Compal Confidential

EG50_BZ

Q5WT6 Schematics Document

AMD Brazos

Brazos with Ontario / Hudson M3L

UMA only

2011-12-16

LA-8531P REV: 0.3

ZZZ2

PCB

Part Number = DA60000RP00

Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

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Title: Cover Page

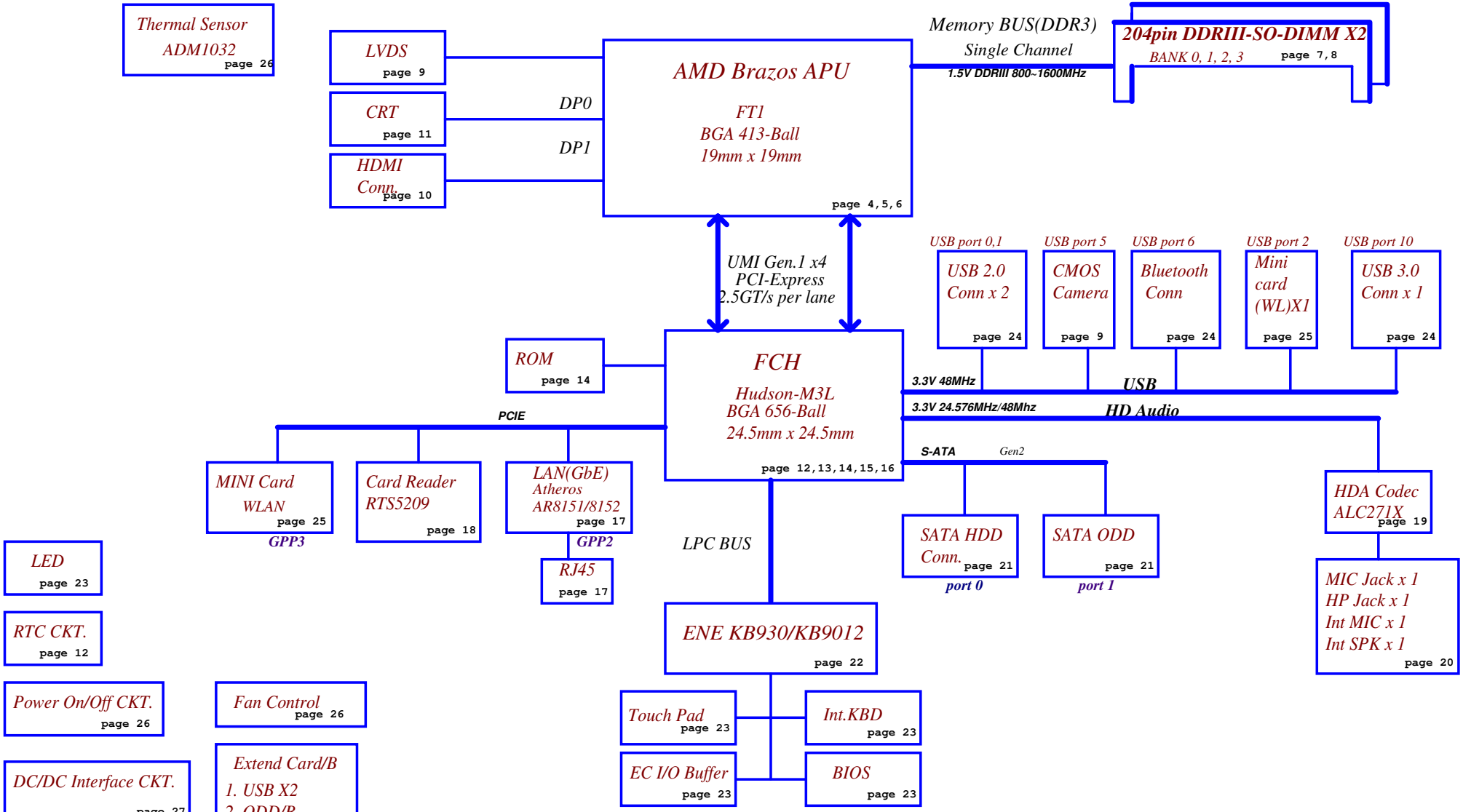
Size	Document Number	Rev
Custom	<Doc>	0.1

Date: Friday, December 16, 2011 Sheet 1 of 37

Compal Confidential

Model Name : Q5WT6

Brazos



Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: Block Diagrams

Size	Document Number	Rev
Custom	LA-8531P	0.1

Date: Friday, December 16, 2011 Sheet 2 of 37

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
+VSB	VSB always on power rail	ON	ON	ON*
+3VALW	3.3V always on power rail	ON	ON	ON*
+5VALW	5V always on power rail	ON	ON	ON*
+1.1VALW	1.1V always on power rail	ON	ON	ON*
+APU_CORE	Core voltage for CPU (0.7-1.2V)	ON	OFF	OFF
+APU_CORE_NB	1.0V switched power rail	ON	OFF	OFF
+1.5V	1.5V power rail for CPU VDDIO and DDRIII	ON	ON	OFF
+0.75VS	0.75VS switched power rail for DDR terminator	ON	OFF	OFF
+1.05VS	1.05V switched power rail for APU VDD10	ON	OFF	OFF
+1.1VS	1.1VS switched power rail	ON	OFF	OFF
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VS	5V switched power rail	ON	OFF	OFF
+VGA_CORE	Core voltage for GPU	ON	OFF	OFF
+3VSG	3.3V switched power rail for GPU	ON	OFF	OFF
+1.8VSG	1.8V switched power rail for GPU	ON	OFF	OFF
+1.5VSG	1.5V switched power rail for GPU	ON	OFF	OFF
+1.0VSG	1.0V switched power rail for GPU	ON	OFF	OFF
+3V_LAN	3.3V power rail for LAN	ON	ON	OFF
+RTCVCC	RTC power	ON	ON	ON

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

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

EC SM Bus1 address

Device	Address	HEX
Smart Battery	0001-011xb	NA

EC SM Bus2 address

Device	Address	HEX
EMC1403-2(GPU)	1001-101xb	9EH

SM Bus Controller 0

(FCH_SMB1 ~ FCH_SMB4, SMB_ALERT#)

Device	Address	HEX
APU SIC/SID (FCH_SMB3)		
H_THERMTRIP# (FCH_ALERT#)		

SM Bus Controller 1

(FCH_SMB0)

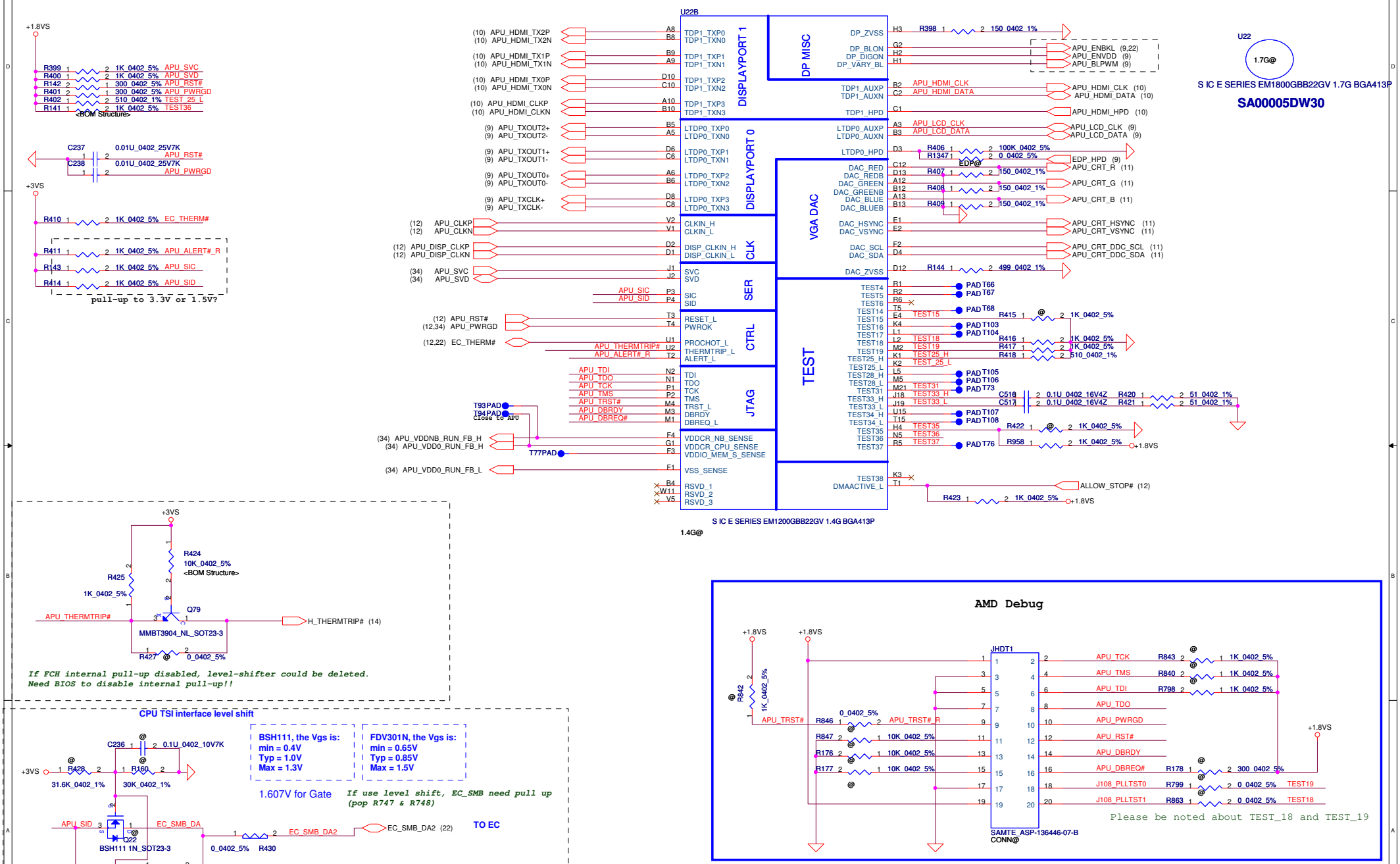
Device	Address	HEX
DDR DIMM1 (FCH_SMB0)	1001-000xb	90
DDR DIMM2 (FCH_SMB0)	1001-001xb	92
WLAN (FCH_SMB0)		

Project ID Table

Board ID	PCB Revision
0	R01
1	R02
2	R03
3	
4	
5	
6	
7	

BTO Option Table

BTO Item	BOM Structure
AR8152	8152@
AR8151	8151@
Bluetooth	BT@
ALC271X	271X@
ALC281X	281X@
LVDS	LVDS@
EDP	EDP@
ODD zero power	ZERO@
APU_1.4G	1.4G@
APU_1.7G	1.7G@
normal ODD	ODD@



Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: FT1 CTRL/DP/CRT

Size	Document Number	Rev
Custom	LA-8531P	0.1

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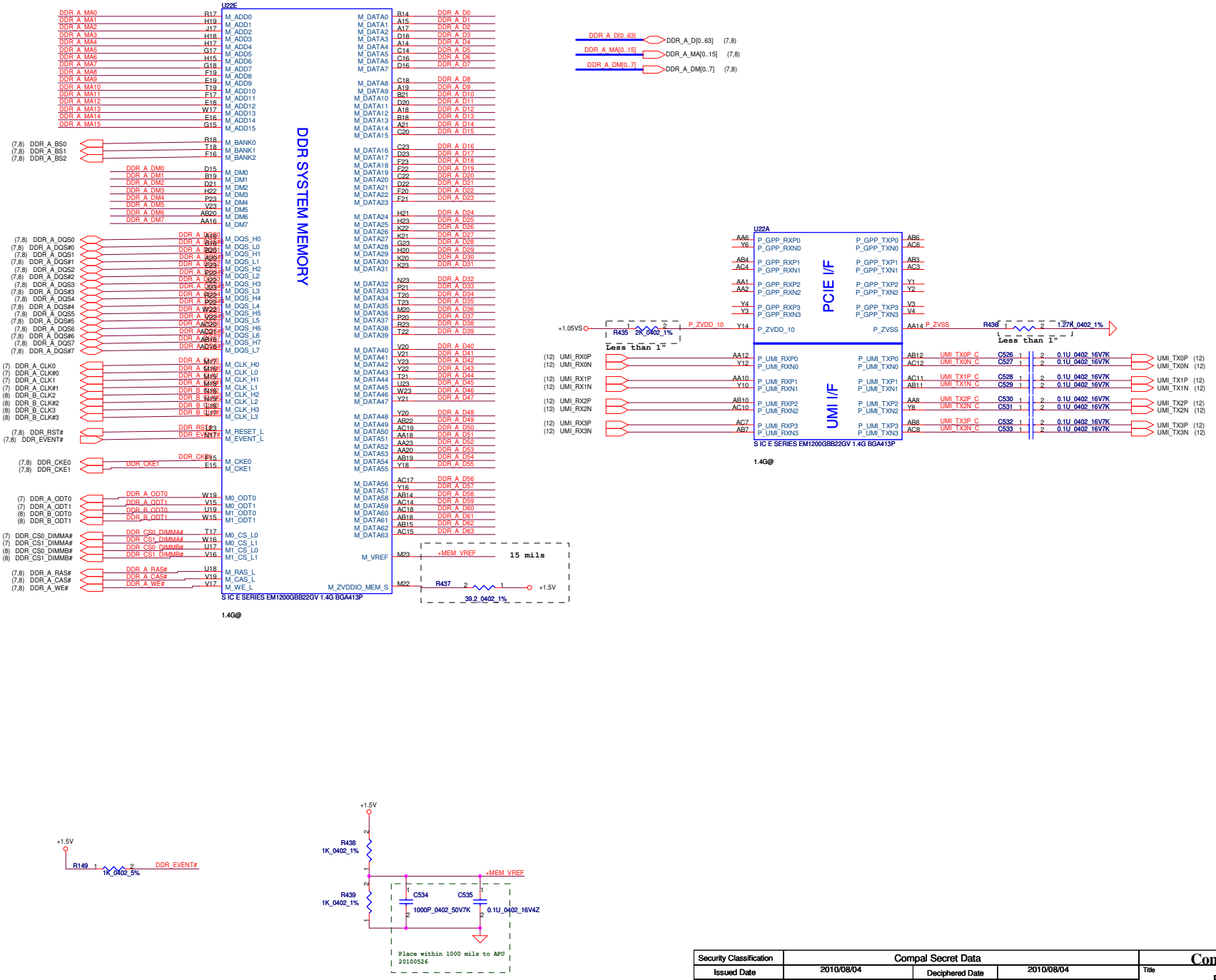

Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: FT1 DDRIII/UMI/PCIE

Size	Document Number	Rev
C	LA-8531P	0.1

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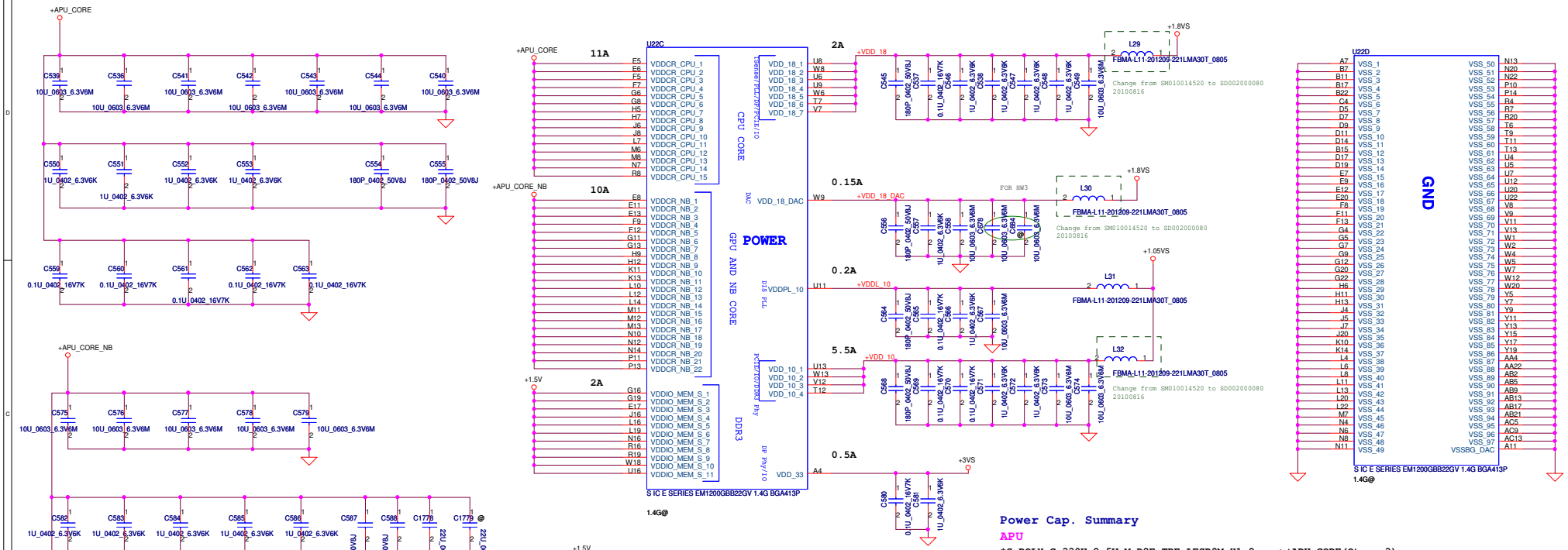


Power Cap. Summary

APU

*S POLY C 330U 2.5V M D2E TPE LESR9M H1.8 --->+APU_CORE(Qty : 3)
*S POLY C 330U 2.5V Y D2 LESR9M EEFS H1.9 --->+APU_CORE_NB(Qty : 1)
*S_A-P_CAP 390U 2.5V M 6.3X5.7 LESR10M VU --->1.05VS(Qty : 1)
*S POLY C 330U 2.5V Y D2 LESR9M EEFS H1.9 --->+1.5V(Qty : 1)
*S ELE CAP 330U 6.3V M 6.3X5.9 LESR15M VU --->+1.8VS(Qty : 1)
S_A-P_CAP 390U 2.5V M 6.3X5.7 LESR10M VU --->+APU_CORE(Qty : 2) Reverse
S_A-P_CAP 330U 2.5V M 6.3X4.2 R17M VLPS --->+APU_CORE_NB(Qty : 1) Reverse
+1.5V(Qty : 1) Reverse

DDR3

S POLY C 330U 2V M X LESR6M SX H1.9 --->1.5V(Qty : 1) Reserve

FCH

*S POLY C 330U 2.5V Y D2 LESR9M EEFS H1.9 --->1.1VS(Qty : 1)

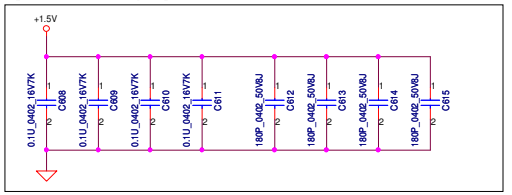
GPU

*S POLY C 330U 2V M X LESR6M SX H1.9 --->VGA_CORE(Qty : 1) Change as OS_CON Cap. next phase
*S_A-P_CAP 390U 2.5V M 6.3X5.7 LESR10M VU --->+VGA_CORE(Qty : 1)
S POLY C 330U 2V M X LESR6M SX H1.9 --->VGA_CORE(Qty : 1) Reserve
*S_A-P_CAP 390U 2.5V M 6.3X5.7 LESR10M VU --->+1.5VSG(Qty : 1)

