HAWAA

LA-3141 REV 0.3 Schematic

uFCPGA Yonah/ ATi-RC410MD(A12)/ ATi-SB450(A13)

2006-01-26 Rev.0.3

Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

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Title: Black Diagram

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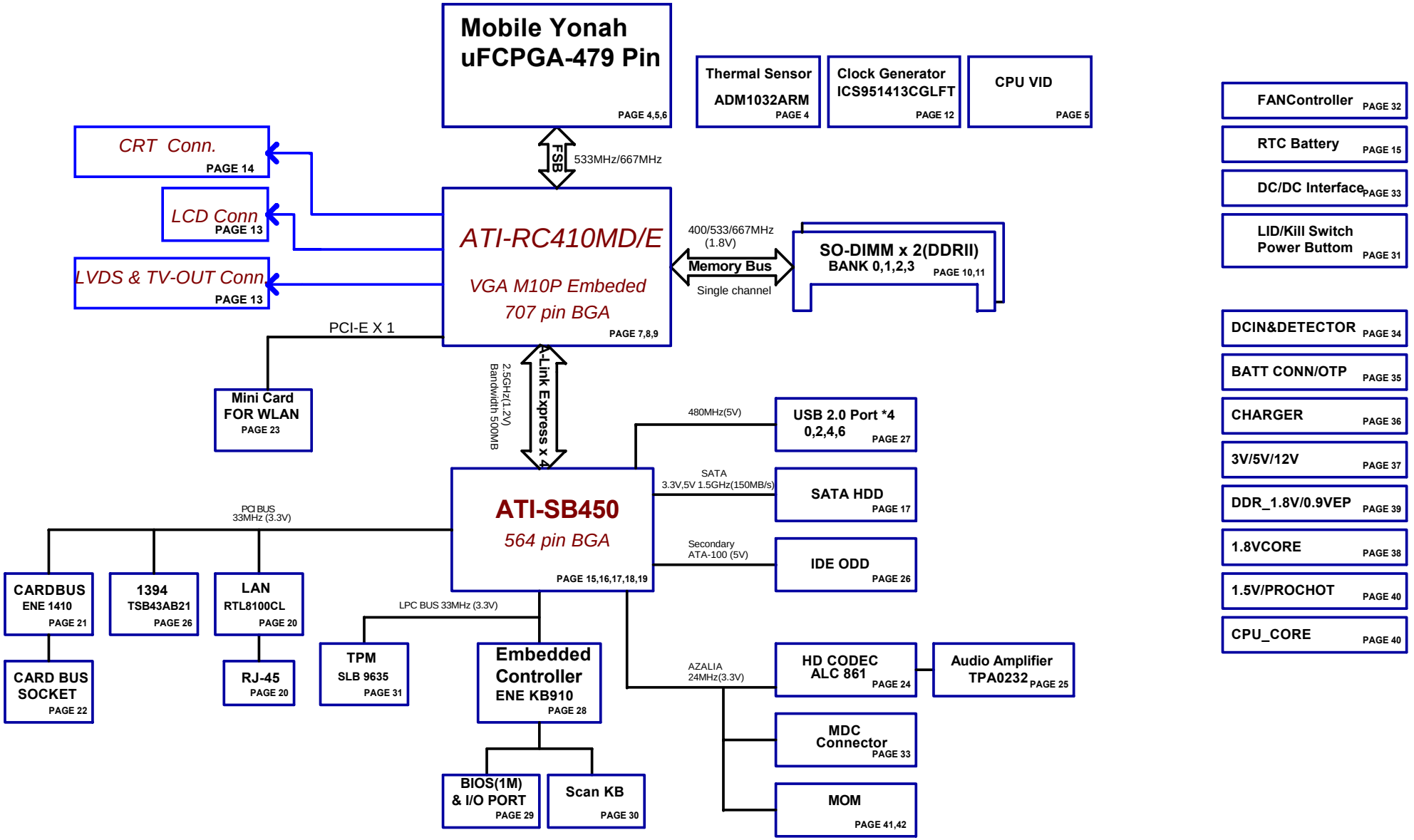
Date: Friday, January 27, 2006 | Sheet 1 of 43

HAWAA LA-3141 FUNCTION BLOCK DIAGRAM



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Title	Black Diagram		
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Voltage Rails

Power Plane	Description	S1	S3	S5
VIN	Adapter power supply (19V)	ON	ON	ON
B+	AC or battery power rail for power circuit.	ON	ON	ON
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+CPUVID	1.2V switched power rail for CPU AGTL Bus	ON	OFF	OFF
+1.2VS	1.2VS for PCI-Express	ON	OFF	OFF
+0.9VS	0.9V switched power rail	ON	OFF	OFF
+1.5VS	Yonah	ON	OFF	OFF
+1.8VS	1.8VS switched power rail	ON	OFF	OFF
+1.8VALW	1.8V always on power rail	ON	ON	ON*
+1.8V	1.8V power rail	ON	ON	OFF
+3VALW	3.3V always on power rail	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
+RTCVCC	RTC power	ON	ON	ON

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

External PCI Devices

Device	IDSEL#	REQ#/GNT#	Interrupts
ENE 1410	AD20	2	PIRQB
LAN	AD22	1	PIRQG
1394	AD16	0	PIRQA

EC SM Bus1 address

Device	Address
Smart Battery	0001 011X b

EC SM Bus2 address

Device	Address
ADM1032	1001 110X b

SB450 SM Bus address

Device	Address	
Clock Generator (ICS951413BGLFT)	1101 001Xb	
DDRII DIMM0	1010 0100b	A4
DDRII DIMM1	1010 0110b	A6

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

Board ID Table for AD channel

Vcc	3.3V +/- 5%
Ra/Rc	100K +/- 5%

Board ID	Rb / Rd	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	PCB Revision
0	0.1
1	0.2
2	
3	
4	
5	
6	
7	

SKU ID	PCB Revision
0	—
1	SKU 1
2	SKU 2
3	SKU 3
4	SKU 4(JP)
5	SKU 5
6	
7	

BTN ID	BTN Status
0	1 Buttons
1	
2	
3	
4	6 Buttons
5	
6	
7	

BTO Function	BOM structure
1394	1394@
Wireless LAN	WLAN@
TV-OUT	TVOUT@
TPM	TPM@

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Title: Notes List

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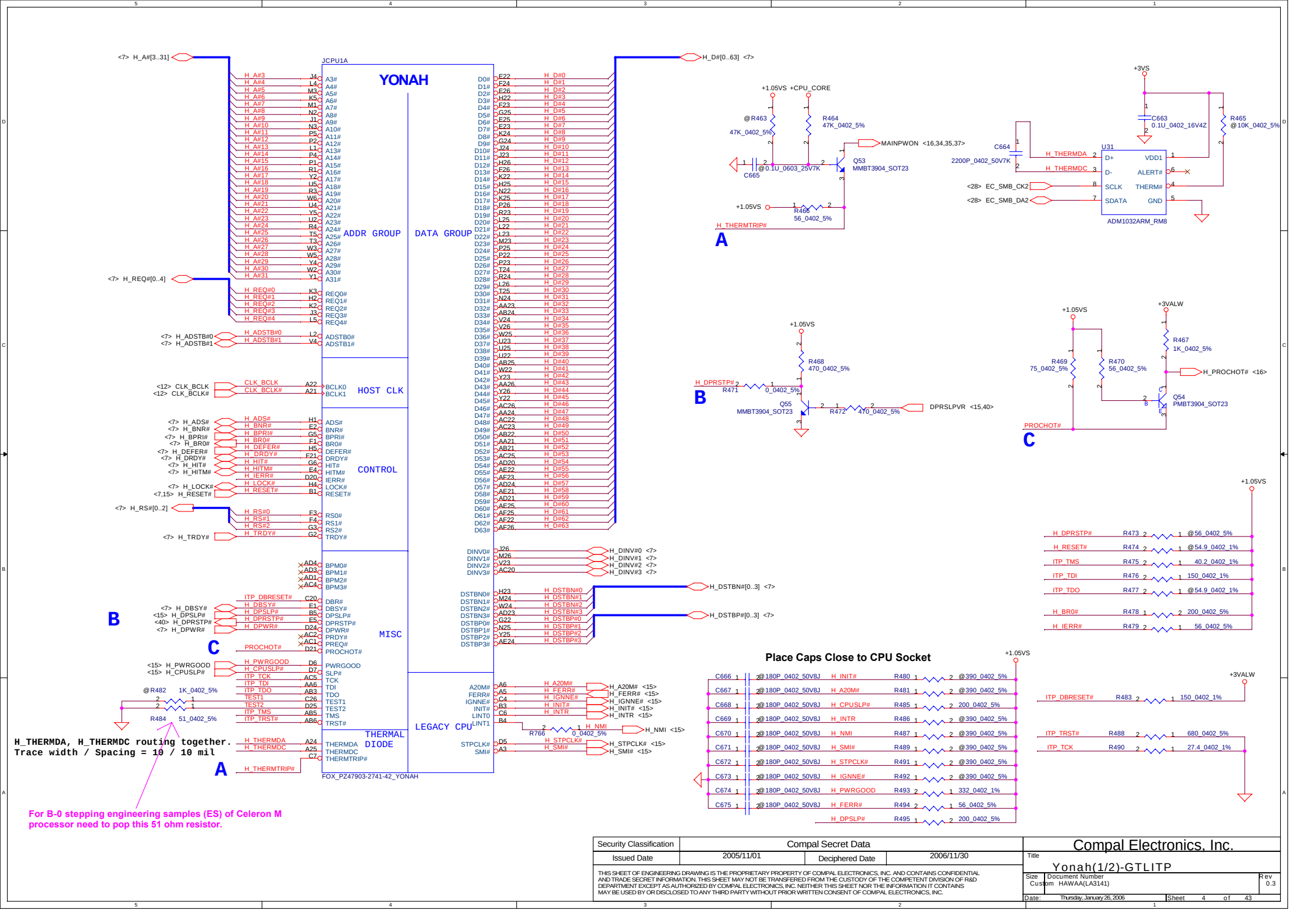
JCPU1A
YONAH
ADDR GROUP
DATA GROUP
HOST CLK
CONTROL
MISC
LEGACY CPU
THERMAL DIODE
FOX_PZ47903-2741-42_YONAH
H_THERMDA, H_THERMDC routing together.
Trace width / Spacing = 10 / 10 mil
For B-0 stepping engineering samples (ES) of Celeron M processor need to pop this 51 ohm resistor.
Place Caps Close to CPU Socket
ADM1032ARM_RM8
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Compal Secret Data
Issued Date
2005/11/01
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2006/11/30
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Title
Yonah(1/2)-GTLITP
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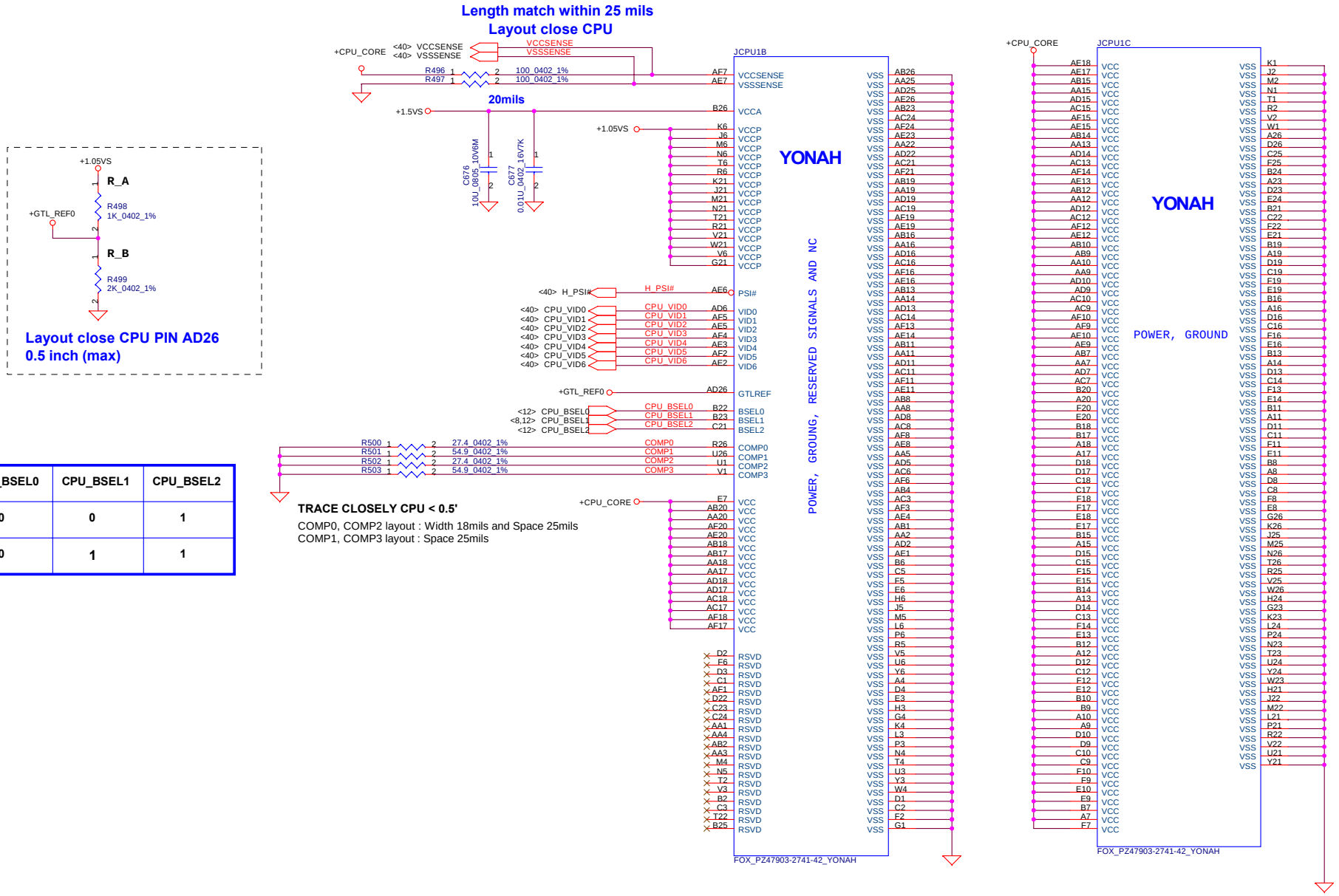

CPU_BSEL	CPU_BSEL0	CPU_BSEL1	CPU_BSEL2
133	0	0	1
166	0	1	1

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Title: Yonah(2/2)-PWR/GND

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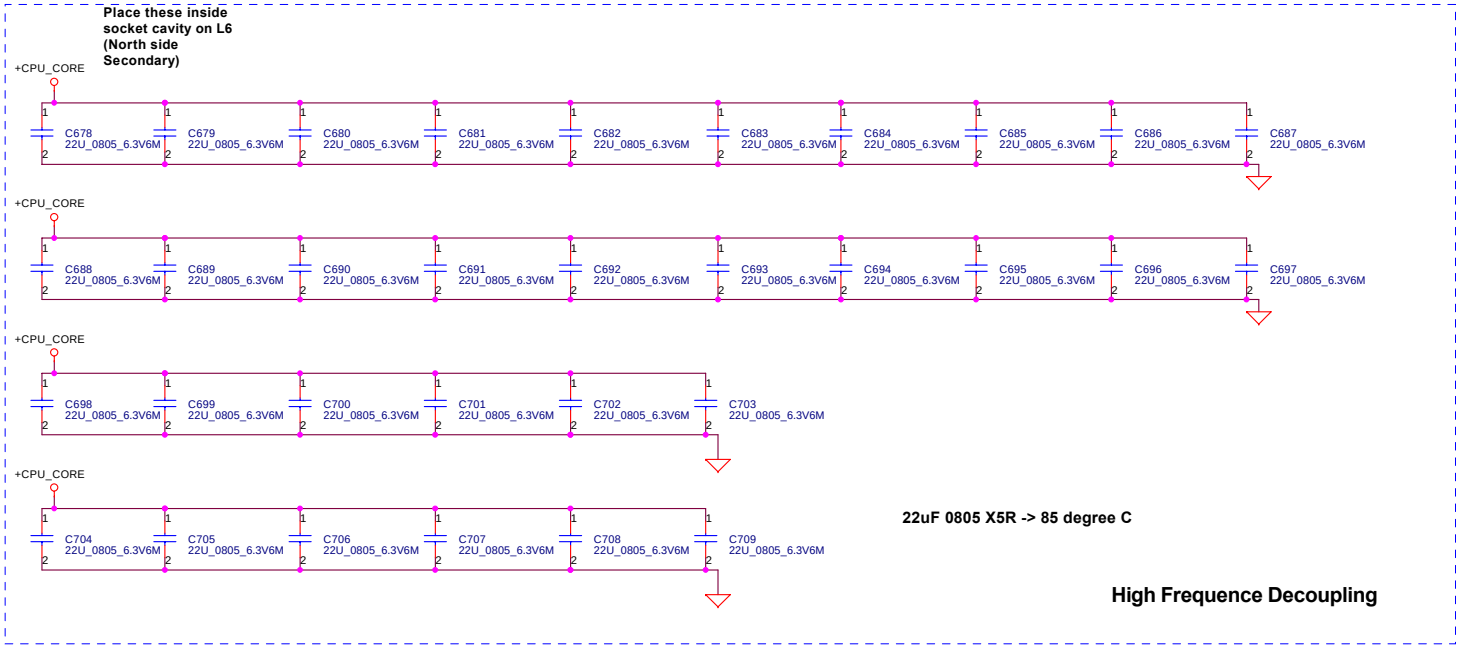
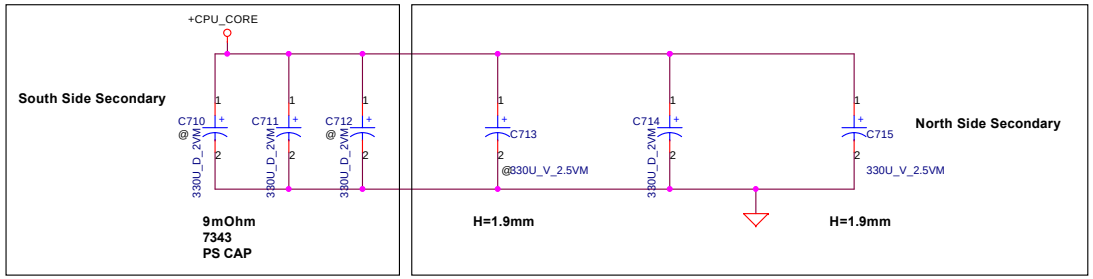
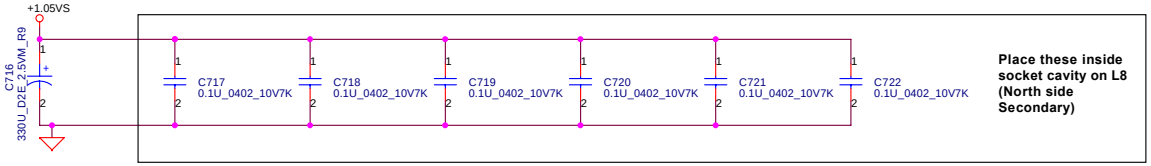


Near VCORE regulator.



