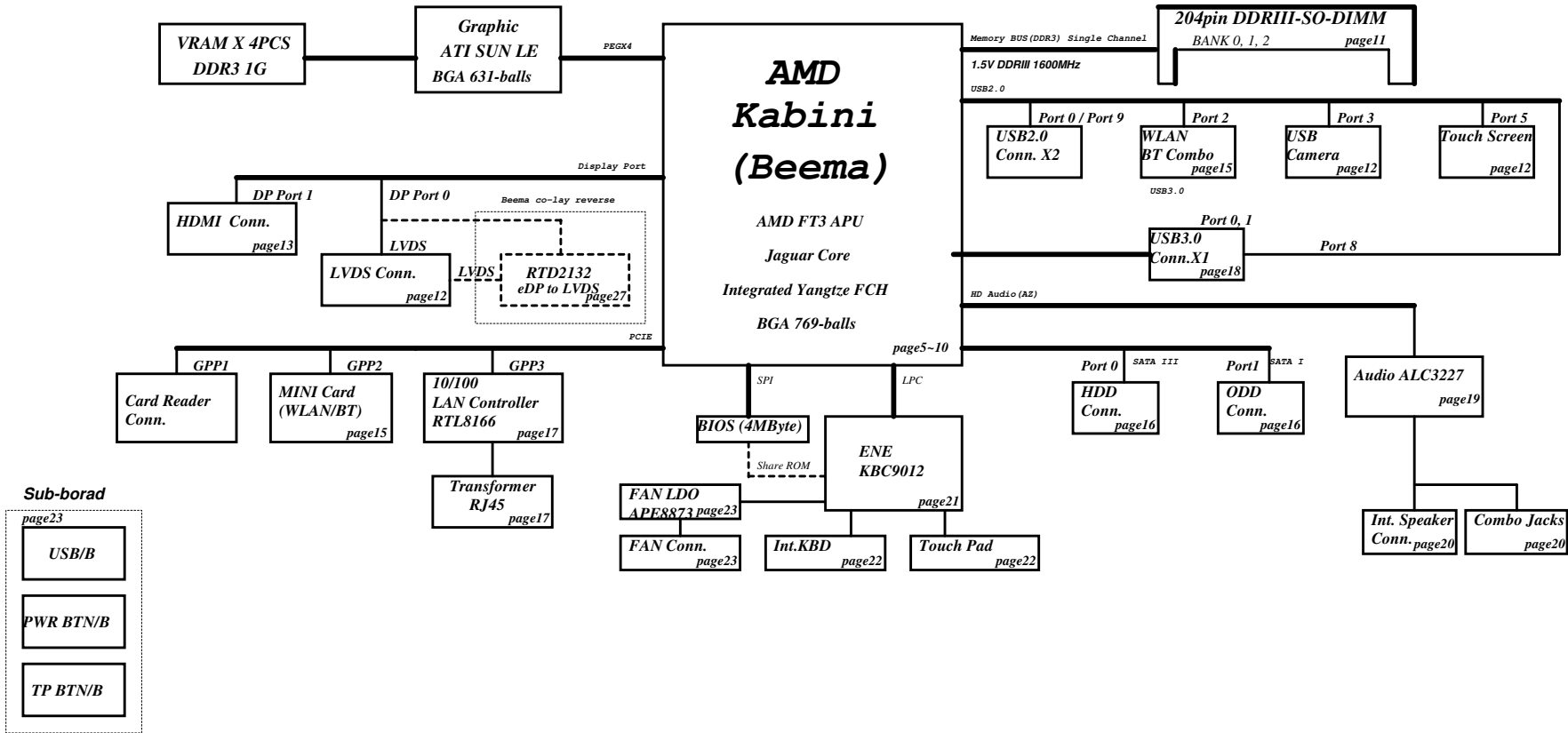
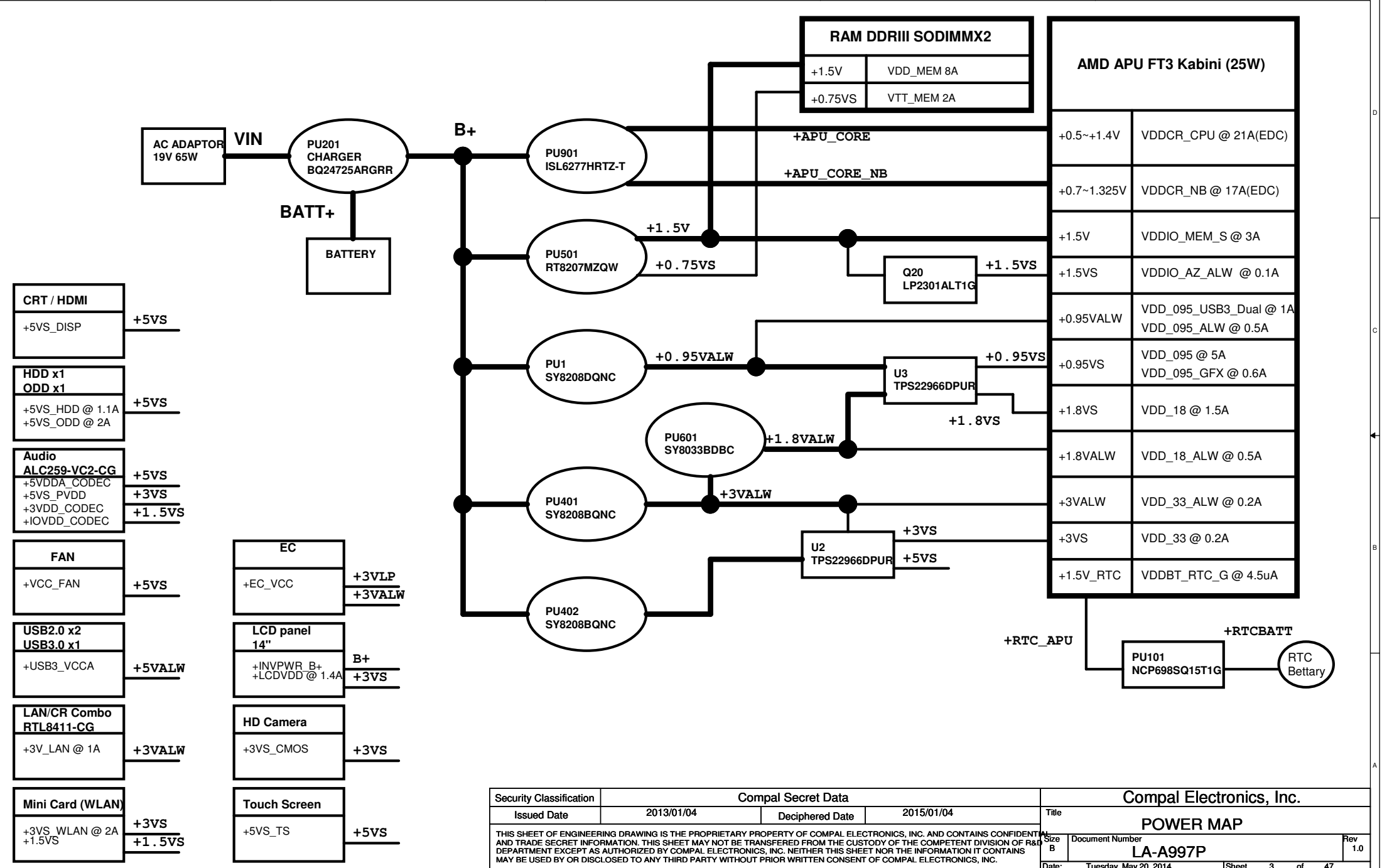


Compal Confidential

Model Name : AMD Kabini



Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2013/02/26	Deciphered Date	2015/07/08
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 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.			Title BLOCK DIAGRAMS Document Number LA-A997P Date: Tuesday, May 20, 2014 Sheet 2 of 47



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/01/04	Deciphered Date	2015/01/04	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-A997P
Date: Tuesday, May 20, 2014				Rev 1.0
Sheet 3 of 47				

Voltage Rails

Power Plane	Description	S0	S3	S5
VIN	Adapter power supply (19V)	ON	ON	ON
B+	AC or battery power rail for power circuit.	ON	ON	ON
+APU_CORE	Core voltage for APU	ON	OFF	OFF
+APU_CORE_NB	Voltage for On-die VGA of APU	ON	OFF	OFF
+0.95VALW	0.95V always on power rail	ON	OFF	OFF
+0.95VS	0.95V switched power rail	ON	OFF	OFF
+1.8VALW	1.8V always on power rail	ON	ON	ON*
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+1.5V	1.5V power rail for APU and DDR	ON	ON	OFF
+1.5VS	1.5V switched power rail	ON	OFF	OFF
+0.75VS	0.75V switched power rail for DDR terminator	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	OFF
+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_APU	RTC power			

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

Board ID / SKU ID Table for AD channel

Vcc	3.3V +/- 1%				
Ra	100K +/- 1%				
Board ID	Rb	VAD_BID min	VAD_BID typ	VAD_BID max	EC AD
0	0	0.000 V	0.000 V	0.300 V	0x00 - 0x0B
1	12K +/- 1%	0.347 V	0.354 V	0.360 V	0x0C - 0x1C
2	15K +/- 1%	0.423 V	0.430 V	0.438 V	0x1D - 0x26
3	20K +/- 1%	0.541 V	0.550 V	0.559 V	0x27 - 0x30
4	27K +/- 1%	0.691 V	0.702 V	0.713 V	0x31 - 0x3B
5	33K +/- 1%	0.807 V	0.819 V	0.831 V	0x3C - 0x46
6	43K +/- 1%	0.978 V	0.992 V	1.006 V	0x47 - 0x54
7	56K +/- 1%	1.169 V	1.185 V	1.200 V	0x55 - 0x64

BOARD ID Table

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

SMBus List

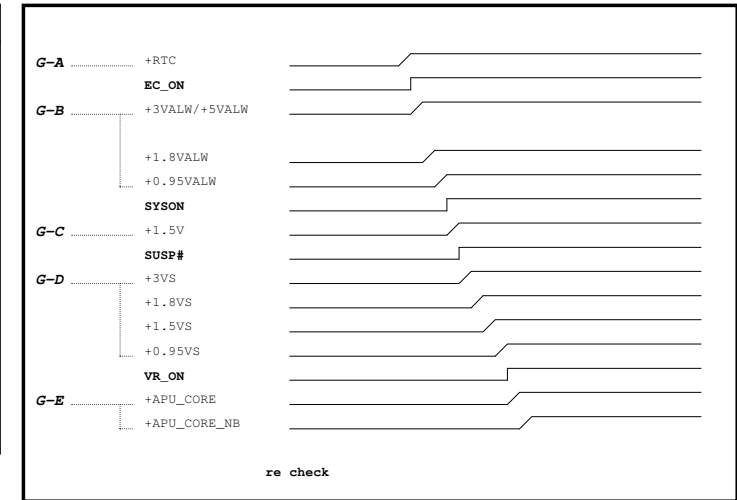
EC SMBus Port1 (+3VALW)			EC SMBus Port2 (+3VS)		
Device	Address	HEX	Device	Address	HEX
Smart Battery	0001 011X b	16H	SB-TSI (APU)	1001 100X b	98H

APU SMBus Port0 (+3VS)			APU SMBus Port1 (+3VALW)		
Device	Address	HEX	Device	Address	HEX
DDR DIMM2	1010 000Xb	A0H			
DDR DIMM1	1010 001Xb	A2H			
Mini Card (DN)					

BOM Structure Table

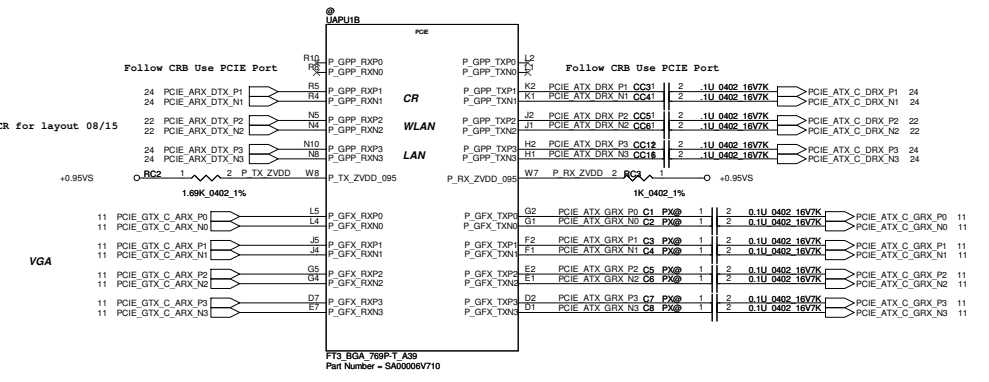
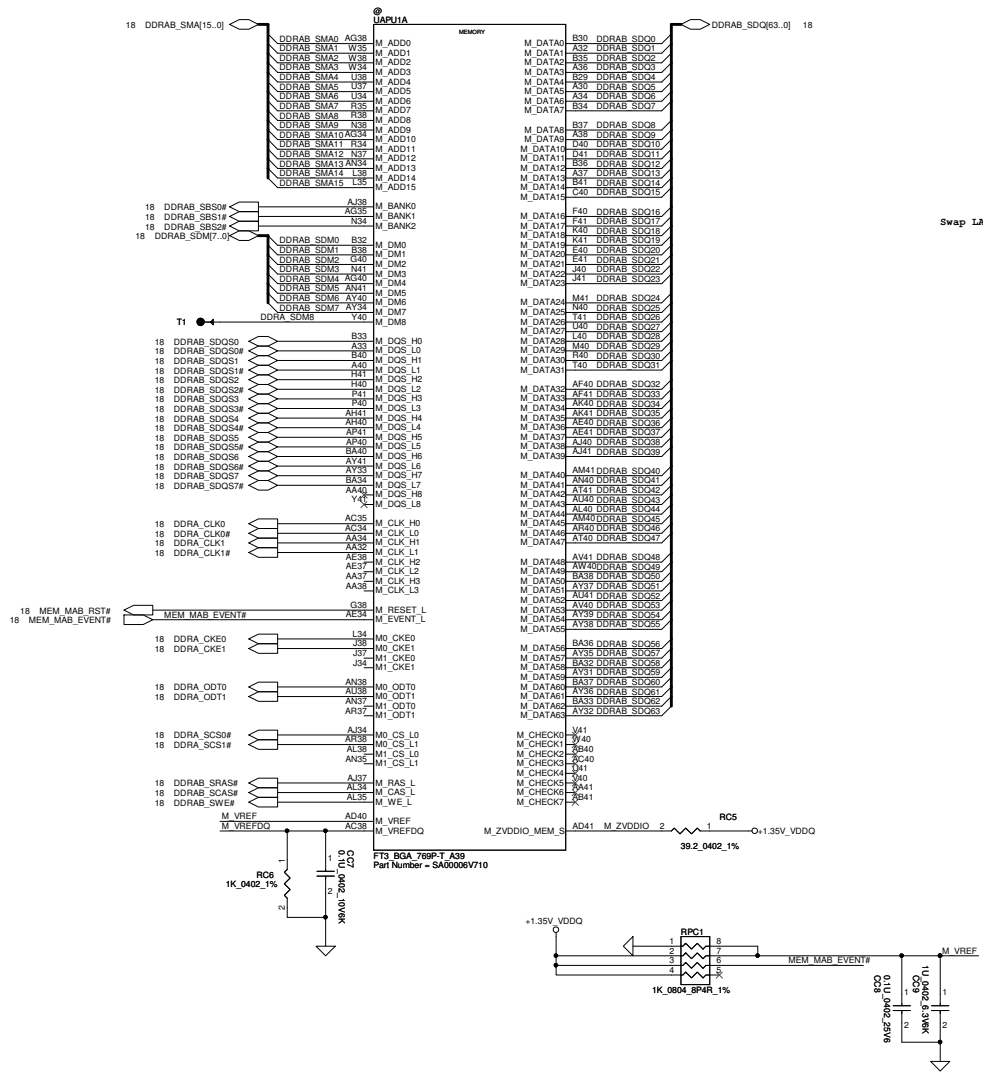
BOM Structure	BTO Item
@	Unpop
CONN@	Connector Part Control by ME
EMI@	EMI pop component
@EMI@	EMI unpop component
ESD@	ESD pop component
@ESD@	ESD Unpop component
eDP@	eDP Panel
LVDS@	LVDS Panel
AL@	Auto Load EC ROM
DB@	Debug only, remove at MP

APU POWER SEQUENCE

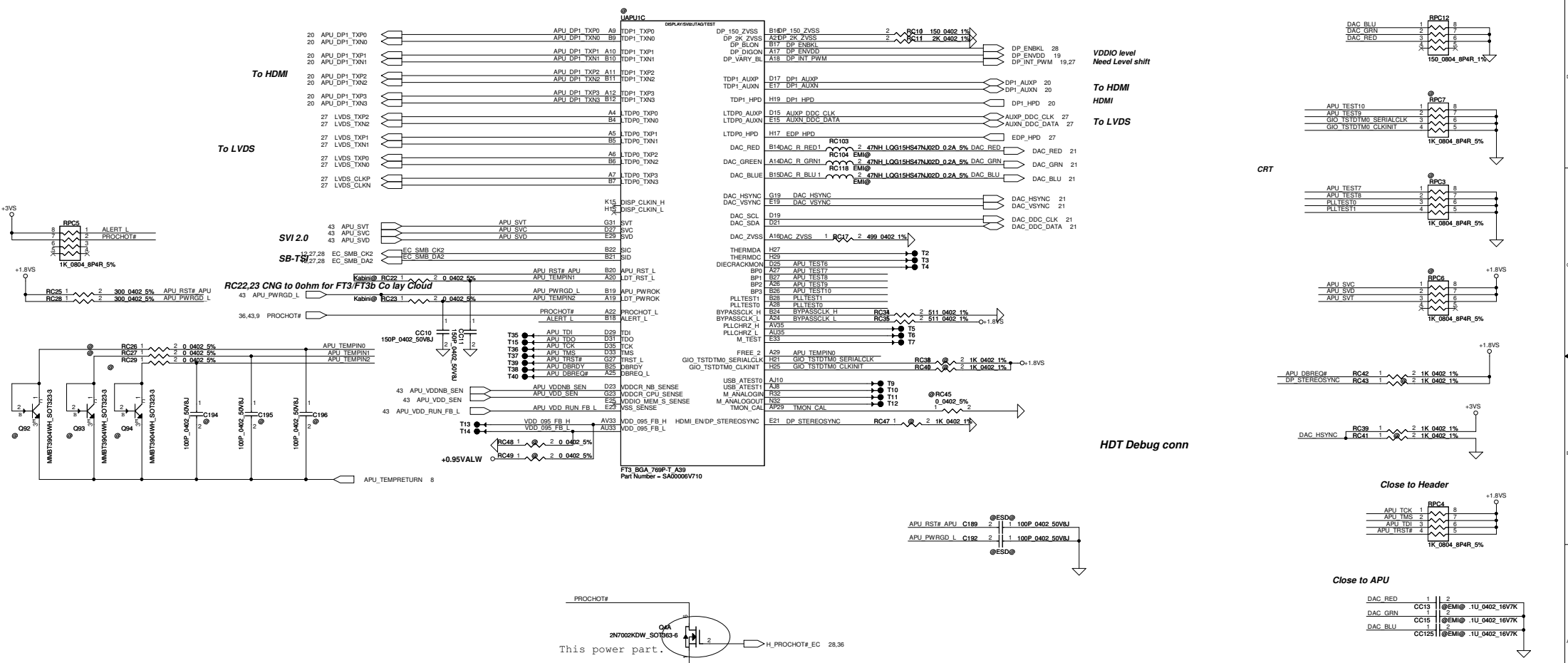


ZZZ PCB Part Number = DAZ14C00100 PCB LA-A997P REV0 M/B	UAPU1 A8_6410@ CUP A8-6410 Part Number = SA00007TQ10 S IC A32 A8-6410 AM6410ITJ44JB 2G BGA769	UAPU1 A4_6210@ CPU A4-6210 Part Number = SA00007RA40 S IC A32 A4-6210 AM6210ITJ44JB 1.8G BGA	UAPU1 E1_6050@ CPU E1-6050 Part Number = SA00007IQ50 S IC A32 E1-6050 ZM1332M2J2370 1.35G BGA	UAPU1 E2_6200@ CPU E2-6200 Part Number = SA00007OC20 S IC A32 E2-6200 EM6200ITJ44JB 1.5G BGA	UAPU1 A4_6300@ CPU A4-6300 Part Number = SA00007OP20 S IC A32 A4-6300 AM6300ITJ44JB 1.8G BGA
ZZZ @ HDMI Part Number = RC0000003HM PCB 102 LA-A997P REV0 M/B 2	UAPU1 E1_6010@ CPU E1-6010 Part Number = SA00007RC40 S IC A32 E1-6010 EM6010IUJ23JB 1.35G BGA	UAPU1 E2_6110@ CPU E2-6110 Part Number = SA00007RB30 S IC A32 E2-6110 EM6110ITJ44JB 1.5G BGA	UAPU1 A6_6400@ CUP A6-6400 Part Number = SA00007IP50 S IC A32 A6-6400 ZM18D703J4470 2.4G BGA	UAPU1 A8_6410_R3@ CUP A8-6410 Part Number = SA00007TQ20 S IC A8-6410 AM6410ITJ44JB 2G BGA A32I	UAPU1 A4_6210_R3@ CPU A4-6210 Part Number = SA00007RA60 S IC A32 A4-6210 AM6210ITJ44JB 1.8G BGA
	UAPU1 E1_6010_R3@ CPU E1-6010 Part Number = SA00007RC60 S IC E1-6010 EM6010IUJ23JB 1.35G A32I	UAPU1 E2_6110_R3@ CPU E2-6110 Part Number = SA00007RB60 S IC A32 E2-6110 EM6110ITJ44JB 1.5G BGA			

