

# Rogue-2 SHB SVT LOGIC SCHEMATICS

**RG2SB-5**  
**VER 5.05**  
**Apr/11/2013**

BASE LOGIC :  
Rogue-2 SHB SIT-R VER 4.12 Mar/11/2013

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2.EC HISTORY

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

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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

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45.MEC1633L(1/3)

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52.TPM

53.EEPROM/SMBUS SW

54.THINK ENGINE(1/2)

55.THINK ENGINE(2/2)

56.DC-IN

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58.BATTERY CHARGER(BQ24760)

59.CHARGER SELECTOR

60.BATTERY MONITOR

61.DC/DC VCC5M/VCC3M (TPS51220A)

62.DC/DC VCCCPUCORE(VT1320M)
- 63.DC/DC VCCCPUCORE(VT1334S)

64.BLANK

65.VCCCPUCORE DECOUPLING

66.BLANK

67.DC/DC VCC1R05AMT(VT382B)

68.DC/DC VCC1R35A(VT387B)

69.DC/DC VCC0R675B(TPS51200)

70.BLANK

71.BLANK

72.DC/DC VCC1R5B(BU15TD2WNVX)

73.LOAD SW PCH SUS

74.LOAD SW LAN

75.LOAD SW B

76.LOAD SW WWAN & WLAN

77.PTH FOR SCREW HOLES

EC HISTORY

ROGUE-2 SHB SVT  
(BASE LOGIC :RG2SB-4 VER 4.12 Mar/11/2013)

- VER.5.00 03/21/2013 APPLIED RG2SB\_SVT\_EC001-007
- VER.5.01 03/26/2013 APPLIED RG2SB\_SVT\_EC009
- VER.5.02 03/28/2013 APPLIED RG2SB\_SVT\_EC010
- VER.5.03 04/04/2013 APPLIED RG2SB\_SVT\_EC011
- VER.5.04 04/05/2013 APPLIED RG2SB\_SVT\_EC012-017
- VER.5.05 04/11/2013 APPLIED RG2SB\_SVT\_EC018

CONFIDENTIAL

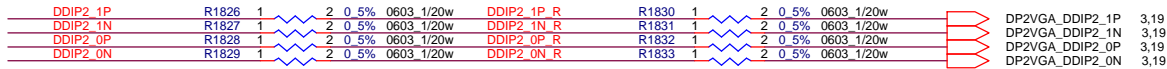
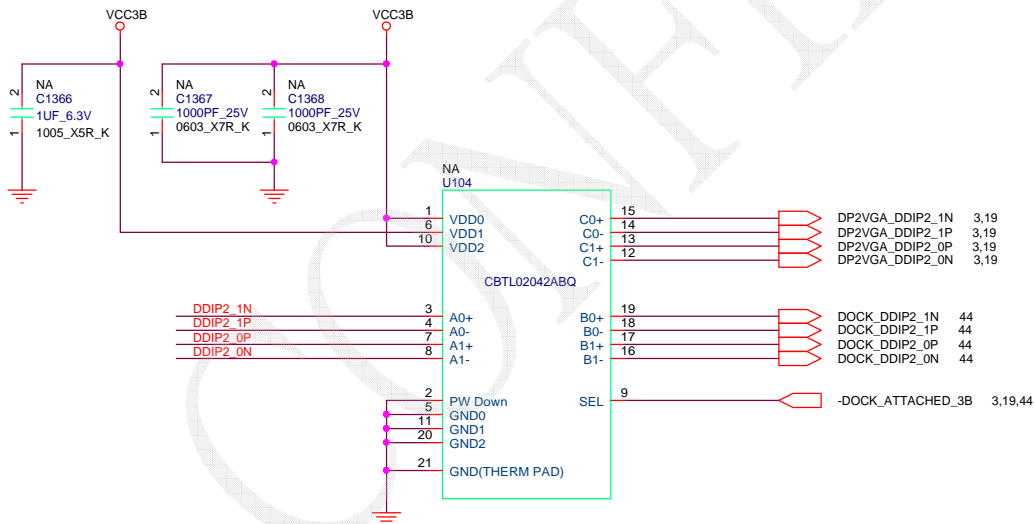
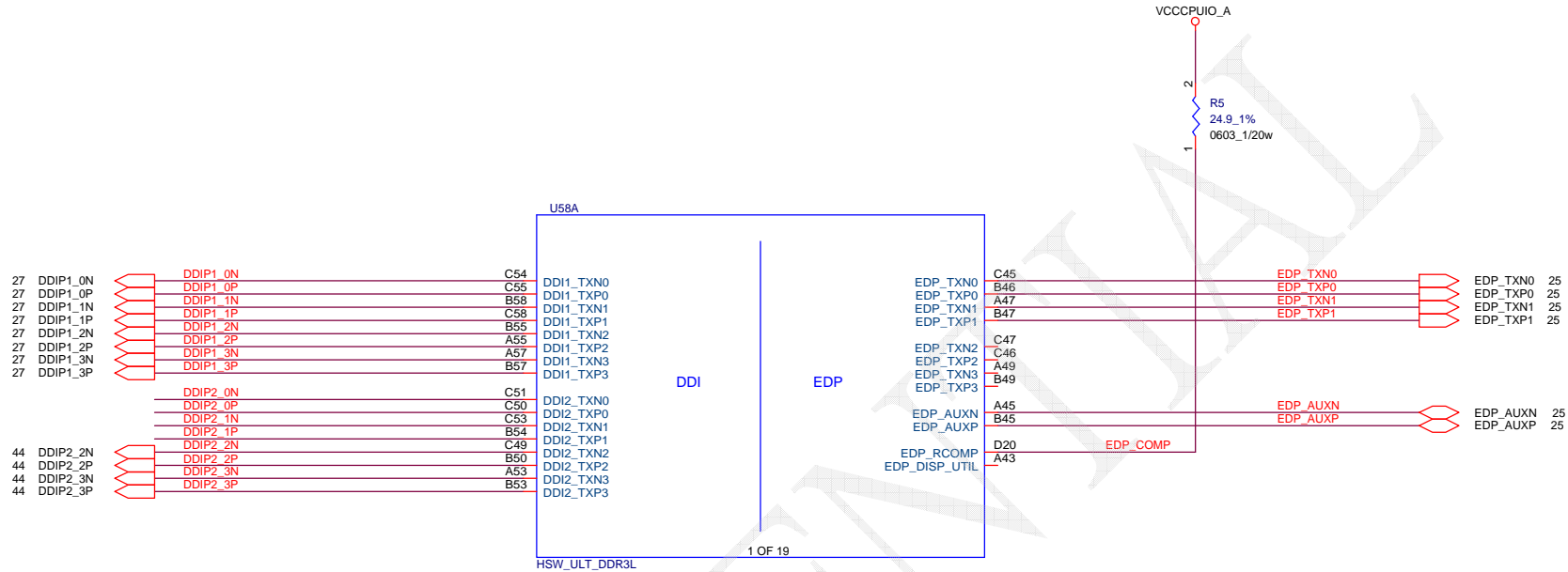


Project Name : RG2 SB SVT		Title : EC HISTORY	
Size : C	Document Number :		Rev : 5.05
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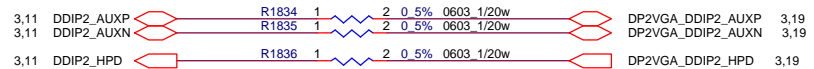
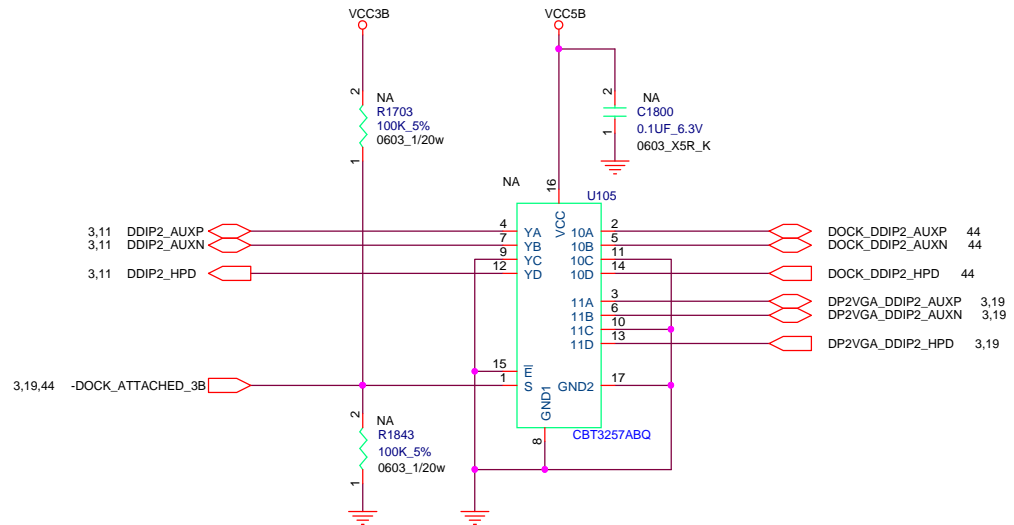
TABLE

ID	DOCKING SUPPORT	WIGIG SUPPORT	NON-SUPPORT
U104	ASM	ASM	NO ASM
C1366	ASM	ASM	NO ASM
C1367	ASM	ASM	NO ASM
C1368	ASM	ASM	NO ASM
U105	ASM	ASM	NO ASM
C1800	ASM	ASM	NO ASM
R1703	ASM	NO ASM	NO ASM
R1843	NO ASM	ASM	NO ASM
R1826	NO ASM	NO ASM	ASM
R1827	NO ASM	NO ASM	ASM
R1828	NO ASM	NO ASM	ASM
R1829	NO ASM	NO ASM	ASM
R1830	NO ASM	NO ASM	ASM
R1831	NO ASM	NO ASM	ASM
R1832	NO ASM	NO ASM	ASM
R1833	NO ASM	NO ASM	ASM
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R1835	NO ASM	NO ASM	ASM
R1836	NO ASM	NO ASM	ASM

LOGIC  
↓

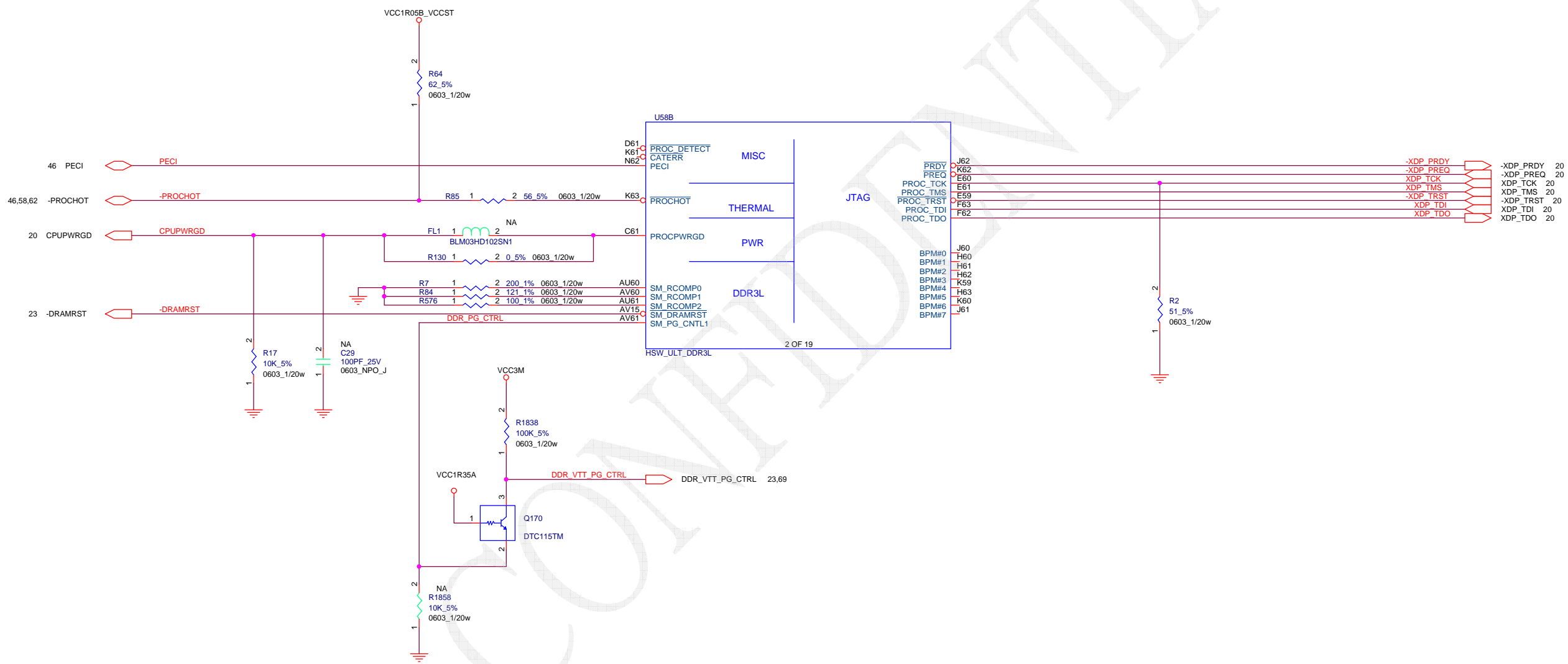


Near U104 on the opposite side



Near U105





23 M\_A\_DQ[63:0]

M\_A\_DQ0 AH63 SA\_DQ0  
M\_A\_DQ1 AH62 SA\_DQ1  
M\_A\_DQ2 AK63 SA\_DQ2  
M\_A\_DQ3 AK62 SA\_DQ3  
M\_A\_DQ4 AH61 SA\_DQ4  
M\_A\_DQ5 AH60 SA\_DQ5  
M\_A\_DQ6 AK61 SA\_DQ6  
M\_A\_DQ7 AK60 SA\_DQ7  
M\_A\_DQ8 AM63 SA\_DQ8  
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M\_A\_DQ10 AP63 SA\_DQ10  
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M\_A\_DQ34 AY56 SA\_DQ34  
M\_A\_DQ35 AW56 SA\_DQ35  
M\_A\_DQ36 AV58 SA\_DQ36  
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M\_A\_DQ39 AU56 SA\_DQ39  
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M\_A\_DQ60 AM48 SA\_DQ60  
M\_A\_DQ61 AK48 SA\_DQ61  
M\_A\_DQ62 AM51 SA\_DQ62  
M\_A\_DQ63 AK51 SA\_DQ63

