Compal confidential

ISRAA LA-3441P Schematics Document

Mobile Merom uFCPGA with Intel Crestline_PM+ICH8-M core logic

2006-09-21

REV:0.1

Security Classification	Compal Secret Data		
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Title: *Cover Sheet*		
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Model : ISRAA

File Name : LA-3441P

Santa Rosa Platform

Fan Control page 4

Mobile Merom
uFCPGA-478 CPU
page 4,5,6

Thermal Sensor ADM1032ARMZ page 4

CK505
Clock Generator ICS 9LPR365 page 16

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- SW/B LS-3441P Rev01
- VGA/B for ATI LS-3442P Rev01
- VGA/B for NVIDIA LS-3443P Rev01
- USB/B LS-3444P Rev01
- F_P/B LS-3401P Rev01

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H_D#(0..63)
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CRT & TV-out page 17

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FCBGA 1299
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Dual Channel
DDR2-SO-DIMM X2
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MB VRAM

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Medium Range Amplifier APA2068 page 30
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Title: **Block Diagram**

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Voltage Rails

Power Plane	Description	S0-S1	S3	S5
VIN	Adapter power supply (18.5V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit	N/A	N/A	N/A
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+1.05Vs	1.05V power rail for Processor I/O and MCH/ICH core power	ON	OFF	OFF
+0.9VS	0.9V switched power rail for DDRII Vtt	ON	OFF	OFF
+1.5VS	1.5V switched power rail for PCI-E interface	ON	OFF	OFF
+1.8V	1.8V power rail for DDRII	ON	ON	OFF
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+2.5VS	2.5V switched power rail for MCH video PLL	ON	OFF	OFF
+1.25Vs	1.25Vs power rail	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5VS	5V switched power rail	ON	OFF	OFF
+RTC_VCC	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	PCI Device ID	IDSEL #	REQ/GNT #	PIRQ
1394	D0	AD20	2	A,B,C
CARD BUS	D4	AD20	2	A,B,C
5IN1	D4	AD20	2	A,B,C

KB910 I2C / SMBUS ADDRESSING

DEVICE	HEX	ADDRESS
SM1 24C16	A0H	1 0 1 0 0 0 0 X b
SM1 SMART BATTERY	16H	0 0 0 1 0 1 1 X b
SM2 ADM0132 CPU THERMAL MONITOR	98H	1 0 0 1 1 0 0 X b

ICH8-M SM Bus address

DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	1 0 1 0 0 0 0 0
DDR SO-DIMM 1	A4	1 0 1 0 0 1 0 0
CLOCK GENERATOR (EXT.)	D2	1 1 0 1 0 0 1 0

Board ID / SKU ID Table for AD channel

Vcc	3.3V +/- 5%
Ra/Rc/Re	100K +/- 1%

Board ID	Rb / Rd / Rf	VAD_BID min	VAD_BID typ	VAD_BID max
0	0	0 V	0 V	0.100 V
1	8.2K +/- 1%	0.216 V	0.250 V	0.289 V
2	18K +/- 1%	0.436 V	0.503 V	0.538 V
3	33K +/- 1%	0.712 V	0.819 V	0.875 V
4	56K +/- 1%	1.036 V	1.185 V	1.264 V
5	100K +/- 1%	1.453 V	1.650 V	1.759 V
6	200K +/- 1%	1.935 V	2.200 V	2.341 V
7	NC	2.500 V	3.300 V	3.300 V

BOARD ID Table

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

SKU ID Table

SKU ID	SKU
0	10
1	10G
2	10H
3	
4	
5	
6	
7	

BTO Option Table

BTO Item	BOM Structure
2ND HDD	2HDD@
LAN	100M@ 1000M@
WLAN	WLAN@
NB	GM@ PM@
BT	BT@
MIC	MIC@
CIR	CIR@
FINGER PRINT	FP@
Express Card	NEWCARD@
PCMCIA Card	PCMCIA@
Camera	Camera@
Robson	Robson@
HDMI	1392@ 1932@ M72M@
SPEAKER	

USB PORT LIST

PORT	DEVICE
0	RIGHT USB Port (Samll Board)
1	RIGHT USB Port (Samll Board)
2	RIGHT USB Port (Samll Board)
3	RIGHT USB Port (Samll Board)
4	LEFT USB Port
5	LEFT USB Port
6	Fingerprint
7	Blue Tooth
8	Internal Camera
9	Express Card

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Title: Notes List

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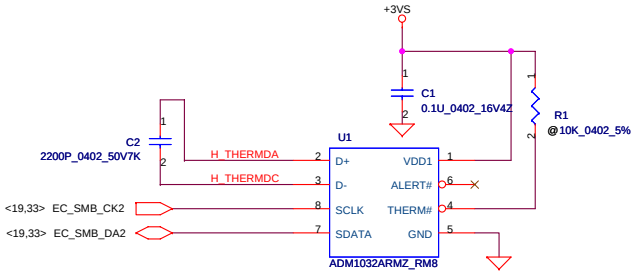
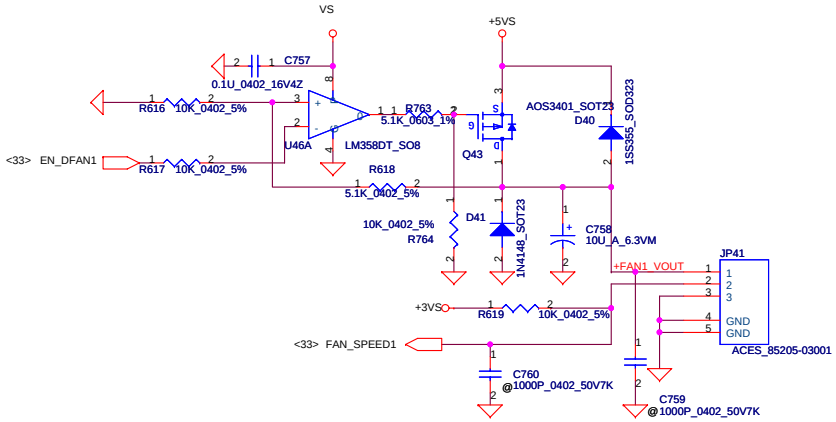
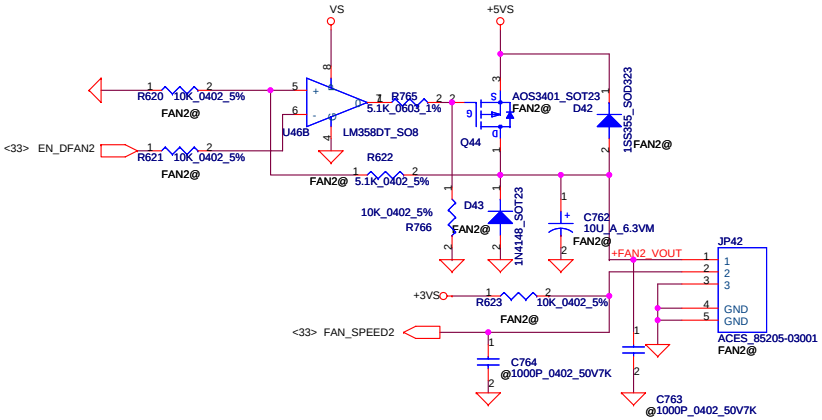
Thermal Sensor ADM1032ARM



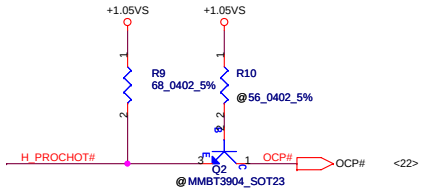
FAN 1



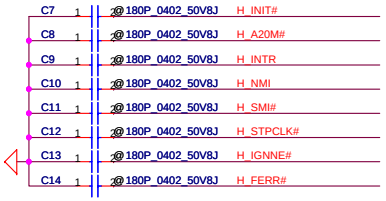
FAN 2



H_THERMDA, H_THERMDC routing together, Trace width / Spacing = 10 / 10 mil



Place Caps Close to CPU Socket



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Title: **Merom(1/3)-AGTL+**

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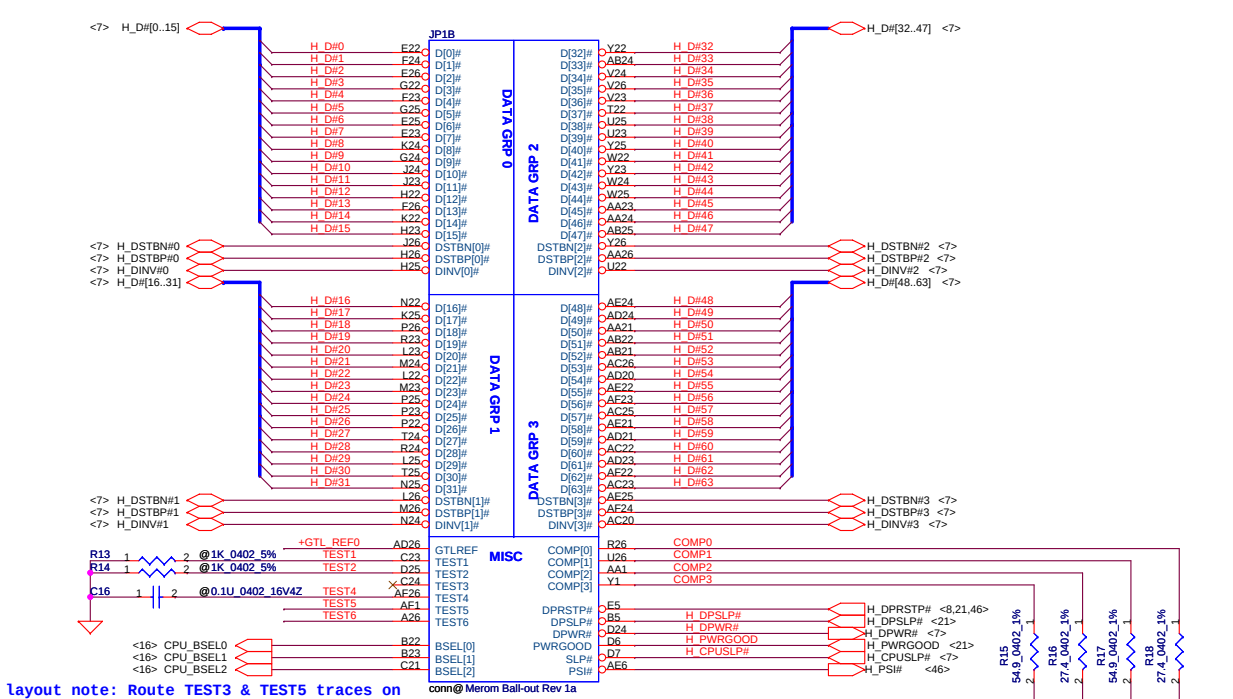
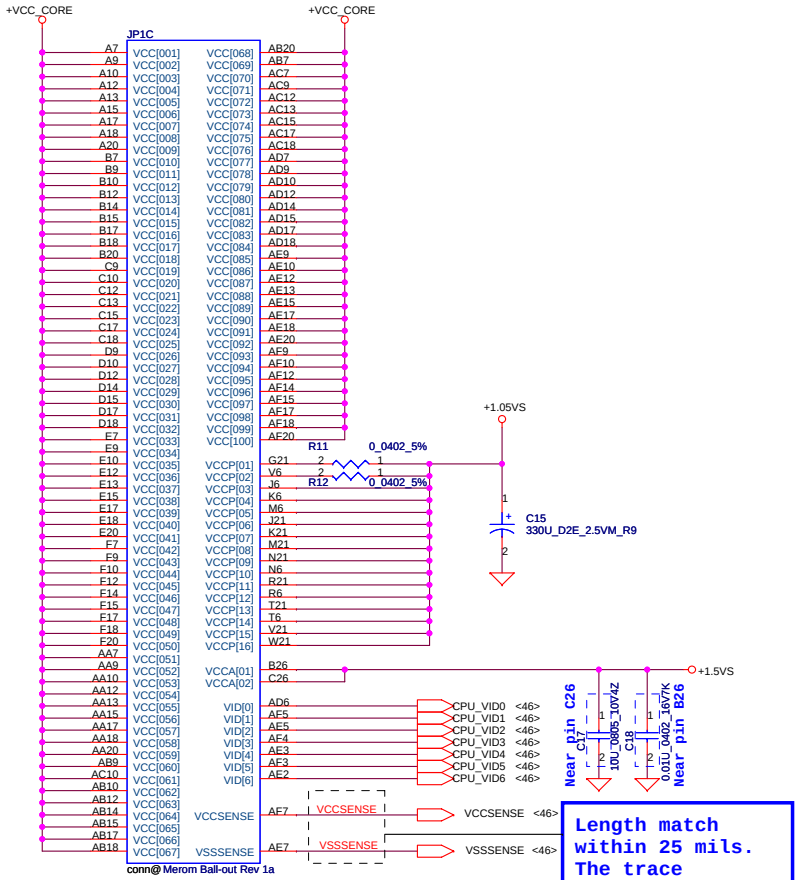
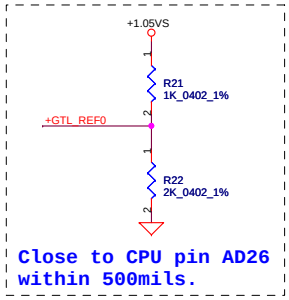




CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
166	0	1	1
200	0	1	0



+GTL_REF0 Impendance control 55 Ohm

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Title: **Merom(2/3)-AGTL+/PWR**

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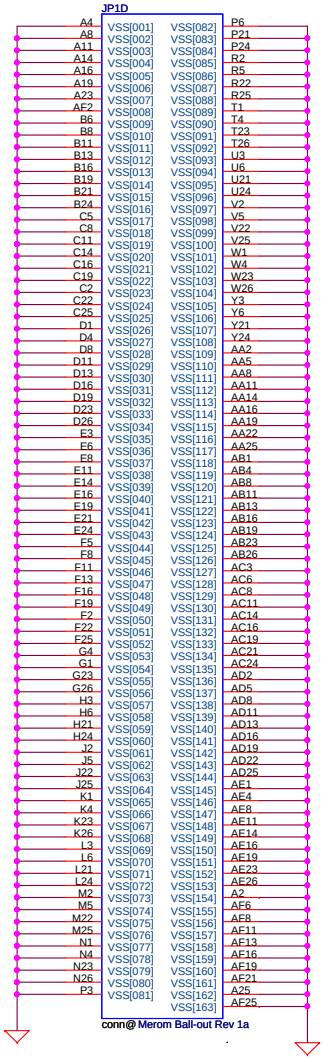
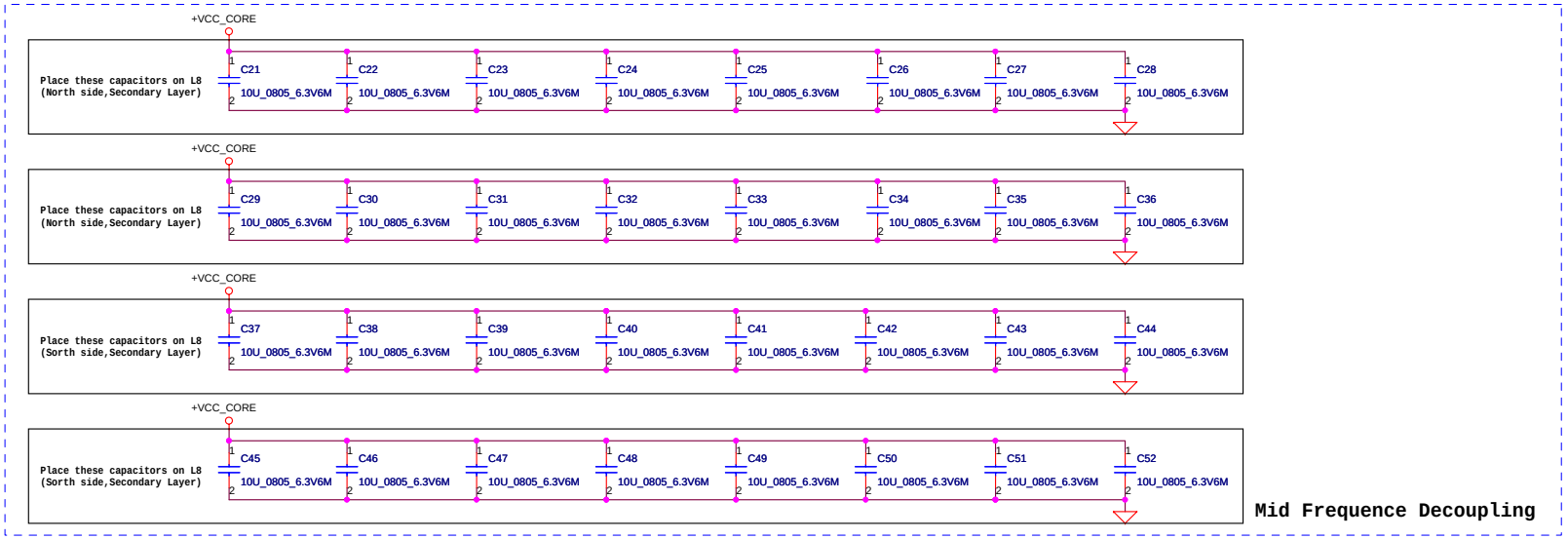
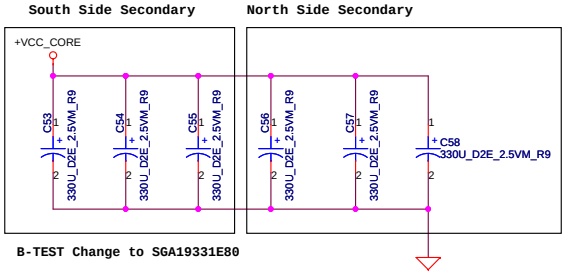
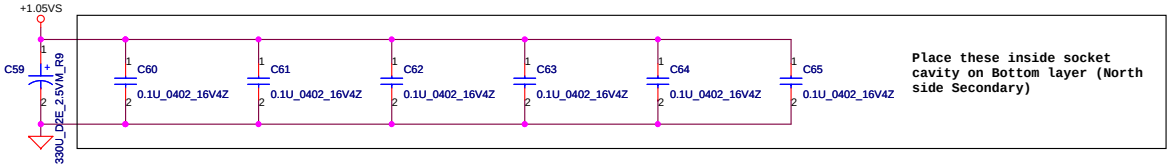






ESR <= 1.5m ohm
Capacitor > 1980uF

330uF ESR 7m ohm X 6 PCS



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Title: Merom(3/3)-GND&Bypass		
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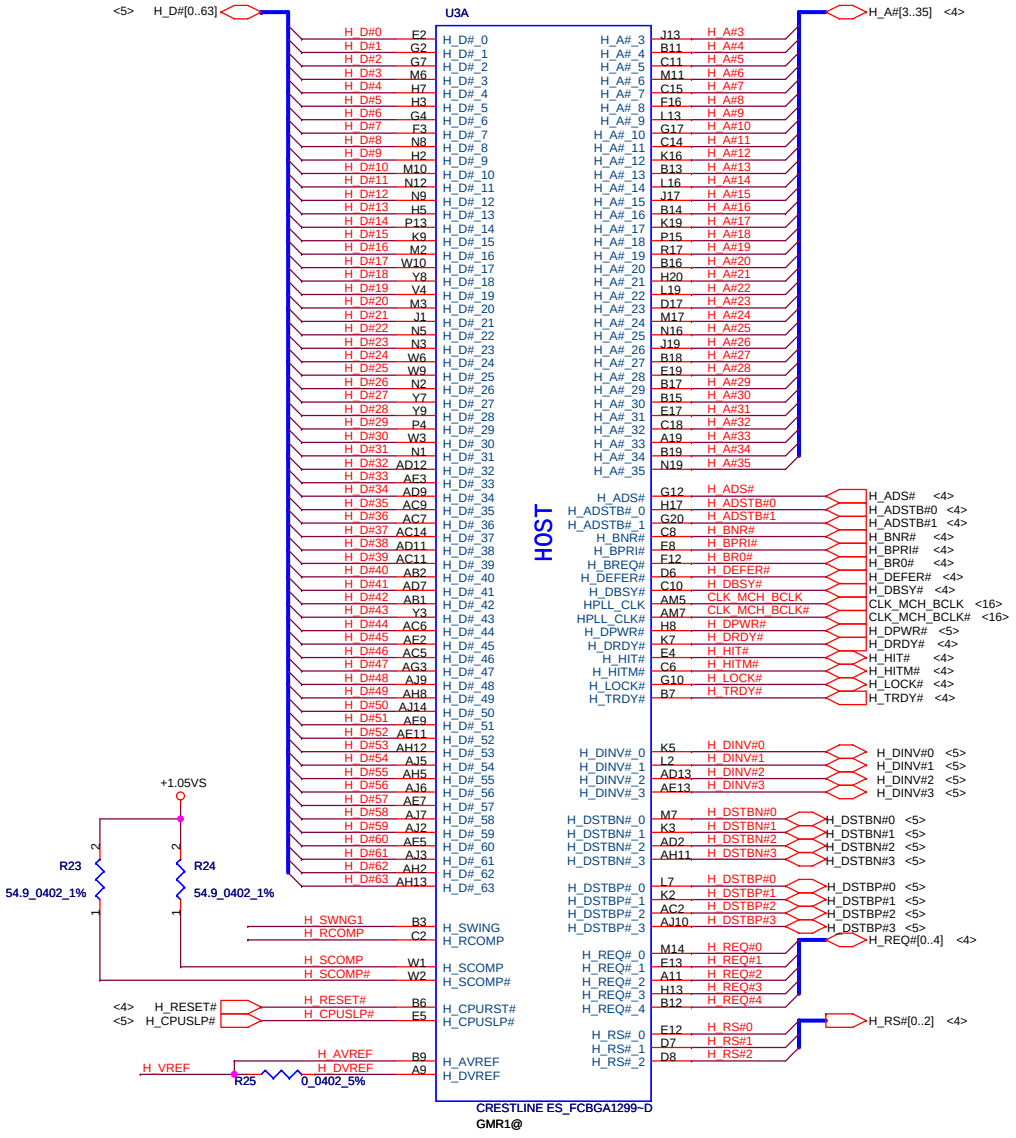
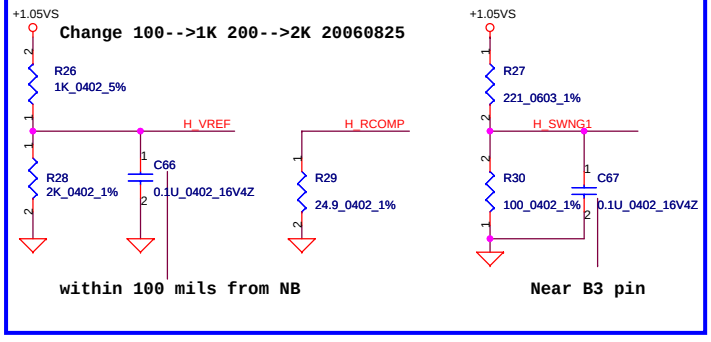


