

Enrico/Caruso 15" UMA Schematics Document Sandy Bridge

Intel PCH


2011-06-02

REV : A00

起点主板维修网 www.qdzbwx.com

DY :None Installed
PSL:10mW internal schematic
10mW: 10mW schematic installed
Surge: Surege schematic installed
GIGA: GIGA schematic installed
10/100: 10/100 schematic installed
HDMI: HDMI schematic installed
Debug: Debug schematic installed

DV15 HR Vos GIGA HDMI NoSurge

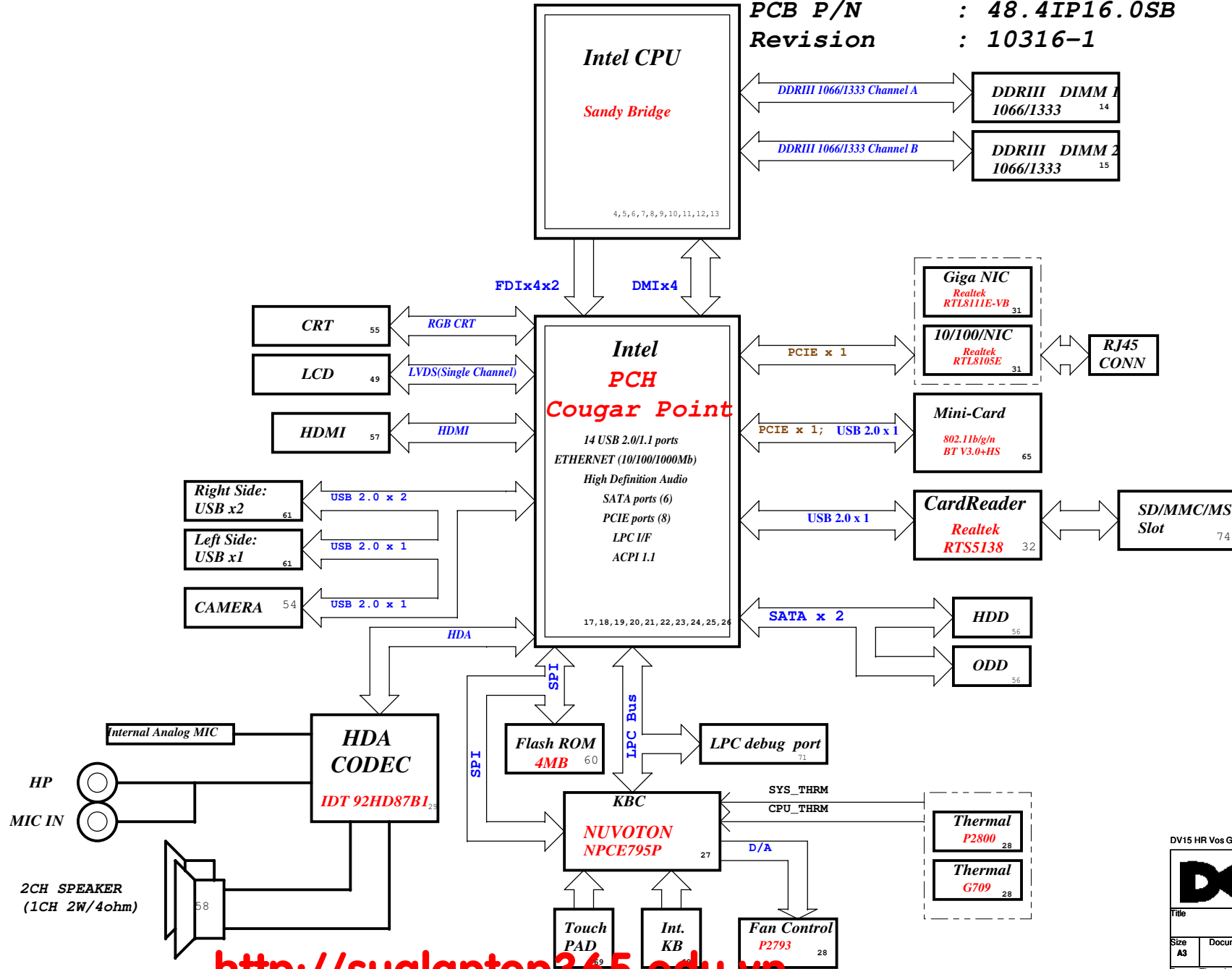
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Cover Page			
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DV15 Huron River UMA Block Diagram

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Project code : 91.4IP01.001
 PCB P/N : 48.4IP16.0SB
 Revision : 10316-1



SYSTEM DC/DC TPS51461 48	
INPUTS	OUTPUTS
DCBATOUT	0D85V_S0
CPU DC/DC ISL95831HRTZ 42~44	
INPUTS	OUTPUTS
DCBATOUT	VCC_CORE
GFX DC/DC ISL95831HRTZ 44	
INPUTS	OUTPUTS
DCBATOUT	VCC_GFXCORE
SYSTEM DC/DC TPS51218 45	
INPUTS	OUTPUTS
DCBATOUT	1D05V_VTT
SYSTEM DC/DC TPS51123RGER 41	
INPUTS	OUTPUTS
DCBATOUT	5V_AUX_S5 3D3V_AUX_S5 5V_S5 3D3V_S5 15V_S5
SYSTEM DC/DC TPS51216RUKR 46	
INPUTS	OUTPUTS
DCBATOUT	1D5V_S3 0D75V_S0 DDR_VREF_S3
MAXIM CHARGER BQ24707 40	
INPUTS	OUTPUTS
+DC_IN_S5 +PBATT	DCBATOUT
SYSTEM DC/DC TPS51311RGTR 47	
INPUTS	OUTPUTS
3D3V_S5	1D8V_S0
Switches	
INPUTS	OUTPUTS
1D5V_S3 5V_S5 3D3V_S5	1D5V_S0 5V_S0 3D3V_S0
PCB LAYER	
L1: Top	L4: Signal
L2: GND	L5: VCC
L3: Signal	L6: Bottom

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Title: **Block Diagram**

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Name	Schematics Notes
SPKR	Reboot option at power-up Default Mode: Internal weak Pull-down. No Reboot Mode with TCO Disabled: Connect to Vcc3_3 with 8.2-kΩ - 10-kΩ weak pull-up resistor.
INIT3_3V#	Weak internal pull-up. Leave as "No Connect".
GNT3#/GPIO55 GNT2#/GPIO53 GNT1#/GPIO51	GNT[3:0]# functionality is not available on Mobile. Mobile: Used as GPIO only Pull-up resistors are not required on these signals. If pull-ups are used, they should be tied to the Vcc3_3power rail.
SPI_MOSI	Enable Danbury: Connect to Vcc3_3 with 8.2-k? weak pull-up resistor. Disable Danbury: left floating, no pull-down required.
NV_ALE	Enable Danbury: Connect to +NVRAM_VCCQ with 8.2-kohm weak pull-up resistor [CRB has it pulled up with 1-kohm no-stuff resistor] Disable Danbury: leave floating (internal pull-down)
NC_CLE	DMI termination voltage. Weak internal pull-up. Do not pull low.
HAD_DOCK_EN# /GPIO[33]	Low (0) - Flash Descriptor Security will be overridden. Also, when this signals is sampled on the rising edge of PWROK then it will also disable Intel ME and its features. High (1) - Security measure defined in the Flash Descriptor will be enabled. Platform design should provide appropriate pull-up or pull-down depending on the desired settings. If a jumper option is used to tie this signal to GND as required by the functional strap, the signal should be pulled low through a weak pull-down in order to avoid asserting HDA_DOCK_EN# inadvertently. Note: CRB recommends 1-kohm pull-down for FD Override. There is an internal pull-up of 20 kohm for DA_DOCK_EN# which is only enabled at boot/reset for strapping functions.
HDA_SDO	Weak internal pull-down. Do not pull high. Sampled at rising edge of RSMRST#.
HDA_SYNC	Weak internal pull-down. Do not pull high. Sampled at rising edge of RSMRST#.
GPIO15	Low (1) - Intel ME Crypto Transport Layer Security (TLS) cipher suite with no confidentiality High (1) - Intel ME Crypto Transport Layer Security (TLS) cipher suite with confidentiality Note : This is an un-muxed signal. This signal has a weak internal pull-down of 20 kohm which is enabled when PWROK is low. Sampled at rising edge of RSMRST#. CRB has a 1-kohm pull-up on this signal to +3.3VA rail.
GPIO8	GPIO8 on PCH is the Integrated Clock Enable strap and is required to be pulled-down using a 1k +/- 5% resistor. When this signal is sampled high at the rising edge of RSMRST#, Integrated Clocking is enabled, When sampled low, Buffer Through Mode is enabled.
GPIO27	Default = Do not connect (floating) 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.

USB Table

Pair	Device
0	X
1	USB Ext. port 1
2	X
3	X
4	X
5	CARD READER
6	X
7	X
8	USB Ext. port 2
9	USB Ext. port 3
10	X
11	Mini Card1 (WLAN)
12	CAMERA

SATA Table

SATA	
Pair	Device
0	HDD1
1	X
2	X
3	X
4	ODD1

PCIE Routing

LANE1	X
LANE2	Onboard LAN
LANE3	x
LANE4	Mini Card1 (WLAN)
LANE5	X
LANE6	X
LANE7	X
LANE8	X

Pin Name	Strap Description	Configuration (Default value for each bit is 1 unless specified otherwise)	Default Value
CFG[2]	PCI-Express Static Lane Reversal	1: Normal Operation. 0: Lane Numbers Reversed 15 -> 0, 14 -> 1, ...	1
CFG[4]		Disabled - No Physical Display Port attached to Embedded DisplayPort. 1: Embedded DisplayPort. 0: Enabled - An external Display Port device is connectd to the EMBEDDED display Port	0
CFG[6:5]	PCI-Express Port Bifurcation Straps	11 : x16 - Device 1 functions 1 and 2 disabled 10 : x8, x8 - Device 1 function 1 enabled ; function 2 disabled 01 : Reserved - (Device 1 function 1 disabled ; function 2 enabled) 00 : x8, x4, x4 - Device 1 functions 1 and 2 enabled	11
CFG[7]	PEG DEFER TRAINING	1: PEG Train immediately following xxRESETB de assertion 0: PEG Wait for BIOS for training	1

POWER PLANE	VOLTAGE	Voltage Rails		DESCRIPTION
		ACTIVE IN		
5V_S0 3D3V_S0 1D8V_S0 1D5V_S0 1D05V_VTT 0D85V_S0 0D75V_S0 VCC_CORE VCC GFXCORE	5V 3.3V 1.8V 1.5V 1.05V 0.95 - 0.85V 0.75V 0.35V to 1.5V 0.4 to 1.25V	S0		CPU Core Rail Graphics Core Rail
5V_USBX_S3 1D5V_S3 DDR_VREF_S3	5V 1.5V 0.75V	S3		
BT+ DCBATOUT 5V_S5 5V_AUX_S5 3D3V_S5 3D3V_AUX_S5	9V-12.6V 9V-19V 5V 5V 3.3V 3.3V	All S states		AC Brick Mode only
3D3V_LAN_S5	3.3V	WOL_EN		Legacy WOL
3D3V_AUX_KBC	3.3V	DSW, Sx		ON for supporting Deep Sleep states
3D3V_AUX_S5	3.3V	G3, Sx		Powered by Li Coin Cell in G3 and +V3ALW in Sx

SMBus ADDRESSES

I ² C / SMBus Addresses		Ref Des	HURON RIVER ORB Bus	
Device	Address	Hex	Bus	
EC SMBus 1 Battery CHARGER			BAT_SCL/BAT_SDA BAT_SCL/BAT_SDA BAT_SCL/BAT_SDA	
EC SMBus 2 PCH			SML1_CLK/SML1_DATA SML1_CLK/SML1_DATA	
PCH SMBus SO-DIMMA (SPD) SO-DIMMB (SPD) MINI			PCH_SMBDATA/PCH_SMBCLK PCH_SMBDATA/PCH_SMBCLK PCH_SMBDATA/PCH_SMBCLK PCH_SMBDATA/PCH_SMBCLK	

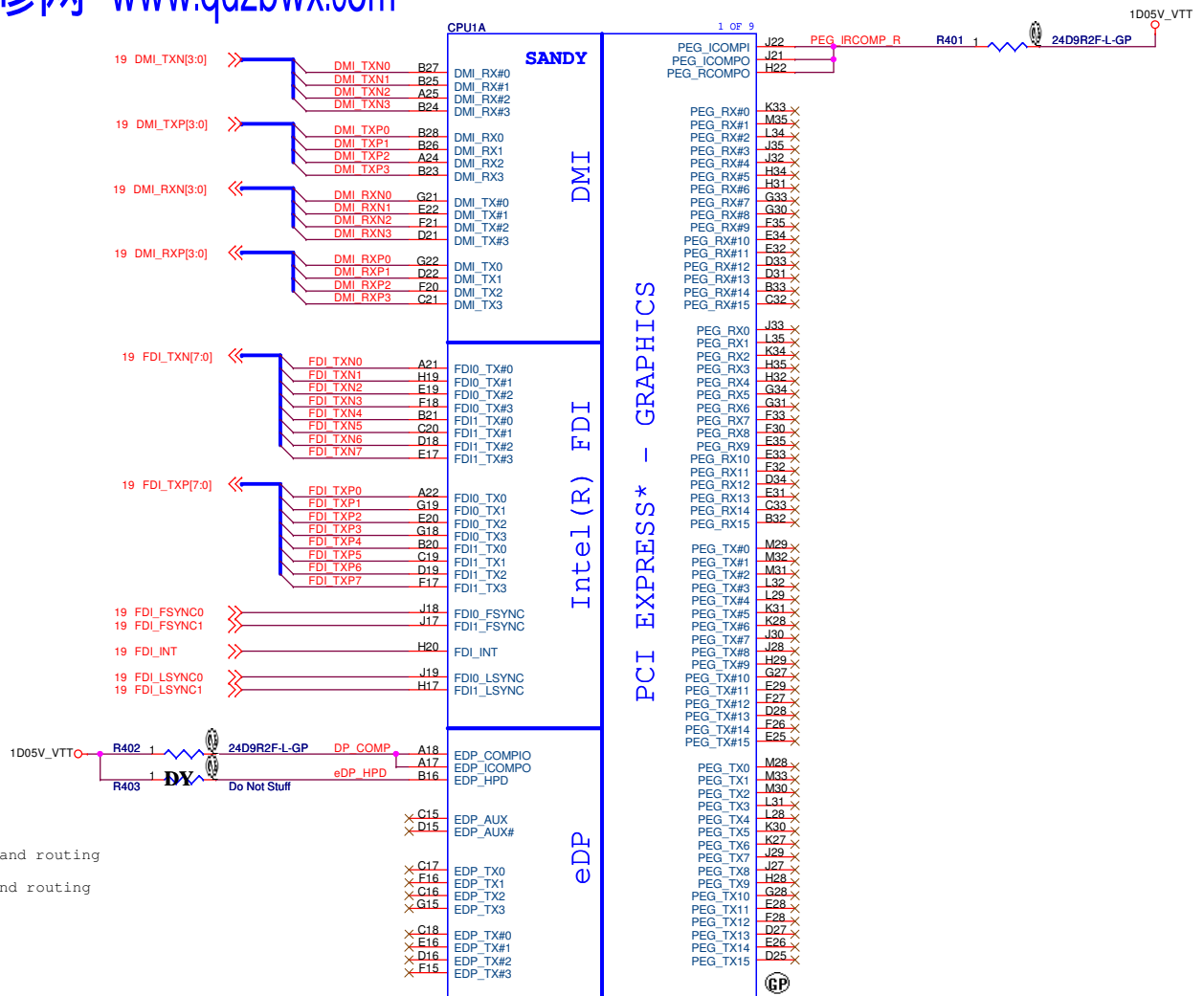
DV15 HR Vos GIGA HDMI NoSurge

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Signal Routing Guideline:
PEG_ICOMPO keep W/S=12/15 mils and routing length less than 500 mils.
PEG_ICOMPI & PEG_RCOPMO keep W/S=4/15 mils and routing length less than 500 mils.



SKT-BGA989C468393H184-NF
62.10040.821
2nd = 62.10040.771

Signal Routing Guideline:
EDP_ICOMPO keep W/S=12/15 mils and routing length less than 500 mils.
EDP_COMPIO keep W/S=4/15 mils and routing length less than 500 mils.

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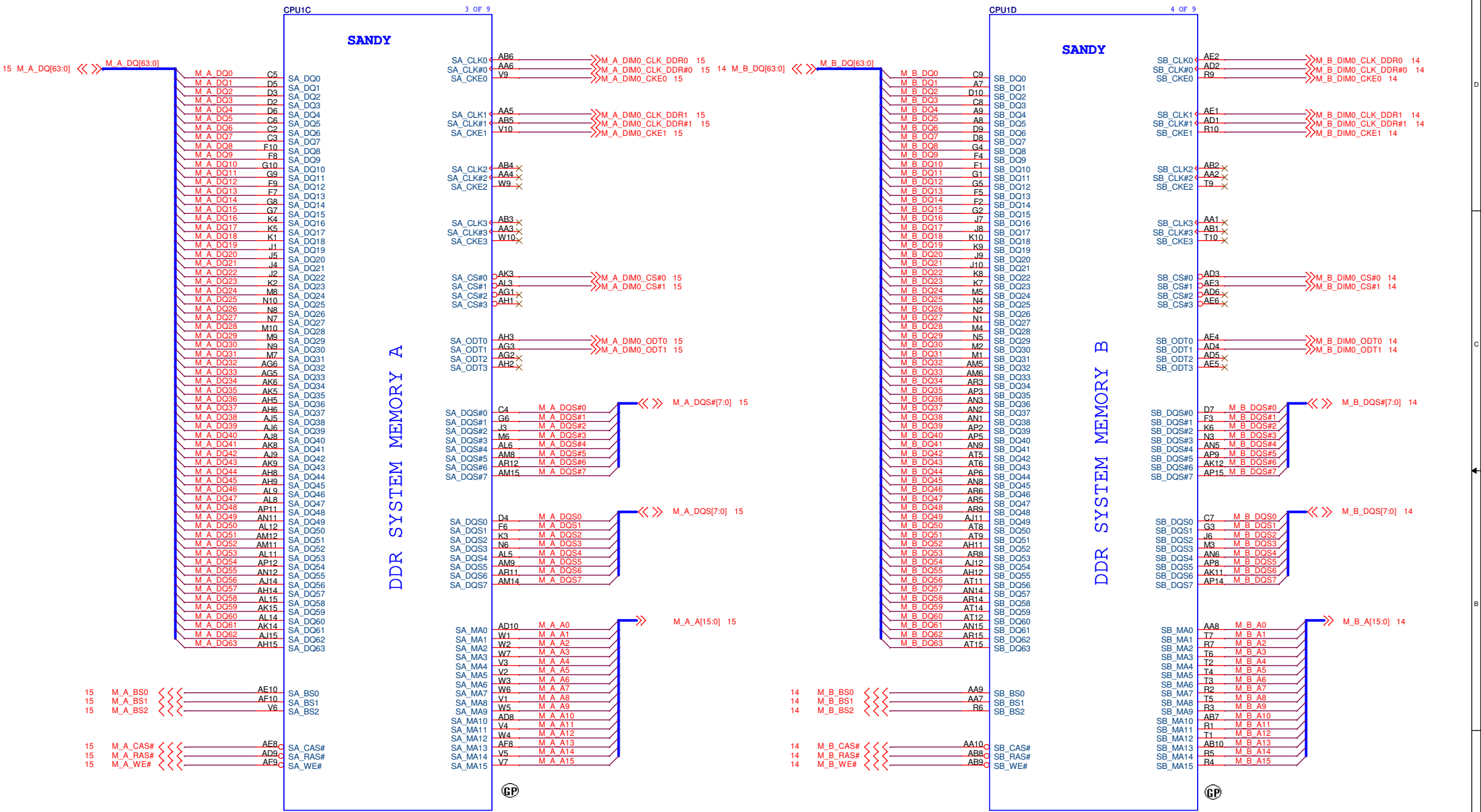
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Title: **CPU (PCIe/DMI/FDI)**

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SSID = CPU

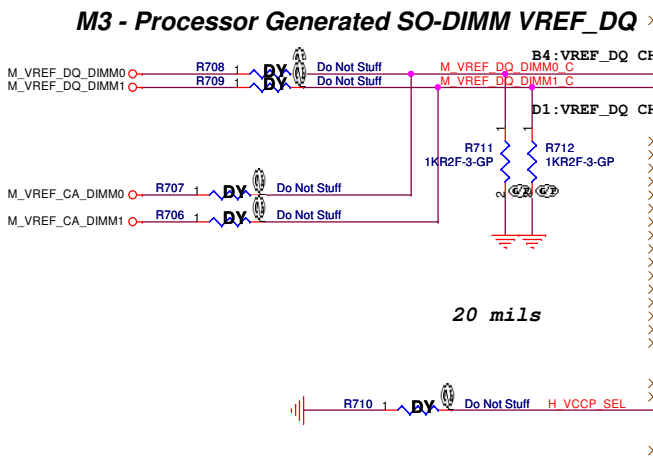
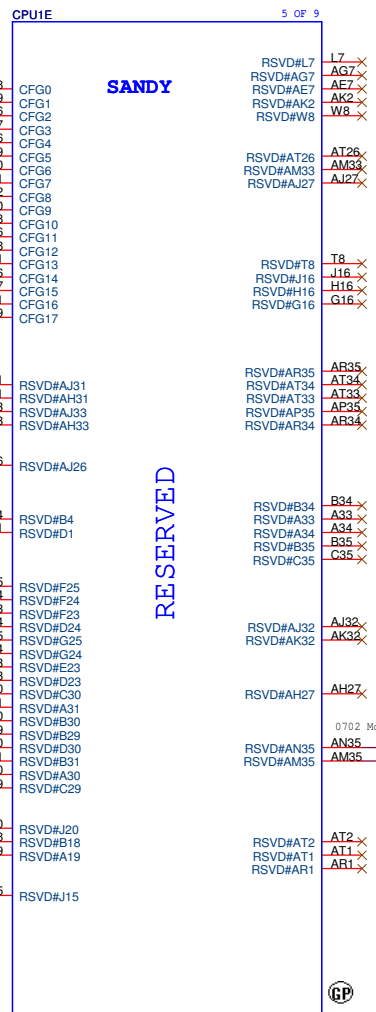


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 Title: **CPU (DDR)**
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SSID = CPU



SKT-BGA989C468393H184-NF
 62.10040.821
 2nd = 62.10040.771

PEG Static Lane Reversal	
CFG2	1: Normal Operation; Lane # definition matches socket pin map definition 0: Lane Reversed

Display Port Presence Strap	
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

PCIe Port Bifurcation Straps	
CFG[6:5]	11: x16 - Device 1 functions 1 and 2 disabled 10: x8, x8 - Device 1 function 1 enabled; function 2 disabled 01: Reserved - (Device 1 function 1 disabled; function 2 enabled) 00: x8, x4, x4 - Device 1 functions 1 and 2 enabled

PEG DEFER TRAINING	
CFG7	1: PEG Train immediately following xxRESETB de assertion 0: PEG Wait for BIOS for training

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Title: **CPU (RESERVED)**

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SANDY

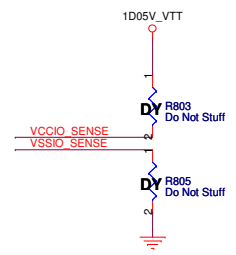
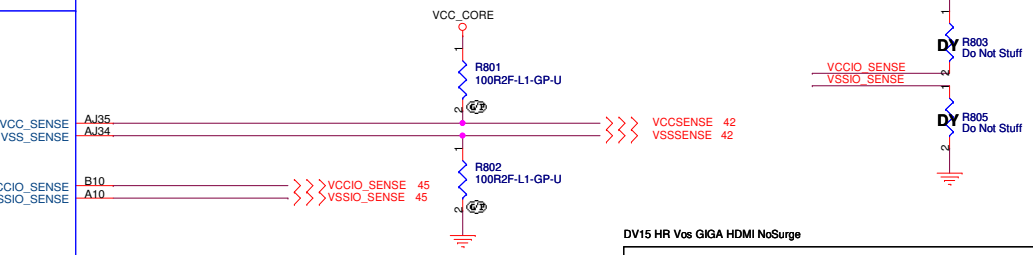
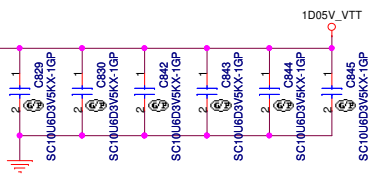
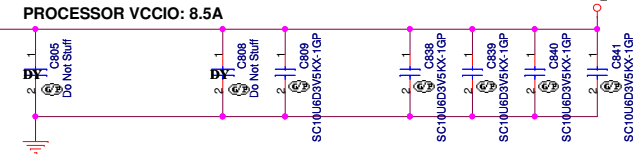
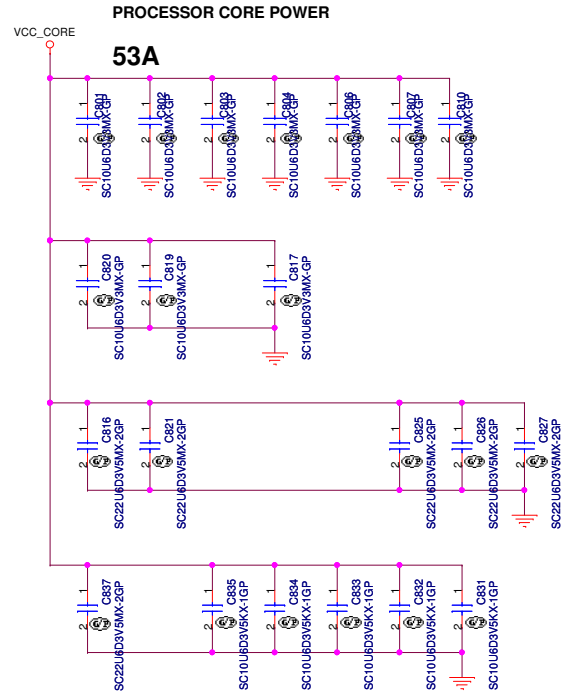
PEG AND DDR

CORE SUPPLY

SVID

SENSE LINES

CPU1F	6 OF 9		
VCC	AG35	VCC	AH13
VCC	AG34	VCC	AH10
VCC	AG33	VCC	AG10
VCC	AG32	VCC	AG10
VCC	AG31	VCC	Y10
VCC	AG30	VCC	U10
VCC	AG29	VCC	P10
VCC	AG28	VCC	J14
VCC	AG27	VCC	J13
VCC	AG26	VCC	J12
VCC	AF35	VCC	J11
VCC	AF34	VCC	H14
VCC	AF33	VCC	H12
VCC	AF32	VCC	H11
VCC	AF31	VCC	G14
VCC	AF30	VCC	G13
VCC	AF29	VCC	G12
VCC	AF28	VCC	F14
VCC	AF27	VCC	F13
VCC	AD35	VCC	F12
VCC	AD34	VCC	E14
VCC	AD33	VCC	E12
VCC	AD32	VCC	E11
VCC	AD31	VCC	E10
VCC	AD30	VCC	E12
VCC	AD29	VCC	E11
VCC	AD28	VCC	D14
VCC	AD27	VCC	D13
VCC	AD26	VCC	D12
VCC	AC35	VCC	D11
VCC	AC34	VCC	C14
VCC	AC33	VCC	C13
VCC	AC32	VCC	C12
VCC	AC31	VCC	C11
VCC	AC30	VCC	B14
VCC	AC29	VCC	B12
VCC	AC28	VCC	A14
VCC	AC27	VCC	A13
VCC	AC26	VCC	A12
VCC	AA35	VCC	A11
VCC	AA34	VCC	J23
VCC	AA33	VCC	
VCC	AA32	VCC	
VCC	AA31	VCC	
VCC	AA30	VCC	
VCC	AA29	VCC	
VCC	AA28	VCC	
VCC	AA27	VCC	
VCC	AA26	VCC	
VCC	V35	VCC	
VCC	V34	VCC	
VCC	V33	VCC	
VCC	V32	VCC	
VCC	V31	VCC	
VCC	V30	VCC	
VCC	V29	VCC	
VCC	V28	VCC	
VCC	V27	VCC	
VCC	V26	VCC	
VCC	V35	VCC	
VCC	U34	VCC	
VCC	U33	VCC	
VCC	U32	VCC	
VCC	U31	VCC	
VCC	U30	VCC	
VCC	U29	VCC	
VCC	U28	VCC	
VCC	U27	VCC	
VCC	U26	VCC	
VCC	U25	VCC	
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VCC	R33	VCC	
VCC	R32	VCC	
VCC	R31	VCC	
VCC	R30	VCC	
VCC	R29	VCC	
VCC	R28	VCC	
VCC	P37	VCC	
VCC	P36	VCC	
VCC	P35	VCC	
VCC	P34	VCC	
VCC	P33	VCC	
VCC	P32	VCC	
VCC	P31	VCC	
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VCC	P28	VCC	
VCC	P27	VCC	
VCC	P26	VCC	



