

WD-2 Logic Schematics

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- 76.BLANK
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- 78.DC/DC VCC1R0_SUS(TPS51367RV)
- 79.LOAD SW VCCST & VCCSTG
- 80.DC/DC VCC1R2A/0R6B/2R5A(NB687)
- 81.BLANK
- 82.BLANK
- 83.DC/DC VCC1R8_SUS(BU90104GWZ)
- 84.BLANK
- 85.BLANK
- 86.BLANK
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Windu Block Diagram

Project Code: ET480

2017 Feb ' 20

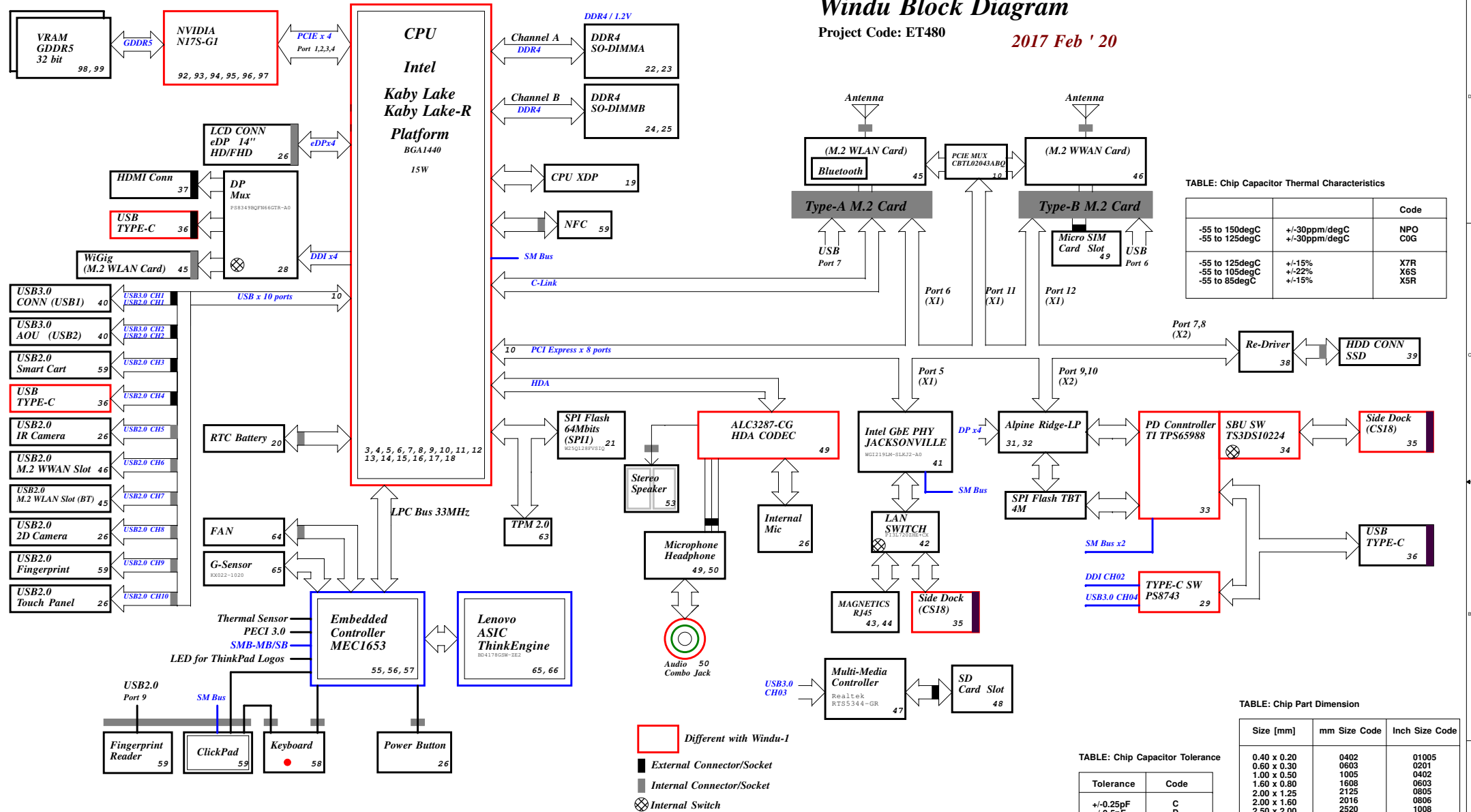


TABLE: Chip Capacitor Thermal Characteristics

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

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	2016	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

TABLE: Chip Capacitor Tolerance

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

- Different with Windu-1
- External Connector/Socket
- Internal Connector/Socket
- Internal Switch

LOGIC

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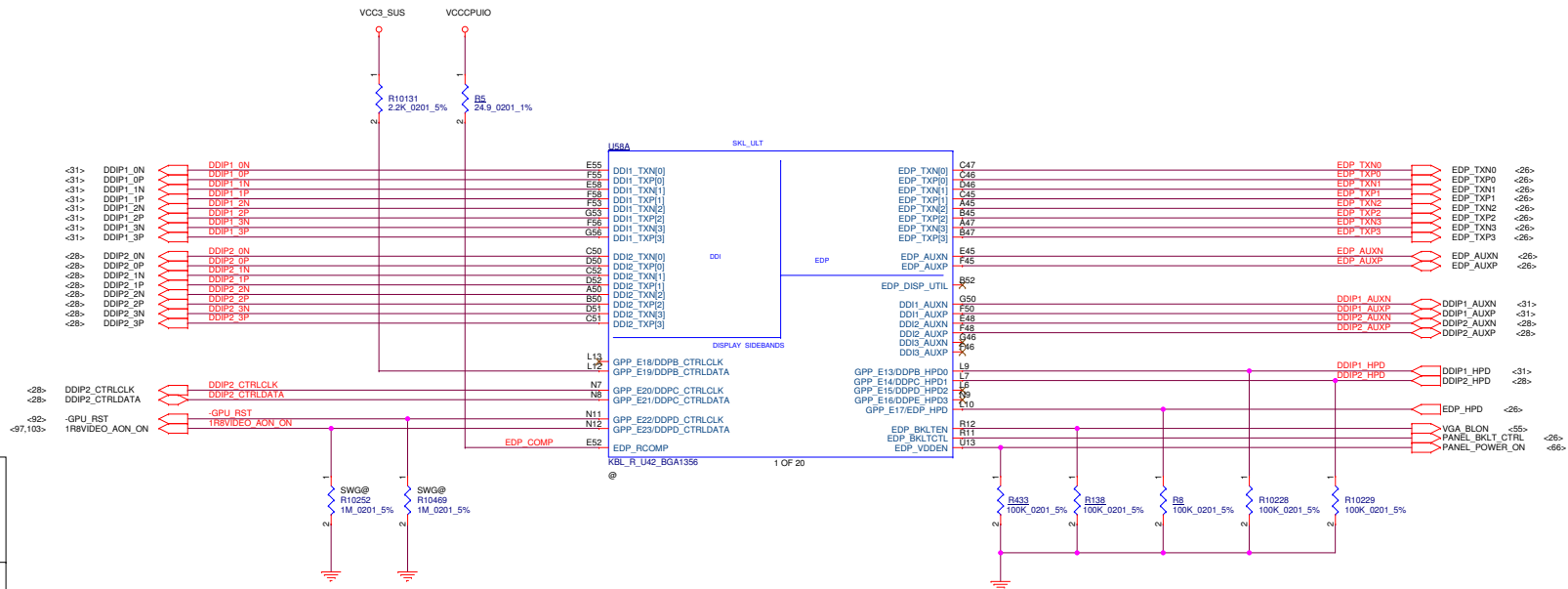


TABLE : Functional Strap

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.

PCB	KabyLake (MP)			KabyLake-R (MP)			
ZZZZ	U58	U58	U58	U58	U58	U58	U58
NM-B501 REV1	i3-7130U non-vPro	i5-7300U vPro	i5-7200U non-vPro	i5-8350U vPRO	i7-8650U vPRO	i5-8250U non-vPRO	i7-8550U non-vPRO
DAZ16900100	SA00008LM20	SA00008M10	SA000080320	SA00008J10	SA00008J10	SA00008J20	SA00008J20
SVT@	ISNV@	ISV@	ISNV@	RISV@	RISV@	RSNV@	R7N@

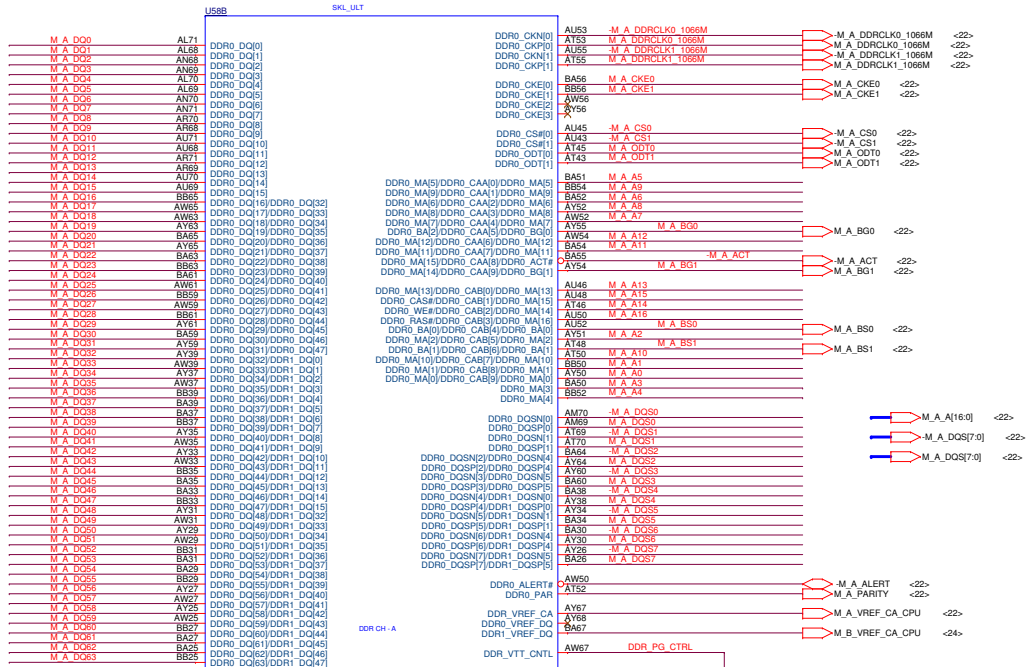
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<-22> M_A_DQ[63:0]

TABLE

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

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TABLE

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

LOGIC

TABLE

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

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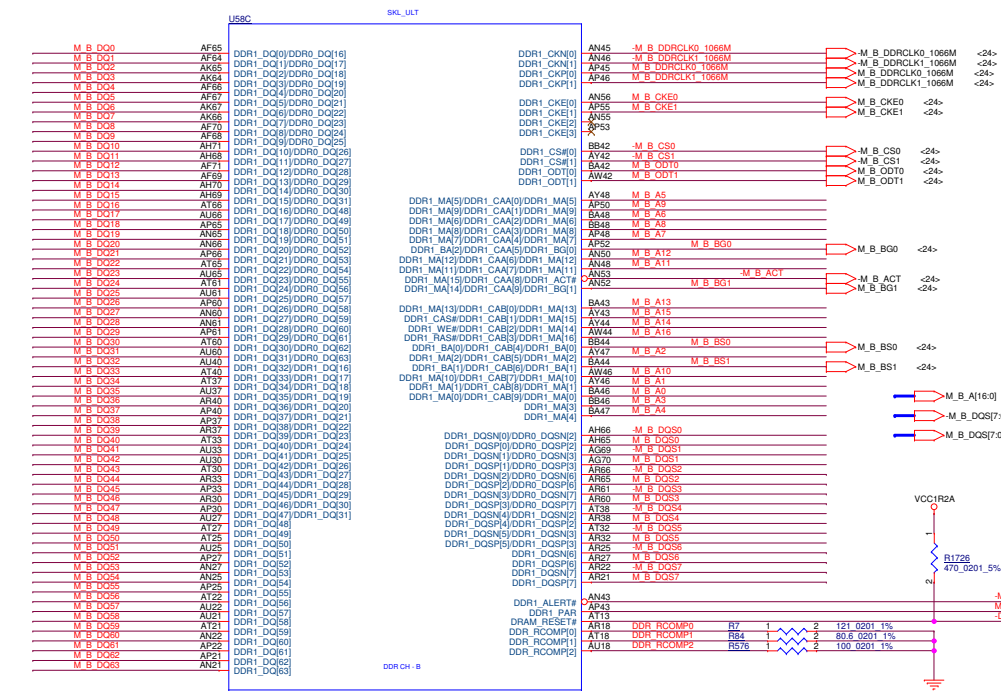
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	Pin	Interleave	Non-Interleave
Block 1	AF65	DDR1_DQ[0]	DDR0_DQ[16]
	AF64	DDR1_DQ[1]	DDR0_DQ[17]
	AK65	DDR1_DQ[2]	DDR0_DQ[18]
	AK64	DDR1_DQ[3]	DDR0_DQ[19]
	AF66	DDR1_DQ[4]	DDR0_DQ[20]
	AF67	DDR1_DQ[5]	DDR0_DQ[21]
	AK67	DDR1_DQ[6]	DDR0_DQ[22]
	AK66	DDR1_DQ[7]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

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<24> M_B_DQ[63:0]



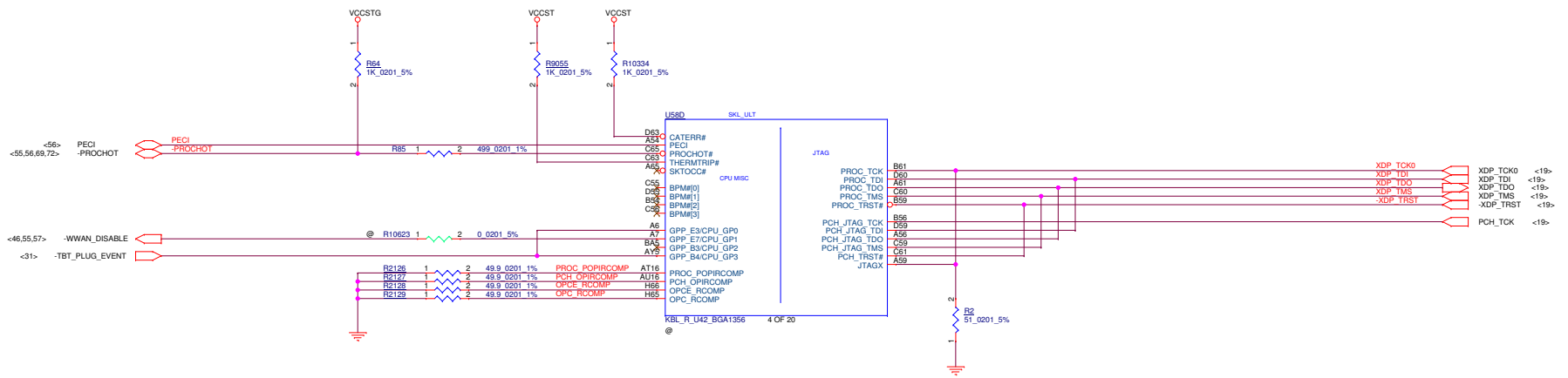
TABLE

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

TABLE

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

↑
LOGIC





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Size	Document Number	Revision	 Rev 0.1	
Custom	C	Date:	Thursday, November 05, 2017 Sheet 6 of 104	

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

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

TABLE : Functional Strap

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

TABLE : Functional Strap

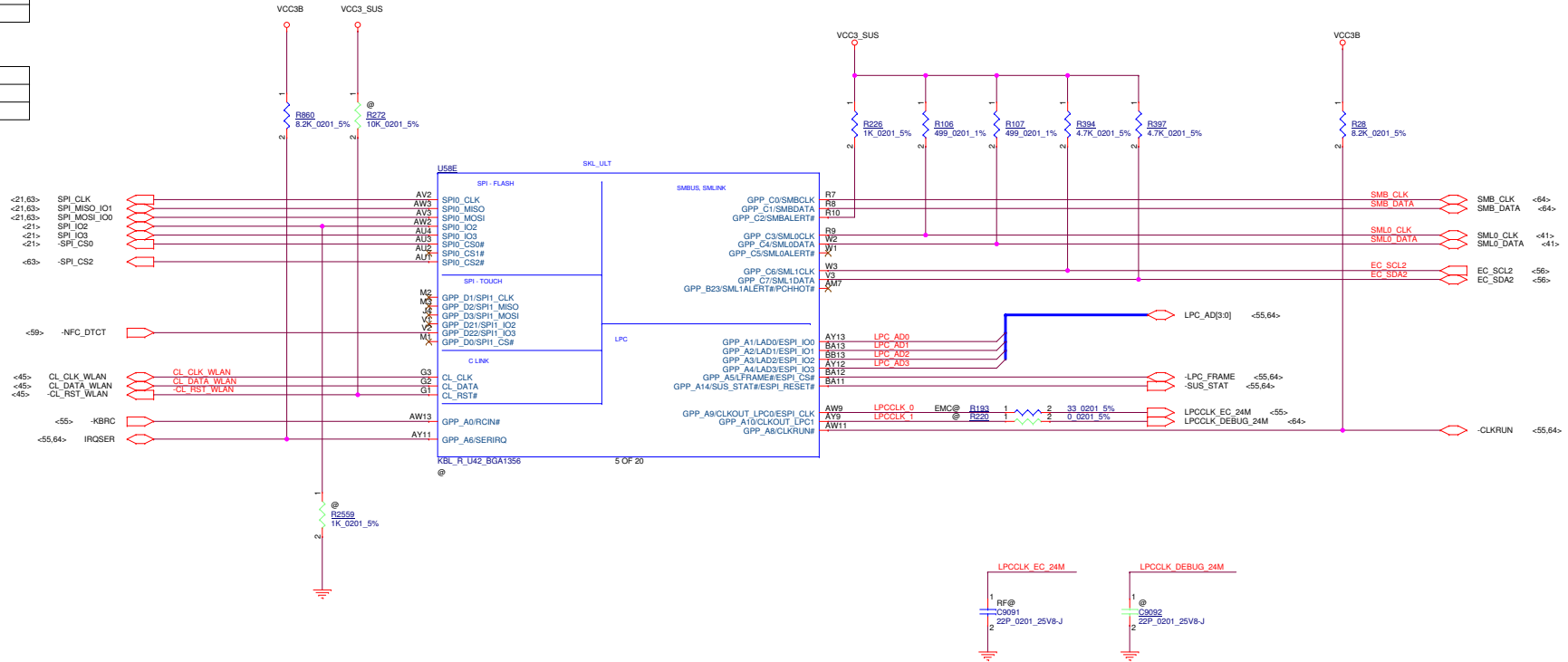
GPP_C5/SML0ALERT # (LPC or eSPI)	
HIGH	eSPI is selected
LOW	LPC is selected (Default)

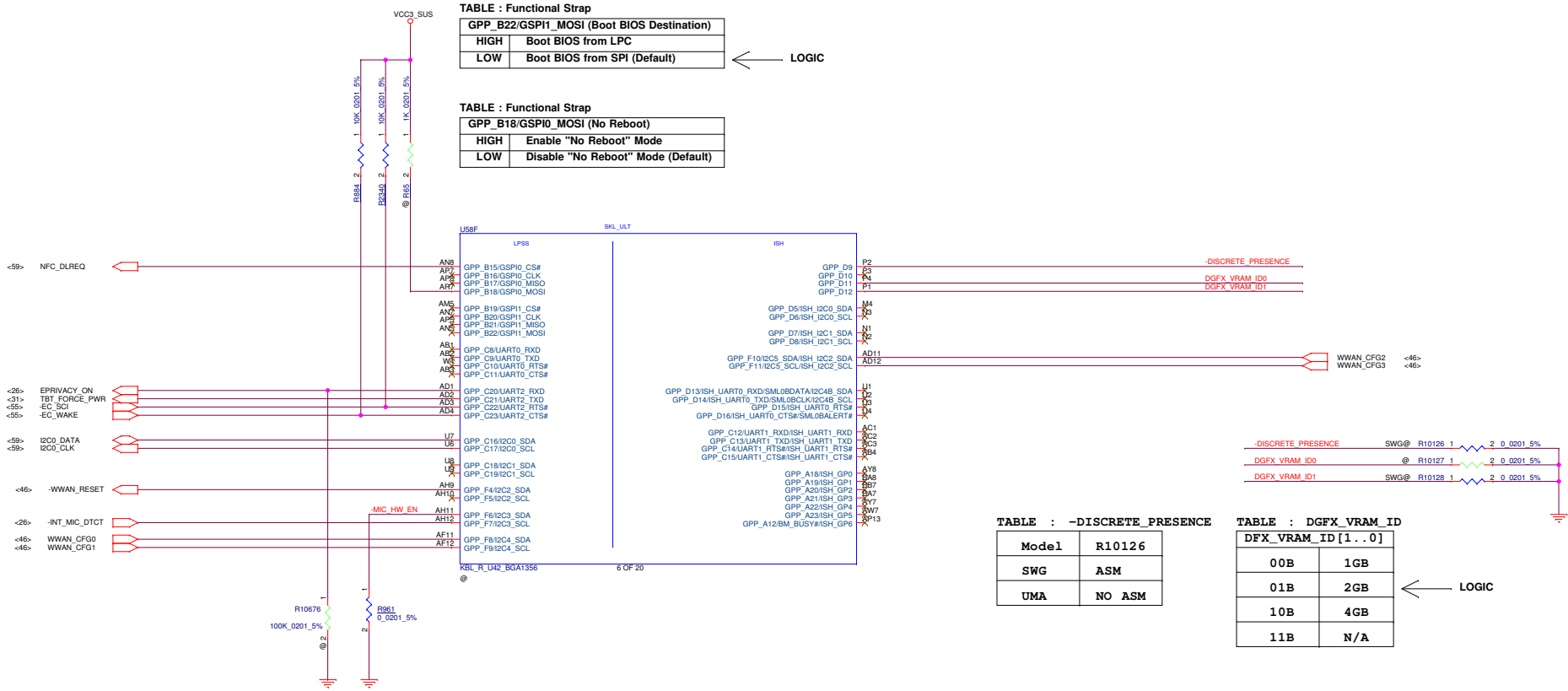
← LOGIC

TABLE : Functional Strap

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

← LOGIC





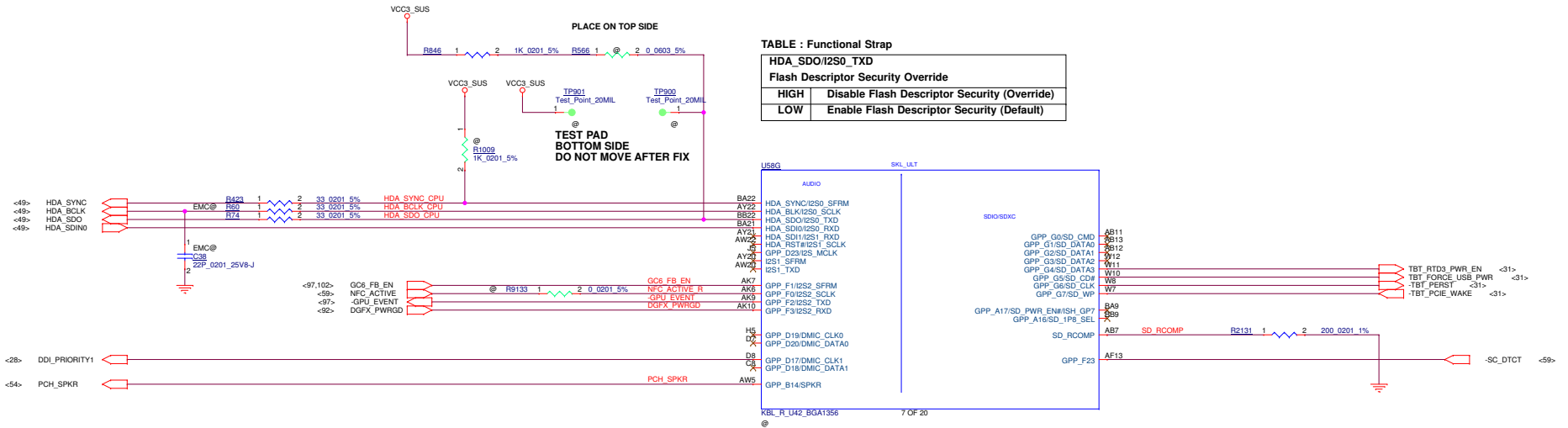


TABLE : Functional Strap

HDA_SDO_I2S0_TXD	
Flash Descriptor Security Override	
HIGH	Disable Flash Descriptor Security (Override)
LOW	Enable Flash Descriptor Security (Default)

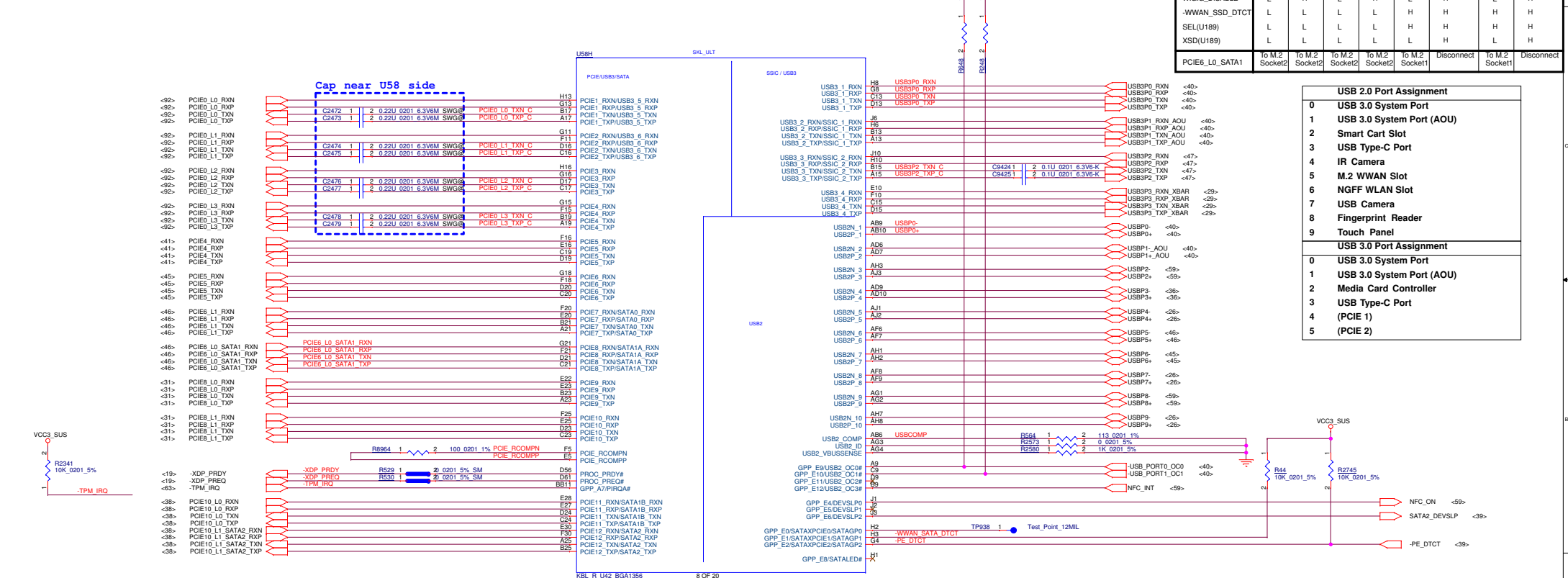
TABLE : Functional Strap

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

← LOGIC

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		SATA Port Assignment	
0 (x4)	Discrete GPU	0	(PCI E 7)
4	GbE PHY	1A	SATA SSD on WWAN slot
5	M.2 WLAN Slot Port 0	1B	(PCI E 11)
6 (x2)	Optane x2 (M.2 WWAN Slot)	2	SATA SSD Main Storage
8 (x2)	Alpine Ridge-LP		
10 (x2)	Main Storage x 2		

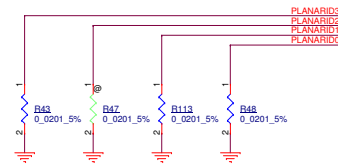
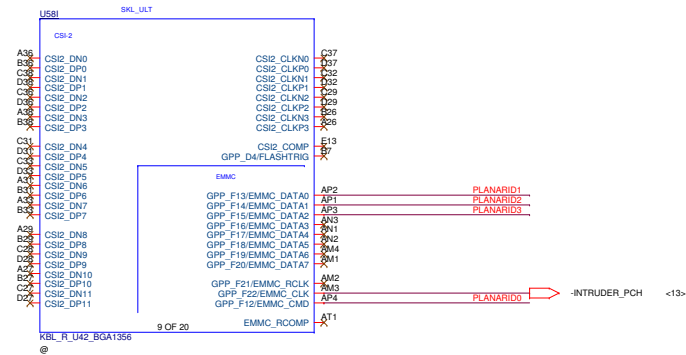


	WWAN Slot							
	Optane		SATA Cache		WWAN Card		None	
WLAN_DISABLE	L	H	L	H	L	H	L	H
-WWAN_SSD_DTCT	L	L	L	L	L	H	H	H
SEL(U189)	L	L	L	L	L	H	H	H
XSD(U189)	L	L	L	L	L	H	H	H
PCIE6_L0_SATA1	To M.2 Socket2	To M.2 Socket2	To M.2 Socket2	To M.2 Socket2	To M.2 Socket1	Disconnect	To M.2 Socket1	Disconnect

USB 2.0 Port Assignment	
0	USB 3.0 System Port
1	USB 3.0 System Port (AOU)
2	Smart Cart Slot
3	USB Type-C 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
1	USB 3.0 System Port (AOU)
2	Media Card Controller
3	USB Type-C Port
4	(PCI E 1)
5	(PCI E 2)

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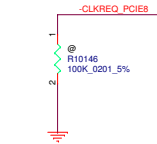
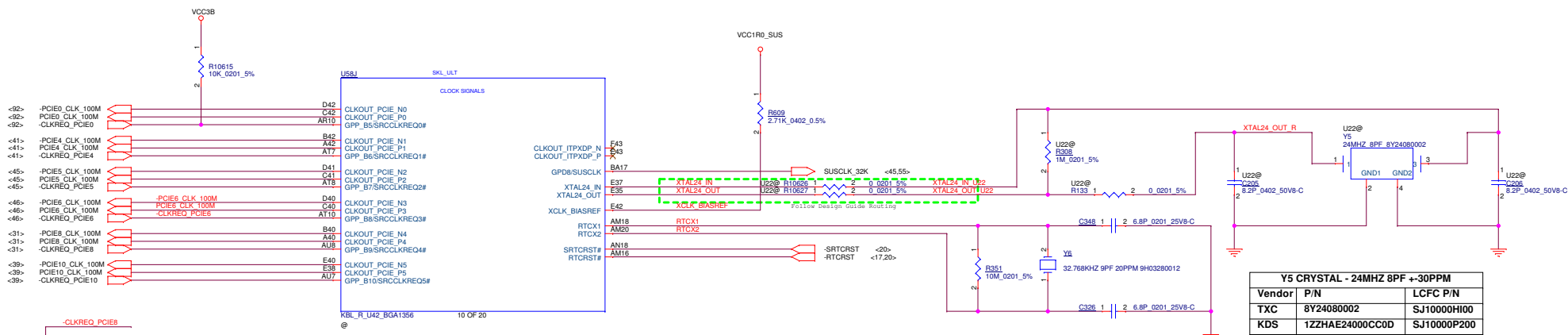


TABLE

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
SIT	0010B
SIT	1010B(For RTD3 rework)
SIT-R	0011B
SVT	0100B



Y6 CRYSTAL 32.768KHZ 9PF 20PPM

Vendor	P/N	LCFC P/N
TXC	9H03280012	SJ10000J900
KDS	1TJF090DJ1A000B	SJ100069400

Y5 CRYSTAL - 24MHZ 8PF +/-30PPM

Vendor	P/N	LCFC P/N
TXC	8Y24080002	SJ10000HI00
KDS	1ZZHAE24000CC0D	SJ10000P200

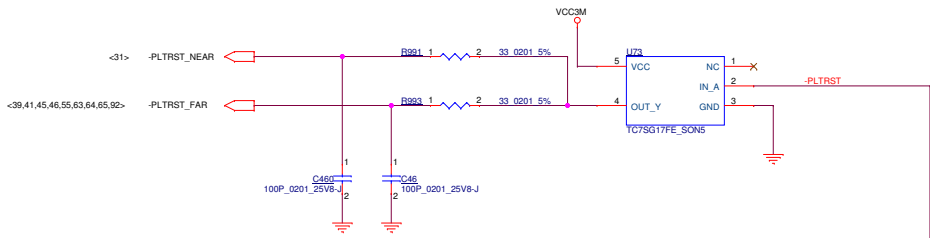
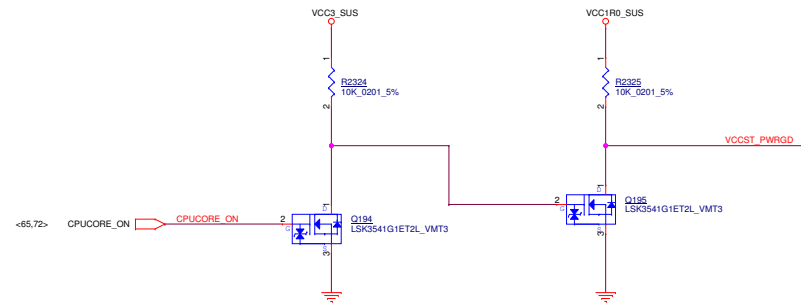
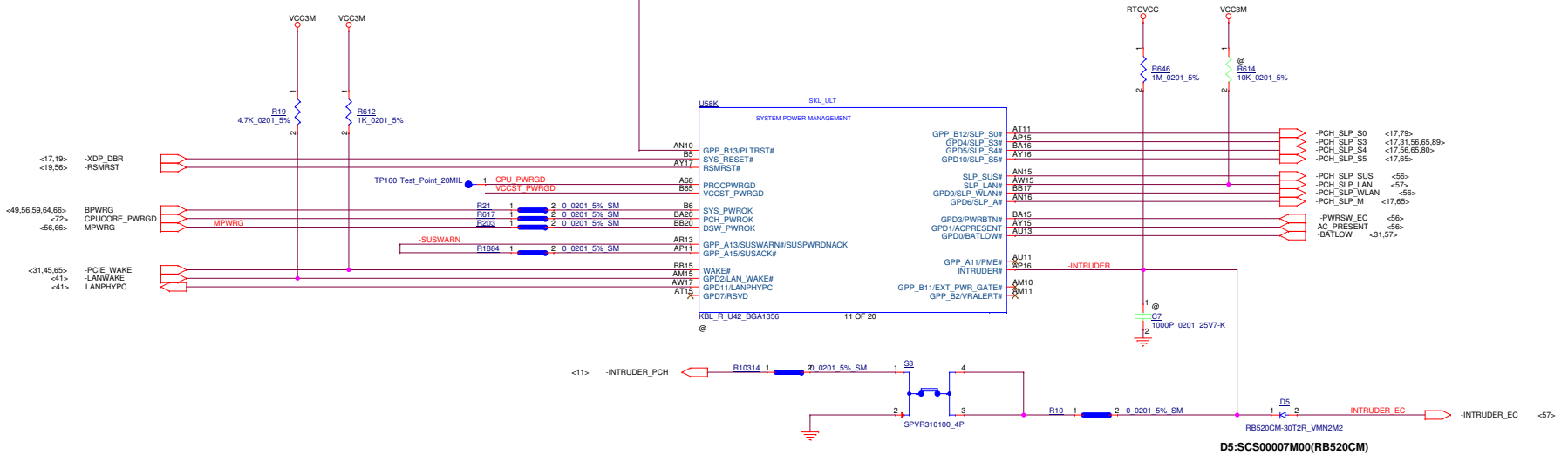
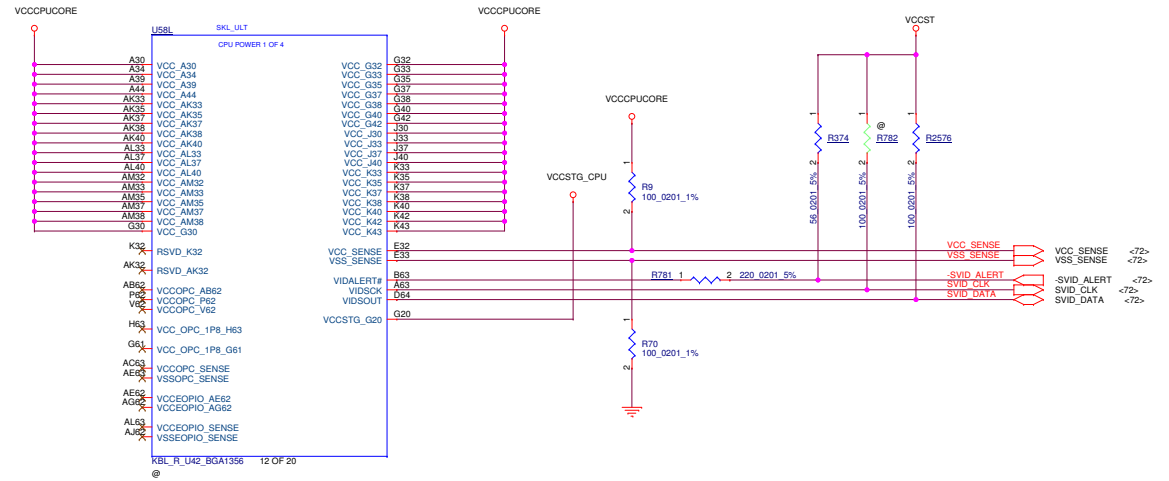
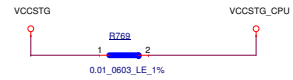
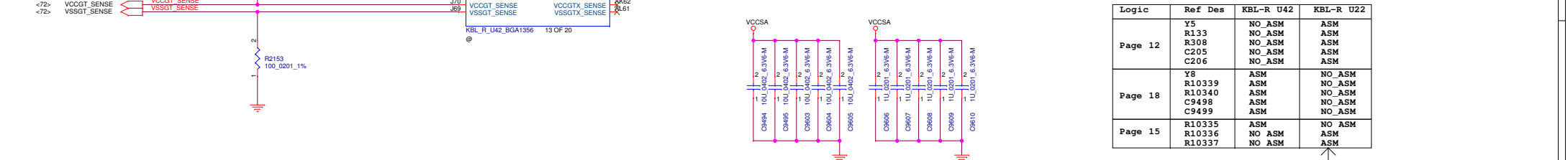
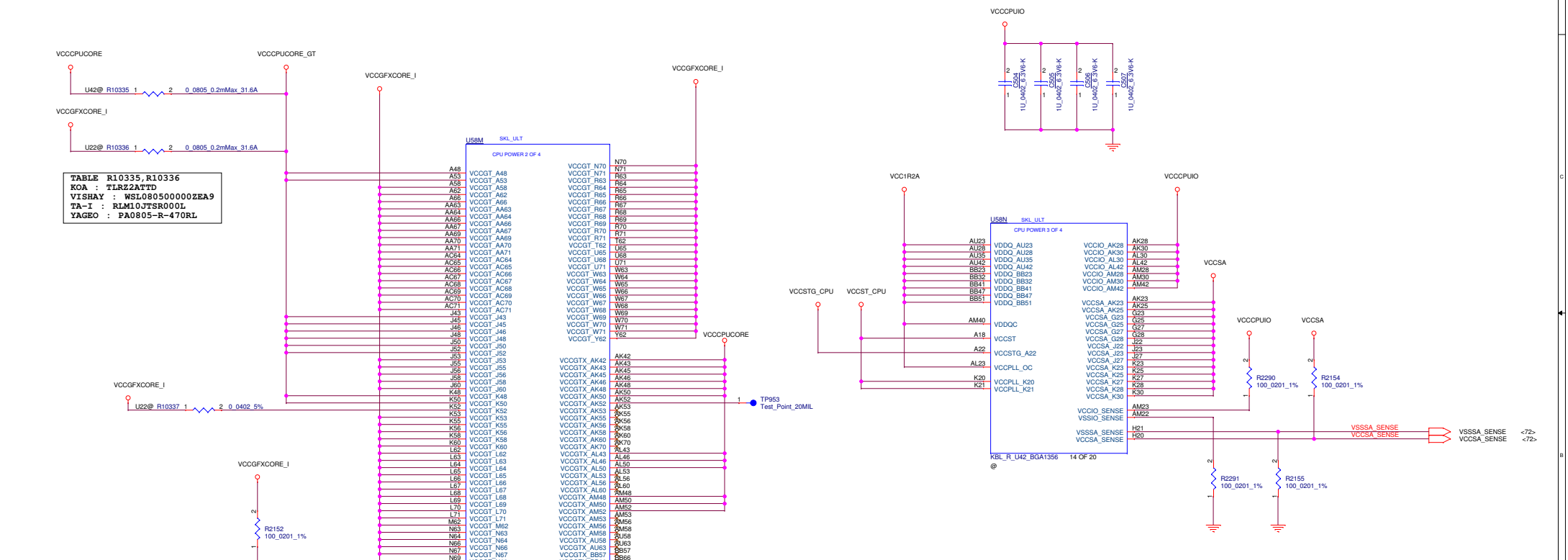
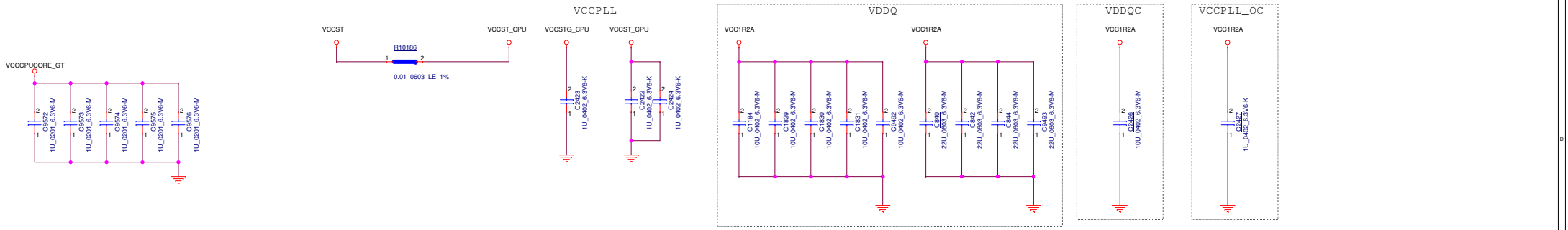