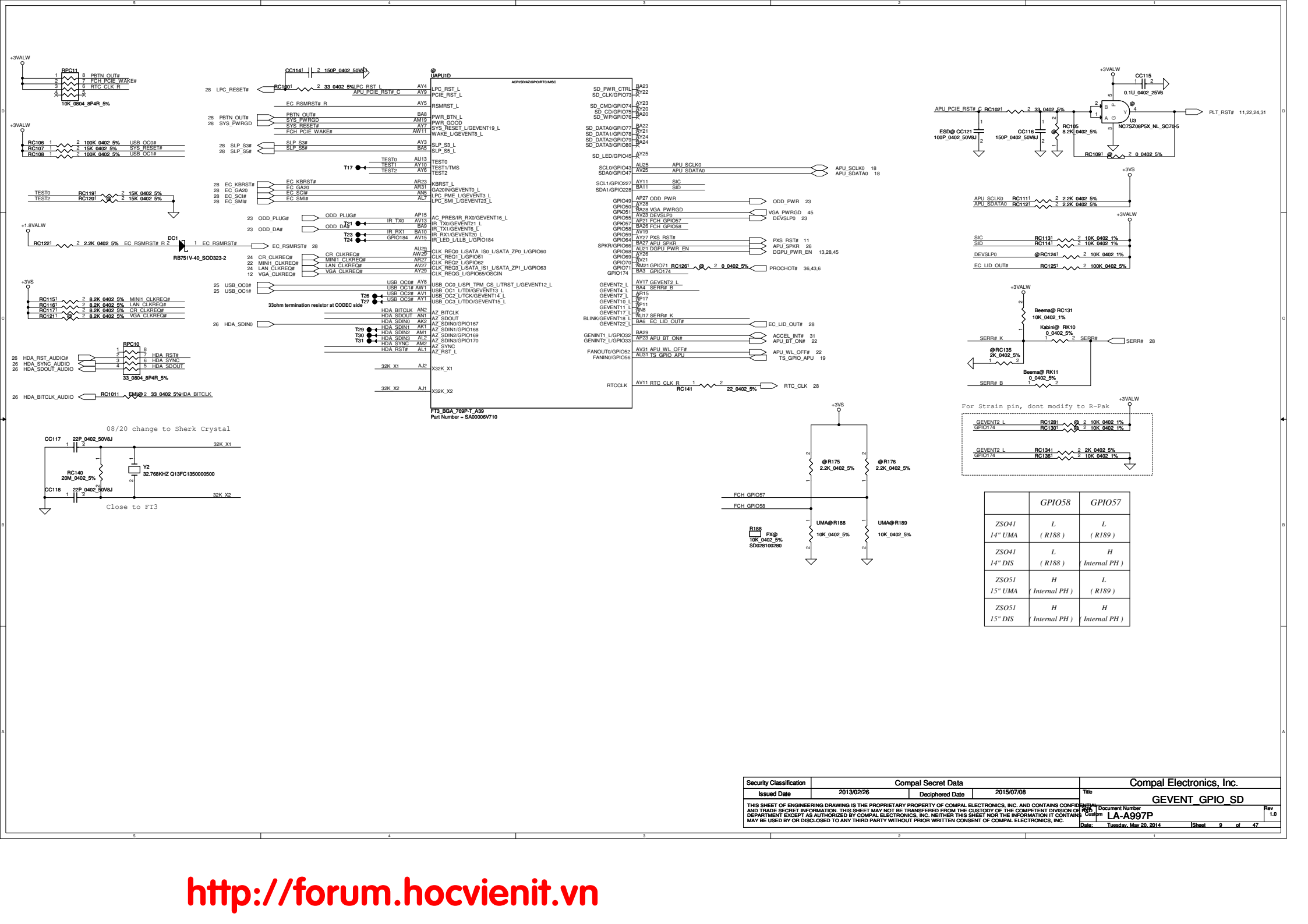
Security Classification	Compal Secret Data		Title	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF PRODUCT DEVELOPMENT, INC. EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE REPRODUCED, COPIED, OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number LA-A997P
Date: Tuesday, May 20, 2014				Rev 1.0
Sheet 4 of 47				



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	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 OR 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-A997P
				Rev 1.0
				Date: Tuesday, May 20, 2014
				Sheet 5 of 47



Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.
Issued Date	2013/02/26	Deciphered Date	2015/07/08	SATA USB LPC SPI
<small>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 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.</small>				
Document Number	LA-A979P	Revision	1.0	Page
Date:	Tuesday, May 20, 2014	Sheet	6	of 47



Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.
Issued Date	2013/02/26	Deciphered Date	2015/07/08	
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 CONSENT OF COMPAL ELECTRONICS, INC.				Rev 1.0
Document Number				LA-A997P
Date: Tuesday, May 20, 2014				Sheet 9 of 47

P
a
n
e
l

E
N
B
K
L

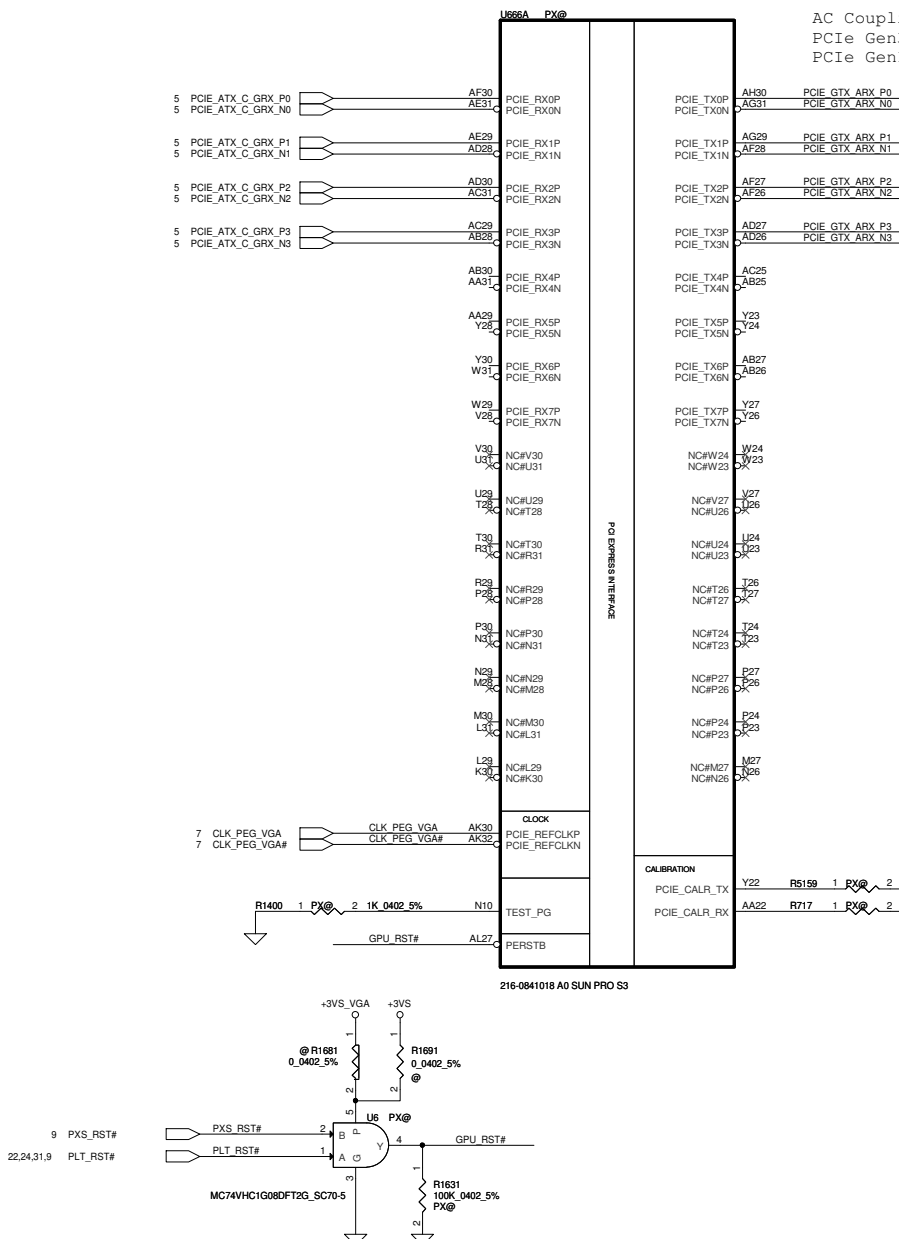
P
a
n
e
l

E
N
V
D
D

P
a
n
e
l

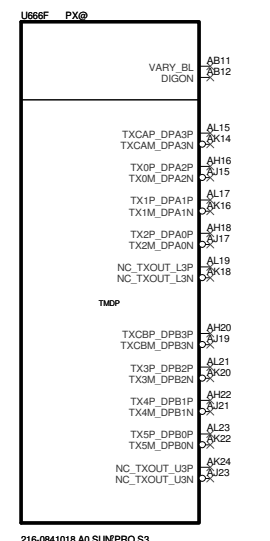
P
W
M

Security Classification	Compal Secret Data		Title
Issued Date	2013/02/26	Deciphered Date	2015/07/08
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.			Level Shifter
Document Number			Rev
LA-A997P			1.0
Date: Tuesday, May 20, 2014			Sheet 10 of 47



AC Coupling Capacitor
 PCIe Gen3: Recommended value is 220 nF
 PCIe Gen1 and Gen2 only: Recommended value is 100 nF

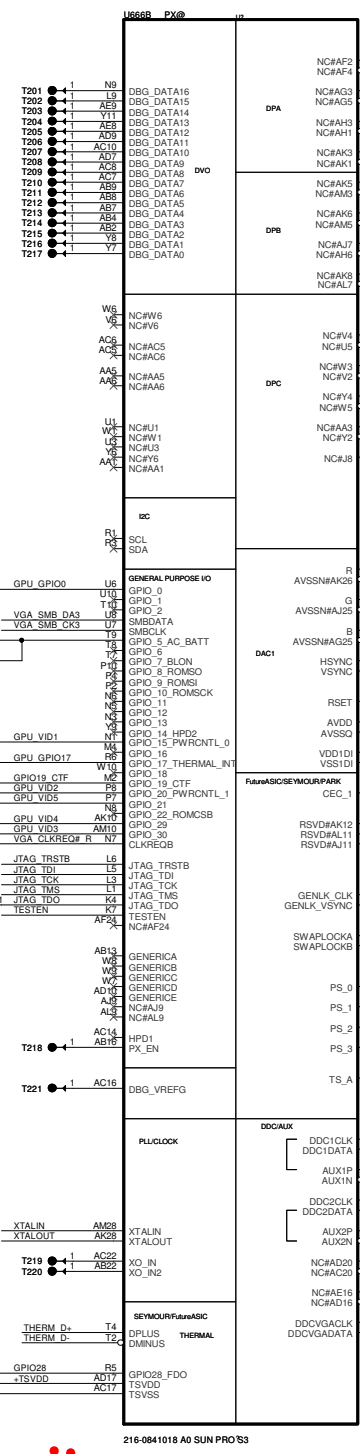
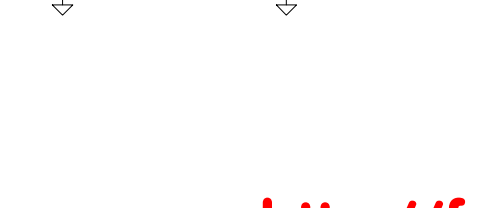
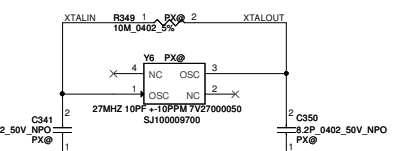
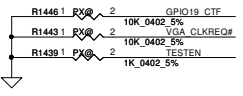
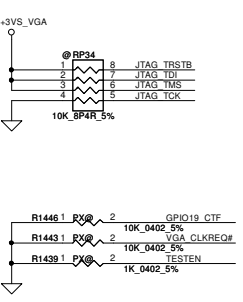
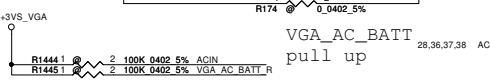
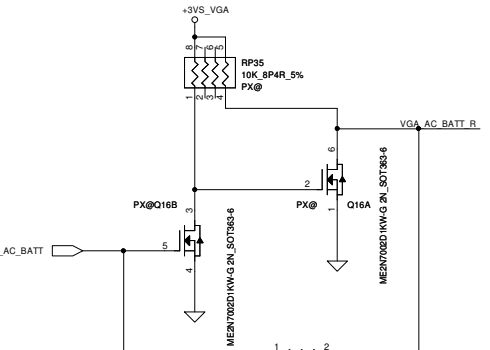
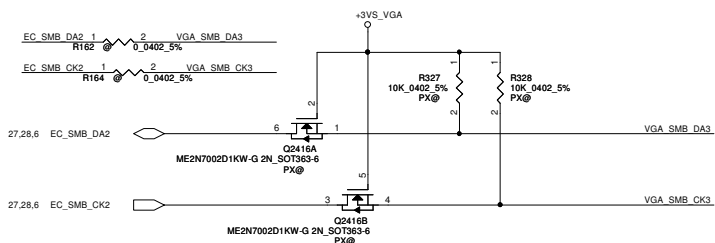
No Use GPU Display Port output



216-0841018 A0 SUN PRO S3

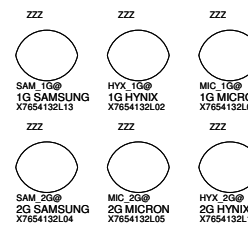


Security Classification		Compal Secret Data		Title	
Issued Date	2013/01/11	Deciphered Date	2013/12/31	SUN PCIe/DP	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE 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	Rev
				Custom	1.0
				Date	Tuesday, May 20, 2014
				Sheet	11 of 47

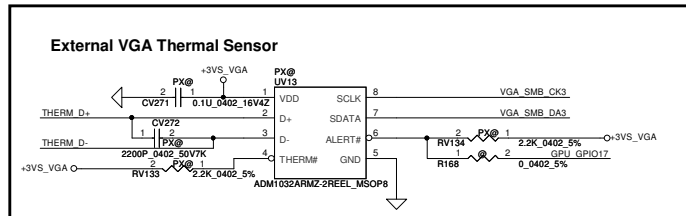


R_pu (ohm)	R_pd (ohm)	Bitd [3:1]
NC	4.75k	000
8.45k	2k	001
4.53k	2k	010
6.98k	4.99k	011
4.53k	4.99k	100
3.24k	5.62k	101
3.4k	10k	110
4.75k	NC	111

Cap (nF)	Bitd [5:4]
680nF	00
82nF	01
10nF	10
NC	11



Memory ID	Memory Type	Configuration	Size	R5174	R5169	X76 P/N
000	SA000068U40	Samsung K4W2G1646E-BC1A	1GB	NC	4.75K	X7654132L01
001	SA000067500	Micron MT41J128M16JT-093G:K	1GB	8.45K	2K	X7654132L03
010	SA00006H400	Hynix H5TC2G63FFR-11C	1GB	4.53K	2K	X7654132L02
011	SA000076P00	Samsung K4W4G1646D-BC1A	2GB	6.98K	4.99K	X7654132L04
100	SA000077K00	Micron MT41J256M16HA-093G:E	2GB	4.53K	4.99K	X7654132L05
101	SA00006E800	Hynix H5TC4G63AFR-11C	2GB	3.24K	5.62K	X7654132L06



<http://forum.hocvient.vn>

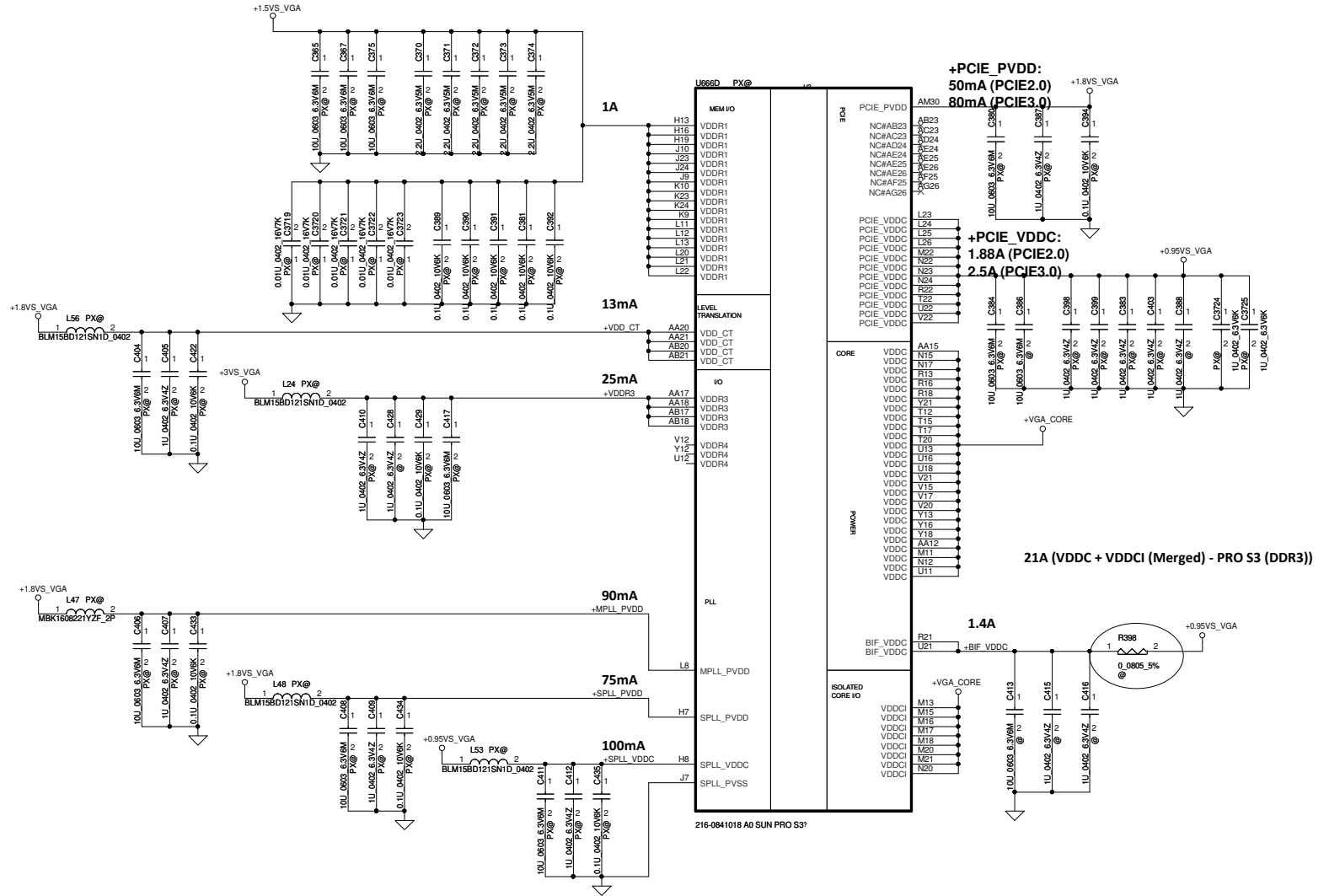
+VGA_CORE	10uF	1uF	0.1uF
VDDC	TBD	5 (1@)	10 (2@) 0
VDDCI	3.5A	1	3 0

+0.95VS_VGA	10uF	1uF	0.1uF
PCIE_VDDC	2.5A	2 (1@)	5 (1@) 0
BIF_VDDC	1.4A	0	0 0
SPLL_VDDC	100mA	1	1 1

+1.5VS_VGA	10uF	1uF	0.1uF
VDDR1	1.5A	3	5 5

+1.8VS_VGA	10uF	1uF	0.1uF
PCIE_PVDD	100mA	1	1 1
MPLL_PVDD	130mA	1	1 1
SPLL_PVDD	75mA	1	1 1
VDDR4	(300mA)	0	0 0
VDD_CT	13mA	1	1 1
+TSVDD	13mA	1	1 1
+DP_VDDR	0	0	0 0
+DP_VDDC	0	0	0 0

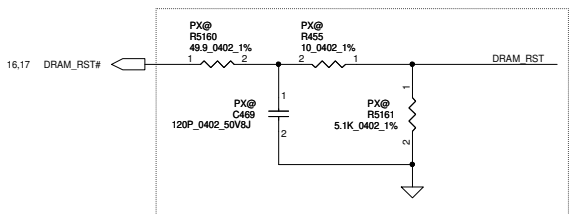
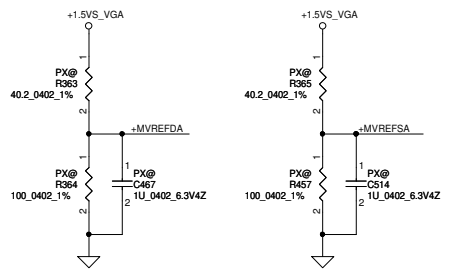
+3VS_VGA	10uF	1uF	0.1uF
VDDR3	25mA	0	2 (1@) 1



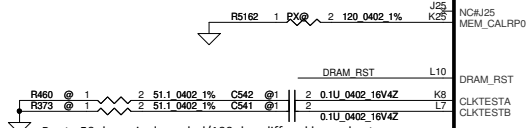
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/01/11	Deciphered Date	2013/12/31	Title	SUN Power
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT 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.				Customer	Document Number
				Date	Tuesday, May 20, 2014
				Sheet	14 of 47
				Rev	1.0
				LA-A997P	

<http://forum.hocvienit.vn>

- 16,17 M_DA[63..0] M_DA[63..0]
- 16,17 M_MA[15..0] M_MA[15..0]
- 16,17 M_DOM[7..0] M_DOM[7..0]
- 16,17 M_DQS[7..0] M_DQS[7..0]
- 16,17 M_DQS#[7..0] M_DQS#[7..0]



