Compal Confidential

Schematics Document

Intel CLARKSFIELD/ARRANDALE
with IBEX PEAK-M core logic

Cartier DIS

LA-4901P

2009-12-01

REV:1.0

Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.		
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Size: Custom	Document Number: *LA-4901P*	Rev: 1.0
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Cartier DIS

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Socket-rPGA989
37.5mm*37.5mm
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Intel Ibex Peak M
1071pins
25mm*27mm
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PCI BUS

1394 port

Smart Card Modular

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Page 34 Docking CONN.

(2) PS/2 Interfaces
(2) USB 2.channels
(2) SATA Channels
(2) Display Port Channels
(1) Serial Port
(1) Parallel Port
(1) Line In
(1) Line Out
(1) RJ45 (10/100/1000)
(1) VGA
(1) 2 LAN indicator LED's
(1) Power Button
(1) I2C interface

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Title: **Block Diagram**

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Voltage Rails

(O MEANS ON X MEANS OFF)

power plane / State	+RTCVCC	+B +3VL	+5VALW +3VALW	+3VM +1.05VM	+1.5V +0.75V	+5VS +3VS +1.5VS +VGA_CORE +VCCP +CPU_CORE +1.05VS +1.8VS
S0	O	O	O	O	O	O
S1	O	O	O	O	O	O
S3	O	O	O	O	O	X
S5 S4/AC	O	O	O	O	X	X
S5 S4/ Battery only	O	O	X	X	X	X
S5 S4/AC & Battery don't exist	O	X	X	X	X	X

Symbol Note :

: means Digital Ground

: means Analog Ground

Install below 45 level BOM structure

45@ : means just put it in the BOM of 45 level.

Install below 43 level BOM structure

@ : means just reserve , no build
CONN@ : means ME part.
VRAM@ : means VRAM strip pin part.

SMBUS Control Table

	SOURCE	BATT	XDP	SODIMM	CLK CHIP	MINI CARD	DOCK	NIC	THERMAL SENSOR	G-SENSOR
SMB_EC_CK1 SMB_EC_DA1	SMSC1098	V	X	X	X	X	X	X	X	X
SMBCLK SMBDATA	Calpella	X	V	V	V	V	V	X	X	V
SML0CLK SML0DATA	Calpella	X	X	X	X	X	X	V	X	X
SML1CLK SML1DATA	Calpella	X	X	X	X	X	X	X	V	X

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Title: **Notes List**

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Layout rule：10mil width trace length < 0.5", spacing 20mil

JCPU1B

MISC
COMP3 AT23
COMP2 AT24
COMP1 G16
COMP0 AT26
SKTOCC# AH24

THERMAL
CATERR# AK14
PECI AT15
PROCHOT# AN26
THERMTRIP# AK15

PWR MANAGEMENT
RESET_OBS# AP26
PM_SYNC AL15
VCCPWRGOOD_1 AN14
VCCPWRGOOD_0 AN27
SM_DRAMPWROK AK13
VTTPWRGOOD AM15
TAPPWRGOOD AM26
RSTIN# AL14

CLOCKS
BCLK AT25
BCLK# AT24
BCLK_ITP AR30
BCLK_ITP# AT30
PEG_CLK F16
PEG_CLK# D16
DPLL_REF_SSCLK A18
DPLL_REF_SSCLK# A17

DDR3 MISC
SM_DRAMRST# F6
SM_RCOMP[0] AL1
SM_RCOMP[1] AM1
SM_RCOMP[2] AN1
PM_EXT_TS#[0] AN15
PM_EXT_TS#[1] AP15

JTAG & BPM
PRDY# AT28
PREQ# AP27
TCK AN28
TMS AP28
TRST# AT27
TDI AT29
TDO AR27
TDI_M AR29
TDO_M AP29
DBR# AN25
BPM#[0] AJ22
BPM#[1] AK22
BPM#[2] AK24
BPM#[3] AJ24
BPM#[4] AJ25
BPM#[5] AH22
BPM#[6] AK23
BPM#[7] AH23

IC,AUB_CFD_rPGA,R1P0

CONN@
A16 CLK_BCLK
B16 CLK_BCLK#
AR30 CLK_CPU_XDP
AT30 CLK_CPU_XDP#
F16 CLK_EXP
D16 CLK_EXP#
A18 R11 0_0402_5%
A17 R13 0_0402_5%
AT28 XDP_PRDY#
AP27 XDP_PREQ#
AN28 XDP_TCK
AP28 XDP_TMS
AT27 XDP_TRST#
AT29 XDP_TDI
AR27 XDP_TDO
AR29 XDP_TDI_M
AP29 XDP_TDO_M
AN25 XDP_DBRESET#
AJ22 XDP_BPM#0
AK22 XDP_BPM#1
AK24 XDP_BPM#2
AJ24 XDP_BPM#3
AJ25 XDP_BPM#4
AH22 XDP_BPM#5
AK23 XDP_BPM#6
AH23 XDP_BPM#7

CLK_CPU_BCLK 15
CLK_CPU_BCLK# 15
CLK_EXP 13
CLK_EXP# 13

20_0402_1% R2 COMP3
20_0402_1% R5 COMP2
49.9_0402_1% R7 COMP1
49.9_0402_1% R9 COMP0
T2 TP_SKTOCC#
H_CATERR#
15 H_PECI R16 0_0402_5% H_PECI_ISO
to power; Pu to VCCP at power side also
46 H_PROCHOT# R17 0_0402_5% H_PROCHOT#_D
15,20 H_THERMTRIP# R19 0_0402_5% H_THERMTRIP#_R
H_CPURST# R20 0_0402_5% H_CPURST#_R
14 H_PM_SYNC R21 0_0402_5% H_PM_SYNC_R
H_CPUPWRGD R22 0_0402_5% VCCPWRGOOD_1
15 H_CPUPWRGD R24 0_0402_5% VCCPWRGOOD_0
14 PM_DRAM_PWRGD R26 0_0402_5% VDDPWRGOOD_R
from power
37 VTTPWRGOOD
H_PWRGD_XDP R30 0_0402_5% H_PWRGD_XDP_R
15 BUF_PLT_RST# R31 1.5K_0402_1% PLT_RST#_R
2009/02/24 HP DB-2
R33 750_0402_1%
+1.5V
R1226 @ 0_0402_5%
VDDPWRGOOD_R R141 1.5K_0402_1%
R151 750_0402_1%
2009/04/10 HP DB-3
2009/07/02 HP SI-1b
VCCP_1.5VSPWRGD 37

+VCCP
PM_EXTTS#0 R1 10K_0402_5%
PM_EXTTS#1 R3 10K_0402_5%
PM_PWRBTN# R R909 @ 1K_0402_5%
2008/10/09 HP
2009/02/06 HP DB-2
XDP_TDO R101 51_0402_5%
This shall place near XDP
2009/04/13 Compal DB-3

+1.5V
R1218 1K_0402_5%
SSM3K7002F_SC59-3 Q87
DRAMRST# 9,10
PCH_DDR_RST 5,15
2009/07/02 HP SI-1b
R1219 @ 100K_0402_5%
C997 470P_0402_50V8J
2009/07/21 HP SI-2
from DDR
PM_EXTTS#1_R 9,10
T3
R18 0_0402_5%

CPU XDP Connector

JP1 SAMTE_BSH-030-01-L-D-A CONN@

GND0 GND1
OBSFN_A0 OBSFN_C0
OBSFN_A1 OBSFN_C1
GND2 GND3
OBSDATA_A0 OBSDATA_C0
OBSDATA_A1 OBSDATA_C1
GND4 GND5
OBSDATA_A2 OBSDATA_C2
OBSDATA_A3 OBSDATA_C3
GND6 GND7
OBSFN_B0 OBSFN_D0
OBSFN_B1 OBSFN_D1
GND8 GND9
OBSDATA_B0 OBSDATA_D0
OBSDATA_B1 OBSDATA_D1
GND10 GND11
OBSDATA_B2 OBSDATA_D2
OBSDATA_B3 OBSDATA_D3
GND12 GND13
PWRGOOD/HOOK0 ITPCLK/HOOK4
HOOK1 ITPCLK#/HOOK5
VCC_OBS_AB VCC_OBS_CD
HOOK2 RESET#/HOOK6
HOOK3 DBR#/HOOK7
GND14 GND15
SDA TDO
SCL TRST#
TCK1 TDI
TCK0 TMS
GND16 GND17

XDP_BPM#0 R1016 0_0402_5% XDP_PREQ#
XDP_BPM#1 R1018 0_0402_5% XDP_PRDY#
XDP_BPM#2 R1020 0_0402_5% XDP_BPM#0_R
XDP_BPM#3 R1022 0_0402_5% XDP_BPM#1_R
R1017 0_0402_5% XDP_BPM#2_R
R1019 0_0402_5% XDP_BPM#3_R
R1021 0_0402_5%
R1023 0_0402_5%
5 CFG12
5 CFG13
5 CFG14
5 CFG15
5 CFG17
5 CFG16
XDP_BPM#4
XDP_BPM#5
XDP_BPM#6
XDP_BPM#7
R25 1K_0402_5%
H_CPUPWRGD
12,14 PM_PWRBTN#_R
H_PWRGD_XDP R27 0_0402_5%
2008/12/12 HP
T110
T111
XDP_TCK
C1 @ 0.1U_0402_16V4Z
+VCCP

CFG8 CFG9
CFG0 CFG1
CFG2 CFG3
CFG10 CFG11
2009/02/25 HP DB-2
CFG4 CFG5
2008/12/12 HP DB-1
CFG6 CFG7
CLK_CPU_XDP
CLK_CPU_XDP#
XDP_RST# R R28 1K_0402_5%
XDP_DBRESET# R R29 0_0402_5%
H_CPURST#
XDP_DBRESET# 12,14
+3VS
R23 1K_0402_5%
XDP_TDO
XDP_TRST#
XDP_TDI
XDP_TMS
XDP_RST# R R32 0_0402_5%
PLT_RST# 12,15,20,26,28,31,33

Processor Pullups
+VCCP
H_CATERR# R39 49.9_0402_1%
H_PROCHOT# D R42 68_0402_5%
H_CPURST# R R45 @ 68_0402_5%

DDR3 Compensation Signals
SM_RCOMP0 R52 100_0402_1%
SM_RCOMP1 R53 24.9_0402_1%
SM_RCOMP2 R54 130_0402_1%
Layout Note:Please these resistors near Processor

JTAG MAPPING
2009/02/06 HP DB-2
Close to XDP
XDP_TRST# R551 51_0402_5%

Thermal Sensor EMC2113-2 with CPU PWM FAN

+3VS
R35 68_0402_5%
C3 0.1U_0402_16V4Z
21 VGA_THERMDC
21 VGA_THERMDA
C2 2200P_0402_50V7K
+3VS_THER
2009/01/21_HP
FAN_PWM-R
ADDR_SEL
2009/11/17 HP
15 THERM_SCI#
R48 @ 10K_0402_5%
9,10,11,13,32 SMB_DATA_S3
15,20 H_THERMTRIP#
H_THERMTRIP#_R
R51 0_0402_5%
2009/02/20 HP DB-2
2009/04/10 HP DB-3
Add 0ohm and 0.1u

U54 EMC2113-2-AX_QFN16_4X4
DN VGA_THERMDC
DP VGA_THERMDA
VDD 0.4mA
PWM_IN FAN_PWM-R
ADDR_SEL ADDR_SEL
ALERT# THERM_SCI#
SYS_SHDN# +3VS
SMDATA SMB_DATA_S3
DP2/DN3 REMOTE2+
DN2/DP3 REMOTE2-
TRIP_SET R41 10K_0402_5%
SHDN_SEL +3VS
GND
PWM FAN_PWM_OUT
TACH TACH
SMCLK SMB_CLK_S3 9,10,11,13,32

FAN_PWM-R R794 0_0402_5% FAN_PWM 35
10/16 HP Add
C830 @ 0.1U_0402_16V4Z
2009/07/23 Compal thermal team
2009/02/06 HP DB-2
R36 10K_0402_5%
R44 10K_0402_5%
FAN_PWM_OUT R1061 0_0402_5%
R47 10K_0402_5%
+5VS
+3VS
2009/02/06 HP DB-2
R1060 10K_0402_5%
JP2 CONN@
0.3A
ACES_85205-0400
2009/01/20 Compal HW
Add in this map at 11/24

	EMC2103 (default)	EMC2113
Install	R1060	R794,R1061
Don't Install	R794,R1061	R1060

REMOTE Thermal sensor

REMOTE2+
Q1 MMBT3904WH_SOT323-3
C4 2200P_0402_50V7K
REMOTE2-

Layout Note:
place near the hottest spot area for NB & top SODIMM.

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Title: ARD/CFD(1/5)-Thermal/XDP

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Layout rule : trace length < 0.5"

JCPU1A — CONN@ — IC,AUB_CFD_rPGA,R1P0

DMI

14 DMI_CRX_PTX_N0	A24	DMI_RX#[0]
14 DMI_CRX_PTX_N1	C23	DMI_RX#[1]
14 DMI_CRX_PTX_N2	B22	DMI_RX#[2]
14 DMI_CRX_PTX_N3	A21	DMI_RX#[3]
14 DMI_CRX_PTX_P0	B24	DMI_RX[0]
14 DMI_CRX_PTX_P1	D23	DMI_RX[1]
14 DMI_CRX_PTX_P2	B23	DMI_RX[2]
14 DMI_CRX_PTX_P3	A22	DMI_RX[3]
14 DMI_CTX_PRX_N0	D24	DMI_TX#[0]
14 DMI_CTX_PRX_N1	G24	DMI_TX#[1]
14 DMI_CTX_PRX_N2	F23	DMI_TX#[2]
14 DMI_CTX_PRX_N3	H23	DMI_TX#[3]
14 DMI_CTX_PRX_P0	D25	DMI_TX[0]
14 DMI_CTX_PRX_P1	F24	DMI_TX[1]
14 DMI_CTX_PRX_P2	E23	DMI_TX[2]
14 DMI_CTX_PRX_P3	G23	DMI_TX[3]

PCI EXPRESS -- GRAPHICS

E22	FDI_TX#[0]	
D21	FDI_TX#[1]	
D19	FDI_TX#[2]	
D18	FDI_TX#[3]	
G21	FDI_TX#[4]	
E19	FDI_TX#[5]	
F21	FDI_TX#[6]	
G18	FDI_TX#[7]	
D22	FDI_TX[0]	
C21	FDI_TX[1]	
D20	FDI_TX[2]	
C18	FDI_TX[3]	
G22	FDI_TX[4]	
E20	FDI_TX[5]	
F20	FDI_TX[6]	
G19	FDI_TX[7]	
R58 1 2 1K_0402_5%	F17	FDI_FSYNC[0]
R59 1 2 1K_0402_5%	E17	FDI_FSYNC[1]
R62 1 2 1K_0402_5%	C17	FDI_INT
R63 1 2 1K_0402_5%	F18	FDI_LSYNC[0]
R64 1 2 1K_0402_5%	D17	FDI_LSYNC[1]

B26	EXP_ICOMPI 1 R56 2 49.9_0402_1%	PEG_ICOMPI
A26		PEG_ICOMPO
B27		PEG_RCOMPO
A25	EXP_RBIAS 1 R57 2 750_0402_1%	PEG_RBIAS

PCIE_CRX_GTX_N[0..15] 20

K35	PCIE_CRX_GTX_N0	PEG_RX#[0]
J34	PCIE_CRX_GTX_N1	PEG_RX#[1]
J33	PCIE_CRX_GTX_N2	PEG_RX#[2]
G35	PCIE_CRX_GTX_N3	PEG_RX#[3]
G32	PCIE_CRX_GTX_N4	PEG_RX#[4]
F34	PCIE_CRX_GTX_N5	PEG_RX#[5]
F31	PCIE_CRX_GTX_N6	PEG_RX#[6]
D35	PCIE_CRX_GTX_N7	PEG_RX#[7]
E33	PCIE_CRX_GTX_N8	PEG_RX#[8]
C33	PCIE_CRX_GTX_N9	PEG_RX#[9]
D32	PCIE_CRX_GTX_N10	PEG_RX#[10]
B32	PCIE_CRX_GTX_N11	PEG_RX#[11]
C31	PCIE_CRX_GTX_N12	PEG_RX#[12]
B28	PCIE_CRX_GTX_N13	PEG_RX#[13]
B30	PCIE_CRX_GTX_N14	PEG_RX#[14]
A31	PCIE_CRX_GTX_N15	PEG_RX#[15]

PCIE_CRX_GTX_P[0..15] 20

J35	PCIE_CRX_GTX_P0	PEG_RX[0]
H34	PCIE_CRX_GTX_P1	PEG_RX[1]
H33	PCIE_CRX_GTX_P2	PEG_RX[2]
F35	PCIE_CRX_GTX_P3	PEG_RX[3]
G33	PCIE_CRX_GTX_P4	PEG_RX[4]
E34	PCIE_CRX_GTX_P5	PEG_RX[5]
F32	PCIE_CRX_GTX_P6	PEG_RX[6]
D34	PCIE_CRX_GTX_P7	PEG_RX[7]
F33	PCIE_CRX_GTX_P8	PEG_RX[8]
B33	PCIE_CRX_GTX_P9	PEG_RX[9]
D31	PCIE_CRX_GTX_P10	PEG_RX[10]
A32	PCIE_CRX_GTX_P11	PEG_RX[11]
C30	PCIE_CRX_GTX_P12	PEG_RX[12]
A28	PCIE_CRX_GTX_P13	PEG_RX[13]
B29	PCIE_CRX_GTX_P14	PEG_RX[14]
A30	PCIE_CRX_GTX_P15	PEG_RX[15]

L33	PCIE_CTX_GRX_C_N0	C5	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N0	PEG_TX#[0]
M35	PCIE_CTX_GRX_C_N1	C6	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N1	PEG_TX#[1]
M33	PCIE_CTX_GRX_C_N2	C7	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N2	PEG_TX#[2]
M30	PCIE_CTX_GRX_C_N3	C8	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N3	PEG_TX#[3]
L31	PCIE_CTX_GRX_C_N4	C9	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N4	PEG_TX#[4]
K32	PCIE_CTX_GRX_C_N5	C10	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N5	PEG_TX#[5]
M29	PCIE_CTX_GRX_C_N6	C11	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N6	PEG_TX#[6]
J31	PCIE_CTX_GRX_C_N7	C12	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N7	PEG_TX#[7]
K29	PCIE_CTX_GRX_C_N8	C13	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N8	PEG_TX#[8]
H30	PCIE_CTX_GRX_C_N9	C14	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N9	PEG_TX#[9]
H29	PCIE_CTX_GRX_C_N10	C15	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N10	PEG_TX#[10]
F29	PCIE_CTX_GRX_C_N11	C16	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N11	PEG_TX#[11]
E28	PCIE_CTX_GRX_C_N12	C17	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N12	PEG_TX#[12]
D29	PCIE_CTX_GRX_C_N13	C18	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N13	PEG_TX#[13]
D27	PCIE_CTX_GRX_C_N14	C19	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N14	PEG_TX#[14]
C26	PCIE_CTX_GRX_C_N15	C20	2 0.1U_0402_10V7K	PCIE_CTX_GRX_N15	PEG_TX#[15]

PCIE_CTX_GRX_N[0..15] 20

L34	PCIE_CTX_GRX_C_P0	C21	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P0	PEG_TX[0]
M34	PCIE_CTX_GRX_C_P1	C22	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P1	PEG_TX[1]
M32	PCIE_CTX_GRX_C_P2	C23	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P2	PEG_TX[2]
L30	PCIE_CTX_GRX_C_P3	C24	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P3	PEG_TX[3]
M31	PCIE_CTX_GRX_C_P4	C25	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P4	PEG_TX[4]
K31	PCIE_CTX_GRX_C_P5	C26	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P5	PEG_TX[5]
M28	PCIE_CTX_GRX_C_P6	C27	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P6	PEG_TX[6]
H31	PCIE_CTX_GRX_C_P7	C28	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P7	PEG_TX[7]
K28	PCIE_CTX_GRX_C_P8	C29	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P8	PEG_TX[8]
G30	PCIE_CTX_GRX_C_P9	C30	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P9	PEG_TX[9]
G29	PCIE_CTX_GRX_C_P10	C31	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P10	PEG_TX[10]
F28	PCIE_CTX_GRX_C_P11	C32	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P11	PEG_TX[11]
E27	PCIE_CTX_GRX_C_P12	C33	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P12	PEG_TX[12]
D28	PCIE_CTX_GRX_C_P13	C34	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P13	PEG_TX[13]
C27	PCIE_CTX_GRX_C_P14	C35	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P14	PEG_TX[14]
C25	PCIE_CTX_GRX_C_P15	C36	2 0.1U_0402_10V7K	PCIE_CTX_GRX_P15	PEG_TX[15]

PCIE_CTX_GRX_P[0..15] 20

Q88 AP2302GN_SOT23 — +V_DDR_CPU_REF0 — R1220 @ 100K_0402_5%

Q89 AP2302GN_SOT23 — +V_DDR_CPU_REF1 — R1222 @ 100K_0402_5%

2009/07/21 HP SI-2

4,15 PCH_DDR_RST

JCPU1E — CONN@ — IC,AUB_CFD_rPGA,R1P0

RESERVED

AP25	RSVD1	RSVD32 AJ13
AL25	RSVD2	RSVD33 AJ12
AL24	RSVD3	
AL22	RSVD4	RSVD34 AH25
AJ33	RSVD5	RSVD35 AK26
AG9	RSVD6	RSVD36 AL26
M27	RSVD7	RSVD_NCTF_37 AR2
L28	RSVD8	
J17	SA_DIMM_VREF	RSVD38 AJ26
H17	SB_DIMM_VREF	RSVD39 AJ27
G25	RSVD11	
G17	RSVD12	RSVD_NCTF_40 AP1
E31	RSVD13	RSVD_NCTF_41 AT2
E30	RSVD14	
		RSVD_NCTF_42 AT3
		RSVD_NCTF_43 AR1
		RSVD45 AL28
		RSVD46 AL29
		RSVD47 AP30
		RSVD48 AP32
		RSVD49 AL27
		RSVD50 AT31
		RSVD51 AT32
		RSVD52 AP33
		RSVD53 AR33
		RSVD_NCTF_54 AT33
		RSVD_NCTF_55 AT34
		RSVD_NCTF_56 AP35
		RSVD_NCTF_57 AR35
		RSVD58 AR32
		RSVD_TP_59 E15
		RSVD_TP_60 F15
		KEY A2
		RSVD62 D15
		RSVD63 C15
		RSVD64 AJ15
		RSVD65 AH15

R64 1 @ 2 0_0402_5%
R61 1 @ 2 0_0402_5%
2009/02/19 HP DB-2

4 CFG0	CFG0	AM30 CFG[0]
4 CFG1	CFG1	AM28 CFG[1]
4 CFG2	CFG2	AP31 CFG[2]
4 CFG3	CFG3	AL32 CFG[3]
4 CFG4	CFG4	AL30 CFG[4]
4 CFG5	CFG5	AM31 CFG[5]
4 CFG6	CFG6	AN29 CFG[6]
4 CFG7	CFG7	AM32 CFG[7]
4 CFG8	CFG8	AK32 CFG[8]
4 CFG9	CFG9	AK31 CFG[9]
4 CFG10	CFG10	AK28 CFG[10]
4 CFG11	CFG11	AJ28 CFG[11]
4 CFG12	CFG12	AN30 CFG[12]
4 CFG13	CFG13	AN32 CFG[13]
4 CFG14	CFG14	AJ32 CFG[14]
4 CFG15	CFG15	AJ29 CFG[15]
4 CFG16	CFG16	AJ30 CFG[16]
4 CFG17	CFG17	AK30 CFG[17]
T22	CFG18	H16 RSVD_TP_86

B19	RSVD15	
A19	RSVD16	
R65 1 @ 2 0_0402_5% A20	RSVD17	
R66 1 @ 2 0_0402_5% B20	RSVD18	
U9	RSVD19	RSVD_TP_66 AA5
T9	RSVD20	RSVD_TP_67 AA4
		RSVD_TP_68 R8
AC9	RSVD21	RSVD_TP_69 AD3
AB9	RSVD22	RSVD_TP_70 AD2
		RSVD_TP_71 AA2
		RSVD_TP_72 AA1
		RSVD_TP_73 R9
		RSVD_TP_74 AG7
C1	RSVD_NCTF_23	RSVD_TP_75 AE3
A3	RSVD_NCTF_24	
		RSVD_TP_76 V4
		RSVD_TP_77 V5
		RSVD_TP_78 N2
J29	RSVD26	RSVD_TP_79 AD5
J28	RSVD27	RSVD_TP_80 AD7
		RSVD_TP_81 W3
A34	RSVD_NCTF_28	RSVD_TP_82 W2
A33	RSVD_NCTF_29	RSVD_TP_83 N3
		RSVD_TP_84 AE5
C35	RSVD_NCTF_30	RSVD_TP_85 AD9
B35	RSVD_NCTF_31	
		VSS AP34

CFG Straps for PROCESSOR

CFG0 R67 1 @ 2 3.01K_0402_1%

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

Not applicable for Clarksfield Processor

CFG3 R69 1 2 3.01K_0402_1%

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

CFG4 R70 1 @ 2 3.01K_0402_1%

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

CFG7 R68 1 @ 2 3.01K_0402_1%

Only temporary for early CFD samples (rPGA/BGA)

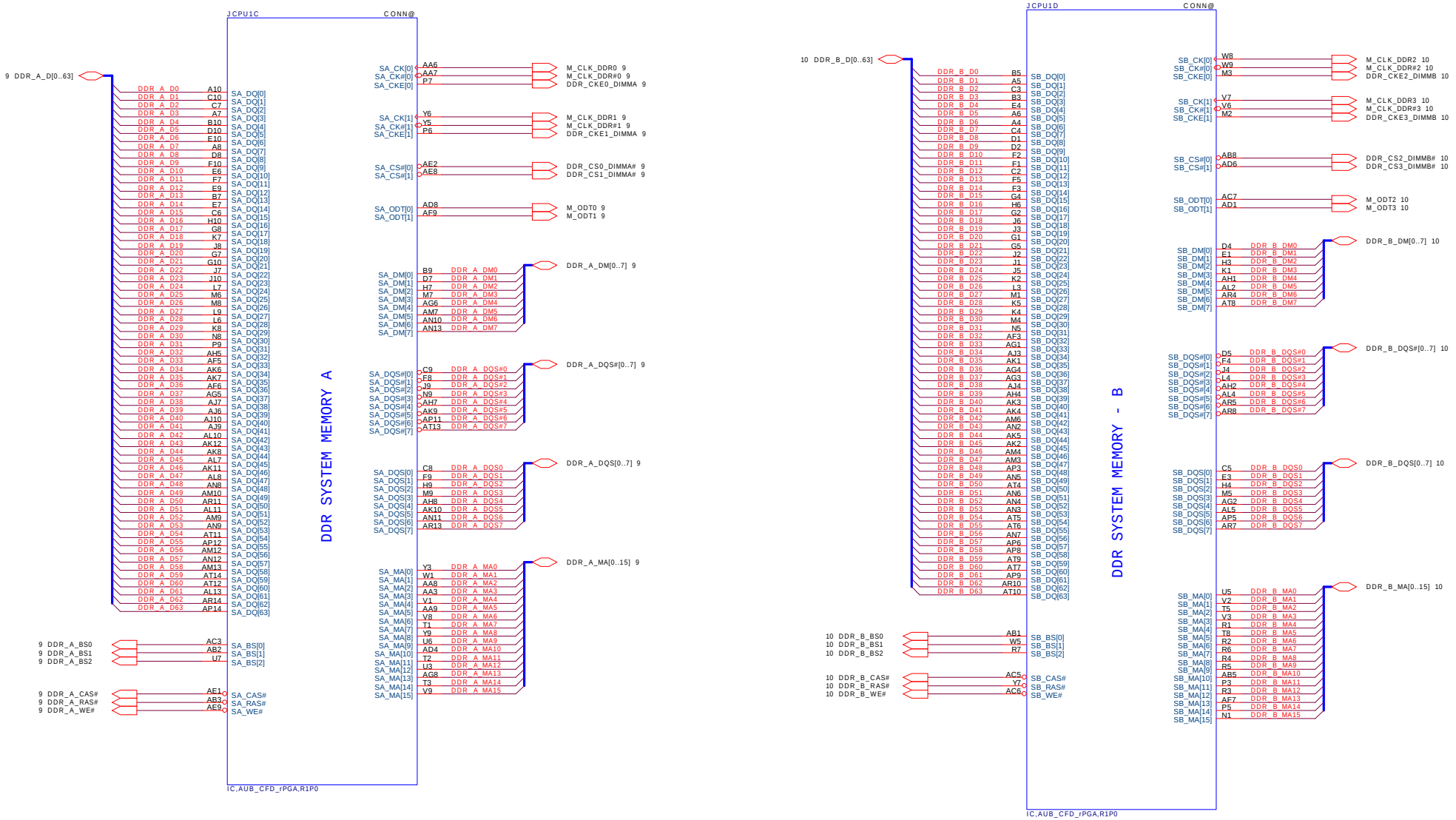
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: ARD/CFD(2/5)-DMI/PEG/FDI