U58C

DDR CHANNEL A

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HSW\_ULT\_DDR3L

SA\_CLK#0 AU37 -M\_A\_DDRCLK0\_800M -M\_A\_DDRCLK0\_800M 23  
SA\_CLK#1 AV37 M\_A\_DDRCLK0\_800M M\_A\_DDRCLK0\_800M 23  
SA\_CLK#1 AW36 -M\_A\_DDRCLK1\_800M -M\_A\_DDRCLK1\_800M 23  
SA\_CLK#1 AY36 M\_A\_DDRCLK1\_800M M\_A\_DDRCLK1\_800M 23  
SA\_CKE#0 AU43 M\_A\_CKE0 M\_A\_CKE0 23  
SA\_CKE#1 AW43 M\_A\_CKE1 M\_A\_CKE1 23  
SA\_CKE#2 AY42 M\_A\_CKE1 M\_A\_CKE1 23  
SA\_CKE#3 AY43 M\_A\_CKE1 M\_A\_CKE1 23  
SA\_CS#0 AP33 -M\_A\_CS0 -M\_A\_CS0 23  
SA\_CS#1 AR32 -M\_A\_CS1 -M\_A\_CS1 23  
SA\_ODT#0 AP32 M\_A\_CS1 -M\_A\_CS1 23  
SA\_RAS#0 AY34 -M\_A\_RAS -M\_A\_RAS 23  
SA\_WE#0 AW34 -M\_A\_WE -M\_A\_WE 23  
SA\_CAS#0 AU34 -M\_A\_CAS -M\_A\_CAS 23  
SA\_BA#0 AU35 M\_A\_BS0 M\_A\_BS0 23  
SA\_BA#1 AV35 M\_A\_BS1 M\_A\_BS1 23  
SA\_BA#2 AY41 M\_A\_BS2 M\_A\_BS2 23  
SA\_MA#0 AU36 M\_A\_A0 M\_A\_A0 23  
SA\_MA#1 AY37 M\_A\_A1 M\_A\_A1 23  
SA\_MA#2 AR38 M\_A\_A2 M\_A\_A2 23  
SA\_MA#3 AP36 M\_A\_A3 M\_A\_A3 23  
SA\_MA#4 AU39 M\_A\_A4 M\_A\_A4 23  
SA\_MA#5 AR36 M\_A\_A5 M\_A\_A5 23  
SA\_MA#6 AV40 M\_A\_A6 M\_A\_A6 23  
SA\_MA#7 AW39 M\_A\_A7 M\_A\_A7 23  
SA\_MA#8 AY39 M\_A\_A8 M\_A\_A8 23  
SA\_MA#9 AU40 M\_A\_A9 M\_A\_A9 23  
SA\_MA#10 AP35 M\_A\_A10 M\_A\_A10 23  
SA\_MA#11 AW41 M\_A\_A11 M\_A\_A11 23  
SA\_MA#12 AU41 M\_A\_A12 M\_A\_A12 23  
SA\_MA#13 AR35 M\_A\_A13 M\_A\_A13 23  
SA\_MA#14 AV42 M\_A\_A14 M\_A\_A14 23  
SA\_MA#15 AU42 M\_A\_A15 M\_A\_A15 23  
SA\_DQS#0 AJ61 -M\_A\_DQS0 -M\_A\_DQS0 23  
SA\_DQS#1 AN62 -M\_A\_DQS1 -M\_A\_DQS1 23  
SA\_DQS#2 AM58 -M\_A\_DQS2 -M\_A\_DQS2 23  
SA\_DQS#3 AM55 -M\_A\_DQS3 -M\_A\_DQS3 23  
SA\_DQS#4 AV57 -M\_A\_DQS4 -M\_A\_DQS4 23  
SA\_DQS#5 AV53 -M\_A\_DQS5 -M\_A\_DQS5 23  
SA\_DQS#6 AL43 -M\_A\_DQS6 -M\_A\_DQS6 23  
SA\_DQS#7 AL48 -M\_A\_DQS7 -M\_A\_DQS7 23  
SA\_DQSP#0 AJ62 M\_A\_DQS0 M\_A\_DQS0 23  
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SA\_DQSP#3 AN55 M\_A\_DQS3 M\_A\_DQS3 23  
SA\_DQSP#4 AW57 M\_A\_DQS4 M\_A\_DQS4 23  
SA\_DQSP#5 AW53 M\_A\_DQS5 M\_A\_DQS5 23  
SA\_DQSP#6 AL42 M\_A\_DQS6 M\_A\_DQS6 23  
SA\_DQSP#7 AL49 M\_A\_DQS7 M\_A\_DQS7 23  
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SM\_VREF\_DQ0 AR51 DDR3\_VREF\_DQ\_SA\_M3 23  
SM\_VREF\_DQ1 AP51 DDR3\_VREF\_DQ\_SA\_M3 23

M\_A\_A[15:0] 23

-M\_A\_DQS[7:0] 23

M\_A\_DQS[7:0] 23



U58D

AY31 SB\_DQ0  
AW31 SB\_DQ1  
AY29 SB\_DQ2  
AW29 SB\_DQ3  
AV31 SB\_DQ4  
AU31 SB\_DQ5  
AV29 SB\_DQ6  
AU29 SB\_DQ7  
AY27 SB\_DQ8  
AW27 SB\_DQ9  
AY25 SB\_DQ10  
AW25 SB\_DQ11  
AV27 SB\_DQ12  
AU27 SB\_DQ13  
AV25 SB\_DQ14  
AU25 SB\_DQ15  
AM29 SB\_DQ16  
AK29 SB\_DQ17  
AL28 SB\_DQ18  
AK28 SB\_DQ19  
AR29 SB\_DQ20  
AN29 SB\_DQ21  
AR28 SB\_DQ22  
AP28 SB\_DQ23  
AN26 SB\_DQ24  
AR26 SB\_DQ25  
AR25 SB\_DQ26  
AP25 SB\_DQ27  
AK26 SB\_DQ28  
AM26 SB\_DQ29  
AK25 SB\_DQ30  
AL25 SB\_DQ31  
AY23 SB\_DQ32  
AW23 SB\_DQ33  
AY21 SB\_DQ34  
AW21 SB\_DQ35  
AV23 SB\_DQ36  
AU23 SB\_DQ37  
AV21 SB\_DQ38  
AU21 SB\_DQ39  
AY19 SB\_DQ40  
AW19 SB\_DQ41  
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AU19 SB\_DQ45  
AV17 SB\_DQ46  
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AM22 SB\_DQ51  
AN22 SB\_DQ52  
AP21 SB\_DQ53  
AK22 SB\_DQ54  
AN20 SB\_DQ55  
AR20 SB\_DQ56  
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AL18 SB\_DQ58  
AK20 SB\_DQ59  
AM20 SB\_DQ60  
AR18 SB\_DQ61  
AP18 SB\_DQ62  
SB\_DQ63

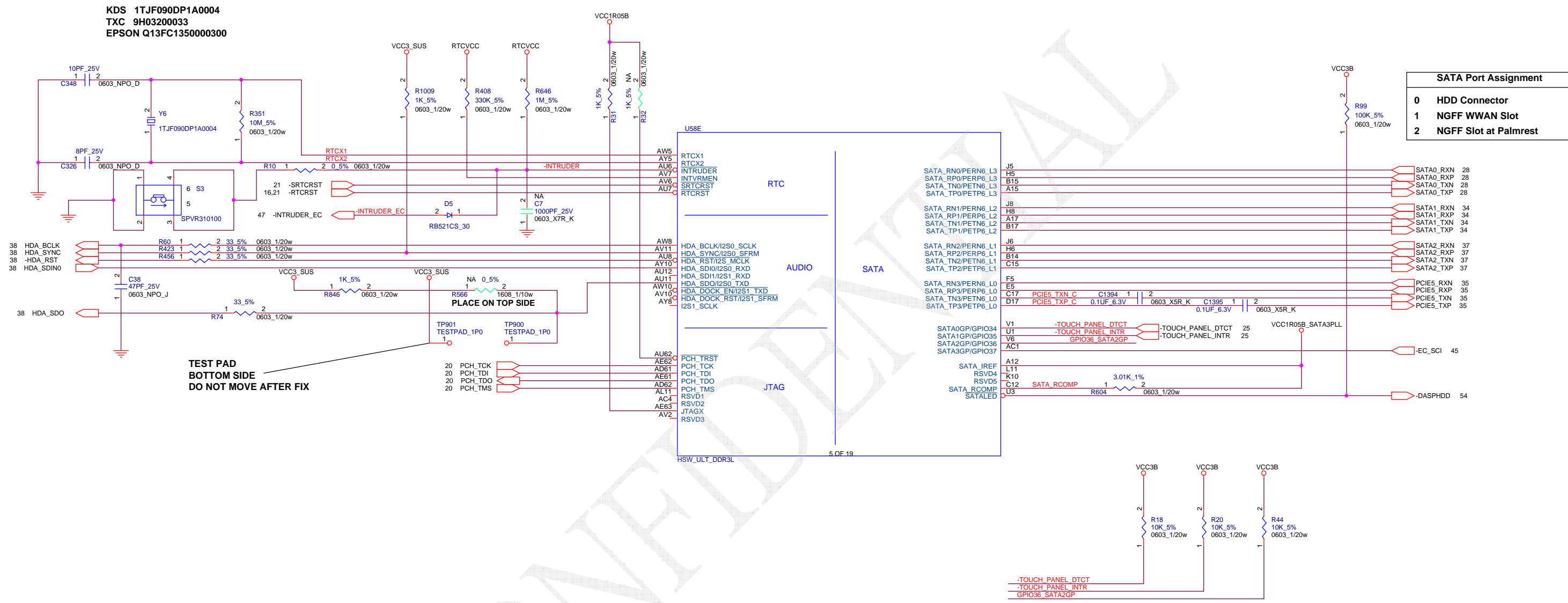
DDR CHANNEL B

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SB\_CK#1 AK38  
SB\_CK1 AL38  
SB\_CKE0 AY49  
SB\_CKE1 AU50  
SB\_CKE2 AW49  
SB\_CKE3 AV50  
SB\_CS#0 AM32  
SB\_CS#1 AK32  
SB\_ODT0 AL32  
SB\_RAS AM35  
SB\_WE AK35  
SB\_CAS AM33  
SB\_BA0 AL35  
SB\_BA1 AM36  
SB\_BA2 AU49  
SB\_MA0 AP40  
SB\_MA1 AR40  
SB\_MA2 AP42  
SB\_MA3 AR42  
SB\_MA4 AR45  
SB\_MA5 AP45  
SB\_MA6 AW46  
SB\_MA7 AY46  
SB\_MA8 AY47  
SB\_MA9 AU46  
SB\_MA10 AK36  
SB\_MA11 AV47  
SB\_MA12 AU47  
SB\_MA13 AK33  
SB\_MA14 AR46  
SB\_MA15 AP46  
SB\_DQSN0 AW30  
SB\_DQSN1 AV26  
SB\_DQSN2 AN28  
SB\_DQSN3 AN25  
SB\_DQSN4 AW22  
SB\_DQSN5 AV18  
SB\_DQSN6 AN21  
SB\_DQSN7 AN18  
SB\_DQSP0 AV30  
SB\_DQSP1 AW26  
SB\_DQSP2 AM28  
SB\_DQSP3 AM25  
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SB\_DQSP5 AW18  
SB\_DQSP6 AM21  
SB\_DQSP7 AM18

HSW\_ULI\_DDR3L

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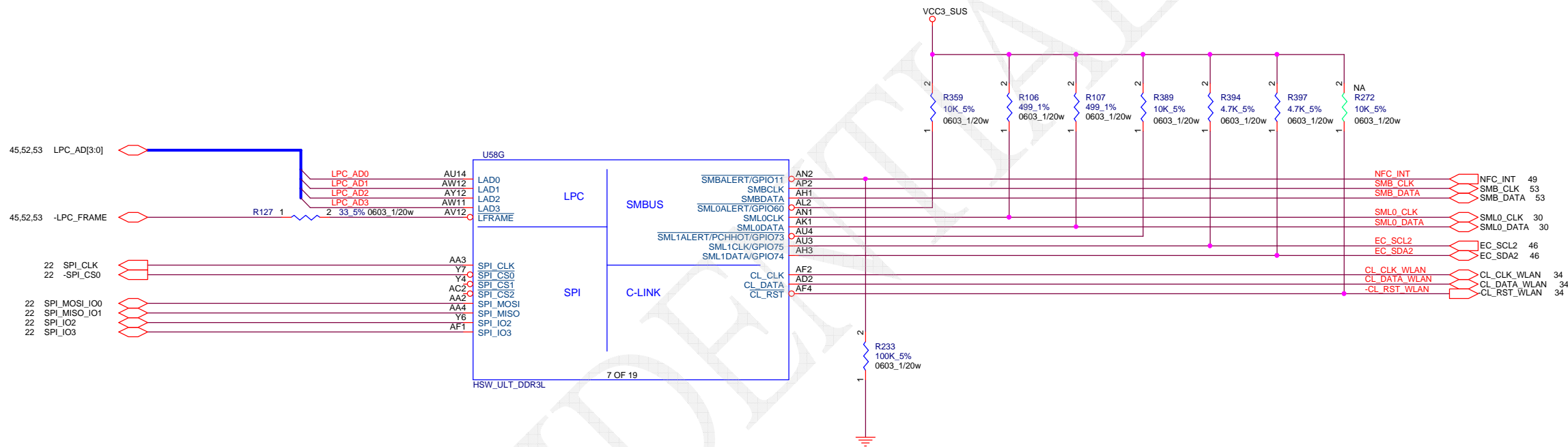


