

Compal Confidential

ZPT10 UMA M/B LA-B151P Schematics Document

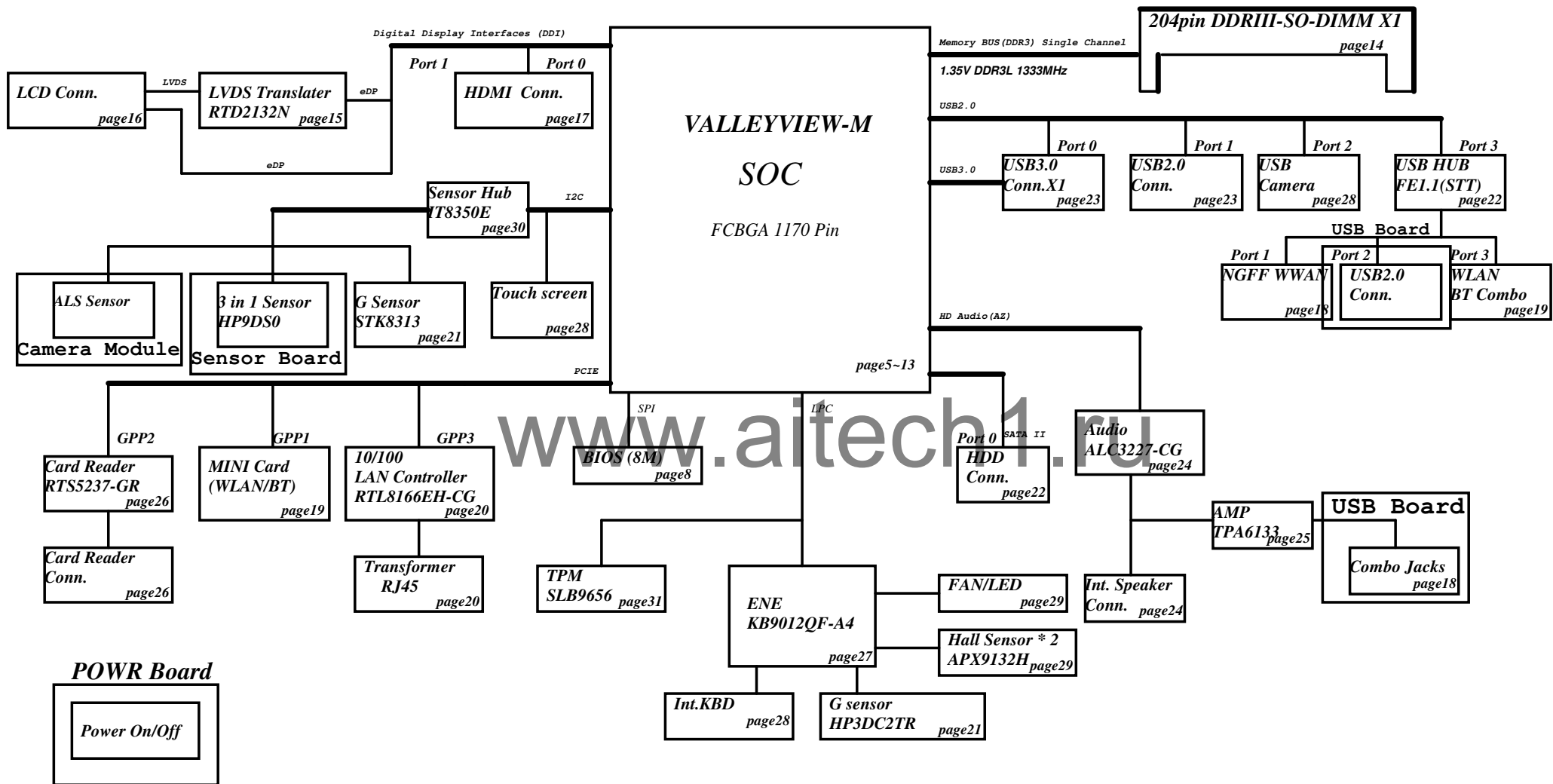
Intel Bay Trail M

www.aitech1.ru

2014-01-14

Rev: 1.0

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	Cover Page
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE CUSTOMER 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.				Document Number LA-B151P	Rev 1.0
				Date: Tuesday, January 21, 2014	Sheet 1 of 48



Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Block Diagrams	
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE 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.				Document Number LA-B151P	Rev 1.0
				Date: Tuesday, January 21, 2014	Sheet 2 of 48

Voltage Rails

Power Plane	Description	S0	S3	S4/S5
VIN	19V Adapter power supply	ON	ON	ON
BATT+	12V Battery power supply	ON	ON	ON
B+	AC or battery power rail for power circuit. (19V/12V)	ON	ON	ON
+VSB	+VSBP to +VSB always on power rail for sequence control	ON	ON	ON
+RTCVCC	RTC Battery Power	ON	ON	ON
+1.0VALW	+1.0v Always power rail	ON	ON	ON
+1.2VALW	+1.2v Always power rail	ON	ON	ON
+1.8VALW	+1.8v Always power rail	ON	ON	ON
+3VALW	+3.3v Always power rail	ON	ON	ON
+5VALW	+5.0v Always power rail	ON	ON	ON
+1.35V	+1.35V power rail for DDR3L	ON	ON	OFF
+SOC_VCC	Core voltage for SOC	ON	OFF	OFF
+SOC_VNN	GFX voltage for SOC	ON	OFF	OFF
+0.675VS	+0.675V power rail for DDR3L Terminator	ON	OFF	OFF
+1.0VS	+1.0v system power rail	ON	OFF	OFF
+1.05VS	+1.05v system power rail	ON	OFF	OFF
+1.35VS	+1.35v system power rail	ON	OFF	OFF
+1.5VS	+1.5v system power rail	ON	OFF	OFF
+1.8VS	+1.8v system power rail	ON	OFF	OFF
+3VS	+3.3v system power rail	ON	OFF	OFF
+5VS	+5.0v system power rail	ON	OFF	OFF
Note : ON* means that this power plane is ON only with AC power available, otherwise it is OFF.				

Board ID / SKU ID Table for AD channel

Vcc	3.3V +/- 1%			
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	0.300V
1	12K+/- 1%	0.307V	0.354V	0.360V
2	15K+/- 1%	0.423V	0.430V	0.438V
3	20K+/- 1%	0.541V	0.550V	0.559V
4	27K+/- 1%	0.691V	0.702V	0.713V
5	33K+/- 1%	0.807V	0.819V	0.831V
6	43K+/- 1%	0.978V	0.992V	1.006V
7	56K+/- 1%	1.169V	1.185V	1.200V

BOARD ID Table

Board ID	PCB Revision
0	0.1
1	0.2
2	0.3
3	1.0
4	
5	
6	

BOM Option Table

BTO Item	BOM Structure
Unpop	@
Connector	CONN@
EMI requirement	EMI@
ESD requirement	ESD@
EMI requirement unpop	@EMI@
ESD requirement unpop	@ESD@
For Debug	DB@
For LVDS Panel	LVDS@
For eDP Panel	eDP@
RF requirement	RF@
PIR Item 64	
RF requirement unpop	@RF@
For TPM	TPM@

EC SM Bus1 address

Device	Address
Accelerometer	52 01010010 U25
Charger	
Battery	
Home Key	60 01100000

SOC SM Bus address

Sensor Hub address

Device	Address	Device	Address
ChannelA	A0 10100000 JDIMM1	Accelerometer	22 00100010 U2101
Thermal Sensor	4D 01001101 UC3	HP09250	68 01101000 U2(SenSor/B)

BOM config

PCB P/N	
4319S432L01	EMI@/ESD@/LVDS@/DB@/RF@/N3520@
4319S432L02	EMI@/ESD@/LVDS@/DB@/RF@/N2820@

43 level BOM table

43 Level	Description	BOM Structure
4319S432L01	SMT MB AB151 ZPT10 N3510 4.5W HDMI R1	
4319S432L02	SMT MB AB151 ZPT10 N2810 4.5W HDMI R1	

DAX



PCB
Part Number = DA600149000
PCB 150 LA-B151P REV0 M/B 3

ZZZ1



HDMI
Part Number = R00000003HM
PCB 102 LA-B151P REV0 M/B 3
45@

PIR Item 50

USOC1 N3520@
CPU Part Number = SA00007E940 S IC FH8065301616103 SR1SE B3 2.17G BGA
USOC1 N2820@
CPU Part Number = SA00007EK30 S IC FH8065301616603 SR1SG B3 2.13G BGA

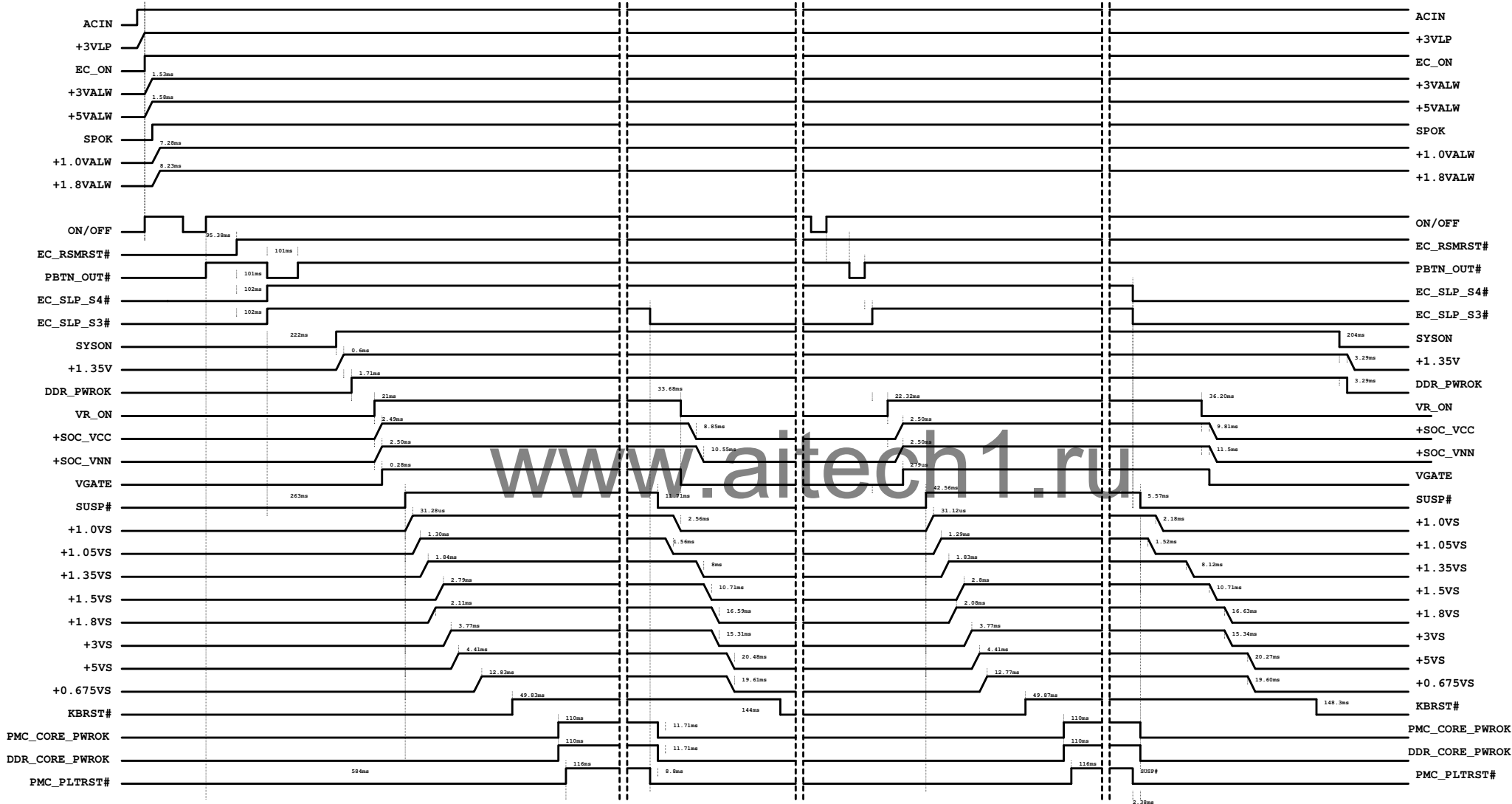
Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	Notes List
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Document Number LA-B151P	Rev 1.0
				Date: Tuesday, January 21, 2014	Sheet 3 of 48

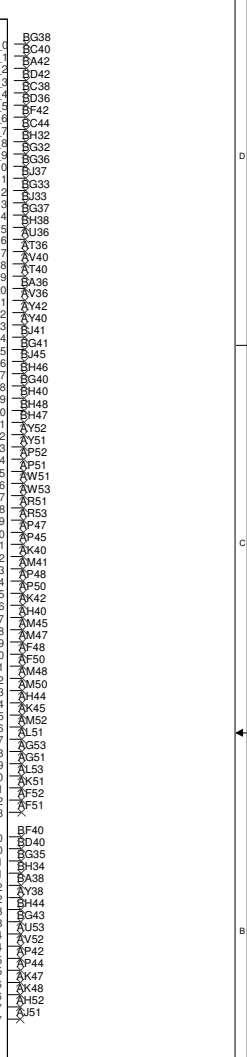
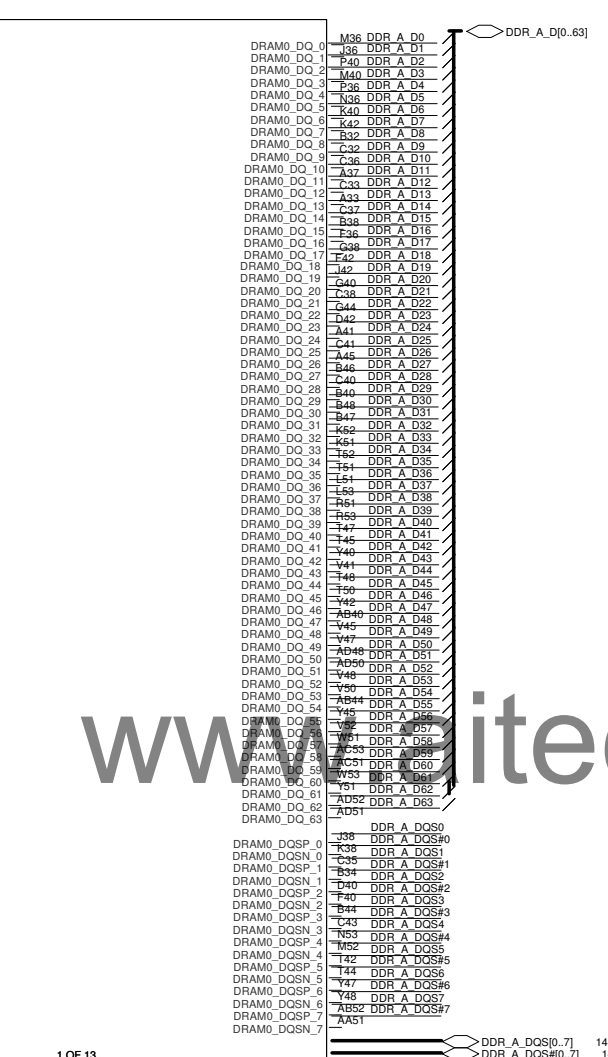
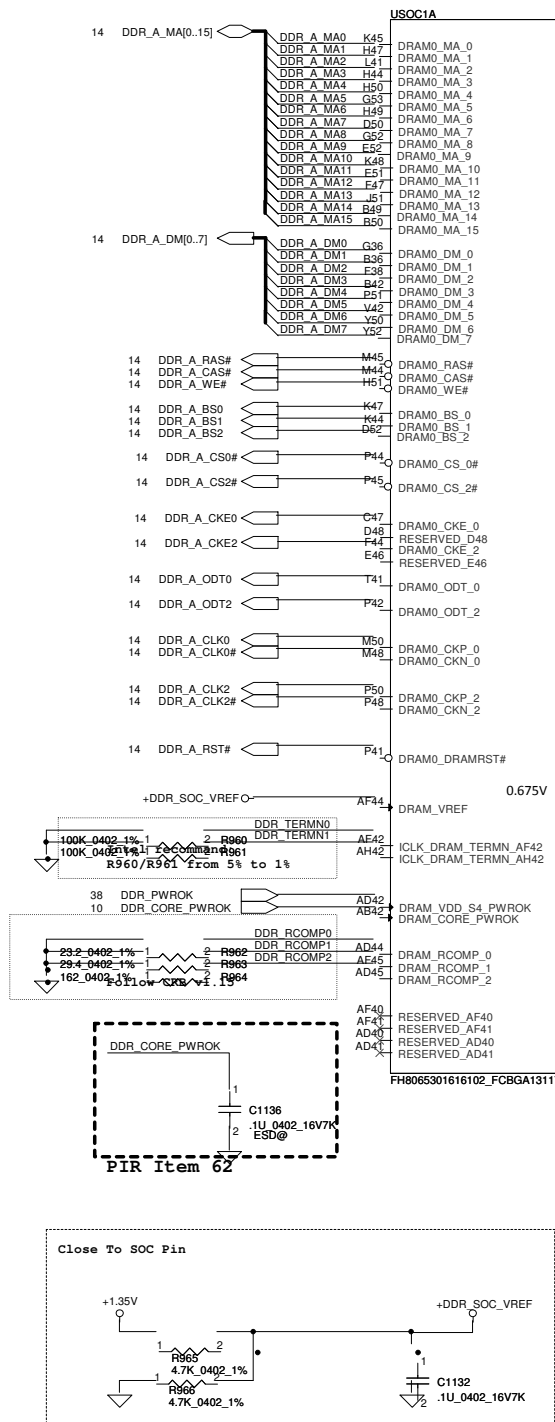
G3->S0

