Compal Confidential

STORM2 M/B Schematic

LA-E292P

Rev: 0.1_E

2016.05.03

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

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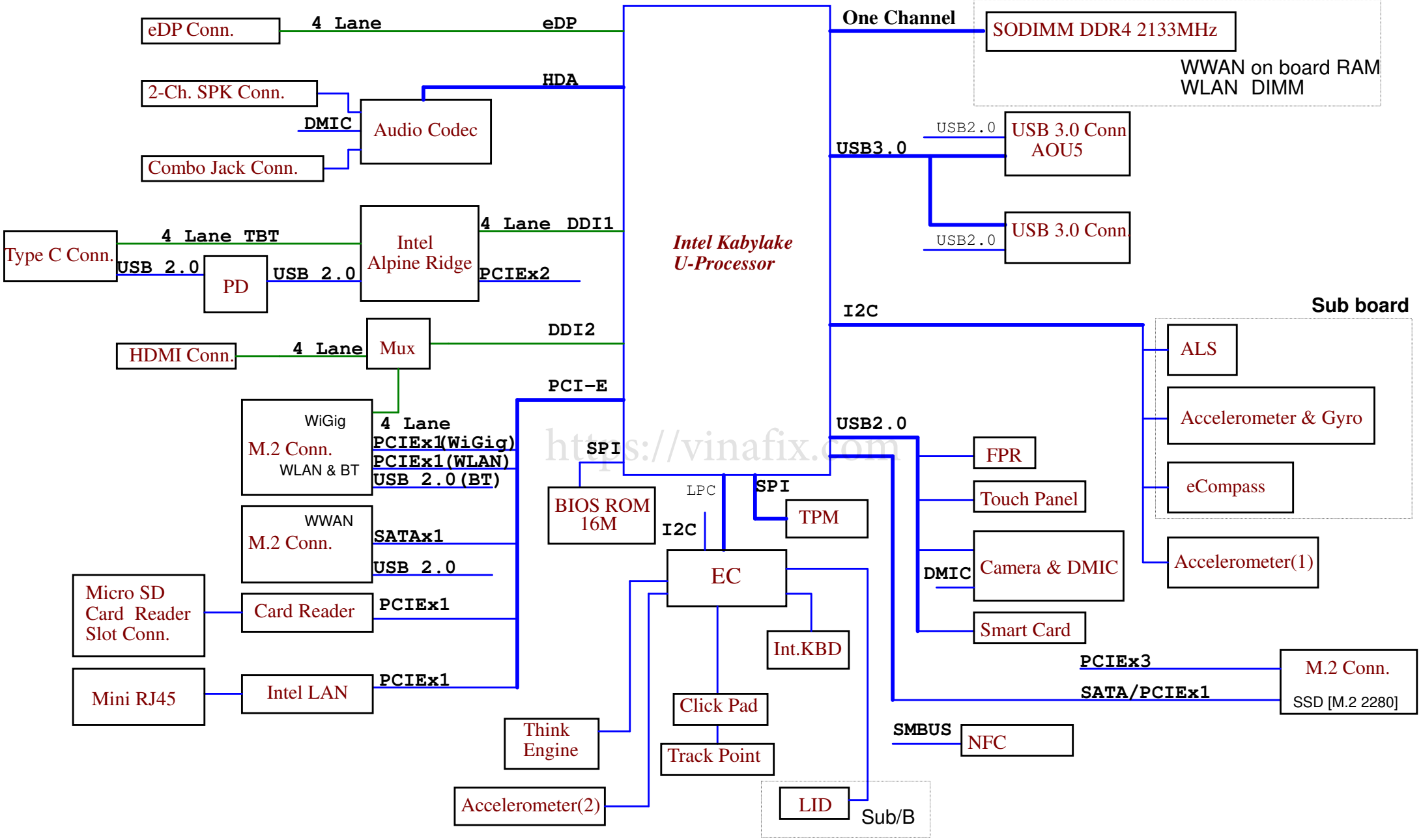
Title: COVER PAGE			
Size: Custom	Document Number: LA-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 1 of 75		

STORM 2 Block-Diagram



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Title: BLOCK DIAGRAM

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 2 of 75

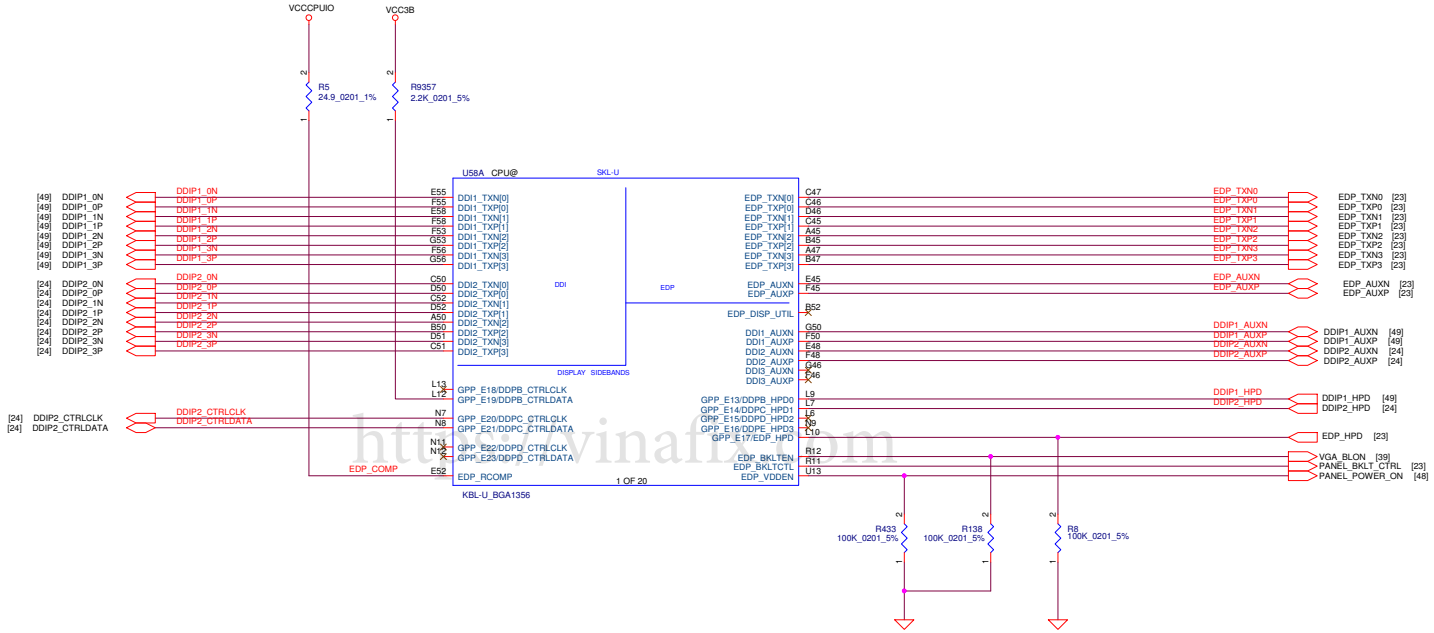

TABLE : Functi ond Strap

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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Title: **CPU(1/16) : DDI/EDP**

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 3 of 75

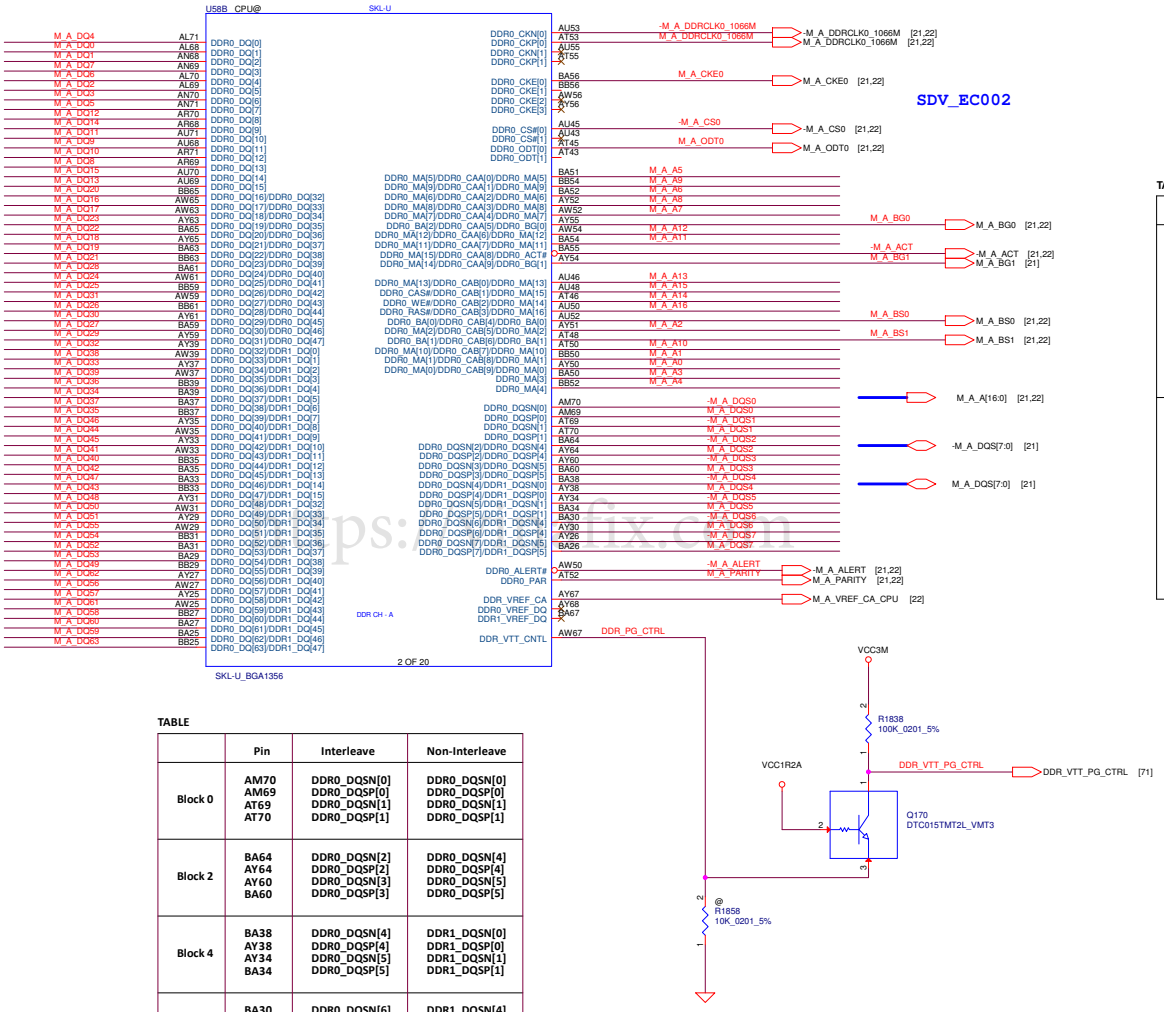
[21] M_A_DQ[63:0]

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 BB33 BA33	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

SDV_EC002



SDV_EC002

TABLE

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

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

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

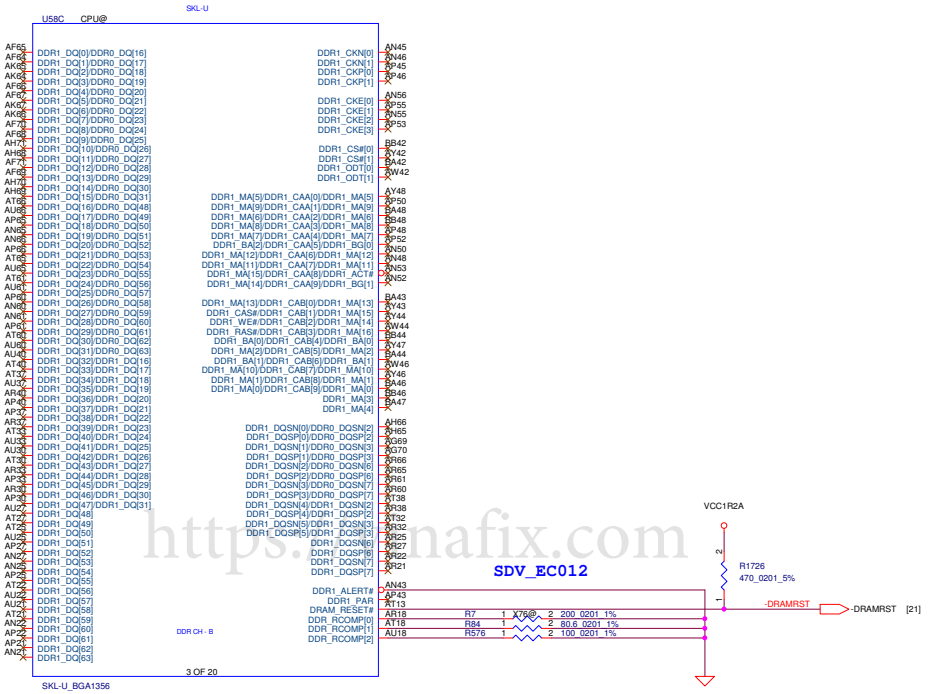
Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 4 of 102

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[25] 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

SDV_EC015

	SDP	DDP
R7	200 1%	121 1%

TABLE

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

LOGIC

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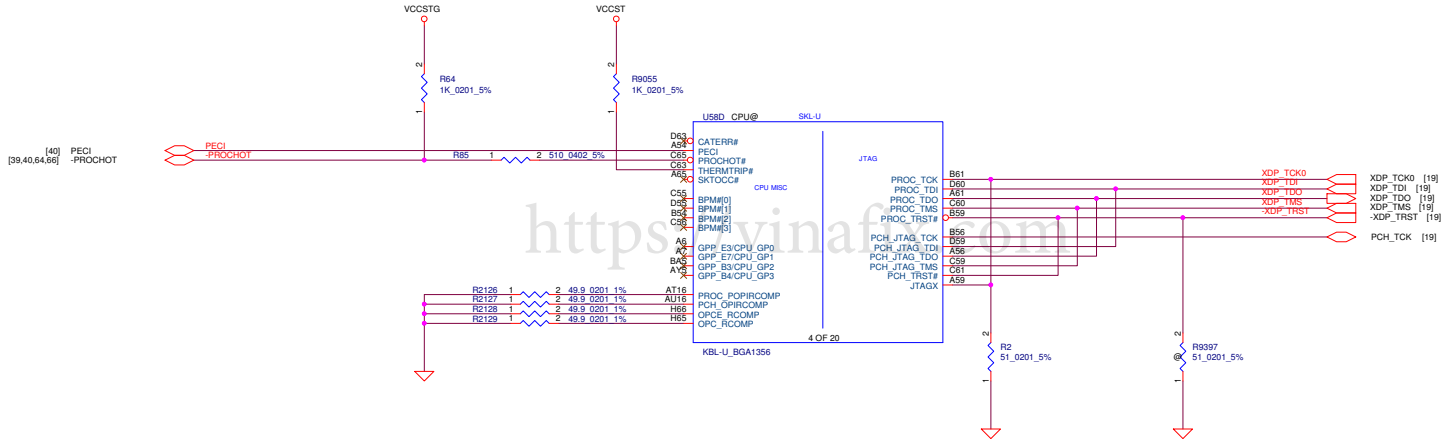
Title: CPU(3/16) : DDR CHANNEL-B

Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 5 of 102



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Title: CPU(4/16) : MISC/JTAG

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 6 of 75

TABLE : Funct i ona l Strap

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

TABLE : Funct i ona l Strap

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

TABLE : Funct i ona l Strap

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

LOGIC

TABLE : Funct i ona l Strap

GPP_C2/SMBALERT# (TLS Conf i dent i al i ty	
HIGH	Enable ME Crypto TLS with Conf i dent i al i ty
LOW	Disable ME Crypto TLS (Default)

LOGIC

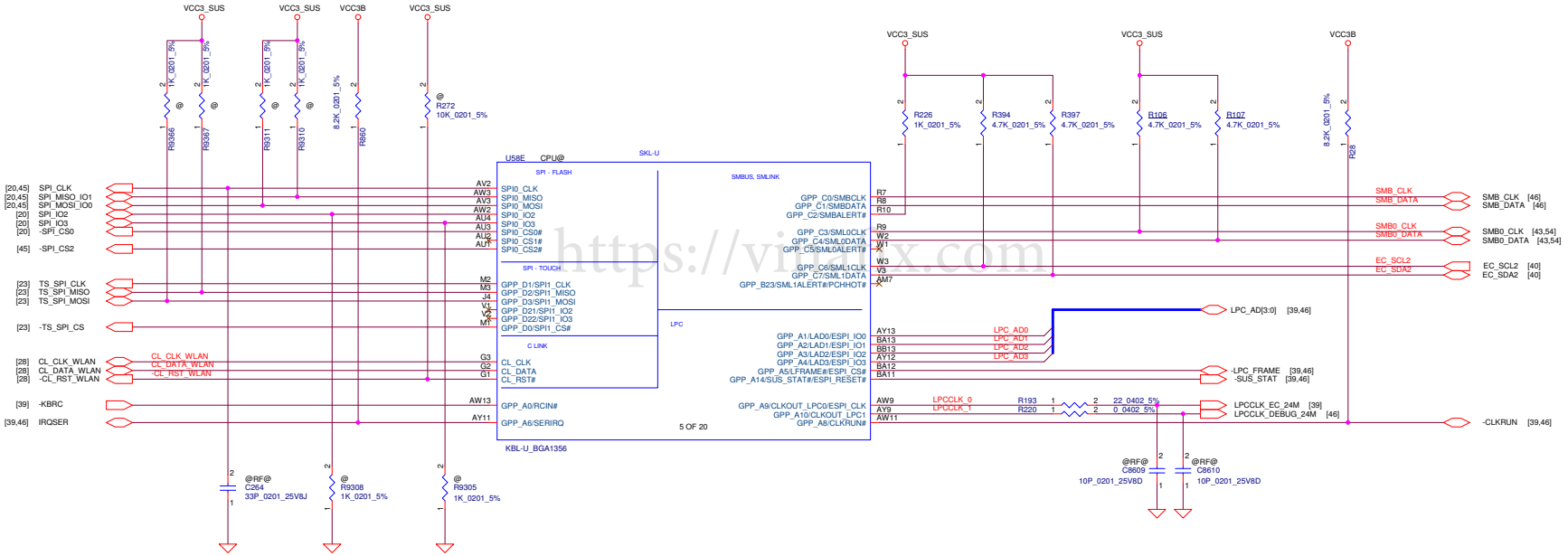

TABLE : Funct i ona l Strap

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

TABLE : Funct i ona l Strap

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

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

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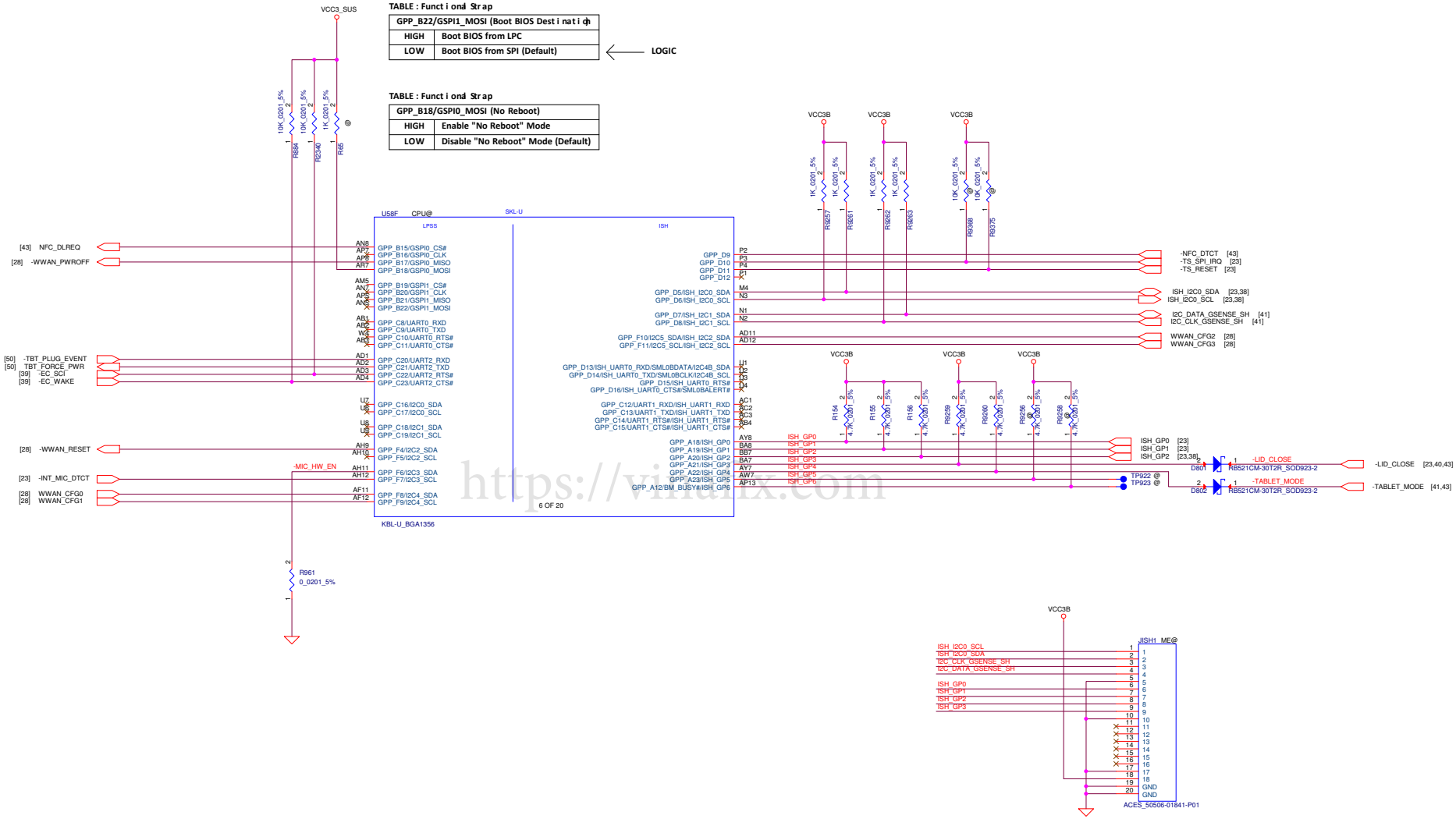
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 | Sheet 7 of 75



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Compal Electronics, Inc.

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

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 8 of 75

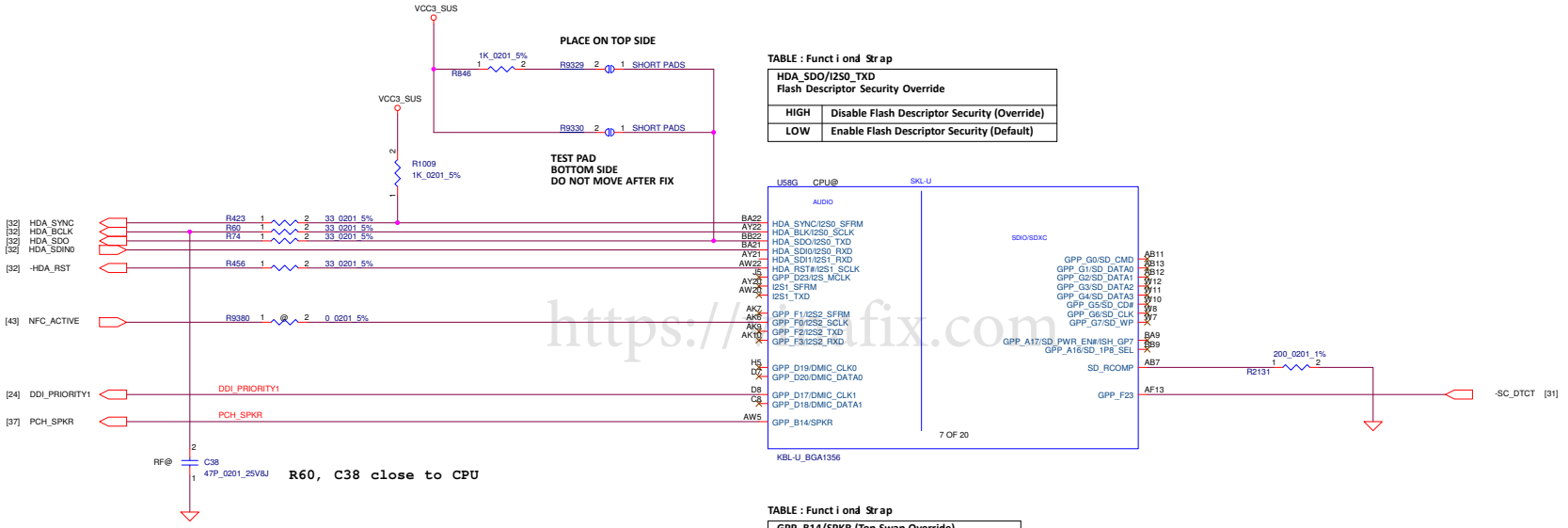

TABLE : Funct i ond Strap

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

TABLE : Funct i ond 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

Size: Custom | Document Number: LA-E292P | Rev: 0.1

Date: Tuesday, May 03, 2016 | Sheet 9 of 75

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	NA
4 (x4)	PCIe SSD
8_(x2)	Thunder bolt

SATA Port Assignment

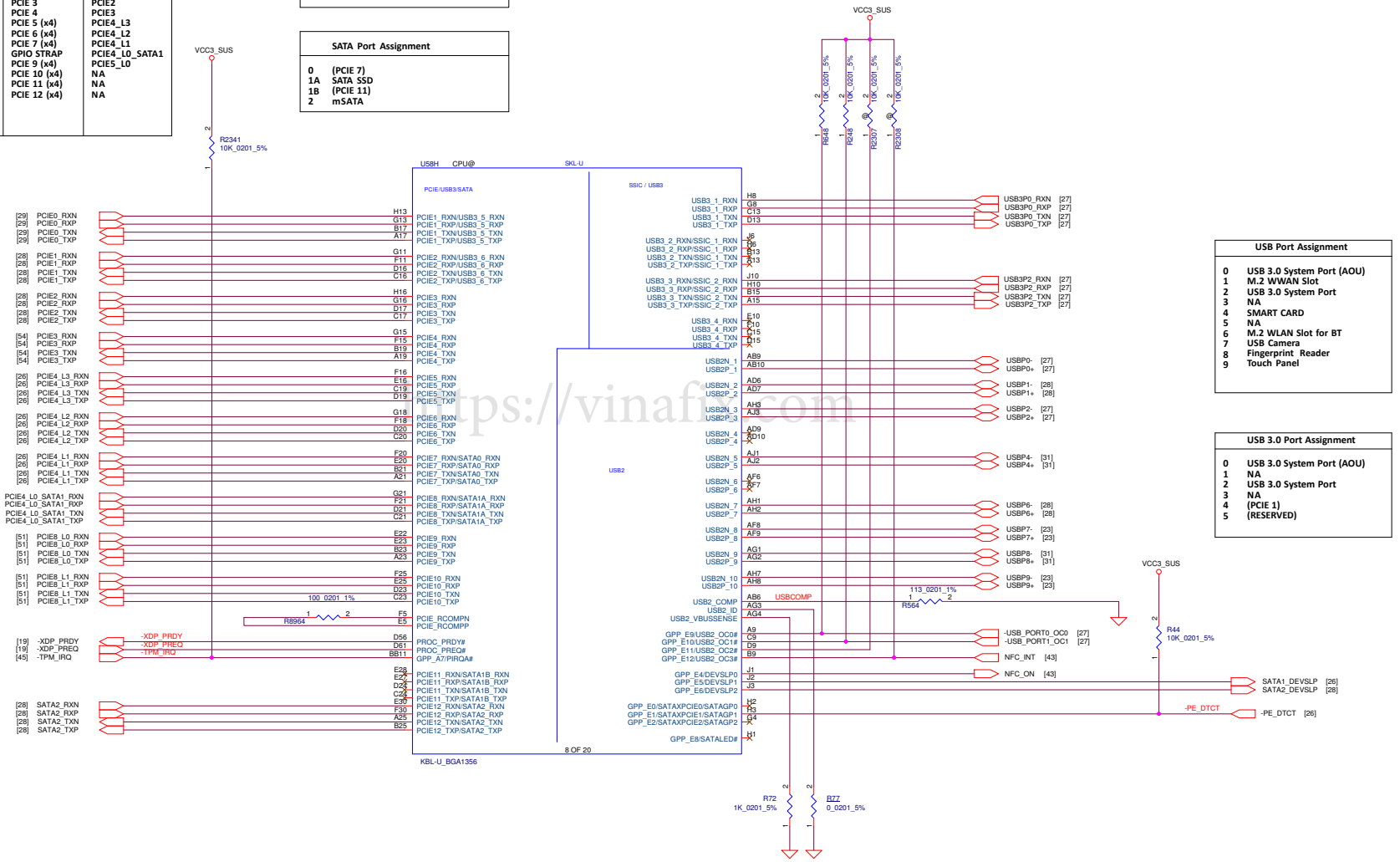
0	(PCIE 7)
1A	SATA SSD
1B	(PCIE 11)
2	mSATA

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**

Size	Document Number	Rev
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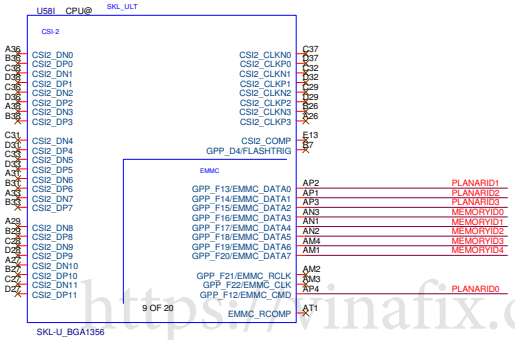
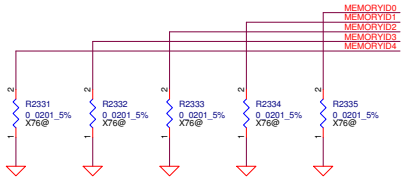
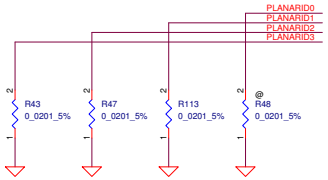
Date: Tuesday, May 03, 2016 Sheet 10 of 75