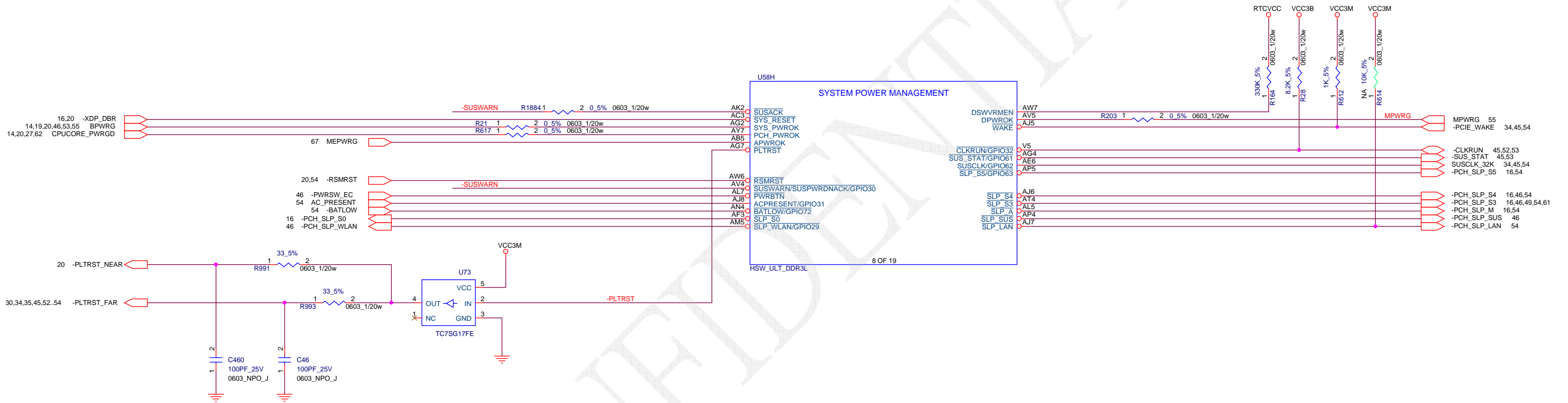


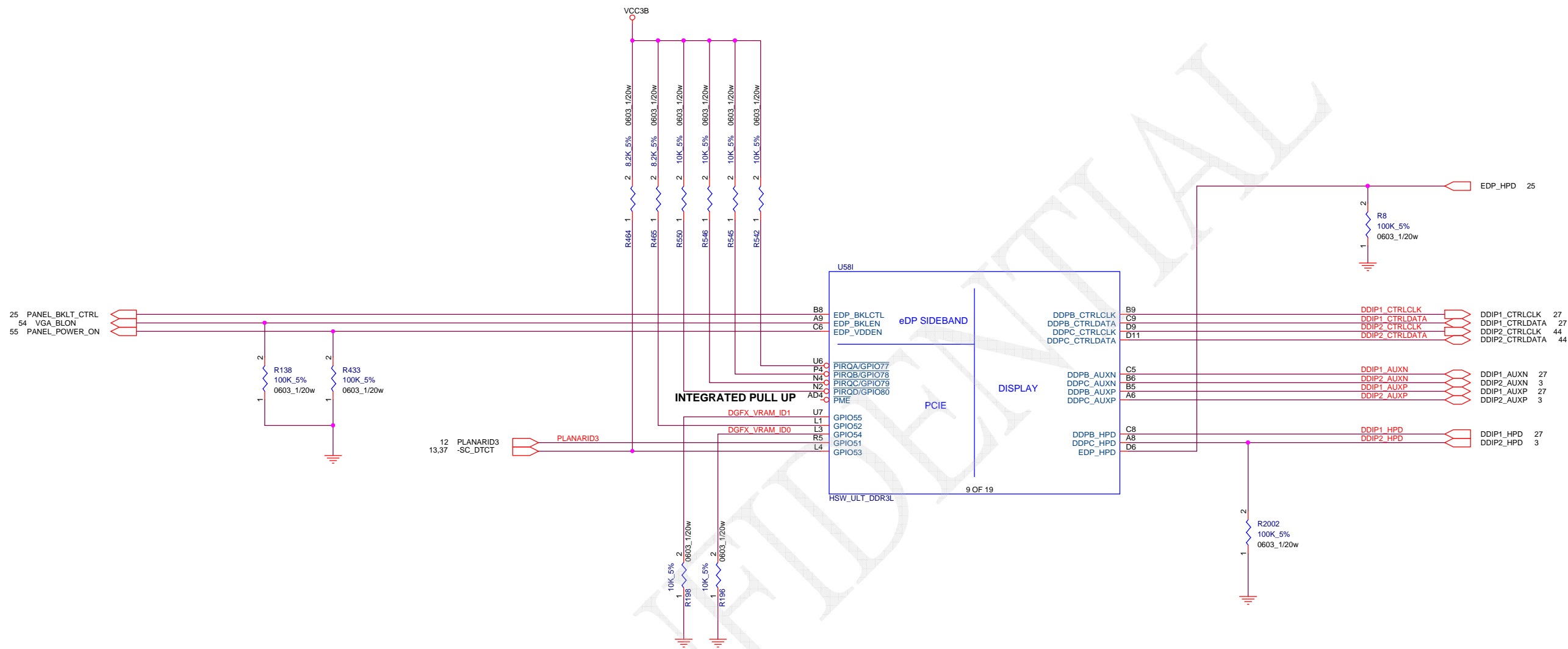












TABLE

GPIO15	ME CRYPTO STRAP
HIGH	WITH CONFIDENTIALITY
LOW	NO CONFIDENTIALITY

TABLE

SPKR TCO TIMER SYSTEM REBOOT	
HIGH	DISABLED (NO REBOOT)
LOW	ENABLED

TABLE

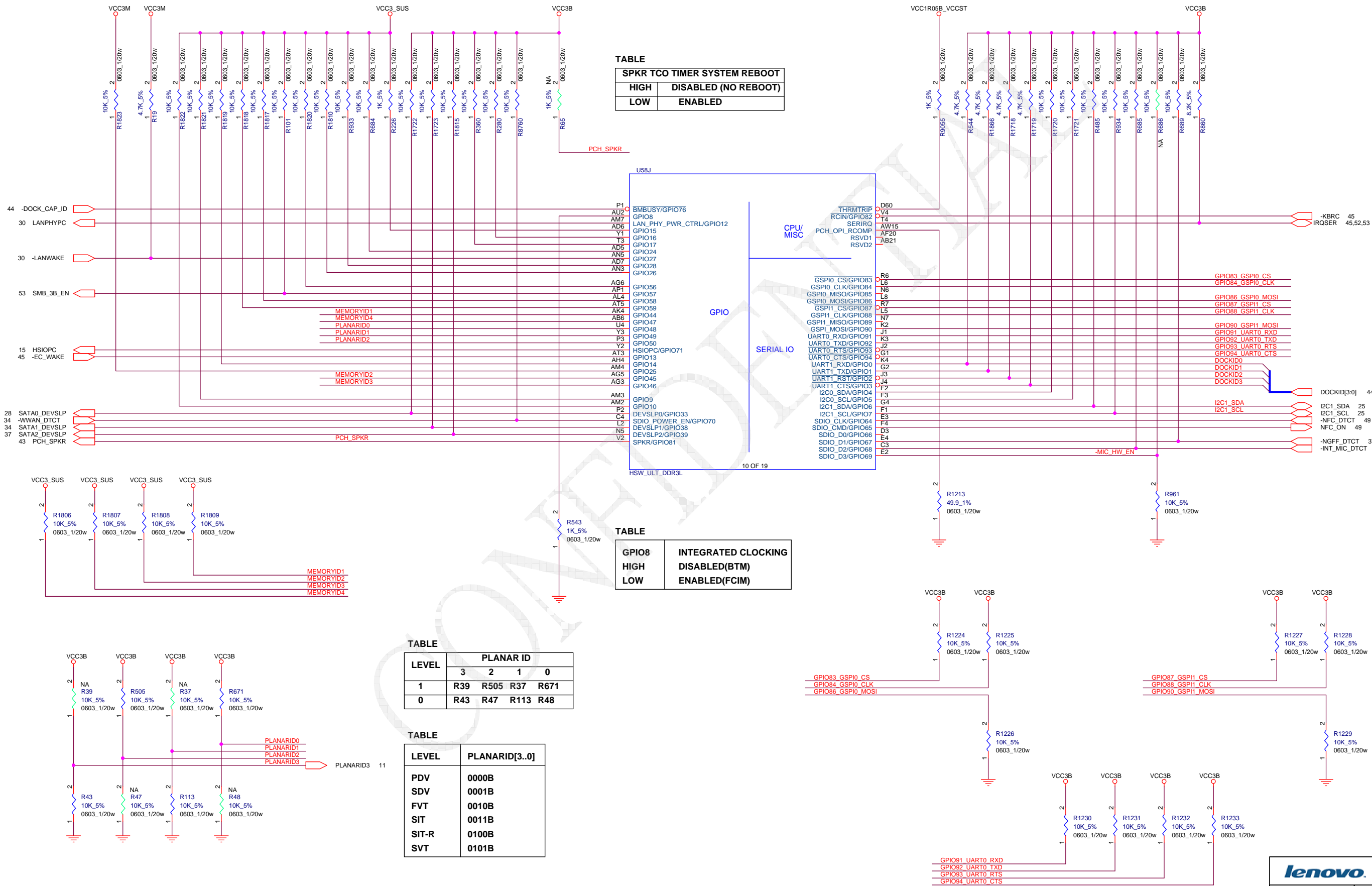
GPIO8	INTEGRATED CLOCKING
HIGH	DISABLED(BTM)
LOW	ENABLED(FCIM)

TABLE

LEVEL	PLANAR ID			
	3	2	1	0
1	R39	R505	R37	R671
0	R43	R47	R113	R48

TABLE

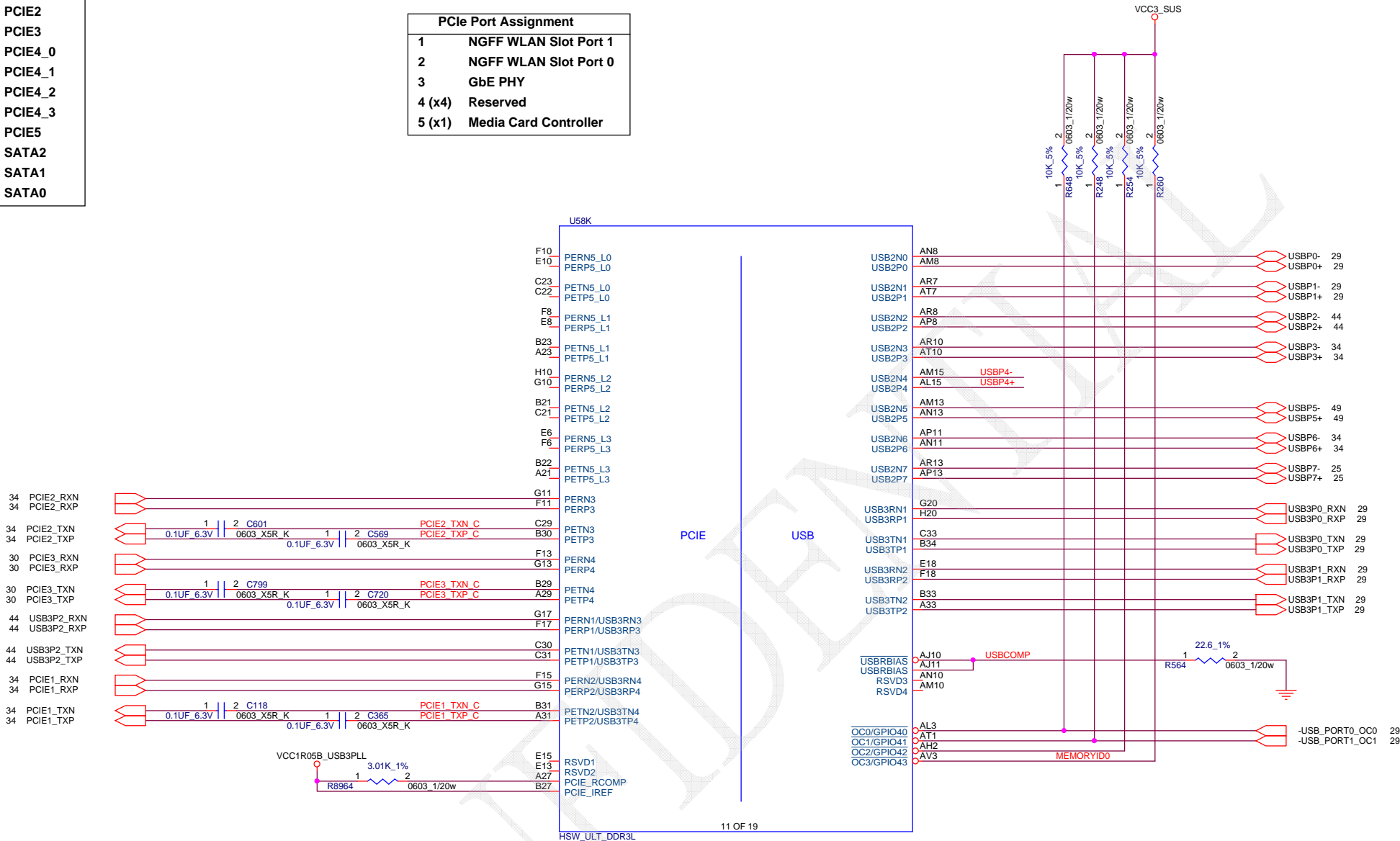
LEVEL	PLANARID[3..0]
PDV	0000B
SDV	0001B
FVT	0010B
SIT	0011B
SIT-R	0100B
SVT	0101B



lenovo

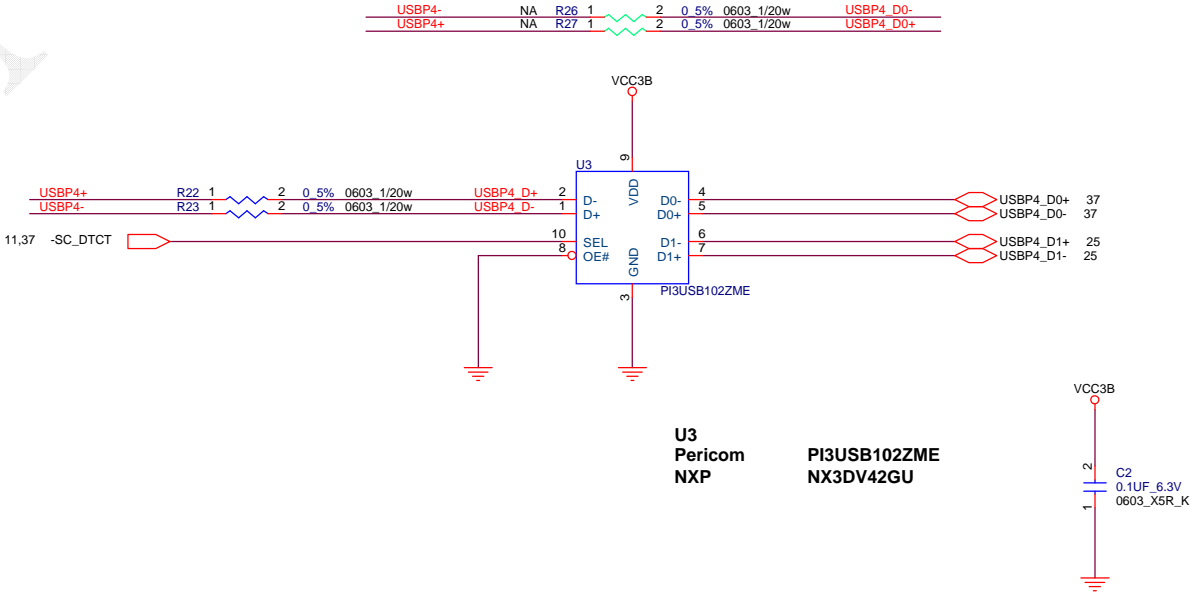
Flexible I/O Configuration			
I/O	High Speed Signals	Configuration	Net Name
Port 1	USB3 1	USB3 1	USB3P0
Port 2	USB3 2	USB3 2	USB3P1
Port 3	PCIE 1/USB3 3	USB3 3	USB3P2
Port 4	PCIE 2/USB3 4	PCIE 2	PCIE1
Port 5	PCIE 3	PCIE 3	PCIE2
Port 6	PCIE 4	PCIE 4	PCIE3
Port 7	PCIE 5 L0	PCIE 5 L0	PCIE4_0
Port 8	PCIE 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 Port 1
2	NGFF WLAN Slot Port 0
3	GbE PHY
4 (x4)	Reserved
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
3	NGFF WWAN Slot
4	Smart Card Slot or 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



Device Selection	
0	Smart Card Slot
1	Touch Panel

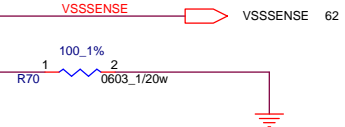
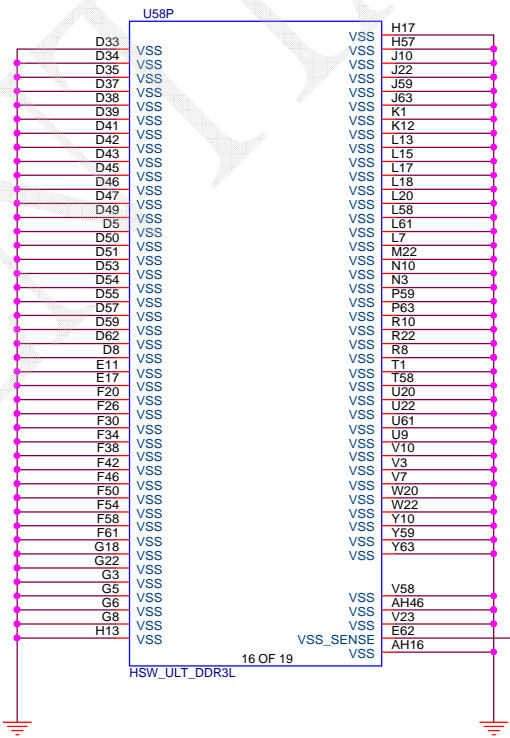
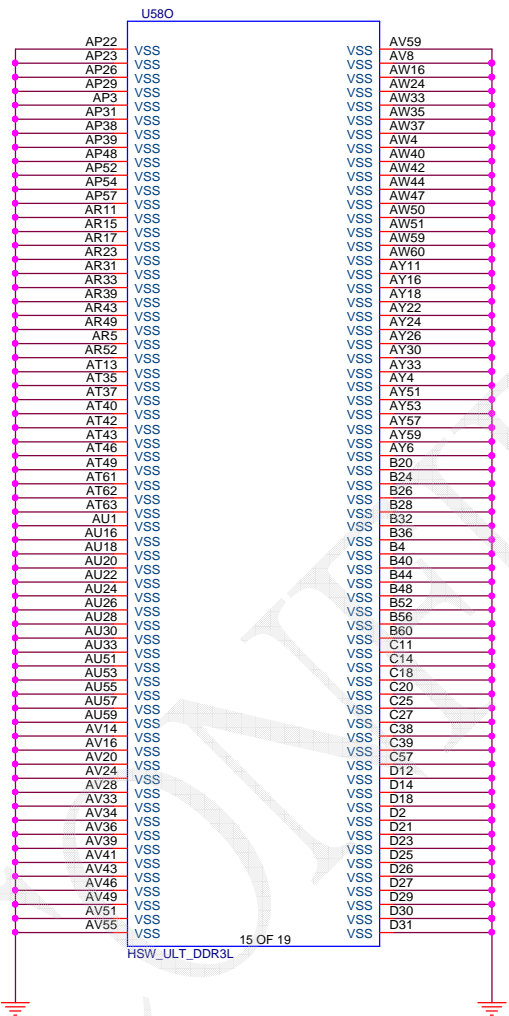
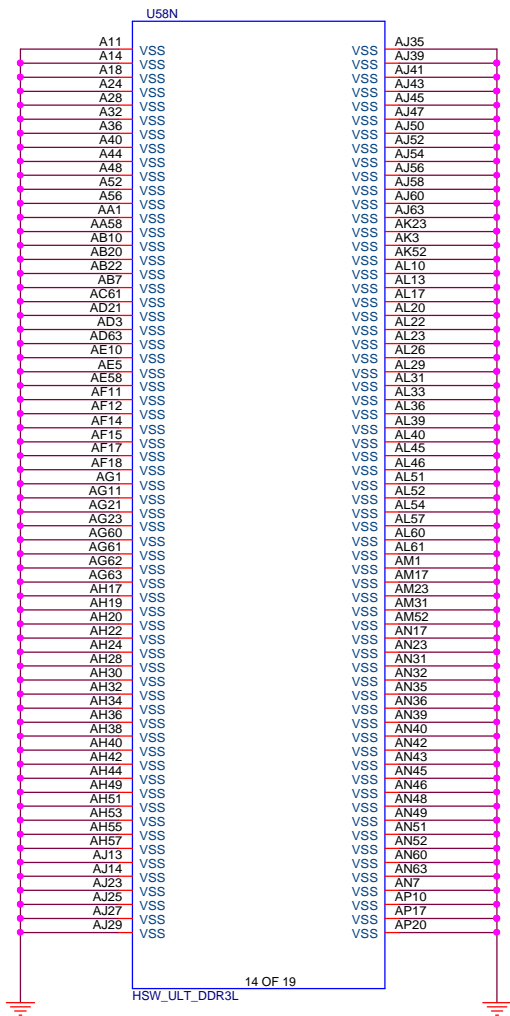
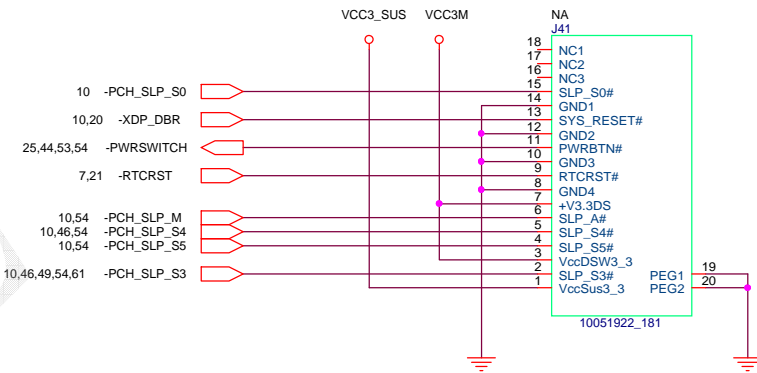


