CS16 T14 Logic Schematics

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: TITLE PAGE

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Windu Block Diagram

Project Code: CT470

2015 Dec ' 16

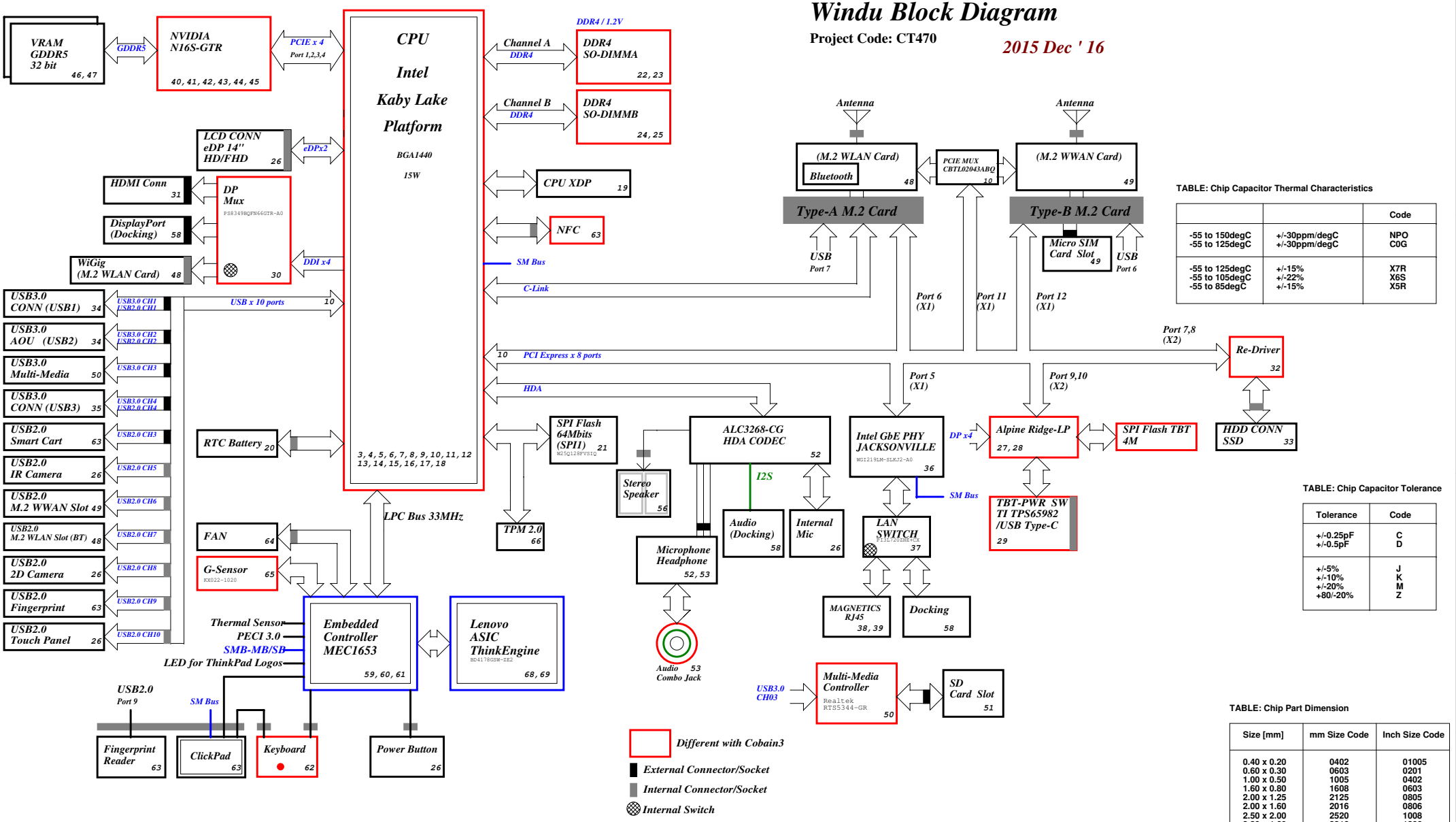

TABLE: Chip Capacitor Thermal Characteristics

		Code
-55 to 150degC -55 to 125degC	+/-30ppm/degC +/-30ppm/degC	NPO C0G
-55 to 125degC -55 to 105degC -55 to 85degC	+/-15% +/-22% +/-15%	X7R X6S X5R

TABLE: Chip Capacitor Tolerance

Tolerance	Code
+/-0.25pF +/-0.5pF	C D
+/-5% +/-10% +/-20% +80/-20%	J K M Z

TABLE: Chip Part Dimension

Size [mm]	mm Size Code	Inch Size Code
0.40 x 0.20	0402	01005
0.60 x 0.30	0603	0201
1.00 x 0.50	1005	0402
1.60 x 0.80	1608	0603
2.00 x 1.25	2125	0805
2.00 x 1.60	2016	0806
2.50 x 2.00	2520	1008
3.20 x 1.60	3216	1206
3.20 x 2.50	3225	1210
4.50 x 1.60	4516	1806
4.50 x 2.50	4525	1810
4.50 x 3.20	4532	1812
5.00 x 2.50	5025	2010
6.40 x 3.20	6432	2512

LOGIC

EC SMBus0 address

Device	Address
G-Senor (KX023)	0011 110Xb

PCH SM Bus address

Device		Address
CH-A	DDR DIMM0 (J53)	1001 0000b
CH-B	DDR DIMM1 (J43)	1001 0001b

PCH SM Bus0 address

Device	Address
Intel Lan_I219	0XC8

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Title: **BLOCK DIAGRAM**

LCFC

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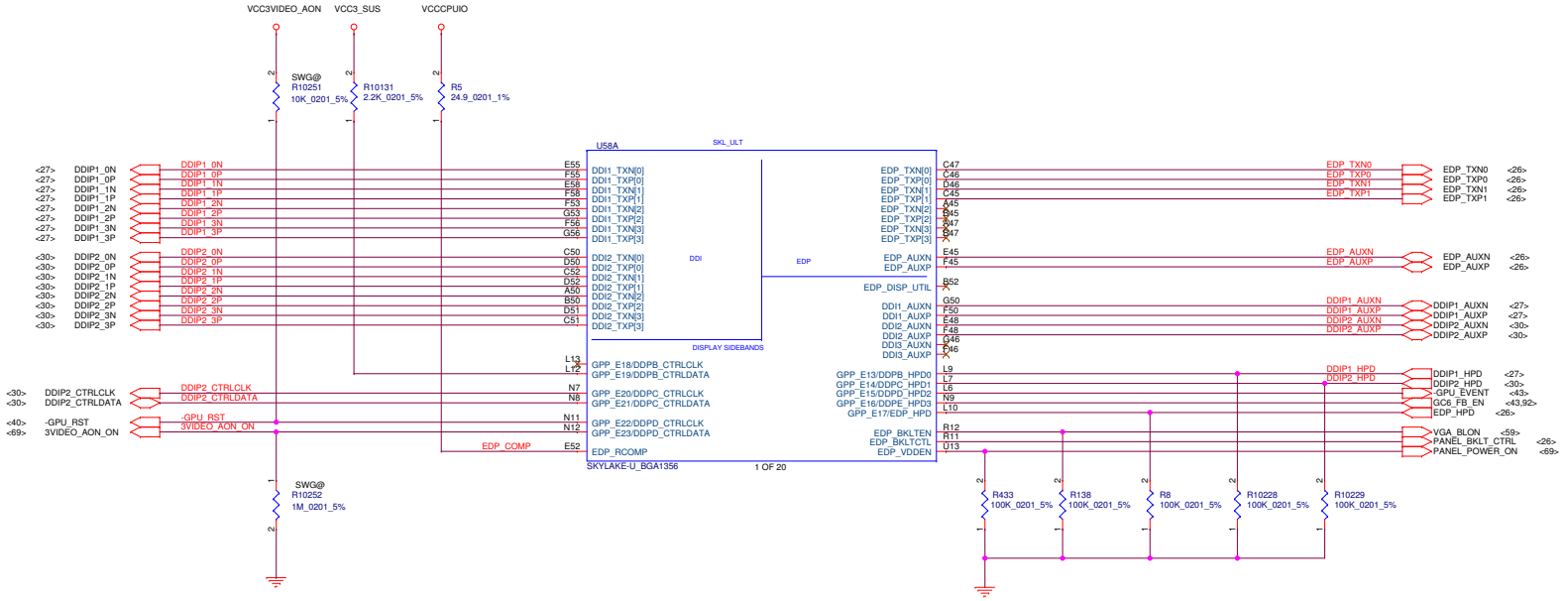

TABLE : Functional Strap

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.**

SkyLake

PCB	Non-VPRO		CPU_VPRO	
ZZZ	U58	U58	U58	U58
NM-A931	I5	I7	I5_VPRO	I7_VPRO
DAA00007520	SA00007GP30	SA00007GM30	SA00007GN20	SA00007GL30
SKY@	S_I5@	S_I7@	S_I5V@	S_I7V@

KabyLake

PCB	Non-VPRO			CPU_VPRO	
ZZZ	U58	U58	U58	U58	U58
NM-A931	I7-7500U	I5-7200U	I3-7100U	I7-7600U_VPRO	I5-7300U_VPRO
DAZ12D00100	SA000080420	SA000080320	SA000080720	SA000086N10	SA000086M10
KABY@	K_I7@	K_I5@	K_I3@	K_I7V@	K_I5V@

M/B -> DAA00007510
PWR/B -> DAA00007710
CAM/B -> DAA00007810

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

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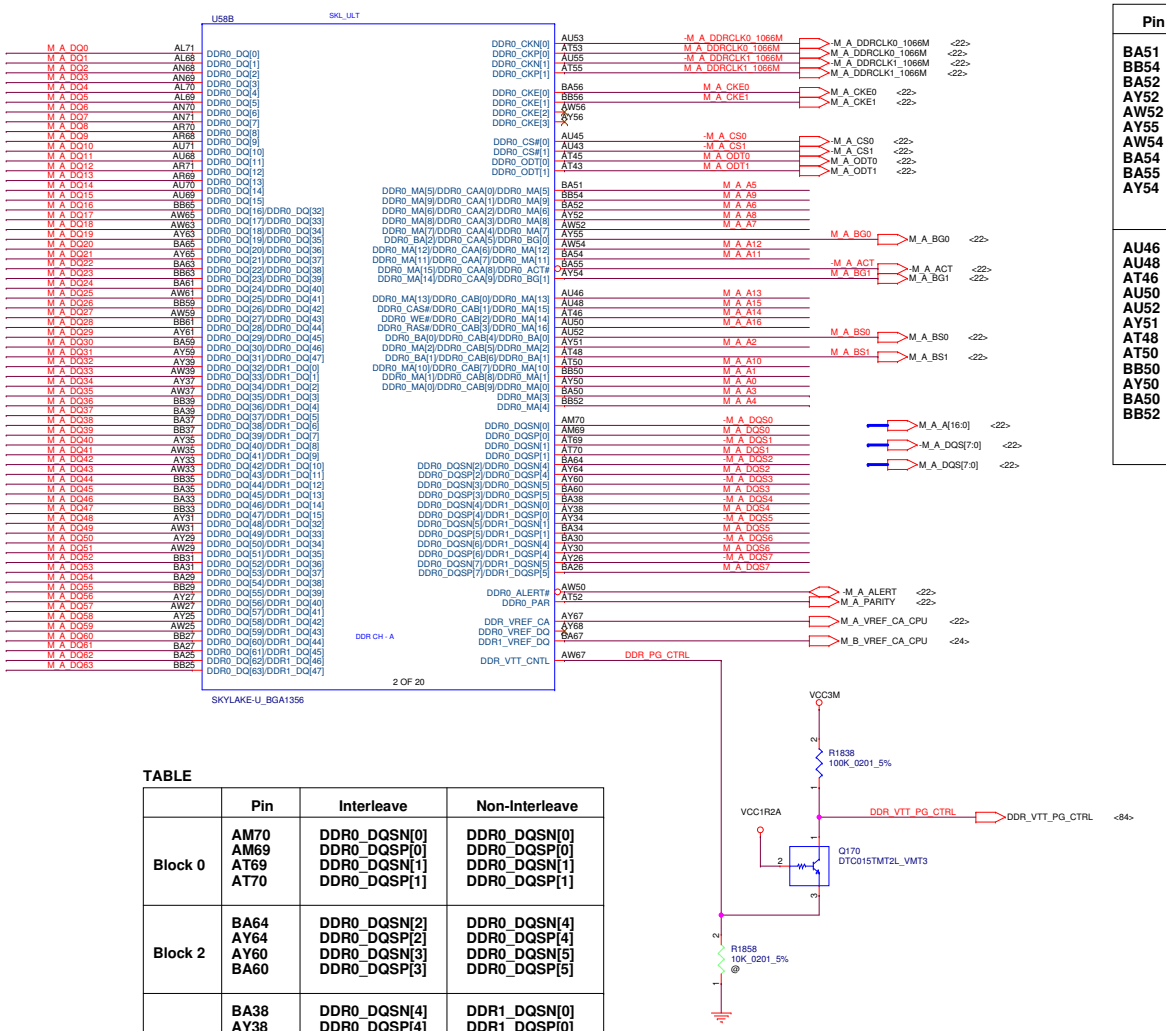
TABLE

	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

<22> M_A_DQ[63:0]



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 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_MA[2] DDR0_BA[1] DDR0_MA[10] DDR0_MA[1] DDR0_MA[0] DDR0_MA[3] DDR0_MA[4]

LOGIC

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

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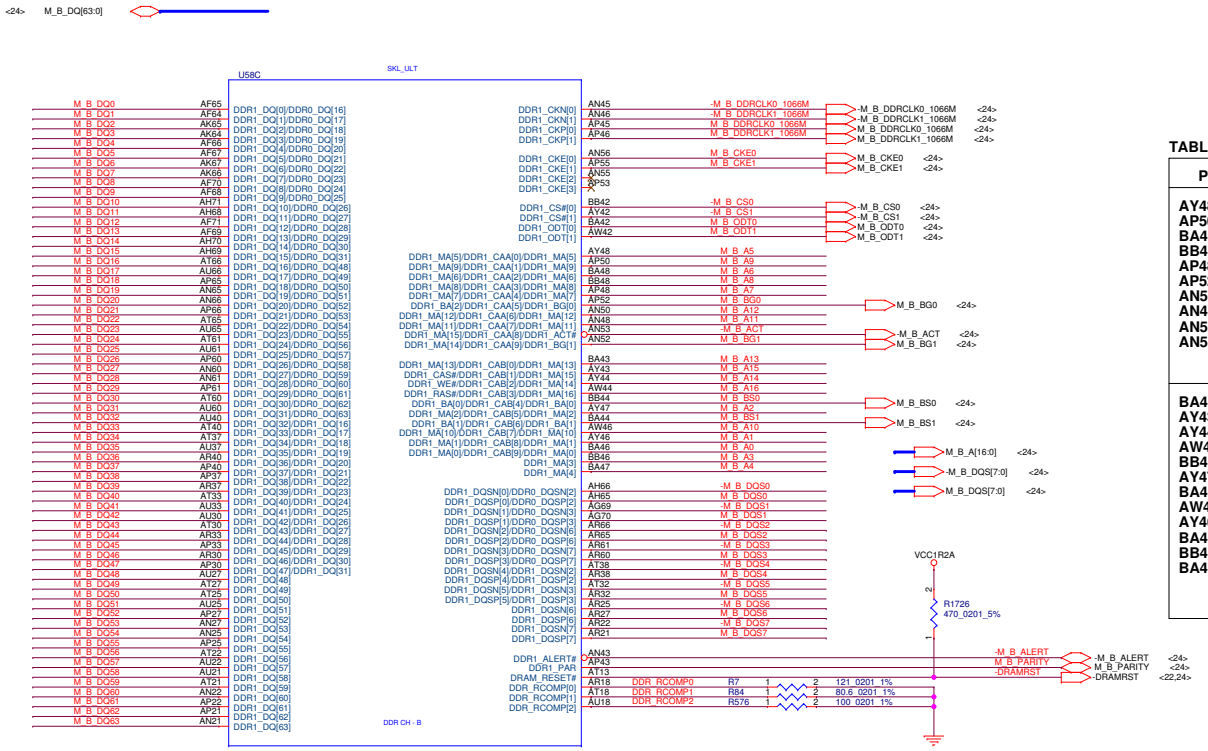
TABLE

	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[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

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

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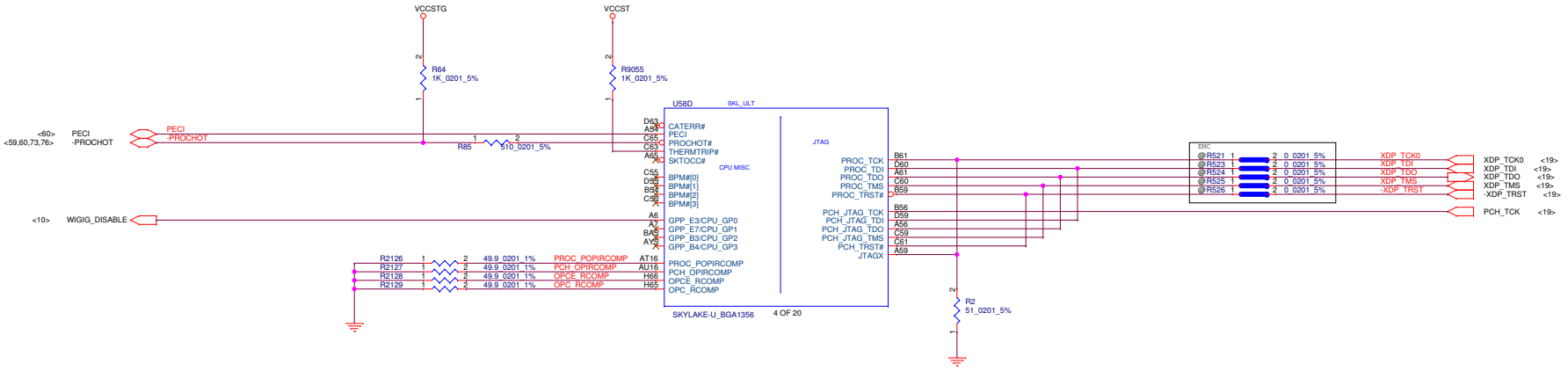

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Title: CPU(4/16) : MISC/JTAG

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TABLE : Functional Strap

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

TABLE : Functional Strap

SPI0_MISO (JTAG ODT Disable)	
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

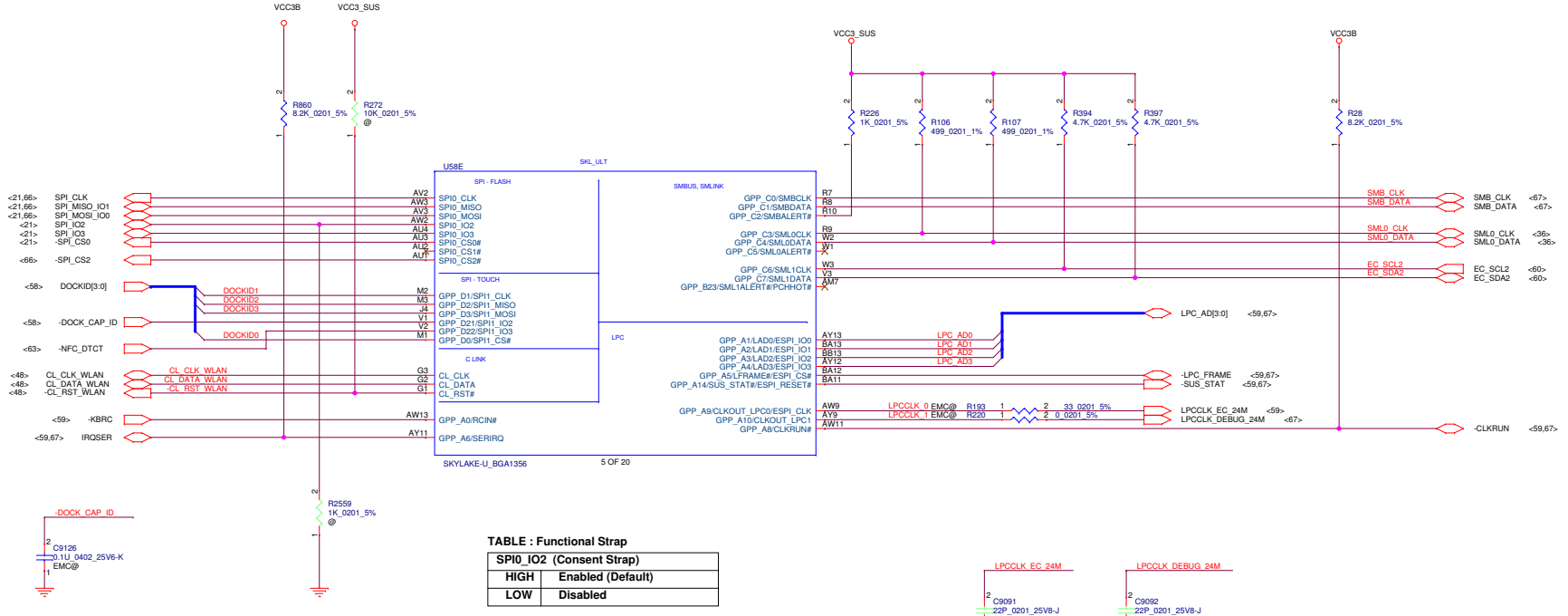

TABLE : Functional Strap

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

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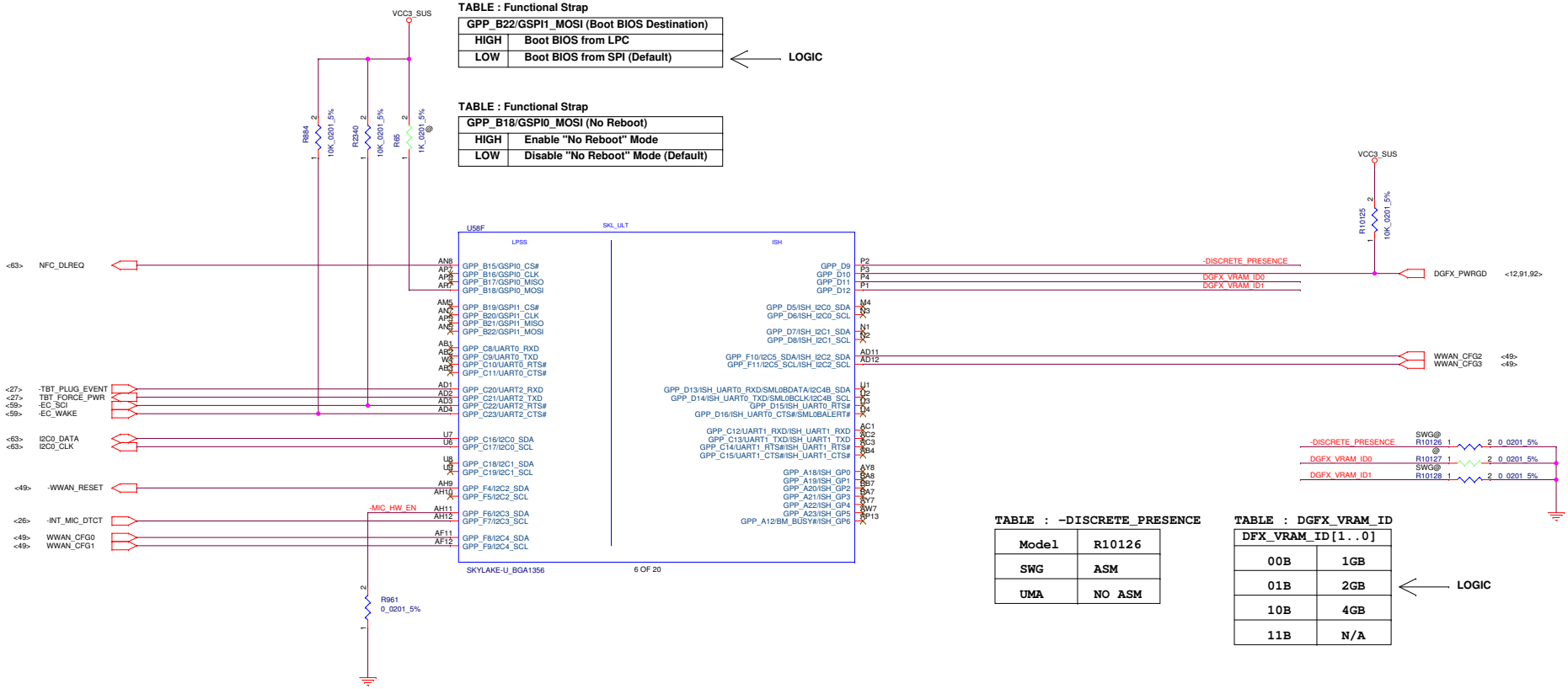

TABLE : Functional Strap

GPP_B22/GSPI1_MOSI (Boot BIOS Destination)	
HIGH	Boot BIOS from LPC
LOW	Boot BIOS from SPI (Default)

LOGIC

TABLE : Functional Strap

GPP_B18/GSPI0_MOSI (No Reboot)	
HIGH	Enable "No Reboot" Mode
LOW	Disable "No Reboot" Mode (Default)

TABLE : -DISCRETE_PRESENCE

Model	R10126
SWG	ASM
UMA	NO ASM

TABLE : DGFX_VRAM_ID

DFX_VRAM_ID[1..0]	
00B	1GB
01B	2GB
10B	4GB
11B	N/A

LOGIC

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

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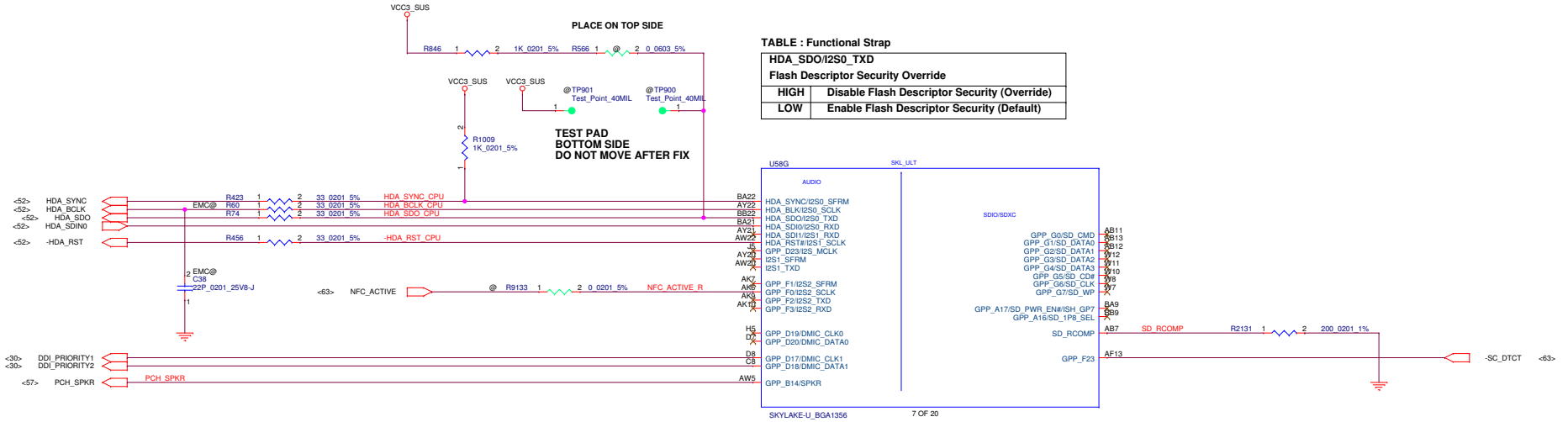

TABLE : Functional Strap

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	LC Future Center Secret Data		
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Title: CPU(7/16) : 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	USB3 2	USB3P1
Port 3	USB3 3	USB3 3	USB3P2
Port 4	USB3 4	USB3 4	USB3P3
Port 5	USB3 5/PCIE 1	PCIE 1 (x4)	PCIE0
Port 6	USB3 6/PCIE 2	PCIE 2 (x4)	PCIE0
Port 7	PCIE 3 (GbE)	PCIE 3 (x4)	PCIE0
Port 8	PCIE 4 (GbE)	PCIE 4 (x4)	PCIE0
Port 9	PCIE 5 (GbE)	PCIE 5 (GbE)	PCIE4
Port 10	PCIE 6	PCIE 6	PCIE5
Port 11	PCIE 7/SATA 0	PCIE 7 (x2)	PCIE6_L1
Port 12	PCIE 8/SATA 1A	GPIO STRAP	PCIE6_L0_SATA1
Port 13	PCIE 9 (GbE)	PCIE 9 (x2)	PCIE8_L0
Port 14	PCIE 10 (GbE)	PCIE 9 (x2)	PCIE8_L1
Port 15	PCIE 11/SATA 1B	PCIE 11 (x2)	PCIE10_L0
Port 16	PCIE 12/SATA 2	GPIO STRAP	PCIE10_L1_SATA2

PCIe Port Assignment	
0 (x4)	Discrete GPU
4	GbE PHY
5	M.2 WLAN Slot Port 0
6 (x2)	Optane x2 or M.2 WLAN Slot Port 1x 1
8 (x2)	Alpine Ridge-LP
10 (x2)	Main Storage x 2

SATA Port Assignment	
0	(PCIE 7)
1A	SATA SSD on WWAN slot
1B	(PCIE 11)
2	SATA SSD Main Storage

TABLE of USB3.0 SW (U189)		
Vendor	P/N	LCFC P/N
NXP	CBTL02042ABQ	SA00005R500
PERICOM	PI3PCIE3212ZBE	SA00005RJ00
TOSHIBA	TC7PCI3212MT	SA000066600

	WWAN Slot							
	Optane		SATA Cache		WWAN Card		None	
WIGIG_DISABLE	L	H	L	H	L	H	L	H
-WWAN_SSD_DTCT	L	L	L	L	H	H	H	H
SEL(U189)	L	L	L	L	H	H	H	H
XSD(U189)	L	L	L	L	L	H	L	H
PCIE6_L0_SATA1	To M.2 Socket2	To M.2 Socket2	To M.2 Socket2	To M.2 Socket2	To M.2 Socket1	Disconnect	To M.2 Socket1	Disconnect

USB 2.0 Port Assignment	
0	USB 3.0 System Port / Docking
1	USB 3.0 System Port (AOU)
2	Smart Cart Slot
3	USB 3.0 System Port (3rd Port)
4	IR Camera
5	M.2 WWAN Slot
6	NGFF WLAN Slot
7	USB Camera
8	Fingerprint Reader
9	Touch Panel

USB 3.0 Port Assignment	
0	USB 3.0 System Port / Docking
1	USB 3.0 System Port (AOU)
2	Media Card Controller
3	USB 3.0 System Port (3rd Port)
4	(PCIE 1)
5	(PCIE 2)

TABLE of USB3.0 SW (U160)		
Vendor	P/N	LCFC P/N
NXP	CBTL02042ABQ	SA00005R500
PERICOM	PI3PCIE3212ZBE	SA00005RJ00
TOSHIBA	TC7PCI3212MT	SA000066600

TABLE of USB2.0 SW (U161)		
Vendor	P/N	LCFC P/N
PERICOM	PI3USB102ZMEX	SA00005RH00
NXP	NX3DV42GU	SA00005RI00

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Issued Date	2015/11/02	Deciphered Date	2015/8/10

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Title: CPU(8/16) : PCIE/USB/SATA

Size: Custom | Document Number: C | Rev: 0.1

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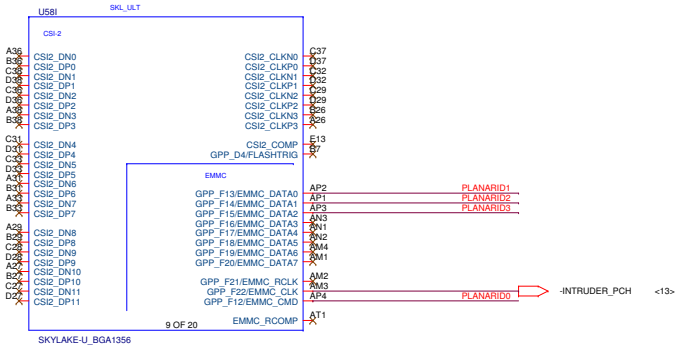

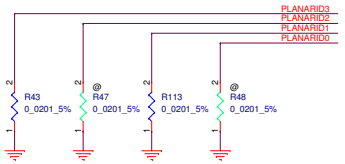

TABLE

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	0000B
FVT	0001B
FVT-2	0010B
SIT	0011B
SIT-R	0100B
SVT	0101B

Title: CPU(9/16) : CSI-2/EMMC

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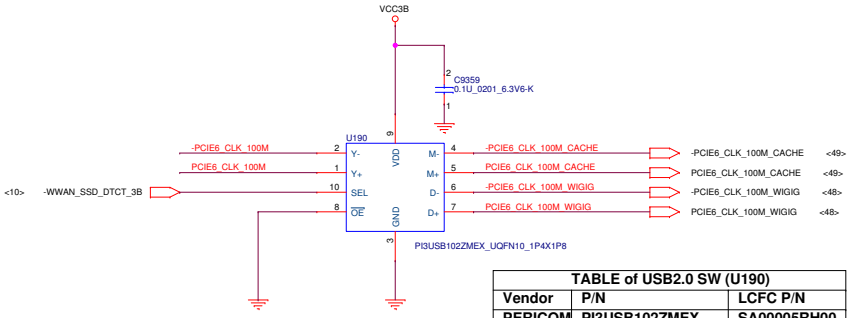
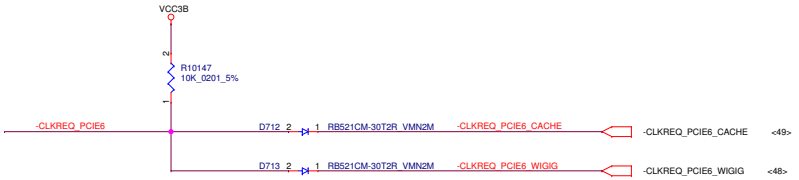
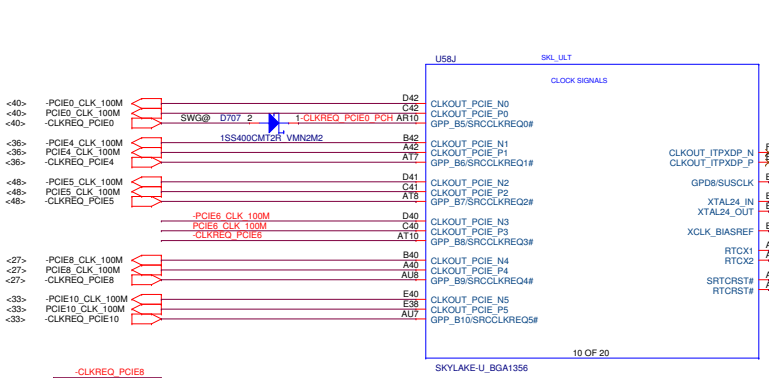
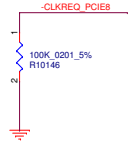
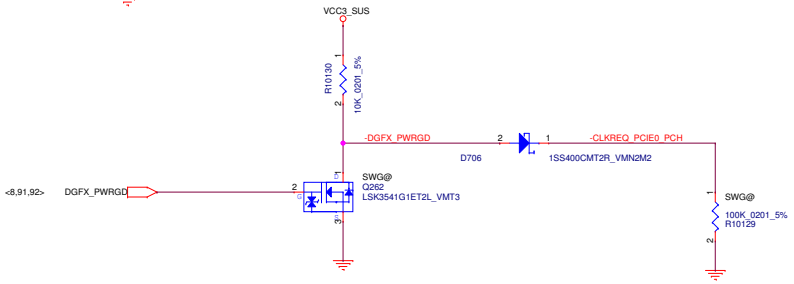


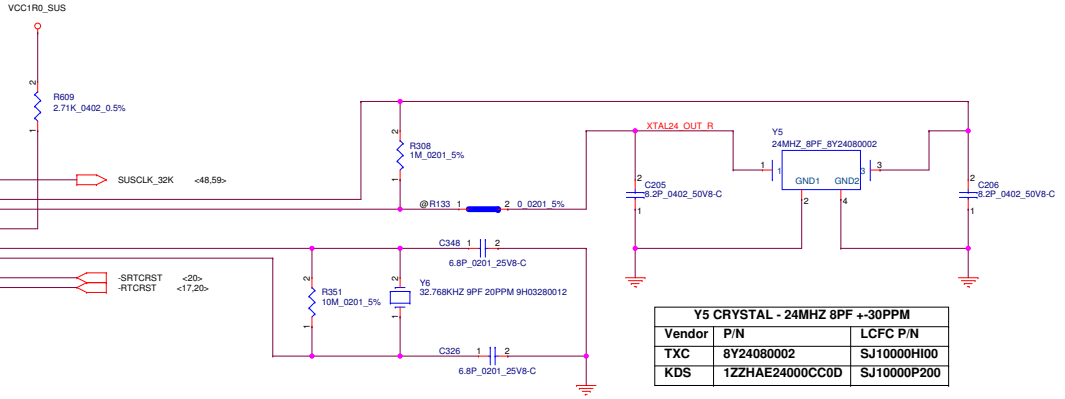
TABLE of USB2.0 SW (U190)		
Vendor	P/N	LCFC P/N
PERICOM	PI3USB102ZMEX	SA00005RH00
NXP	NX3DV42GU	SA00005RI00











Y5 CRYSTAL - 24MHZ 8PF +-30PPM		
Vendor	P/N	LCFC P/N
TXC	8Y24080002	SJ10000HI00
KDS	1ZZHAE24000CC0D	SJ10000P200

Y6 CRYSTAL 32.768KHZ 9PF 20PPM		
Vendor	P/N	LCFC P/N
TXC	9H03280012	SJ10000J900
KDS	1TJF090DJ1A000B	SJ100069400

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: CPU(10/16) : CLOCK SIGNALS

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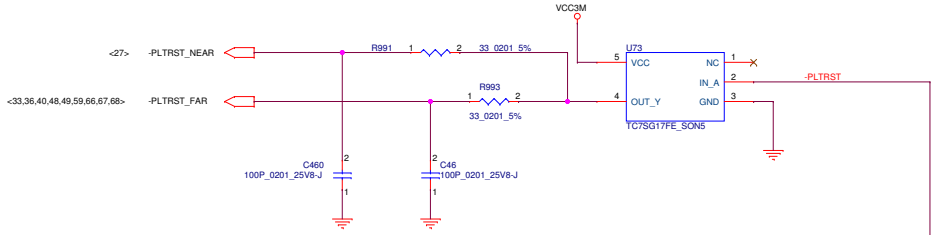
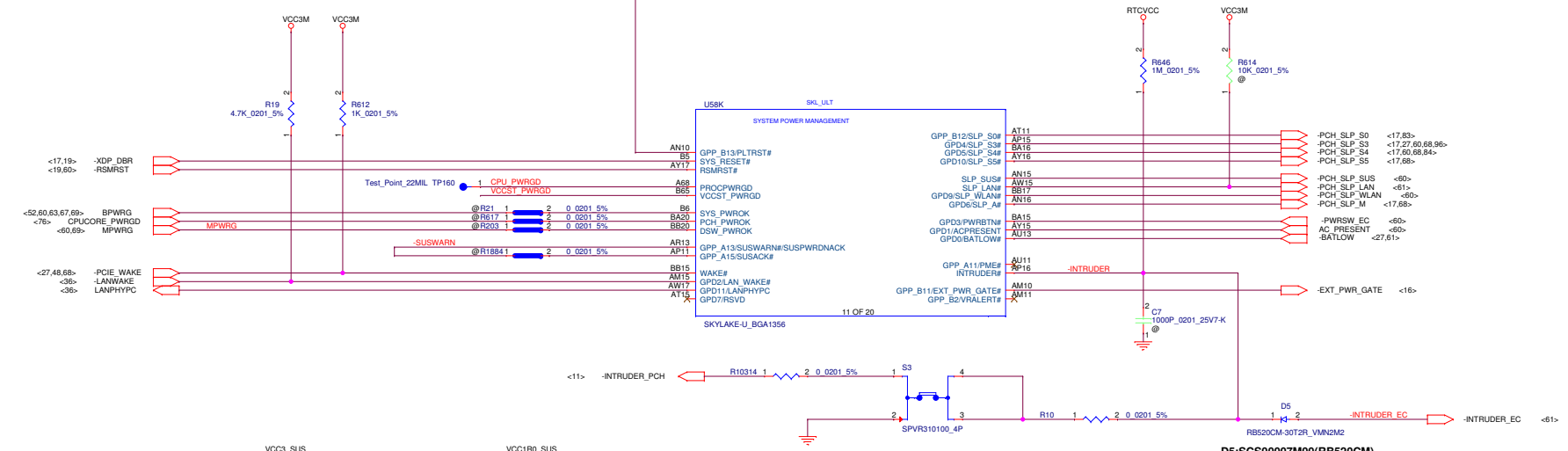
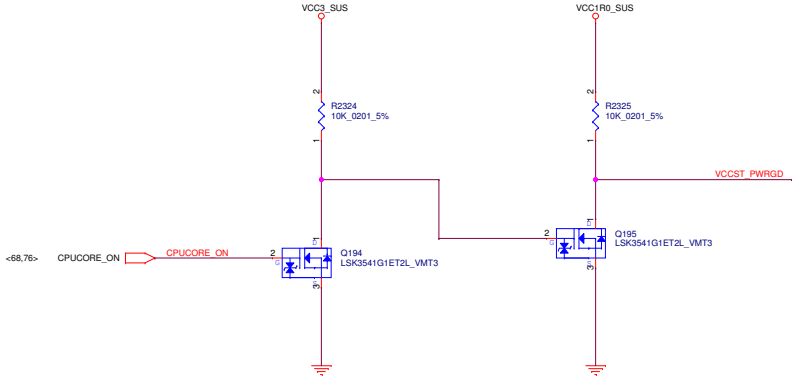