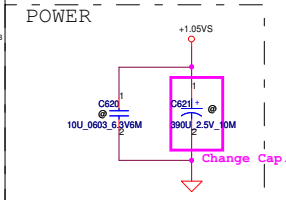
USB

*S_A-P_CAP 220U 6.3V M C45 R17M SVPE H4.4 --->+USB_VCCA(Qty : 1)

By case (Along split)

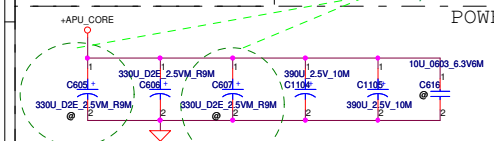


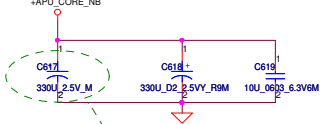
POWER

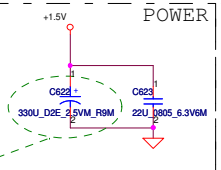


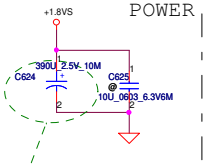
Change Cap. H4.4 ESR17

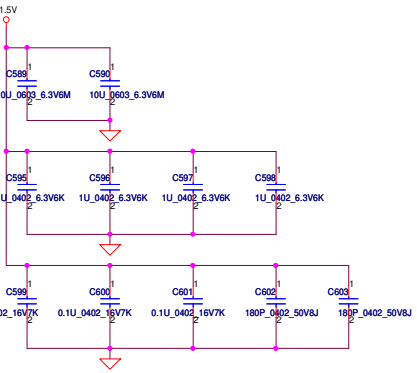
C605 , C607 change to un-pop 12/23



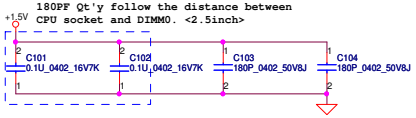








180PF Qt'y follow the distance between CPU socket and DIMM0. <2.5inch>



*(330uF_6.3V_4.2L_ESR17m)*1=(SF000002Z00)*

*(S ELE CAP 390U 6.3V M 6.3X5.9 LESR15M VU)*1=(SF000002o00)*
20101227

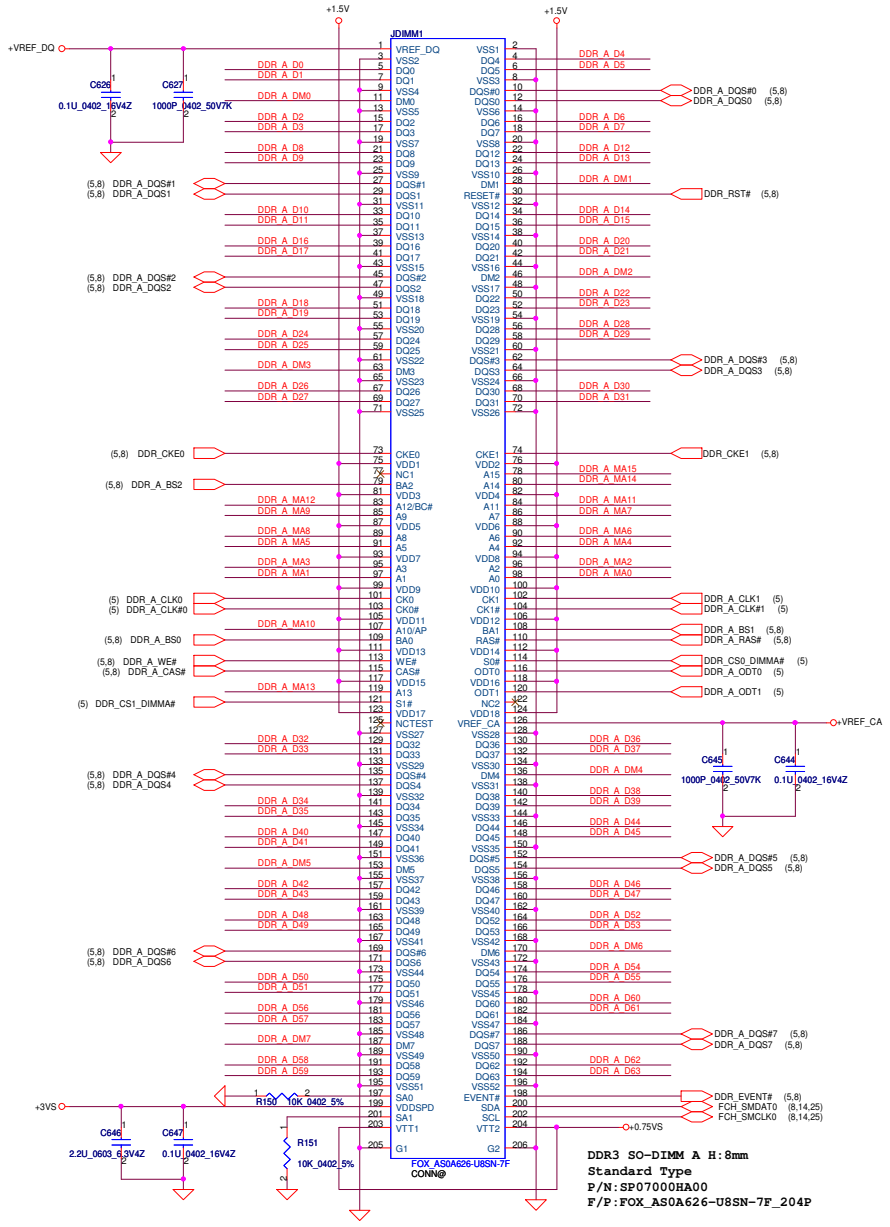
Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

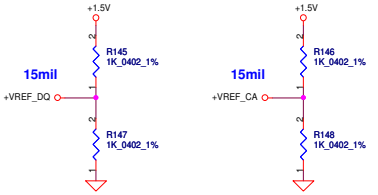
Title: FT1 PWR/VSS

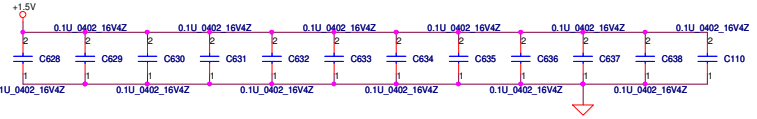
Size	Document Number	Rev
C	LA-8531P	0.1

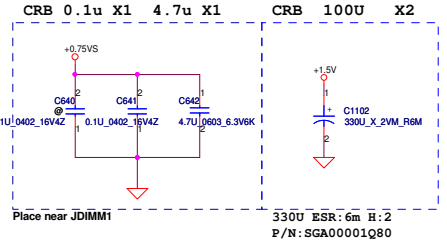
Date: Tuesday, February 07, 2012 Sheet 6 of 37



DDR3 SO-DIMM A H:8mm
Standard Type
P/N:SP07000HA00
F/P:FOX_AS0A626-U8SN-7F_204P







Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: DDR3 SODIMM-I Socket

Size	Document Number	Rev
C	LA-8531P	0.1

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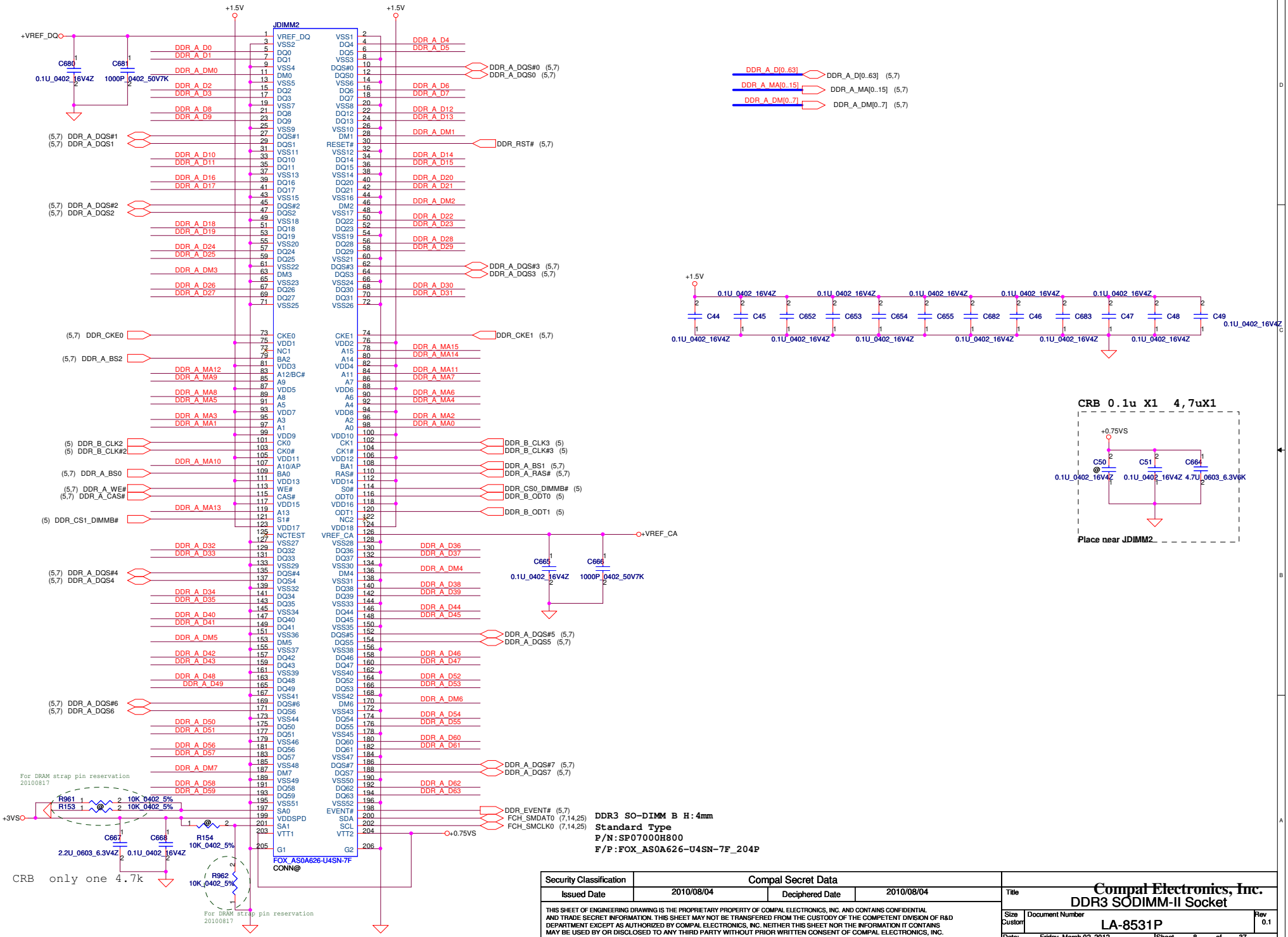

Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: DDR3 SODIMM-II Socket

Size	Document Number	Rev
Custom	LA-8531P	0.1

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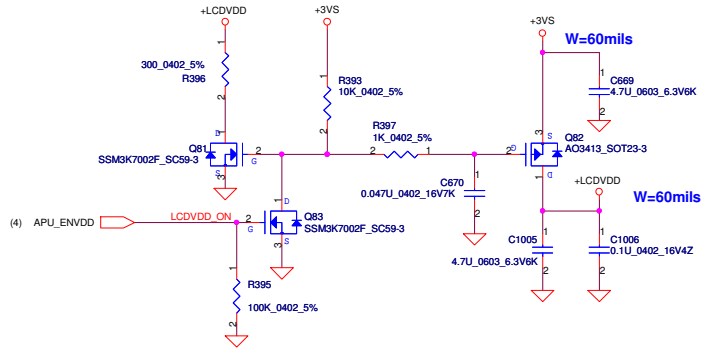
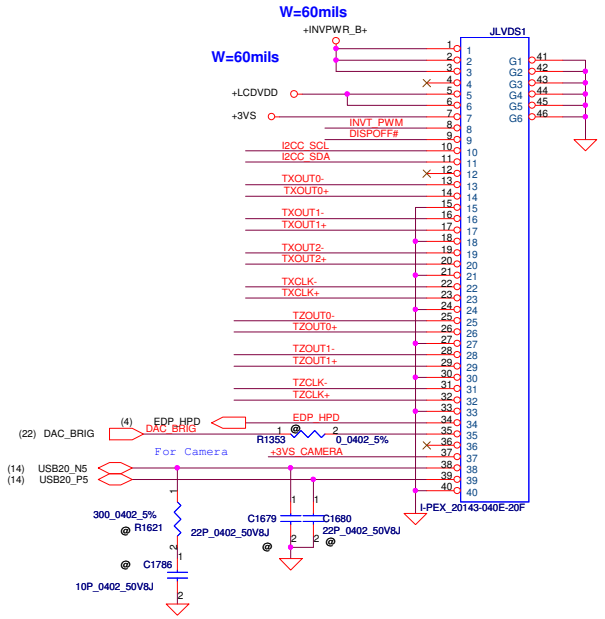
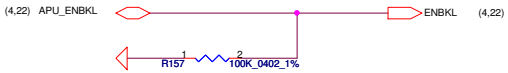
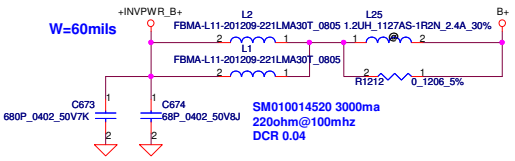
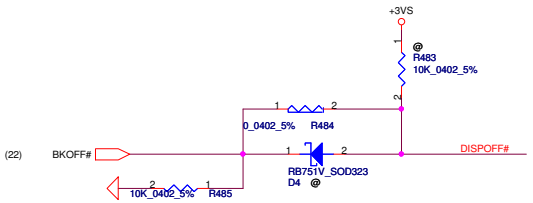
LCD POWER CIRCUIT

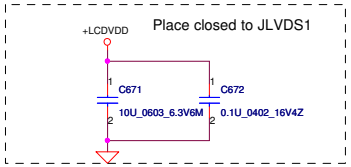


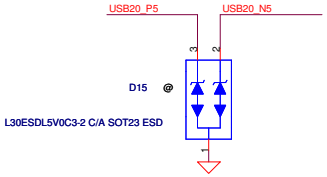


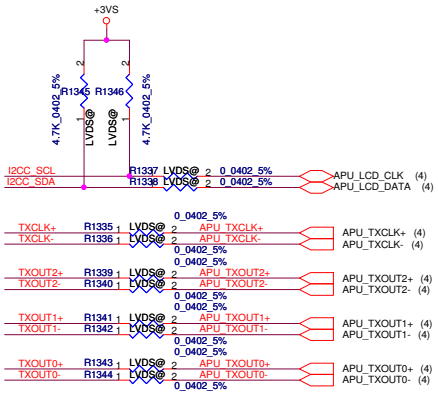


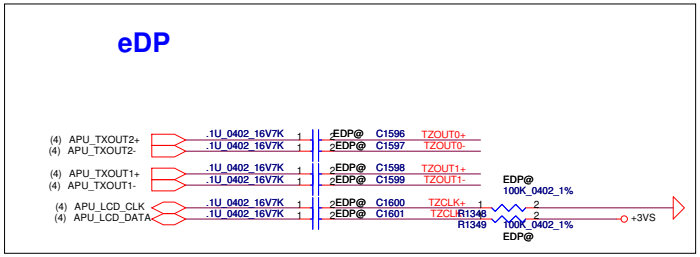












Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: LVDS/eDP/CAMERA

Size	Document Number	Rev
Custom	LA-8531P	0.1

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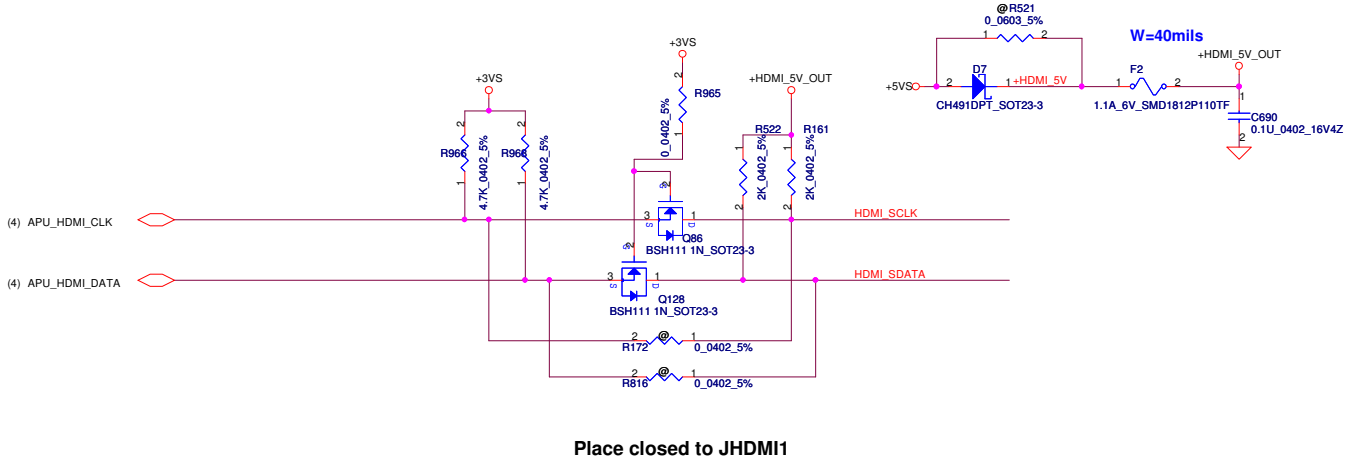
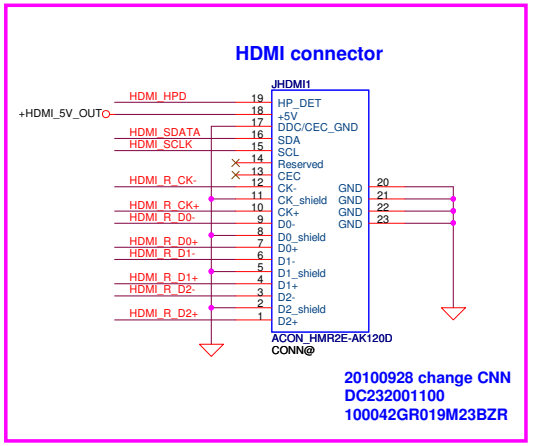
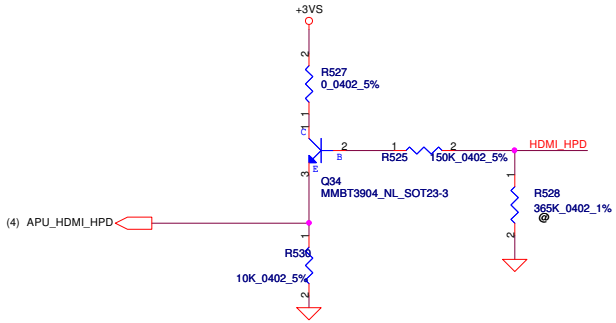
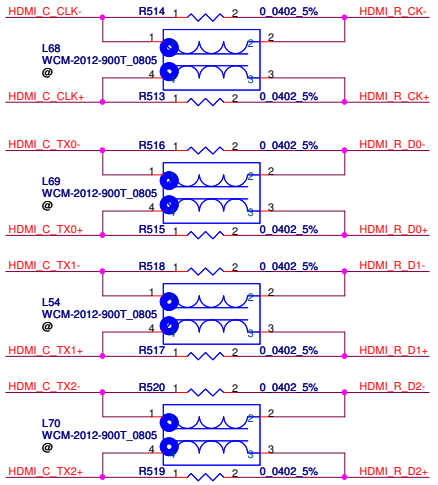