Place close to GPU (within 25mm)
and place component close to each other

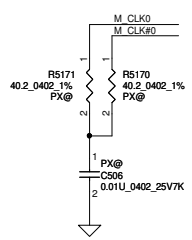
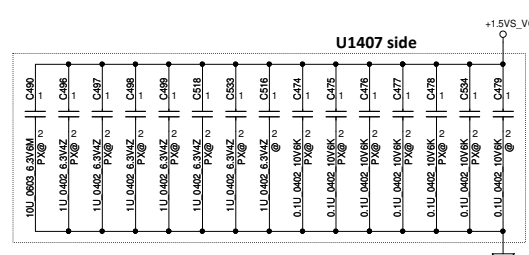
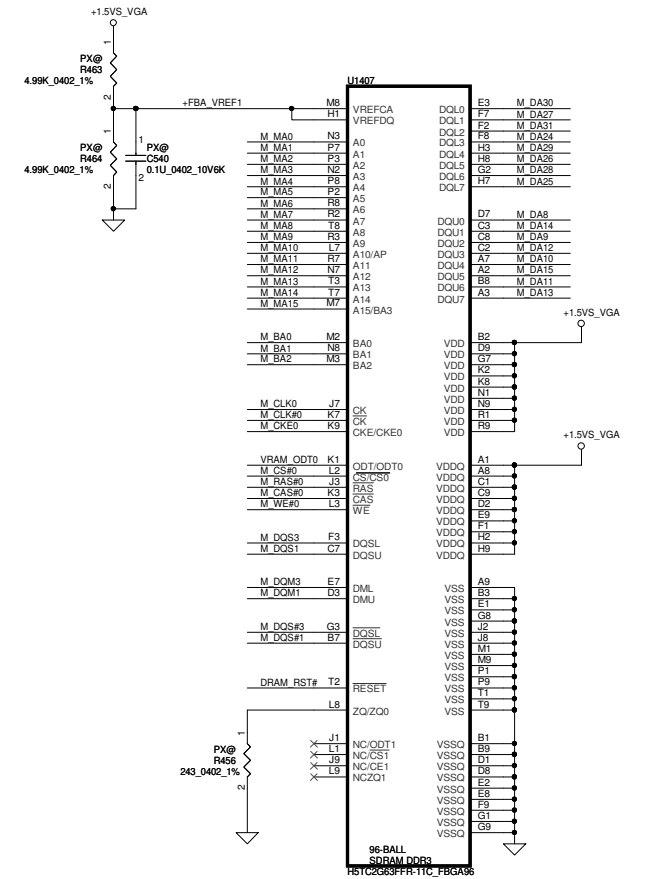
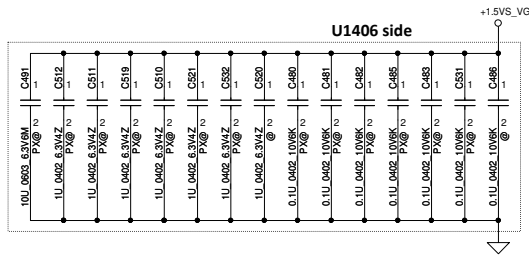
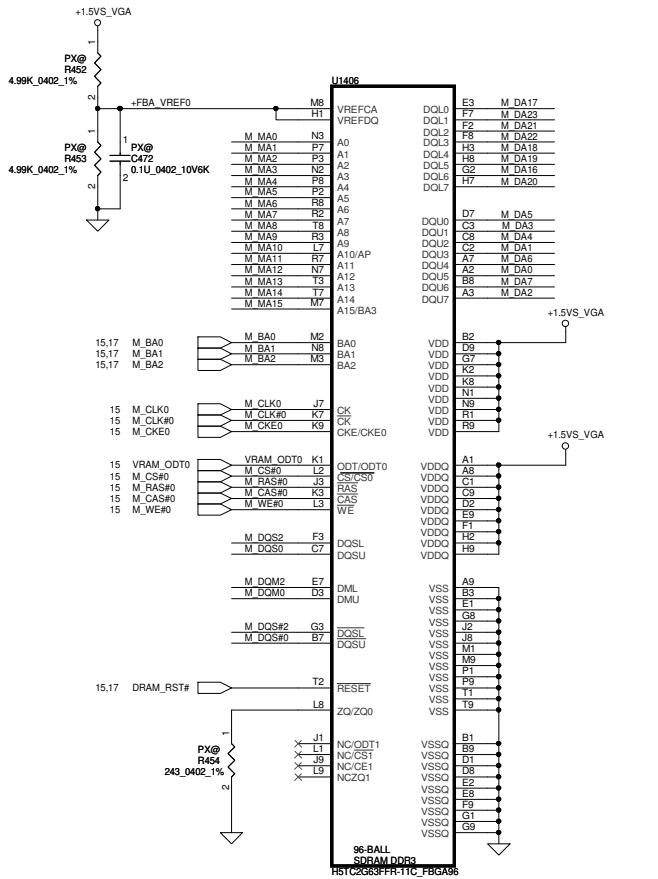


Route 50ohms single-ended/100ohm diff and keep short debug only, for clock observation, if not need, DNI.

PX@ U666C		MEMORY INTERFACE	
M DA0	K27	DOA0_0	M MA0
M DA1	J29	DOA0_1	M MA1
M DA2	H30	DOA0_2	M MA2
M DA3	H32	DOA0_3	M MA3
M DA4	G29	DOA0_4	M MA4
M DA5	F28	DOA0_5	M MA5
M DA6	F26	DOA0_6	M MA6
M DA7	F30	DOA0_7	M MA7
M DA8	C30	DOA0_8	M MA8
M DA9	F27	DOA0_9	M MA9
M DA10	A28	DOA0_10	M MA10
M DA11	C28	DOA0_11	M MA11
M DA12	E27	DOA0_12	M MA12
M DA13	G26	DOA0_13	M MA13
M DA14	D26	DOA0_14	M MA14
M DA15	F25	DOA0_15	M MA15
M DA16	A25	DOA0_16	M MA16
M DA17	C25	DOA0_17	M MA17
M DA18	E25	DOA0_18	M MA18
M DA19	D24	DOA0_19	M MA19
M DA20	E23	DOA0_20	M MA20
M DA21	F23	DOA0_21	M MA21
M DA22	D22	DOA0_22	M MA22
M DA23	F21	DOA0_23	M MA23
M DA24	E21	DOA0_24	M MA24
M DA25	D20	DOA0_25	M MA25
M DA26	F19	DOA0_26	M MA26
M DA27	A19	DOA0_27	M MA27
M DA28	D18	DOA0_28	M MA28
M DA29	E17	DOA0_29	M MA29
M DA30	A17	DOA0_30	M MA30
M DA31	C17	DOA0_31	M MA31
M DA32	E17	DOA1_0	M MA32
M DA33	D16	DOA1_1	M MA33
M DA34	F15	DOA1_2	M MA34
M DA35	A15	DOA1_3	M MA35
M DA36	D14	DOA1_4	M MA36
M DA37	F13	DOA1_5	M MA37
M DA38	A13	DOA1_6	M MA38
M DA39	C13	DOA1_7	M MA39
M DA40	E11	DOA1_8	M MA40
M DA41	A11	DOA1_9	M MA41
M DA42	C11	DOA1_10	M MA42
M DA43	F11	DOA1_11	M MA43
M DA44	A9	DOA1_12	M MA44
M DA45	C9	DOA1_13	M MA45
M DA46	F9	DOA1_14	M MA46
M DA47	D8	DOA1_15	M MA47
M DA48	E7	DOA1_16	M MA48
M DA49	A7	DOA1_17	M MA49
M DA50	C7	DOA1_18	M MA50
M DA51	F7	DOA1_19	M MA51
M DA52	A5	DOA1_20	M MA52
M DA53	E5	DOA1_21	M MA53
M DA54	C3	DOA1_22	M MA54
M DA55	F1	DOA1_23	M MA55
M DA56	E1	DOA1_24	M MA56
M DA57	G6	DOA1_25	M MA57
M DA58	G1	DOA1_26	M MA58
M DA59	C3	DOA1_27	M MA59
M DA60	J6	DOA1_28	M MA60
M DA61	J1	DOA1_29	M MA61
M DA62	J3	DOA1_30	M MA62
M DA63	J5	DOA1_31	M MA63
M DA64	J7	DOA1_32	M MA64
M DA65	J9	DOA1_33	M MA65
M DA66	J11	DOA1_34	M MA66
M DA67	J13	DOA1_35	M MA67
M DA68	J15	DOA1_36	M MA68
M DA69	J17	DOA1_37	M MA69
M DA70	J19	DOA1_38	M MA70
M DA71	J21	DOA1_39	M MA71
M DA72	J23	DOA1_40	M MA72
M DA73	J25	DOA1_41	M MA73
M DA74	J27	DOA1_42	M MA74
M DA75	J29	DOA1_43	M MA75
M DA76	J31	DOA1_44	M MA76
M DA77	J33	DOA1_45	M MA77
M DA78	J35	DOA1_46	M MA78
M DA79	J37	DOA1_47	M MA79
M DA80	J39	DOA1_48	M MA80
M DA81	J41	DOA1_49	M MA81
M DA82	J43	DOA1_50	M MA82
M DA83	J45	DOA1_51	M MA83
M DA84	J47	DOA1_52	M MA84
M DA85	J49	DOA1_53	M MA85
M DA86	J51	DOA1_54	M MA86
M DA87	J53	DOA1_55	M MA87
M DA88	J55	DOA1_56	M MA88
M DA89	J57	DOA1_57	M MA89
M DA90	J59	DOA1_58	M MA90
M DA91	J61	DOA1_59	M MA91
M DA92	J63	DOA1_60	M MA92
M DA93	J65	DOA1_61	M MA93
M DA94	J67	DOA1_62	M MA94
M DA95	J69	DOA1_63	M MA95
M DA96	J71	DOA1_64	M MA96
M DA97	J73	DOA1_65	M MA97
M DA98	J75	DOA1_66	M MA98
M DA99	J77	DOA1_67	M MA99
M DA100	J79	DOA1_68	

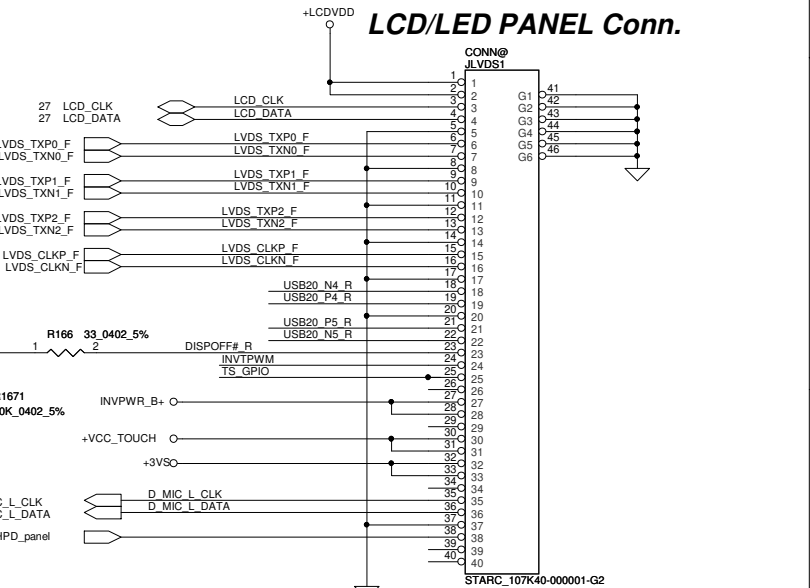
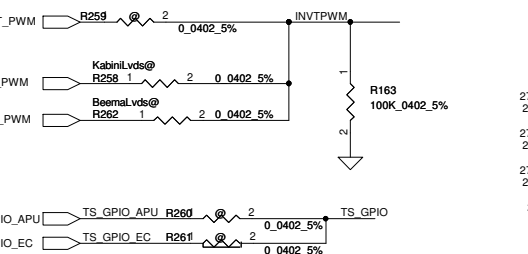
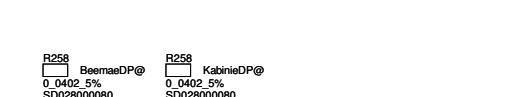
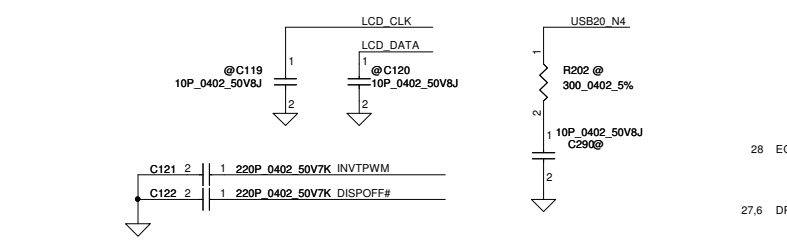
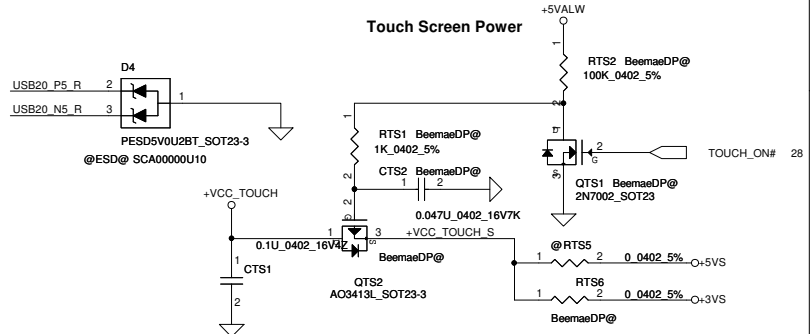
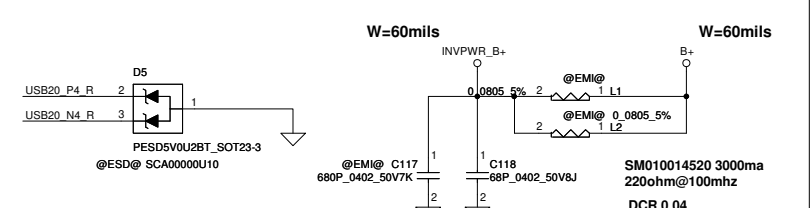
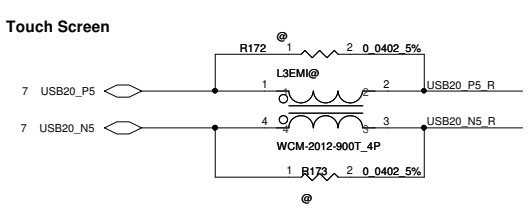
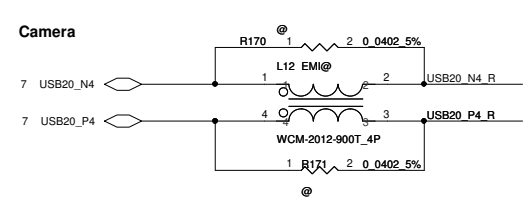
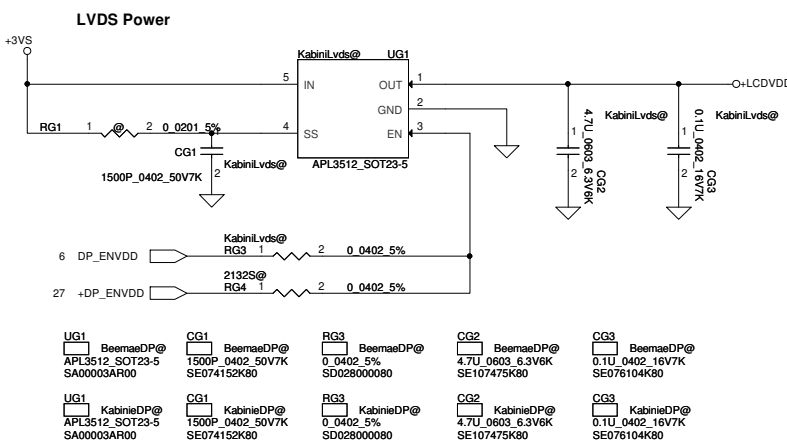
Memory Partition A - Lower 32 bits

- 15,17 M_DA[63..0] M_DA[63..0]
- 15,17 M_MA[15..0] M_MA[15..0]
- 15,17 M_DQM[7..0] M_DQM[7..0]
- 15,17 M_DQS[7..0] M_DQS[7..0]
- 15,17 M_DQS# [7..0] M_DQS# [7..0]

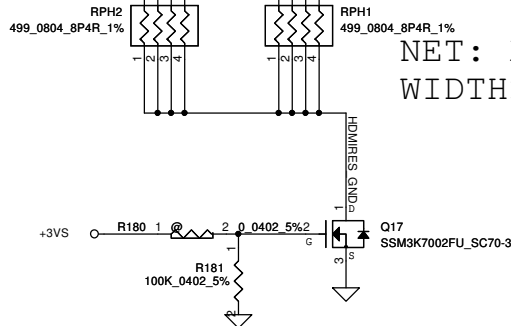
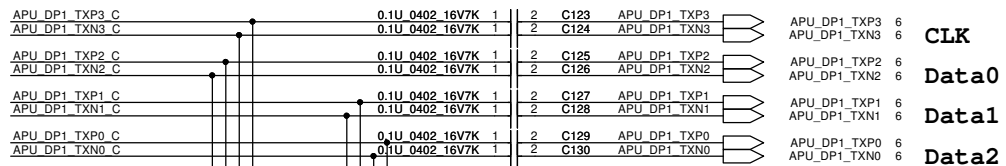
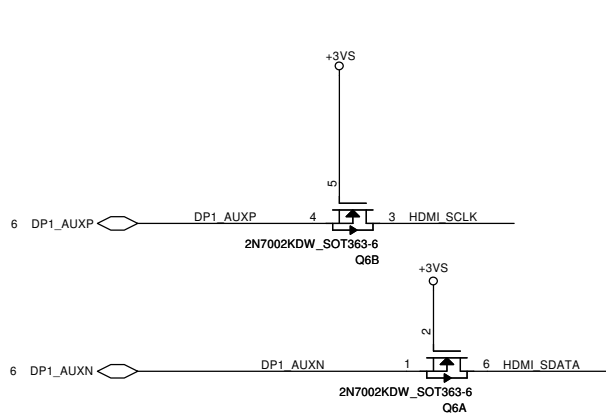


Security Classification		Compal Secret Data		Title		Compal Electronics, Inc.	
Issued Date	2013/01/11	Deciphered Date	2013/12/31	SUN VRAM A Lower			
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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.				320	Document Number	Rev 1.0	
				LA-A997P		Date: Tuesday, May 20, 2014	
				Sheet 16		of 47	

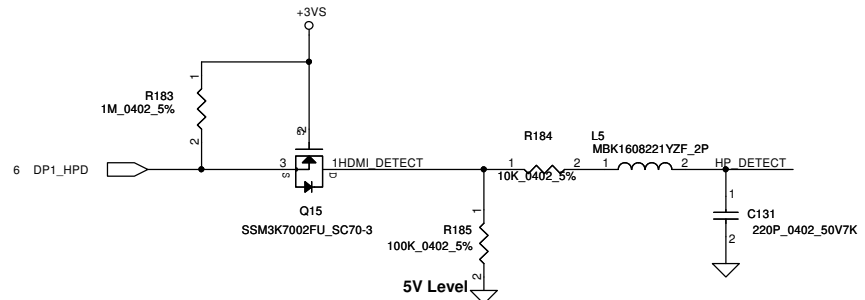
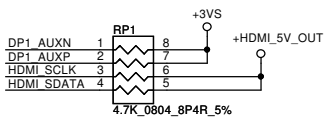
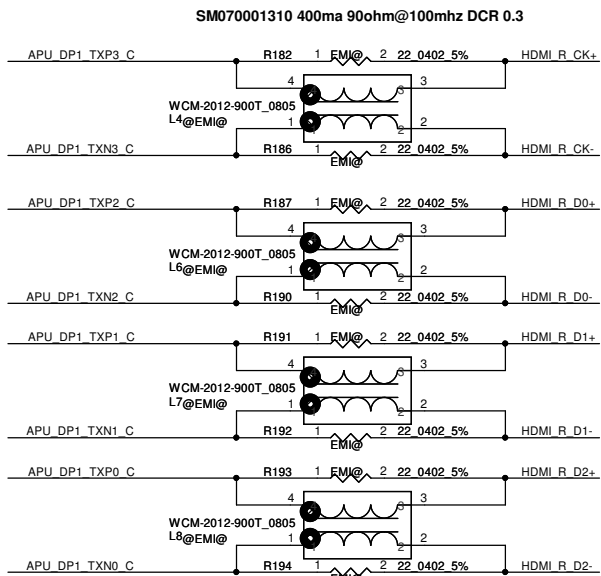
<http://forum.hocvient.vn>



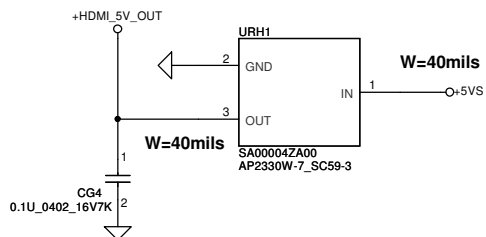
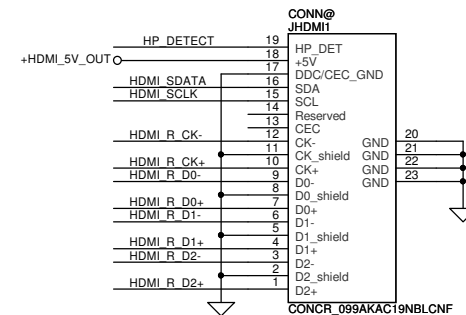
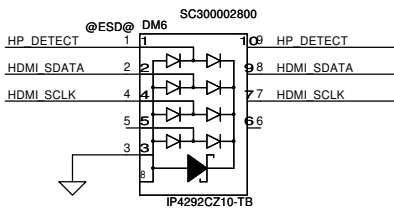
Security Classification	Compal Secret Data		Title	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	LVDS Connector
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM 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-A997P
Date: Tuesday, May 20, 2014				Rev 1.0
Sheet 19 of 47				