Layout Note:
H_RCOMP / H_VREF / H_SWNG
trace width and spacing is 18/20



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Title	Crestline (1/7)	
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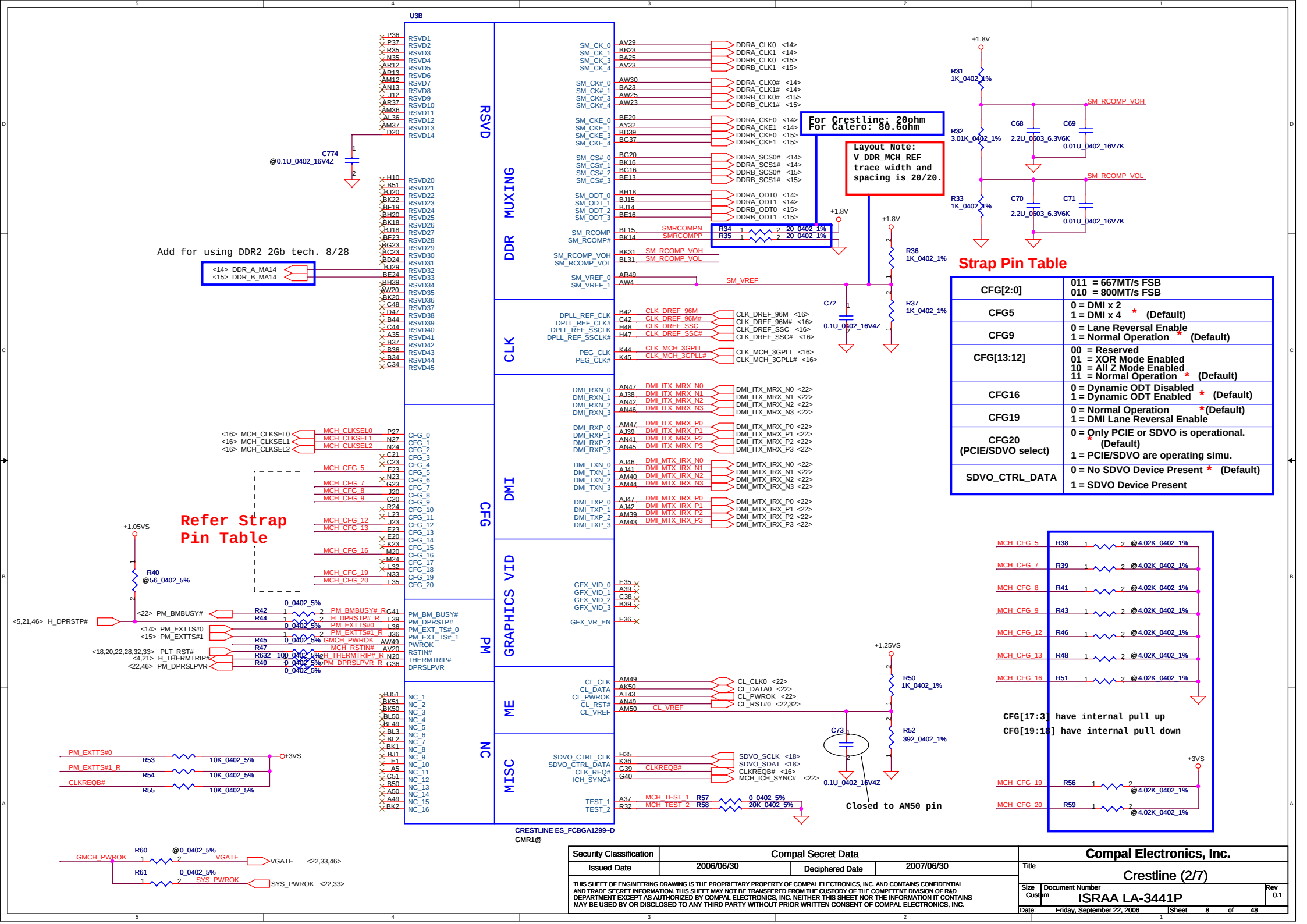
U3B
RSVD
DDR MUXING
CLK
DMI
CFG
GRAPHICS VID
PM
ME
NC
MISC
Add for using DDR2 2Gb tech. 8/28
Refer Strap Pin Table
For Crestline: 20ohm
For Calero: 80.6ohm
Layout Note:
V_DDR_MCH_REF
trace width and
spacing is 20/20.
Strap Pin Table
CFG[2:0] 011 = 667MT/s FSB 010 = 800MT/s FSB
CFG5 0 = DMI x 2 1 = DMI x 4 * (Default)
CFG9 0 = Lane Reversal Enable 1 = Normal Operation * (Default)
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)
CFG19 0 = Normal Operation *(Default) 1 = DMI Lane Reversal Enable
CFG20 (PCIE/SDVO select) 0 = Only PCIE or SDVO is operational. * (Default) 1 = PCIE/SDVO are operating simu.
SDVO_CTRL_DATA 0 = No SDVO Device Present * (Default) 1 = SDVO Device Present
CFG[17:3] have internal pull up
CFG[19:18] have internal pull down
Closed to AM50 pin
CRESTLINE ES_FCBGA1299~D
GMR1@
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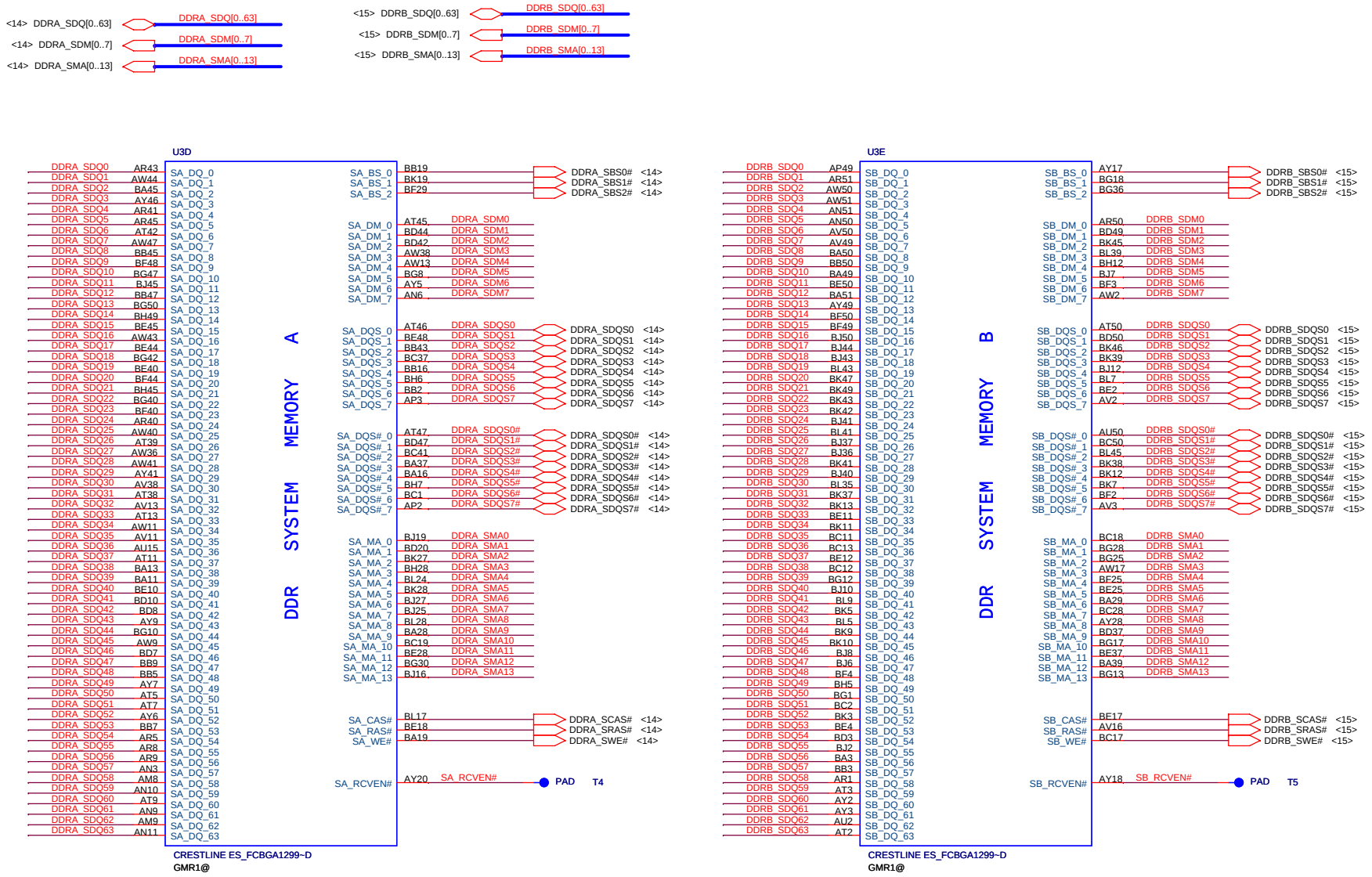

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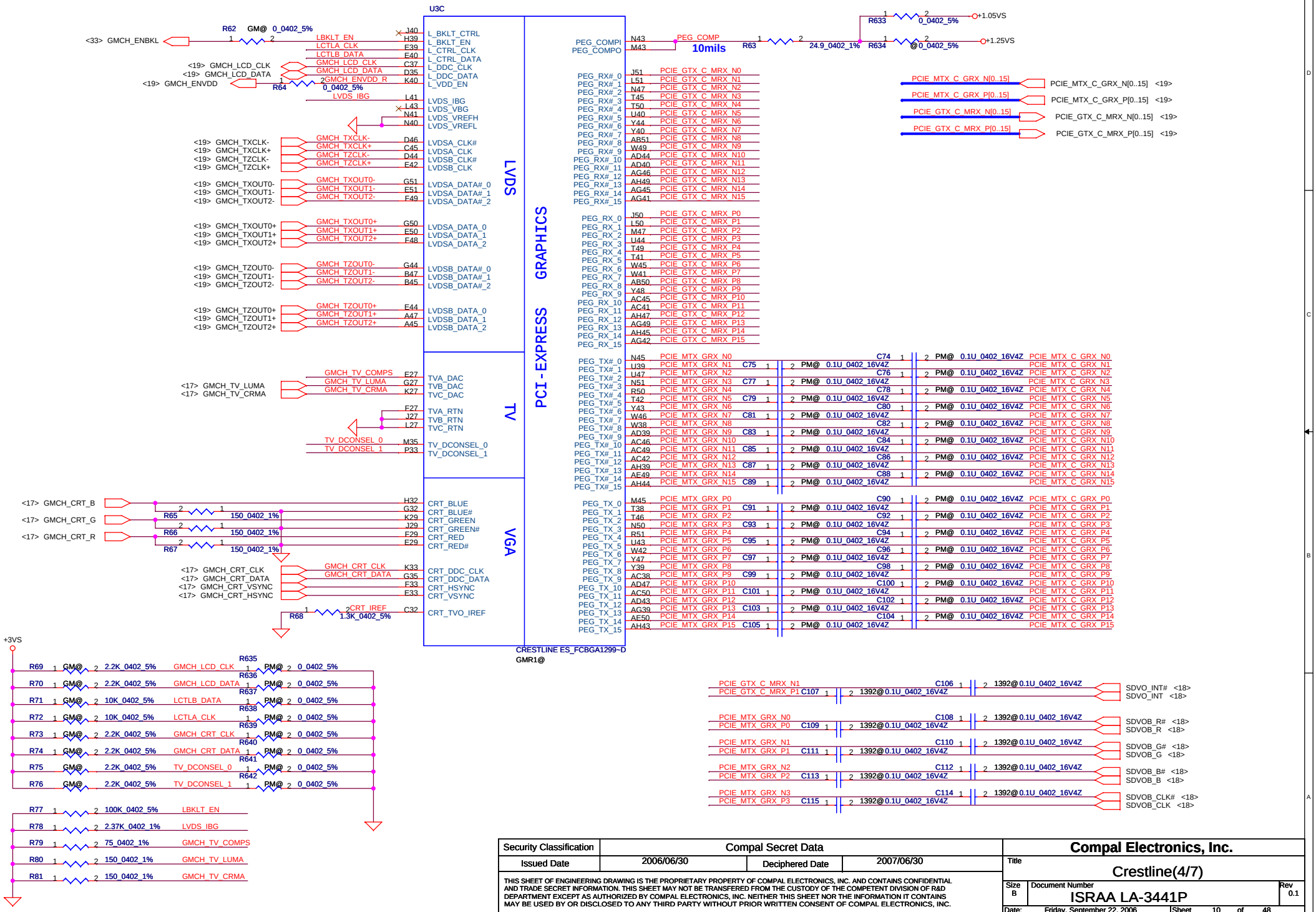

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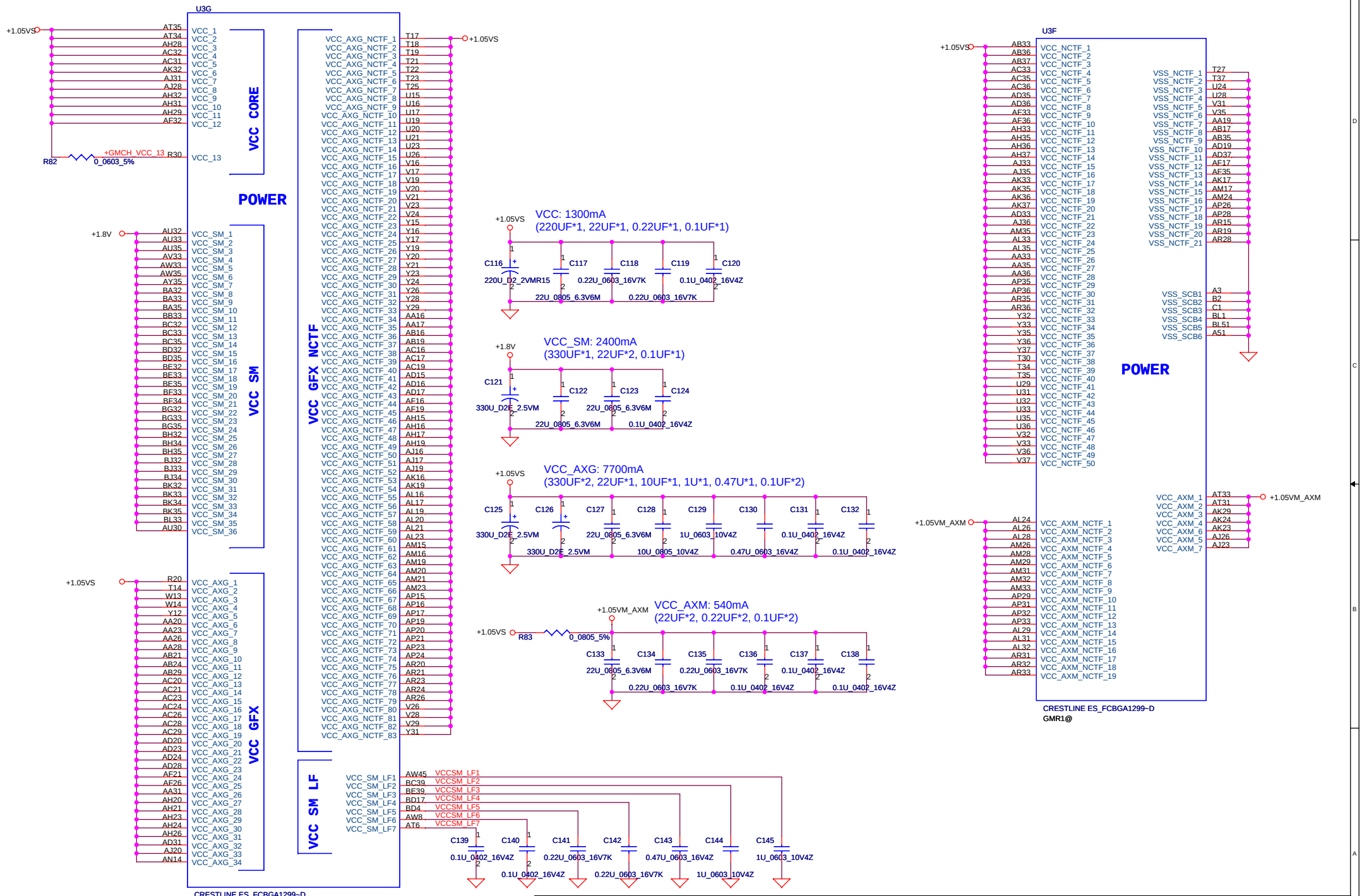

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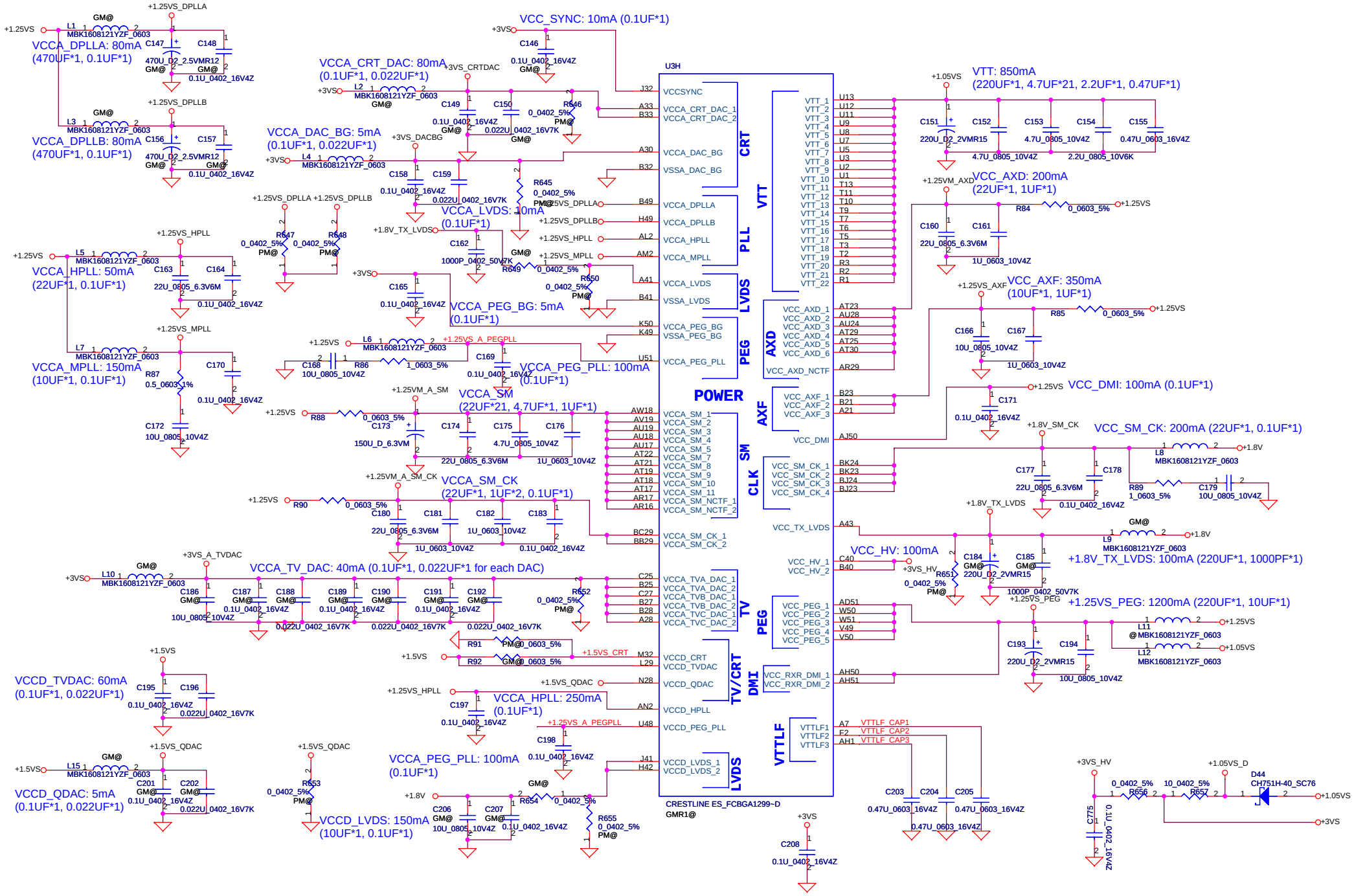
VCCA_DPLLA: 80mA (470UF*1, 0.1UF*1)
VCCA_DPLLB: 80mA (470UF*1, 0.1UF*1)
VCCA_HPLL: 50mA (22UF*1, 0.1UF*1)
VCCA_MPLL: 150mA (10UF*1, 0.1UF*1)
VCCD_TVDAC: 60mA (0.1UF*1, 0.022UF*1)
VCCD_QDAC: 5mA (0.1UF*1, 0.022UF*1)
VCC_SYNC: 10mA (0.1UF*1)
VCCA_CRT_DAC: 80mA (0.1UF*1, 0.022UF*1)
VCCA_DAC_BG: 5mA (0.1UF*1, 0.022UF*1)
VCCA_LVDS: 10mA (0.1UF*1)
VCCA_PEG_BG: 5mA (0.1UF*1)
VCCA_PEG_PLL: 100mA (0.1UF*1)
VCCA_SM (22UF*21, 4.7UF*1, 1UF*1)
VCCA_SM_CK (22UF*1, 1UF*2, 0.1UF*1)
VCCA_TV_DAC: 40mA (0.1UF*1, 0.022UF*1 for each DAC)
VCCA_HPLL: 250mA (0.1UF*1)
VCCA_PEG_PLL: 100mA (0.1UF*1)
VCCD_LVDS: 150mA (10UF*1, 0.1UF*1)
VTT: 850mA (220UF*1, 4.7UF*21, 2.2UF*1, 0.47UF*1)
VCC_AXD: 200mA (22UF*1, 1UF*1)
VCC_AXF: 350mA (10UF*1, 1UF*1)
VCC_DMI: 100mA (0.1UF*1)
VCC_SM_CK: 200mA (22UF*1, 0.1UF*1)
VCC_HV: 100mA
+1.8V_TX_LVDS: 100mA (220UF*1, 1000PF*1)
+1.25VS_PEG: 1200mA (220UF*1, 10UF*1)
U3H
CRESTLINE ES_FCBGA1299~D
GMR1@
POWER
CRT
VTT
PLL
LVDS
PEG
AXD
AXF
SM
CLK
TV
TV/CRT
DMI
VTTLF
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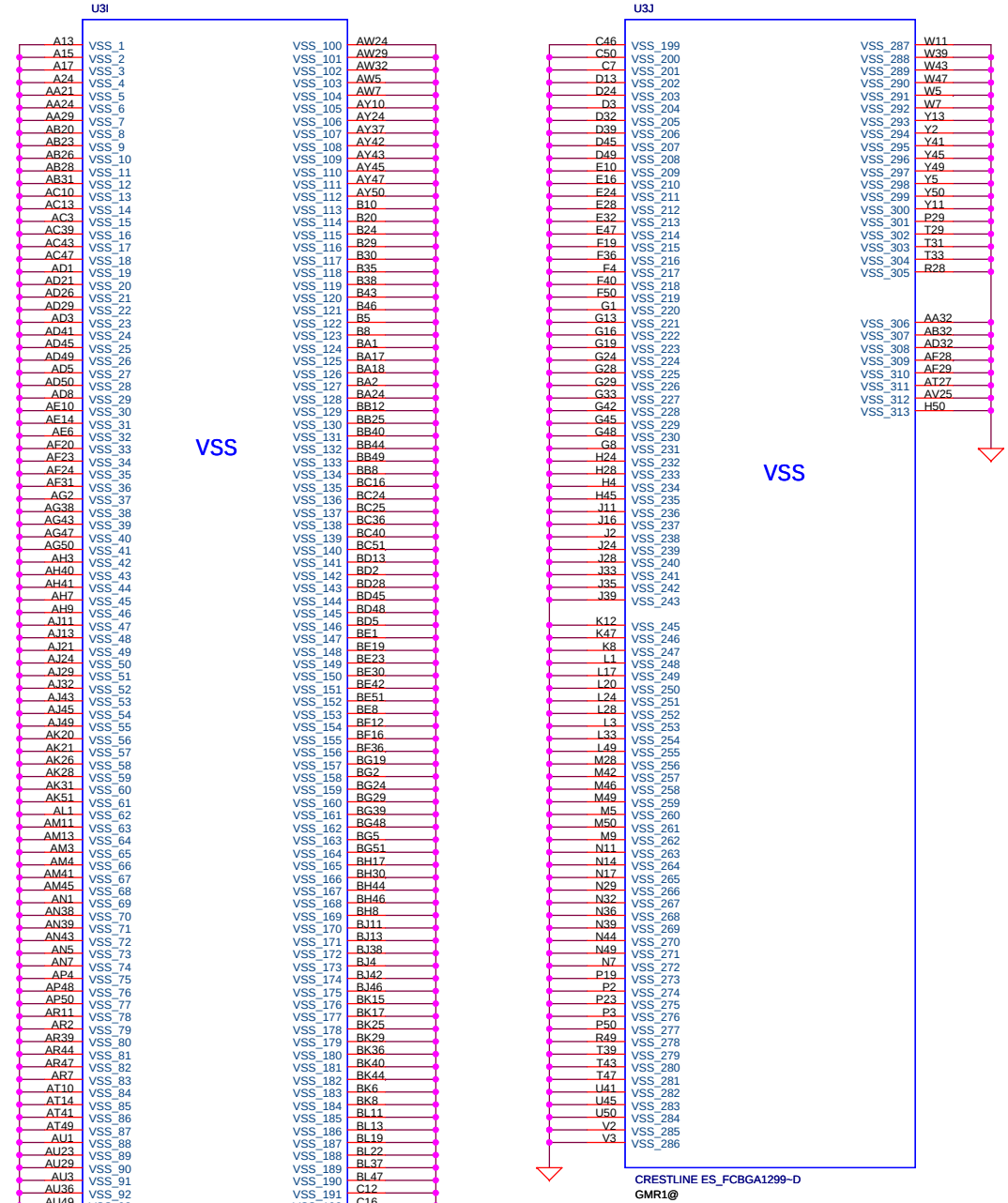