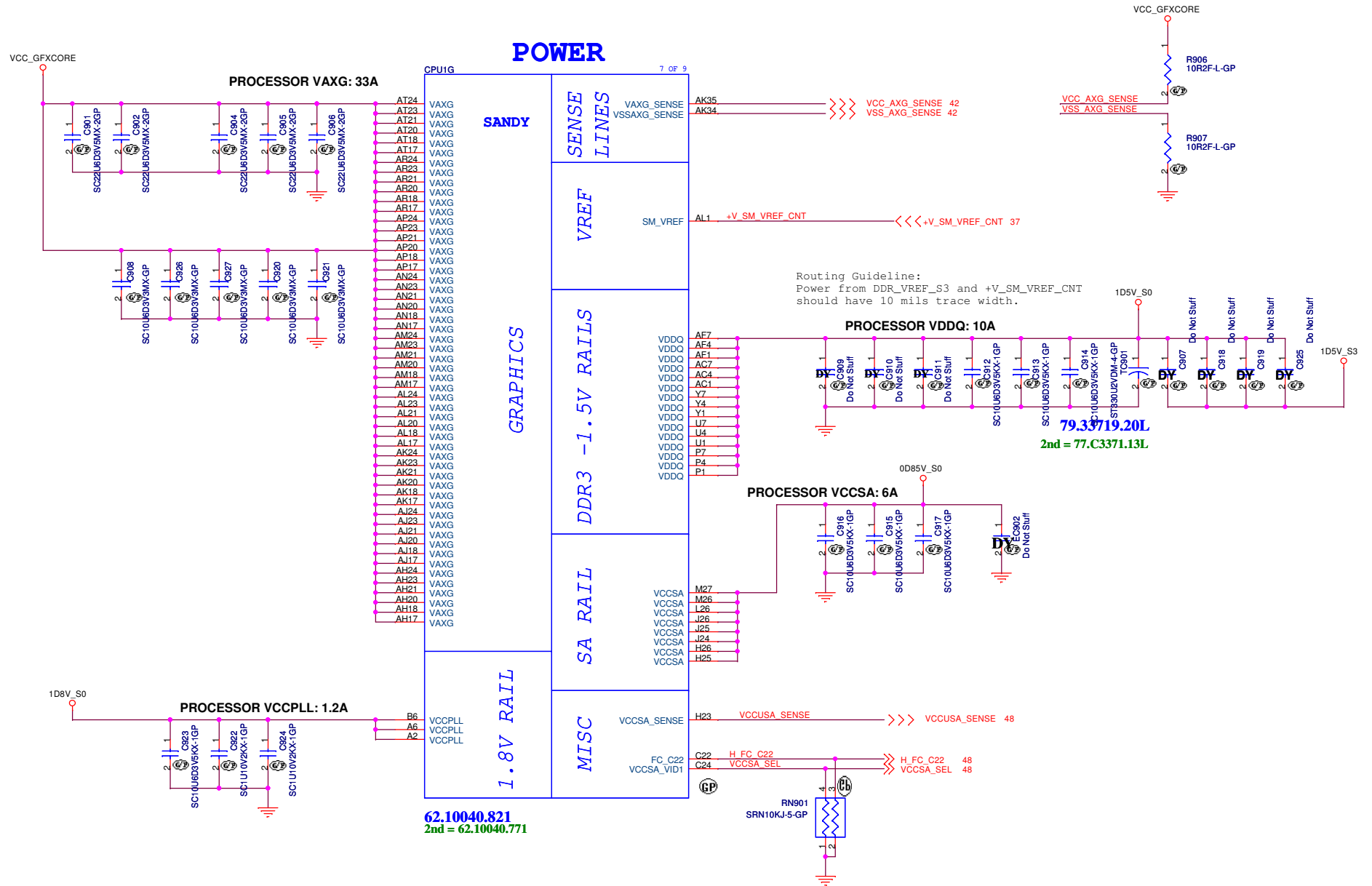
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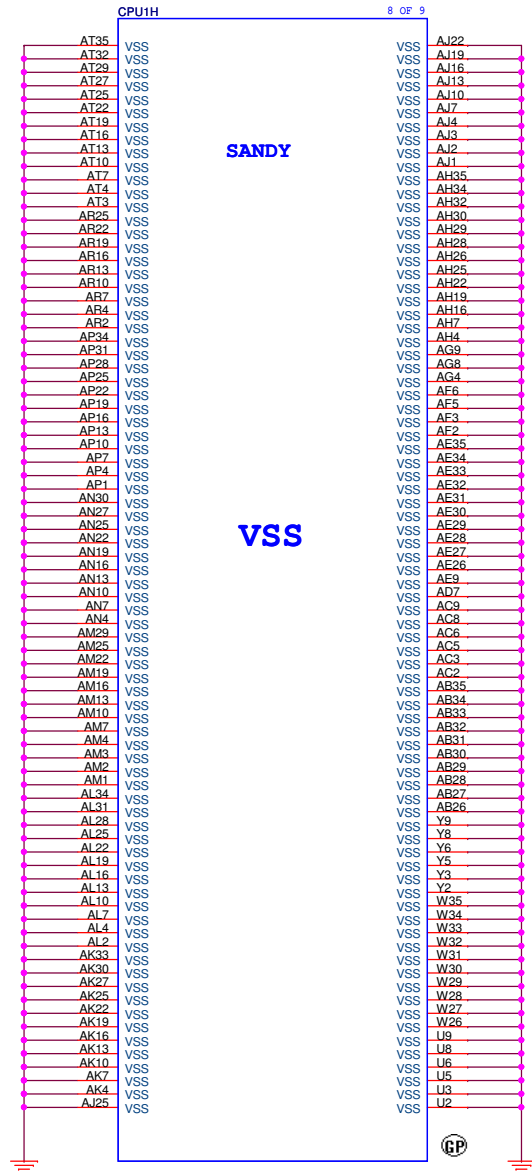
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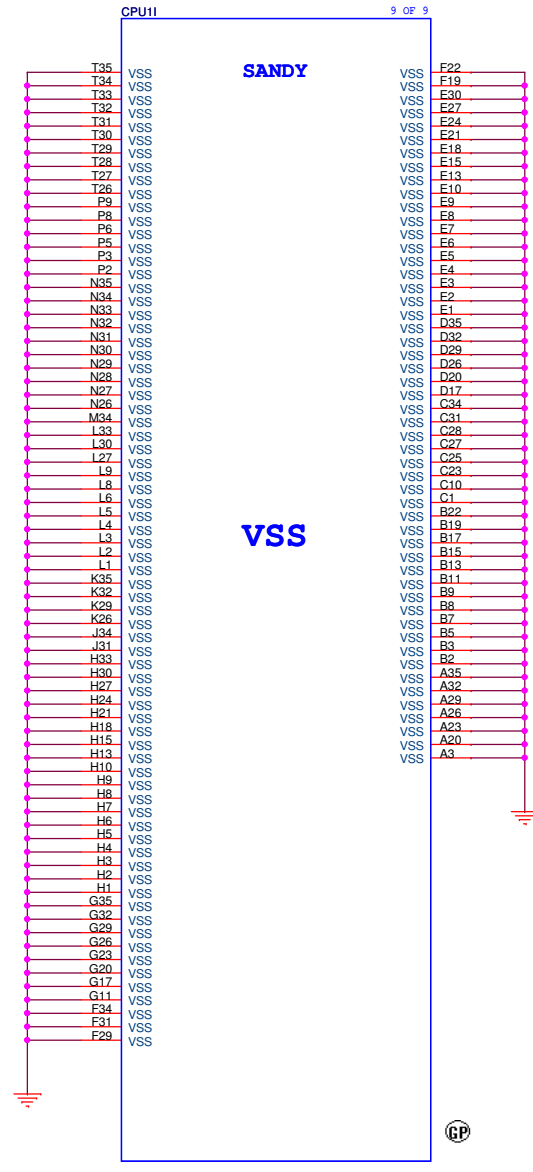
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SSID = CPU



62.10040.821
2nd = 62.10040.771



62.10040.821
2nd = 62.10040.771

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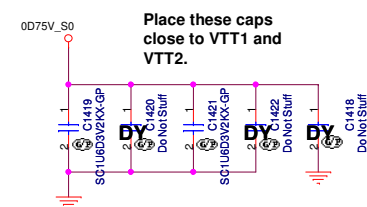
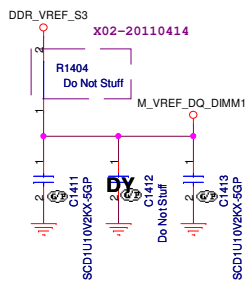
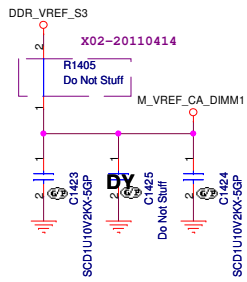
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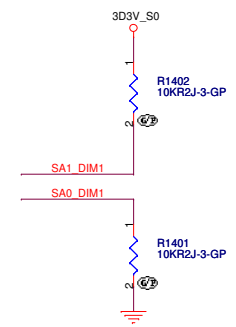
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SSID = MEMORY



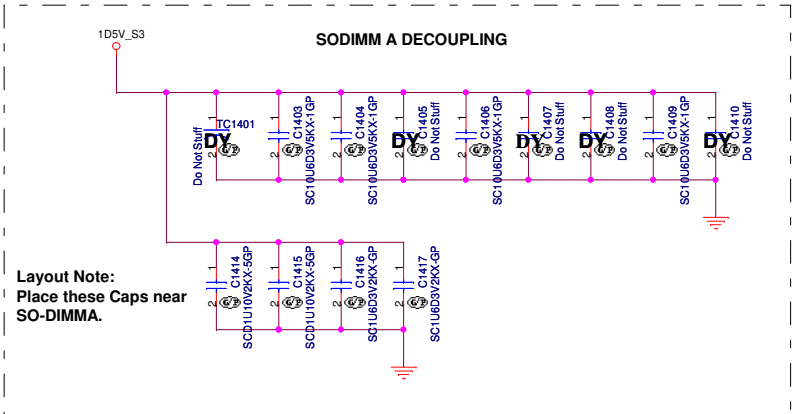
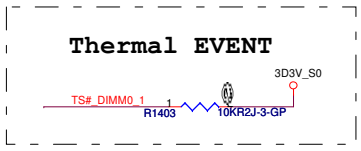
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M_B_A1	97	NP1
M_B_A2	96	NP2
M_B_A3	95	A0
M_B_A4	92	A1
M_B_A5	91	A2
M_B_A6	90	A3
M_B_A7	88	A4
M_B_A8	89	A5
M_B_A9	85	A6
M_B_A10	107	A7
M_B_A11	84	A8
M_B_A12	83	A9
M_B_A13	119	A10/AP
M_B_A14	80	A11
M_B_A15	78	A12
	79	A13
		A14
		A15
		A16/BA2
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M_B_BS0	>>>	BA1
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M_B_DQS6	171	DQS6
M_B_DQS7	188	DQS7
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M_VREF_DQ_DIMM1	>>>	VREF_DQ
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0D75V_S0	>>>	VTT1
	>>>	VTT2

NP1	NP2	M_B_RAS#	6
RAS#	>>>	M_B_WE#	6
WE#	>>>	M_B_CAS#	6
CAS#	>>>	M_B_DIM0_CS#0	6
	>>>	M_B_DIM0_CS#1	6
	>>>	M_B_DIM0_CKE0	6
	>>>	M_B_DIM0_CKE1	6
CS0#	>>>	M_B_DIM0_CLK_DDR0	6
CS1#	>>>	M_B_DIM0_CLK_DDR#0	6
CKE0	>>>	M_B_DIM0_CLK_DDR1	6
CKE1	>>>	M_B_DIM0_CLK_DDR#1	6
CK0	>>>		
CK0#	>>>		
CK1	>>>		
CK1#	>>>		
DM0	11		
DM1	28		
DM2	46		
DM3	63		
DM4	136		
DM5	153		
DM6	170		
DM7	187		
SDA	200	PCH_SMBDATA	15.20.65
SCL	202	PCH_SMBCLK	15.20.65
EVENT#	198	TS#_DIMM0_1	15
VDDSPD	199		
SA0	197	SA0_DIM1	
SA1	201	SA1_DIM1	
NC#1	77		
NC#2	122		
NC#3	125		
VDD1	75		
VDD2	76		
VDD3	81		
VDD4	82		
VDD5	87		
VDD6	88		
VDD7	93		
VDD8	94		
VDD9	99		
VDD10	100		
VDD11	105		
VDD12	106		
VDD13	111		
VDD14	112		
VDD15	117		
VDD16	118		
VDD17	123		
VDD18	124		
VSS	2		
VSS	3		
VSS	8		
VSS	9		
VSS	13		
VSS	14		
VSS	19		
VSS	20		
VSS	25		
VSS	26		
VSS	31		
VSS	32		
VSS	37		
VSS	38		
VSS	43		
VSS	44		
VSS	48		
VSS	49		
VSS	54		
VSS	55		
VSS	59		
VSS	60		
VSS	61		
VSS	65		
VSS	66		
VSS	71		
VSS	72		
VSS	127		
VSS	128		
VSS	133		
VSS	134		
VSS	138		
VSS	139		
VSS	144		
VSS	145		
VSS	150		
VSS	151		
VSS	155		
VSS	156		
VSS	161		
VSS	162		
VSS	167		
VSS	168		
VSS	172		
VSS	173		
VSS	178		
VSS	179		
VSS	184		
VSS	185		
VSS	189		
VSS	190		
VSS	195		
VSS	196		
VSS	205		
VSS	206		



Note:
If SA0_DIM0 = 0, SA1_DIM0 = 0
SO-DIMMA SPD Address is 0xA0
SO-DIMMA TS Address is 0x30

If SA0_DIM0 = 0, SA1_DIM0 = 1
SO-DIMMA SPD Address is 0xA2
SO-DIMMA TS Address is 0x32



Layout Note:
Place these Caps near SO-DIMMA.

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DV15 HR Vos GIGA HDMI NoSurge

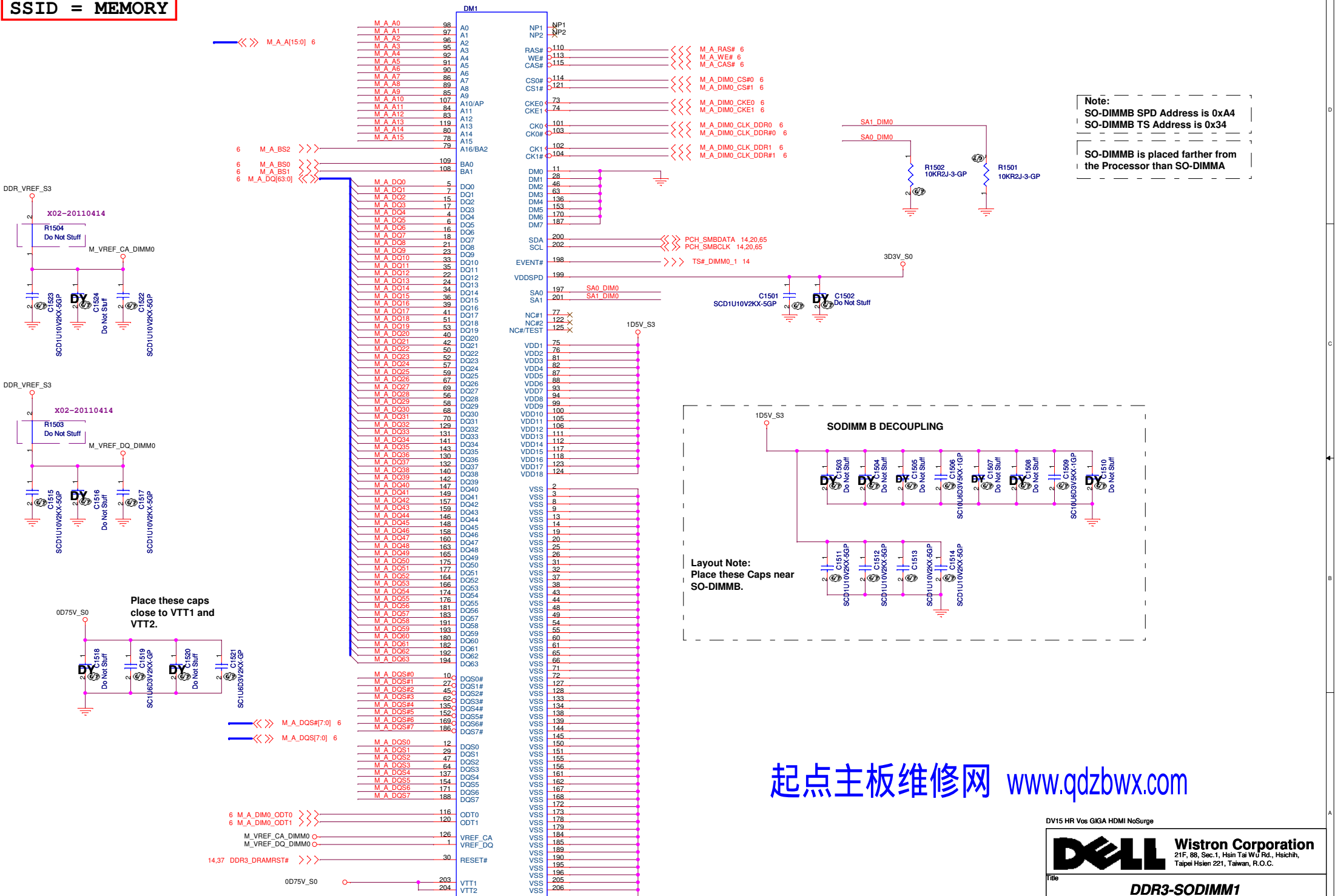
DELL Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **DDR3-SODIMM2**

Size: Custom Document Number: Enrico/Caruso 15 HR Rev: X01

Date: Thursday, June 02, 2011 Sheet: 14 of 104

SSID = MEMORY



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DI15 HR Vos GIGA HDMI NoSurge

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Title: **DDR3-SODIMM1**

Size: Custom Document Number: X01
Date: Thursday, June 02, 2011 Sheet 15 of 104

(Blanking)

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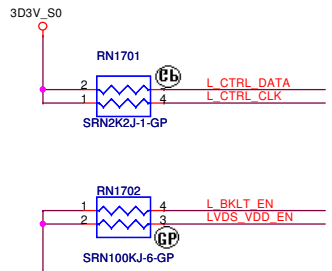
<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge



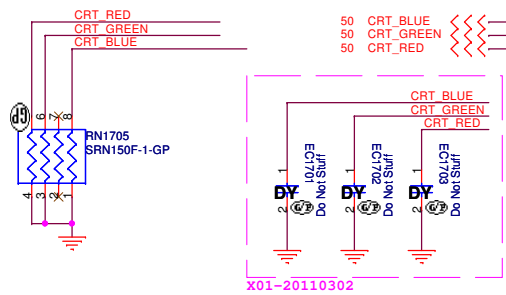
Title		
Reserved		
Size A3	Document Number Enrico/Caruso 15 HR	Rev X01
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L_DDC_DATA(PAGE17):
 This signal is on the LVDS interface.
 This signal needs to be left NC if eDP is
 used for the local flat panel display

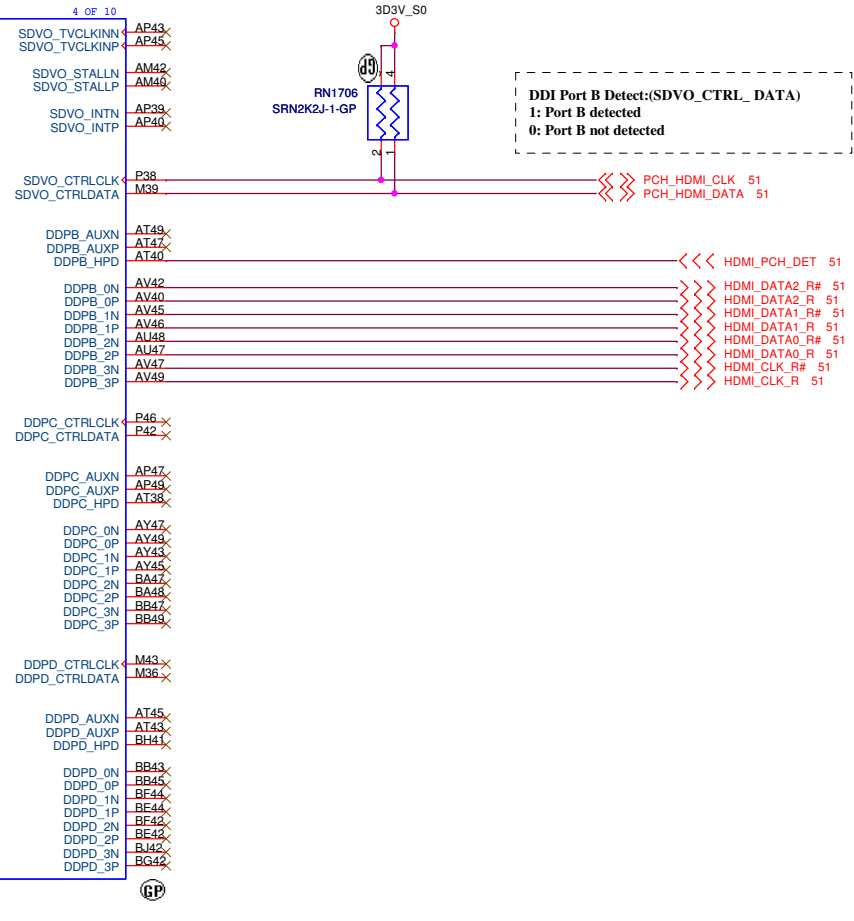
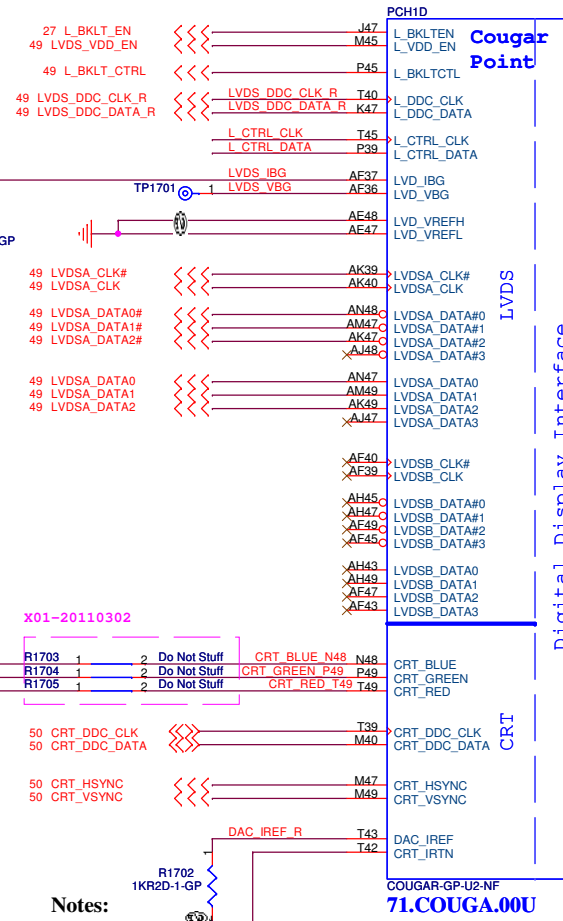


Place near PCH

Close to PCH side



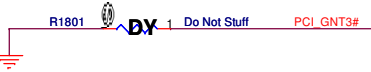
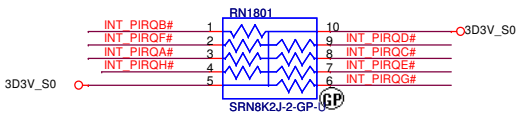
Notes:
 1K 0.5% 0402.
 CHIP RES 1K D 1/16W 0402



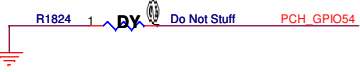
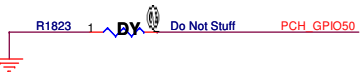
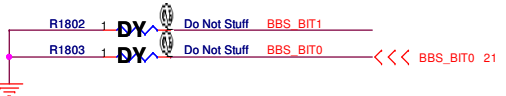
DDI Port B Detect:(SDVO_CTRL_DATA)
 1: Port B detected
 0: Port B not detected

SSID = PCH

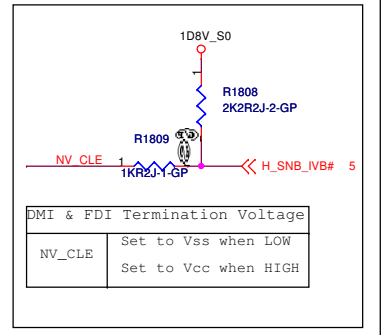
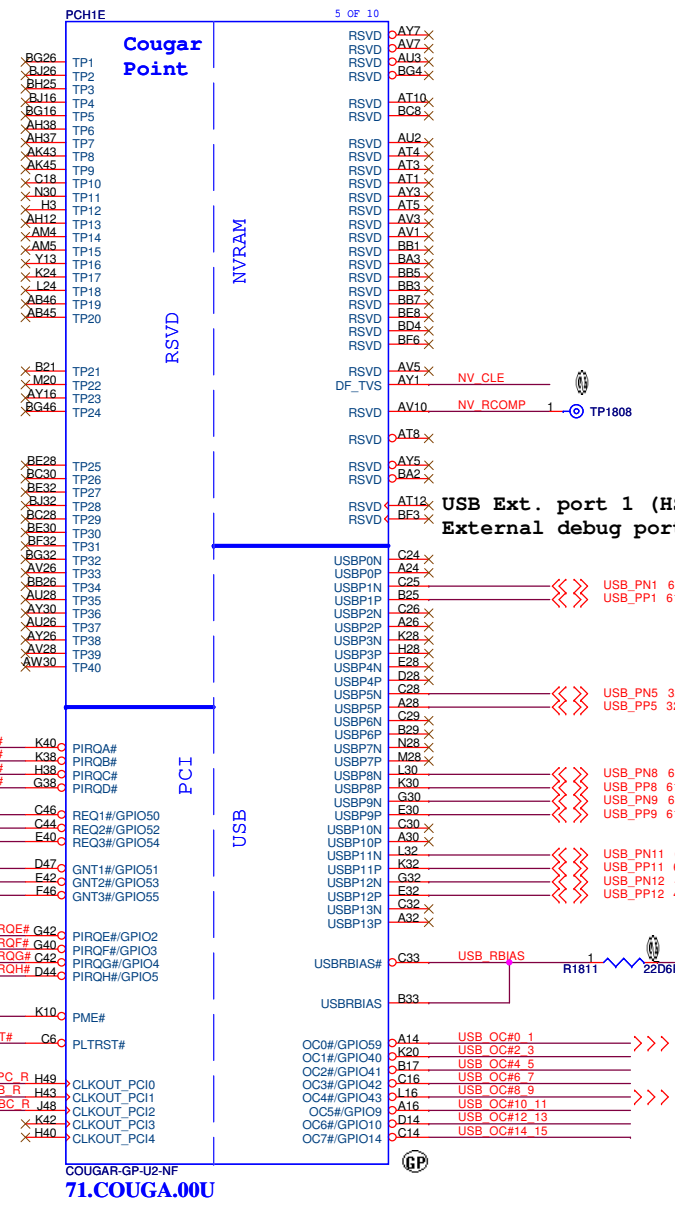
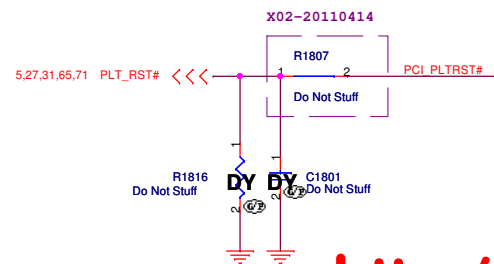
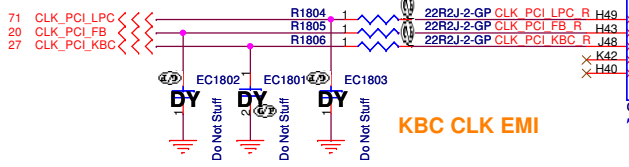
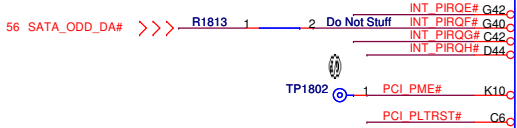
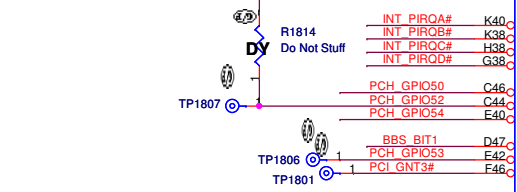
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Al6 swap override Strap/Top-Block Swap Override jumper	
PCI_GNT#3	Low = Al6 swap override/Top-Block Swap Override enabled High = Default



BOOT BIOS Strap		
GNT1#/GPIO51	SATA1GP/GPIO19	BOOT BIOS Location
0	0	LPC
0	1	Reserved
1	0	Reserved
1	1	SPI (Default)



USB Ext. port 1 (HS)
External debug port use on Huron river platform
USB Table

Pair	Device
0	X
1	USB Ext. port 1 (HS)
2	X
3	X
4	X
5	CARD READER
6	X
7	X
8	USB Ext. port 2
9	USB Ext. port 3
10	X
11	Mini Card1 (WLAN)
12	CAMERA
13	X

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

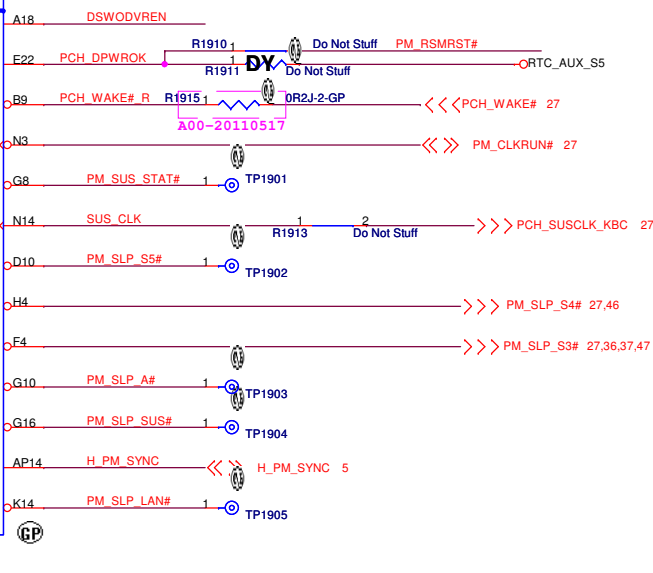
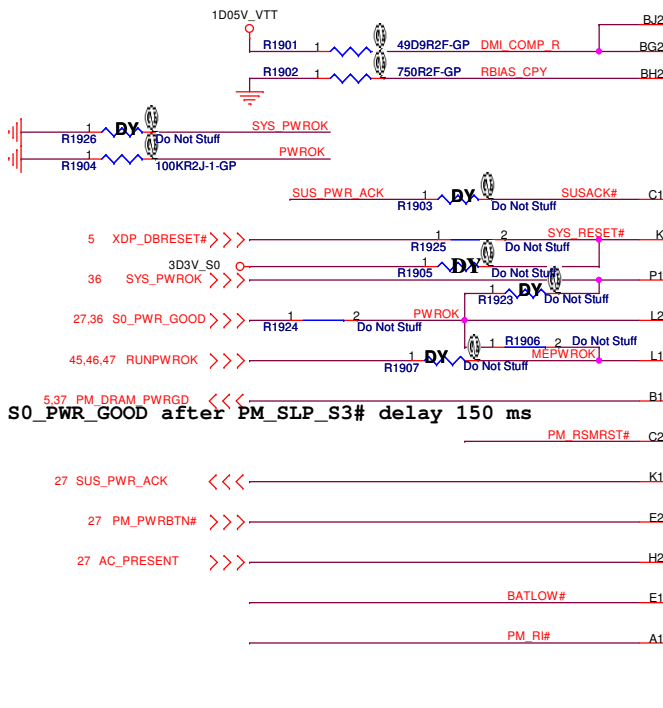
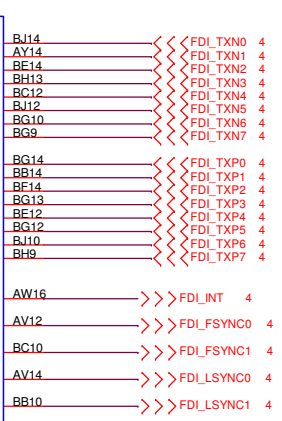
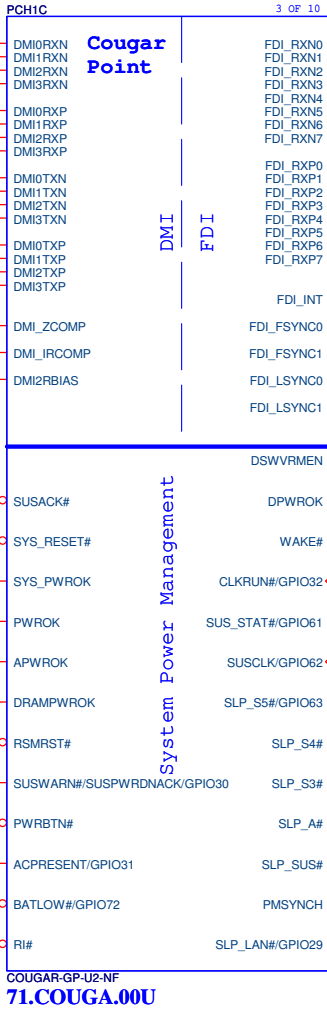
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Size A3 Document Number: **Enrico/Caruso 15 HR** Rev: **X01**

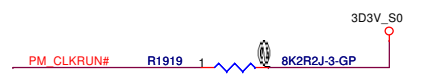
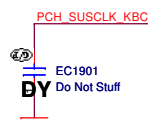
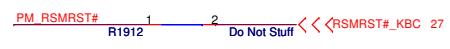
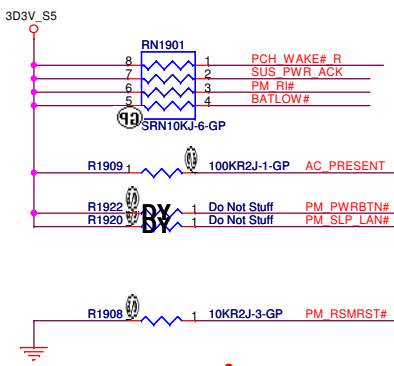
Date: Thursday, June 02, 2011 Sheet 18 of 104

SSID = PCH

Signal Routing Guideline:
 DMI_ZCOMP keep W=4 mils and routing length less than 500 mils.
 DMI_IRCOMP keep W=4 mils and routing length less than 500 mils.