NET: HDMIRES_GND
WIDTH>20 mils



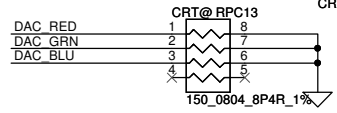
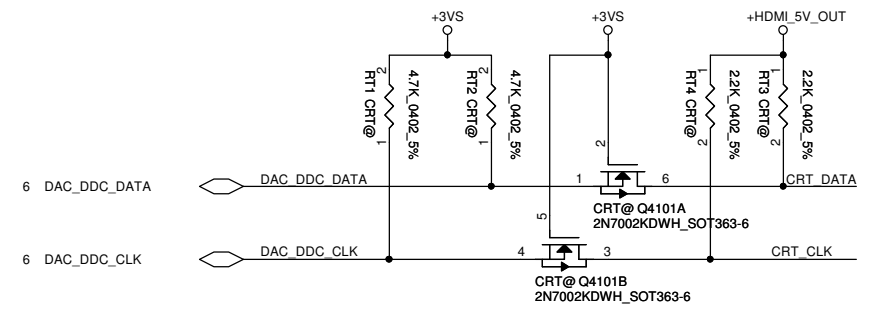
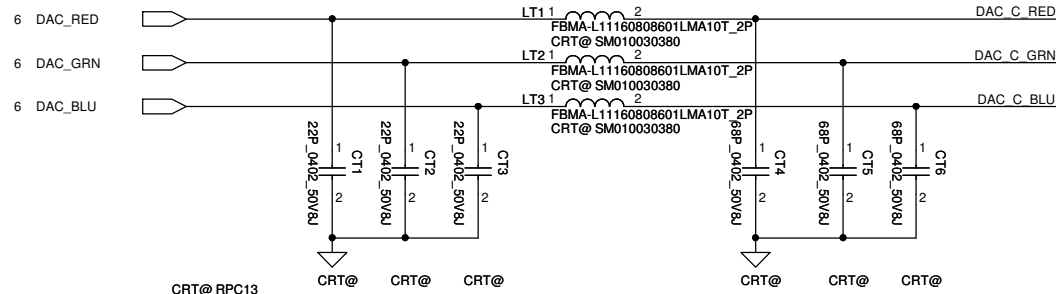
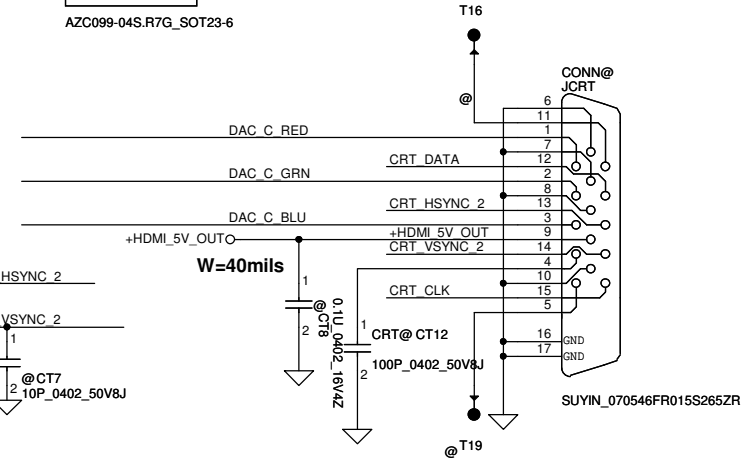
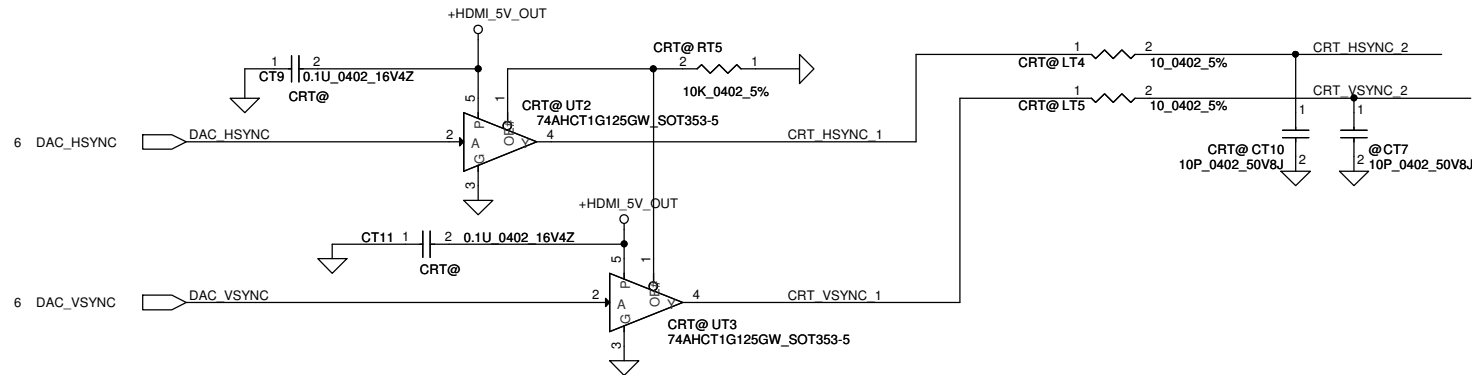
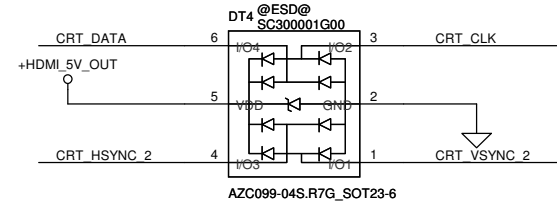
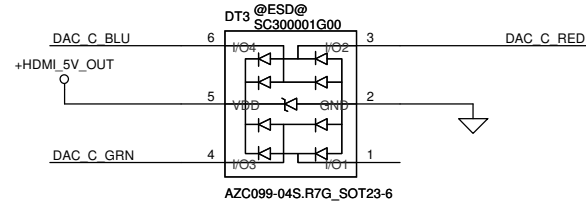
8/20 change HDMI Conn HDMI Conn.



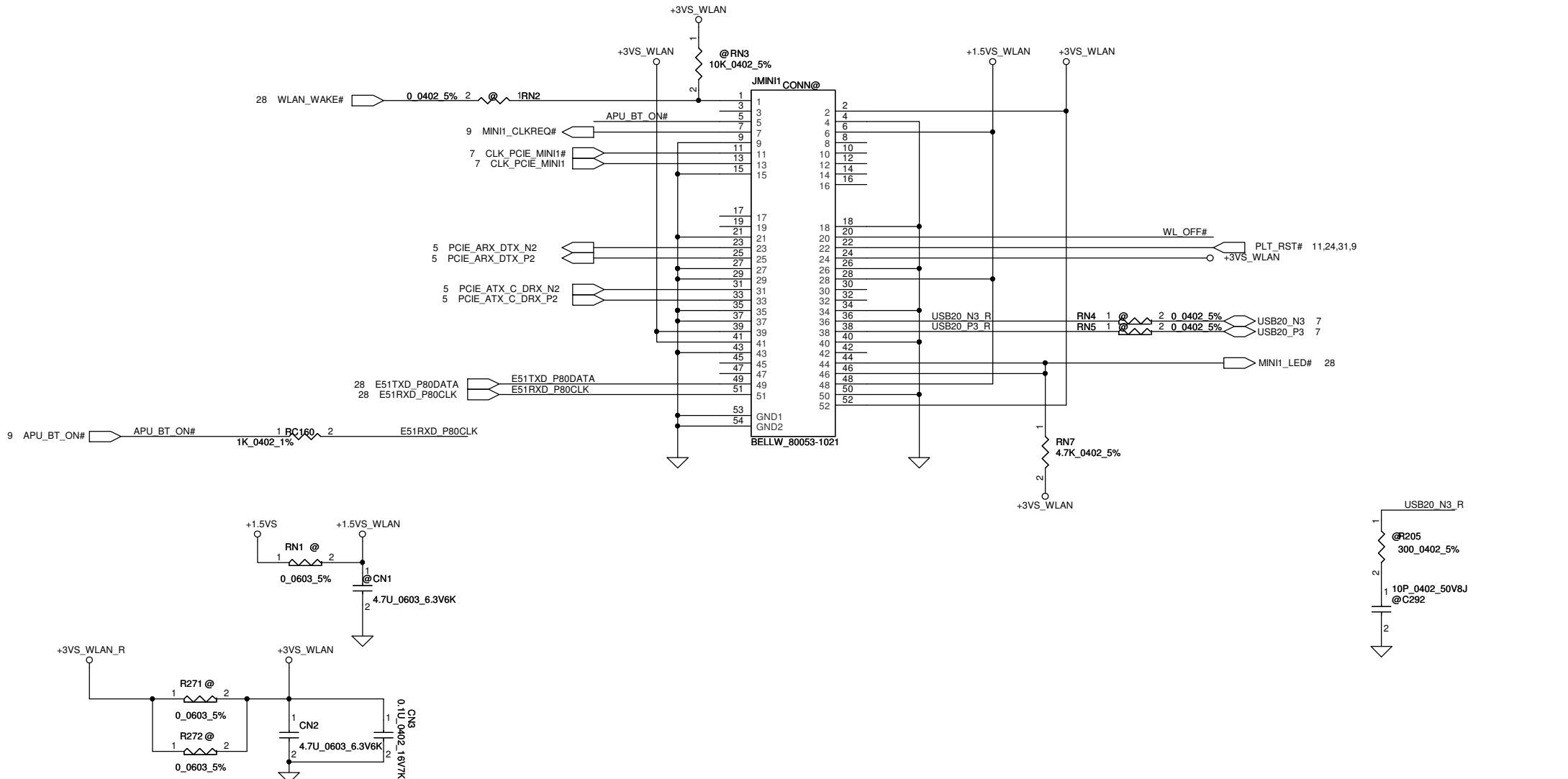
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D OR BE ALTERED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS SHALL BE USED FOR OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				HDMI Connector	
Size	Document Number	Date		Rev	1.0
Custom	LA-A997P	Tuesday, May 20, 2014		Sheet	20 of 47

<http://forum.hocvient.vn>

CRT share HDMI Power

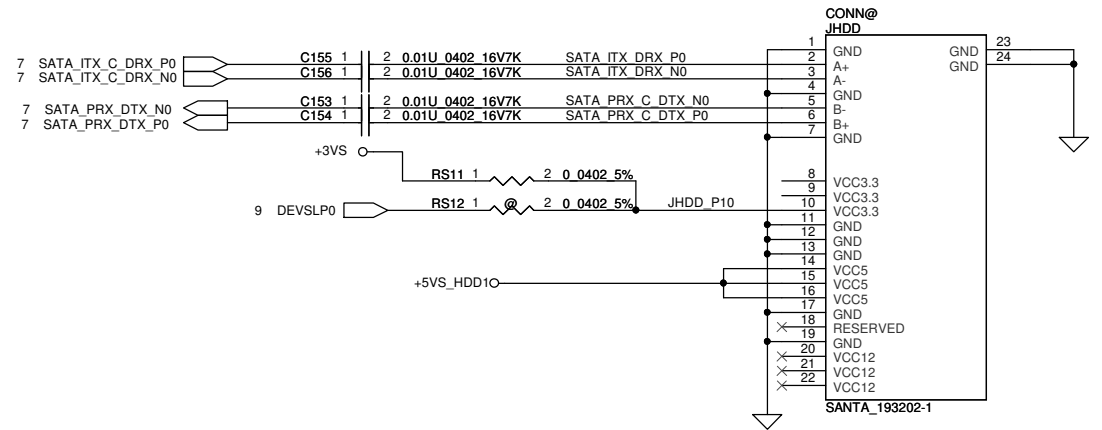
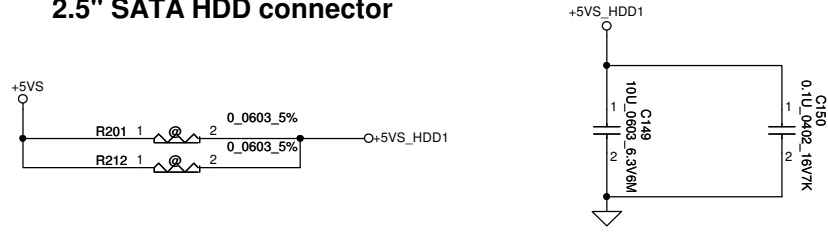


Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	CRT Connector
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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-A997P	Rev	1.0	Date	Tuesday, May 20, 2014
				Sheet	21 of 47



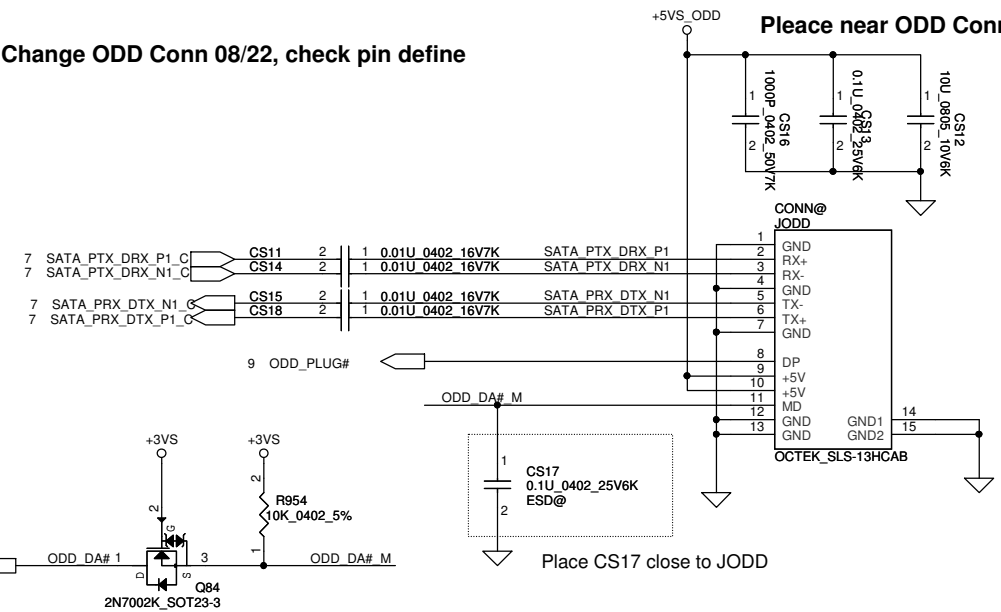
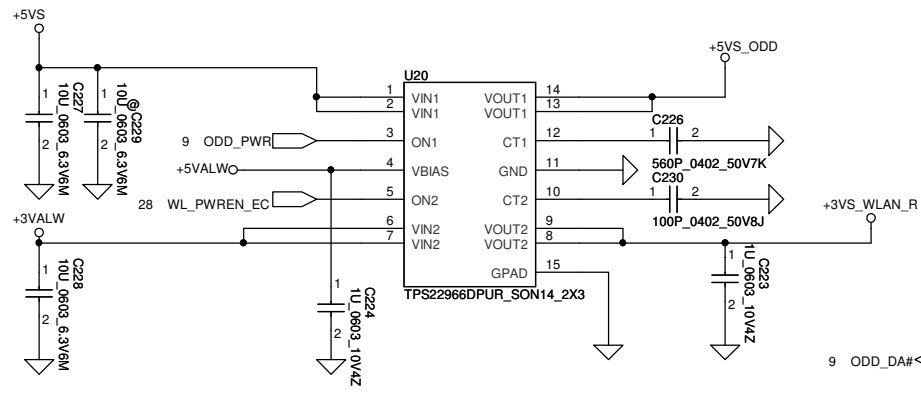
Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	WLAN
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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	LA-A997P
				Date	Tuesday, May 20, 2014
				Sheet	22 of 47
				Rev	1.0

2.5" SATA HDD connector

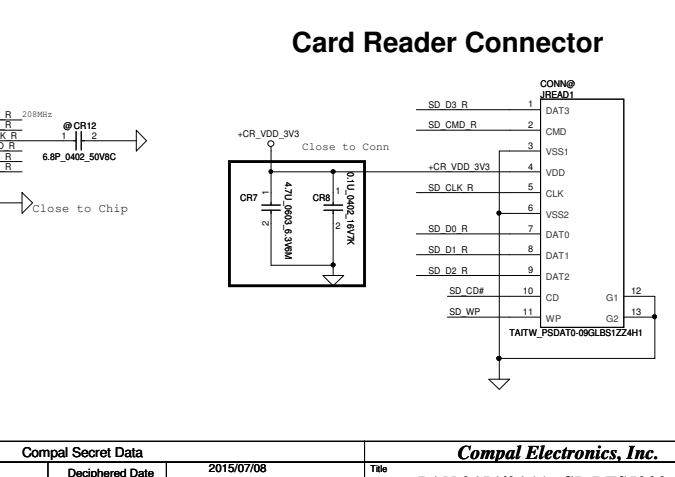
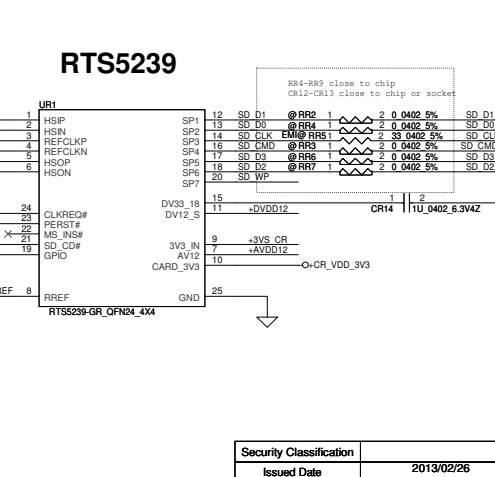
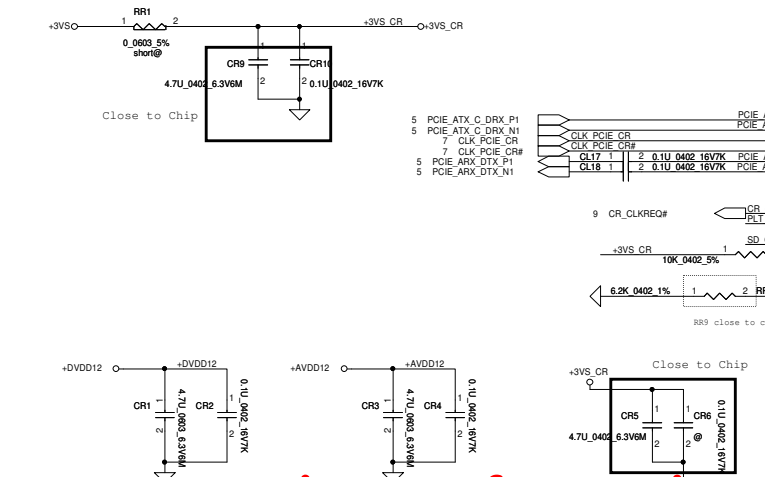
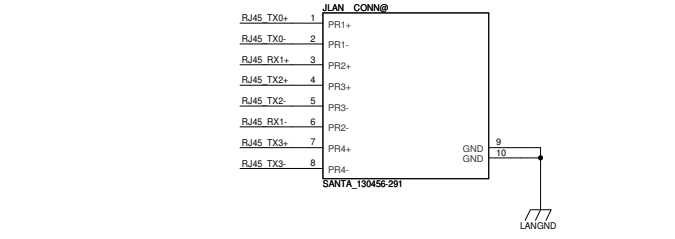
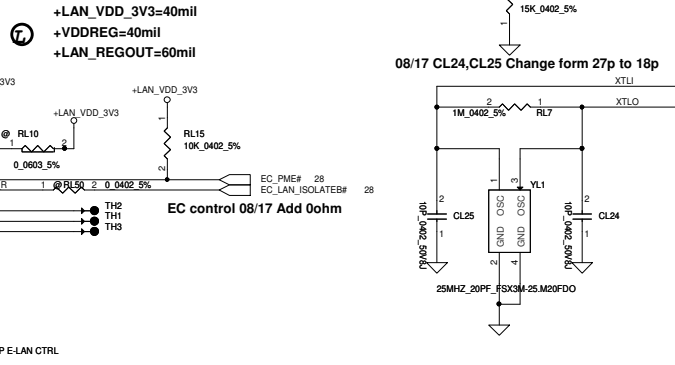
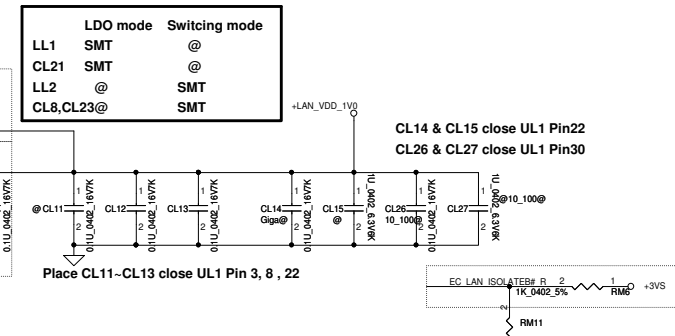
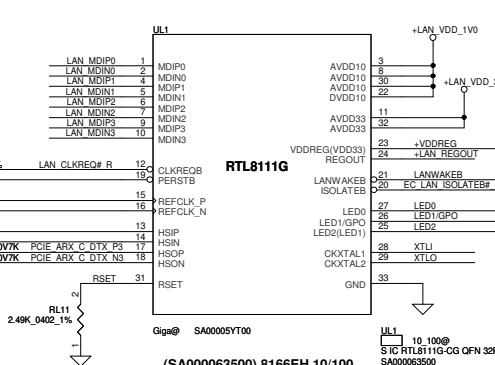
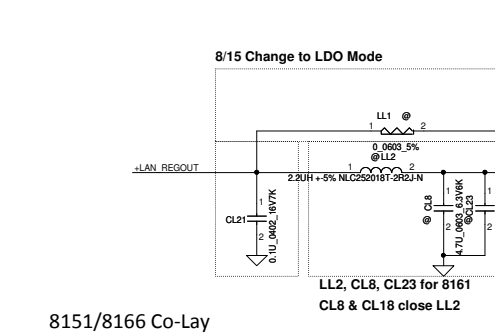
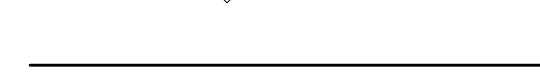
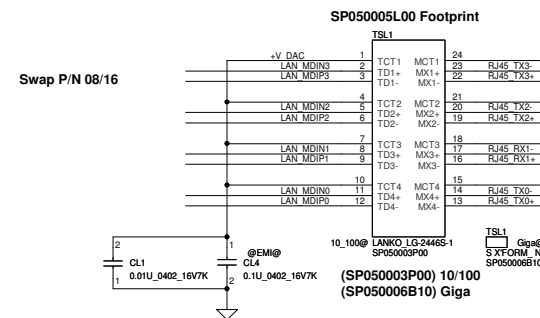
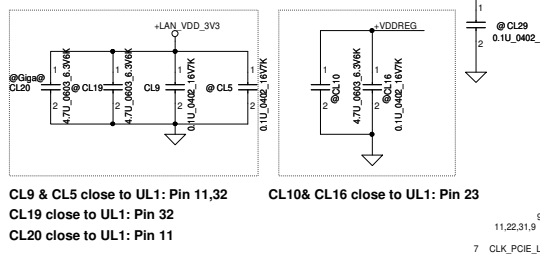
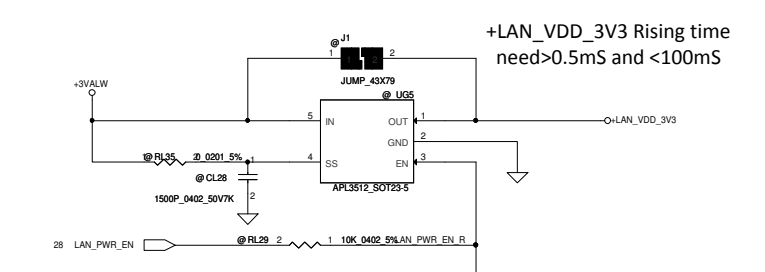