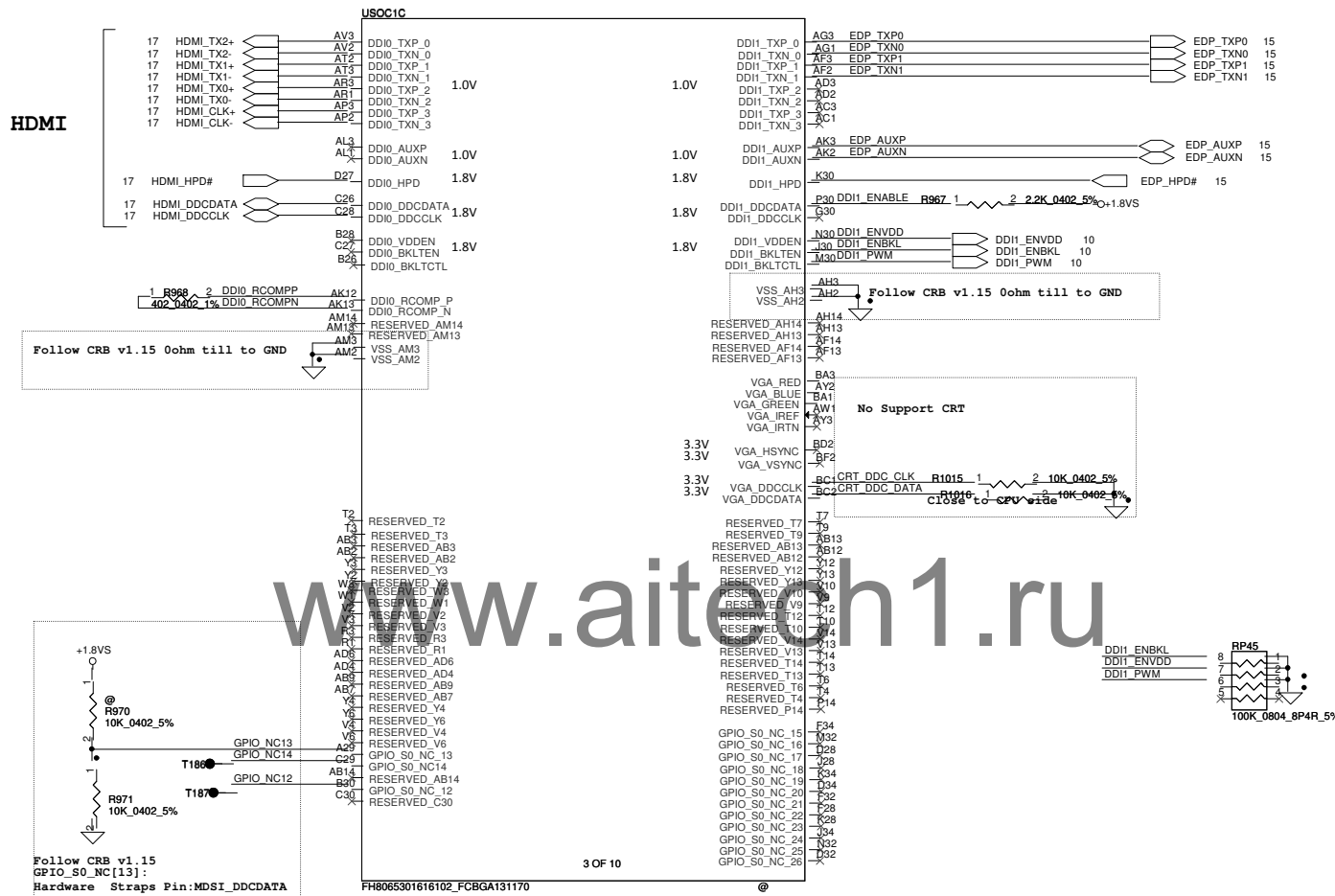
S0->S3

S3->S0

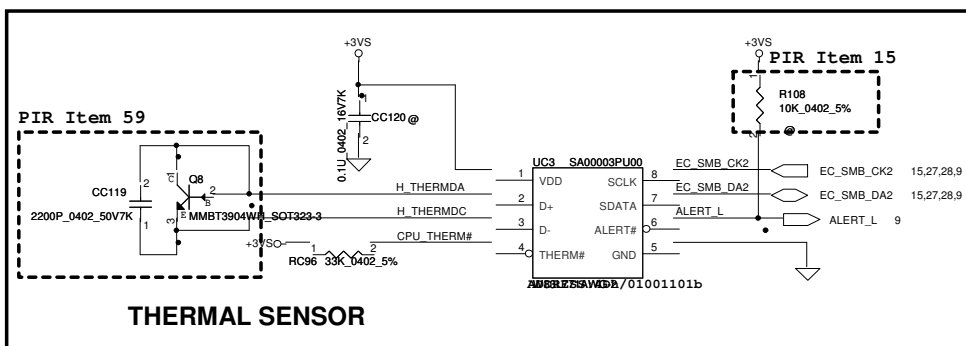
S0->S5



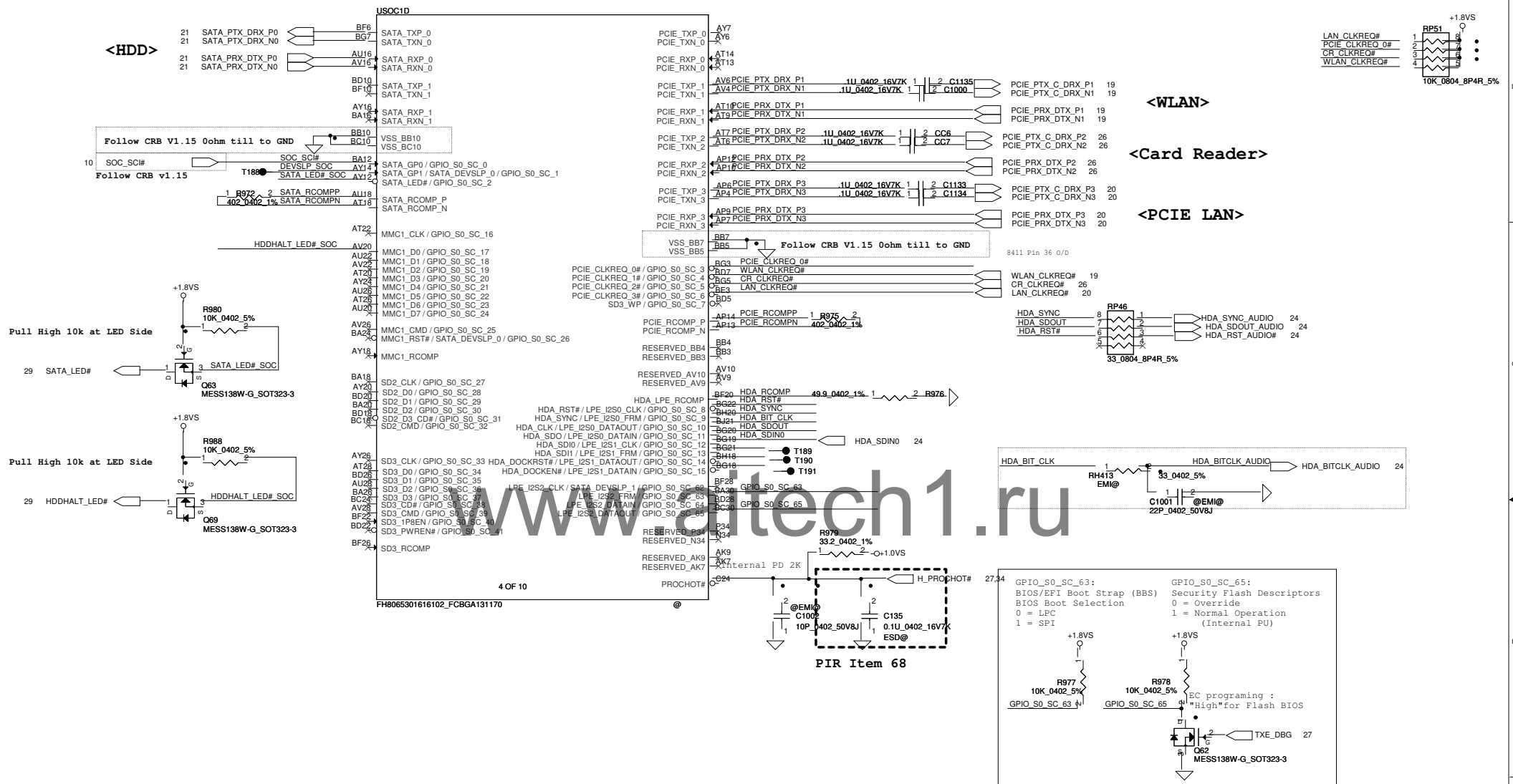




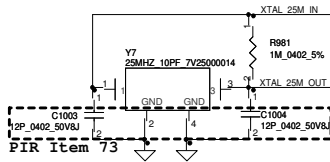
For LCD Panel
 1 Channel: LVDS
 2 Channel: eDP



Security Classification			Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	VLV-M SOC Display	
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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.				Document Number	LA-B151P	
				Date	Tuesday, January 21, 2014	Rev 1.0
				Sheet	6	of 46



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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.				Customer
				LA-B151P
				Rev 1.0
				Date: Tuesday, January 21, 2014
				Sheet 7 of 48

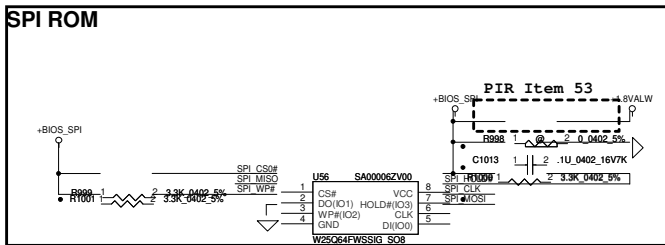
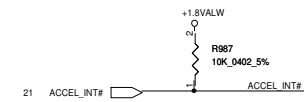
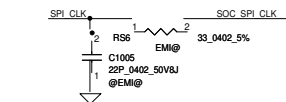
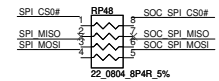
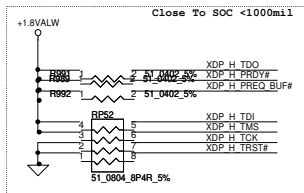


Intel recommend:
C1003/C1004 from 10P to 22P

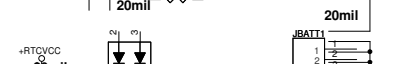
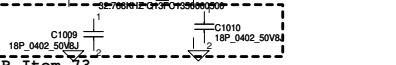
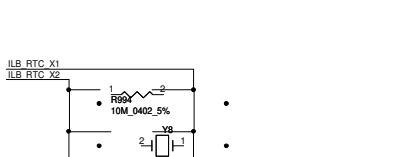
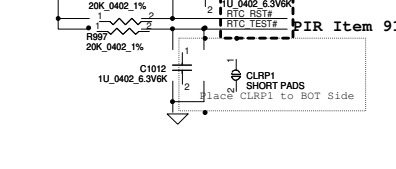
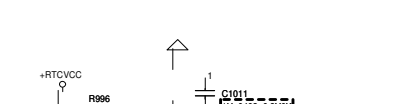
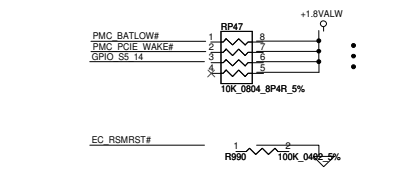
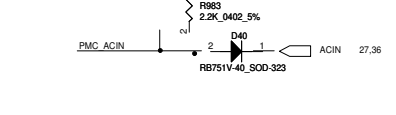
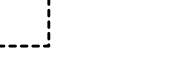
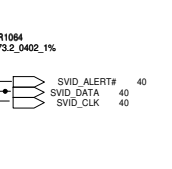
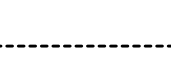
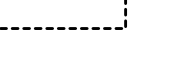
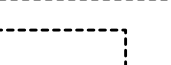
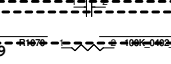
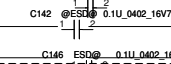
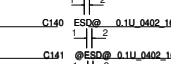
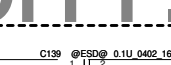
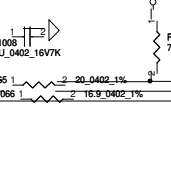
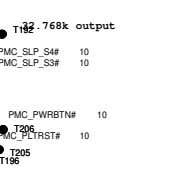
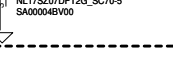
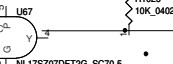
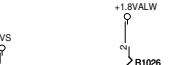
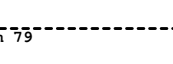
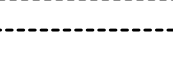
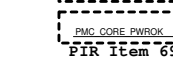
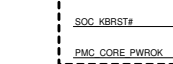
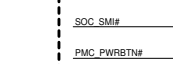
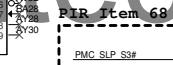
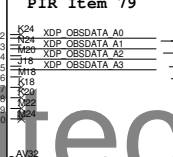
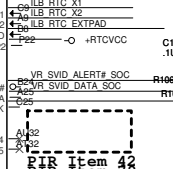
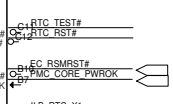
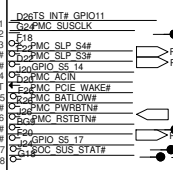
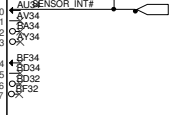
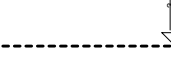
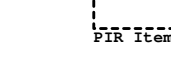
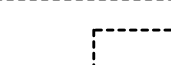
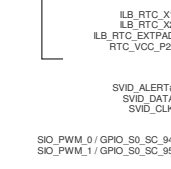
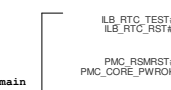
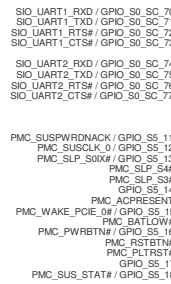
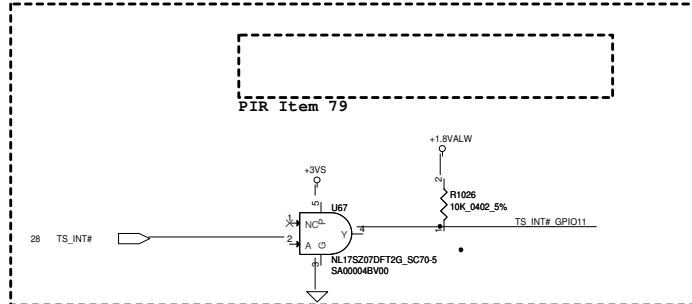
<WLAN>

<Card reader>

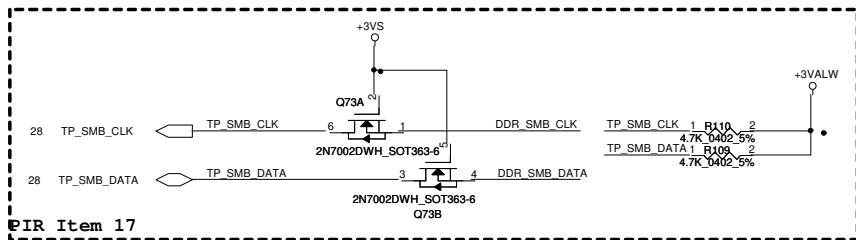
<LAN>



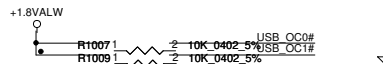
PIR Item 42



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	VLV-M SOC CLK/PMU/SPI
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 REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	C	Document Number	LA-B151P	Rev	1.0
Date	Tuesday, January 21, 2014	Sheet	8	of	48



<USB30>
<USB20>
<Camera>
<USB Hub>

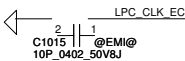
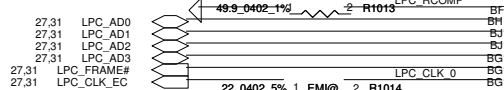


NOTE: Ref checklist rev 1.0 p.25
USB_HSIC_RCOMP must NOT float if they are not being used.



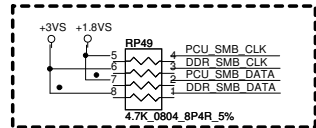
ILB LPC_CLK_0 : Output of 25Mhz,
Need Check with EC

