LC2A Schematic

Pentium-M

945GM+ICH7

DATE: Sept. 10th Revision: 0.2

Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P
				Size / Document Number: 401397 / Rev: A
				Date: 星期四, 十月 06, 2005 / Sheet 1 of 45

Page	Function
1	Cover Page
2	Index
3	Block Diagram
4	Notes List
5	Power Block
6	Yonah(1/2)-GTL/ITP-XDP
7	Yonah(2/2)-PWR/GND
8	Yonah bypass
9	Calistoga(1/6)-GTL/DMI/DDR
10	Calistoga(2/6)-DDR2 A/B CH
11	Calistoga(3/6)-VGA/LVDS/TV
12	Calistoga(4/6)-PWR
13	Calistoga(5/6)-PWR/GND
14	Calistoga(6/6)-PWR/GND
15	DDRII-SODIMM2
16	DDRII SO-DIMM B
17	ClockGen
18	TV-OUT/LVDS/CRT
19	ICH7M(1/4)_HUB,PCI,HOST
20	ICH7M(2/4)LAN,ATA,LPC,RTC
21	ICH7M(3/4)USB,GPIO,PCIE
22	ICH7-M(4/4)_POWER&GND
23	SATA/CD_ROM/G-SENSORConn.
24	USB/BlueTooth/FP
25	BCM5751M-GLAN
26	RJ-45 Connector
27	MINI_CARD SLOT-WLAN
28	R5C842-PCI/CARD BUS/OHCI
29	CARD BUS/1394
30	HD Audio Codec_ALC260D
31	AMP./Audio Jack
32	ENE-KB910L/TPM
33	BIOS/EE-Prom/TP/KB/SW
34	DC TO DC
35	PWR DCIN / Precharge
36	PWR CPU OTP
37	PWR-Battery Select
38	PWR-Charger
39	PWR-3V/5V
40	PWR-1.8V/1.5V
41	PWR-VCCPP/2.5V/0.9V
42	PWR-CPU_CORE

Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

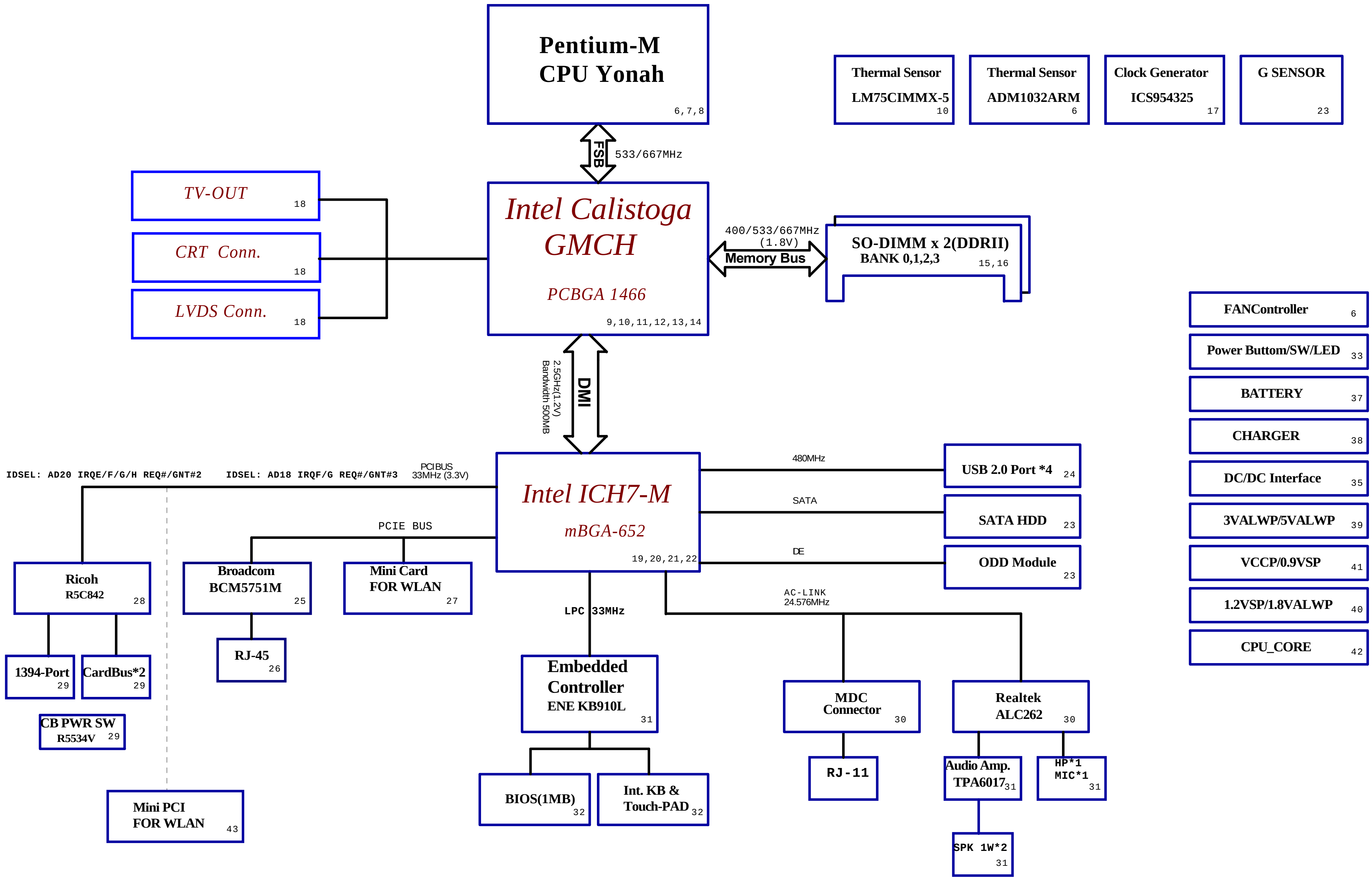
Compal Electronics, Inc.

Title: ***SCHEMATIC, M/B LA-3051P***

Size | Document Number **401397** | Rev A

Date: 星期四, 十月 06, 2005

BLOCK DIAGRAM



Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: SCHEMATIC, M/B LA-3051P

Size | Document Number: 401397 | Rev: A

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
+VCCP	1.05V switched power rail for CPU AGTL Bus	ON	OFF	OFF
+1.8VS	1.8VS switched power rail	ON	OFF	OFF
+1.8V	1.8V power rail	ON	ON	OFF
+0.9VS	0.9V power rail	ON	OFF	OFF
+3.3V	3.3V switched power rail	ON	ON	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3VS	3.3V switched power rail	ON	OFF	OFF
+5V	5V always on power rail	ON	ON	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
CardBus(R5C842)	AD20	2	PIRQE/PIRQF/PIRQG/PIRQH
Mini-PCI(WLAN)	AD18	3	PIRQG/PIRQH

EC SM Bus1 address

Device	Address
Main Battery	0001 011X b
EEPROM(24C16/02)	1010 000X b
ADM1032	1001 110X b

EC SM Bus2 address

Device	Address
KXP84-0200	0011 000X b
Second Battery	
LM75CIMMX-5	

ICH7 SM Bus address

Device	Address
Clock Generator (ICS954325AKLFT)	1101 001Xb
DDR DIMM0	1010 000Xb
DDR DIMM1	1010 001Xb

Dip SW function

KBSEL0/1#	11:JP K/B 01:US K/B 10:UK K/B 00: Reserve
PASSWORD#	0:Override 1:Avaliable
FINGERPRINT#	0:Existence 1:Non-Existence

Function Table

Function	Japan			HK/CHINA	Comment
	Commercial	Consumer			
		LaVie	NEC Direct(Internet Retailing)		
TV-OUT	Yes	←	←	←	
Bluetooth	No	Yes	←	←	Need BTO
PWR LED (Odekake)	No	←	←	←	Not need Odekake
S/W	I/II Key	←	←	←	all same
4 in 1 Card Adapter	No	Yes	←	←	
Finger Print	Yes (BTO)	No	Yes (BTO)	No	Need BTO
TPM	Yes	No	←	←	Need BTO
W-LAN	JP	JP	JP	Oversea	

Chip Reversion

Chip / Phase	ES Phase	PP Phase	MP1 Phae	IRT
945GM	A2			
ICH7	B0			
CLK Gen	A			
KB910L	A1			
ALC262	A2			
BCM5751	C1			

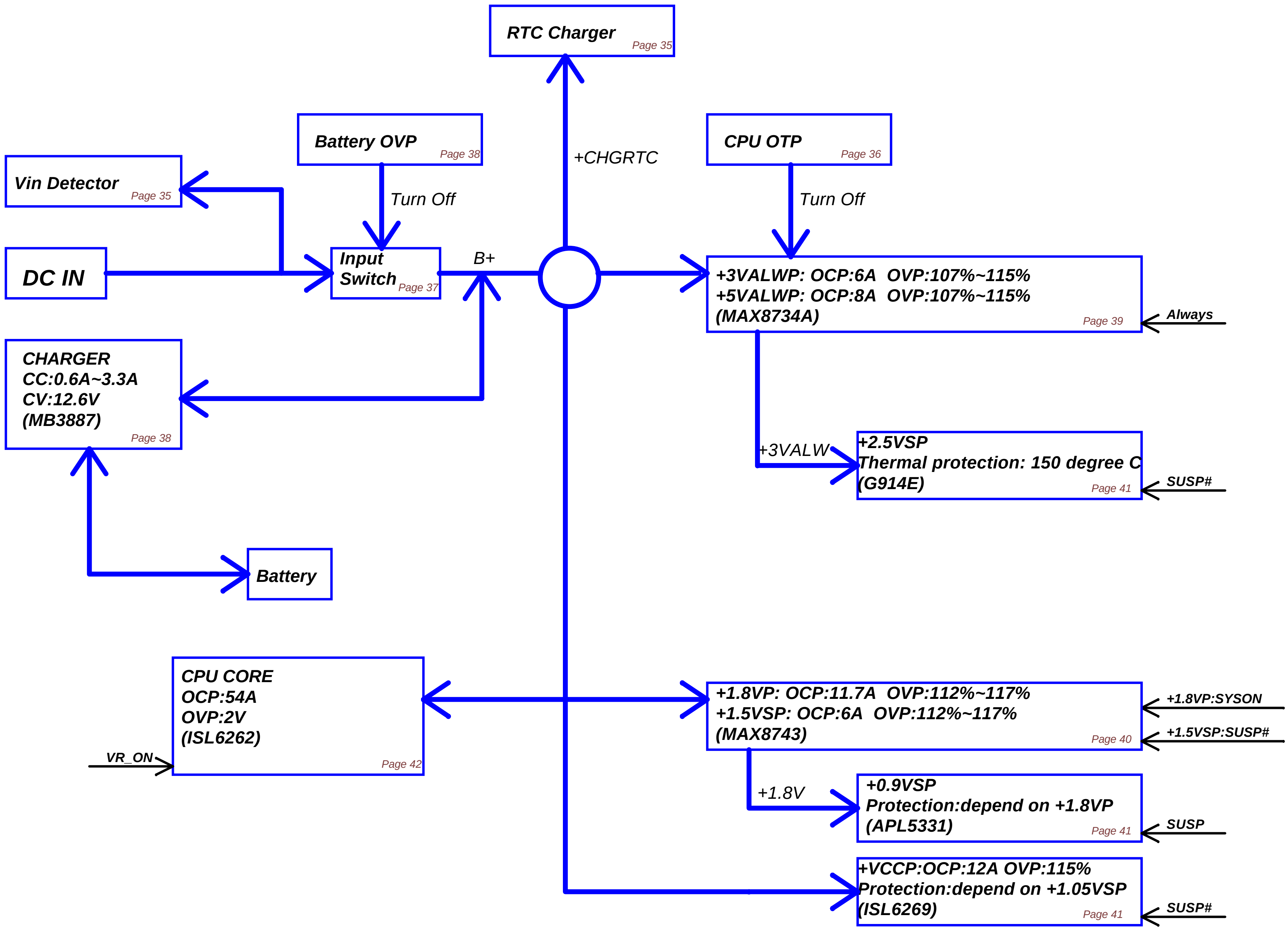
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

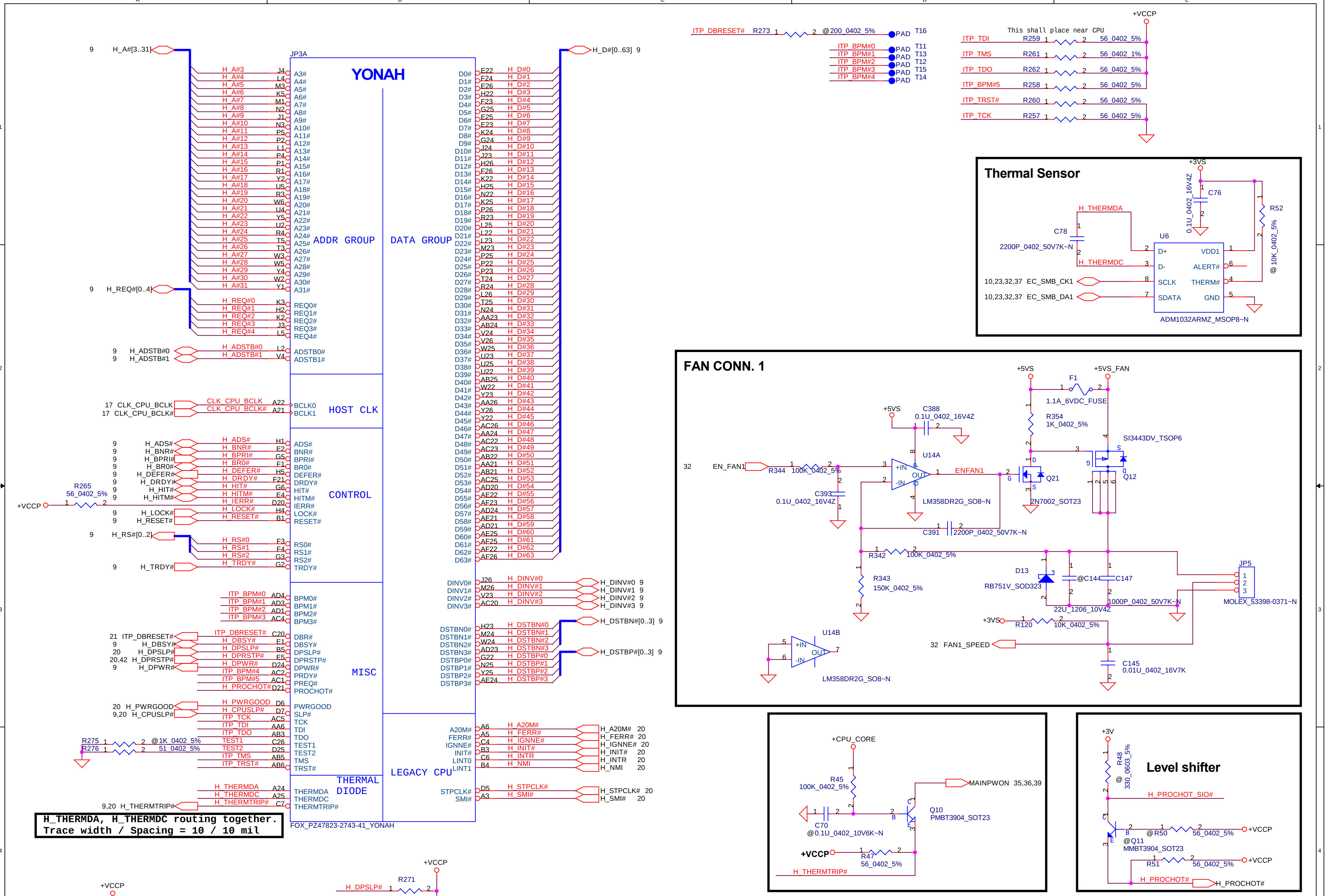
Compal Electronics, Inc.

Title: SCHEMATIC, M/B LA-3051P

Size | Document Number: 401397 | Rev: A

LC2a Power block





Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size / Document Number: 401397 / Rev A
				Date: 星期四, 十月 06, 2005 / Sheet 6 of 45

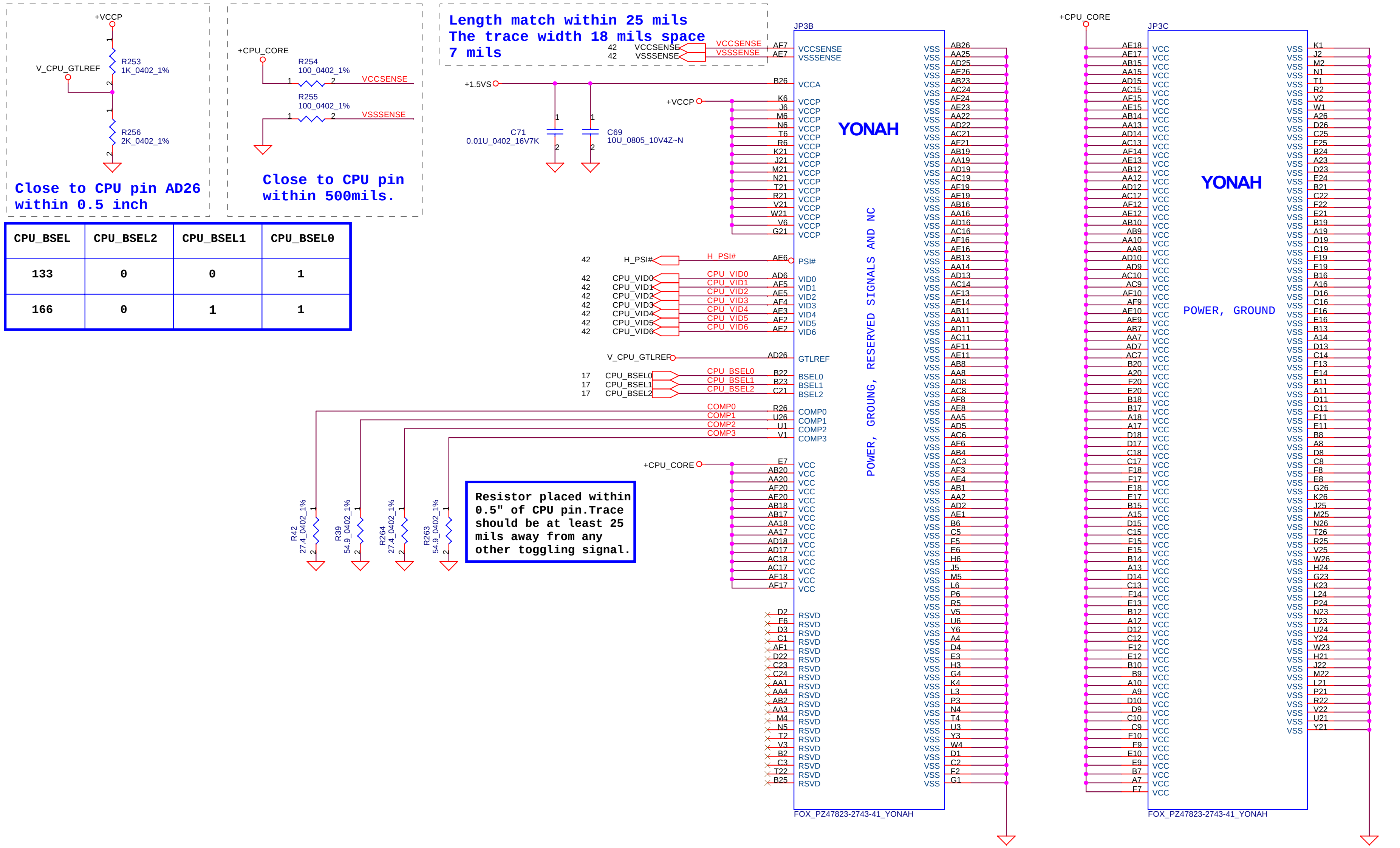
Close to CPU pin AD26 within 0.5 inch

Close to CPU pin within 500mils.

Length match within 25 mils
The trace width 18 mils space 7 mils

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

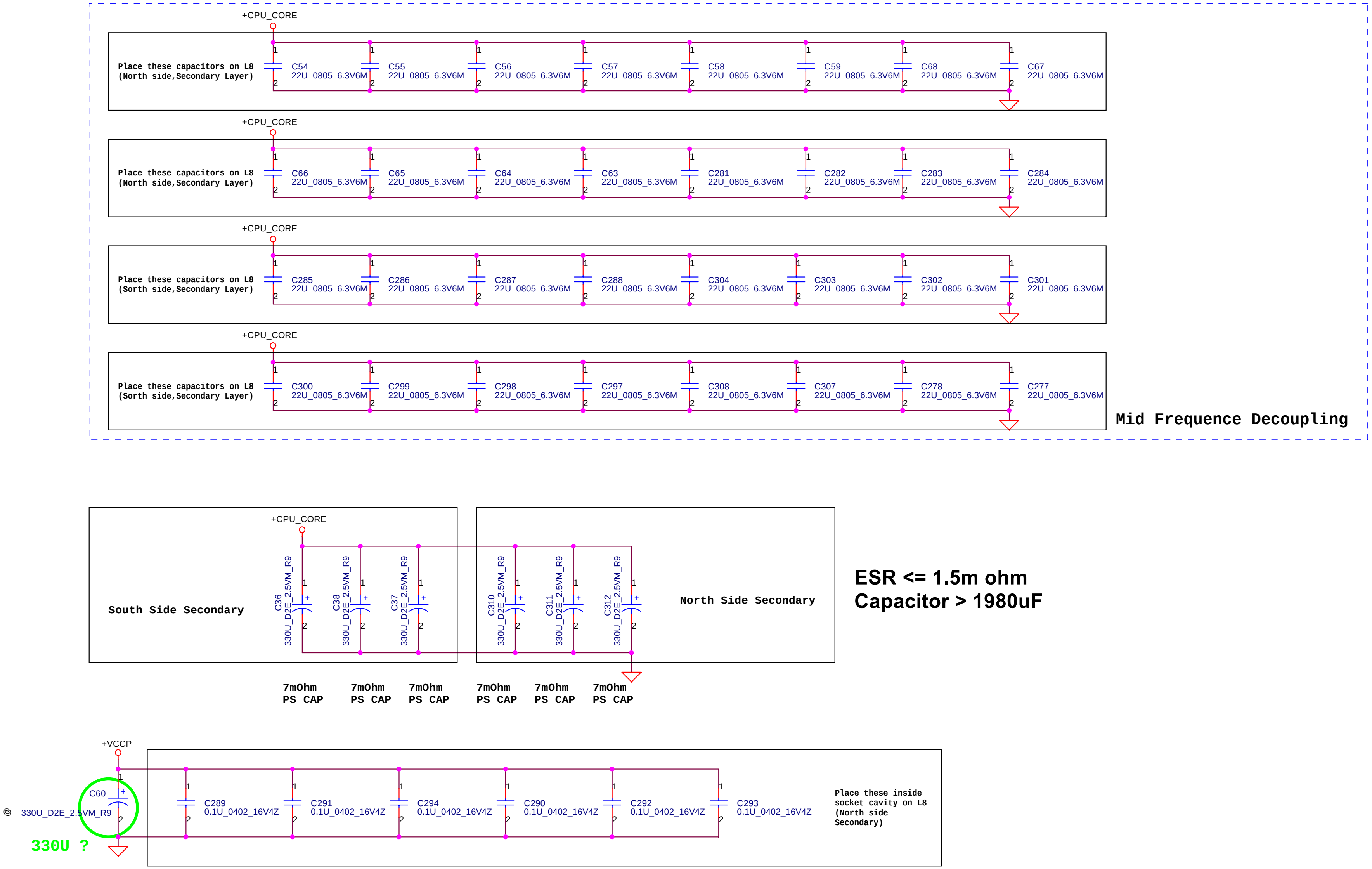
Resistor placed within 0.5" of CPU pin.Trace should be at least 25 mils away from any other toggling signal.



