

# Enrico/Caruso 15" UMA Schematics Document

## rPGA988A Mobile Arrandale

### Intel IbeX Peak-M

### 2011-04-22

### REV : A00

*DY : Nopop Component*  
*HDMI : Pop for HDMI function*  
*No\_HDMI : Pop for NO HDMI function*  
*10/100 : Pop for 10/100 LAN*  
*GIGA : Pop for GIGA LAN*  
*Surge : Pop for surge option*  
*G709 : Pop G709 thermal solution*  
*INS : Pop for Inspiron series ID*  
*VOS : Pop for Vostro series ID*  
*S3 : Pop for S3 power reduction*  
*Normal : Pop for NO S3 power reduction*

DV15 CP UMA second



Title		
Cover Page		
Size	Document Number	Rev
A3	Enrico/Caruso 15 CP	A00
Date: Friday, April 22, 2011	Sheet 1	of 99

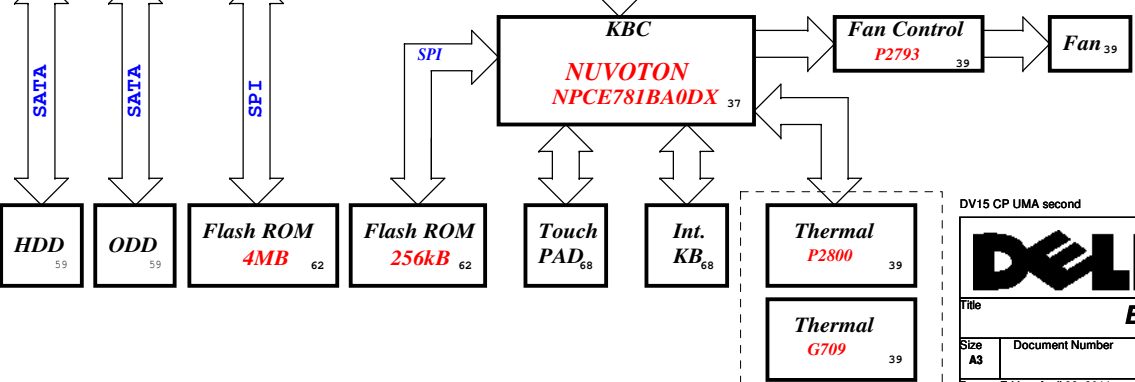
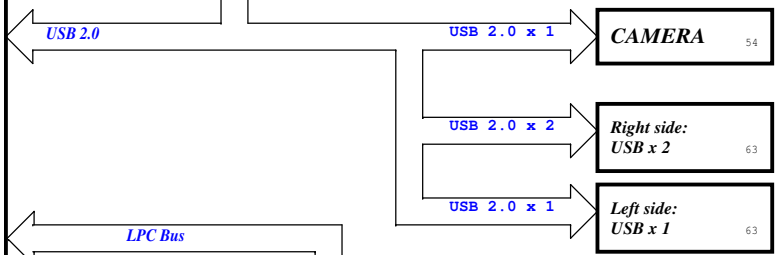
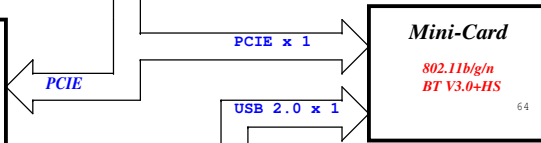
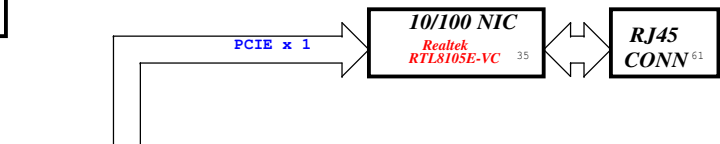
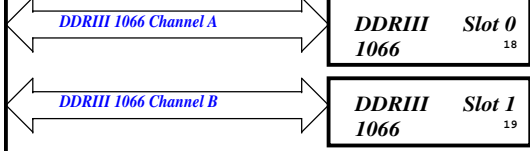
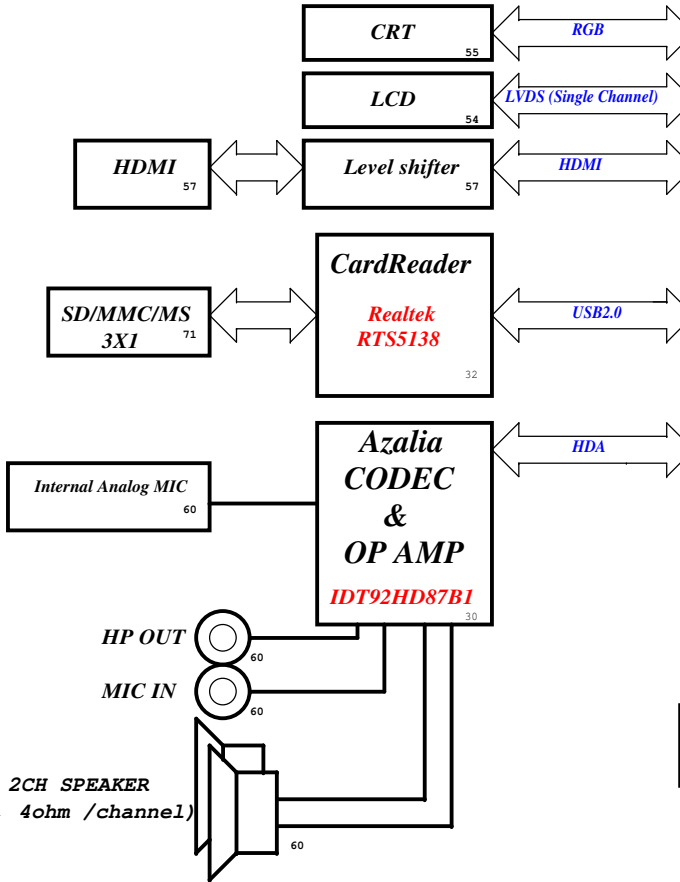
# DV15 Calpella UMA Block Diagram

Project code : 91.4IP01.001  
 PCB P/N : 48.4IP01.011  
 Revision : 10263-1

Clock Generator  
**SLG8SP595**  
 7

Intel CPU  
**Arrandale**  
 8, 9, 10, 11, 12, 13, 14

Intel PCH  
 14 USB 2.0/1.1 ports  
 High Definition Audio  
 SATA ports (6)  
 PCIE ports (8)  
 LPC I/F  
 ACPI 1.1  
 PCI/PCI BRIDGE  
 20, 21, 22, 23, 24, 25, 26, 27, 28



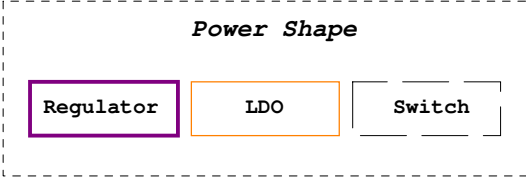
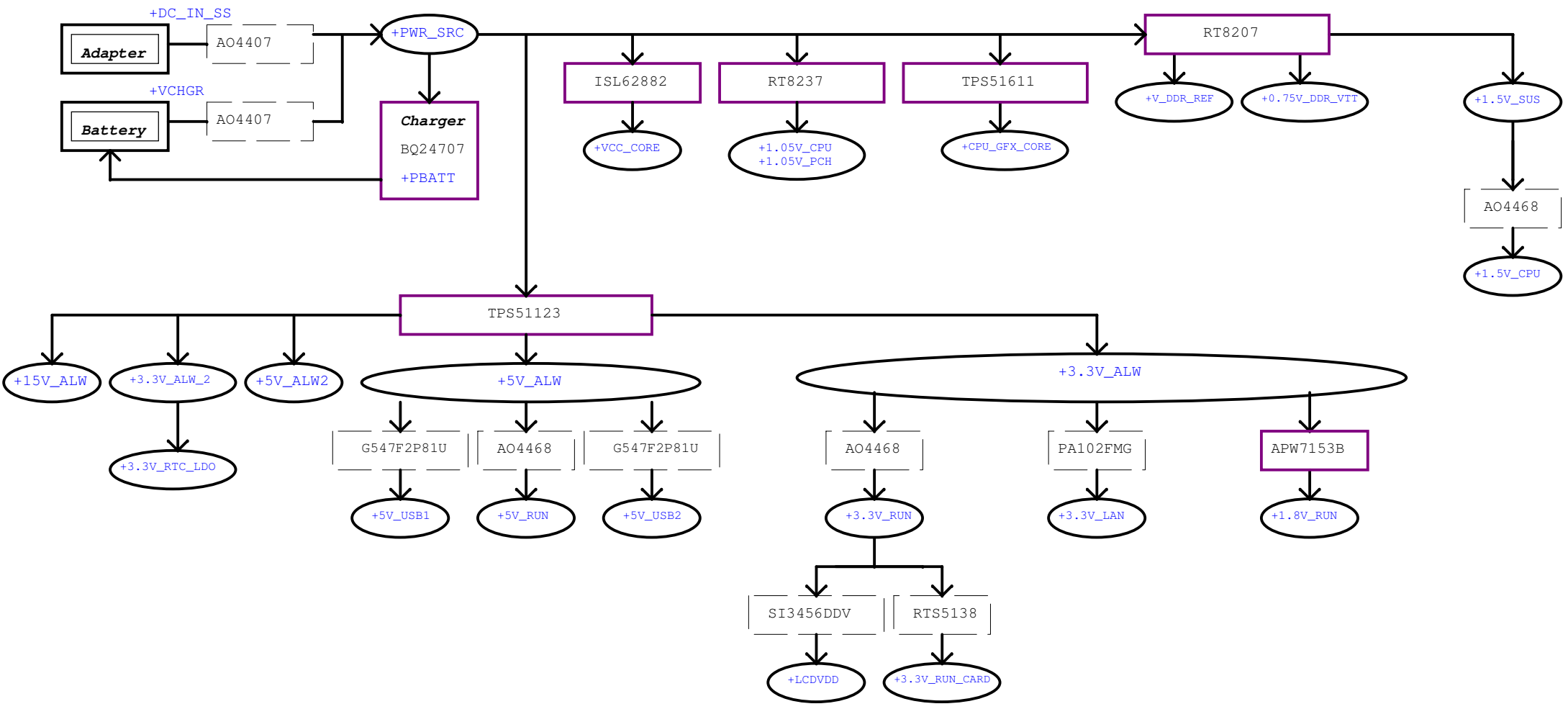
<b>MAXIM CHARGER</b> BQ24707 45	
<b>INPUTS</b>	<b>OUTPUTS</b>
+DC_IN +PBATT	+PWR_SRC
<b>SYSTEM DC/DC</b> TPS51123 46	
<b>INPUTS</b>	<b>OUTPUTS</b>
+PWR_SRC	+5V_ALW2 +3.3V_RTC_LDO +3.3V_ALW +5V_ALW +15V_ALW
<b>CPU DC/DC</b> ISL62882 47, 48	
<b>INPUTS</b>	<b>OUTPUTS</b>
+PWR_SRC	+VCC_CORE
<b>SYSTEM DC/DC</b> RT8237A 49	
<b>INPUTS</b>	<b>OUTPUTS</b>
+PWR_SRC	+1.05V_CPU +1.05V_PCH
<b>SYSTEM DC/DC</b> RT8207 50	
<b>INPUTS</b>	<b>OUTPUTS</b>
+PWR_SRC	+1.5V_SUS +V_DDR_REF +0.75V_DDR_VTT
<b>SYSTEM DC/DC</b> APW7153B 51	
<b>INPUTS</b>	<b>OUTPUTS</b>
+3.3V_ALW	+1.8V_RUN
<b>SYSTEM DC/DC</b> TPS51611 53	
<b>INPUTS</b>	<b>OUTPUTS</b>
+PWR_SRC	+CPU_GFX_CORE
<b>SYSTEM DC/DC</b> Switches 42	
<b>INPUTS</b>	<b>OUTPUTS</b>
+1.5V_SUS +5V_ALW +3.3V_ALW	+1.5V_CPU +5V_RUN +3.3V_RUN
<b>PCB LAYER</b>	
L1: Top	
L2: GND	
L3: Signal	
L4: Signal	
L5: VCC	
L6: Bottom	

DV15 CP UMA second

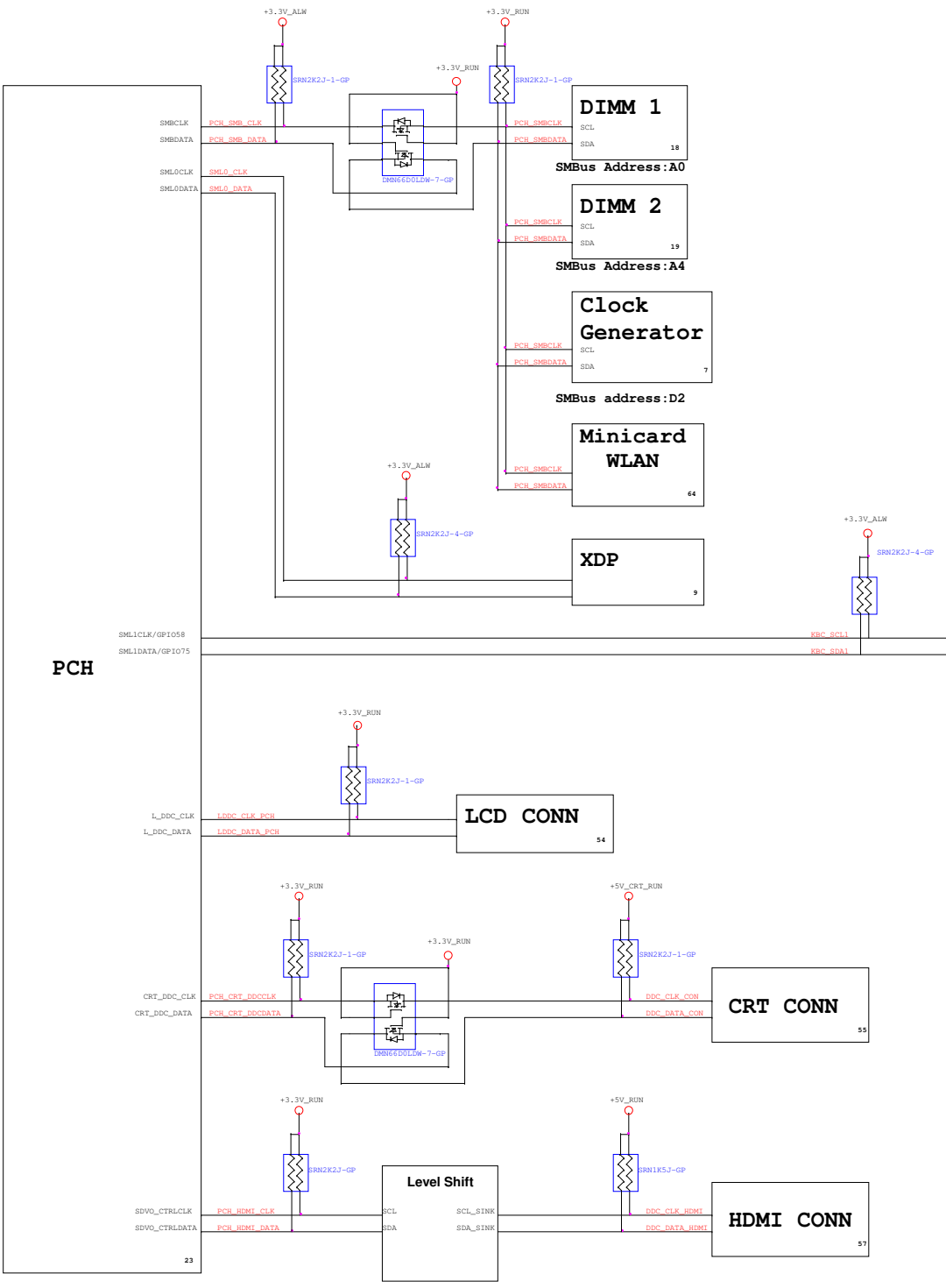
**Wistron Corporation**  
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **Block Diagram**

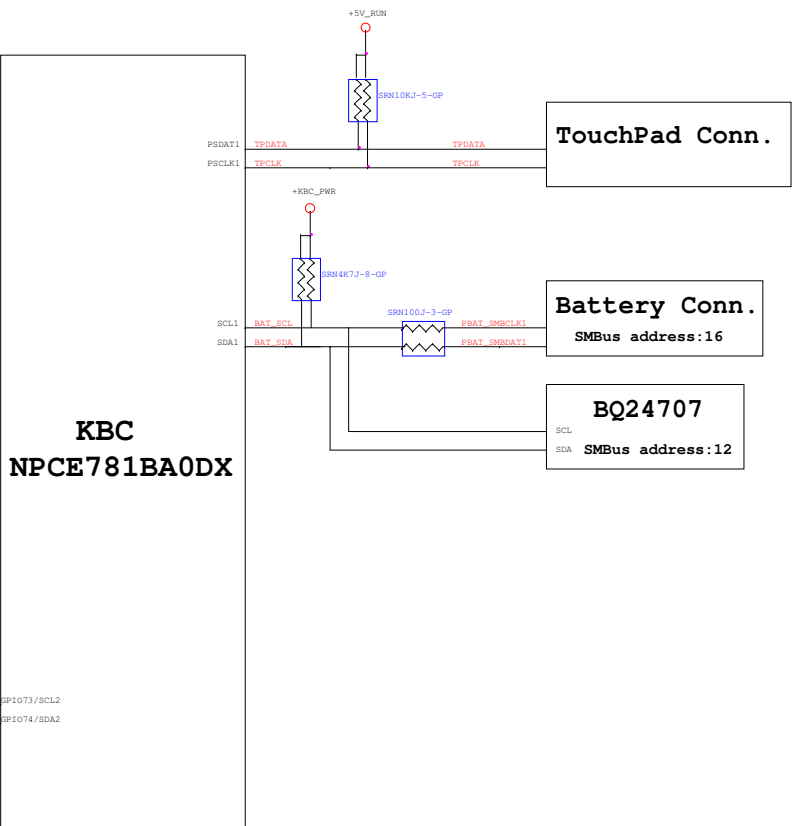
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Date: Friday, April 22, 2011	Sheet: 2 of 99	



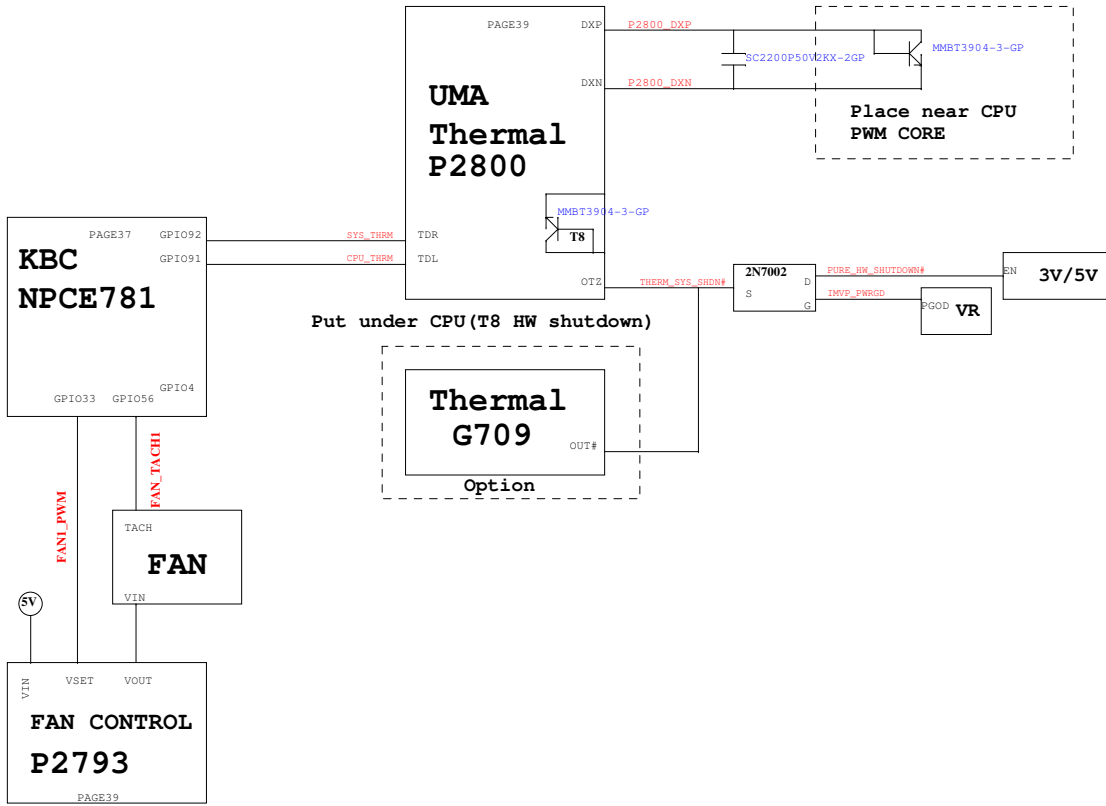
# PCH SMBus Block Diagram



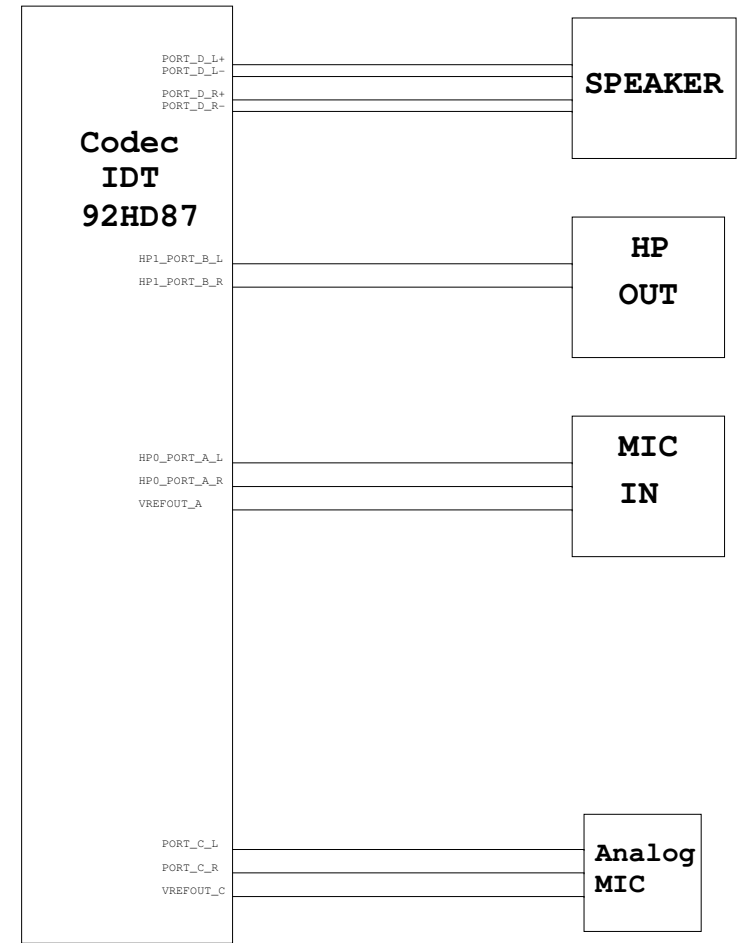
# KBC SMBus Block Diagram



# Thermal Block Diagram



# Audio Block Diagram



DV15 CP UMA second

<b>DELL</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>Thermal/Audio Block Diagram</b>			
Size	Document Number	Rev	
Custom	<b>Enrico/Caruso 15 CP</b>		<b>A00</b>
Date: Friday, April 08, 2011		Sheet	5 of 99

## PCH Strapping

Calpella Schematic Checklist Rev.0\_7

Name	Schematics Notes
SPKR	<b>Reboot option at power-up</b> Default Mode: Internal weak Pull-down. <b>No Reboot Mode with TCO Disabled:</b> Connect to Vcc3_3 with 8.2-kΩ - 10-kΩ weak pull-up resistor.
INIT3_3V#	Weak internal pull-down. Do not pull high.
GNT3#/GPIO55	<b>Default Mode:</b> Internal pull-up. <b>Low (0) = Top Block Swap Mode</b> (Connect to ground with 4.7-kΩ weak pull-down resistor).
INTVRMEN	<b>High (1) = Integrated VRM is enabled</b> <b>Low (0) = Integrated VRM is disabled</b>
GNT0#, GNT1#/GPIO51	<b>Default (SPI):</b> Left both GNT0# and GNT1# floating. No pull up required. <b>Boot from PCI:</b> Connect GNT1# to ground with 1-kΩ pull-down resistor. Leave GNT0# Floating. <b>Boot from LPC:</b> Connect both GNT0# and GNT1# to ground with 1-kΩ pull-down resistor.
GNT2#/GPIO53	<b>Default - Internal pull-up.</b> <b>Low (0) = Configures DMI for ESI compatible operation</b> (for servers only. Not for mobile/desktops).
GPIO33	<b>Default:</b> Do not pull low. <b>Disable ME in Manufacturing Mode:</b> Connect to ground with 1-kΩ pull-down resistor.
SPI_MOSI	<b>Enable iTPM:</b> Connect to Vcc3_3 with 8.2-kΩ weak pull-up resistor. <b>Disable iTPM:</b> Left floating, no pull-down required.
NV_ALE	<b>Enable Danbury:</b> Connect to Vcc3_3 with 8.2-kΩ weak pull-up resistor. <b>Disable Danbury:</b> Connect to ground with 4.7-kΩ weak pull-down resistor.
NC_CLE	Weak internal pull-up. Do not pull low.
HAD_DOCK_EN# /GPIO[33]	<b>Low (0):</b> Flash Descriptor Security will be overridden. <b>High (1):</b> Flash Descriptor Security will be in effect.
HDA_SDO	Weak internal pull-down. Do not pull high.
HDA_SYNC	Weak internal pull-down. Do not pull high.
GPIO15	Weak internal pull-down. Do not pull high.
GPIO8	Weak internal pull-up. Do not pull low.
GPIO27	<b>Default = Do not connect (floating)</b> High(1) = Enables the internal VccVRM to have a clean supply for analog rails. No need to use on-board filter circuit. Low (0) = Disables the VccVRM. Need to use on-board filter circuits for analog rails.

## PCIe Routing

LANE2	MiniCard WLAN
LANE3	LAN

## USB Table

USB	
Pair	Device
0	X
1	USB1
2	USB2 (Ext I/O BD)
3	USB3 (Ext I/O BD)
4	X
5	X
6	X
7	X
8	X
9	WLAN + Bluetooth
10	CARD READER
11	CAMERA
12	X
13	X

## Processor Strapping

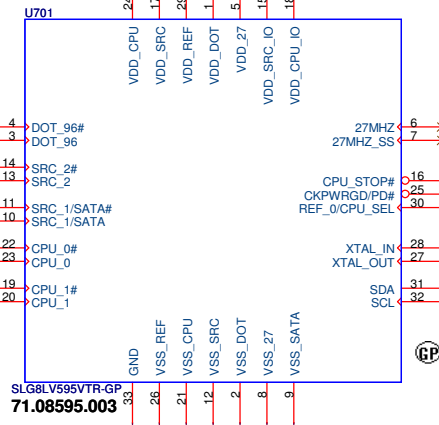
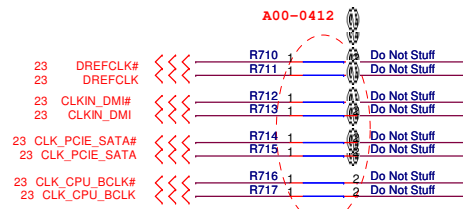
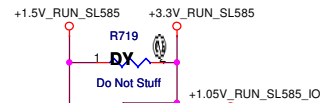
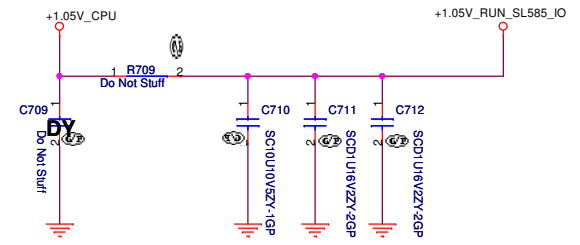
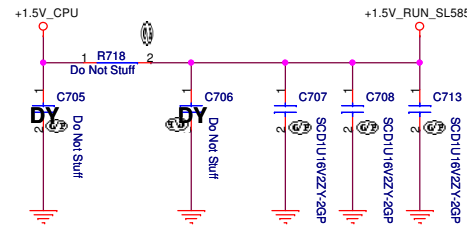
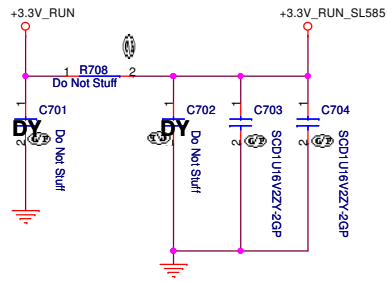
Calpella Schematic Checklist Rev.0\_7

Pin Name	Strap Description	Configuration (Default value for each bit is 1 unless specified otherwise)	Default Value
CFG[4]	<b>Embedded DisplayPort Presence</b>	<b>1:</b> Disabled - No Physical Display Port attached to Embedded DisplayPort. <b>0:</b> Enabled - An external Display Port device is connected to the Embedded Display Port.	1
CFG[3]	<b>PCI-Express Static Lane Reversal</b>	<b>1:</b> Normal Operation. <b>0:</b> Lane Numbers Reversed 15 -> 0, 14 -> 1, ...	1
CFG[0]	<b>PCI-Express Configuration Select</b>	<b>1:</b> Single PCI-Express Graphics <b>0:</b> Bifurcation enabled	1
CFG[7]	<b>Reserved - Temporarily used for early Clarksfield samples.</b>	<b>Clarksfield (only for early samples pre-ES1)</b> - Connect to GND with 3.01K Ohm/5% resistor <b>Note:</b> Only temporary for early CFD samples (rPGA/BGA) [For details please refer to the WW33 MoW and sighting report]. For a common motherboard design (for AUB and CFD), the pull-down resistor should be used. Does not impact AUB functionality.	0

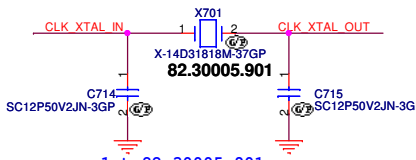
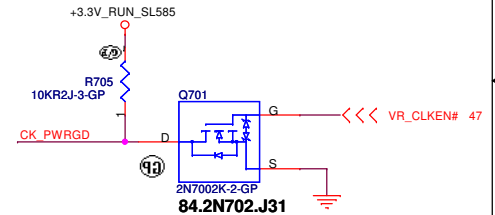
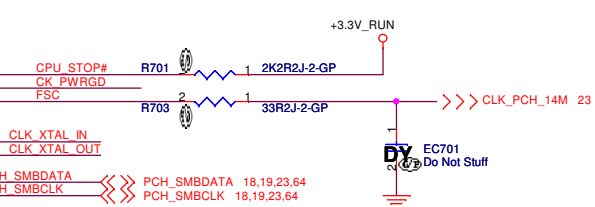
DV15 CP UMA second

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Table of Content</b>			
Size A3	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>	
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# SSID = CLOCK

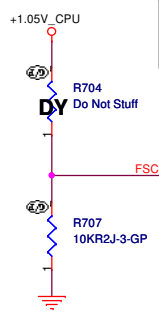


1st Silego : 71.08595.003  
2nd IDT : 71.93197.B03



1st: 82.30005.901  
2nd: 82.30005.A51  
3rd: 82.30005.B81

FSC	0	1
SPEED	133MHz (Default)	100MHz



DV15 CP UMA second

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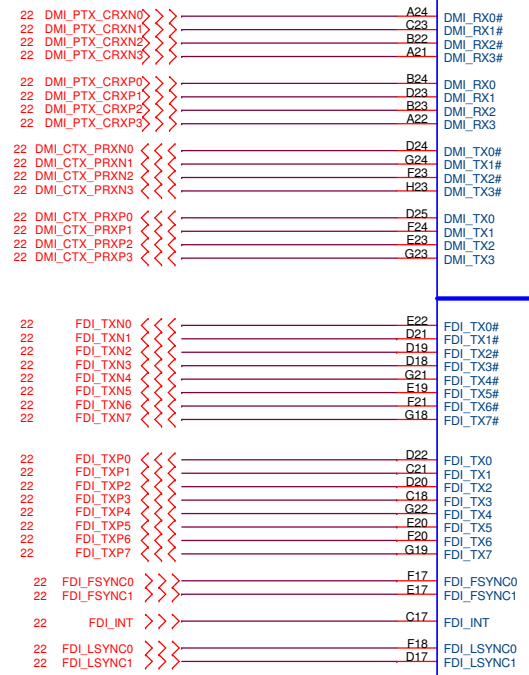
Title: **Clock Generator SLG8LV595**

Size: Document Number: **Enrico/Caruso 15 CP** Rev: **A00**

Date: Wednesday, April 13, 2011 Sheet 7 of 99

SSID = CPU

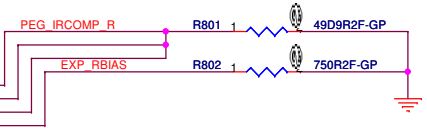
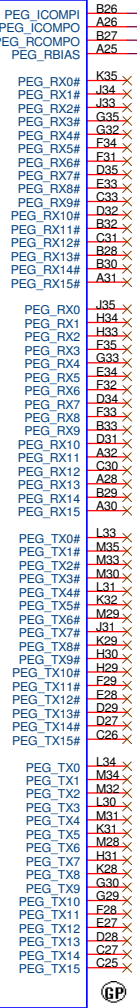
62.10055.321