ILB LPC_CLK_1 is for CLK_0 feedback.(Input)
Set to Output for Normal Usage

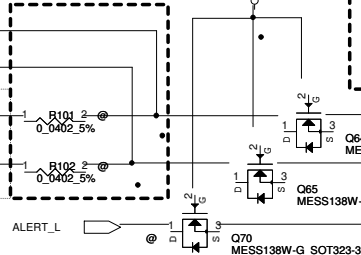


PIR Item 68

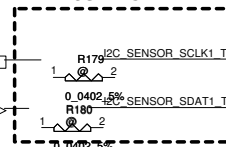
PIR Item 14



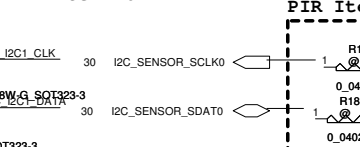
PIR Item 14



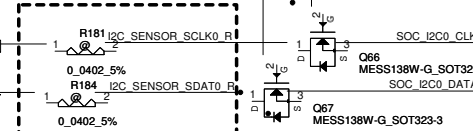
PIR Item 75



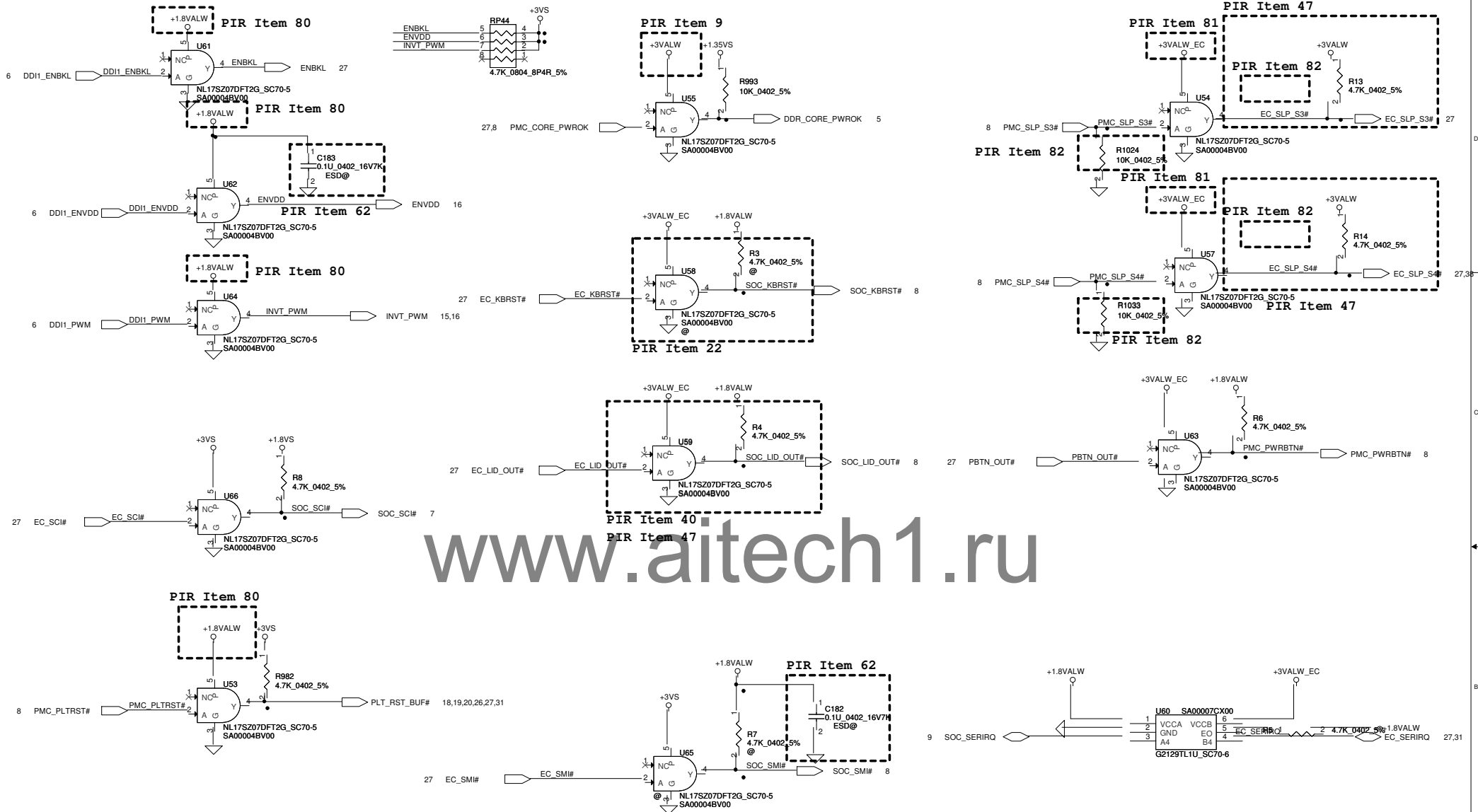
PIR Item 76



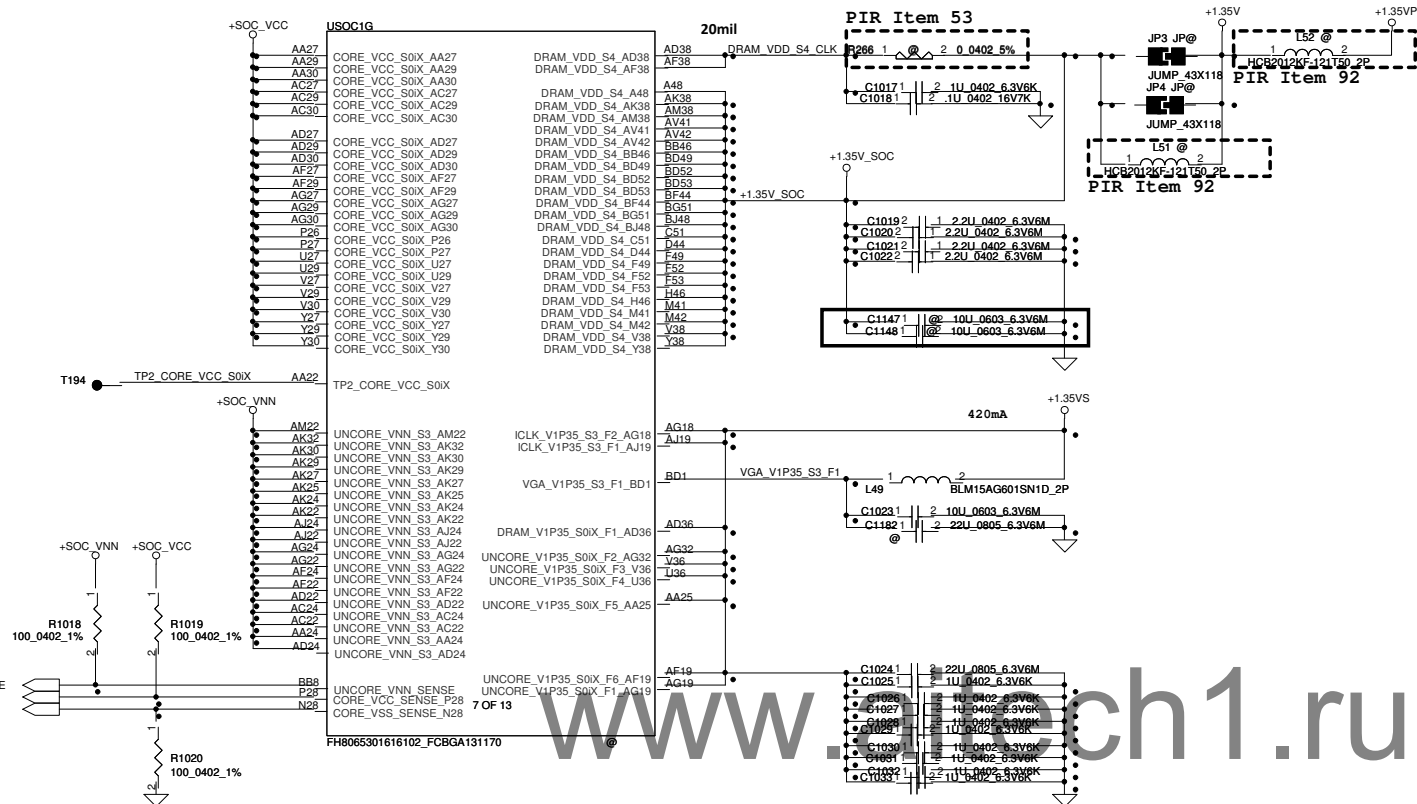
PIR Item 75

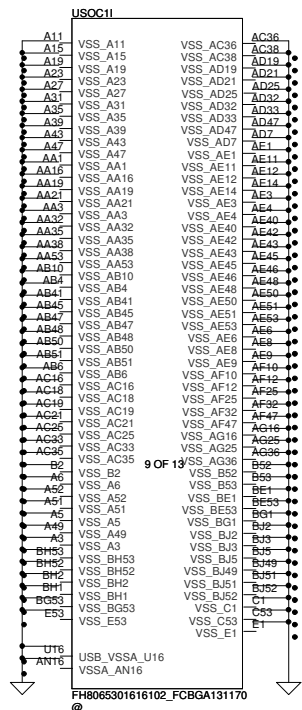


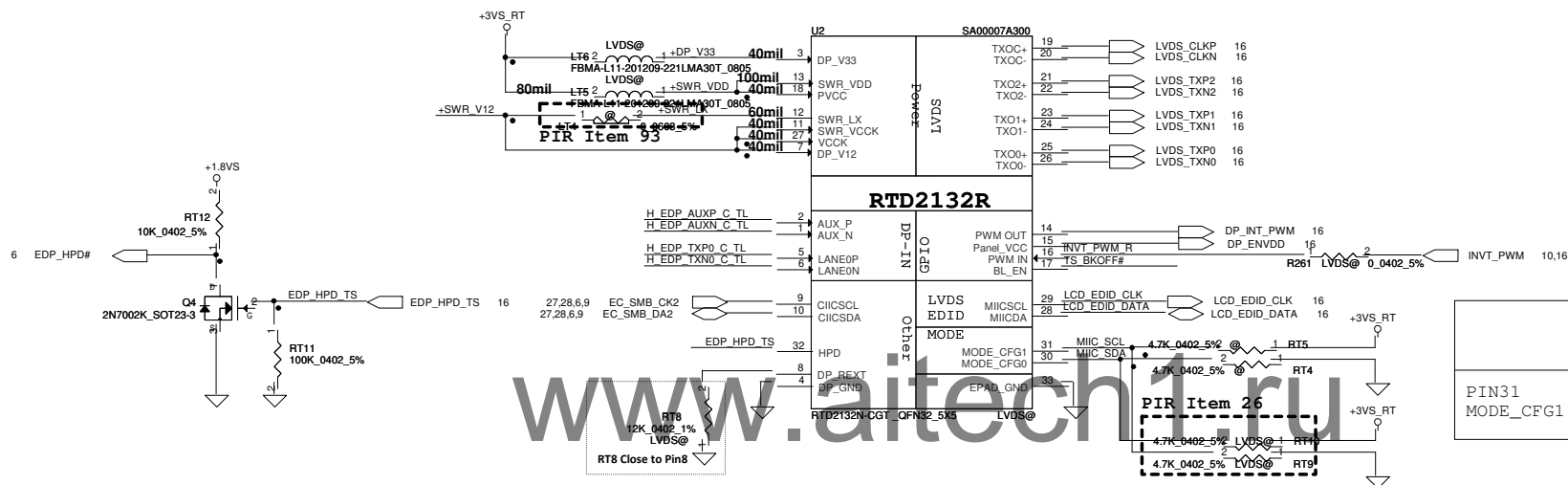
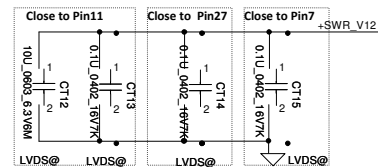
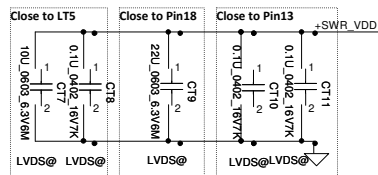
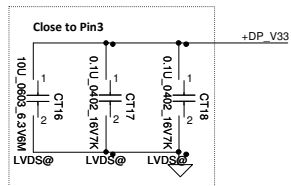
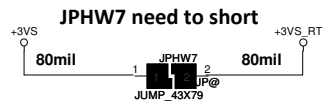
Security Classification	Compal Secret Data		Title
Issued Date	2014/01/14	Deciphered Date	2015/01/14
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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.			Customer: LA-B151P
Compal Electronics, Inc. VLV-M SOC USB/LPC/SMBus			Rev 1.0



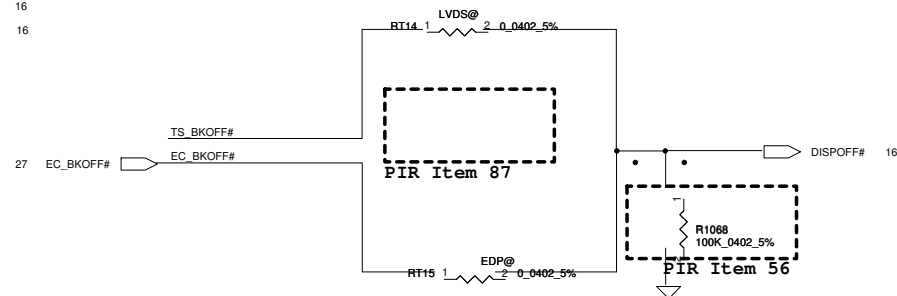
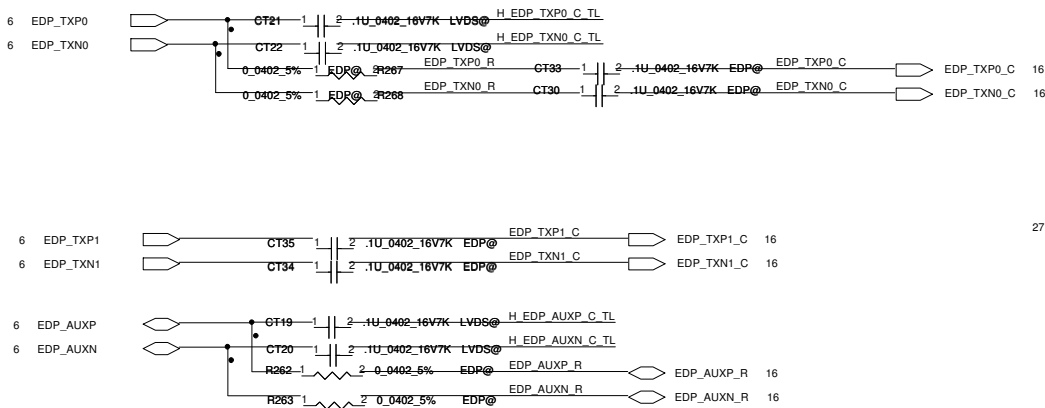
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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.				Customer
				LA-B151P
				Rev 1.0
				Date: Tuesday, January 21, 2014
				Sheet 10 of 48

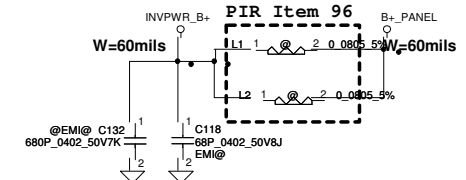
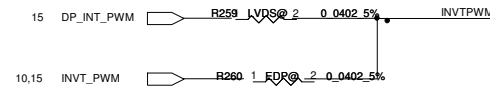
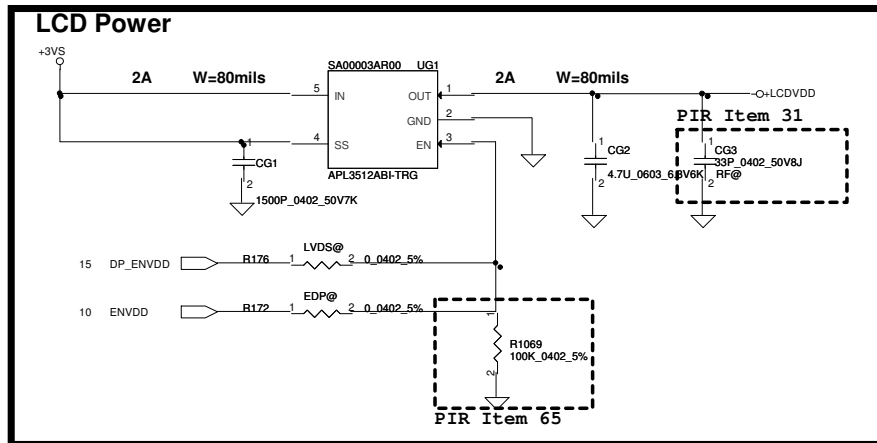




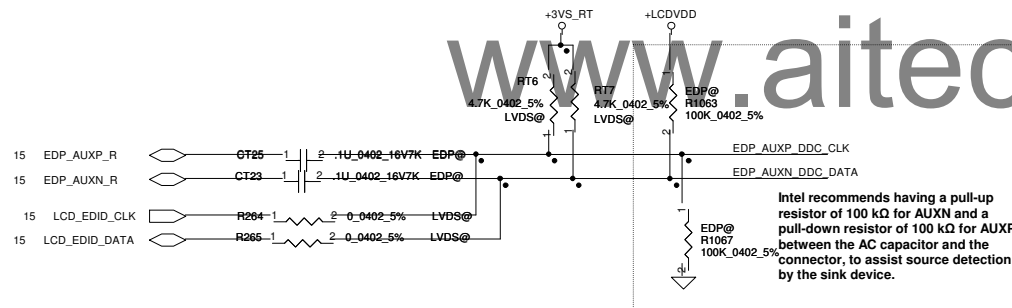
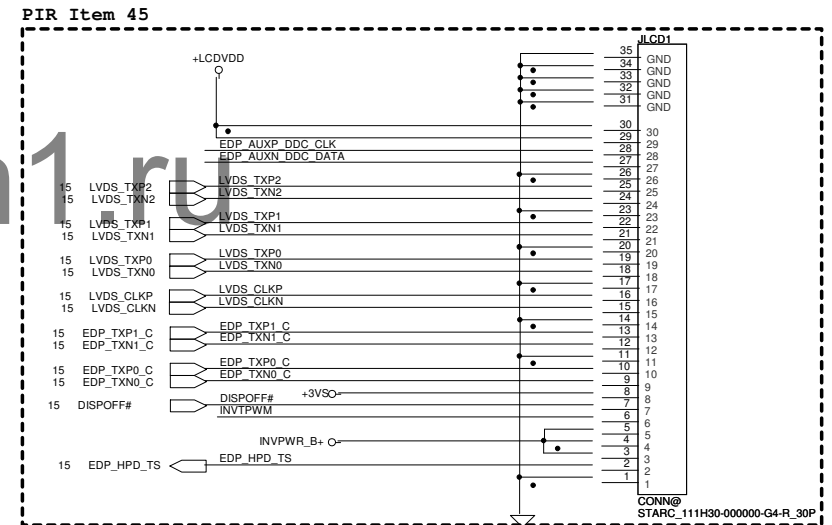


		PIN30 MODE_CFG0	
		0	1
PIN31 MODE_CFG1	0	X	EP Mode
	1	ROM	EEPROM





LCD PANEL Conn.



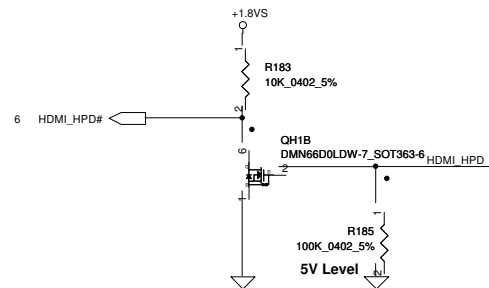
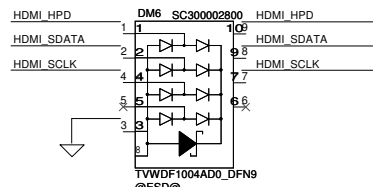
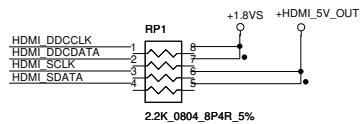
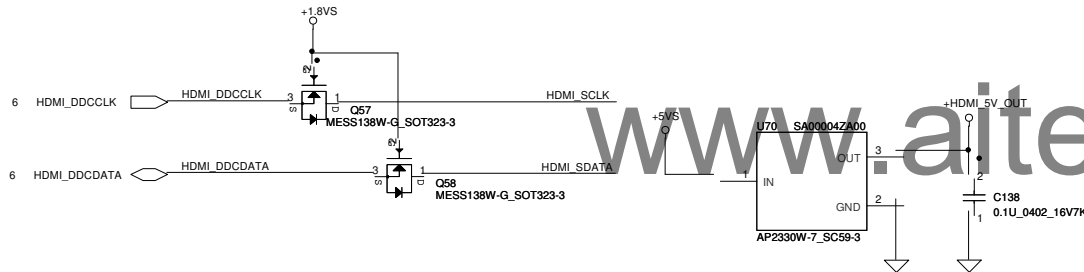
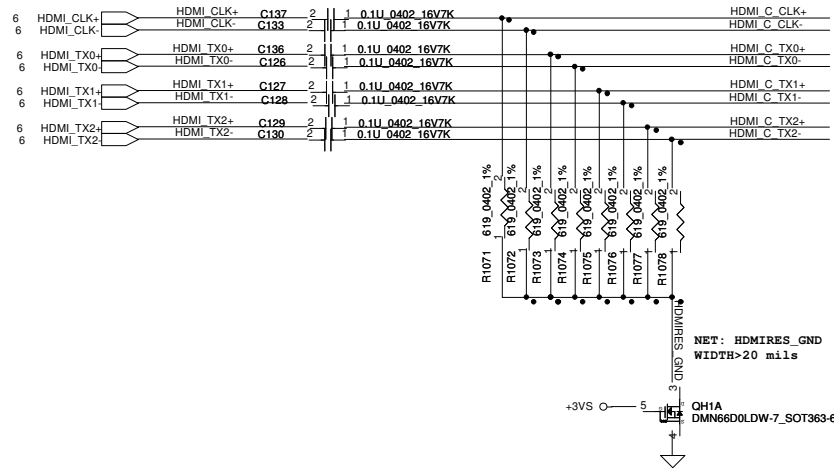
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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.				Document Number
				LA-B151P
				Rev 1.0
				Date: Tuesday, January 21, 2014
				Sheet 16 of 48

CLK

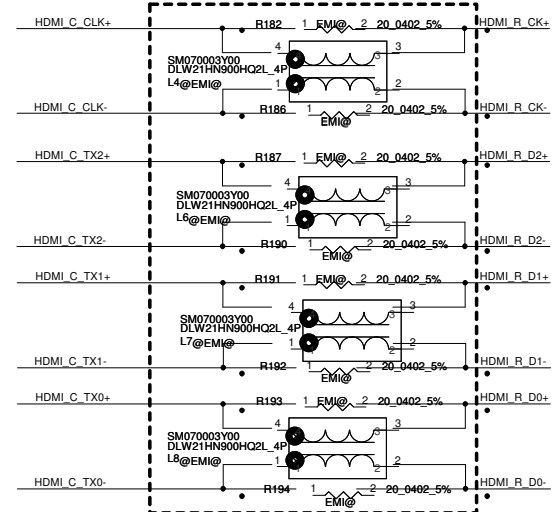
Data0

Data1

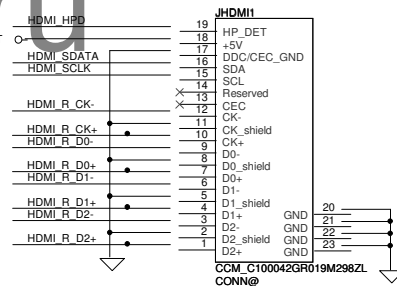
Data2



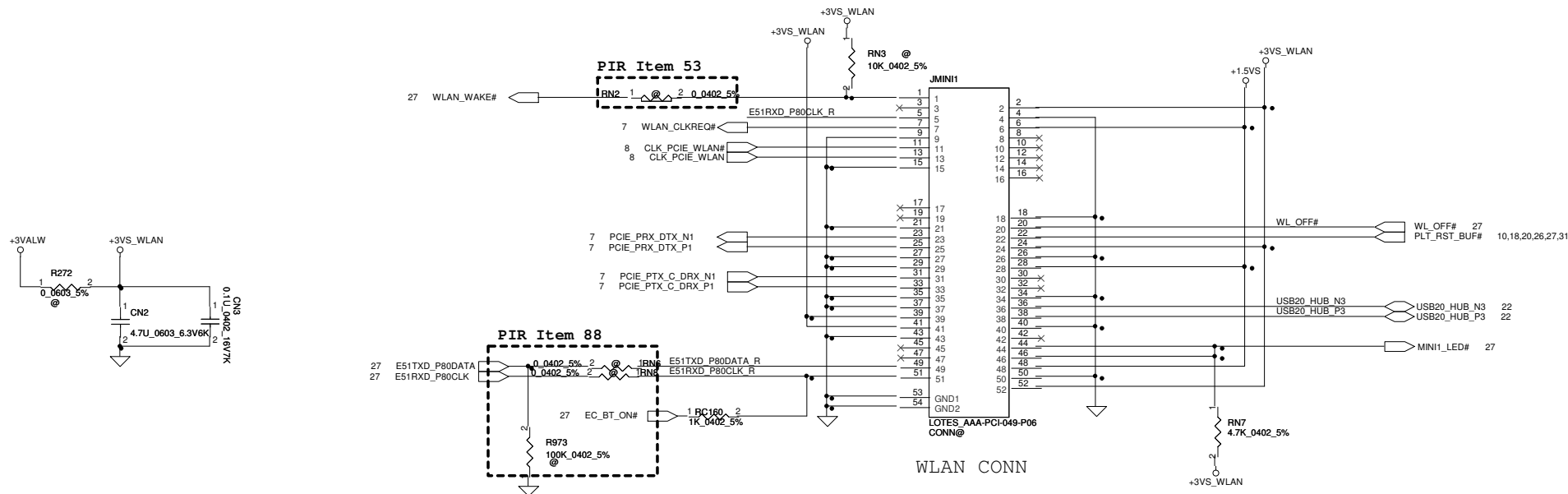
PIR Item 98



HDMI Conn.