TABLE

MEMORY[4..0]	U125, U126, U127, U128		R7 (Rcomp0)
00110B 00111B 01000B	Samsung K4A8G165WB-BCRC Micron MT40A512M16JY-083E:B Micron MT40A1G16WBU-083E:B	8Gbit SDP 4GB 8Gbit SDP 4GB 16Gbit DDP 8GB	200 1% 200 1% 121 1%
01001B 01010B 01011B	Hynix H5AN8G6NAFR-UHC Hynix TBD Samsung K4AAG165WB-MCRC	8Gbit SDP 4GB 16Gbit DDP 8GB 16Gbit DDP 8GB	200 1% 121 1% 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

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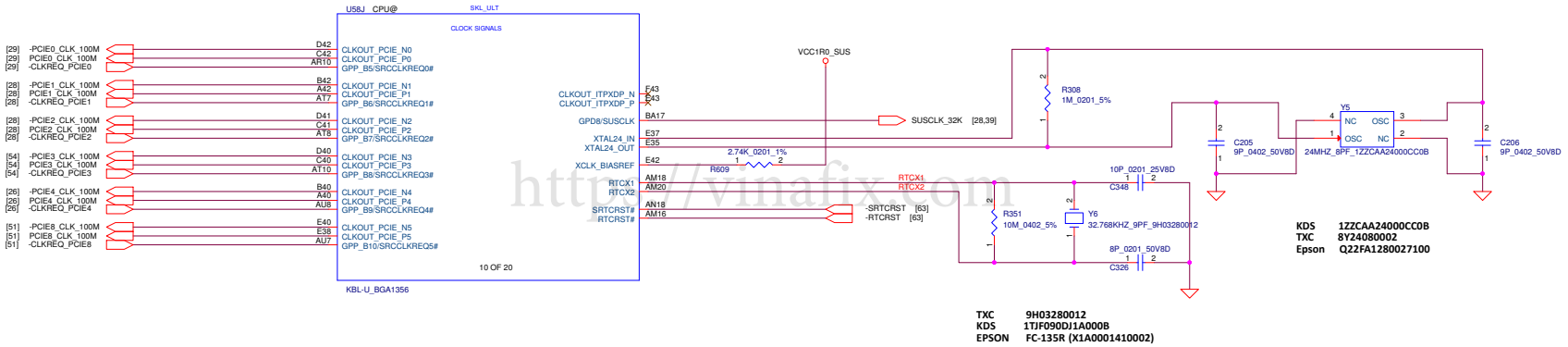
Title: CPU : CSI-2/EMMC

Size: Custom | Document Number: LA-E292P | Rev: 0.5

Date: Tuesday, May 03, 2016 | Sheet 11 of 75



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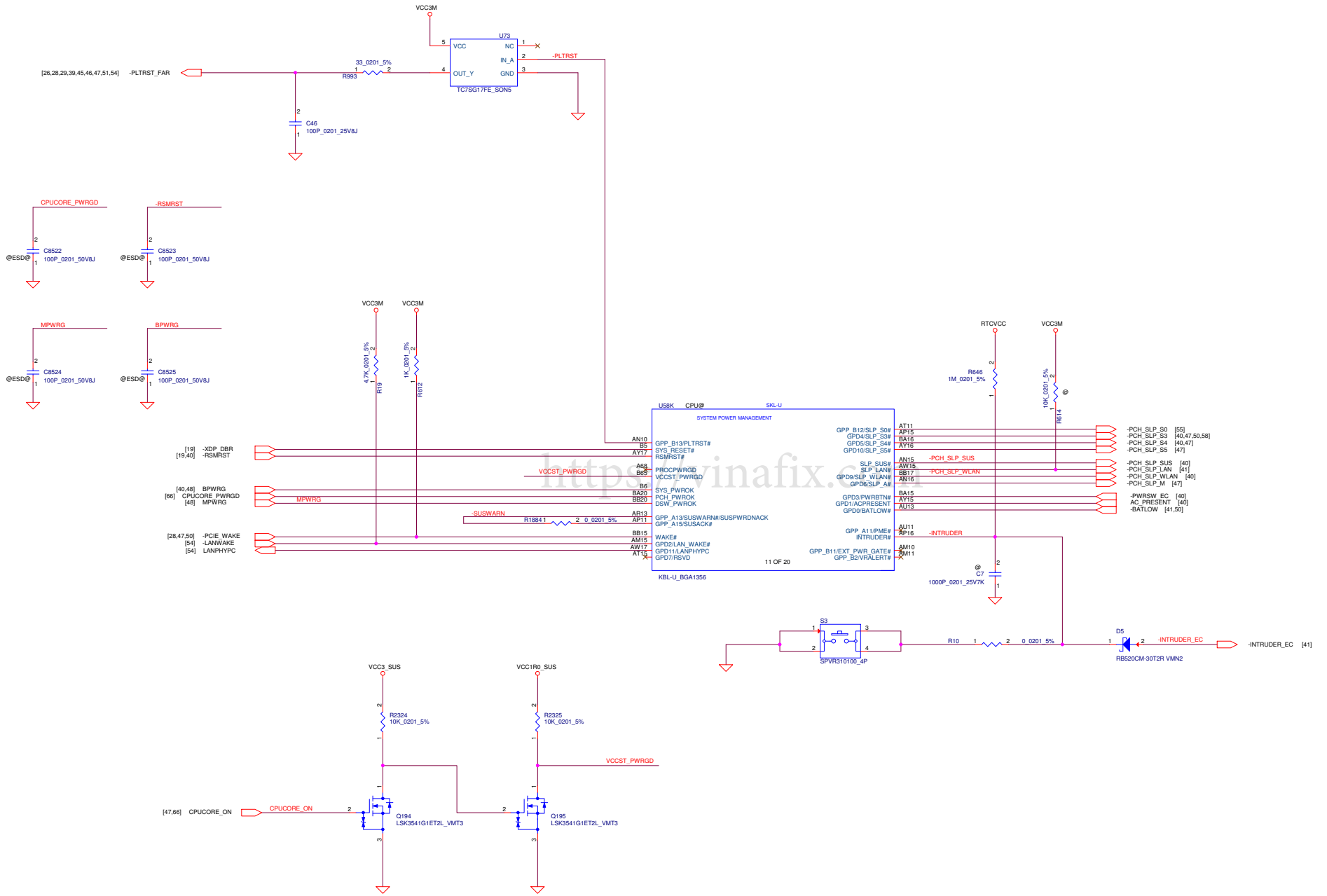
Title: CPU : CLOCK SIGNALS

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 12 of 75



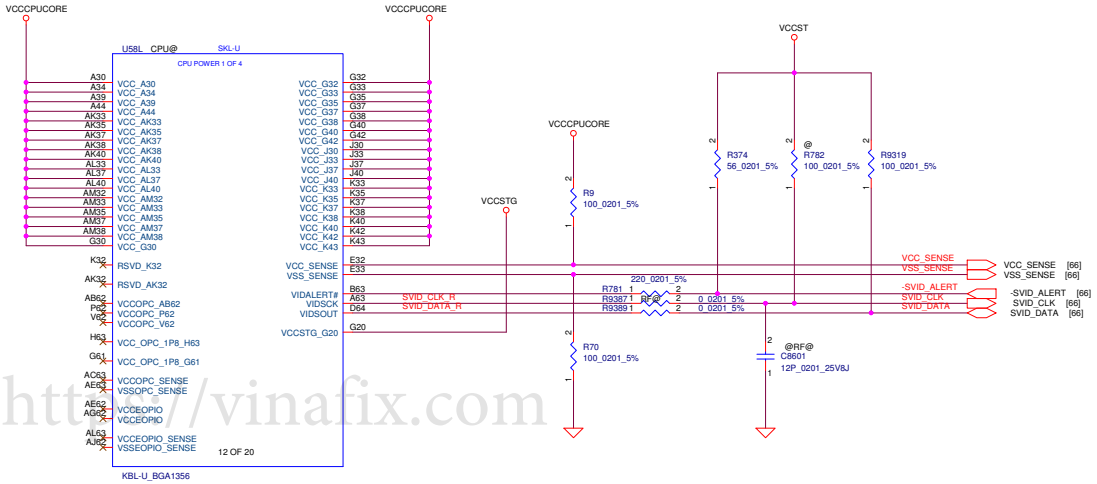
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: **CPU : SYSTEM PM**

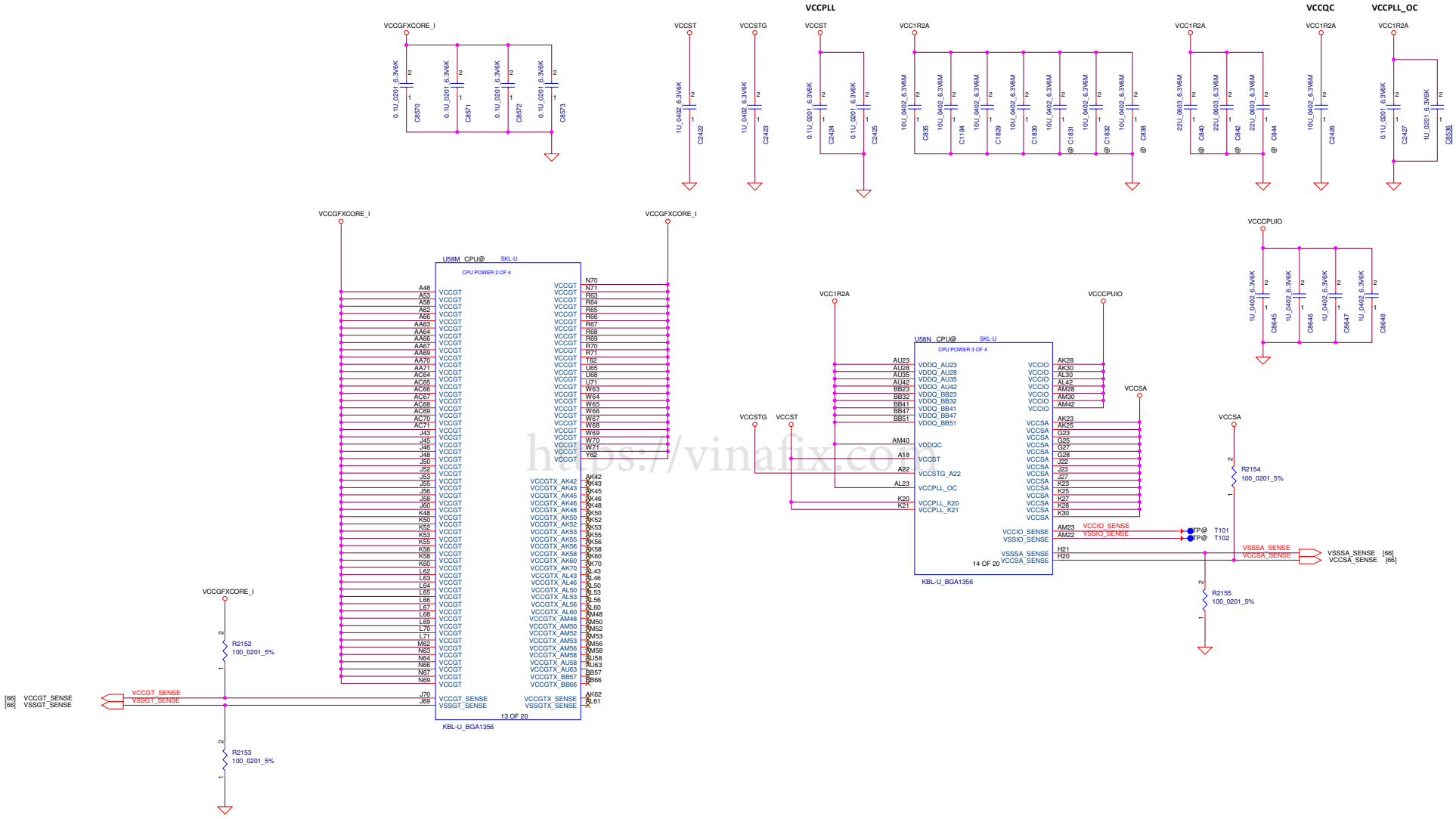
Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 13 of 75



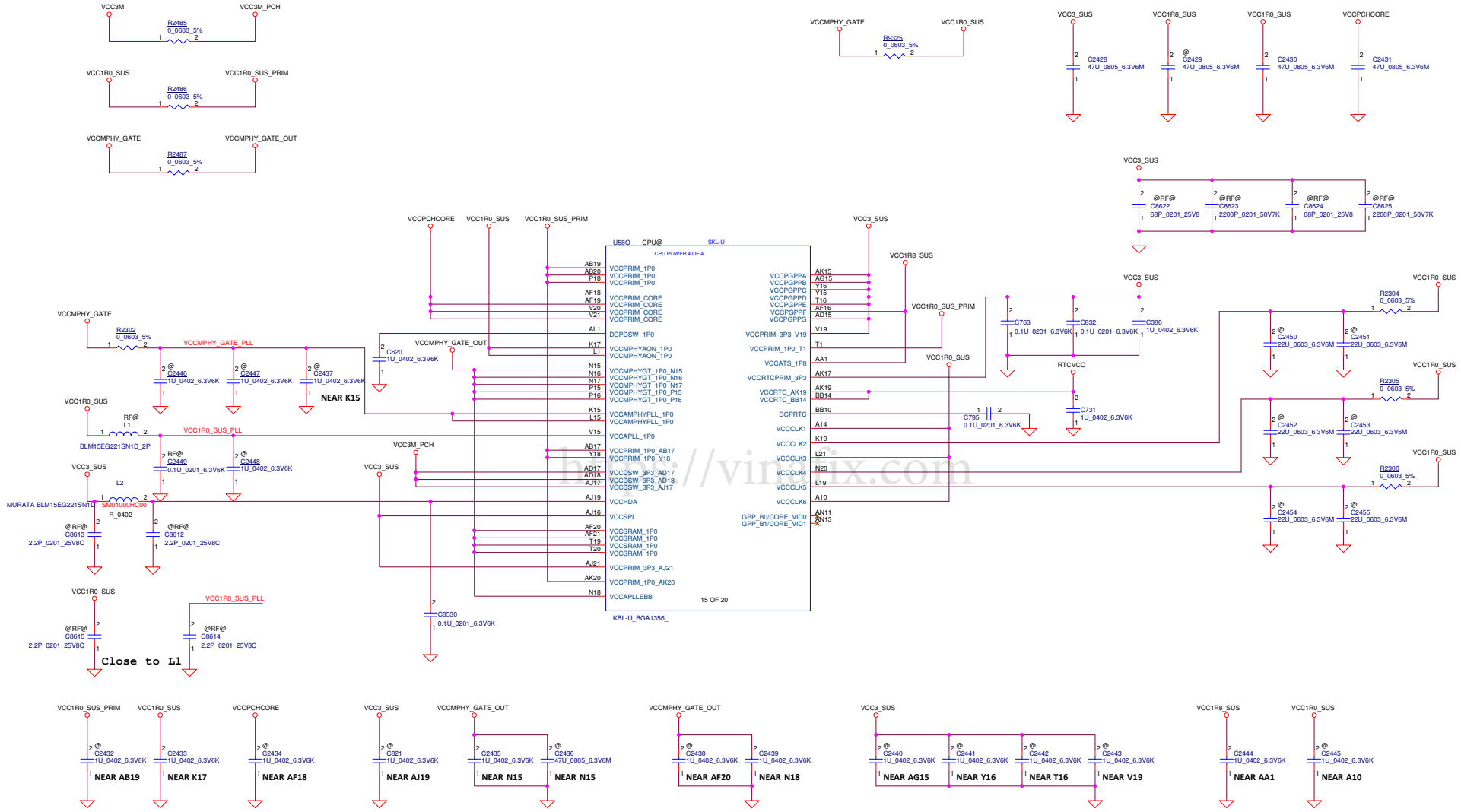
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	CPU : CPU POWER (1/2)		
Size: Custom	Document Number: LA-E292P		Rev: 0.1
Date: Tuesday, May 03, 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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 15 of 75		



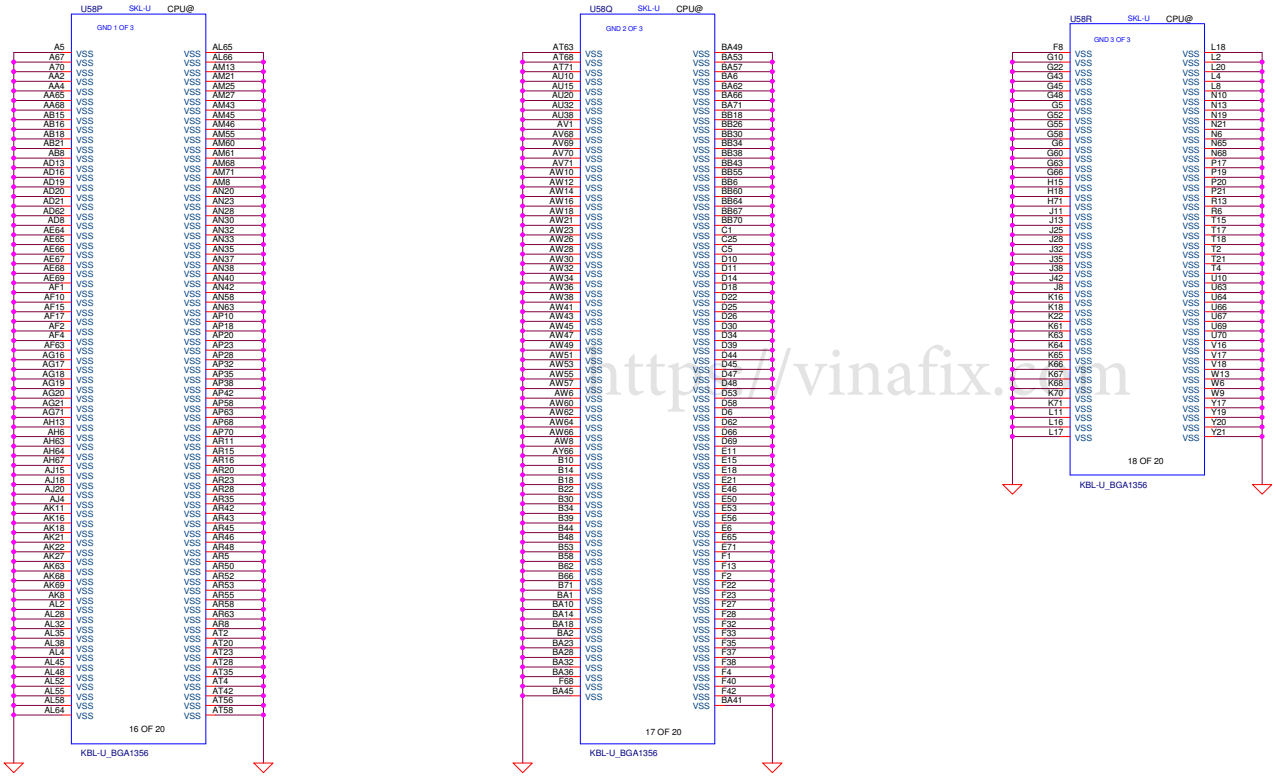
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: CPU : PCH POWER

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 16 of 75



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

Compal Electronics, Inc.

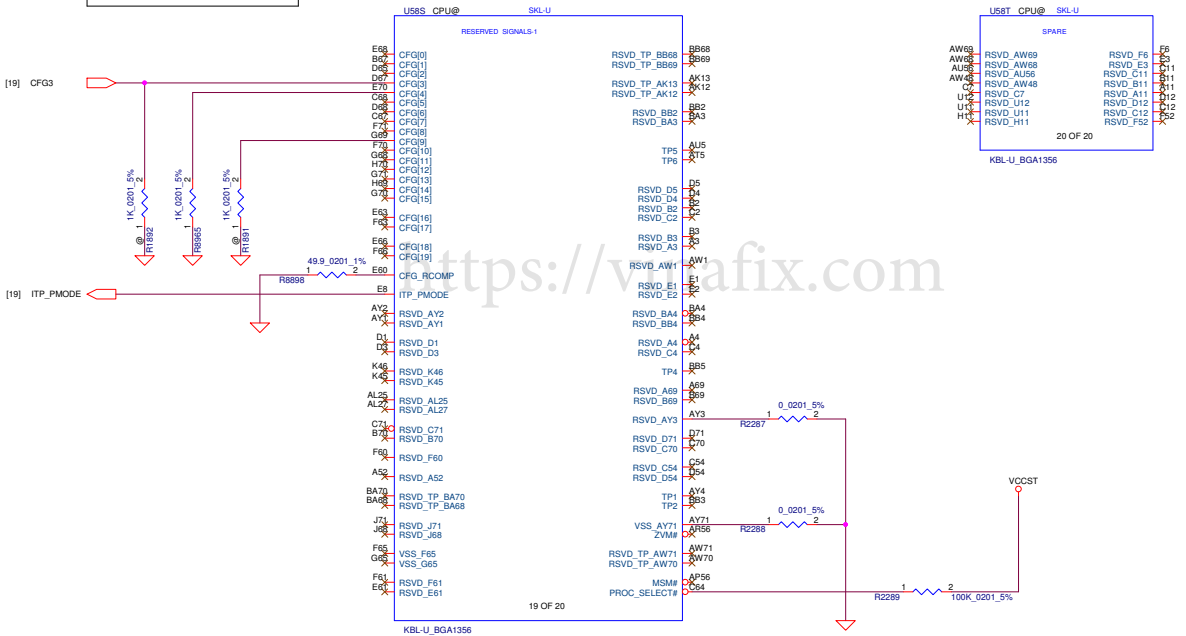
Title: **CPU : GND**

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 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] set tin** **0 : MSR (C80h) bit[0] overridden**
CFG4 : eDP Enable **1 : Disabled** **0 : Enabled**
CFG9 : SVID Bus Communication **1 : Enabled** **0 : Disabled**



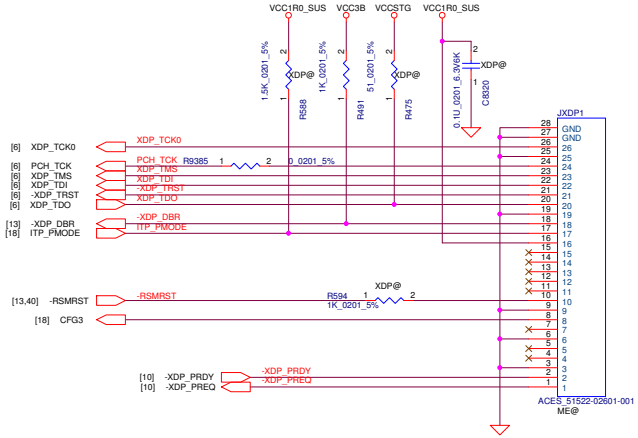
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: **CPU : CFG/RESERVED**

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 18 of 75



TABLE

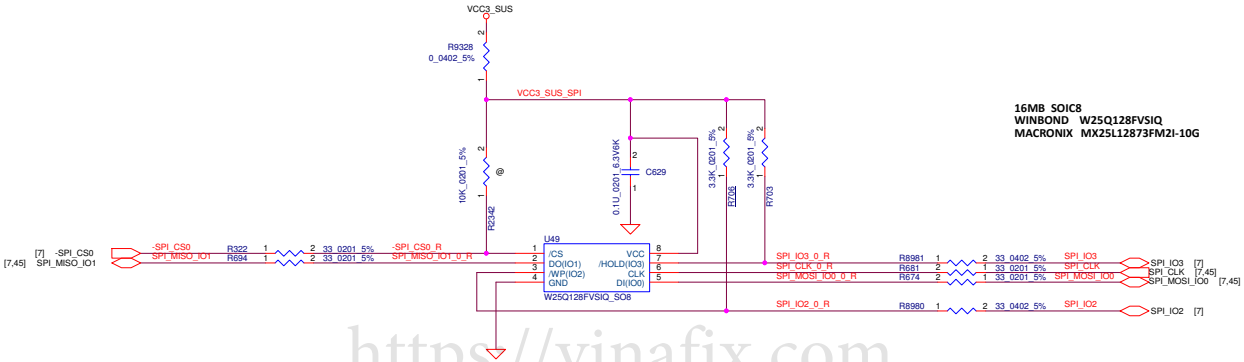
Logic	Ref Des	Merged	DCI 2.0
Page 7	R2559	ASM	NO_ASM
Page 18	R1982	ASM	NO_ASM
Page 19	J8	ASM	NO_ASM
	C8320	ASM	NO_ASM
	R475	ASM	ASM
	R491	ASM	ASM
	R588	ASM	NO_ASM
	R594	ASM	NO_ASM
	R2494	ASM	NO_ASM

Compal Electronics, Inc.

Title: XDP CONNECTOR

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 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

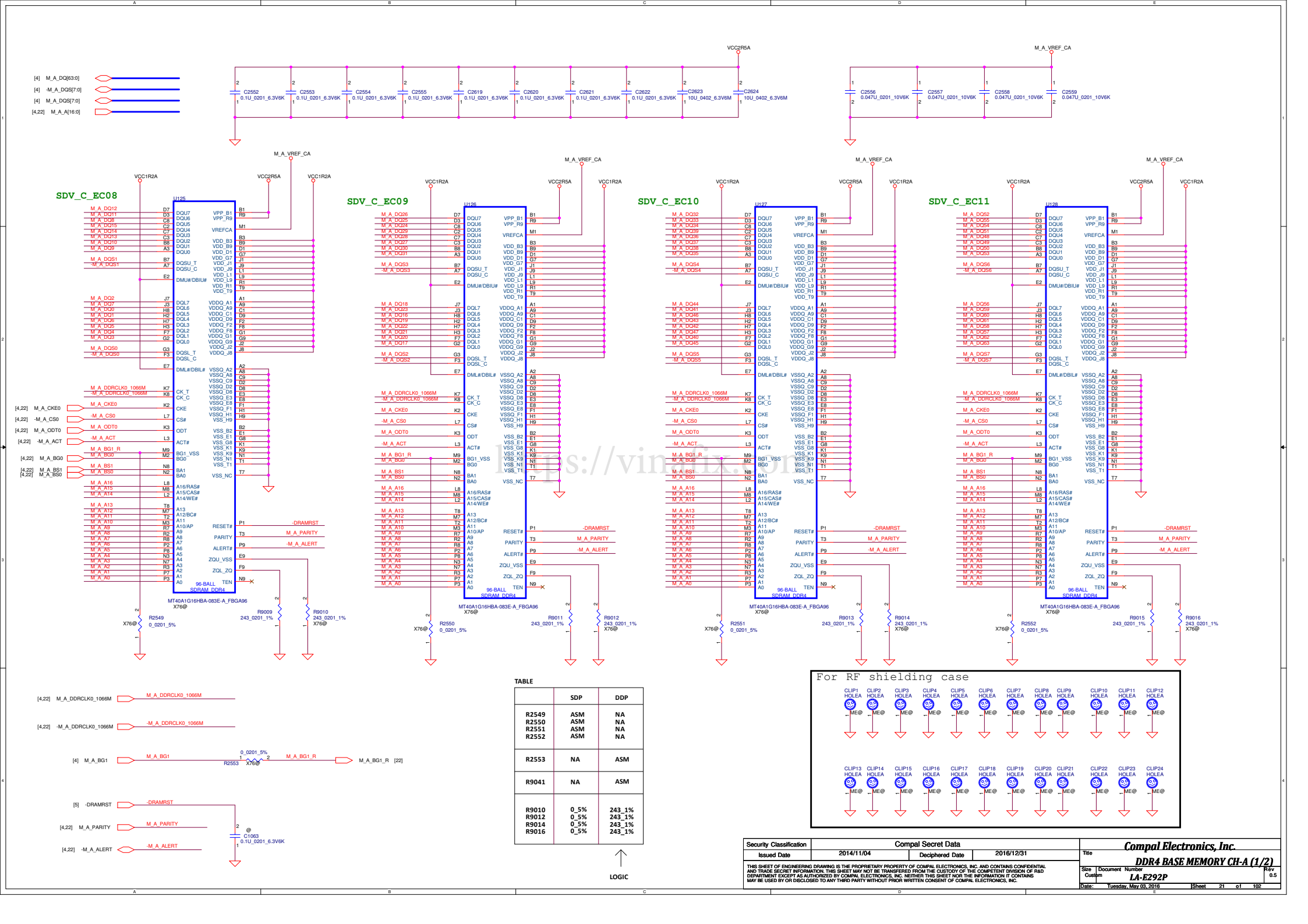
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: SPI FLASH

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 20 of 75



TABLE

	SDP	DDP
R2549 R2550 R2551 R2552	ASM ASM ASM ASM	NA NA NA NA
R2553	NA	ASM
R9041	NA	ASM
R9010 R9012 R9014 R9016	0_5% 0_5% 0_5% 0_5%	243_1% 243_1% 243_1% 243_1%