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 Sheet 5 of 54



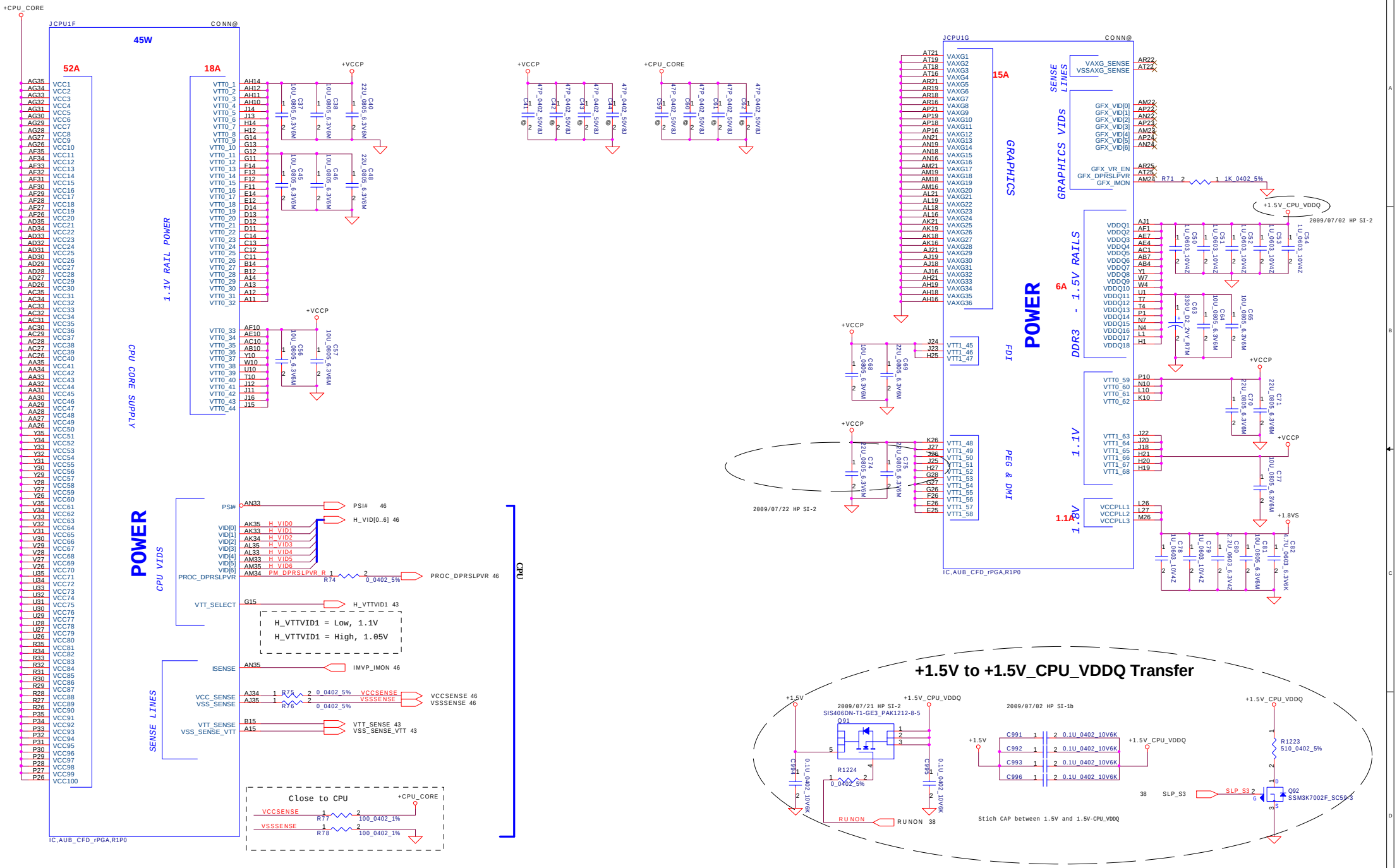
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: **ARD/CFD(3/5)-DDR3**

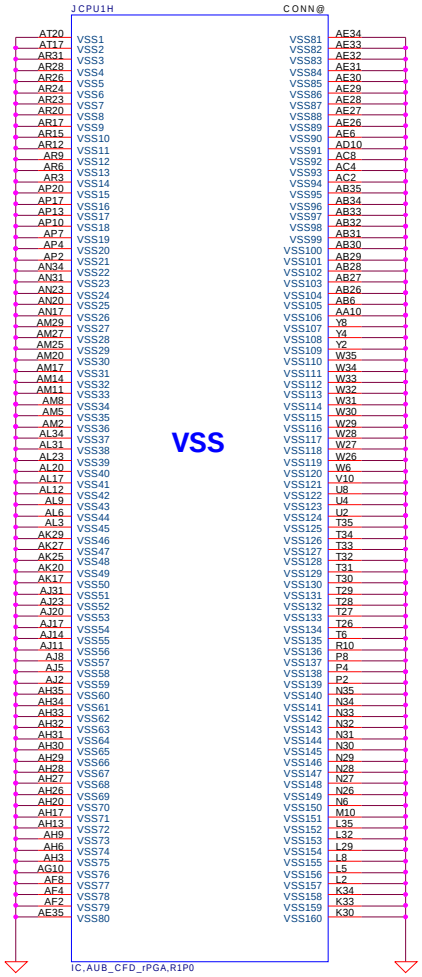
Size	Document Number	Rev
Custom	LA-4901P	1.0

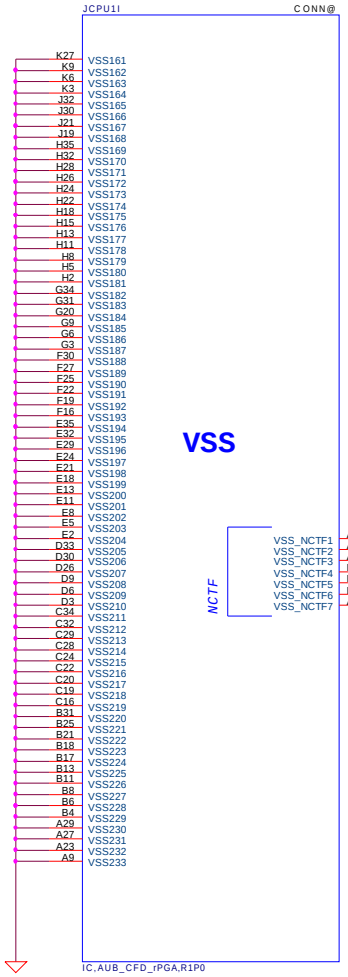
Date: Tuesday, December 15, 2009 | Sheet 6 of 54

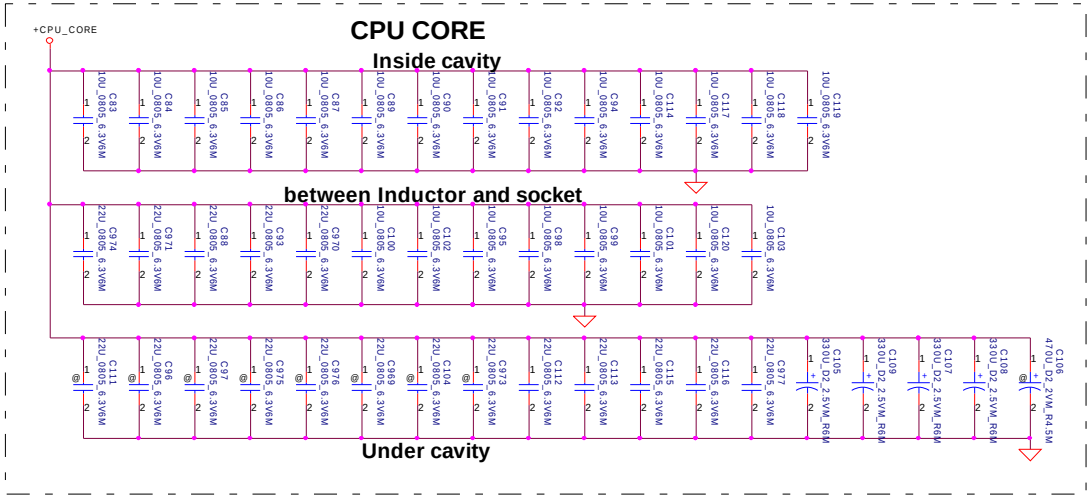


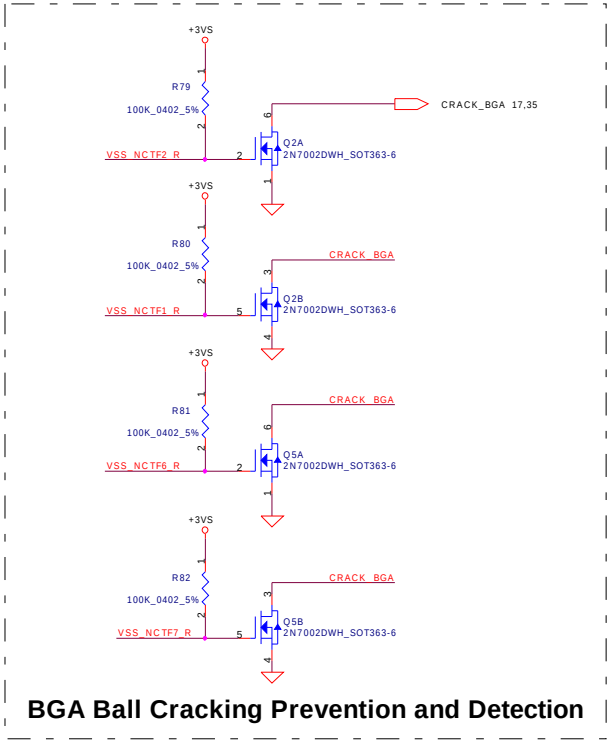
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.			
Title: ARD/CFD(4/5)-PWR			
Size: Custom	Document Number: LA-4901P		Rev: 1.0
Date: Tuesday, December 15, 2009	Sheet 7 of 54		









Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: ARD/CFD(5/5)-GND/Bypass

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 Sheet 8 of 54

DDR3 SO-DIMM A

JDIMA1 CONN@ FOX_AS0A626-U2RN-7F

+1.5V

+0.75V

+3VS

+V_DDR_CPU_REFA

+V_DDR_CPU_REFB

+VREF_CA

+VREF_DQ_DIMMA

DRAMRST# 4,10

DDR_CKE1_DIMMA 6

M_CLK_DDR1 6

M_CLK_DDR#1 6

DDR_A_BS1 6

DDR_A_RAS# 6

DDR_CS0_DIMMA# 6

M_ODT0 6

M_ODT1 6

PM_EXTTS#1_R 4,10

SMB_DATA_S3 4,10,11,13,32

SMB_CLK_S3 4,10,11,13,32

2009/04/10 HP DB-3

2009/02/16_HP DB-2

2009/04/24 HP SI-1

Layout Note:
Place near JDIMMA

Layout Note:
Place near JDIMMA.203 & JDIMMA.204

TOP SLOT

Reserved

For ME/iAMT debug

JP20 ACES_85204-03001 CONN@

Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

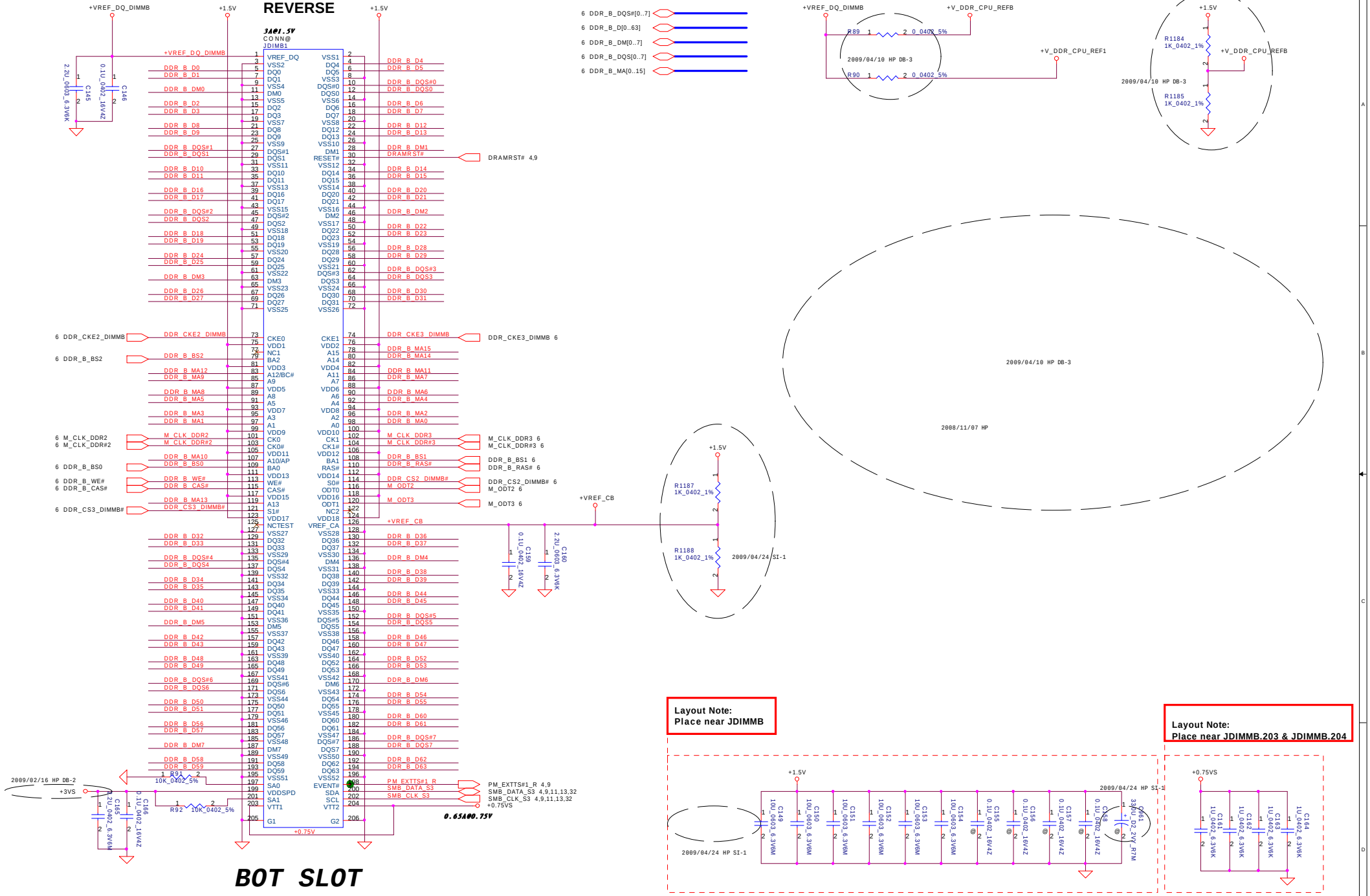
Compal Electronics, Inc.

Title: **DDRIII-SODIMM SLOT1**

Size: Custom | Document Number: **LA-4901P** | Rev: 1.0

Date: Tuesday, December 15, 2009 | Sheet 9 of 54

DDR3 SO-DIMM B REVERSE



2009/04/10 HP DB-3

2008/11/07 HP

Layout Note:
Place near JDIMMB

Layout Note:
Place near JDIMMB.203 & JDIMMB.204

BOT SLOT

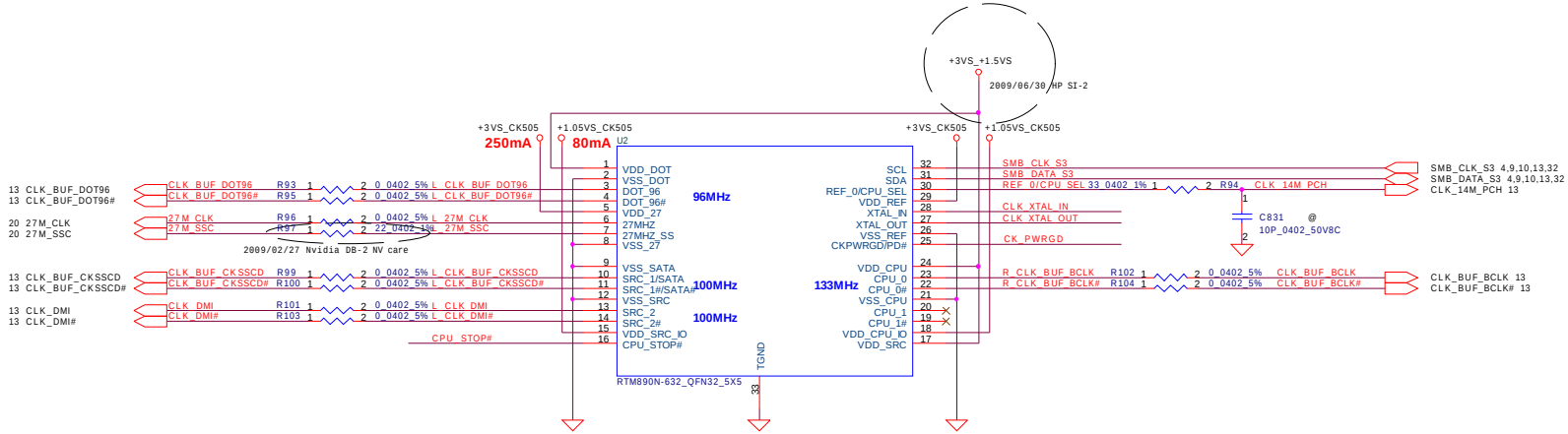
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

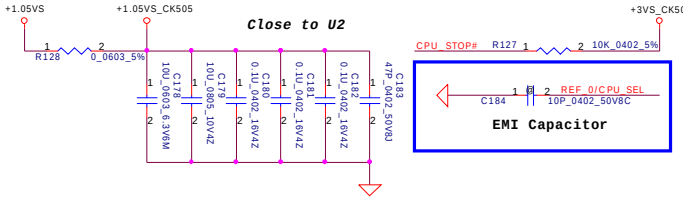
Compal Electronics, Inc.

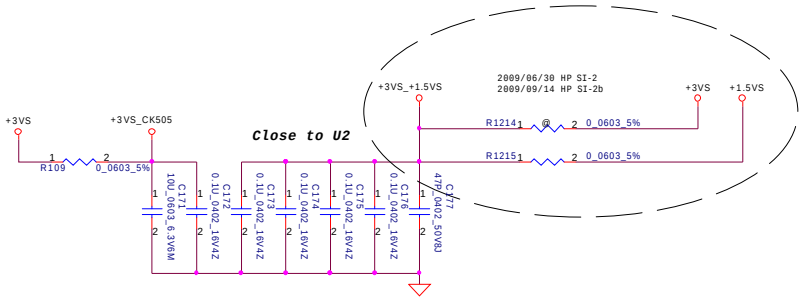
Title: DDRIII-SODIMM SLOT2

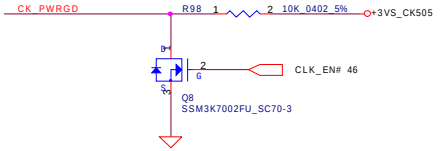
Size	Document Number	Rev
	LA-4901P	1.0

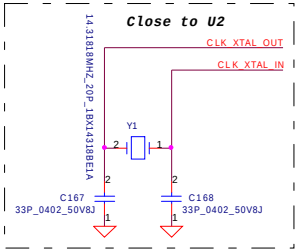
Date: Tuesday, December 15, 2009 Sheet 10 of 54



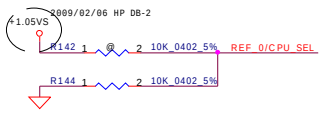








PIN 30	CPU_0	CPU_1
0 (Default)	133MHz	133MHz
1	100MHz	100MHz



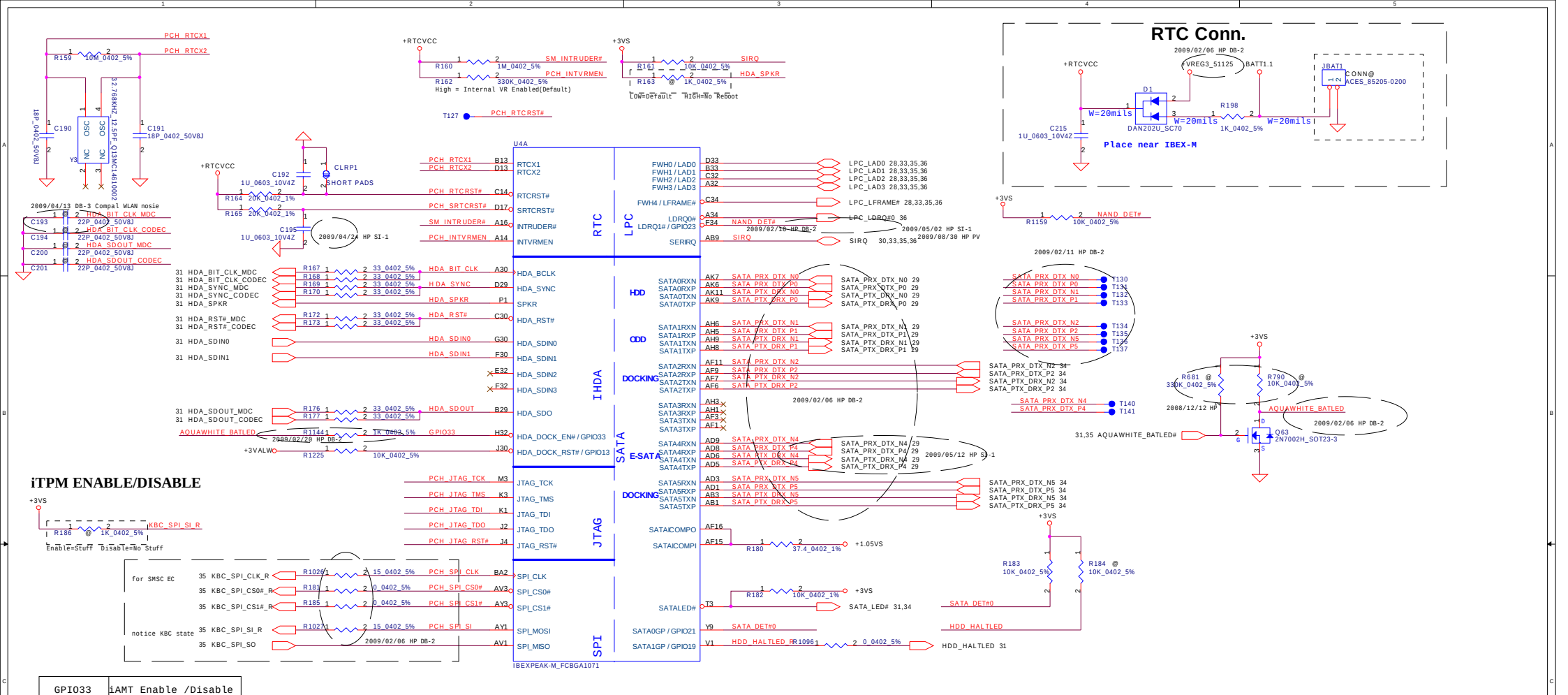
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: **CLOCK GENERATOR**

Size	Document Number	Rev
	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 11 of 54

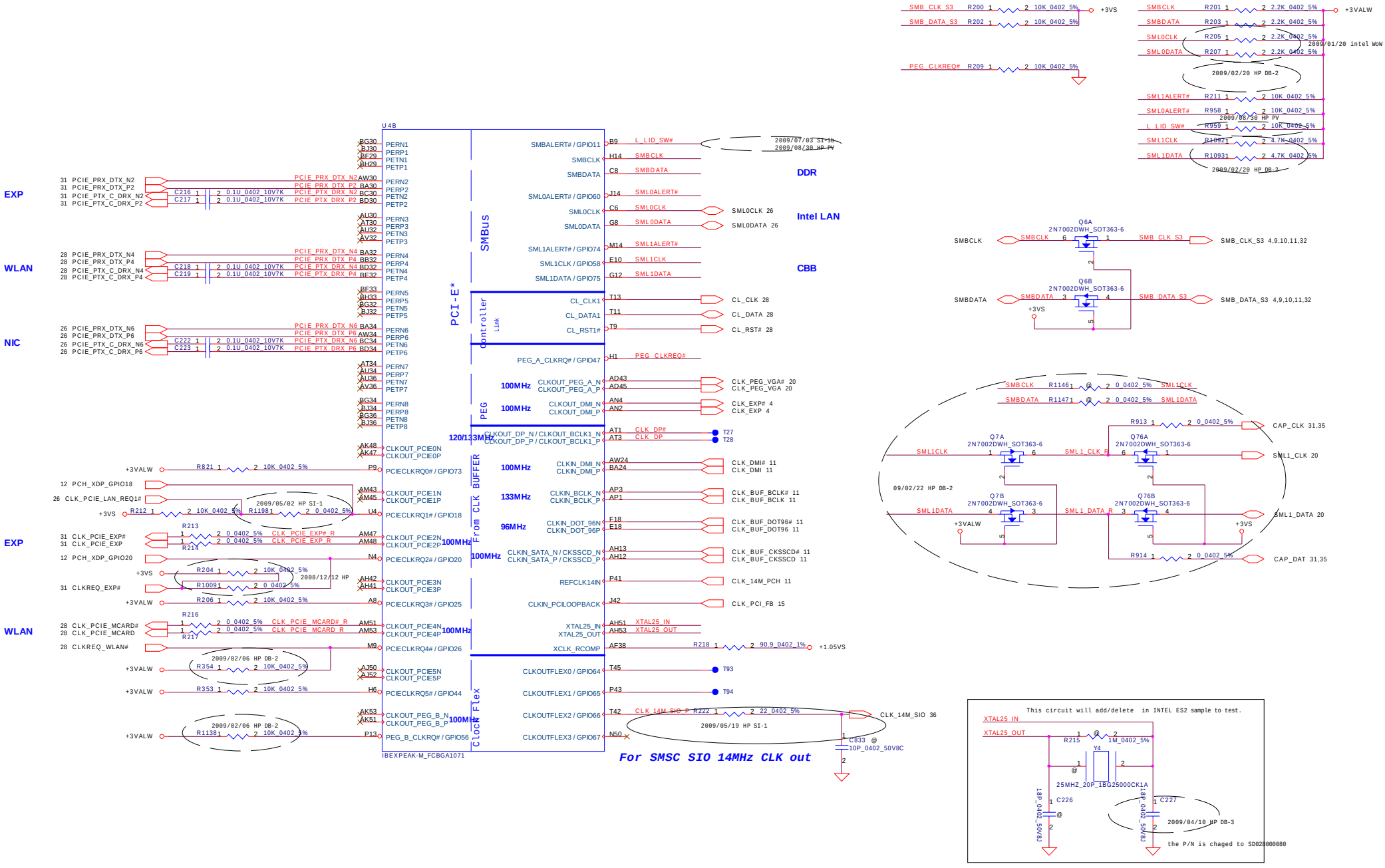


GPIO33	iAMT Enable /Disable
Hi	Disable
Lo	Enable Default

PCH Pin	RefDes	PCH JTAG Pre-Production		PCH JTAG Production
		ES1	ES2	MP
PCH_JTAG_TDO	R189	No Install	200ohm	No Install
	R195	No Install	100ohm	No Install
	R	No Install	No Install	51ohm
PCH_JTAG_TMS	R188	200ohm	200ohm	No Install
	R194	100ohm	100ohm	No Install
	R	No Install	No Install	51ohm
PCH_JTAG_TDI	R190	200ohm	200ohm	No Install
	R196	100ohm	100ohm	No Install
	R	No Install	No Install	51ohm
PCH_JTAG_TCK	R199	51ohm	51ohm	51ohm
PCH_JTAG_RST#	R191	20Kohm	20Kohm	No Install
	R197	10Kohm	10Kohm	No Install
	R	No Install	No Install	51ohm

Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Title	IBEX-M(1/6)-HDA/JTAG/SATA		
Size	Document Number		Rev
Custom	LA-4901P		1.0
Date:	Tuesday, December 15, 2009	Sheet	12 of 54



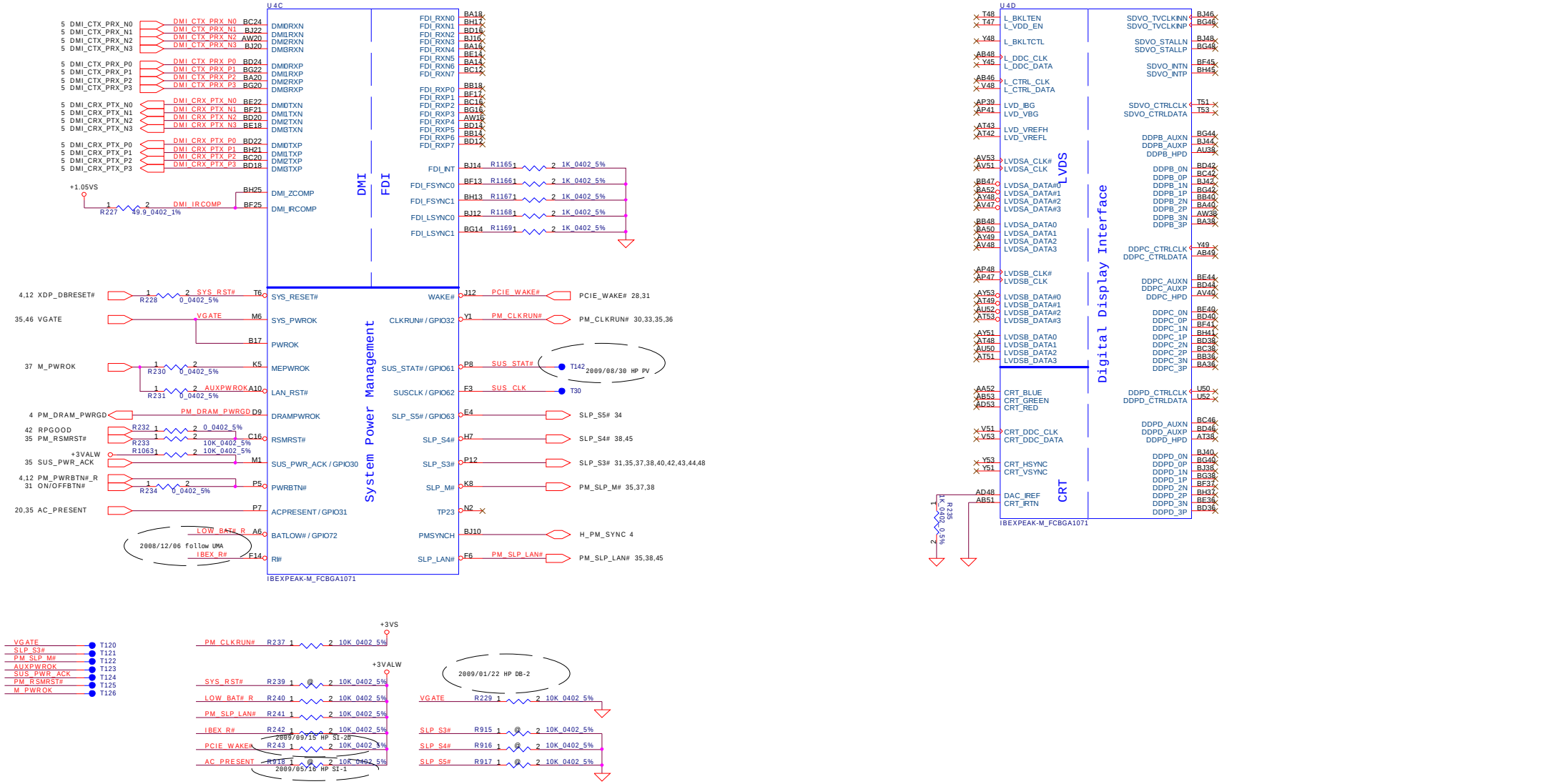
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: **IBEX-M(2/6)-PCI-E/SMBUS/CLK**