TABLE of U73		
Vendor	P/N	LCFC P/N
TOSHIBA	TC7SG17FE	SA00005T00J
ON	NL17SZ17XV5T2G	SA00005OU00
TI	SN74LVC1G17DRLR	SA00005MG00

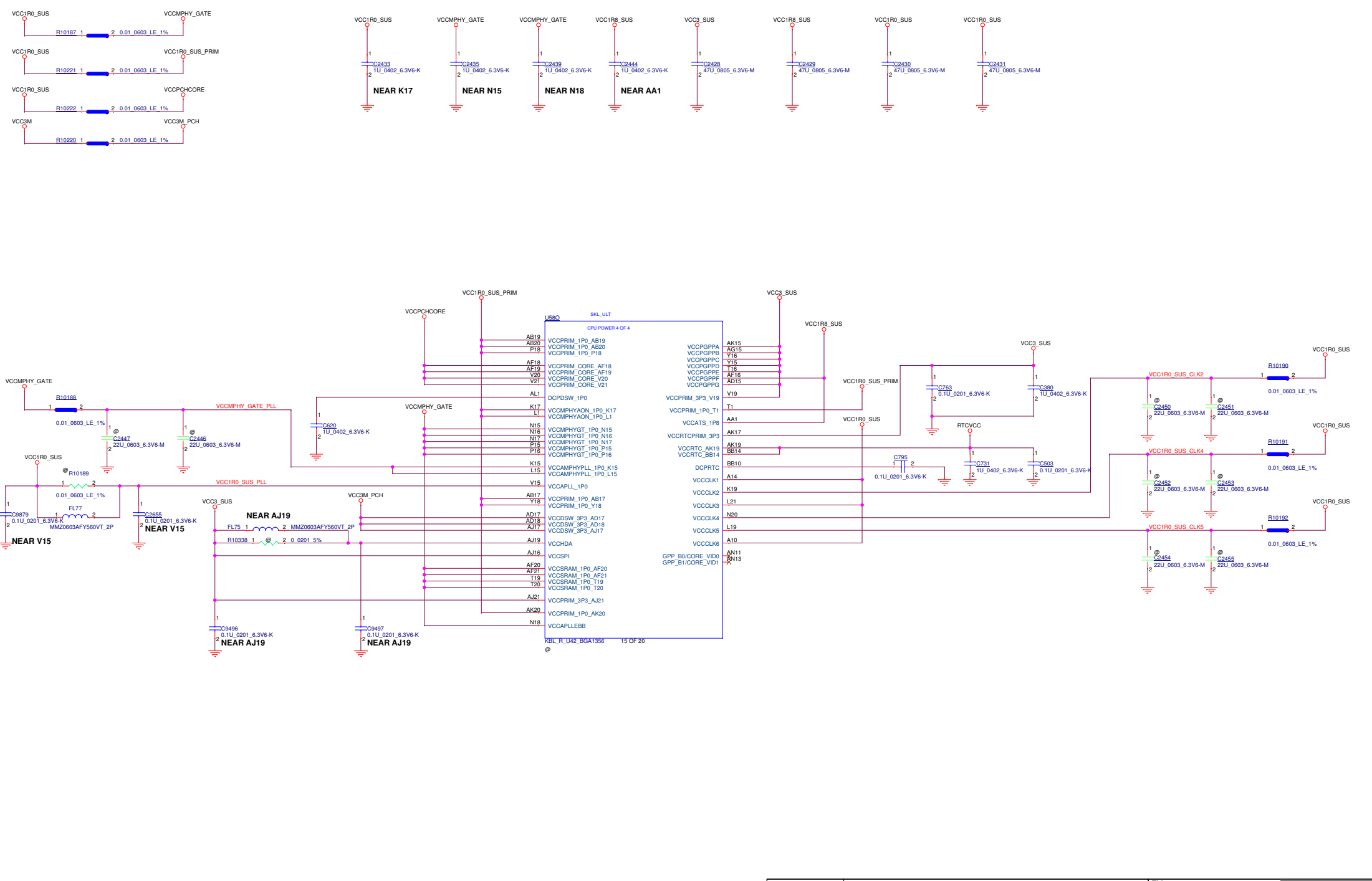


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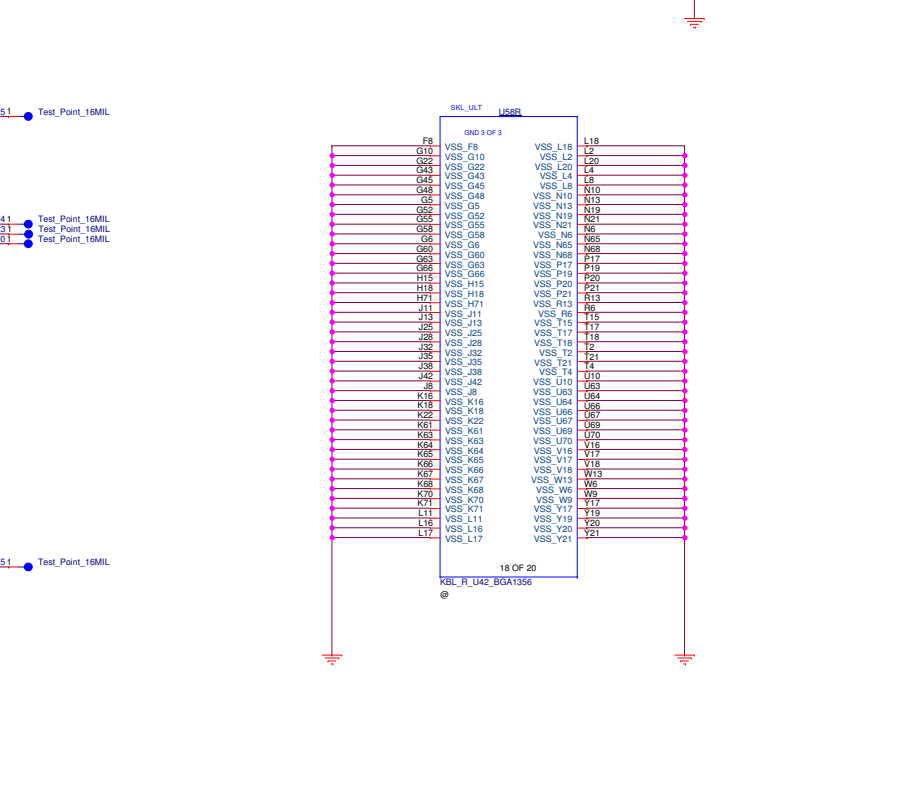
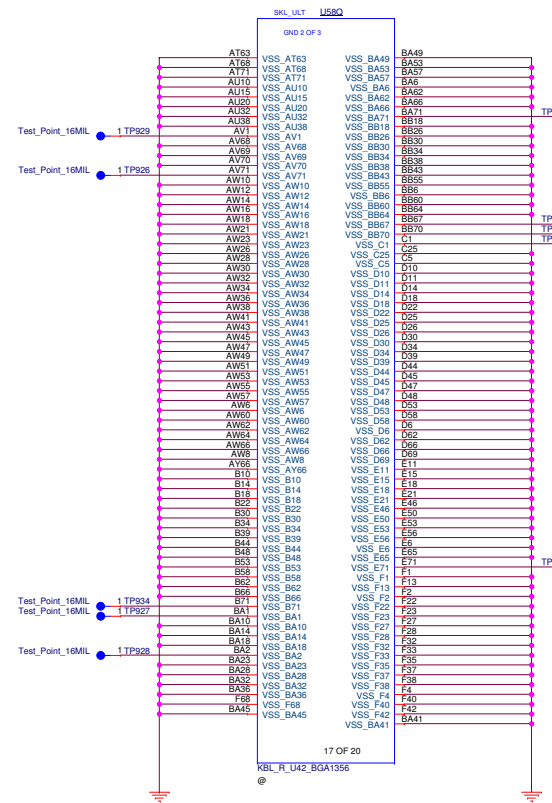
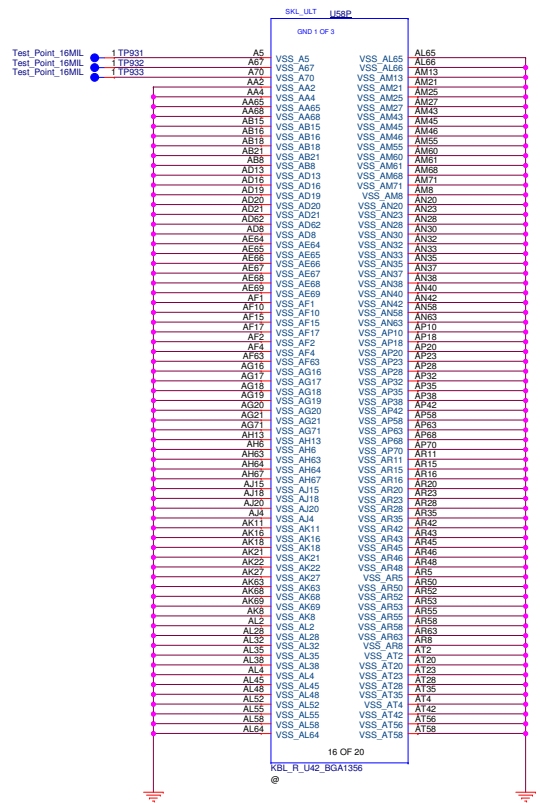
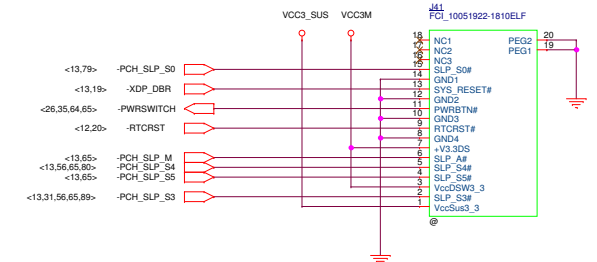


Logic	Ref Des	KBL-R U42	KBL-R U22
Page 12	Y5	NO ASM	ASM
	R133	NO ASM	ASM
	R308	NO ASM	ASM
	C205	NO ASM	ASM
Page 18	C206	NO ASM	ASM
	Y8	ASM	NO ASM
	R10339	ASM	NO ASM
	R10340	ASM	NO ASM
Page 15	C9498	ASM	NO ASM
	C9499	ASM	NO ASM
	R10335	ASM	NO ASM
	R10336	NO ASM	ASM
	R10337	NO ASM	ASM



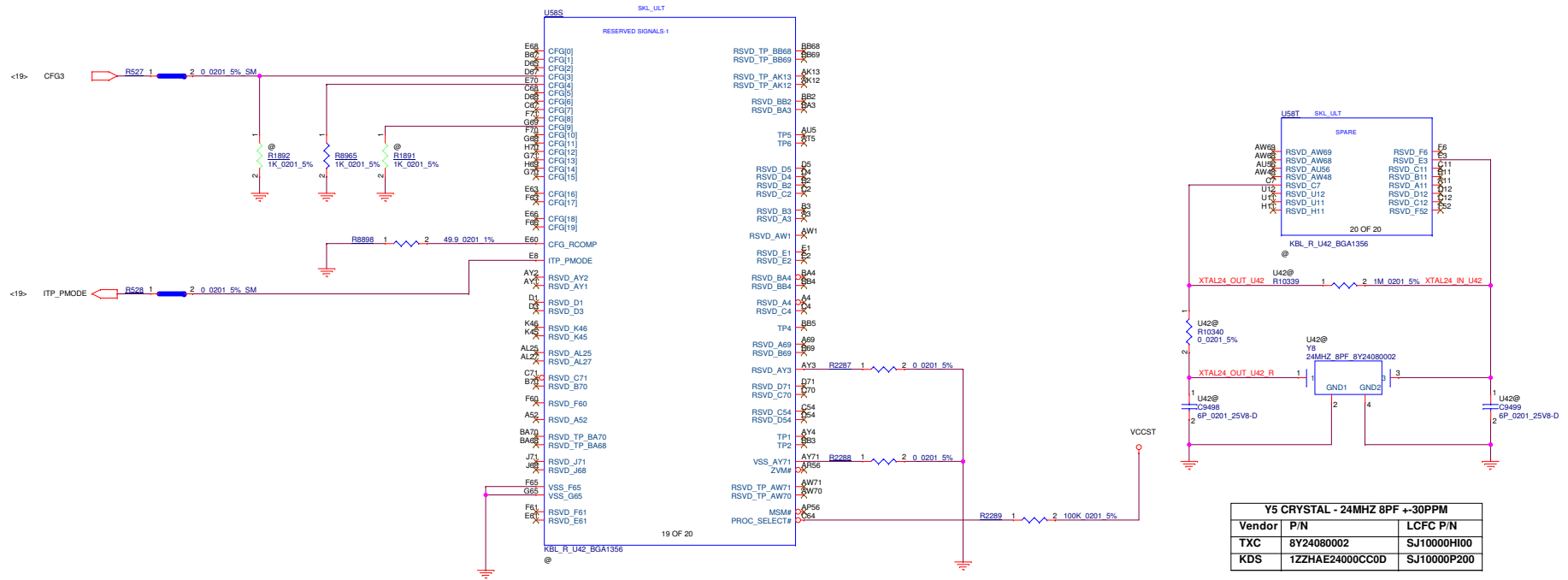
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Custom	Windu-2	Thursday, November 05, 2017 1:58 PM		16	of 104

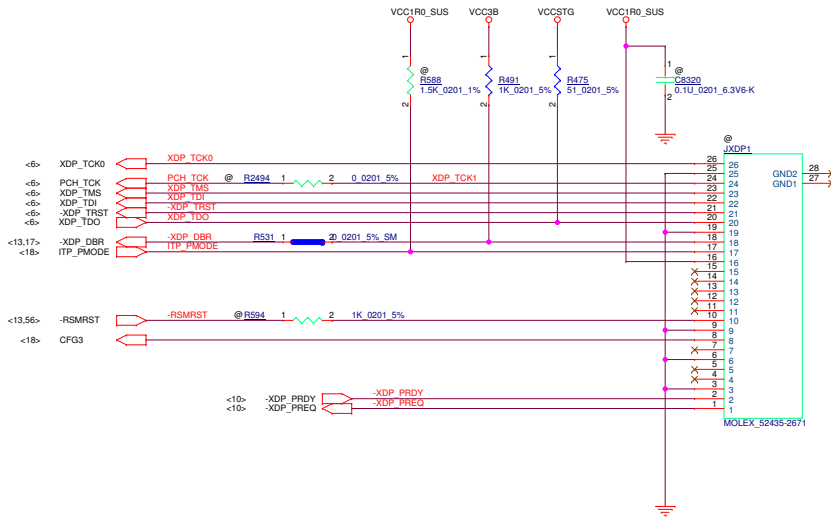
APS/PETS Interface



TABLE

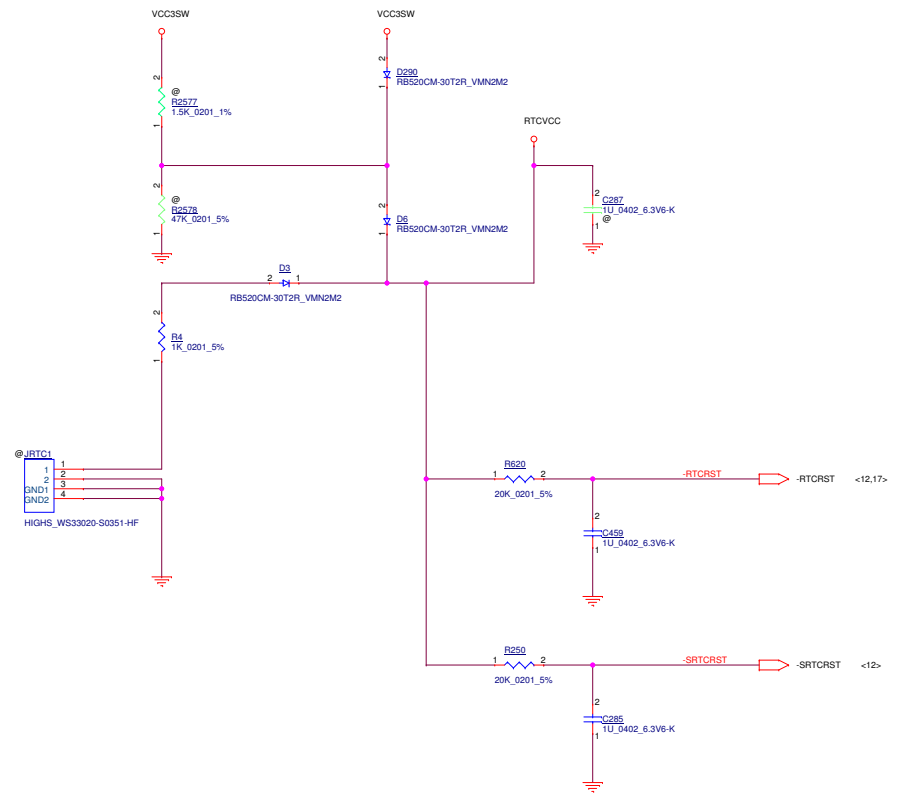
<p>CFG0 : Stall Reset Sequence after PCU PLL Lock until de-asserted 1 : No Stall 0 : Stall</p>
<p>CFG3 : MSR Privacy Bit Feature 1 : MSR (C80h) bit[0] setting 0 : MSR (C80h) bit[0] overridden</p>
<p>CFG4 : eDP Enable 1 : Disabled 0 : Enabled</p>
<p>CFG9 : SVID Bus Communication 1 : Enabled 0 : Disabled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





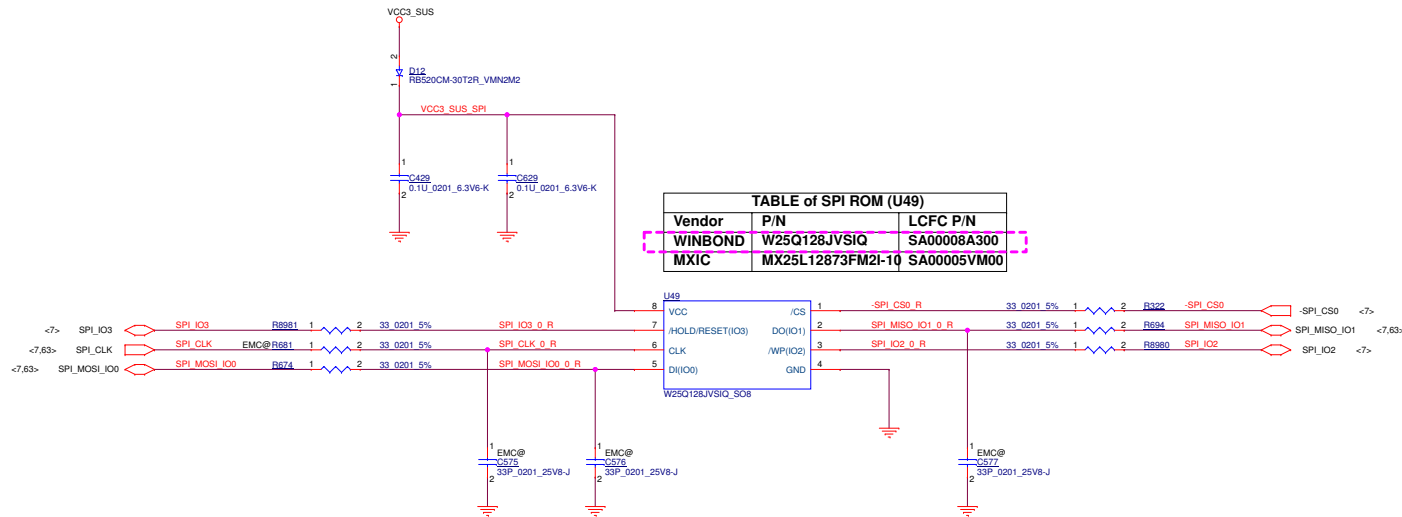


TABLE

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	JXDP1	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



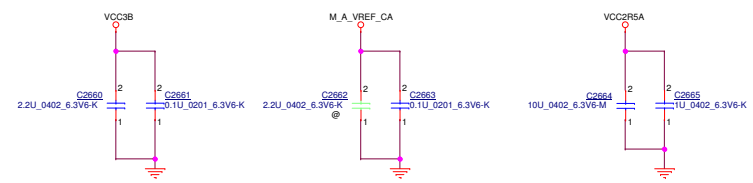
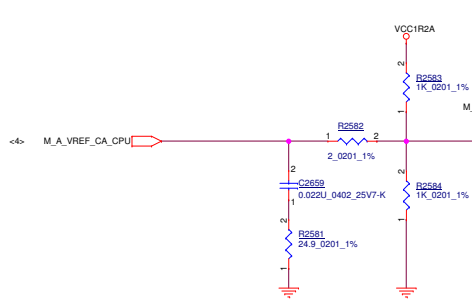
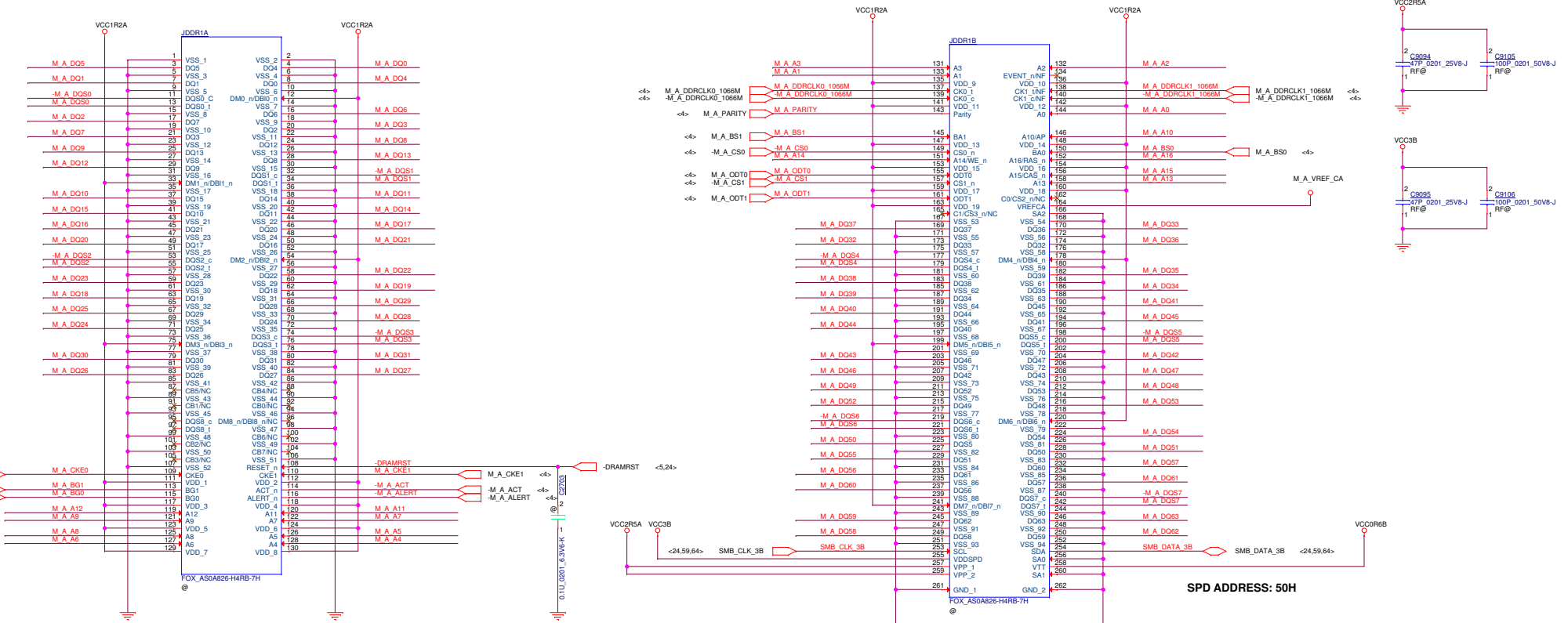
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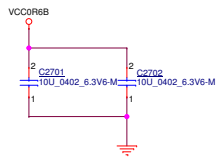
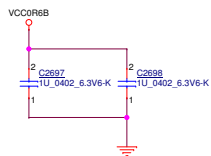
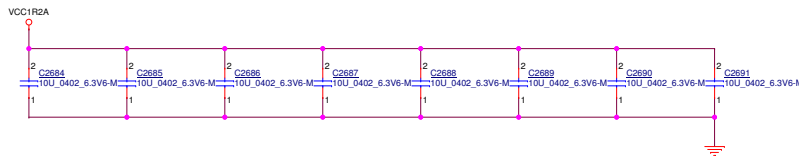
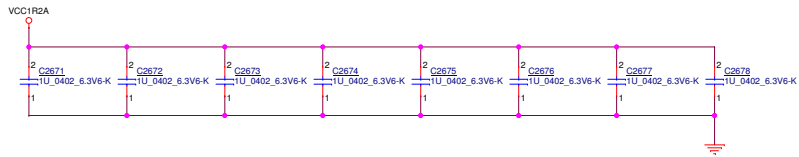
Vendor	P/N	LCFC P/N
WINBOND	W25Q128JVSIQ	SA00008A300
MXIC	MX25L12873FM2I-10	SA00005VM00


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

- <<- M_A_DQ[63:0]
- <<- M_A_DQS[7:0]
- <<- M_A_DQS[7:0]
- <<- M_A_A[16:0]

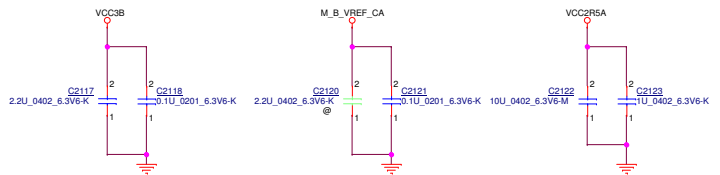
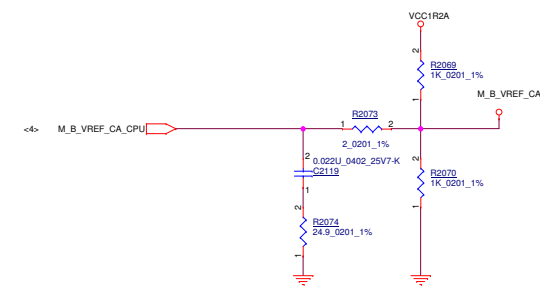
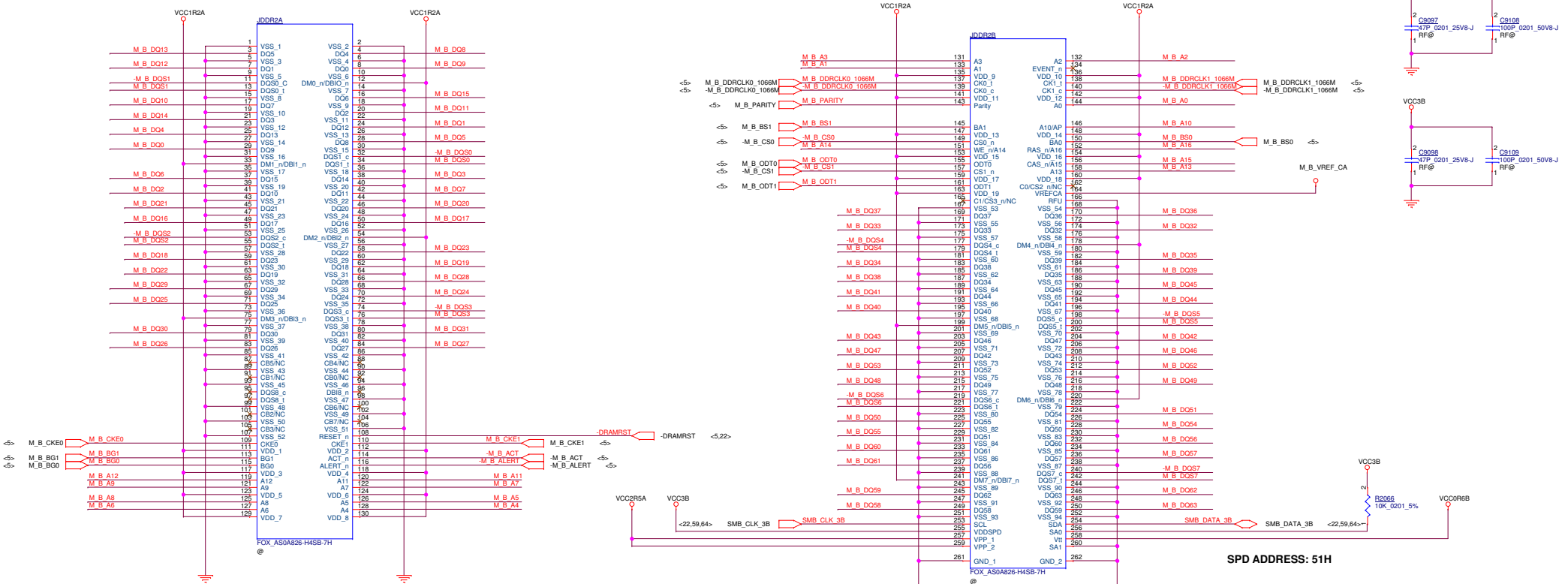


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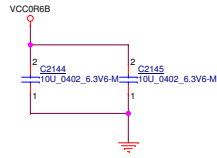
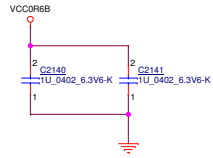
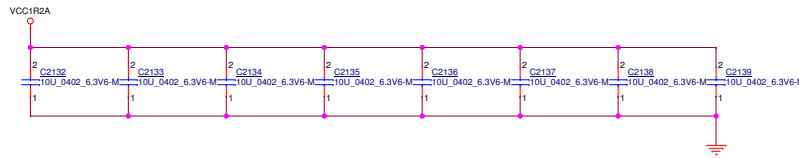
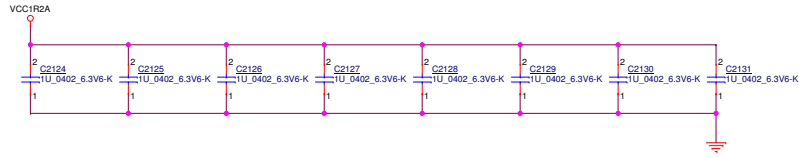


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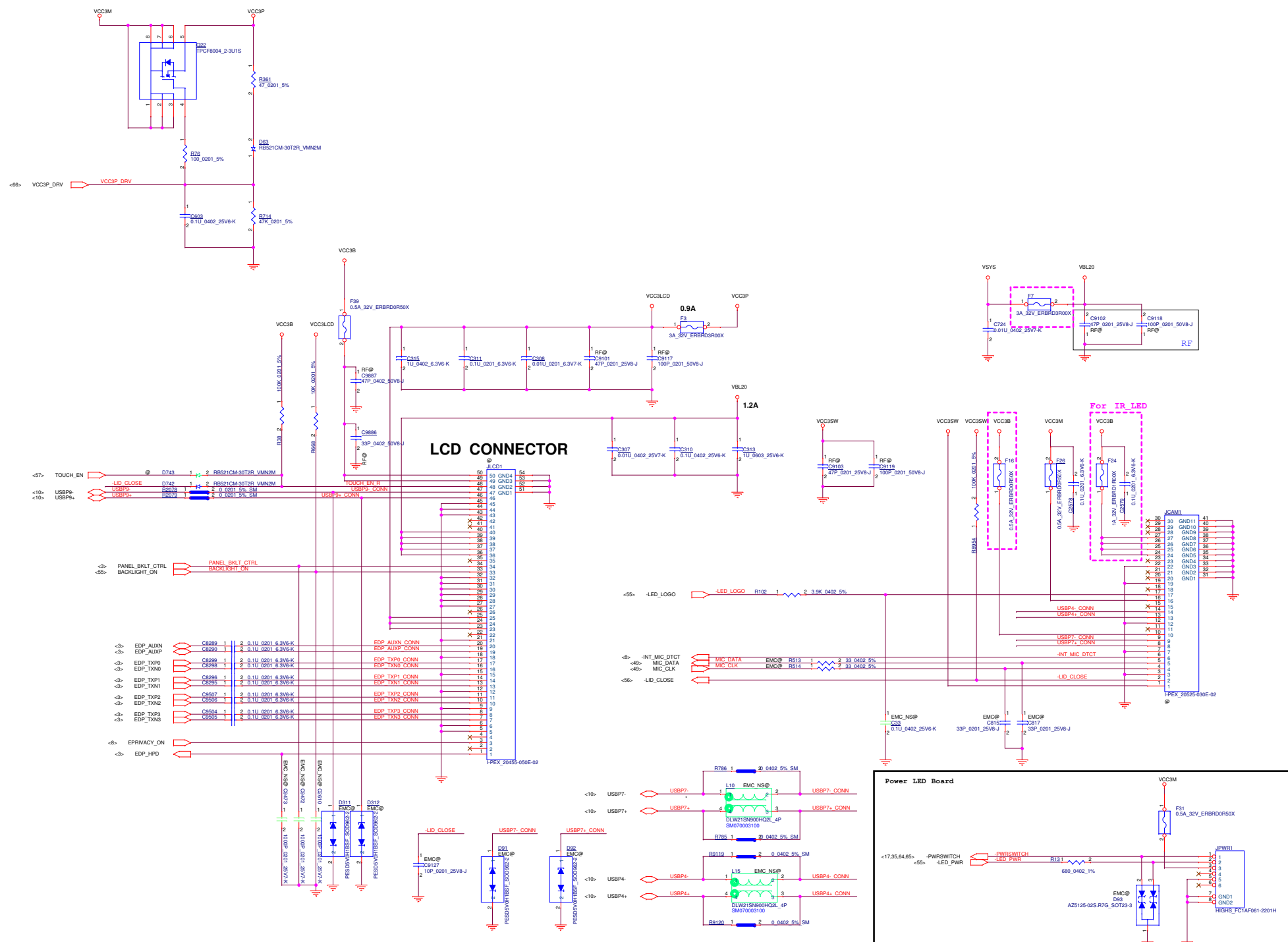
- <-> M_B_DQ[63:0]
- <-> -M_B_DQS[7:0]
- <-> M_B_DQS[7:0]
- <-> M_B_A[16:0]




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				Date:	Thursday, November 09, 2017	Sheet	27	of	61	104

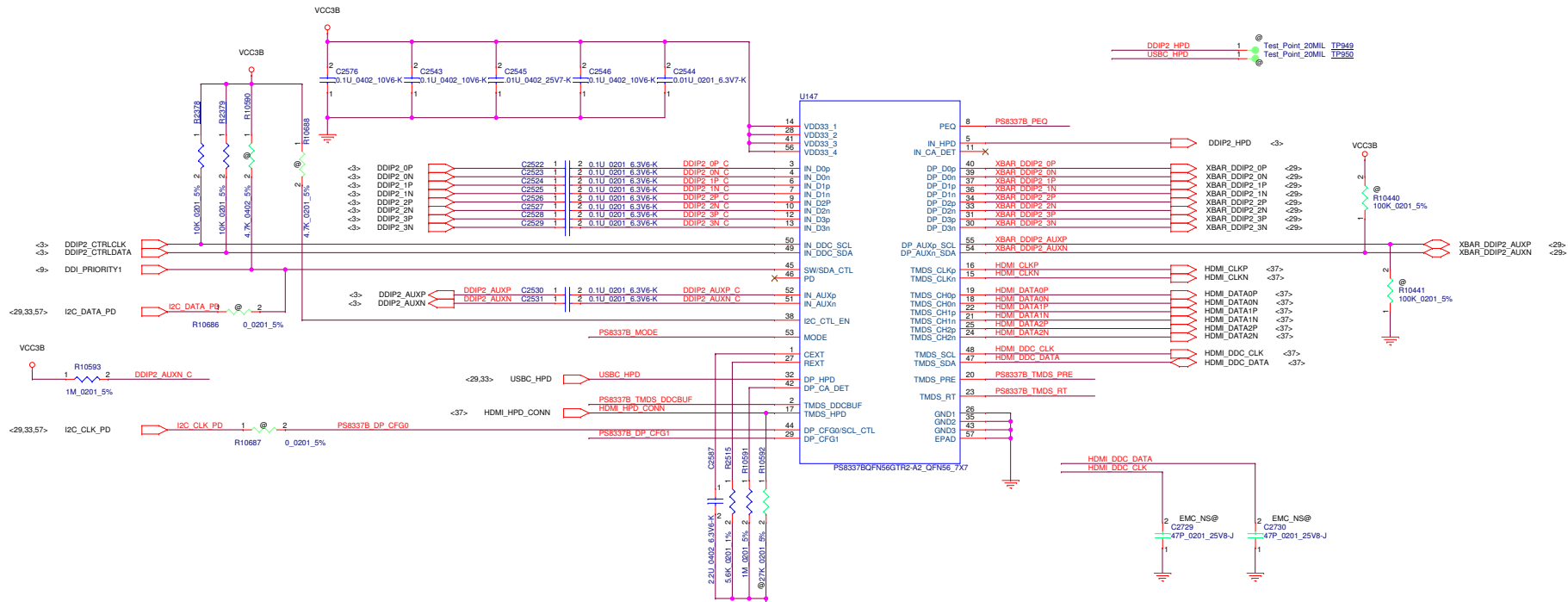


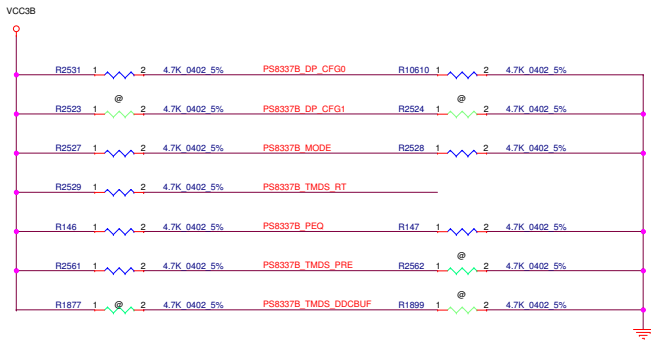
TABLE: Automatic Switching Mode (MODE=H|M)

