Compal Confidential

STORM2 M/B Schematic

LA-E291P

Rev: 0.3_B

2016.09.01

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

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Title: COVER PAGE

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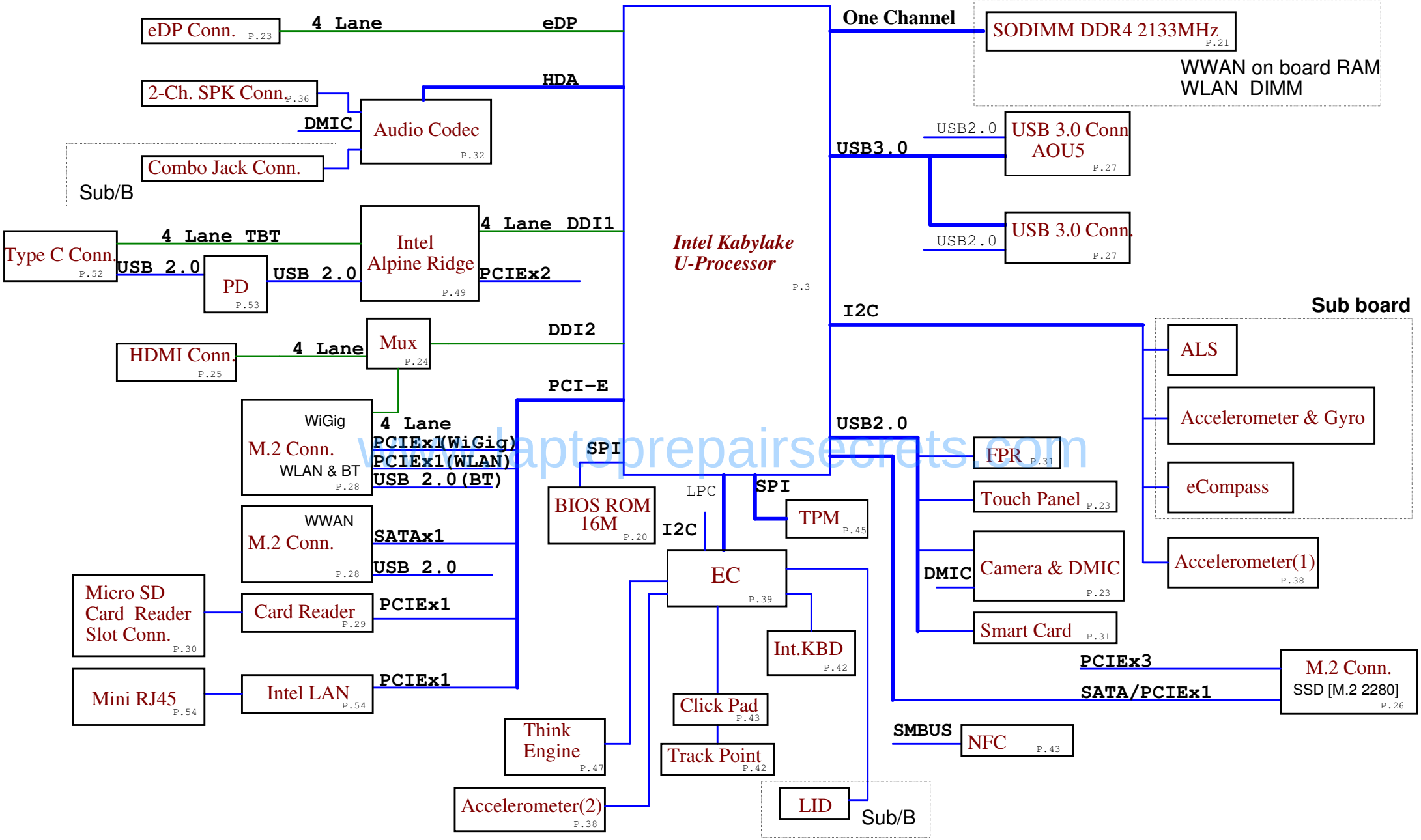
STORM 2 Block-Diagram



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Compal Electronics, Inc.			
Title	BLOCK DIAGRAM		
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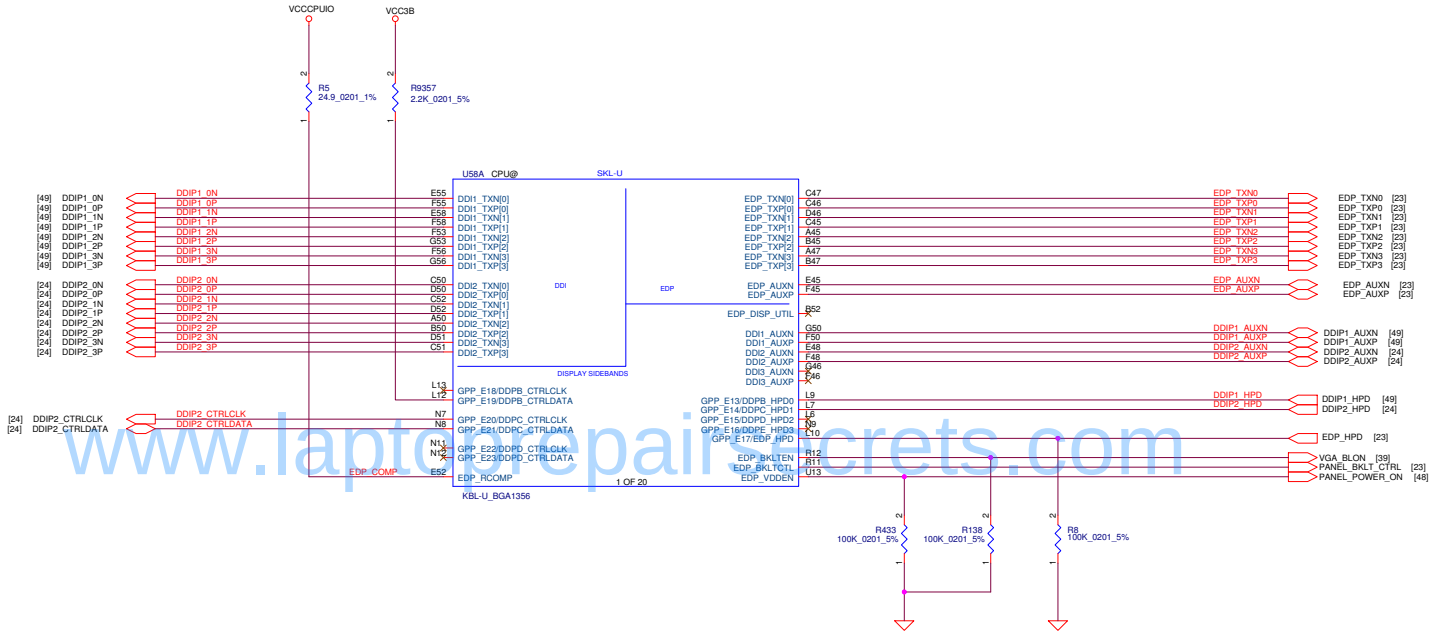

TABLE : Functional Strap

DDPB_CTRLDATA	
HIGH	**Port B is detected.**
LOW	**Port B is not detected.**
DDPC_CTRLDATA	
HIGH	**Port C is detected.**
LOW	**Port C is not detected.**

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Compal Electronics, Inc.			
Title	CPU(1/16) : DDI/EDP		
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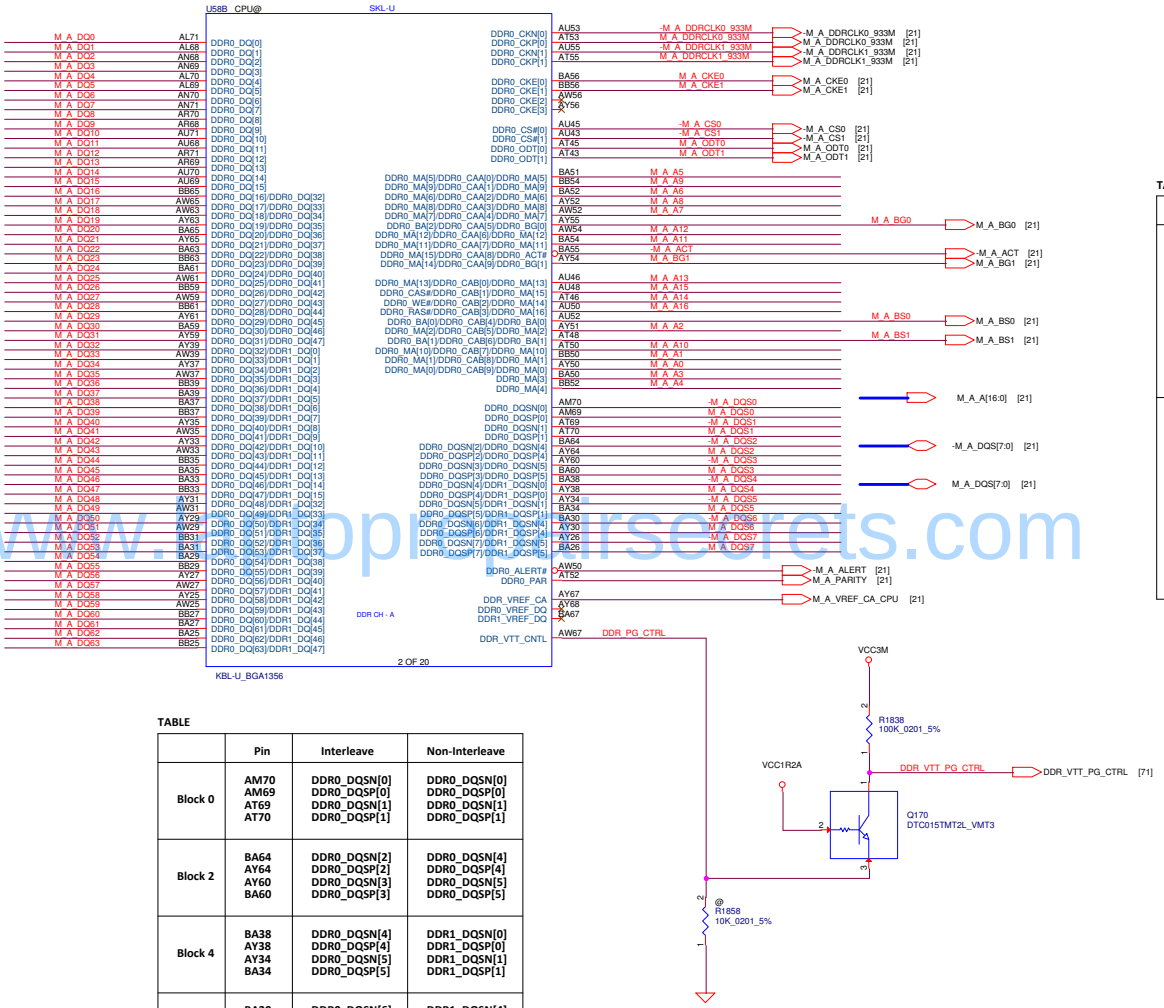
[21] M_A_DQ[63:0]

TABLE

	Pin	Interleave	Non-Interleave
Block 0	AL71 AL68 AN68 AN69 AL70 AL69 AN70 AN71 AR70 AR68 AU71 AU68 AR71 AR69 AU70 AU69	DDR0_DQ[0] DDR0_DQ[1] DDR0_DQ[2] DDR0_DQ[3] DDR0_DQ[4] DDR0_DQ[5] DDR0_DQ[6] DDR0_DQ[7] DDR0_DQ[8] DDR0_DQ[9] DDR0_DQ[10] DDR0_DQ[11] DDR0_DQ[12] DDR0_DQ[13] DDR0_DQ[14] DDR0_DQ[15]	DDR0_DQ[0] DDR0_DQ[1] DDR0_DQ[2] DDR0_DQ[3] DDR0_DQ[4] DDR0_DQ[5] DDR0_DQ[6] DDR0_DQ[7] DDR0_DQ[8] DDR0_DQ[9] DDR0_DQ[10] DDR0_DQ[11] DDR0_DQ[12] DDR0_DQ[13] DDR0_DQ[14] DDR0_DQ[15]
Block 2	BB65 AW65 AW63 AY63 BA65 AY65 BA63 BB63 BA61 AW61 BB59 AW59 BB61 AY61 BA59 AY59	DDR0_DQ[16] DDR0_DQ[17] DDR0_DQ[18] DDR0_DQ[19] DDR0_DQ[20] DDR0_DQ[21] DDR0_DQ[22] DDR0_DQ[23] DDR0_DQ[24] DDR0_DQ[25] DDR0_DQ[26] DDR0_DQ[27] DDR0_DQ[28] DDR0_DQ[29] DDR0_DQ[30] DDR0_DQ[31]	DDR0_DQ[32] DDR0_DQ[33] DDR0_DQ[34] DDR0_DQ[35] DDR0_DQ[36] DDR0_DQ[37] DDR0_DQ[38] DDR0_DQ[39] DDR0_DQ[40] DDR0_DQ[41] DDR0_DQ[42] DDR0_DQ[43] DDR0_DQ[44] DDR0_DQ[45] DDR0_DQ[46] DDR0_DQ[47]
Block 4	AY39 AW39 AY37 AW37 BB39 BA39 BA37 BB37 AY35 AW35 AY33 AW33 BB35 BA35 BA33 BB33	DDR0_DQ[32] DDR0_DQ[33] DDR0_DQ[34] DDR0_DQ[35] DDR0_DQ[36] DDR0_DQ[37] DDR0_DQ[38] DDR0_DQ[39] DDR0_DQ[40] DDR0_DQ[41] DDR0_DQ[42] DDR0_DQ[43] DDR0_DQ[44] DDR0_DQ[45] DDR0_DQ[46] DDR0_DQ[47]	DDR1_DQ[0] DDR1_DQ[1] DDR1_DQ[2] DDR1_DQ[3] DDR1_DQ[4] DDR1_DQ[5] DDR1_DQ[6] DDR1_DQ[7] DDR1_DQ[8] DDR1_DQ[9] DDR1_DQ[10] DDR1_DQ[11] DDR1_DQ[12] DDR1_DQ[13] DDR1_DQ[14] DDR1_DQ[15]
Block 6	AY31 AW31 AY29 AW29 BB31 BA31 BA29 BB29 AY27 AW27 AY25 AW25 BB27 BA27 BA25 BB25	DDR0_DQ[48] DDR0_DQ[49] DDR0_DQ[50] DDR0_DQ[51] DDR0_DQ[52] DDR0_DQ[53] DDR0_DQ[54] DDR0_DQ[55] DDR0_DQ[56] DDR0_DQ[57] DDR0_DQ[58] DDR0_DQ[59] DDR0_DQ[60] DDR0_DQ[61] DDR0_DQ[62] DDR0_DQ[63]	DDR1_DQ[32] DDR1_DQ[33] DDR1_DQ[34] DDR1_DQ[35] DDR1_DQ[36] DDR1_DQ[37] DDR1_DQ[38] DDR1_DQ[39] DDR1_DQ[40] DDR1_DQ[41] DDR1_DQ[42] DDR1_DQ[43] DDR1_DQ[44] DDR1_DQ[45] DDR1_DQ[46] DDR1_DQ[47]

LOGIC



TABLE

	Pin	Interleave	Non-Interleave
Block 0	AM70 AM69 AT69 AT70	DDR0_DQSN[0] DDR0_DQSP[0] DDR0_DQSN[1] DDR0_DQSP[1]	DDR0_DQSN[0] DDR0_DQSP[0] DDR0_DQSN[1] DDR0_DQSP[1]
Block 2	BA64 AY64 AY60 BA60	DDR0_DQSN[2] DDR0_DQSP[2] DDR0_DQSN[3] DDR0_DQSP[3]	DDR0_DQSN[4] DDR0_DQSP[4] DDR0_DQSN[5] DDR0_DQSP[5]
Block 4	BA38 AY38 AY34 BA34	DDR0_DQSN[4] DDR0_DQSP[4] DDR0_DQSN[5] DDR0_DQSP[5]	DDR1_DQSN[0] DDR1_DQSP[0] DDR1_DQSN[1] DDR1_DQSP[1]
Block 6	BA30 AY30 AY26 BA26	DDR0_DQSN[6] DDR0_DQSP[6] DDR0_DQSN[7] DDR0_DQSP[7]	DDR1_DQSN[4] DDR1_DQSP[4] DDR1_DQSN[5] DDR1_DQSP[5]

LOGIC

TABLE

Pin	DDR3L	LPDDR3	DDR4
BA51	DDR0_MA[5]	DDR0_CAA[0]	DDR0_MA[5]
BB54	DDR0_MA[9]	DDR0_CAA[1]	DDR0_MA[9]
BA52	DDR0_MA[6]	DDR0_CAA[2]	DDR0_MA[6]
AY52	DDR0_MA[8]	DDR0_CAA[3]	DDR0_MA[8]
AW52	DDR0_MA[7]	DDR0_CAA[4]	DDR0_MA[7]
AY55	DDR0_BA[2]	DDR0_CAA[5]	DDR0_BG[0]
AW54	DDR0_MA[12]	DDR0_CAA[6]	DDR0_MA[12]
BA54	DDR0_MA[11]	DDR0_CAA[7]	DDR0_MA[11]
BA55	DDR0_MA[15]	DDR0_CAA[8]	DDR0_ACT#
AY54	DDR0_MA[14]	DDR0_CAA[9]	DDR0_BG[1]
AU46	DDR0_MA[13]	DDR0_CAB[0]	DDR0_MA[13]
AU48	DDR0_CAS#	DDR0_CAB[1]	DDR0_MA[15]
AT46	DDR0_WE#	DDR0_CAB[2]	DDR0_MA[14]
AU50	DDR0_RAS#	DDR0_CAB[3]	DDR0_MA[16]
AU52	DDR0_BA[0]	DDR0_CAB[4]	DDR0_BA[0]
AY51	DDR0_MA[2]	DDR0_CAB[5]	DDR0_MA[2]
AT48	DDR0_BA[1]	DDR0_CAB[6]	DDR0_BA[1]
AT50	DDR0_MA[10]	DDR0_CAB[7]	DDR0_MA[10]
BB50	DDR0_MA[1]	DDR0_CAB[8]	DDR0_MA[1]
AY50	DDR0_MA[0]	DDR0_CAB[9]	DDR0_MA[0]
BA50	DDR0_MA[3]	Not Used	DDR0_MA[3]
BB52	DDR0_MA[4]	Not Used	DDR0_MA[4]

LOGIC

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Title: CPU(2/16) : DDR CHANNEL-A

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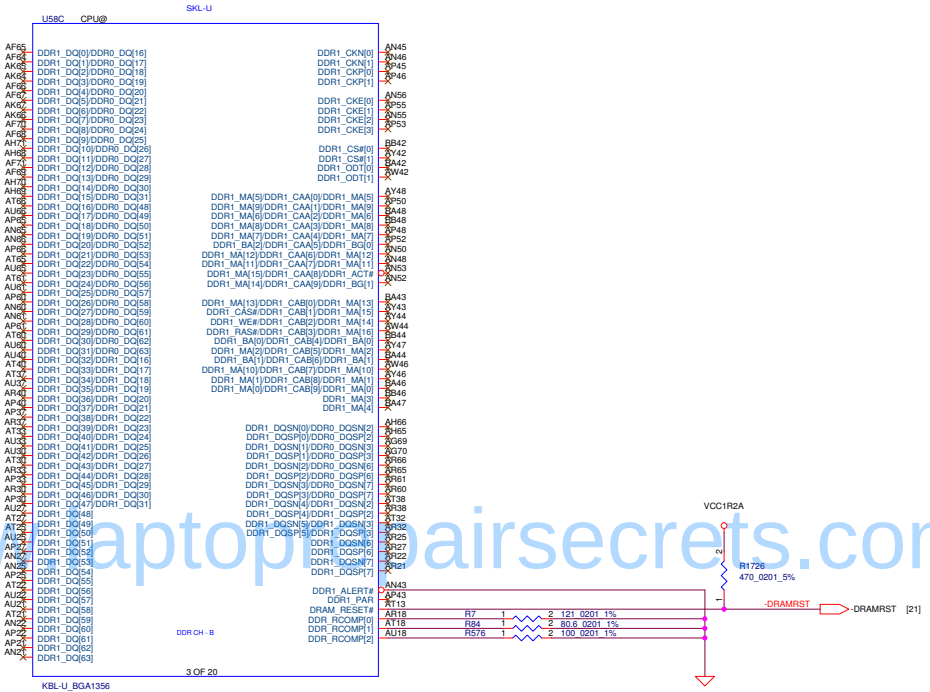
TABLE

	Pin	Interleave	Non-Interleave
Block 1	AF65 AF64 AK65 AK64 AF66 AF67 AK67 AK66 AF70 AF68 AH71 AH68 AF71 AF69 AH70 AH69	DDR1_DQ[0] DDR1_DQ[1] DDR1_DQ[2] DDR1_DQ[3] DDR1_DQ[4] DDR1_DQ[5] DDR1_DQ[6] DDR1_DQ[7] DDR1_DQ[8] DDR1_DQ[9] DDR1_DQ[10] DDR1_DQ[11] DDR1_DQ[12] DDR1_DQ[13] DDR1_DQ[14] DDR1_DQ[15]	DDR0_DQ[16] DDR0_DQ[17] DDR0_DQ[18] DDR0_DQ[19] DDR0_DQ[20] DDR0_DQ[21] DDR0_DQ[22] DDR0_DQ[23] DDR0_DQ[24] DDR0_DQ[25] DDR0_DQ[26] DDR0_DQ[27] DDR0_DQ[28] DDR0_DQ[29] DDR0_DQ[30] DDR0_DQ[31]
Block 3	AT66 AU66 AP65 AN65 AN66 AP66 AT65 AU65 AT61 AU61 AP60 AN60 AN61 AP61 AT60 AU60	DDR1_DQ[16] DDR1_DQ[17] DDR1_DQ[18] DDR1_DQ[19] DDR1_DQ[20] DDR1_DQ[21] DDR1_DQ[22] DDR1_DQ[23] DDR1_DQ[24] DDR1_DQ[25] DDR1_DQ[26] DDR1_DQ[27] DDR1_DQ[28] DDR1_DQ[29] DDR1_DQ[30] DDR1_DQ[31]	DDR0_DQ[48] DDR0_DQ[49] DDR0_DQ[50] DDR0_DQ[51] DDR0_DQ[52] DDR0_DQ[53] DDR0_DQ[54] DDR0_DQ[55] DDR0_DQ[56] DDR0_DQ[57] DDR0_DQ[58] DDR0_DQ[59] DDR0_DQ[60] DDR0_DQ[61] DDR0_DQ[62] DDR0_DQ[63]
Block 5	AU40 AT40 AT37 AU37 AR40 AP40 AP37 AR37 AT33 AU33 AU30 AT30 AR33 AP33 AR30 AP30	DDR1_DQ[32] DDR1_DQ[33] DDR1_DQ[34] DDR1_DQ[35] DDR1_DQ[36] DDR1_DQ[37] DDR1_DQ[38] DDR1_DQ[39] DDR1_DQ[40] DDR1_DQ[41] DDR1_DQ[42] DDR1_DQ[43] DDR1_DQ[44] DDR1_DQ[45] DDR1_DQ[46] DDR1_DQ[47]	DDR1_DQ[16] DDR1_DQ[17] DDR1_DQ[18] DDR1_DQ[19] DDR1_DQ[20] DDR1_DQ[21] DDR1_DQ[22] DDR1_DQ[23] DDR1_DQ[24] DDR1_DQ[26] DDR1_DQ[27] DDR1_DQ[28] DDR1_DQ[29] DDR1_DQ[30] DDR1_DQ[31]
Block 7	AU27 AT27 AT25 AU25 AP27 AN27 AN25 AP25 AT22 AU22 AU21 AT21 AN22 AP22 AP21 AN21	DDR1_DQ[48] DDR1_DQ[49] DDR1_DQ[50] DDR1_DQ[51] DDR1_DQ[52] DDR1_DQ[53] DDR1_DQ[54] DDR1_DQ[55] DDR1_DQ[56] DDR1_DQ[57] DDR1_DQ[58] DDR1_DQ[59] DDR1_DQ[60] DDR1_DQ[61] DDR1_DQ[62] DDR1_DQ[63]	DDR1_DQ[48] DDR1_DQ[49] DDR1_DQ[50] DDR1_DQ[51] DDR1_DQ[52] DDR1_DQ[53] DDR1_DQ[54] DDR1_DQ[55] DDR1_DQ[56] DDR1_DQ[57] DDR1_DQ[58] DDR1_DQ[59] DDR1_DQ[60] DDR1_DQ[61] DDR1_DQ[62] DDR1_DQ[63]

LOGIC



TABLE

	Pin	Interleave	Non-Interleave
Block 1	AH66 AH65 AG69 AG70	DDR1_DQSN[0] DDR1_DQSP[0] DDR1_DQSN[1] DDR1_DQSP[1]	DDR0_DQSN[2] DDR0_DQSP[2] DDR0_DQSN[3] DDR0_DQSP[3]
Block 3	AR66 AR65 AR61 AR60	DDR1_DQSN[2] DDR1_DQSP[2] DDR1_DQSN[3] DDR1_DQSP[3]	DDR0_DQSN[6] DDR0_DQSP[6] DDR0_DQSN[7] DDR0_DQSP[7]
Block 5	AT38 AR38 AT32 AR32	DDR1_DQSN[4] DDR1_DQSP[4] DDR1_DQSN[5] DDR1_DQSP[5]	DDR1_DQSN[2] DDR1_DQSP[2] DDR1_DQSN[3] DDR1_DQSP[3]
Block 7	AR25 AR27 AR22 AR21	DDR1_DQSN[6] DDR1_DQSP[6] DDR1_DQSN[7] DDR1_DQSP[7]	DDR1_DQSN[6] DDR1_DQSP[6] DDR1_DQSN[7] DDR1_DQSP[7]

LOGIC

TABLE

Pin	DDR3L	LPDDR3	DDR4
AY48	DDR1_MA[5]	DDR1_CAA[0]	DDR1_MA[5]
AP50	DDR1_MA[9]	DDR1_CAA[1]	DDR1_MA[9]
BA48	DDR1_MA[6]	DDR1_CAA[2]	DDR1_MA[6]
BB48	DDR1_MA[8]	DDR1_CAA[3]	DDR1_MA[8]
AP48	DDR1_MA[7]	DDR1_CAA[4]	DDR1_MA[7]
AP52	DDR1_BA[2]	DDR1_CAA[5]	DDR1_BG[0]
AN50	DDR1_MA[12]	DDR1_CAA[6]	DDR1_MA[12]
AN48	DDR1_MA[11]	DDR1_CAA[7]	DDR1_MA[11]
AN53	DDR1_MA[15]	DDR1_CAA[8]	DDR1_ACT#
AN52	DDR1_MA[14]	DDR1_CAA[9]	DDR1_BG[1]
BA43	DDR1_MA[13]	DDR1_CAB[0]	DDR1_MA[13]
AY43	DDR1_CAS#	DDR1_CAB[1]	DDR1_MA[15]
AY44	DDR1_WE#	DDR1_CAB[2]	DDR1_MA[14]
AW44	DDR1_RAS#	DDR1_CAB[3]	DDR1_MA[16]
BB44	DDR1_BA[0]	DDR1_CAB[4]	DDR1_BA[0]
AY47	DDR1_MA[2]	DDR1_CAB[5]	DDR1_MA[2]
BA44	DDR1_BA[1]	DDR1_CAB[6]	DDR1_BA[1]
AW46	DDR1_MA[10]	DDR1_CAB[7]	DDR1_MA[10]
AY46	DDR1_MA[1]	DDR1_CAB[8]	DDR1_MA[1]
BA46	DDR1_MA[0]	DDR1_CAB[9]	DDR1_MA[0]
BB46	DDR1_MA[3]	Not Used	DDR1_MA[3]
BA47	DDR1_MA[4]	Not Used	DDR1_MA[4]

LOGIC

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Title: CPU(3/16) : DDR CHANNEL-B

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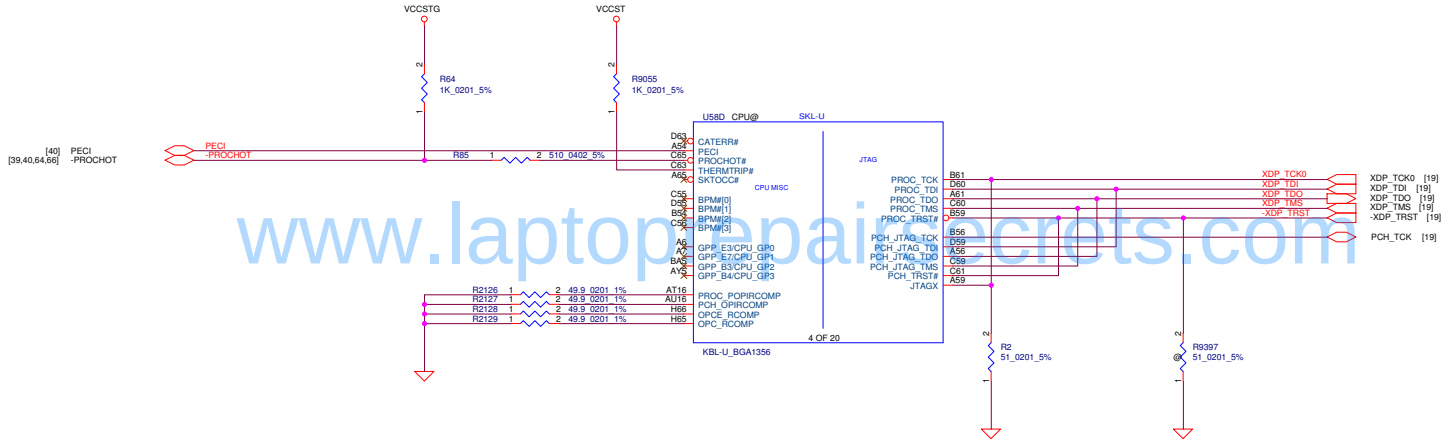

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Compal Electronics, Inc.			
Title	CPU(4/16) : MISC/JTAG		
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TABLE : Functional Strap

SPI0_MOSI (Boot Halt)	
HIGH	Disabled (Default)
LOW	Enabled

TABLE : Functional Strap

SPI0_MISO (JTAG ODT Diable)	
HIGH	Enabled (Default)
LOW	Disabled

TABLE : Functional Strap

GPP_C5/SML0ALERT # (LPC or eSPI)	
HIGH	eSPI is selected
LOW	LPC is selected (Default)

LOGIC

TABLE : Functional Strap

GPP_C2/SMBALERT# (TLS Confidentiality)	
HIGH	Enable ME Crypto TLS with Confidentiality
LOW	Disable ME Crypto TLS (Default)

LOGIC

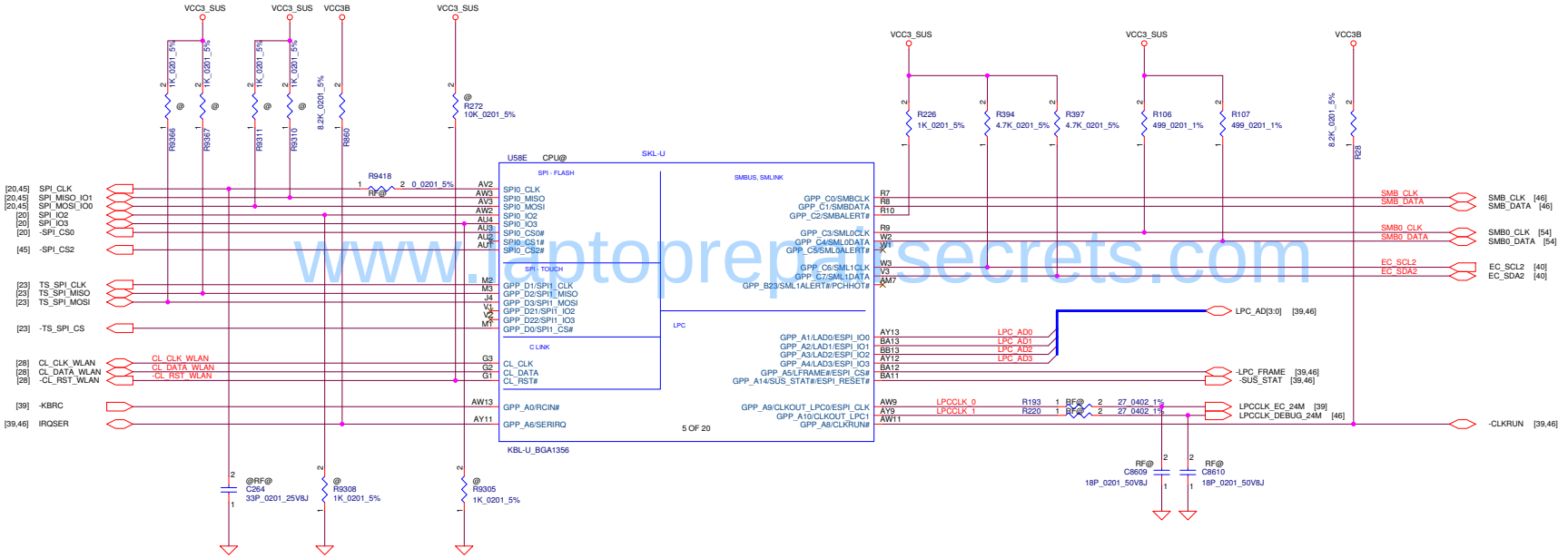

TABLE : Functional Strap

SPI0_IO2 (Consent Strap)	
HIGH	Enabled (Default)
LOW	Disabled

TABLE : Functional Strap

SPI0_IO3 (A0 Personality Strap)	
HIGH	Disabled (Default)
LOW	Enabled

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Compal Electronics, Inc.