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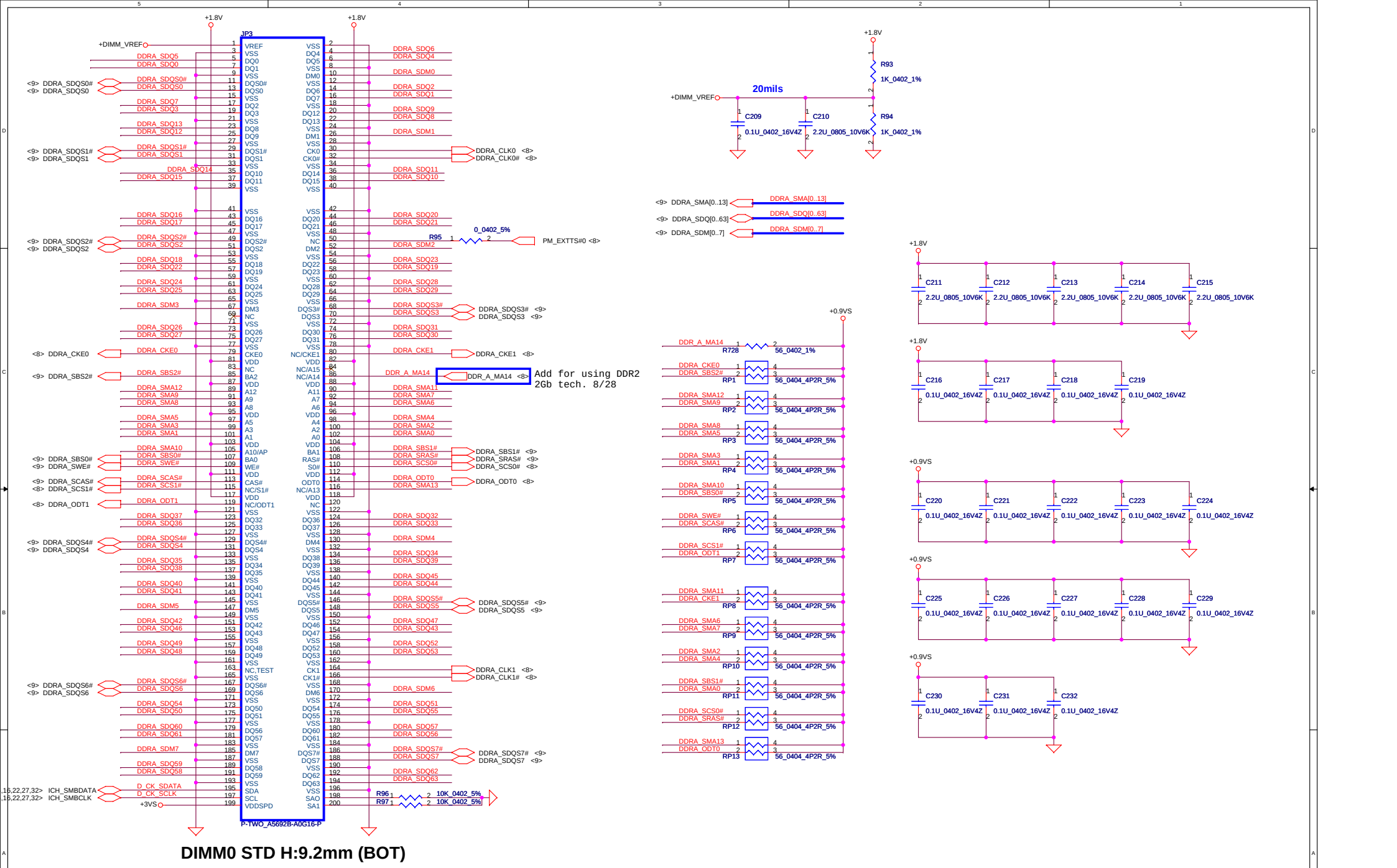

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Title: DDRII-SODIMM0

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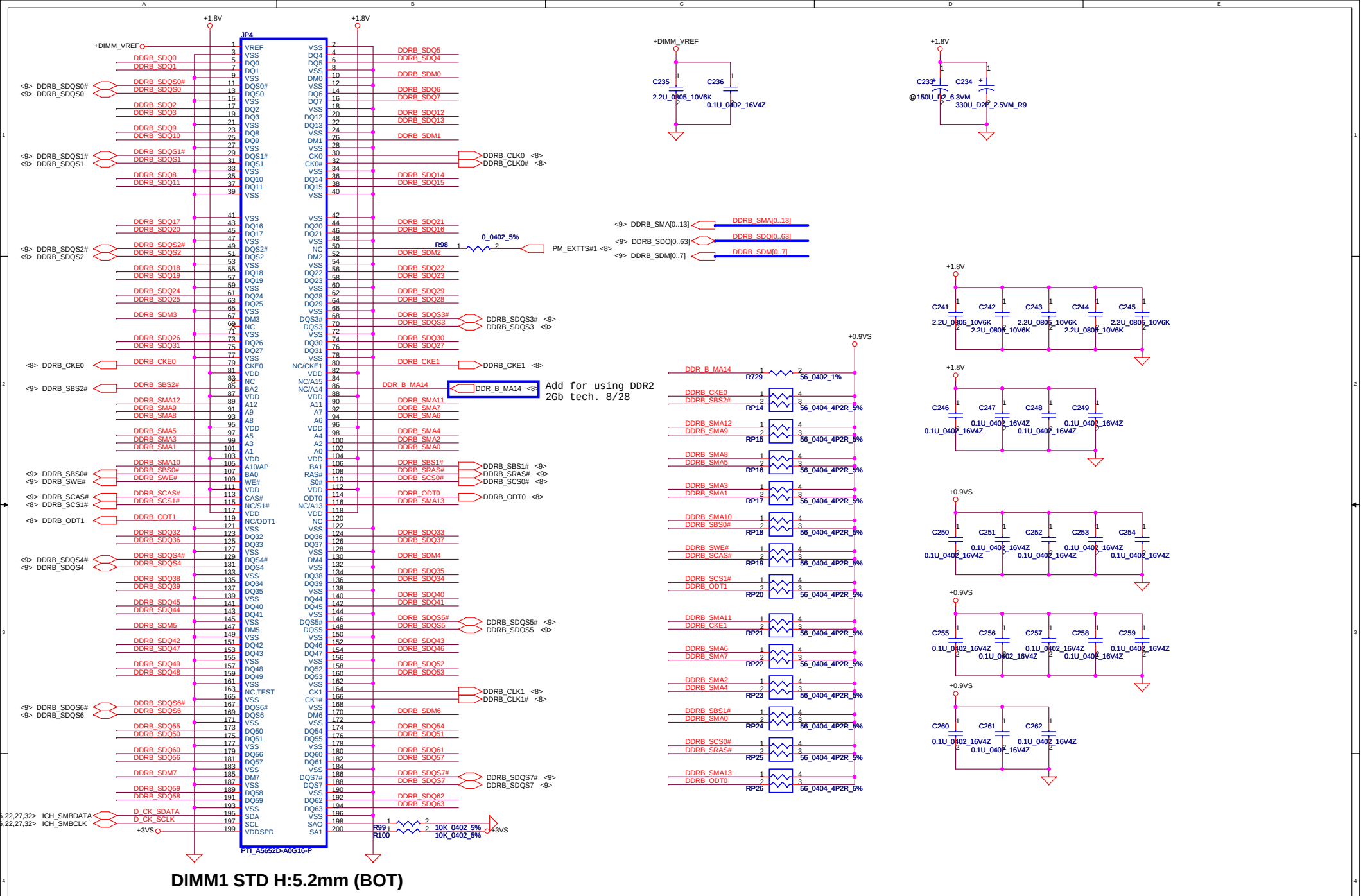

DIMM1 STD H:5.2mm (BOT)

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FSLC CLKSEL2	FSLB CLKSEL1	FSLA CLKSEL0	CPU MHz	SRC MHz	PCI MHz
0	1	0	200	100	33.3
0	1	1	166	100	33.3

FSB Frequency Selet:

CPU Driven						
	Stuff	R108	R130	R149		
*(Default)	No Stuff	R103	R110	R122	R152	
667MHz	Stuff	R103	R110	R149	R152	
	No Stuff	R108	R122	R130		
800MHz	Stuff			R149	R152	
	No Stuff	R103	R108	R110	R122	R130

Place close to U4

For ITP_EN, 0 =SRC8/SRC8#; 1 = ITP/ITP#
For SRC5_EN, 0 = Enable DOT96 & SRC1
1 = Enable SRC0 & 27MHz
For PCI2_EN, 0 = Overclocking of CPU and SRC Allowed
1 = Overclocking of CPU and SRC NOT allowed

Change to 0 ohm 8/28

For WLAN REQ

ICS9LPRS365AGLFT_TSSOP64

Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

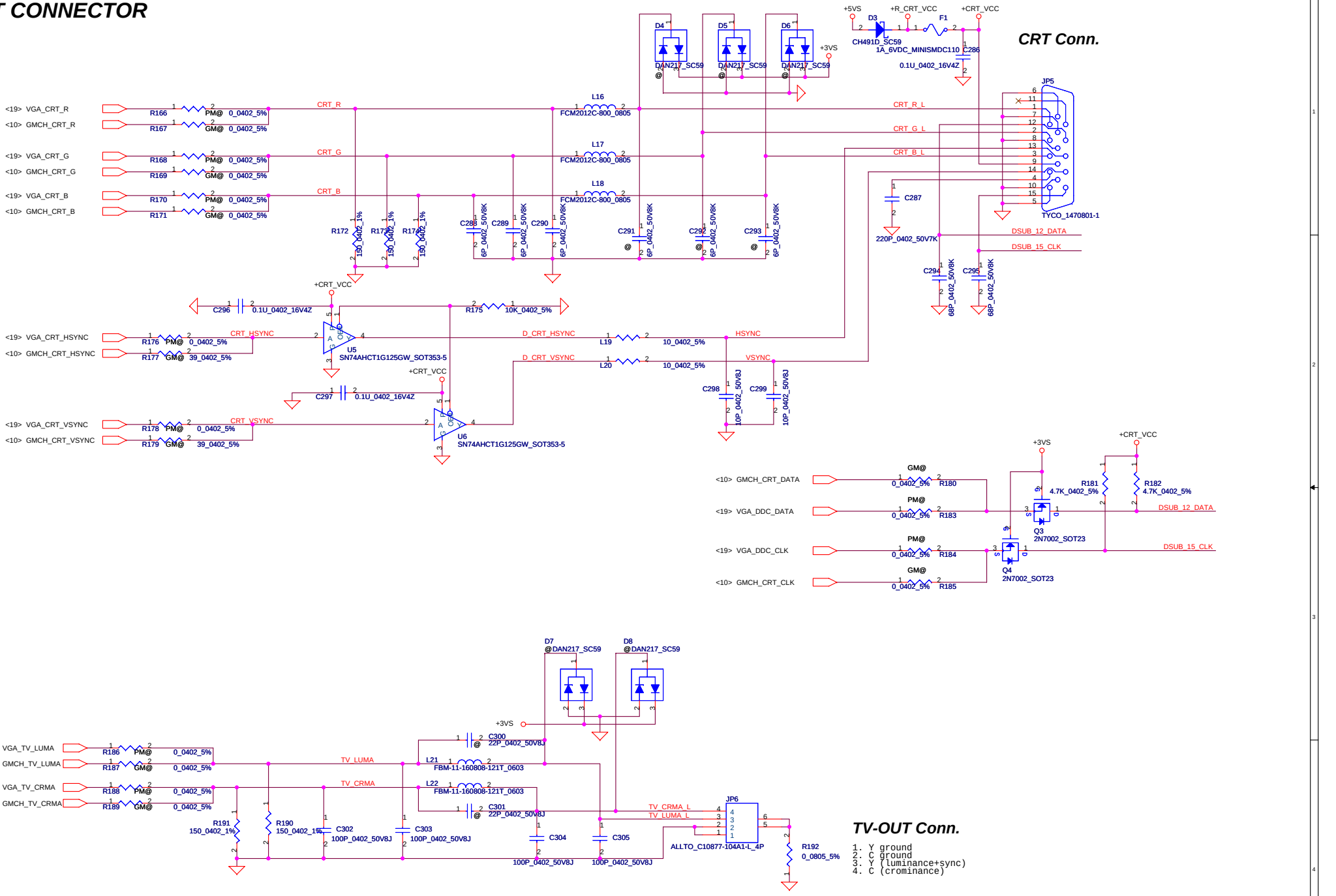
Title: CLOCK GENERATOR

Size | Document Number: ISRAA LA-3441P | Rev: 0.1

Date: Friday, September 22, 2006 | Sheet 16 of 48

CRT CONNECTOR

Near to JP5



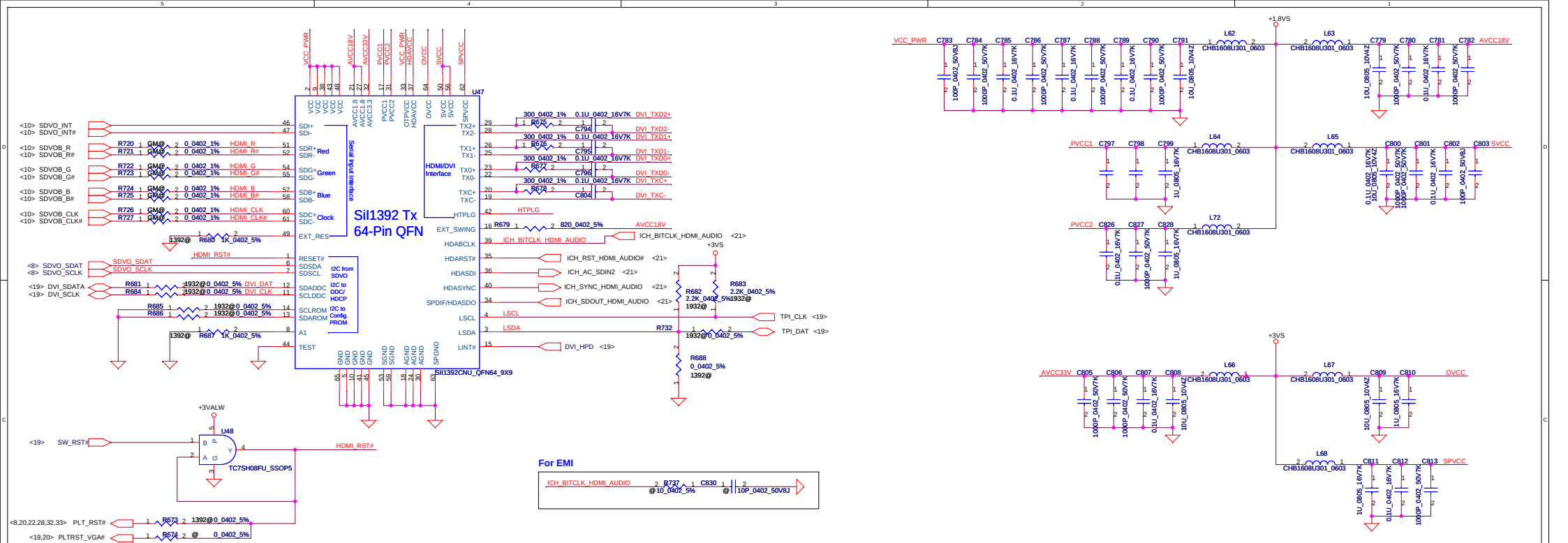
Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

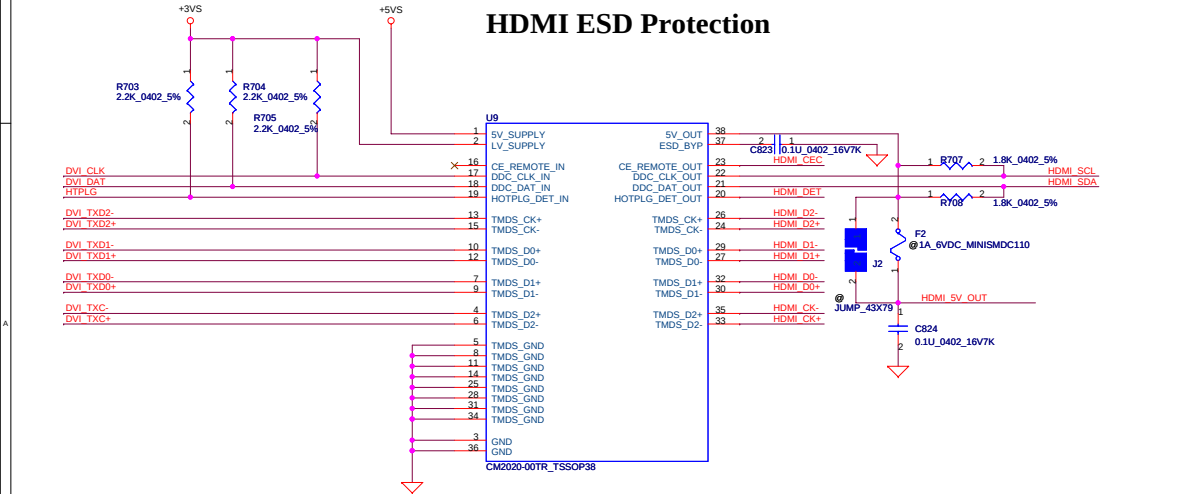
Compal Electronics, Inc.

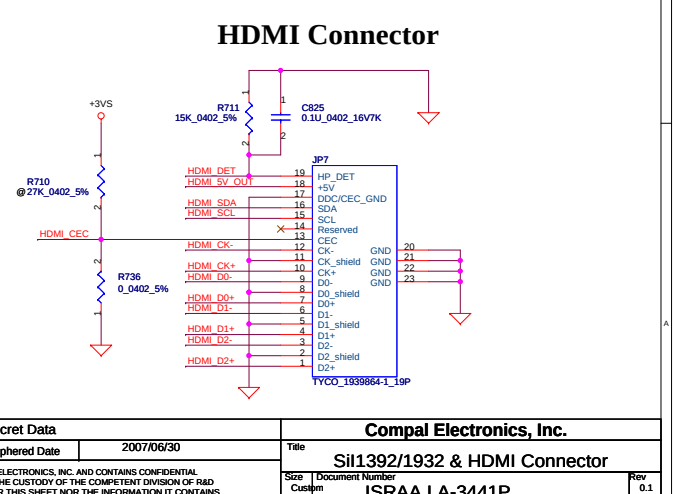
Title: *CRT & TVout Connector*

Size | Document Number: *ISRAA LA-3441P* | Rev: 0.1

Date: Friday, September 22, 2006 | Sheet 17 of 48







Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: Sil1392/1932 & HDMI Connector

Size	Document Number	Rev
Custom	ISRAA LA-3441P	0.1

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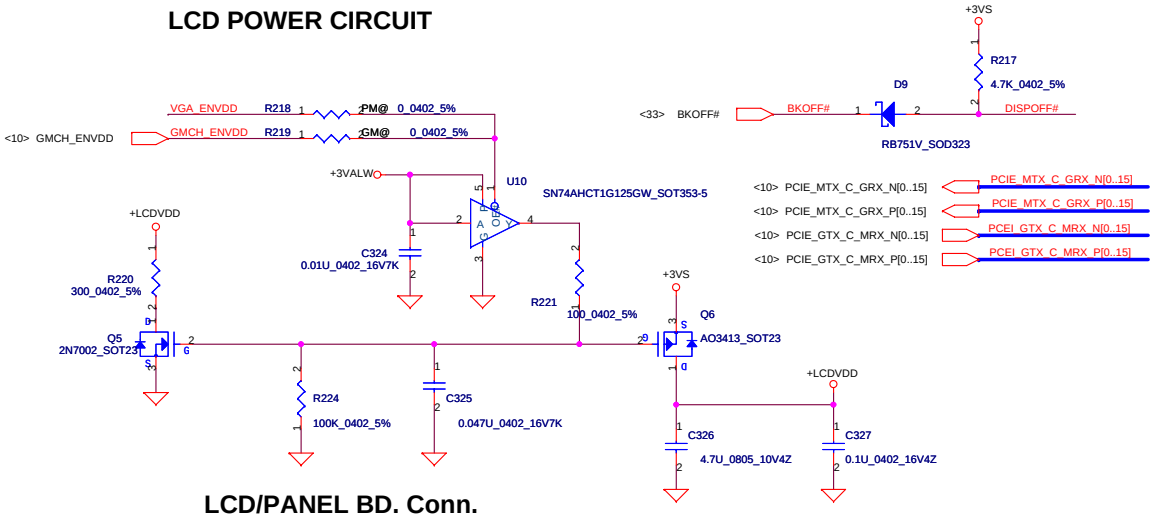
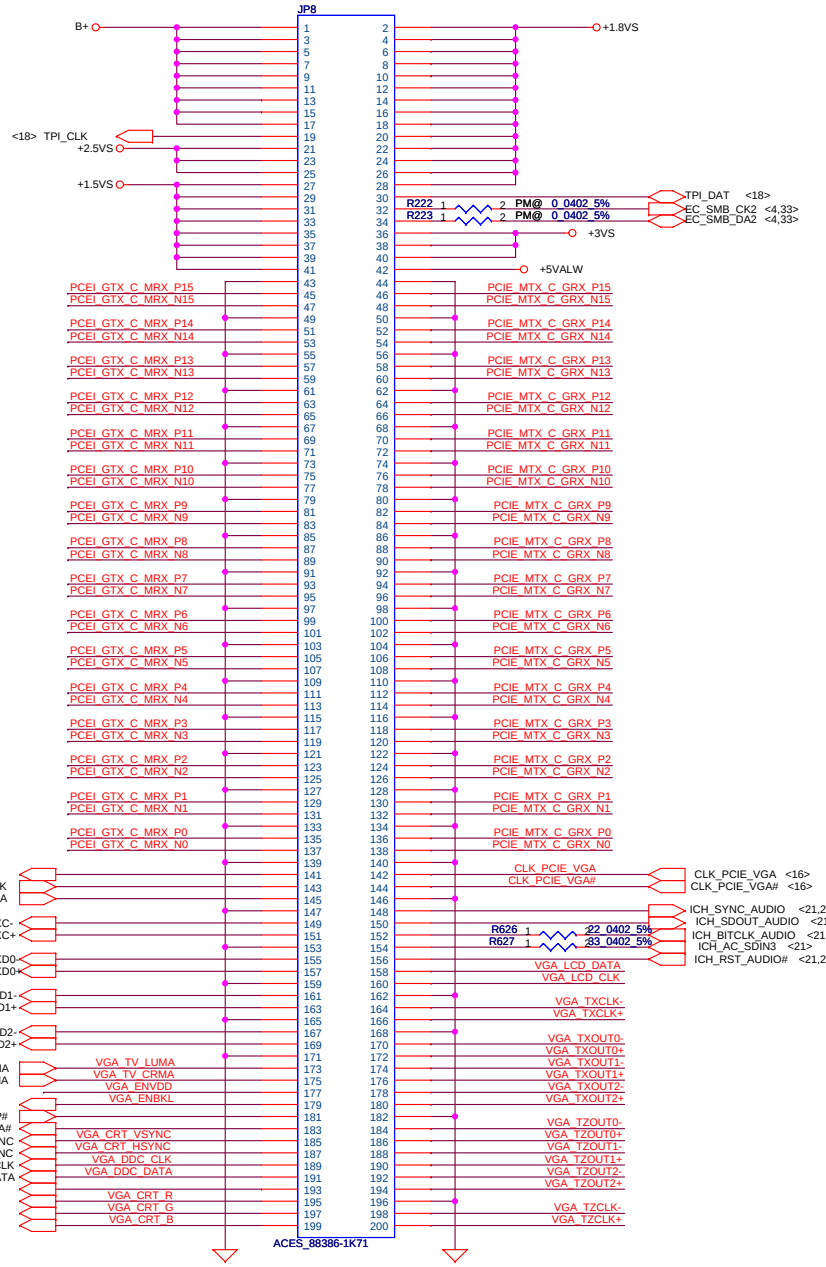
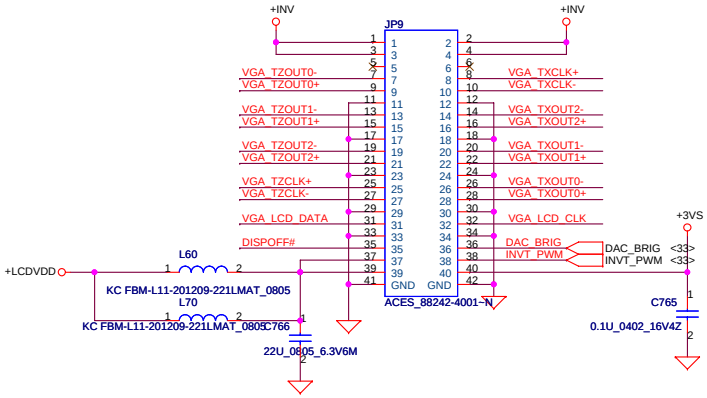
LCD POWER CIRCUIT

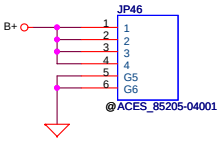


VGA BOARD Conn.