ESR <= 1.5m ohm
Capacitor > 1980uF



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Title: Yonah Bypass

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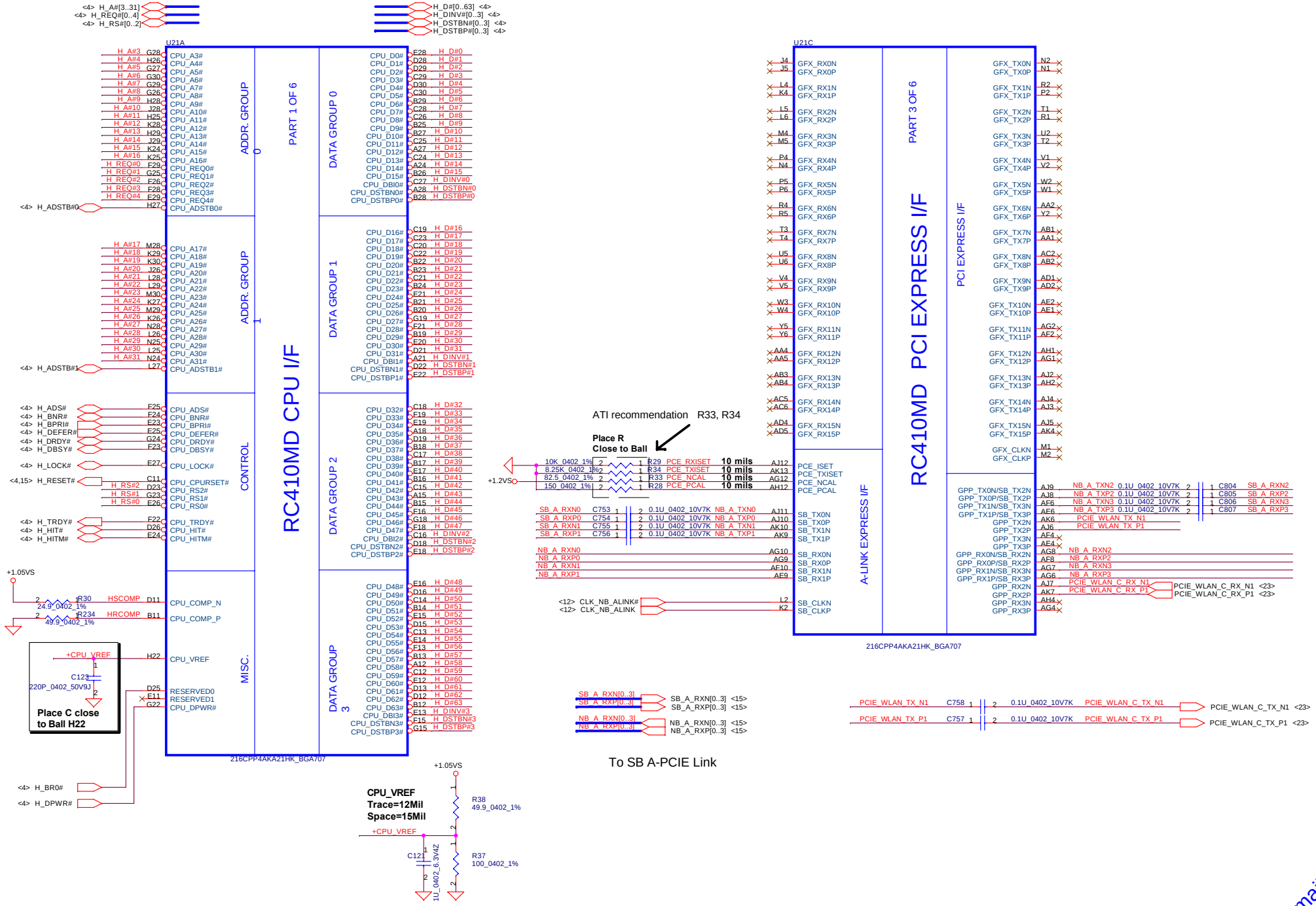

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Title: RC410MD-FSB, PCI&A-PCIE

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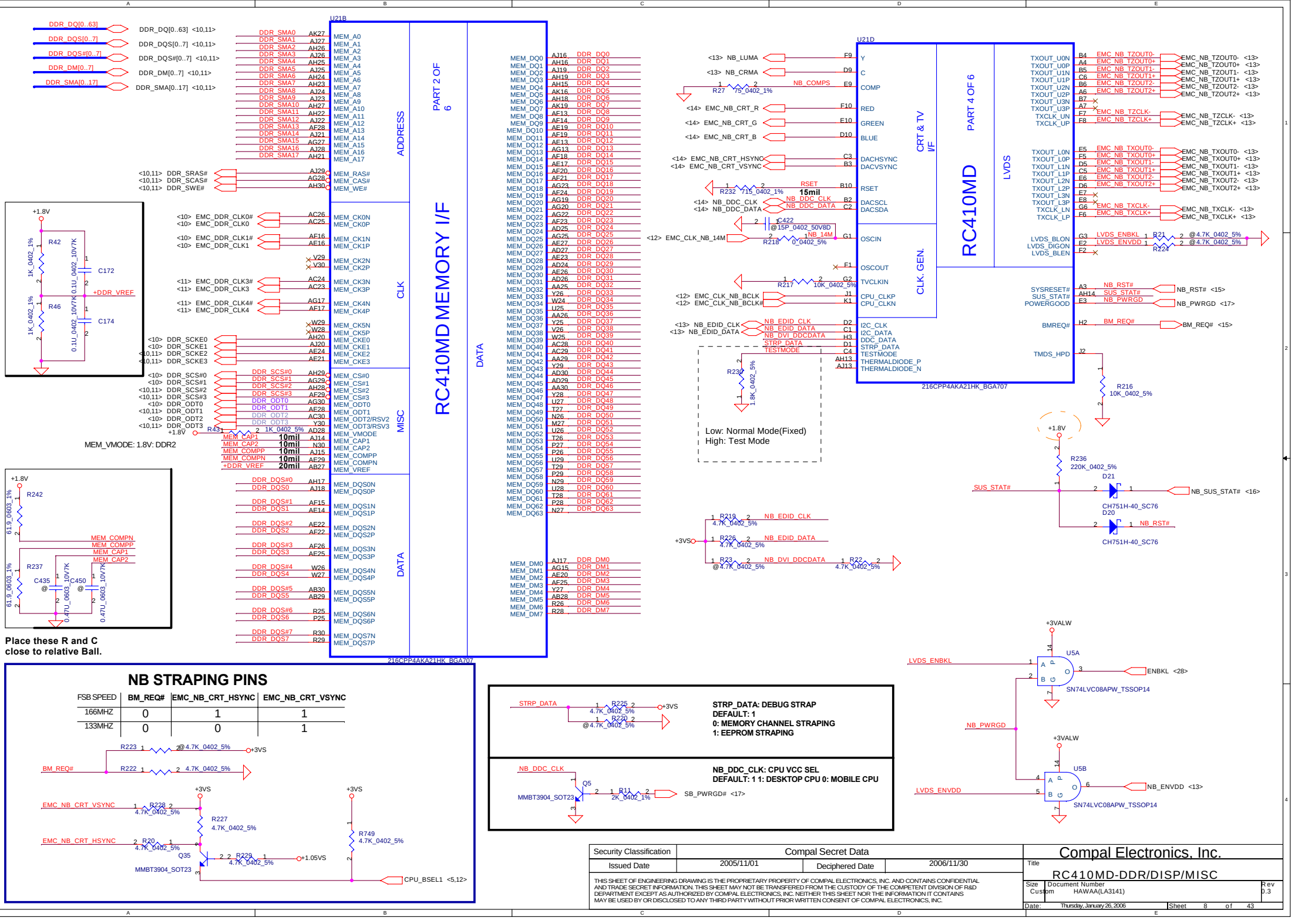

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Title: RC410MD-DDR/DISP/MISC

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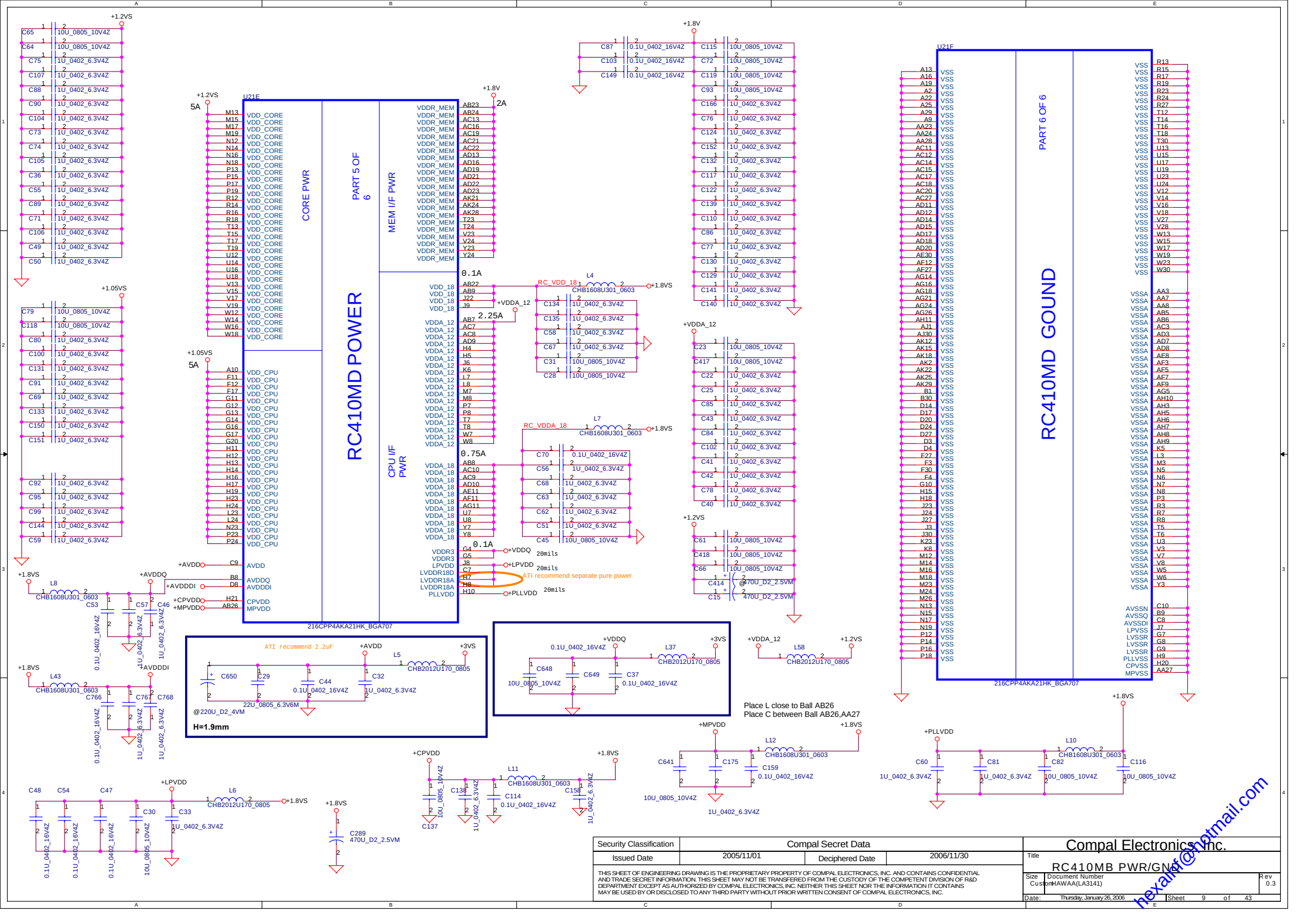
RC410MD POWER
PART 5 OF 6
CORE PWR
MEM I/F PWR
CPU I/F PWR
U21E
216CPP4AKA21HK_BGA707
RC410MD GOUND
PART 6 OF 6
U21F
216CPP4AKA21HK_BGA707
+1.2VS
+1.05VS
+1.8V
+VDDA_12
+AVDD
+AVDDQ
+AVDDDI
+CPVDD
+MPVDD
+VDDQ
+LPVDD
+PLLVDD
+3VS
RC_VDD_18
RC_VDDA_18
ATI recommend 2.2uF
ATI recommend separate pure power
Place L close to Ball AB26
Place C between Ball AB26,AA27
H=1.9mm
Security Classification
Compal Secret Data
Issued Date
2005/11/01
Deciphered Date
2006/11/30
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RC410MB PWR/GND
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Document Number
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hexaiif@hotmail.com

Layout Note:
Place near JDIM1

Layout Note:
Place one cap close to every 2 pullup resistors terminated to V_DDR_MCH_REF

Layout Note:
Every four parallel termination resistors with two caps, one is connected to ground, the other one is connected between +1.8V and +0.9VS. Need to place each parallel resistor with one cap to GND and one cap between +1.8V and +0.9VS

Trace=20mil

JP16

QUASAR CA0228-200N22

DIMMA
Reverse

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Title	DDRII-SODIMM2		
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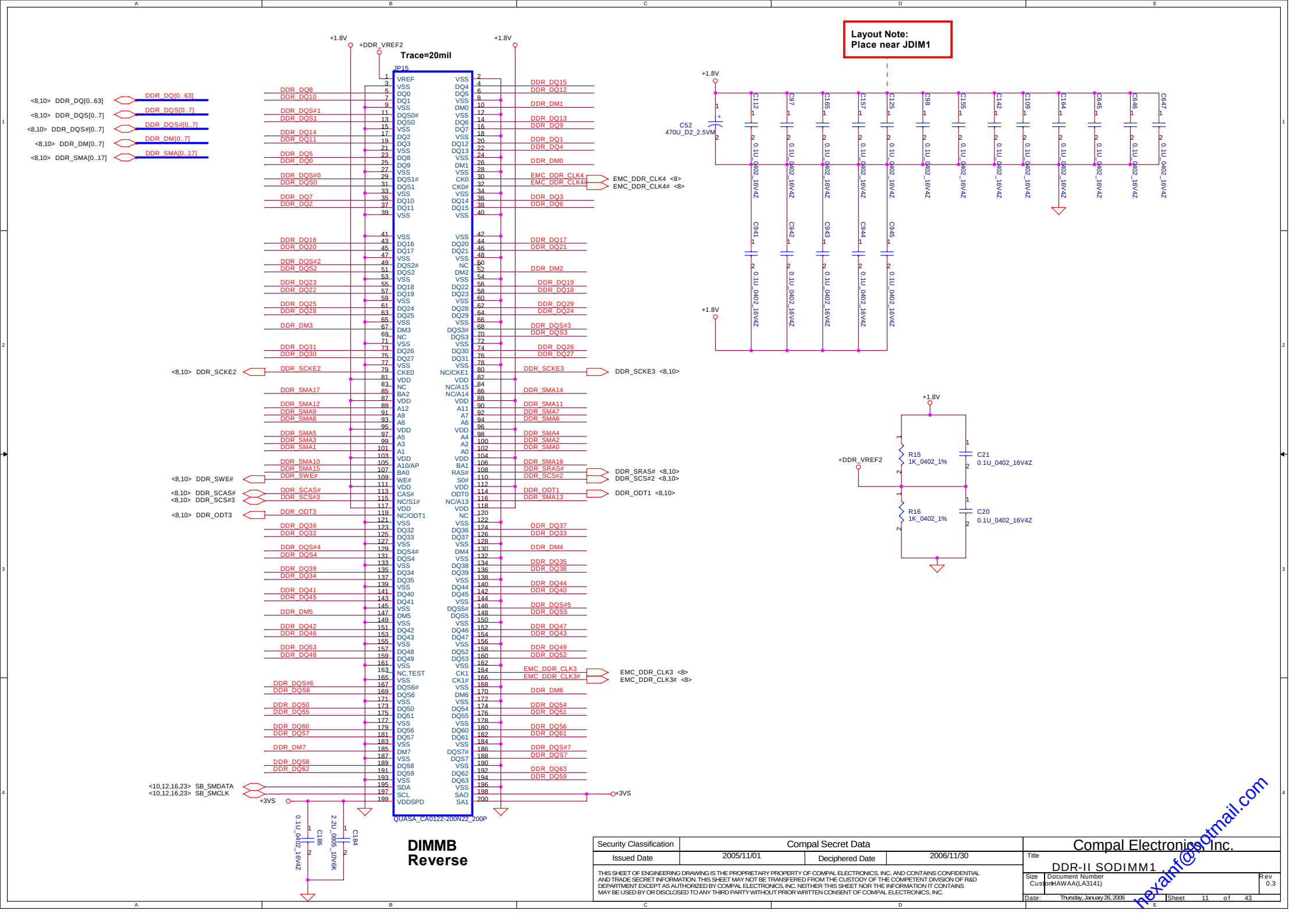

Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

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Title: DDR-II SODIMM1

Size	Document Number	Rev
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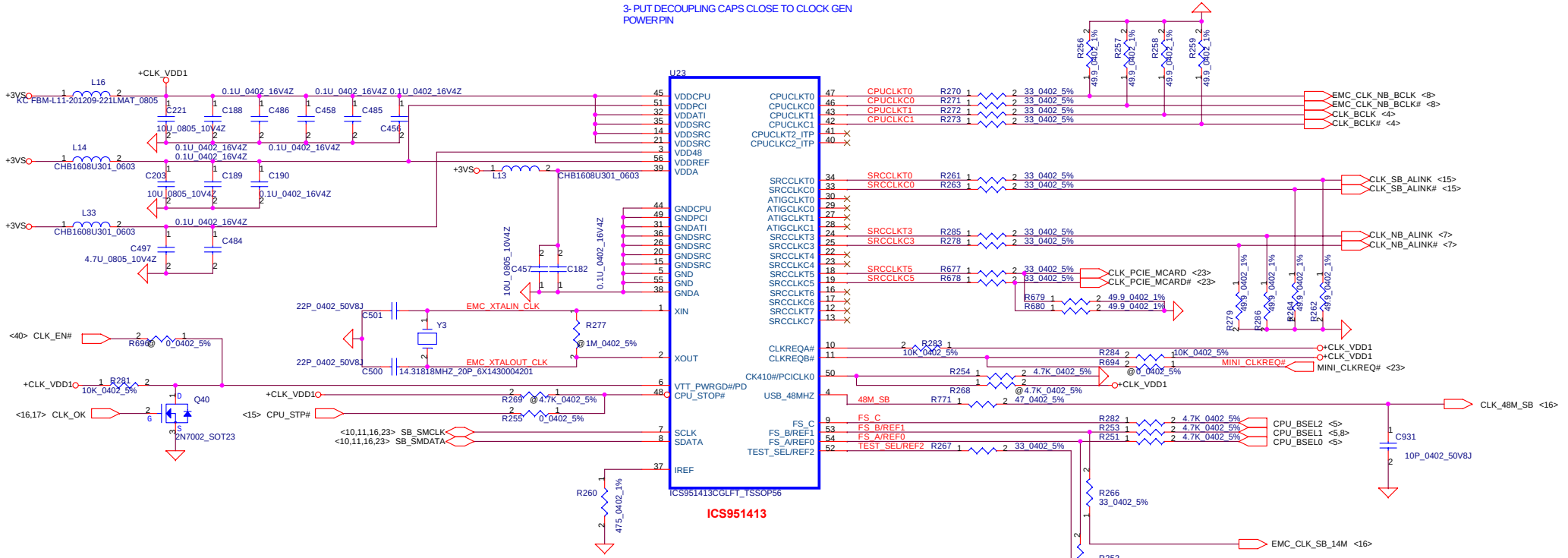
Clock Generator

1- PLACE ALL THE SERIES TERMINATION RESISTORS
AS CLOSE TO CLOCK GEN AS POSSIBLE

2- ROUTE ALL CPUCLK/#, NBCLK/#, ITPCLK/#
AND SCR/# ,AS DIFFERENT PAIR RULE

3- PUT DECOUPLING CAPS CLOSE TO CLOCK GEN
POWER PIN



FS_C	FS_B	FS_A	CPU	SRC	PCI	REF	USB
1	0	1	100.00	100.00	33.33	14.318	48.000
0	0	1	133.33	100.00	33.33	14.318	48.000
0	1	1	166.66	100.00	33.33	14.318	48.000

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Title: ClockGen ICS 951413

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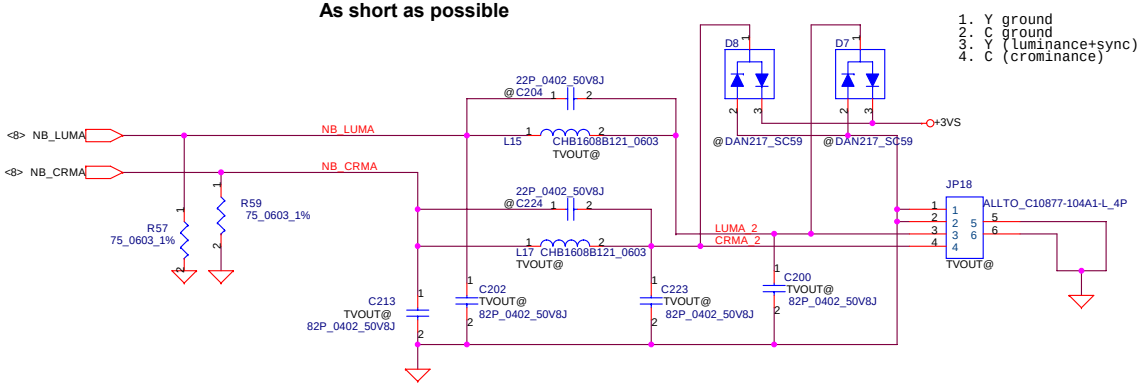
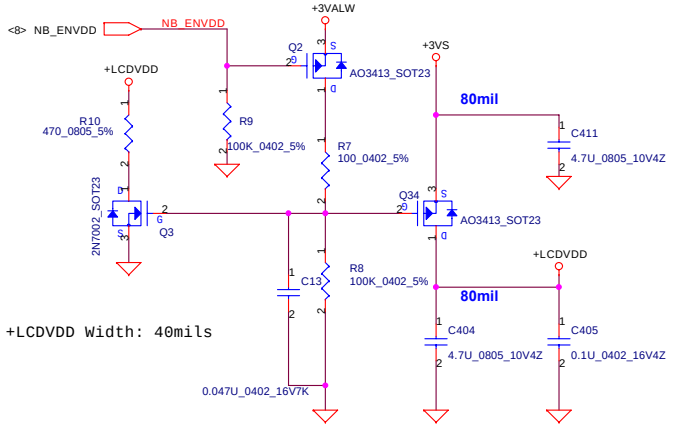
TV-OUT CONNECTOR

Reduce LUMA_1 and CRMA_1 length
As short as possible

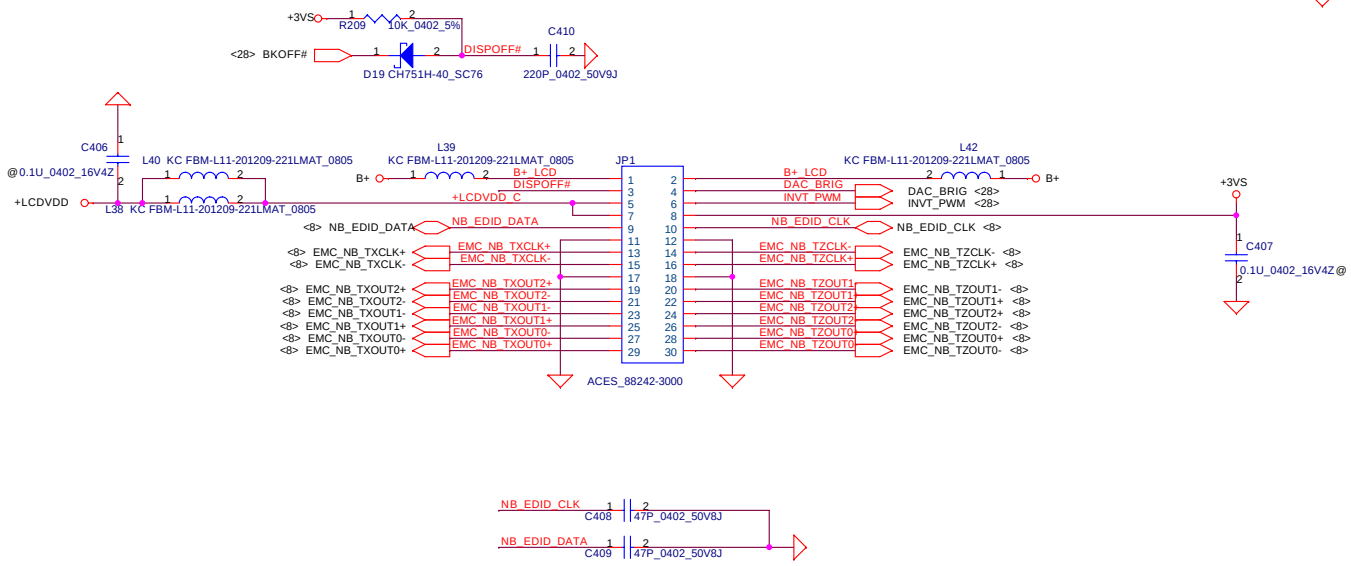
1. Y ground
2. C ground
3. Y (luminance+sync)
4. C (crominance)



PANEL +LCDVDD CTRL CKT



LCD/PANEL BD. Conn.



