



Part Number = DAZ0K400100

Compal Confidential

K73TA Schematics Document

AMD Sabine

APU Llano / Hudson M3 / Whistler

DIS only

2011-03-08

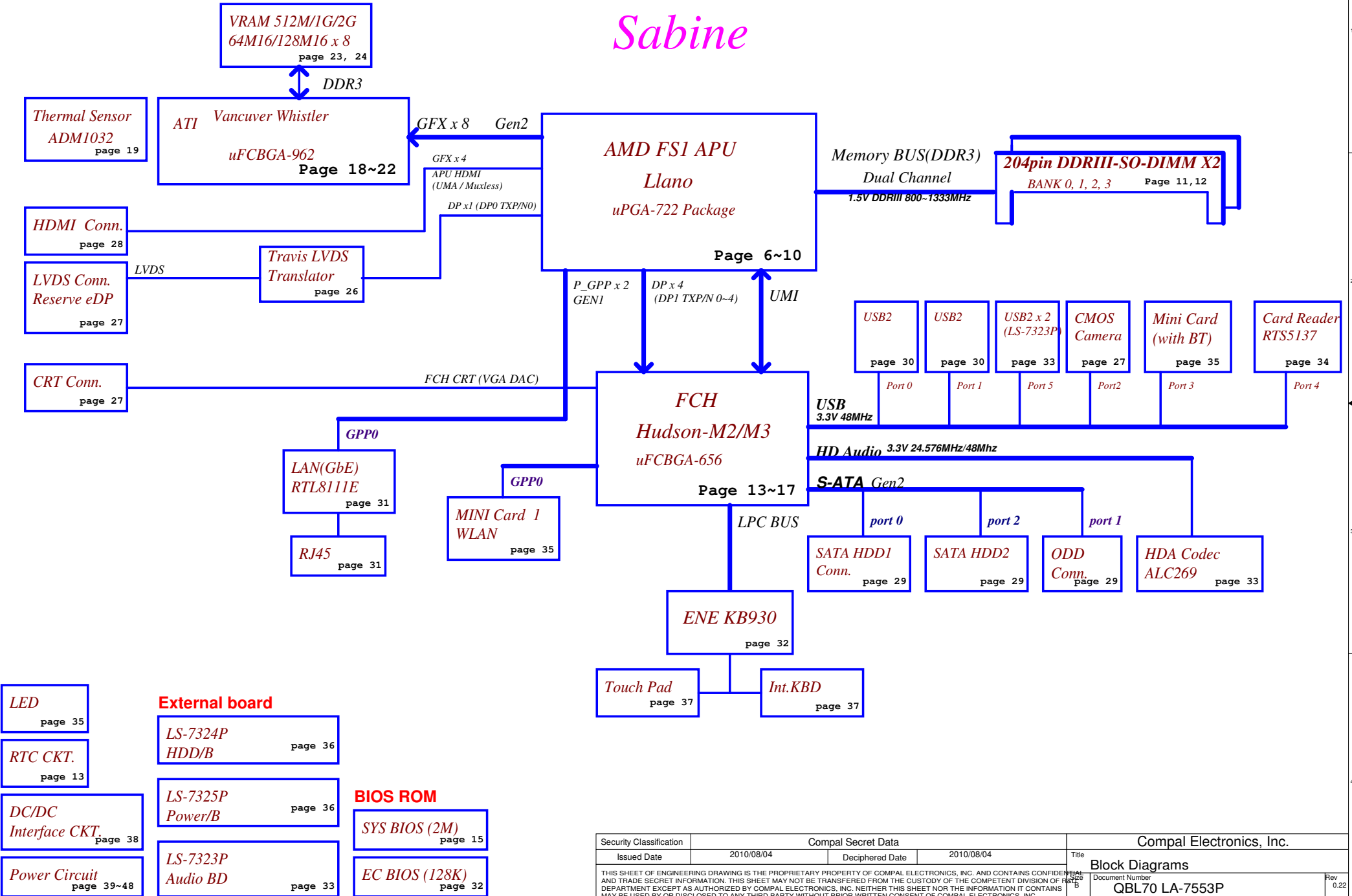
LA-7553P REV: 0.2

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Title	Cover Page
<small>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.</small>				Document Number	Rev
				QBL70 LA-7553P	0.22
				Date: Friday, April 29, 2011	Sheet 1 of 51

Compal Confidential

Model Name : QBL70

Sabine



External board

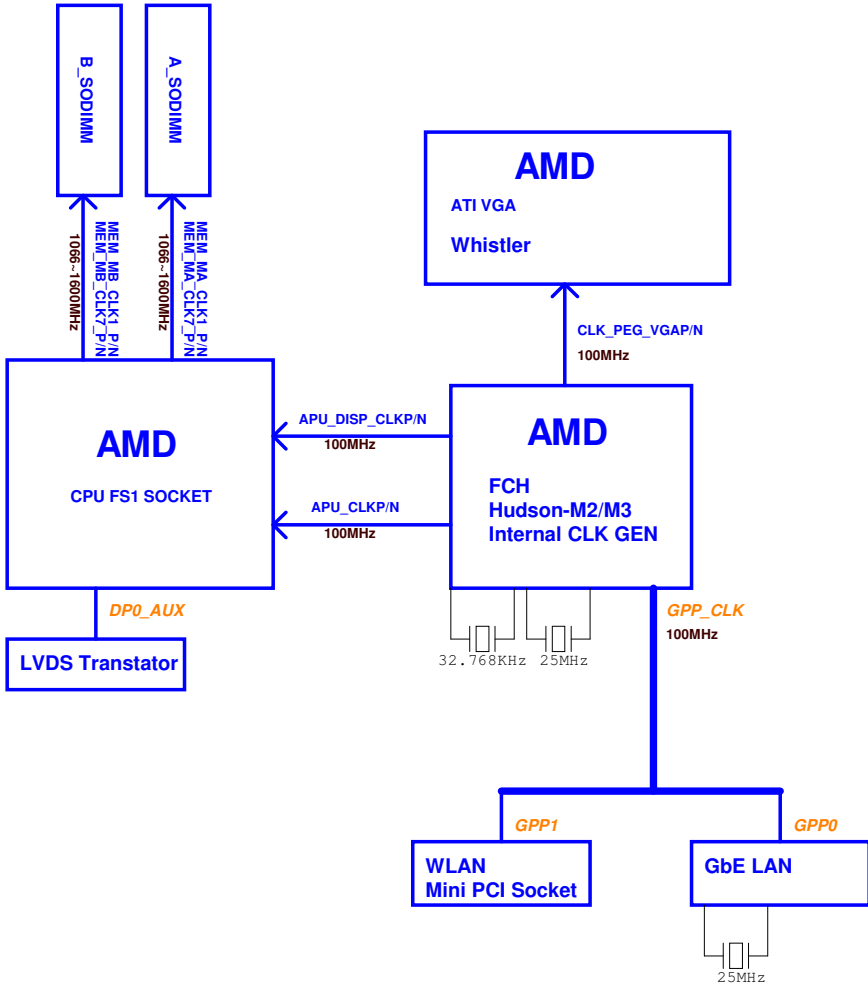
- LED page 35
- RTC CKT. page 13
- DC/DC Interface CKT. page 38
- Power Circuit page 39~48
- LS-7324P HDD/B page 36
- LS-7325P Power/B page 36
- LS-7323P Audio BD page 33

BIOS ROM

- SYS BIOS (2M) page 15
- EC BIOS (128K) page 32

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Title	Block Diagrams
<small>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.</small>				Document Number	QBL70 LA-7553P
				Date	Friday, April 23, 2011
				Sheet	2 of 51

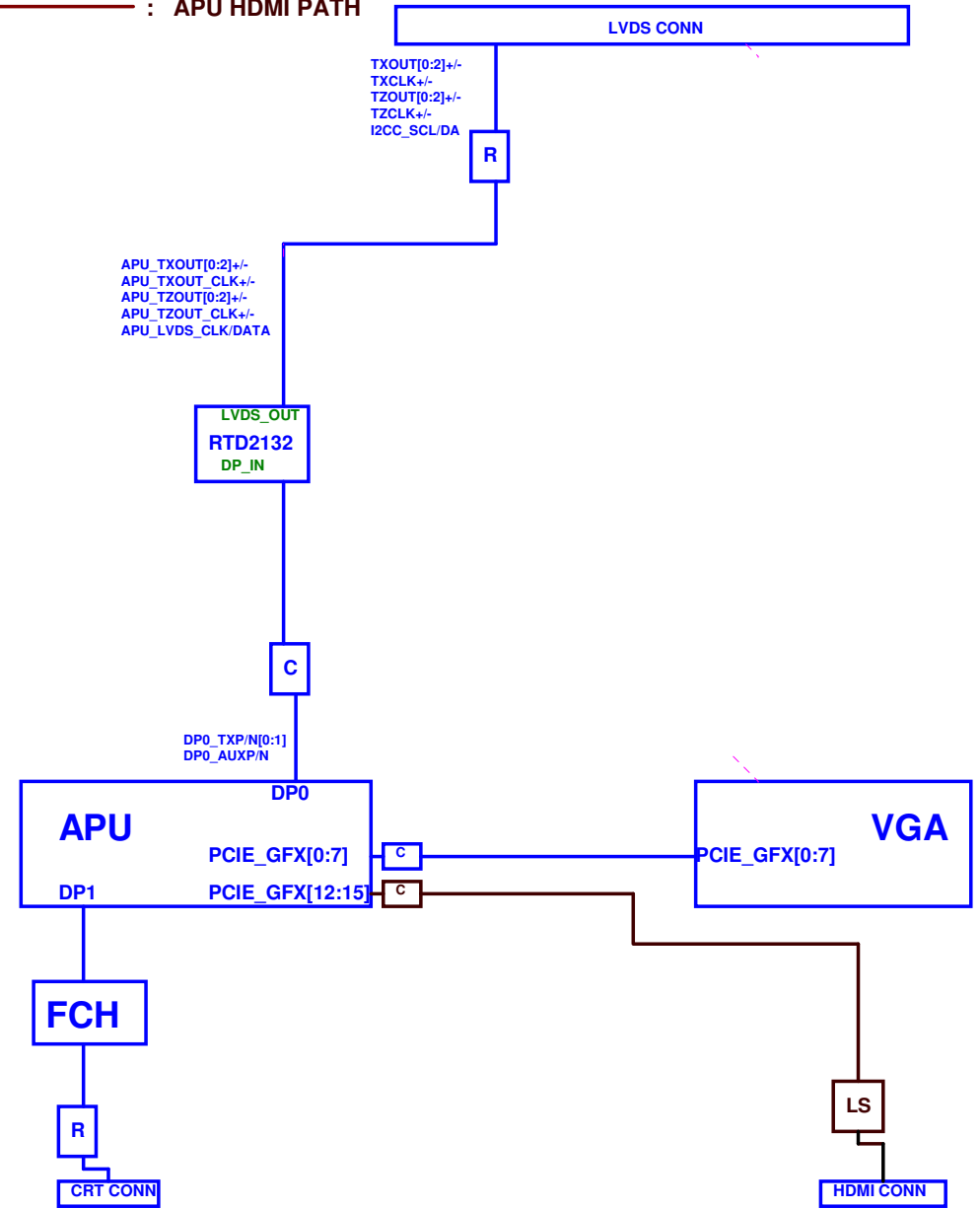
CLOCK DISTRIBUTION



DISPLAY DISTRIBUTION

— : LVDS PATH

— : APU HDMI PATH



Security Classification	Compal Secret Data		Title	CLOCK / DISPLAY DISTRIBUTION	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Size	Document Number
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Custom	QBL70 LA-7553P	Rev 0.22
Date:	Friday, April 29, 2011	Sheet	3	of	51

Voltage Rails

Power Plane	Description	S1	S3	S5
VIN	Adapter power supply (19V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit.	N/A	N/A	N/A
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+CPU_CORE_1	Core voltage for CPU (0.7-1.2V)	ON	OFF	OFF
+CPU_CORE_NB	Voltage for On-die VGA of APU	ON	OFF	OFF
+VGA_CORE	0.95-1.2V switched power rail	ON	OFF	OFF
+0.75VS	0.75V switched power rail for DDR terminator	ON	ON	OFF
+1.0VSG	1.0V switched power rail for VGA	ON	OFF	OFF
+1.1ALW	1.1V switched power rail for FCH	ON	ON	ON*
+1.1VS	1.1V switched power rail for FCH	ON	OFF	OFF
+1.2VS	1.2V switched power rail for APU	ON	OFF	OFF
+1.5V	1.5V power rail for CPU VDDIO and DDR	ON	ON	OFF
+1.5VS	1.5V switched power rail	ON	OFF	OFF
+1.8VSG	1.8V switched power rail	ON	OFF	OFF
+2.5VS	2.5V for CPU_VDDA	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3V_LAN	3.3V power rail for LAN	ON	ON	ON
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5VS	5V switched power rail	ON	OFF	OFF
+VSB	VSB always on power rail	ON	ON	ON*
+RTCVCC	RTC power	ON	ON	ON

Note : ON* means that this power plane is ON only with AC power available, otherwise it is OFF.

x = 1 is read cmd, x= 0 is writee cmd.

External PCI Devices

Device	IDSEL#	REQ#/GNT#	Interrupts

EC SM Bus1 address

EC SM Bus2 address

Device	Address	HEX	Device	Address	HEX
Smart Battery	0001 011X b	16H	ADI ADM1032 (VGA)	1001 101X b	9AH

FCH SM Bus 0 address

FCH SM Bus 1 address

Device	Address	HEX	Device	Address	HEX
DDR DIMM1	1101 000X b	D0			
DDR DIMM2	1101 001X b	D2			

STATE	SIGNAL	SLP_S1#	SLP_S3#	SLP_S4#	SLP_S5#	+VALW	+V	+VS	Clock
Full ON	HIGH	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	ON
S1 (Power On Suspend)	LOW	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	LOW
S3 (Suspend to RAM)	LOW	LOW	HIGH	HIGH	HIGH	ON	ON	OFF	OFF
S4 (Suspend to Disk)	LOW	LOW	LOW	HIGH	HIGH	ON	OFF	OFF	OFF
S5 (Soft OFF)	LOW	LOW	LOW	LOW	LOW	ON	OFF	OFF	OFF

Board ID / SKU ID Table for AD channel

Vcc	3.3V +/- 5%			
Ra/Rc/Re	100K +/- 5%			
Board ID	Rb / Rd / Rf	V _{AD_BID} min	V _{AD_BID} typ	V _{AD_BID} max
0	0	0 V	0 V	0 V
1	8.2K +/- 5%	0.216 V	0.250 V	0.289 V
2	18K +/- 5%	0.436 V	0.503 V	0.538 V
3	33K +/- 5%	0.712 V	0.819 V	0.875 V
4	56K +/- 5%	1.036 V	1.185 V	1.264 V
5	100K +/- 5%	1.453 V	1.650 V	1.759 V
6	200K +/- 5%	1.935 V	2.200 V	2.341 V
7	NC	2.500 V	3.300 V	3.300 V

BOARD ID Table

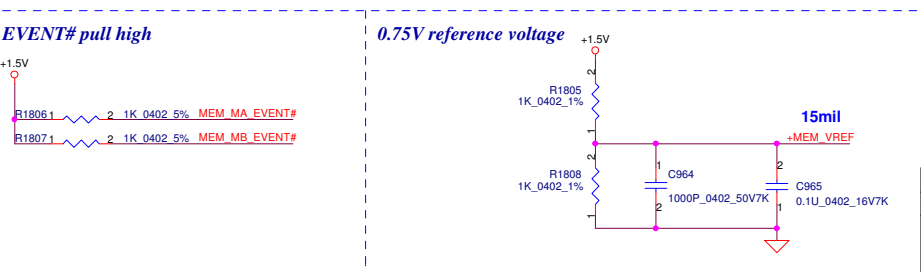
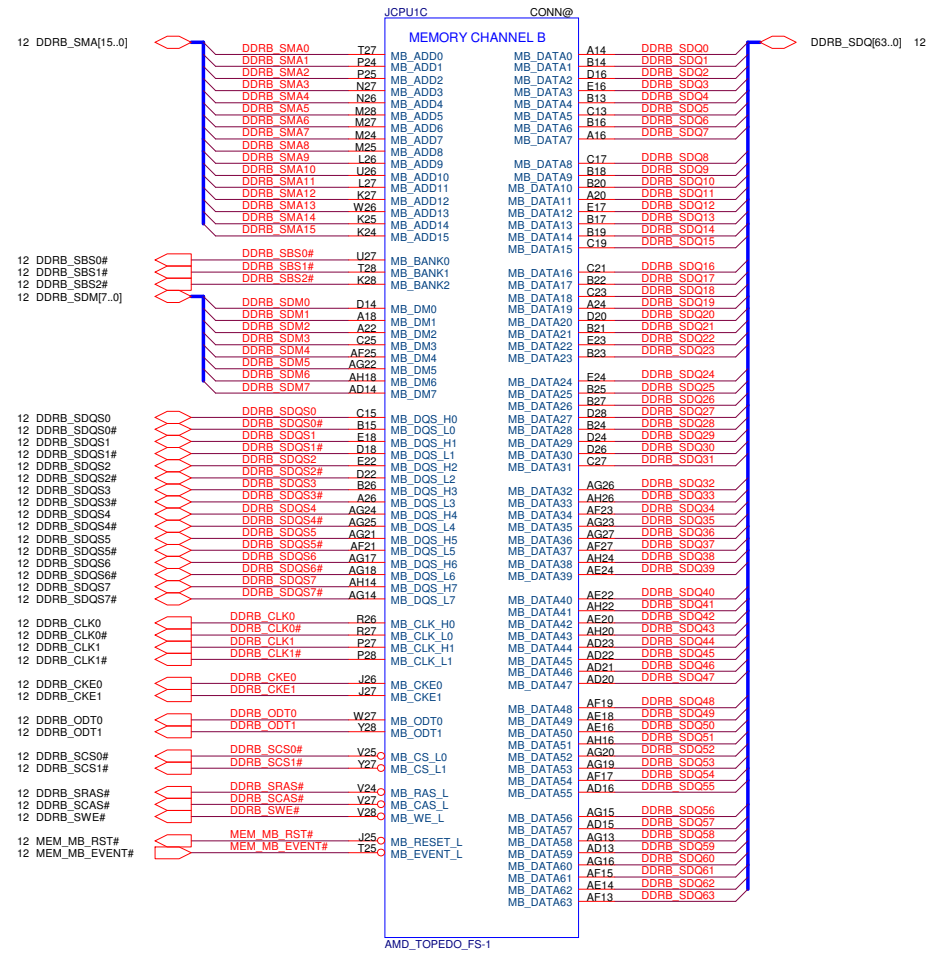
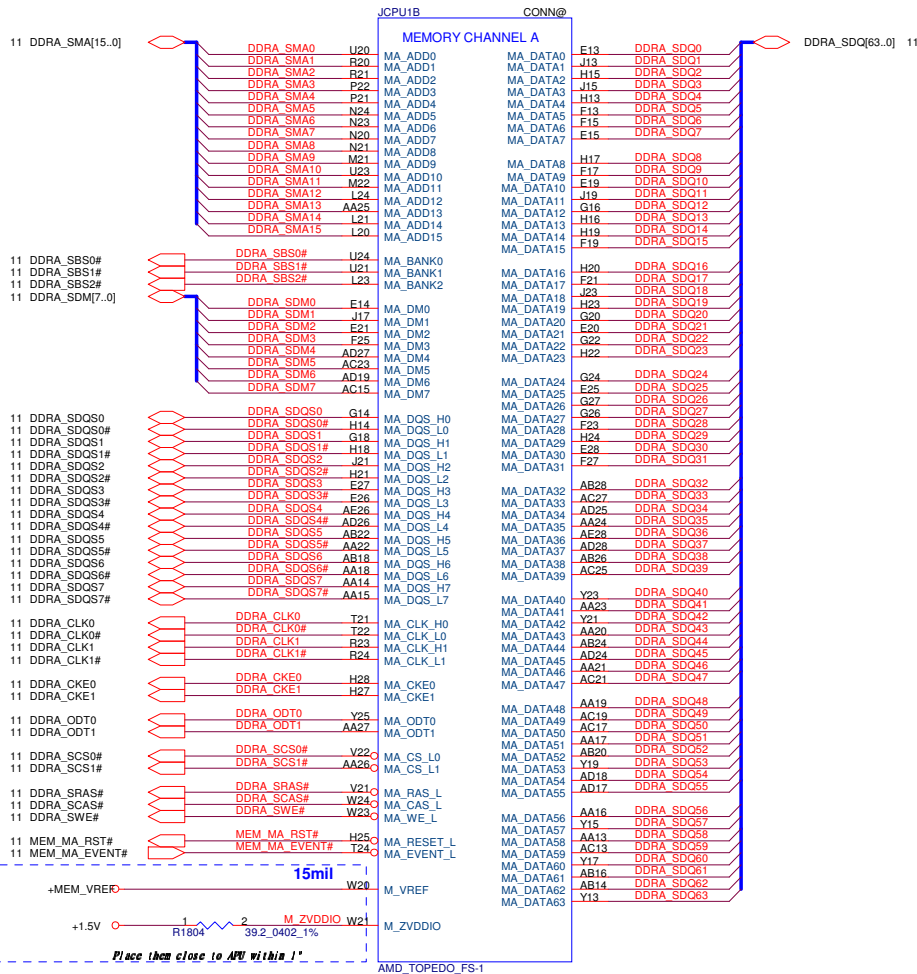
Board ID	PCB Revision
0	NA
1	P5WS5
2	P5WH5
3	P7YE5
4	P7YS5
5	NA
6	NA
7	NA

BTO Option Table

BOM Structure	BTO Item
TL@	Translator
VGA@	Use VGA (Mux)
128@	Use VRAM channel A&B
X76@	VRAM ID Table
M2@	Use Hudson-M2
M3@	Use Hudson-M3
USB30@	USB30 on M/B
USB20@	USB20 on M/B



Security Classification	Compal Secret Data		Title	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Notes List
Document Number	QBL70 LA-7553P			Rev 0.22
Date	Friday, April 29, 2011			Sheet 4 of 51



Security Classification		Compal Secret Data		Title	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	AMD FS1 DDRIII I/F	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev	0.22
Date:	Friday, April 29, 2011	Sheet	7	of	51

To LVDS Translator

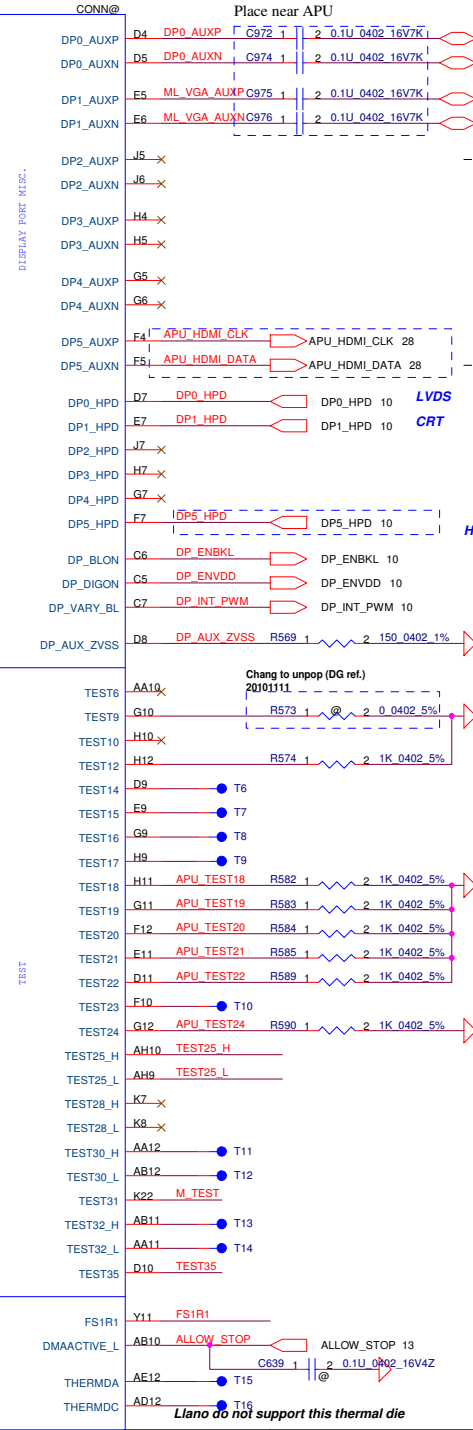
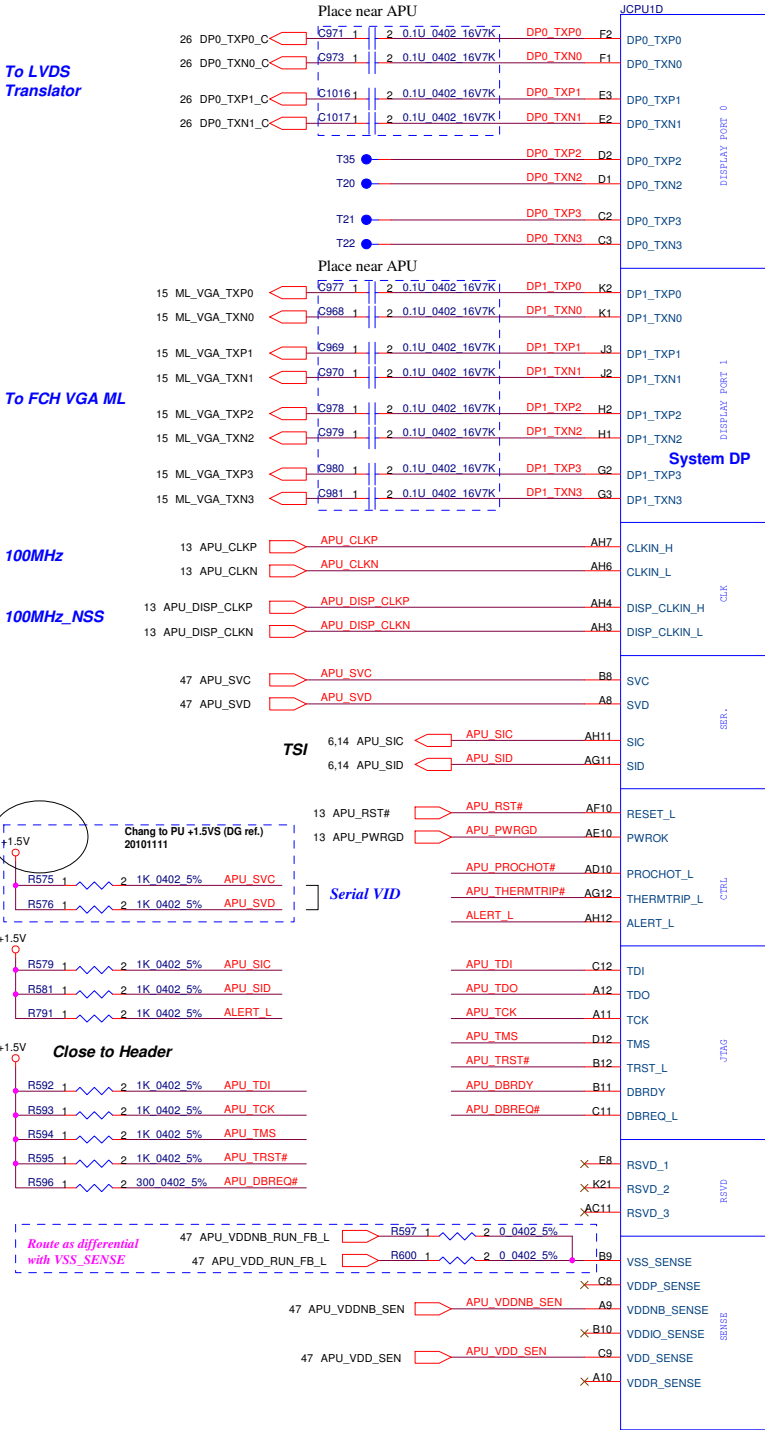
To FCH VGA ML