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 Sheet 13 of 54



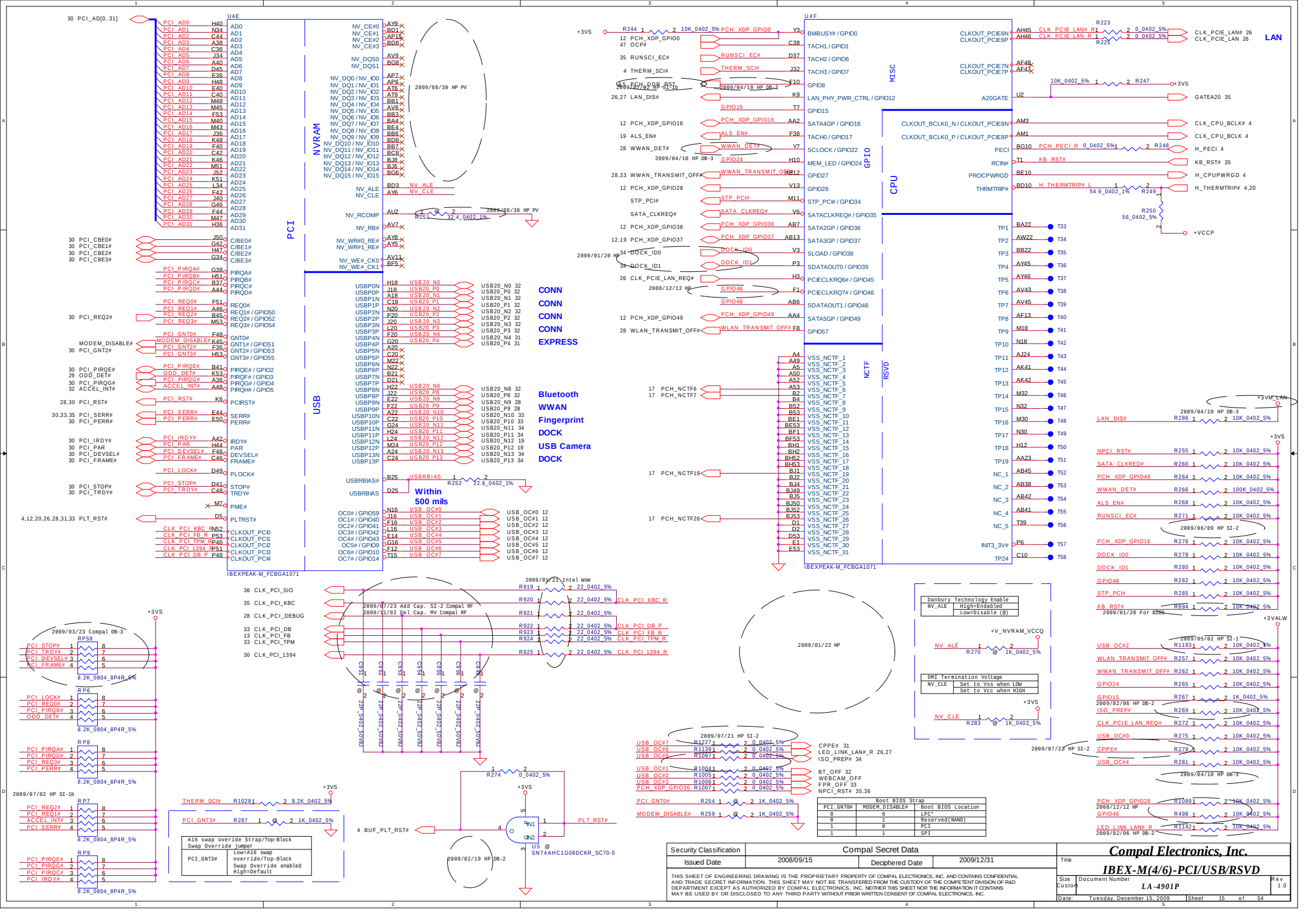
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: **IBEX-M(3/6)-DMI/GPIO/LVDS**

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 14 of 54



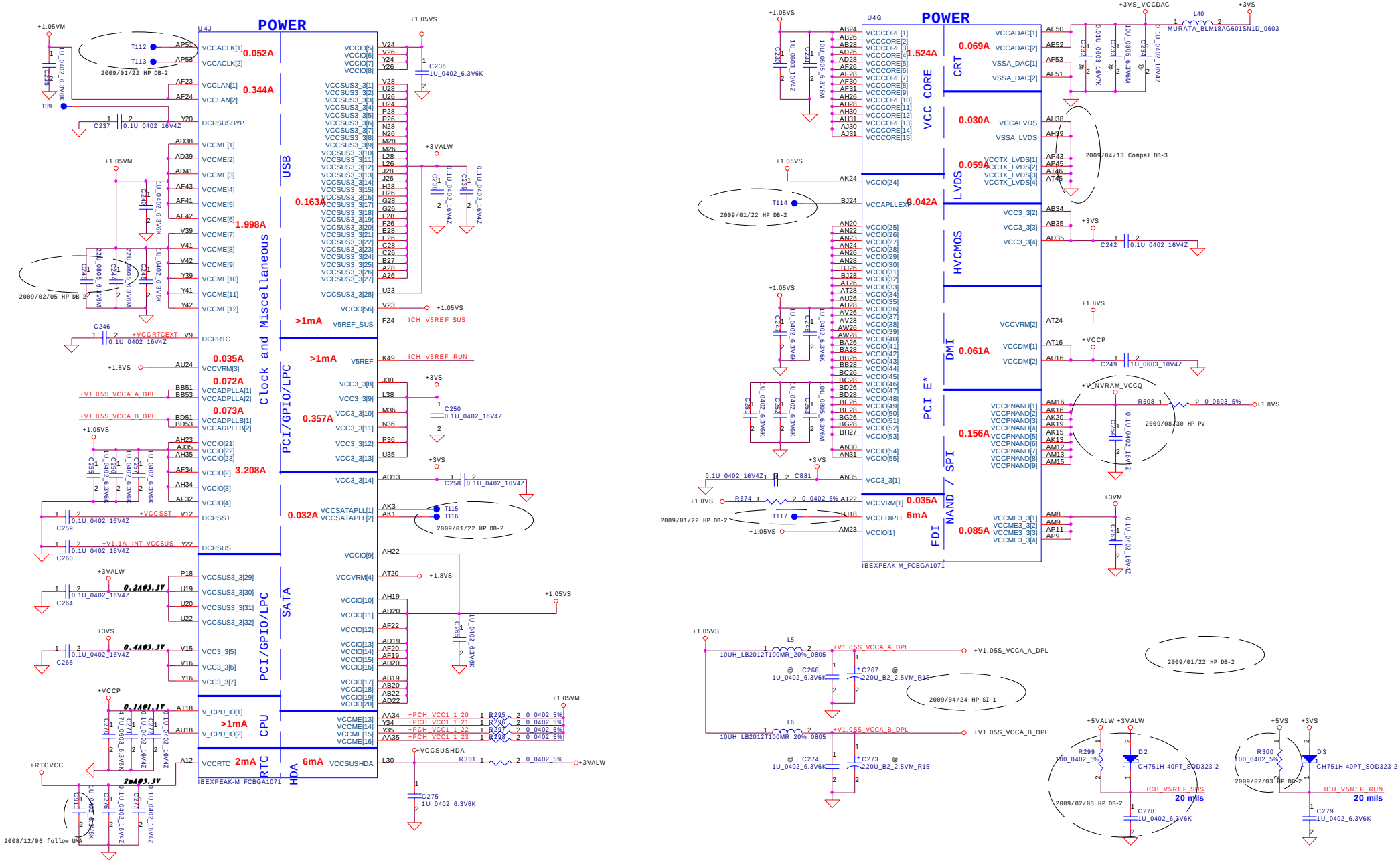
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: **IBEX-M(4/6)-PCI/USB/RSVD**

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 15 of 54



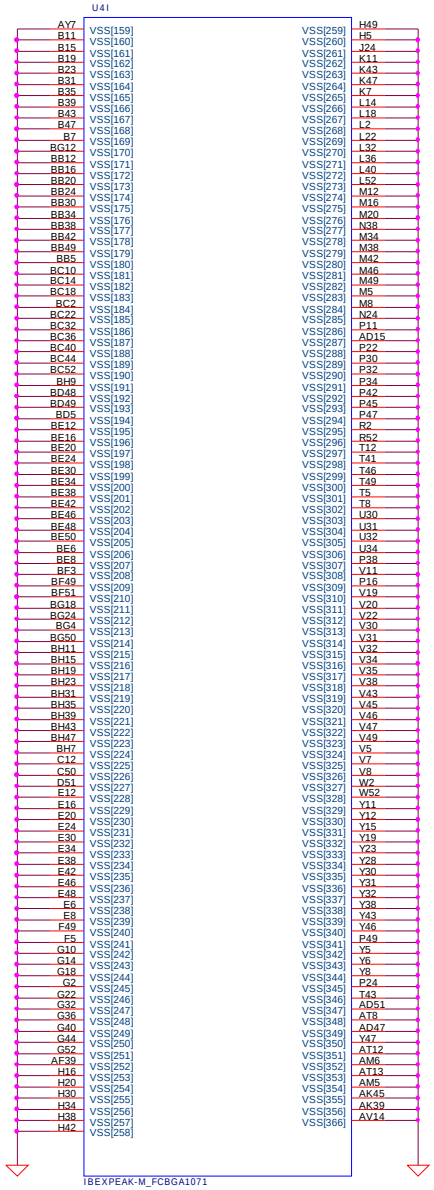
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

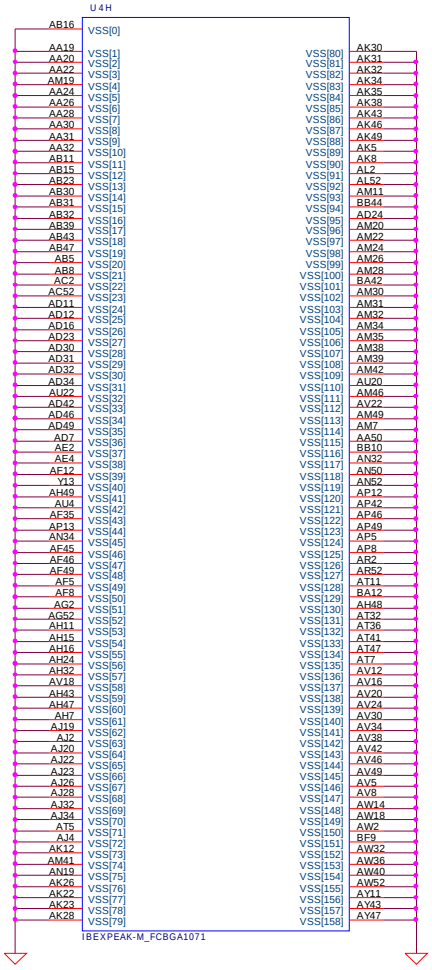
Compal Electronics, Inc.

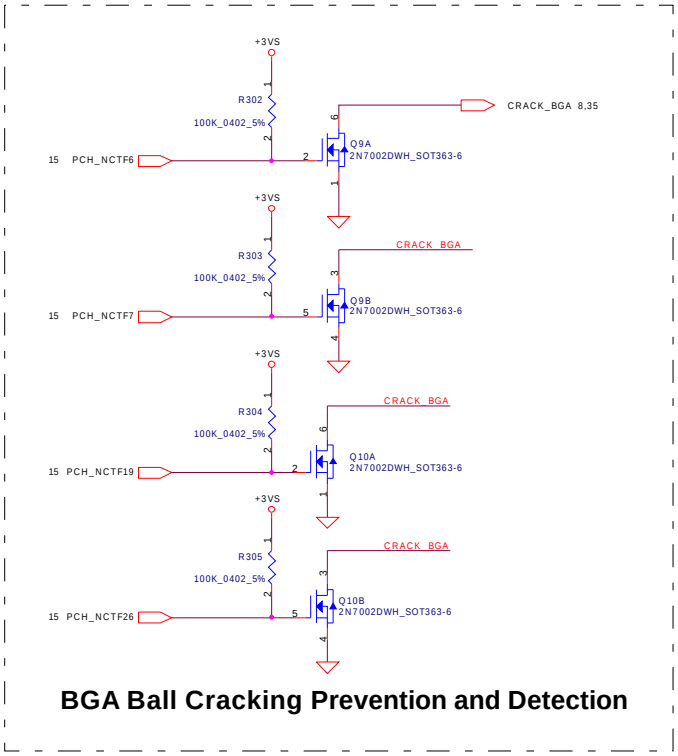
Title: **IBEX-M(5/6)-PWR**

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 16 of 54







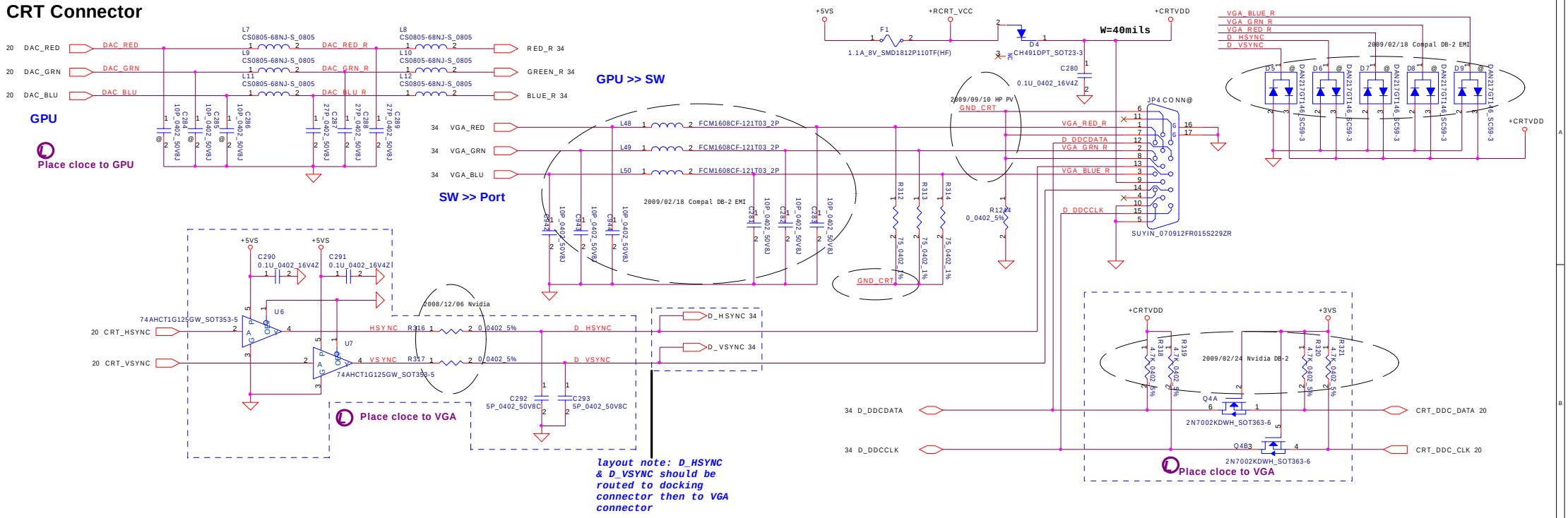
Compal Electronics, Inc.

Title: **IBEX-M(6/6)-GND**

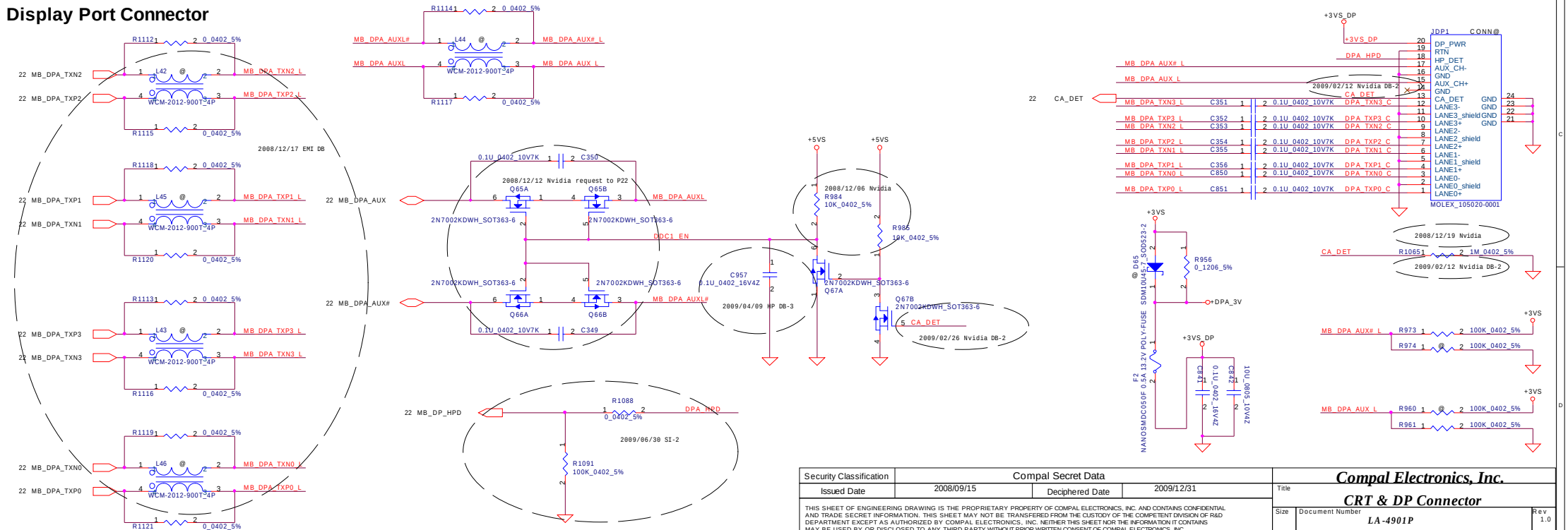
Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 17 of 54

CRT Connector



Display Port Connector



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

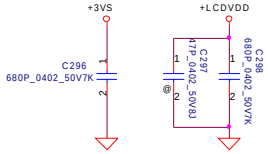
Compal Electronics, Inc.

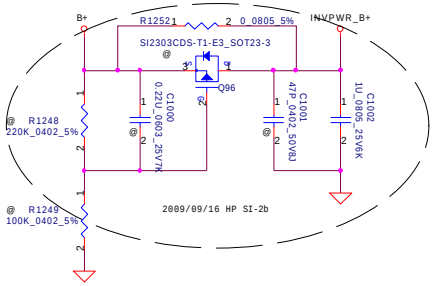
Title: **CRT & DP Connector**

Size	Document Number	Rev
	LA-4901P	1.0

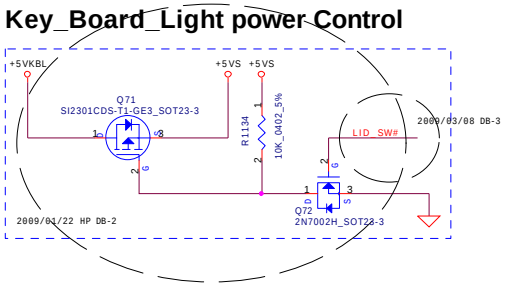
Date: Tuesday, December 15, 2009 | Sheet 18 of 54

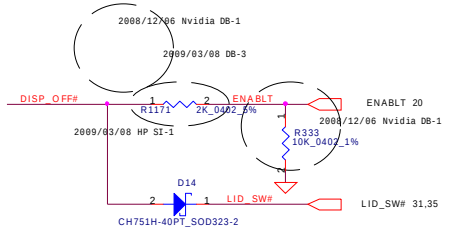
LCD/PANEL BD. CONN.

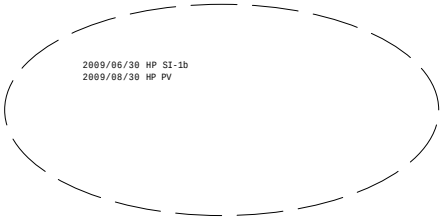


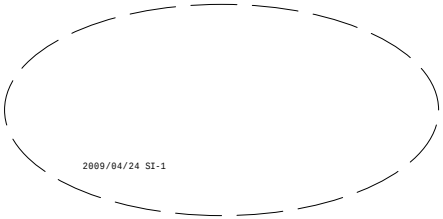


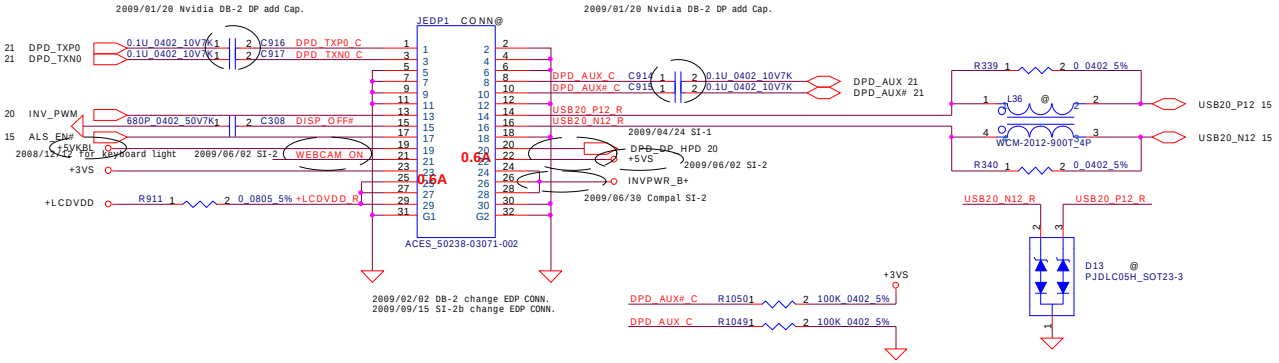
Key_Board_Light power Control

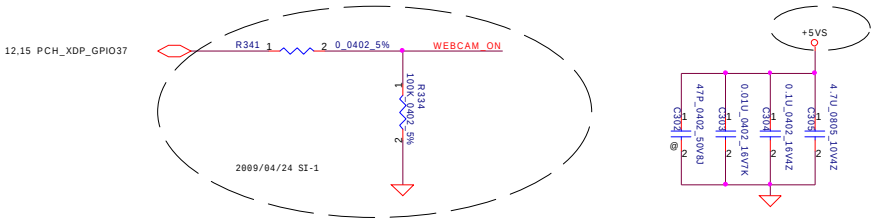




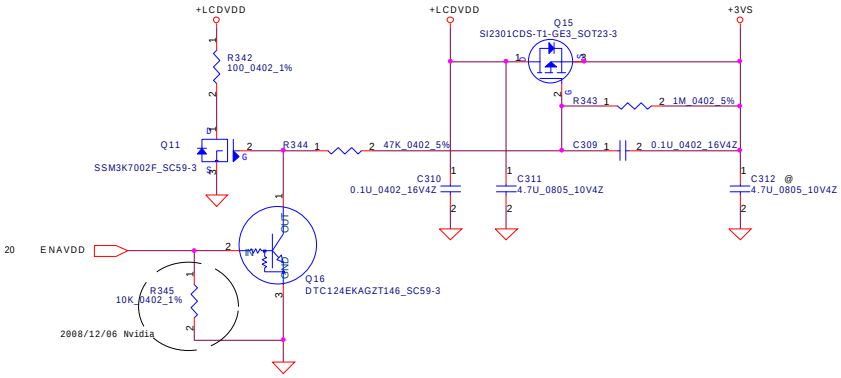








LCD POWER CIRCUIT



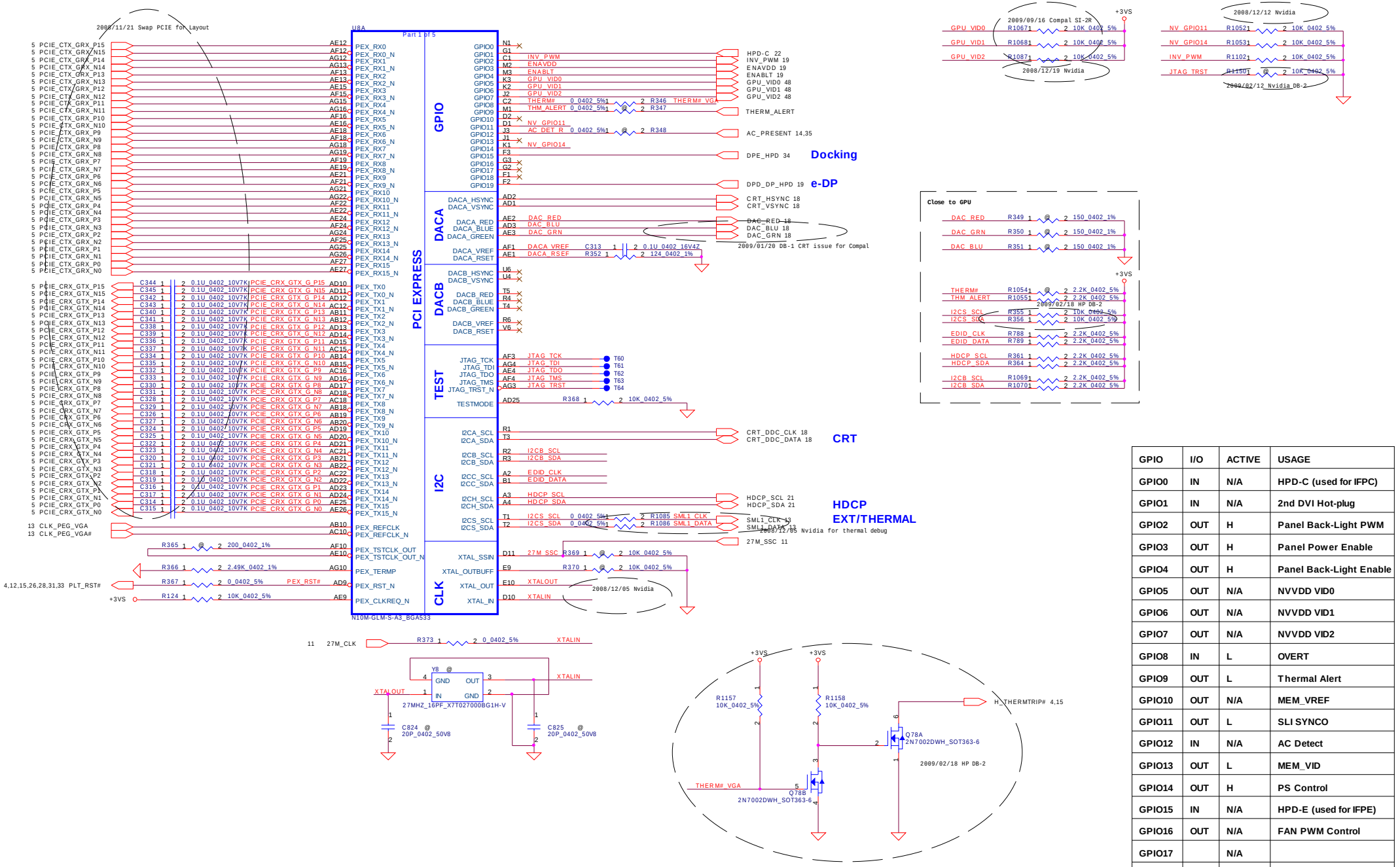
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: LCD & eDP CONN.

Size	Document Number	Rev
	LA-4901P	1.0

Date: Tuesday, December 15, 2009 Sheet 19 of 54



GPIO	I/O	ACTIVE	USAGE
GPIO0	IN	N/A	HPD-C (used for IFPC)
GPIO1	IN	N/A	2nd DVI Hot-plug
GPIO2	OUT	H	Panel Back-Light PWM
GPIO3	OUT	H	Panel Power Enable
GPIO4	OUT	H	Panel Back-Light Enable
GPIO5	OUT	N/A	NVVDD VID0
GPIO6	OUT	N/A	NVVDD VID1
GPIO7	OUT	N/A	NVVDD VID2
GPIO8	IN	L	OVERT
GPIO9	OUT	L	Thermal Alert
GPIO10	OUT	N/A	MEM_VREF
GPIO11	OUT	L	SLI SYNCO
GPIO12	IN	N/A	AC Detect
GPIO13	OUT	L	MEM_VID
GPIO14	OUT	H	PS Control
GPIO15	IN	N/A	HPD-E (used for IFPE)
GPIO16	OUT	N/A	FAN PWM Control
GPIO17		N/A	
GPIO18		N/A	
GPIO19	IN	N/A	HPD-D (used for IFPD)

Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

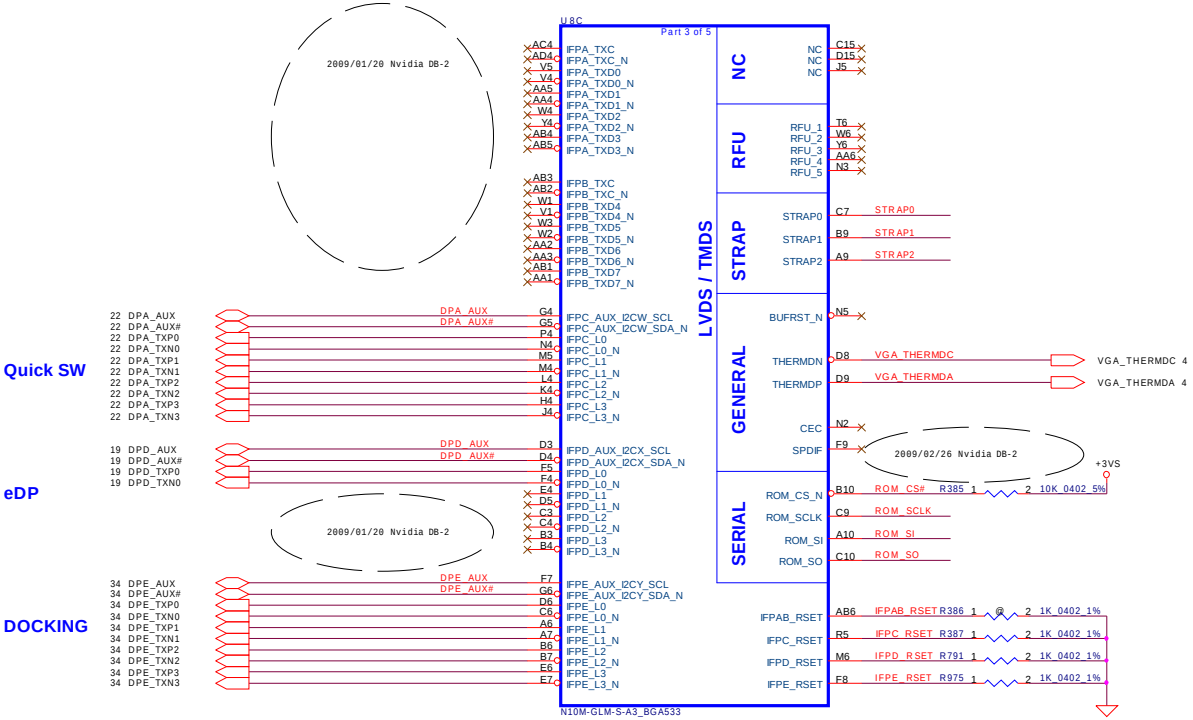
Compal Electronics, Inc.