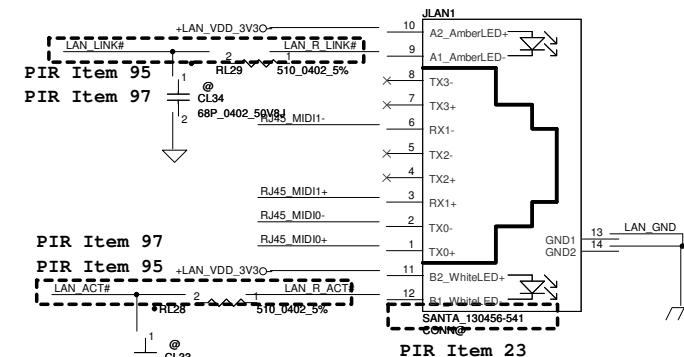
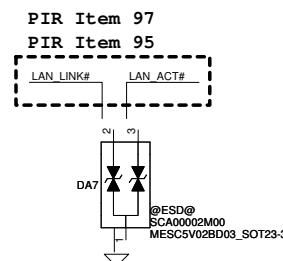
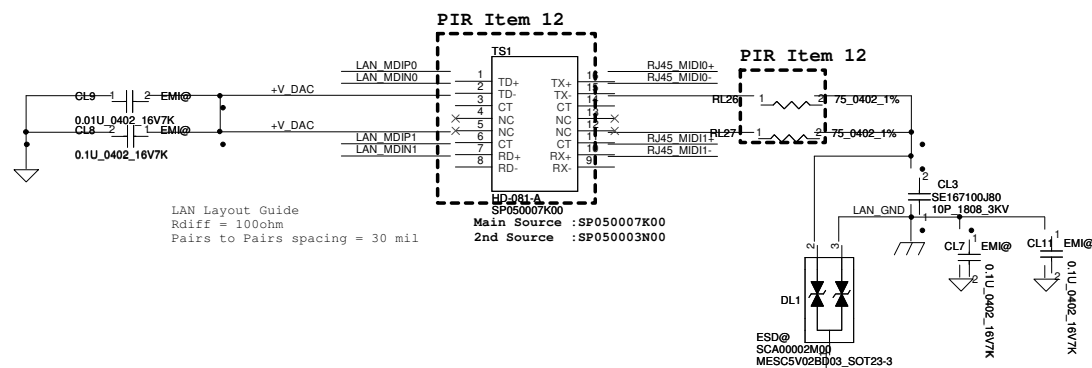
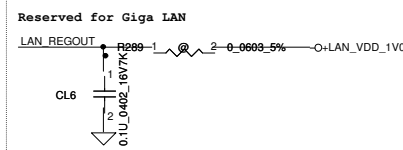
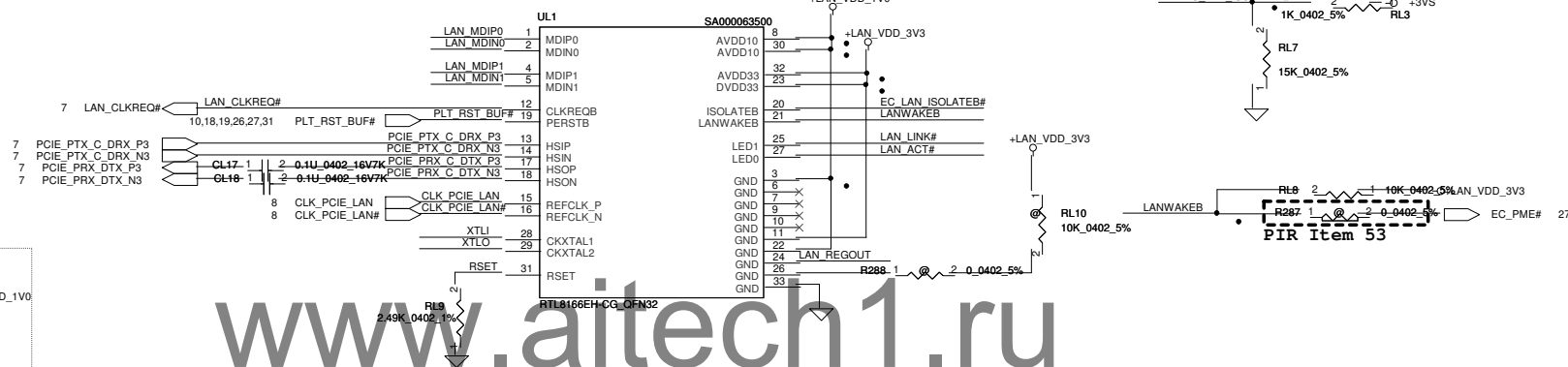
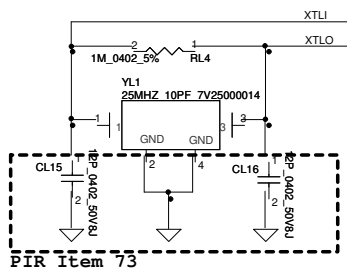
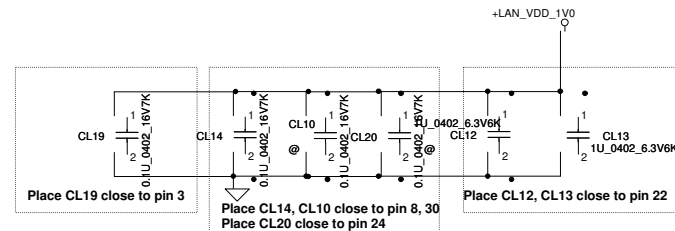


Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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.				HDMI Conn/Level shifter
Customer				Document Number
LA-B151P				Rev 1.0
Date				Sheet
Tuesday, January 21, 2014				17 of 48



www.aitech1.ru

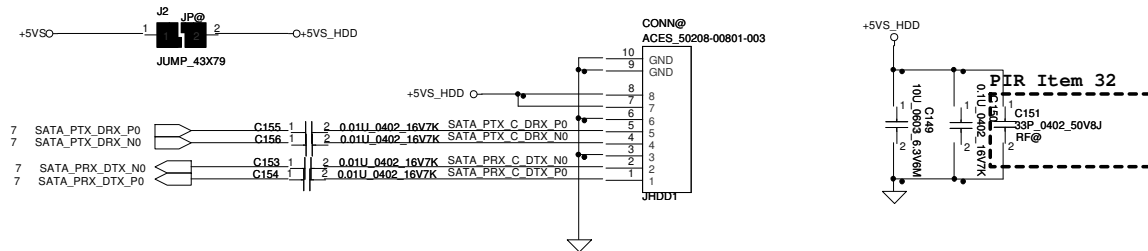
Security Classification		Compal Secret Data		Title	
Issued Date		Deciphered Date		WLAN/BT	
2014/01/14		2015/01/14		Document Number	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.		LA-B151P		Rev	
				1.0	
Date		Tuesday, January 21, 2014		Sheet 19 of 48	



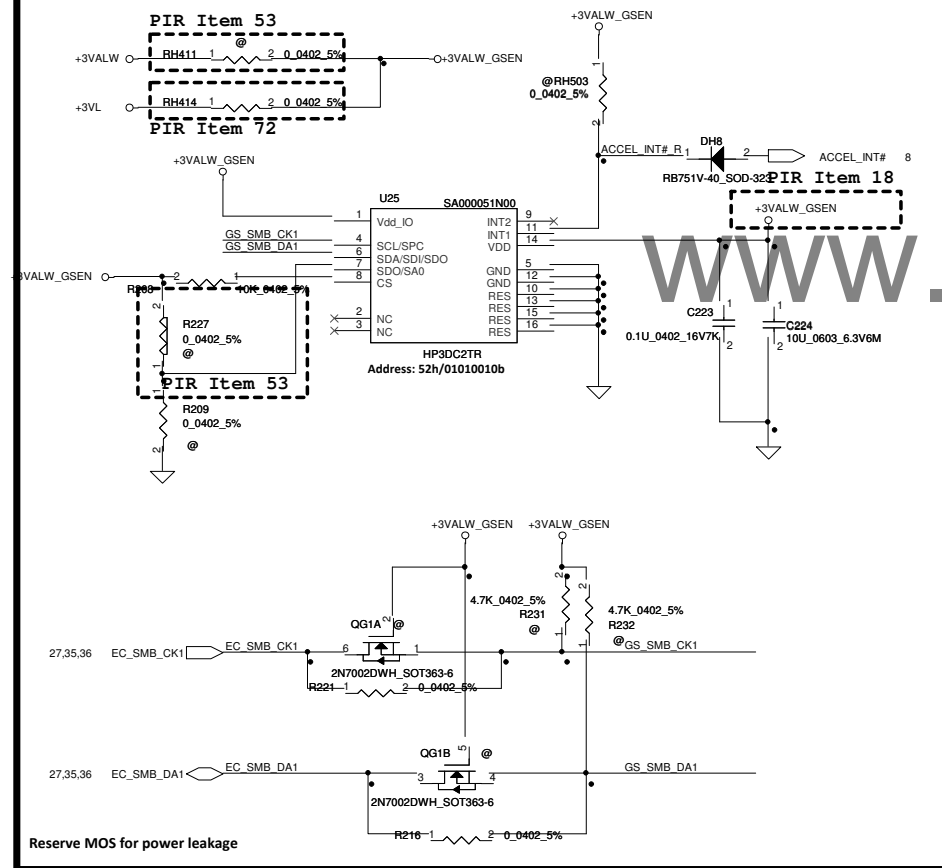
LAN Layout Guide
Rdiff = 100ohm
Pairs to Pairs spacing = 30 mil

SP050007K00
Main Source :SP050007K00
2nd Source :SP050003N00

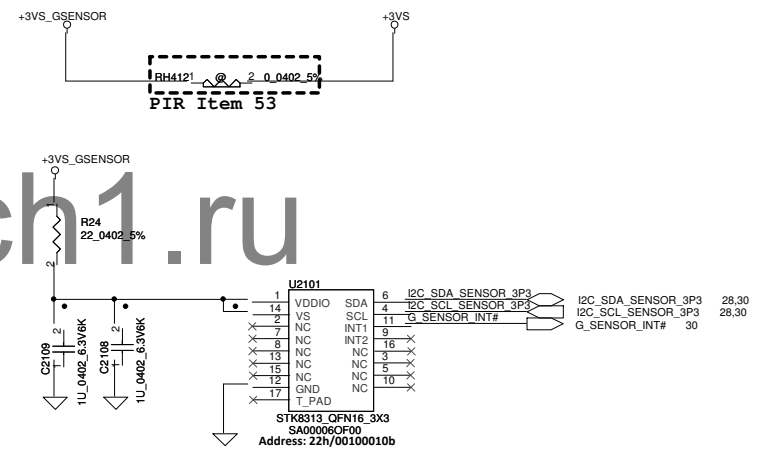
2.5" SATA HDD connector



ACCELEROMETER for HDD Protect

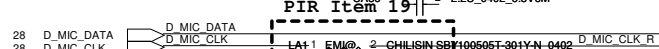
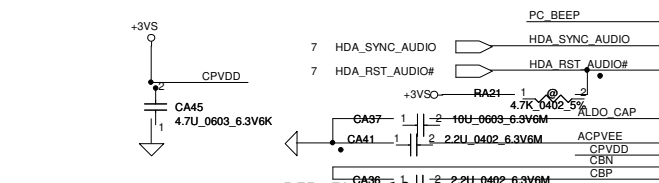
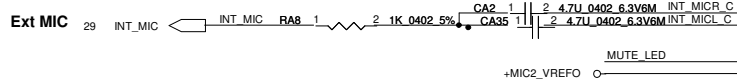


ACCELEROMETER for Mode detect



Security Classification		Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2014/01/14		Deciphered Date	2015/01/14		Title	
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF CUSTOMER 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.					P23-SATA Connector/G-Sensor		
					Document Number	Rev	
					Customer	1.0	
					LA-B151P		
Date:			Tuesday, January 21, 2014		Sheet	21 of 48	

PIR Item 16: Change Audio Codec to ALC3227
PIR Item 41: Modify circuit for baets



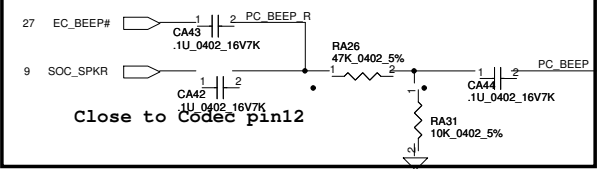
PIR Item 19

PIR Item 34

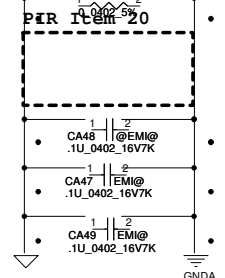
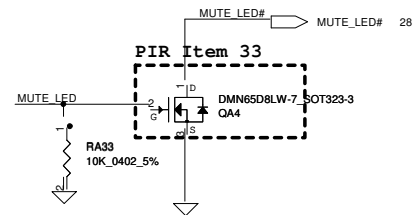
IMMBT3904WH_SOT323-3

27 EC_MUTE#

PC BEEP

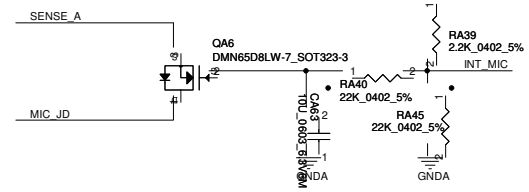


PIR Item 20

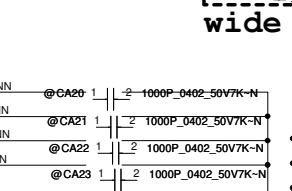


Power down (PD#) power stage for save power
0V: Power down power stage
3.3V: Power up power stage

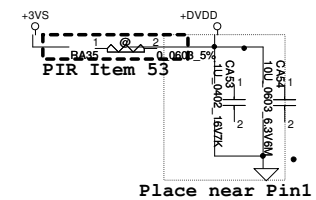
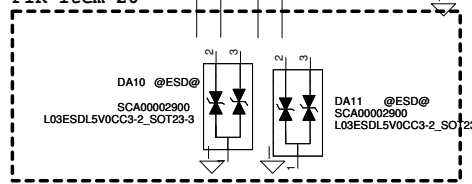
Jack detect
Combo Mic = High
Normal HP = Low



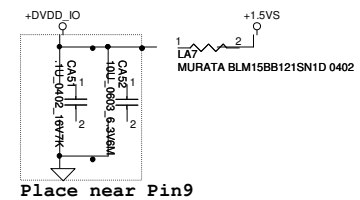
PIR Item 51



PIR Item 20

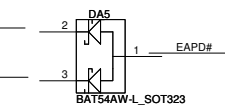


Place near Pin1

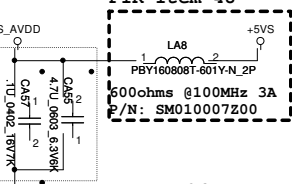


Place near Pin9

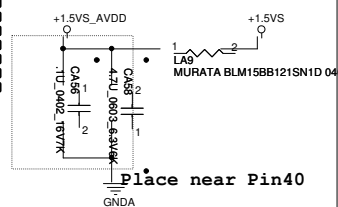
HP Jack



PIR Item 48

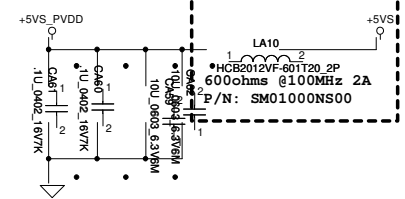


Place near Pin26



Place near Pin40

PIR Item 48

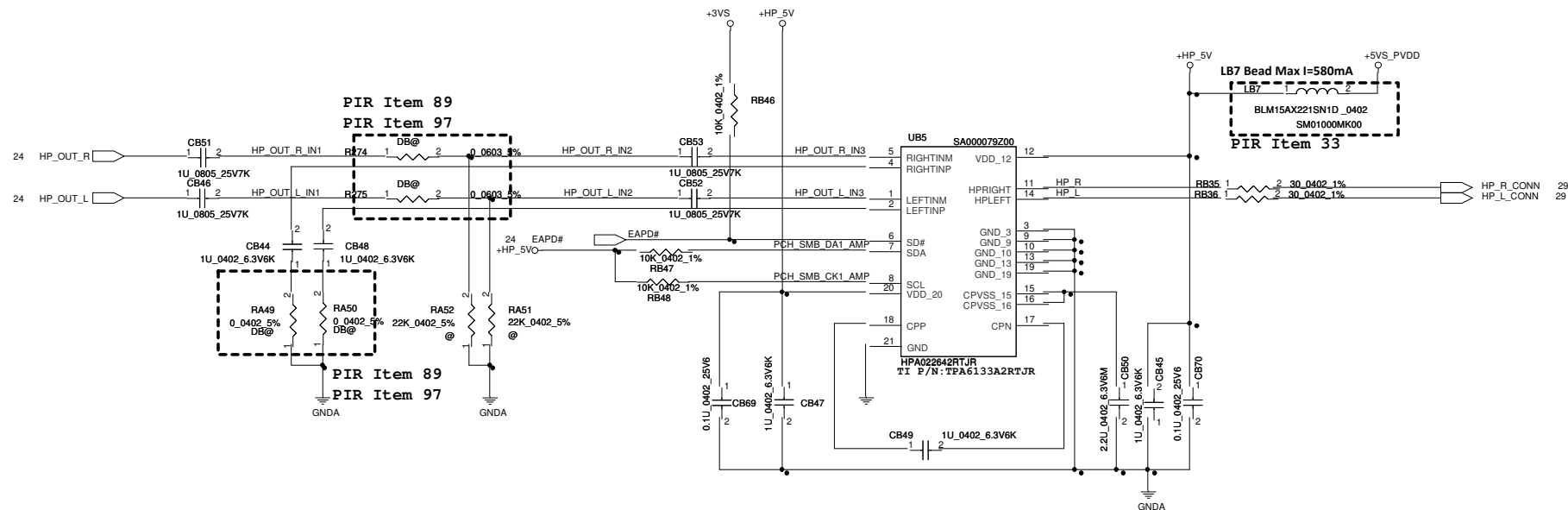


PIR Item 20



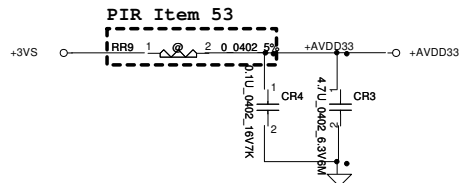
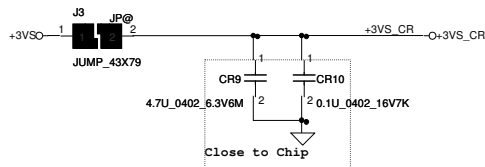
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF 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.			Document Number	Rev
			LA-B151P	1.0
			Date	Sheet
			Tuesday, January 21, 2014	24 of 48

