

ST-1 UMA LOGIC SCHEMATICS

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2.EC HISTORY

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6.CPU(4/16) : DDR3L CHANNEL-B

7.CPU(5/16) : RTC/HDA/SATA/JTAG

8.CPU(6/16) : CLOCK SIGNALS

9.CPU(7/16) : LPC/SPI/SMBUS/C-LINK

10.CPU(8/16) : SYSTEM PM

11.CPU(9/16) : LCD/PCI/DDI CONTROL

12.CPU(10/16) : GPIO/CPU/MISC/LPIO

13.CPU(11/16) : PCIE/USB

14.CPU(12/16) : POWER

15.CPU(13/16) : POWER

16.CPU(14/16) : GND

17.CPU(15/16) : NCTF

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19.DDI-VGA CONVERTER

20.BLANK

21.XDP CONNECTOR

22.RTC BATTERY

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24.DDR3L BASE MEMORY CH-A (1/2)

25.DDR3L BASE MEMORY CH-A (2/2)

26.DDR3L SO DIMM CHANNEL-B

27.BLANK

28.BLANK

29.BLANK

30.BLANK

31.BLANK

32.BLANK

33.BLANK

34.BLANK

35.BLANK
- 36.BLANK

37.BLANK

38.LCD CONNECTOR

39.BLANK

40.EXT CRT INTERFACE

41.DISPLAY PORT CONNECTOR

42.BLANK

43.SATA HDD CONN

44.BLANK

45.USB POWER/CONN

46.GBE CLARKVILLE

47.GBE LAN SWITCH

48.GBE MAGNETICS

49.RJ45 CONNECTOR

50.PCIE MINI CARD SLOT

51.MEDIA CARD CONTROLLER

52.MEDIA CARD ITERFACE

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54.AUDIO ALC3232-GR

55.AUDIO CONNECTOR

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65.TOUCH PAD CONNECTOR

66.BLANK

67.FAN CONNECTOR

68.G-SNESOR

69.TPM

70.EEPROM/SMBUS SW
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72.THINK ENGINE(2/2)

73.DC-IN

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75.BATTERY CHARGER(BQ24760)

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77.BATTERY MONITOR

78.DC/DC VCC5M/VCC3M(TPS51220A)

79.DC/DC VCCCPUCORE(VT1320M)

80.DC/DC VCCCPUCORE(VT1334S)

81.BLANK

82.VCCCPUCORE DECOUPLING

83.BLANK

84.BLANK

85.DC/DC VCC1R05AMT(VT356)

86.DC/DC VCC1R35A(VT357)

87.DC/DC VCC0R675B(TPS51200)

88.BLANK

89.BLANK

90.BLANK

91.BLANK

92.DC/DC VCC1R5B(BD3551HFN)

93.LOAD SW PCH SUS

94.LOAD SW LAN

95.BLANK

96.LOAD SW B

97.BLANK

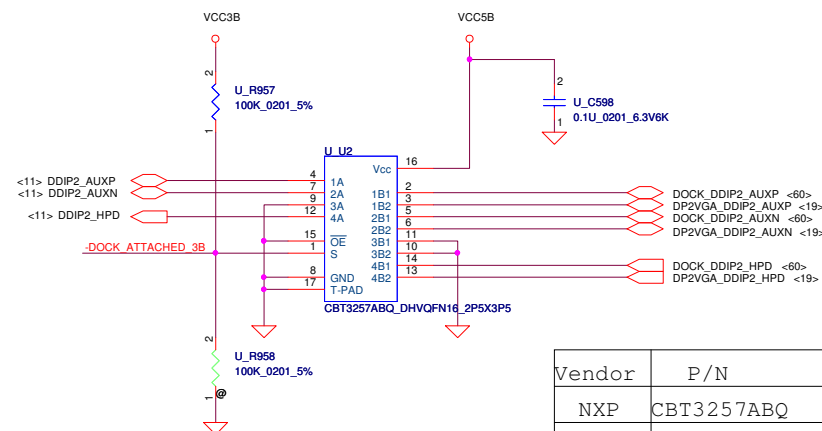
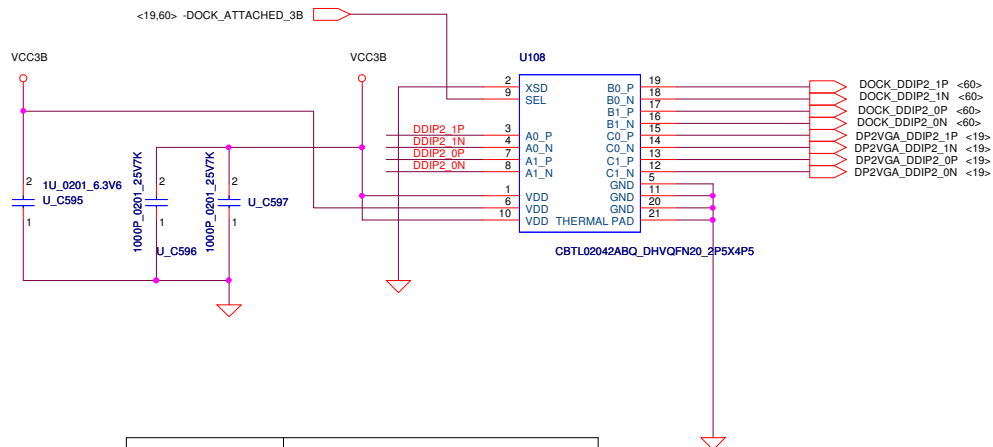
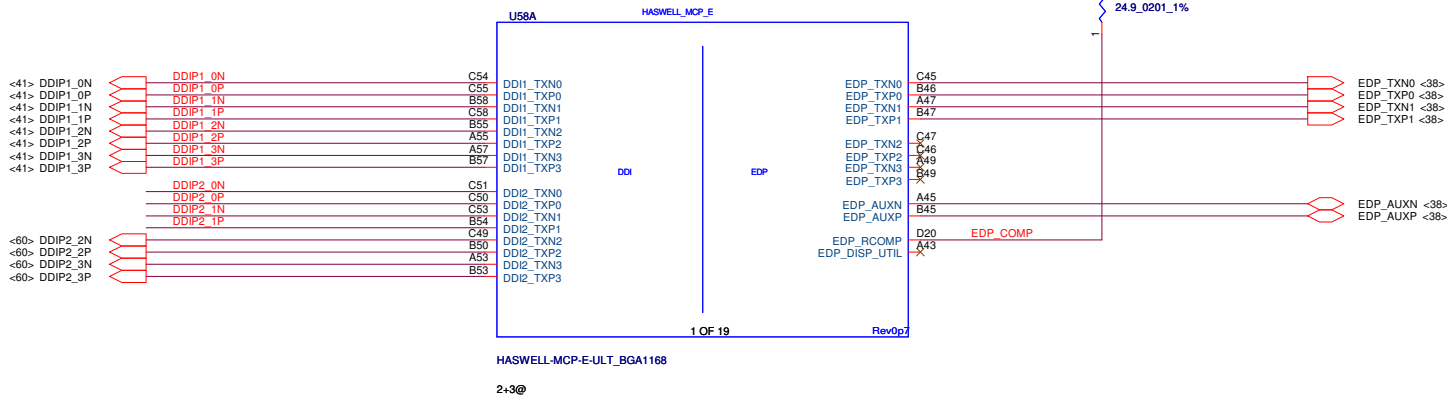
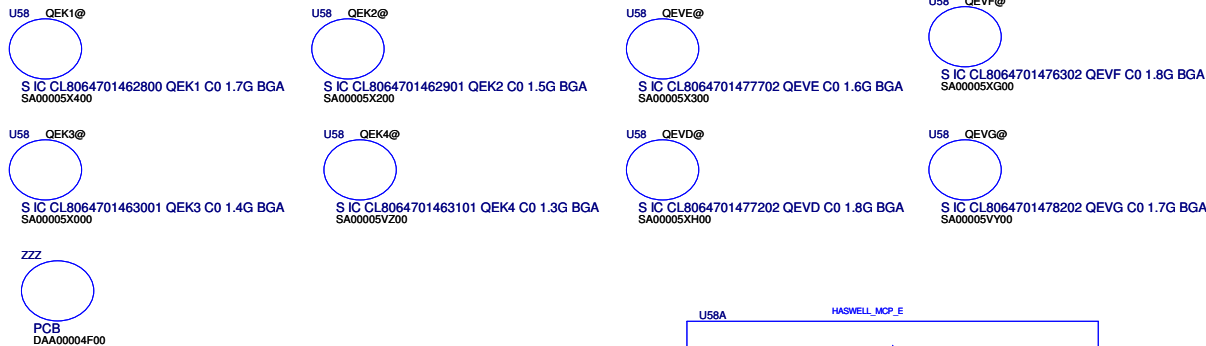
98.LOAD SW WWAN & WLAN

99.PTH FOR SCREW HOLES

100.3rd USB


EC Modify History		
Date	EC version	File name
2012/07/24	ST-1_UMA_SDV_EC052-057	JV_ST-1_UMA_SDV_SCH_EC052-057_072401.pdf
2012/07/26	ST-1_UMA_SDV_EC058-066	JV_ST-1_UMA_SDV_SCH_EC058-066_072601.pdf
2012/07/30	ST-1_UMA_SDV_EC067-082	JV_ST-1_UMA_SDV_SCH_EC067-082_073001.pdf
2012/07/31	ST-1_UMA_SDV_EC083-091	JV_ST-1_UMA_SDV_SCH_EC083-094_073101.pdf
2012/07/31	ST-1_UMA_SDV_EC092-094	JV_ST-1_UMA_SDV_SCH_EC083-094_073101.pdf
2012/08/01	ST-1_UMA_SDV_EC095	JV_ST-1_UMA_SDV_SCH_EC095_080101.pdf
2012/08/02	ST-1_UMA_SDV_EC096-099	JV_ST-1_UMA_SDV_SCH_EC096-099_080201.pdf
2012/08/03	ST-1_UMA_SDV_EC100-102	JV_ST-1_UMA_SDV_SCH_EC100-102_080301.pdf
2012/08/06	ST-1_UMA_SDV_EC103-109	JV_ST-1_UMA_SDV_SCH_EC103-109_080601.pdf
2012/08/07	ST-1_UMA_SDV_EC110-120	JV_ST-1_UMA_SDV_SCH_EC110-120_080701.pdf
2012/08/08	ST-1_UMA_SDV_EC121-132	JV_ST-1_UMA_SDV_SCH_EC121-132_080801.pdf
2012/08/09	ST-1_UMA_SDV_EC132-138	JV_ST-1_UMA_SDV_SCH_EC132-138_080901.pdf
2012/08/10	ST-1_UMA_SDV_EC139-142	JV_ST-1_UMA_SDV_SCH_EC139-142_081001.pdf
2012/08/13	ST-1_UMA_SDV_EC143-148	JV_ST-1_UMA_SDV_SCH_EC143-148_081301.pdf
2012/08/14	ST-1_UMA_SDV_EC149	JV_ST-1_UMA_SDV_SCH_EC149_081401.pdf
2012/08/15	ST-1_UMA_SDV_EC150-152	JV_ST-1_UMA_SDV_SCH_EC150-152_081501.pdf
2012/08/16	ST-1_UMA_SDV_EC153-154	JV_ST-1_UMA_SDV_SCH_EC153-154_081601.pdf
2012/08/17	ST-1_UMA_SDV_EC155-166	JV_ST-1_UMA_SDV_SCH_EC155-166_081701.pdf
2012/08/20	ST-1_UMA_SDV_EC167-180	JV_ST-1_UMA_SDV_SCH_EC167-180_082002.pdf
2012/08/21	ST-1_UMA_SDV_EC181-190	JV_ST-1_UMA_SDV_SCH_EC181-190_082101.pdf
2012/08/22	ST-1_UMA_SDV_EC191-193	JV_ST-1_UMA_SDV_SCH_EC191-193_082201.pdf
2012/08/23	ST-1_UMA_SDV_EC194-195	JV_ST-1_UMA_SDV_SCH_EC194-195_082301.pdf
2012/08/24	ST-1_UMA_SDV_EC196	JV_ST-1_UMA_SDV_SCH_EC196_082401.pdf
2012/08/27	ST-1_UMA_SDV_EC197-199	JV_ST-1_UMA_SDV_SCH_EC197-199_082701.pdf
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2012/08/29	ST-1_UMA_SDV_EC203-209	JV_ST-1_UMA_SDV_SCH_EC203-209_082901.pdf
2012/09/10	ST-1_UMA_SDV_EC210-242	JV_ST-1_UMA_SDV_SCH_EC210-242_091001.pdf
2012/09/13	ST-1_UMA_SDV_EC243-244	JV_ST-1_UMA_SDV_SCH_EC243-244_091301.pdf
2012/09/20	ST-1_UMA_SDV_EC245	JV_ST-1_UMA_SDV_SCH_EC245_092001.pdf
SDV2		
2012/09/25	ST-1_UMA_SDV2_EC001-010	JV_ST-1_UMA_SDV2_SCH_EC001-010_092501.pdf
2012/09/28	ST-1_UMA_SDV2_EC011-017	JV_ST-1_UMA_SDV2_SCH_EC011-017_092801.pdf
2012/10/05	ST-1_UMA_SDV2_EC019-023	JV_ST-1_UMA_SDV2_SCH_EC019-023_100501.pdf
2012/10/11	ST-1_UMA_SDV2_EC024-038	JV_ST-1_UMA_SDV2_SCH_EC024-038_101101.PDF
2012/10/12	ST-1_UMA_SDV2_EC039-043	JV_ST-1_UMA_SDV2_SCH_EC039-043_101201.PDF
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2012/10/16	ST-1_UMA_SDV2_EC055-056	JV_ST-1_UMA_SDV2_SCH_EC055-056_101601.PDF
2012/10/17	ST-1_UMA_SDV2_EC057-059	JV_ST-1_UMA_SDV2_SCH_EC057-059_101701.PDF
2012/10/19	ST-1_UMA_SDV2_EC060-64	JV_ST-1_UMA_SDV2_SCH_EC060-064_101901.PDF
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2012/10/31	ST-1_UMA_FVT_EC010-012	JV_ST-1_UMA_FVT_SCH_EC010-018_103101.PDF
2012/10/31	ST-1_UMA_FVT_EC013-018	JV_ST-1_UMA_FVT_SCH_EC010-018_103101.PDF
2012/11/2	ST-1_UMA_FVT_EC019-026	JV_ST-1_UMA_FVT_SCH_EC019-026_110201.PDF
2012/11/6	ST-1_UMA_FVT_EC027-042	JV_ST-1_UMA_FVT_SCH_EC027-042_110601.PDF
2012/11/20	ST-1_UMA_FVT_EC043	JV_ST-1_UMA_FVT_BRD_112001.brd
2012/11/8	ST-1_UMA_FVT_EC044-047	JV_ST-1_UMA_FVT_SCH_EC044-47_110801.PDF
2012/11/22	ST-1_UMA_FVT_EC048-069	JV_ST-1_UMA_FVT_SCH_EC048-69_112201.PDF
2012/12/17	ST-1_UMA_FVT_EC070-078	JV_ST-1_UMA_FVT_SCH_EC070-080_121701.PDF
SIT		
2013/01/14	ST-1_UMA_SIT_EC001-020	JV_ST-1_UMA_SIT_SCH_EC001-020_011401.PDF
2013/01/21	ST-1_UMA_SIT_EC021-027	JV_ST-1_UMA_SIT_SCH_EC021-021_012101.PDF
2013/01/29	ST-1_UMA_SIT_EC028-036	JV_ST-1_UMA_SIT_SCH_EC028-036_012901.PDF
2013/01/31	ST-1_UMA_SIT_EC037-042	JV_ST-1_UMA_SIT_SCH_EC037-042_013101.PDF
2013/02/04	ST-1_UMA_SIT_EC043-044	JV_ST-1_UMA_SIT_SCH_EC043-044_020401.PDF
2013/02/07	ST-1_UMA_SIT_EC045-051	JV_ST-1_UMA_SIT_SCH_EC045-051_020701.PDF
2013/03/06	ST-1_UMA_SIT_EC052-057	JV_ST-1_UMA_SIT_SCH_EC052-057_030601.PDF
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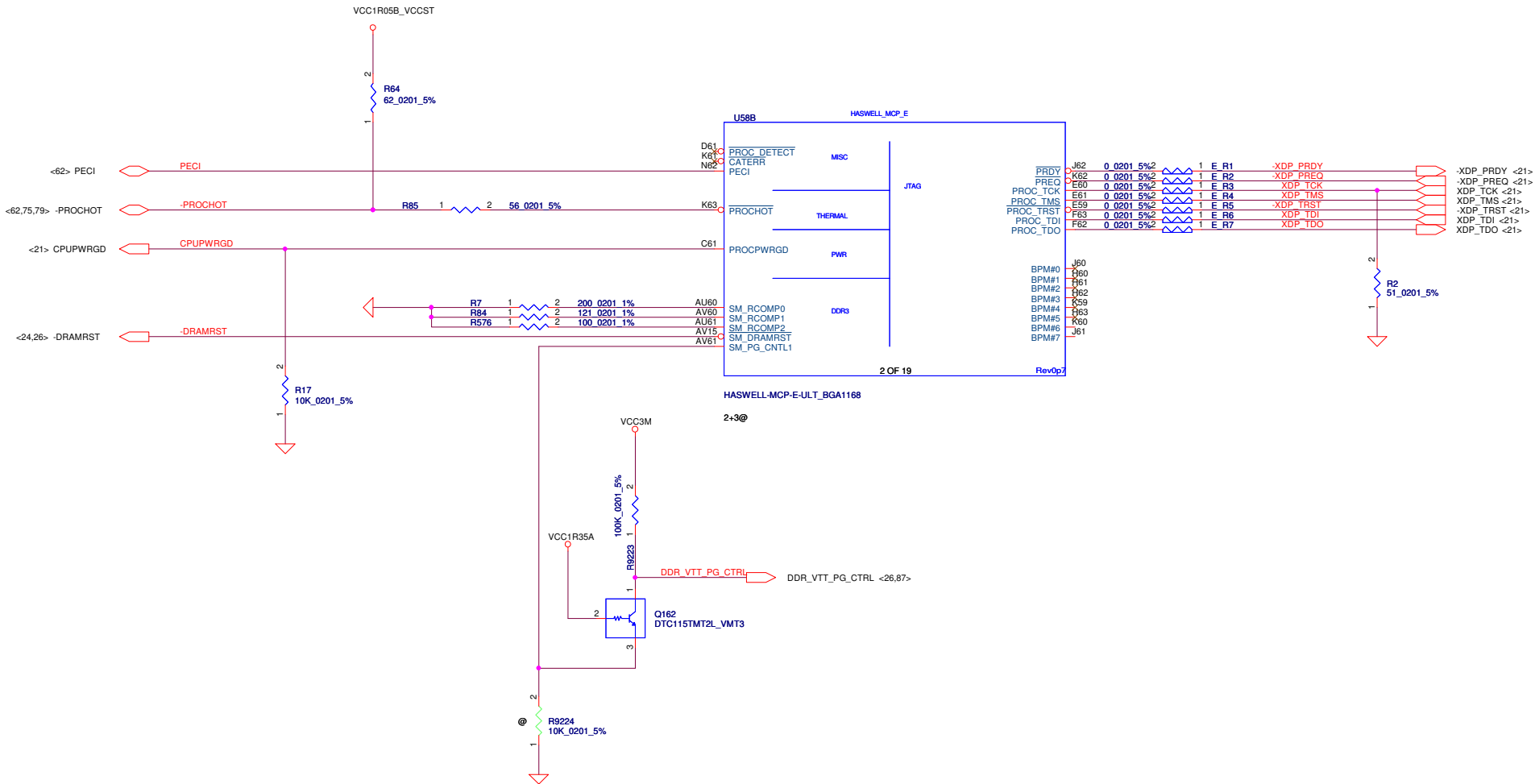
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2013/03/15	ST-1_UMA_SIT-R2_EC010-011	JV_ST-1_UMA_SIT-R2_SCH_EC010-011_031501.PDF
SVT		
2013/04/19	ST-1_UMA_SVT_EC001-010	JV_ST-1_UMA_SVT_SCH_EC001-010_041901.PDF
2013/04/24	ST-1_UMA_SVT_EC011-012	JV_ST-1_UMA_SVT_SCH_EC011-012_042401.PDF
2013/04/30	ST-1_UMA_SVT_EC013-017	JV_ST-1_UMA_SVT_SCH_EC013-017_043001.PDF



