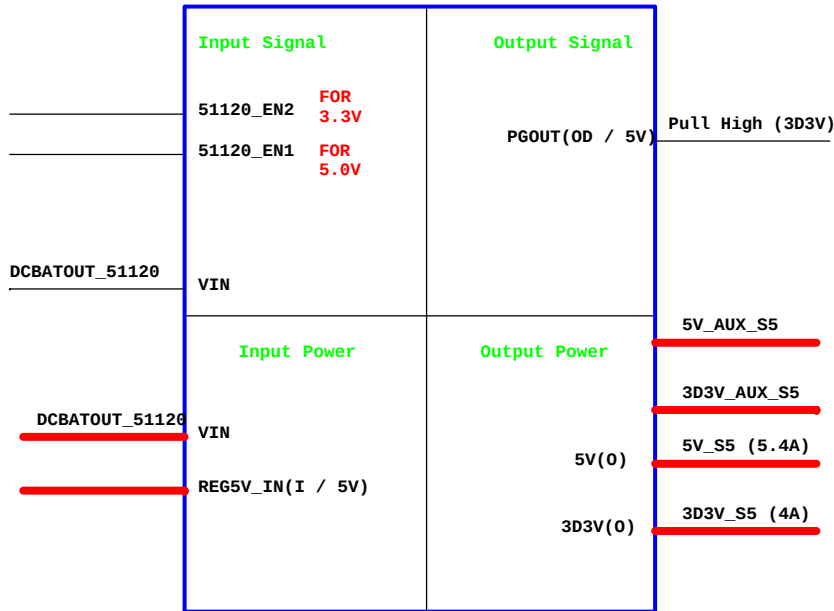
緯創資通		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
POWERGOOD&ENABLES(1/2)			
Size A3	Document Number Yukon		Rev SA
Date: Thursday, July 03, 2008	Sheet 31	of	43