DMI ARRANDALE

Intel(R) FDI

PCI EXPRESS - GRAPHICS



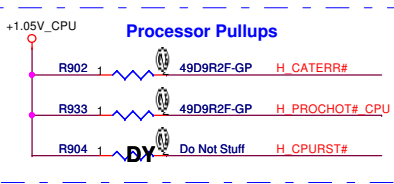
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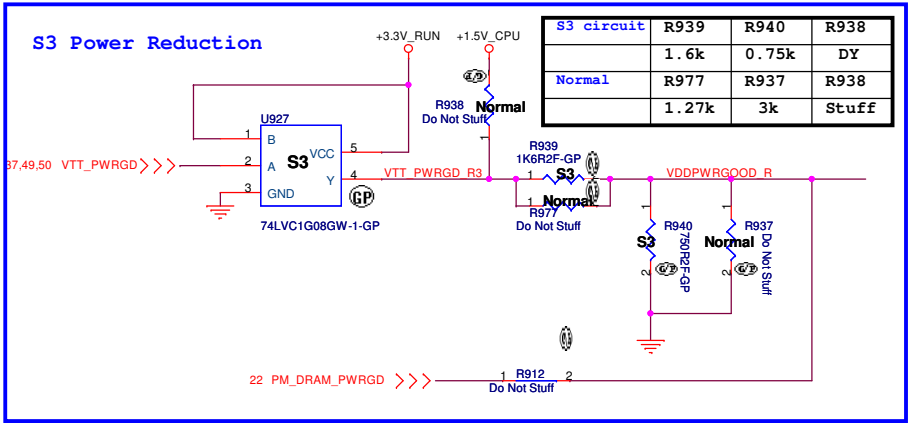
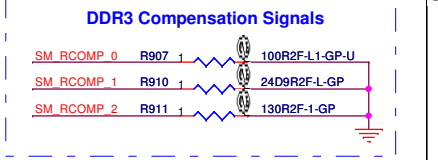
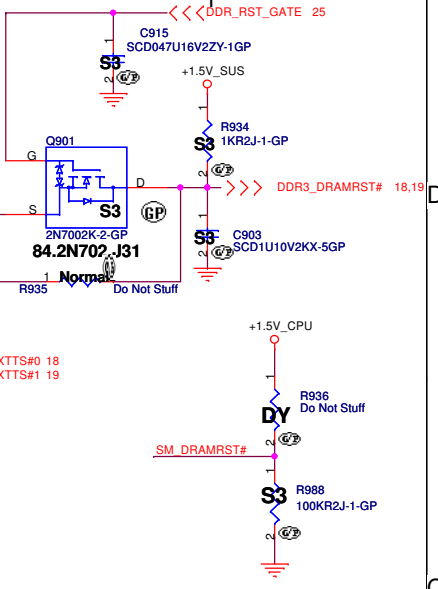
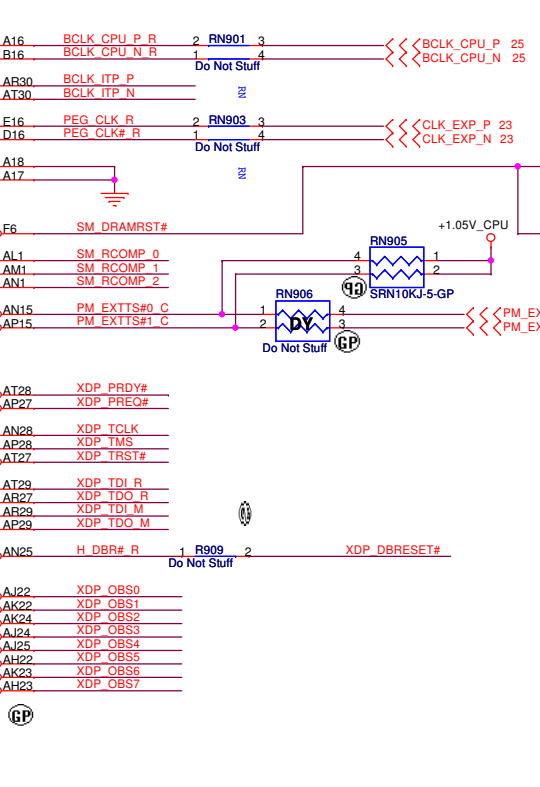
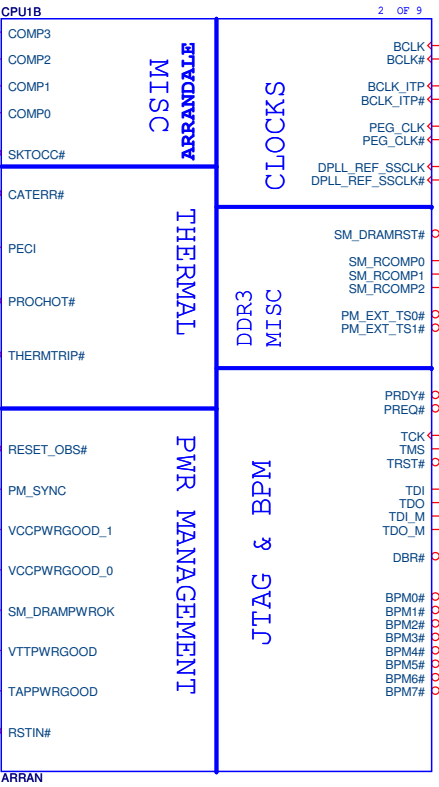
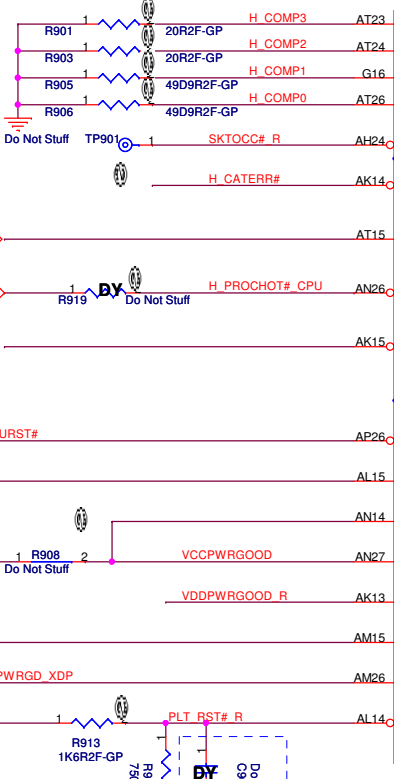
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CPU (PCIE/DMI/FDI)		
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	Enrico/Caruso 15 CP	A00
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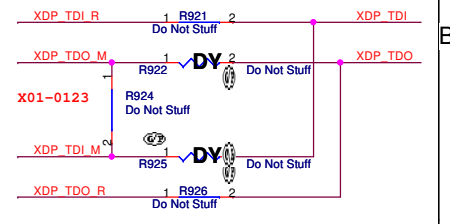
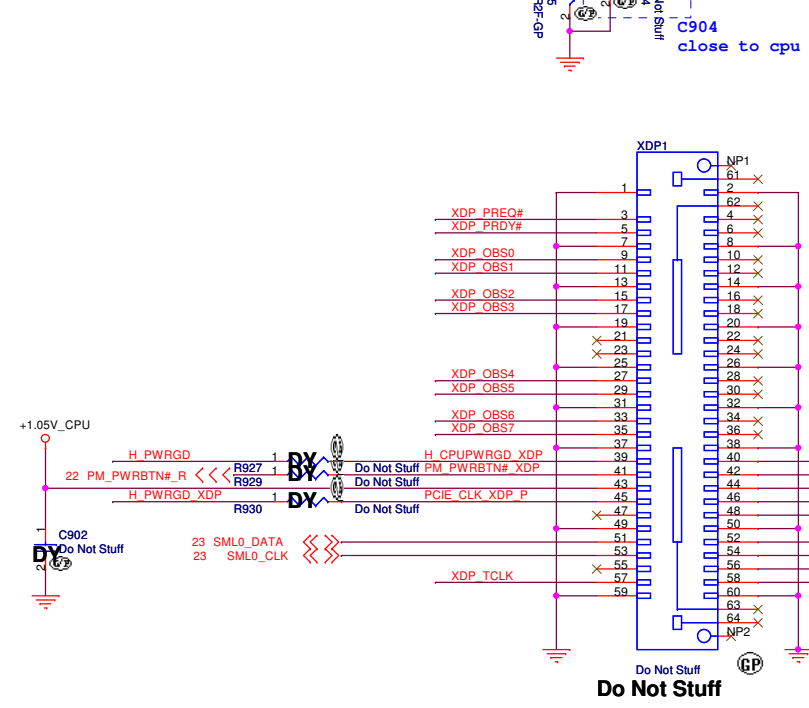
# SSID = CPU



### Processor Compensation Signals



S3 circuit	R939	R940	R938
Normal	1.6k	0.75k	DY
	1.27k	3k	Stuff



### JTAG MAPPING

Scan Chain (Default)	Stuff --> R921, R924, R926 No Stuff --> R922, R925
CPU Only	Stuff --> R921, R922 No Stuff --> R924, R926, R925
GMCH Only	Stuff --> R926, R925 No Stuff --> R921, R922, R924

DV15 CPU UMA second

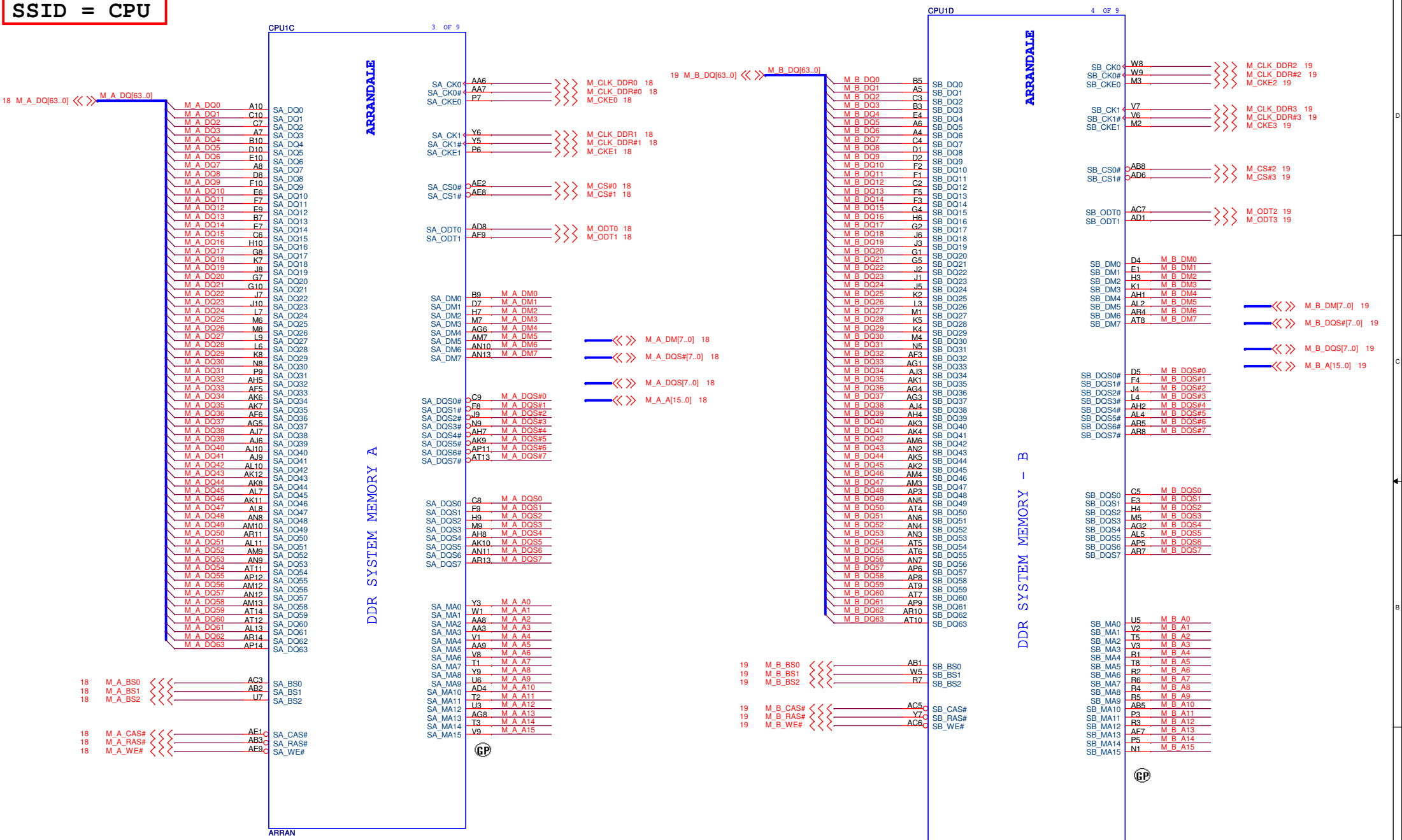
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**CPU (THERMAL/CLOCK/PM)**

Size: Document Number: **Enrico/Caruso 15 CP** Rev: **A00**

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**SSID = CPU**



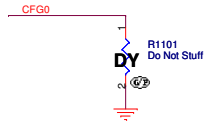
DV15 CP UMA second

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

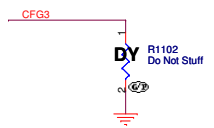
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Size	Document Number	Rev
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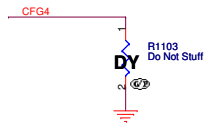
**SSID = CPU**



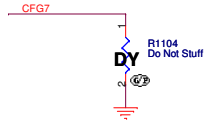
PCI-Express Configuration Select	
CFG0	1:Single PEG 0:Bifurcation enabled



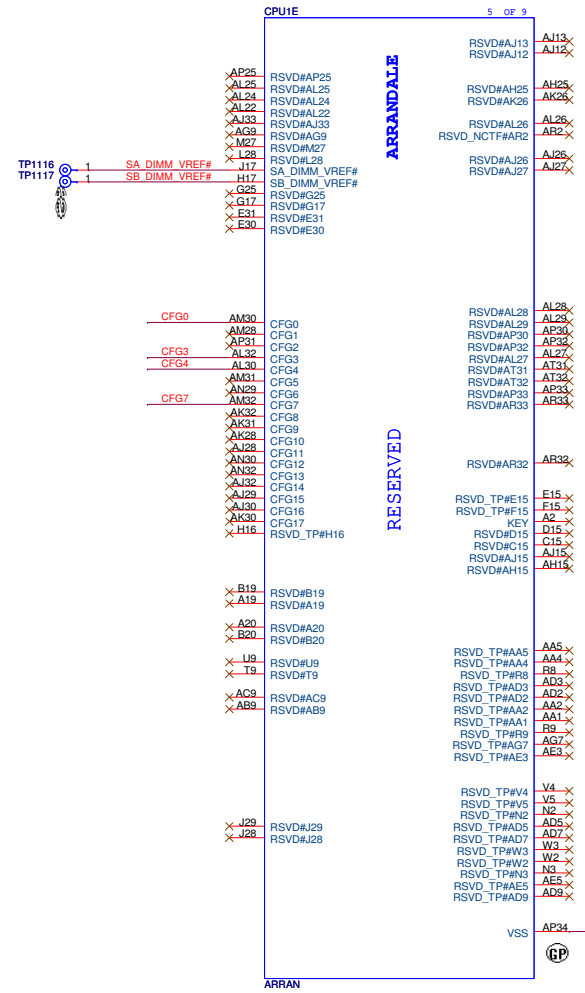
CFG3 - PCI-Express Static Lane Reversal	
CFG3	1 :Normal Operation 0 :Lane Numbers Reversed 15 -> 0, 14 -> 1, ...



CFG4 - Display Port Presence	
CFG4	1:Disabled; No Physical Display Port attached to Embedded Display Port 0:Enabled; An external Display Port device is connected to the Embedded Display Port

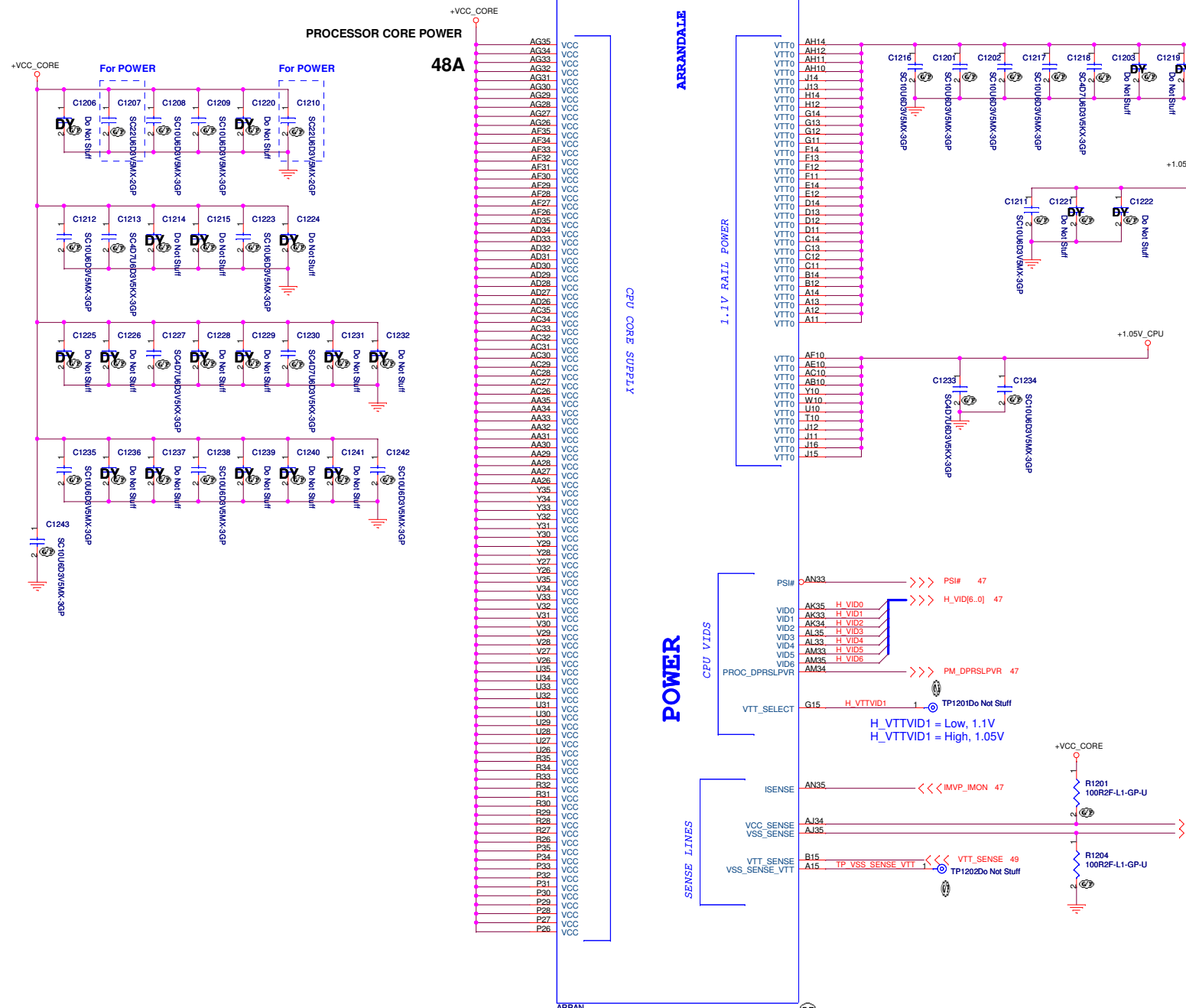


CFG7(Reserved) - Temporarily used for early Clarksfield samples.	
CFG7	Clarksfield (only for early samples pre-ES1) - Connect to GND with 3.01K Ohm/5% resistor.  Note: Only temporary for early CFD sample (rPGA/BGA) [For details please refer to the WW33 MoW and sighting report]. For a common M/B design (for AUB and CFD), the pull-down resistor should be used. Does not impact AUB functionality.



VSS (AP34) can be left NC is CRB implementation; EDS/DG recommendation to GND.

**SSID = CPU**

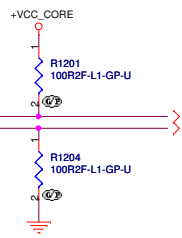


The decoupling capacitors, filter recommendations and sense resistors on the CPU/PCH Rails are specific to the CRB Implementation. Customers need to follow the recommendations in the Calpella Platform Design Guide.

Please note that the VTT Rail Values are Auburndale  
VTT=1.05V; Clarksfield  
VTT=1.1V

- VTT0 AH14
- VTT0 AH12
- VTT0 AH11
- VTT0 AH10
- VTT0 J14
- VTT0 H14
- VTT0 H12
- VTT0 G14
- VTT0 G13
- VTT0 G12
- VTT0 G11
- VTT0 F14
- VTT0 F13
- VTT0 F12
- VTT0 E14
- VTT0 E12
- VTT0 D14
- VTT0 D13
- VTT0 D12
- VTT0 D11
- VTT0 C14
- VTT0 C13
- VTT0 C12
- VTT0 C11
- VTT0 B14
- VTT0 B12
- VTT0 A14
- VTT0 A13
- VTT0 A12
- VTT0 A11

- PSH# AN33 >>> PSI# 47
- AK35 H\_VID0 >>> H\_VID[6..0] 47
- AK33 H\_VID1
- AK34 H\_VID2
- AL35 H\_VID3
- AL33 H\_VID4
- AM33 H\_VID5
- AM35 H\_VID6
- PROC\_DPRSLPVR AM34 >>> PM\_DPRSLPVR 47
- VTT\_SELECT G15 H\_VTTVID1 TP120Do Not Stuff
- H\_VTTVID1 = Low, 1.1V
- H\_VTTVID1 = High, 1.05V
- ISENSE AN35 <<< IMVP\_MON 47
- VCC\_SENSE VSS\_SENSE AJ34 <<< VCC\_SENSE 47
- AJ35 <<< VSS\_SENSE 47
- VTT\_SENSE VSS\_SENSE\_VTT B15 <<< VTT\_SENSE 49
- A15 TP\_VSS\_SENSE\_VTT TP120Do Not Stuff



DV15 CPU UMA second

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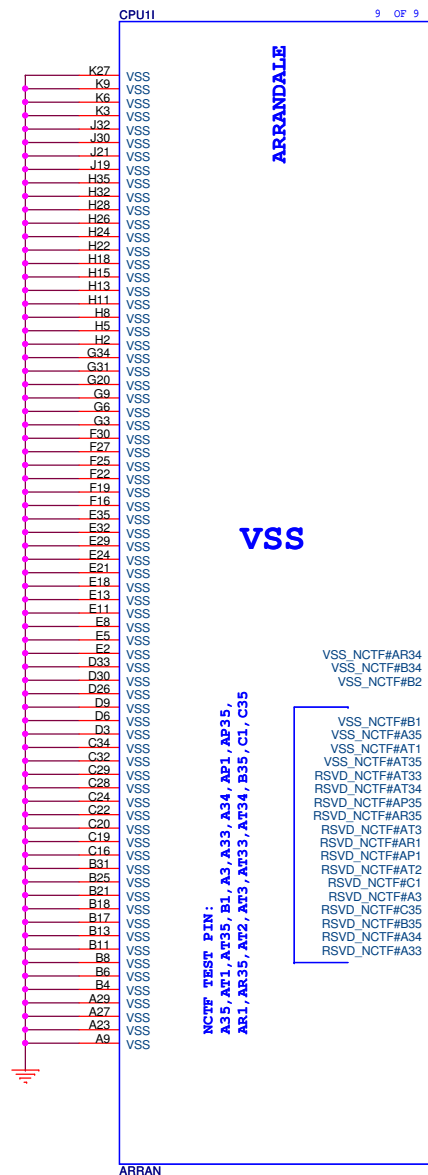
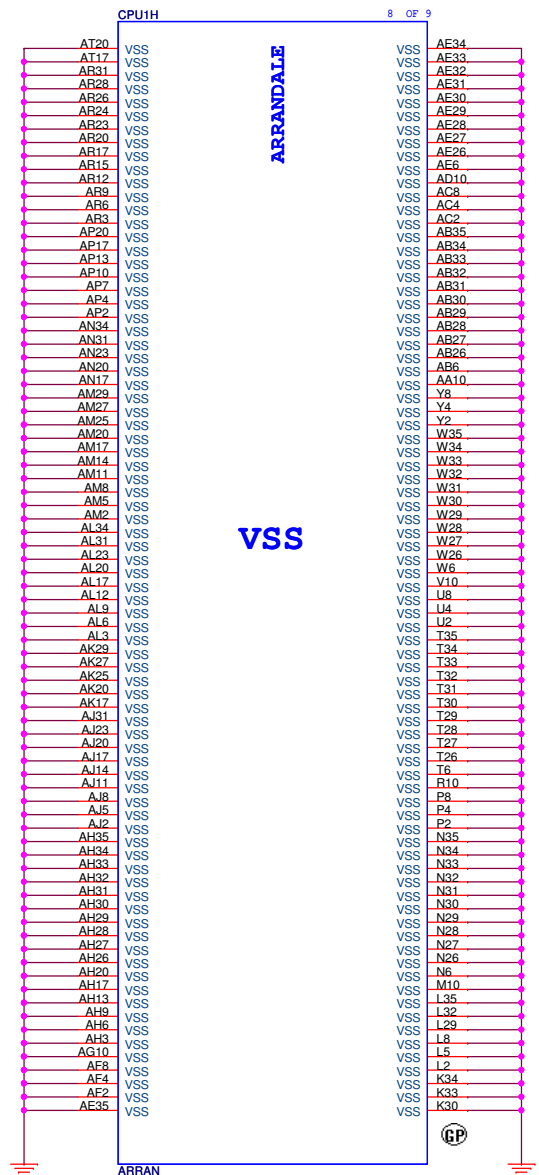
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Size	Document Number	Rev
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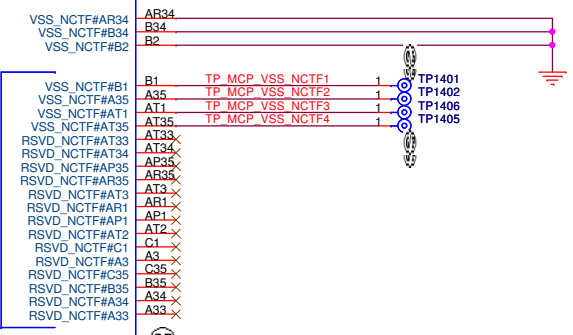
Date: Wednesday, April 13, 2011 Sheet 12 of 99



**SSID = CPU**



NCTF TEST PIN :  
 A35, AT1, AT35, B1, A3, A33, A34, AP1, AP35,  
 AR1, AR35, AT2, AT3, AT33, AT34, B35, C1, C35



DV15 CP UMA second



Title			<b>CPU (VSS)</b>		
Size	Document Number				Rev
	<b>Enrico/Caruso 15 CP</b>				<b>A00</b>
Date:	Friday, April 08, 2011	Sheet	14	of	99

(Blanking)

DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 15	of 99

(Blanking)

DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 16	of 99



(Blanking)

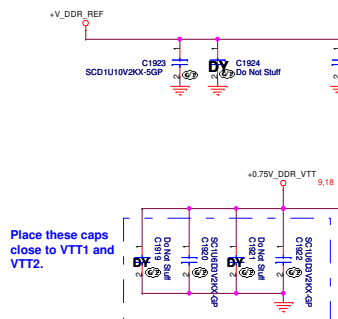
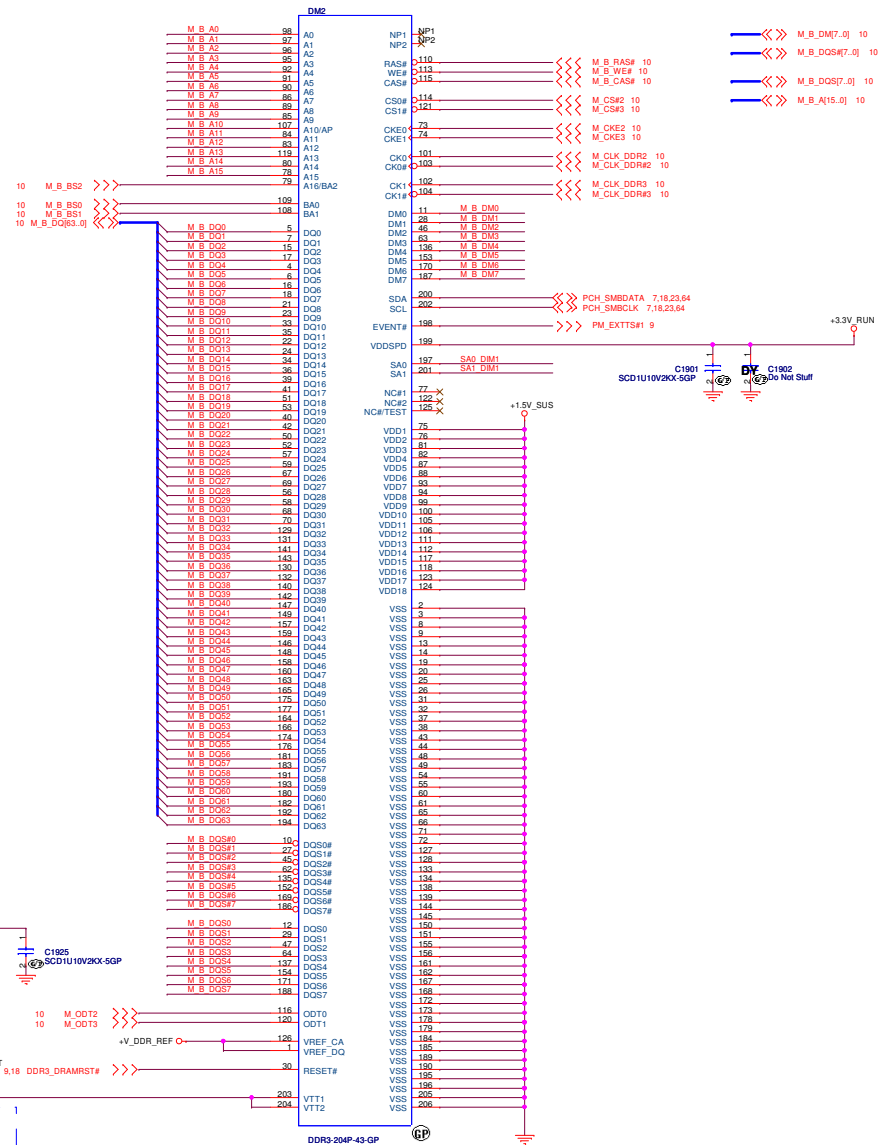
DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 17	of 99



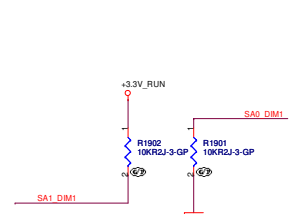
**SSID = MEMORY**



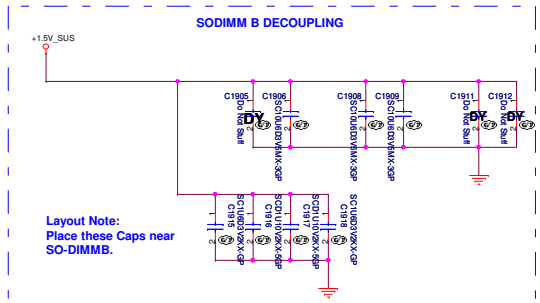
Place these caps close to VTT1 and VTT2.

Note:  
SO-DIMMB SPD Address is 0xA4  
SO-DIMMB TS Address is 0x34

SO-DIMMB is placed farther from the Processor than SO-DIMMA



Note:  
If SA0\_DIM1 = 0, SA1\_DIM1 = 0  
SO-DIMMA SPD Address is 0xA0  
SO-DIMMA TS Address is 0x30  
  
If SA0\_DIM1 = 0, SA1\_DIM1 = 1  
SO-DIMMA SPD Address is 0xA4  
SO-DIMMA TS Address is 0x34



Layout Note:  
Place these Caps near SO-DIMMB.

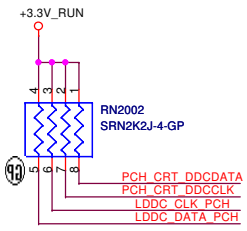
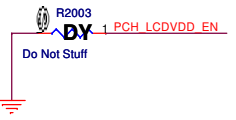
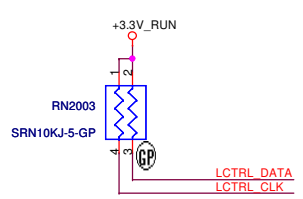
DDR3 CP UMA second



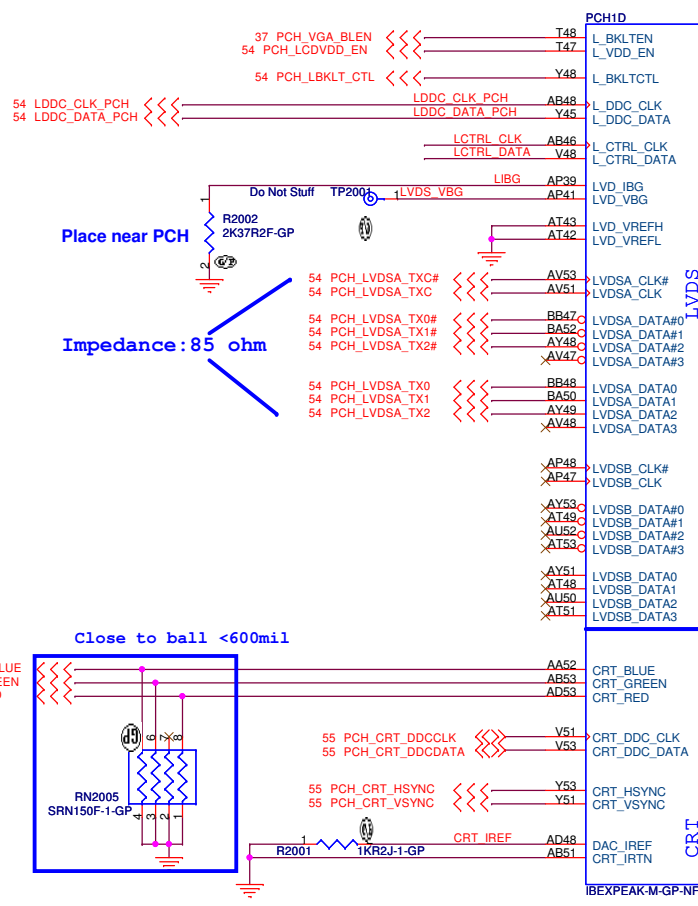
Wistron Corporation  
21F, 8F, Sec.1, Hsin Tai Wu Rd., Hsueh,  
Taipei Hsien 221, Taiwan, R.O.C.

File <b>DDR3-SODIMM2</b>		
Size	Document Number	Rev
	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date:	Wednesday, April 13, 2011	Sheet 19 of 99

**SSID = PCH**



55 PCH\_CRT\_BLUE  
55 PCH\_CRT\_GREEN  
55 PCH\_CRT\_RED

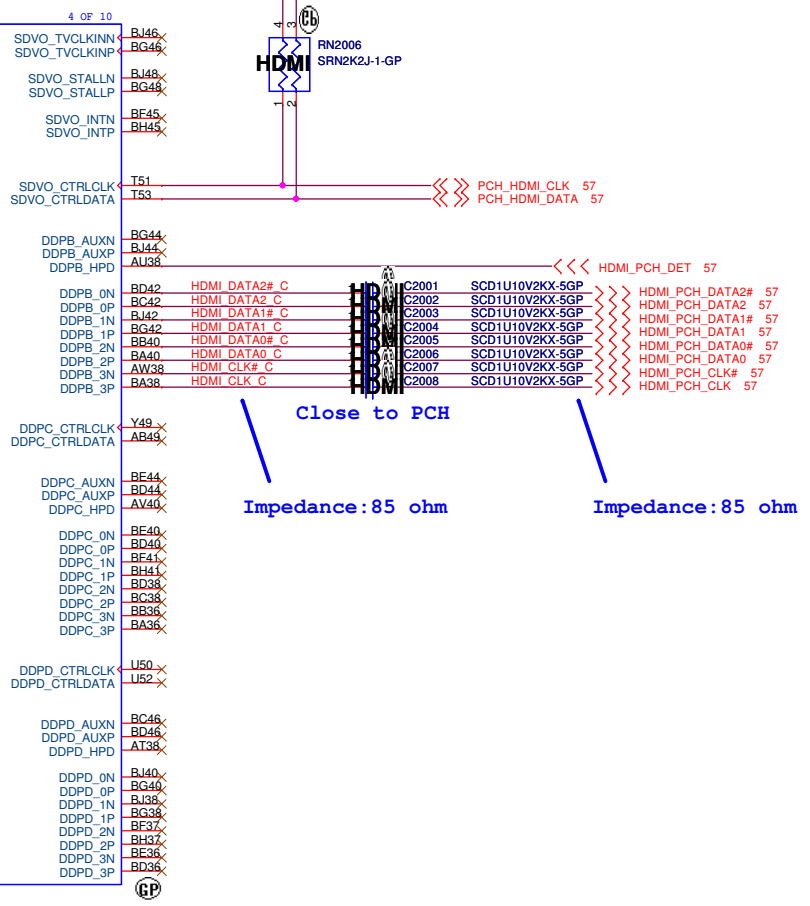


Place near PCH

Impedance: 85 ohm

Close to ball <600mil

Digital Display Interface



Close to PCH

Impedance: 85 ohm

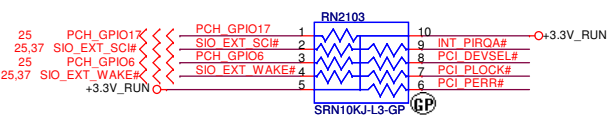
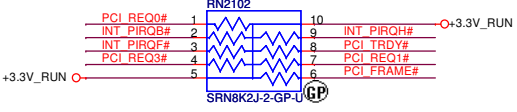
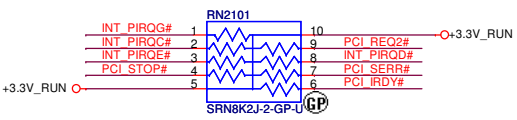
Impedance: 85 ohm

DV15 CP UMA second



Title			<b>PCH (LVDS/CRT/DDI)</b>		
Size	Document Number		Rev		<b>A00</b>
Date: Wednesday, April 13, 2011			Sheet 20 of 99		

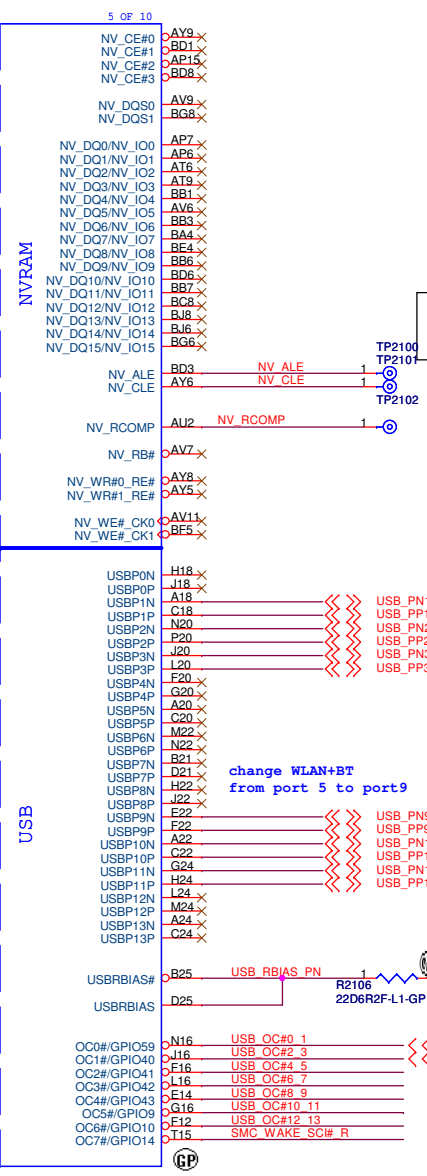
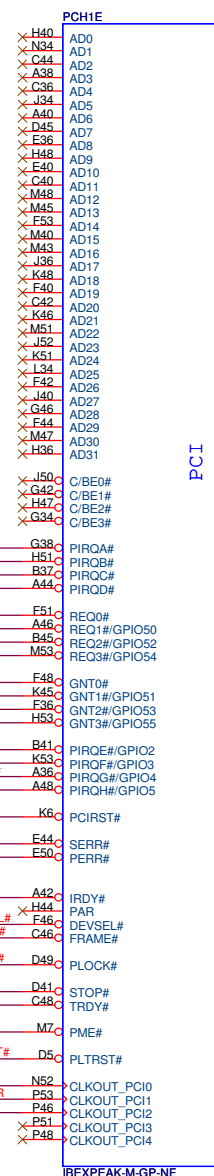
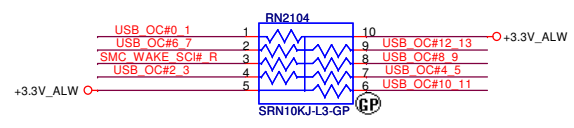
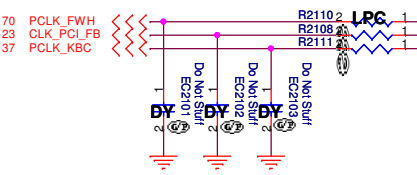
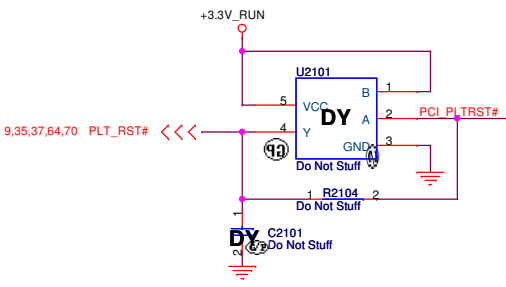
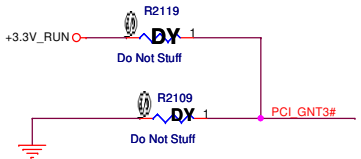
# SSID = PCH



PCI_GNT#1	PCI_GNT#0	BOOT BIOS Location
0	0	LPC
0	1	Reserved
1	0	PCI
1	1	SPI (Default)

A16 swap override Strap/Top-Block Swap Override jumper

PCI_GNT#3	Low = A16 swap override/Top-Block Swap Override enabled High = Default
-----------	---



Danbury Technology:  
Disabled when Low.  
Enable when High.