Vendor	P/N
Pericom	PI3PCIE3212
NXP	CBTL02042ABQ

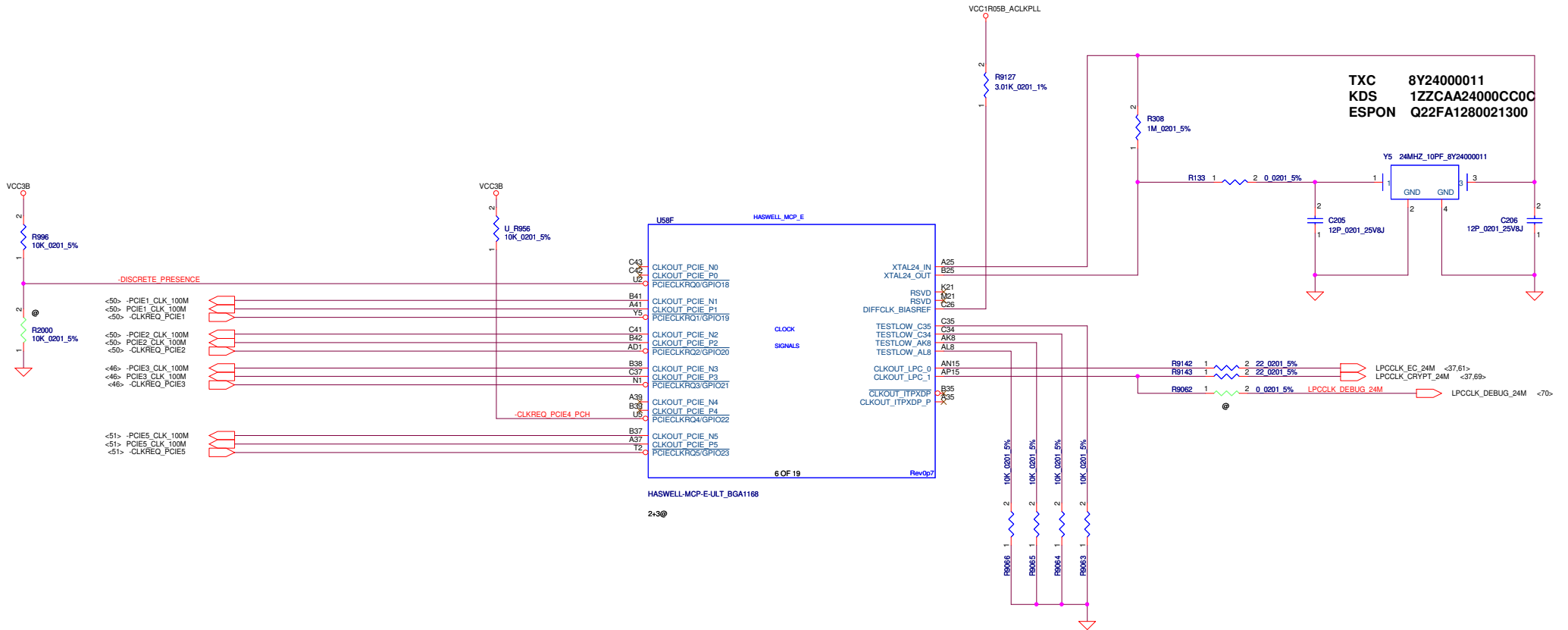
Vendor	P/N
NXP	CBT3257ABQ
On-semi	74FST3257MNTIWG

Security Classification		LC Future Center Secret Data		Title		
Issued Date	2012/05/01	Deciphered Date	2012/12/01	CPU(1/16) : DDI/EDP		
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Size Custom		Document Number		STING UMA		
Date: Thursday, May 02, 2013				Sheet 3 of 100		

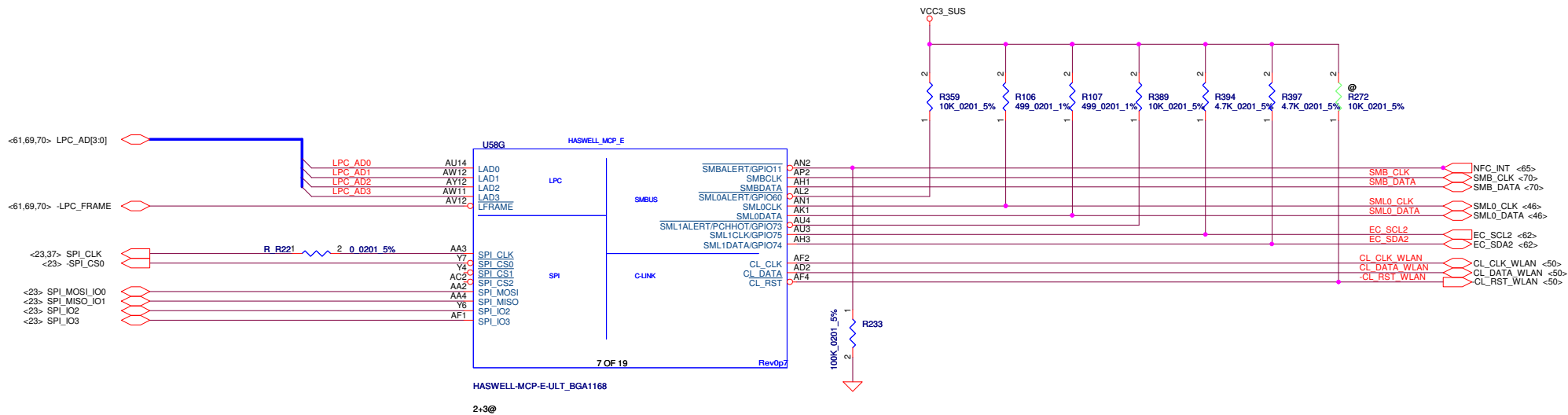


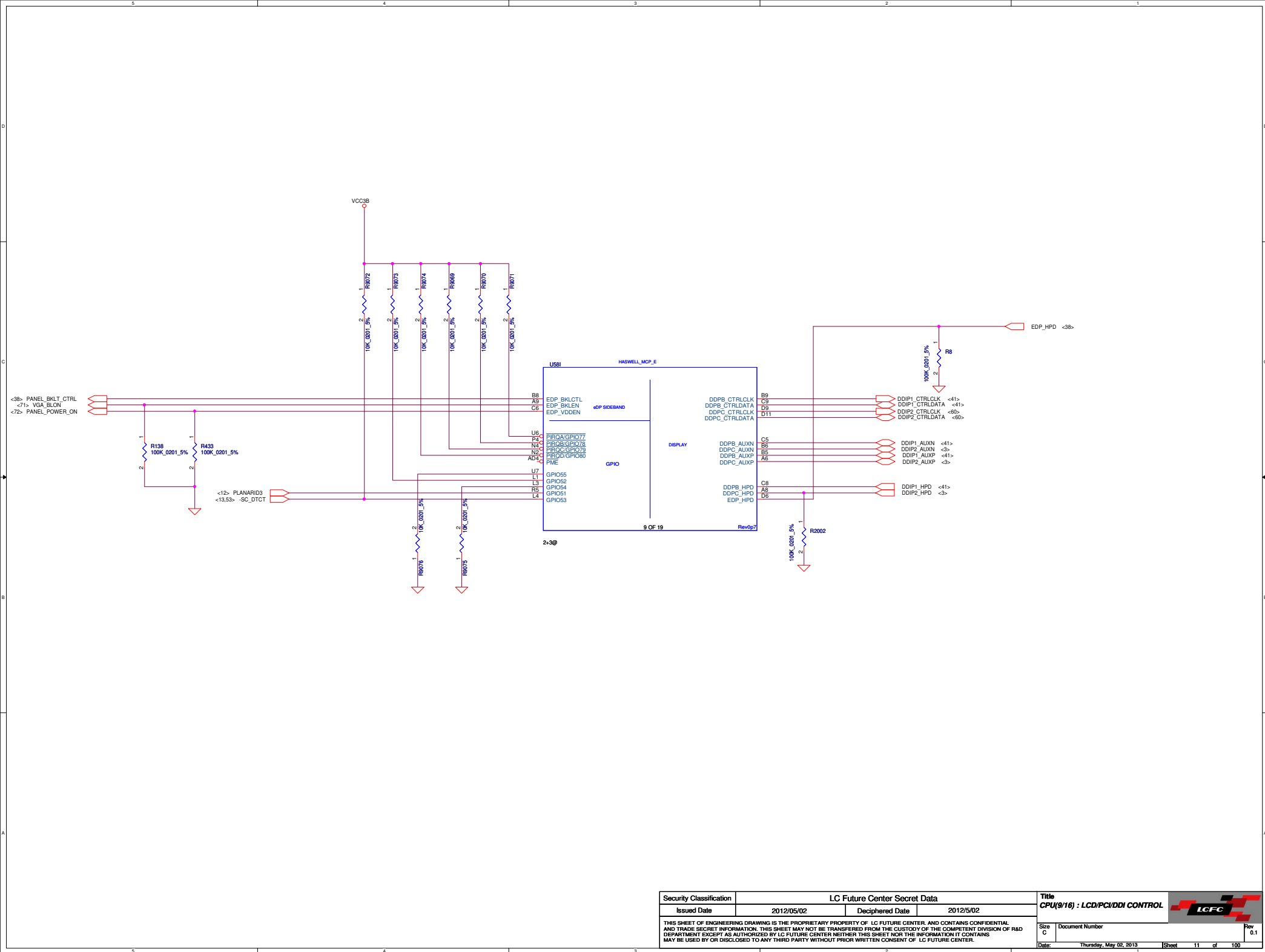
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Title	Document Number	Rev
CPU(2/16) : MISC/JTAG	STING UMA	0.1
Date:	Thursday, May 02, 2013	Sheet 4 of 100



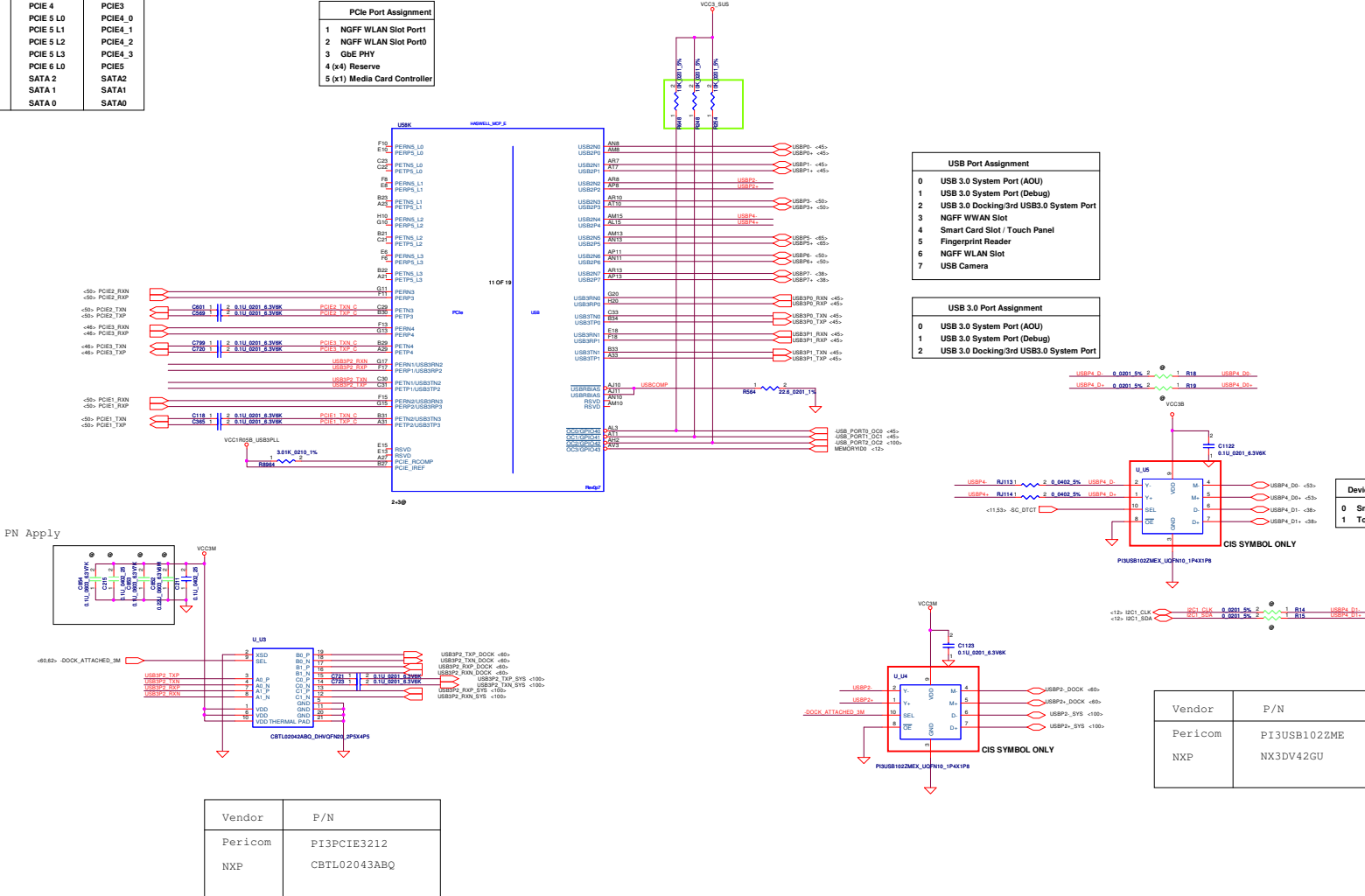
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Issued Date	2012/05/01	Deciphered Date	2012/12/01	CPU(6/16) : CLOCK SIGNALS	
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				STING UMA	
				Date: Thursday, May 02, 2013	Sheet 8 of 100





Flexible I/O Configuration			
I/O	High Speed Signals	Configuration	Net Name
Port 1	USB3 1	USB3 0	USB3P0
Port 2	USB3 2	USB3 0	USB3P1
Port 3	PCIe 1/USB3 3	USB3 0	USB3P2
Port 4	PCIe 2/USB3 4	PCIe 1	PCIe1
Port 5	PCIe 3	PCIe 2	PCIe2
Port 6	PCIe 4	PCIe 3	PCIe3
Port 7	PCIe 5 L0	PCIe 5 L0	PCIe4_0
Port 8	PCIe 5 L1	PCIe 5 L1	PCIe4_1
Port 9	PCIe 5 L2	PCIe 5 L2	PCIe4_2
Port 10	PCIe 5 L3	PCIe 5 L3	PCIe4_3
Port 11	PCIe 6 L0	PCIe 6 L0	PCIe5
Port 12	SATA 2/PCIe 6 L1	SATA 2	SATA2
Port 13	SATA 1/PCIe 6 L2	SATA 1	SATA1
Port 14	SATA 0/PCIe 6 L3	SATA 0	SATA0

PCIe Port Assignment	
1	NGFF WLAN Slot Port1
2	NGFF WLAN Slot Port0
3	GbE PHY
4 (x4)	Reserve
5 (x1)	Media Card Controller

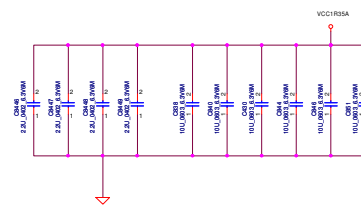


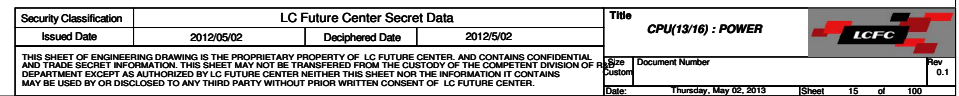
USB Port Assignment	
0	USB 3.0 System Port (AOU)
1	USB 3.0 System Port (Debug)
2	USB 3.0 Docking/3rd USB3.0 System Port
3	NGFF WWAN Slot
4	Smart Card Slot/ Touch Panel
5	Fingerprint Reader
6	NGFF WLAN Slot
7	USB Camera

USB 3.0 Port Assignment	
0	USB 3.0 System Port (AOU)
1	USB 3.0 System Port (Debug)
2	USB 3.0 Docking/3rd USB3.0 System Port

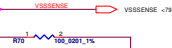
Device Selection	
0	Smart Card Slot
1	Touch Panel

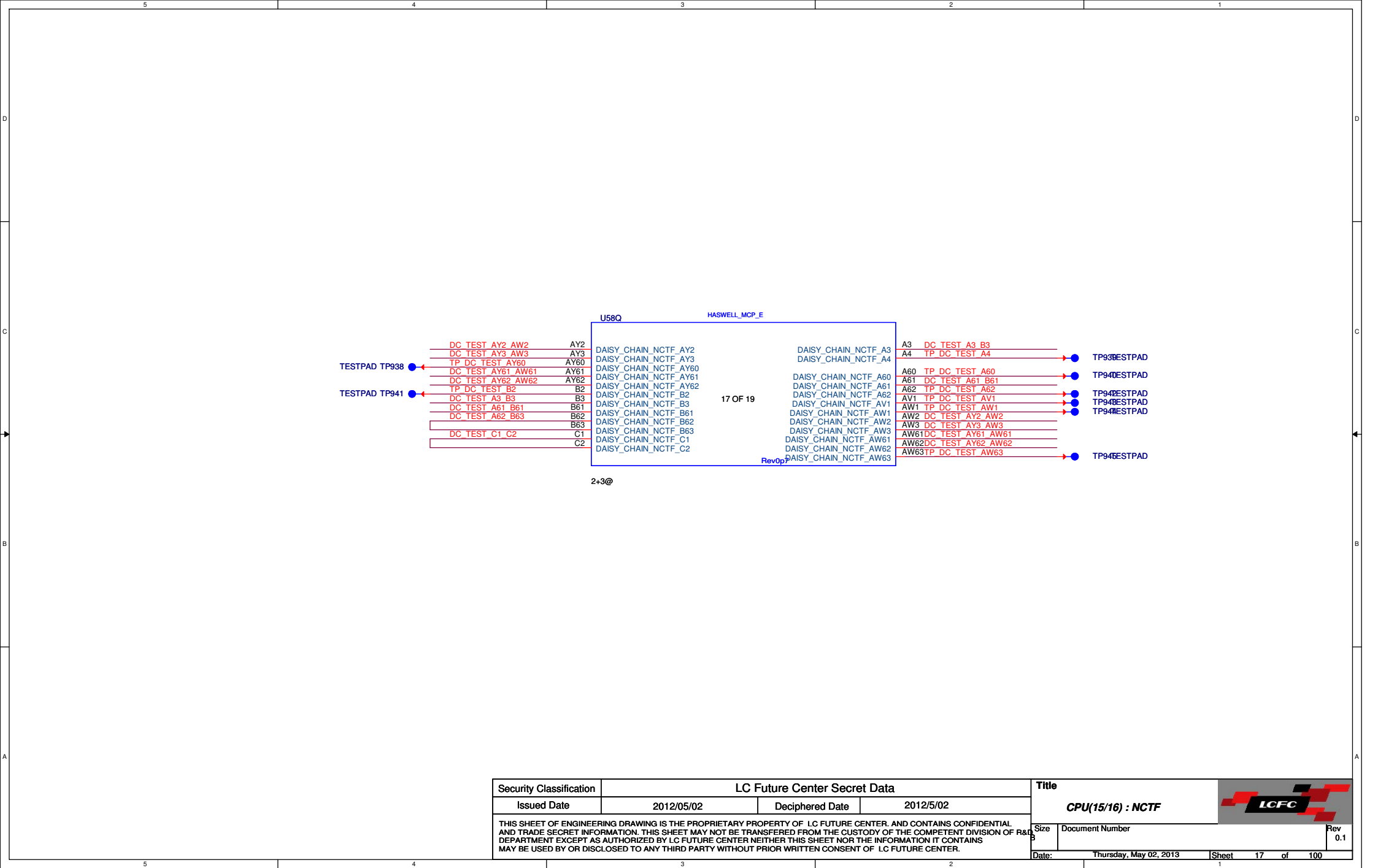
Vendor	P/N
Pericom	PI3USB102ME
NXP	NX3DV42GU



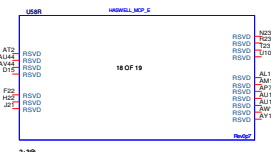


Pin 100s of the FQ1_100S1922-1810ELF component. The component has 18 pins. Pin 1 is VCC3M, Pin 2 is VCC3_SUS, Pin 3 is ME0, Pin 4 is SLP_50#, Pin 5 is SLP_50#, Pin 6 is SLP_50#, Pin 7 is SLP_50#, Pin 8 is SLP_50#, Pin 9 is SLP_50#, Pin 10 is SLP_50#, Pin 11 is SLP_50#, Pin 12 is SLP_50#, Pin 13 is SLP_50#, Pin 14 is SLP_50#, Pin 15 is SLP_50#, Pin 16 is SLP_50#, Pin 17 is SLP_50#, Pin 18 is SLP_50#.