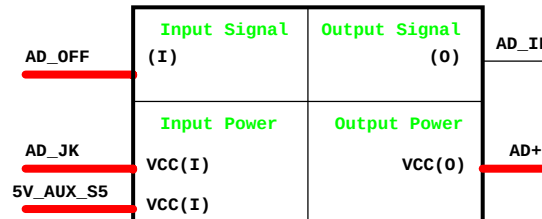
CPU_CORE
ISL6264CRZ



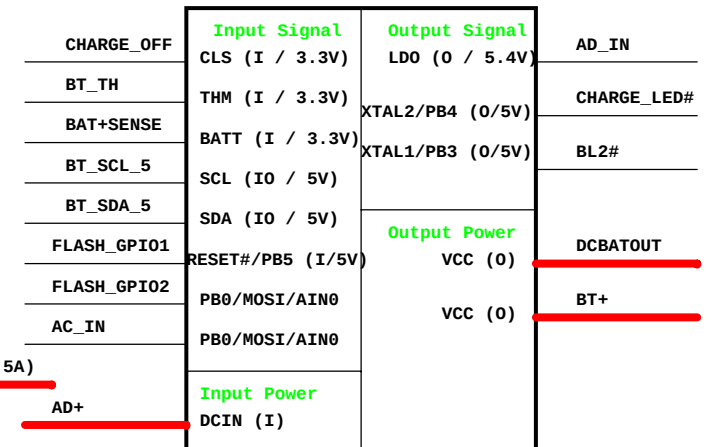
TI TPS51120
3D3V/5V



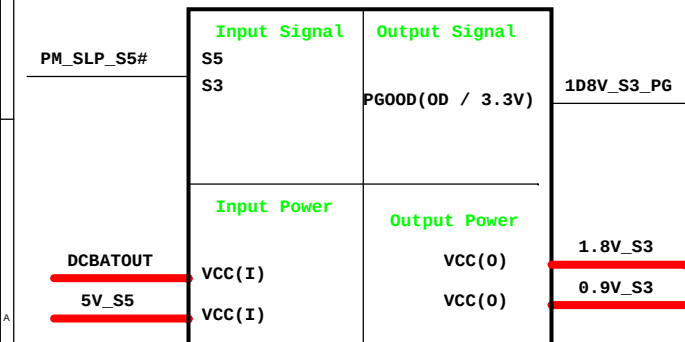
Adapter



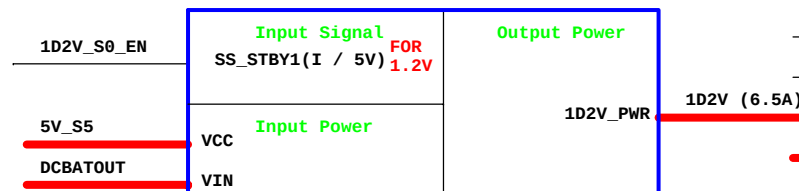
Charger_ISL6255



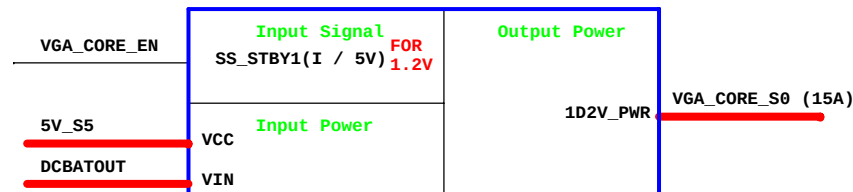
TI TPS51116
1.8V / 0.9V



ISL6268_1D2V

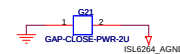


ISL6268_VGA_CORE

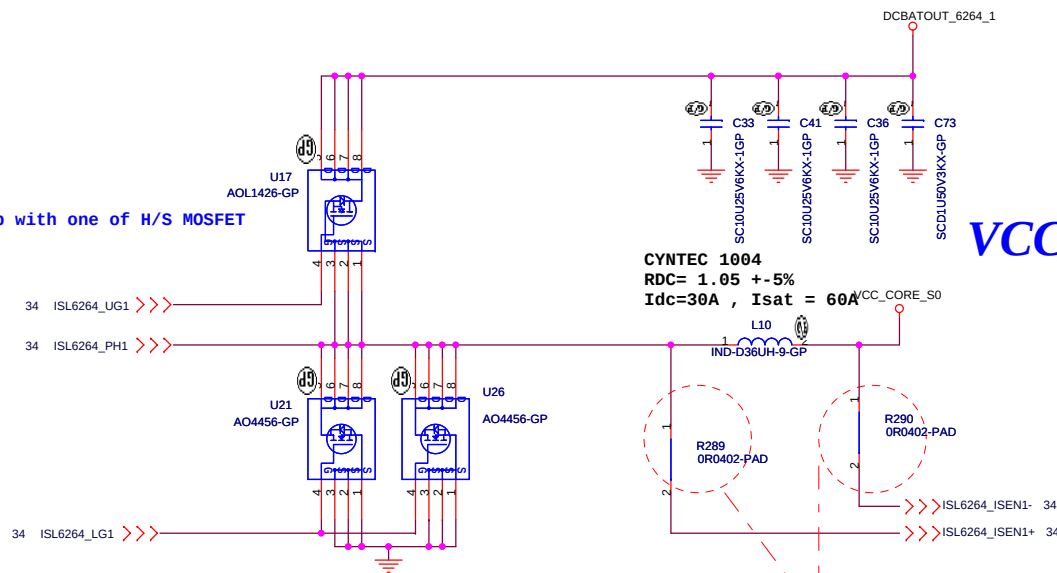


VID=1.20V(25W)/1.15V(35W)
Iomax=21A(25W)/35A (35W)
OCP=40A~45A

v1b5	v1a4	v1b3	v1b2	v1b1	v1b6	bac
0	0	0	0	0	1	1.550
0	0	0	0	0	1	1.525
0	0	0	0	1	0	1.500
0	0	0	0	1	1	1.475
0	0	0	1	0	0	1.450