Title: CPU(5/16) : LPC/SPI/SMBUS/C-LINK

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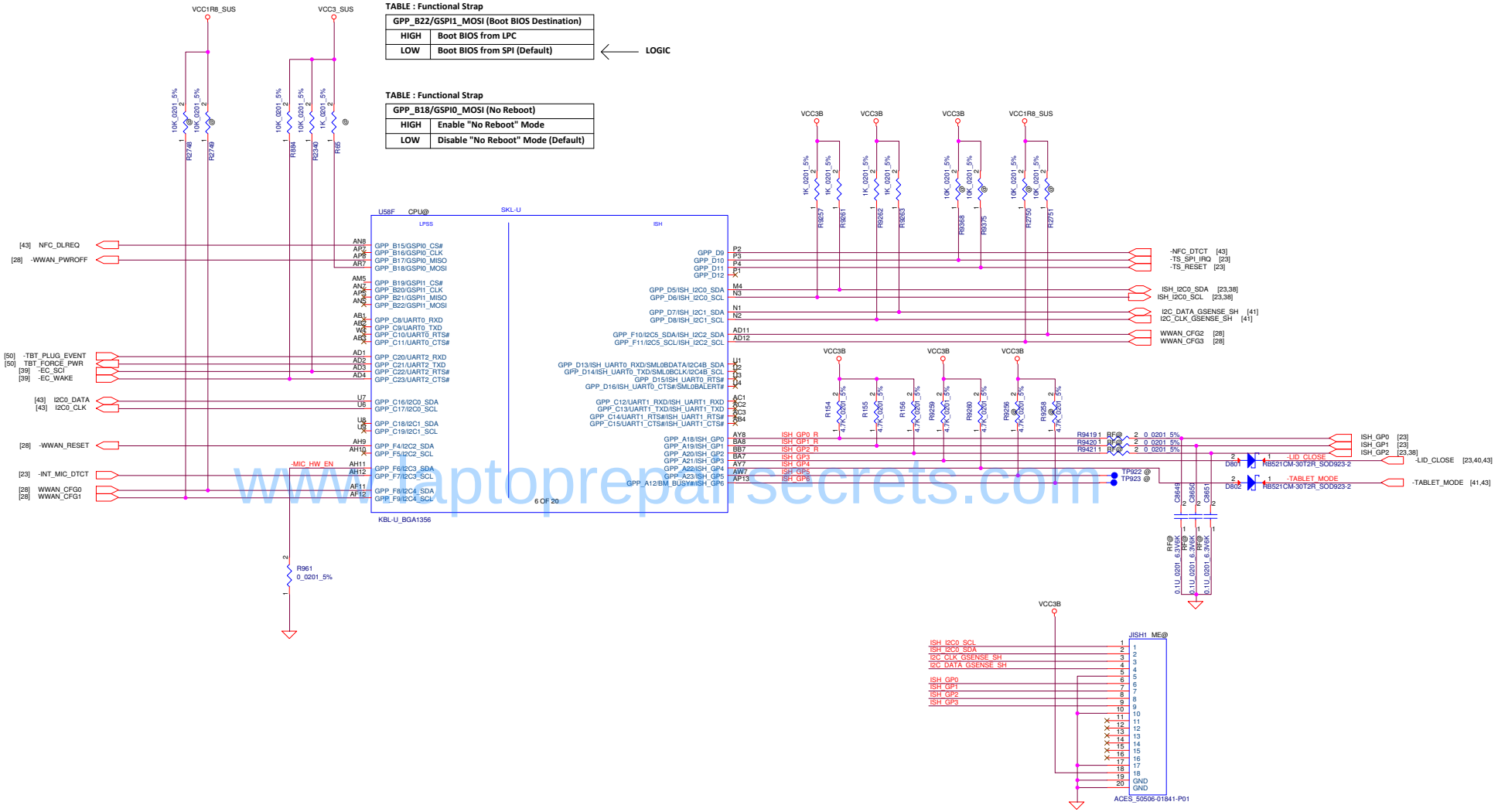

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Title: CPU(6/16) : LPSS/ISH

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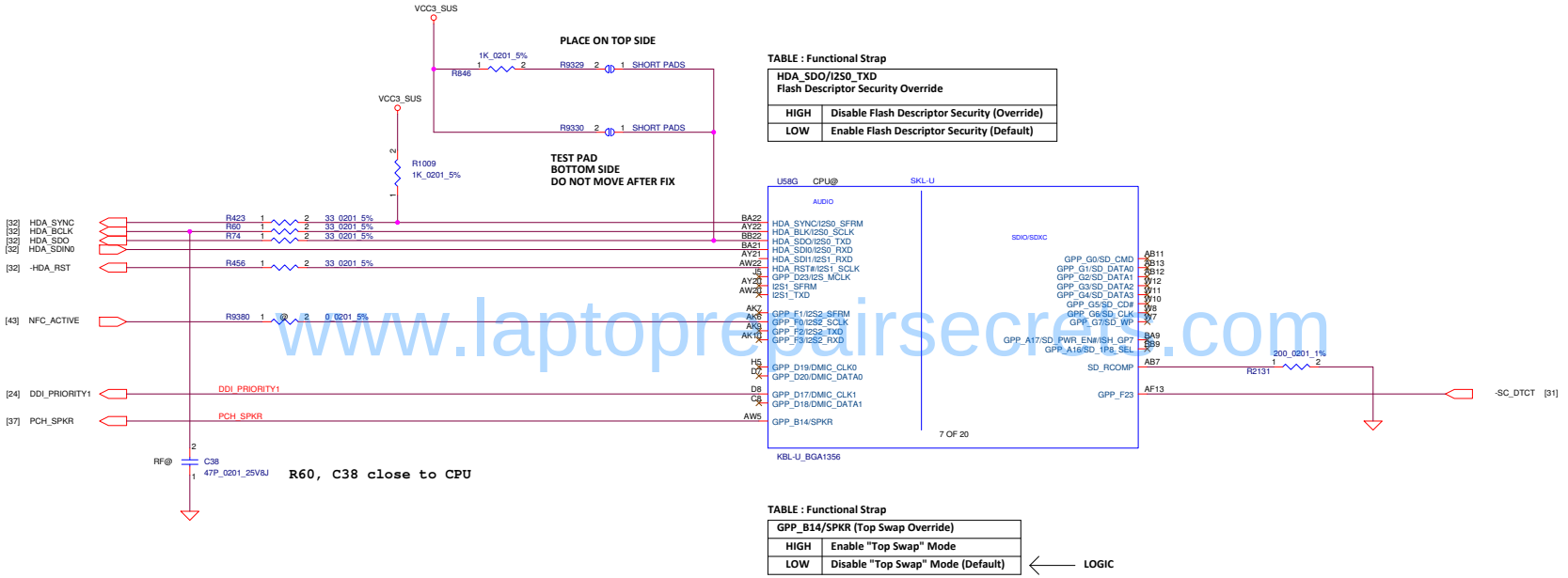

TABLE : Functional Strap

HDA_SDO/I2S0_TXD Flash Descriptor Security Override	
HIGH	Disable Flash Descriptor Security (Override)
LOW	Enable Flash Descriptor Security (Default)

TABLE : Functional Strap

GPP_B14/SPKR (Top Swap Override)	
HIGH	Enable "Top Swap" Mode
LOW	Disable "Top Swap" Mode (Default)

LOGIC

Security Classification	Compal Secret Data		
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Compal Electronics, Inc.			
Title	CPU : AUDIO/SDXC		
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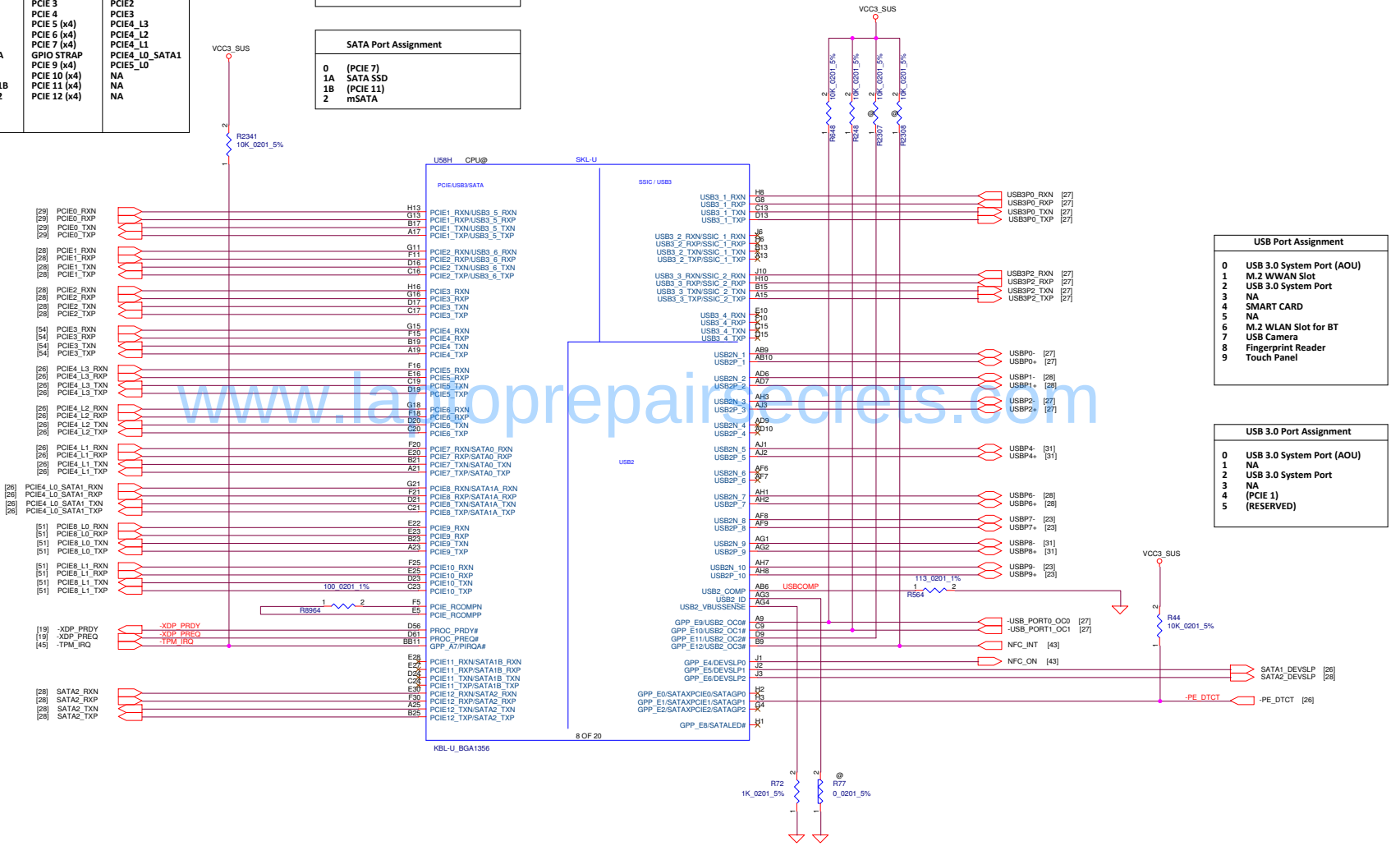
Flexible I/O Configuration			
I/O	High Speed Signals	Configuration	Net Name
Port 1	USB3 1	USB3 1	USB3P0
Port 2	USB3 2/SSIC	SSIC	SSIC
Port 3	USB3 3	USB3 3	USB3P2
Port 4	USB3 4	USB3 4	USB3P3
Port 5	USB3 5/PCIE 1	PCIE 1	PCIE0
Port 6	USB3 6/PCIE 2	USB3 6	USB3P5
Port 7	PCIE 3 (GbE)	PCIE 3	PCIE2
Port 8	PCIE 4 (GbE)	PCIE 4	PCIE3
Port 9	PCIE 5 (GbE)	PCIE 5 (x4)	PCIE4_L3
Port 10	PCIE 6	PCIE 6 (x4)	PCIE4_L2
Port 11	PCIE 7/SATA 0	PCIE 7 (x4)	PCIE4_L1
Port 12	PCIE 8/SATA 1A	GPIO STRAP	PCIE4_L0_SATA1
Port 13	PCIE 9 (GbE)	PCIE 9 (x4)	PCIE5_L0
Port 14	PCIE 10 (GbE)	PCIE 10 (x4)	NA
Port 15	PCIE 11/SATA 1B	PCIE 11 (x4)	NA
Port 16	PCIE 12/SATA 2	PCIE 12 (x4)	NA

PCIe Port Assignment	
0	Media Card Controller
1	M.2 WLAN Slot Port 1 for WiGig
2	M.2 WLAN Slot Port 0 for WLAN
3	GbE PHY
4 (x4)	PCIe SSD
8_(x2)	Thunder bolt

SATA Port Assignment	
0	(PCIE 7)
1A	SATA SSD
1B	(PCIE 11)
2	mSATA

USB Port Assignment	
0	USB 3.0 System Port (AOU)
1	M.2 WWAN Slot
2	USB 3.0 System Port
3	NA
4	SMART CARD
5	NA
6	M.2 WLAN Slot for BT
7	USB Camera
8	Fingerprint Reader
9	Touch Panel

USB 3.0 Port Assignment	
0	USB 3.0 System Port (AOU)
1	NA
2	USB 3.0 System Port
3	NA
4	(PCIE 1)
5	(RESERVED)



Security Classification	Compal Secret Data		
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Compal Electronics, Inc.

Title: CPU : PCIE/USB/SATA

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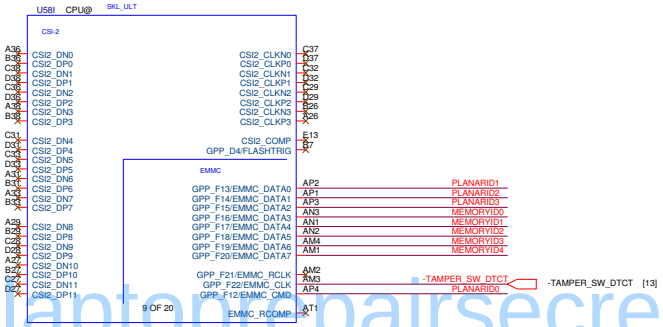
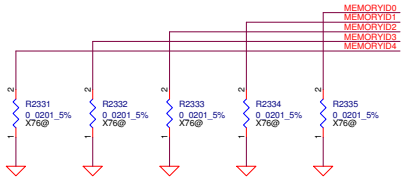
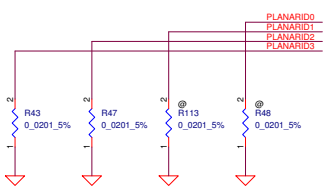


Storm1 only

TABLE

MEMORY[4..0]	U125, U126, U127, U128				R7 (Rcomp0)
00000B	Micron	MT40A512M16HA-083E:A	8Gbit SDP	4GB	200 1%
00001B	Micron	MT40A1G16HBA-083E:A	16Gbit DDP	8GB	121 1%
00010B	Samsung	K4A8G165WB-BCPB	8Gbit SDP	4GB	200 1%
00011B	Reserved				
00100B	Reserved				
00101B	Samsung	K4AAG165WB-MCRC	16Gbit DDP	8GB	121 1%
00110B	Samsung	K4A8G165WB-BCRC	8Gbit SDP	4GB	200 1%
00111B	Micron	MT40A512M16JY-083E:B	8Gbit SDP	4GB	200 1%
01000B	Micron	MT40A1G16WBU-083E:B	16Gbit DDP	8GB	121 1%
01001B	Hynix	H5AN8G6NAFR-UHC	8Gbit SDP	4GB	200 1%
01010B	Hynix	TBD	16Gbit DDP	8GB	121 1%
01011B	Samsung	K4AAG165WB-MCRC	16Gbit DDP	8GB	121 1%
11111B	NO_ASM		No Soldered Memory		





TABLE

LEVEL	PLANAR ID			
	3	2	1	0
	R43	R47	R113	R48
1	NA	NA	NA	NA
0	ASM	ASM	ASM	ASM

TABLE

LEVEL	PLANARID[3..0]
SDV	0001B
FVT	0010B
SIT	0011B
SIT-R	0100B
SVT	0101B

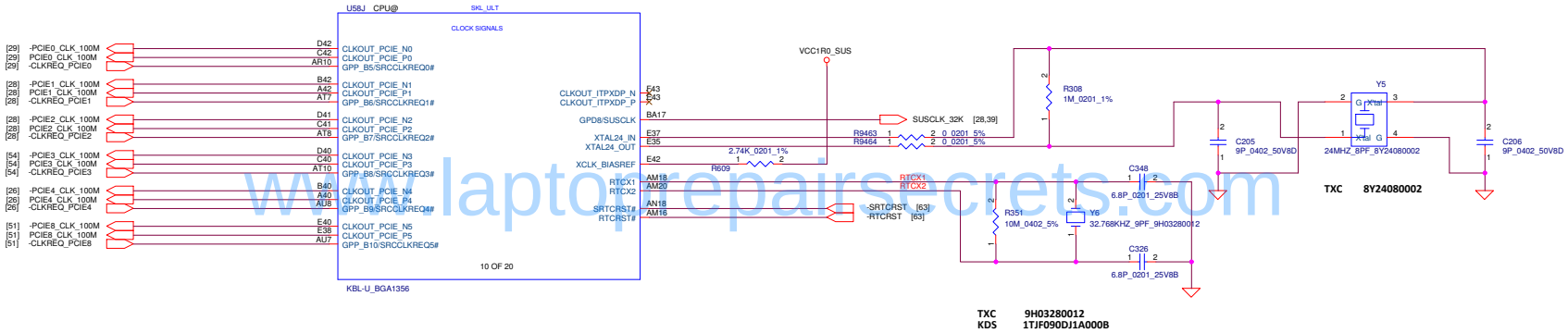
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: CPU : CSI-2/EMMC

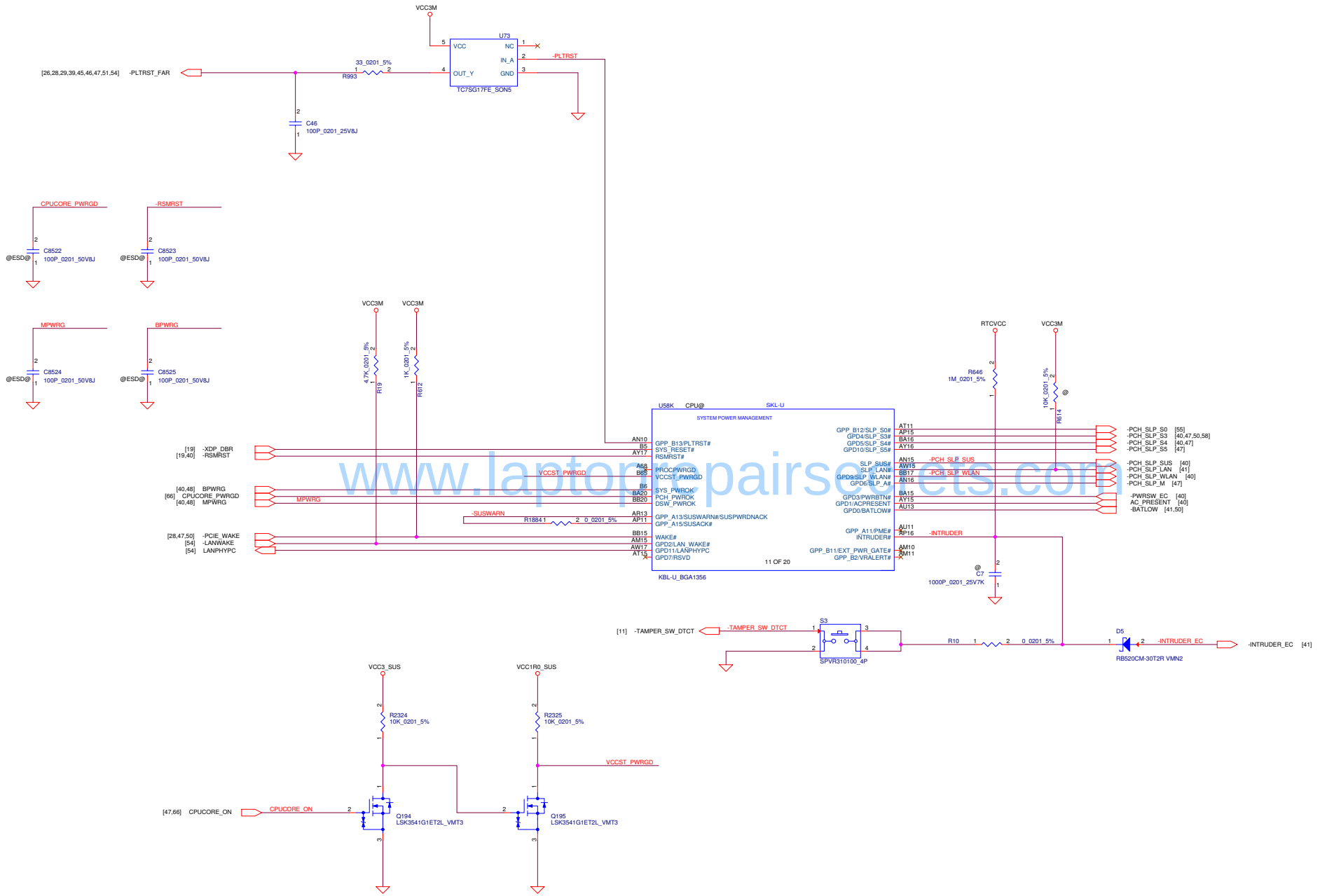
Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 11 of 75



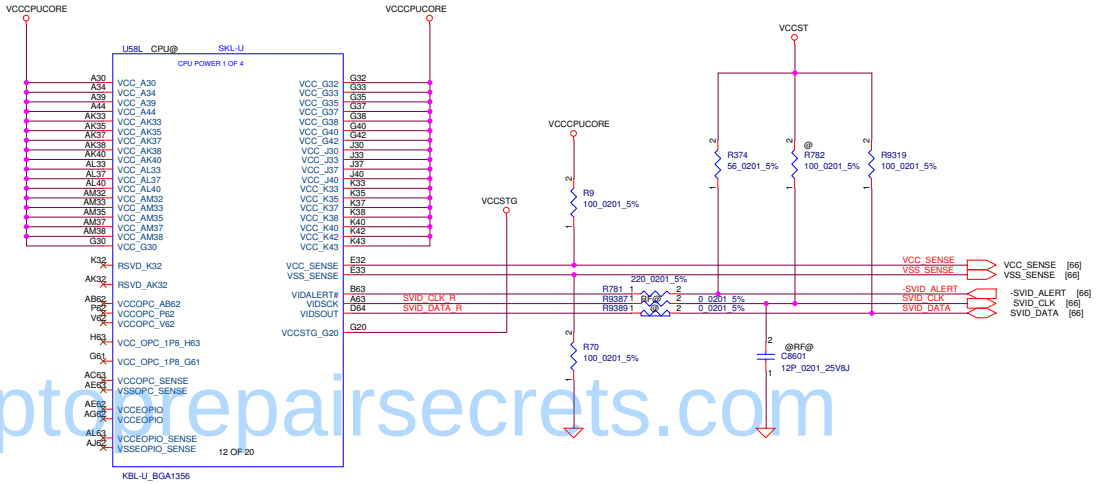
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	CPU : CLOCK SIGNALS		
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 12 of 75		



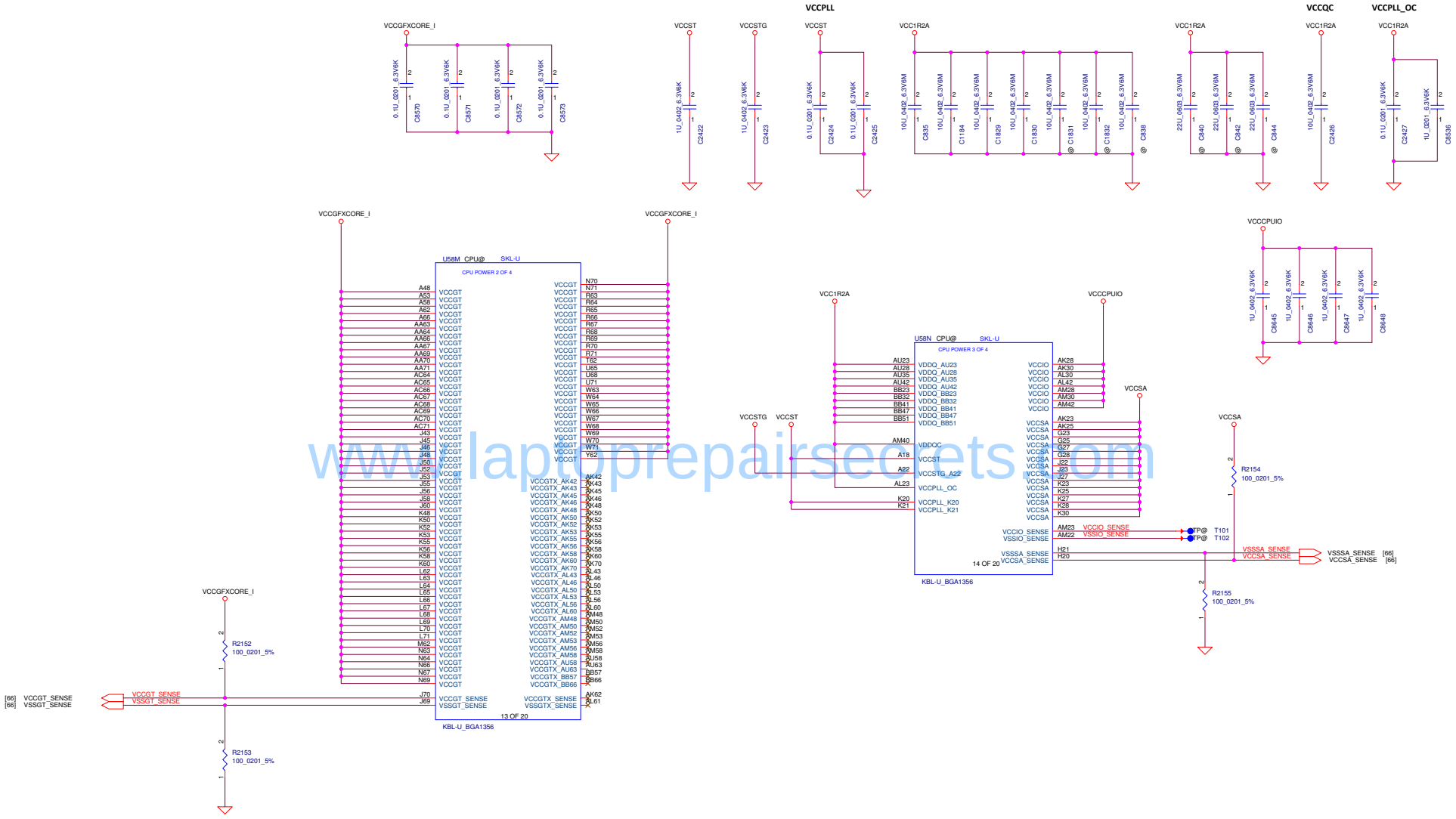
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	CPU : SYSTEM PM		
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 13 of 75		



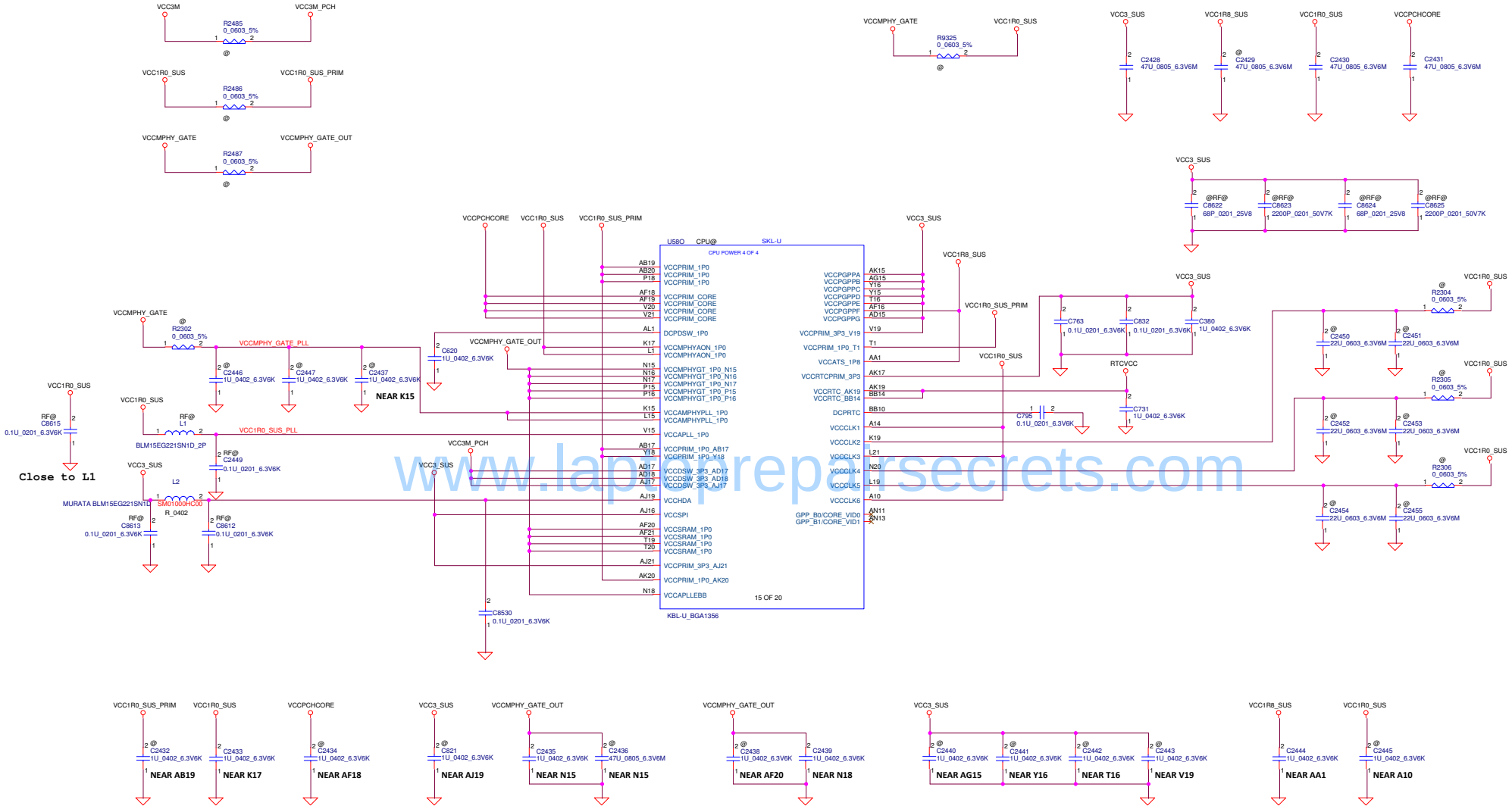
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	CPU : CPU POWER (1/2)		
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 14 of 75		