100MHz

100MHz_NSS

Close to Header

Route as differential with VSS_SENSE



To LVDS Translator

To FCH

AUX 2-5 are for GFX interface use, they could be selected to I2C or AUX logic

VDDIO level Need Level shift

VDDIO level Need Level shift

VDDIO level Need Level shift

Asserted as an input to force the processor into the HTC-active state

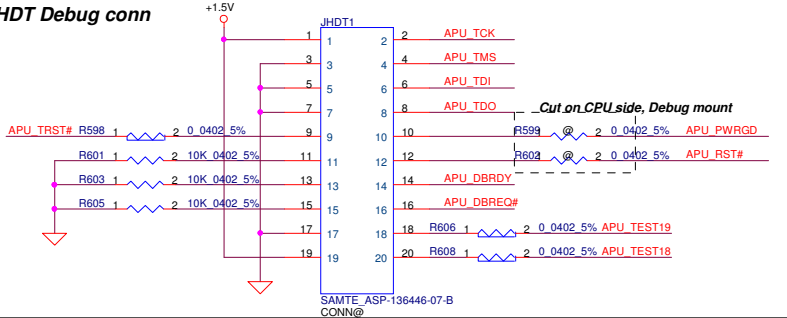
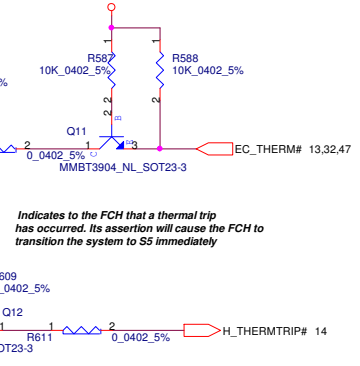
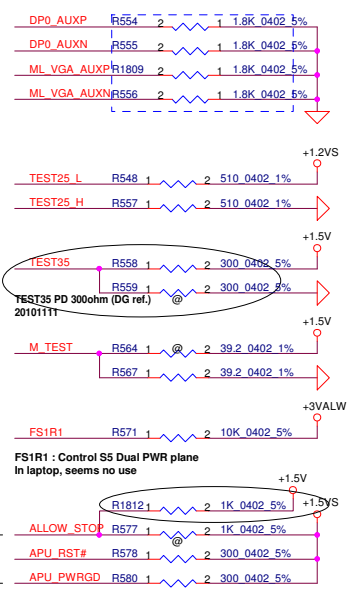
Indicates to the FCH that a thermal trip has occurred. Its assertion will cause the FCH to transition the system to S5 immediately

HDT Debug conn

Cut on CPU side, Debug mount

Llano do not support this thermal die

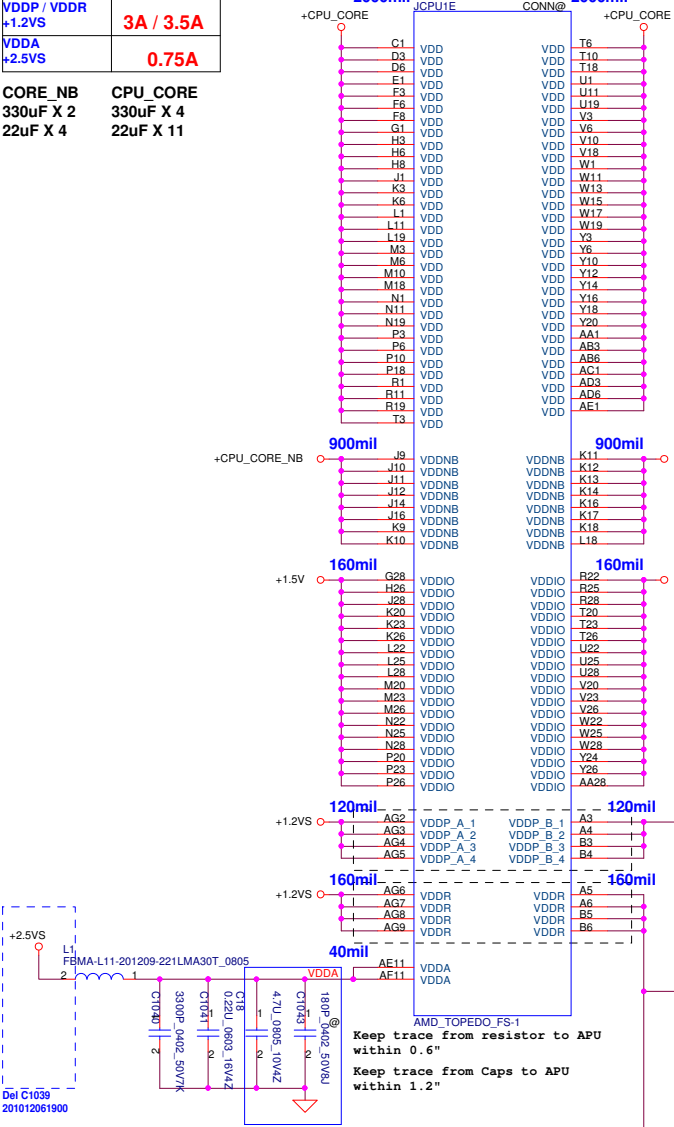
If not used, pins are left unconnected (DG ref.) 20101111



Security Classification	Compal Secret Data	Title	Compal Electronics, Inc.
Issued Date	2010/08/04	Deciphered Date	2010/08/04
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			
Document Number	QBL70 LA-7553P	Revision	0.22
Date	Friday, April 23, 2011	Sheet	8 of 51

Power Name	Consumption
VDD	
+CPU_CORE	50A
VDDNB	
+CPU_CORE_NB	22.5A
VDDIO	
+1.5V	4A
VDDP / VDDR	
+1.2VS	3A / 3.5A
VDDA	
+2.5VS	0.75A

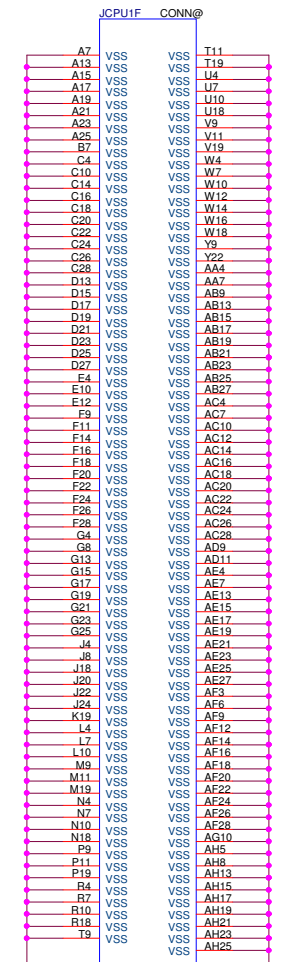
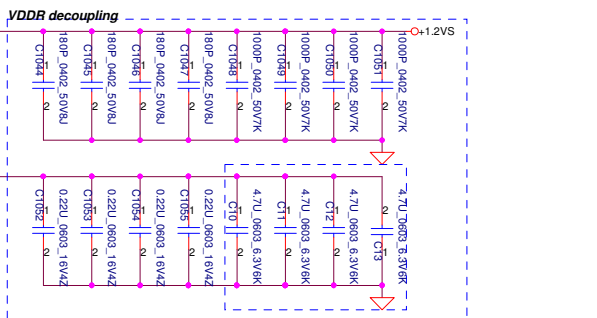
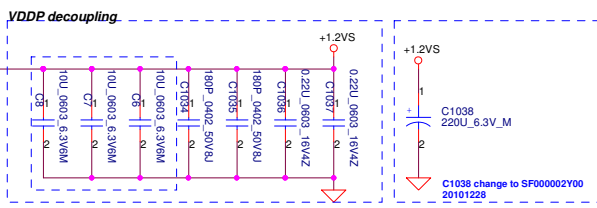
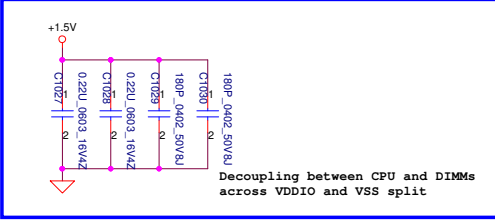
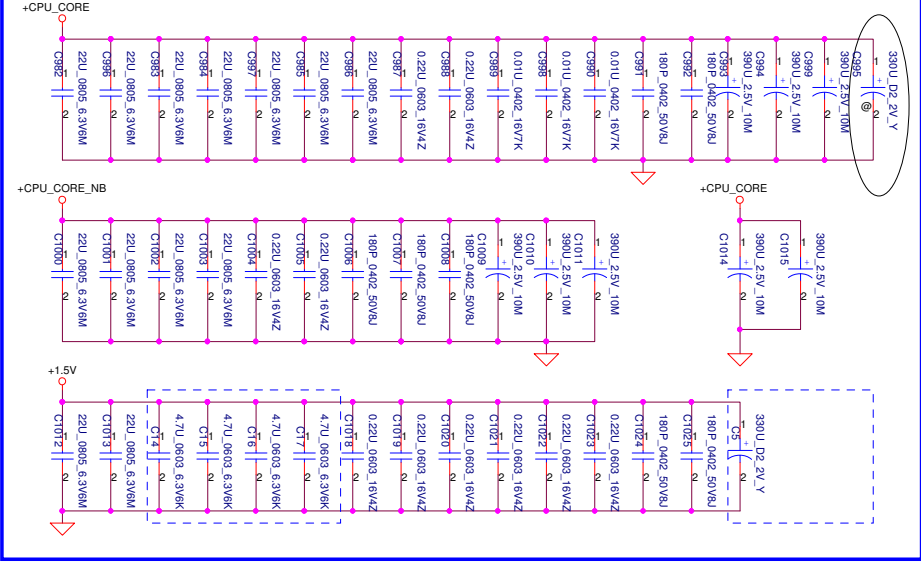
CORE_NB CPU_CORE
 330uF X 2 330uF X 4
 22uF X 4 22uF X 11



Del C1039
 201012061900

Keep trace from resistor to APU within 0.6"
 Keep trace from Caps to APU within 1.2"

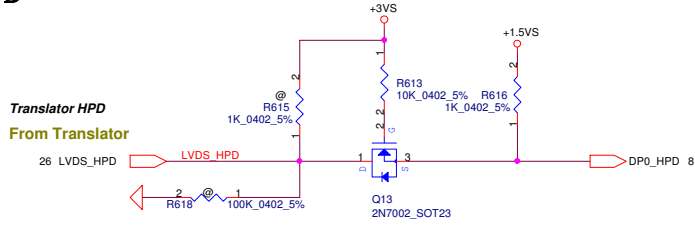
CPU BOTTOM SIDE DECOUPLING



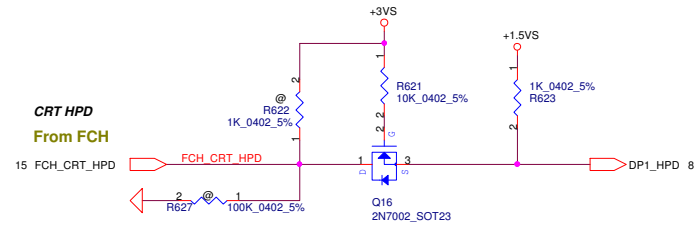
Demo Board Capacitor (include PWM side)						
CPU_CORE	CORE_NB	VDDIO_SUS	VDDIO_SUS	VDDP/R_PWM	VDDP	VDDR
470uF x 6	470uF x 4	(CPU side)	(DIMM x2)	470uF x 2	10uF x 3	4.7uF x 4
22uF x 9	22uF x 6	680uF x 1	100uF x 4	10uF x 1	0.22uF x 2	0.22uF x 4
0.22uF x 2	0.22uF x 2	330uF x 1	0.1uF		180pF x 2	1nF x 4
180pF x 2	180uF x 3	22uF x 3			4.7uF x 4	180pF x 4
10nF x 3		2.2uF x 4			0.22uF x 6	
		180pF x 4				

HPD

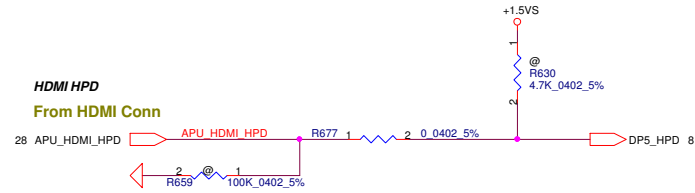
Translator HPD From Translator



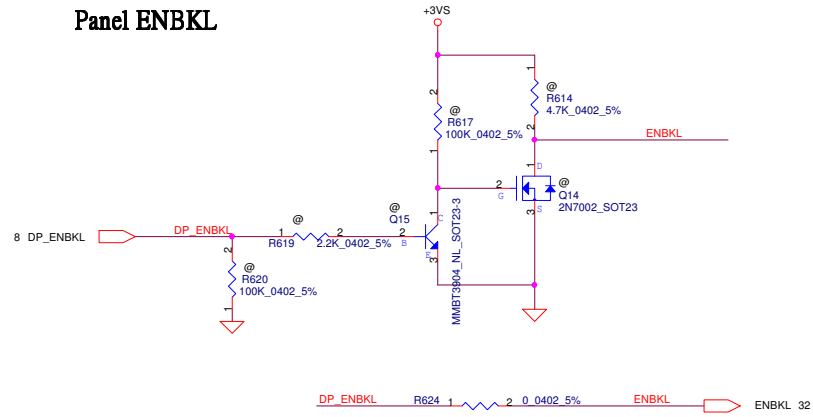
CRT HPD From FCH



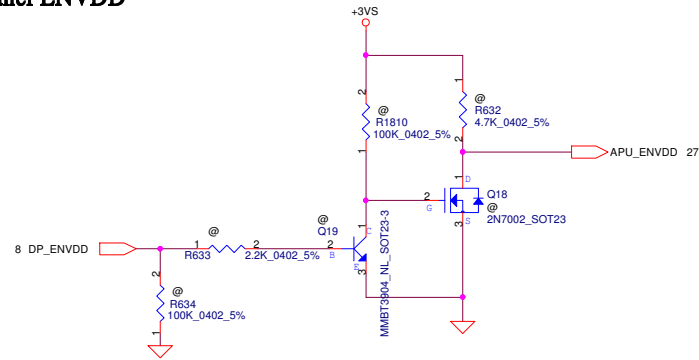
HDMI HPD From HDMI Conn



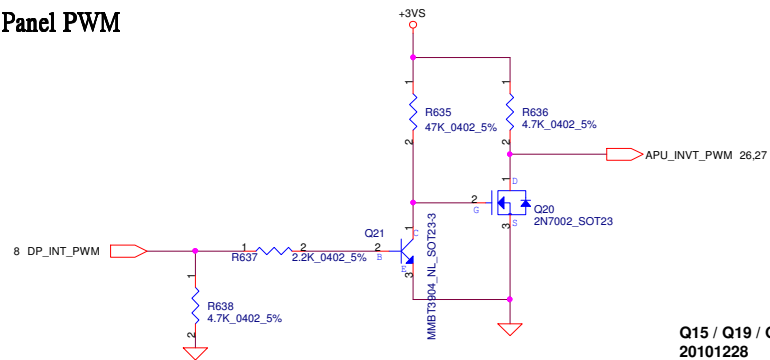
Panel ENBKL



Panel ENVDD

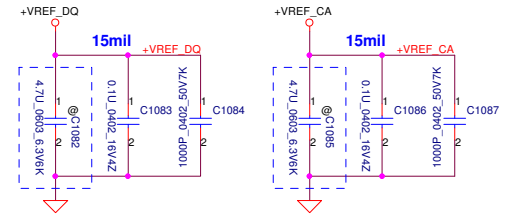
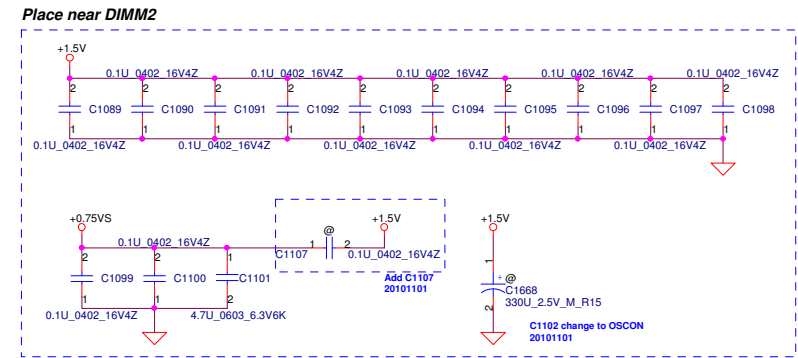
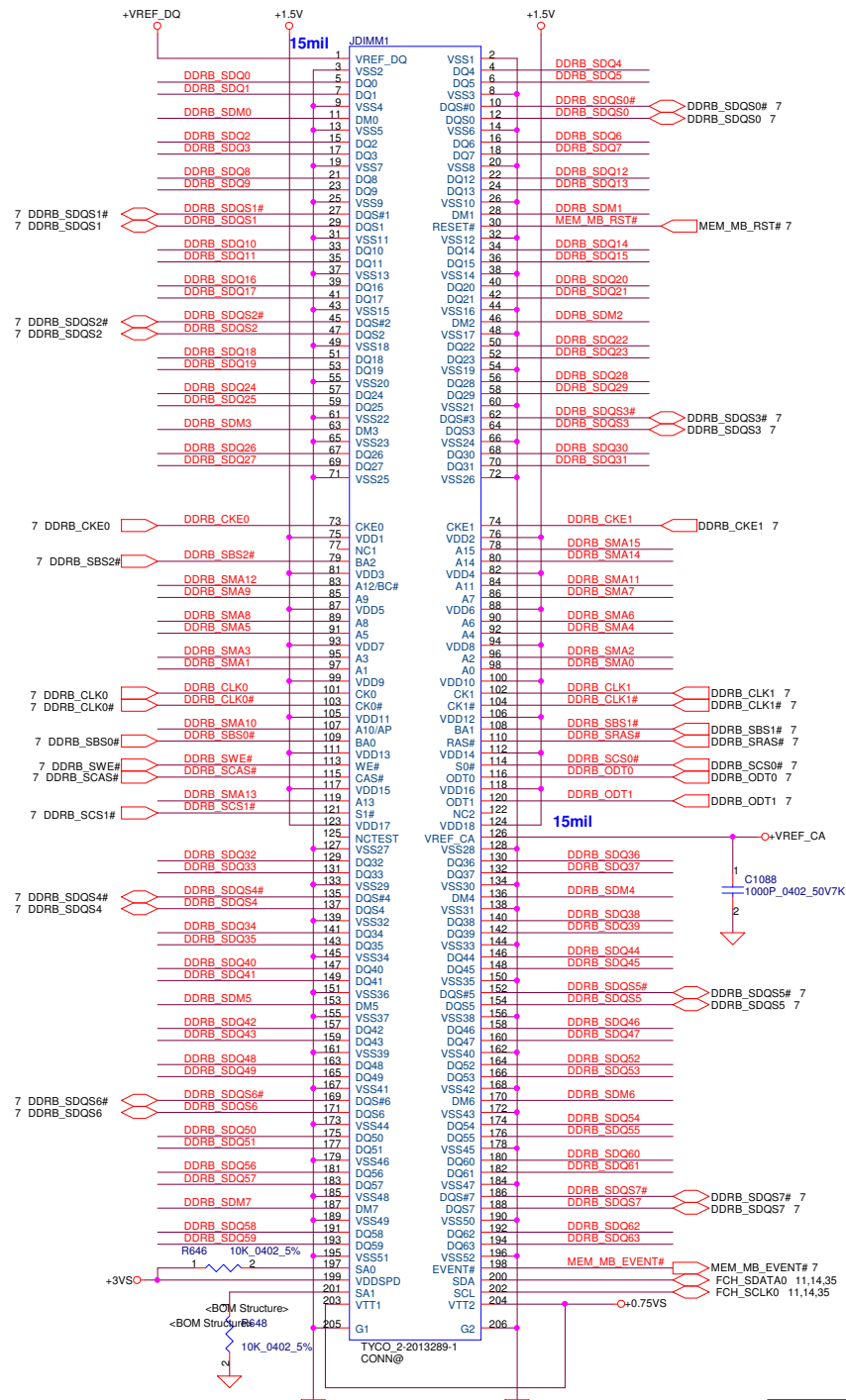


Panel PWM



Q15 / Q19 / Q21 change to SB000006A00
20101228

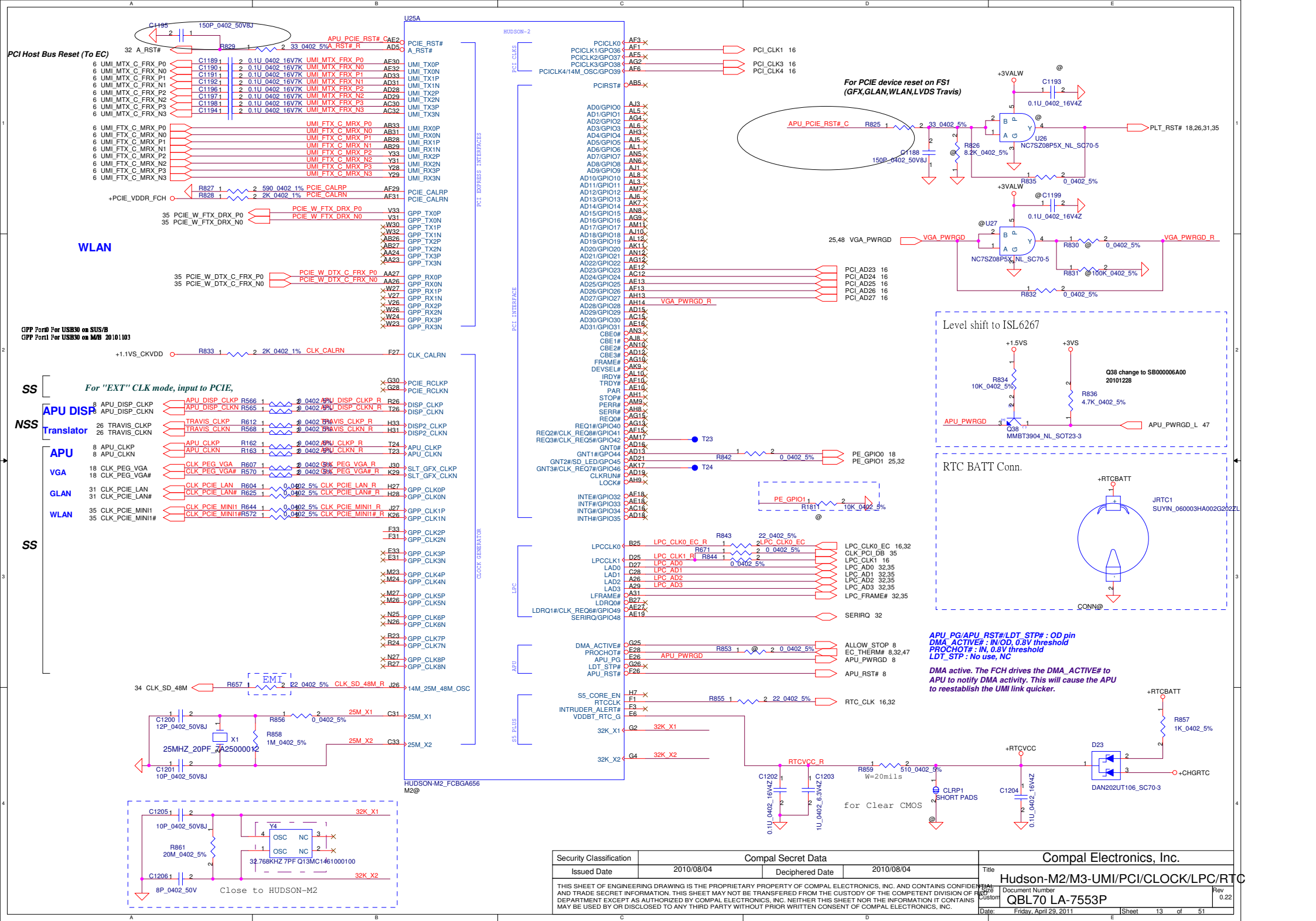
Security Classification	Compal Secret Data			Title	AMD FS1 Singal Level Shifter
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Document Number	QBL70 LA-7553P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev	0.22
				Date:	Friday, April 23, 2011
				Sheet	10 of 51



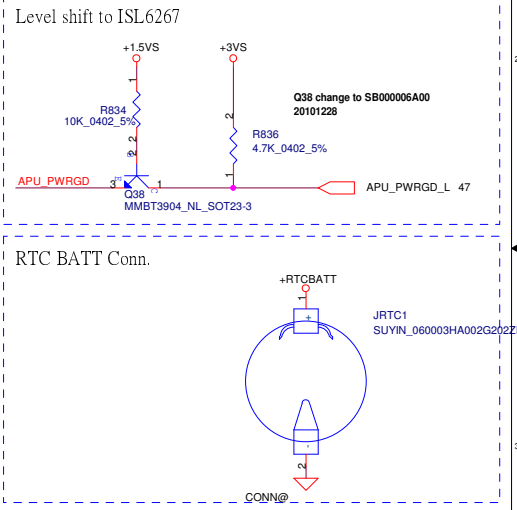
DIMM_B STD H:5.2mm
 <Address: 01>

Security Classification	Compal Secret Data		Cmpal Electronics, Inc.	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				Rev
				0.22
				Friday, April 23, 2011
				Sheet 12 of 51

QBL70 LA-7553P



For PCIe device reset on FS1 (GFX, GLAN, WLAN, LVDS Travis)

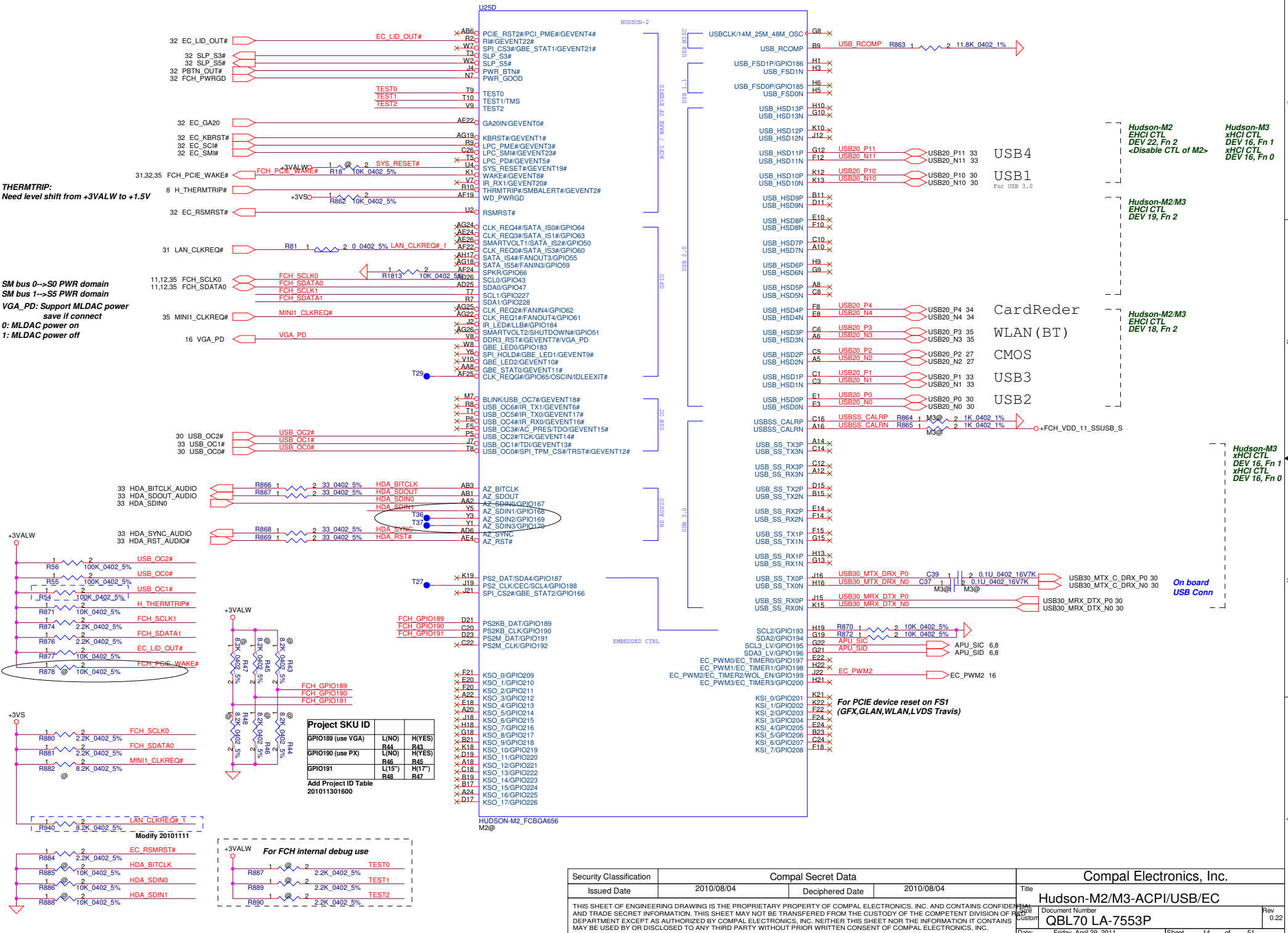


APU_PG/APU_RST#/LDT_STP# : OD pin
 DMA_ACTIVE# : IN/OD, 0.3V threshold
 PROCHOT# : IN, 0.8V threshold
 LDT_STP# : No use, NC

DMA active. The FCH drives the DMA_ACTIVE# to APU to notify DMA activity. This will cause the APU to reestablish the UMI link quicker.