TABLE of U73		
Vendor	P/N	LCFC P/N
TOSHIBA	TC7SG17FE	SA00005T00J
ON	NL17SZ17XV5T2G	SA00005OU00
TI	SN74LVC1G17DRLR	SA00005MG00





Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: CPU(11/16) : SYSTEM PM

Size	Document Number	Rev
Custom	C	0.1

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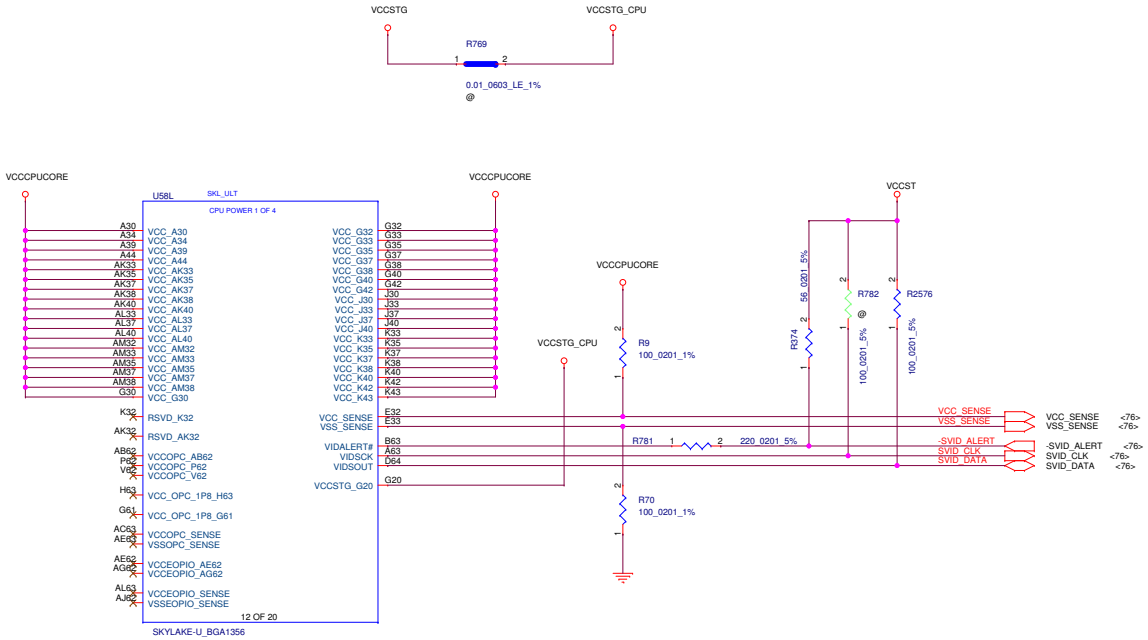
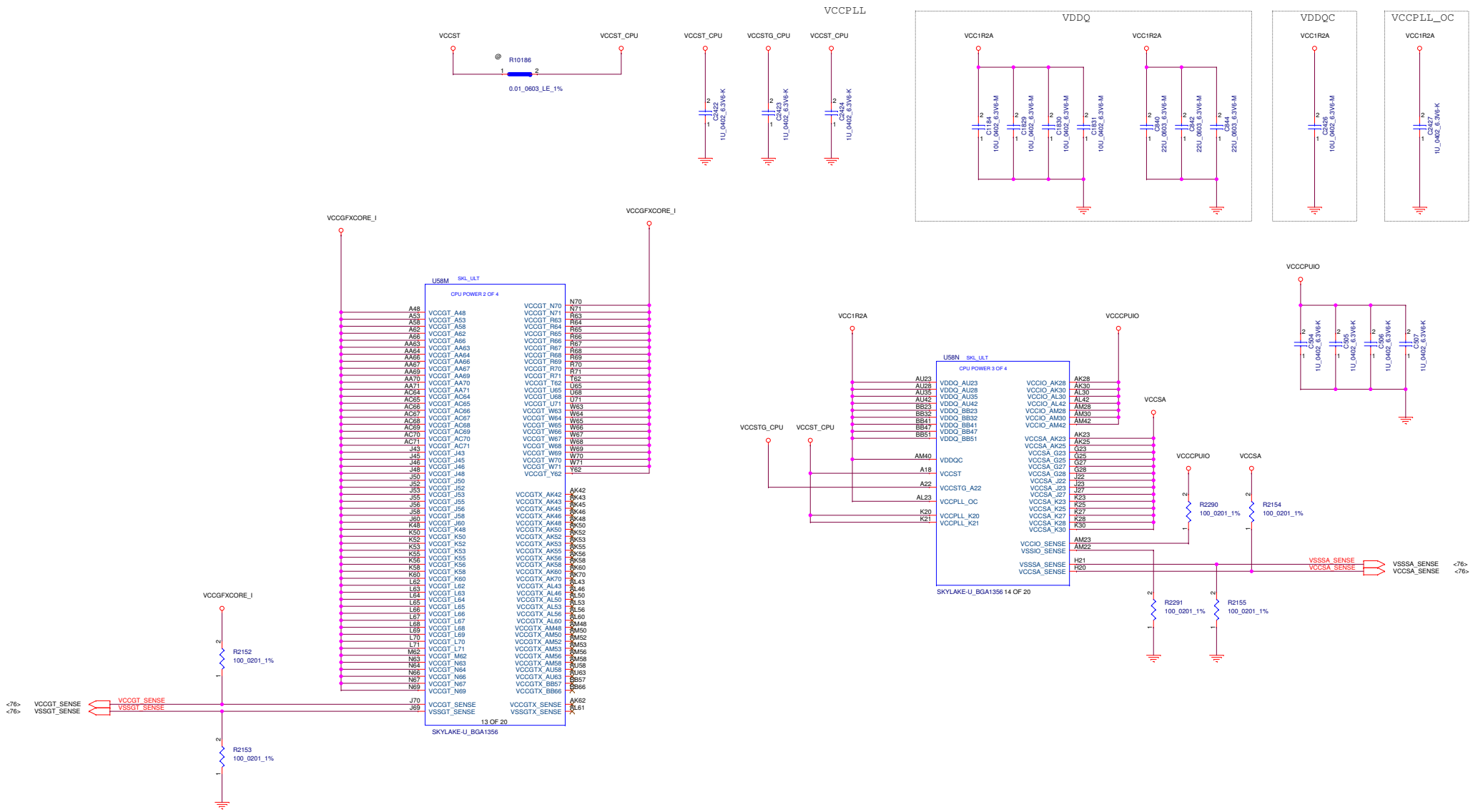


Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: CPU(12/16) : CPU POWER (1/2)

Size: Custom	Document Number: C	Rev: 0.1	
Date: Wednesday, November 02, 2016	Sheet 14 of 98		



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Issued Date	2015/11/02	Deciphered Date	2015/8/10

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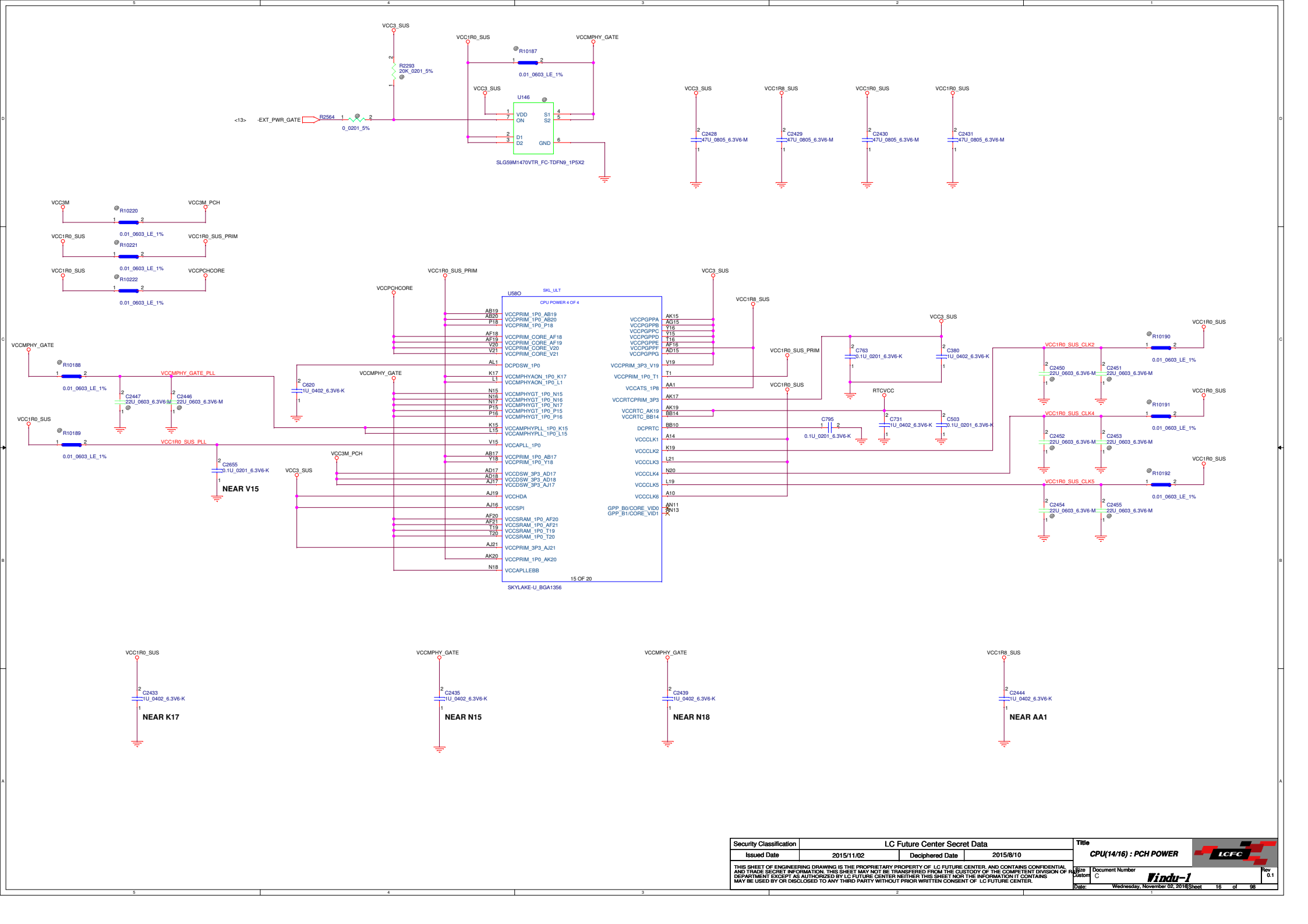
Title: CPU(13/16) : CPU POWER (2/2)

Size: Custom | Document Number: C | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 15 of 98



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: CPU(14/16) : PCH POWER

Size: Custom	Document Number: C	Vindu-1	Rev: 0.1
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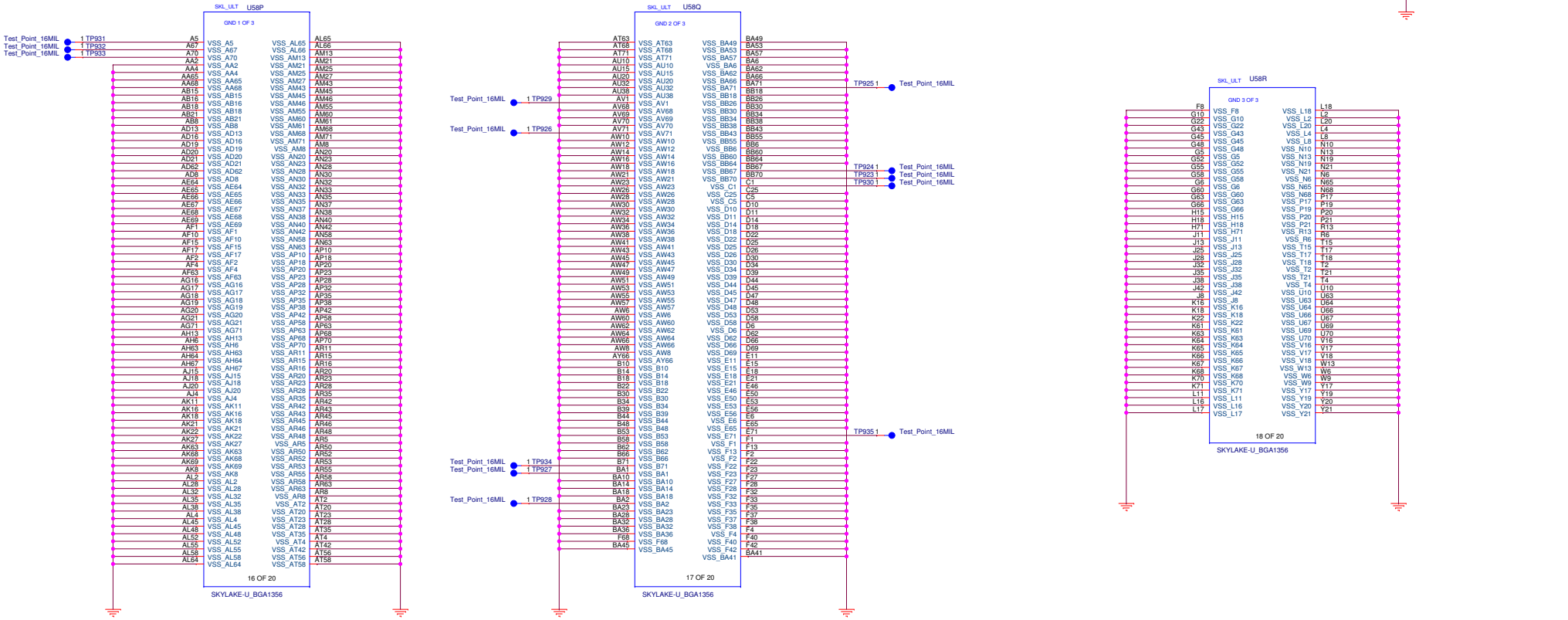
APS/PETS Interface



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

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Title: CPU(15/16) : GND

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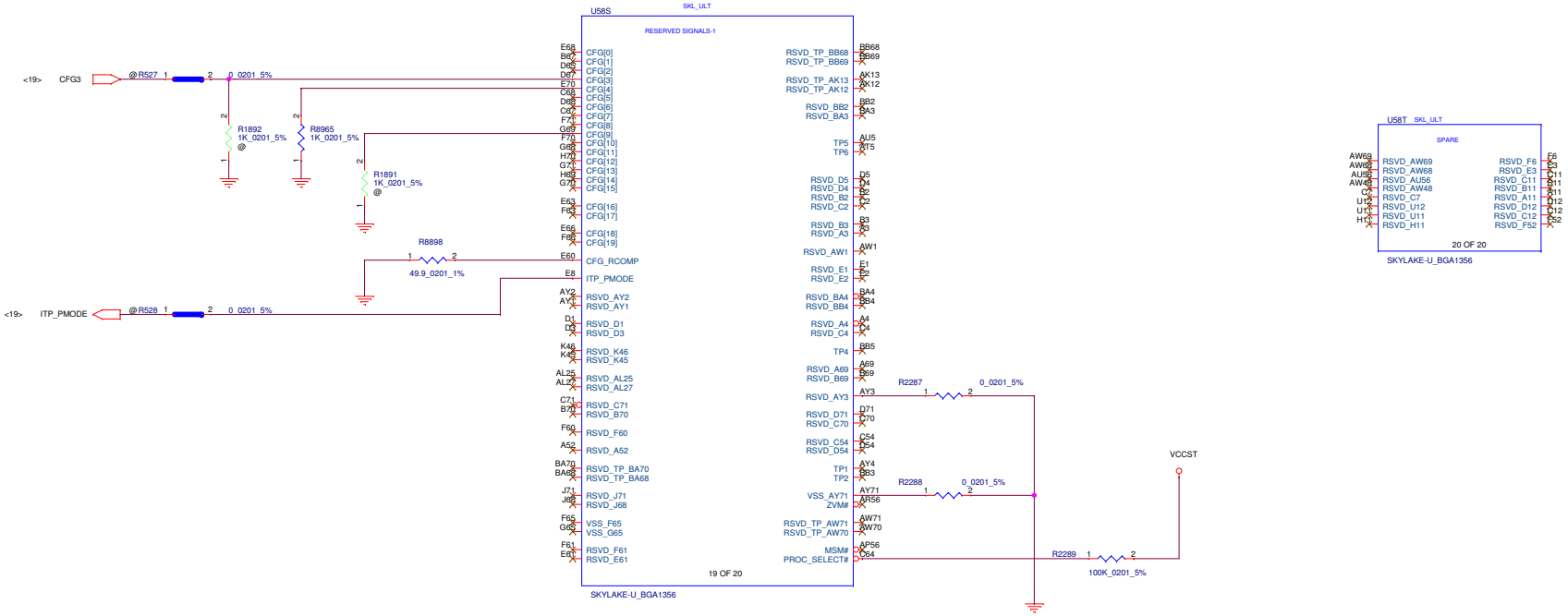
TABLE

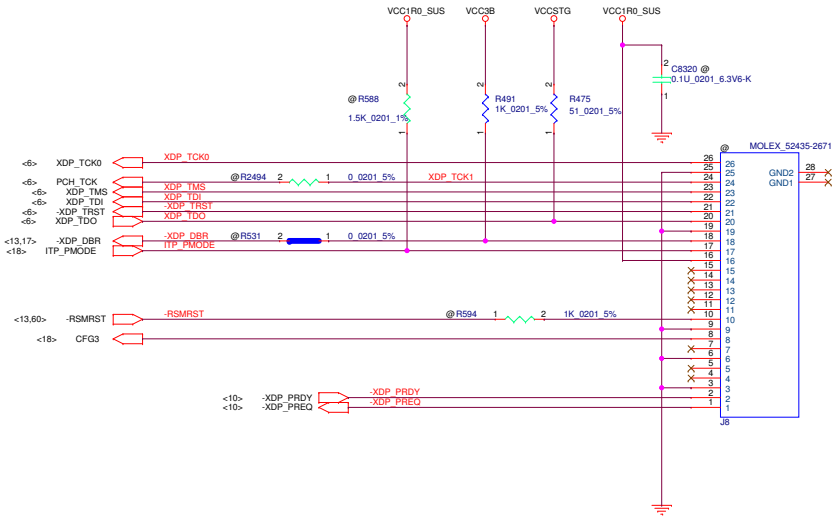
CFG0 : Stall Reset Sequence after PCU PLL Lock until de-asserted **1 : No Stall** **0 : Stall**
CFG3 : MSR Privacy Bit Feature **1 : MSR (C80h) bit[0] setting** **0 : MSR (C80h) bit[0] overridden**
CFG4 : eDP Enable **1 : Disabled** **0 : Enabled**
CFG9 : SVID Bus Communication **1 : Enabled** **0 :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



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: *CPU(16/16) : CFG/RESERVED*

Size: Custom	Document Number: C	Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 18 of 98	



TABLE

Logic	Ref Des	Merged	DCI 2.0
Page 6	R2	ASM	ASM
Page 7	R2559	ASM	NO_ASM
Page 18	R1892	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

Title: XDP CONNECTOR

Size: Custom | Document Number: C | Rev: 0.1

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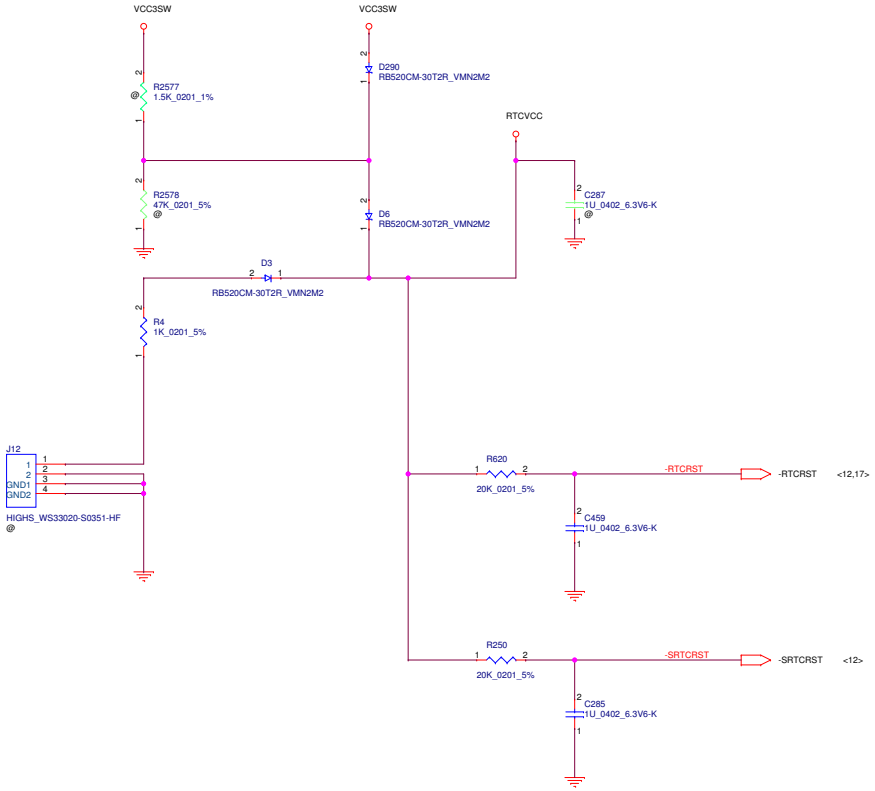

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: RTC BATTERY

Size: Custom	Document Number: Vindu-1	Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 20 of 98	

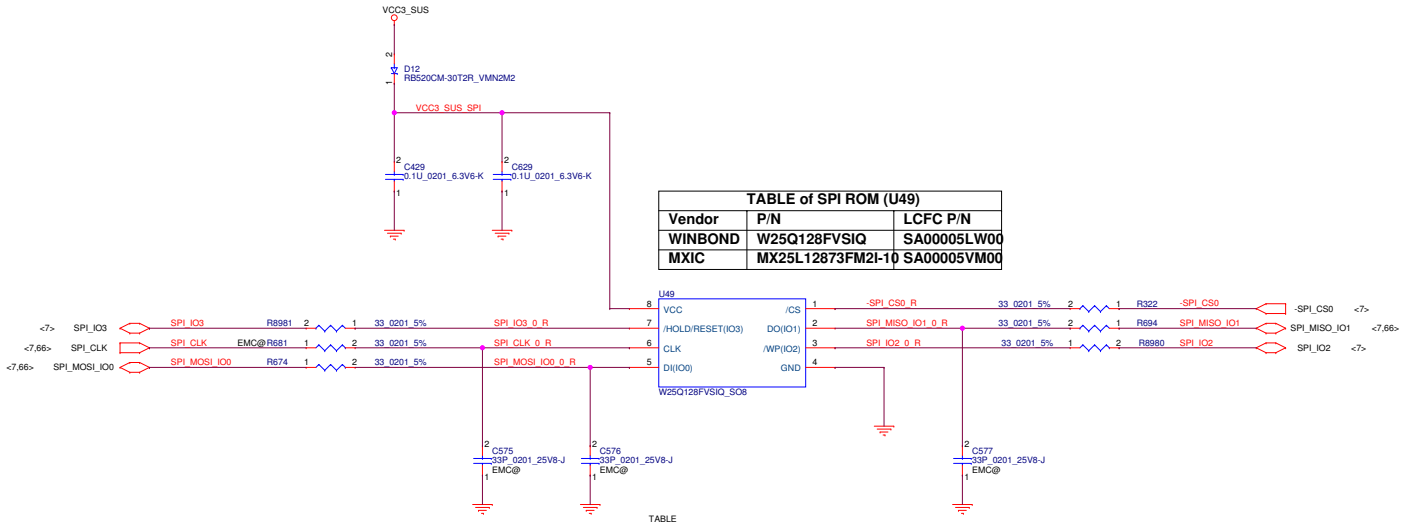

TABLE of SPI ROM (U49)		
Vendor	P/N	LCFC P/N
WINBOND	W25Q128FVSIQ	SA00005LW00
MXIC	MX25L12873FM2I-10	SA00005VM00

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	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: SPI FLASH

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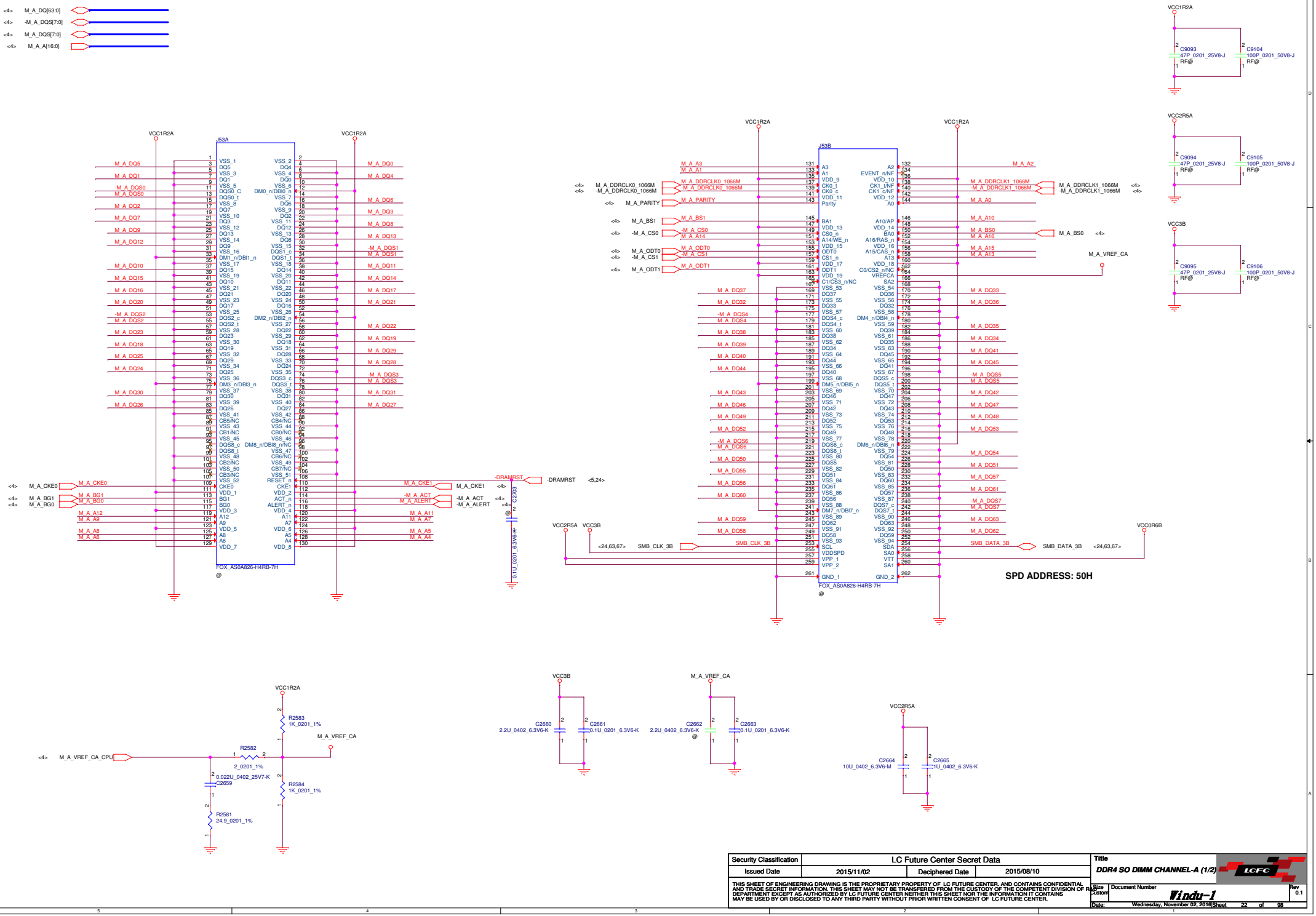
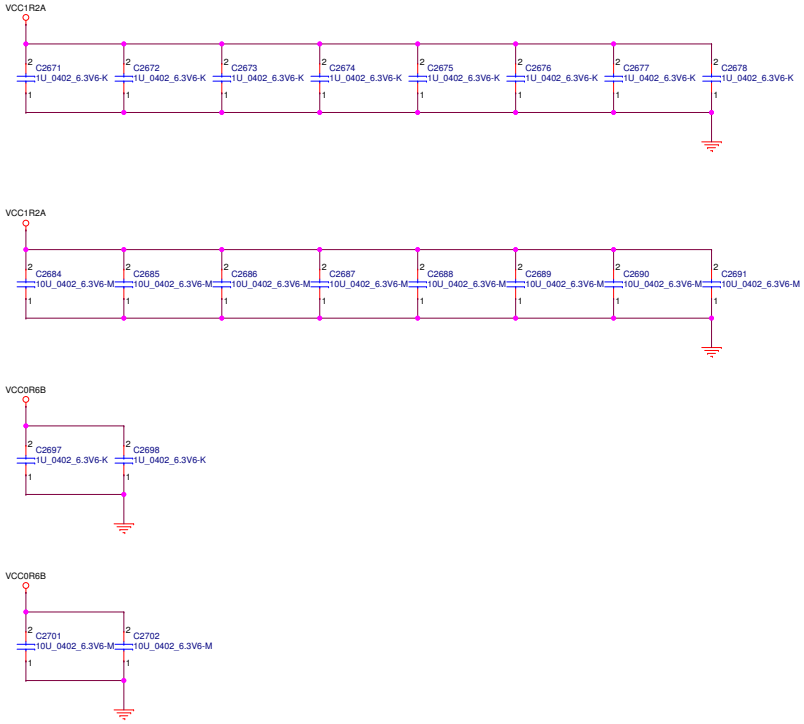


Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: DDR4 SO DIMM CHANNEL-A (1/2)

Size: Custom | Document Number: Vindu-1 | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 22 of 98



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

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

Size: Custom	Document Number: Vindu-1	Rev: 0.1
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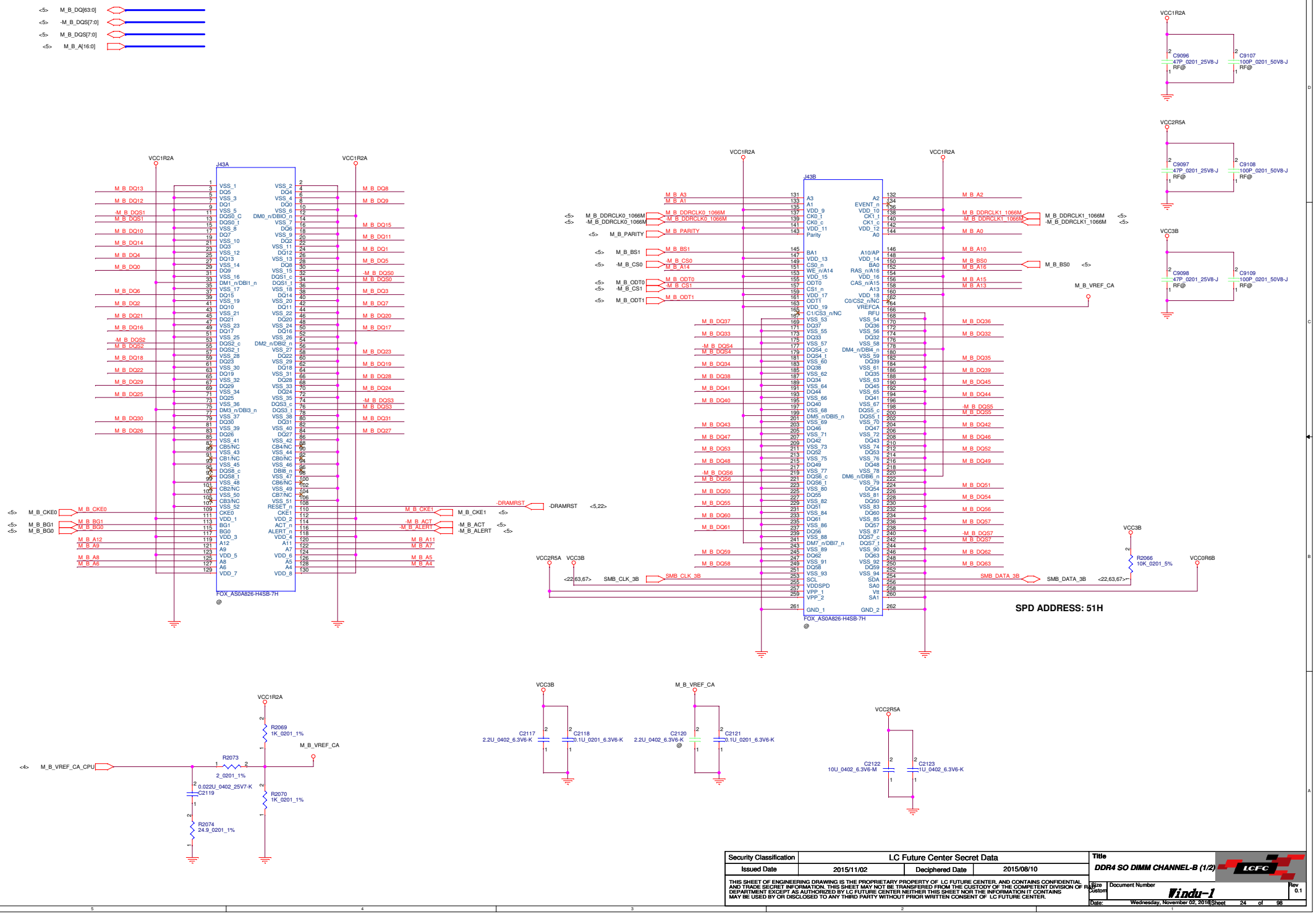

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: DDR4 SO DIMM CHANNEL-B (1/2)

Size: Custom | Document Number: Windu-1 | Rev: 0.1

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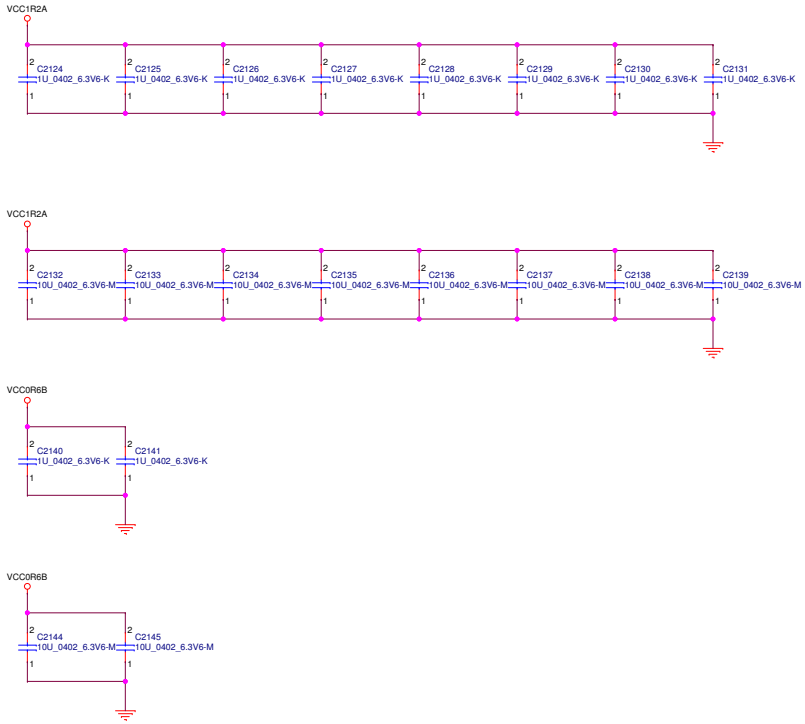