PIR Item 41: Modify circuit for baets

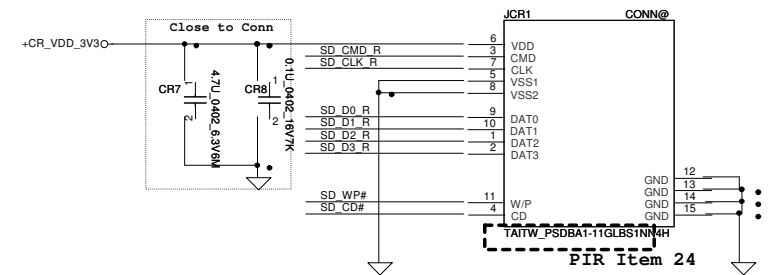


www.aitech1.ru

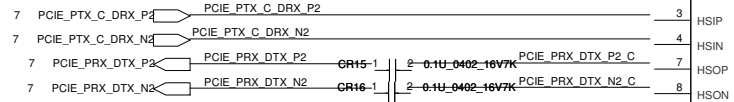
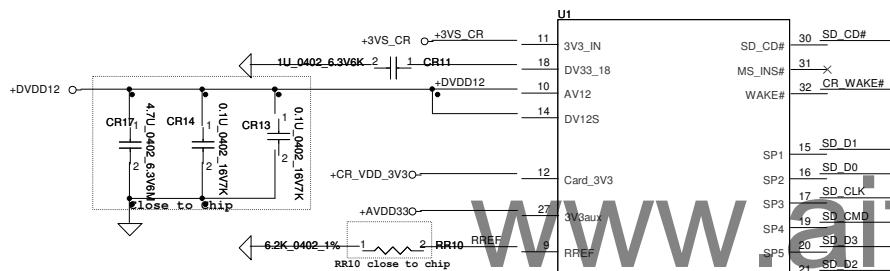
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	Audio HP Amp
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Document Number	Rev
				LA-B151P	1.0
				Date	Tuesday, January 21, 2014
				Sheet	25 of 48



Card Reader Connector

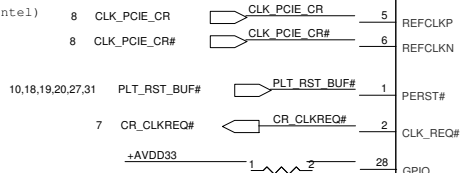


- Complete D3V3 power plane partition under RTS5227 chip and Socket in Power Layer
- Pin 11(3V3_IN) / pin 12 (CARD_3V3) trace width is 40 mils (minimum).
- Pin 27(3V3aux) trace width is 30 mils (minimum).
- Pin 10(AV12), pin 14(DV12S), pin 18 (DV33_18) trace width is 20 mils (minimum).
- Pin 9 (RREF) trace width is 12 mils (minimum).



For pin3 to pin8 :

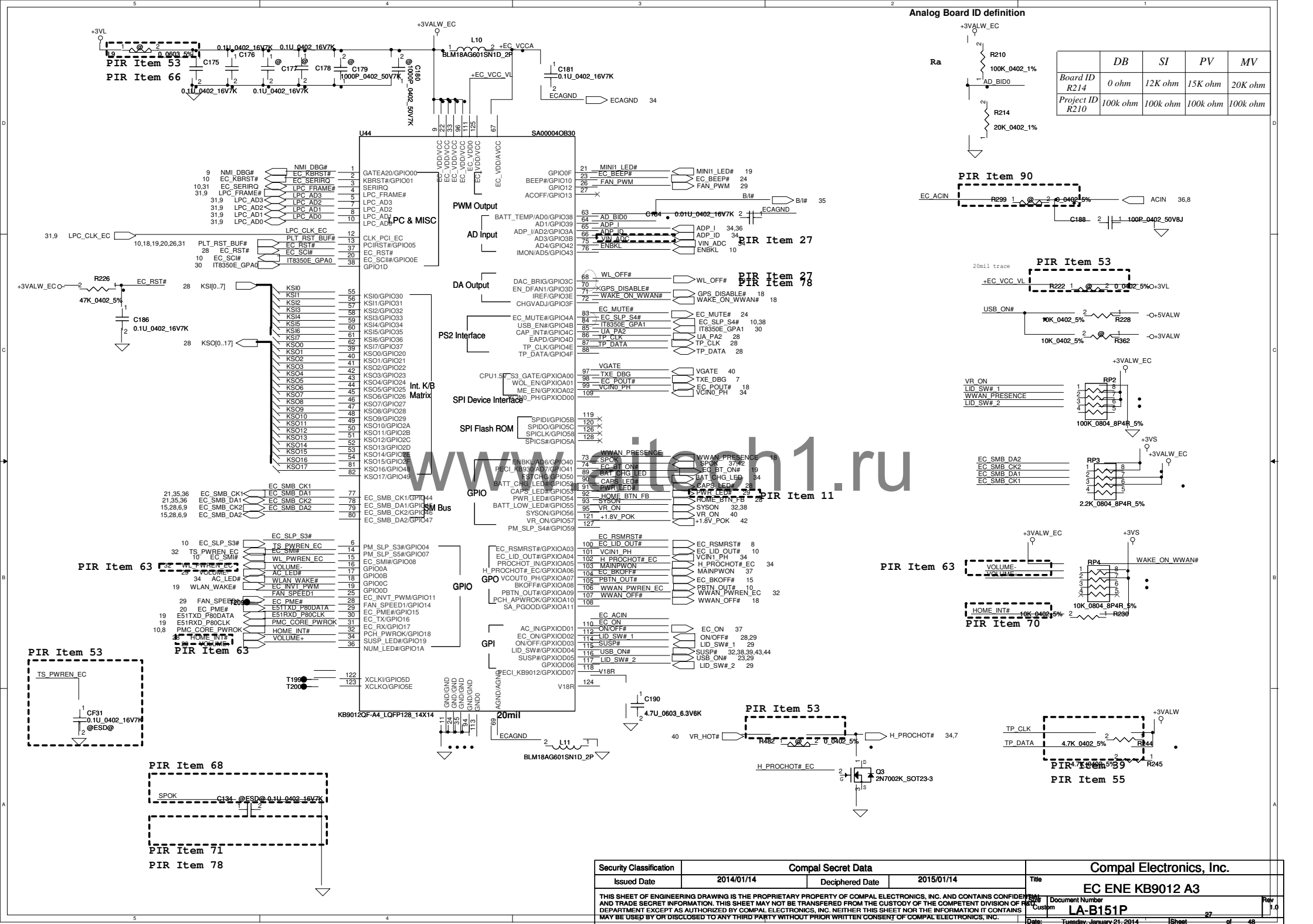
1. impedance(Zdiff) is 85±15% (follow Intel)
2. Maintain at least 20 mils air gap
3. No more than 5-mil delta between the lengths of the two signals.

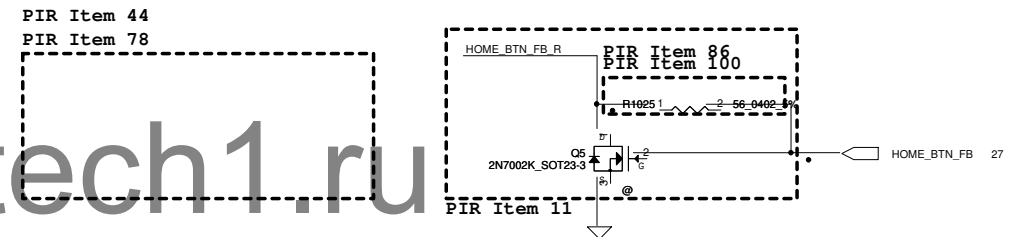
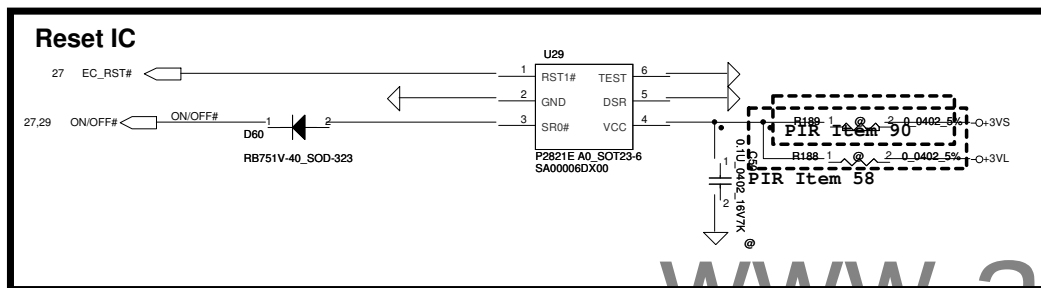
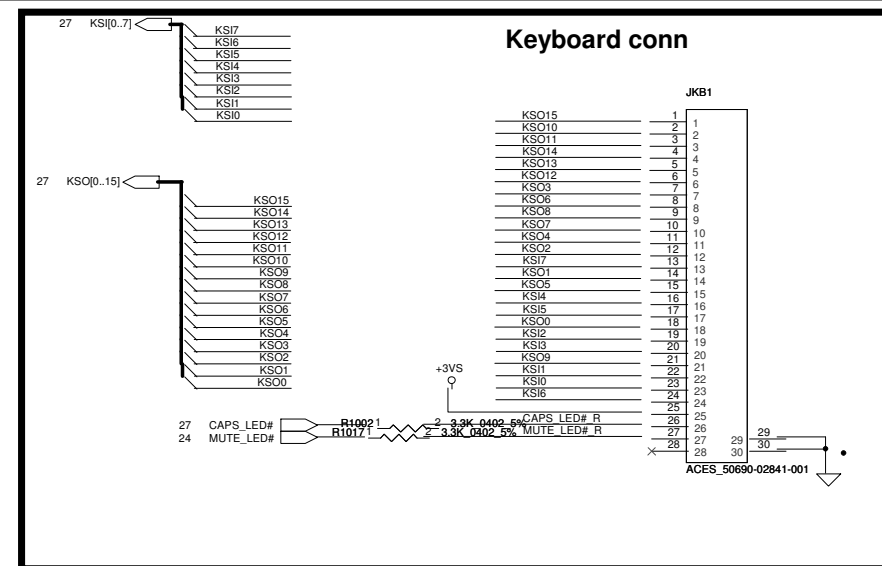
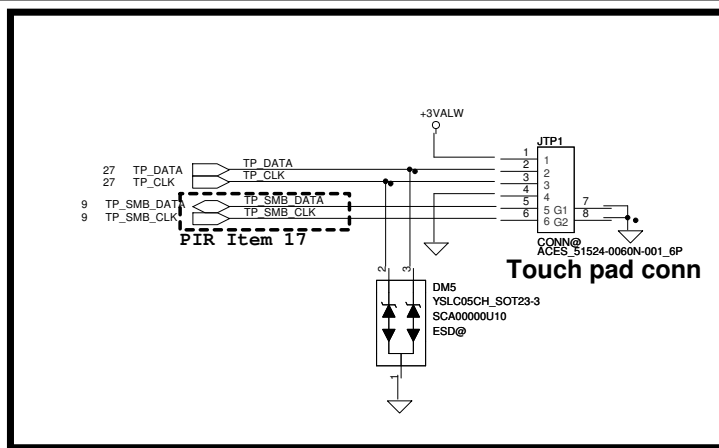


RTS5237-GR_QFN32_4X4
SA000063000

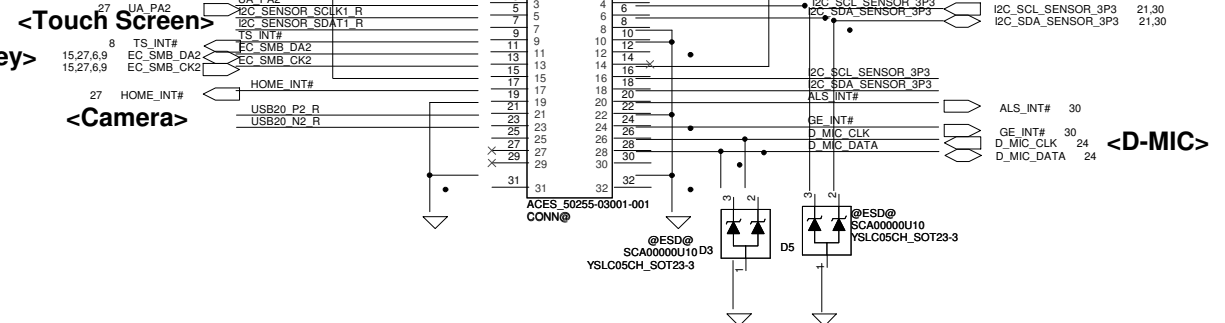
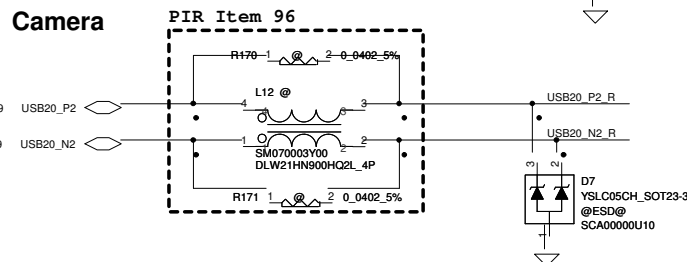
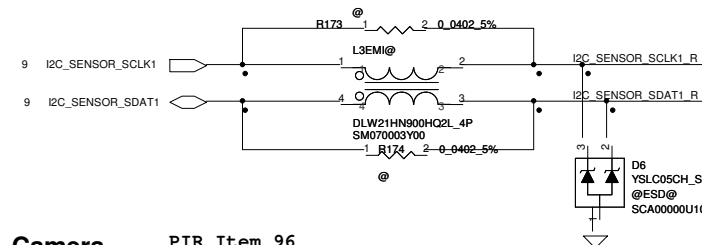
- For pin15 to pin21 :
- CLK - DATA | trace length ≤ 100 mils
 - DATA.x - DATA.y | trace length ≤ 100 mils
 - It is recommended that use a guard ground to isolate SD_CLK trace
 - These traces of characteristic impedance are 50±15%.

	Protect Contact		Detect Contact
	Disable	Enable	
Card Uninsertion	Open	Open	Open
Card Insertion	Close	Open	Close



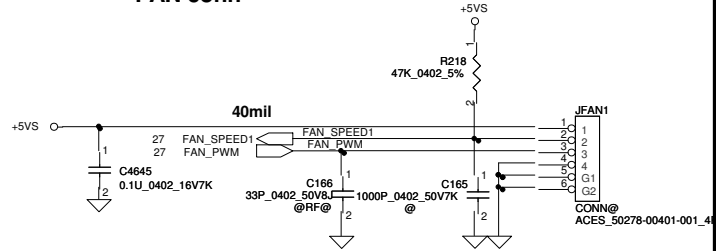


Touch Screen

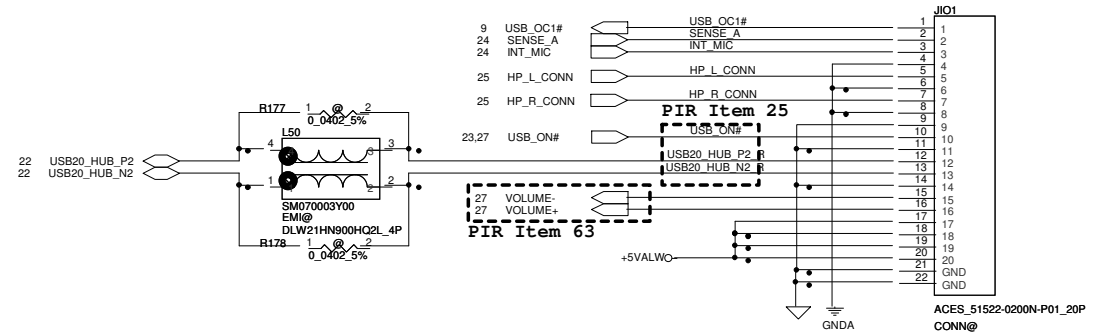


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	P30-KB/TP/Sensor-B/Camera/D-MIC
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE 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.				Document Number	LA-B151P
				Date	Tuesday, January 21, 2014
				Sheet	28 of 48

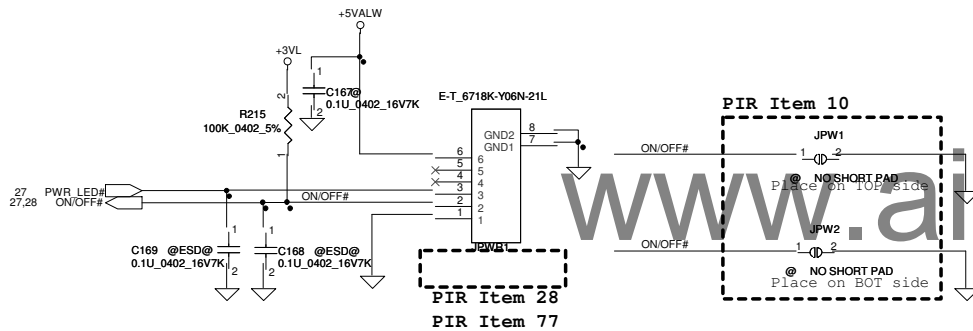
FAN conn



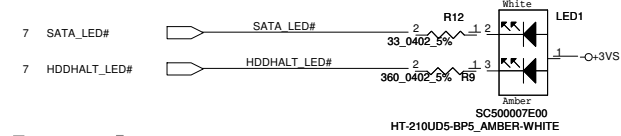
Audio Jack/USB IO Connector



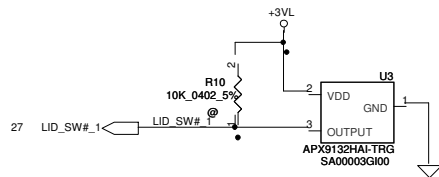
Power Button Conn



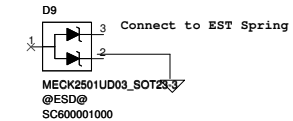
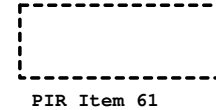
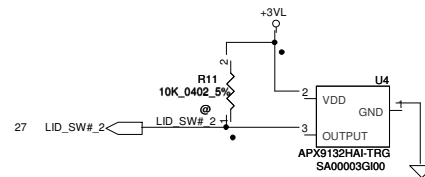
LED