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



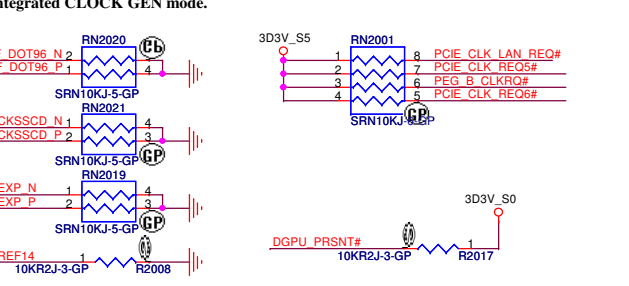
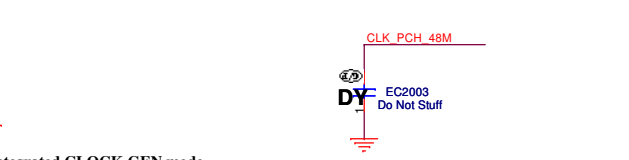
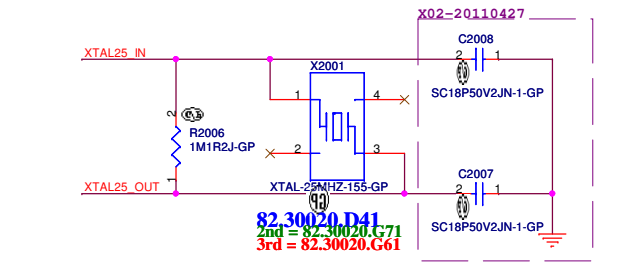
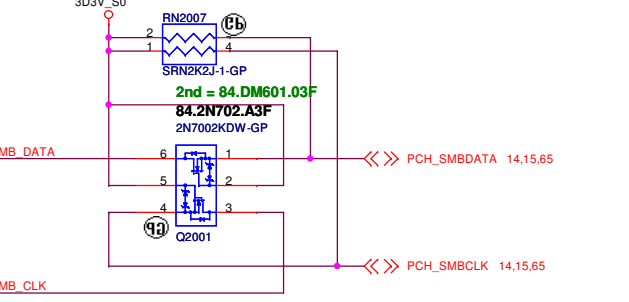
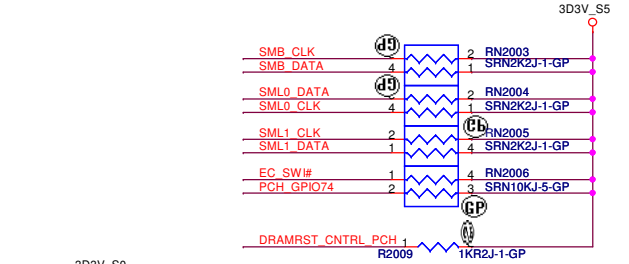
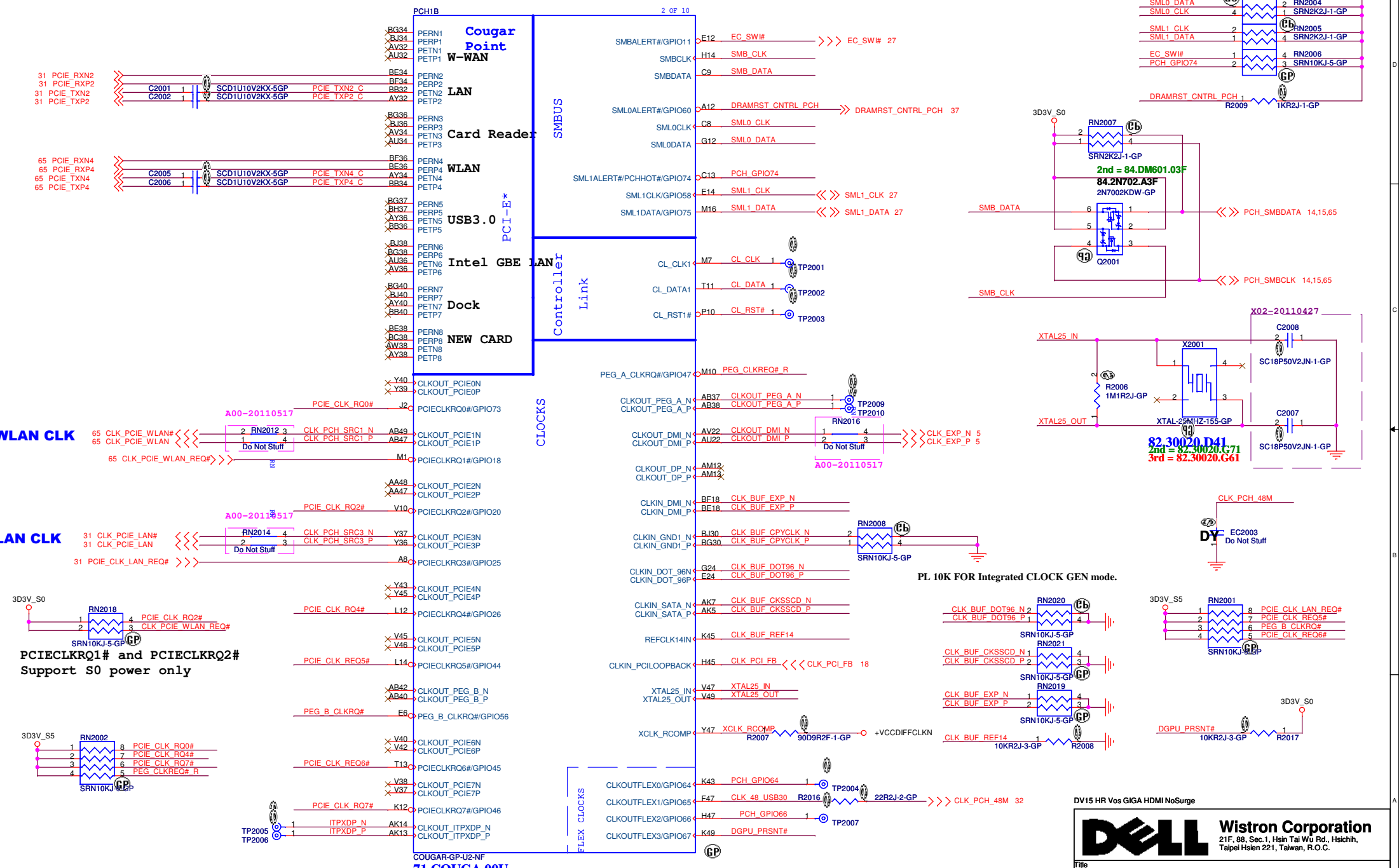
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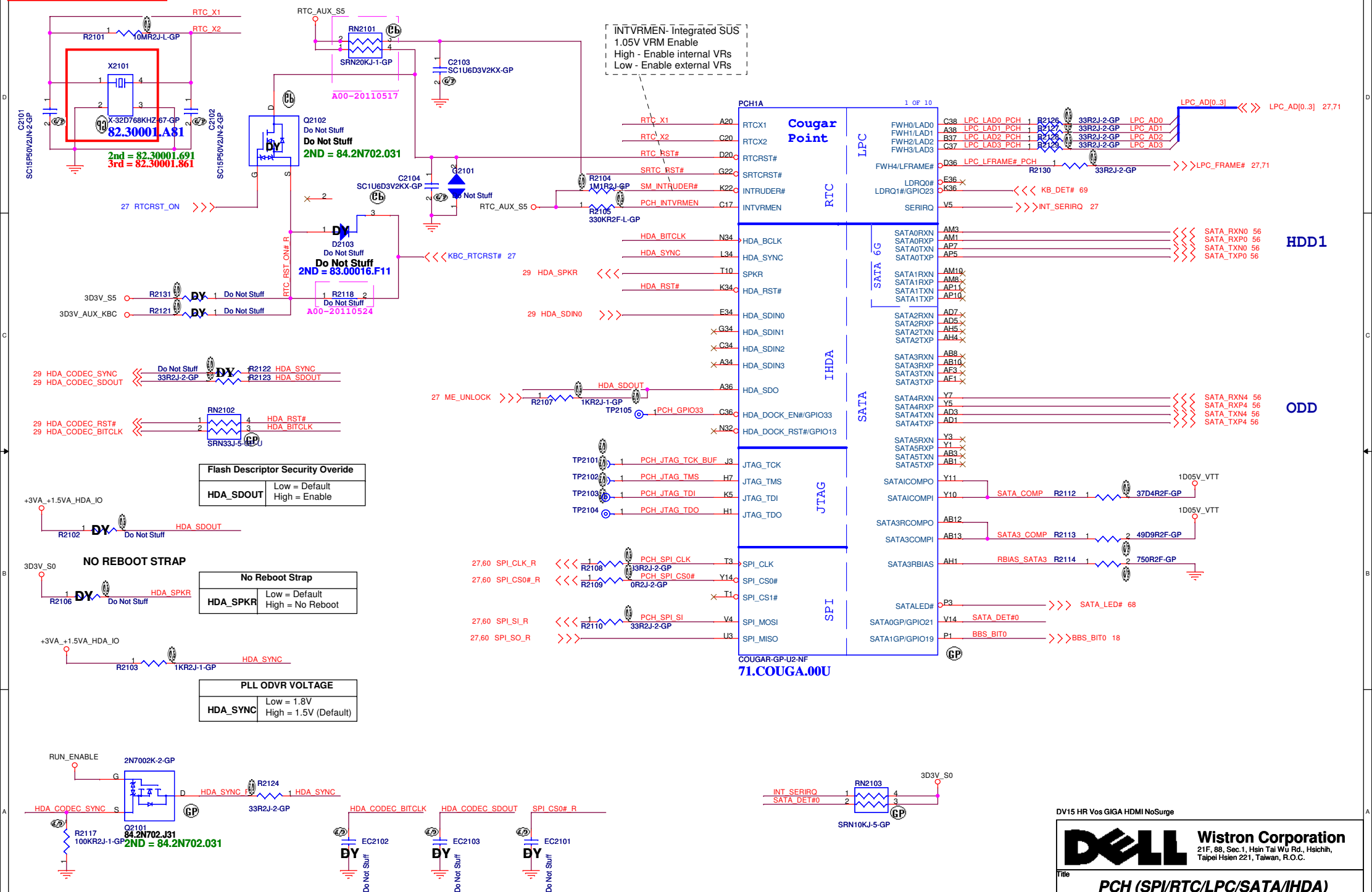
Wistron Corporation
 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **PCH (DM I/FDI/PM)**
 Size A3 Document Number: **Enrico/Caruso 15 HR** Rev: **X01**
 Date: Thursday, June 02, 2011 Sheet 19 of 104

SSID = PCH



SSID = PCH



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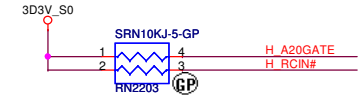
DELL Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **PCH (SPI/RTC/LPC/SATA/IHDA)**

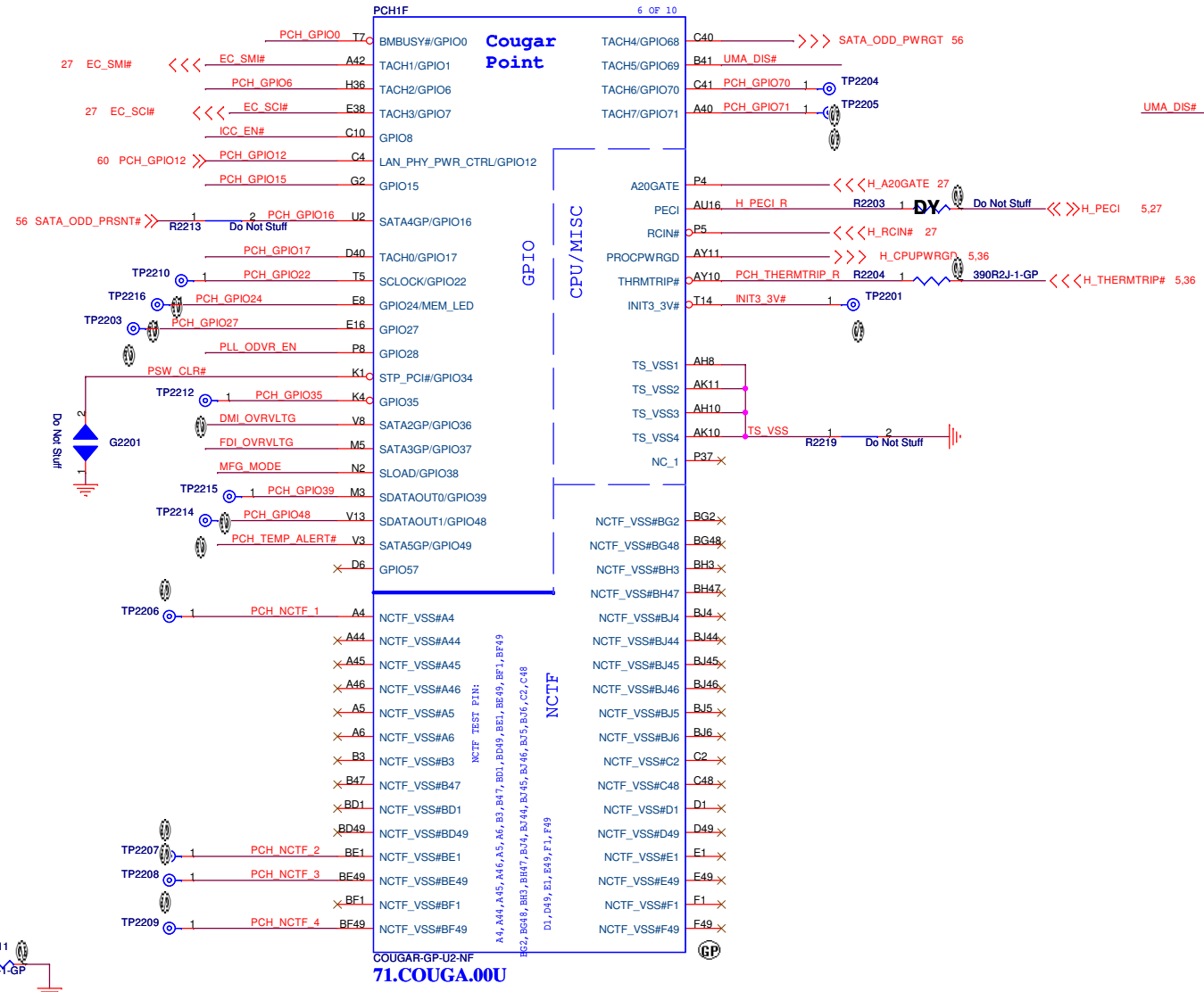
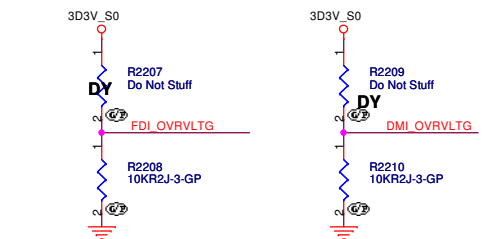
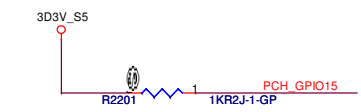
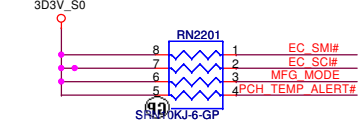
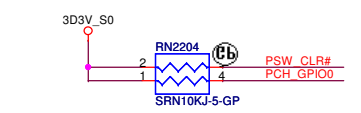
Size A3	Document Number	Rev
Date: Thursday, June 02, 2011	Enrico/Caruso 15 HR	X01

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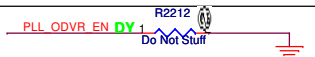
SSID = PCH



GPIO27 has a weak [20K] internal pull up. To enable on-die PLL Voltage regulator, should not place external pull down.



PLL ON DIE VR ENABLE
 NOTE: This signal has a weak internal pull-up 20k
 ENABLED -- HIGH (R2212 UNSTUFFED) DEFAULT
 DISABLED -- LOW (R2212 STUFFED)



DV15 HR Vos GIGA HDMI NoSurge

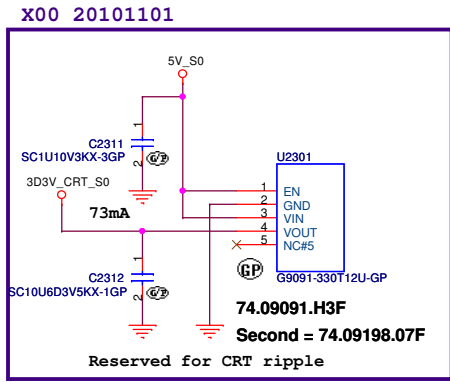
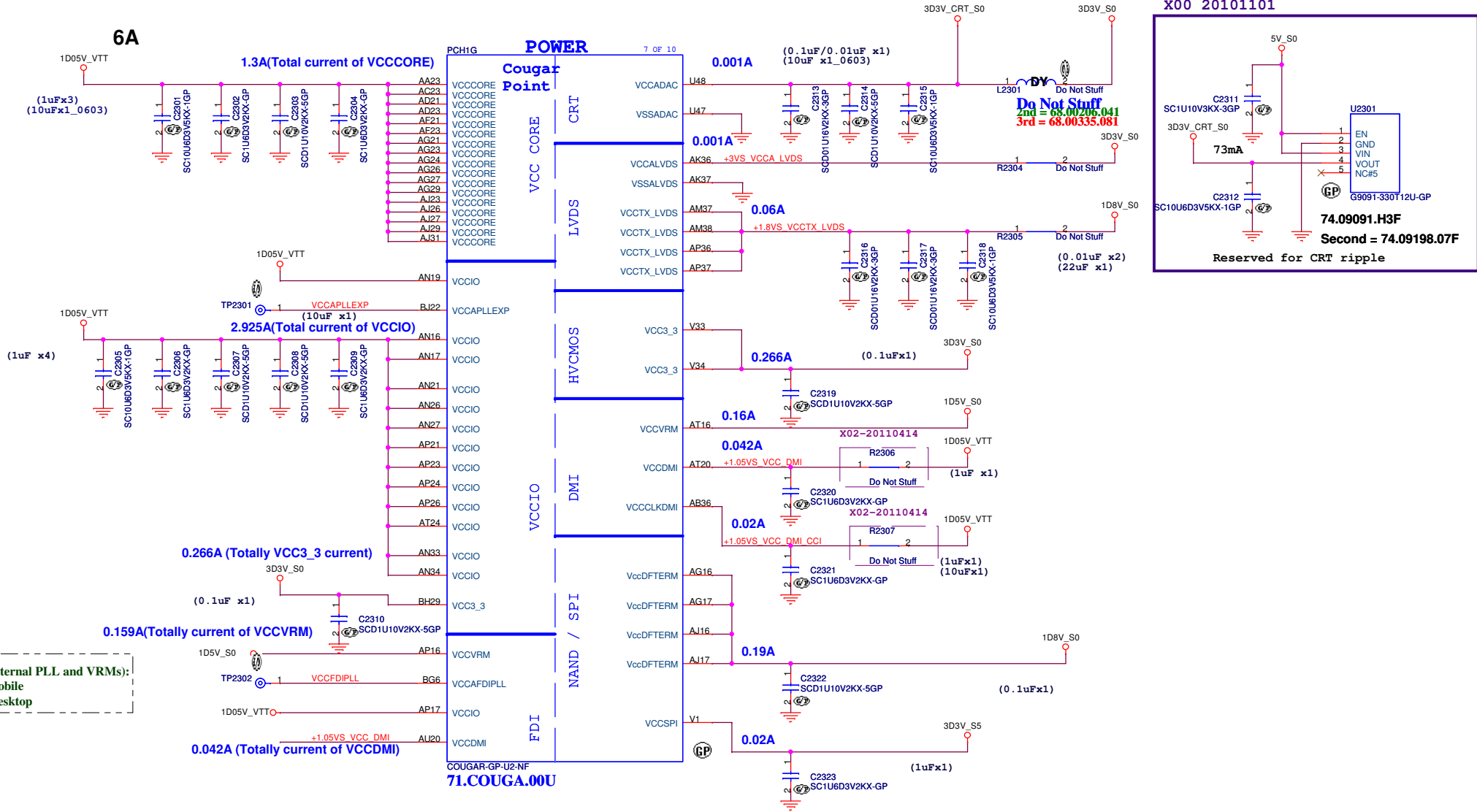
DELL Wistron Corporation
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Title: **PCH (GPIO/CPU)**

Size A3 Document Number: **Enrico/Caruso 15 HR** Rev: **X01**

Date: Thursday, June 02, 2011 Sheet 22 of 104

SSID = PCH



VCCVRM (Internal PLL and VRMs):
 A.1.5V for Mobile
 B.1.8 V for Desktop

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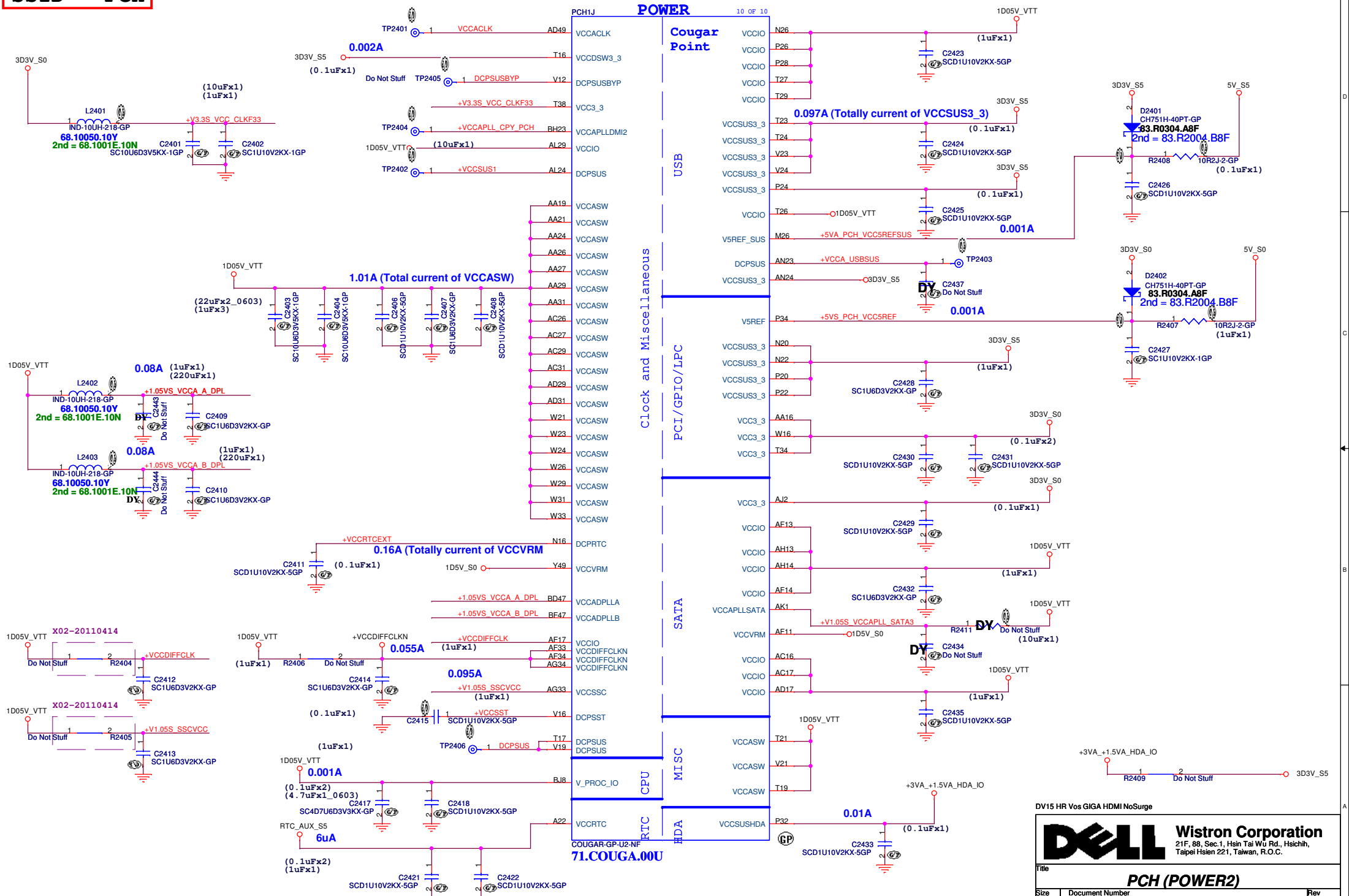
DV15 HR Vos GIGA HDMI NoSurge

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Title: **PCH (POWER1)**

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Date: Thursday, June 02, 2011	Sheet 23	of 104

SSID = PCH



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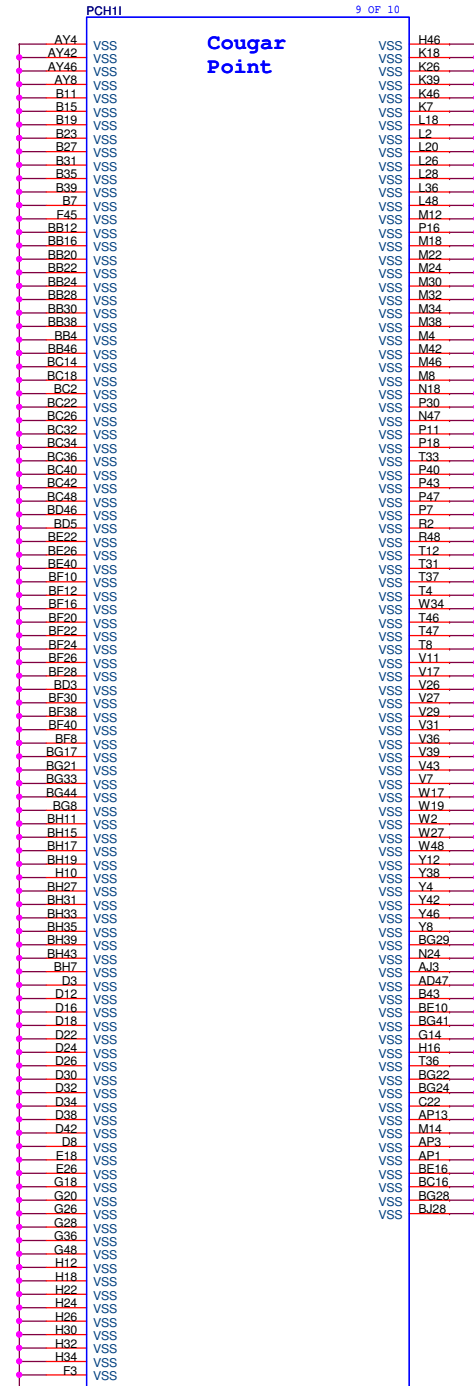
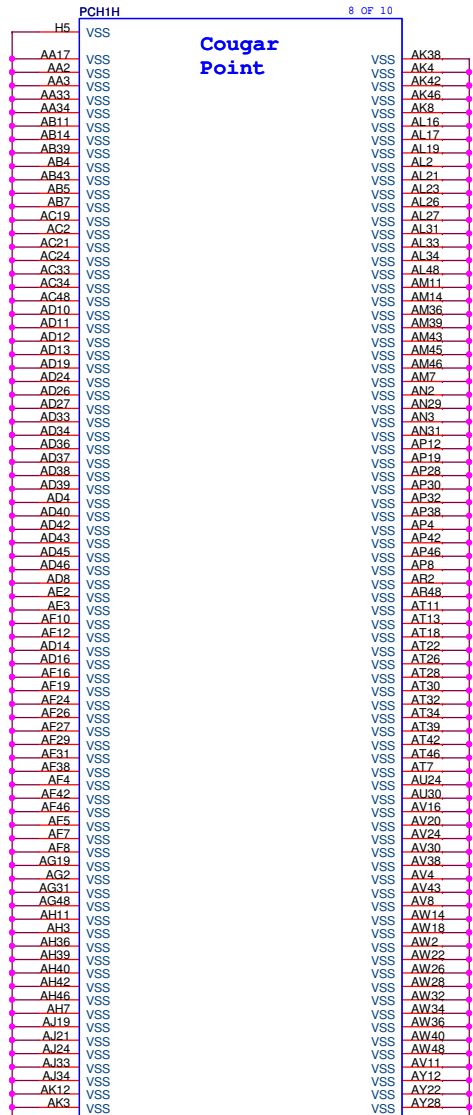
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Title: **PCH (POWER2)**

Size A3	Document Number	Rev
Date: Thursday, June 02, 2011	Enrico/Caruso 15 HR	X01

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SSID = PCH



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

Title: **PCH (VSS)**

Size A3	Document Number	Rev
	Enrico/Caruso 15 HR	X01
Date: Thursday, June 02, 2011	Sheet 25	of 104