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

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

Size: Custom	Document Number: Vindu-1	Rev: 0.1
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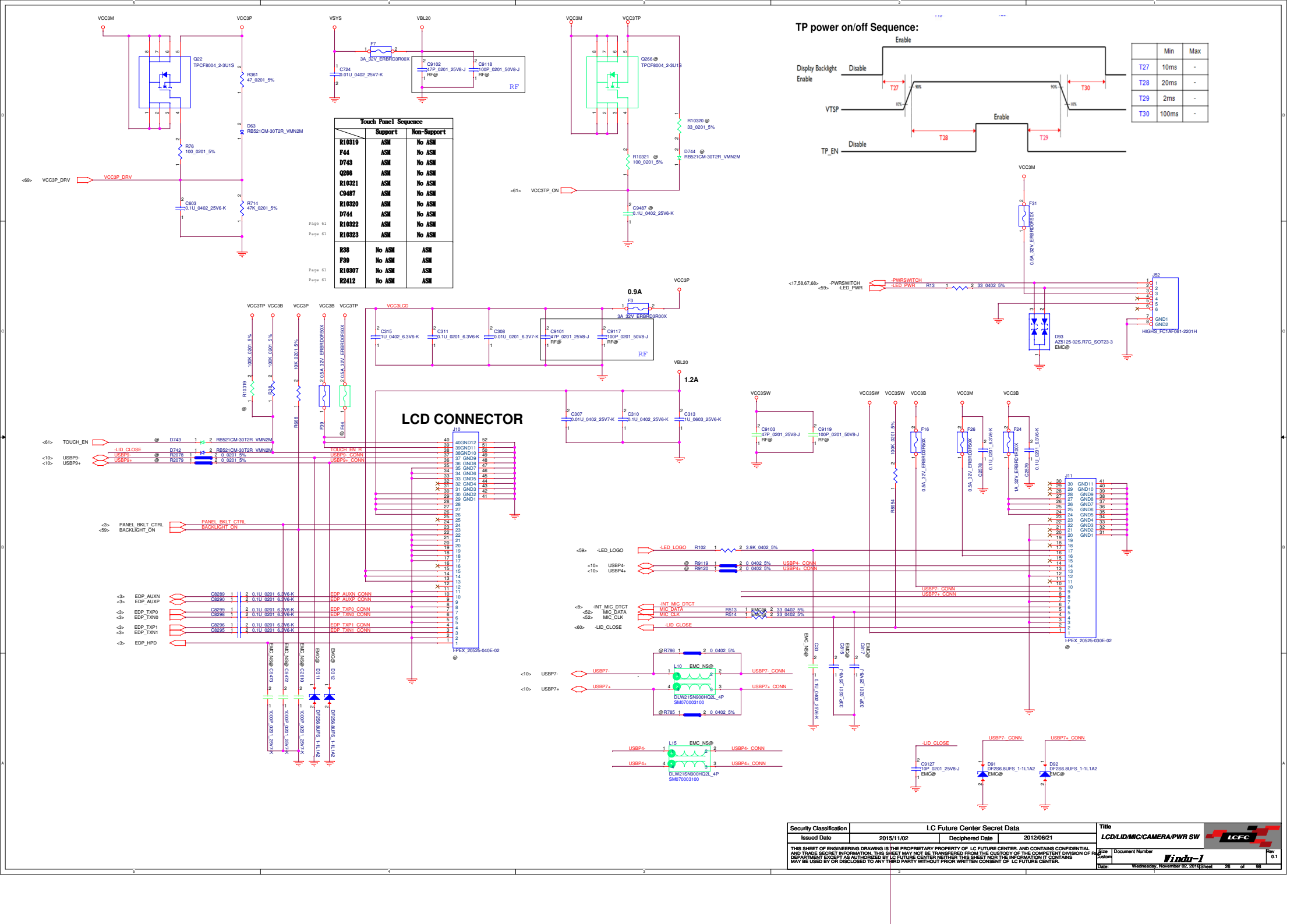
TP power on/off Sequence:
Enable
Display Backlight Enable
Disable
VTSP
TP_EN
T27
T28
T29
T30
90%
10%
Min
Max
T27 10ms -
T28 20ms -
T29 2ms -
T30 100ms -
Touch Panel Sequence
Support
Non-Support
R16319 ASM No ASM
F44 ASM No ASM
D743 ASM No ASM
Q266 ASM No ASM
R10321 ASM No ASM
C9487 ASM No ASM
R10320 ASM No ASM
D744 ASM No ASM
R10322 ASM No ASM
R10323 ASM No ASM
R38 No ASM ASM
F39 No ASM ASM
R10307 No ASM ASM
R2412 No ASM ASM
LCD CONNECTOR
0.9A
1.2A
VCC3M
VCC3P
VCC3TP
VCC3B
VCC3SW
VBL20
VCC3LCD
VSYS
Q22 TPCF8004_2-3U1S
Q266 @ TPCF8004_2-3U1S
D63 RB521CM-30T2R_VMN2M
D744 @ RB521CM-30T2R_VMN2M
D743 @ RB521CM-30T2R_VMN2M
D742 -LID_CLOSE RB521CM-30T2R_VMN2M
D93 AZ5125-02S.R7G_SOT23-3 EMC@
D91 DF2S6.8UFS_1-1L1A2 EMC@
D92 DF2S6.8UFS_1-1L1A2 EMC@
J10 I-PEX_20525-040E-02 @
J11 I-PEX_20525-030E-02 @
J52 HIGHS_FCTAF061-2201H
L10 EMC_NS@ DLW21SN900HQ2L_4P SM070003100
L15 EMC_NS@ DLW21SN900HQ2L_4P SM070003100
TOUCH_EN
-LID_CLOSE
USBP9-
USBP9+
PANEL_BKLT_CTRL
BACKLIGHT_ON
EDP_AUXN
EDP_AUXP
EDP_TXP0
EDP_TXN0
EDP_TXP1
EDP_TXN1
EDP_HPD
-PWRSWITCH
-LED_PWR
-LED_LOGO
USBP4-
USBP4+
-INT_MIC_DTCT
MIC_DATA
MIC_CLK
USBP7-
USBP7+
USBP7-_CONN
USBP7+_CONN
USBP4-_CONN
USBP4+_CONN
EDP_AUXN_CONN
EDP_AUXP_CONN
EDP_TXP0_CONN
EDP_TXN0_CONN
EDP_TXP1_CONN
EDP_TXN1_CONN
TOUCH_EN_R
USBP9-_CONN
USBP9+_CONN
Security Classification
LC Future Center Secret Data
Issued Date
2015/11/02
Deciphered Date
2012/06/21
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LCD/LID/MIC/CAMERA/PWR SW
LCFC
Size
Custom
Document Number
Vindu-1
Rev
0.1
Date:
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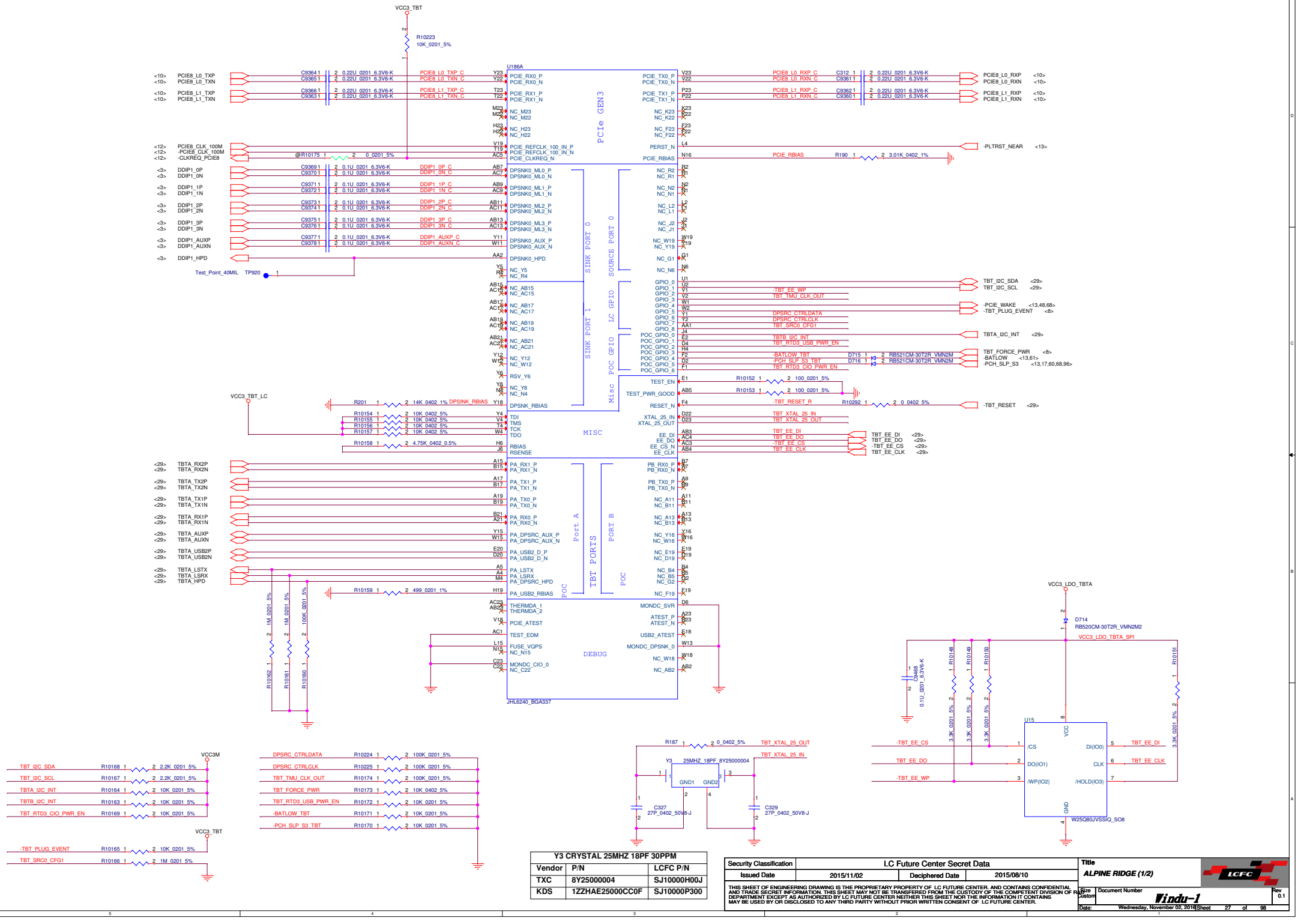
VCC3_TBT
R10223
10K_0201_5%
U186A
PCIE8_L0_TXP
PCIE8_L0_TXN
PCIE8_L1_TXP
PCIE8_L1_TXN
PCIE_RX0_P
PCIE_RX0_N
PCIE_RX1_P
PCIE_RX1_N
PCIE_TX0_P
PCIE_TX0_N
PCIE_TX1_P
PCIE_TX1_N
PCIE8_L0_RXP
PCIE8_L0_RXN
PCIE8_L1_RXP
PCIE8_L1_RXN
PCIE8_CLK_100M
-PCIE8_CLK_100M
-CLKREQ_PCIE8
PCIE_REFCLK_100_IN_P
PCIE_REFCLK_100_IN_N
PCIE_CLKREQ_N
PERST_N
PCIE_RBIAS
-PLTRST_NEAR
DDIP1_0P
DDIP1_0N
DDIP1_1P
DDIP1_1N
DDIP1_2P
DDIP1_2N
DDIP1_3P
DDIP1_3N
DDIP1_AUXP
DDIP1_AUXN
DDIP1_HPD
DPSNK0_ML0_P
DPSNK0_ML0_N
DPSNK0_ML1_P
DPSNK0_ML1_N
DPSNK0_ML2_P
DPSNK0_ML2_N
DPSNK0_ML3_P
DPSNK0_ML3_N
DPSNK0_AUX_P
DPSNK0_AUX_N
DPSNK0_HPD
Test_Point_40MIL
TP920
SINK PORT 0
SOURCE PORT 0
LC GPIO
SINK PORT 1
POC GPIO
Misc
TBT_I2C_SDA
TBT_I2C_SCL
-TBT_EE_WP
TBT_TMU_CLK_OUT
-PCIE_WAKE
-TBT_PLUG_EVENT
DPSRC_CTRLDATA
DPSRC_CTRLCLK
TBT_SRC0_CFG1
TBTA_I2C_INT
TBTB_I2C_INT
-BATLOW_TBT
-PCH_SLP_S3_TBT
TBT_FORCE_PWR
TBT_RTD3_USB_PWR_EN
TBT_RTD3_CIO_PWR_EN
D715
D716
RB521CM-30T2R_VMN2M
TBT_EE_DI
TBT_EE_DO
-TBT_EE_CS
TBT_EE_CLK
NC_M23
NC_M22
NC_H23
NC_H22
NC_K23
NC_K22
NC_F23
NC_F22
NC_R2
NC_R1
NC_N2
NC_N1
NC_L2
NC_L1
NC_J2
NC_J1
NC_W19
NC_Y19
NC_G1
NC_N6
NC_AB15
NC_AC15
NC_AB17
NC_AC17
NC_AB19
NC_AC19
NC_AB21
NC_AC21
NC_Y12
NC_W12
RSV_Y6
NC_Y8
NC_N4
DPSNK_RBIAS
R201
14K_0402_1%
DPSINK_RBIAS
TDI
TMS
TCK
TDO
RBIAS
RSENSE
MISC
TEST_EN
TEST_PWR_GOOD
RESET_N
-TBT_RESET_R
-TBT_RESET
XTAL_25_IN
XTAL_25_OUT
EE_DI
EE_DO
EE_CS_N
EE_CLK
VCC3_TBT_LC
TBTA_RX2P
TBTA_RX2N
TBTA_TX2P
TBTA_TX2N
TBTA_TX1P
TBTA_TX1N
TBTA_RX1P
TBTA_RX1N
TBTA_AUXP
TBTA_AUXN
TBTA_USB2P
TBTA_USB2N
TBTA_LSTX
TBTA_LSRX
TBTA_HPD
PA_RX1_P
PA_RX1_N
PA_TX1_P
PA_TX1_N
PA_TX0_P
PA_TX0_N
PA_RX0_P
PA_RX0_N
PA_DPSRC_AUX_P
PA_DPSRC_AUX_N
PA_USB2_D_P
PA_USB2_D_N
PA_LSTX
PA_LSRX
PA_DPSRC_HPD
PA_USB2_RBIAS
R10159
499_0201_1%
R10162
R10161
R10160
1M_0201_5%
100K_0201_5%
TBT PORTS
Port A
PORT B
POC
PB_RX0_P
PB_RX0_N
PB_TX0_P
PB_TX0_N
NC_A11
NC_B11
NC_A13
NC_B13
NC_Y16
NC_W16
NC_E19
NC_D19
NC_B4
NC_B5
NC_G2
NC_F19
THERMDA_1
THERMDA_2
PCIE_ATEST
TEST_EDM
FUSE_VQPS
NC_N15
MONDC_CIO_0
NC_C22
MONDC_SVR
ATEST_P
ATEST_N
USB2_ATEST
MONDC_DPSNK_0
NC_W18
NC_AB2
DEBUG
JHL6240_BGA337
VCC3_LDO_TBTA
D714
RB520CM-30T2R_VMN2M2
VCC3_LDO_TBTA_SPI
C3468
0.1U_0201_6.3V6-K
R10148
R10149
R10150
R10151
3.3K_0201_5%
U15
/CS
DO(IO1)
/WP(IO2)
DI(IO0)
CLK
/HOLD(IO3)
VCC
GND
W25Q80JVSSIQ_SO8
VCC3M
R10168
R10167
R10164
R10163
R10169
2.2K_0201_5%
10K_0201_5%
VCC3_TBT
R10165
R10166
1M_0201_5%
R10224
R10225
R10174
R10173
R10172
R10171
R10170
100K_0201_5%
10K_0402_5%
R187
0_0402_5%
Y3
25MHZ_18PF_8Y25000004
GND1
GND2
C327
27P_0402_50V8-J
C329
27P_0402_50V8-J
Y3 CRYSTAL 25MHZ 18PF 30PPM
Vendor | P/N | LCFC P/N
TXC | 8Y25000004 | SJ10000H00J
KDS | 1ZZHAE25000CC0F | SJ10000P300
Security Classification
LC Future Center Secret Data
Issued Date
2015/11/02
Deciphered Date
2015/08/10
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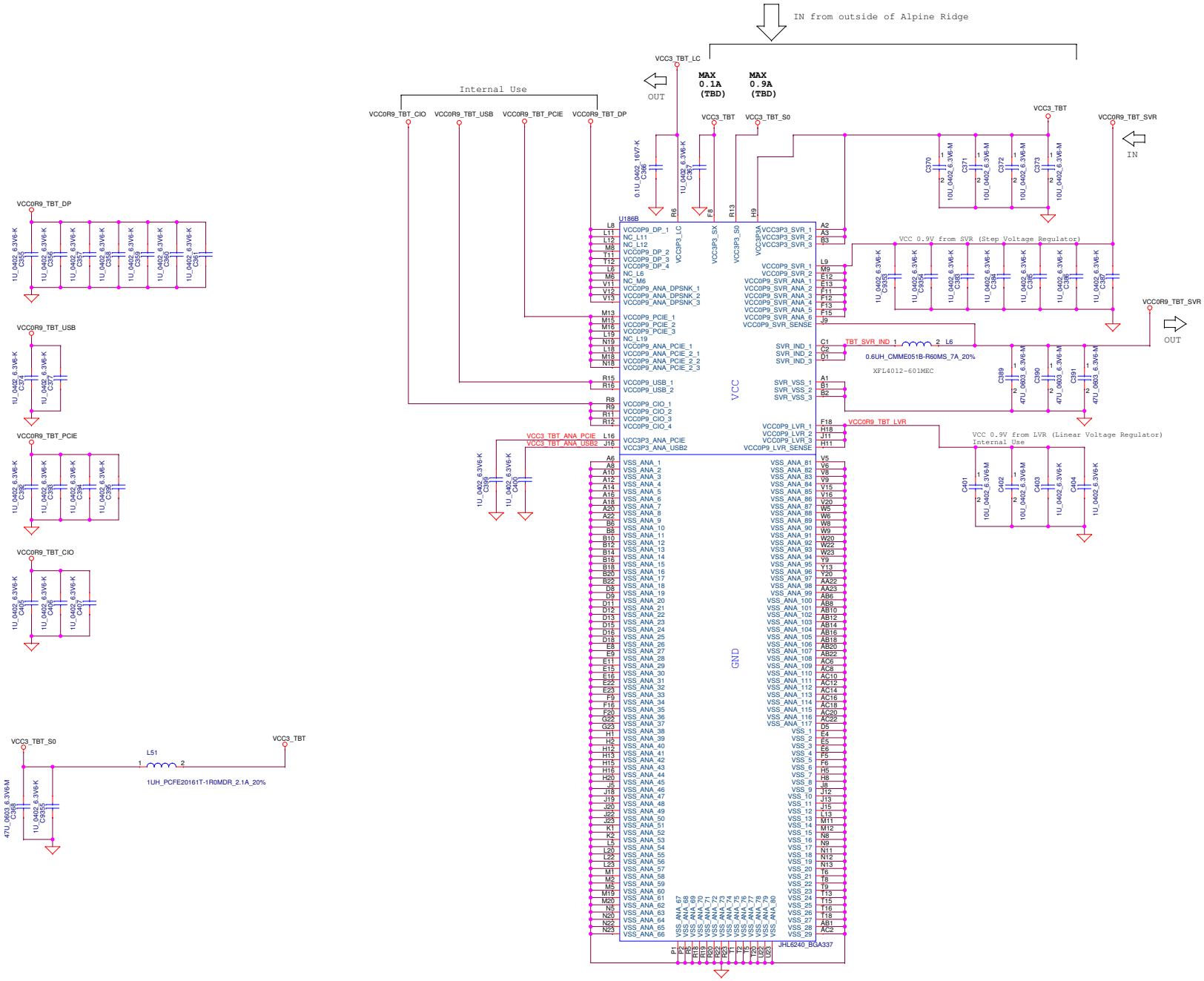

Security Classification	LC Future Center Secret Data		
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Title: ALPINE RIDGE (2/2)

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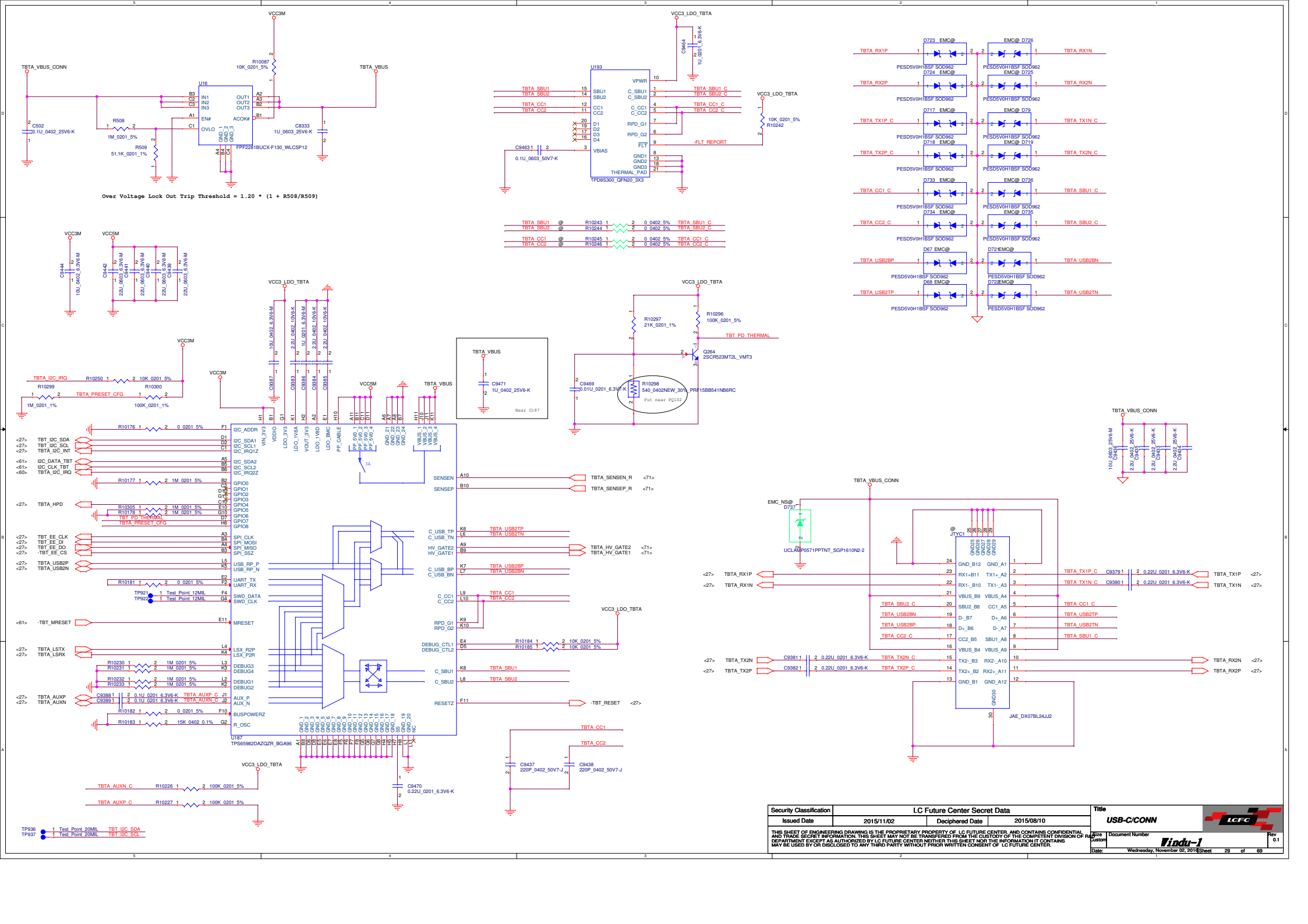
TBTA_VBUS_CONN
VCC3M
R10087
10K_0201_5%
TBTA_VBUS
U16
FPF2281BUCX-F130_WLCSP12
R508
1M_0201_5%
R509
51.1K_0201_1%
C502
0.1U_0402_25V6-K
C8333
1U_0603_25V6-K
Over Voltage Lock Out Trip Threshold = 1.20 * (1 + R508/R509)
VCC3_LDO_TBTA
U193
TPD8S300_QFN20_3X3
C9464
1U_0201_6.3V6-K
C9463
0.1U_0603_50V7-K
R10242
10K_0201_5%
-FLT_REPORT
TBTA_SBU1_C
TBTA_SBU2_C
TBTA_CC1_C
TBTA_CC2_C
R10243
R10244
R10245
R10246
0_0402_5%
D723_EMC@
D724_EMC@
D717_EMC@
D718_EMC@
D733_EMC@
D734_EMC@
D67_EMC@
D68_EMC@
EMC@_D726
EMC@_D725
EMC@_D79
EMC@_D719
EMC@_D736
EMC@_D735
D72EMC@
D72EMC@
PESD5V0H1BSF_SOD962
TBTA_RX1P
TBTA_RX1N
TBTA_RX2P
TBTA_RX2N
TBTA_TX1P_C
TBTA_TX1N_C
TBTA_TX2P_C
TBTA_TX2N_C
TBTA_CC1_C
TBTA_SBU1_C
TBTA_CC2_C
TBTA_SBU2_C
TBTA_USB2BP
TBTA_USB2BN
TBTA_USB2TP
TBTA_USB2TN
VCC5M
C9444
C9442
C9441
C9440
C9439
C9438
10U_0402_6.3V6-M
22U_0603_6.3V6-M
TBTA_I2C_IRQ
R10250
10K_0201_5%
TBTA_PRESET_CFG
R10299
1M_0201_1%
R10300
100K_0201_1%
C9837
C9983
C9986
C9984
C9985
10U_0402_6.3V6-M
2.2U_0402_10V6-K
1U_0201_6.3V6-K
TBTA_VBUS
C9471
1U_0402_25V6-K
Near U187
R10297
21K_0201_1%
R10296
100K_0201_5%
TBT_PD_THERMAL
Q264
2SCR523MT2L_VMT3
C9469
0.01U_0201_6.3V6-K
R10298
540_0402NEW_30%
PRF15BB541NB6RC
Put near PQ102
U187
TPS65982DAZQZR_BGA96
I2C_ADDR
I2C_SDA1
I2C_SCL1
I2C_IRQ1Z
I2C_SDA2
I2C_SCL2
I2C_IRQ2Z
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
GPIO8
SPI_CLK
SPI_MOSI
SPI_MISO
SPI_SSZ
USB_RP_P
USB_RP_N
UART_TX
UART_RX
SWD_DATA
SWD_CLK
MRESET
LSX_R2P
LSX_P2R
DEBUG3
DEBUG4
DEBUG1
DEBUG2
AUX_P
AUX_N
BUSPOWERZ
R_OSC
SENSEN
SENSEP
C_USB_TP
C_USB_TN
HV_GATE2
HV_GATE1
C_USB_BP
C_USB_BN
C_CC1
C_CC2
RPD_G1
RPD_G2
DEBUG_CTL1
DEBUG_CTL2
C_SBU1
C_SBU2
RESETZ
TBTA_SENSEN_R
TBTA_SENSEP_R
TBTA_HV_GATE2
TBTA_HV_GATE1
TBTA_USB2TP
TBTA_USB2TN
TBTA_USB2BP
TBTA_USB2BN
TBTA_CC1
TBTA_CC2
TBTA_SBU1
TBTA_SBU2
-TBT_RESET
TBT_I2C_SDA
TBT_I2C_SCL
TBTA_I2C_INT
TBT_I2C_DATA_TBT
I2C_CLK_TBT
TBTA_HPD
TBT_EE_CLK
TBT_EE_DI
TBT_EE_DO
-TBT_EE_CS
TBTA_USB2P
TBTA_USB2N
TP921
TP922
-TBT_MRESET
TBTA_LSTX
TBTA_LSRX
TBTA_AUXP
TBTA_AUXN
TBTA_AUXN_C
TBTA_AUXP_C
R10226
R10227
100K_0201_5%
TP936
TP937
Test_Point_20MIL
TBT_I2C_SDA
TBT_I2C_SCL
EMC_NS@
D737
UCLAMP0571PPTNT_SGP1610N2-2
JTYC1
JAE_DX07BL24JJ2
TBTA_TX1P
TBTA_TX1N
TBTA_TX2N
TBTA_TX2P
TBTA_RX1P
TBTA_RX1N
TBTA_RX2N
TBTA_RX2P
C93791
C93801
C93811
C93821
0.22U_0201_6.3V6-K
C9435
C9433
C9432
2.2U_0402_25V6-K
10U_0603_25V6-K
C9437
C9438
220P_0402_50V7-J
C9470
0.22U_0201_6.3V6-K
Security Classification
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Issued Date
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Deciphered Date
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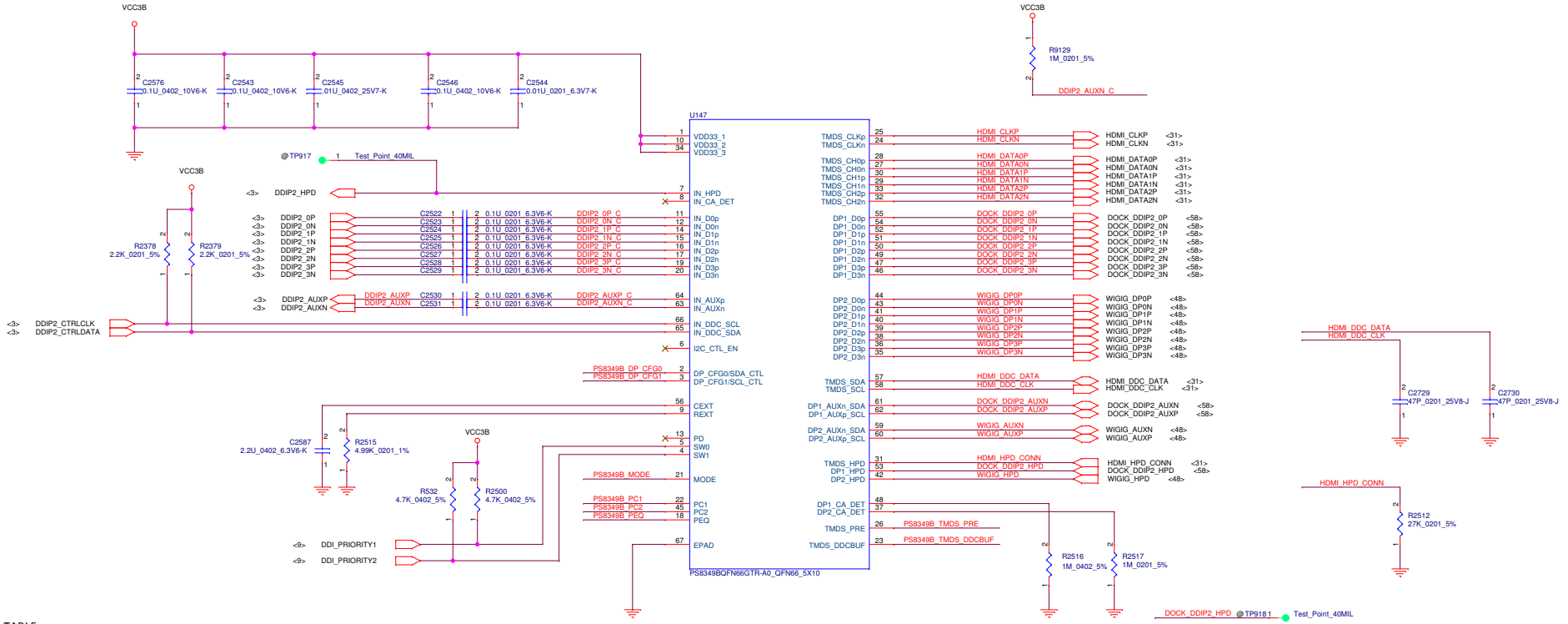


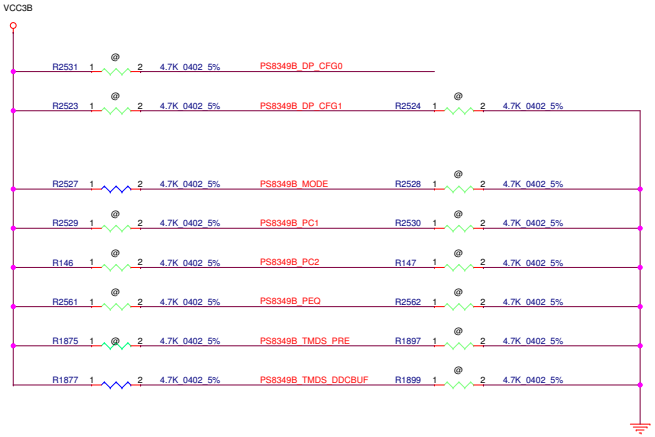
TABLE:

SW1	SW0	Port Priority Sequence
L	L	DP1 Port > DP2 Port > TMDS Port
L	H	DP1 Port > TMDS Port > DP2 Port ← DEFAULT
H	L	TMDS Port > DP2 Port > DP1 Port
H	H	TMDS Port > DP1 Port > DP2 Port

MODE =

H : Automatic Switching mode,HDMI ID Enabled ← DEFAULT

L : Automatic Switching mode,HDMI ID Disabled



For PARADE Debug use.

HDMI_CLKN	@ R9121	1	180_0402_1%	HDMI_CLKP
HDMI_DATA0N	@ R9123	1	180_0402_1%	HDMI_DATA0P
HDMI_DATA1N	@ R9125	1	180_0402_1%	HDMI_DATA1P
HDMI_DATA2N	@ R9127	1	180_0402_1%	HDMI_DATA2P

Security Classification	LC Future Center Secret Data		
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Title: DDI DEMUX/HDMI LEVEL SHIFTE

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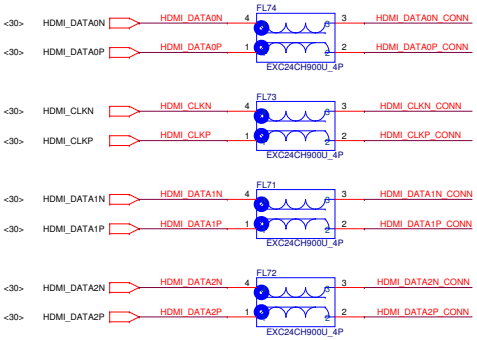

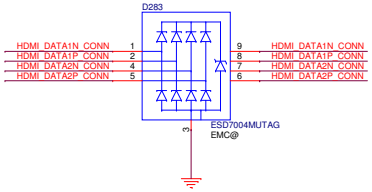

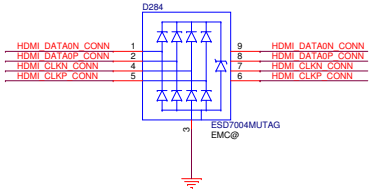

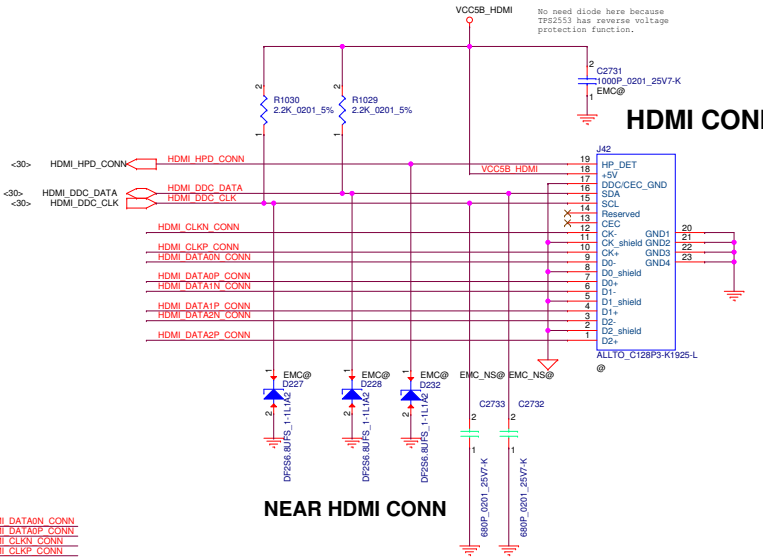

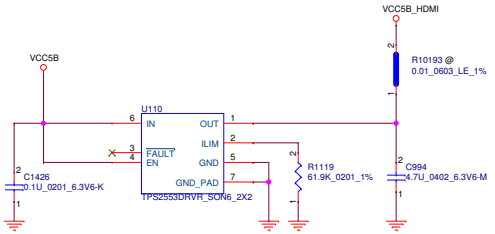

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2013/08/05

Title: HDMI CONNECTOR

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TABLE: PI3EQX862 Input Equalization Setting (EQ_A & EQ_B)

	@3GHz	@4GHz
GND	7 dB	8 dB
Open	4 dB (Default)	5 dB (Default)
VDD	10 dB	11 dB

← LOGIC

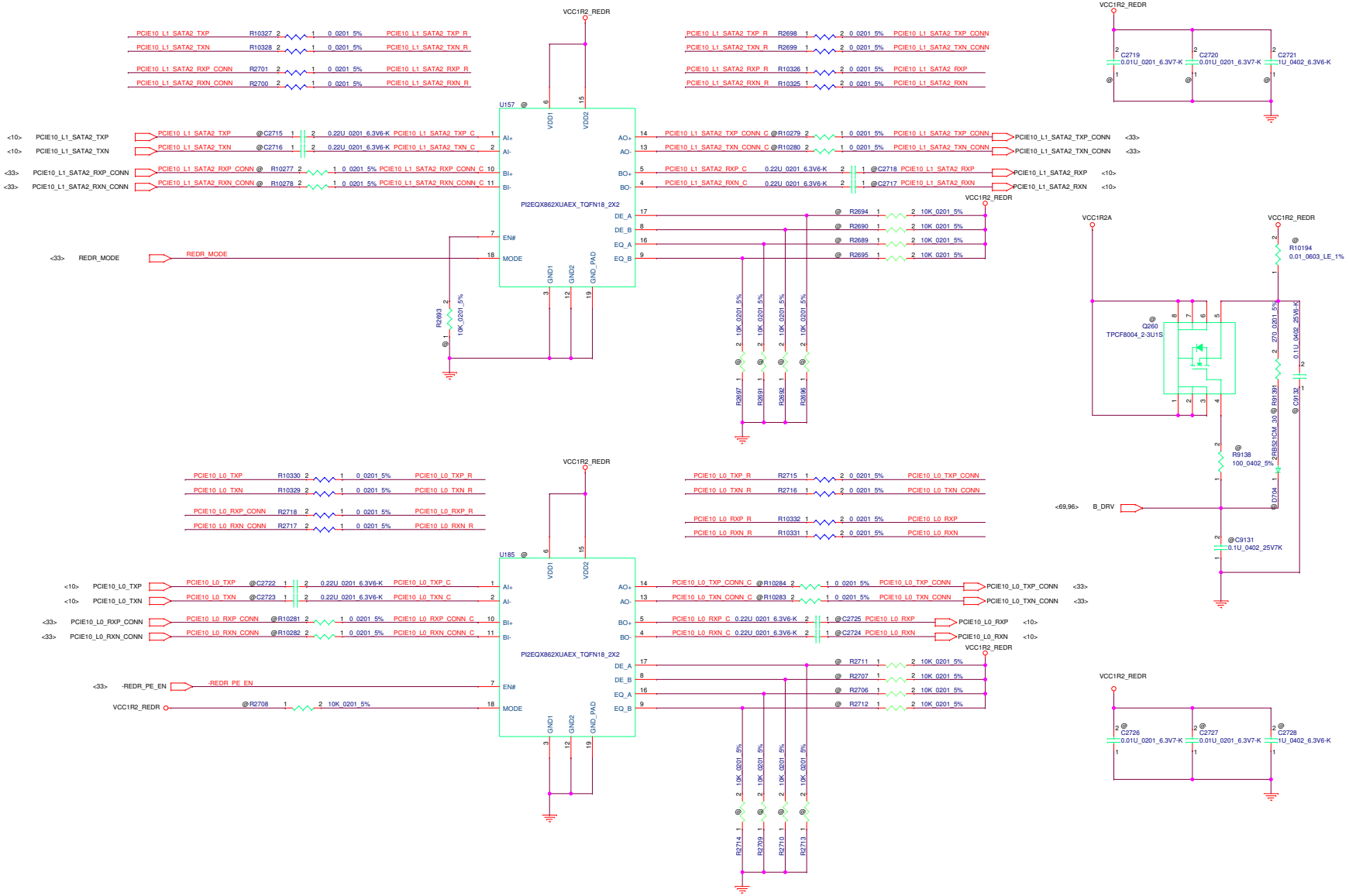
TABLE: PI3EQX862 Output De-emphasis Setting (DE_A & DE_B)

GND	-2.5 dB
Open	0 dB (Default)
VDD	-4 dB

← LOGIC

TABLE: Mode Configuration Table

EN#	MODE	Mode
Low	Low	SATA Application
Low	High	PCIe Application
High	X	Disable



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: STORAGE I/F REDRIVER

LCFC

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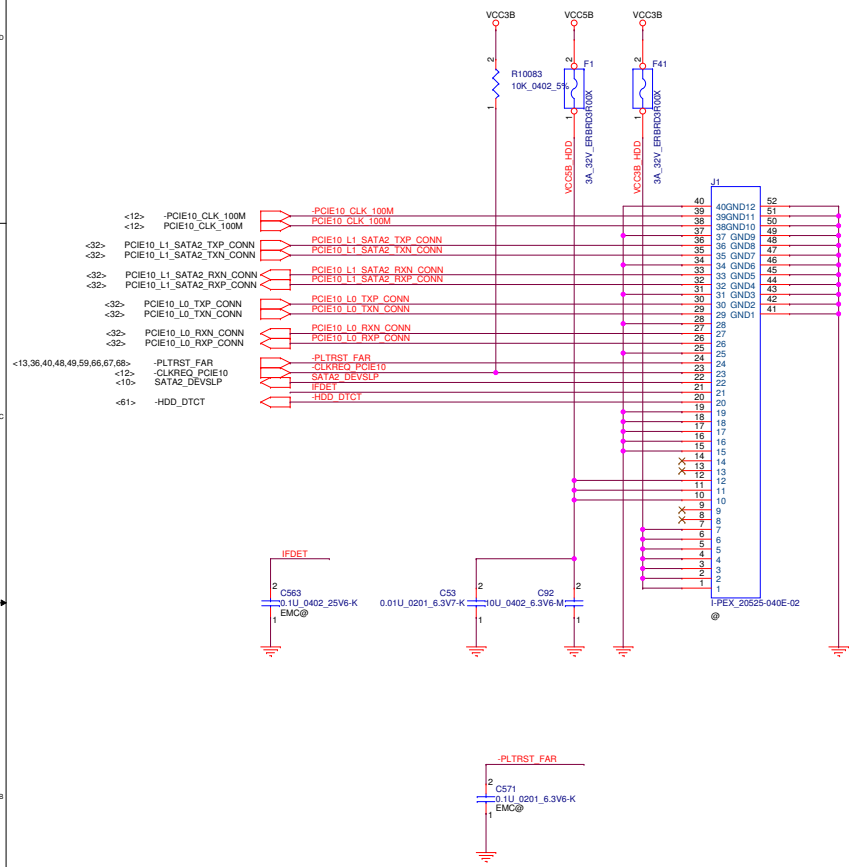
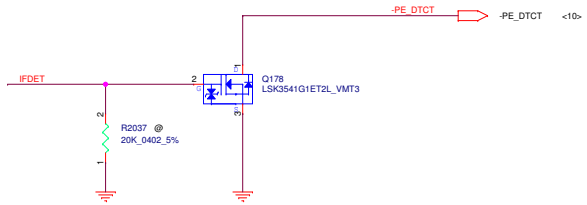
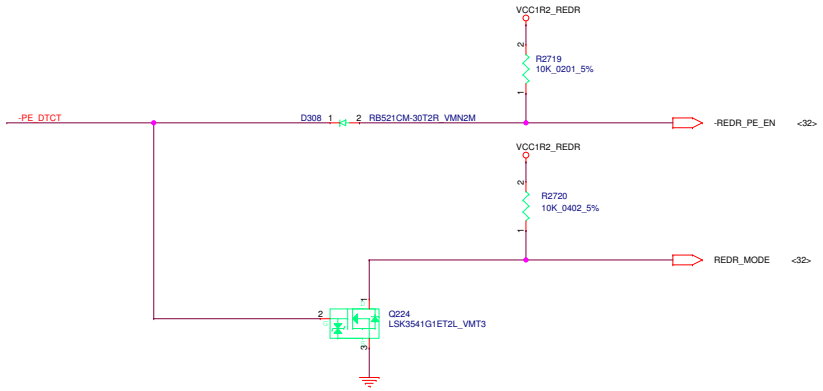