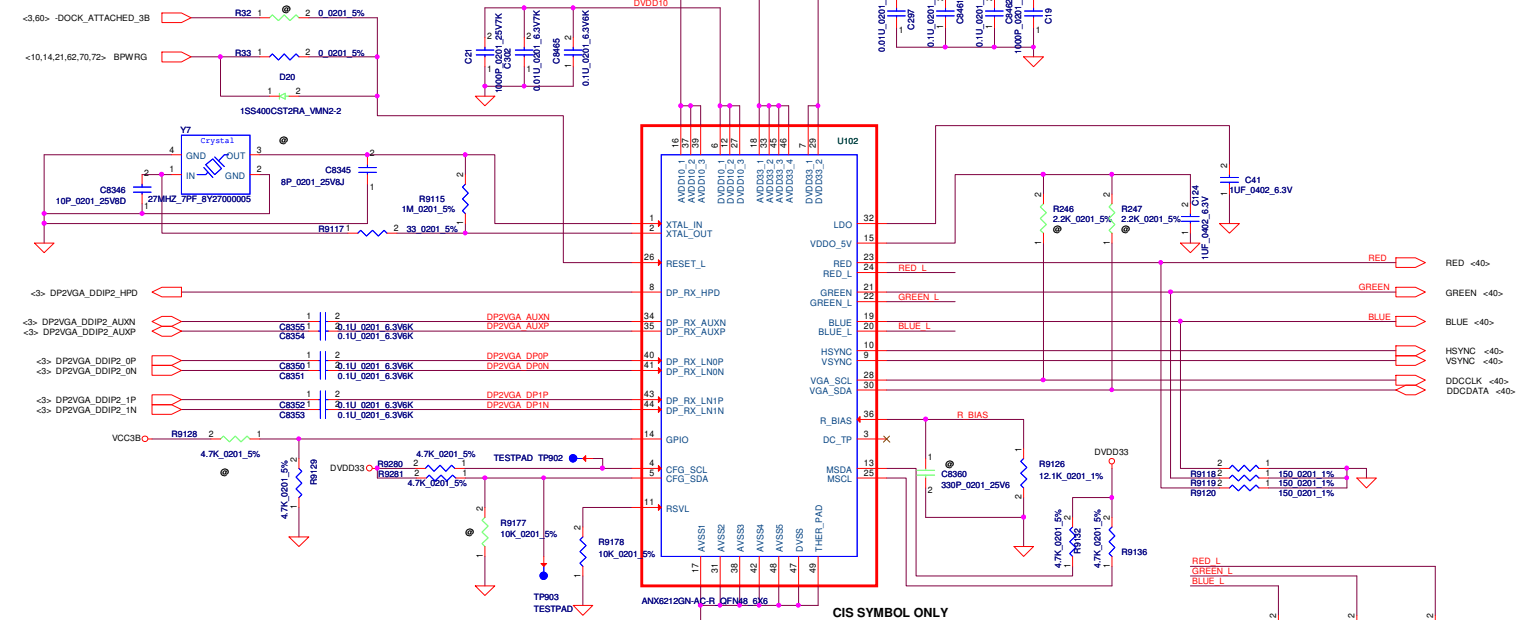




CFG4: Display Port Presence
1: Disabled 0: Enabled



TXC 8Y27000005
KDS 1ZZHAE27000CC0A
ESPON Q22FA1280007000




Max 130mA

Max 130mA

2.2uF, 0.1uF, 1000pF: Near filter

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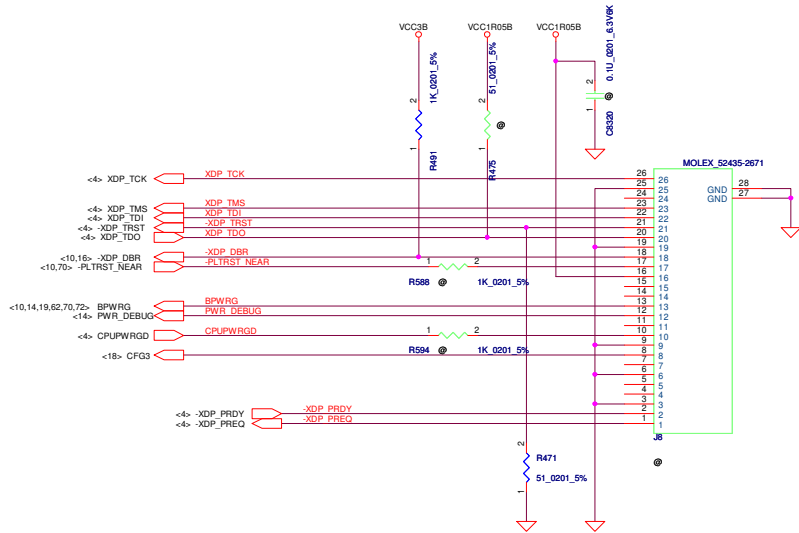


TABLE NOTE: J8 "ASM" FOR PDV/SDV ONLY.

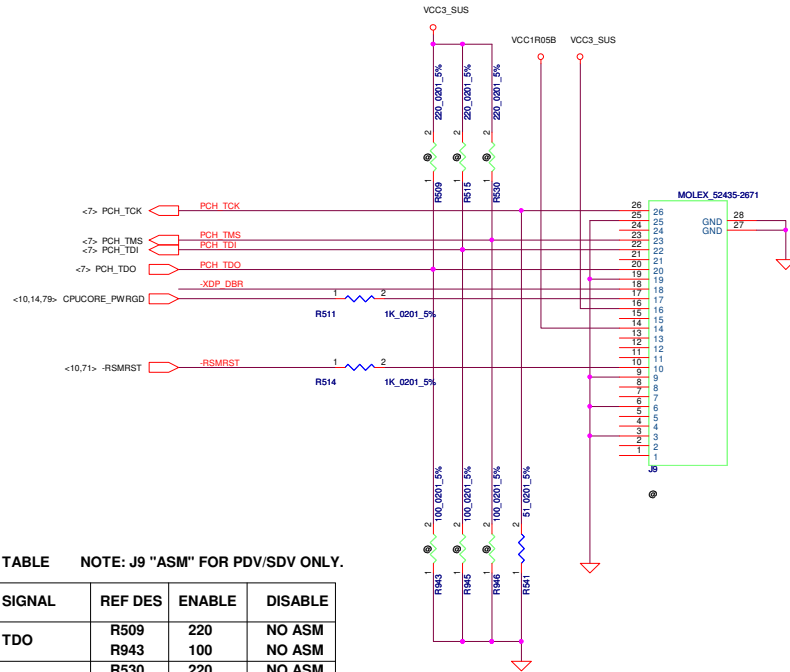
SIGNAL	REF DES	ENABLE	DISABLE
TDO	R475	ASM	NO ASM
TRST#	R471	ASM	ASM
DBRST#	R491	ASM	ASM
RESET#	R588	ASM	NO ASM
PWRGD	R594	ASM	NO ASM
	J8	ASM	NO ASM

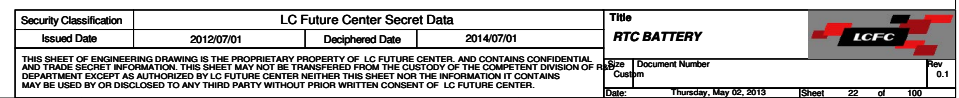
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LOGIC

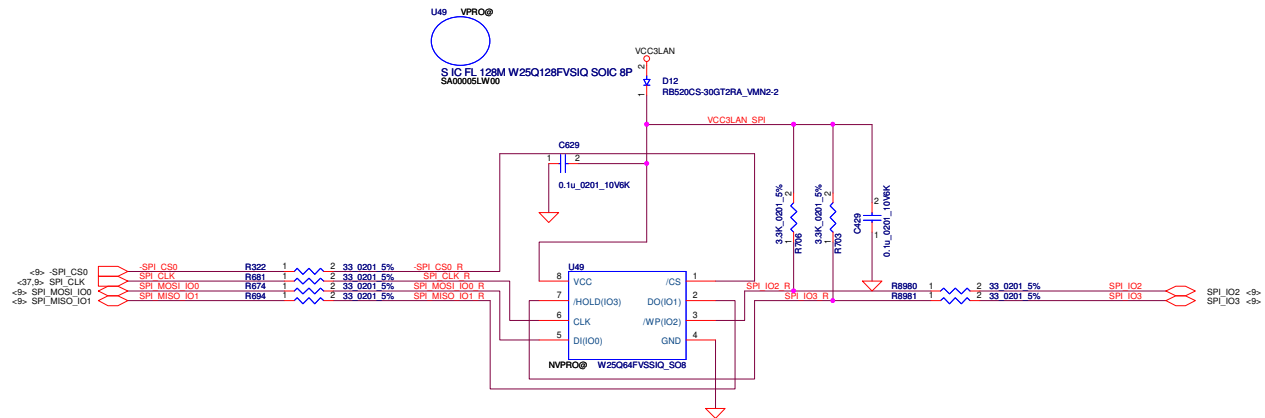
TABLE NOTE: J9 "ASM" FOR PDV/SDV ONLY.

SIGNAL	REF DES	ENABLE	DISABLE
TDO	R509 R943	220 100	NO ASM NO ASM
TMS	R530 R946	220 100	NO ASM NO ASM
TDI	R515 R945	220 100	NO ASM NO ASM
TCK	R541	51	51
CPUCORE_PWRGD	R511	ASM	NO ASM
-RSMRST	R514	ASM	NO ASM
	J9	ASM	NO ASM

↑
LOGIC

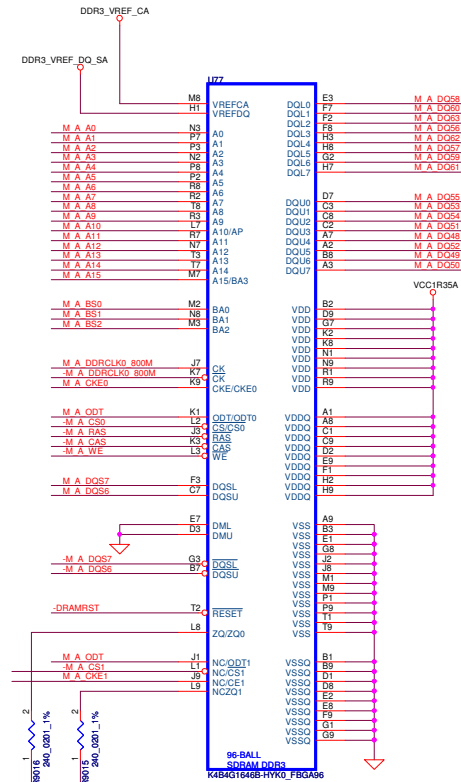
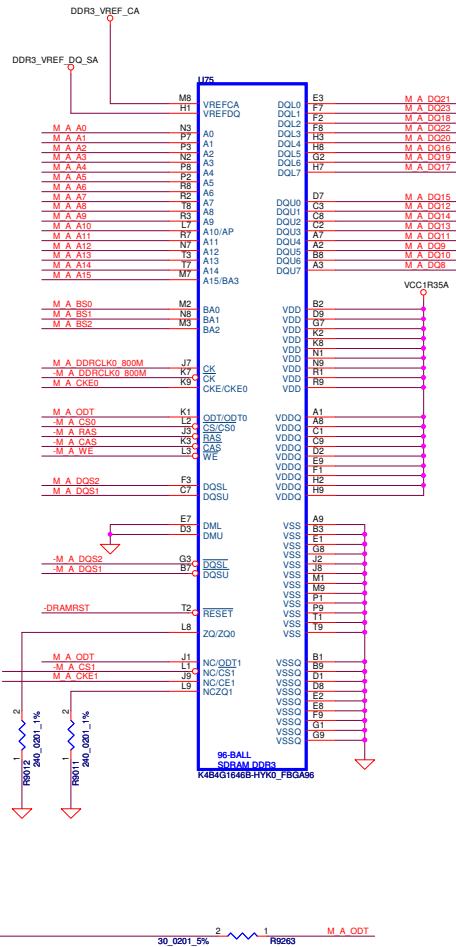


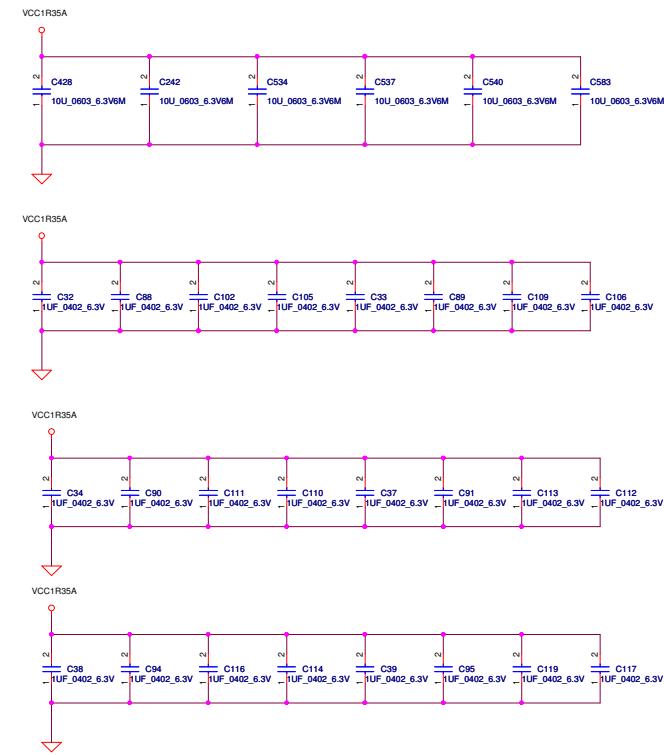
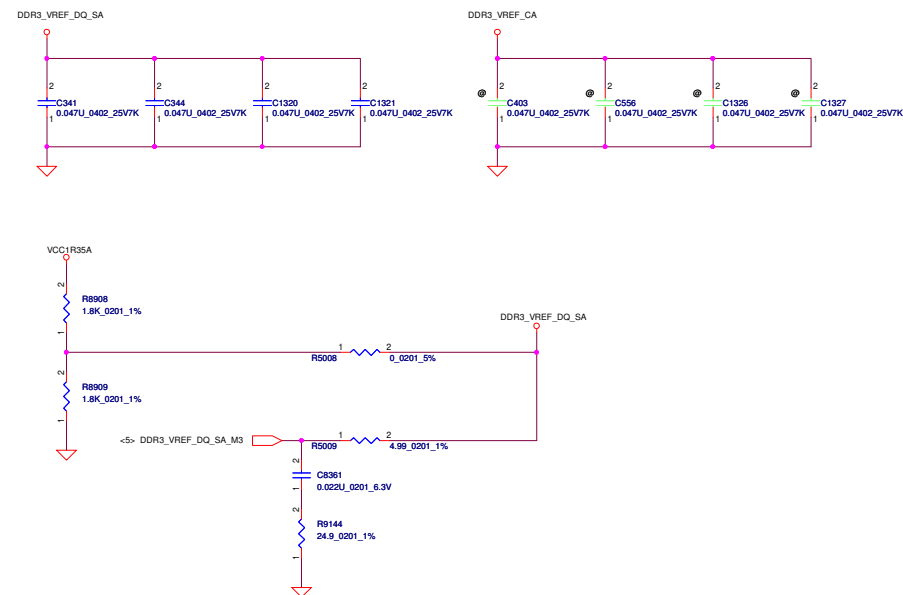
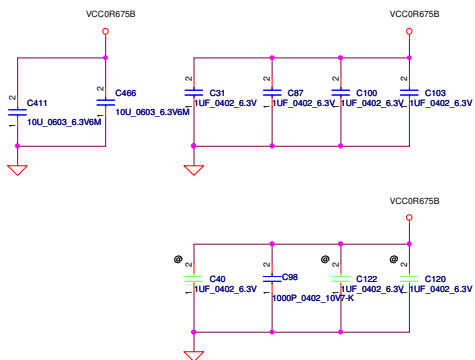
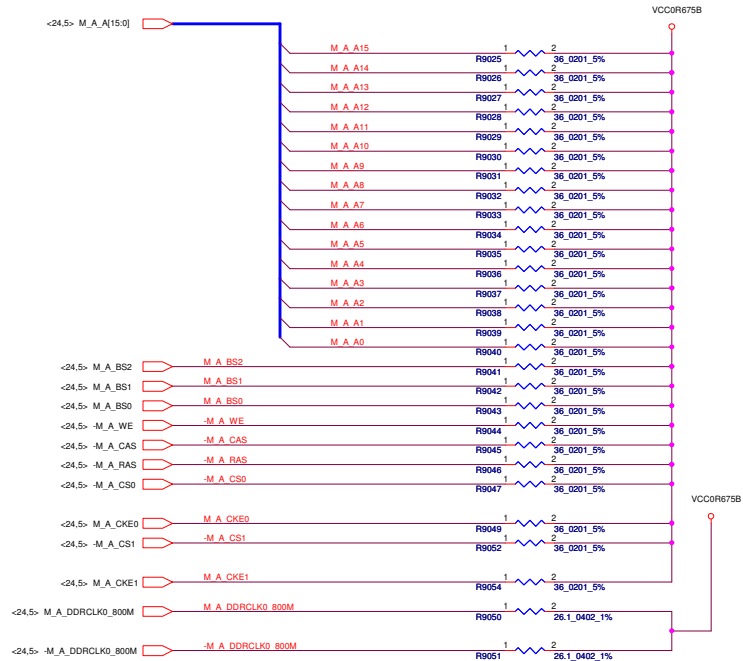




SF100 PIN HEADER INTERFACE (TOP VIEW)							
1	VCC	D12.1	GND	GND	2		
3	CS#	R322.2	R681.2	CLK	4		
5	MISO	R694.2	R674.2	MOSI	6		
7	(KEY)	N/A	N/A	(RESET)	8		

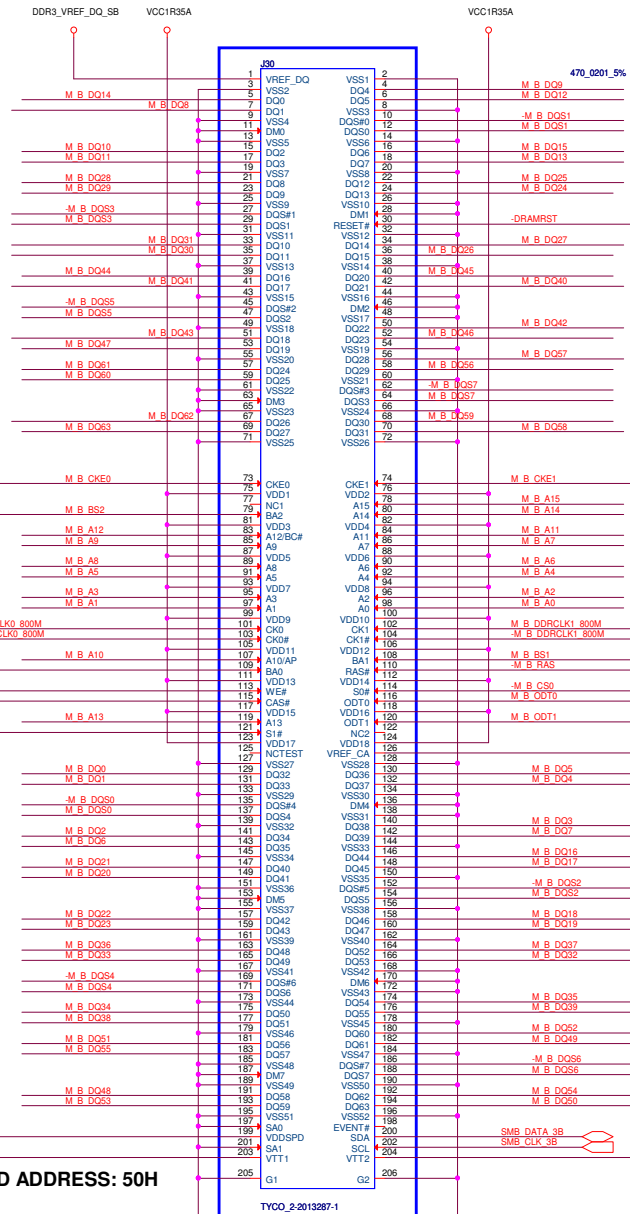
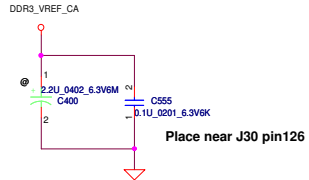
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MACRONIX MX25L12875FM21-10G	MACRONIX MX25L6475EM21-10G
MICRON N25Q128A13ESEC0F	MICRON N25Q064A13ESEC0F





PLACE 1UF NEAR VCC1R35A PIN.

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ST-1_SWG_SDV_EC173

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Date: Thursday, May 02, 2013				Sheet 27	of 100

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				Date:	Thursday, May 02, 2013	Sheet	30	of	100	Rev	0.1


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				01	Rev
				Date:	Thursday, May 02, 2013
				Sheet	34 of 100



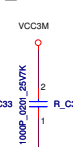
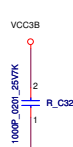
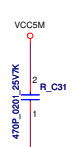
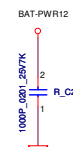
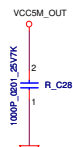
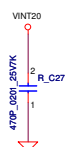
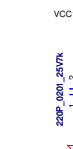
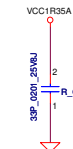
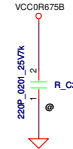
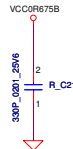
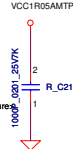
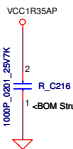
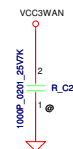
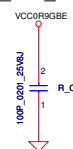
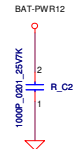
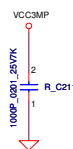
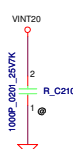
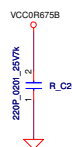
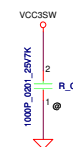
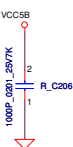
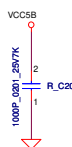
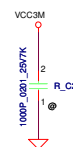
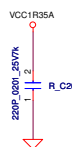
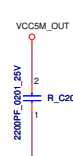
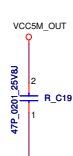
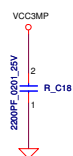
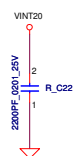
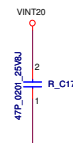
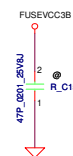
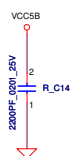
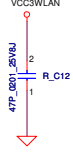
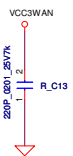
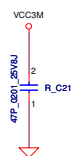
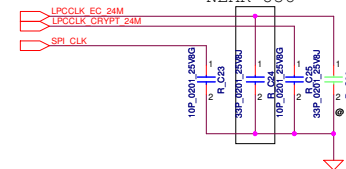
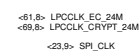
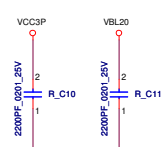
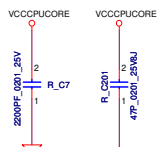
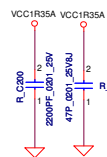
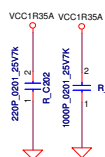
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				Date:	Thursday, May 02, 2013
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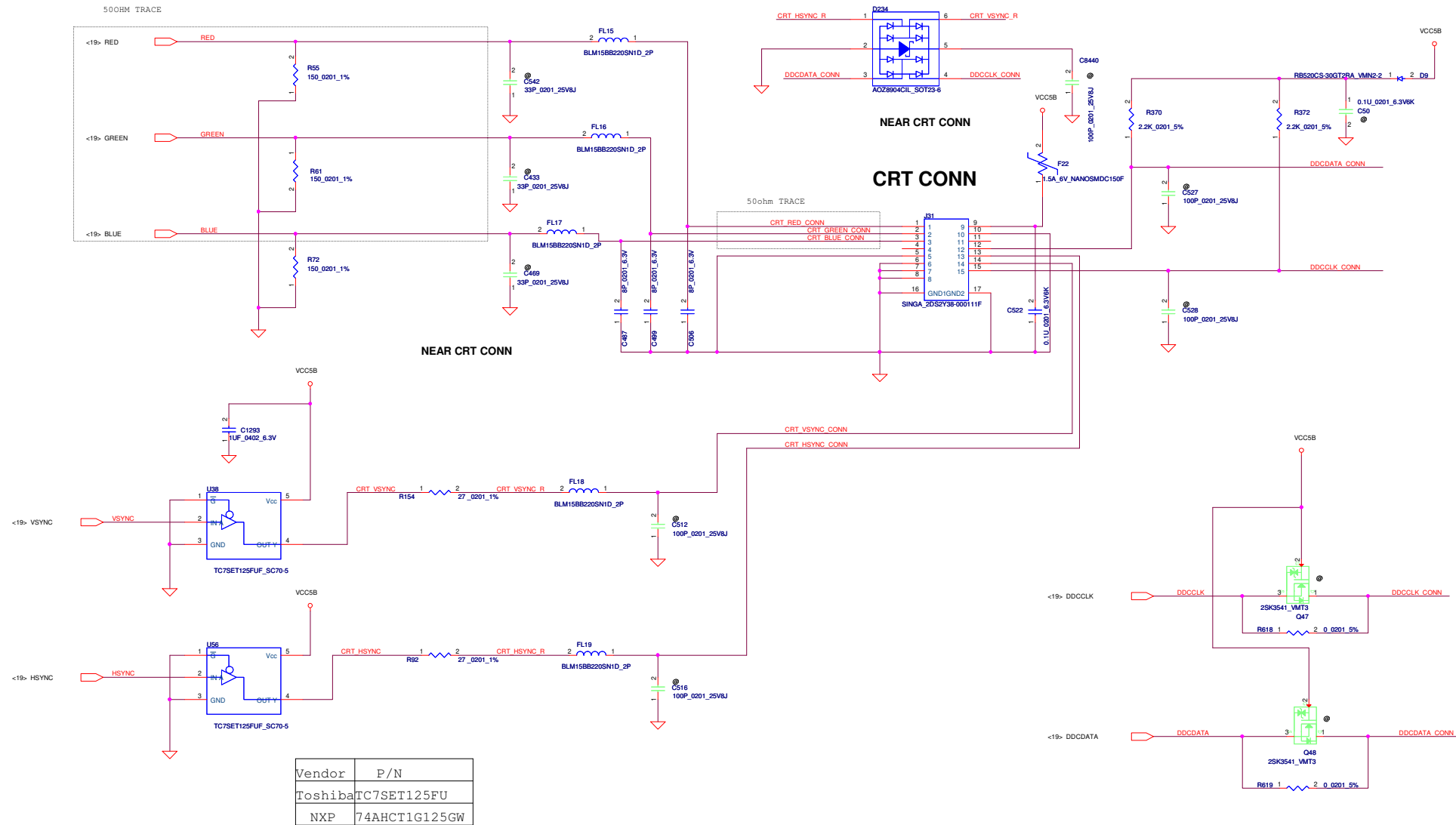