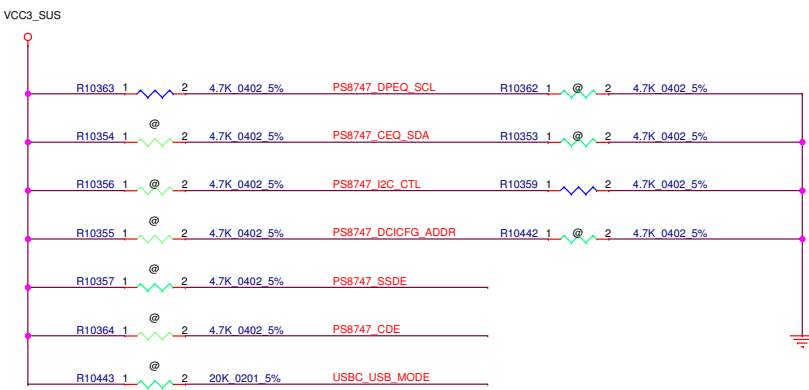
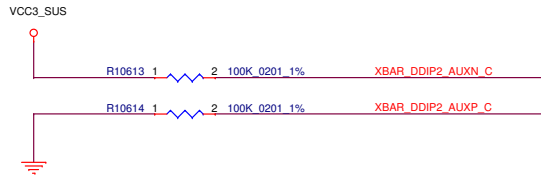
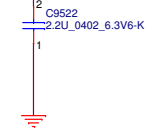
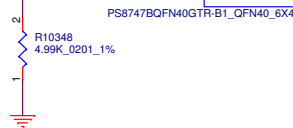
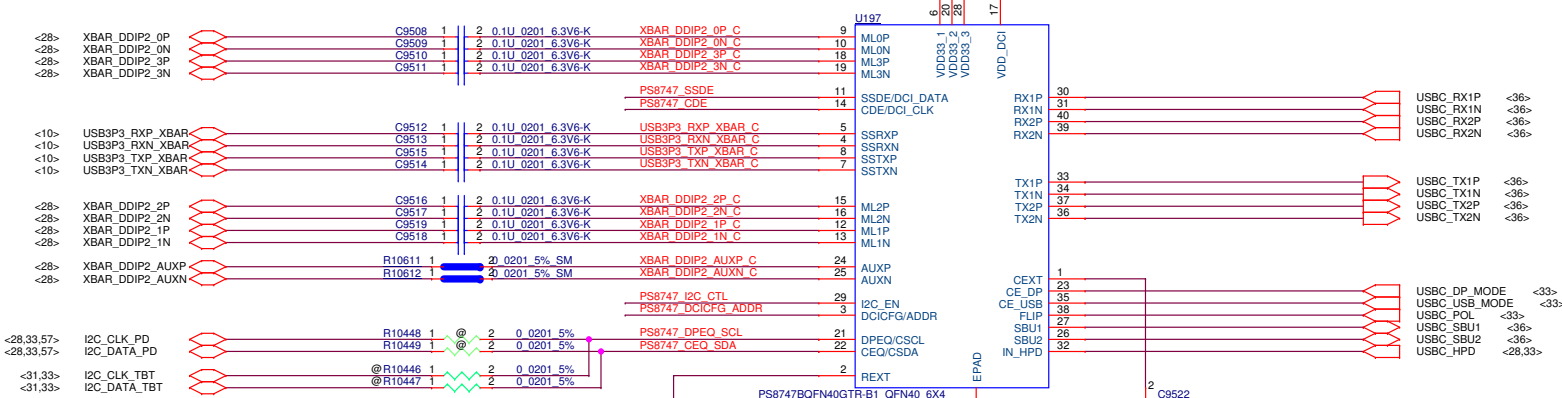
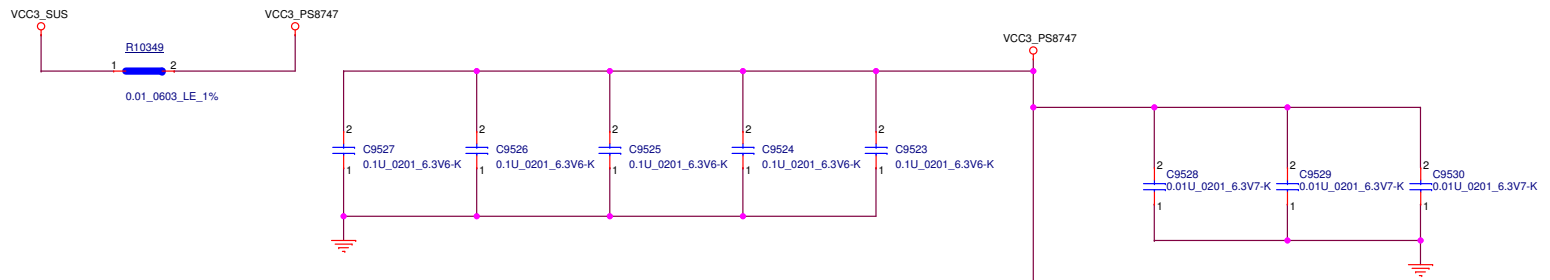
SW(DDI_PRIORITY1)	
L	DP Port has higher priority when both ports are plugged
H	TMDS Port has higher priority when both ports are plugged

MODE =	
H	Automatic Switching mode, HDMI ID Disabled
M	Automatic Switching mode, HDMI ID Enabled
L	Control Switching mode, HDMI ID Disabled

← DEFAULT

← DEFAULT




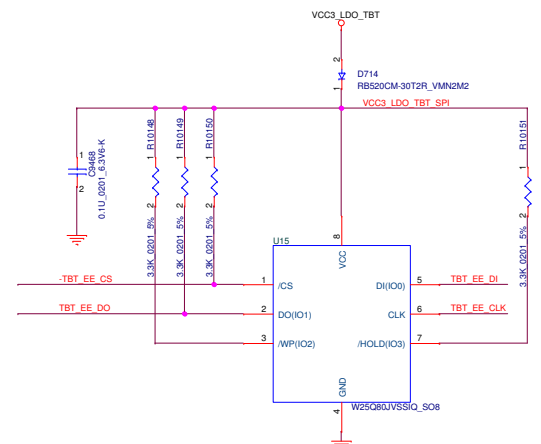
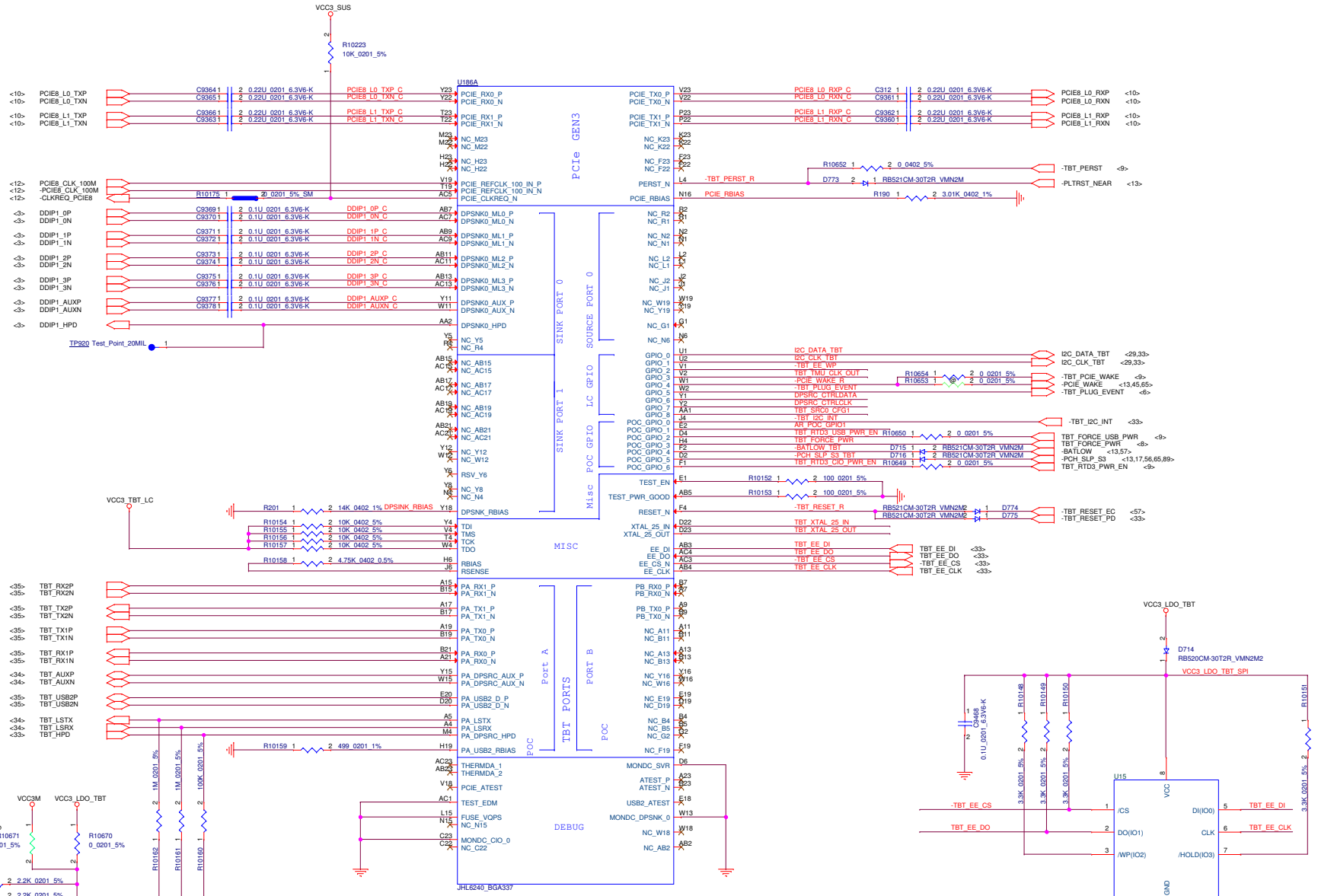


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Issued Date		Deciphered Date		USB TYPE-C SWITCH	
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Issued Date	Deciphered Date		BLANK		
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			Sheet	Windu-2	0.1
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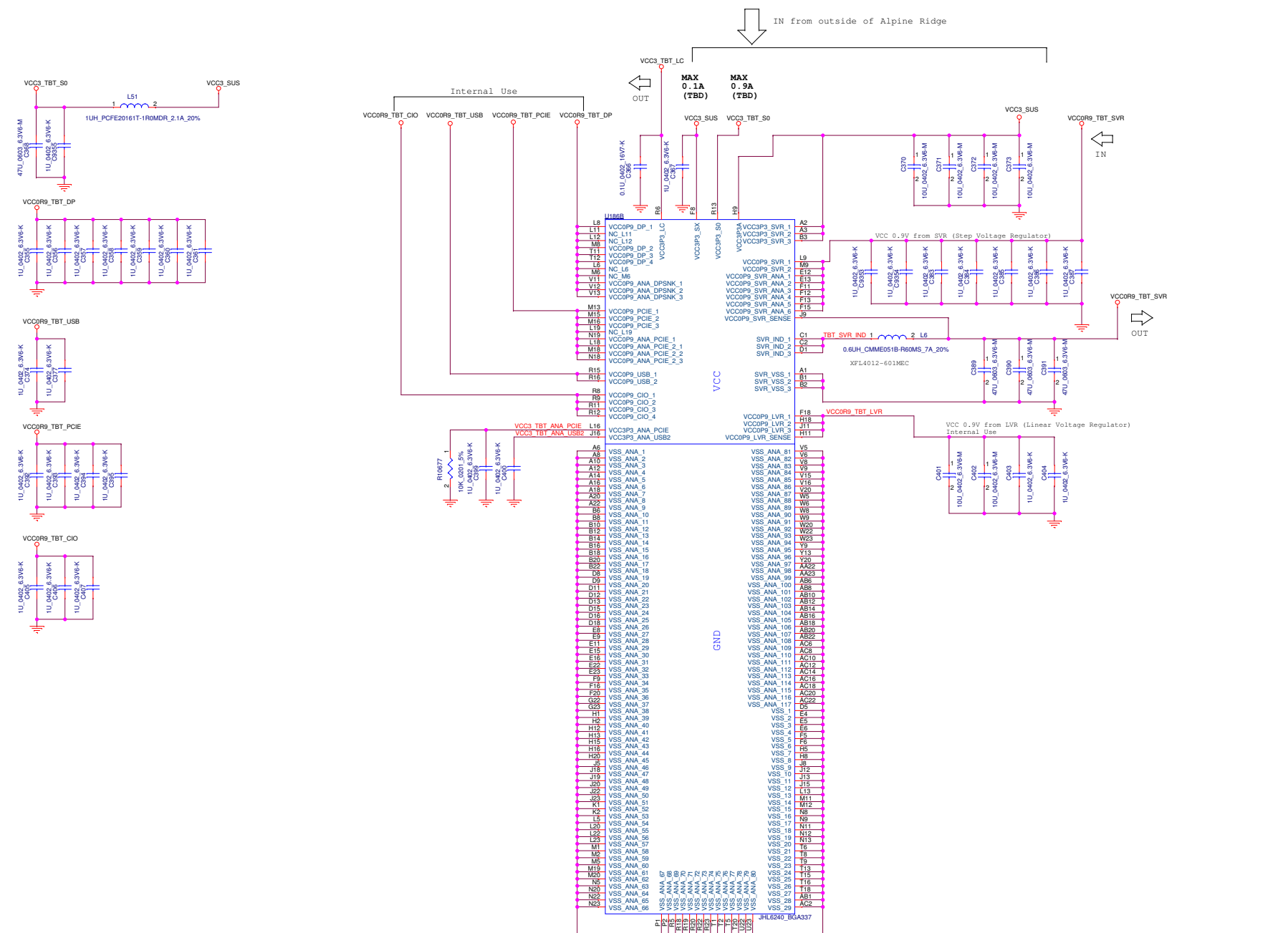


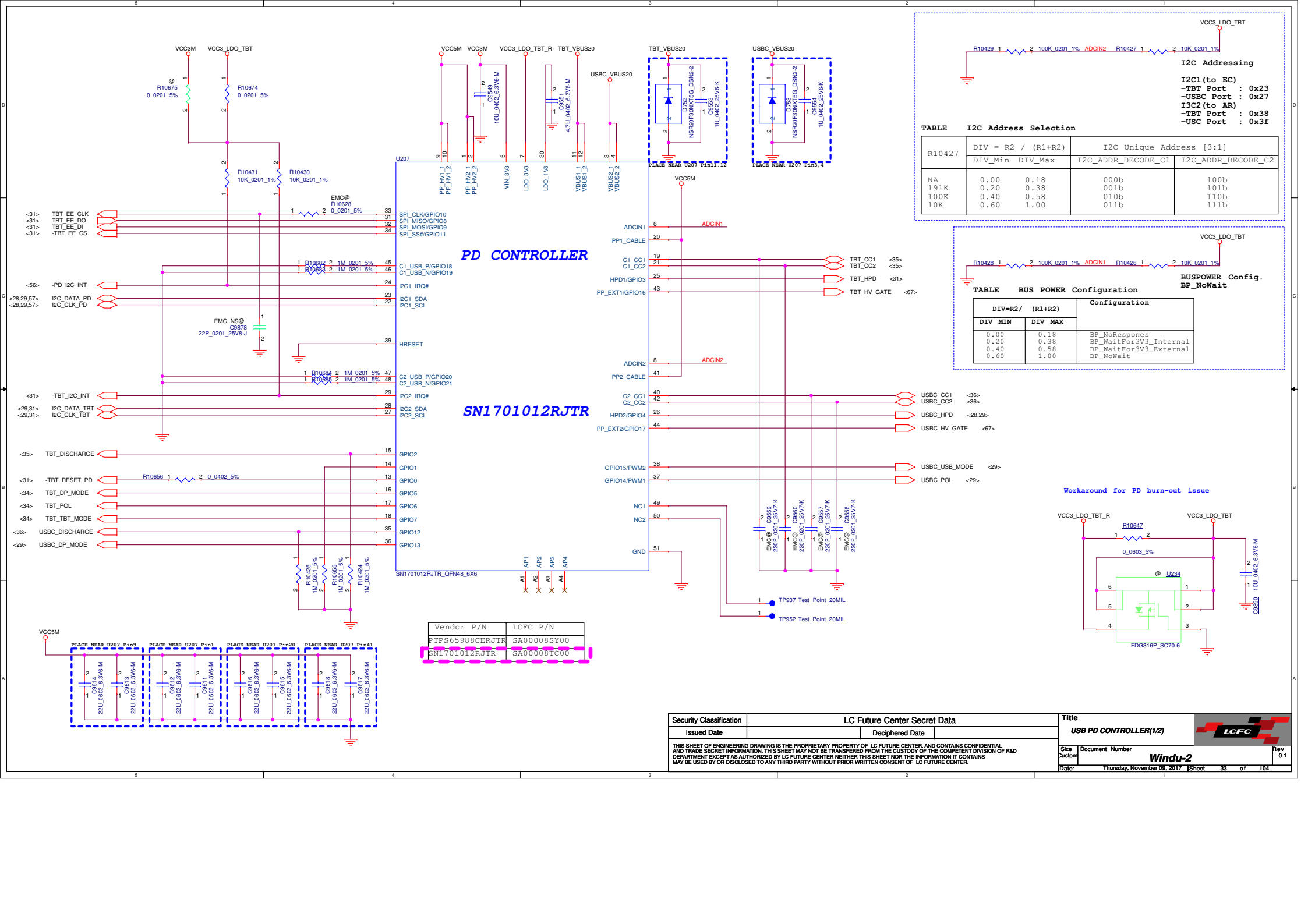
Vendor P/N	LCFC P/N
W25Q00VSS1G	SA000078K00
MX25L8006EM2I-12G	SA000086B00

Y3 CRYSTAL 25MHZ 18PF 30PPM		
Vendor	P/N	LCFC P/N
TXC	8Y25000004	SJ10000H00J
KDS	1ZZHAE2500CCOF	SJ10000P300

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

SN1701012RJTR

Vendor P/N	LCFC P/N
PTPS65988CERJTR	SA00008SY00
SN1701012RJTR	SA00008TC00

I2C Addressing

I2C1 (to EC)
 -TBT Port : 0x23
 -USBC Port : 0x27

I2C2 (to AR)
 -TBT Port : 0x38
 -USC Port : 0x3f

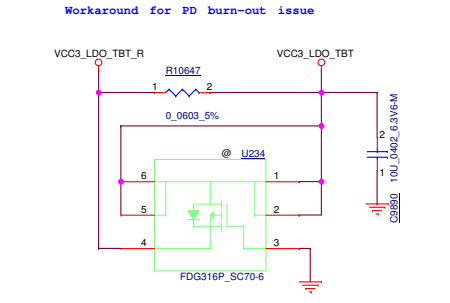
TABLE I2C Address Selection

R10427	DIV = R2 / (R1+R2)		I2C Unique Address [3:1]	
	DIV_Min	DIV_Max	I2C_ADDR_DECODE_C1	I2C_ADDR_DECODE_C2
NA	0.00	0.18	000b	100b
191K	0.20	0.38	001b	101b
100K	0.40	0.58	010b	110b
10K	0.60	1.00	011b	111b

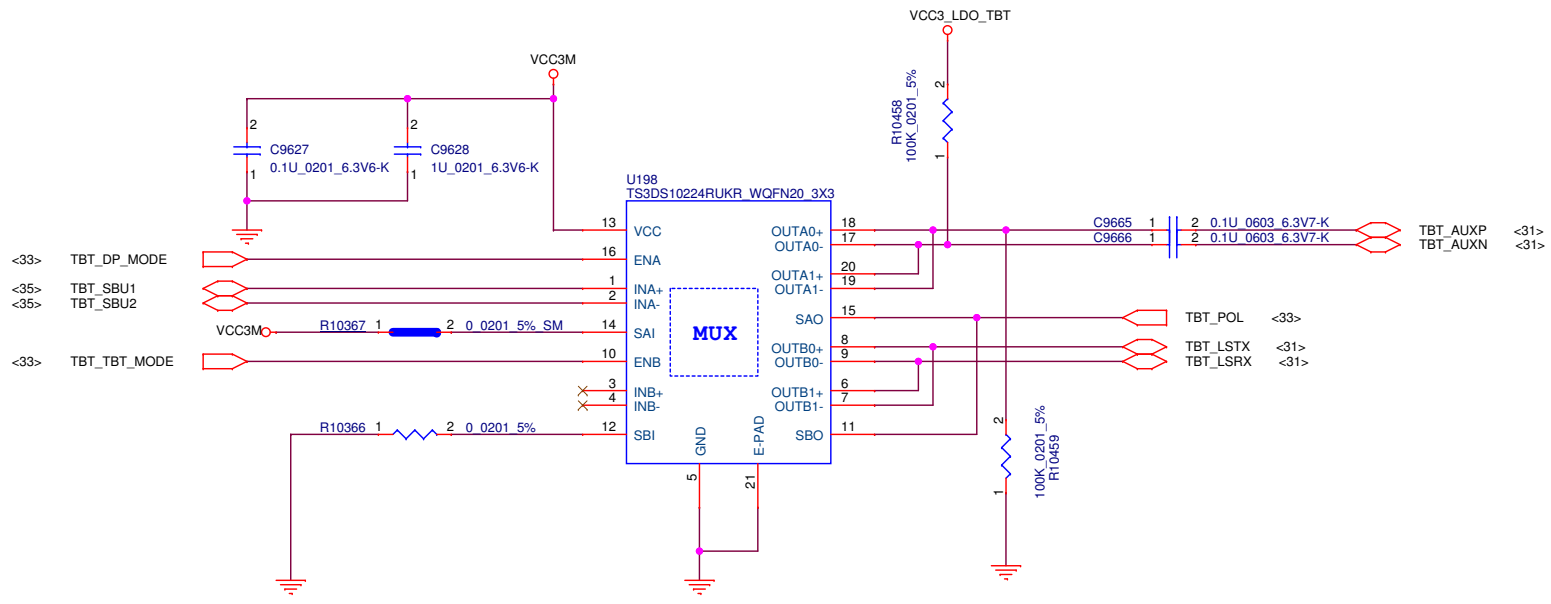
BUSPOWER Config. BP_NoWait


TABLE BUS POWER Configuration

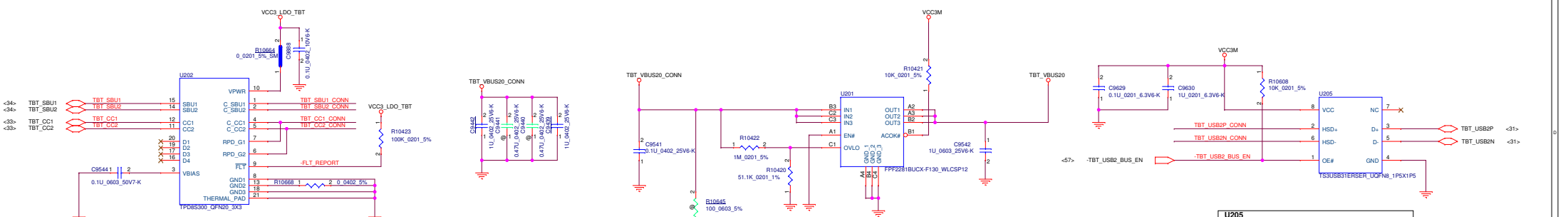
DIV=R2/ (R1+R2)		Configuration
DIV_MIN	DIV_MAX	
0.00	0.18	BP_NoResponses
0.20	0.38	BP_WaitFor3V3_Internal
0.40	0.58	BP_WaitFor3V3_External
0.60	1.00	BP_NoWait



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				Date:	Thursday, November 08, 2017	



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Issued Date		Deciphered Date		USB PD CONNROLLER (2/2)		
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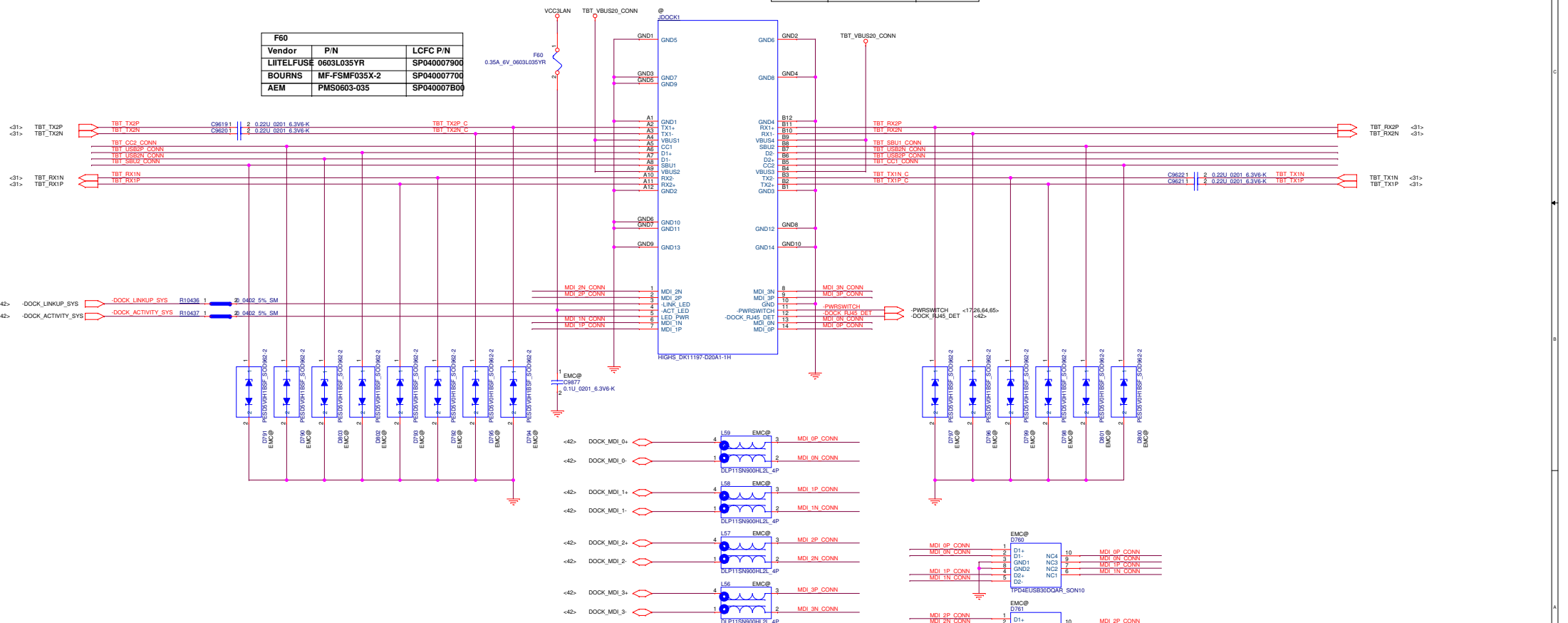


Vendor	P/N	LCFC P/N
KOA	100 +-5% 0603	SD000022U0T
Rohm	100 +-5% 0603	SD000022V0T

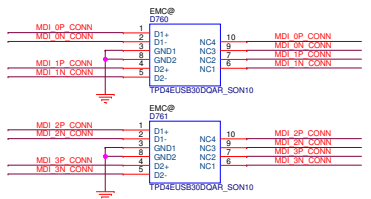
Vendor	P/N	LCFC P/N
ON-semi	2N7002KW	SB00001JY00
NXP	NX7002BKW	SB00001GU00

Vendor	P/N	LCFC P/N
TI	TS3USB31ERSER	SA000086000
ONsemi	NLAS7213MUTBG	SA00000GR00

Vendor	P/N	LCFC P/N
LIITELFUSE	0603L035YR	SP040007900
BOURNS	MF-FSMF035X-2	SP040007700
AEM	PMS0603-035	SP040007B00



Vendor	P/N	LCFC P/N
1st: Murata	DLP1TSN900HL2	SM07002Y00



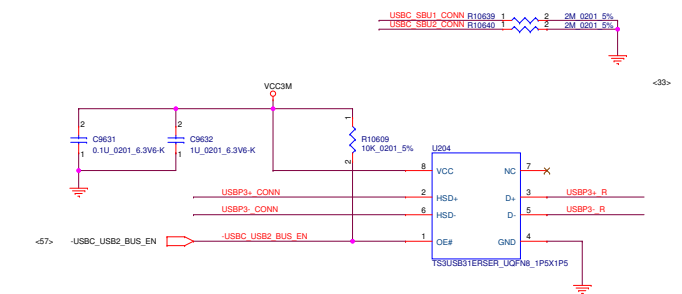
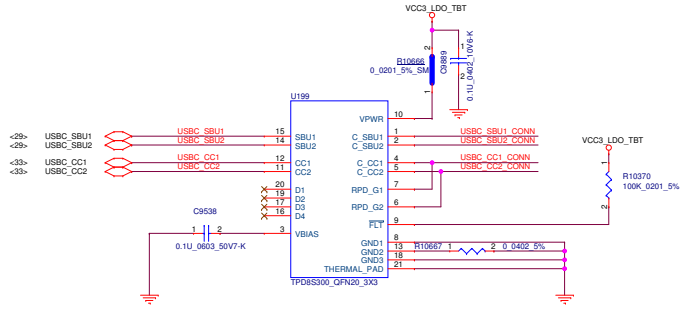
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Issued Date	Deciphered Date	DOCKING CONNECTOR

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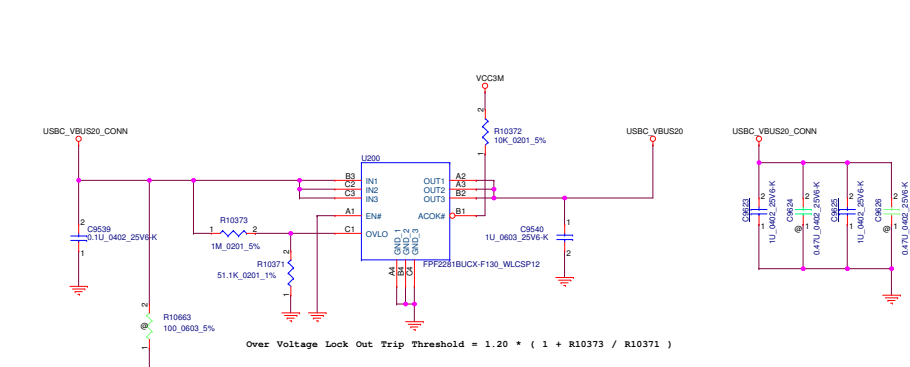
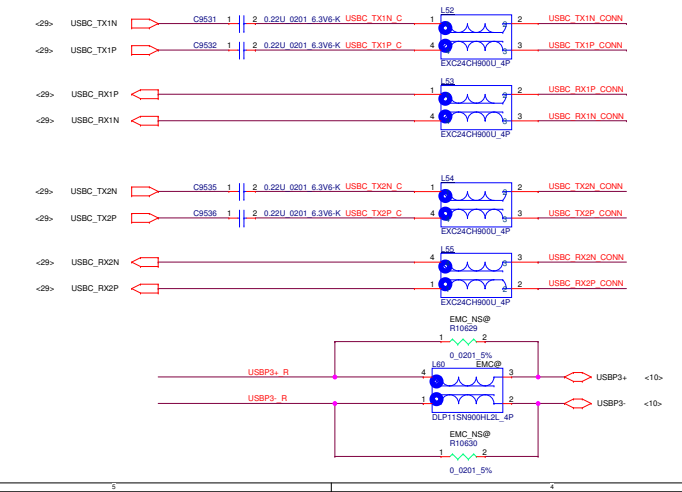
Rev: 0.1

Document Number: **Windu-2**

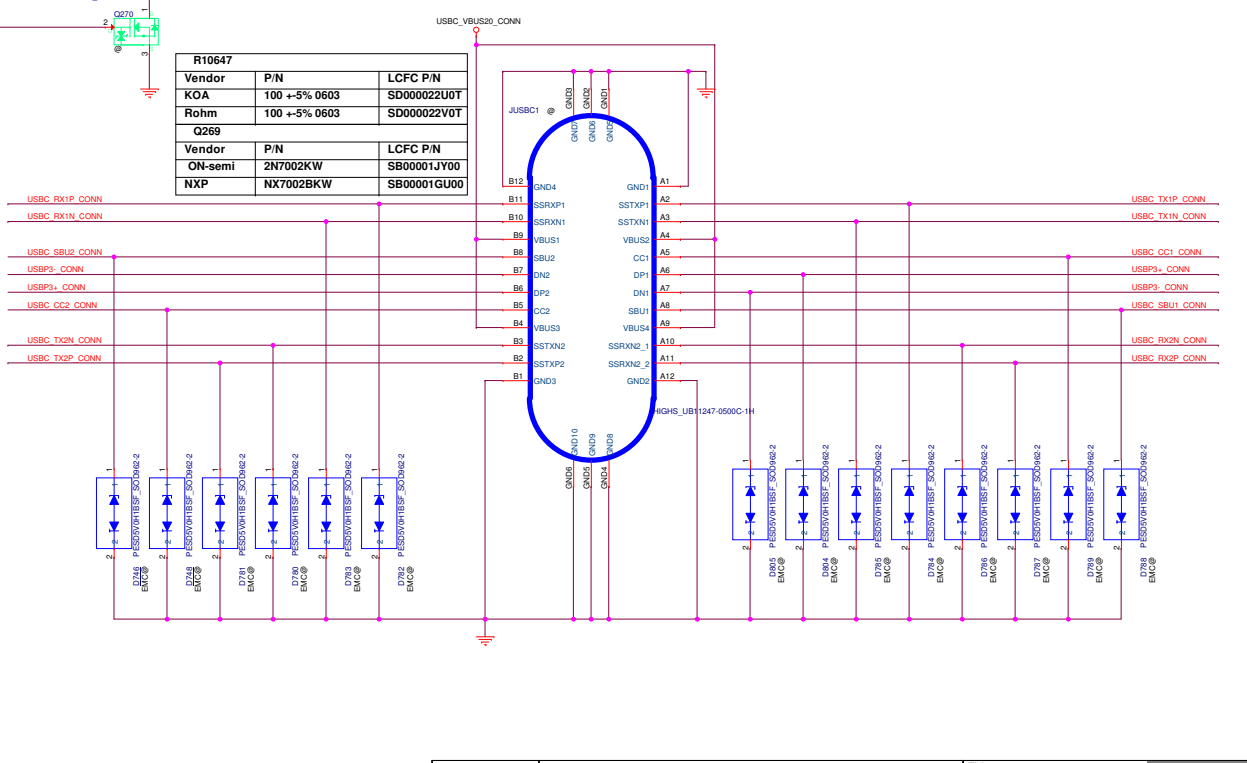
Date: Thursday, November 09, 2017 11:58:25 AM



Vendor	P/N	LCFC P/N
TI	TSUSB3TERSER	SA000086000
ONSemi	NLAS7213MUTBG	SA00008GR00



Vendor	P/N	LCFC P/N
KOA	100 +/-5% 0603	SD000022U0T
Rohm	100 +/-5% 0603	SD000022V0T
Q269		
ON-semi	2N7002KW	SB00001JY00
NXP	NX7002BKW	SB00001GU00

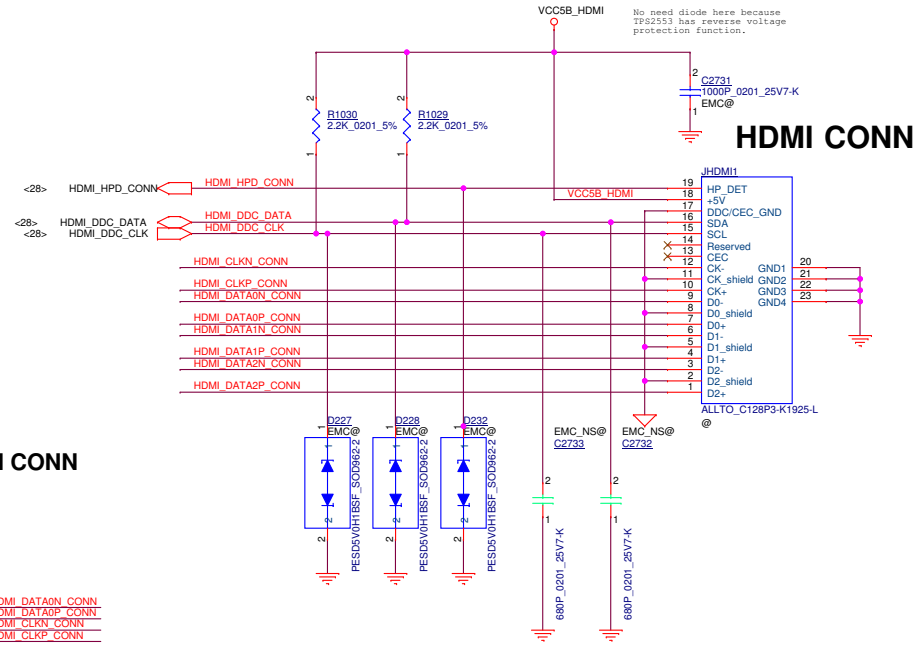
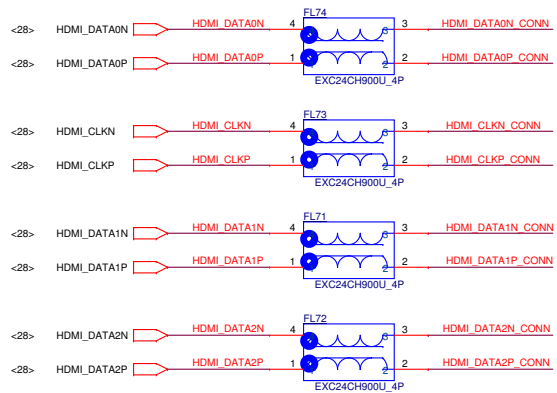


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NEAR HDMI CONN

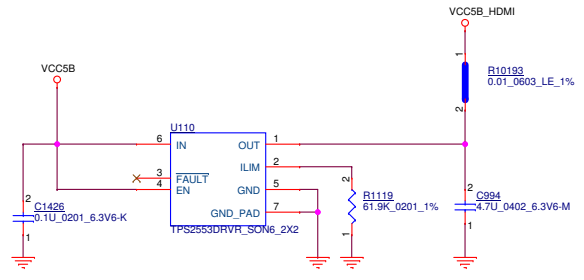
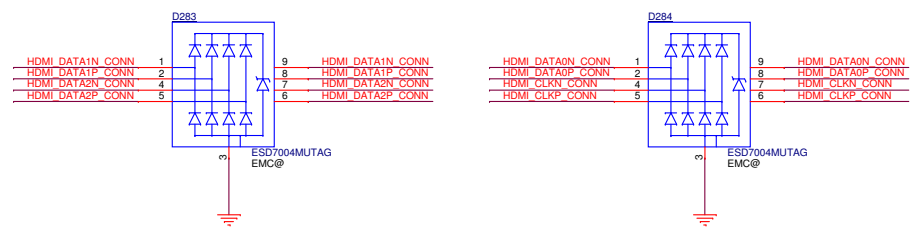


TABLE: PI3EQX862 Input Equalization Setting (EQ_A & EQ_B)

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

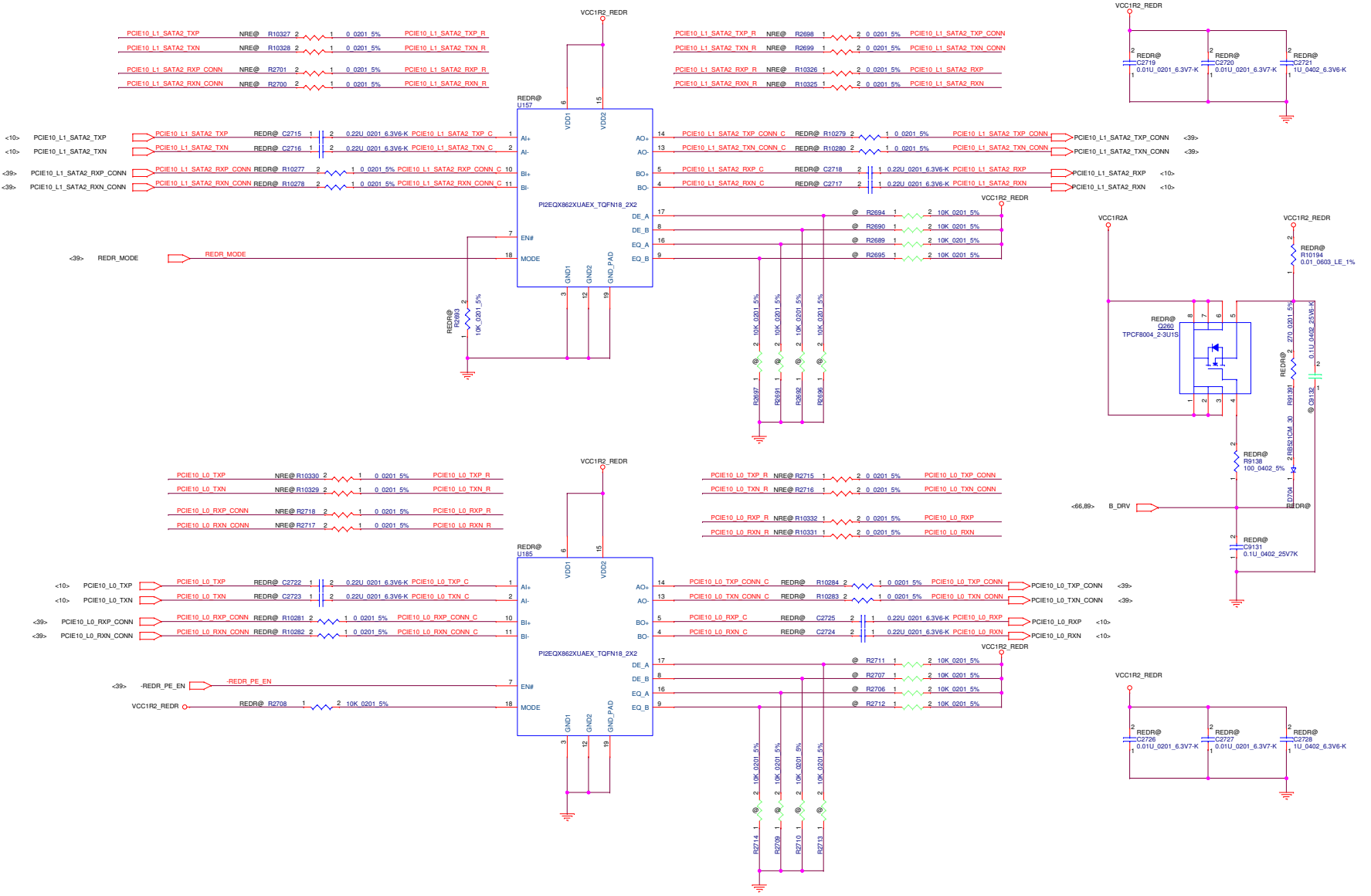
TABLE: PI3EQX862 Output De-emphasis Setting (DE_A & DE_B)