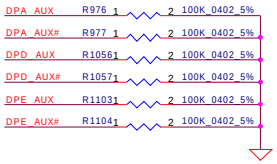
Title: PEG Interface

Size: Custom | Document Number: LA-4901P | Rev: 1.0

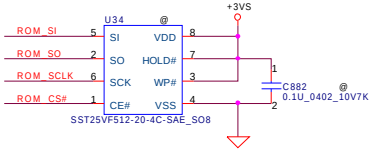
Date: Tuesday, December 15, 2009 | Sheet 20 of 54

LVDS Interface

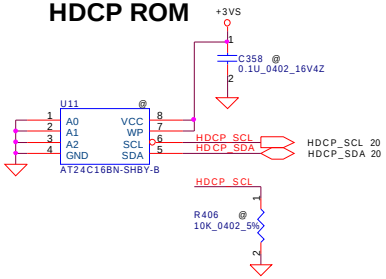




V-BIOS ROM



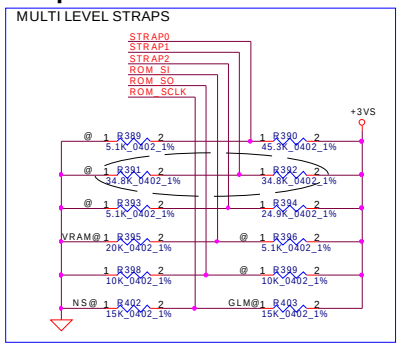
HDCP ROM



GLM:SA000030V20：S IC N10M-GLM-S-QS(GT218-920) BGA 533P

Hynix：SD034150280 S RES 1/16W 15K +-1% 0402
Samsung: SD034200280 S RES 1/16W 20K +-1% 0402

Straps



FB HW Strap for DDR3: (RAM_CFG @ROM_SI)
- Hynix 64Mx16: 0000 (R395 pull-down 15K)
- Samsung 64Mx16: 0001 (R395 pull-down 20K)

Stuff R394 --> N10M-GLM, N10M-NS
Stuff R402 --> N10M-NS
Stuff R403 --> N10M-GLM

R402/R403:
- 15K: VBIOS combined in SBIOS
- 35K: use VBIOS rom chip

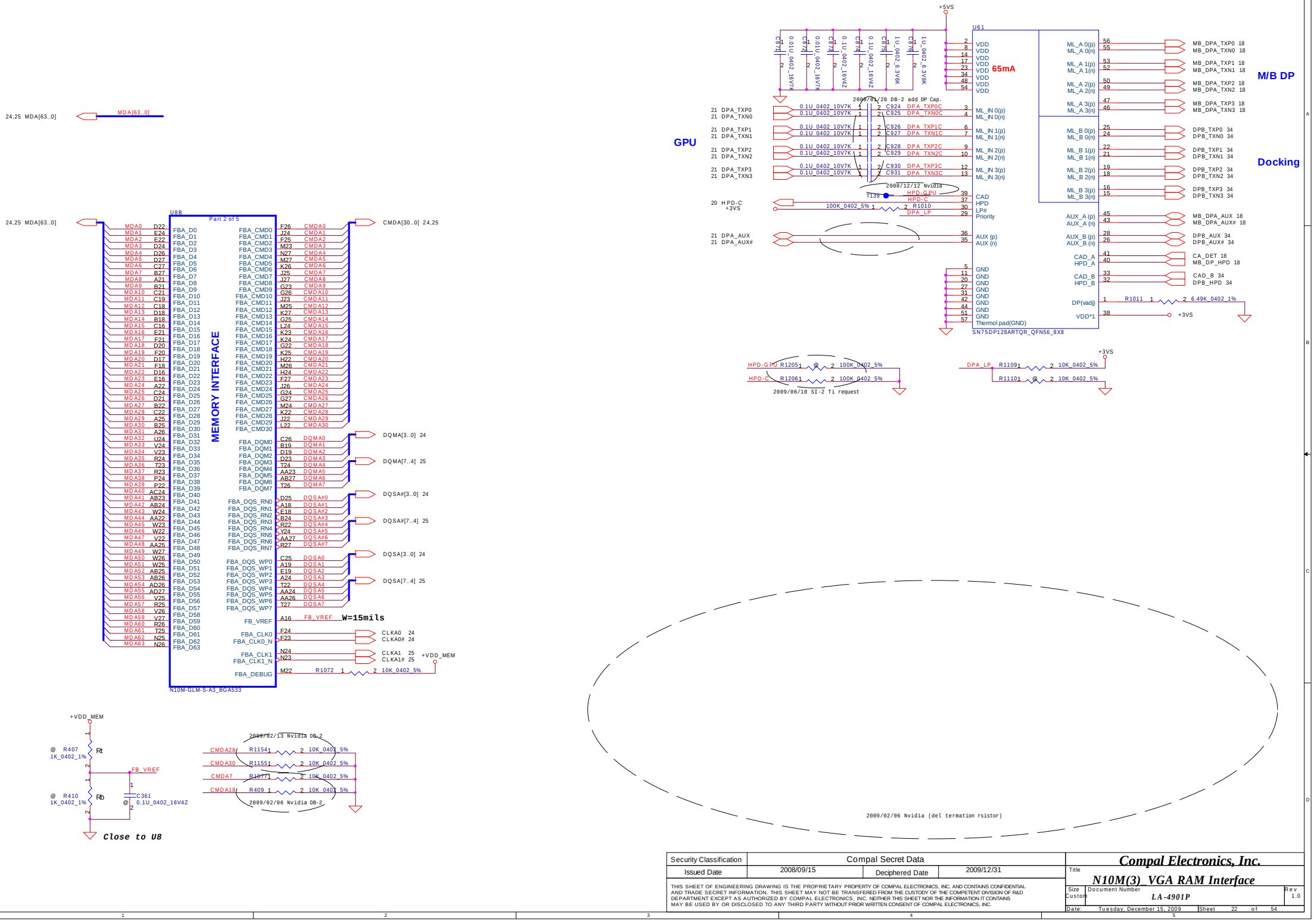
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: **N10M(2)_LVDS&DP&HDCP**

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 Sheet 21 of 54



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

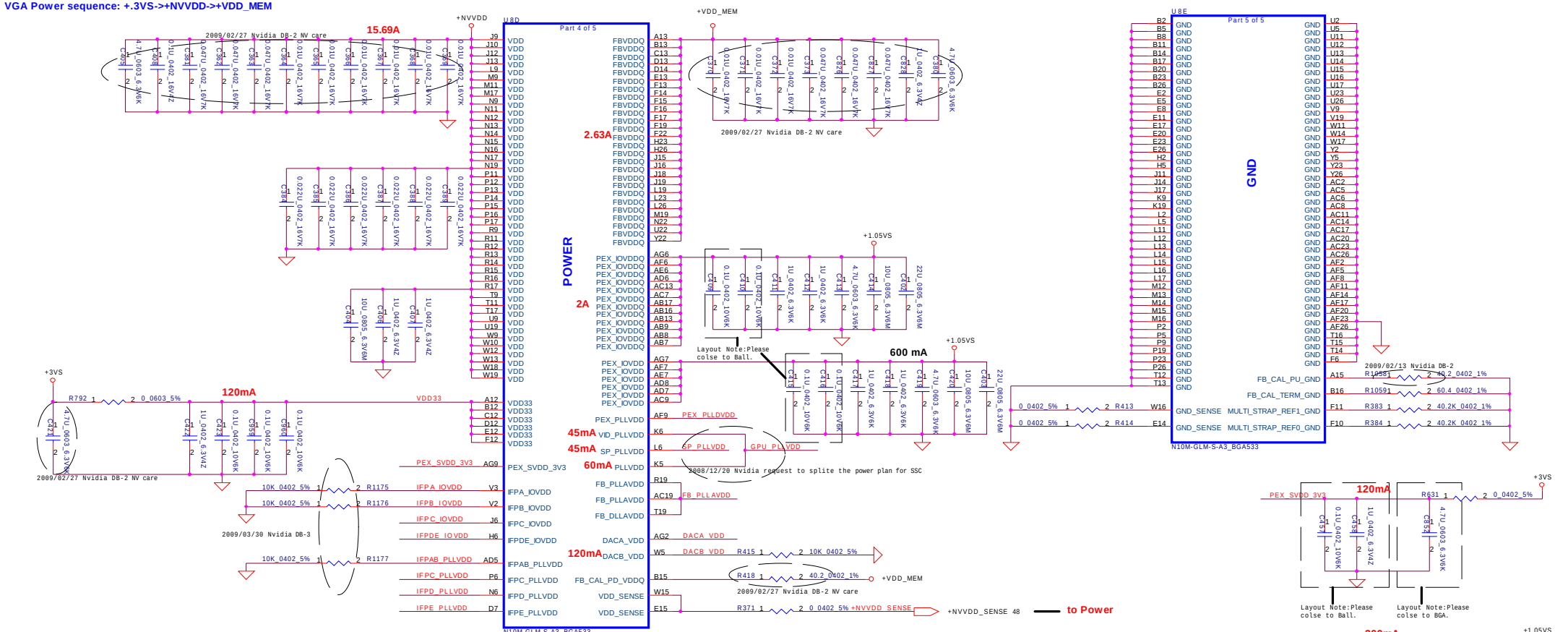
Compal Electronics, Inc.

Title: **N10M(3)_VGA RAM Interface**

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 Sheet 22 of 54

VGA Power sequence: +.3VS->+NVVDD->+VDD_MEM

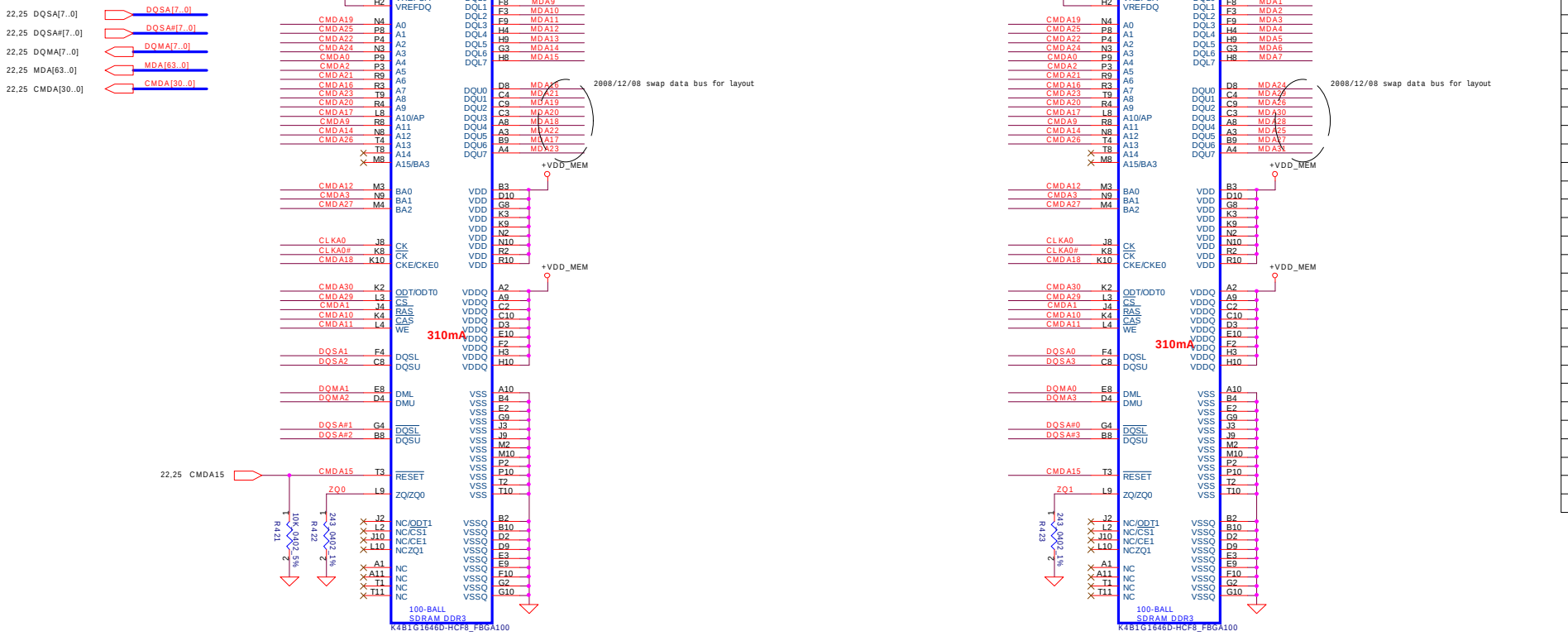


VRAM DDR3 chips (512MB)

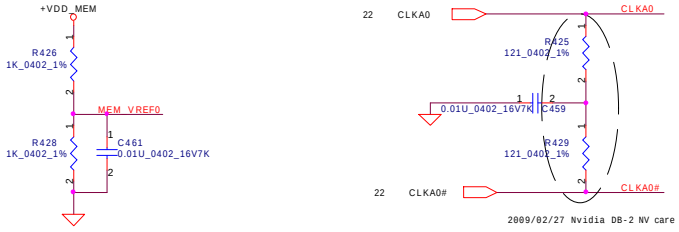
Hynix : H5TQ1G63BFR-12C-->SA000032400
Samsung : K4W1G1646E-HC12-->SA000035700

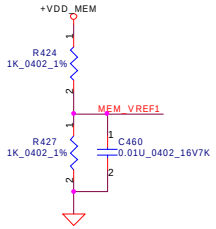
64Mx16 DDR3 800MHz*4==>512MB

Low 32 bit FB

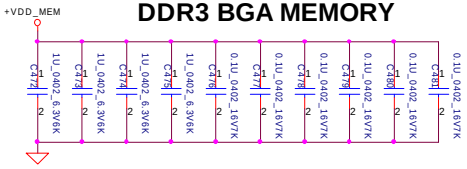


	DATA Bus	
Address	0..31	32..63
CMD0	A4	
CMD1	RAS#	RAS#
CMD2	A5	
CMD3	BA1	BA1
CMD4		A2
CMD5		A4
CMD6		A3
CMD7		CKE
CMD8		CS#
CMD9	A11	A11
CMD10	CAS#	CAS#
CMD11	WE#	WE#
CMD12	BA0	BA0
CMD13		A5
CMD14	A12	A12
CMD15	RST	RST
CMD16	A7	A7
CMD17	A10	A10
CMD18	CKE	
CMD19	A0	A0
CMD20	A9	A9
CMD21	A6	A6
CMD22	A2	
CMD23	A8	A8
CMD24	A3	
CMD25	A1	A1
CMD26	A13	A13
CMD27	BA2	BA2
CMD28		ODT
CMD29	CS#	
CMD30	ODT	
	LOW	HIGH

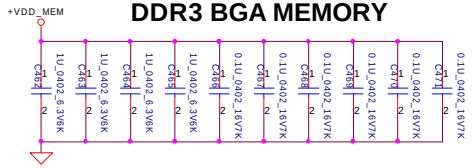




DDR3 BGA MEMORY



DDR3 BGA MEMORY



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: VRAM DDR3

Size: | Document Number: LA-4901P | Rev: 0.1

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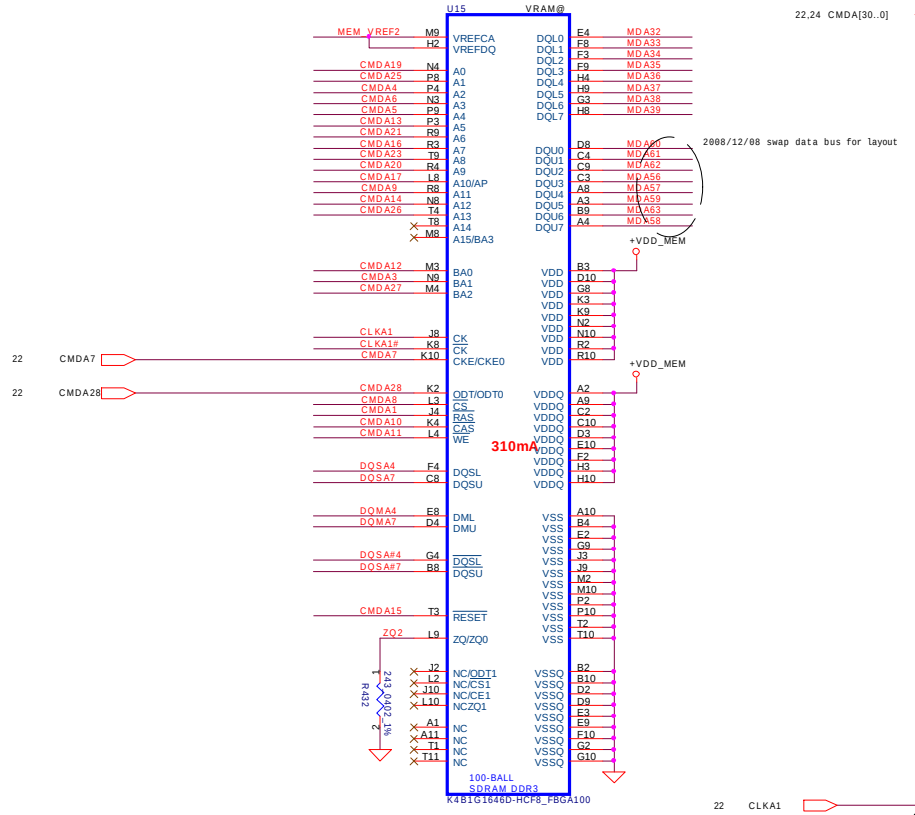
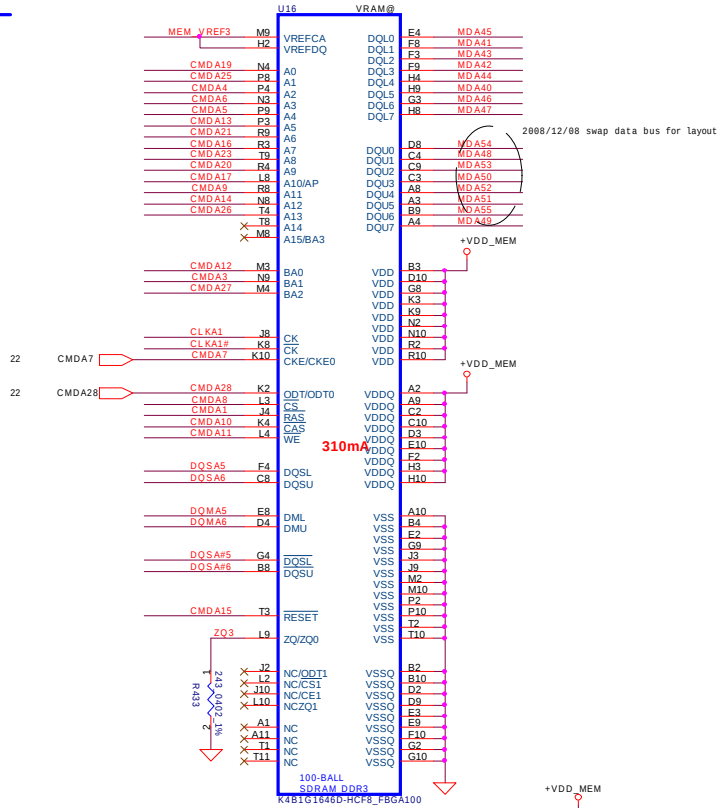
VRAM DDR3 chips (512MB)

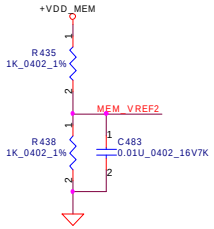
64Mx16 DDR3 800MHz*4==>512MB

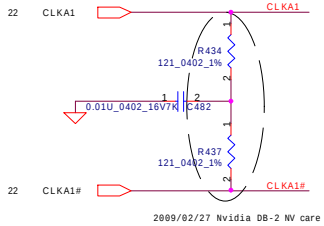
High 32 bit FB

22,24 DQSA[7..0] DQSA[7..0]
22,24 DQSA#[7..0] DQSA#[7..0]
22,24 DQMA[7..0] DQMA[7..0]
22,24 MDA[63..0] MDA[63..0]
22,24 CMDA[30..0] CMDA[30..0]

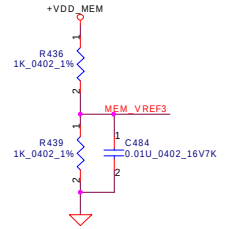




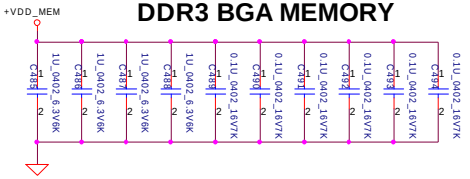




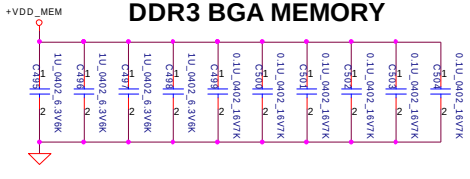
2009/02/27 Nvidia DB-2 NV care



DDR3 BGA MEMORY



DDR3 BGA MEMORY



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: **VRAM DDR3**

Size | Document Number: **Cartier DIS** | Rev: 0.1

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From Power

+1.0VM_LAN

+1.05VM_LAN

R442 0_0603_5%

C509 0.1U_0402_16V4Z

C510 10U_0805_6.3V6M

2009/02/19 HP DB-2

From Power

+3VM

+3VM_LAN

R932 0_0603_5%

C513 0.1U_0402_16V4Z

C514 10U_0805_10V4Z

2009/05/02 HP SI-1

13 CLK_PCIE_LAN_REQ1# R11991 2 0_0402_5%

2009/01/22 HP

U18

15 CLK_PCIE_LAN_REQ# R930 1 @ 2 0_0402_5% CLK_PCIE_LAN_REQ# R 48

4,12,15,20,28,31,33 PLT_RST# R450 1 2 0_0402_5% PLT_RST# LAN 36

15 CLK_PCIE_LAN 44

15 CLK_PCIE_LAN# 45

13 PCIE_PRX_DTX_P6 C516 1 2 0.1U_0402_10V7K PCIE_PRX_DTX_P6_C 38

13 PCIE_PRX_DTX_N6 C518 1 2 0.1U_0402_10V7K PCIE_PRX_DTX_N6_C 39

13 PCIE_PTX_C_DRX_P6 41

13 PCIE_PTX_C_DRX_N6 42

13 SML0CLK R451 1 2 0_0402_5% LAN_SM_CLK 28

13 SML0DATA R452 1 2 0_0402_5% LAN_SM_DAT 31

15,27 LAN_DIS# R455 1 2 0_0402_5% LAN_PHYPC_R 3

2009/02/06 HP DB-2

15,27 LED_LINK_LAN#_R R1135 1 @ 2 0_0402_5% LED_LINK_LAN# 26

27 LED_LINK_LAN# LAN_ACT# 27

27,34 LAN_ACT# 25

T65 32

T66 34

+3VM_LAN R458 1 @ 2 10K_0402_5% LAN_JTAG_TMS 33

R460 1 @ 2 10K_0402_5% LAN_JTAG_TCK 35

XTAL1_C 9

XTAL2 10

R463 1 2 1K_0402_5% 30

R464 1 2 3.01K_0402_1% 12

CLK_REQ_N
PE_RST_N
PE_CLKP
PE_CLKN
PETp
PETn
PERp
PERn
PCIE
SMB_CLK
SMB_DATA
SMBUS
LAN_DISABLE_N
LED0
LED1
LED2
LED
JTAG_TDI
JTAG_TDO
JTAG_TMS
JTAG_TCK
JTAG
XTAL_OUT
XTAL_IN
TEST_EN
RBIAS

MDI_PLUS0 13 LAN_MDI0P 27
MDI_MINUS0 14 LAN_MDI0N 27
MDI_PLUS1 17 LAN_MDI1P 27
MDI_MINUS1 18 LAN_MDI1N 27
MDI_PLUS2 20 LAN_MDI2P 27
MDI_MINUS2 21 LAN_MDI2N 27
MDI_PLUS3 23 LAN_MDI3P 27
MDI_MINUS3 24 LAN_MDI3N 27
MDI

VCT 6 TRM_CT 27

RSVD_VCC3P3_1 1
RSVD_VCC3P3_2 2
VDD3P3_IN 5
R453 1 2 3.01K_0402_1%
R454 1 2 3.01K_0402_1%
+3VM_LAN

VDD3P3_OUT 4 +3.3VM_LAN_OUT

92mA

VDD3P3_15 15 +3.3VM_LAN_OUT_R
VDD3P3_19 19
VDD3P3_29 29
R456 1 2 0_0603_5%
C524 1U_0603_10V4Z

VDD1P0_47 47 +1.0VM_LAN4
VDD1P0_46 46
VDD1P0_37 37
R457 1 2 0_0603_5%

VDD1P0_43 43 +1.0VM_LAN3
R459 1 2 0_0603_5%

328mA

VDD1P0_11 11 +1.0VM_LAN2
R461 1 2 0_0603_5%
+1.0VM_LAN

VDD1P0_40 40
VDD1P0_22 22
VDD1P0_16 16
VDD1P0_8 8 +1.0VM_LAN1
R462 1 2 0_0603_5%

CTRL_1P0 7 LAN_CTRL_18 T138

VSS_EPAD 49

WG82577LM_QFN48P

2009/01/22 HP

2008/11/17 HP

2009/02/06 HP DB-2

XTAL1 C934 1 2 10P_0402_50V8C XTAL1_C

Y5 25MHZ_18PF_X5H025000DI1H-H

XTAL2

C529 33P_0402_50V8J

C530 33P_0402_50V8J

2009/09/11 HP PV

Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

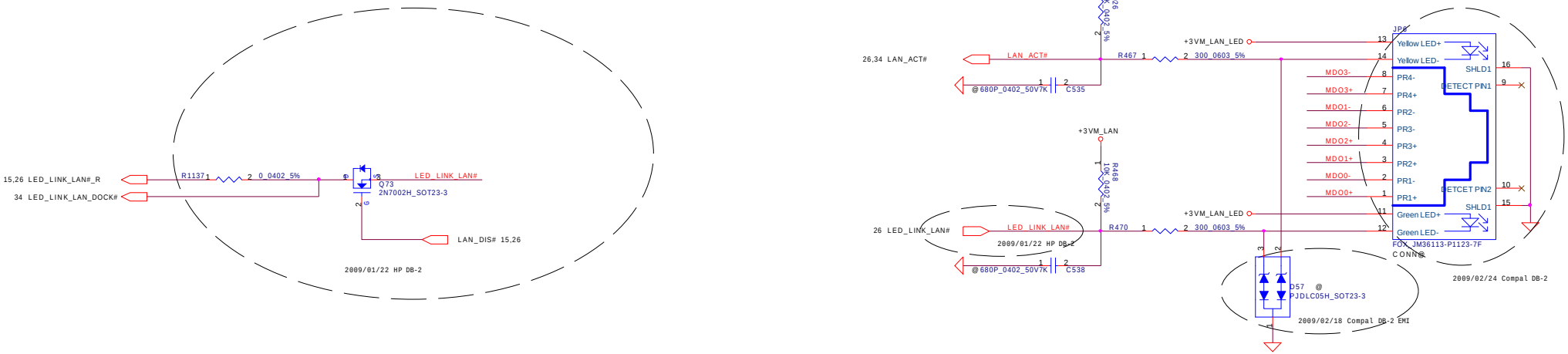
Compal Electronics, Inc.