0	0	0	1	0	1	1.425
0	0	0	1	1	0	1.400
0	0	1	0	1	1	1.375
0	0	1	0	0	0	1.350
0	0	1	0	0	1	1.325
0	0	1	0	1	0	1.300
0	0	1	0	1	1	1.275
0	0	1	1	0	0	1.250
0	0	1	1	0	1	1.225
0	0	1	1	1	0	1.200
0	0	1	1	1	1	1.175
0	1	0	0	0	0	1.150
0	1	0	0	0	1	1.125
0	1	0	0	1	0	1.100
0	1	0	0	1	1	1.075
0	1	0	1	0	0	1.050
0	1	0	1	0	1	1.025
0	1	0	1	1	0	1.000
0	1	0	1	1	1	0.975
0	1	1	0	0	0	0.950
0	1	1	0	0	1	0.925
0	1	1	0	1	0	0.900
0	1	1	1	0	0	0.875
0	1	1	1	0	0	0.850
0	1	1	1	1	0	0.825
0	1	1	1	1	0	0.800
0	1	1	1	1	1	0.775
1	0	0	0	0	0	0.7625
1	0	0	0	0	1	0.75
1	0	0	0	1	0	0.7375
1	0	0	0	1	1	0.725
1	0	0	1	0	0	0.7125
1	0	0	1	0	1	0.7
1	1	1	1	1	1	0.675