IFDET
SATA Device GND
PCIe Device 5K PU to Vsource





Security Classification	LC Future Center Secret Data		
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Title: SATA EXPRESS CONNECTOR

LCFC

Size	Document Number	Rev
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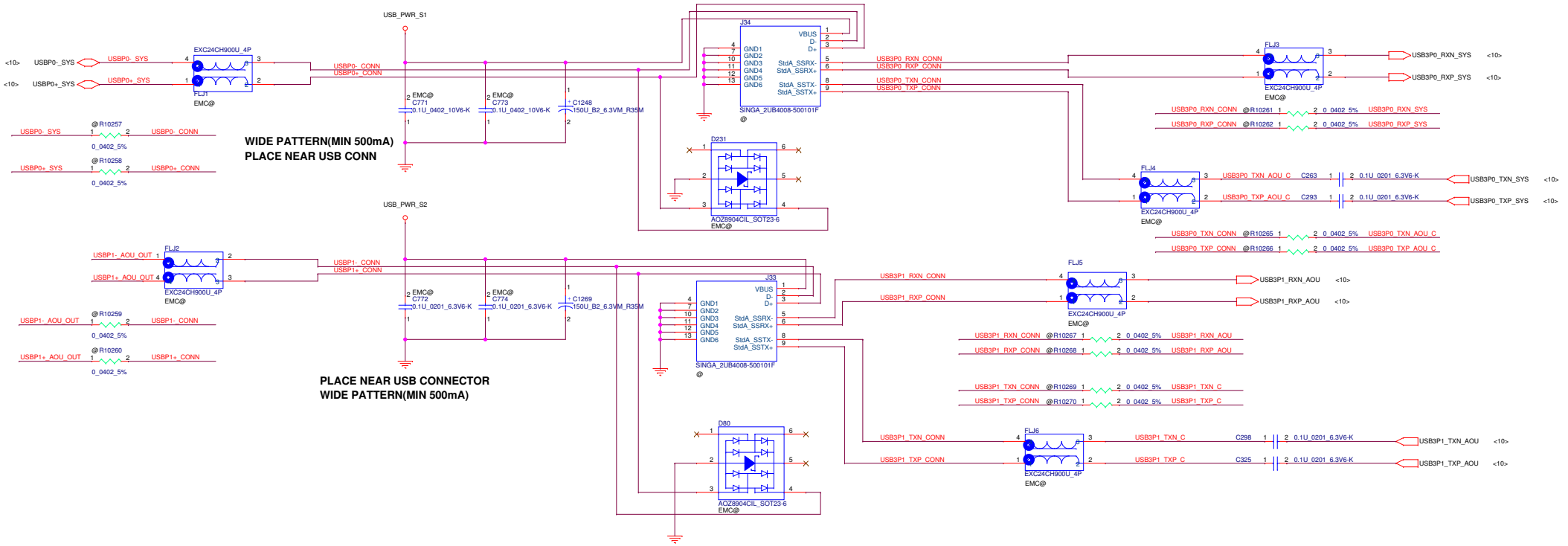

TABLE of USB Charge IC (U88)		
Vendor	P/N	LCFC P/N
TI	TPS2546RTER	SA00005TD00
Pericom	PI5USB2546ZHEX	SA000066I00

TABLE of USB3.0 Single (U53)		
Vendor	P/N	LCFC P/N
TI	TPS2069CDGNR	SA00005TE00
Rohm	BD82032FVJ-GE2	SA000084S00

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: USB POWER/CONN (1/2)

LCFC

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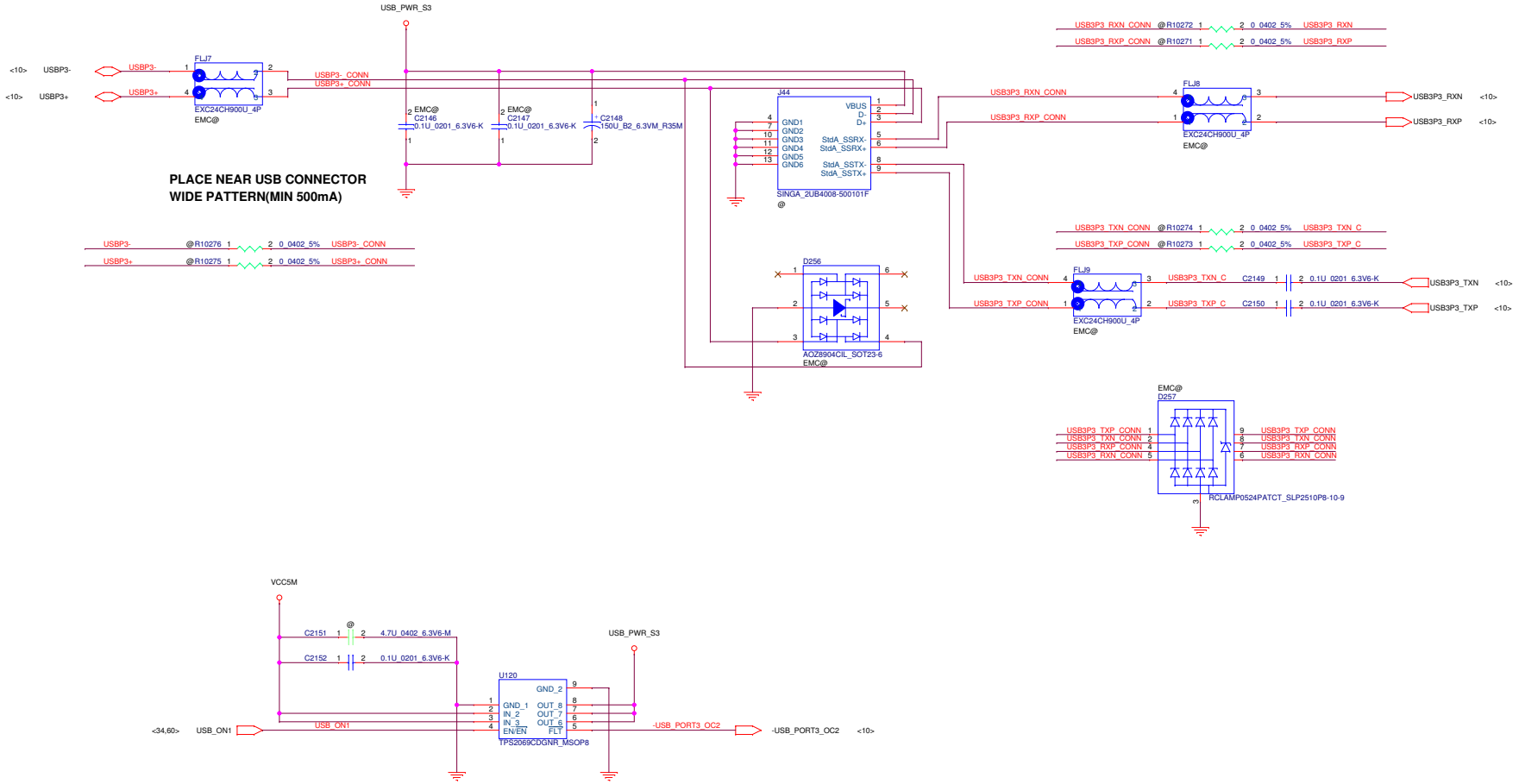

TABLE of USB3.0 Single (U120)		
Vendor	P/N	LCFC P/N
TI	TPS2069CDGNR	SA00005TE00
Rohm	BD82032FVJ-GE2	SA000084S00

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: USB POWER/CONN (2/2)

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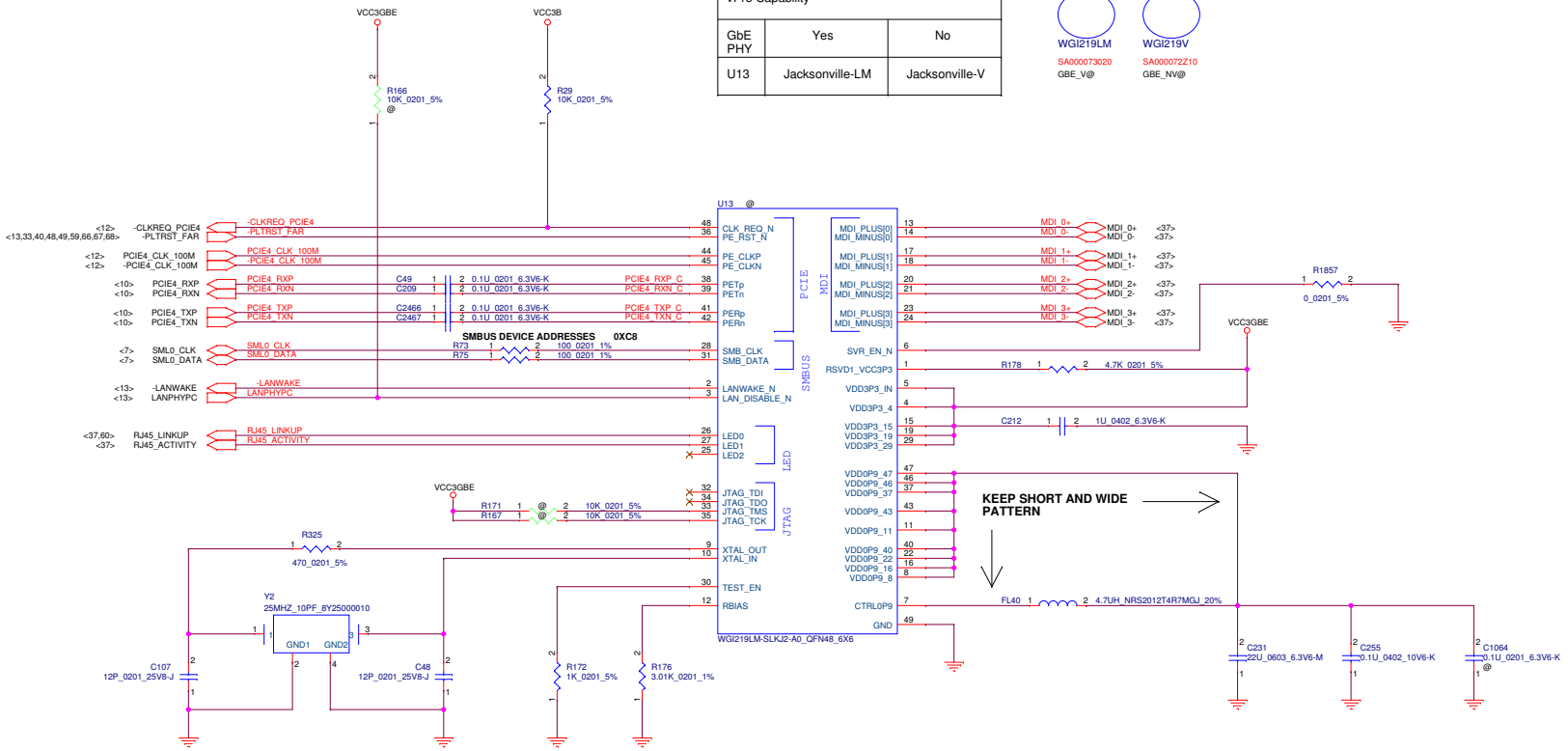
TABLE

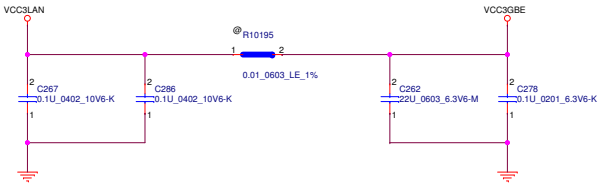
vPro Capability		
GbE PHY	Yes	No
U13	Jacksonville-LM	Jacksonville-V

U13 WGI219LM SA000073020 GBE_V@

U13 WGI219V SA000072Z10 GBE_NV@



Y2 CRYSTAL - 25MHz 10pF 30ppm		
Vendor	P/N	LCFC P/N
TXC	8Y25000010	SJ10000FY10
KDS	1ZZHAE25000CC0B	SJ10000MN00



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: GBE JACKSONVILLE

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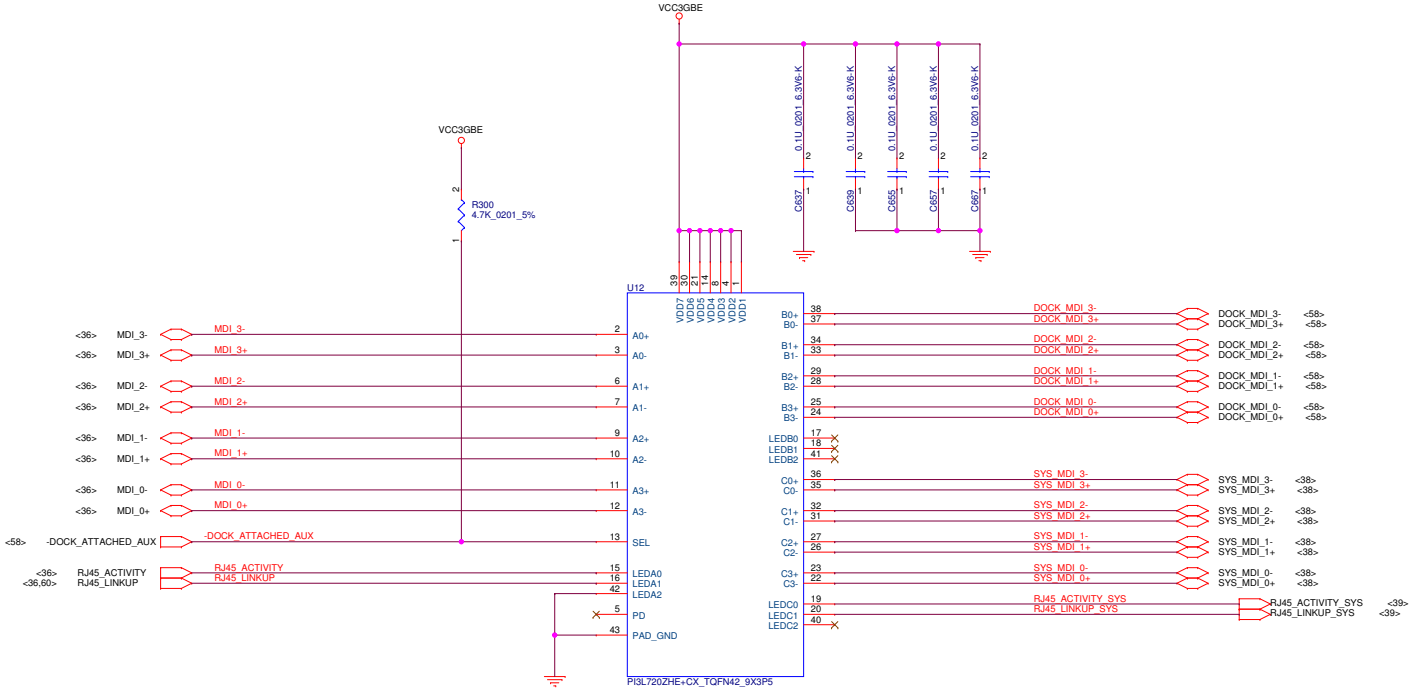

TABLE of LAN Switch (U12)		
Vendor	**P/N**	**LCFC P/N**
PERICOM	**PI3L720ZHE+CX**	**SA00007E900**
TI	**TS3L501ERUAR**	**SA000072400**

Title: **GBE LAN SWITCH**

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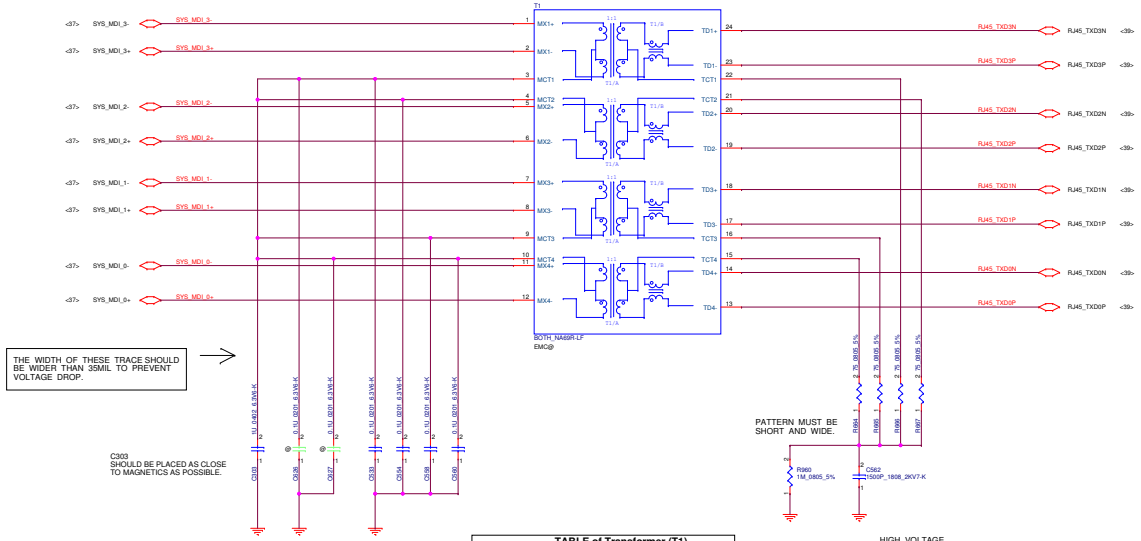

TABLE of Transformer (T1)		
Vendor	P/N	LCFC P/N
BOTHHAND	NA69R-LF	SP050008B00
TAIMAG	IH-189-A	SP050007V0J

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Issued Date	2015/11/02	Deciphered Date	2015/08/10

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Title: GBE MAGNETICS

Size: A | Document Number: | Rev: 0.1

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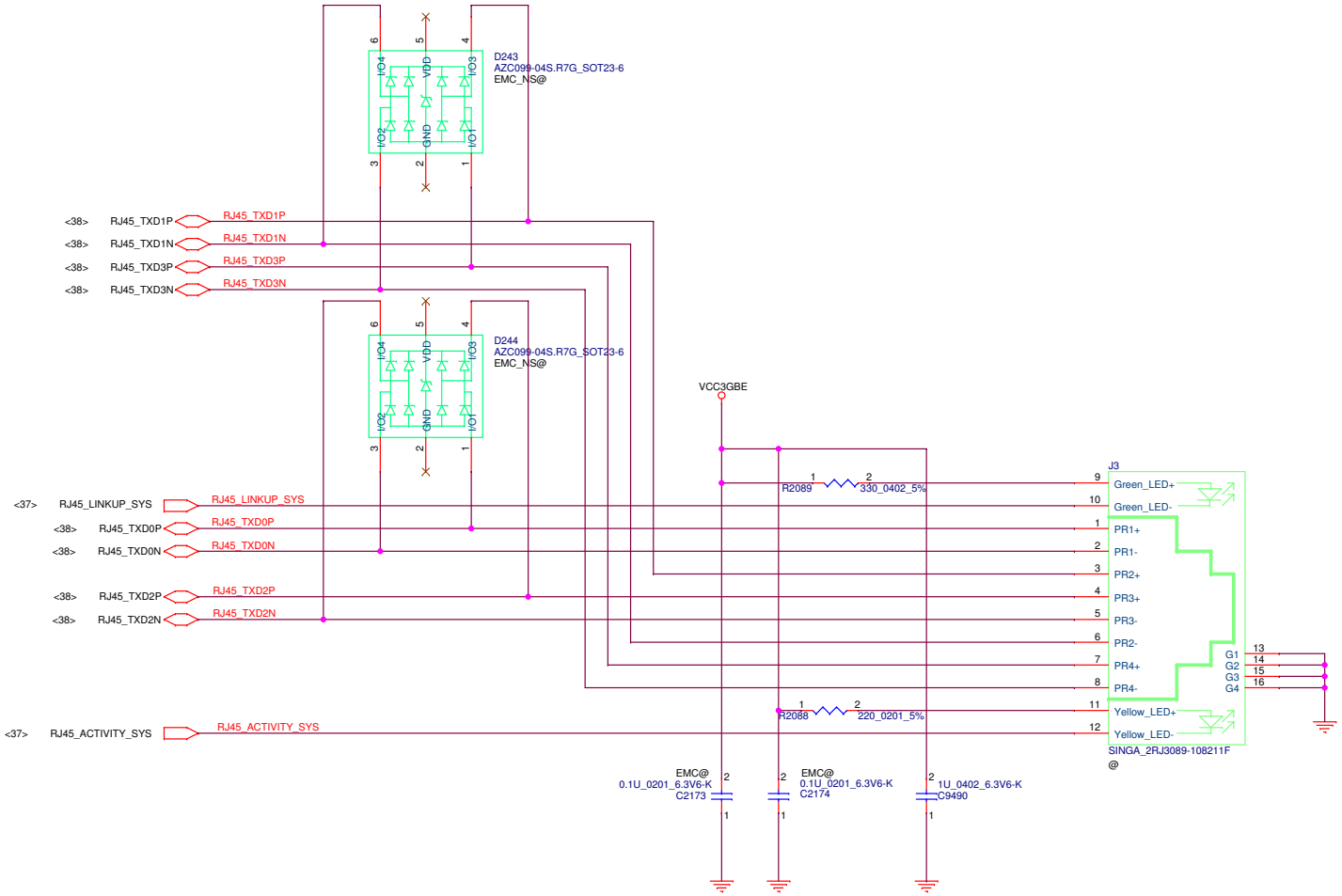

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: **RJ45 CONNECTOR**

Size	Document Number	Rev
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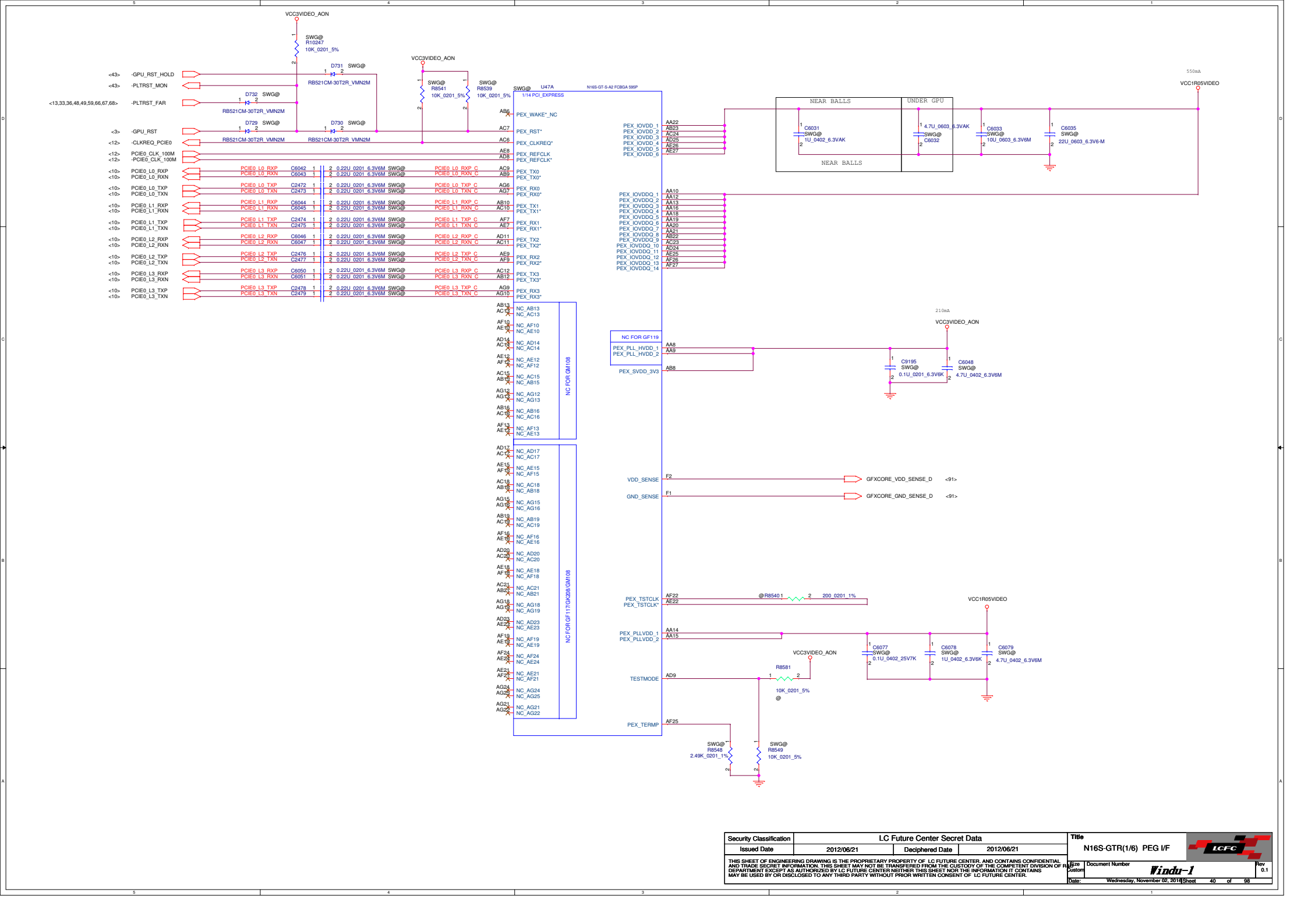

Security Classification	LC Future Center Secret Data		
Issued Date	2012/06/21	Deciphered Date	2012/06/21

Title: N16S-GTR(1/6) PEG I/F

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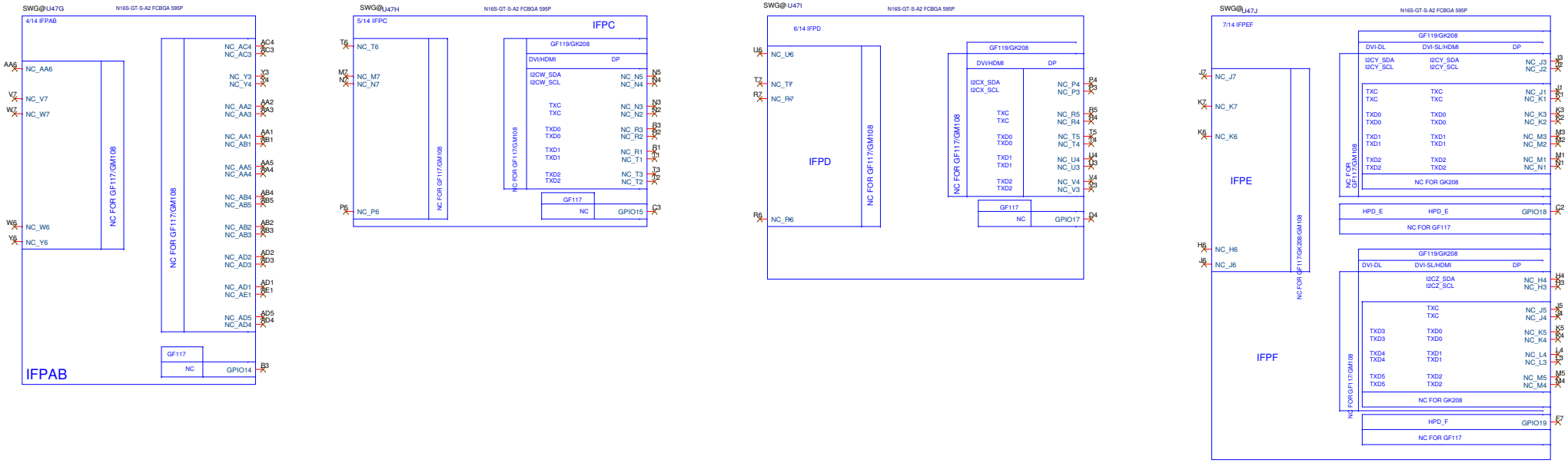

Security Classification	LC Future Center Secret Data		
Issued Date	2012/05/02	Deciphered Date	2012/5/02

Title: N16S-GTR(2/6) DIGITAL OUT I/F

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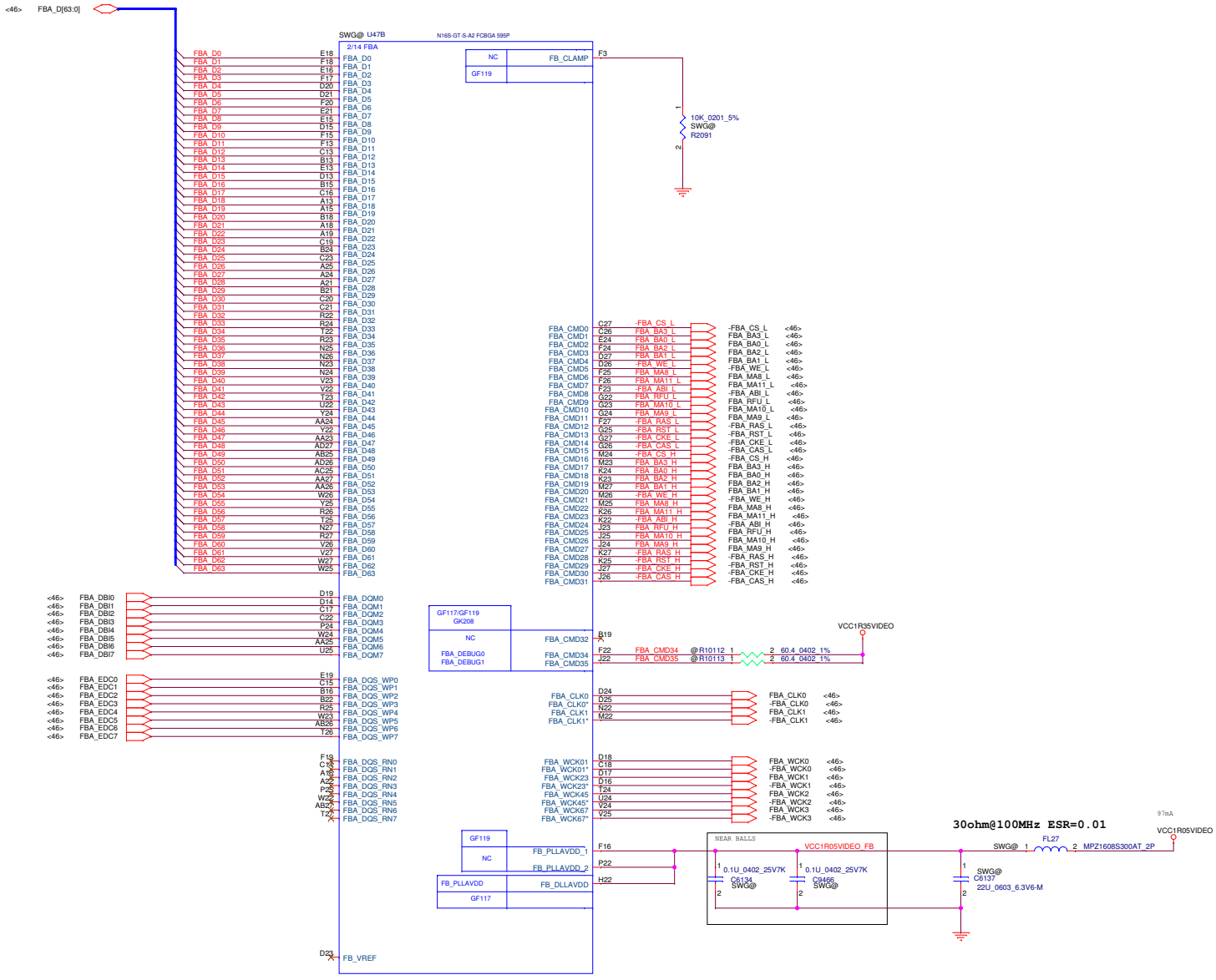
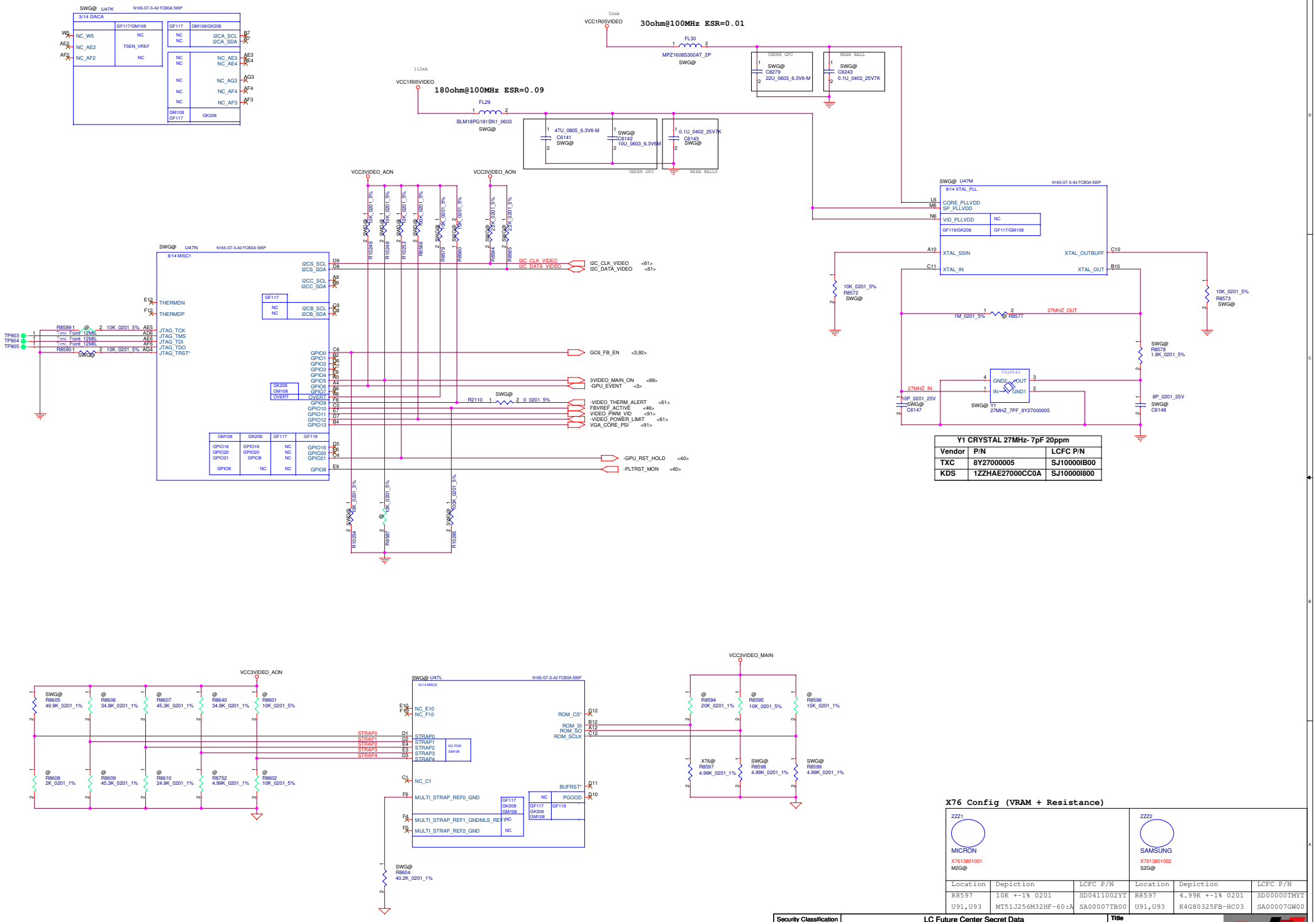


Security Classification	LC Future Center Secret Data		
Issued Date	2012/06/21	Deciphered Date	2012/06/21

Title: N16S-GTR(3/6) VRAM I/F

Size: Custom	Document Number: Vindu-1		Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 42 of 98		