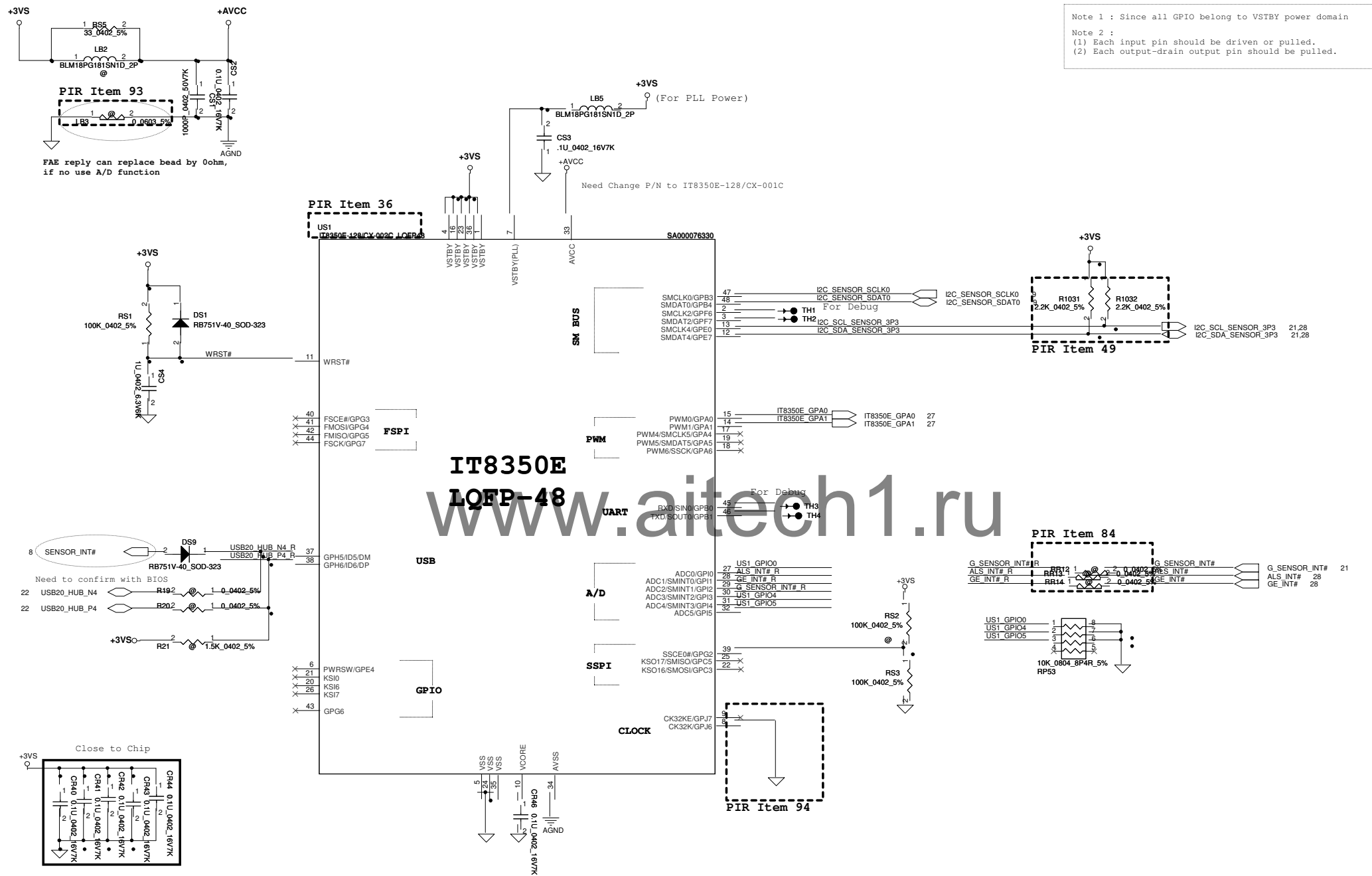
LID Switch(BOT)



LID Switch(TOP)



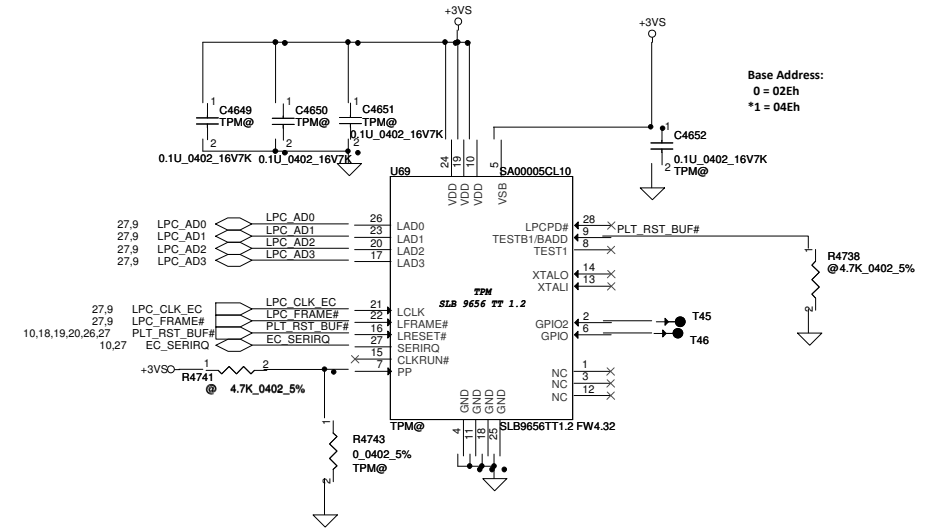
Security Classification			Compal Secret Data		Compal Electronics, Inc.	
Issued Date			2014/01/14	Deciphered Date	2015/01/14	Title
						PWRBTN/FAN
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FIRST 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.			Document Number		Rev	
			LA-B151P		1.0	
Date			Tuesday, January 21, 2014		Sheet 20 of 48	



Note 1 : Since all GPIO belong to VSTBY power domain
Note 2 :
(1) Each input pin should be driven or pulled.
(2) Each output-drain output pin should be pulled.

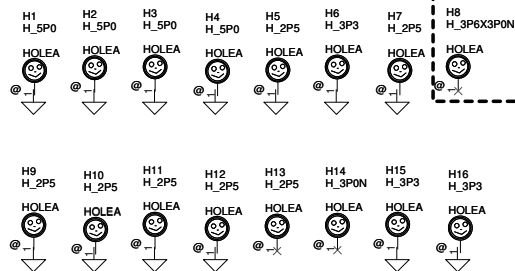
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date		Deciphered Date		Sensro Hub-IT8350E-128-BX	
2014/01/14		2015/01/14		Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FIRST 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.		Document Number		Rev	
		LA-B151P		1.0	
Date		Tuesday, January 21, 2014		Sheet 30 of 48	

TPM1.2 PIR43: Remove co-layout circuit of SLB9635TT1.2

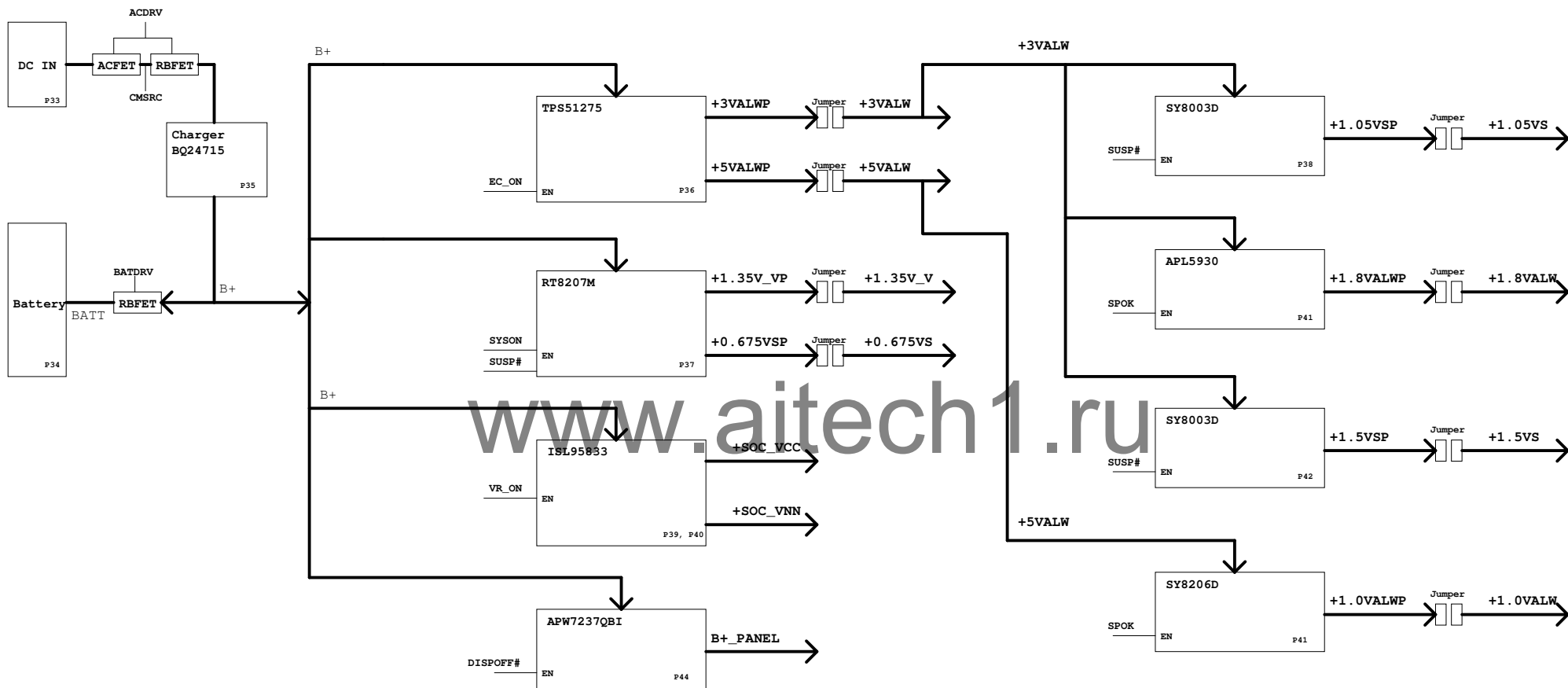


www.aitech1.ru

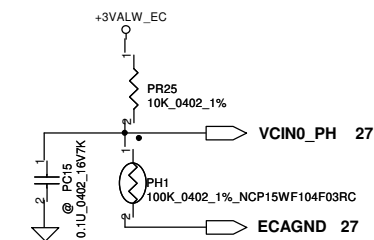
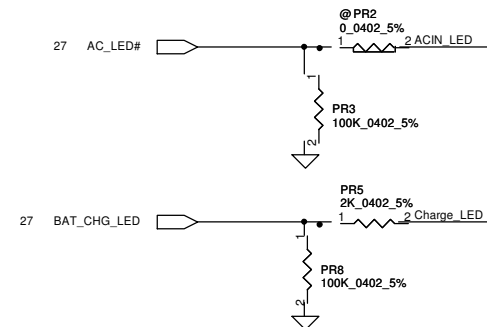
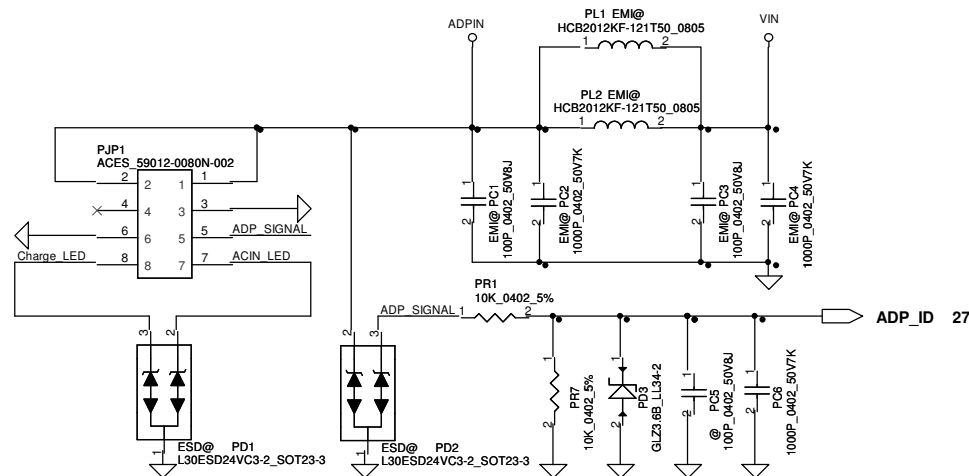
PIR Item 54



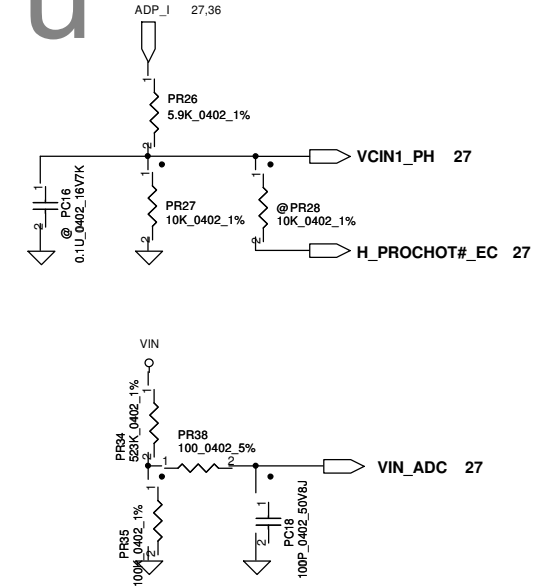
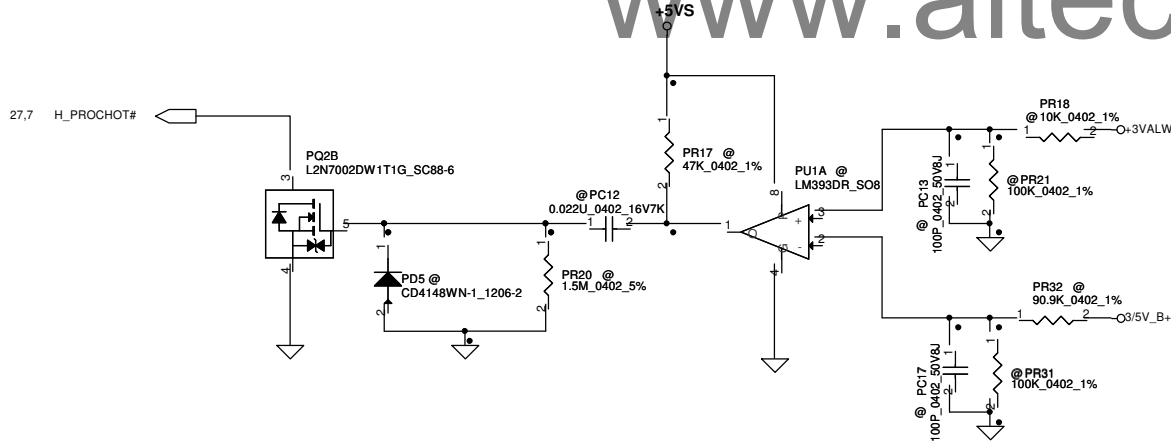
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Document Number
				LA-B151P
				Rev
				1.0
				Date: Tuesday, January 21, 2014
				Sheet 31 of 48



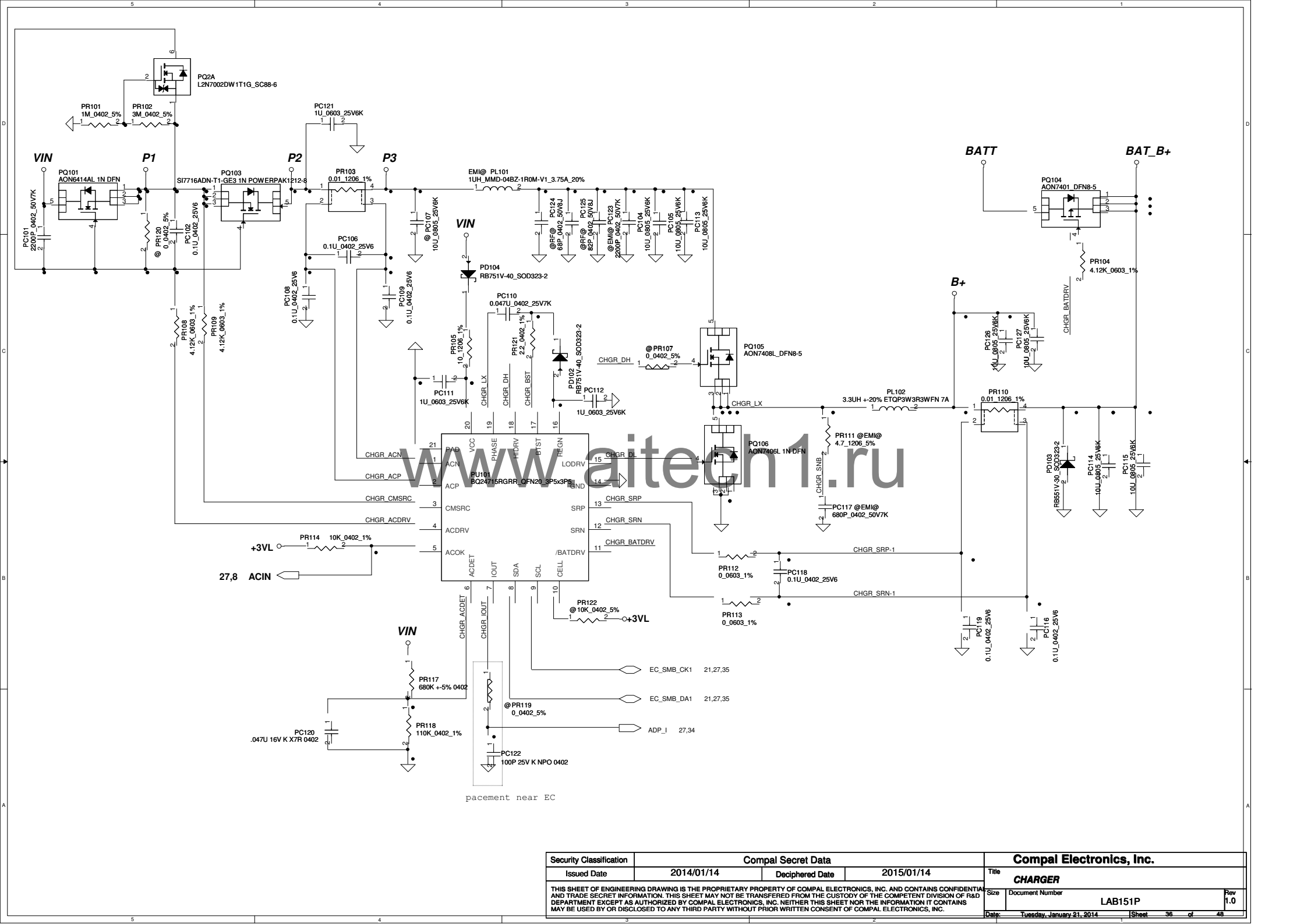
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	Power Block Diagram
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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
					LAB151P
				Date:	Tuesday, January 21, 2014
				Sheet	33 of 48
				Rev	1.0