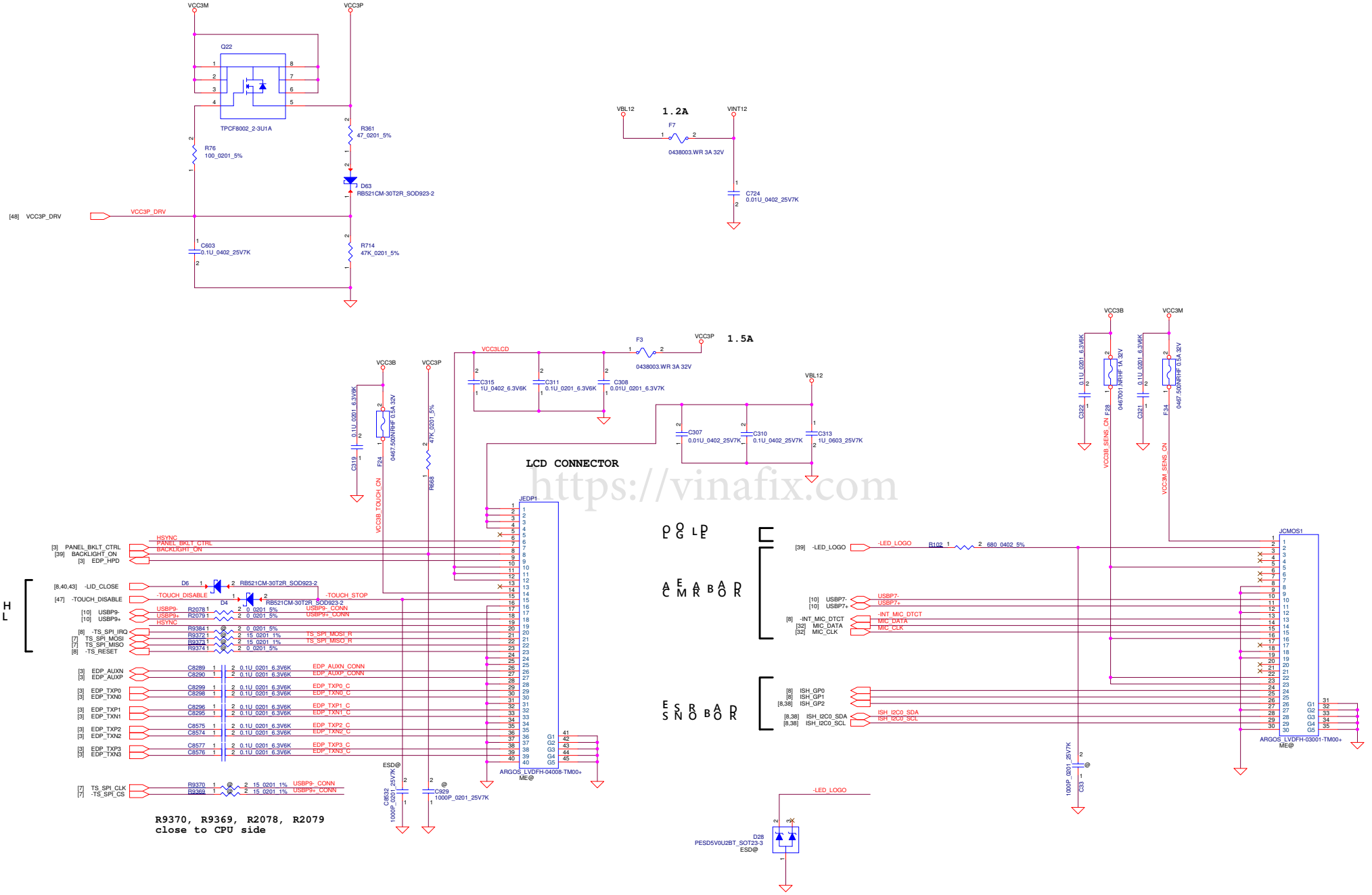
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DDR4 BASE MEMORY CH-A (1/2)

Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 21 of 102



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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 23 of 75		

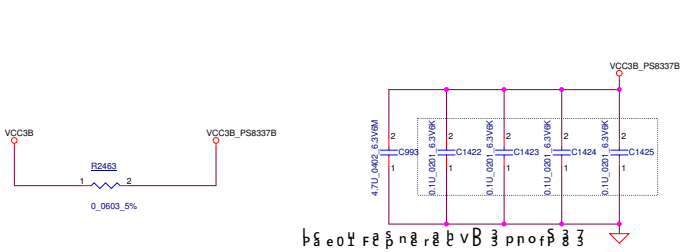
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DDR4 BASE MEMORY CH-A (2/2)

Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 23 of 102



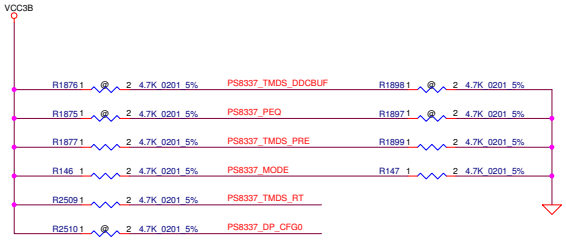
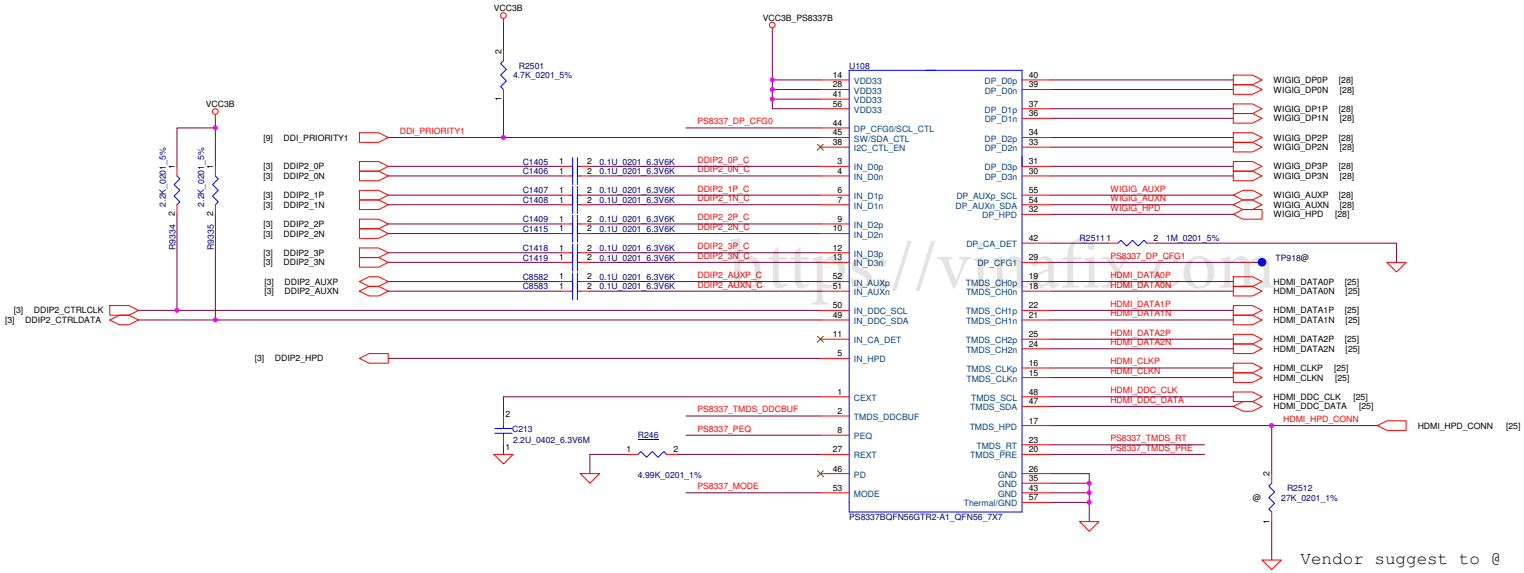


TABLE : Automatic Switching Mode (MODE = H, M)

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

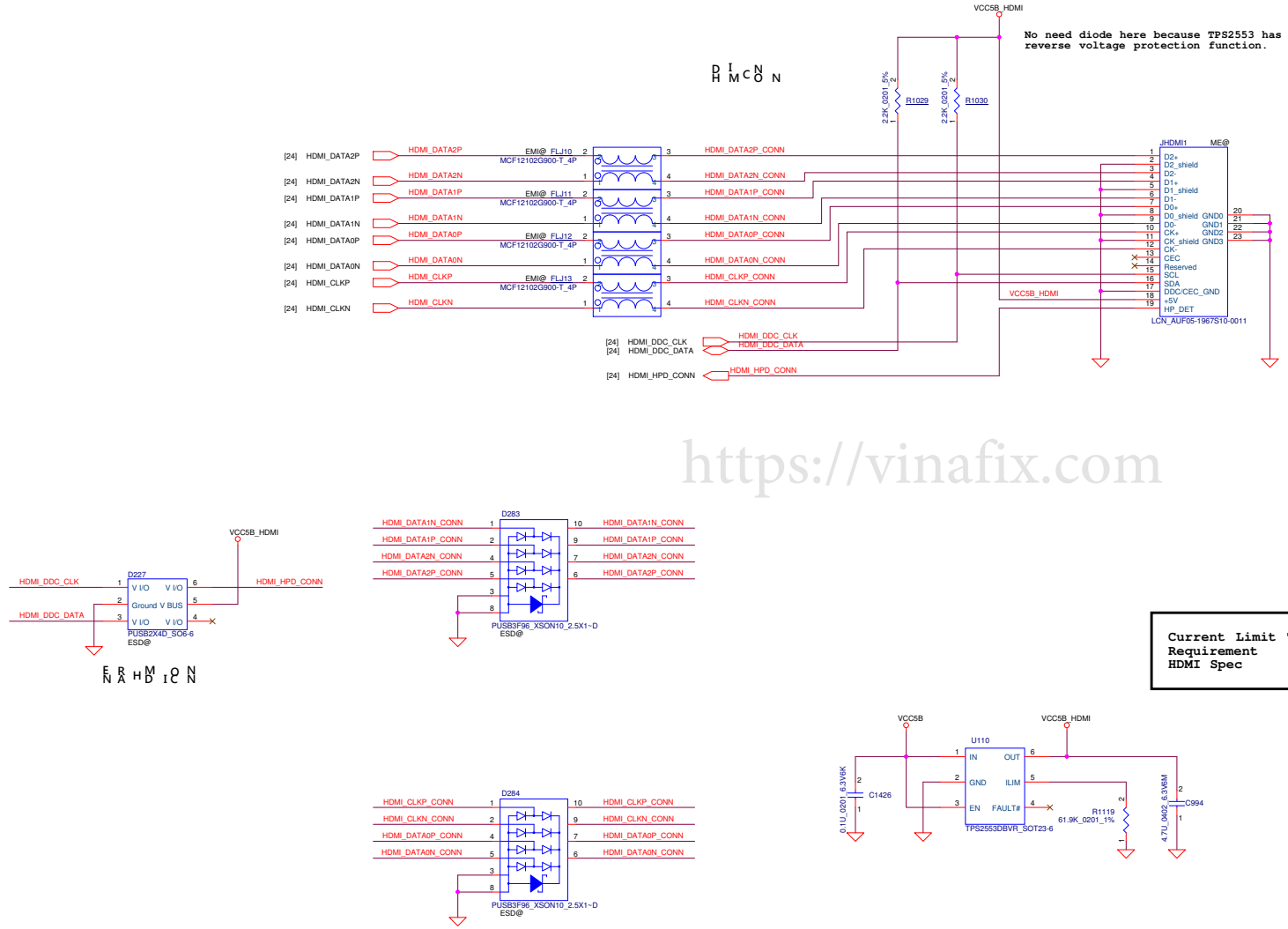
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DDI DEMUX/HDMI LEVEL SHIFT