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P

Size | Document Number: 401397 | Rev: A

Date: 星期四, 十月 06, 2005 | Sheet 7 of 45



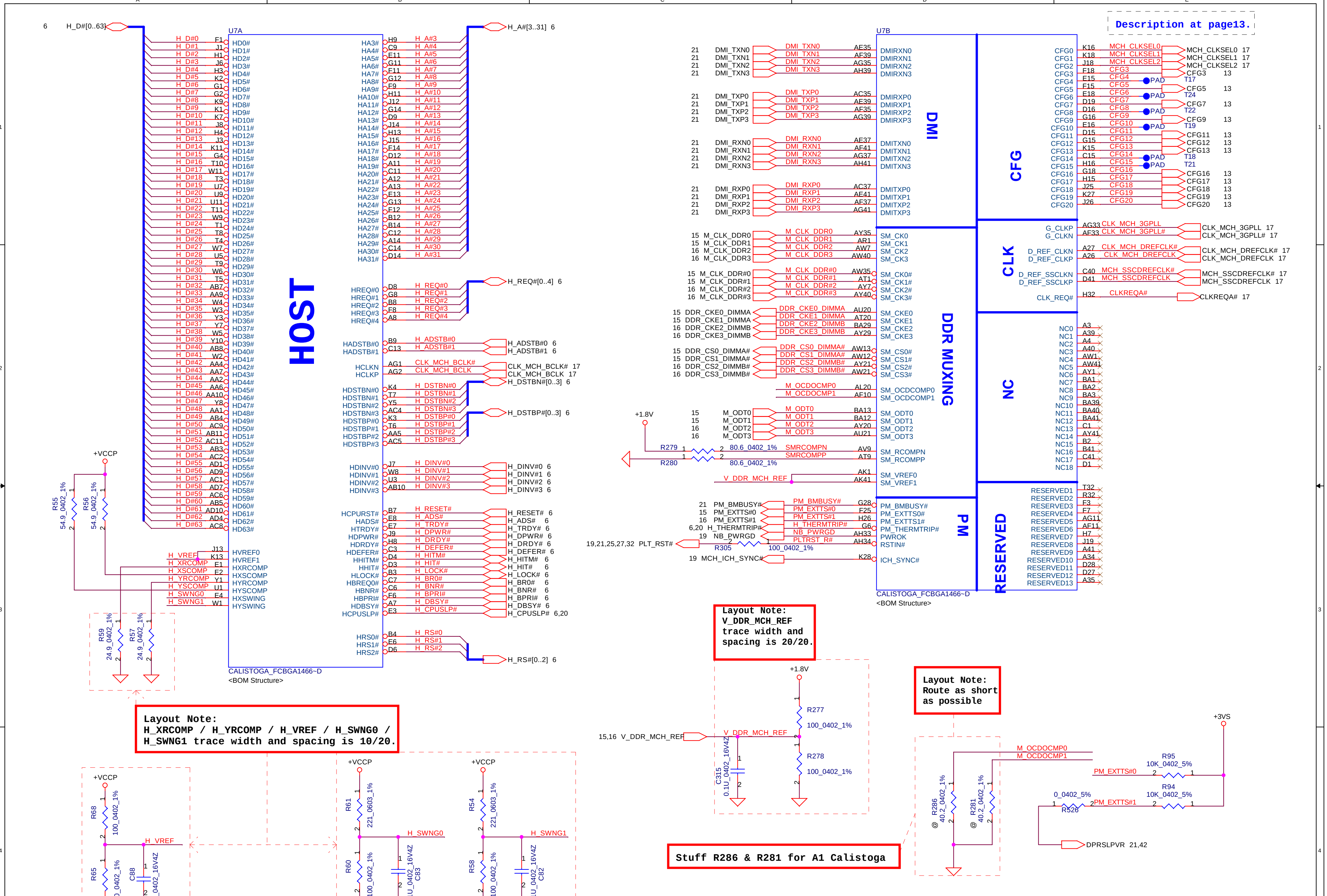
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size: Custom | Document Number: 401397 | Rev: A

Date: 星期四, 十月 06, 2005 | Sheet 8 of 45



Layout Note:
H_XRCOMP / H_YRCOMP / H_VREF / H_SWNG0 / H_SWNG1 trace width and spacing is 10/20.

Layout Note:
V_DDR_MCH_REF trace width and spacing is 20/20.

Layout Note:
Route as short as possible

Stuff R286 & R281 for A1 Calistoga

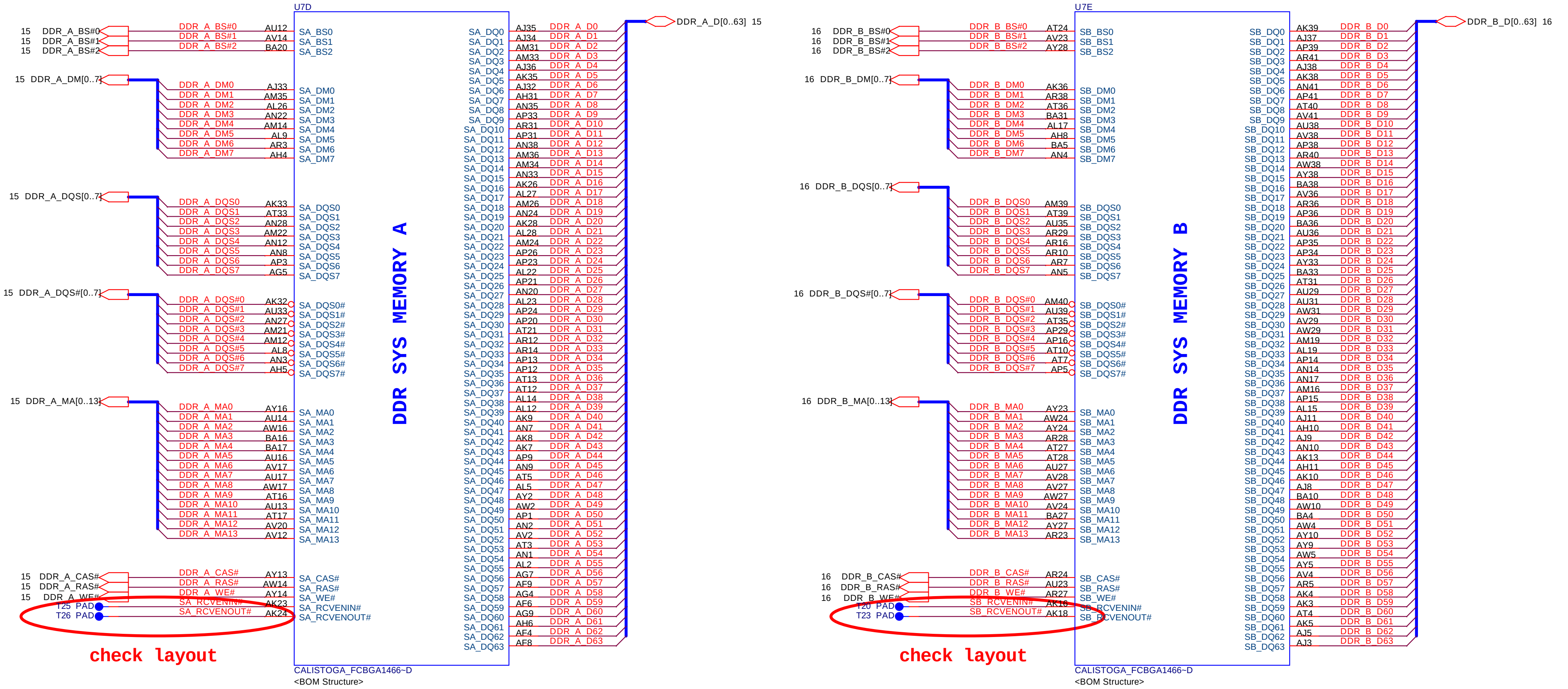
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

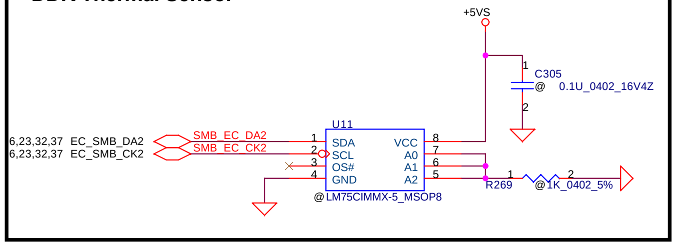
Title: **SCHEMATIC, M/B LA-3051P**

Size: Custom | Document Number: 401397 | Rev: A

Date: 星期四, 十月 06, 2005 |



DDR Thermal Sensor

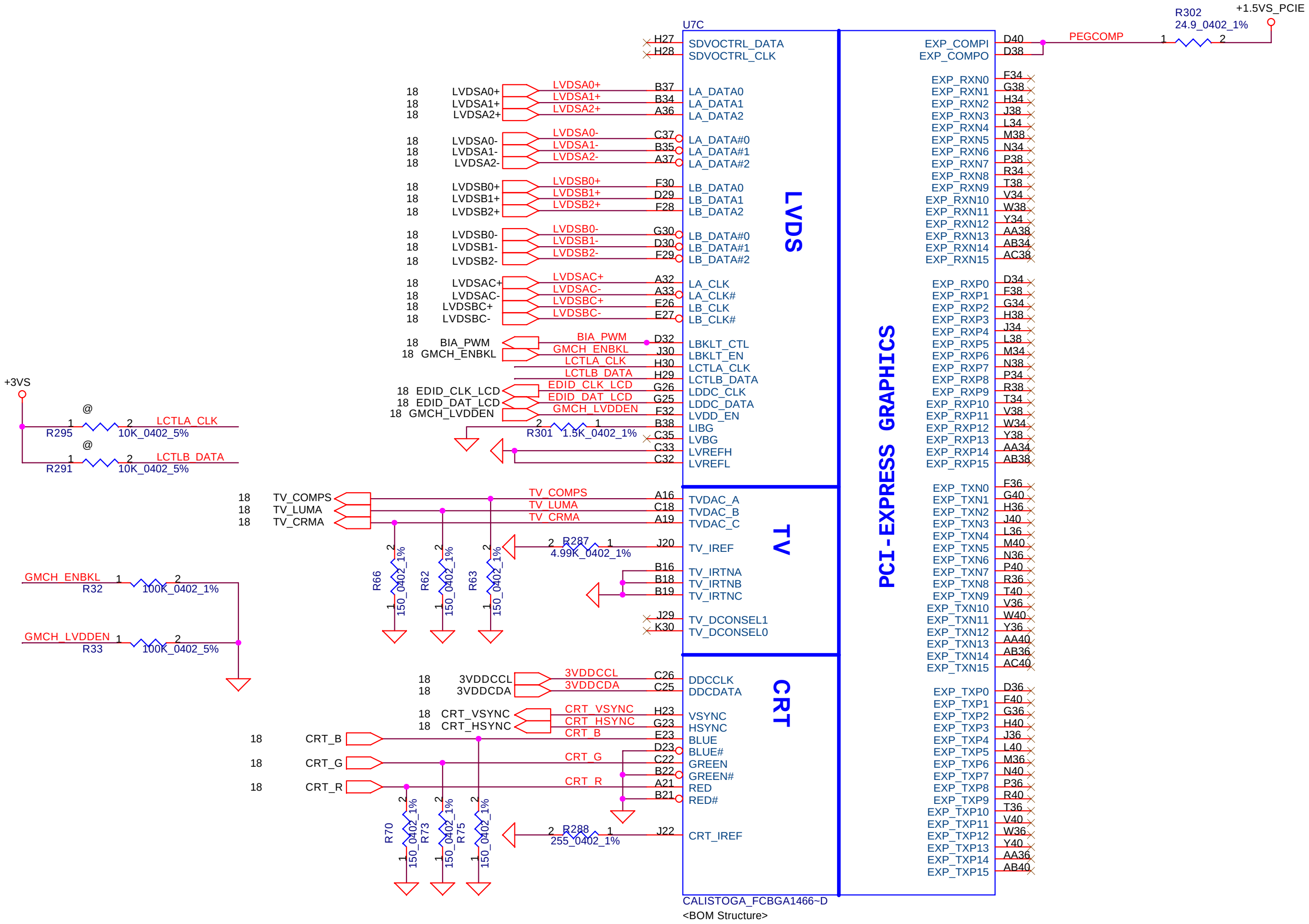


Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size: Custom | Document Number: 401397 | Rev: A



Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

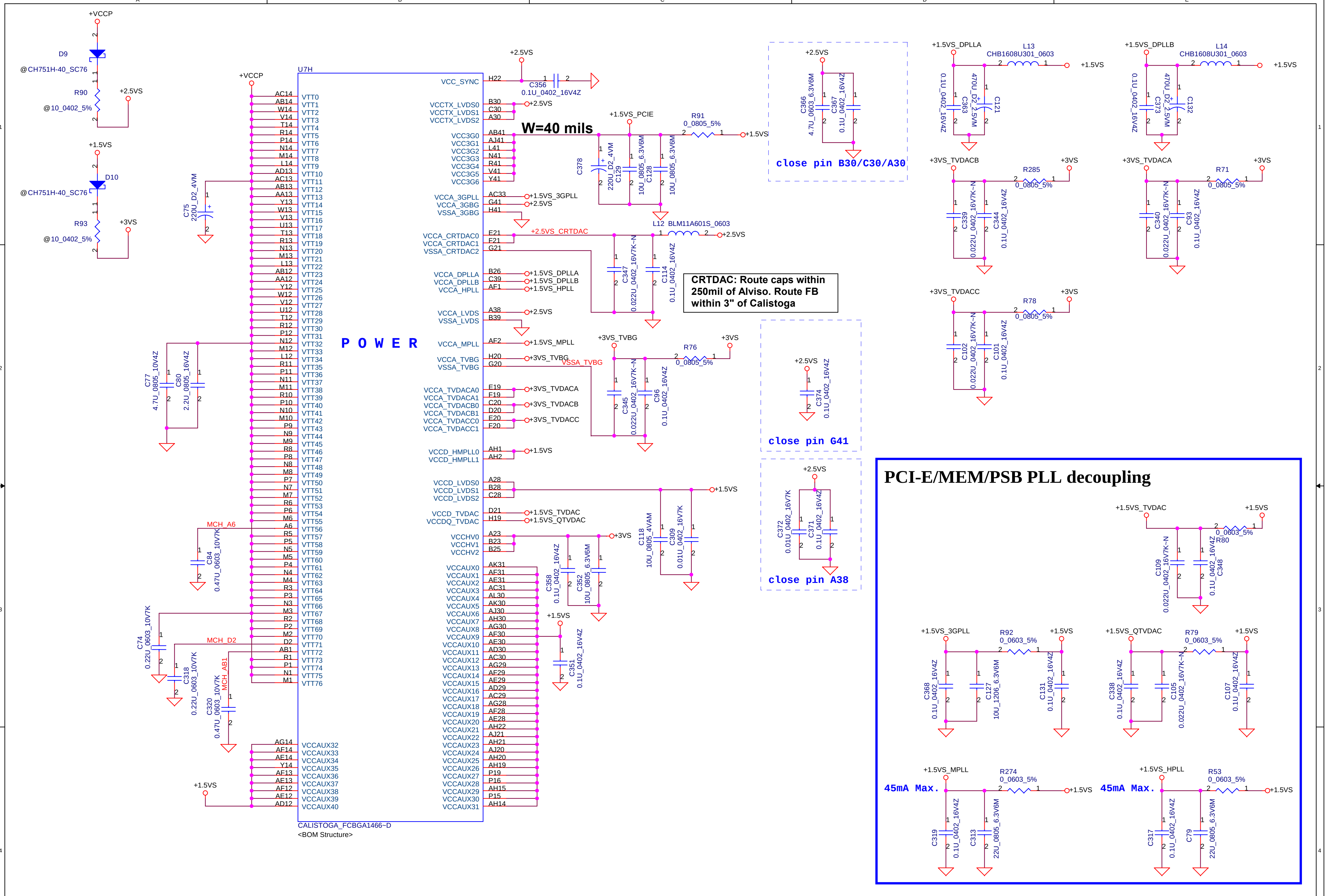
Compal Electronics, Inc.

Title

SCHEMATIC, M/B LA-3051P

Size Custom | Document Number 401397 | Rev A

Date: 星期四, 十月 06, 2005 |



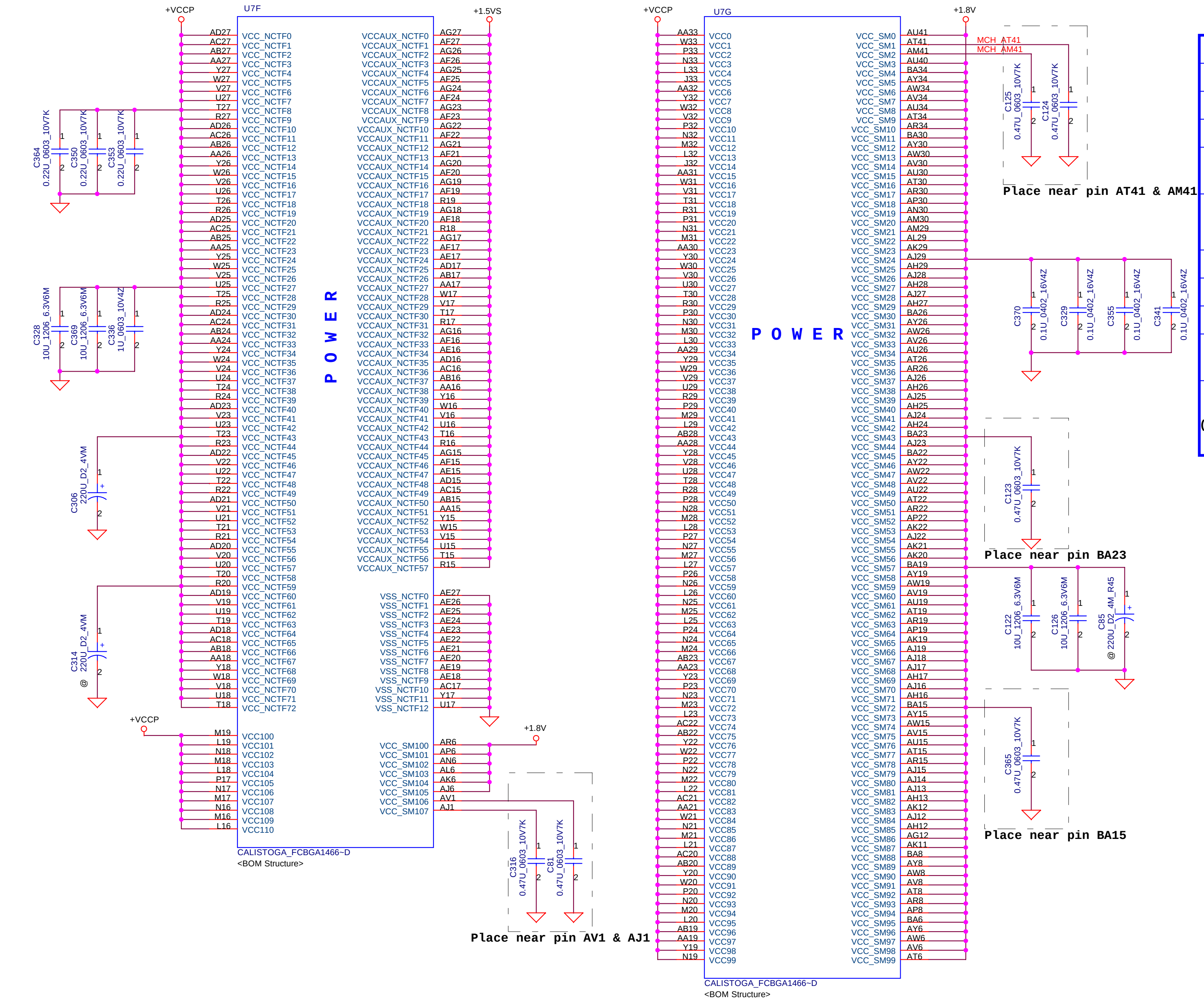
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size: Custom | Document Number: 401397 | Rev: A

Date: 星期四, 十月 06, 2005 | Sheet 12 of 45

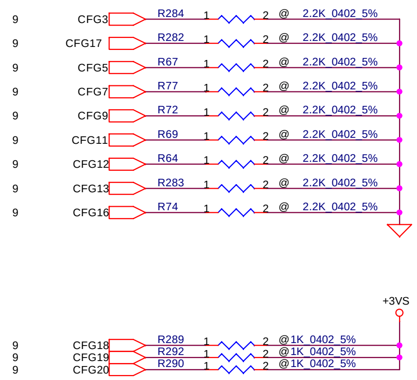


Strap Pin Table

CFG[3:17] have internal pull up

CFG[19:18] have internal pull down

CFG[2:0]	011 = 667MT/s FSB 001 = 533MT/s FSB
CFG5	0 = DMI x 2 1 = DMI x 4 *(Default)
CFG7	0 = Reserved 1 = Mobile Yonah CPU*(Default)
CFG9	0 = Lane Reversal Enable 1 = Normal Operation (Default)*
CFG6 PSB 4X CLK Enable	0 = Reserved 1 = Calistoga *
CFG[13:12]	00 = Reserved 01 = XOR Mode Enabled 10 = All Z Mode Enabled 11 = Normal Operation *(Default)
CFG16	0 = Dynamic ODT Disabled 1 = Dynamic ODT Enabled *(Default)
CFG10 CFG18	10 = 1.05V*(Default) 01 = 1.5V
CFG19	0 = Normal Operation * (Default) 1 = DMI Lane Reversal Enable
SDVO_CTRLDATA	0 = No SDVO Device Present *(Default) 1 = SDVO Device Present
CFG20 (PCIE/SDVO select)	0 = Only PCIE or SDVO is operational. *(Default) 1 = PCIE/SDVO are operating simu.