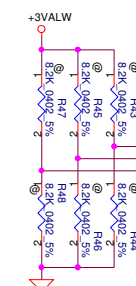
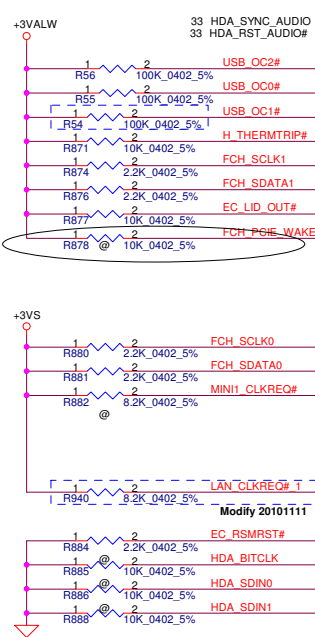
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Title	Hudson-M2/M3-UMI/PCI/CLOCK/LPC/RTC
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	QBL70 LA-7553P
Date	Friday, April 29, 2011	Sheet	13 of 51	Rev	0.22

PCIE_RST2 : Reset PCIE device on Hudson2



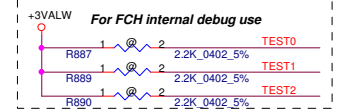
THERMTRIP:
Need level shift from +3VALW to +1.5V

SM bus 0->S0 PWR domain
SM bus 1->S5 PWR domain
VGA_PD: Support MLDAC power
save it connect
0: MLDAC power on
1: MLDAC power off

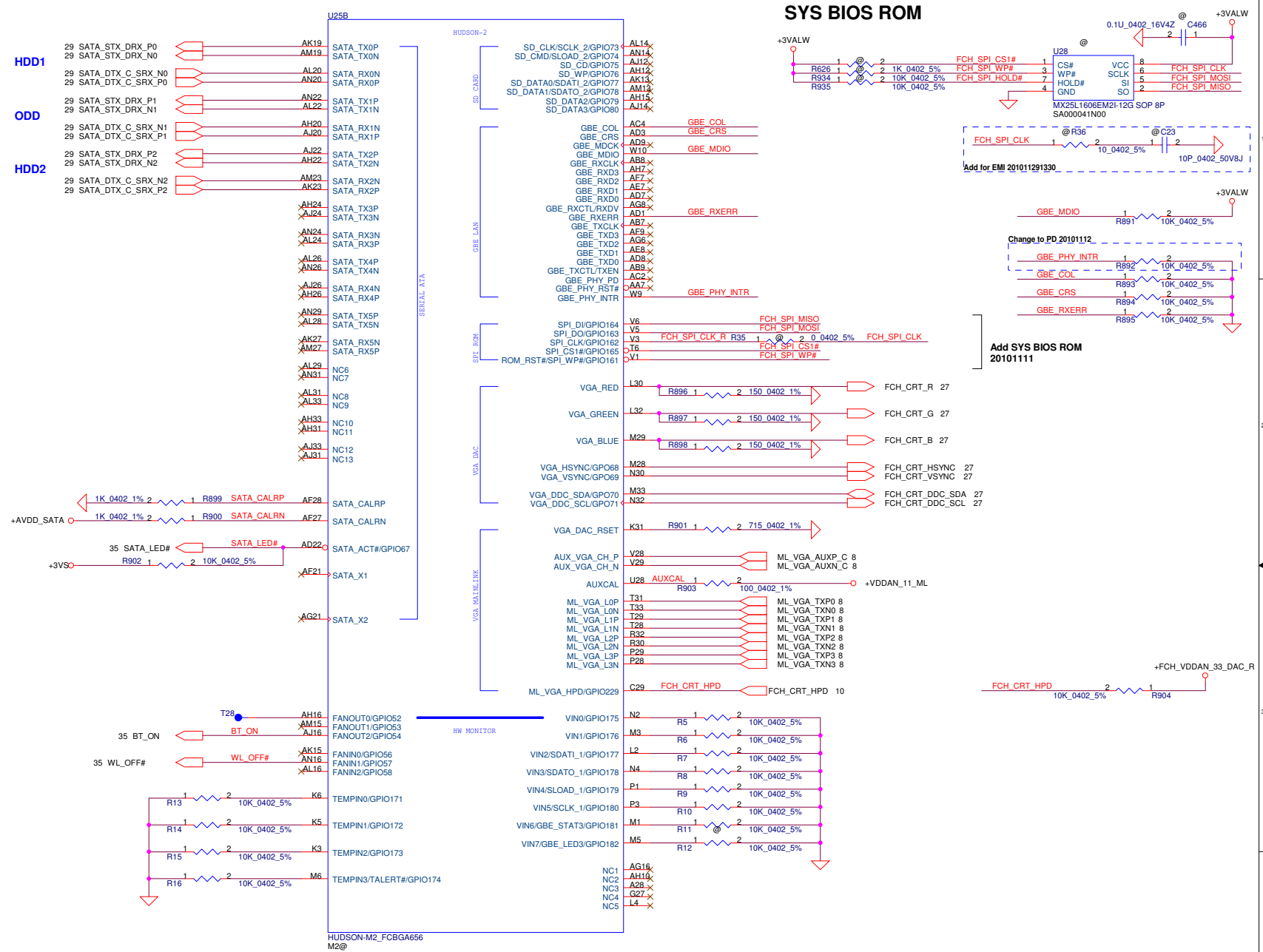


Project SKU ID	L(N)O	H(Y)ES
GPIO189 (use VGA)	R44	R45
GPIO190 (use PX)	R46	R45
GPIO191	R48	R47

Add Project ID Table
201011301600



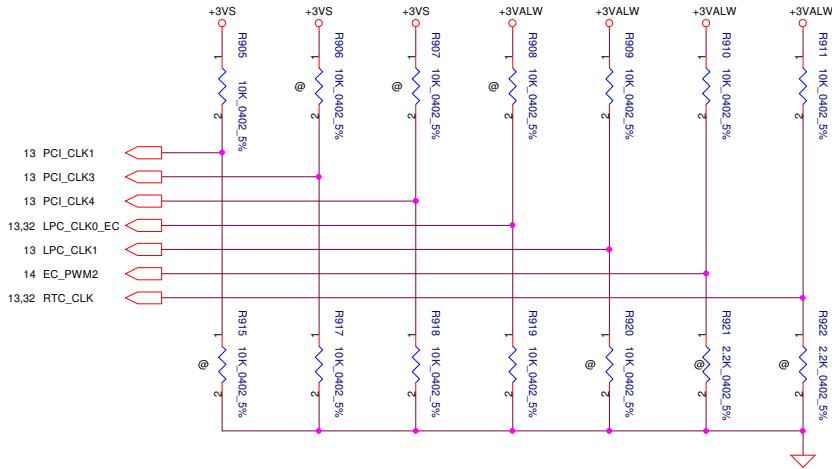
Security Classification	Compal Secret Data		Title	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Hudson-M2/M3-ACPI/USB/EC
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				
Document Number	QBL70 LA-7553P			Rev 0.22
Date:	Friday, April 23, 2011	Sheet	14	of 51



Security Classification		Compal Secret Data		Title	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	Hudson-M2/M3-SATA/GBE/HWM	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Revision	1	Document Number	QBL70 LA-7553P	Date	Friday, April 29, 2011
Rev	0.22	Sheet	15 of 51		

STRAP PINS

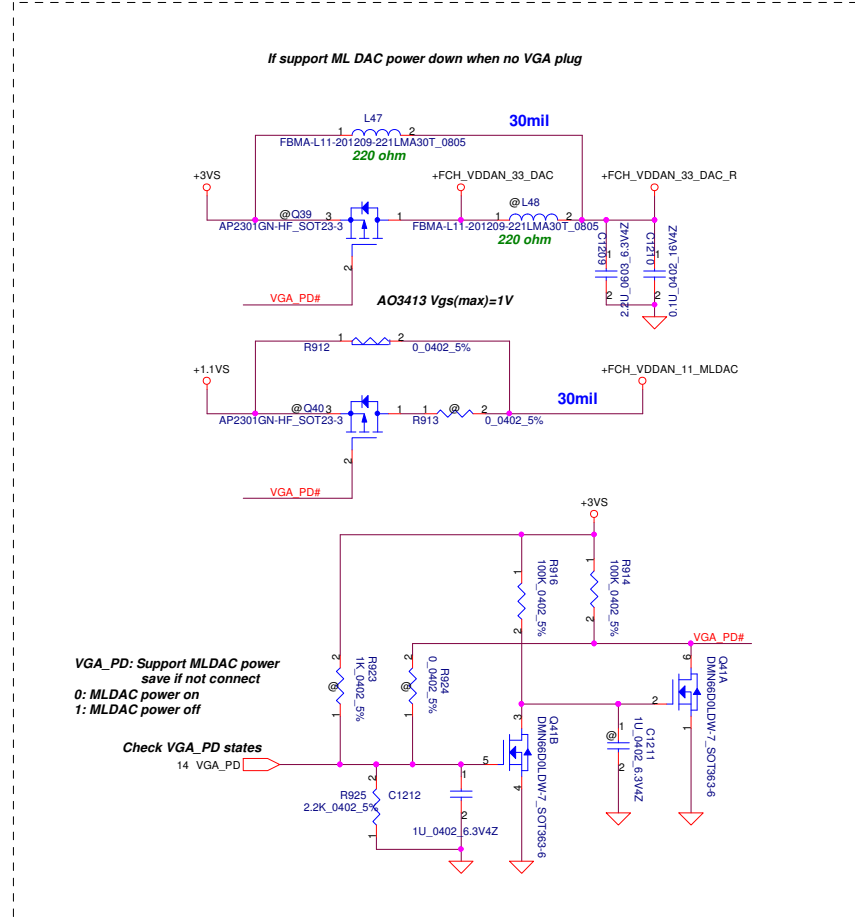
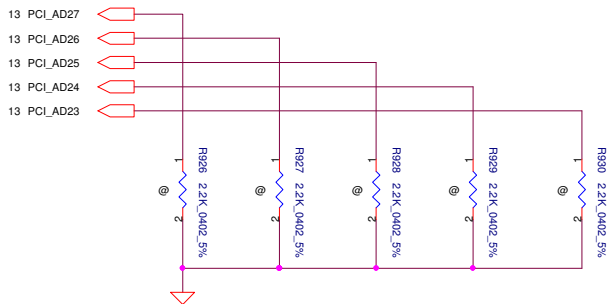
	PCI_CLK1	PCI_CLK3	PCI_CLK4	LPC_CLK0	LPC_CLK1	EC_PWM2	RTC_CLK
PULL HIGH	ALLOW PCIE GEN2 <i>DEFAULT</i>	USE DEBUG STRAPS	NON_FUSION CLOCK MODE	EC ENABLED	CLKGEN ENABLED <i>DEFAULT</i>	LPC ROM <i>DEFAULT</i>	S5 PLUS MODE DISABLED <i>DEFAULT</i>
PULL LOW	FORCE PCIE GEN1	IGNORE DEBUG STRAP <i>DEFAULT</i>	FUSION CLOCK MODE <i>DEFAULT</i>	EC DISABLED <i>DEFAULT</i>	CLKGEN DISABLE	SPI ROM	S5 PLUS MODE ENABLED



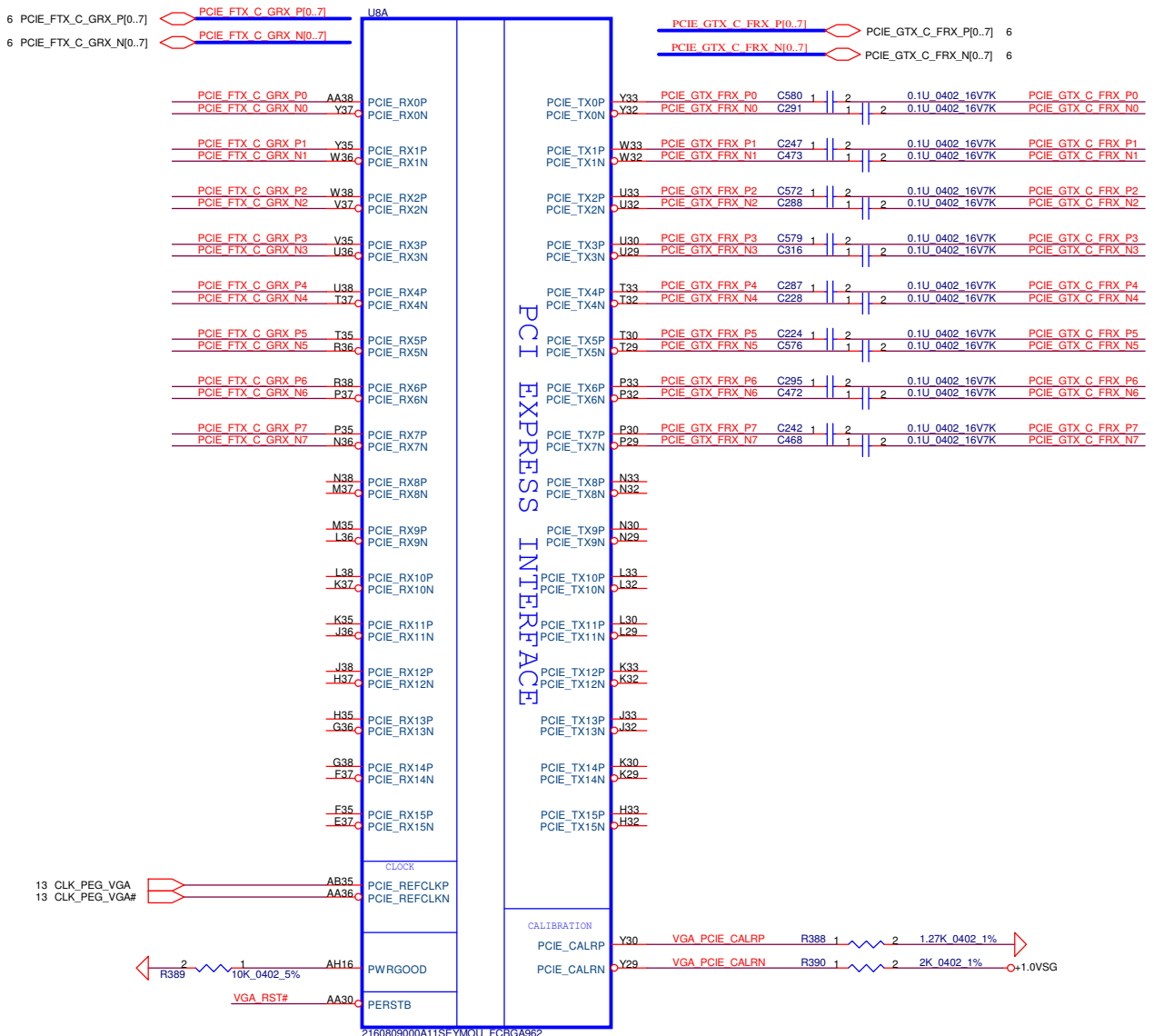
DEBUG STRAPS

FCH HAS 15K INTERNAL PU FOR PCI_AD[27:23]

PCI_AD26	PCI_AD27	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL <i>DEFAULT</i>	DISABLE ILA AUTORUN <i>DEFAULT</i>	USE FC PLL <i>DEFAULT</i>	USE DEFAULT PCIE STRAPS <i>DEFAULT</i>
PULL LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS <i>DEFAULT</i>



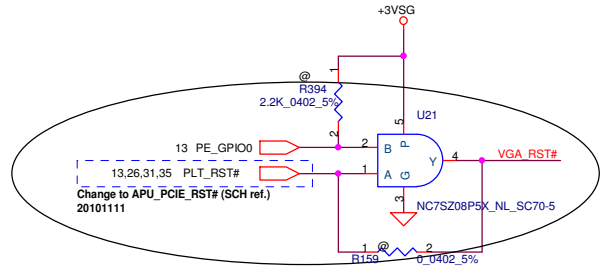
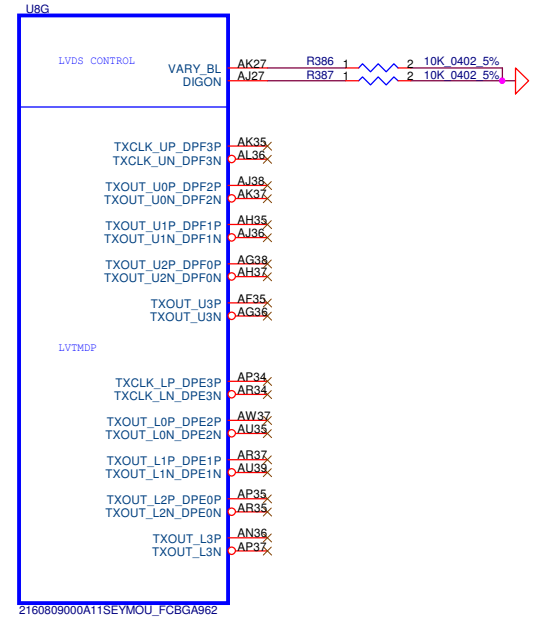
GFX PCIE LANE REVERSAL



For UMA Mux.

<DIGON>
Controls panel digital power on/off.
Active High ,external PD need

<VARY_BL>
LCD PWM (pulse width modulated)
output to adjust LCD brightness
Active High ,external PD need



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/07/12	Deciphered Date	2012/07/12	Title	Vancouver_PCIE / LVDS
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number
				Date	Friday, April 29, 2011
				Sheet	18 of 51
				Rev	0.22
				QBL70 LA-7553P	

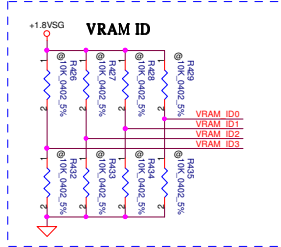
Strap Name	Pin Straps description <all Internal PD>	Setting
VIP_DEVICE_EN (GENCLK_VSYNC)	VIP Device Strap Enable indicates to the software driver (Internal PD) 0: Driver would ignore the value sampled on VHAD_0 during reset 1: VHAD_0 to determine whether or not a VIP slave device	0
VGA_DIS	VGA Disable determines (Internal PD) 0: VGA Controller capacity enabled 1: The device will not be recognized as the system's VGA controller	0
TX_PWRS_ENB	Transmitter Power Saving Enable (Internal PD) 0: 50% Tx output swing 1: Full Tx output swing	1
TX_DEEMPH_EN	PCI Express Transmitter De-emphasis Enable (Internal PD) 0: Tx de-emphasis disabled 1: Tx de-emphasis enabled	1
CONFIG[2]	GPIO13,12,11 (config 2,1,0) : (Internal PD) a) If BIOS_ROM_EN = 1, then Config[2:0] defines the ROM type. 128 MB 000 b) If BIOS_ROM_EN = 0, then Config[2:0] defines the primary memory aperture size. 64 MB 010	001
CONFIG[1]		
CONFIG[0]		
BIOS_ROM_EN	Enable external BIOS ROM device (Internal PD) 0: Disable, 1: Enable	0
AUD[1]	00: No audio function; 10: Audio for DisplayPort only; 01: Audio for DisplayPort and HDMI if adapter is detected; 11: Audio for both DisplayPort and HDMI	00
AUD[0]		
BIF_GEN2_EN	0= Advertises the PCIe device as 2.5 GT/s capable at power-on 1= Advertises the PCIe device as 5.0 GT/s capable at power-on 5.0 GT/s capability will be controlled by software	1
RESERVED	Internal use only. THIS PAD HAS AN INTERNAL PULL-DOWN AND MUST BE 0 V AT RESET. The pad may be left unconnected	DNI

Don't have this strap on Whistler and Seymour

NC on Park, Robson and Seymour
NC on Park, Robson

NC on Park, Robson and Seymour

Global Swap Lock on Multiple GPUs

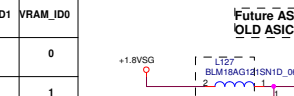
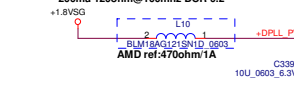
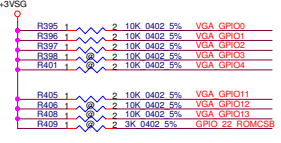


GPIO5 fast-power reduction: HW control will cause display disturb should use SW method control
GPIO6 voltage control signal, No use can NC!