Size: Custom | Document Number: LA-E292P | Rev: 0.1

Date: Tuesday, May 03, 2016 | Sheet 24 of 75




```
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

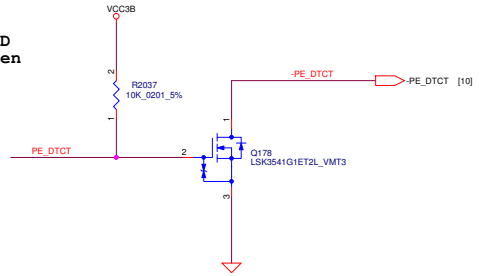
Compal Electronics, Inc.

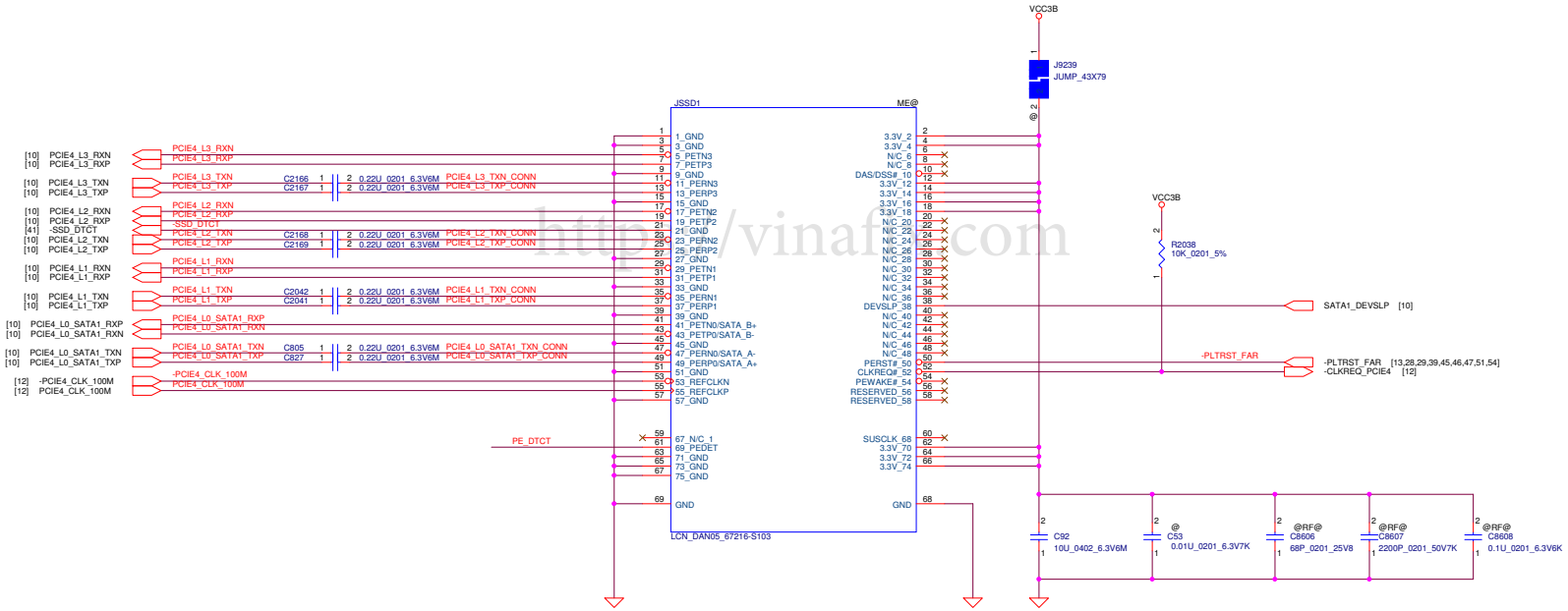
Title: HDMI CONNECTOR

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 25 of 75

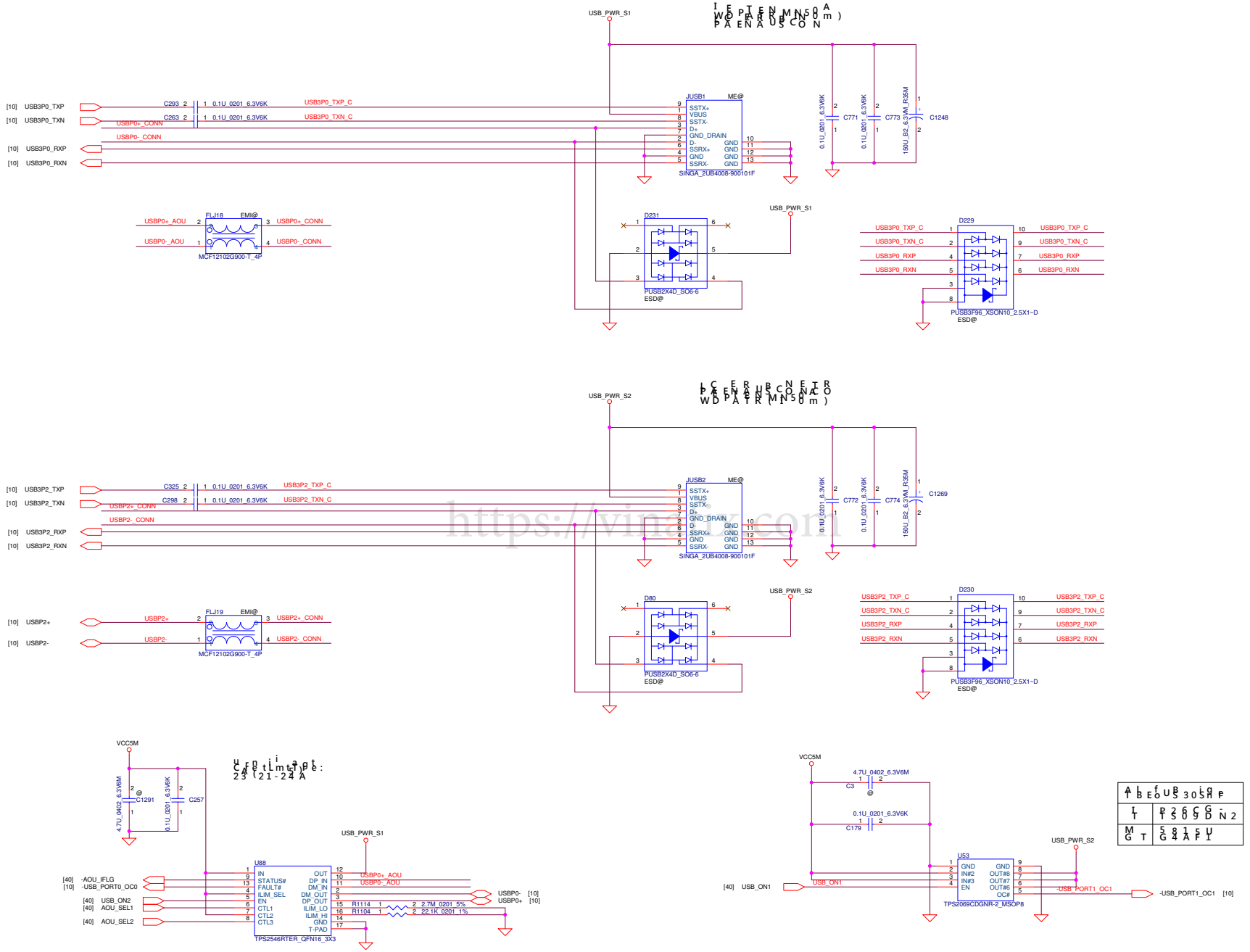
PEDET (PE_DTCT)
SATA Device GND
PCIe Device Open





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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 26 of 75		



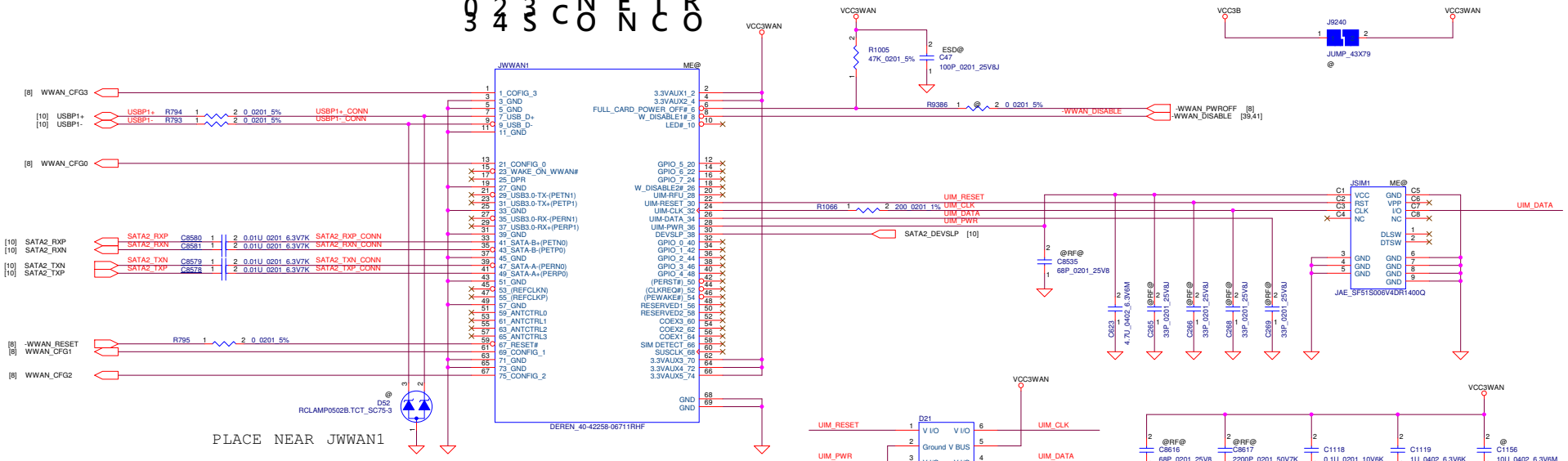
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

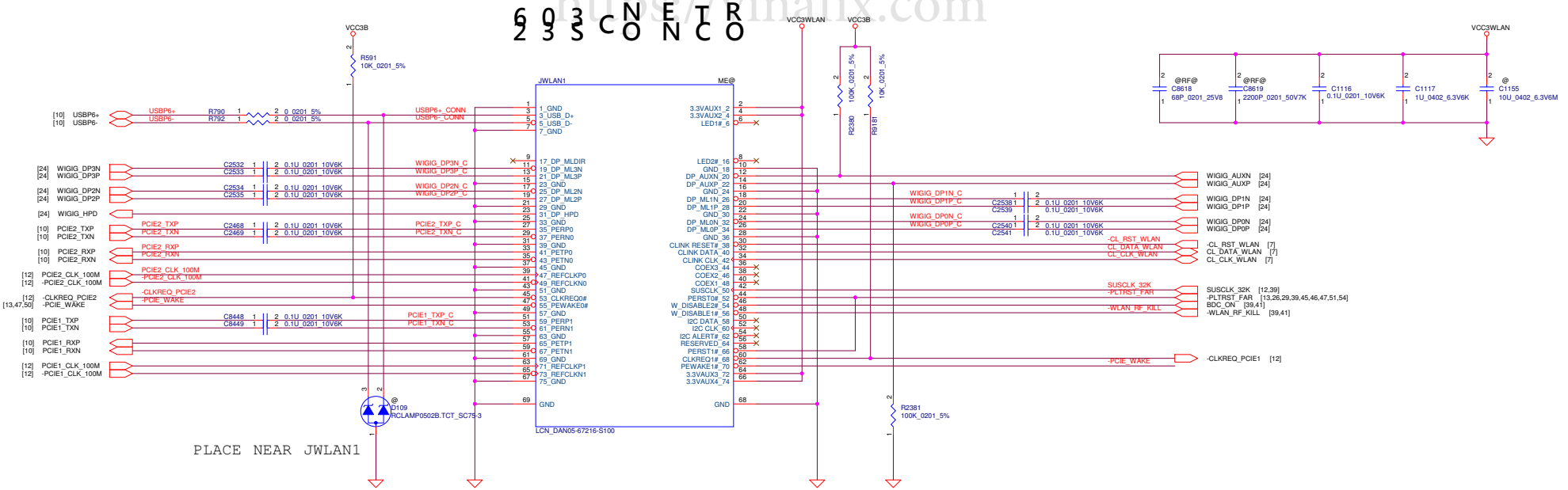
Compal Electronics, Inc.

Title: **USB POWER/CONN**

Size	Document Number	Rev
Custom	LA-E292P	0.1

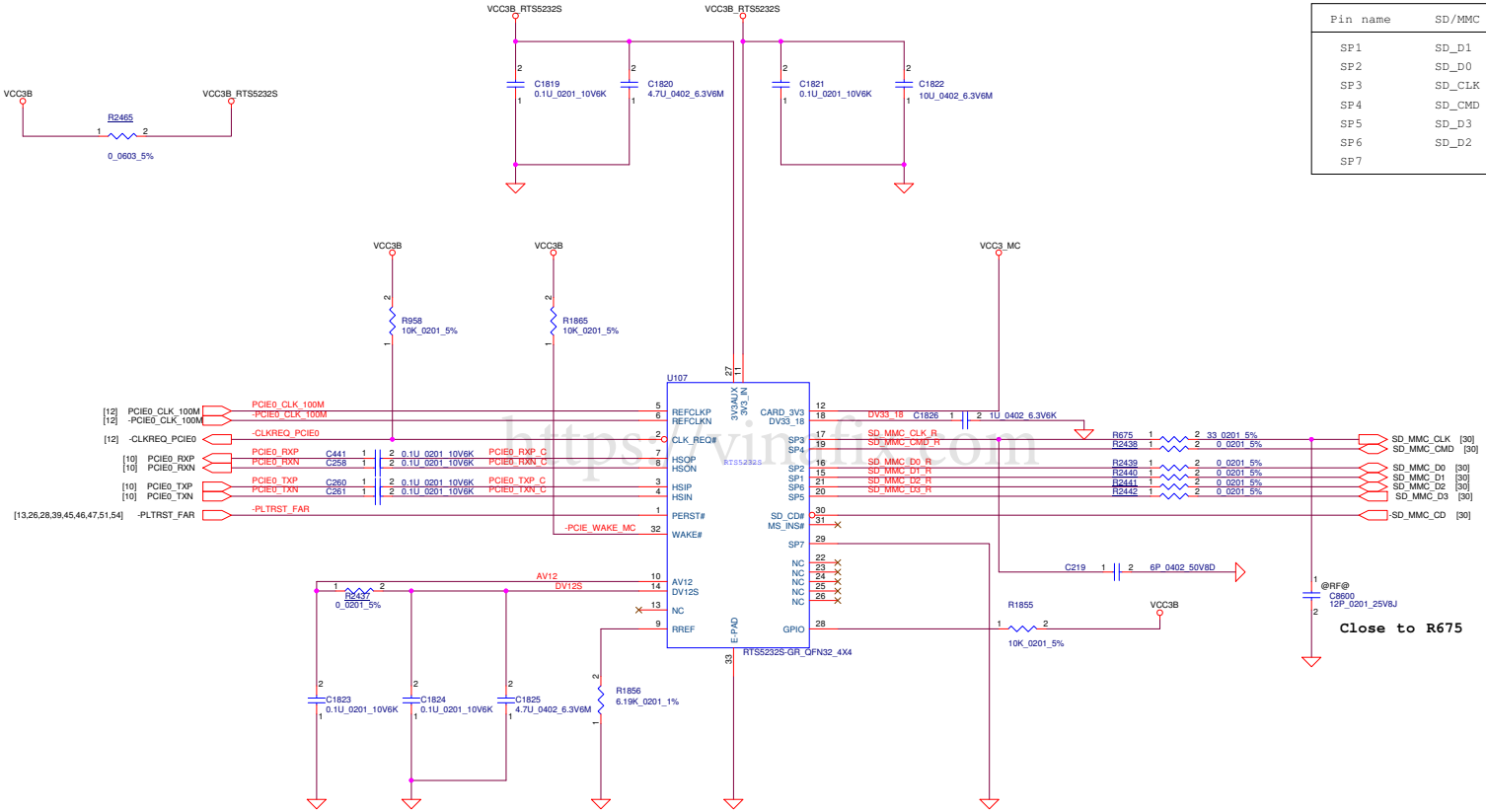
Date: Tuesday, May 03, 2016 | Sheet 27 of 75





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	Document Number		Rev
Custom	LA-E292P		0.1
Date:	Tuesday, May 03, 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		

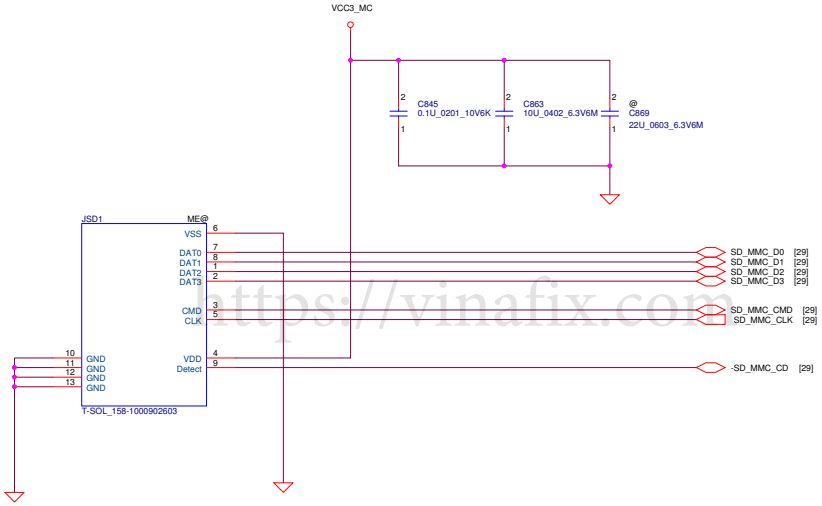
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: MEDIA CARD CONTROLLER

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 | Sheet 29 of 75



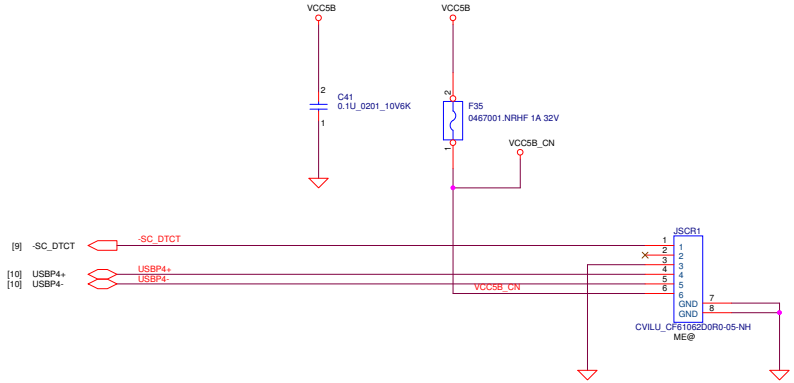
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

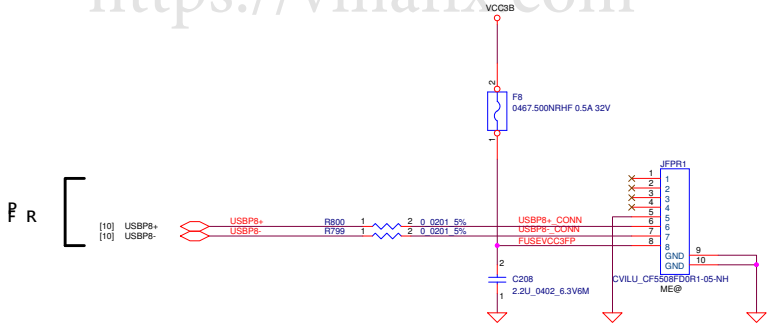
Compal Electronics, Inc.

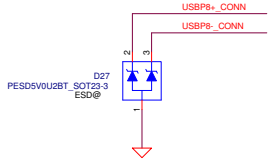
Title: **MEDIA CARD INTERFACE**

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 31 of 75		

TABLE MIC HW ENABLE/DISABLE

	ENABLE	DISABLE
R961	ASM	NO ASM
R119	ASM	NO ASM

LOGIC

Reserve for EMI/ESD

CX11771

USE SHAPE

PLACE NEAR CODEC

PLACE UNDER CX11871-11Z

R2015
Place TOP Layer -> 0.01 0306_1/3W
Place BOTTOM Layer -> 0.001 0603 1/10W

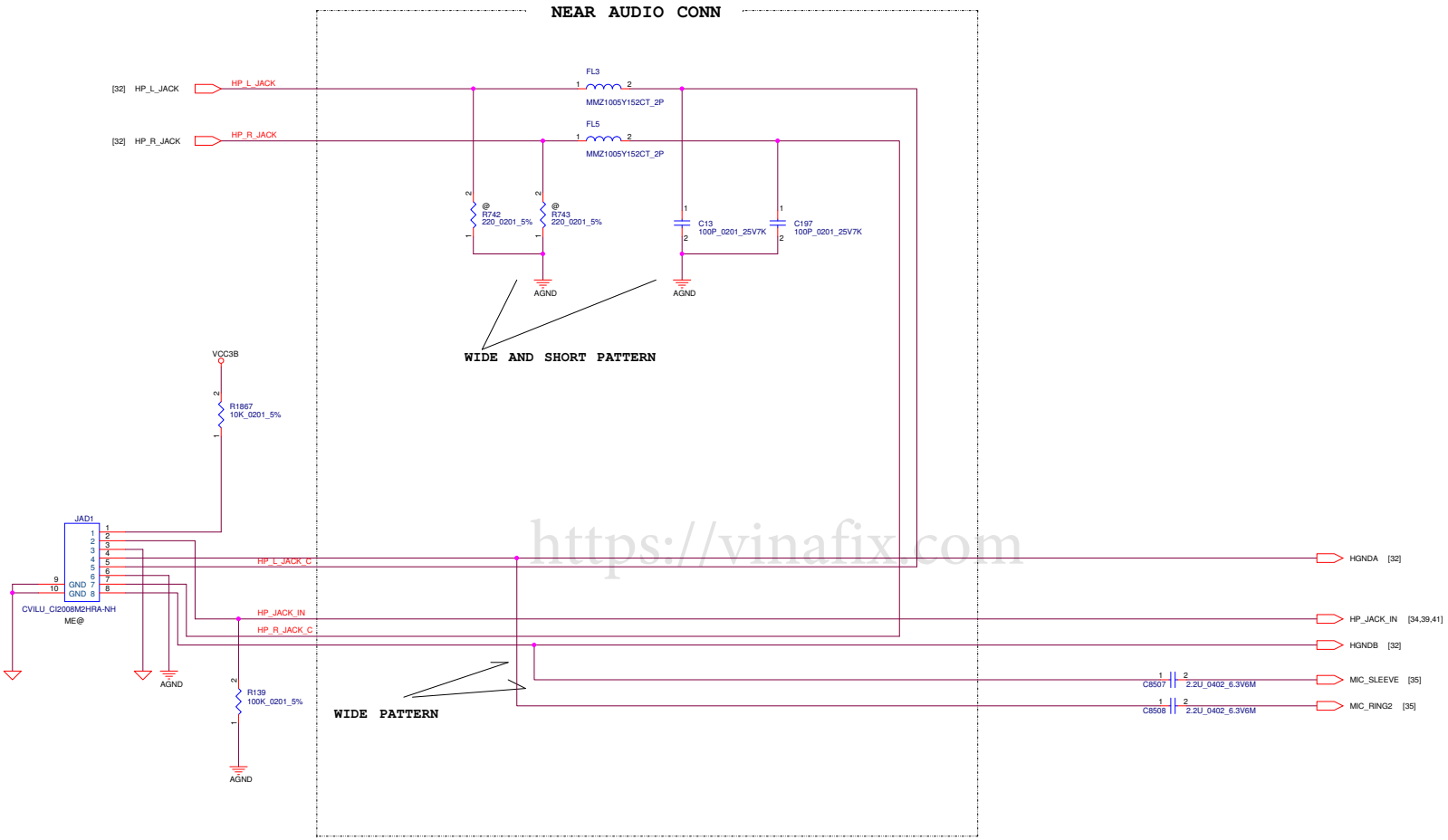
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: AUDIO CX11771

Size: Custom | Document Number: LA-E292P | Rev: 0.1

Date: Tuesday, May 03, 2016 | Sheet 32 of 75



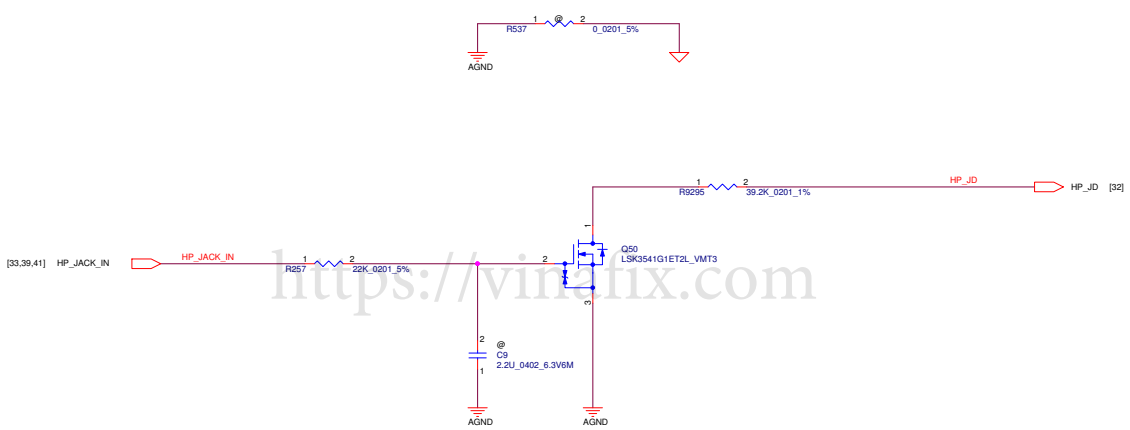
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: AUDIO CONNECTOR

Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 33 of 75



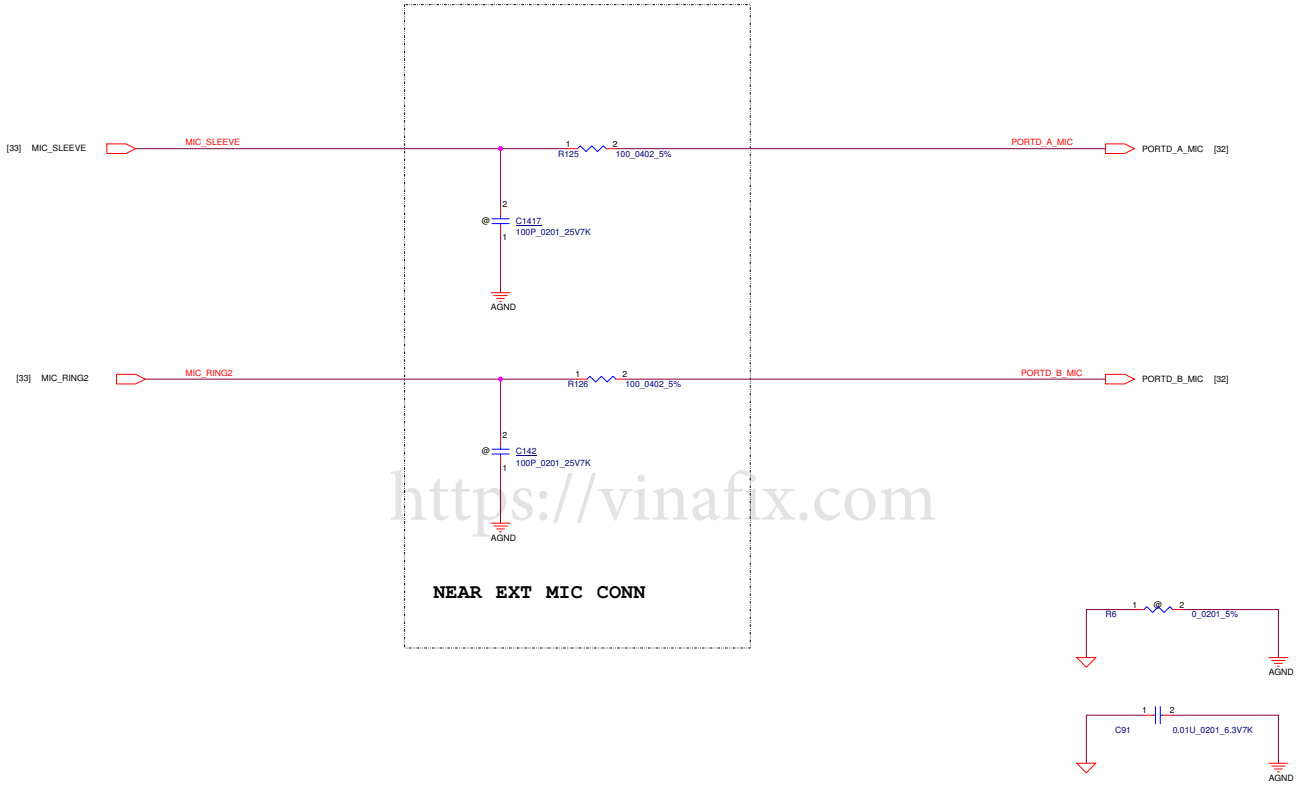
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: **AUDIO JACK SENSE**

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 | Sheet 34 of 75



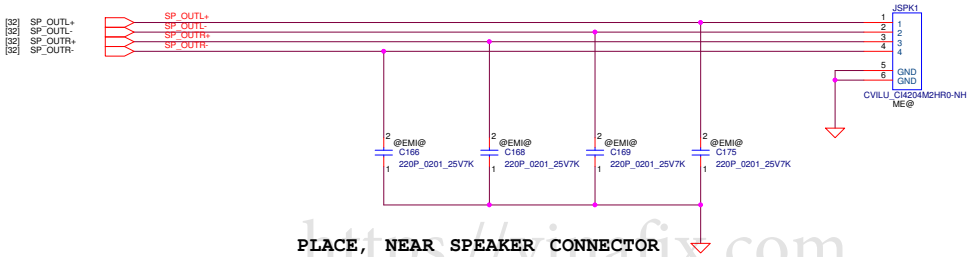
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: **AUDIO EXT MIC I/F**

Size	Document Number	Rev
Custom	LA-E292P	0.1

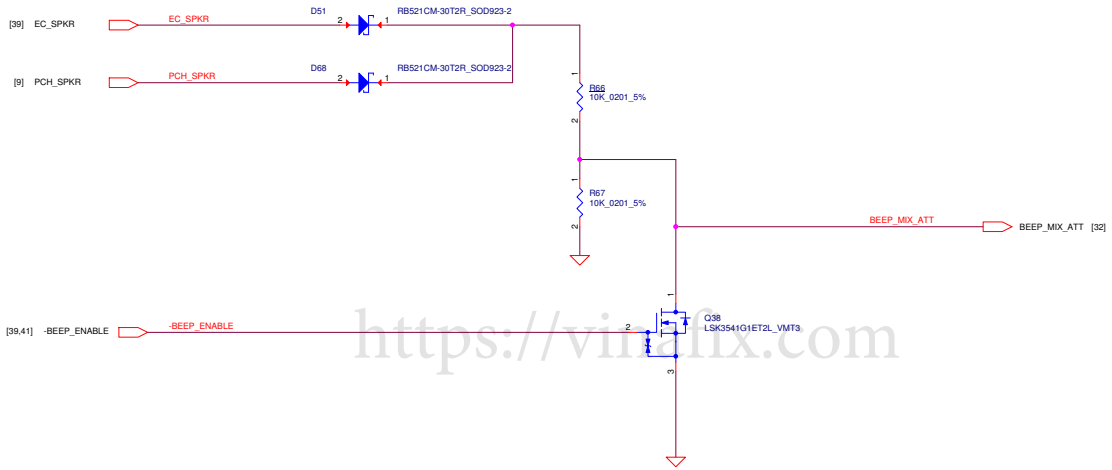
Date: Tuesday, May 03, 2016 | Sheet 35 of 75



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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016		Sheet 36 of 75	



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

Compal Electronics, Inc.

Title: **AUDIO BEEP**

Size	Document Number	Rev
Custom	LA-E292P	0.1

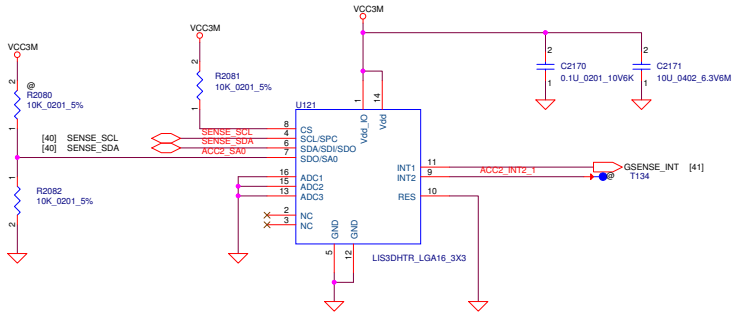
Date: Tuesday, May 03, 2016 | Sheet 37 of 75

TABLE

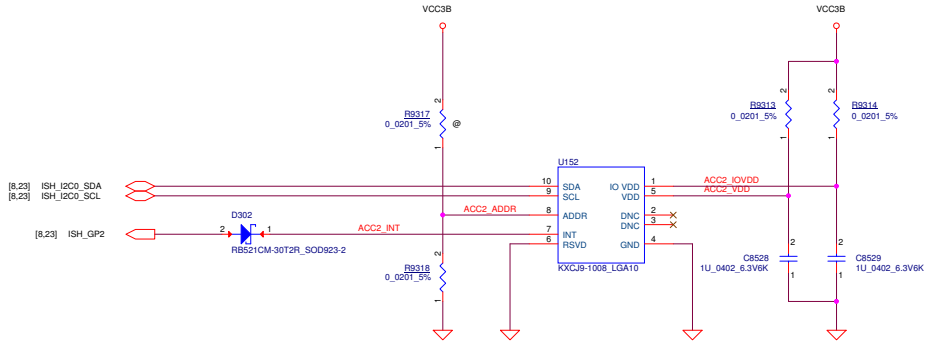
CS	Mode Selection
H	I2C Mode
L	SPI Mode

TABLE

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



LIS3DHTR Address: 0x30h



KXCJ9 Address: 0x1Ch

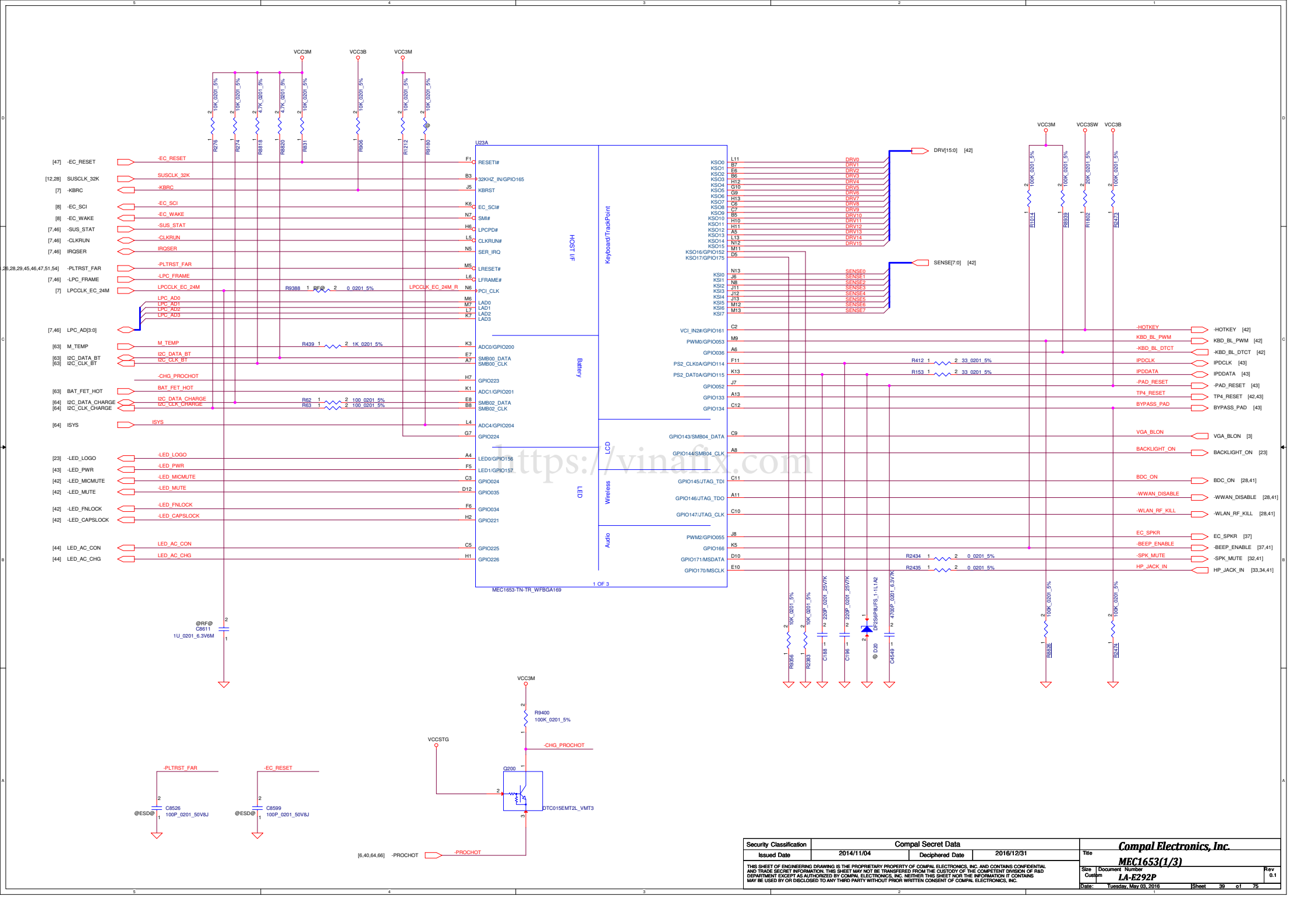
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: **SENSOR INTERFACE**

Size	Document Number	Rev
Custom	LA-E292P	0.1

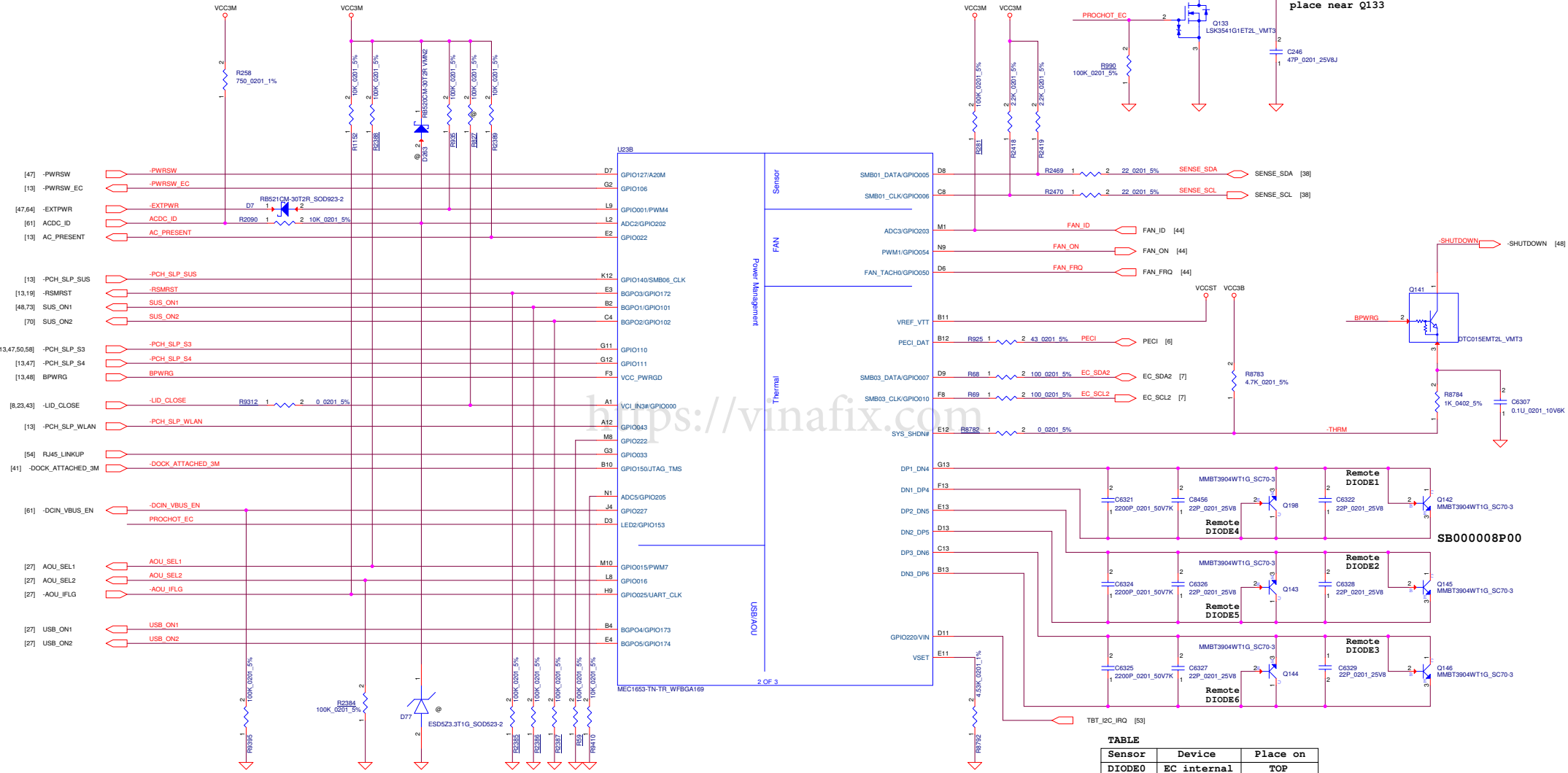
Date: Tuesday, May 03, 2016 | Sheet 38 of 75