Place closed to JHDMI1



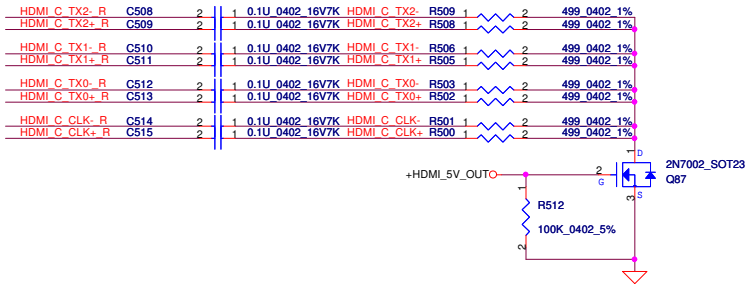
SM070001310 400ma 90ohm@100mhz DCR 0.3





From APU

Place closed to JHDMI1



Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: HDMI Connector

Size	Document Number	Rev
Custom	LA-8531P	0.1

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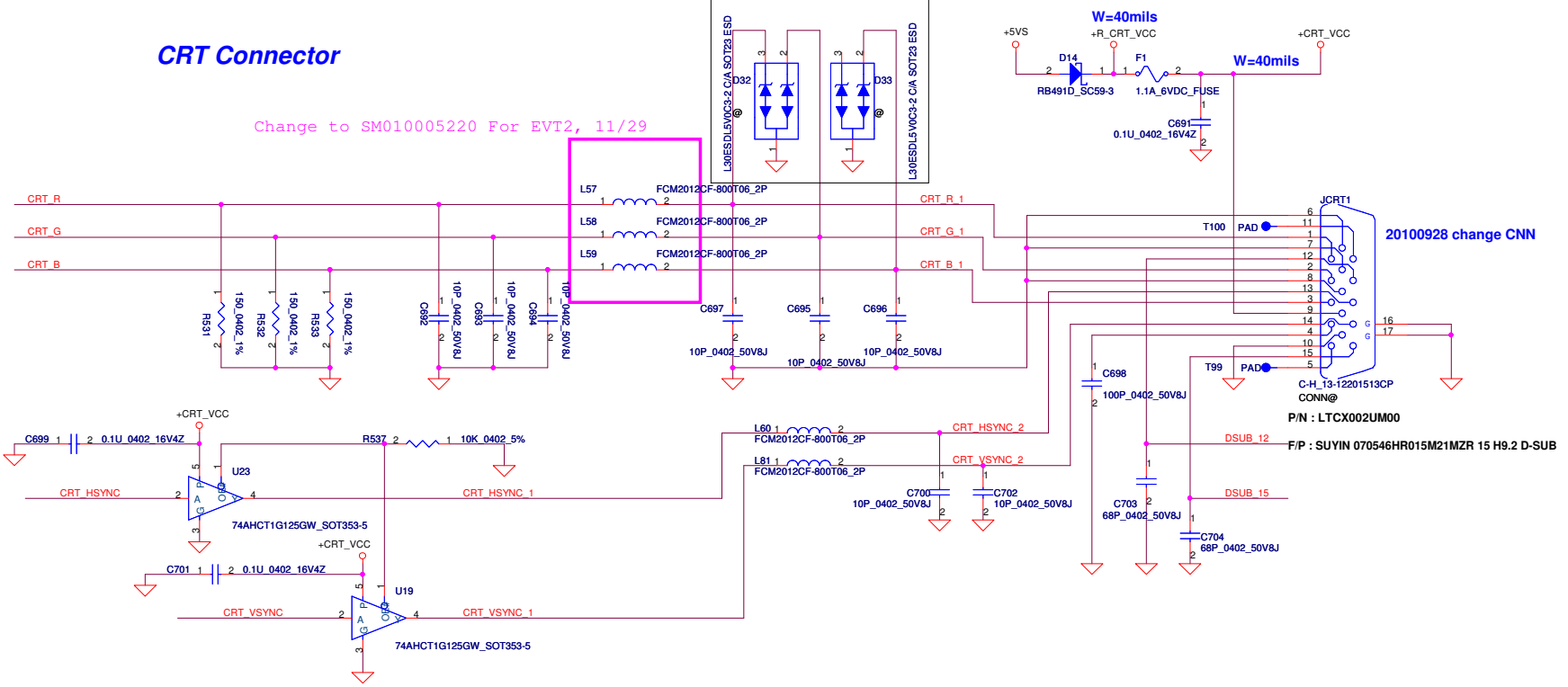
CRT Connector

Change P/N as SCA00001L00

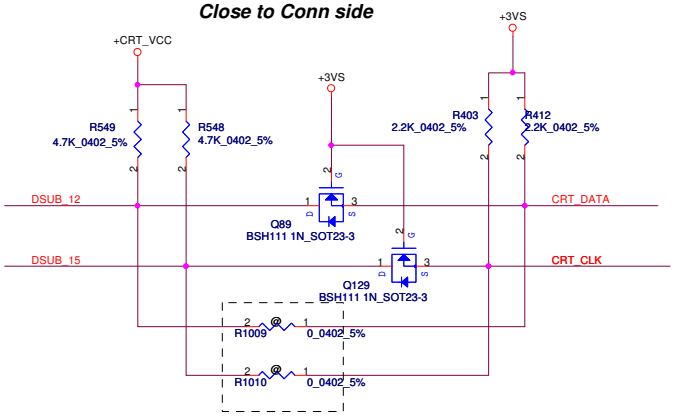
Change to SM010005220 For EVT2, 11/29



From APU

(4) APU_CRT_R	APU_CRT_R	CRT_R
(4) APU_CRT_G	APU_CRT_G	CRT_G
(4) APU_CRT_B	APU_CRT_B	CRT_B
(4) APU_CRT_HSYNC	APU_CRT_HSYNC	CRT_HSYNC
(4) APU_CRT_VSYNC	APU_CRT_VSYNC	CRT_VSYNC
(4) APU_CRT_DDC_SDA	APU_CRT_DDC_SDA	CRT_DATA
(4) APU_CRT_DDC_SCL	APU_CRT_DDC_SCL	CRT_CLK

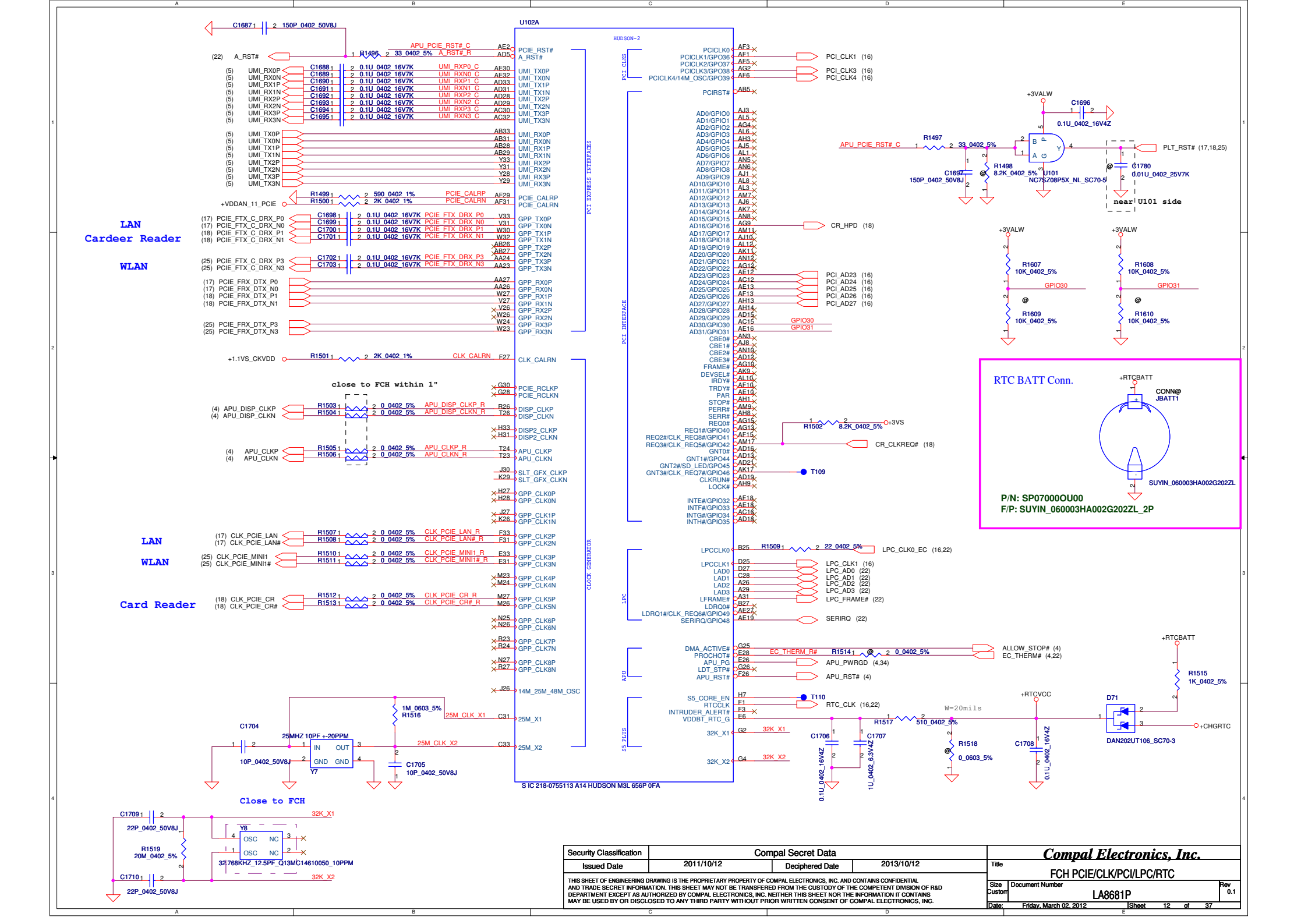
Close to Conn side



Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title	CRT Connector	
Size: Custom	Document Number: LA-8531P	Rev: 0.1
Date: Friday, March 02, 2012	Sheet 11 of 37	



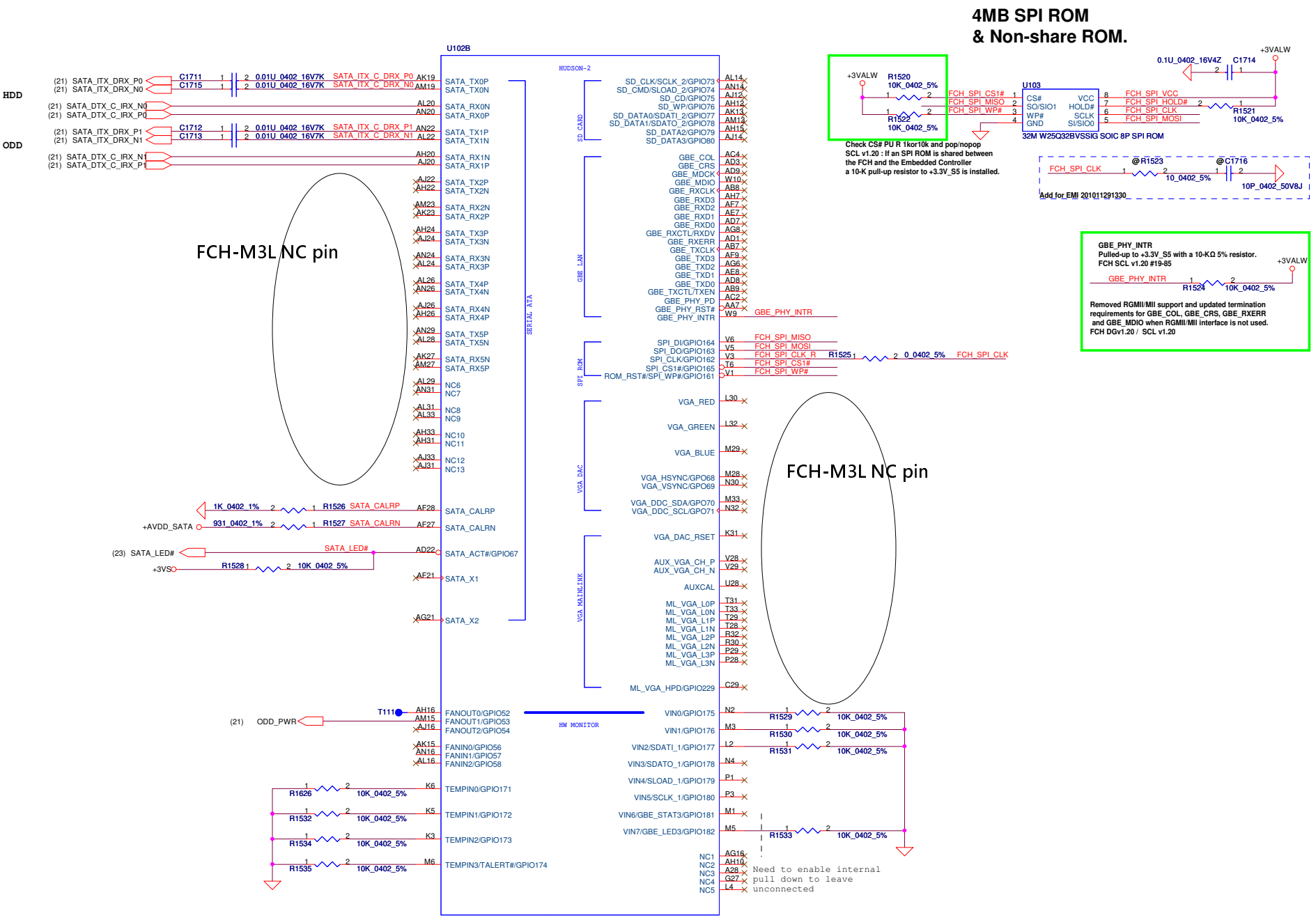
Security Classification	Compal Secret Data		
Issued Date	2011/10/12	Deciphered Date	2013/10/12

Compal Electronics, Inc.

Title: FCH PCIE/CLK/PCI/LPC/RTC

Size	Document Number	Rev
Custom	LA8681P	0.1

Date: Friday, March 02, 2012 | Sheet 12 of 37



Security Classification	Compal Secret Data		
Issued Date	2011/10/12	Deciphered Date	2013/10/12

Compal Electronics, Inc.