GPIO7 Controls backlight on/off. Active High, need external PD
If GPIO22 High, GPIO 11-13 -> CFG[0:2] Config ROM type, GPU has internal PD

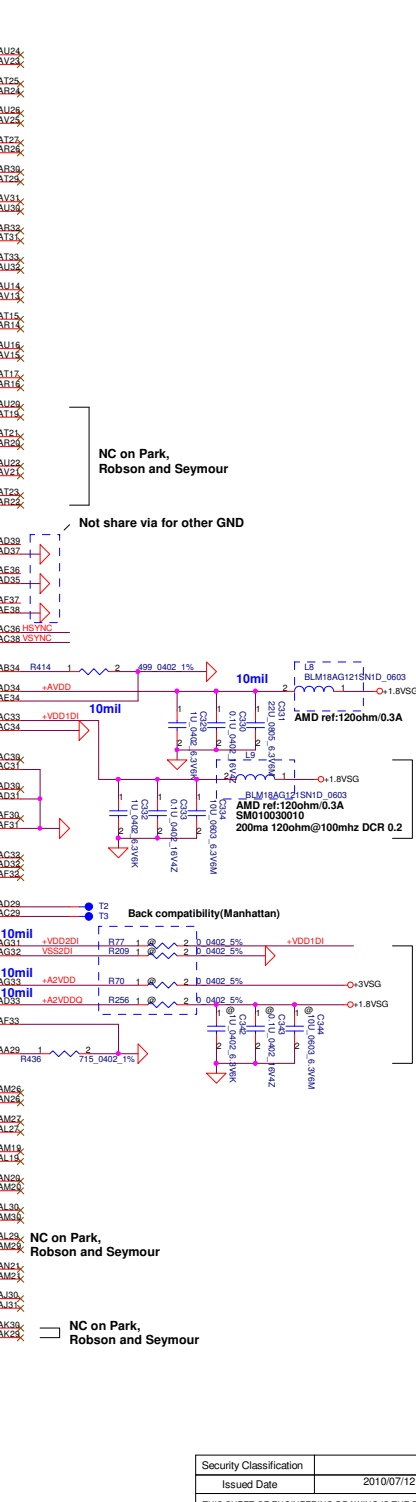
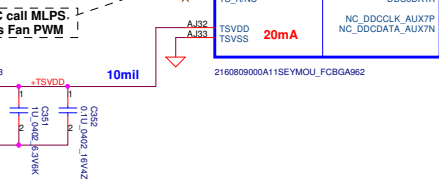
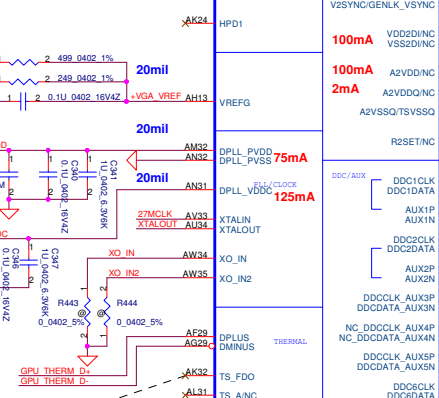
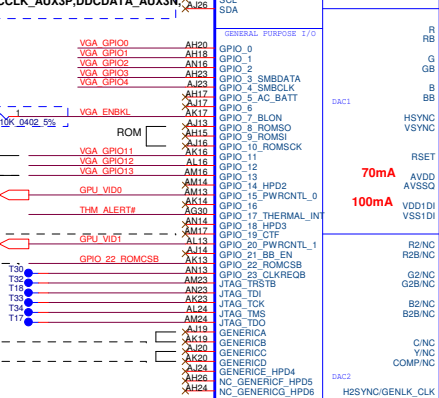
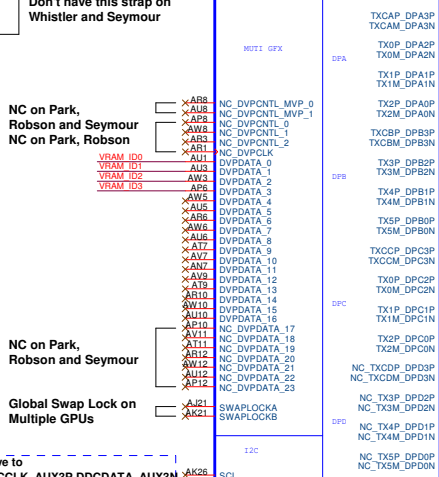
GPIO6,15,16,20 Voltage control signal, GPIO6,15 no use can NC
Thermal monitor interrupt Critical temperature fault

Reserved
External BIOS device ON(1)/OFF(0) Inter PD
Internal Debug no use can floating ON(1)/OFF(0)
Stereo Sync no use can NC
For ATI Cross fire no use can NC



Seymour(XT)

VRAM	Location	VRAM_ID3	VRAM_ID2	VRAM_ID1	VRAM_ID0
Samsung BA0004830 64M16 K4W1G1646G-BC11		0	0	0	0
Samsung BA000470A0 128M16 K4W2G1646G-BC11		0	0	0	1
Hynix H5TQ1G63DFR-11C		0	1	0	0
Hynix BA00037030 128M16 H5TQ3G63DFR-11C		0	1	0	1



NC on Park, Robson and Seymour

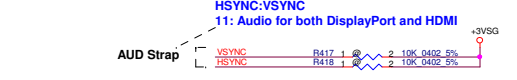
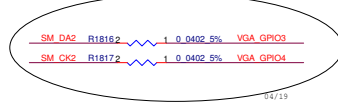
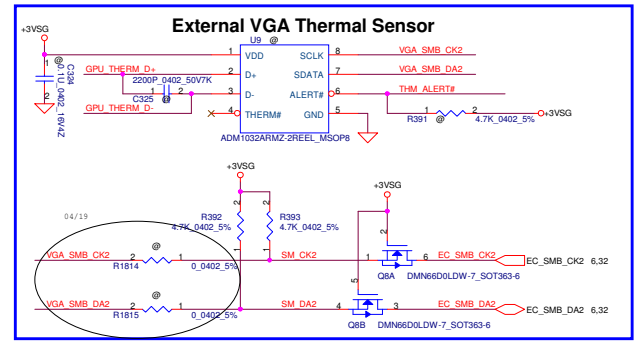
Not share via for other GND

NC on Whistler and Seymour

Whistler and Seymour Except A2VSSQ change to TSVSSQ, others are NC

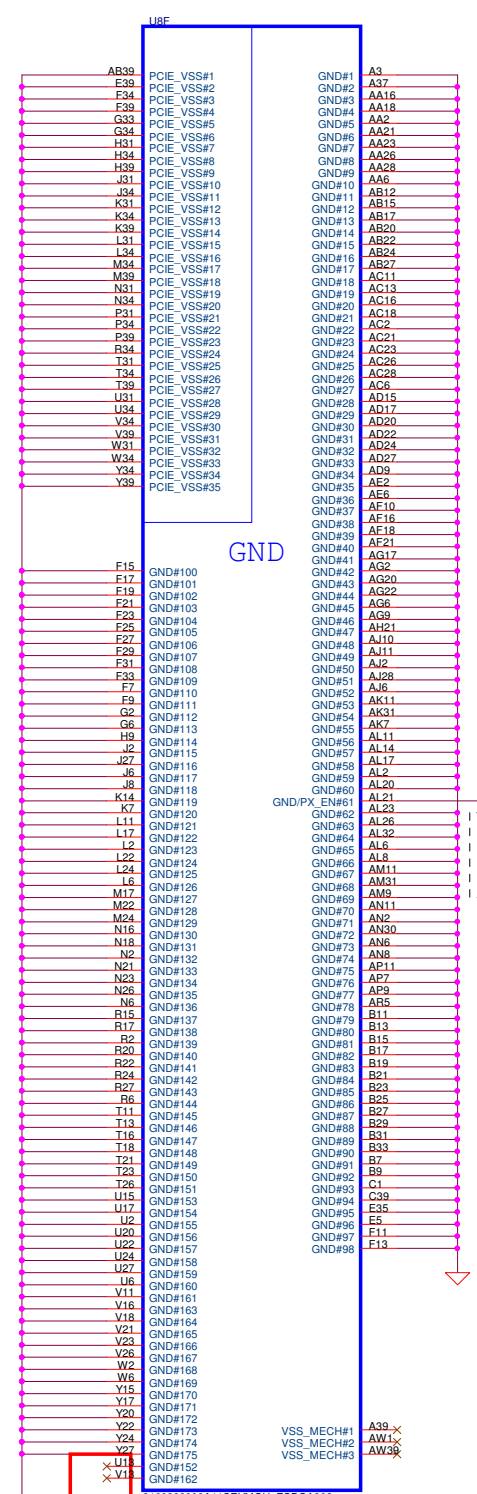
NC on Park, Robson and Seymour

NC on Park, Robson and Seymour



GPIO8 Serial-ROM output from ROM, GPIO9 Serial-ROM input to ROM, GPIO10 Serial-ROM clock to ROM, GPIO22 external BIOS-ROM enable
GPIO8,GPIO9,GPIO10 no use can NC
GPIO22 Enable need 3K PH, no use must NC

If GPIO22 High, GPIO 11-13 -> CFG[0:2] Config ROM type, GPU has internal PD
If GPIO22 Low, GPIO 11-13 -> CFG[0:2] Config Primary memory-aperture size
CFG[3:0] 128MB 000
256MB 001
64MB 010



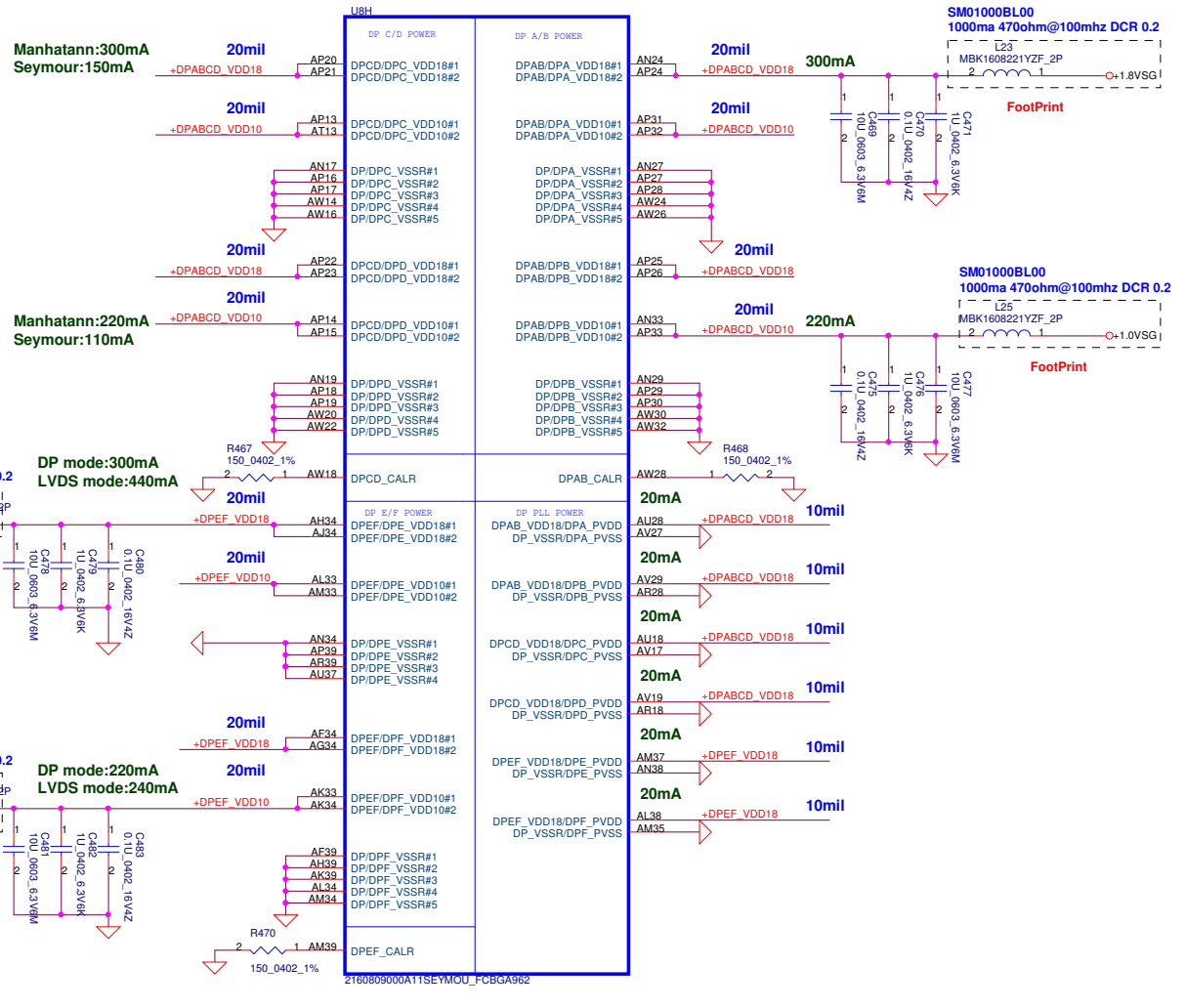
DPA_VDD18, DPA_PVDD, DPB_VDD18, DPB_PVDD
 can combian to DPAB_VDD18
DPC_VDD18, DPC_PVDD, DPD_VDD18, DPD_PVDD
 can combian to DPCD_VDD18
(DPD_VDD18, DPD_PVDD not applicable on Robson/Park)
DPE_VDD18, DPE_PVDD, DPF_VDD18, DPF_PVDD
 can combian to DPEF_VDD18

Seymour/Whistler :
DPA_VDD10, DPB_VDD10
 can combian to DPAB_VDD10
DPC_VDD10, DPD_VDD10
 can combian to DPCD_VDD10
DPE_VDD10, DPF_VDD10
 can combian to DPEF_VDD10

DPx-VSSR, DPx_PVSS can combian to DP_VSSR
 (Manhattan should have individual GND)
 where x is A,B,C,D,E,F

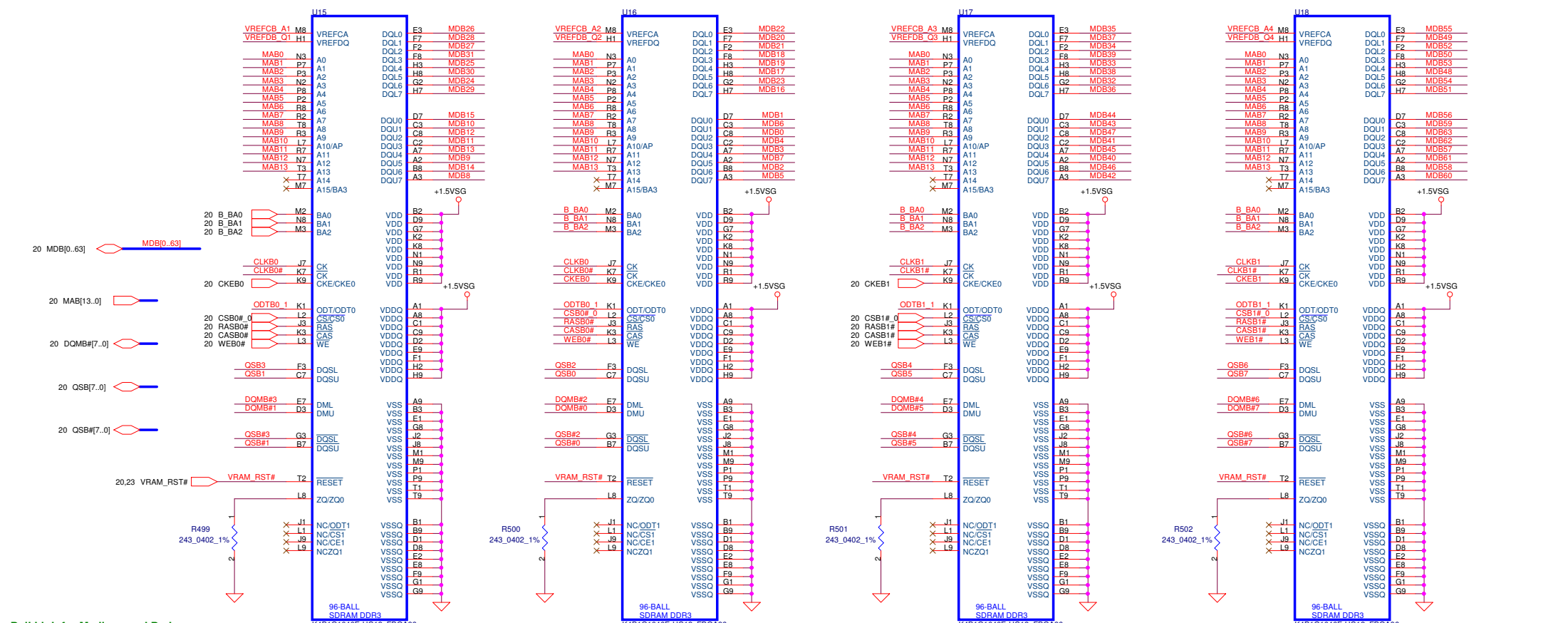
Park/Madison :AL21left NC

Seymour/Whistler:
AL21:PX_EN
 use to control discreate GPU regulators
 for power express BACO mode
Support BACO:
 output High3.3V:turn off regulators (BACO mode on)
 output Low0V:turn on regulators (BACO mode off)
 need PD resistor
No support BACO:
 left NC

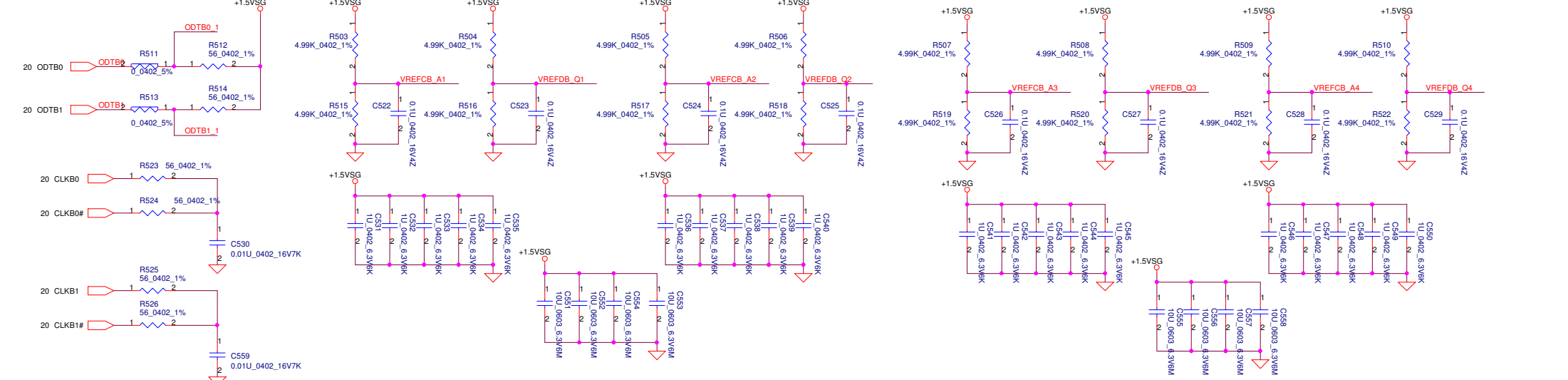


Security Classification	Compal Secret Data	
Issued Date	2010/07/12	Deciphered Date
		2012/07/12
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.		

Compal Electronics, Inc.		
Vancouver Power/GND		
Document Number		
QBL70 LA-7553P		
Date:	Friday, April 29, 2011	Sheet 22 of 51

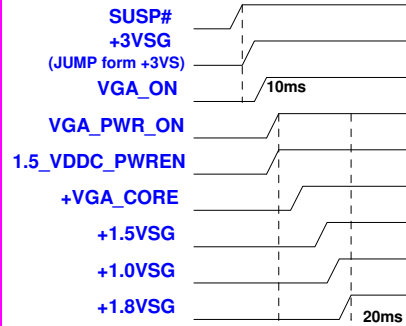


Pull high for Madison and Park...

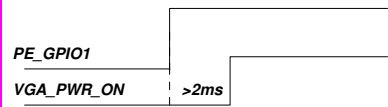


Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/07/12	Deciphered Date	2012/07/12	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN CONSENT OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				VRAM_DDR3 / Channel B Document Number QBL70 LA-7553P
Date:	Friday, April 29, 2011	Sheet	24	of 51

Power Sequence of Whistler and Seymour



For PX sequence, >2mS delay is required between PE_GPIO1 and VGA_PWR_ON

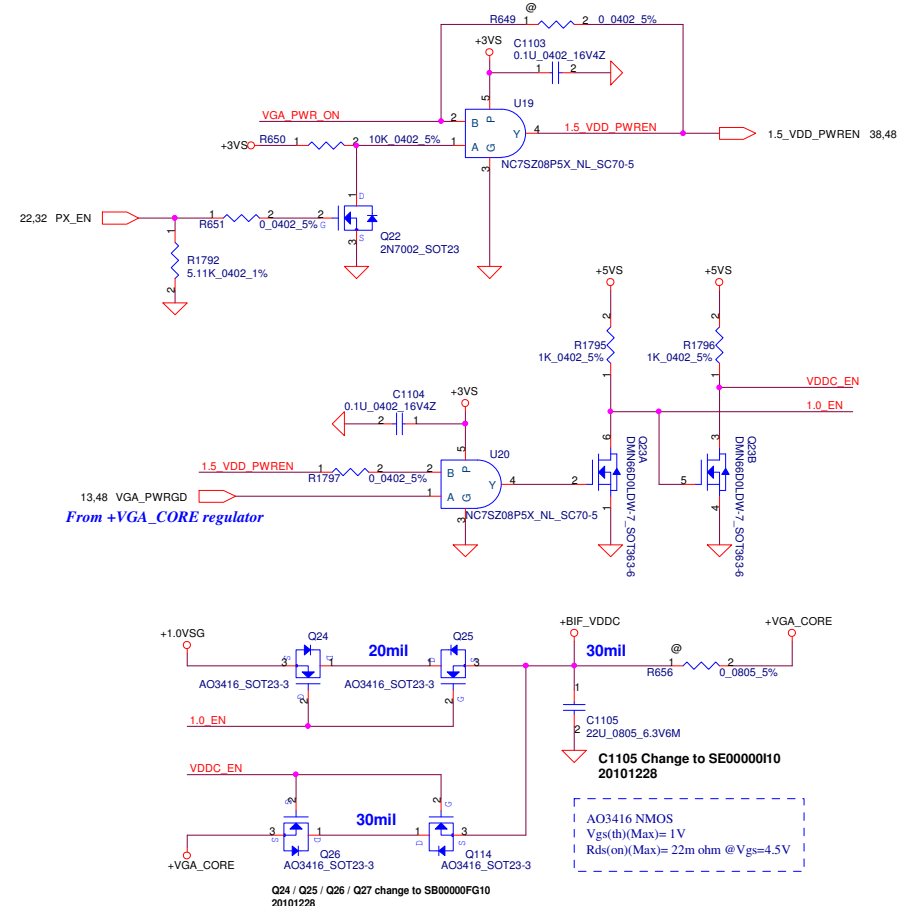
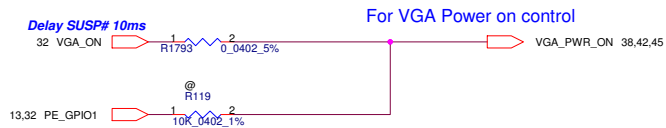


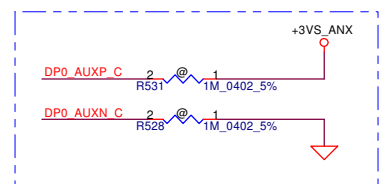
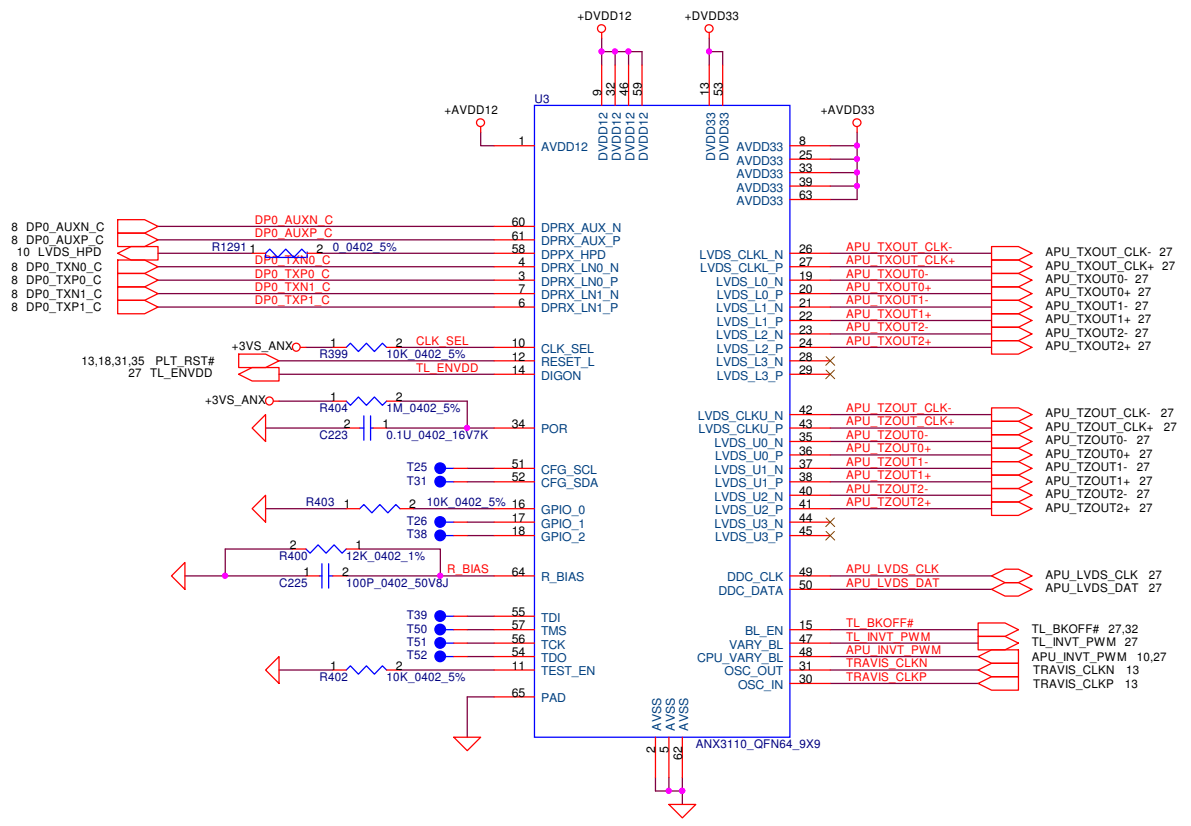
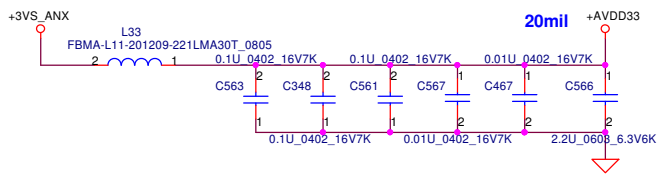
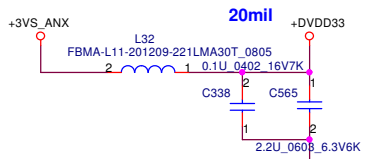
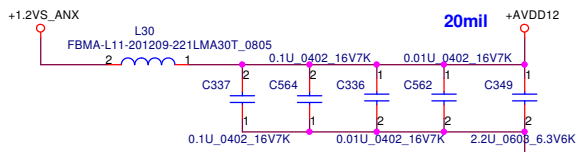
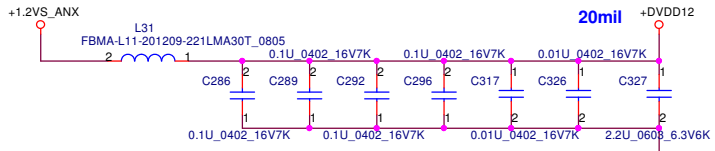
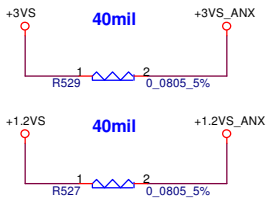
VGA Muxless with BACO Status Mapping table

	Normal mode	BACO mode
PX_EN	0	1
1.5_VDDC_PWREN	1	0
VDDC_EN	1	0
1.0_EN	0	1
+3.3VSG	ON	ON
+1.8VSG	ON	ON
+1.0VSG	ON	ON
+VGA_CORE	ON	OFF
+1.5VSG	ON	OFF
+BIF_VDDC	+VGA_CORE	+1.0VSG

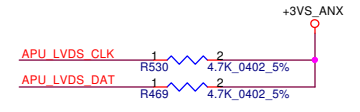
VGA Power Enable Signal Mapping table

VGA_PWR_ON source signal	Whistler
+3.3VSG	VGA_ON
+1.8VSG	SUSP#
+1.0VSG	VGA_PWR_ON
+VDDCI	Combine with +VGA_CORE
+VGA_CORE	1.5_VDDC_PWREN
+1.5VSG	1.5_VDDC_PWREN