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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016		Sheet 39 of 75	

R258: 750_1% for New AC Adapter



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.

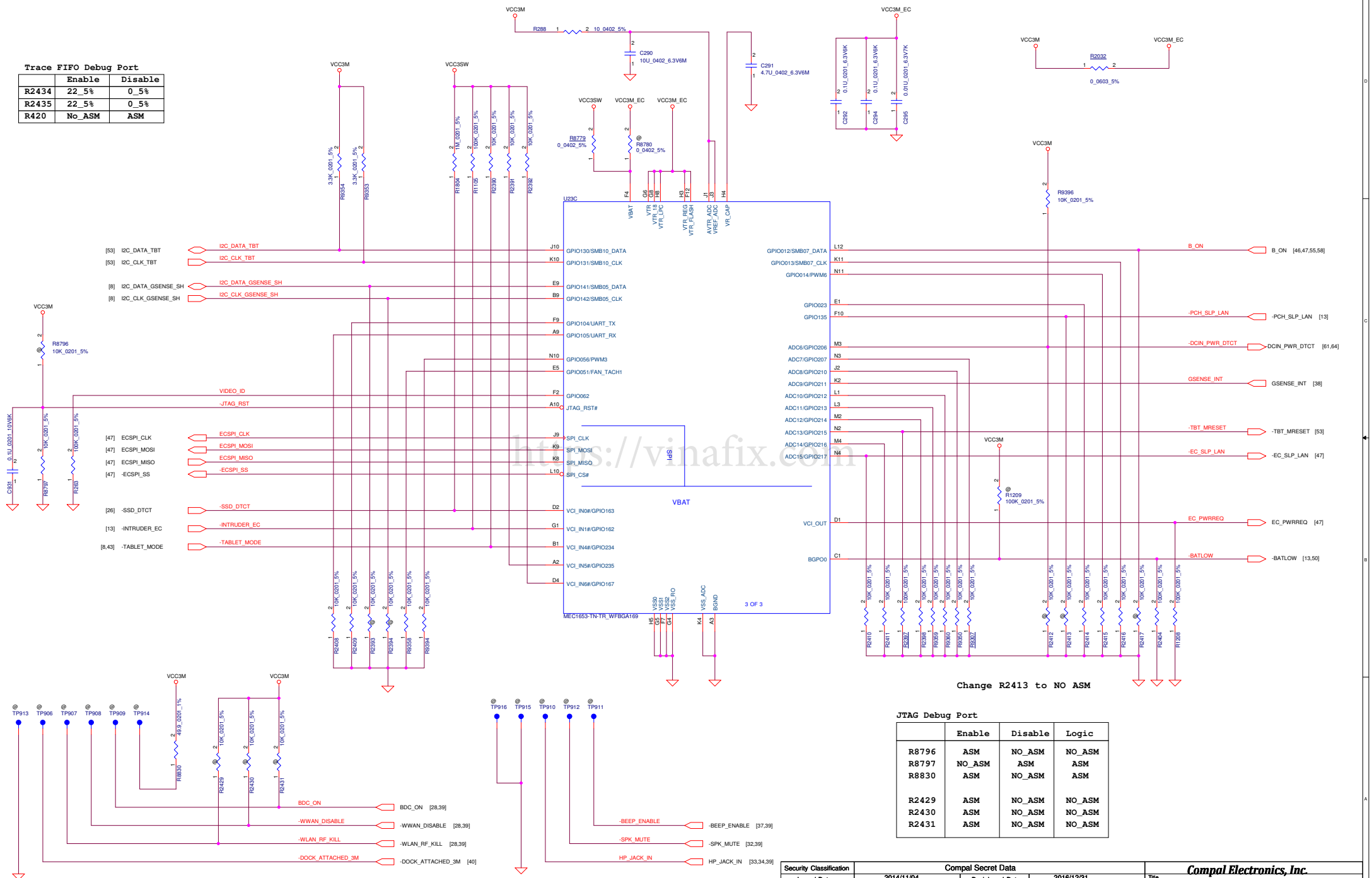
Title: MEC1653(2/3)

Size: Custom | Document Number: LA-E292P | Rev: 0.1

Date: Tuesday, May 03, 2016 | Sheet 40 of 75

Trace FIFO Debug Port

	Enable	Disable
R2434	22_5%	0_5%
R2435	22_5%	0_5%
R420	No_ASM	ASM



Change R2413 to NO ASM

JTAG Debug Port

	Enable	Disable	Logic
R8796	ASM	NO_ASM	NO_ASM
R8797	NO_ASM	ASM	ASM
R8830	ASM	NO_ASM	ASM
R2429	ASM	NO_ASM	NO_ASM
R2430	ASM	NO_ASM	NO_ASM
R2431	ASM	NO_ASM	NO_ASM

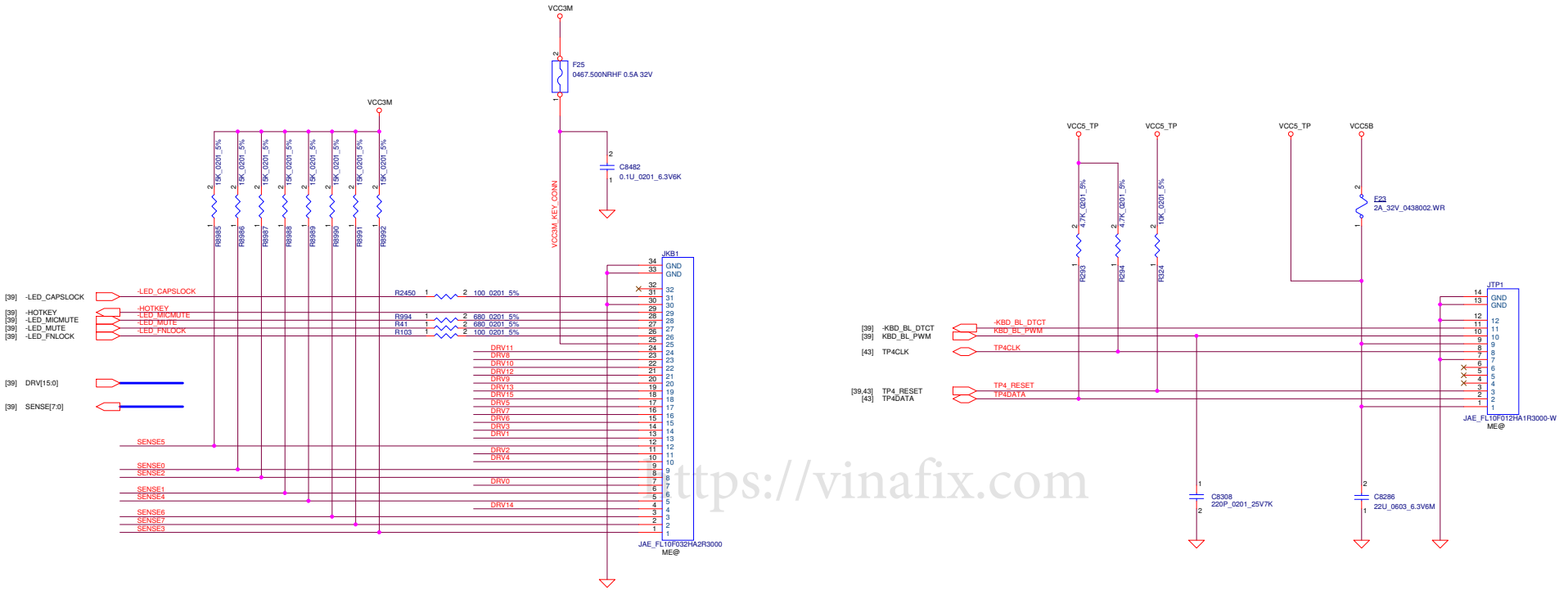
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: MEC1653(3/3)

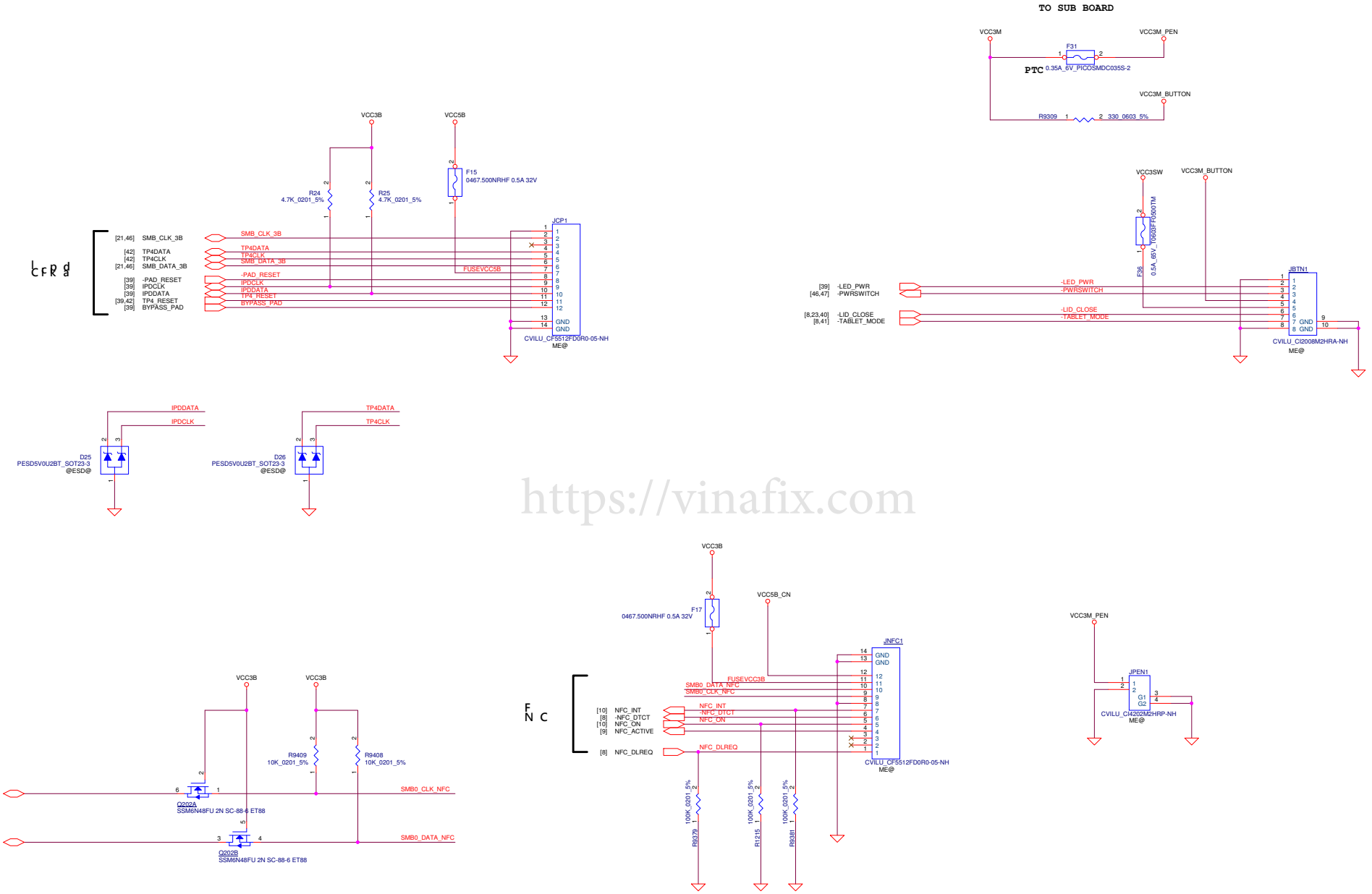
Size: Custom | Document Number: LA-E292P | Rev: 0.1

Date: Tuesday, May 03, 2016 | Sheet 41 of 75



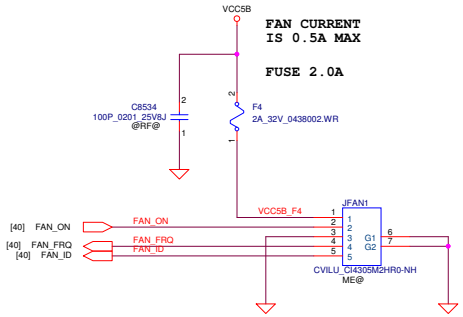
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

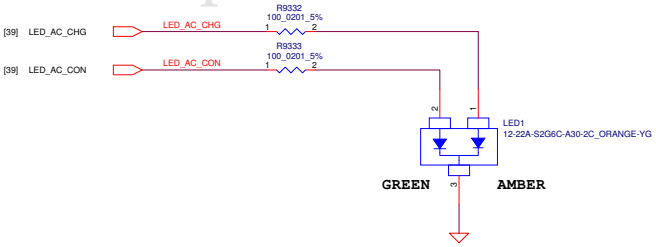
Compal Electronics, Inc.			
Title	KEYBOARD/TRACK POINT		
Size: Custom	Document Number: LA-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 42 of 75		



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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 43 of 75		





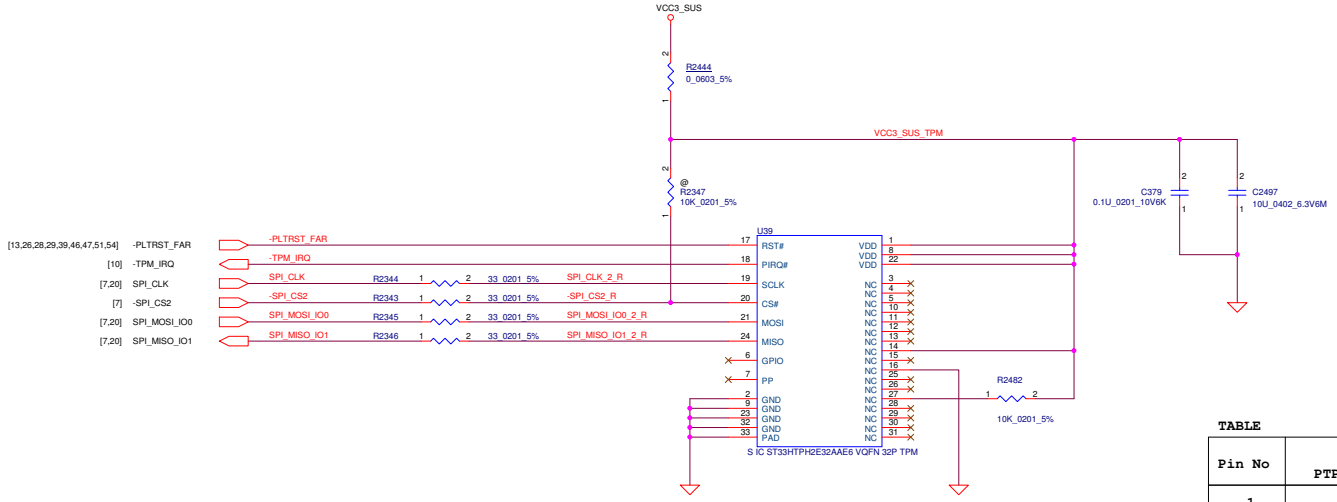
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: FAN CONNECTOR/ LED

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 44 of 75



-Change TPM1.2 to TPM2.0
-Infineon SLB9670VQ2.0 part number SA00009N200
-ST ST33HTPH2E32AAE6 part number SA00009SO00

TABLE

Pin No	TCG PTP Spec (v38)	Infineon SLB9670VQ1.2 FW 6.40	Nuvoton NPCT650LB0YX
1	VDD	VDD	VSB
2	GND	GND	NC
3	GPIO	NC	GPX/GPIO2
4	GPIO	NC	PP
5	NC	NC	TEST
6	VNC/GPIO	GPIO	GPIO3
7	GPIO/VDD	PP	NC
8	VDD	VDD	VDD
9	GND	GND	GND
10	VNC	NC	NC
11	NC	NC	NC
12	NC	NC	Reserved
13	VNC/GPIO	NC	GPIO4
14	VDD	NC	VDD
15	NC	NC	DNC
16	GND	NC	GND
17	SPI_RST#	RST#	SPI_RST#
18	SPI_PIRQ#	PIRQ#	SPI_PIRQ#
19	SPI_CLK	SCLK	SCLK
20	SPI_CS#	CS#	SCS#
21	MOSI	MOSI	MOSI
22	VDD	VDD	VDD
23	GND	GND	GND
24	MISO	MISO	MISO
25	NC	NC	NC
26	NC	NC	NC
27	NC	NC	(SERIRQ)
28	NC	NC	DNC
29	VNC/ GPIO	NC	GPIO0
30	VNC/ GPIO	NC	GPIO1
31	VNC	NC	NC
32	GND	GND	GND

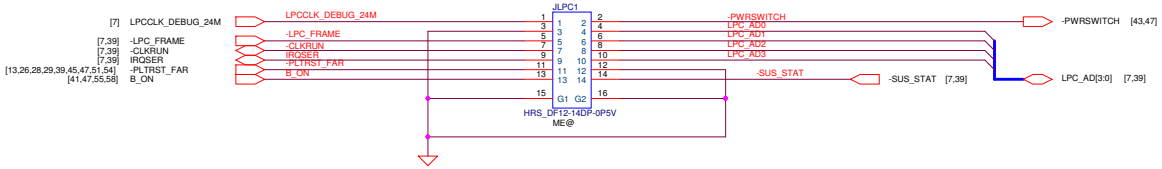
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

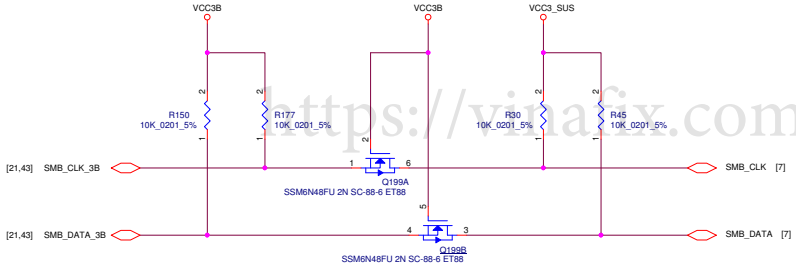
Compal Electronics, Inc.			
Title: DISCRETE TPM 2.0			
Size: Custom	Document Number: LA-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 45 of 75		

TABLE

REF DES	ENABLE	DISABLE
JLPC1	ASM	NO_ASM
R220	ASM	NO_ASM

LOGIC





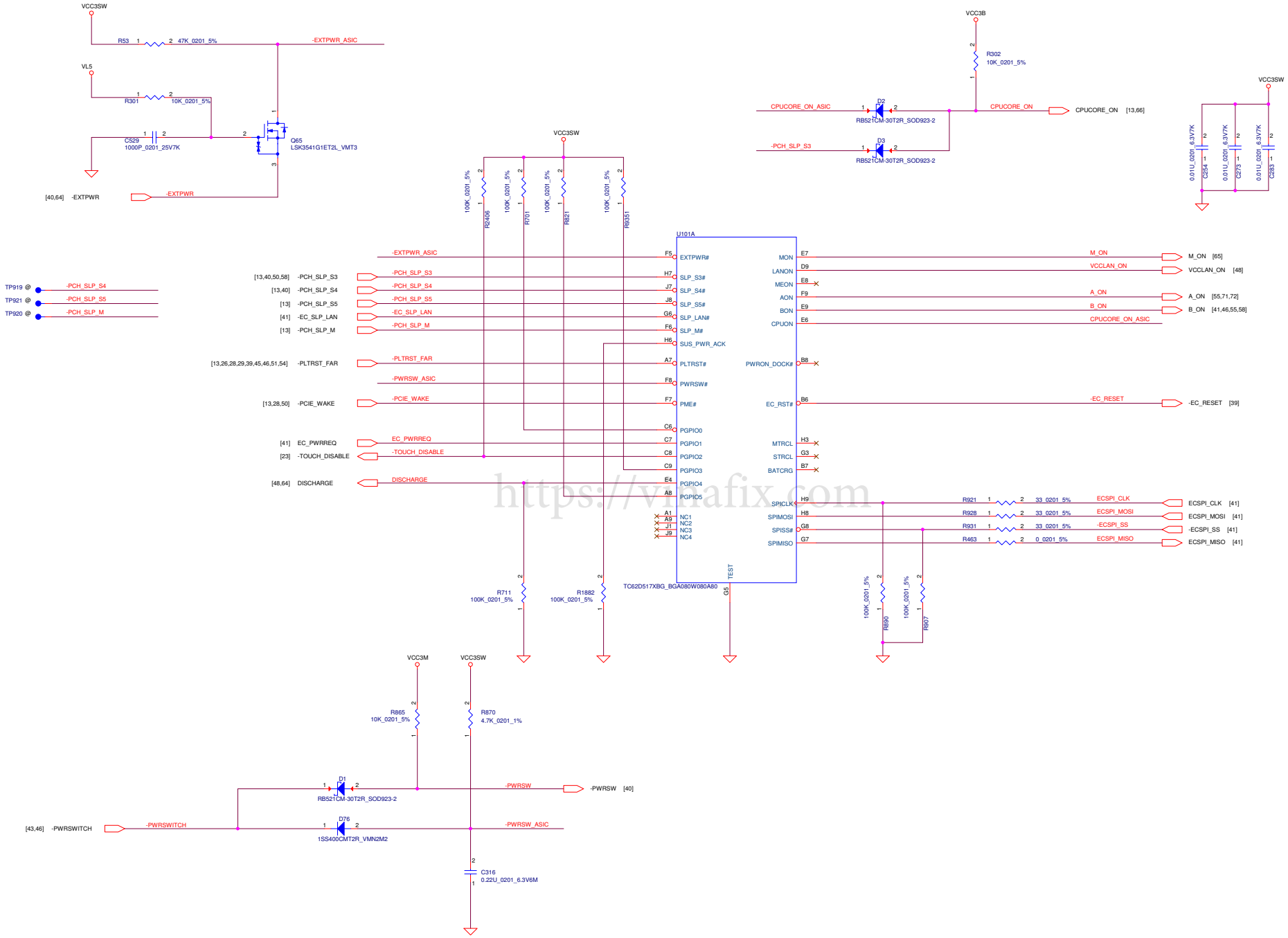
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: SMBUS SWITCH/LPC DEBUG POR

Size	Document Number	Rev
Custom	LA-E292P	0.1

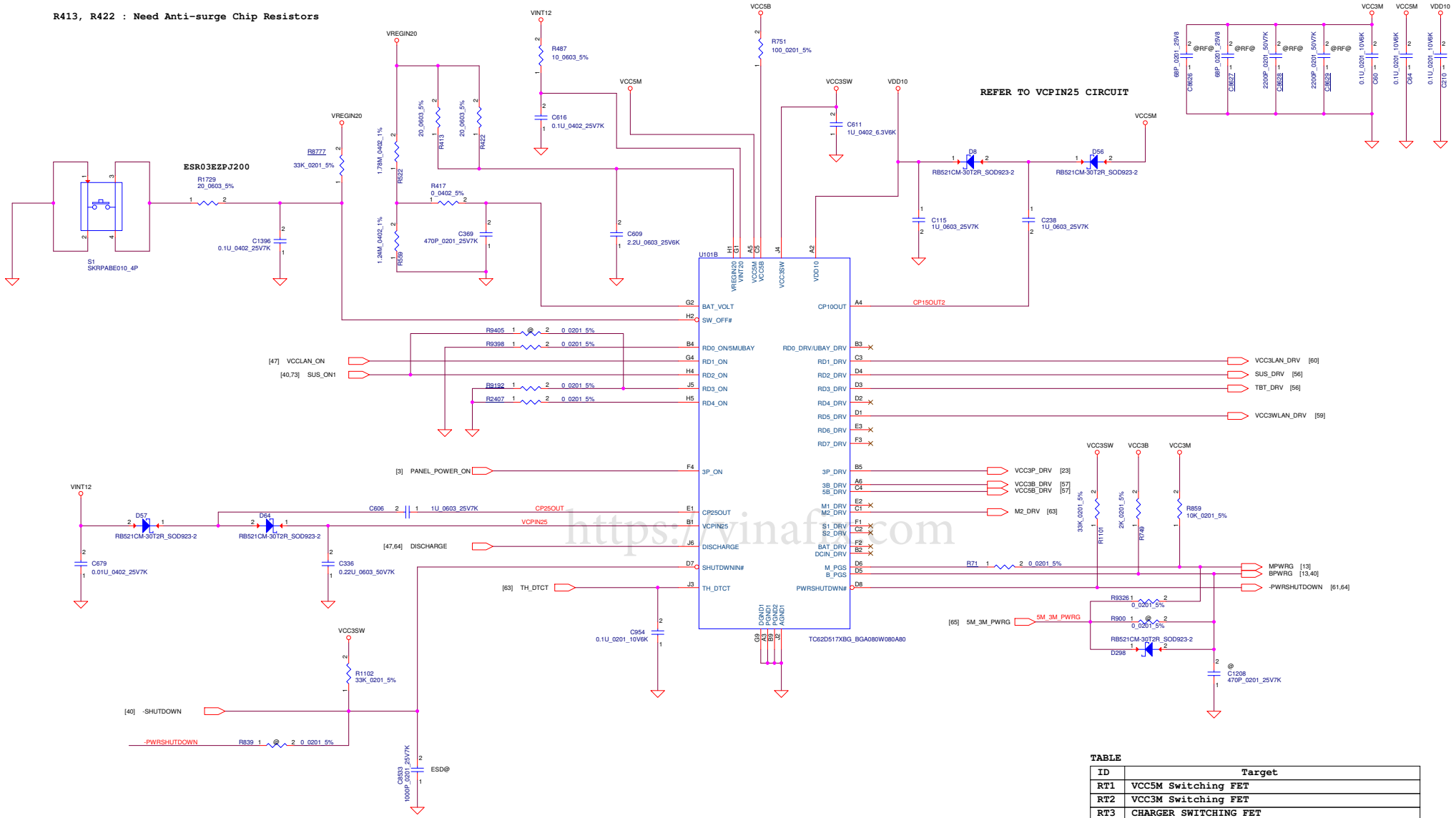
Date: Tuesday, May 03, 2016 Sheet 46 of 75



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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 47 of 75		

R413, R422 : Need Anti-surge Chip Resistors



TABLE

ID	Target
RT1	VCC5M Switching FET
RT2	VCC3M Switching FET
RT3	CHARGER SWITCHING FET
RT4	M_BAT_PWR to BAT PWR12 FET
RT5	CHAGEROUT12 to BAT PWR12 FET
RT6	VCCSA MOSFET Drver NCP81382
RT7	VCCCPUCORE MOSFET Driver NCP81382
RT8	VCCCGFXCORE-I MOSFET Driver NCP81382
RT9	CPU Die
RT10	DOCK PWR20 IN to DOCK_PWR20 FET
RT11	DCIN_PWR20_F to CV20_FET

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