Title: FCH SATA/SPI/VGA/HWM/SD

Size	Document Number	Rev
Custom	LA8681P	0.1

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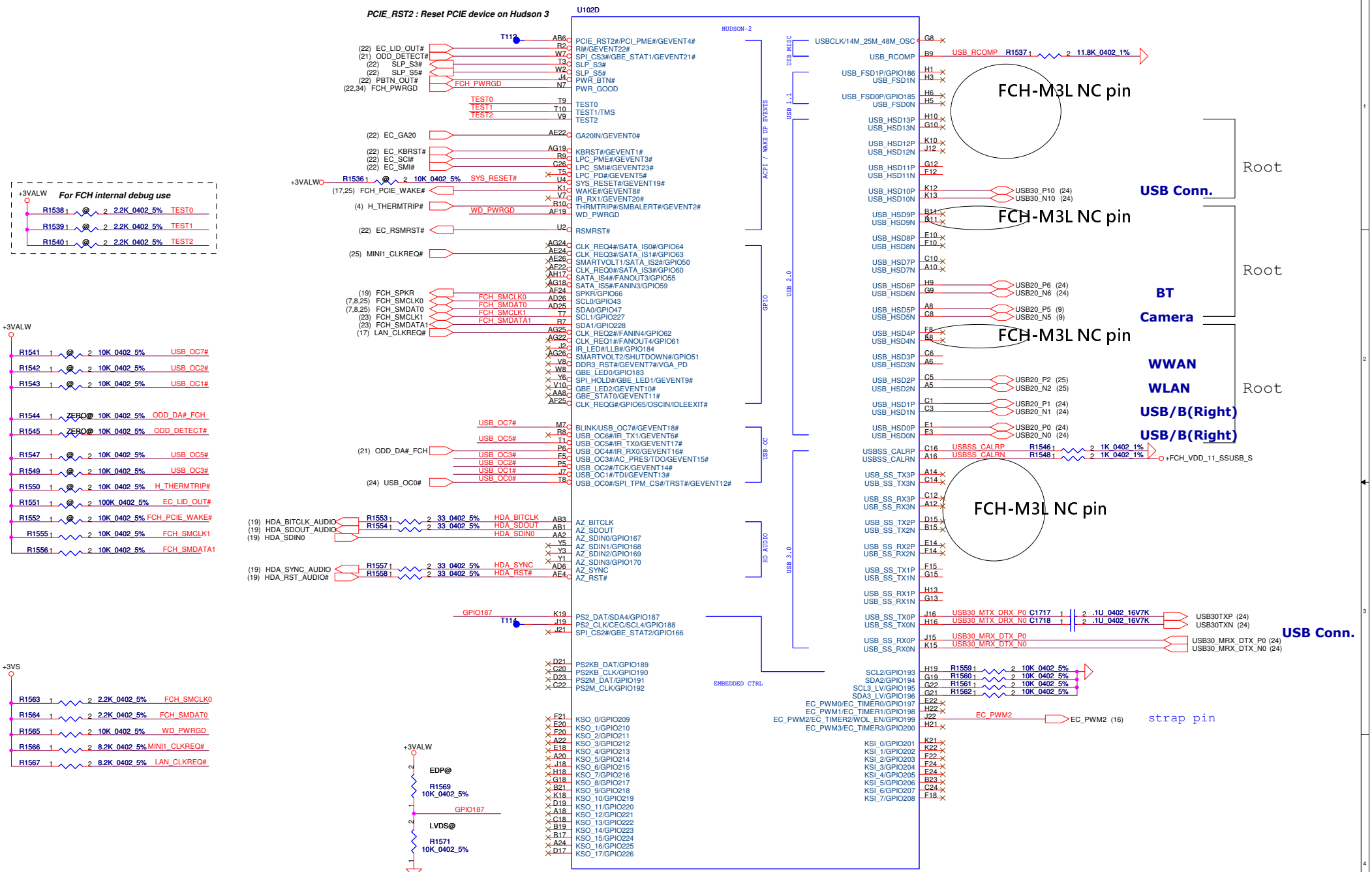
PCIE_RST2 : Reset PCIE device on Hudson 3
U102D
HUDSON-2
For FCH internal debug use
+3VALW
R1538 @ 2.2K 0402 5% TEST0
R1539 @ 2.2K 0402 5% TEST1
R1540 @ 2.2K 0402 5% TEST2
R1536 @ 10K 0402 5% SYS_RESET#
T112
(22) EC_LID_OUT#
(21) ODD_DETECT#
(22) SLP_S3#
(22) SLP_S5#
(22) PBTN_OUT#
(22,34) FCH_PWRGD
FCH_PWRGD
TEST0
TEST1
TEST2
(22) EC_GA20
(22) EC_KBRST#
(22) EC_SCI#
(22) EC_SMI#
(17,25) FCH_PCIE_WAKE#
(4) H_THERMTRIP#
WD_PWRGD
(22) EC_RSMRST#
(25) MINI1_CLKREQ#
(19) FCH_SPKR
(7,8,25) FCH_SMCLK0
(7,8,25) FCH_SMDAT0
(23) FCH_SMCLK1
(23) FCH_SMDATA1
(17) LAN_CLKREQ#
FCH_SMCLK0
FCH_SMDAT0
FCH_SMCLK1
FCH_SMDATA1
USB_OC7#
USB_OC5#
(21) ODD_DA#_FCH
USB_OC3#
USB_OC2#
USB_OC1#
USB_OC0#
(24) USB_OC0#
(19) HDA_BITCLK_AUDIO
(19) HDA_SDOUT_AUDIO
(19) HDA_SDIN0
R1553 33 0402 5% HDA_BITCLK
R1554 33 0402 5% HDA_SDOUT
HDA_SDIN0
(19) HDA_SYNC_AUDIO
(19) HDA_RST_AUDIO#
R1557 33 0402 5% HDA_SYNC
R1558 33 0402 5% HDA_RST#
GPIO187
T114
+3VS
R1563 2.2K 0402 5% FCH_SMCLK0
R1564 2.2K 0402 5% FCH_SMDAT0
R1565 10K 0402 5% WD_PWRGD
R1566 8.2K 0402 5% MINI1_CLKREQ#
R1567 8.2K 0402 5% LAN_CLKREQ#
+3VALW
EDP@
R1569 10K 0402 5%
GPIO187
LVDS@
R1571 10K 0402 5%
R1572 2.2K 0402 5% EC_RSMRST#
R1573 @ 10K 0402 5% HDA_BITCLK
R1574 @ 10K 0402 5% HDA_SDIN0
PCIE_RST2#/PCI_PME#/GEVENT4#
RI#/GEVENT22#
SPI_CS3#/GBE_STAT1/GEVENT21#
SLP_S3#
SLP_S5#
PWR_BTN#
PWR_GOOD
TEST0
TEST1/TMS
TEST2
GA20IN/GEVENT0#
KBRST#/GEVENT1#
LPC_PME#/GEVENT3#
LPC_SMI#/GEVENT23#
LPC_PD#/GEVENT5#
SYS_RESET#/GEVENT19#
WAKE#/GEVENT8#
IR_RX1/GEVENT20#
THRMTRIP#/SMBALERT#/GEVENT2#
WD_PWRGD
RSMRST#
CLK_REQ4#/SATA_IS0#/GPIO64
CLK_REQ3#/SATA_IS1#/GPIO63
SMARTVOLT1/SATA_IS2#/GPIO50
CLK_REQ0#/SATA_IS3#/GPIO60
SATA_IS4#/FANOUT3/GPIO55
SATA_IS5#/FANIN3/GPIO59
SPKR/GPIO66
SCL0/GPIO43
SDA0/GPIO47
SCL1/GPIO227
SDA1/GPIO228
CLK_REQ2#/FANIN4/GPIO62
CLK_REQ1#/FANOUT4/GPIO61
IR_LED#/LLB#/GPIO184
SMARTVOLT2/SHUTDOWN#/GPIO51
DDR3_RST#/GEVENT7#/VGA_PD
GBE_LED0/GPIO183
SPI_HOLD#/GBE_LED1/GEVENT9#
GBE_LED2/GEVENT10#
GBE_STAT0/GEVENT11#
CLK_REQG#/GPIO65/OSCIN/IDLEEXIT#
BLINK/USB_OC7#/GEVENT18#
USB_OC6#/IR_TX1/GEVENT6#
USB_OC5#/IR_TX0/GEVENT17#
USB_OC4#/IR_RX0/GEVENT16#
USB_OC3#/AC_PRES/TDO/GEVENT15#
USB_OC2#/TCK/GEVENT14#
USB_OC1#/TDI/GEVENT13#
USB_OC0#/SPI_TPM_CS#/TRST#/GEVENT12#
AZ_BITCLK
AZ_SDOUT
AZ_SDIN0/GPIO167
AZ_SDIN1/GPIO168
AZ_SDIN2/GPIO169
AZ_SDIN3/GPIO170
AZ_SYNC
AZ_RST#
PS2_DAT/SDA4/GPIO187
PS2_CLK/CEC/SCL4/GPIO188
SPI_CS2#/GBE_STAT2/GPIO166
PS2KB_DAT/GPIO189
PS2KB_CLK/GPIO190
PS2M_DAT/GPIO191
PS2M_CLK/GPIO192
KSO_0/GPIO209
KSO_1/GPIO210
KSO_2/GPIO211
KSO_3/GPIO212
KSO_4/GPIO213
KSO_5/GPIO214
KSO_6/GPIO215
KSO_7/GPIO216
KSO_8/GPIO217
KSO_9/GPIO218
KSO_10/GPIO219
KSO_11/GPIO220
KSO_12/GPIO221
KSO_13/GPIO222
KSO_14/GPIO223
KSO_15/GPIO224
KSO_16/GPIO225
KSO_17/GPIO226
USB MISC
USB 1.1
ACPI / WAKE UP EVENTS
USB 2.0
GPIO
USB OC
HD AUDIO
USB 3.0
EMBEDDED CTRL
USBCLK/14M_25M_48M_OSC
USB_RCOMP
R1537 11.8K 0402 1%
USB_FSD1P/GPIO186
USB_FSD1N
USB_FSD0P/GPIO185
USB_FSD0N
USB_HSD13P
USB_HSD13N
USB_HSD12P
USB_HSD12N
USB_HSD11P
USB_HSD11N
USB_HSD10P
USB_HSD10N
USB_HSD9P
USB_HSD9N
USB_HSD8P
USB_HSD8N
USB_HSD7P
USB_HSD7N
USB_HSD6P
USB_HSD6N
USB_HSD5P
USB_HSD5N
USB_HSD4P
USB_HSD4N
USB_HSD3P
USB_HSD3N
USB_HSD2P
USB_HSD2N
USB_HSD1P
USB_HSD1N
USB_HSD0P
USB_HSD0N
USBSS_CALRP
USBSS_CALRN
R1546 1K 0402 1%
R1548 1K 0402 1%
+FCH_VDD_11_SSUSB_S
USB_SS_TX3P
USB_SS_TX3N
USB_SS_RX3P
USB_SS_RX3N
USB_SS_TX2P
USB_SS_TX2N
USB_SS_RX2P
USB_SS_RX2N
USB_SS_TX1P
USB_SS_TX1N
USB_SS_RX1P
USB_SS_RX1N
USB_SS_TX0P
USB_SS_TX0N
USB_SS_RX0P
USB_SS_RX0N
USB30_MTX_DRX_P0 C1717 .1U 0402 16V7K
USB30_MTX_DRX_N0 C1718 .1U 0402 16V7K
USB30TXP (24)
USB30TXN (24)
USB30_MRX_DTX_P0
USB30_MRX_DTX_N0
USB30_MRX_DTX_P0 (24)
USB30_MRX_DTX_N0 (24)
SCL2/GPIO193
SDA2/GPIO194
SCL3_LV/GPIO195
SDA3_LV/GPIO196
R1559 10K 0402 5%
R1560 10K 0402 5%
R1561 10K 0402 5%
R1562 10K 0402 5%
EC_PWM0/EC_TIMER0/GPIO197
EC_PWM1/EC_TIMER1/GPIO198
EC_PWM2/EC_TIMER2/WOL_EN/GPIO199
EC_PWM3/EC_TIMER3/GPIO200
EC_PWM2
EC_PWM2 (16)
KSI_0/GPIO201
KSI_1/GPIO202
KSI_2/GPIO203
KSI_3/GPIO204
KSI_4/GPIO205
KSI_5/GPIO206
KSI_6/GPIO207
KSI_7/GPIO208
USB30_P10 (24)
USB30_N10 (24)
USB30_P6 (24)
USB30_N6 (24)
USB30_P5 (9)
USB30_N5 (9)
USB30_P2 (25)
USB30_N2 (25)
USB30_P1 (24)
USB30_N1 (24)
USB30_P0 (24)
USB30_N0 (24)
FCH-M3L NC pin
FCH-M3L NC pin
FCH-M3L NC pin
FCH-M3L NC pin
Root
Root
Root
USB Conn.
BT
Camera
WWAN
WLAN
USB/B(Right)
USB/B(Right)
USB Conn.
strap pin
S IC 218-0755113 A14 HUDSON M3L 656P 0FA
GPIO187
0 LVDS
1 EDP
Security Classification
Compal Secret Data
Issued Date
2011/10/12
Deciphered Date
2013/10/12
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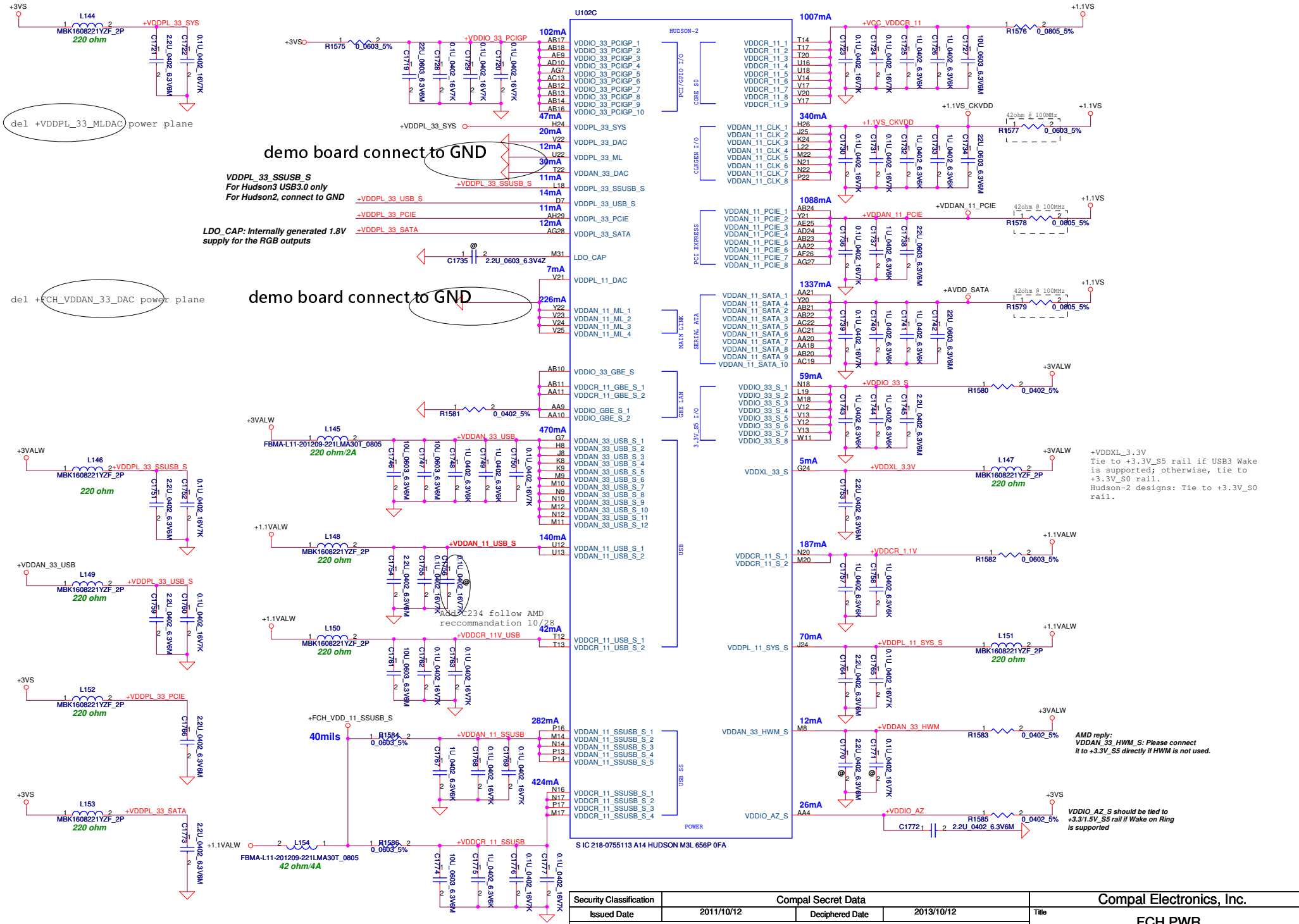
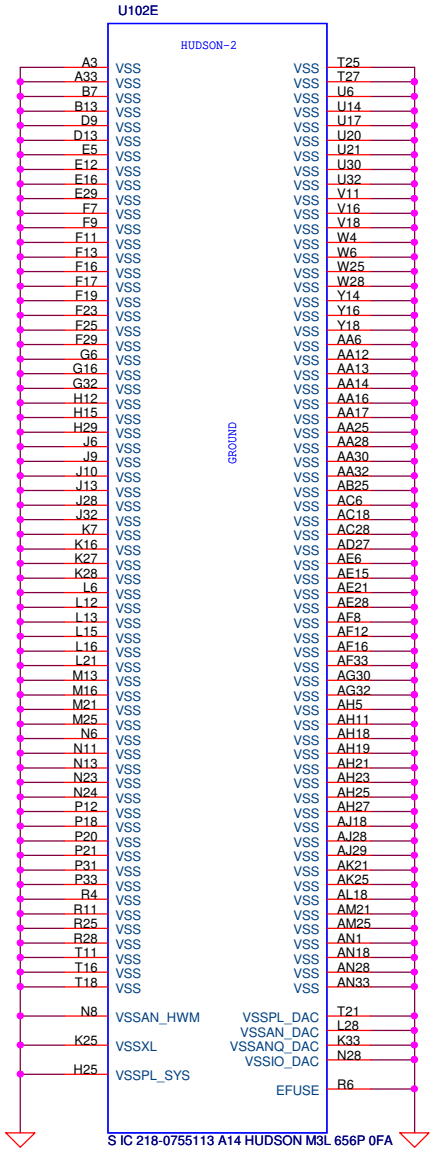
Compal Electronics, Inc.
Title
FCH-ACPI/USB/HDA/GPIO
Size Custom
Document Number
LA8681P
Rev 0.1
Date: Friday, March 02, 2012
Sheet 14 of 37



Security Classification	Compal Secret Data		
Issued Date	2011/10/12	Deciphered Date	2013/10/12

Compal Electronics, Inc.

Title	FCH PWR	
Size: Custom	Document Number: LA8681P	Rev: 0.1
Date: Tuesday, February 07, 2012	Sheet 15 of 37	



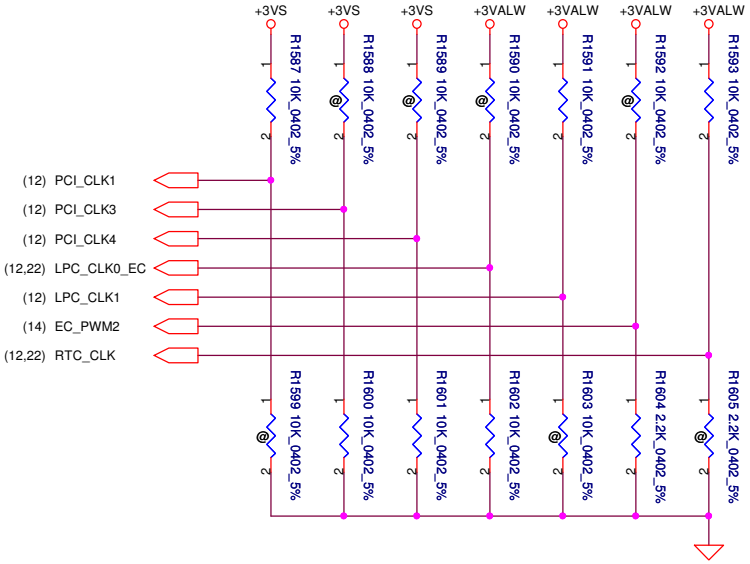
STRAP PINS

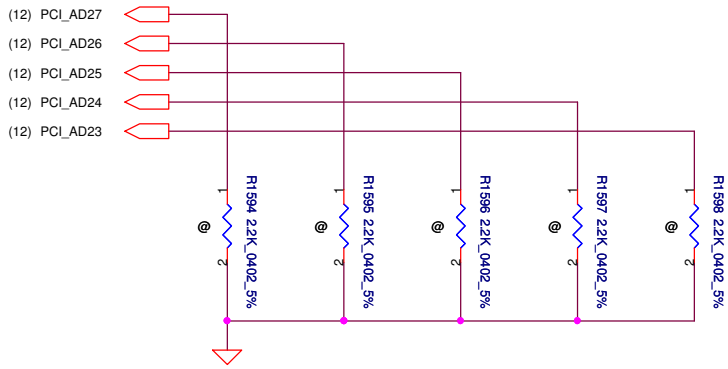
	PCI_CLK1	PCI_CLK3	PCI_CLK4	LPC_CLK0_EC	LPC_CLK1	EC_PWM2	RTC_CLK
PULL HIGH	ALLOW PCIE GEN2 DEFAULT	USE DEBUG STRAPS	NON_FUSION CLOCK MODE	EC ENABLED	CLKGEN ENABLED DEFAULT	LPC ROM	S5 PLUS MODE DISABLED DEFAULT
PULL LOW	FORCE PCIE GEN1	IGNORE DEBUG STRAP DEFAULT	FUSION CLOCK MODE DEFAULT	EC DISABLED DEFAULT	CLKGEN DISABLE	SPI ROM DEFAULT	S5 PLUS MODE ENABLED

DEBUG STRAPS

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

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



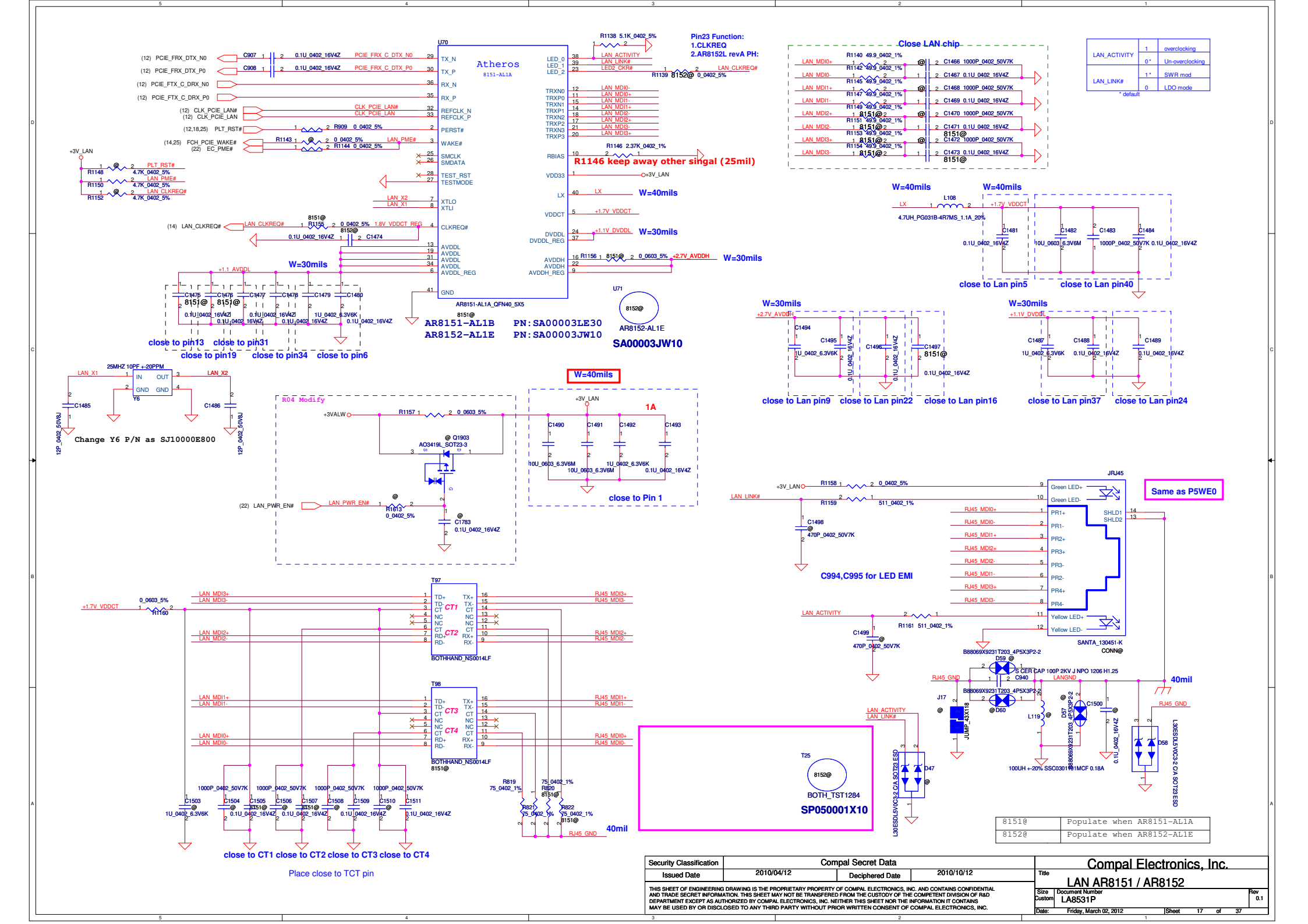


Compal Electronics, Inc.