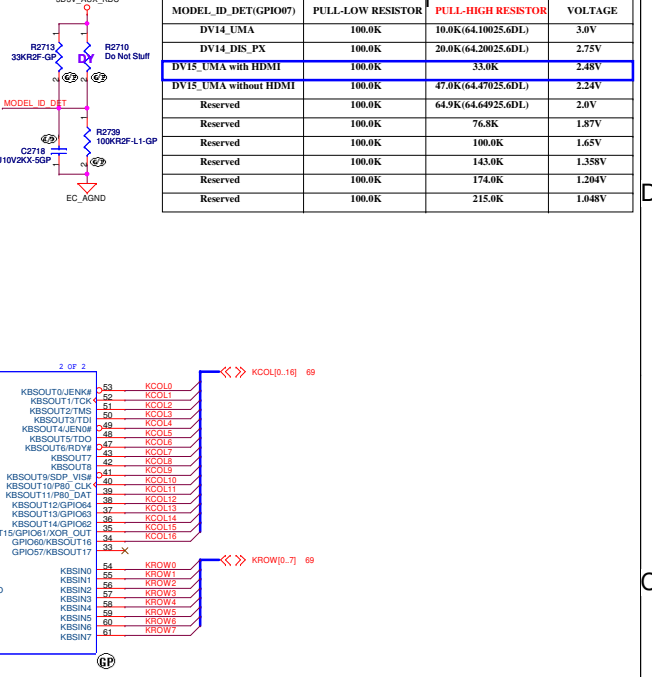
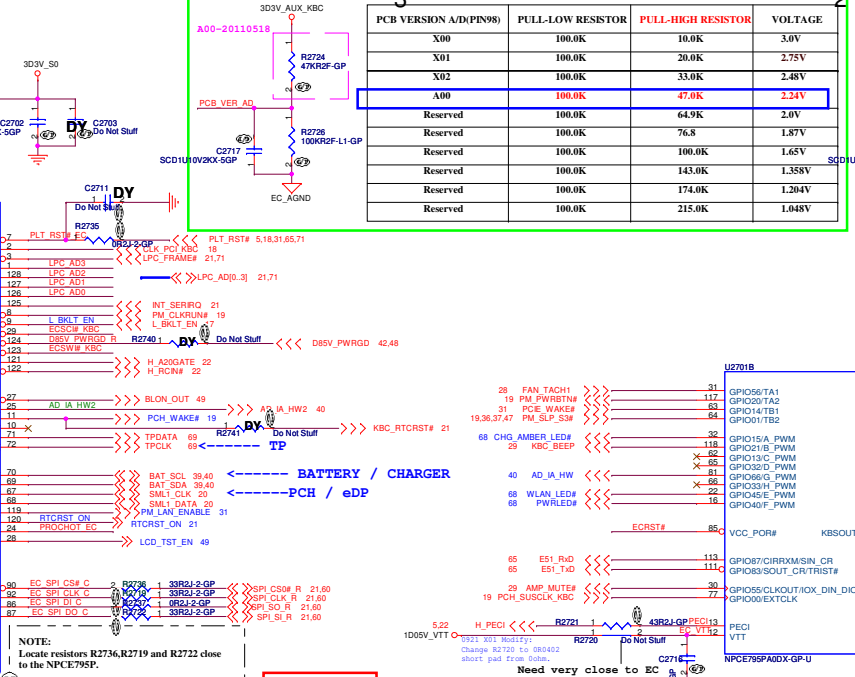
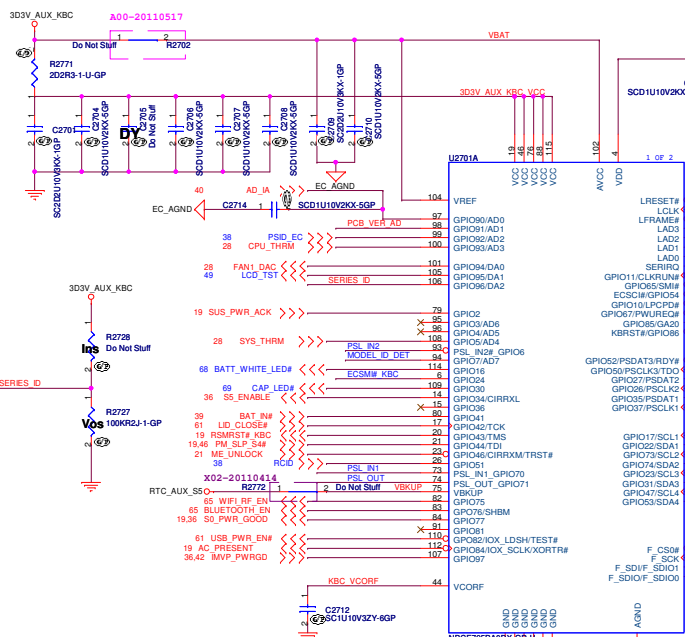
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DV15 HR Vos GIGA HDMI NoSurge



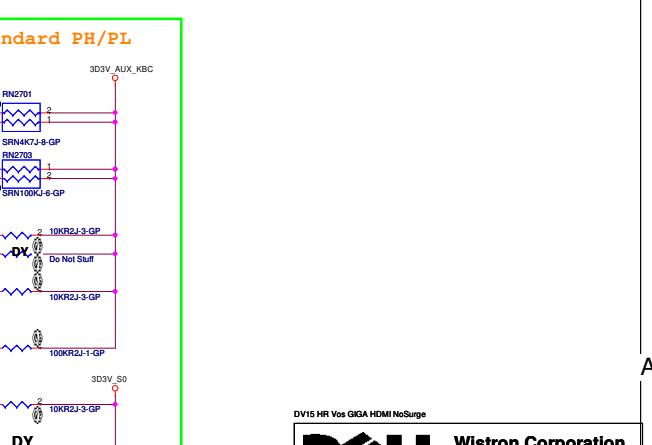
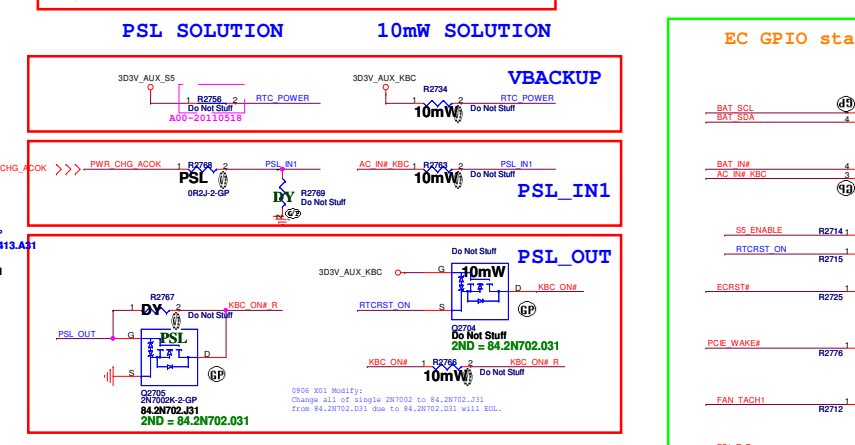
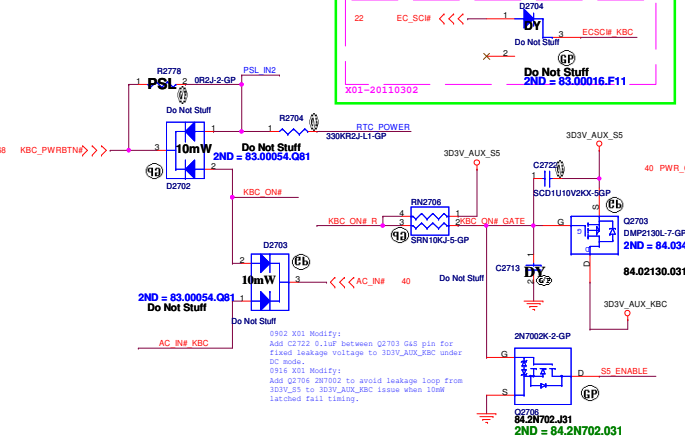
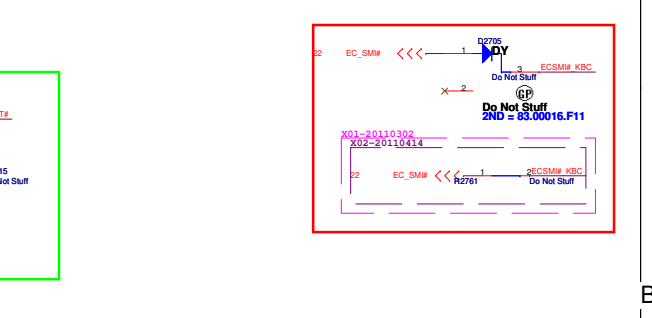
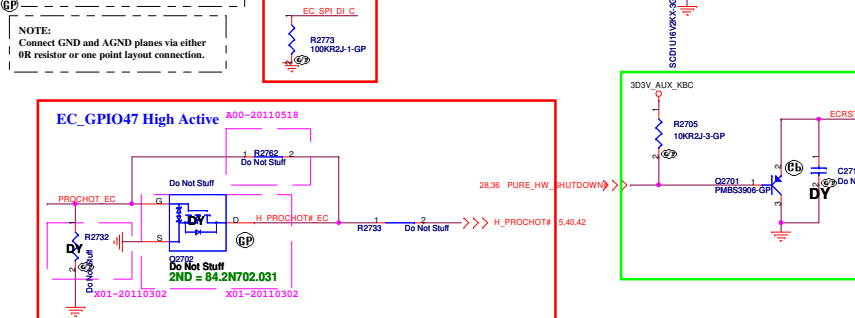
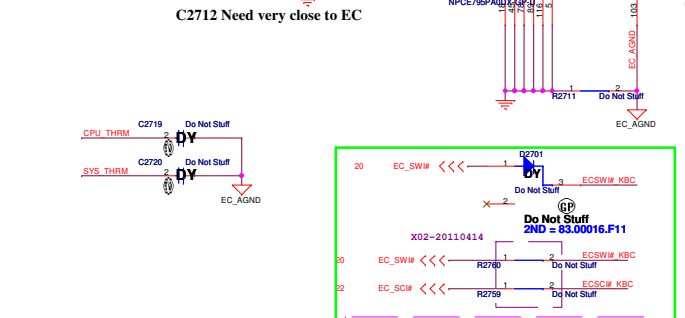
Title		
Reserved		
Size A3	Document Number Enrico/Caruso 15 HR	Rev X01
Date: Thursday, June 02, 2011	Sheet 26	of 104

SSID = KBC



PCB VERSION s/D(P/N#98)	PULL-LOW RESISTOR	PULL-HIGH RESISTOR	VOLTAGE
X00	100.0K	10.0K	3.0V
X01	100.0K	20.0K	2.75V
X02	100.0K	33.0K	2.48V
A00	100.0K	47.0K	2.24V
Reserved	100.0K	64.9K	2.0V
Reserved	100.0K	76.8	1.87V
Reserved	100.0K	100.0K	1.65V
Reserved	100.0K	143.0K	1.358V
Reserved	100.0K	174.0K	1.204V
Reserved	100.0K	215.0K	1.048V

MODEL_ID_DET(GPIO#7)	PULL-LOW RESISTOR	PULL-HIGH RESISTOR	VOLTAGE
DV14_UMA	100.0K	10.0K(64.10025.GDL)	3.0V
DV14_DIS_PX	100.0K	20.0K(64.20025.GDL)	2.75V
DV15_UMA with HDMI	100.0K	33.0K	2.48V
DV15_UMA without HDMI	100.0K	47.0K(64.47025.GDL)	2.24V
Reserved	100.0K	64.9K(64.64925.GDL)	2.0V
Reserved	100.0K	76.8K	1.87V
Reserved	100.0K	100.0K	1.65V
Reserved	100.0K	143.0K	1.358V
Reserved	100.0K	174.0K	1.204V
Reserved	100.0K	215.0K	1.048V



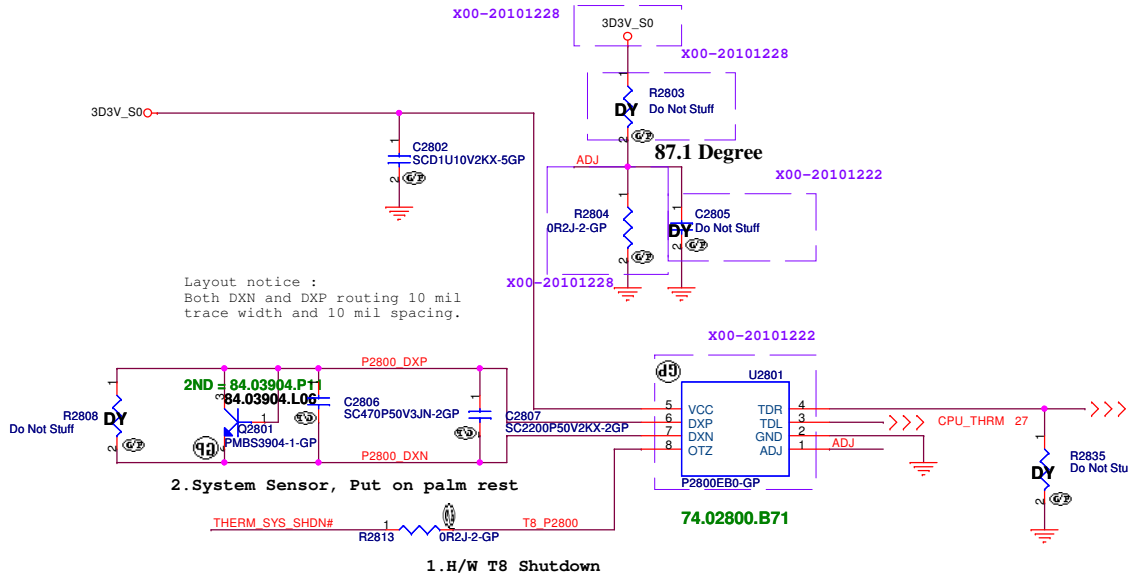
NOTES:
Please make sure there's no pull-down resistor on USB_PWR_EN#,AC_PRESENT,ES1_VTTD.

Wistron Corporation
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsinchu, Taipei Hsein 301, Taiwan, R.O.C.

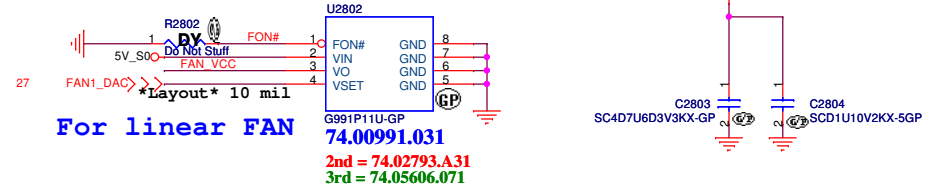
File: **KBC NuvoTon NPCE795** Rev: **X01**
Size: Document Number
A2: **Enrico/Caruso 15 HR**
Date: 11/08/2011, June 02, 2011 Sheet: 27 of 104

SSID = Thermal

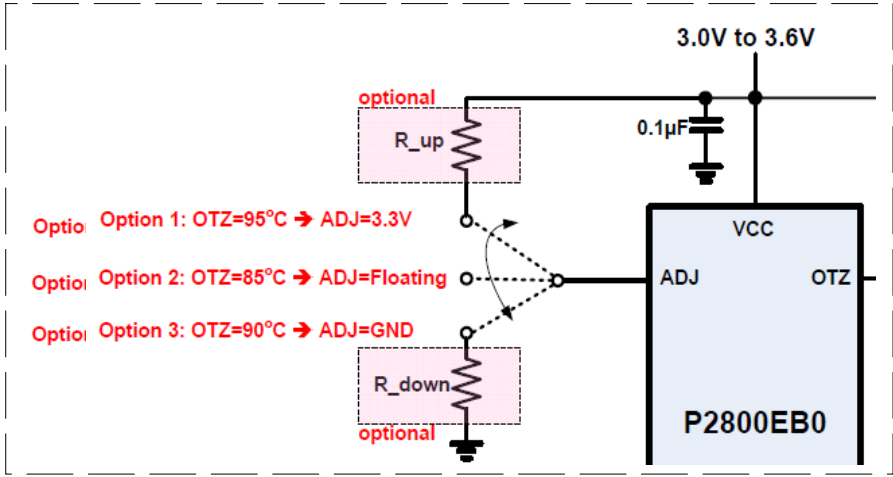
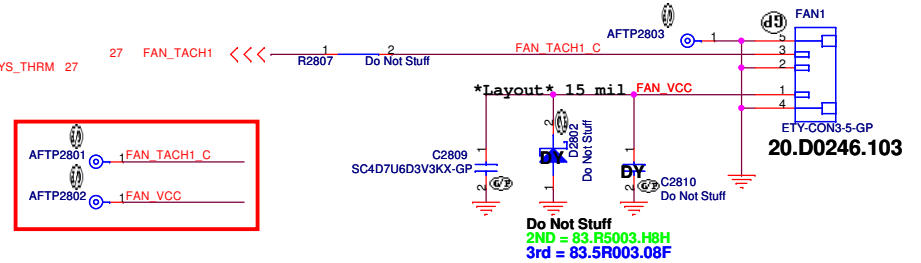
Thermal sensor P2800



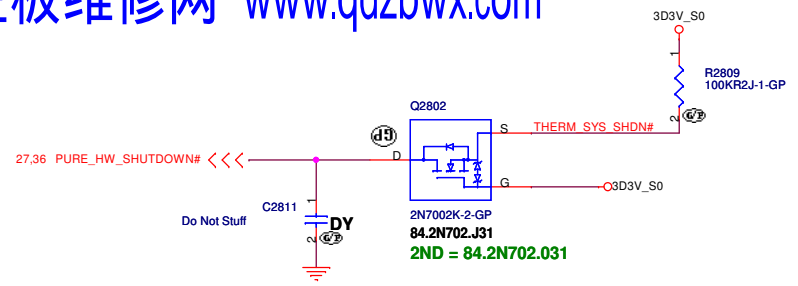
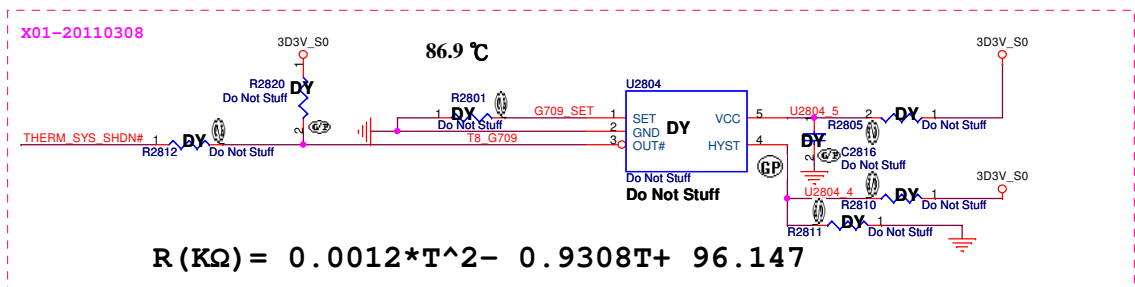
Fan controller G991



For linear FAN



起点主板维修网 www.qdzbwx.com



http://sualaptop365.edu.vn

DV15 HR Vos GIGA HDMI NoSurge

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

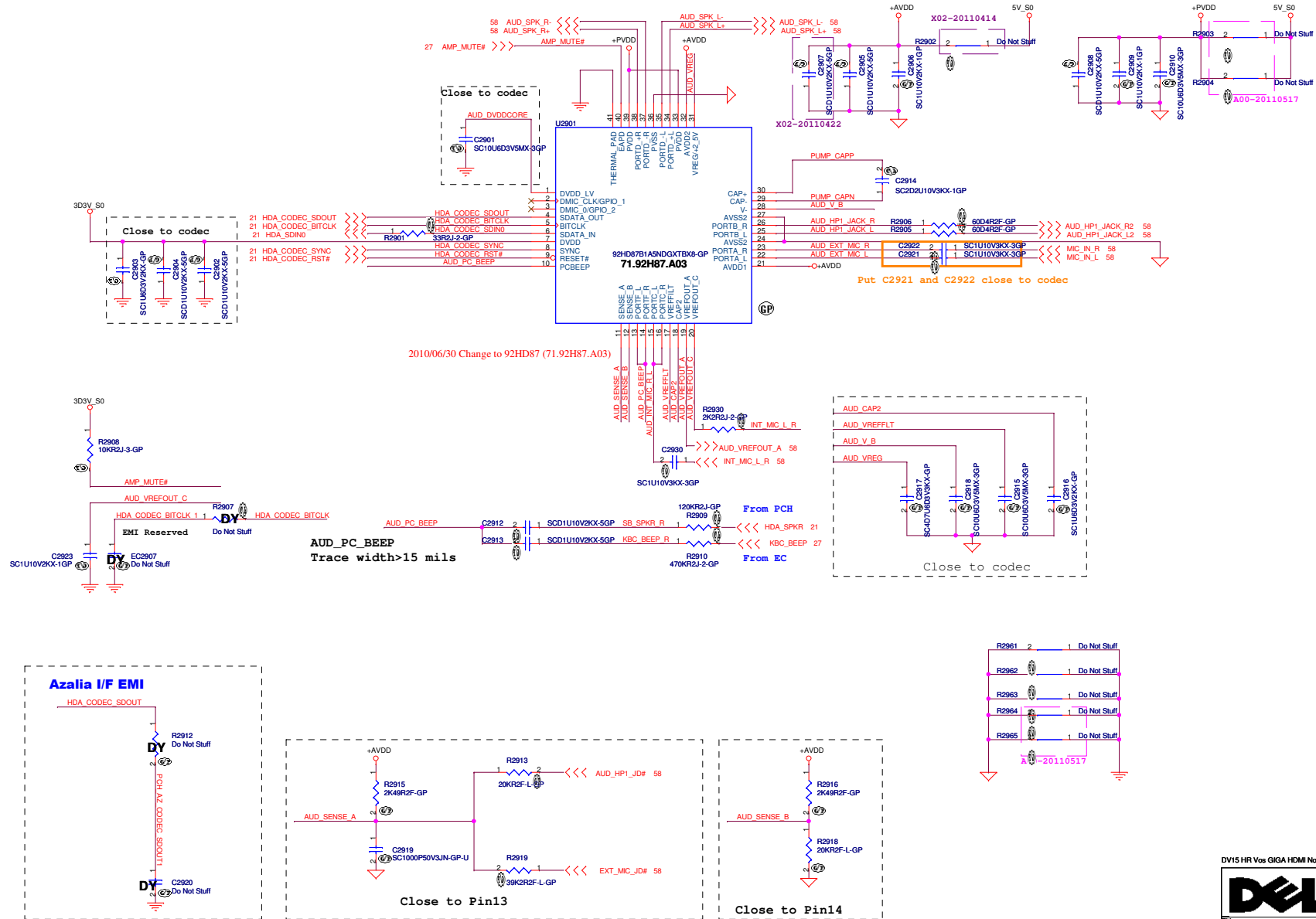
Title: **Thermal P2800/Fan Controller P2793**

Size A3	Document Number	Rev X01
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Enrico/Caruso 15 HR

SSID = AUDIO

起点主板维修网 www.qdzbxw.com



DV15 HR Vos GIGA HDMI NoSurge

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

Title		
Audio Codec 92HD87B1		
Size	Document Number	Rev
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<http://sualaptop365.edu.vn>

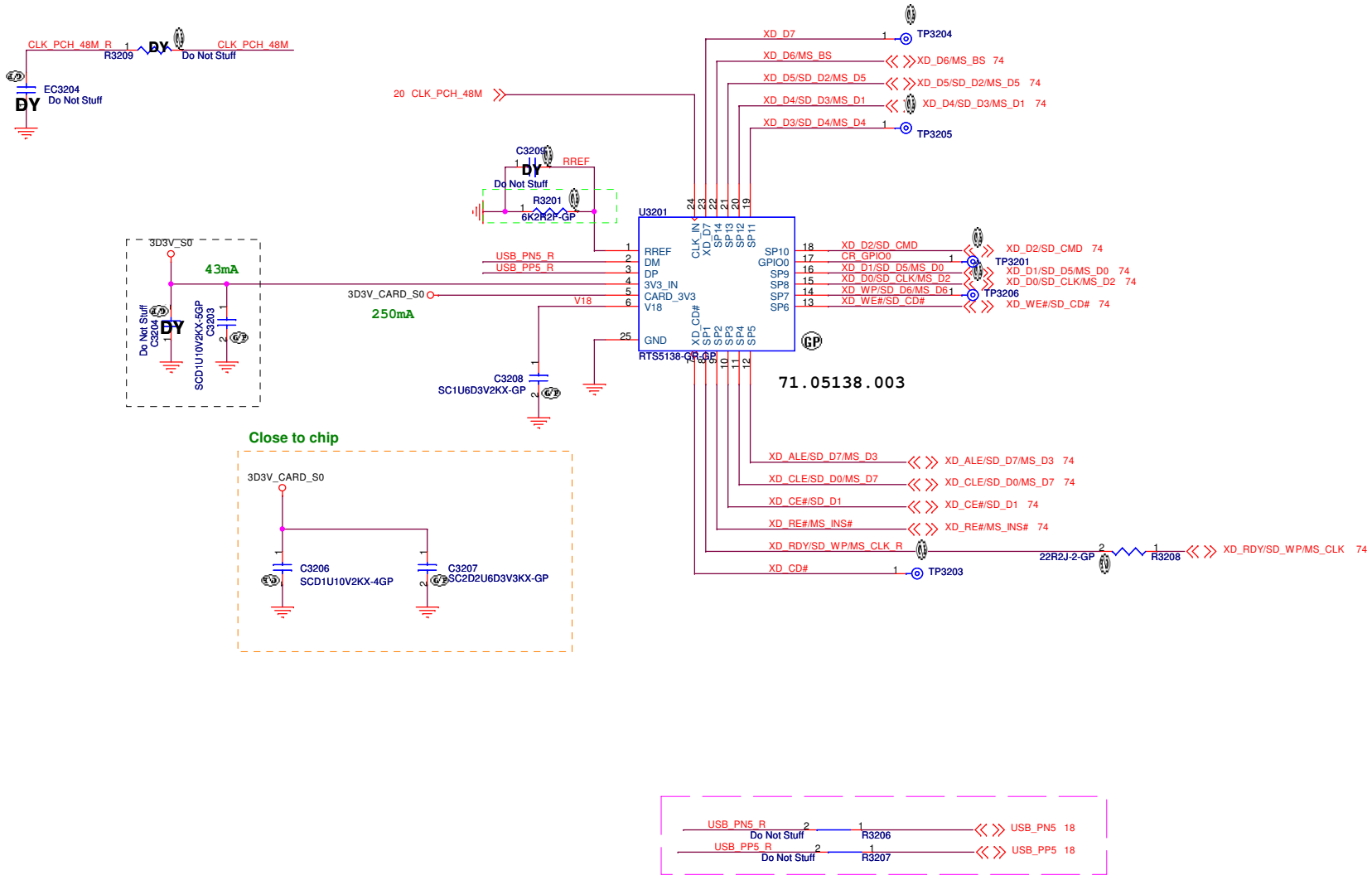
(Blanking)

DV15 HR Vos GIGA HDMI NoSurge



Title		
Reserved		
Size A3	Document Number Enrico/Caruso 15 HR	Rev X01
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SSID = SDIO



A00-20110530

起点主板维修网 www.qdzbwx.com

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DV15 HR Vos GIGA HDMI NoSurge

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
		Title: Card Reader-RTS5138	
Size: A3	Document Number:	Rev: X01	
Date: Thursday, June 02, 2011	Sheet: 32	of:	104

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起点主板维修网 www.qdzbwx.com

<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge

		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
Reserved		
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起点主板维修网 www.qdzbwx.com

<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge

		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
Reserved		
Size	Document Number	Rev
A3	Enrico/Caruso 15 HR	X01
Date: Thursday, June 02, 2011	Sheet 34 of 104	1

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起点主板维修网 www.qdzbwx.com

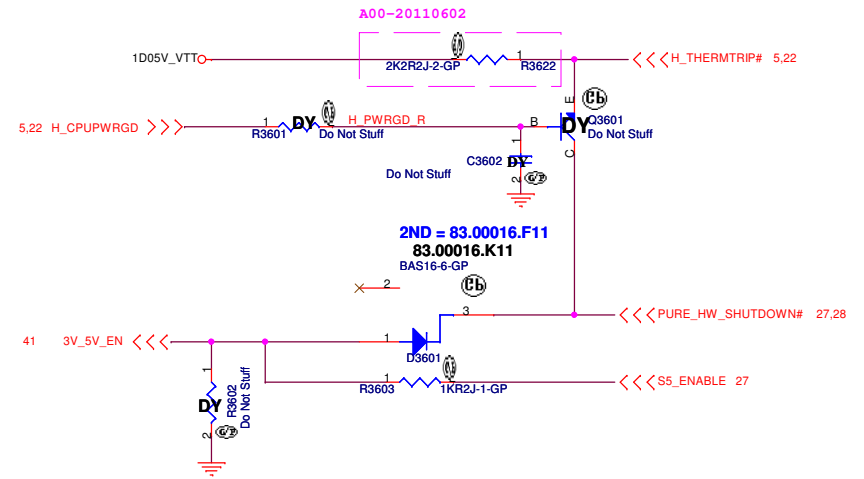
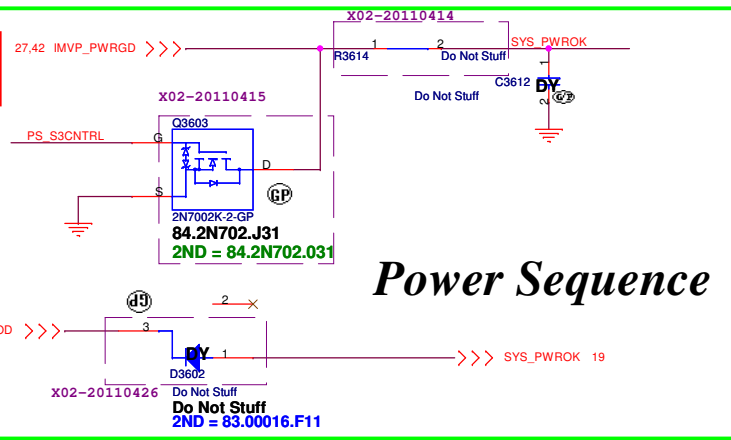
<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge

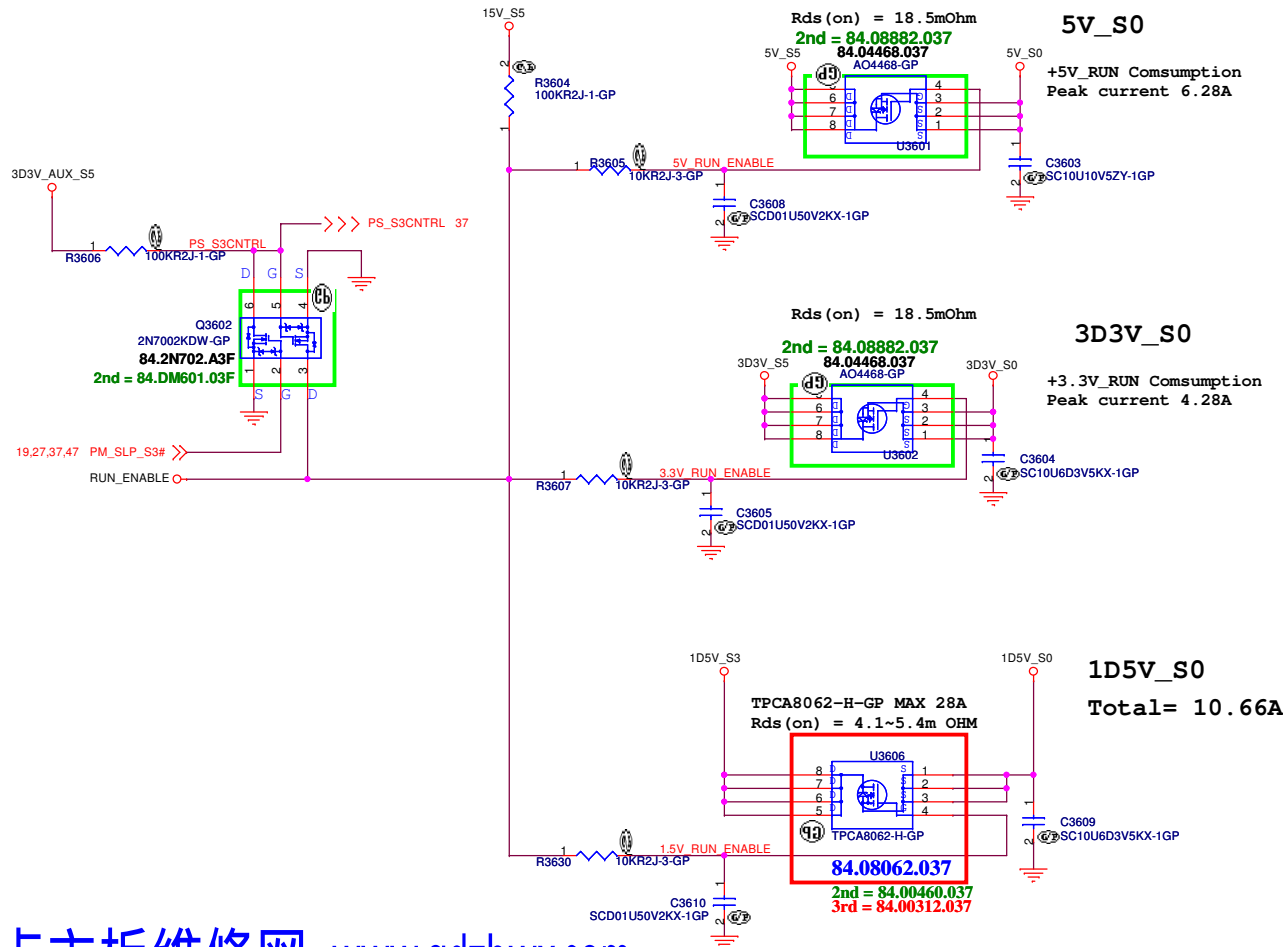


Title		
Reserved		
Size	Document Number	Rev
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SSID = Reset.Suspend



ROSA Run Power

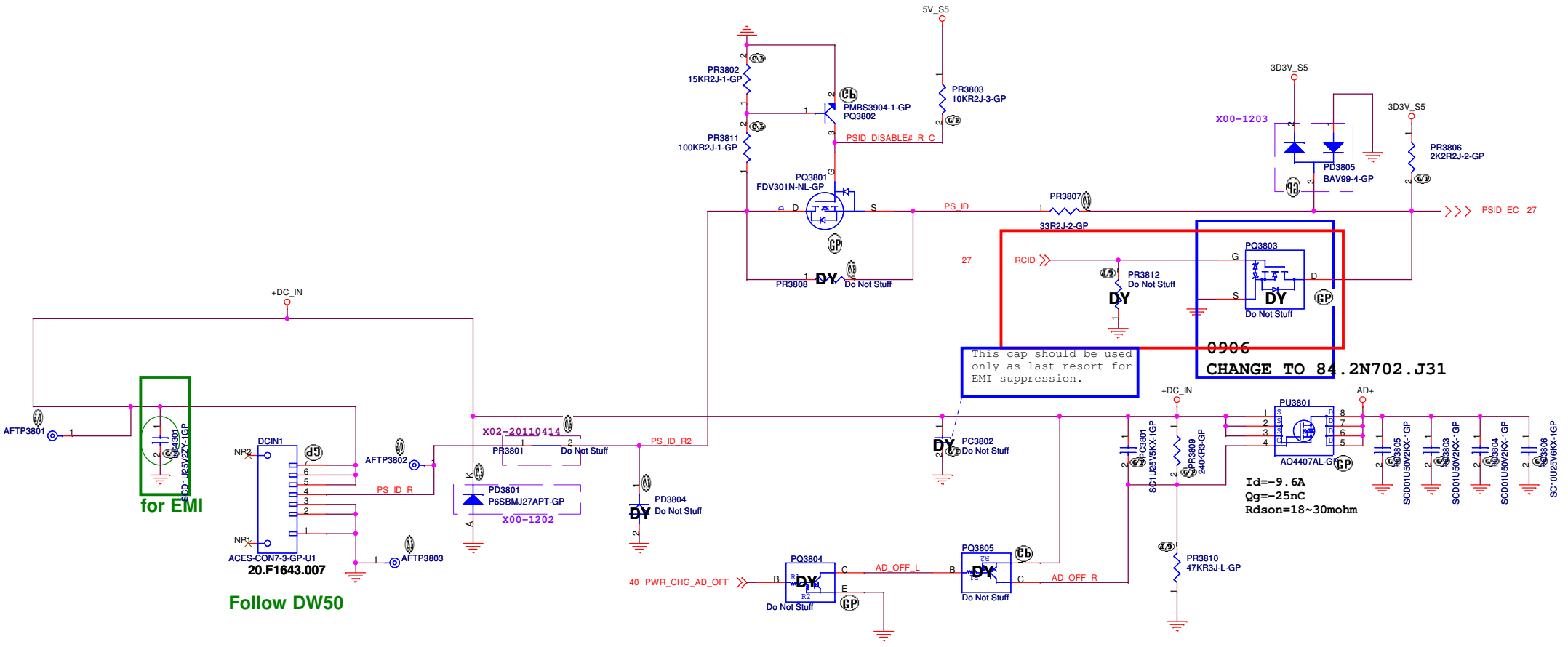


DV15 HR Vos GIGA HDMI NoSurge

DELL		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title Power Plane Enable			
Size A3	Document Number	Rev X01	
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SSID = PWR.Support

DCin CONN



起点主板维修网 www.qdzbwx.com

<http://sualaptop365.edu.vn>

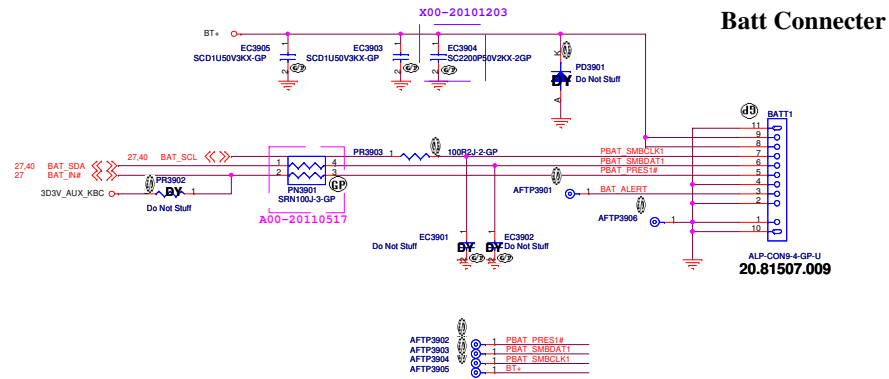
DV15 HR Vos GIGA HDMI NoSurge

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

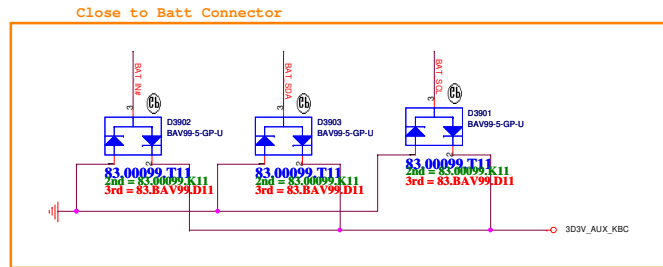
Title: **DCIN**

Size: **A3** Document Number: **Enrico/Caruso 15 HR** Rev: **X01**

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For actual location, need to be swap all pin



EE need pull high and net name

0802 Rename H_PROCHOT#

27.42 H_PROCHOT#

PWR_CHG_CMPIN

AD_IA_HW 27

PWR_CHG_CMPIN

AD_IA_HW2 27

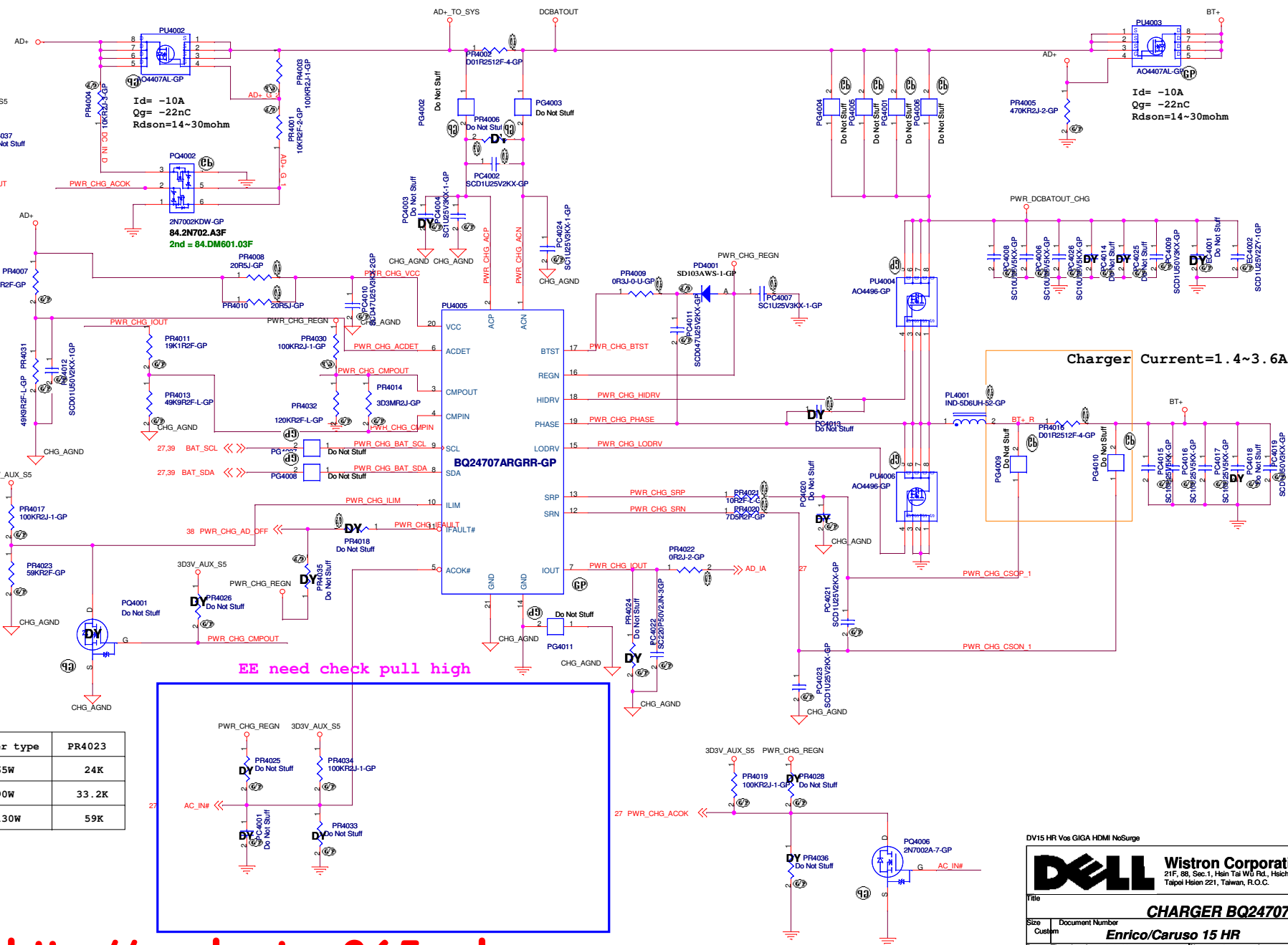
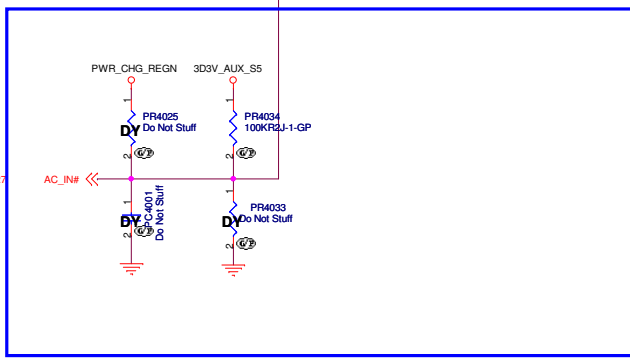
EC code only BQ24707

ROSA

Adapter type	PR4023
65W	24K
90W	33.2K
130W	59K

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

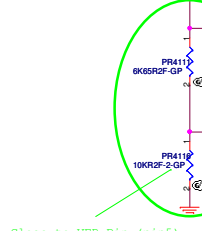
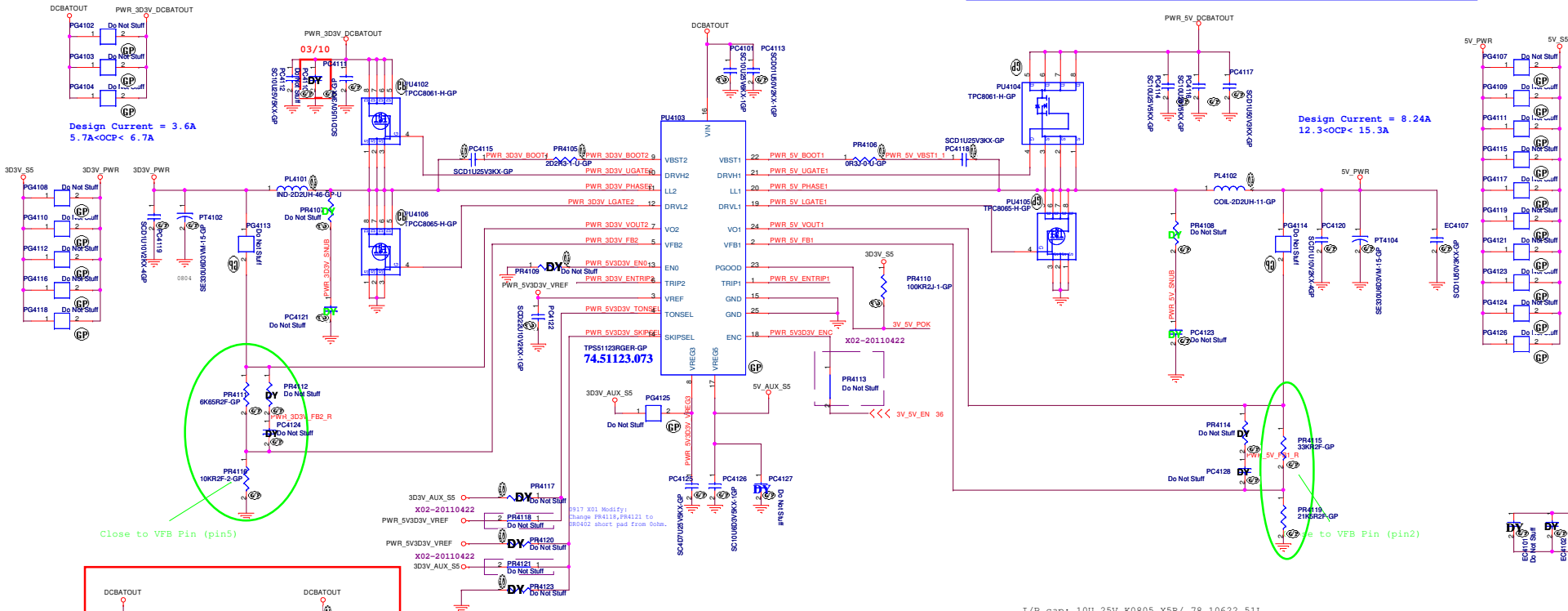
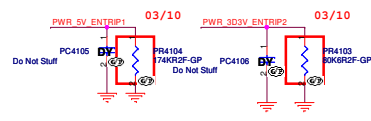
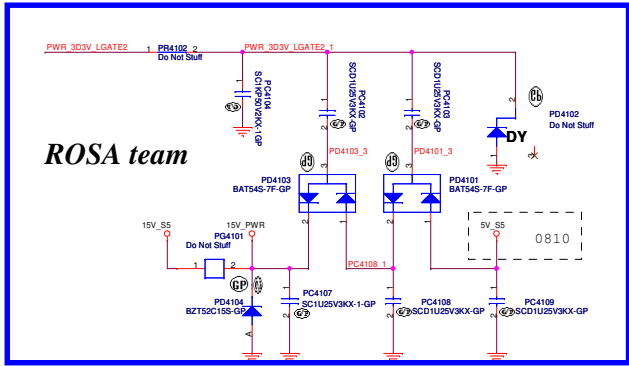
EE need check pull high



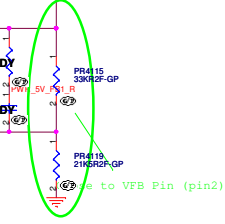
Charger Current=1.4~3.6A

Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Heichih, Taipei Hsien 221, Taiwan, R.O.C.
CHARGER BQ24707
 Size: Custom Document Number: Enrico/Caruso 15 HR Rev: X01
 Date: Thursday, June 02, 2011 Sheet: 40 of 104

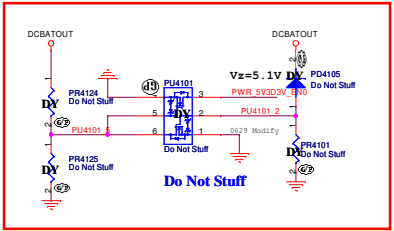
SSID = PWR.Plane.Regulator_5v3p3v



Close to VFB Pin (pin5)



Close to VFB Pin (pin2)



Do Not Stuff

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: 2.20UH PCMC104T-2R2 Cynotec 7mohm Isat =27Arms 68.2R210.20C
 O/P cap: 33006.3V M6.3*5.7 15mOhm 3.16Arms Matsuki/77.53371.04L
 H/S: TPC8061-H / 21mohm/30mohm@4.5Vgs/ 84.08061.037
 L/S: TPC8065-H / 12mohm/15mohm@4.5Vgs/ 84.08065.037

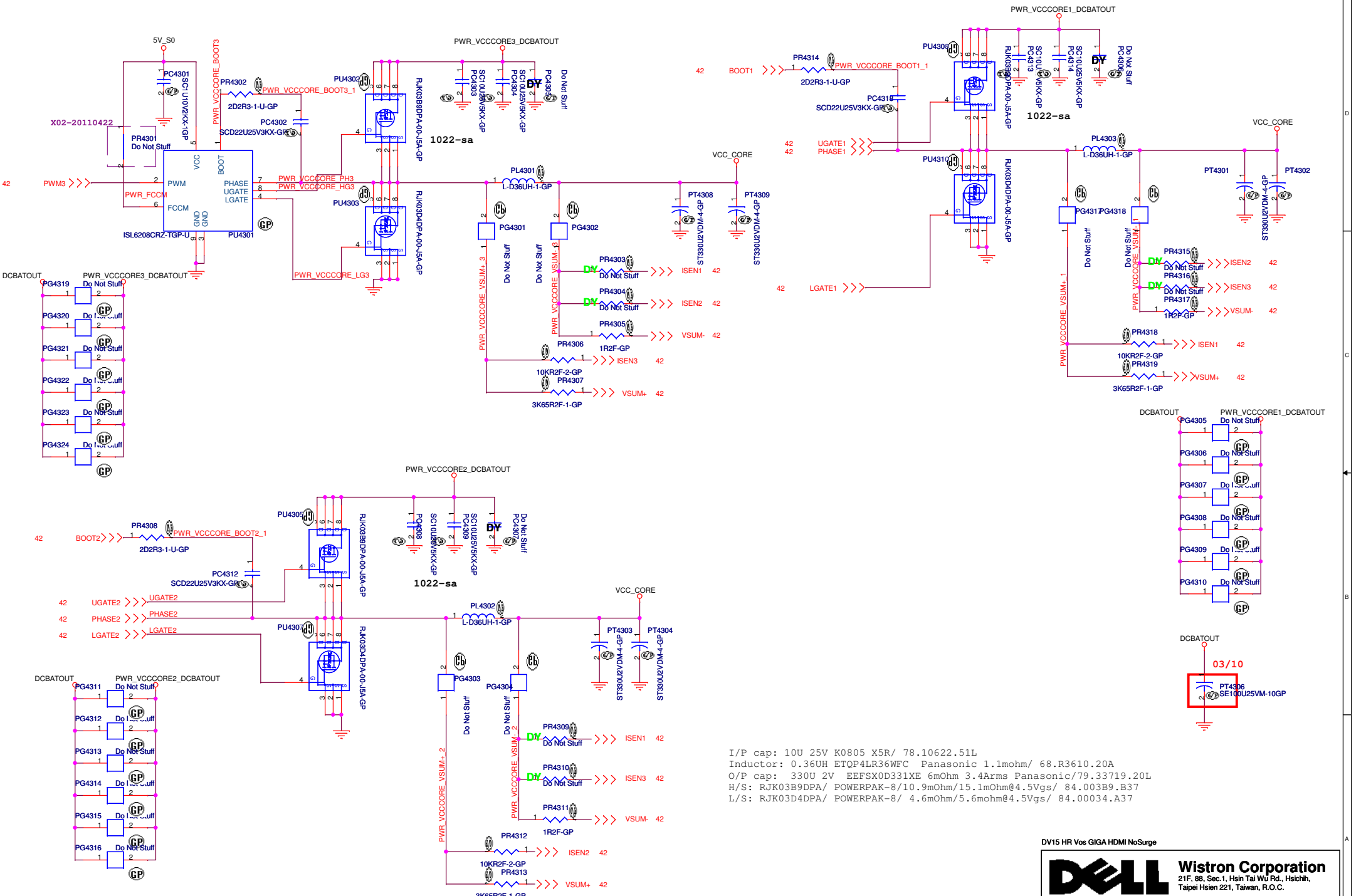
起点主板维修网 www.qdzbwx.com

http://sualaptop365.edu.vn

DI15 HR Vos GIGA HDMI NoSurge

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

File: 5V/3D3V(TPS51123RGER)
 Size: Document Number
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I/P cap: 10U 25V K0805 X5R/ 78.10622.51L
 Inductor: 0.36UH ETQP4LR36WFC Panasonic 1.1mohm/ 68.R3610.20A
 O/P cap: 330U 2V EEP5X0D331XE 6mOhm 3.4Arms Panasonic/79.33719.20L
 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

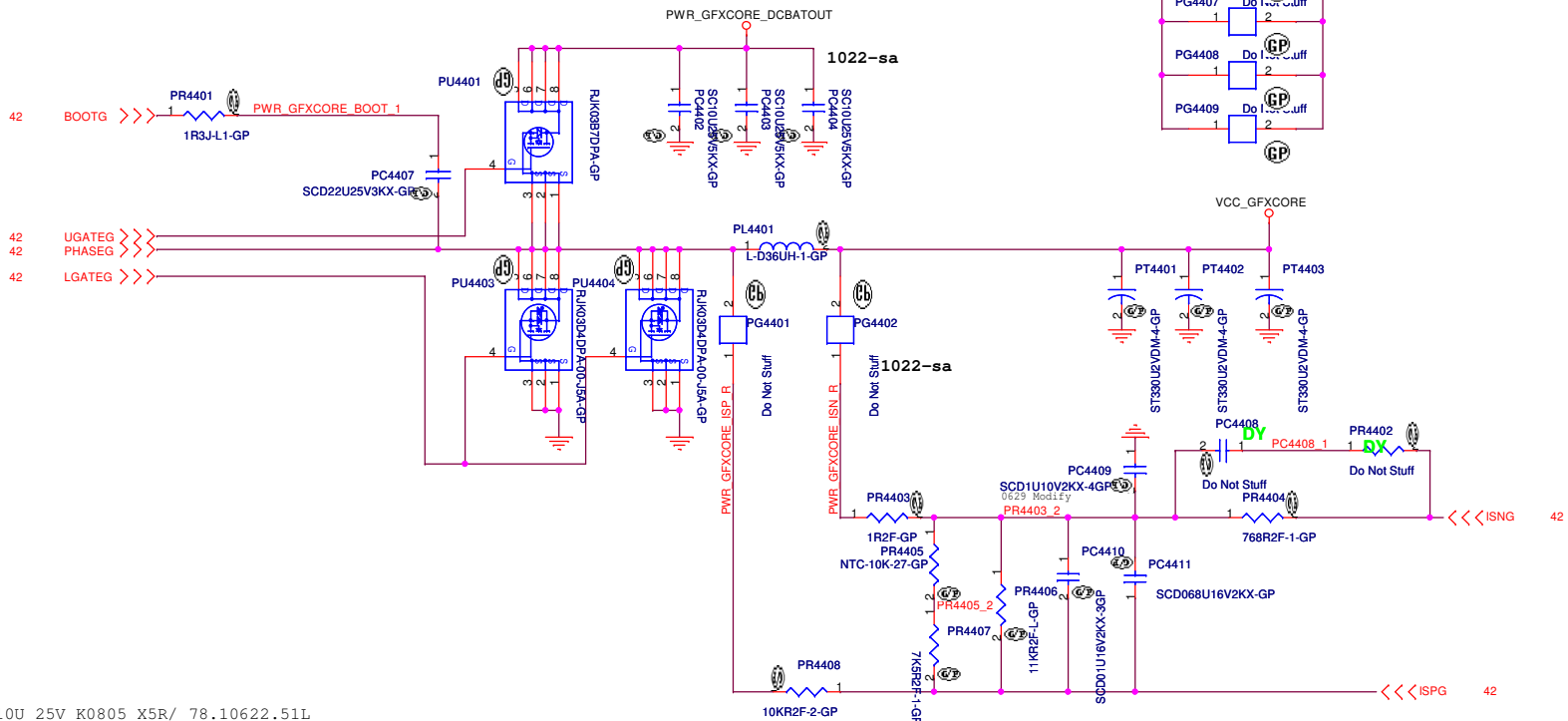
DV15 HR Vos GIGA HDMI NoSurge

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

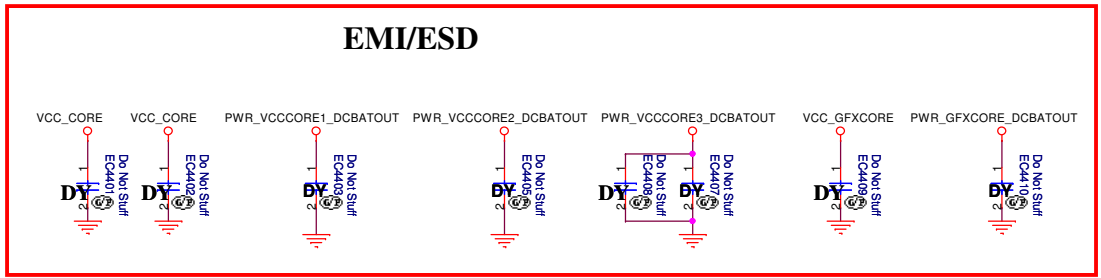
Title: **ISL95831 CPU CORE (2 of 3)**

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I/P cap: 10U 25V K0805 X5R/ 78.10622.51L
 Inductor: 0.36UH ETQP4LR36WFC Panasonic 1.1mohm/ 68.R3610.20A
 O/P cap: 330U 2V EEFSX0D331XE 6mOhm 3.4Arms Panasonic/79.33719.20L
 H/S: RJK03B7DPA NC WPAK 8P/7.7mOhm/10.7mOhm@4.5Vgs/84.003B7.037
 L/S: RJK03D4DPA/ POWERPAK-8/ 4.6mOhm/5.6mohm@4.5Vgs/ 84.00034.A37



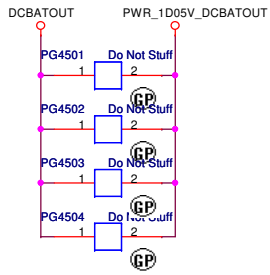
起点主板维修网 www.qdzbwx.com
<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge

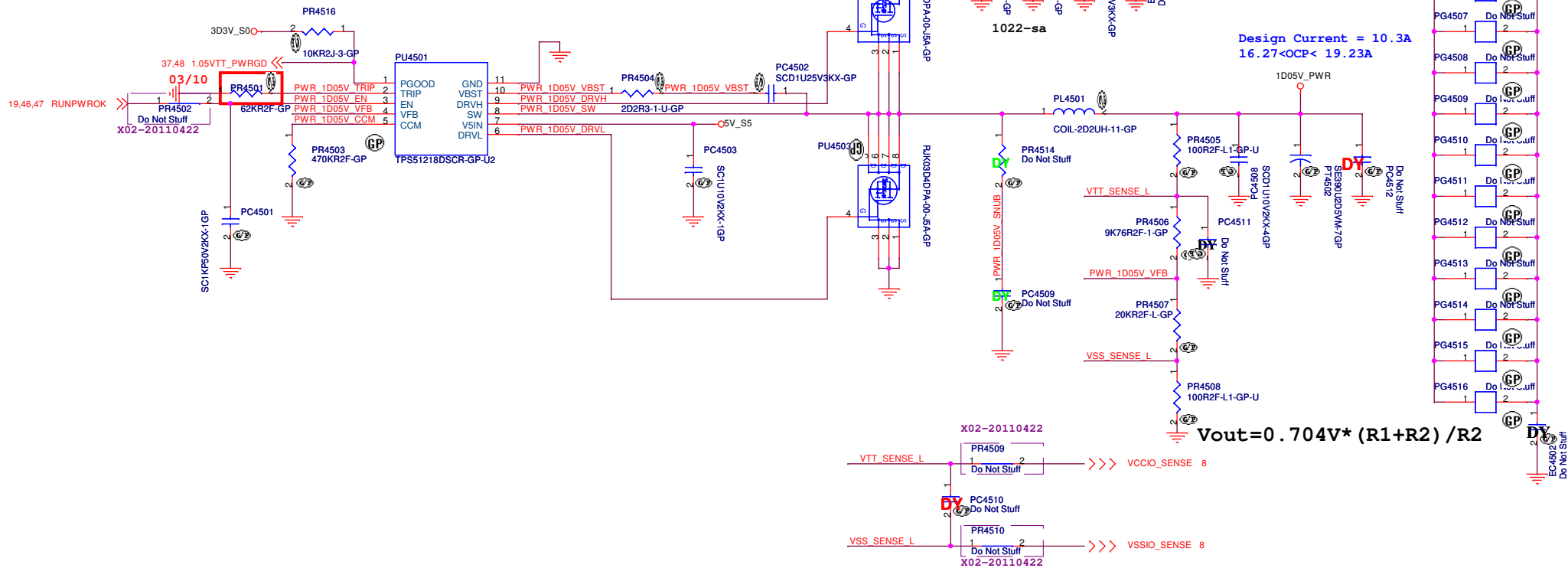
Wistron Corporation
 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih,
 Taipei Hsien 221, Taiwan, R.O.C.