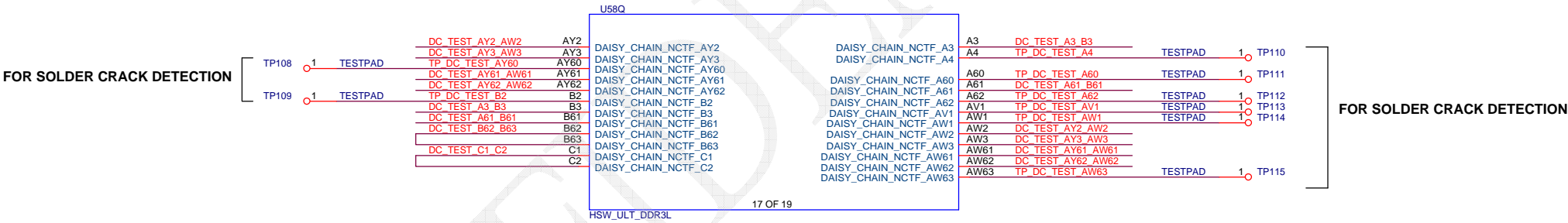






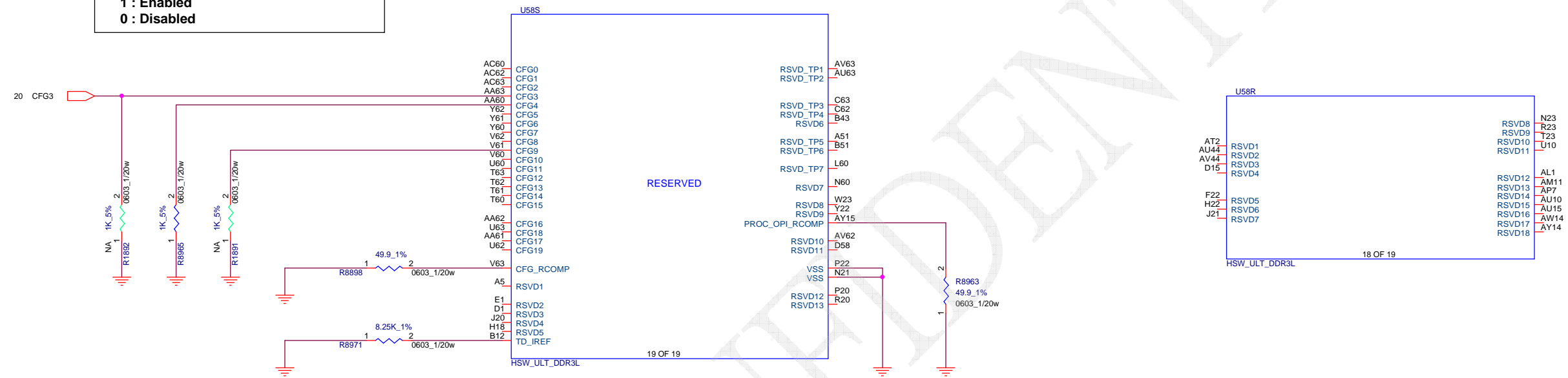
APS/PETS Interface





TABLE

<b>CFG4 : Display Port Presence</b> <b>1 : Disabled</b> <b>0 : Enabled</b>
<b>CFG9 : SVID Bus Communication</b> <b>1 : Enabled</b> <b>0 : Disabled</b>



Project Name :  
RG2 SB SVT

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

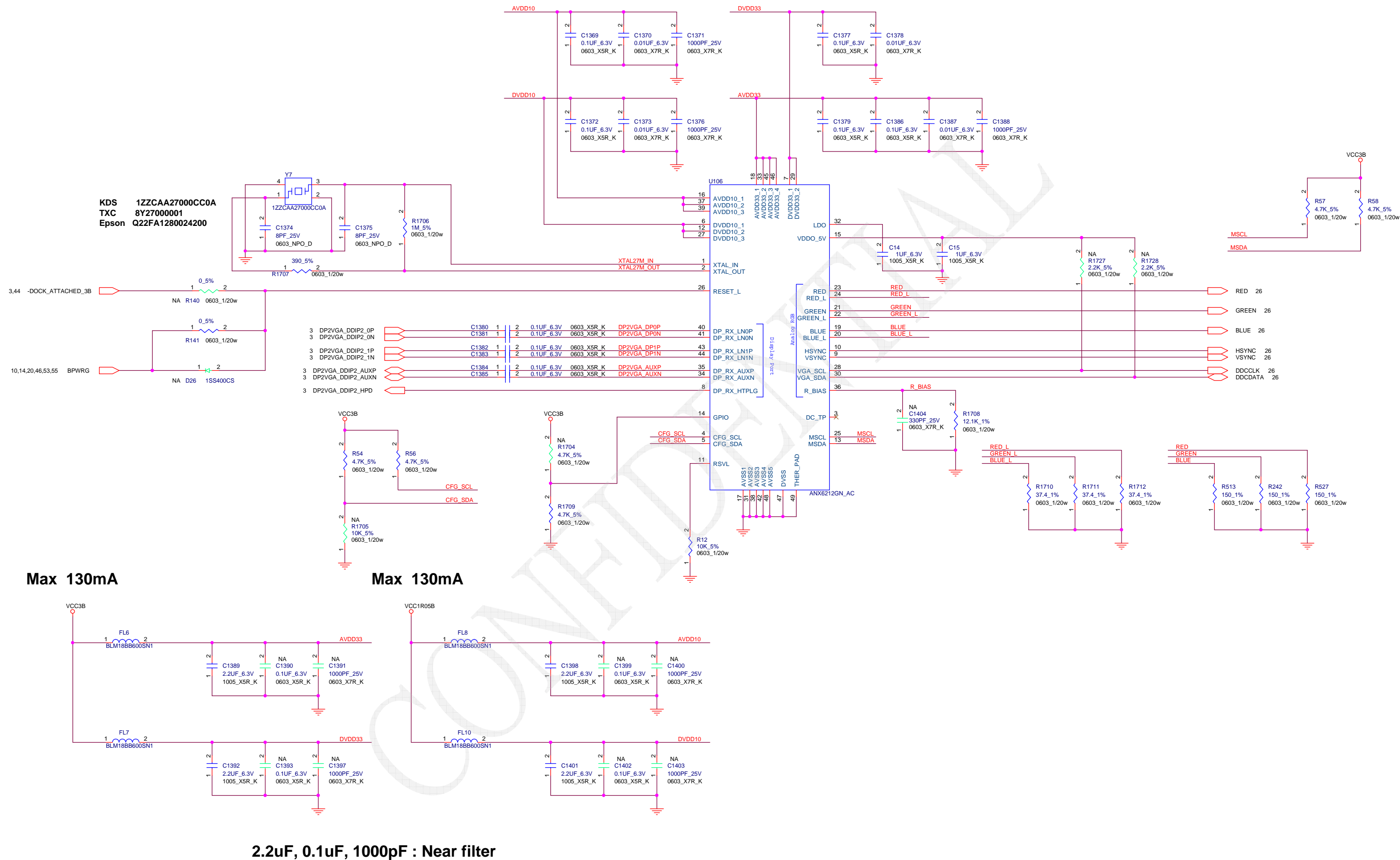
Size :  
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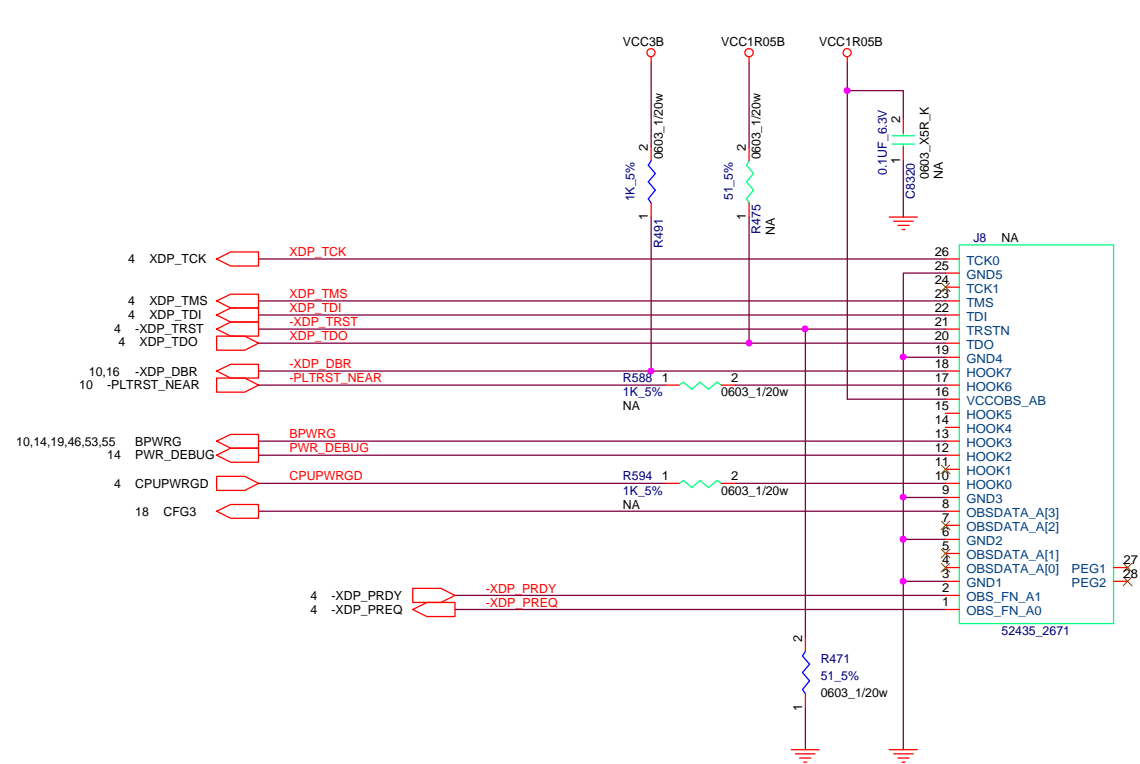


TABLE NOTE: J8 "ASM" FOR PDV ONLY.

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
	C8320	ASM	NO ASM
	J8	ASM	NO ASM

↑  
LOGIC

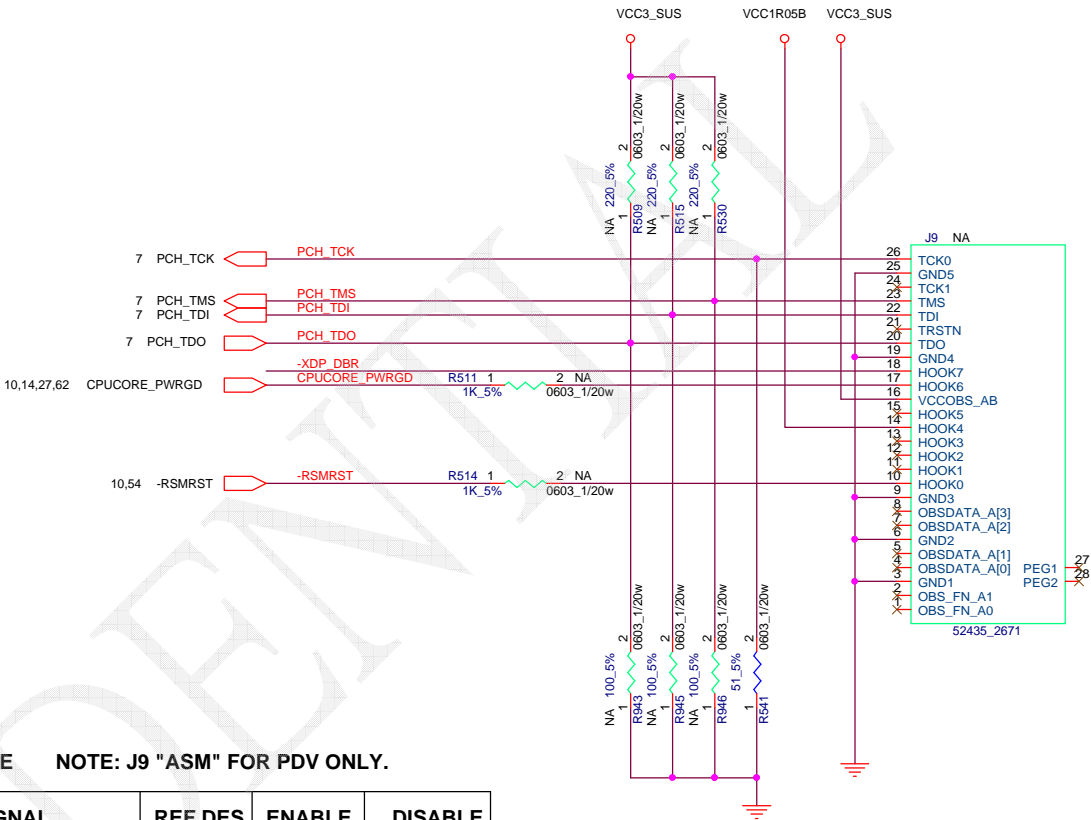
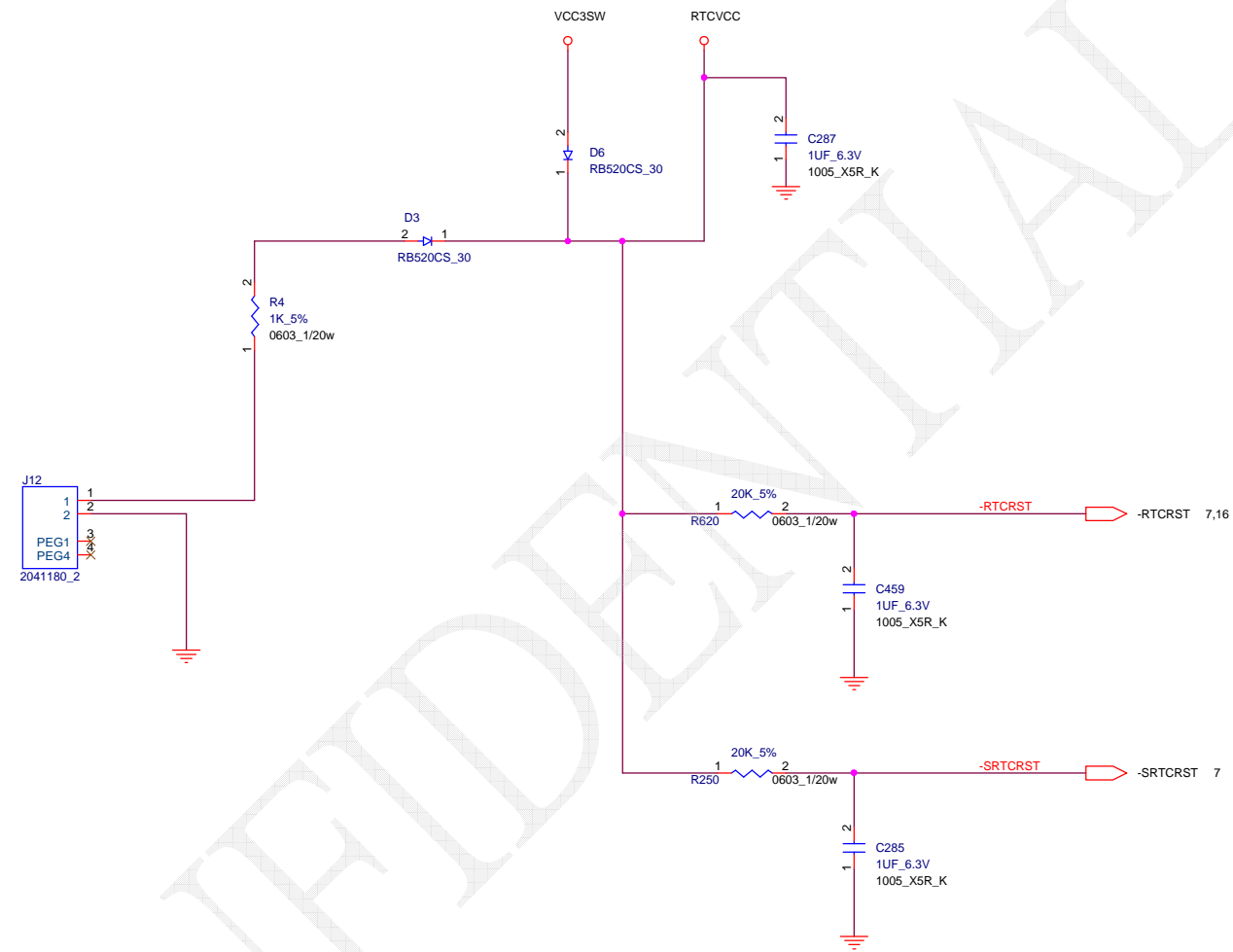