SWG@ U47K
N16S-GT-S-A2 FCBGA 595P
3/14 DACA
GF117/GM108
GF117 GM108/GK208
NC_W5
NC_AE2
NC_AF2
TSEN_VREF
I2CA_SCL
I2CA_SDA
NC_AE3
NC_AE4
NC_AG3
NC_AF4
NC_AF3
GK208
VCC1R05VIDEO
52mA
30ohm@100MHz ESR=0.01
FL30
MPZ1608S300AT_2P
SWG@
UNDER GPU
NEAR BALL
C6279
22U_0603_6.3V6-M
C6243
0.1U_0402_25V7K
112mA
180ohm@100MHz ESR=0.09
FL29
BLM18PG181SN1_0603
C6141
47U_0805_6.3V6-M
C6142
10U_0603_6.3V6M
C6143
0.1U_0402_25V7K
VCC3VIDEO_AON
SWG@ U47N
N16S-GT-S-A2 FCBGA 595P
8/14 MISC1
I2CS_SCL
I2CS_SDA
I2CC_SCL
I2CC_SDA
I2CB_SCL
I2CB_SDA
I2C_CLK_VIDEO
I2C_DATA_VIDEO
THERMDN
THERMDP
JTAG_TCK
JTAG_TMS
JTAG_TDI
JTAG_TDO
JTAG_TRST*
TP903
TP904
TP905
R8589 1 @ 2 10K 0201 5%
R85901 2 10K 0201 5%
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
GPIO9
GPIO10
GPIO11
GPIO12
GPIO13
OVERT
GC6_FB_EN
3VIDEO_MAIN_ON
-GPU_EVENT
-VIDEO_THERM_ALERT
FBVREF_ACTIVE
VIDEO_PWM_VID
-VIDEO_POWER_LIMIT
VGA_CORE_PSI
R2110 1 2 0 0201 5%
-GPU_RST_HOLD
-PLTRST_MON
GM108 GK208 GF117 GF119
GPIO16 GPIO20 GPIO21 GPIO8
SWG@ U47M
N16S-GT-S-A2 FCBGA 595P
9/14 XTAL_PLL
CORE_PLLVDD
SP_PLLVDD
VID_PLLVDD
GF119/GK208
GF117/GM108
XTAL_SSIN
XTAL_IN
XTAL_OUTBUFF
XTAL_OUT
10K_0201_5%
R8572
R8573
1M_0201_5%
R8577
27MHZ_OUT
27MHZ_IN
10P_0201_25V
C6147
Crystal
Y1
27MHZ_7PF_8Y27000005
R8578
1.8K_0201_5%
8P_0201_25V
C6148
Y1 CRYSTAL 27MHz- 7pF 20ppm
Vendor | P/N | LCFC P/N
TXC | 8Y27000005 | SJ10000I800
KDS | 1ZZHAE27000CC0A | SJ10000I800
VCC3VIDEO_MAIN
SWG@ U47L
N16S-GT-S-A2 FCBGA 595P
10/14 MISC2
NC_E10
NC_F10
NC_C1
STRAP0
STRAP1
STRAP2
STRAP3
STRAP4
MULTI_STRAP_REF0_GND
MULTI_STRAP_REF1_GNDMLS_REF
MULTI_STRAP_REF2_GND
ROM_CS*
ROM_SI
ROM_SO
ROM_SCLK
BUFRST*
PGOOD
R8605 49.9K_0201_1%
R8606 34.8K_0201_1%
R8607 45.3K_0201_1%
R8640 34.8K_0201_1%
R8601 10K_0201_5%
R8608 2K_0201_1%
R8609 45.3K_0201_1%
R8610 24.9K_0201_1%
R8752 4.99K_0201_1%
R8602 10K_0201_5%
R8604 40.2K_0201_1%
R8594 20K_0201_1%
R8595 10K_0201_5%
R8596 15K_0201_1%
R8597 4.99K_0201_1%
R8598 4.99K_0201_1%
R8599 4.99K_0201_1%
X76 Config (VRAM + Resistance)
ZZZ1
MICRON
X7613801001
M2G@
ZZZ2
SAMSUNG
X7613801002
S2G@
Location | Depiction | LCFC P/N | Location | Depiction | LCFC P/N
R8597 | 10K +-1% 0201 | SD0411002YT | R8597 | 4.99K +-1% 0201 | SD00000TMYT
U91,U93 | MT51J256M32HF-60:A | SA00007TB00 | U91,U93 | K4G80325FB-HC03 | SA00007GW00
Security Classification | LC Future Center Secret Data
Issued Date | 2012/05/02 | Deciphered Date | 2012/5/02
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Title
N16S-GTR(4/6) GPIO
LCFC
Size Custom
Document Number
Vindu-1
Rev 0.1
Date: Wednesday, November 02, 2011
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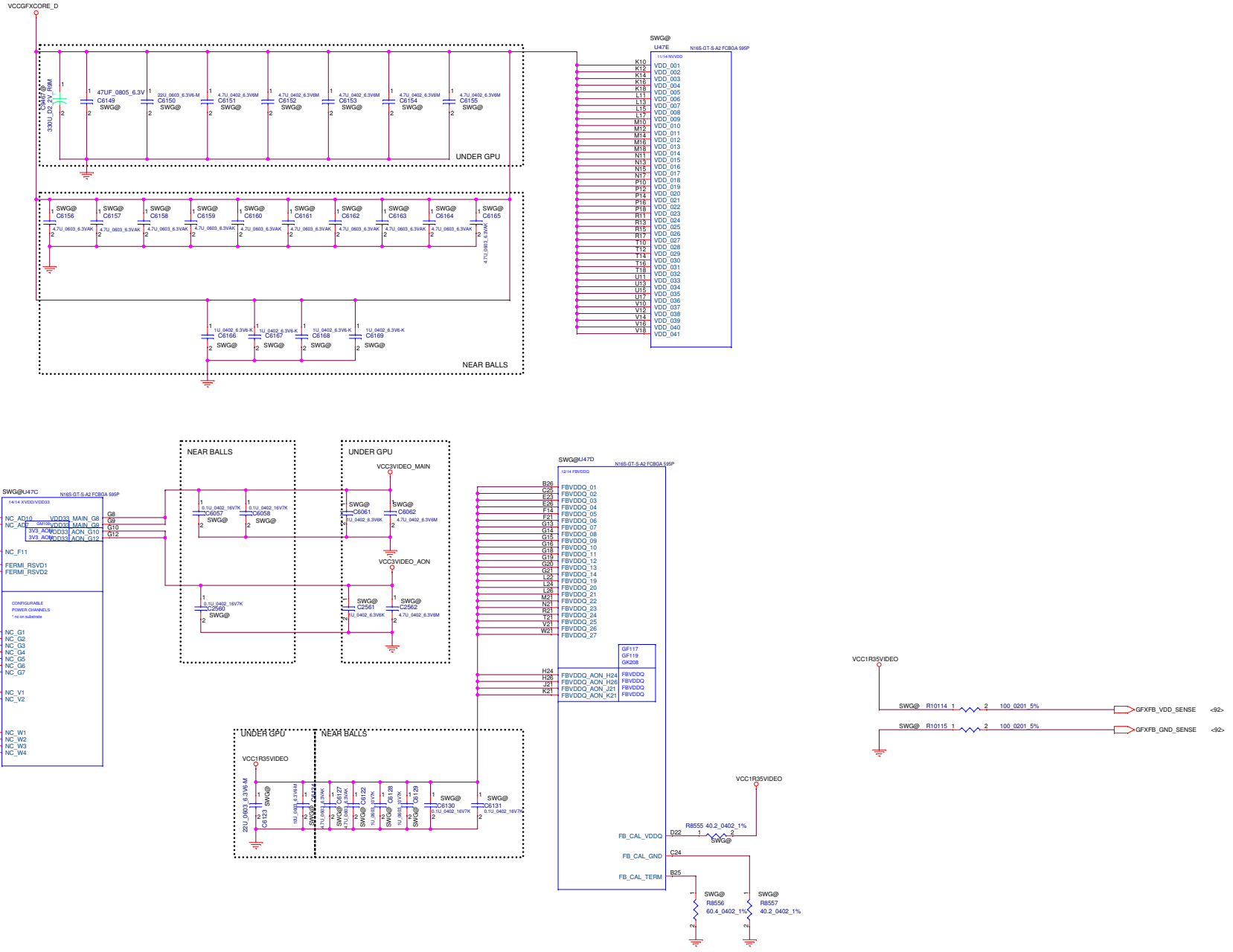

Security Classification	LC Future Center Secret Data		
Issued Date	2012/06/21	Deciphered Date	2012/06/21

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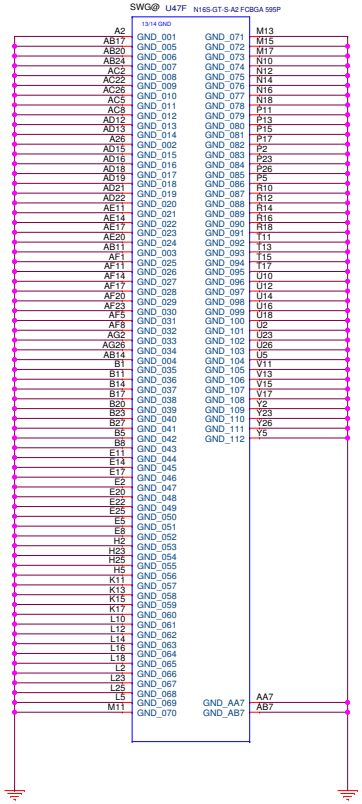
Title: N16S-GTR(5/6) POWER

LCFC

Size: Custom | Document Number: Vindu-1 | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 44 of 98



Security Classification	LC Future Center Secret Data		
Issued Date	2012/06/21	Deciphered Date	2012/06/21

Title: N16S-GTR(6/6) GND

Size: Custom | Document Number: Vindu-1 | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 45 of 98

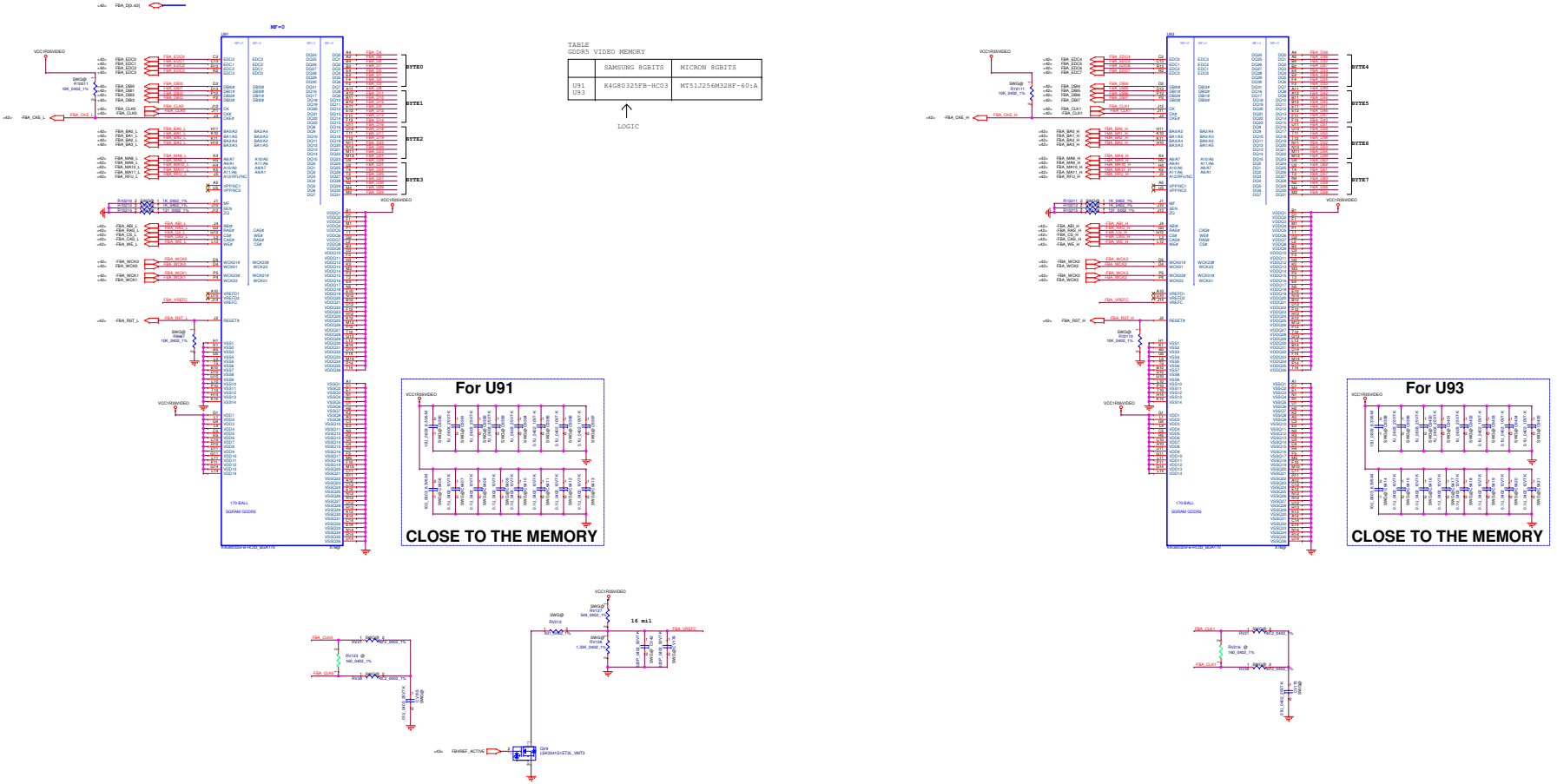


TABLE
GDDR5 VIDEO MEMORY

	SAMSUNG 8GBITS	MICRON 8GBITS
U91 U93	K4G80325FB-HC03	MT51J256M32HF-60:A

LOGIC

Security Classification	LC Future Center Secret Data		
Issued Date	2012/05/21	Deciphered Date	2012/05/21

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Title: VRAM CHANNEL-A

Size: B | Document Number: Flade-1 | Rev: 0.1

Date: Wednesday, November 07, 2012 | Sheet 46 of 56

Security Classification	LC Future Center Secret Data		
Issued Date	2012/05/02	Deciphered Date	2012/5/02

Title

MEMORY TERMINATION

Size: Custom	Document Number: Vindu-1	Rev: 0.1
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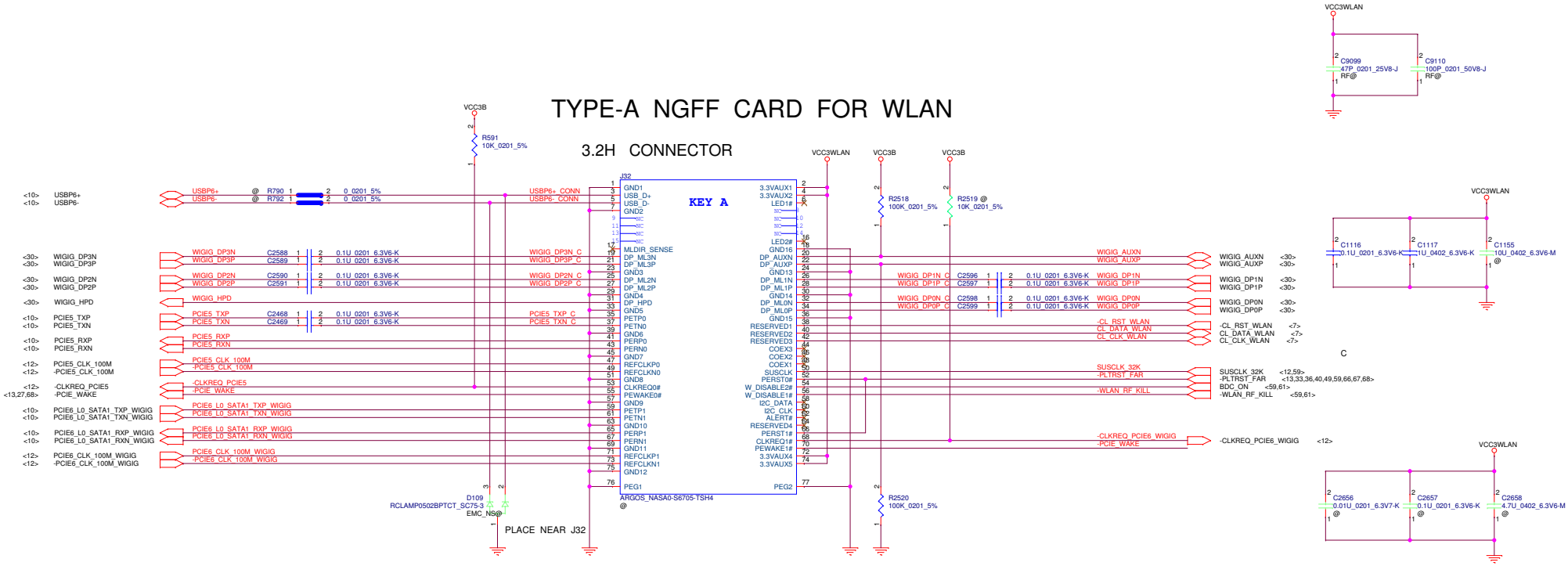
TYPE-A NGFF CARD FOR WLAN

3.2H CONNECTOR



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/08/10

Title: M.2 SOCKET 1 MODULE I/F

Size: Custom | Document Number: Windu-1 | Rev: 0.1

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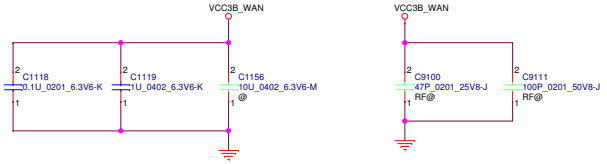
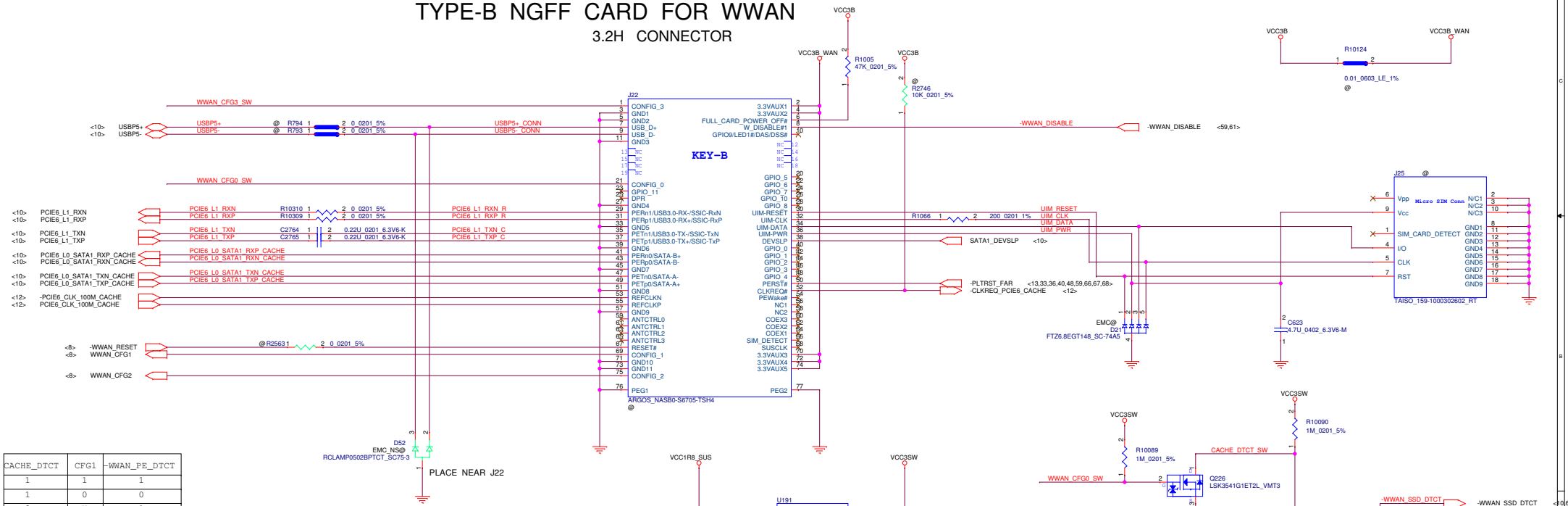
TYPE-B NGFF CARD FOR WWAN

3.2H CONNECTOR

TABLE:

State #	Module Configuration Decodes				Module Type and Main Host Interface	Port Configuration
	CONFIG_0 (Pin 21)	CONFIG_3 (Pin 1)	CONFIG_2 (Pin 75)	CONFIG_1 (Pin 69)		
0	GND	GND	GND	GND	SSD - SATA	N/A
1	GND	GND	GND	NC	SSD - PCIe	N/A
2	GND	GND	NC	GND	WWAN - PCIe	0
3	GND	GND	NC	NC	WWAN - PCIe	1
4	GND	NC	GND	GND	WWAN - USB 3.0	0
5	GND	NC	GND	NC	WWAN - USB 3.0	1
6	GND	NC	NC	GND	WWAN - USB 3.0	2
7	GND	NC	NC	NC	WWAN - USB 3.0	3
8	NC	GND	GND	GND	WWAN - SSIC	0
9	NC	GND	GND	NC	WWAN - SSIC	1
10	NC	GND	NC	GND	WWAN - SSIC	2
11	NC	GND	NC	NC	WWAN - SSIC	3
12	NC	NC	GND	GND	WWAN - PCIe	2
13	NC	NC	GND	NC	WWAN - PCIe	3
14	NC	NC	NC	GND	RFU	N/A
15	NC	NC	NC	NC	No Module Present	N/A





CACHE_DTCT	CFG1	-WWAN_PE_DTCT
1	1	1
1	0	0
0	X	1

CFG0	CFG3	CACHE_DTCT
0	0	1 SSD
0	1	0 WWAN-USB 3.0
1	0	0 WWAN-SSIC
1	1	0

74AVCH2T45GD		
DIR	nB	nA
L	input	nA=nB
H	nB=nA	input

LOGIC

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title	M.2 SOCKET 2 MODULE I/F
Size	Custom
Document Number	Windu-1
Rev	0.1
Date:	Wednesday, November 02, 2016
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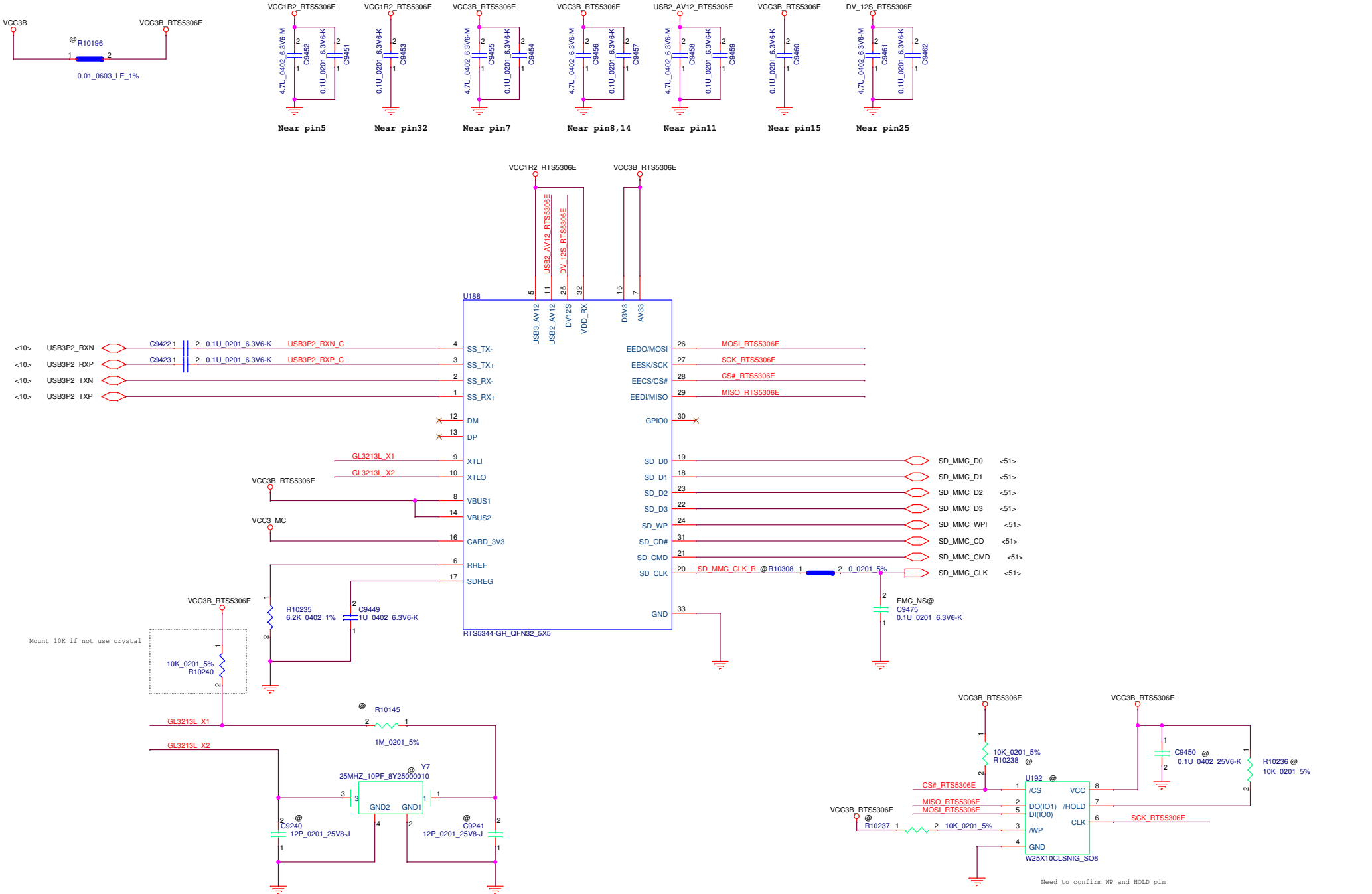
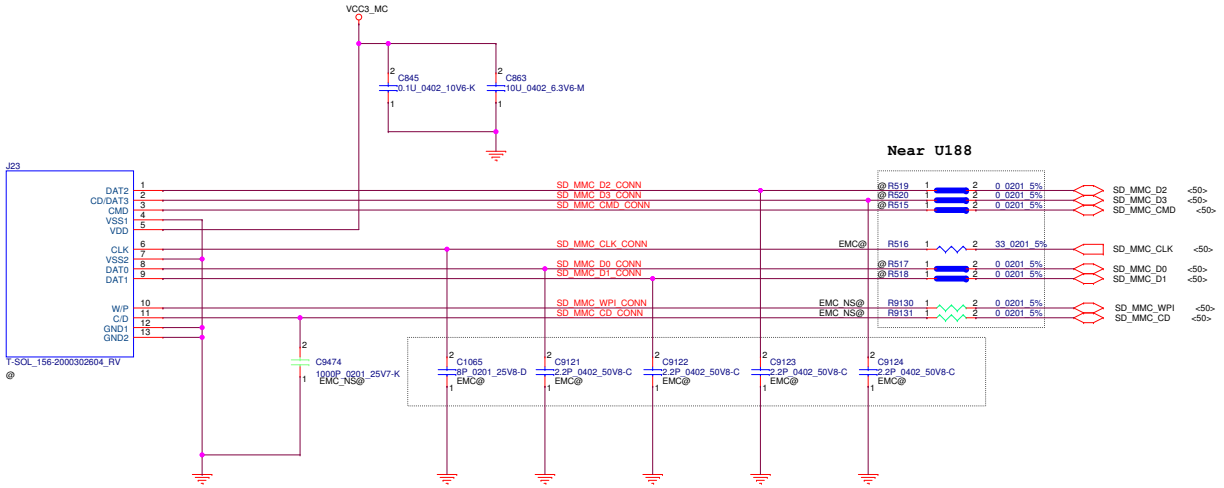


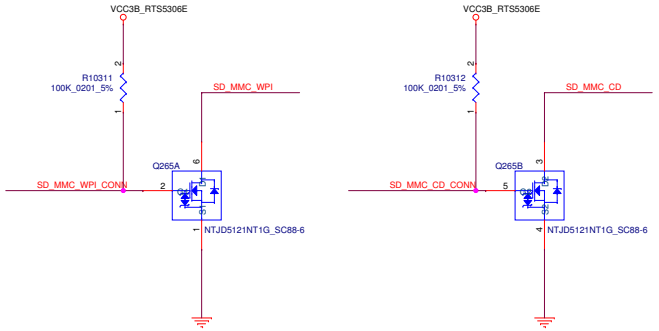
Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: MEDIA CARD CONTROLLER

Size: Custom | Document Number: Windu-1 | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 50 of 98





Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: MEDIA CARD INTERFACE

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Vindu-1

TABLE

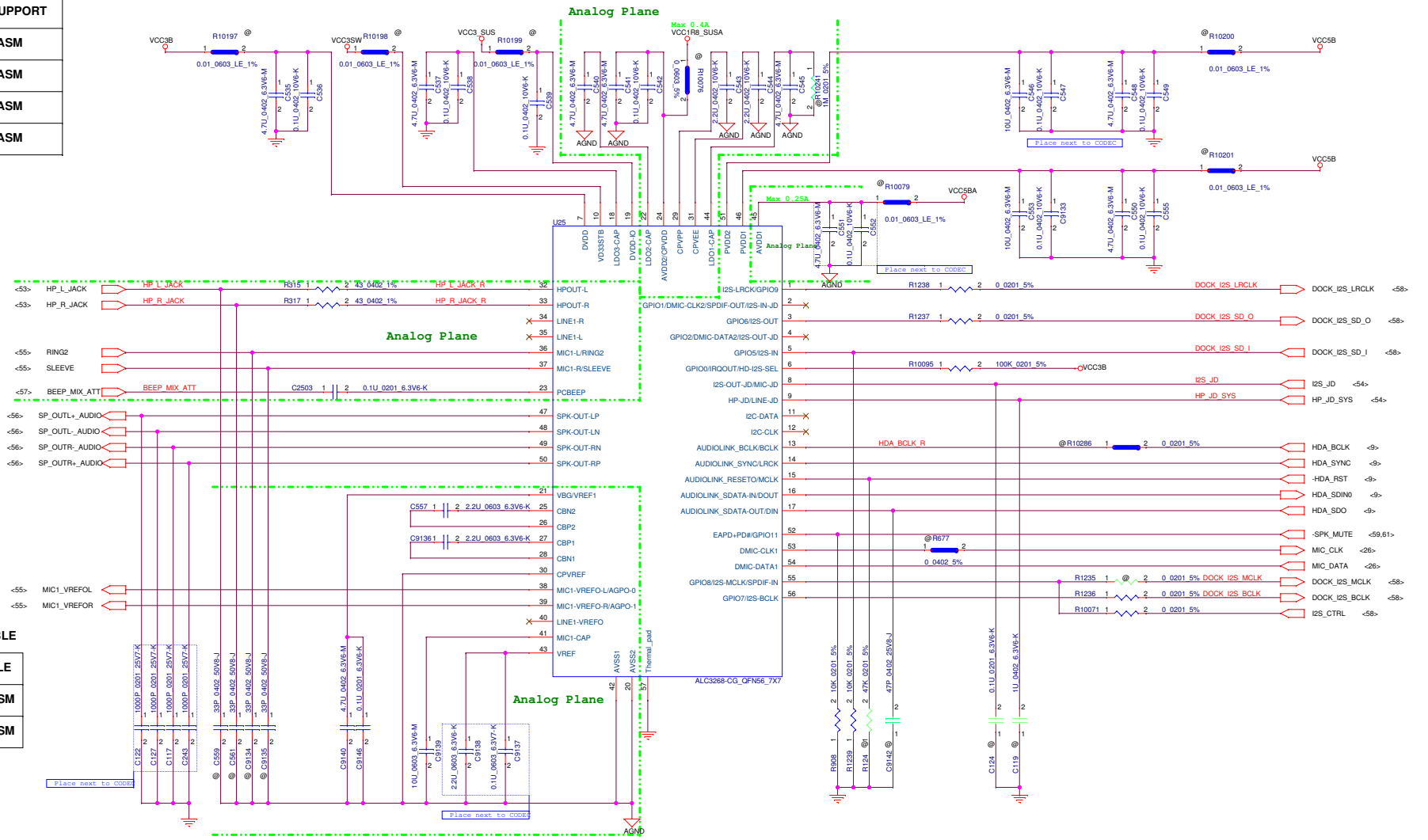
Dock support		
	SUPPORT	NON-SUPPORT
R1235	NO ASM	NO ASM
R1236	ASM	NO ASM
R1237	ASM	NO ASM
R1238	ASM	NO ASM

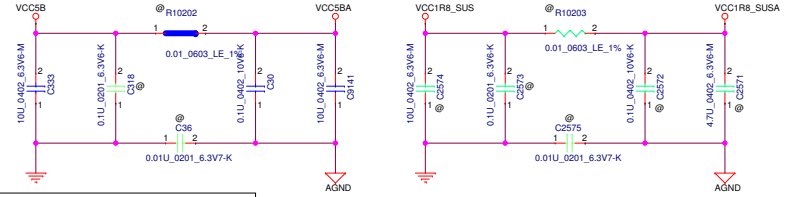
LOGIC

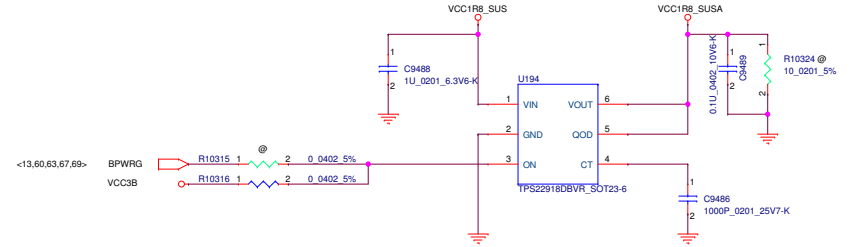
TABLE MIC HW ENABLE/DISABLE

	ENABLE	DISABLE
R961	ASM	NO ASM
R677	ASM	NO ASM

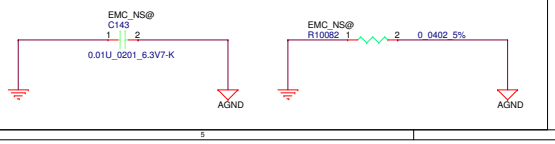
LOGIC







PLACE UNDER ALC3268

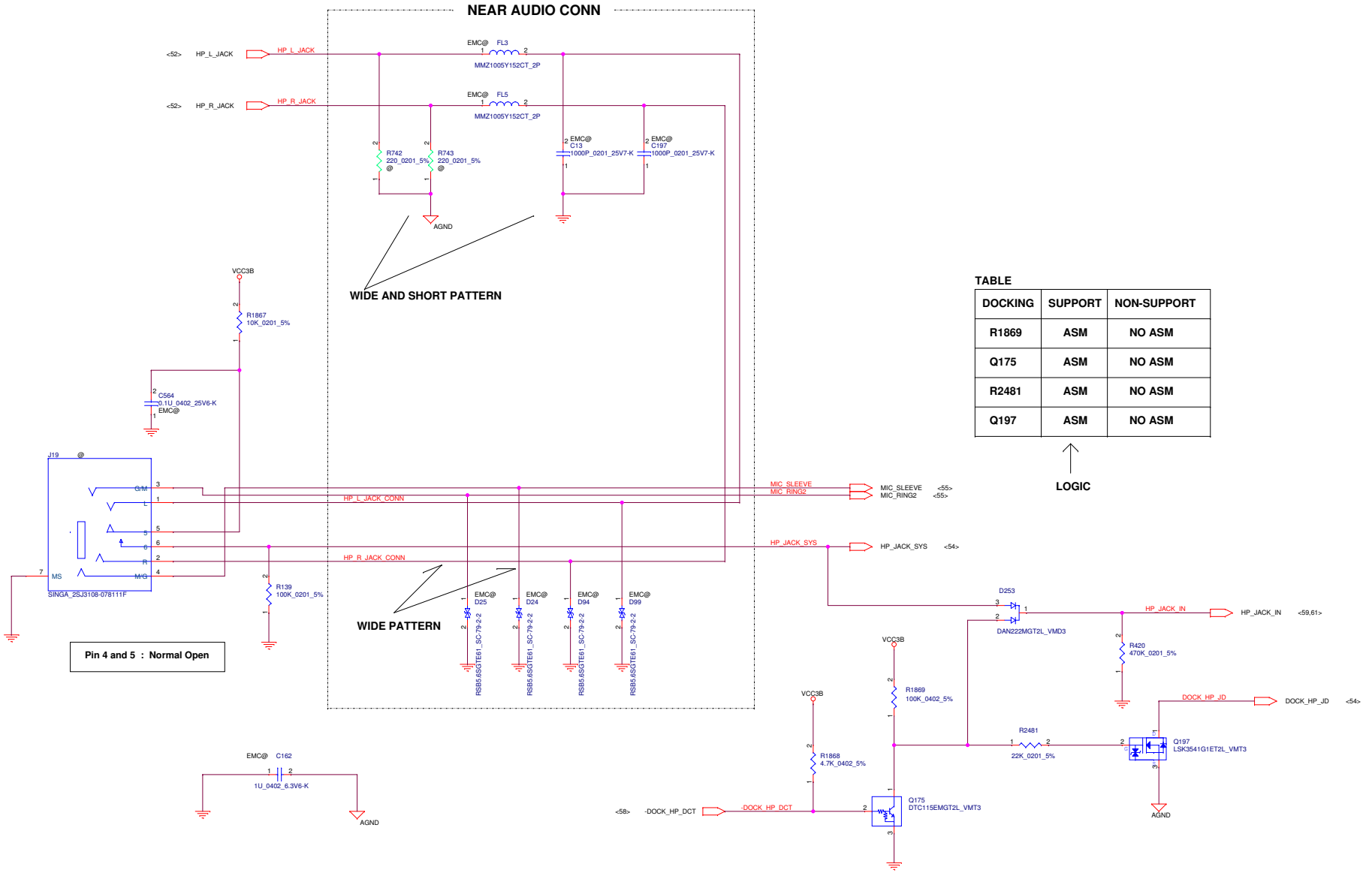


Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: AUDIO ALC3245

Size: Custom | Document Number: Vindu-1 | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 52 of 98



TABLE

DOCKING	SUPPORT	NON-SUPPORT
R1869	ASM	NO ASM
Q175	ASM	NO ASM
R2481	ASM	NO ASM
Q197	ASM	NO ASM

LOGIC

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: AUDIO CONNECTOR

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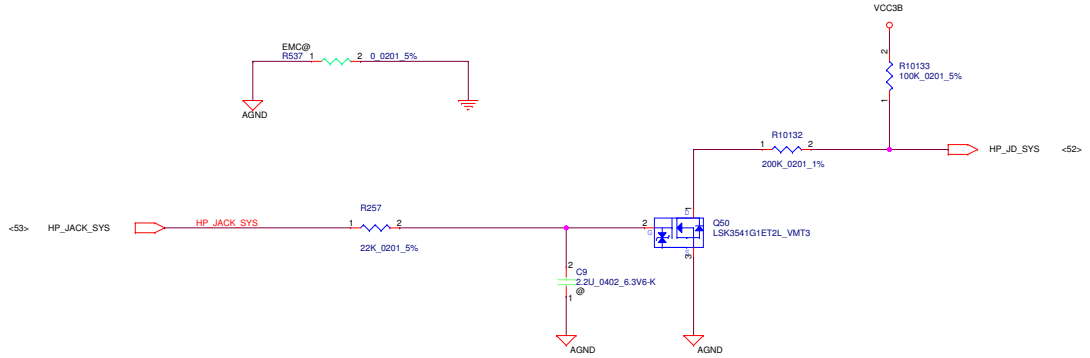
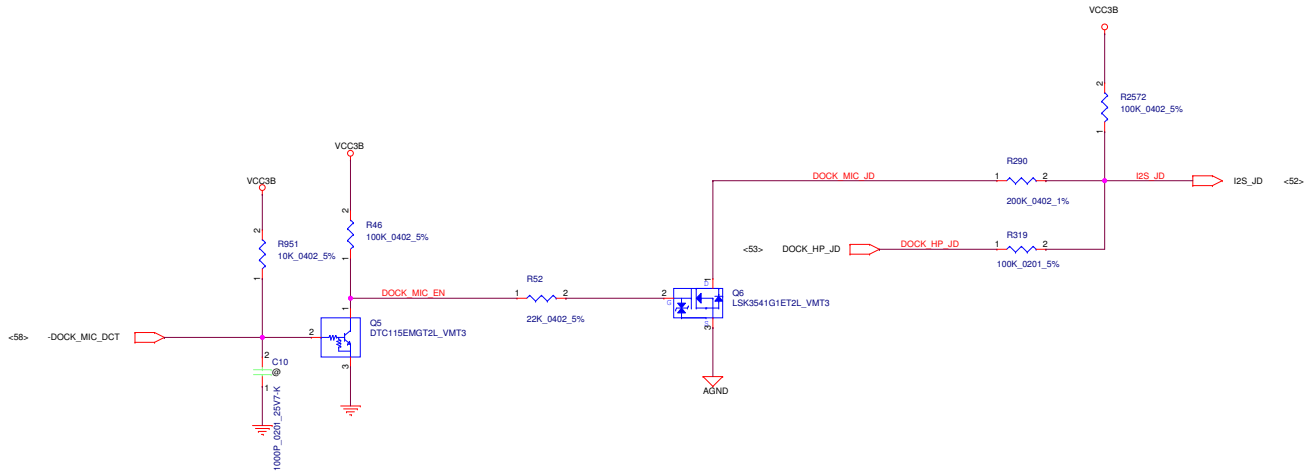


TABLE

DOCKING	SUPPORT		NON SUPPORT
MIC HW	ENABLE	DISABLE	
R951	ASM	NO ASM	NO ASM
R290	ASM	NO ASM	NO ASM
R46	ASM	NO ASM	NO ASM
Q5	ASM	NO ASM	NO ASM
R52	ASM	NO ASM	NO ASM
Q6	ASM	NO ASM	NO ASM
R319	ASM	ASM	NO ASM
R2572	ASM	ASM	NO ASM

LOGIC



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: AUDIO JACK SENSE

Size	Document Number	Rev
Custom	C	0.1

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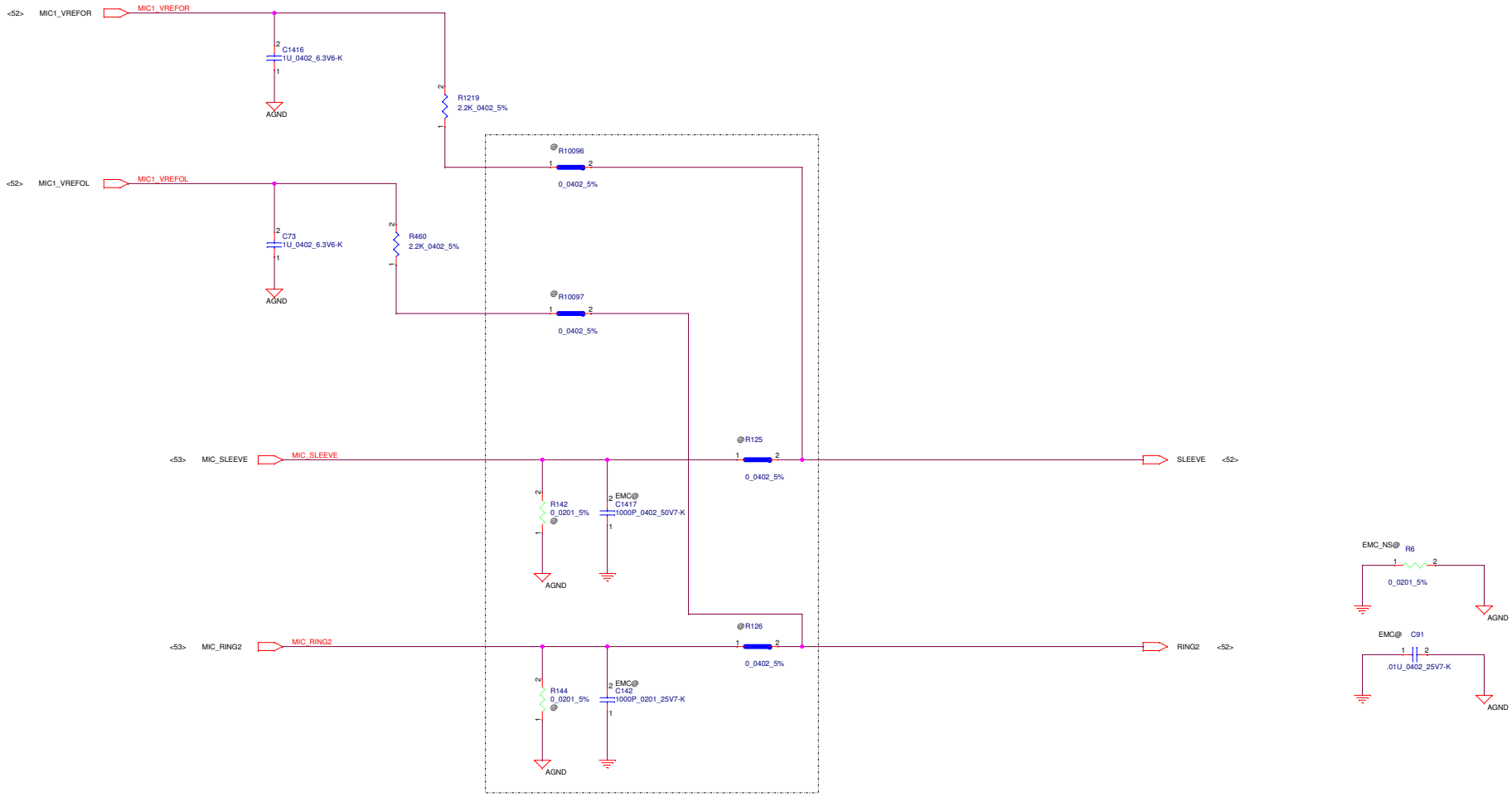