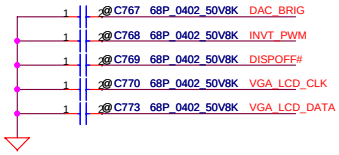


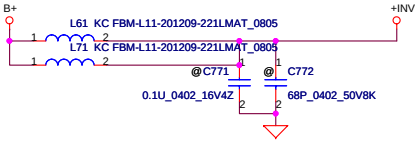
LCD/PANEL BD. Conn.

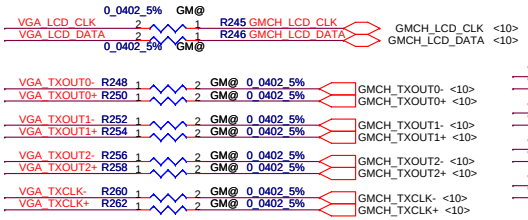




B+ for NVIDIA VGA BOARD USE







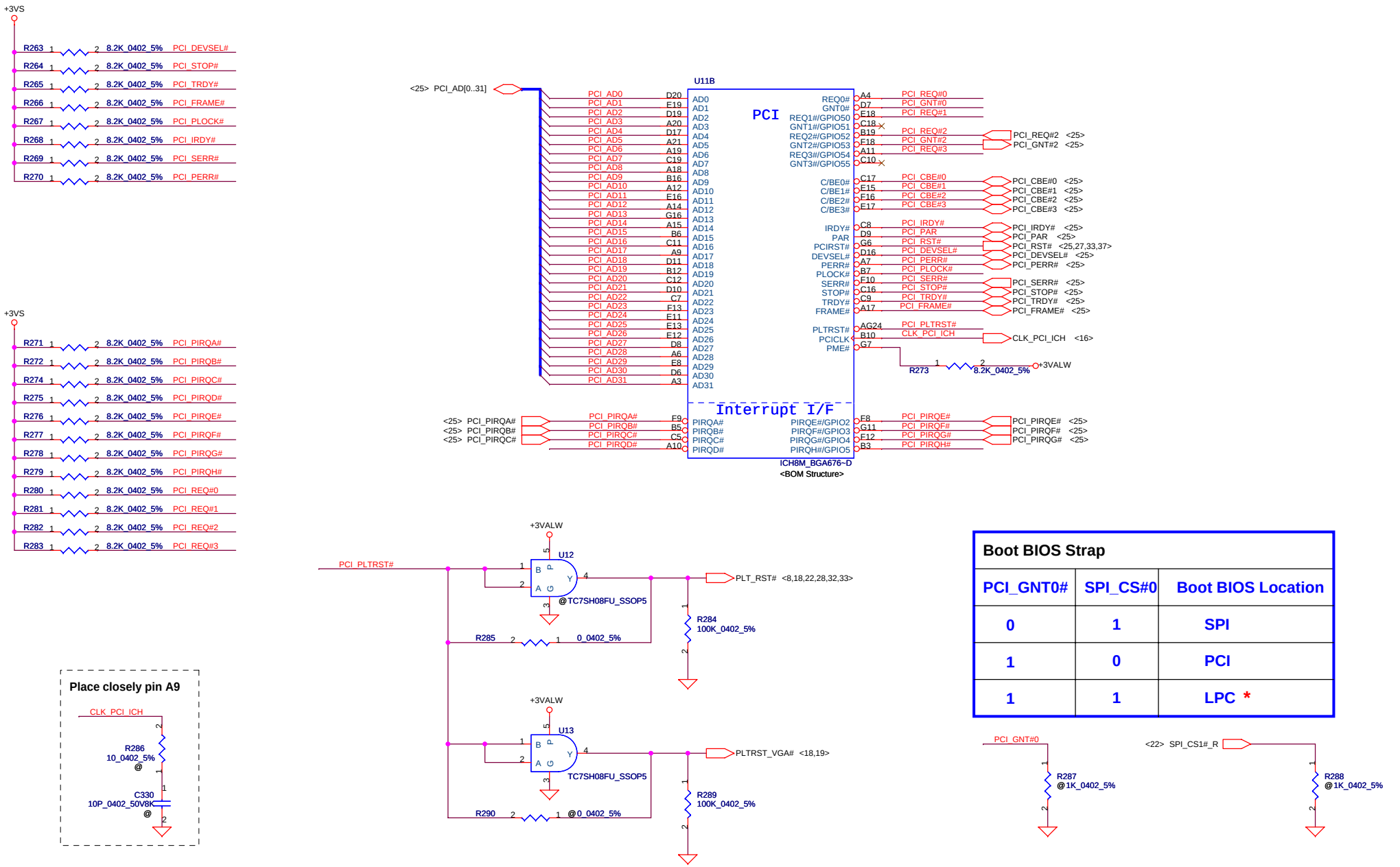
ALL R CLOSE TO LVDS CONNECTOR

Compal Electronics, Inc.

Title: **VGA CONN**

Size | Document Number: **ISRAA LA-3441P** | Rev: 0.1

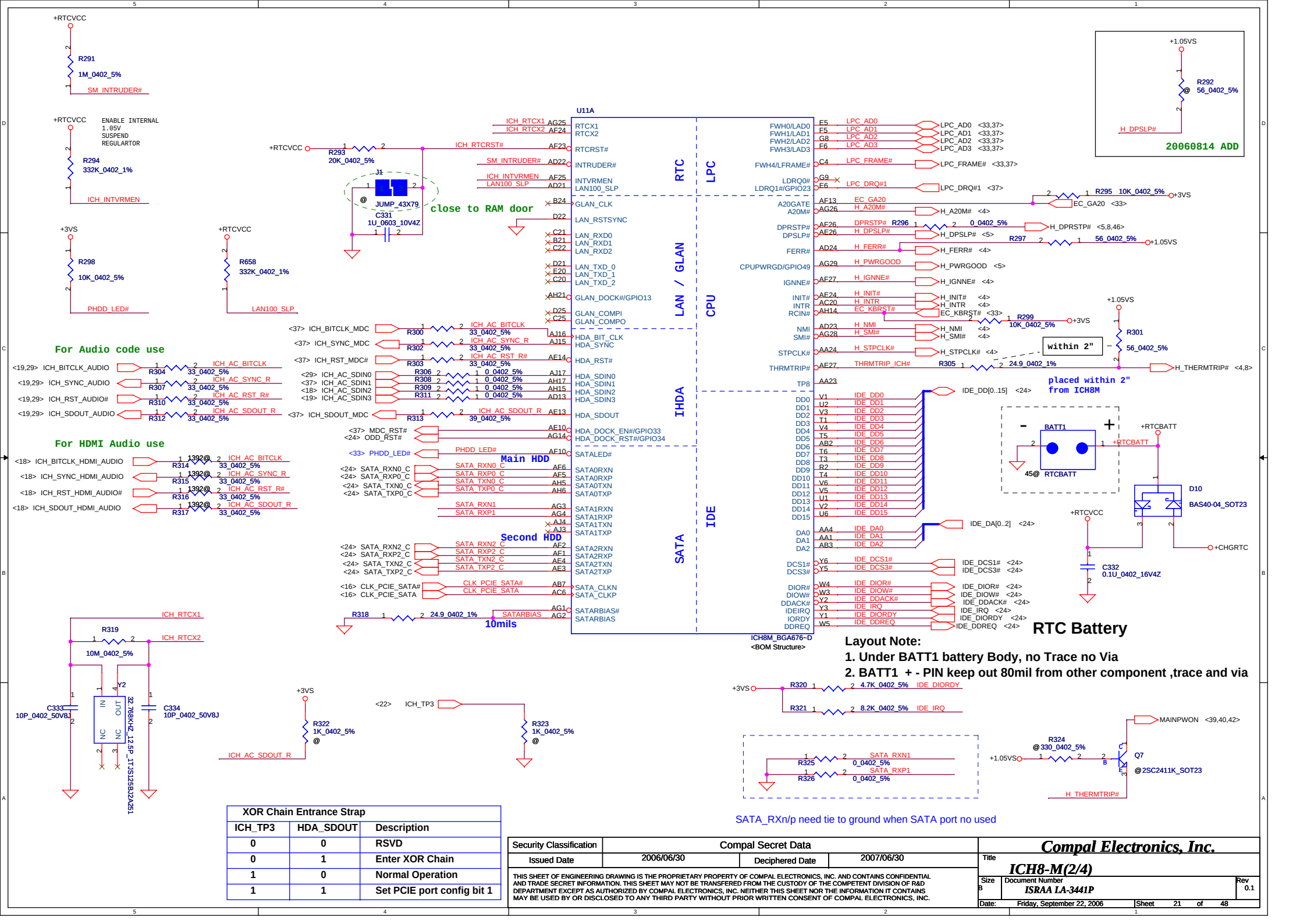
Date: Friday, September 22, 2006 | Sheet 19 of 48



Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title	ICH8-M(1/4)	
Size	Document Number: ISRAA LA-3441P	Rev: 0.1
Date: Friday, September 22, 2006	Sheet 20 of 48	



XOR Chain Entrance Strap		
ICH_TP3	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal Operation
1	1	Set PCIE port config bit 1

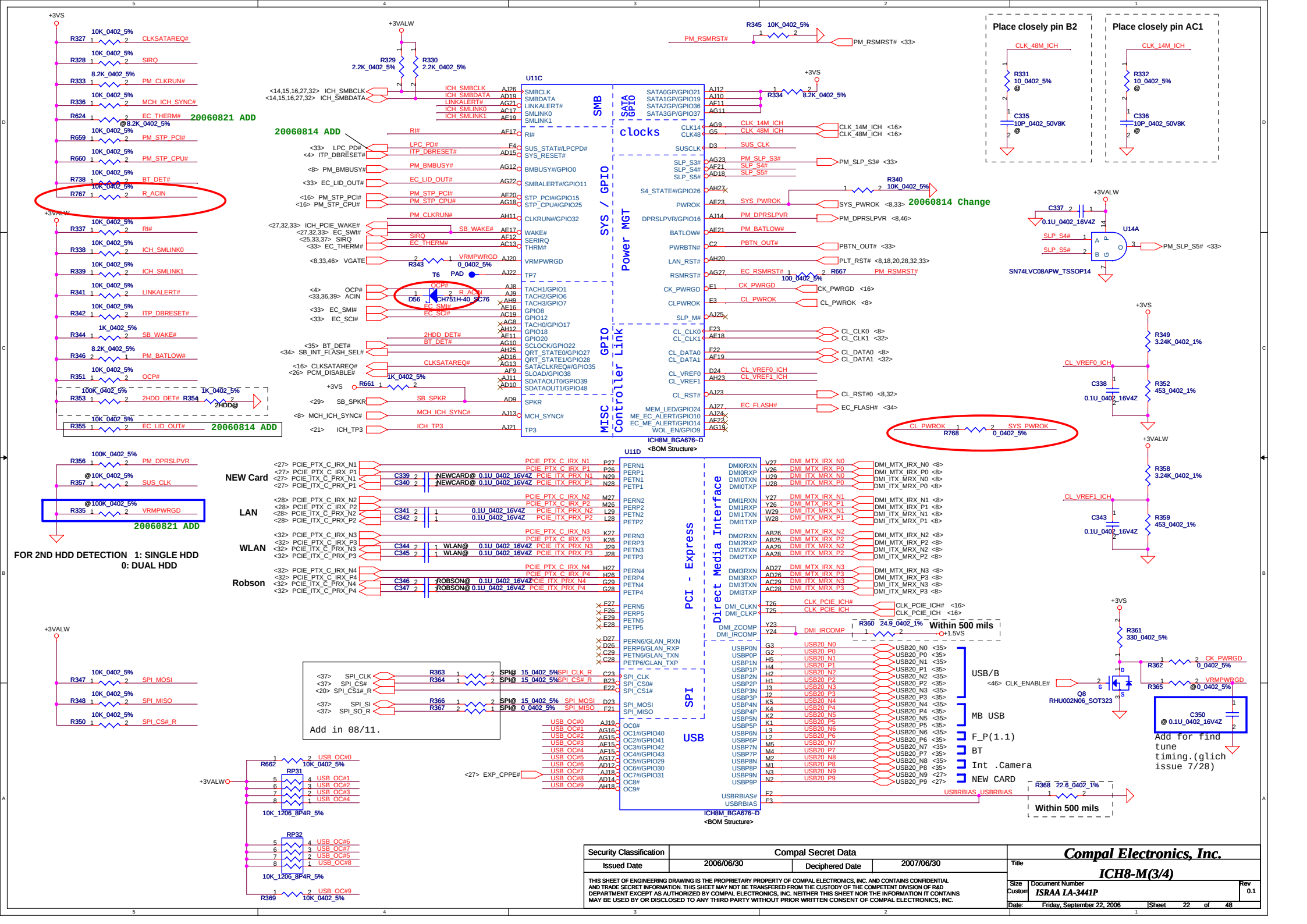
Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: ICH8-M(2/4)

Size: B | Document Number: ISRAA LA-3441P | Rev: 0.1

Date: Friday, September 22, 2006 | Sheet 21 of 48


Place closely pin B2
Place closely pin AC1
20060821 ADD
20060814 ADD
20060814 Change
NEW Card
LAN
WLAN
Robson
FOR 2ND HDD DETECTION 1: SINGLE HDD
0: DUAL HDD
Add in 08/11.
USB/B
MB USB
F_P(1.1)
BT
Int .Camera
NEW CARD
Within 500 mils
Add for find tune timing.(glich issue 7/28)
SN74LVC08APW_TSSOP14
ICH8M_BGA676-D
<BOM Structure>
Security Classification
Compal Secret Data
Issued Date
2006/06/30
Deciphered Date
2007/06/30
Compal Electronics, Inc.
ICH8-M(3/4)
ISRAA LA-3441P
Rev 0.1
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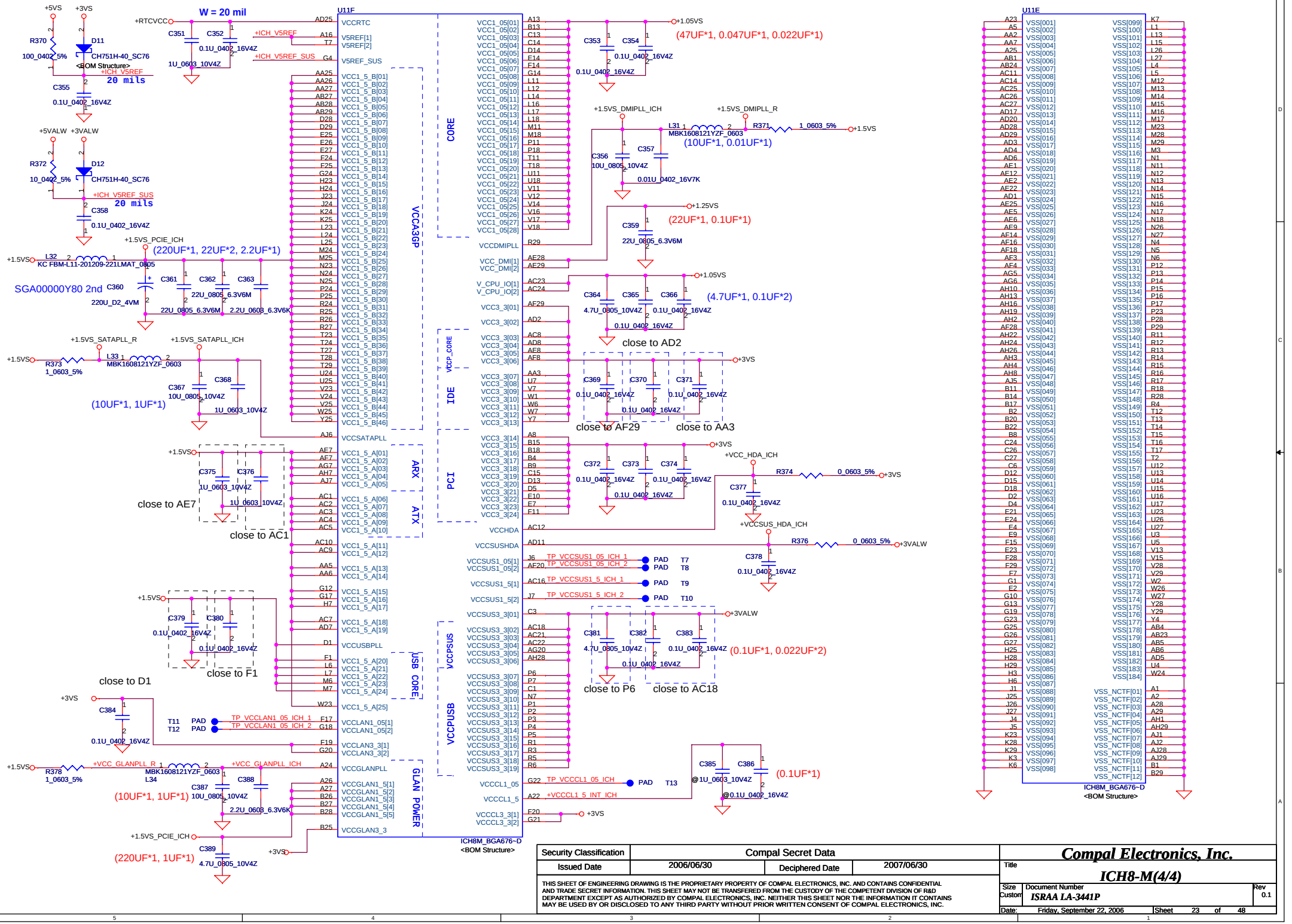
W = 20 mil
U11F
U11E
CORE
VCCA3GP
IDE
VCCP_CORE
PCI
ARX
ATX
USB CORE
VCCPSUS
VCCPUSB
GLAN POWER
(47UF*1, 0.047UF*1, 0.022UF*1)
(10UF*1, 0.01UF*1)
(22UF*1, 0.1UF*1)
(4.7UF*1, 0.1UF*2)
(220UF*1, 22UF*2, 2.2UF*1)
(10UF*1, 1UF*1)
(0.1UF*1, 0.022UF*2)
(0.1UF*1)
close to AD2
close to AF29
close to AA3
close to AE7
close to AC1
close to D1
close to F1
close to P6
close to AC18
SGA00000Y80 2nd
ICH8M_BGA676~D
<BOM Structure>
Security Classification
Compal Secret Data
Issued Date
2006/06/30
Deciphered Date
2007/06/30
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Title
ICH8-M(4/4)
Size
Custom
Document Number
ISRAA LA-3441P
Rev
0.1
Date:
Friday, September 22, 2006
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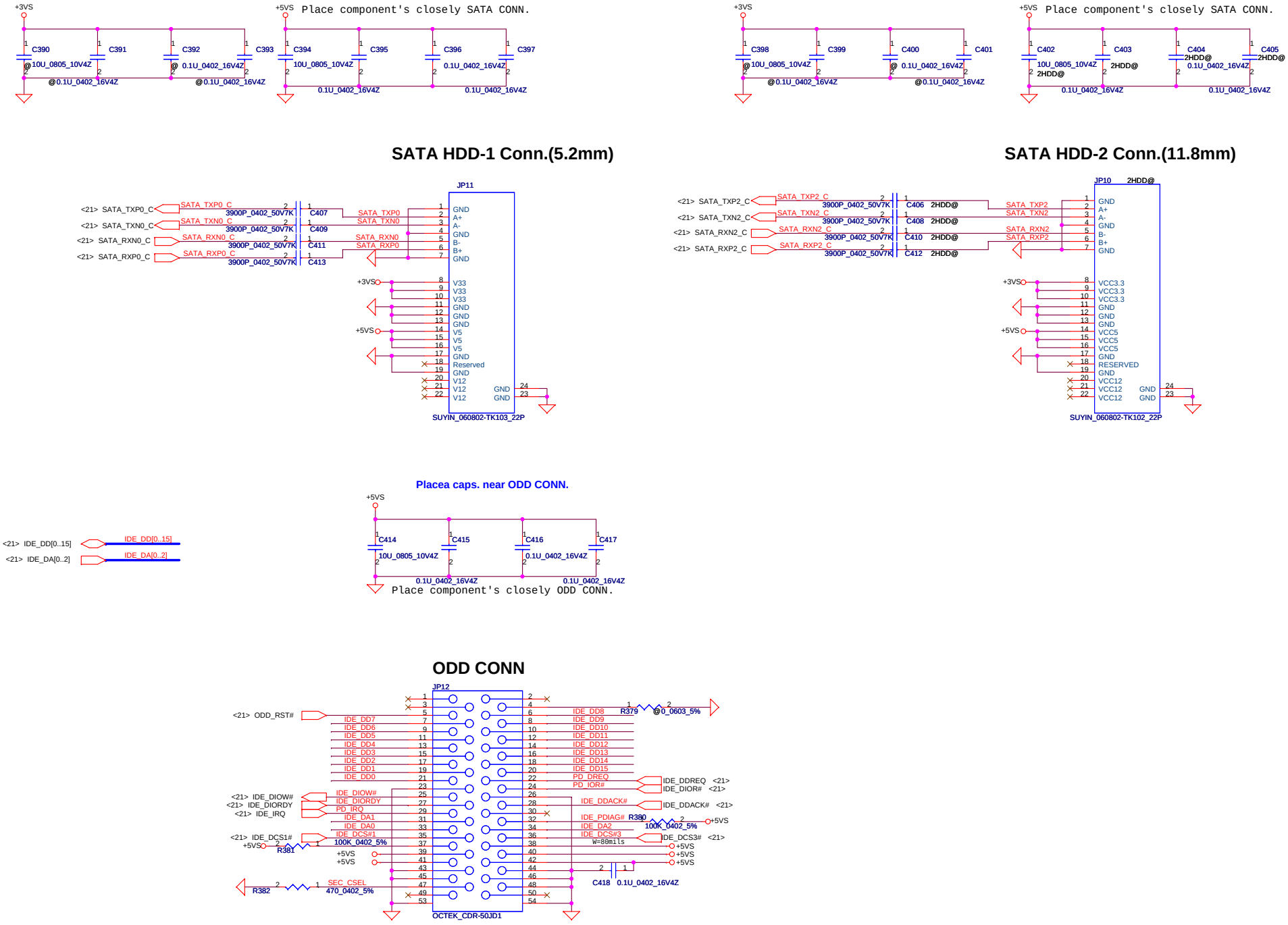
23
of
48



Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: SATA & ODD Conn

Size	Document Number	Rev
B	ISRAA LA-3441P	0.1

Date: Friday, September 22, 2006 Sheet 24 of 48

PCI8412:6IN1 + 1394 + CardBus

PCI7412

6 IN 1 LED

6 In 1 Card Power Switch

6 in 1 CardReader Conn.