Title: **ISL95831 CPU CORE(3/3)**

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TPS51218 for 1D05V



I/P cap: 10U 25V K0805 X5R/ 78.10622.51L
 Inductor: 2.20UH PCMC104T-2R2 Cynotec 7mohm Isat =27Arms 68.2R210.20C
 O/P cap: 390U 2.5V M 6.3*5.7/ 10mOhm 3.87Arms Matsuki/79.3971V.30L
 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

起点主板维修网 www.qdzbwx.com

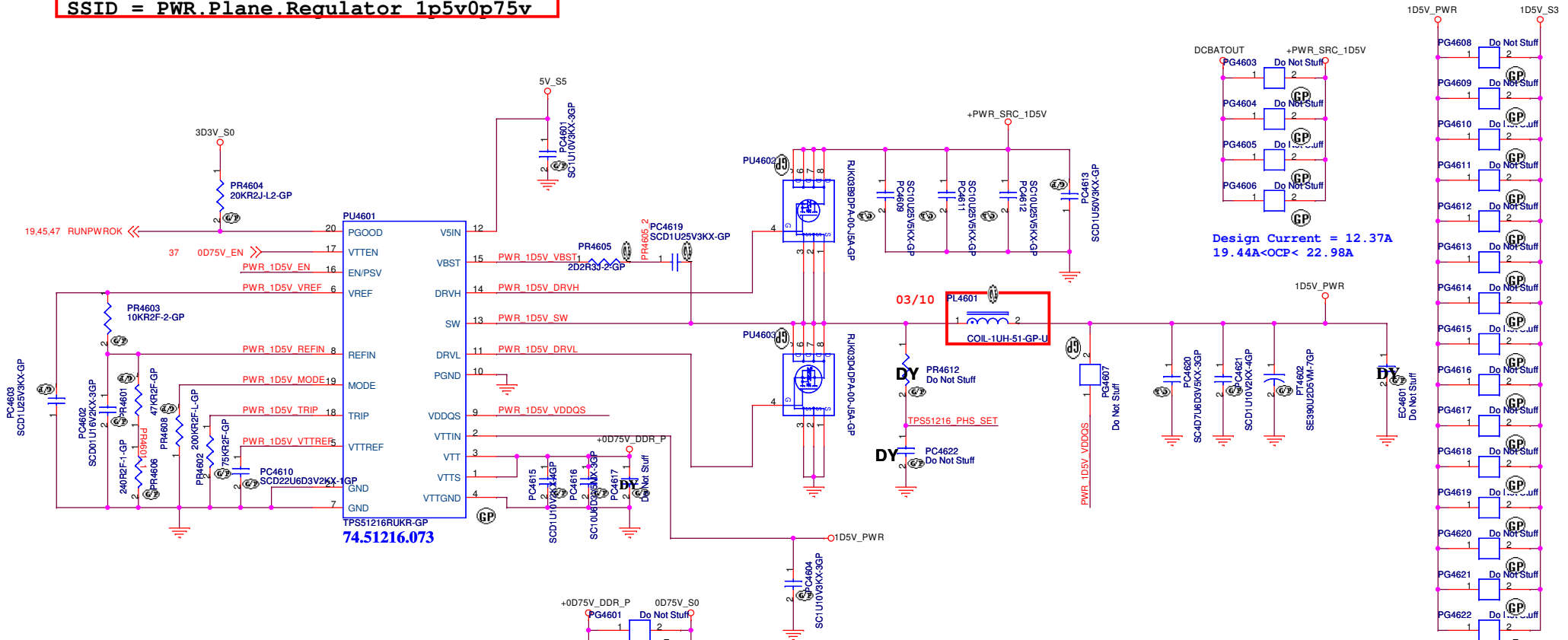
<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge



Title TPS51218 +1.05V VTT		
Size A3	Document Number Enrico/Caruso 15 HR	Rev X01
Date: Thursday, June 02, 2011	Sheet 45	of 104

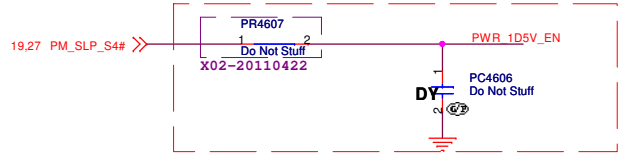
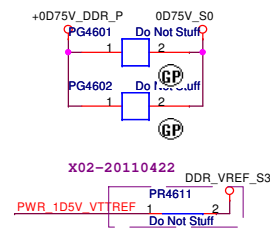
SSID = PWR.Plane.Regulator 1p5v0p75v



Design Current = 12.37A
19.44A < OCP < 22.98A

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

MODE	Frequency	Discharge Mode
PR4608	400kHz	Tracking Discharge
200k ohm	300kHz	
100k ohm	300kHz	Non-tracking Discharge
68k ohm	400kHz	



I/P cap: 10U 25V K0805 X5R/ 78.10622.51L
 Inductor: 1.0UH PCB104T-1R0M Cyntec 3mohm Isat =28Arms 68.1R01C.10Q
 O/P cap: 390U 2.5V M 6.3*5.7/ 10mOhm 3.87Arms Matsuki/79.3971V.30L
 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

起点主板维修网 www.qdzbwx.com

http://sualaptop365.edu.vn

DV15 HR Vos GIGA HDMI NoSurge

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

Title: **TPS51116 +1.5V SUS**

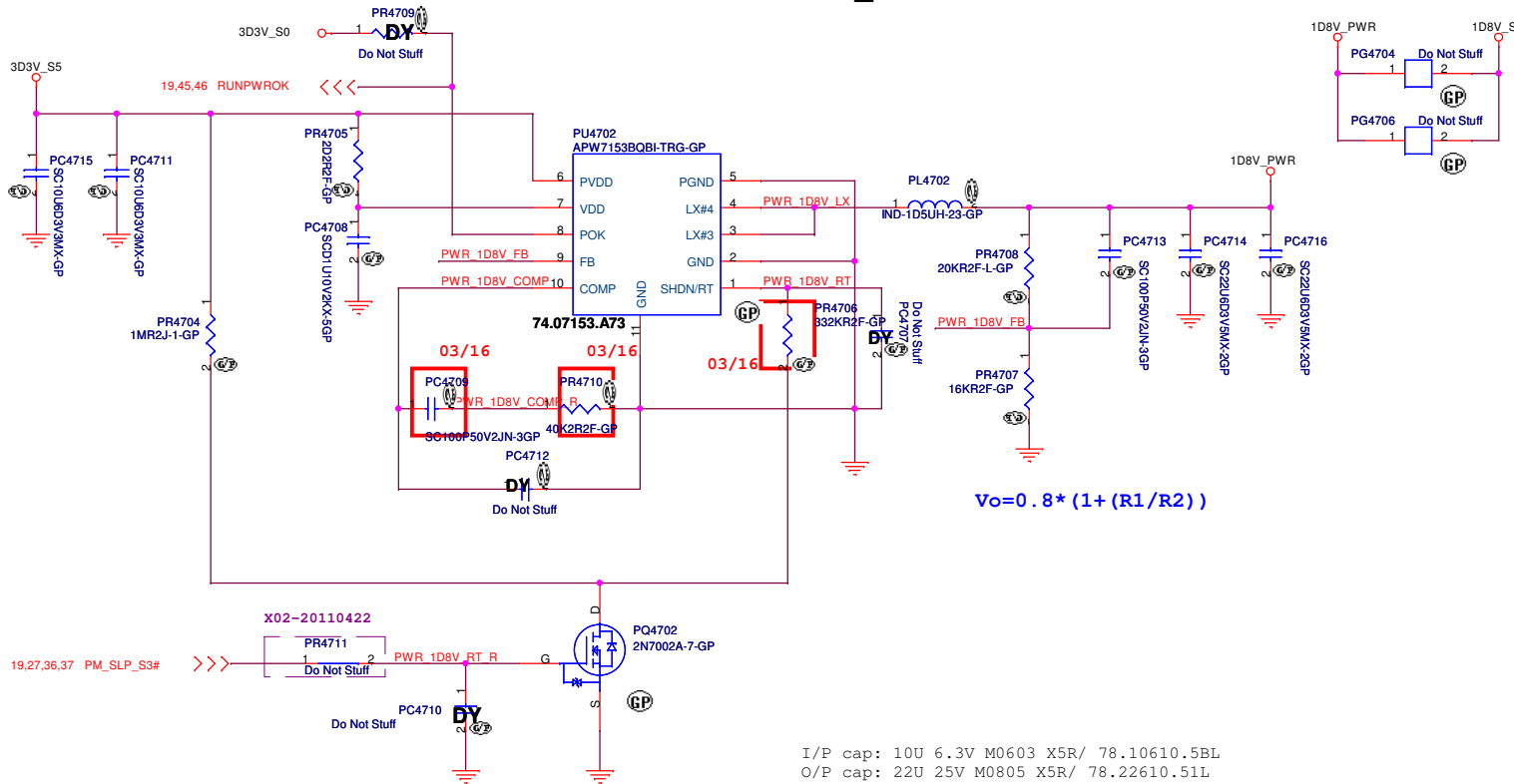
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SSID = PWR.Plane.Regulator_1D8V_S0

APW7153B for 1D8V_S0

+1.8V_RUN
Design current = 0.87A



I/P cap: 10U 6.3V M0603 X5R/ 78.10610.5BL
O/P cap: 22U 25V M0805 X5R/ 78.22610.51L
Inductor: 1.5U PCMC063T Cytotec 14mohm/15mohm Isat =18Arms 68.1R510.10K

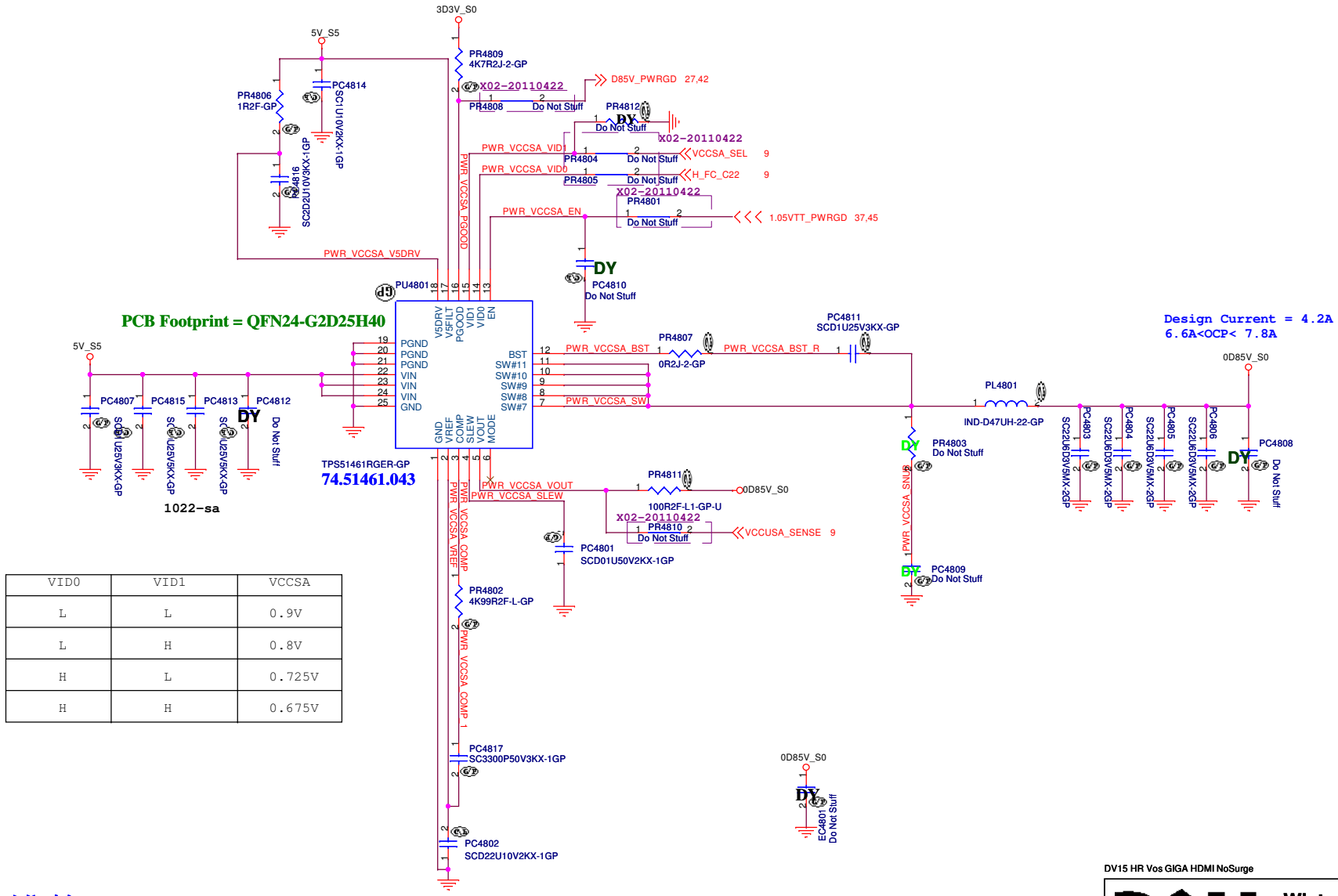
起点主板维修网 www.qdzbwx.com

<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge

		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title: TPS51311 for 1D8V_S0			
Size A3	Document Number	Rev	X01
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TPS51461 for VCCSA



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<http://suallaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge

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

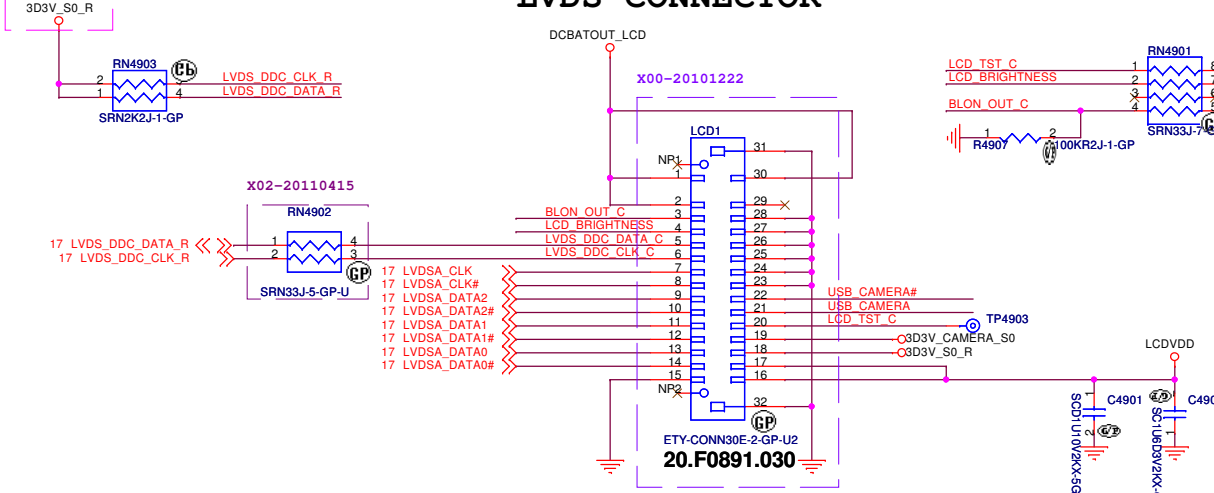
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Size A3	Document Number	Rev
	Enrico/Caruso 15 HR	X01

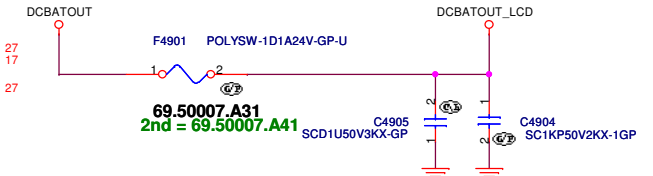
Date: Thursday, June 02, 2011 Sheet 48 of 104

X01-20110307

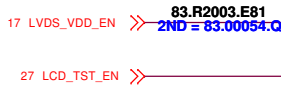
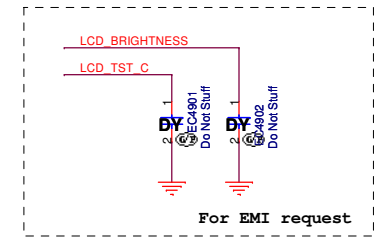
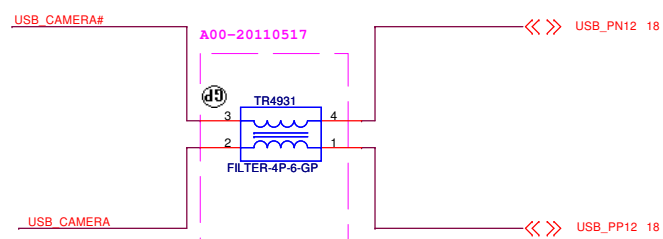
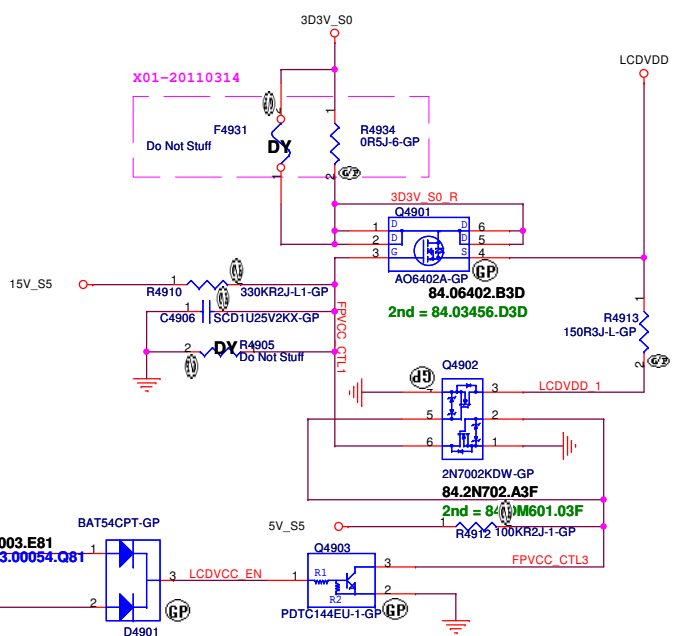
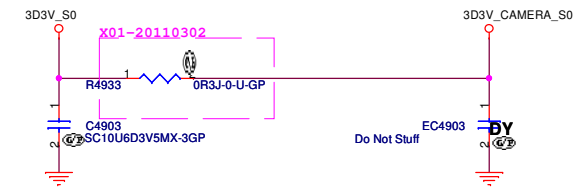
LVDS CONNECTOR



INVERTER POWER



Camera Power



起点主板维修网 www.qdzbwx.com

<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge



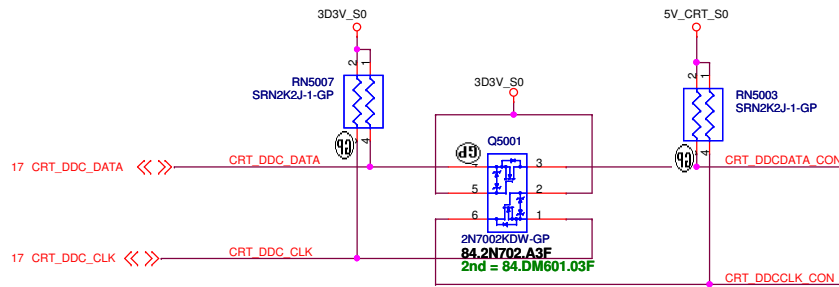
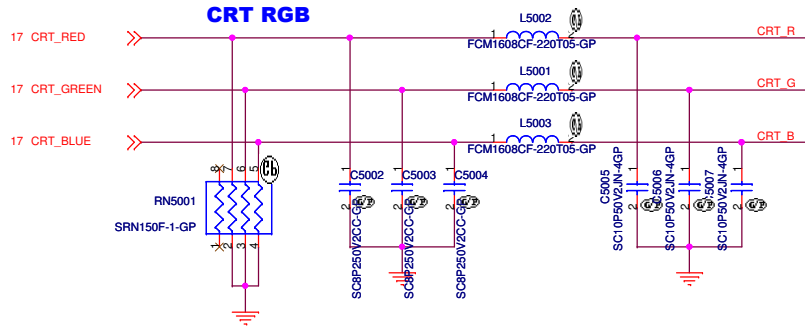
File		
LCD Connector		
Size A3	Document Number	Rev
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SSID = VIDEO

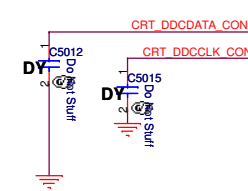
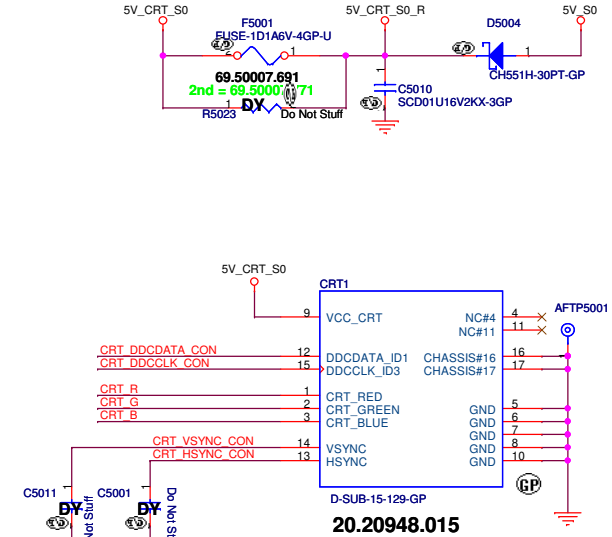
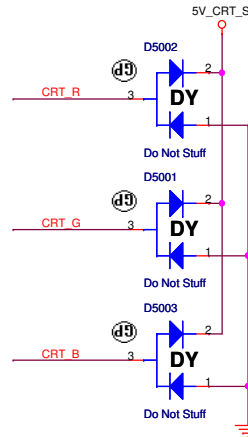
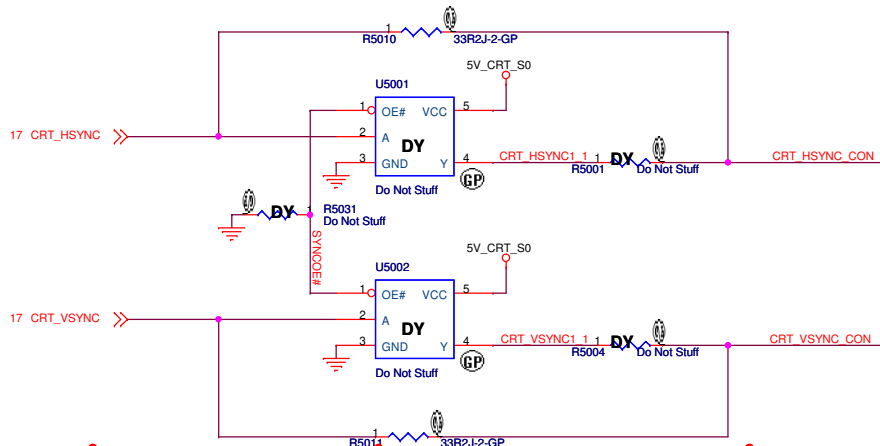
Layout Note:

*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



- AFTP5002 1 5V_CRT_S0
- AFTP5003 1 CRT_DDCDATA_CON
- AFTP5004 1 CRT_DDCLK_CON
- AFTP5005 1 CRT_R
- AFTP5006 1 CRT_G
- AFTP5007 1 CRT_B
- AFTP5008 1 CRT_HSYNC_CON
- AFTP5009 1 CRT_VSYNC_CON

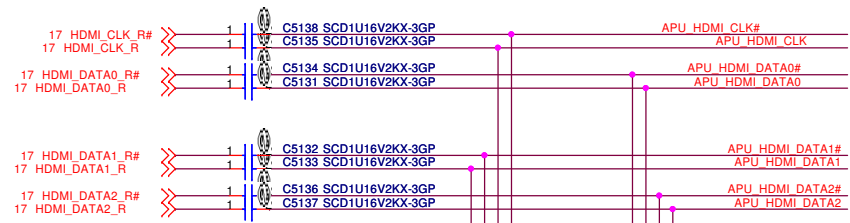
DV15 HR Vos GIGA HDMI NoSurge

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

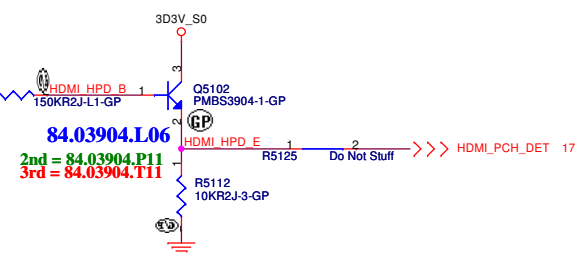
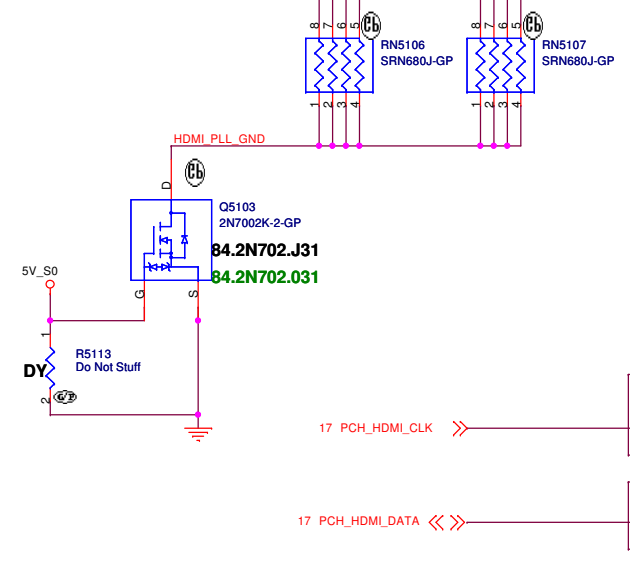
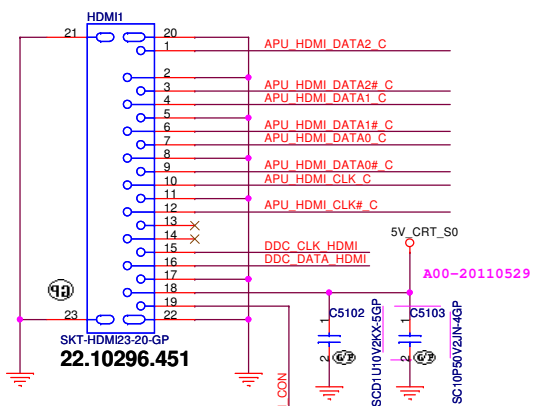
Title: **CRT Connector**

Size	Document Number	Rev
Custom	Enrico/Caruso 15 HR	X01
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SSID = VIDEO



HDMI CONN



APU HDMI_DATA1	1	2	APU HDMI_DATA1_C	APU HDMI_CLK	1	2	APU HDMI_CLK_C
Do Not Stuff			R5146	Do Not Stuff			R5144
APU HDMI_DATA1#	1	2	APU HDMI_DATA1#_C	APU HDMI_CLK#	1	2	APU HDMI_CLK#_C
Do Not Stuff			R5147	Do Not Stuff			R5145
APU HDMI_DATA2	1	2	APU HDMI_DATA2_C	APU HDMI_DATA0	1	2	APU HDMI_DATA0_C
Do Not Stuff			R5148	Do Not Stuff			R5143
APU HDMI_DATA2#	1	2	APU HDMI_DATA2#_C	APU HDMI_DATA0#	1	2	APU HDMI_DATA0#_C
Do Not Stuff			R5142	Do Not Stuff			R5141

A00-20110530

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http://sualaptop365.edu.vn

DV15 HR Vos GIGA HDMI NoSurge

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

Title: **HDMI Level Shifter/Connector**

Size A3	Document Number	Rev
Date: Thursday, June 02, 2011	Enrico/Caruso 15 HR	X01
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<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge


		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
Reserved		
Size	Document Number	Rev
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DV15 HR Vos GIGA HDMI NoSurge

		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
LVDS Switch		
Size	Document Number	Rev
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Reserved		
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SSID = User.Interface

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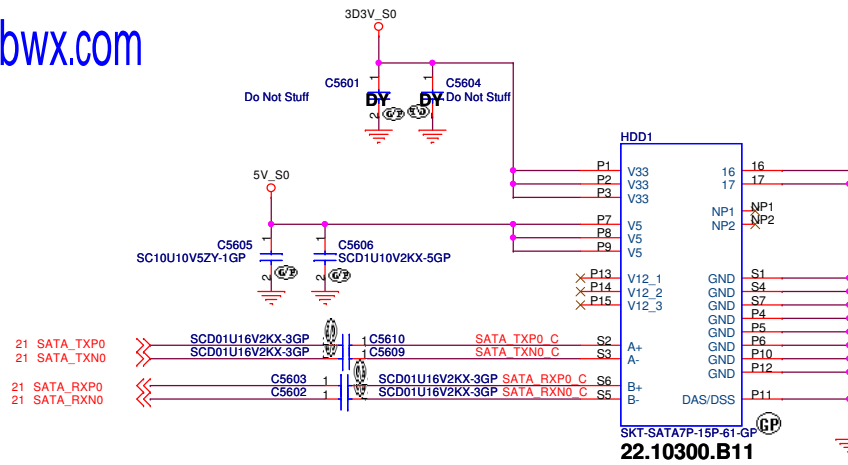
DV15 HR Vos GIGA HDMI NoSurge