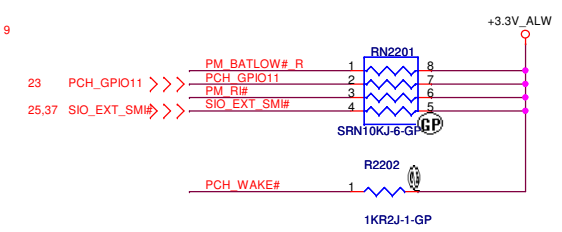
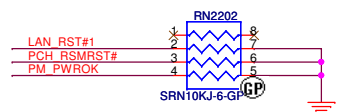
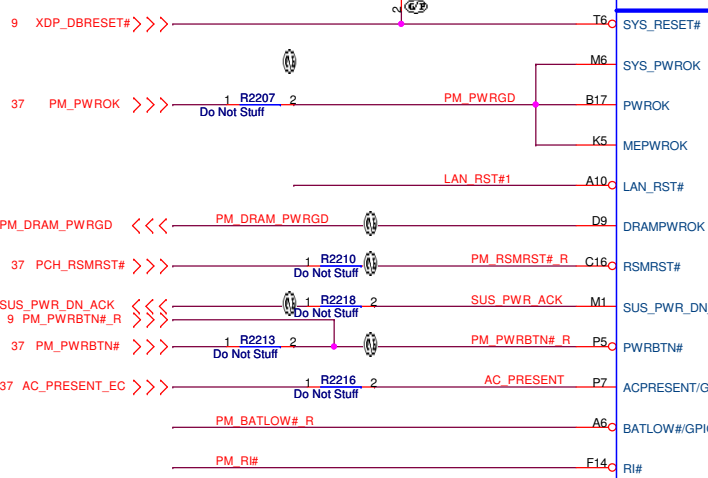
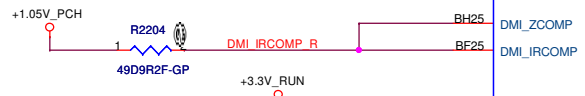
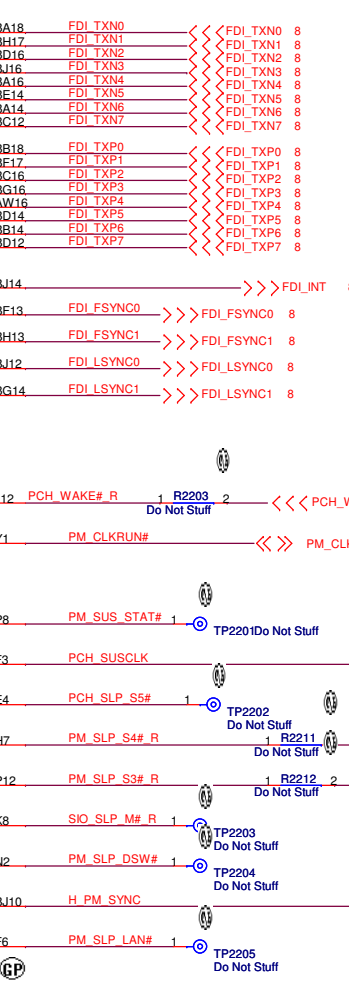
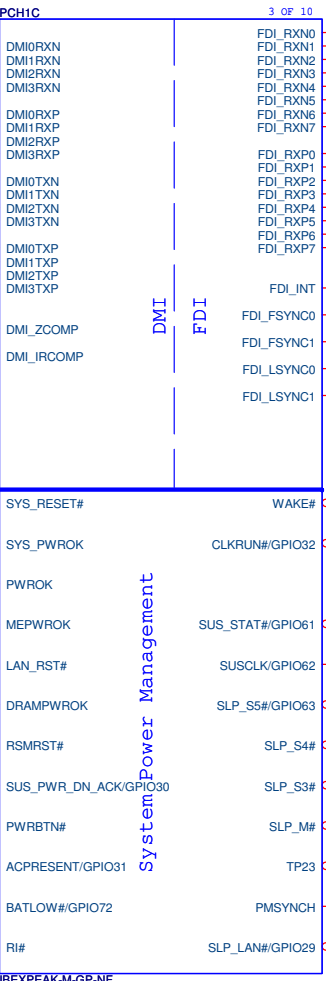
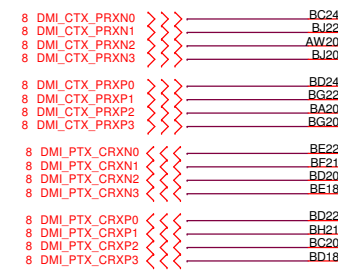
USB	
Pair	Device
0	X
1	USB1 (Debug Port)
2	USB2 (Ext I/O BD)
3	USB3 (Ext I/O BD)
4	X
5	X
6	X
7	X
8	X
9	WLAN + Bluetooth
10	CARD READER
11	CAMERA
12	X
13	X

DV15 CP UMA second

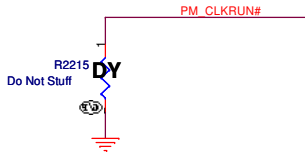


**SSID = PCH**

3 OF 10



Option to "Disable" clkrun.  
Pulling it down will keep the clks running.

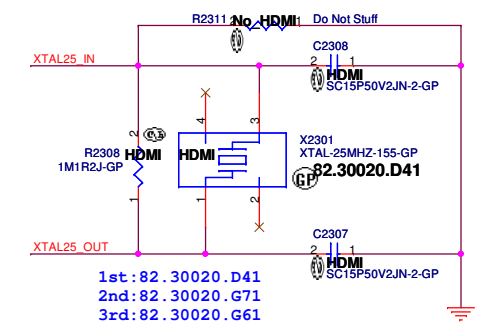
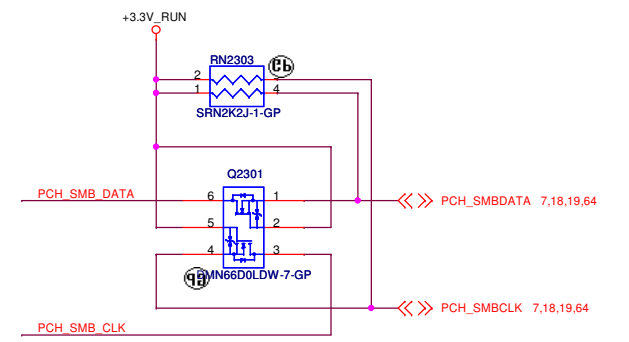
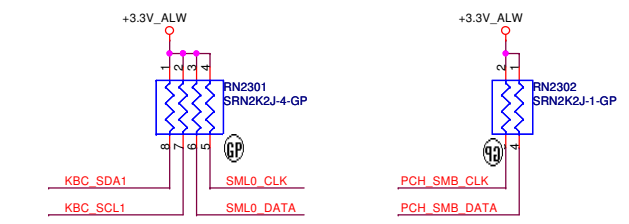
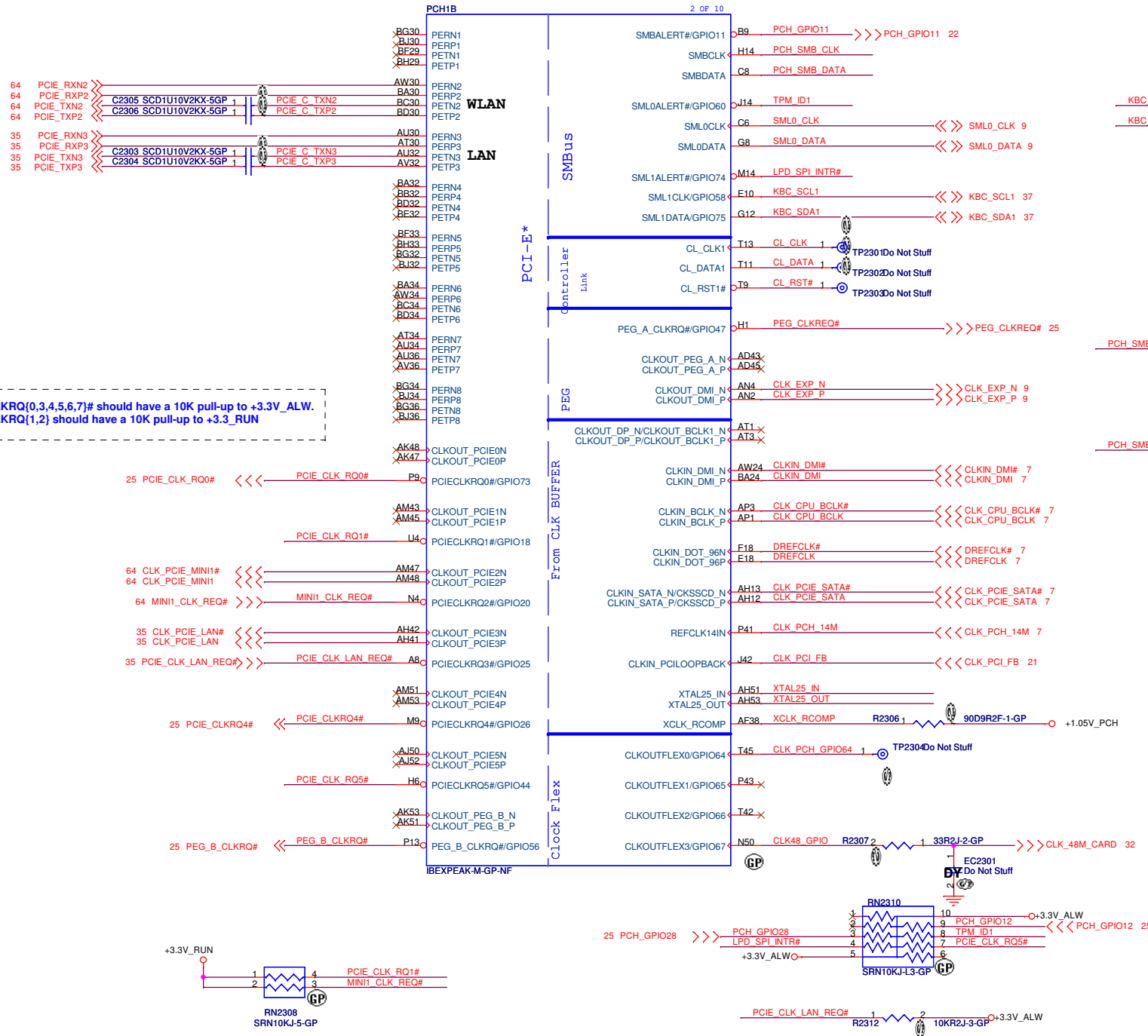


DV15 CP UMA second

**Wistron Corporation**  
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 Taipei Hsien 221, Taiwan, R.O.C.

Title: **PCH (DM I/FDI/PM)**  
 Size: Document Number: **Enrico/Caruso 15 CP** Rev: **A00**  
 Date: Wednesday, April 13, 2011 Sheet 22 of 99

**SSID = PCH**



DV15 CP UMA second

**DELL Wistron Corporation**  
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Title: **PCH (PCI-E/SMBUS/CLOCK/CL)**

Size: Document Number  
Date: Wednesday, April 13, 2011

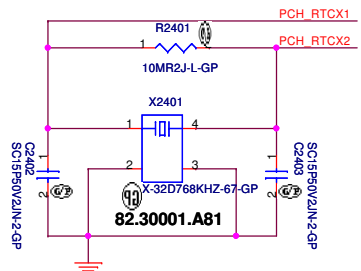
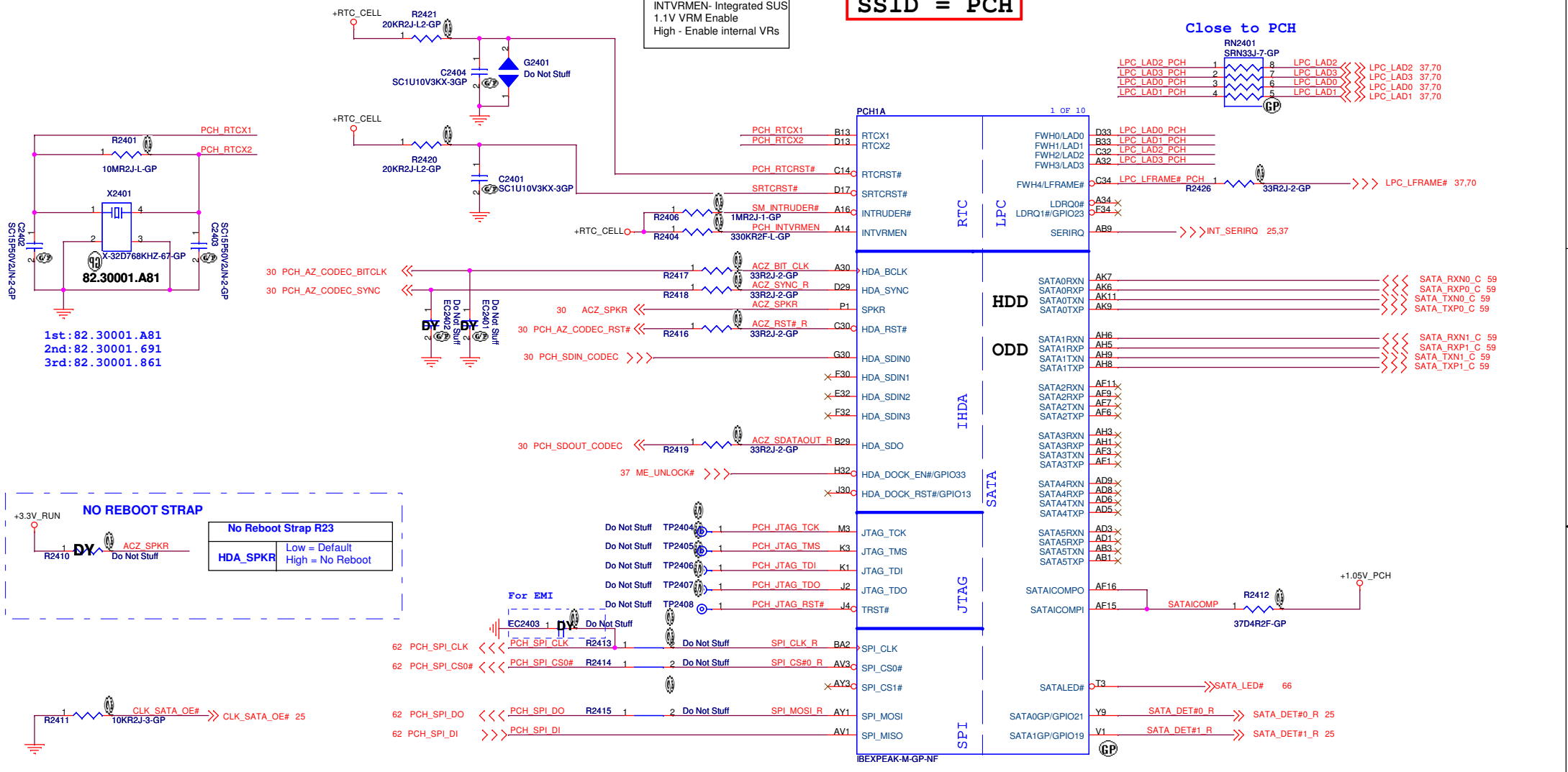
Rev: **A00**

Sheet 23 of 99

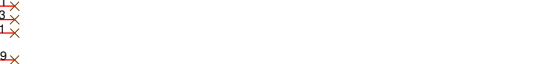
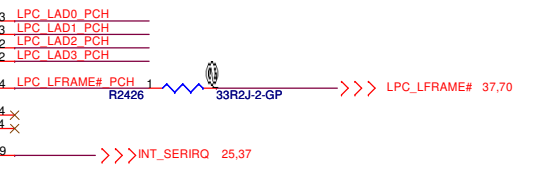
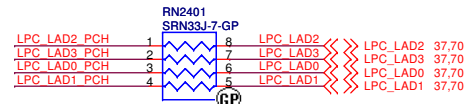
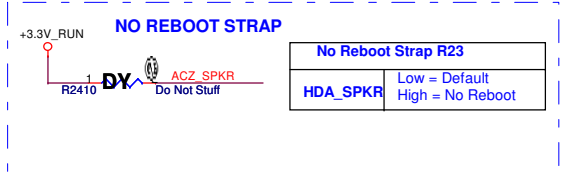
**SSID = PCH**

INTVRMEN- Integrated SUS  
1.1V VRM Enable  
High - Enable internal VRs

Close to PCH

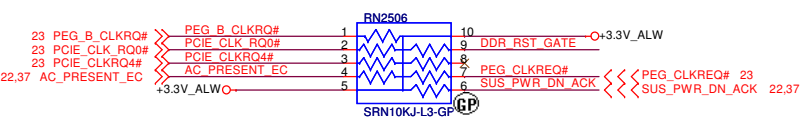
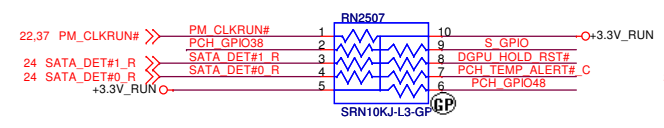
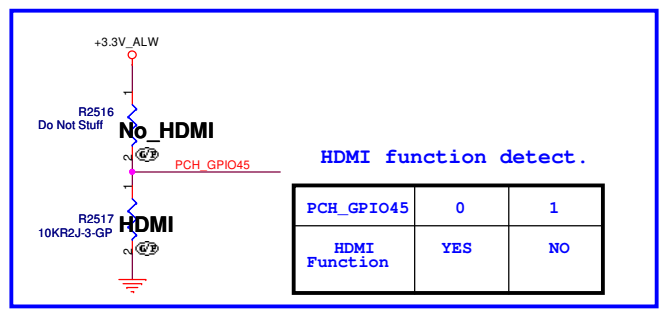
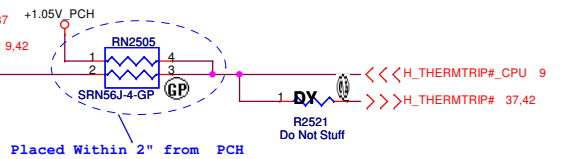
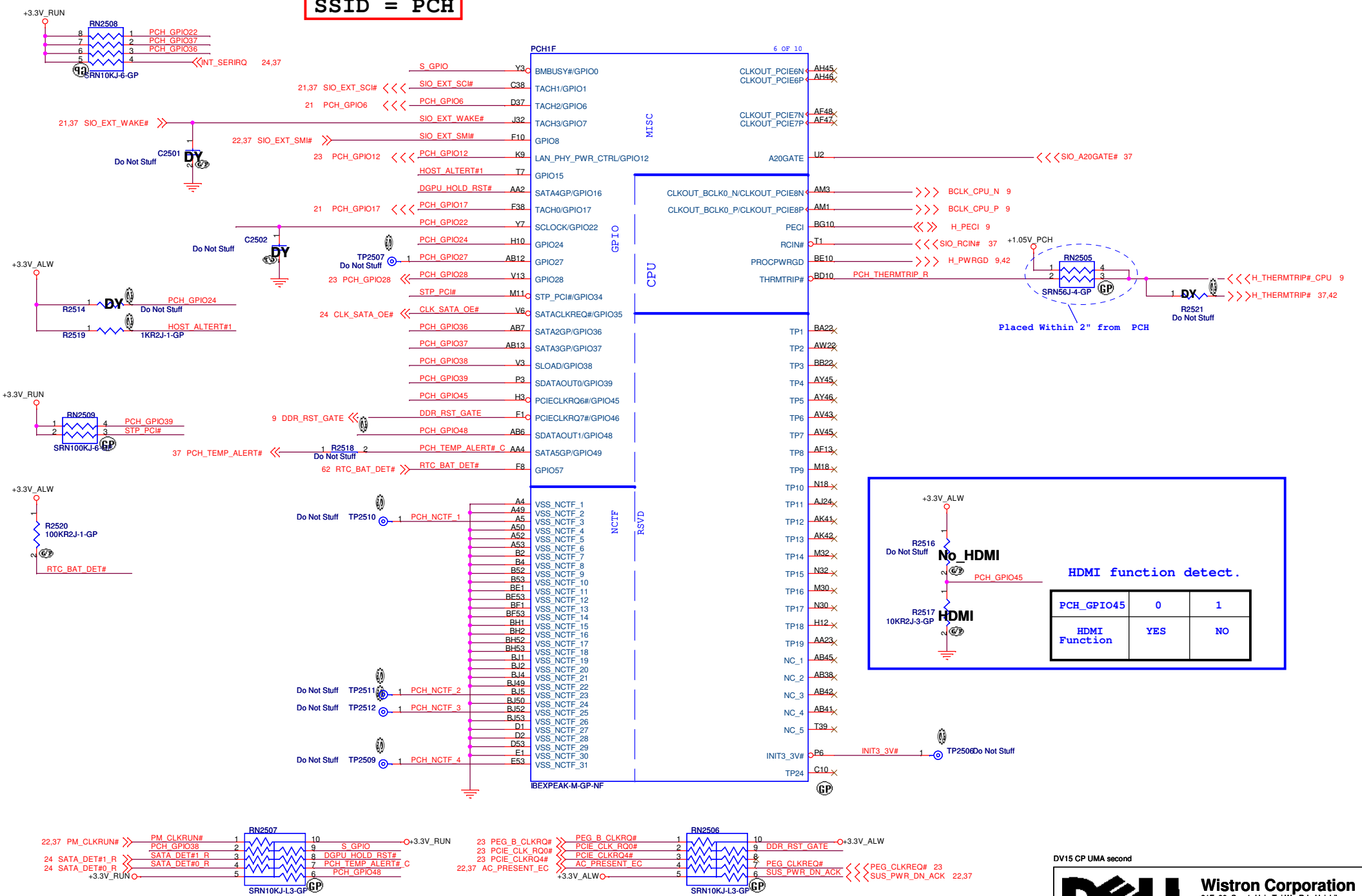


1st: 82.30001.A81  
2nd: 82.30001.691  
3rd: 82.30001.861





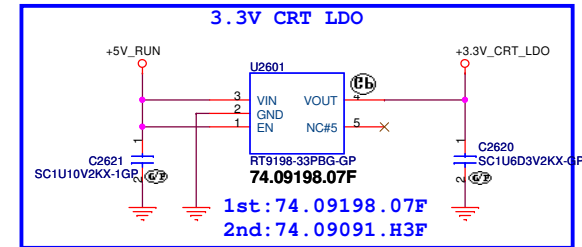
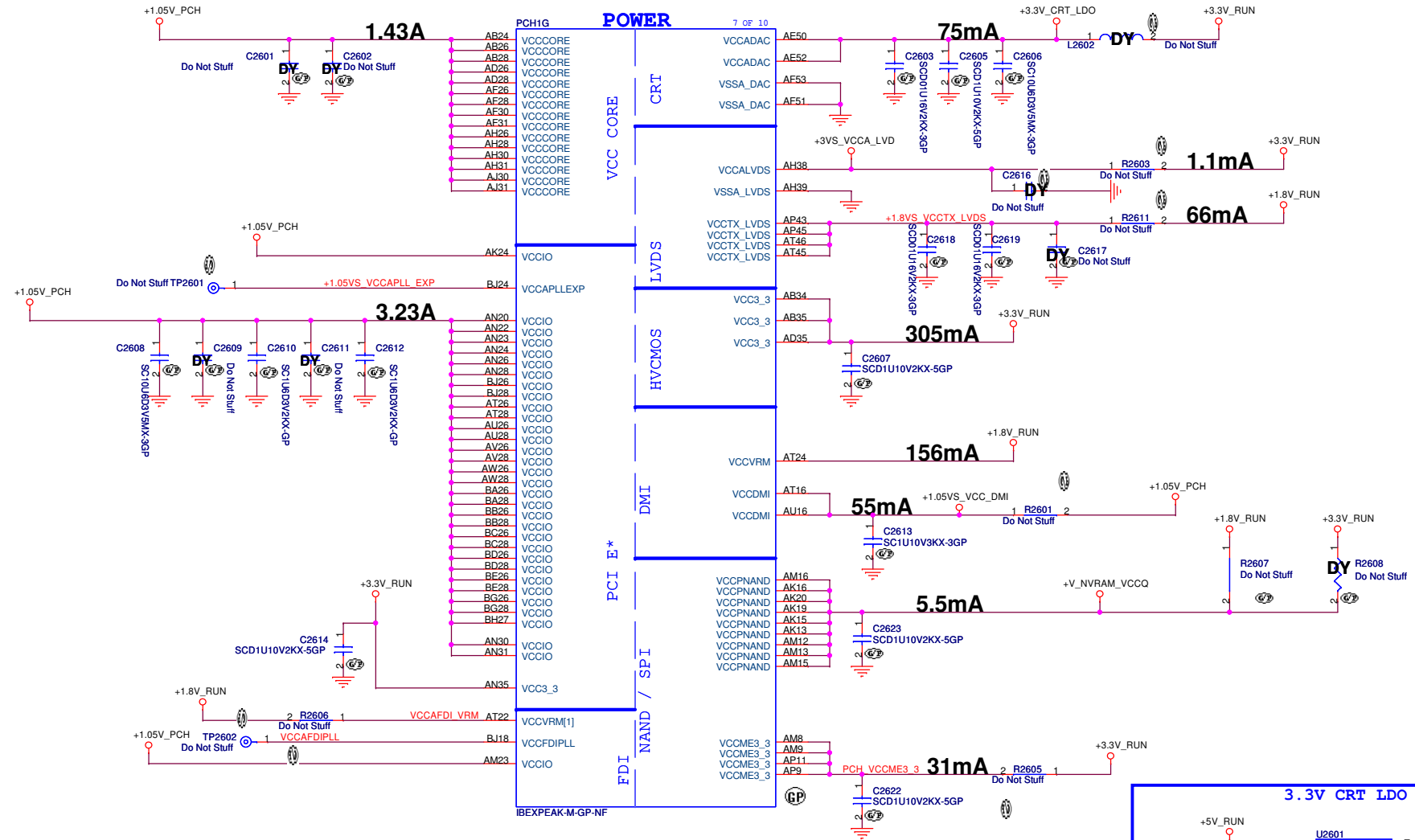
# SSID = PCH



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

Title: **PCH (GPIO/CPU)**  
 Size: Document Number: **Enrico/Caruso 15 CP** Rev: **A00**  
 Date: Wednesday, April 13, 2011 Sheet 25 of 99

**SSID = PCH**

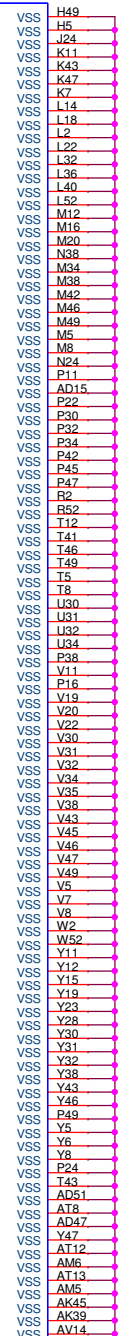
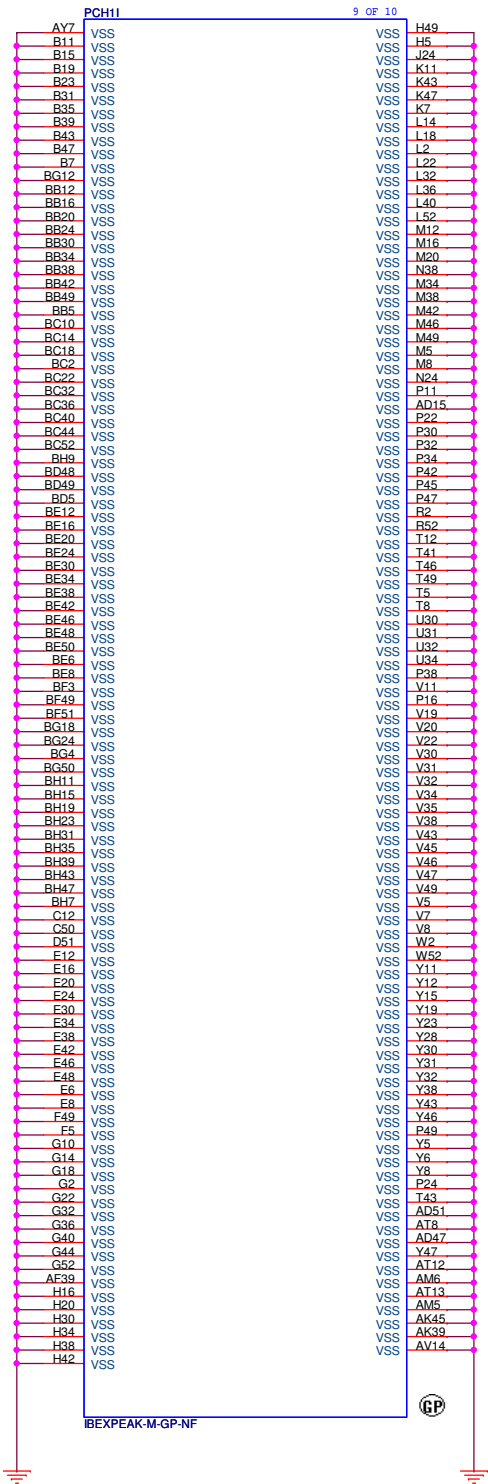
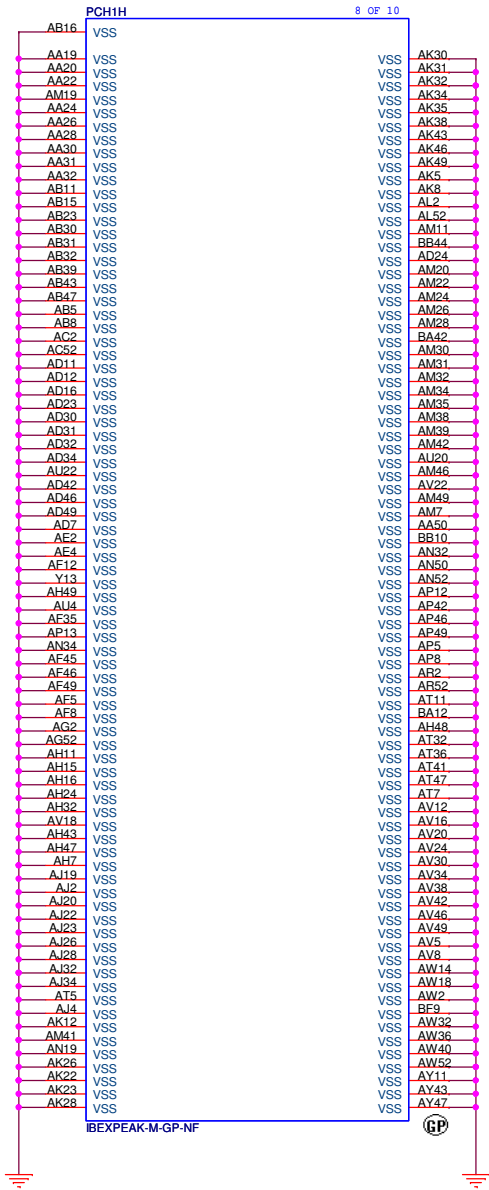


DV15 CP UMA second





SSID = PCH



DV15 CP UMA second

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

Title: **PCH (VSS)**

Size	Document Number	Rev
	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>

Date: Friday, April 08, 2011 Sheet 28 of 99

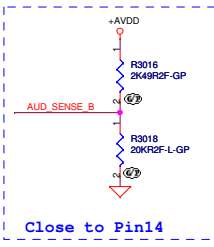
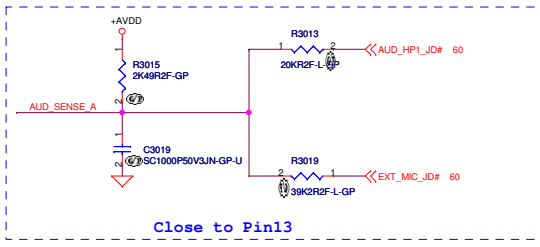
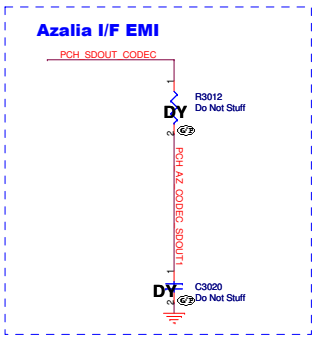
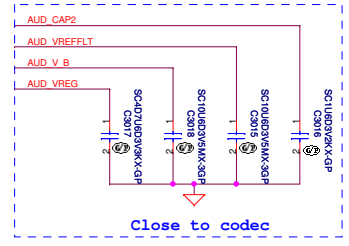
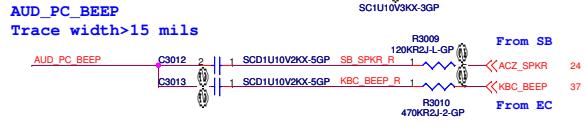
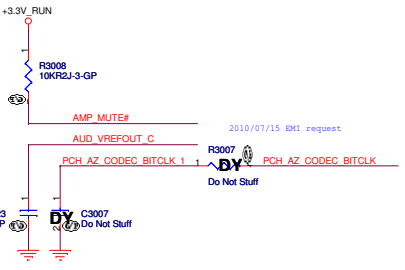
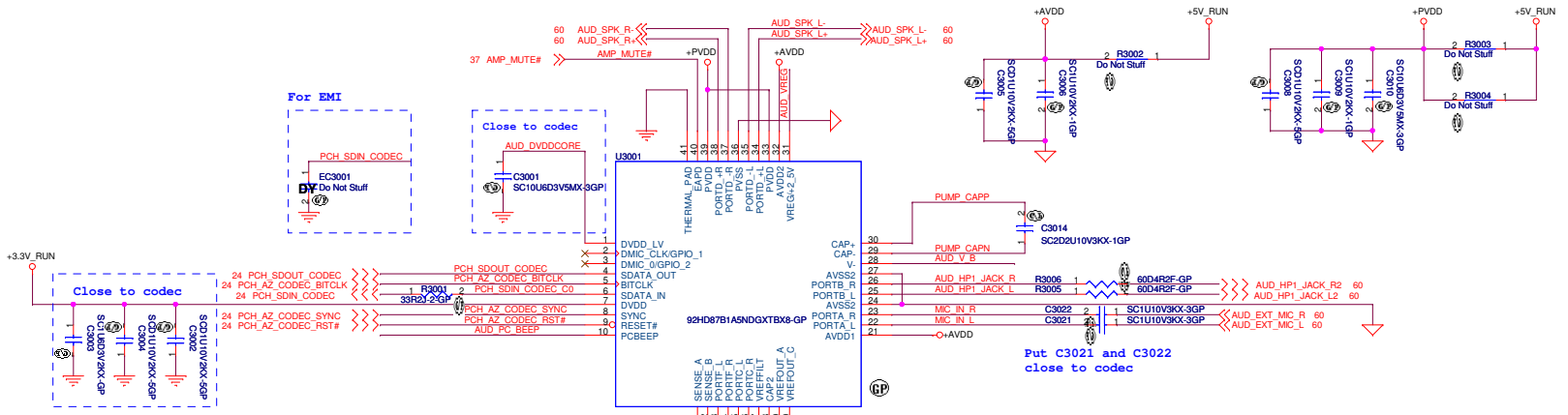
(Blanking)

DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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SSID = AUDIO



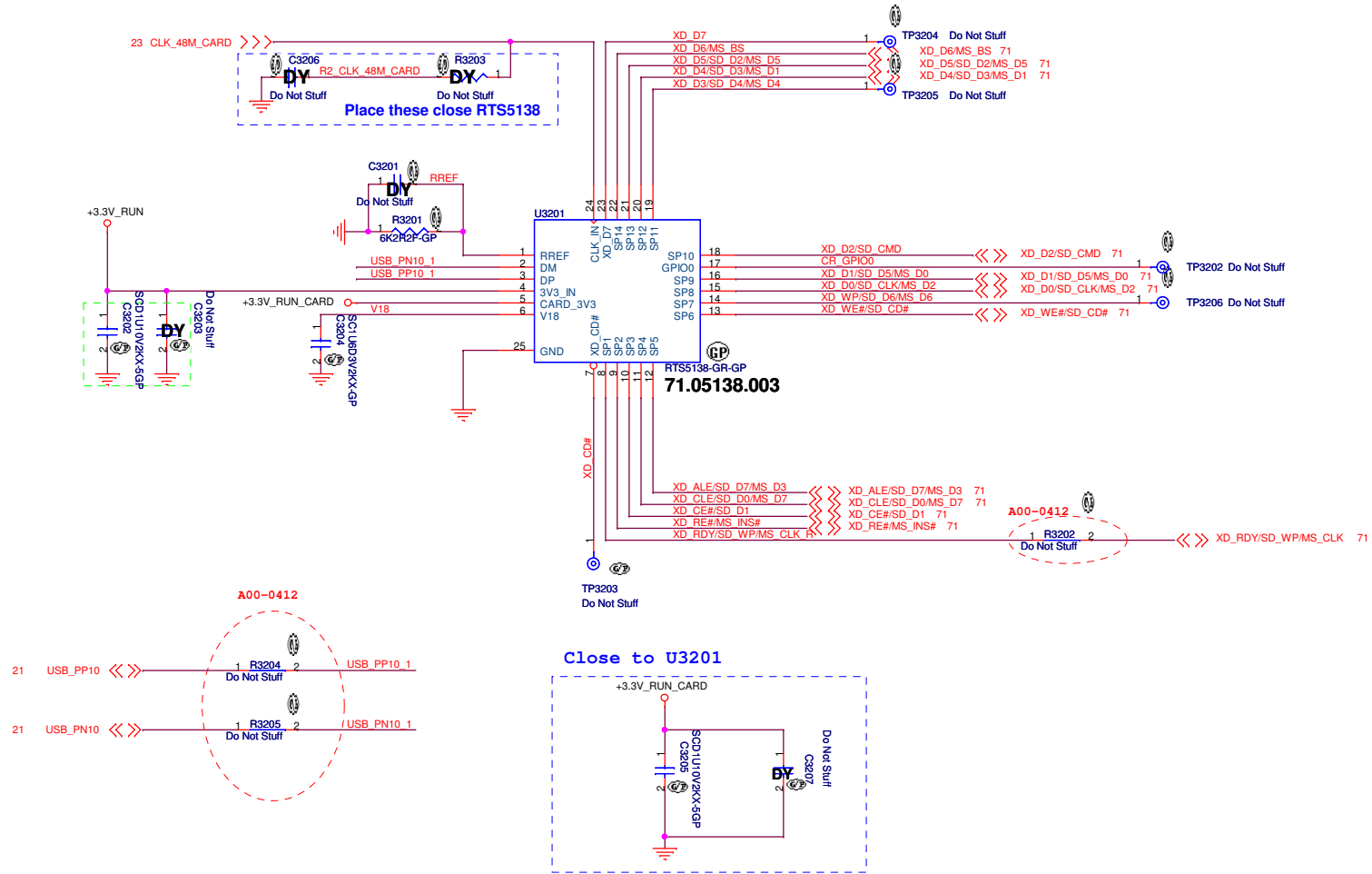
(Blanking)

DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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**SSID = SDIO**



DV15 CP UMA second

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
		Title <b>Card Reader-RTS5138</b>	
Size	Document Number	Rev	
Custom	<b>Enrico/Caruso 15 CP</b>		<b>A00</b>
Date:	Wednesday, April 13, 2011	Sheet	32 of 99



(Blanking)

DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 33 of 99	1

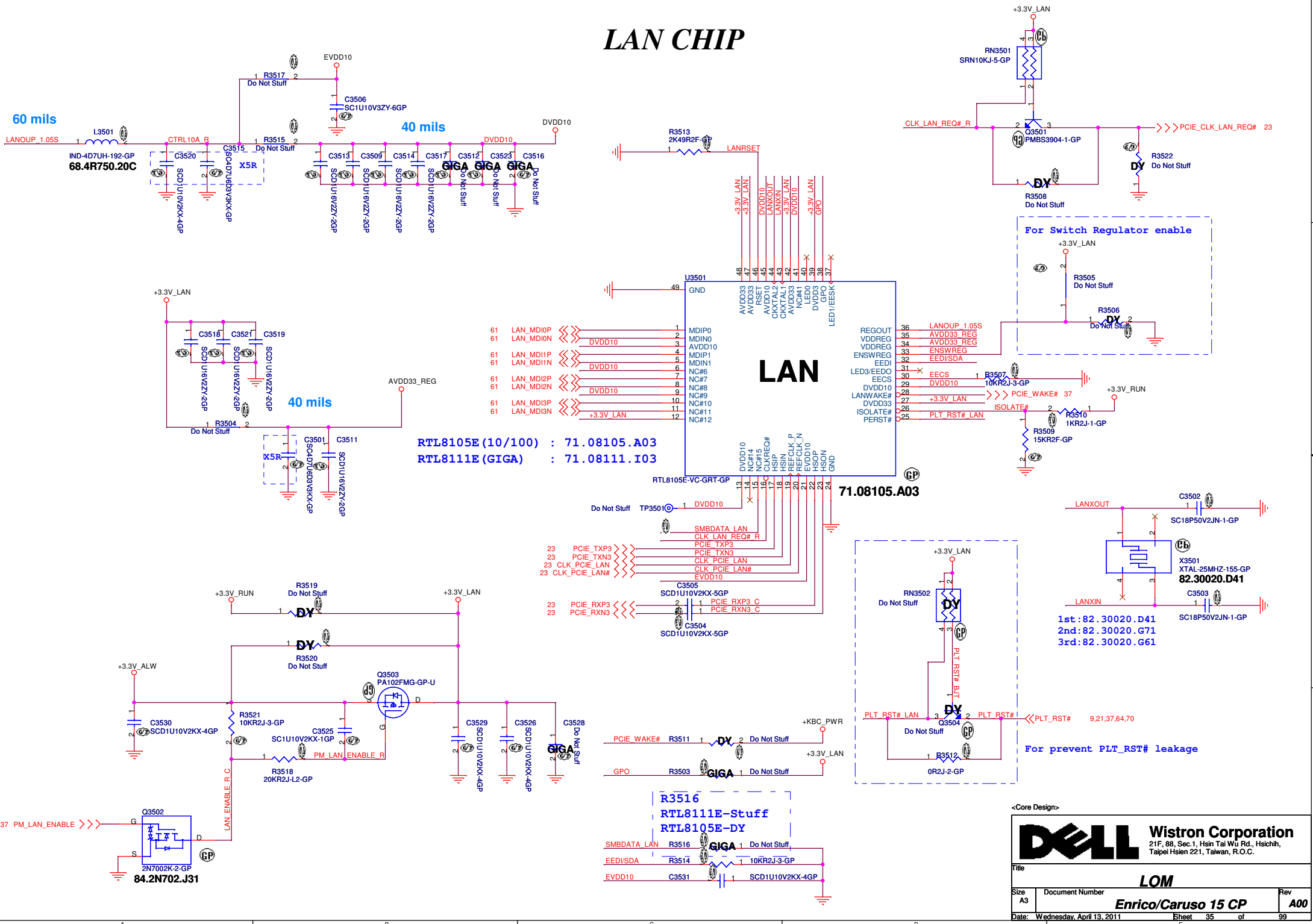
(Blanking)

DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 34 of 99	1

# LAN CHIP



<Core Design>

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

Title: **LOM**

Size: A3	Document Number: <b>Enrico/Caruso 15 CP</b>	Rev: <b>A00</b>
Date: Wednesday, April 13, 2011	Sheet: 35 of 99	

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DV15 CP UMA second

		<b>Wistron Corporation</b> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
<b>Reserved</b>		
Size A3	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>
Date: Friday, April 08, 2011	Sheet 36	of 99



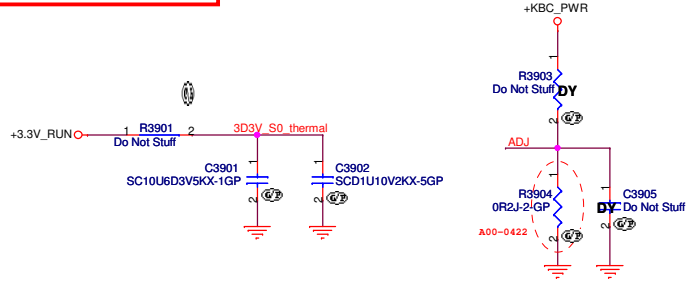
(Blanking)

DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 38	of 99

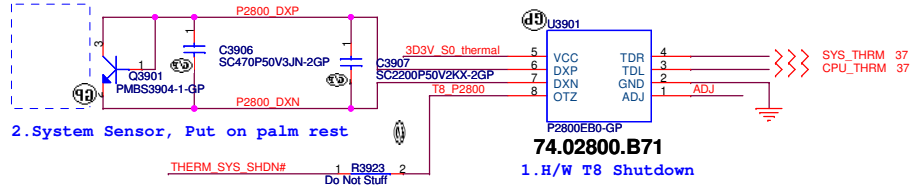
# SSID = Thermal



## Thermal sensor P2800

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

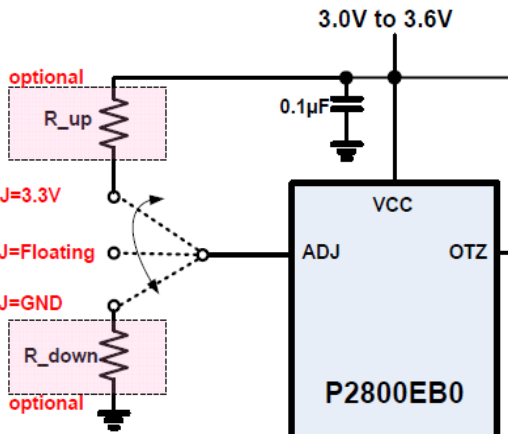
Remove R3908 and  
put C3906 close to Q3901



2. System Sensor, Put on palm rest

THERM\_SYS\_SHDN# 1 R3923 Do Not Stuff

1. H/W T8 Shutdown

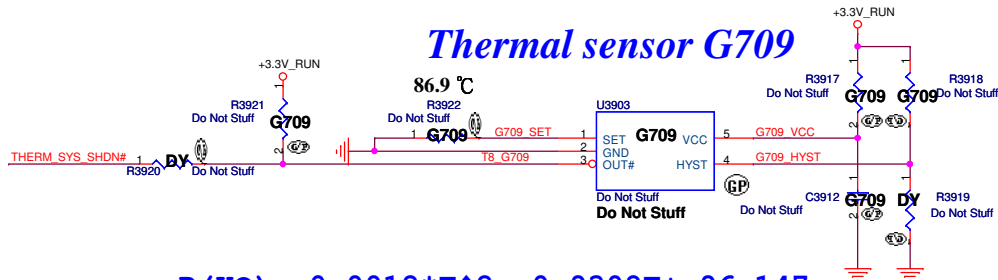


Option 1: OTZ=95°C → ADJ=3.3V

Option 2: OTZ=85°C → ADJ=Floating

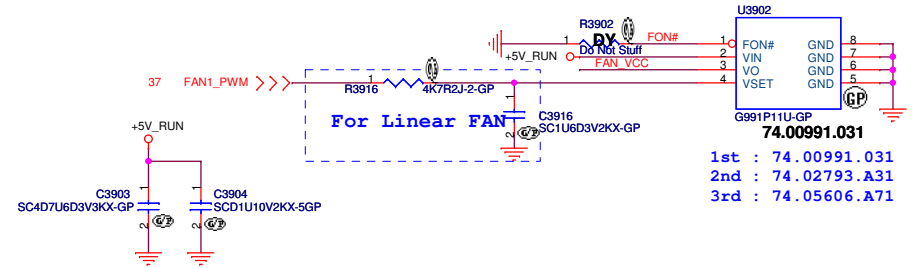
Option 3: OTZ=90°C → ADJ=GND

## Thermal sensor G709



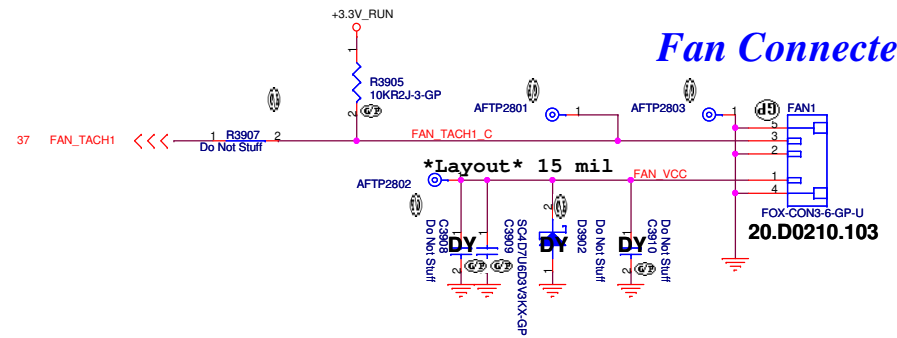
$$R(K\Omega) = 0.0012 * T^2 - 0.9308T + 96.147$$

## Fan controller

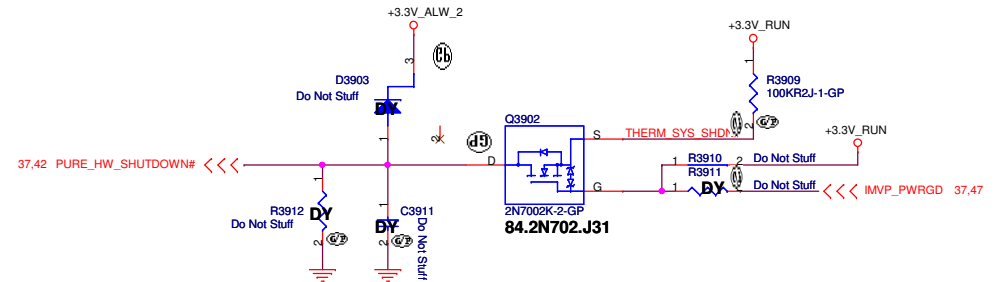


1st : 74.00991.031  
2nd : 74.02793.A31  
3rd : 74.05606.A71

## Fan Connector



\*Layout\* 15 mil



DV15 CP UMA second

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
		Title <b>Thermal sensor P2800</b>	
Size	Document Number		Rev
Custom	<b>Enrico/Caruso 15 CP</b>		A00
Date:	Friday, April 22, 2011	Sheet	39 of 99

(Blanking)

DV15 CP UMA second



**Wistron Corporation**  
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Taipei Hsien 221, Taiwan, R.O.C.

Title

**Reserved**

Size  
A3

Document Number

**Enrico/Caruso 15 CP**

Rev  
**A00**

Date: Friday, April 08, 2011

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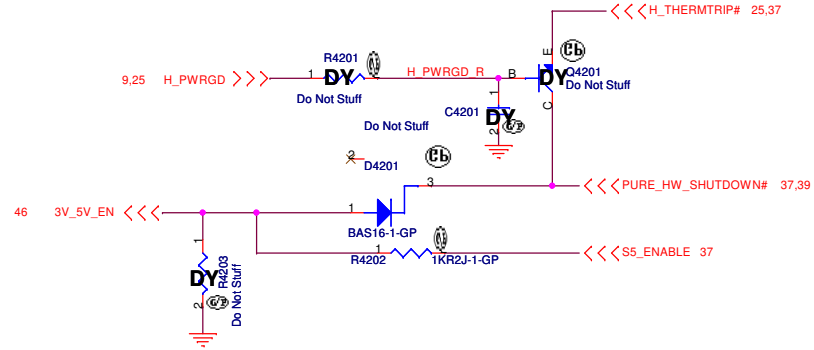
(Blanking)

DV15 CP UMA second

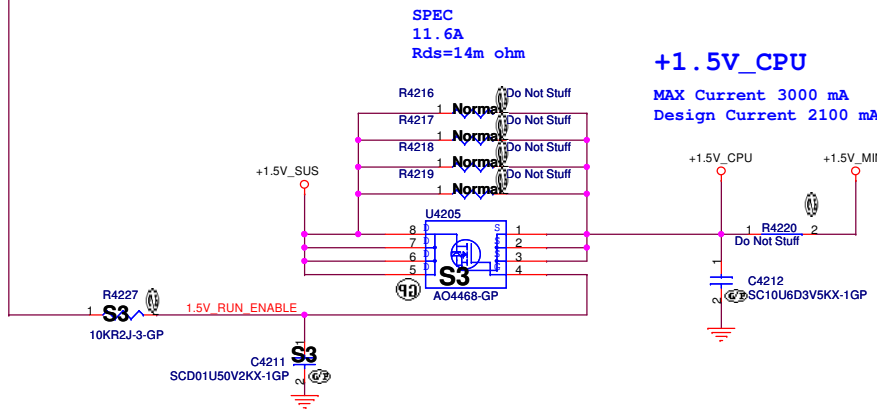
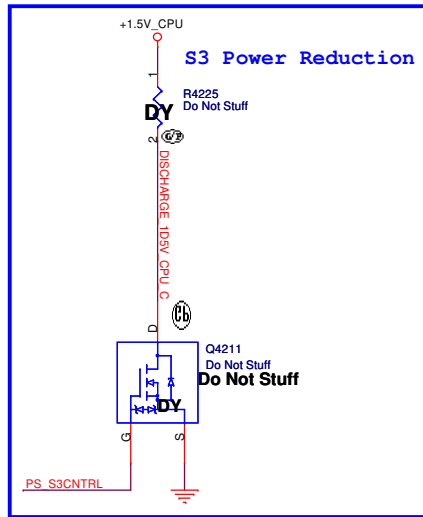
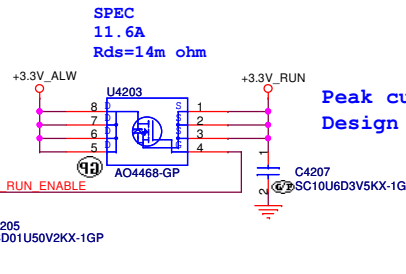
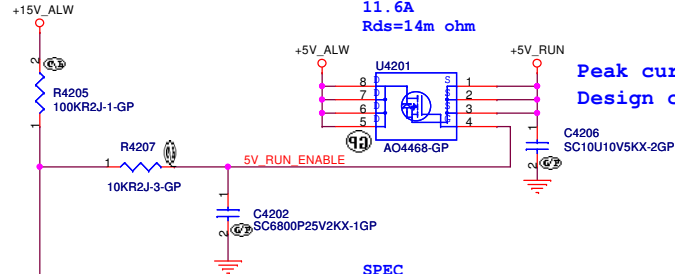
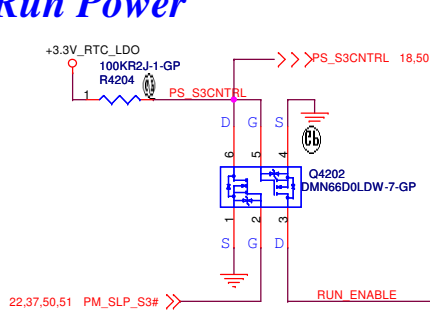


Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 41	of 99

**SSID = Reset . Suspend**



**Run Power**



+1.5V\_CPU Consumption  
Peak current 3A  
+1.5V\_MINI for Mini-Card Consumption  
Peak current 1A  
**Total= 4A**

DV15 CP UMA second

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Title: **Power Plane Enable**

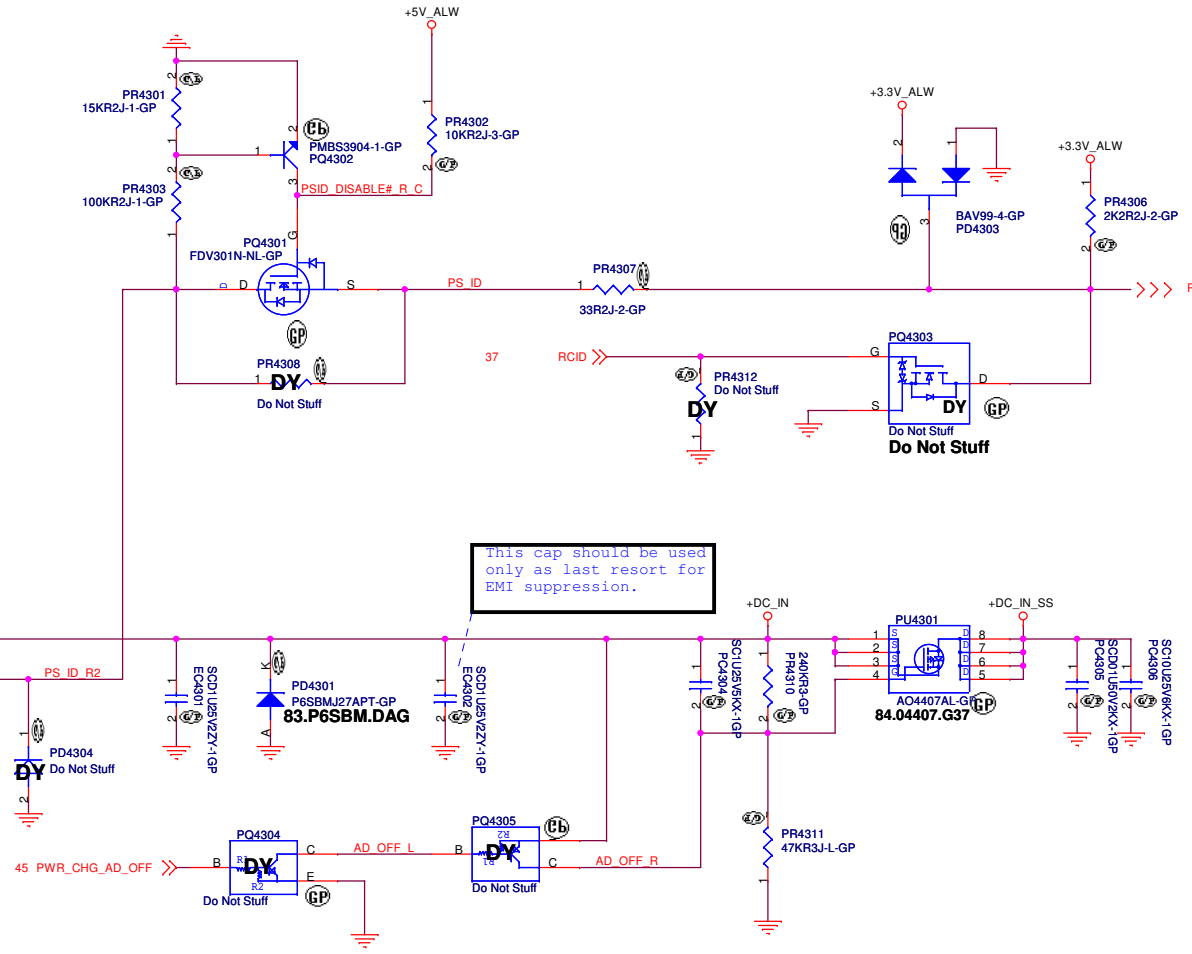
Size: A3	Document Number: Enrico/Caruso 15 CP	Rev: A00
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SSID = PWR.Support


# DCin CONN

remove EL4301 for current rating

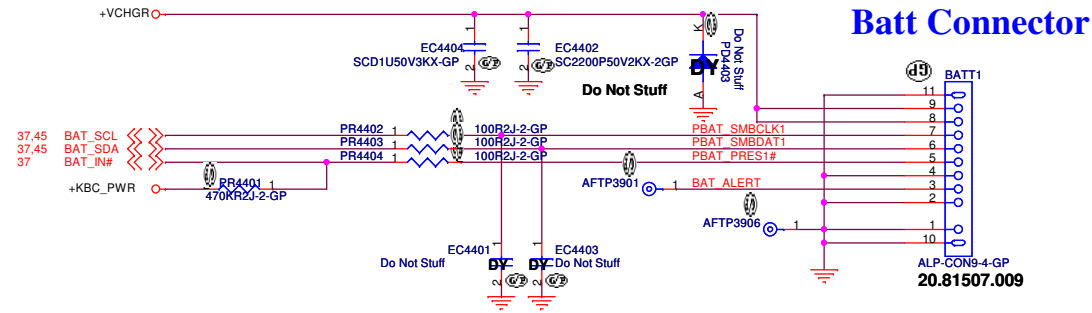
Follow DW50



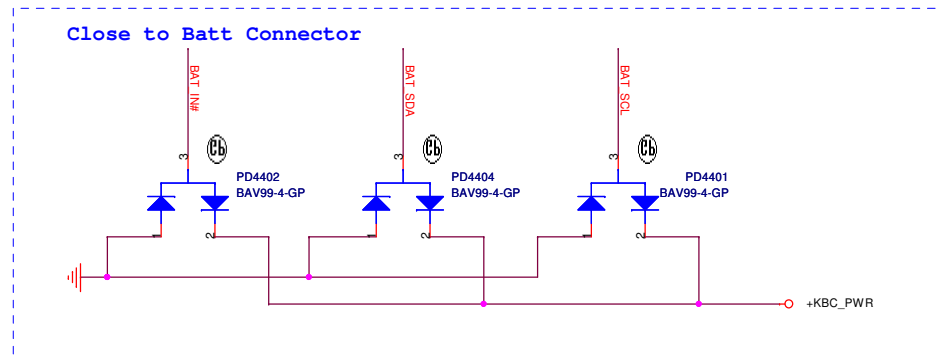
DV14 CP

			<b>Wistron Corporation</b> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title					
<b>DCIN Jack</b>					
Size	Document Number				Rev
A3	<b>Enrico/Caruso 15 CP</b>				<b>A00</b>
Date:	Wednesday, April 13, 2011		Sheet	43	of 99

**SSID = BATT CONN**



For actual location, need to be swap all pin



<Core Design>

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
		Title <b>BATT CONN</b>	
Size A3	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>	
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# SSID = Charger

EE need pull high and net name

9.47 H\_PROCHOT#

+3.3V\_RTC\_LDO

PWR\_CHG\_CMPIN

AD\_IA\_HW 37

CHG\_AGNND

PWR\_CHG\_CMPIN

AD\_IA\_HW2 37

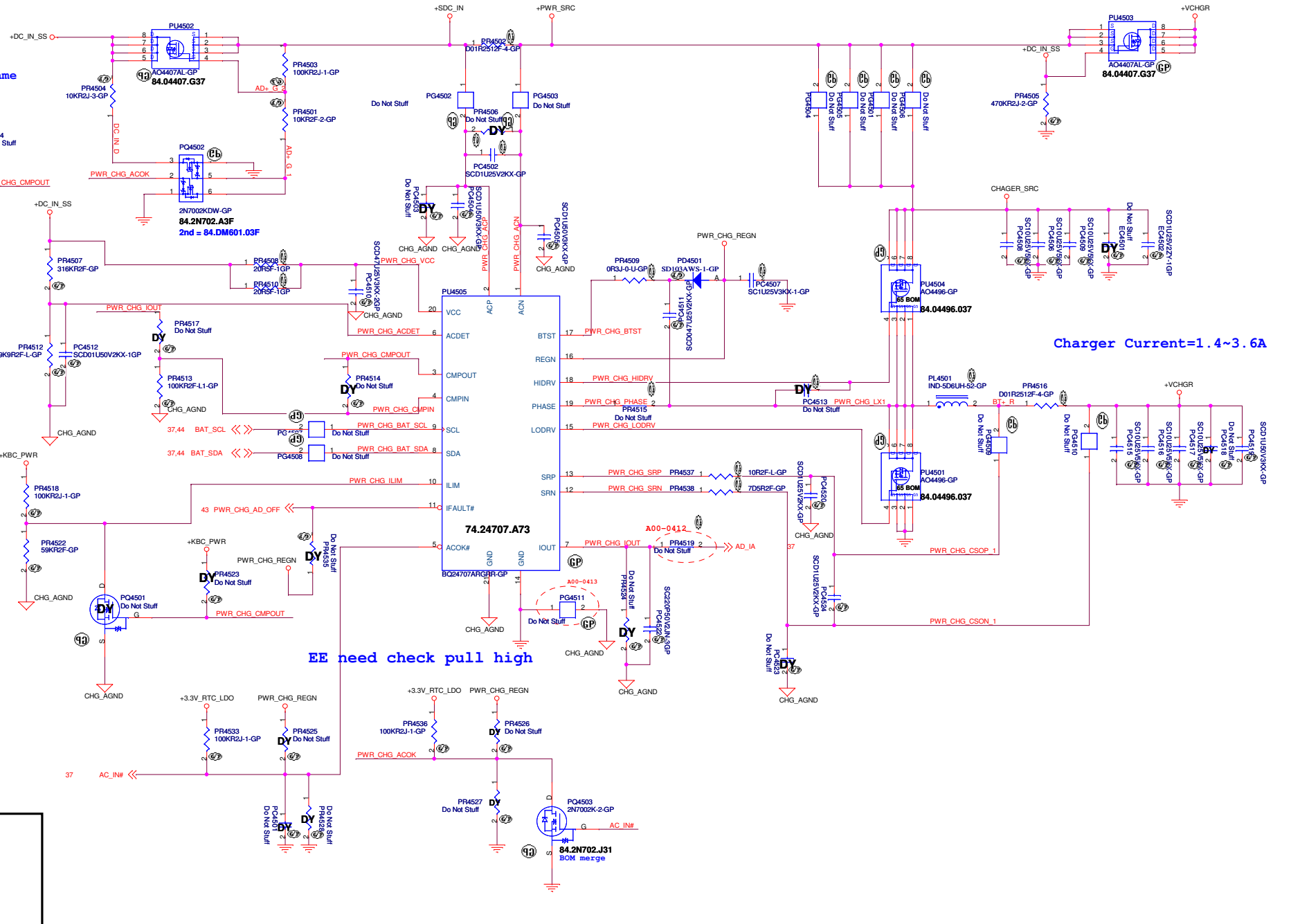
CHG\_AGNND

**ROSA**

Adapter Type	PR4522
65W	24K
90W	33.2K
130W	59K

**EC code only BQ24707**

H_PROCHOT#	AD_IA_HW	AD_IA_HW2
65W	0	0
90W	1	0
130W	0	1



EE need check pull high

Charger Current=1.4~3.6A

<Core Design>

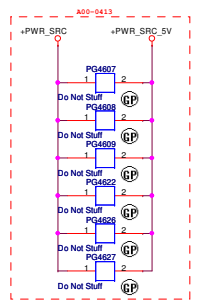
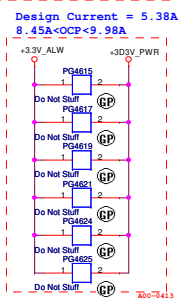
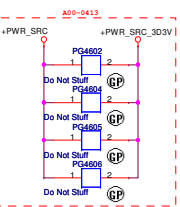
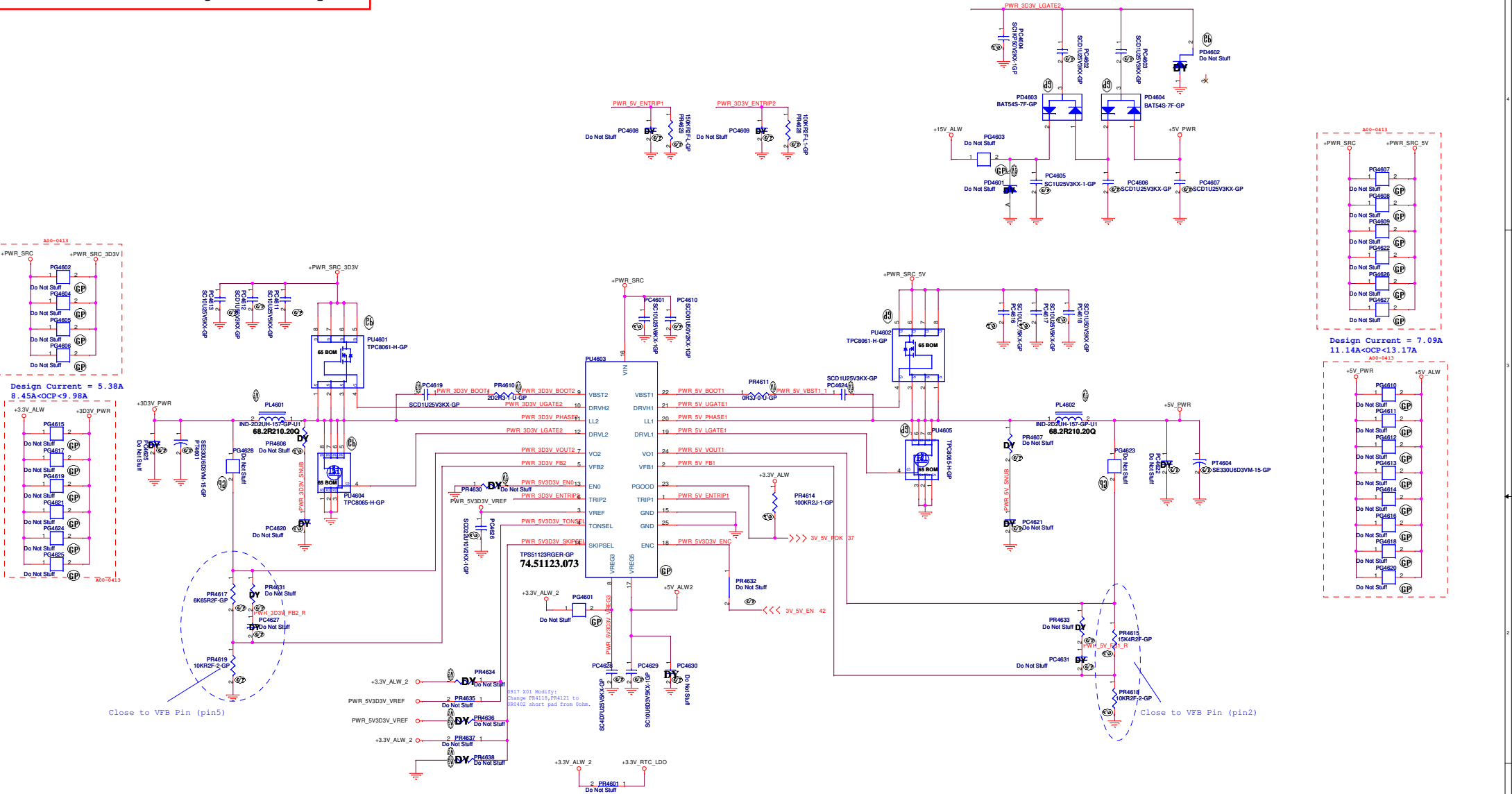
**DELL** Wistron Corporation  
 21F, 88, Sec.1, Hsin Tai Wu Rd., Heichih,  
 Taipei Hsien 221, Taiwan, R.O.C.