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Title: TV-OUT, LVDS CONNECTOR

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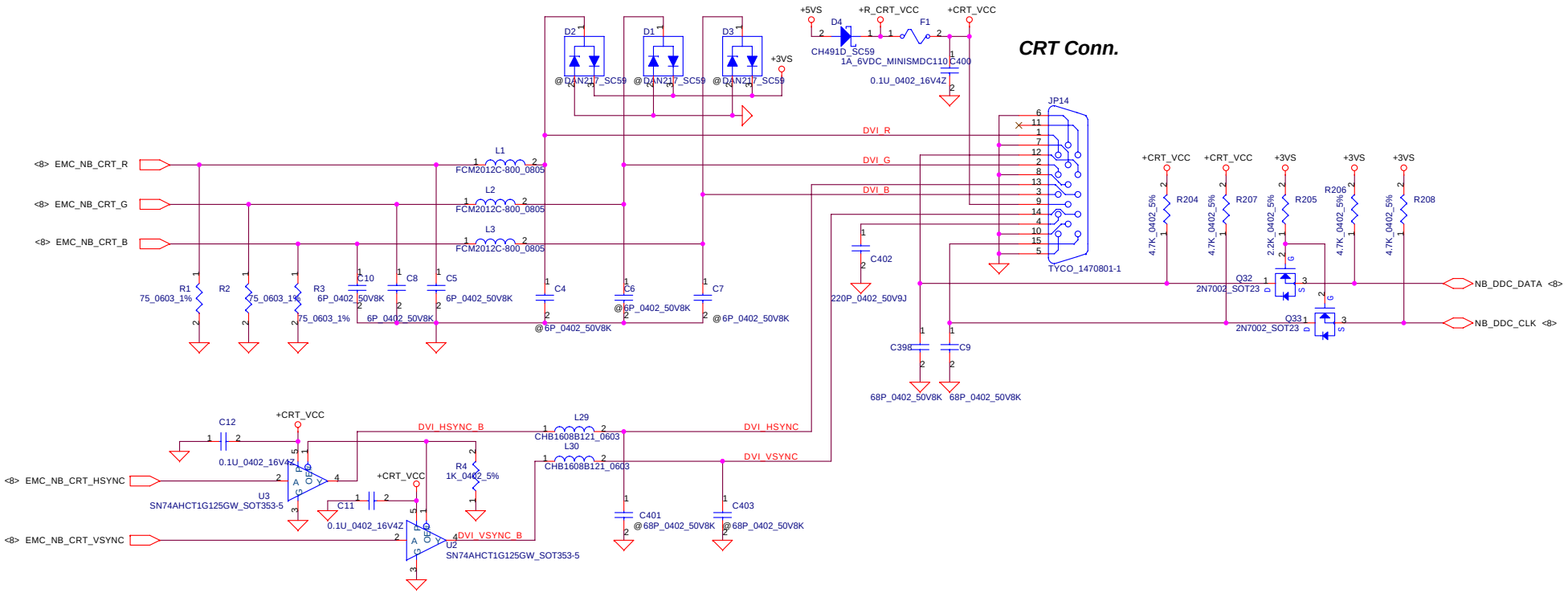
CRT CONNECTOR



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Title: CRT CONNECTOR

Size	Document Number	Rev
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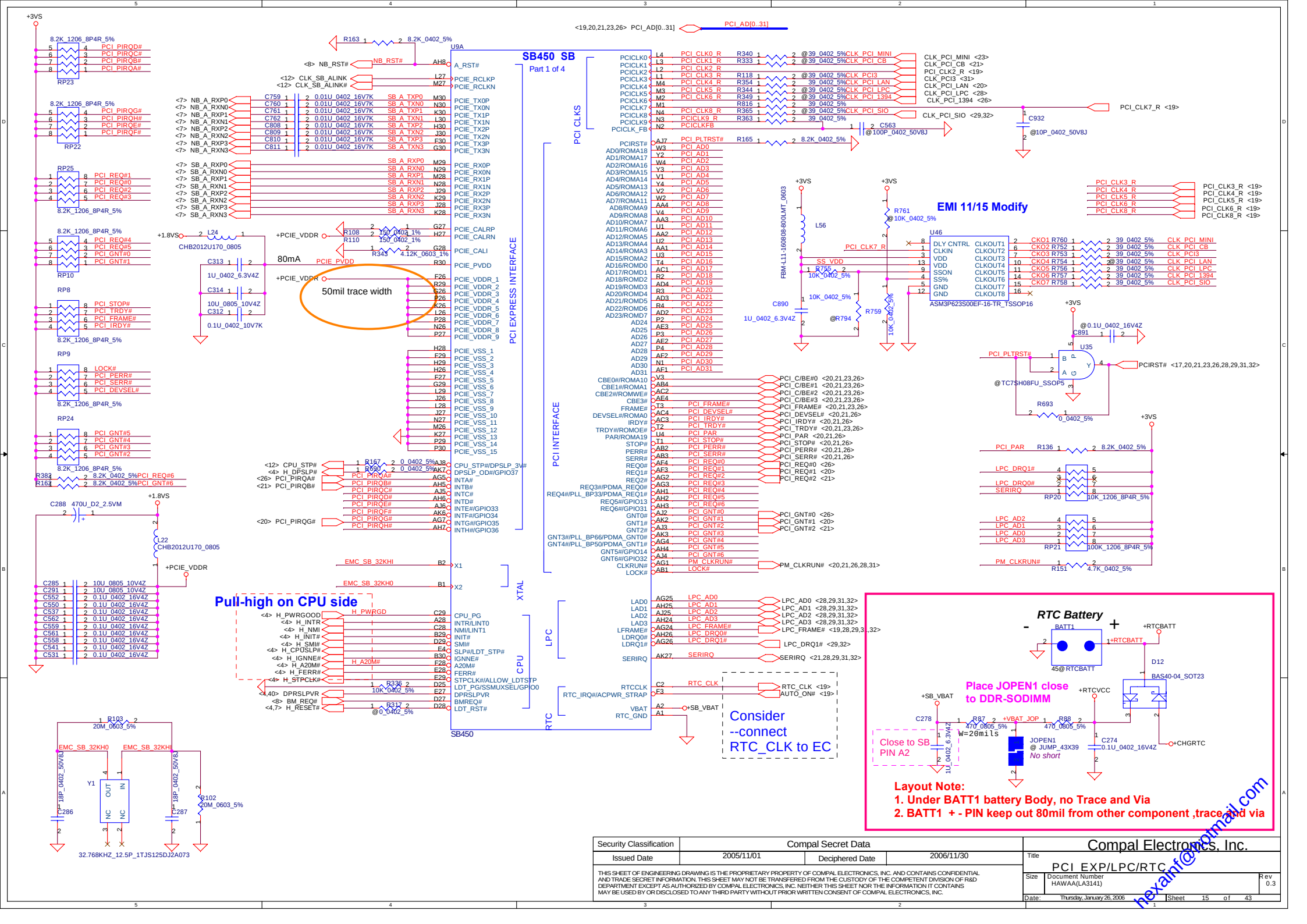
SB450 SB
Part 1 of 4
U9A
SB450
PCI CLKS
PCI EXPRESS INTERFACE
PCI INTERFACE
XTAL
LPC
CPU
RTC
EMI 11/15 Modify
50mil trace width
80mA
Pull-high on CPU side
Consider
--connect
RTC_CLK to EC
RTC Battery
Place JOPEN1 close
to DDR-SODIMM
Close to SB
PIN A2
Layout Note:
1. Under BATT1 battery Body, no Trace and Via
2. BATT1 + - PIN keep out 80mil from other component ,trace and via
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PCI_EXP/LPC/RTC
HAWAA(LA3141)
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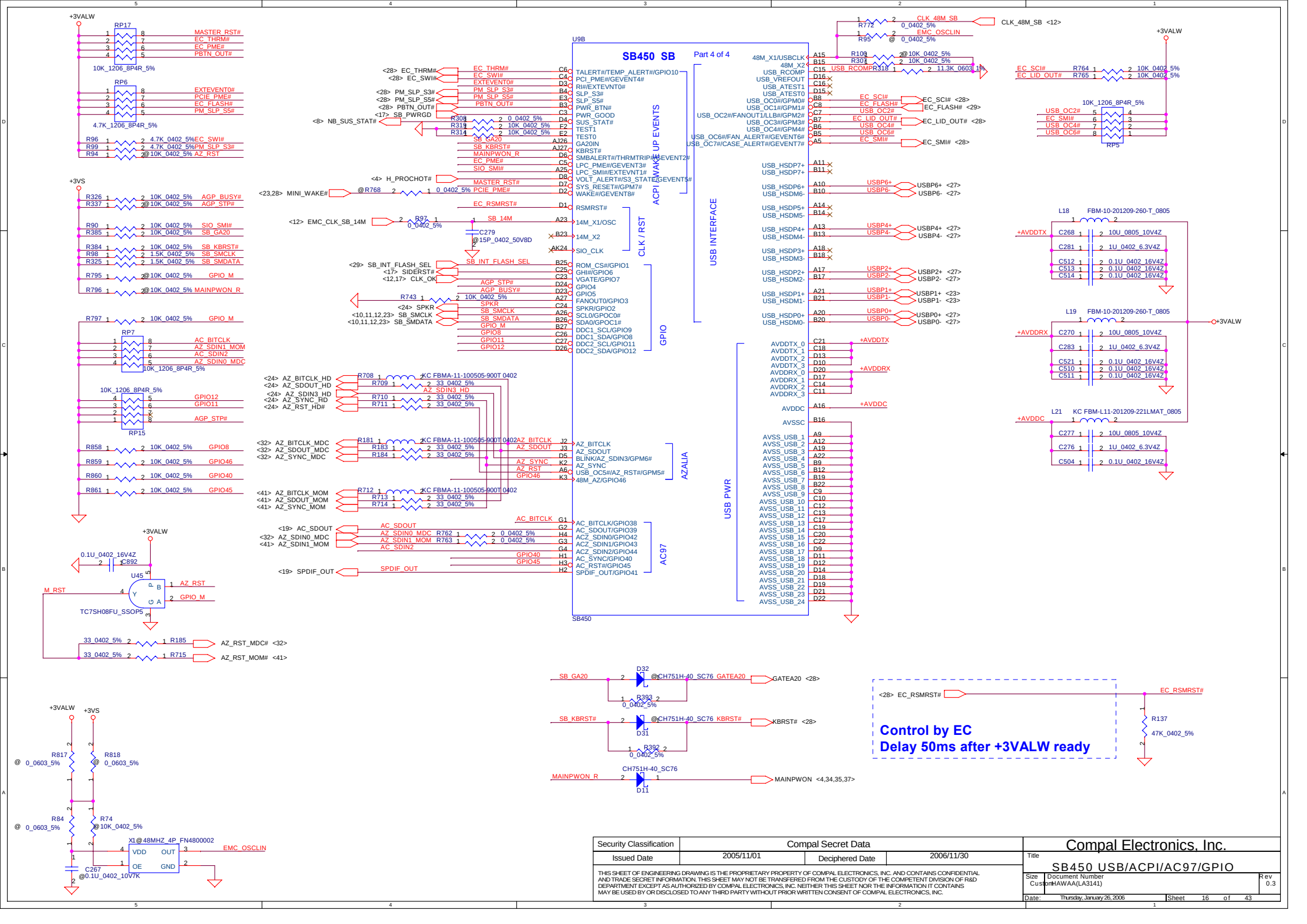
hexanf@gmail.com



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Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: SB450 USB/ACPI/AC97/GPIO

Size	Document Number	Rev
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Place closely SATA CONN.

Place SATA CAP & RES very close to SB

1230 modify C814,C819 near SB side

100 mil

SB450 SB
Part 2 of 4

SERIAL ATA

PRIMARY ATA 66/100

SECONDARY ATA 66/100

SERIAL ATA POWER

SB450

SATA HDD CONNECTOR

ODD CONNECTOR

Place closely ODD CONN.

Place near SB side

SUYIN_127043FB022G208ZR_22P_RV

OCTEK_CDR-50JD1

TC7SH08FU_SSOP5

SN74LVC08APW_TSSOP14

SN74LVC14APWLE_TSSOP14

Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: SB450 IDE/SATA

Size: Custom | Document Number: HAWAA(LA3141) | Rev: 0.3

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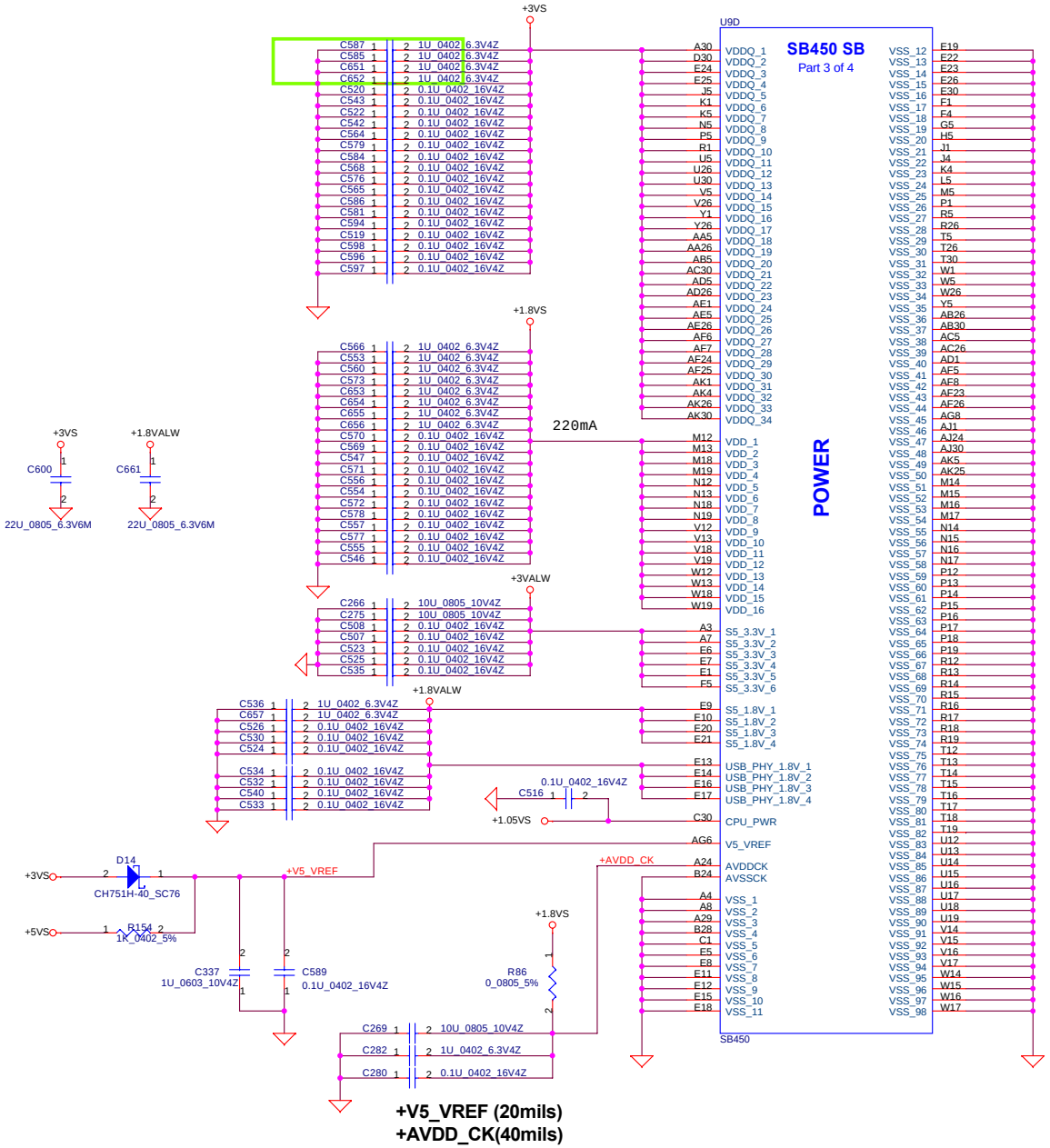

Security Classification	Compal Secret Data		
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Compal Electronics, Inc.

Title: SB450/POWER/GND

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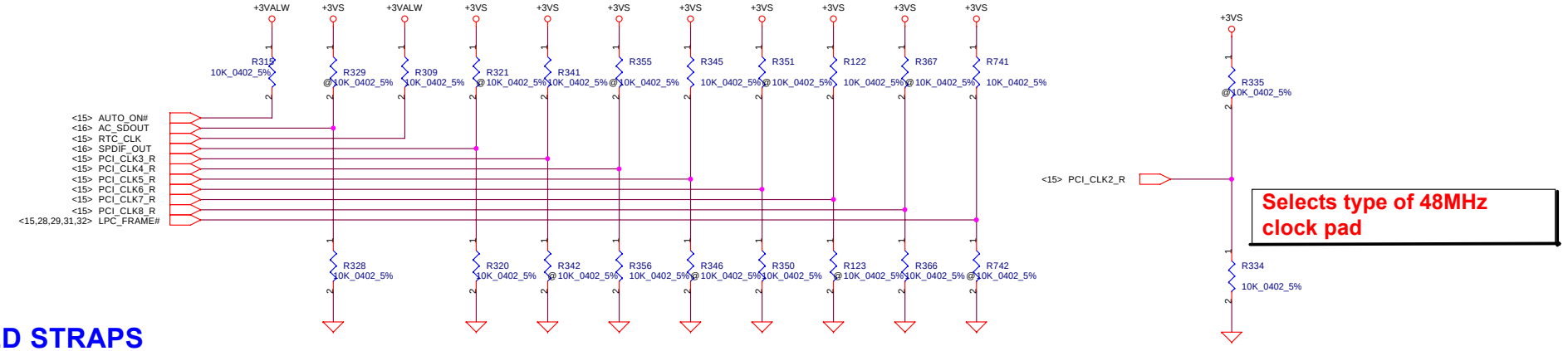
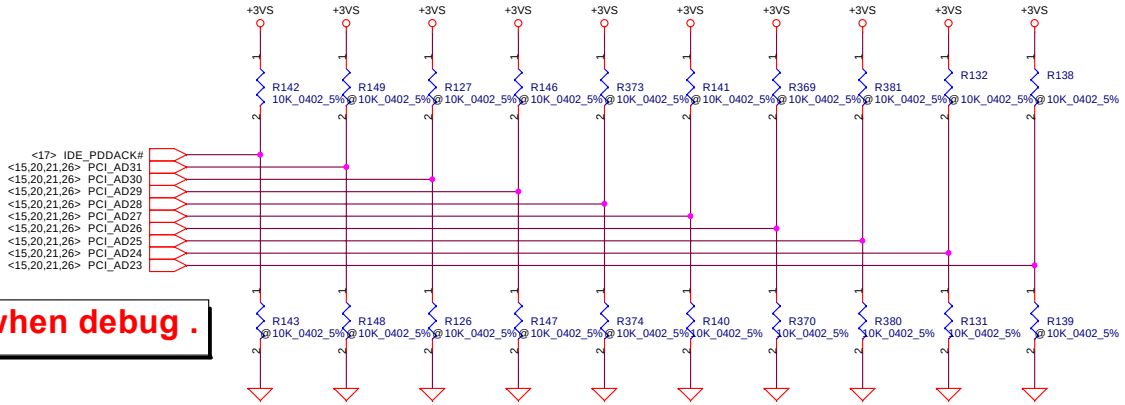


Selects type of 48MHz clock pad

REQUIRED STRAPS

ACPWRON

	AUTO_ON#	AC97_SDOUT	RTC_CLK	SPDIF_OUT	CLK_PCI3	CLK_PCI4	CLK_PCI5	PCI_CLK6	PCI_CLK7 PCI_CLK8	LFRAME#	CLK_PCI2
PULL HIGH	MANUAL PWR ON DEFAULT	USE DEBUG STRAPS	INTERNAL RTC DEFAULT	PU for 48Mhz XTAL mode	USB PHY PWRDOWN DISABLE DEFAULT	Internal PLL	PCIE AUTO detect DEFAULT	CPU I/F = K8	ROM TYPE H,H = PCI ROM H,L = LPC ROM I L,H = LPC ROM II L,L = FWH ROM	THERMTRIP# ENABLE DEFAULT	Crystal Pad
PULL LOW	AUTO PWR ON	IGNORE DEBUG STRAPS DEFAULT	EXTERNAL RTC (NOT SUPPORTED W/ IT8712)	48M OSC mode DEFAULT	USB PHY PWRDOWN ENABLE	External Clock DEFAULT	Forcing PCIE to 2 lanes (debug only)	CPU I/F = P4 DEFAULT		THERMTRIP# DISABLE	Clock input buffer DEFAULT



Pop R634 when debug .