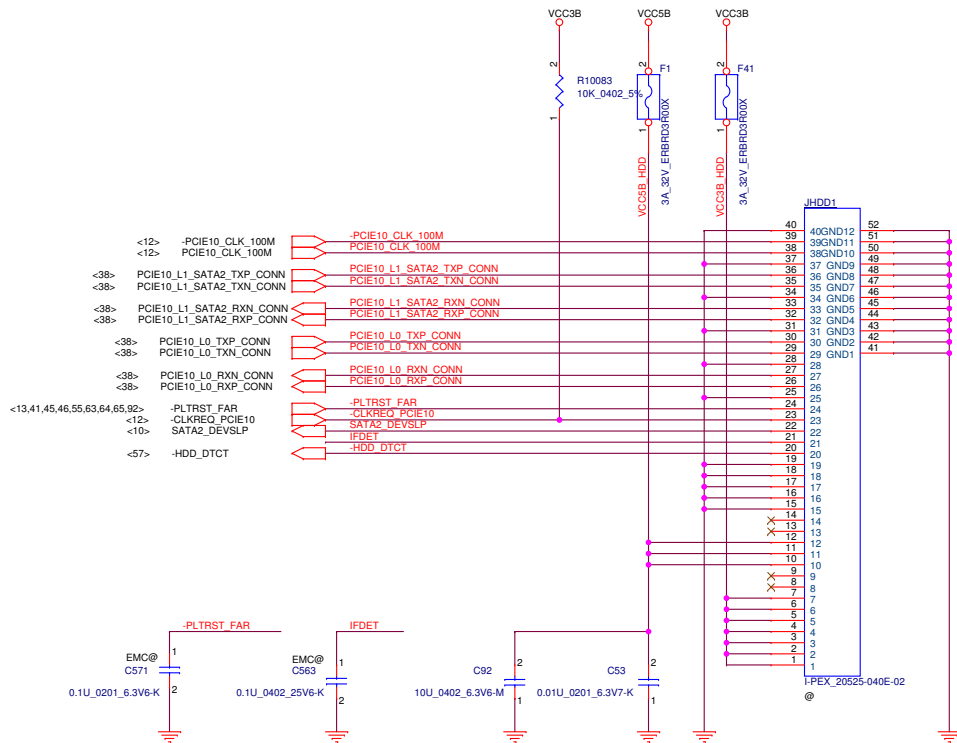
GND	-2.5 dB
Open	0 dB (Default)
VDD	-4 dB

← LOGIC

TABLE: Mode Configuration Table

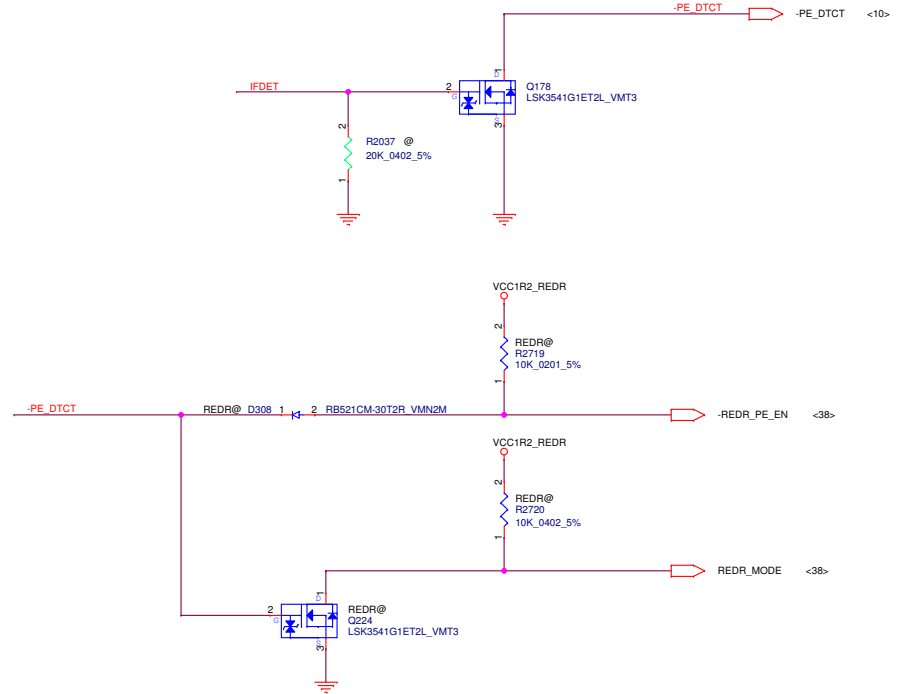
EN#	MODE	Mode
Low	Low	SATA Application
Low	High	PCIe Application
High	X	Disable



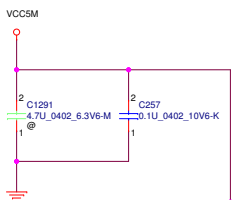


IFDET
SATA Device
PCIe Device

GND
5K PU to Vsource



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Current Limit Target:
 ILIM_Hi -> 2.27A(1.98A - 2.56A)
 ILIM_Lo -> 0.62A(0.52A - 0.72A)

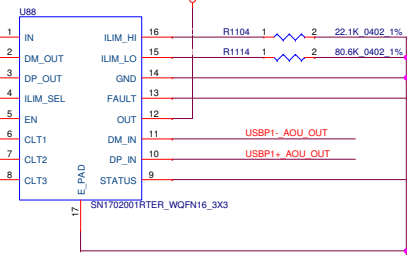
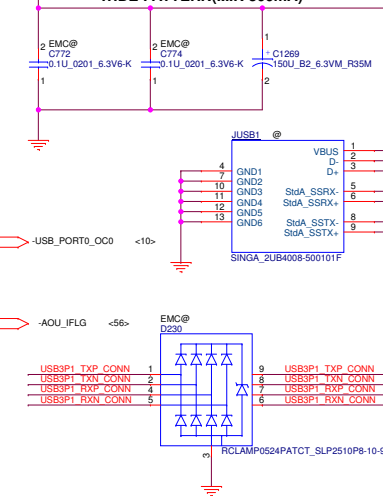


TABLE of USB Charge IC (U88)		
Vendor	P/N	LCFC P/N
TI	SN1702001RTER	SA00008HF00

PLACE NEAR USB CONNECTOR WIDE PATTERN(MIN 500mA)



USB_PWR_S3 WIDE PATTERN(MIN 500mA) PLACE NEAR USB CONN

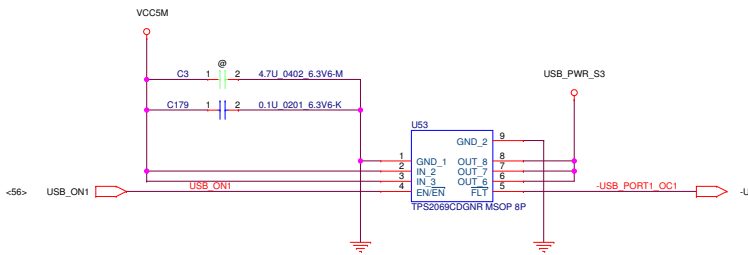
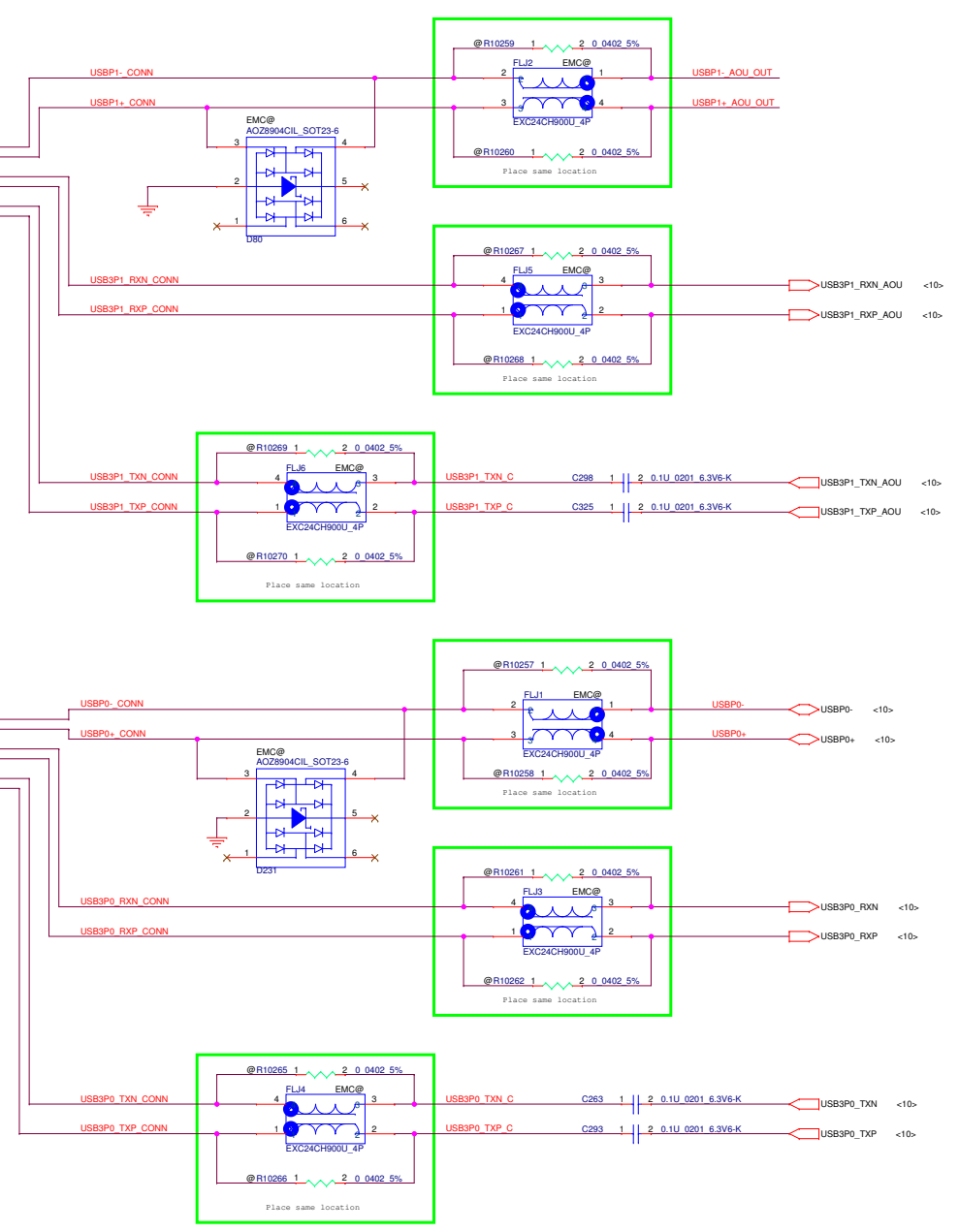
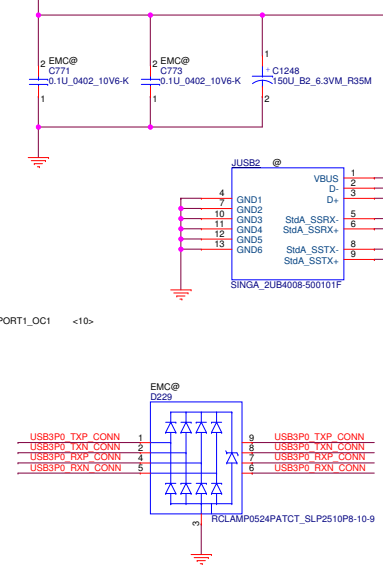
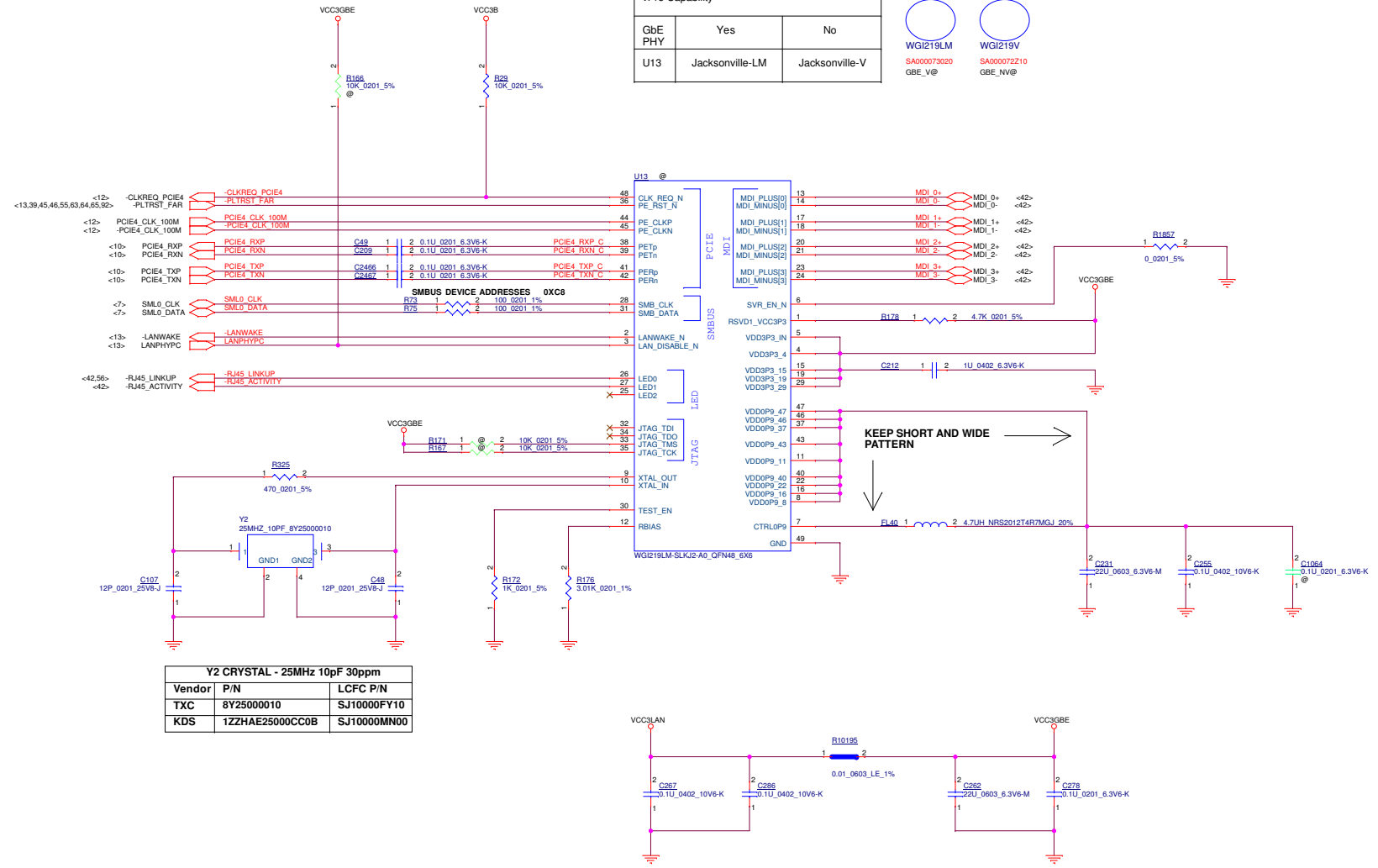
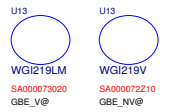


TABLE of USB3.0 Single (U53)		
Vendor	P/N	LCFC P/N
TI	TPS2069CDGNR	SA00005TE00
Rohm	BD82032FVJ-GE2	SA000084S00

TABLE

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



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

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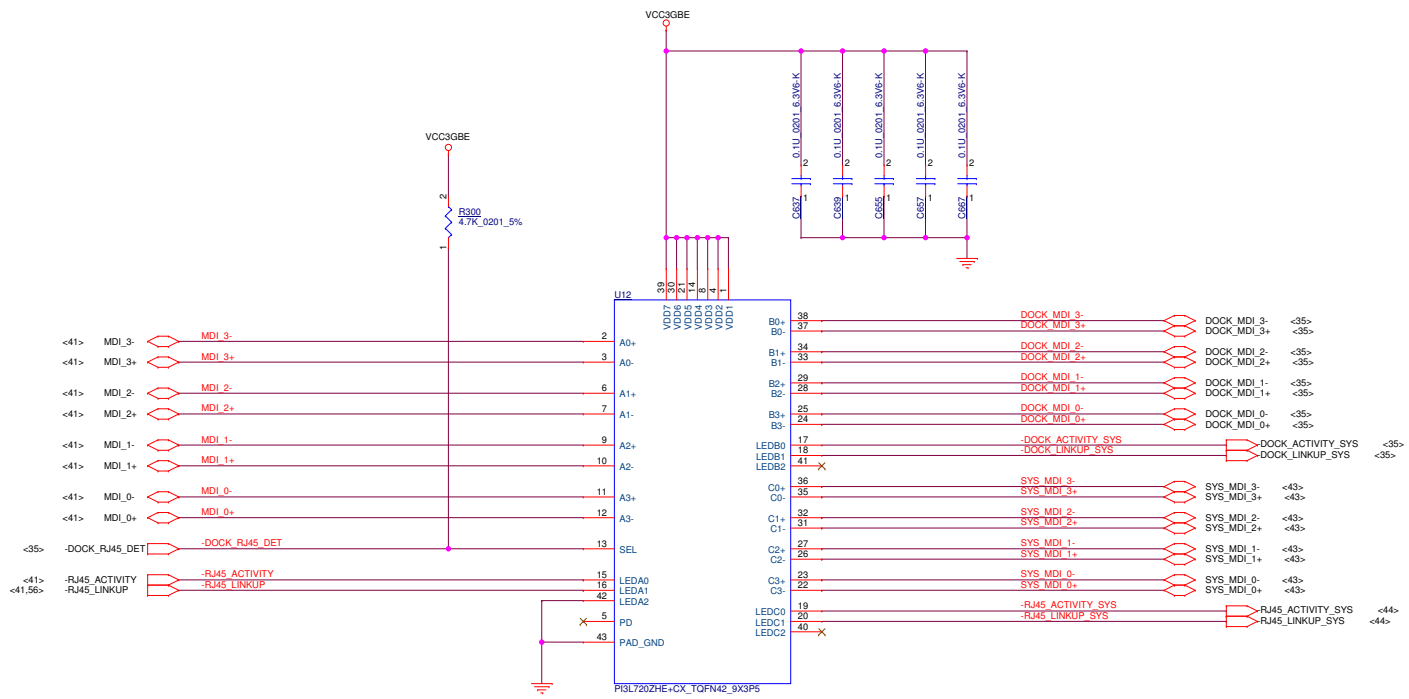
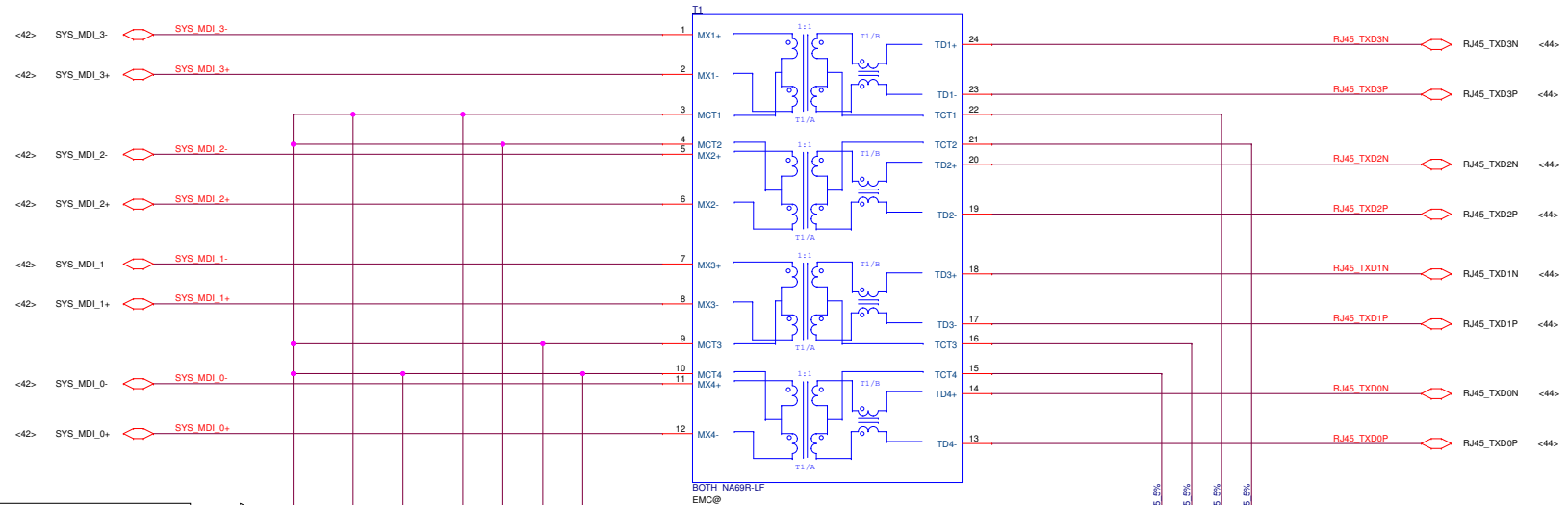


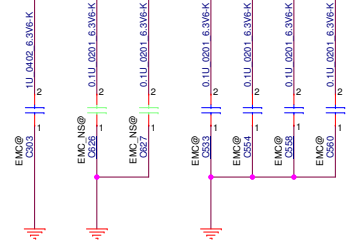
TABLE of LAN Switch (U12)

Vendor	P/N	LCFC P/N
PERICOM	PI3L720ZHE+CX	SA00007E900
TI	TS3L501ERUAR	SA000072400

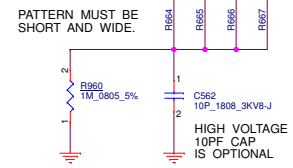


THE WIDTH OF THESE TRACE SHOULD BE WIDER THAN 35MIL TO PREVENT VOLTAGE DROP.

C303 SHOULD BE PLACED AS CLOSE TO MAGNETICS AS POSSIBLE.

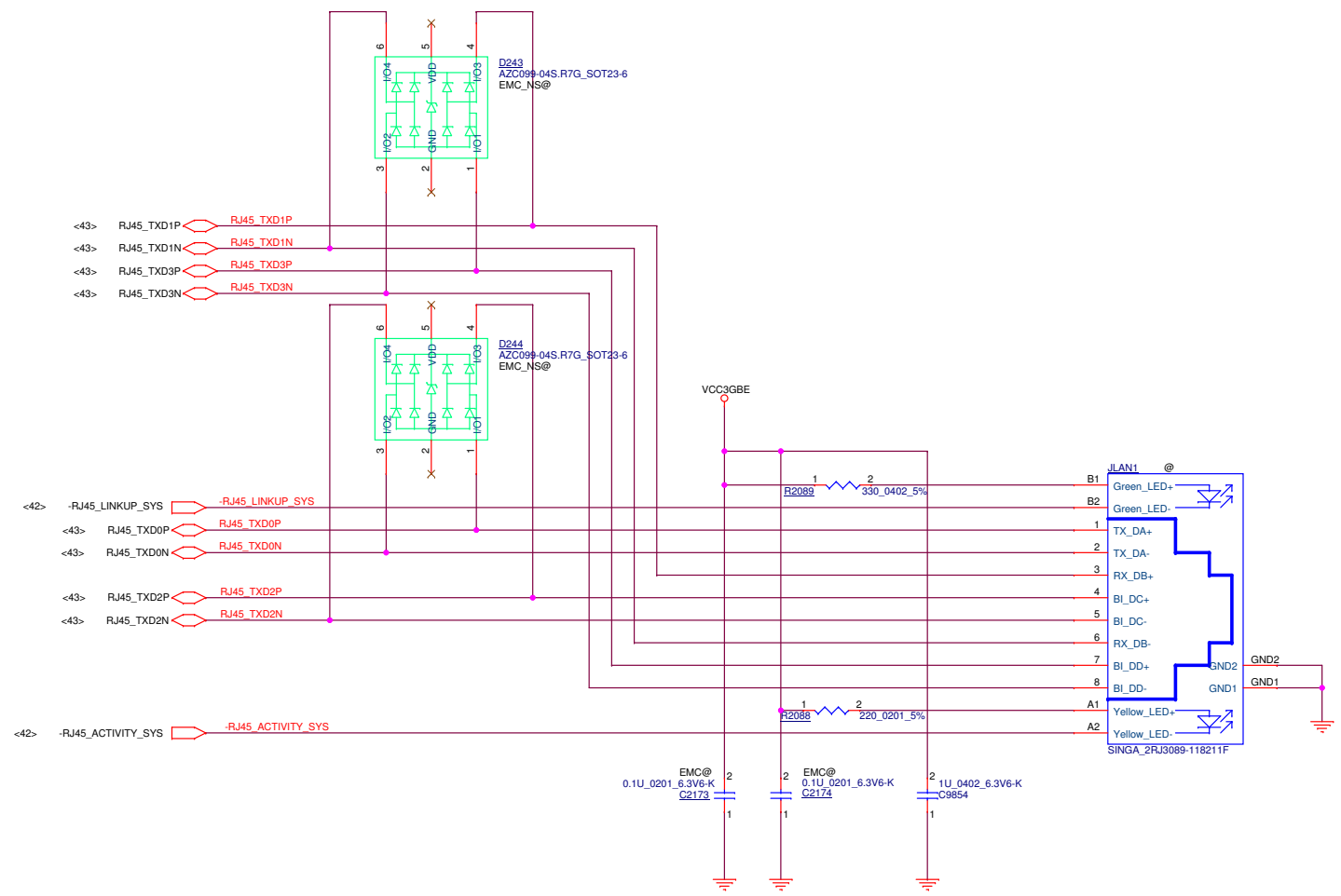


ESD REASON



PATTERN MUST BE SHORT AND WIDE.

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

Title	RJ45 CONNECTOR		
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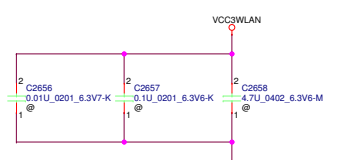
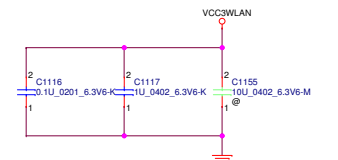
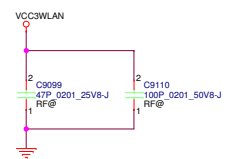
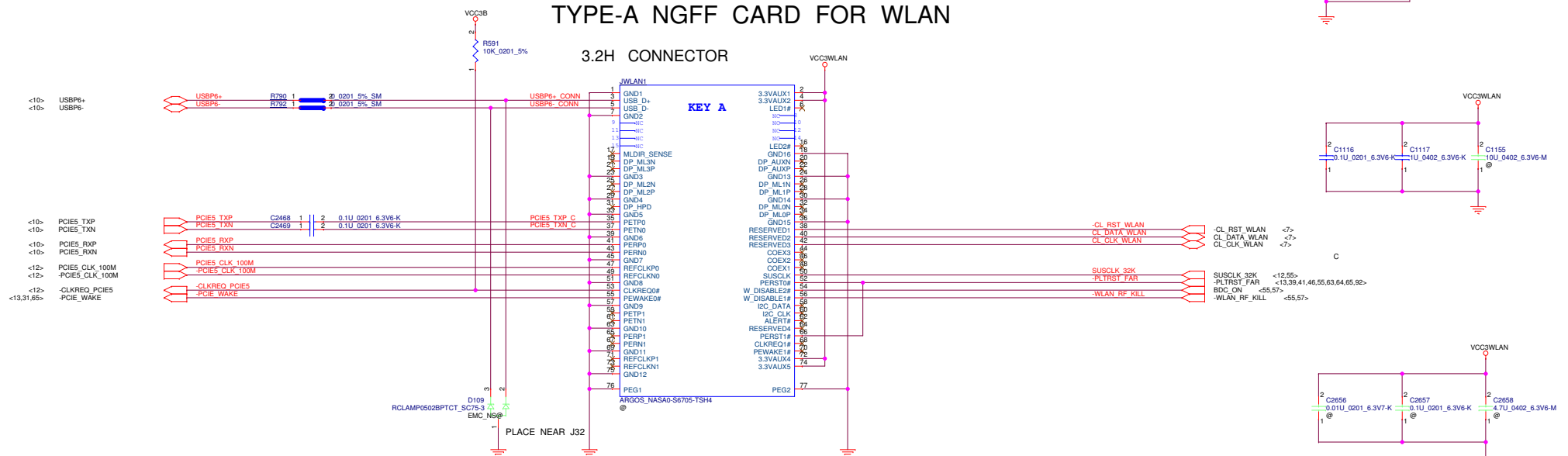
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TYPE-A NGFF CARD FOR WLAN

3.2H CONNECTOR

KEY A



- <10> USBP6+
- <10> USBP6-
- <10> PCIES_TXP
- <10> PCIES_TXN
- <10> PCIES_RXP
- <10> PCIES_RXN
- <12> PCIES_CLK_100M
- <12> PCIES_CLK_100M
- <12> CLKREQ_PCIE5
- <13,31,65> PCIE_WAKE

- <7> -CL_RST_WLAN
- <7> CL_DATA_WLAN
- <7> CL_CLK_WLAN
- <12,55> SUSCLK_32K
- <13,39,41,46,55,63,64,65,92> PLTRST_FAR
- <55,57> BDC_ON
- <55,57> -WLAN_RF_KILL

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TYPE-B NGFF CARD FOR WWAN 3.2H CONNECTOR

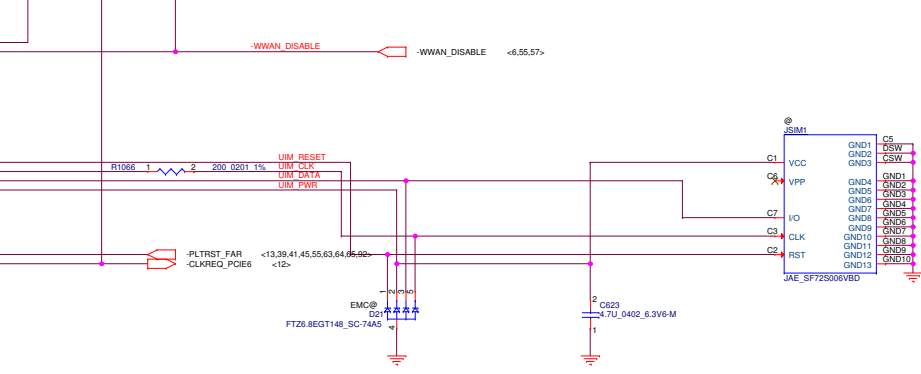
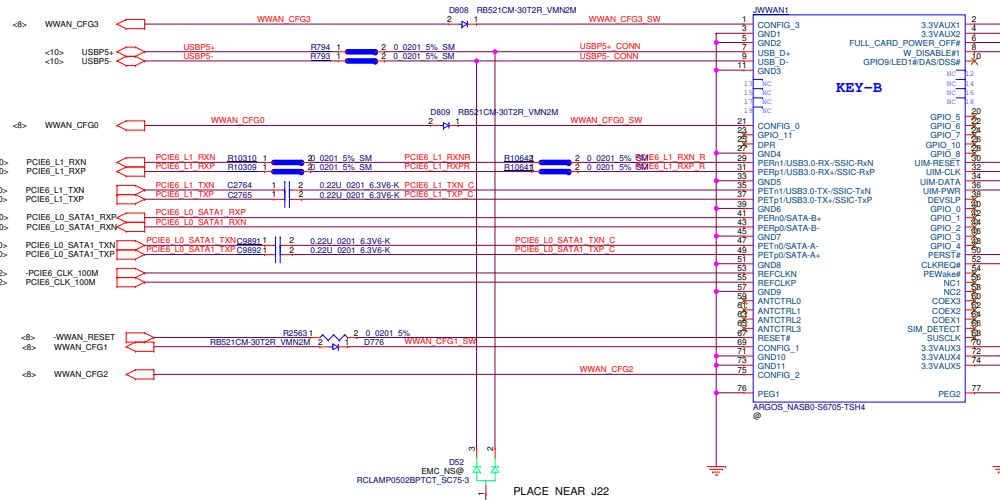


TABLE:

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 - PCIe, USB 3.1 Gen1	0
5	GND	NC	GND	NC	WWAN - PCIe, USB 3.1 Gen1	1
6	GND	NC	NC	GND	WWAN - PCIe, USB 3.1 Gen1	2
7	GND	NC	NC	NC	WWAN - PCIe, USB 3.1 Gen1	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	WWAN - PCIe, USB 3.1 Gen1	Vendor Defined
15	NC	NC	NC	NC	No Module Present	N/A

TABLE:

CONFIG_0 (Pin 21)	CONFIG_3 (Pin 1)	CONFIG_2 (Pin 75)	CONFIG_1 (Pin 69)	Status#	Note
Fibcom L830-EB	NC	GND	GND	Status# 8	WWAN - SSIC P0
Sierra EM7565	GND	NC	GND	Status# 6	WWAN - USB3.1 G1 P2
2242 PCIe SSD	GND	GND	NC	Status# 1	WWAN - PCIe

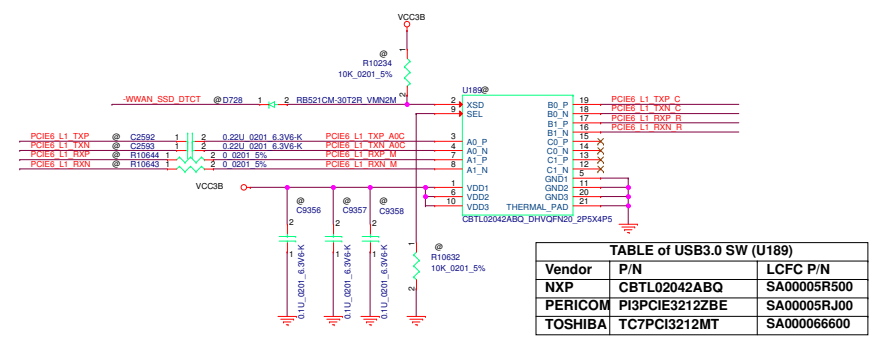
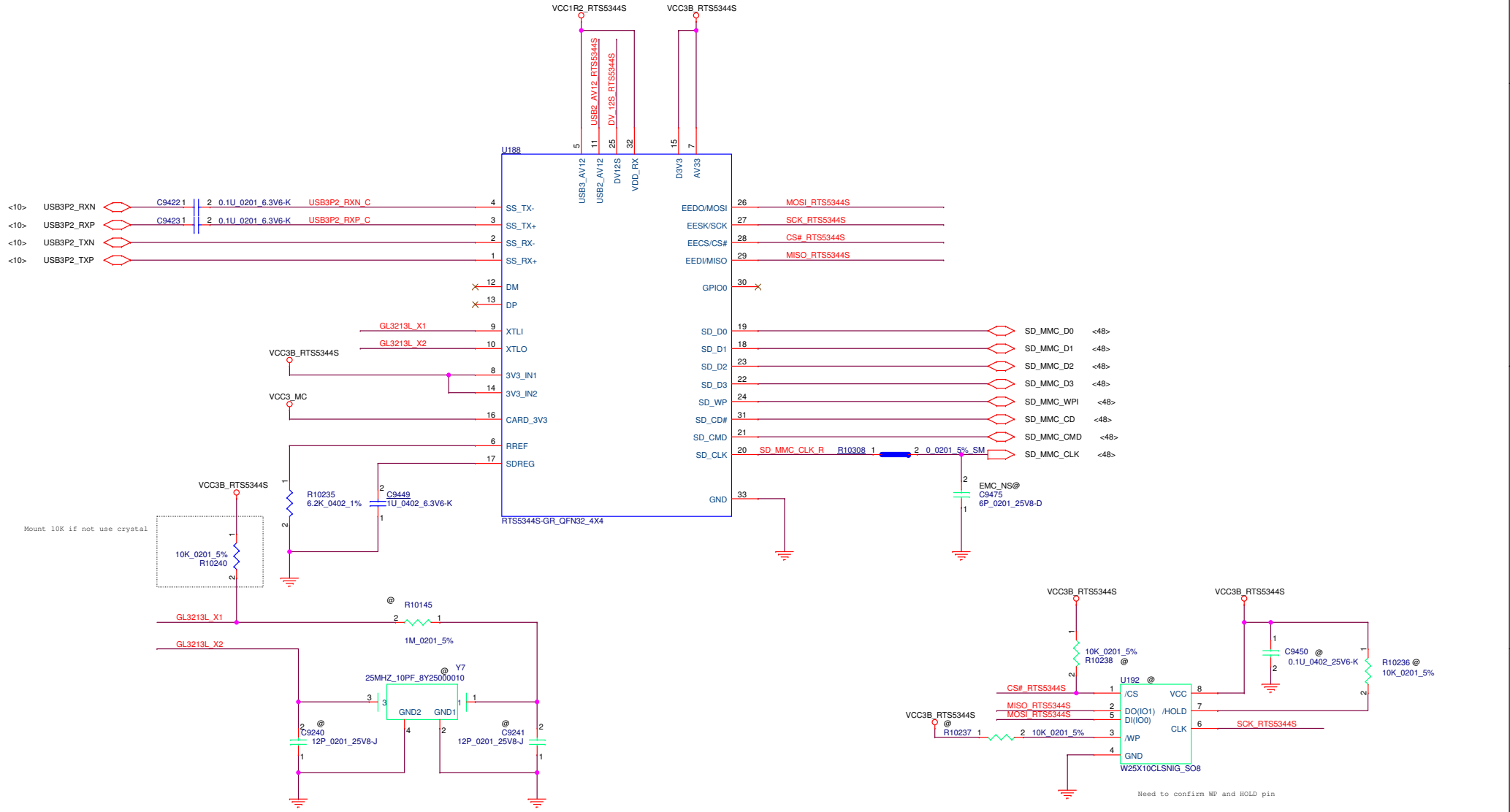
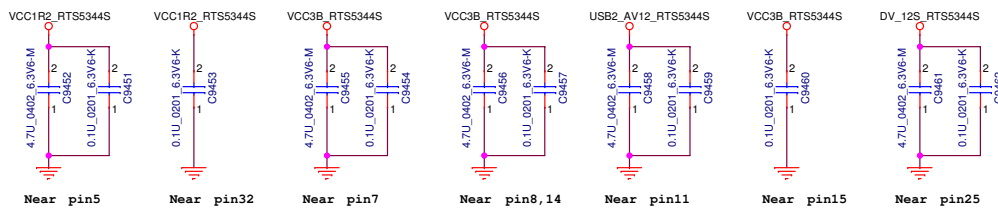
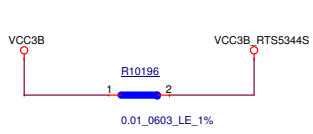


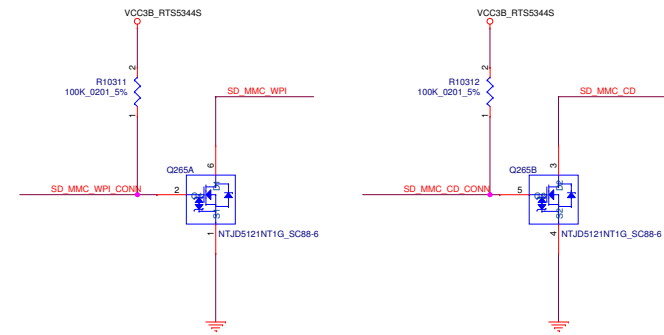
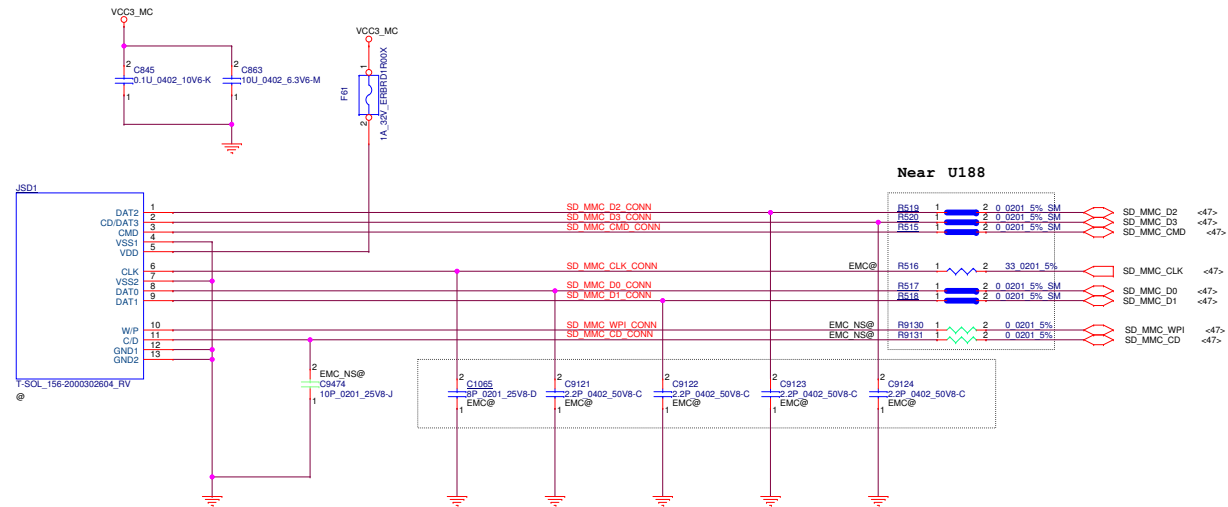
TABLE of USB3.0 SW (U189)