Compal Electronics, Inc.

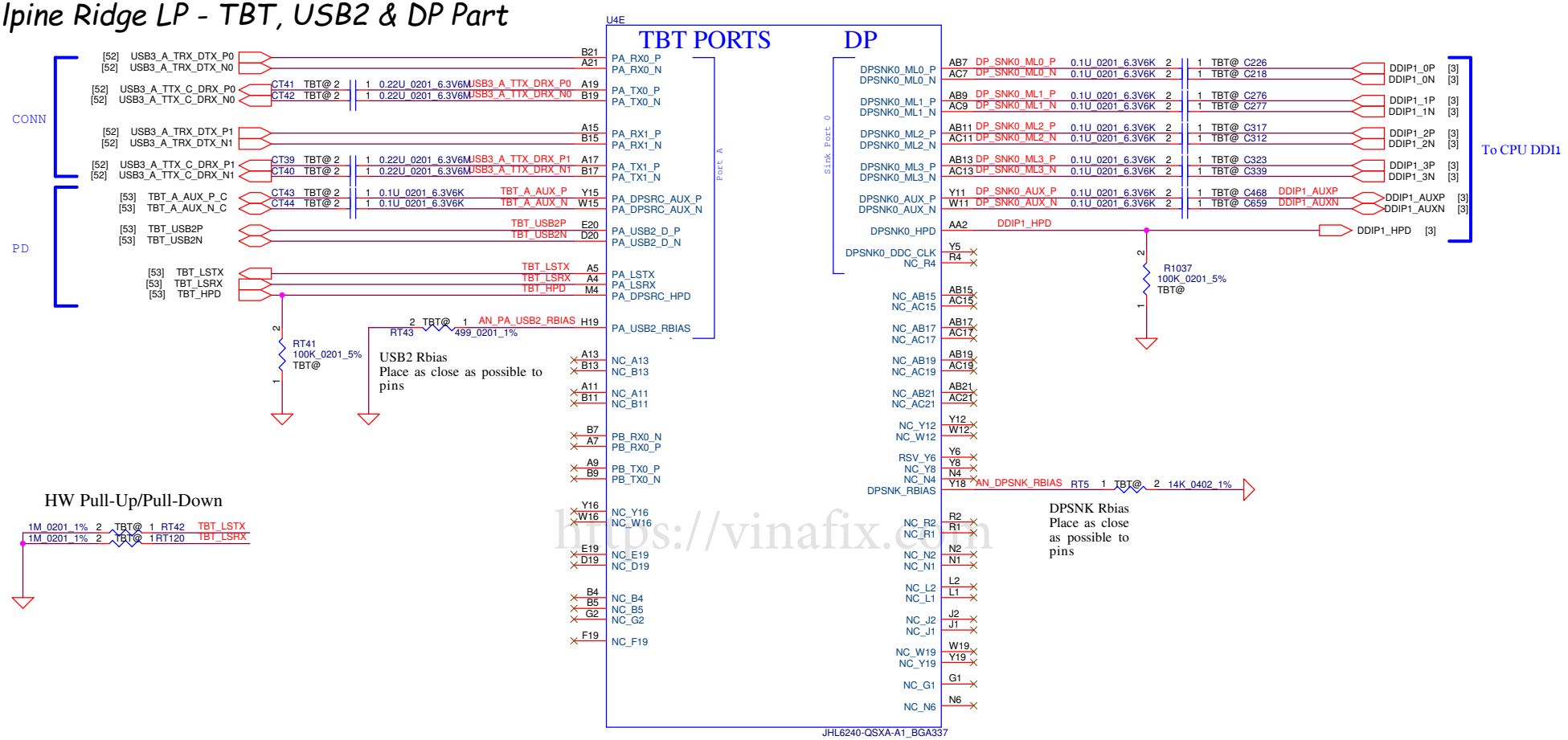
Title: THINK ENGINE(2/2)

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 48 of 75

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.

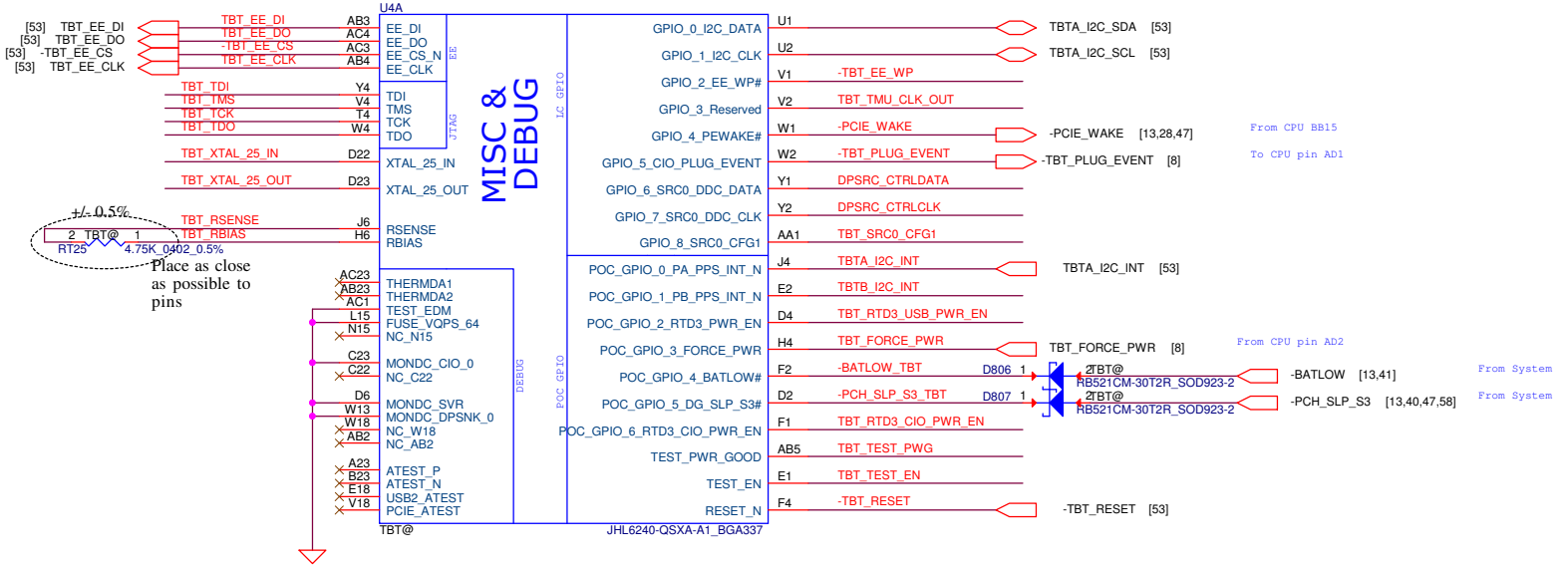
Title: **AR : CIO/DP**

Size	Document Number	Rev
A3	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 49 of 75

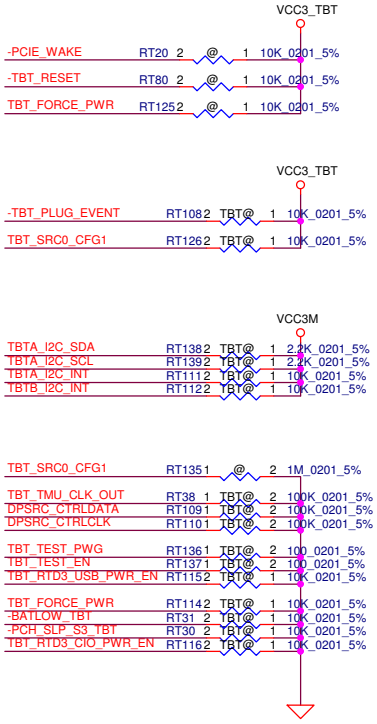
Alpine Ridge LP - Misc Part

Alpine Ridge LP - Misc
Symbol

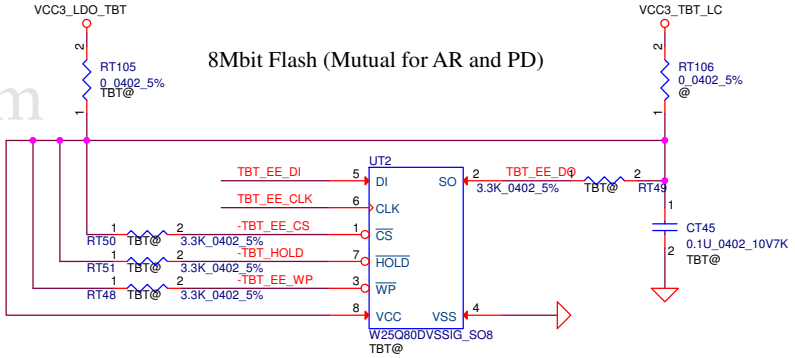


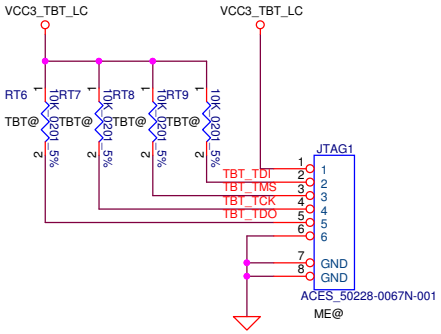
HW Pull-Up/Pull-Down

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

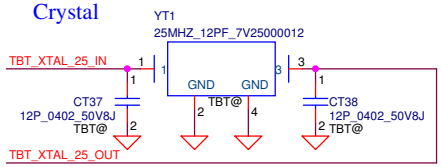


8Mbit Flash (Mutual for AR and PD)





25MHZ 12PF +-20PPM
Crystal



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

Compal Electronics, Inc.

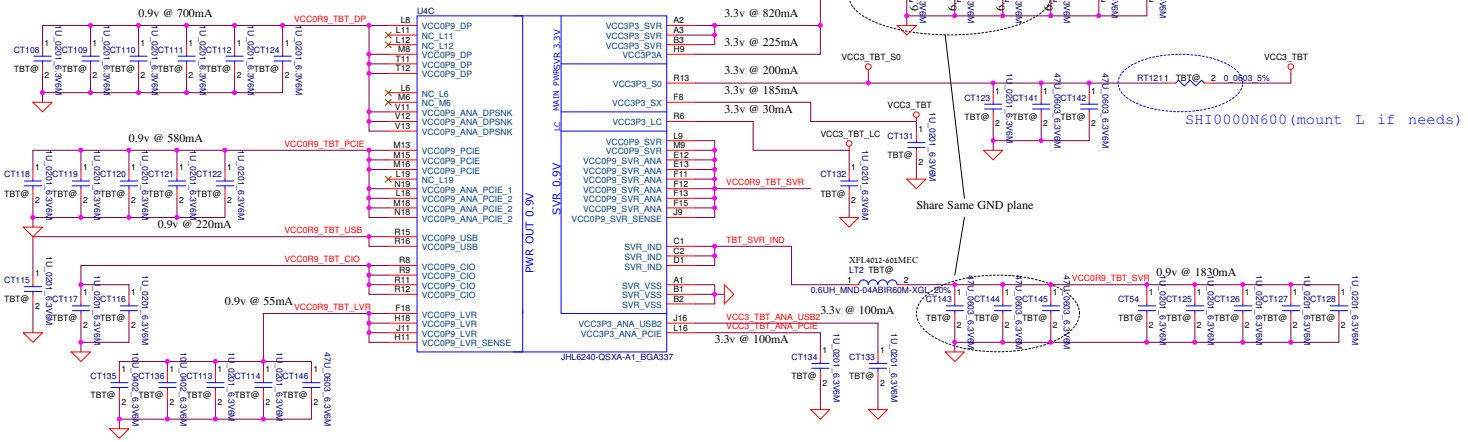
Title: **AR : MISC**

Size: A3 | Document Number: **LA-E292P** | Rev: 0.5

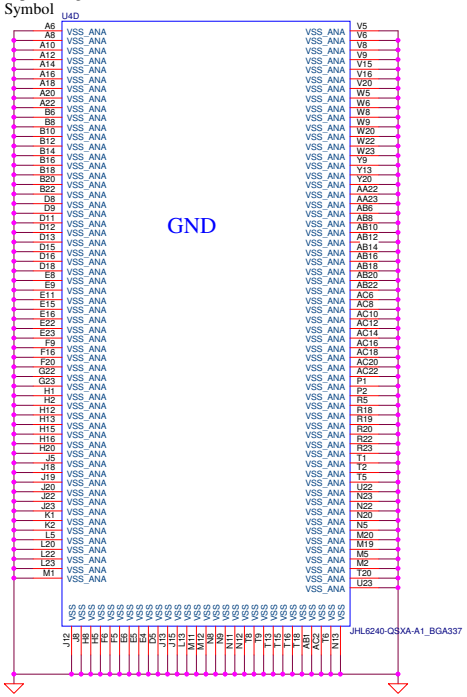
Date: Tuesday, May 03, 2016 | Sheet 50 of 75

Alpine Ridge LP - Power Supply

Alpine Ridge SP - VCC
Symbol



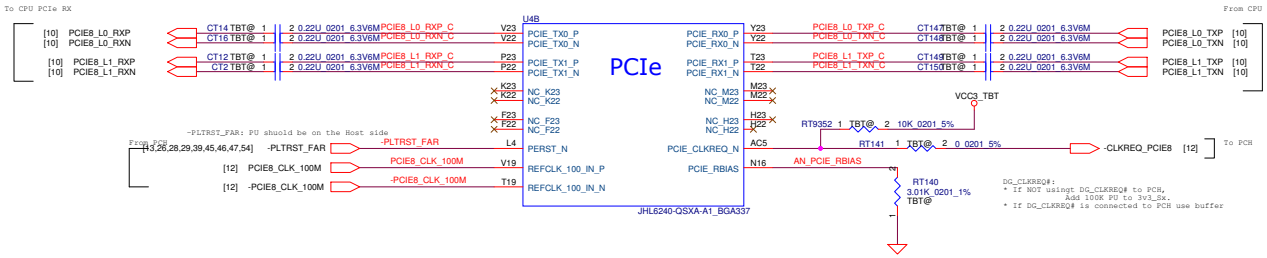
Alpine Ridge SP - GND
Symbol



AR-LP Power & GND

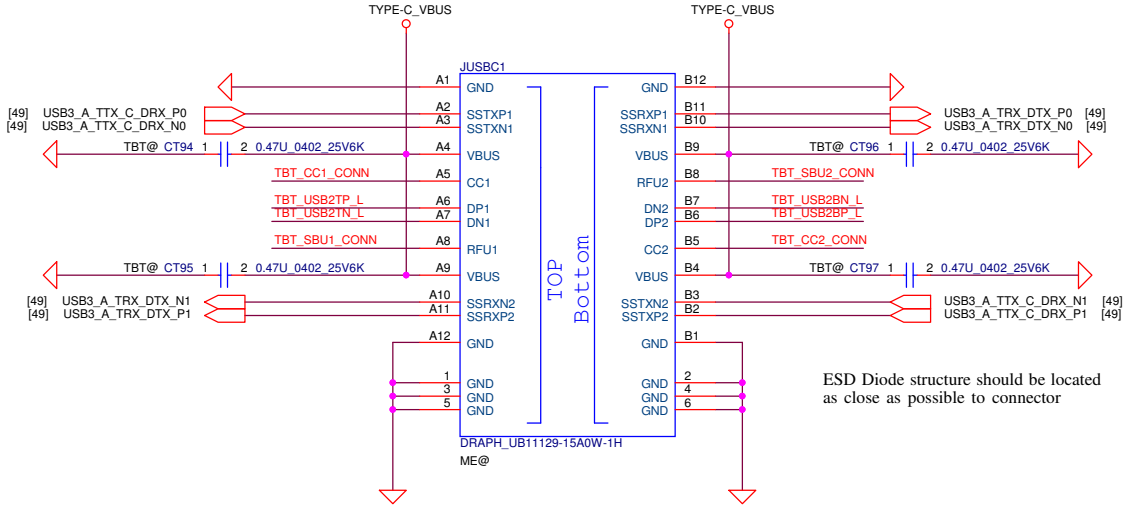
AR-LP PCIE

Alpine Ridge LP - PCIe
Symbol

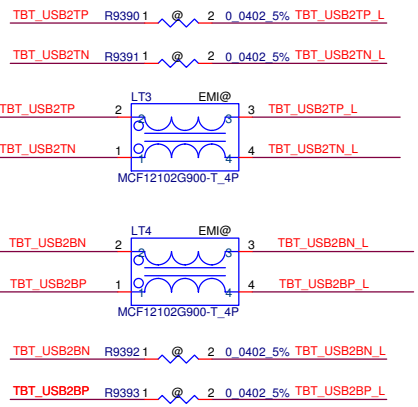


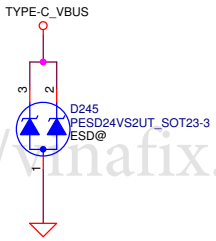
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: AR : POWER/ GND			
Size: Custom	Document Number: LA-E292P		Rev: 0.5
Date: Tuesday, May 03, 2016		Sheet 51 of 75	

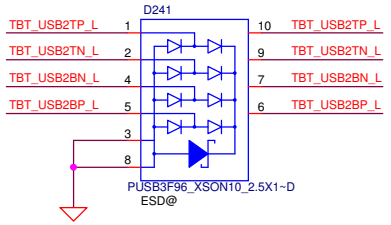


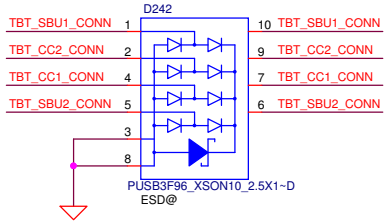
ESD Diode structure should be located as close as possible to connector

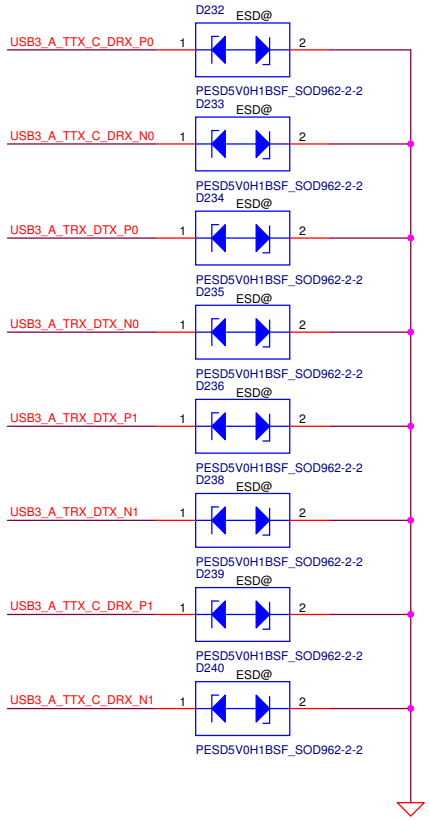


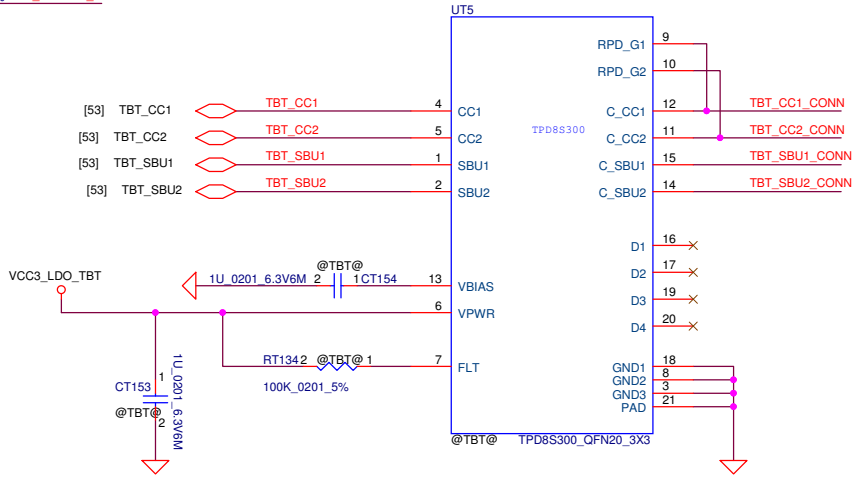


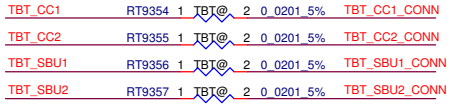
ESD for USB2 Lines and Control lines











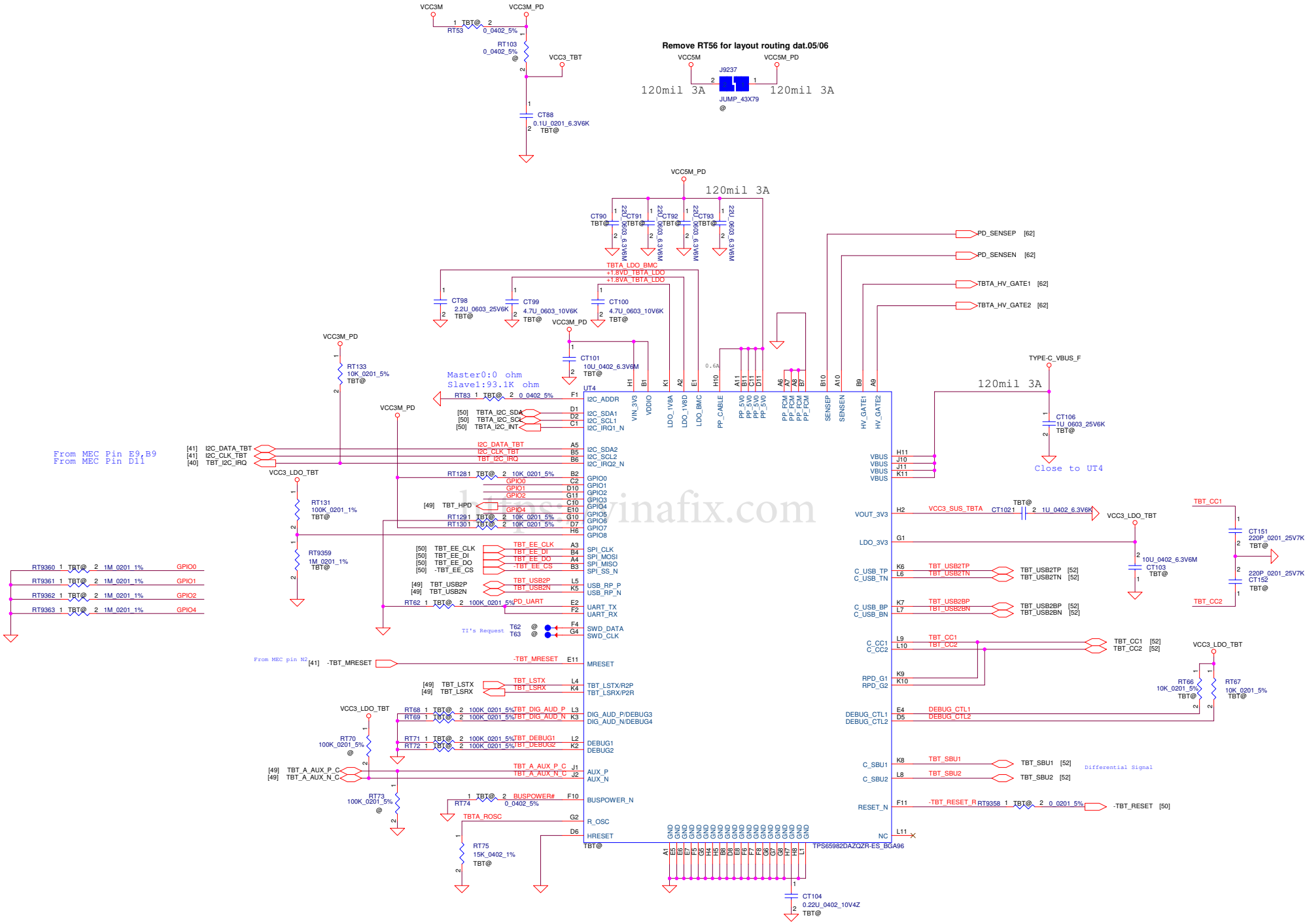
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: TYPE-C CONNECTOR/PCIE

Size	Document Number	Rev
A3	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 52 of 75


Remove RT56 for layout routing dat.05/06
VCC5M
VCC5M_PD
J9237
JUMP_43X79
120mil 3A
120mil 3A
VCC3M
VCC3M_PD
VCC3_TBT
RT53
RT103
CT88
0.1U_0201_6.3V6K
TBT@
VCC5M_PD
120mil 3A
CT90
CT91
CT92
CT93
220U_0603_6.3V6M
TBTA_LDO_BMC
+1.8VD_TBTA_LDO
+1.8VA_TBTA_LDO
CT98
2.2U_0603_25V6K
CT99
4.7U_0603_10V6K
CT100
4.7U_0603_10V6K
VCC3M_PD
CT101
10U_0402_6.3V6M
Master0:0 ohm
Slave1:93.1K ohm
UT4
RT83
I2C_ADDR
I2C_SDA1
I2C_SCL1
I2C_IRQ1_N
I2C_SDA2
I2C_SCL2
I2C_IRQ2_N
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
GPIO8
SPI_CLK
SPI_MOSI
SPI_MISO
SPI_SS_N
USB_RP_P
USB_RP_N
UART_TX
UART_RX
SWD_DATA
SWD_CLK
MRESET
TBT_LSTX/R2P
TBT_LSRX/P2R
DIG_AUD_P/DEBUG3
DIG_AUD_N/DEBUG4
DEBUG1
DEBUG2
AUX_P
AUX_N
BUSPOWER_N
R_OSC
HRESET
VIN_3V3
VDDIO
LDO_1V8A
LDO_1V8D
LDO_BMC
PP_CABLE
PP_5V0
PP_5V0
PP_5V0
PP_5V0
PP_FCM
PP_FCM
PP_FCM
PP_FCM
SENSEP
SENSEN
HV_GATE1
HV_GATE2
PD_SENSEP [62]
PD_SENSEN [62]
TBTA_HV_GATE1 [62]
TBTA_HV_GATE2 [62]
TYPE-C_VBUS_F
120mil 3A
CT106
1U_0603_25V6K
Close to UT4
VBUS
VOUT_3V3
LDO_3V3
C_USB_TP
C_USB_TN
C_USB_BP
C_USB_BN
C_CC1
C_CC2
RPD_G1
RPD_G2
DEBUG_CTL1
DEBUG_CTL2
C_SBU1
C_SBU2
RESET_N
NC
VCC3_SUS_TBTA
CT1021
VCC3_LDO_TBT
CT103
TBT_USB2TP [52]
TBT_USB2TN [52]
TBT_USB2BP [52]
TBT_USB2BN [52]
TBT_CC1 [52]
TBT_CC2 [52]
RT66
RT67
10K_0201_5%
DEBUG_CTL1
DEBUG_CTL2
TBT_SBU1 [52]
TBT_SBU2 [52]
Differential Signal
-TBT_RESET [50]
CT151
220P_0201_25V7K
CT152
220P_0201_25V7K
TBT_CC1
TBT_CC2