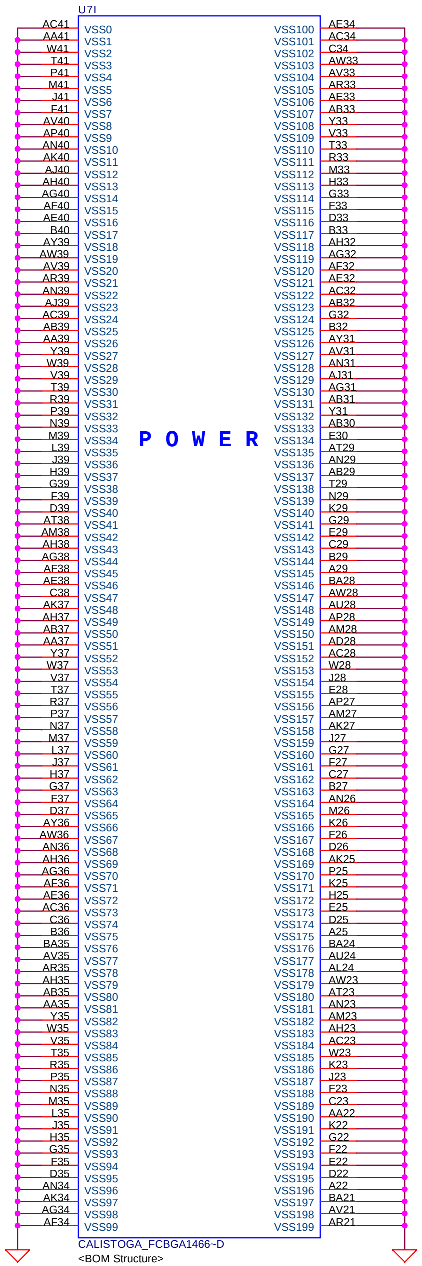
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

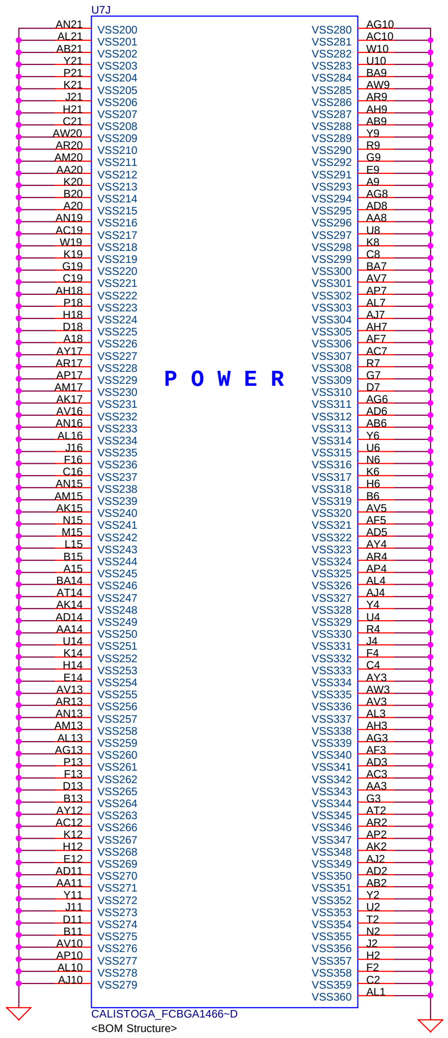
Compal Electronics, Inc.

Title: *SCHEMATIC, M/B LA-3051P*

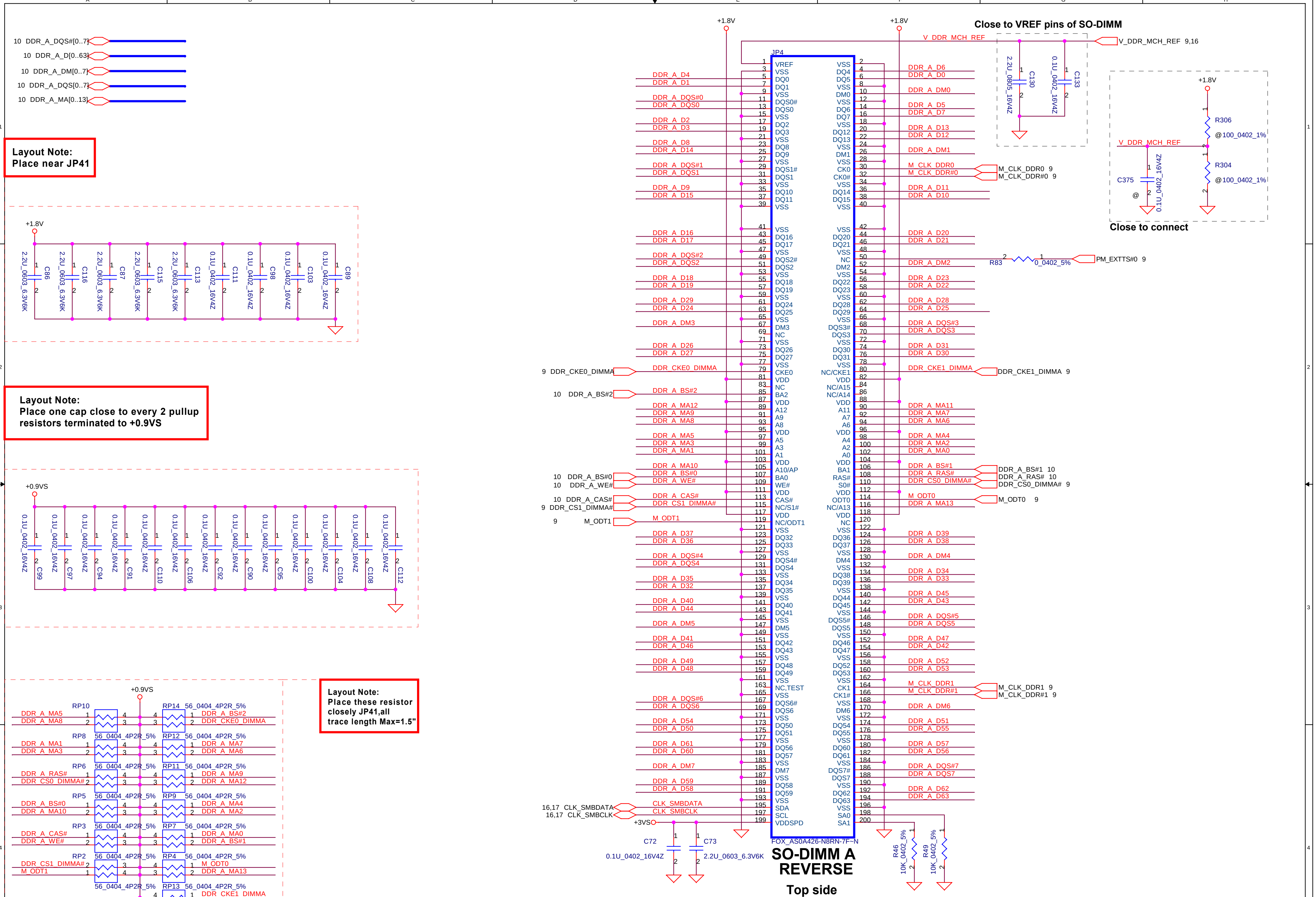
Size: Custom — Document Number: 401397 — Rev: A

Date: 星期四, 十月 06, 2005 — Sheet 13 of 45





Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size: Custom; Document Number: 401397; Rev: A
				Date: 星期四, 十月 06, 2005; Sheet 14 of 45



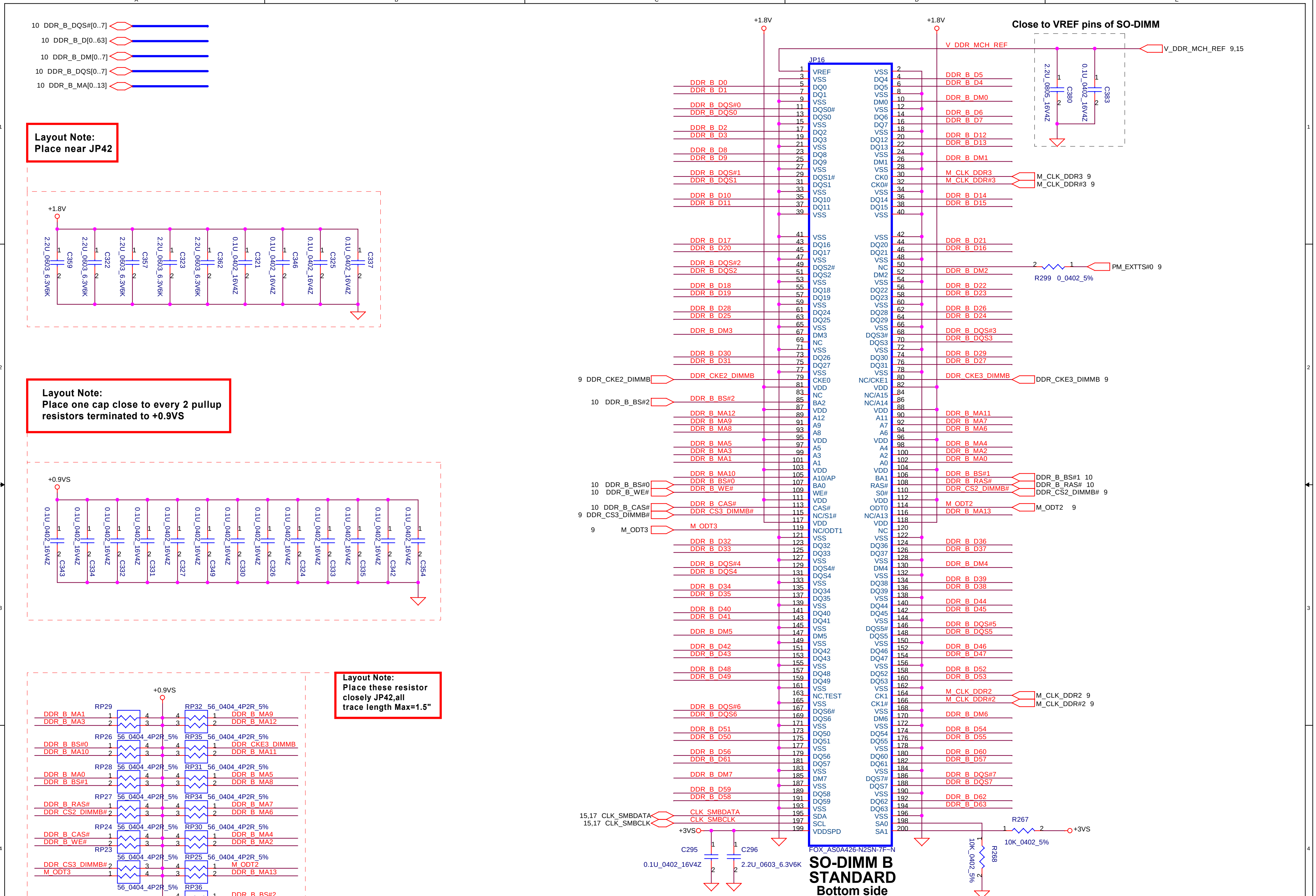
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size: Custom | Document Number: 401397 | Rev: A

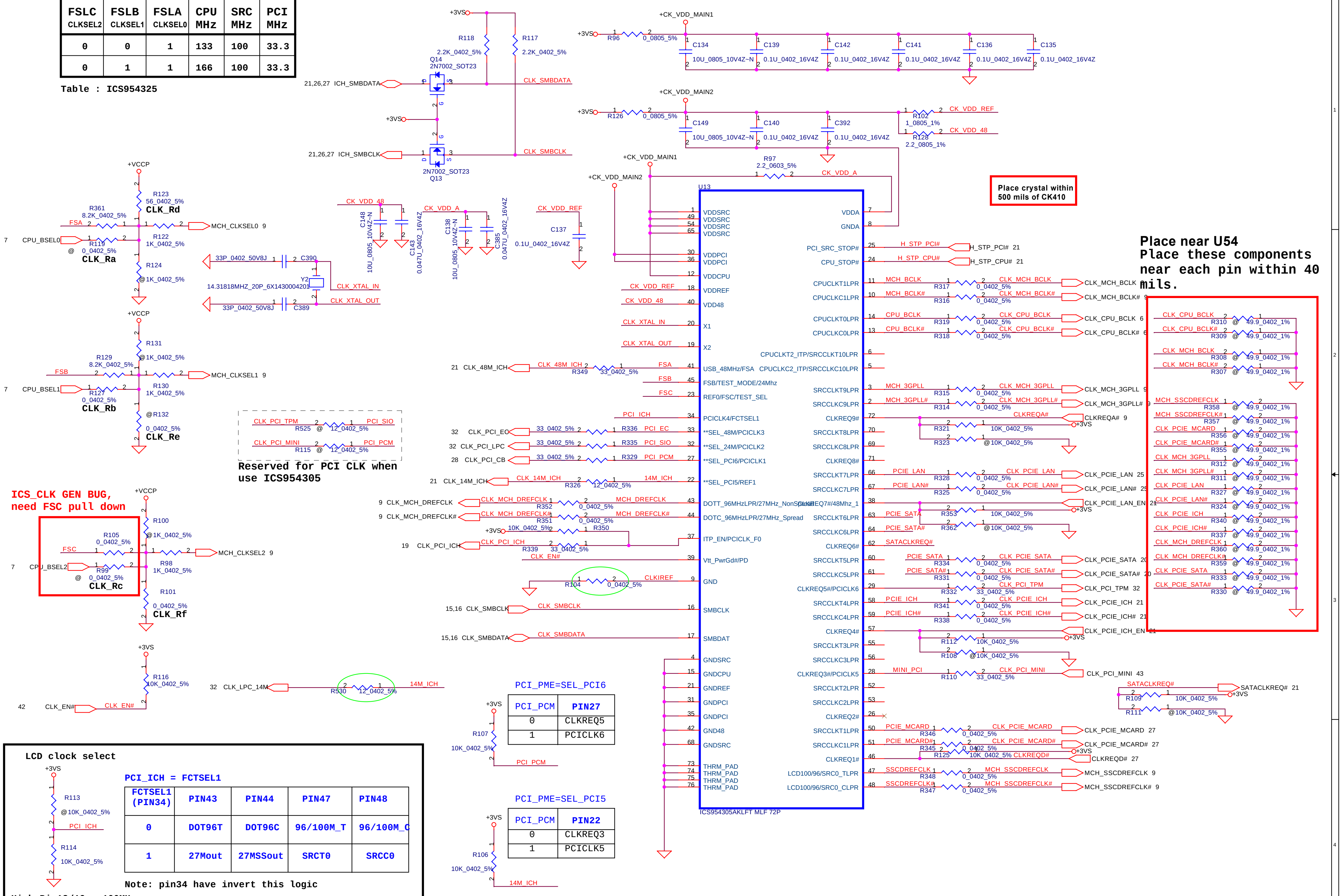
Date: 星期四, 十月 06, 2005 |



Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date 2006/06/23	Title: SCHEMATIC, M/B LA-3051P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Size: Document Number 401397, Rev A
			Date: 星期四, 十月 06, 2005 Sheet 16 of 45

FSLC CLKSEL2	FSLB CLKSEL1	FSLA CLKSEL0	CPU MHz	SRC MHz	PCI MHz
0	0	1	133	100	33.3
0	1	1	166	100	33.3

Table : ICS954325



PCI_PME=SEL_PCI6

PCI_PCM	PIN27
0	CLKREQ5
1	PCICLK6

PCI_PME=SEL_PCI5

PCI_PCM	PIN22
0	CLKREQ3
1	PCICLK5

LCD clock select

PCI_ICH = FCTSEL1

FCTSEL1 (PIN34)	PIN43	PIN44	PIN47	PIN48
0	DOT96T	DOT96C	96/100M_T	96/100M_C
1	27Mout	27MSSout	SRCT0	SRCC0

Note: pin34 have invert this logic

High:Pin18/19 = 100MHz
*Low:Pin18/19 = 96MHz

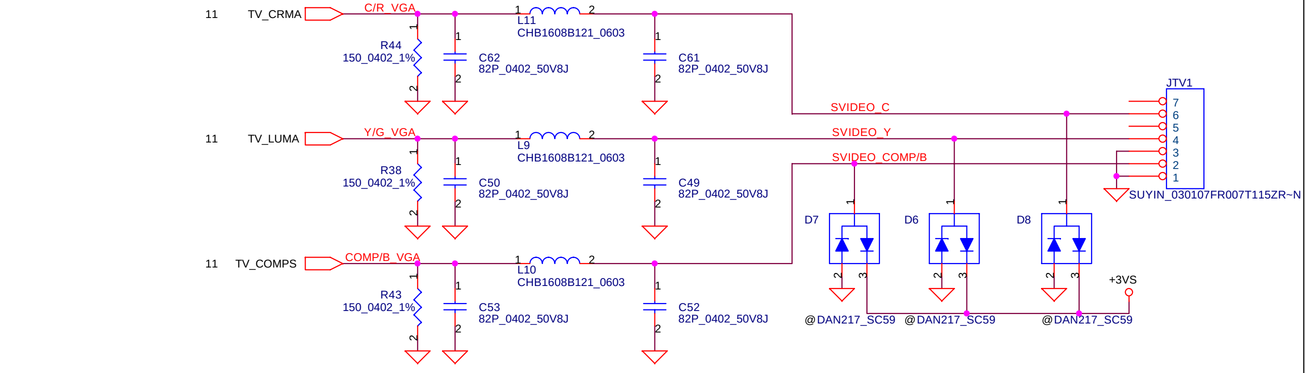
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: SCHEMATIC, M/B LA-3051P

Size | Document Number: 401397 | Rev: A

TV-OUT Connector



W to B Pin Define

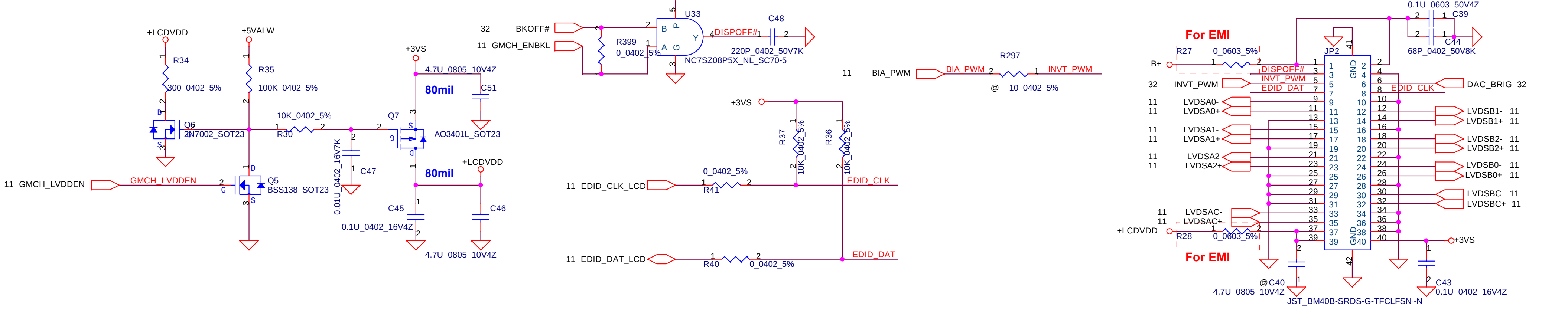
B+	1	2	B+
DISPOFF#	3	4	GND
INVT_PWM	5	6	DAC_BRIG
EDID_DAT	7	8	EDID_CLK
UTX0-	9	10	GND
UTX0+	11	12	LTX1-
GND	13	14	LTX1+
UTX1-	15	16	GND
UTX1+	17	18	LTX2-
GND	19	20	LTX2+
UTX2-	21	22	GND
UTX2+	23	24	LTX0-
GND	25	26	LTX0+
UTX3-	27	28	GND
UTX3+	29	30	LCLK-
GND	31	32	LCLK+
UCLK-	33	34	GND
UCLK+	35	36	LTX3-
LCDVDD	37	38	LTX3+
LCDVDD	39	40	+3VS