		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
ITP/Fan Connector		
Size	Document Number	Rev
A3	Enrico/Caruso 15 HR	X01
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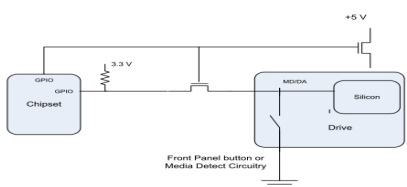
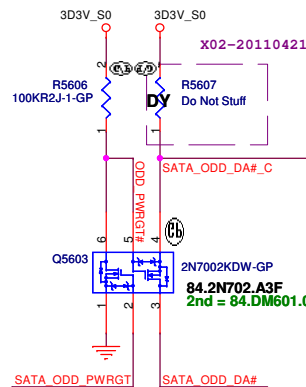
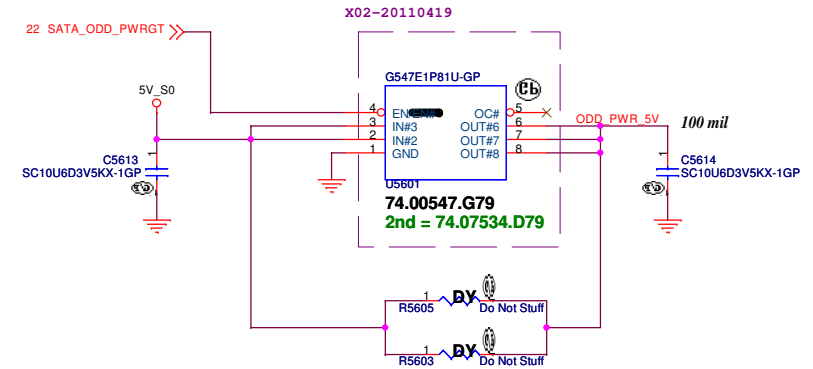
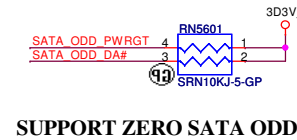
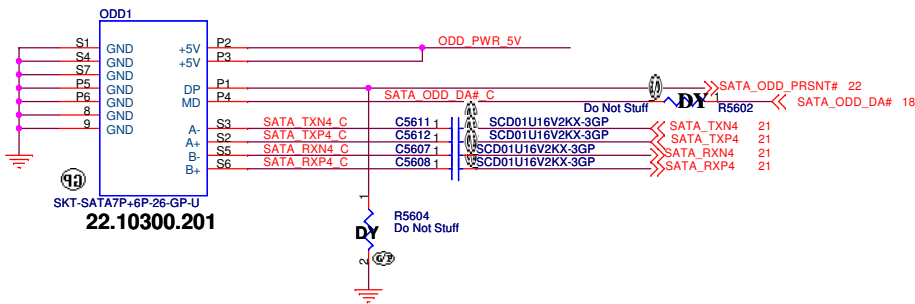
SSID = SATA

SATA HDD Connector

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ODD Connector



When the drive is powered on, the FET to the MD/DA pin drive is OFF.
When the drive is powered off, the FET to the MD/DA pin is ON

<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge




Title HDD/ODD			
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SSID = ESATA

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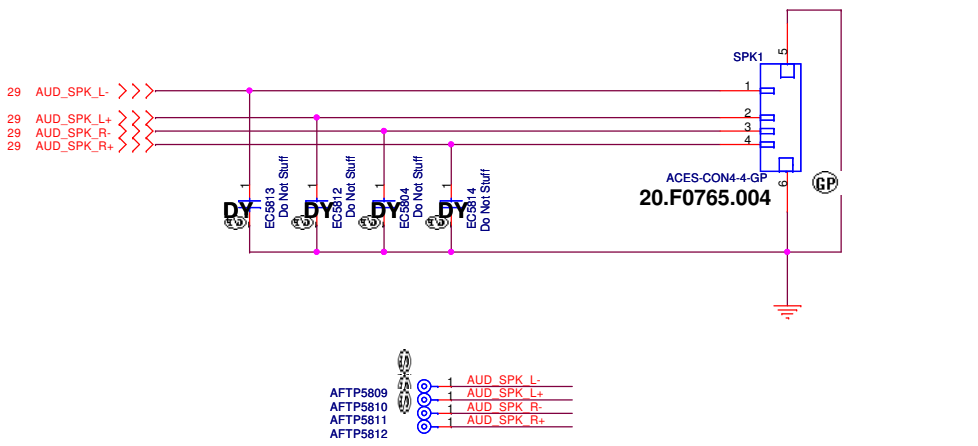
<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge

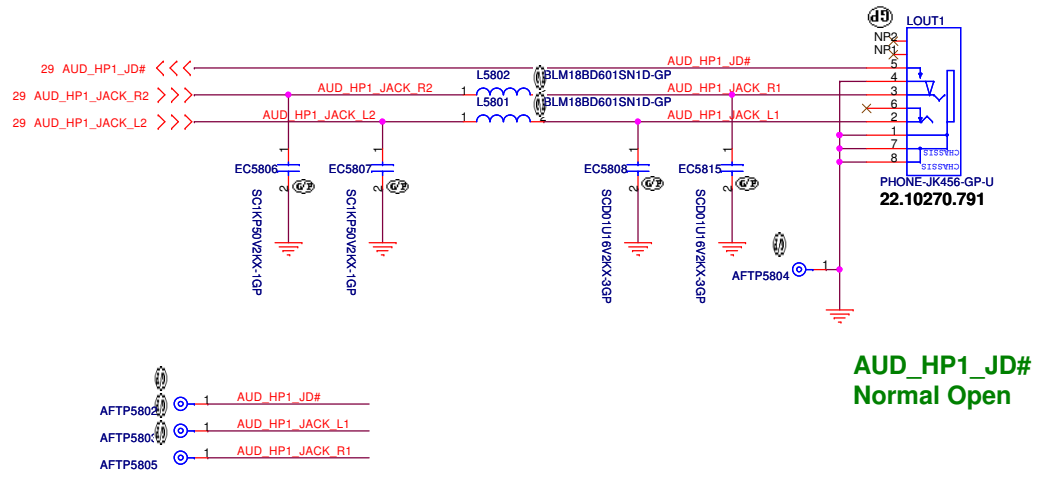
		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		ESATA
Size A3	Document Number	Rev
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SSID = AUDIO

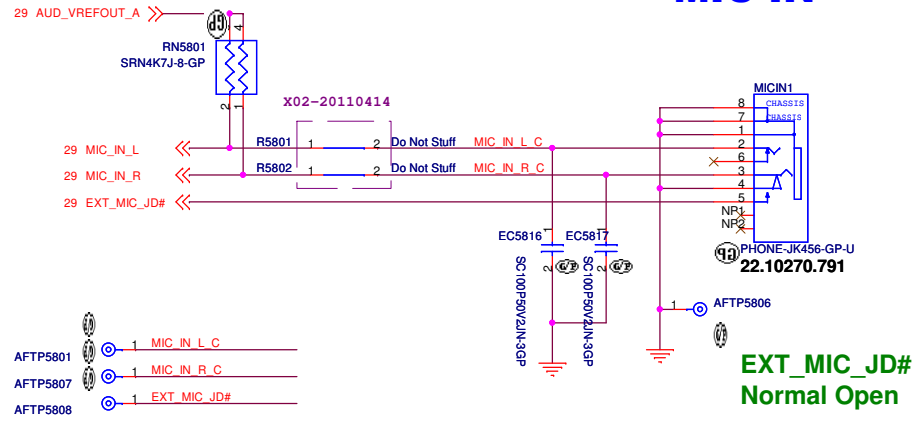
Speaker Connector



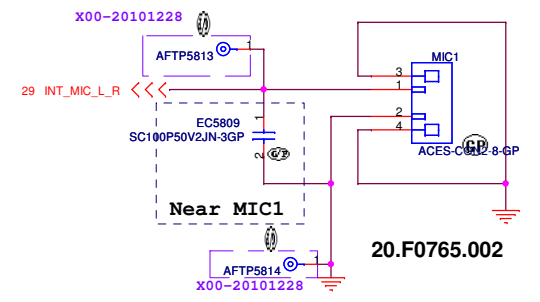
LINE1 OUT



MIC IN



Internal Microphone



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DV15 HR Vos GIGA HDMI NoSurge

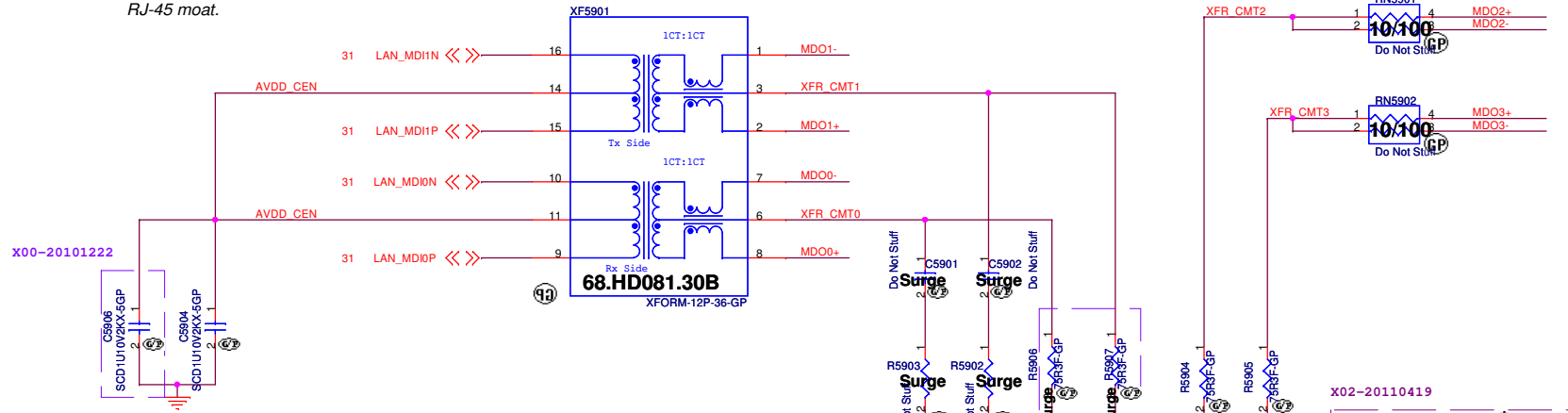
DELL Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **SPEAKER CONN**

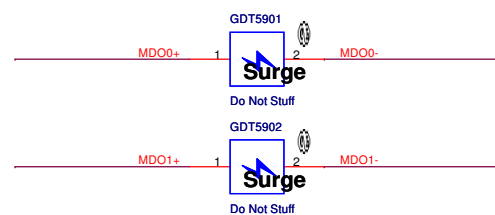
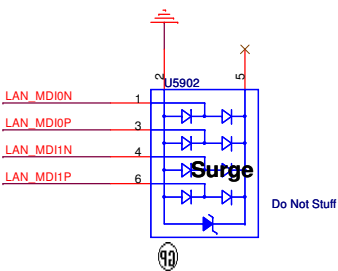
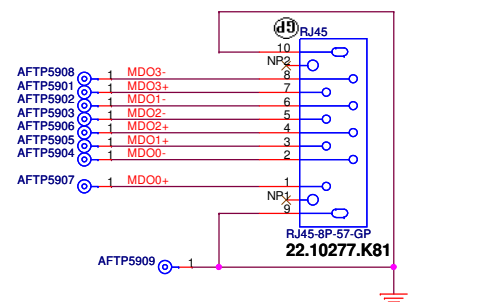
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- 1.route on bottom as differential pairs.
- 2.Tx+/Tx- are pairs. Rx+/Rx- are pairs.
- 3.No vias, No 90 degree bends.
- 4.pairs must be equal lengths.
- 5.6mil trace width, 12mil separation.
- 6.36mil between pairs and any other trace.
- 7.Must not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

10/100M Lan Transformer



RJ45 Connector



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DV15 HR Vos GIGA HDMI NoSurge

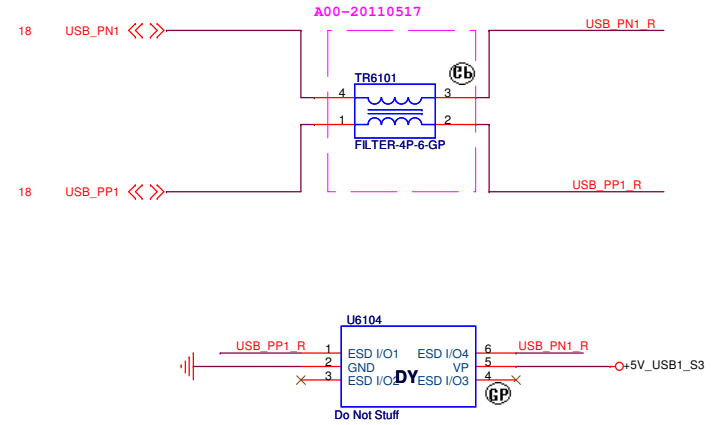
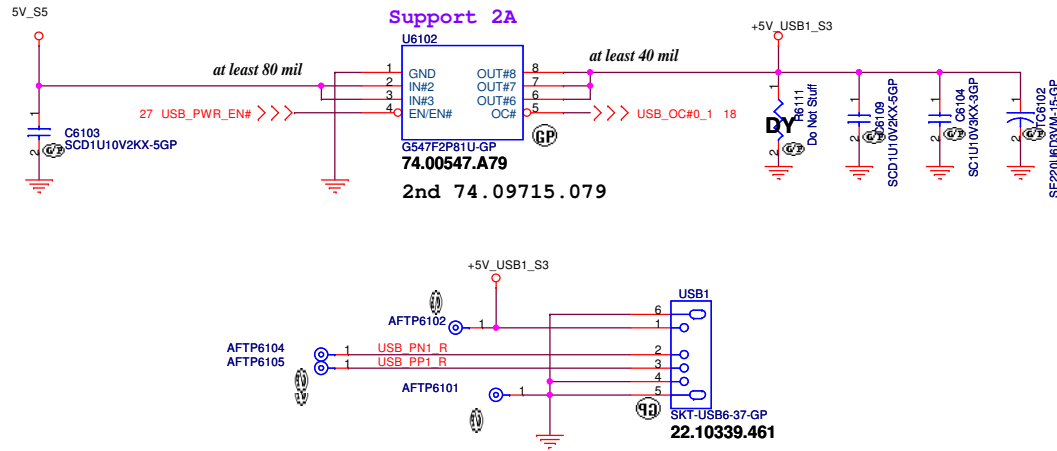
Wistron Corporation
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **Reserved**

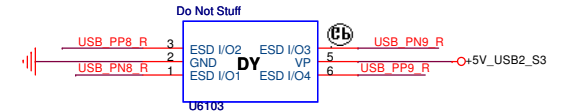
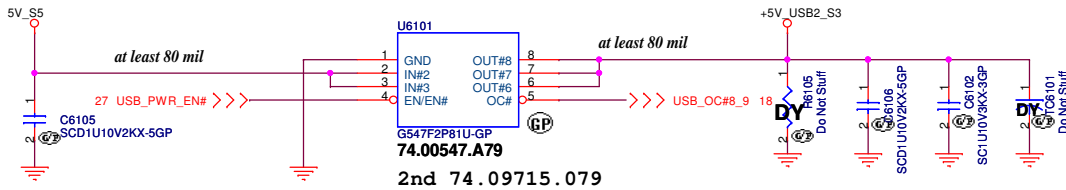
Size: A3	Document Number: Enrico/Caruso 15 HR	Rev: X01
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SSID = USB

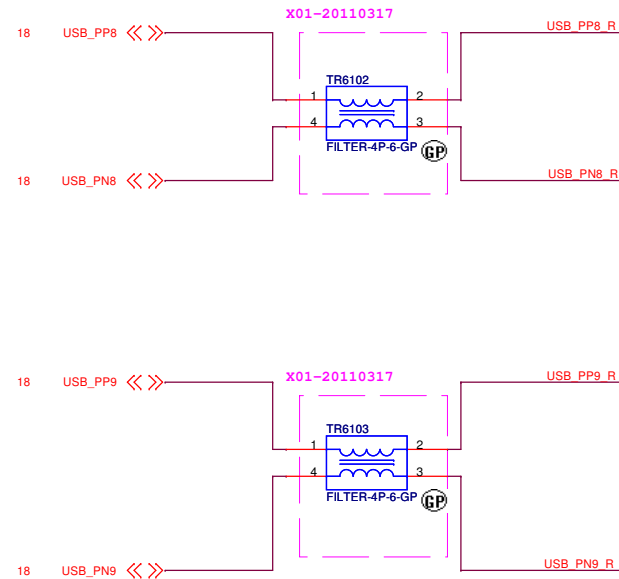
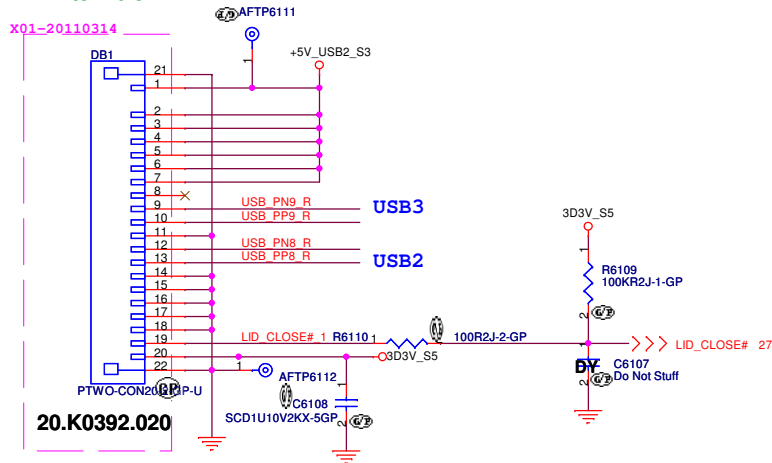
Left USB Power x1



Right USB Power x2



Pitch=0.5mm



- AFTP6107 1 USB_PN8_R
- AFTP6108 1 USB_PP8_R
- AFTP6109 1 USB_PN9_R
- AFTP6110 1 USB_PP9_R
- AFTP6106 1 3D3V_S5
- AFTP6103 1 LID_CLOSE# 1

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Reserved		
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SSID = User.Interface

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Title		
Bluetooth		
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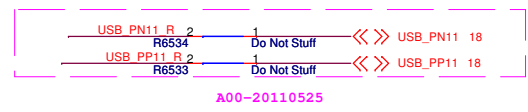
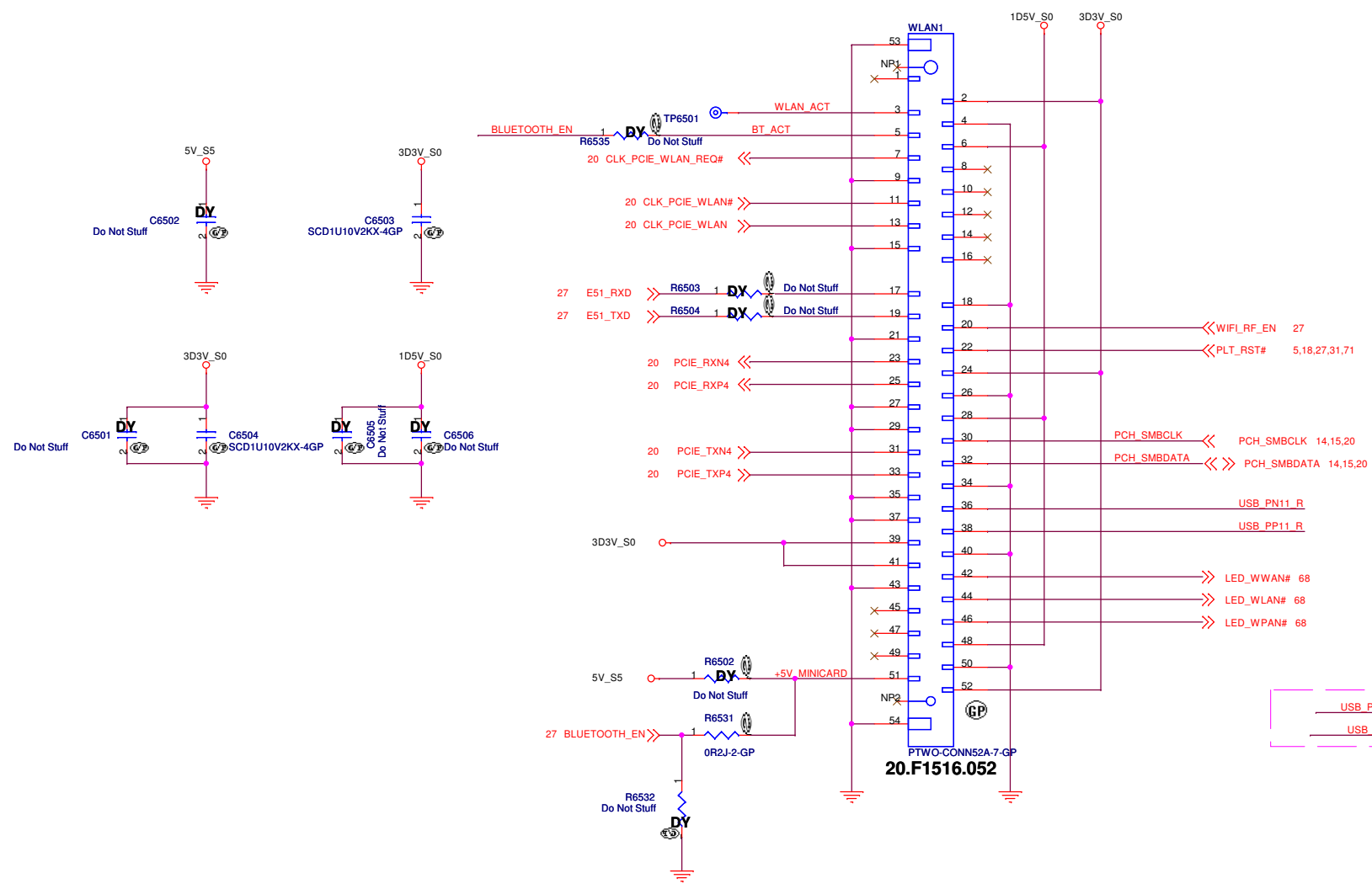
DV15 HR Vos GIGA HDMI NoSurge



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RESERVED		
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SSID = Wireless

Mini Card Connector(802.11b/g/n)



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RESERVED		
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Reserved		
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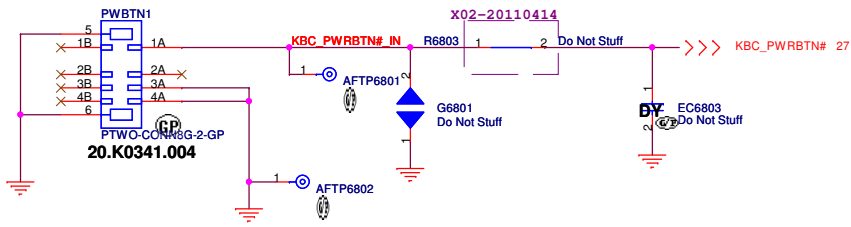
DV15 HR Vos GIGA HDMI NoSurge



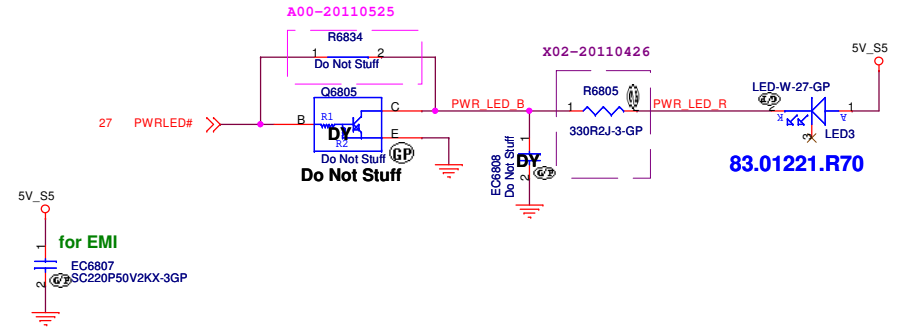
Title		
Reserved		
Size A3	Document Number Enrico/Caruso 15 HR	Rev X01
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SSID = User.Interface

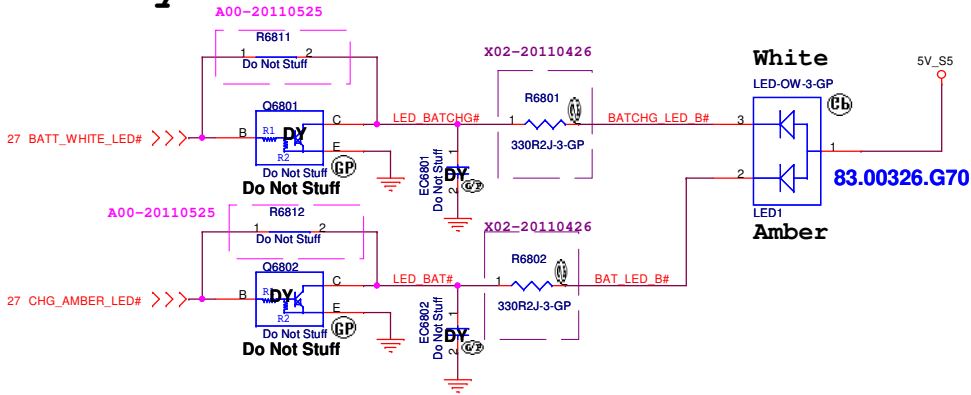
Power BTN Connector



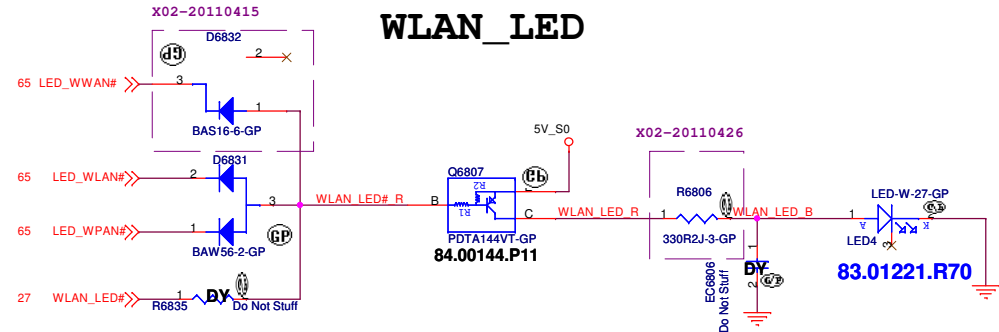
Power LED



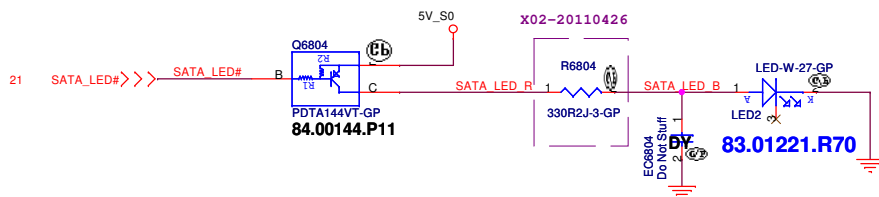
Battery LED



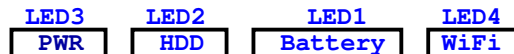
WLAN_LED



HDD LED



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

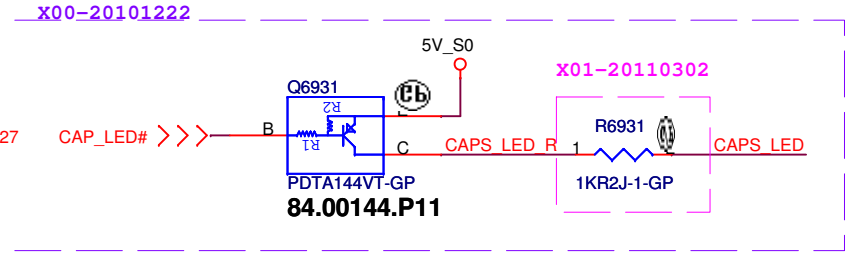
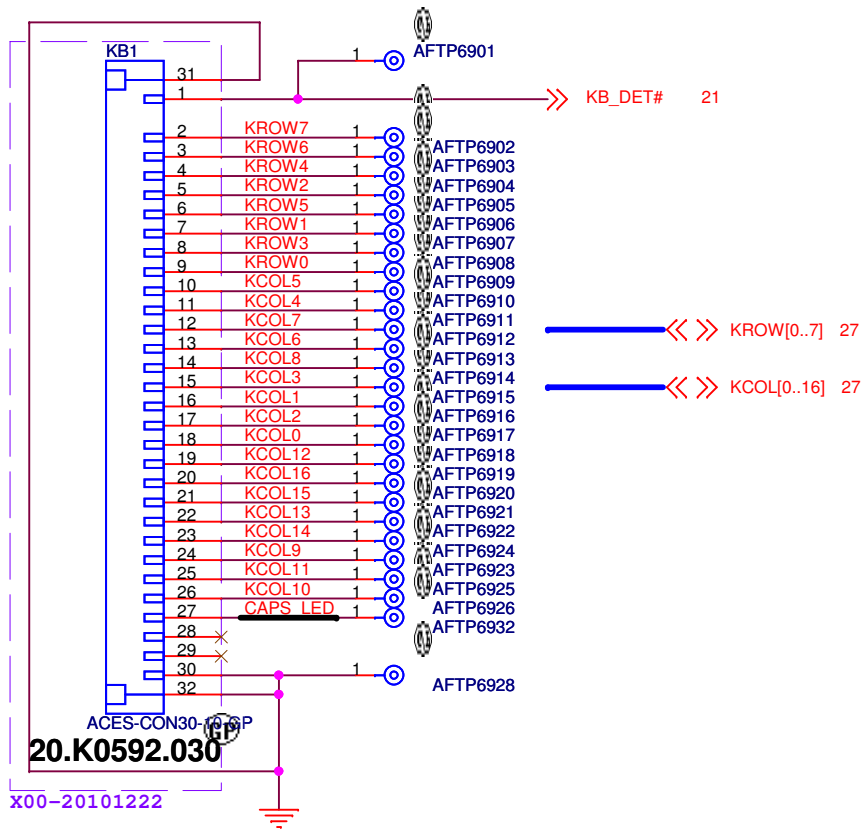


DV15 HR Vos GIGA HDMI NoSurge

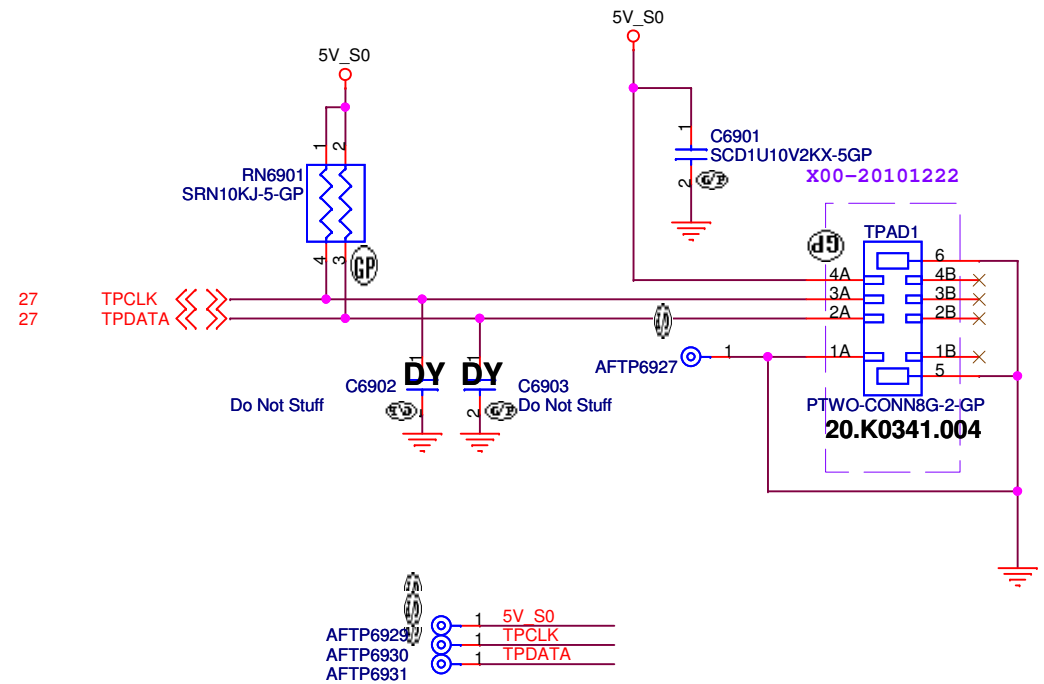
DELL Wistron Corporation
 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
 Taipei Hsien 221, Taiwan, R.O.C.