Title: **CHARGER BQ24707**

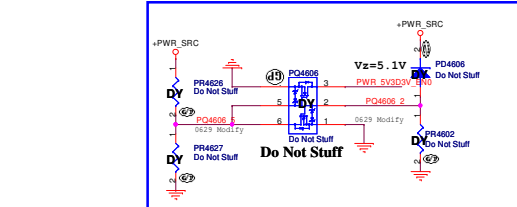
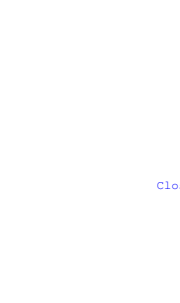
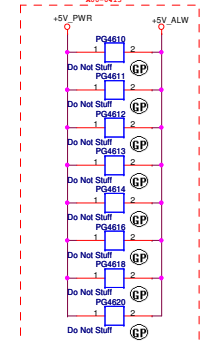
Size: Custom Document Number: **Enrico/Caruso 15 CP** Rev: **A00**

Date: Friday, April 15, 2011 Sheet: 45 of 99

SSID = PWR.Plane.Regulator\_5v3p3v



Design Current = 7.09A  
11.14A < OCP < 13.17A

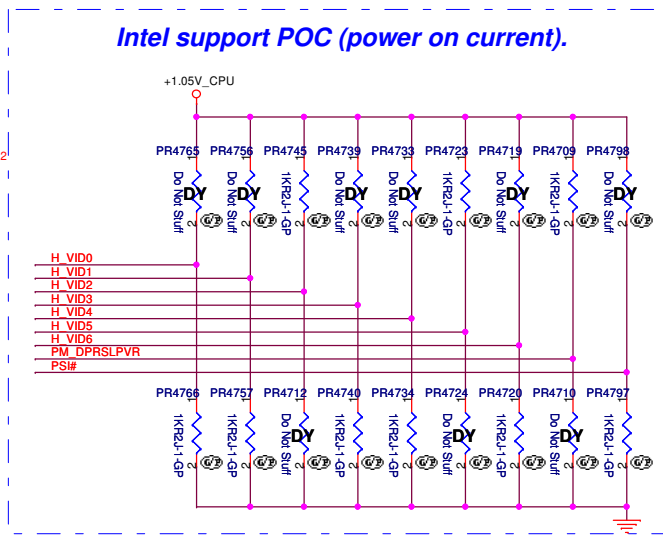
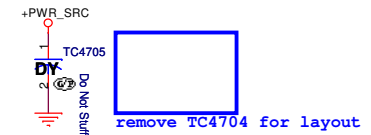
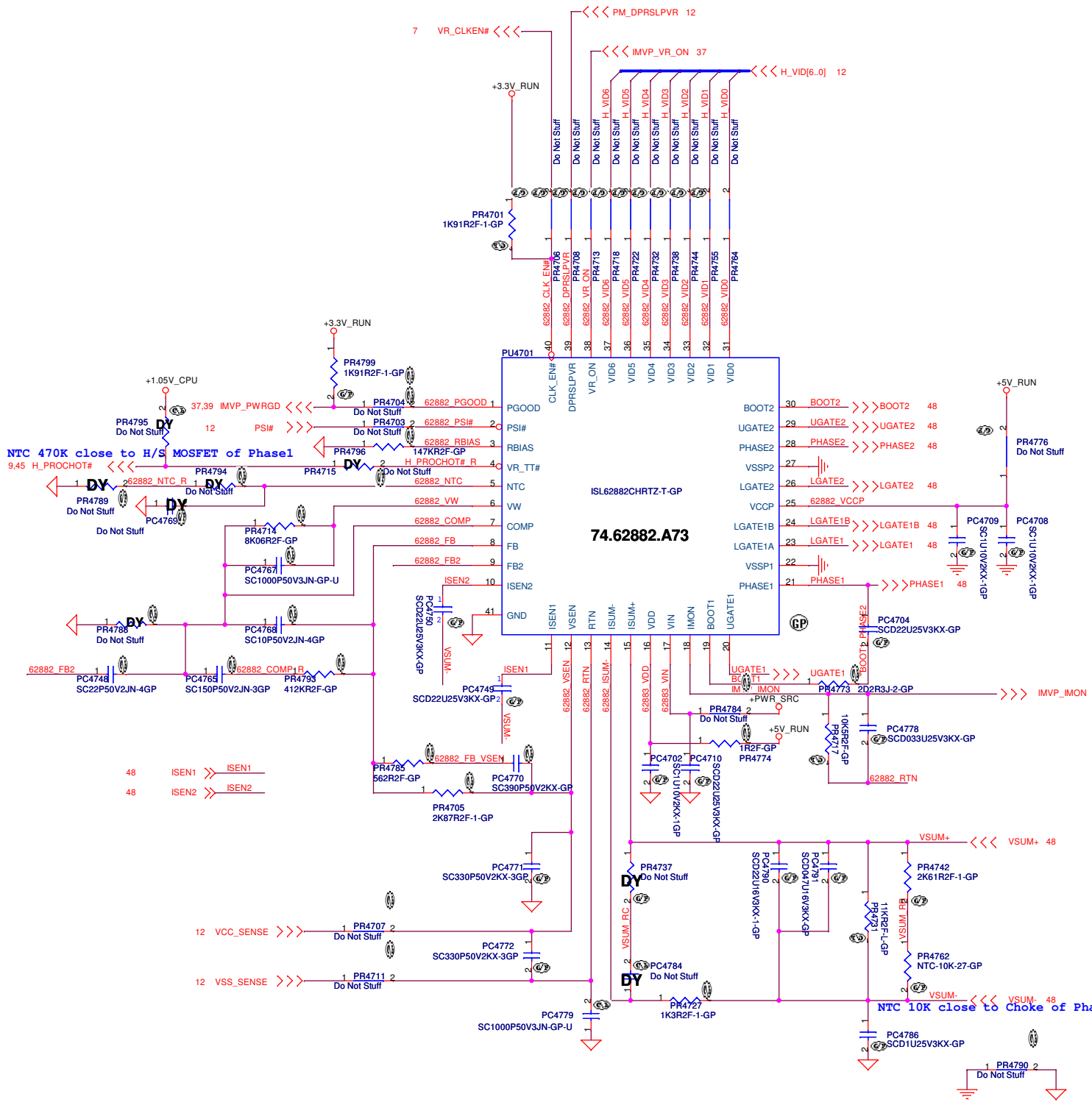


TONSEL	CH1	CH2
GND	200kHz	250kHz
VREF	300kHz	375kHz
VREG3 or VREG5	400kHz	500kHz

SKIPSEL	VREG3 or VREG5	VREF (2V)	GND
Operating Mode	OOA Auto Skip	Auto Skip	PWM only

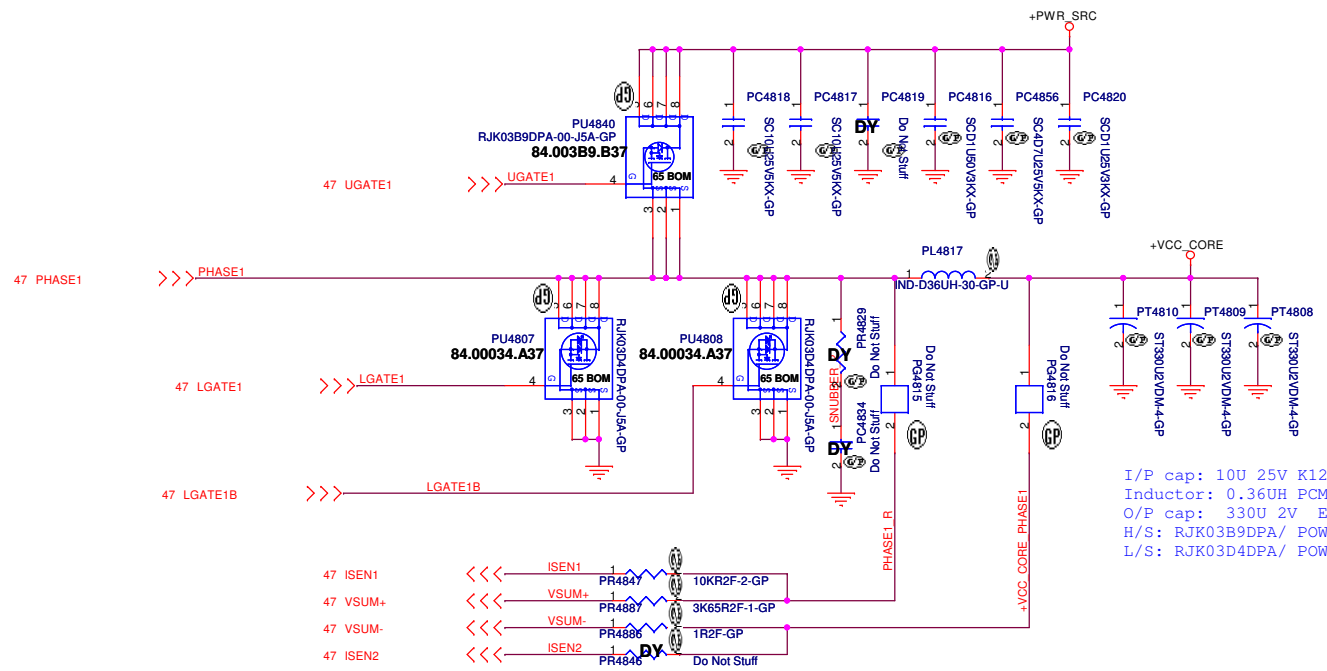
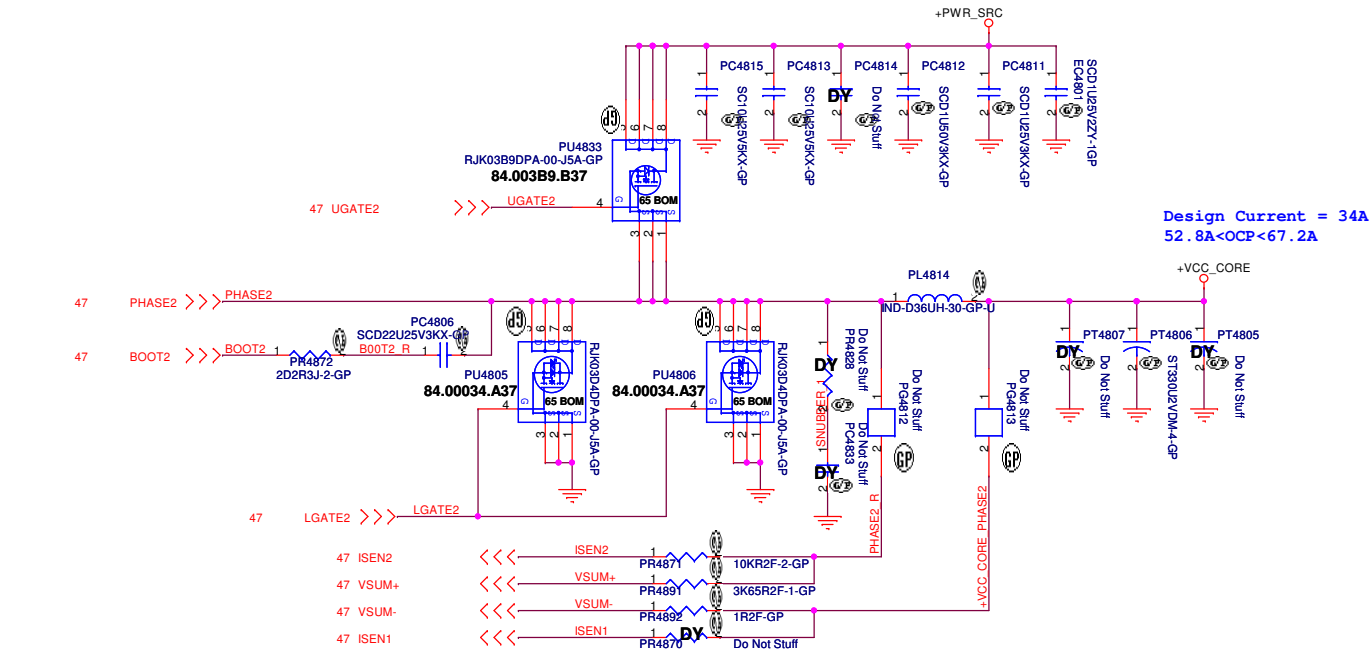
I/P cap: 10U 25V K0805 X5R/ 78.10622.51L  
 Inductor: 2.2U PCMC063T-2R2MH Cyntec 18mohm/20mohm Isat =14Arms 68.2R210.200  
 O/P cap: 330U 6.3V SE330U6D3VM-15-GP 15mOhm 3.16Arms Matsuki Polymer/77.53371.04L  
 O/P cap: 330U 6.3V SE330U6D3VM-15-GP 15mOhm 3.16Arms Matsuki Polymer/77.53371.04L  
 H/S: TPC8061-H / 21mohm/30mOhm84.5Vgs/ 84.08061.037  
 L/S: TPC8065-H / 12mohm/15mOhm84.5Vgs/ 84.08065.037



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Title: **ISL62883 CPU CORE**

Size: A3	Document Number: Enrico/Caruso 15 CP	Rev: A00
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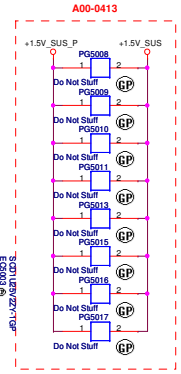
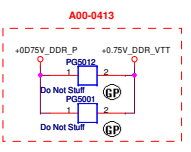
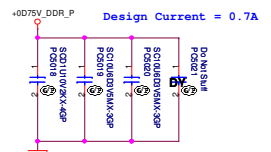
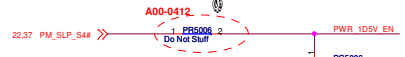
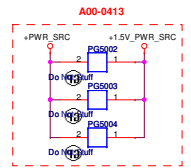
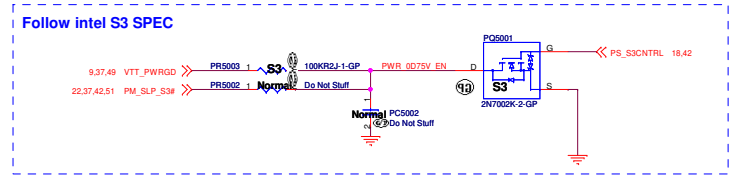
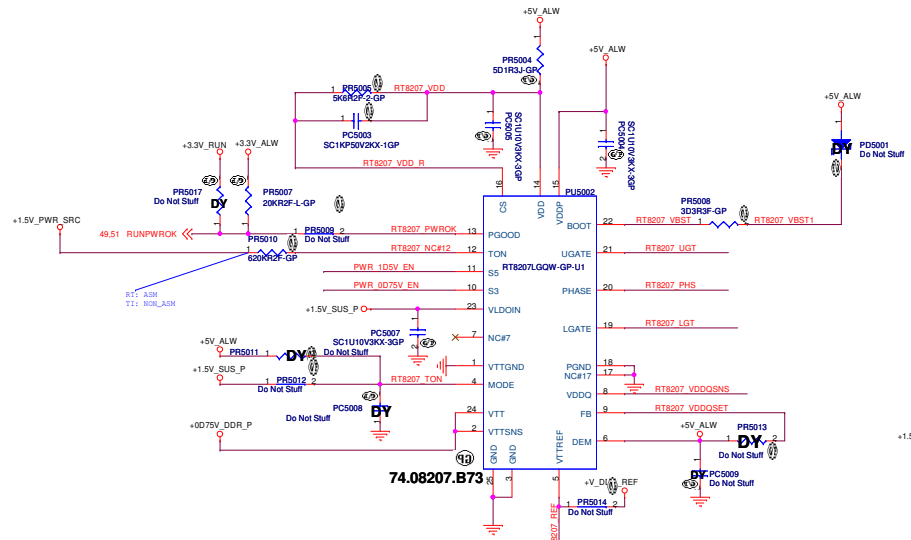
DV15 CP UMA second



Title		
<b>ISL62883 CPU CORE</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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State	S3	S5	VDDR	VITREF	VTT
S0	Hi	Hi	On	On	On
S3	Lo	Hi	On	On	Off (Hi-Z)
S4/S5	Lo	Lo	Off	Off	Off

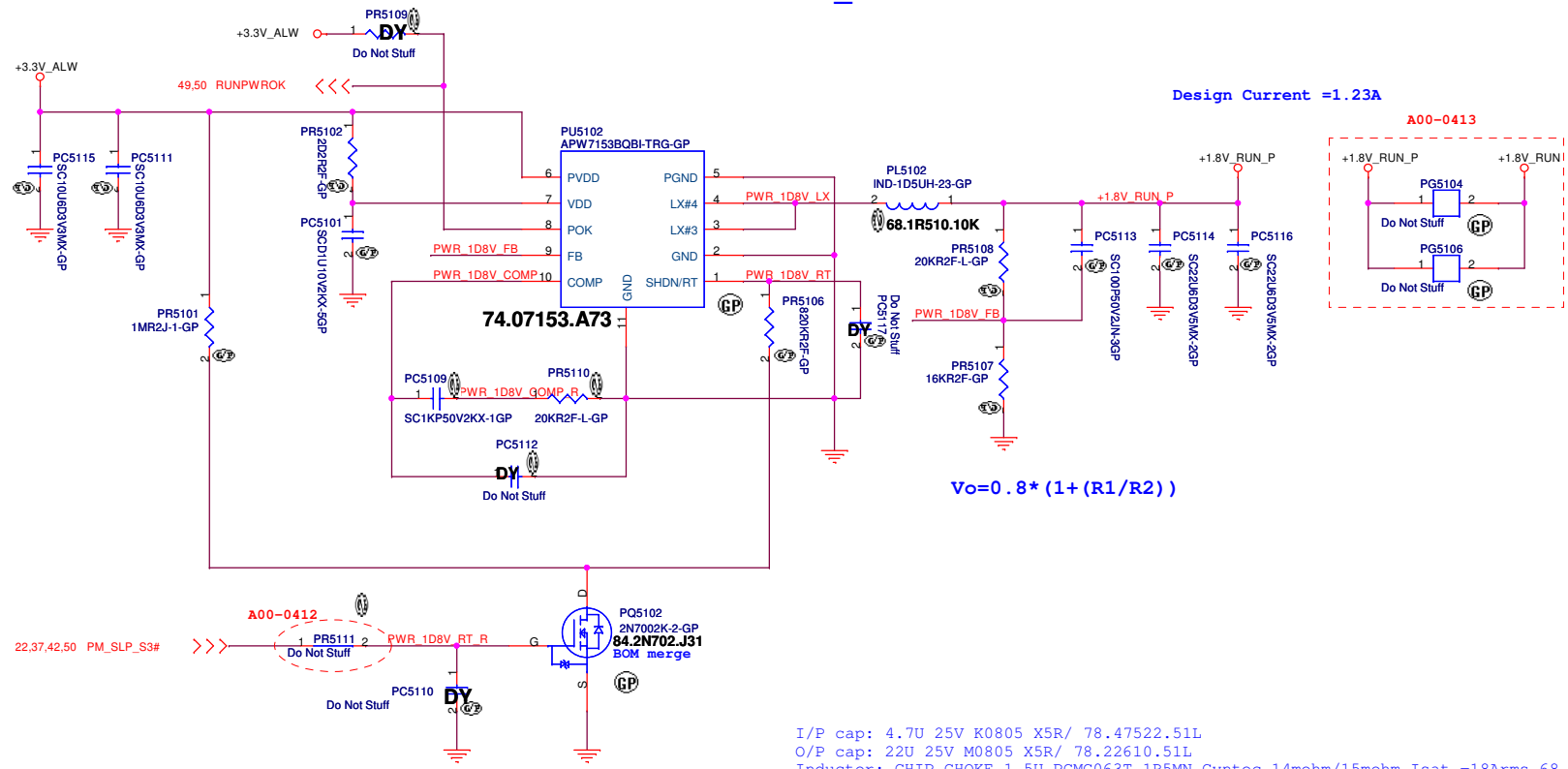
VDDQSET	VDDQ (V)	VITREF and VTT	NOTE
GND	2.5	VDDQSNS/2	DDR
VSIN	1.8	VDDQSNS/2	DDR2
FB Resistors	Adjustable	VDDQSNS/2	1.5 V < VVDDQ < 3 V

I/P cap: 10U 25V K0805 X5R/ 78.10622.51L  
 Inductor: 1.5U PCMC104T-1R5MH Cyntec 3.8mohm/4.2mohm Isat =33Arms 68.1R510.10J  
 O/P cap: CHIP CAP POL 560U 2.5V 6.3\*5.7 15mohm 3.5Arms Matsuki/77.55671.00L  
 H/S: RJK03B9DPA/ POWERPAK-8/10.9mohm/15.1mohm@4.5Vgs/ 84.003B9.B37  
 L/S: RJK03D4DPA/ POWERPAK-8/ 4.6mohm/5.6mohm@4.5Vgs/ 84.00034.A37

Design Current = 7.35A  
 11.55A < OCP < 13.65A

Close to VFB Pin (pin5)

# APW7153B for 1D8V\_RUN



Design Current = 1.23A

A00-0413

$$V_o = 0.8 * (1 + (R1/R2))$$

I/P cap: 4.7U 25V K0805 X5R/ 78.47522.51L  
 O/P cap: 22U 25V M0805 X5R/ 78.22610.51L  
 Inductor: CHIP CHOKE 1.5U PCMC063T-1R5MN Cynotec 14mohm/15mohm Isat =18Arms 68.1R510.10K

INS 100 NONE SURGE

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

Title: **APW7153B for 1D8V RUN**

Size A3	Document Number	Rev
	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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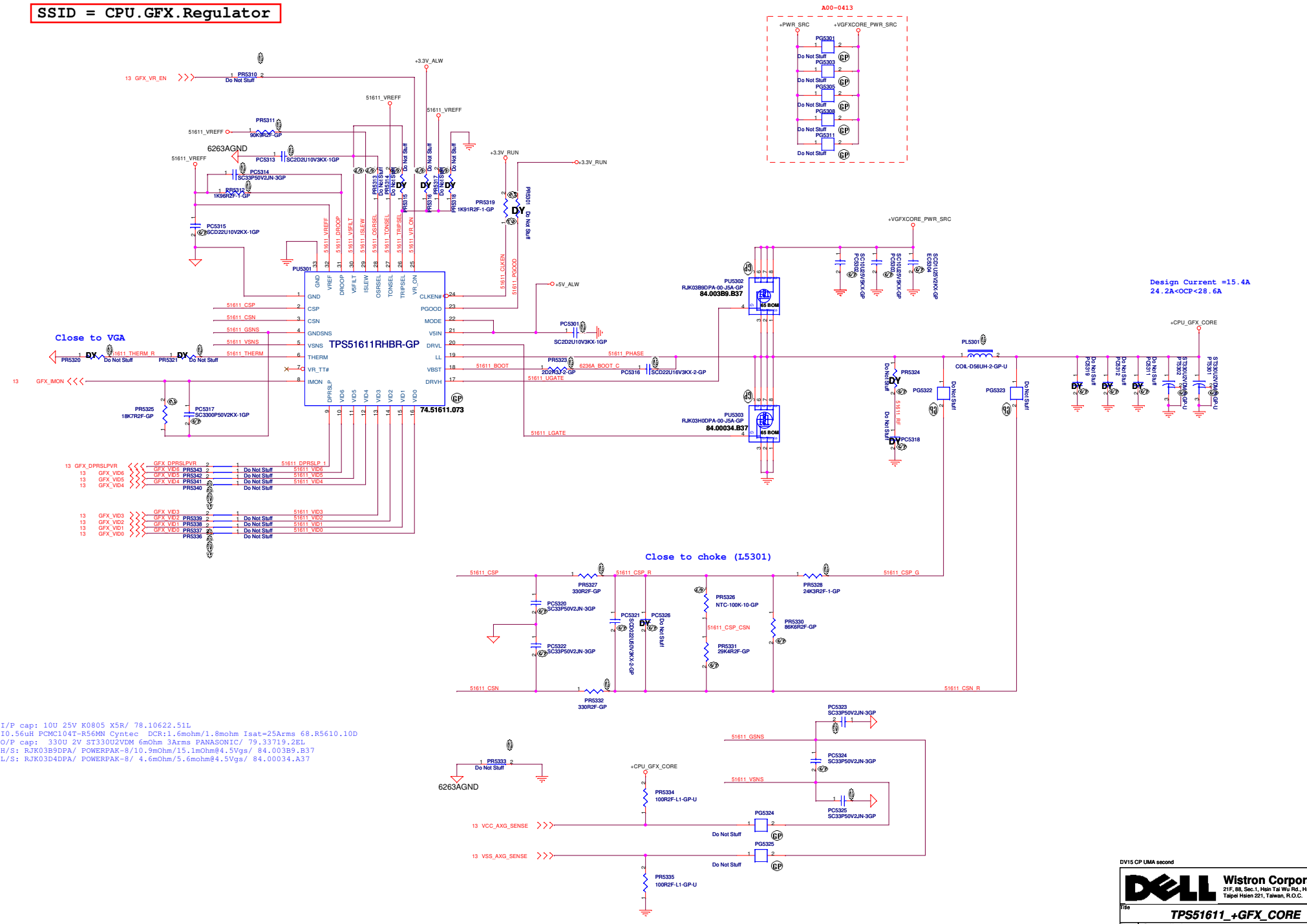
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DV15 CP UMA second



Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 52 of 99	1

**SSID = CPU.GFX.Regulator**



Design Current =15.4A  
24.2A<OCP<28.6A

Close to VGA

Close to choke (L5301)

I/P cap: 10U 25V K0805 X5R/ 78.10622.51L  
 I/O 5.6uH PCMC104T-R56MM Cyntec DCR:1.6mohm/1.8mohm Isat=25Arms 68.R5610.10D  
 O/P cap: 330U 2V ST330U2VDM 6mOhm 3Arms PANASONIC/ 79.33719.2EL  
 H/S: RJK03B9DPA/ POWERPAK-8/10.9mOhm/15.1mOhm@4.5Vgs/ 84.003B9.B37  
 L/S: RJK03D4DPA/ POWERPAK-8/ 4.6mOhm/5.6mohm@4.5Vgs/ 84.00034.A37

DV16 CP UMA second

**DELL** Wistron Corporation  
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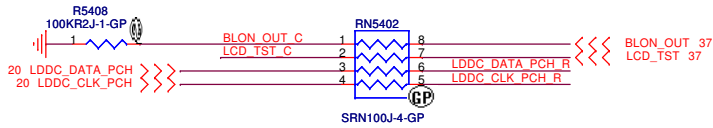
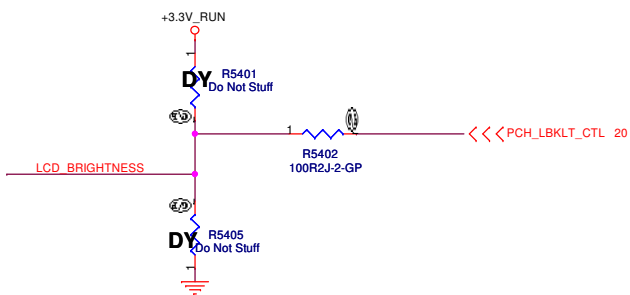
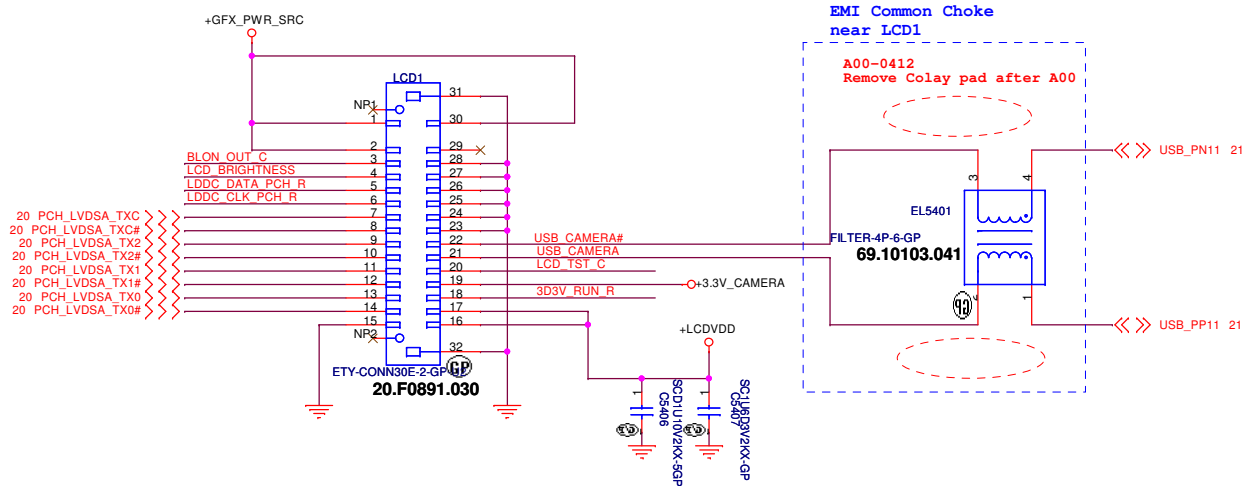
File: **TPS51611 +GFX\_CORE**

Size: A2 Document Number: **Enrico/Caruso 15 CP** Rev: **A00**

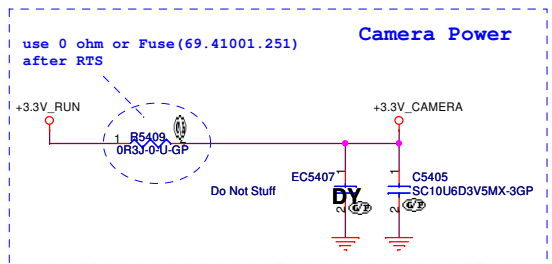
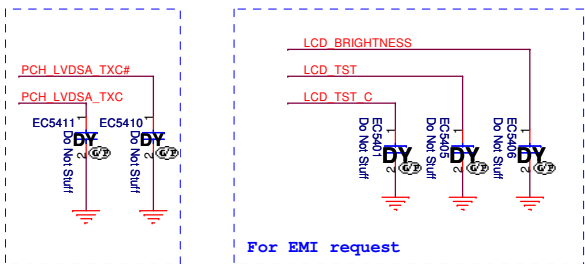
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**SSID = VIDEO**

**LVDS CONNECTOR**

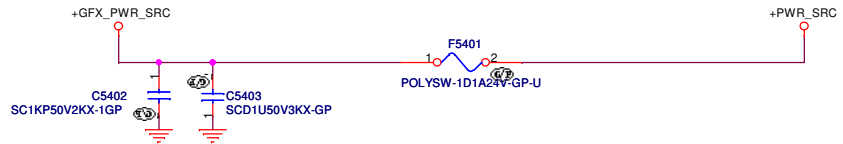


Close to LVDS connector



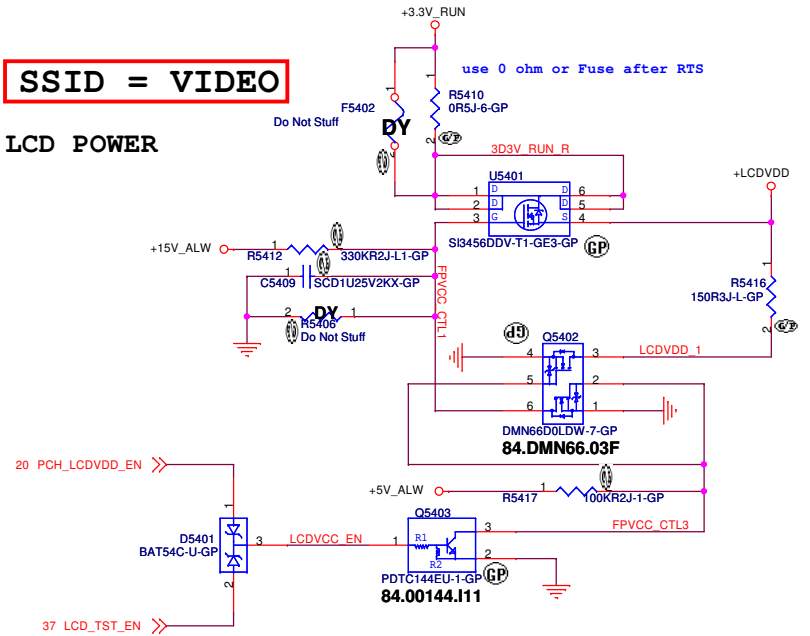
**SSID = Inverter**

**INVERTER POWER**



**SSID = VIDEO**

**LCD POWER**

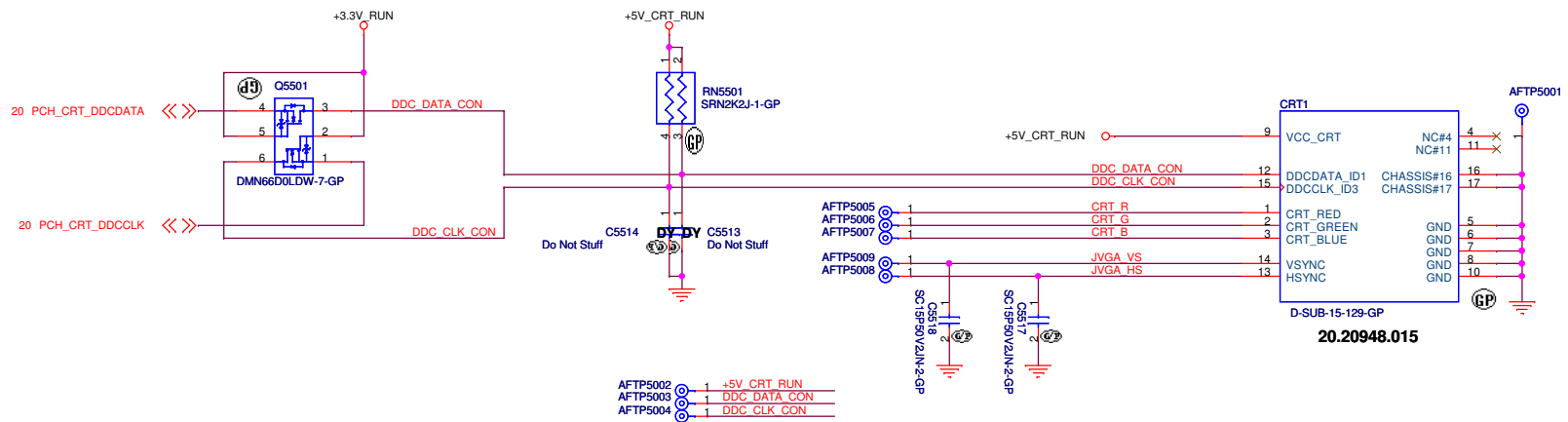


DV15 CP UMA second



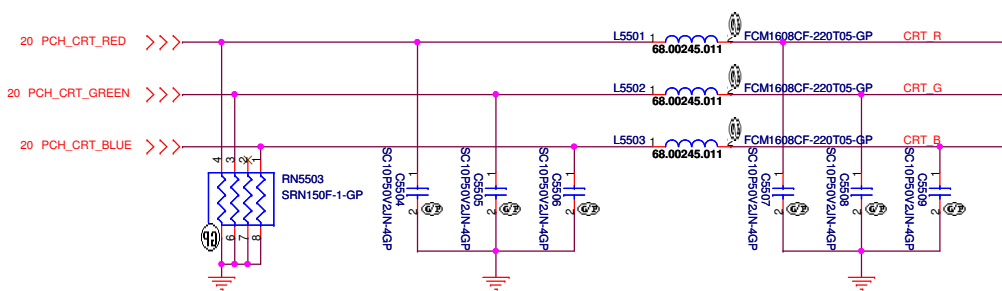
LCD/Inverter Connector		
Size A3	Document Number	Rev
	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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**SSID = VIDEO**

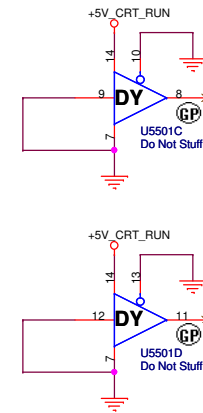
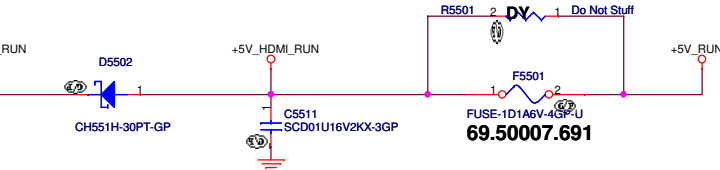
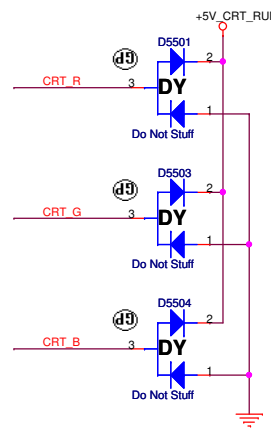
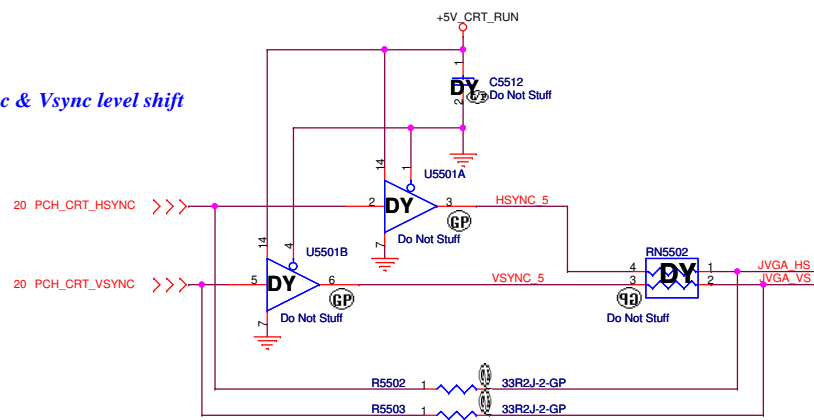


**Layout Note:**


- \*Pi-filter & 150 Ohm pull-down resistors should be as close as to CRT CONN.
- \* RGB signal will hit 75 Ohm first, then pi-filter, finally CRT CONN.