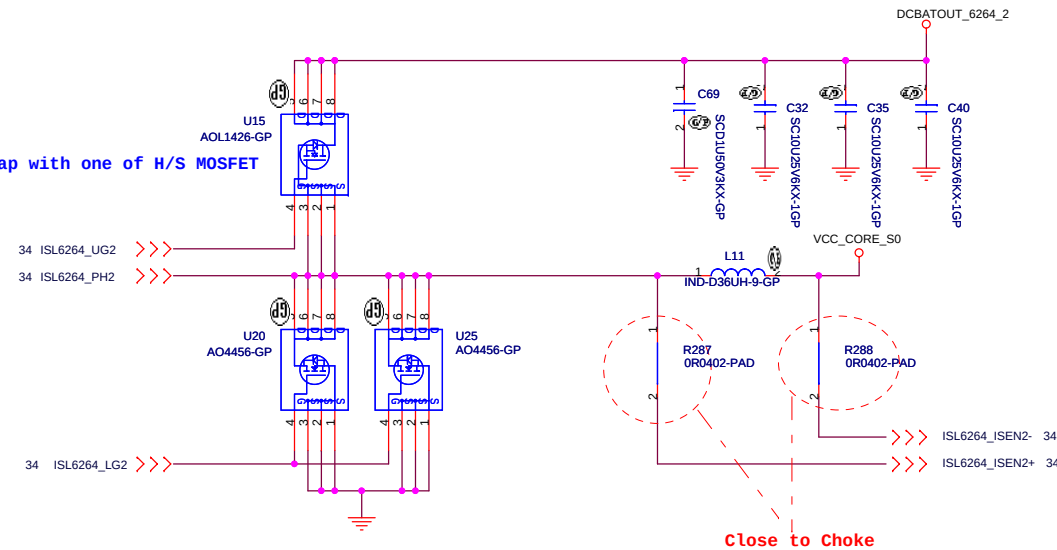
Overlap with one of H/S MOSFET



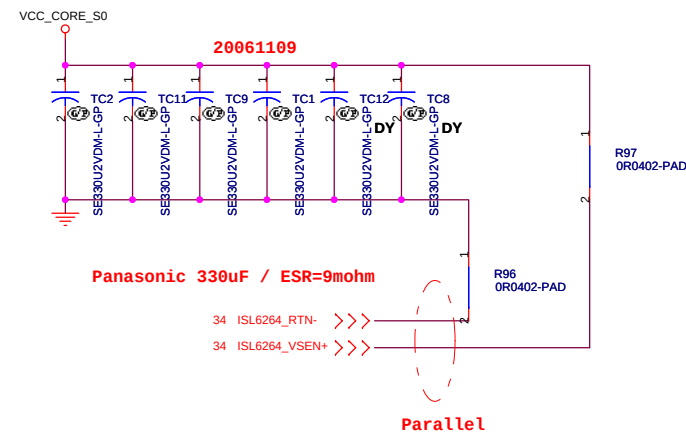
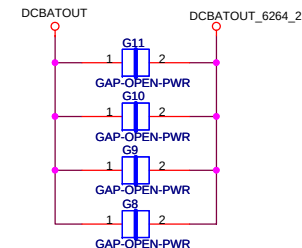
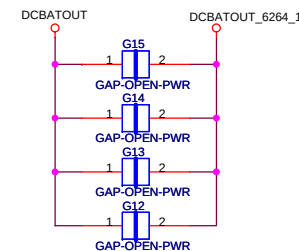
VCC_CORE_S0

Close to Choke

Overlap with one of H/S MOSFET



Close to Choke

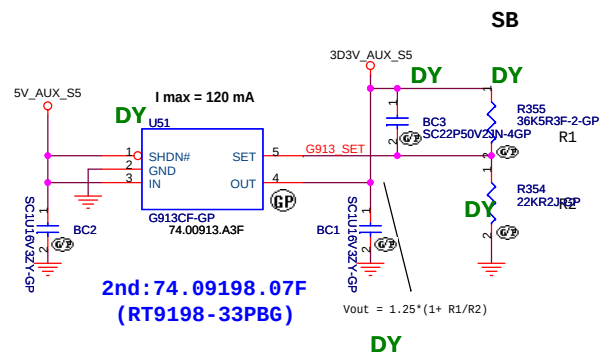


<Core Design>

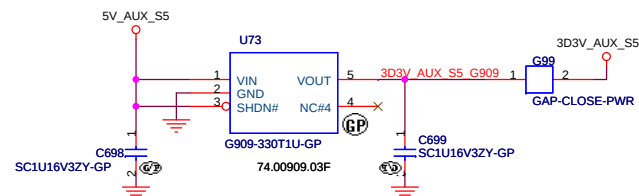
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

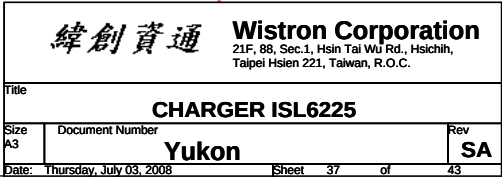
Title			
CPU Vcore Power_2			
Size A3	Document Number		Rev SA
Yukon			
Date: Thursday, July 03, 2008	Sheet 35 of	43	