Title: FCH-VSS/Strap

Size: B | Document Number: LA8681P | Rev: 0.1

Date: Friday, March 02, 2012 | Sheet 16 of 37



LAN_ACTIVITY	1	overclocking
	0 *	Un-overclocking
LAN_LINK#	1 *	SWR mod
	0	LDO mode

* default

Security Classification	Compal Secret Data		
Issued Date	2010/04/12	Deciphered Date	2010/10/12

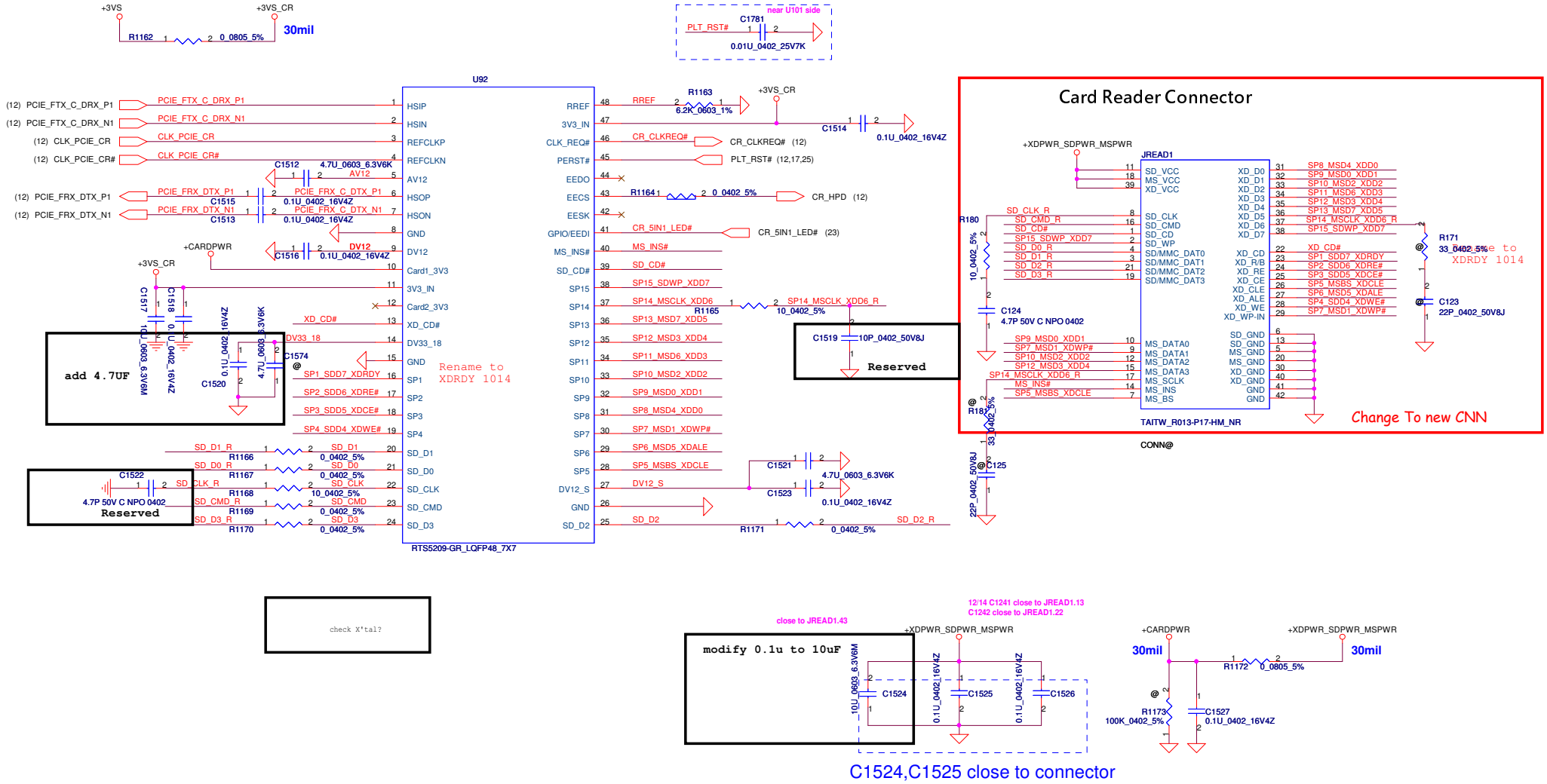
Compal Electronics, Inc.

Title: LAN AR8151 / AR8152

Size	Document Number	Rev
Custom	LA8531P	0.1

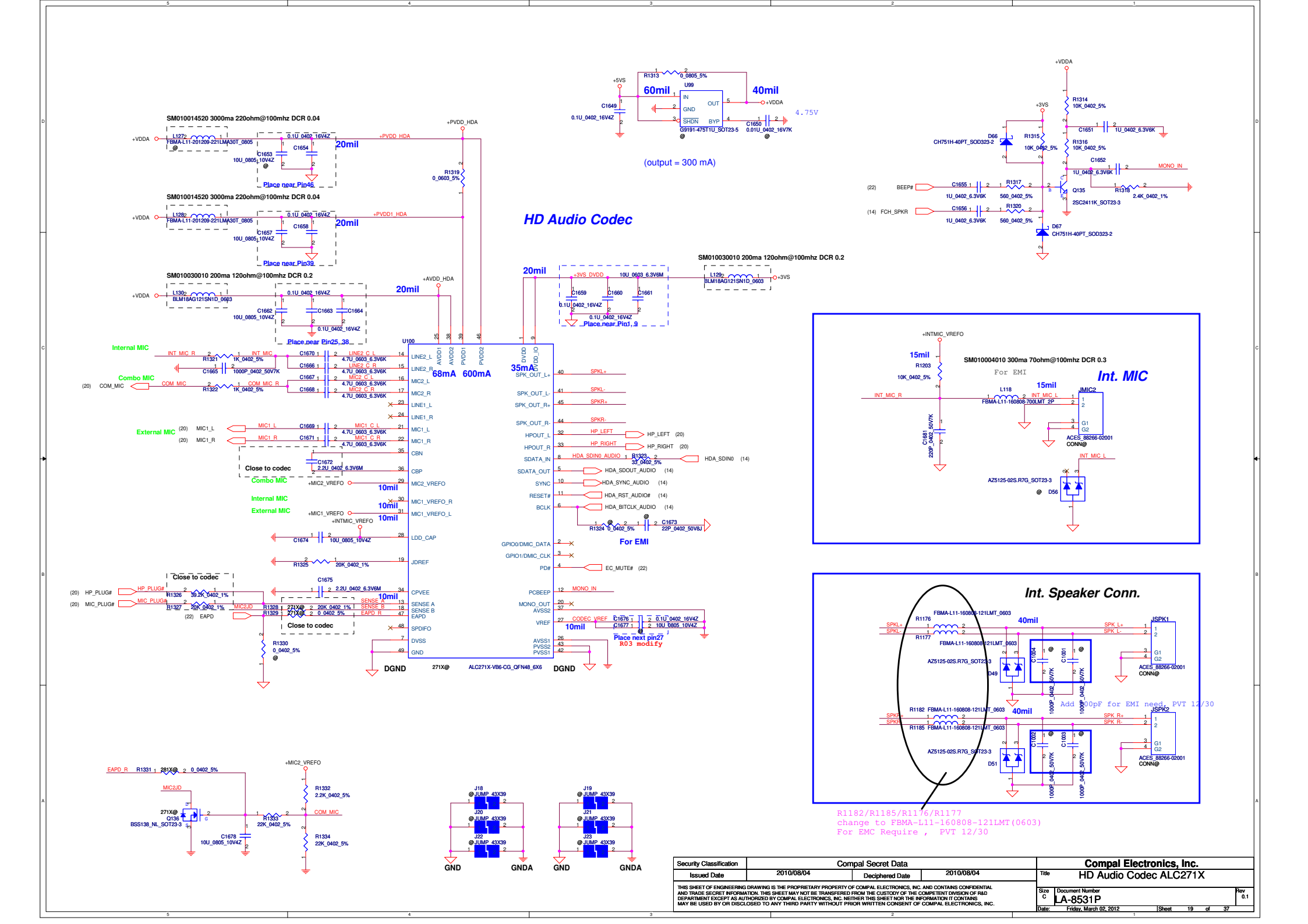
Date: Friday, March 02, 2012 Sheet 17 of 37

RTS5209-GR



Security Classification	Compal Secret Data		
Issued Date	2010/04/12	Deciphered Date	2010/10/12

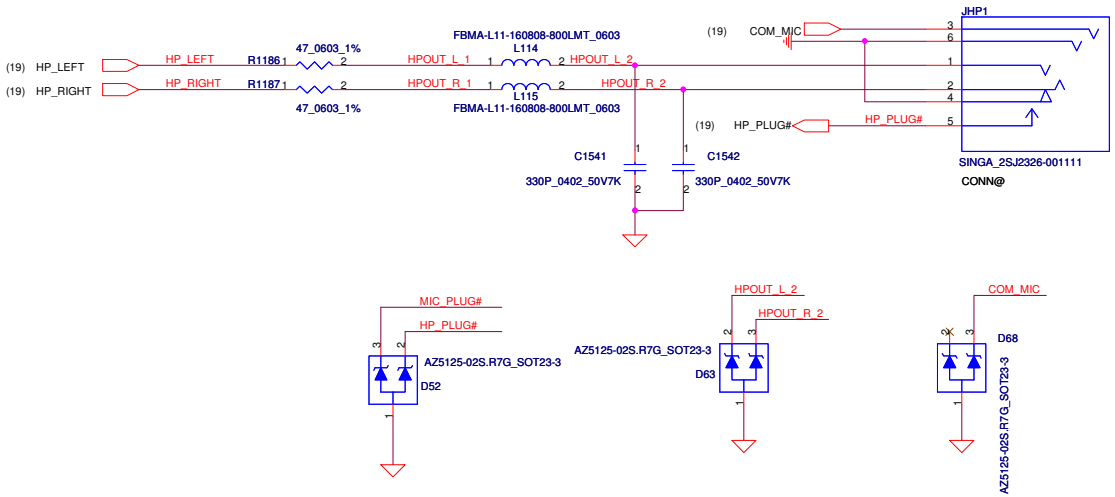
Compal Electronics, Inc.			
Title: CardReader-RTS5209-GR			
Size: Custom	Document Number: LA-8531P		Rev: 0.1
Date: Friday, March 02, 2012	Sheet 18 of 37		



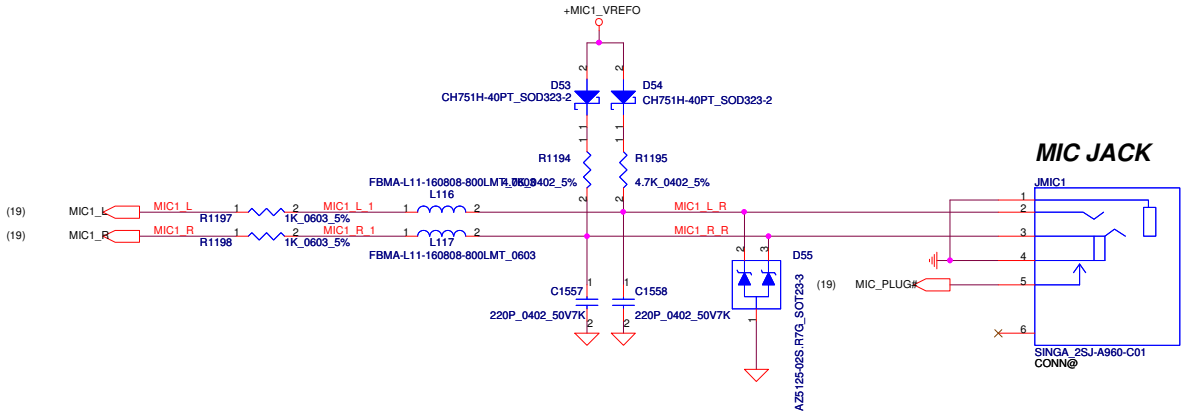
Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.	
Title	HD Audio Codec ALC271X
Size C	Document Number LA-8531P
Rev	0.1
Date: Friday, March 02, 2012	Sheet 19 of 37

Headphone Out



MIC JACK



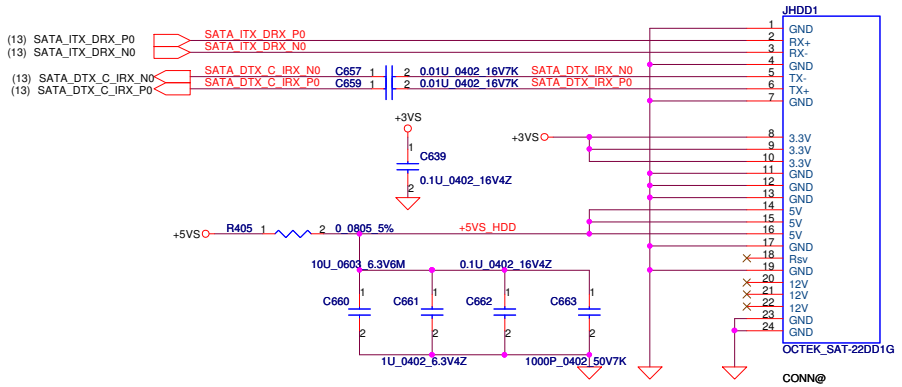
Security Classification	Compal Secret Data		
Issued Date	2010/08/27	Deciphered Date	2011/08/27

Title: **JACK / HP / SPK**

Size	Document Number	Rev
Custom		0.1

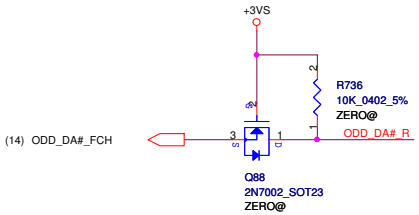
Date: Friday, March 02, 2012 | Sheet 20 of 37

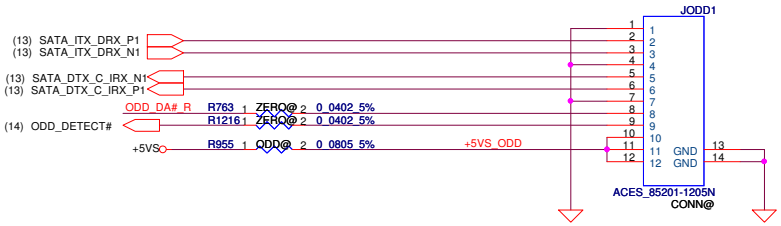
SATA HDD Conn.



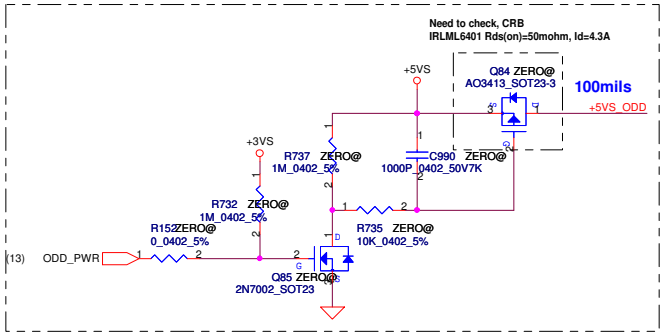
SATA ODD FFC Conn.

SATA ODD Conn.





8/13
Reserve zero power ODD Function



Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: HDD & ODD CONN

Size: Custom | Document Number: LA-8531P | Rev: 0.1

Date: Friday, March 02, 2012 | Sheet 21 of 37

For EC Tools

Place on MiniCard door

Analog Project ID definition

Analog Board ID definition

U26 — KB930QF A1 LQFP 128P
20mil

LPC & MISC | PWM Output | AD Input | DA Output | PS2 Interface | SPI Device Interface | SPI Flash ROM | Int. K/B Matrix | SM Bus | GPIO | GPO | GPI

No use for Scheck list

For LED INV_PWM freq to 1K

Reserve for EMI, close to EC

change to 10pF ,12/28 PVT

near EC side

EC_THERM — Low Active (+1.5V) — High Active — Q138 2N7002K_SOT23-3

X1 32.768KHZ_12.5PF_Q13MC14610002

9012@ U26 KB9012QF-A3_LQFP128_14X14
Part Number = SA00004OB20

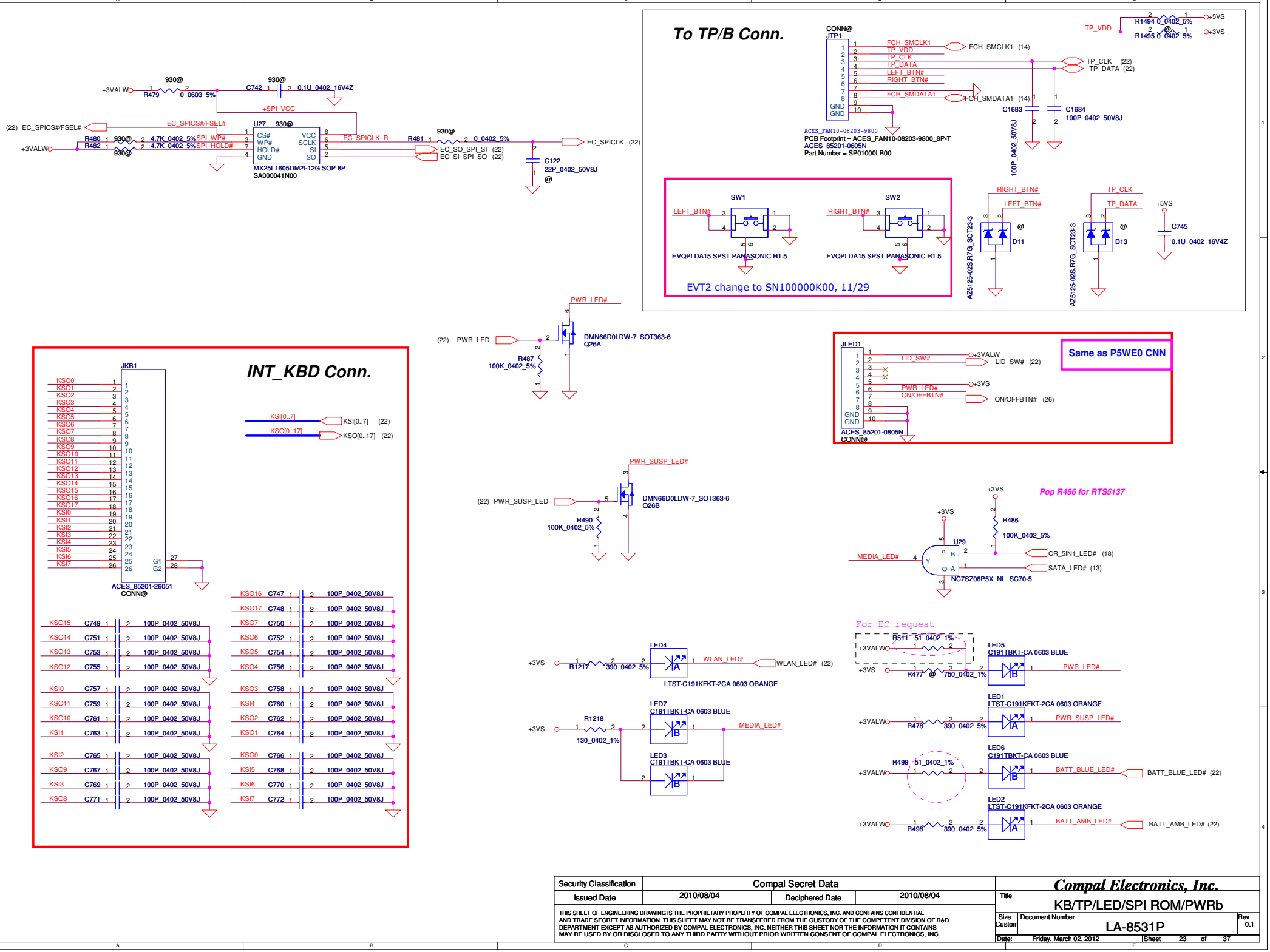
Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: EC ENE KB930

Size: Custom | Document Number: LA-8531P | Rev: 0.1

Date: Friday, March 02, 2012 | Sheet 22 of 37



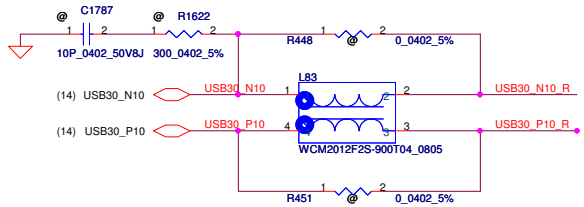
Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

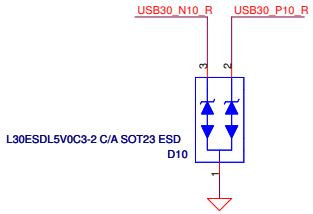
Compal Electronics, Inc.