**Hsync & Vsync level shift**



DV15 CP UMA second

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Title		
<b>CRT Connector</b>		
Size	Document Number	Rev
	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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(Blanking)

DV15 CP UMA second



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

Title

**Reserved**

Size  
A3

Document Number

**Enrico/Caruso 15 CP**

Rev  
**A00**

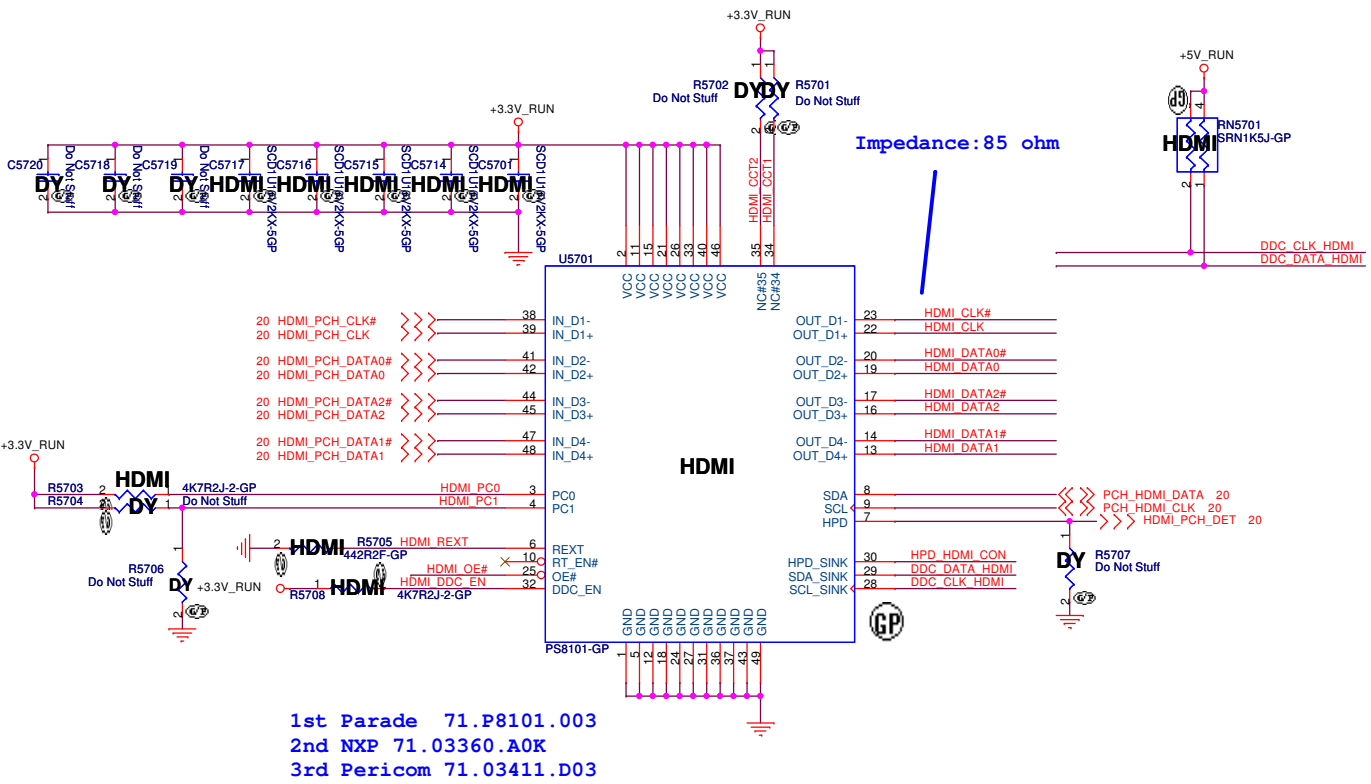
Date: Friday, April 08, 2011

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**SSID = VIDEO**

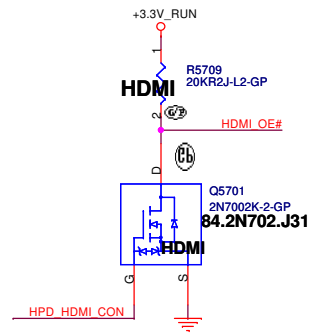
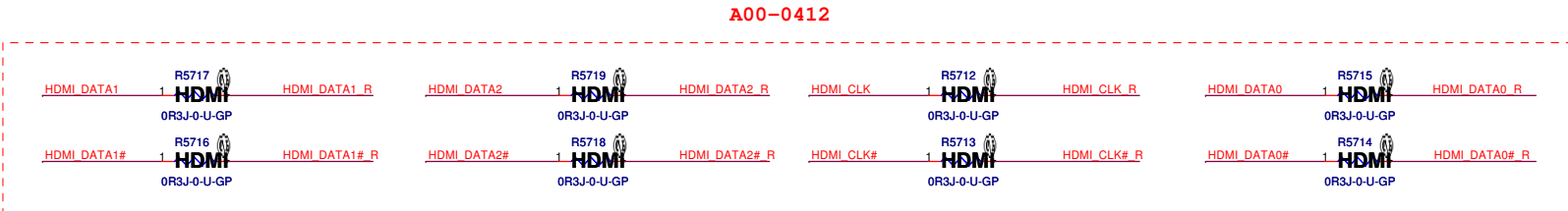
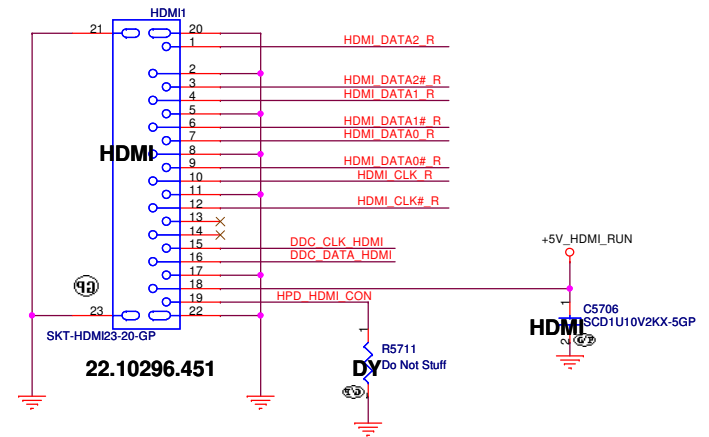
# HDMI Level Shifter & CONNECTOR



HDMI level shifter BOM controll table

		PS8101	PTN3360B	PI3VDP411LSR
<b>PIN3</b>	<b>R5703</b>	Stuff 4.7K_5%	<b>DY</b>	<b>DY</b>
<b>PIN4</b>	<b>R5704</b>	<b>DY</b>	<b>DY</b>	<b>DY</b>
	<b>R5706</b>	<b>DY</b>	<b>DY</b>	Stuff 200K_5%
<b>PIN6</b>	<b>R5705</b>	Stuff 499_1%	Stuff 10K_1%	<b>DY</b>
<b>PIN10</b>		<b>NC</b>	<b>NC</b>	<b>NC</b>

HDMI CONN



DV15 CP UMA second

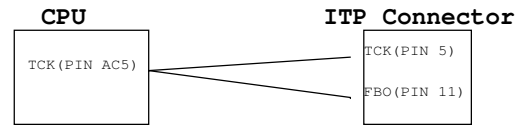
**Wistron Corporation**  
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Taipei Hsien 221, Taiwan, R.O.C.

<b>HDMI Level Shift/ Connector</b>		
Title		
Size A3	Document Number	Rev
	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Wednesday, April 13, 2011	Sheet 57	of 99

SSID = User.Interface

## ITP Connector

H\_CPURST# use pull-up Resistor close  
ITP connector 500 mil ( max ),  
others place near CPU side.



REMOVE FAN CONNECTOR FOR HR THERMAL SOLUTION 7/12

DV15 CP UMA second

**DELL** Wistron Corporation  
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Taipei Hsien 221, Taiwan, R.O.C.

Title

**ITP Connector**

Size  
A3

Document Number

**Enrico/Caruso 15 CP**

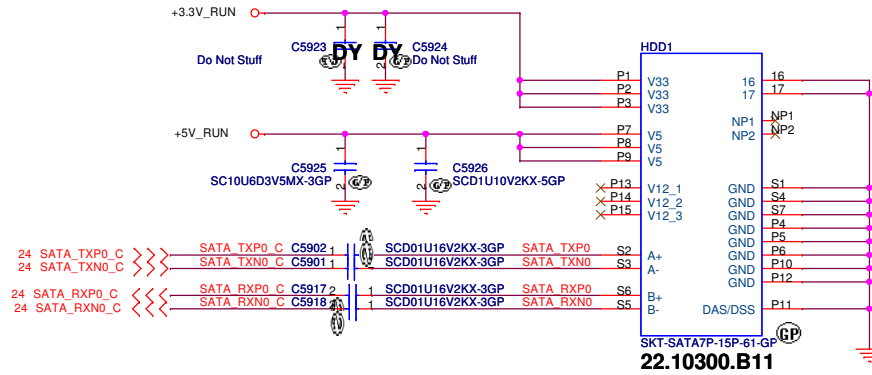
Rev

**A00**

Date: Friday, April 08, 2011

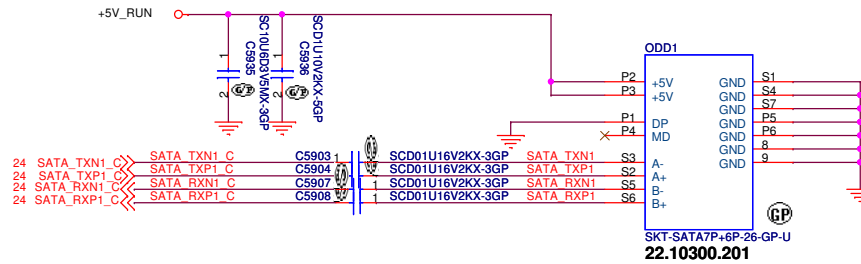
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# SATA HDD Connector



# SATA ODD Connector

SATA\_RX- and SATA\_RX+ Trace  
Length match within 20 mil

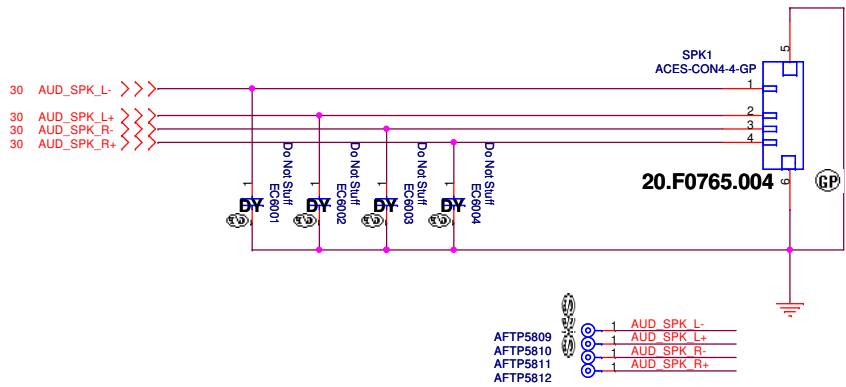


DV15 CP UMA second

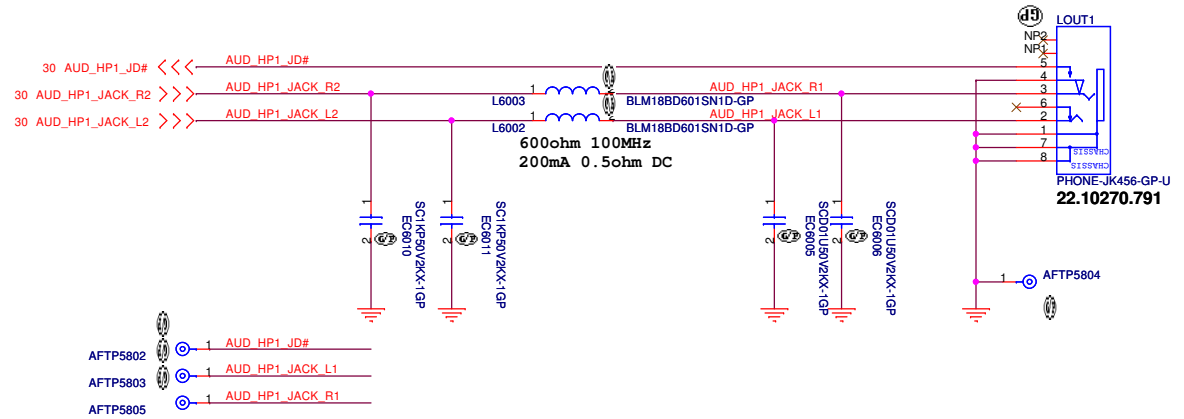


**SSID = AUDIO**

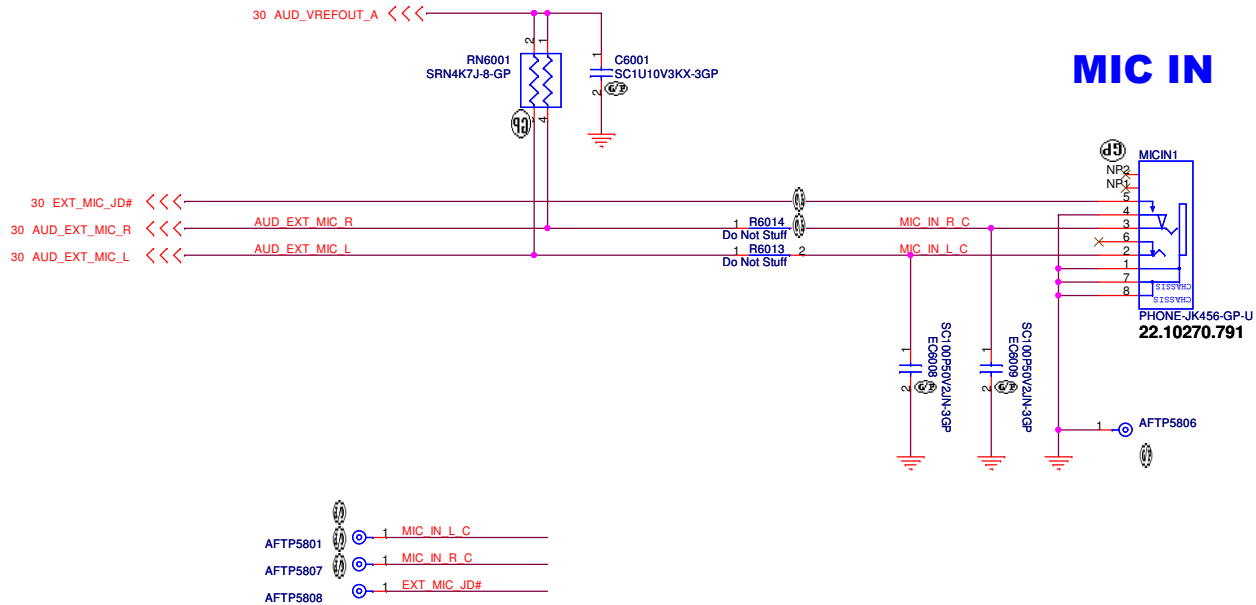
## Speaker Connector



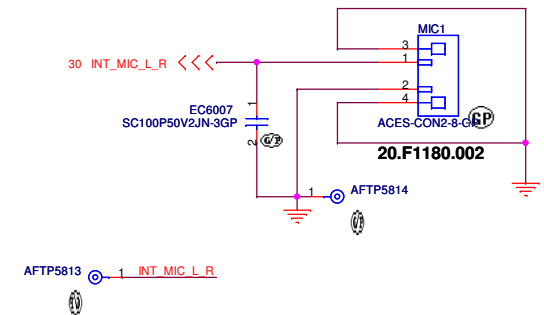
## LINE1 OUT



## MIC IN



## Internal Microphone



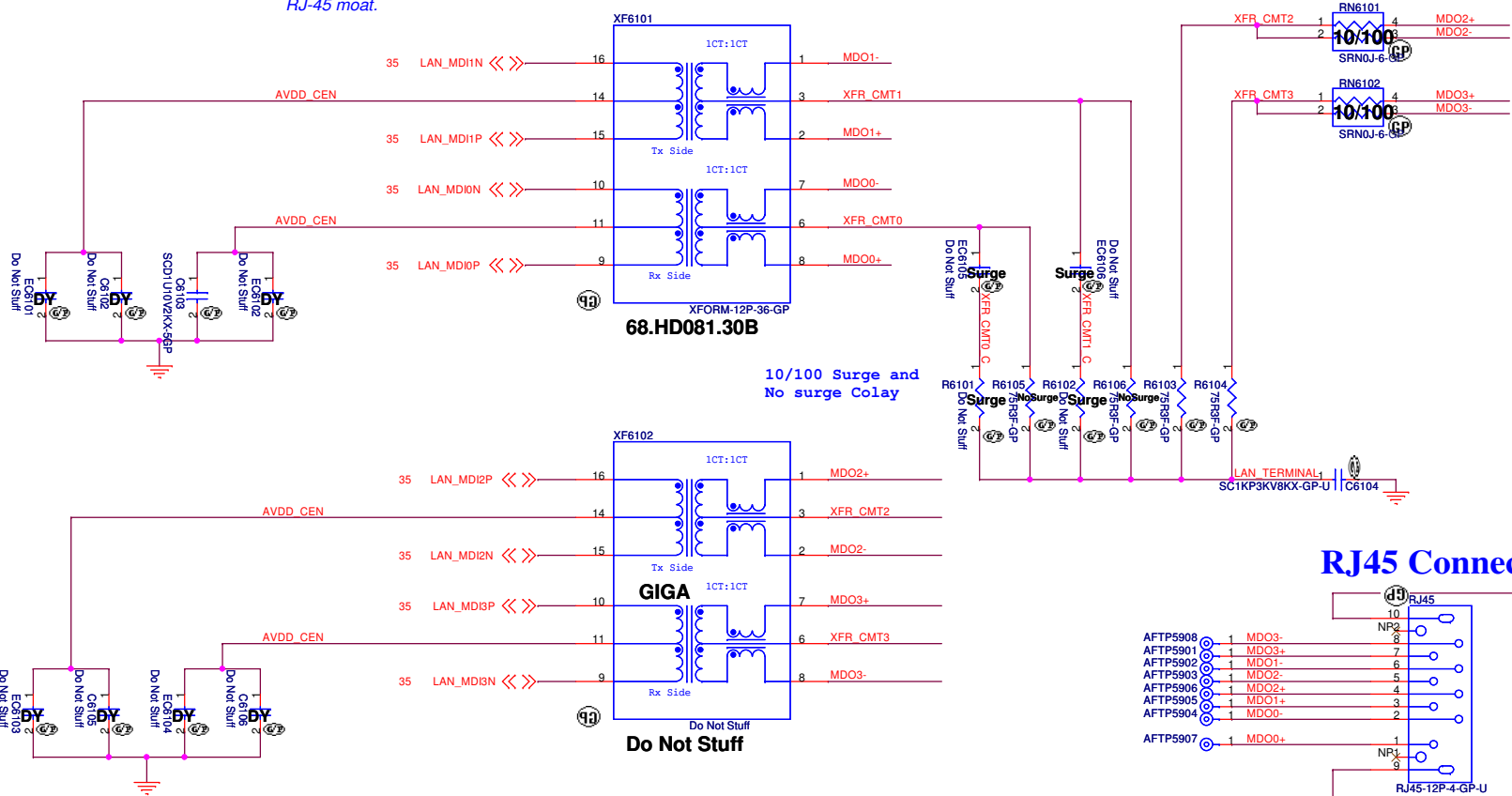
DV15 CP UMA second

<b>DELL</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>Audio Jack</b>			
Size	Document Number	Rev	
A3	<b>Enrico/Caruso 15 CP</b>	A00	
Date: Wednesday, April 13, 2011		Sheet 60	of 99

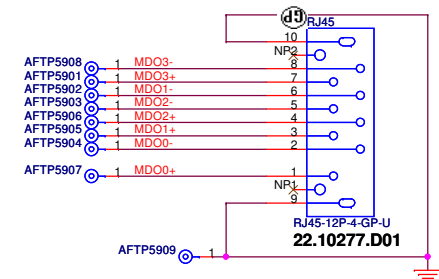
2009-10-1 Change MDI1+ (XF601.16) to MDI1+ (XF601.15)  
 Change MDI1- (XF601.15) to MDI1- (XF601.16)  
 Change MDI0+ (XF601.10) to MDI0+ (XF601.9)  
 Change MDI0- (XF601.9) to MDI0- (XF601.10)  
 Change RJ45-3 (XF601.1) to RJ45-3 (XF601.2)  
 Change RJ45-6 (XF601.2) to RJ45-6 (XF601.1)  
 Change RJ45-1 (XF601.7) to RJ45-1 (XF601.8)  
 Change RJ45-2 (XF601.8) to RJ45-2 (XF601.7)

- 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.

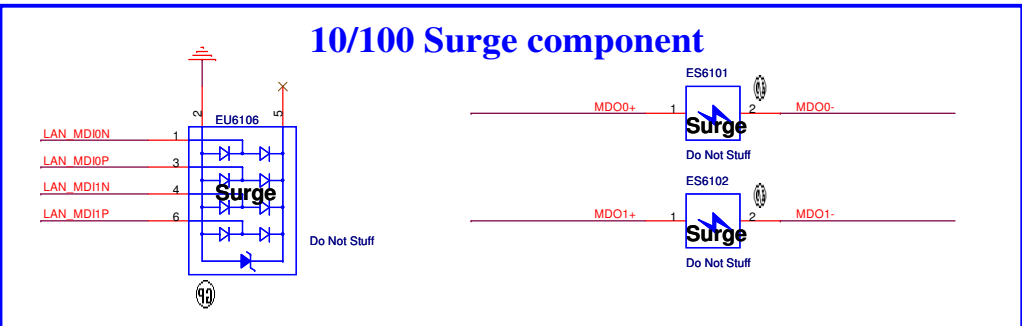
### 10/100M Lan Transformer



### RJ45 Connector

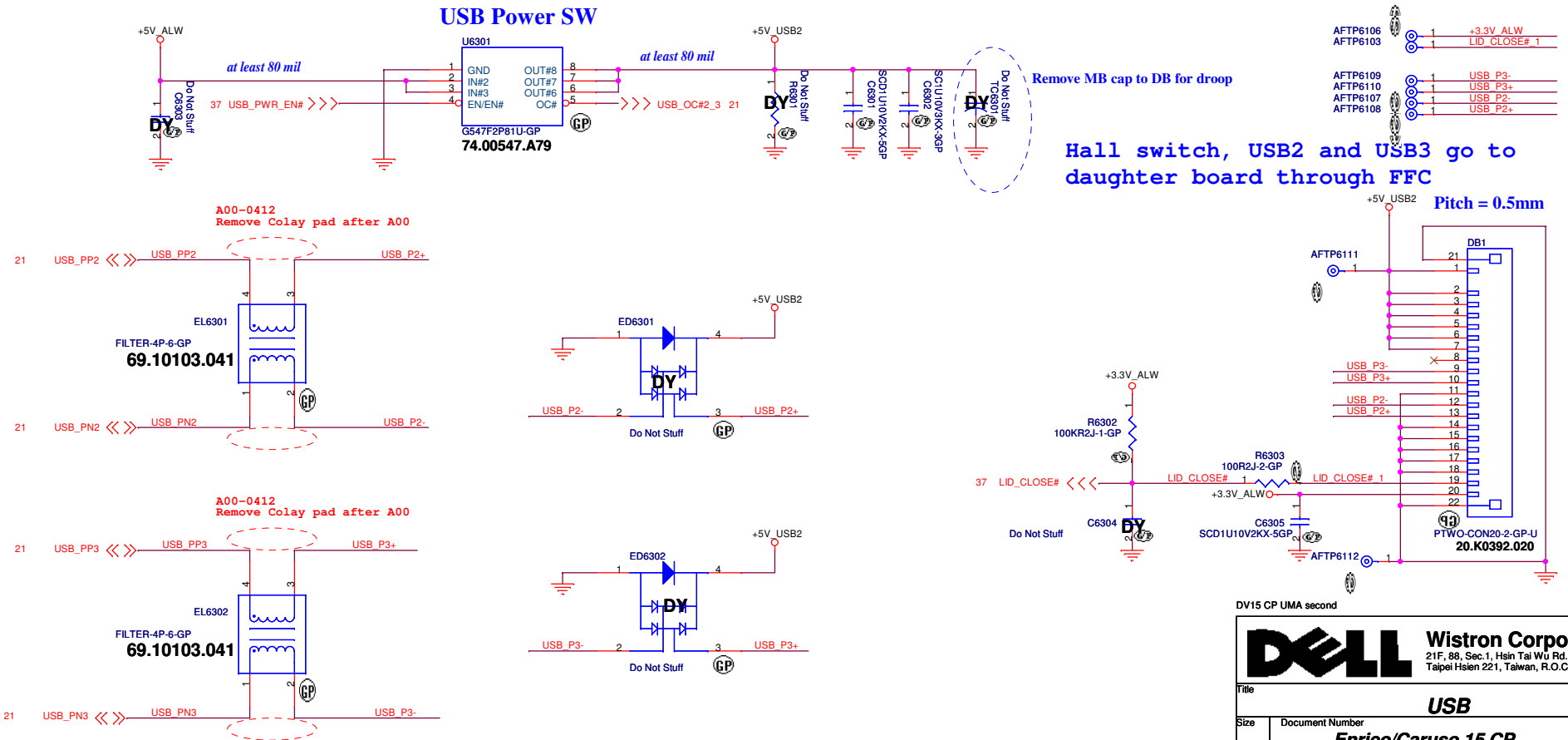
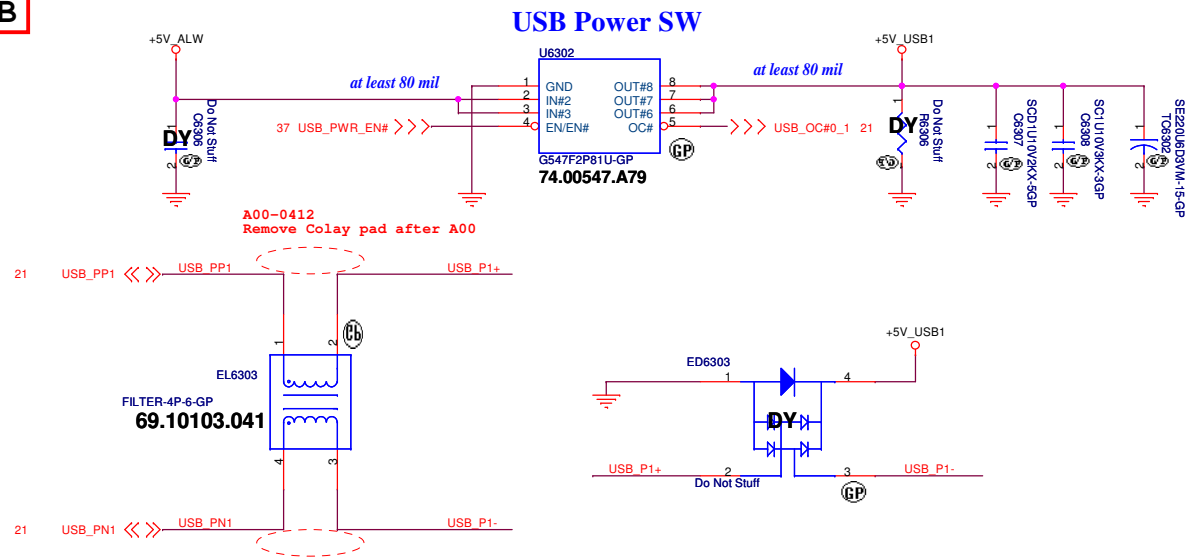


### 10/100 Surge component





**SSID = USB**



DV15 CP UMA second

**DELL** Wistron Corporation  
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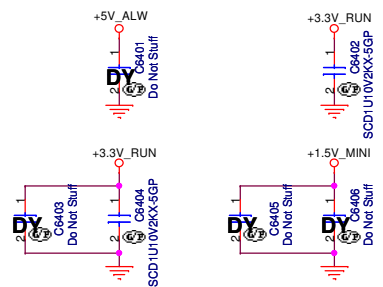
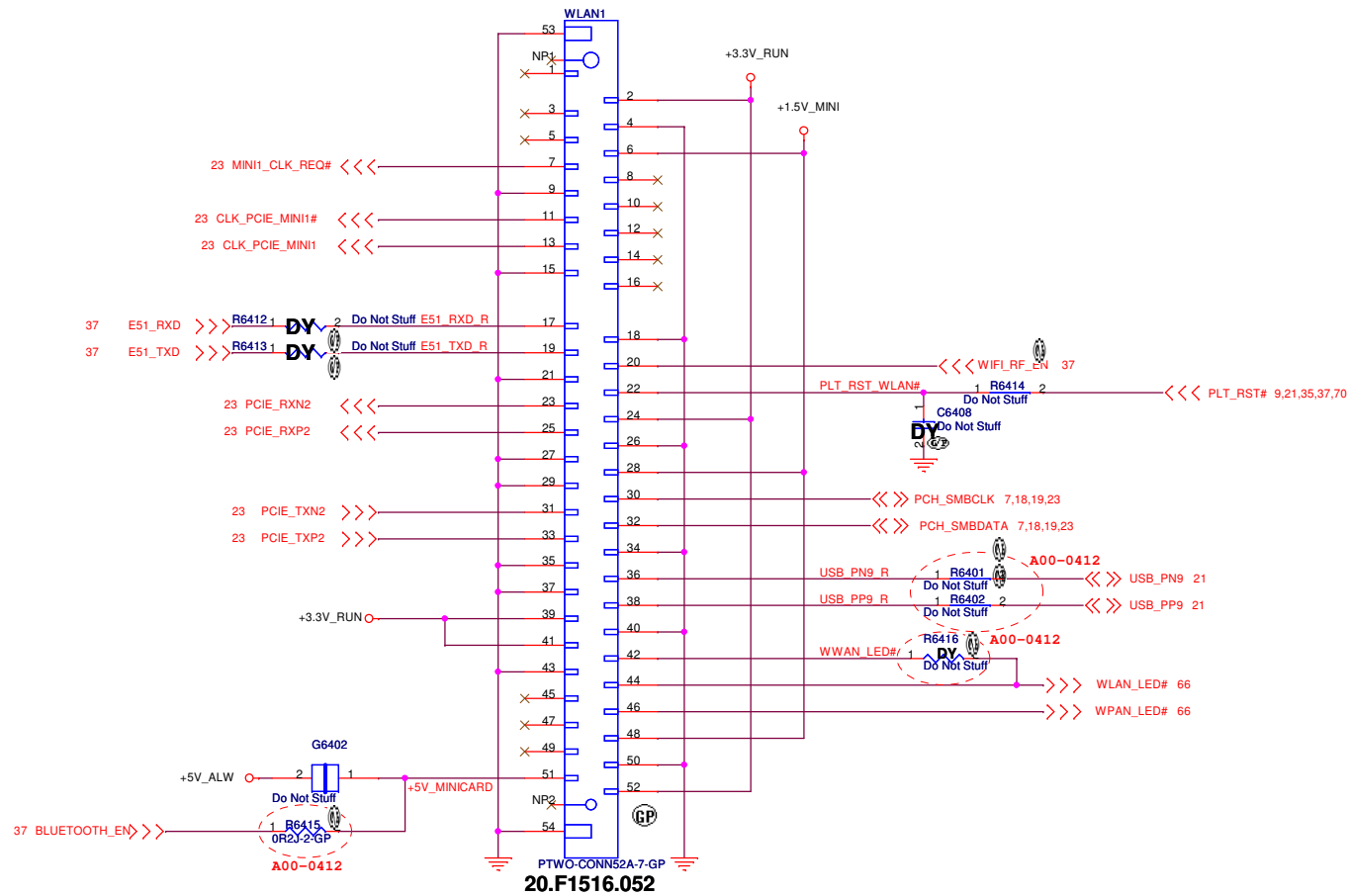
Title: **USB**

Size	Document Number	Rev
	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>

Date: Wednesday, April 13, 2011 Sheet 63 of 99

**SSID = Wireless**

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



DV15 CP UMA second

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

Title: **MINICARD**

Size: A3	Document Number: <b>Enrico/Caruso 15 CP</b>	Rev: <b>A00</b>
Date: Wednesday, April 13, 2011	Sheet: 64 of 99	



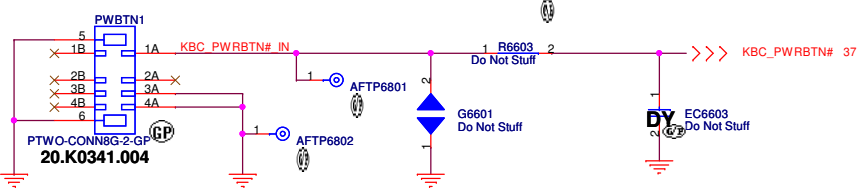
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DV15 CP UMA second

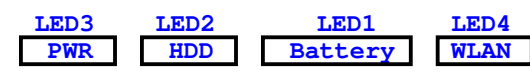
		<b>Wistron Corporation</b> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
Date: Friday, April 08, 2011	Sheet 65 of 99	1

**SSID = User.Interface**

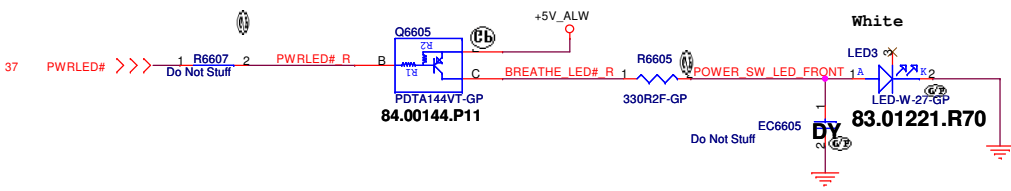
**Power BTN Connector**



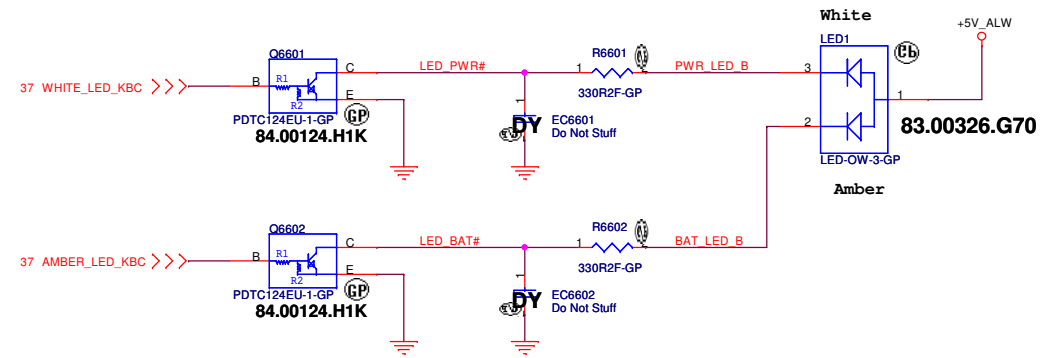
LED Location from left to right  
(MB, Top View)