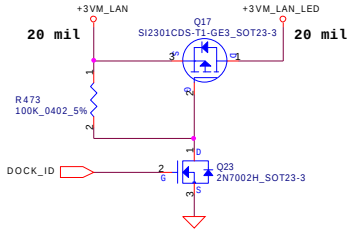
Title: **Intel 82566 Nineveh**

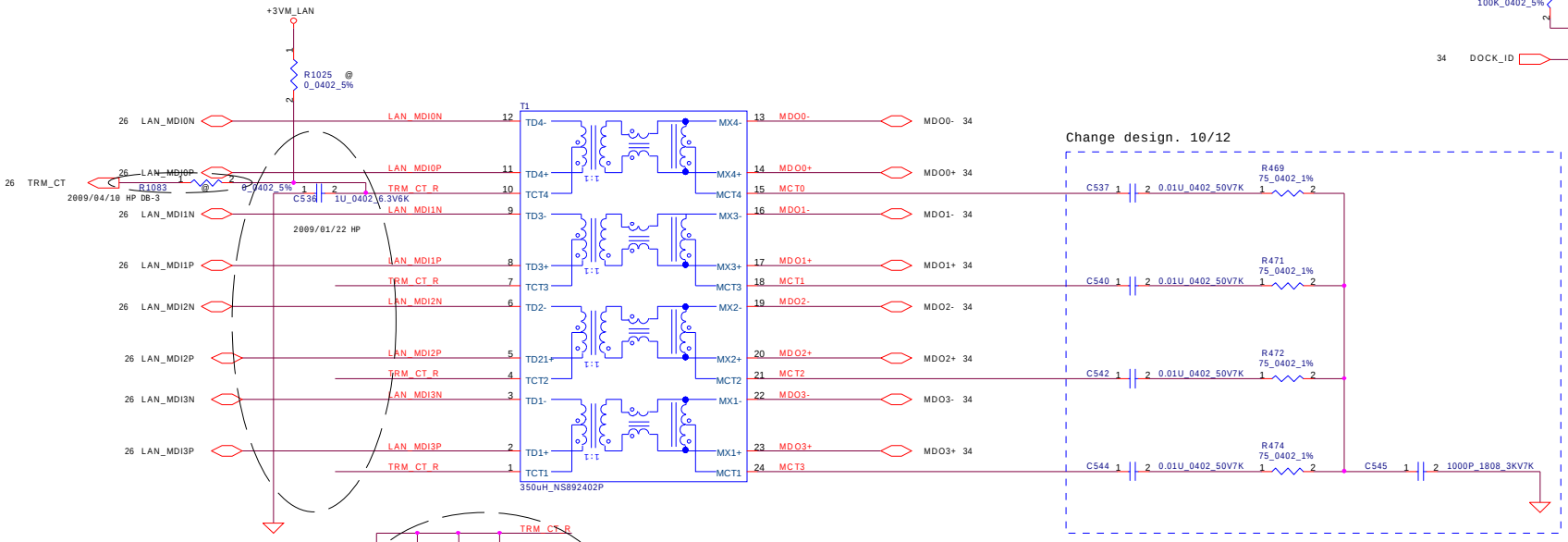
Size	Document Number	Rev
	LA-4901P	1.0

Date: Tuesday, December 15, 2009 Sheet 26 of 54

RJ-45 CONN.







Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

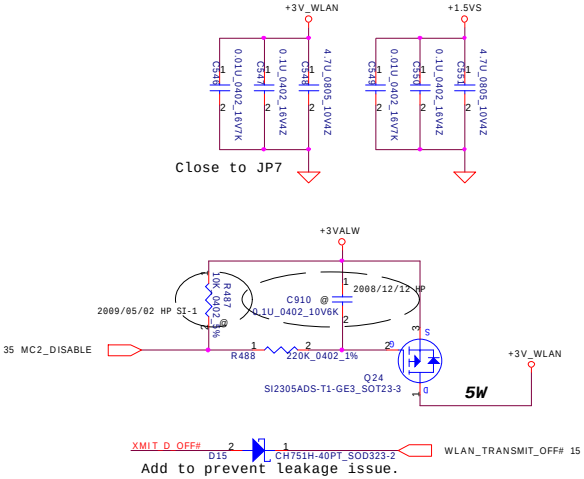
Compal Electronics, Inc.

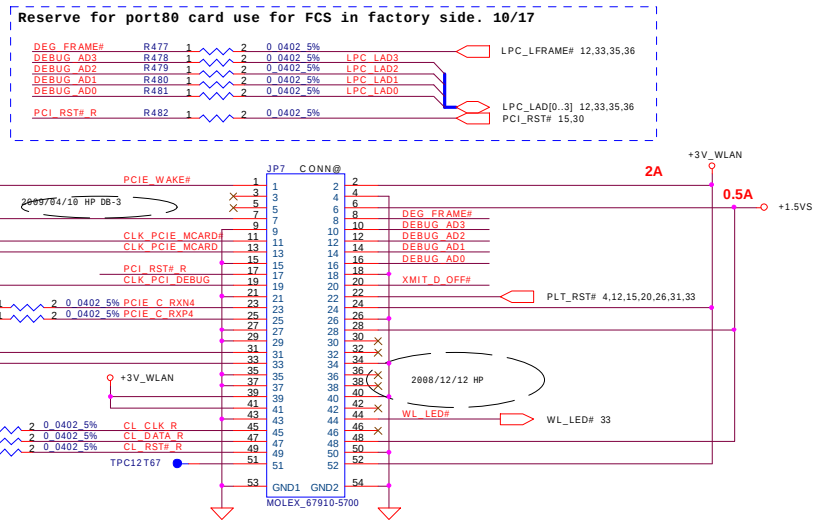
Title: **Magnetic & RJ45**

Size	Document Number	Rev
	LA-4901P	1.0

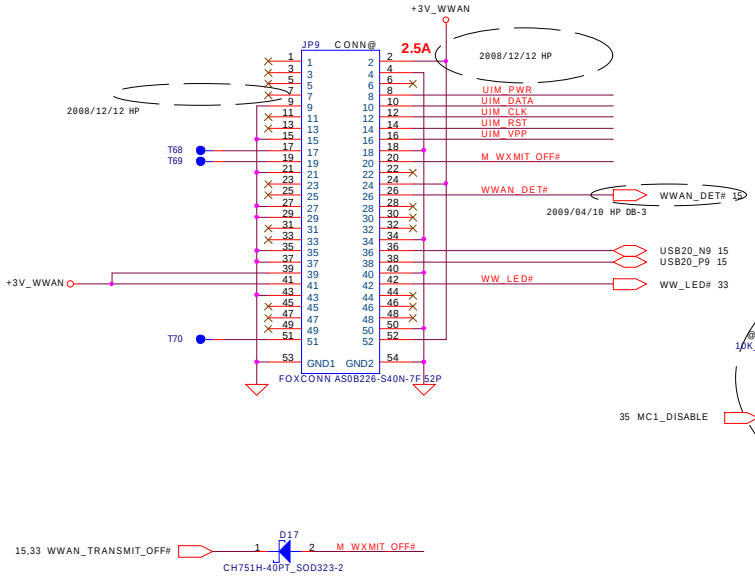
Date: Tuesday, December 15, 2009 Sheet 27 of 54

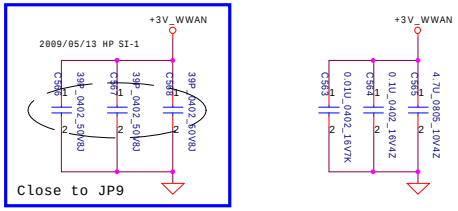
WLAN (Halt mini Card)

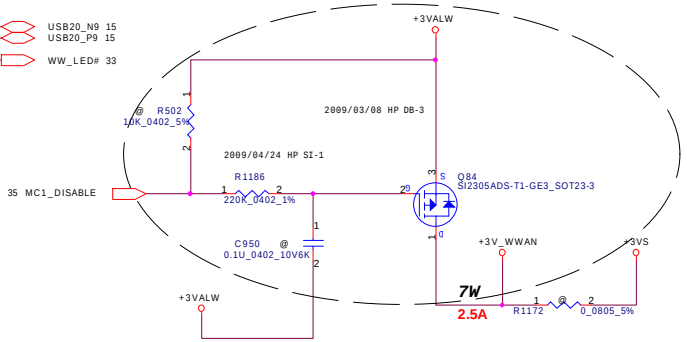


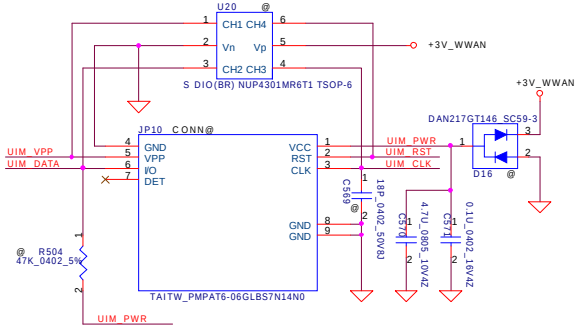


WWAN (Full mini Card)









Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

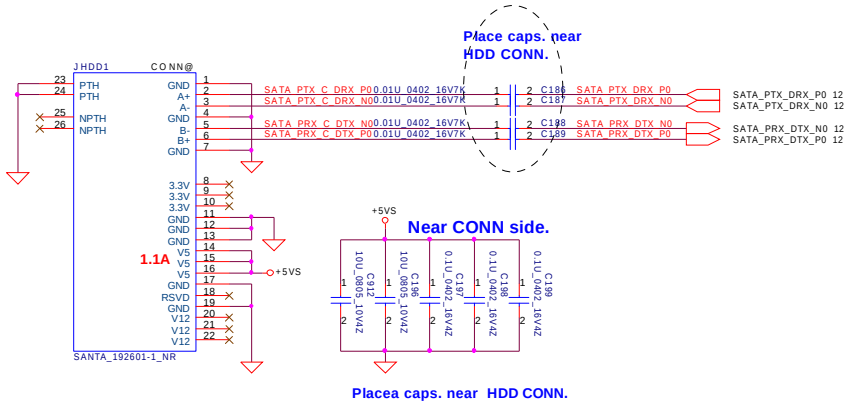
Compal Electronics, Inc.

Title: **WLAN&WWAN**

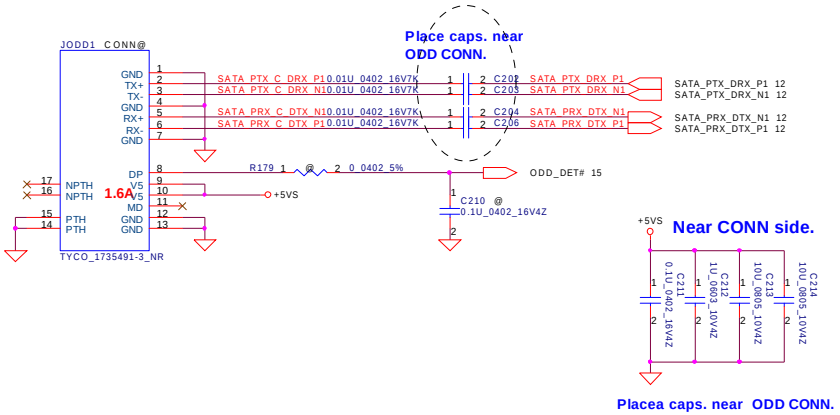
Size	Document Number	Rev
	LA-4901P	1.0

Date: Tuesday, December 15, 2009 Sheet 28 of 54

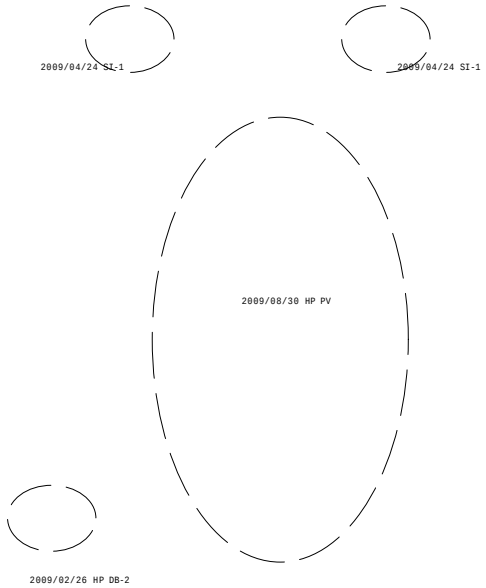
SATA HDD CONN.



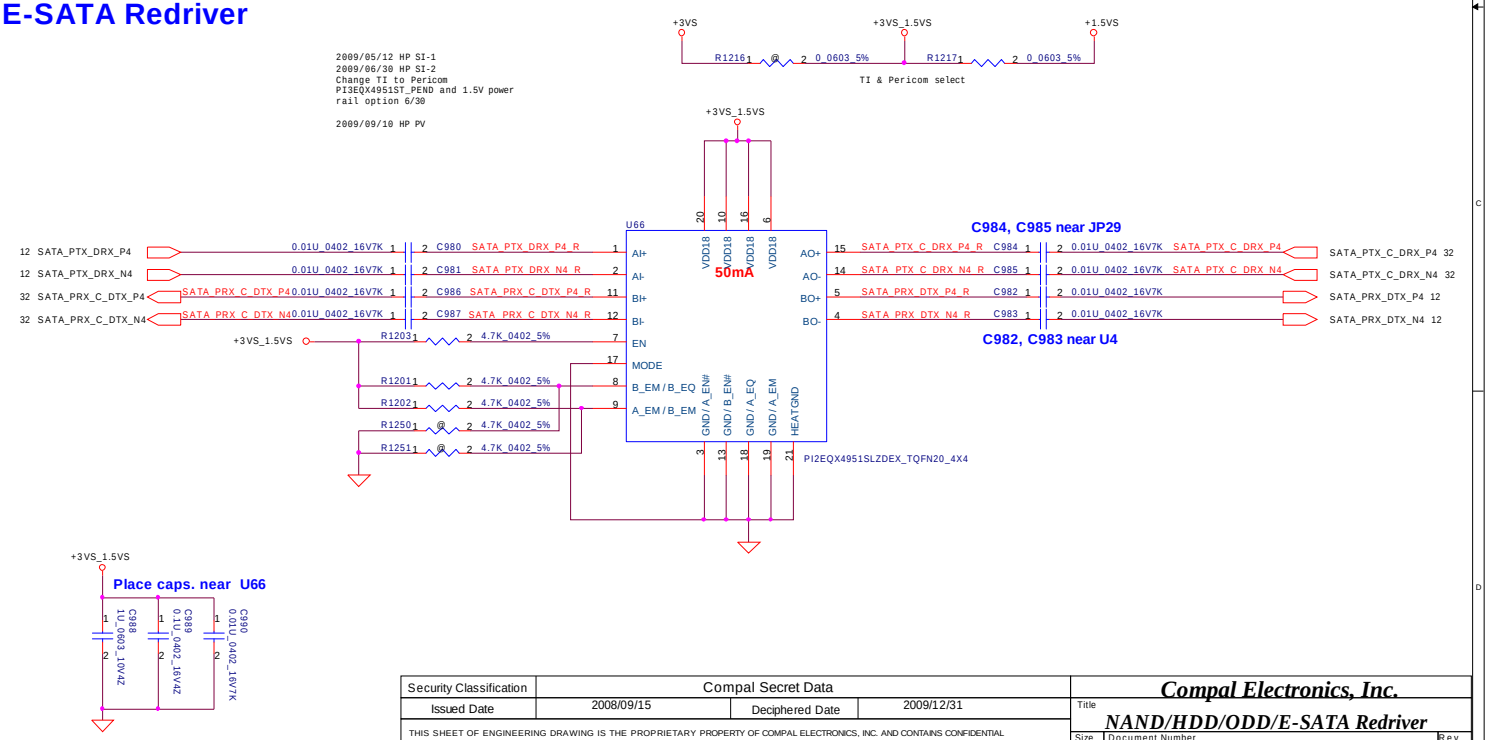
SATA ODD CONN.



NAND FLASH



E-SATA Redriver



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: NAND/HDD/ODD/E-SATA Redriver

Size	Document Number	Rev
	LA-4901P	1.0

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SD,MMC,MS,XD muti-function pin define

MDIO PIN Name	SD Card PIN Name	MMC Card PIN Name	MS Card PIN Name	XD Card PIN Name
MDIO00	SDCD#	MMCCD#		XDCD0#
MDIO01			MSCD#	XDCD1#
MDIO02				XDCE#
MDIO03	SDWP#			XDR/B#
MDIO04	SDPWR0	MMCPWR	MSPWR	XDPWR
MDIO05	SDPWR1			XDWP#
MDIO06	SDLED#	MMCLED#	MSLED#	XDLED#
MDIO07			MSEXTCK	
MDIO08	SDCCMD	MMCCMD	MSBS	XDWE#
MDIO09	SDCCLK	MMCCLK	MSCCLK	XDRE#
MDIO10	SDCDAT0	MMCDAT0	MSCDAT0	XDCDAT0
MDIO11	SDCDAT1	MMCDAT1	MSCDAT1	XDCDAT1
MDIO12	SDCDAT2	MMCDAT2	MSCDAT2	XDCDAT2
MDIO13	SDCDAT3	MMCDAT3	MSCDAT3	XDCDAT3
MDIO14		MMCDAT4		XDCDAT4
MDIO15		MMCDAT5		XDCDAT5
MDIO16		MMCDAT6		XDCDAT6
MDIO17		MMCDAT7		XDCDAT7
MDIO18				XDCLE
MDIO19				XDALE

SD,MMC for Cartier DIS and UMA

2008/12/06 follow UMA

Function set pin define

UDIO3	UDIO4	UDIO5	Function
Pull-down	Pull-down	Pull-up	Disable MS,xD Card,serial ROM
Pull-up	Pull-up	Pull-down	Enable serial EEPROM
Pull-up	Pull-up	Pull-up	Ensable MS,xD Card,disable serial ROM

SMART Card Connector

Layout Note: Add GND shield.

Layout Note: Please them close to U21.

Layout Note: Add GND shield for 1394.and Same length as TPA+/-,TPB+/-

Layout Note: Add GND shield for SDCLK_MMCCLK, SDPWR0_MSPWR_XDPWR.

Layout Note: Place these cap close to U21

Layout Note: Place close to R5C835 and Shield GND for SDCLK_MSCLK

Layout Note: Place close to R5C835 and Shield GND for SD_CLK

Layout Note: Shield GND for CBS_CCLK_INTERNAL and CBS_CCLK

Layout Note: Add GND shield for 1394.

Layout Note: Add GND shield

2009/02/24 Compal DB-2 for layout

2009/05/16 HP SI-1

2009/03/08 HP DB-3

2009/02/24 Compal DB-2
2009/04/16 Compal DB-3 follow KAQ 00

Security Classification	Compal Secret Data		
Issued Date	2008/03/13	Deciphered Date	2009/05/11

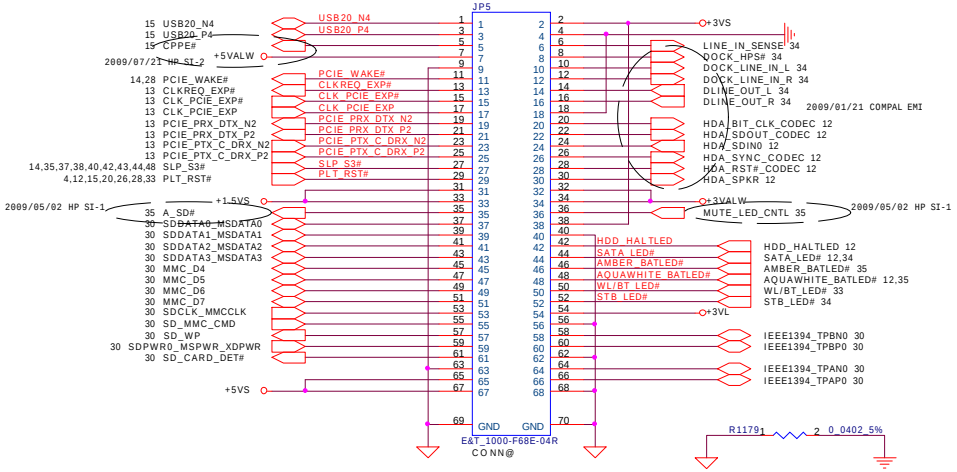
Compal Electronics, Inc.

Title: 1394+2 in 1 Card

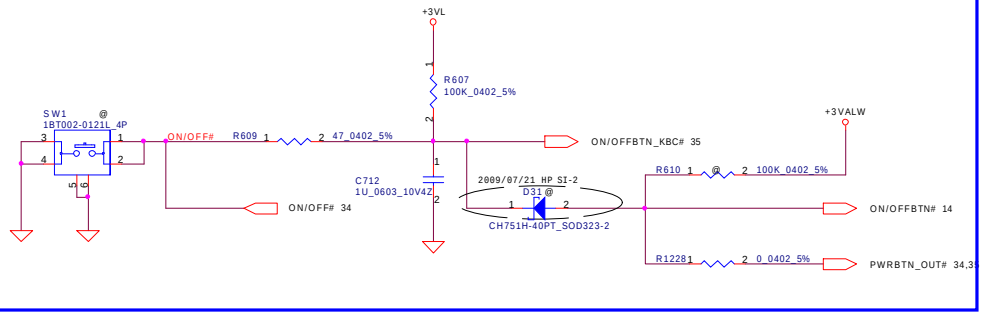
Size: Custom | Document Number: LA-4901P | Rev: 1.0

Date: Tuesday, December 15, 2009 | Sheet 30 of 54

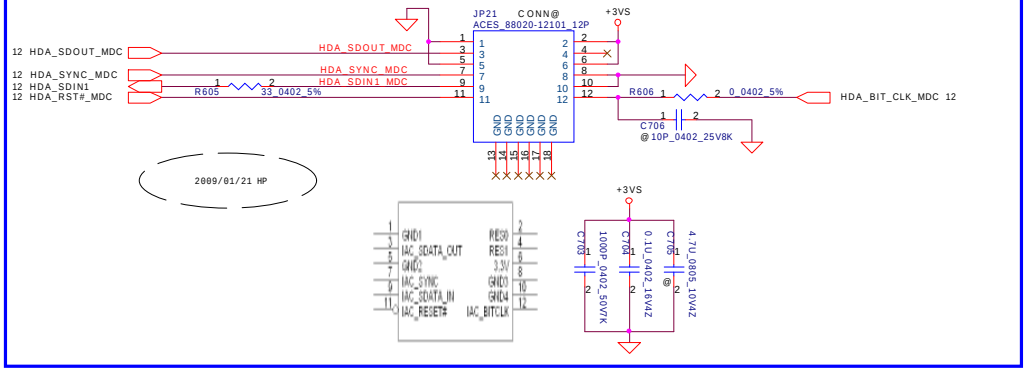
AUDIO BOARD CONNECTOR (MALE)



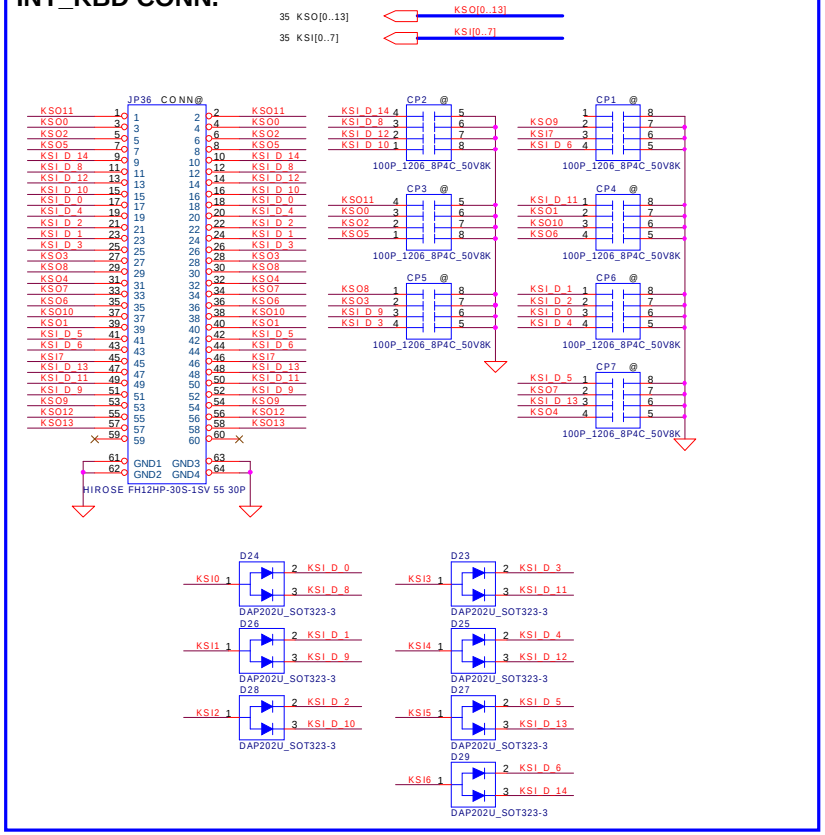
Power Button



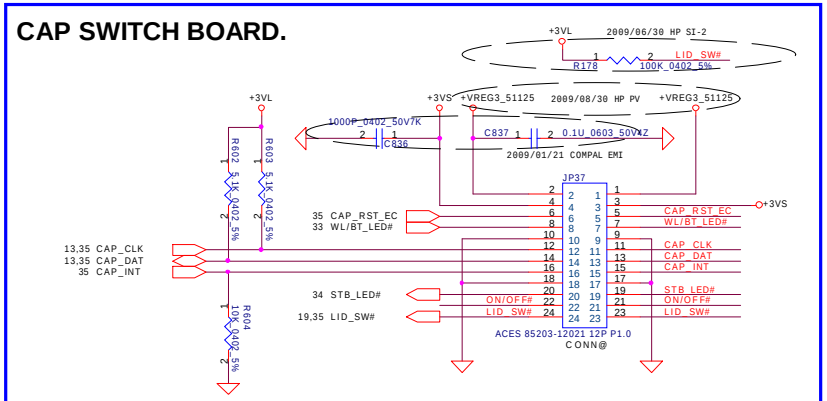
MDC 1.5 Conn.



INT_KBD CONN.



CAP SWITCH BOARD.



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

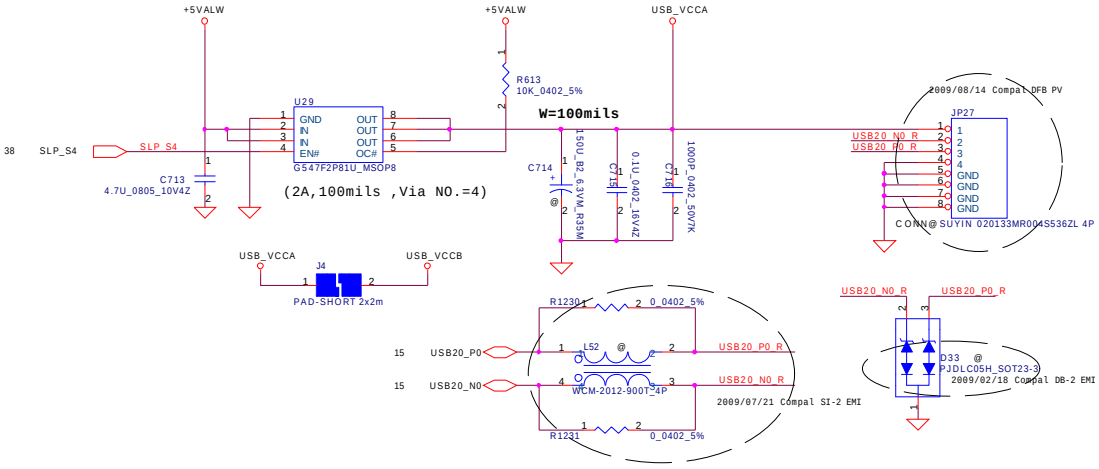
Compal Electronics, Inc.

Title: MDC/KBD/ON_OFF/CAP

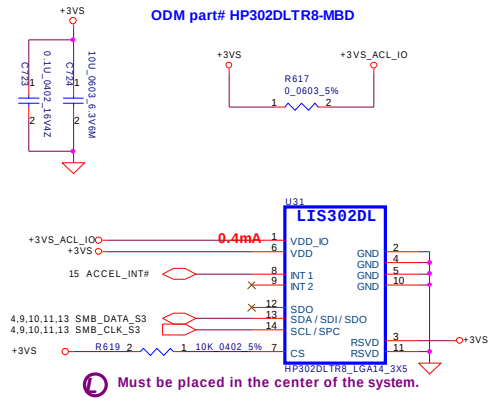
Size	Document Number	Rev
	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 31 of 54

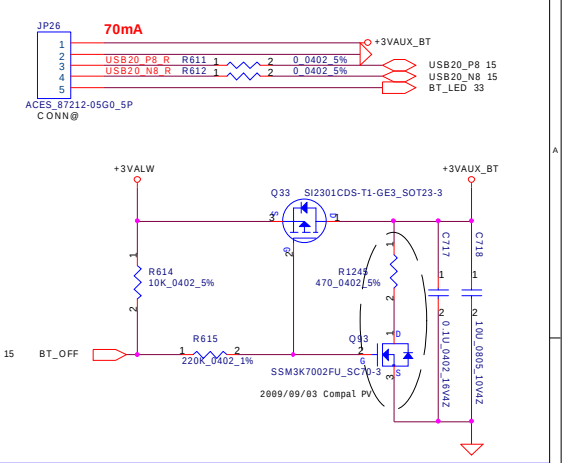
USB CONN.