Title: KB/TP/LED/SPI ROM/PWRb

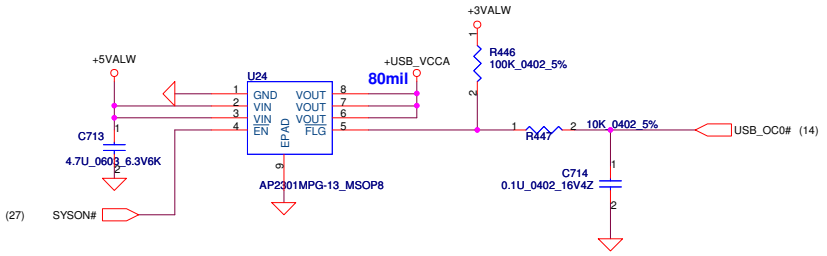
Size	Document Number	Rev
Custom	LA-8531P	0.1

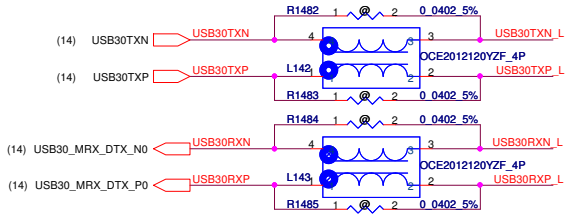
Date: Friday, March 02, 2012 Sheet 23 of 37

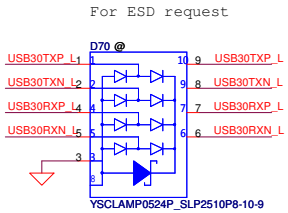


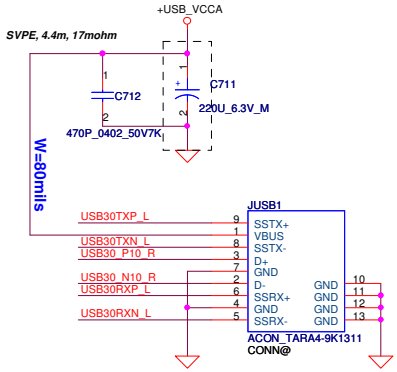


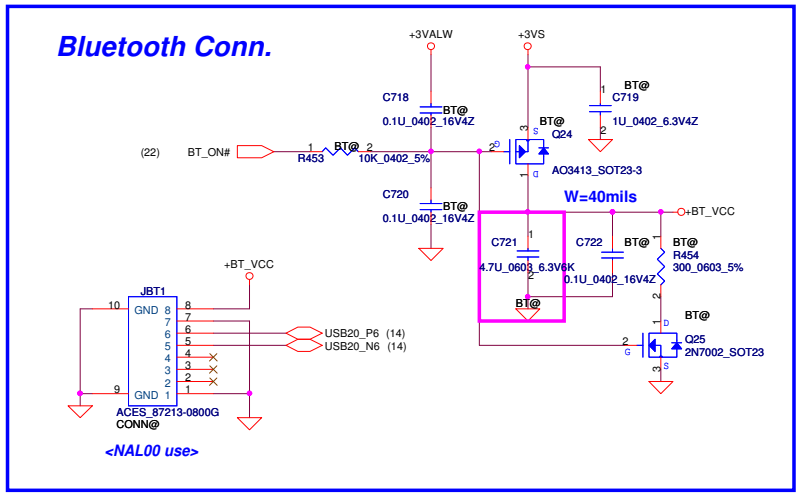
ESD Change P/N SCA00001L00

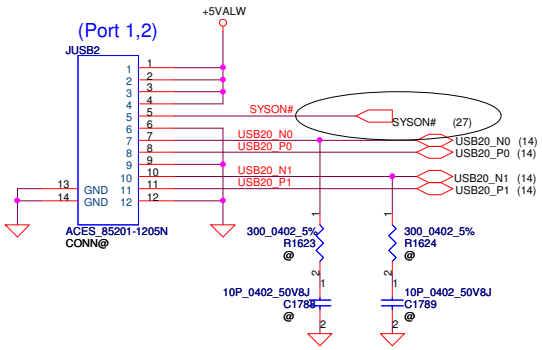












Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

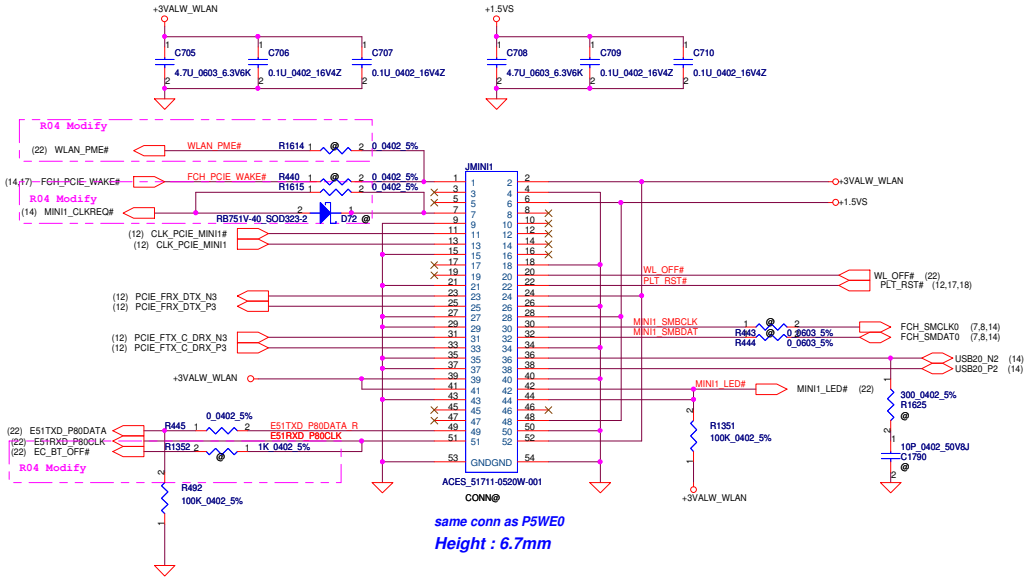
Compal Electronics, Inc.

Title: USB/BT

Size	Document Number	Rev
Custom	LA-8531P	0.1

Date: Friday, March 02, 2012 | Sheet 24 of 37

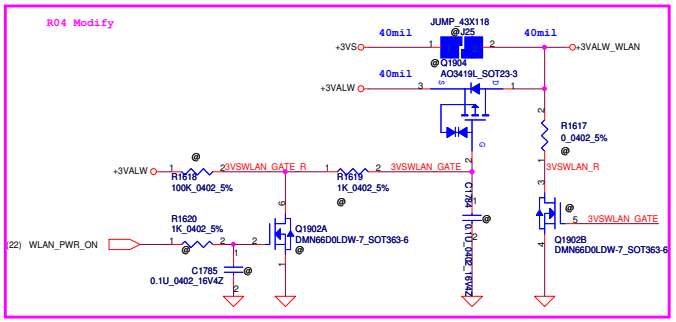
Mini-Express Card for WLAN



same conn as P5WE0

Height : 6.7mm

Mini Card Power Rating			
Power	Primary Power (mA)		Auxiliary Power (mA)
	Peak	Normal	Normal
+3VS	1000	750	
+3V	330	250	250 (wake enable)
+1.5VS	500	375	5 (Not wake enable)



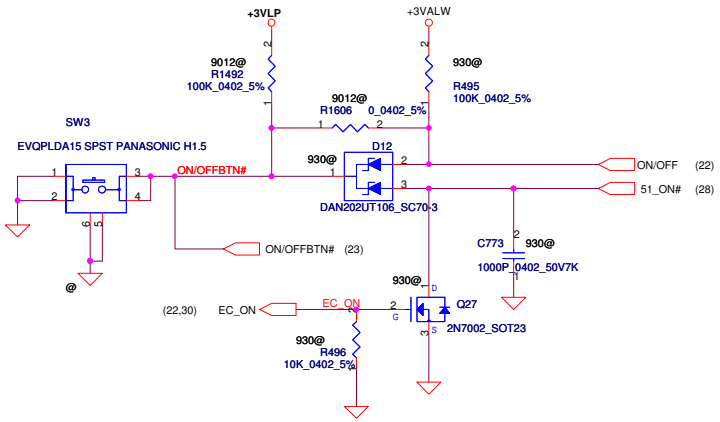
Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

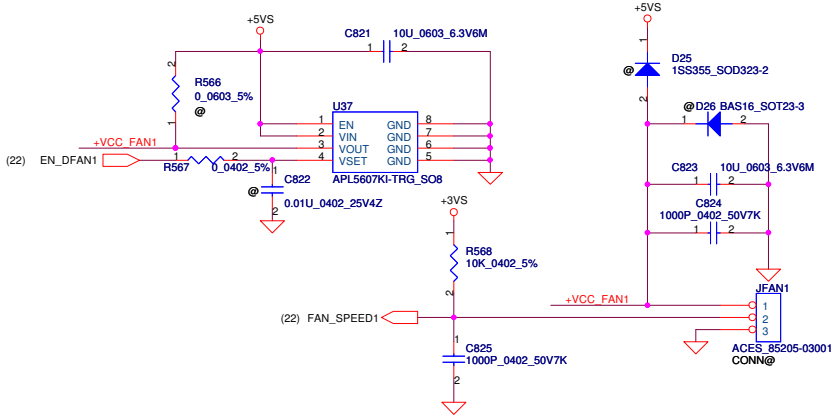
Compal Electronics, Inc.

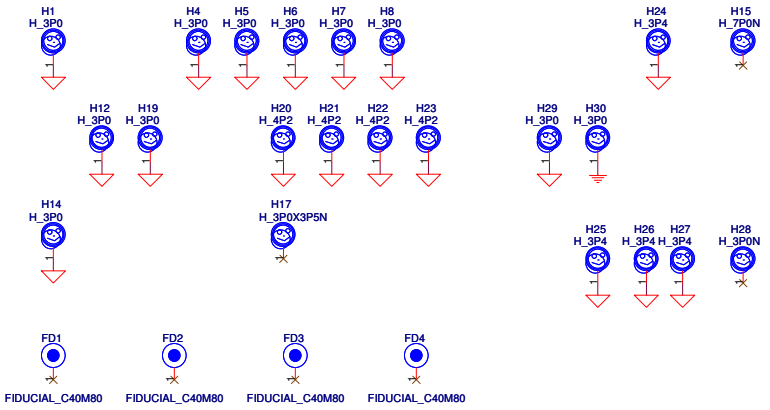
Title: MINI CARD

Size	Document Number	Rev
	LA-8531P	0.1

Date: Friday, March 02, 2012 | Sheet 25 of 37







Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

Compal Electronics, Inc.

Title: Other IO/USB (right)

Size	Document Number	Rev
Custom	LA-8531P	0.1

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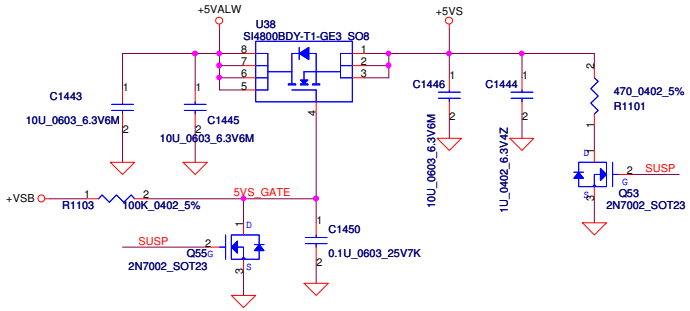
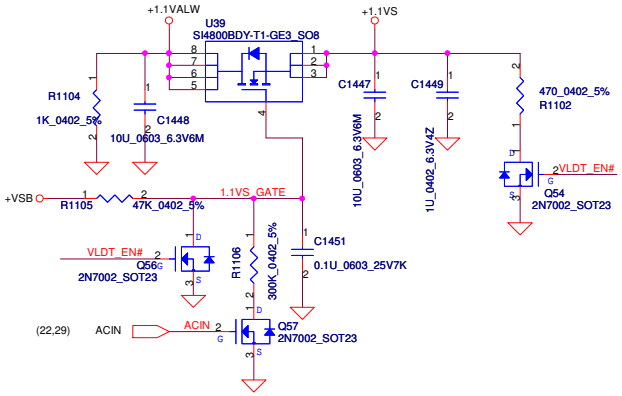
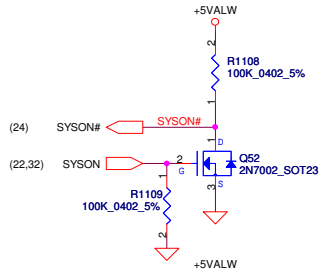
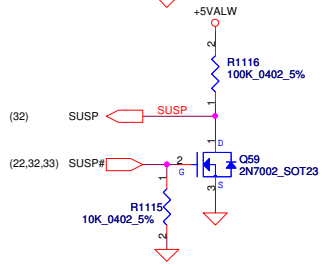
+5VALW TO +5VS



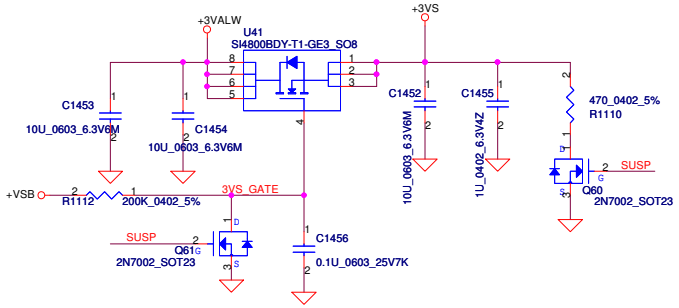
+1.1VALW TO +1.1VS



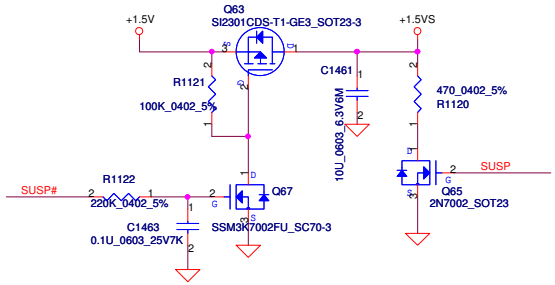


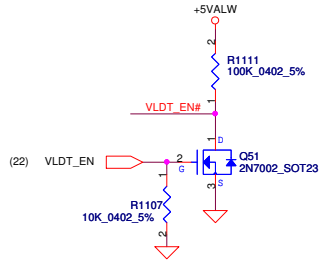


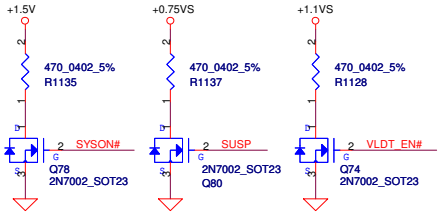
+3VALW TO +3VS



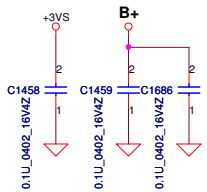
+1.5V TO +1.5VS







10/26 FOR EMI



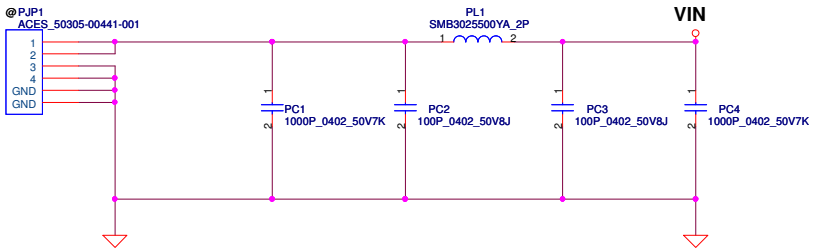
Security Classification	Compal Secret Data		
Issued Date	2010/08/04	Deciphered Date	2010/08/04

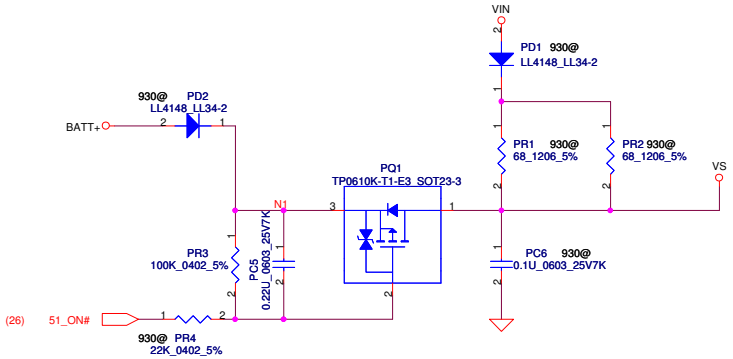
Compal Electronics, Inc.