Inverter Pin Define

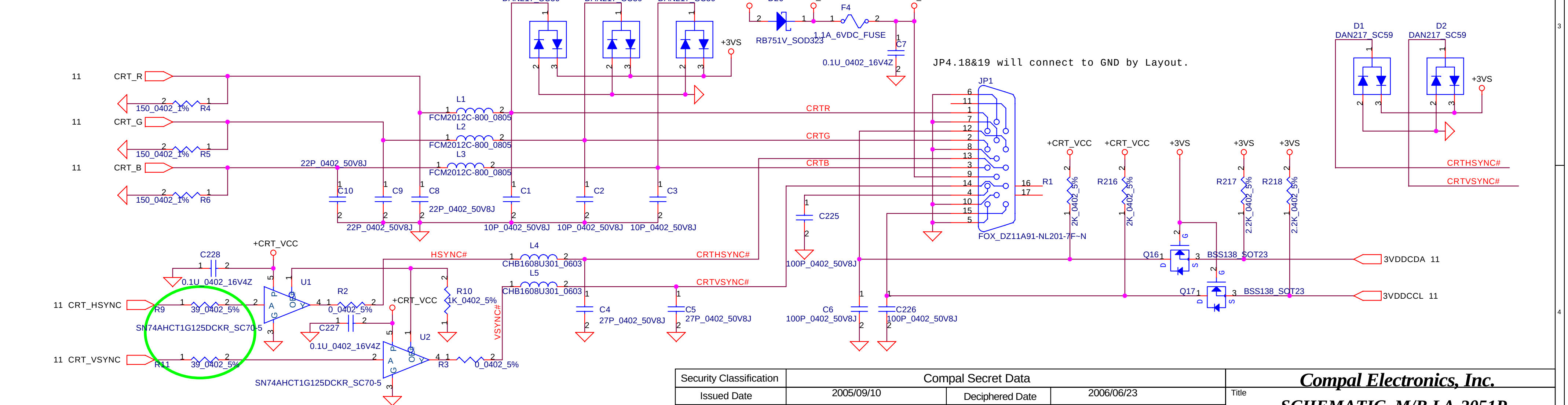
1	INV_PWR
2	INV_PWR
3	INV_PWM
4	DISOFF#
5	DAC_BRIG
6	GND
7	GND

PANEL +LCDVDD CTRL CKT

LVDS from NB



CRT CONNECTOR



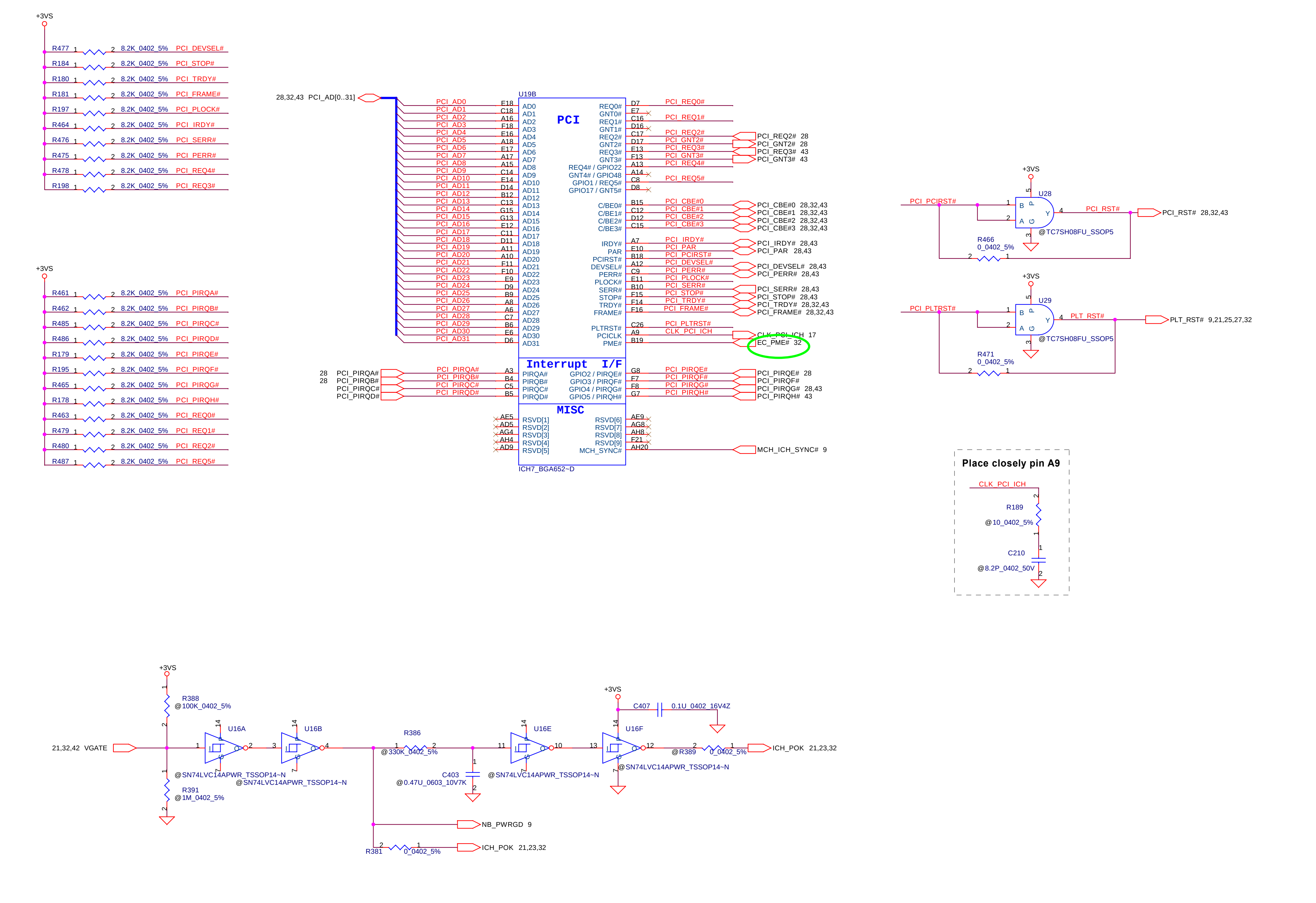
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size: Custom | Document Number: 401397 | Rev: A

Date: 星期四, 十月 06, 2005 | Sheet 18 of 45



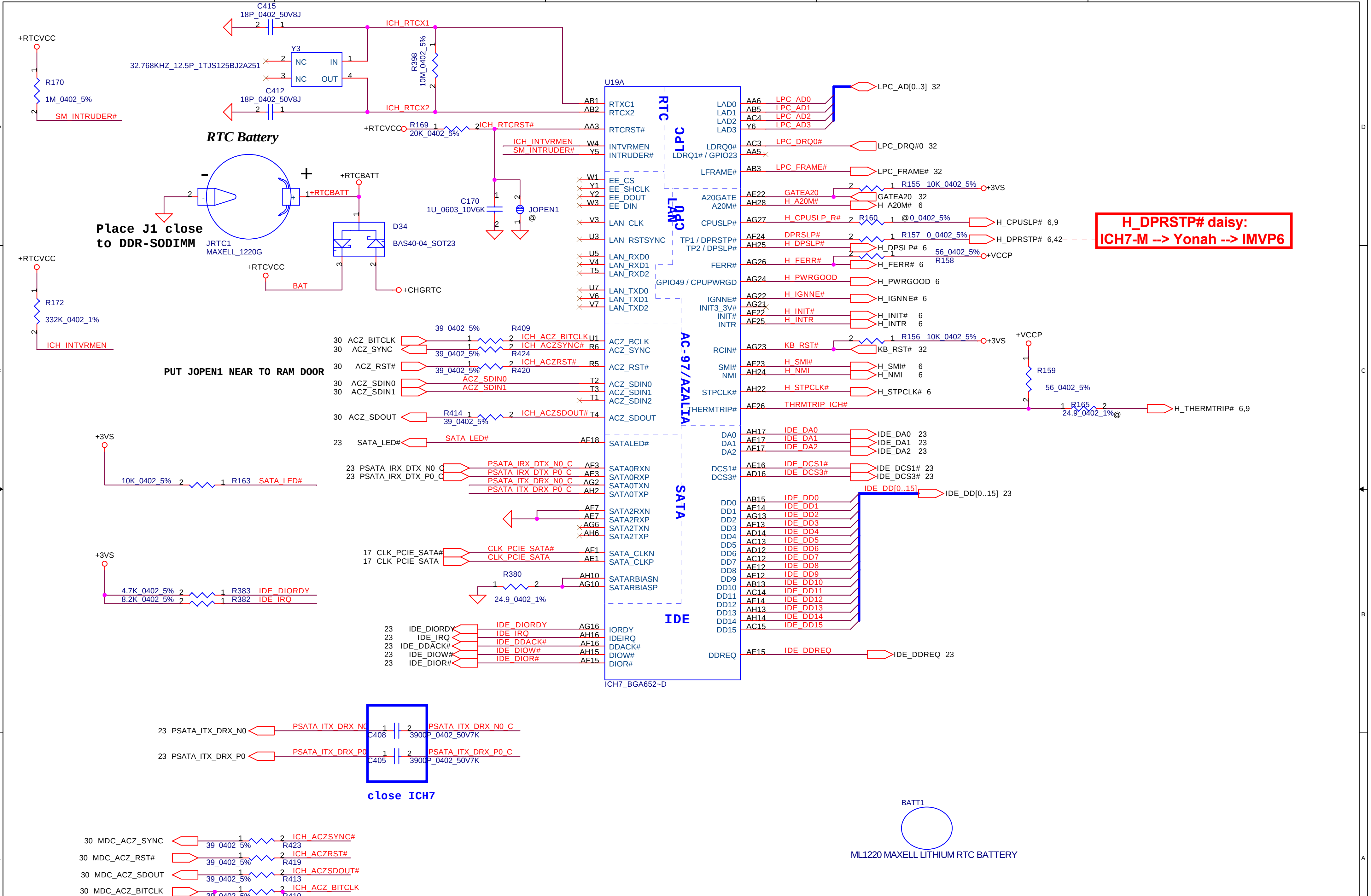
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

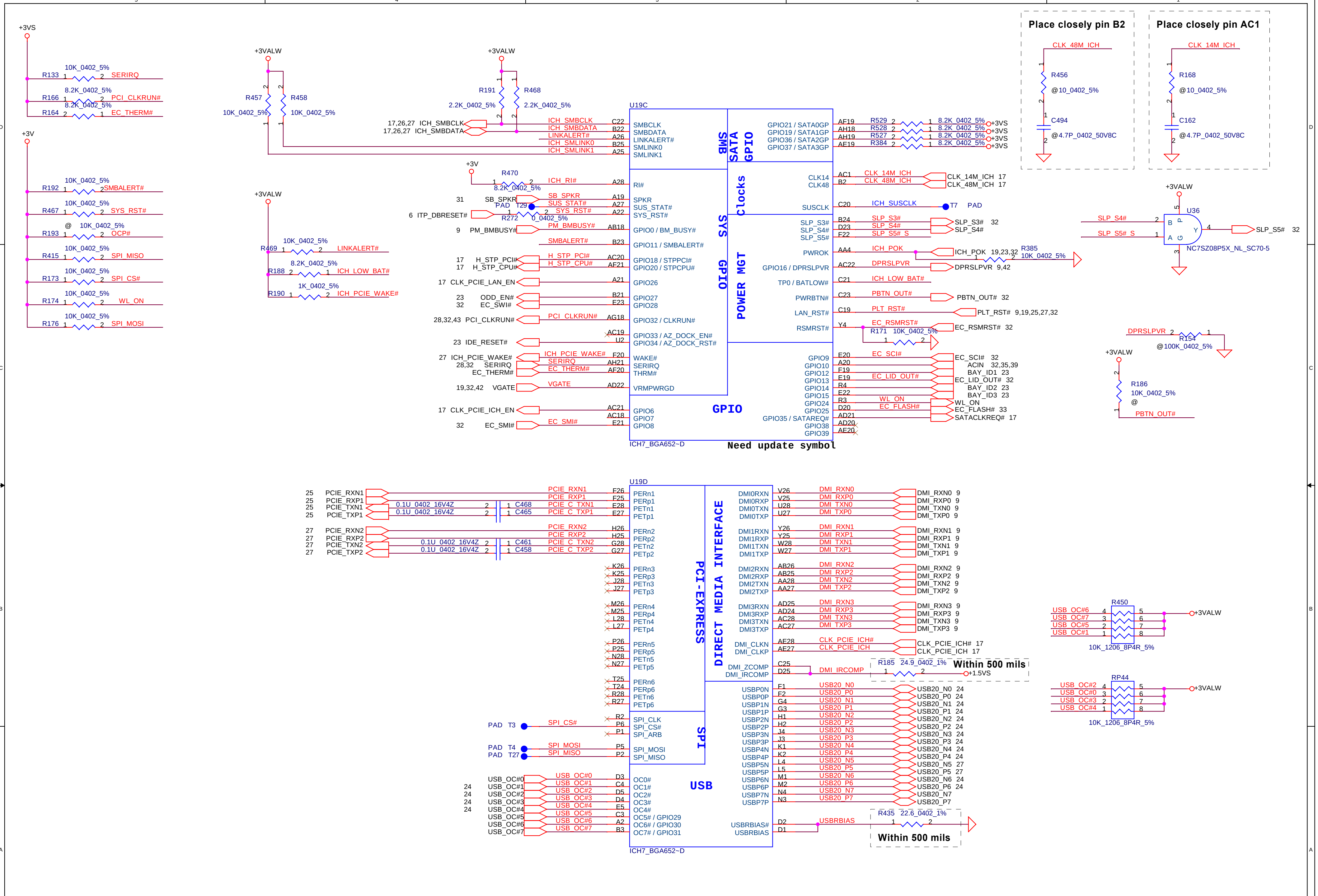
Title: **SCHEMATIC, M/B LA-3051P**

Size | Document Number: 401397 | Rev: A

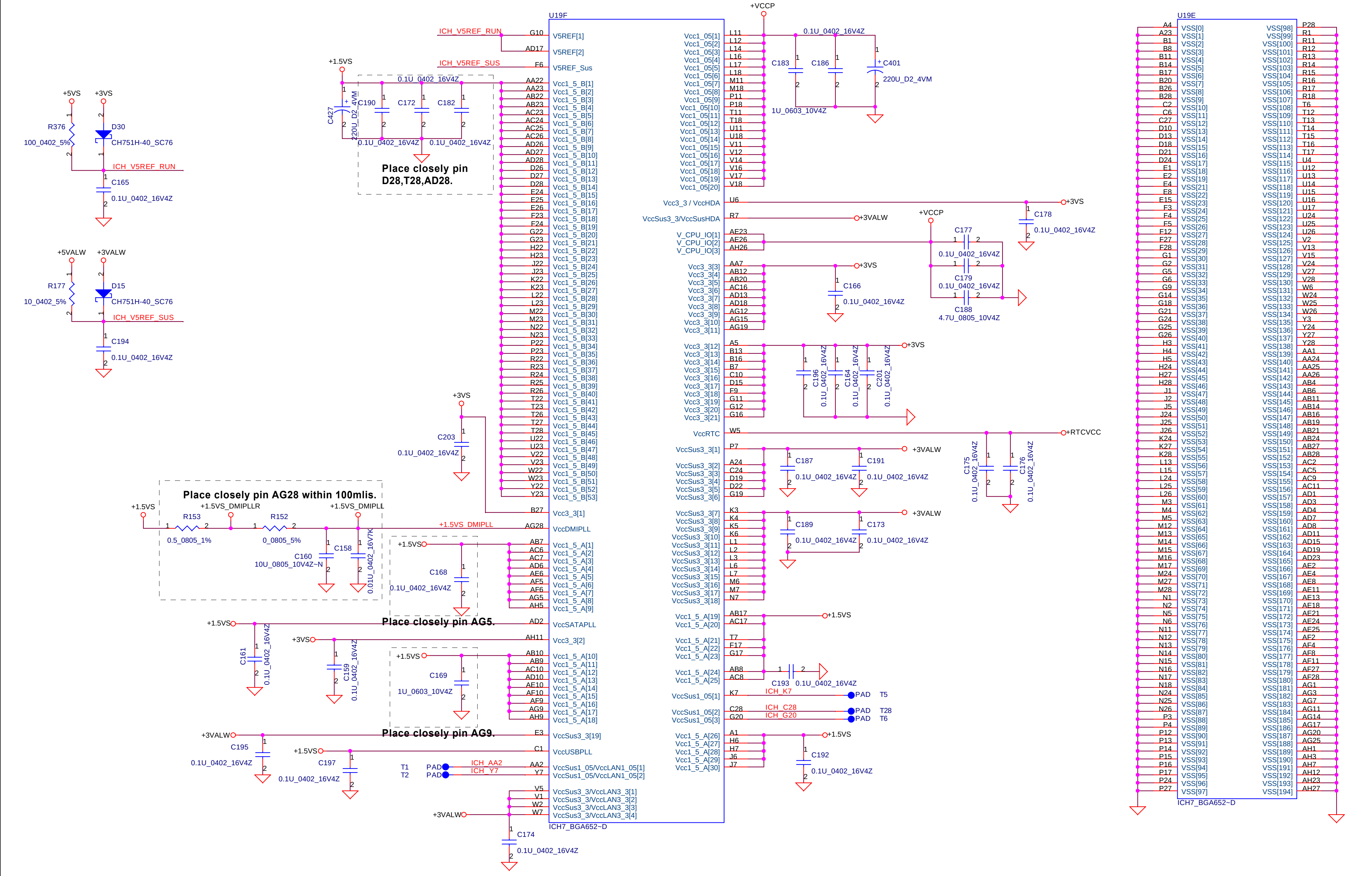
Date: 星期四, 十月 06, 2005 |



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size: Custom; Document Number: 401397; Rev: A
				Date: 星期四, 十月 06, 2005; Sheet 20 of 45



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size: Custom; Document Number: 401397; Rev: A
				Date: 星期四, 十月 06, 2005; Sheet 21 of 45



Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

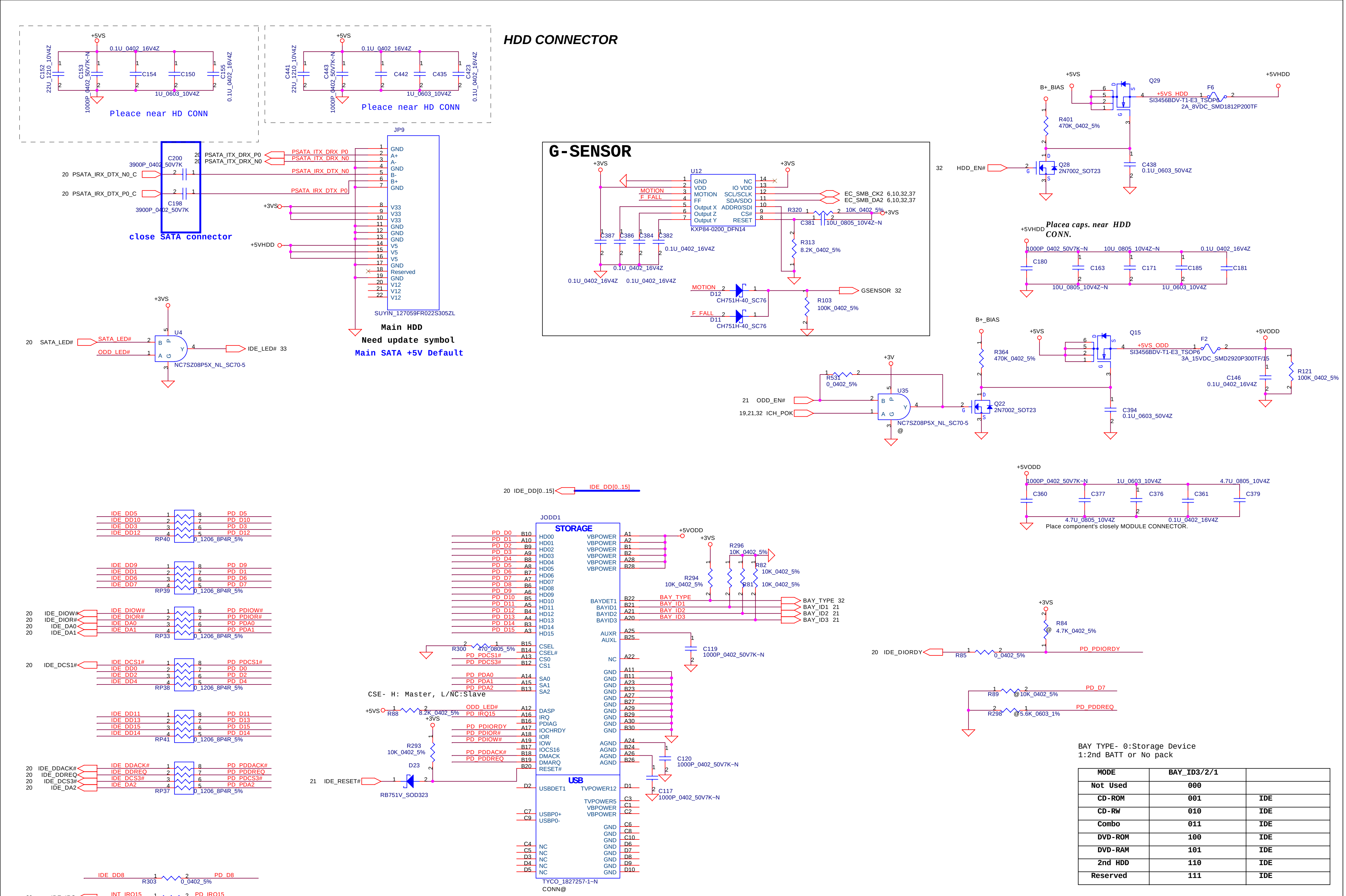
Compal Electronics, Inc.