DEBUG STRAPS

	IDE_PDDACK#	PCI_AD31	PCI_AD30	PCI_AD29	PCI_AD28	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE LONG RESET DEFAULT	Reserved	Reserved	Reserved	Reserved	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	Reserved
PULL LOW	USE SHORT RESET					USE PCI PLL DEFAULT	USE ACPI BCLK DEFAULT	USE IDE PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	

Compal Electronics, Inc.

Title: HARDWARE TRAP

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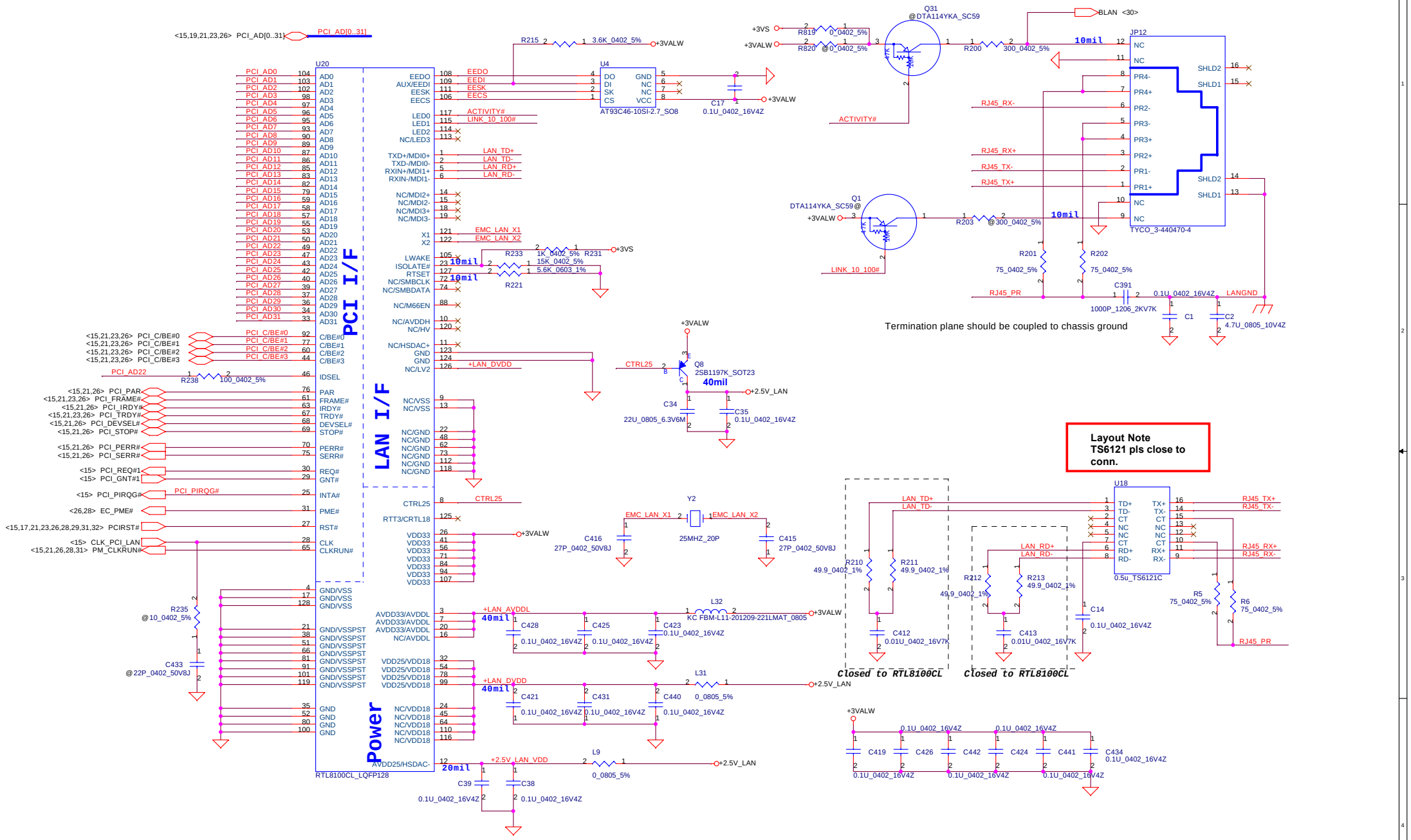

Security Classification	Compal Secret Data		
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Compal Electronics, Inc.

Title: RTL8100CL

Size	Document Number	Rev
Custom	HAWAA(LA3141)	0.3

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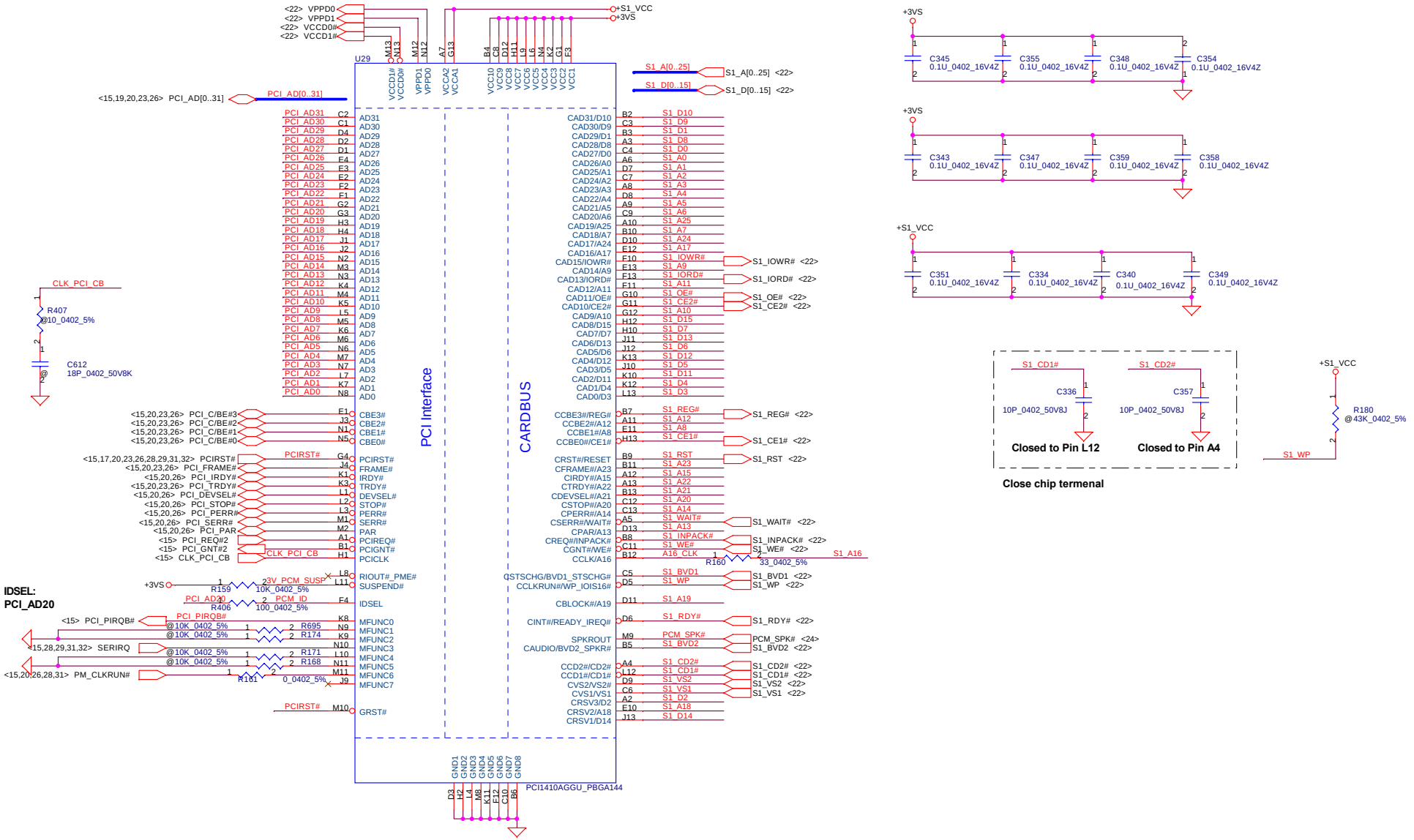

Security Classification	Compal Secret Data		
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Compal Electronics, Inc.

Title: ENE-CB1410

Size	Document Number	Rev
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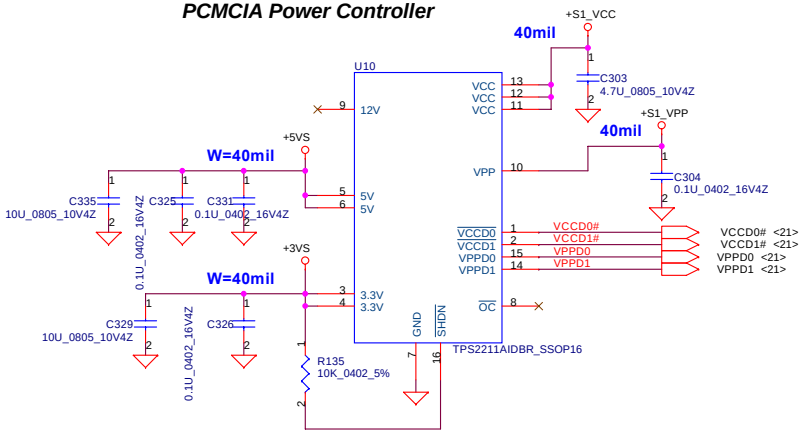
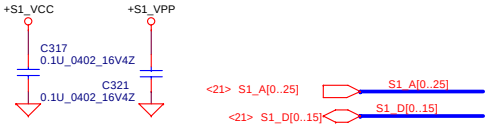
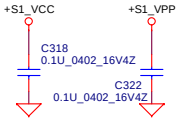
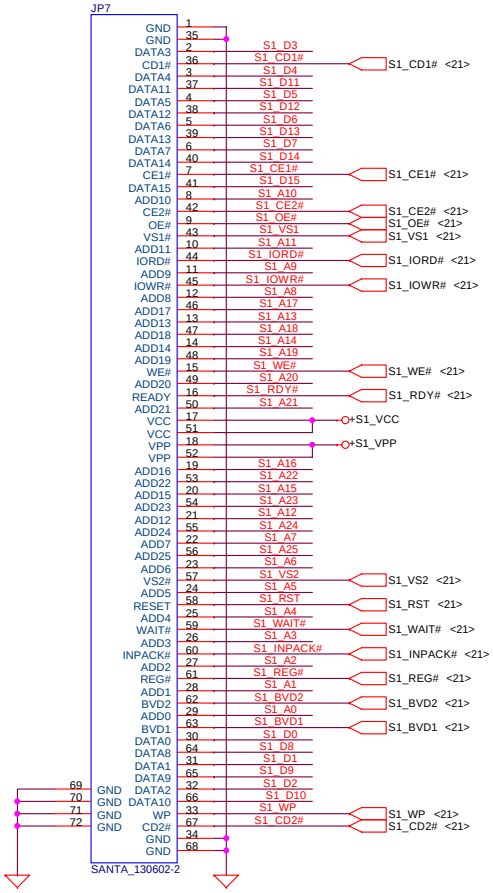
PCMCIA Power Controller

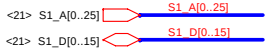


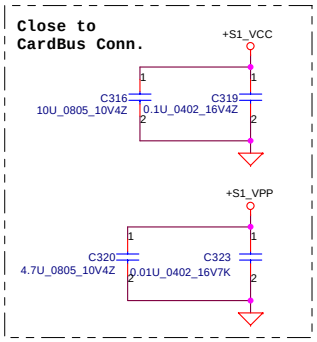


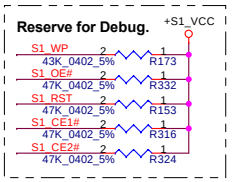


CardBus Socket









Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: CARD BUS SOCKET

Size	Document Number	Rev
Custom	HAWAA(LA3141)	0.3

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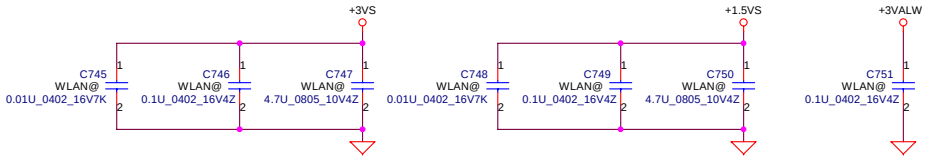
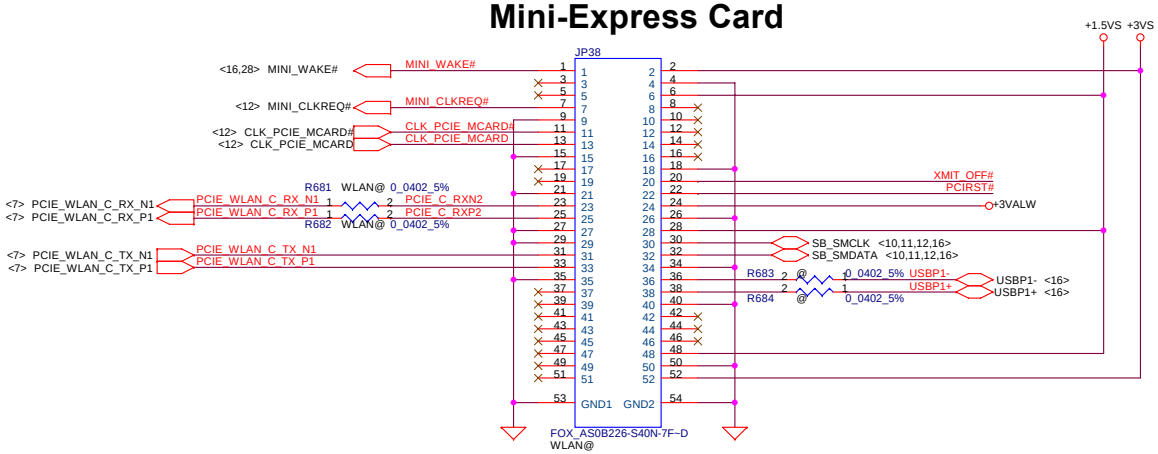
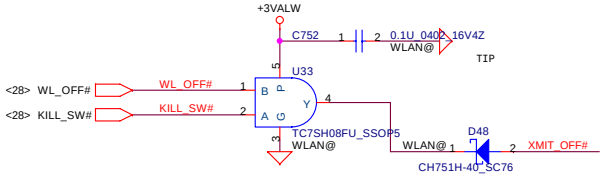
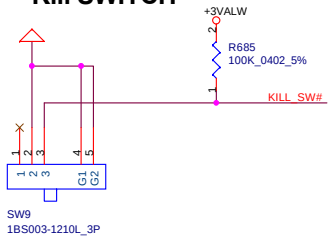


Mini-Express Card

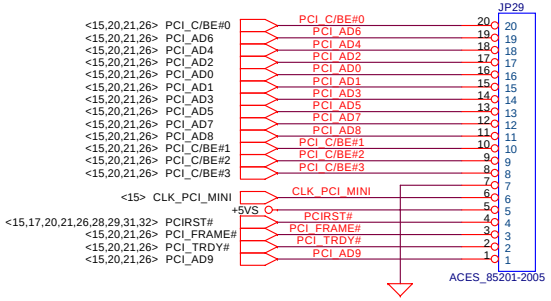




Kill SWITCH



Port 80 Debug Card Connector



Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: MINI Express Card

Size	Document Number	Rev
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EC Beep

<28> BEEP# — C385 1U_0402_6.3V4Z — R197 560_0402_5%

CardBus Beep

<21> PCM_SPK# — C387 1U_0402_6.3V4Z — R199 560_0402_5% — NOISE# — C390 0.01U_0402_16V7K

PCI Beep

<16> SPKR — C384 1U_0402_6.3V4Z — R196 560_0402_5% — R440 10K_0402_5% — D34 CH751H-40_SC76

+AVDD_AC97 — R431 10K_0402_5% — R430 10K_0402_5% — C386 @1U_0402_6.3V4Z — C381 1U_0402_6.3V4Z — MONO_IN — Q30 MMBT3904_SOT23 — R189 2.4K_0402_5%

Adjustable Output

+5VALW — 60mil — U42 SI9182DH-AD_MSOP8 (VIN, VOUT, DELAY, SENSE or ADJ, ERROR, CNOISE, SD#, GND) — 40mil — +VDDA 4.85V

C369 10U_0805_10V4Z — C465 0.1U_0402_16V4Z — C606 0.1U_0402_16V4Z — R405 30K_0402_1% — R404 10K_0402_1% — C367 10U_0805_10V4Z

<28,30,33> SYSON — R773 0_0603_5%

<28,29,33,38,39> SUSP# — R774 0_0603_5%

HD Audio Codec

+VDDA — L28 FBM-L11-160808-800LMT_0603 — 680P_0402_50V7K — C935 0105 add — C936 — 0.1U_0402_16V4Z — C389 — C388 — C786 — 10U_0805_10V4Z — 40mil — +AVDD_AC97 — 20mil

+3VS — L52 FBM-L11-160808-800LMT_0603 — 0.1U_0402_16V4Z — 10U_0805_10V4Z — 680P_0402_50V7K — C632 — C383 — C785 — C933 0105 add — C934 0105 add — C635 @1000P_0402_50V7K — C634 @1000P_0402_50V7K

U16 ALC861-GR_LQFP48

Pin	Left	Right
14	LINE2_L	<25> AMP_LEFT_HP
15	LINE2_R	<25> AMP_RIGHT_HP
16	MIC2_L	
17	MIC2_R	
23	LINE1_L	
24	LINE1_R	ACZ_VREF — C896 1U_0603_10V4Z
18	CD_L	
20	CD_R	
19	CD_GND	
21	MIC1_L	<25> MIC1_L — MIC1_L — C616 1U_0603_10V4Z — MIC1_C_L
22	MIC1_R	<25> MIC1_R — MIC1_R — C619 1U_0603_10V4Z — MIC1_C_R
13	SENSE A	<25> SENSE_A — R831 47_0402_5% — C946 1000P_0402_50V7K
12	PC_BEEP	MONO_IN
11	RESET#	<16> AZ_RST_HD#
10	SYNC	<16> AZ_SYNC_HD
5	SDATA_OUT	<16> AZ_SDOUT_HD
45	SIDE-SURR-L	
46	SIDE-SURR-R	
48	SPDIFO	
4	DVSS1	
7	DVSS2	
35	FRONT-OUT-L	AMP_LEFT — AMP_LEFT <25>
36	FRONT-OUT-R	AMP_RIGHT — AMP_RIGHT <25>
39	SURR_OUT_L	
41	SURR_OUT_R	C630 27P_0402_50V8J
6	BIT_CLK	AZ_BITCLK_HD <16>
8	SDATA_IN	R426 33_0402_5% — AZ_SDIN3_HD <16>
2,33,47,37,3,29	NC	
30	MIC2_VREFO	
28	MIC1_VREFO_L	10mil — +MIC1_VREFO_L
27	VREF	10mil — ACZ_VREF — C791 10U_0805_10V4Z
32	MIC1_VREFO_R	10mil — +MIC1_VREFO_R
31	LINE2_VREFO	
34	SENSE B	R775 47_0402_5% — SENSE_B <25> — C897 1000P_0402_50V7K
43	CEN-OUT	
44	LFE-OUT	
40	JDREF	R707 5.1K_0402_1%
26	AVSS1	
42	AVSS2	