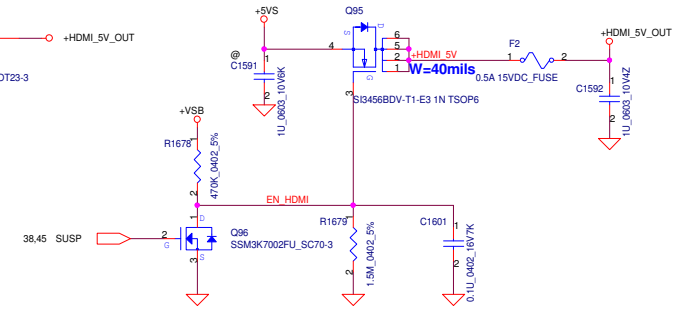
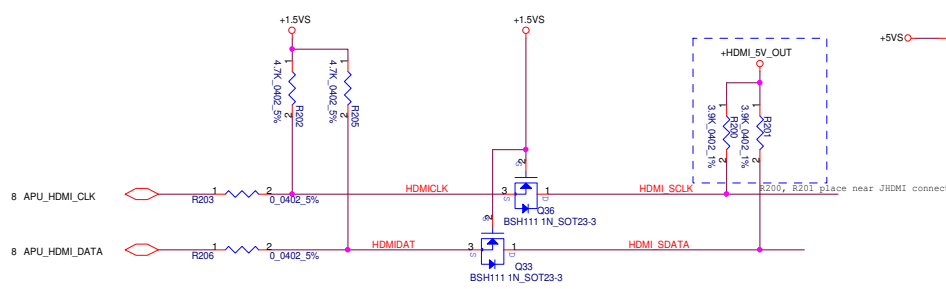




Place via on each trace bus and let resistor very close the via

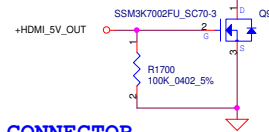
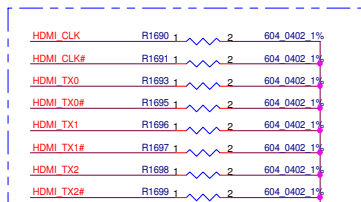
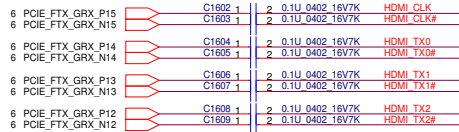


Security Classification		Compal Secret Data		Title	
Issued Date	2010/11/11	Deciphered Date	2011/11/11	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				LVDS Translator-ANX3110 Size: Custom Document Number: PEQAE LA-7291P M/B Rev: 0.22 Date: Friday, April 29, 2011 Sheet: 26 of 51	

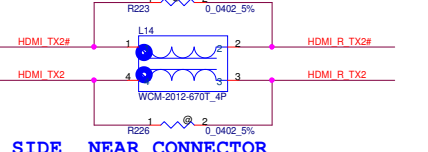
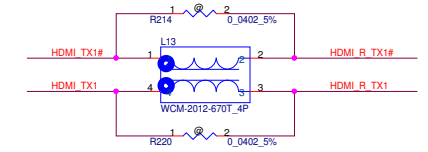
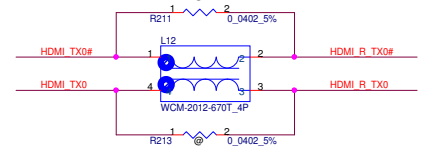
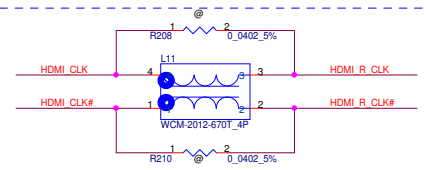


5V PULL UP IN CONNECTOR SIDE

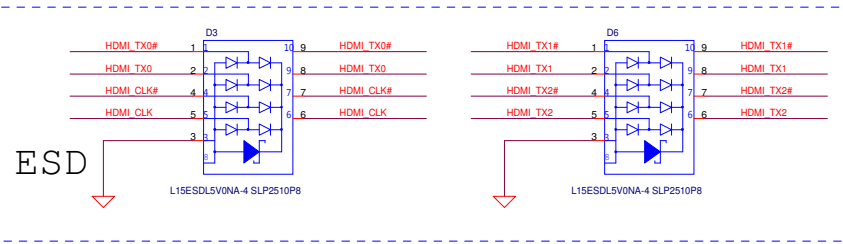
Near the connector



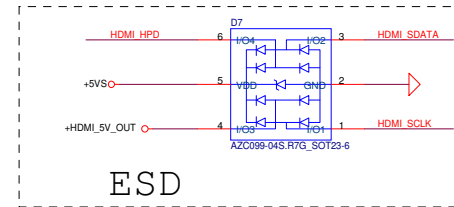
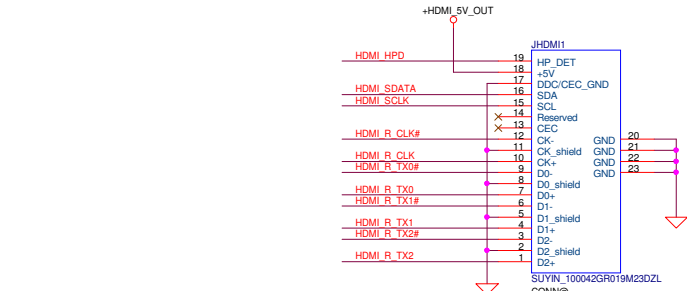
NEAR CONNECTOR



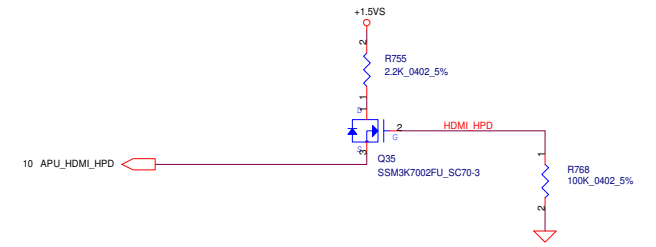
BOT_SIDE_NEAR_CONNECTOR



ESD

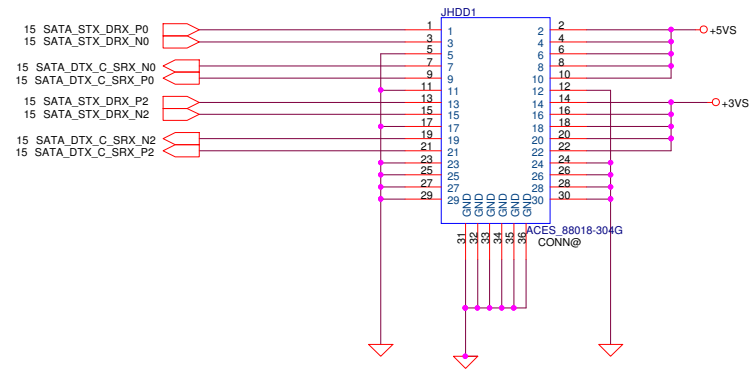


ESD

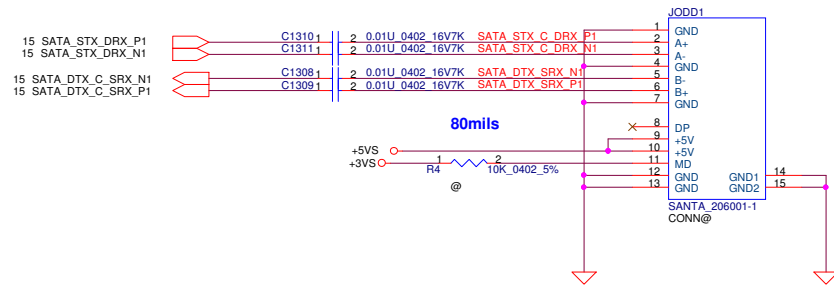


Security Classification	Compal Secret Data		Title		Compal Electronics, Inc.	
Issued Date	2010/06/30	Deciphered Date	2012/06/30	P11-HDMI CONN		Rev
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number	0.22
				Qus/km	QBL70 LA-7553P	
Date:	Friday, April 29, 2011	Sheet	28	of	51	

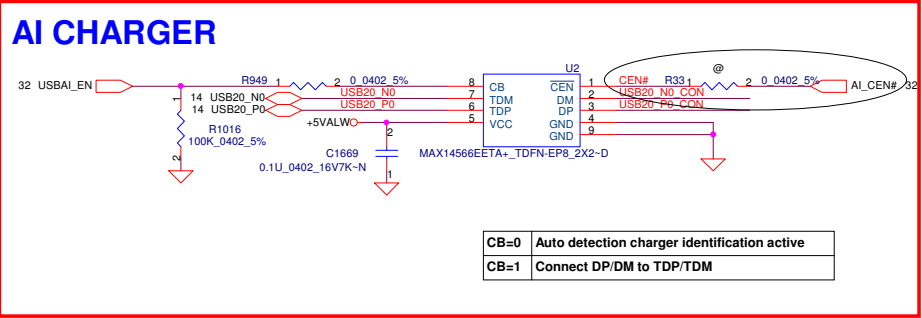
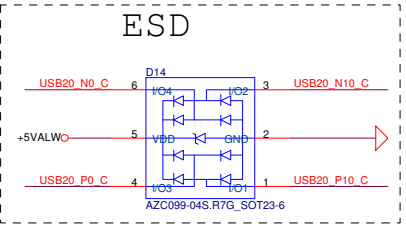
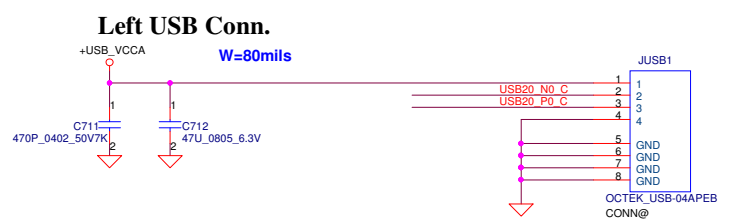
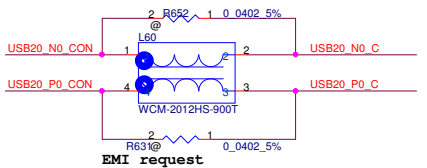
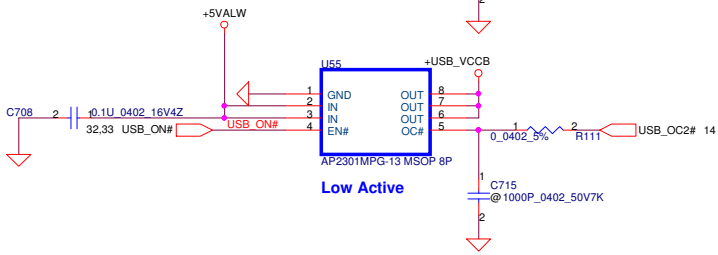
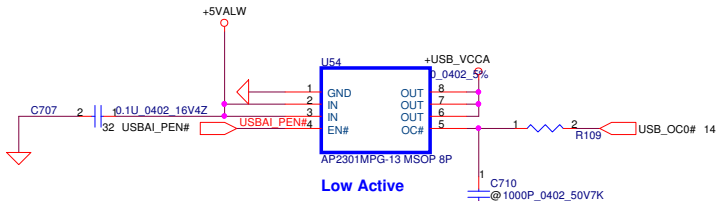
SATA HDD BTB Conn.



SATA ODD FFC Conn.

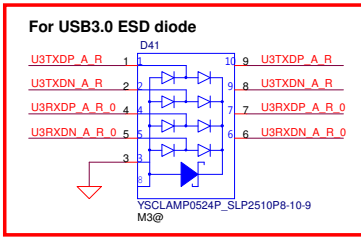
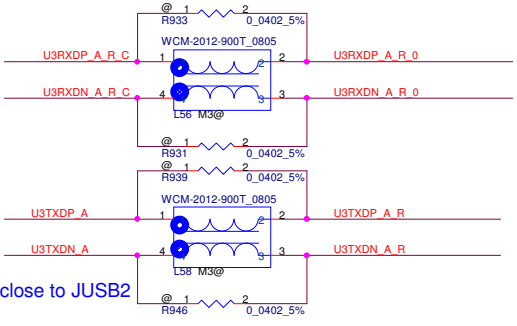
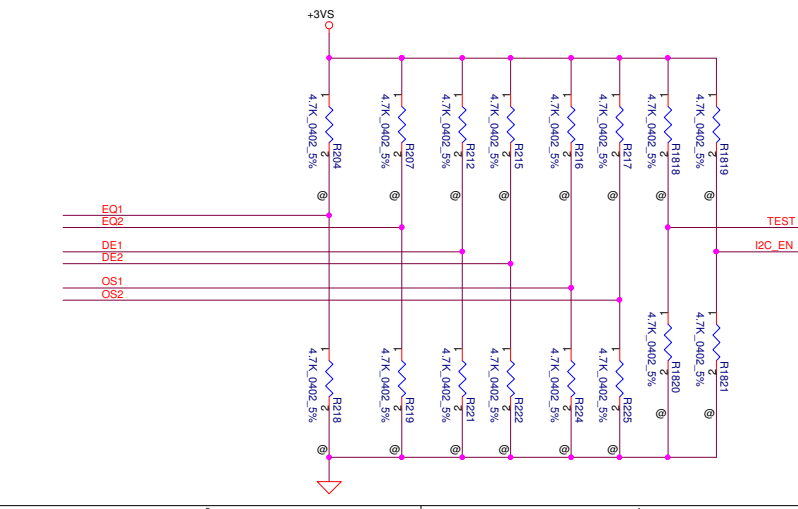
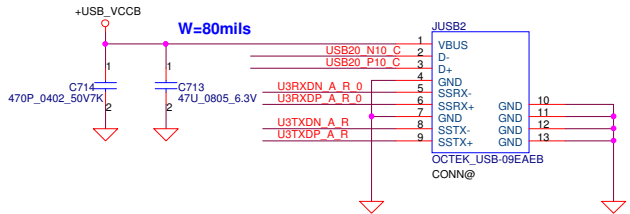
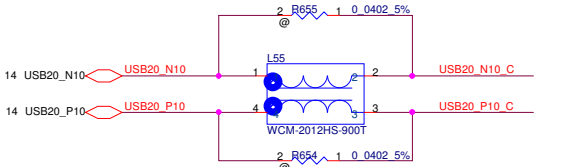
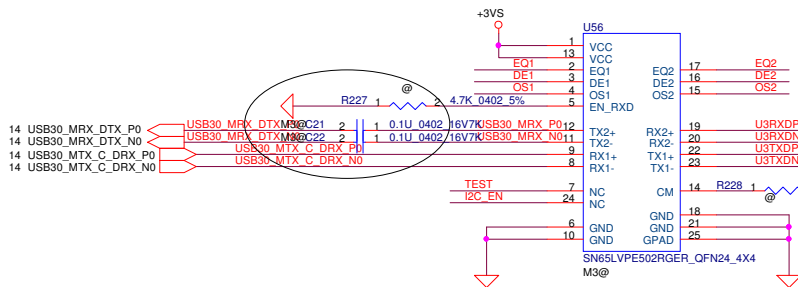


Security Classification	Compal Secret Data		Title	
Issued Date	2010/08/20	Deciphered Date	2012/06/30	P28-HDD & ODD CONN
<small>THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.</small>				Document Number QBL70 LA-7553P Date: Friday, April 29, 2011
				Rev 0.22 Sheet 29 of 51

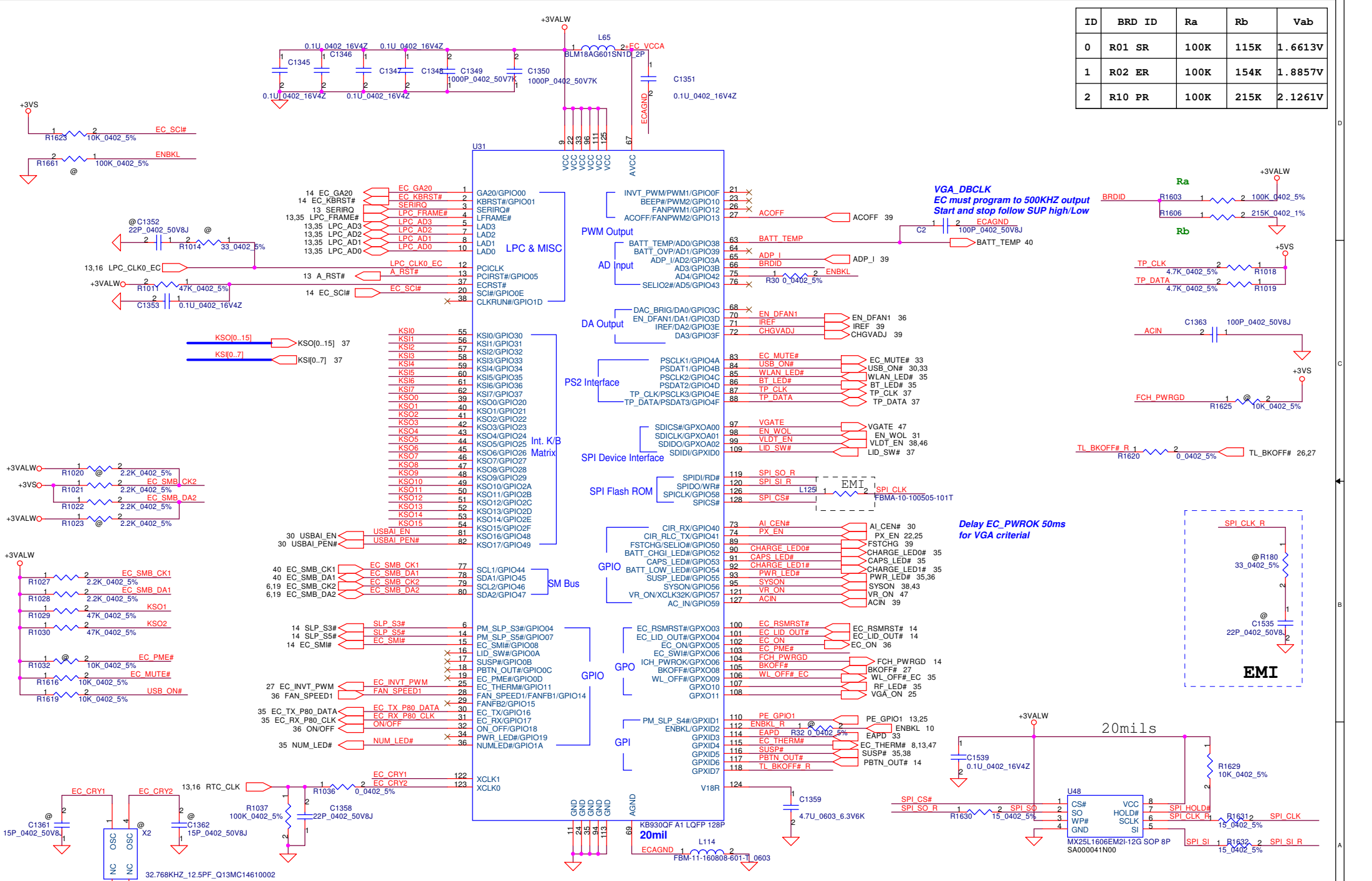


CB=0	Auto detection charger identification active
CB=1	Connect DP/DM to TDP/TDM

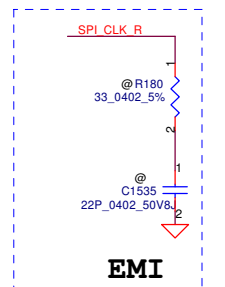
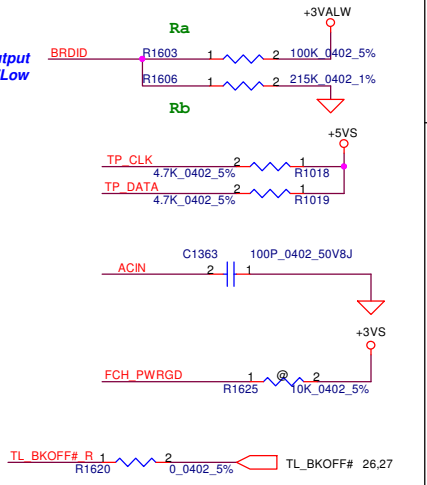
USB REDRIVER



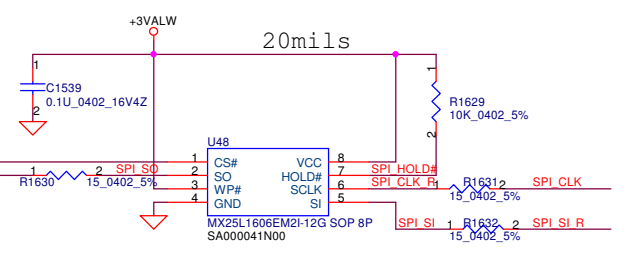
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2010/08/20	Deciphered Date	2012/06/30	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FACTORY CUSTOMER DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				P31-USB/BT/USBsub QBL70 LA-7553P Date: Friday, April 29, 2011 Sheet 30 of 51



ID	BRD ID	Ra	Rb	Vab
0	R01 SR	100K	115K	1.6613V
1	R02 ER	100K	154K	1.8857V
2	R10 PR	100K	215K	2.1261V

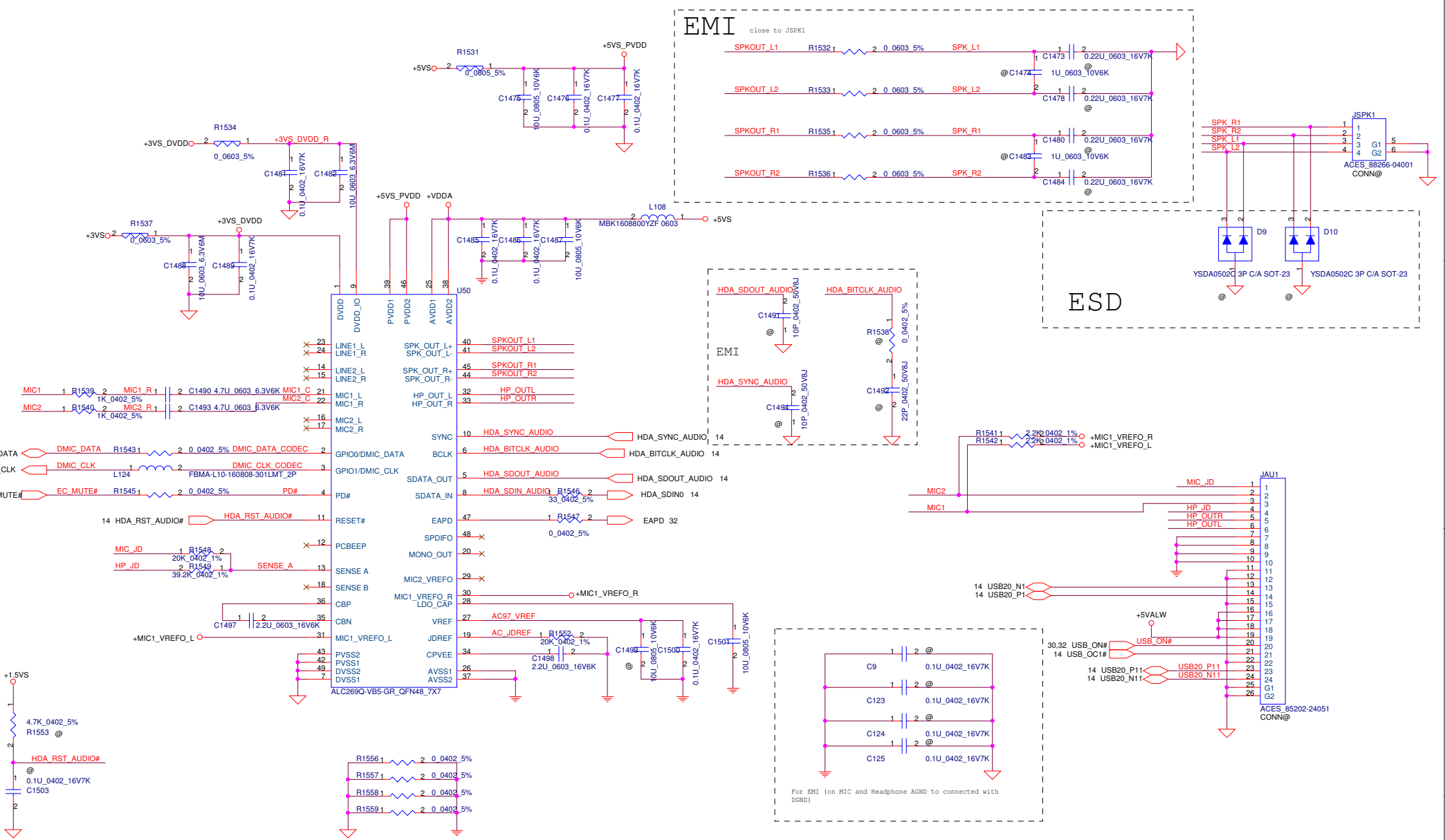


Delay EC_PWROK 50ms for VGA criteria



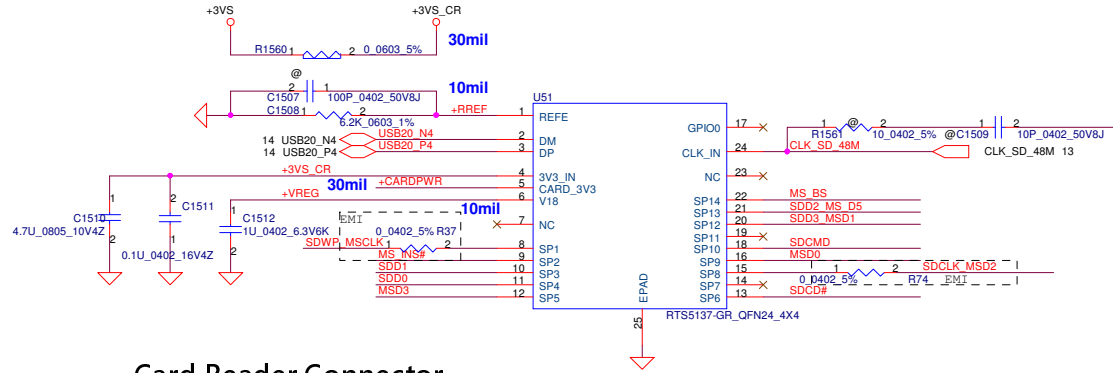
Security Classification		Compal Secret Data	
Issued Date	2010/08/04	Deciphered Date	2010/08/04
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			

Compal Electronics, Inc.			
Title EC ENE KB930			
Size	Document Number	Rev	
B	QBL70 LA-7553P	0.22	
Date:	Friday, April 29, 2011	Sheet	32 of 51