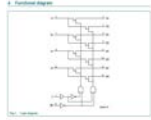
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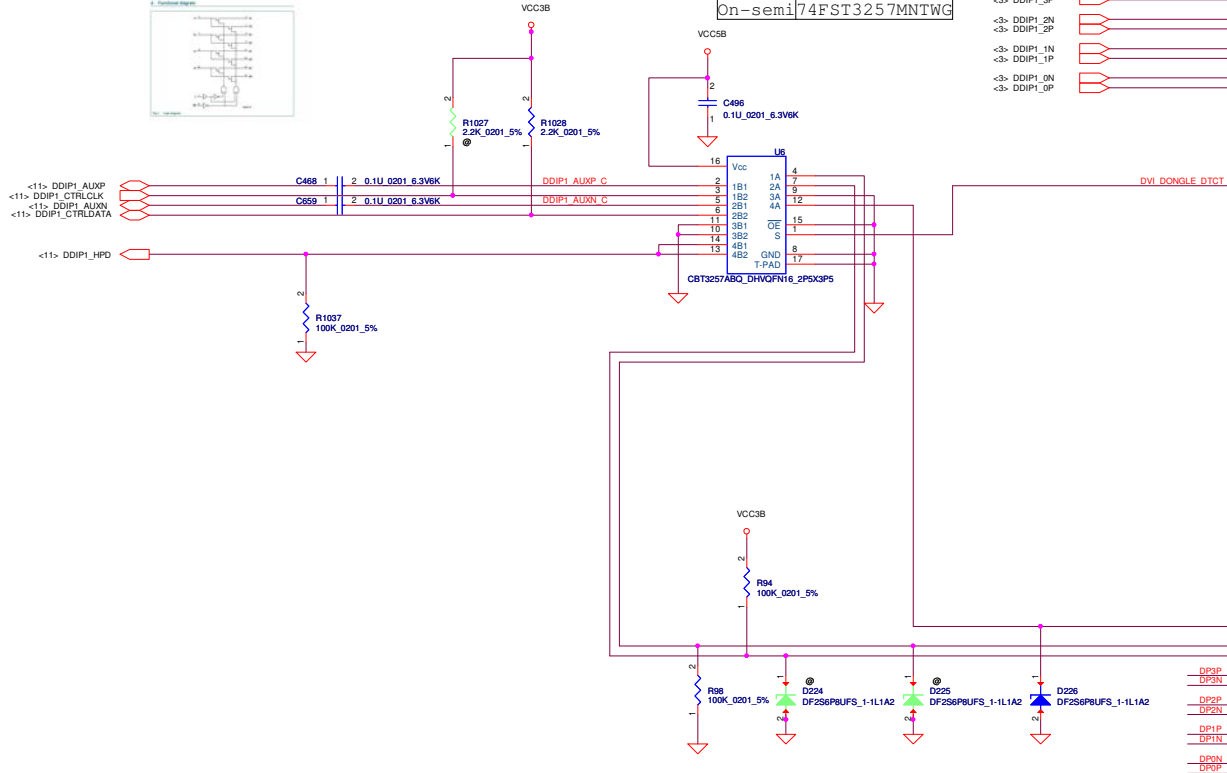




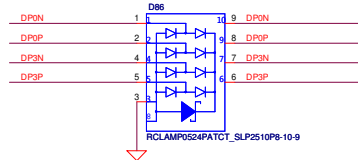
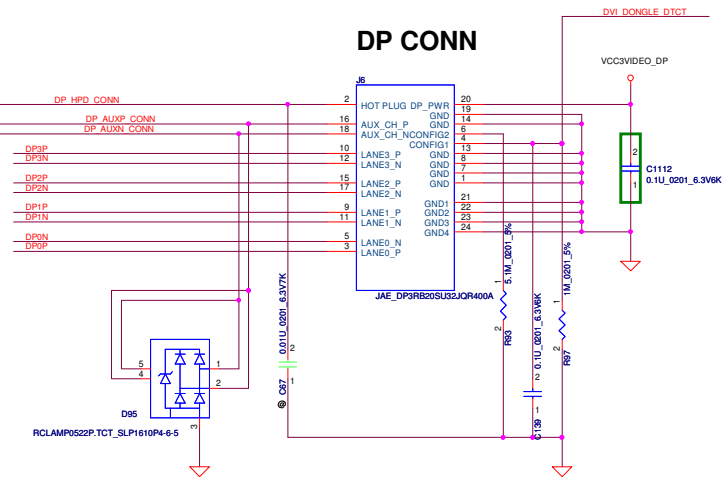
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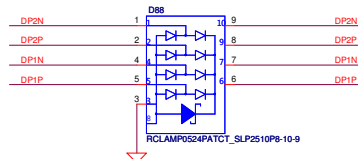
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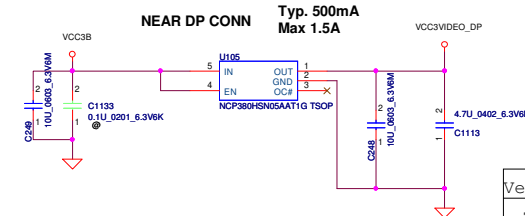
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NEAR DP CONN



NEAR DP CONN




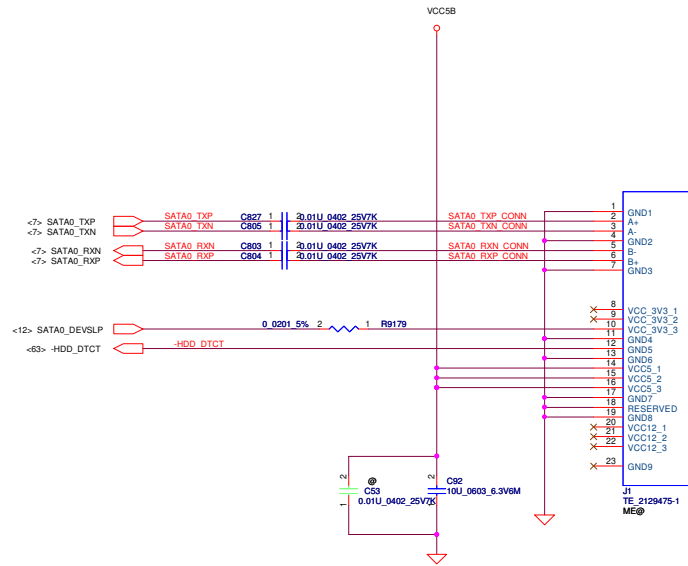
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Typ. 500mA
Max 1.5A


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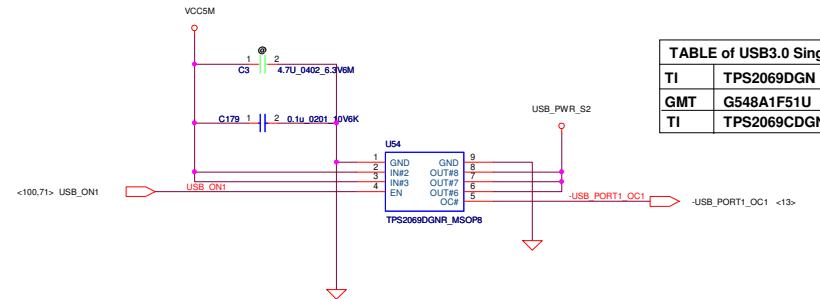
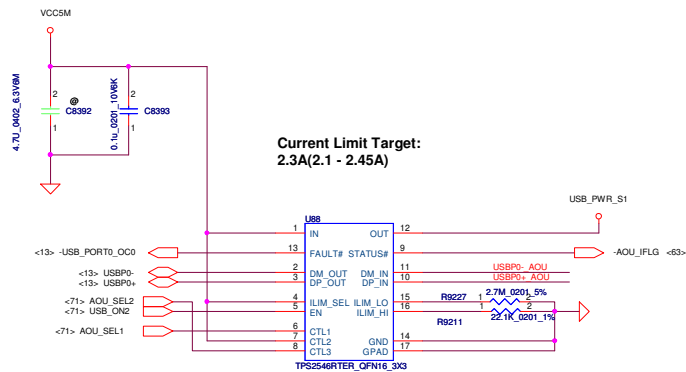
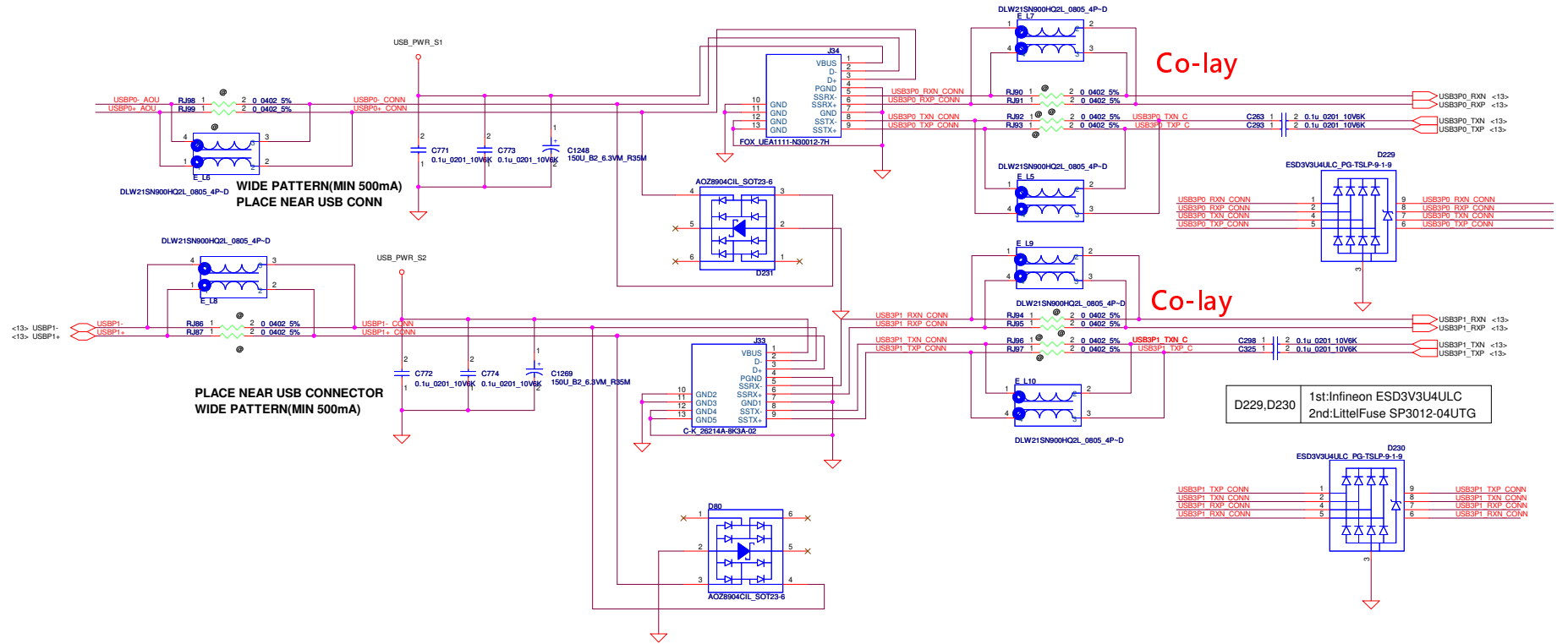
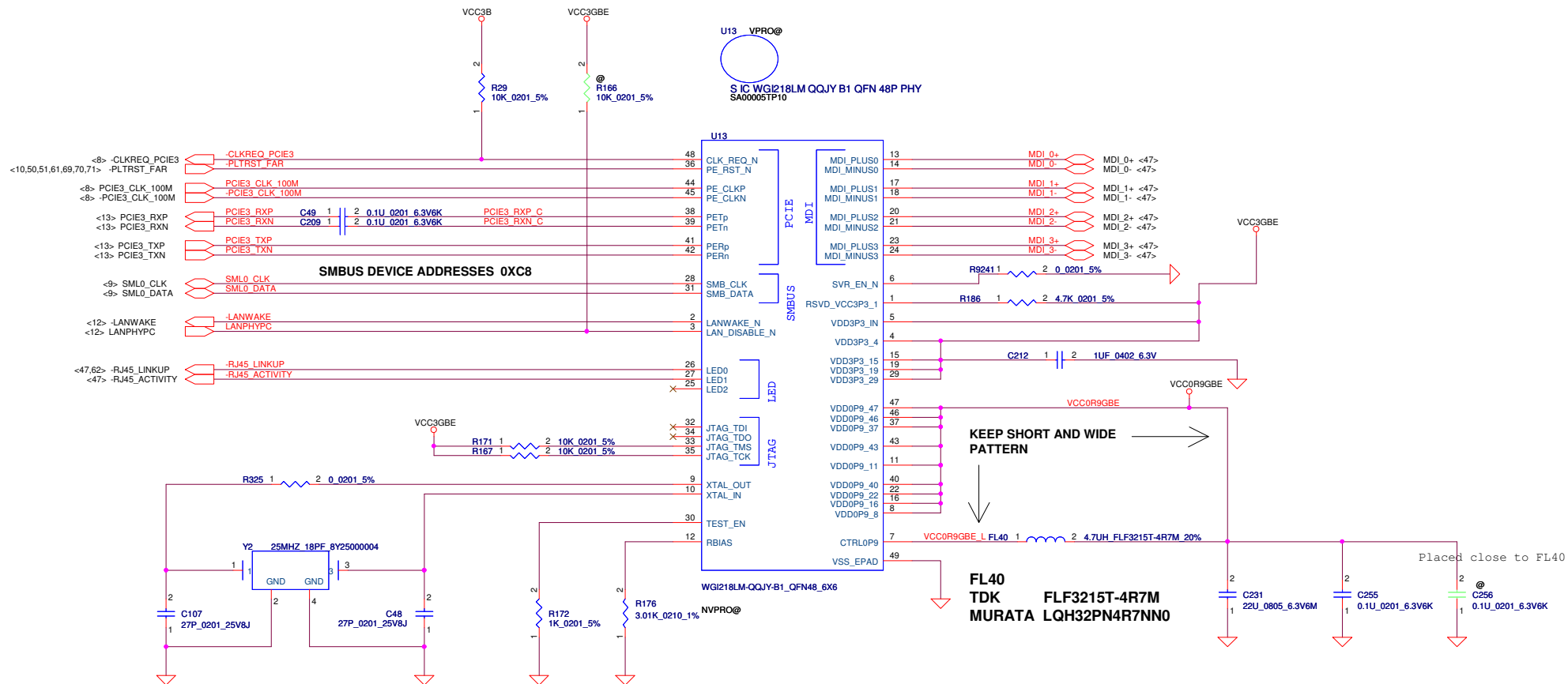


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Pericom	PI5USB2543

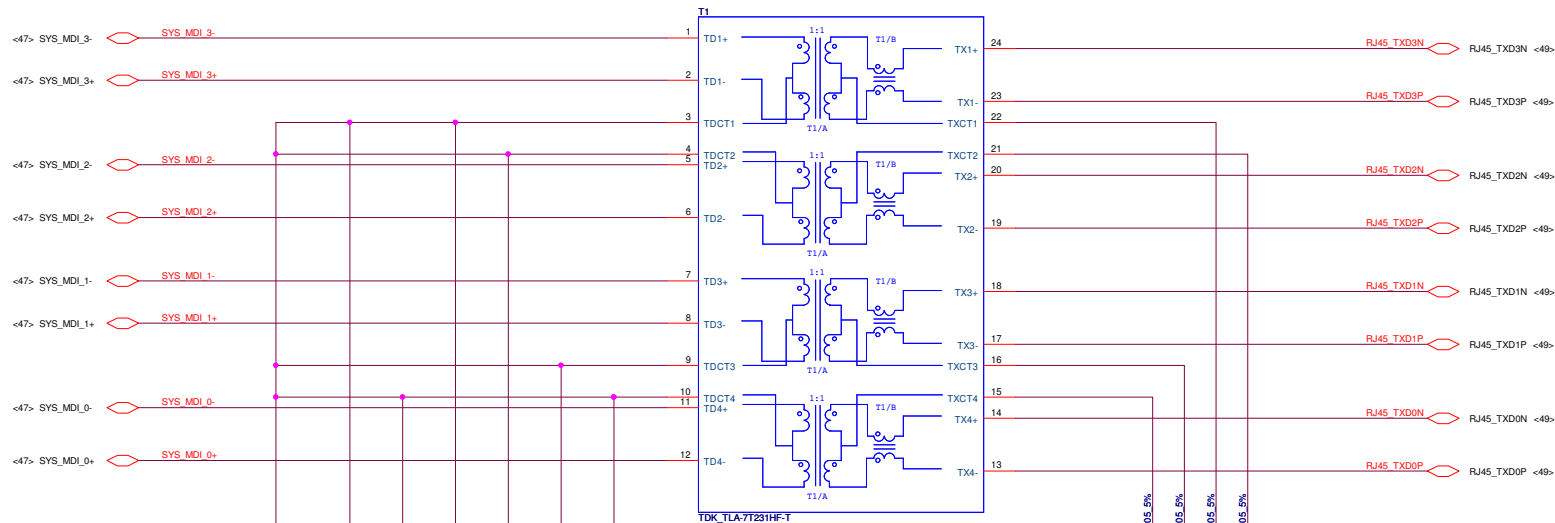
Security Classification	LC Future Center Secret Data			Title	
Issued Date	2012/07/01	Deciphered Date	2014/07/01	USB POWER/CONN	
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				Sheet	45 of 100



TXC 8Y25000004
KDS 1ZZHAE25000CC0A
ESPON Q22FA1280023800

U13 GBE PHY

vPRO Model	Non-vPRO Model
I218LM	I218V



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

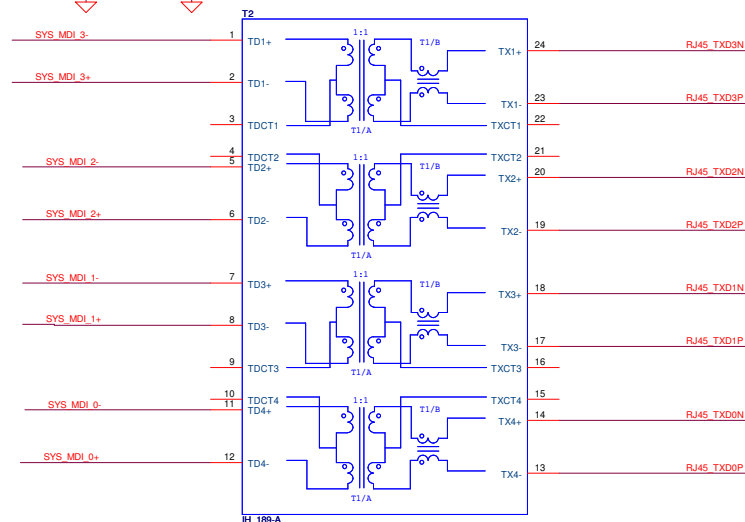
C303 SHOULD BE PLACED AS CLOSE TO MAGNETICS AS POSSIBLE.