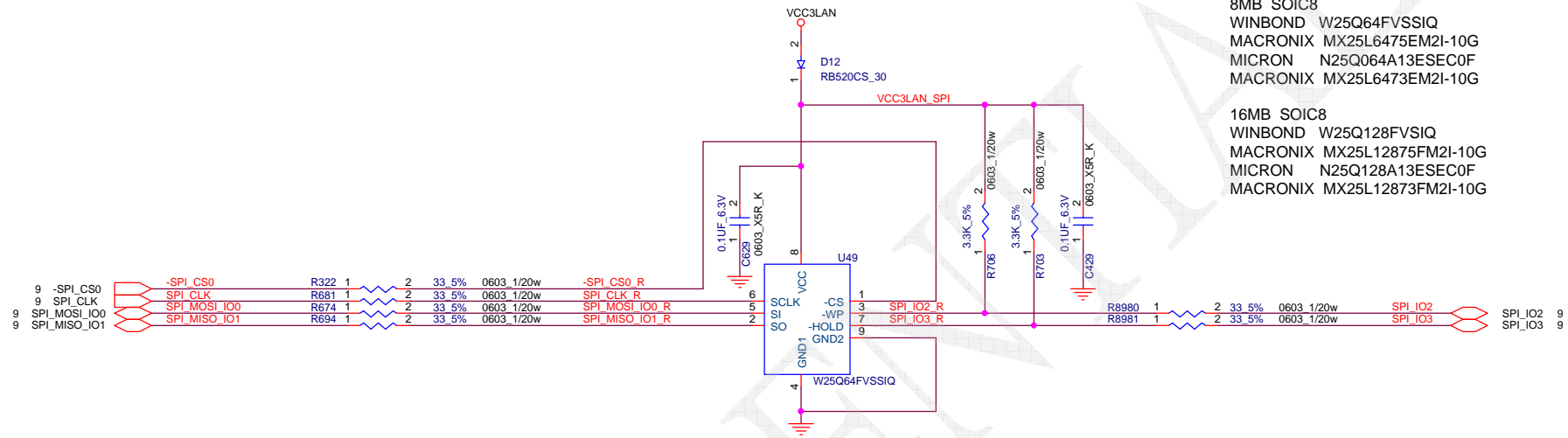
TABLE NOTE: J9 "ASM" FOR PDV ONLY.

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







TABLE

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

TABLE

SPI	Wolverine-1 (Corporate)	Rogue-2 with Dock (Corporate)	Rogue-2 w/o Dock (Consumer)
U49	16MB	16MB	8MB



LOGIC

8MB SOIC8  
WINBOND W25Q64FVSSIQ  
MACRONIX MX25L6475EM2I-10G  
MICRON N25Q064A13ESEC0F  
MACRONIX MX25L6473EM2I-10G

16MB SOIC8  
WINBOND W25Q128FVSIQ  
MACRONIX MX25L12875FM2I-10G  
MICRON N25Q128A13ESEC0F  
MACRONIX MX25L12873FM2I-10G



Project Name :  
RG2 SB SVT

Title :  
SPI FLASH

Size :  
C

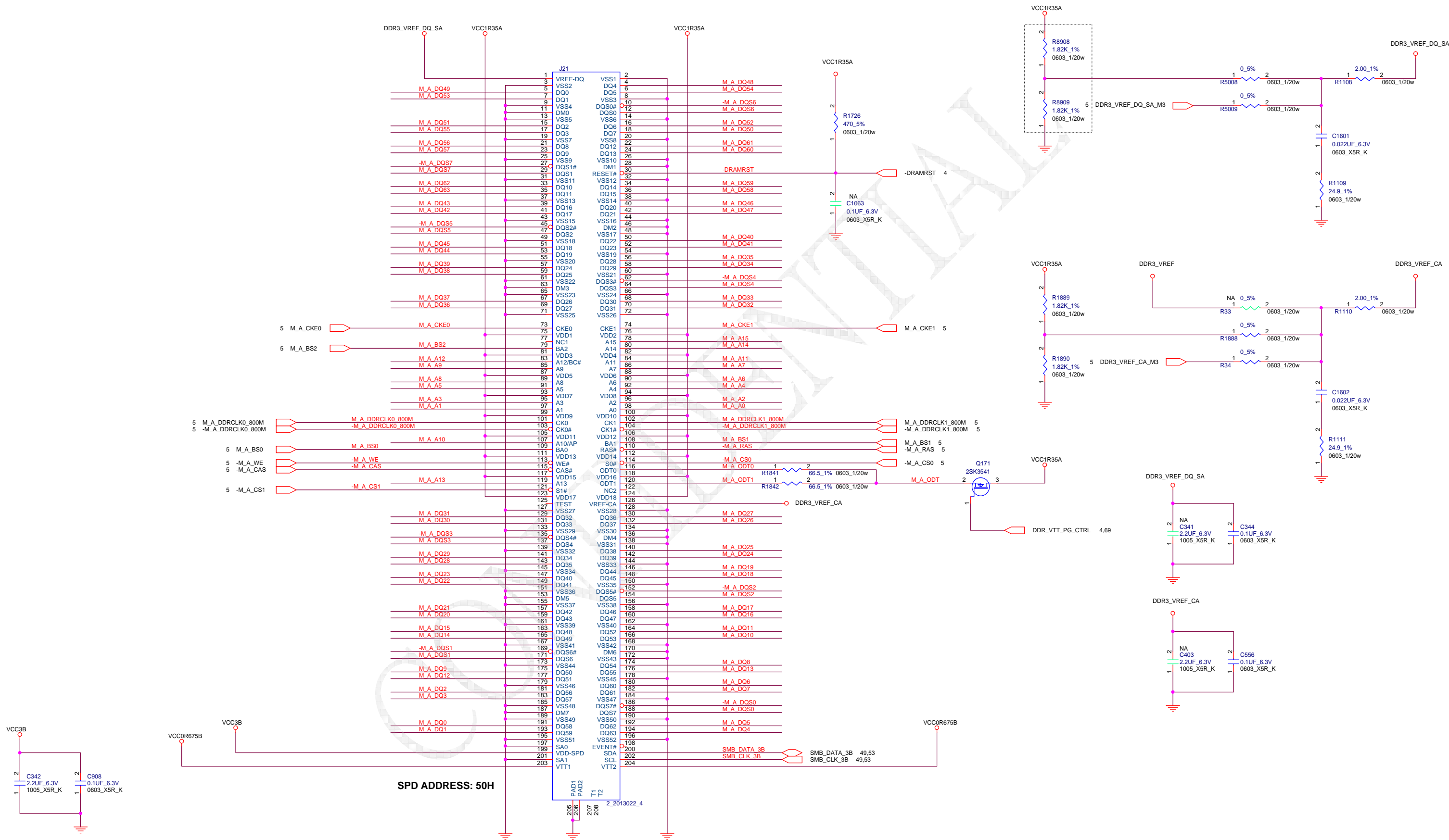
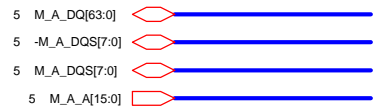
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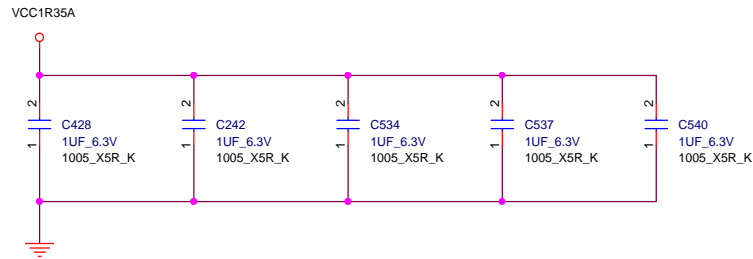
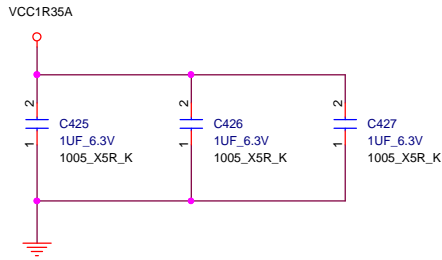
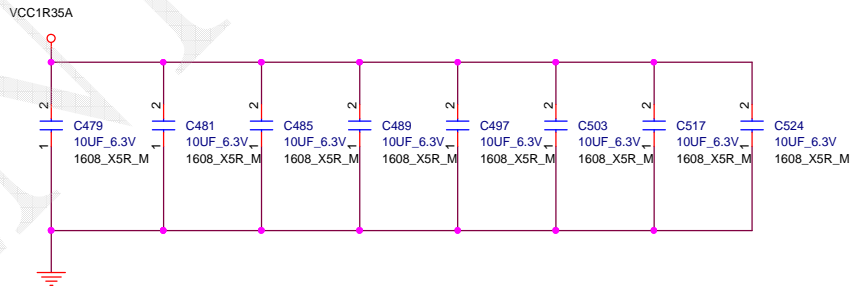
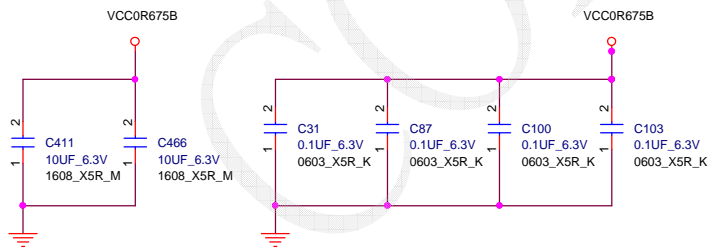
Rev :  
5.05