DGND — AGND

+S1_VCC — C662 @ 4.7U_0603_6.3V6M — @R461 4.7K_0402_5% — D37 @ CH751H-40_SC76 — R462 @2.2K_0402_5% — NOISE_TEST — NOISE_TEST <28> — Q52 @ MMBT3904_SOT23

Analog Reference V

+MIC1_VREFO_L — C363 0.1U_0402_16V4Z — C365 4.7U_0805_10V4Z @

+MIC1_VREFO_R — C792 0.1U_0402_16V4Z — C793 4.7U_0805_10V4Z @

R750 0_0603_5% — R751 0_0603_5% — R587 0_0603_5% — R588 0_0603_5% — R590 0_0603_5%

GND — GNDA

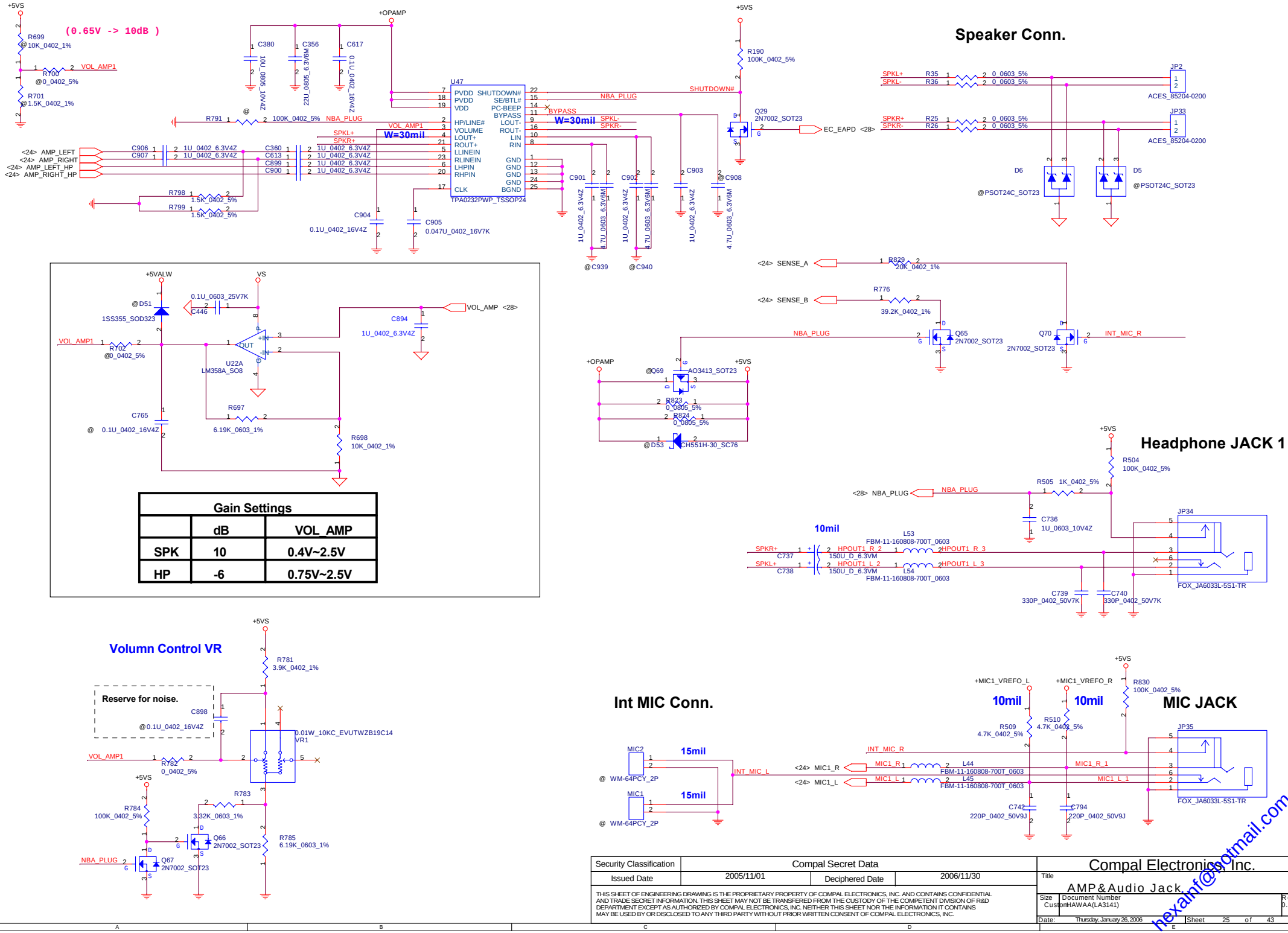
Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: HD Audio Codec ALC861

Size: Custom | Document Number: HAWAA(LA3141) | Rev: 0.3

Date: Thursday, January 26, 2006 | Sheet 24 of 43



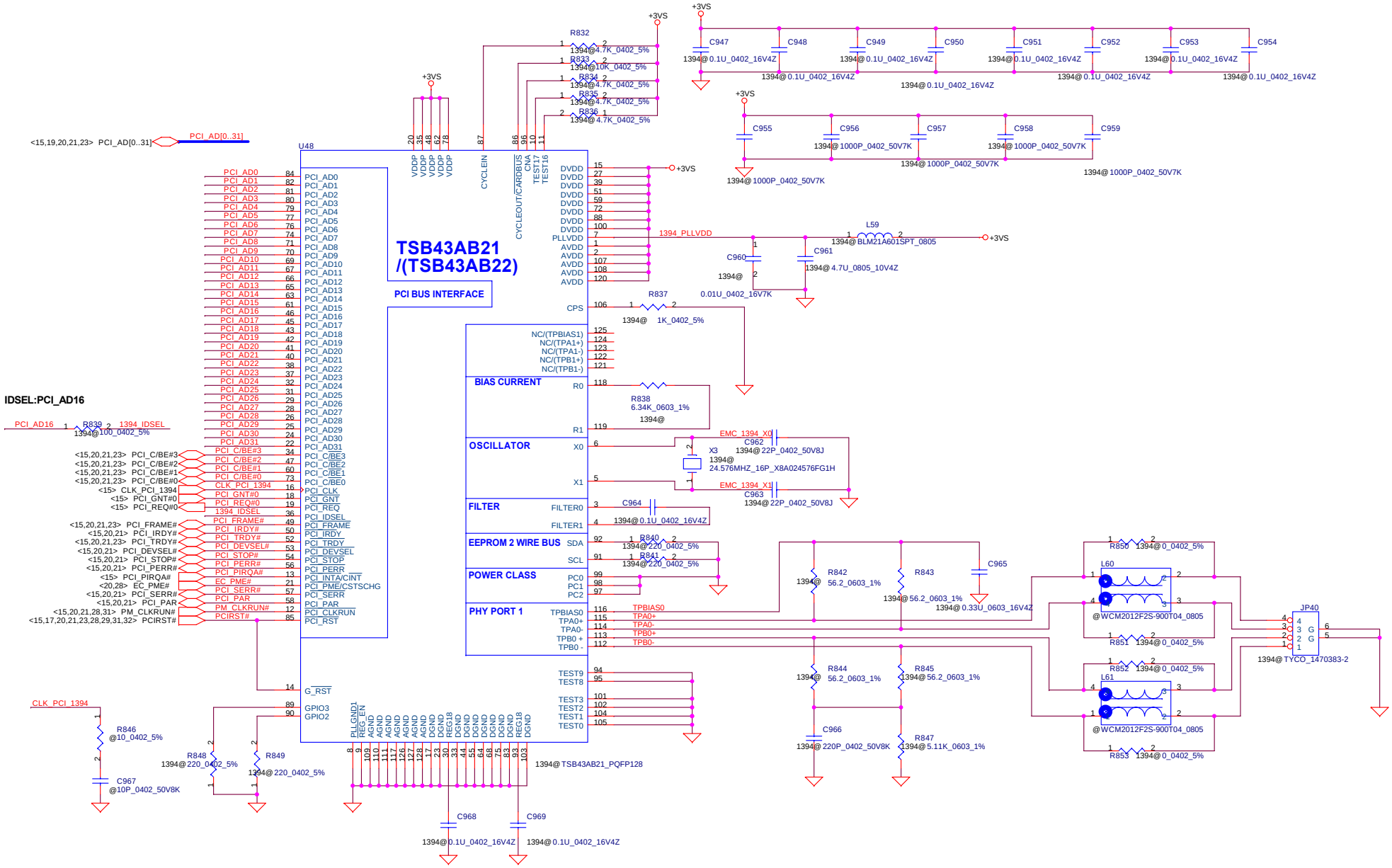
Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: AMP&Audio Jack.

Size	Document Number	Rev
Custom	HAWAA(LA3141)	0.3

Date: Thursday, January 26, 2006 | Sheet 25 of 43



Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

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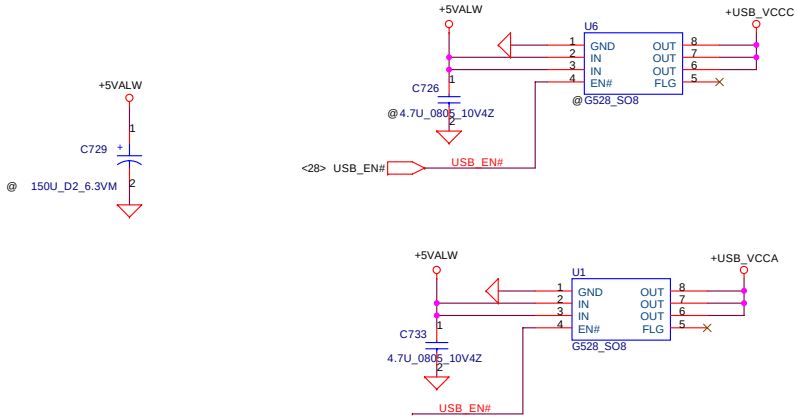
Compal Electronics, Inc.

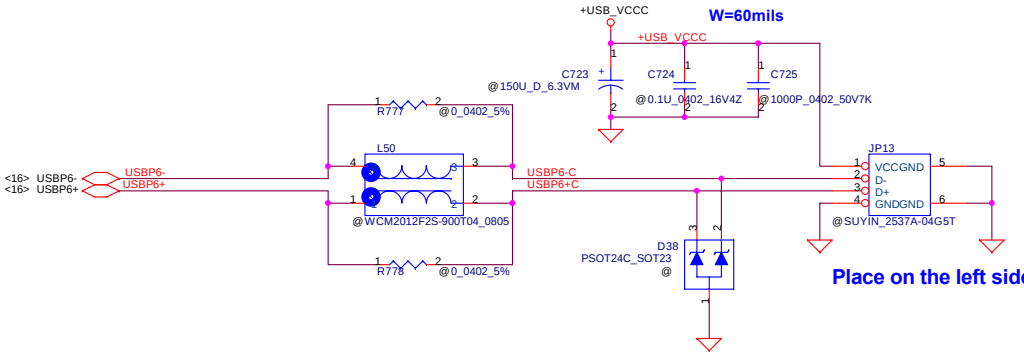
Title: TSB43AB21

Size	Document Number	Rev
Custom	HAZ00/BL10E (LA2861)	0.3

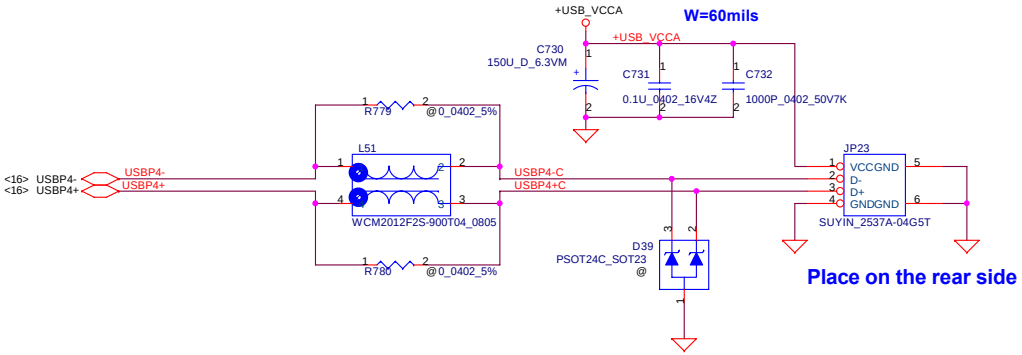
Date: Thursday, January 26, 2006 | Sheet 26 of 43



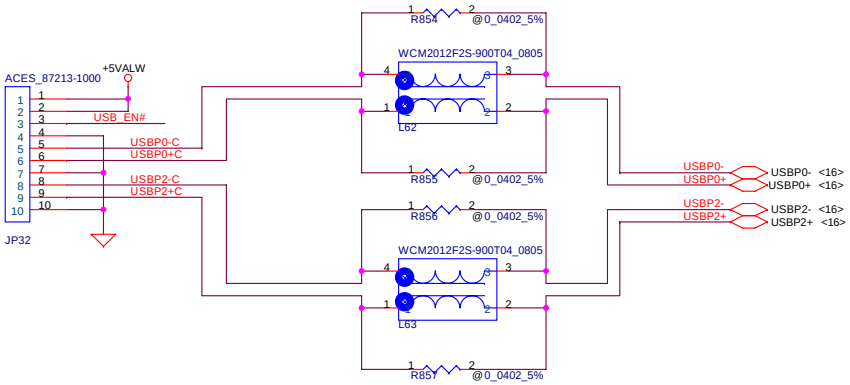
USB CONN. 1

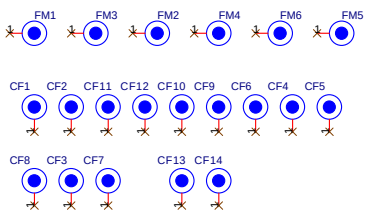


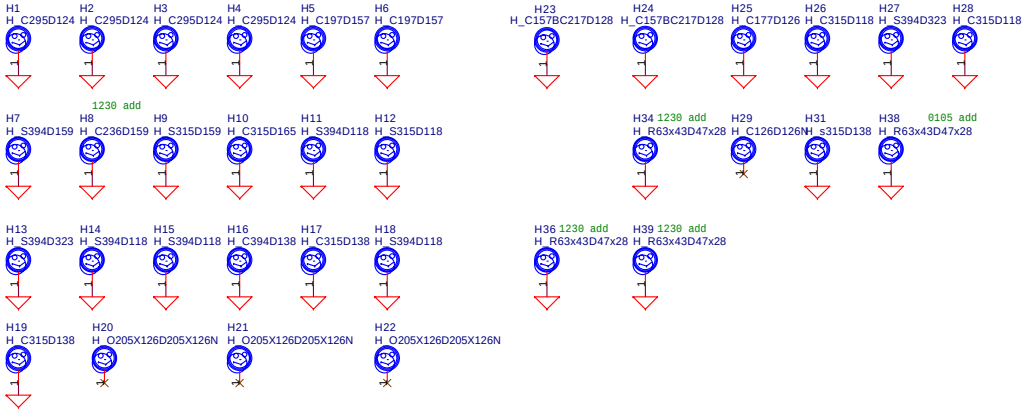
USB CONN.2



2 port in right side







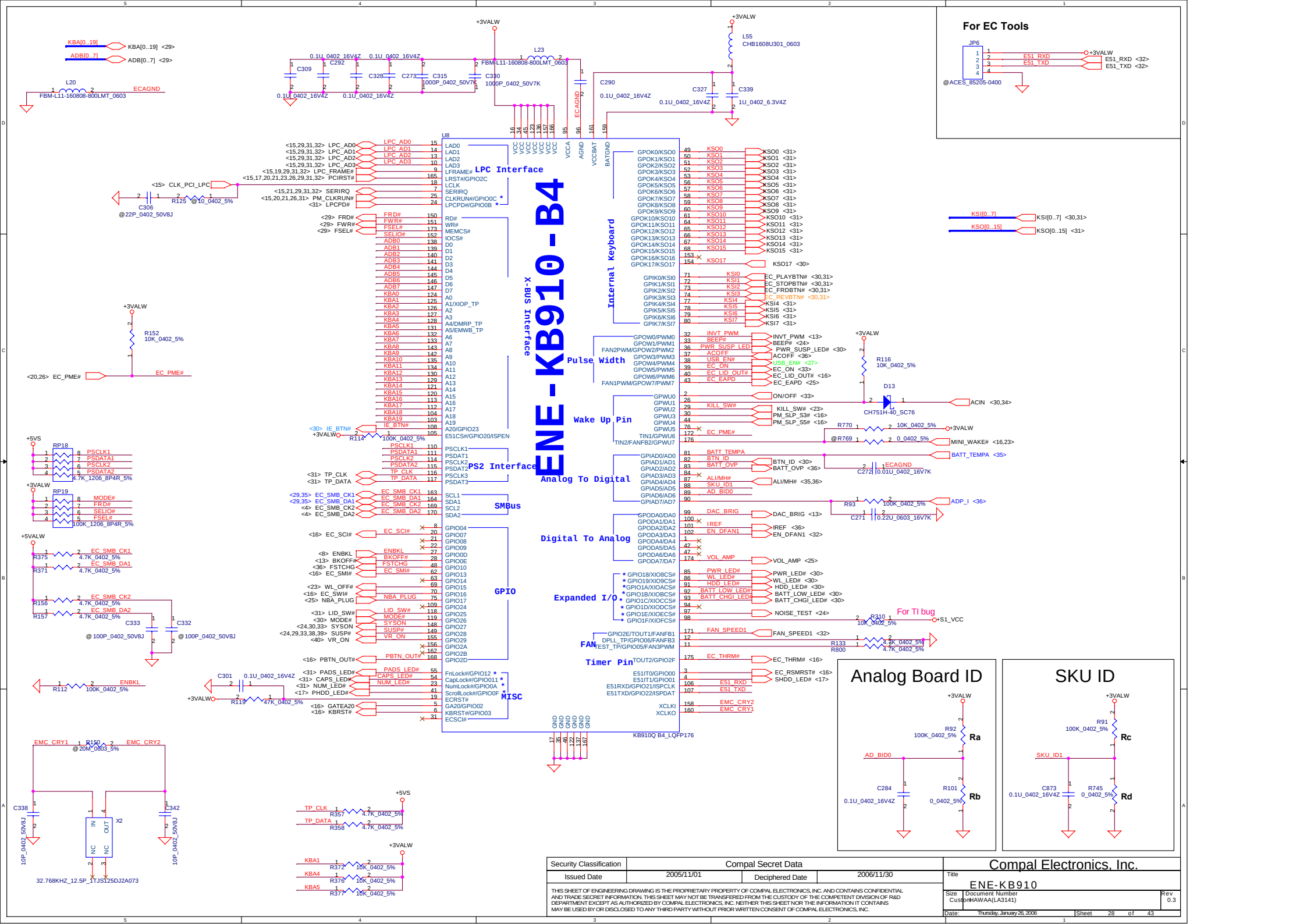
Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: USB Conn.