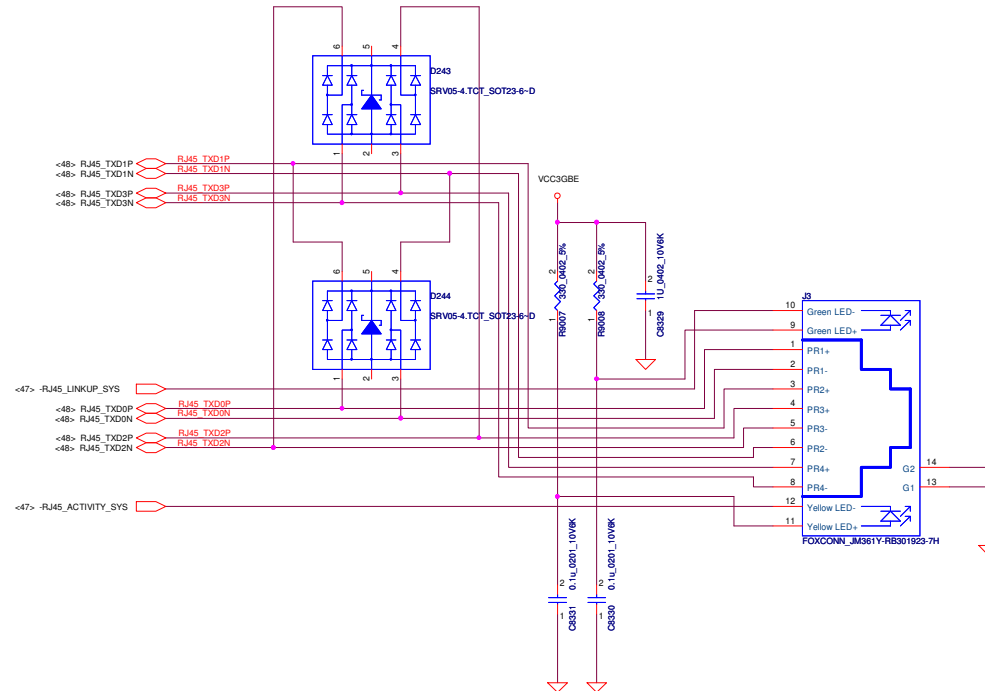
ESD REASON

PATTERN MUST BE SHORT AND WIDE.

HIGH VOLTAGE 1500PF CAP IS OPTIONAL

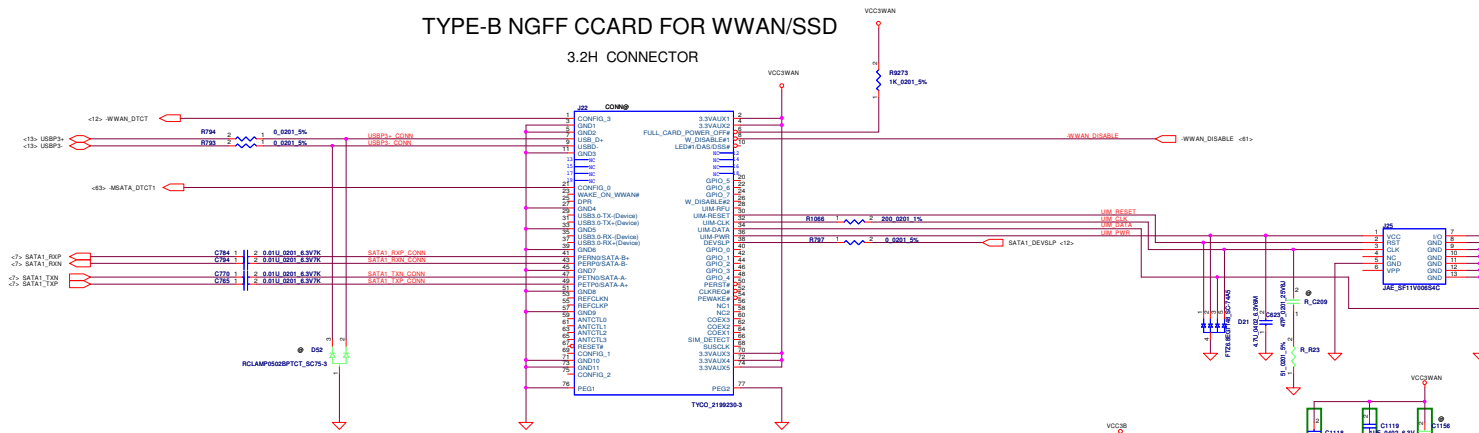
Vendor	P/N
TDK	TLA-7T231HF-T
Timag	IH-115-F
Bothhand	NA69LF
TDK	TLA-7T201HF-T



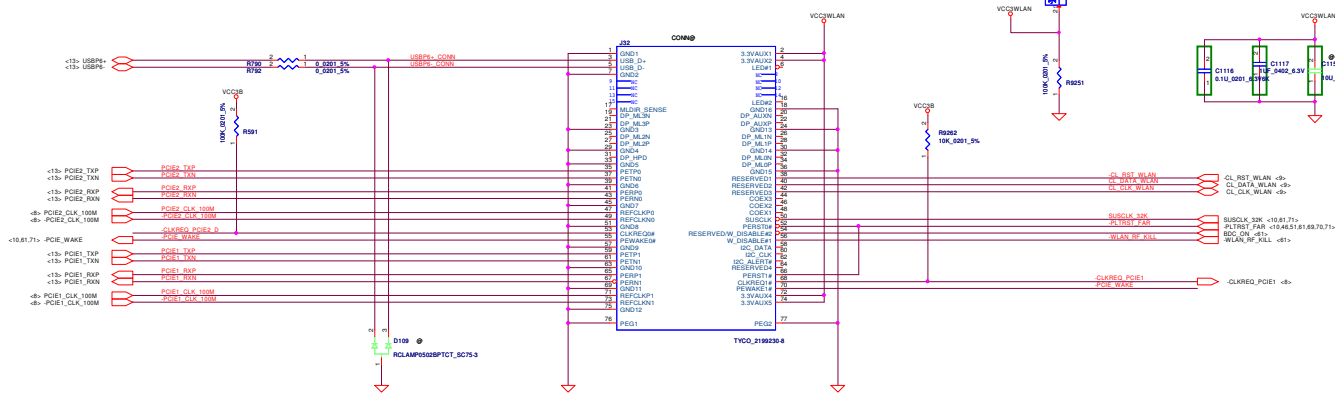




Security Classification		LC Future Center Secret Data		Title	
Issued Date	2012/05/02	Deciphered Date	2012/5/02	RJ45 CONNECTOR	
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				STING IMA	0.1
				Date: Thursday, May 10, 2012	Sheet 49 of 100

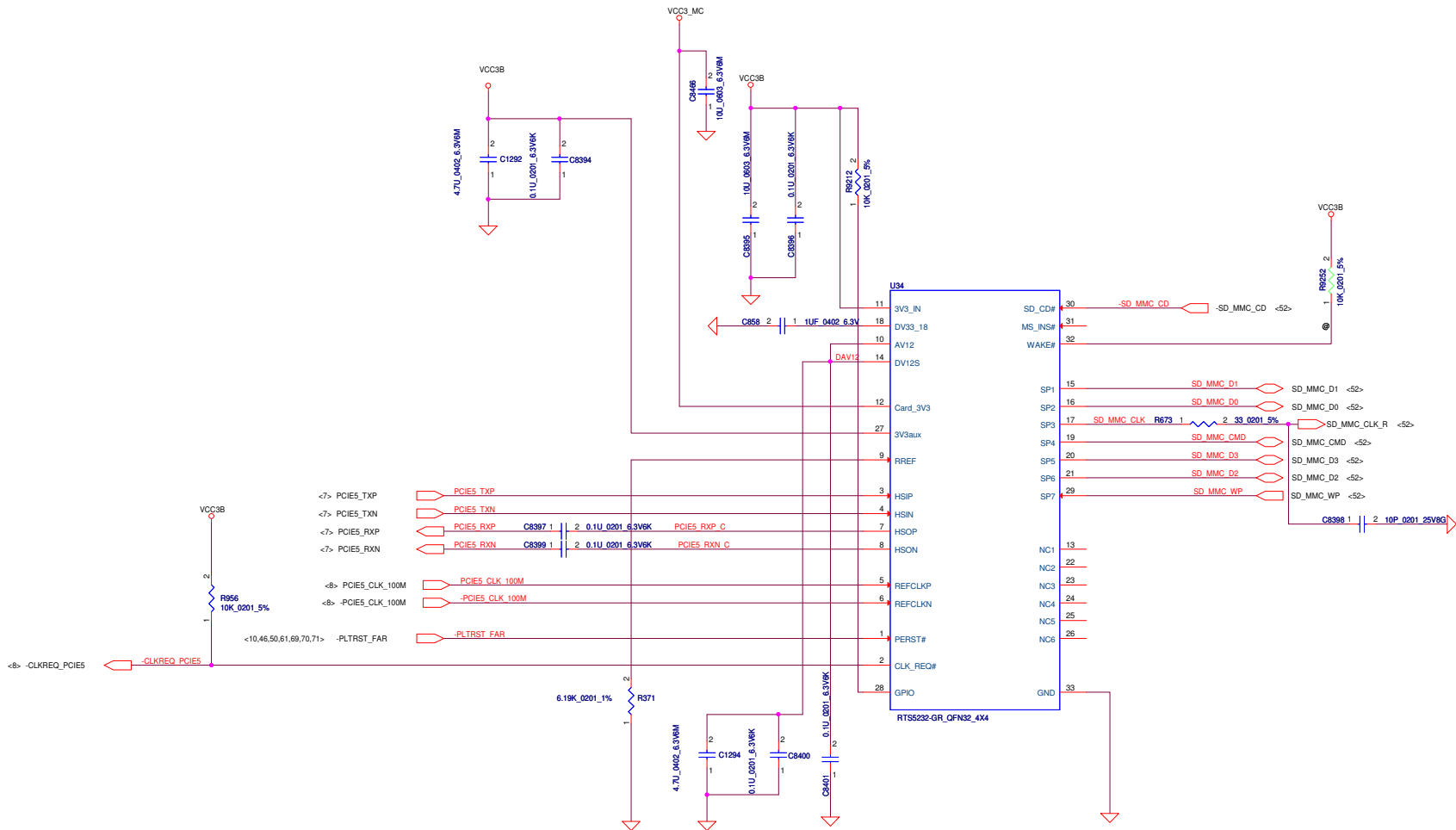
3.2H CONNECTOR

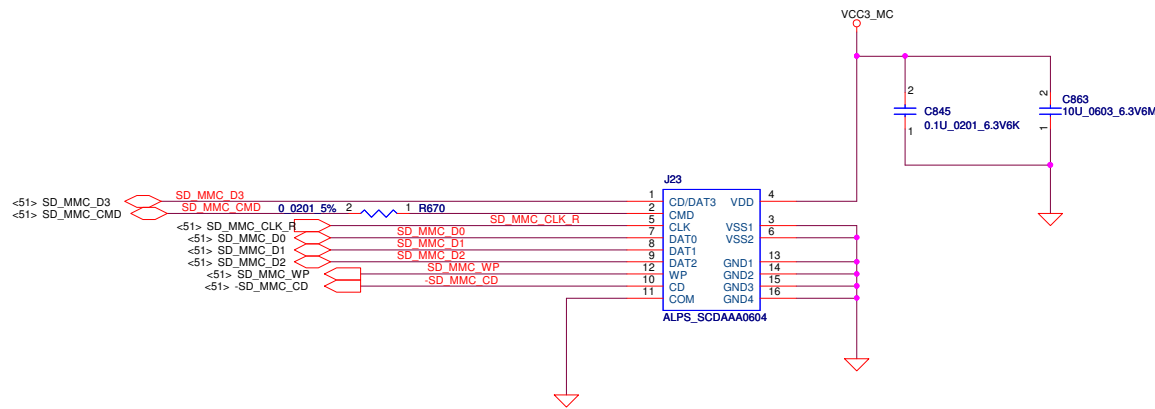


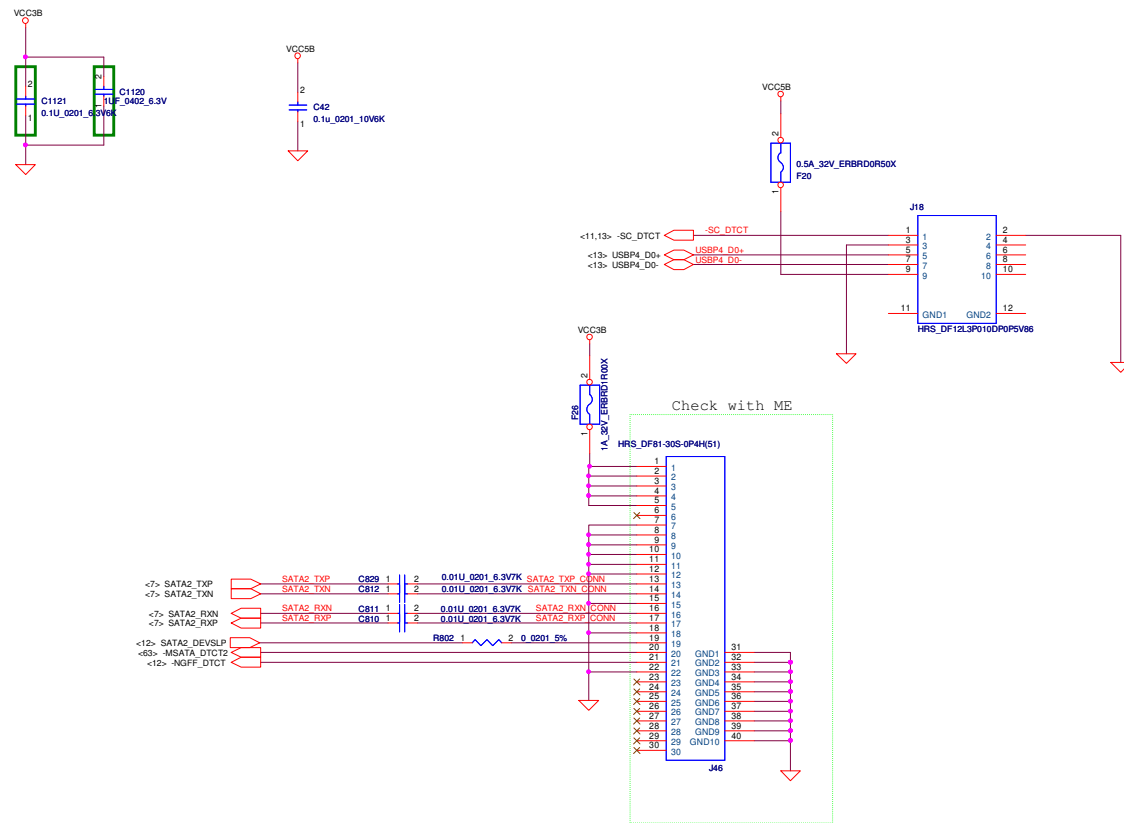
3.2H CONNECTOR

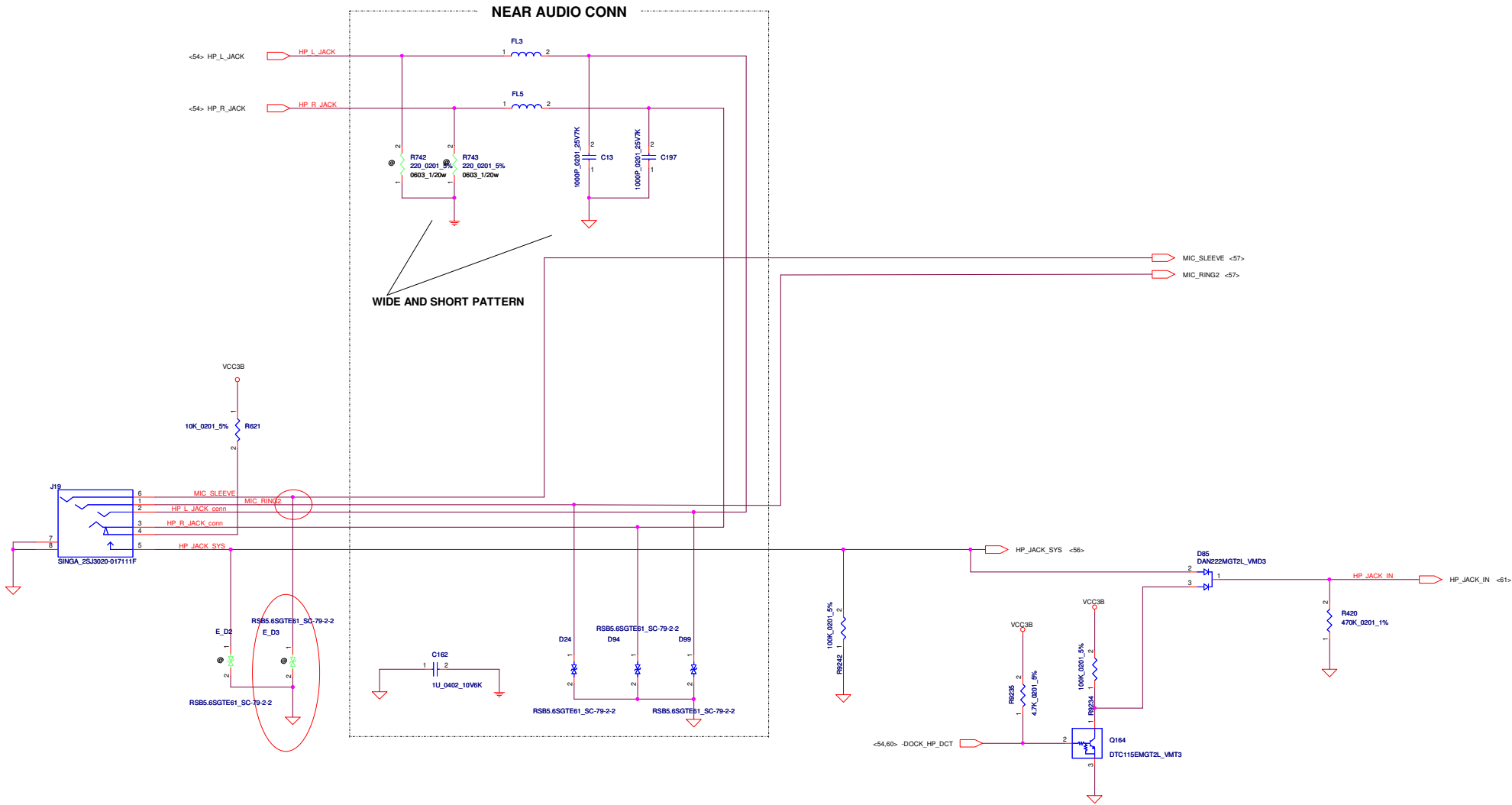


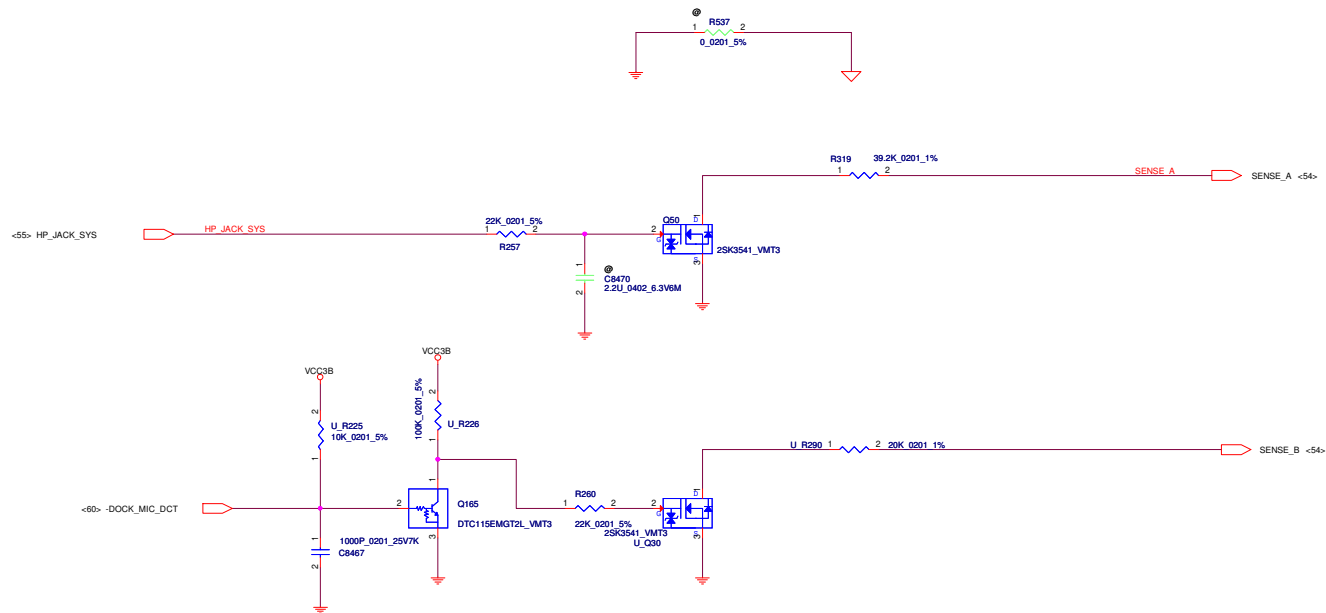
Security Classification	LC Future Center Secret Data		Title	PCIE MINI CARD SLOT		
Issued Date	2012/05/02	Deciphered Date	2012/05/02			
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Size	Drawing Name				Rev	0.1
Unit	mm		Scale		50	0