Title

SCHEMATIC, M/B LA-3051P

Size Custom | Document Number **401397** | Rev A

Date: 星期四, 十月 06, 2005 |



BAY TYPE- 0:Storage Device
1:2nd BATT or No pack

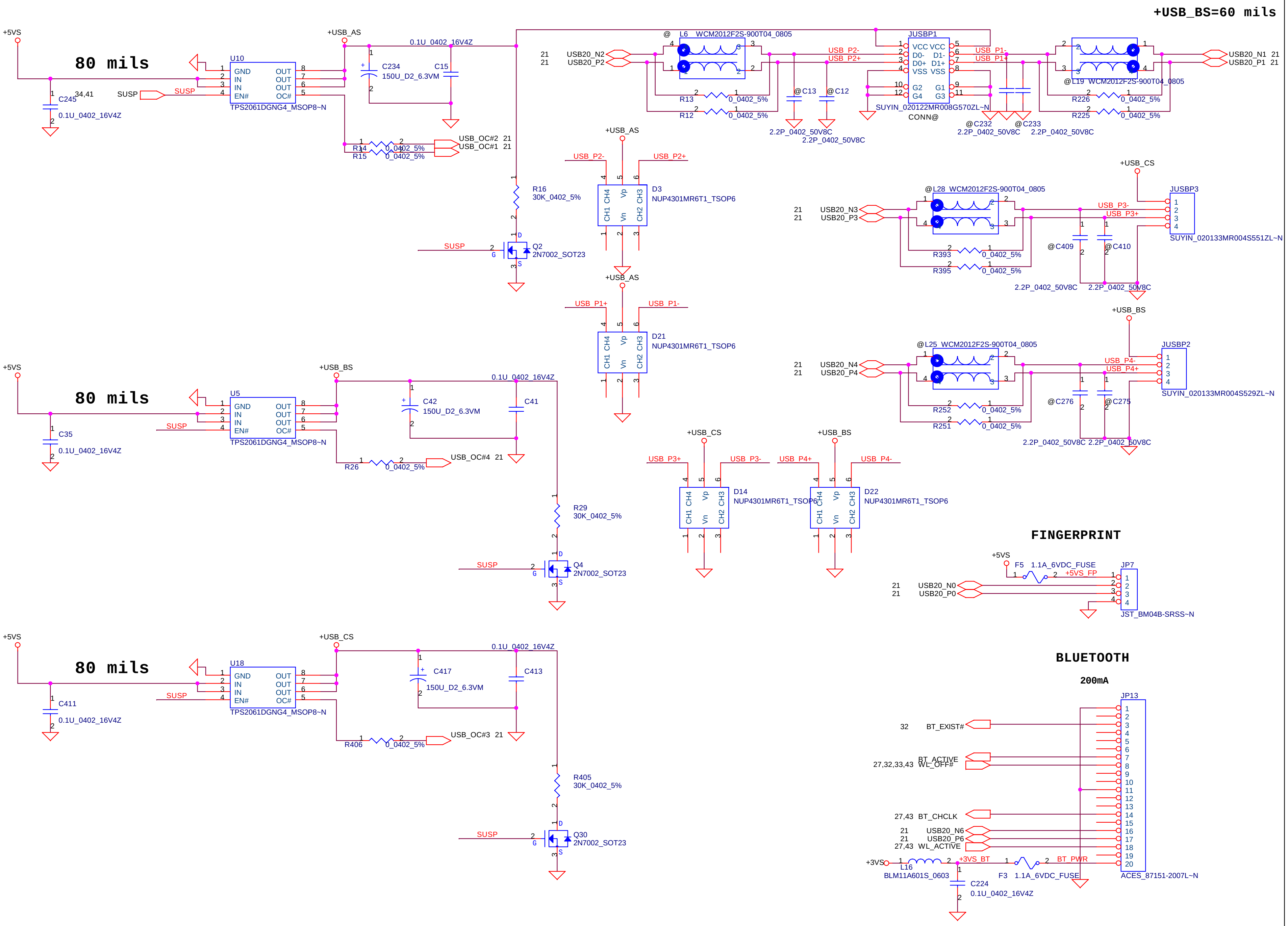
MODE	BAY_ID3/2/1	
Not Used	000	
CD-ROM	001	IDE
CD-RW	010	IDE
Combo	011	IDE
DVD-ROM	100	IDE
DVD-RAM	101	IDE
2nd HDD	110	IDE
Reserved	111	IDE

Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

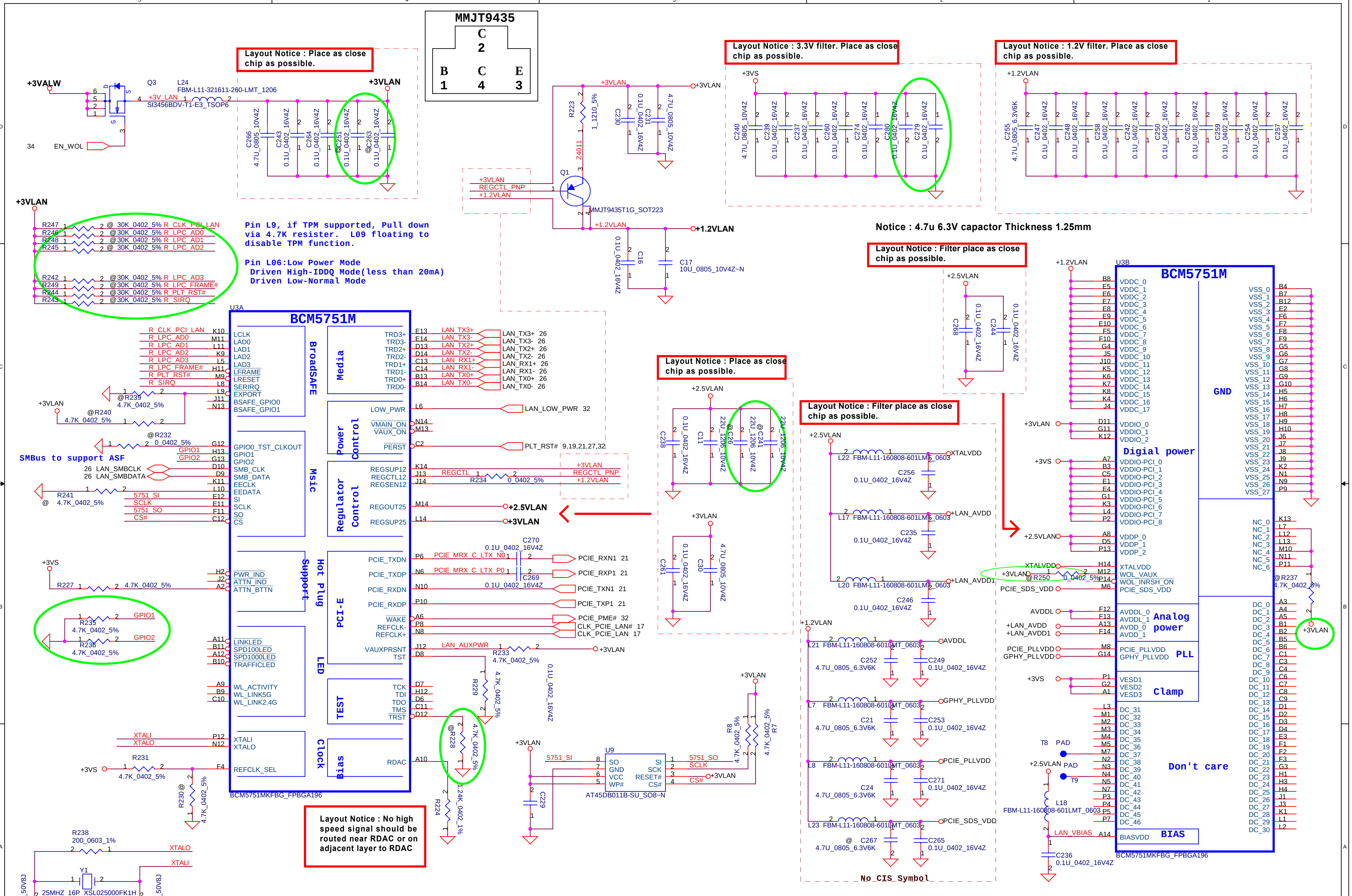
Compal Electronics, Inc.

Title: SCHEMATIC, M/B LA-3051P

Size | Document Number: 401397 | Rev: A



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P
				Size / Document Number: 401397 / Rev: A
				Date: 星期四, 十月 06, 2005 / Sheet 24 of 45

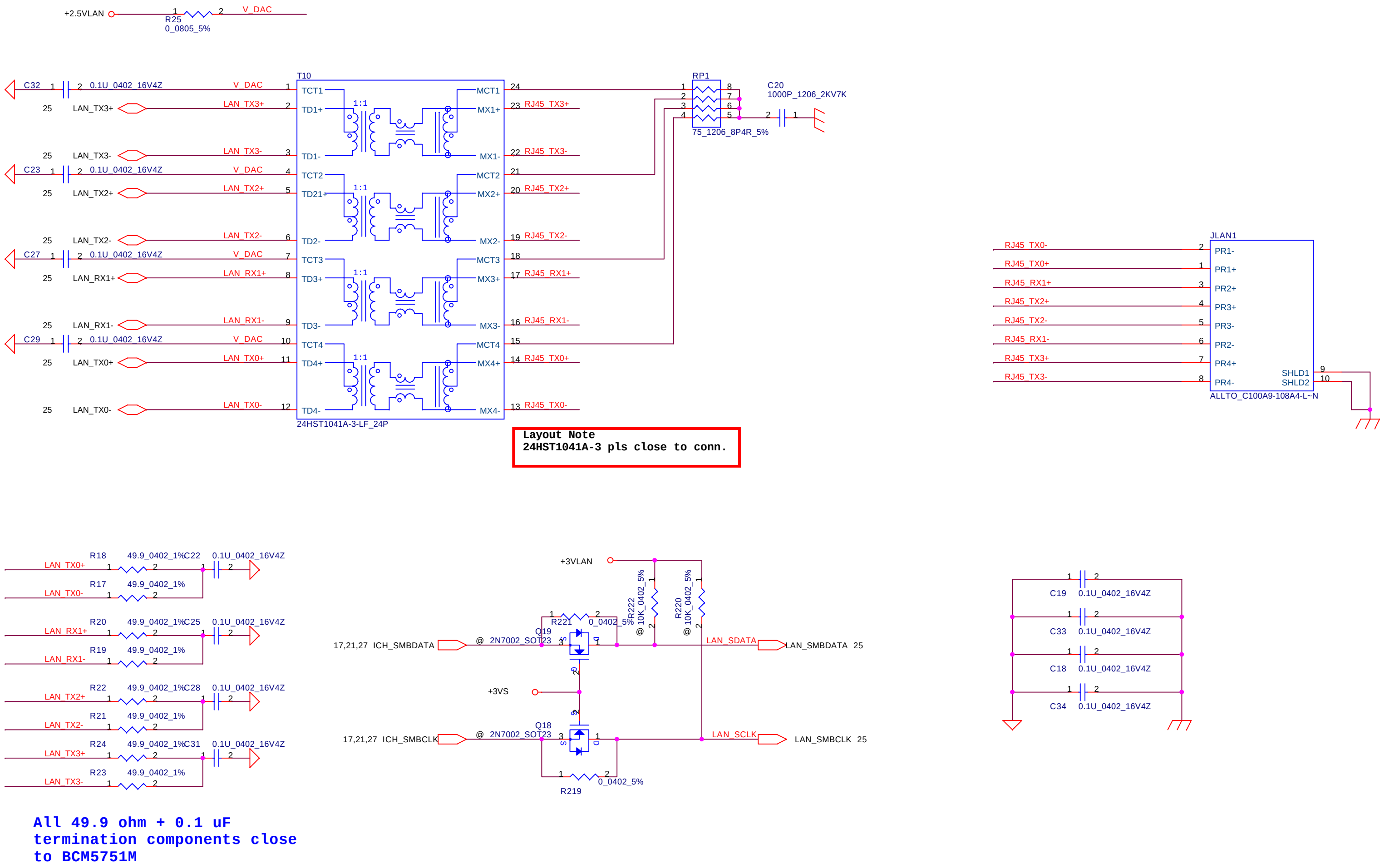


Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size | Document Number: 401397 | Rev: A



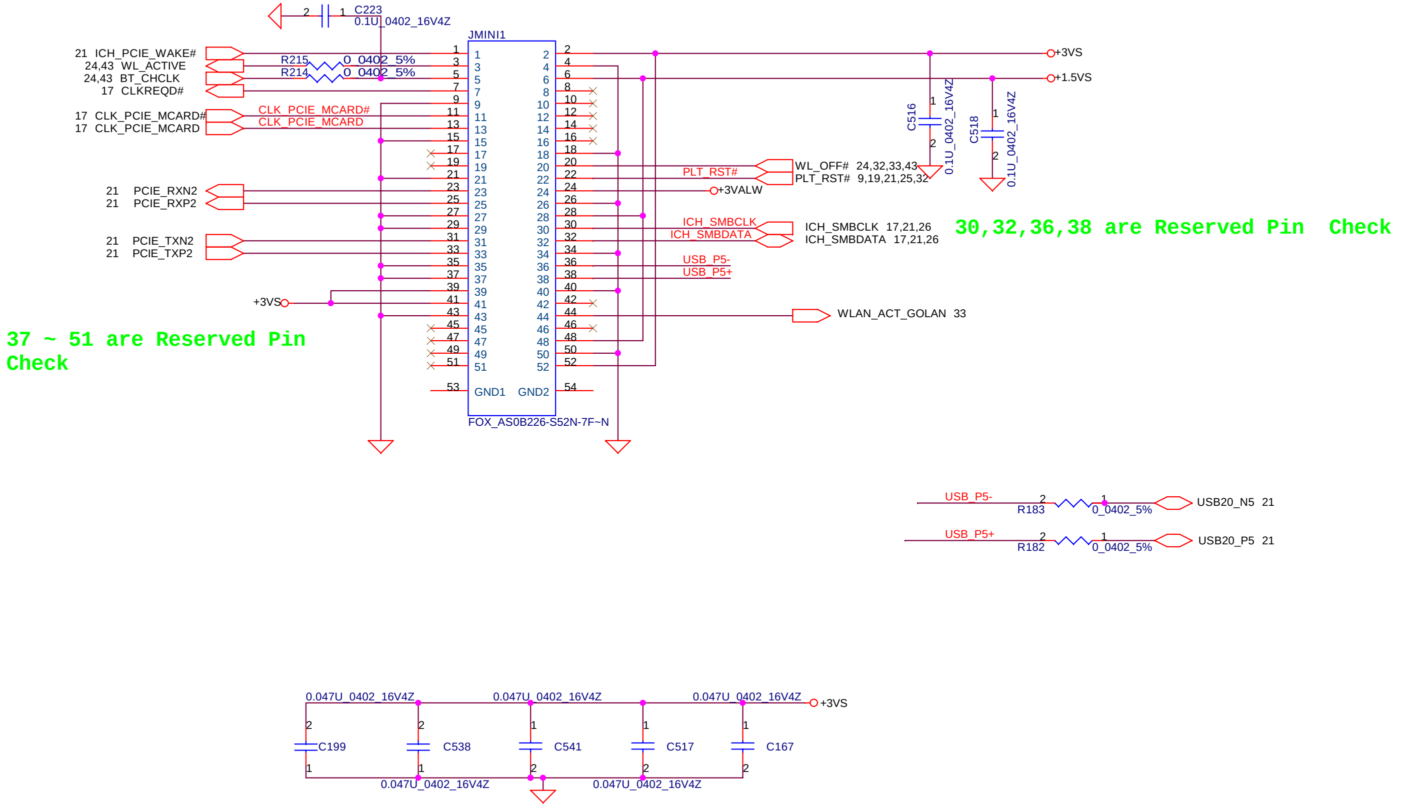
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size | Document Number: 401397 | Rev A

Date: 星期四, 十月 06, 2005 | Sheet 26 of 45



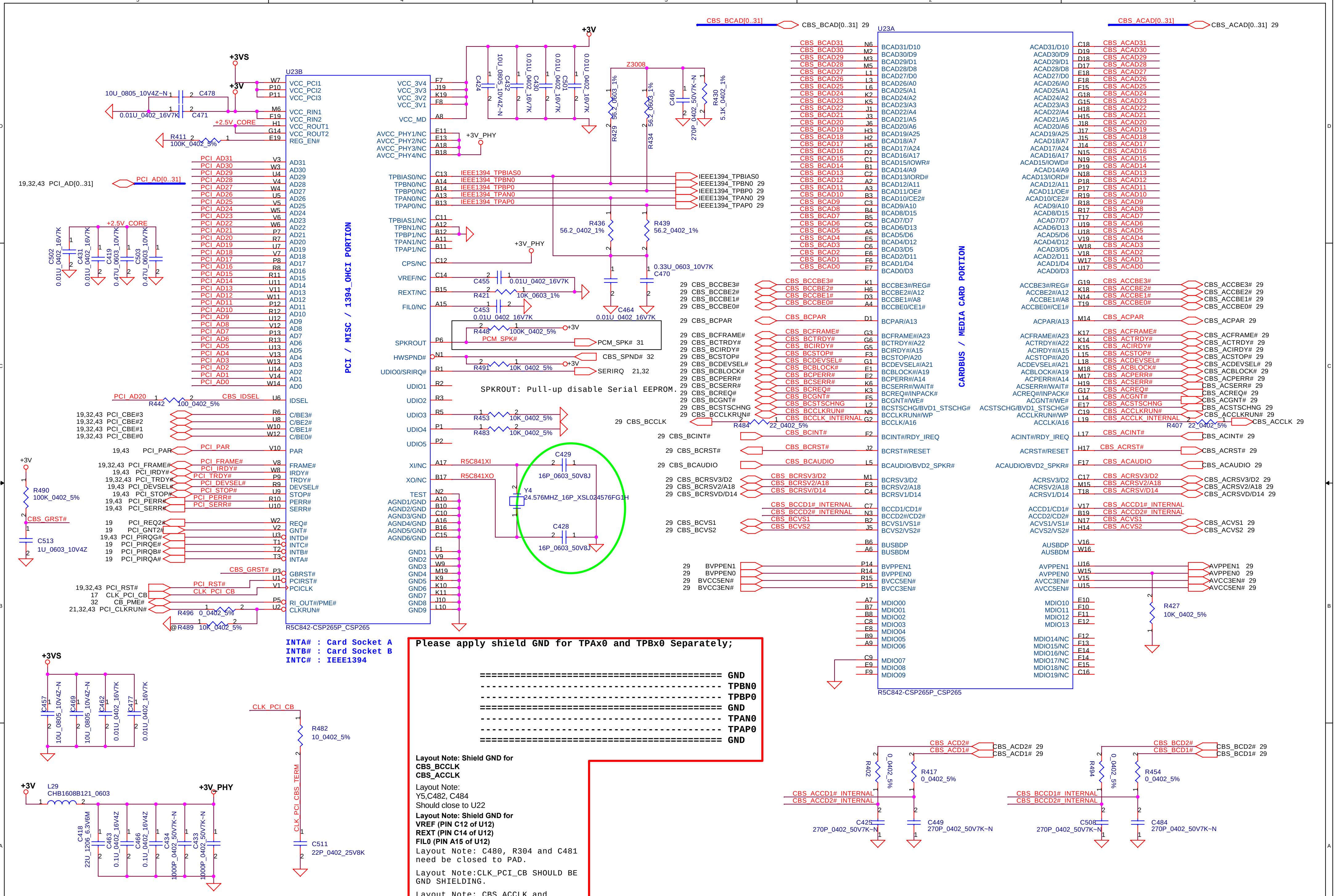
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

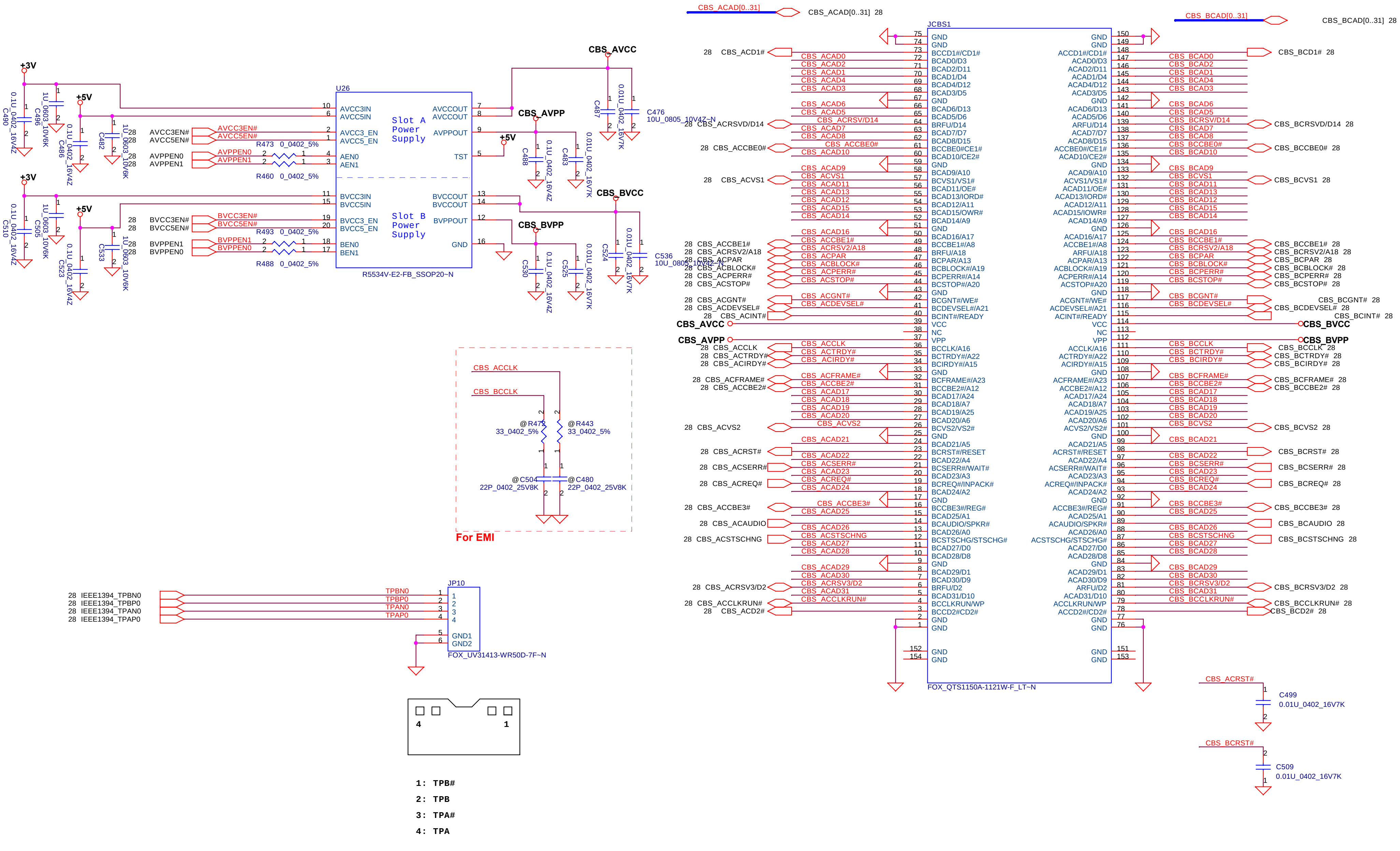
Title: **SCHEMATIC, M/B LA-3051P**

Size | Document Number: 401397 | Rev: A

Date: 星期四, 十月 06, 2005 |



Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size: A, Document Number: 401397, Rev: A
				Date: 星期四, 十月 06, 2005 — Sheet 28 of 45



Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

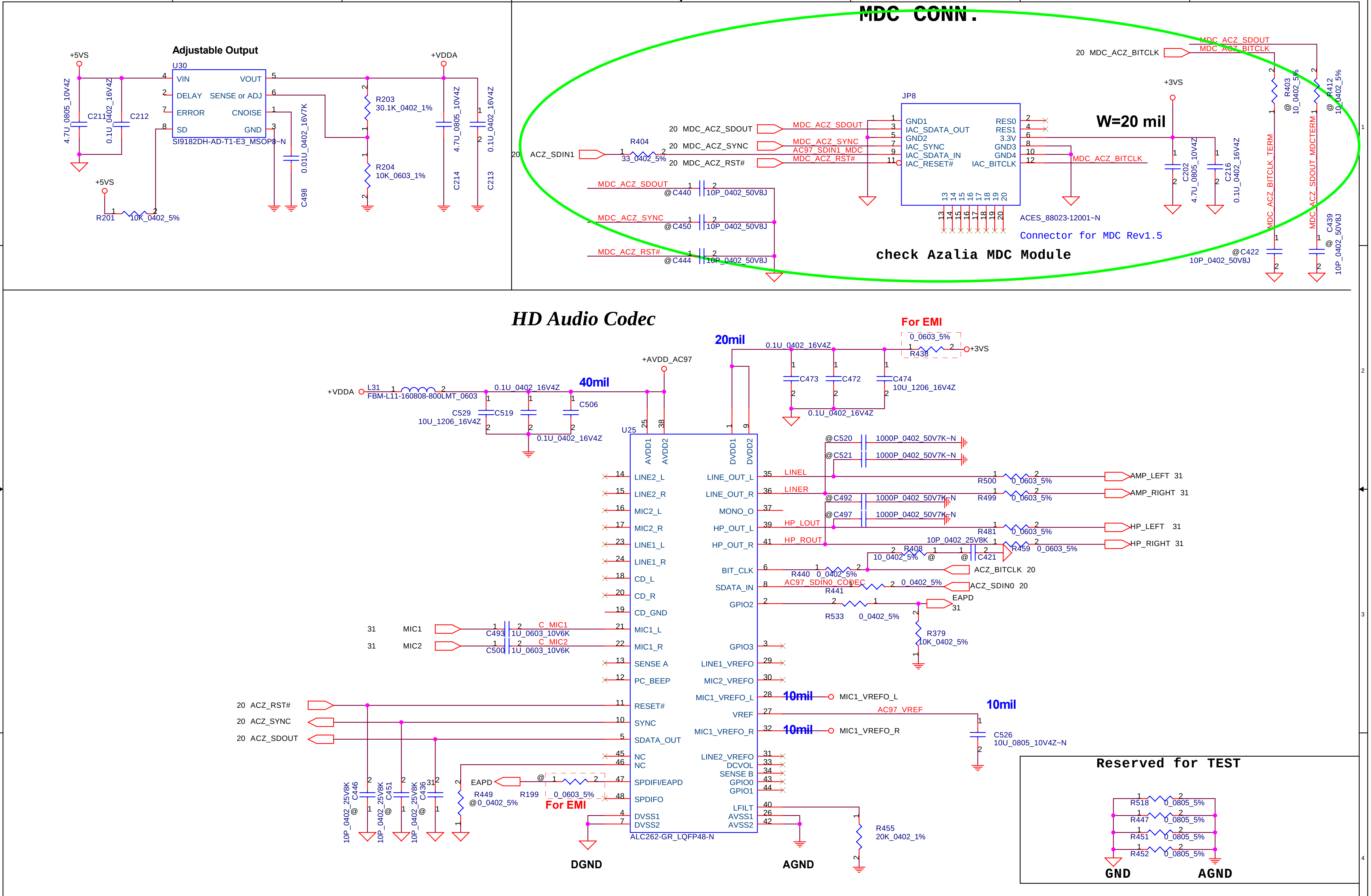
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size | Document Number: 401397 | Rev: A

Date: 星期四, 十月 06, 2005 | Sheet 29 of 45



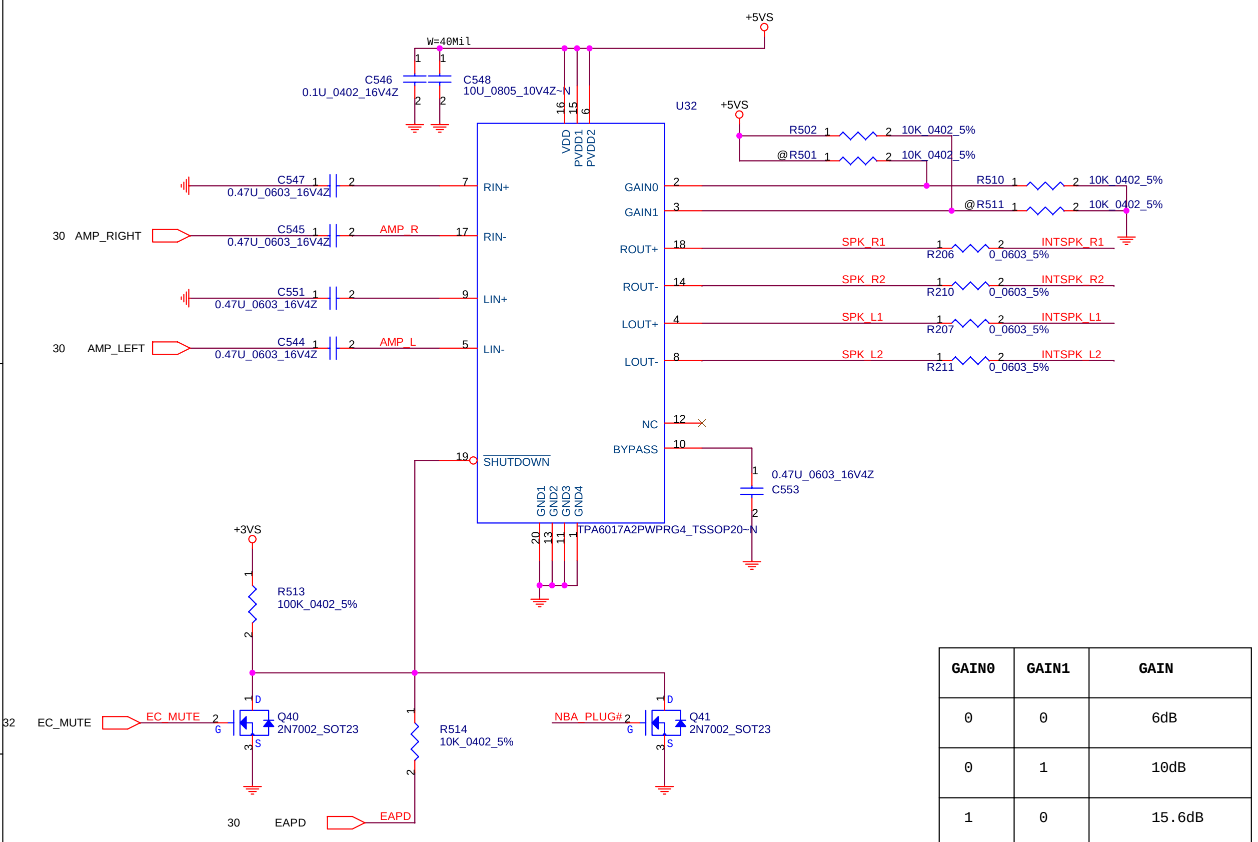
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

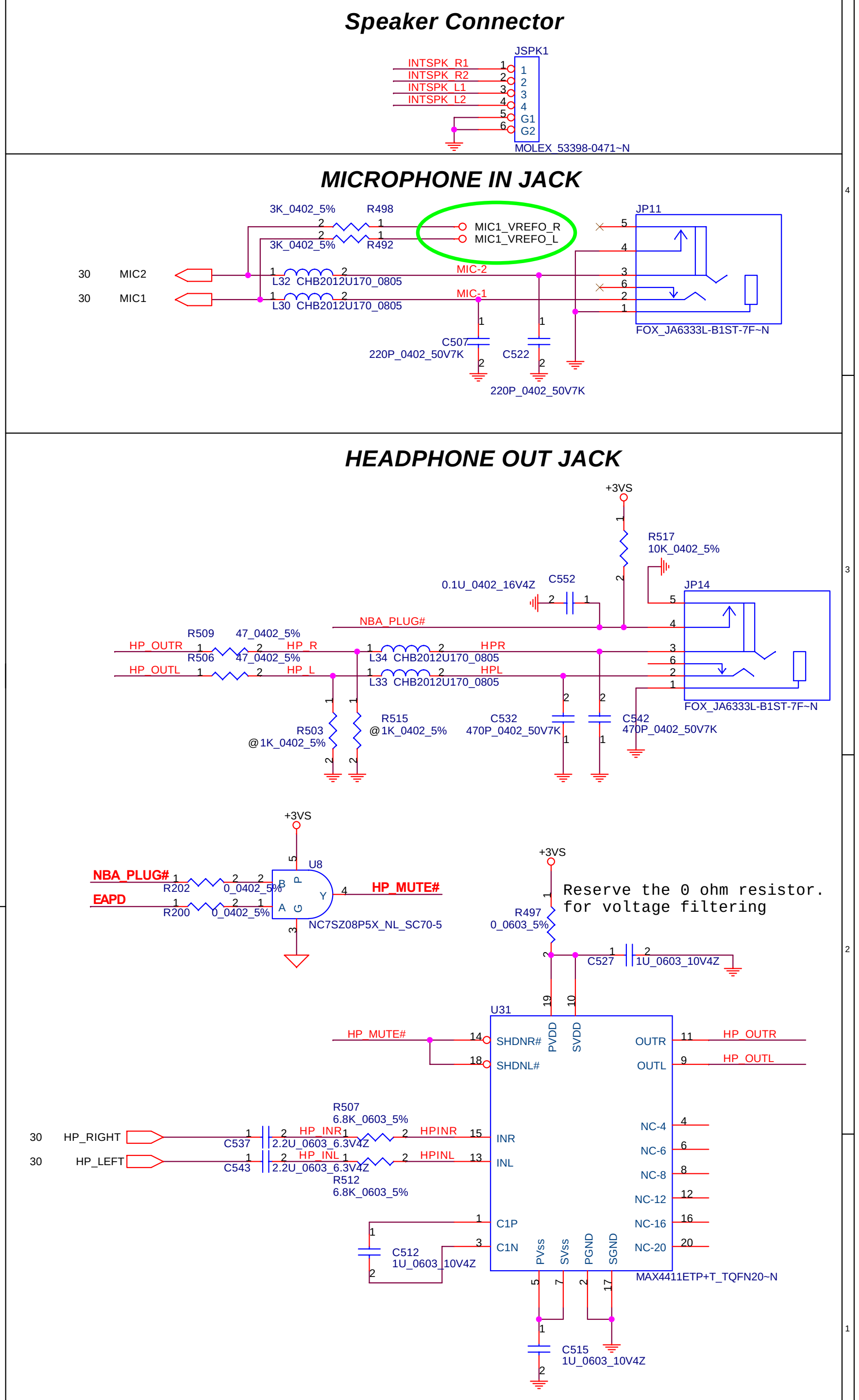
Size	Document Number	Rev
	401397	A

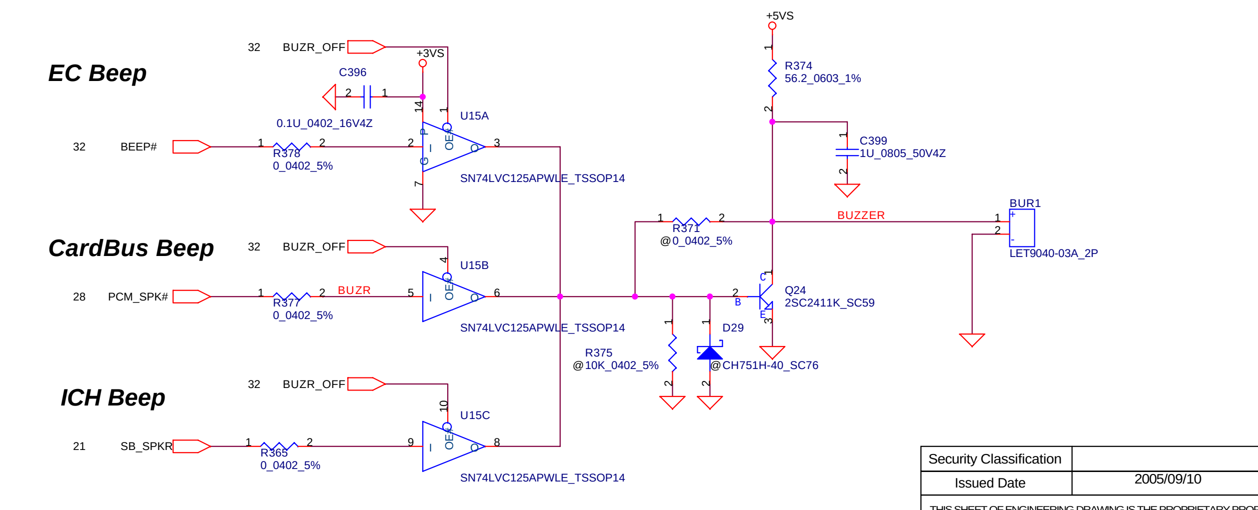
Date: 星期四, 十月 06, 2005 Sheet 30 of 45



GAIN0	GAIN1	GAIN
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB

Buzzer need to support ICH/PCM_SPK/Battery_low and WL_on/off





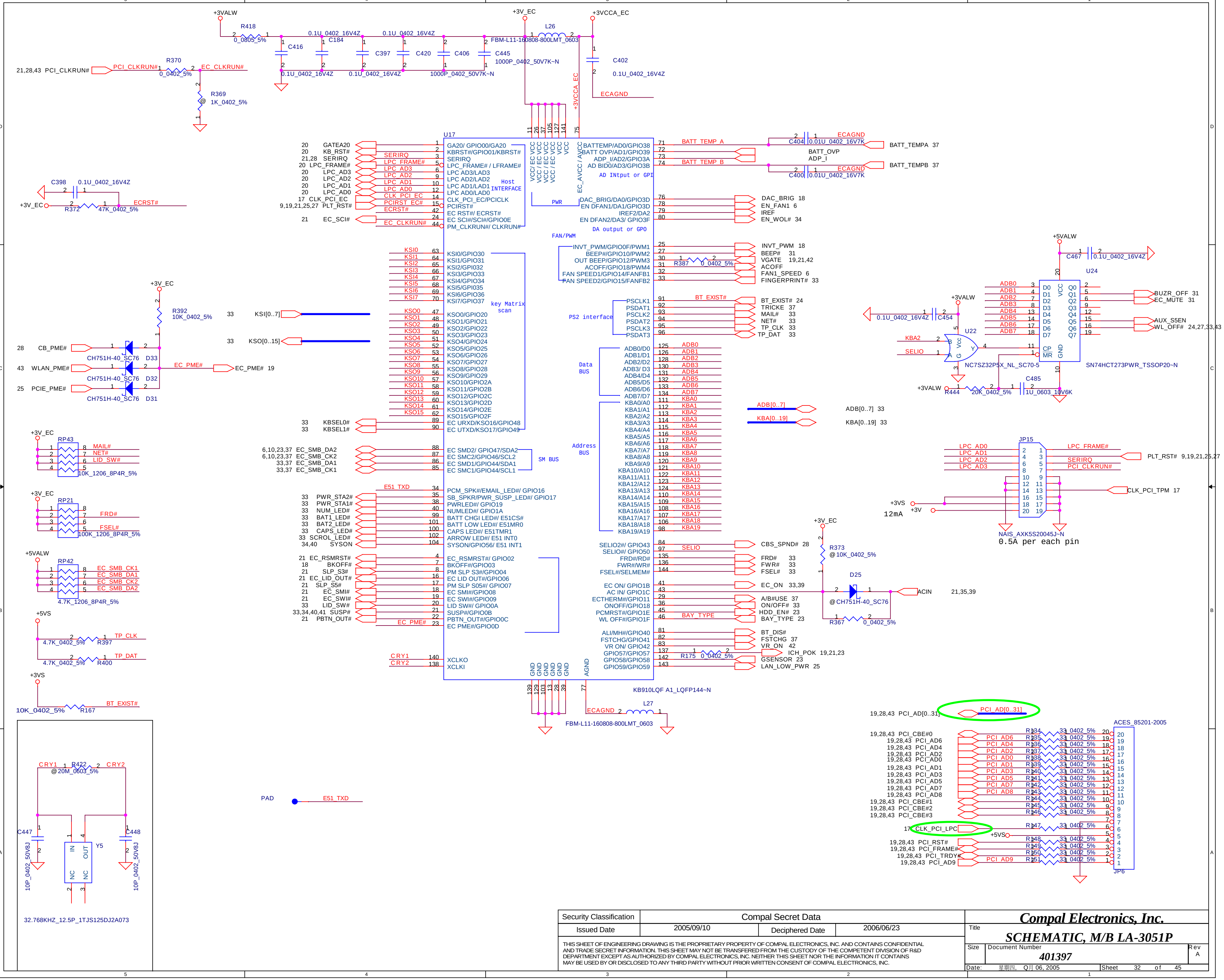
Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: SCHEMATIC, M/B LA-3051P

Size | Document Number: 401397 | Rev: A

Date: 星期四, 十月 06, 2005 | Sheet 31 of 45



Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

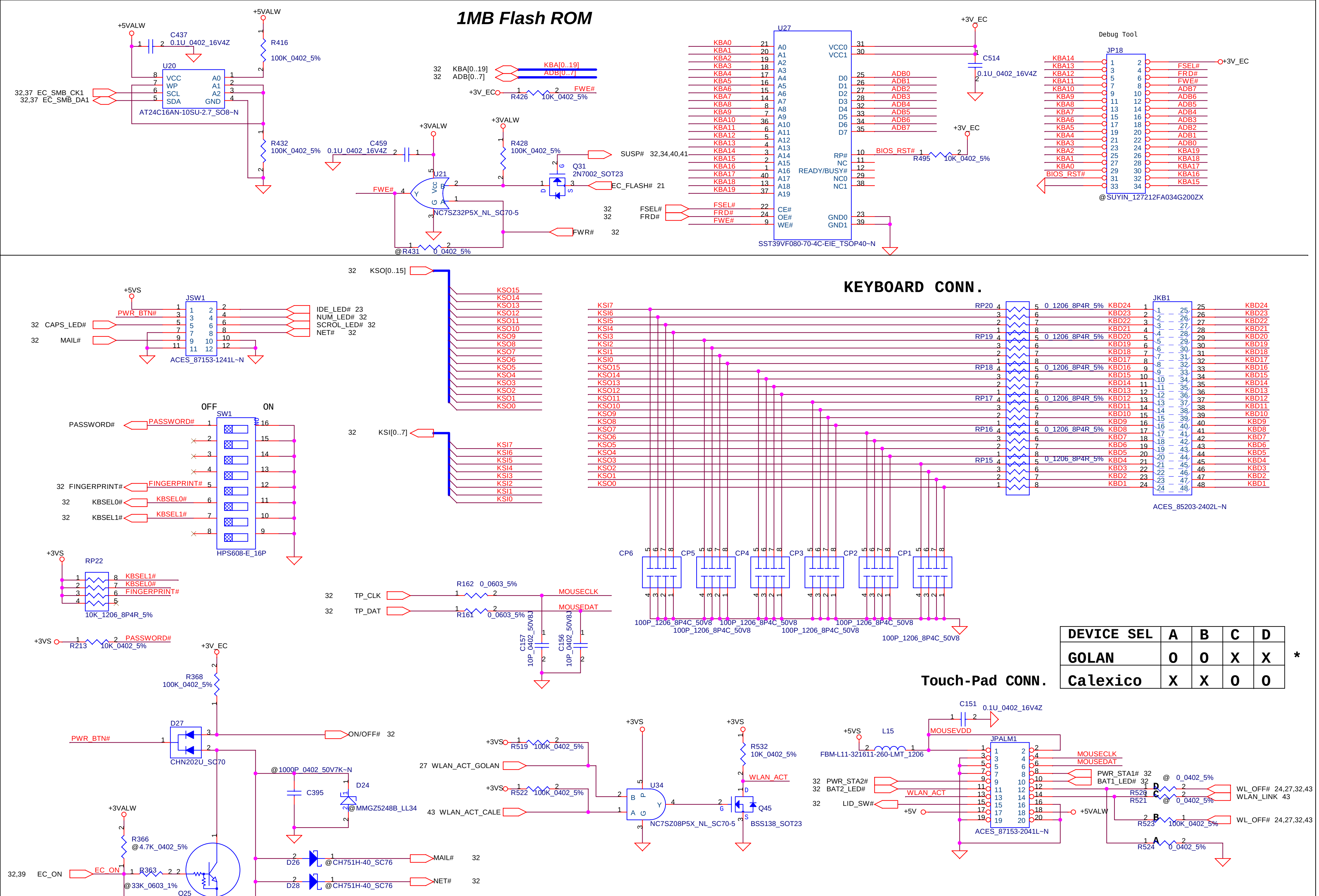
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size	Document Number	Rev
	401397	A