3D3V_AUX_S5

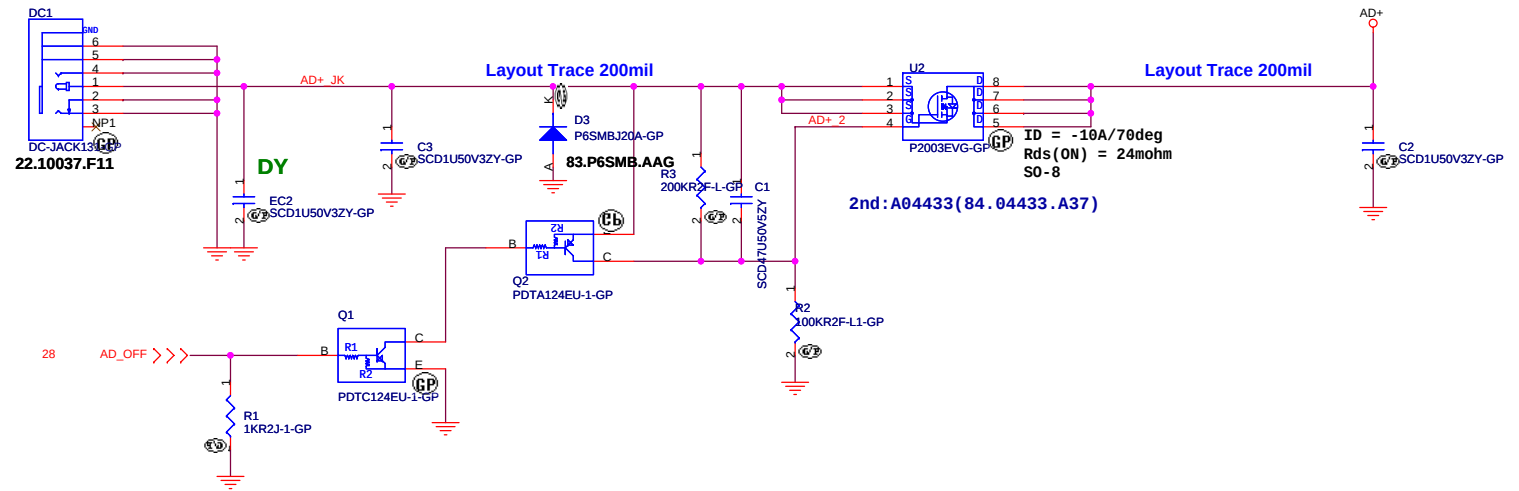


3D3V_AUX_S5

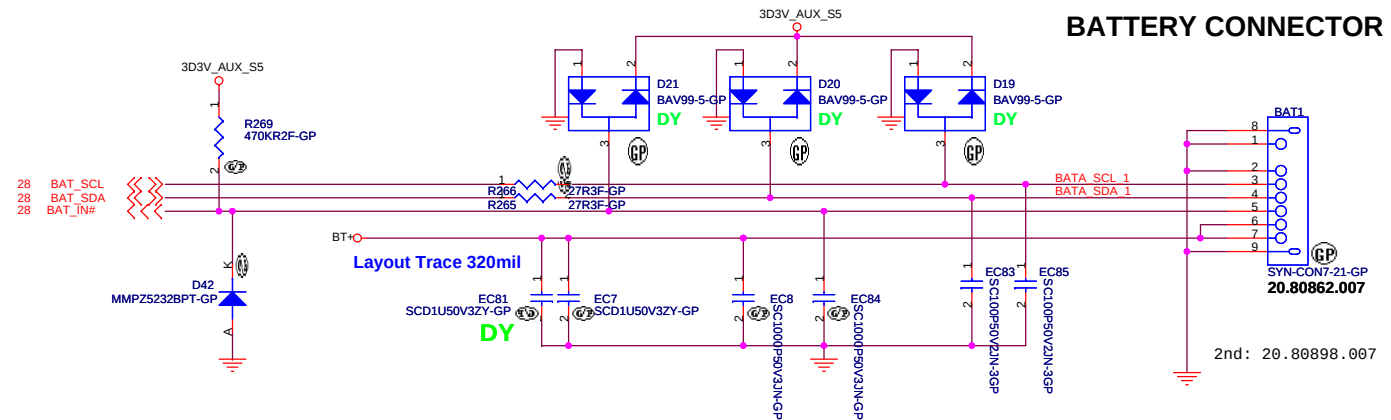




Adaptor in to generate DCBATOUT



BATTERY CONNECTOR

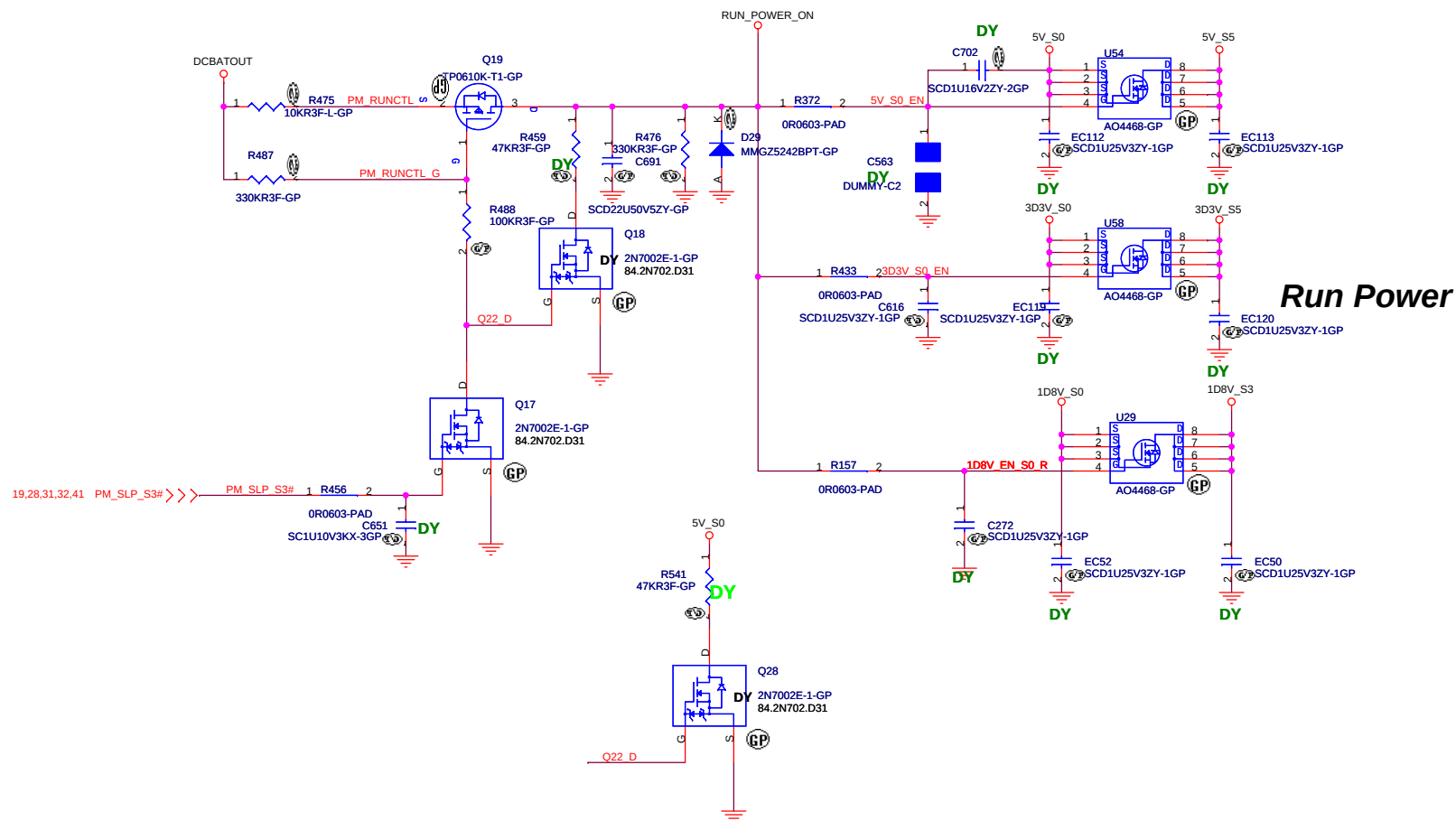


<Variant Name>

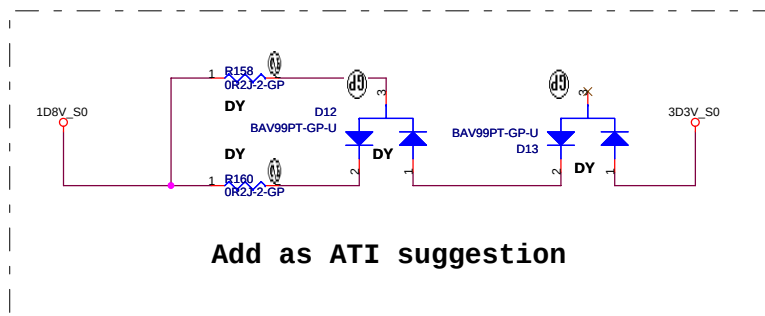
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			
AD/BATT CONN			
Size A3	Document Number		Rev
	Yukon		SA
Date:	Thursday, July 03, 2008	Sheet 38 of	43