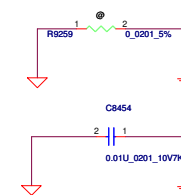
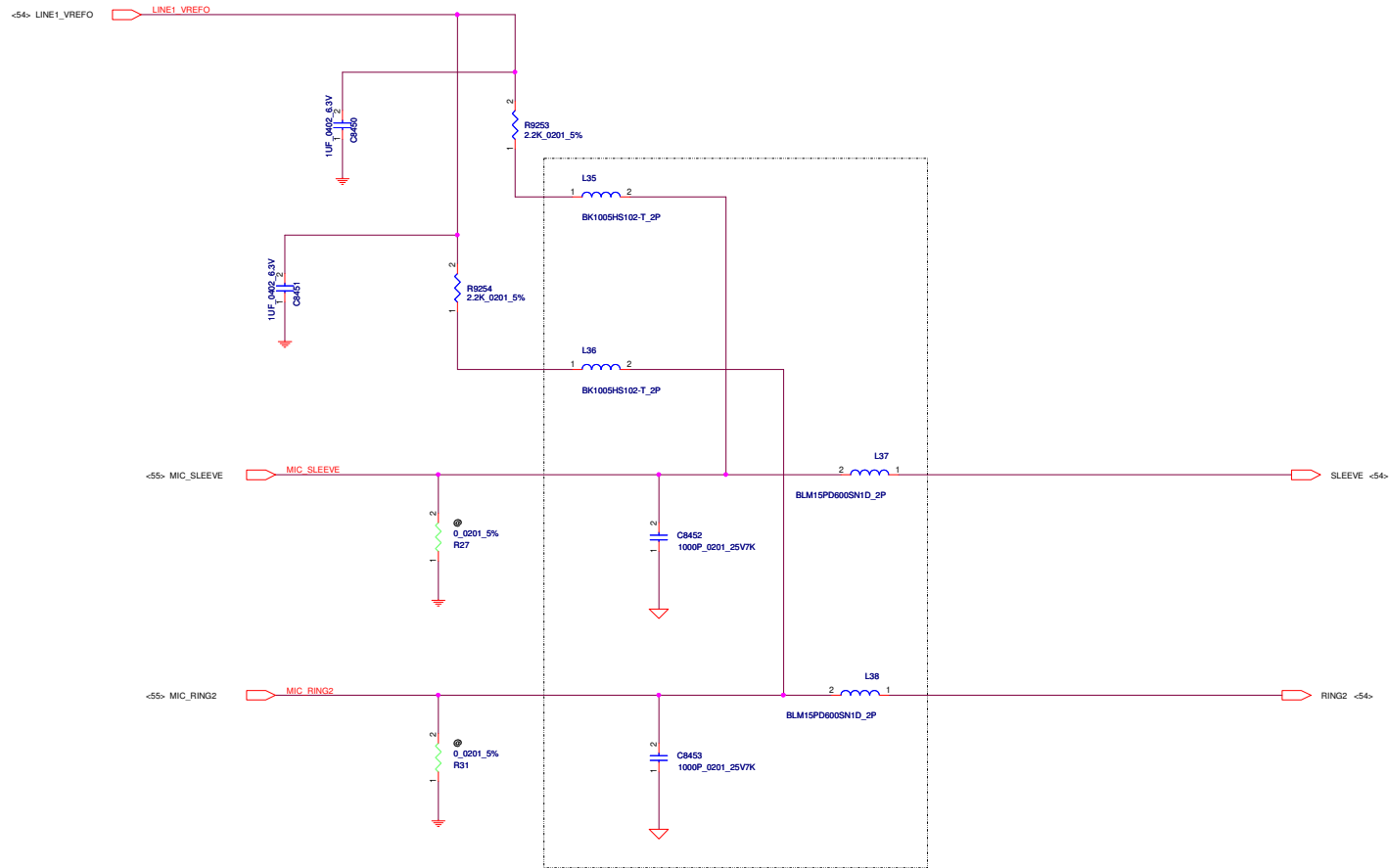


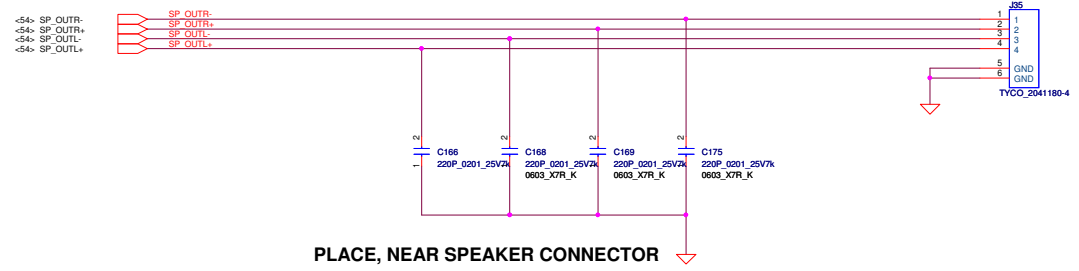


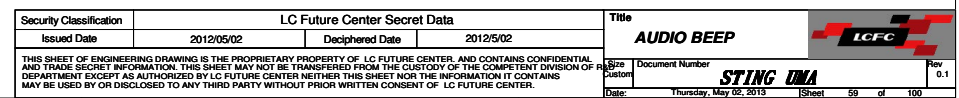


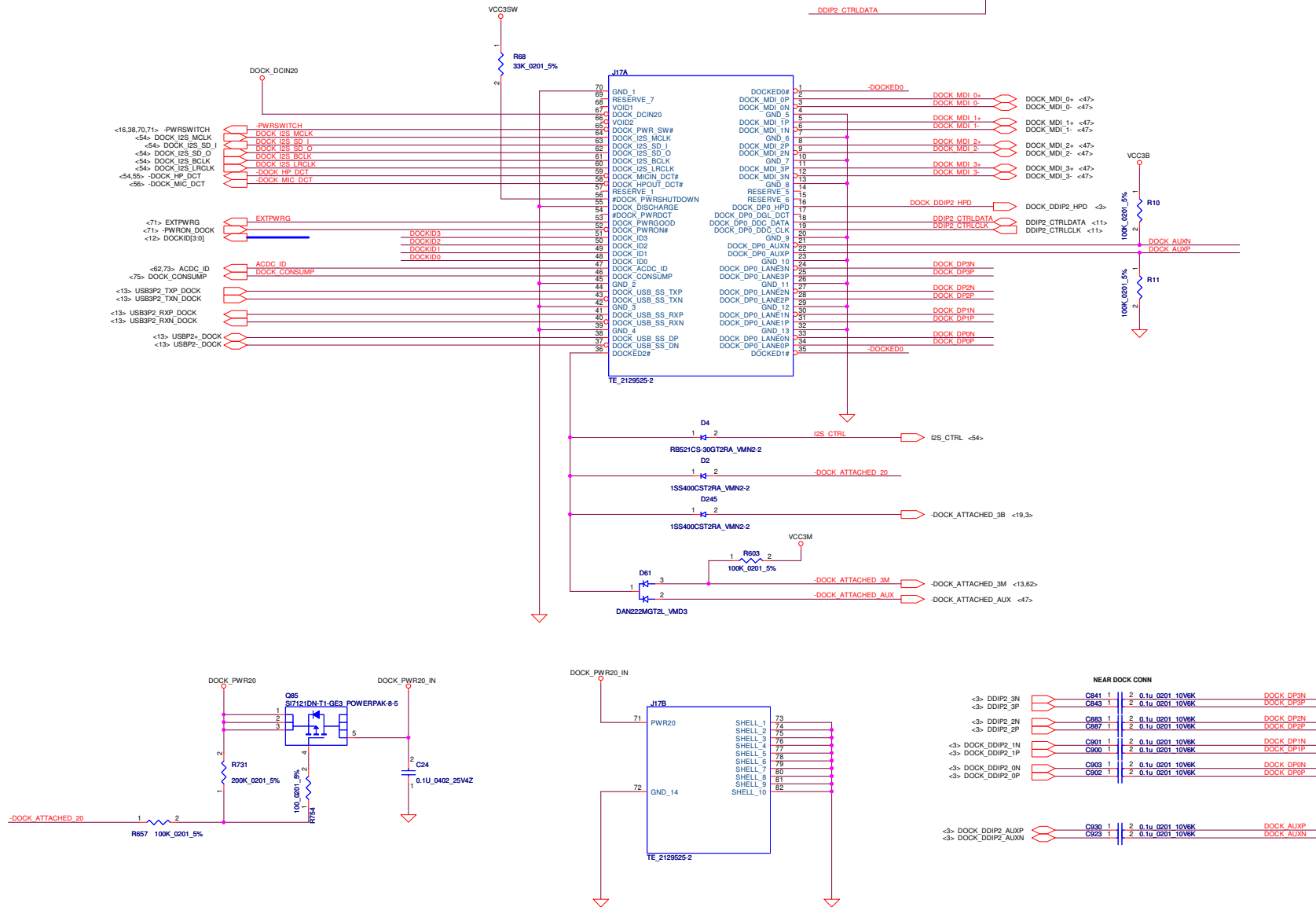


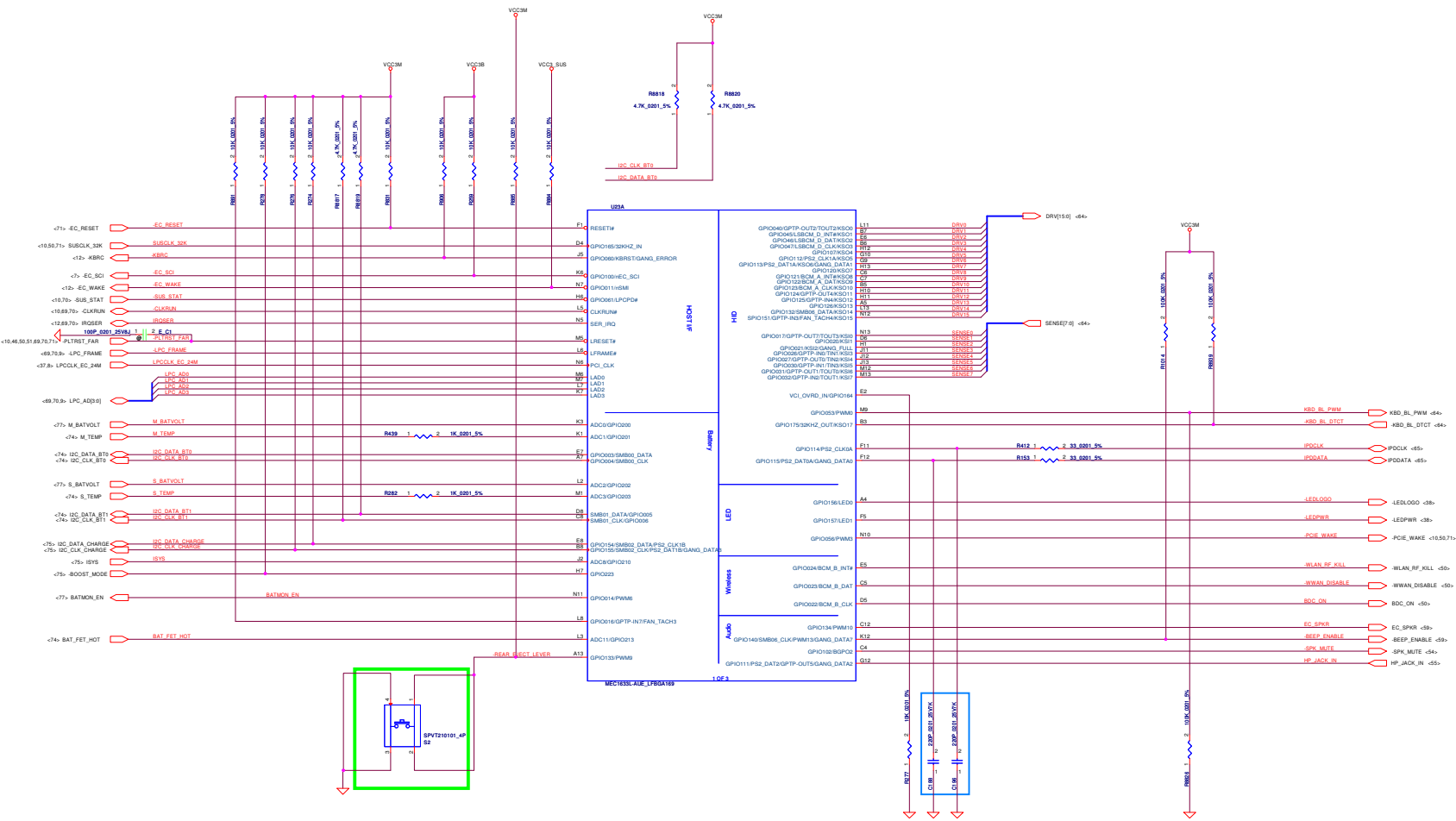
Security Classification	LC Future Center Secret Data			Title	AUDIO JACK SENSE	
Issued Date	2012/05/02	Deciphered Date	2012/5/02	Revision	1	Rev
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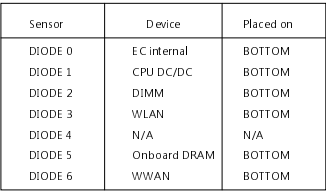
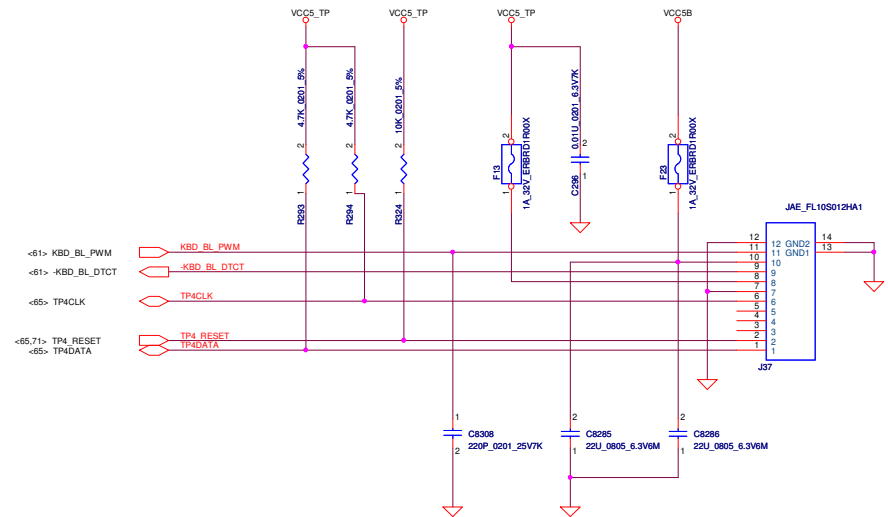
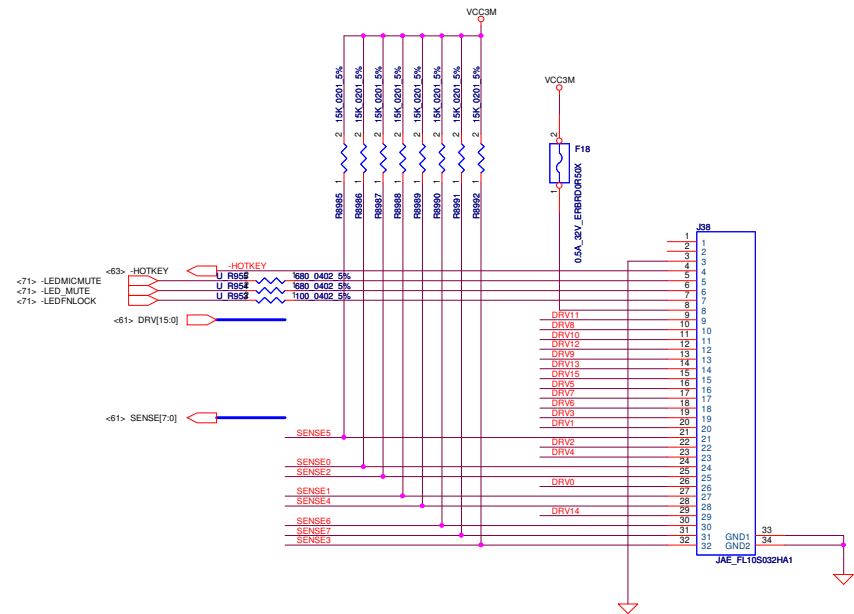
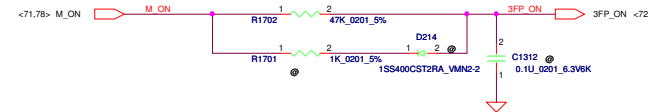
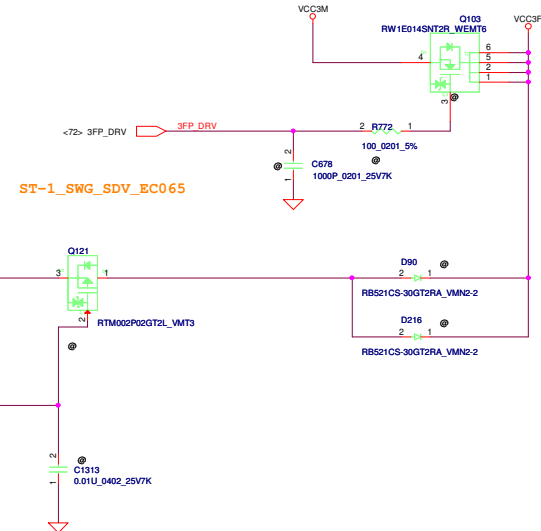
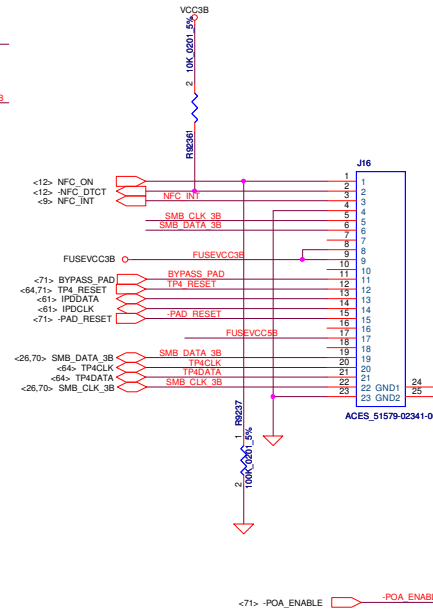
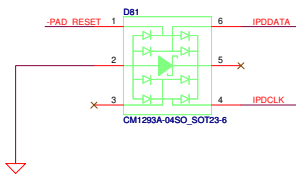
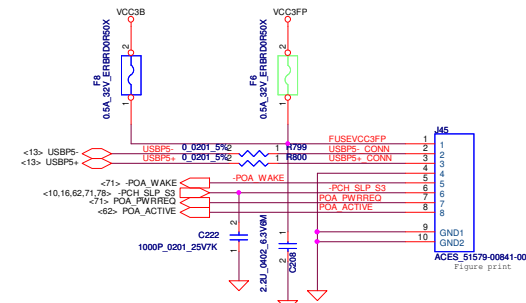
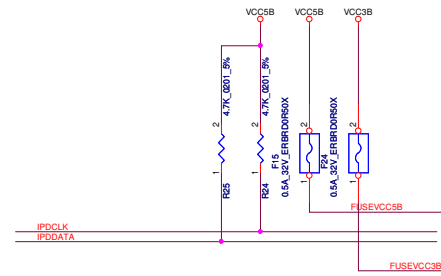



TABLE		
trace	FIFO	debug port
	Enable	Disable
R8807	ASM	NO-ASM
R8808	ASM	NO-ASM
R8950	NO-ASM	ASM





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				Date: Thursday, May 02, 2013	Sheet 66 of 100	New 0.1

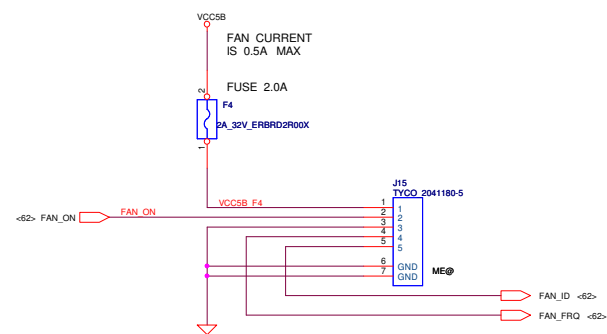
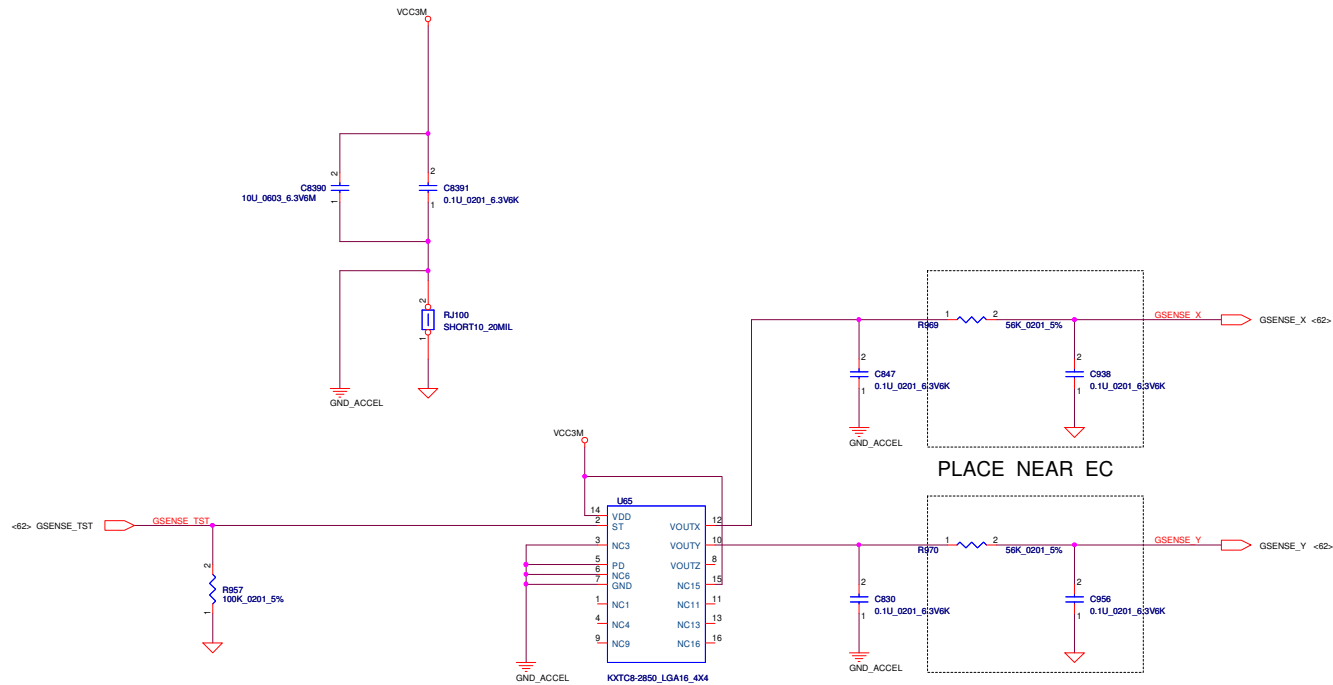
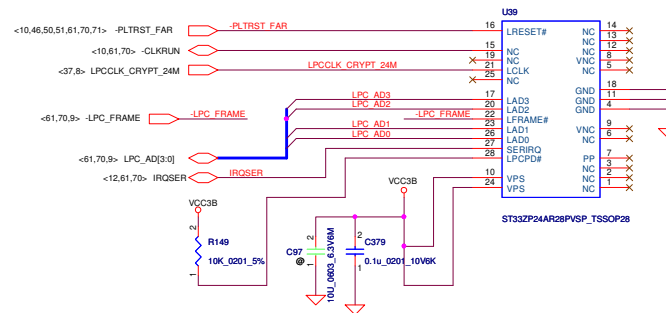