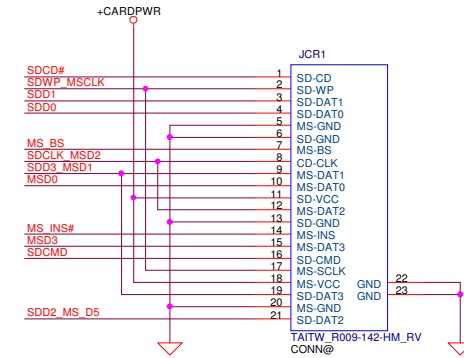
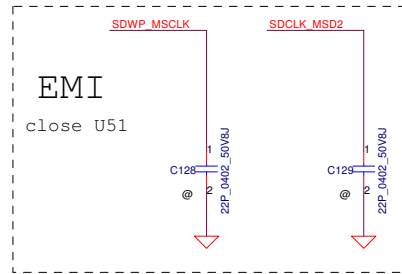
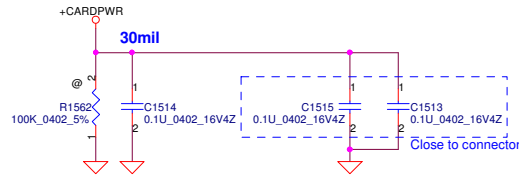


Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2010/3/31	Deciphered Date	2012/06/30	P25-HD CODEC ALC259	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FACTORY CUSTOMER DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Documt Number	QBL70 LA-7553P	Rev
			Date:	Friday, April 29, 2011	Sheet 33 of 51

Card Reader RTS5137 (only SD/MMC/MS function)

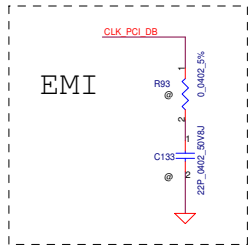
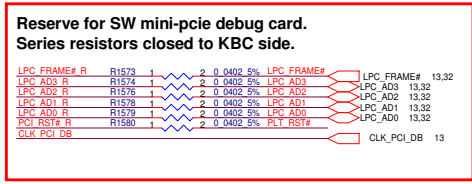
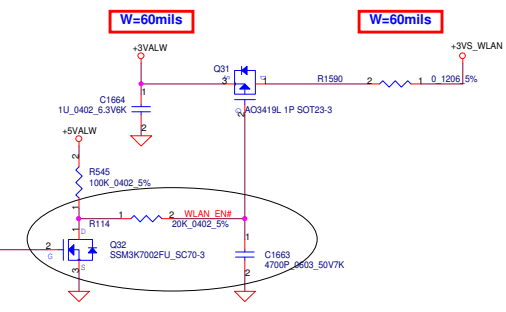
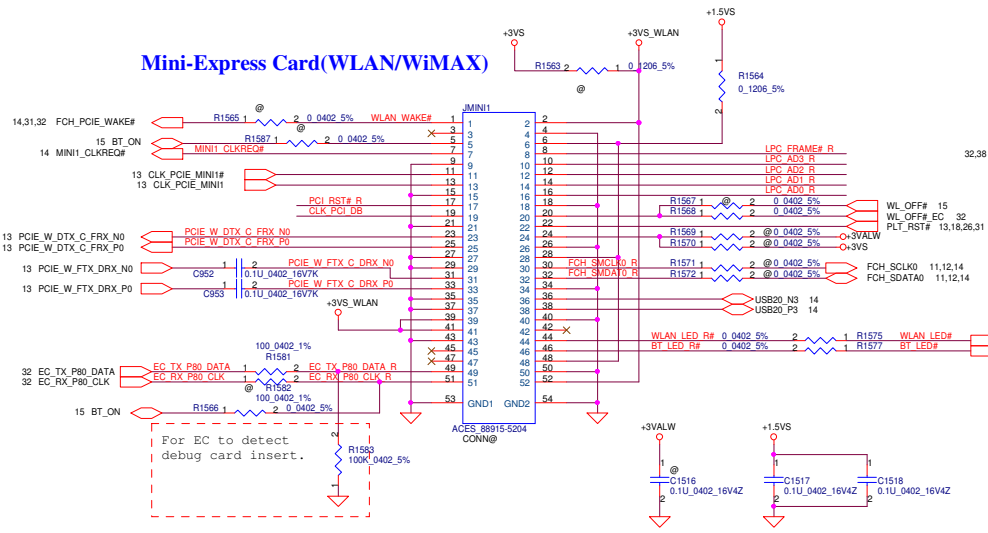


Card Reader Connector

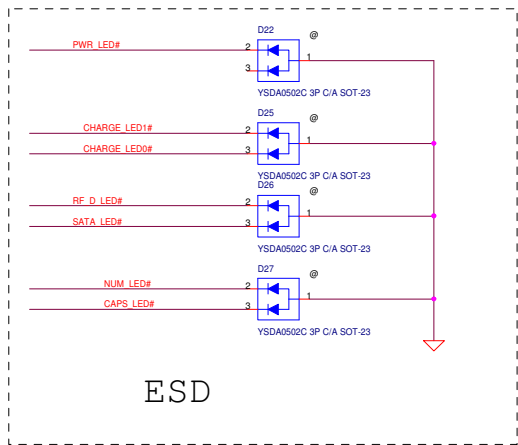
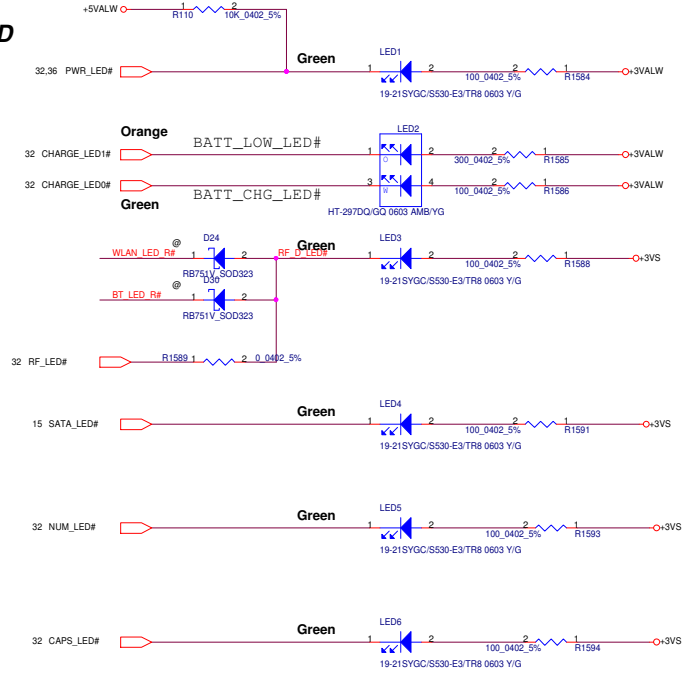


Security Classification	Compal Secret Data		Title	
Issued Date	2009/10/08	Deciphered Date	2012/06/30	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FACTORY CUSTOMER DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number QBL70 LA-7553P Date: Friday, April 29, 2011 Sheet 34 of 51
				Rev 0.22

Mini-Express Card for WLAN/WiMAX(Half)

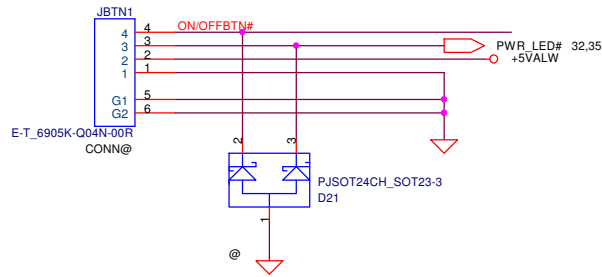
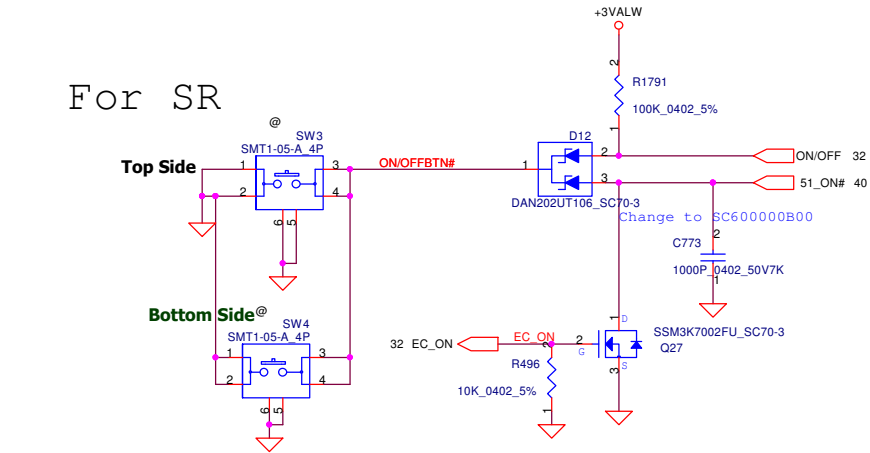


LED

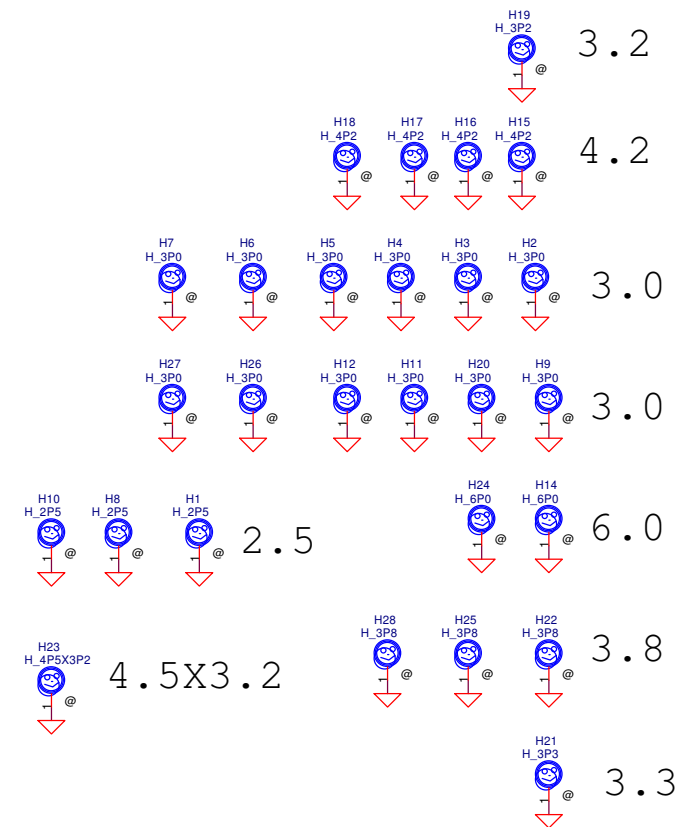
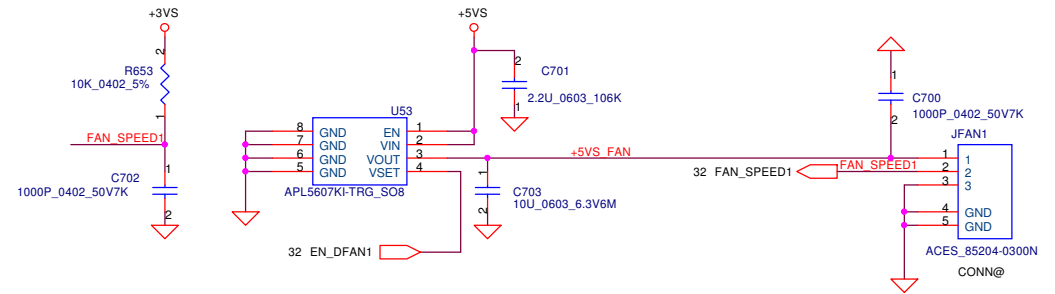


ON/OFF switch Power Button

For SR

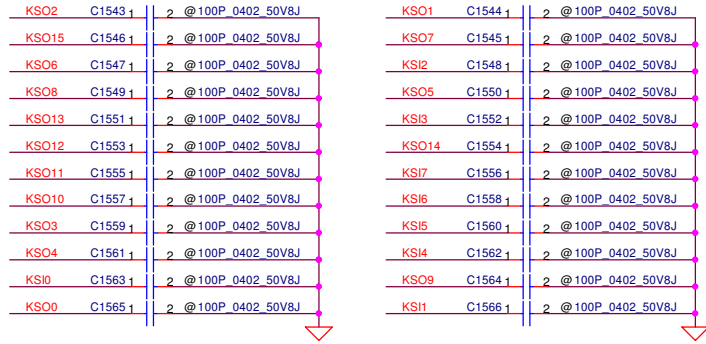
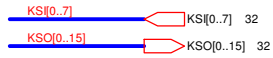


Fan Control Circuit

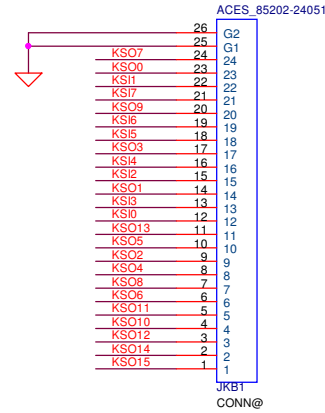


Security Classification	Compal Secret Data		Title	
Issued Date	2010/08/20	Deciphered Date	2012/06/30	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom
				Document Number
				QBL70 LA-7553P
				Rev 0.22
Date: Friday, April 29, 2011			Sheet 36	of 51

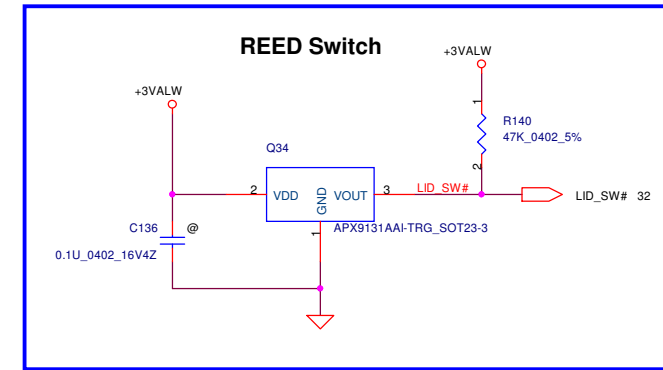
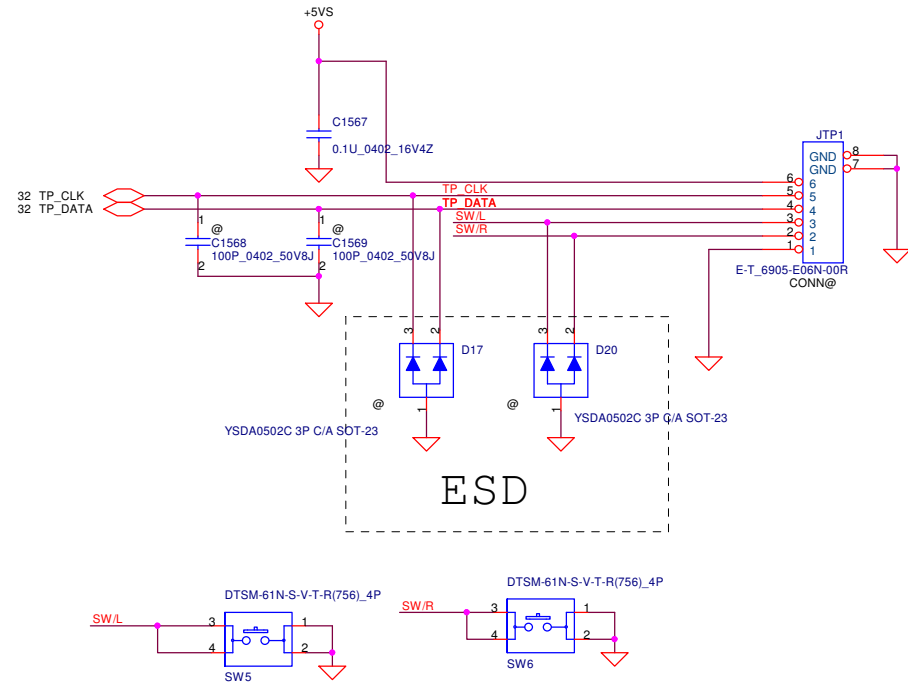
INT_KBD Conn.



CONN PIN define need double check

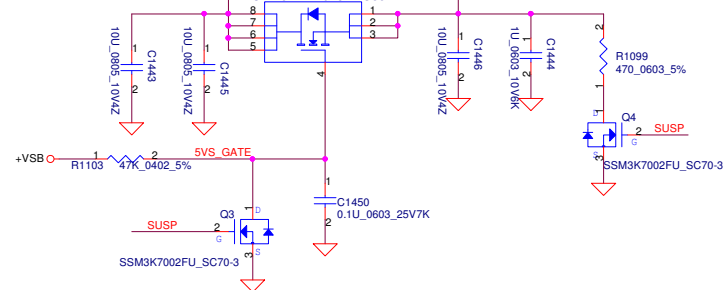


To TP/B Conn.

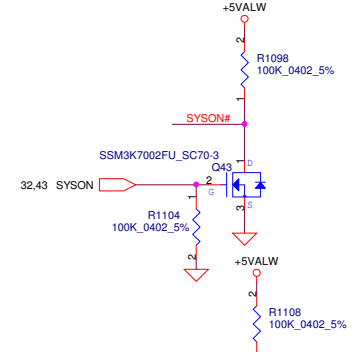
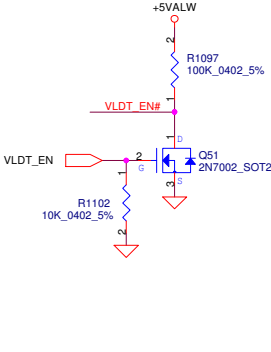
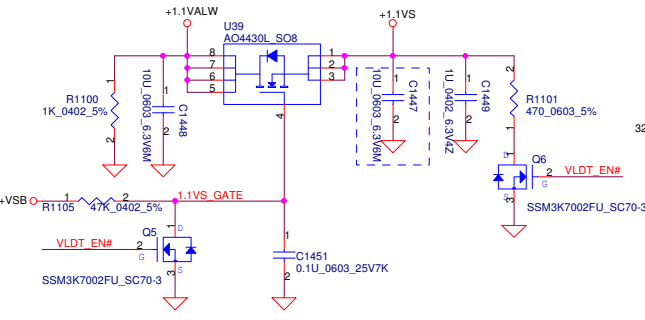


Security Classification		Compal Secret Data		Title	
Issued Date	2010/06/30	Deciphered Date	2012/06/30	P30-KB /SW/TP/Lid	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	Document Number	Date		Sheet	Rev
B	QBL70 LA-7553P	Friday, April 29, 2011		37 of 51	0.22

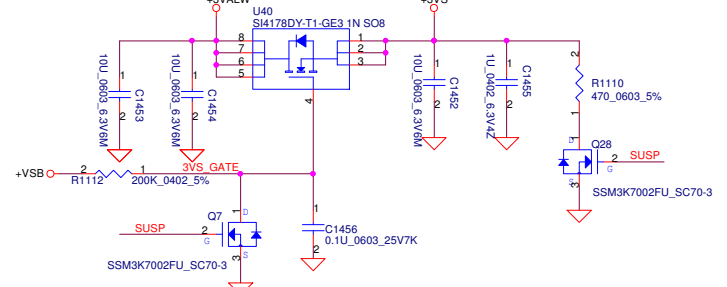
+5VALW TO +5VS (5A)



+1.1VALW TO +1.1VS (1.1A)

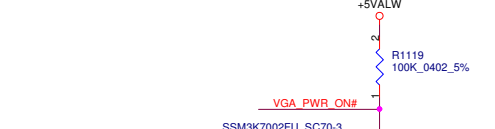
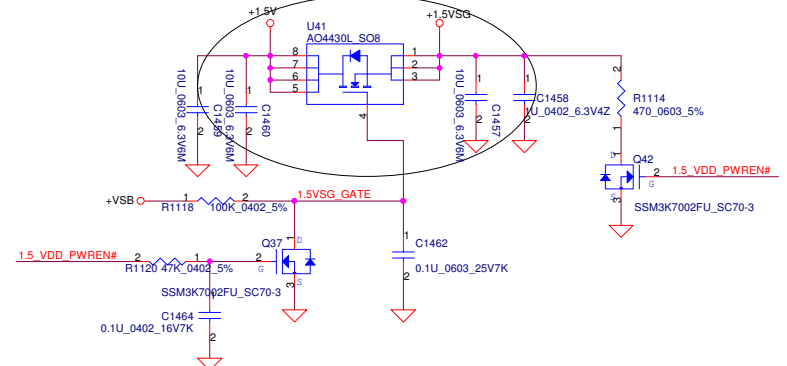


+3VALW TO +3VS (3.3A)

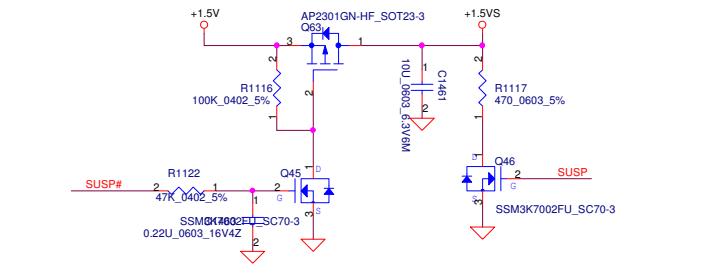


VGA Power

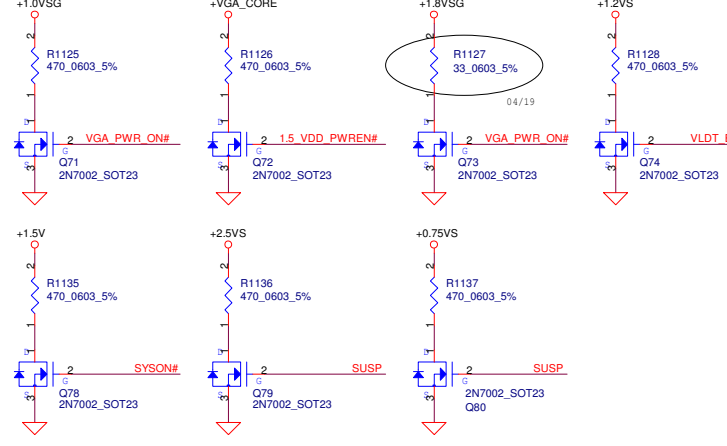
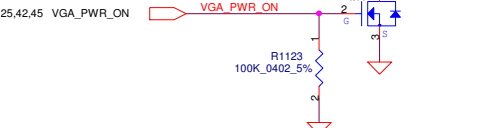
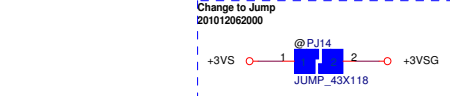
+1.5V to +1.5VSG (1.5A)



+1.5V TO +1.5VS (1.5A)

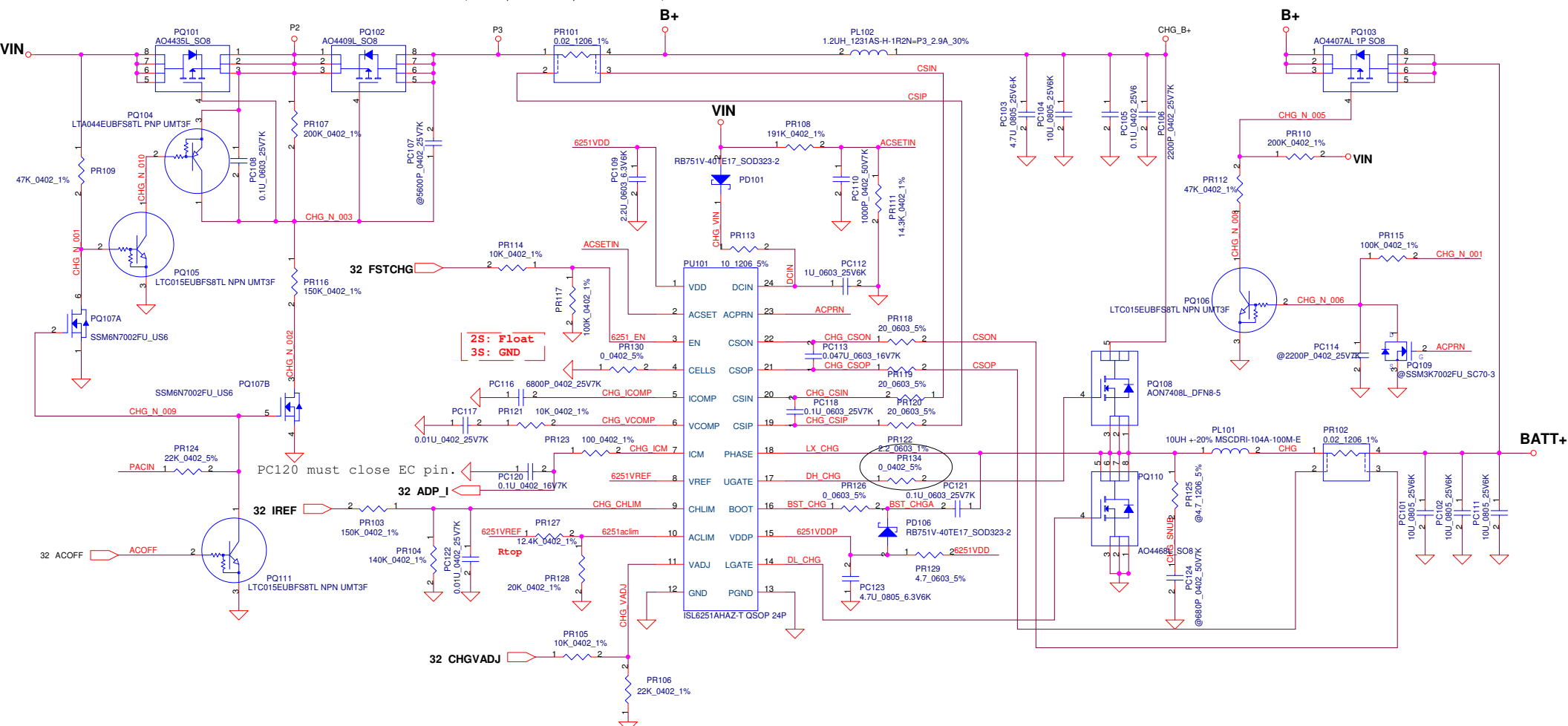


+3VS to +3VSG (3.3A)



Security Classification	Compal Secret Data		Title	
Issued Date	2010/08/04	Deciphered Date	2010/08/04	DC Interface
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number QBL70 LA-7553P
Date: Friday, April 23, 2011				Rev 0.22
Page 38 of 51				

(B+ 6A,240mils ,Via NO.= 12)



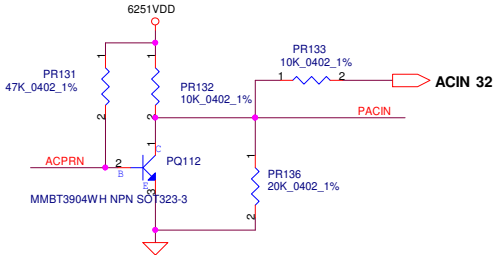
2S: Float
3S: GND

CP= 85%*Iada;
Iada=0~4.737A (90W); CP=4.03A; where Racdet=0.020ohm, where Rtop=12.4K
90W for Dis:Rtop:SD00000AJ80
Iada=0~3.421A (65W); CP=2.91A; where Racdet=0.020ohm, where Rtop=226K
65W for UMA:Rtop:SD034226380
Astro2010_01_15 need confirm P/N