Size: Custom | Document Number: HAWAA(LA3141) | Rev: 0.2

Date: Thursday, January 26, 2006 | Sheet 27 of 43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LPC Interface
SUS Interface
PS2 Interface
SMBus
GPIO
MISC
Internal Keyboard
Pulse Width
Wake Up Pin
Analog To Digital
Digital To Analog
Expanded I/O
FAN
Timer Pin
KB910Q B4_LQFP176
For EC Tools
Analog Board ID
SKU ID
For TI bug
Compal Electronics, Inc.
ENE-KB910
Compal Secret Data
2005/11/01
2006/11/30
Thursday, January 26, 2006
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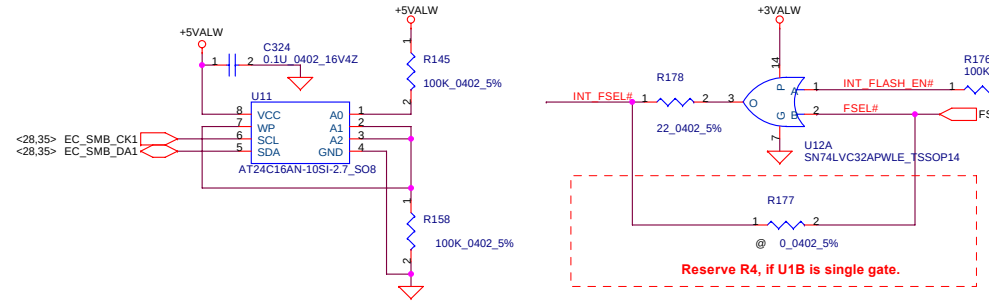

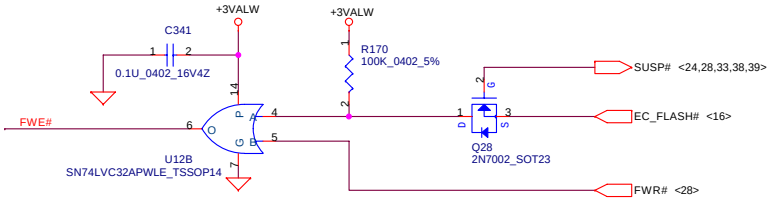

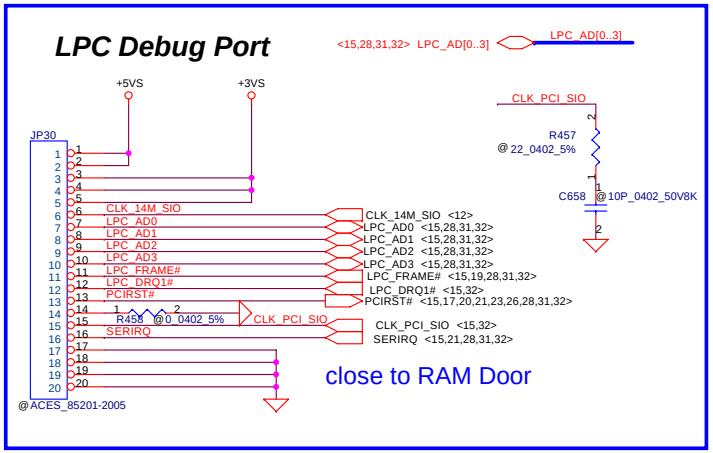

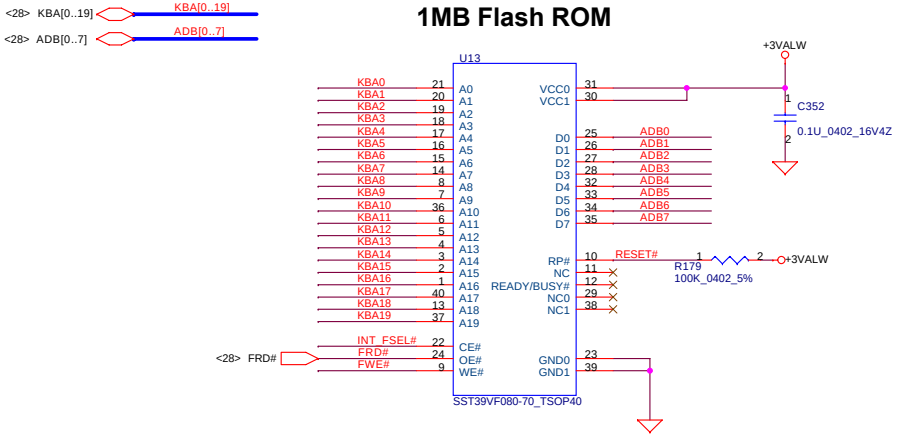

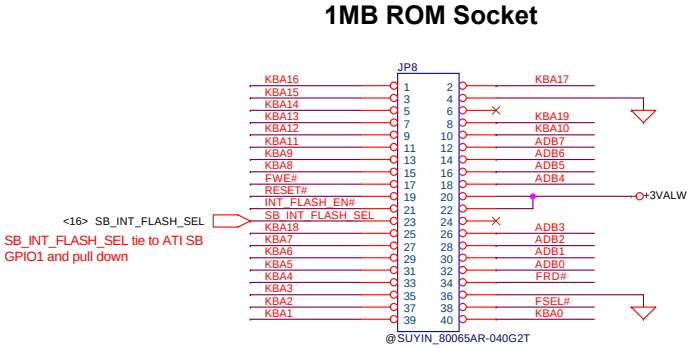

Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: BIOS& I/O PORT

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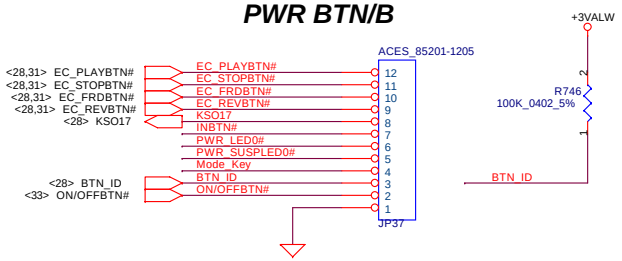
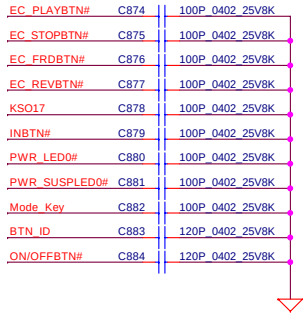
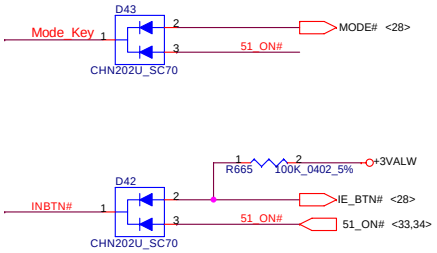
PWR BTN/B

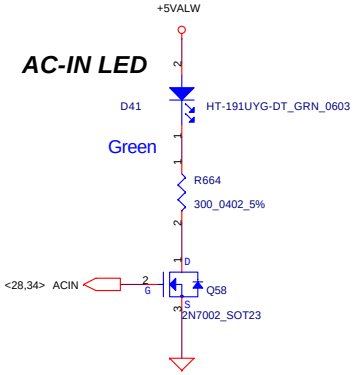


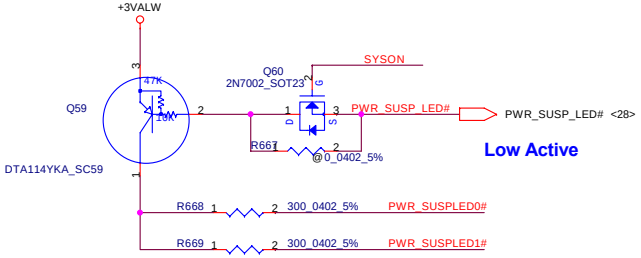


Vivace Button

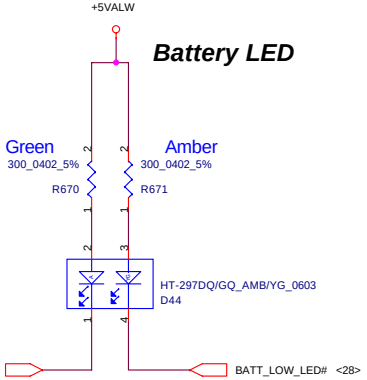


AC-IN LED

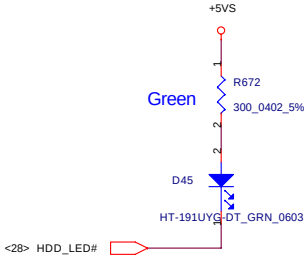


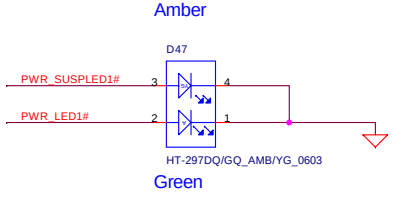


Battery LED

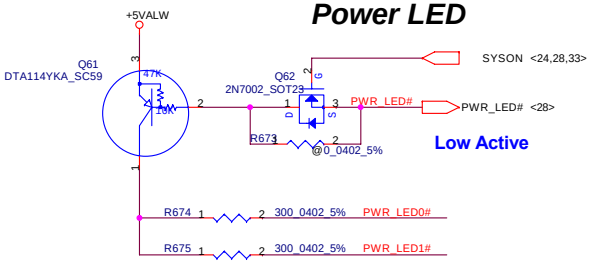


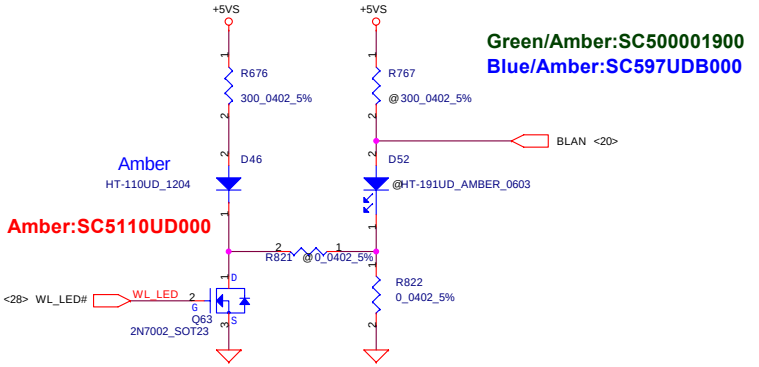
HDD LED





Power LED





Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: Kill SW/ Sub Conn./LEDS

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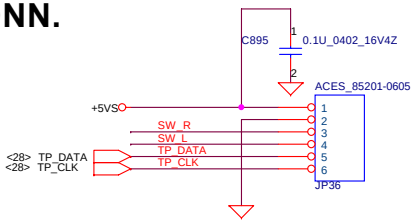
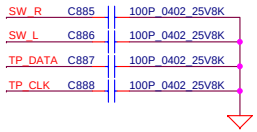
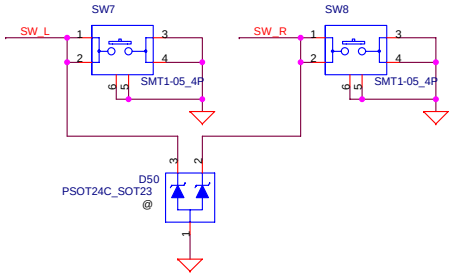
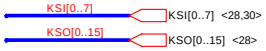
TP CONN.



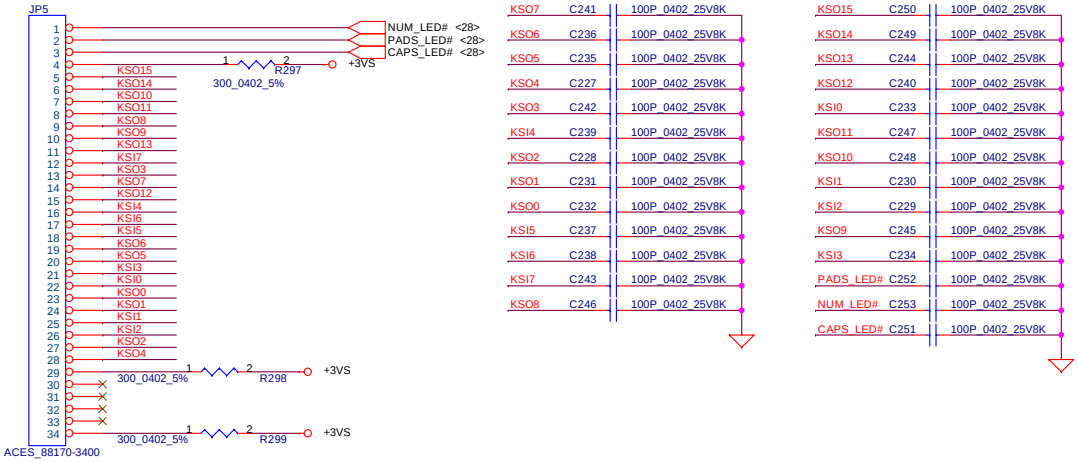


TP Button

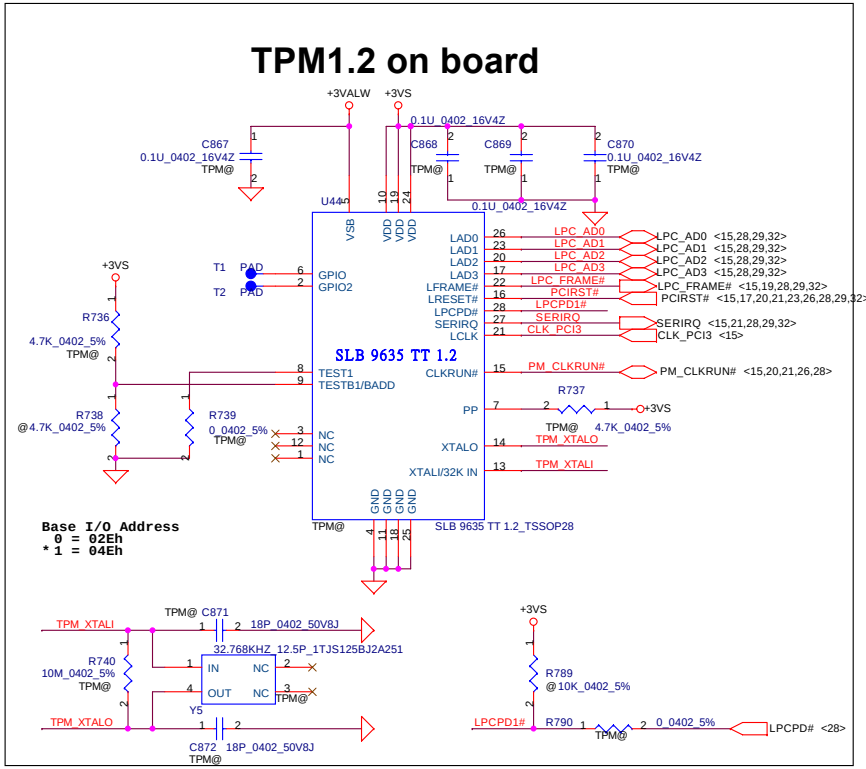




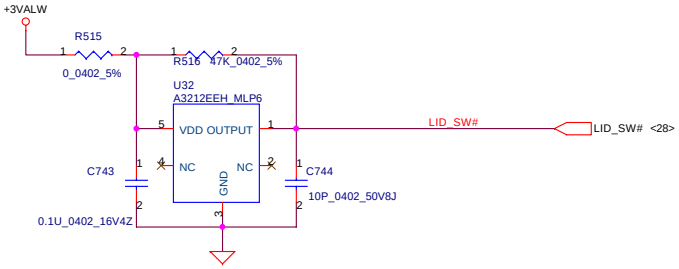
INT_KBD CONN.



TPM1.2 on board



Lid Switch



Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: KB/Touch Pad

Size	Document Number	Rev
Custom	HAWAA(LA3141)	0.3

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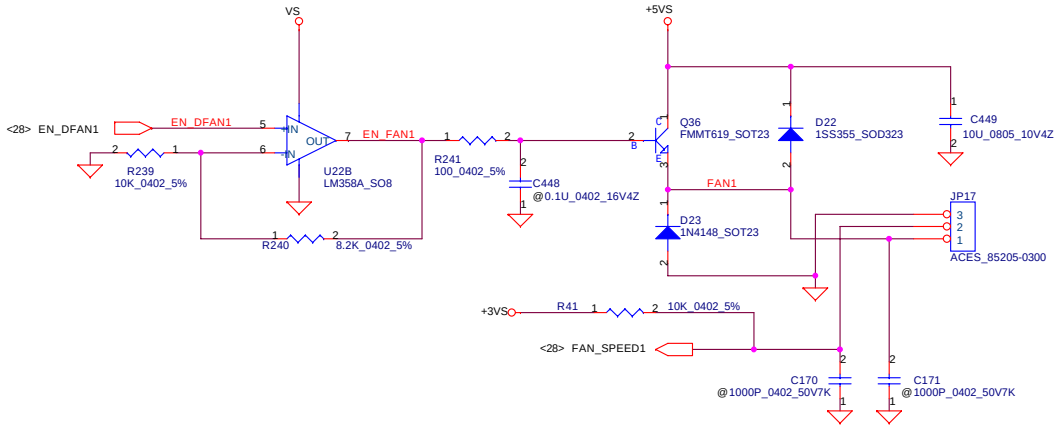
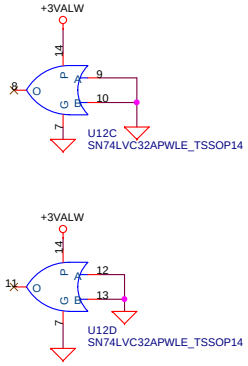
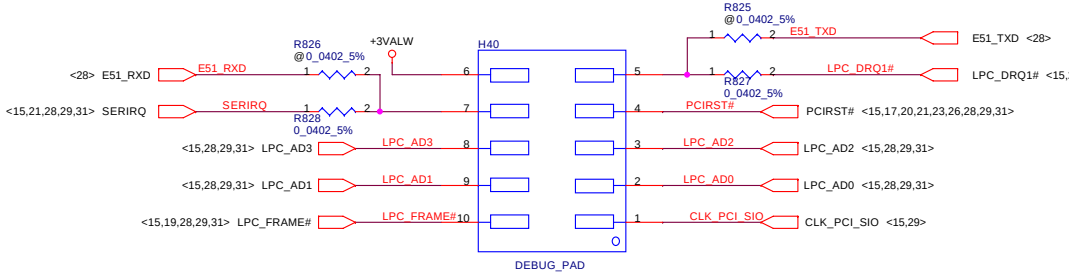
FAN

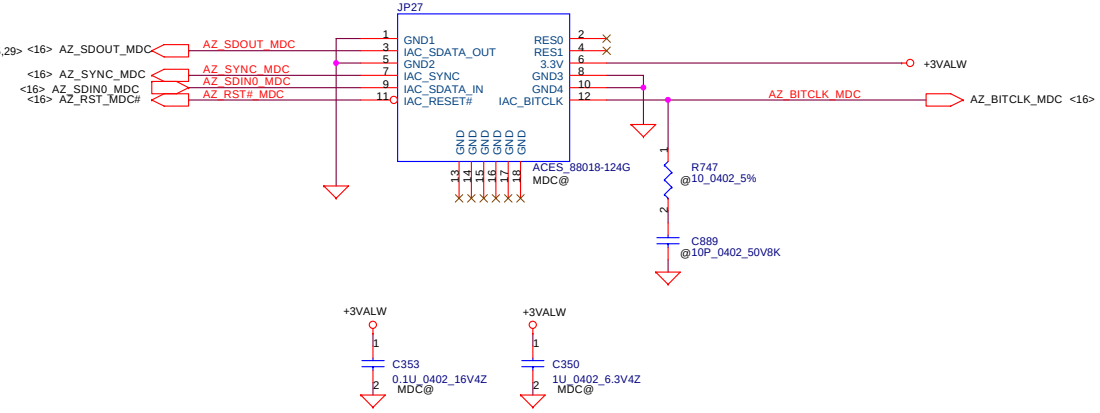






MDC CONN.

Connector for MDC Rev1.5



Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: FAN & MDC

Size	Document Number	Rev
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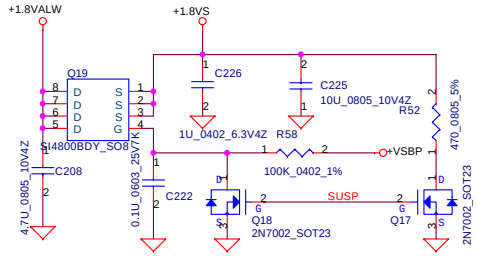
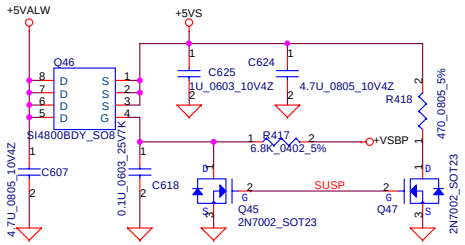
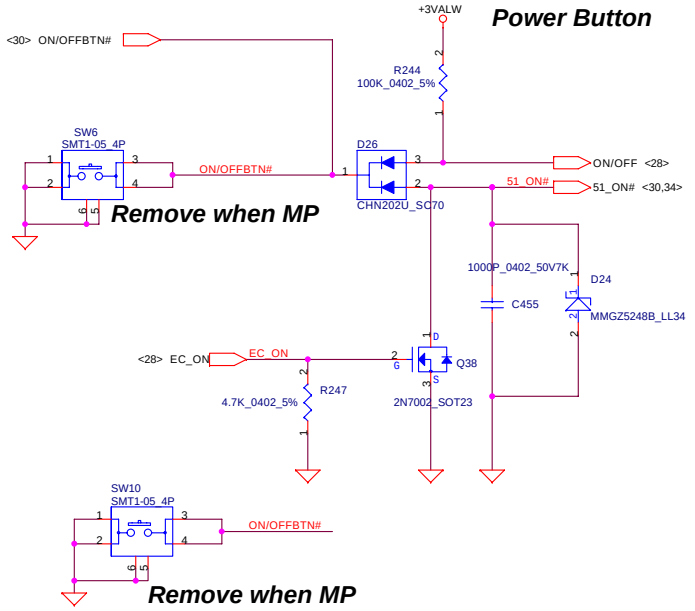
+1.8VALW TO +1.8VS