Vendor	P/N	LCFC P/N
NXP	CBTL02042ABQ	SA00005R500
PERICOM	PI3PCIE321ZBE	SA00005RJ00
TOSHIBA	TC7PCI3212MT	SA000066600



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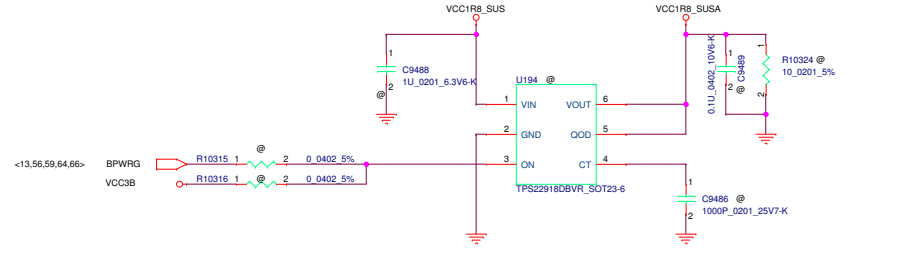
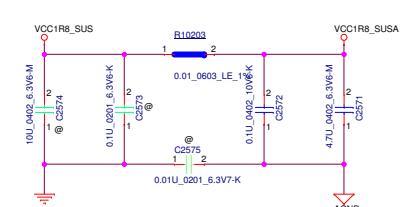
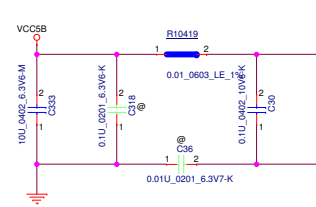
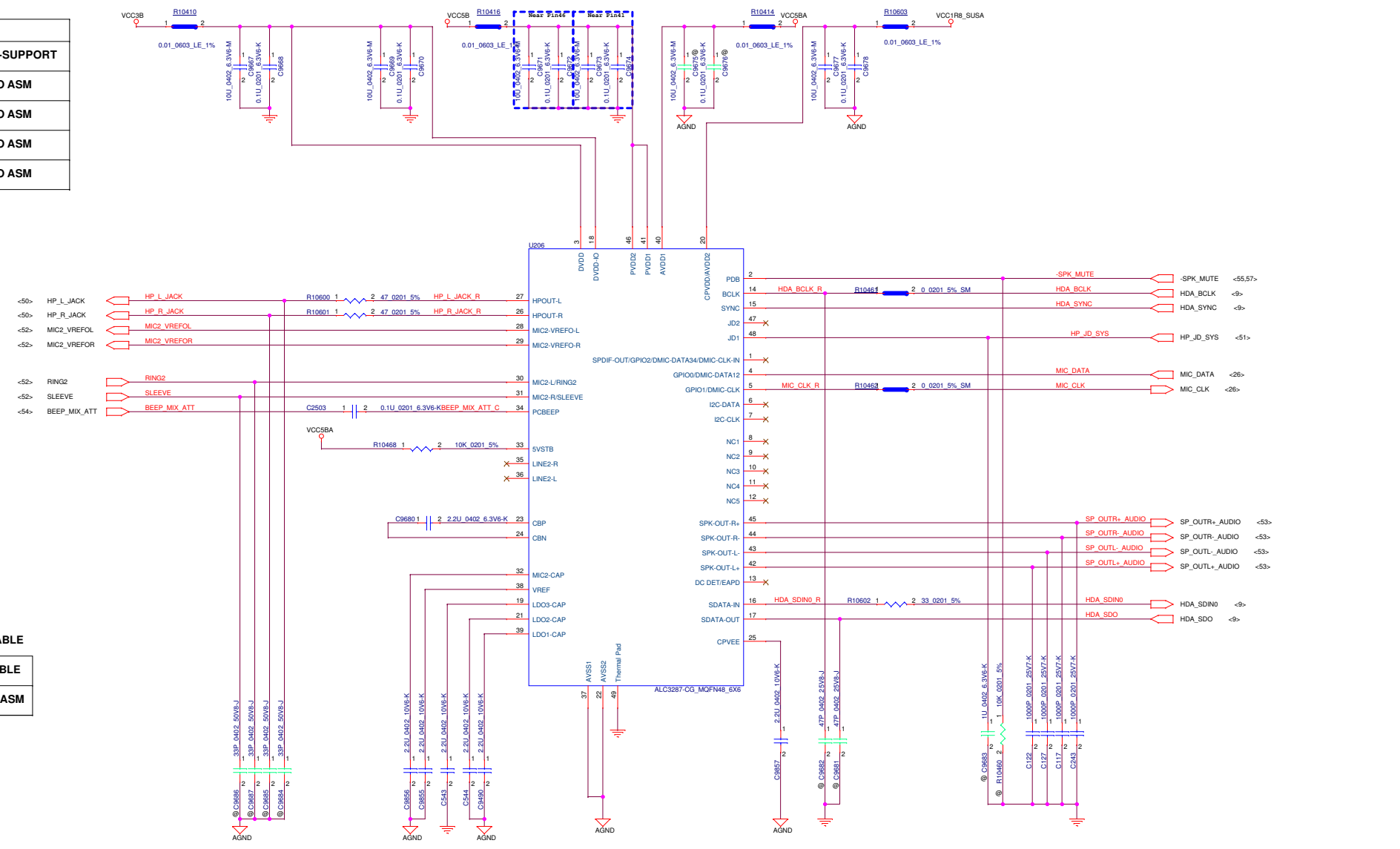
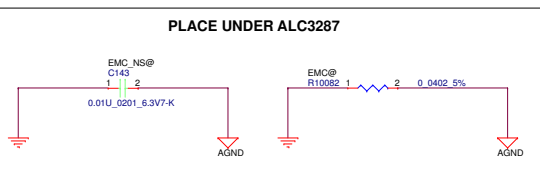
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Dock support		
	SUPPORT	NON-SUPPORT
R1235	NO ASM	NO ASM
R1236	ASM	NO ASM
R1237	ASM	NO ASM
R1238	ASM	NO ASM

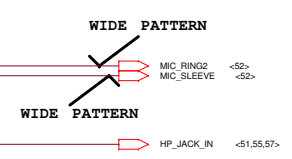
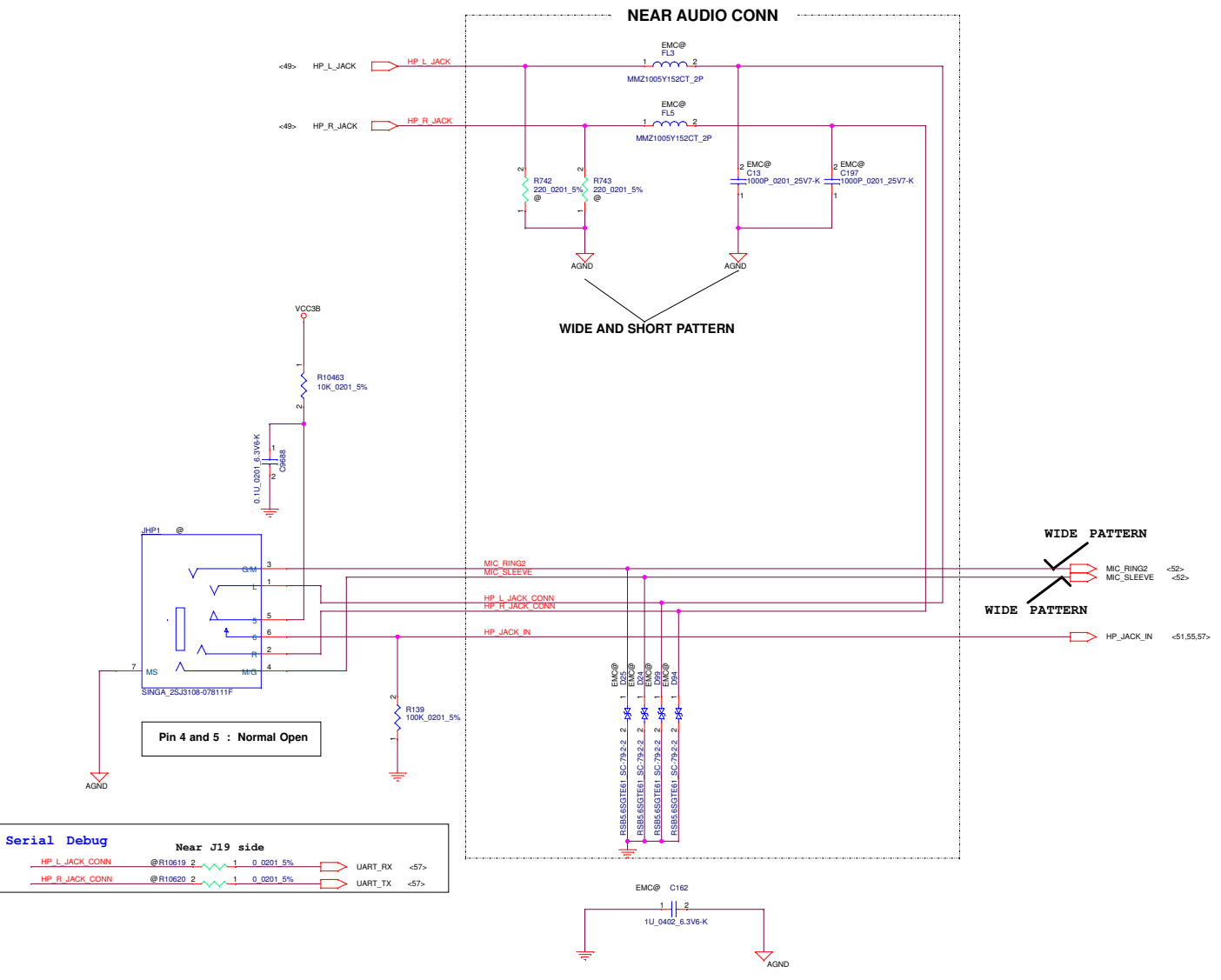
↑
LOGIC

TABLE MIC HW ENABLE/DISABLE		
	ENABLE	DISABLE
R961	ASM	NO ASM



↑
LOGIC

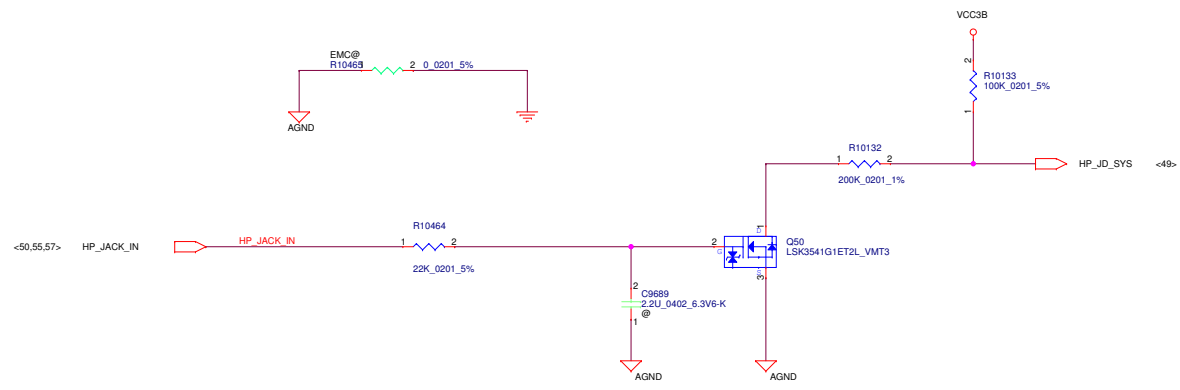



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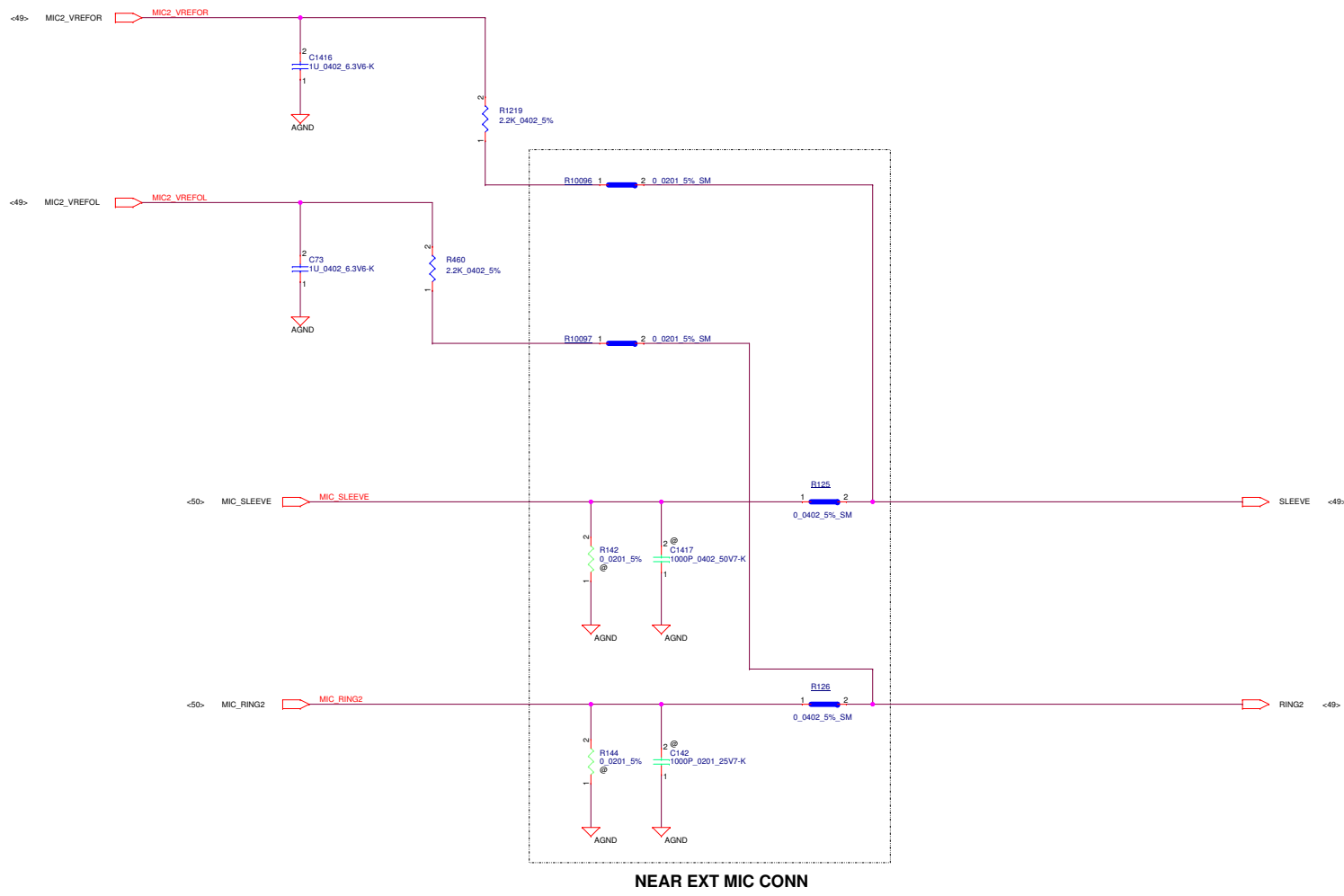
Pin 4 and 5 : Normal Open

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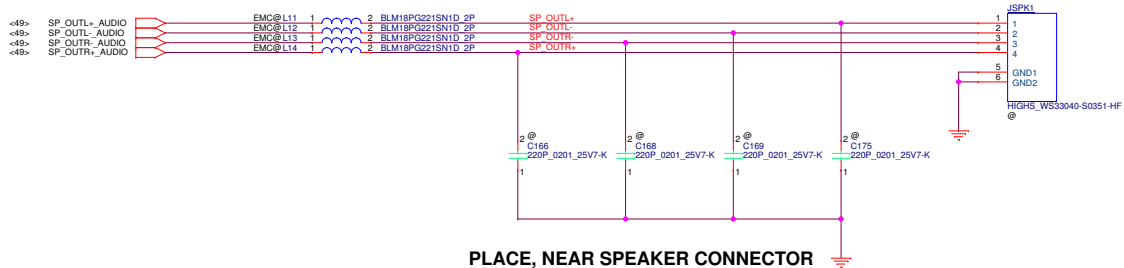
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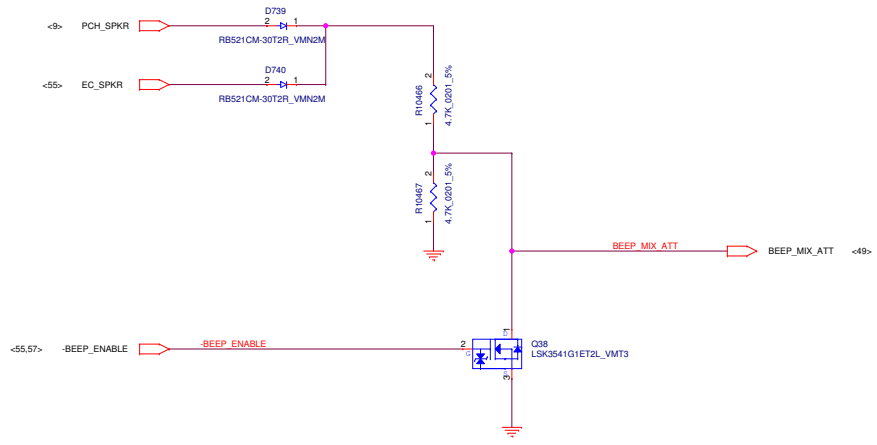



NEAR EXT MIC CONN

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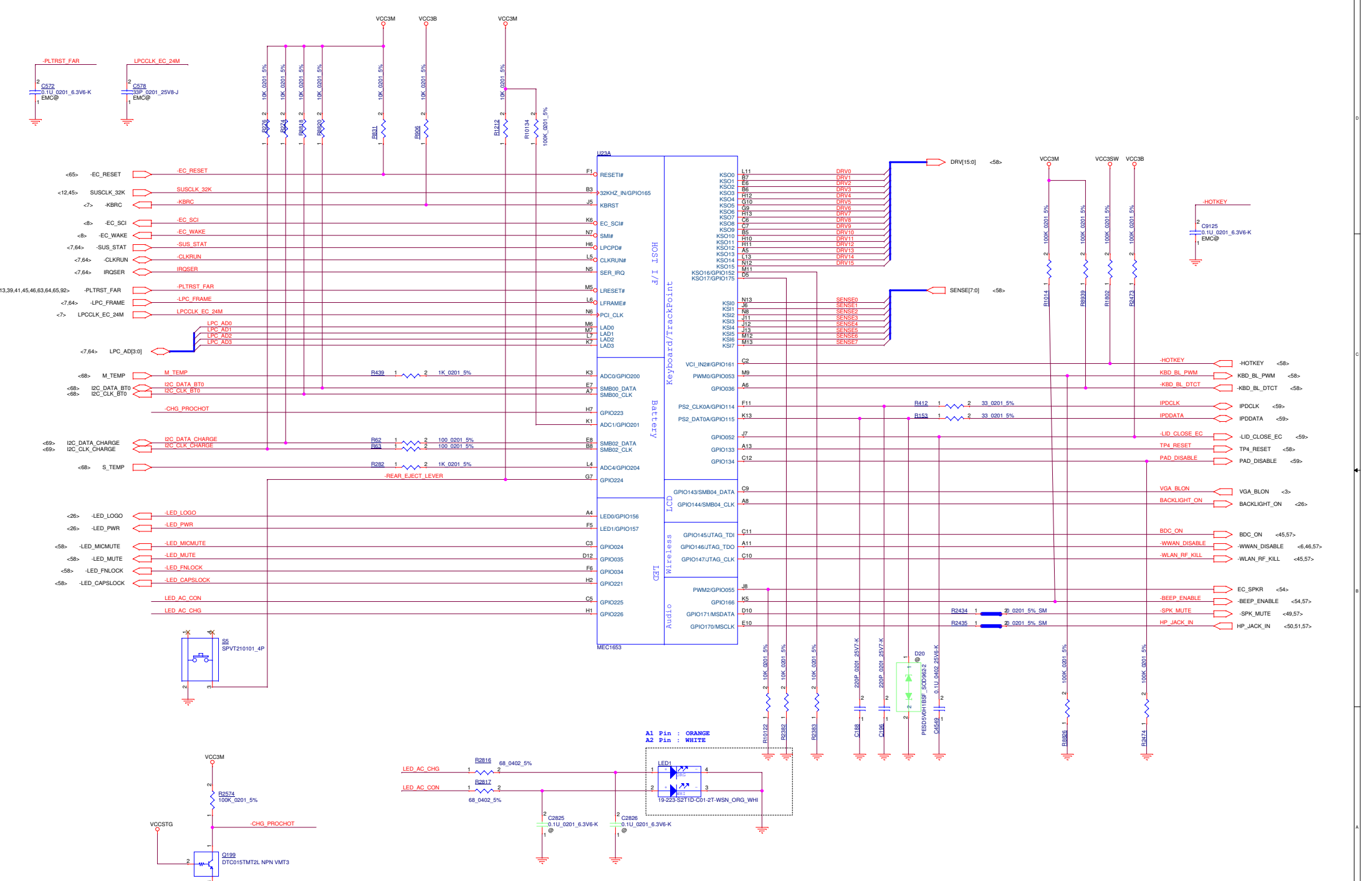


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R258: 750_1% for New AC Adapter

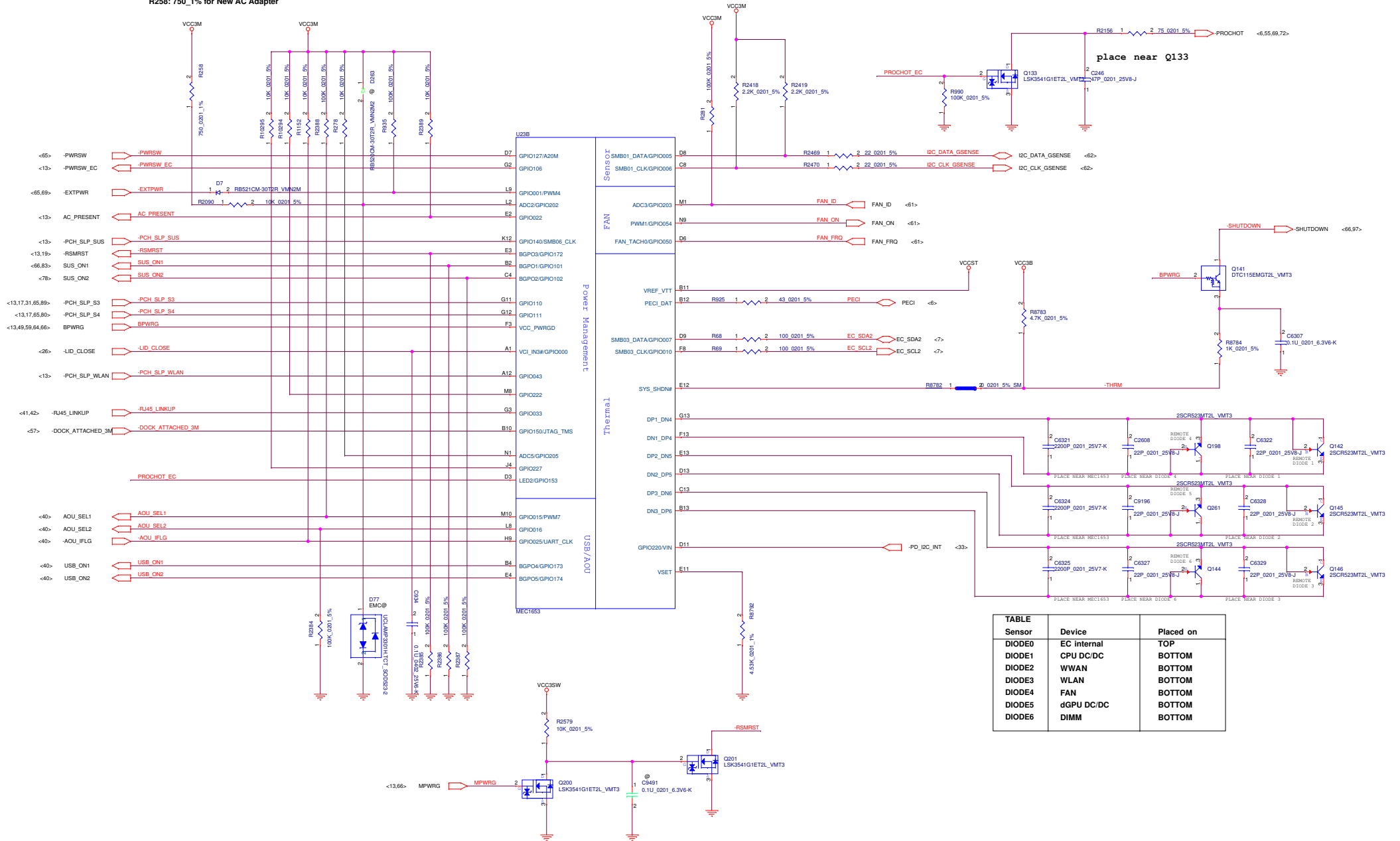


TABLE Sensor	Device	Placed on
DIODE0	EC internal	TOP
DIODE1	CPU DC/DC	BOTTOM
DIODE2	WWAN	BOTTOM
DIODE3	WLAN	BOTTOM
DIODE4	FAN	BOTTOM
DIODE5	dGPU DC/DC	BOTTOM
DIODE6	DIMM	BOTTOM

Trace FIFO Debug Port

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

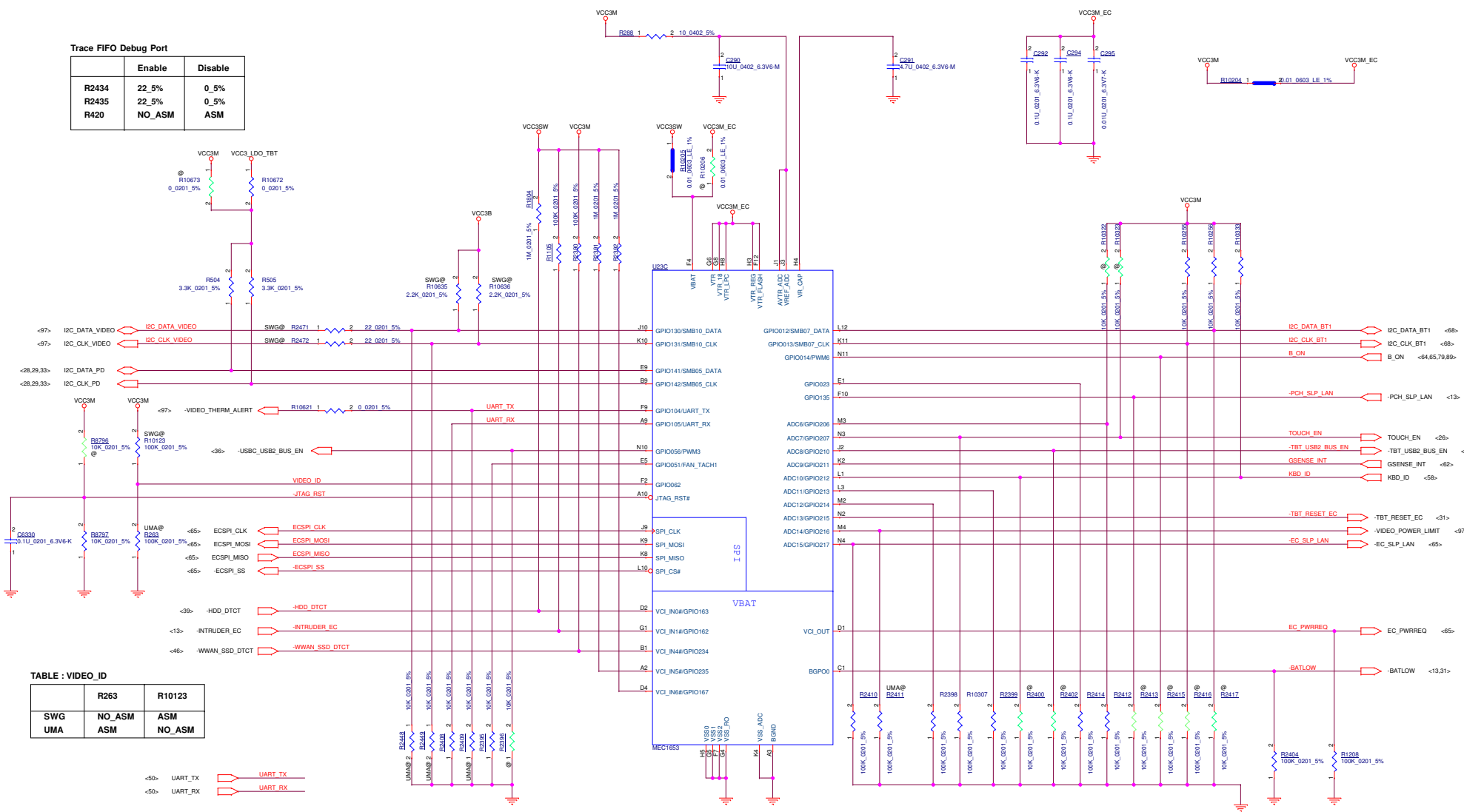
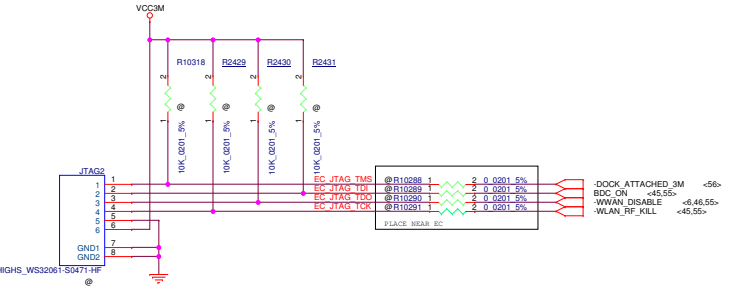


TABLE : VIDEO_ID

	R263	R10123
SWG	NO_ASM	ASM
UMA	NO_ASM	NO_ASM

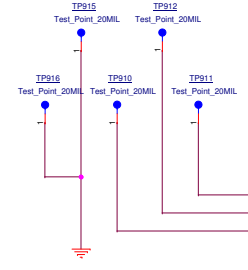


Cover with green paint in SVT



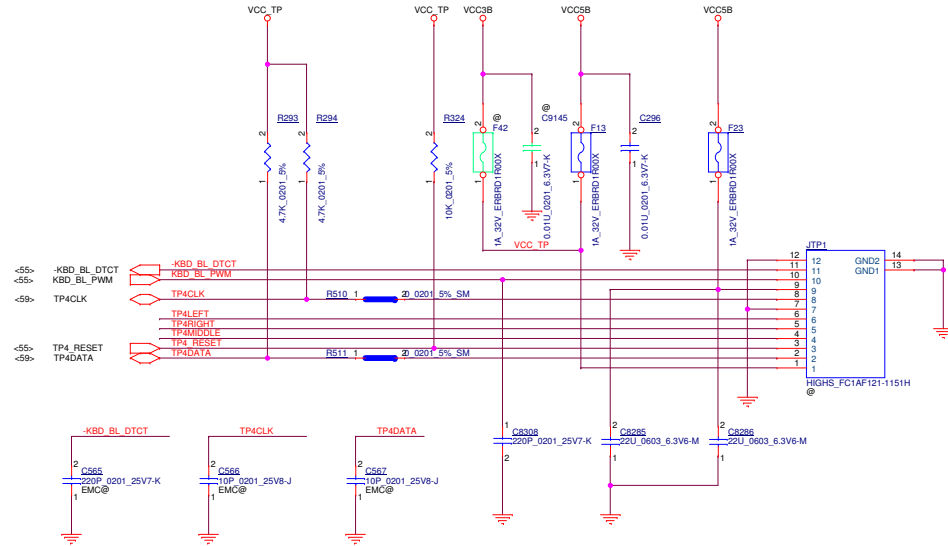
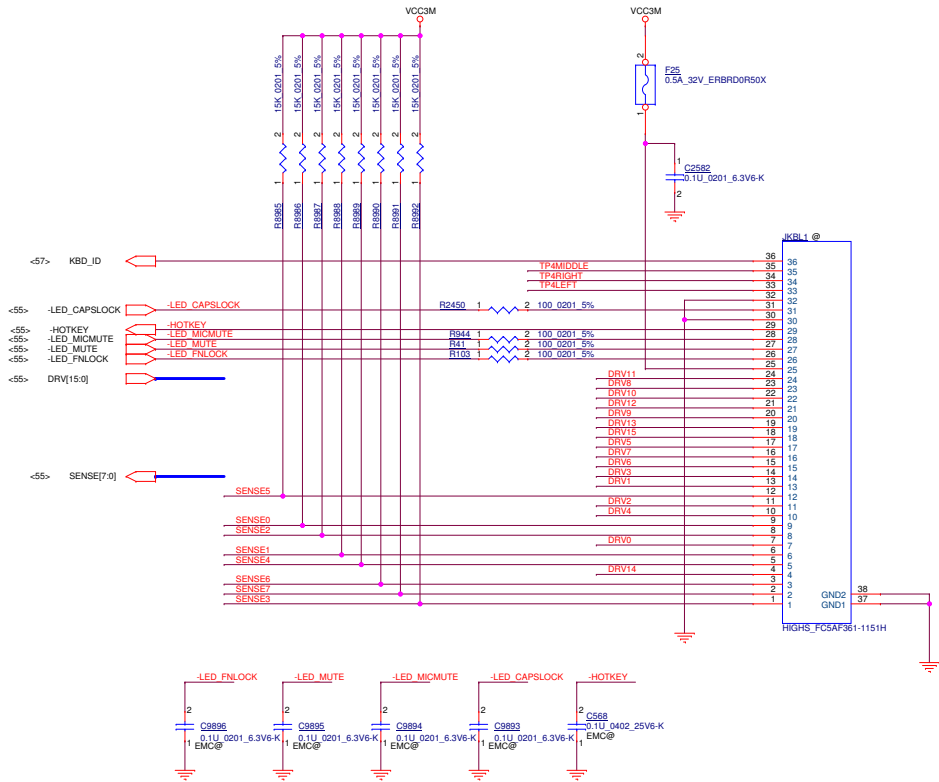
JTAG Debug Port


	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



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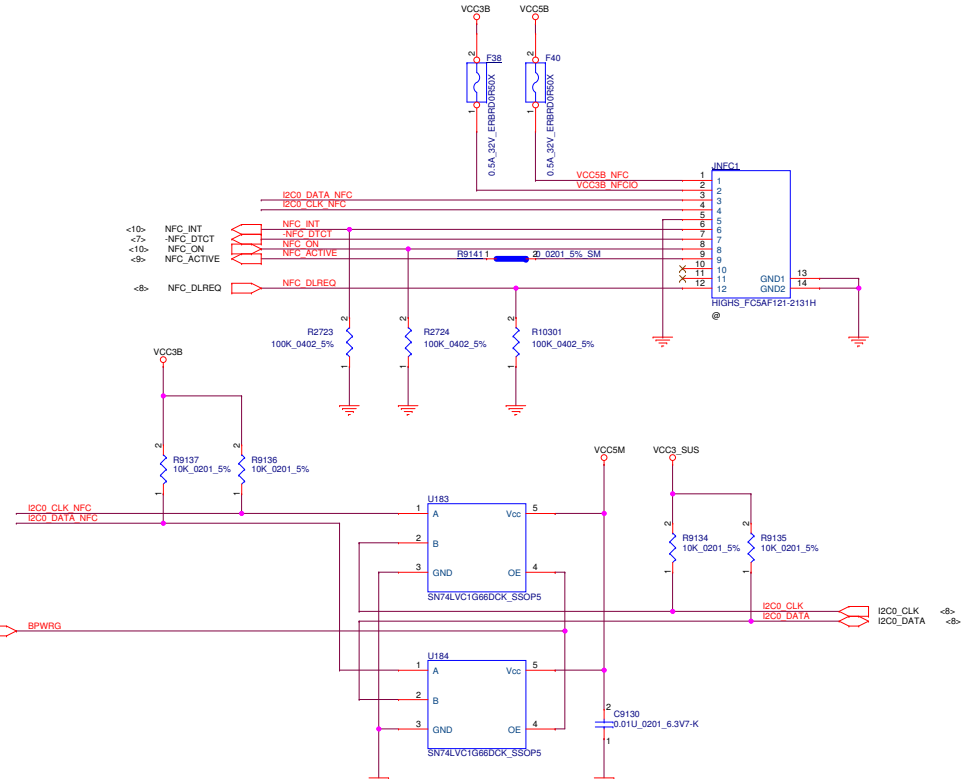
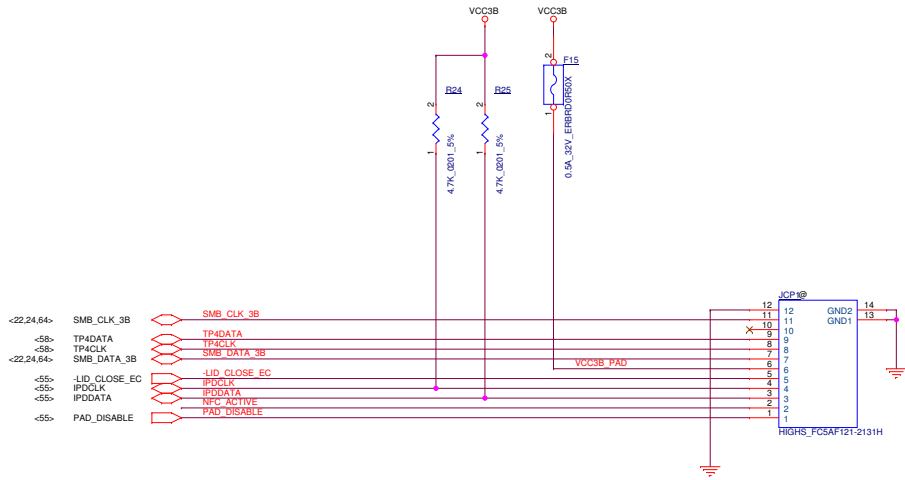
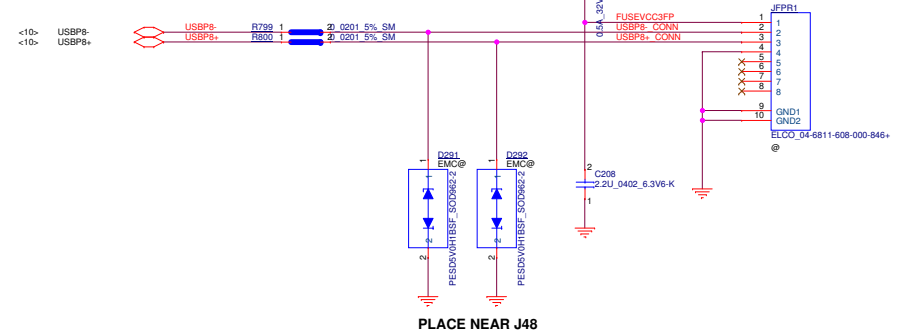
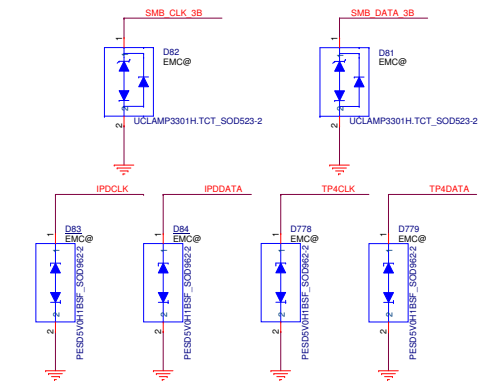
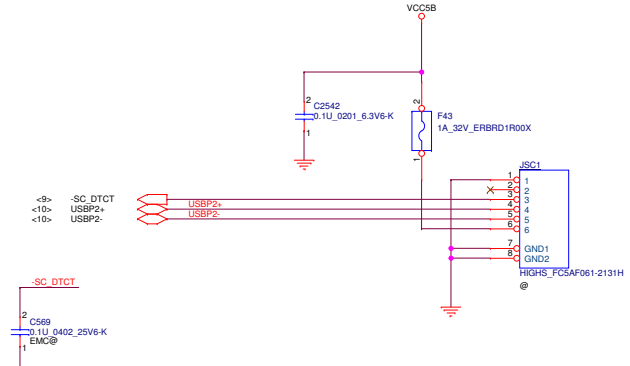



TABLE of U183/U184

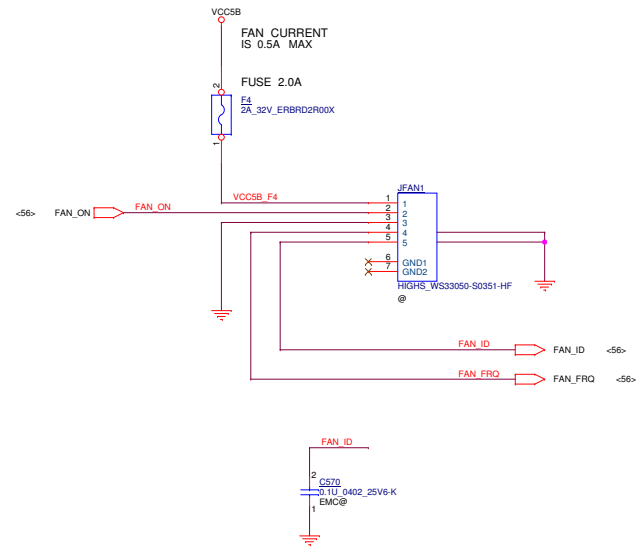
Vendor	P/N	LCFC P/N
TI	SN74LVC1G66DCK	SA00005BE0J
NXP	74LVC1G66GW	SA00007KS00
ONsemi	MC74VHC1G66DFT2G	SA00008JQ00