NEAR EXT MIC CONN

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: AUDIO EXT MIC I/F

Size: Custom	Document Number: C	Rev: 0.1
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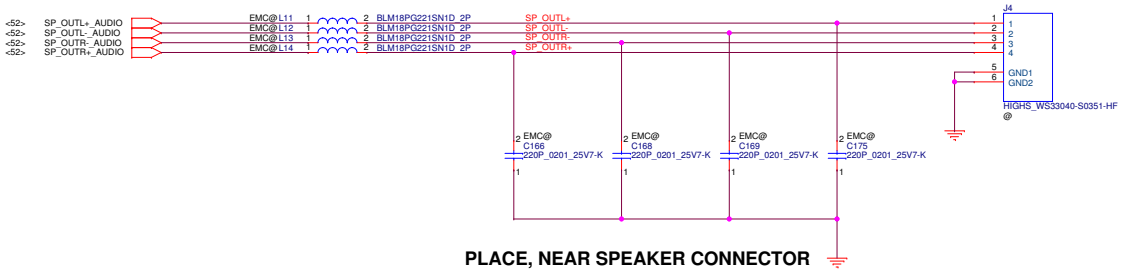

PLACE, NEAR SPEAKER CONNECTOR

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: AUDIO SPEAKER

Size: Custom	Document Number: C	Rev: 0.1
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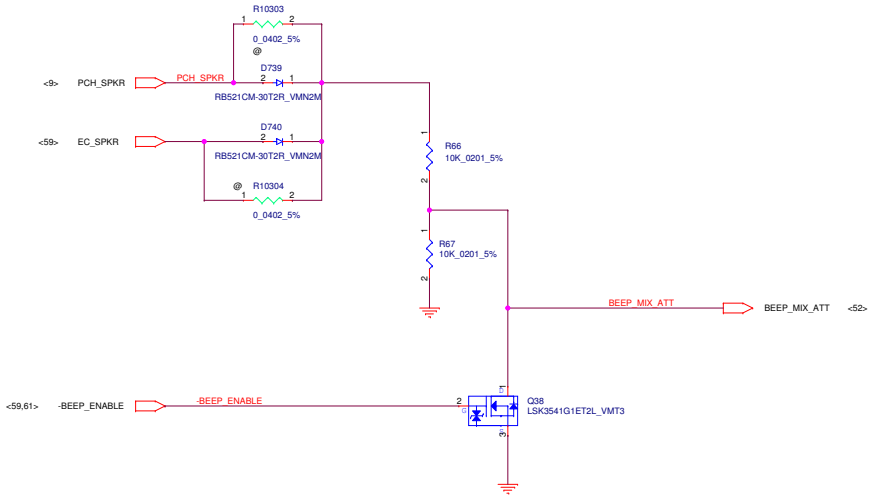

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: AUDIO BEEP

Size	Document Number	Rev
Custom	C Vindu-1	0.1

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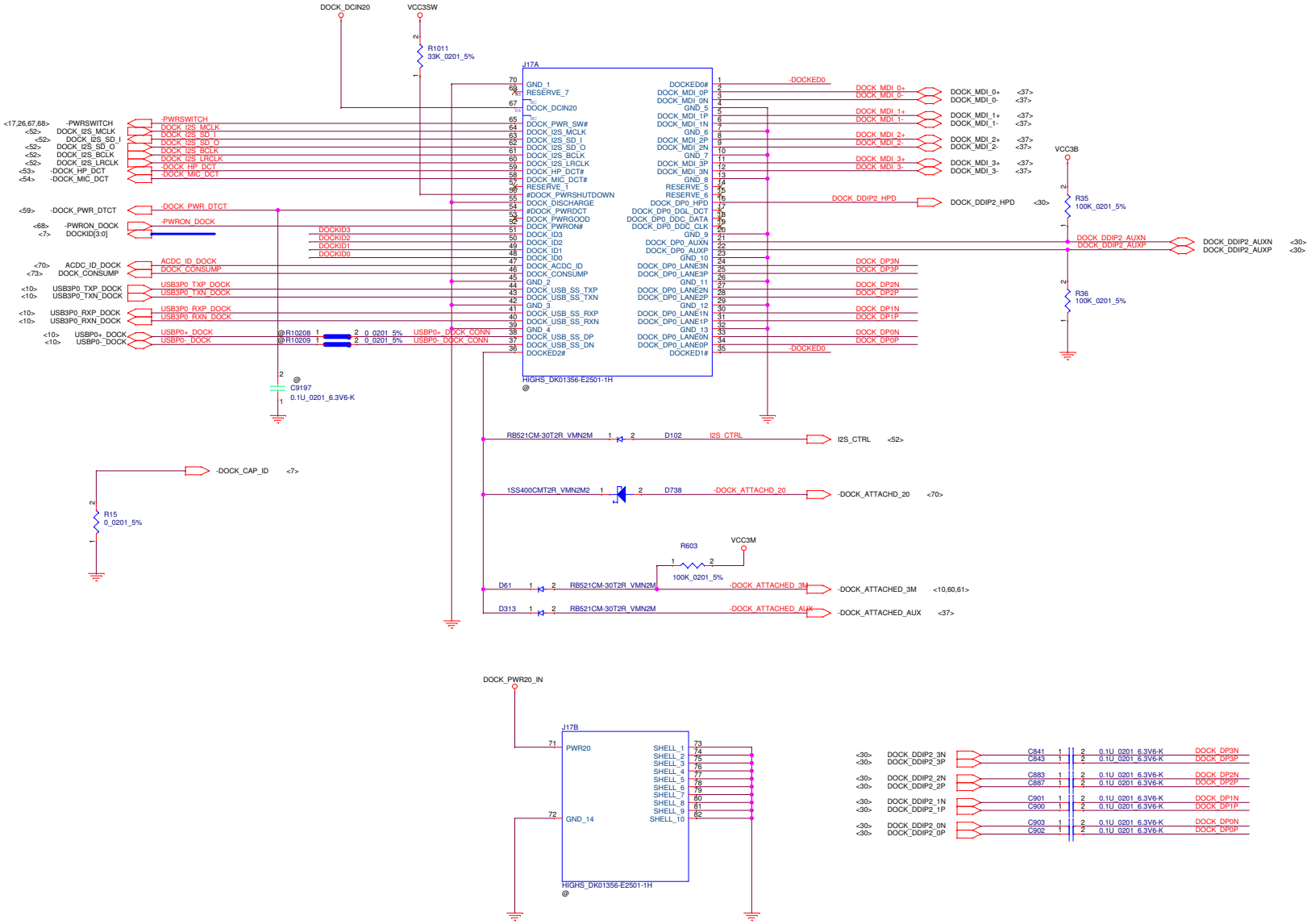
LOGIC

TABLE

ID	DOCKING SUPPORT	NON-SUPPORT
J17	ASM	NO ASM
R1011	ASM	NO ASM
D2	ASM	NO ASM
R603	ASM	ASM
D61	ASM	NO ASM
D102	ASM	NO ASM
C24	ASM	NO ASM
Q85	ASM	NO ASM
R95	ASM	NO ASM
R731	ASM	NO ASM
R657	ASM	NO ASM
C841	ASM	NO ASM
C843	ASM	NO ASM
C883	ASM	NO ASM
C887	ASM	NO ASM
C901	ASM	NO ASM
C900	ASM	NO ASM
C903	ASM	NO ASM
C902	ASM	NO ASM
R35	ASM	NO ASM
R36	ASM	NO ASM
R15	ASM	NO_ASM

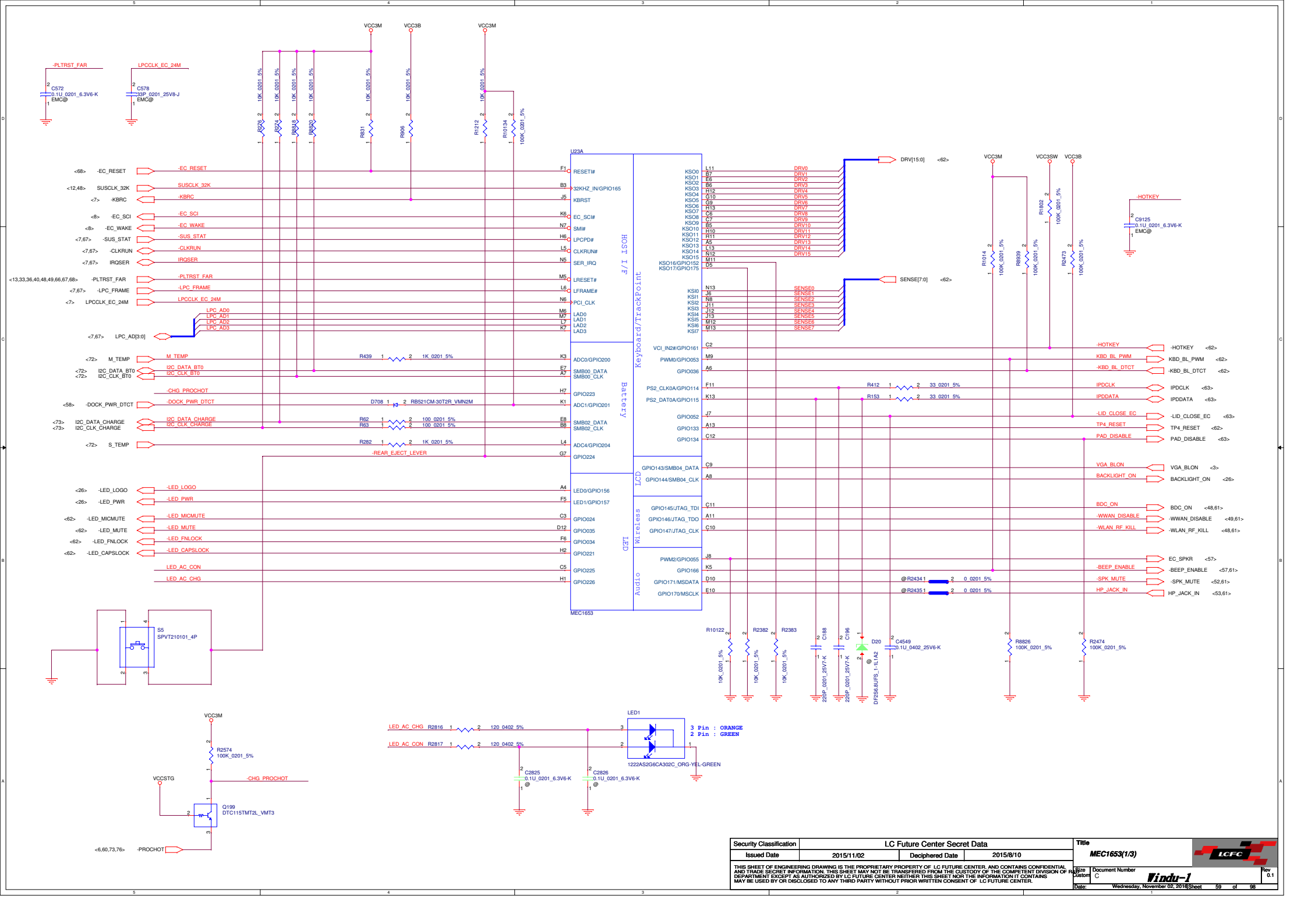


Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: DOCKING CONNECTOR

Size: Custom | Document Number: C | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 58 of 98



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: MEC1653(1/3)

Size	Document Number	Rev
Custom	C	0.1

Date: Wednesday, November 02, 2016 Sheet 59 of 98

R258: 750_1% for New AC Adapter

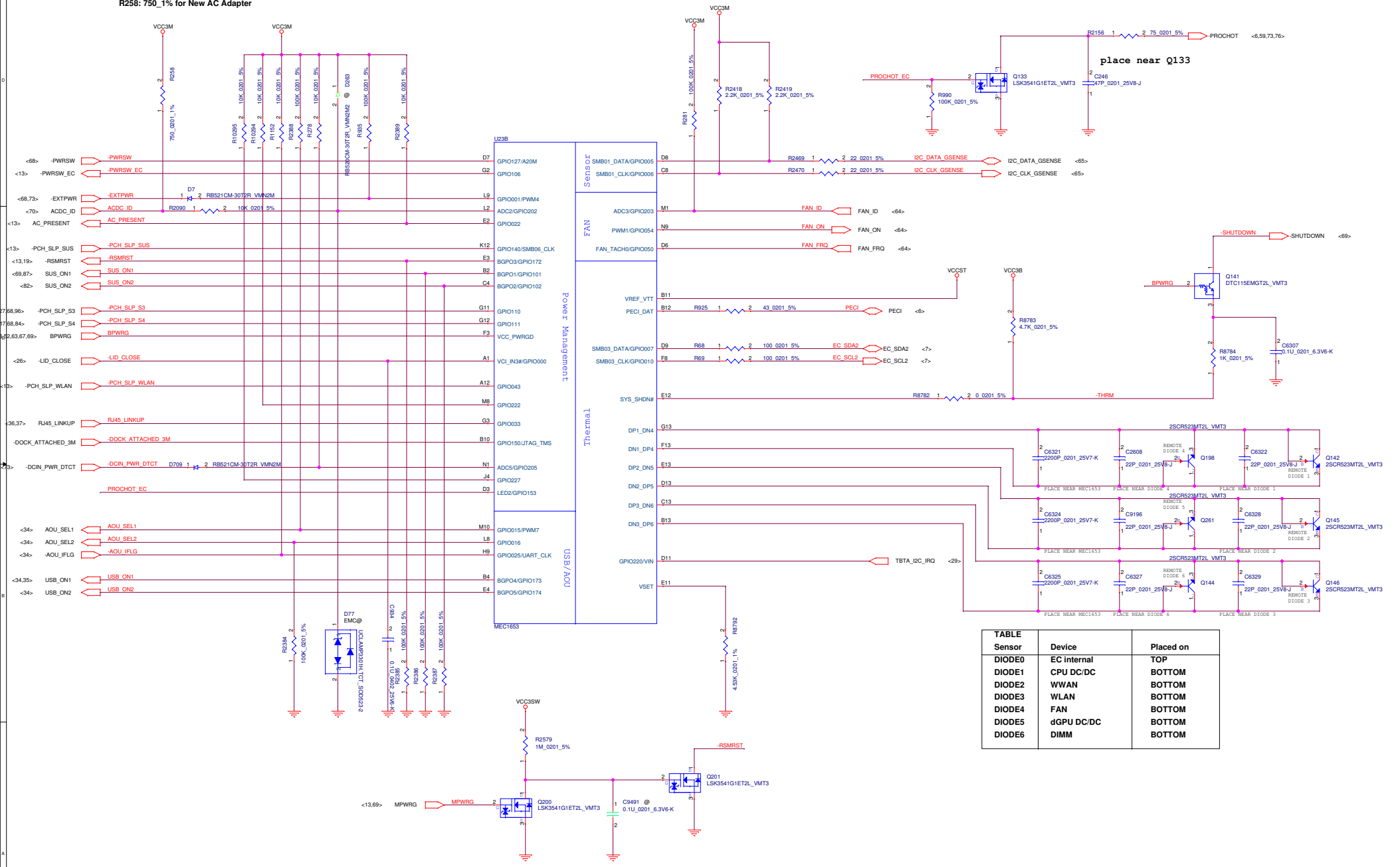


TABLE		
Sensor	Device	Placed on
DIODE0	EC internal	TOP
DIODE1	CPU DC/DC	BOTTOM
DIODE2	WWAN	BOTTOM
DIODE3	WLAN	BOTTOM
DIODE4	FAN	BOTTOM
DIODE5	dGPU DC/DC	BOTTOM
DIODE6	DIMM	BOTTOM

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title	MEC1653(2/3)		
Size: Custom	Document Number: Windu-1		Rev: 0.1
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Trace FIFO Debug Port

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

TABLE : VIDEO_ID

	R263	R10123
SWG	NO_ASM	ASM
UMA	ASM	NO_ASM

JTAG Debug Port

	Enable	Disable
R8796	ASM	NO_ASM
R8797	NO_ASM	ASM
R2429	ASM	NO_ASM
R2430	ASM	NO_ASM
R2431	ASM	NO_ASM
R10318	ASM	NO_ASM
R10288	ASM	NO_ASM
R10289	ASM	NO_ASM
R10290	ASM	NO_ASM
R10291	ASM	NO_ASM

Cover with green paint in SVT

Security Classification	LC Future Center Secret Data	
Issued Date	2015/11/02	Deciphered Date 2015/8/10

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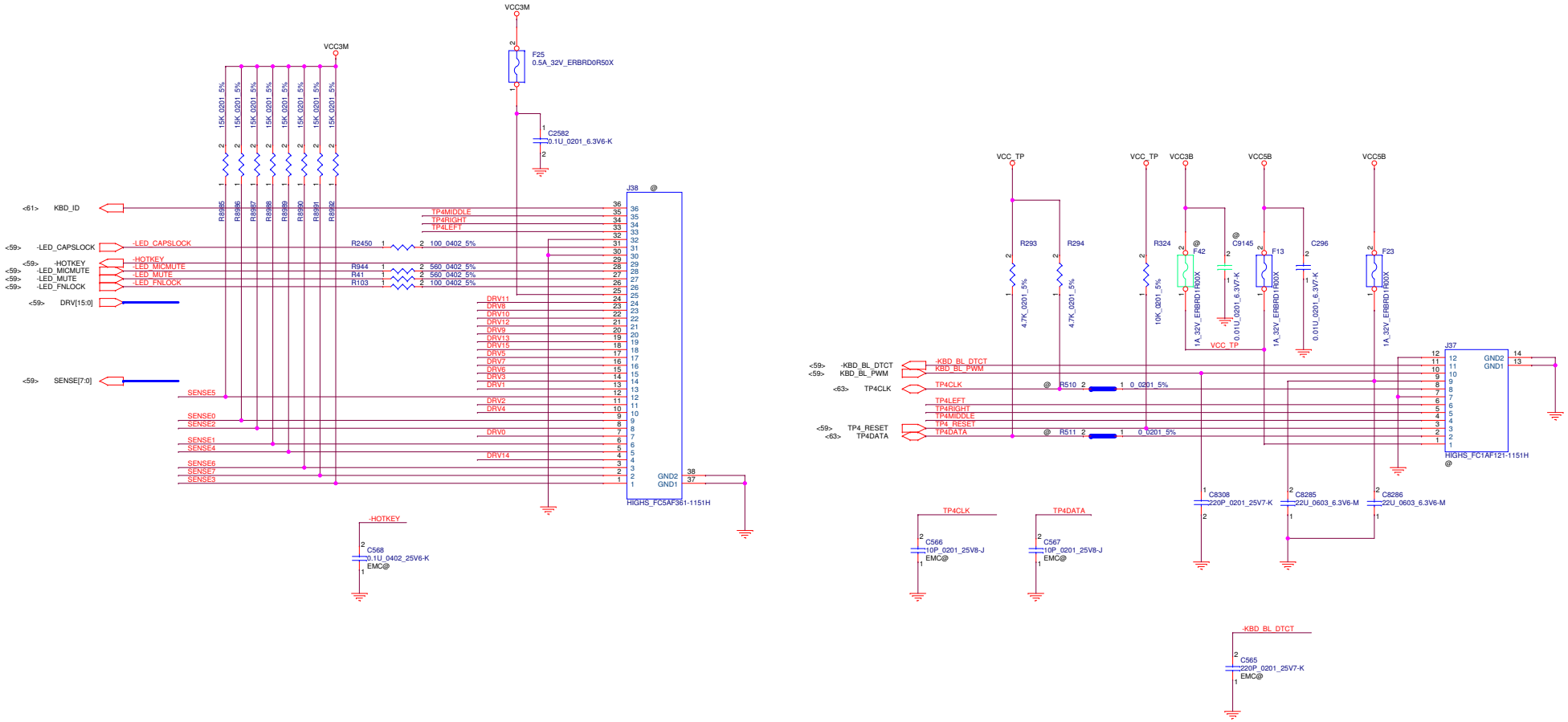
Title: MEC1653(3/3)

Size: Custom | Document Number: C | Rev: 0.1

Date: Wednesday, November 02, 2015 | Sheet 61 of 98



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: KEYBOARD/TRACK POINT

Size: Custom	Document Number: C	Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 62 of 98	

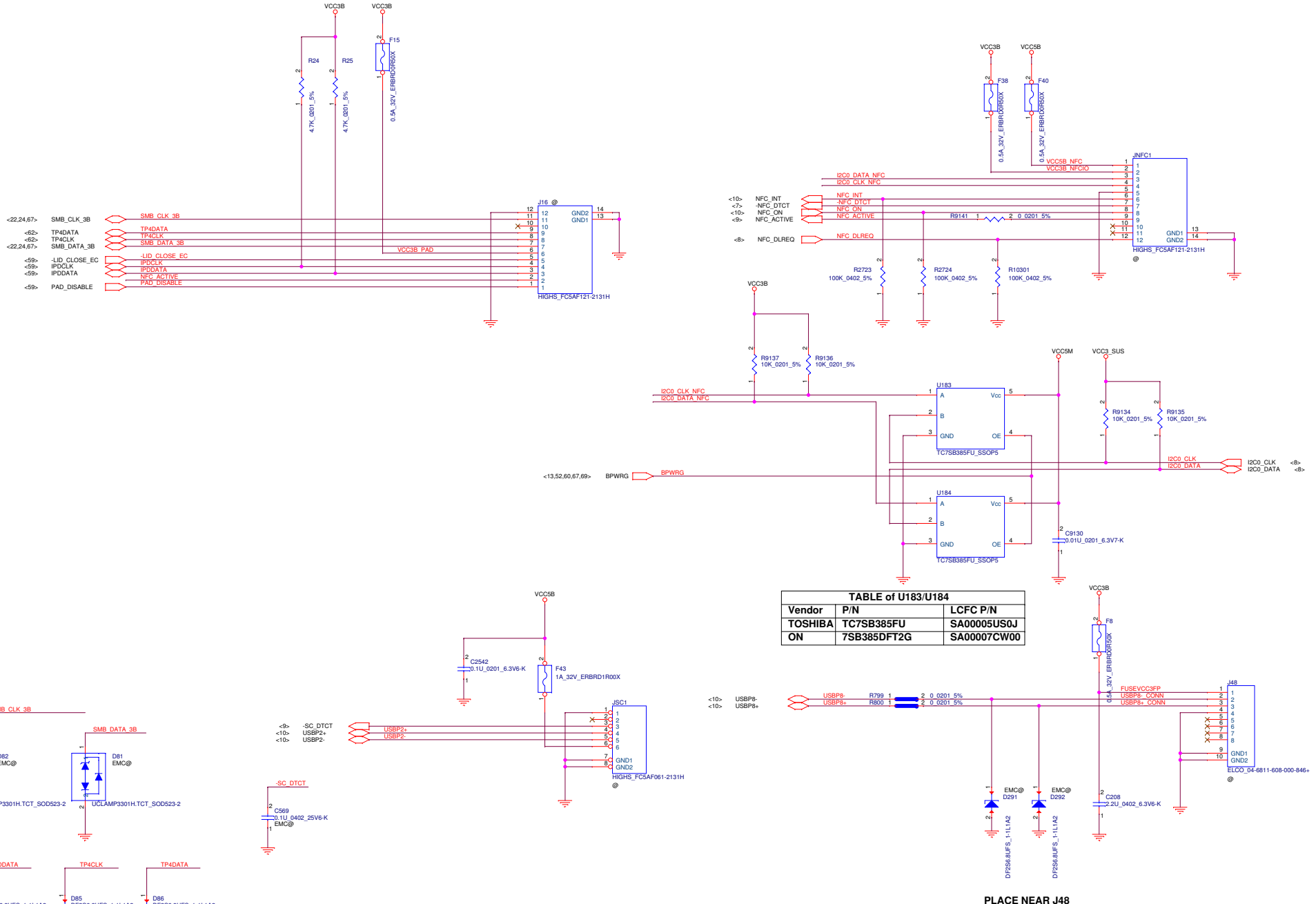


TABLE of U183/U184		
Vendor	P/N	LCFC P/N
TOSHIBA	TC7SB385FU	SA00005US0J
ON	7SB385DFT2G	SA00007CW00

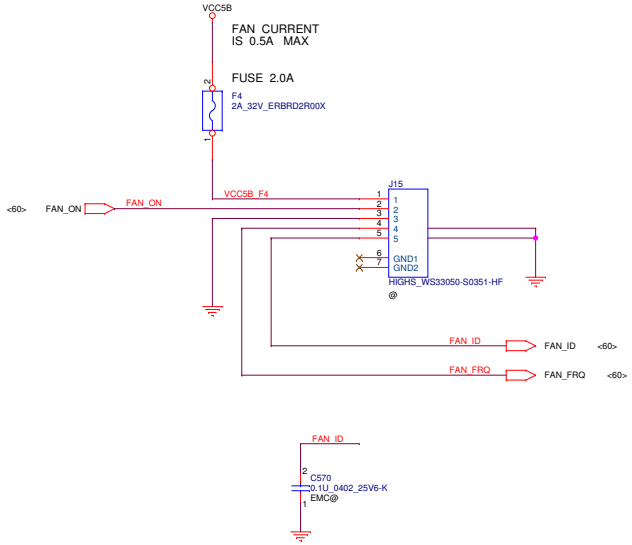
PLACE NEAR J48

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: TOUCH PAD/NFC/FPR

Size: Custom | Document Number: C | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 63 of 98



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: FAN CONNECTOR

Size: Custom	Document Number: C		Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 64 of 98		

TABLE

P/N	ADDR_SEL	Address
BMA255	H L	30h (W) & 31h (R) 32h (W) & 33h (R)
KX022-1020	H L	3Eh (W) & 3Fh (R) 3Ch (W) & 3Dh (R)

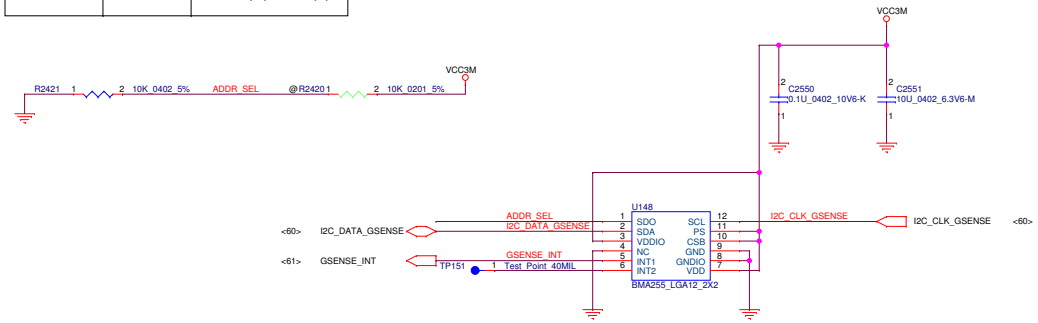
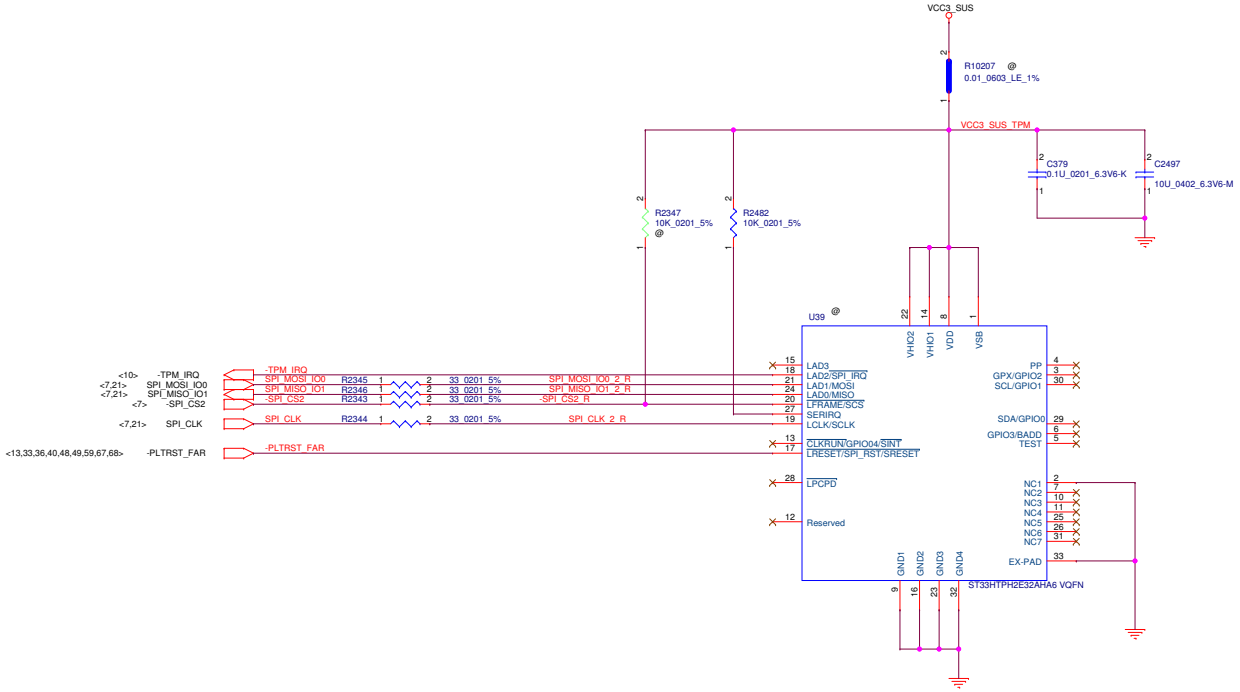


TABLE of G-Sersor (U148)		
Vendor	P/N	LCFC P/N
BOSCH	BMA255	SA00005YJ00
Kionix	KX022-1020	SA000081E00

Title: APS G-SENSOR

Size: Custom | Document Number: C | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 65 of 98



TABLE

Pin No	TCG PTP Spec (v38)	Infineon SLB9670VQ2.0 FW 7.60 SA000075L20	ST Micro ST33HTPH2E32AHA6 SA000081F00
1	VDD	VDD	NC
2	GND	GND	GND
3	GPIO	NC	NC
4	GPIO	NC	PP
5	NC	NC	NC
6	VNC/GPIO	GPIO	NC
7	GPIO/VDD	PP	GPIO
8	VDD	VDD	NC
9	GND	GND	NC
10	VNC	NC	NC
11	NC	NC	NC
12	NC	NC	NC
13	VNC/GPIO	NC	NC
14	VDD	NC	NC
15	NC	NC	NC
16	GND	NC	NC
17	SPI_RST#	RST#	SPI_RST#
18	SPI_PIRQ#	PIRQ#	SPI_PIRQ#
19	SPI_CLK	SCLK	SPI_CLK
20	SPI_CS#	CS#	SPI_CS#
21	MOSI	MOSI	MOSI
22	VDD	VDD	VPS
23	GND	GND	NC
24	MISO	MISO	MISO
25	NC	NC	NC
26	NC	NC	NC
27	NC	NC	NC
28	NC	NC	NC
29	VNC/GPIO	NC	NC
30	VNC/GPIO	NC	NC
31	VNC	NC	NC
32	GND	GND	NC

TPM2.0

U39

NM-A931

SA000081F00

TPM20@

TPM1.2

U39

NM-A931

SA000075L00

TPM12@

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: *DISCRETE TPM 2.0*

LCFC

Size	Document Number	Rev
Custom	C	0.1

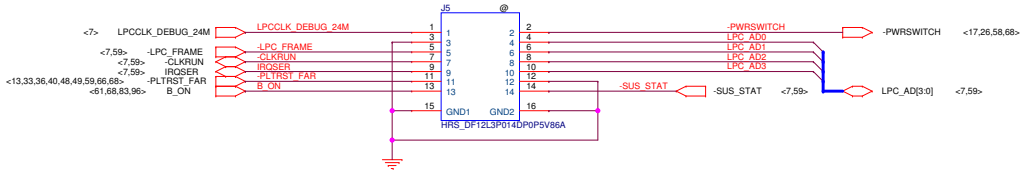
Vindu-1

Date: Wednesday, November 02, 2016 Sheet 66 of 98

TABLE

REF DES	ENABLE	DISABLE
J5	ASM	NO_ASM
R220	ASM	NO_ASM

LOGIC



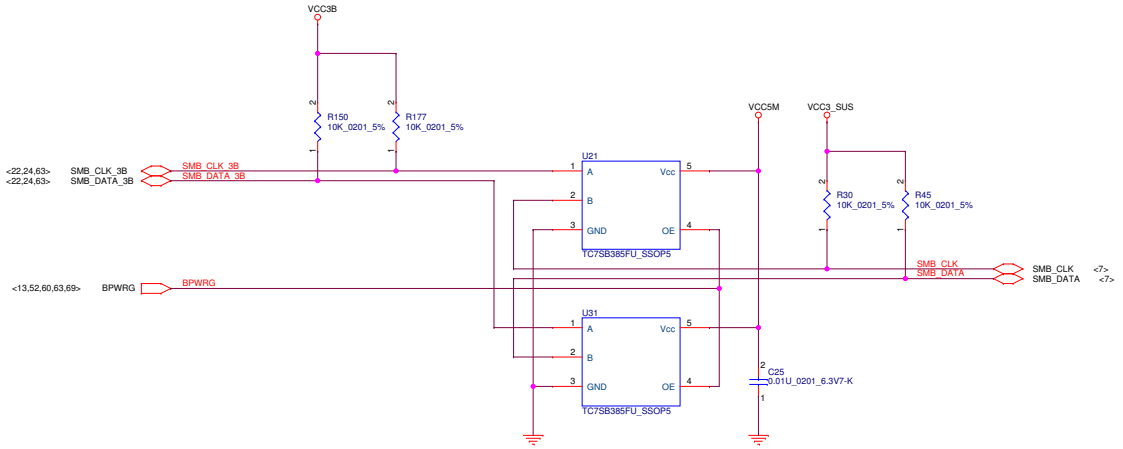


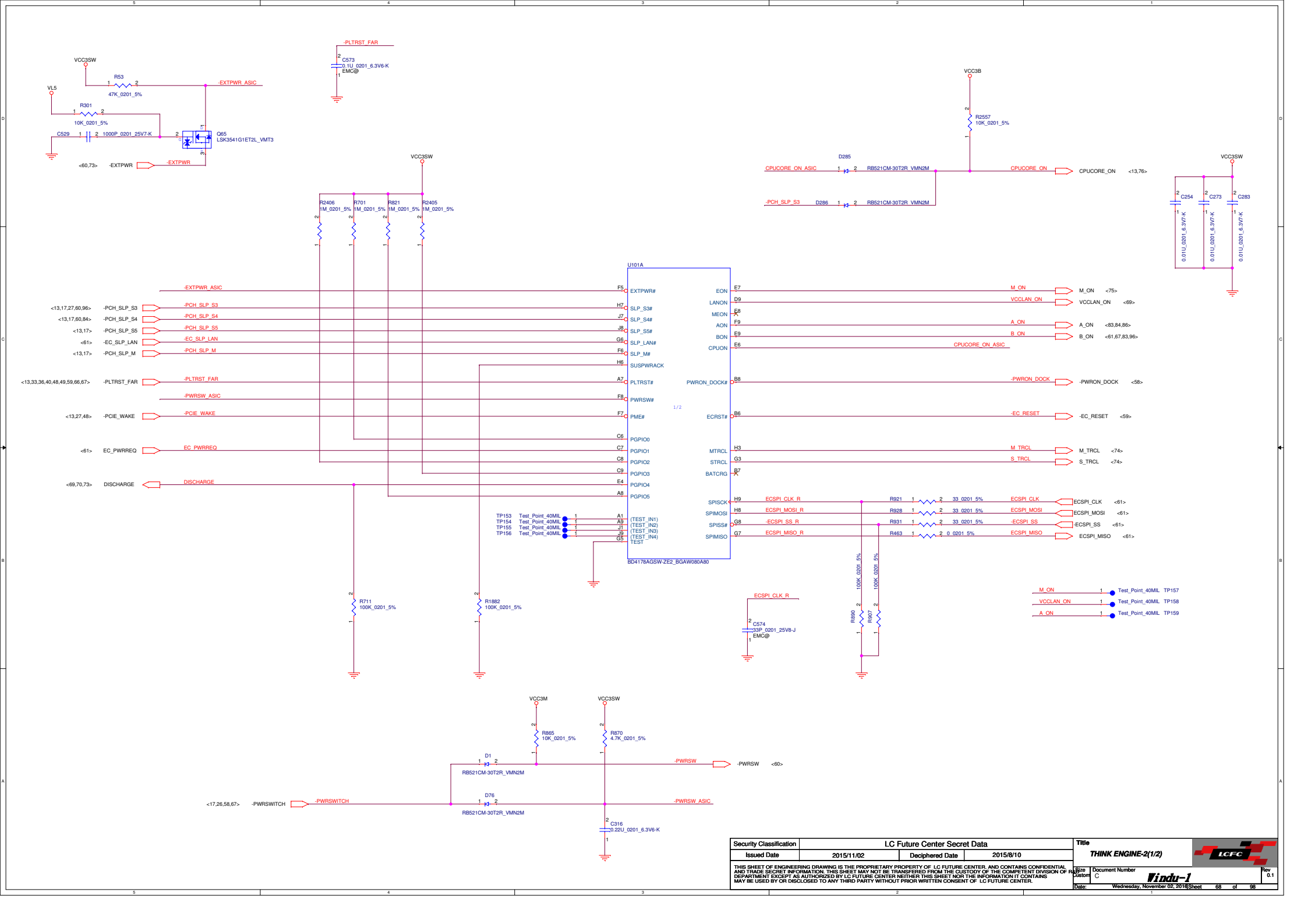
TABLE of U21/U31		
Vendor	P/N	LCFC P/N
TOSHIBA	TC7SB385FU	SA00005US0J
ON	7SB385DFT2G	SA00007CW00

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: SMBUS SWITCH/LPC DEBUG PORT