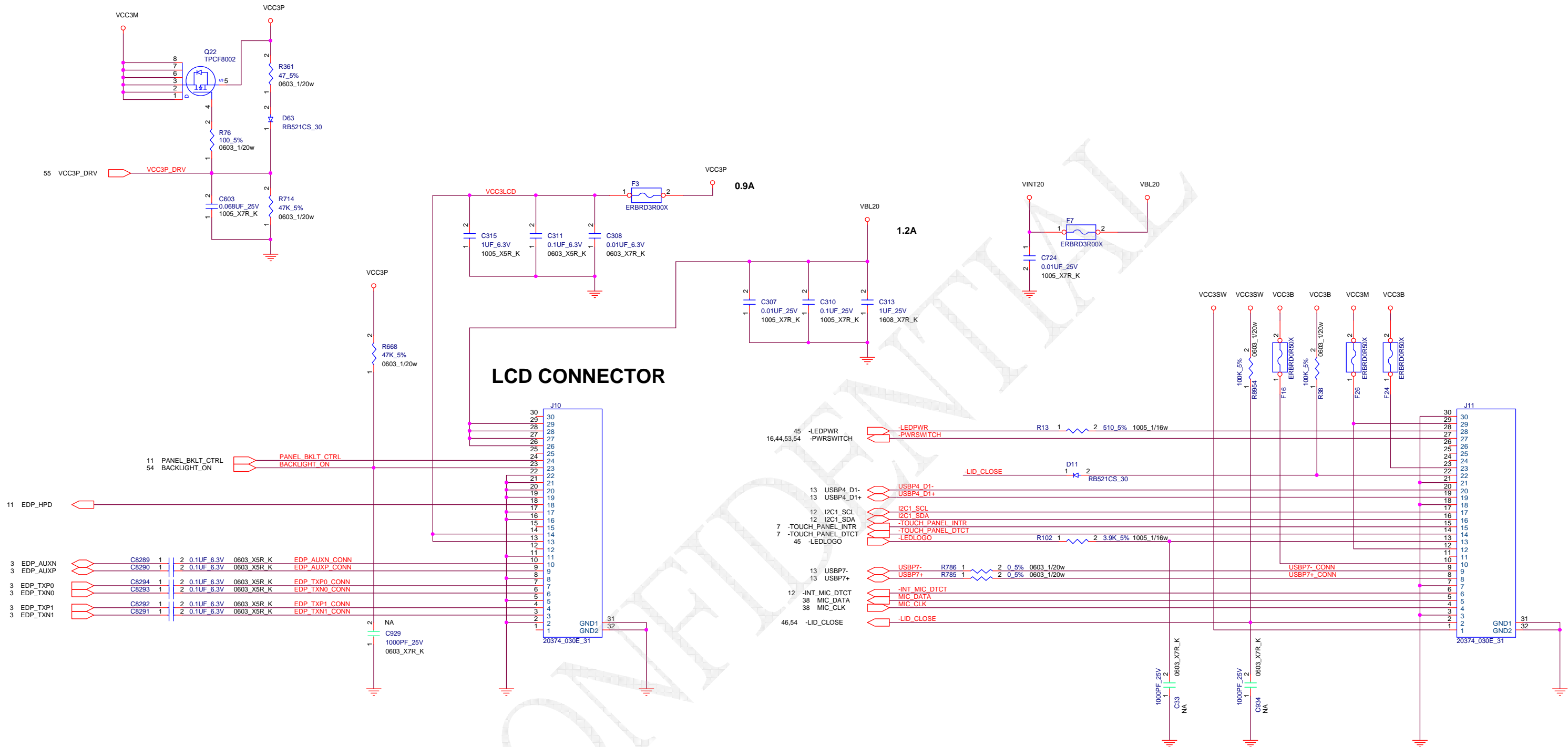
Date: Thursday, April 11, 2013

Sheet : 22 of 77





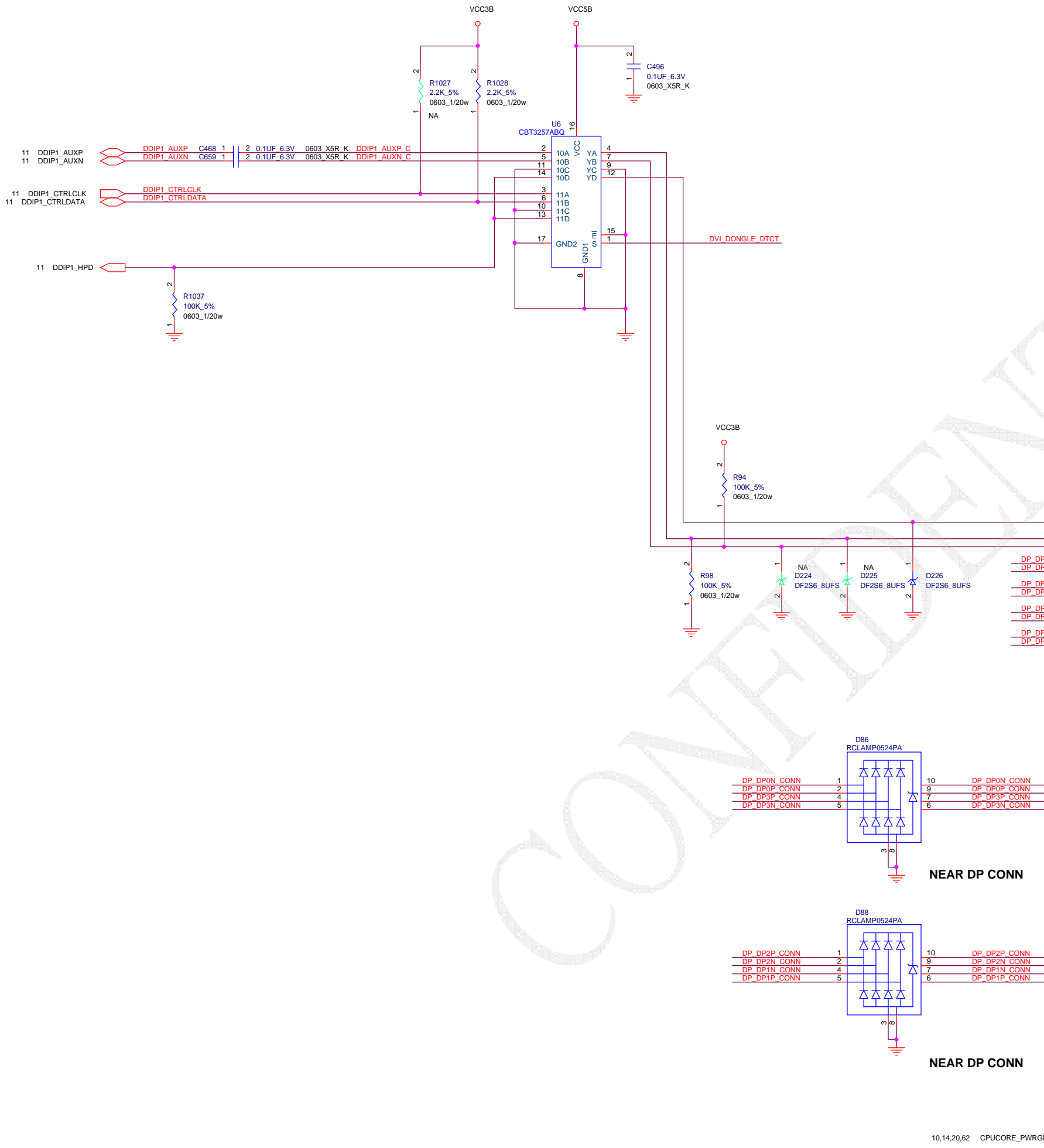






FOR SYSTEM DP NEAR DP CONN

3	DDIP1_3N	C339	1	2	0.1UF_6.3V	0603_X5R_K	DP_DP3N_CONN
3	DDIP1_3P	C323	1	2	0.1UF_6.3V	0603_X5R_K	DP_DP3P_CONN
3	DDIP1_2N	C312	1	2	0.1UF_6.3V	0603_X5R_K	DP_DP2N_CONN
3	DDIP1_2P	C317	1	2	0.1UF_6.3V	0603_X5R_K	DP_DP2P_CONN
3	DDIP1_1N	C277	1	2	0.1UF_6.3V	0603_X5R_K	DP_DP1N_CONN
3	DDIP1_1P	C276	1	2	0.1UF_6.3V	0603_X5R_K	DP_DP1P_CONN
3	DDIP1_0N	C218	1	2	0.1UF_6.3V	0603_X5R_K	DP_DP0N_CONN
3	DDIP1_0P	C226	1	2	0.1UF_6.3V	0603_X5R_K	DP_DP0P_CONN

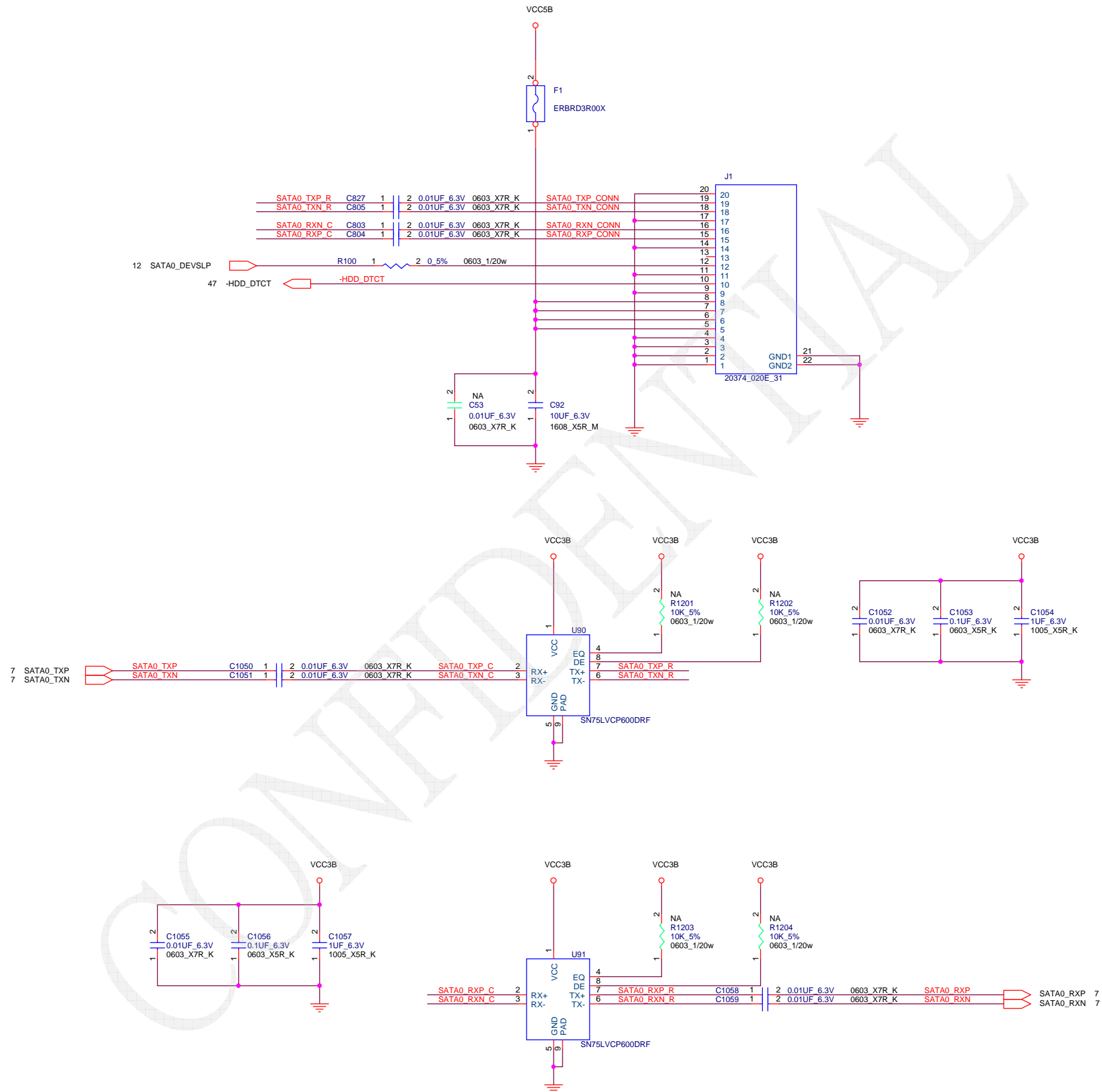


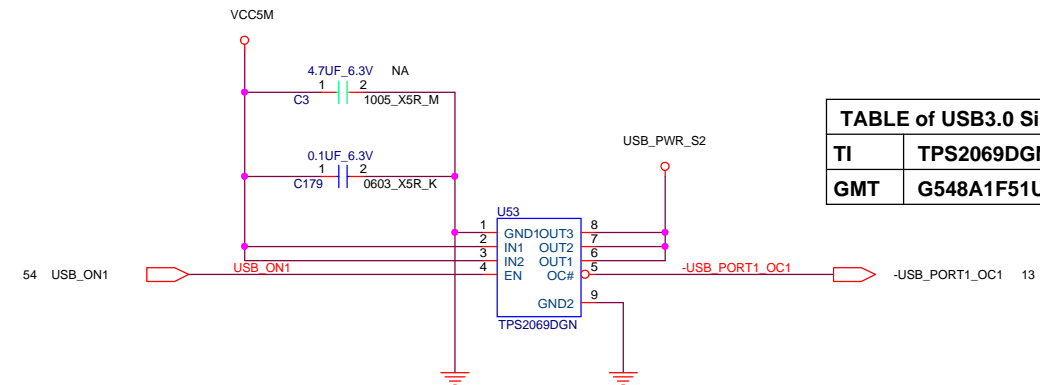
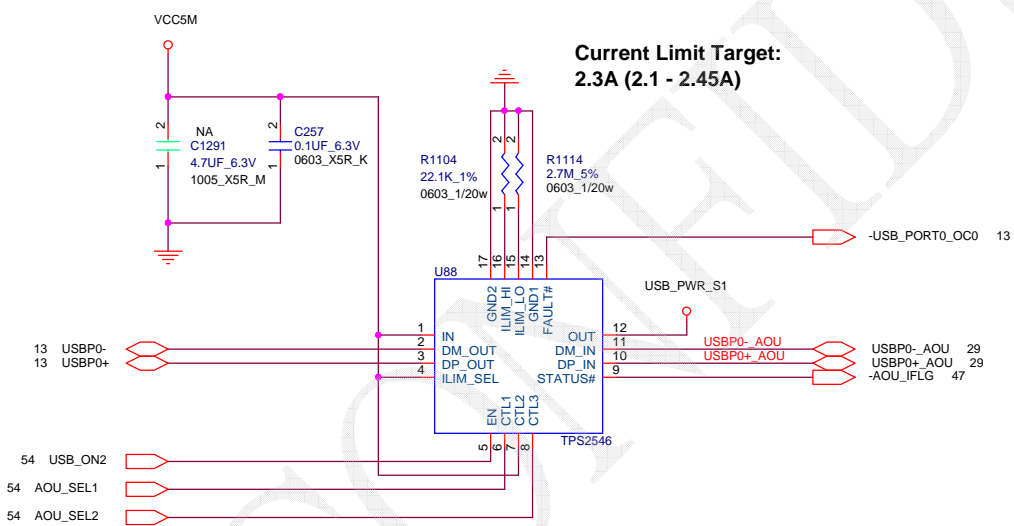
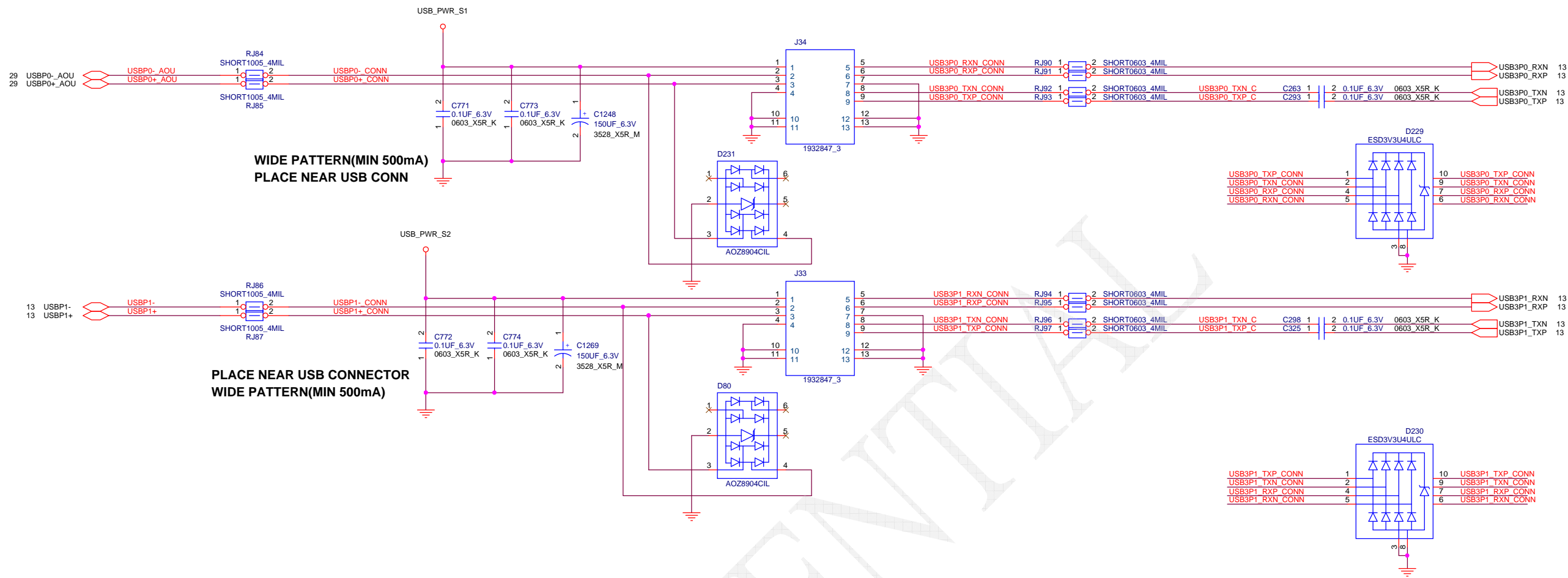
DP CONN