From MEC Pin E9,B9
From MEC Pin D11
I2C_DATA_TBT
I2C_CLK_TBT
TBT_I2C_IRQ
TBTA_I2C_SDA
TBTA_I2C_SCL
TBTA_I2C_INT
RT131
100K_0201_1%
RT9359
1M_0201_1%
RT9360
RT9361
RT9362
RT9363
GPIO0
GPIO1
GPIO2
GPIO4
TBT_HPD
RT1281
RT1291
RT1301
TBT_EE_CLK
TBT_EE_DI
TBT_EE_DO
-TBT_EE_CS
TBT_USB2P
TBT_USB2N
RT62
PD_UART
T62
T63
TI's Request
From MEC pin N2
-TBT_MRESET
TBT_LSTX
TBT_LSRX
RT68
RT69
RT70
RT71
RT72
RT73
TBT_DIG_AUD_P
TBT_DIG_AUD_N
TBT_DEBUG1
TBT_DEBUG2
TBT_A_AUX_P_C
TBT_A_AUX_N_C
BUSPOWER#
RT74
TBTA_ROSC
RT75
15K_0402_1%
TPS65982DAZQZR-ES_BGA96
CT104
0.22U_0402_10V4Z
RT9358
-TBT_RESET_R
Security Classification
Compal Secret Data
Issued Date
2015/01/06
Deciphered Date
2016/01/06
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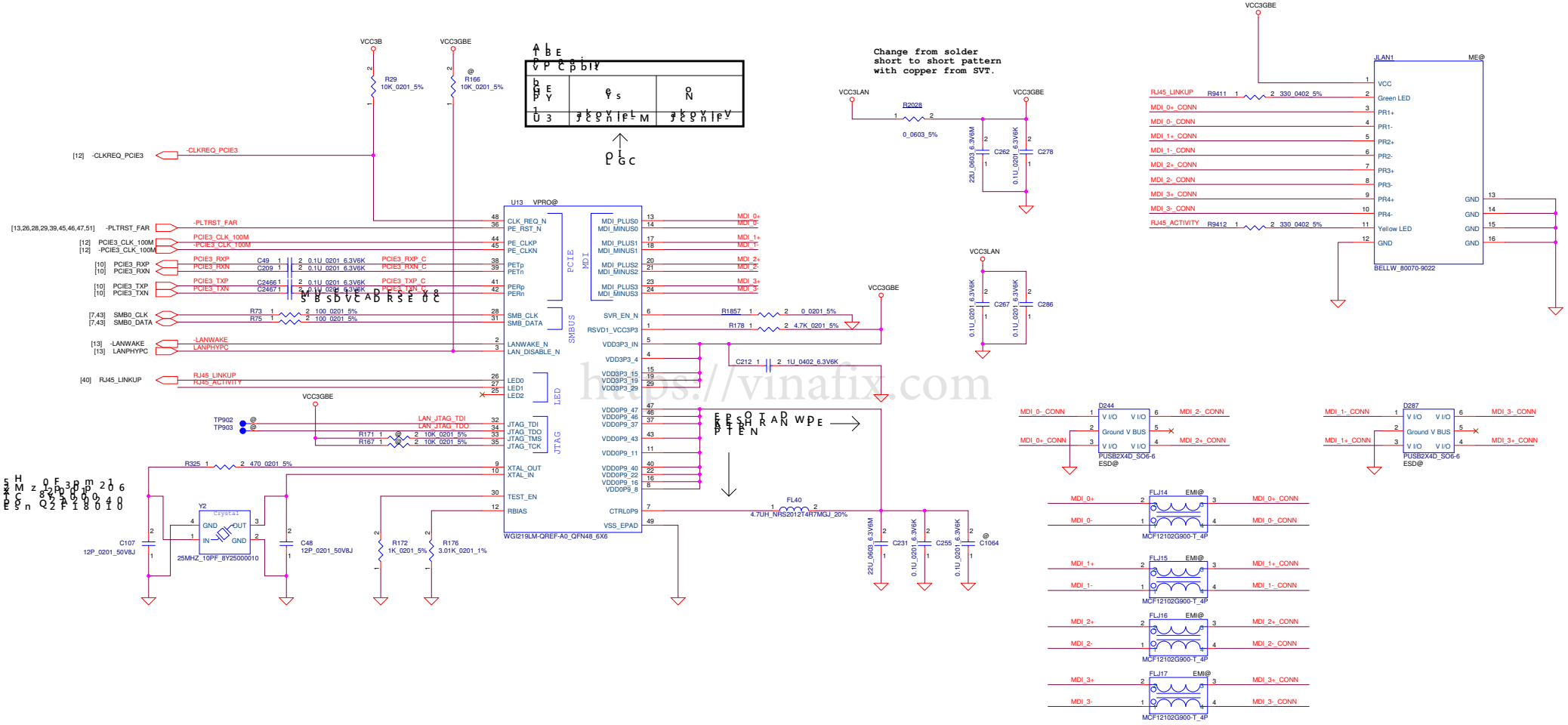
Compal Electronics, Inc.
Title
PD TPS65982
Size
Document Number
LA-E292P
Rev
1.0
Date: Tuesday, May 03, 2016
Sheet 53 of 75



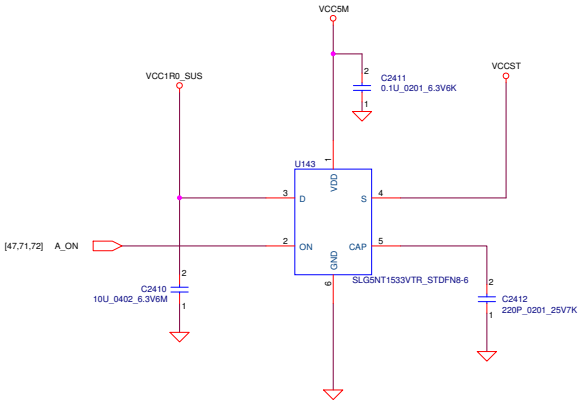
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

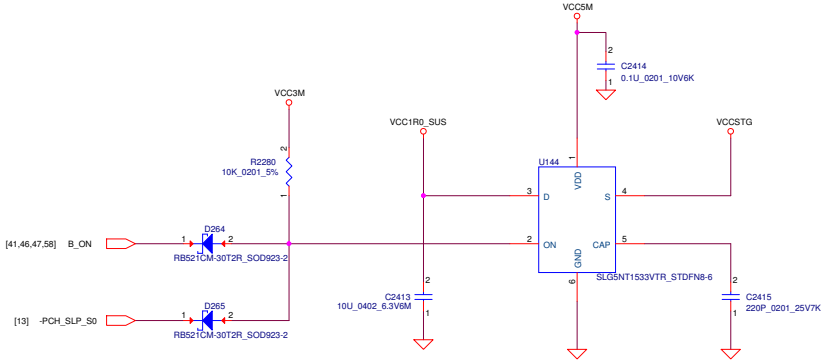
Compal Electronics, Inc.

Title: GBE JACKSONVILLE

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 54 of 75





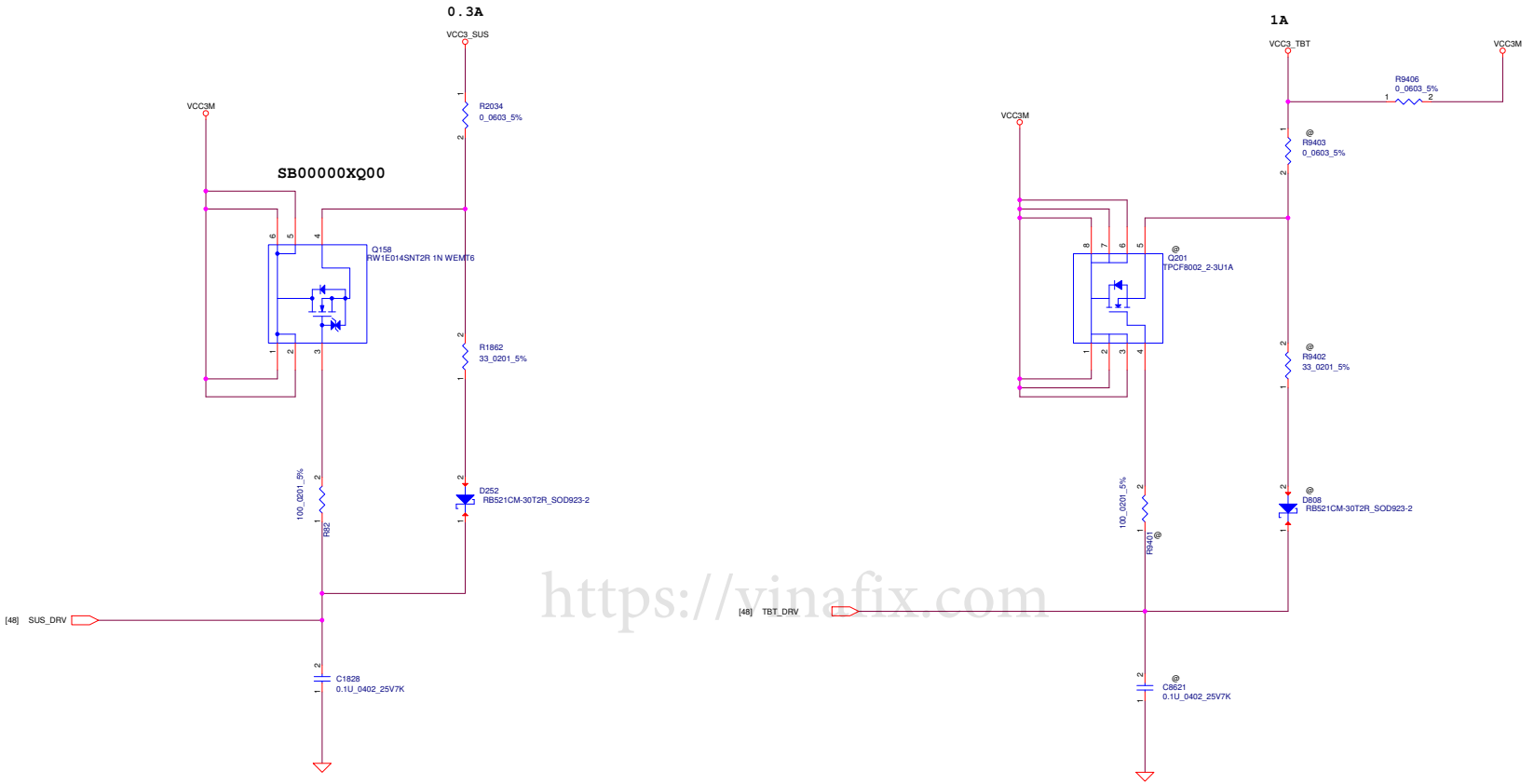
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW VCCST & VCCSTG

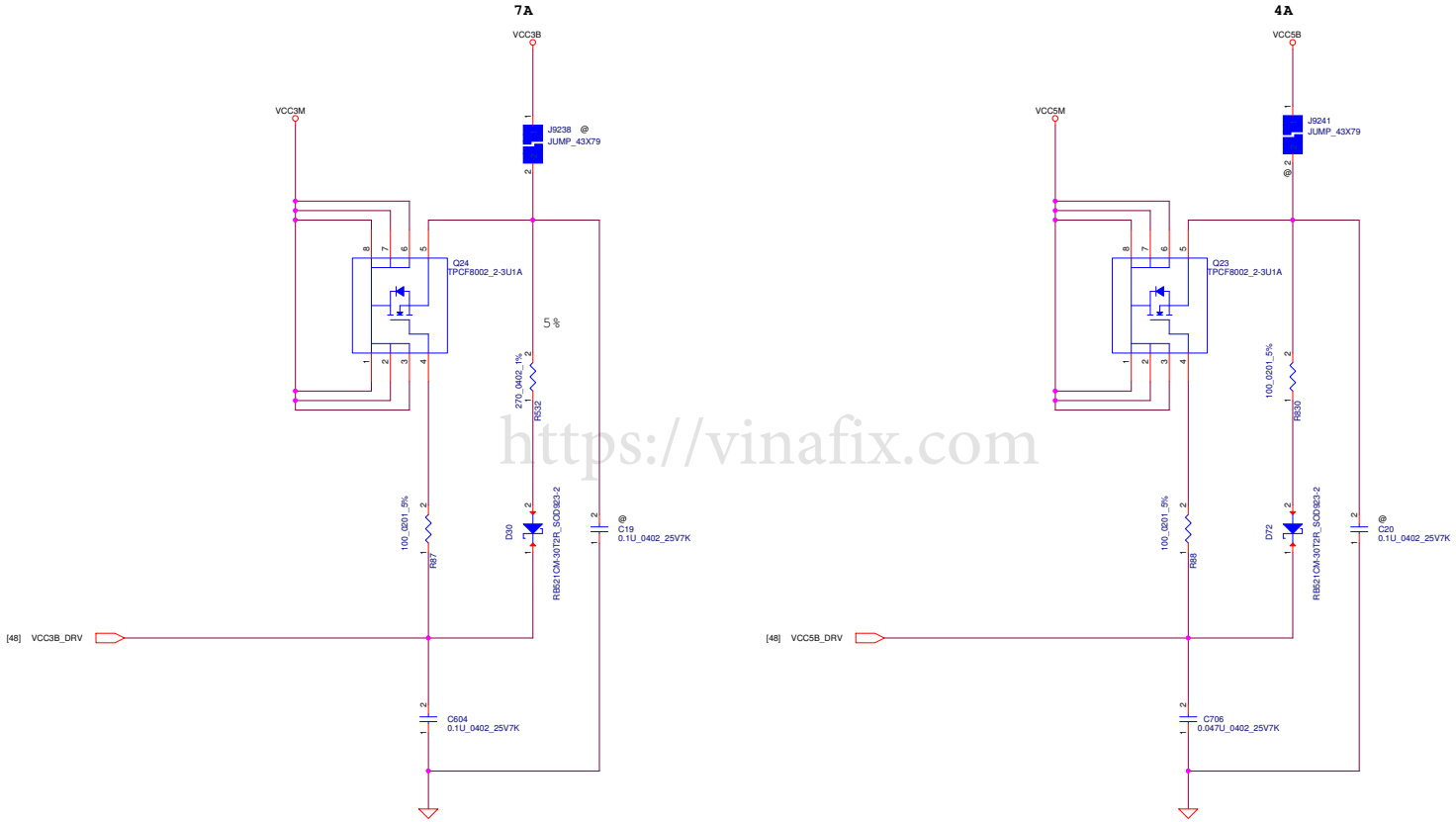
Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 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		
Size: Custom	Document Number: LA-E292P		Rev: 0.5
Date: Tuesday, May 03, 2016	Sheet 56 of 75		



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

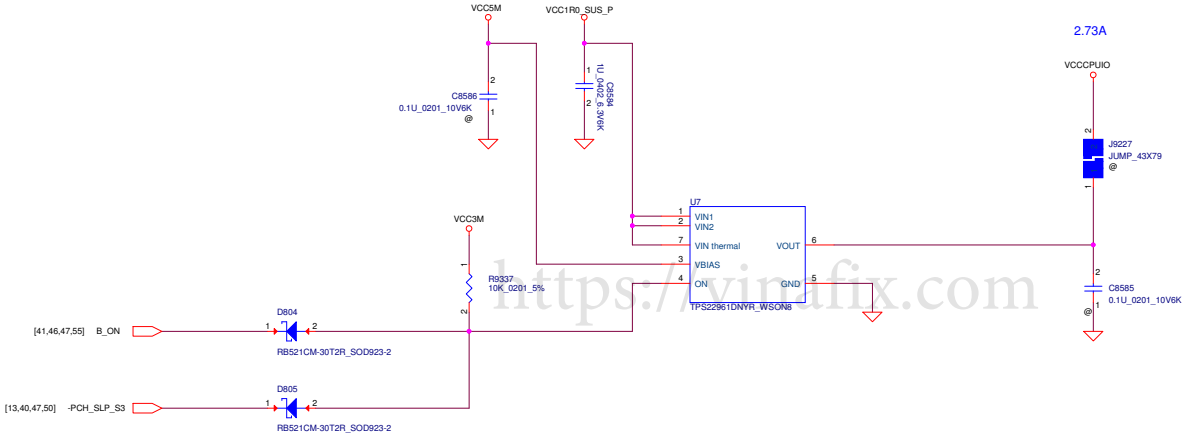
Compal Electronics, Inc.			
Title: LOAD SW B			
Size: Custom	Document Number: LA-E292P		Rev: 0.5
Date: Tuesday, May 03, 2016	Sheet 57 of 75		

Imax : 3.6 A

VCC1R0_SUS_P — VCC1R0_SUS

Imax : 2.57 A

VCC1R0_SUS_P — VCCPCHCORE



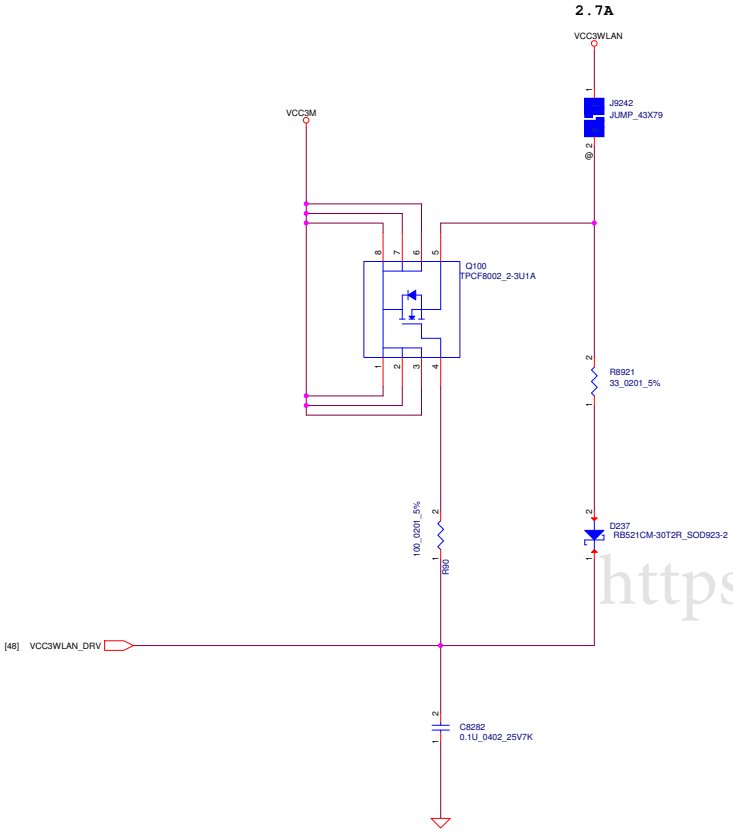
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW VCCCPUIO

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 | Sheet 58 of 75



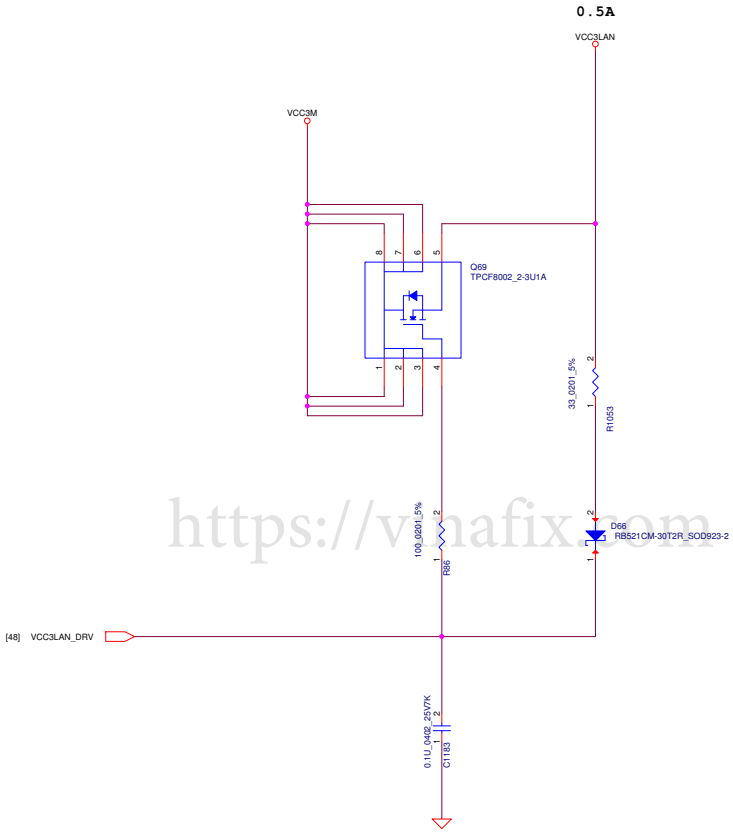
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: LOAD SW WWAN & WLAN

Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 59 of 75



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

Compal Electronics, Inc.

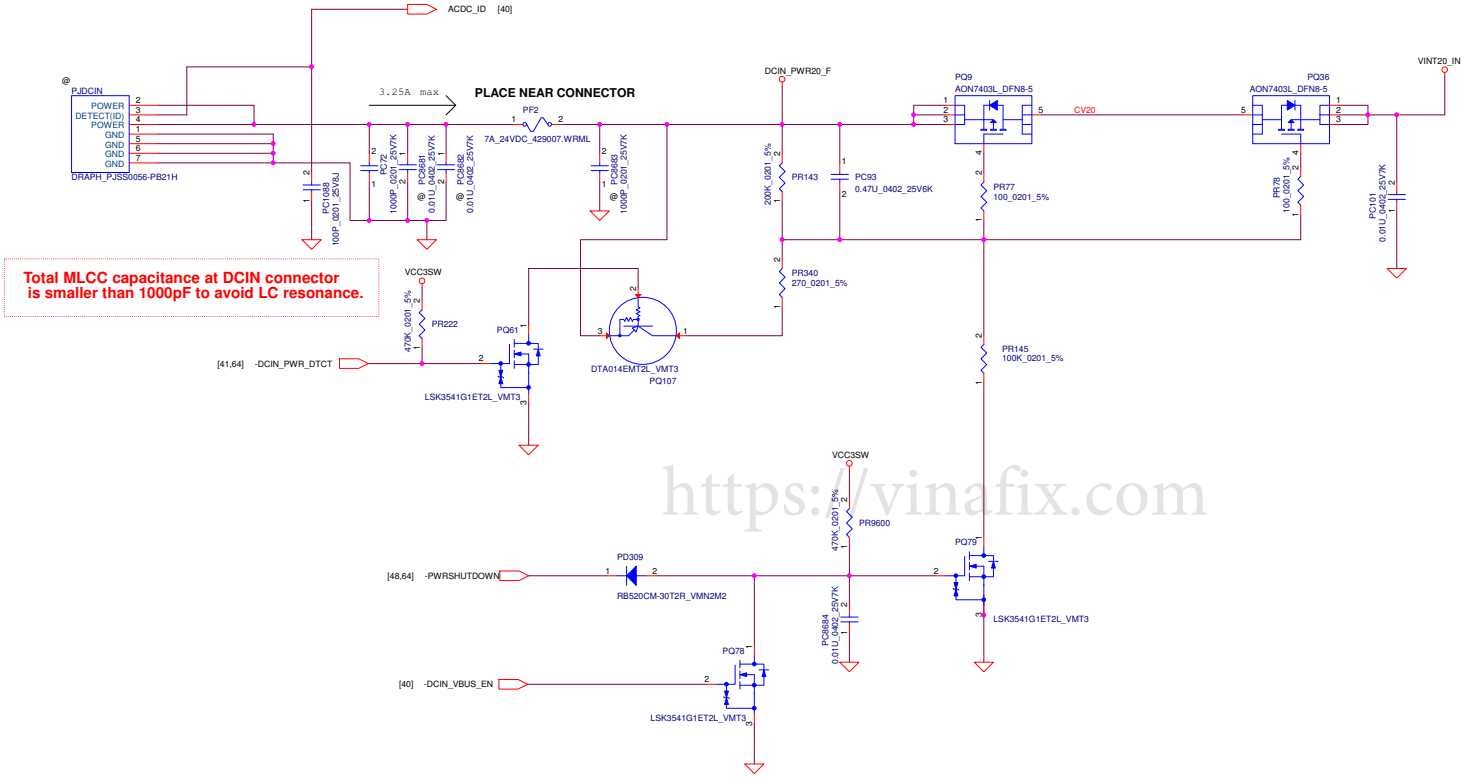
Title: LOAD SW LAN

Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 2016 | Sheet 60 of 75

SDV_EC001_DCDC

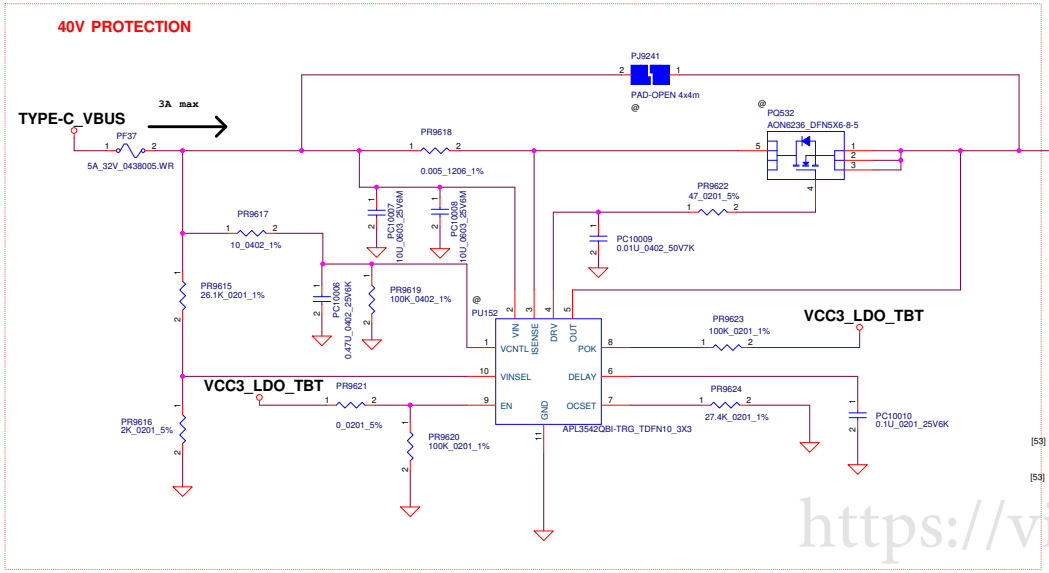
SDV_EC023_DCDC



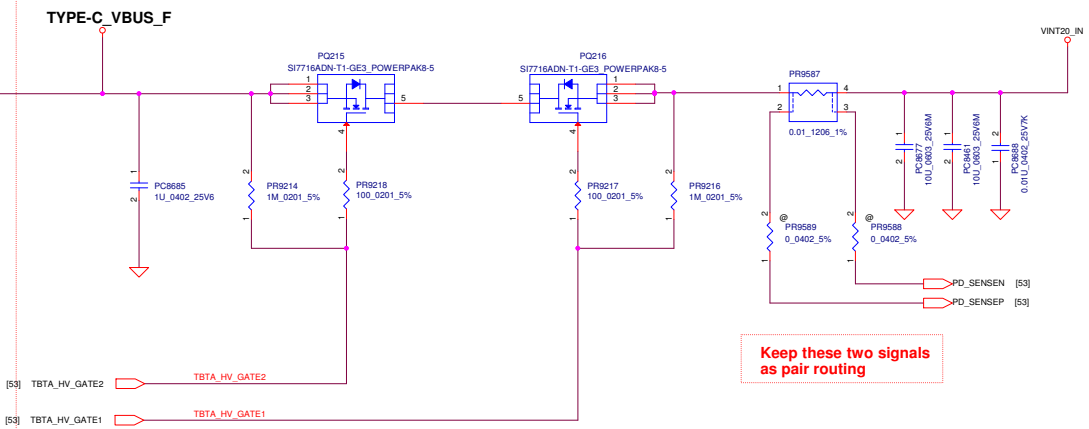
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title: DC-IN			
Size: Custom	Document Number: LA-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 61 of 75		

SDV_EC026_DCDC
SDV_EC028_DCDC



SDV_EC022_DCDC



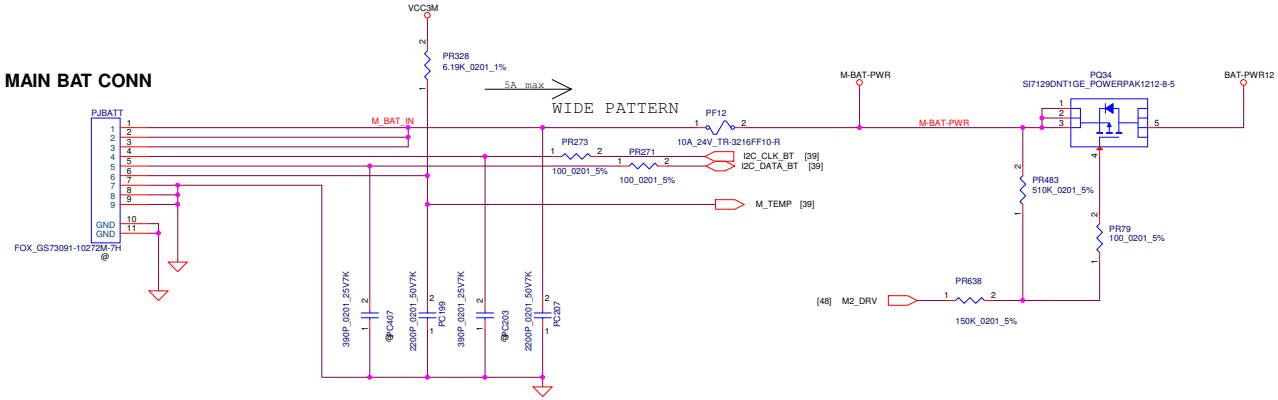
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

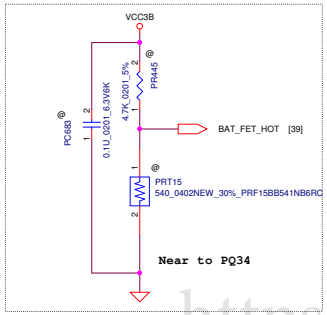
Compal Electronics, Inc.

Title: TYPE-C IN

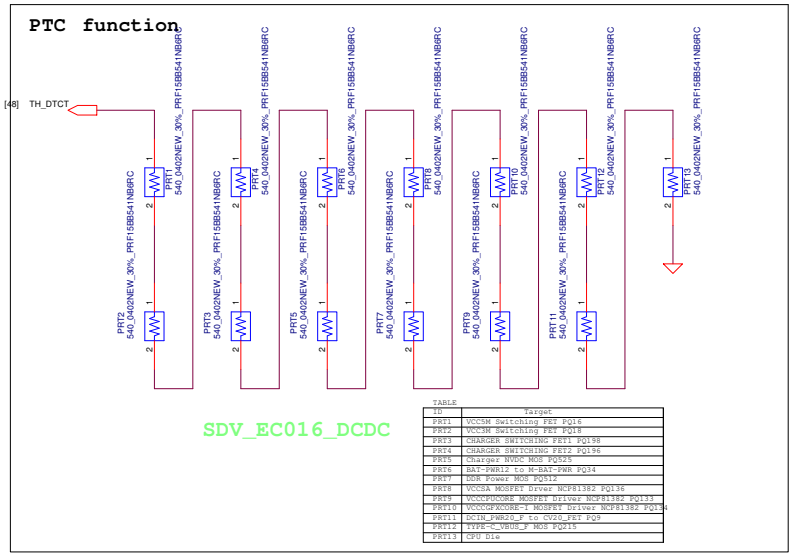
Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 | Sheet 62 of 75



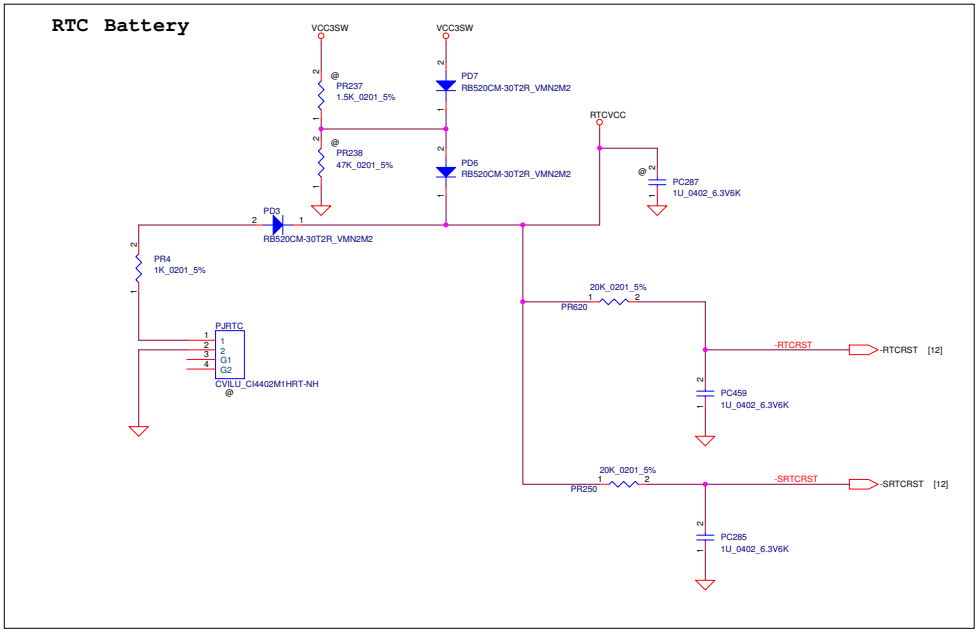


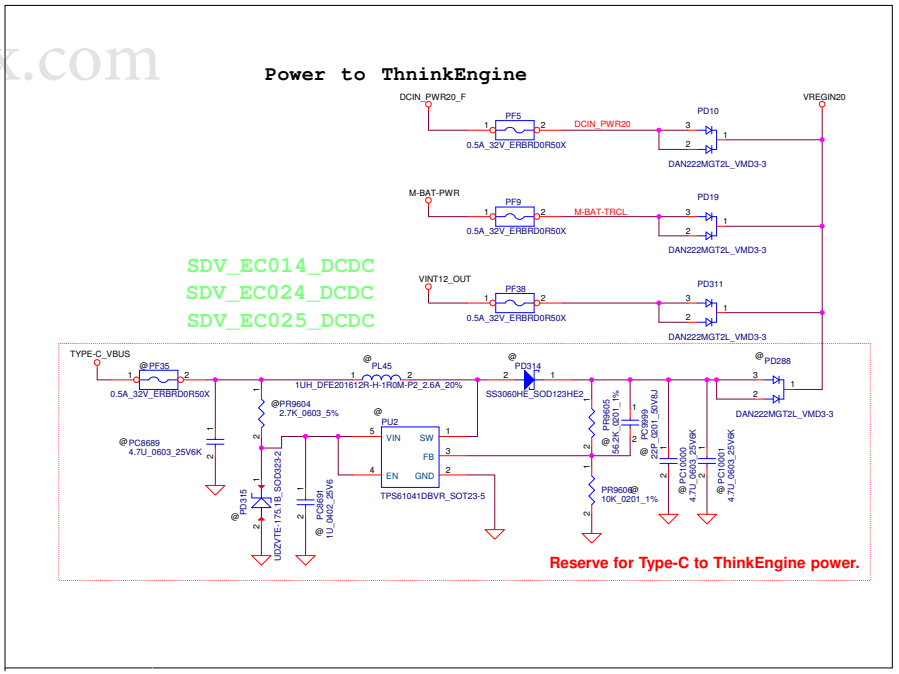
SDV_EC027_DCDC



SDV_EC016_DCDC

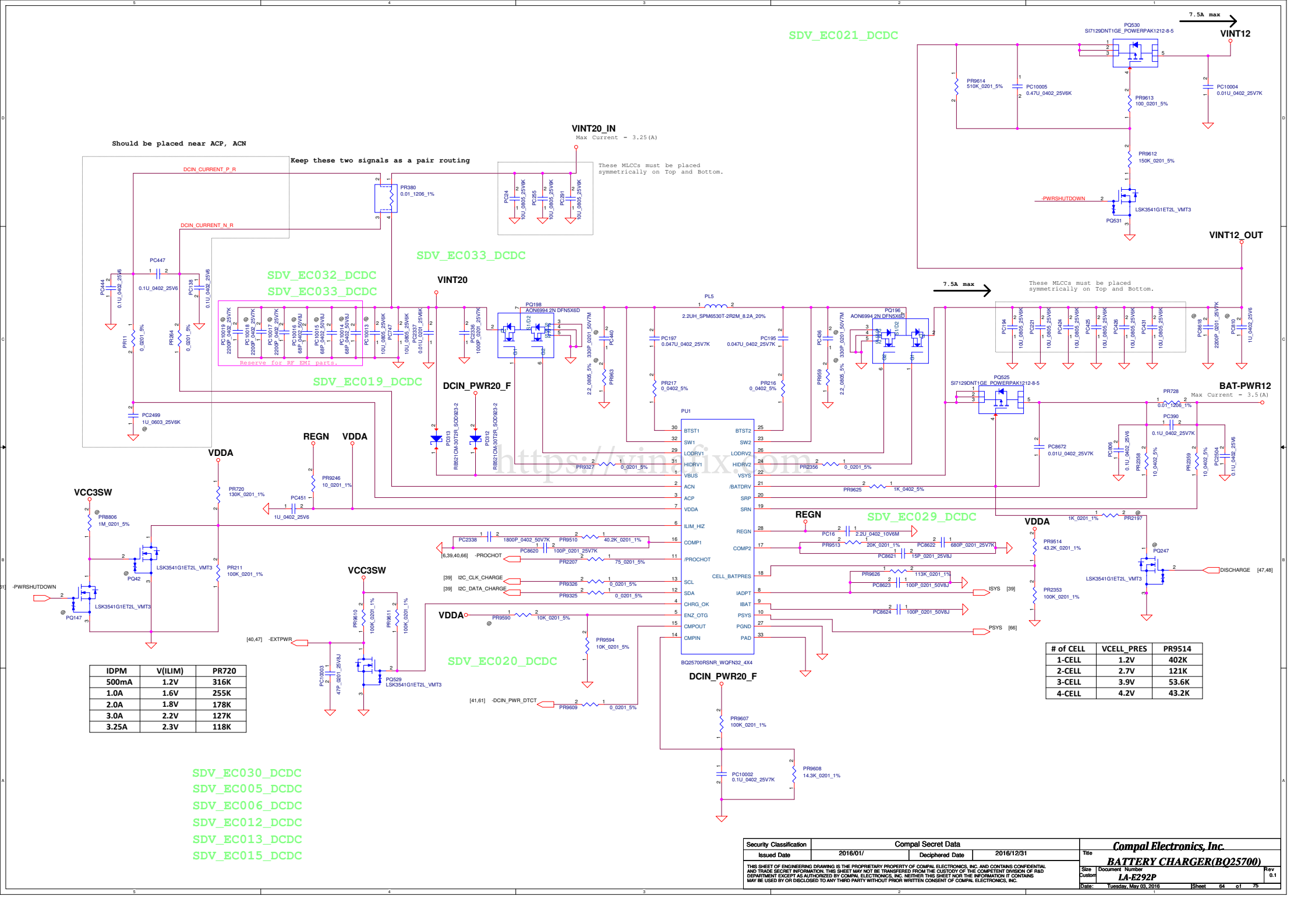
TABLE	
NO	Target
PRT1	VCC5M Switching FET PQ16
PRT2	VCC3M Switching FET PQ18
PRT3	CHARGER SWITCHING FET1 PQ198
PRT4	CHARGER SWITCHING FET2 PQ196
PRT5	Charger NVDC MOS PQ525
PRT6	BAT-PWR12 to M-BAT-PWR PQ34
PRT7	ISH Power MOS PQ512