Date: 星期四, 9月 06, 2005 Sheet 32 of 45



DEVICE SEL	A	B	C	D
GOLAN	O	O	X	X
Calexico	X	X	O	O

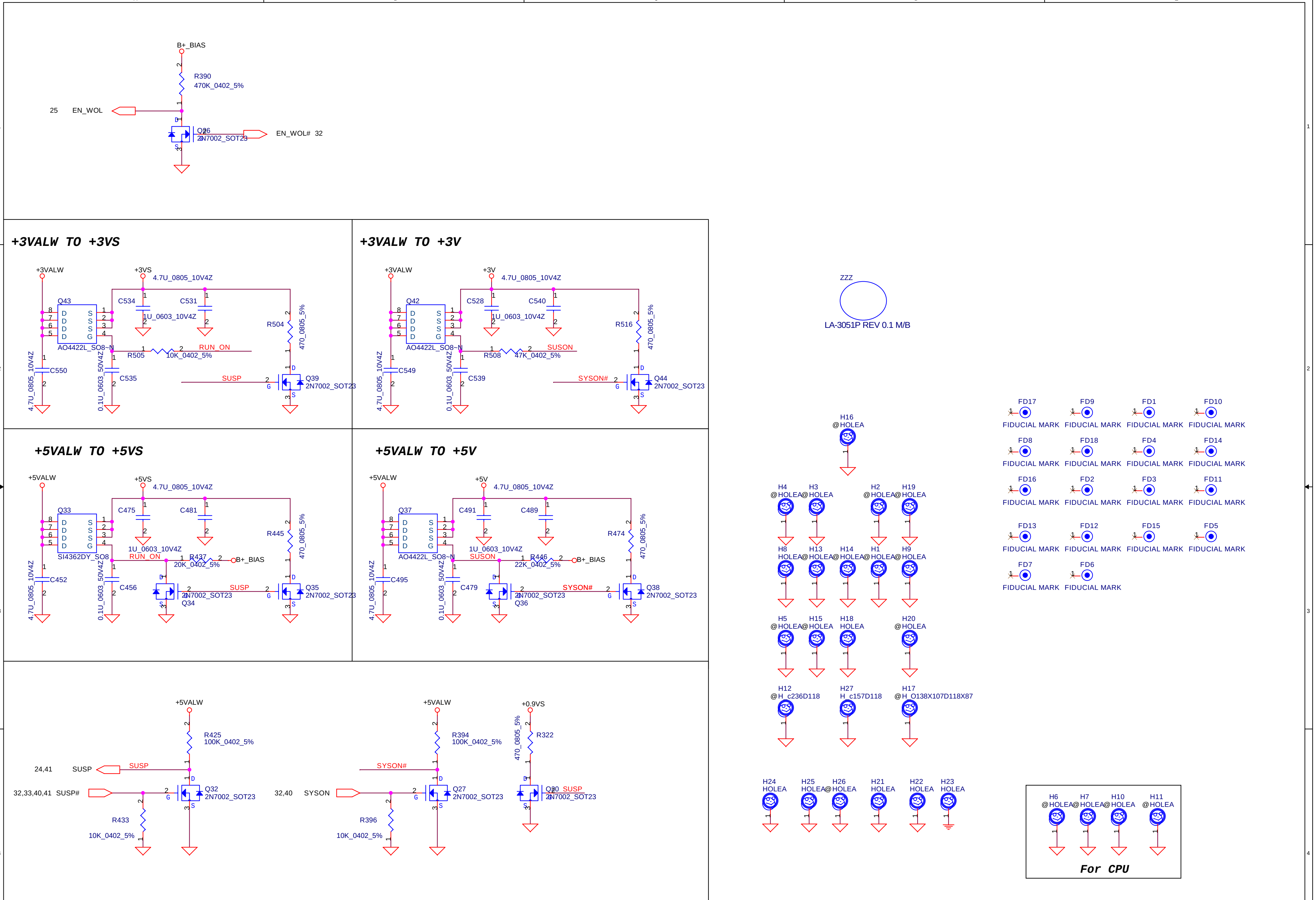
*

Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: SCHEMATIC, M/B LA-3051P

Size | Document Number: 401397 | Rev: A

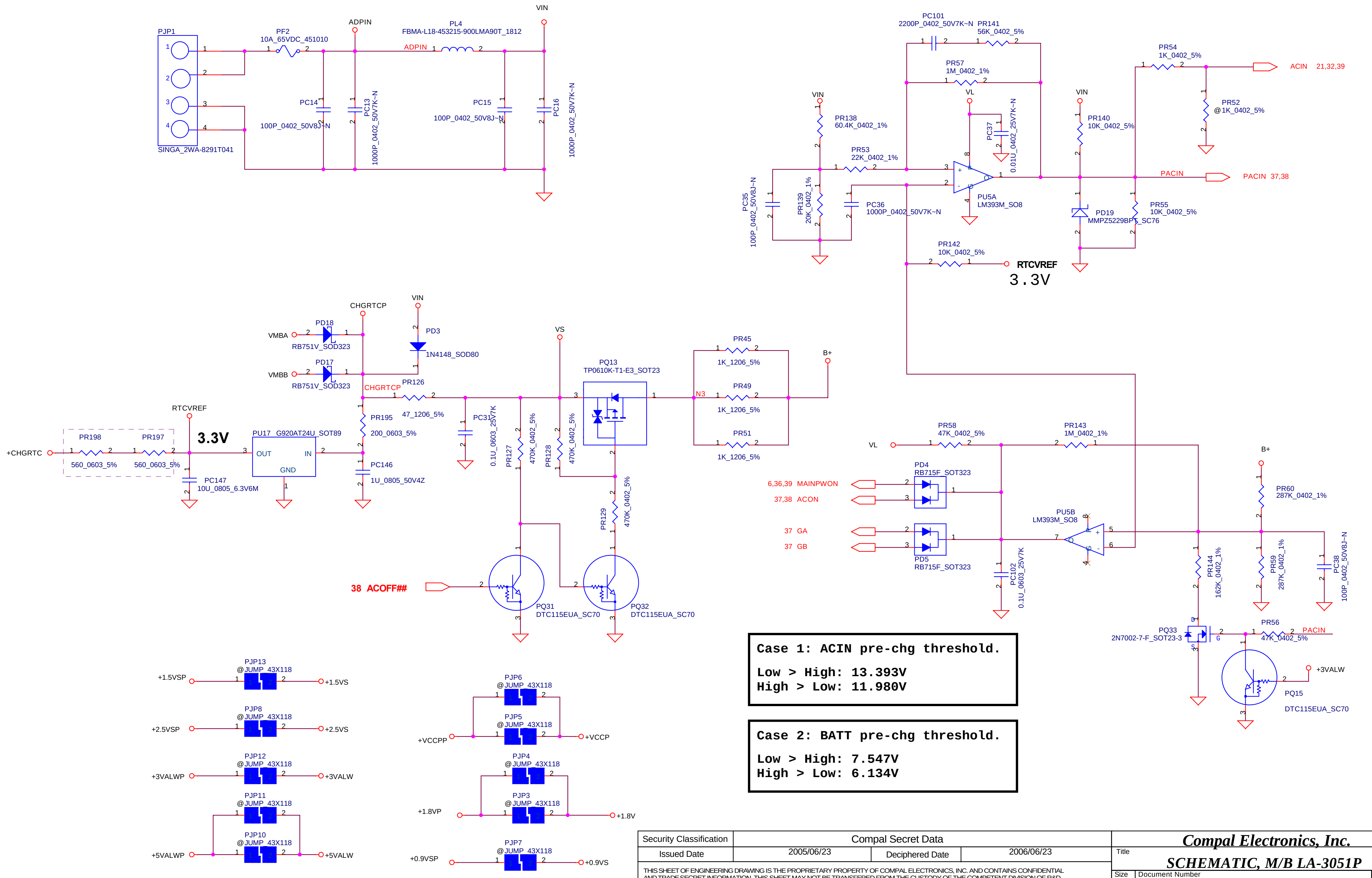


Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2005/09/10	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size / Document Number: 401397	Rev A
				Date: 星期四, 十月 06, 2005	Sheet 34 of 45

Detector

Vin Detector Threshold:

Low > High: 13.757V
High > Low: 13.160V



Case 1: ACIN pre-chg threshold.

Low > High: 13.393V
High > Low: 11.980V

Case 2: BATT pre-chg threshold.

Low > High: 7.547V
High > Low: 6.134V

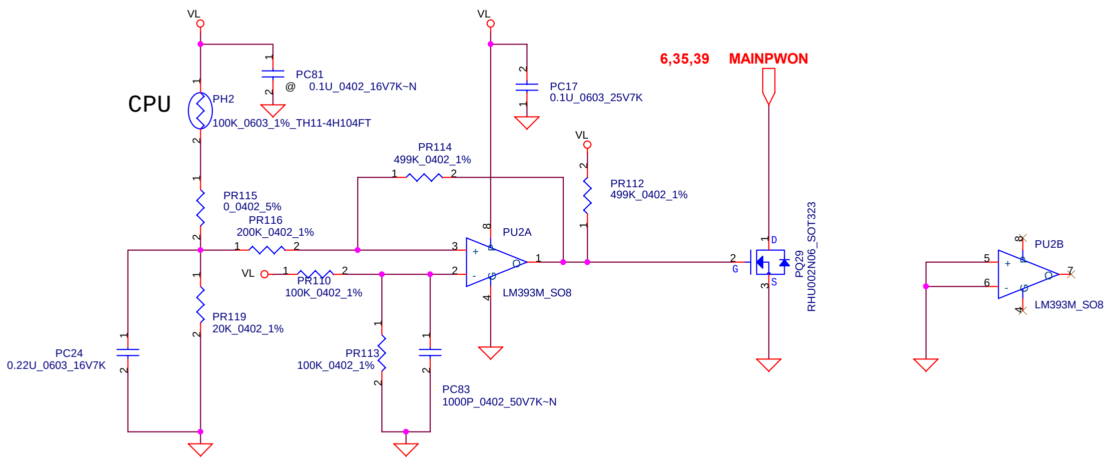
Security Classification	Compal Secret Data		
Issued Date	2005/06/23	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: *SCHEMATIC, M/B LA-3051P*

Size: Custom | Document Number: 401397 | Rev: A

PH1 under CPU botten side :
CPU thermal protection at 86 +-3 degree C
Recovery at 51 +-3 degree C



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

PROPRIETARY NOTE

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

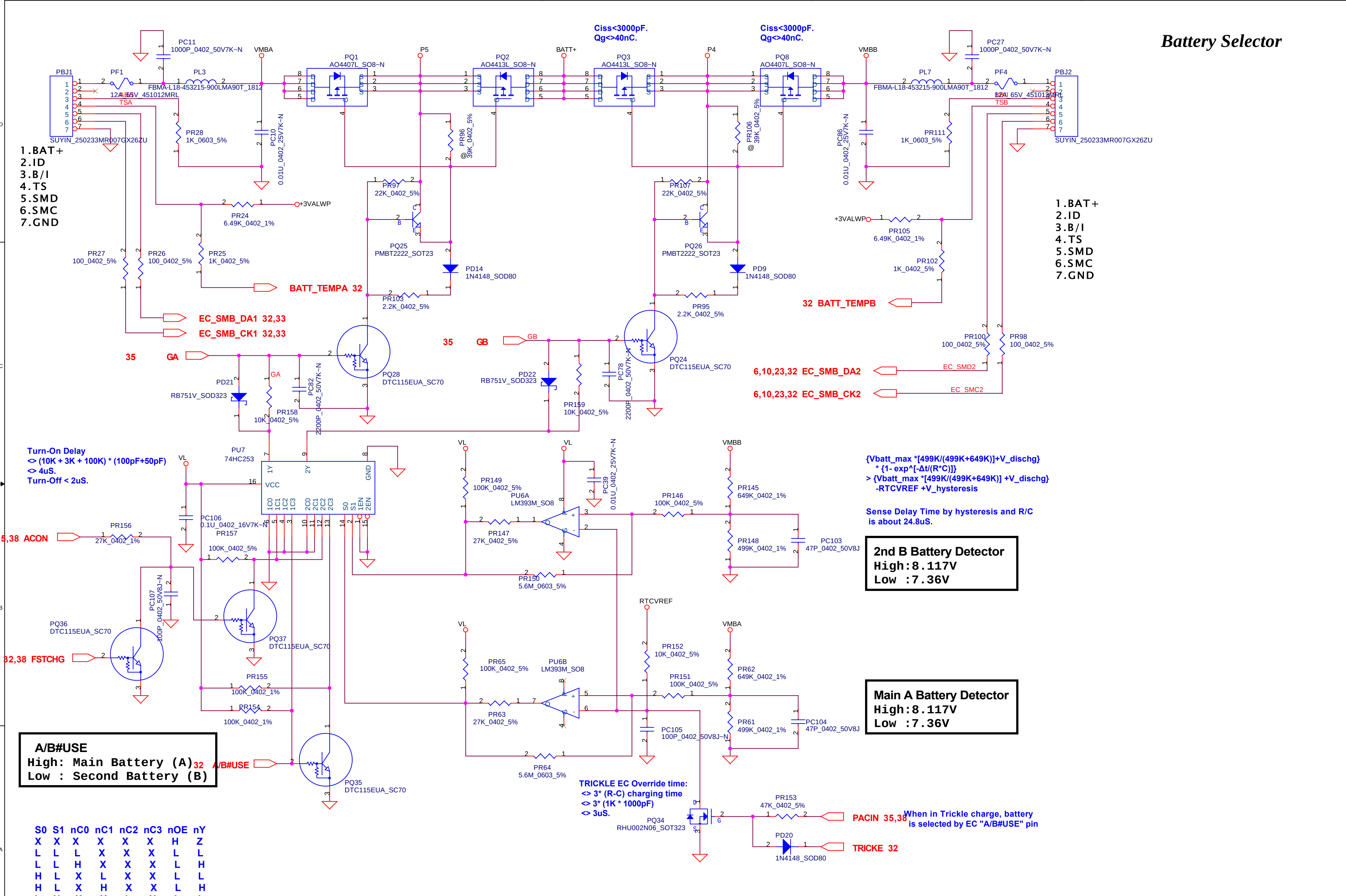
Compal Electronics, Inc.

Title: ***SCHEMATIC, M/B LA-3051P***

Size	Document Number	Rev
Custom	*401397*	A

Date: 星 蔷|, 十月 06, 2005 Sheet 36 of 45

Battery Selector



S0	S1	nC0	nC1	nC2	nC3	nOE	nY
X	X	X	X	X	X	H	Z
L	L	L	X	X	X	L	L
L	L	H	X	X	X	L	H
H	L	X	L	X	X	L	L
H	L	X	H	X	X	L	H
L	H	X	X	L	X	L	L
L	H	X	X	H	X	L	H
H	H	X	X	X	L	L	L
H	H	X	X	X	H	L	H

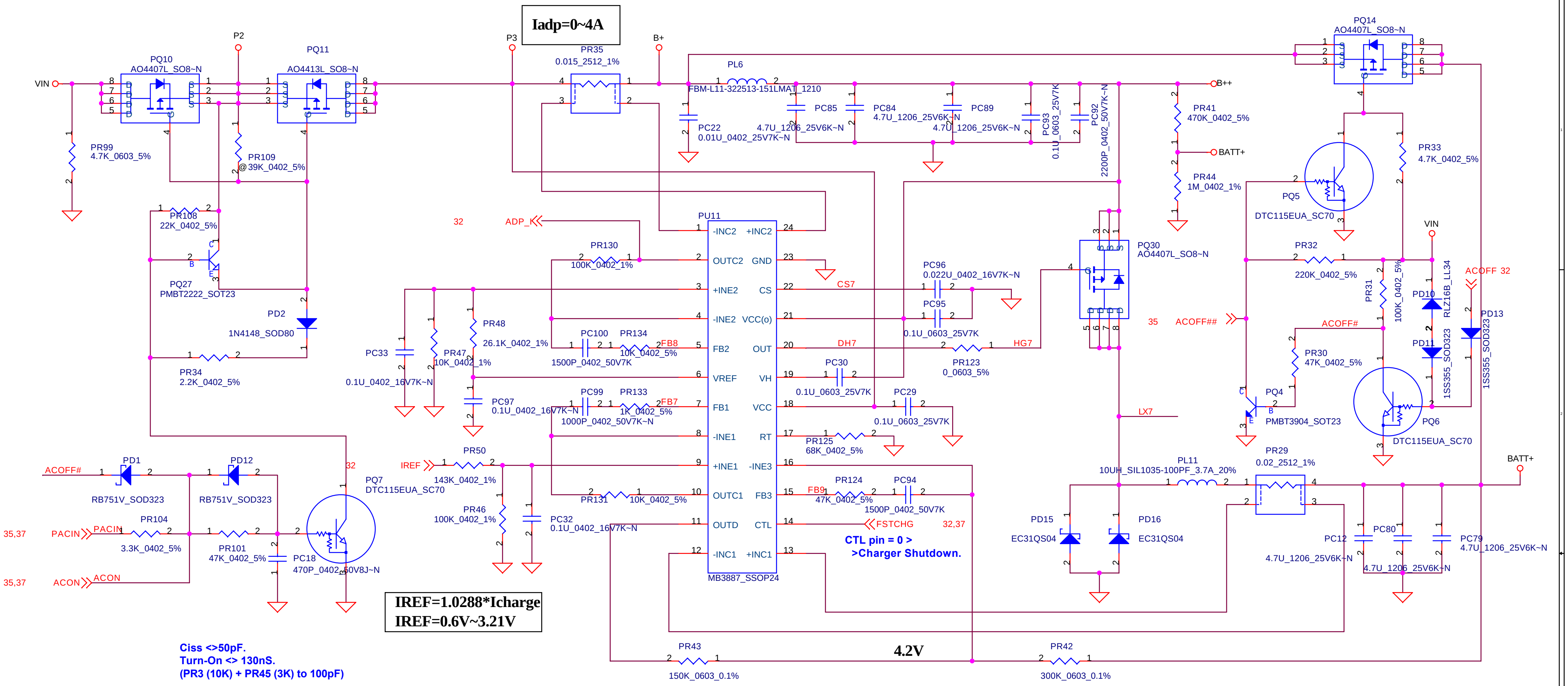
Security Classification	Compal Secret Data		
Issued Date	2005/06/23	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size: Custom | Document Number: 401397 | Rev: A

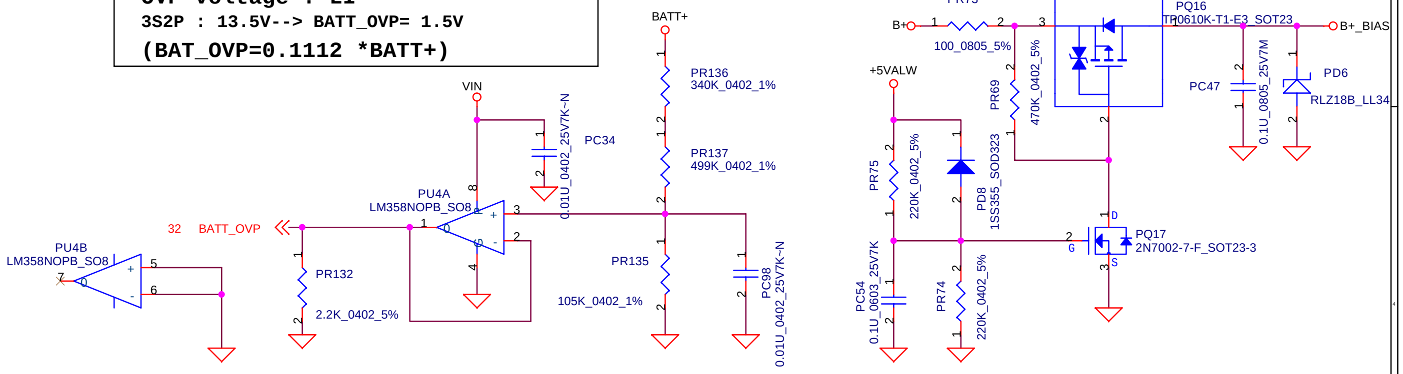
Date: 06, 2005



CC=0.6~3.3A
CV=12.6V(6 CELLS LI-ION)

Vadp=15V

OVP voltage : LI
3S2P : 13.5V--> BATT_OVP= 1.5V
(BAT_OVP=0.1112 *BATT+)



I limit: 4.61A

D.A.C.A. (C.P.) on 75W adaptor: Take PR47= 10K
4.65A*0.015*20 = 5*PR47/(PR47+PR48)<> PR48<>26.1K

Fast charge current <> 3.3A,
3.3A*0.02*20/[(3.21V- 3.3A*0.02*20)/PR46] <> PR50
PR46 <> 143K

Trickle charge current <> 0.6A,
0.6A*0.02*20/[(0.6V- 0.6A*0.02*20)/PR46] <> PR50
PR46 <> 143K