TABLE		
	LIS34AL KXTC8-2850	NO ACC.
R401 R957	NO_ASM ASM	ASM ASM
U65	ASM	NO_ASM
Q105	ASM	NO_ASM
R885 C829 C969	10-OHM ASM ASM	NO_ASM NO_ASM NO_ASM
C830 C847	ASM ASM	NO_ASM NO_ASM
R969 C938 R970 C956	56K ASM 56K ASM	NO_ASM NO_ASM NO_ASM NO_ASM
C704 R344 C703	NO_ASM NO_ASM NO_ASM	NO_ASM NO_ASM NO_ASM
R125	ASM	ASM

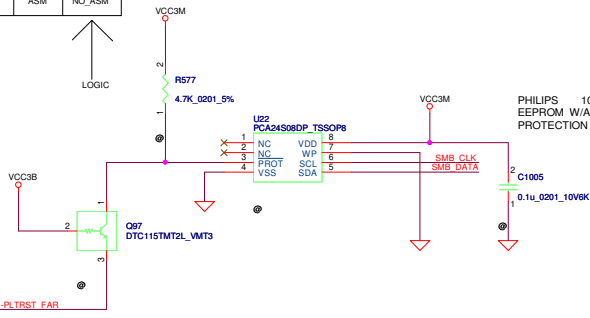




TABLE

EEPROM	U22	U23
U22	ASM	NO_ASM
C1005	ASM	NO_ASM
R577	ASM	NO_ASM
Q97	ASM	NO_ASM

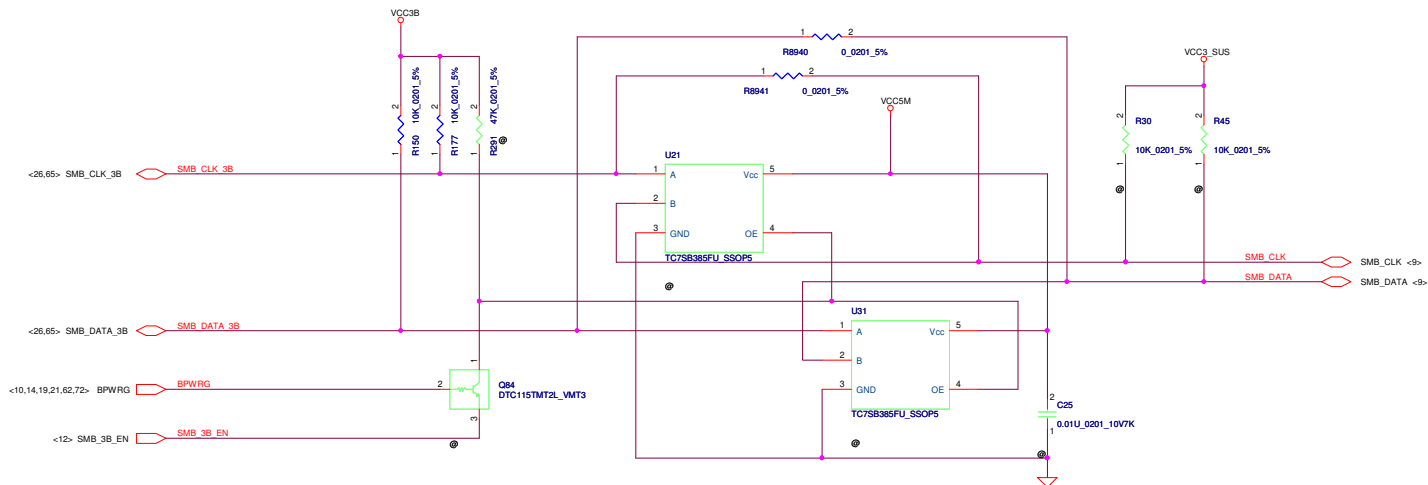
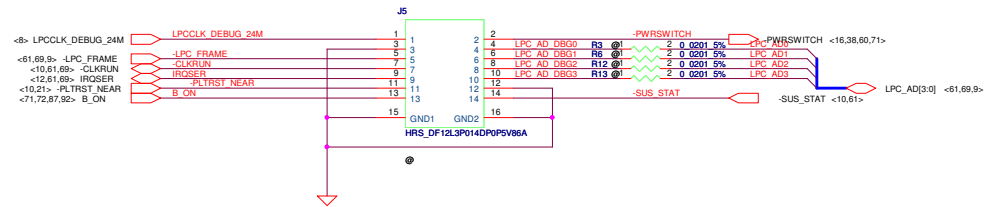
LOGIC



TABLE

REF	DES	ENABLE	DISABLE
J5	ASM	NO_ASM	
R220	ASM	NO_ASM	

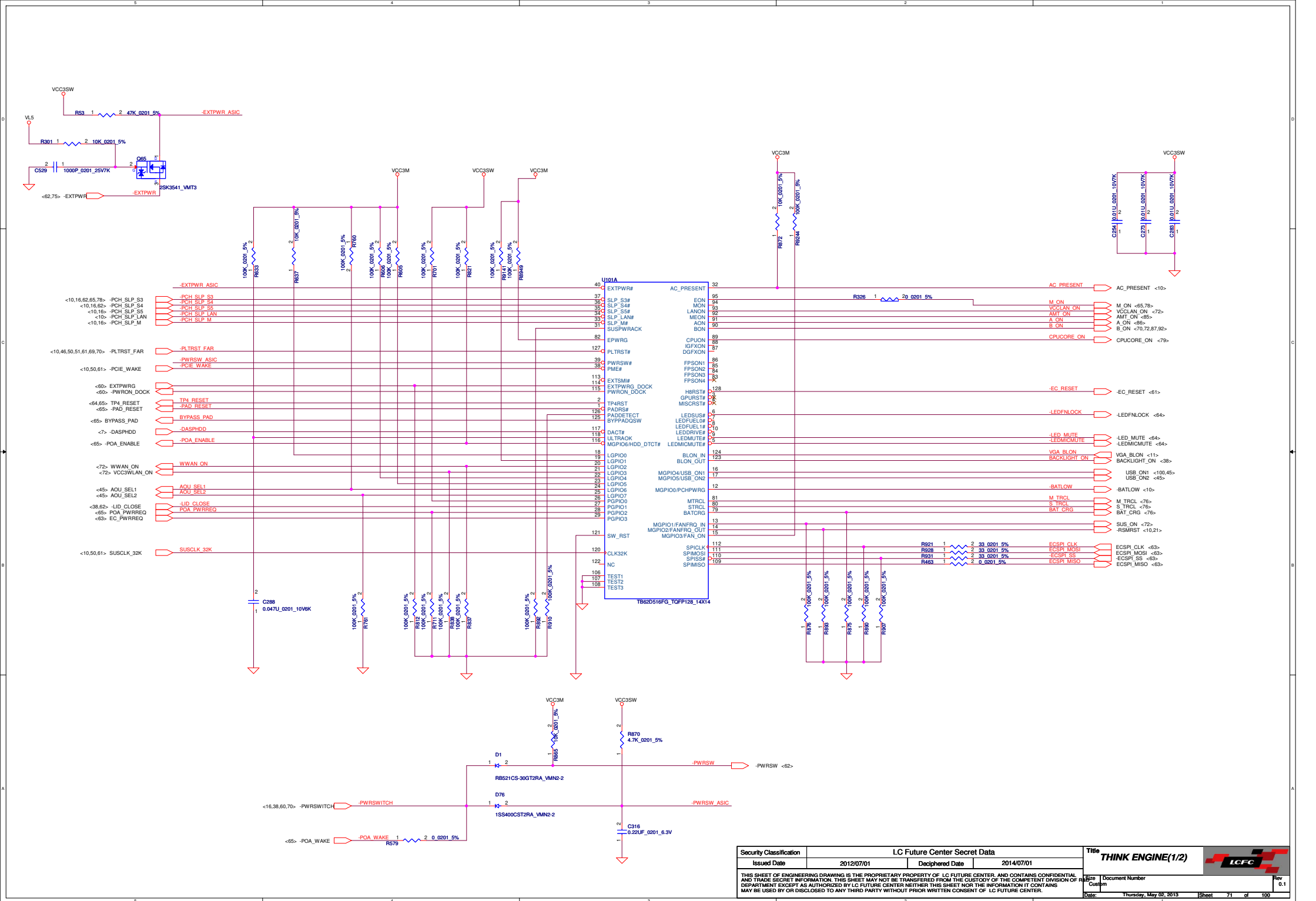
LOGIC



TABLE

EEPROM	U22	U23
U21	ASM	NO_ASM
U31	ASM	NO_ASM
C25	ASM	NO_ASM
R291	ASM	NO_ASM
Q84	ASM	NO_ASM
R8941	NO_ASM	ASM
R8940	NO_ASM	ASM
R30	ASM	NO_ASM
R45	ASM	NO_ASM

LOGIC



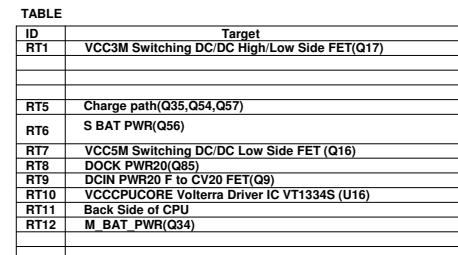

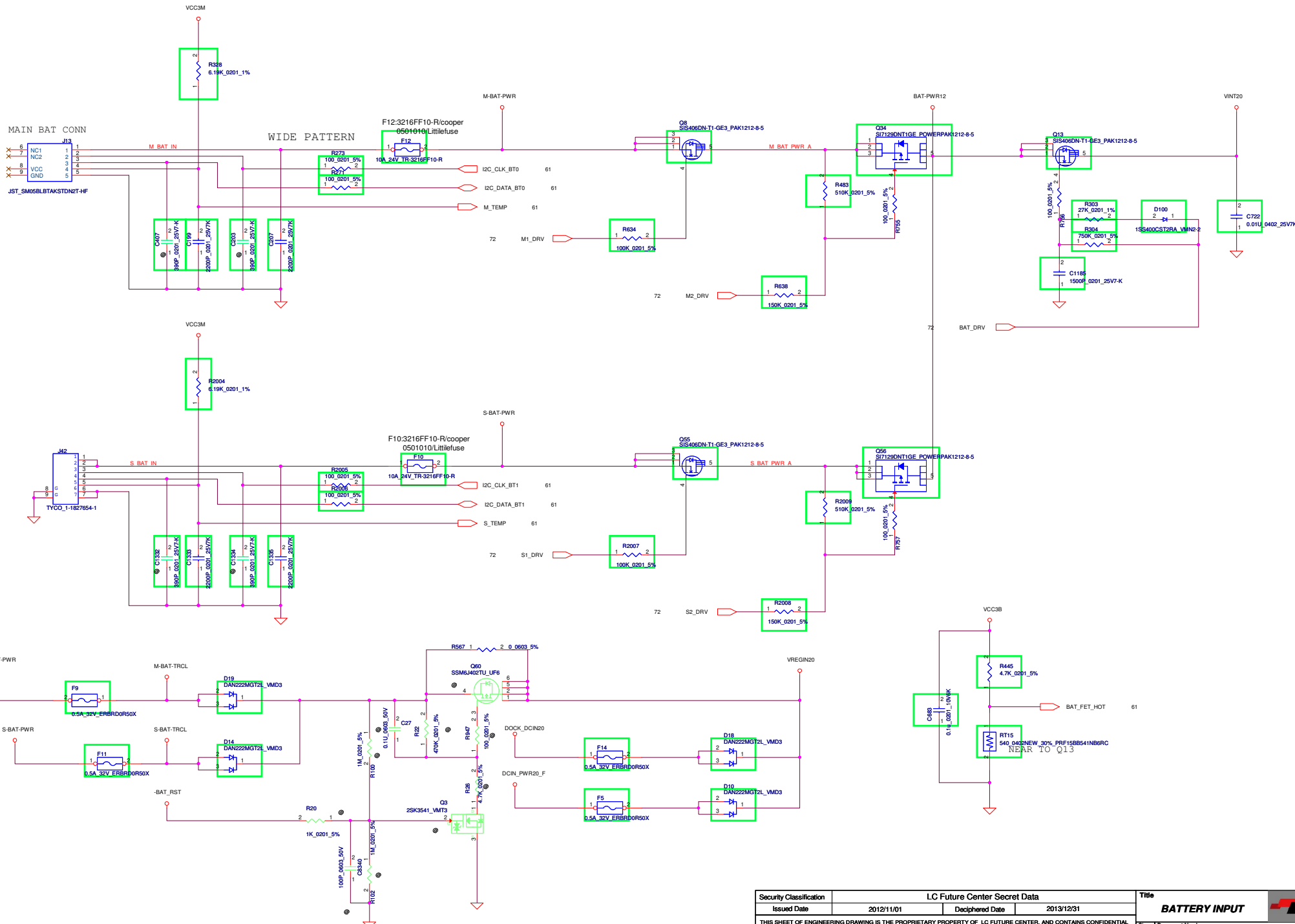



TABLE		
AOAC	YES	NO
D73	ASM	NO-ASM
R8931	ASM 100K-ohm	ASM 0-ohm

↑
LOGIC

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Issued Date	2012/07/01	Deciphered Date	2014/07/01	THINK ENGINE(2/2)			
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Document Number		876		Sting UMA		Date		Thursday, May 02, 2013		
Sheet		74		of		100				

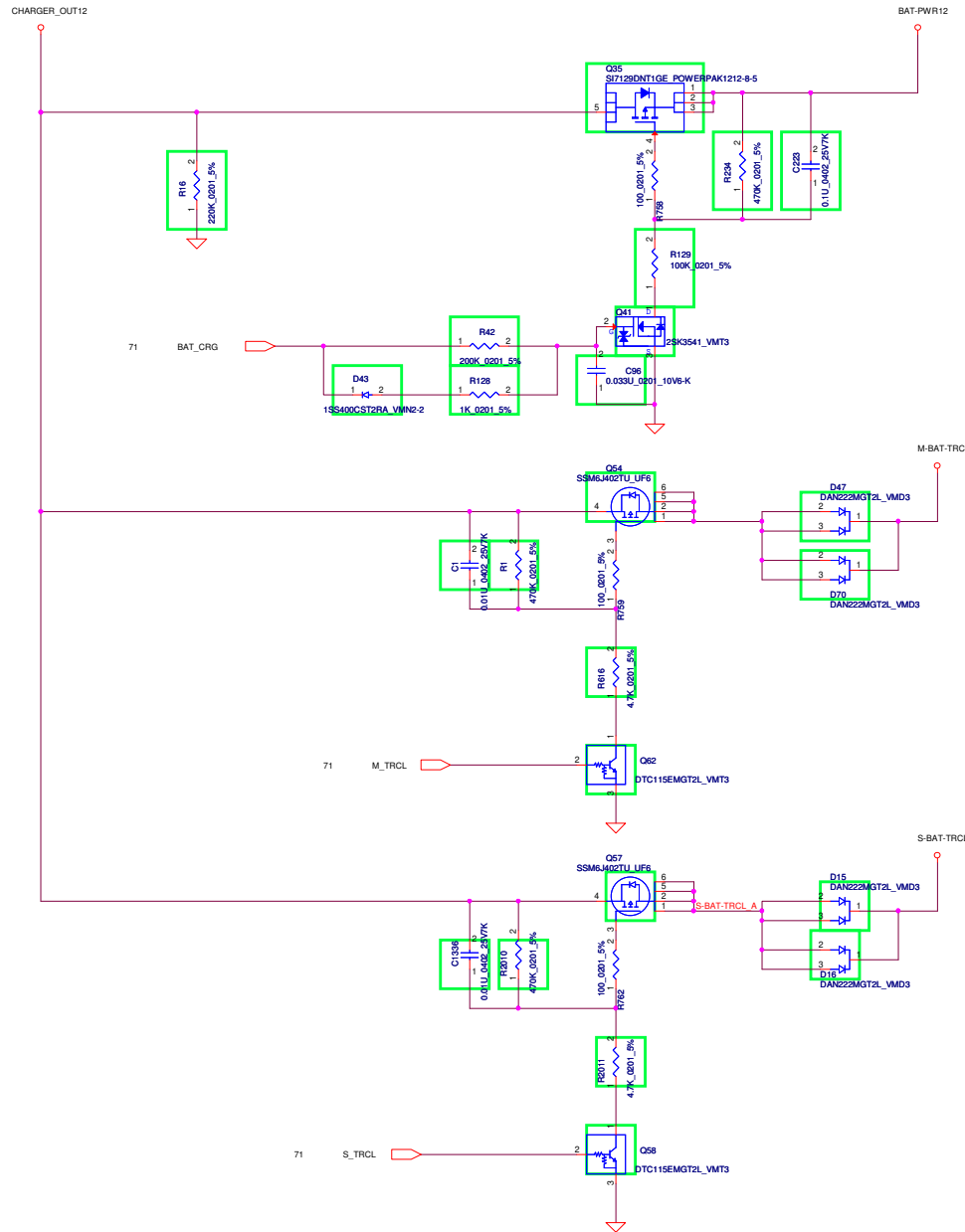
to connect lines of I2C_DATA and I2C_CLK in parallel

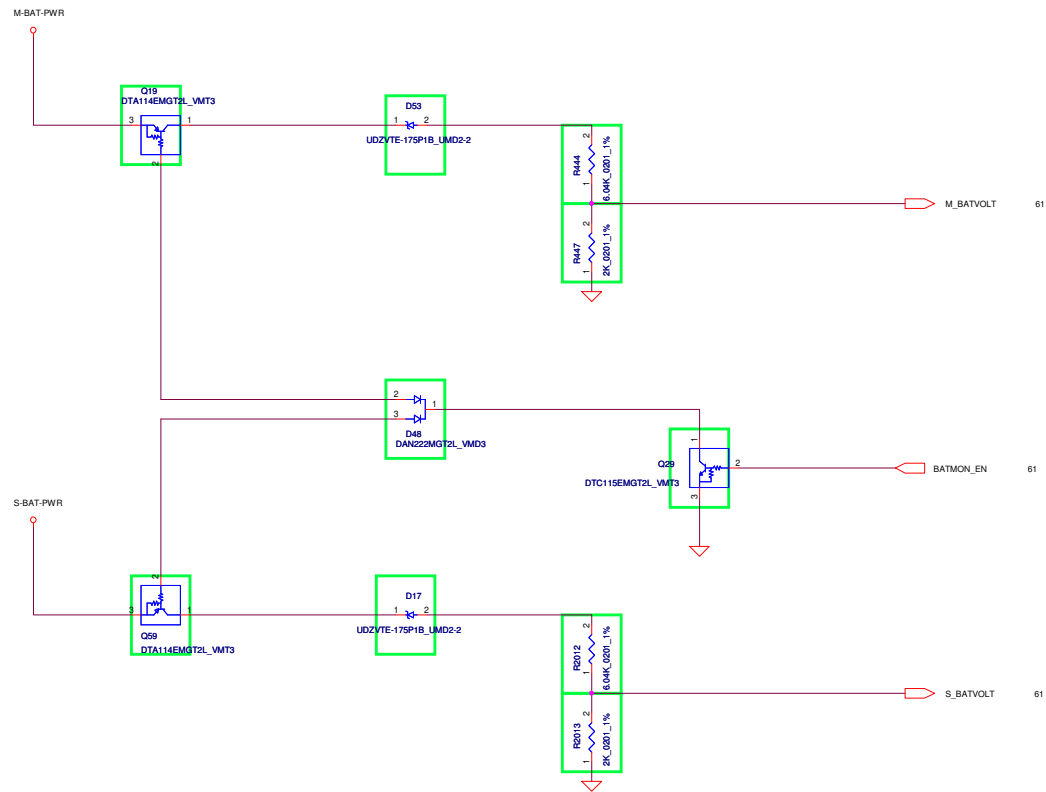
All the input MLCCs on 20V must be placed symmetrically on Top and Bottom.

place R735 and C299 near EC

	170W Adapter	135W Adapter	90W Adapter	65W Adapter	45W Adapter
ACDC_ID signal	2.590V >= ID > 2.149V	2.189V >= ID > 1.663V	1.618V >= ID > 1.172V	1.134V >= ID > 0.693V	0.663V >= ID > 0.234V
-65W_AC signal	Low	Low	Low	Low	High
-90W_AC signal	Low	Low	Low	High	High

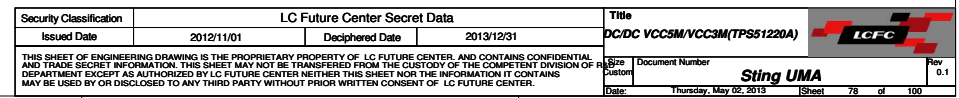
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Issued Date		2012/11/01	Deciphered Date		2013/12/31
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Date		Thursday, May 02, 2013	Sheet 75 of 100		

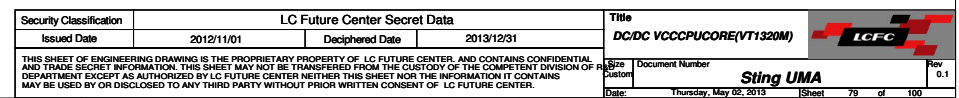


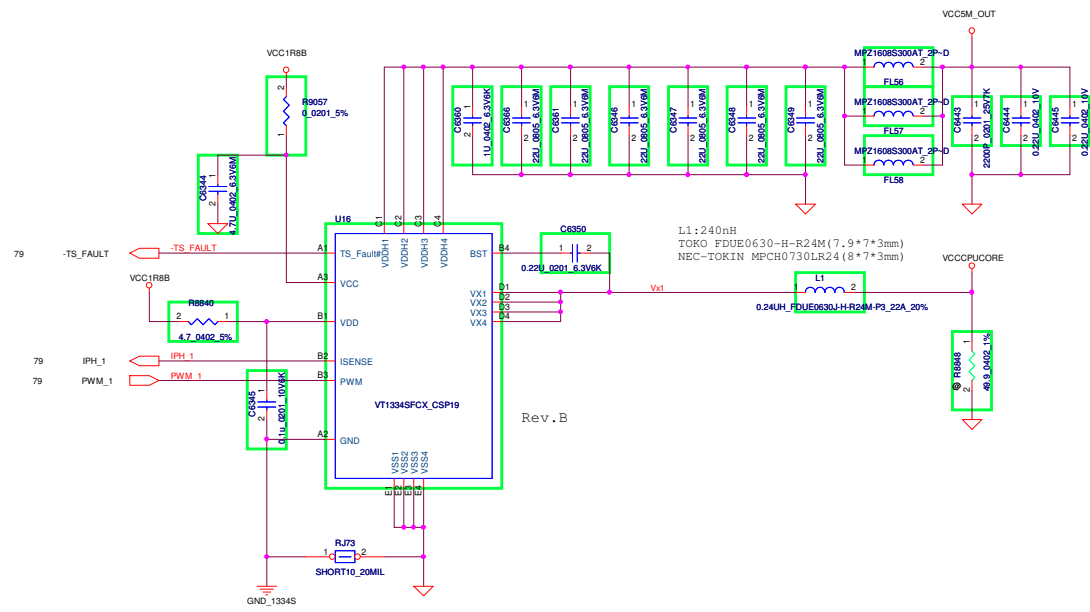


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				Date:	Thursday, May 02, 2013	Sheet 77 of 100

All the input MLCCs on 20V must be placed symmetrically on Top and Bottom.