Sheet 39 of 43



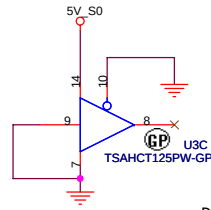
Run Power



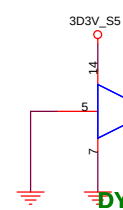
Power On Logic

<Core Design>

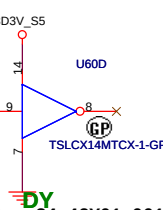
緯創資通		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
RUB POWER			
Size A3	Document Number	Yukon	Rev SA
Date:	Thursday, July 03, 2008	Sheet 42 of 43	



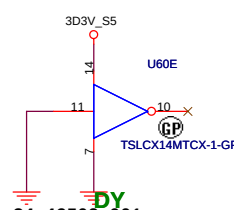
DUMMY in SA



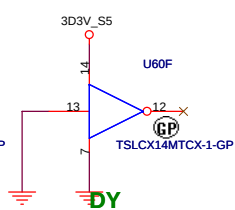
34.42Y01.001



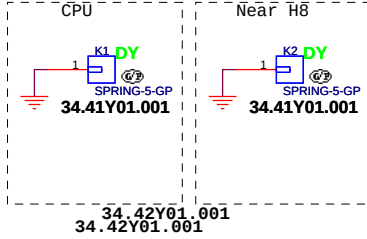
34.42Y01.001



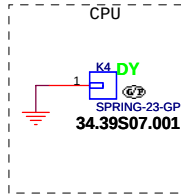
34.46502.001



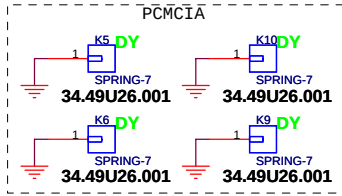
34.42Y01.001



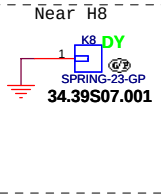
34.42Y01.001
34.42Y01.001



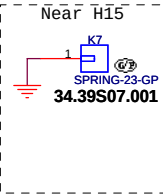
34.39S07.001



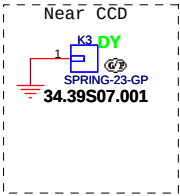
34.49U26.001
34.49U26.001



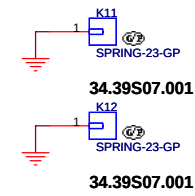
34.39S07.001



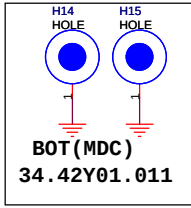
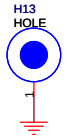
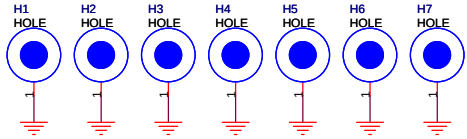
34.39S07.001



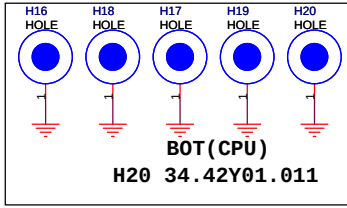
34.39S07.001



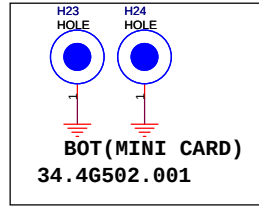
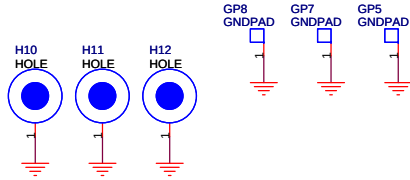
34.39S07.001
34.39S07.001