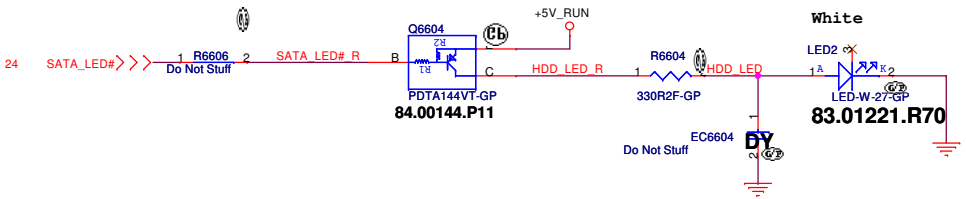
**POWER LED**



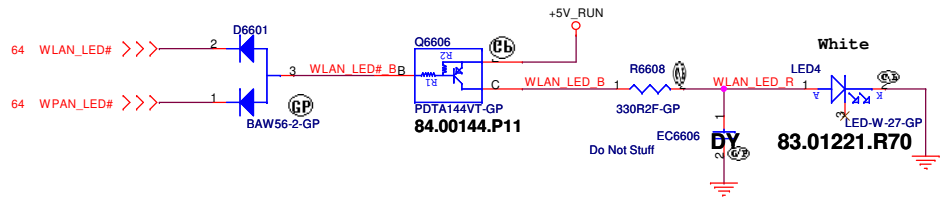
**Battery LED**



**HDD LED**



**WLAN LED**



DV15 CP UMA second

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Title: **LED**

Size A3	Document Number: <b>Enrico/Caruso 15 CP</b>	Rev: <b>A00</b>
Date: Wednesday, April 13, 2011	Sheet 66 of 99	

(Blanking)

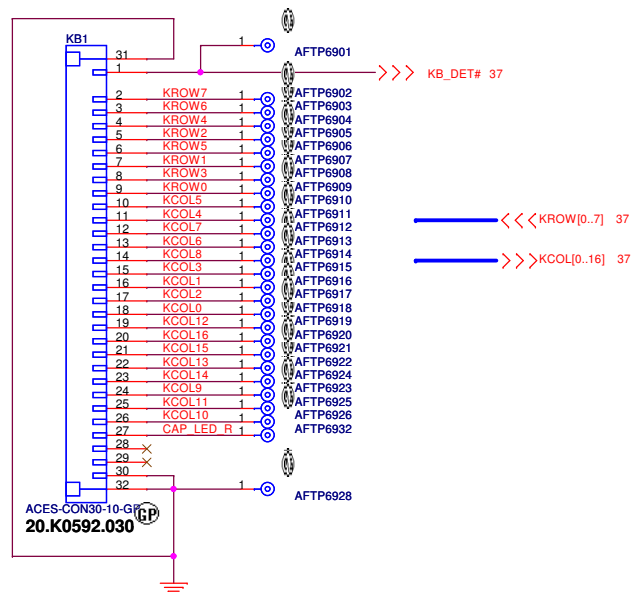
DV15 CP UMA second



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<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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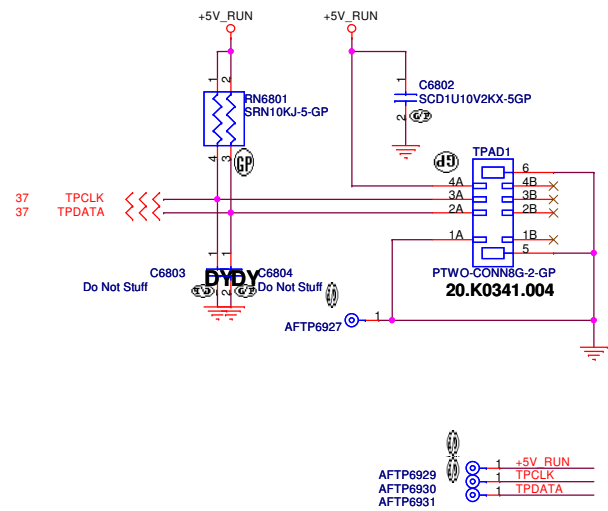
SSID = KBC

### Internal KeyBoard Connector



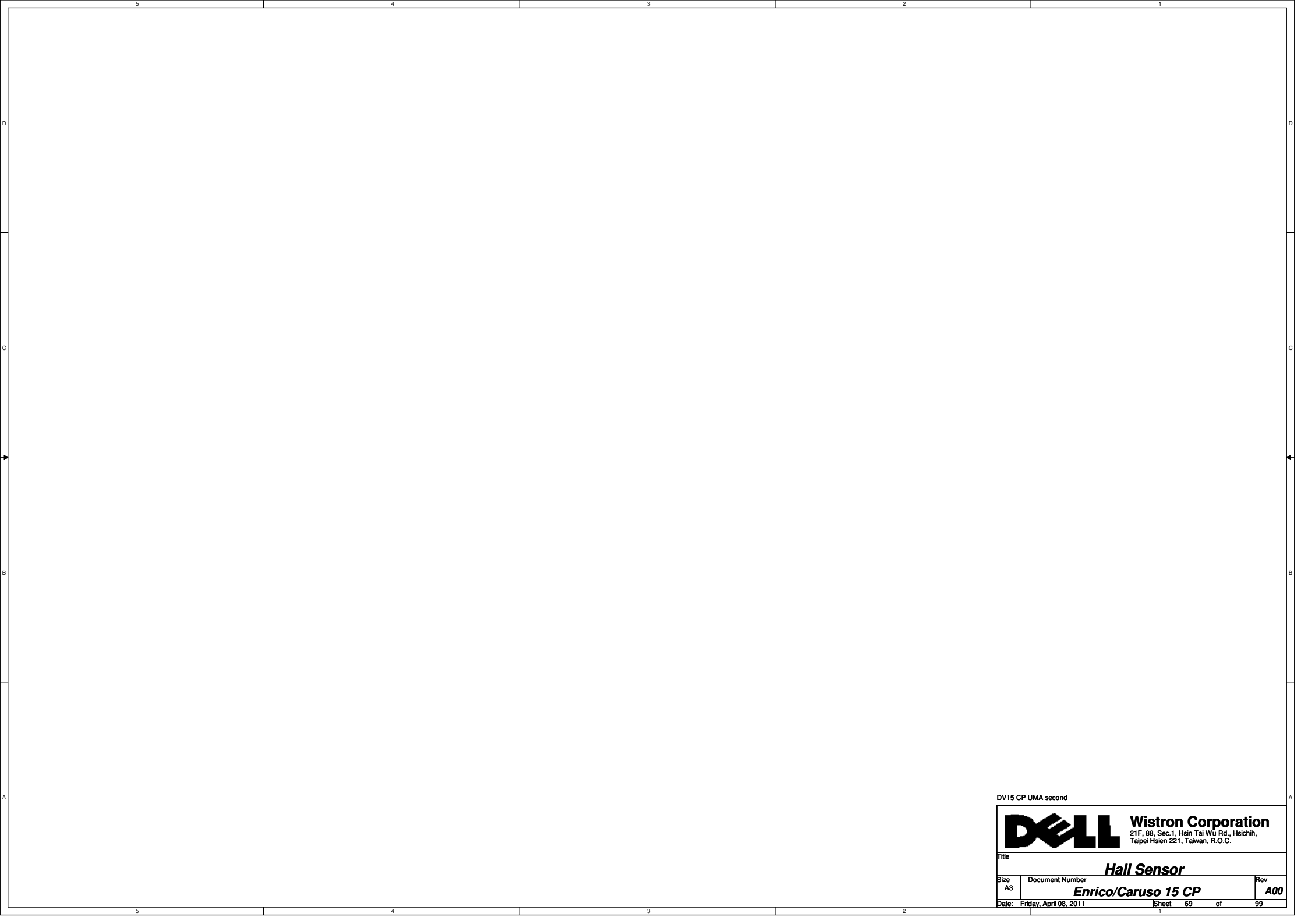
SSID = Touch.Pad

### TouchPad Connector



DV15 CP UMA second

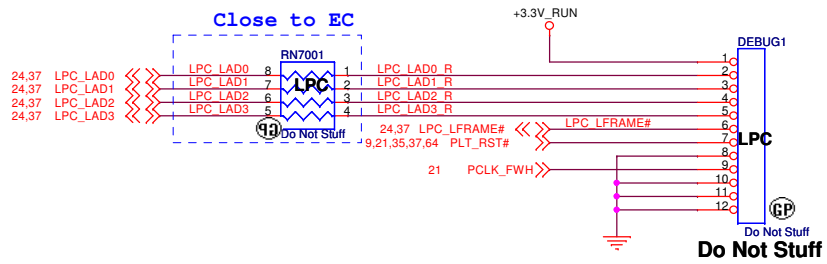
<b>DELL</b>		<b>Wistron Corporation</b>	
		21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>Key Board/Touch Pad</b>			
Size	Document Number	Rev	
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Title		<b>Hall Sensor</b>	
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A3	<b>Enrico/Caruso 15 CP</b>	Friday, April 08, 2011	<b>A00</b>
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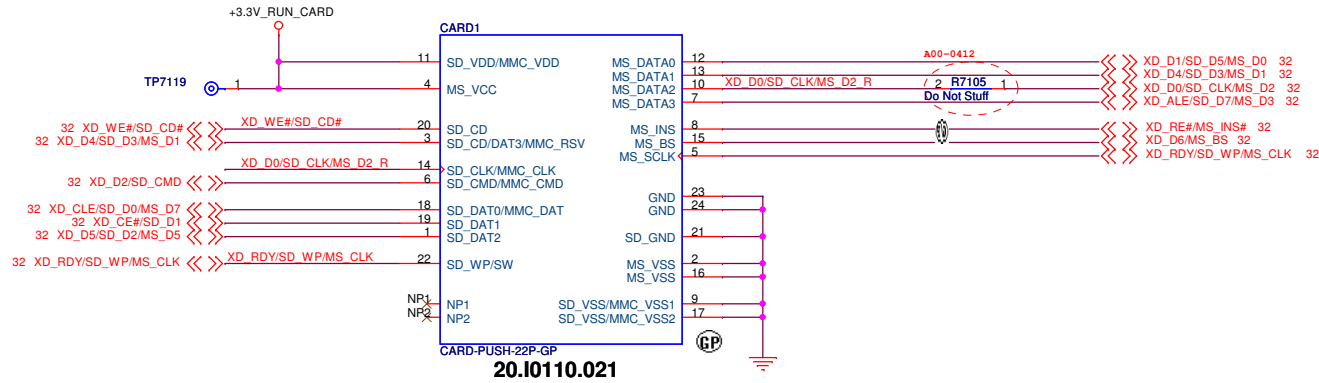
DV15 CP UMA second



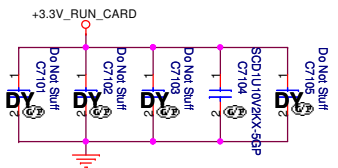
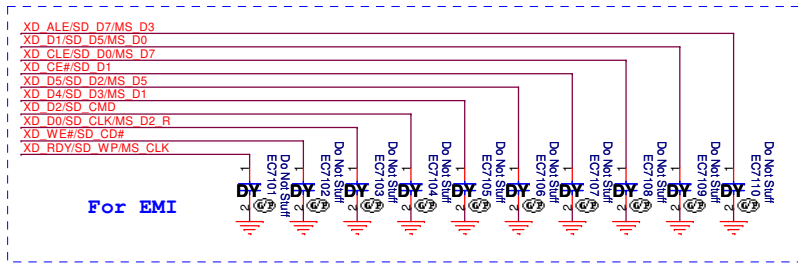
Title		
<b>Reserved</b>		
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**SSID = SDIO**

# SD/XD/MS Card Reader



- TP7101 1 +3.3V\_RUN\_CARD
- TP7103 1 XD\_RDY/SD\_WP/MS\_CLK
- TP7104 1 XD\_RE#/MS\_INS#
- TP7105 1 XD\_CE#/SD\_D1
- TP7106 1 XD\_CLE/SD\_D0/MS\_D7
- TP7107 1 XD\_ALE/SD\_D7/MS\_D3
- TP7108 1 XD\_WE#/SD\_CD#
- TP7110 1 XD\_D0/SD\_CLK/MS\_D2\_R
- TP7111 1 XD\_D1/SD\_D5/MS\_D0
- TP7112 1 XD\_D2/SD\_CMD
- TP7114 1 XD\_D4/SD\_D3/MS\_D1
- TP7115 1 XD\_D5/SD\_D2/MS\_D5
- TP7116 1 XD\_D6/MS\_BS



DV15 CP UMA second

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

Title: **CARD Reader Connector**

Size: A3	Document Number: Enrico/Caruso 15 CP	Rev: A00
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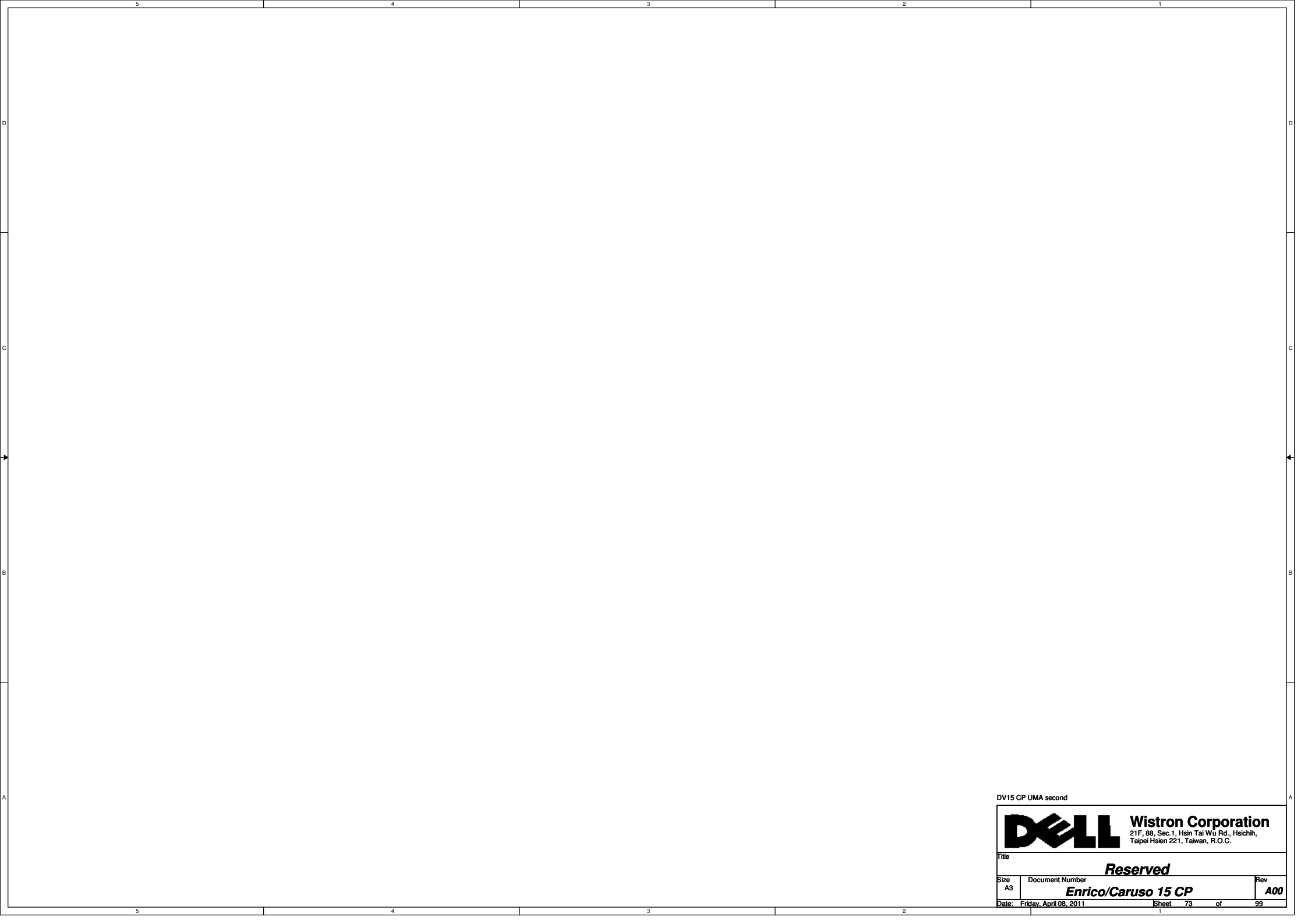
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DV15 CP UMA second



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<b>RESERVED</b>		
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(Blanking)

DV15 CP UMA second



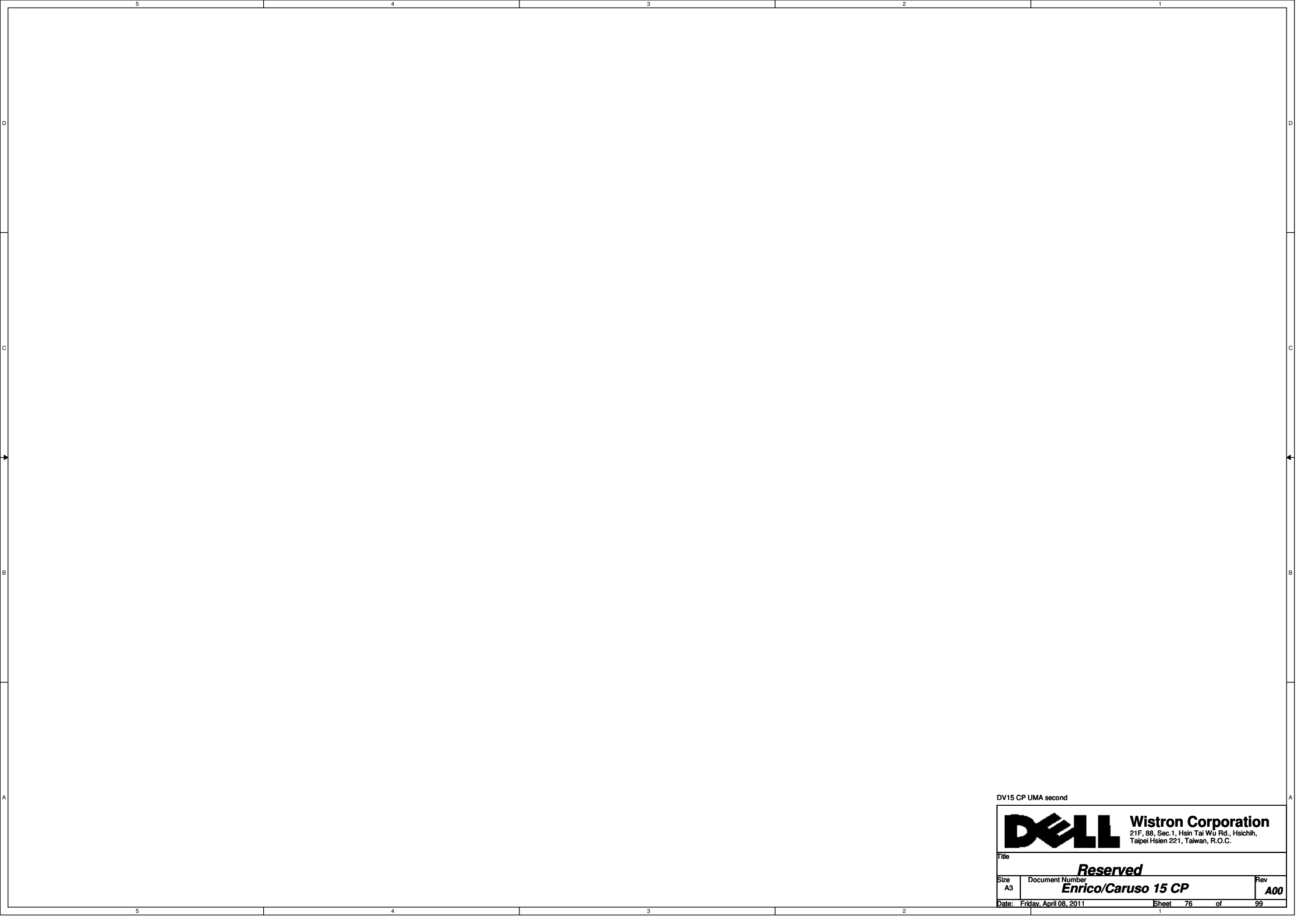
Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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DV15 CP UMA second



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DV15 CP UMA second

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

Title <b>Reserved</b>		
Size A3	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>
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DV15 CP UMA second



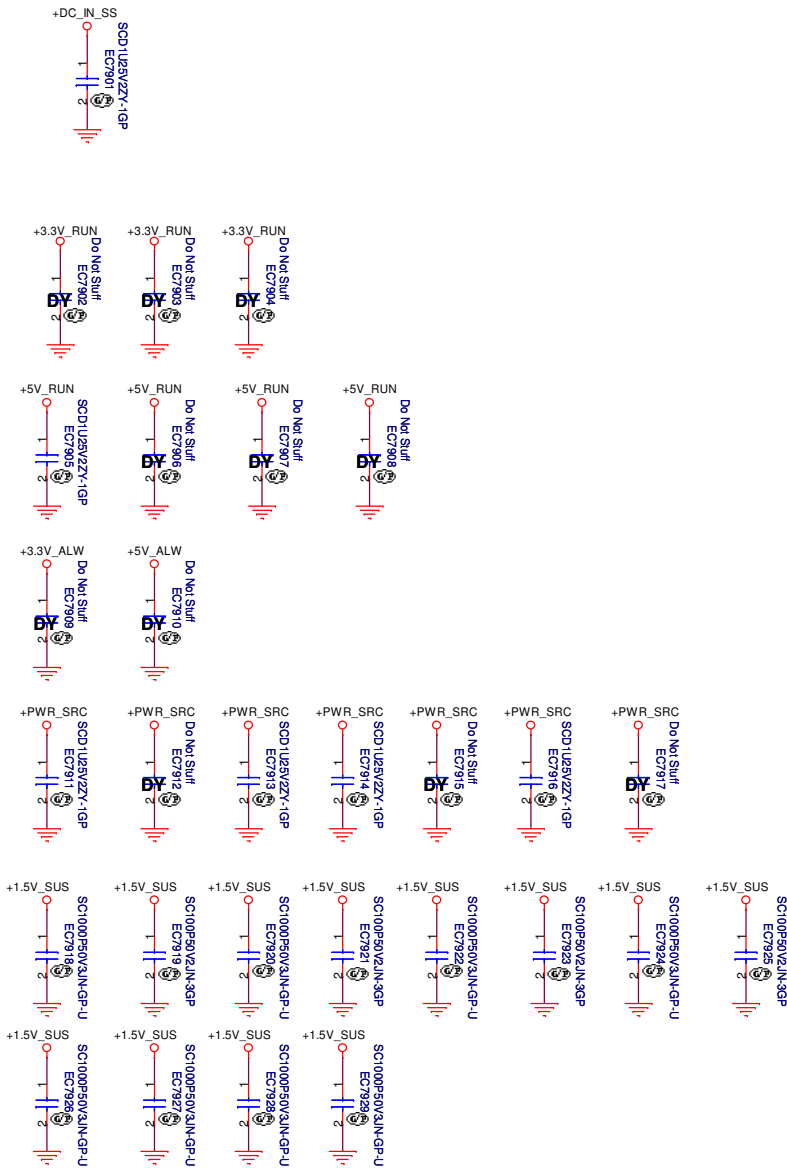
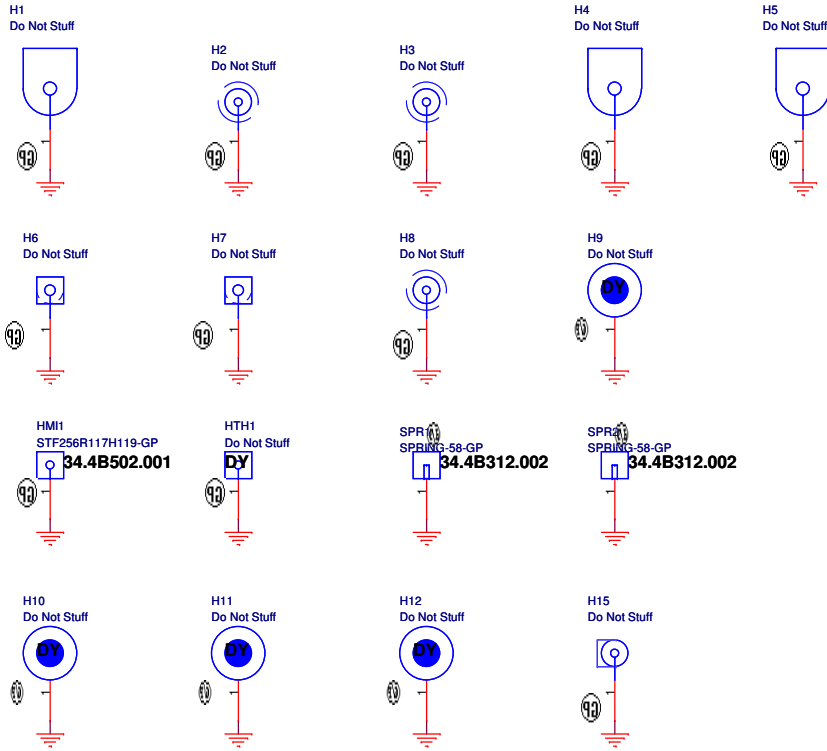
Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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SSID = VIDEO

DV15 CP UMA second

		<b>Wistron Corporation</b> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title <b>Reserved</b>		
Size <b>A3</b>	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>
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DV15 CP UMA second

		<b>Wistron Corporation</b>	
		21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b>Reserved</b>			
Size	Document Number	Rev	
<b>C</b>	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>	
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DV15 CP UMA second

		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsueh, Taipei Hsien 221, Taiwan, R.O.C.
Title <b>Reserved</b>		
Size <b>A2</b>	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>
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DV15 CP UMA second

		<b>Wistron Corporation</b>	
		<small>21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</small>	
<b>Reserved</b>			
Size	Document Number	Rev	
<b>C</b>	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>	
Date:	Friday, April 08, 2011	Sheet	83 of 99

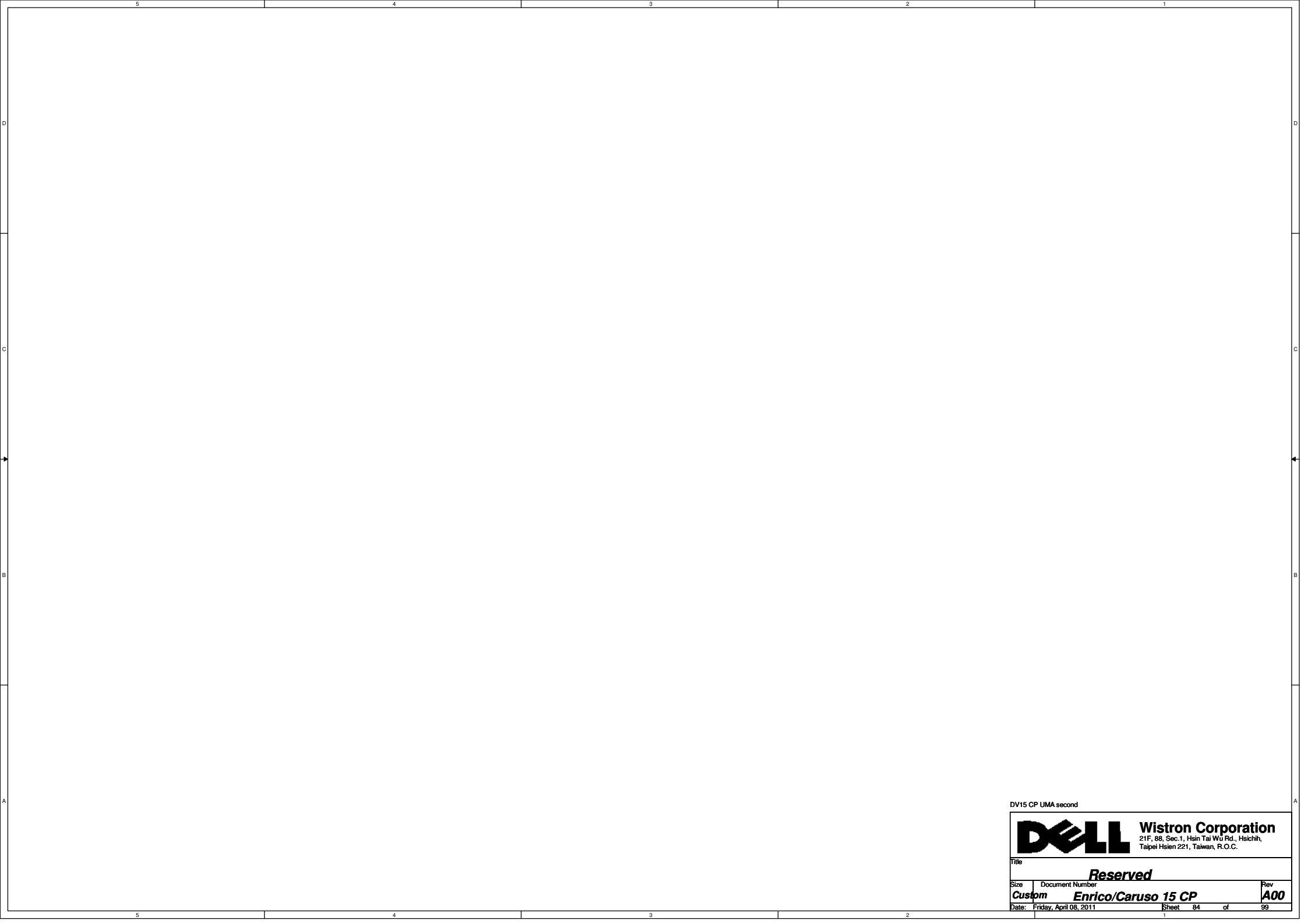
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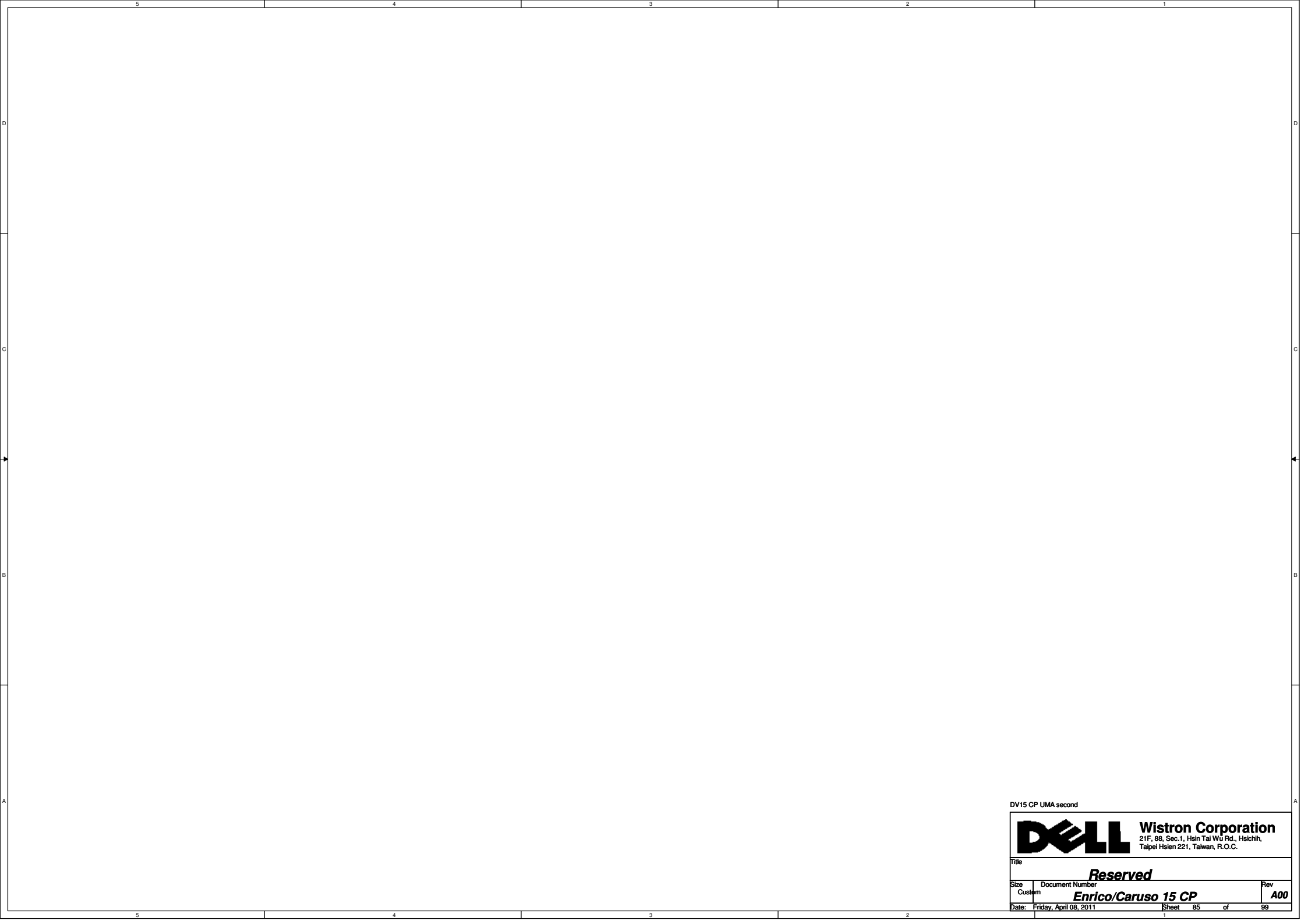
2

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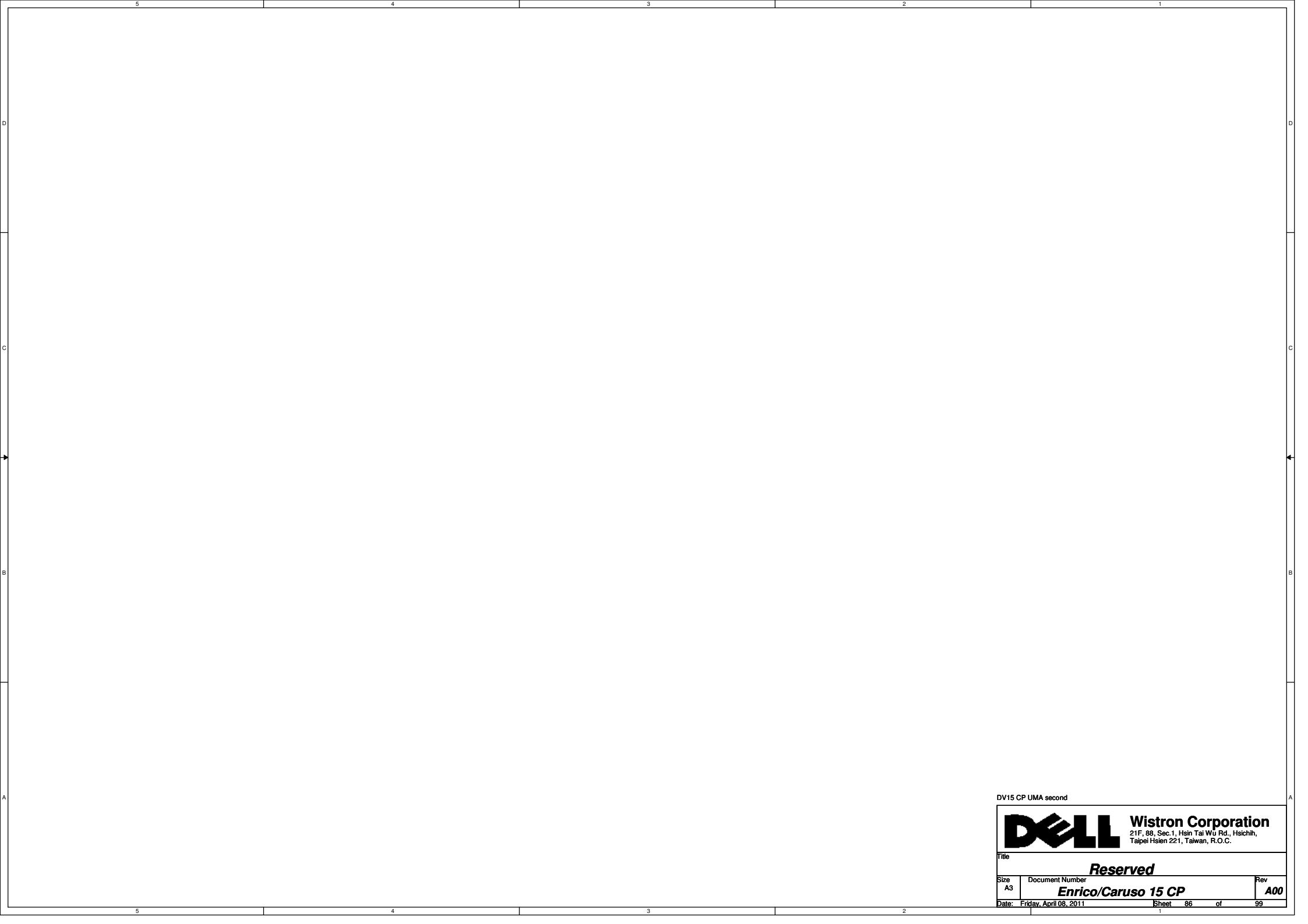
DV15 CP UMA second

			<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title					
<b><i>Reserved</i></b>					
Size	Document Number				Rev
<b>Custom</b>	<b>Enrico/Caruso 15 CP</b>				<b>A00</b>
Date:	Friday, April 08, 2011	Sheet	84	of	99



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		<b>Wistron Corporation</b> 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<b><i>Reserved</i></b>			
Size	Document Number	Rev	
Custom	<b><i>Enrico/Caruso 15 CP</i></b>	<b><i>A00</i></b>	
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DV15 CP UMA second

<b>DELL</b>	<b>Wistron Corporation</b>	
	21F, 88, Sec.1, Hsin Tai Wu Rd., Haichih, Taipei Hsien 221, Taiwan, R.O.C.	