Change ODD Conn 08/22, check pin define

Please near ODD Connector

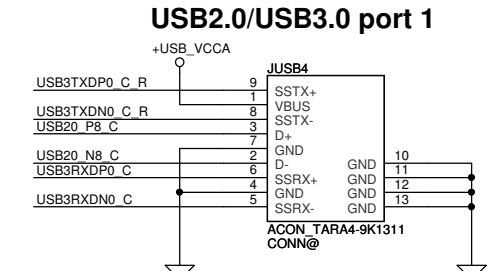
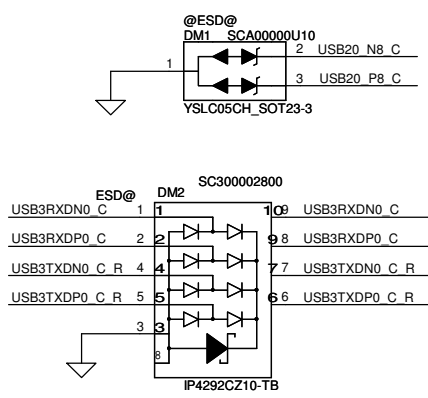
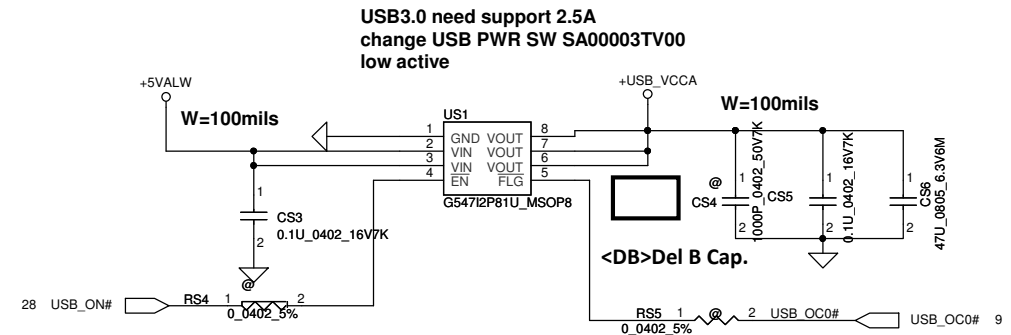
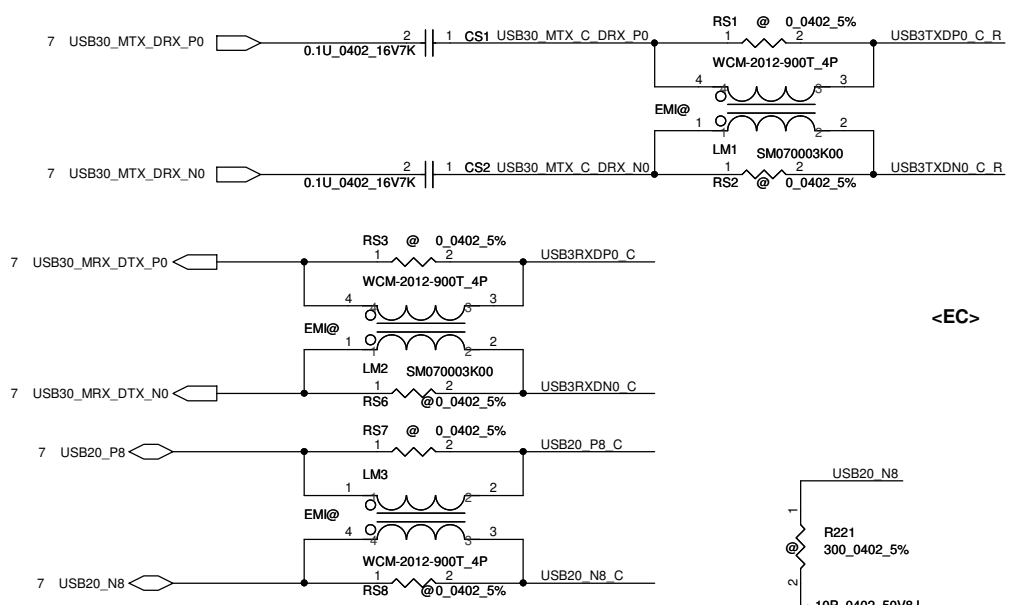


Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	ODD/SATA Conn
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY 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.				Document Number	LA-A997P
				Date:	Tuesday, May 20, 2014
				Sheet	23 of 47
				Rev	1.0

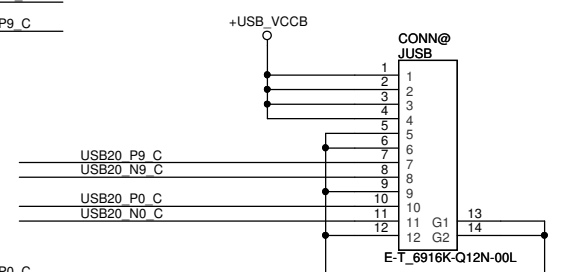
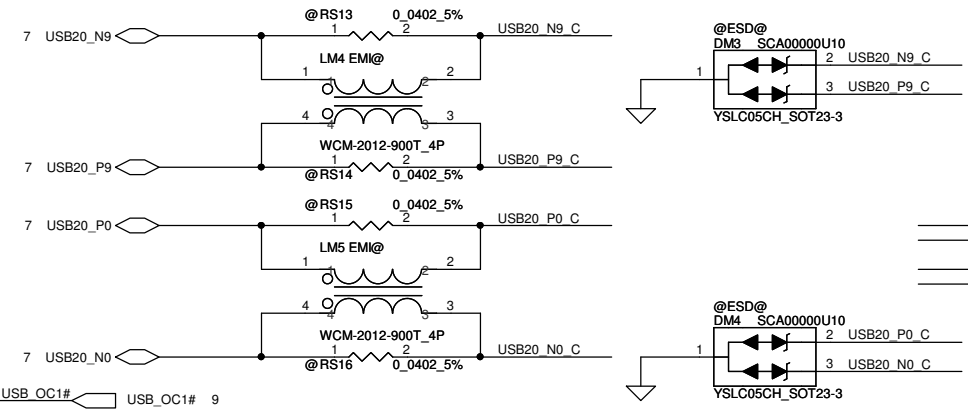
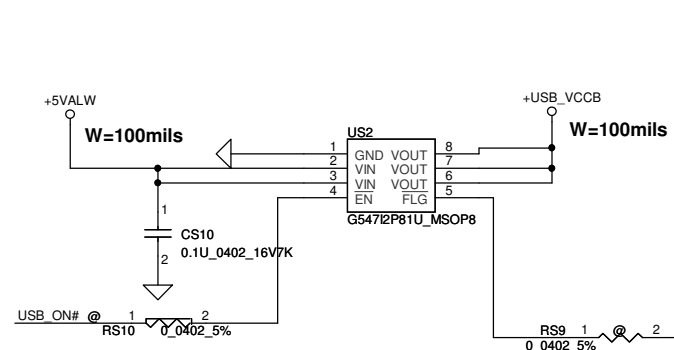


<http://forum.hocvienit.vn>

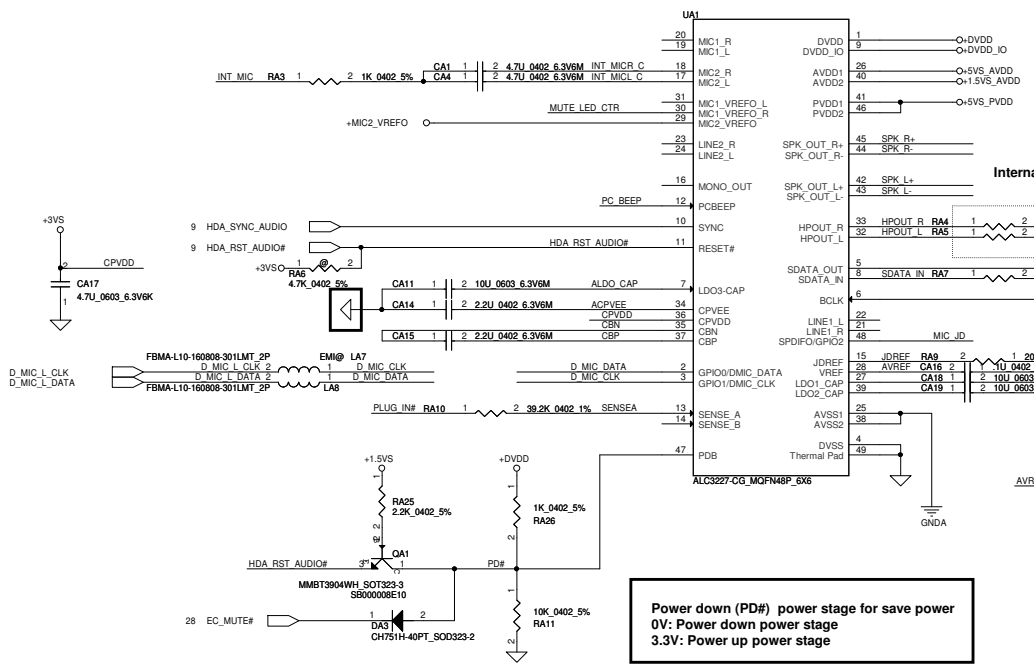
Security Classification	Compal Secret Data	Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM 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.		Title	LAN 8151/8166 CR RTS5238
Size	Document Number	LA-A937P	Rev 1.0
Date:	Tuesday, May 20, 2014	Sheet	24 of 47



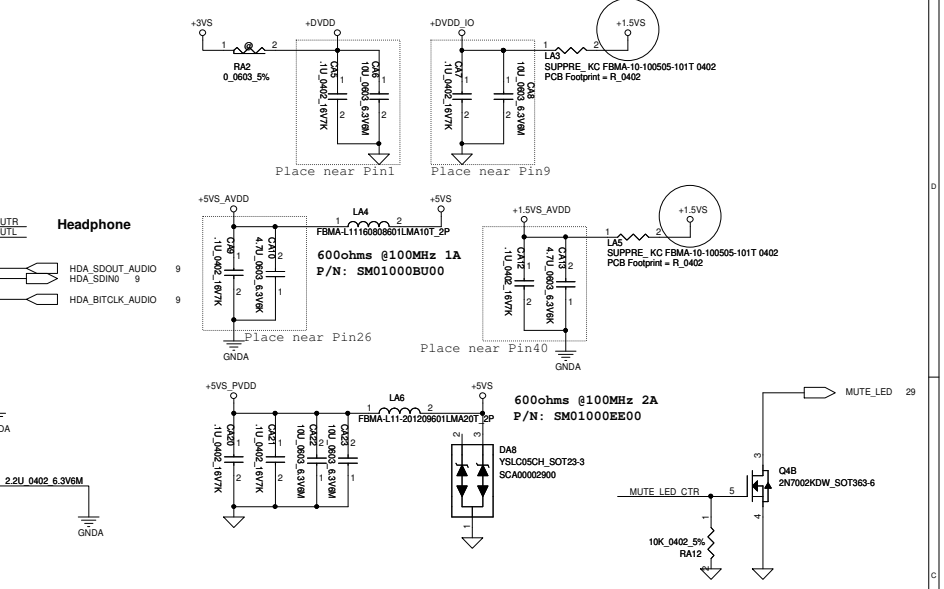
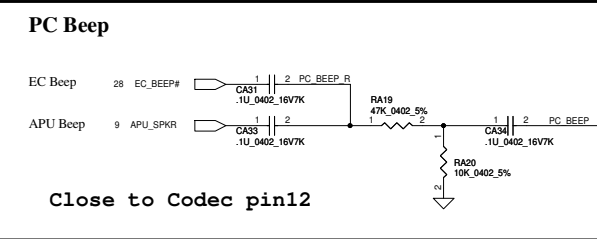
USB2.0 port x 2



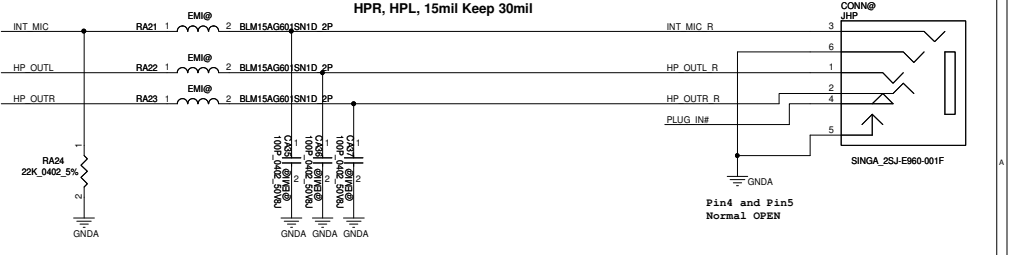
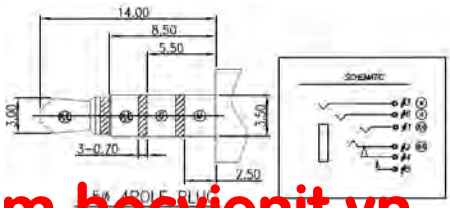
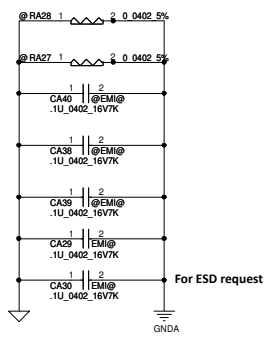
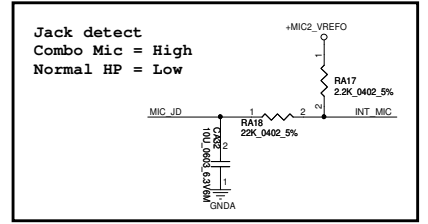
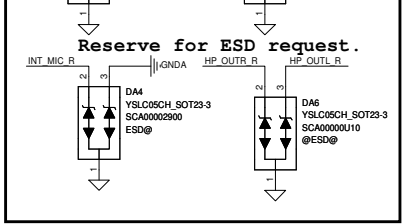
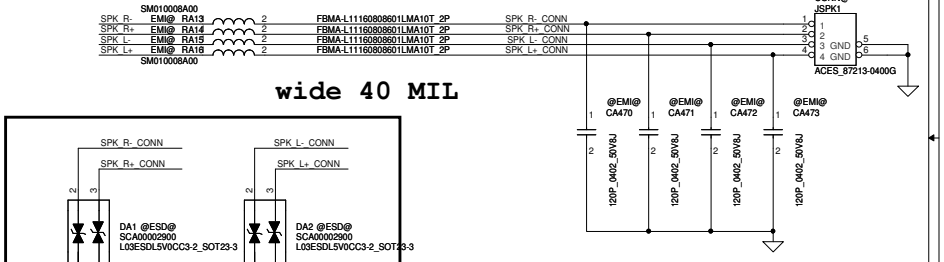
Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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	Rev
				LA-A997P	1.0
Date: Tuesday, May 20, 2014				Sheet	25 of 47



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

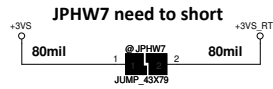


Internal SPK
 *DB-Relace RA13/RA14/RA15/RA16 close to U1

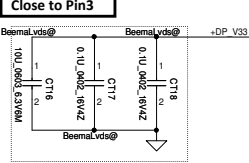


Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/01/04	Deciphered Date	2015/01/04	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				LA-A997P
Size C	Document Number	Rev	1.0	Date: Tuesday, May 20, 2014
		Sheet 26 of 47		

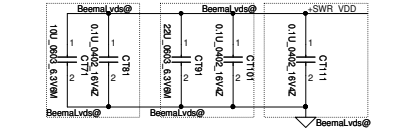
<http://forum.hocvient.vn>



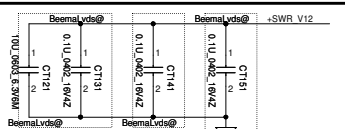
Layout note



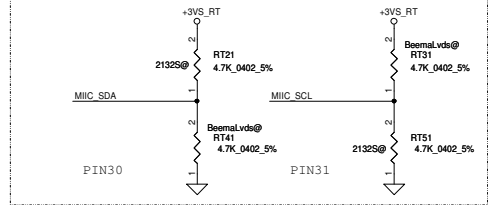
Layout note



Layout note

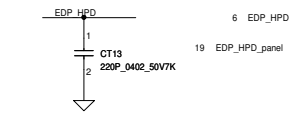
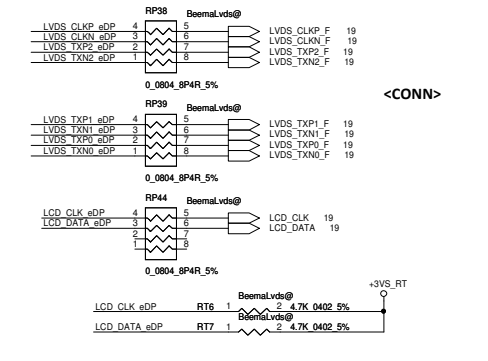
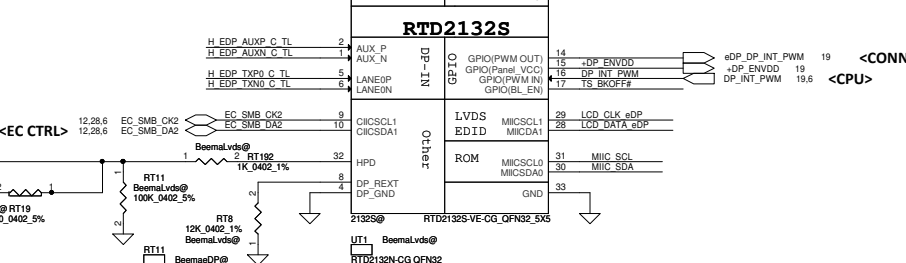
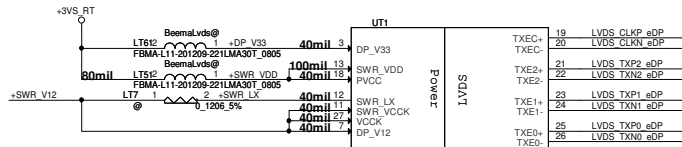


※ROM only mode : PIN 30 4.7k pull low, Pin 31 4.7k pull high.
 EP mode : PIN 30 4.7k pull high, Pin 31 4.7k pull low.
 EEPROM : PIN 30 4.7k pull high, Pin 31 4.7k pull high.
 (※Default mode)

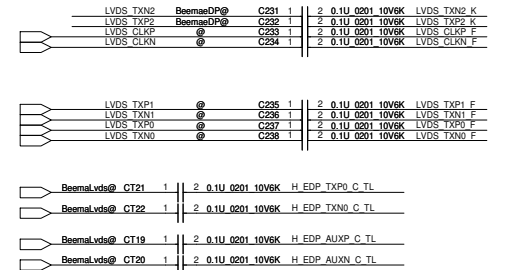
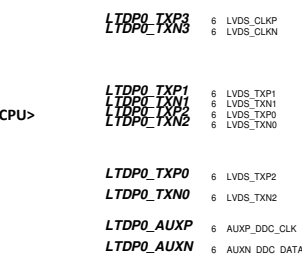
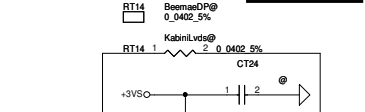


SWR / LDO Mode select		
	LDO	SWR
2132S	Do not support	mount LT7
2132R	Use 0 ohm	mount LT7

※ If use 2132R, please select LDO mode as default.