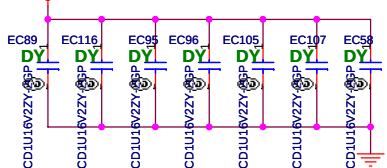
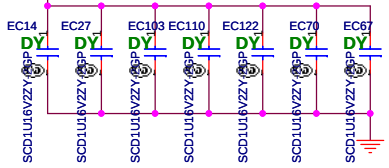
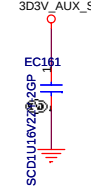
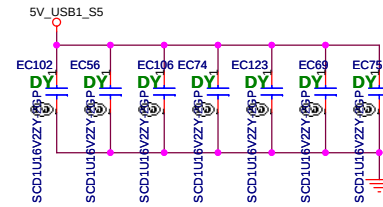
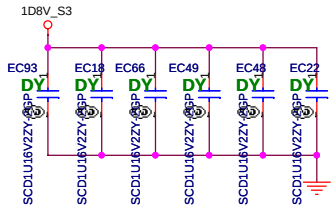
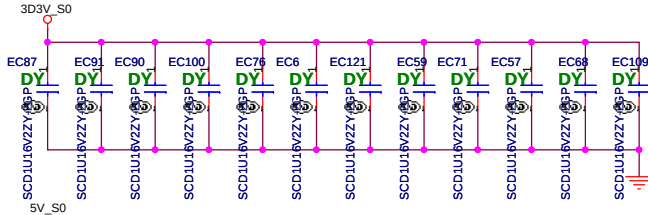
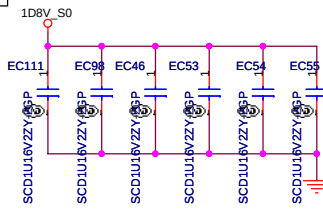
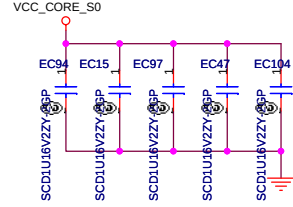
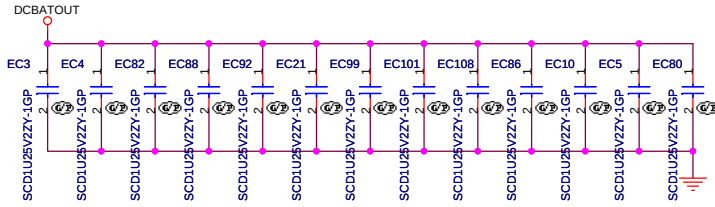
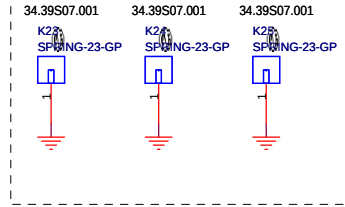
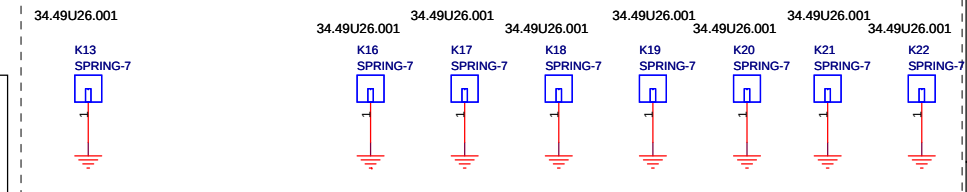
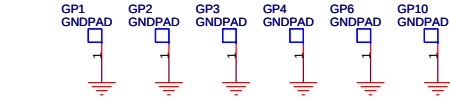
BOT(MDC)
34.42Y01.011



BOT(CPU)
H20 34.42Y01.011



BOT(MINI CARD)
34.46502.001



<Core Design>

緯創資通 Wistron Corporation		
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title		
EMI/Spring/Boss		
Size	Document Number	Rev
		SA
Date: Thursday, July 03, 2008		
Sheet 43 of 43		