Size	Document Number	Rev
Custom	C	0.1

Date: Wednesday, November 02, 2016 Sheet 67 of 98



Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

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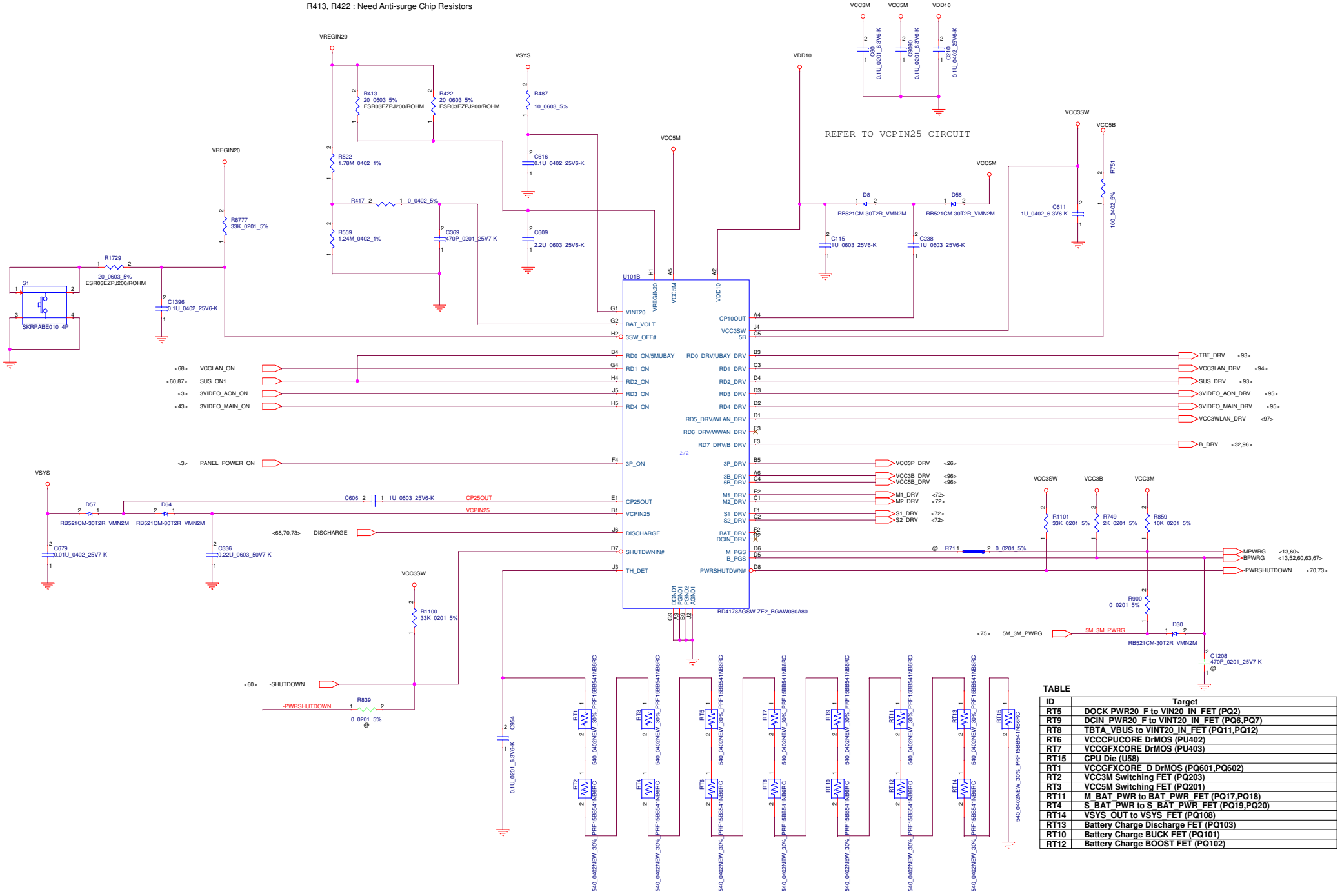
Title: THINK ENGINE-2(1/2)

Size	Document Number	Rev
Custom	C	0.1

Date: Wednesday, November 02, 2016 Sheet 68 of 98

R413, R422 : Need Anti-surge Chip Resistors



TABLE

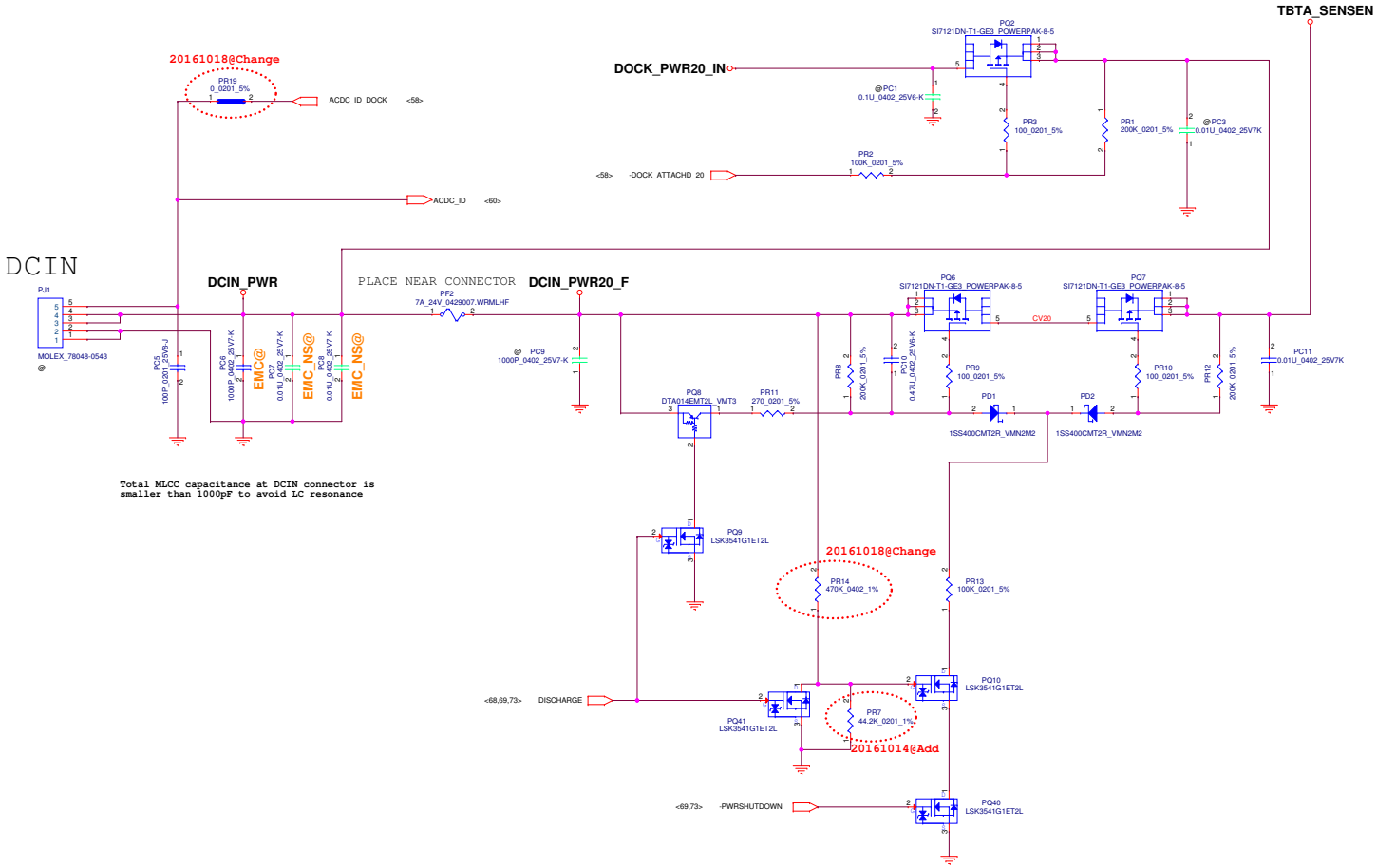
ID	Target
RT5	DOCK PWR20_F to VIN20_IN_FET (PQ2)
RT9	DCIN_PWR20_F to VINT20_IN_FET (PQ6,PQ7)
RT8	TBTA_VBUS to VINT20_IN_FET (PQ11,PQ12)
RT6	VCCCPUCORE DrMOS (PU402)
RT7	VCCGFXCORE DrMOS (PU403)
RT15	CPU Die (U58)
RT1	VCCGFXCORE_D DrMOS (PQ601,PQ602)
RT2	VCC3M Switching FET (PQ203)
RT3	VCC5M Switching FET (PQ201)
RT11	M_BAT_PWR to BAT_PWR_FET (PQ17,PQ18)
RT4	S_BAT_PWR to S_BAT_PWR_FET (PQ19,PQ20)
RT14	VSYS_OUT to VSYS_FET (PQ108)
RT13	Battery Charge Discharge FET (PQ103)
RT10	Battery Charge BUCK FET (PQ101)
RT12	Battery Charge BOOST FET (PQ102)

Security Classification	LC Future Center Secret Data		
Issued Date	2015/11/02	Deciphered Date	2015/8/10

Title: THINK ENGINE-2(2/2)

Size: Custom | Document Number: C | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 69 of 98

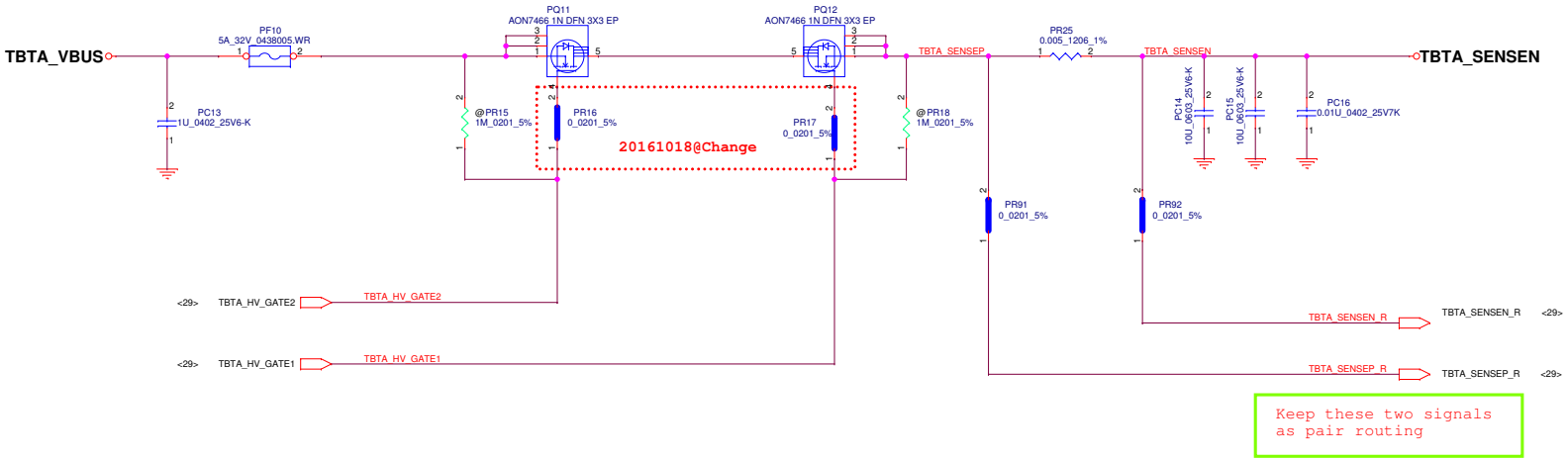


Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title	DC-IN		
Size: Custom	Document Number	Windu Intel	Rev 0.1
Date: Wednesday, November 02, 2016	Sheet 70 of 98		

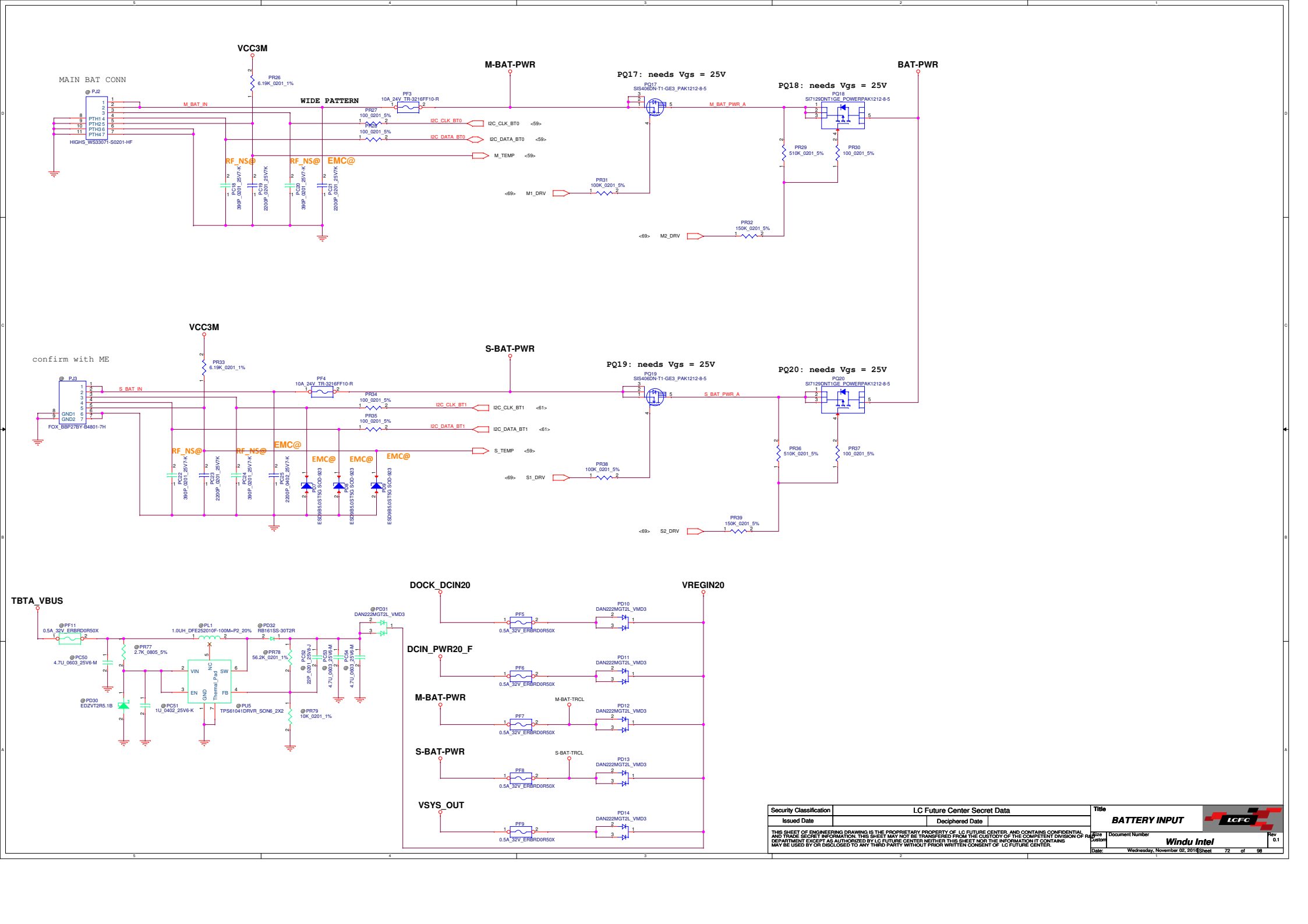
Table PQ11、PQ12

1st : AON7466	AOS
2nd :SIS406DN	VISHAY



Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title	Typ-C	
Size C	Document Number	Rev 0.1
	Windu Intel	
Date: Wednesday, November 02, 2016	Sheet 71 of 98	

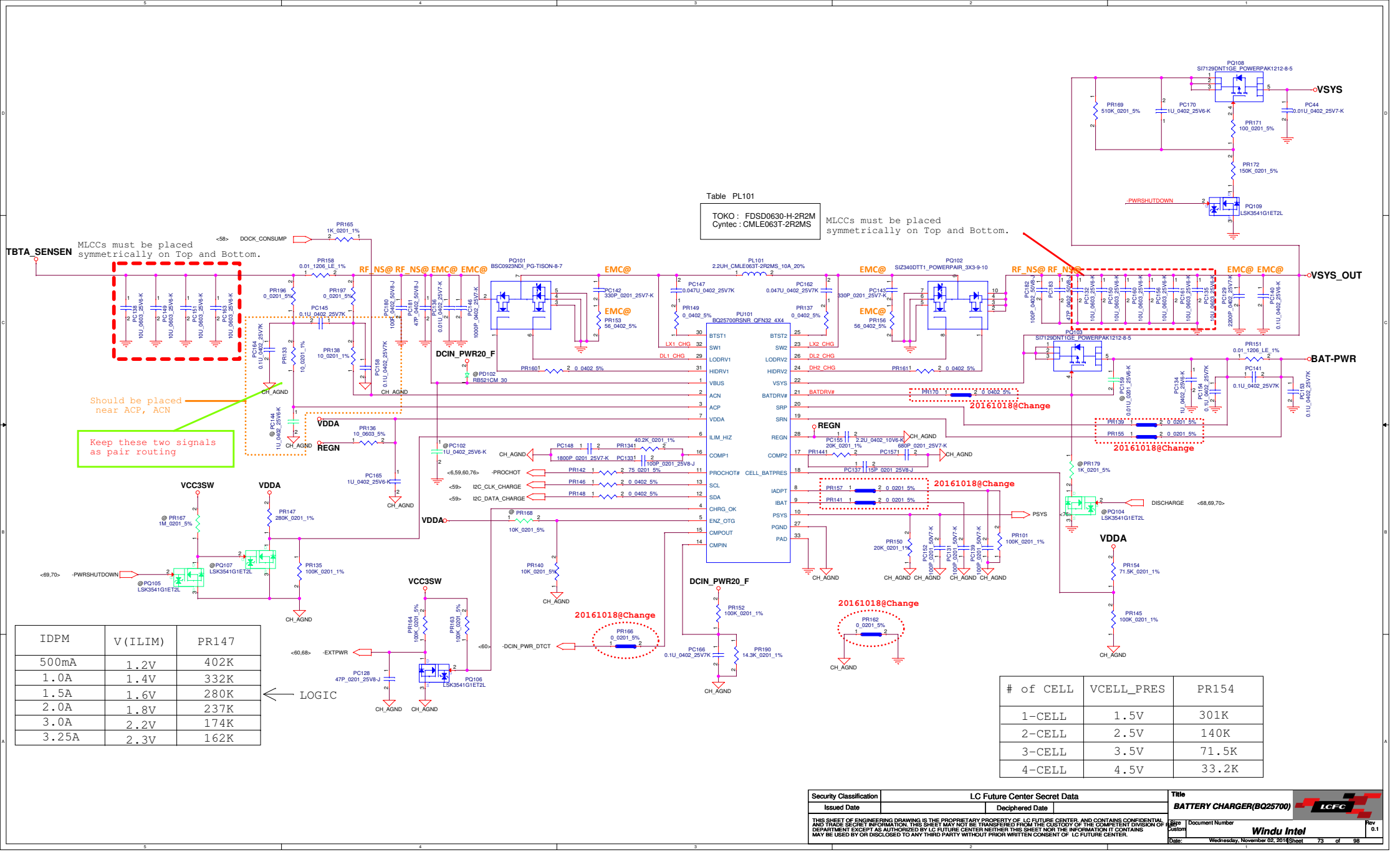


Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: **BATTERY INPUT**

LCFC

Size: Custom	Document Number: **Windu Intel**	Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 72 of 98	

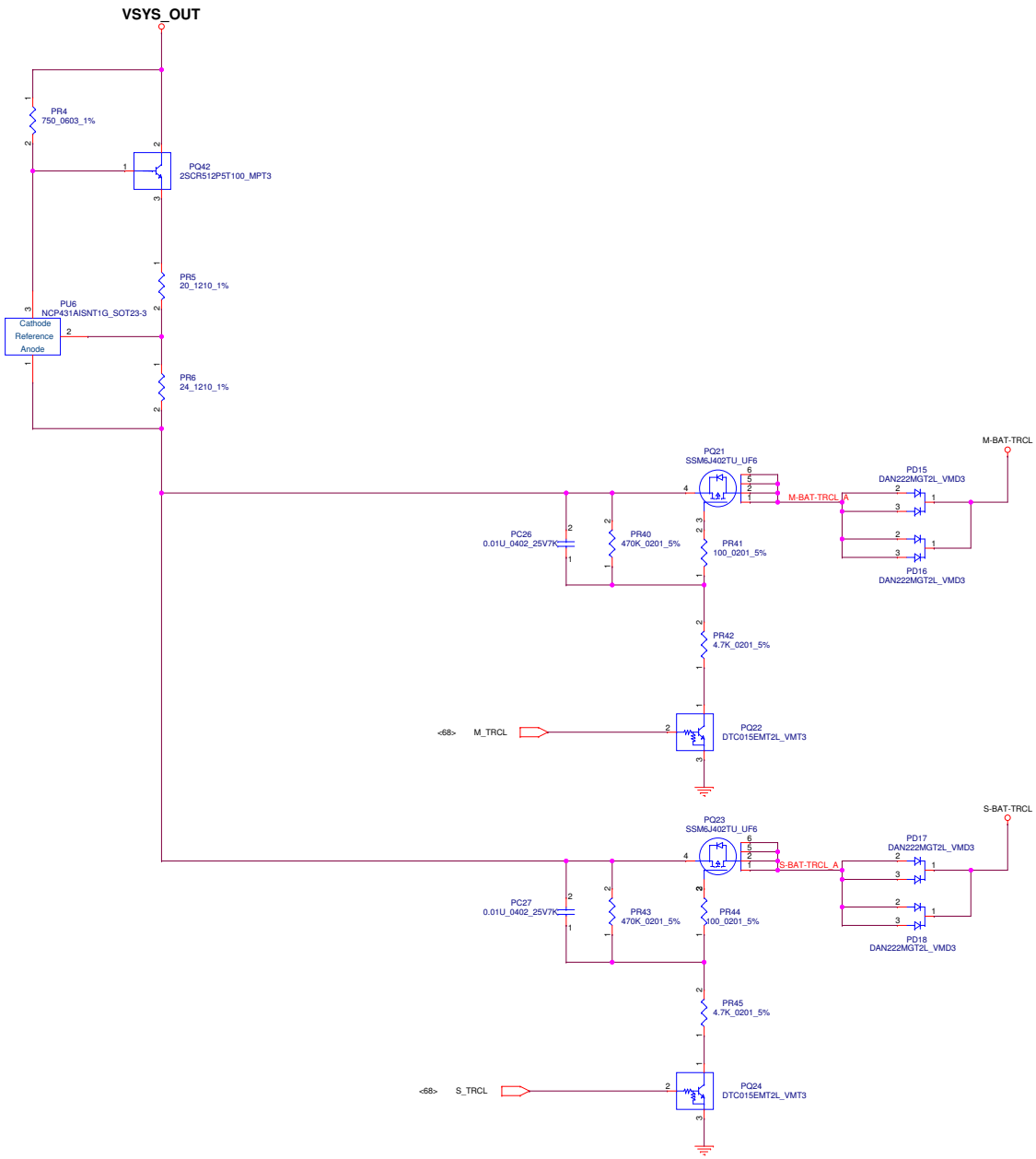


IDPM	V(ILIM)	PR147
500mA	1.2V	402K
1.0A	1.4V	332K
1.5A	1.6V	280K
2.0A	1.8V	237K
3.0A	2.2V	174K
3.25A	2.3V	162K

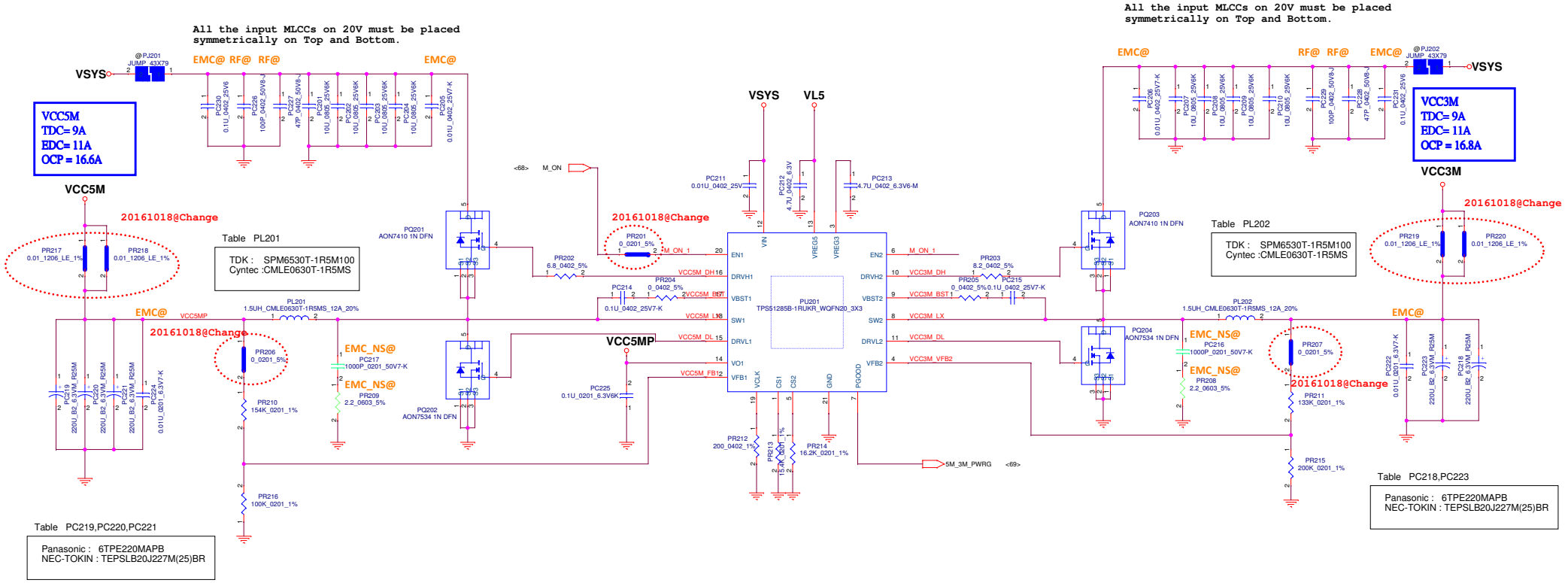
# of CELL	VCELL_PRES	PR154
1-CELL	1.5V	301K
2-CELL	2.5V	140K
3-CELL	3.5V	71.5K
4-CELL	4.5V	33.2K

Security Classification	LC Future Center Secret Data		Title: BATTERY CHARGER(BQ25700)
Issued Date		Deciphered Date	

Size: Custom	Document Number: Windu Intel		Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 73 of 98		

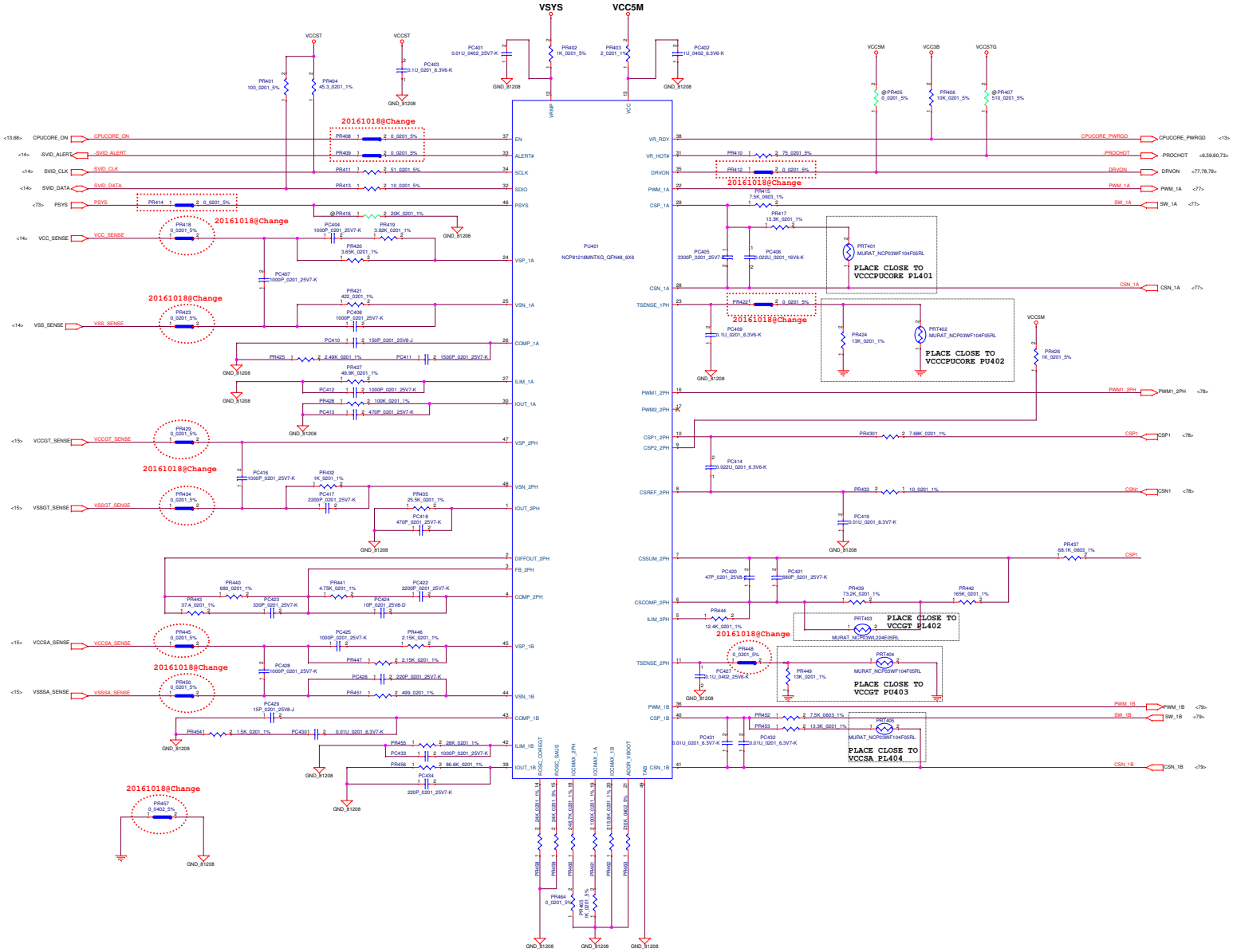


Title		
CHARGER SELECTOR		
Size: Custom	Document Number: Windu Intel	Rev: 0.24
Date: Wednesday, November 02, 2016	Sheet 74 of 98	



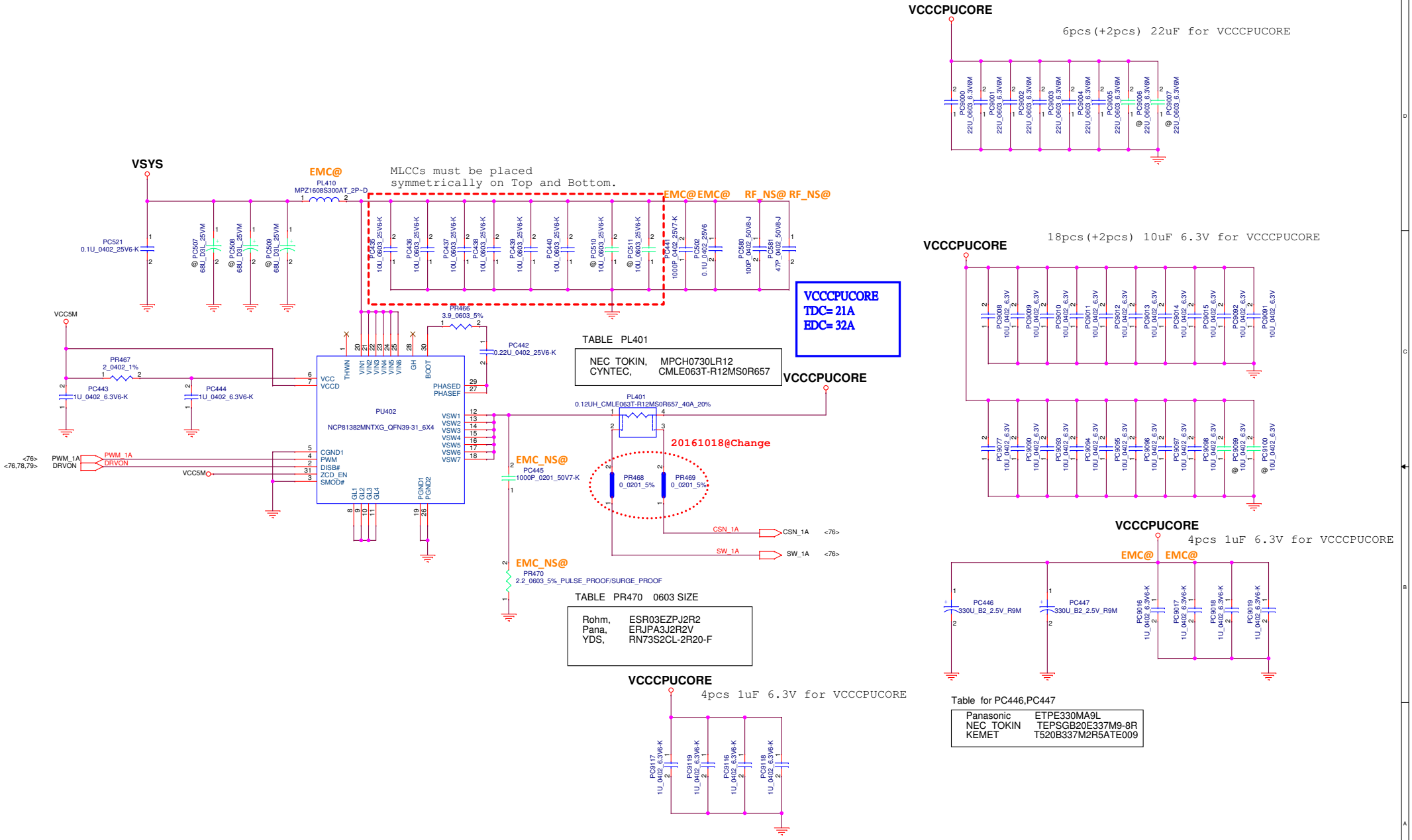
Security Classification	LC Future Center Secret Data		Title: DC/DC VCC5M/VCC3M(TPS51285B)
Issued Date		Deciphered Date	

Size: Custom	Document Number: Windu Intel		Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 75 of 98		



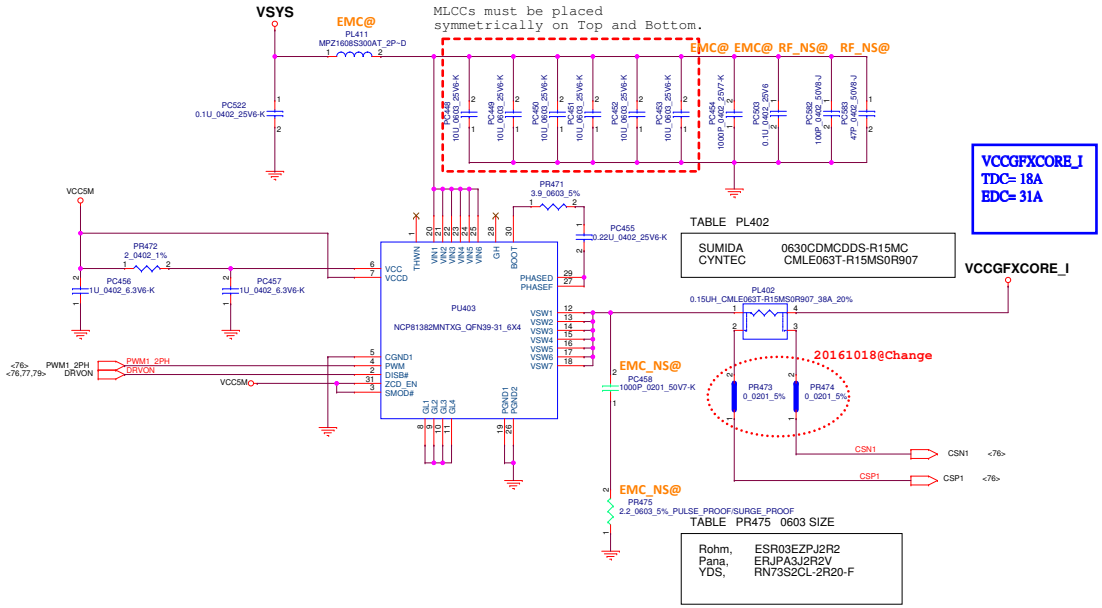
Security Classification	LC Future Center Secret Data		Title: DC/DC IMVP8(NCP81208)
Issued Date		Deciphered Date	

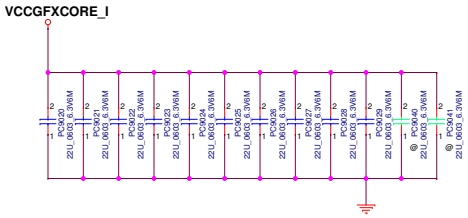
Size: A	Document Number: Windu Intel		Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet: 76	of: 95	



Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title	DC/DC CPUCORE(NCP81382)		
Size: Custom	Document Number: Windu Intel		Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 77 of 98		





14pcs(+8pcs) 22uF for VCCGFXCORE_I

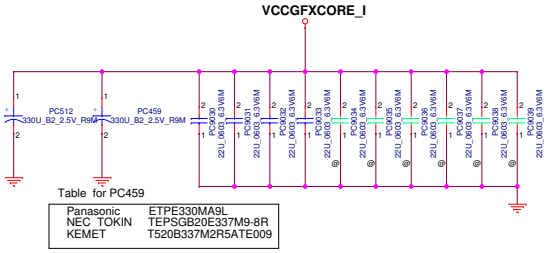
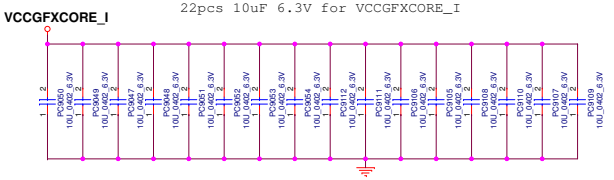
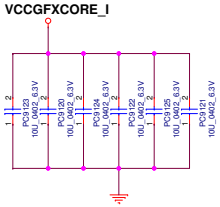


Table for PC459

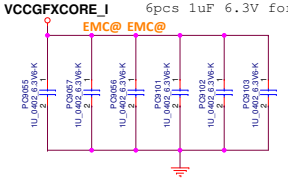
Panasonic	ETPE330MA9L
NEC TOKIN	TEPSGB20E337M9-8R
KEMET	T520B337M2R5ATE009

22pcs 10uF 6.3V for VCCGFXCORE_I



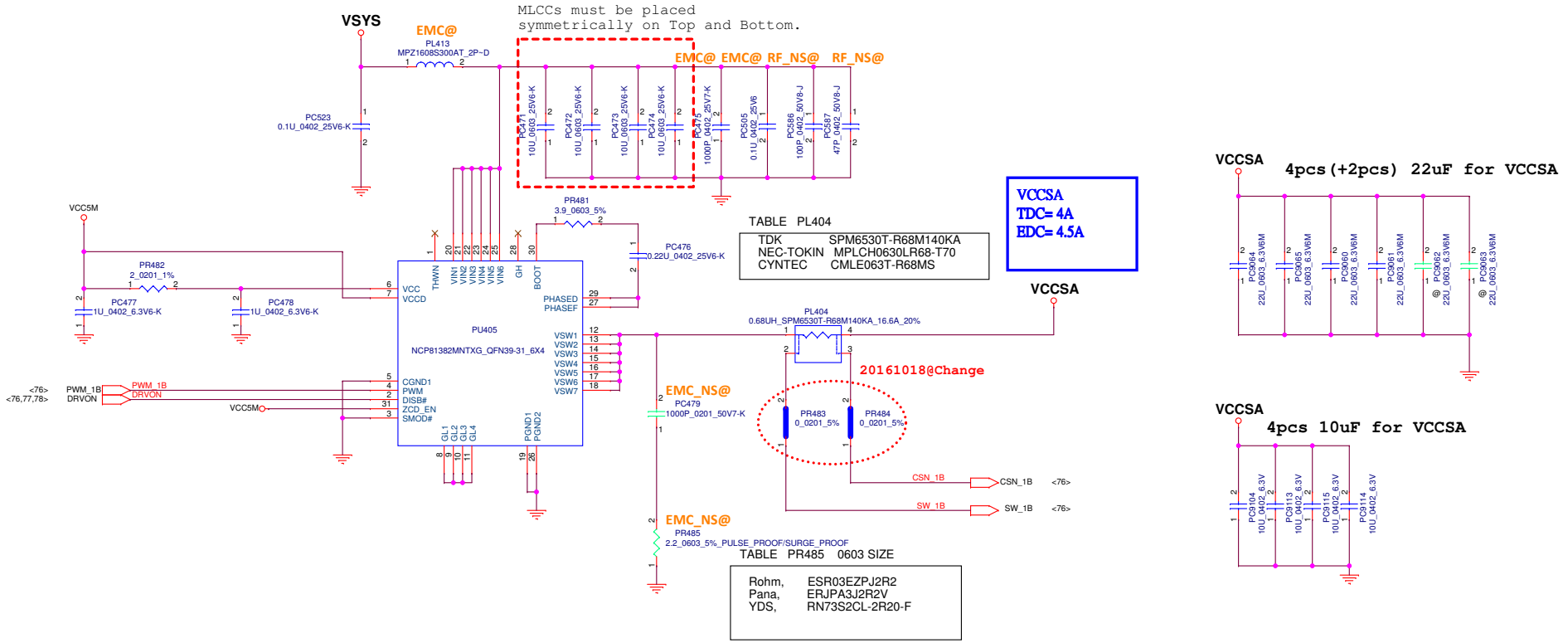


VCCGFXCORE_I 6pcs 1uF 6.3V for VCCGFXCORE_I



Security Classification	LC Future Center Secret Data		Title: DC/DC VCCGFXCORE_I(NCP81382)
Issued Date		Deciphered Date	