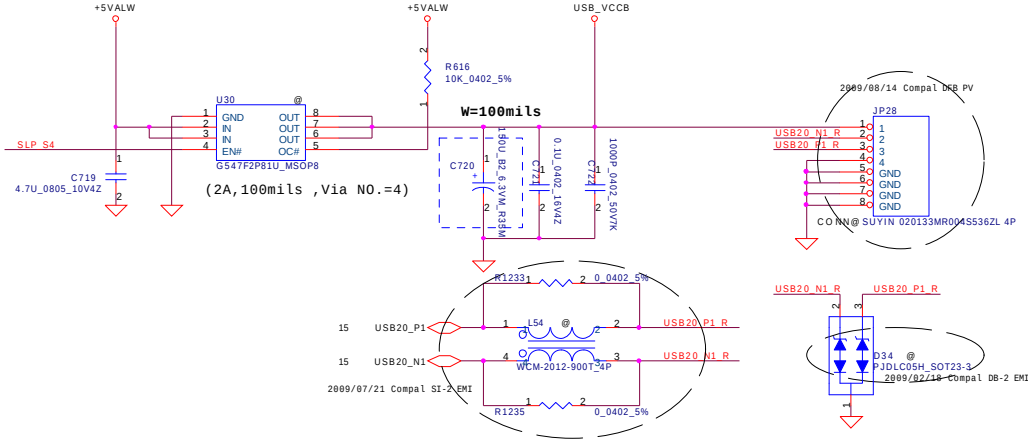


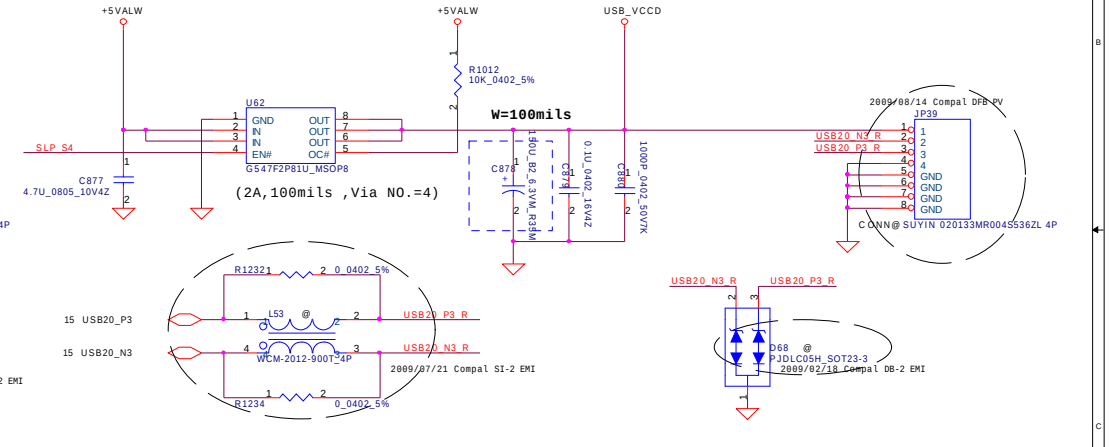
ACCELEROMETER



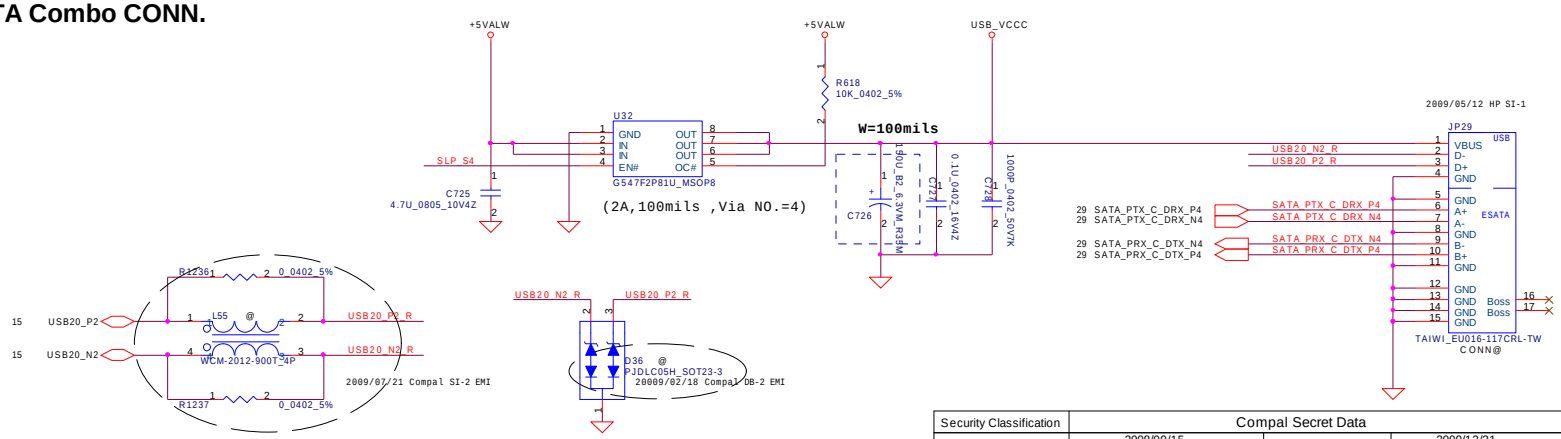
BT Connector







USB and E-SATA Combo CONN.



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

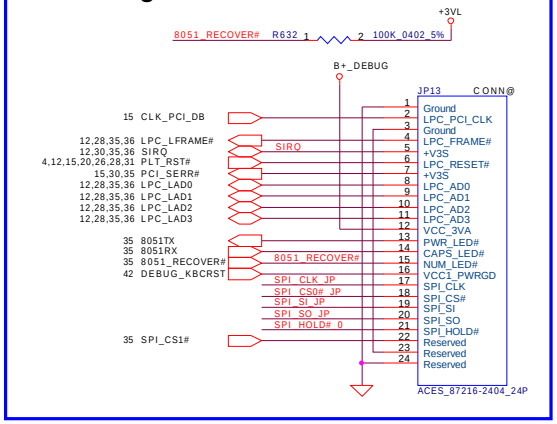
Compal Electronics, Inc.

Title: **USB/BT/E-SATA Conn/Acclerometer**

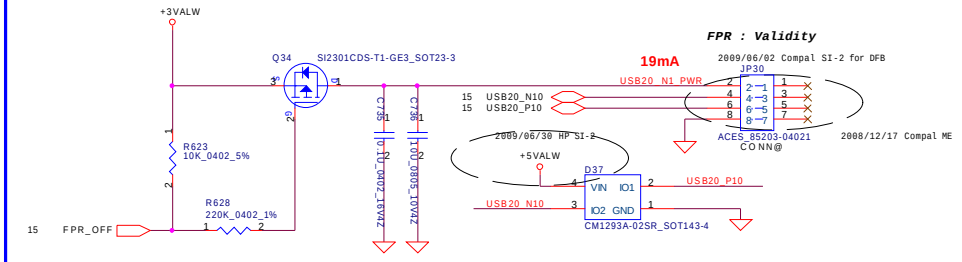
Size	Document Number	Rev
	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 32 of 54

LPC Debug Port

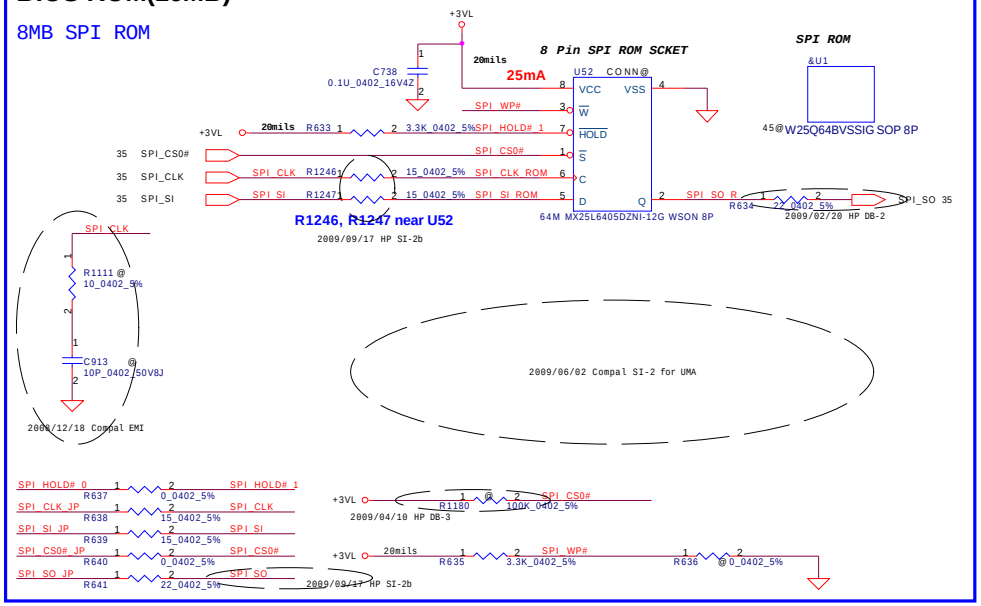


Finger Printer

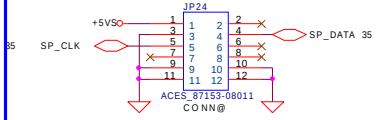


BIOS ROM(16MB)

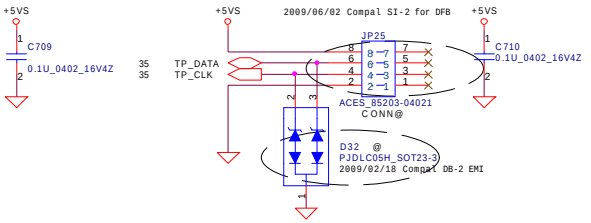
8MB SPI ROM



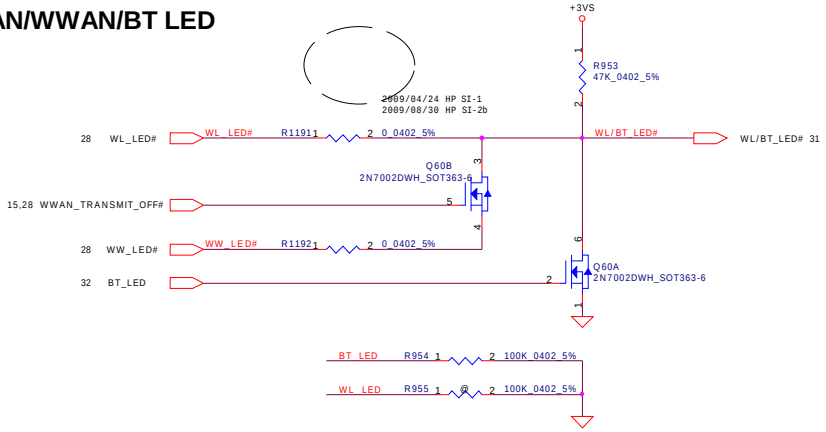
TrackPoint CONN.



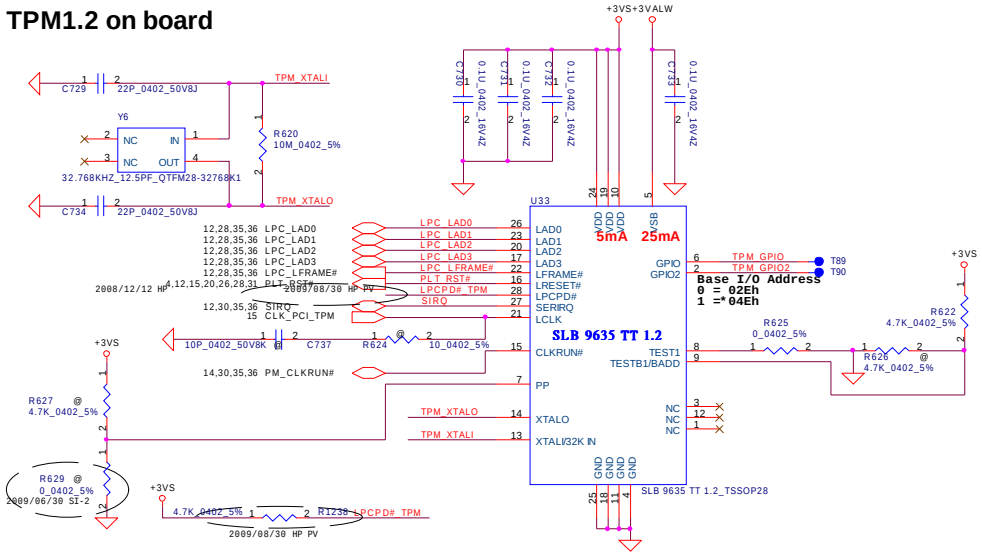
T/P CONN.



WLAN/WWAN/BT LED



TPM1.2 on board



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: FPR/BIOS/LPC DEBUG/LED/TPM/TP

Size	Document Number	Rev
	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 33 of 54

DOCK CONN. 184PIN

DOCKING CONNECT

(1) PCI Express x1 channels
(2) PS/2 Interfaces
(2) USB 2.channels
(2) SATA Channels
(2) Display Port Channels
(1) Serial Port
(1) Parallel Port
(1) Line In
(1) Line Out
(1) RJ45 (10/100/1000)
(1) VGA
(1) 2 LAN indicator LED's
(1) Power Button
(1) I2C interface

VA
C740 0.1U_0603_50V4Z
C741 0.1U_0603_50V4Z

VIN
VA
L34 HCB2012KF-121T50_0805
5A
L51 HCB2012KF-121T50_0805

+5VS
C742 10U_0805_10V4Z
C743 0.1U_0402_16V4Z
C744 0.1U_0402_16V4Z
C745 0.1U_0402_16V4Z

2009/02/06 Follow Dior
+3VALW
DOCK_ID R645 1 2 10K_0402_5%

VA_ON#
R644 1K_0402_5% 1 2
C739 0.1U_0402_16V4Z

ON/OFF#_DOCK R1241 1 2 0_0402_5% ON/OFF# → ON/OFF# 31
R1242 1 @ 2 0_0402_5% PWRBTN_OUT# → PWRBTN_OUT# 31,35
2009/09/03 Compal

VA
12A
JP32A
P1 G1
190 189
188 187 186 185 184 183 182 181 180 179 178 177 176 175 174 173 172 171 170 169 168 167 166 165 164 163 162 161 160 159 158 157 156 155 154 153 152 151 150 149 148 147 146 145 144
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

27 MDO3+ / 27 MDO3- → MDO1+ 27 / MDO1- 27
27 MDO2+ / 27 MDO2- → MDOO+ 27 / MDOO- 27
DETECT
+5VS 2009/02/06 HP DB-2
LED_LINK_LAN_DOCK# 27
LAN_ACT# 26,27
+5VS 2009/02/06 HP DB-2
2009/01/22 HP DB-2
USB20_N11 15
USB20_P11 15

22 DPB_TXP0 / 22 DPB_TXN0 → DPE_TXP0 21 / DPE_TXN0 21
22 DPB_TXP1 / 22 DPB_TXN1 → DPE_TXP1 21 / DPE_TXN1 21
22 DPB_TXP2 / 22 DPB_TXN2 → DPE_TXP2 21 / DPE_TXN2 21
22 DPB_TXP3 / 22 DPB_TXN3 → DPE_TXP3 21 / DPE_TXN3 21
22 DPB_AUX / 22 DPB_AUX# → DPE_AUX 21 / DPE_AUX# 21
2009/01/22 HP DB-2
2009/01/22 HP DB-2
DPB_AUX / DPB_AUX#
DPE_AUX / DPE_AUX#
2008/12/11 nVidia
2008/12/11 nVidia
FOX_QL0094L-D26601-8H

Quick SW

GPU

JP32B
22 CAD_B
DP_CEC
22 DPB_HPD
14 SLP_S5#
ADP_SIGNAL
2008/12/06 follow UMA
DPB_CTRLCLK
DPB_CTRLDATA
DPB_AUX
DPB_AUX#
R1207 1 2 0_0402_5%
R1209 1 2 0_0402_5%
2009/06/30 SI-2

36 LPTSTB# / LPTAFD# / LPTERR# / LPTACK# / LPTBUSY / LPTPE / LPTSLCT
36 LPD7 / LPD6 / LPD5 / LPD4 / LPD3 / LPD2 / LPD1 / LPD0
36 LPTSLCTIN# / LPTINIT#
STB_LED#_R
12,31 SATA_LED#
27 DOCK_ID
15 ISO_PREP#
DOCK_ID
ISO_PREP#

12 SATA_PTX_DRX_P5 / 12 SATA_PTX_DRX_N5
12 SATA_PRX_DTX_P5 / 12 SATA_PRX_DTX_N5
2009/02/06 HP DB-2
15 USB20_N13 / 15 USB20_P13
12 SATA_PTX_DRX_P2 / 12 SATA_PTX_DRX_N2
12 SATA_PRX_DTX_P2 / 12 SATA_PRX_DTX_N2
2009/02/06 HP DB-2

46 DCAD2
47 DP_CEC2
48 DPE_HPD
49 ON/OFF#_DOCK
50 VA_ON#
2009/09/03 Compal
2008/12/06 follow UMA
DP_CEC2
DPE_HPD 20
DPC_CTRLCLK
DPC_CTRLDATA
R1208 DPE_AUX
R1210 DPE_AUX#
2009/06/30 SI-2

58 D_DDCDATA
59 D_DDCCLK
D_DDCDATA 18
D_DDCCLK 18
D_VSYNC 18
D_HSYNC 18
R_DOCK_RED R947 1 2 0_0402_5% DOCK_RED
R_DOCK_GRN R948 1 2 0_0402_5% DOCK_GRN
R_DOCK_BLU R949 1 2 0_0402_5% DOCK_BLU

68 DCD#1
69 RI#1
70 DTR#1
71 CTS#1
72 RTS#1
73 DSR#1
74 TXD1
75 RXD1
76 SER_SHD
77
78
DCD#1 36
RI#1 36
DTR#1 36
CTS#1 36
RTS#1 36
DSR#1 36
TXD1 36
RXD1 36
SER_SHD 36
DOCK_ID0 15
DOCK_ID1 15
2009/01/20 follow Dior DIS

81 KBD_DATA
82 KBD_CLK
83 PS2_DATA
84 PS2_CLK
86 DOCK_HPS#
KBD_DATA 35
KBD_CLK 35
PS2_DATA 35
PS2_CLK 35
LINE_IN_SENSE 31
DOCK_HPS# 31
88 DOCK_LINE_IN_L 31
89 DOCK_LINE_IN_R 31
91 DLINE_OUT_L
92 DLINE_OUT_R
DLINE_OUT_L 31
DLINE_OUT_R 31
94 DETECT

192 194 196 198 200 G10 G2 G4 G6 G8 G1 G3 G5 G7 G9 191 193 195 197 199
FOX_QL0094L-D26601-8H

2008/12/18 nVidia
+3VS
DPE_AUX# R651 1 @ 2 100K_0402_5%
DPE_AUX R652 1 @ 2 100K_0402_5%
DPB_AUX# R653 1 @ 2 100K_0402_5%
DPB_AUX R654 1 @ 2 100K_0402_5%

+5VALW
R1145 10K_0402_5%
2009/02/06 Follow Dior
STB_LED# R
31 STB_LED# → STB_LED# Q75 2N7002H_SOT23-3

DOCK_RED R950 1 2 150_0402_1%
DOCK_GRN R951 1 2 150_0402_1%
DOCK_BLU R952 1 2 150_0402_1%
ADD by HP 2008/10/17

DOCK_RED C766 1 2 @0.1U_0402_16V4Z
DOCK_GRN C767 1 2 @0.1U_0402_16V4Z
DOCK_BLU C768 1 2 @0.1U_0402_16V4Z

DPB_HPD R12111 2 100K_0402_5%
DPE_HPD R12121 2 100K_0402_5%
2009/06/30 SI-2

2009/09/03 reserve for auto power on/off when dock

+3VALW
@ R1240 10K_0402_5%
ON/OFF#
@ Q94B DMN66D0LDW-7_SOT363-6
ON/OFF#_DOCK
@ C694 0.1U_0402_10V6K
ISO_PREP#
@ Q94A DMN66D0LDW-7_SOT363-6
2009/09/03 Compal

U35
18 VGA_RED
1 NO 2 GND 3 NC 6 IN 5 VCC 4 COM
DOCK_ID
DOCK_RED
+3VS C769 0.1U_0402_16V4Z
RED_R 18
TS5A3157_SC70-6

U36
18 VGA_GRN
1 NO 2 GND 3 NC 6 IN 5 VCC 4 COM
DOCK_ID
DOCK_GRN
+3VS C770 0.1U_0402_16V4Z
GREEN_R 18
TS5A3157_SC70-6

U37
18 VGA_BLU
1 NO 2 GND 3 NC 6 IN 5 VCC 4 COM
DOCK_ID
DOCK_BLU
+3VS C771 0.1U_0402_16V4Z
BLUE_R 18
TS5A3157_SC70-6

IN	NC<-->COM	NO<-->COM
L	ON	OFF
H	OFF	ON

Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: DOCK CONN

Size	Document Number	Rev
Custom	LA-4901P	1.0

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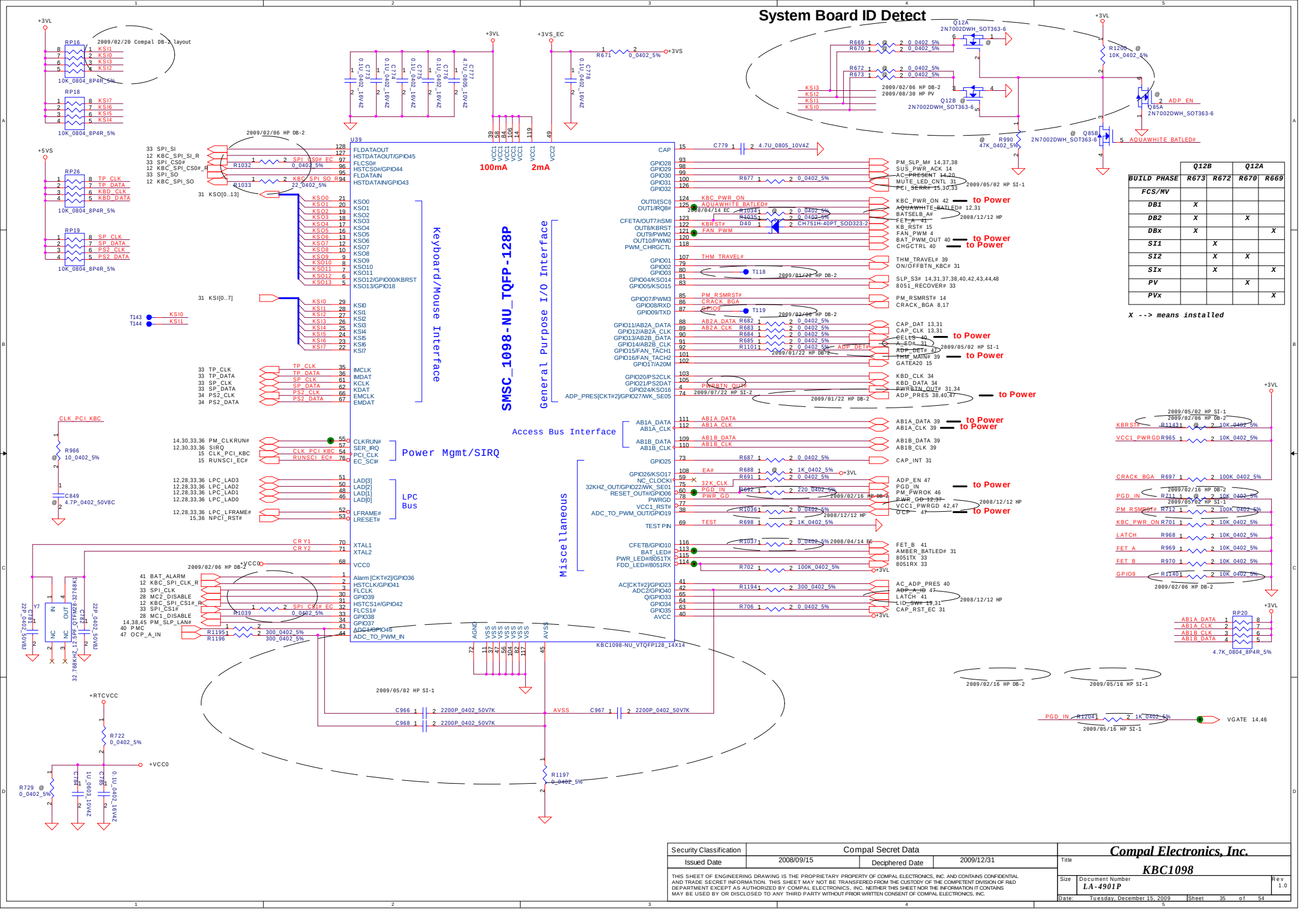
System Board ID Detect



BUILD PHASE	Q12B R673	Q12B R672	Q12A R670	Q12A R669
FCS/MV				
DB1	X			
DB2	X		X	
DBx	X			X
SI1		X		
SI2		X	X	
SIx		X		X
PV			X	
PVx				X

X --> means installed

Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

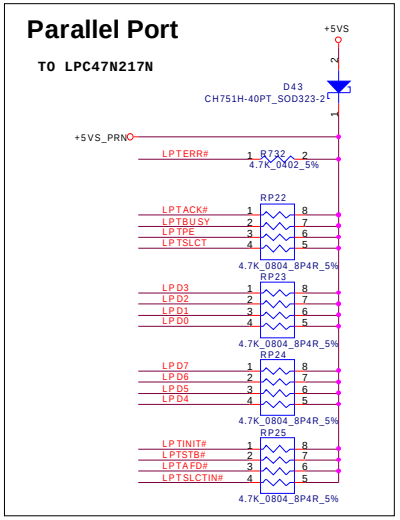
Title: **KBC1098**

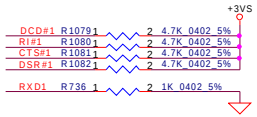
Size	Document Number	Rev
	LA-4901P	1.0

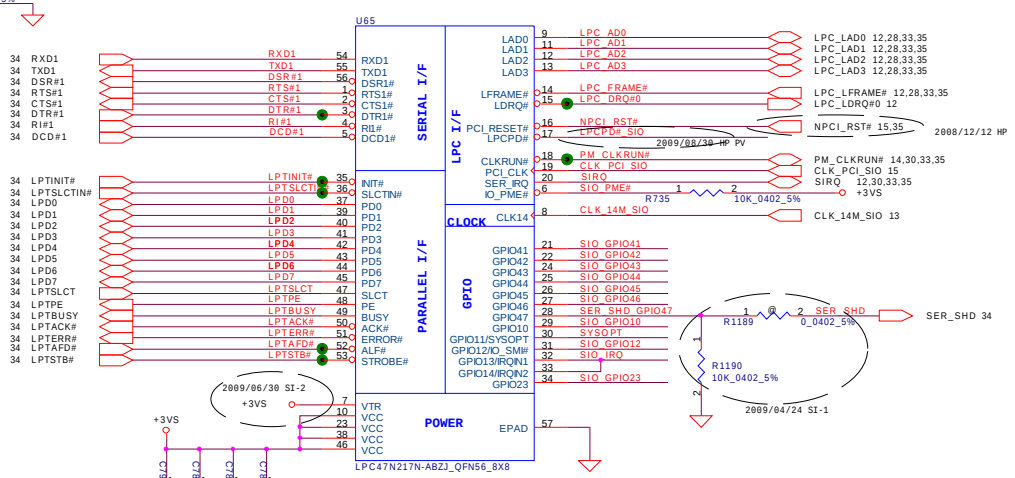
Date: Tuesday, December 15, 2009 Sheet 35 of 54

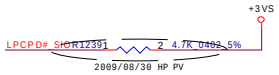
Parallel Port

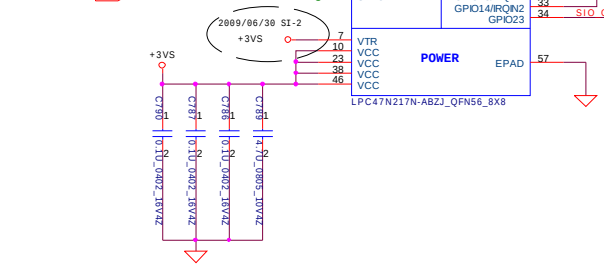
TO LPC47N217N

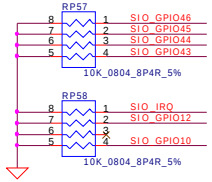


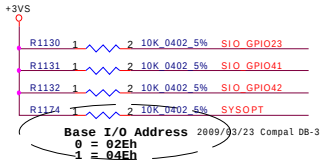


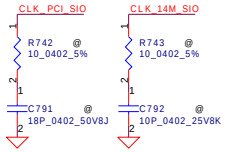












Security Classification	Compal Secret Data		
Issued Date	2008/09/09	Deciphered Date	2009/09/09

Compal Electronics, Inc.