Layout note



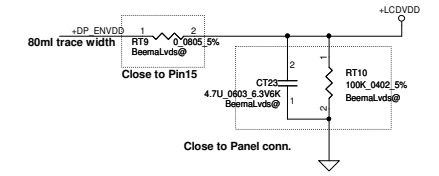
	PIN15
2132S	TL_ENVDD
2132R	+LCD_VDD *

* Version R internal Power Switch, can output 1A, Rds(on)=0.2 ohm

	PIN16	Accept voltage input (high level)
2132S		3.3V
2132R		1.5-3.3V

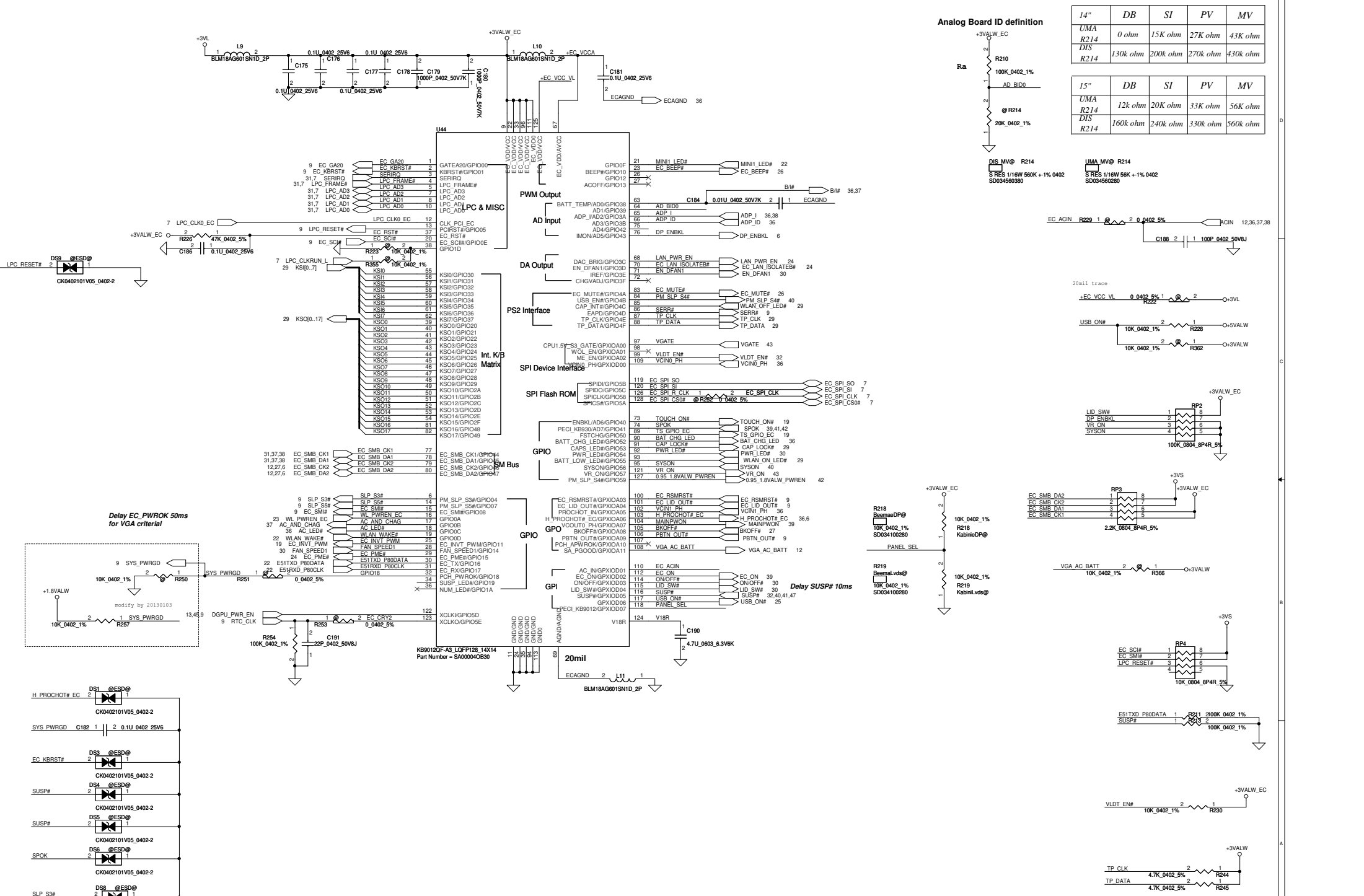
* Version R has internal level shifter, remove level shifter circuit on AMD platform

Different between 2132S and 2132R	
2132S	2132R
1. Support SWR mode	1. Support LDO mode and SWR mode 2. Internal ROM 3. Support LCD_VDD(internal Power switch) 4. Integrates Level shifter



Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	eDP to LVDS	
THIS SHEET OF ENGINEERING DRAWINGS 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	
	LA-A997P	Tuesday, May 20, 2014		1.0	

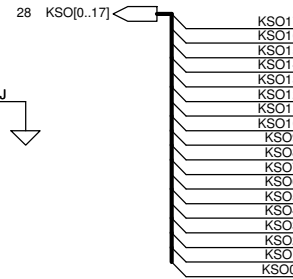
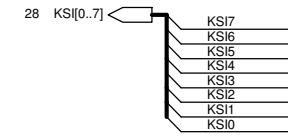
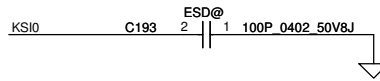
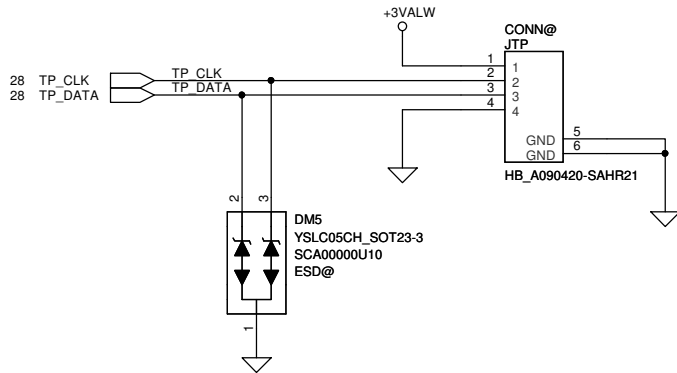
<http://forum.hocvient.vn>



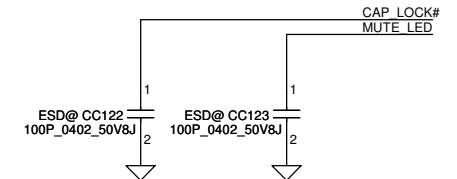
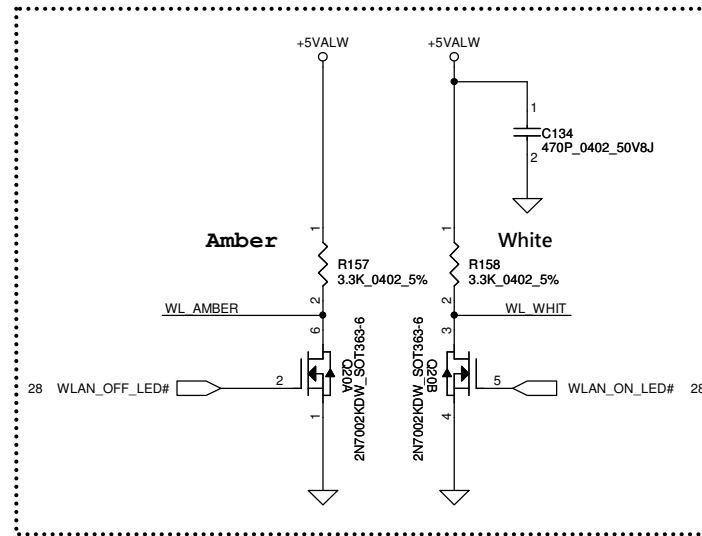
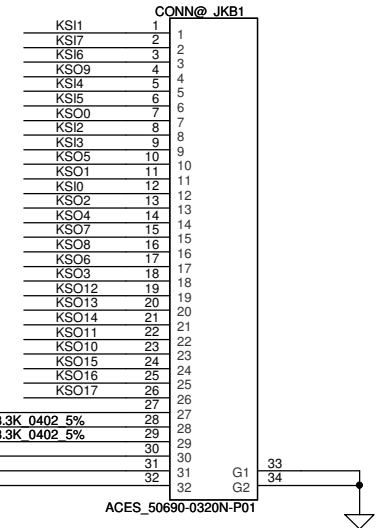
<http://forum.hocvient.vn>

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2011/07/08	Deciphered Date	2015/07/08	Title	EC ENE KB9012 A3
THIS SHEET OF ENGINEERING DRAWINGS 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	C	Document Number	LA-A997P	Rev	1.0
Date:	Tuesday, May 20, 2014	Sheet	28	of	47

Touch pad conn

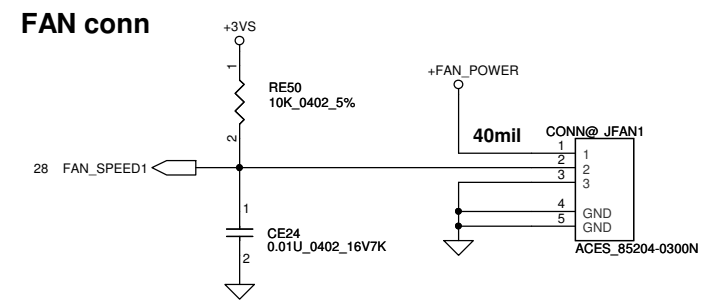
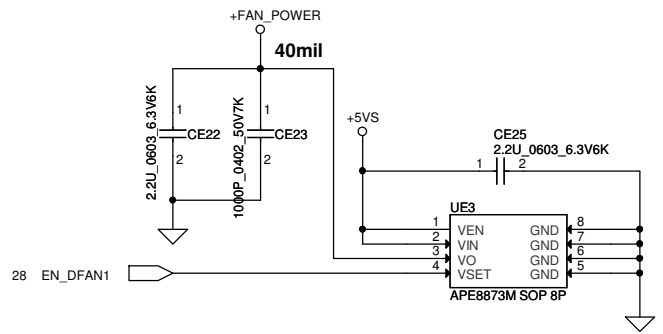
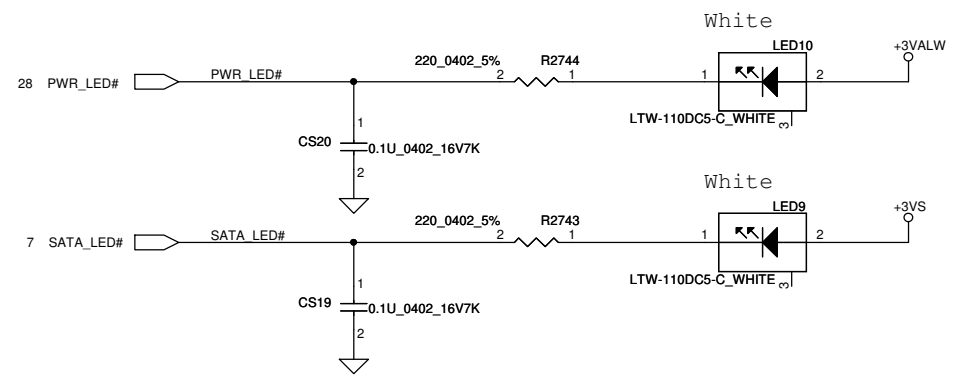
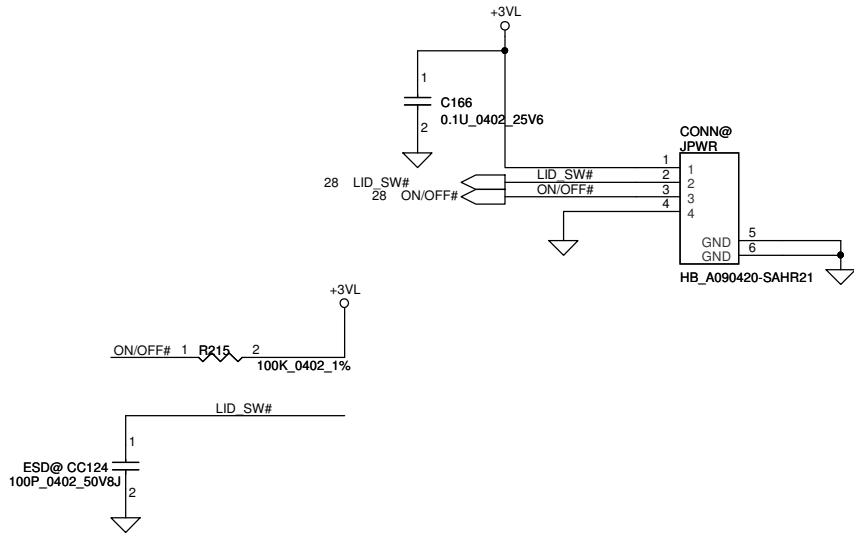


Keyboard conn

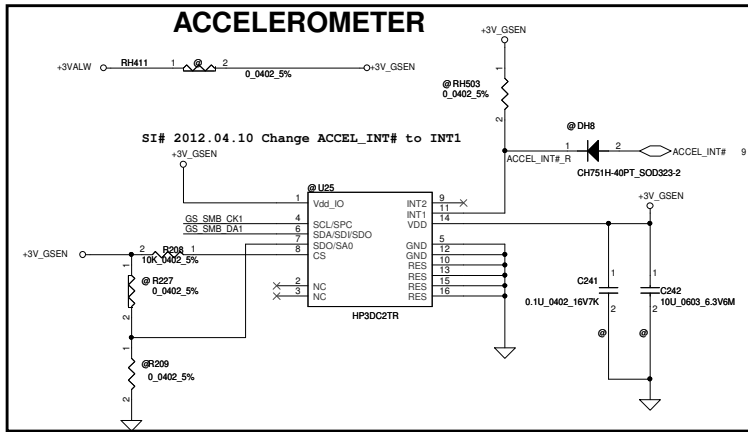


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	KB/TP
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE 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-A997P
Date:	Tuesday, May 20, 2014	Sheet	29 of 47	Rev	1.0

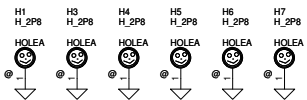
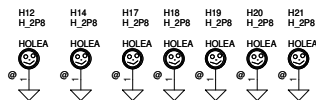
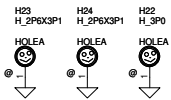
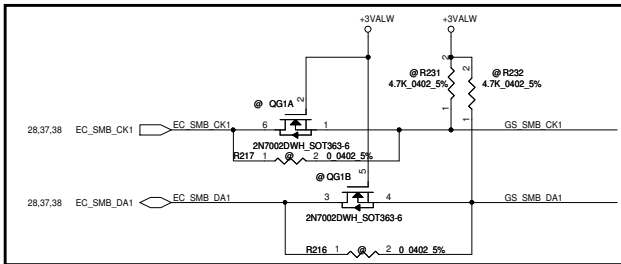
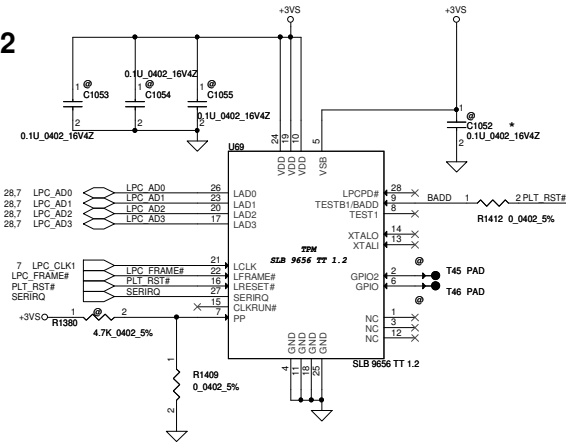
Power Button Connector



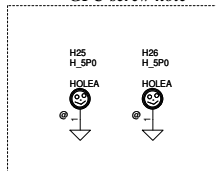
Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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-A997P
				Rev
				1.0
Date: Tuesday, May 20, 2014			Sheet	30 of 47



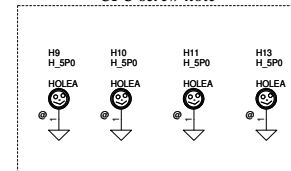
TPM1.2



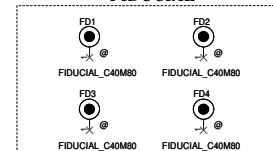
GPU screw hole



CPU screw hole

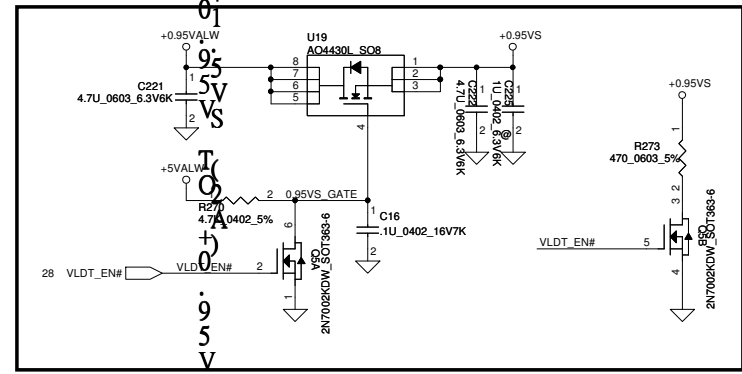
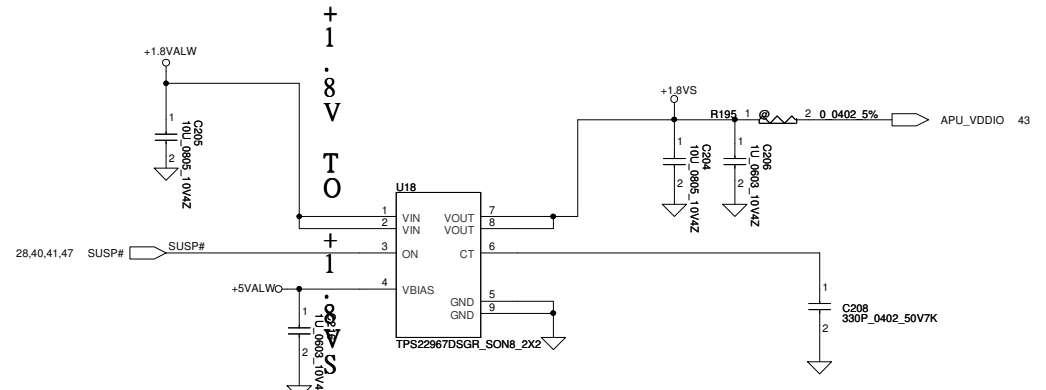
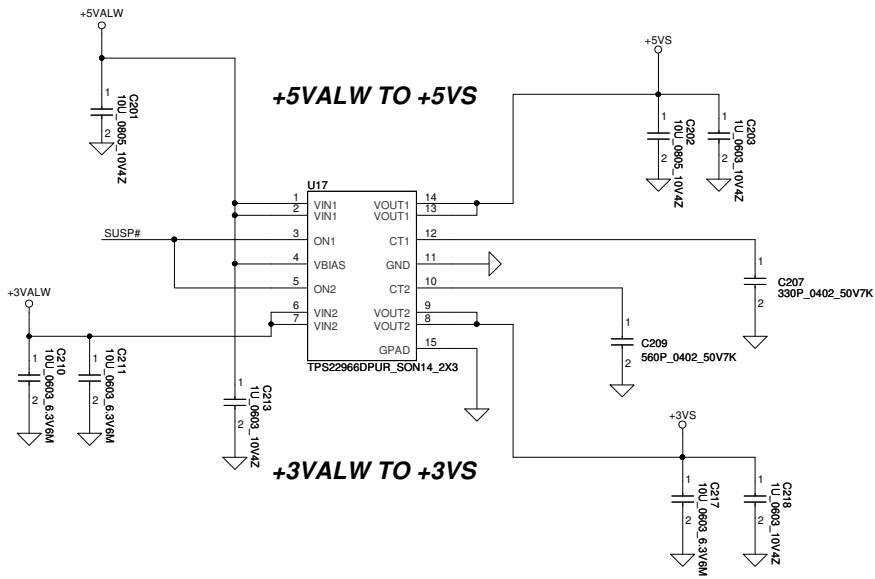


FIDUCIAL



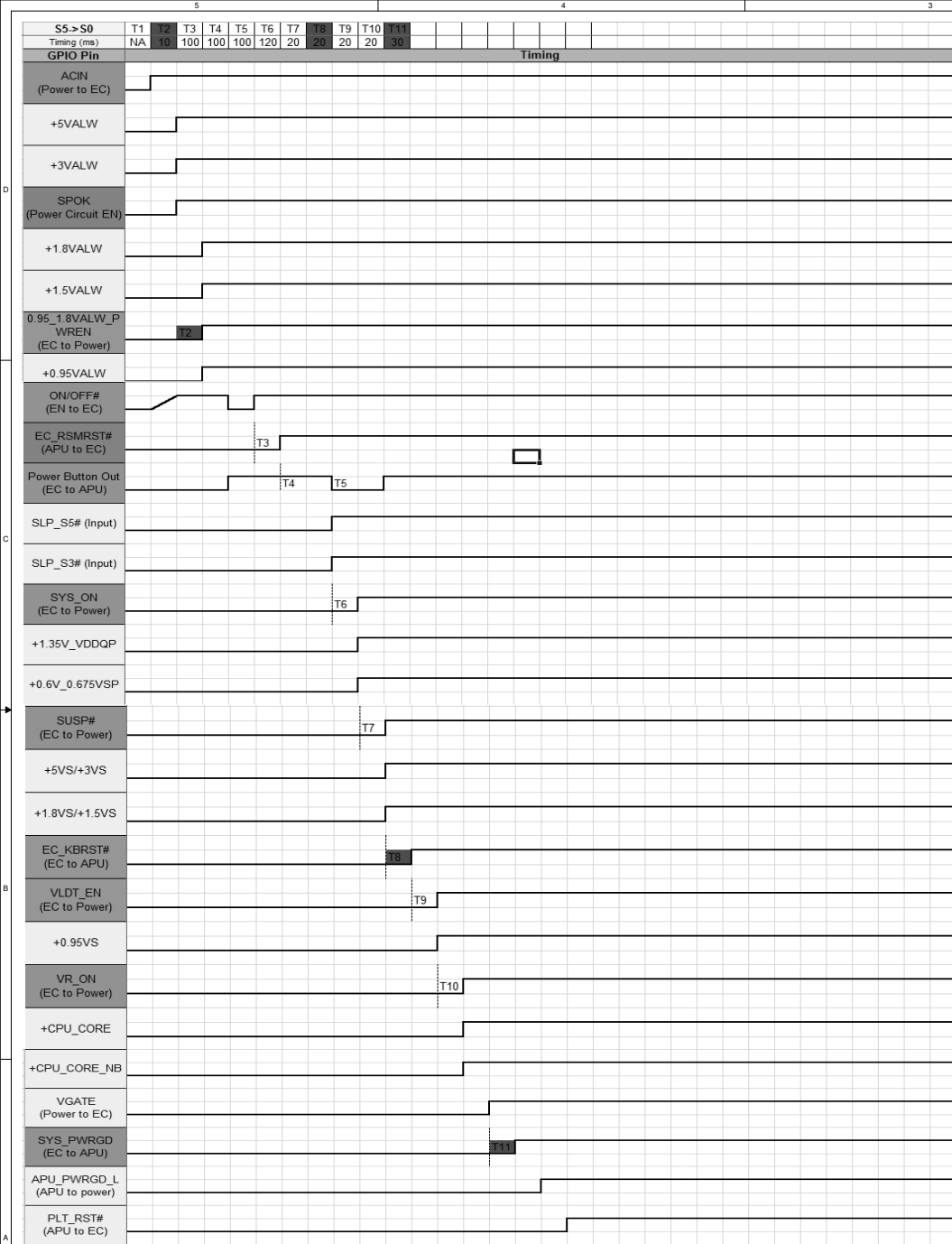
<http://forum.hocvient.vn>

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	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.				LED/Screw hole
Size	Document Number		Rev	
	LA-A997P		1.0	
Date:	Tuesday, May 20, 2014	Sheet	31	of 47