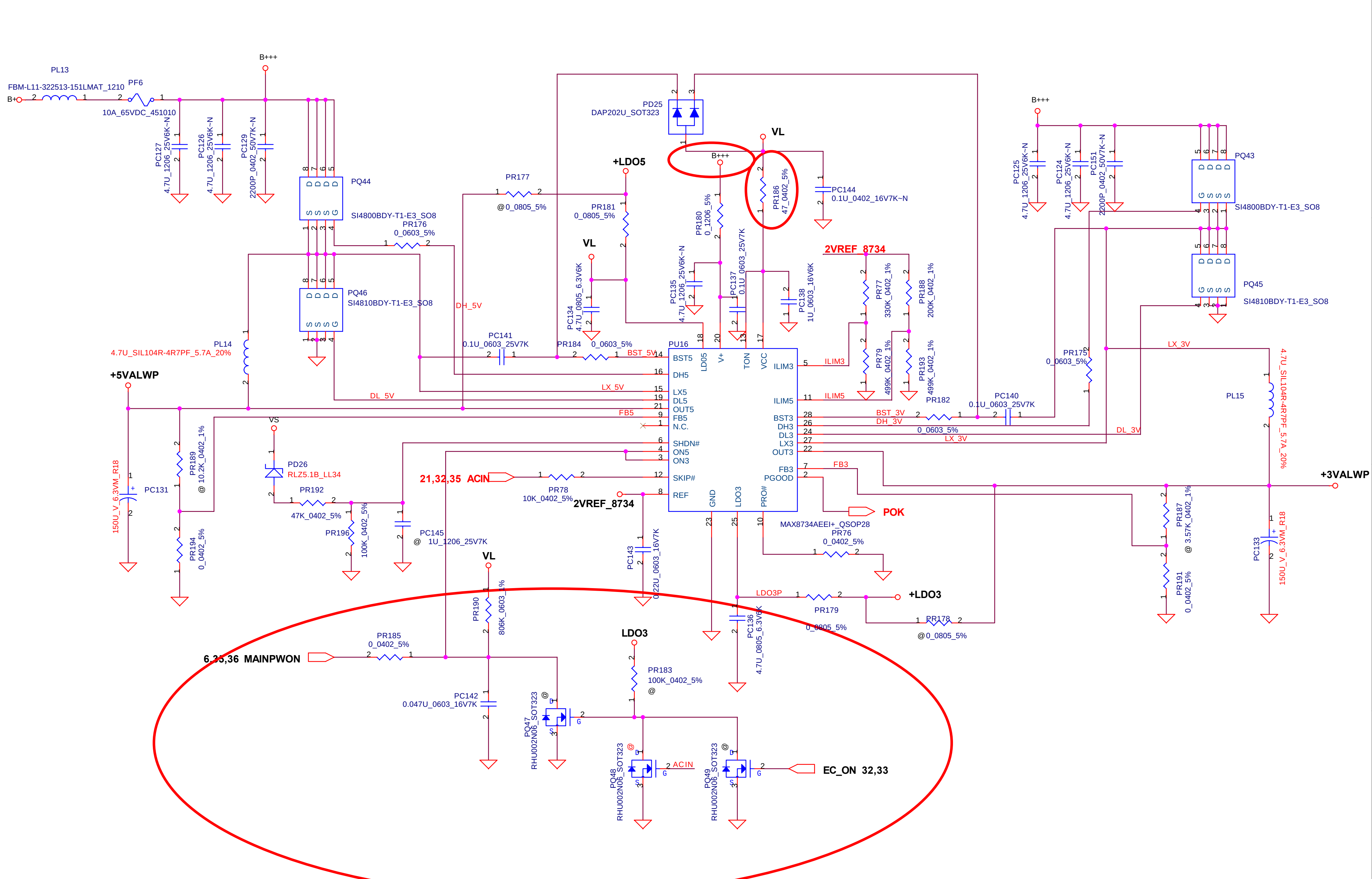
Security Classification	Compal Secret Data		
Issued Date	2005/06/23	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size: B | Document Number: 401397 | Rev: A

+3.3VALWP/+5VALWP



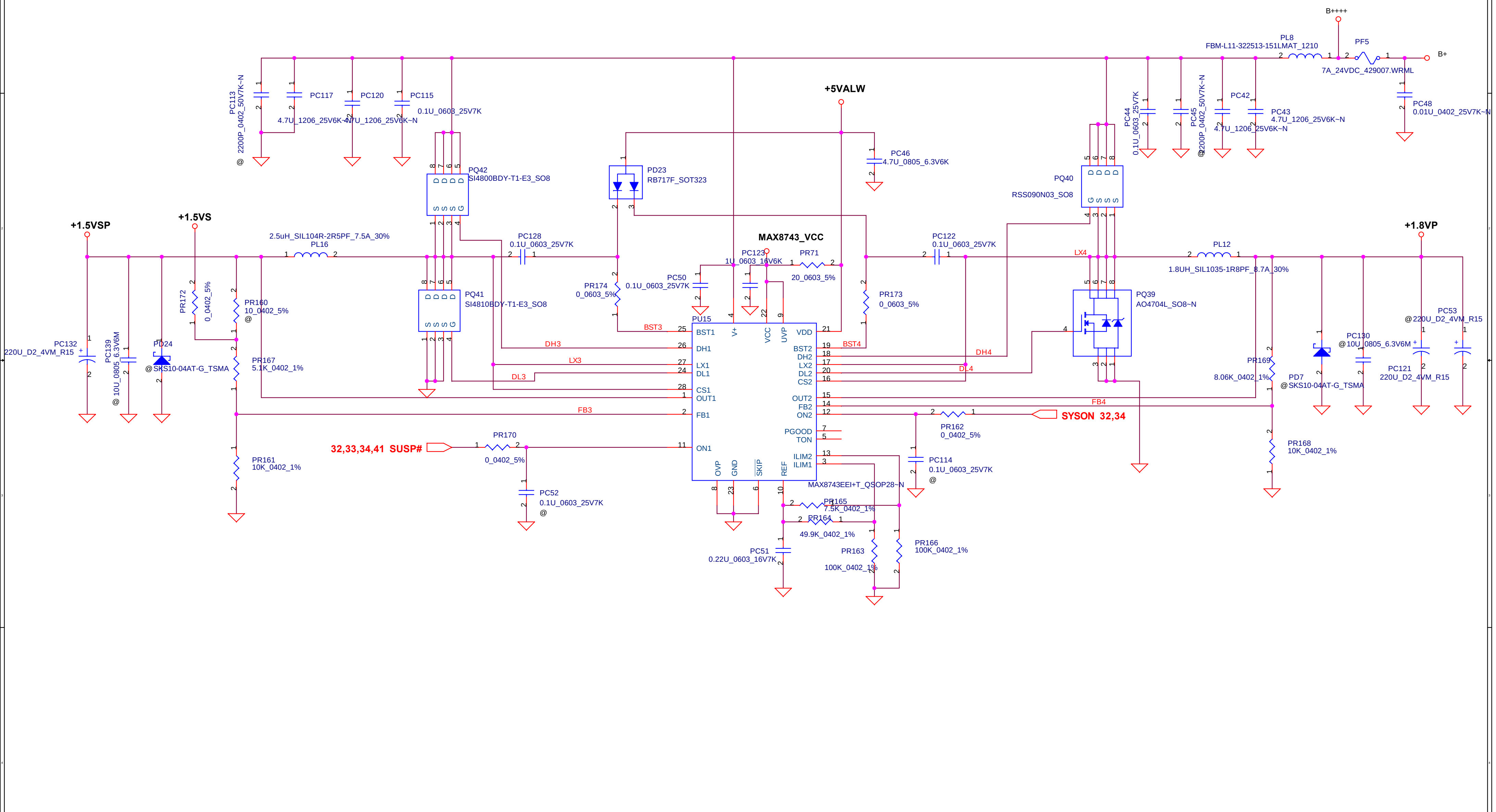
Security Classification	Compal Secret Data		
Issued Date	2005/06/23	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size: Custom | Document Number: 401397 | Rev: A

Date: 星期五, 十月 07, 2005 | Sheet 39 of 45



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

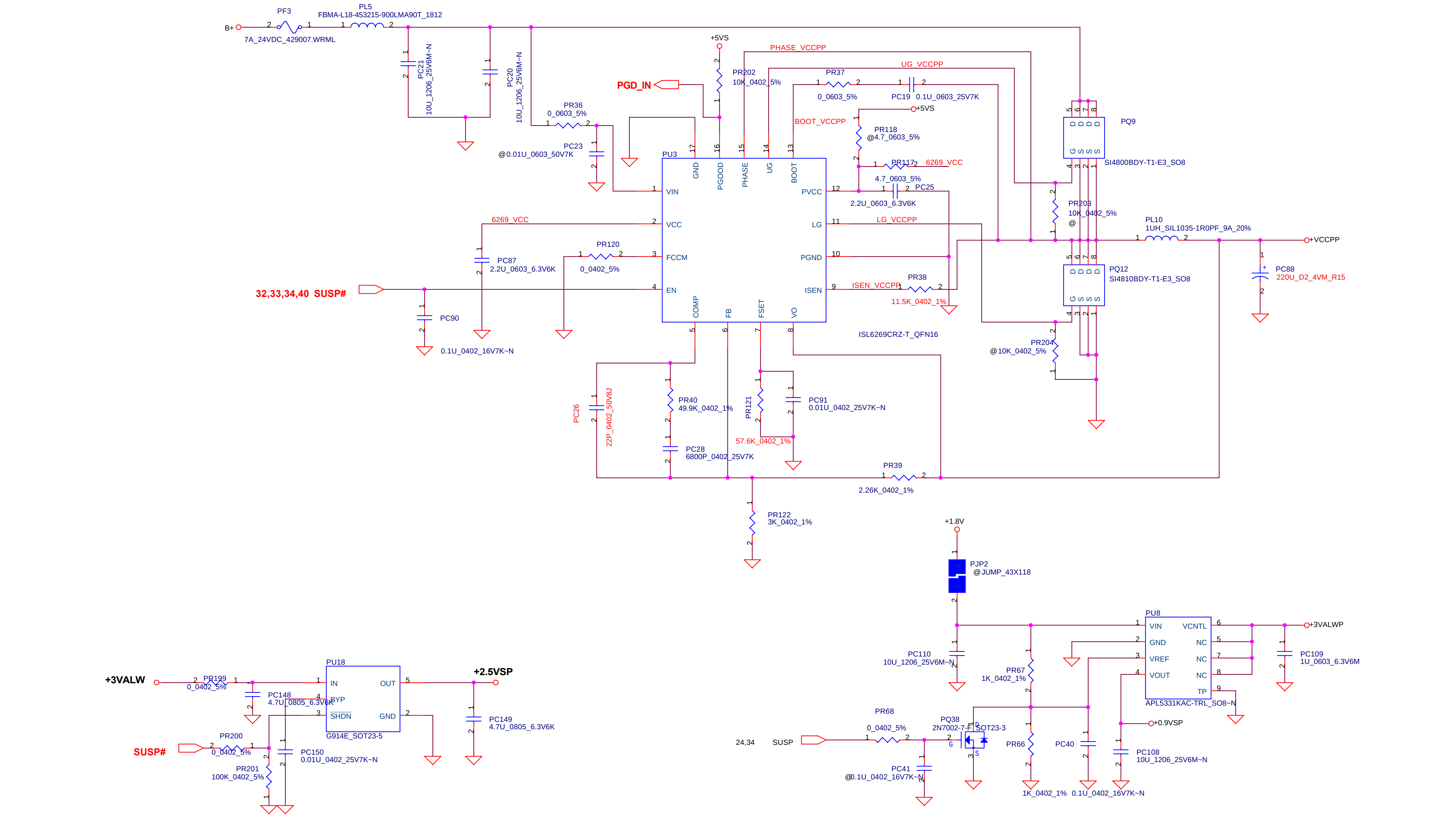
Compal Electronics, Inc.

Title

SCHEMATIC, M/B LA-3051P

Size	Document Number	Rev
Custom	401397	A

Date: 星期五, 十月 07, 2005 Sheet 40 of 45

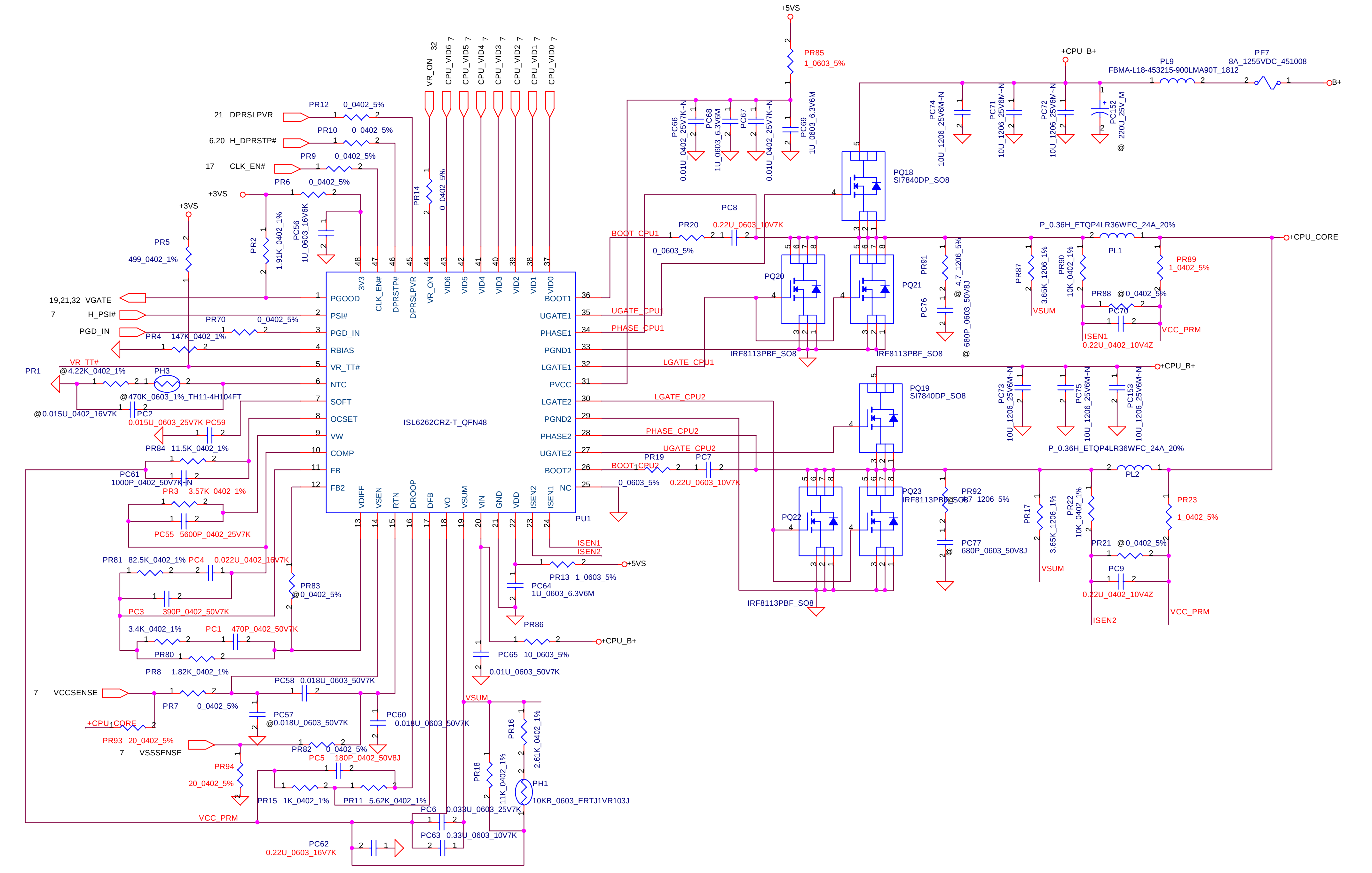


Security Classification	Compal Secret Data		
Issued Date	2005/06/23	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size	Document Number	Rev
Custom	401397	A

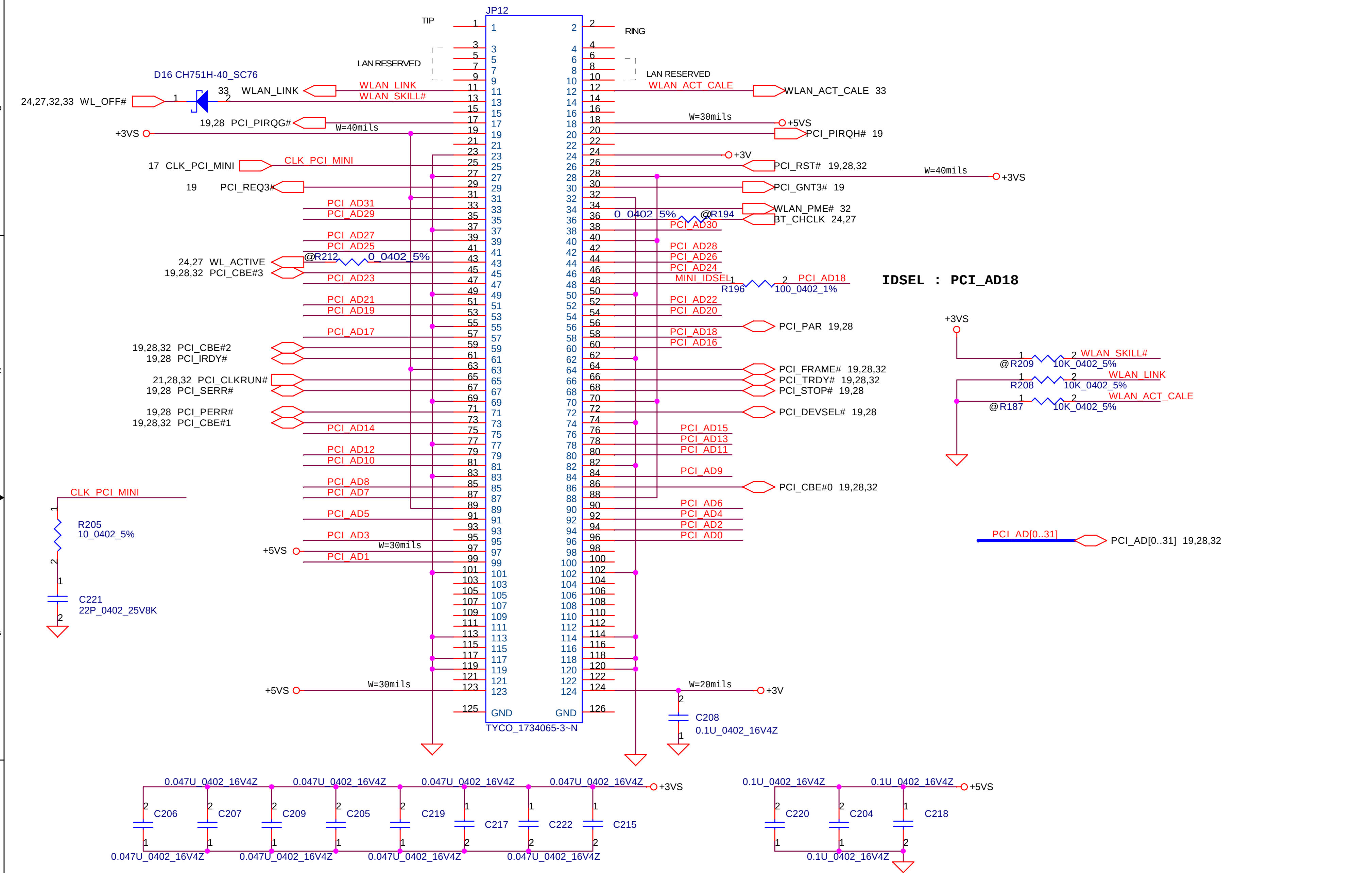


Security Classification	Compal Secret Data			Compal Electronics, Inc.
Issued Date	2005/06/23	Deciphered Date	2006/06/23	Title: SCHEMATIC, M/B LA-3051P

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Size	Document Number	Rev
Custom	401397	A

Date: 星期五, 十月 07, 2005 Sheet 42 of 45



Security Classification	Compal Secret Data		
Issued Date	2005/09/10	Deciphered Date	2006/06/23

Compal Electronics, Inc.

Title: **SCHEMATIC, M/B LA-3051P**

Size	Document Number	Rev
	401397	A

Date: 星期五, 十月 07, 2005 Sheet 43 of 45

Version Change List (P. I. R. List) Page 1/1

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	18	TV-OUT/LVDS/CRT	Aug. 1st	NEC	For EMI	Add D1, D2 for CRTHSYNC# & CRTVHSYNC#	0.1
2	33	BIOS/EE-Prom/TP/KB/SW	Aug. 2nd	NEC	For GALAN & CALEXICO LAN LED control	Add U33, U34, R519~524 for the LAN LED control circuit	0.1
3	9	Calistoga(1/6)-GTL/DMI/DDR	Aug. 8	INTEL	To enable faster C4 exit	Add R526 to connect PM_EXTTS1# of the GMCH and DPRSLPVR of the ICH	0.1
4	21	ICH7M(3/4)USB,GPIO,PCIE	Aug. 8	INTEL	Define GPIO STATE	Add R527~R529 PULL-HIGH	0.1
5	32	ENE-KB910L/TPM	Aug. 8	INTEL	No connect clk of debug tool	Add R530 connect to U13 pin22	0.1
6	25	BCM5751-GLAN	Aug. 8	INTEL	No connect reset signal of LAN chip	Connect to PLT_RST of ICH7	0.1
7	25	BCM5751-GLAN	Aug. 8	NEC	Change the pull high resistance	Change R7 & R8 from 1K to 4.7K	0.1
8	17	ClockGen	Aug. 11	COMPAL	ICS_CLK GEN BUG, need FSC pull down	R105 change to 0 ohm and remove R99	0.1
9	33	BIOS/EE-Prom/TP/KB/SW	Sep. 8	COMPAL	Fix the GOLAN LED incorrect light	Del U33, Add Q45,R532, change R523.1 to WL_OFF#	0.2
10	30	HD Audio Codec_ALC262	Sep. 10	NEC	Using ALC262 GPIO2 (pin2) control amplifier status	Del R199, GPIO2 Add R533,R379 and connect to EAPD	0.2
11	24	USB/BlueTooth/FP	Sep. 10	COMPAL	Change USB diode to low capacitor diode	Change D3,D14,D21,D22 to NUP4301MR6T1	0.2
12	18	TV-OUT/LVDS/CRT	Sep. 10	COMPAL	Change DISPOFF# control from EC to VBIOS	Add U33(And gate)	0.2
13	6	Yonah(1/2)-GTL/ITP-XDP	Sep. 10	EC	For EC SM bus blance	Change Thermal Sensor for SM bus2 to SM bus1	0.2
14	21	ICH7M(3/4)USB,GPIO,PCIE	Sep. 10	EC	For S4 needed	Add U36 with S5	0.2
15	24	USB/BlueTooth/FP	Sep. 14	NEC	security issue	Change :USB port0: Fingerprint & USB port6: Bluetooth	0.2
16	33	BIOS/EE-Prom/TP/KB/SW	Sep. 14	NEC	Modify the define LED to GOLAN	Take off R520,R521, mount R523,R524	

Version Change List (P. I. R. List)   Page 1/1

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	42	PWR-CPU_CORE	Aug. 2	NEC	For protection	Add Fuse at CPU B+	0.1
2	35	PWR-DCIN/Precharge	Aug. 29	Compal	For VIN dector design issue at LC2	Change PC121 to 2200P and PR141 to 56K.	0.2
2	38	PWR-CHARGER	Sep. 16	Compal	Change adapter from 60W to 75W and modify the CP to 4.61A	Change PR48 to 26.1K	