Size: A3	Document Number: Windu Intel		Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 78 of 98		



Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title	DC/DC VCCSA(NCP81380)		
Size: Custom	Document Number: Windu Intel		Rev: 0.1
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Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: BLANK		
Size: Custom	Document Number: Windu Intel	Rev: 0.1
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Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: *BLANK*

LCFC

Size: Custom	Document Number: ***Windu Intel***	Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 81 of 98	

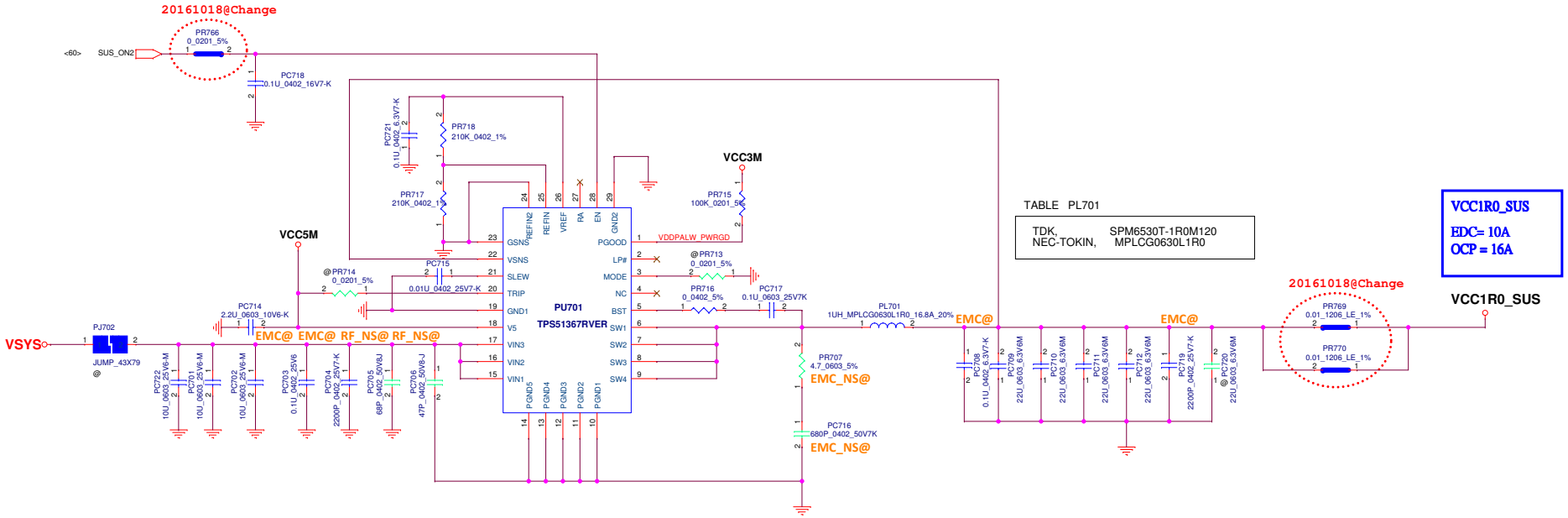


TABLE PL701

TDK,	SPM6530T-1R0M120
NEC-TOKIN,	MPLCG0630L1R0

VCC1R0_SUS

EDC= 10A

OCP = 16A

Mode	Frequency
GND	400KHz
Float	800KHz

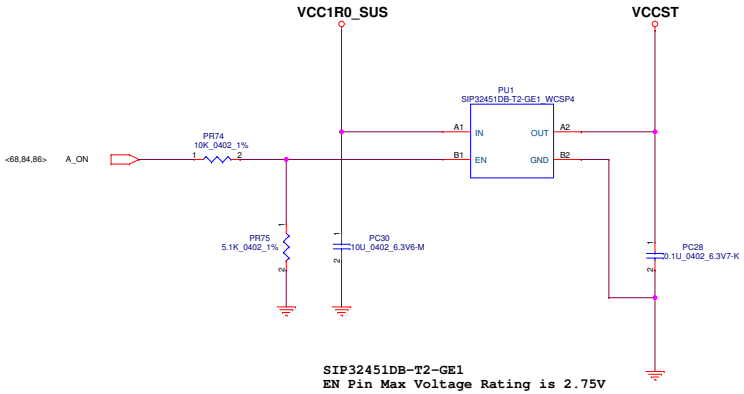
Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: DC/DC VCC1R0_SUS(TPS51367RVER)

Size: Custom | Document Number: Windu Intel | Rev: 0.1

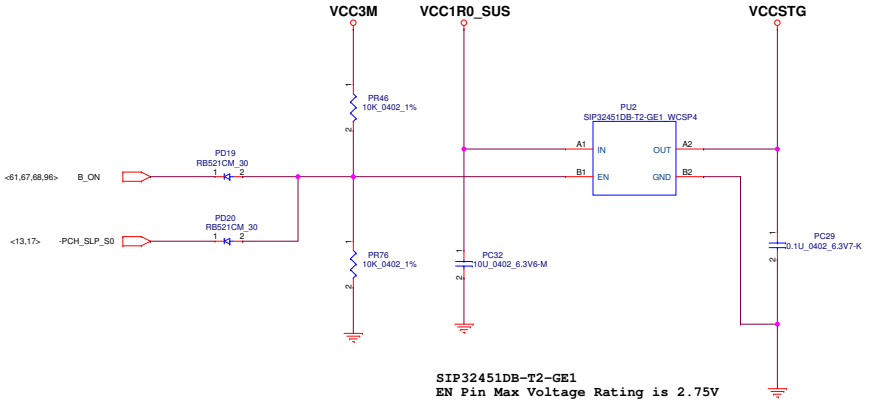
Date: Wednesday, November 02, 2016 | Sheet 82 of 98

T_on<65us



SIP32451DB-T2-GE1
EN Pin Max Voltage Rating is 2.75V

T_on<65us



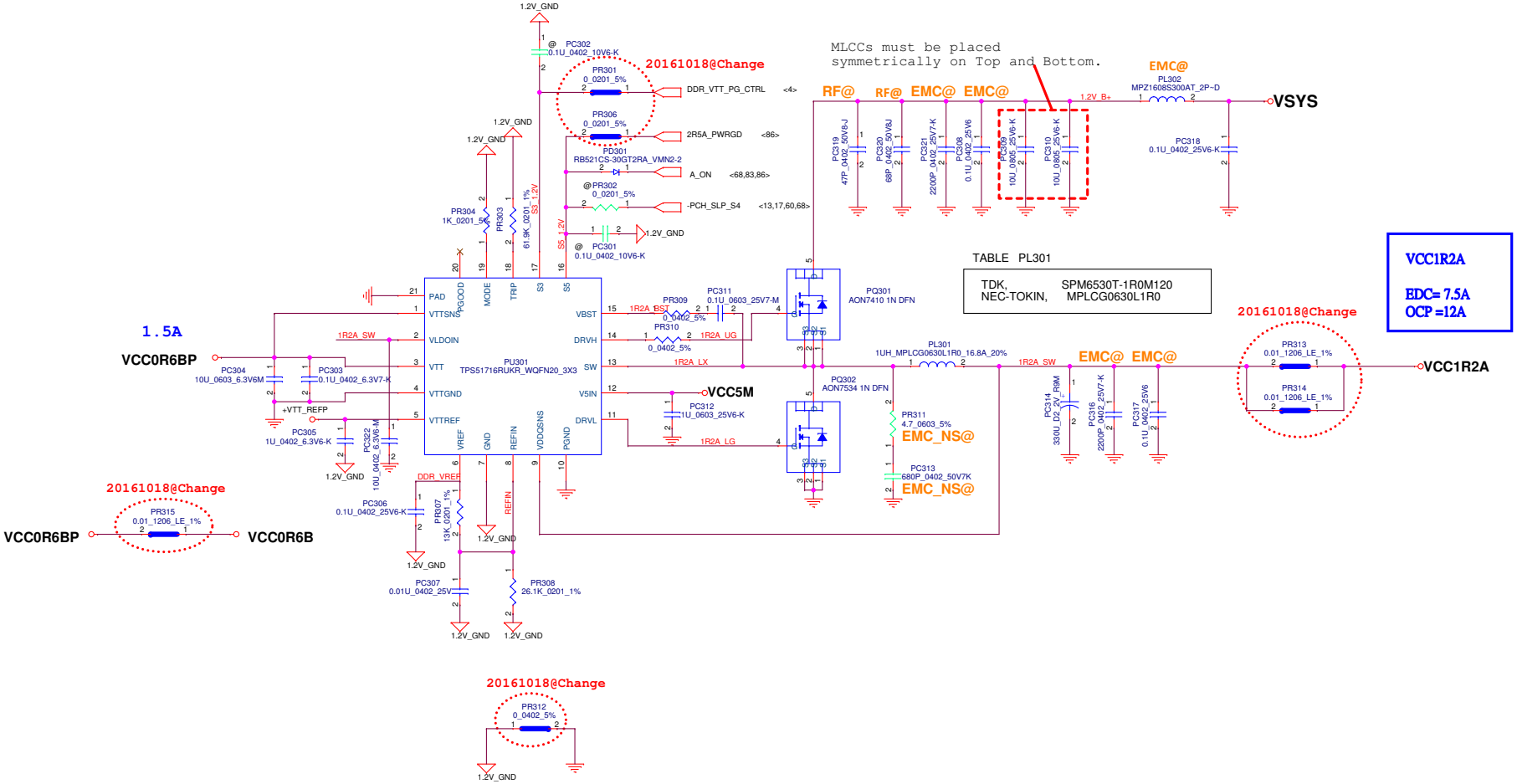
SIP32451DB-T2-GE1
EN Pin Max Voltage Rating is 2.75V

Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: LOAD SW VCCST & VCCSTG

Size: Custom | Document Number: Windu Intel | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 83 of 98



Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title	DC/DC VCC1R2A(TPS51716)		
Size: Custom	Document Number: Windu Intel		Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 84 of 98		

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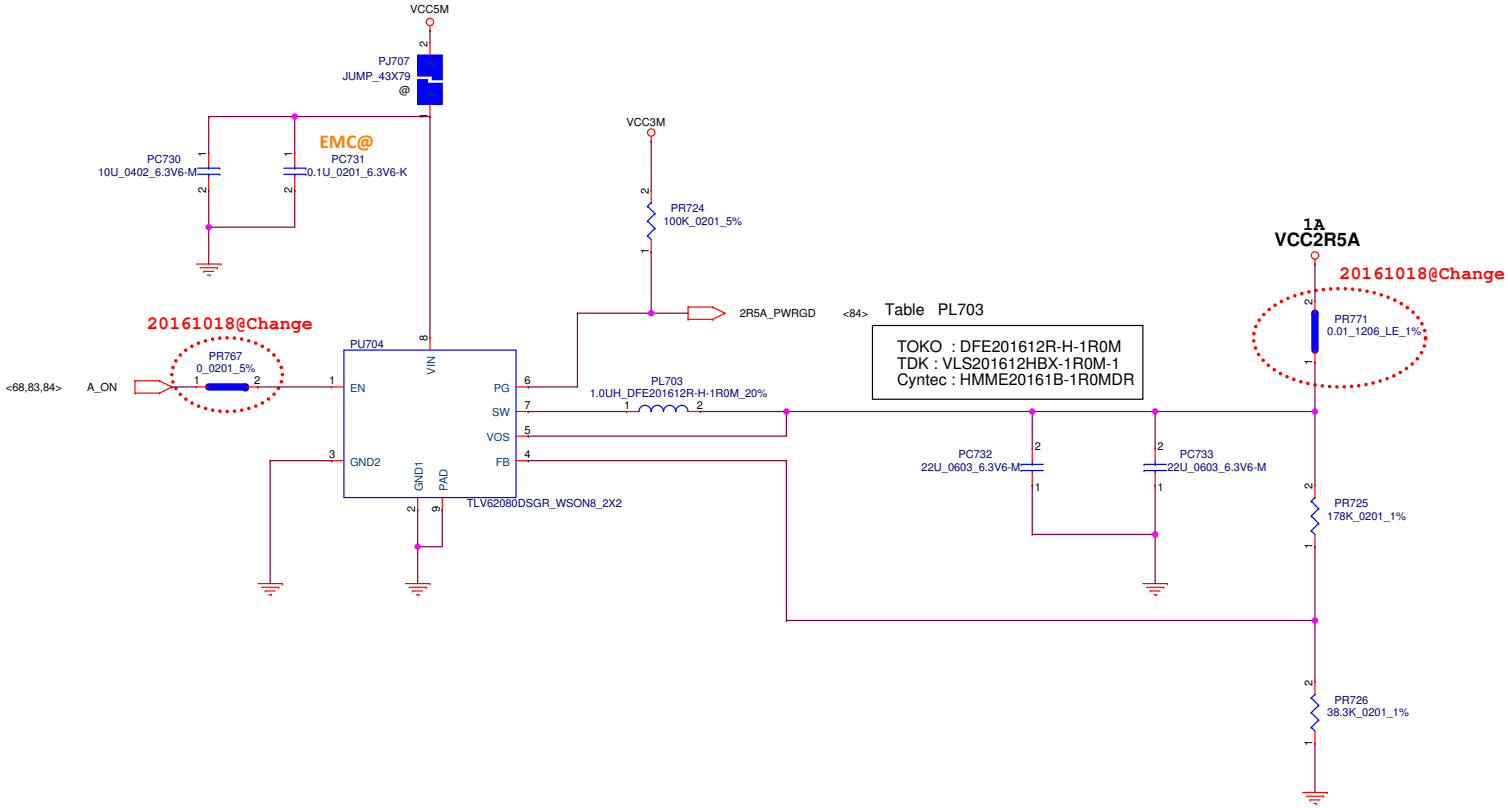
Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

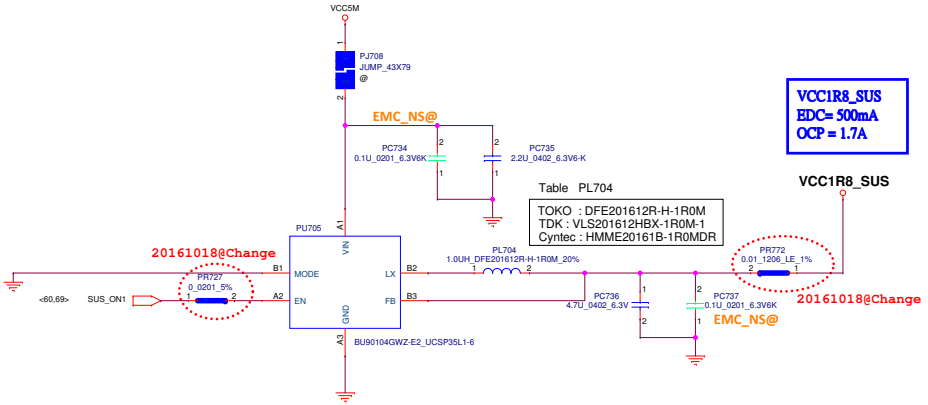
Title: BLANK		
Size: Custom	Document Number: Windu Intel	Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 85 of 98	



Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: *DC/DC VCC2R5A(TLV62080)*

Size: Custom	Document Number: *Windu Intel*	Rev: 0.1
Date: Wednesday, November 02, 2016	Sheet 86 of 98	



Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: DC/DC VCC1R8_SUS(BU90104GWZ

Size: Custom | Document Number: Windu Intel | Rev: 0.1

Date: Wednesday, November 02, 2016 | Sheet 87 of 98

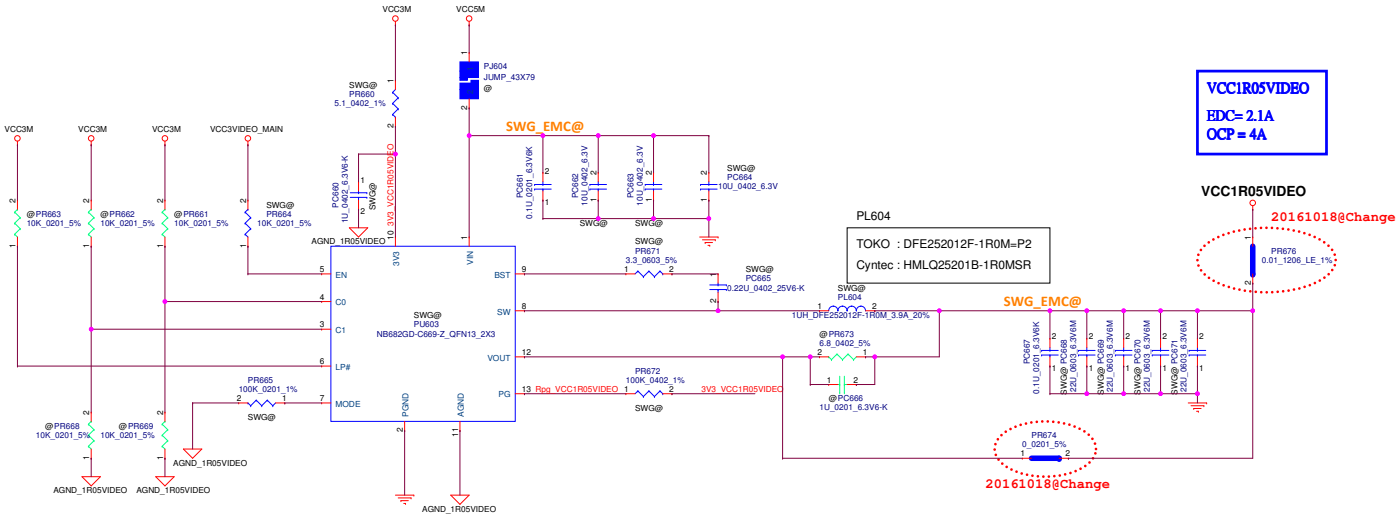
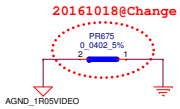


TABLE : NB682 MODE M3 (100K)

LP#	C1	C0	VOUT
0	X	X	0V
1	0	0	0.8V
1	0	1	0.95V
1	1	0	1V
1	1	1	1.05V

Logic



Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: *DC/DC VCC1R05VIDEO(NB682)*

Size: Custom	Document Number: *Windu Intel*	Rev: 0.1
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Security Classification	LC Future Center Secret Data		
Issued Date		Deciphered Date	

Title: BLANK		
Size: Custom	Document Number: Windu Intel	Rev: 0.1
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Security Classification	LC Future Center Secret Data		
Issued Date	2012/11/01	Deciphered Date	2013/12/31

Title: BLANK

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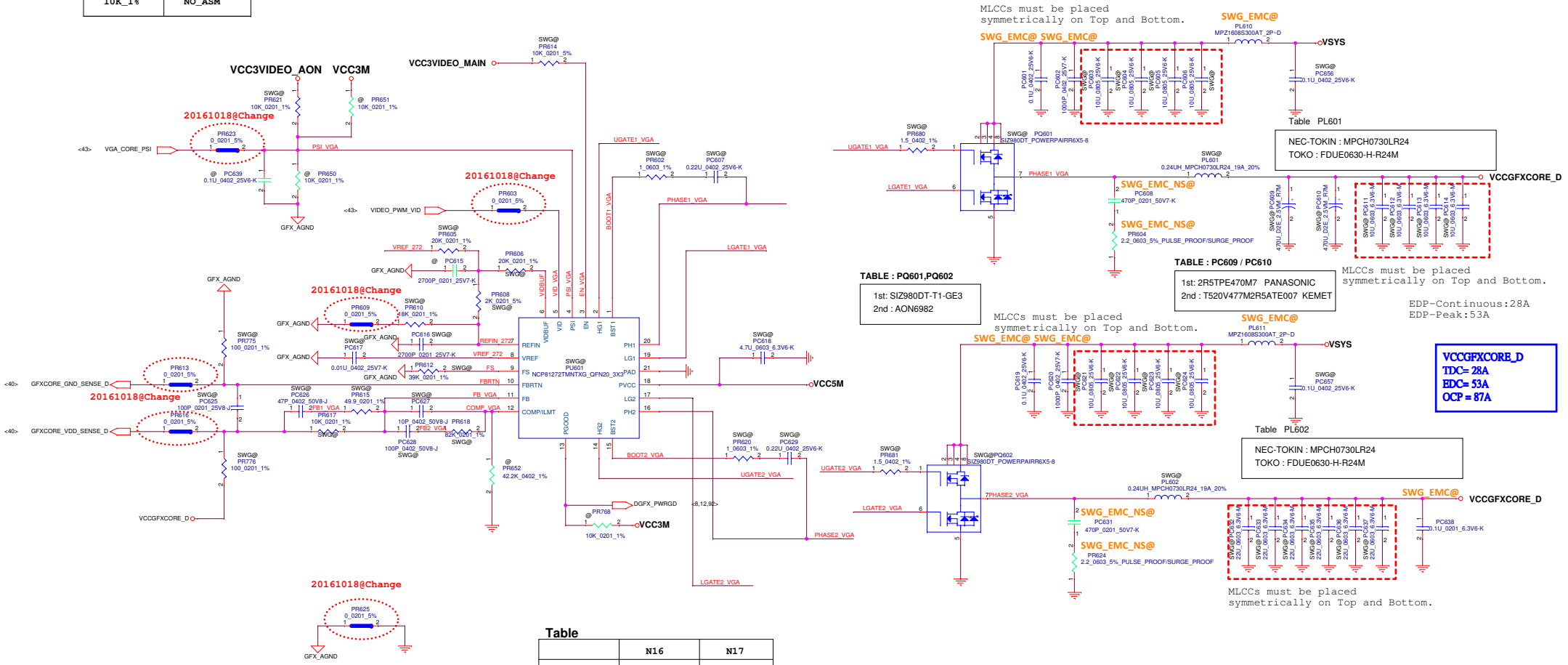
Table PR621

N16	N17
10K_1%	NO_ASM



Table

	N16	N17
PU601	NCP81272T	NCP81278T
PR652	No_ASM	42.2K_1%
OCP setting	87A Typ	94A Typ

Security Classification	LC Future Center Secret Data		
Issued Date	2012/11/01	Deciphered Date	2013/12/31

Title	DC/DC VCCGFXCORE_D (NCP81272)		
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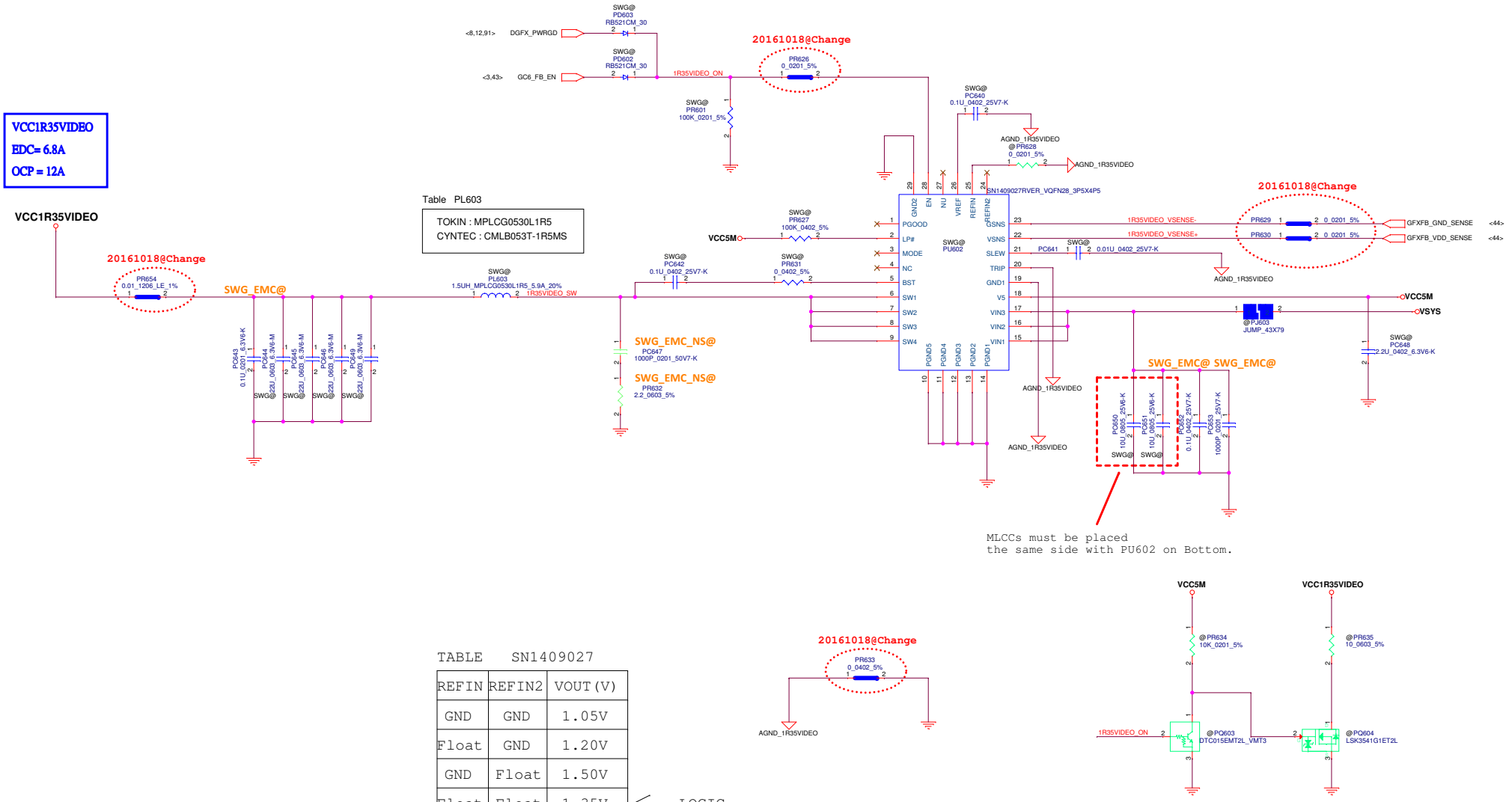

TABLE SN1409027

REFIN	REFIN2	VOUT(V)	
GND	GND	1.05V	
Float	GND	1.20V	
GND	Float	1.50V	
Float	Float	1.35V	← LOGIC

Security Classification	LC Future Center Secret Data		
Issued Date	2012/11/01	Deciphered Date	2013/12/31

Title: DC/DC VCC1R35VIDEO(SN1409027)

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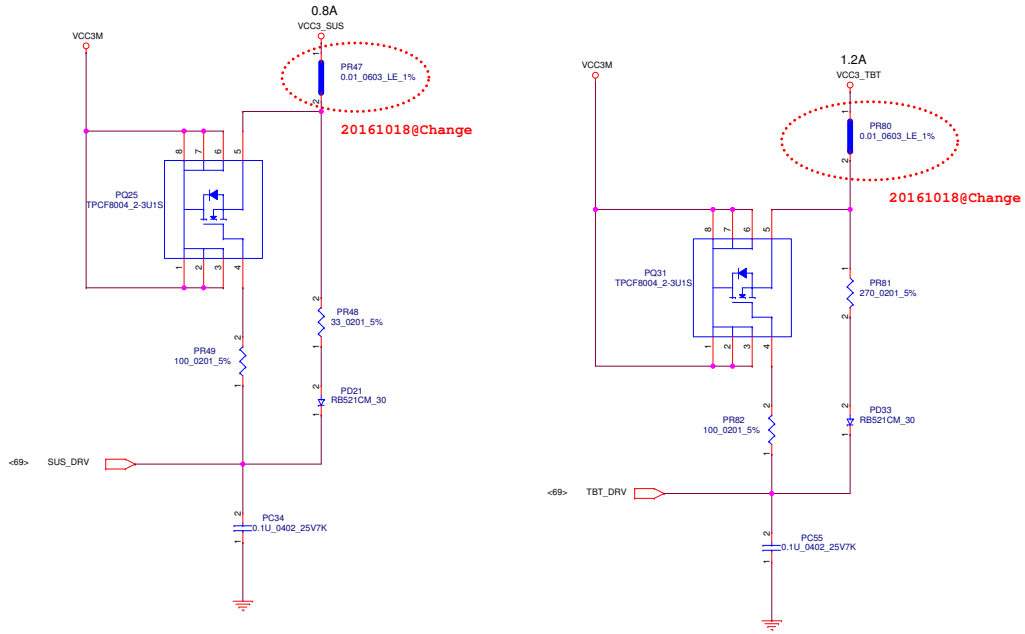

Security Classification	LC Future Center Secret Data		
Issued Date	2012/11/01	Deciphered Date	2013/12/31

Title: **LOAD SW PCH SUS**

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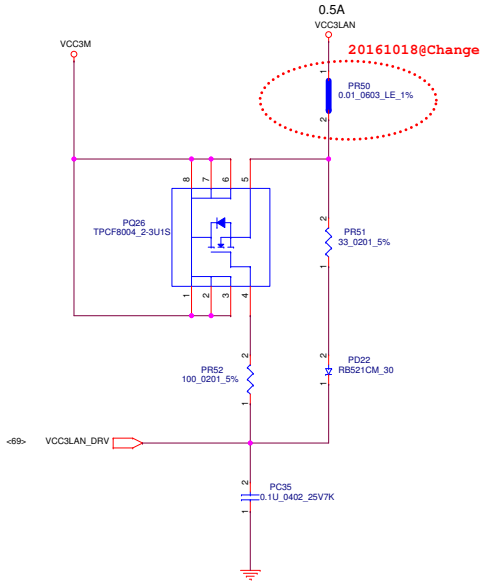

Title: **LOAD SW LAN**

Size	Document Number	Rev
Custom	**Windu Intel**	0.24

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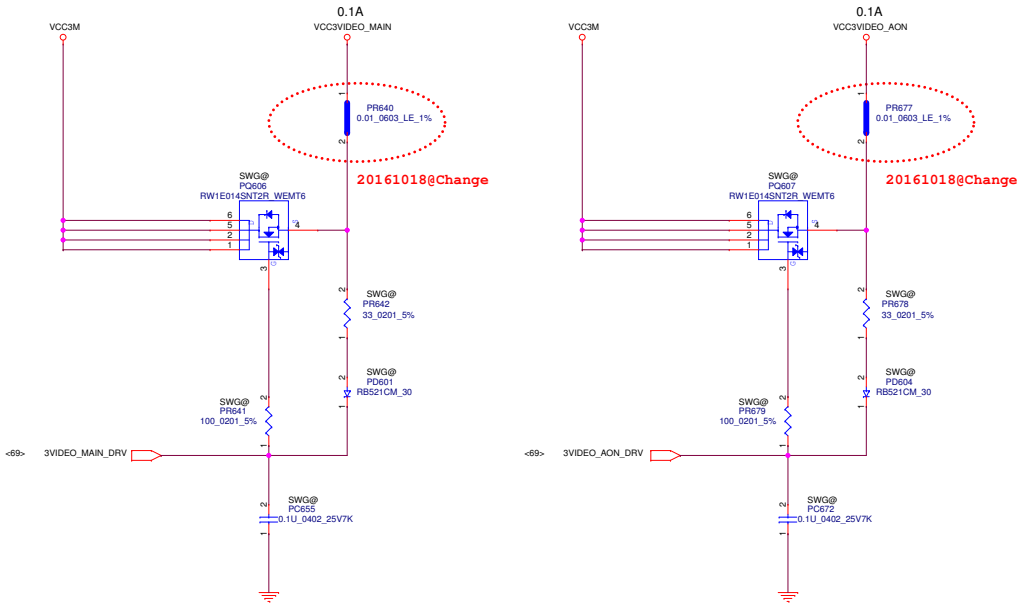

Security Classification	LC Future Center Secret Data		
Issued Date	2012/11/01	Deciphered Date	2013/12/31

Title: **LOAD SW VIDEO**

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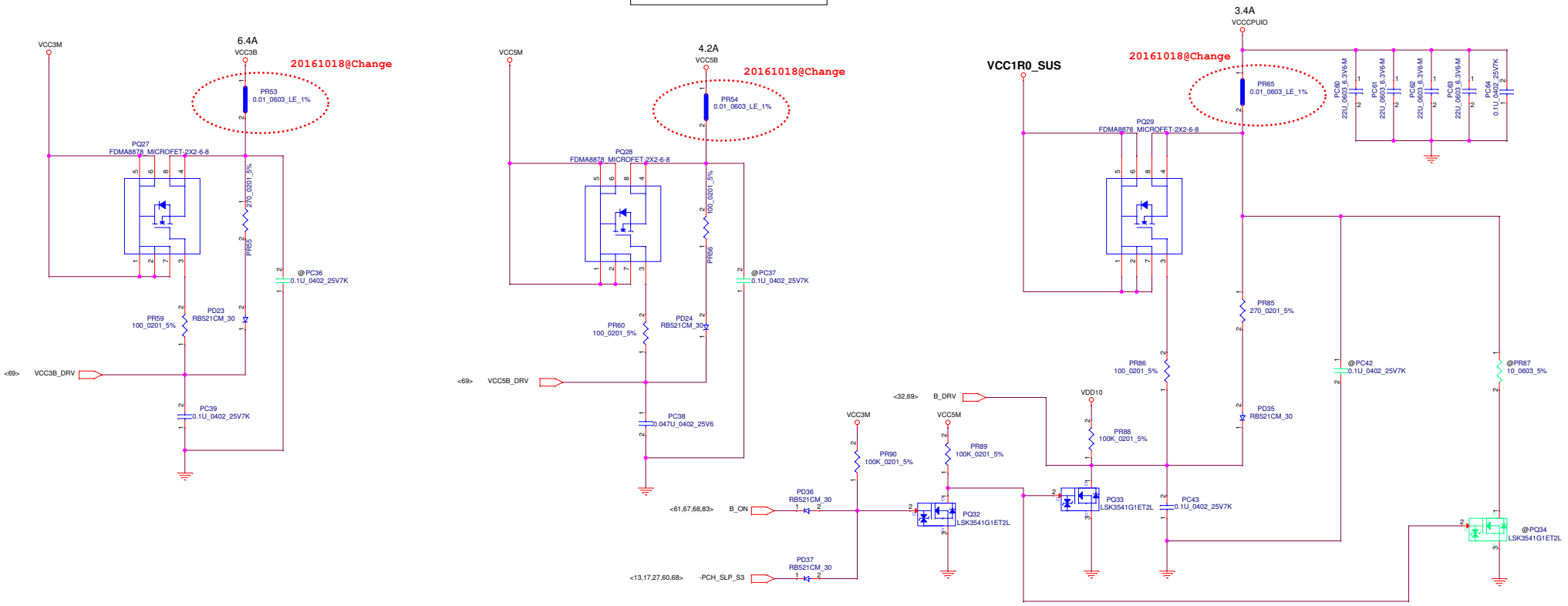
Table for PQ27、PQ28、PQ29

FAIRCHILD	FDMA8878
VISHAY	SIA462DJ



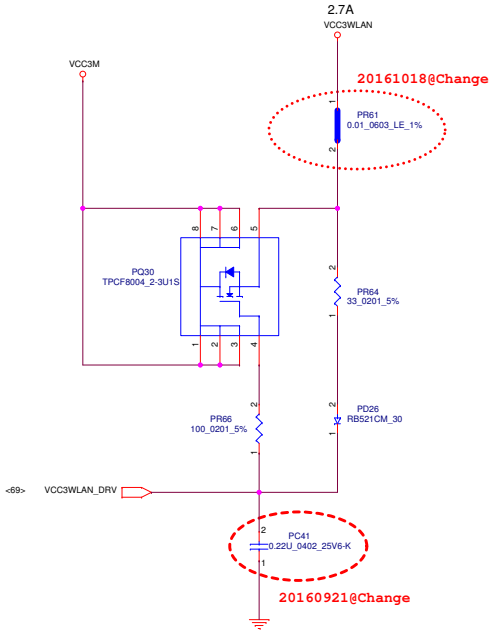
Security Classification	LC Future Center Secret Data		
Issued Date	2012/11/01	Deciphered Date	2013/12/31

Title: **LOAD SW B**

LCFC

Size: Custom | Document Number: **Windu Intel** | Rev: 0.24

Date: Wednesday, November 02, 2016 | Sheet 96 of 98



TABLE

AOAC	YES	NO
PR70	NO-ASM	ASM
PQ35	ASM	NO-ASM
PR72	ASM	NO-ASM
PR74	ASM	NO-ASM
PC40	ASM	NO-ASM
PD23	ASM	NO-ASM

LOGIC

Security Classification	LC Future Center Secret Data		
Issued Date	2012/11/01	Deciphered Date	2013/12/31

Title: LOAD SW WWAN & WLAN

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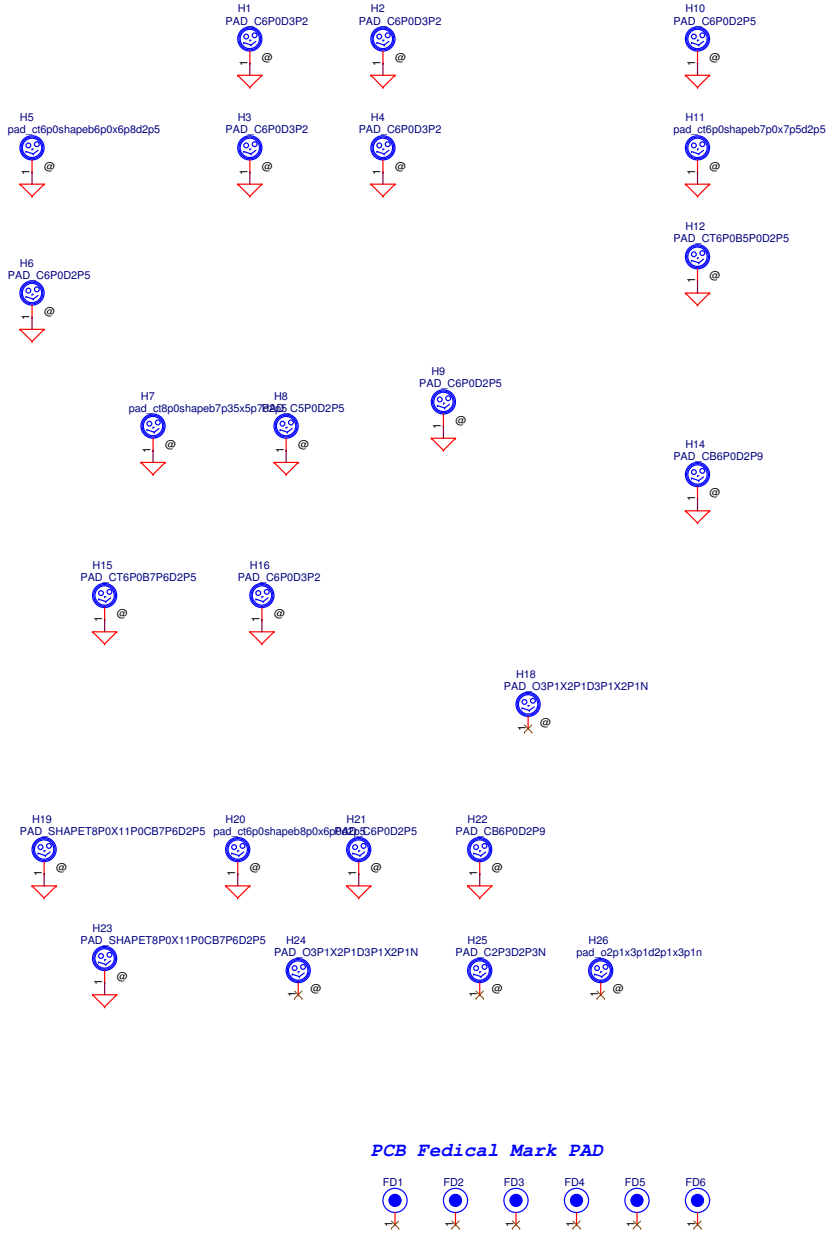

Security Classification	LC Future Center Secret Data		
Issued Date	2014/07/01	Deciphered Date	2015/12/31

Title: **SCREW**

Size	Document Number	Rev
Custom	Vindu-1	0.1

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