PLACE NEAR J48

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TABLE

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

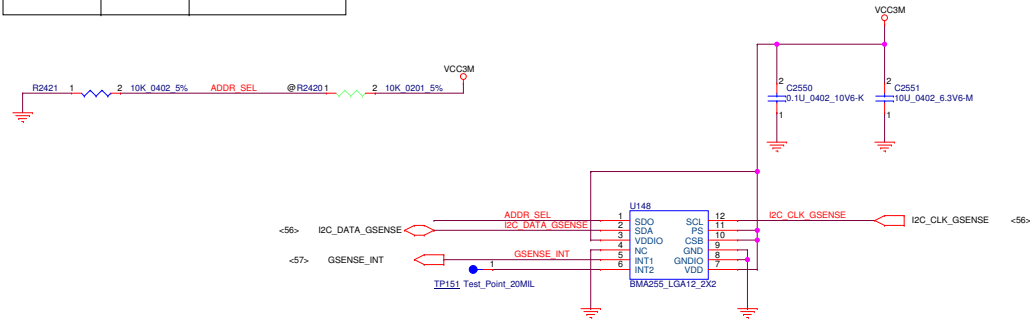
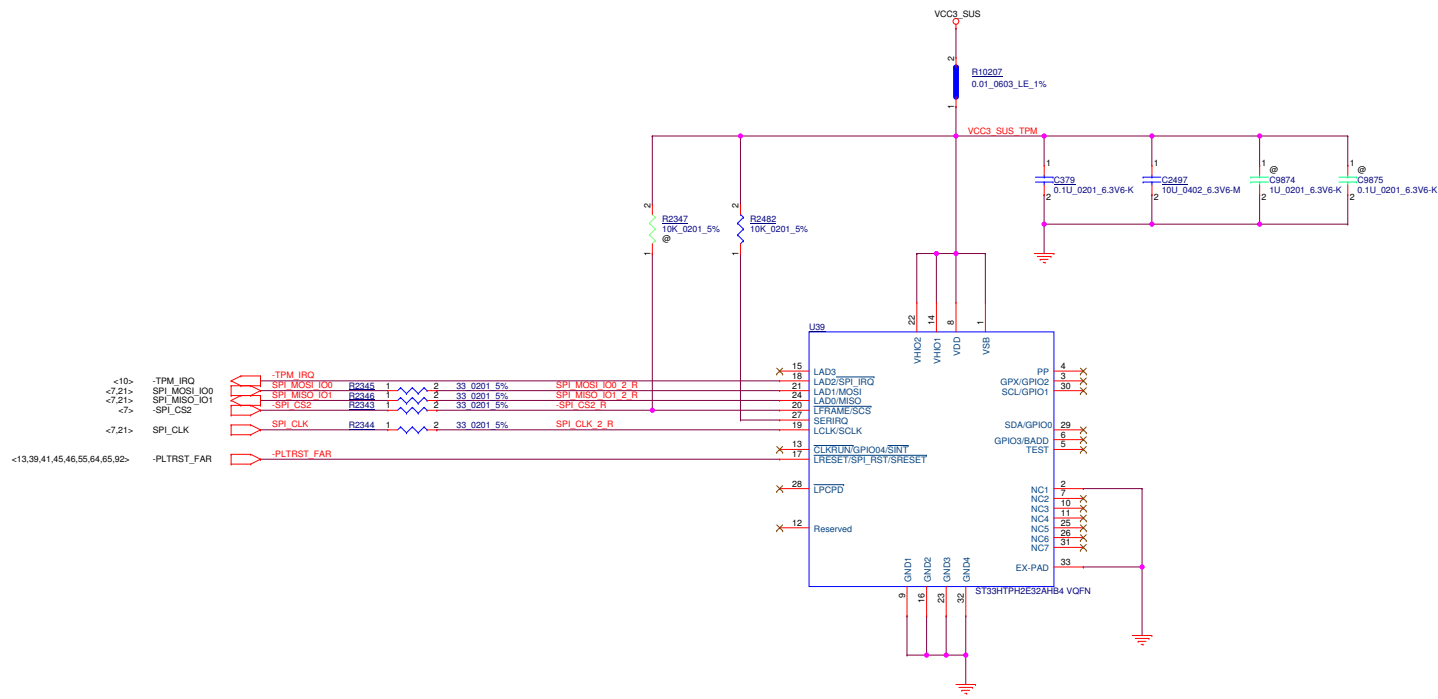


TABLE of G-Sensor (U148)

Vendor	P/N	LCFC P/N
BOSCH	BMA255	SA00005YJ00
Kionix	KX022-1020	SA000081E00



Pin No	TCG PTP Spec (v38)	2nd Source	Main Source
		Infineon SLB9670VQ2.0 FW 7.63 SA000075L50	ST Micro ST33H1PH2E32AHB4 SA000089E10
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

TABLE

REF DES	ENABLE	DISABLE
J5	ASM	NO_ASM
R220	ASM	NO_ASM

↑
LOGIC

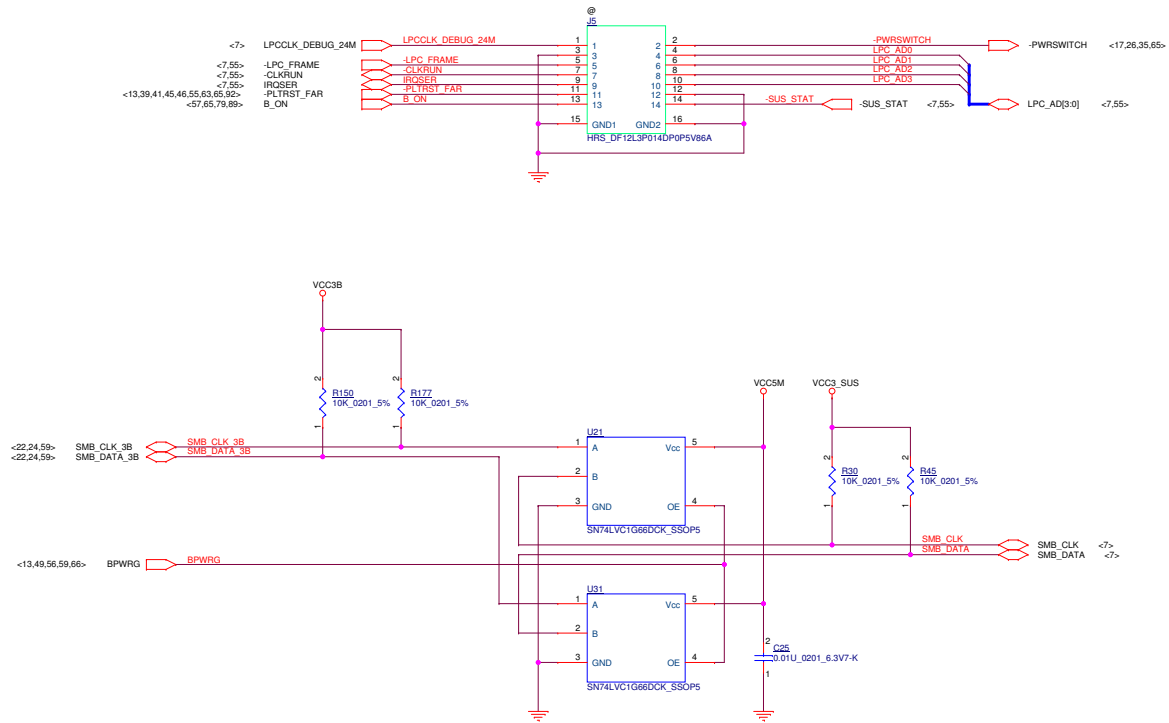
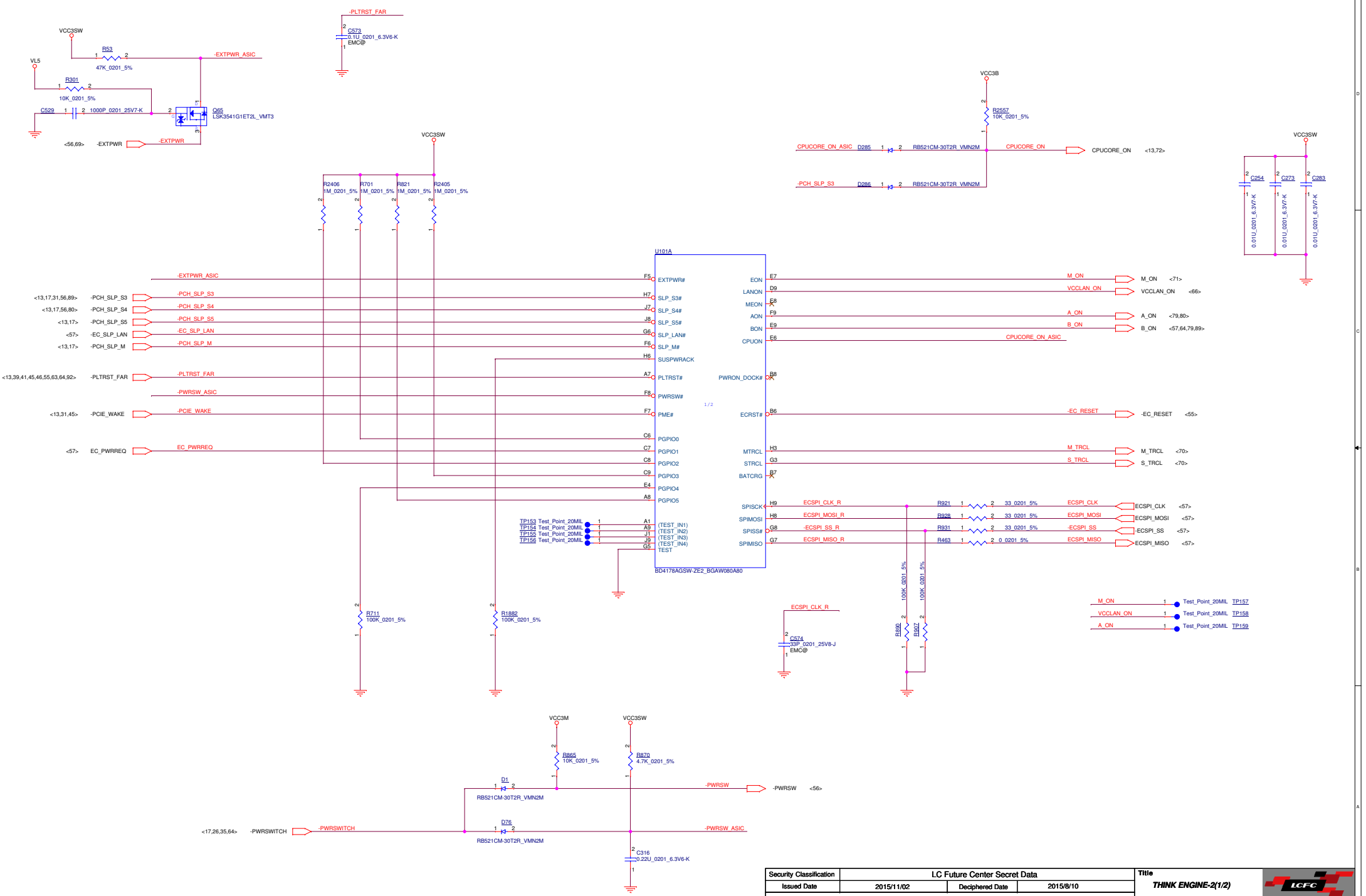



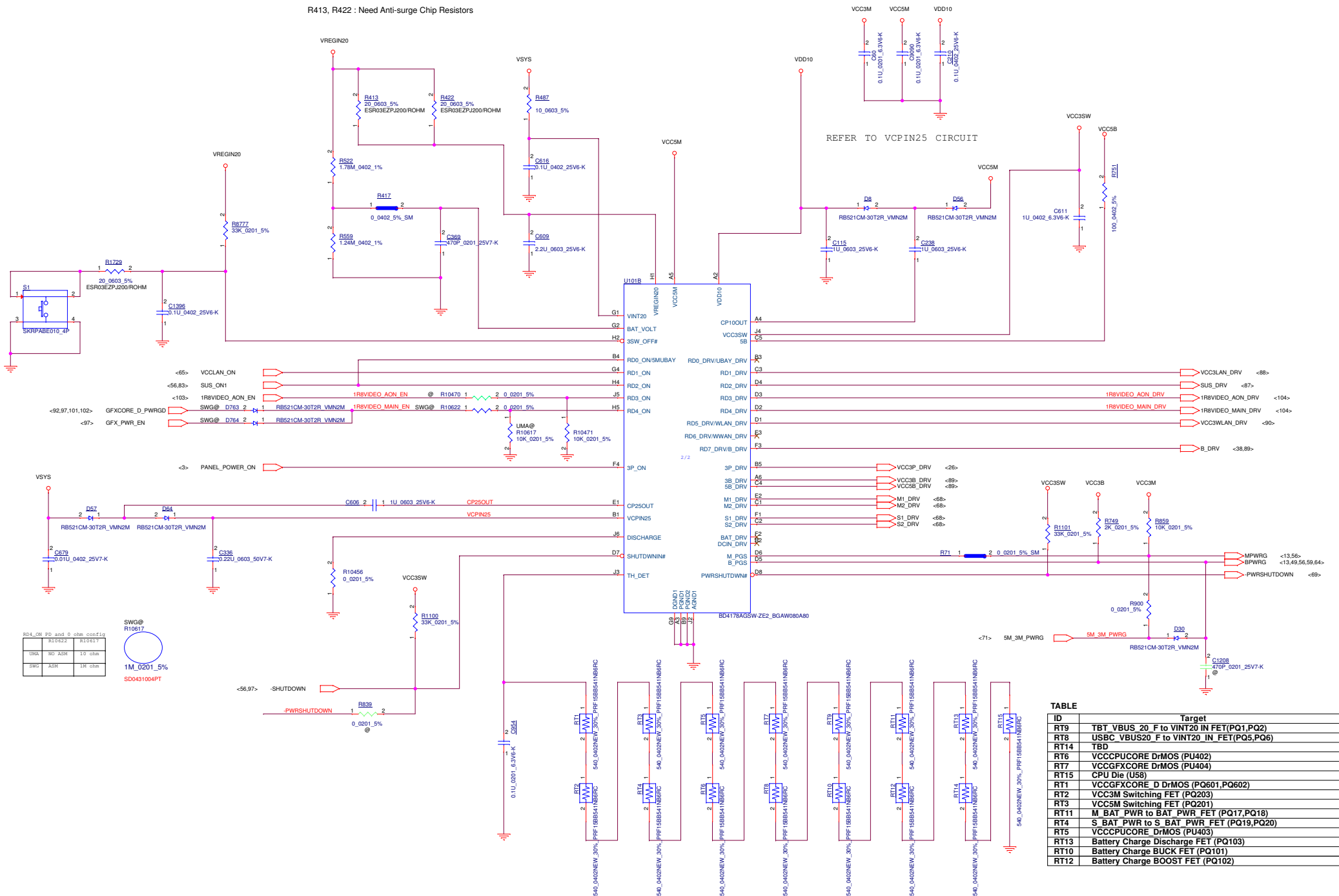
TABLE of U21/U31

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TI	SN74LVC1G66DCK	SA00005BE0J
NXP	74LVC1G66GW	SA00007KS00
ONsemi	MC74VHC1G66DFT2G	SA00008JQ00



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Size	Document Number	Rev		0.1	
Custom	C	Windu-2		Date: Thursday, November 05, 2017 Sheet 65 of 104	

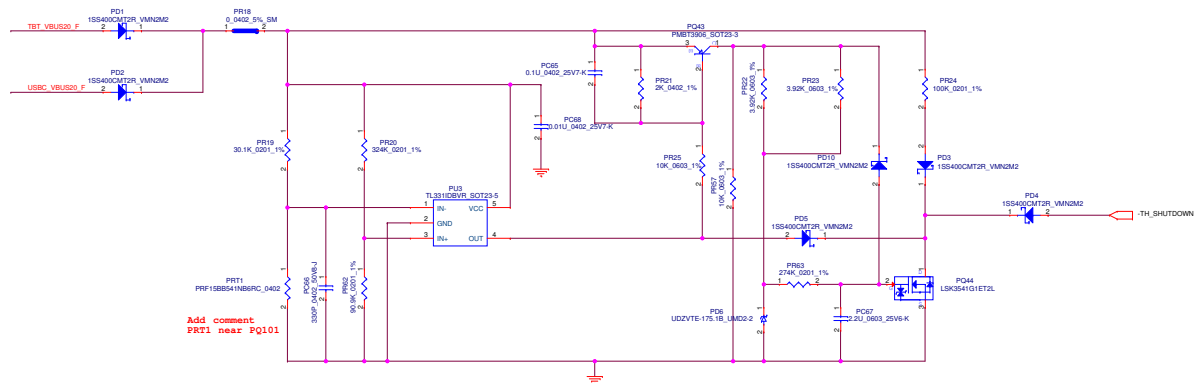
R413, R422 : Need Anti-surge Chip Resistors



RD4_ON	FD	and 0	chan	config
R10622	R10617			
DRN	NO	ASHR	10	chan
SWG	ASHR	1M	chan	



ID	Target
RT9	TBT VBUS 20_F to VINT20_IN FET(PQ1,PQ2)
RT8	USBC VBUS20_F to VINT20_IN FET(PQ5,PQ6)
RT14	TBD
RT6	VCCPUCORE DrMOS (PU402)
RT7	VCCGFXCORE DrMOS (PU404)
RT15	CPU Die (U58)
RT1	VCCGFXCORE_D DrMOS (PG601,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)
RT5	VCCPUCORE DrMOS (PU403)
RT13	Battery Charge Discharge FET (PQ103)
RT10	Battery Charge BUCK FET (PQ101)
RT12	Battery Charge BOOST FET (PQ102)



Add comment
PRT1 near Pq101

TABLE PL1,PL2

1st: TAIYO FBMJ2125HM210NT
2nd: MURATA BLM21SN300SN1D

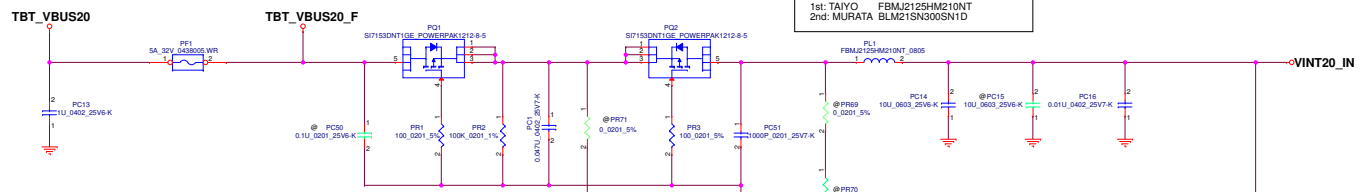
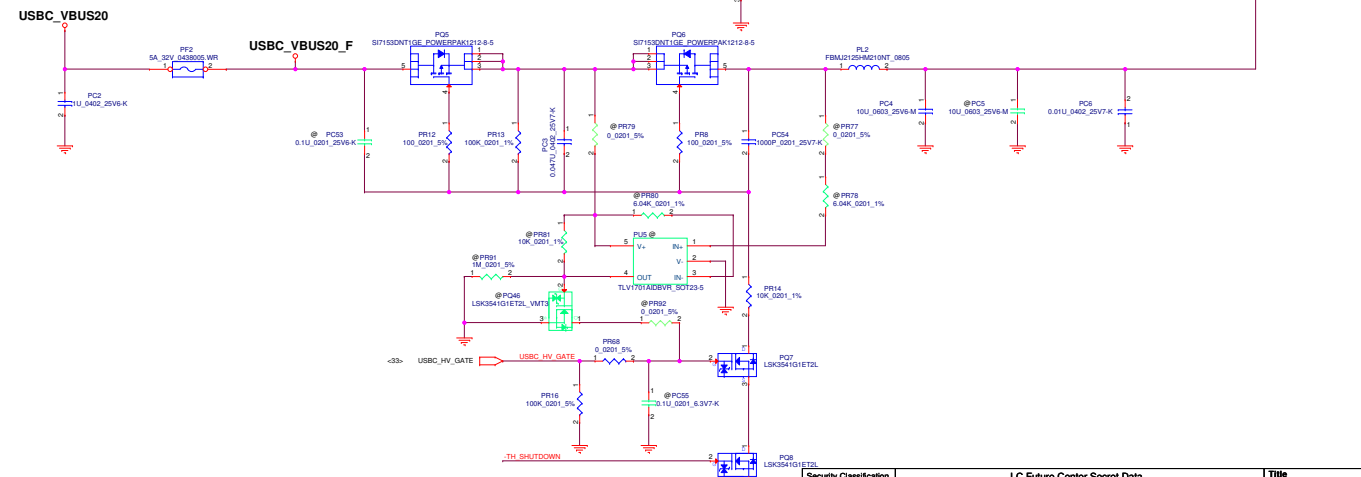


TABLE PQ1,PQ2,PQ5,PQ6

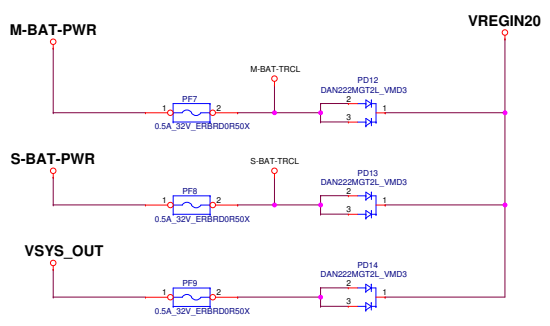
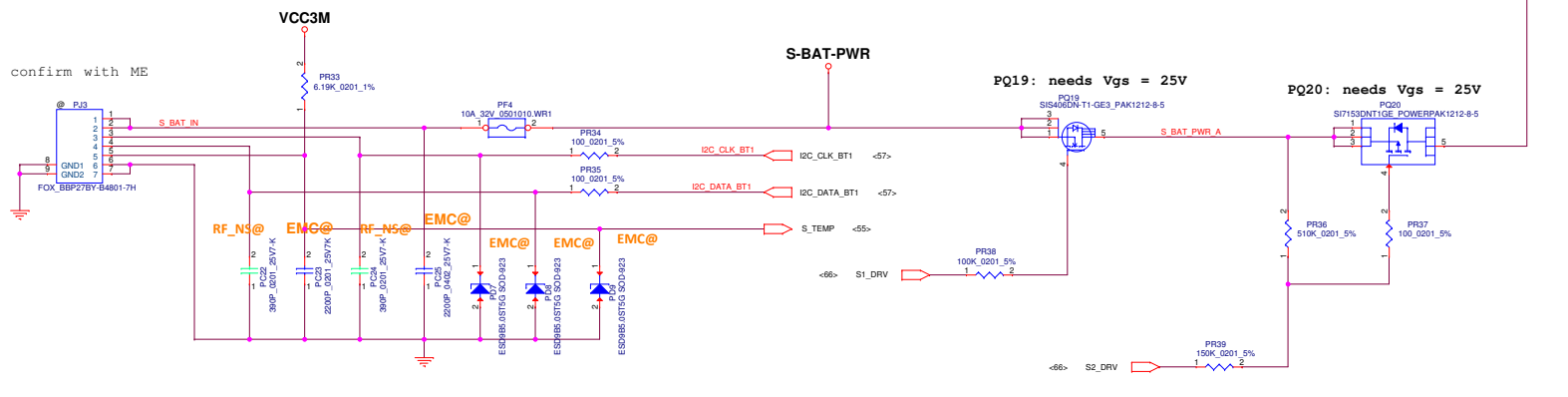
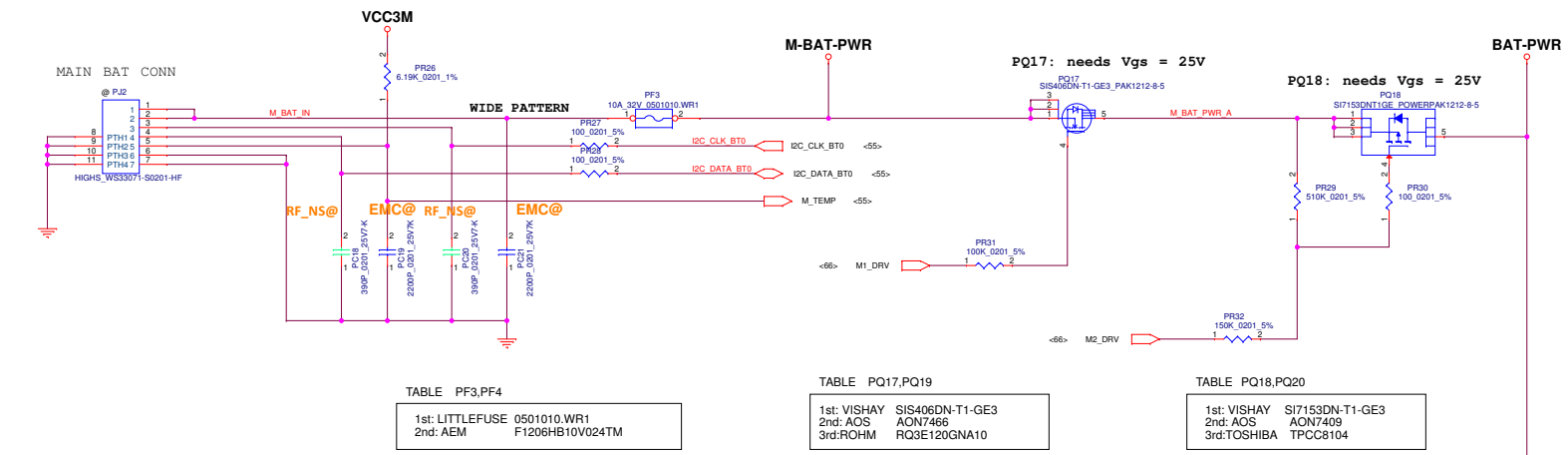
1st: VISHAY SI7153DN-T1-GE3
2nd: AOS AON7409
3rd: TOSHIBA 1PCC8104



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Date: Thursday, November 09, 2017			Sheet: 68 of 104



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VINT20_IN
MLCCs must be placed symmetrically on Top and Bottom.

VSYS_OUT
MLCCs must be placed symmetrically on Top and Bottom.

Table PQ101

Infinion	: BSC0923 ND
AOS	: AON6998
Vishay	: S2398

Table PL101

1st: CYNTEC	CMLE063T-2R2MS
2nd: TOKIN	MPLCG0630L2R2

Table PQ102

1st: VISHAY	SIZ340DT-T1-GE3
2nd: AOS	AON7934

Should be placed near ACP, ACN

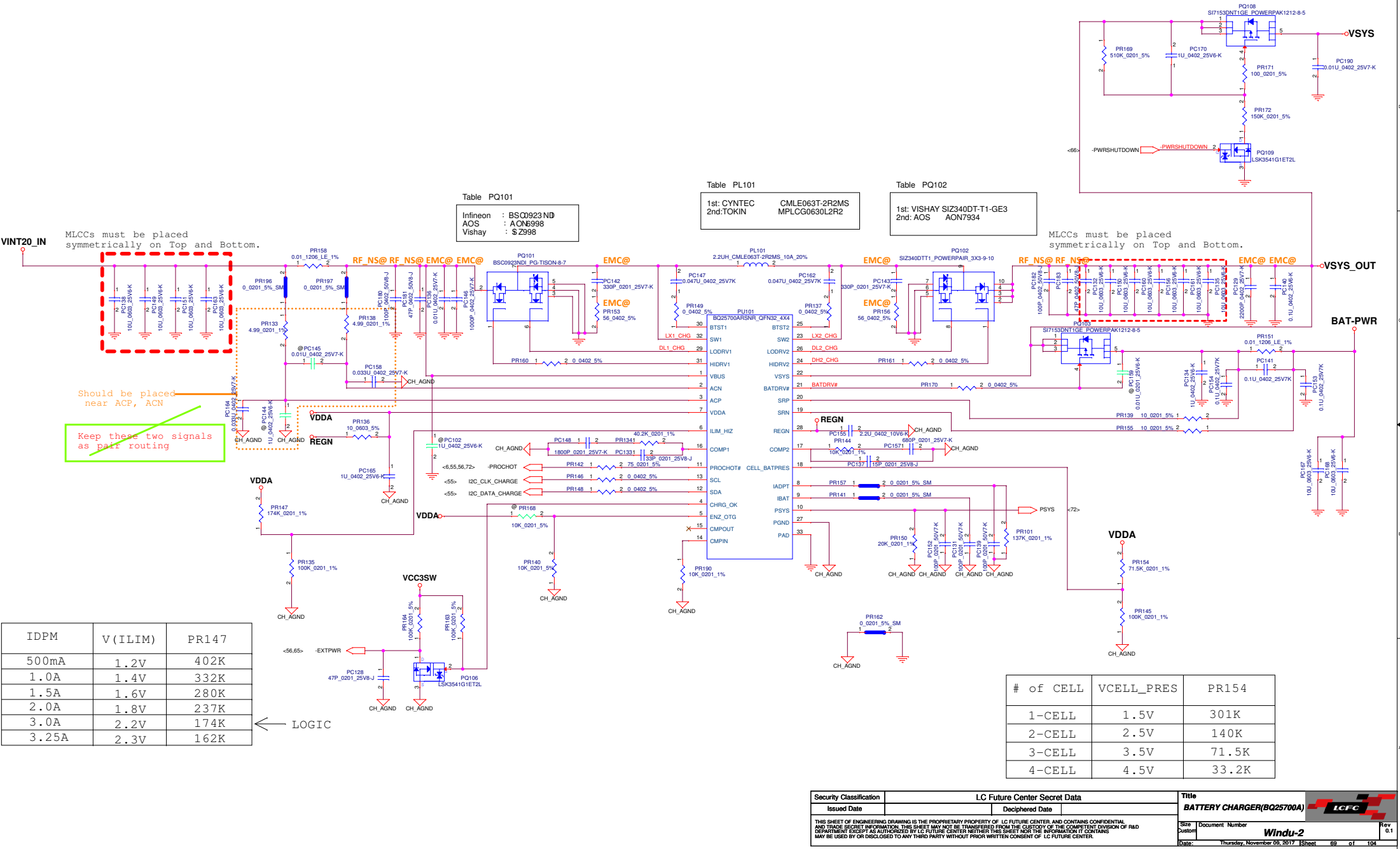
Keep these two signals as pair routing

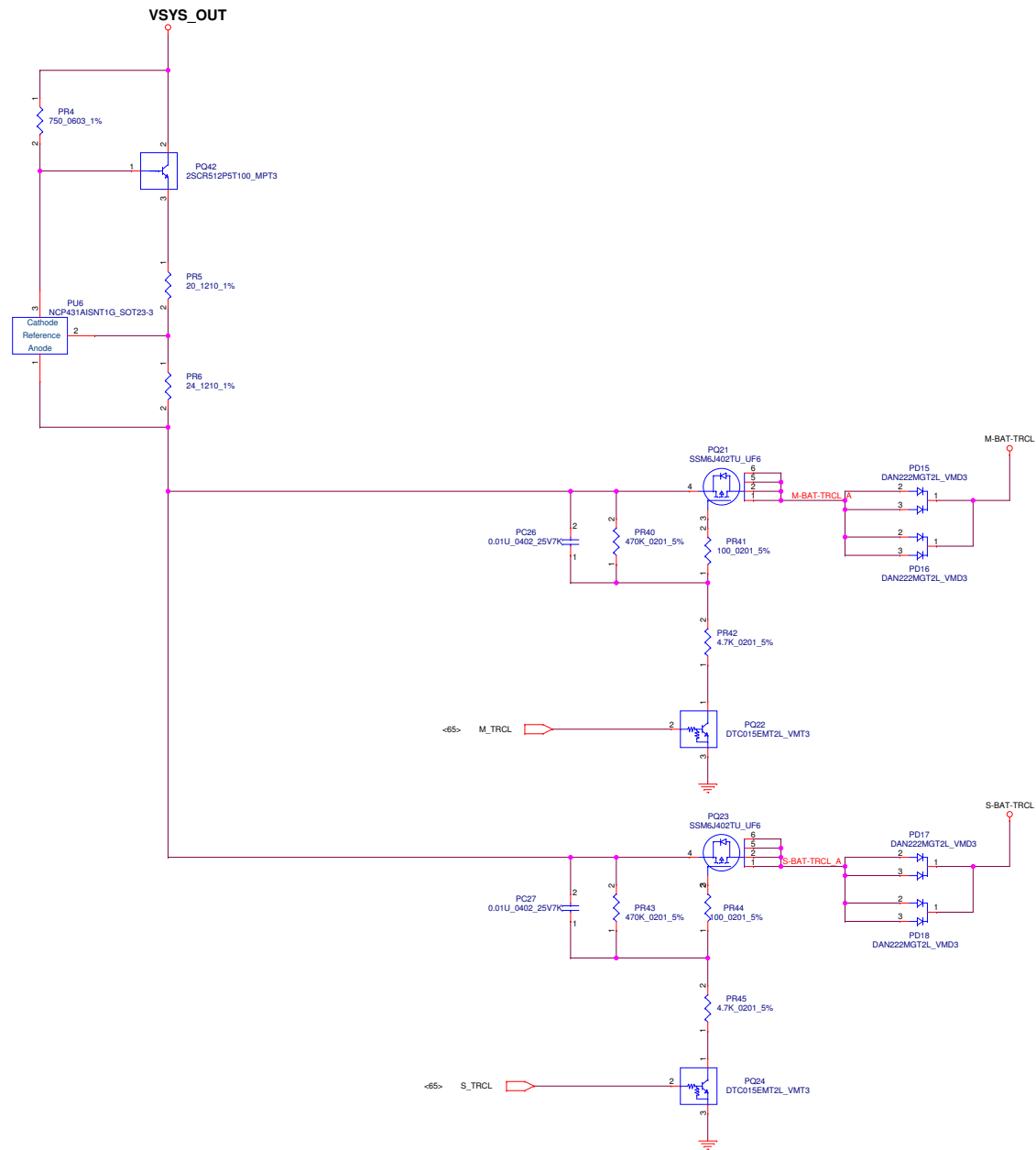
IDPM	V(ILIM)	PR147
500mA	1.2V	402K
1.0A	1.4V	332K
1.5A	1.6V	280K
2.0A	1.8V	237K
3.0A	2.2V	174K
3.25A	2.3V	162K


← LOGIC

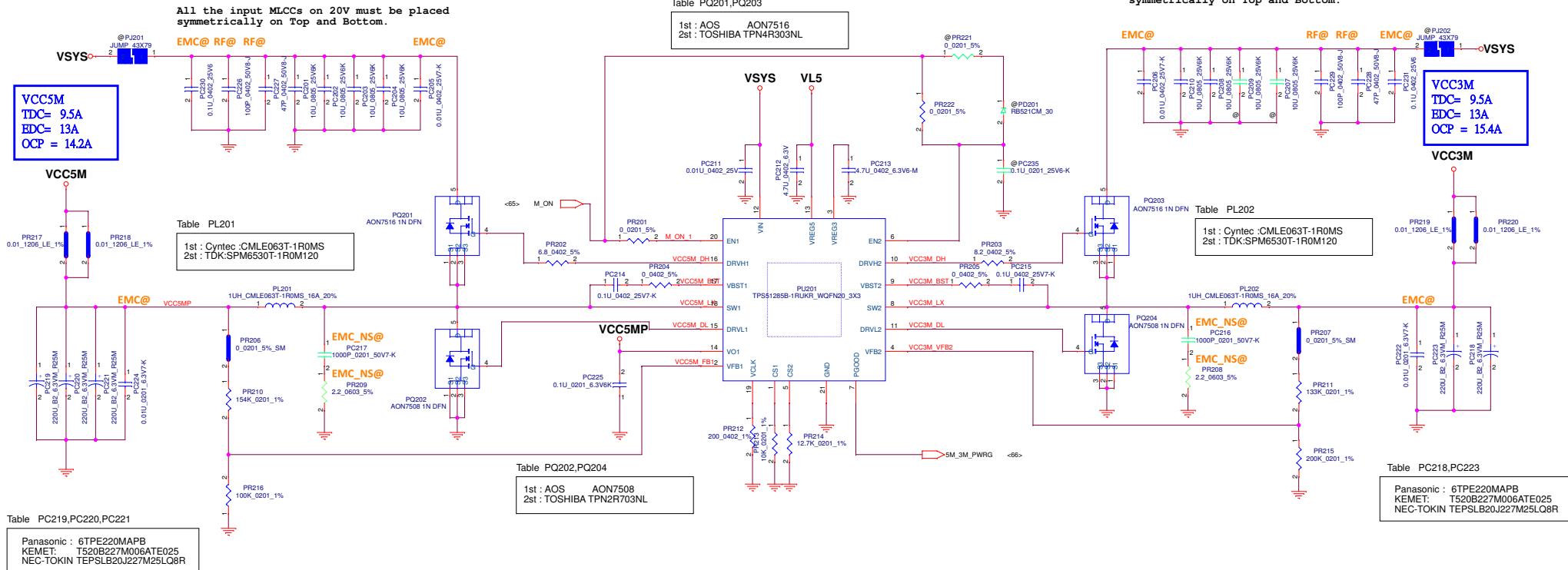
# of CELL	VCELL_PRES	PR154
1-CELL	1.5V	301K
2-CELL	2.5V	140K
3-CELL	3.5V	71.5K
4-CELL	4.5V	33.2K

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Issued Date	Deciphered Date	Size	Document Number
		Custom	Windu-2
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Date:	Thursday, November 09, 2017	Sheet	69 of 104