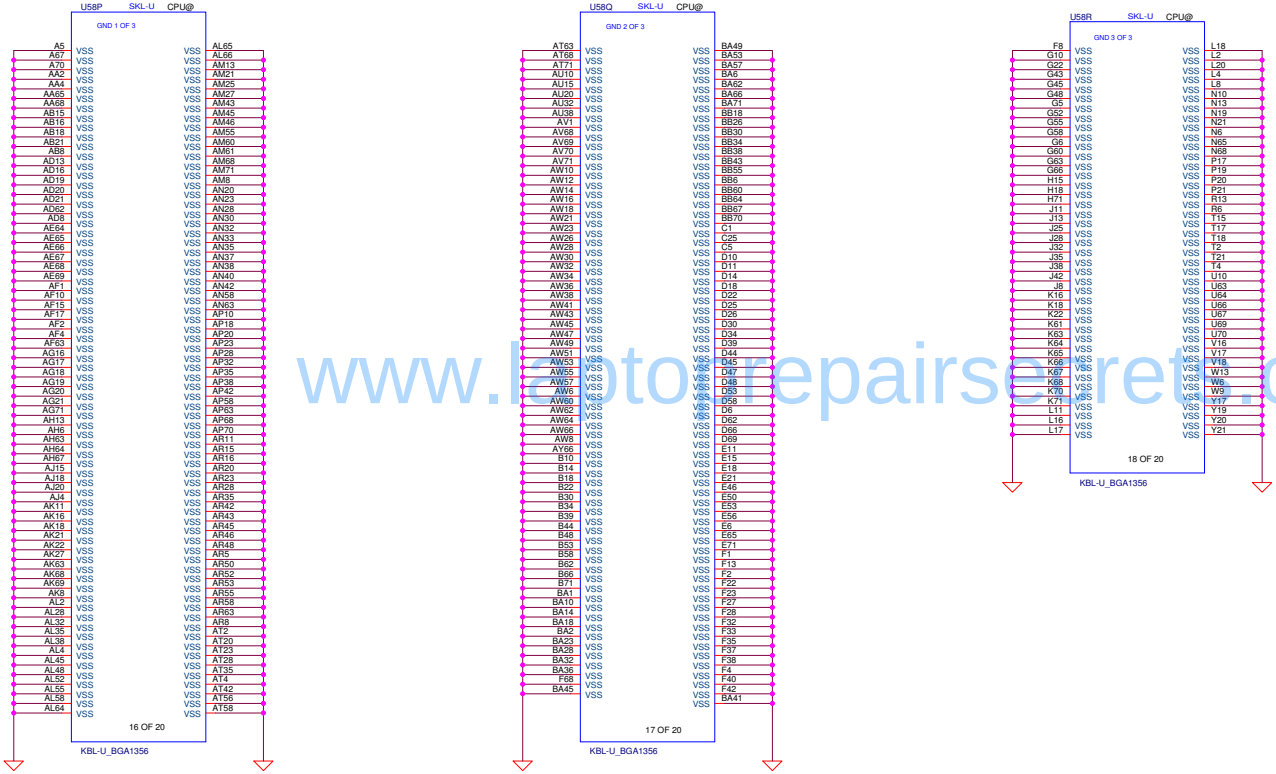
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	CPU : CPU POWER (2/2)		
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 15 of 75		



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.	
Title	CPU : PCH POWER
Size: Custom	Document Number: LA-E291P
Rev	0.3
Date: Thursday, September 01, 2016	Sheet 16 of 75



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

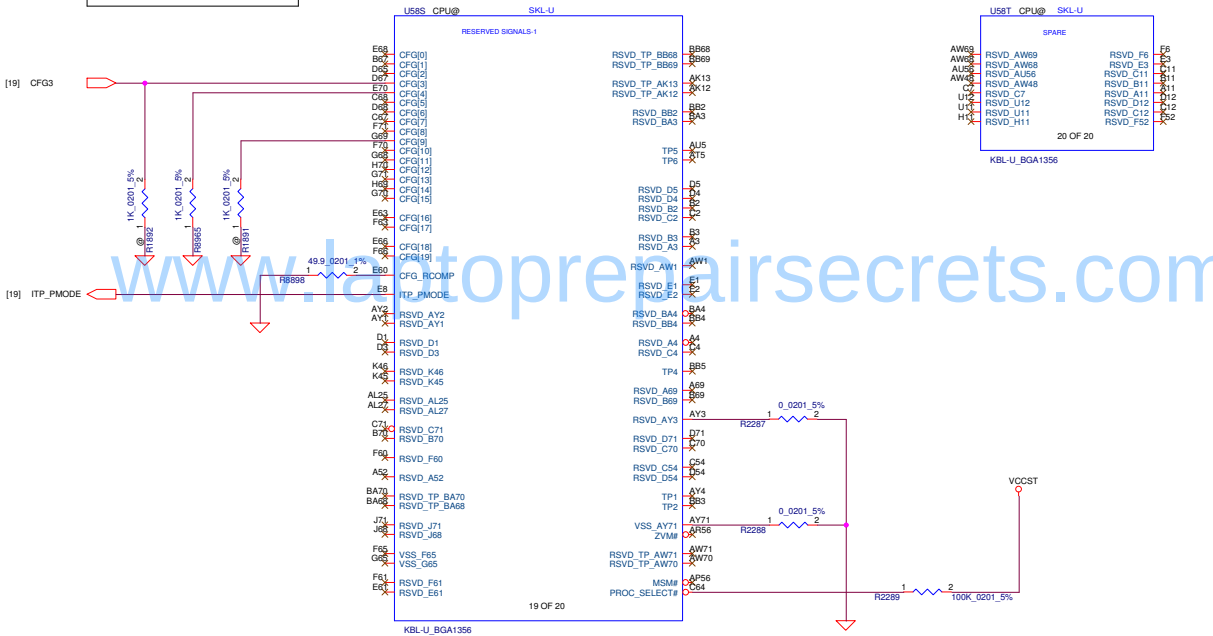
Title: **CPU : GND**

Size: Custom | Document Number: **LA-E291P** | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 17 of 75

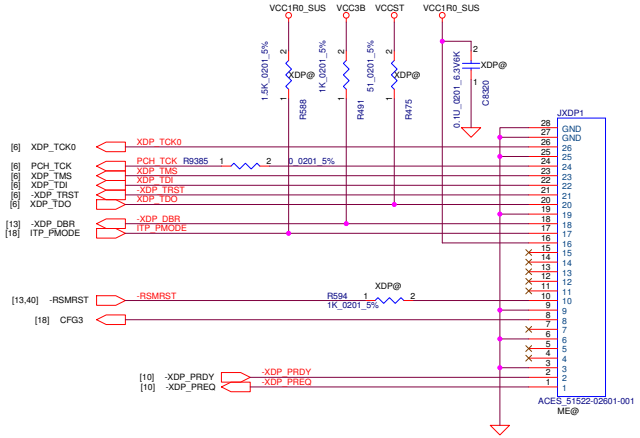
TABLE

CFG0 : Stall Reset Sequence after PCU PLL Lock until de-asserted **1 : No Stall** **0 : Stall**
CFG3 : MSR Privacy Bit Feature **1 : MSR (C80h) bit[0] setting** **0 : MSR (C80h) bit[0] overridden**
CFG4 : eDP Enable **1 : Disabled** **0 : Enabled**
CFG9 : SVID Bus Communication **1 : Enabled** **0 : Disabled**



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	CPU : CFG/RESERVED		
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 18 of 75		



TABLE

Logic	Ref Des	Merged	DCI 2.0
Page 7	R2559	ASM	NO_ASM
Page 18	R1982	ASM	NO_ASM
Page 19	J8	ASM	NO_ASM
	C8320	ASM	NO_ASM
	R475	ASM	ASM
	R491	ASM	ASM
	R588	ASM	NO_ASM
	R594	ASM	NO_ASM
	R2494	ASM	NO_ASM

Compal Electronics, Inc.

Title: XDP CONNECTOR

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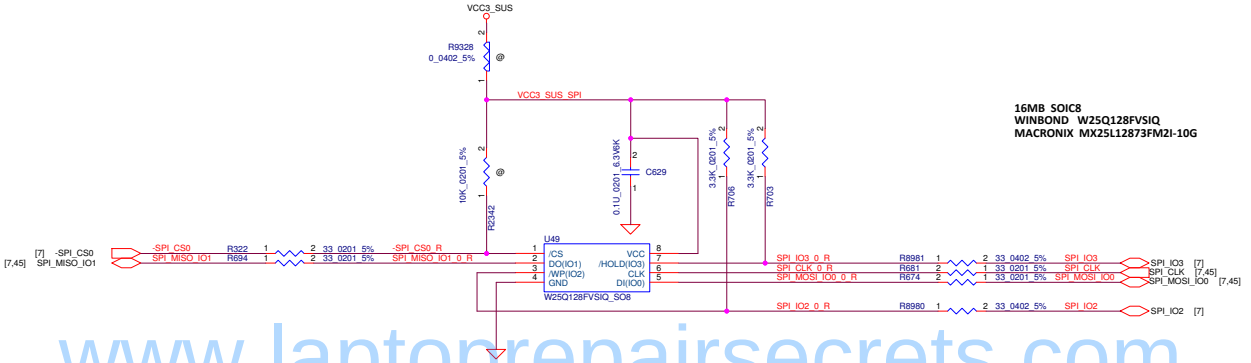
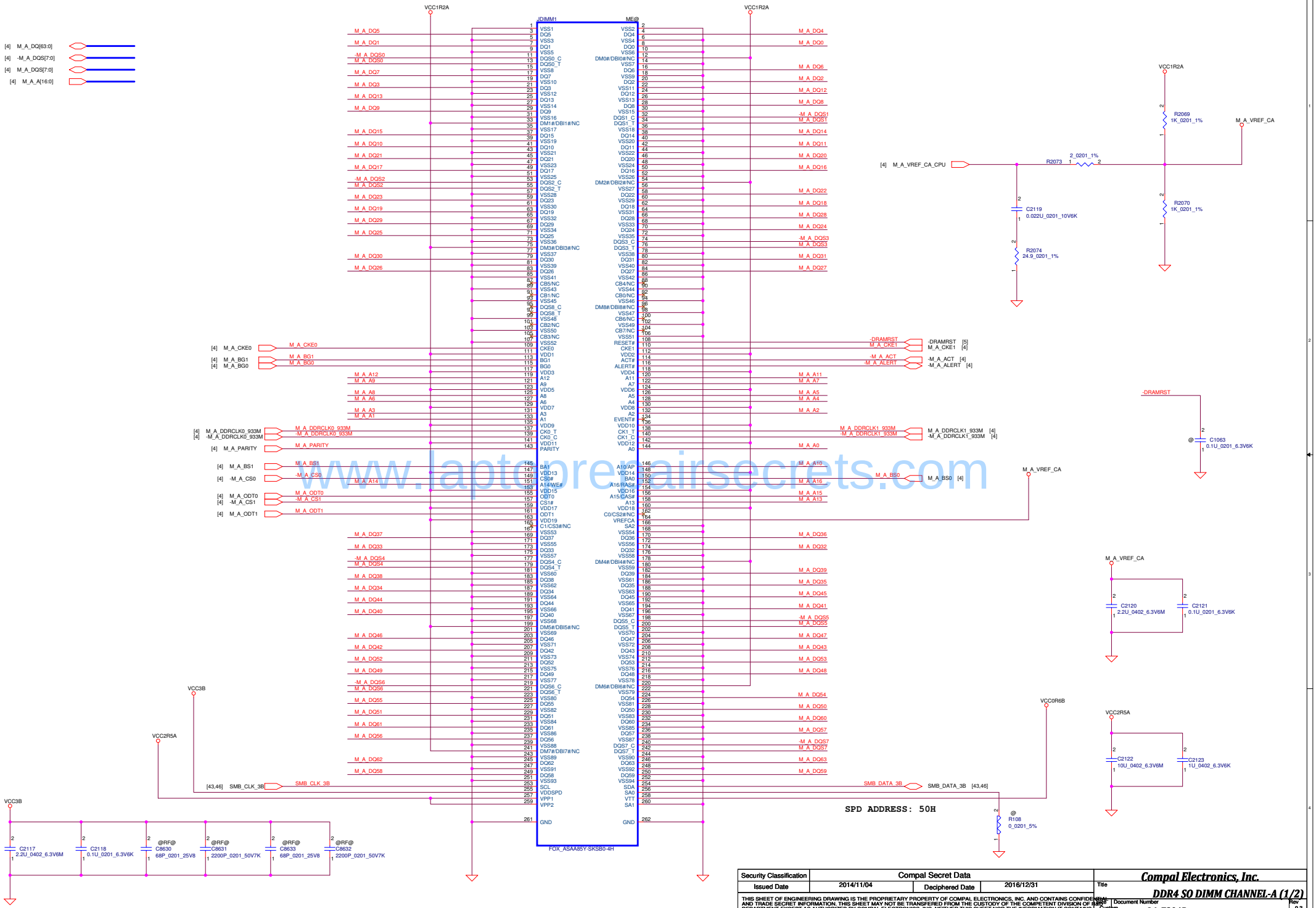
Date: Thursday, September 01, 2016 | Sheet 19 of 75



TABLE

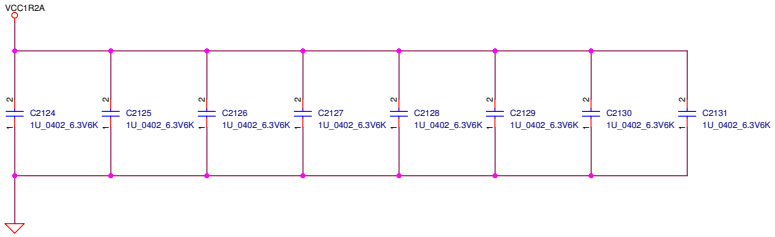
SF100 PIN HEADER INTERFACE (TOP VIEW)					
1	VCC	D12.1	GND	GND	2
3	CS#	R322.2	R681.2	CLK	4
5	MISO	R694.2	R674.2	MOSI	6
7	(KEY)	N/A	N/A	(RESET)	8

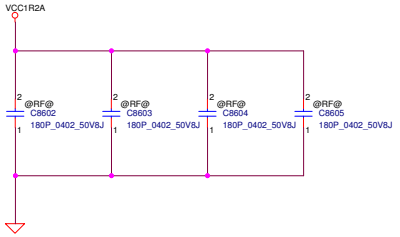
Compal Electronics, Inc.		
Title: SPI FLASH		
Size: Custom	Document Number: LA-E291P	Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 20 of 75	

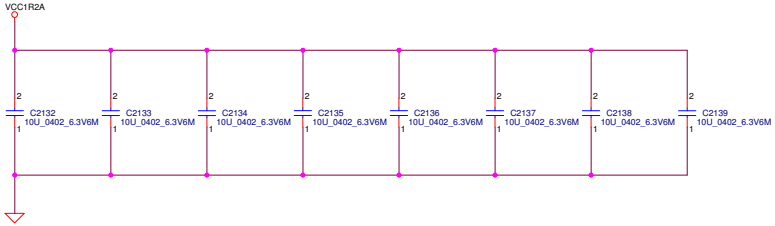


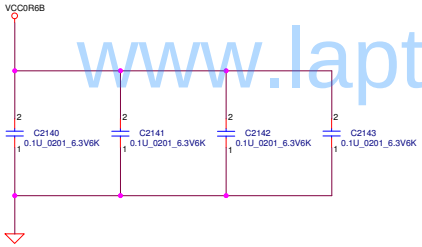
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

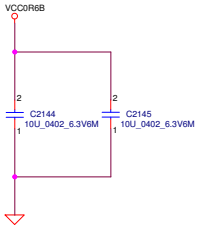
Compal Electronics, Inc.			
Title	DDR4 SO DIMM CHANNEL-A (1/2)		
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 21 of 75		











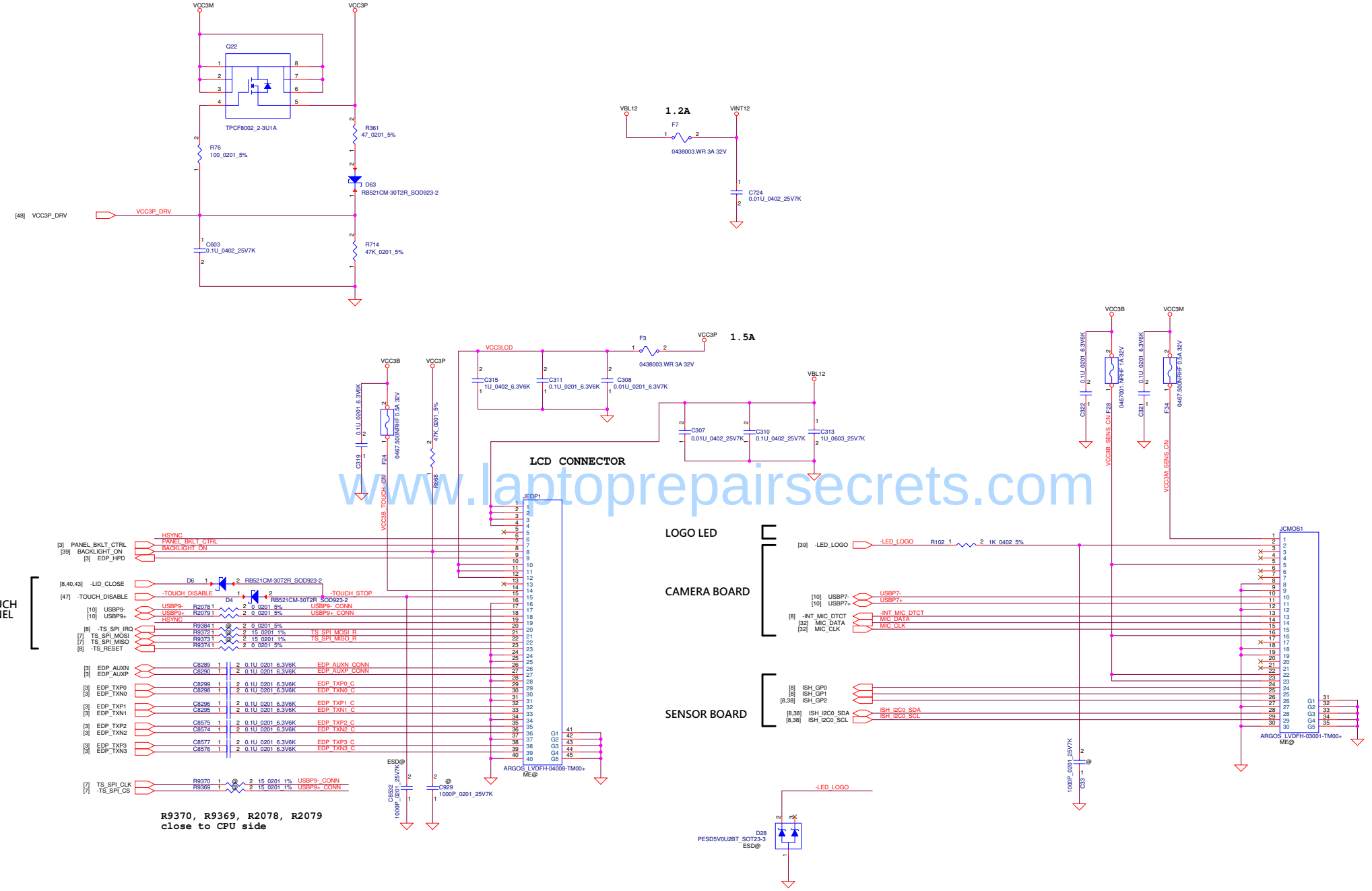
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DDR4 SO DIMM CHANNEL-A (2/2)

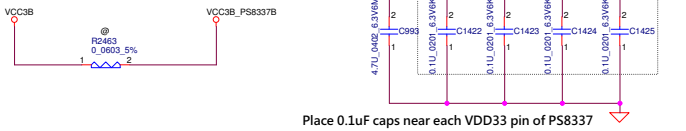
Size	Document Number	Rev
Custom	LA-E291P	0.3

Date: Thursday, September 01, 2016 | Sheet 22 of 75



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: LCD/LID/MIC/CAMERA			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 23 of 75		



Place 0.1uF caps near each VDD33 pin of PS8337

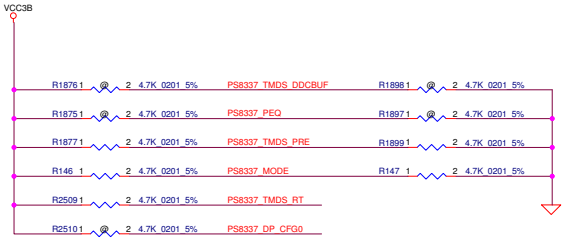
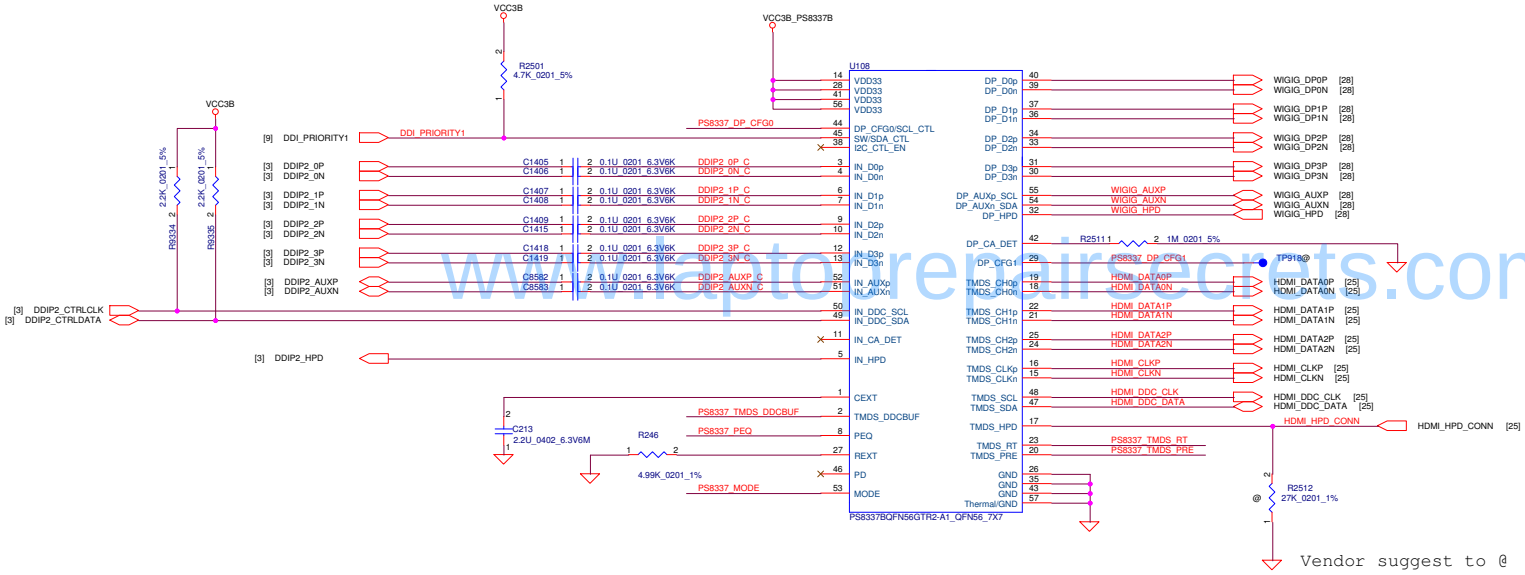


TABLE : Automatic Switching Mode (MODE = H, M)

SW (DDI_PRIORITY1)
L DP Port has higher priority when both ports are plugged H TMDS Port has higher priority when both ports are plugged



TMDS DDCBUF (INT PD)	R1876	R1898	
DDC Ative Buffer	ASM	NO_ASM	
DDC Pass Through w/ PU	ASM	ASM	
DDC Pass Through w/o PU	NO_ASM	NO_ASM	LOGIC

PEQ (INT PD)	R1875	R1897	
HEQ 15dB	ASM	NO_ASM	
LLEQ 5dB	ASM	ASM	
LEQ 12dB	NO_ASM	NO_ASM	LOGIC

TMDS PRE (INT PD)	R1877	R1899	
1.5dB	ASM	NO_ASM	
3.0dB	ASM	ASM	LOGIC
0dB	NO_ASM	NO_ASM	

MODE (INT PD)	R146	R147	
Auto HDMI ID disable	ASM	NO_ASM	
Auto HDMI ID enable	ASM	ASM	LOGIC
Control HDMI ID disable	NO_ASM	NO_ASM	

TMDS RT (INT PD)	R2509	
OD w/ termination	ASM	
OD	NO_ASM	LOGIC

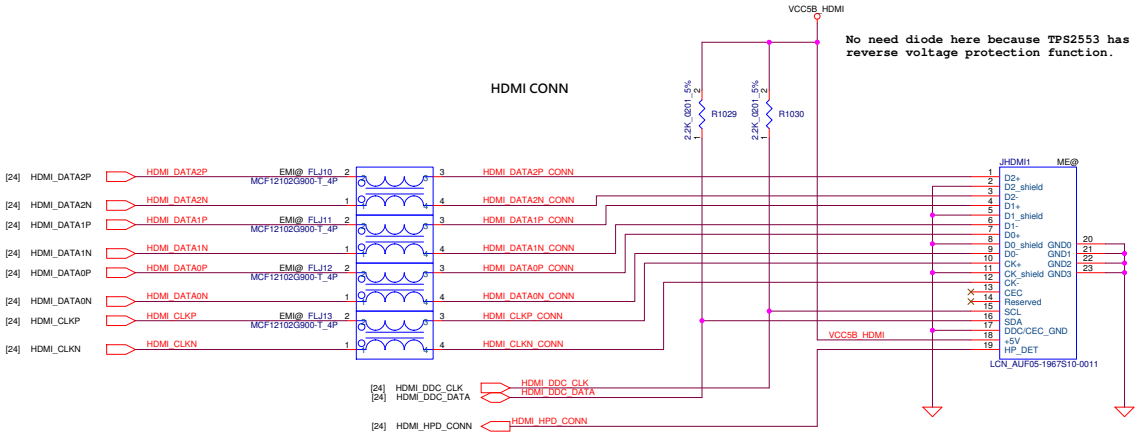
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

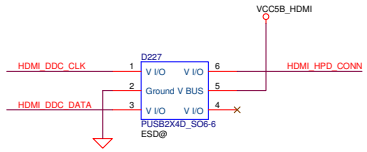
Compal Electronics, Inc.

Title: DDI DEMUX/HDMI LEVEL SHIFT

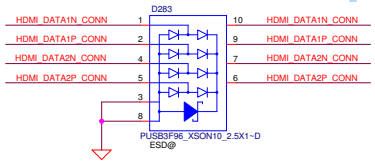
Size: Custom | Document Number: LA-E291P | Rev: 0.3

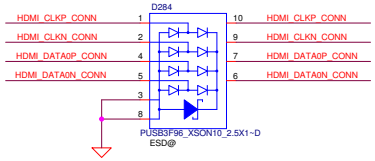
Date: Thursday, September 01, 2016 | Sheet 24 of 75



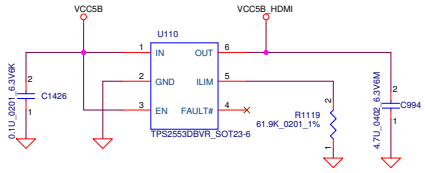


NEAR HDMI CONN





Current Limit Target	: 400mA
Requirement	: 300mA
HDMI Spec	: 50mA – 500mA



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.		
Title: HDMI CONNECTOR		
Size: Custom	Document Number: LA-E291P	Rev: 0.3
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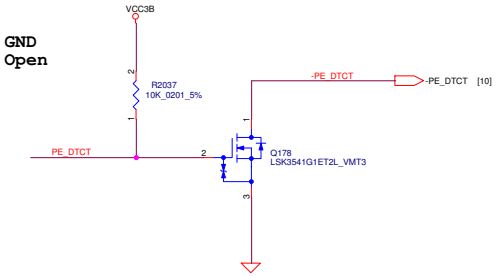
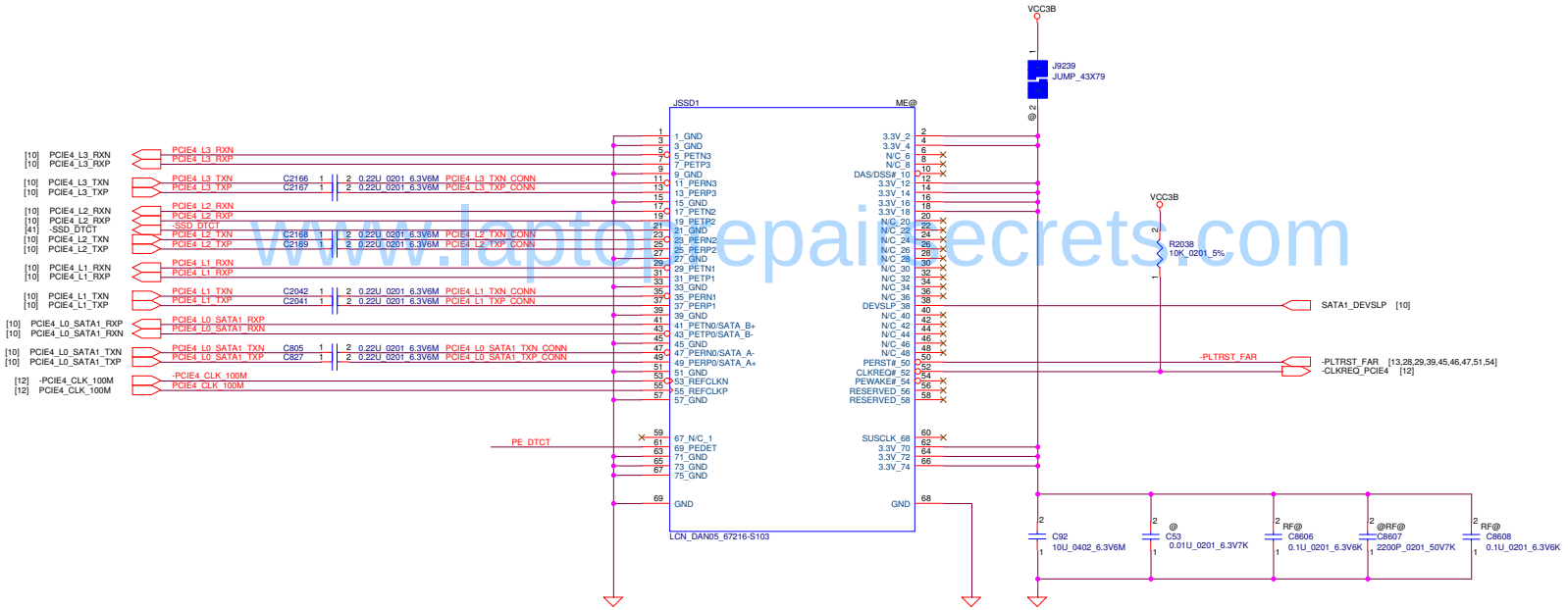
PEDET (PE_DTCT)
SATA Device GND
PCIe Device Open





Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: M.2 SSD SLOT			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 26 of 75		