<http://forum.hocvient.vn>

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE REPRODUCED, COPIED, OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				LA-A997P
				Rev 1.0
				Date: Tuesday, May 20, 2014
				Sheet 32 of 47



<http://forum.hocvient.vn>

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	Power sequence	
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 AUTHORIZATION OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED FOR OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Doc Number	LA-A997P	Rev
				Date	Tuesday, May 20, 2014	Sheet 33 of 47

5

4

3

2

1

D

D

C

C

B

B

A

A

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2013/02/26	Deciphered Date	2015/07/08	Title	EE Change list	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN AUTHORIZATION OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				State	Document Number	Rev
				Custom	LA-A997P	1.0
				Date	Tuesday, May 20, 2014	Sheet 34 of 47

<http://forum.hocvien.vn>

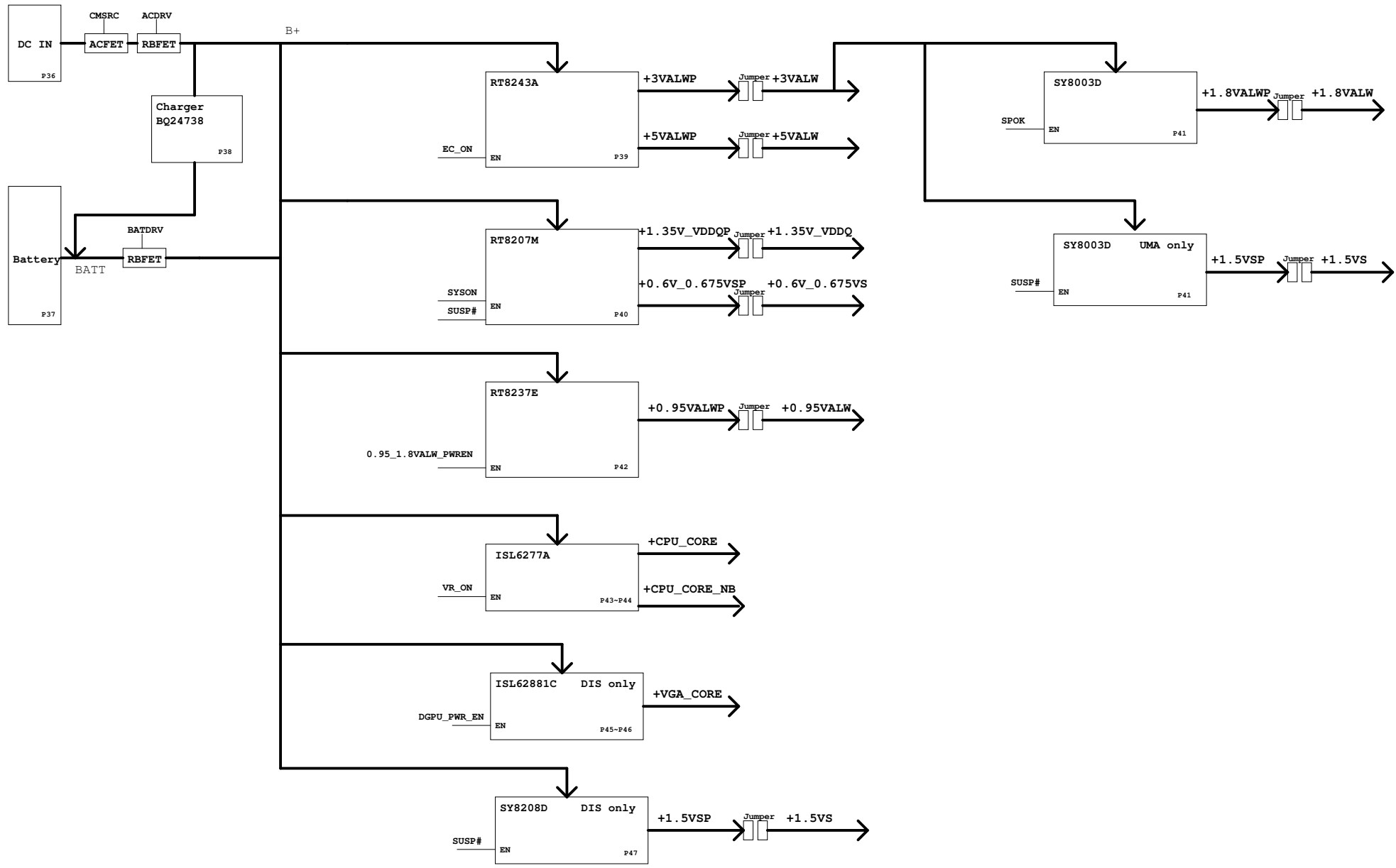
5

4

3

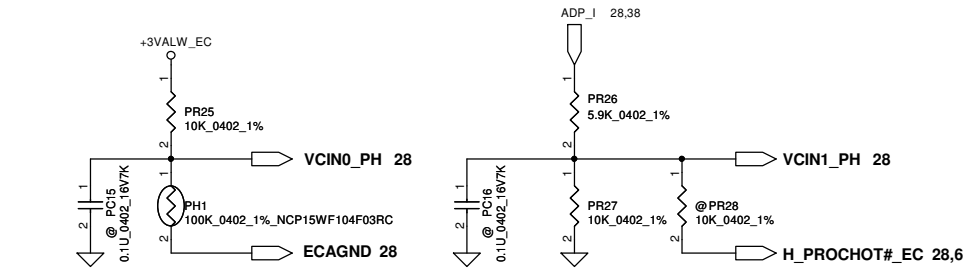
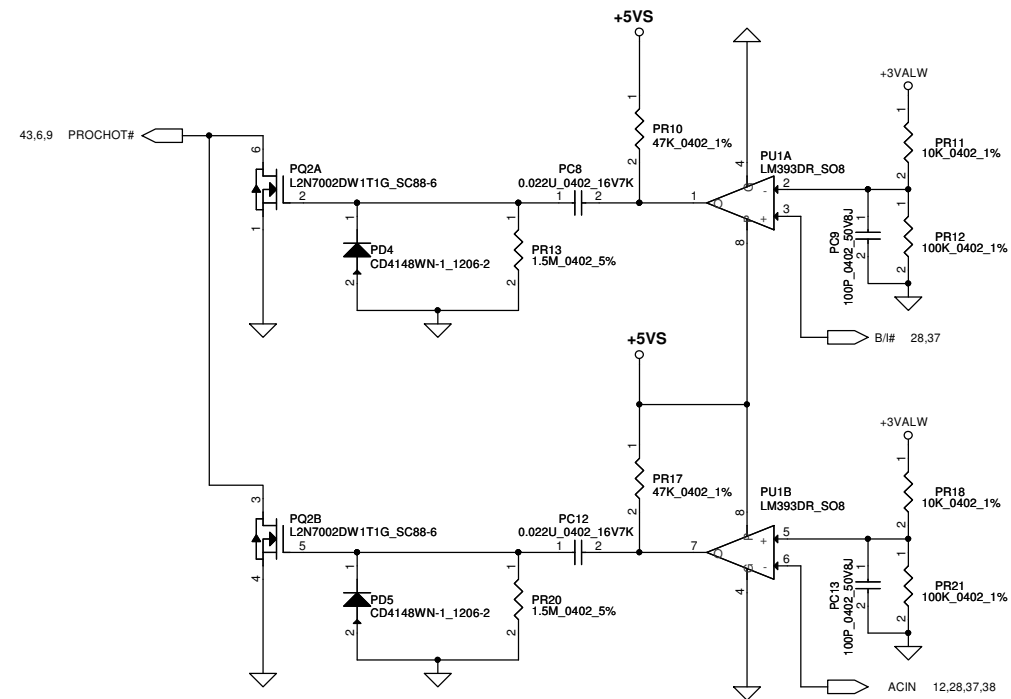
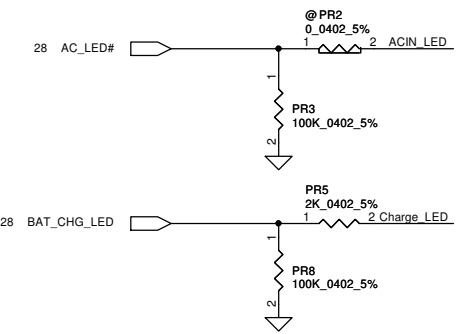
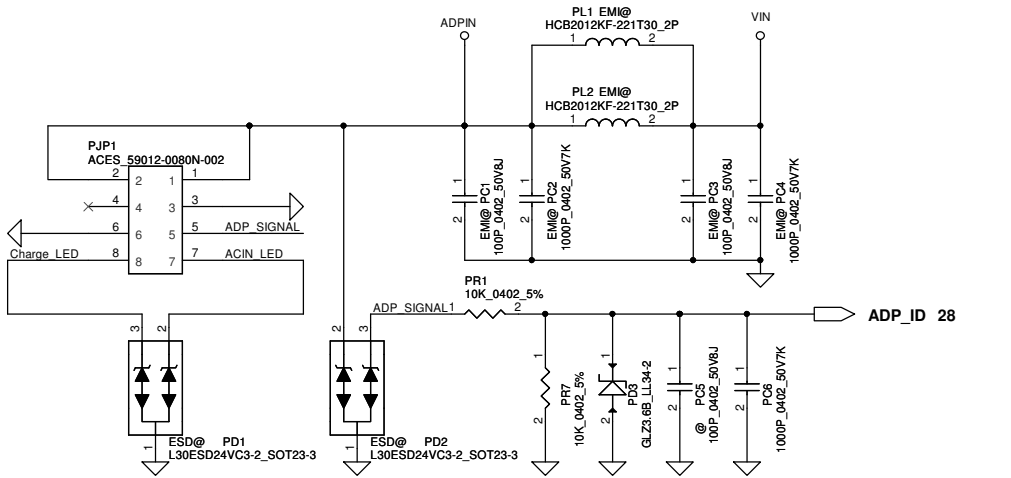
2

1



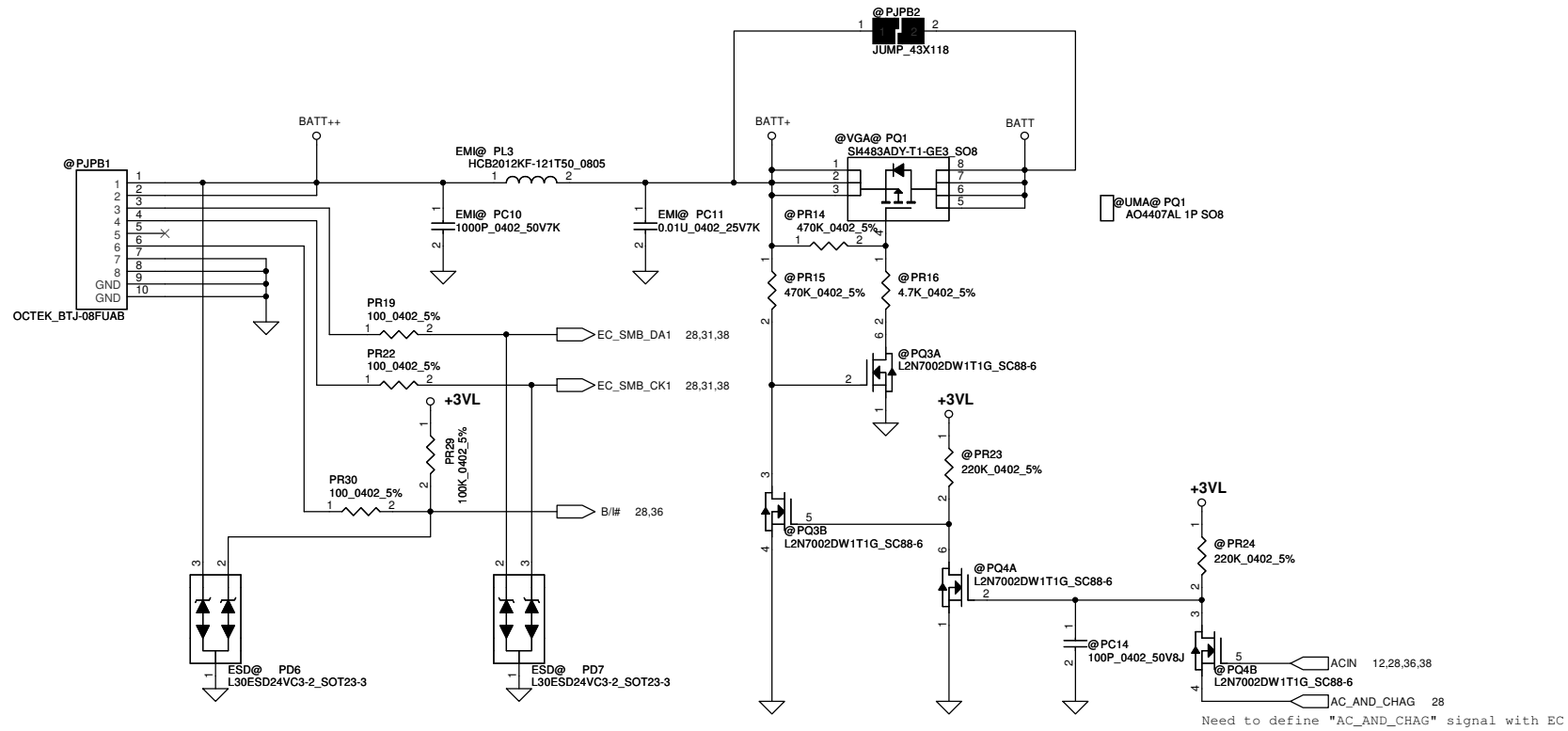
Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2012/04/03	Deciphered Date	2014/12/31	Title	Power Block Diagram
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT WITHOUT THE EXPRESS AUTHORIZATION BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	Document Number	LA-A997P	Rev	1.0	
Date:	Tuesday, May 20, 2014	Sheet	35	of	47

<http://forum.hocvient.vn>



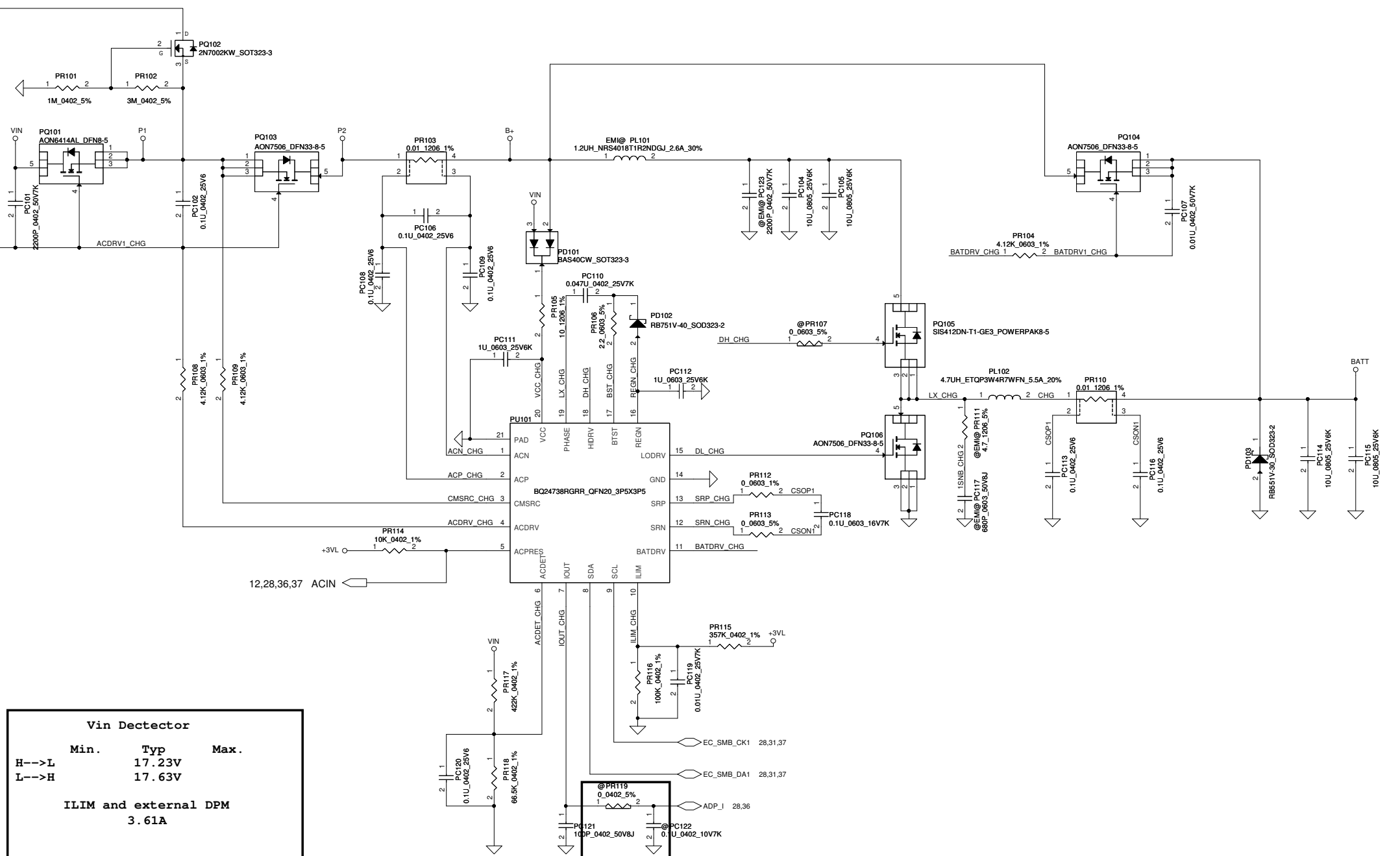
<http://forum.hocvien.vn>

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/07	Deciphered Date	2016/08/06	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 OR ANY OTHER DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS SHALL BE USED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	Document Number				Rev
	LA-A997P				1.0
Date:	Tuesday, May 20, 2014	Sheet	36	of	47



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/07	Deciphered Date	2016/08/06	Title	BATT 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 OR ANY OTHER DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS SHALL BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	Document Number				Rev
	LA-A997P				1.0
Date:	Tuesday, May 20, 2014	Sheet	37	of	47

<http://forum.hocvient.vn>



Vin Detector

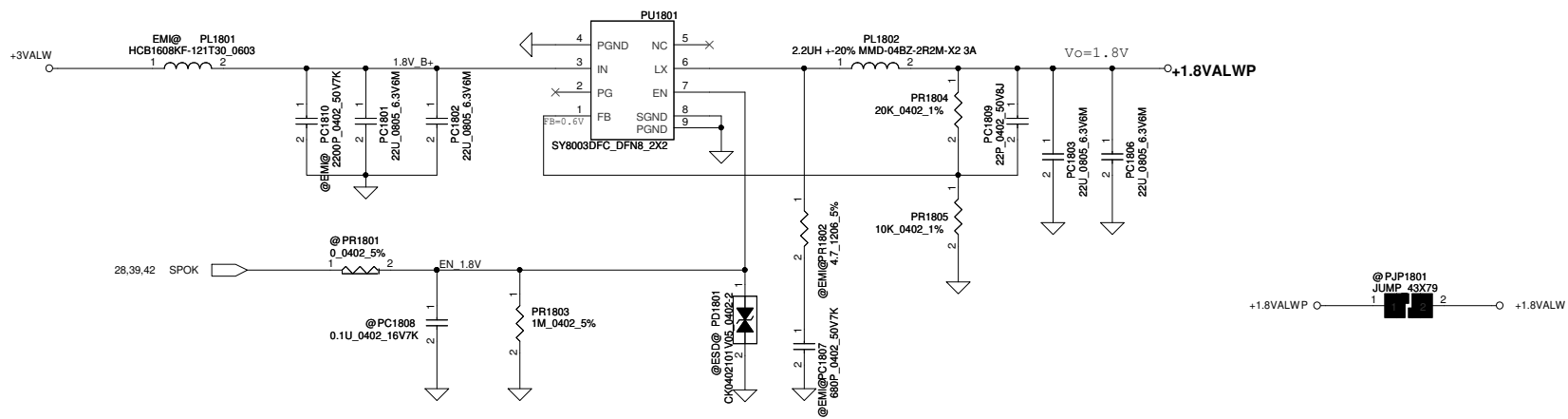
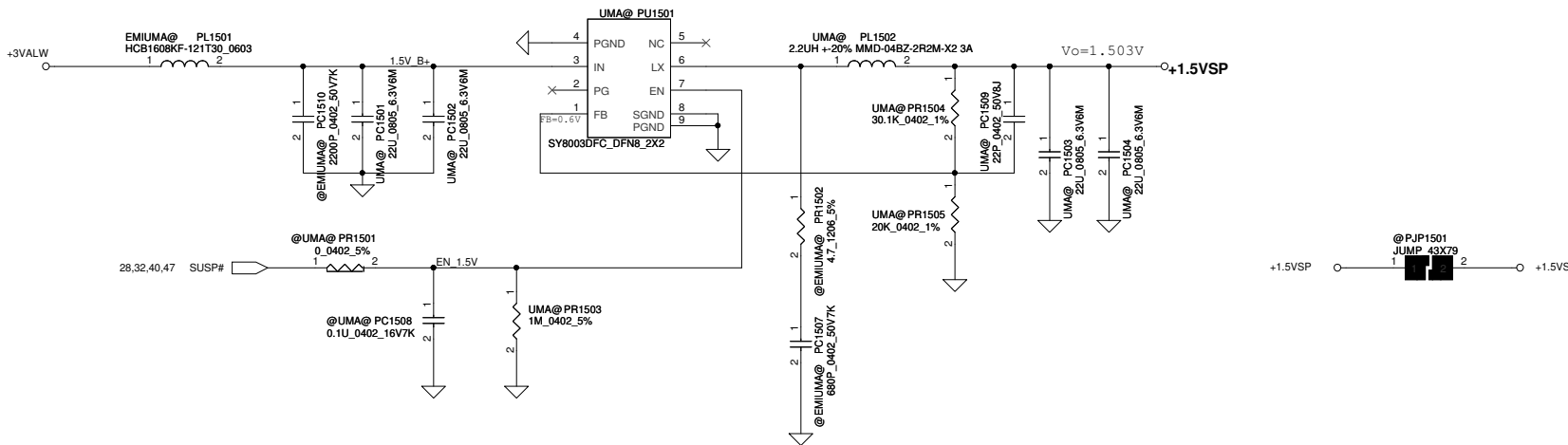
Min.	Typ	Max.
H-->L	17.23V	
L-->H	17.63V	