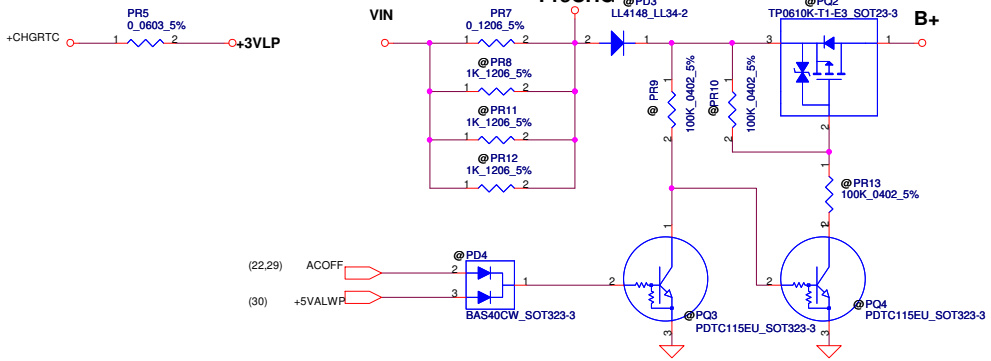
Title: DC Interface

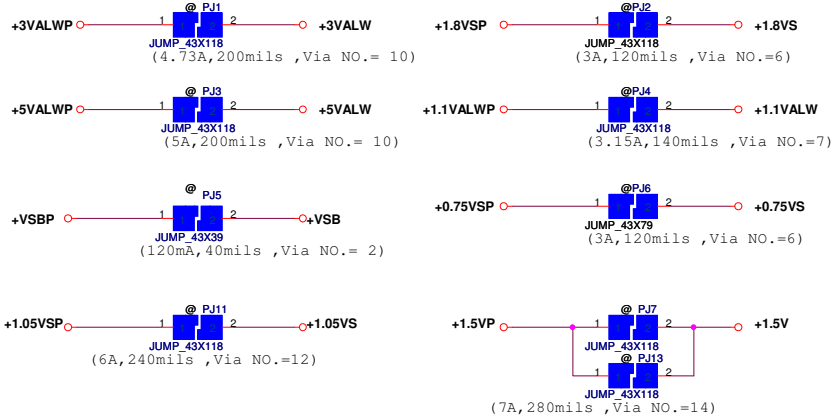
Size	Document Number	Rev
Custom	LA-8531P	0.1

Date: Friday, March 02, 2012 | Sheet 27 of 37









Compal Electronics, Inc.

Title: PWR DCIN / Pre-charge

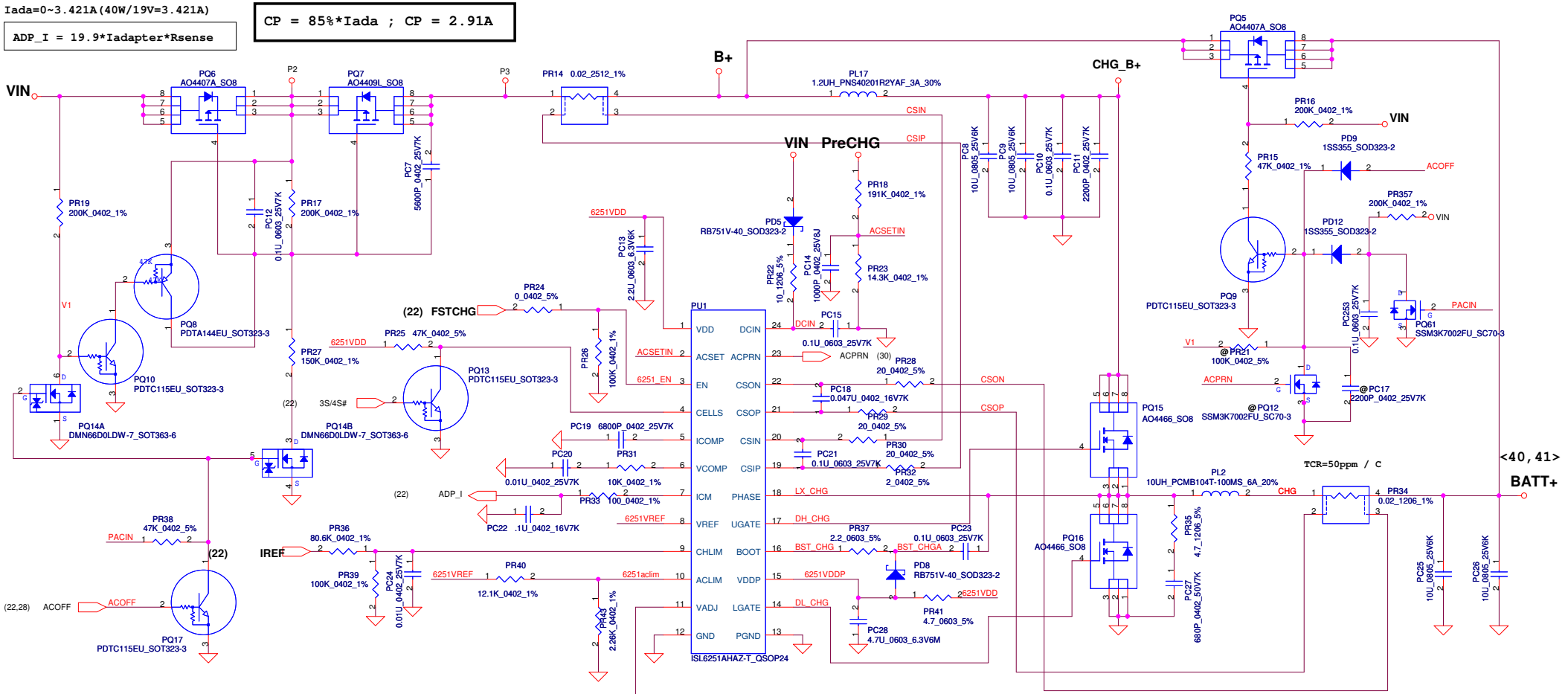
Size: Custom | Document Number: Q5WT6 M/B LA-8531 Schematic | Rev: 0.1

Date: Friday, March 02, 2012 | Sheet 28 of 37

Iada=0~3.421A(40W/19V=3.421A)

ADP_I = 19.9*Iadapter*Rsense

CP = 85%*Iada ; CP = 2.91A



CP mode

Iinput=(1/0.02)(0.02*Vaclm/2.39+0.02)

where Vaclm=0.396V, Iinput=2.91A

BATT Type	Charging Voltage (0x15)	CV mode
Normal 3S LI-ON Cells	12600mV	12.60V

CC=0.6~4.48A

IREF=0.7224*Icharge

IREF=0.43V~3.24V

Ki

Vchlim=Iref*(PR374/(PR372+PR374))

=Iref*(100K/(80.6K+100K))

=Iref*0.5537

Ichanrge=(165mV/PR369)*(Vchlim/3.3V)

=(165m/20m)*(1/3.3V)*Iref*0.5537

=1.3842*Iref

Iref=0.7224*Ichanrge =>Ki=0.7224

Kv

Rinternal ic=514K Rec=3K R1=PR379=15.4K R2=PR381=31.6K

R=514K//31.6K//(15.4K+3k)=11.372K

r=514K//514K//31.6K=28.14K

Vcell=0.175*Vadj+3.99v

4.2V=0.175*Vadj+3.99V =>Vadj=1.2V

Vadj=Vref*(R/(R+514K))+CALIBRATE*(r/(r=514K))

1.1483=CALIBRATE*0.6046 =>CALIBRATE=1.899

1.899=(4.2-(Vcell+A*0.175))*Kv=(4.2-(4.2+A*0.175))*Kv

A=Vref*(R/(R+514K))=0.052

Kv=9.451

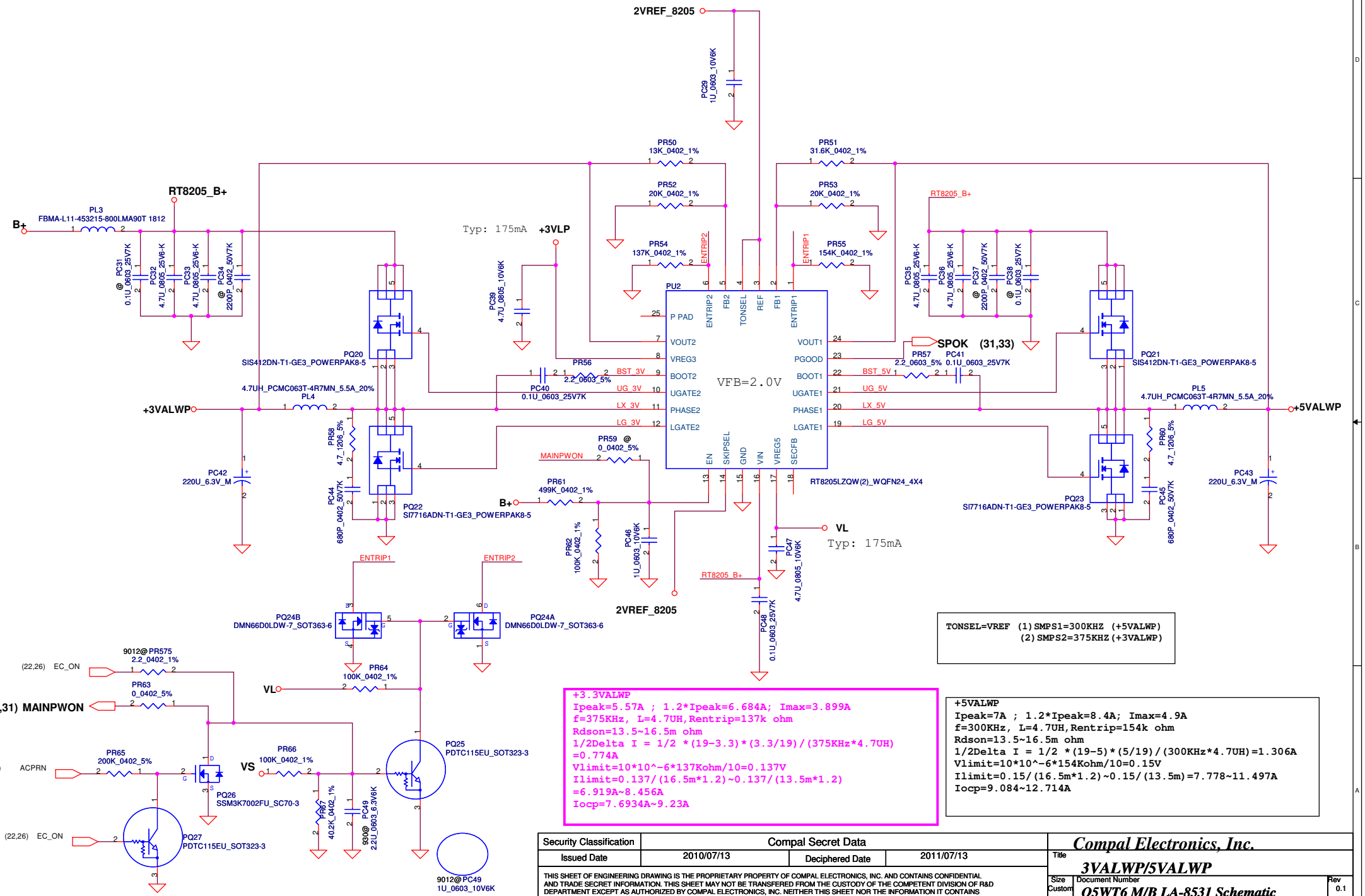
Security Classification	Compal Secret Data		
Issued Date	2010/07/13	Deciphered Date	2011/07/13

Compal Electronics, Inc.

Title: PWR-CHARGER

Size: Custom | Document Number: Q5WT6 M/B LA-8531 Schematic | Rev: 0.1

Date: Friday, March 02, 2012 | Sheet 29 of 37



Security Classification	Compal Secret Data		
Issued Date	2010/07/13	Deciphered Date	2011/07/13

Compal Electronics, Inc.

Title: 3VALWP/5VALWP

Size: Custom | Document Number: Q5WT6 M/B LA-8531 Schematic | Rev: 0.1

Date: Friday, March 02, 2012 | Sheet 30 of 37

CONN@ PJP2
SUYIN_200275GR008G13GZR

GND
GND
EC_SMDA
EC_SMCA
TH
PI

VMB

PL6
SMB3025500YA_2P

BATT+

PC51
1000P_0402_50V7K

PC52
0.01U_0402_25V7K

PR70
1K_0402_5%

PR68
100_0402_1%

PR69
100_0402_1%

PR73
6.49K_0402_1%

PR75
1K_0402_1%

EC_SMB_DA1 (22)
EC_SMB_CK1 (22)
+3VALWP
BATT_TEMP (22)

PH1 under CPU botten side :
CPU thermal protection at 92 degree C
Recovery at 56 degree C

VL
PC50
0.1U_0603_25V7K

VL
@PR74
100K_0402_1%

(22,30) MAINPWON

PU3
VCC TMSNS1
GND RHYST1
OT1 TMSNS2
OT2 RHYST2
G718TM1U_SOT23-8

PR71
10K_0402_1%

PR72
21K_0402_1%

PR76
9.53K_0402_1%

@PR77
47K_0402_1%

(22) 9012_PH1
@PR124
0_0402_5%

(22) 9012_VCIN
@PR125
0_0402_5%

PH2 @
100K_0402_1%_NCP15WF104F03RC

PH1
100K_0402_1%_NCP15WF104F03RC

PQ28
TP0610K-T1-E3_SOT23-3

B+
+VSBP

PR78
100K_0402_1%

PC53
0.22U_0603_25V7K

PC54
0.1U_0603_25V7K

PR79
22K_0402_1%

VL
PR80
100K_0402_1%

PR81
1K_0402_5%

(30,33) SPOK

PQ29
SSM3K7002FU_SC70-3

PC55
1U_0402_6.3V6K

Security Classification	Compal Secret Data		
Issued Date	2010/07/13	Deciphered Date	2011/07/13

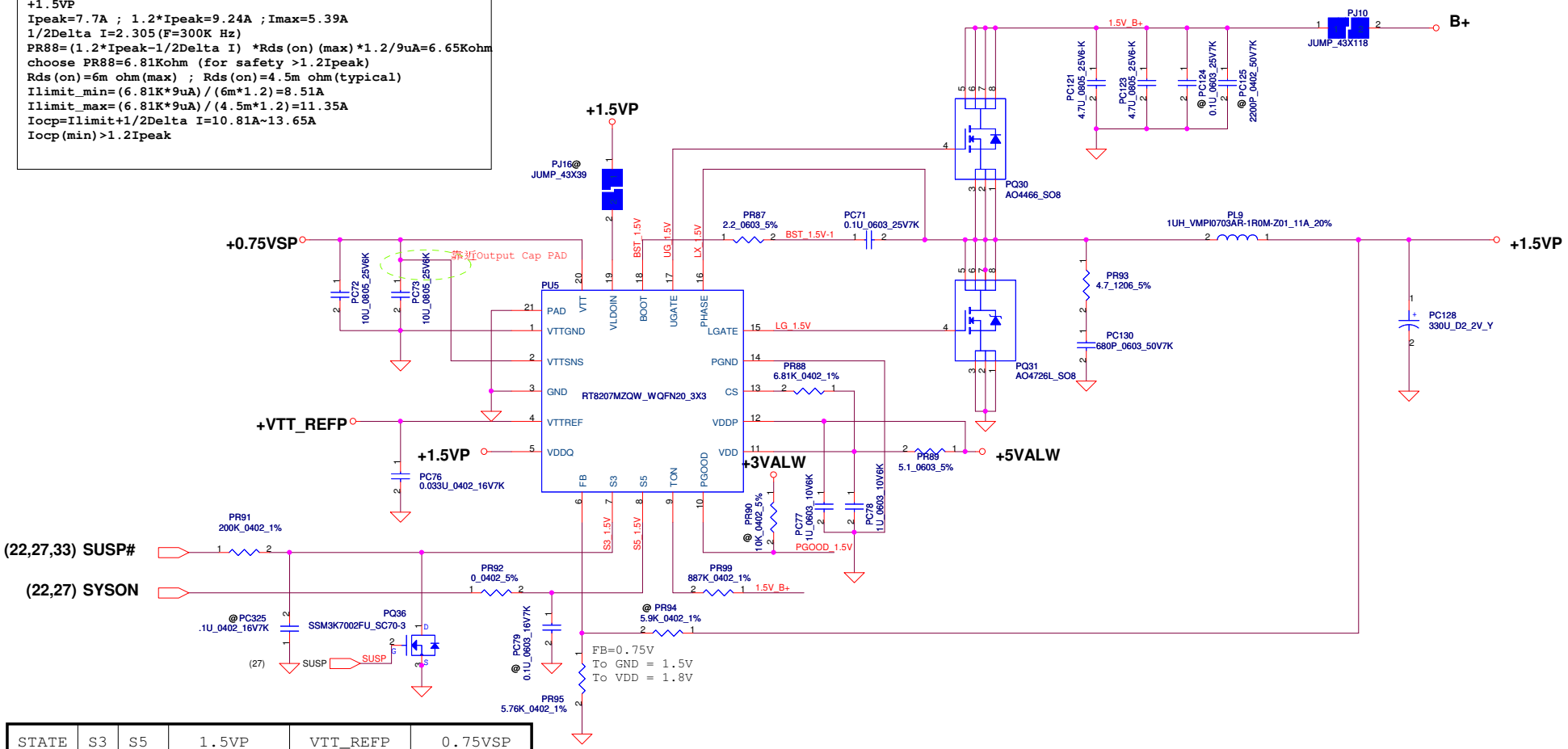
Compal Electronics, Inc.