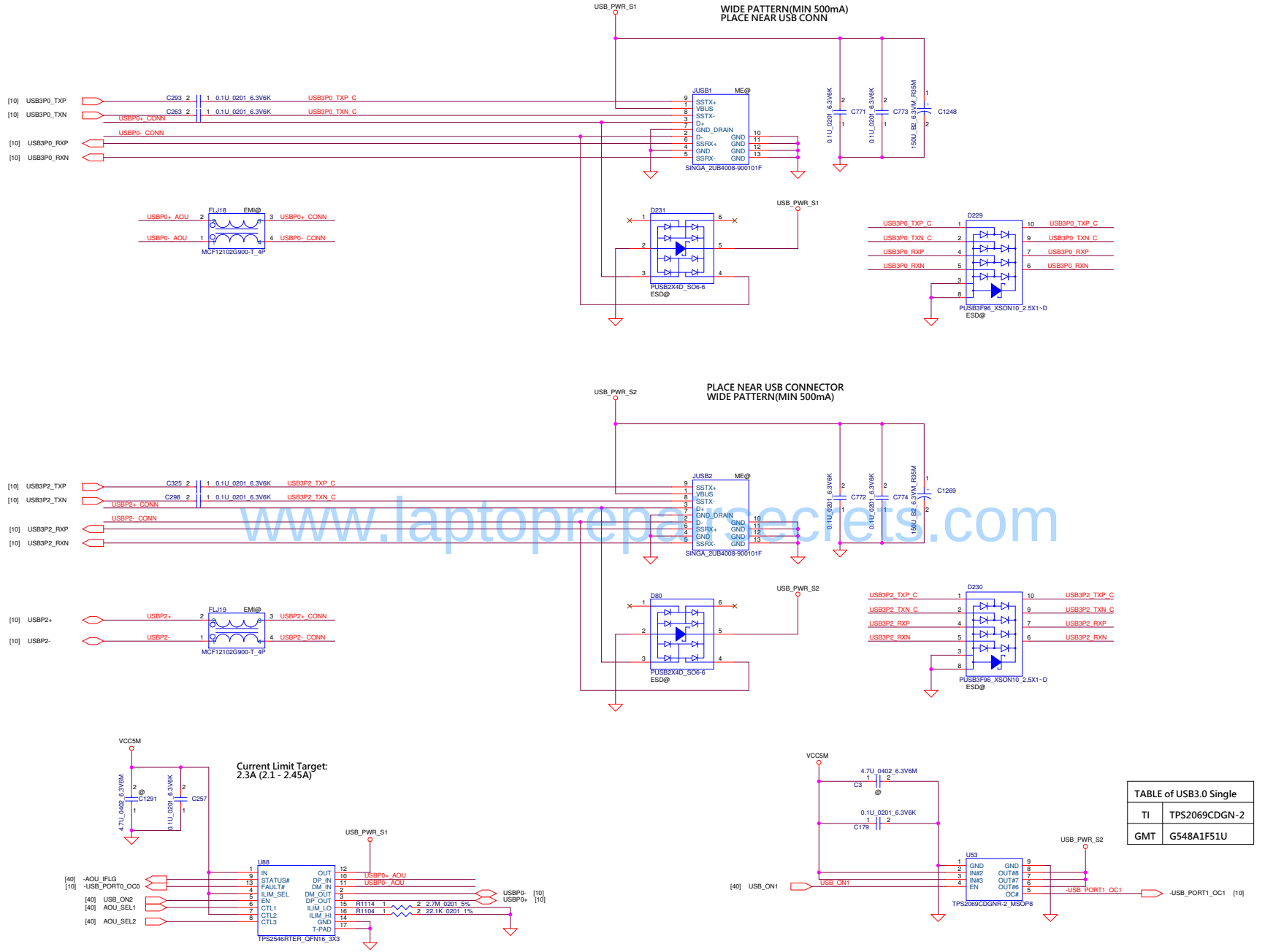


TABLE of USB3.0 Single	
TI	TPS2069CDGN-2
GMT	G548A1F51U

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: USB POWER/CONN

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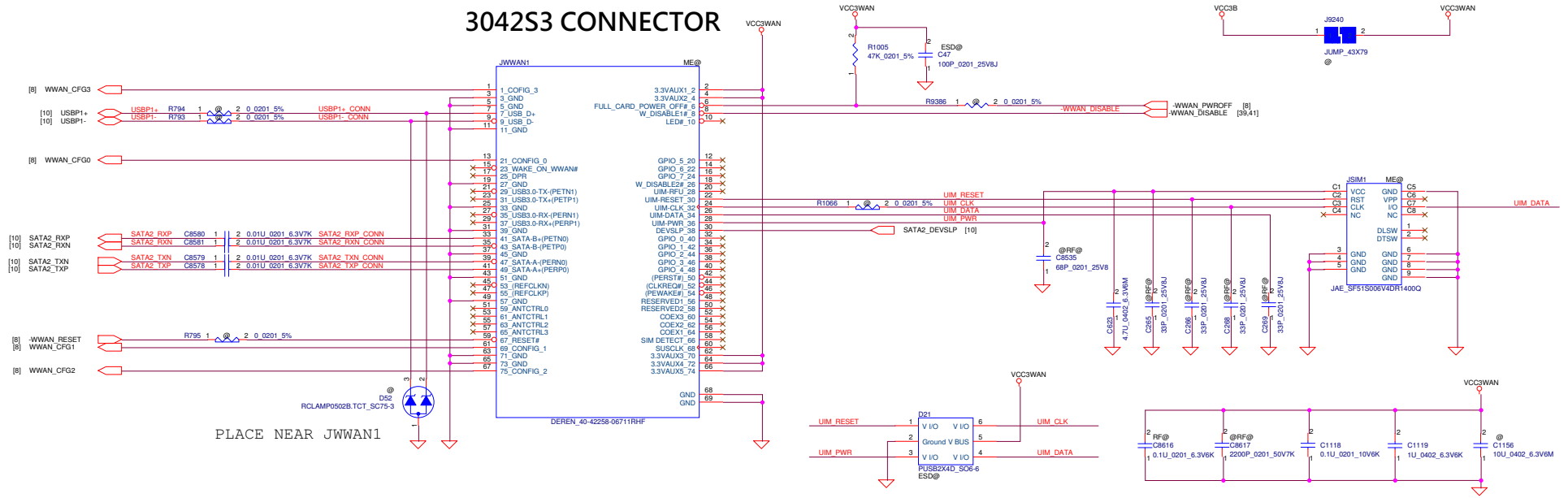
Date: Thursday, September 01, 2016 | Sheet 27 of 75

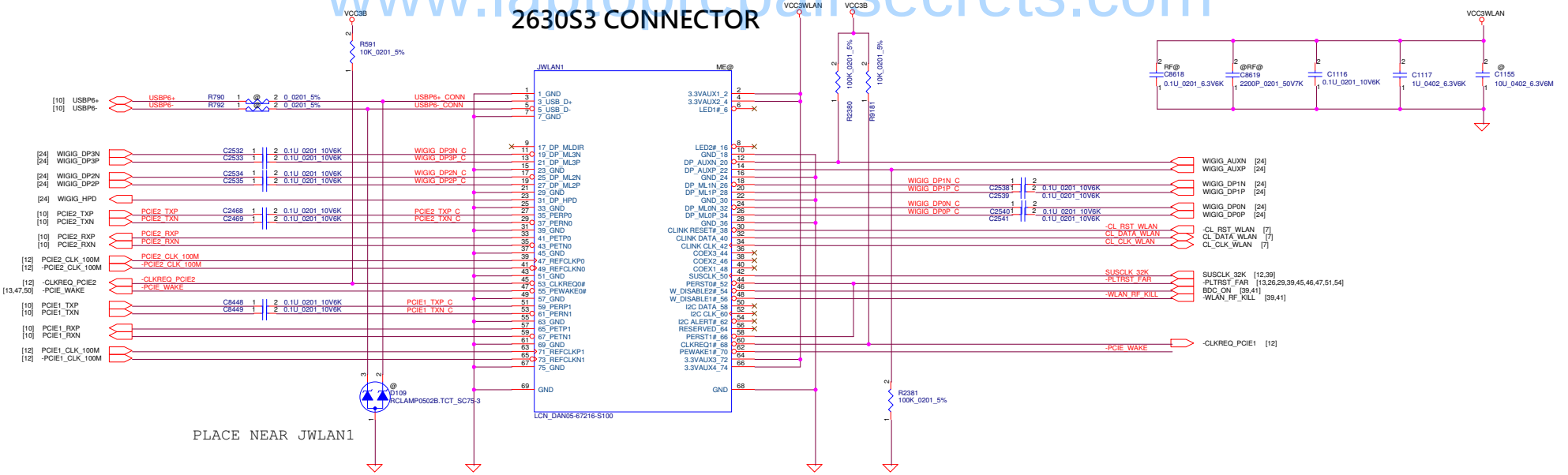
TYPE-B M.2 CARD FOR WWAN

3042S3 CONNECTOR



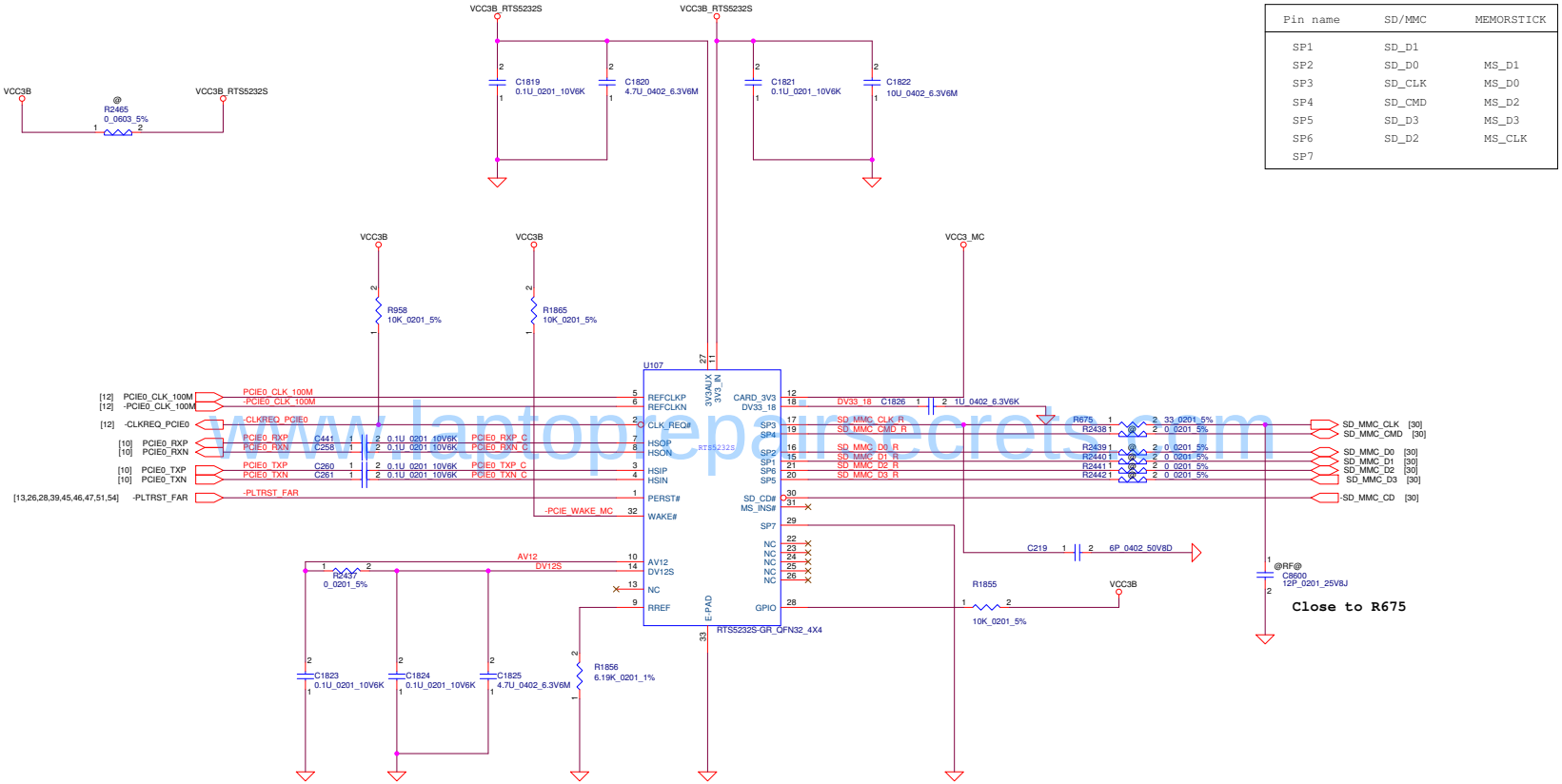
TYPE-A M.2 CARD FOR WLAN / Bluetooth / WiGig

2630S3 CONNECTOR



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.	
Title	PCIE M.2 CARD SLOT
Size: Custom	Document Number: LA-E291P
Rev	0.3
Date: Thursday, September 01, 2016	Sheet 28 of 75

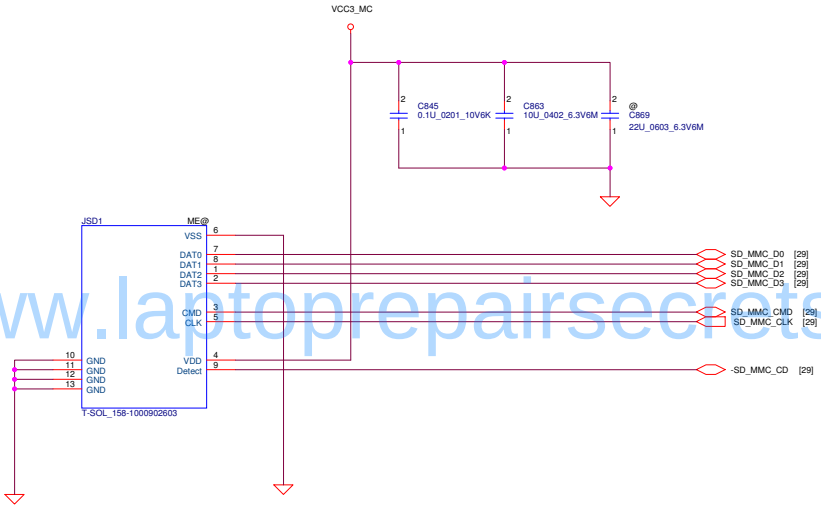


TABLE

Pin name	SD/MMC	MEMORSTICK
SP1	SD_D1	
SP2	SD_D0	MS_D1
SP3	SD_CLK	MS_D0
SP4	SD_CMD	MS_D2
SP5	SD_D3	MS_D3
SP6	SD_D2	MS_CLK
SP7		

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: MEDIA CARD CONTROLLER			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet: 29	of: 75	



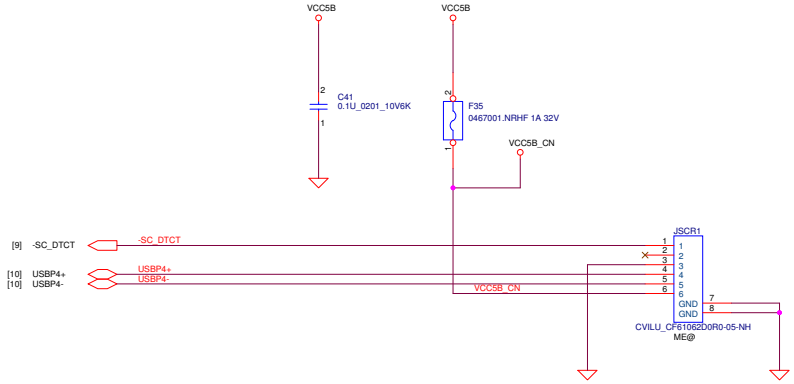
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

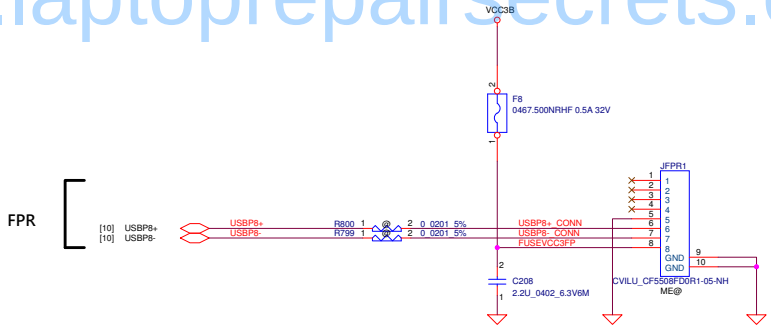
Compal Electronics, Inc.

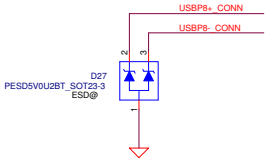
Title: MEDIA CARD INTERFACE

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 30 of 75







Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: SMART CARD/FPR

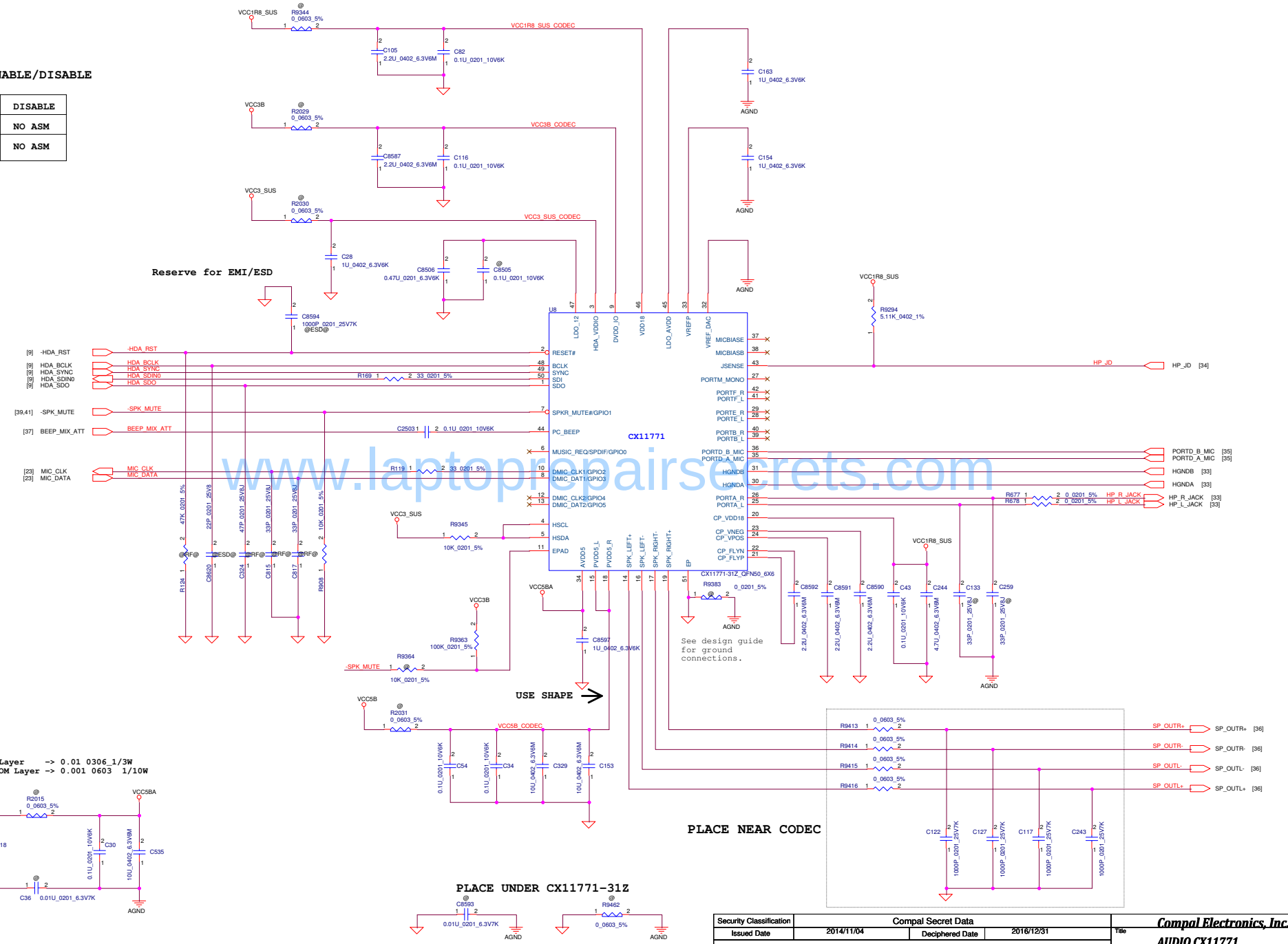
Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 31 of 75

TABLE MIC HW ENABLE/DISABLE

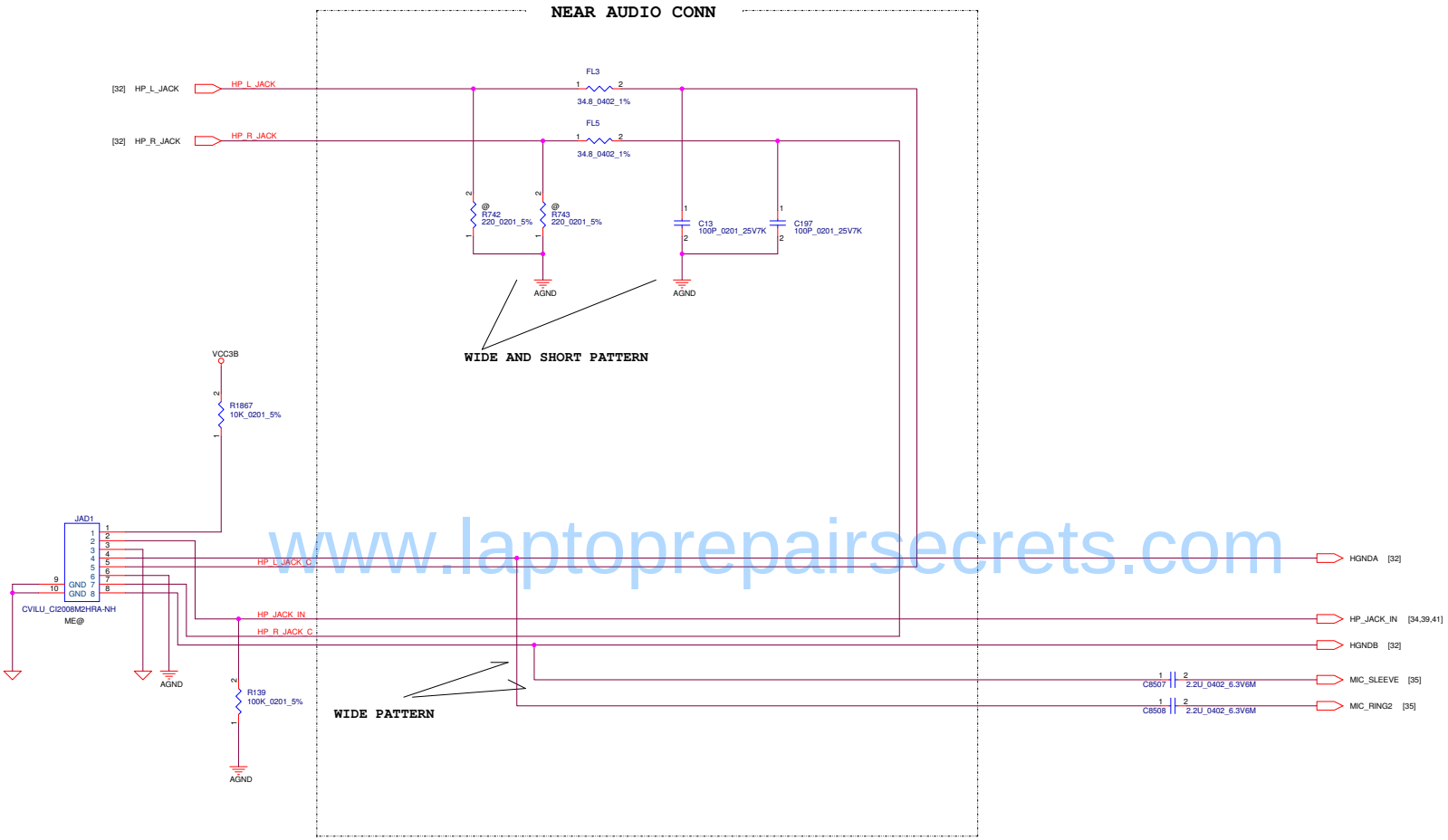
	ENABLE	DISABLE
R961	ASM	NO ASM
R119	ASM	NO ASM

LOGIC



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: AUDIO CX11771			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 32 of 75		



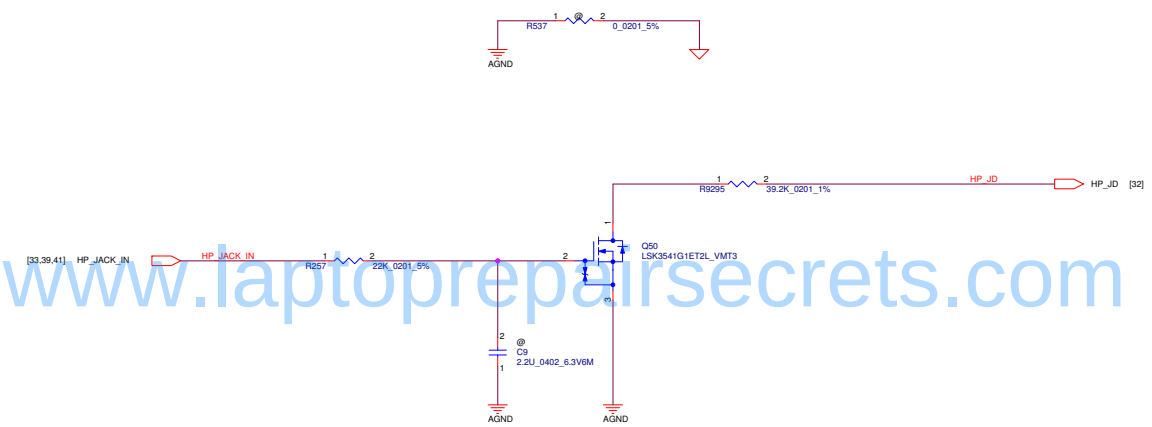
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: AUDIO CONNECTOR

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 33 of 75



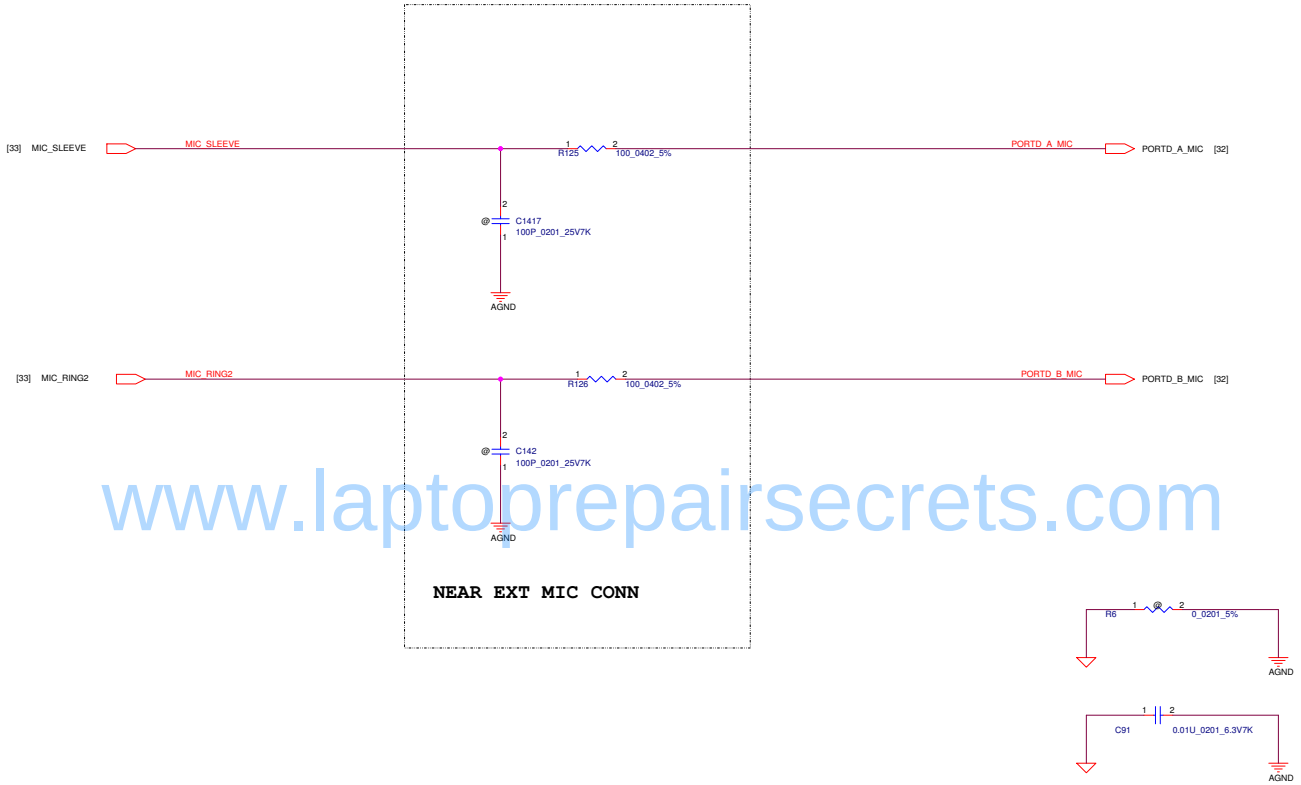
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: AUDIO JACK SENSE

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 34 of 75



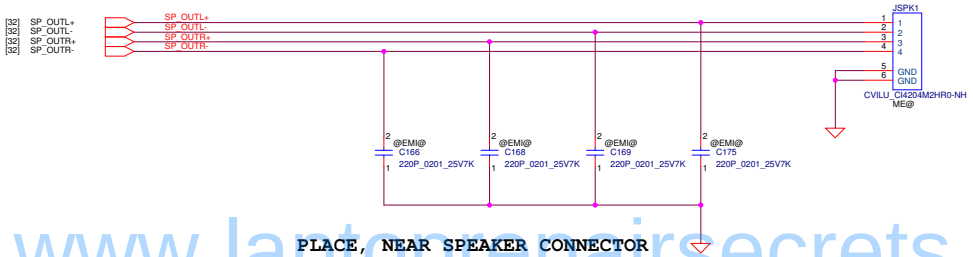
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: AUDIO EXT MIC I/F

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 35 of 75



PLACE, NEAR SPEAKER CONNECTOR

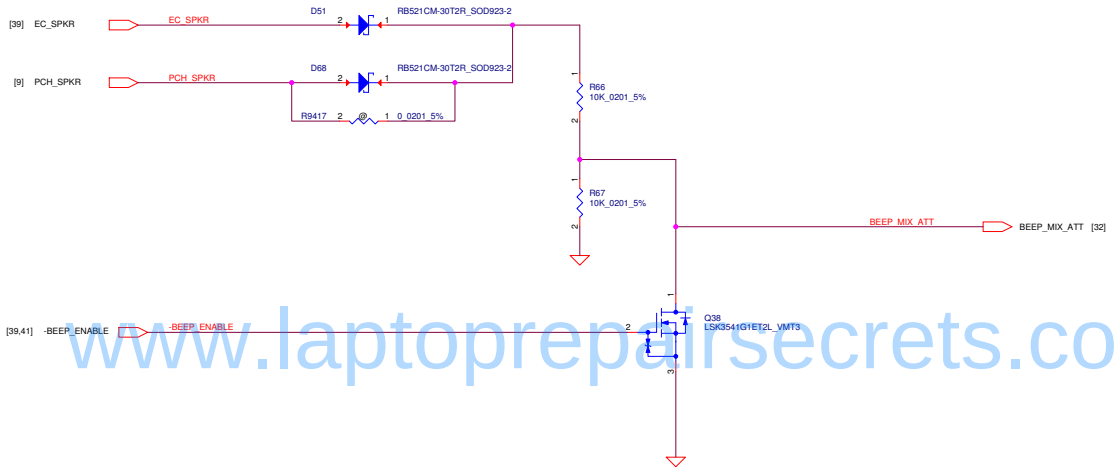
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: AUDIO SPEAKER

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 38 of 75



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: AUDIO BEEP

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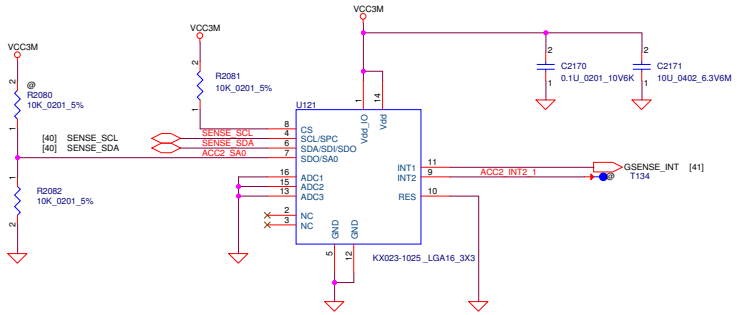
TABLE

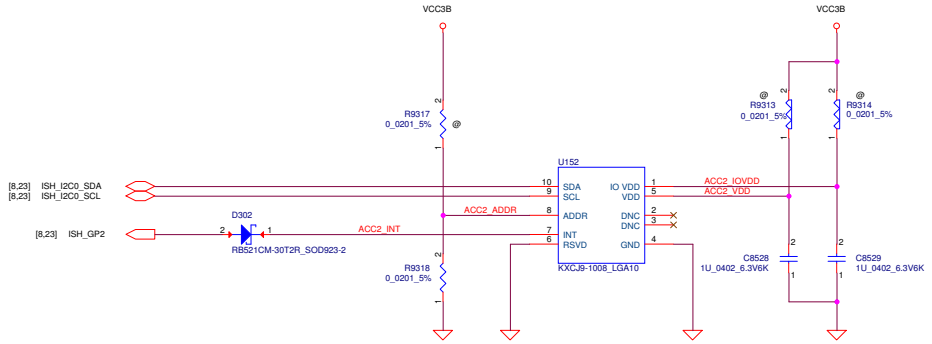
CS	Mode Selection
H	I2C Mode
L	SPI Mode

TABLE

ACC2_SA0	Address Selection
H	32h (W) & 33h (R)
L	30h (W) & 31h (R)