ILIM and external DPM
3.61A

Please locate the RC
Near EC chip
2011-02-22

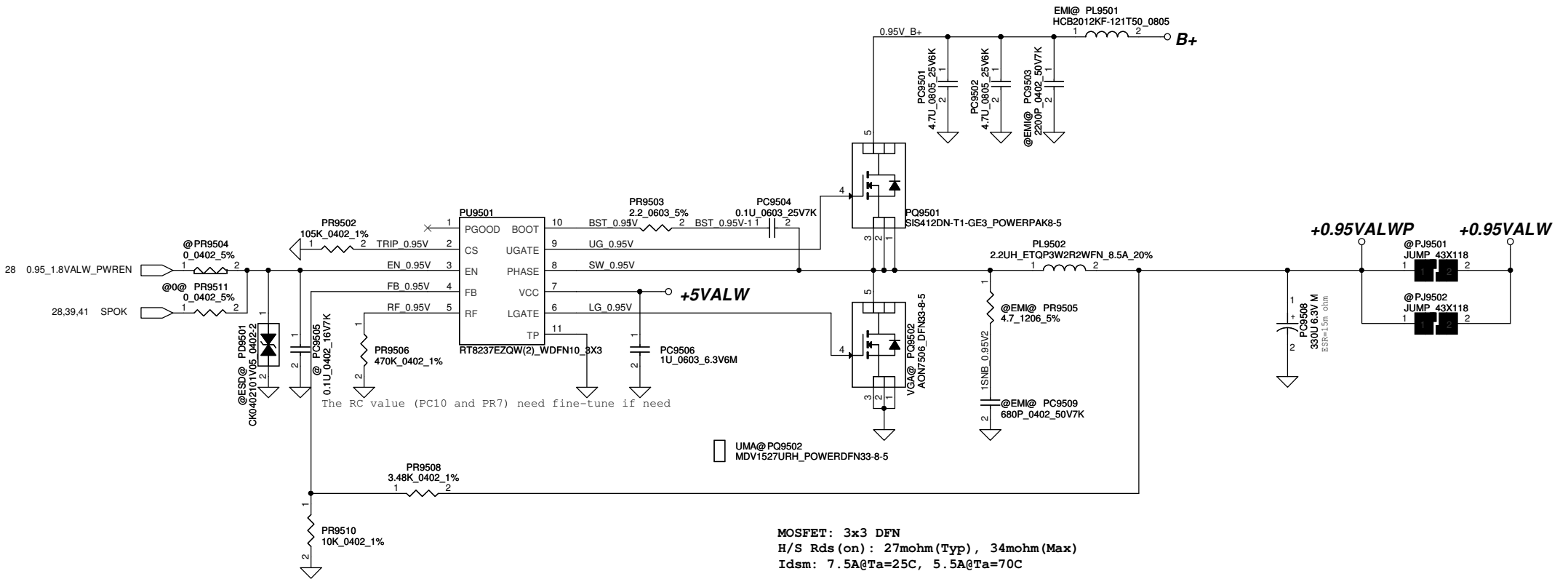
Security Classification		Compal Secret Data		Title	
Issued Date	2013/08/07	Deciphered Date	2016/08/06	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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-A997P	1.0
				Date:	Sheet 38 of 47

<http://forum.hocvient.vn>



Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2013/08/07	Deciphered Date		2016/08/06	Size
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.			Vo=1.503V	Vo=1.8V	Rev
Date:			LA-A997P	1.0	
			Sheet	41	of 47

<http://forum.hocvienit.vn>



UMA@PQ9502
MDV1527URH_POWERDFN33-8-5

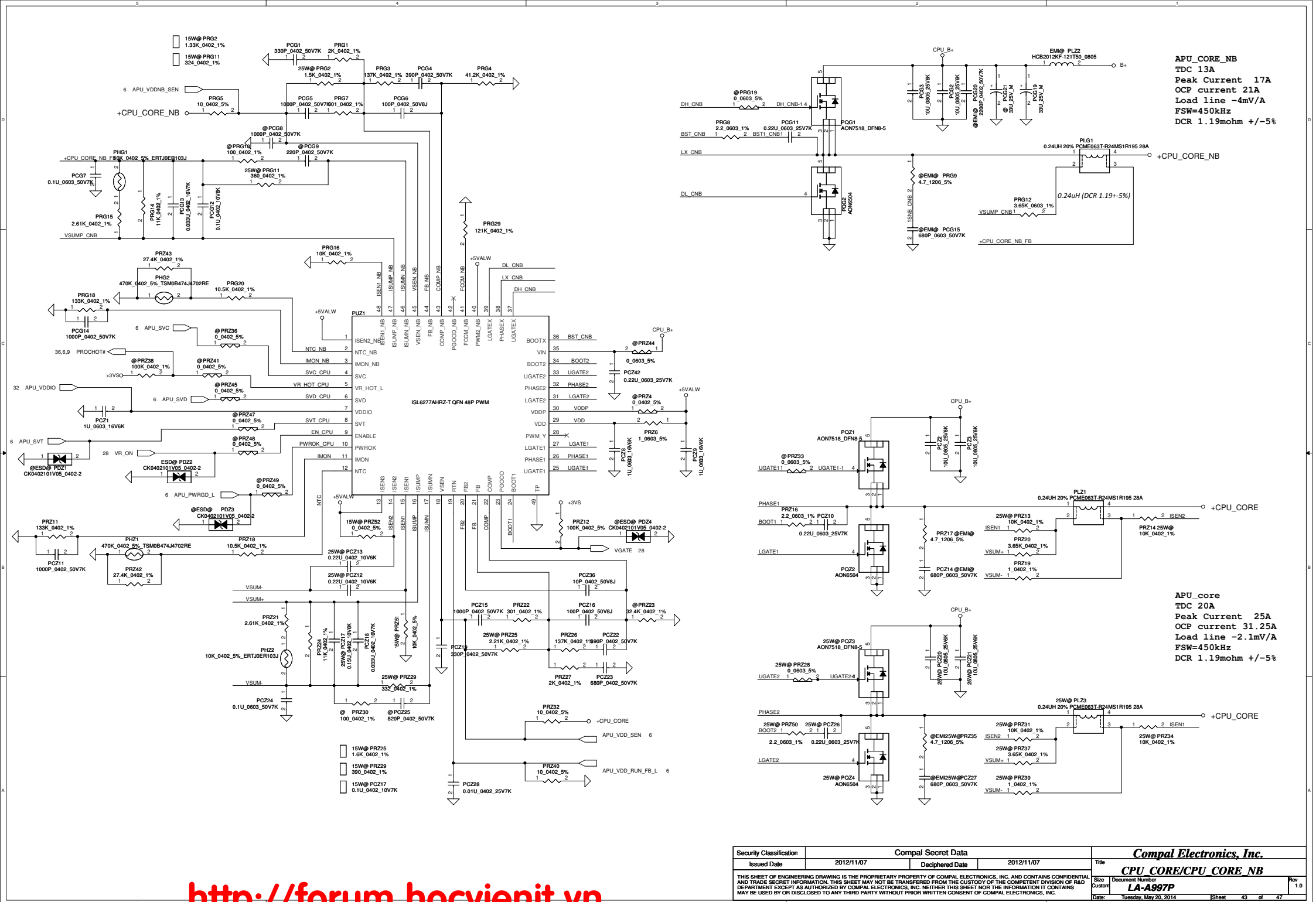
MOSFET: 3x3 DFN
H/S Rds (on): 27mohm (Typ), 34mohm (Max)
Idsm: 7.5A@Ta=25C, 5.5A@Ta=70C

L/S Rds (on): 9.9mohm (Typ), 13mohm (Max)
Idsm: 13.5A@Ta=25C, 11A@Ta=70C

Choke: 7x7x3
Rdc=15.5mohm +/-15%

Switching Frequency: 290kHz
Imax=8A
OCP~10.977A
VFB=0.704V, Vout=0.949V
MOSFET footprint: SIS412DN

Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2013/08/07	Deciphered Date	2016/08/06	Title	0.95VALW
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	Tuesday, May 20, 2014
				Sheet	42 of 47
				Rev	1.0
				LA-A997P	



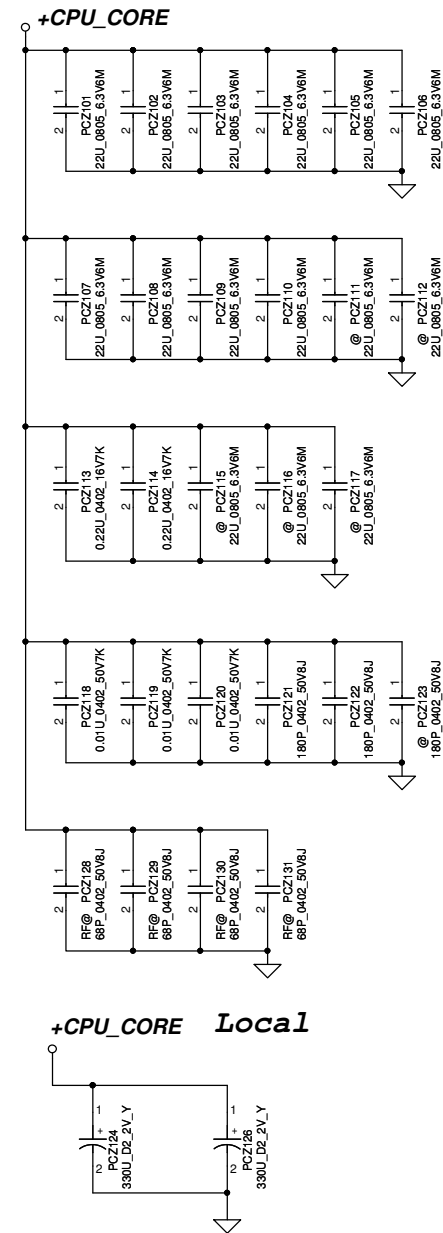
APU_CORE_NB
 TDC 13A
 Peak Current 17A
 OCP current 21A
 Load line -4mV/A
 FSW=450kHz
 DCR 1.19mohm +/-5%

APU_core
 TDC 20A
 Peak Current 25A
 OCP current 31.25A
 Load line -2.1mV/A
 FSW=450kHz
 DCR 1.19mohm +/-5%

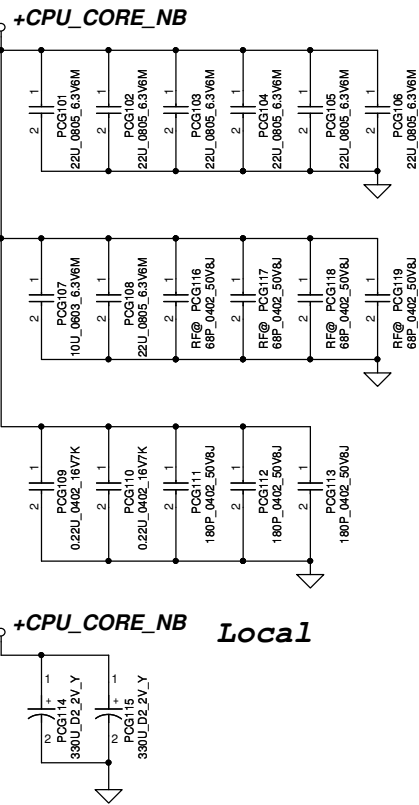
Security Classification	Compal Secret Data		Title	
Issued Date	2012/11/07	Deciphered Date	2012/11/07	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RAD 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
Size	Custom	Document Number	LA-A979P	
Date:	Tuesday, May 20, 2014	Sheet	43	of 47

<http://forum.hocvienit.vn>

+CPU_CORE



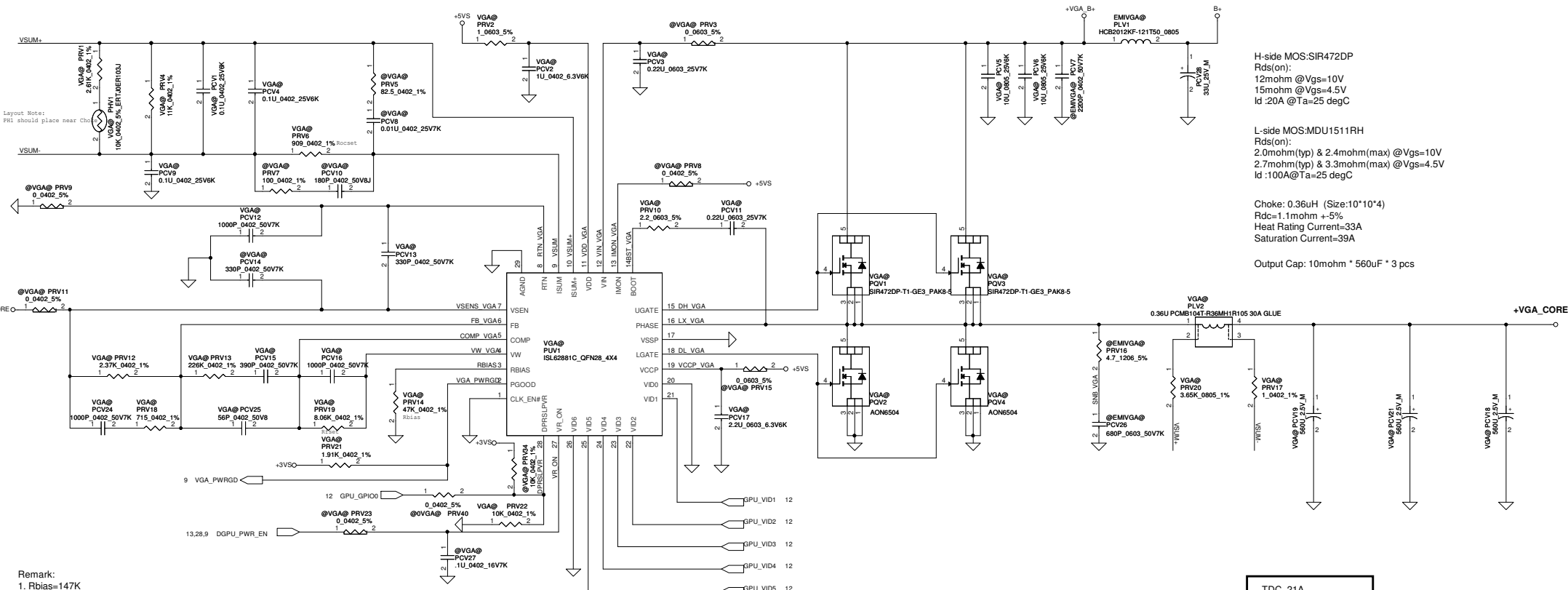
+CPU_CORE_NB



	330uF/9m	22uF/0805	0.22uF/0402	10uF/0603	0.01uF/0402	180pF/0402
+CPU_CORE	2	10	2		3	2
+CPU_CORE_NB	2	7	2	1		3

GPIO21	GPIO29	GPIO30	GPIO20	GPIO15	
VID5	VID4	VID3	VID2	VID1	VDDC
0	1	1	1	1	1.125V
1	0	0	0	0	1.100V
1	0	0	0	1	1.075V
1	0	0	1	0	1.050V
1	0	0	1	1	1.025V
1	0	1	0	0	1.000V
1	0	1	0	1	0.975V
1	0	1	1	0	0.950V
1	0	1	1	1	0.925V
1	1	0	0	0	0.900V
1	1	0	0	1	0.875V
1	1	0	1	0	0.850V
1	1	0	1	1	0.825V
1	1	1	0	0	0.800V
1	1	1	0	1	0.775V

Vboot(merge)



H-side MOS: SIR472DP
 Rds(on):
 12mohm @Vgs=10V
 15mohm @Vgs=4.5V
 Id: 20A @Ta=25 degC

L-side MOS: MDU1511RH
 Rds(on):
 2.0mohm(typ) & 2.4mohm(max) @Vgs=10V
 2.7mohm(typ) & 3.3mohm(max) @Vgs=4.5V
 Id: 100A @Ta=25 degC

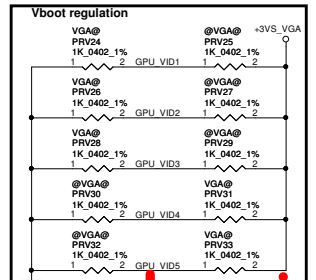
Choke: 0.36uH (Size: 10*10*4)
 Rdc=1.1mohm +5%
 Heat Rating Current=33A
 Saturation Current=39A

Output Cap: 10mohm * 560uF * 3 pcs

Remark:
 1. Rbias=147K
 =>set the controller for CPU_CORE application
 Rbias=47k
 =>set the controller for GPU_CORE application

2. Switching frequency setting:
 $Rfset(kohm) = period(us) \cdot 0.29^2 \cdot 65$
 $= 8.06Kohm$
 $Fsw = 1/period(us) = 300KHZ$

3. Operation mode:
 when GPU_CORE VR application
 DPRSLPVR (pin28)=0 => 1 phase CCM mode
 DPRSLPVR (pin28)=1 => 1 phase DE mode

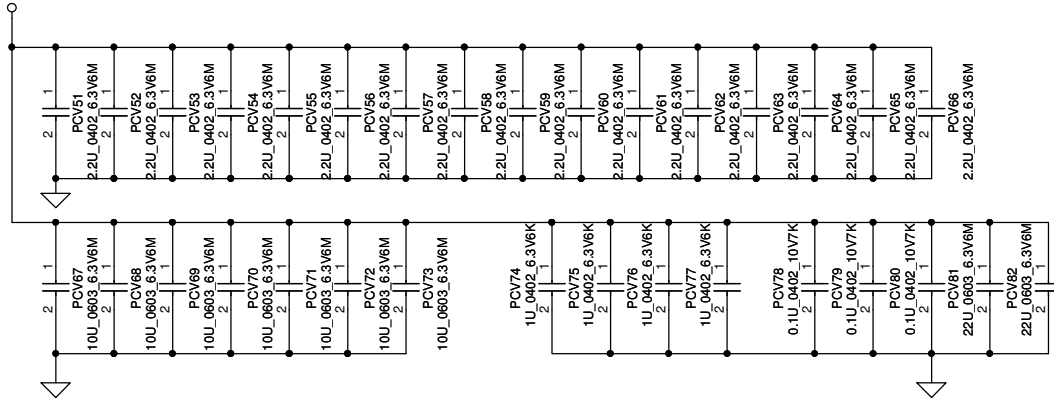


Module model information:
 ISL62881C_V1A for IC
 ISL62881C_V1B for SW

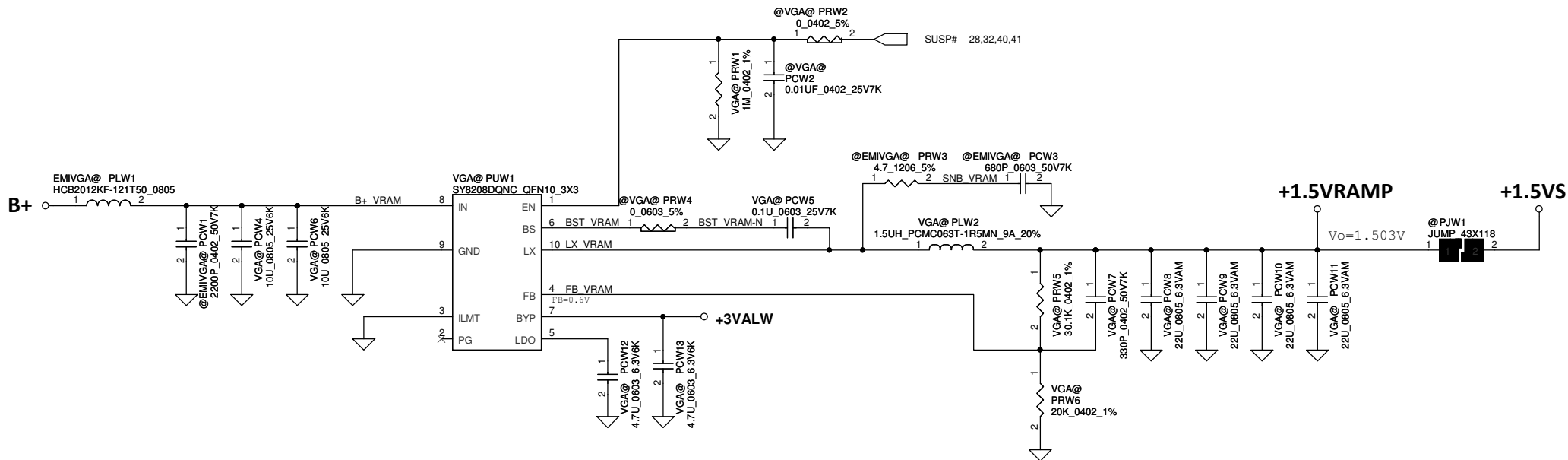
TDC 21A
 Peak Current = 31.5A
 OCP Current = 37.8A
 Load line disable

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/07	Deciphered Date	2016/08/06	Title	VGA_CORE
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			
Custom	LA-A997P	1.0			
Date:	Tuesday, May 20, 2014	Sheet	45	of	47

+VGA_CORE



Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2013/08/07	Deciphered Date	2016/08/06	Title VGA CHIP 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 B
				Document Number LA-A997P
Date: Tuesday, May 20, 2014			Sheet 46 of 47	Rev 1.0



Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2013/08/07	Deciphered Date	2016/08/06	VRAM Power	
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.				Title	Rev 1.0
				Document Number	
Date:	Tuesday, May 20, 2014	Sheet	47	of	47