Title LED Bard/Power Button			Rev X01
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Internal KeyBoard Connector



TouchPad Connector



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

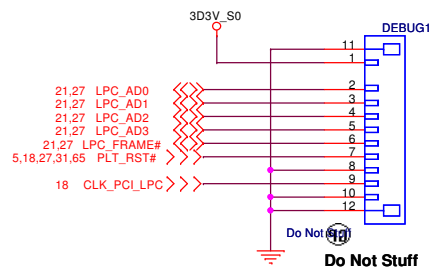
Title Key Board/Touch Pad		
Size A4	Document Number Enrico/Caruso 15 HR	Rev X01
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		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
Hall Sensor		
Size A3	Document Number Enrico/Caruso 15 HR	Rev X01
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DELL		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
Dubug connector			
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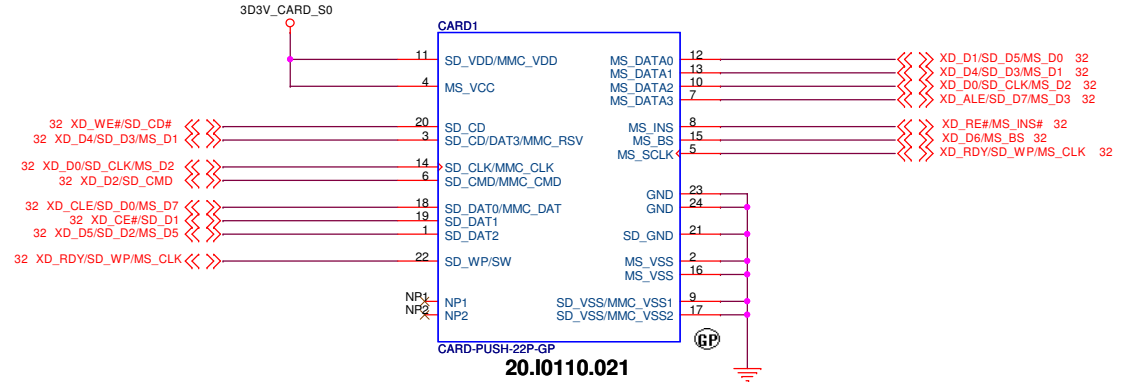
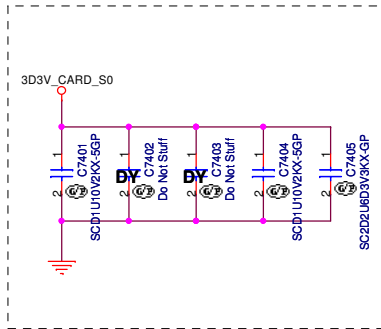
<http://sualaptop365.edu.vn>

DV15 HR Vos GIGA HDMI NoSurge

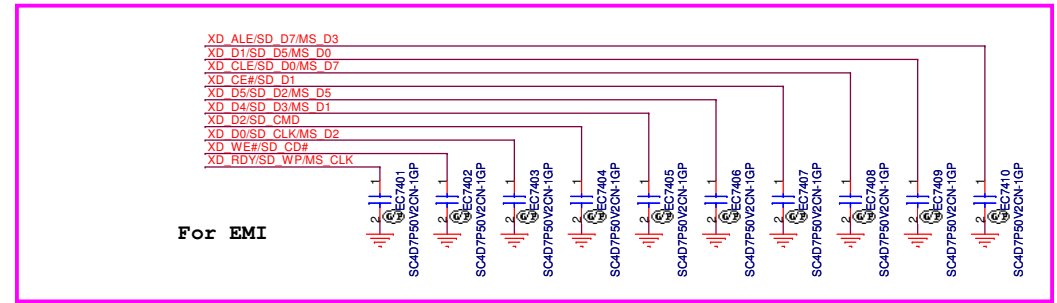
		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
Reserved		
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SSID = SDIO

SD/MMC/MS Card Reader



X01-20110315



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DV15 HR Vos GIGA HDMI NoSurge

Wistron Corporation
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Title: **SD/MS/MMC Card CONN**

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SSID = ExpressCard

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DV15 HR Vos GIGA HDMI NoSurge

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Title		
Express Card		
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DV15 HR Vos GIGA HDMI NoSurge

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SSID = User.Interface

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DV15 HR Vos GIGA HDMI NoSurge

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title		
Free Fall Sensor		
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DV15 HR Vos GIGA HDMI NoSurge

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Reserved		
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Title		
IO Board Connector		
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		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title GPU PCIE/STRAPPING(1/5)		
Size A3	Document Number Enrico/Caruso 15 HR	Rev X01
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			Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title			GPU Memory(2/5)
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		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
File	GPU DP/LVDS/CRT/GPIO(3/5)	
Size	Document Number	Rev
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		Wistron Corporation	
		21F, 88, Sec.1, Hsin Tai Wu Rd., Hsiehshih, Taipei Hsien 221, Taiwan, R.O.C.	
File			
GPU POWER(4/5)			
Size	Document Number	Rev	
KC	Enrico/Caruso 15 HR	X01	
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			Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title			GPU-VRAM1,2 (1/4)		
Size	Document Number		Rev		
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Title			GPU-VRAM3,4 (2/4)		
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Title		
GPU-VRAM5,6 (3/4)		
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Title		
GPU-VRAM7,8 (4/4)		
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		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title RT8208B +VGA CORE		
Size A3	Document Number Enrico/Caruso 15 HR	Rev X01
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		Wistron Corporation 21F, 88, Sec. 1, Hsin Tsu Wu Rd., Hsinchu, Taipéi Hsien 221, Taiwan, R.O.C.
Title DISCRETE VGA POWER		
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			Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title					
LVDS Switch					
Size	Document Number				Rev
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Title		CRT Switch	
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SSID = SDIO

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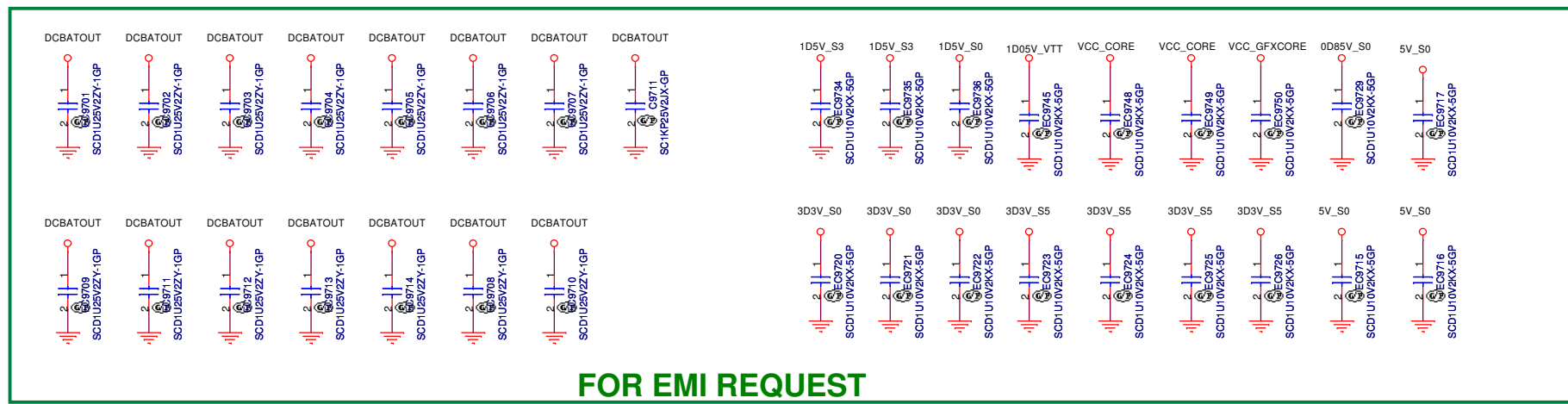
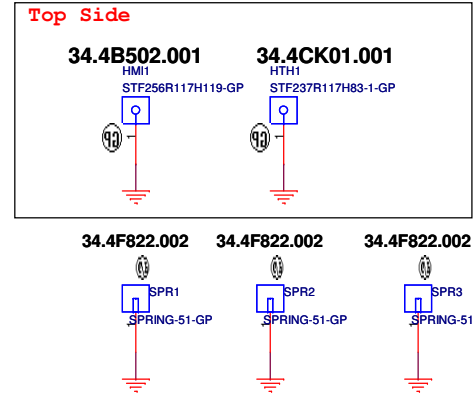
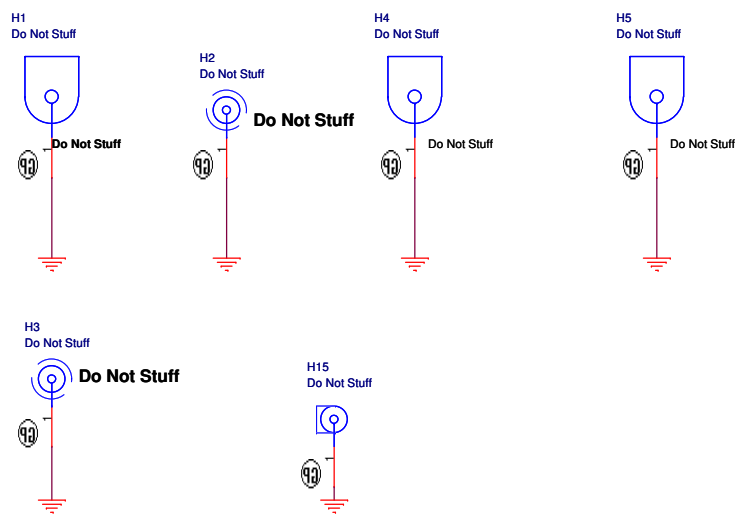
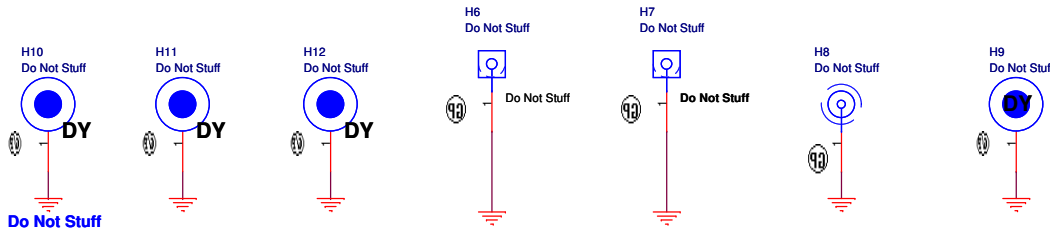
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Title		
TOUCH PANEL		
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SSID = Mechanical



FOR EMI REQUEST

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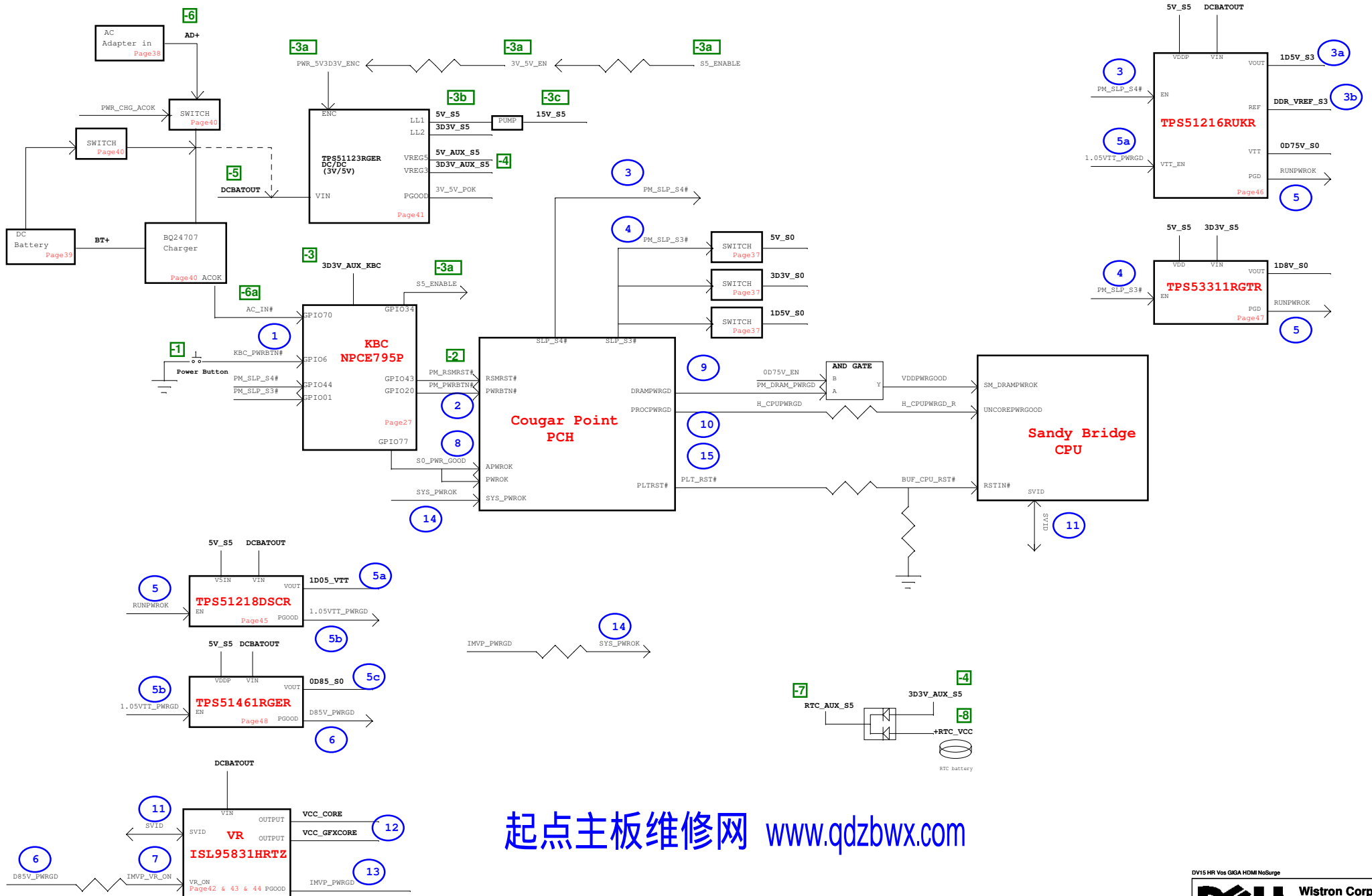
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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title: **UNUSED PARTS/EMI Capacitors**

Size A3 Document Number: **Enrico/Caruso 15 HR** Rev: **X01**

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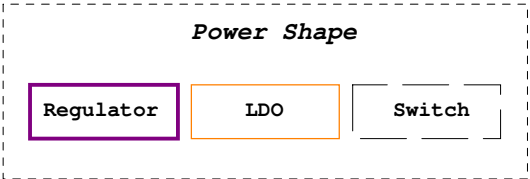
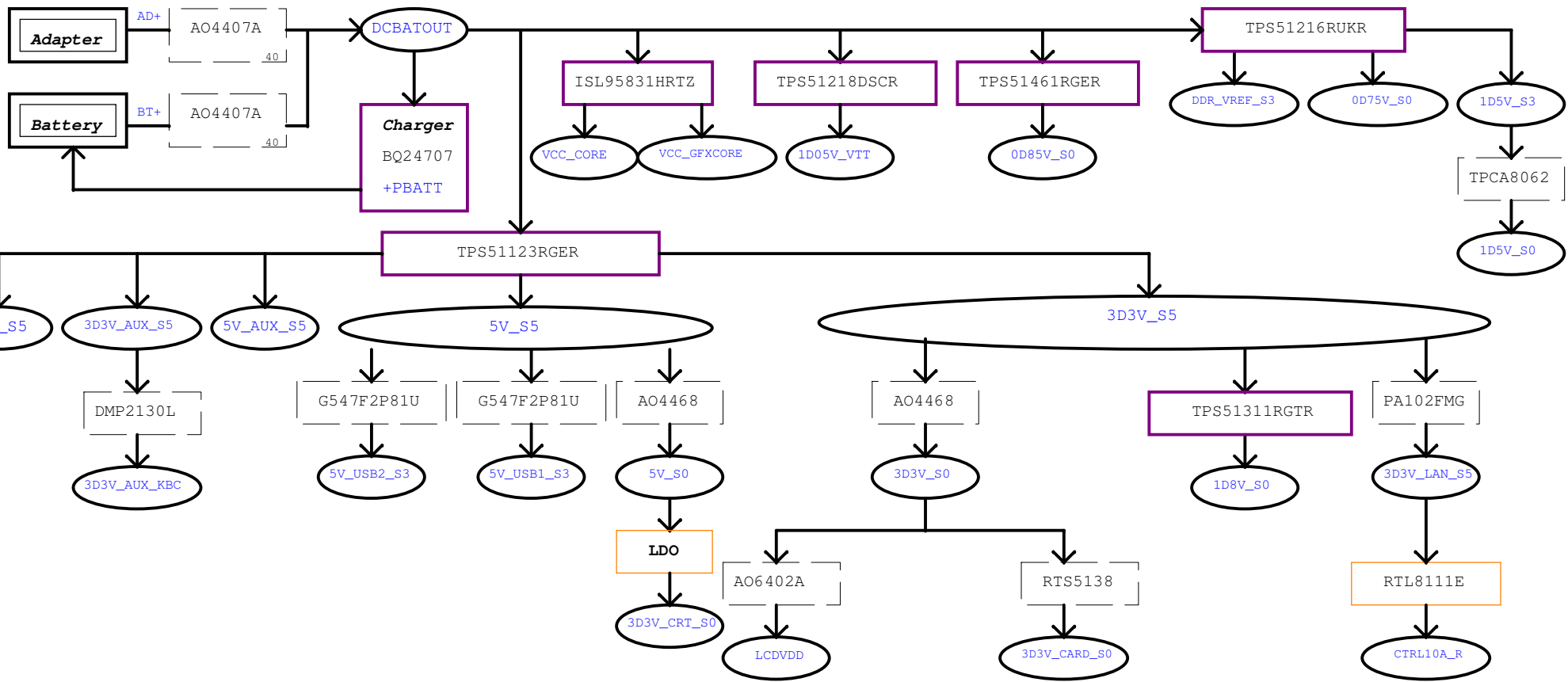
Wistron HURON RIVER POWER UP SEQUENCE DIAGRAM



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Power Up Sequence: [-8] ~ [15]

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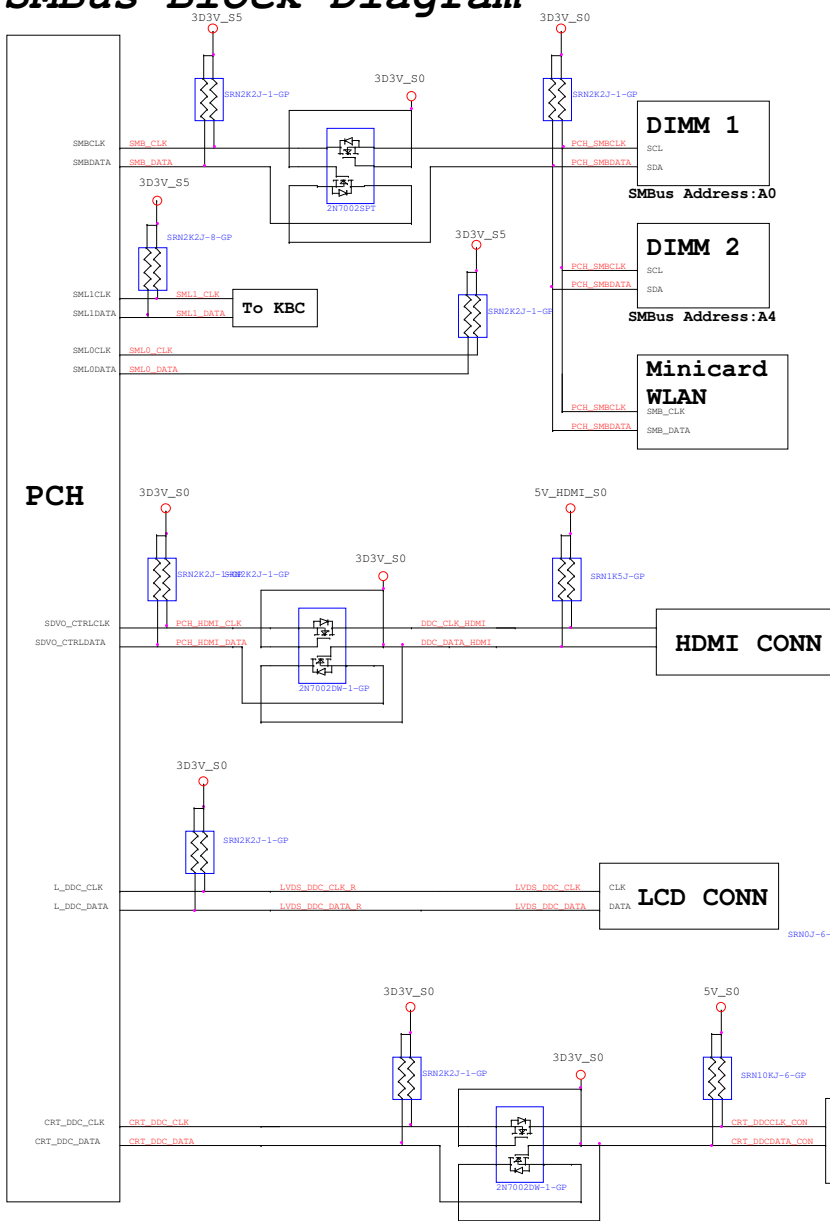
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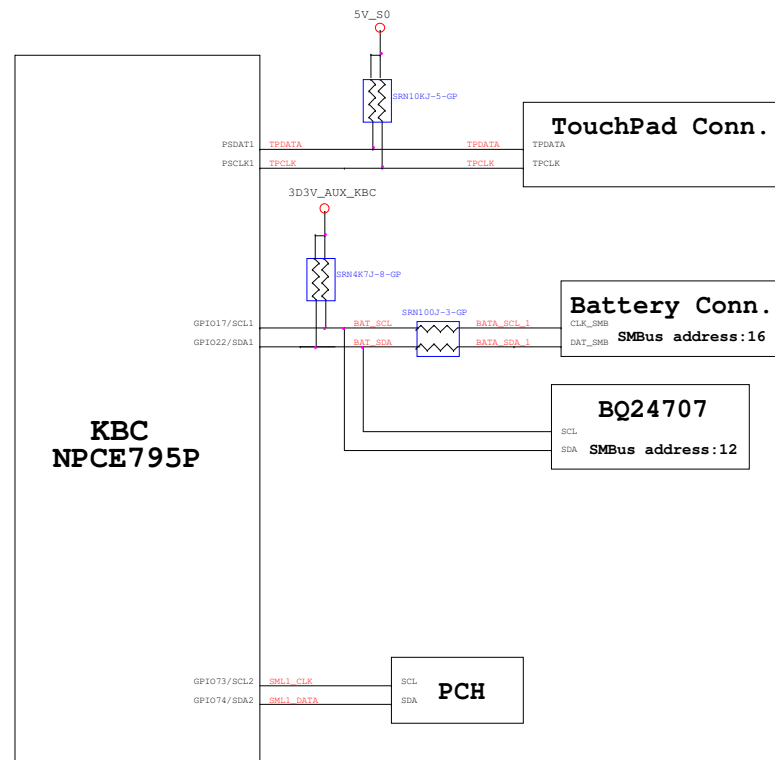
DELL Wistron Corporation
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title Power Block Diagram		
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PCH SMBus Block Diagram



KBC SMBus Block Diagram



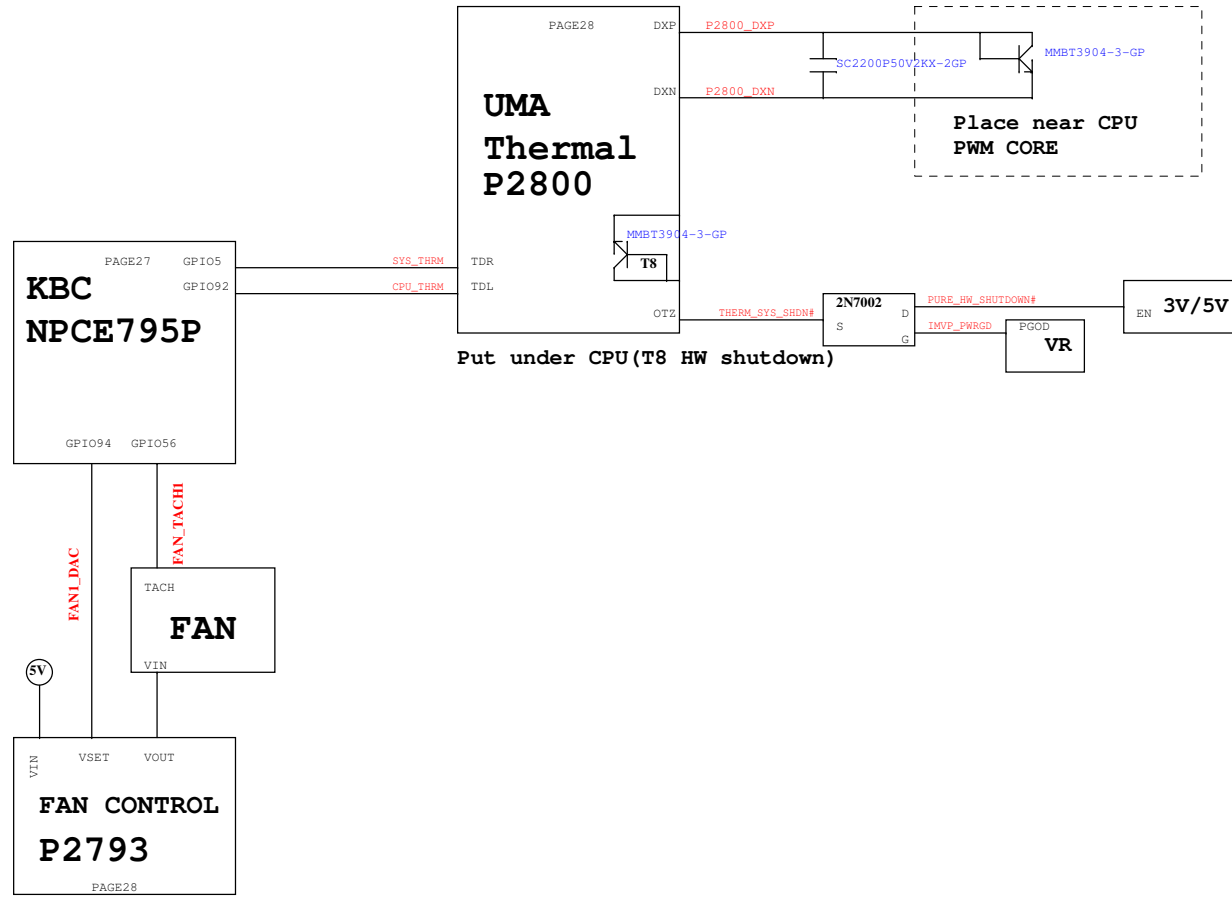
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<http://sualaptop365.edu.vn>

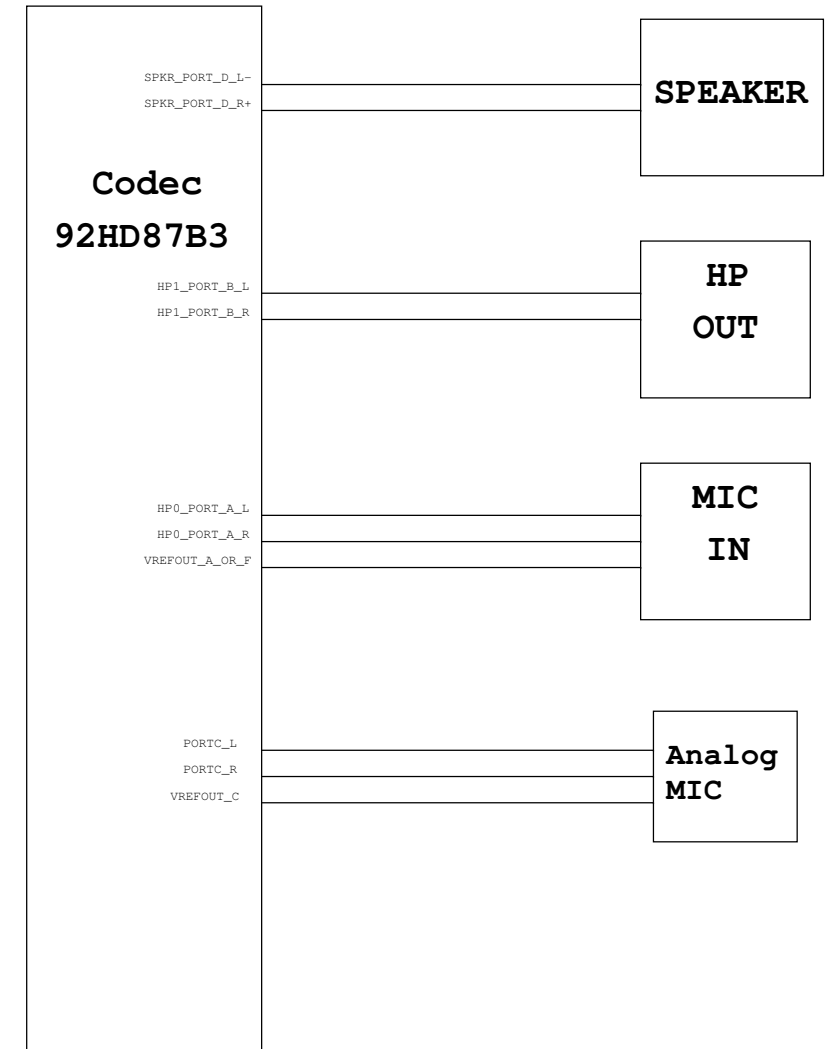
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File			
SMBUS Block Diagram			
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Thermal Block Diagram



Audio Block Diagram



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Title Thermal/Audio Block Diagram			
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