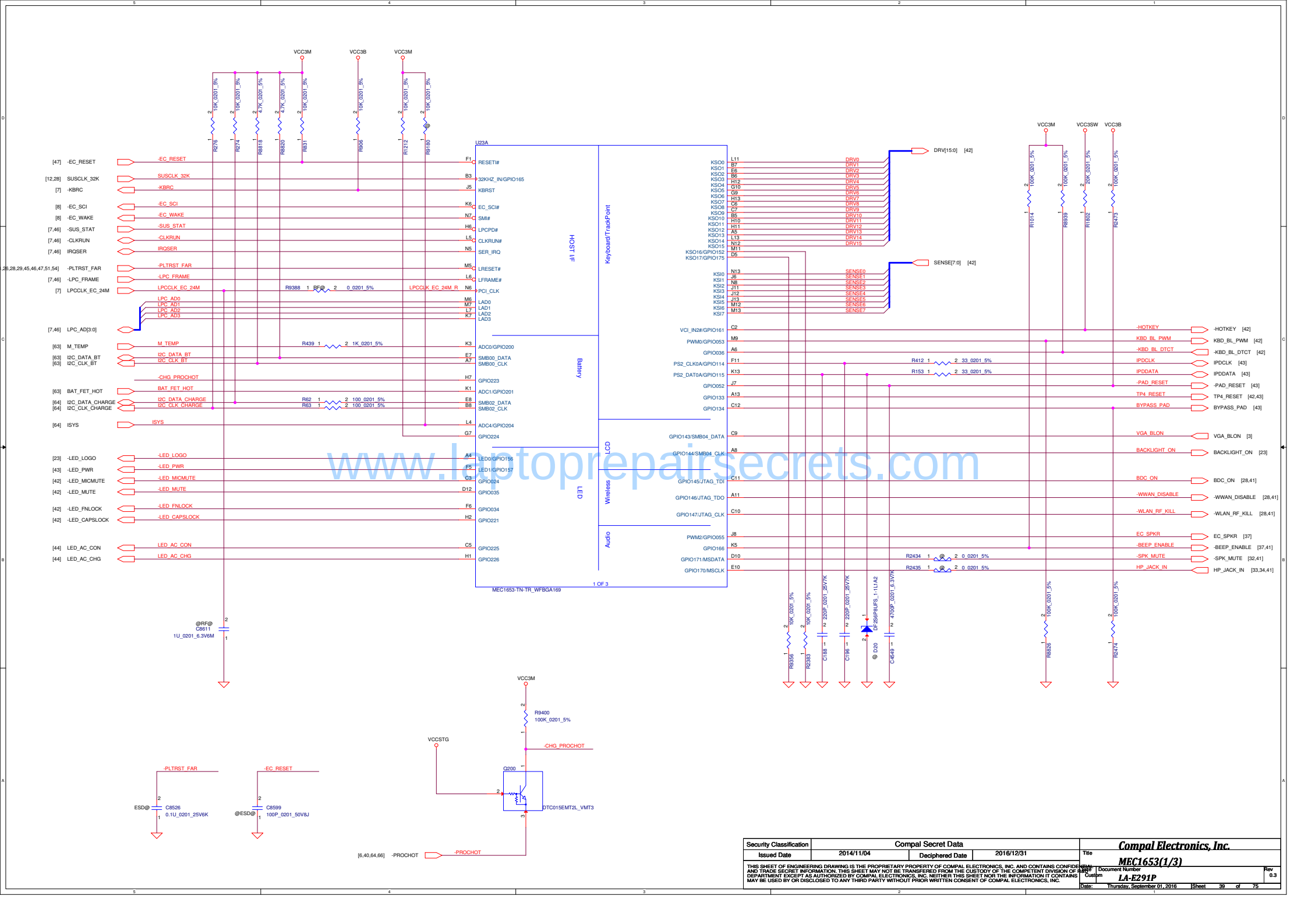
KX023-1025 Address: 0x1Eh



KXCJ9 Address: 0x1Ch

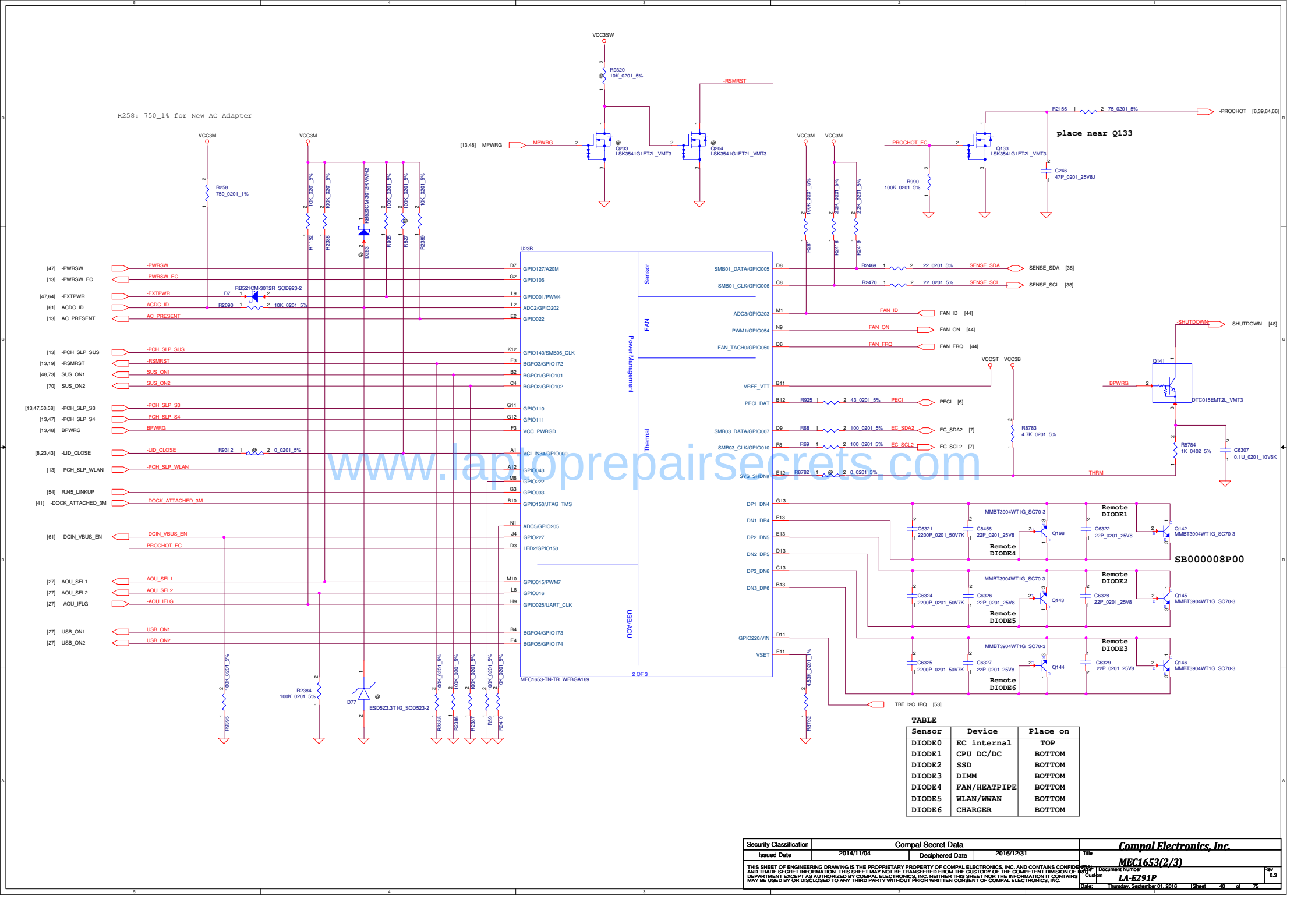
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: SENSOR INTERFACE			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 38 of 75		



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: MEC1653(1/3)			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 39 of 75		

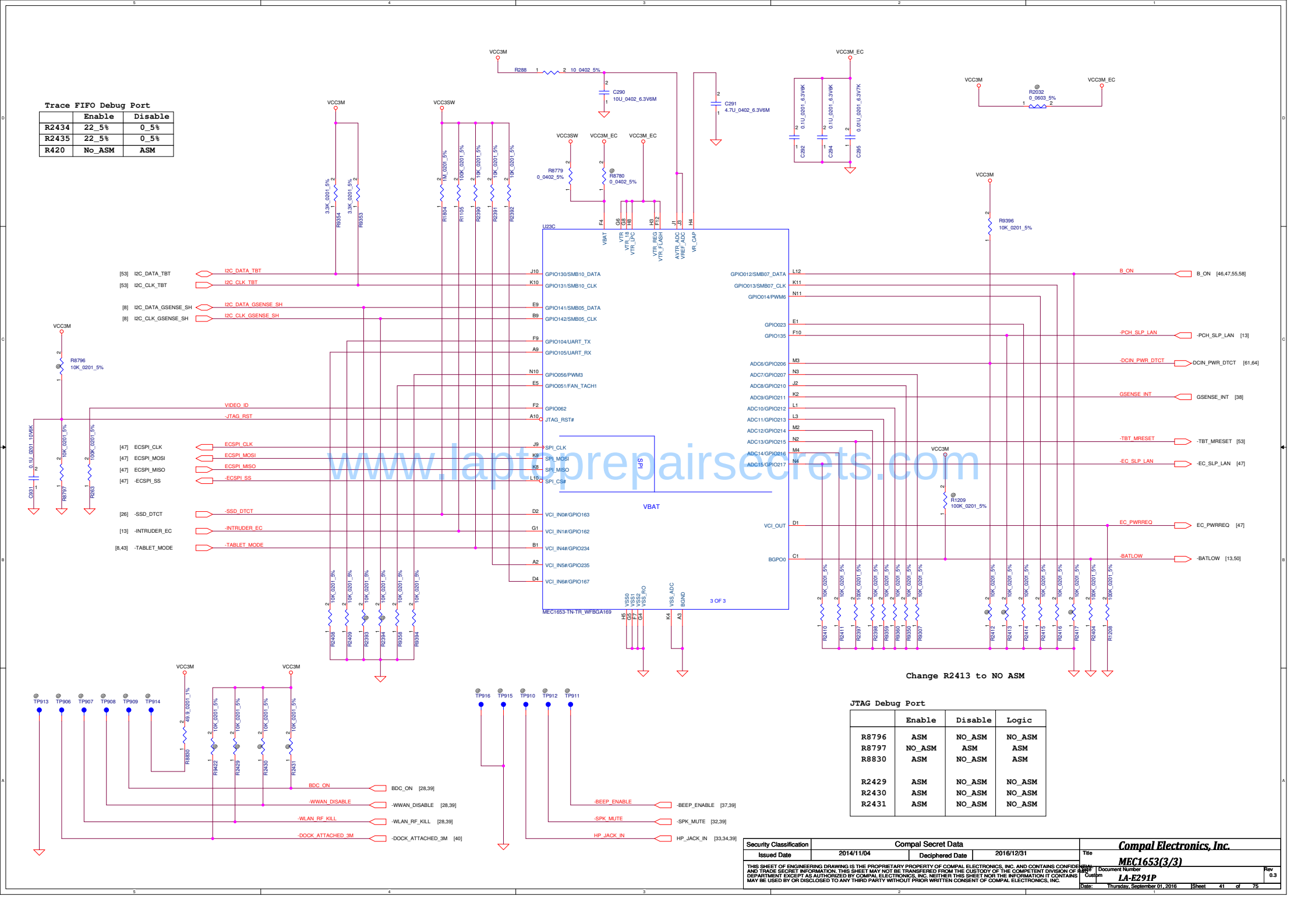


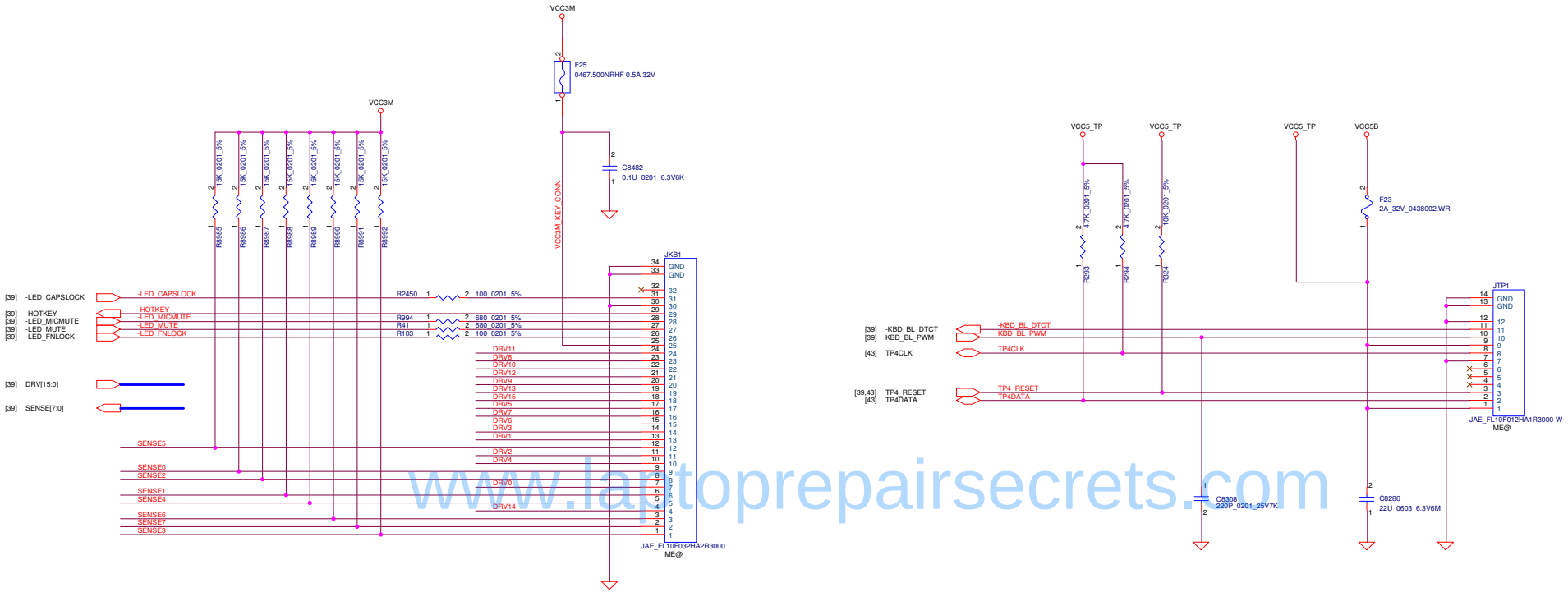
TABLE

Sensor	Device	Place on
DIODE0	EC internal	TOP
DIODE1	CPU DC/DC	BOTTOM
DIODE2	SSD	BOTTOM
DIODE3	DIMM	BOTTOM
DIODE4	FAN/HEATPIPE	BOTTOM
DIODE5	WLAN/WWAN	BOTTOM
DIODE6	CHARGER	BOTTOM

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.	
Title	MEC1653(2/3)
Size: Custom	Document Number: LA-E291P
Rev	0.3
Date: Thursday, September 01, 2016	Sheet 40 of 75





Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	KEYBOARD/TRACK POINT		
Size	Document Number		Rev
Custom	LA-E291P		0.3
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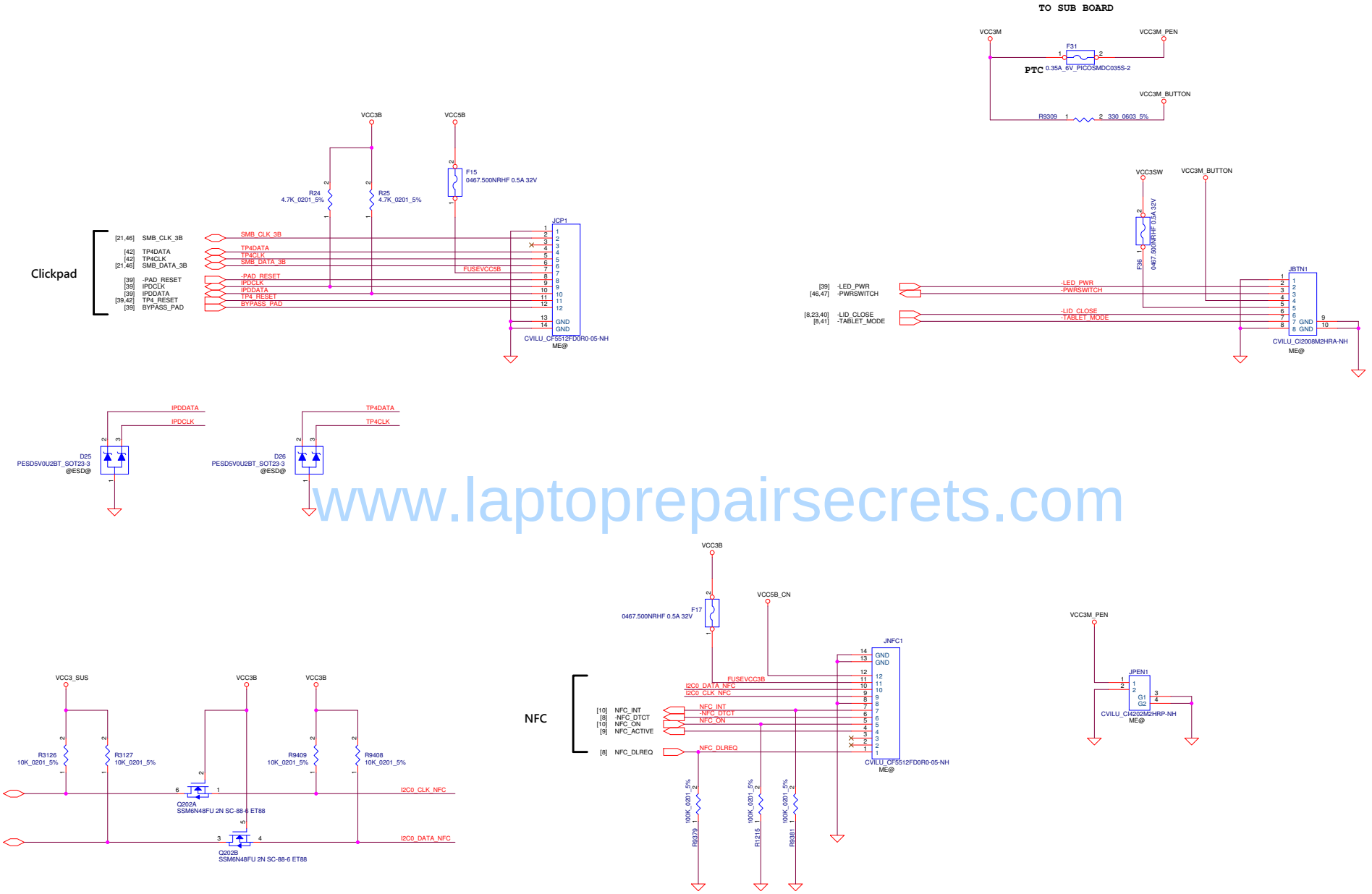
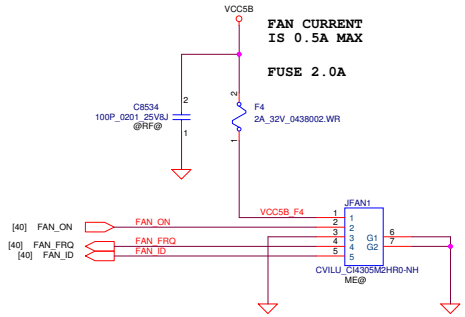
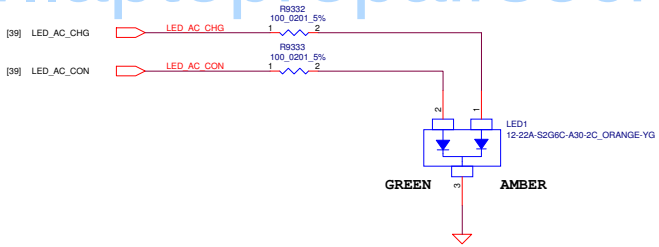


Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: TOUCH PAD/NFC/BUTTON/PEN]			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 43 of 75		





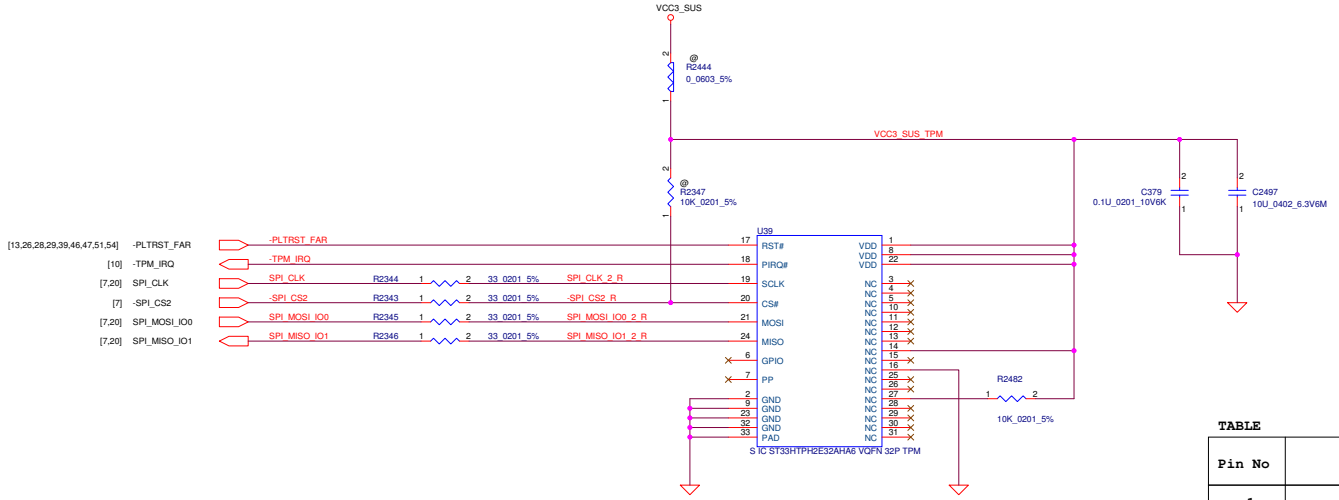
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: FAN CONNECTOR/ LED

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 44 of 75



-Change TPM1.2 to TPM2.0
-Infineon SLB9670VQ2.0 part number SA00009N210
-ST ST33HTPH2E32AHA6 part number SA00009SO10

TABLE

Pin No	ST ST33HTPH2E32AHA6	Infineon SLB9670VQ2.0 FW7.60
1	NC	VDD
2	GND	GND
3	NC	NC
4	NC	NC
5	NC	NC
6	NC	GPIO
7	PP	PP
8	NC	VDD
9	NC	GND
10	NC	NC
11	NC	NC
12	NC	NC
13	NC	NC
14	NC	VDD
15	NC	NC
16	NC	GND
17	SPI_RST#	RST#
18	SPI_PIRQ#	PIRQ#
19	SPI_CLK	SCLK
20	SPI_CS#	CS#
21	MOSI	MOSI
22	VDD	VDD
23	NC	GND
24	MISO	MISO
25	NC	NC
26	NC	NC
27	NC	NC
28	NC	NC
29	NC	NC
30	NC	NC
31	NC	NC
32	NC	GND

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DISCRETE TPM 2.0

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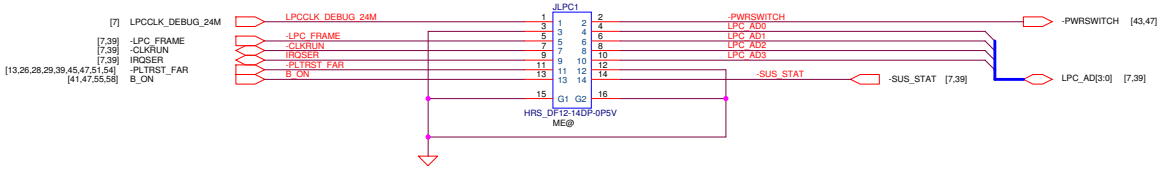
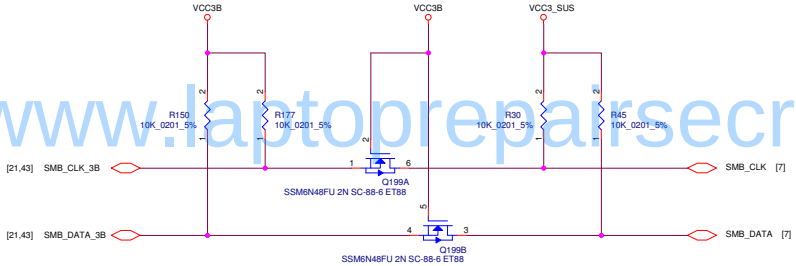
Date: Thursday, September 01, 2016 | Sheet 45 of 75

TABLE

REF DES	ENABLE	DISABLE
JLPC1	ASM	NO_ASM
R220	ASM	NO_ASM

LOGIC





Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: SMBUS SWITCH/LPC DEBUG POR

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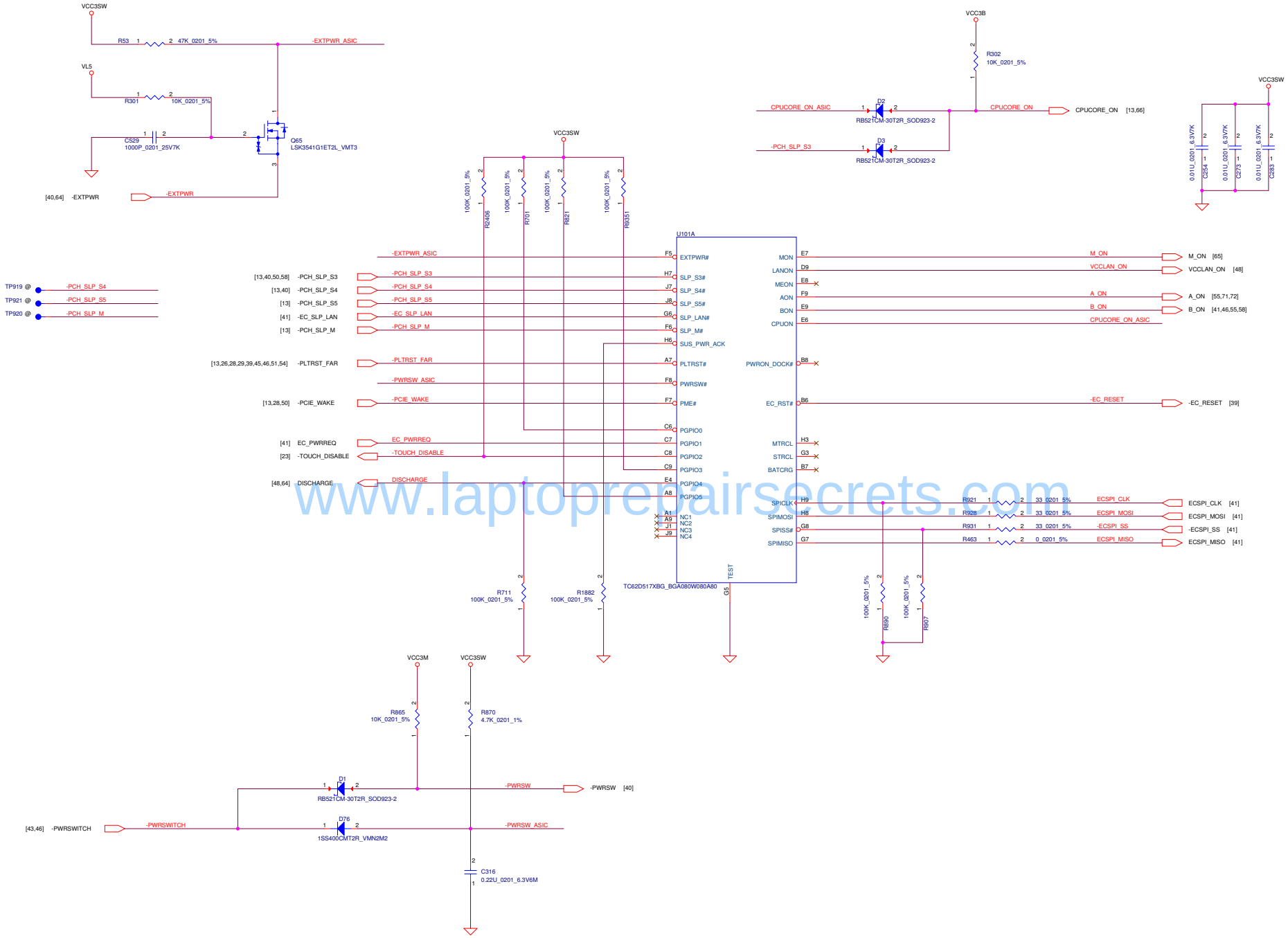
Date: Thursday, September 01, 2016 | Sheet 46 of 75



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: THINK ENGINE(1/2)			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
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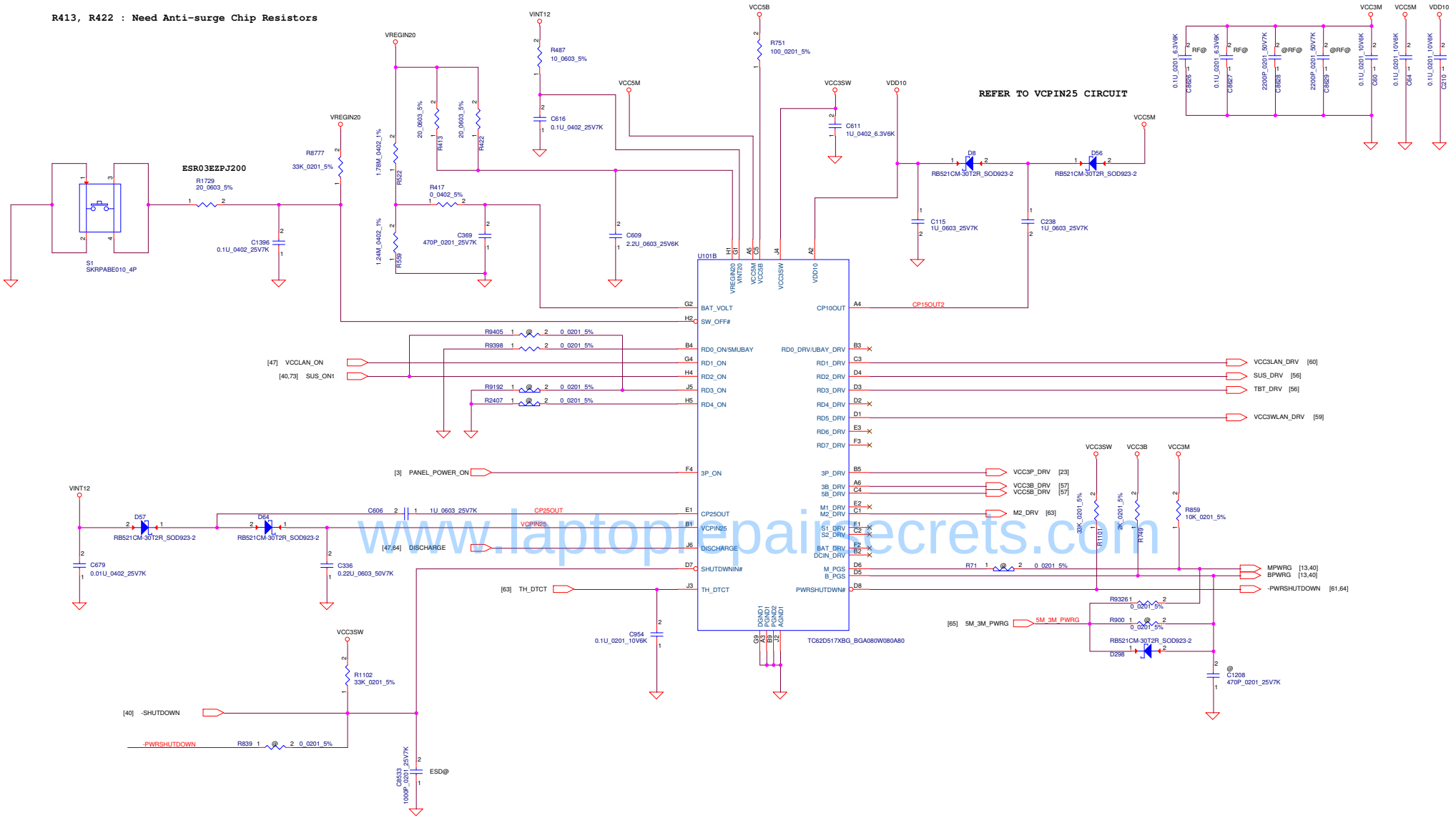
R413, R422 : Need Anti-surge Chip Resistors