File		
<b>Reserved</b>		
Size C	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>
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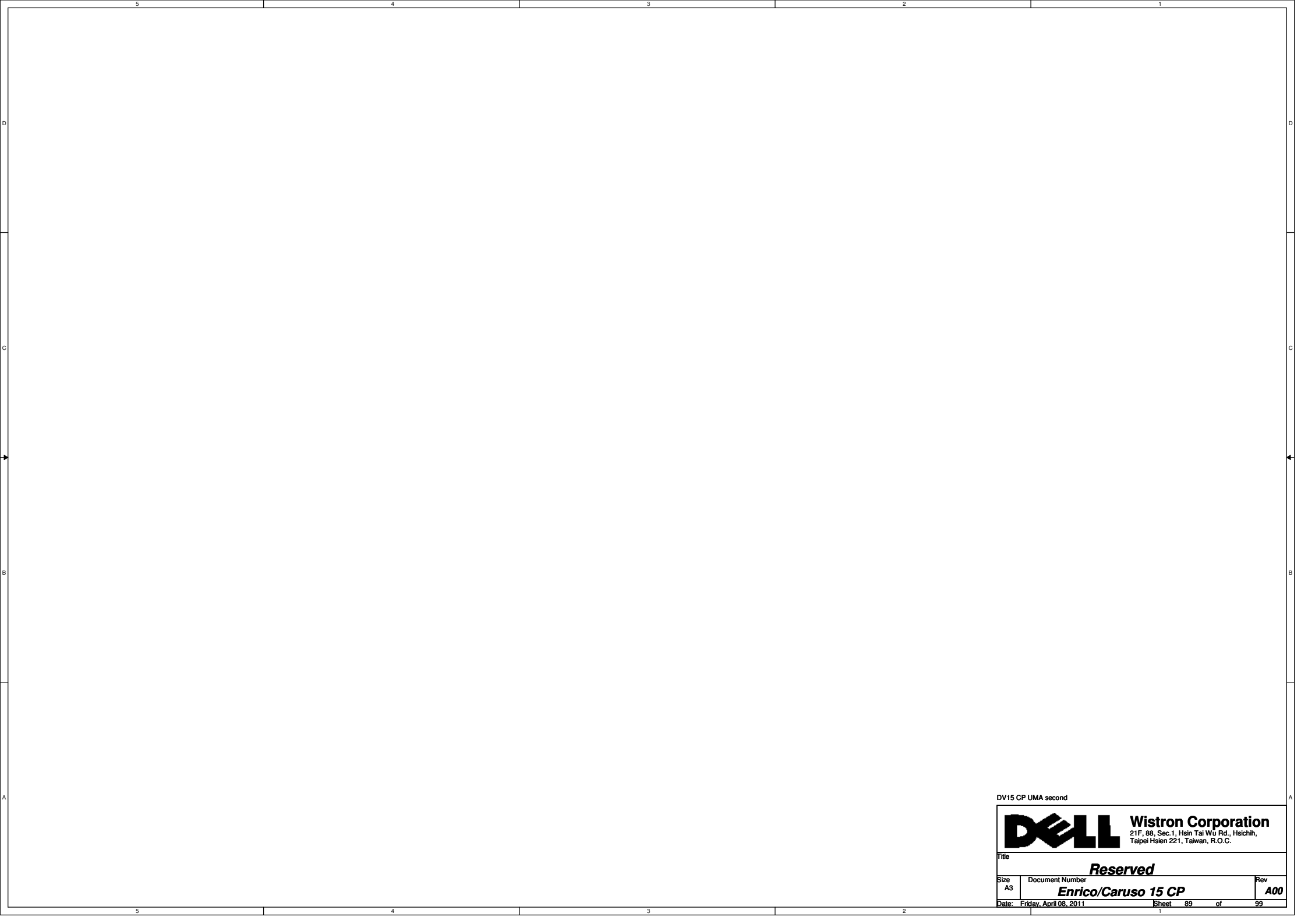
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DV15 CP UMA second

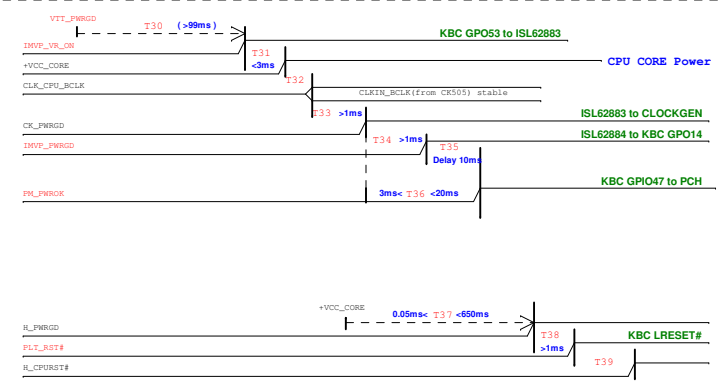
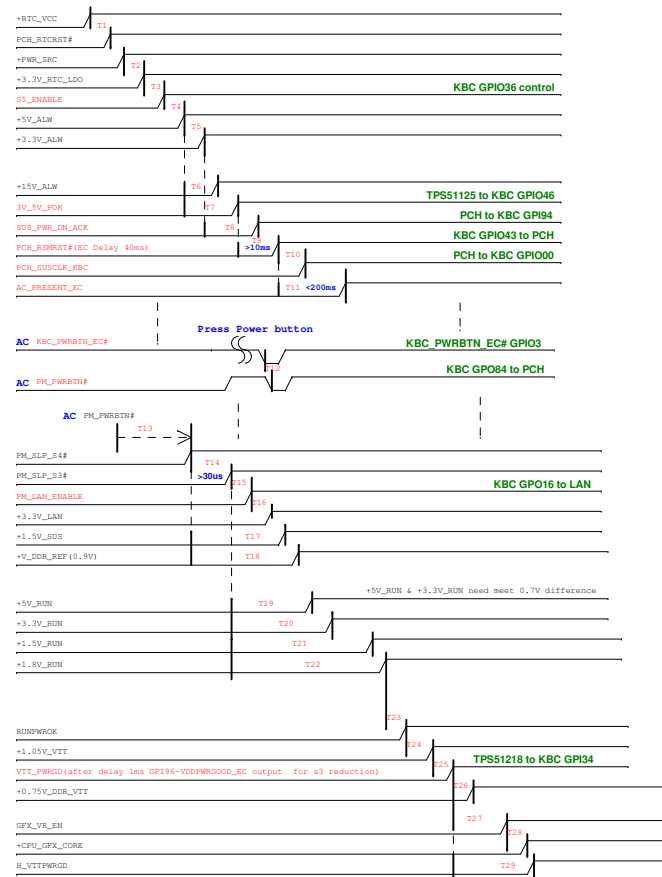


Title		
<b>Reserved</b>		
Size	Document Number	Rev
A3	<b>Enrico/Caruso 15 CP</b>	<b>A00</b>
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# DV15 Calpella UMA-Power Up Sequence

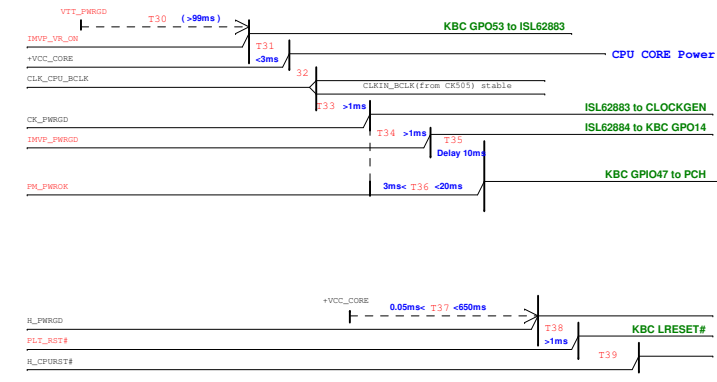
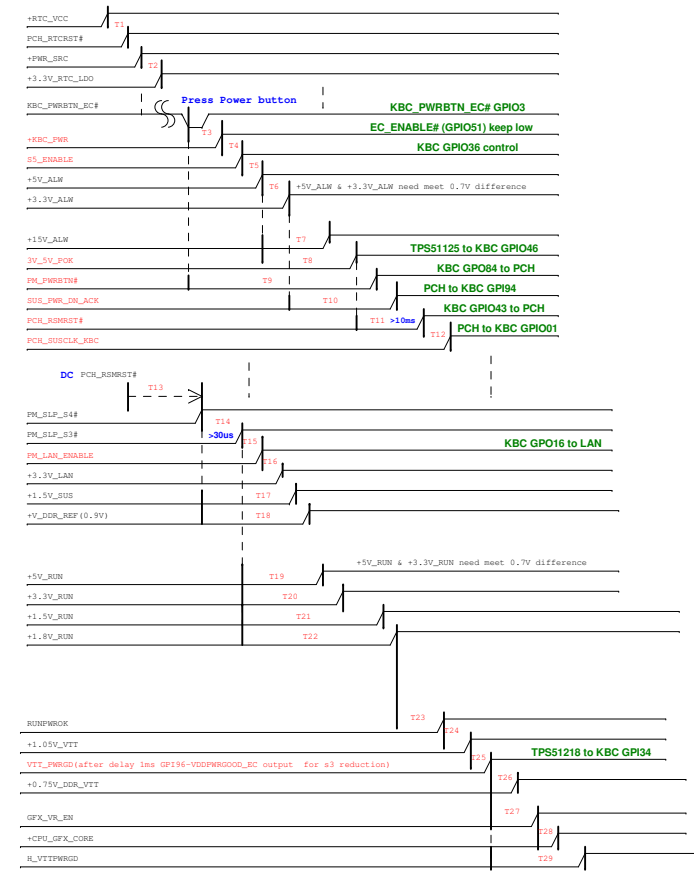
(AC mode)

red word: KBC GPIO




(DC mode)

red word: KBC GPIO



Item	Pg.	Date	Description	Owner
KBC	37	A00-0412	stuff R3722 and DY R3725 for change MB version from X02 to A00	EE
WLAN	64	A00-0412	change R6415 from short pad to 0 ohm for debug	EE
USB	54, 63	A00-0412	Remove colay pad(R5403,R5404,R6315,R6316,R6317,R6318,R6319,R6320) after A00	EMI
USB	32, 64	A00-0412	Remove colay pad(EL3201,EL6401) and short pad(R3204,R3205,R6401,R6402) after A00	EMI
CLK GEN	7	A00-0412	change R710~R717 from 0 ohm to short pad	EMI
HDMI	57	A00-0412	Remove colay pad(EL5701,EL5702,EL5703,EL5704) after A00	EMI
short pad	ALL	A00-0412	change PR4519,PR5006,PR5111,R3202,R3742,R3743,R3744,R7105 from 0 ohm to short pad	EE
RTC	62	A00-0412	change U6203 P/N to 83.R0304.B81 for RTC detect leakage issue	EE
RT8237A_+1.05V	49	A00-0412	update PU4901 symbol for part manager footprint change	POWER
WLAN	64	A00-0412	add and DY R6416 0 ohm for Wimax future	EE
POWER GAP	ALL	A00-0413	change power GAP (PG4511,PG4602,PG4604,PG4605,PG4606,PG4615,PG4617,PG4619,PG4621,PG4624,PG4625,PG4607,PG4608,PG4609,PG4622,PG4626,PG4627,PG4610,PG4611,PG4612,PG4613,PG4614,PG4616,PG4618,PG4620,PG4902,PG4903,PG4904,PG4905,PG4906,PG4908,PG4910,PG4911,PG4913,PG4915,PG4917,PG4919,PG4925,PG4926,PG4920,PG4927,PG4928,PG4929,PG4909,PG4901,PG4912,PG4914,PG4916,PG4918,PG5001,PG5012,PG5002,PG5003,PG5004,PG5008,PG5009,PG5010,PG5011,PG5013,PG5015,PG5016,PG5017,PG5104,PG5106,PG5301,PG5303,PG5305,PG5308,PG5311) P/N from ZZ.CON2d.XXX to ZZ.CLOSE.001 for PSE requests	POWER
Thermal	39	A00-0422	stuff R3904 to change T8 temperature setting for reliability test	EE

DV15 CP UMA second

		<b>Wistron Corporation</b> 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
<b>Change History</b>			
Size A3	Document Number <b>Enrico/Caruso 15 CP</b>	Date: Friday, April 22, 2011	Rev <b>A00</b>
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Item	Pg.	Date	Description	Owner

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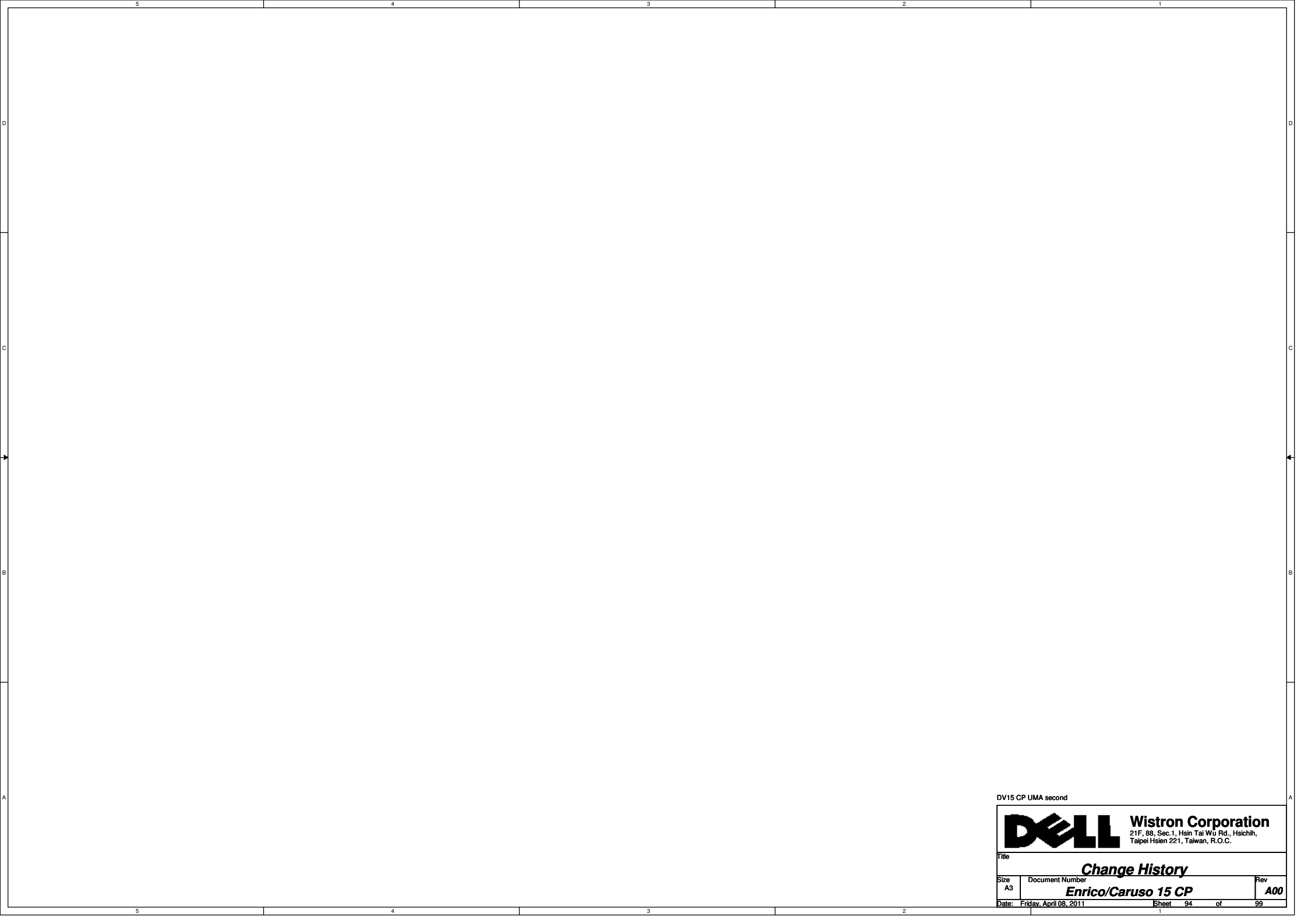
Title		
<b>Change History</b>		
Size A3	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>
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Item	Pg.	Date	Description	Owner

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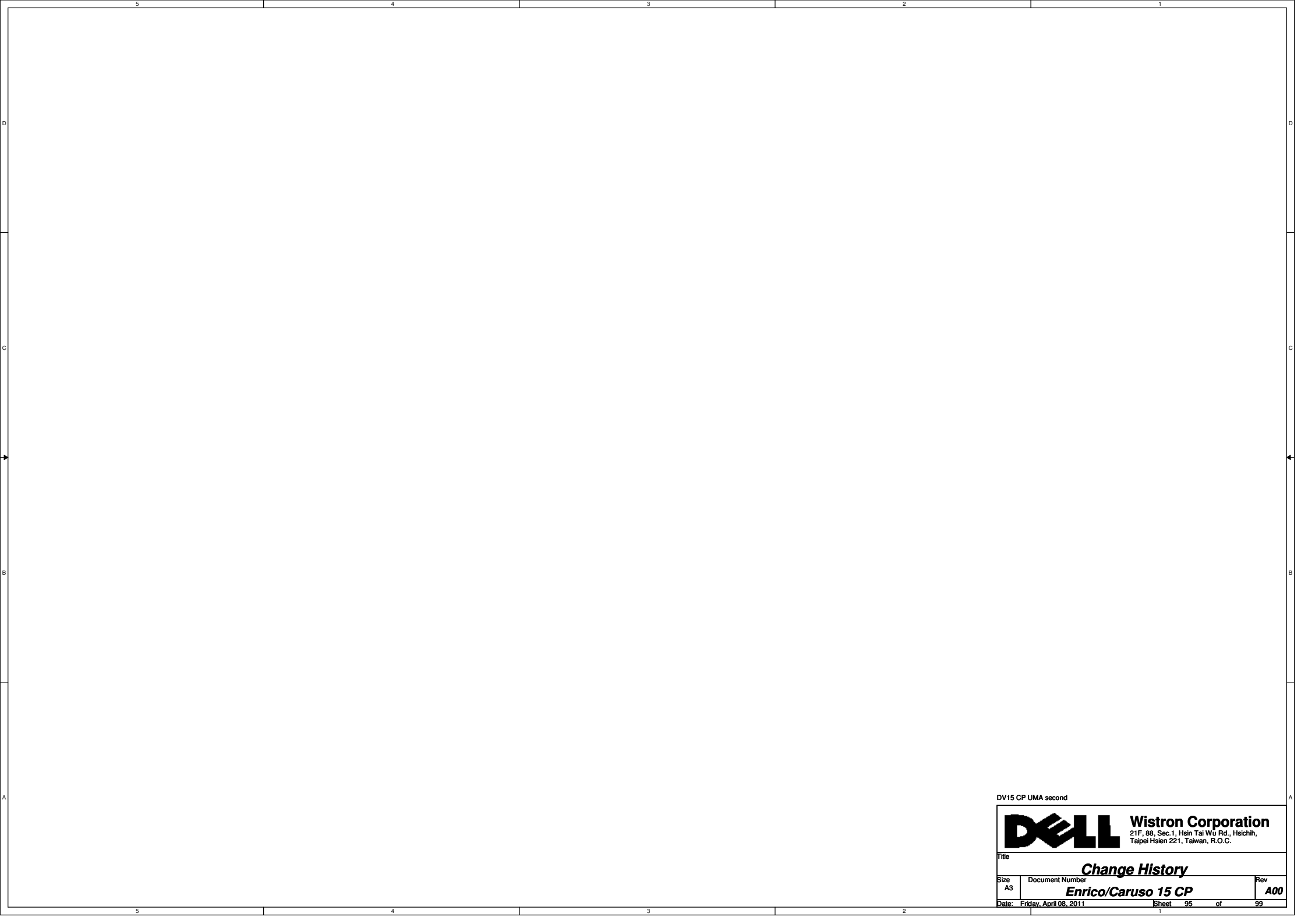
Title		
<b>Change History</b>		
Size A3	Document Number <b>Enrico/Caruso 15 CP</b>	Rev <b>A00</b>
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DV15 CP UMA second



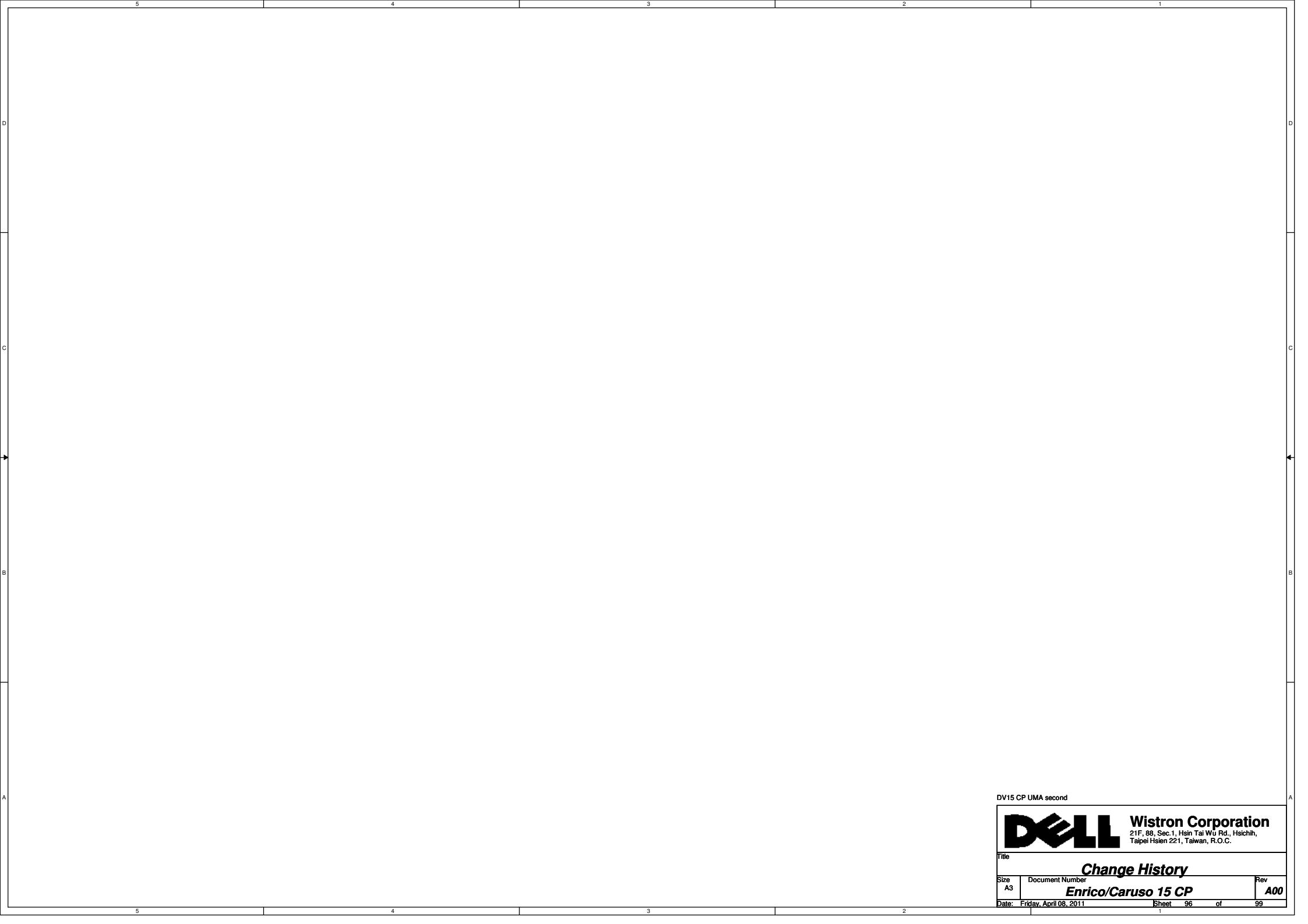
Title		
<b>Change History</b>		
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A3	<b><i>Enrico/Caruso 15 CP</i></b>	<b><i>A00</i></b>
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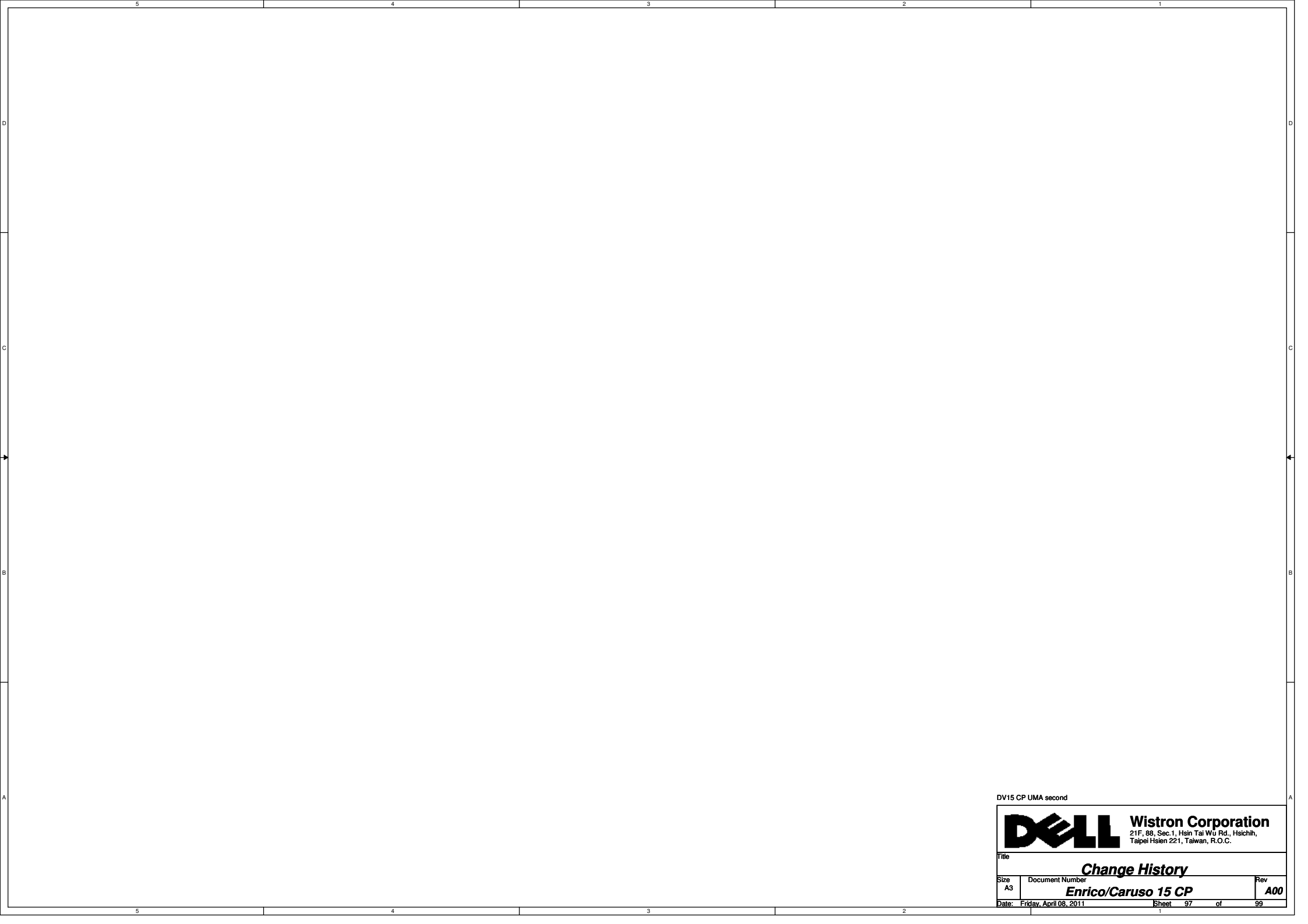


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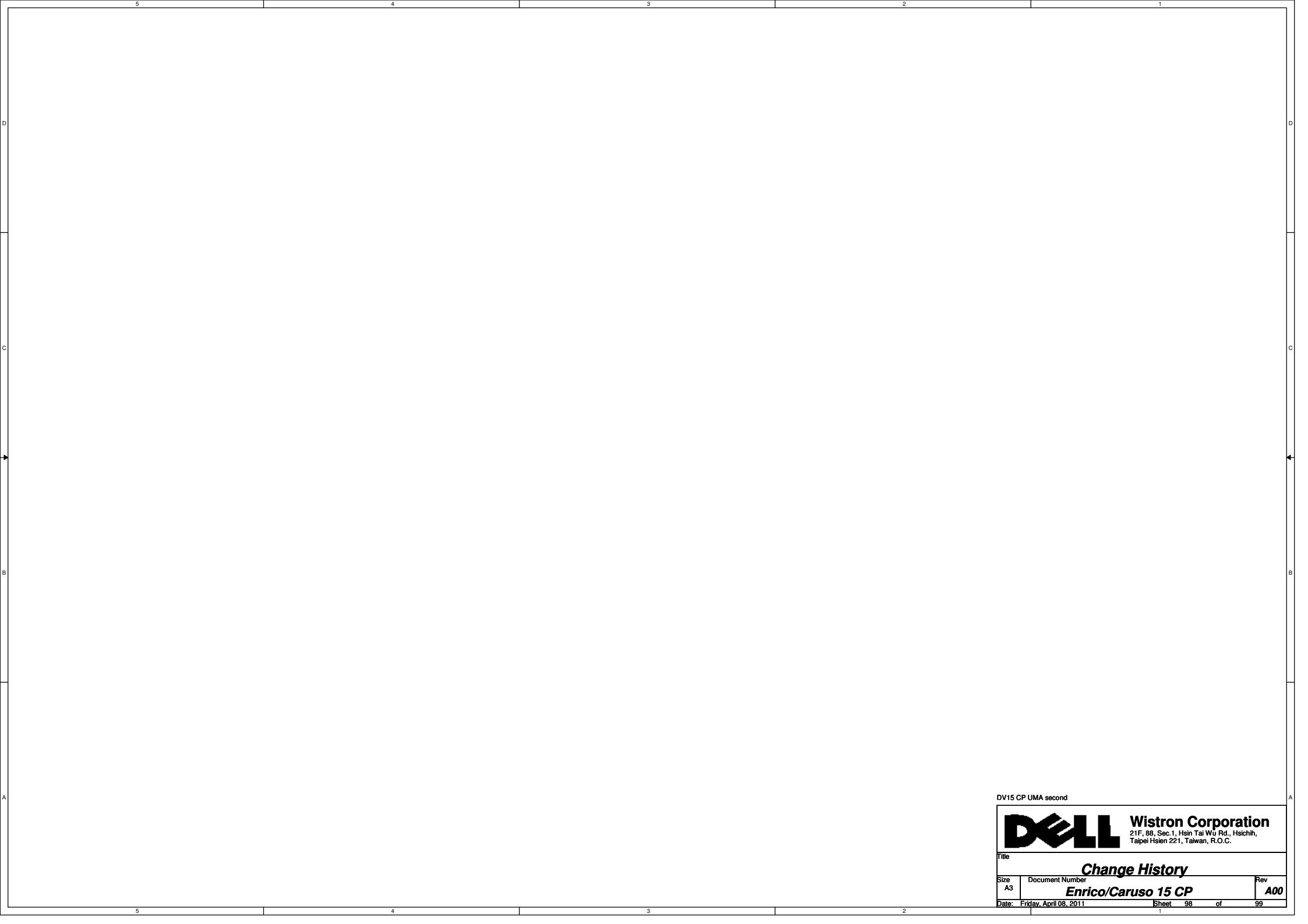




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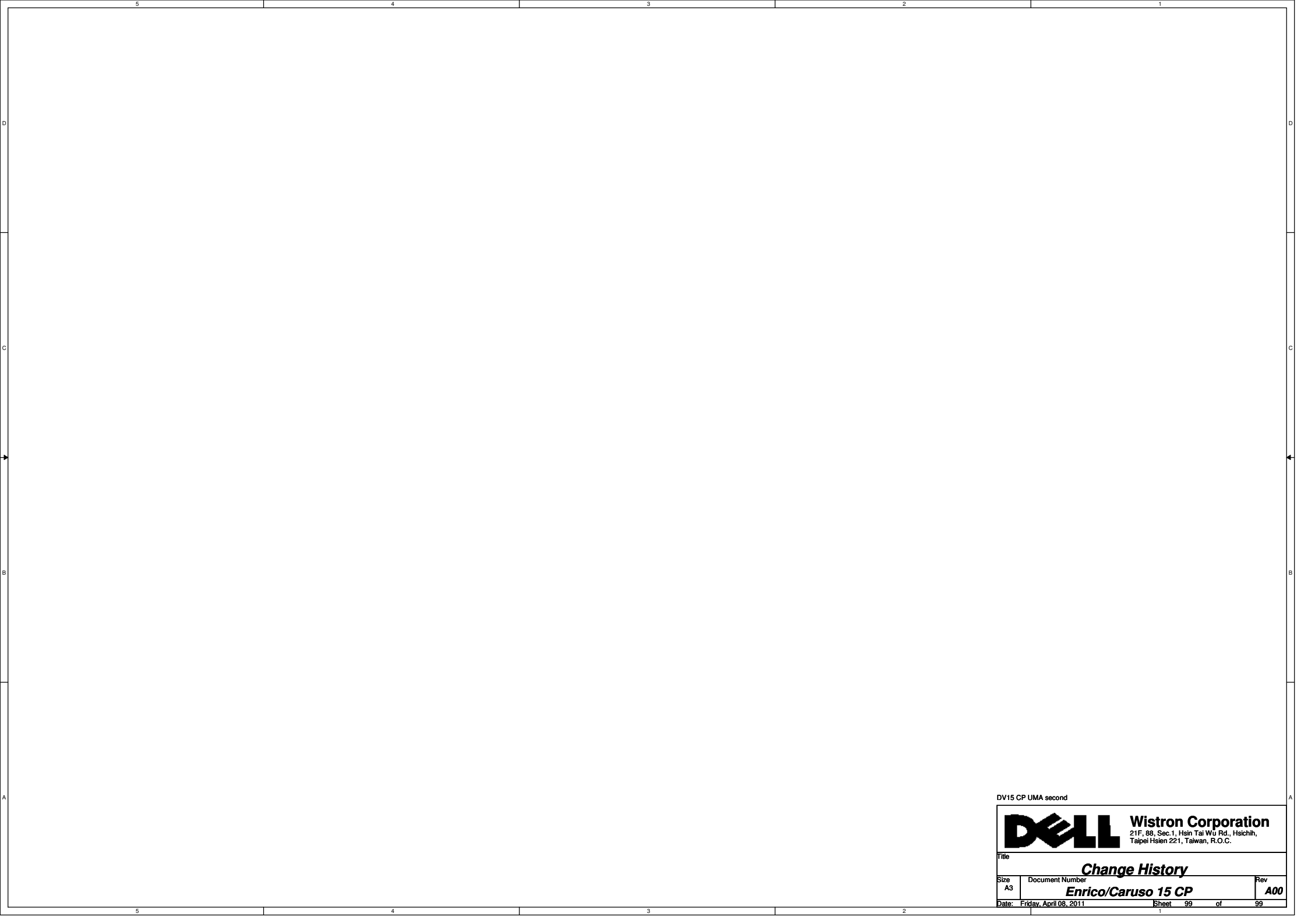
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