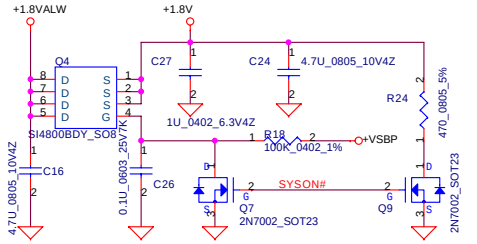
+5VALW TO +5VS

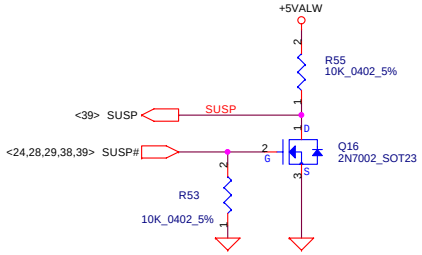


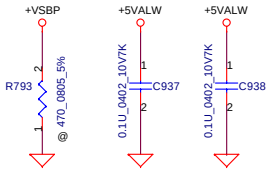
Power Button



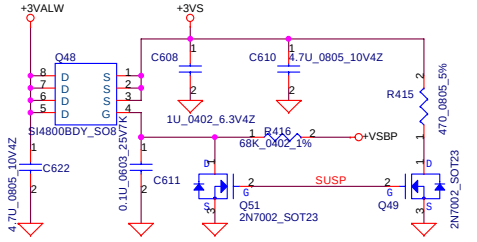
+1.8VALW TO +1.8V

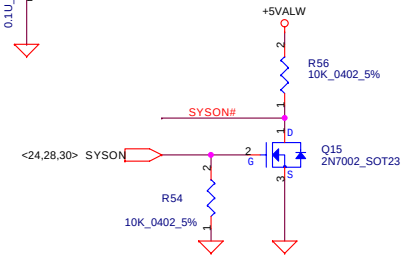


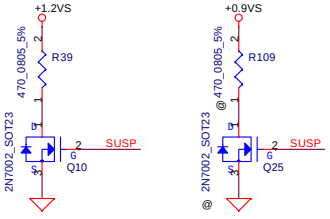




+3VALW TO +3VS







Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: DC-DC INTERFACE

Size	Document Number	Rev
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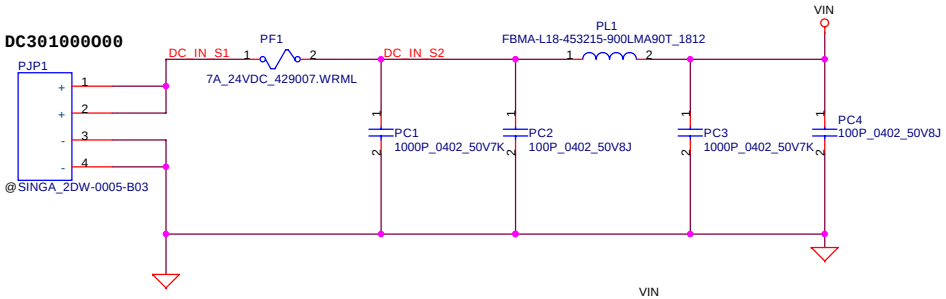
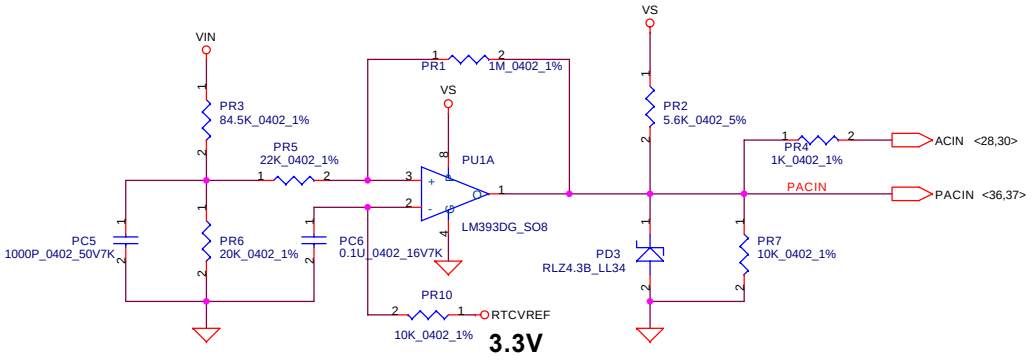
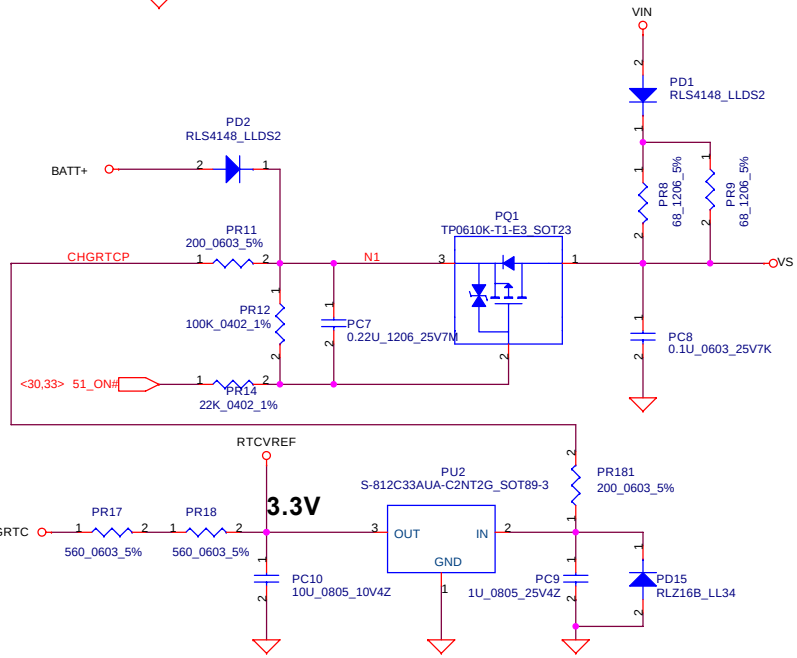
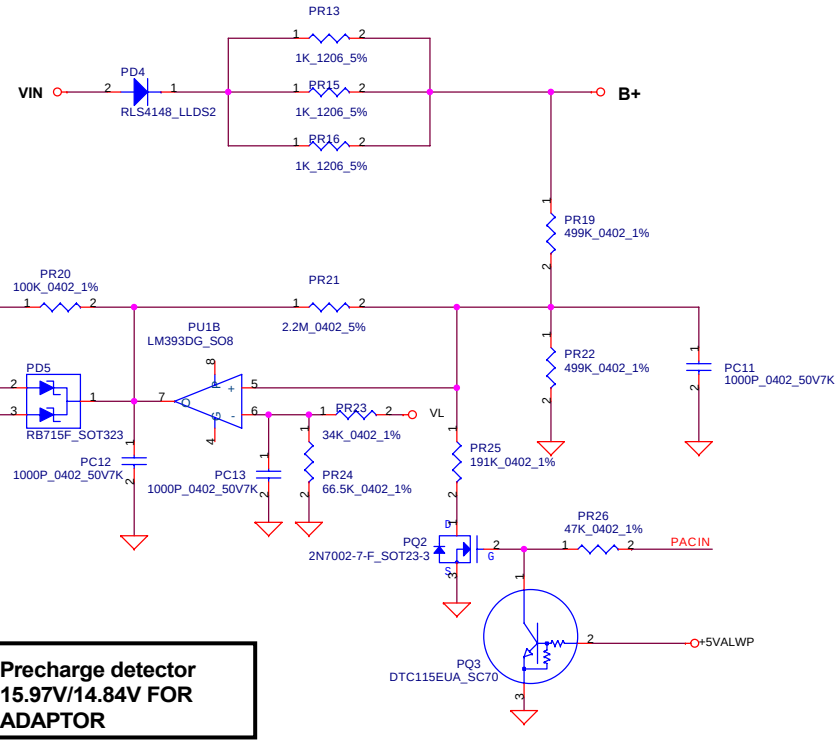




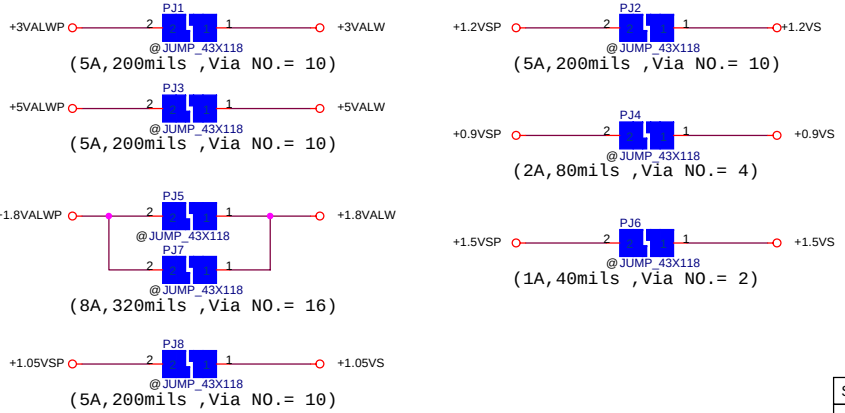
Vin Detector

High	18.384	17.901	17.430
Low	17.728	17.257	16.976





Precharge detector
15.97V/14.84V FOR
ADAPTOR



Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: **DCIN & DETECTOR**

Size	Document Number	Rev
B	HAWAA(LA3141)	0.3

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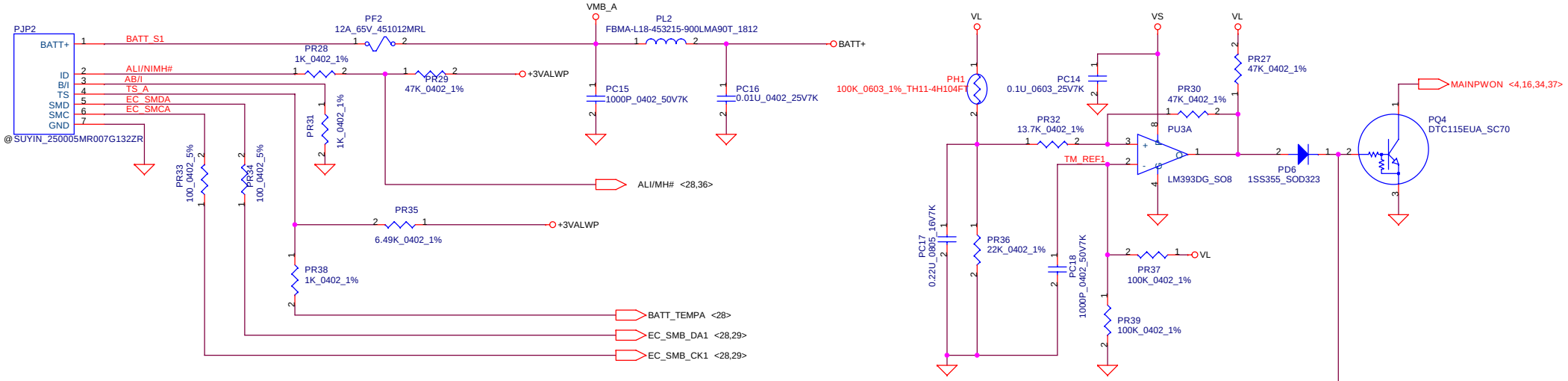
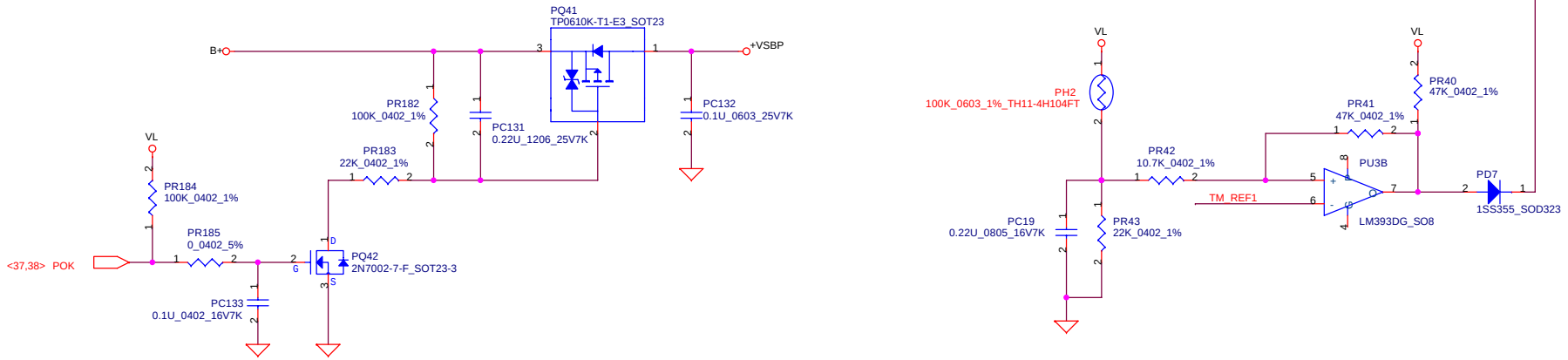
PH1 under CPU botten side :
CPU thermal protection at 84 degree C
Recovery at 45 degree C

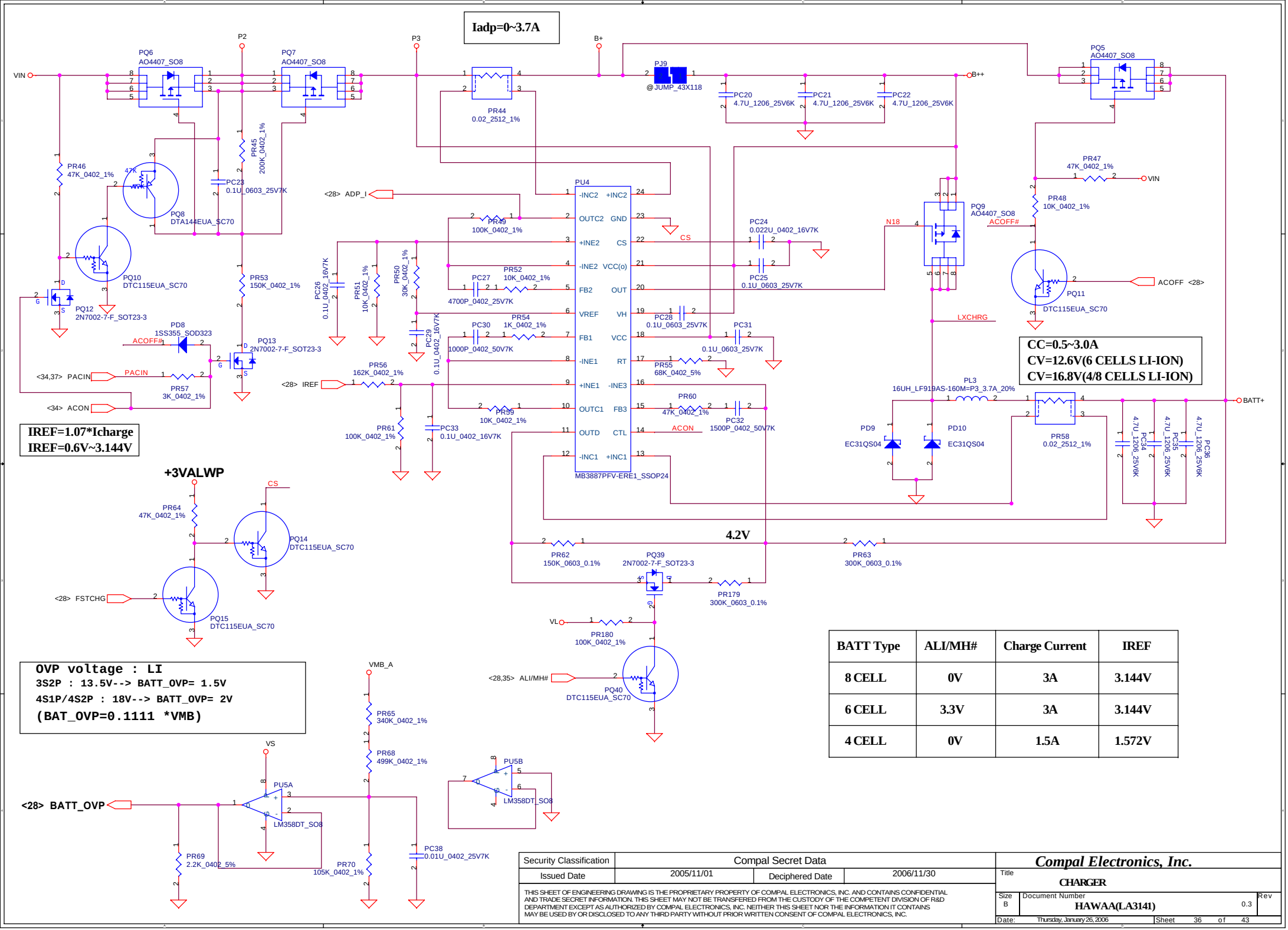


PH2 near main Battery CONN :
BAT. thermal protection at 79 degree C
Recovery at 45 degree C



Security Classification	Compal Secret Data		
Issued Date	2005/06/23	Deciphered Date	2006/10/22

Compal Electronics, Inc.			
Title	BATTERY CONN/OTP		
Size B	Document Number HAWAA(LA3141)		Rev 0.3
Date: Thursday, January 26, 2006		Sheet 35 of 43	



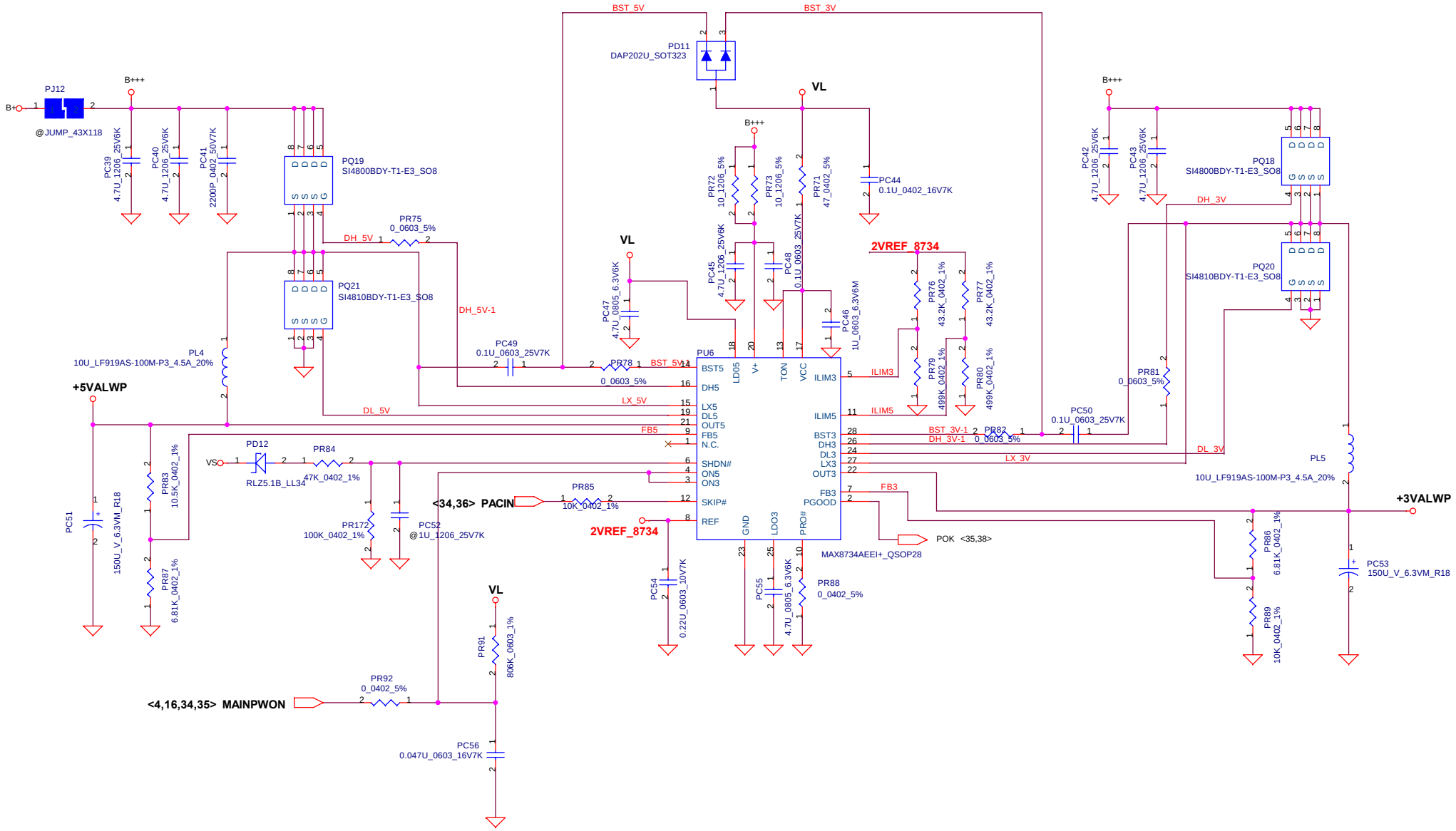
BATT Type	ALI/MH#	Charge Current	IREF
8 CELL	0V	3A	3.144V
6 CELL	3.3V	3A	3.144V
4 CELL	0V	1.5A	1.572V

Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title	CHARGER	
Size B	Document Number HAWAA(LA3141)	Rev 0.3
Date: Thursday, January 26, 2006	Sheet 36 of 43	