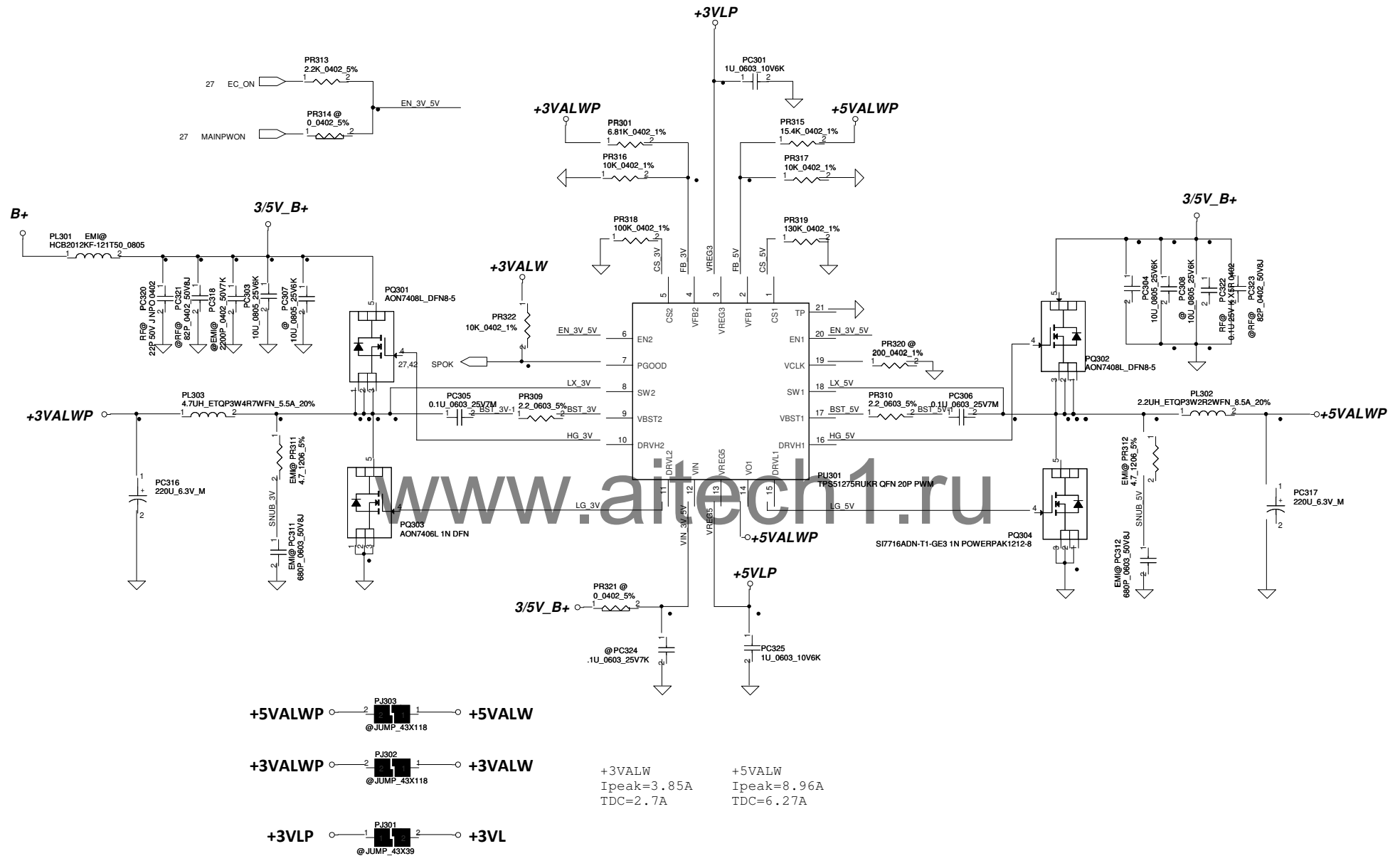
www.aitech1.ru

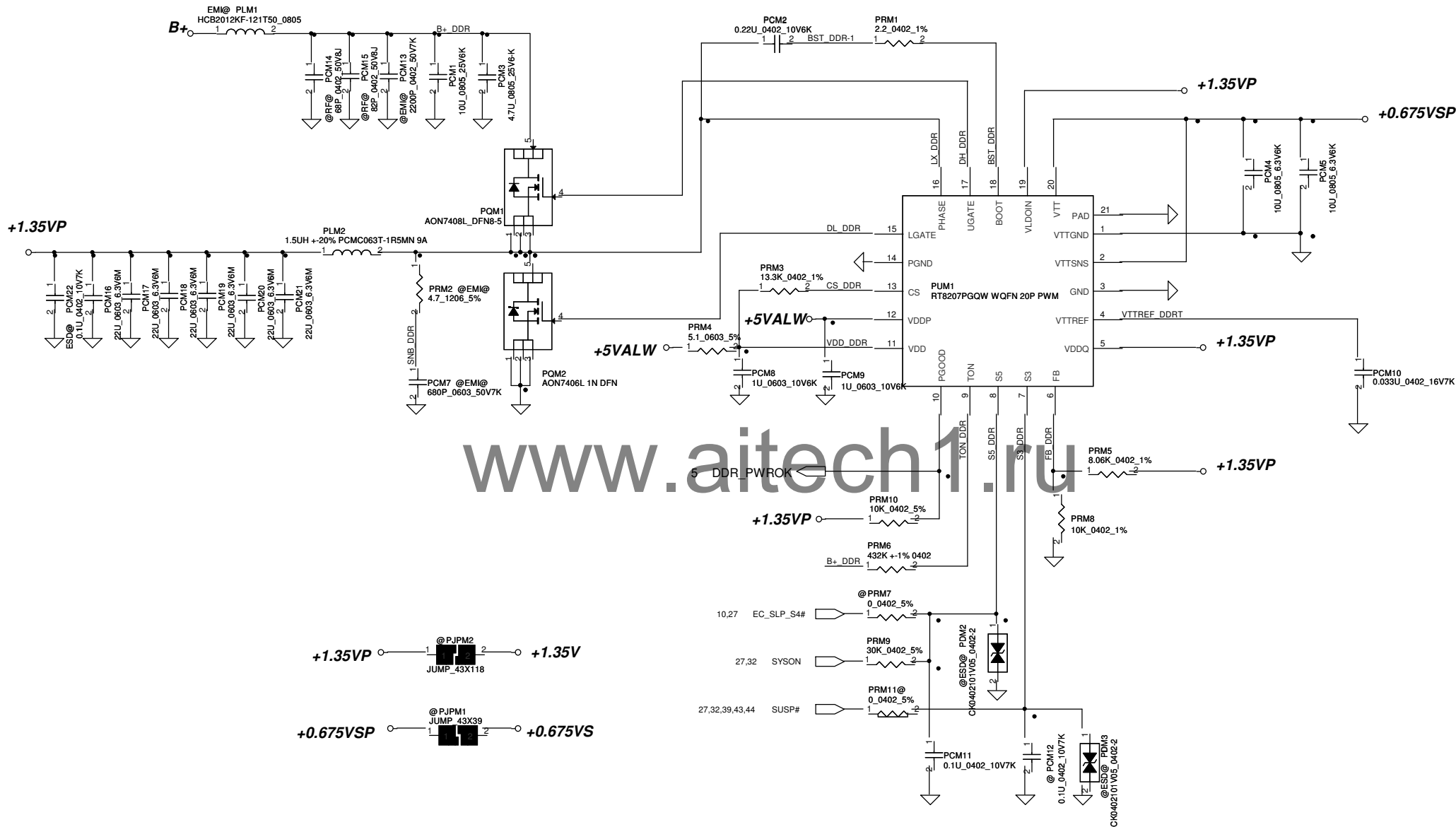


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	DC Conn
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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		Date	
LAB151P		1.0		Tuesday, January 21, 2014	
Sheet		34		of 48	



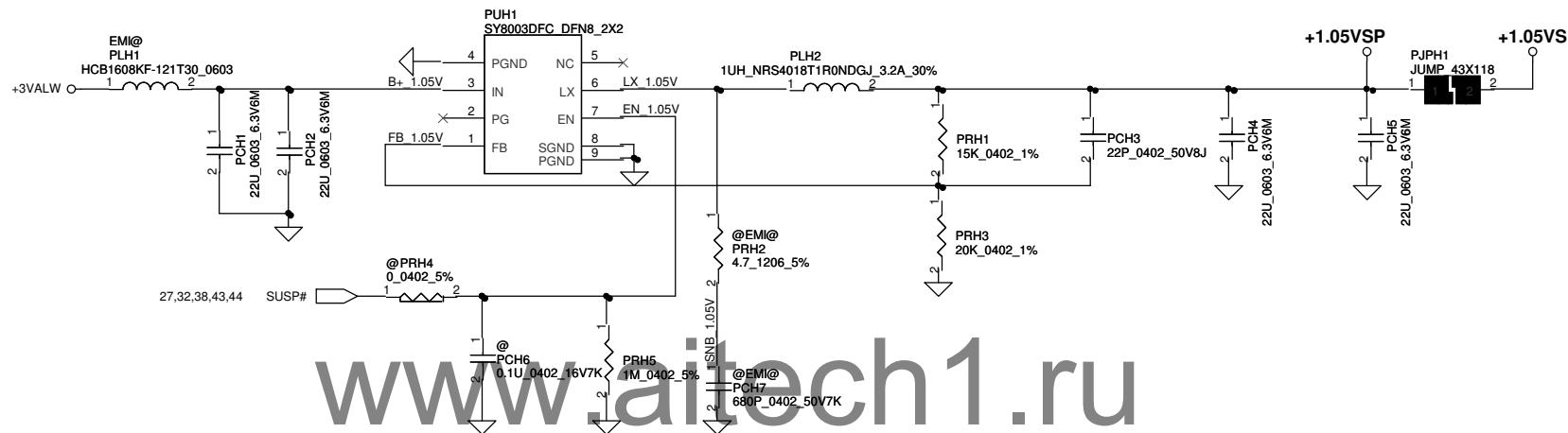
Security Classification		Compal Secret Data				Compal Electronics, Inc.			
Issued Date		2014/01/14		Deciphered Date		2015/01/14		Title	
								CHARGER	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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				LAB151P		Rev	
								1.0	
Date:		Tuesday, January 21, 2014				Sheet		36 of 48	





www.aitech1.ru

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	1.35V/0.675VS
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 TRANSFERRED 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 LA-B151P
				Date	Tuesday, January 21, 2014
				Sheet	38 of 48
				Rev	1.0

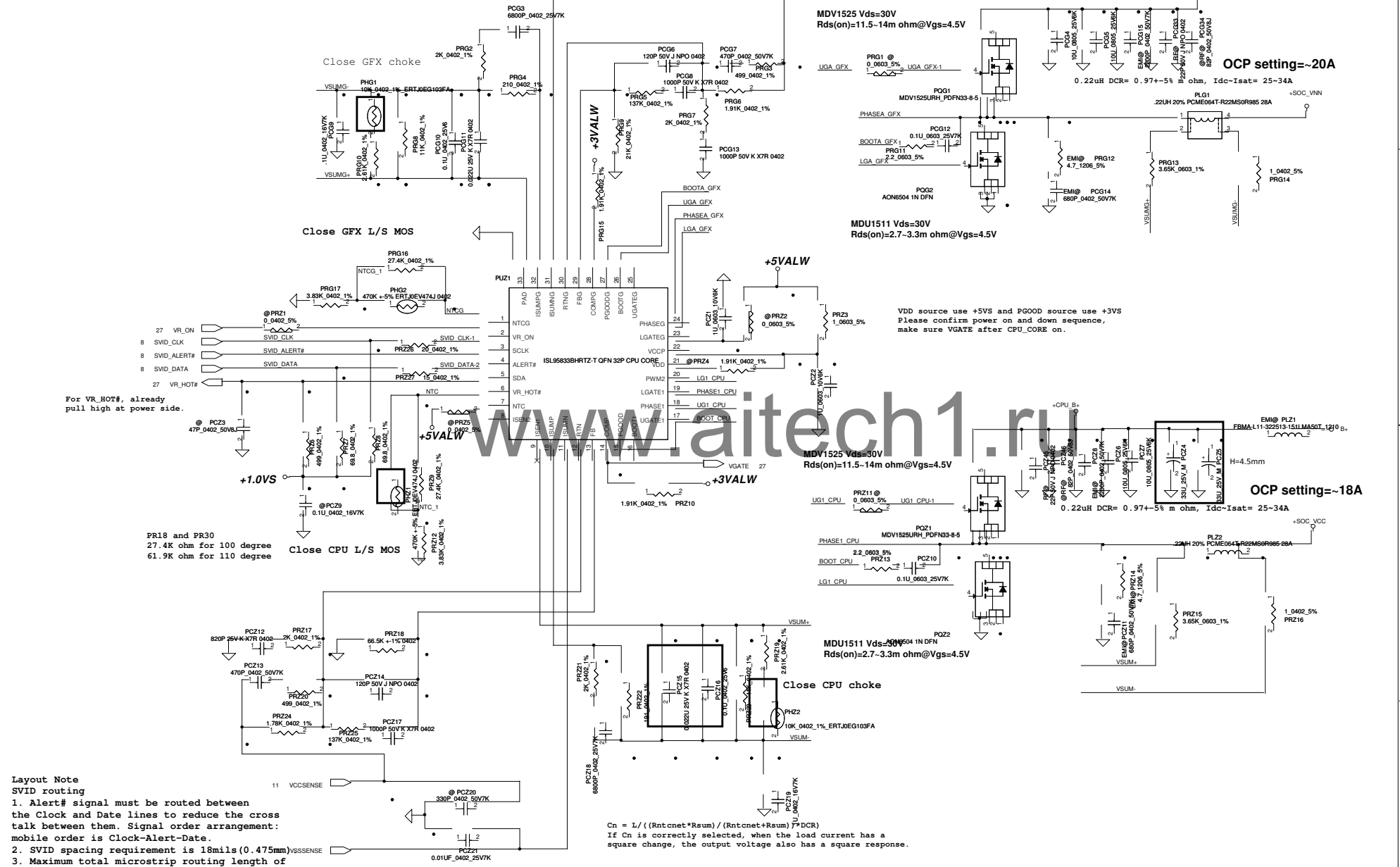


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	1.05VS
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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
					LAB151P
				Date:	Tuesday, January 21, 2014
				Sheet	39 of 48
				Rev	1.0

Design Note
This circuit is for ULC 1+1, 7.5W.

CPU: Icc=12A,
Loadline: -5.9 m V/A

GFX (GT2): Icc=14A
Loadline: -5.9 m V/A



Layout Note
SVID routing
1. Alert# signal must be routed between the Clock and Date lines to reduce the cross talk between them. Signal order arrangement: mobile order is Clock-Alert-Date.
2. SVID spacing requirement is 18mils(0.475mm) VSSSENSE
3. Maximum total microstrip routing length of each SVID signal must not exceed 6000mils(152.4mm).
4. The SVID bus must be ground reference, It cannot be referenced to input (Vbat or 12V) power plans as they can couple noise into the SVID bus as power states change.
5. Avoid routing under noisy circuit, e.g. switch node, Gate driver, B+, Vin, high speed signal.
6. When SVID signal changes Layer, GND return path may be changed also. We need add GND via for GND reference.

Layout Note
Reduce Acoustic Noise
1. The AL bulk capacitor of B+ should be very close to CPU_CORE MOSFET.
2. Input ceramic caps must place on symmetry same location on top side and bottom side.

MDV1525 Vds=30V
Rds(on)=11.5-14m ohm@Vgs=4.5V

OCP setting=~20A

MDU1511 Vds=30V
Rds(on)=2.7-3.3m ohm@Vgs=4.5V

VDD source use +5VS and PGOOD source use +3VS
Please confirm power on and down sequence, make sure VGATE after CPU_CORE on.

MDV1525 Vds=30V
Rds(on)=11.5-14m ohm@Vgs=4.5V

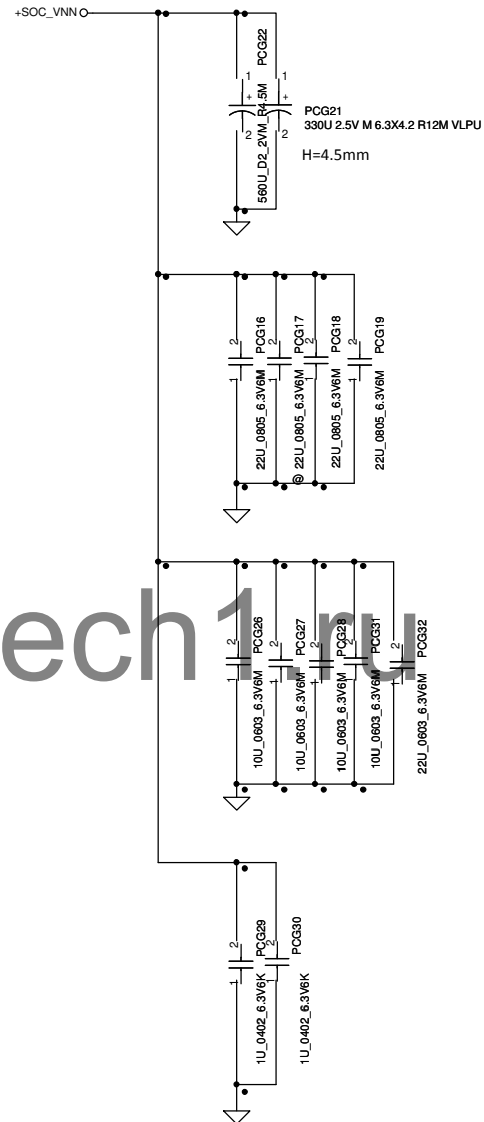
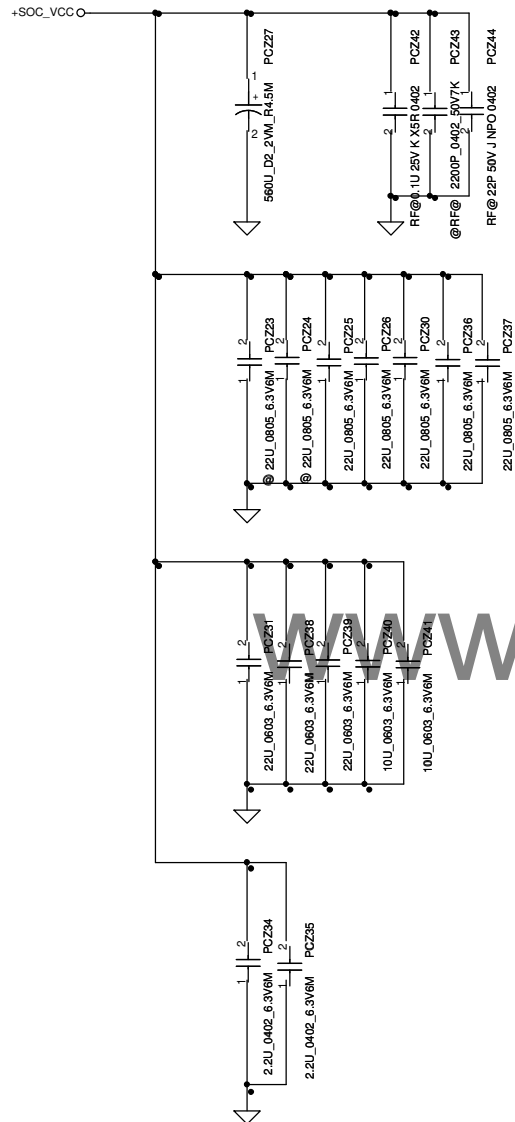
OCP setting=~18A