CP mode
Vaclim=VREF*(Rbot//Rinternal/(Rtop//Rinternal+Rbot//Rinternal))
when 90W Vaclim=2.39*(20K//152K/(20K//152K+12.4K//152K))=1.44966V
when 65W Vaclim=2.39*(20K//152K/(20K//152K+226K//152K))=0.38914V
Iinput=(1/Racdet)*(0.05*Vaclim/VREF+0.05)
when 90W, Iinput=(1/0.02)*(0.05*1.44966/2.39+0.05)=4.02A
when 65W, Iinput=(1/0.02)*(0.05*0.38914/2.39+0.05)=2.92A

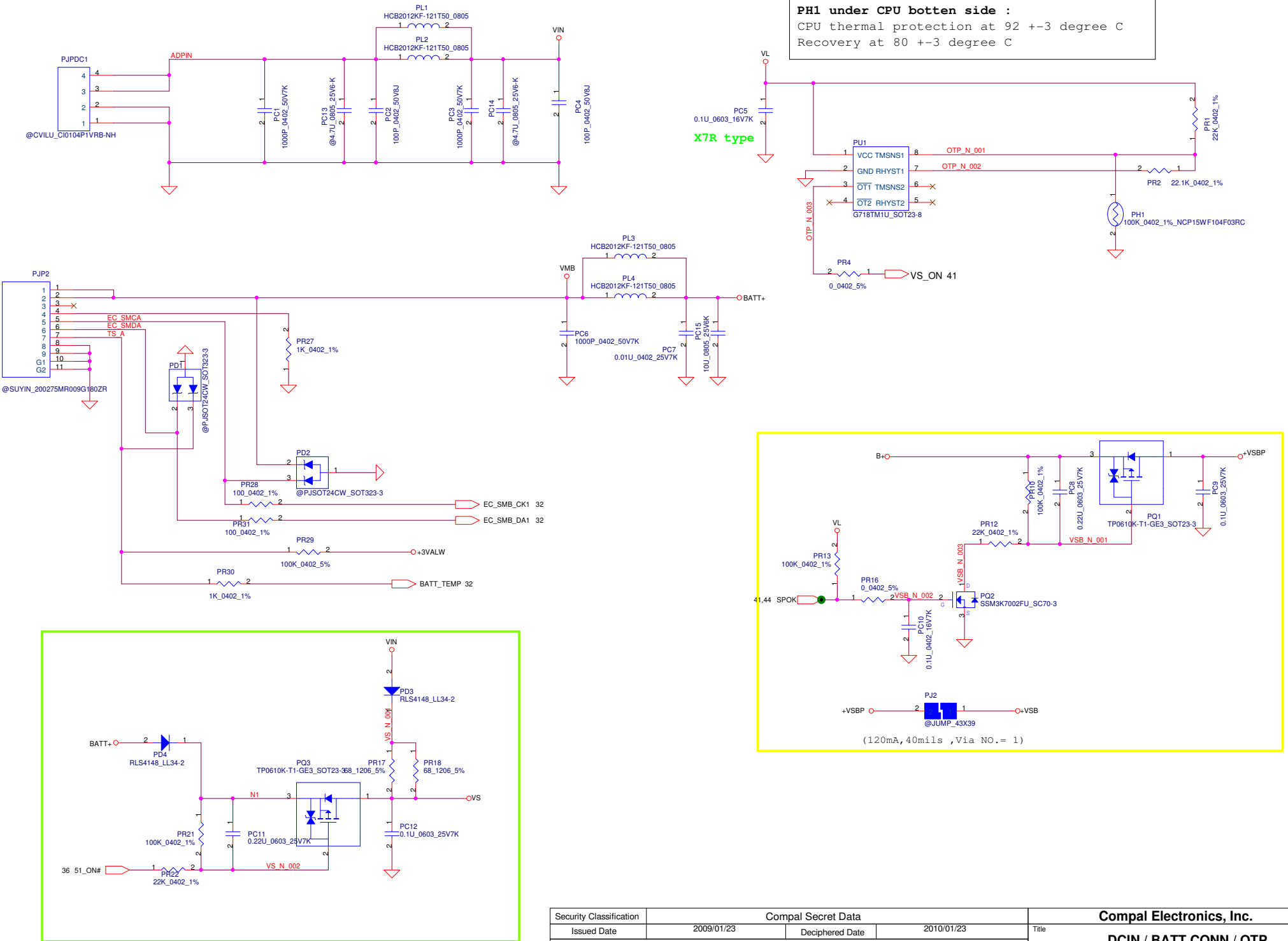
CC=0.25A~3A
IREF=1.016*Icharge
IREF=0.254V~3.048V
VCHLIM need over 95mV

CHGVADJ=(Vcell-4)/0.10627	
Vcell	CHGVADJ
4V	0V
4.2V	1.882V

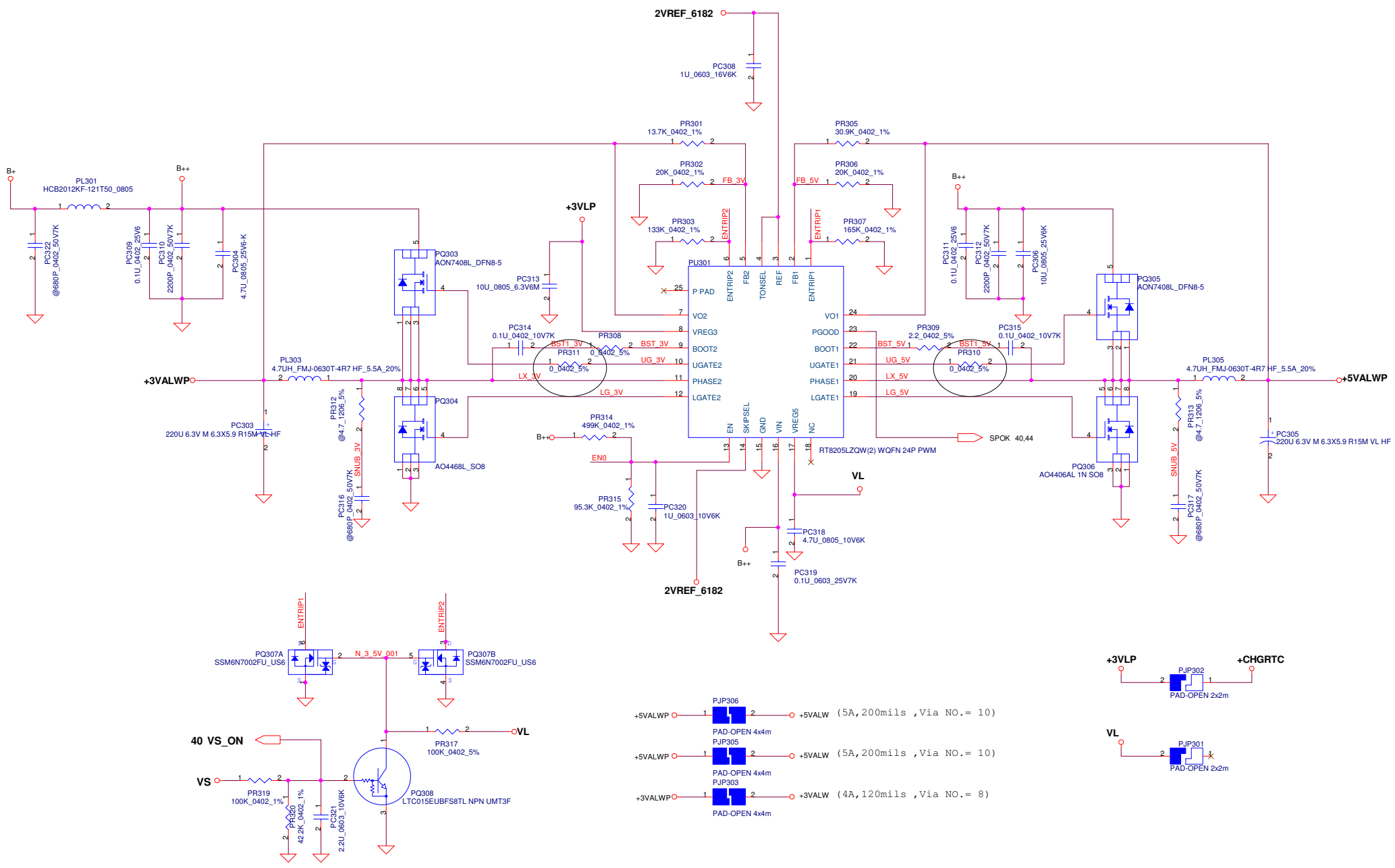


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/01/23	Deciphered Date	2010/01/23	Title	
				CHARGER	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	Document Number	NCL61 LA-6321P M/B		Rev	0.1
Date:	Friday, April 29, 2011	Sheet	39	of	49

PH1 under CPU botten side :
 CPU thermal protection at 92 +/-3 degree C
 Recovery at 80 +/-3 degree C

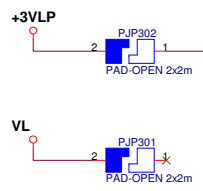


Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/01/23	Deciphered Date	2010/01/23	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				DCIN / BATT CONN / OTP
Size	Document Number	NCL61 LA-632IP M/B		Rev
Date:	Friday, April 29, 2011	Sheet	40	of 49

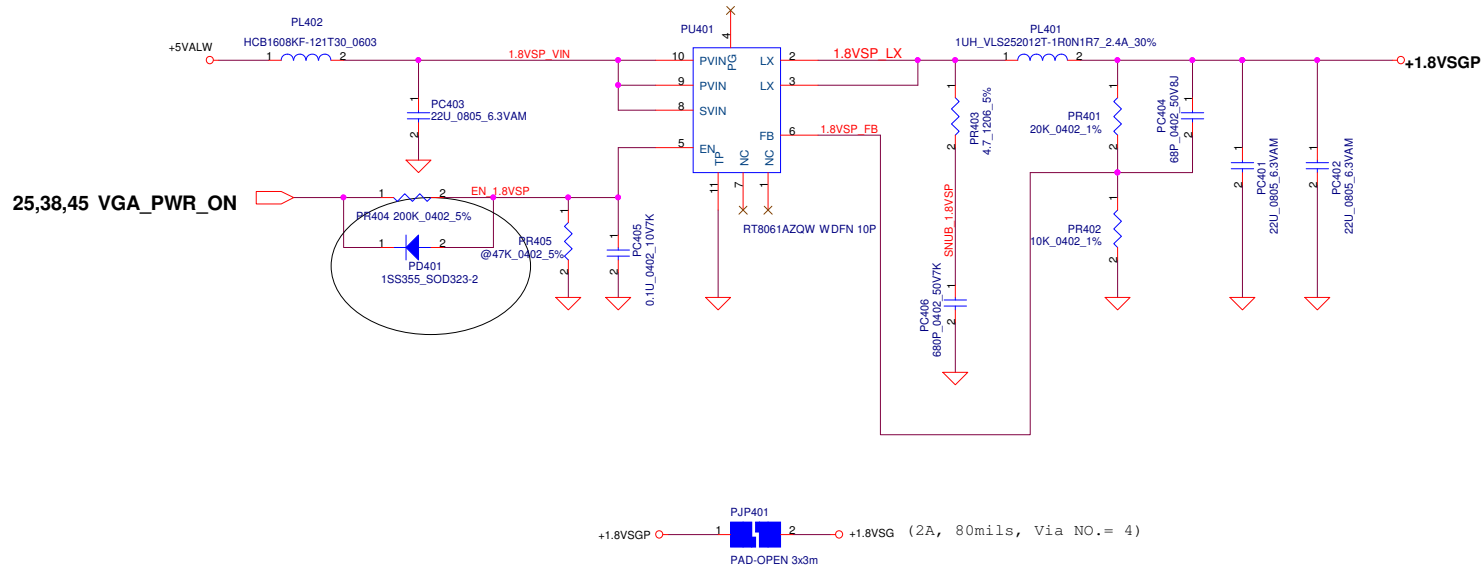


EC:+3VL, reserve PR319, install PR318, PR320 100K
 EC:+3VALW, reserve PR318, install PR319, PR320 42.2K

- +5VALWP --- PJP306 --- +5VALW (5A, 200mils, Via NO. = 10)
- PAD-OPEN 4x4m
- PJP305 --- +5VALW (5A, 200mils, Via NO. = 10)
- PAD-OPEN 4x4m
- PJP303 --- +3VALW (4A, 120mils, Via NO. = 8)
- PAD-OPEN 4x4m

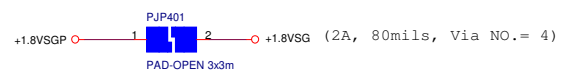


Security Classification	Compal Secret Data		Title	3.3VALWP/5VALWP	
Issued Date	2007/08/02	Deciphered Date	2008/08/02	Document Number	LAXXXX
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FACTORY DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Date:	Friday, April 29, 2011	Sheet	41	of	49

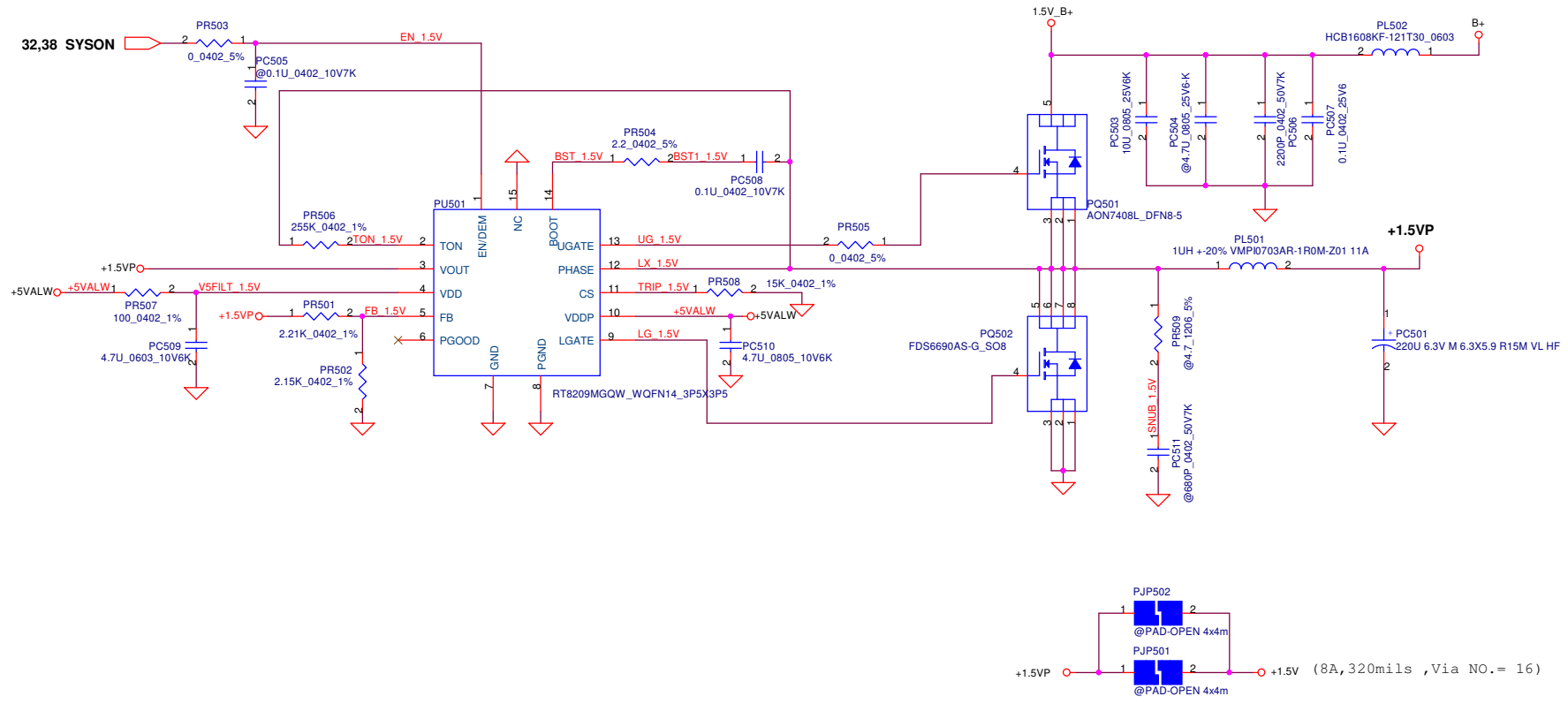


<Vo=1.8V> VFB=0.6V
 $V_o = V_{FB} * (1 + PR401 / PR402) = 0.6 * (1 + 20K / 10K) = 1.8V$

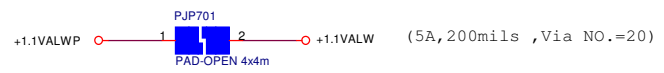
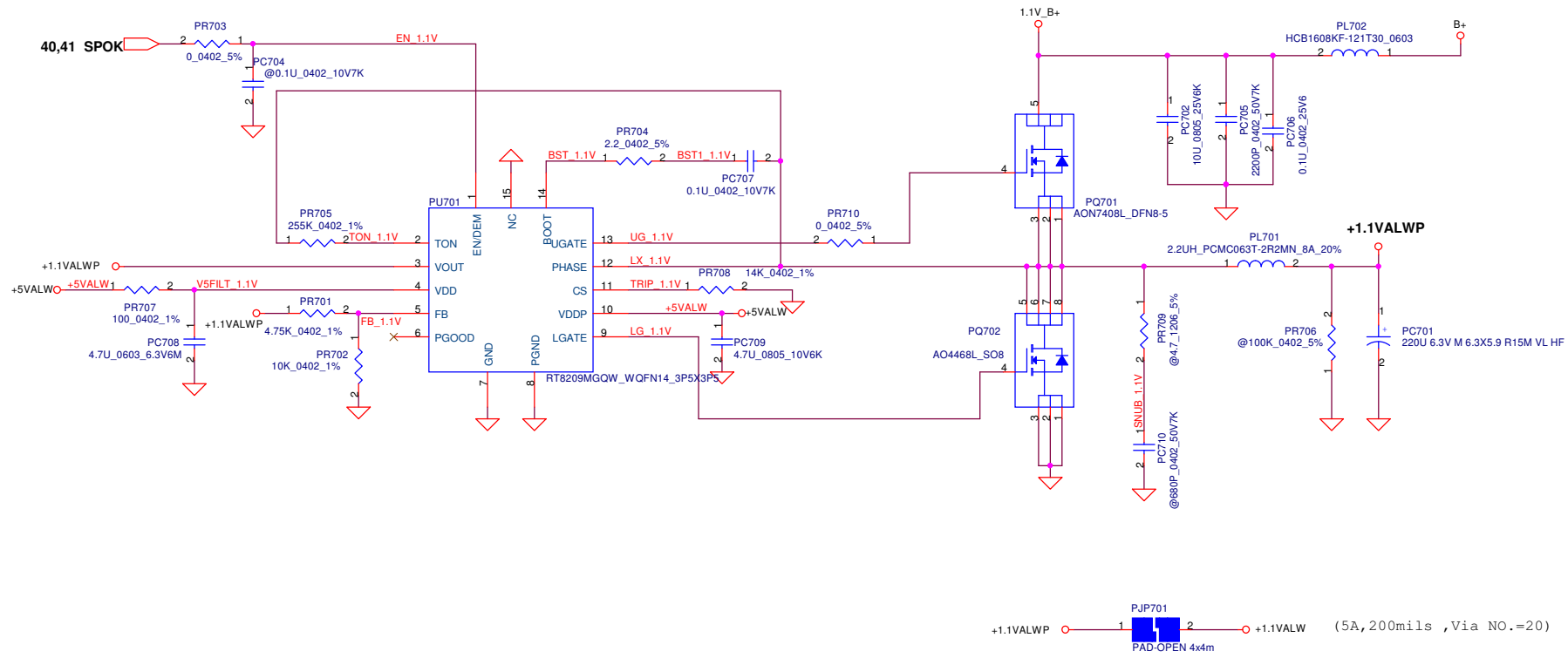
25,38,45 VGA_PWR_ON



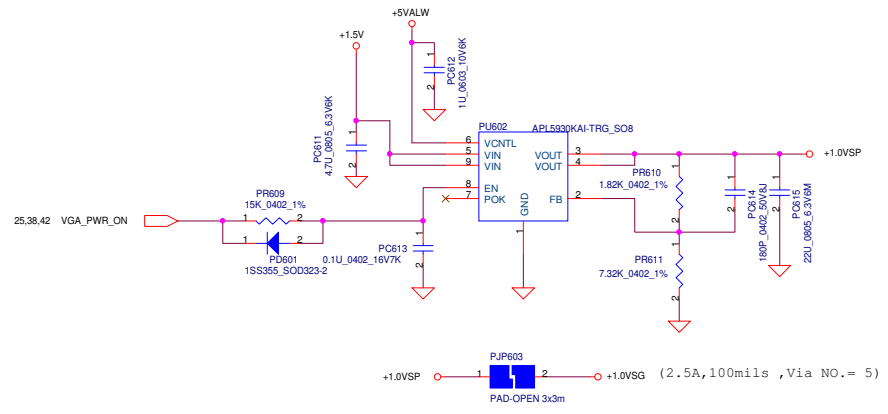
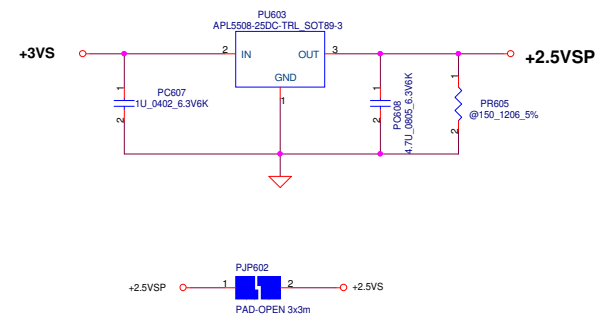
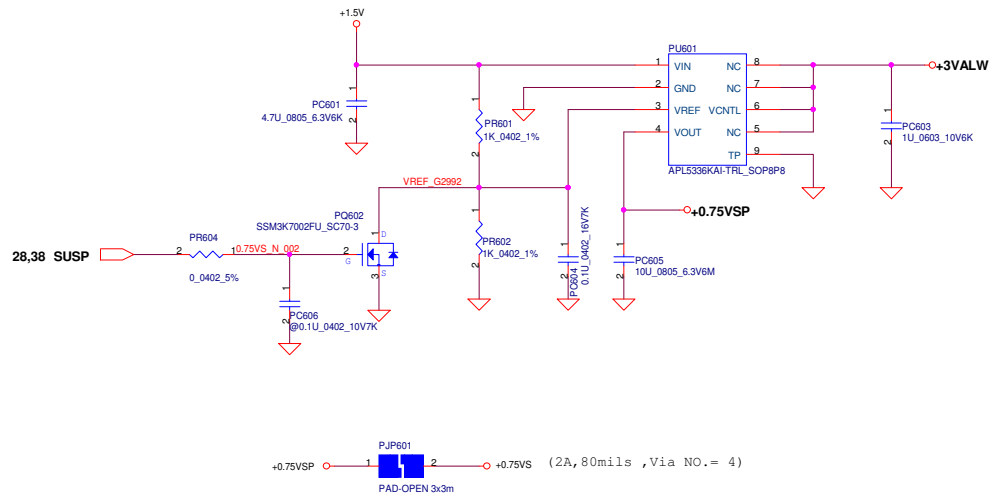
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/01/23	Deciphered Date	2010/01/23	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
					NCL61 LA-6321P M/B
				Date:	Friday, April 29, 2011
				Sheet	42 of 49
				Rev	0.1



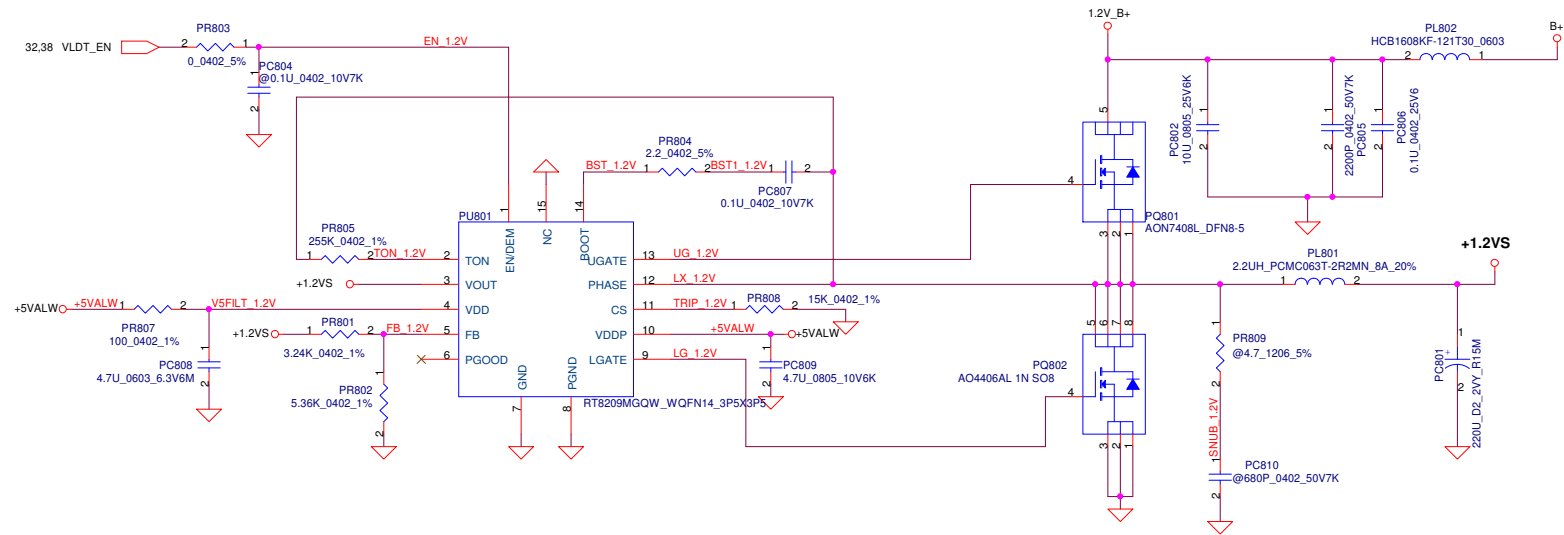
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2007/05/29	Deciphered Date	2008/05/29	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				+1.5VP	
				Size	Document Number
				Date:	Friday, April 29, 2011
				Sheet	43 of 49