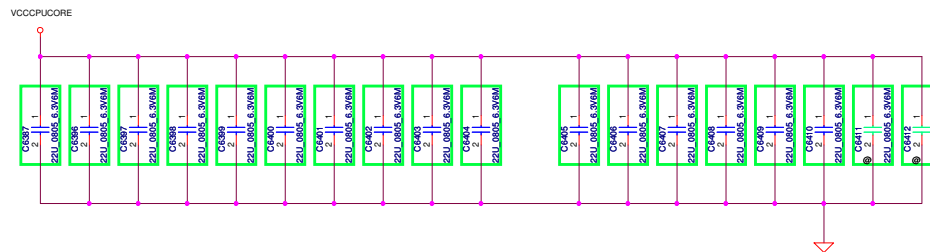


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Rev 0.24




16pcs 22uF for VCCCPUCORE of 25W ULT CPU
(14pcs 22uF for VCCCPUCORE of 15W ULT CPU)

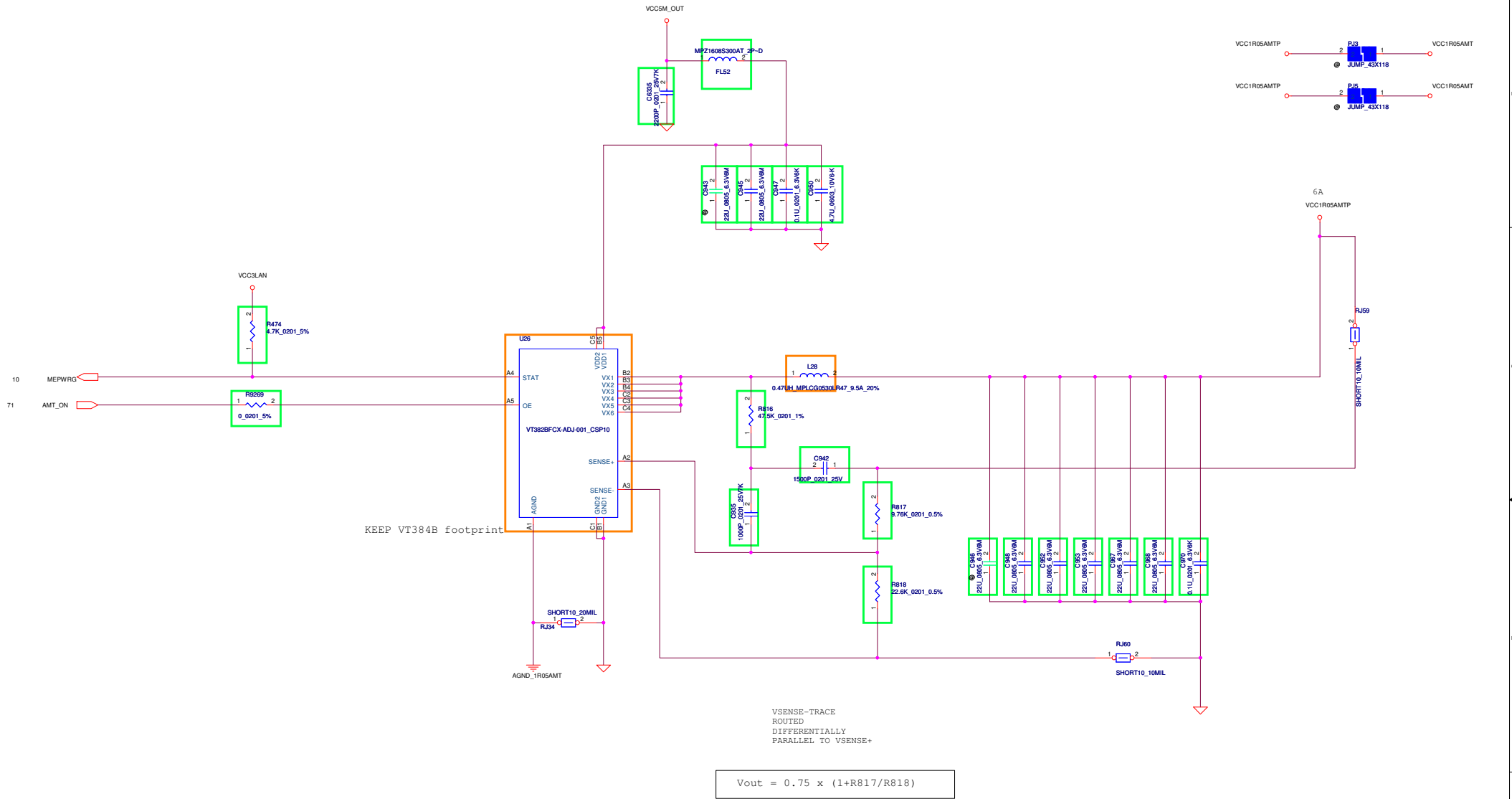
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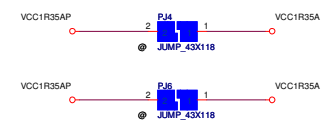
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				8726	
				Sting UMA	
				Date: Thursday, May 02, 2013	
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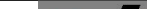
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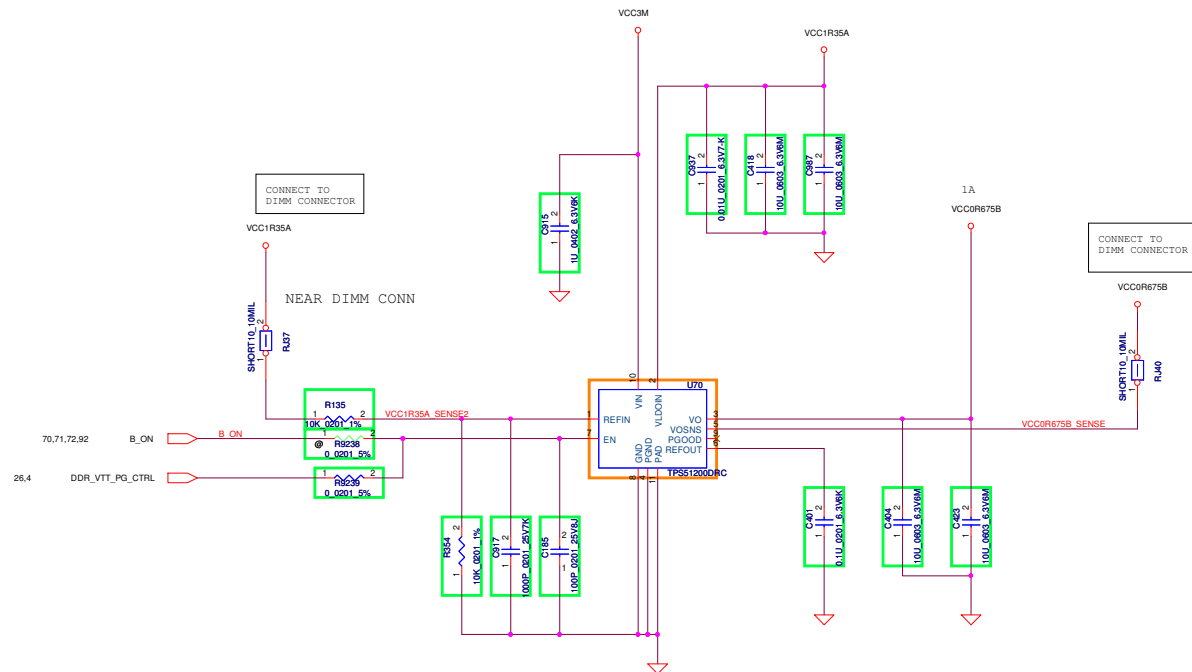
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				Date	Thursday, May 02, 2013	






VSENSE-TRACE
ROUTED DIFFERENTIALLY
PARALLEL TO VSENSE+

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				Date Thursday, May 05, 2013	Sheet 86 of 100




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				Sting UMA	
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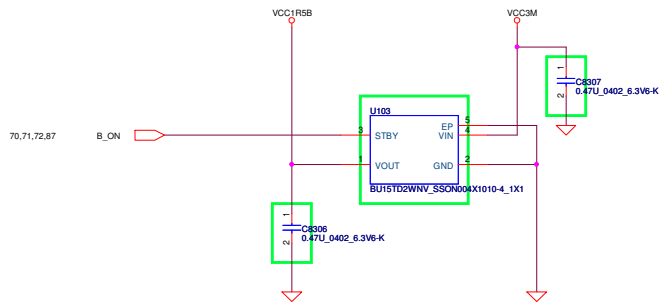
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				Date: Thursday, May 02, 2013			Sheet 89 of 100

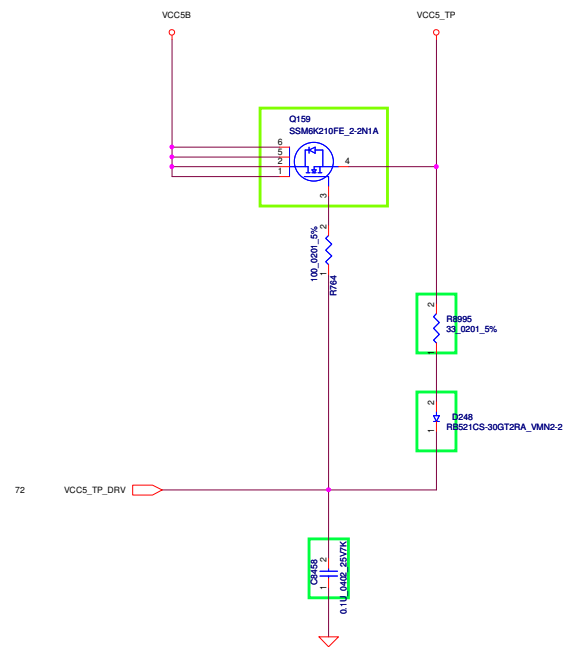
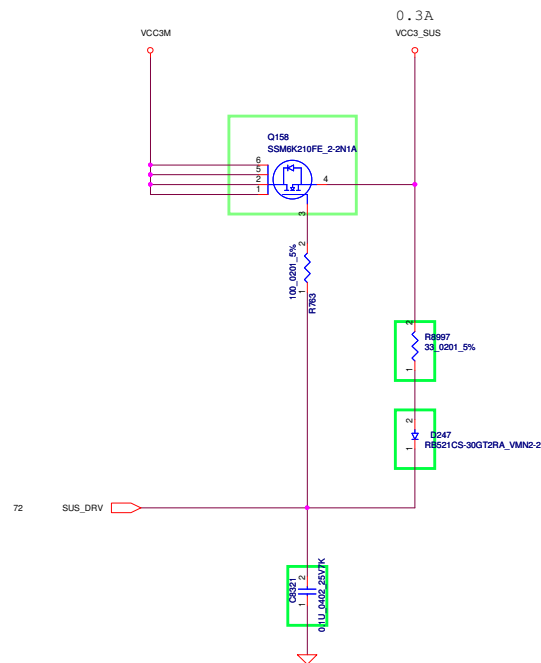
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				Date	Thursday, May 02, 2013		

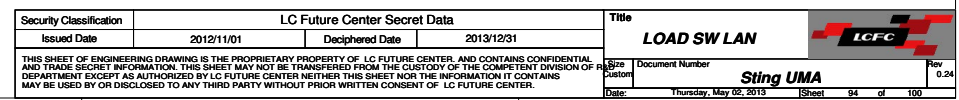
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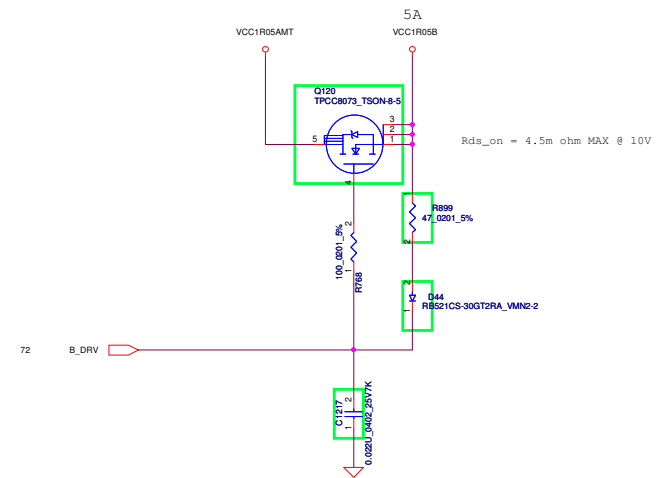
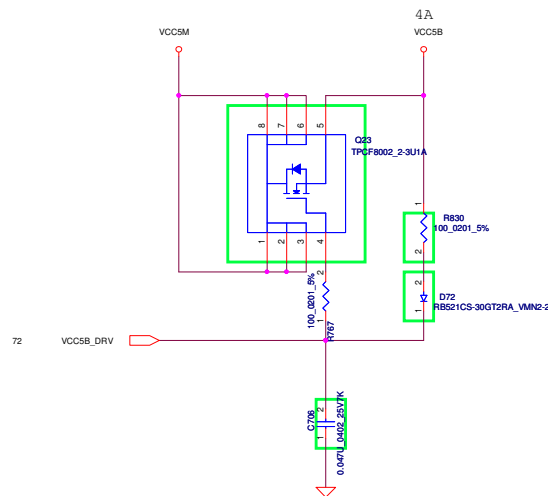
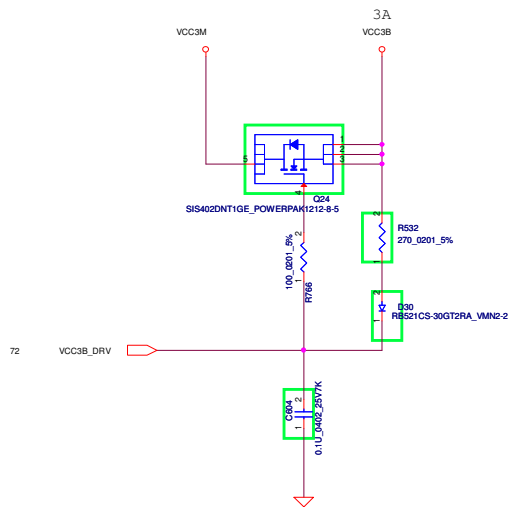


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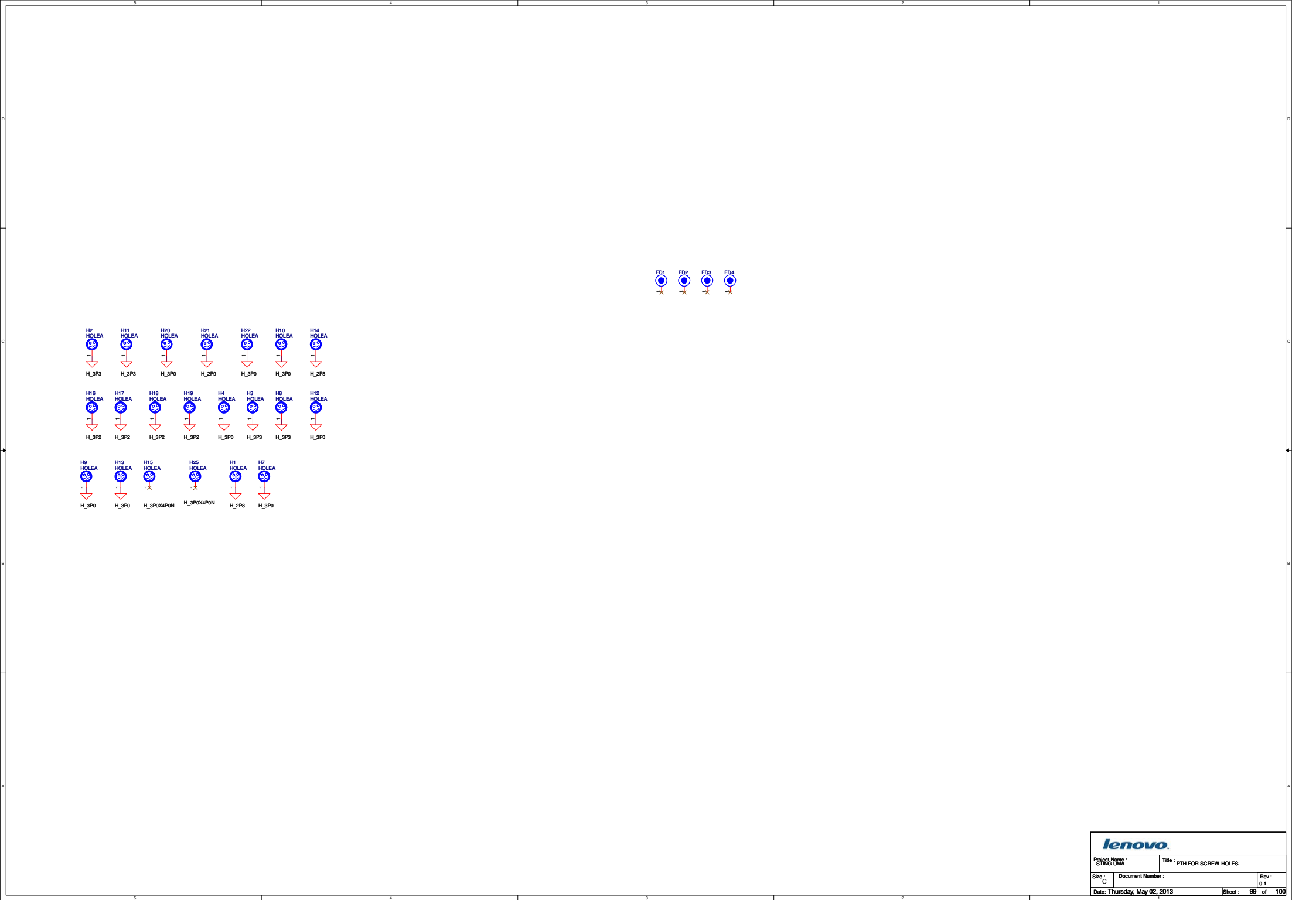


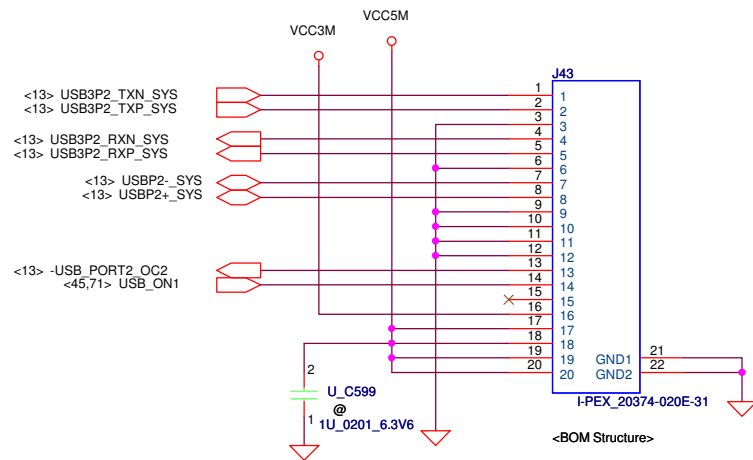
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