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: THINK ENGINE(2/2)			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
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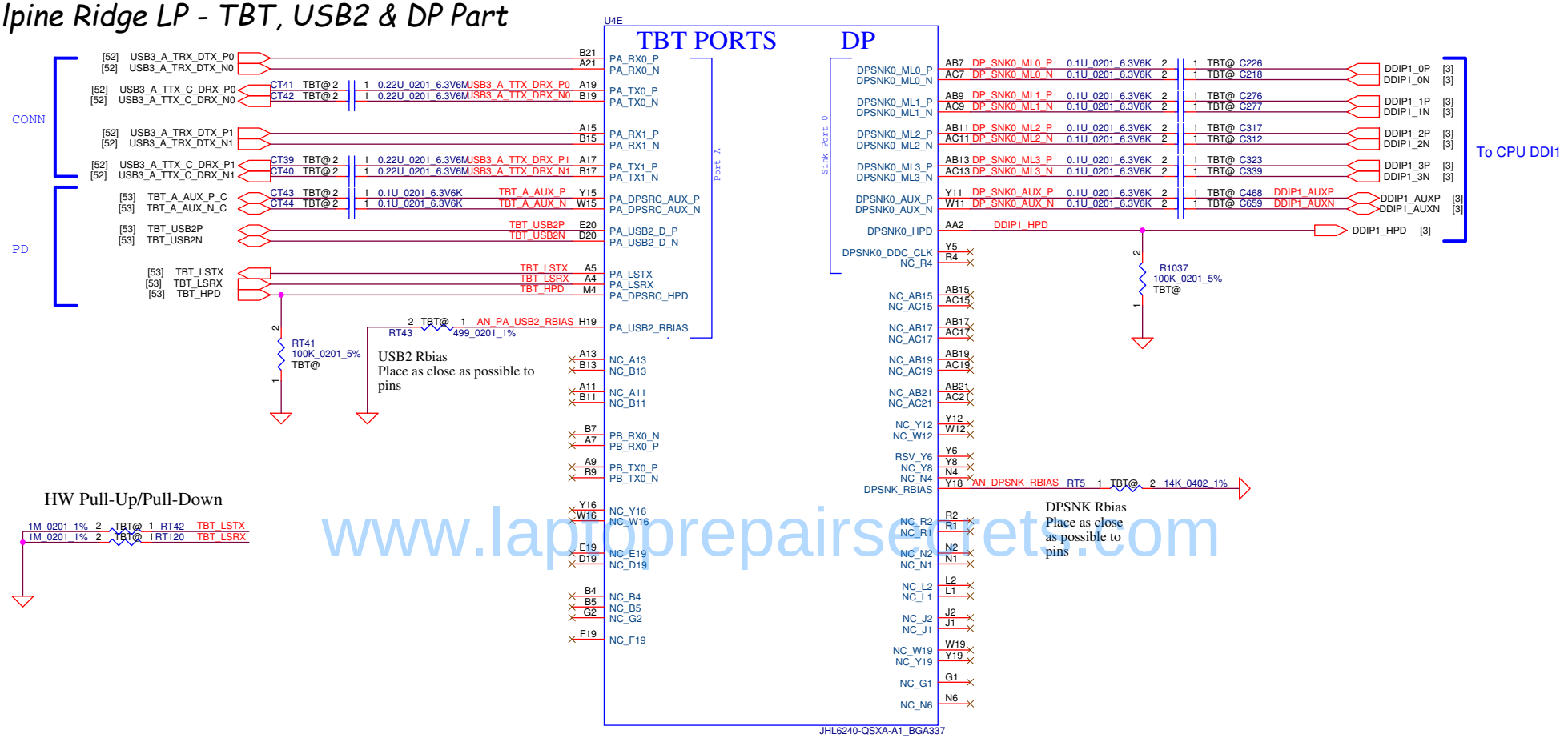
Alpine Ridge LP - TBT, USB2 & DP Part

Alpine Ridge LP - TBT, USB2 & DP Part



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: **AR : CIO/DP**

Size: A3 | Document Number: **LA-E291P** | Rev: 0.3

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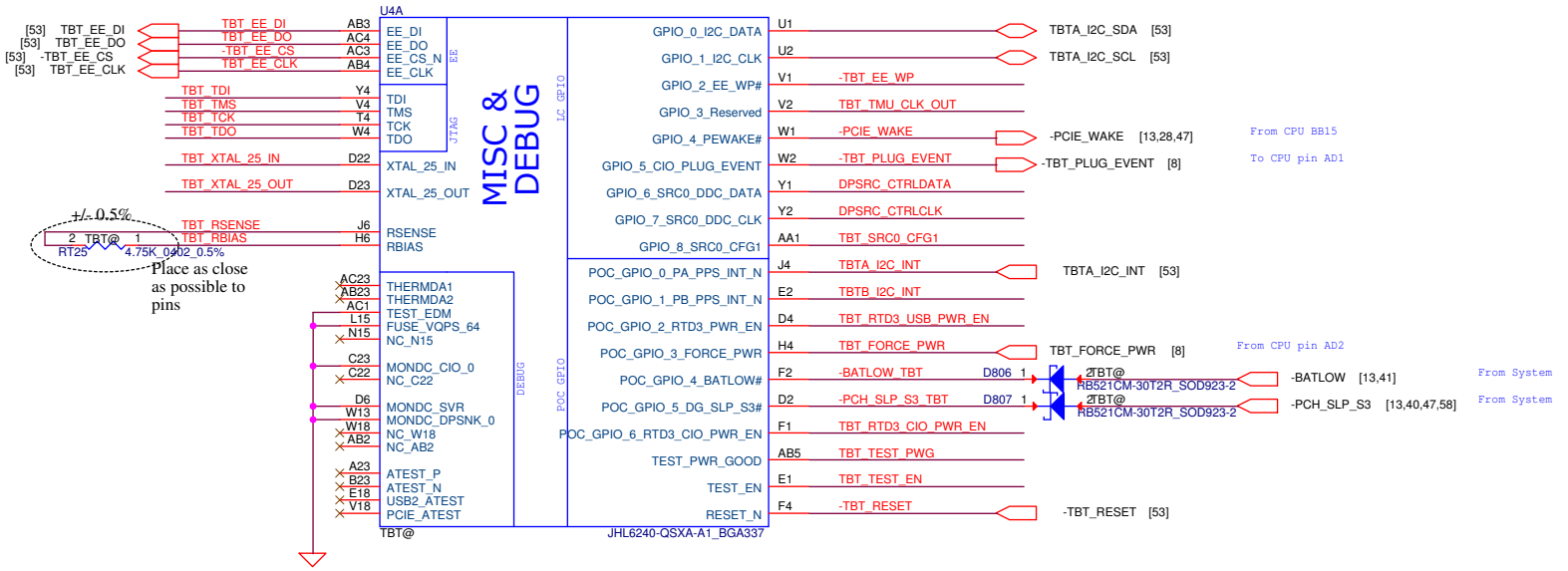
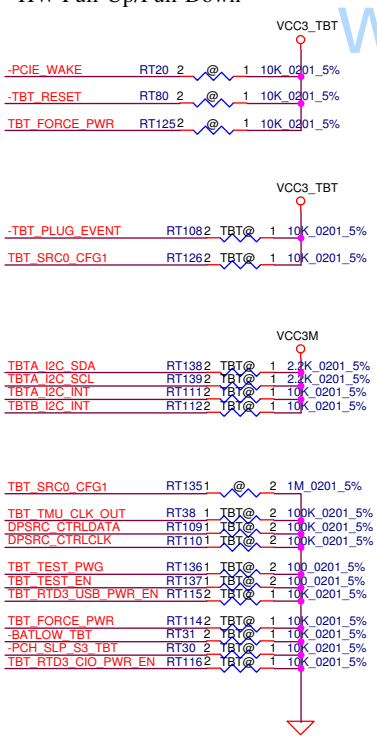
Alpine Ridge LP - Misc Part

Alpine Ridge LP - Misc
Symbol

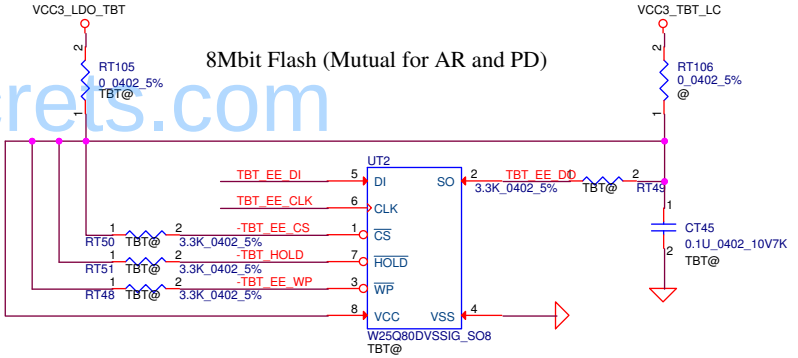


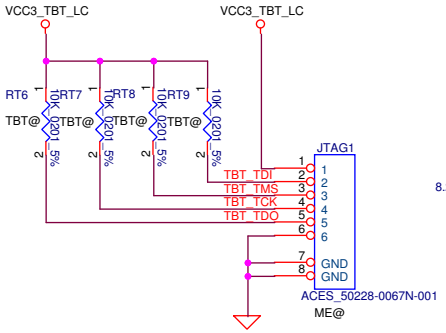
HW Pull-Up/Pull-Down



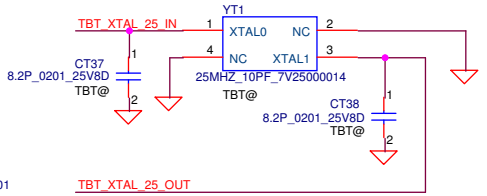
DG_SLP_S3#: PU should be on the Host side
DG_BATLOW#: PU should be on the Host side

8Mbit Flash (Mutual for AR and PD)





25MHZ 10PF +-20PPM
Crystal



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: AR : MISC

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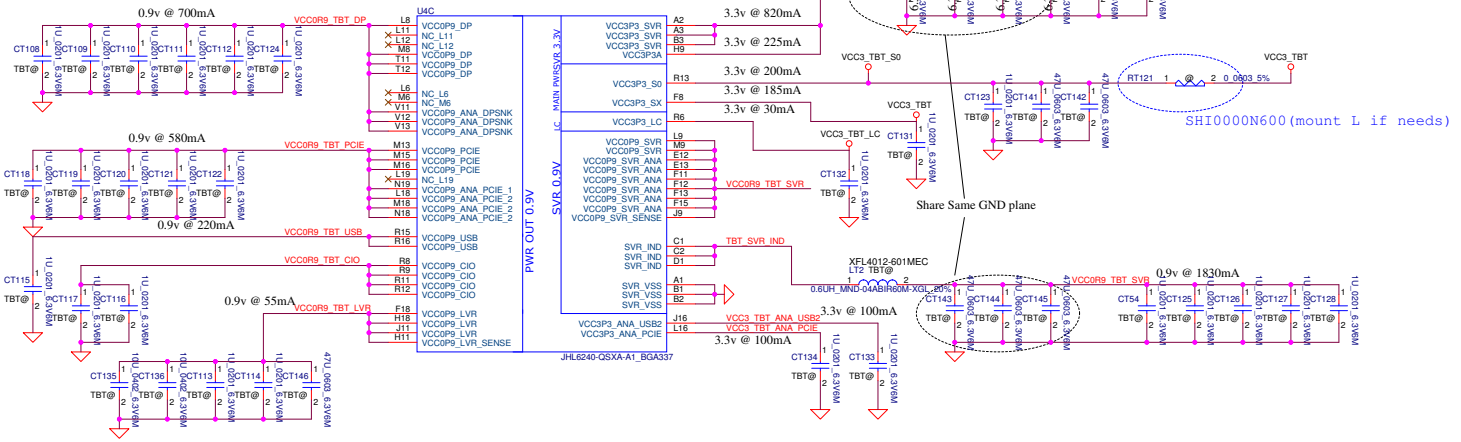
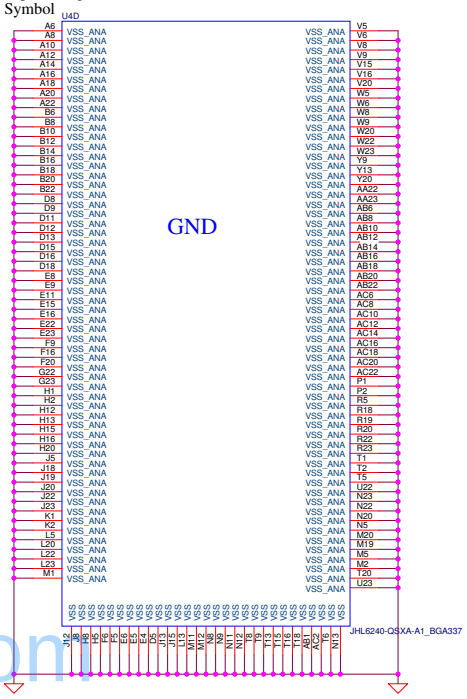
Alpine Ridge LP - Power Supply

Alpine Ridge SP - VCC
Symbol



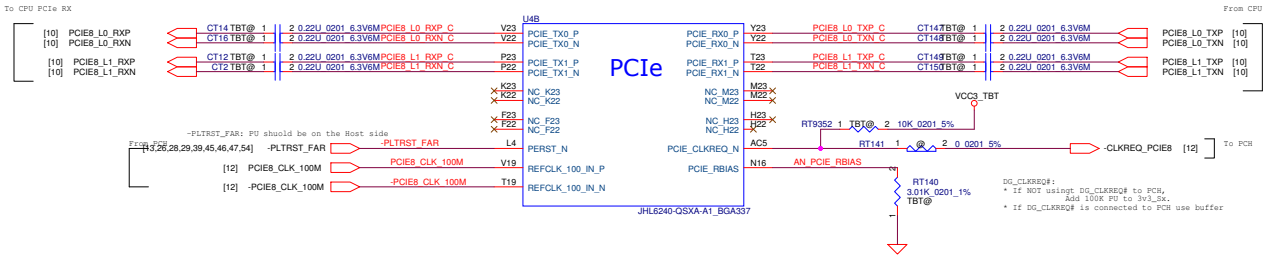
Alpine Ridge SP - GND
Symbol



AR-LP Power & GND

AR-LP PCIE

Alpine Ridge LP - PCIe
Symbol



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	AR : POWER/ GND		
Size	Document Number		Rev
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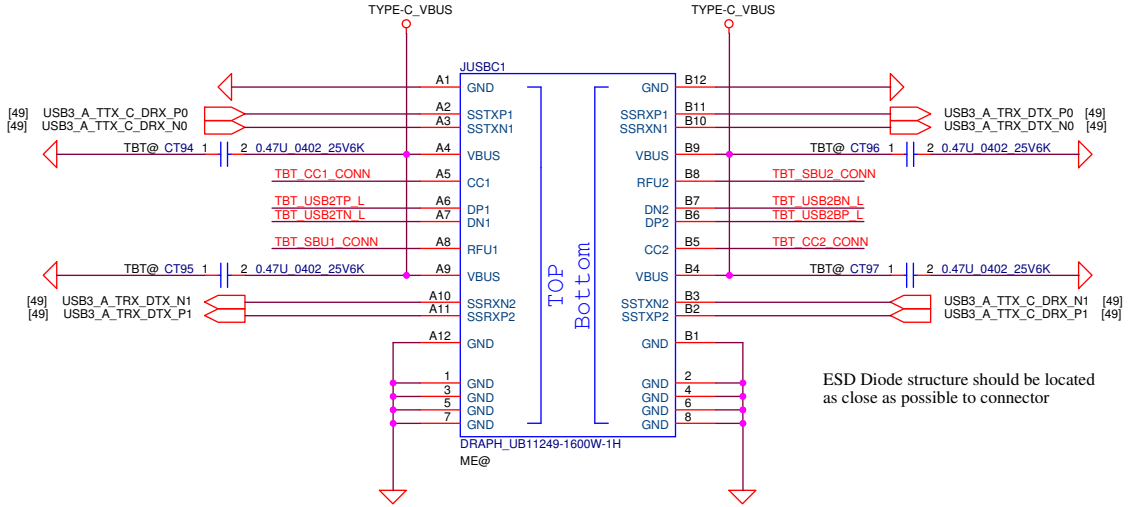
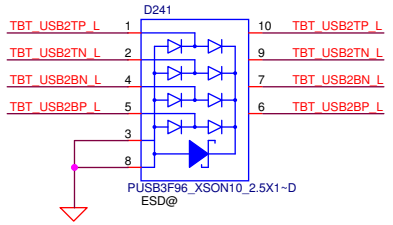
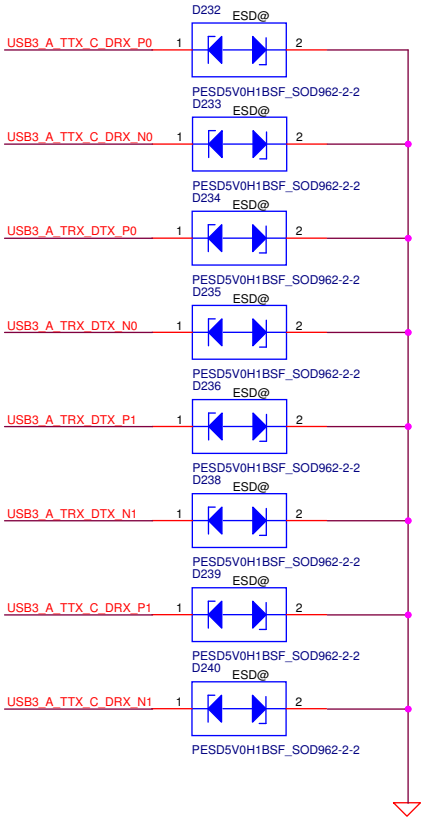
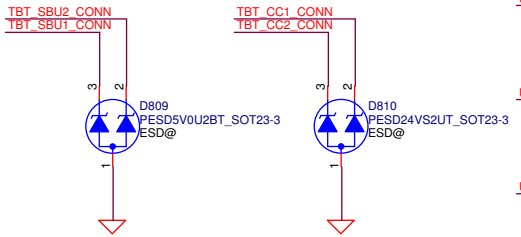


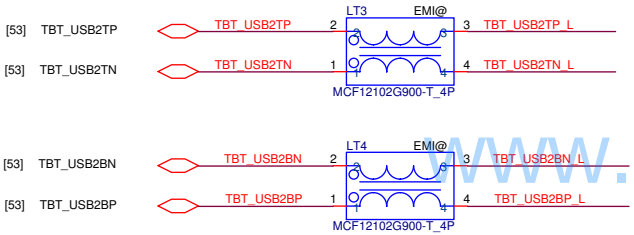
ESD Diode structure should be located as close as possible to connector

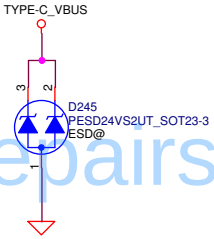
ESD for USB2 Lines and Control lines

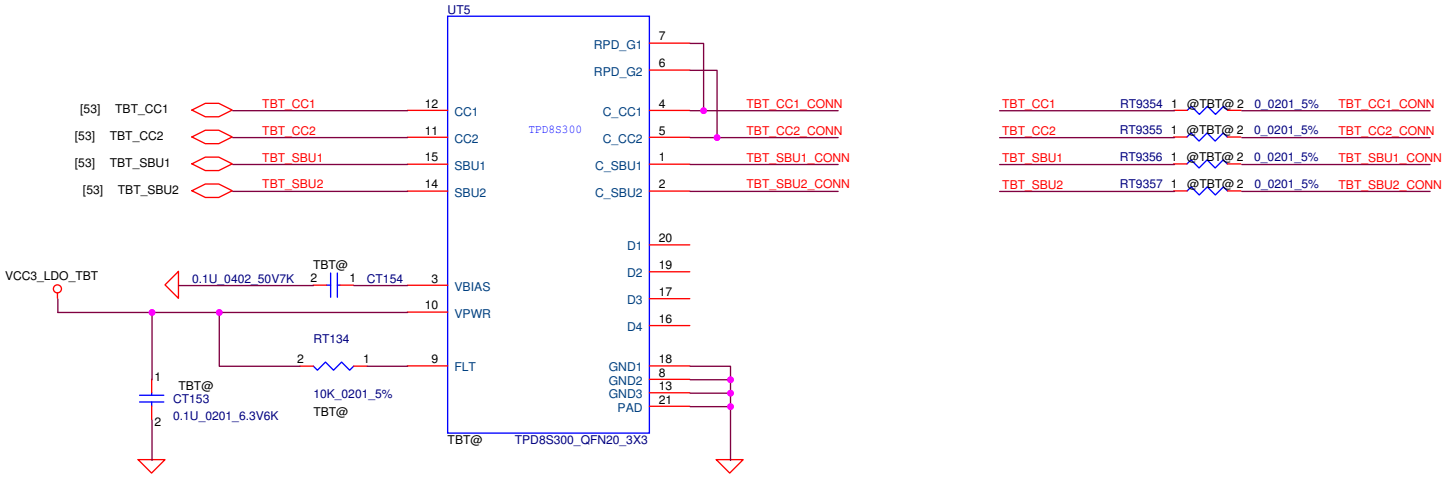












Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: TYPE-C CONNECTOR/PCIE

Size: A3 | Document Number: LA-E291P | Rev: 0.3

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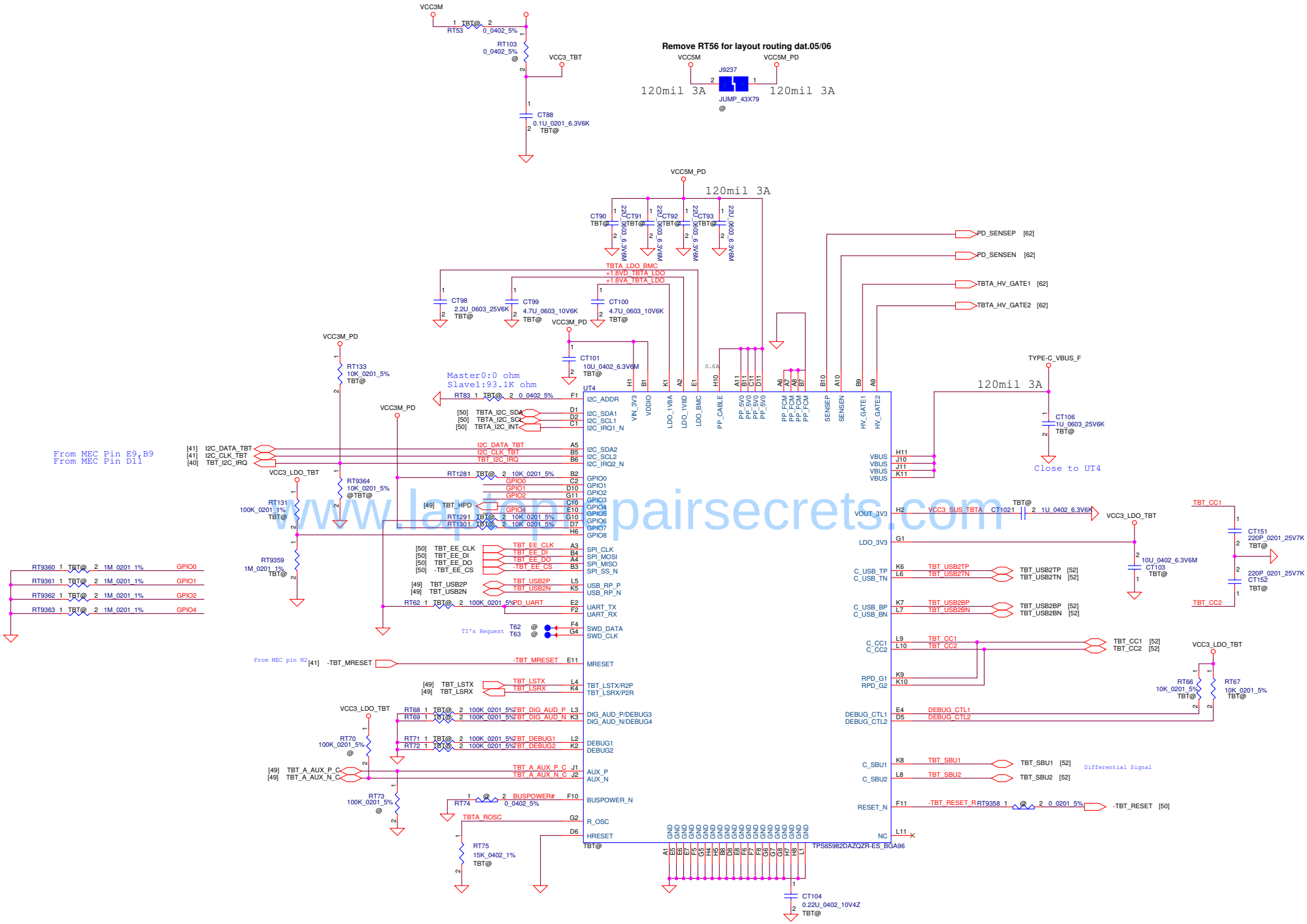


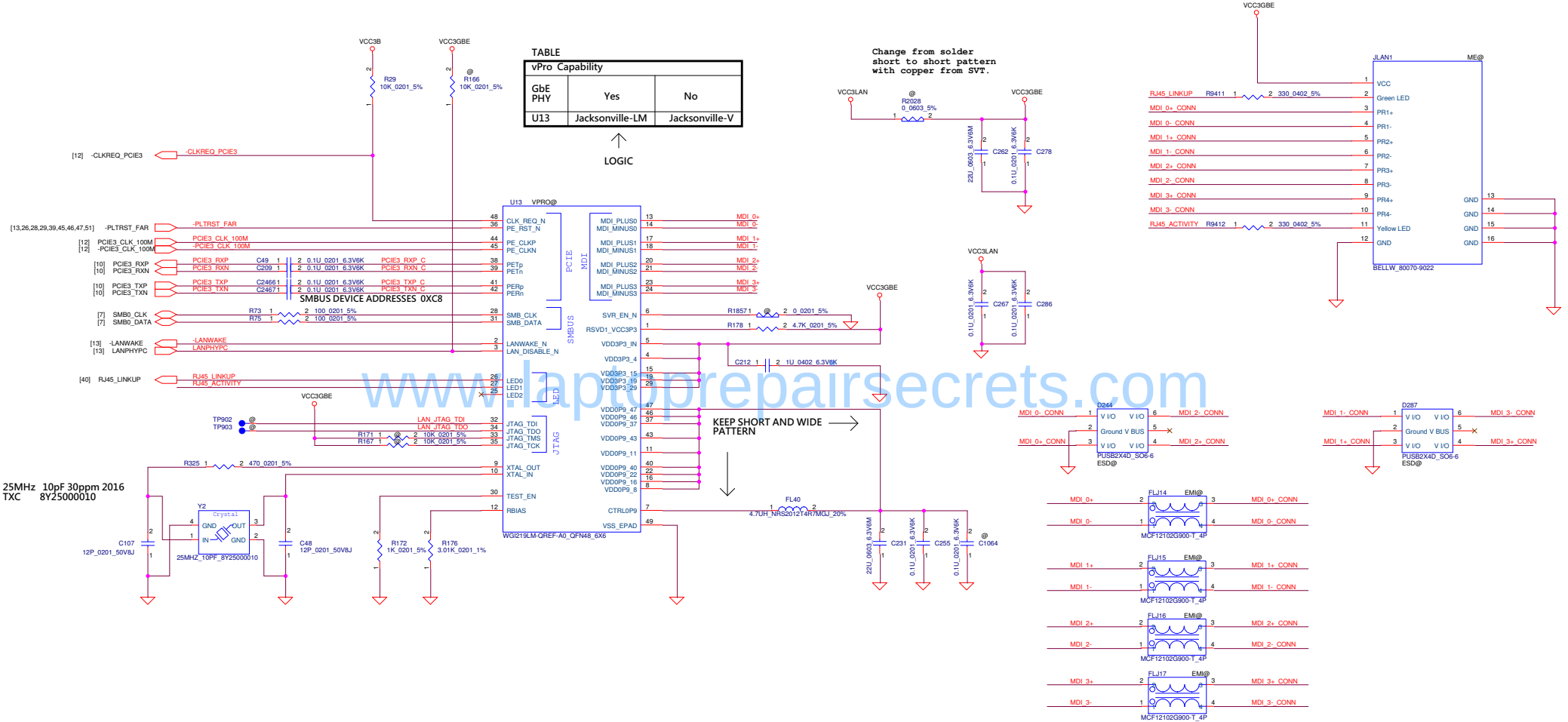
Security Classification	Compal Secret Data		
Issued Date	2015/01/06	Deciphered Date	2016/01/06

Compal Electronics, Inc.