PRT8	VCC5A MOSFET Drver NCP81382 PQ136
PRT9	VCCCPUCORE MOSFET Driver NCP81382 PQ133
PRT10	VCCCGFXCORE-1 MOSFET Driver NCP81382 PQ134
PRT11	DCIN_PWR20_F to CV20_FET PQ9
PRT12	TYPE-C_VBUS_F MOS PQ215
PRT13	CPU Die





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

Compal Electronics, Inc.			
Title	BATTERY INPUT / RTC Battery		
Size	Document Number		Rev
Custom	LA-E292P		0.1
Date:	Tuesday, May 03, 2016	Sheet	63 of 75



IDPM	V(ILIM)	PR720
500mA	1.2V	316K
1.0A	1.6V	255K
2.0A	1.8V	178K
3.0A	2.2V	127K
3.25A	2.3V	118K

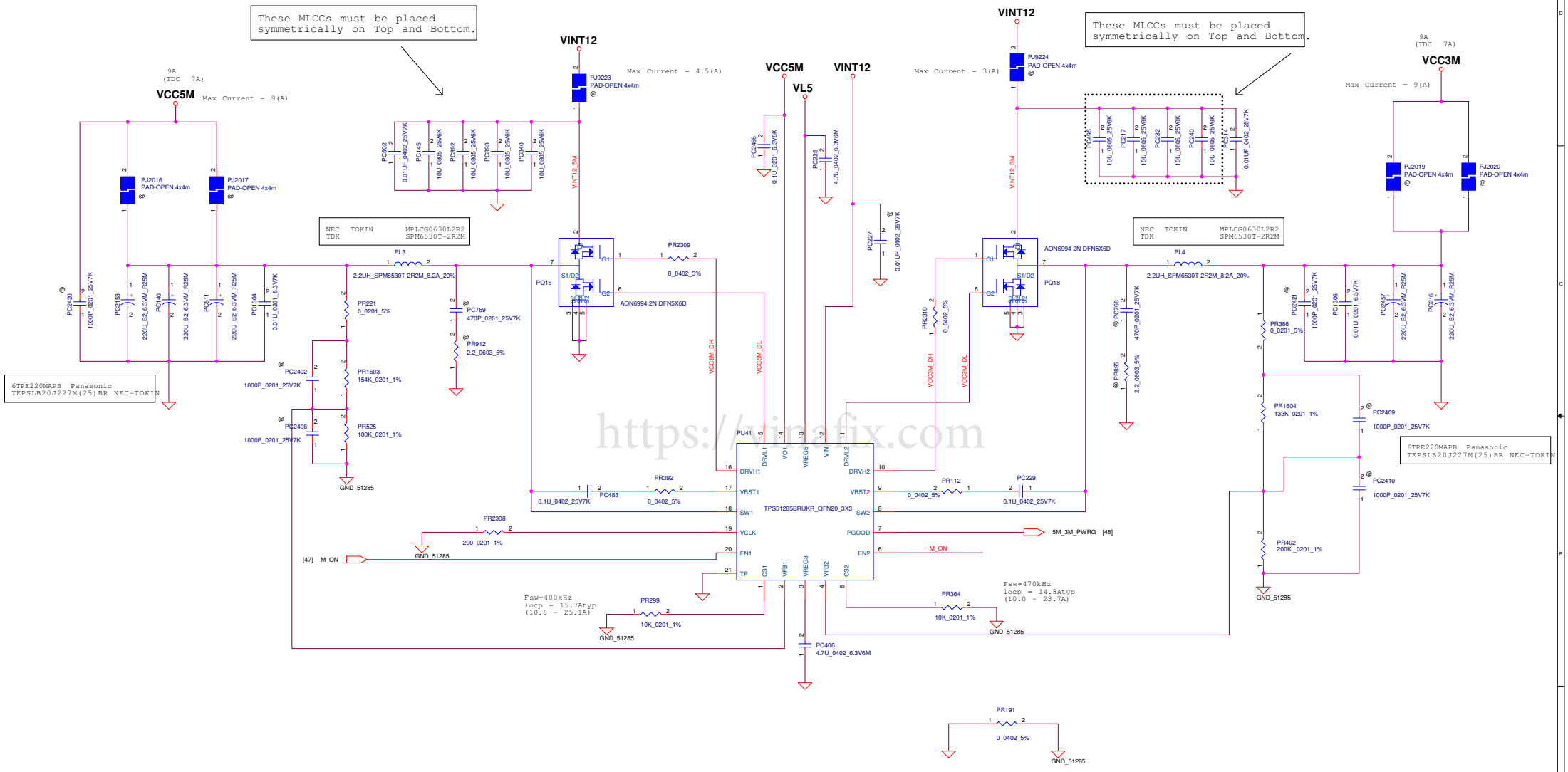
# of CELL	VCELL_PRES	PR9514
1-CELL	1.2V	402K
2-CELL	2.7V	121K
3-CELL	3.9V	53.6K
4-CELL	4.2V	43.2K

Security Classification	Compal Secret Data		
Issued Date	2016/01/	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: BATTERY CHARGER(BQ25700)

Size	Document Number	Rev
Custom	LA-E292P	0.1
Date: Tuesday, May 03, 2016	Sheet 64 of 75	



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

Compal Electronics, Inc.

Title: DC/DC VCC5M/VCC3M

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 65 of 75

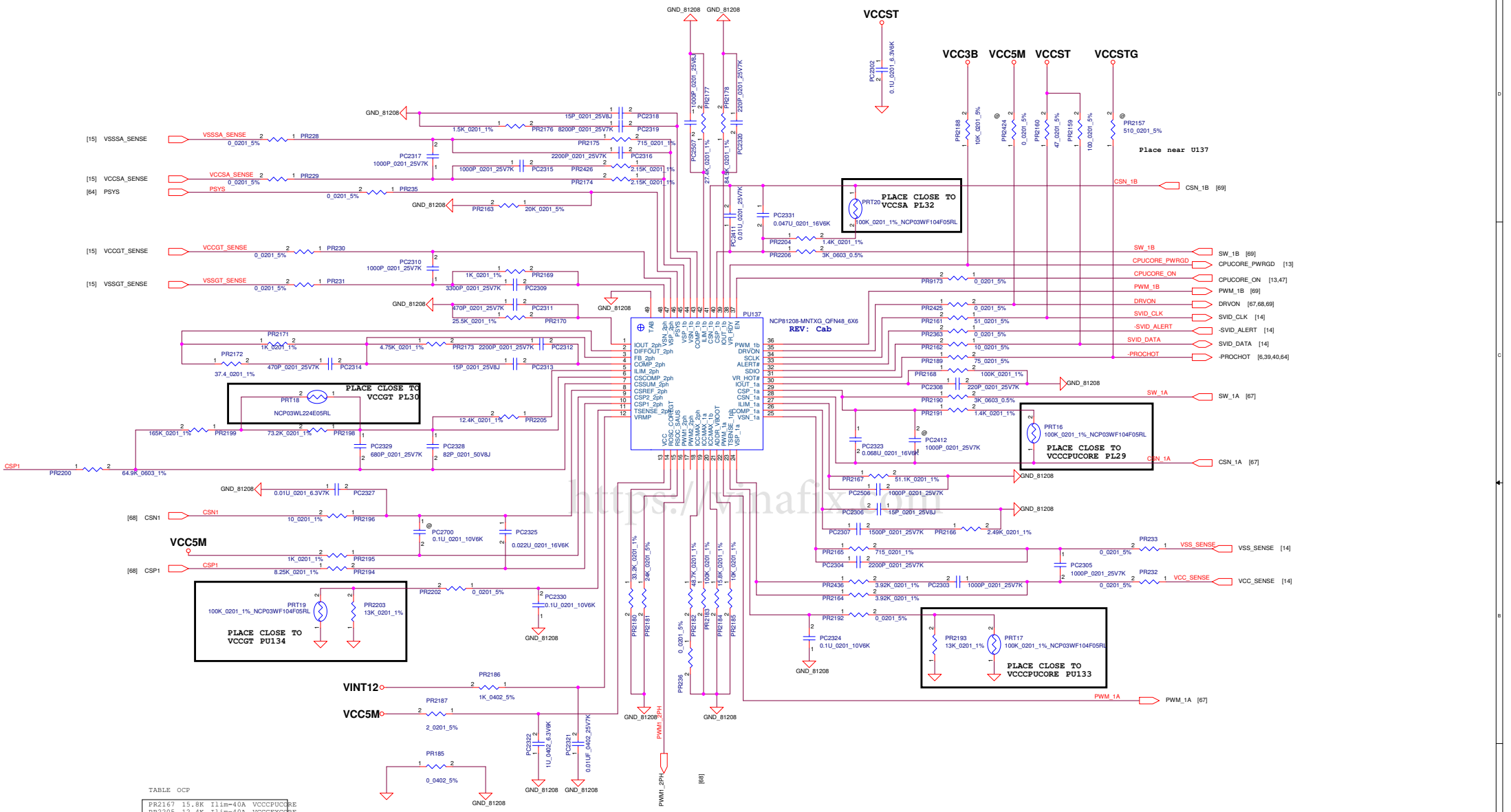
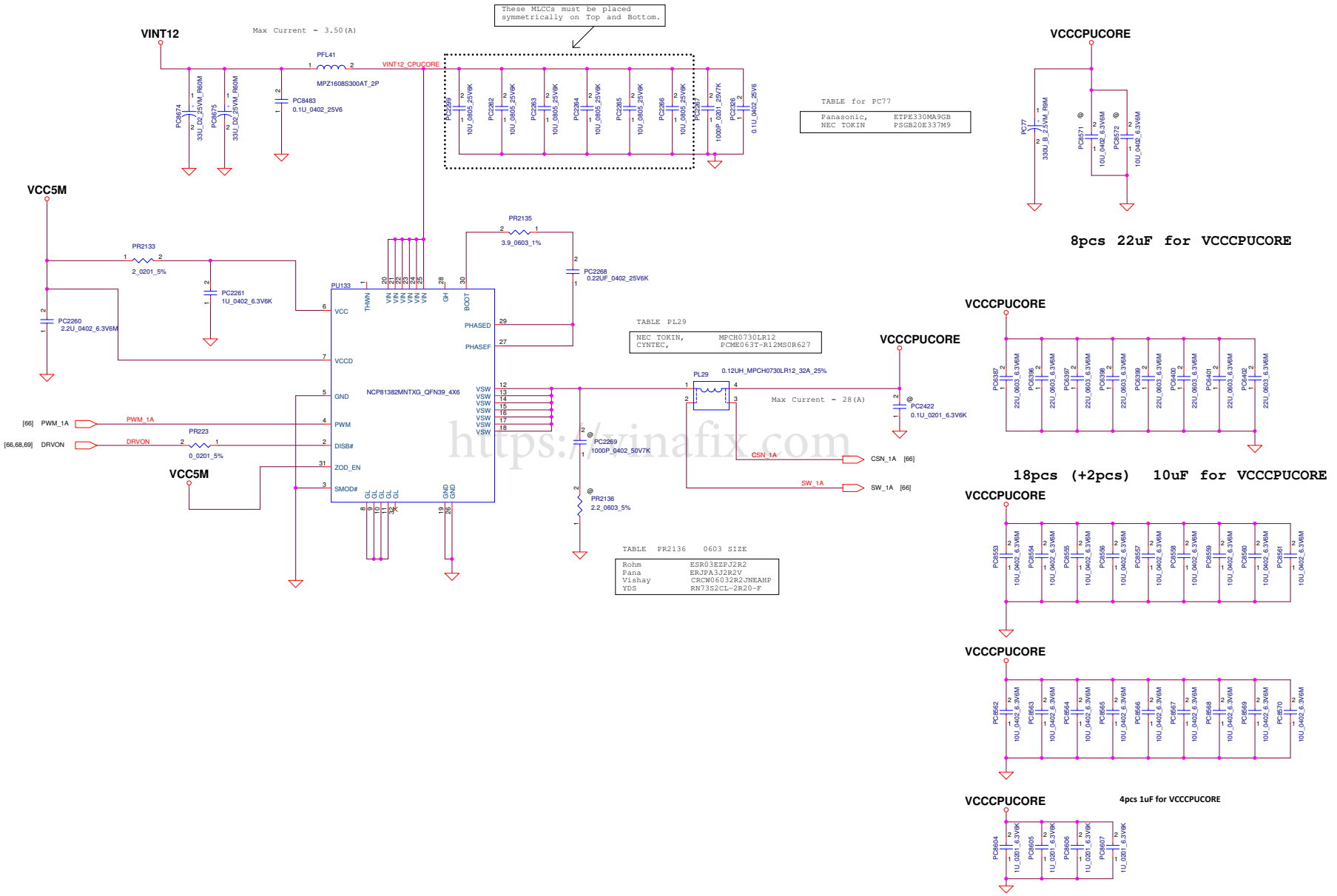


TABLE OCP

PR2167	15.8K	Ilim=40A VCCCPUCORE
PR2205	12.4K	Ilim=40A VCCGFXCORE
PR2177	27.4K	Ilim=10A VCCSA

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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 66 of 75		



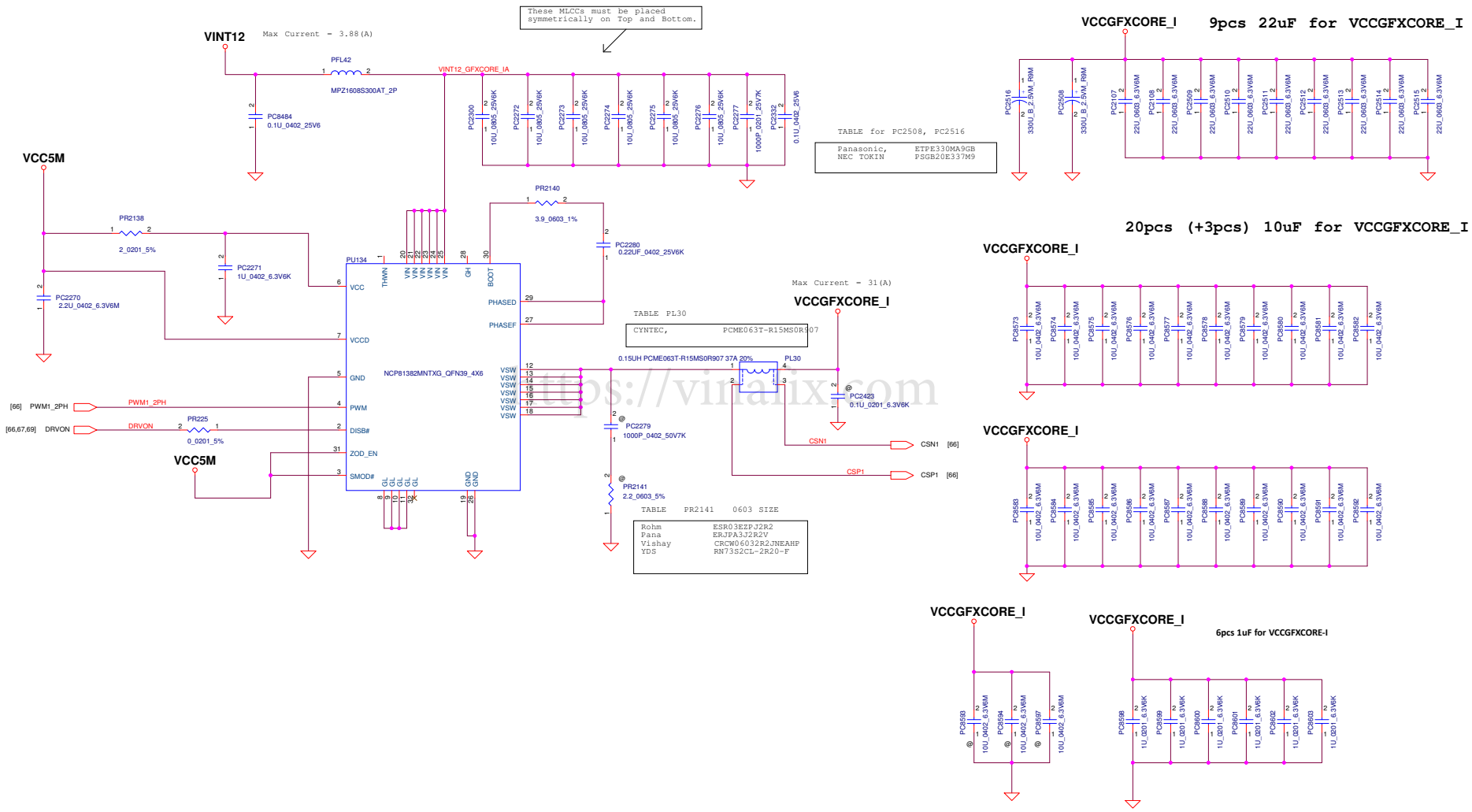
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DC/DC VCCCPUCORE

Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 67 of 75



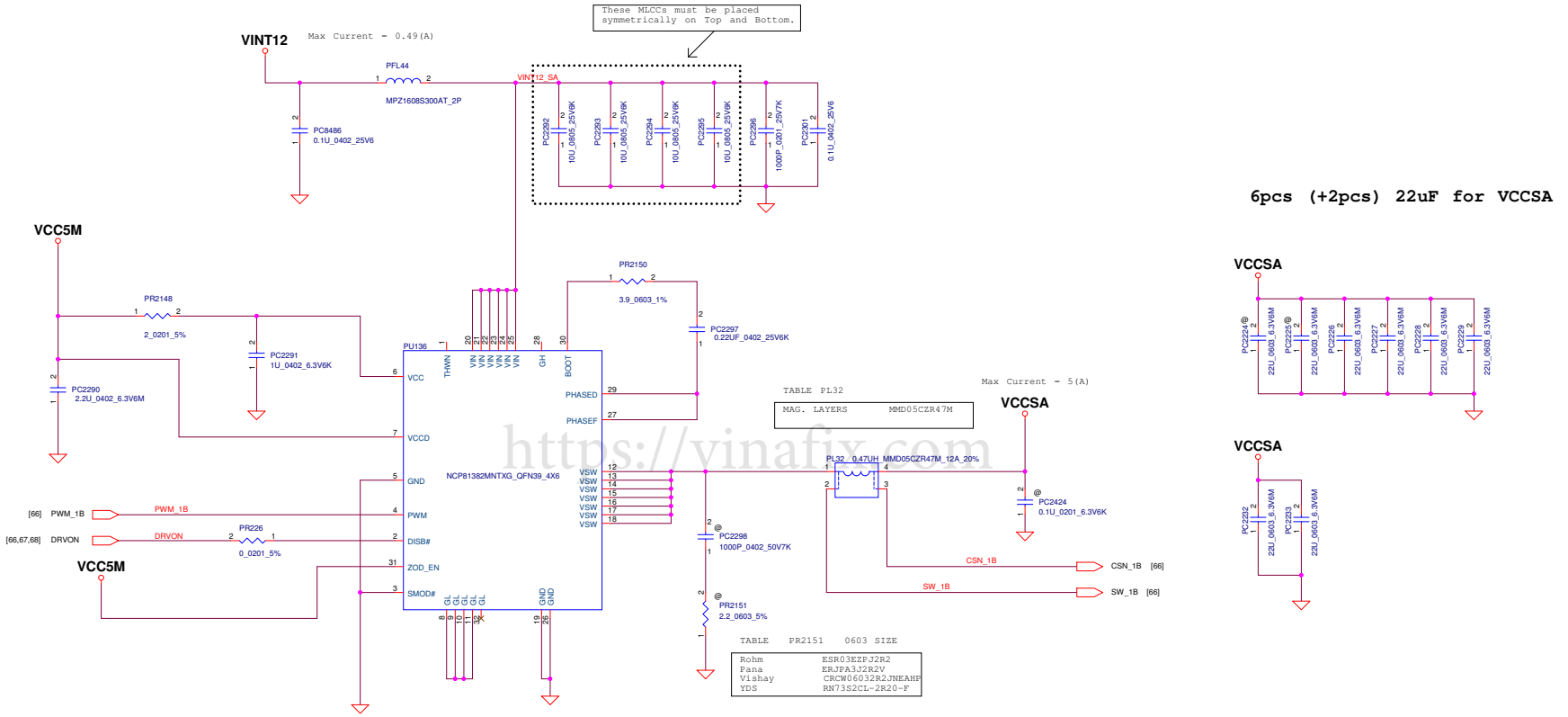
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.

Title: DC/DC VCCGFXCORE I

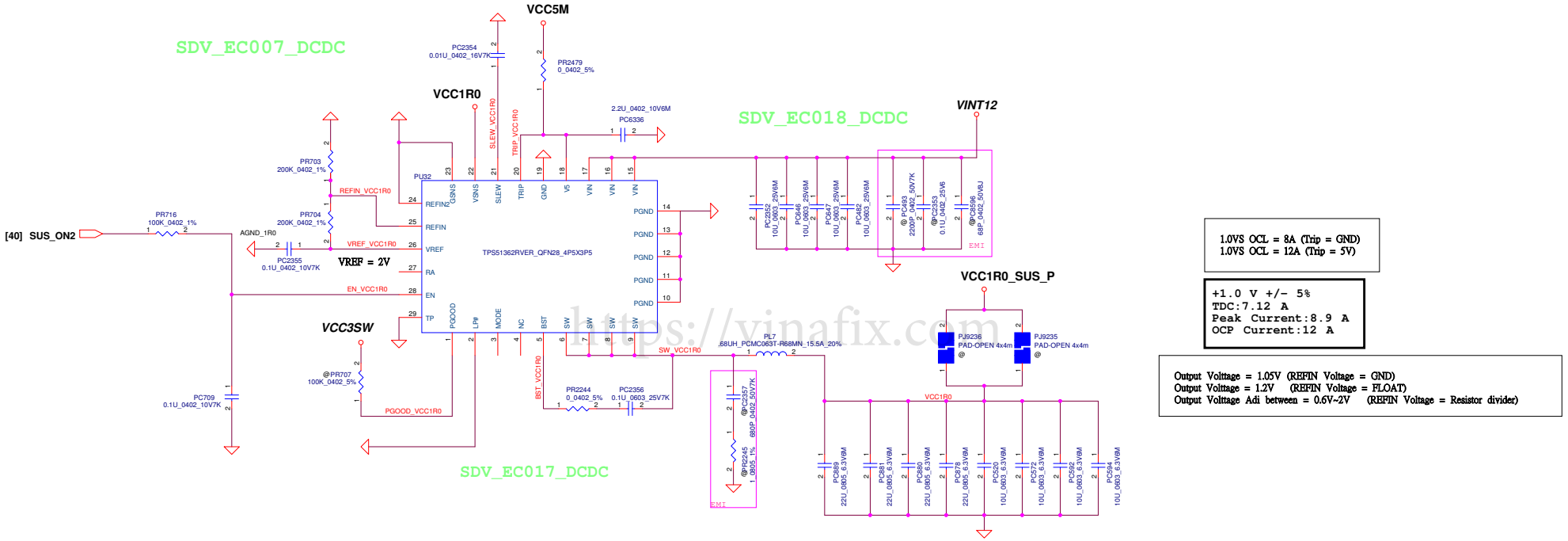
Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 Sheet 68 of 75



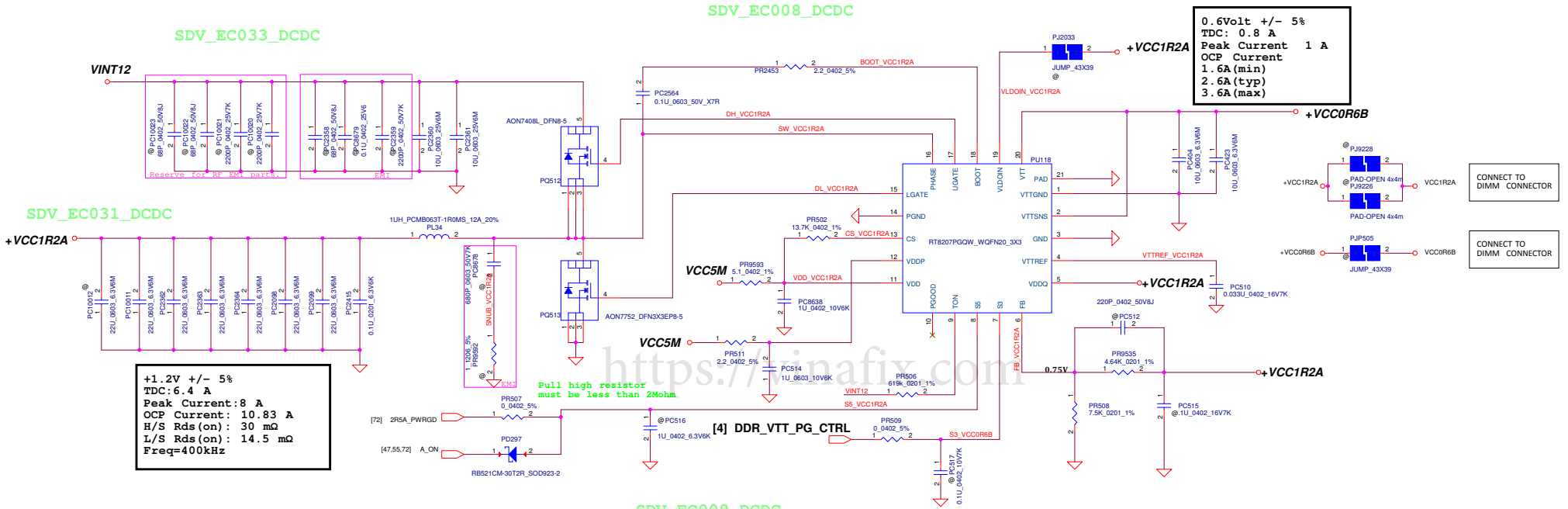
Security Classification	Compal Secret Data		
Issued Date	2014/11/04	Deciphered Date	2016/12/31

Compal Electronics, Inc.			
Title	DC/DC VCCSA(NCP81382)		
Size: Custom	Document Number: LA-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 69 of 75		



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

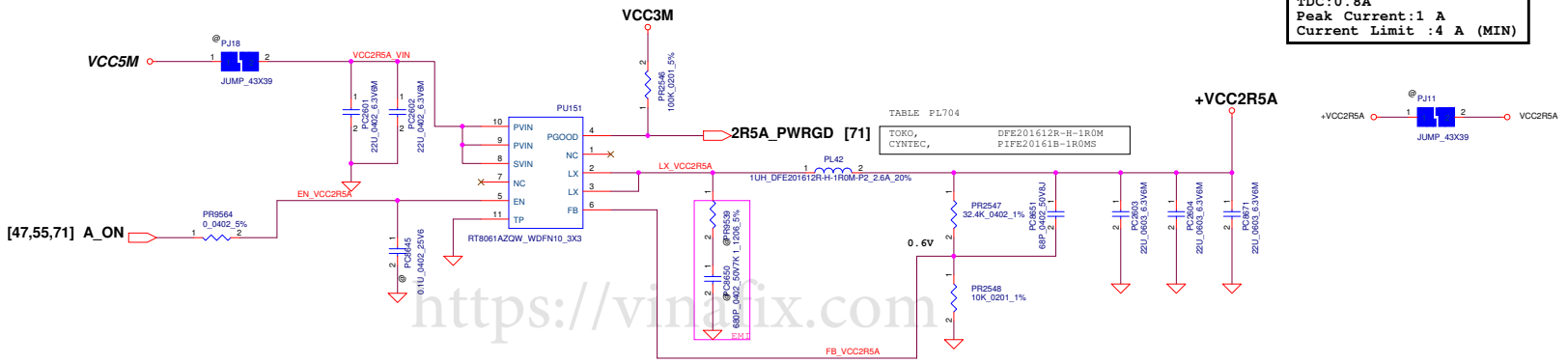
Compal Electronics, Inc.			
Title	DC/DC VCC1R0_SUS_P(TPS51362)		
Size	Document Number		Rev
Custom	LA-E292P		0.1
Date:	Tuesday, May 03, 2016	Sheet	70 of 75



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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 71 of 75		

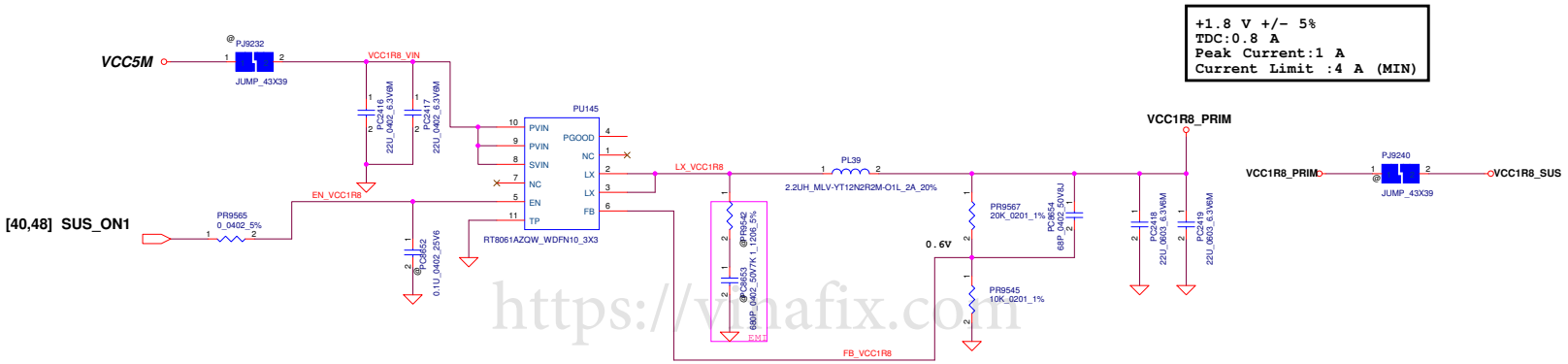
SDV_EC010_DCDC



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-E292P		Rev: 0.1
Date: Tuesday, May 03, 2016	Sheet 72 of 75		

SDV_EC011_DCDC



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

Compal Electronics, Inc.

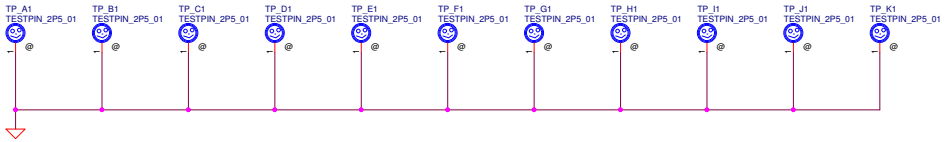
Title: DC/DC VCC1R8_SUS(RT8061)

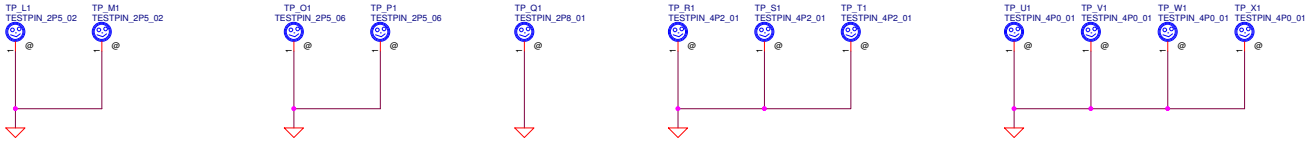
Size	Document Number	Rev
Custom	LA-E292P	0.1

Date: Tuesday, May 03, 2016 | Sheet 73 of 75

PTH FOR SCREW HOLE

Value	Hola Dia	Pad Dia		QTY
		TOP	BOTTOM	
TESTPIN_2P5_01	2.5	6	6	11
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-E292P | Rev: 0.5

Date: Tuesday, May 03, 2016 | Sheet 74 of 75

ZZZ

DA80018L000

DIMM

ZZZ1

DA80018M000

On board

U58

KBL QKKS 2.4G

CPU1@

SA00009PJ40

U153

Jacksonville WGI219V

NVPRO@

SA000093410

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

Compal Electronics, Inc.

Title: PCB CPU PN

Size	Document Number	Rev
Custom	LA-E292P	0.5

Date: Tuesday, May 03, 2016 Sheet 75 of 75