MDU1511 Vds=30V
Rds(on)=2.7-3.3m ohm@Vgs=4.5V

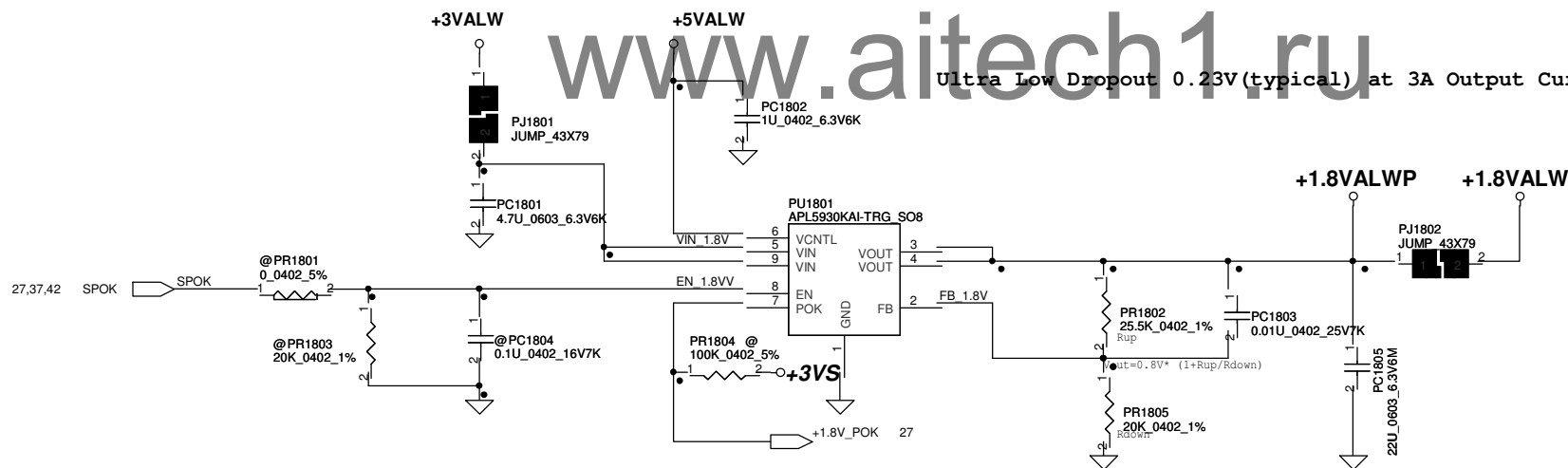
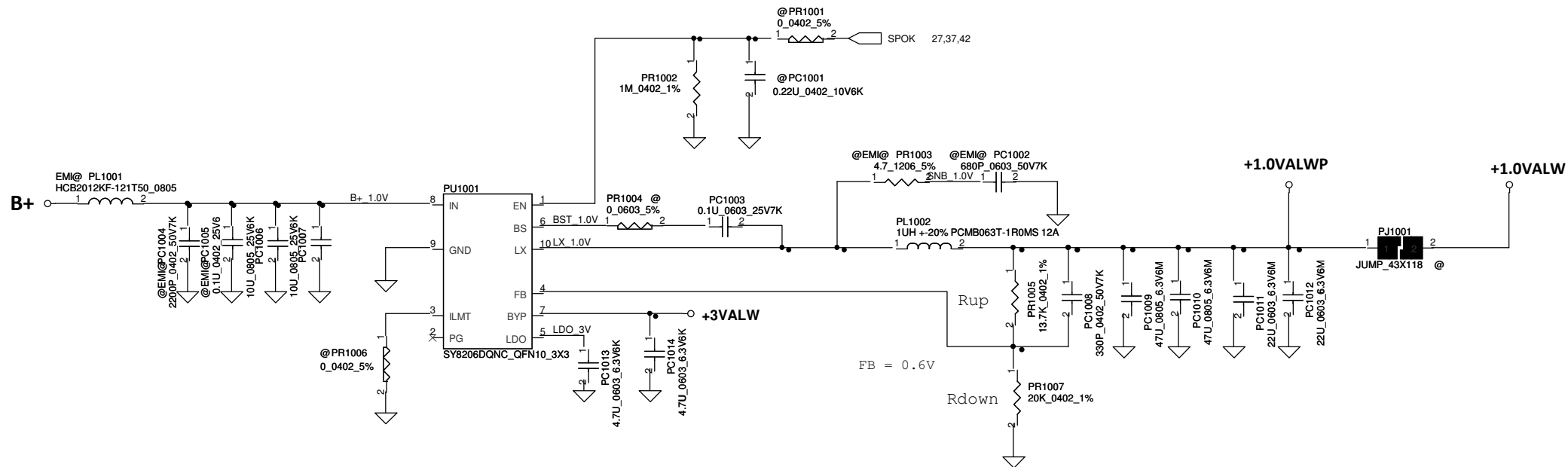
$$C_n = L / ((R_{ntcnet} * R_{sum}) / (R_{ntcnet} + R_{sum}) * DCR)$$

If Cn is correctly selected, when the load current has a square change, the output voltage also has a square response.

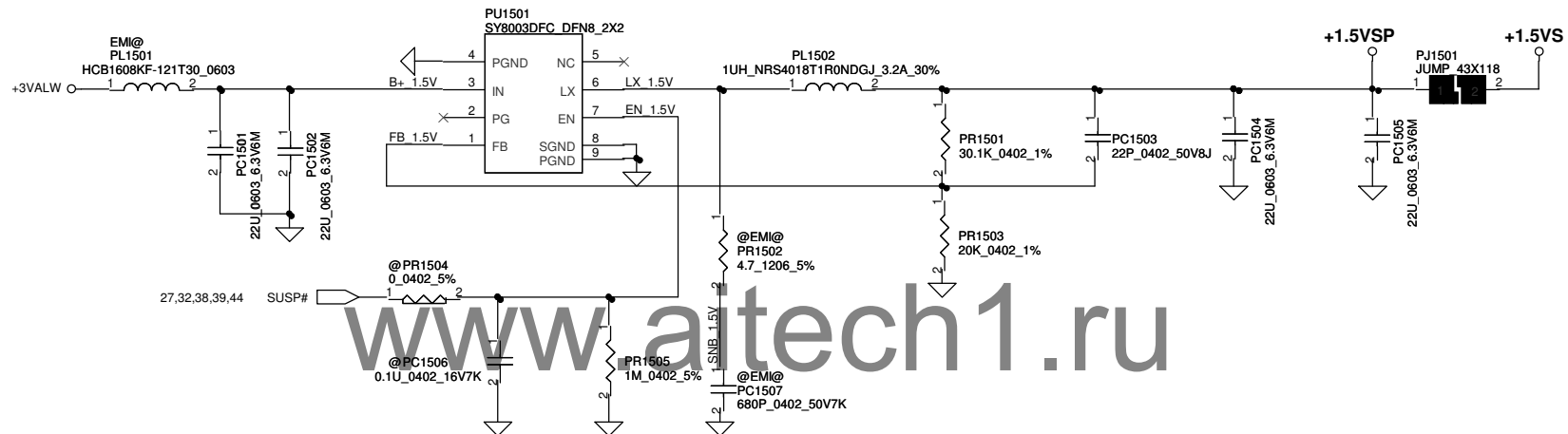
Security Classification		Compal Secret Data		Title	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	SOC VCC/SOC_VNN	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				LAB151P	1.4
Date: Tuesday, January 21, 2014		Sheet		40	of 48



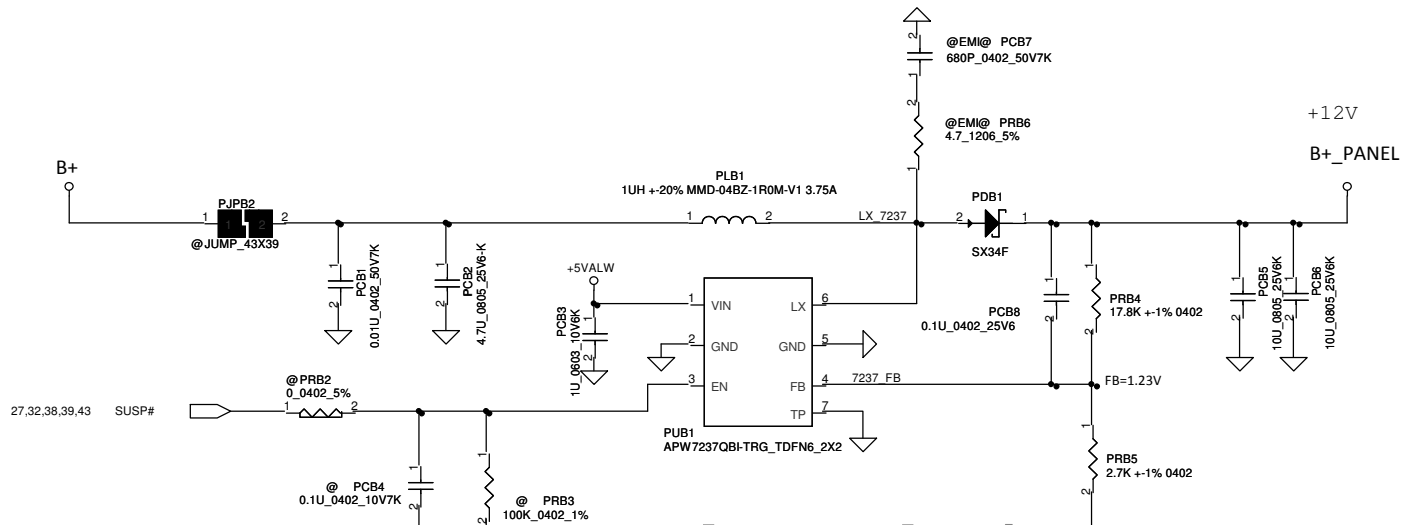
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	PROCESSOR DECOUPLING
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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 LAB151P
				Date	Rev 1.0
				Sheet 41 of 48	



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	1.8VALW/1.5VS
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 TRANSFERRED 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
				Date:	Rev 1.0
				LAB151P	
				Sheet 42 of 48	



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	1.0VALW
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 TRANSFERRED 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.				Document Number	LAB151P
				Date	Tuesday, January 21, 2014
				Sheet	43 of 48



www.aitech1.ru

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	
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 TRANSFERRED 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.				B+ PANEL	
Size	A3	Document Number	LAB151P	Rev	1.0
Date:	Tuesday, January 21, 2014	Sheet	44	of	48

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1		ME update screw hold	0.11	P31	Change H8 to H_3P0 from H_2P5	10/15	
2		ESD Request	0.11	P24	Change CA36/CA37 to SC400006R00	10/15	
3		Vendor suggestion	0.11	P15	Change LT4 to 0603	10/16	
4		EMI Request	0.11	P24	Change RA10/LA1 to EMI@	10/16	
5		Vendor suggestion	0.11	P30	Add R21 for debug	10/16	
6		For BIOS debug	0.11	P9 P27	Add D2/NMI_DBG#/NMI_DBG#_SOC	10/16	
7		Change to cost down version	0.11	P15	Change U2 to SA00007A300	10/16	
8		EMI Request	0.11	P17,P23 P28,P29	Change L3/L4/L6/L7/L8/L50/ L12/LB84/LB83/LB82 to SM070003Y00	10/16	
9		HW Design Change	0.11	P10	Change power of U55 to +3VALW_EC	10/18	
10		For Debug	0.11	P29	Add JPW1/JPW2	10/18	
11		HW Design Change	0.11	P28	Add R1025/Q5 for LED/Vibrator	10/21	
12		HW Design Change	0.11	P20	Change TS1 to 10/100 Transformer (SP050007K00)	10/21	
13		HW Design Change	0.11	P18	Change JSIM1.4 to GND/ Remove R246/ Change R247.1 to +3VS_WWAN_NGFF	10/21	
14		HW Design Change	0.11	P09	Add DDR_SMB_CLK/DDR_SMB_DATA for DDR Add R101/R102 for isolate SM Bus Add R106/R107 & Change RP49 pin assign	10/21	
15		HW Design Change	0.11	P06	Reserve R108	10/21	
16		Customer Spec Change	0.11	P24	Change Audio Codec to ALC3227	10/22	
17		Customer Requirement	0.11	P09 P28	Add Q73/R110/R109 for TP Add TP_SMB_DATA/TP_SMB_CLK for TP	10/22	
18		HW Design Change	0.11	P21	Change U25.14 to +3VALW_GSEN from +3V_GSEN	10/22	
19		EMI Request	0.11	P24	Add LA1	10/23	
20		EMC Request	0.11	P24	Remove DA12/DA13/DA8/CA66/CA64 Remove CA67/CA65/DA9/CA46/CA50	10/23	
21		ESD Request	0.11	P18	Add C73	10/23	
22		HW Design Change	0.11	P10	Change U58/R3 to @ for S3 autowake issue	10/23	
23		ME Request	0.11	P20	Change footprint of JLAN1 for ME connector modify	10/23	
24		ME Request	0.11	P26	Change footprint of JCR1 for ME connector modify	10/23	
25		EMI Request	0.12	0.29	Shifter JIO1 Pin assign USB20_HUB_P2_R change to Pin 12 USB20_HUB_N2_R change to Pin 13 USB_ON# change to Pin10	10/24	

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	HW PIR
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FACTORY 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.				Document Number Custom	Rev 1.0
				Date: Tuesday, January 21, 2014	Sheet 45 of 48

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
26		EMI Request	0.12	P15	Add RT9/RT10 for translator mode control	10/24	
27		Power Request	0.12	P27	Change WL_OFF# to EC Pin 68 Add VIN_ADC to EC Pin75	10/24	
28		ME Request	0.12	P29	Change JPWR1 to E-T_6710K-Y06M-31L	10/25	
29		Customer Requirement	0.12	P22	Change power of U01 from +3/5VS to +3/5VALW	10/25	
30		HW Design Change	0.12	P22	Change power of RU13 from +5VS to +5VALW	10/26	
31		RF Request	0.12	P16	Change CG3 to 33PF	10/26	
32		RF Request	0.12	P21	Add C151 for +5VS_HDD	10/26	
33		HW Design Change	0.12	P24 P25	Change package of QA4 to SOT323-3 Change package of LB7 to 0402	10/28	
34		HW Design Change	0.12	P24	Change QA5 to SB000008E10	10/28	
35		HW Design Change	0.21	P22	Change footprint of CU15 to 0603	11/21	
36		Vender update firmware	0.21	P30	Change US1 to SA000076330 IT8350E-128/CX-002C	11/21	
37		HW Design Change	0.21	P09	Rotate D2 direction	11/21	
38		HW Design Change	0.21	P32	Change U2102 to SA00006U600 AOZ1336	11/21	
39		HW Design Change	0.21	P27	Change R244/R245 to @	11/21	
40		HW Design Change	0.21	P10	Change U59/R4 to @	11/21	
41		Vender recommend	0.21	P24 P25	Modify audio code and Amp. circuit	11/21	
42		HW Design Change	0.21	P08	Change TS_INT# to GPIO_S0_SC_94/GPIO_S5_11 Add D10/U67/R1024/R1026 for leakage	11/22	
43		HW Design Change	0.21	P31	Remove co-layout circuit of SLB9635TT1.2	11/22	
44		RF Request	0.21	P28	Change POUT to JPSEN1	11/22	
45		ME Request	0.21	P16	Rotate JLCD1 direction	11/22	
46		HW Design Change	0.21	P09	Swap pin assign of RP54 for layout	11/22	
47		BIOS Request	0.21	P10	Change U59/R4 to mount	11/25	
48		HW Design Change	0.21	P24	Change LA10 to HCB2012VF-601T20 Change LA8 to PB160808T-601Y-N	11/26	
49		Vender recommend	0.21	P30	Add R1031/R1032	11/26	
50		Parts update revision	0.21	P03	Change N3520@ CPU P/N to SA00007E940 Change N2820@ CPU P/N to SA00007EK30	11/27	

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	HW PIR
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FACTORY 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.				Document Number LA-B151P	Rev 1.0
Date: Tuesday, January 21, 2014				Sheet	46 of 48

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
51		HW Design Change	0.21	P24	Change RA41/RA42/RA43/RA44 to SM010008A00	11/27	
52		HW Design Change	0.21	P27	Change R214 to 15K for PV	11/27	
53		HW Design Change	0.21	P8,P11 P12,P18 P19,P20 P21,P22 P26,P27	Change Footprint to Short Pad R266/R998/R1022/R1023/R1021/RF34/RN2/R287 RH411/RH412/R227/RA35/RA24/RA25/RR9/R482 L9/R222/R175	11/27	
54		ME Request	0.21	P31	Change H8 size	11/27	
55		HW Design Change	0.21	P27	Change R244/R245 to mount	11/28	
56		HW Design Change	0.21	P10	Add R13/R14 Change R1/R2 to @	11/28	
57		HW Design Change	0.21	P15	Change R1068 to mount	11/28	
58		HW Design Change	0.21	P28	Add R188/R189	11/28	
59		Thermal Request	0.21	P06	Add Q8 for thermal remote detect	11/28	
60		ESD Request	0.21	P29	Add C168/C169	11/28	
61		ESD Request	0.21	P29	Remove D8 for layout space	11/28	
62		ESD Request	0.21	P32,P27	Add CF30/CF31	11/28	
63		HW Design Change	0.21	P27,P29	Exchange net name: VOLUME+/VOLUME-	11/28	
64		HW Design Change	0.21	P03	Remove 9635@/9656@ from BOM option table	11/28	
65		HW Design Change	0.21	P16	Add R1069 for panel sequence	11/29	
66		HW Design Change	0.21	P27	Change L9 to 0603	12/01	
67		HW Design Change	0.3	P24	Change DA5 to BAT54AW-L_SOT323 for layout space	12/01	
68		ESD Request	0.3	P27	Add C134/C139/C140/C141/C142/ Add C143/C144/C145	12/02	
69		HW Design Change	0.3	P08	Add R1070 for RTC power consumption	12/02	
70		HW Design Change	0.3	P27	Add R230 for pull up HOME_INT# to +3VS	12/03	
71		ESD Request	0.3	P27	Add C147	12/03	
72		HW Design Change	0.3	P21	Add RH414 Change power source of U25 to +3VL	12/03	
73		Vender recommend	0.3	P08,P20	Change C1009,C1010 to 18P Change C1003,C1004 to 12P Change CL15,CL16 to 12P	12/12	
74		HW Design Change	0.31	P22	Remove RA25	12/23	
75		HW Design Change	0.31	P09	Add R179,R180,R181,R184 for reserve	12/23	

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	HW PIR
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE 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.				Document Number	LA-B151P
				Date	Tuesday, January 21, 2014
				Sheet	47 of 48

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
76		HW Design Change	0.31	P09	Change RP54,RP50 to R111~R118 for debug	12/23	
77		ME Request	1.0	P29	Change JPWR1 to 6718K-Y06N-21L	01/07	
78		Customer Change Spec	1.0	P27,P28	Remove JPSEN1/POUT	01/07	
79		HW Design Change	1.0	P08	Remove R1024/D10 Change R1026/U67 to mount	01/08	
80		HW Design Change	1.0	P10	Change power source of U53 to +1.8VALW Change power source of U61 to +1.8VALW Change power source of U62 to +1.8VALW Change power source of U64 to +1.8VALW	01/08	
81		HW Design Change	1.0	P10	Change power source of U54 to +3VALW_EC Change power source of U57 to +3VALW_EC	01/08	
82		HW Design Change	1.0	P10	Remove R1/R2 Add R1024/R1033	01/08	
83		HW Design Change	1.0	P09	Change R181/R180/R179/R184 to R_SHORT	01/08	
84		HW Design Change	1.0	P30	Change RR12/RR13/RR14 to R_SHORT	01/08	
85		HW Design Change	1.0	P32	Change CF26/CF27 to 3300PF	01/08	
86		HW Design Change	1.0	P28	Change R1025 to 120 ohm	01/08	
87		HW Design Change	1.0	P15	Remove UT3, CT24 for layout space	01/08	
88		HW Design Change	1.0	P19	Change RN6/RN8/R973 to @	01/08	
89		HW Design Change	1.0	P24,P25	Change RA38 to R_SHORT Change RA50/RA49/R274/R275 to R_SHORT	01/08	
90		HW Design Change	1.0	P27,P28 P32	Change R299/R189/RF4 to R_SHORT	01/08	
91		HW Design Change	1.0	P08	Swap RTC_RST#/RTC_TEST#	01/08	
92		HW Design Change	1.0	P11	Reserve L51/L52 for 1.35V	01/09	
93		HW Design Change	1.0	P15,P30	Change LT4/LB3 to R_SHORT	01/09	
94		HW Design Change	1.0	P30	Remove CH19/Y3/CH18 Connect Pin9 of US1 to GND	01/09	
95		HW Design Change	1.0	P20	Swap LAN_LINK#/LAN_ACT#	01/10	
96		EMI Request	1.0	P16,P28	Change L1/L2/R170/R171 to R_SHORT	01/10	
97		HW Design Change	1.0	P25,P20	Change RA50/RA49/R274/R275 to 0 ohm Swap LAN_LINK#/LAN_ACT#	01/13	
98		EMI Request	1.0	P17	Change L4/L6/L7/L8 to @ Change R182/R186/R187/R190 to mount(20ohm) Change R191/R192/R193/R194 to mount(20ohm)	01/13	
99		EMI Request	1.0	P26	Change CR12 to @ Change RR4/RR6/RR7/RR16/RR17 to mount	01/13	
100		ID Request	1.0	P28	Change R1025 to 56ohm	01/14	

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2014/01/14	Deciphered Date	2015/01/14	Title	HW PIR
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 TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF THE 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.				Document Number	Rev
				LA-B151P	1.0
Date: Tuesday, January 21, 2014				Sheet	48 of 48