Bottom Side, Normal Insertion

For EMI

place near Chip 8412

CLOSE TO CHIP

Pull High for 8412
Pull Down for 8402

Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

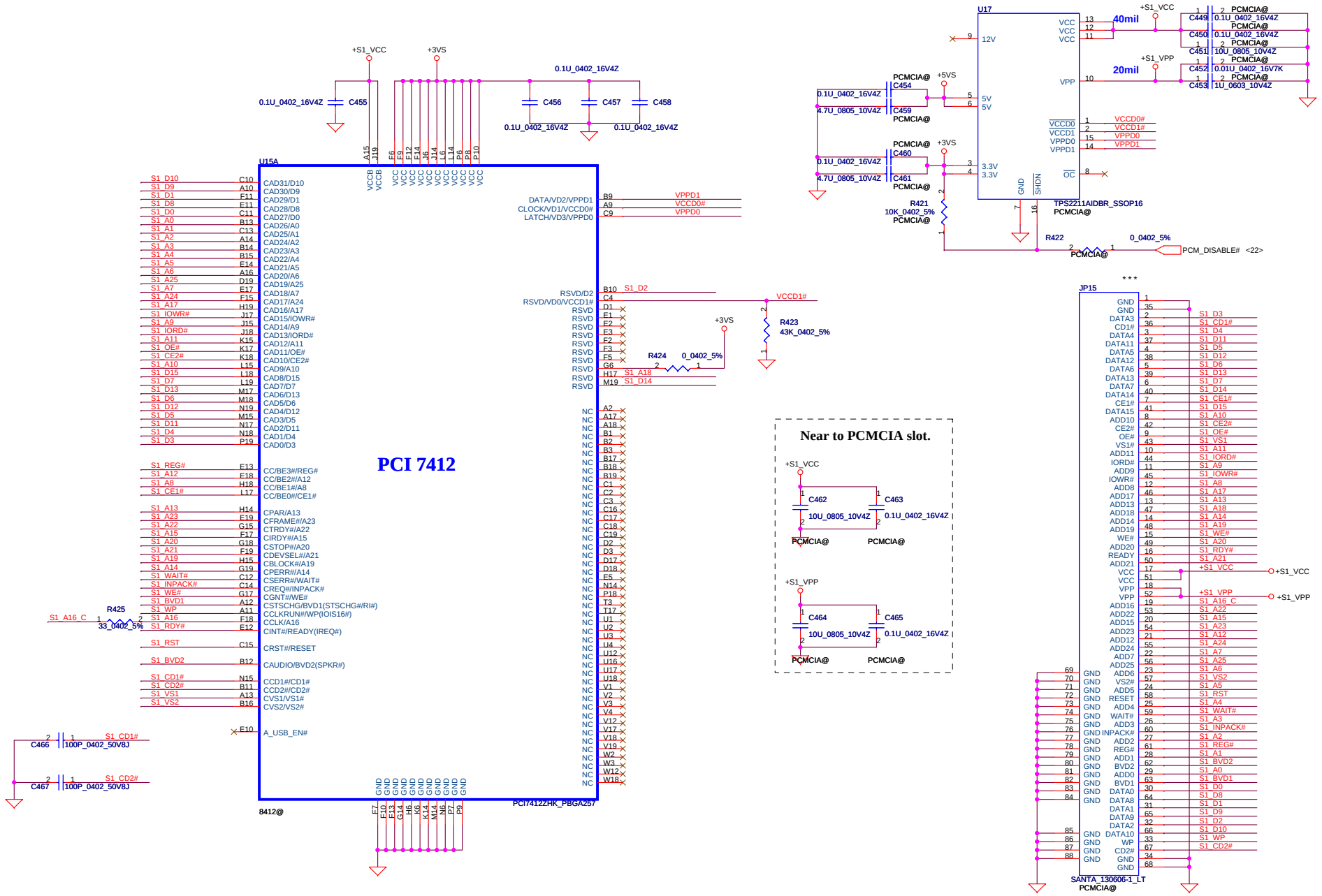
Compal Electronics, Inc.

Title: **PCI8412/PCI/1394 CONN/CARD SLOT**

Size	Document Number	Rev
Custom	ISRAA LA-3441P	0.1

Date: Friday, September 22, 2006 | Sheet 25 of 48

CardBus Power Switch



Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

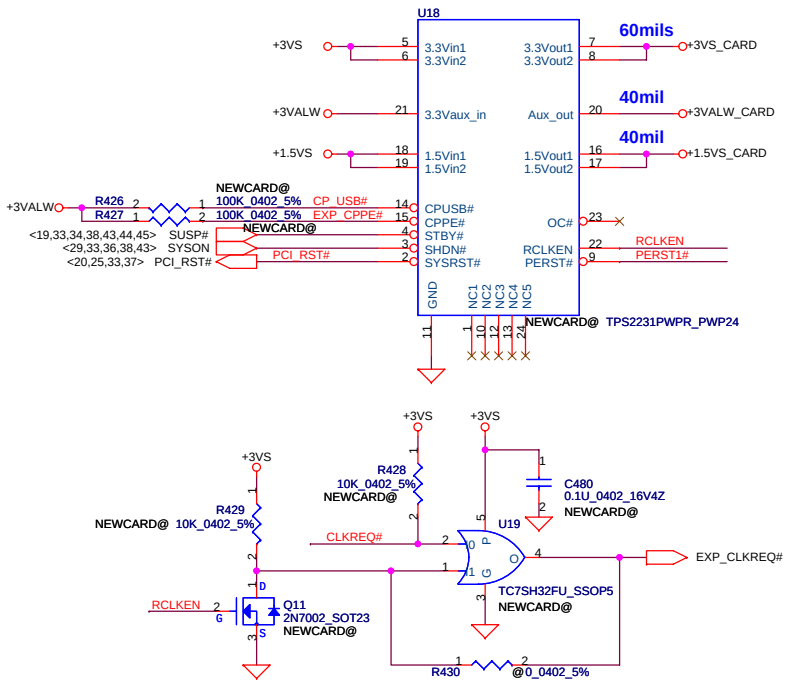
Compal Electronics, Inc.

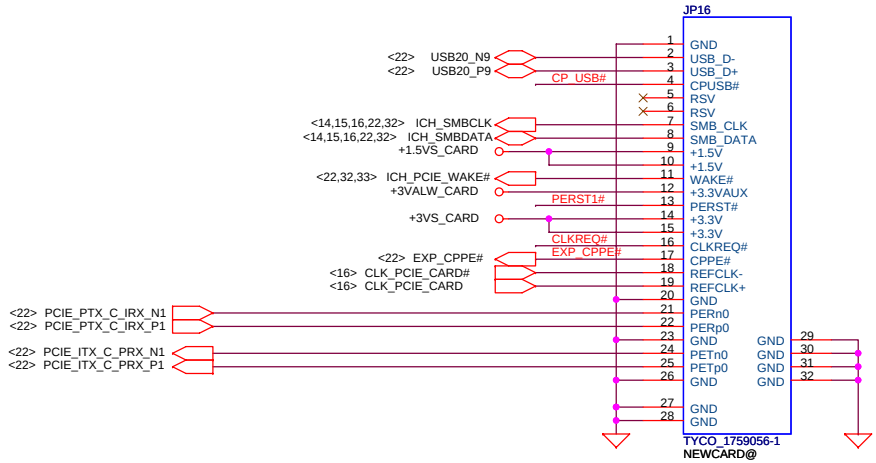
Title: **PCI7412/CB/CB SLOT**

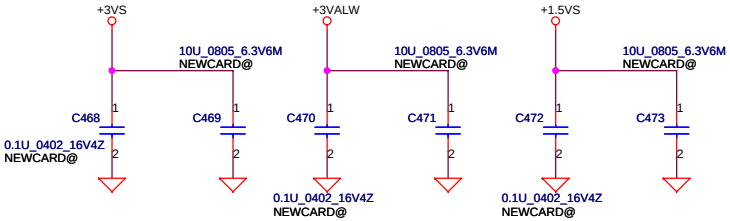
Size	Document Number	Rev
Custom	ISRAA LA-3441P	0.1

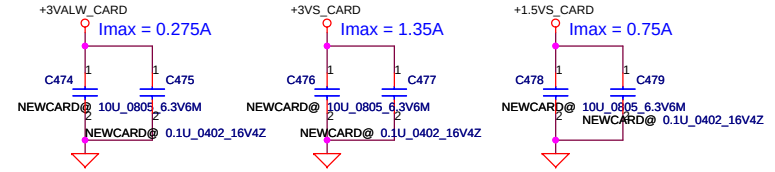
Date: Friday, September 22, 2006 | Sheet 26 of 48

New Card Power Switch









Compal Electronics, Inc.		
Title: New Card Socket		
Size	Document Number: ISRAA LA-3441P	Rev: 0.1
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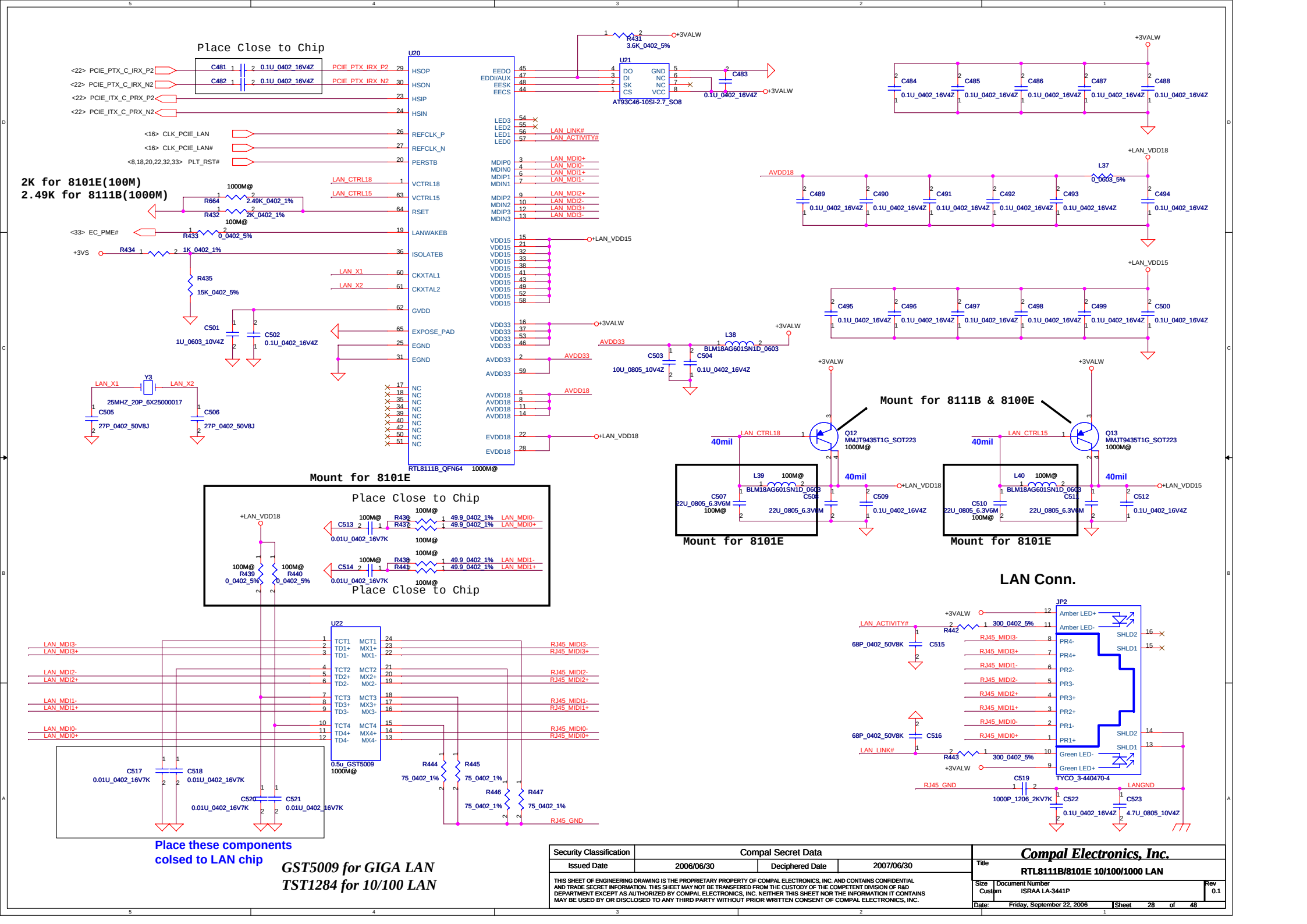

Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: RTL8111B/8101E 10/100/1000 LAN

Size	Document Number	Rev
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HD Audio Codec

Int MIC Conn.

20060825 change to connector

EC Beep

PCI Beep

CardBus Beep

Regulator for CODEC

Adjustable Output

Moat Bridge

SPK_SEL HIGH: HARMAN
LOW: NO-BRAND

SENSE FOR Ext. Mic.

SENSE FOR Int. Mic.

For EMI

SENSE FOR HP

SENSE FOR LINE

DGND AGND

Change R13 from 5.1K to 20K_0402_1%

Sense Pin	Impedance	Codec Signals
SENSE A	39.2K	PORT-A (PIN 39, 41)
	20K	PORT-B (PIN 21, 22)
	10K	PORT-C (PIN 23, 24)
	5.1K	PORT-D (PIN 35, 36)
SENSE B	39.2K	PORT-E (PIN 14, 15)
	20K	PORT-F (PIN 16, 17)
	10K	PORT-G (PIN 43, 44)
	5.1K	PORT-H (PIN 45, 46)

Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title	<Title>	HD Audio Codec ALC861D	
Size	Custom	Document Number SRAA LA-3441P	Rev 0.1
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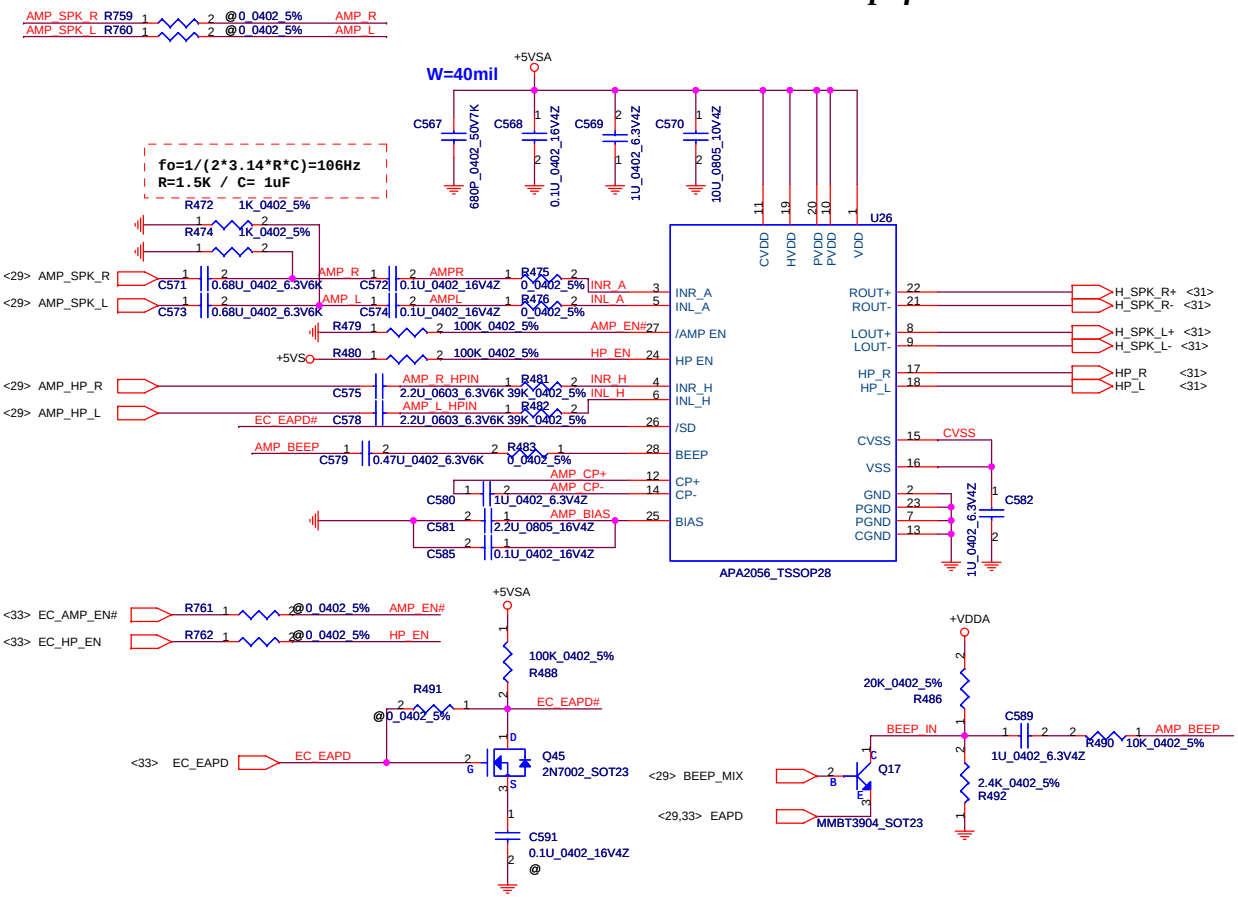
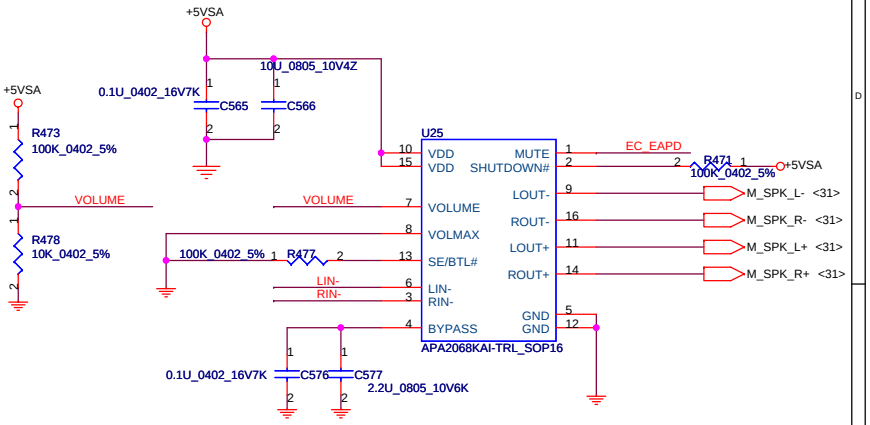
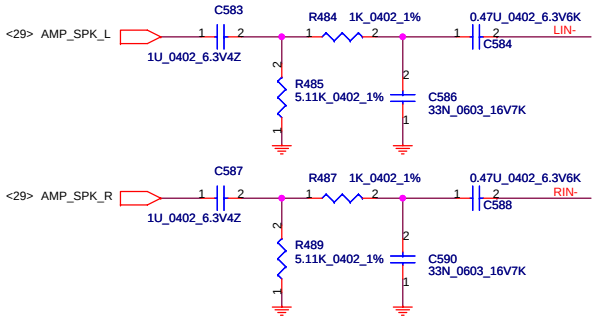
APA2056 Tweeter/HP Amplifier



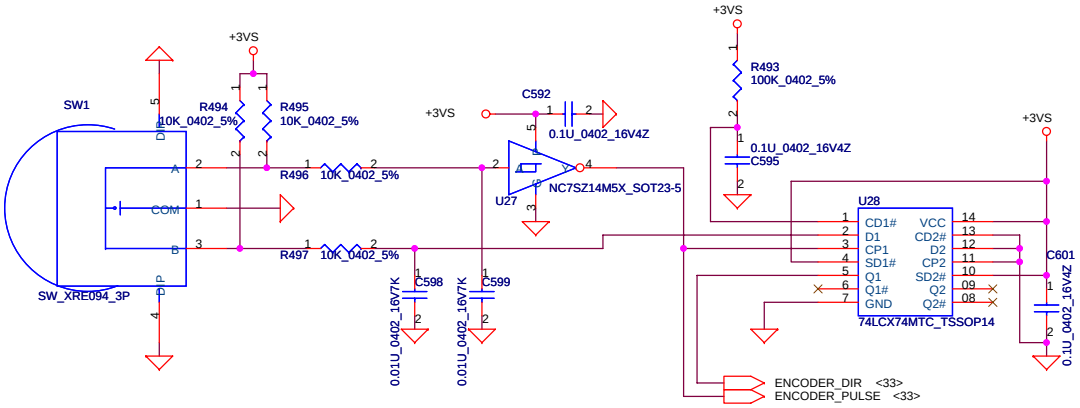
APA2068 Medium Range Amplifier



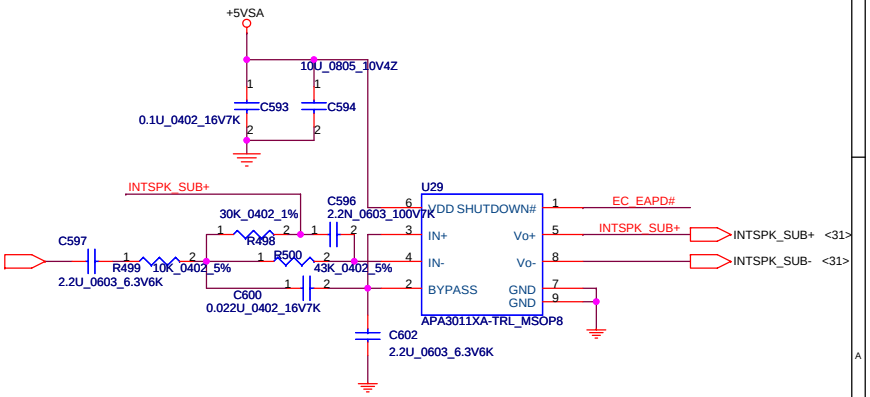
Pin2 /SD should be tied to 5V always and mute pin controled by EC_EAPD



Volume Control



APA3011 Subwoofer Amplifier



Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: <Title> AMP/Volume Control

Size: Custom | Document Number: ISRAA LA-3441P | Rev: 0.1

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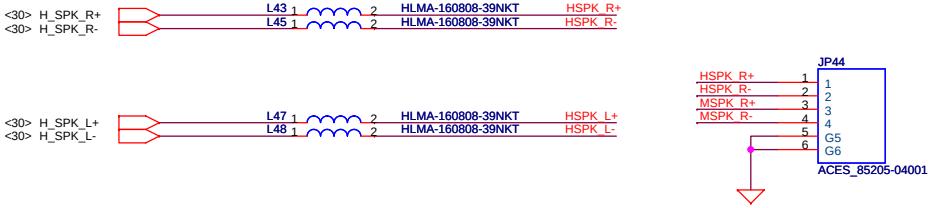
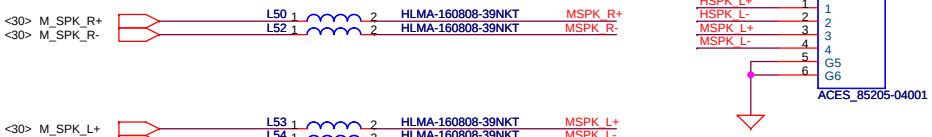
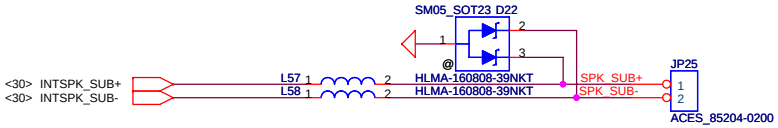
Tweeter Conn.



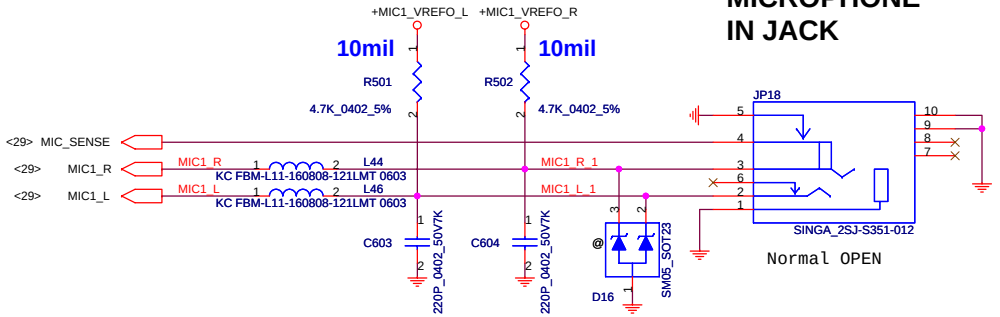
Medium SPK Conn.



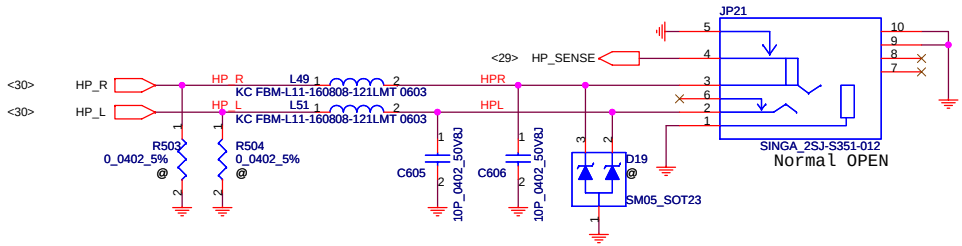
Sub-woofer Conn.