Title: **PD TPS65982**

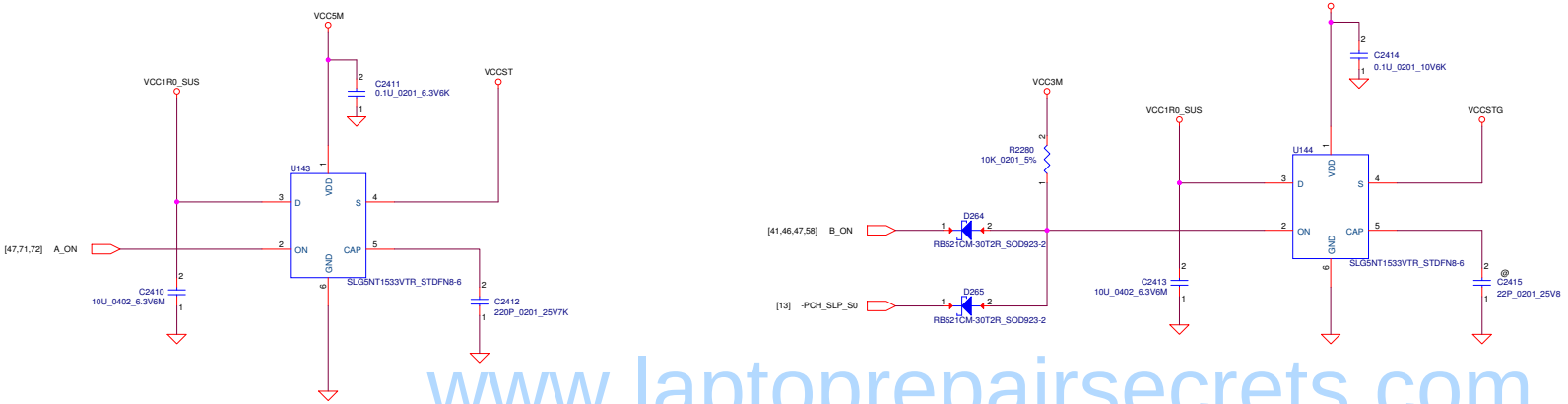
Size: A3 | Document Number: **LA-E291P** | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 53 of 75



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: GBE JACKSONVILLE			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 54 of 75		



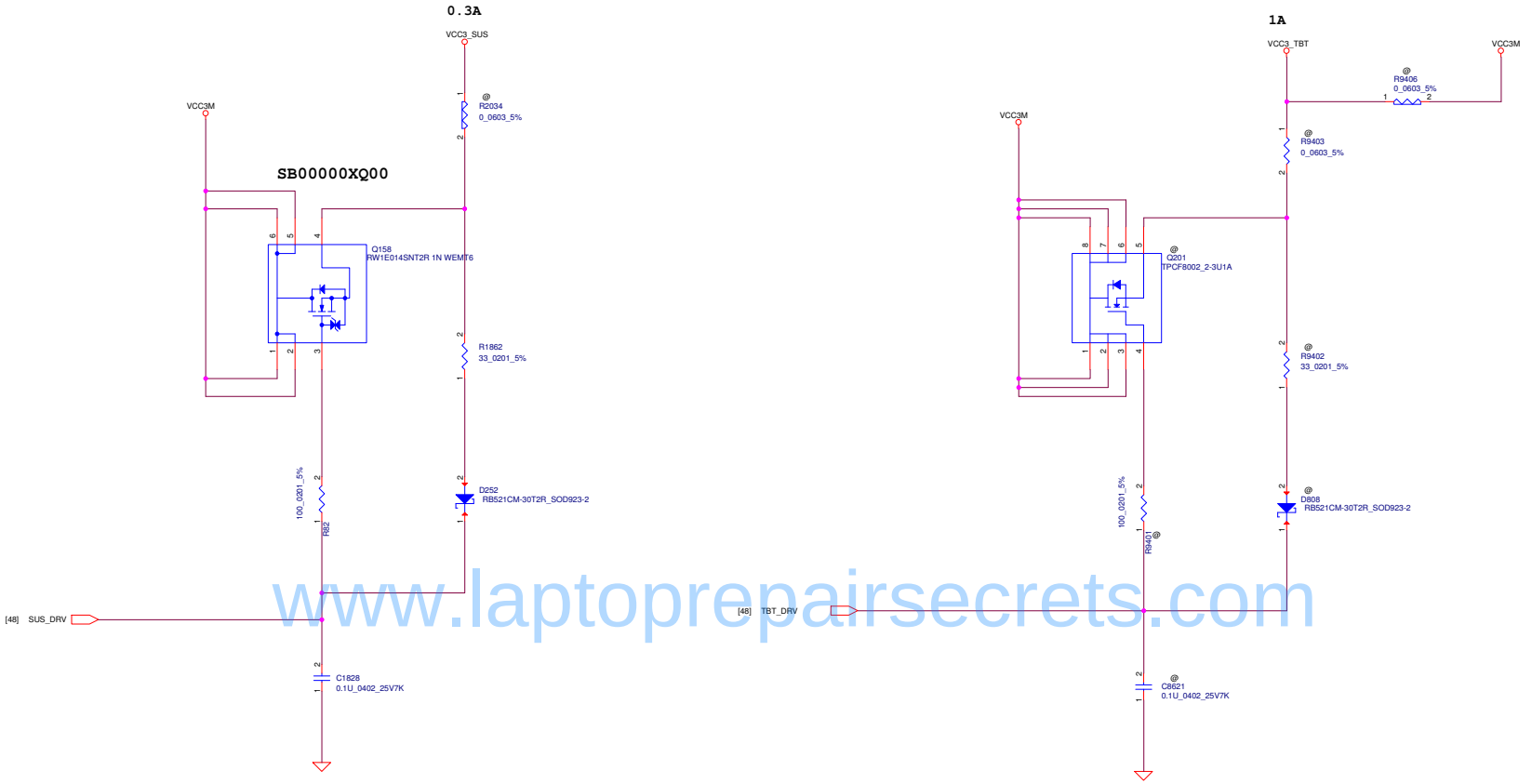
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW VCCST & VCCSTG

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 55 of 75



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW PCH SUS/TRACK POIN

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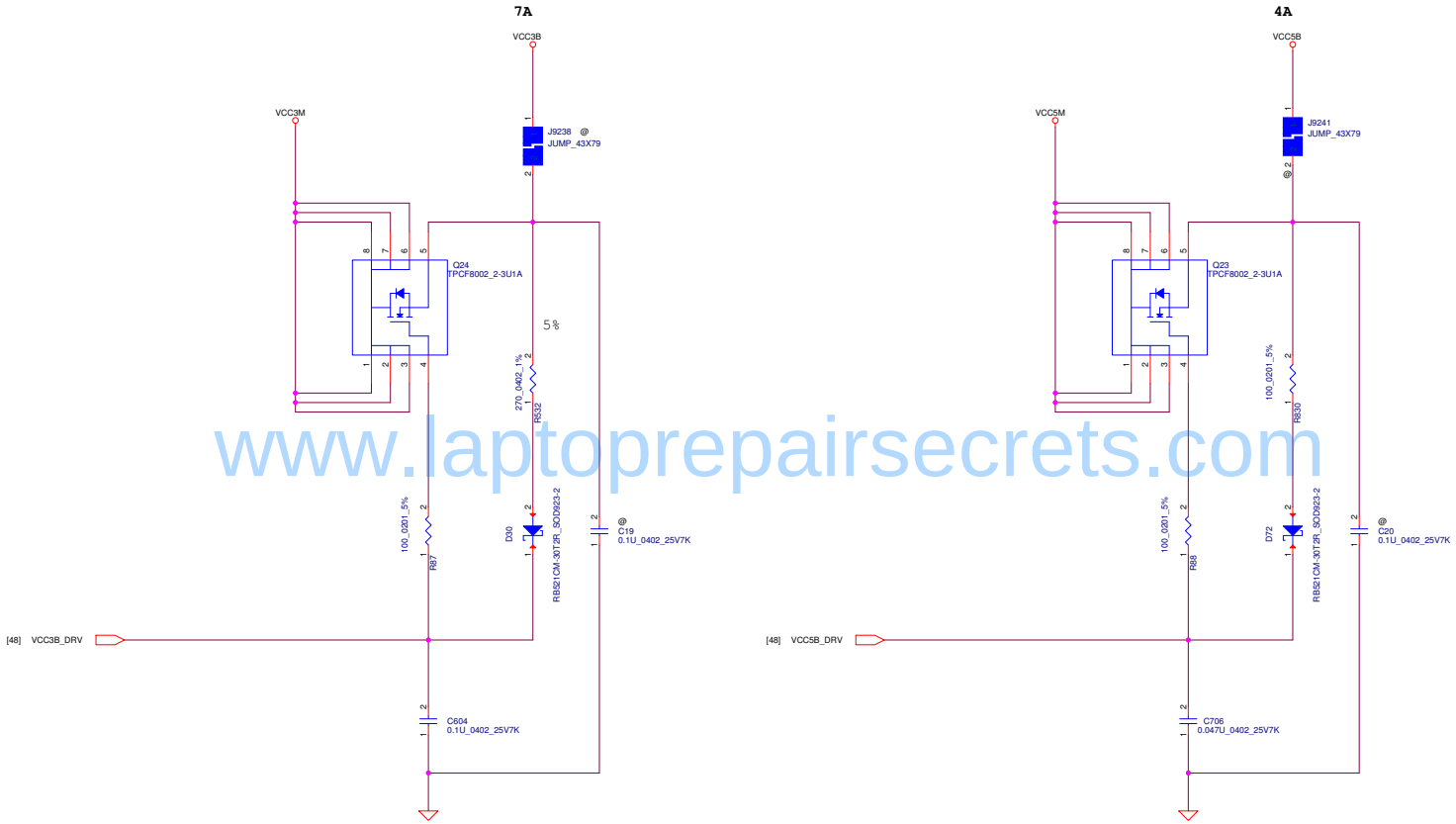
Date: Thursday, September 01, 2016 | Sheet 56 of 75



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW B

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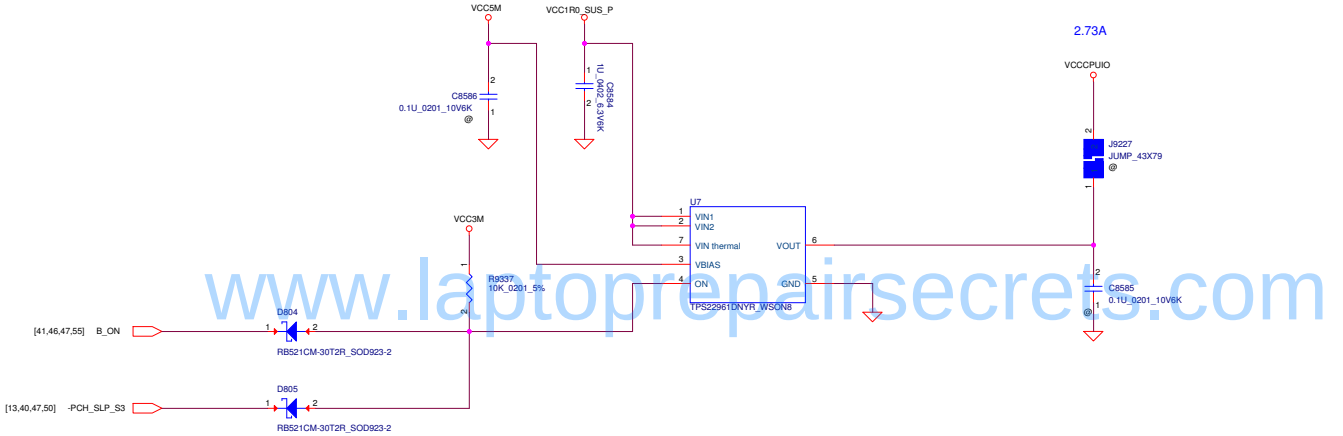
Imax : 3.6 A

VCC1R0_SUS_P — VCC1R0_SUS

Imax : 2.57 A

VCC1R0_SUS_P — VCCPCHCORE



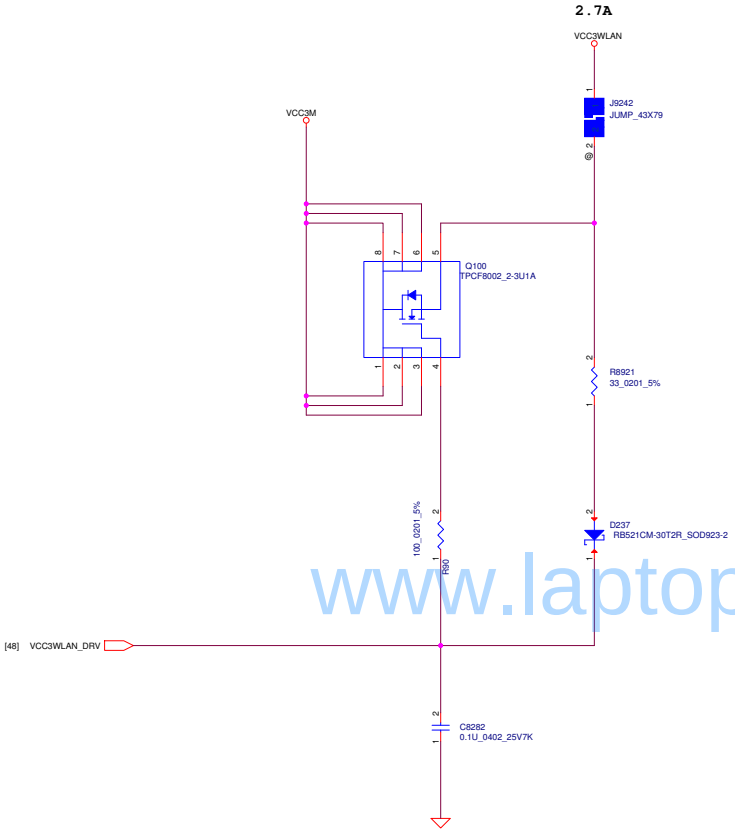
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW VCCCPUIO

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 58 of 75



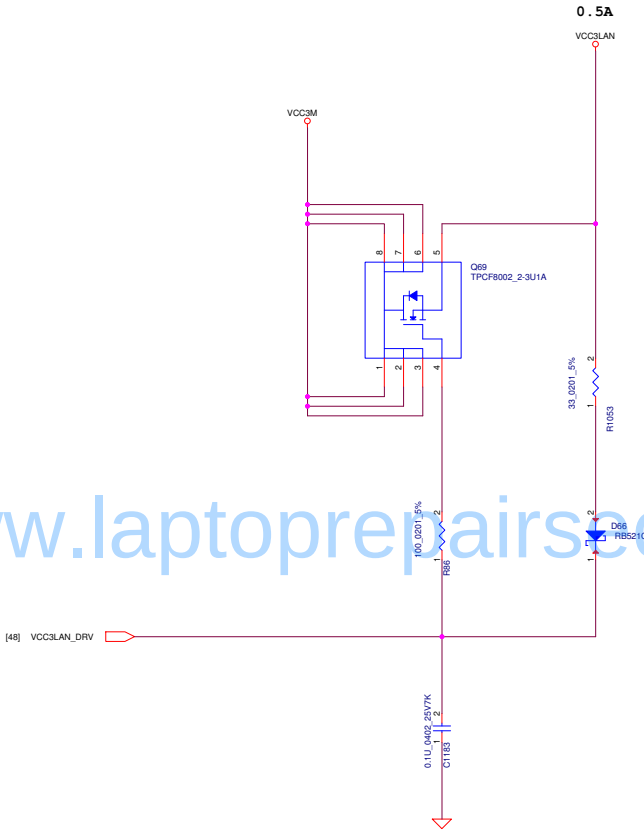
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW WWAN & WLAN

Size: Custom | Document Number: LA-E291P | Rev: 0.3

Date: Thursday, September 01, 2016 | Sheet 59 of 75



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW LAN

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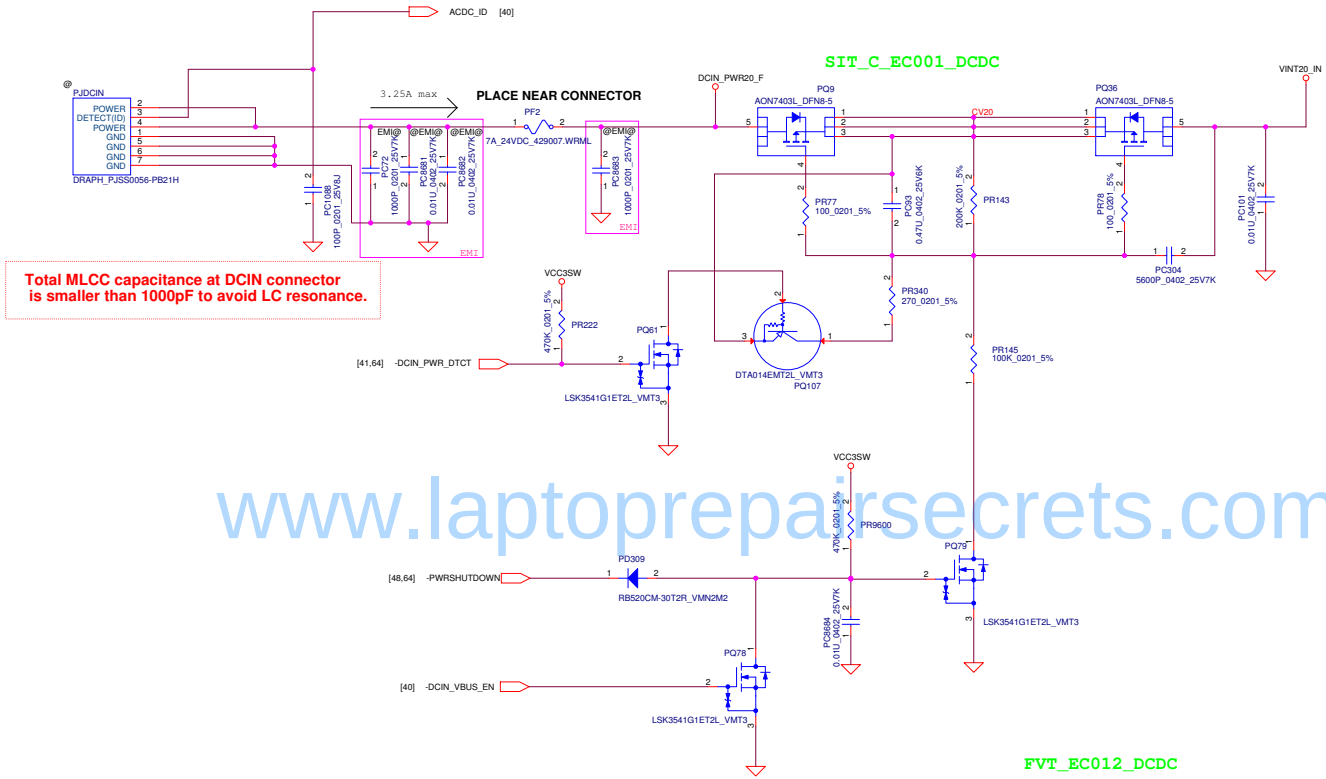

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.	
Title	DC-IN
Size: Custom	Document Number: LA-E291P
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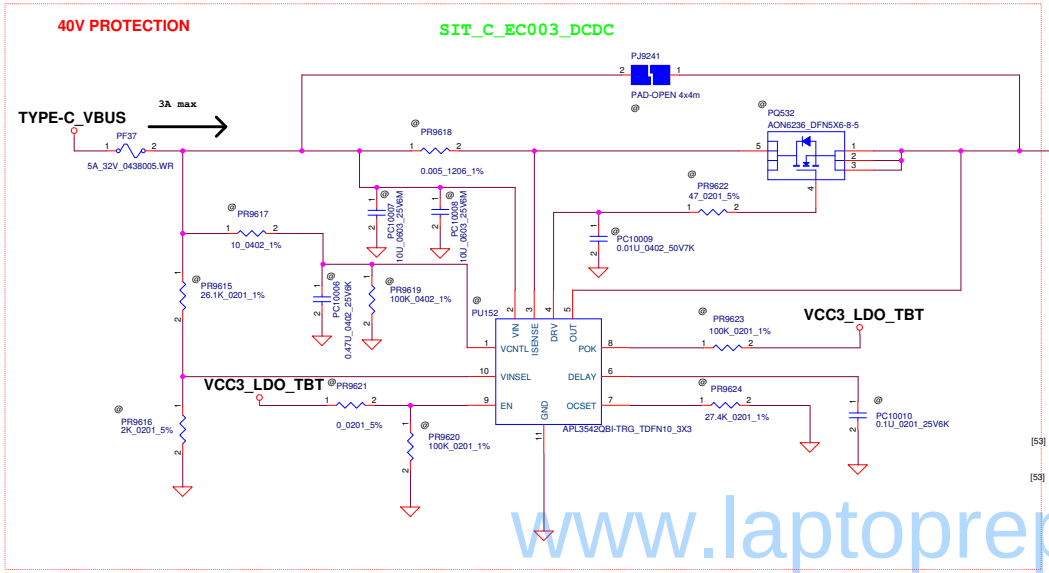
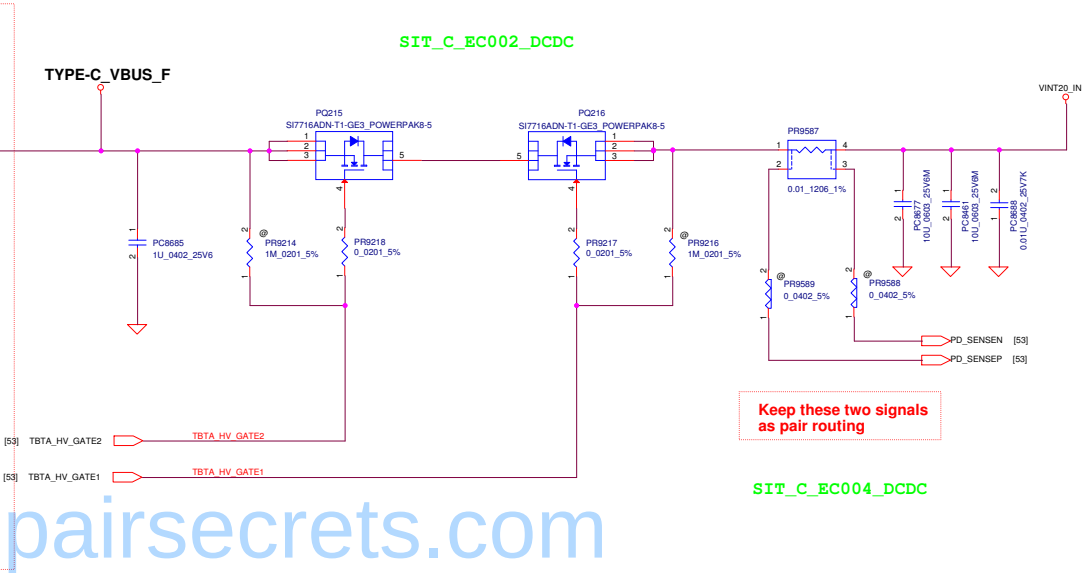
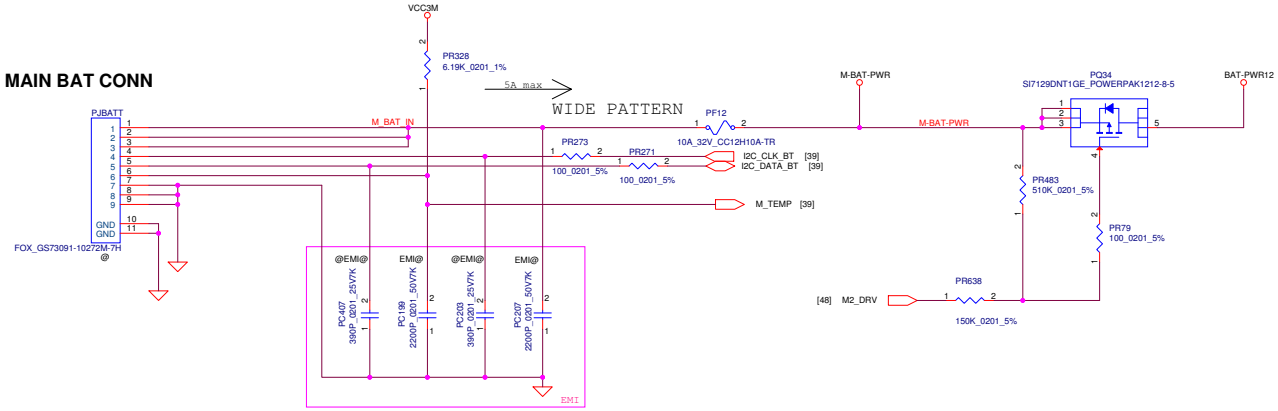
Date: Thursday, September 01, 2016	Sheet 61 of 75

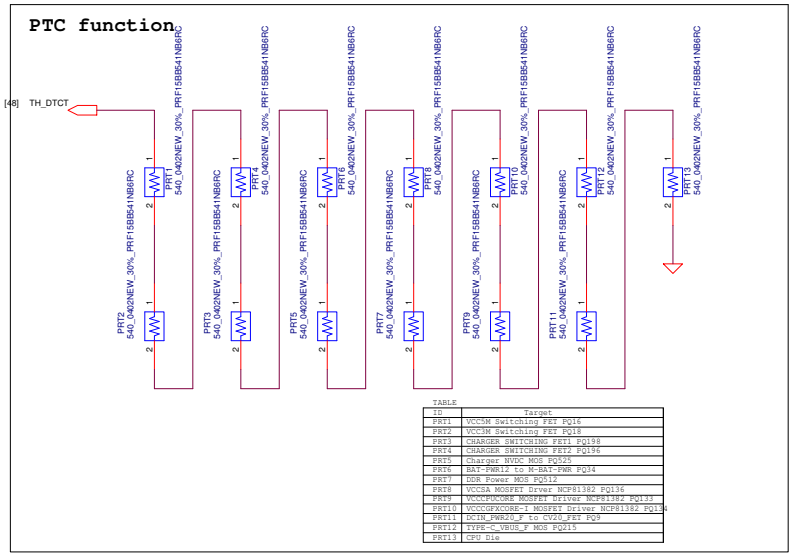




Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

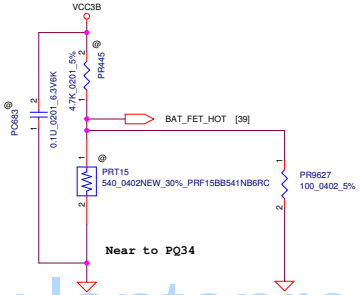
Compal Electronics, Inc.			
Title: TYPE-C IN			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 62 of 75		



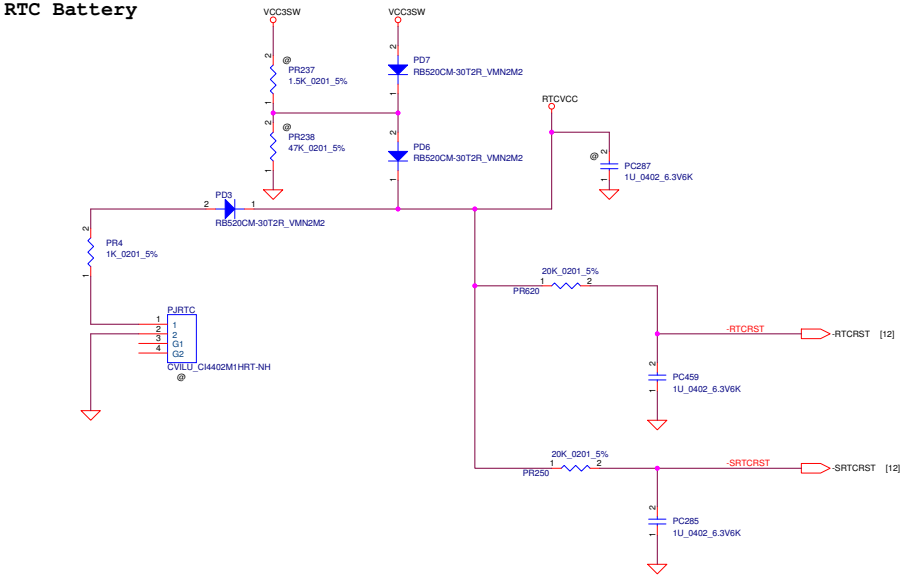


TABLE

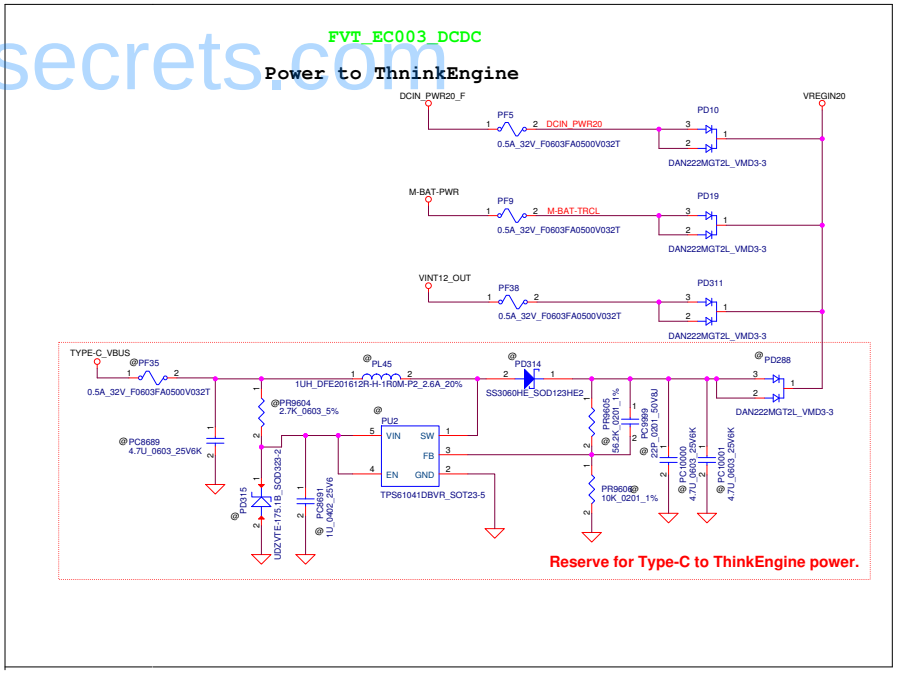
ID	Target
PRT1	VCC5M Switching FET PQ16
PRT2	VCC3M Switching FET PQ18
PRT3	CHARGER SWITCHING FET1 PQ198
PRT4	CHARGER SWITCHING FET2 PQ196
PRT5	Charger NVDC MOS PQ525
PRT6	BAT-PWR12 to M-BAT-PWR PQ34
PRT7	DDR Power MOS PQ212
PRT8	VCCSA MOSFET Drver NCP81382 PQ136
PRT9	VCCCPUCORE MOSFET Driver NCP81382 PQ133
PRT10	VCCCGFXCORE-I MOSFET Driver NCP81382 PQ134
PRT11	DCIN_PWR20_F to CV20_FET PQ9
PRT12	TYPE-C_VBUS_F MOS PQ215
PRT13	CPU Die



FVT_EC002_DCDC



FVT_EC003_DCDC



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: BATTERY INPUT / RTC Battery

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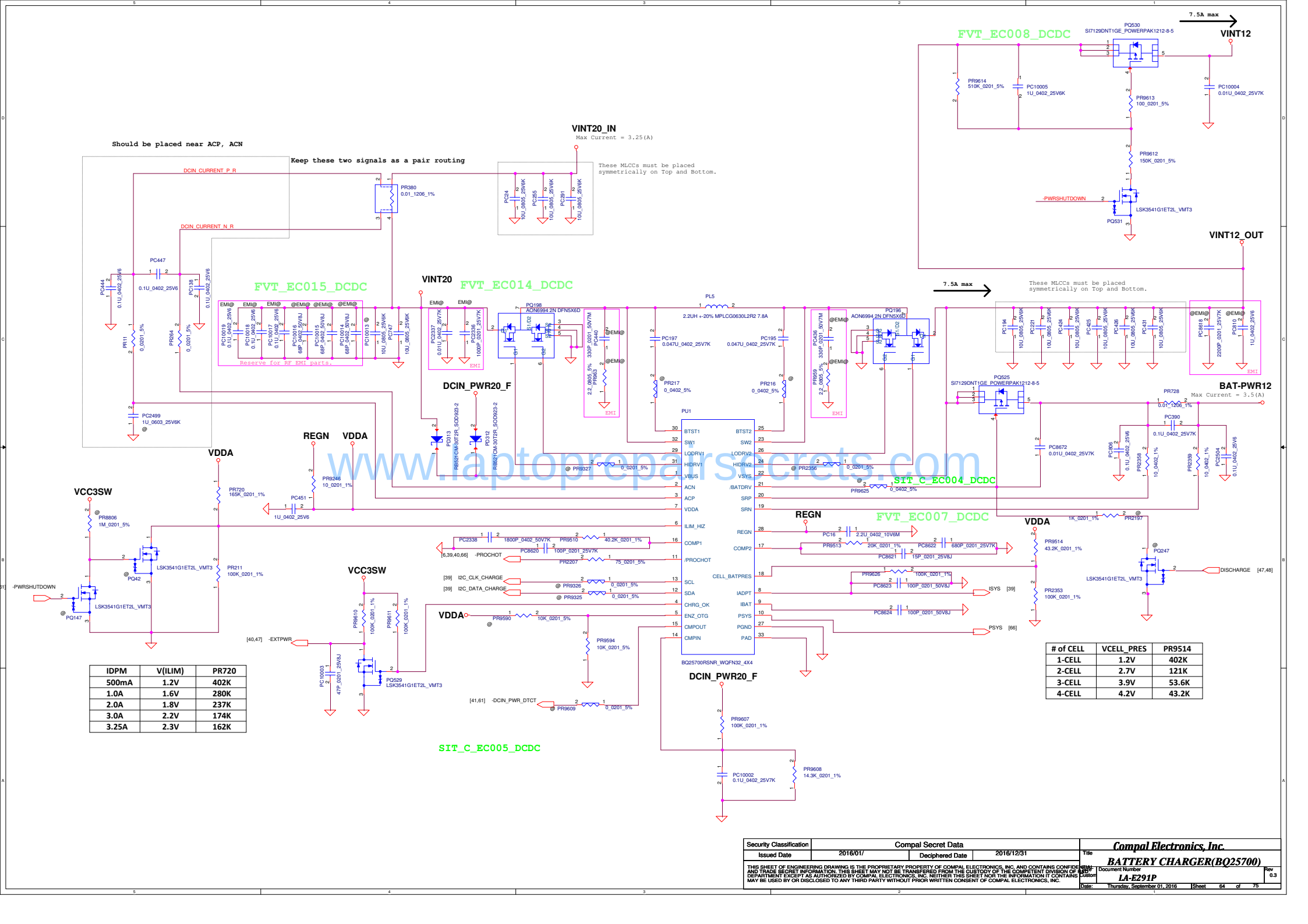
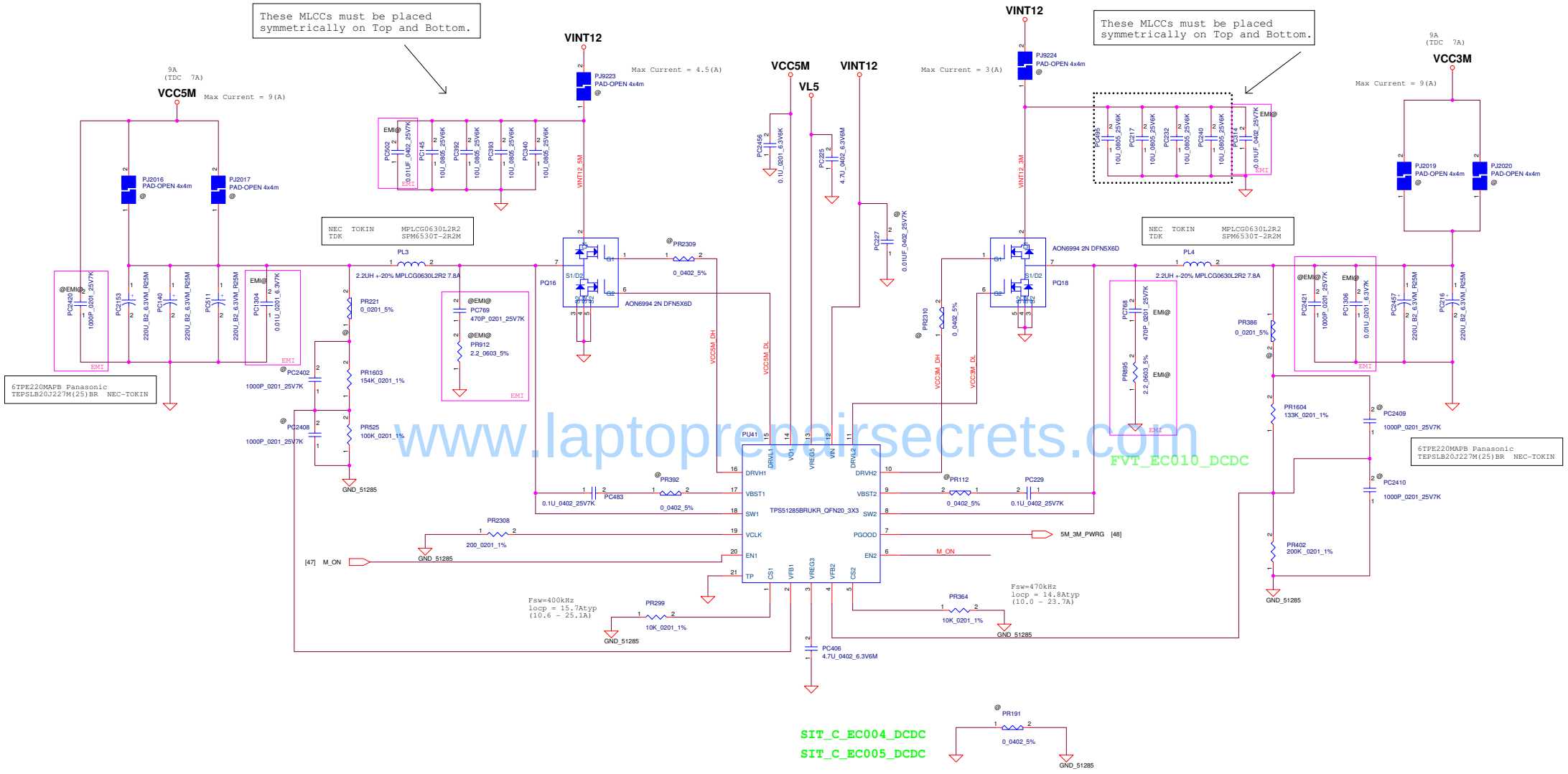
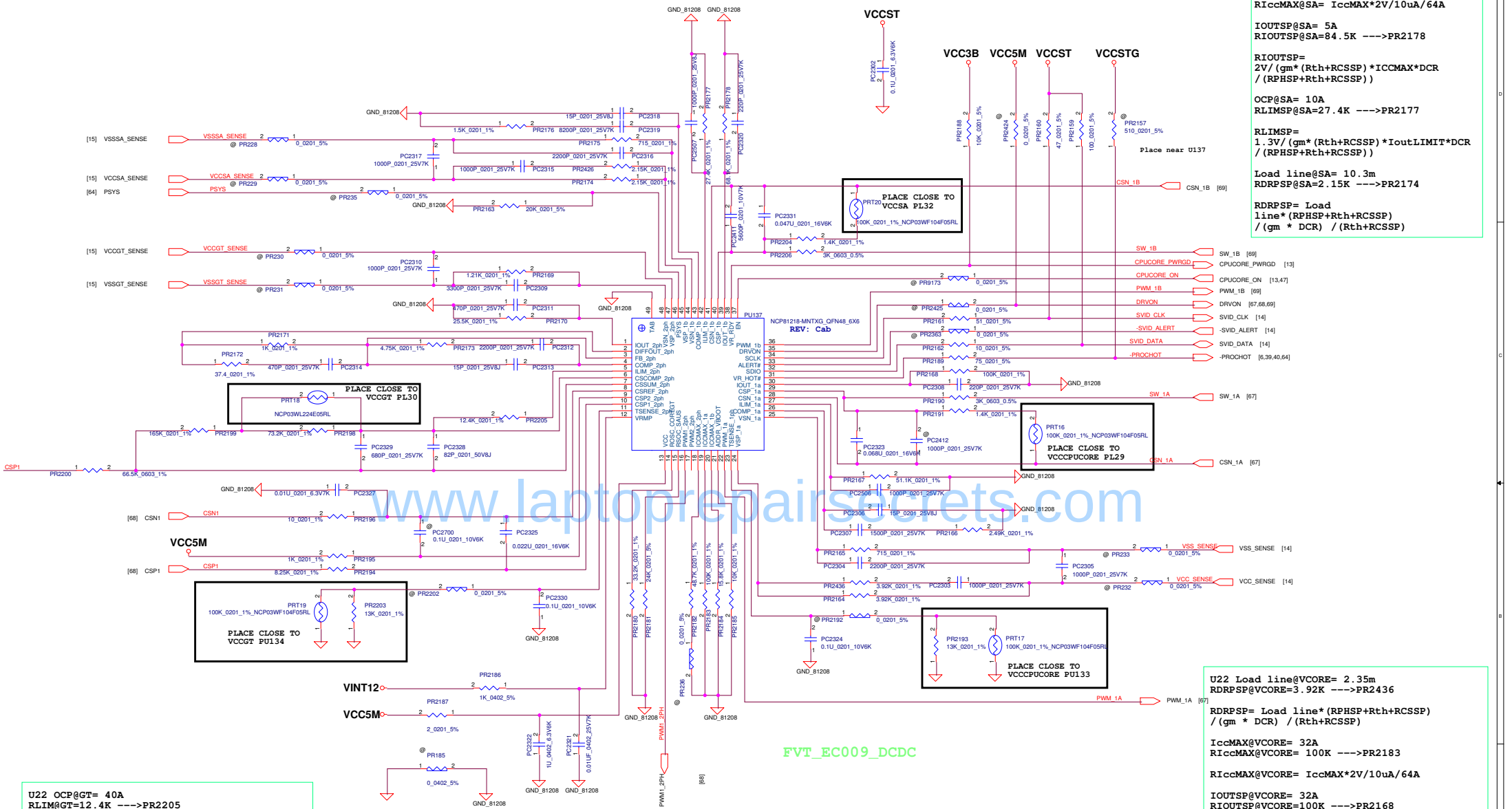




Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.	
Title	DC/DC VCC5M/VCC3M
Size: Custom	Document Number: LA-E291P
Rev	0.3
Date: Thursday, September 01, 2016	Sheet 65 of 75



IccMAX@SA= 5A
RIccMAX@SA= 15.8K --->PR2184

RIccMAX@SA= IccMAX*2V/10uA/64A

IOUTSP@SA= 5A
RIOUTSP@SA=84.5K --->PR2178

RIOUTSP=
2V/(gm*(Rth+RCSSP)*ICCMAX*DCR
/(RPHSP+Rth+RCSSP))

OCP@SA= 10A
RLIMSP@SA=27.4K --->PR2177

RLIMSP=
1.3V/(gm*(Rth+RCSSP)*IoutLIMIT*DCR
/(RPHSP+Rth+RCSSP))

Load line@SA= 10.3m
RDRPSP@SA=2.15K --->PR2174

RDRPSP= Load
line*(RPHSP+Rth+RCSSP)
/(gm * DCR) /(Rth+RCSSP)

U22 Load line@VCORE= 2.35m
RDRPSP@VCORE=3.92K --->PR2436

RDRPSP= Load line*(RPHSP+Rth+RCSSP)
/(gm * DCR) /(Rth+RCSSP)

IccMAX@VCORE= 32A
RIccMAX@VCORE= 100K --->PR2183

RIccMAX@VCORE= IccMAX*2V/10uA/64A

IOUTSP@VCORE= 32A
RIOUTSP@VCORE=100K --->PR2168

RIOUTSP= 2V/(gm*(Rth+RCSSP)*ICCMAX*DCR
/(RPHSP+Rth+RCSSP))

OCP@VCORE= 40A
RLIMSP@VCORE=51.1K --->PR2167

RLIMSP= 1.3V/(gm*(Rth+RCSSP)*IoutLIMIT*DCR
/(RPHSP+Rth+RCSSP))

U22 OCP@GT= 40A
RLIM@GT=12.4K --->PR2205
RLIM= IoutLIMIT * Load line/10

U22 IccMAX@GT= 31A
RIccMAX2ph= 48.7K --->PR2182
RIccMAX2ph= (IccMAX2Ph+32)*200K Ohn/ 127

U22 Iout@GT= 31A
RIOUT@GT=25.5K --->PR2170

RIOUT= 2* RLIM /(10 *IOUTICCMAX * Load line)

U22 Load line@GT= 3.1m
RPH@GT=84.5K --->PRI30,PRI38

Load line= (RCS2+(RCS1*Rth/(RCS1+Rth)))
*IOUTTOTAL * DCR/RPH

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DC/DC IMVP8 CONTROLLER

Size: Custom | Document Number: LA-E291P | Rev: 0.3

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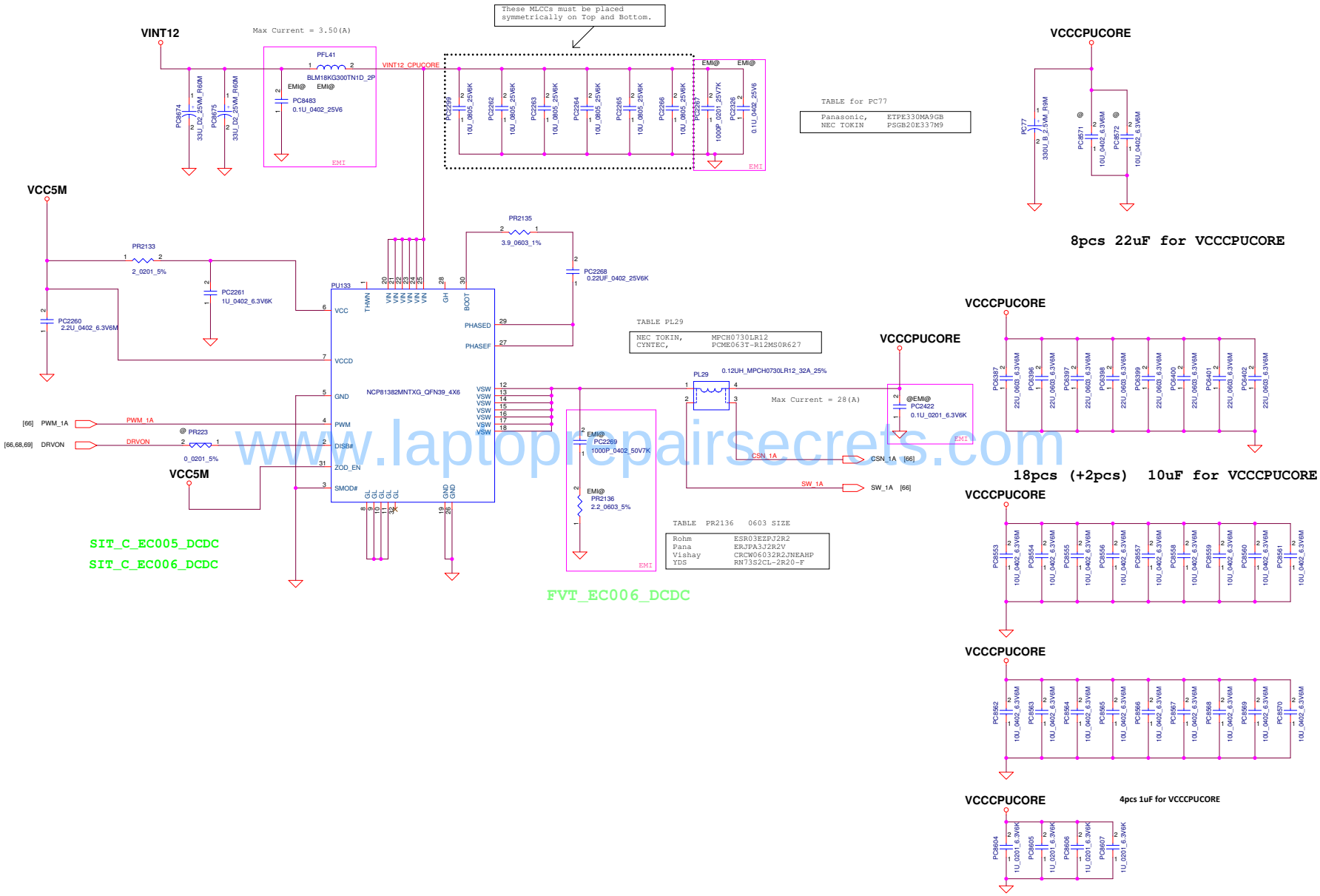
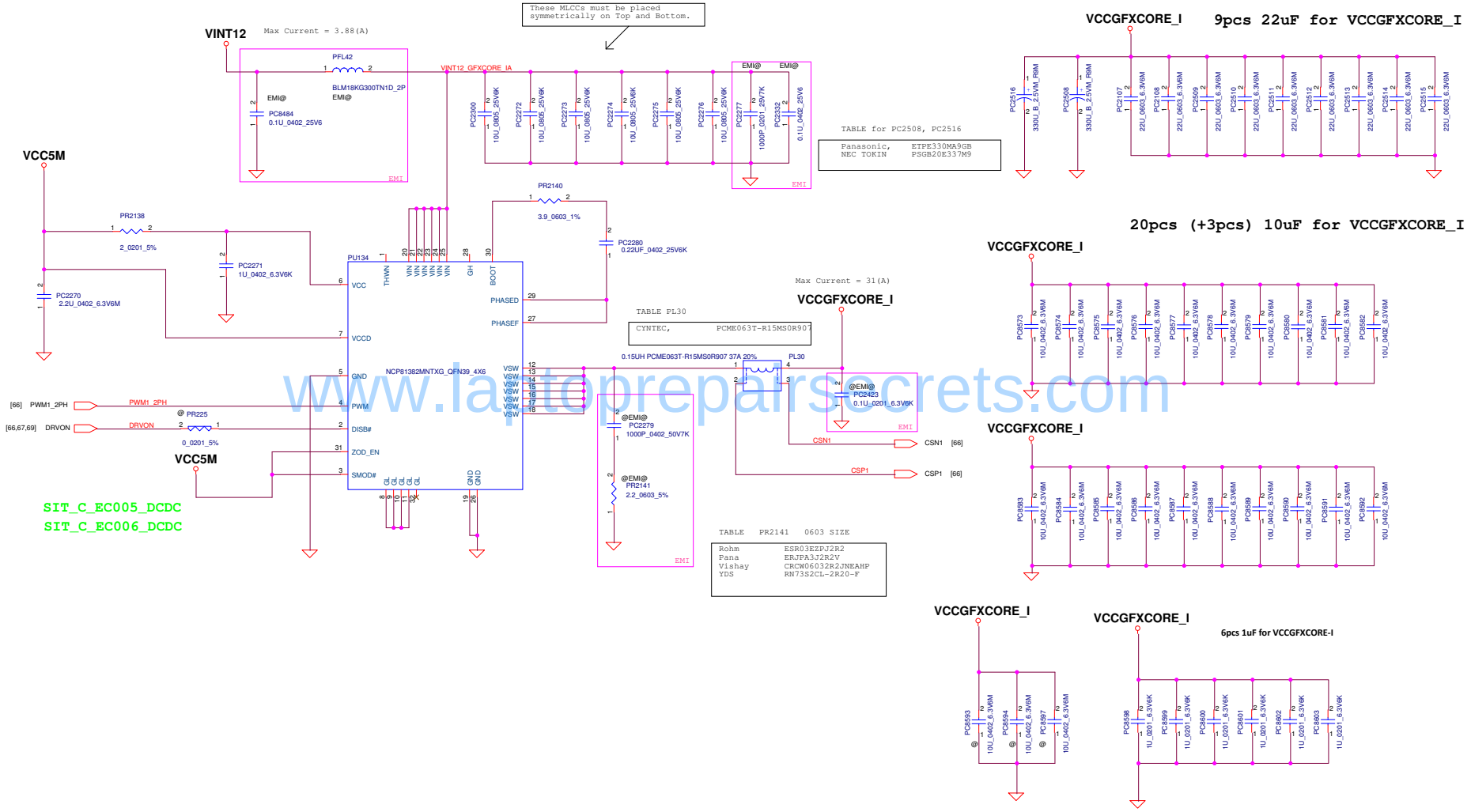


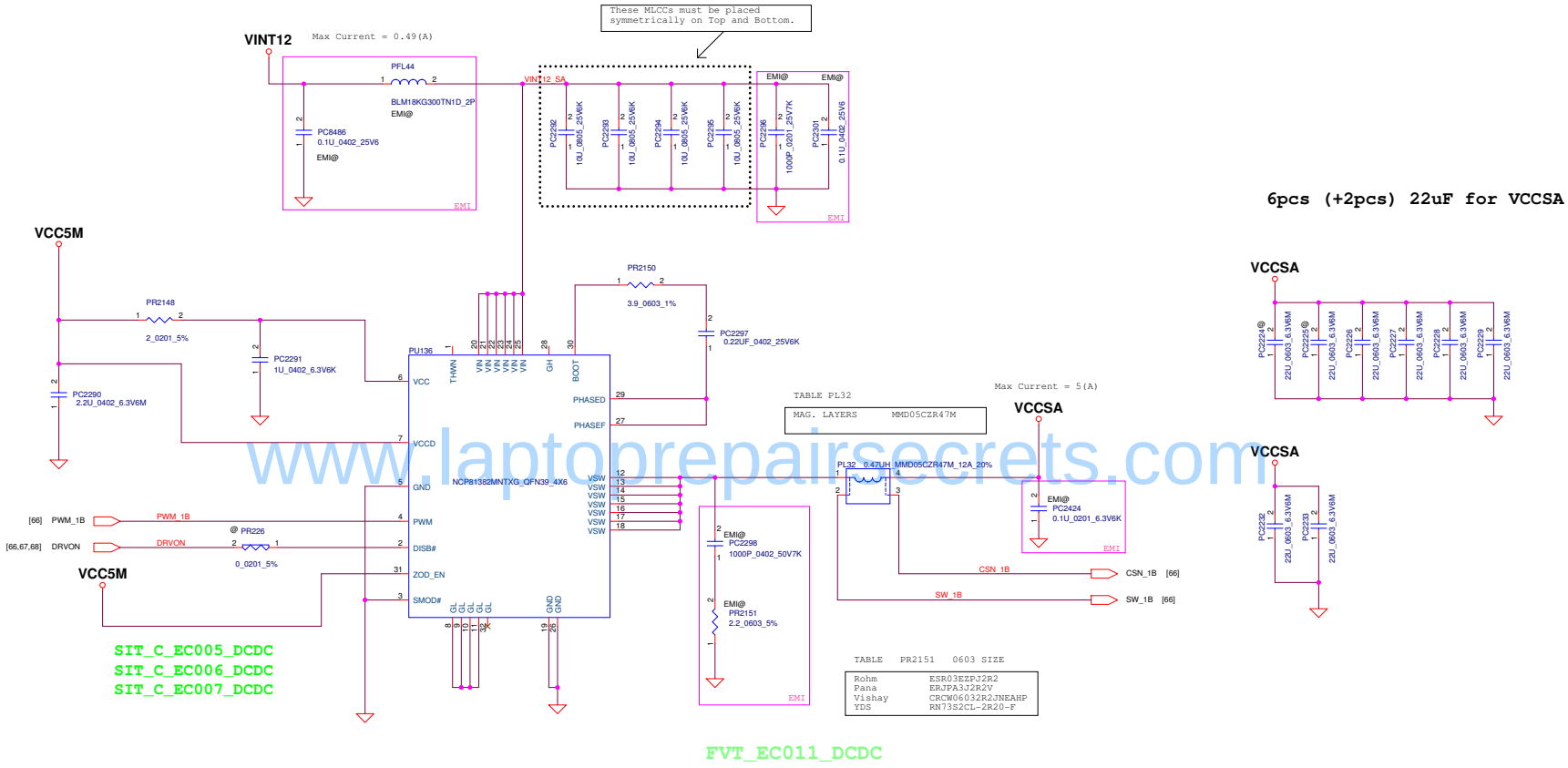
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: DC/DC VCCCPUCORE			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 67 of 75		



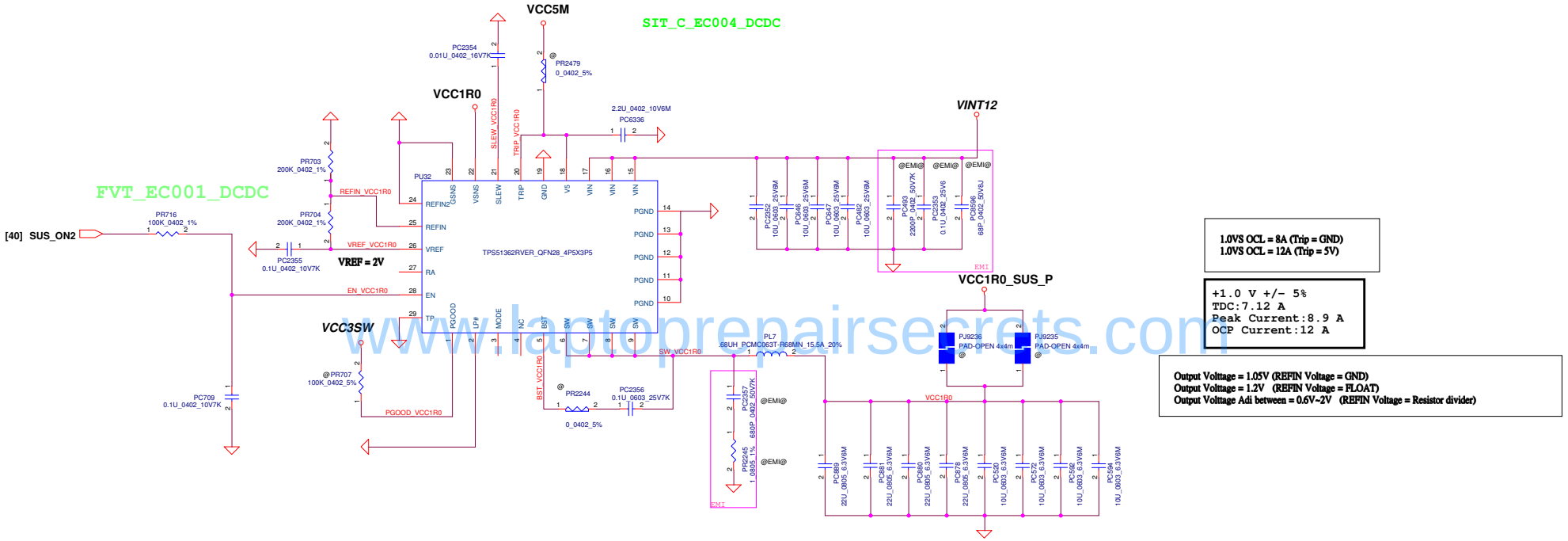
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	DC/DC VCCGFXCORE_I		
Size	Document Number		Rev
Custom	LA-E291P		0.3
Date: Thursday, September 01, 2016	Sheet 68 of 75		



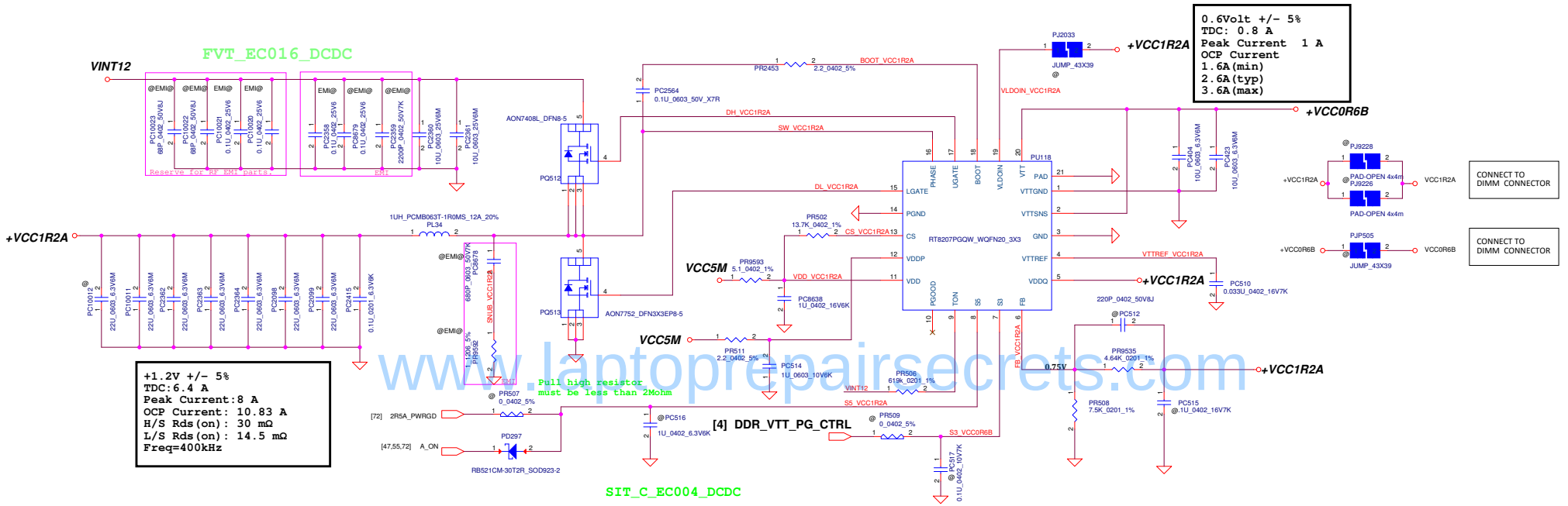
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	DC/DC VCCSA(NCP81382)		
Size	Document Number		Rev
Custom	LA-E291P		0.3
Date: Thursday, September 01, 2016	Sheet 69 of 75		



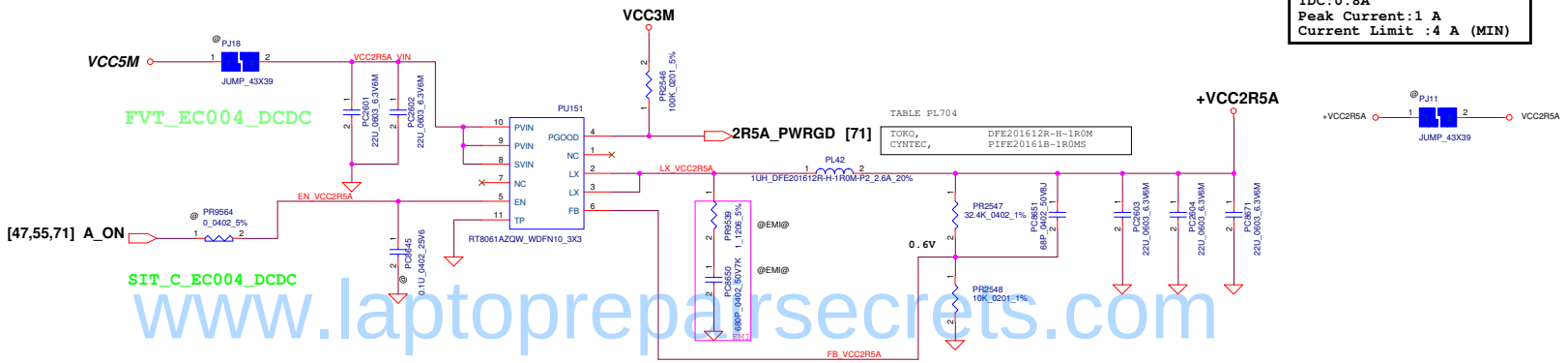
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	DC/DC VCC1R0_SUS_P(TPS51362)		
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 70 of 75		



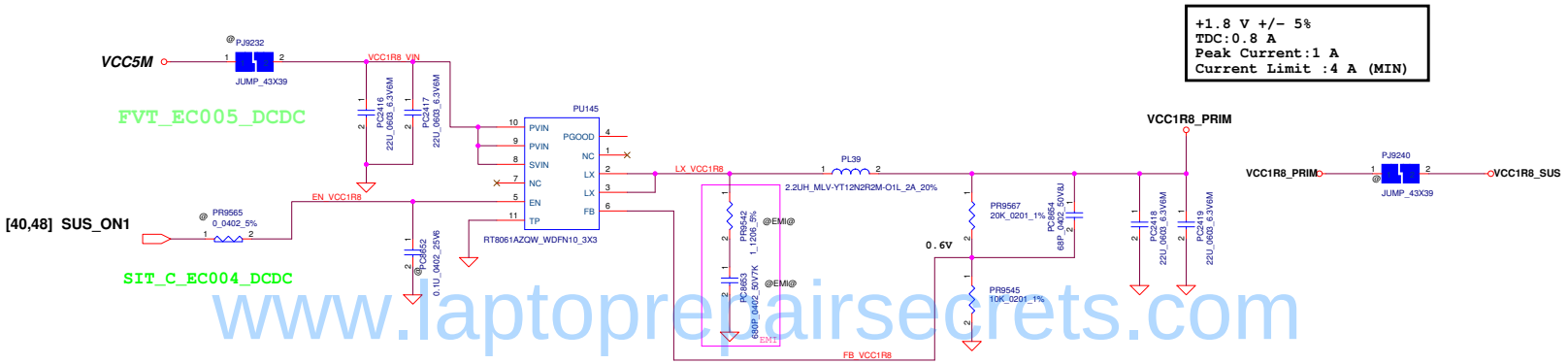
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: DC/DC VCC1R2A(RT8207P)			
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 71 of 75		



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	DC/DC VCC2R5A(RT8061)		
Size: Custom	Document Number: LA-E291P		Rev: 0.3
Date: Thursday, September 01, 2016	Sheet 72 of 75		



Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DC/DC VCC1R8_SUS(RT8061)

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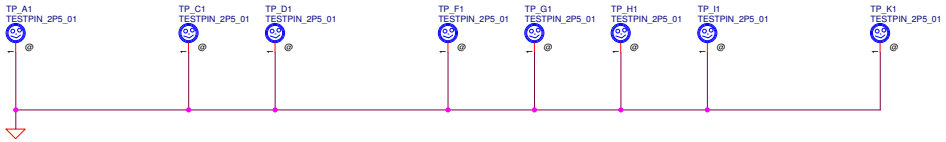
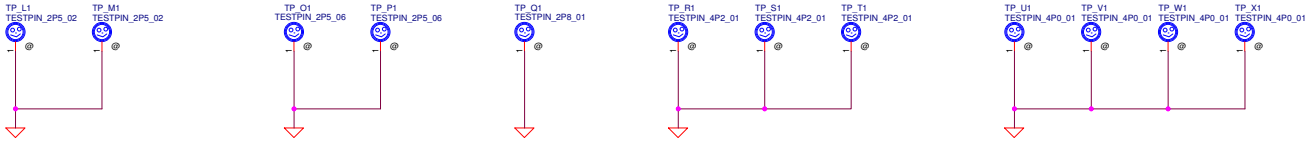
PTH FOR SCREW HOLE

Value	Hola Dia	Pad Dia		QTY
		TOP	BOTTOM	
TESTPIN_2P5_01	2.5	6	6	9
TESTPIN_2P5_02	2.5	7.4	7.4	2
TESTPIN_2P5_03	2.5	Square	0	1
TESTPIN_2P5_06	2.5	5	5	2
TESTPIN_2P8_01	2.8	0	Square	1
TESTPIN_4P3_01	4.3	6.5	6.5	3
TESTPIN_4P0_01	4.0	6.1	6.1	4





FID
Board Area

FD1 NC, NO CONNECT TO ANY.

FD2 NC, NO CONNECT TO ANY.

FD3 NC, NO CONNECT TO ANY.

FD4 NC, NO CONNECT TO ANY.

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: PTH FOR SCREW HOLES

Size: Custom | Document Number: LA-E291P | Rev: 0.3

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ZZZ

DA80018L000

ZZZ1

DA80018M000

DIMM On board

U58

KBL QKKS 2.4G
CPU1@
SA00009PJ40

U58

KBL QKJW 2.6G
CPU2@
SA00009UR20

U58

KBL QKDP 2.4G
CPU3@
SA0000A3840

U58

KBL QKDN 2.7G
CPU4@
SA0000A3410

U58

KBL QKDM 2.5G
CPU5@
SA0000A3740

U58

KBL QKDU 2.6G
CPU6@
SA0000A3L00

U58

KBL QLYG 2.6G
CPU7@
SA0000ADO00

U58

KBL QLYF 2.8G
CPU8@
SA0000ADP00

U13

Jacksonville WGI219V
NVPRO@
SA000093410

ZZZ

Samsung 1G
S1G@
X7666239L24

ZZZ

MIcron 1G
M1G@
X7666239L22

ZZZ

Samsung 2G
S2G@
X7666239L23

BOM Structure Table

BTO Item	BOM Structure	Remark
vPRO LAN chip	VPRO@	WGI219LM
non vPRO LAN chip	NVPRO@	WGI219V
Thunderbolt requirement	TBT@	
Thunderbolt reserve	@TBT@	
ESD requirement	ESD@	
ESD reserve	@ESD@	
EMI requirement	EMI@	
EMI reserve	@EMI@	
RF requirement	RF@	
RF reserve	@RF@	
XDP	XDP@	
On board RAM	X76@	

Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: PCB CPU PN

Size: Custom | Document Number: LA-E291P | Rev: 0.3

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