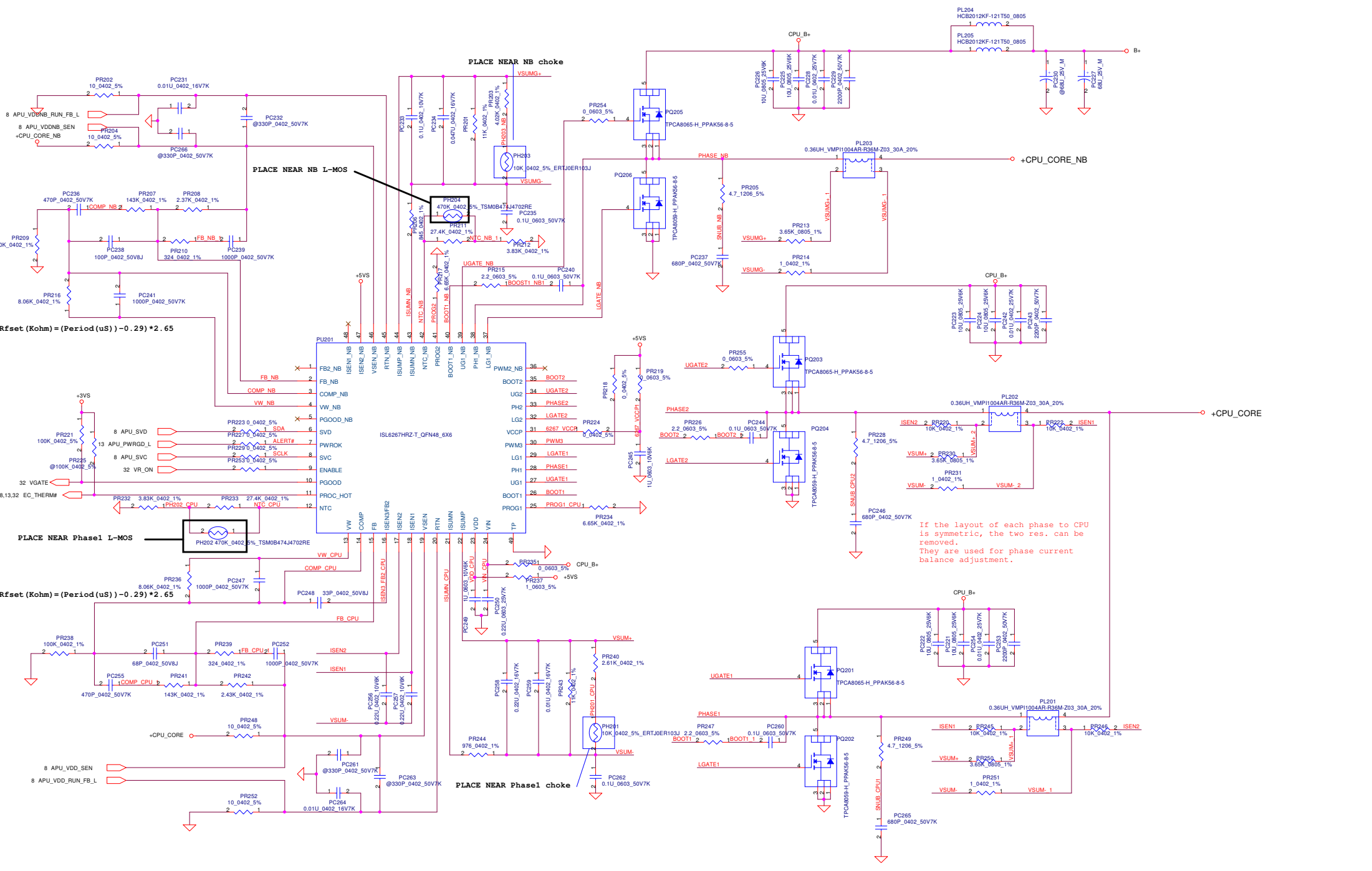
Security Classification		Compal Secret Data		Title	
Issued Date	2009/12/01	Deciphered Date	2010/12/31	PWR+1.1VALWP	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size Custom	Document Number LAXXXX
				Date:	Friday, April 29, 2011
				Sheet	44 of 49
				Rev	0.1



Security Classification	Compal Secret Data		Title	
Issued Date	2006/11/23	Deciphered Date	2007/11/23	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				PWR 0.75VSP/1.0VSP/2.5VSP
Size	Document Number	Date		Rev
	LAXXXX	Friday, April 29, 2011		0.1
Date			Sheet	of
			45	49



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2009/01/23	Deciphered Date	2010/01/23	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				+1.2VSP	
Size	Document Number	NCL61 LA-6321P M/B		Rev	
Date:	Friday, April 29, 2011	Sheet	46	of	49
					0.1

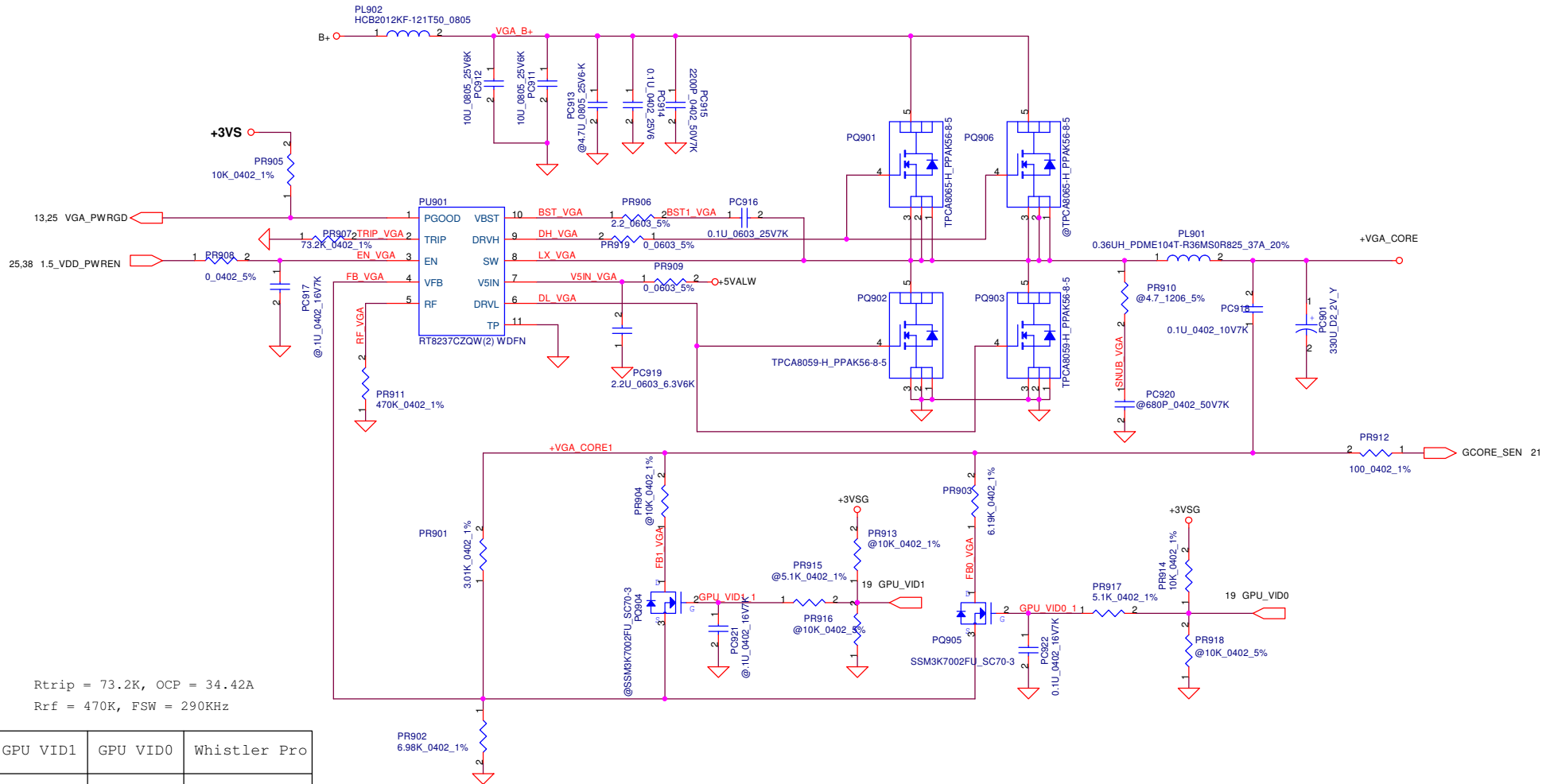


$$Rfset(Kohm) = (Period(us)) - 0.29 * 2.65$$

$$Rfset(Kohm) = (Period(us)) - 0.29 * 2.65$$

If the layout of each phase to CPU is symmetric, the two res. can be removed. They are used for phase current balance adjustment.

Security Classification	Compal Secret Data		Compal Electronics, Inc.		
Issued Date	2010/11/11	Deciphered Date	2011/11/11	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size	Document Number
				PEQAE LA-7291P M/B	Rev 0.1
				Date: Friday, April 28, 2011	Sheet 47 of 49



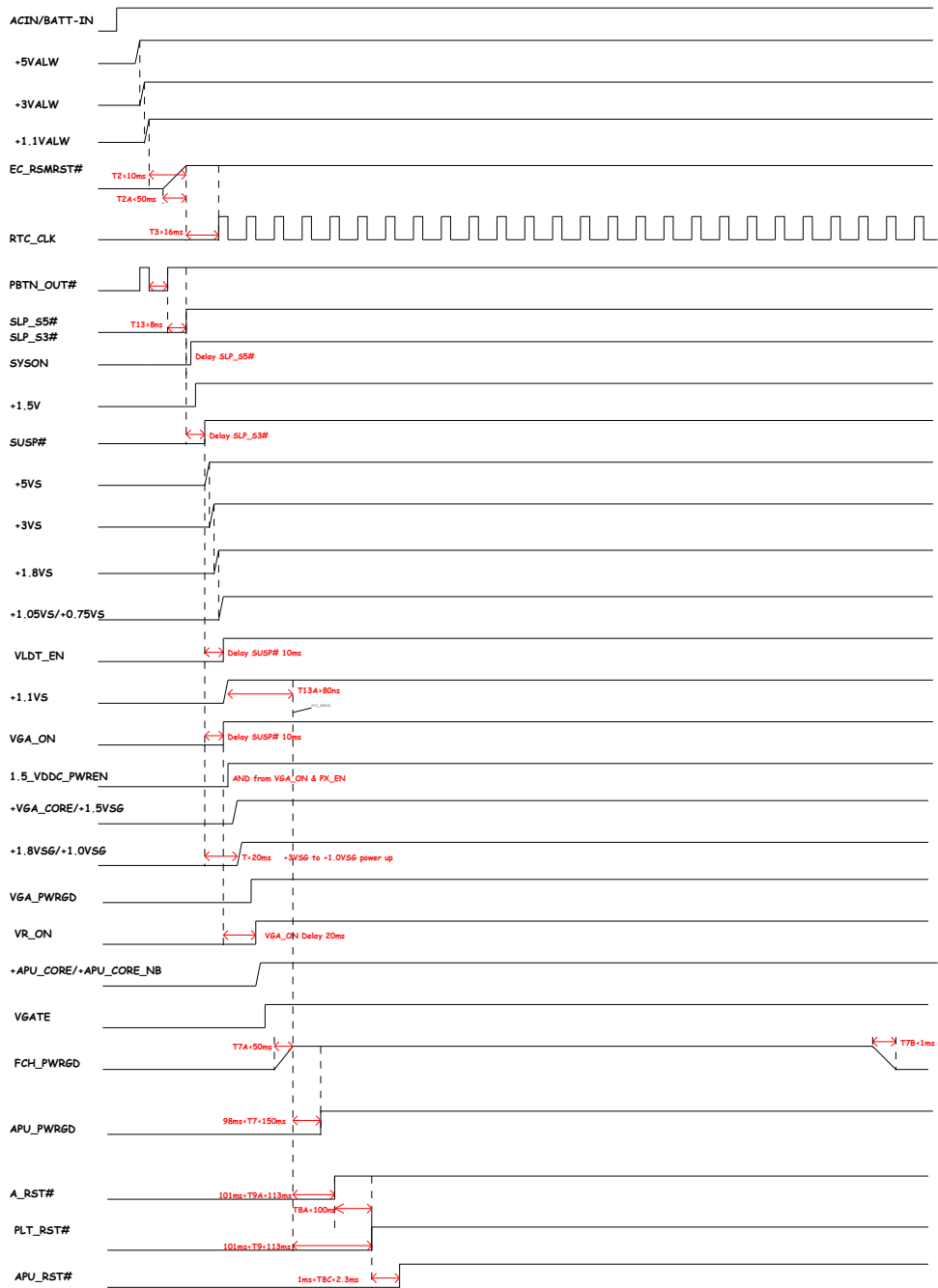
Rtrip = 73.2K, OCP = 34.42A
 Rrf = 470K, FSW = 290KHz

GPU VID1	GPU VID0	Whistler Pro
X	L	1.0V
X	H	0.9V
H	L	
H	H	

Item	Reason for change	PG#	Modify List	Date	Phase
1					
2					
3					
4					
5					
6					
7					

Security Classification	Compal Secret Data			Title	
Issued Date	2008/09/15	Deciphered Date	2010/12/31	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				QBL70 LA-7533P	022
				0306	Friday, April 29, 2011 15:08:49 of 61

POWER SEQUENCE



Signal	Value	Unit
ACIN/BATT-IN	High	
+5VALW	High	
+3VALW	High	
+1.1VALW	High	
EC_RSTMRST#	Low	
RTC_CLK	16ms	Period
PBTN_OUT#	High	
SLP_S5#	Low	
SLP_S3#	Low	
SYSON	High	
+1.5V	High	
SUSP#	Low	
+5VS	High	
+3VS	High	
+1.8VS	High	
+1.05VS/-0.75VS	High	
VLDT_EN	High	
+1.1VS	High	
V6A_ON	High	
1_5_VDDC_PWREN	High	
+V6A_CORE/+1.5VSG	High	
+1.8VSG/+1.0VSG	High	
V6A_PWRGD	High	
VR_ON	High	
+APU_CORE/+APU_CORE_NB	High	
VGATE	High	
FCH_PWRGD	High	
APU_PWRGD	High	
A_RST#	Low	
PLT_RST#	Low	
APU_RST#	Low	

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1		For AMD request	0.11	PG#26	Translator change to ANX3110	03/15	ER
2		For AI charge function	0.11	PG#34	Add U2 & U55	03/15	ER
3		For PBL70 MEMO	0.11	PG#32	Change LED1 to Green color.	03/15	ER
4		For LED brightness.	0.11	PG#32	Change R1584 to 100 ohm. Change R1586,R1588,R1591,R1592,R1593 to 100 ohm	03/15	ER
5		For LED1 brightness.	0.11	PG#32	Change LED1 power to 3VALW	03/15	ER
6		For USB3.0 & AI charger	0.12	PG#30	USBP0 connect to JUSB1 and USBP10 connect to JUSB2	03/22	ER
7		For LED1	0.12	PG#35	LED1 connect to +3VALW	03/22	ER
8		For +5VS rising time	0.2	PG#38	R1103 change to 47K	03/25	ER
9		For AI charger	0.2	PG#30	U2 reserve CEN# to EC	03/25	ER
10		For AMD spec	0.2	PG#27	R1642 & R1646 change to 4.7K ohm	03/25	ER
11		For share ROM request	0.2	PG#15 PG#16	Unpop U28, R626, R935, R934, R35, C466 Pop R910, unpop R921	03/25	ER
12		For +3VS leakage from CRT	0.21	PG#27	Add Q101, R1644, R1645 Delete R17, R31	03/31	PR
13		For Crystal EA	0.21	PG#13	Y4 change to SJ100007N00	03/31	PR
14		For EMI ISN	0.22	PG#31	C1636 change to 100P	04/19	PR
15		For thermal team recommend	0.22	PG#19	Add R1816, R1817 reserve R1814, R1815	04/19	PR
16		For BRD ID	0.22	PG#32	Change R1606 to 215K.	04/19	PR
17		Reserve PX_EN signal	0.22	PG#32	Reserve PX_EN signal to EC pin74	04/19	PR
18		For JDIMM1 and JDIMM2 location definition	0.22	PG#11 PG#12	Swap JDIMM1 and JDIMM2 location	04/19	PR
19		Prevent the leakage from CRT monitor.	0.23	PG#27	Add R1644, R1645, Q2 and Del R17, R31.	04/22	PR
20		for EMI request	0.23	PG#31	H1 change to connect to GND	04/22	PR
21		Don't use for MP	0.23	PG#13	Unpop C1193	04/22	PR
22		For VGA Sequence.	0.23	PG#38	Change R1127 from 470 ohm to 33 ohm.	04/22	PR
23		for EMI request	1.0	PG#30	modify USB3.0 redriver schemaitc	04/25	PR
24		For de-emphasis USB3.0 signal	1.0	PG#30	reserve TEST and I2C_EN net	04/25	PR
25		For some HDMI device detect error	1.0	PG#28	Change R200, R201 to 3.9K ohm	04/25	PR
26		For WLAN module rising time specification	1.0	PG#35	Change R114 to 20K ohm C1663 change to 4700P	04/25	PR
27							

Security Classification	Compal Secret Data		Title	
Issued Date	2010/06/30	Deciphered Date	2012/06/30	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number LA-7322P
Date: Friday, April 29, 2011				Rev 0.22
Sheet 51 of 51				

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase																																																																																																																																																																																																																																																																																																																																				
1		Reduce the component count for MP.	1.0		Change below the footprints from 0 ohm to R short.	04/25	PR																																																																																																																																																																																																																																																																																																																																				
2					<table border="1"> <thead> <tr> <th>Reference</th> <th>Value</th> <th>Source Part</th> <th>Source Library</th> <th>Page</th> <th>Schematic</th> </tr> </thead> <tbody> <tr><td>R1800</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P06-FS1 P...</td><td>SCHEMAT...</td></tr> <tr><td>R1801</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P06-FS1 P...</td><td>SCHEMAT...</td></tr> <tr><td>R591</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P08-FS1 Di...</td><td>SCHEMAT...</td></tr> <tr><td>R598</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P08-FS1 Di...</td><td>SCHEMAT...</td></tr> <tr><td>R606</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P08-FS1 Di...</td><td>SCHEMAT...</td></tr> <tr><td>R608</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P08-FS1 Di...</td><td>SCHEMAT...</td></tr> <tr><td>R611</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P08-FS1 Di...</td><td>SCHEMAT...</td></tr> <tr><td>R162</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P13-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R163</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P13-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R565</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P13-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R566</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P13-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R568</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P13-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R570</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P13-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R607</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P13-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R612</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P13-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R81</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P14-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R912</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P16-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1145</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1148</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R19</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R20</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R22</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R23</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R24</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R25</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R26</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R27</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R28</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R937</td><td>0_0805_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R938</td><td>0_0805_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R941</td><td>0_0805_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R945</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P17-HUDS...</td><td>SCHEMAT...</td></tr> <tr><td>R483</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P23-VRA...</td><td>SCHEMAT...</td></tr> <tr><td>R485</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P23-VRA...</td><td>SCHEMAT...</td></tr> <tr><td>R511</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P24-VRA...</td><td>SCHEMAT...</td></tr> <tr><td>R513</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P24-VRA...</td><td>SCHEMAT...</td></tr> <tr><td>R1291</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P26-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R527</td><td>0_0805_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P26-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R529</td><td>0_0805_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P26-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1634</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P27-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1635</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P27-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1636</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P27-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1641</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P27-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1643</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P27-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1650</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P27-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R1651</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P27-LVDS...</td><td>SCHEMAT...</td></tr> <tr><td>R535</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P31-LAN...</td><td>SCHEMAT...</td></tr> <tr><td>R536</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P31-LAN...</td><td>SCHEMAT...</td></tr> <tr><td>R544</td><td>0_0402_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P31-LAN...</td><td>SCHEMAT...</td></tr> <tr><td>R1531</td><td>0_0805_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P33-HD A...</td><td>SCHEMAT...</td></tr> <tr><td>R1534</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P33-HD A...</td><td>SCHEMAT...</td></tr> <tr><td>R1537</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P33-HD A...</td><td>SCHEMAT...</td></tr> <tr><td>R1560</td><td>0_0603_5%</td><td>R-SHORT</td><td>XACIS_SYM...</td><td>P34-RTS5...</td><td>SCHEMAT...</td></tr> </tbody> </table>	Reference	Value	Source Part	Source Library	Page	Schematic	R1800	0_0402_5%	R-SHORT	XACIS_SYM...	P06-FS1 P...	SCHEMAT...	R1801	0_0402_5%	R-SHORT	XACIS_SYM...	P06-FS1 P...	SCHEMAT...	R591	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...	R598	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...	R606	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...	R608	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...	R611	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...	R162	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...	R163	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...	R565	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...	R566	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...	R568	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...	R570	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...	R607	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...	R612	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...	R81	0_0402_5%	R-SHORT	XACIS_SYM...	P14-HUDS...	SCHEMAT...	R912	0_0402_5%	R-SHORT	XACIS_SYM...	P16-HUDS...	SCHEMAT...	R1145	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R1148	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R19	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R20	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R22	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R23	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R24	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R25	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R26	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R27	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R28	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R937	0_0805_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R938	0_0805_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R941	0_0805_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R945	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...	R483	0_0402_5%	R-SHORT	XACIS_SYM...	P23-VRA...	SCHEMAT...	R485	0_0402_5%	R-SHORT	XACIS_SYM...	P23-VRA...	SCHEMAT...	R511	0_0402_5%	R-SHORT	XACIS_SYM...	P24-VRA...	SCHEMAT...	R513	0_0402_5%	R-SHORT	XACIS_SYM...	P24-VRA...	SCHEMAT...	R1291	0_0402_5%	R-SHORT	XACIS_SYM...	P26-LVDS...	SCHEMAT...	R527	0_0805_5%	R-SHORT	XACIS_SYM...	P26-LVDS...	SCHEMAT...	R529	0_0805_5%	R-SHORT	XACIS_SYM...	P26-LVDS...	SCHEMAT...	R1634	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...	R1635	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...	R1636	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...	R1641	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...	R1643	0_0603_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...	R1650	0_0603_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...	R1651	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...	R535	0_0603_5%	R-SHORT	XACIS_SYM...	P31-LAN...	SCHEMAT...	R536	0_0603_5%	R-SHORT	XACIS_SYM...	P31-LAN...	SCHEMAT...	R544	0_0402_5%	R-SHORT	XACIS_SYM...	P31-LAN...	SCHEMAT...	R1531	0_0805_5%	R-SHORT	XACIS_SYM...	P33-HD A...	SCHEMAT...	R1534	0_0603_5%	R-SHORT	XACIS_SYM...	P33-HD A...	SCHEMAT...	R1537	0_0603_5%	R-SHORT	XACIS_SYM...	P33-HD A...	SCHEMAT...	R1560	0_0603_5%	R-SHORT	XACIS_SYM...	P34-RTS5...	SCHEMAT...		
Reference	Value	Source Part	Source Library	Page	Schematic																																																																																																																																																																																																																																																																																																																																						
R1800	0_0402_5%	R-SHORT	XACIS_SYM...	P06-FS1 P...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1801	0_0402_5%	R-SHORT	XACIS_SYM...	P06-FS1 P...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R591	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R598	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R606	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R608	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R611	0_0402_5%	R-SHORT	XACIS_SYM...	P08-FS1 Di...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R162	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R163	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R565	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R566	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R568	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R570	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R607	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R612	0_0402_5%	R-SHORT	XACIS_SYM...	P13-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R81	0_0402_5%	R-SHORT	XACIS_SYM...	P14-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R912	0_0402_5%	R-SHORT	XACIS_SYM...	P16-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1145	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1148	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R19	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R20	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R22	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R23	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R24	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R25	0_0603_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R26	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R27	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R28	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R937	0_0805_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R938	0_0805_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R941	0_0805_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R945	0_0402_5%	R-SHORT	XACIS_SYM...	P17-HUDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R483	0_0402_5%	R-SHORT	XACIS_SYM...	P23-VRA...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R485	0_0402_5%	R-SHORT	XACIS_SYM...	P23-VRA...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R511	0_0402_5%	R-SHORT	XACIS_SYM...	P24-VRA...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R513	0_0402_5%	R-SHORT	XACIS_SYM...	P24-VRA...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1291	0_0402_5%	R-SHORT	XACIS_SYM...	P26-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R527	0_0805_5%	R-SHORT	XACIS_SYM...	P26-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R529	0_0805_5%	R-SHORT	XACIS_SYM...	P26-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1634	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1635	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1636	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1641	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1643	0_0603_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1650	0_0603_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1651	0_0402_5%	R-SHORT	XACIS_SYM...	P27-LVDS...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R535	0_0603_5%	R-SHORT	XACIS_SYM...	P31-LAN...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R536	0_0603_5%	R-SHORT	XACIS_SYM...	P31-LAN...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R544	0_0402_5%	R-SHORT	XACIS_SYM...	P31-LAN...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1531	0_0805_5%	R-SHORT	XACIS_SYM...	P33-HD A...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1534	0_0603_5%	R-SHORT	XACIS_SYM...	P33-HD A...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1537	0_0603_5%	R-SHORT	XACIS_SYM...	P33-HD A...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
R1560	0_0603_5%	R-SHORT	XACIS_SYM...	P34-RTS5...	SCHEMAT...																																																																																																																																																																																																																																																																																																																																						
3																																																																																																																																																																																																																																																																																																																																											
4																																																																																																																																																																																																																																																																																																																																											
5																																																																																																																																																																																																																																																																																																																																											
6																																																																																																																																																																																																																																																																																																																																											
7																																																																																																																																																																																																																																																																																																																																											
8																																																																																																																																																																																																																																																																																																																																											
9																																																																																																																																																																																																																																																																																																																																											
10																																																																																																																																																																																																																																																																																																																																											
11																																																																																																																																																																																																																																																																																																																																											
12																																																																																																																																																																																																																																																																																																																																											
13																																																																																																																																																																																																																																																																																																																																											
14																																																																																																																																																																																																																																																																																																																																											
15																																																																																																																																																																																																																																																																																																																																											
16																																																																																																																																																																																																																																																																																																																																											
17																																																																																																																																																																																																																																																																																																																																											
18																																																																																																																																																																																																																																																																																																																																											
19																																																																																																																																																																																																																																																																																																																																											
20																																																																																																																																																																																																																																																																																																																																											
21																																																																																																																																																																																																																																																																																																																																											
22																																																																																																																																																																																																																																																																																																																																											
23																																																																																																																																																																																																																																																																																																																																											
24																																																																																																																																																																																																																																																																																																																																											
25																																																																																																																																																																																																																																																																																																																																											
26																																																																																																																																																																																																																																																																																																																																											
27																																																																																																																																																																																																																																																																																																																																											

Security Classification	Compal Secret Data		Title	
Issued Date	2011/04/25	Deciphered Date	2012/04/25	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number QBL60 LA-7552P
Date: Friday, April 29, 2011				Rev 1.0
Sheet 53 of 53				

www.s-manuals.com