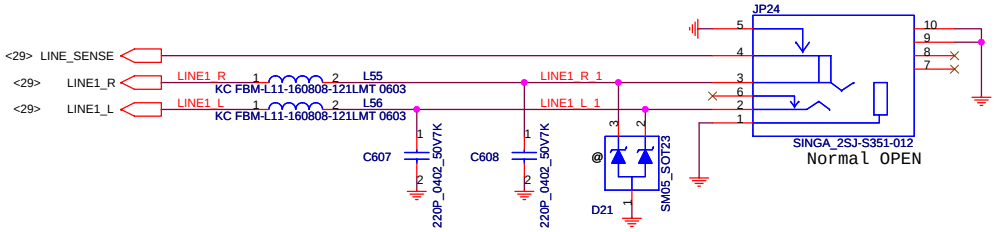
MICROPHONE IN JACK



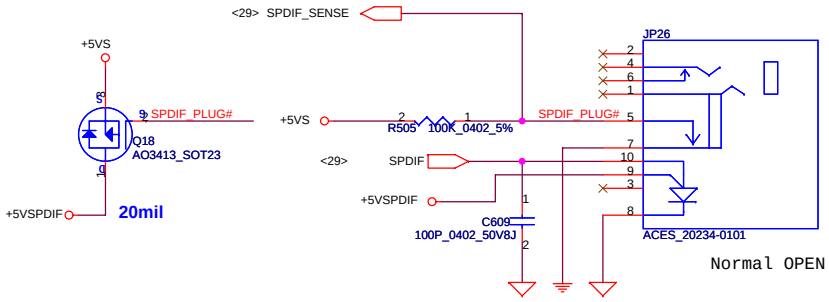
HEADPHONE OUT JACK



LINE IN JACK



S/PDIF OUT JACK



Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: <Title> Audio Jack/MIC/SPDIF

Size: Custom | Document Number: ISRAA LA-3441P | Rev: 0.1

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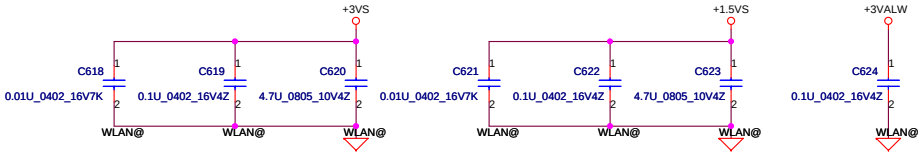
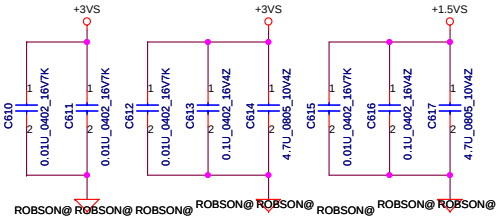
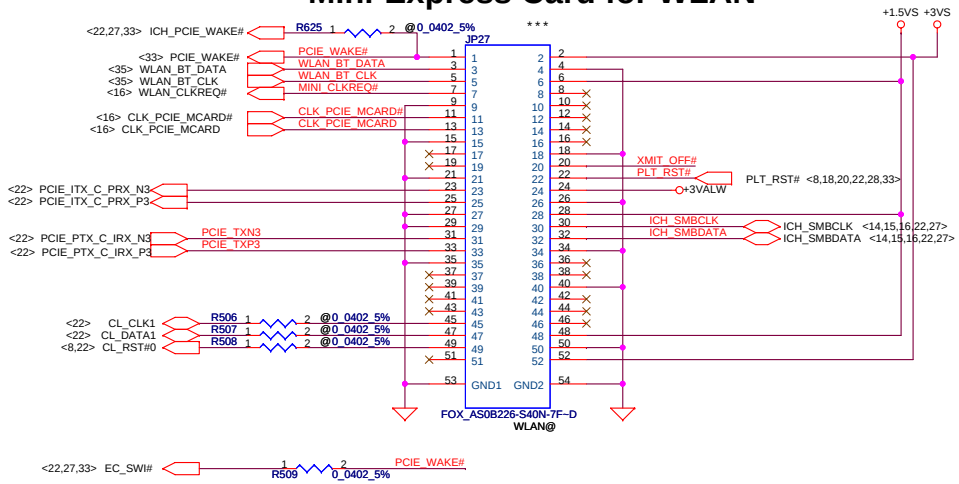
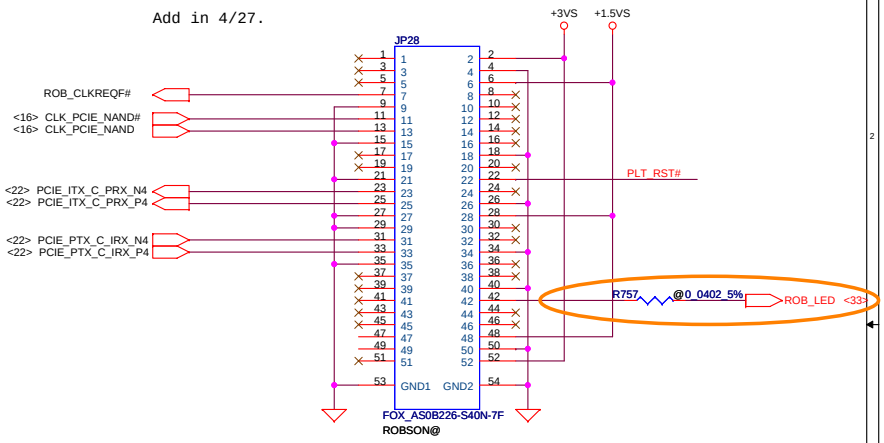




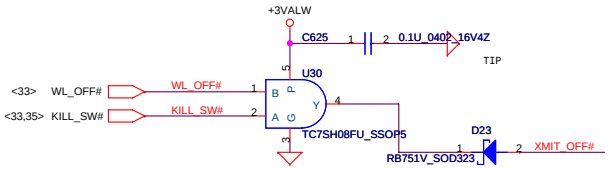
Mini-Express Card for WLAN



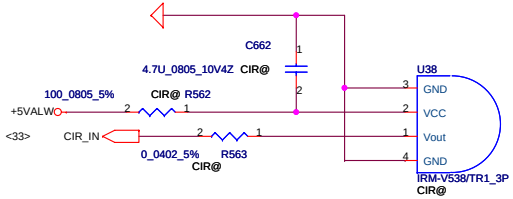
NAND mini Card(Robson support)



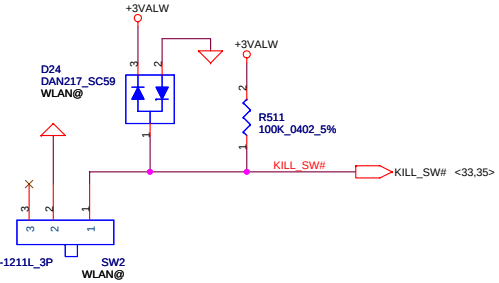
TP Button



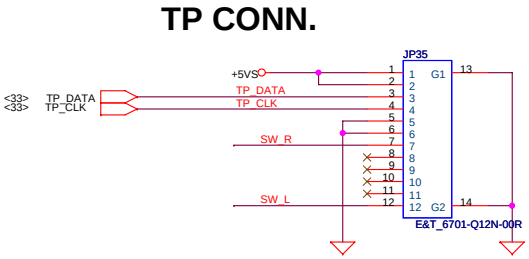
CIR

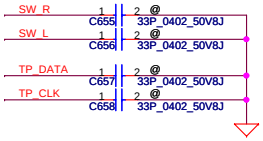


Kill SWITCH



TP CONN.





Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: **Mini-Card/CIR/TP Conn**

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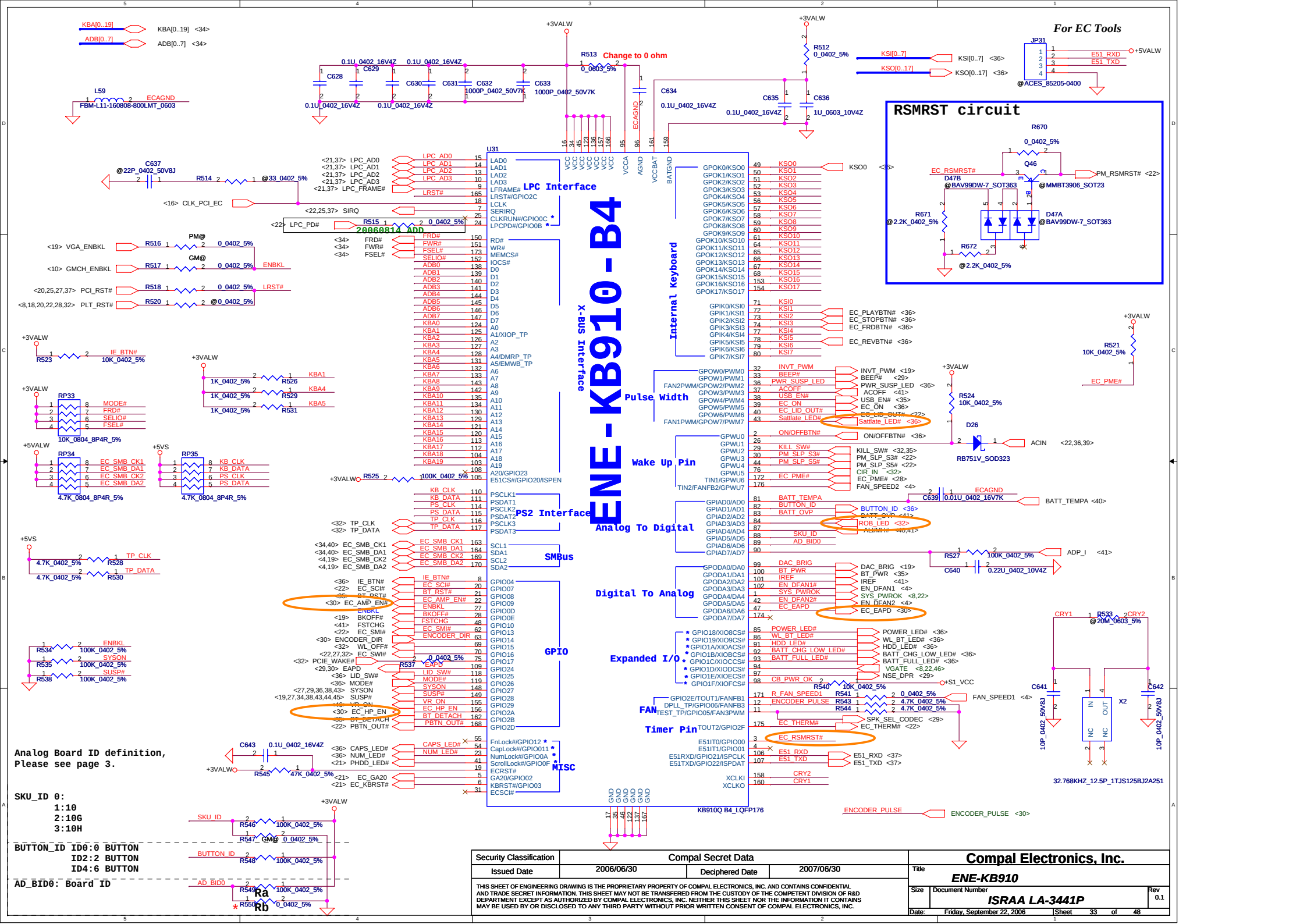
ENE-KB910-B4
X-BUS Interface
LPC Interface
Internal Keyboard
Pulse Width
Wake Up Pin
PS2 Interface
Analog To Digital
SMBus
Digital To Analog
GPIO
Expanded I/O
FAN
Timer Pin
MISC
RSMRST circuit
For EC Tools
KB910Q B4_LQFP176
Analog Board ID definition,
Please see page 3.
SKU_ID 0:
1:10
2:10G
3:10H
BUTTON_ID ID0:0 BUTTON
ID2:2 BUTTON
ID4:6 BUTTON
AD_BID0: Board ID
20060814 ADD
Change to 0 ohm
32.768KHZ_12.5P_1TJS125BJ2A251
Security Classification
Compal Secret Data
Issued Date
2006/06/30
Deciphered Date
2007/06/30
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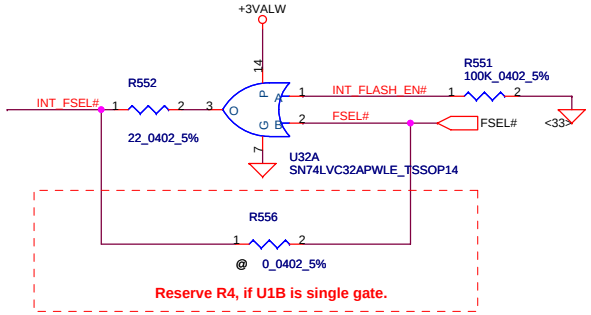
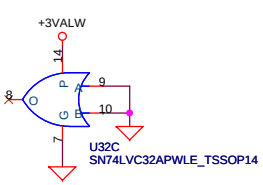
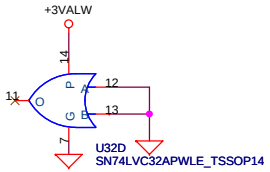
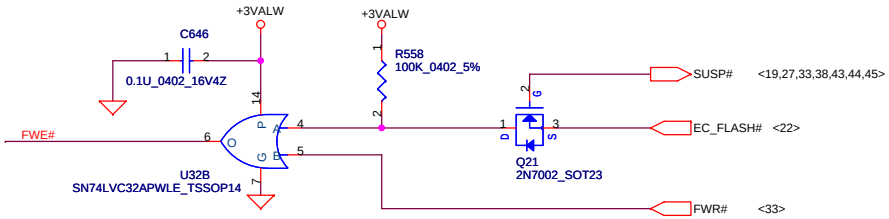






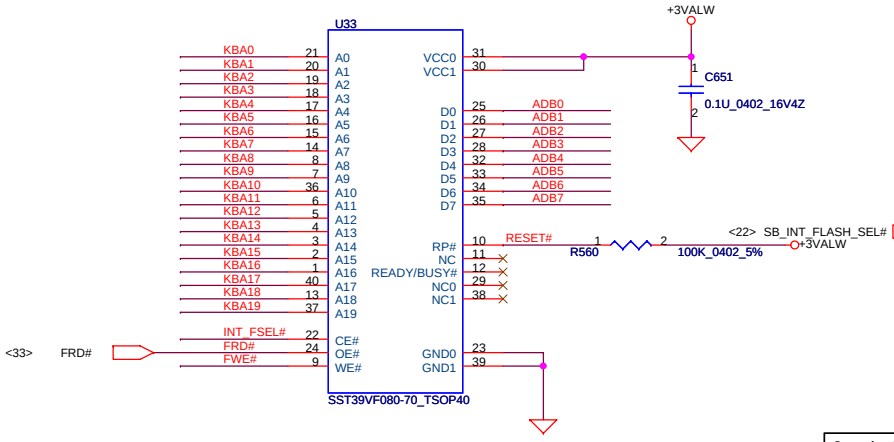


Module ID
Indication for polarity of reset
Reset input High Active --> Low ,
Reset input Low Active --> Open

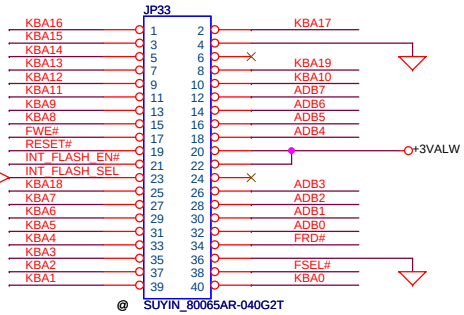
<33> KBA[0..19] KBA[0..19]

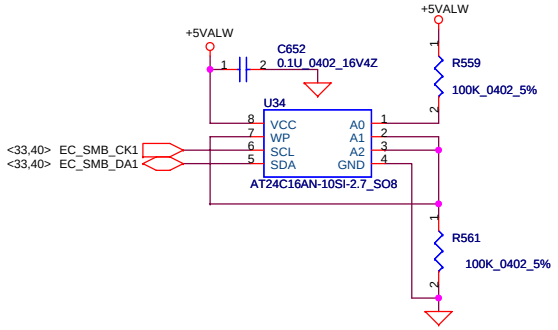
<33> ADB[0..7] ADB[0..7]

1MB Flash ROM



1MB ROM Socket





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Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: ***BIOS I/F***

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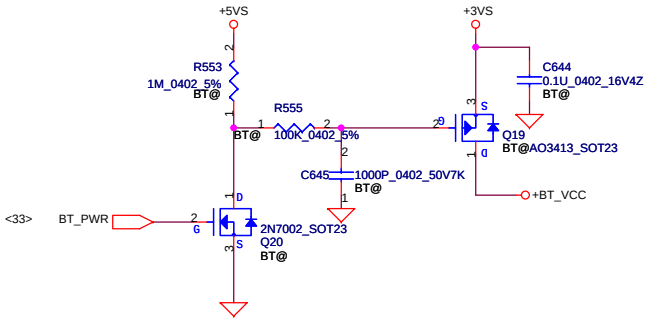
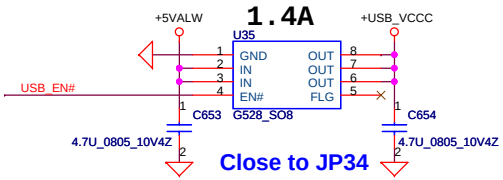
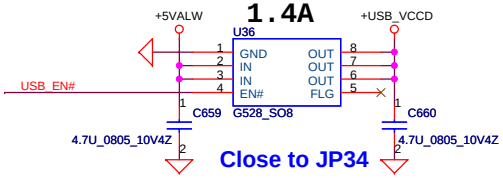
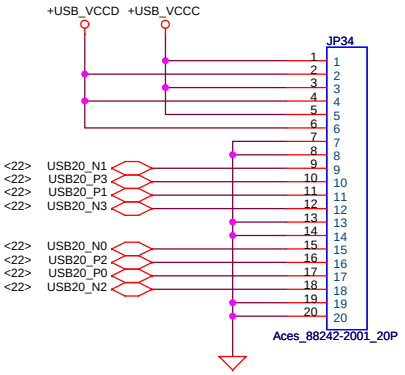
BlueTooth Interface



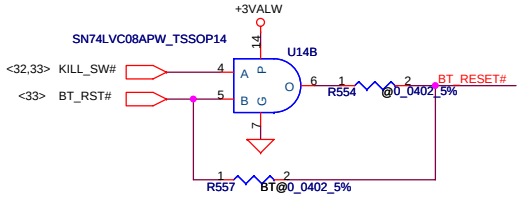
USB Board Right side 2x2 Port

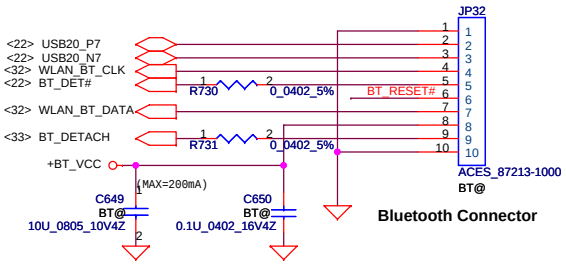






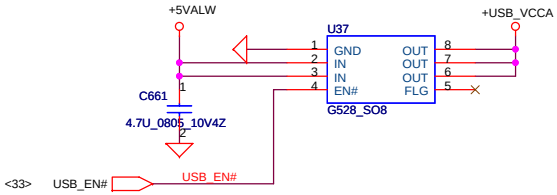
Change at 8/30



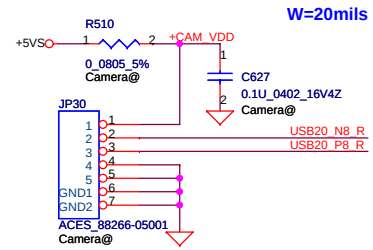


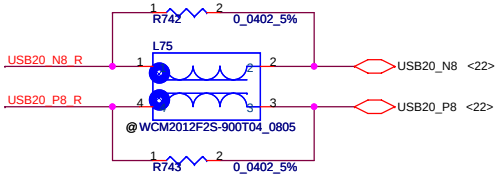
check it !

USB Conn Left side 1x2 Port

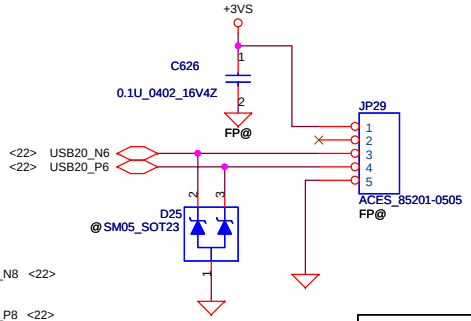


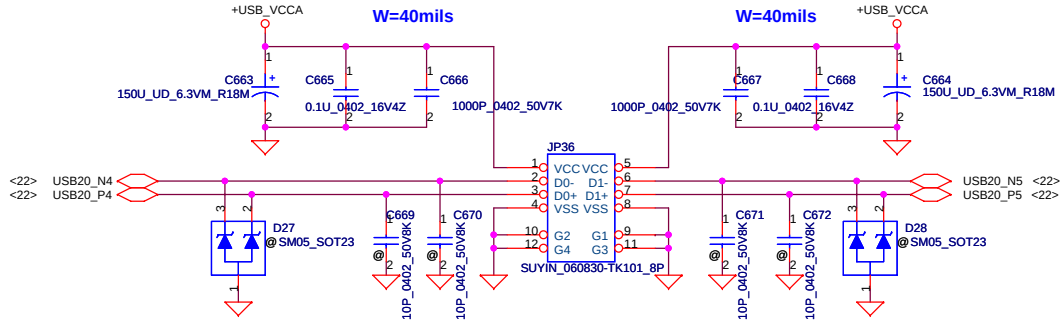
Int. Camera Conn





Finger printer Conn





Compal Electronics, Inc.			
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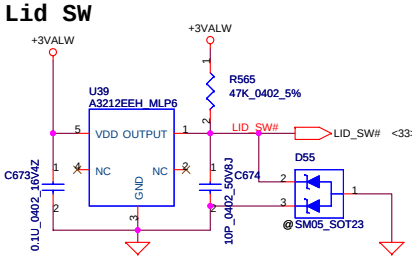
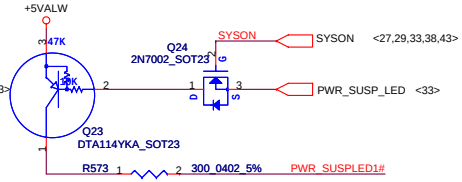
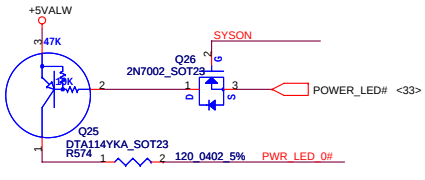
Lid SW