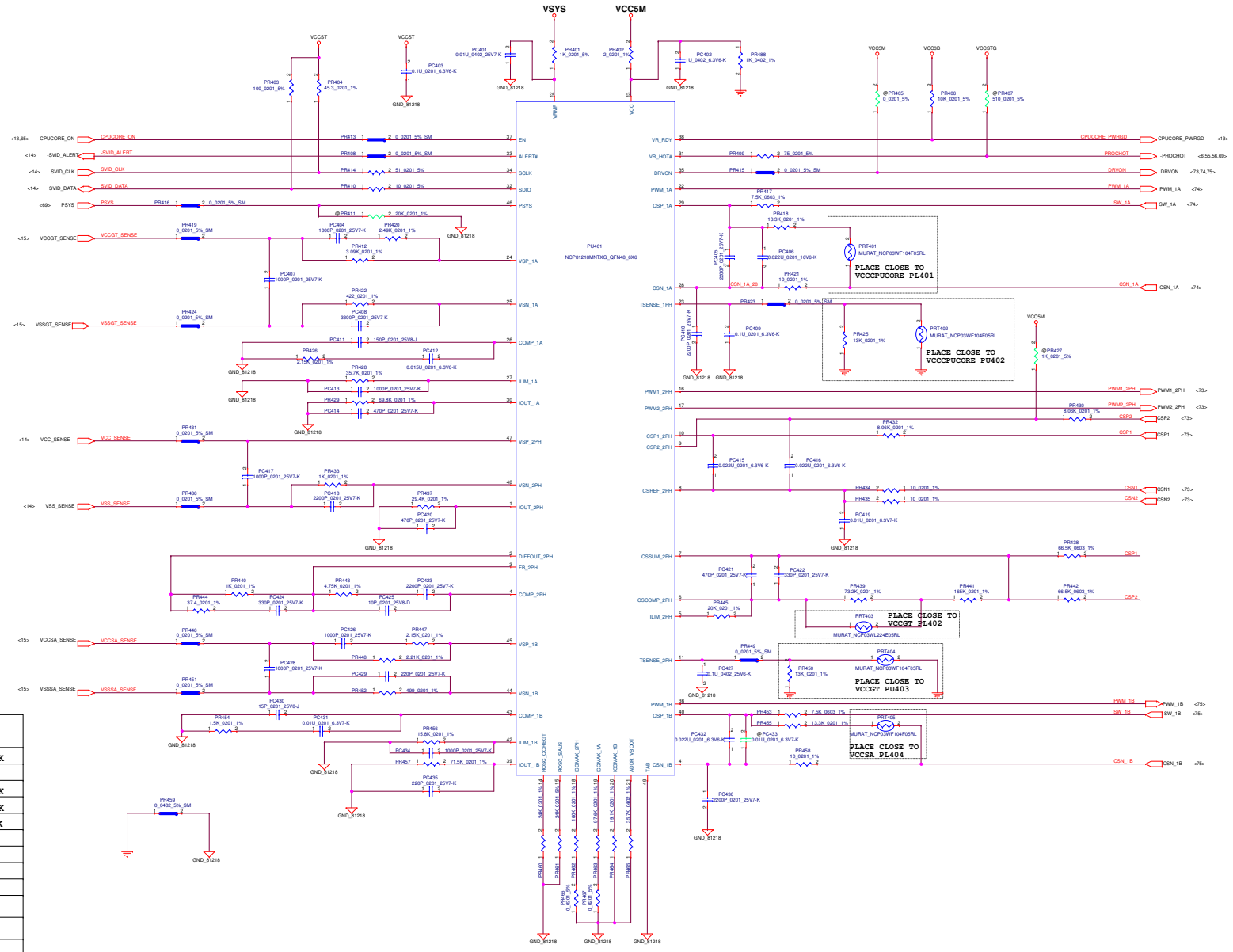
Security Classification	LC Future Center Secret Data	Title	
Issued Date	Deciphered Date	CHARGER SELECTOR	
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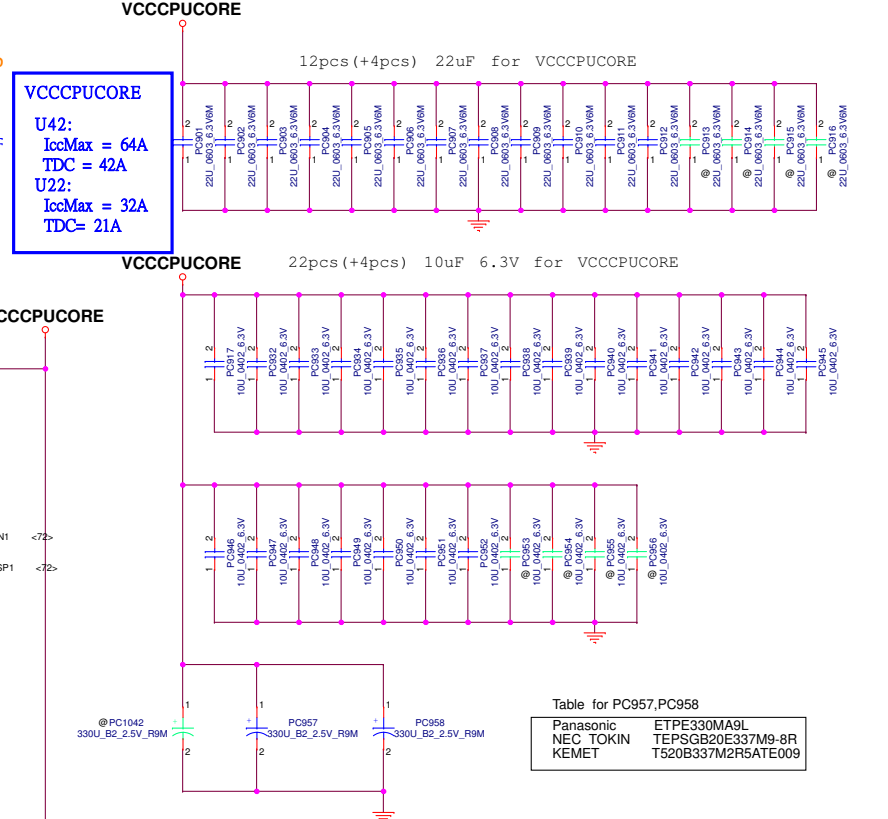
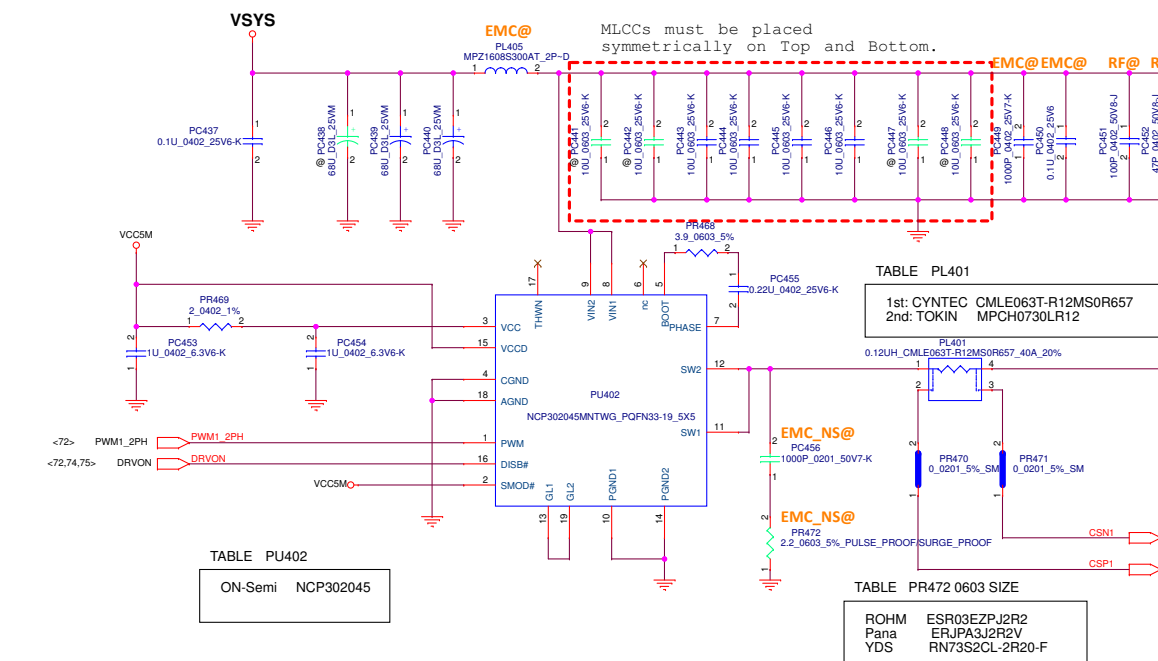
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Issued Date	Disciplined Date	Size	Document Number
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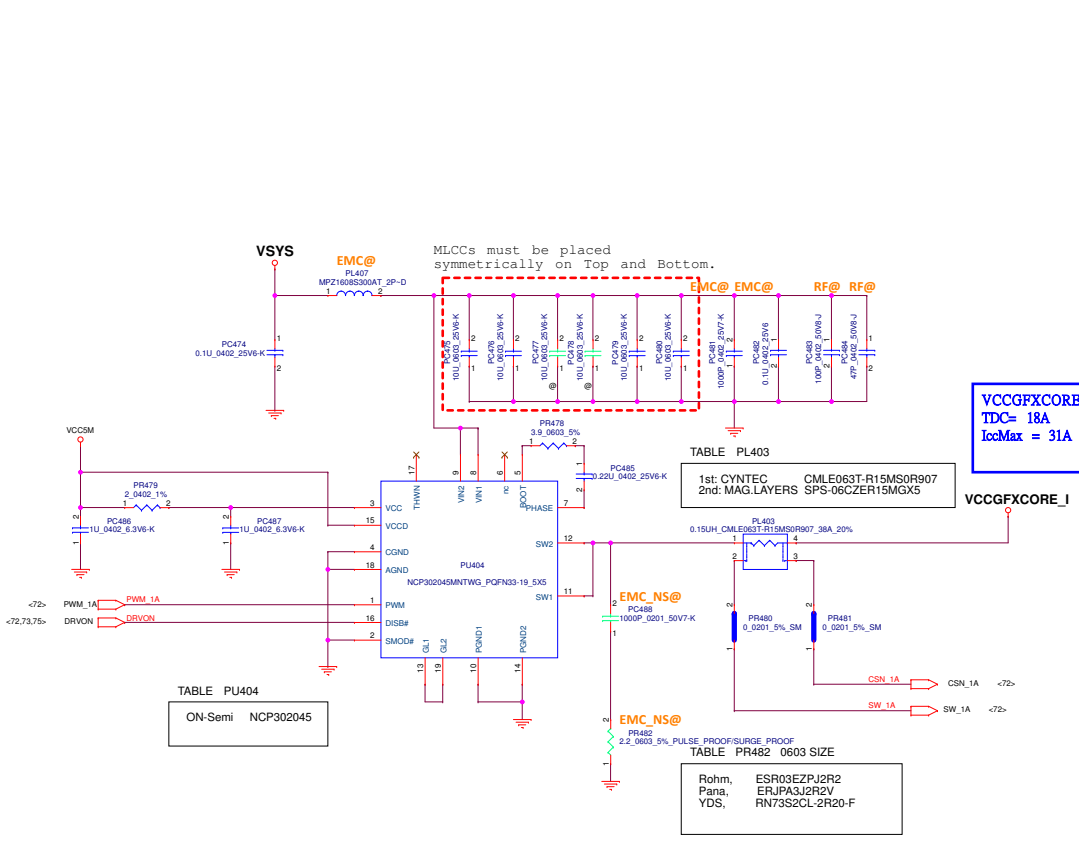
Windu-2



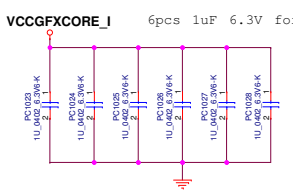
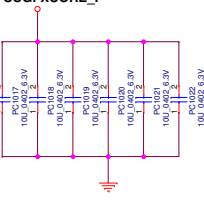
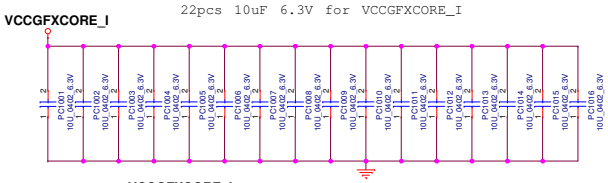
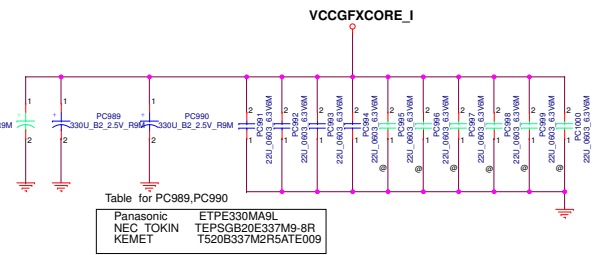
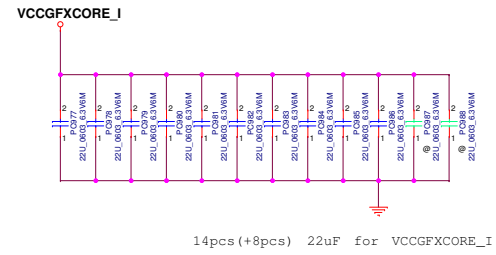
Location	U42	U22
PR456	15.8K	18.7K
PR457	71.5K	91K
PR462	100K	49.9K
PR464	19.1K	15.8K
PR445	20K	10K
PR442	66.5K	NA
PR435	10	NA
PR430	8.06K	NA
PR427	NA	1K
PC416	0.022u	NA
PR437	29.4K	28K
PR440	1K	680

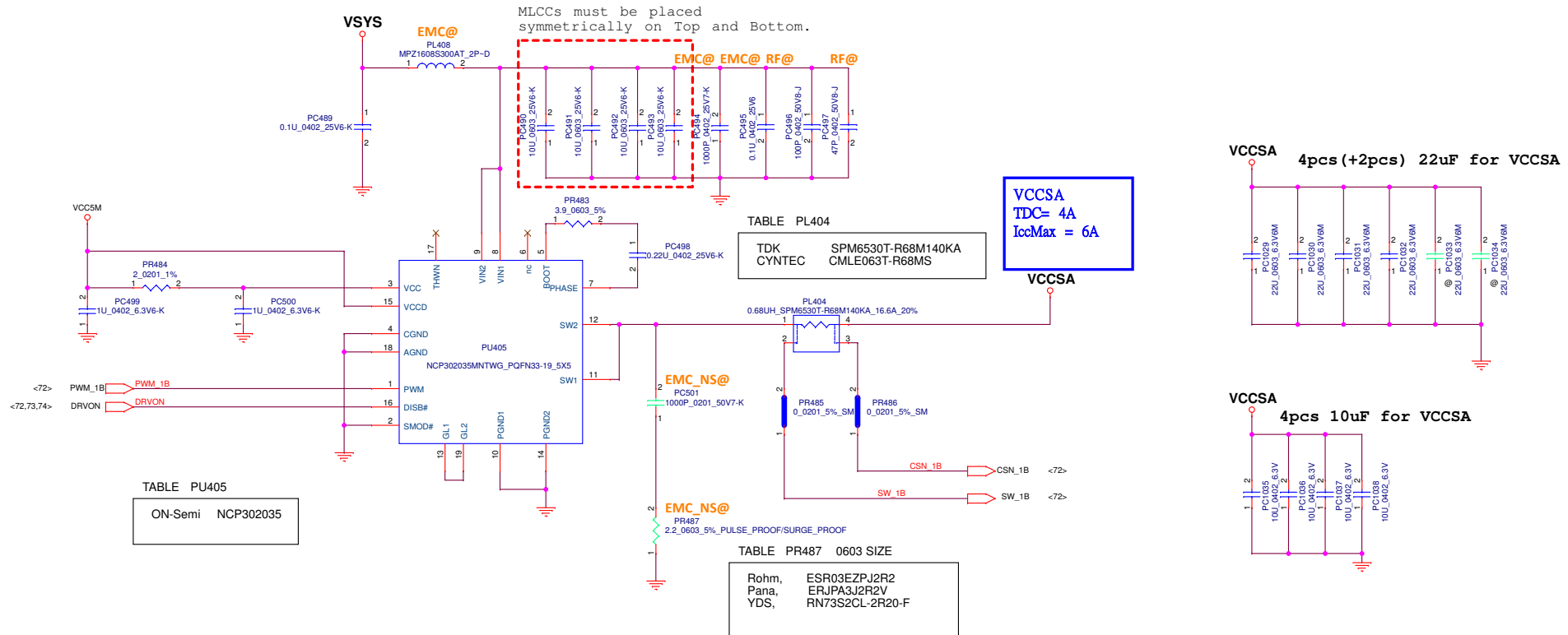



	R U-42	U-22	Remark
PU403, PL402, PL406, PC457, PC471, PC472 PC458, PC459, PC460, PC466, PC467 PC470, PR473, PR474, PC468, PC469	ASM	NO_ASM	
PC907, PC908, PC909, PC910, PC911, PC912	ASM	NO_ASM	The Number of 22uF KBL R U-42: 12pcs KBL U-22: 6pcs
PC938, PC939, PC940, PC941	ASM	NO_ASM	The Number of 10uF KBL R U-42: 22pcs KBL U-22: 18pcs
PC961, PC962	ASM	NO_ASM	The Number of 1uF KBL R U-42: 10pcs KBL U-22: 8pcs




VCCGFXCORE_I
TDC= 18A
IccMax = 31A






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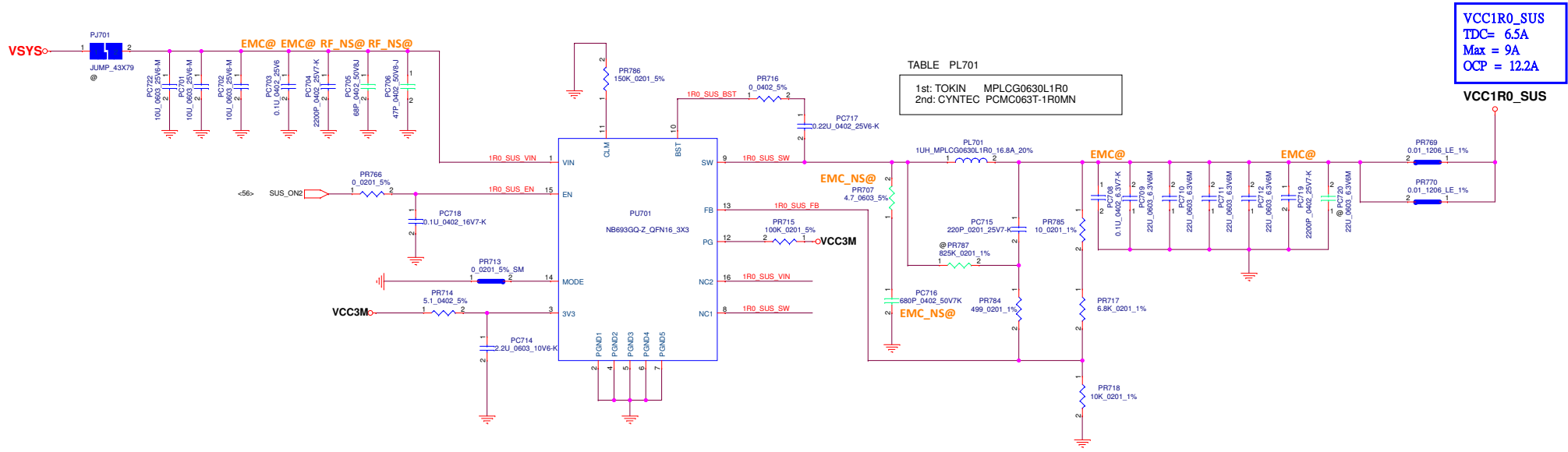

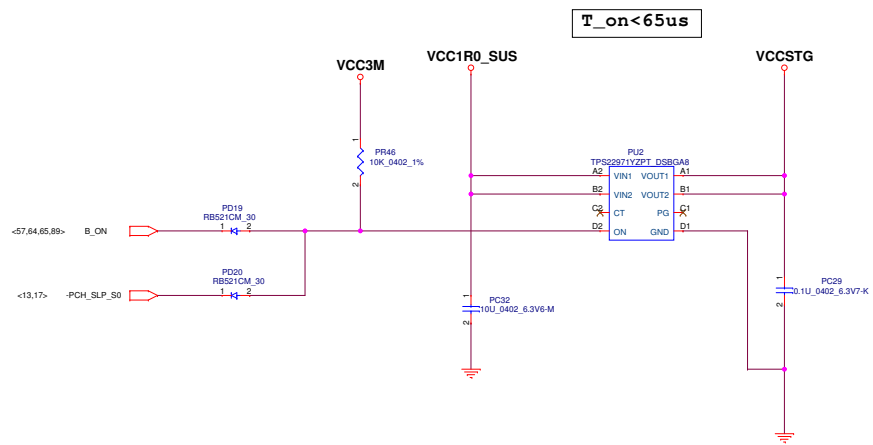
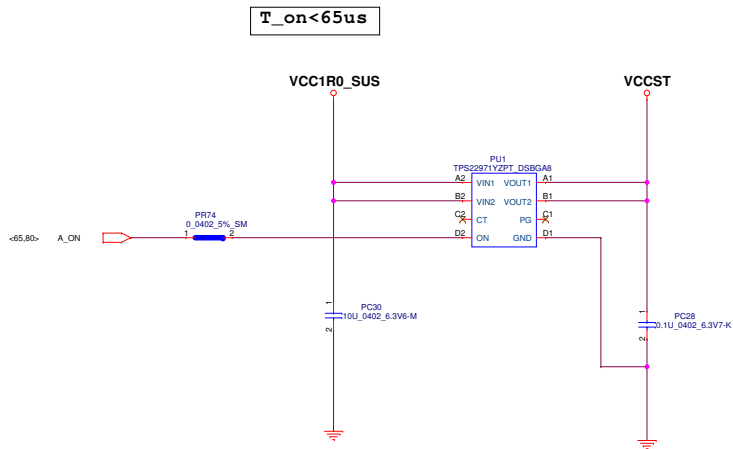


TABLE PL701
 1st: TOKIN MPLCG0630L1R0
 2nd: CYNTEC PCMC063T-1R0MN

VCC1R0_SUS
 TDC= 6.5A
 Max = 9A
 OCP = 12.2A

Security Classification	LC Future Center Secret Data		Title	
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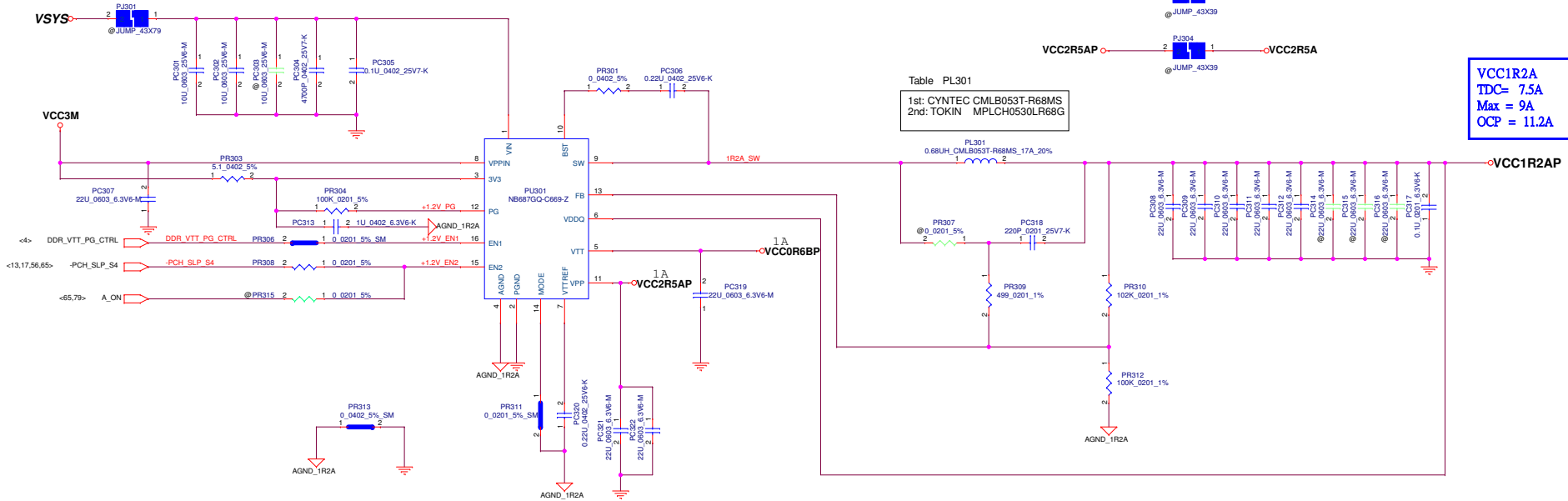


TABLE NB687GQ:EN1/EN2


State	EN1	EN2	VDDQ	VTTREF	VTT	VPP
S0	High	High	ON	ON	ON	ON
S3	Low	High	ON	ON	OFF (High-Z)	ON
S4/S5	Low	Low	OFF	OFF	OFF	OFF
Others	High	Low	OFF	OFF	OFF	OFF

TABLE NB687GQ:MODE


State	USM	Fs	Resistor to GND
M1	NO	700KHz	0
M2	YES	700KHz	90K
M3	NO	500KHz	150K
M4	YES	500KHz	>230K or Float

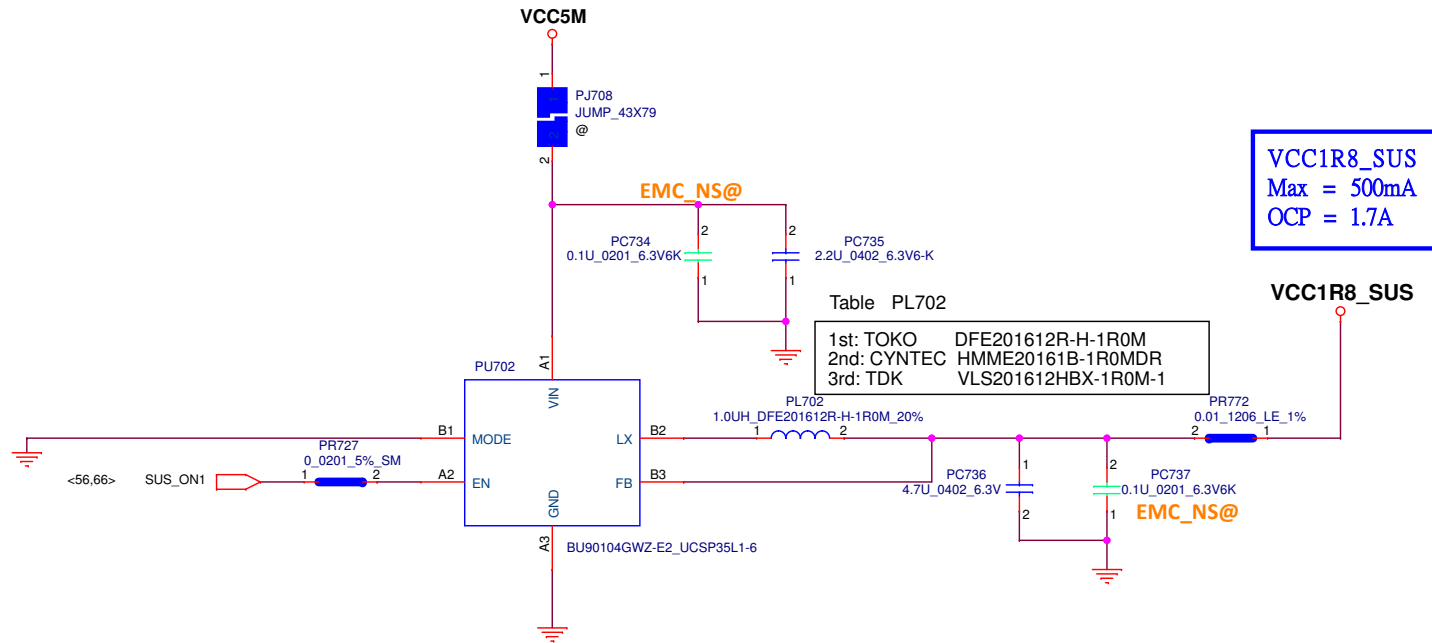
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DC/DC VCC1R8_SUS(BU90104GWZ)		
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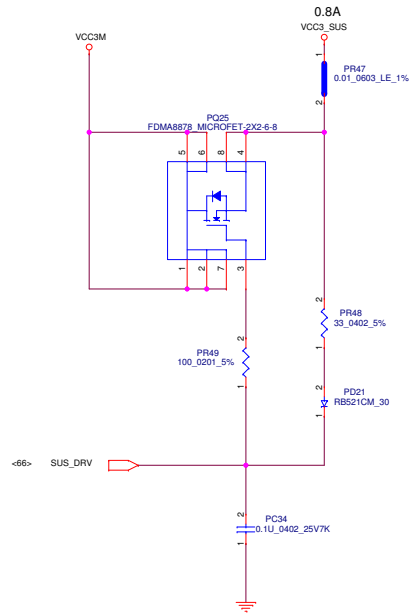
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				Rev: 0.03 Date: Thursday, November 09, 2017 Sheet 84 of 104

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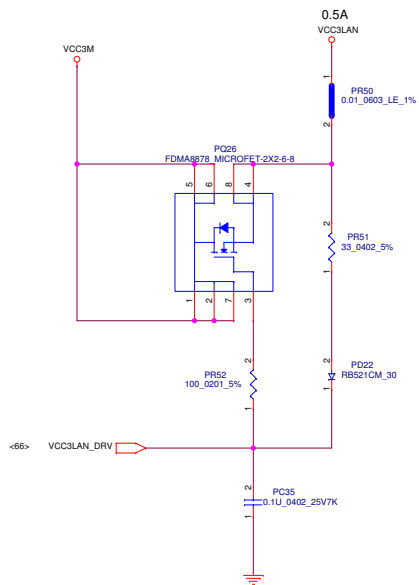
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Size	Document Number	Rev	0.24
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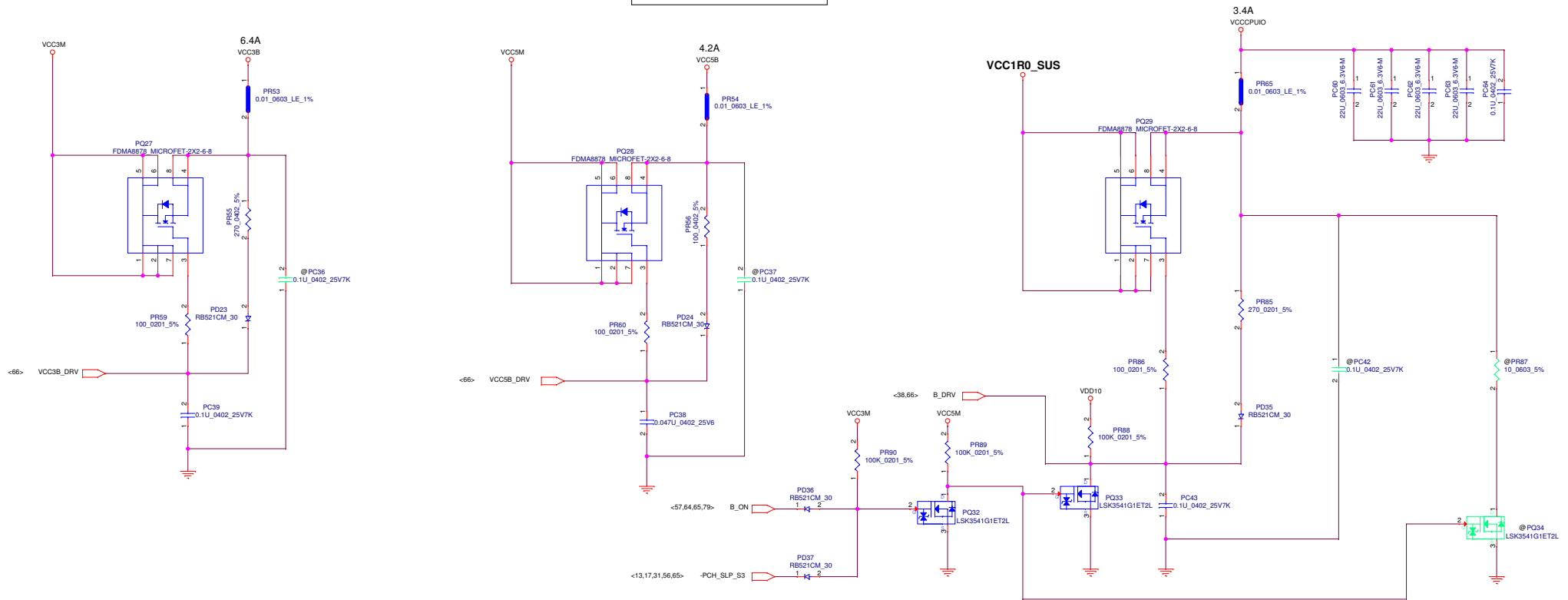
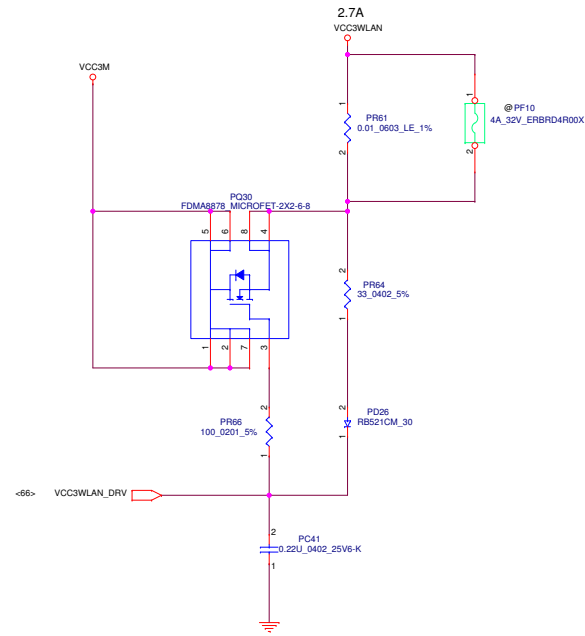
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Size	Document Number	Rev		
Custom	Windu-2	0.24		
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Table for PQ27 · PQ28 · PQ29

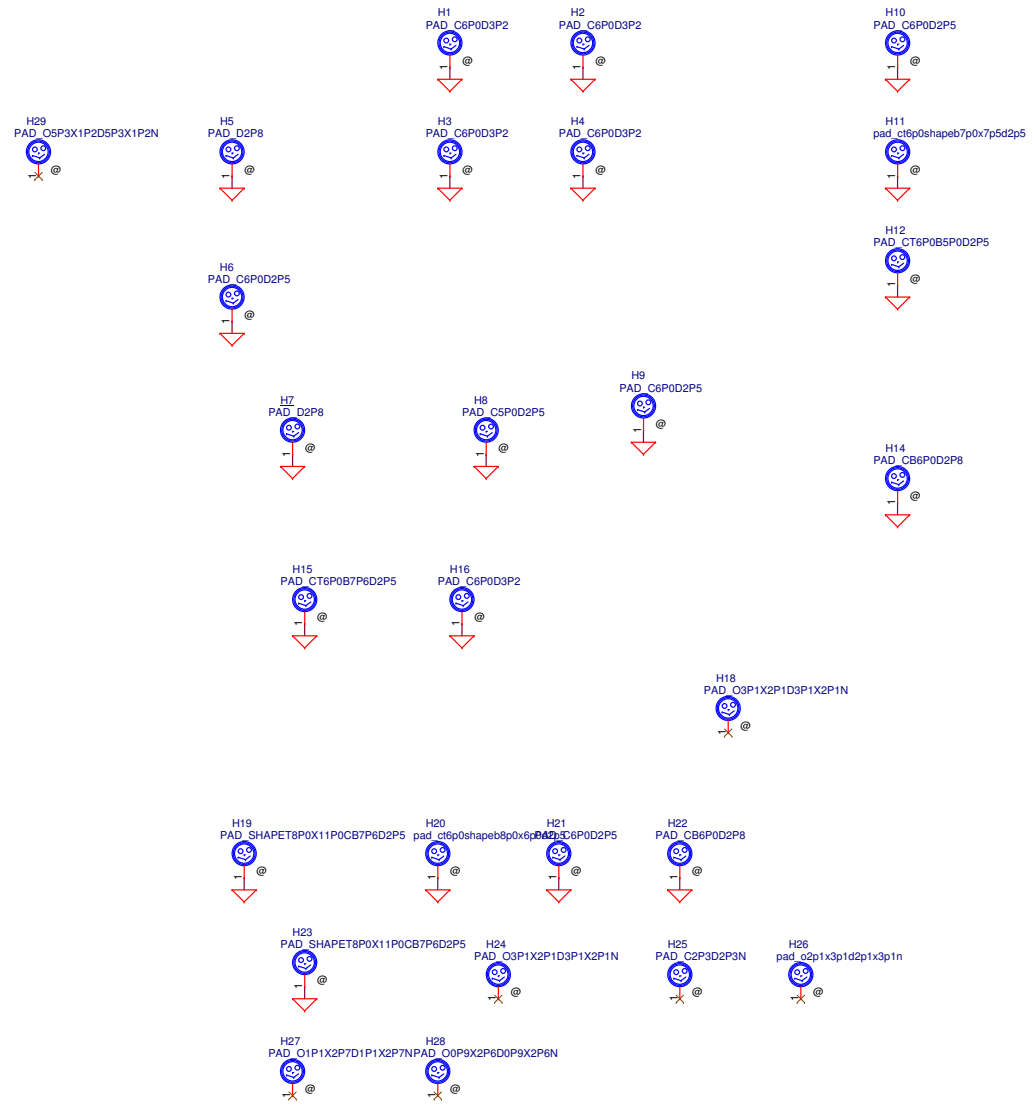
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VISHAY	SIA462DJ



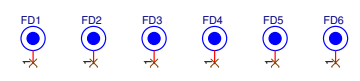
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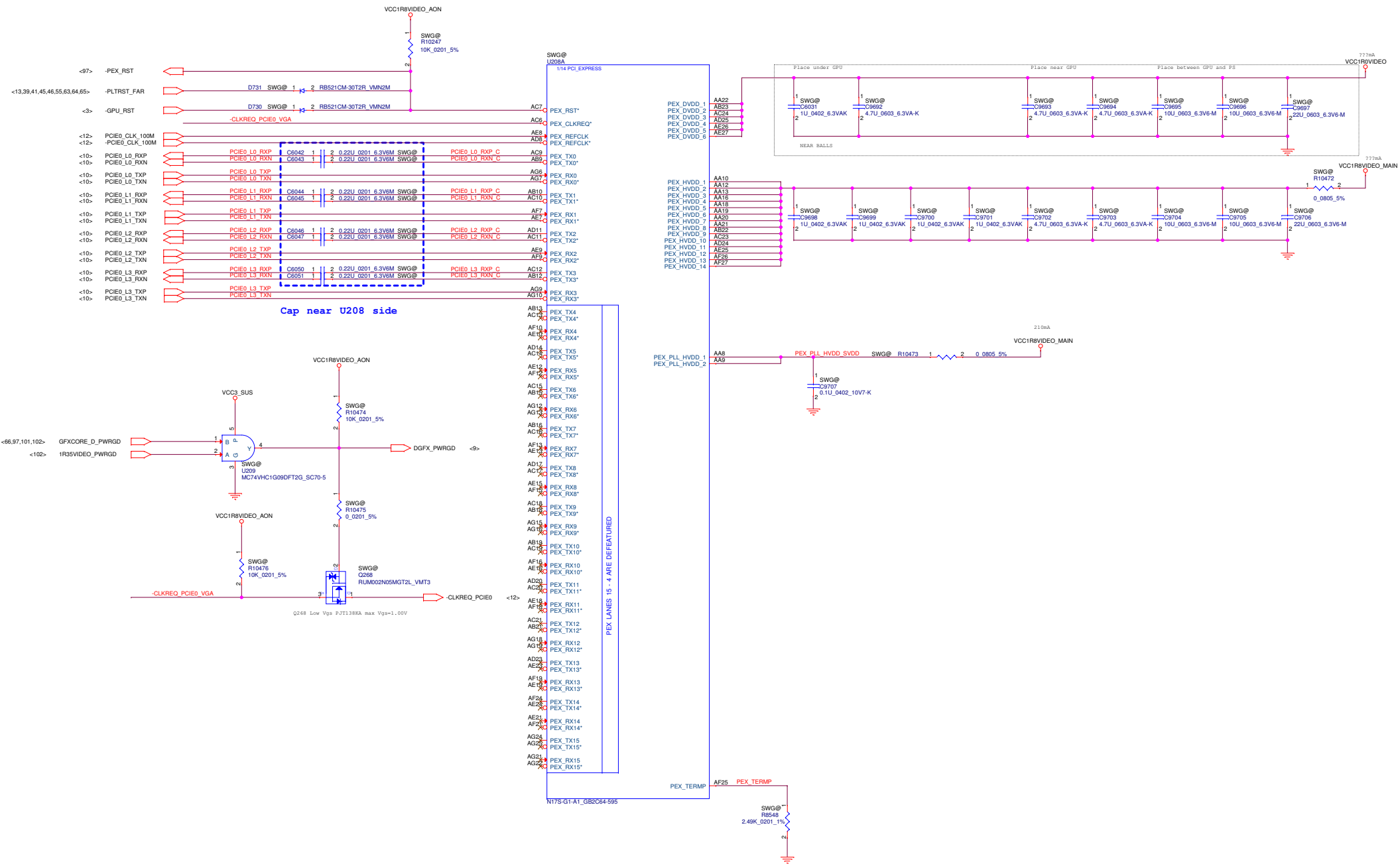
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Issued Date	2012/11/01	Deciphered Date	2013/12/31	
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Date: Thursday, November 08, 2017				Rev 0.24 Sheet 90 of 104



PCB Federal Mark PAD

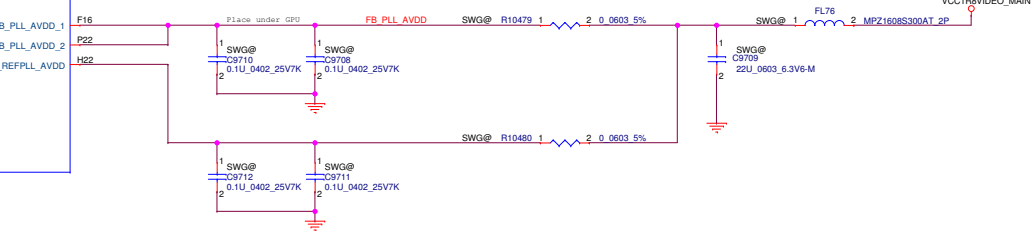
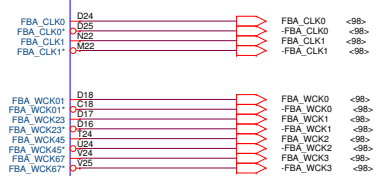
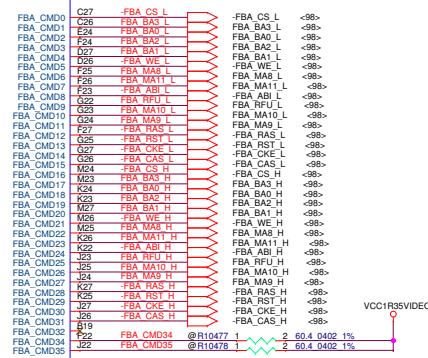
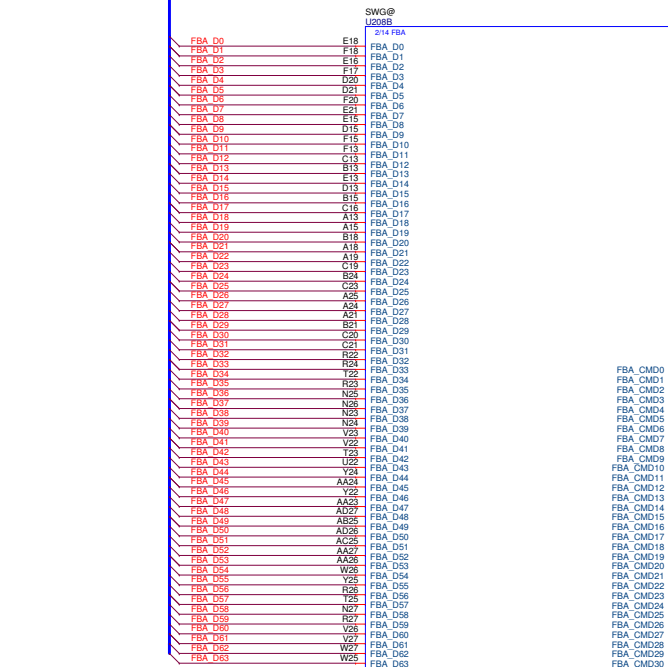


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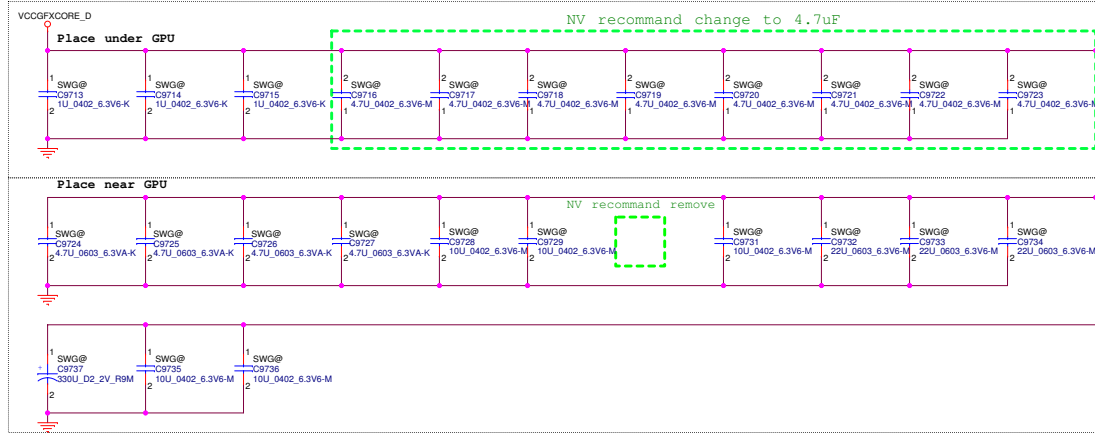
Security Classification	LC Future Center Secret Data		Title
Issued Date	2012/06/21	Deciphered Date	2012/06/21
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Date:	Thursday, November 09, 2017	Sheet	82 of 104

<98> FBA_D[83:0]

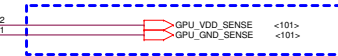


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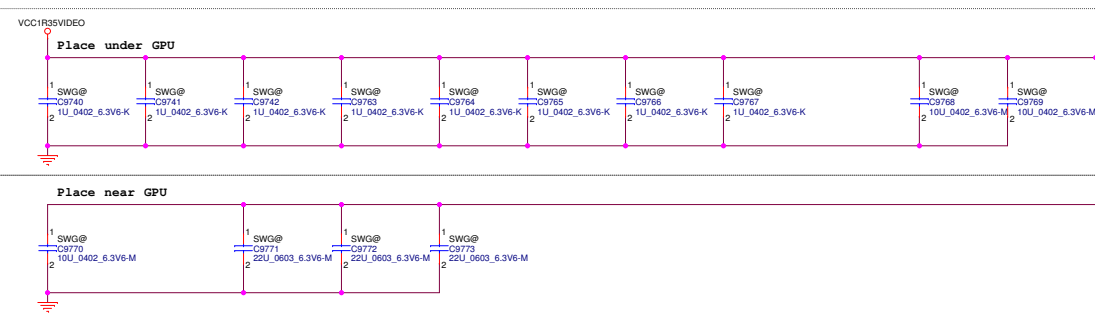
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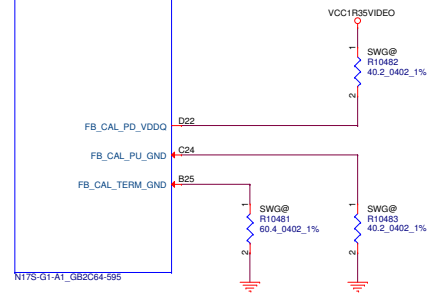
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 - L15 VDD_006
 - M10 VDD_007
 - M12 VDD_008
 - M18 VDD_009
 - N11 VDD_010
 - N13 VDD_011
 - N15 VDD_012
 - N17 VDD_013
 - P14 VDD_014
 - R11 VDD_015
 - R13 VDD_016
 - R15 VDD_017
 - R17 VDD_018
 - T10 VDD_019
 - T12 VDD_020
 - T16 VDD_021
 - T18 VDD_022
 - U15 VDD_023
 - U17 VDD_024
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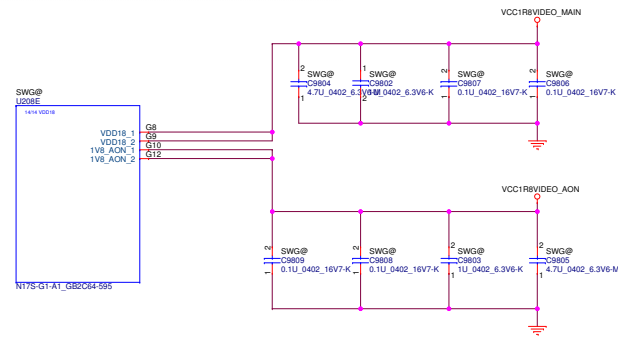
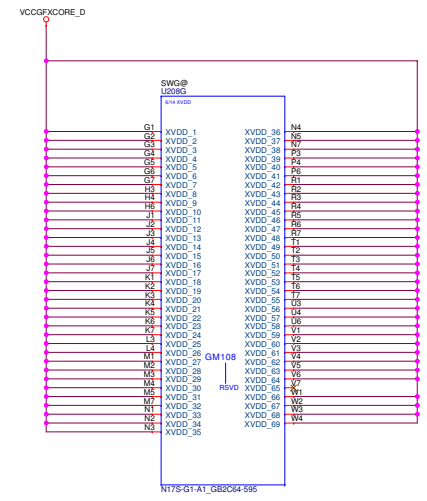
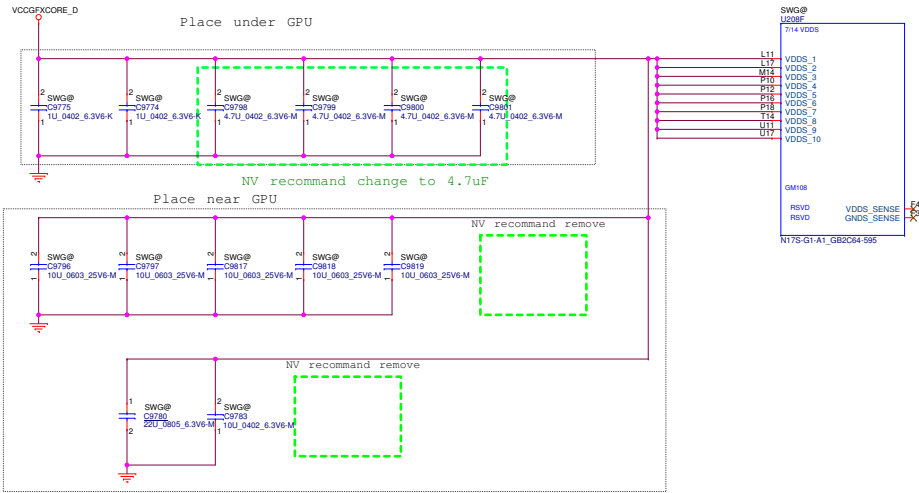
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 differential signal routing.