Title: **SUPER I/O LPC47N217N-ABZJ**

Size	Document Number	Rev
	LA-4901P	1.0

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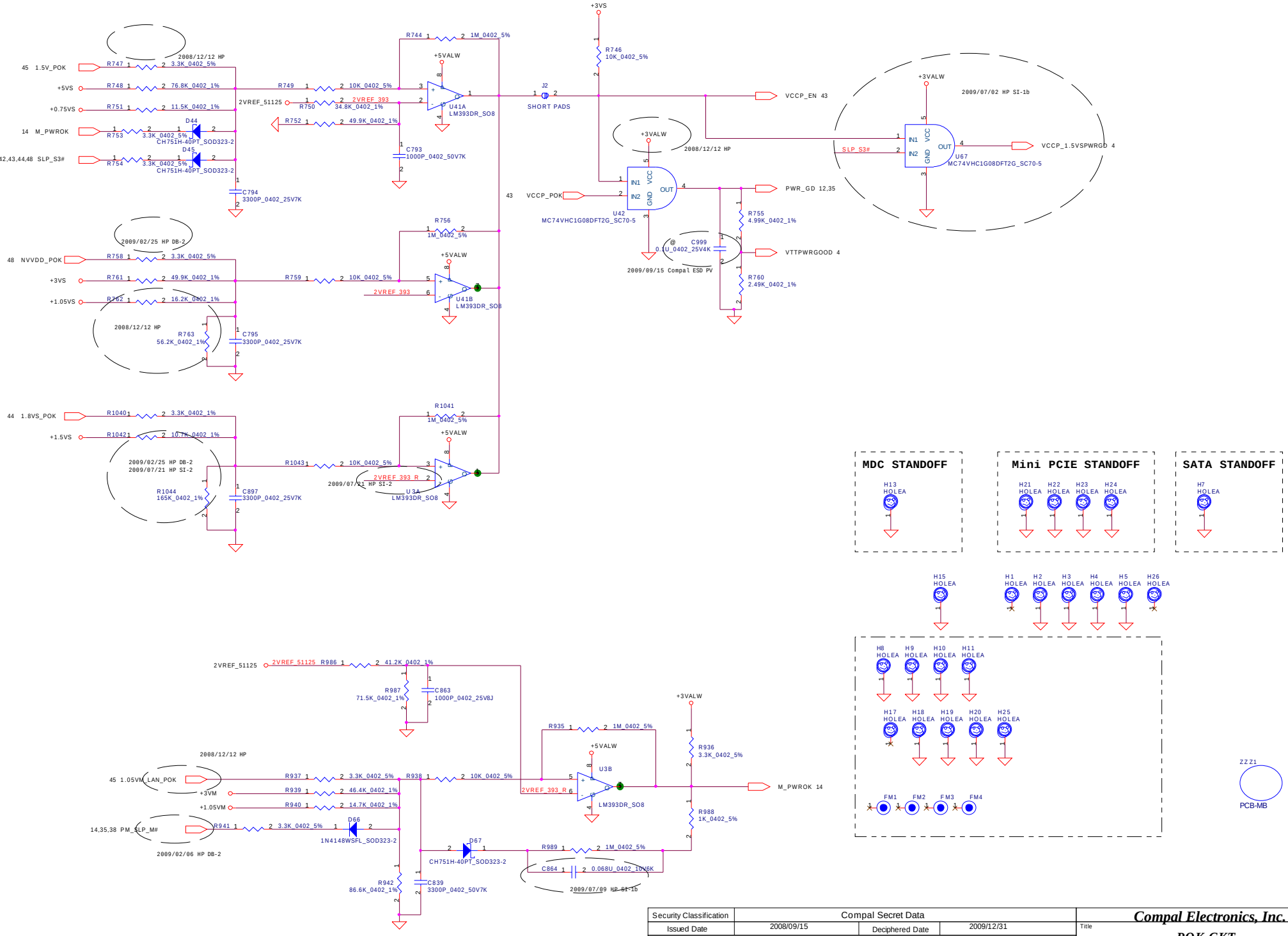

Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: **POK CKT**

Size	Document Number	Rev
	LA-4901P	1.0

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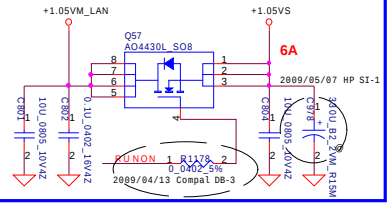
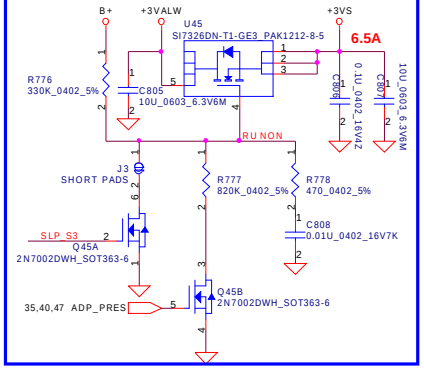
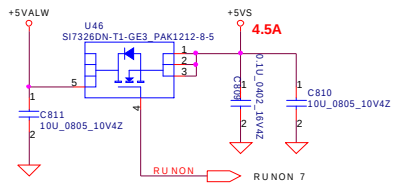
+1.05VM to +1.05VS Transfer



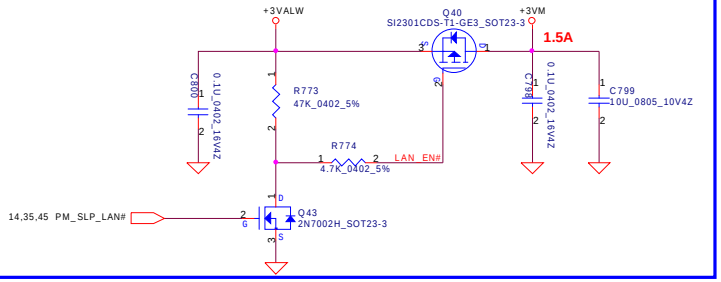
+3VALW to +3VS Transfer



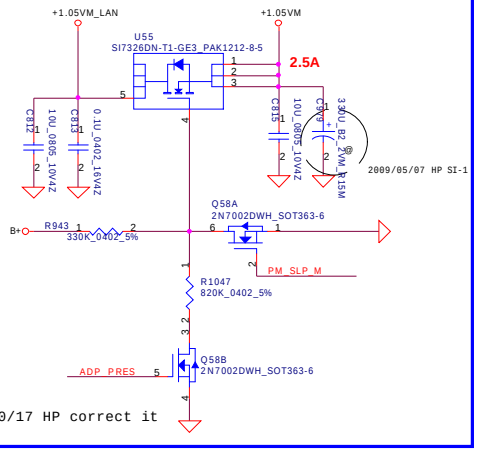
+5VALW to +5VS Transfer



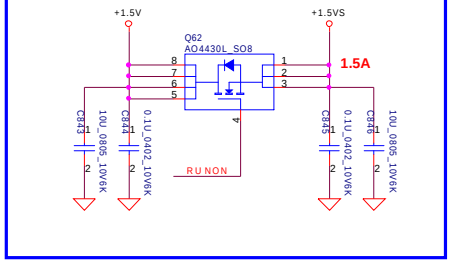
+3VALW to +3VM Transfer



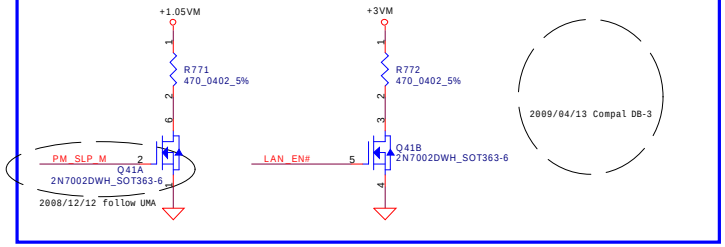
+1.05VM_LAN to +1.05VM Transfer



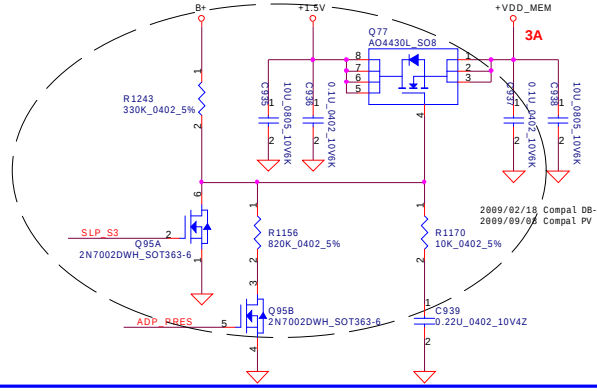
+1.5V to +1.5VS Transfer

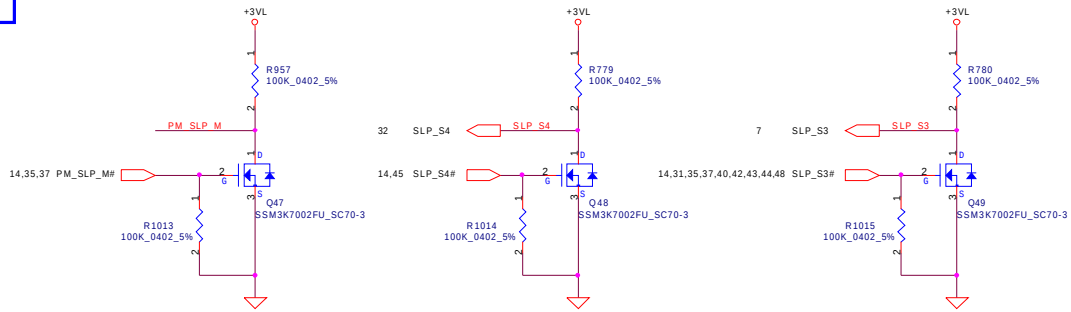


Discharge circuit-2 for V-M

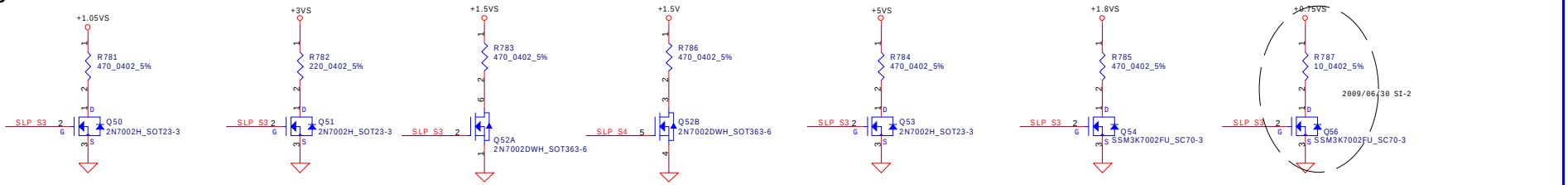


+1.5V to +VDD_MEM Transfer



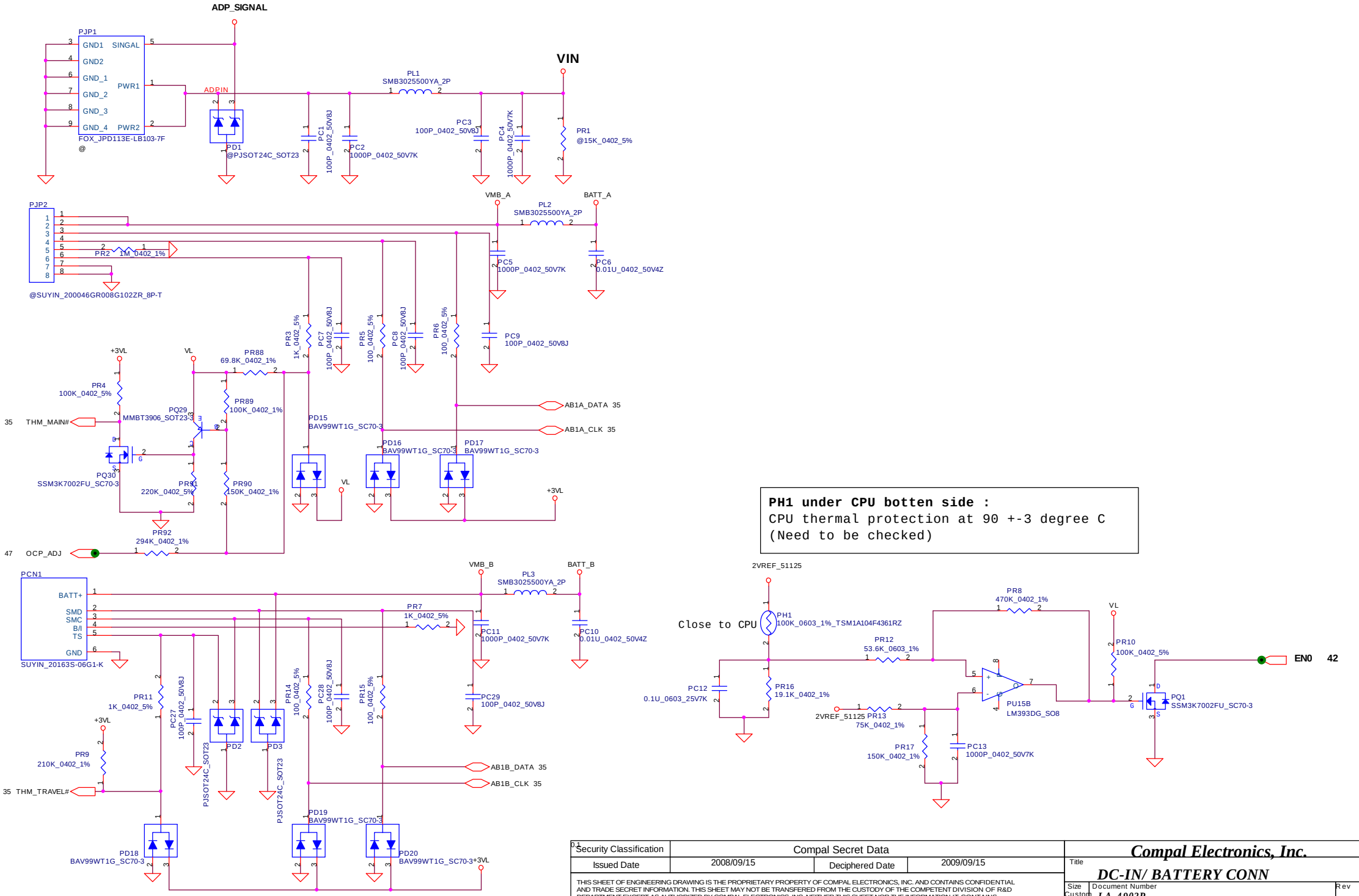


Discharge circuit-1



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/12/31

Compal Electronics, Inc.			
Title: DC/DC Circuits			
Size	Document Number: LA-4901P		Rev: 1.0
Date: Tuesday, December 15, 2009	Sheet 38 of 54		



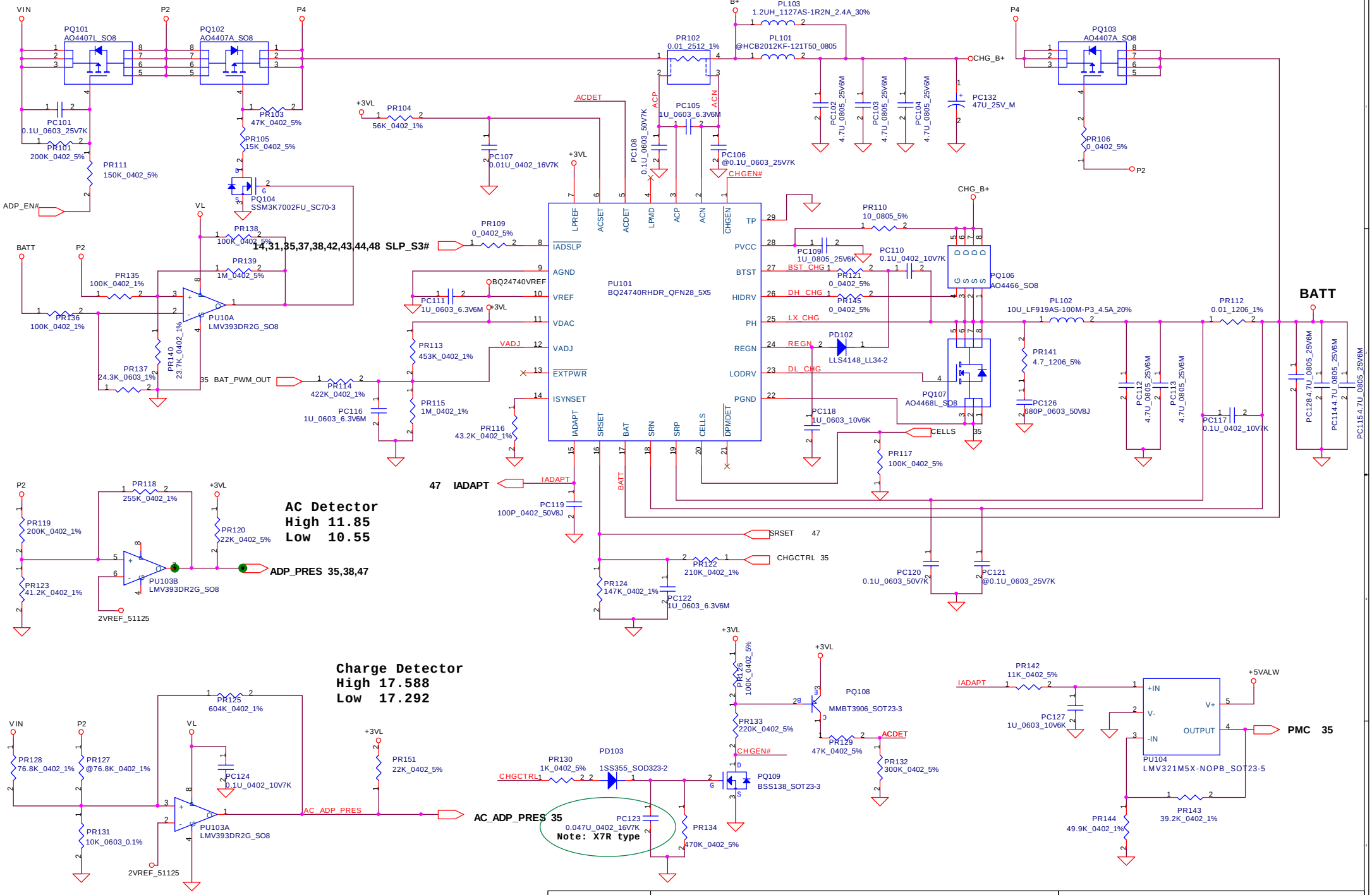
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: **DC-IN/ BATTERY CONN**

Size	Document Number	Rev
Custom	LA-4902P	0.1

Date: Tuesday, December 15, 2009 Sheet 39 of 54



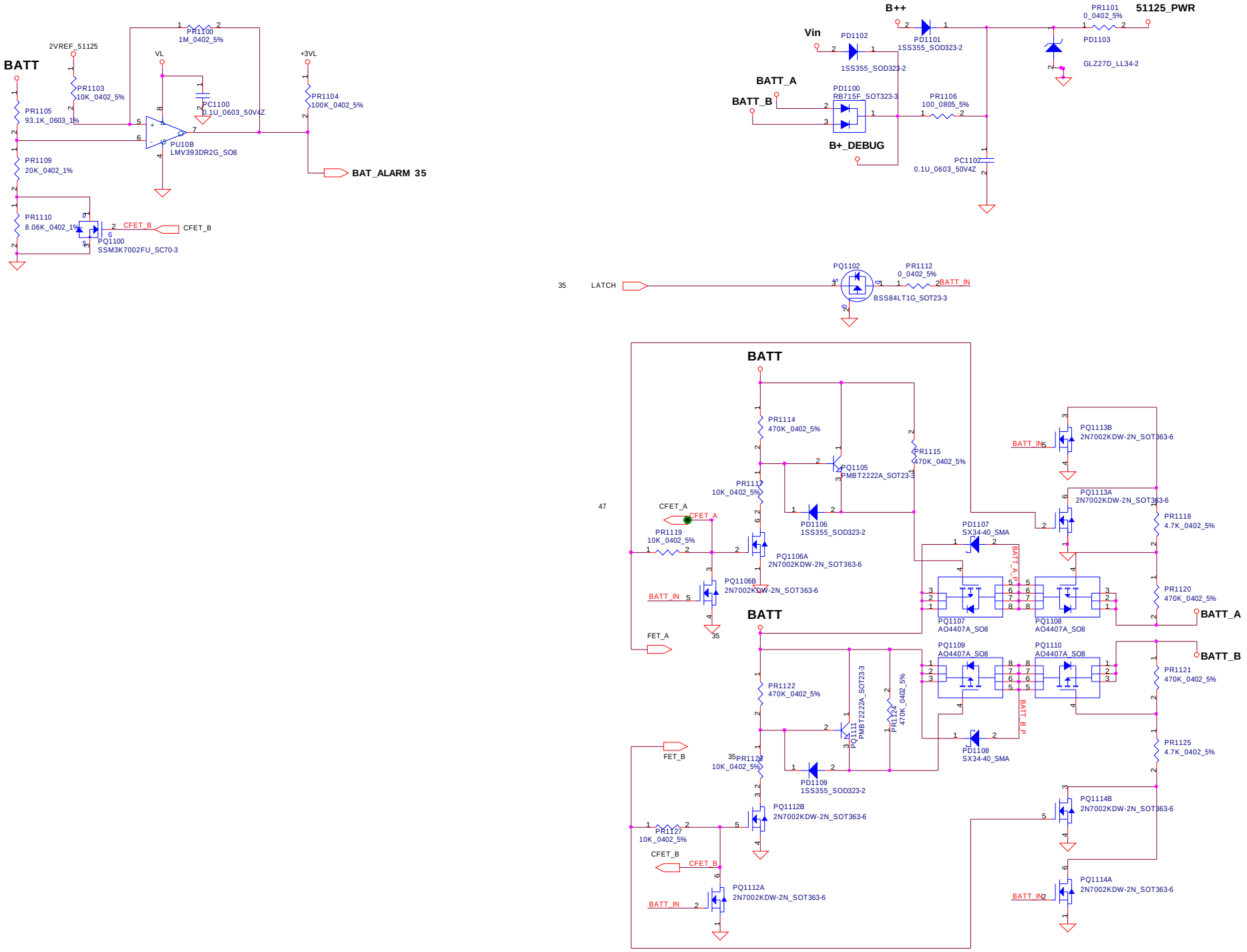
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: **Charger**

Size	Document Number	Rev
	LA-4902P	0.1

Date: Tuesday, December 15, 2009 Sheet 40 of 54



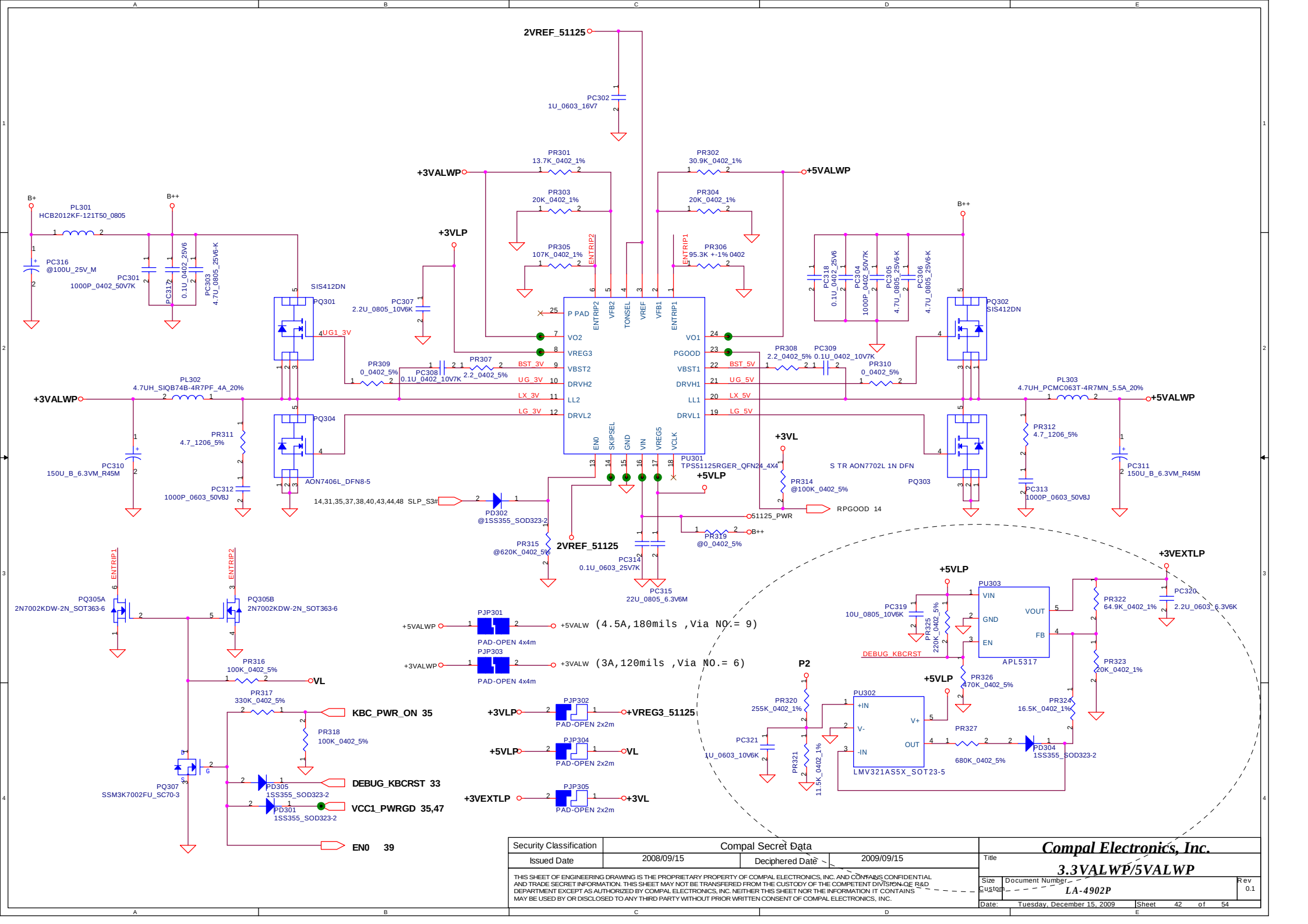
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: **Battery selector**

Size: Custom | Document Number: LA-4902P | Rev:

Date: Tuesday, December 15, 2009 | Sheet 41 of 54



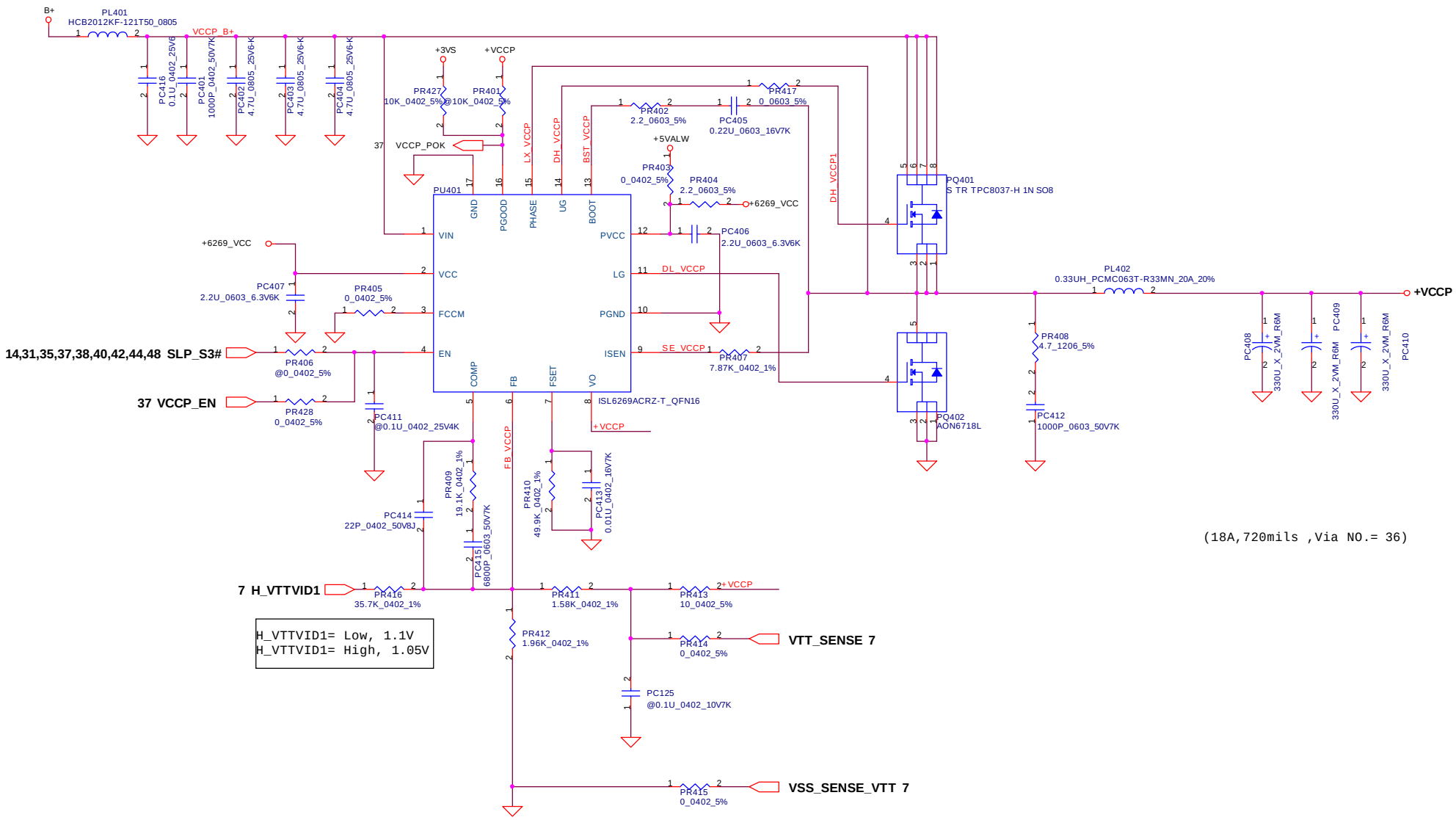
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: 3.3VALWP/5VALWP

Size	Document Number	Rev
Custom	LA-4902P	0.1

Date: Tuesday, December 15, 2009 Sheet 42 of 54



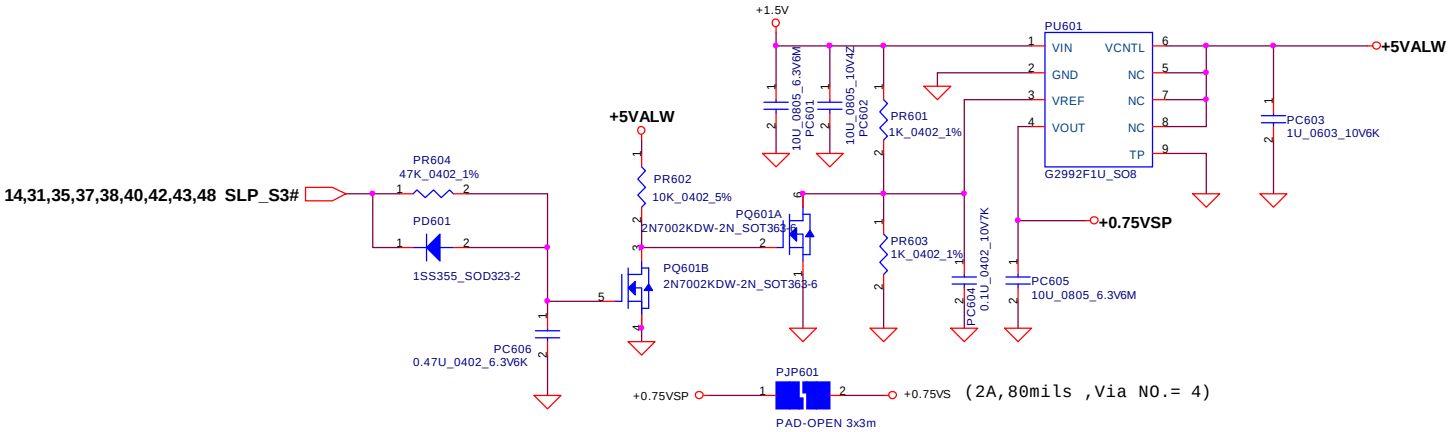
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

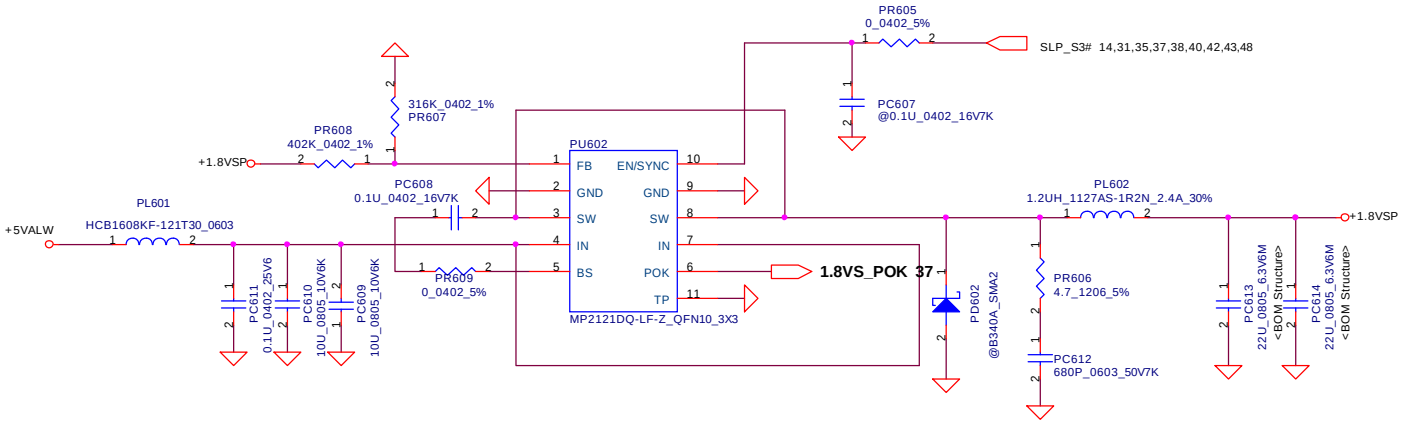
Compal Electronics, Inc.