+3.3VALWP/+5VALWP



Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title	+5V/+3V	
Size: Custom	Document Number: HAWAA(LA3141)	Rev: 0.3
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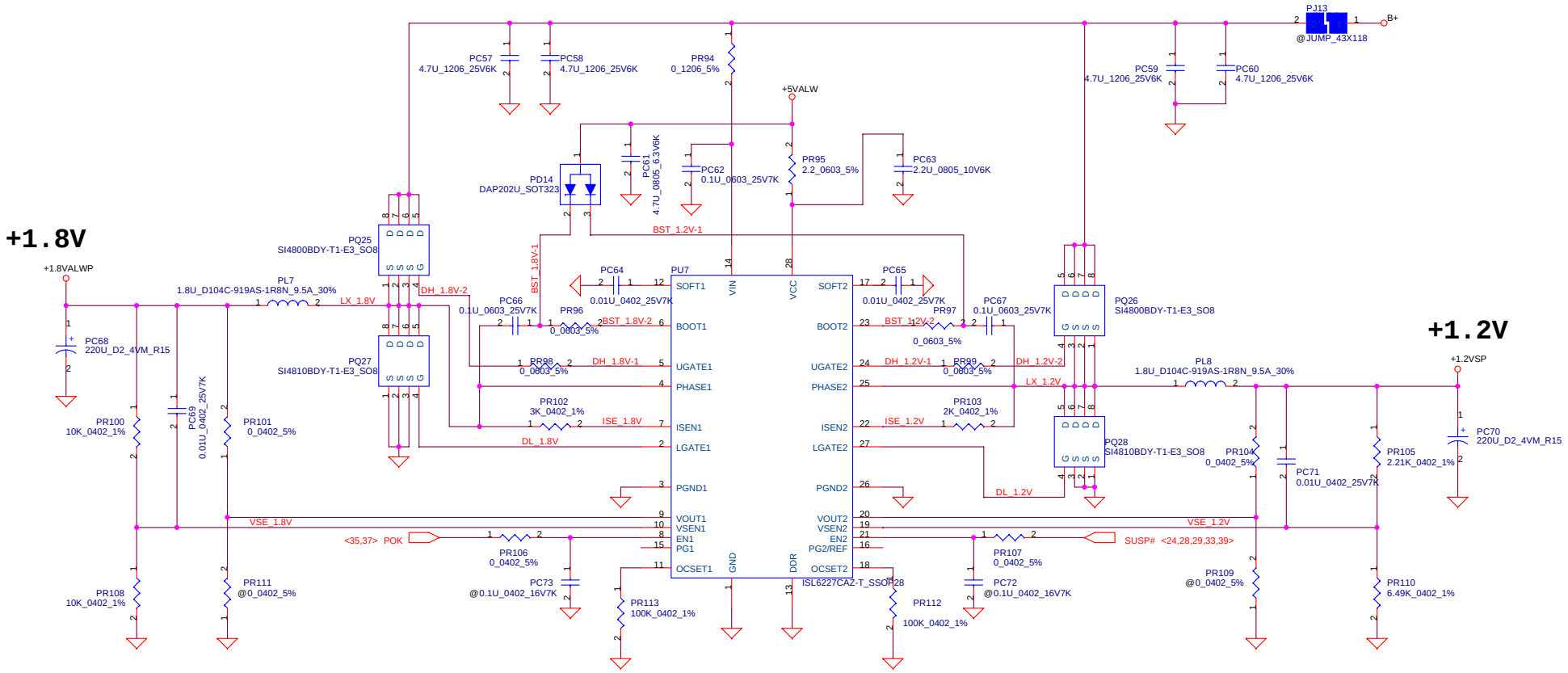
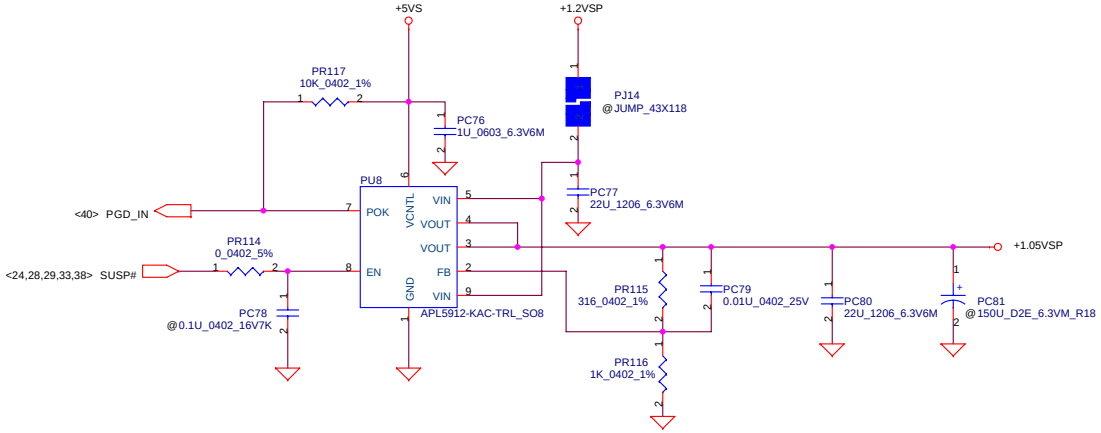


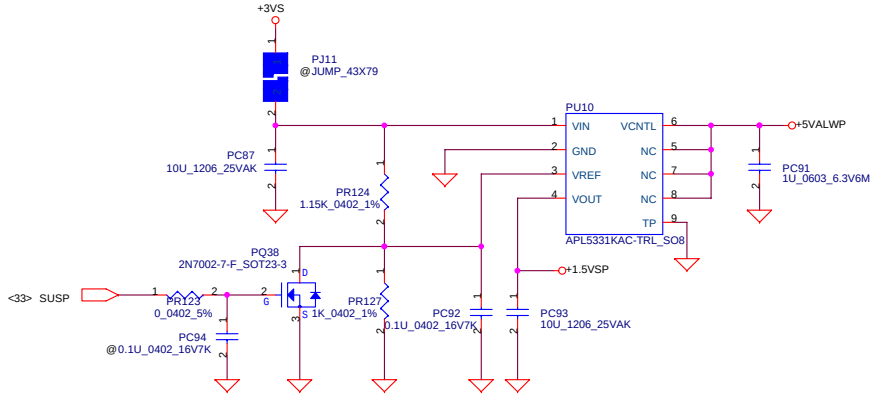
Compal Electronics, Inc.

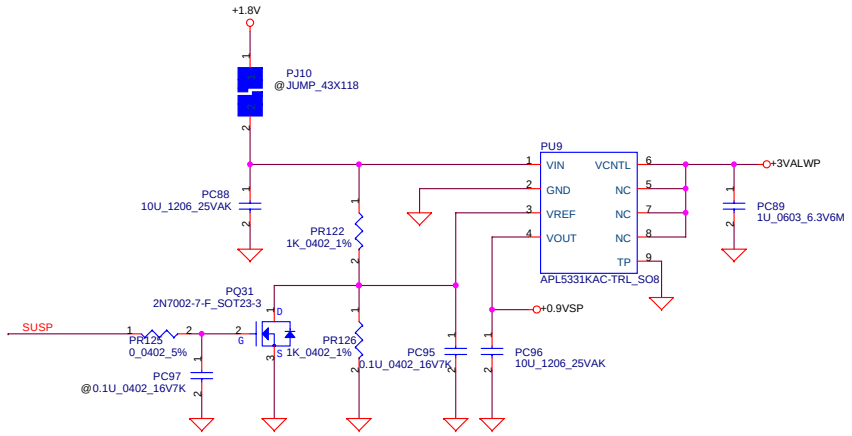
Title: **+1.8V/+1.2V**

Size: Custom | Document Number: **HAWAA(LA3141)** | Rev: 0.3

Date: Thursday, January 26, 2006 | Sheet 38 of 43







Security Classification	Compal Secret Data		
Issued Date	2005/06/23	Deciphered Date	2006/10/22

Compal Electronics, Inc.

Title: **+1.05V/+1.5V/+0.9V**

Size: Custom | Document Number: **HAWAA(LA3141)** | Rev: 0.3

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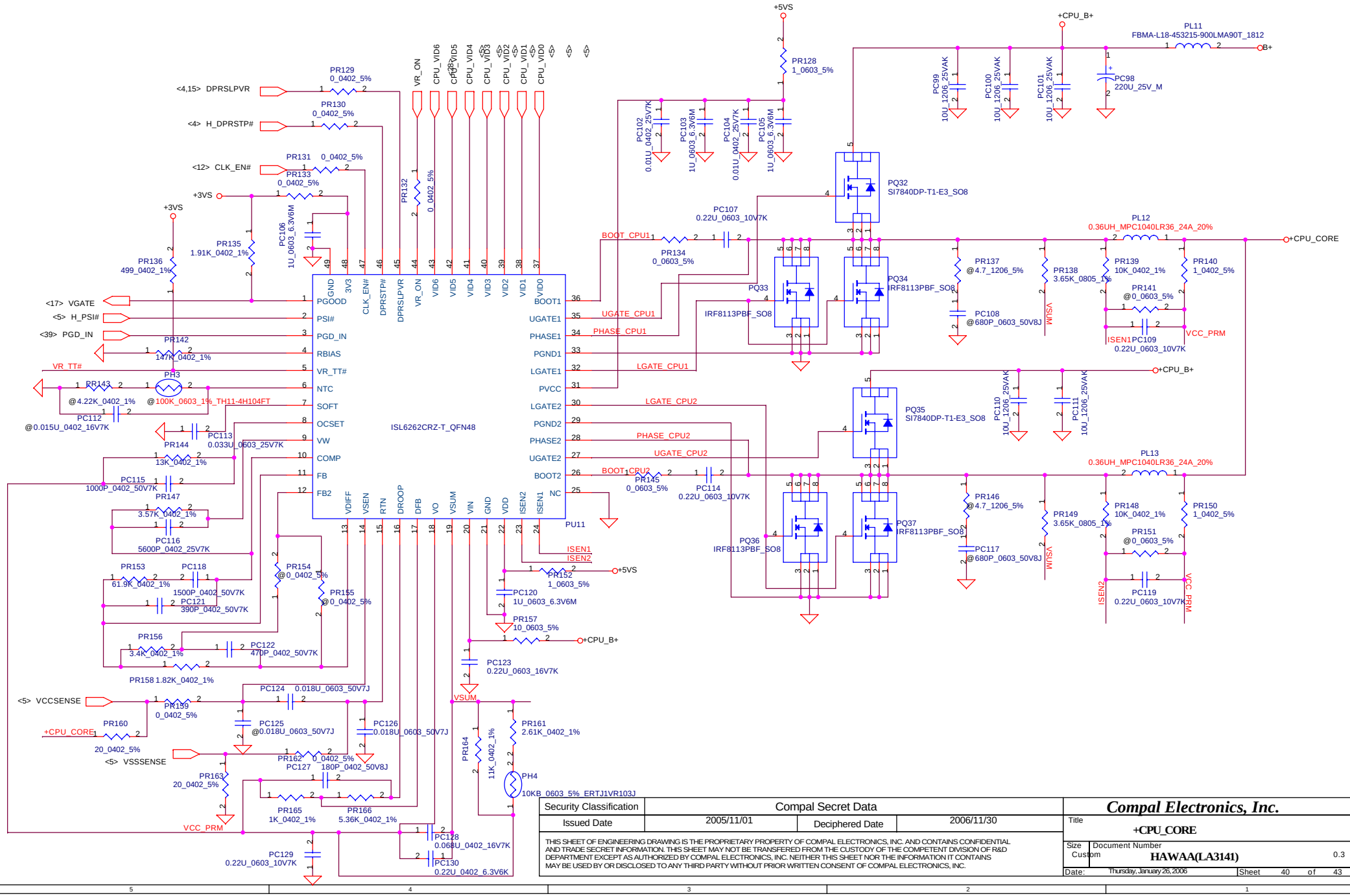

Security Classification	Compal Secret Data		
Issued Date	2005/11/01	Deciphered Date	2006/11/30

Compal Electronics, Inc.

Title: **+CPU_CORE**

Size	Document Number	Rev
Custom	HAWAA(LA3141)	0.3

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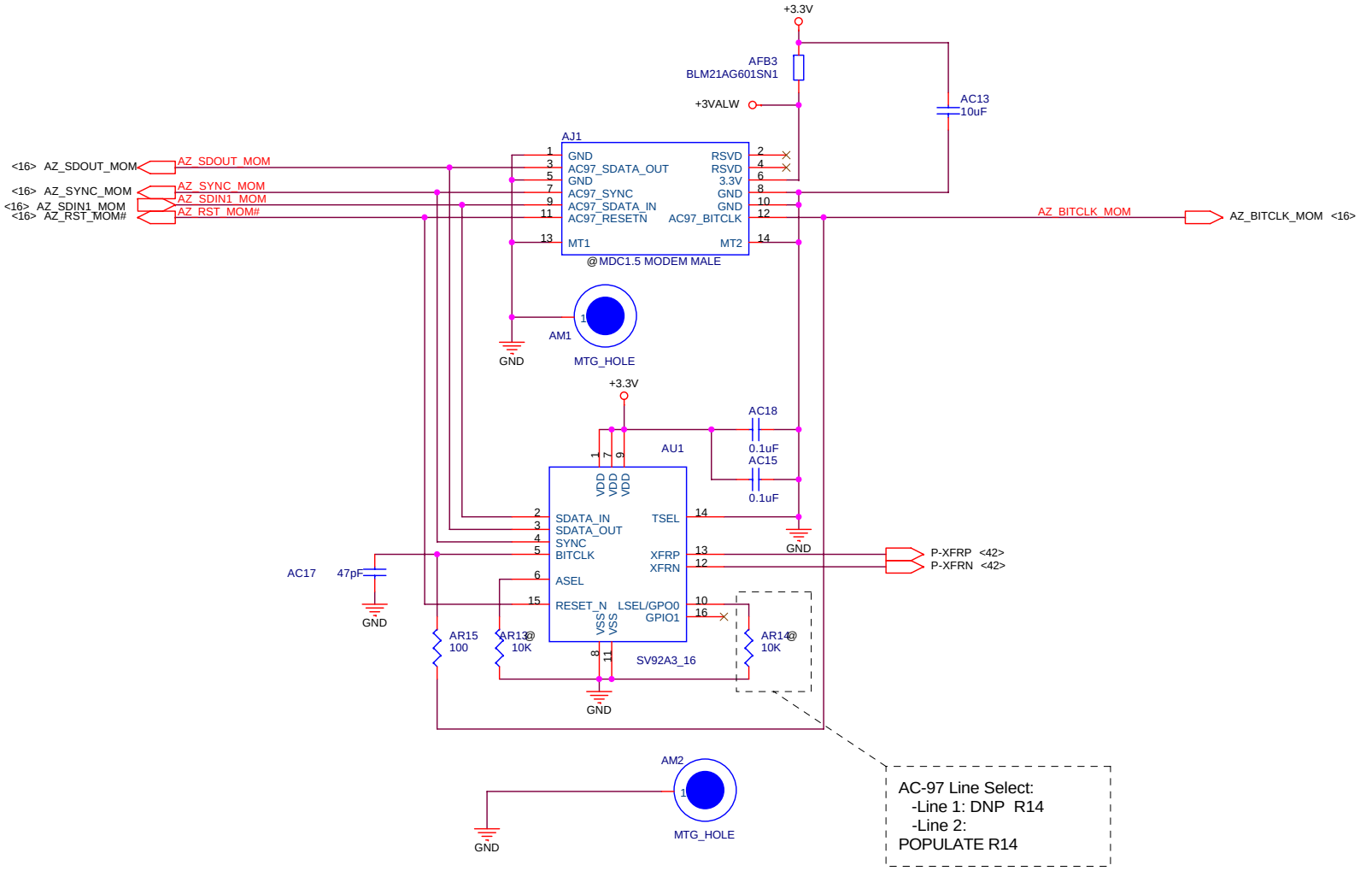
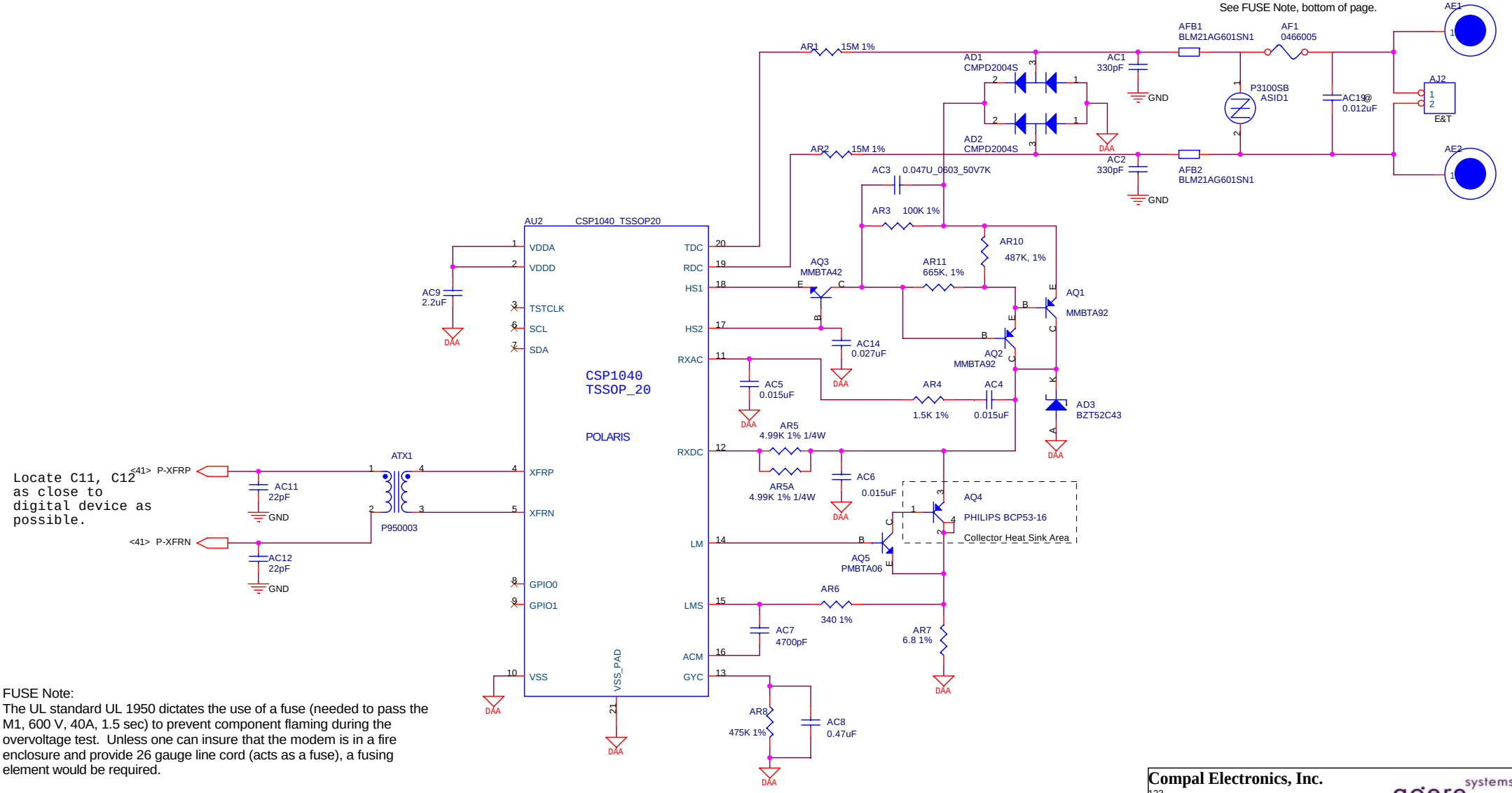


Compal Electronics, Inc.		
123		
Design Engineer: C. Russo		
Title: DELPHI SV92A3 MDC 1.5 Reference Design		
Size: B	Document Number: HAWAA(LA3141)	Rev: 0.3
Date: Thursday, January 26, 2006	Sheet 41 of 43	



FUSE Note:
The UL standard UL 1950 dictates the use of a fuse (needed to pass the M1, 600 V, 40A, 1.5 sec) to prevent component flaming during the overvoltage test. Unless one can insure that the modem is in a fire enclosure and provide 26 gauge line cord (acts as a fuse), a fusing element would be required.

Alternatively, if a TNV-1 flame resistant material is used, either as a wrap or cover over the DAA portion of the modem, this could satisfy both overvoltage protection and the separation requirement also contained in UL 1950. This latter requirement provides isolation such that unearthed parts of the DAA cannot be touched by a test finger or test probe.

Compal Electronics, Inc.		
123		
Design Engineer: R. Trevino		
Title: **DELPHI SV92A3 MDC 1.5 Reference Design**		
Size: B	Document Number: **HAWAA(LA3141)**	Rev: 0.3
Date: Thursday, January 26, 2006	Sheet 42 of 43	

HW4 Product Improvement Record (P.I.R.)

Phase: A to B		Date: 2006/01/04			Writer: Steve Chiu		
Page#	Action Plan (add; del; change)	Location or Net_List	Before value (Attached file)	After value (Attached file)	Detail Discretion and Root Cause	Rev.	DL/DM Check
33	Add	R793		470_0805_5%	For B+ issue	0.2	
28	Change	EC_PLAYBTN# EC_STOPBTN# EC_FRDBTN# EC_REVBTN#	EC_PLAYBTN# EC_STOPBTN# EC_FRDBTN# EC_REVBTN#	KSI0 KSI1 KSI2 KSI3	Change to the corret NET name	0.2	
28	Add	R800		1K_0402_5%	For solve AC-IN LED issue	0.2	
10	Change	JP16			Update DDR DIMM Footprint	0.2	
15	Add	R794		10K_0402_5%	For EMI SSC chip use	0.2	
25	Add	C906,C907 R798,R799		1U_0402 1.5K_0402_5%	For solve audio noise	0.2	

Compal Electronics, Inc.		
Title: PIR		
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