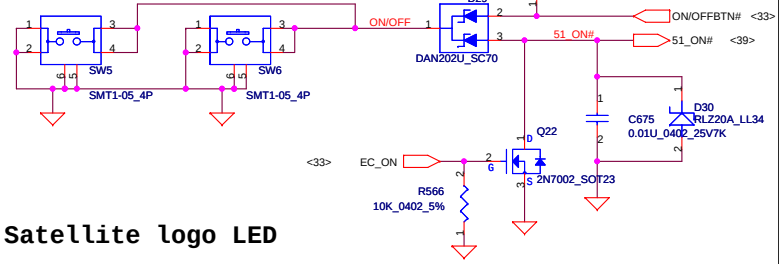




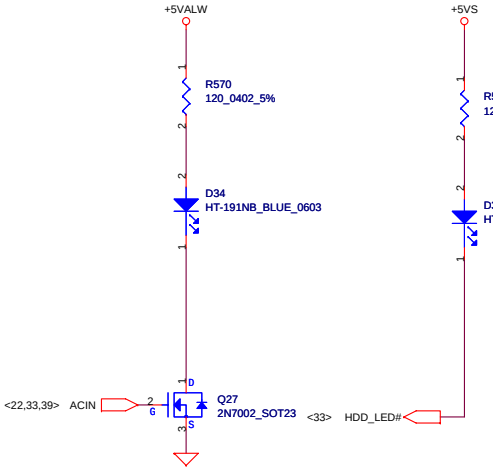
ON/OFF BUTTON

for debug only

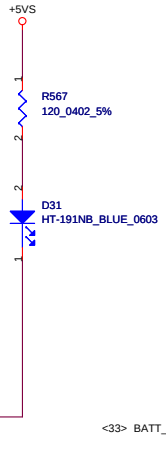
BTN TOP



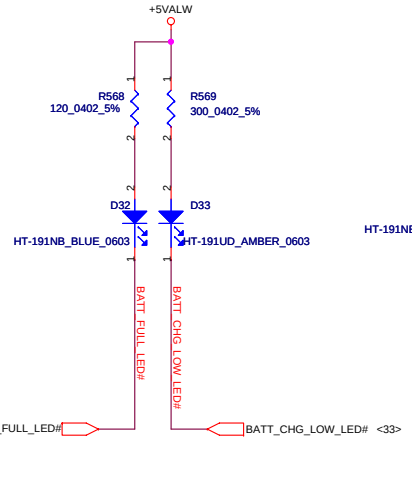
AC IN LED



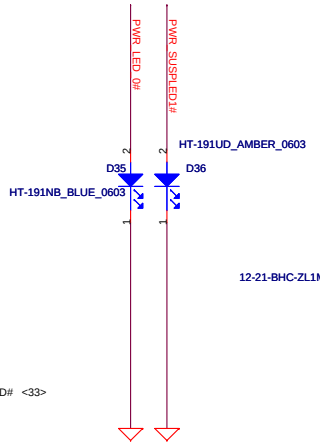
HDD LED



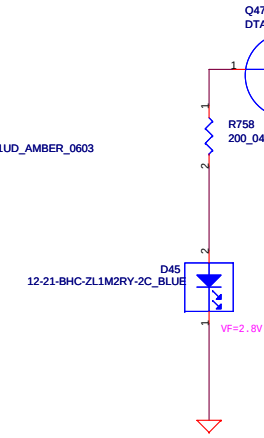
BATT CHARGE/FULL LED



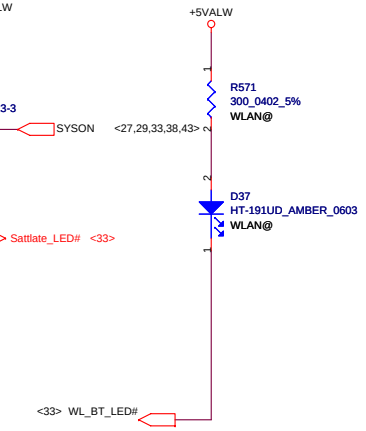
POWER/SUSPEND LED



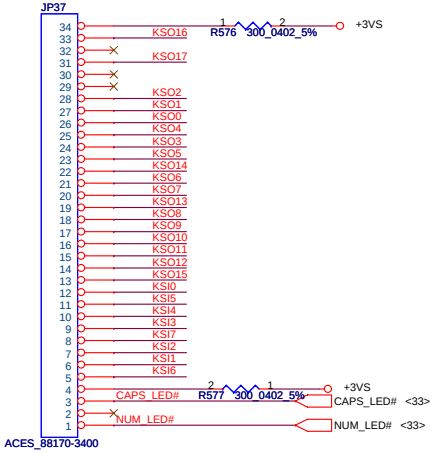
Satellite logo LED

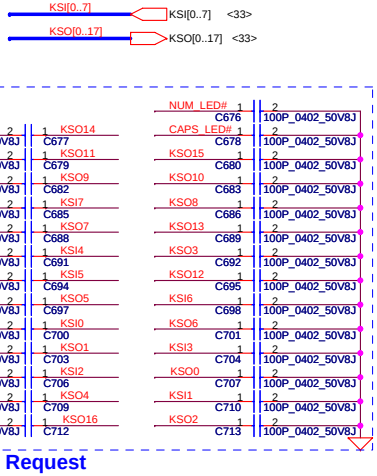


WL&BT LED



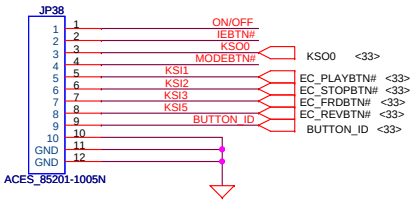
KEYBOARD CONN.

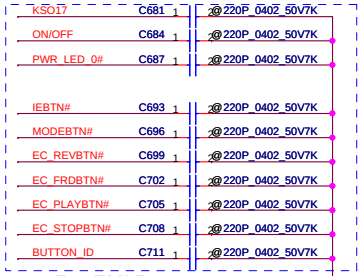




For EMI Request

SW/LED Connector





For EMI Request

20070718 change new KB define

Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: LID/KB/LED/SW-B Conn

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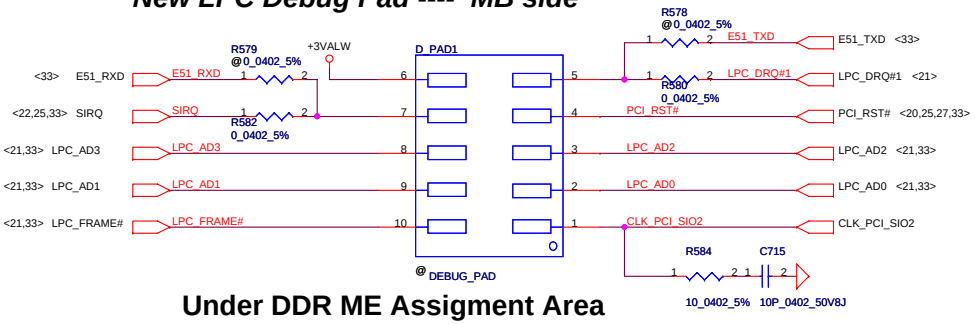
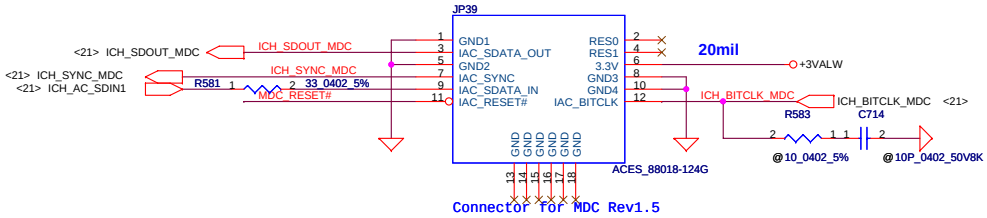
New LPC Debug Pad ---- MB side

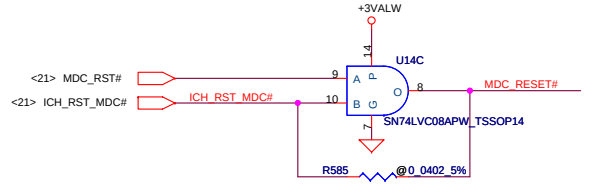


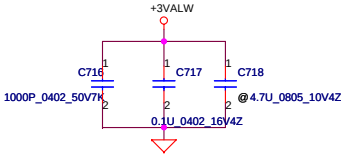
Under DDR ME Assigment Area

Keep Resistor near Debug Pad and in the same side
Reverse side DIMM ---- Pin 1 keep away DIMM

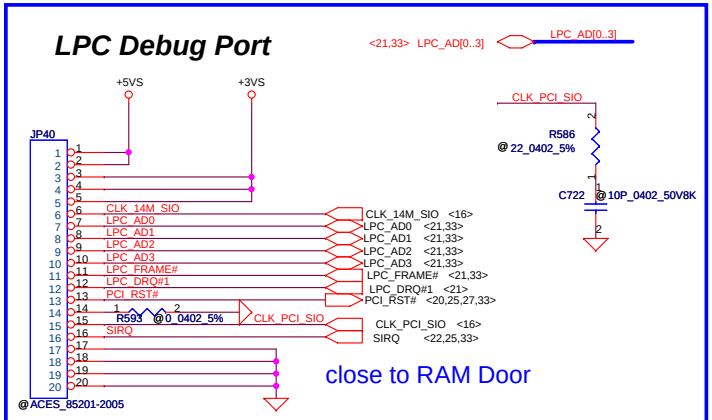
MDC Conn.



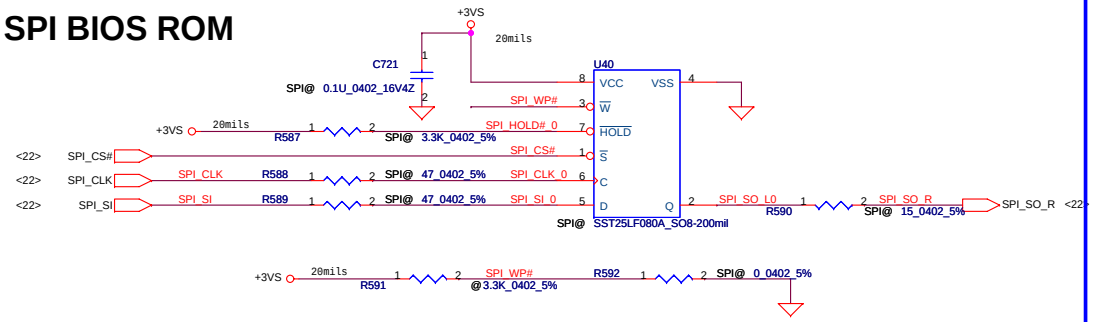




LPC Debug Port



SPI BIOS ROM



Add in 08/11.

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Compal Electronics, Inc.

Title: MDC

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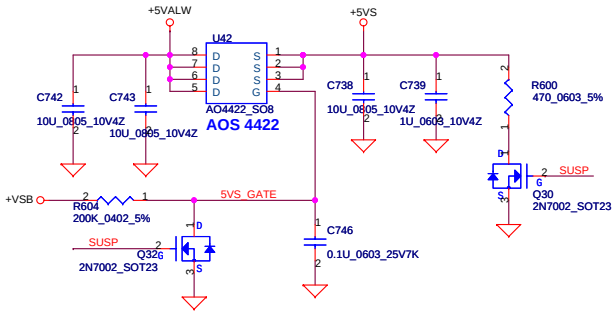
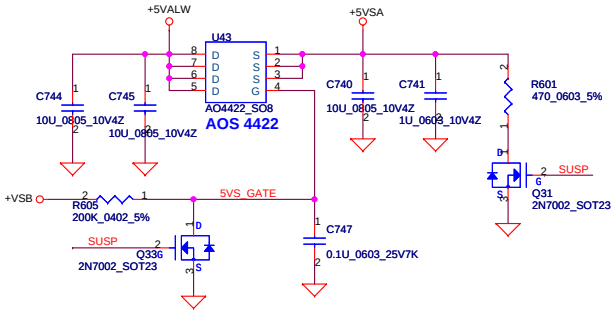
+5VALW TO +5VS

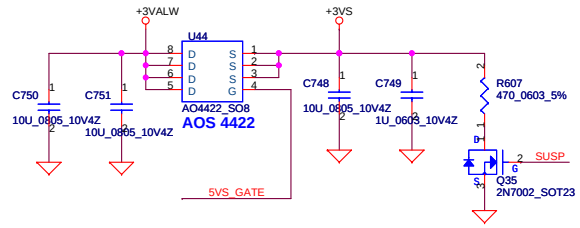


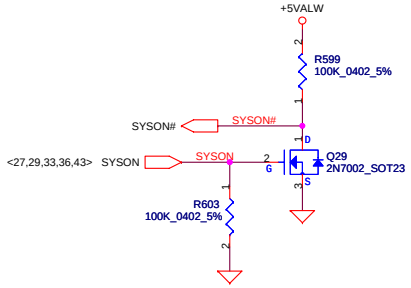
20060802 ADD for AMP use

+5VALW TO +5VSA (For Amp)

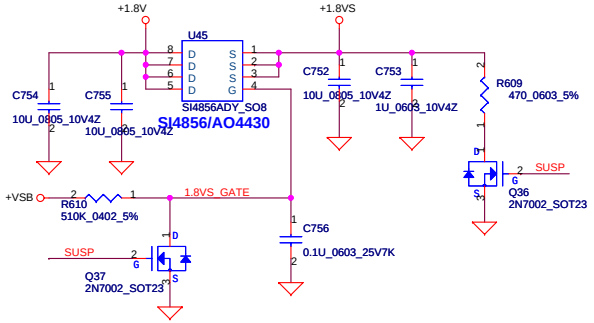


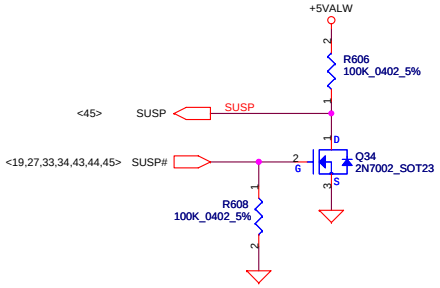
+3VALW TO +3VS

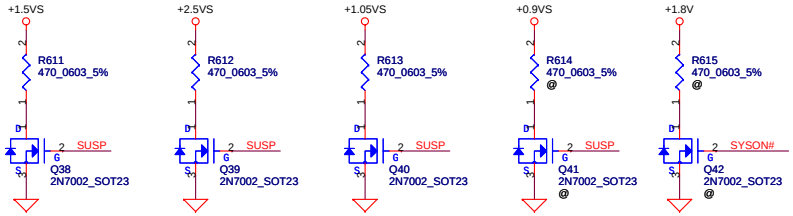




+1.8V to +1.8VS







FD1 FD2 FD3 FD4 FD5 FD6

FD7 FD8 FD9 FD10 FD11 FD12 FD13 FD14 FD15 FD16

H1 H_S394D118 H2 H_S394D118 H3 H_S394D118 H4 H_S394D118 H5 H_S394D118 H6 H_S394D118

H7 H_C315D118 H8 H_C315D118 H9 H_C315D118 H10 H_C315D118 H11 H_C315D118 H12 H_C315D118 H13 H_C315D118

H14 H_C315D118 H15 H_C315D118 H16 H_C315D157 H17 H_C315D157 H18 H_C315D157 H19 H_C276D126 H20 H_C276D126

H21 H_C276D126 H22 H_C276D126 H23 H_C236D87 H24 H_C236D87 H25 H_C236D87 H26 H_C236D87 H27 H_C236D87

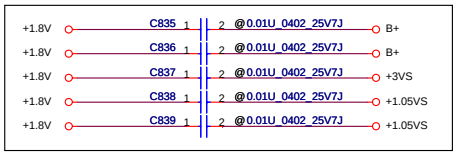
H28 H_C236D87 H29 H_C197D126 H30 H_C197D126 H31 H_C197D118 H32 H_C197D118 H33 H_C197D118 H34 H_C197D118

H35 H_R197X102D118X24 H36 H_R197X102D118X24 H37 H_C197D87 H38 H_C197D87 H39 H_C197D87 H40 H_C197D87

M1 H_C79D79N M2 H_C79D79N M3 H_C79D79N M4 H_C79D79N M5 H_C79D79N M6 H_C79D79N M7 H_C150D150N

M8 H_C339D339N M9 H_O236X118D236X118N M10 H_O256X150D256X150N M11 H_O256X150D256X150N

For EMI



Security Classification	Compal Secret Data		
Issued Date	2006/06/30	Deciphered Date	2007/06/30

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Title: **DC/DC I/F & Screw**

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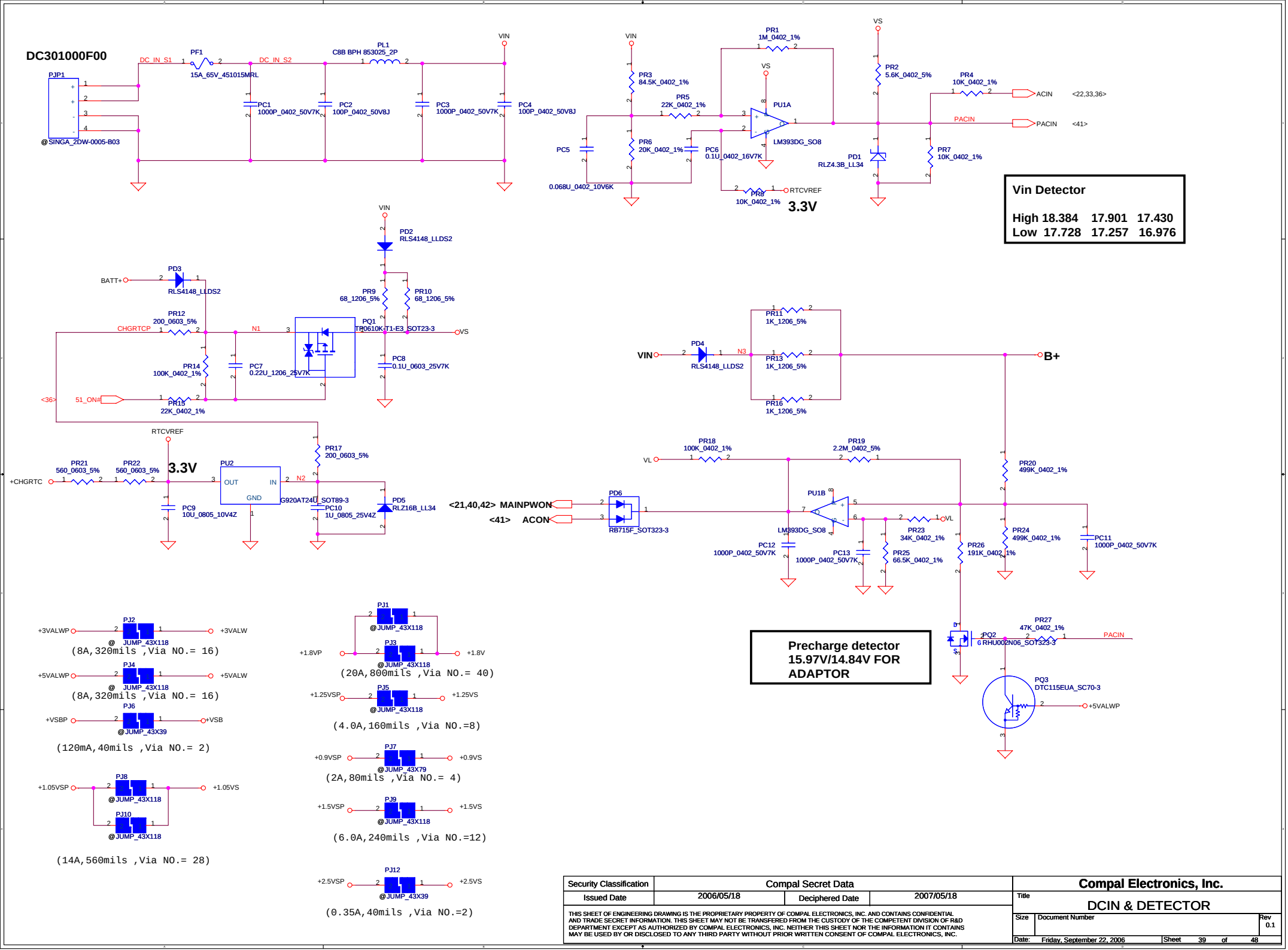

Security Classification	Compal Secret Data		
Issued Date	2006/05/18	Deciphered Date	2007/05/18

Compal Electronics, Inc.

Title: DCIN & DETECTOR

Size	Document Number	Rev
		0.1

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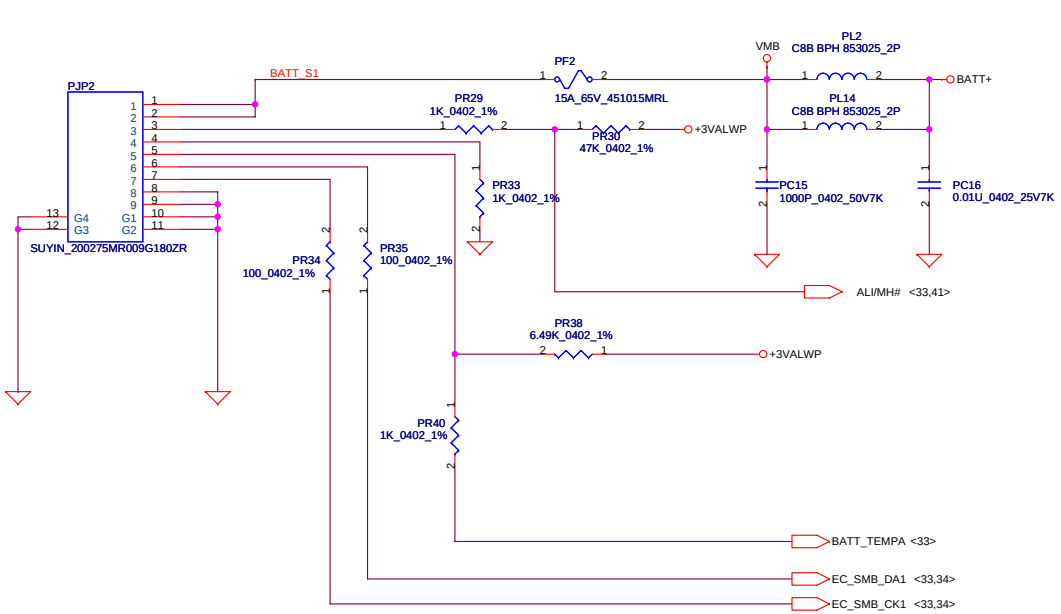
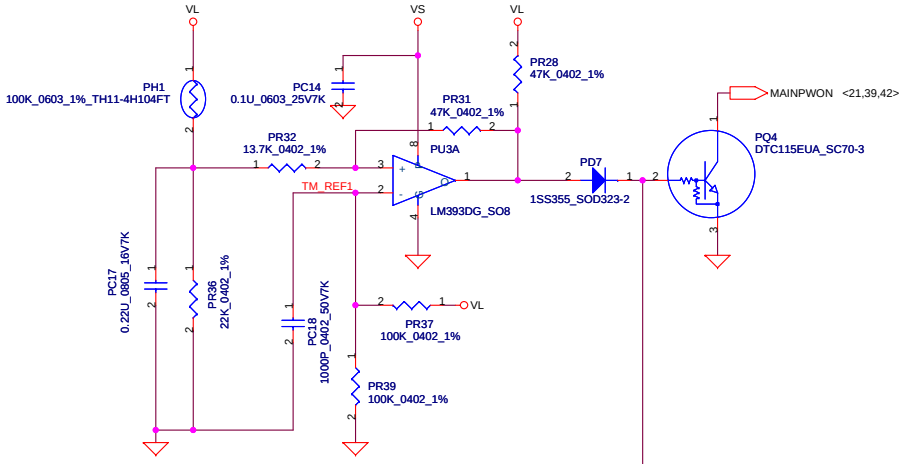
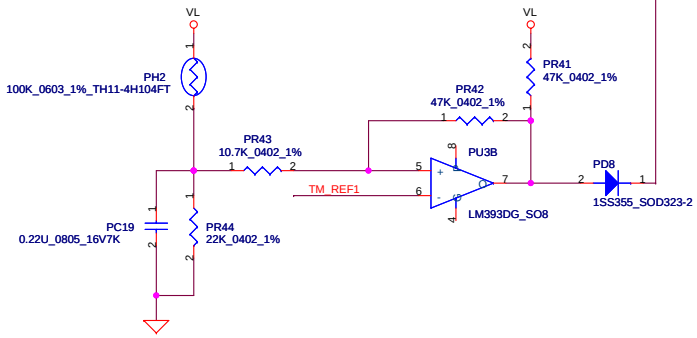
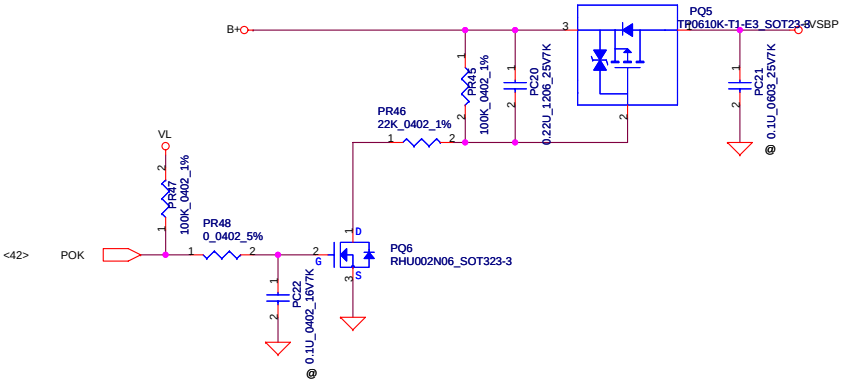
PH1 under CPU botten side :
CPU thermal protection at 84 degree C
Recovery at 45 degree C





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





Security Classification	Compal Secret Data		
Issued Date	2006/05/18	Deciphered Date	2007/05/18

Compal Electronics, Inc.