NEAR DP CONN

NEAR DP CONN

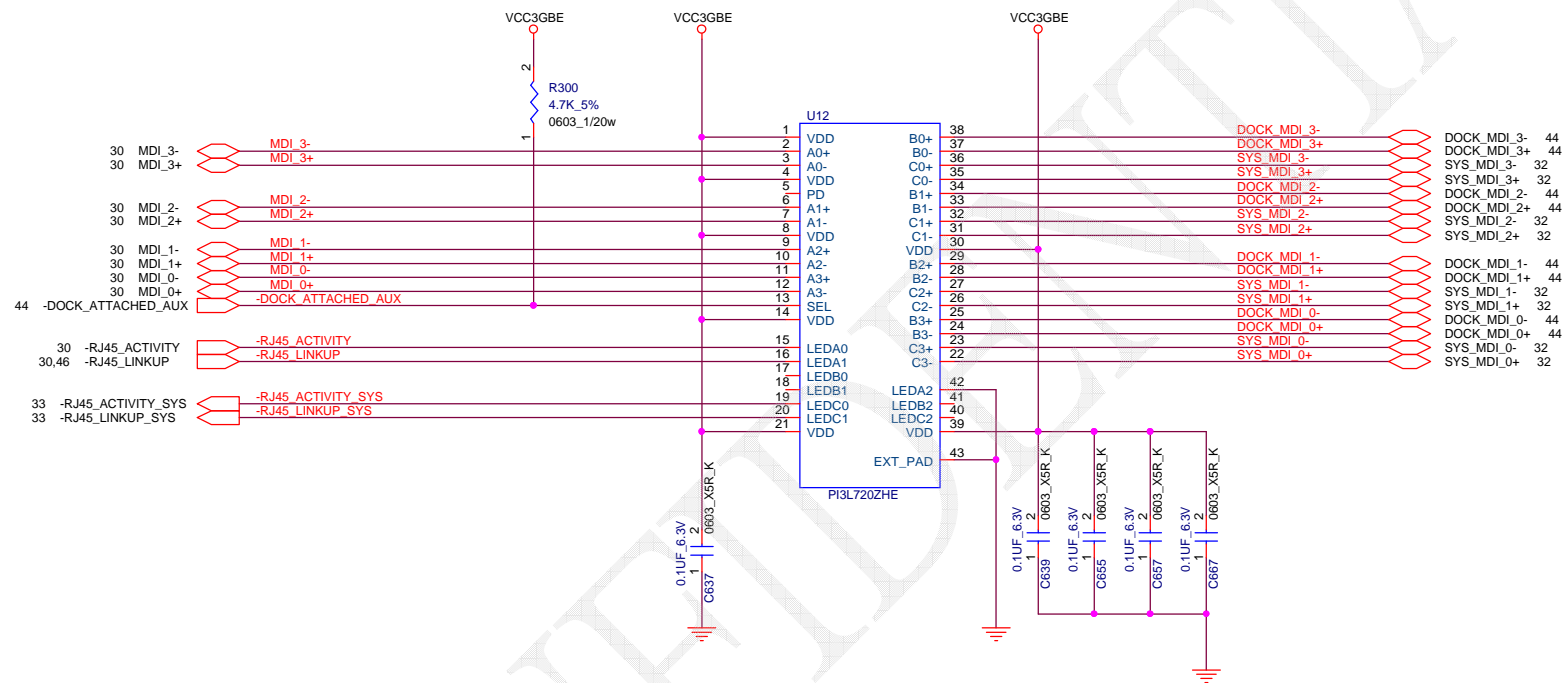


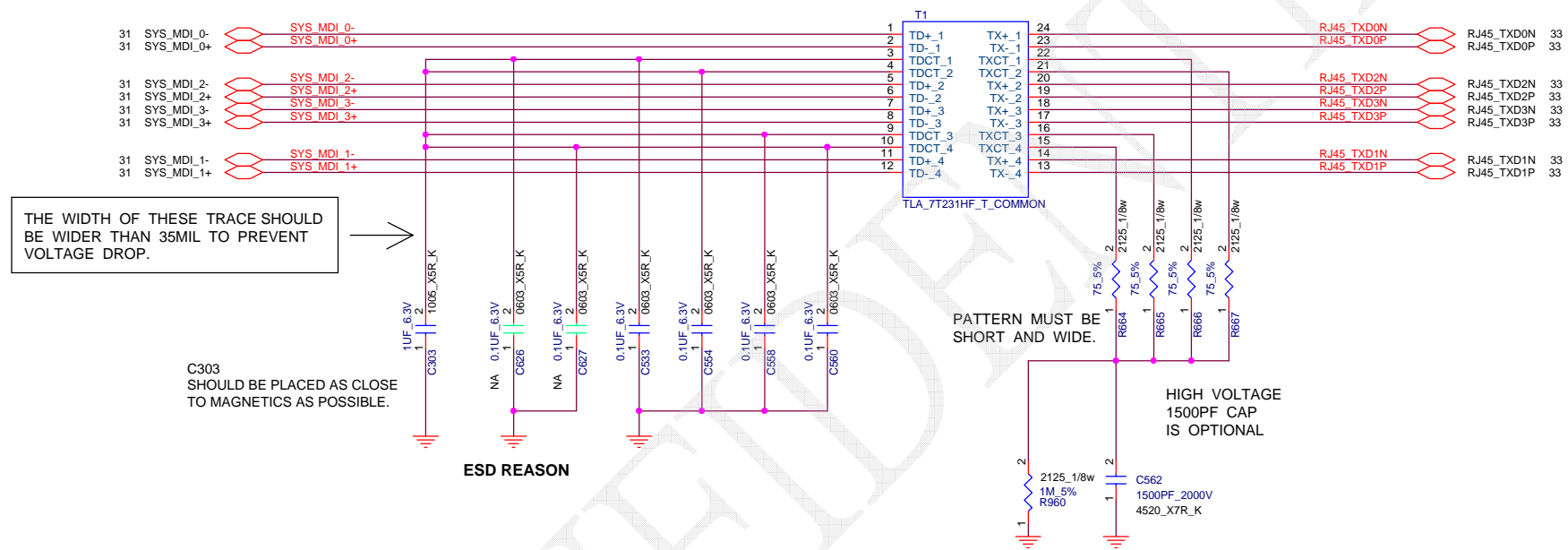


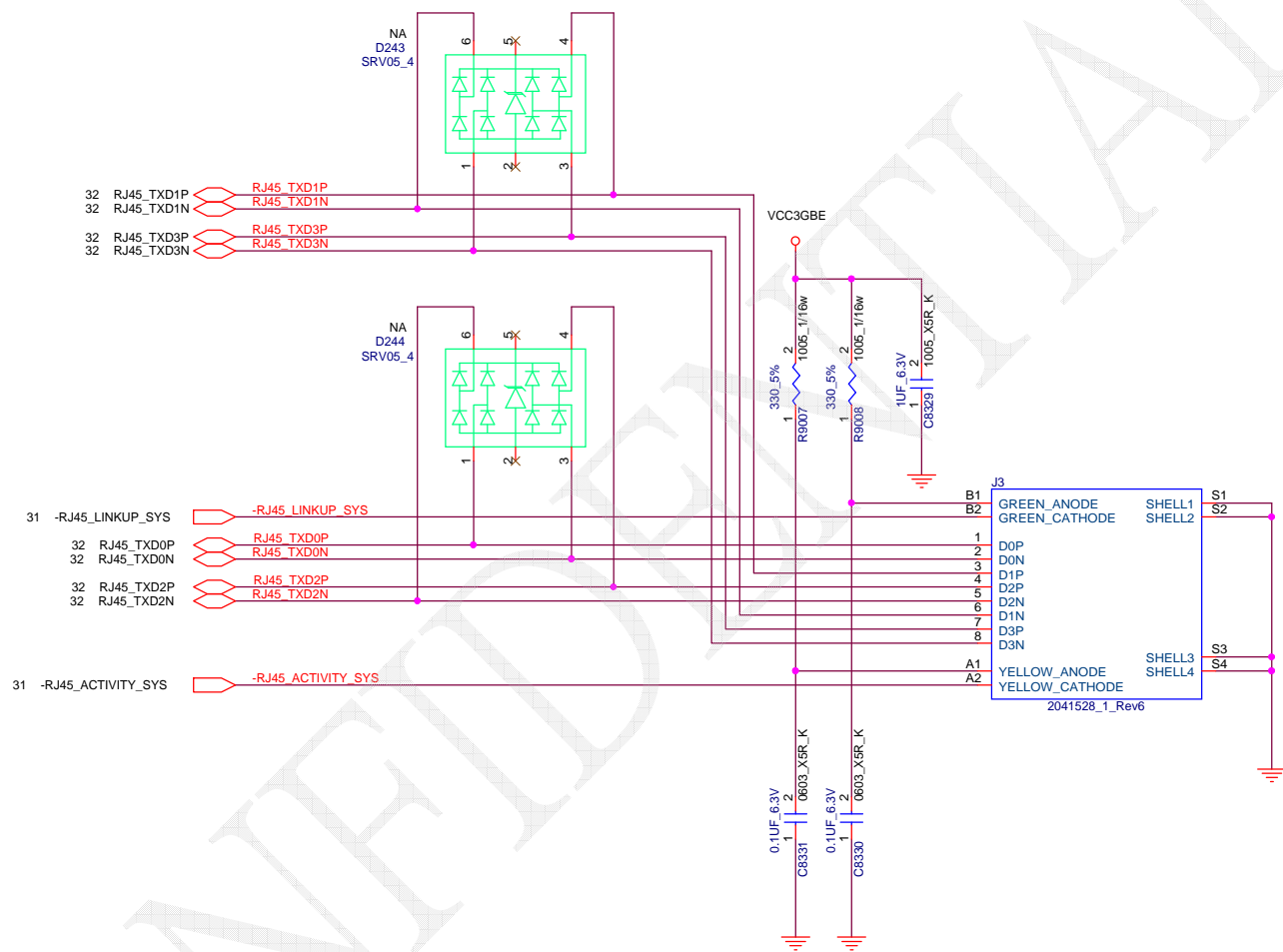












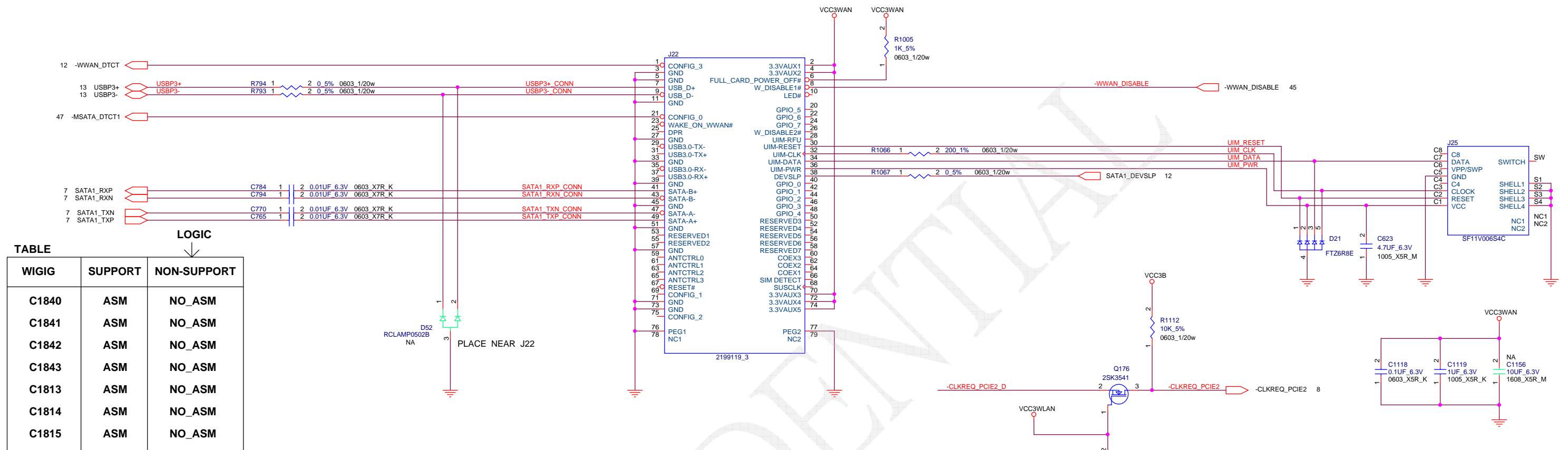
lenovo

Project Name : RG2 SB SVT Title : RJ45 CONNECTOR

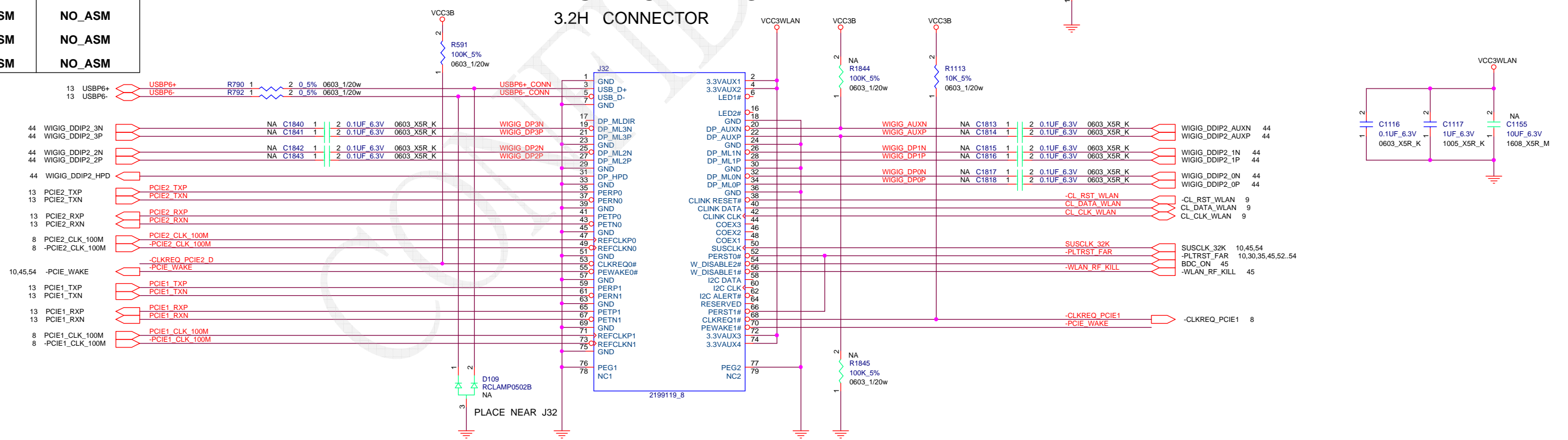
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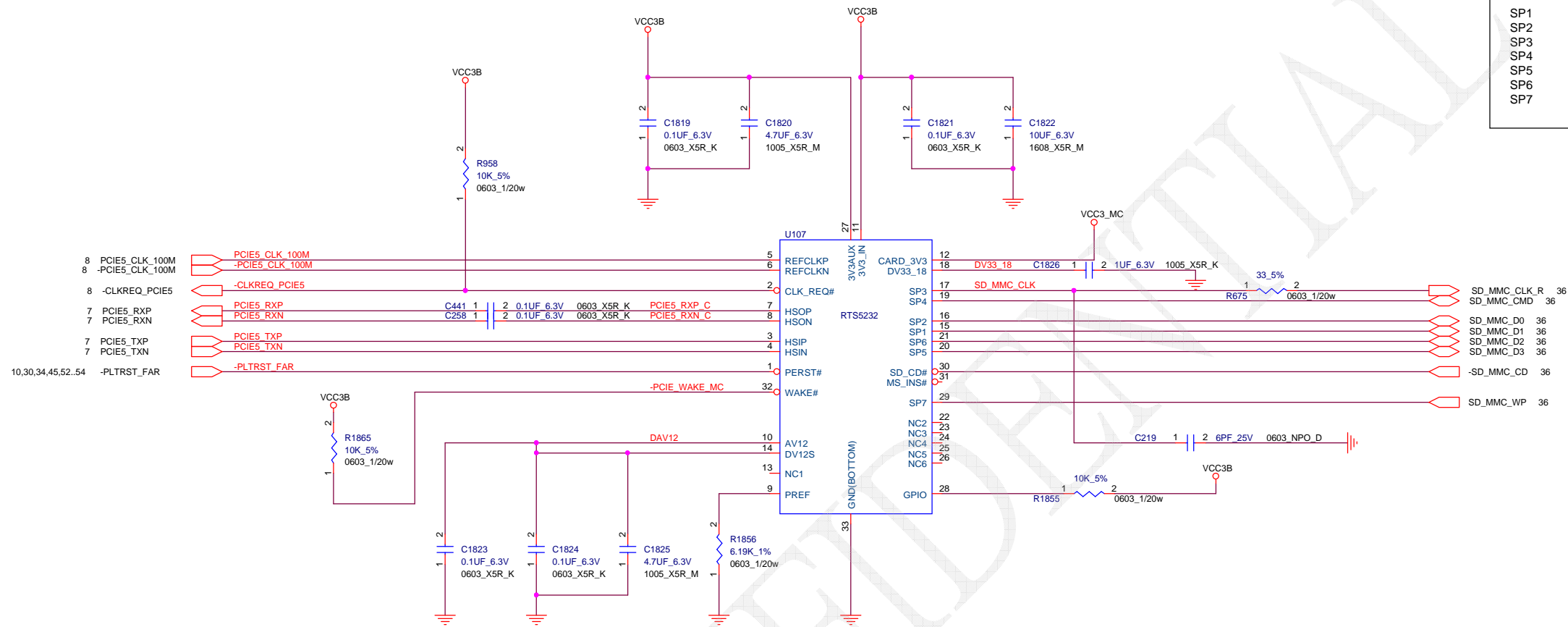
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TYPE-B NGFF CARD FOR WWAN/SSD  
3.2H CONNECTOR