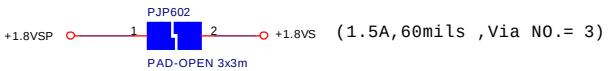
Title: **1.05V_VCCP**

Size	Document Number	Rev
	LA-4902P	0.1

Date: Tuesday, December 15, 2009 | Sheet 43 of 54







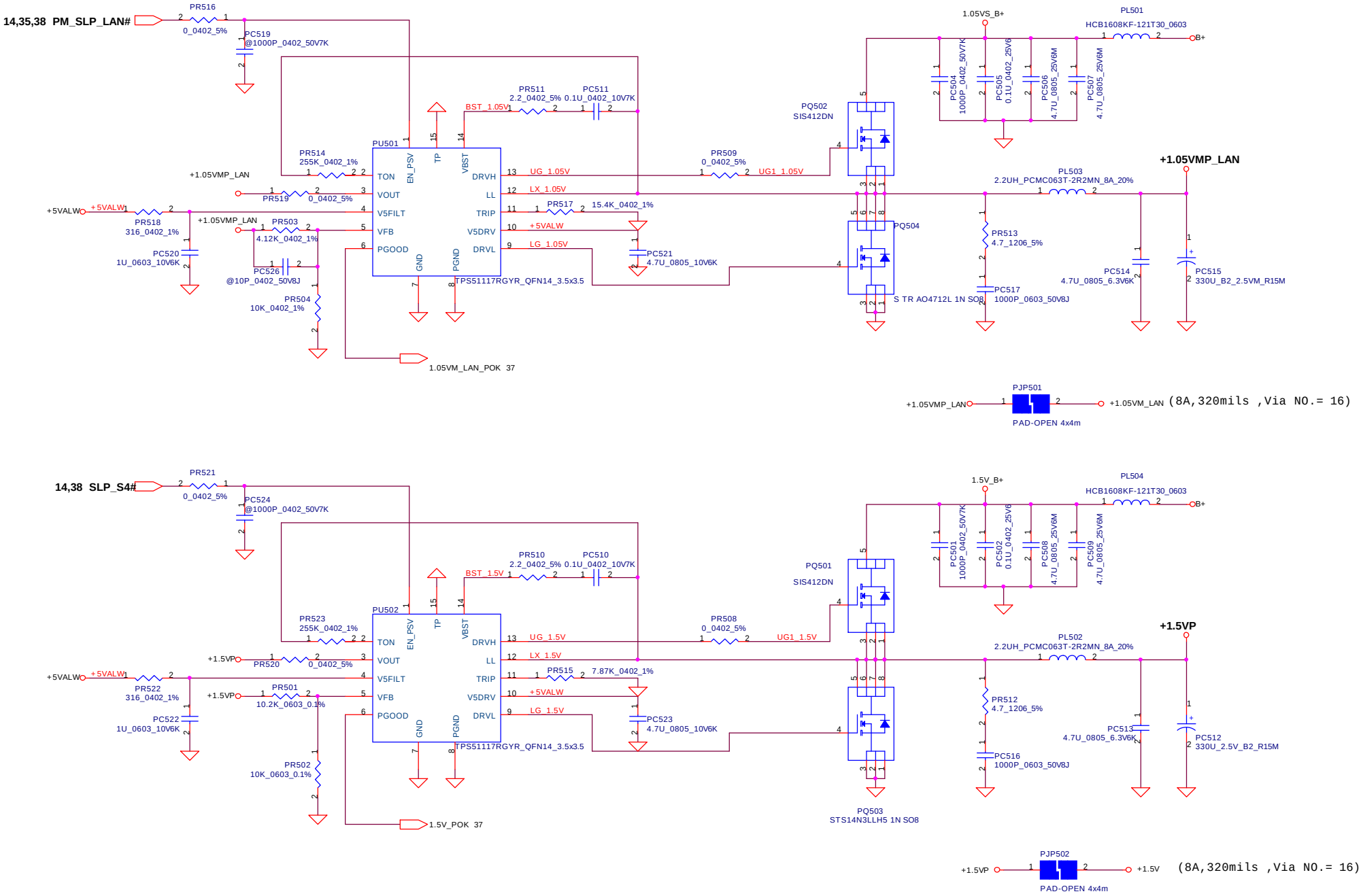
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: **0.75VSP/PCIE/1.8VSP**

Size	Document Number	Rev
	LA-4902P	0.1

Date: Tuesday, December 15, 2009 | Sheet 44 of 54



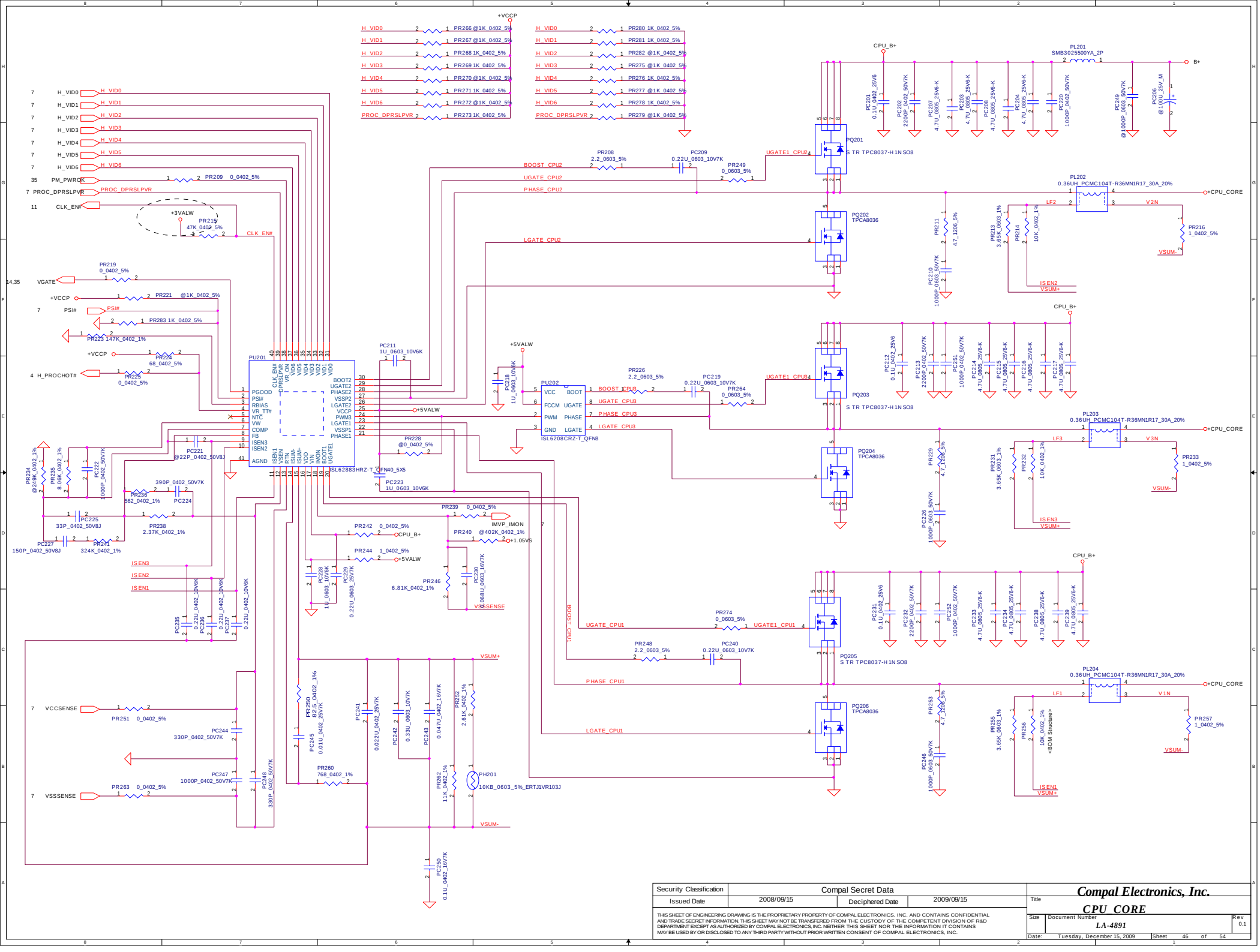
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: **1.5VP/1.05VMP**

Size	Document Number	Rev
	LA-4902P	0.1

Date: Tuesday, December 15, 2009 | Sheet 45 of 54



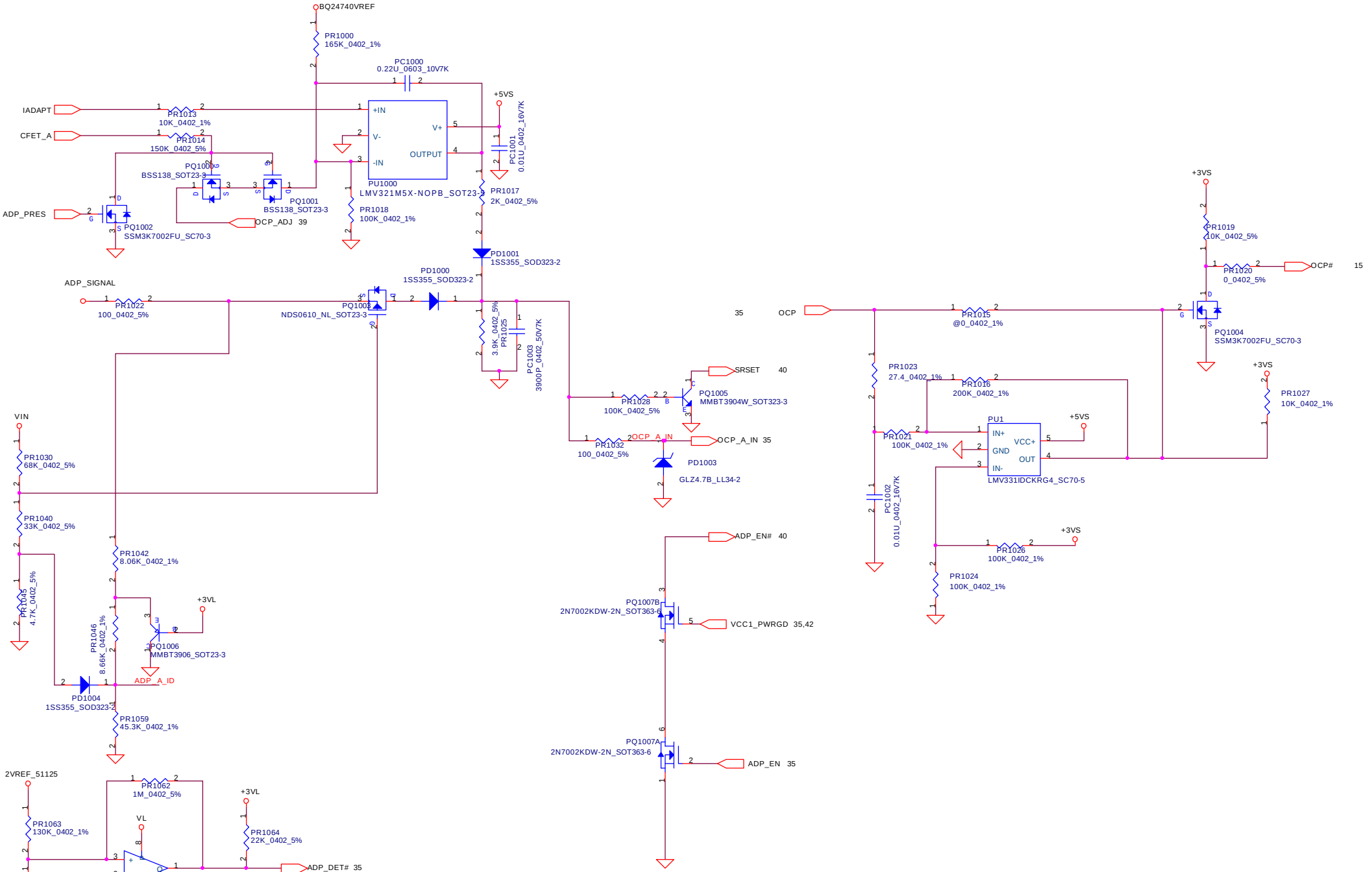
Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: CPU_CORE

Size	Document Number	Rev
	LA-4891	0.1

Date: Tuesday, December 15, 2009 Sheet 46 of 54



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: **ADP_OCP**

Size: Custom | Document Number: **LA-4902P** | Rev:

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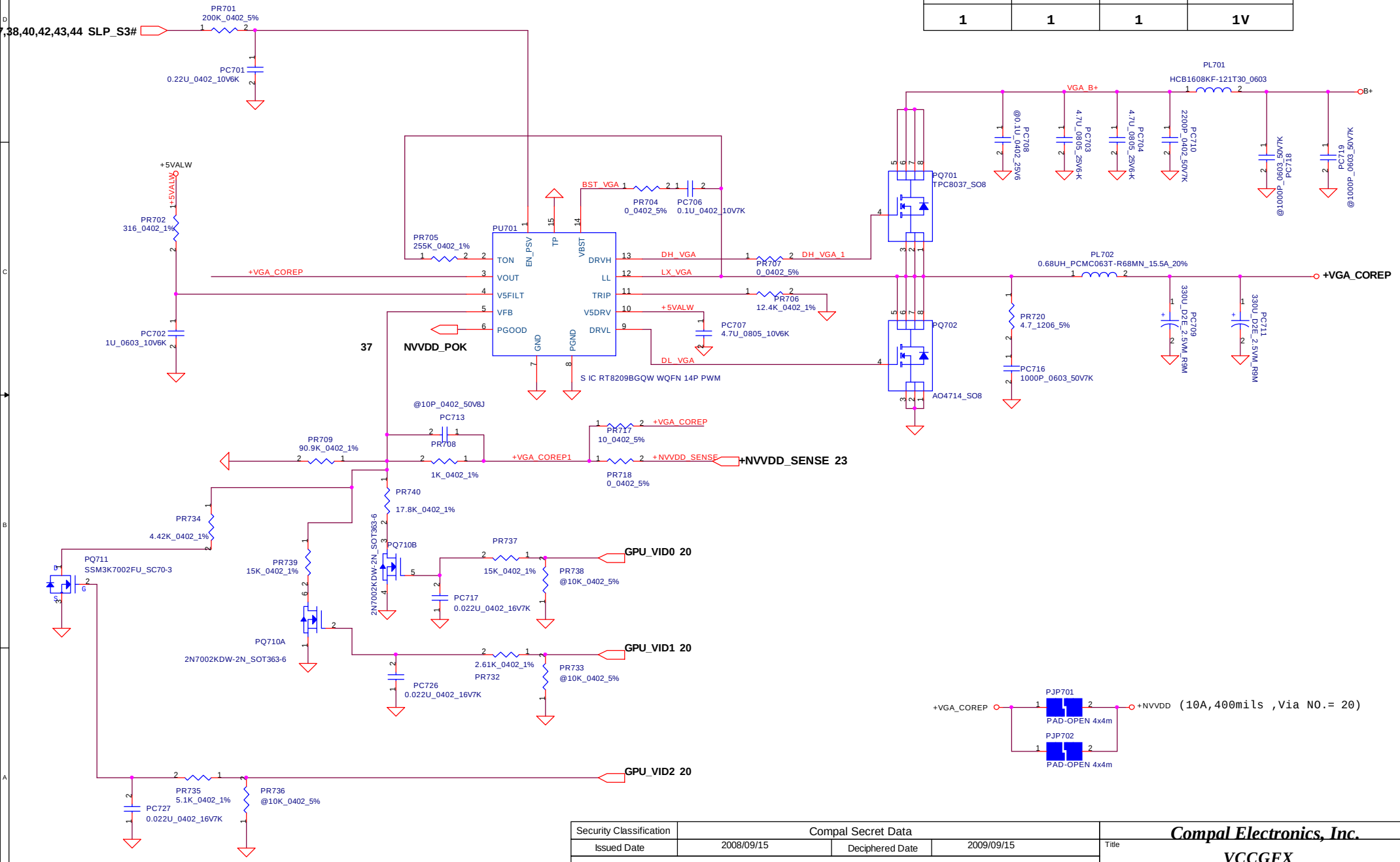
GPU_VID0	GPU_VID1	GPU_VID2	+NVVDD
0	0	0	0.75V
1	0	0	0.8V
1	1	0	0.85V
1	1	1	1V



Security Classification	Compal Secret Data		
Issued Date	2008/09/15	Deciphered Date	2009/09/15

Compal Electronics, Inc.

Title: VCCGFX

Size: Custom | Document Number: LA-4902P | Rev:

Date: Tuesday, December 15, 2009 | Sheet 48 of 54

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

Version Change List (P. I. R. List) for HW Circuit DB-1>> DB-2

Item	Page#	Date	Request Owner	Solution Description	Rev.
1	01	2009/02/06	HP	Del R4, R6, R8 for XDP.	0.2
2	01	2009/02/06	HP	Del R40 for Thermal sensor.	0.2
3	01	2009/02/06	HP	Del R34, R36, R46, R49, R37 for XDP.	0.2
4	01	2009/02/24	HP	Change R31 24.9K ohm to 1.5K ohm and R33 12.4K ohm to 750 ohm for intel WOW.	0.2
5	01	2009/02/25	HP	Debug port design guide changed XDP debug ports to CFG4 - pin 28, CFG5 - pin 30, CFG10 - pin 22, and CFG11 pin 24.	0.2
6	02	2009/02/19	HP	No install R60, R61.	0.2
7	12	2009/02/25	Compal	Install C193, C194 for WLAN nosie	0.2
8	12	2009/02/06	HP	Change R1026, R181, R185, R1027 from 15 ohm to 0 ohm.	0.2
9	12	2009/02/06	HP	Del C205, C207, C208, C209 for docking.	0.2
10	12	2009/02/06	HP	Change D1pin 2 form +3VL to +VREG3_51125	0.2
11	12	2009/02/06	HP	Del JP15 pin 51, 53 trace (SMB_DATA_S3, SMB_CLK_S3) and add test point.	0.2
12	12	2009/02/11	HP	Add R1144 1K ohm	0.2
13	12	2009/02/11	HP	Add Test point for SATA bus.	0.2
14	12	2009/02/18	HP	Add NAND Flash dect pin (BRAID_DET)	0.2
15	13	2009/02/06	HP	Install R354	0.2
16	13	2009/02/06	HP	Add R1138 10K ohm	0.2
17	13	2009/02/20	HP	Change R1092, R1093 power sourece form +3VS to +3VS.	0.2
18	13	2009/02/20	HP	Del R208, R210	0.2
19	13	2009/02/22	HP	Add Q76A and Q76B for CBB	0.2
20	13	2009/02/22	HP	Reserve R1146 and R1147 for external VGA thermal	0.2
21	14	2009/01/22	HP	Del R238, because double pull down.	0.2
22	14	2009/02/19	HP	Del R288	0.2
23	14	2009/02/06	HP	Stuff R296	0.2
24	14	2009/02/06	HP	Add R1142 10K ohm	0.2
25	14	2009/02/25	Compal	Add C949 for RF	0.2
26	16	2009/01/22	HP	Del L1, C228, C229 and add test point.	0.2
27	16	2009/01/22	HP	Del L2, C241 and add test point.	0.2
28	16	2009/01/22	HP	Del C847 and add test point.	0.2
29	16	2009/01/22	HP	Del L4, C269 and add test point.	0.2
30	16	2009/01/22	HP	Del L3, C263, C262 and add test point.	0.2
31	16	2009/02/03	HP	Change R299, R300 form 10 ohm to 100ohm.	0.2
32	16	2009/02/03	HP	Change C278 form 0.1uF to 1uF.	0.2
33	16	2009/02/05	HP	Change C243, C244 form 10uF to 22uF.	0.2
34	18	2009/02/18	Compal	Add L48, L49, L50, C944, C943, C942 for EMI	0.2
35	18	2009/02/24	Nvidia	Change R321, R320, R319, R318 form 2.2K ohm to 4.7K ohm.	0.2
36	18	2009/02/18	Compal	Reserve D5, D6, D7, D8, D9 for ESD	0.2
37	18	2009/02/12	Nvidia	Del R1066	0.2
38	19	2009/01/22	HP	Add Q71, Q72, R1134 for Keyboard light	0.2

Version Change List (P. I. R. List) for HW Circuit DB-1>> DB-2

Item	Page#	Date	Request Owner	Solution Description	Rev.
39	19	2009/02/06	Nvidia	Add C914, C915, C916, C917 for eDP.	0.2
40	19	2009/02/06	HP	Change R341 pin 1 power plan form +5VS to +3VALW.	0.2
41	20	2009/02/12	Nvidia	Reserve R1150	0.2
42	20	2009/02/24	HP	Change R355, R356 from 2K ohm to 10K ohm.	0.2
43	20	2009/02/25	HP	Add Q78, R1158, R1157 for thermal trip.	0.2
44	21	2009/01/20	HP	Del LVDS function	0.2
45	21	2009/02/26	Nvidia	Del C346, because no SPDIF.	0.2
46	22	2009/01/20	Nvidia	Add C924 ~ C931 for DP function	0.2
47	22	2009/02/06	Nvidia	Del RP28, 31, 34, 40, 49, 52, 55, 29, 43, 35, 39, 44, 48, 53, 56, 30, 33, 36, 38, 45, 46, 42 for VRAM	0.2
48	22	2009/02/06	Nvidia	Del C904, 899, 900, 901, 902, 903 for VRAM	0.2
49	23	2009/02/23	Nvidia	Add L47, C941 for SP_PLLVDD	0.2
50	26	2009/02/19	HP	Del C505, C509, C507, C508, C905, Q18, R440, R1062, R441	0.2
51	26	2009/02/06	HP	Add C934	0.2
52	27	2009/02/18	HP	ReserveD57 for ESD	0.2
53	28	2009/02/06	HP	Recover Q25, R503, R483	0.2
54	29	2009/02/26	HP	Add R1159 for NAND Flash detect	0.2
55	30	2009/02/24	Compal	Del R529, R528, R535, C618, U22	0.2
56	30	2009/02/24	Compal	Add Q79 ~ Q83, R1163, R1162, R1164, C945, C946, C947, C948	0.2
57	31	2009/02/22	Compal	Del D30, U28, C711, R608	0.2
58	32	2009/02/18	HP	Reserve D33, D34, D36, D68 for ESD	0.2
59	33	2009/02/18	Compal	Reserve D32 for ESD	0.2
60	34	2009/02/06	HP	Add JP32 of pin 179, 178, 11, 10 to +5VS	0.2
61	34	2009/01/22	HP	Del C746 ~ C761	0.2
62	34	2009/02/06	HP	Add Q75, R1145.	0.2
63	34	2009/02/06	HP	Del R647~ R650	0.2
64	35	2009/02/06	HP	Reserve R711	0.2
65	35	2009/02/06	HP	Add R1140	0.2
66	35	2009/02/16	HP	Change R692 from 10K ohm to 220 ohm	0.2
67	35	2009/01/22	HP	Del L4, C269 and add test point.	0.2
68	36	2009/02/18	Compal	change Super IO from ITE to SMSC	0.2
69	37	2009/02/25	HP	Del R758	0.2
70	37	2009/02/06	HP	Change R941 pin from PM_SLP_LAN# to PM_SLP_M#	0.2
71	37	2009/02/25	HP	change R1044 from 49.9K ohm to 78.7K ohm.	0.2
72	38	2009/02/18	Compal	Add Q77, R1170, C939, R1156, C935 ~ C938	0.2
73					0.2
74					0.2
75					0.2
76					0.2

Compal Electronics, Inc.

Title: Hardware revision (0.1 to 0.2)

Size: Custom | Document Number: LA-4901P | Rev: 1.0

Date: Tuesday, December 15, 2009 | Sheet 51 of 54

Version Change List (P. I. R. List) for HW Circuit DB-2>> DB-3

Item	Page#	Date	Request Owner	Solution Description	Rev.
01	15	2009/03/23	Compal	Add RP59	0.3
02	15	2009/03/23	Compal	Reserve C956 ~ C951 for RF	0.3
03	30	2009/03/08	Compal	Add R1173 for RF	0.3
04	36	2009/03/23	Compal	Add R1174 10K ohm	0.3
05	36	2009/03/23	Nvidia	Change R1059 from 40.2 ohm to 60.4 ohm	0.3
06	36	2009/03/23	Nvidia	Change R418 from 60.4 ohm to 40.2 ohm	0.3
07	36	2009/04/09	Compal	Install R706 for SMSC CBB	0.3
08	23	2009/04/09	Nvidia	Del L16, C429 ~ C432 for no use LVDS function	0.3
09	23	2009/04/09	Nvidia	Del L17, C433 ~ C435, C436, C437, C883 for no use LVDS function	0.3
10	23	2009/04/09	Nvidia	Add R1175 ~ R1177 for no use LVDS function	0.3
11	18	2009/04/09	HP	Add C957 for DP issue	0.3
12	01	2009/04/13	Compal	Del R12 for follow UMA	0.3
13	38	2009/04/13	Compal	Del Q70, R1094 for follow UMA	0.3
14	35	2009/04/13	Compal	Reserve R1140	0.3
15	31	2009/04/13	Compal	Add R1179 for follow UMA	0.3
16	16	2009/04/13	Compal	Del R290, R291 for follow UMA	0.3
17	15	2009/04/13	Compal	Change C956 ~ C951 from 47P to 22P for RF	0.3
18	04	2009/04/10	HP	Install R51	0.3
19	27	2009/04/10	HP	No install R1083	0.3
20	33	2009/04/10	HP	Reserve R1180	0.3
21	15	2009/04/10	HP	LAN_DIS# should pull up to +3VM_LAN instead of 3VALW	0.3
22	04	2009/04/10	HP	Change R14/R15 to 1.1K1%/3K1% per DG1.52	0.3
23	20	2009/04/10	HP	Install R1085 and R1086 for SM communication to GPU	0.3
24	15	2009/04/10	HP	Reserve R1181	0.3
25	19	2009/04/10	HP	Reserve R331	0.3
26	19	2009/04/10	HP	Del R484	0.3
27	09	2009/04/10	HP	Del M2	0.3
28	10	2009/04/10	HP	Del M2	0.3
29	38	2009/04/13	Compal	Add R1178	0.3
30	13	2009/04/10	HP	XTAL_IN (ohm to GND if not used)For discrete:NO INSTALL: R215, Y4, C226, INSTALL 0ohm resistor in C227	0.3
31	35	2009/04/14	Compal	Install R1035, R1036, R1037; no install R1034.	0.3
					0.3

Security Classification	Compal Secret Data		
Issued Date	2006/02/13	Deciphered Date	2006/03/10

Compal Electronics, Inc.

Title: Hardware revision (0.2 to 0.3)

Size	Document Number	Rev
Custom	LA-4901P	1.0

Date: Tuesday, December 15, 2009 | Sheet 52 of 54

Version Change List (P. I. R. List) for HW Circuit DB-3>> SI-1

Item	Page#	Date	Request Owner	Solution Description	Rev.
01	16	2009/04/24	HP	Del R294	0.4
02	13	2009/04/24	HP	Del CLRP2	0.4
03	14	2009/04/24	HP	Del C147, C148 location	0.4
04	14	2009/04/24	HP	Add C961	0.4
05	14	2009/04/24	HP	Add R1188, R1187 for intel spec	0.4
06	27	2009/04/24	HP	Add C962 ~ C965	0.4
07	36	2009/04/24	HP	Add R1190, R1189	0.4
08	29	2009/04/24	HP	Del C574~C577 and C579~C582.	0.4
09	33	2009/04/24	HP	Add R1191, R1192	0.4
10	26	2009/05/02	HP	Add R1198, R1199	0.4
11	04	2009/05/02	HP	Install R1060	0.4
12	35	2009/05/02	HP	Add R1197, C967, C966, C968, R1195, R1196	0.4
13	38	2009/05/02	HP	Add C978, C979	0.4

Version Change List (P. I. R. List) for HW Circuit SI-1>> SI-1b

Item	Page#	Date	Request Owner	Solution Description	Rev.
01	04	2009/07/21	HP	Add C997, R1219, Q87, R1218 for CPU S3 power savings issue	0.5
02	04	2009/07/02	HP	Add R1226 for CPU S3 power savings issue	0.5
03	05	2009/07/21	HP	Add Q88, Q89 and reserve R1220, R1222 for CPU S3 power savings issue	0.5
04	07	2009/07/02	HP	Add Q91, R1224, C994, C995, C991, C992, C993, C996, Q92, R1223 for CPU S3 power savings issue	0.5
05	19	2009/06/30	HP	Add R1213, D72 for Lid SW issue	0.5
06	37	2009/07/09	HP	Change C864 from 0.047uF to 0.068uF.	0.5
					0.5

Security Classification	Compal Secret Data		
Issued Date	2006/02/13	Deciphered Date	2006/03/10

Compal Electronics, Inc.			
Title	Hardware revision (0.3 to 0.5)		
Size: Custom	Document Number: LA-4901P		Rev: 1.0
Date: Tuesday, December 15, 2009	Sheet 53 of 54		

Version Change List (P. I. R. List) for HW Circuit SI-16>> SI-2

Item	Page#	Date	Request Owner	Solution Description	Rev.
01	07	2009/07/22	HP	Change C72 ~ C75 from 10uF to 20uF	0.6
02	11	2009/06/30	Compal	Reserve R1215 for CLK gen change	0.6
03	15	2009/07/23	Compal	Add C949 ~ C951 for Compal RF team.	0.6
04	12	2009/09/03	Compal	Change JBAT1 Connector.	0.6
05	32	2009/09/03	Compal	Reserve Q	0.6
06					0.6
07					0.6
08					0.6
09					0.6
10					0.6
11					0.6
12					0.6
13					0.6
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