Title: BATTERY CONN / OTP

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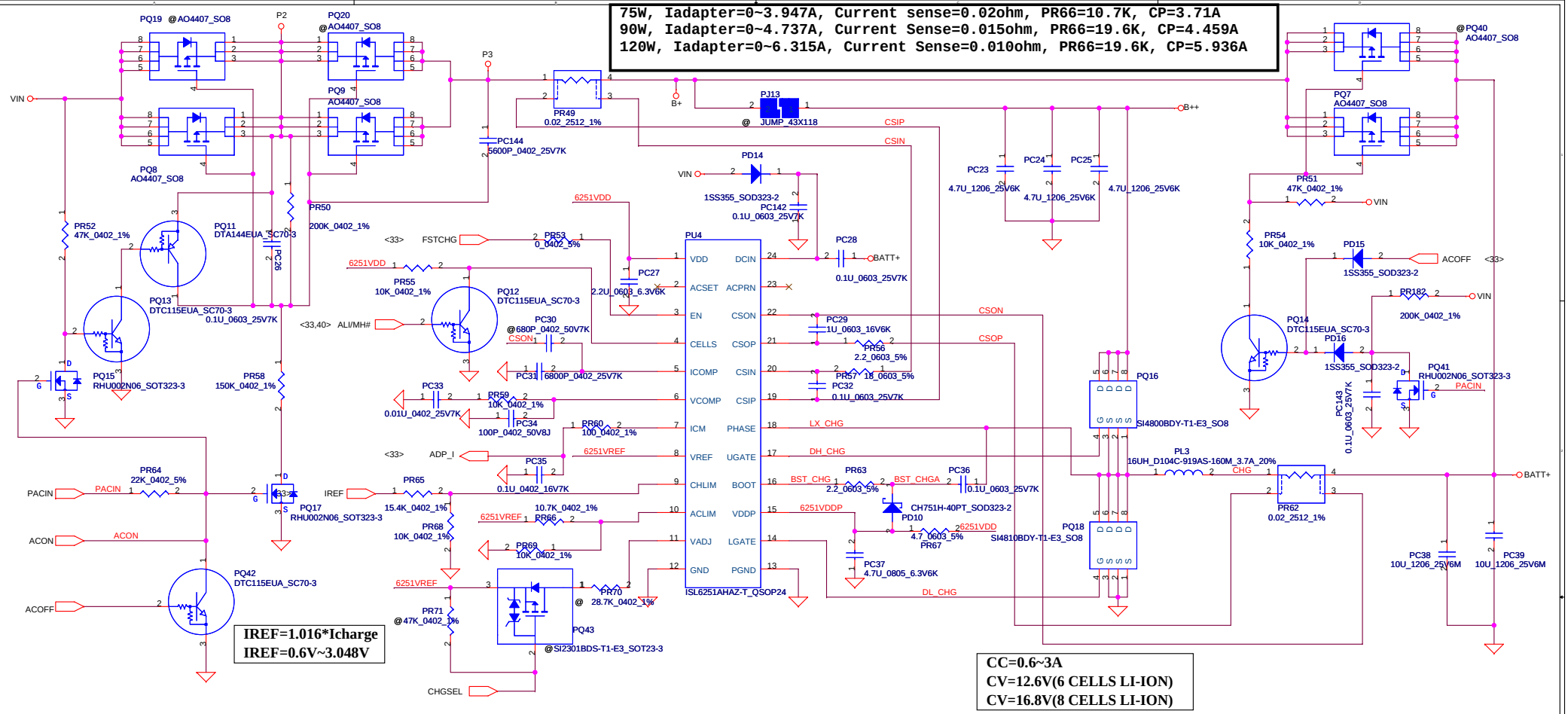
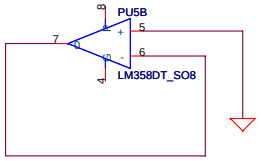
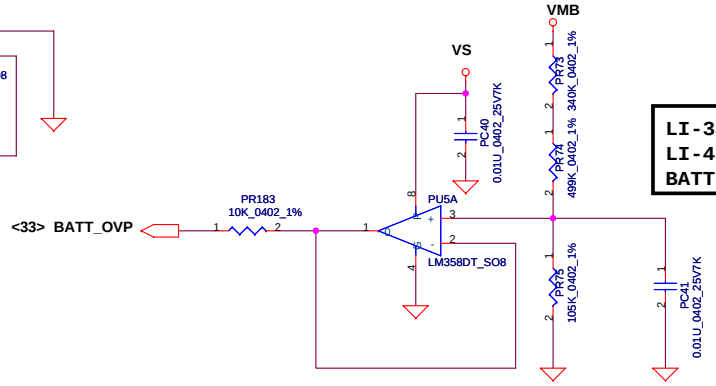


BATT Type	ALI/MH#	CELLS	Charge Current	IREF
4S2P	0V	HIGH	3A	3.048V
3S2P	2.5V	LOW	3A	3.048V
4S1P	0V	HIGH	1.5A	1.524V
Trickle Charge = 600mA				0.61V





LI-3S :13.5V----BATT-OVP=1.5V
LI-4S :18V----BATT-OVP=2V
BATT-OVP=0.111*BATT+

BATT Type	Charging Voltage (0x15)	ALI/MH#	CHGSEL	CV mode
2800mAH 4S pack	17400mV	LOW	LOW	17.20V
2800mAH 3S pack	13050mV	HIGH	LOW	12.90V
Normal 4S LI-ON Cells	16800mV	LOW	HIGH	16.80V
Normal 3S LI-ON Cells	12600mV	HIGH	HIGH	12.60V
Wake up charge while no communication	-	HIGH	HIGH	12.60V

Security Classification	Compal Secret Data		
Issued Date	2006/05/18	Deciphered Date	2007/05/18

Compal Electronics, Inc.

Title: CHARGER

Size	Document Number	Rev
		0.1

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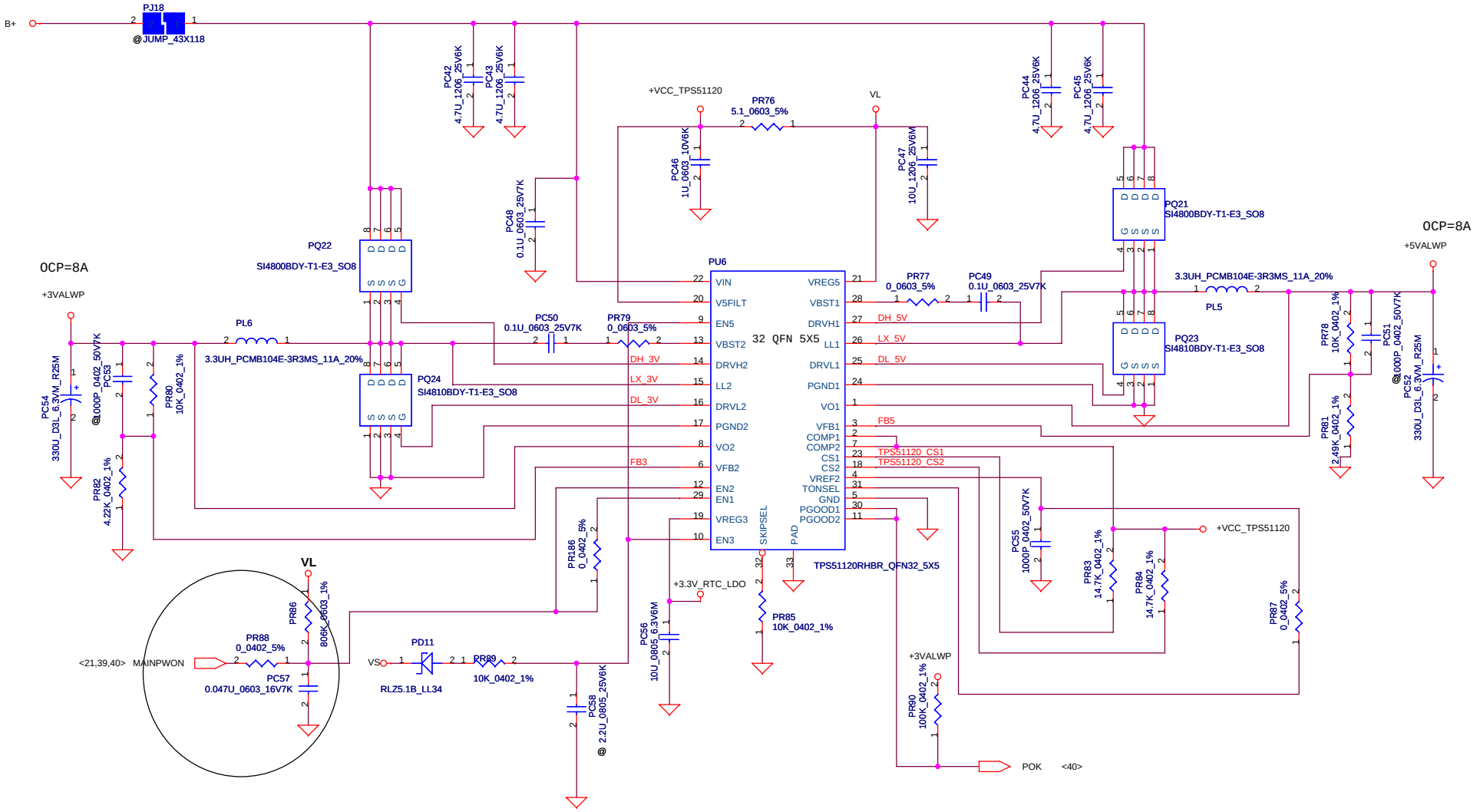

Security Classification	Compal Secret Data		
Issued Date	2006/05/18	Deciphered Date	2007/05/18

Compal Electronics, Inc.

Title	+5V/+3V	
Size: Custom	Document Number: IAYAA (LA-3391P)	Rev: 0.1
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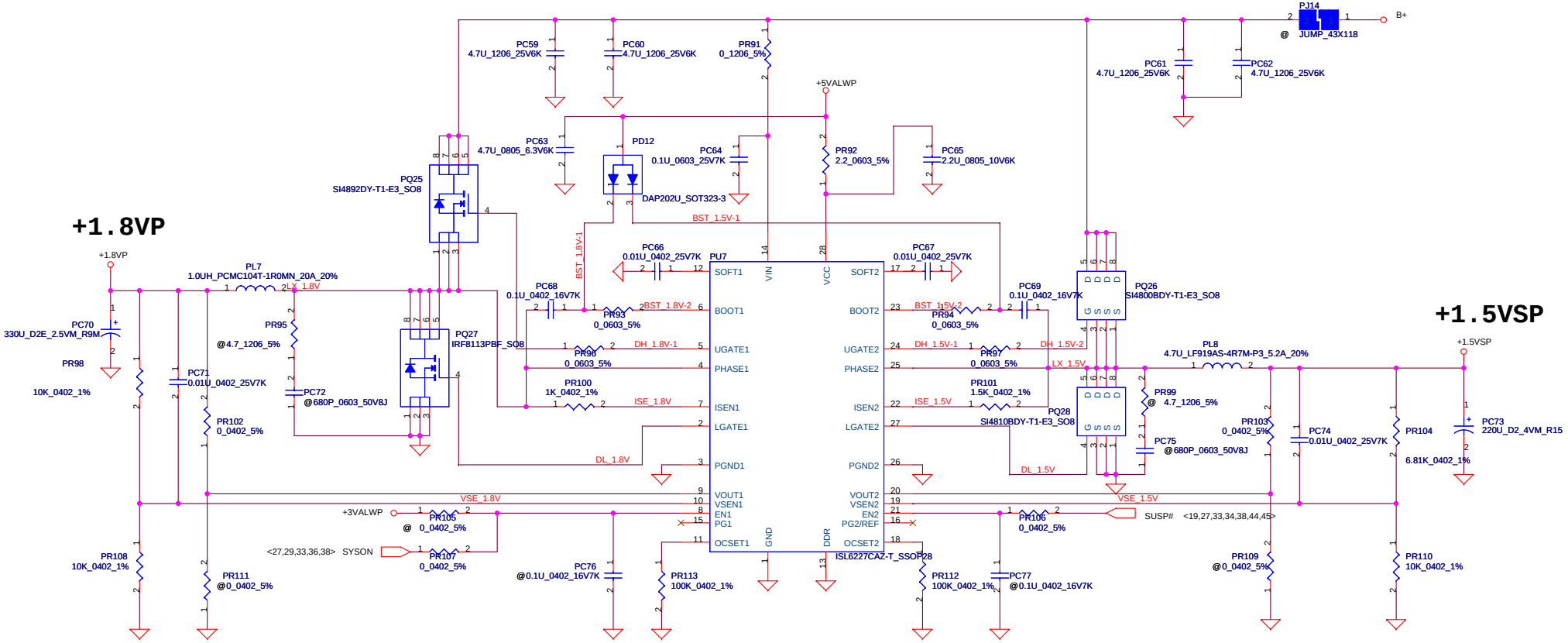
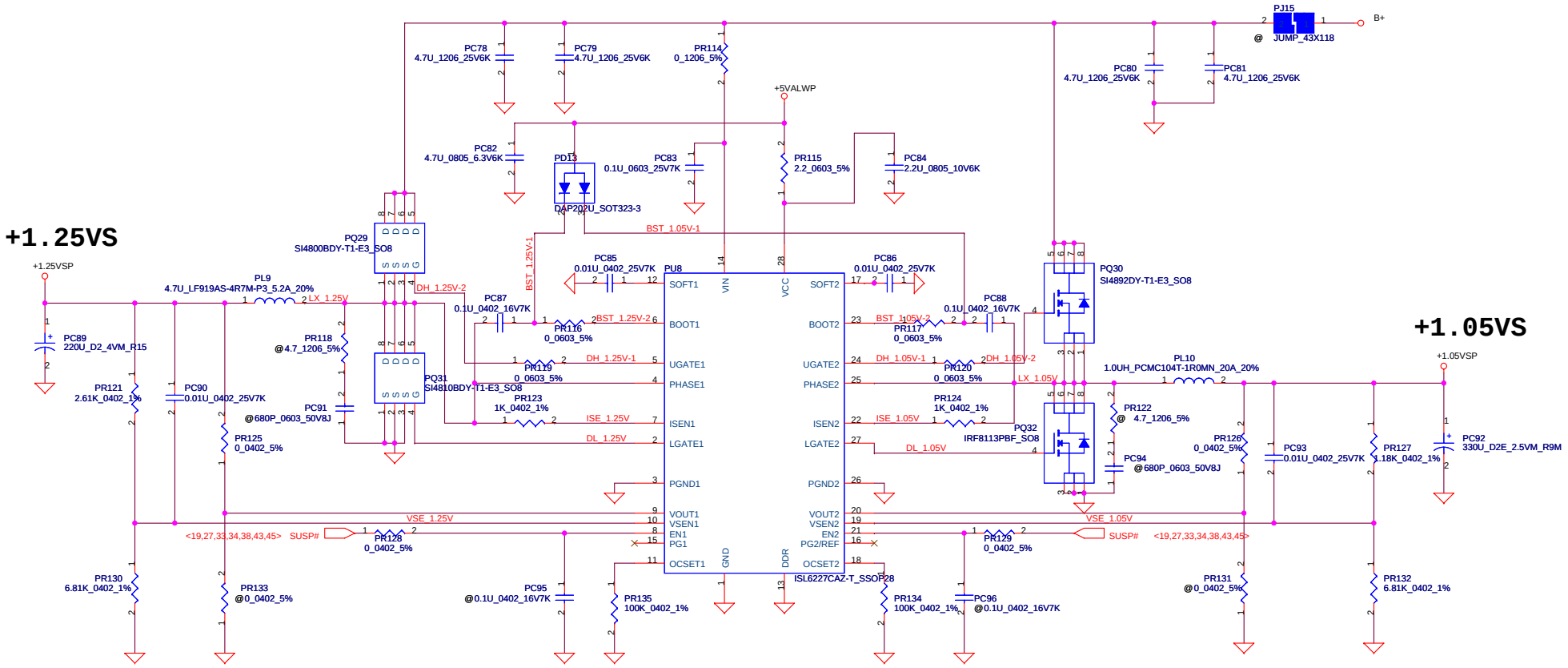


Security Classification	Compal Secret Data		
Issued Date	2006/05/18	Deciphered Date	2007/05/18

Compal Electronics, Inc.

Title	1.8V / 1.5V	
Size	Document Number	Rev 0.1
Date: Friday, September 22, 2006	Sheet 43 of 48	



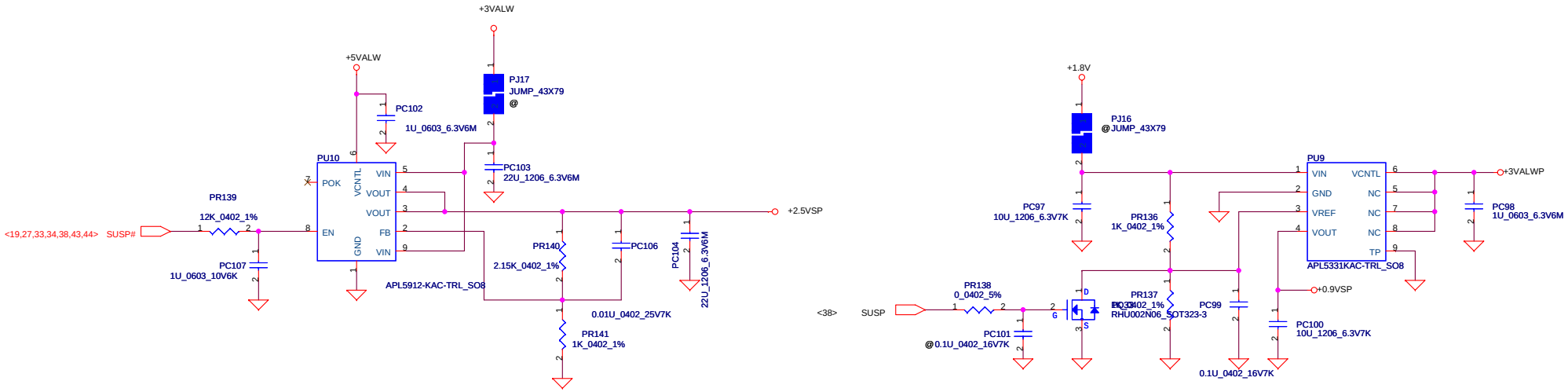
Security Classification	Compal Secret Data		
Issued Date	2006/05/18	Deciphered Date	2007/05/18

Compal Electronics, Inc.

Title: 1.05V / 1.25V

Size	Document Number	Rev
		0.1

Date: Friday, September 22, 2006 | Sheet 44 of 48



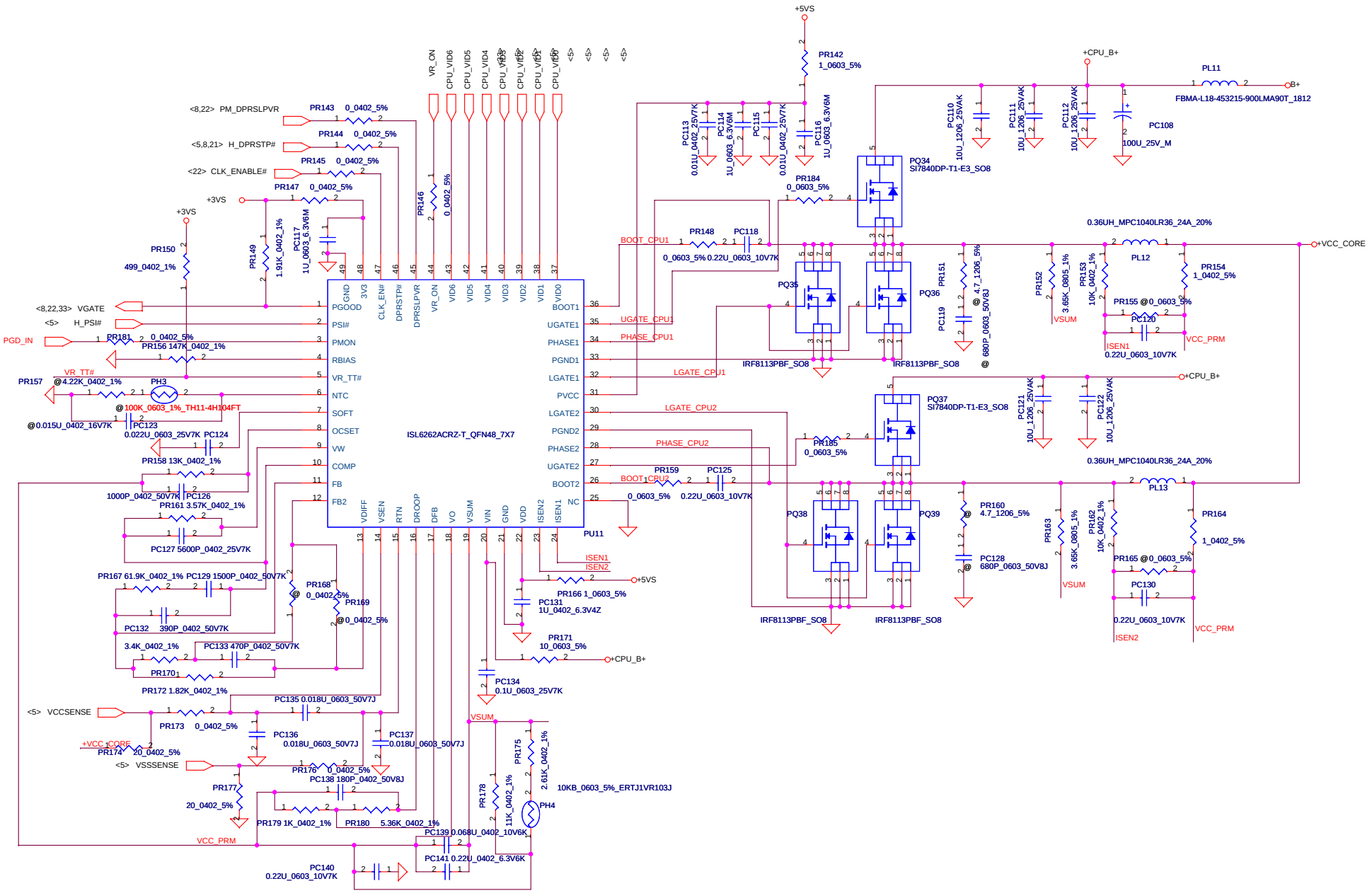
Security Classification	Compal Secret Data		
Issued Date	2006/05/18	Deciphered Date	2007/05/18

Compal Electronics, Inc.

Title: 1.05V / 0.9V / 1.5V

Size	Document Number	Rev
		0.1

Date: Friday, September 22, 2006 | Sheet 45 of 48



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

Compal Electronics, Inc.

Title: **+CPU_CORE**

Size	Document Number	Rev
Custom	Cleveland	0.1

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

Phase: A to B | *Date: 2006/01/04* | *Writer: Timo Teng*

Page#	Action Plan (add; del; change)	Location or Net_List	Before value (Attached file)	After value (Attached file)	Detail Discretion and Root Cause	Rev.	DL/DM Check

Compal Electronics, Inc.

Title	PIR	
Size	Document Number	Rev 0.1
Date: Thursday, September 21, 2006	Sheet 47 of 48	

LAN

U20

RTL8101E
100M@

TRANSFORMER

U22

TST1284-LF
100M@

PCB

ZZZ1

PCB LA-3441P REV0

NB

U3

965GM
GMR3@

U3

965GM
GMR1@

U3

965PM
PMR1@

SKU ID

R547

8.2K_0402_5%
PM@

DC-JACK

PJP1

SINGA_2DW-0005-B03
45@

8412

U15

TI8412
8412@

8402

U15

TI8402
8402@

Security Classification	Compal Secret Data		
Issued Date	2006/05/18	Deciphered Date	2007/06/30

Compal Electronics, Inc.

Title: ISPD

Size | Document Number | Rev 0.1

Date: Thursday, September 21, 2006 | Sheet 48 of 48