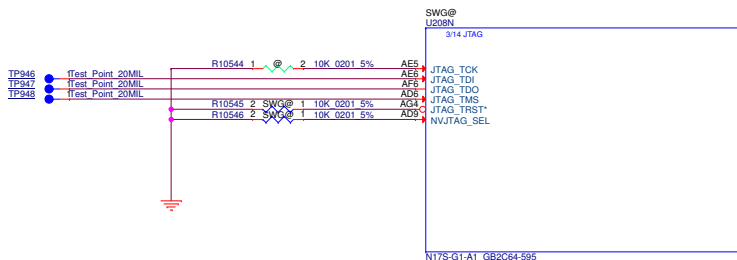
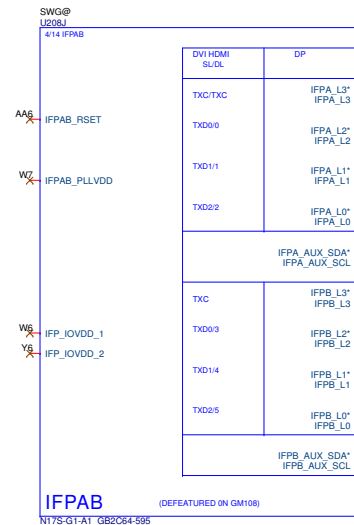
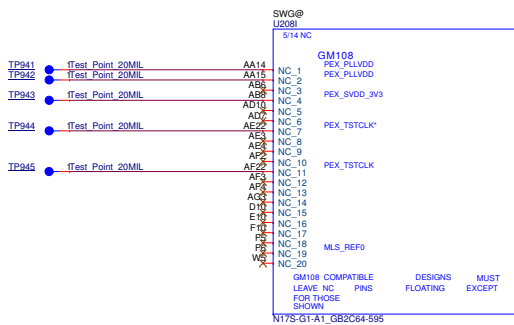
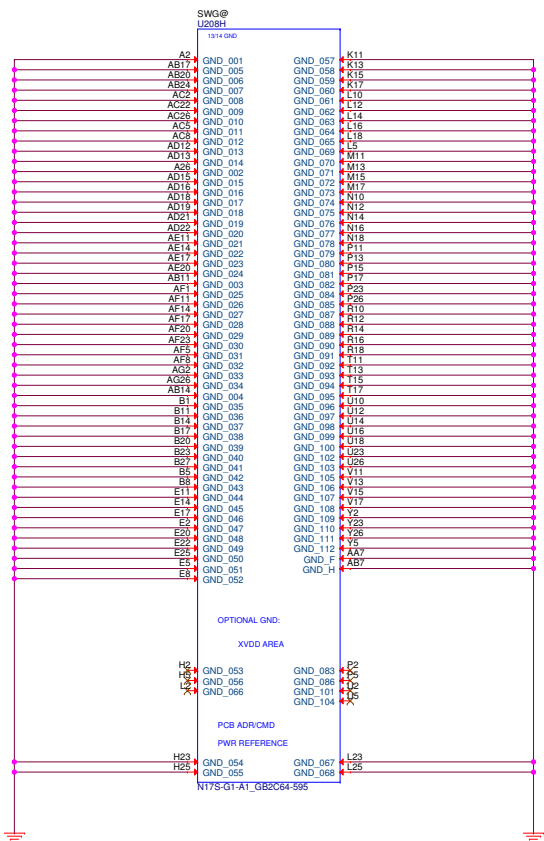


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 - C25 FBVDDQ_02
 - E23 FBVDDQ_03
 - F21 FBVDDQ_04
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 - G13 FBVDDQ_07
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 - G15 FBVDDQ_09
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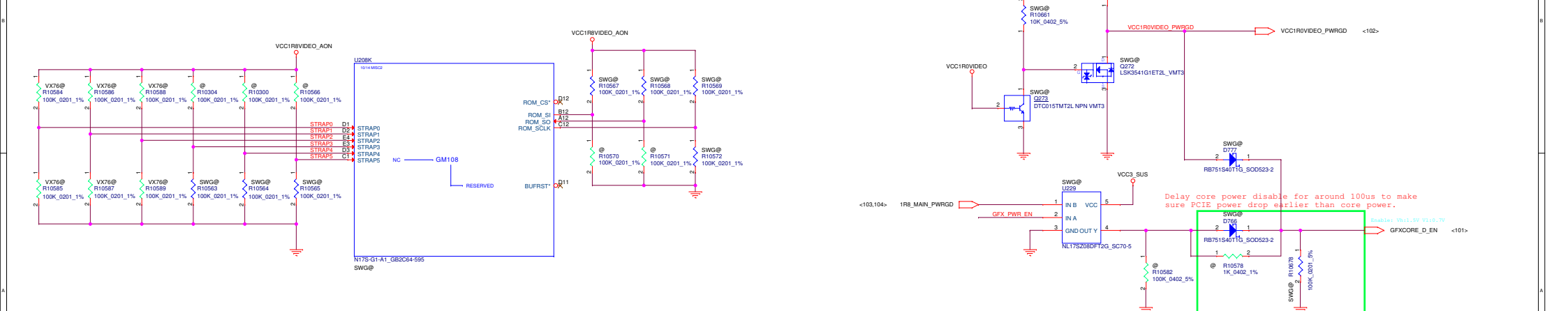
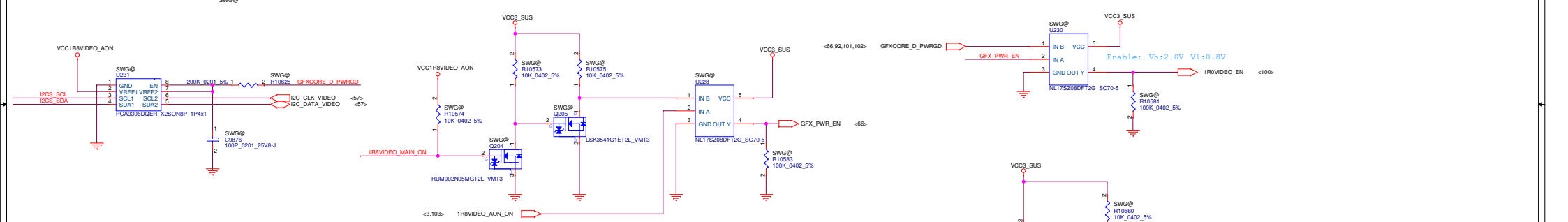
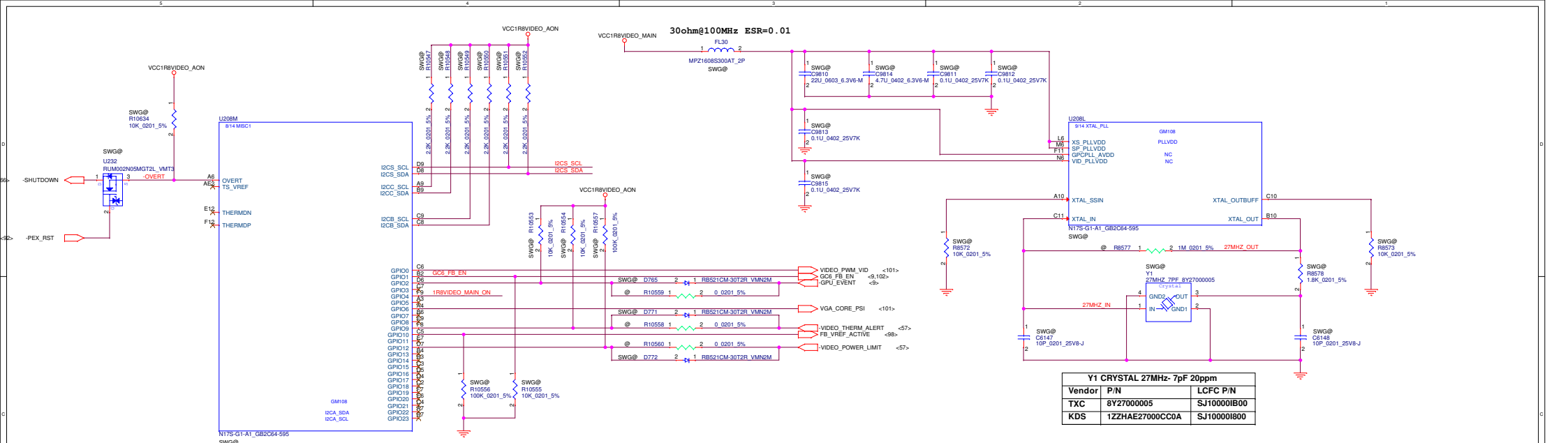


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VX76 Config (VRAM + Resistance)

Memory Density	Vendor	Manufacturer P/N	RAMCFG Setting Number	STRAP 0	STRAP 1	STRAP 2
8Gb (256M x 32)	Samsung	K4G80325FB-HC28	0 (0x0000)	No ASM	ASM	No ASM
		SA00081C10	1 (0x0001)	ASM	No ASM	ASM
		MT51J256M32HF-70A	SA00081710	2 (0x0002)	No ASM	ASM
	Hynix	H5GC824MJR-ROC		No ASM	ASM	No ASM

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			N17S-G1(6/6) GPIO / XTAL
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<93- FBA_D[0..63]

MF#0

MF#1

MF#2

MF#3

MF#4

MF#5

MF#6

MF#7

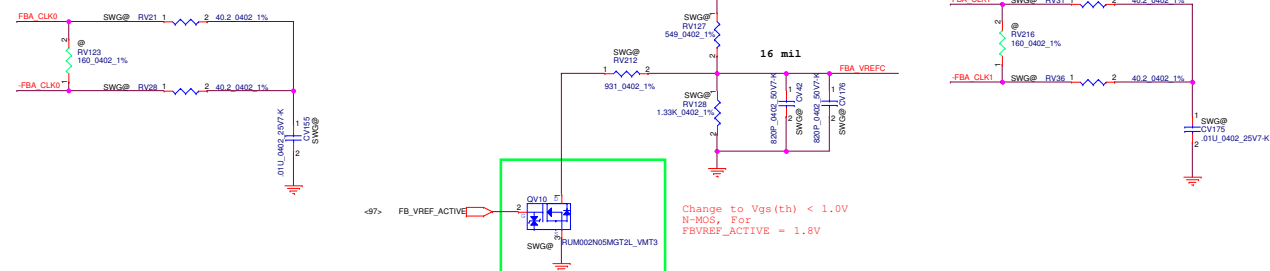
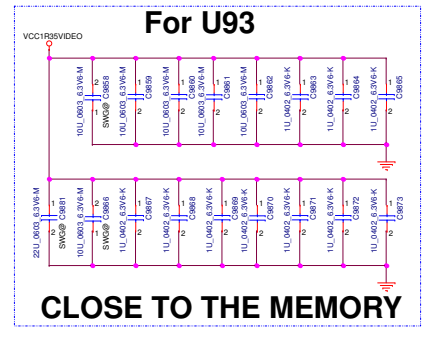
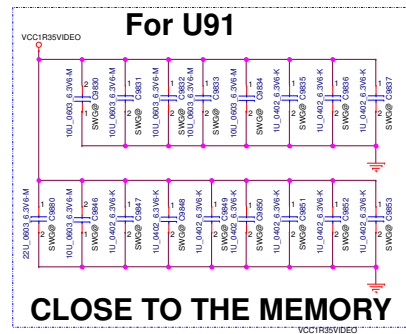
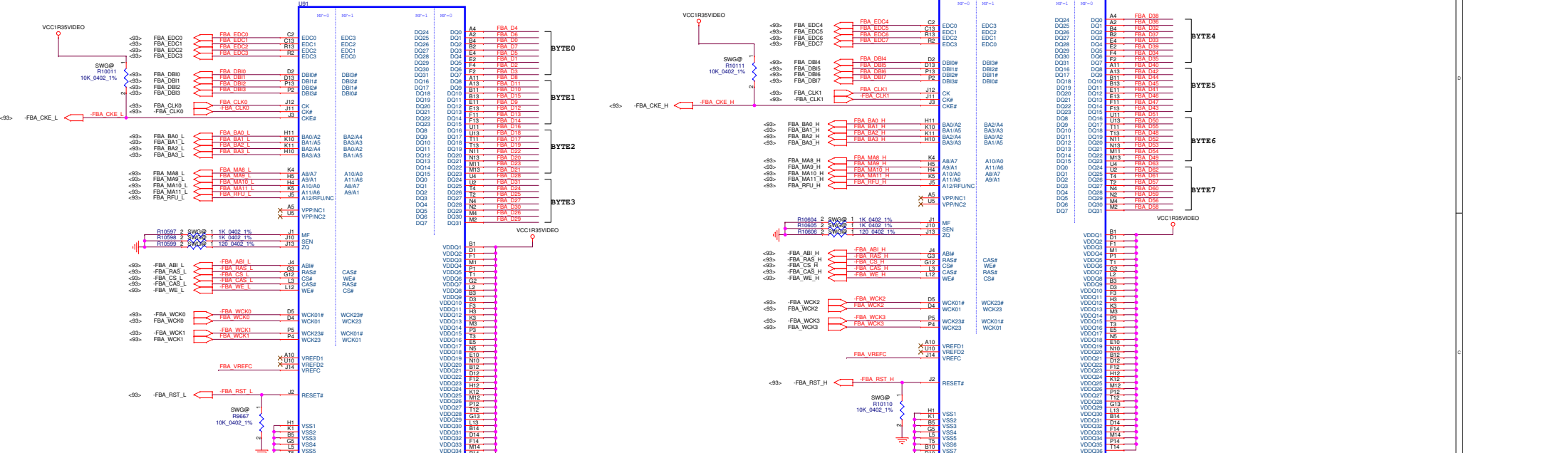
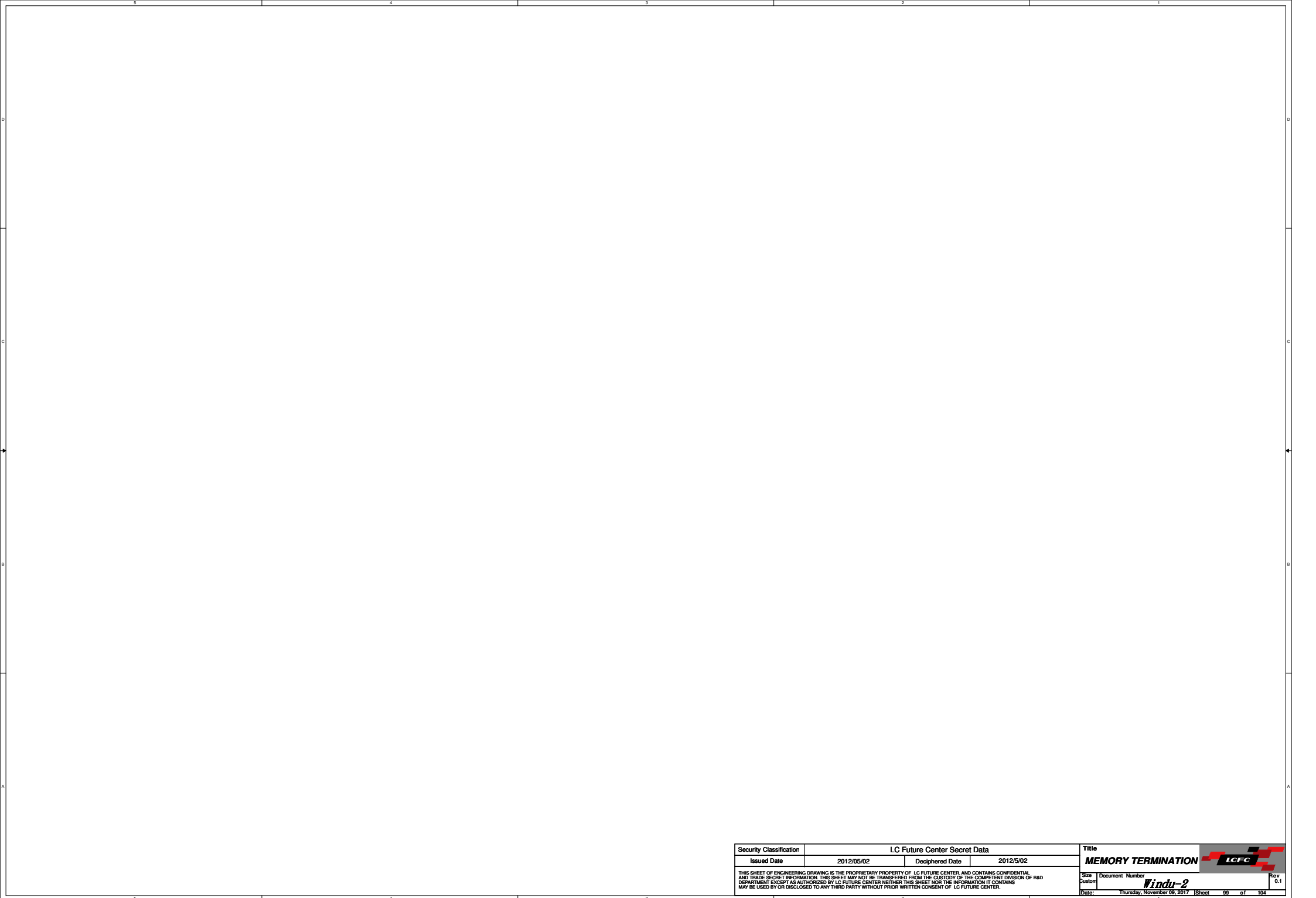



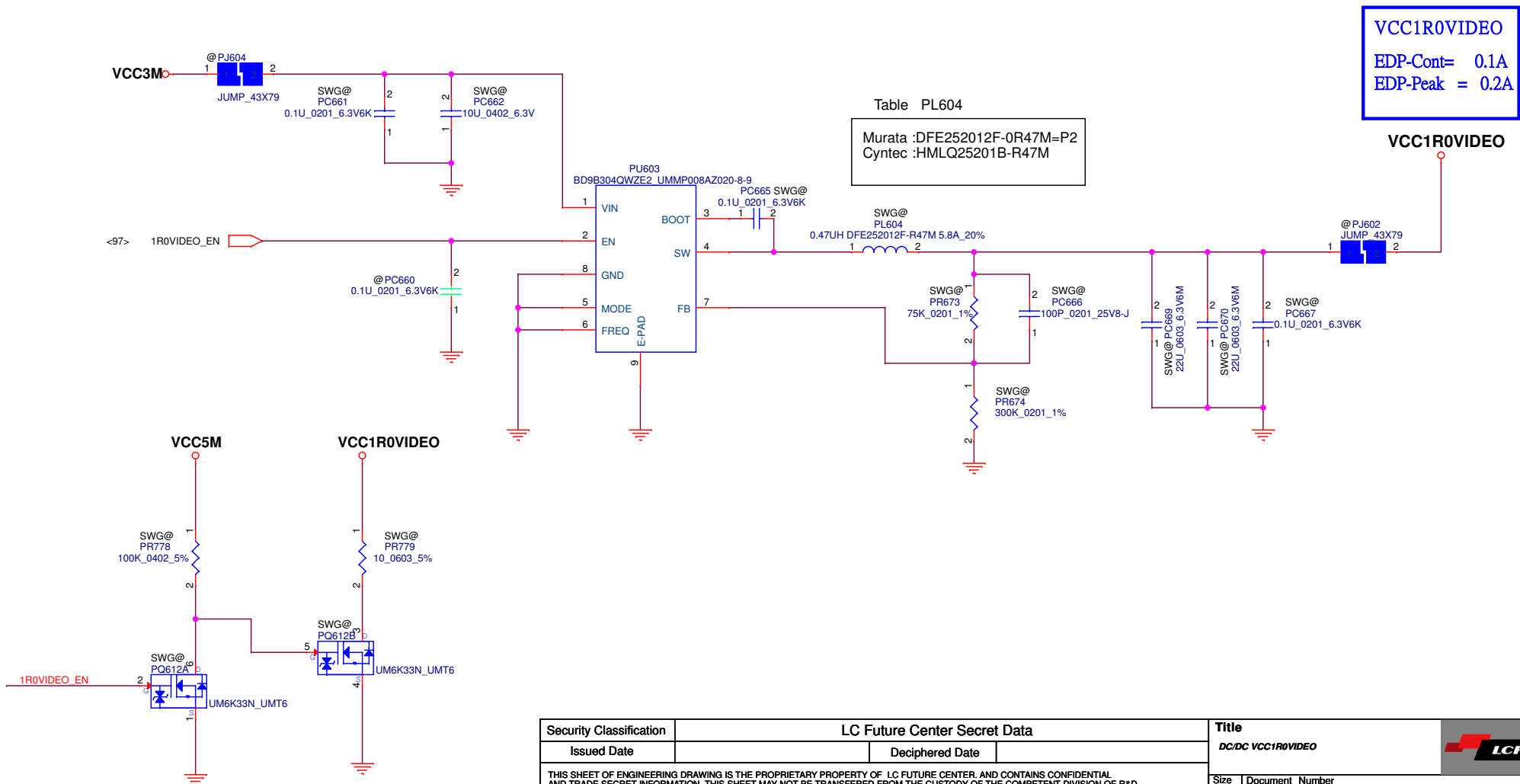
TABLE GDDR5 VIDEO MEMORY


	SAMSUNG 8GBITS	MICRON 8GBITS	Hynix
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U93			

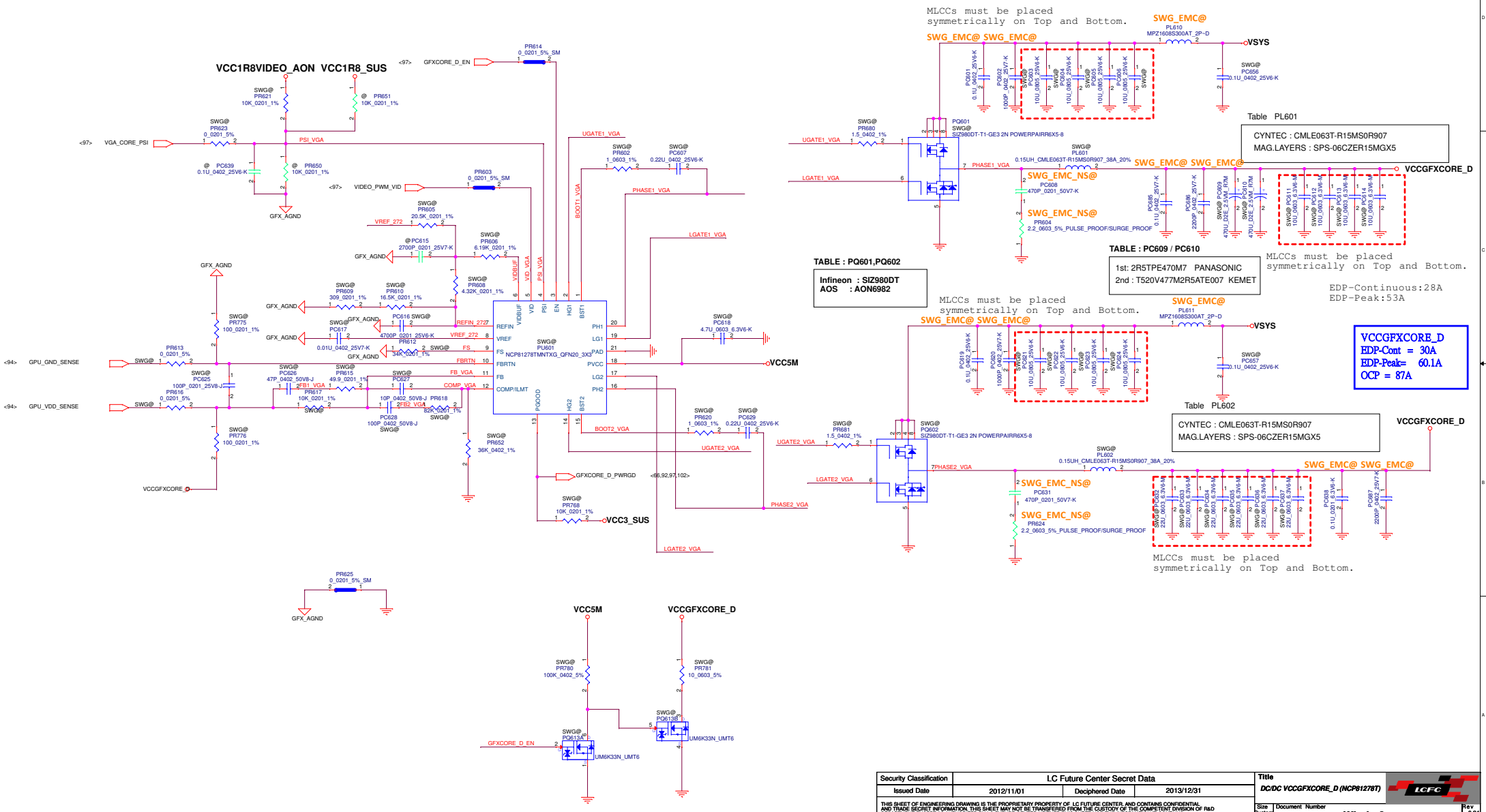
LOGIC



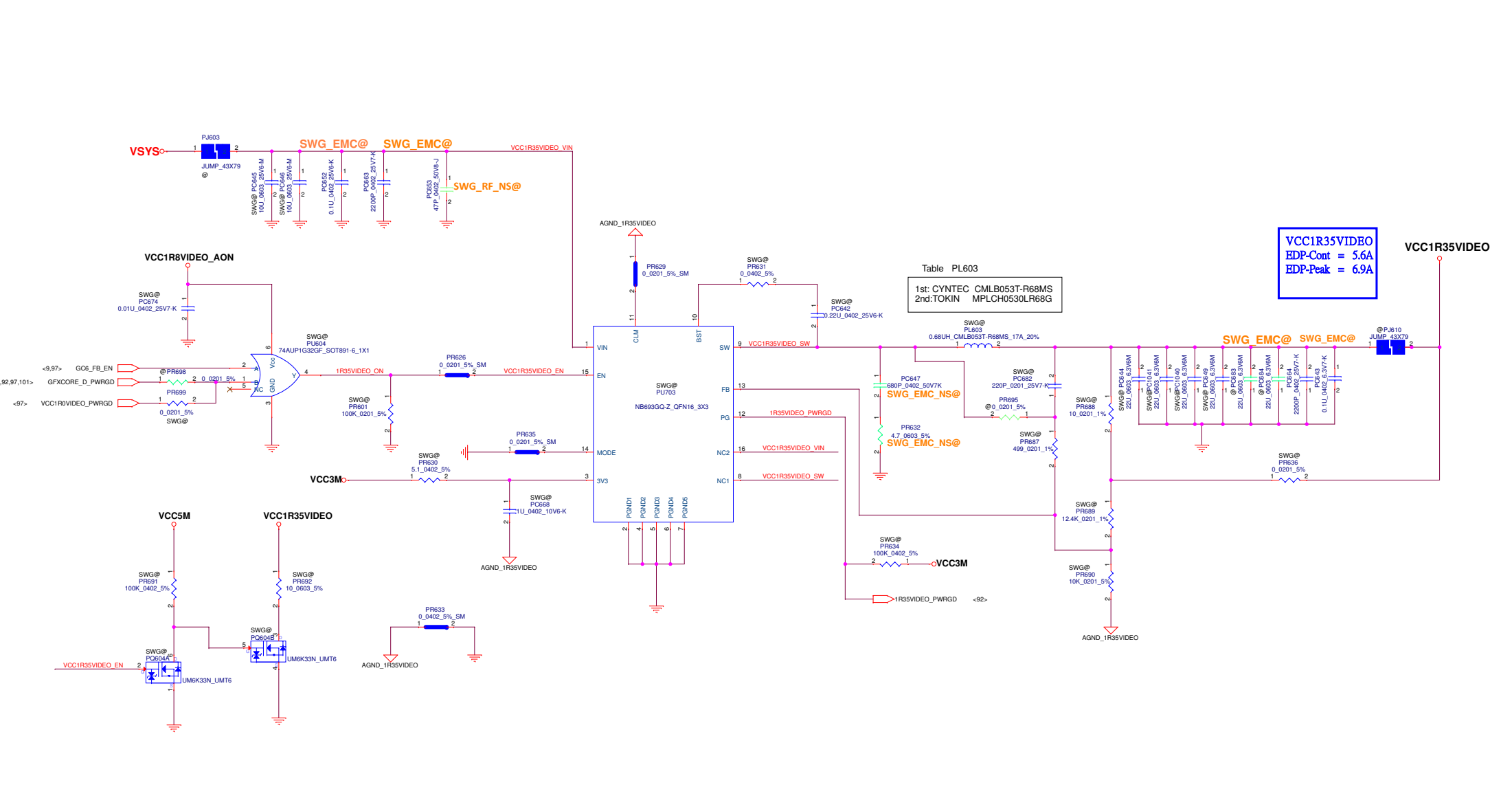
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Issued Date		Deciphered Date	DC/DC VCC1R0VIDEO	
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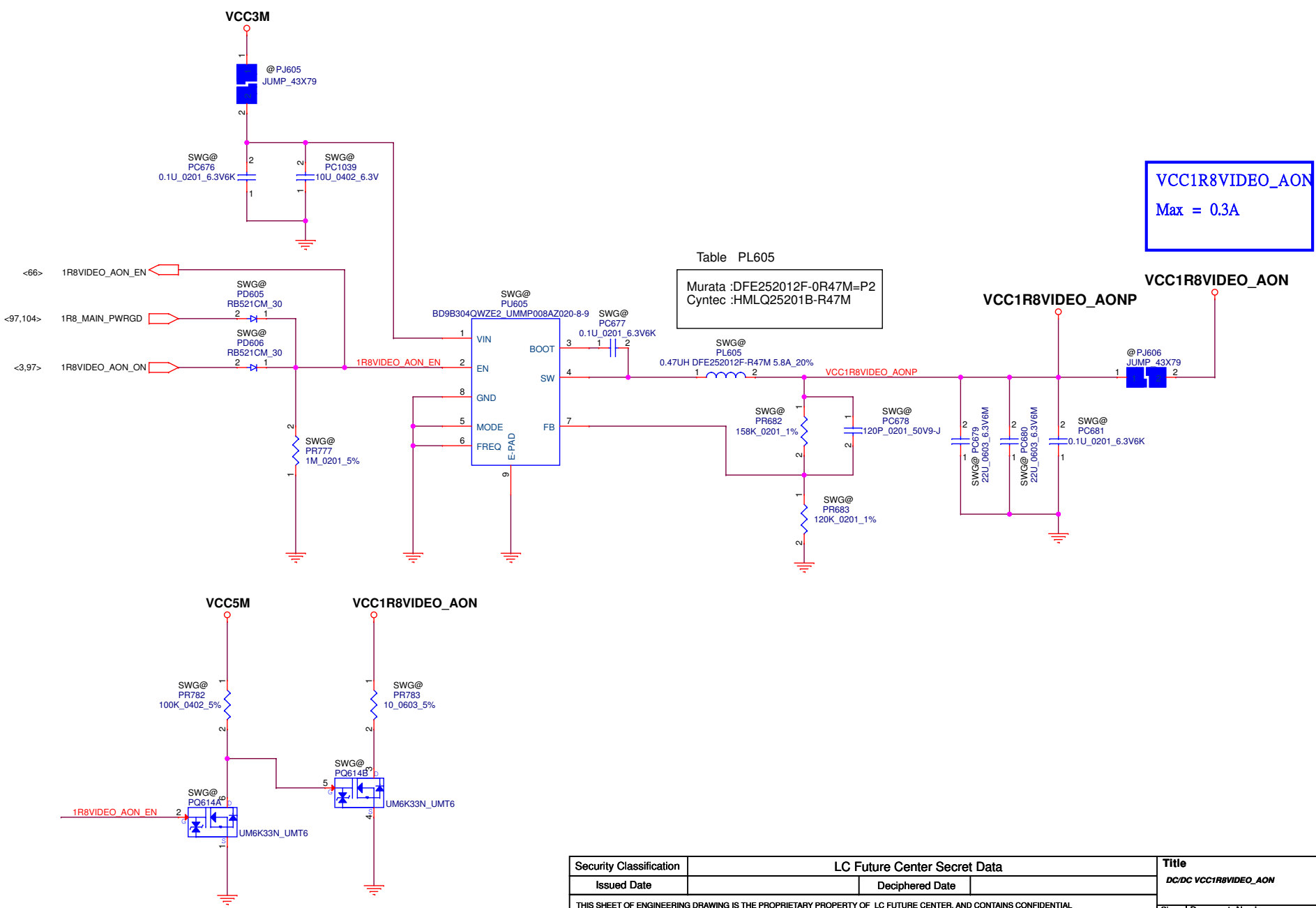
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VCC1R35VIDEO
 EDP-Cont = 5.6A
 EDP-Peak = 6.9A

Table PL603
 1st: CYNTEC CMLB053T-R68MS
 2nd: TOKIN MPLCH0530LR68G

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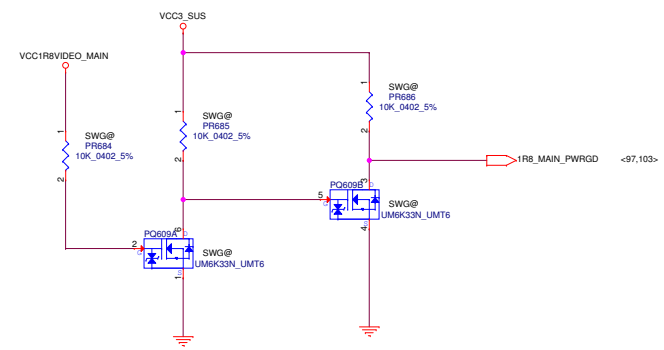
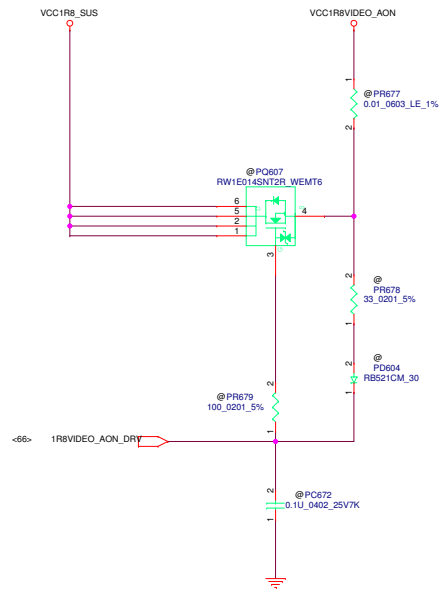
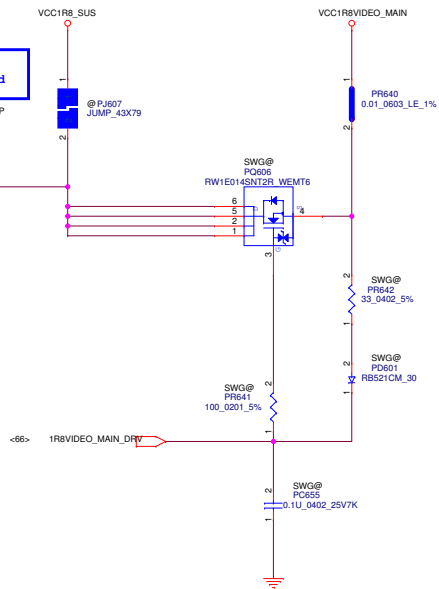
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PJ607
Not mount solder on shrtcpad



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