Title: PWR-BATTERY CONN/OTP

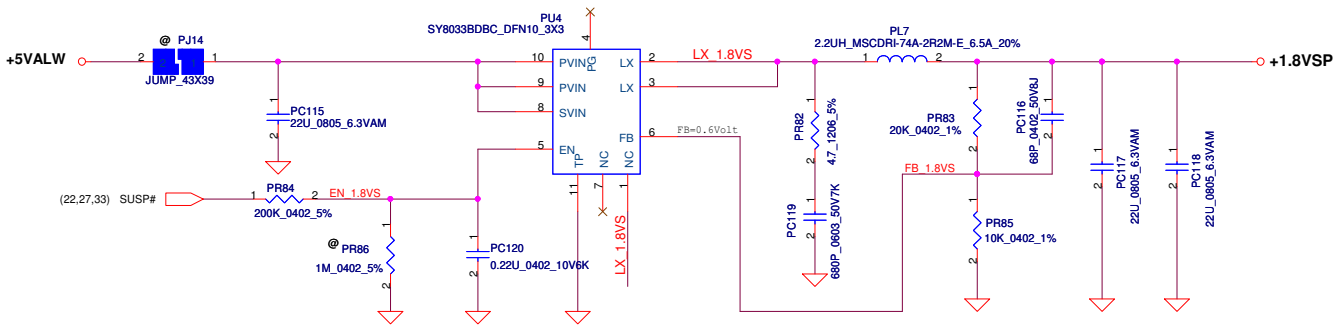
Size: Custom | Document Number: Q5WT6 M/B LA-8531 Schematic | Rev: 0.1

Date: Friday, March 02, 2012 | Sheet 31 of 37

```
+1.5VP
Ipeak=7.7A ; 1.2*Ipeak=9.24A ;Imax=5.39A
1/2Delta I=2.305(F=300K Hz)
PR88=(1.2*Ipeak-1/2Delta I) *Rds(on)(max)*1.2/9uA=6.65Kohm
choose PR88=6.81Kohm (for safety >1.2Ipeak)
Rds(on)=6m ohm(max) ; Rds(on)=4.5m ohm(typical)
Ilimit_min=(6.81K*9uA)/(6m*1.2)=8.51A
Ilimit_max=(6.81K*9uA)/(4.5m*1.2)=11.35A
Iocp=Ilimit+1/2Delta I=10.81A~13.65A
Iocp(min)>1.2Ipeak
```



STATE	S3	S5	1.5VP	VTT_REFP	0.75VSP
S0	Hi	Hi	On	On	On
S3	Lo	Hi	On	On	Off (Hi-Z)
S4/S5	Lo	Lo	Off (Discharge)	Off (Discharge)	Off (Discharge)
Note: S3 - sleep ; S5 - power off					



Security Classification	Compal Secret Data		
Issued Date	2010/01/25	Deciphered Date	2009/04/28

Compal Electronics, Inc.			
Title	1.8VSP/1.5VP/0.75VSP		
Size: Custom	Document Number		Rev: 0.1
Date: Friday, March 02, 2012		Sheet 32 of 37	

VFB= 0.704V
Vo=VFB*(1+PR103/PR104)= 1.103V
Freq= 266~314KHz , 290KHz(typ)

Ipeak=4.5A ;1.2*Ipeak=5.4A ;Imax=3.15A
1/2Delta I=0.785A (F=290K Hz)
PR123=(1.2Ipeak-1/2Delta I) *Rds(on)(max)*1.2*8/9uA=88.6Kohm
choose PR123=90.9Kohm (for safety >1.2Ipeak)
Rds(on)=18m ohm(max) ; Rds(on)=15m ohm(typical)
Ilimit_min=(90.9K*9uA)/(8*18m*1.2)=6.25A
Ilimit_max=(90.9K*9uA)/(8*15m*1.2)=7.5A
Iocp=Ilimit+1/2Delta I=7.035A~8.285A
Iocp(min)>1.2Ipeak

PL10
HCB2012KF-121T50_0805
+1.1_VALW_B+
B+
PQ32
AO4466_SO8
@ PC134 0.1U_0402_25V6
@ PC135 2200P_0402_50V7K
PC132 4.7U_0805_25V6-K
PC133 4.7U_0805_25V6-K
PR123 90.9K_0402_1%
PR97 330K_0402_1%
(30,31) SPOK
PC136 0.1U_0402_16V7K
PU6
PGOOD VBST
TRIP DRVH
EN SW
VFB V5IN
TST DRVL
TP
TPS51212DSCR_SON10_3X3
TRIP_+1.1VALW
EN_+1.1VALW
FB_+1.1VALW
RF_+1.1VALW
BST_+1.1VALW
UG_+1.1VALW
SW_+1.1VALW
+1.1VALW_5V
LG_+1.1VALW
PR98 2.2_0603_5%
PC137 0.1U_0603_25V7K
+5VALW
PC140 1U_0603_10V6K
PR122 470K_0402_1%
PQ33
AO4712_SO8
PL11
2.2UH_FDVE0630-H-2R2M=P3_8.3A_20%
+1.1VALWP
@PR126 4.7_1206_5%
@PC105 680P_0402_50V7K
PC138 330U_6.3V_M
Rds=15mΩ(Typ)
18mΩ(Max)
VFB=0.7V
PR103 5.76K_0402_1%
PR104 10K_0402_1%

VFB= 0.704V
Vo=VFB*(1+PR121/PR120)= 1.05V
Freq= 266~314KHz , 290KHz(typ)

Ipeak=5.7A ;1.2*Ipeak=6.84A ;Imax=3.899A
1/2Delta I=0.751A (F=290K Hz)
PR112=(1.2Ipeak-1/2Delta I) *Rds(on)(max)*1.2*8/9uA=45.5Kohm
choose PR112=49.9Kohm (for safety >1.2Ipeak)
Rds(on)=7m ohm(max) ; Rds(on)=5.3m ohm(typical)
Ilimit_min=(49.9K*9uA)/(8*7m*1.2)=8.02A
Ilimit_max=(49.9K*9uA)/(8*5.3m*1.2)=10.592A
Iocp=Ilimit+1/2Delta I=8.771A~11.343A
Iocp(min)>1.2Ipeak

PL12
HCB2012KF-121T50_0805
+1.05VS_VTTP_B+
B+
PQ34
AO4466_SO8
@ PC206 0.1U_0402_25V6
@ PC145 2200P_0402_50V7K
PC142 4.7U_0805_25V6-K
PC143 4.7U_0805_25V6-K
PR112 49.9K_0402_1%
PR106 330K_0402_1%
(22,27,32) SUSP#
PC146 0.1U_0402_16V7K
PU7
PGOOD VBST
TRIP DRVH
EN SW
VFB V5IN
TST DRVL
TP
TPS51212DSCR_SON10_3X3
TRIP_+1.05VS_VTTP
EN_+1.05VS_VTTP
FB_+1.05VS_VTTP
RF_+1.05VS_VTTP
BST_+1.05VS_VTTP
UG_+1.05VS_VTTP
SW_+1.05VS_VTTP
+1.05VS_VTTP_5V
LG_+1.05VS_VTTP
PR107 2.2_0603_5%
PC147 0.1U_0603_25V7K
+5VALW
PC150 1U_0603_10V6K
PR118 470K_0402_1%
PQ35
AO4726L_SO8
PL13
2.2UH_FDVE0630-H-2R2M=P3_8.3A_20%
+1.05VSP
PR119 4.7_1206_5%
PC104 680P_0402_50V7K
PC148 330U_6.3V_M
Rds=5.3mΩ(Typ)
7mΩ(Max)
VFB=0.7V
PR121 4.99K_0402_1%
PR120 10K_0402_1%

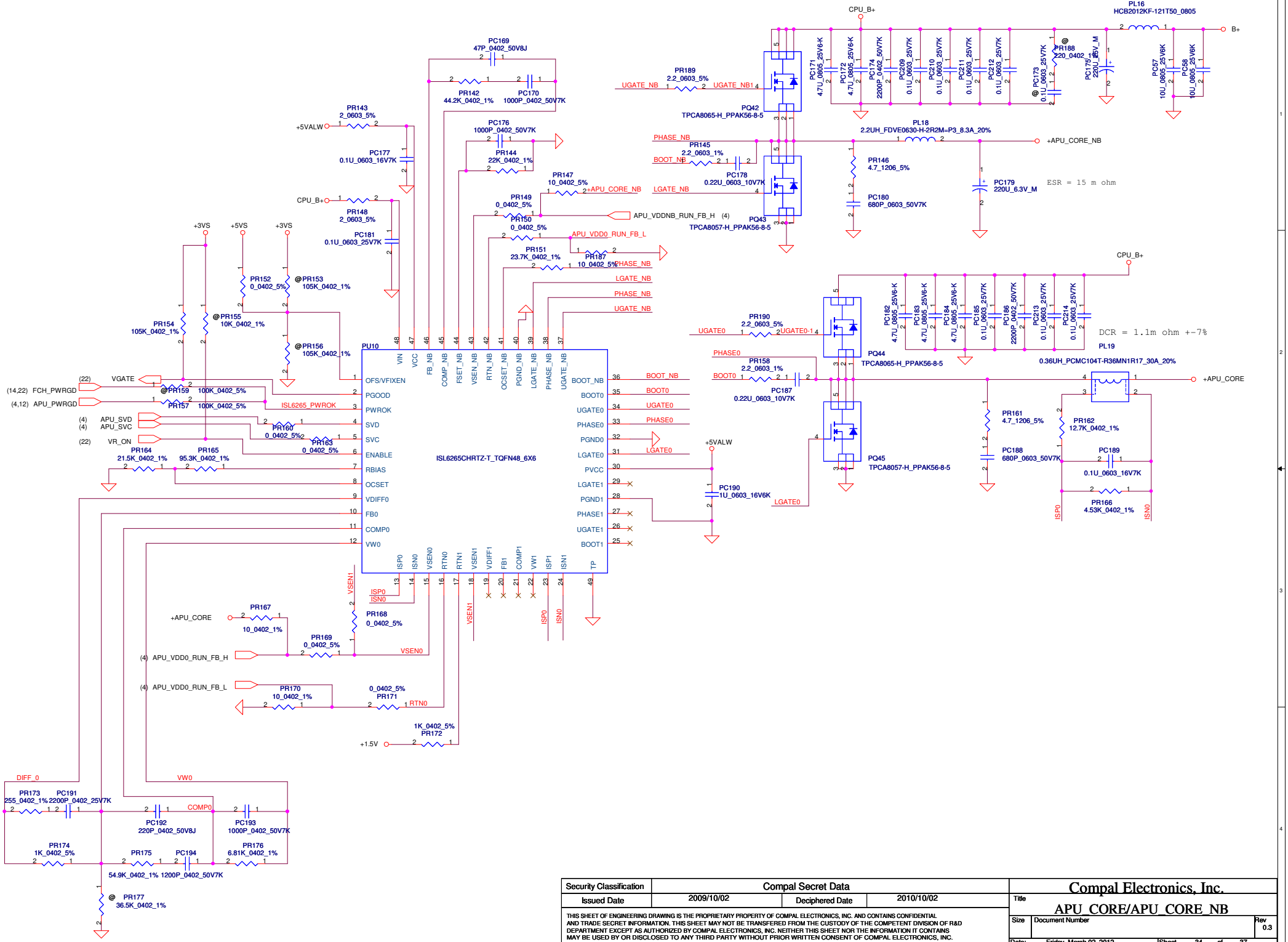
Security Classification	Compal Secret Data		
Issued Date	2010/01/25	Deciphered Date	2009/04/28

Compal Electronics, Inc.

Title: 1.1VALWP/1.05VSP

Size	Document Number	Rev
Custom		0.1

Date: Friday, March 02, 2012 | Sheet 33 of 37



Security Classification	Compal Secret Data		
Issued Date	2009/10/02	Deciphered Date	2010/10/02

Compal Electronics, Inc.

Title: APU_CORE/APU_CORE_NB

Size	Document Number	Rev
		0.3

Date: Friday, March 02, 2012 Sheet 34 of 37

Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1		Modify 40W adapter CP point	0.1	29	PR14 change to SD00000CI10 (S RES 1/2W 0.05 +-1% 1206 100PPM/C) PR40 change to SD034470180 (S RES 1/16W 4.7K +-1% 0402)	2011/10/28	EVT
2		Modify +1.05VSP OCP	0.1	33	PR112 change to SD034499280 (S RES 1/16W 49.9K +-1% 0402)	2011/10/28	EVT
3		Modify +1.1VALWP OCP	0.1	33	PR123 change to SD034909280 (S RES 1/16W 90.9K +-1% 0402)	2011/10/28	EVT
4		Modify +1.5VP OCP	0.1	32	PR88 change to SD034681180 (S RES 1/16W 6.81K +-1% 0402)	2011/10/28	EVT
5		Modify ISN CHOKE P/N	0.1	29	PL17 change to SH00000N300 (S COIL 1.2UH +-30% PNS40201R2YAF 3A)	2011/10/28	EVT
6		Modify bead P/N	0.1	30	PL3 change to SM01000JF00 (S SUPPRE_ FBMA-L11-453215-800LMA90T 1812)	2011/10/28	EVT
7		Change boost resister from 0 ohm to 2.2 ohm for RT8207 & TPS51125	0.1	30	PR87 & PR98 & PR107 change from 0 ohm to 2.2 ohm	2011/11/17	EVT2
8		Modify power sequence for RT8207(+1.5VP & 0.75VSP)	0.1	30	PR91 change from 0 ohm to 200K ohm	2011/11/17	EVT2
9		Modify compoment P/N for material issue	0.1	29	PQ7 change from SB00000I600(S TR SI4459ADY-T1-GE3 1P SO8) to SB00000JD10 (S TR AO4409L 1P SO8)	2011/11/23	EVT2
10		design change for EC(9012)	0.1	28	delete PD1,PD2,PR1,PR2,PR4,PC6	2011/11/28	EVT2
11		design change for EC(9012)	0.1	29	add PR575(S RES 1/16W 2.2 +-1% 0402) PC49 change to 1U_0603_10V6K	2011/11/28	EVT2
12		design change for EC(9012)	0.1	31	add PR124(0_0402_5%)	2011/11/28	EVT2
13 14 15		Improve EMI performance	0.2		change PR56,PR57 from 0 ohm to 2.2 ohm add PR58,PR60,PR93,PR119 (SD001470B80,S RES 1/4W 4.7 +-5% 1206) add PC44,PC45,PC104 (SE074681K80,S CER CAP 680P 50V K X7R 0402) add PC130 (SE025681K80,S CER CAP 680P 50V K X7R 0603) change PR189,PR190 from 0 ohm to 2.2 ohm	2011/12/20	DVT
16		Modify +5VALW voltage for USB port voltage drop (HW request +5VALW up 3%)	0.2	31	change PR51 from 30K ohm to 31.6K ohm	2011/12/20	DVT

Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1		Modify compoment P/N for material shortage issue	0.2		change PC8,PC9,PC25,PC26,PC57,PC58 to SE00000QK00 (S CER CAP 10U 25V K X5R 0805 H1.25	2011/12/20	DVT
2		Change OTP from 9012 to G718	0.2	31	Delete PR124 (0_0402_5%)	2011/12/28	DVT
3		Change CP for 65W adapter	0.3	29	Change PR14 from SD00000CI10(S RES 1/2W 0.05 +-1% 1206 100PPM/C) to SD000001F00 (S RES 1W .02 +-1% 2512)	2012/2/6	PVT
4		Change CP for 65W adapter	0.3	29	Change PR40 from 4.7K to 4.7K Change PR43 from 20K to 2.26K	2012/2/6	PVT
5		Modify for compoment common P/N	0.3	32	change PQ36 from SB000009Q80 to SB000009610	2012/2/13	PVT
6		Modify for compoment P/N for cost concern	0.3	32	change PC128 from SGA00002280 (S POLY C 330U 2.5V Y D2 LESR15M CX H1.9) to SGA20331E10 (S POLY C 330U 2V Y D2 LESR9M EEFSX H1.9)	2012/2/24	PVT
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							

2011/10/06
P13. DEL net SMIB(R1219)
for EMC request
P17. change C940 to 120PF (SE00000U400)
P23. modify C747~C772 BOM structure
for ESD request
P17. modify D58 BOM structure
P19. modify D49 D51 BOM structure
P20. moidfy D52 D55 D63 D68 BOM structure
P24. modify D10 BOM structure

2011/10/11
P26. del H6
update PWR schematic

2011/10/14
for ESD request
P19. change D56 to SCA00001A00
update PWR schematic
P25. change C1576 to 150UF
P24. change JUSB1 to DC233007O00

2011/10/18
update PWR schematic

2011/10/19
P02. update page no.
P19. change U100,pin26 to AGND
P21. add JTP2
P26. del H28,29 add H28_3P0
update PWR schematic

2011/10/24
P09. R393 pin1 change to +3VS
R396 change to 0402 size
P27. R1101,R1102,R1110,R1120,R1128,R1135,R1137
change to 0402 size
for EMC request
P17. change C940 to 100pf SE00000U900

2011/10/26
for EMC request
P27. modify C1457~C1460, Add C1686
for EC request
P22. Add C1685
for PWR request
P30. change PL3 to SM01000JF00

2011/10/28
P02. update block diagram
P19. change JUMP location to J18~J23

2011/10/31
update PWR schematic

2011/11/18
P12. Change chipset to M3L
P14. Add GPIO189 for panel BOM control
P22. co-lay KB930/9012
P23. update JTP1 footprint
P25. Del JMINI2
P27. Del U95
update power schematic

2011/11/23
P23. D11@, D13@ for ESD
P26. Add R1606
update power schematic

2011/11/24b
P24. modify JUSB2 net name
P14. change EDP status to GPIO187 and modfiy H/L
update power schematic

2011/11/25
P14. change LAN_CLKREQ# to U102.AG25
     change MINI1_CLKREQ# to U102.AE24
P22. change VGATE to U26.97
     change ACIN to U26.110
     change 3S/4S# to U26.98

2011/11/29
P11. change L57~L59 to SM010005220 for CRT issue
P12. change U102 to SA00005DY10
P23. change SW1, SW2 to SN100000K00
update PWR schematic

2011/12/16
ADD ZERO@,1.4G@,1.7G@
P04. modiy R430,R431,R433,R434 0ohm symbol,change C237,C238 bom structure
P09. modiy R484 0ohm symbol
P12. ADD GPIO30,GPIO31,modify R1503~R1508,R1510~R1513 0ohm symbol
P13. change ODD_PWR to GPIO53
P14. DEL GPIO190
P17. modiy R909,R1144 0ohm symbol
P18. moidfy R1164 0ohm symbol
P22. chgnge R470 to 18K
P26. change SW3 to @

2011/12/19
P23. change LED1,2,4 to SC500005920
change LED3,5,6,7 to SC591TBKA10
P14. change ODD_DETECT# to U102_W7
change ODD_DA#_FCH to U102_P6

2011/12/21
update PWR schematic

2011/12/22
for ESD request
P06. add C1778,C1779
P12. add C1780
P18. add C1781
P22. add C1782
for small size request
change Y6,Y7 to SJ10000E500

2011/12/23
P11. mnodify L57~L59 symbol
P22. add R1611 pull high
add R1612 pull GND

2011/12/28
P13. modify U103 to SA00003K800
P22. modify R1611,1612 BOM structure
P23. change LED1,2,4 to SC500005930
update PWR schematic
for EMI request
P17. change T97,98 to SP050006H00
P18. change C124@,C1522 to 4.7P SE07147AB80
change R180@,R1168,R1165 to 10ohm SD028100A80
change C1519@ to 10P SE071100J80
for ESD request
P06. modify C1778 BOM structure
P18. modify C1781 BOM structure
P22. modify C1782 BOM structure

2012/01/20
add ODD@ for normal ODD
P12. Y7 change to SJ0000E800
P17. Y6 change to SJ0000E800
P18. C1522,C124 change to SE07147AC80
P21. change R955 to ODD@
P22. change R470 to SD028330200 for PVT BOARD ID
P23. R478,R498,R1217 change to SD028390080
   R511,R499 change to SD000008H80
   R1218 change to SD000003S80
P25. ADD +3VALW_WLAN net
   ADD J24,J25 jump

2012/02/01
P09. Add J24
for AOIC
P17. Add R1613,C1783,Q1903,R1157
     Add net LAN_PWR_EN#
P22. Add net WLAN_PWR_ON,LAN_PWR_EN#
   EC_BT_OFF#,WLAN_PME#
P25. Del Q137,D69,J24 and net BT_ON#
  Add net WLAN_PME#,EC_BT_OFF#,WLAN_PWR_ON
  Add R1620,R1618,C1785,R1619,Q1902,Q1904,R1617

2012/02/02
P25. ADD R1621
for RTC
P12. C1704,C1705 change to SE071100J80
P17. C1485,C1486 change to SE071120J80

2012/02/07
update POWER schematic
update U22 to SA00005DX30,SA00005DW30
update U102 to SA00005DY70
P09. add R1621,C1786
P24. add R1622-24,C1787-89
P25. add R1625,C1790
         del R1621
P04. del R169
         change AMD Debug compoment to @

2012/02/09
P13. add R1626

2012/02/13
P13. change R1626 Bom structure
update PWR schematic

2012/03/02
P26. add H29 H30 for ME request
update PWR schematic

2012/03/05
P22. change R470 to 56K

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