TYPE-A NGFF CARD FOR WLAN  
3.2H CONNECTOR





TABLE

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



Project Name :  
RG2 SB SVT

Title :  
MEDIA CARD CONTROLLER

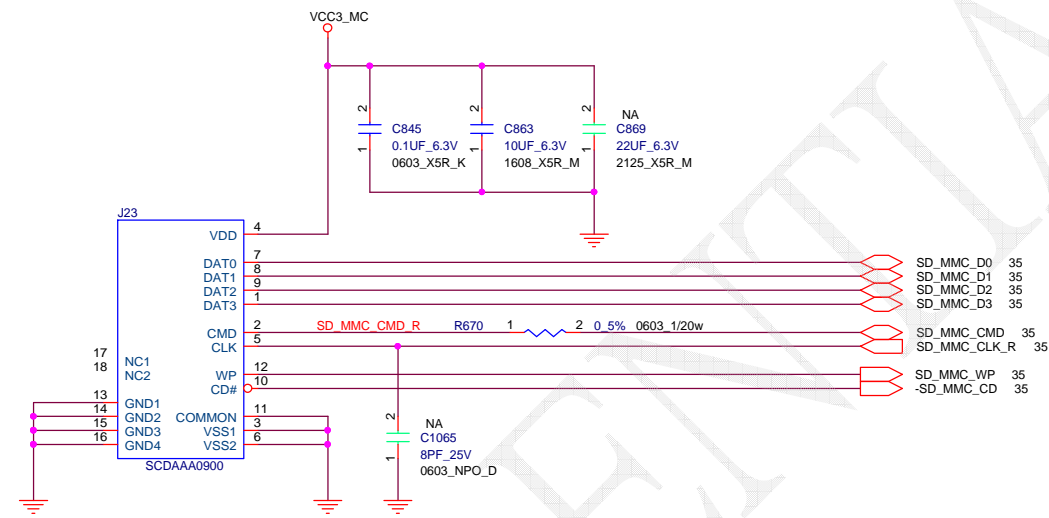
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Document Number :

Rev :  
5.05

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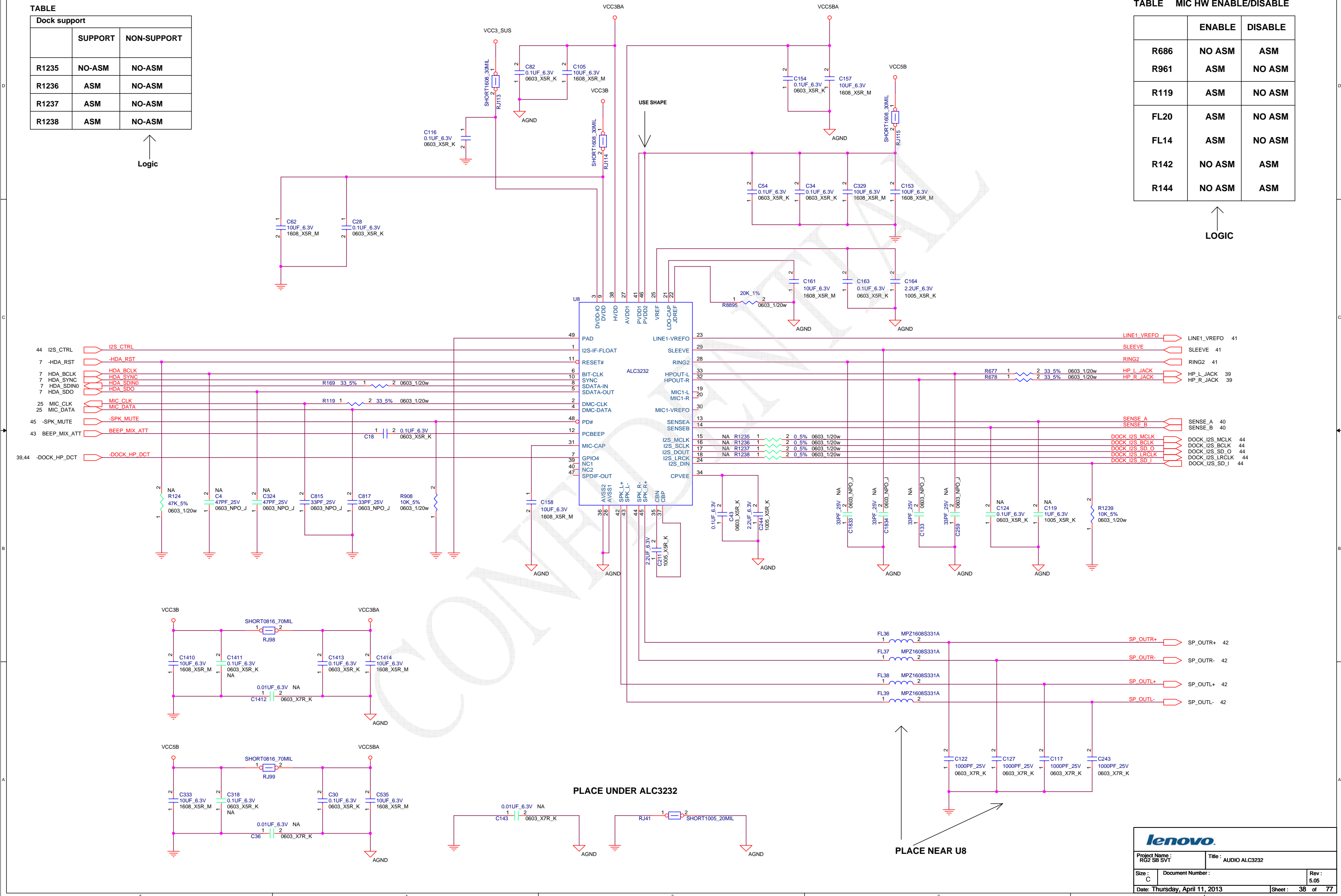


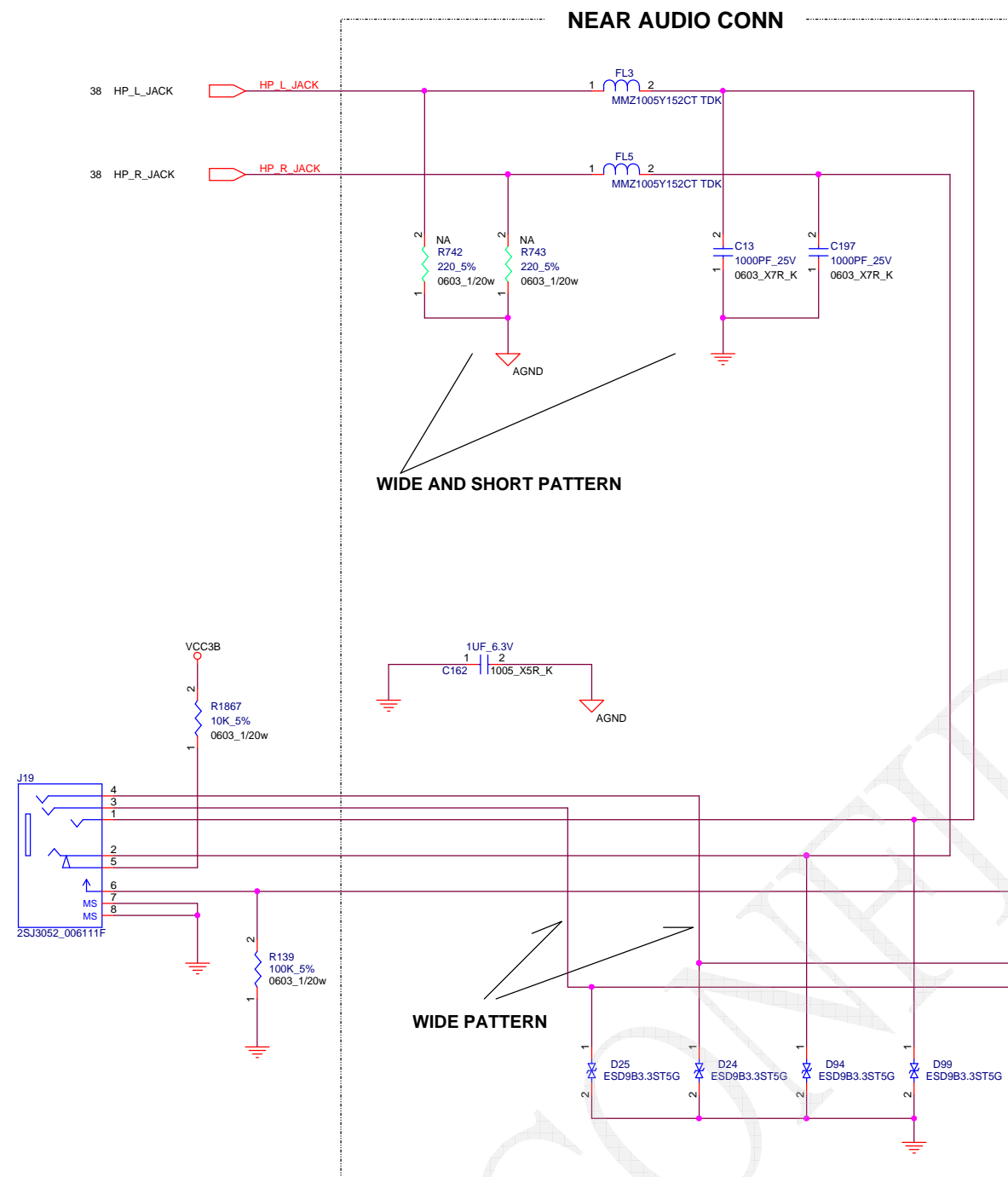
Dock support		
	SUPPORT	NON-SUPPORT
R1235	NO-ASM	NO-ASM
R1236	ASM	NO-ASM
R1237	ASM	NO-ASM
R1238	ASM	NO-ASM

↑  
**Logic**

	ENABLE	DISABLE
R686	NO ASM	ASM
R961	ASM	NO ASM
R119	ASM	NO ASM
FL20	ASM	NO ASM
FL14	ASM	NO ASM
R142	NO ASM	ASM
R144	NO ASM	ASM

↑  
**LOGI**

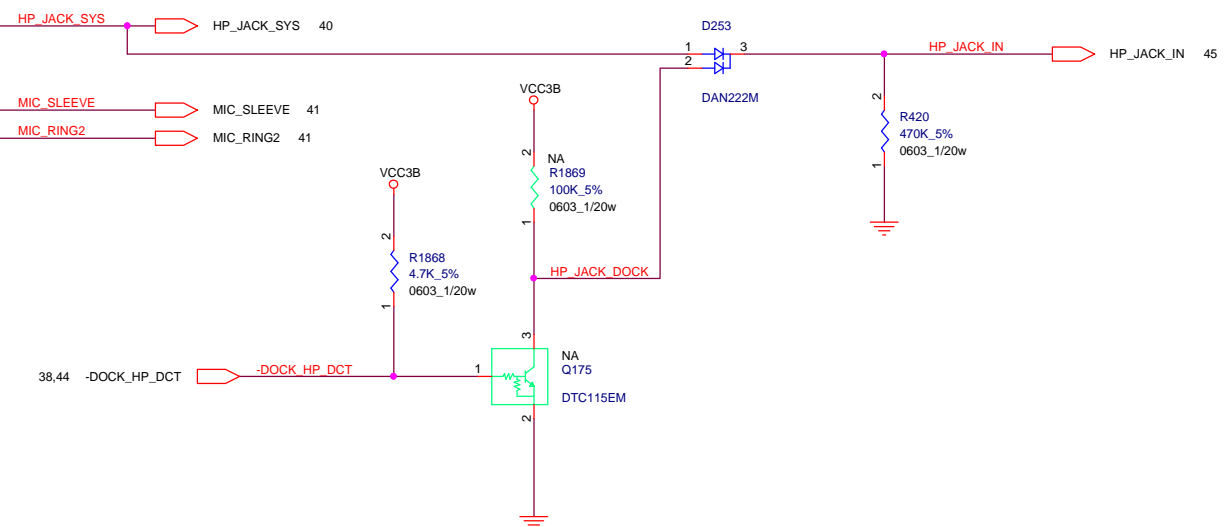




TABLE

DOCKING	SUPPORT	NON-SUPPORT
R1869	ASM	NO_ASM
Q175	ASM	NO_ASM

↑  
LOGIC



TABLE

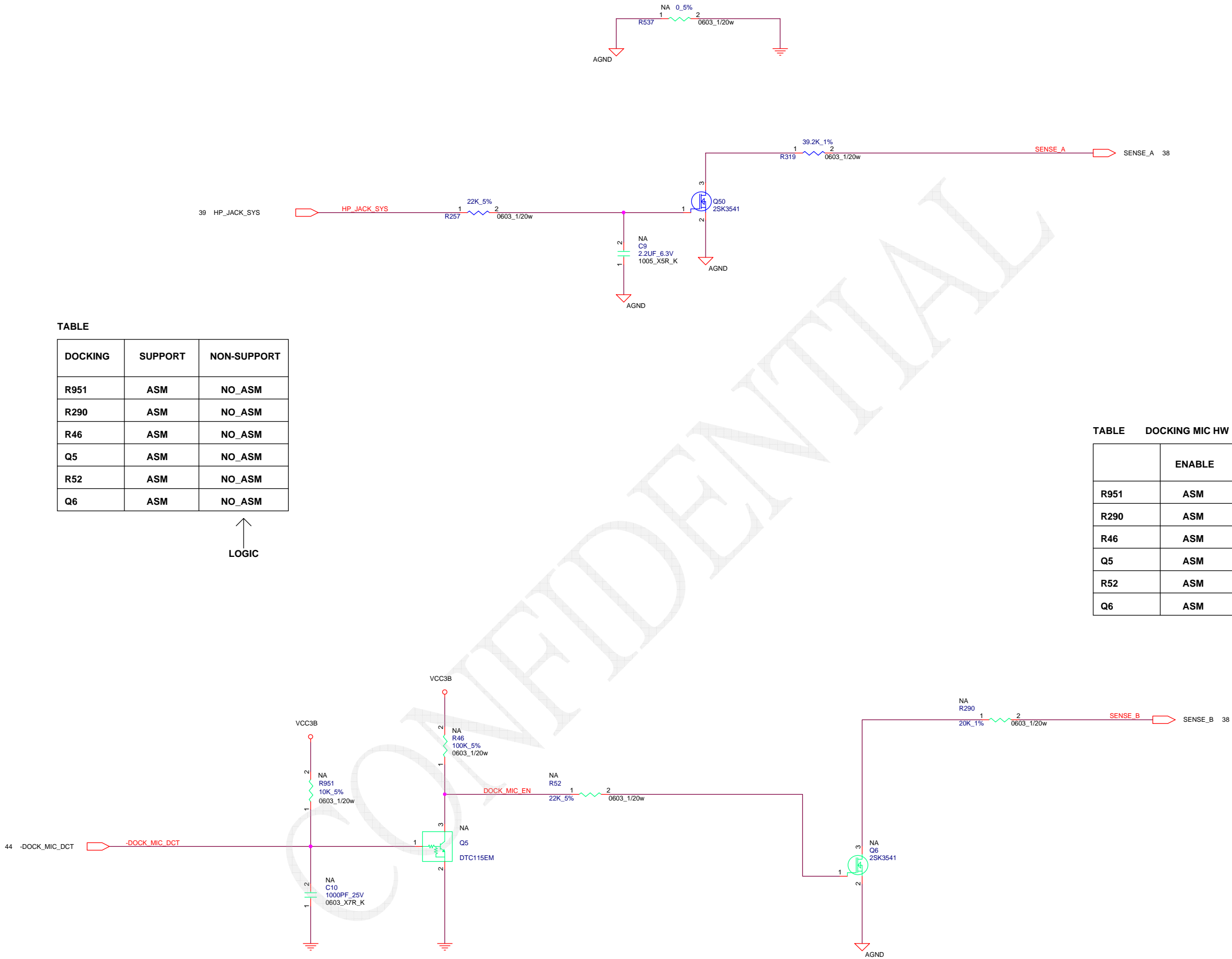
DOCKING	SUPPORT	NON-SUPPORT
R951	ASM	NO_ASM
R290	ASM	NO_ASM
R46	ASM	NO_ASM
Q5	ASM	NO_ASM
R52	ASM	NO_ASM
Q6	ASM	NO_ASM

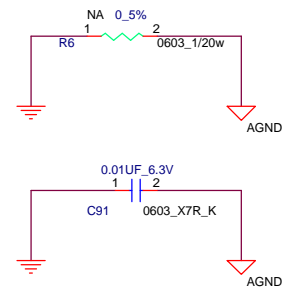
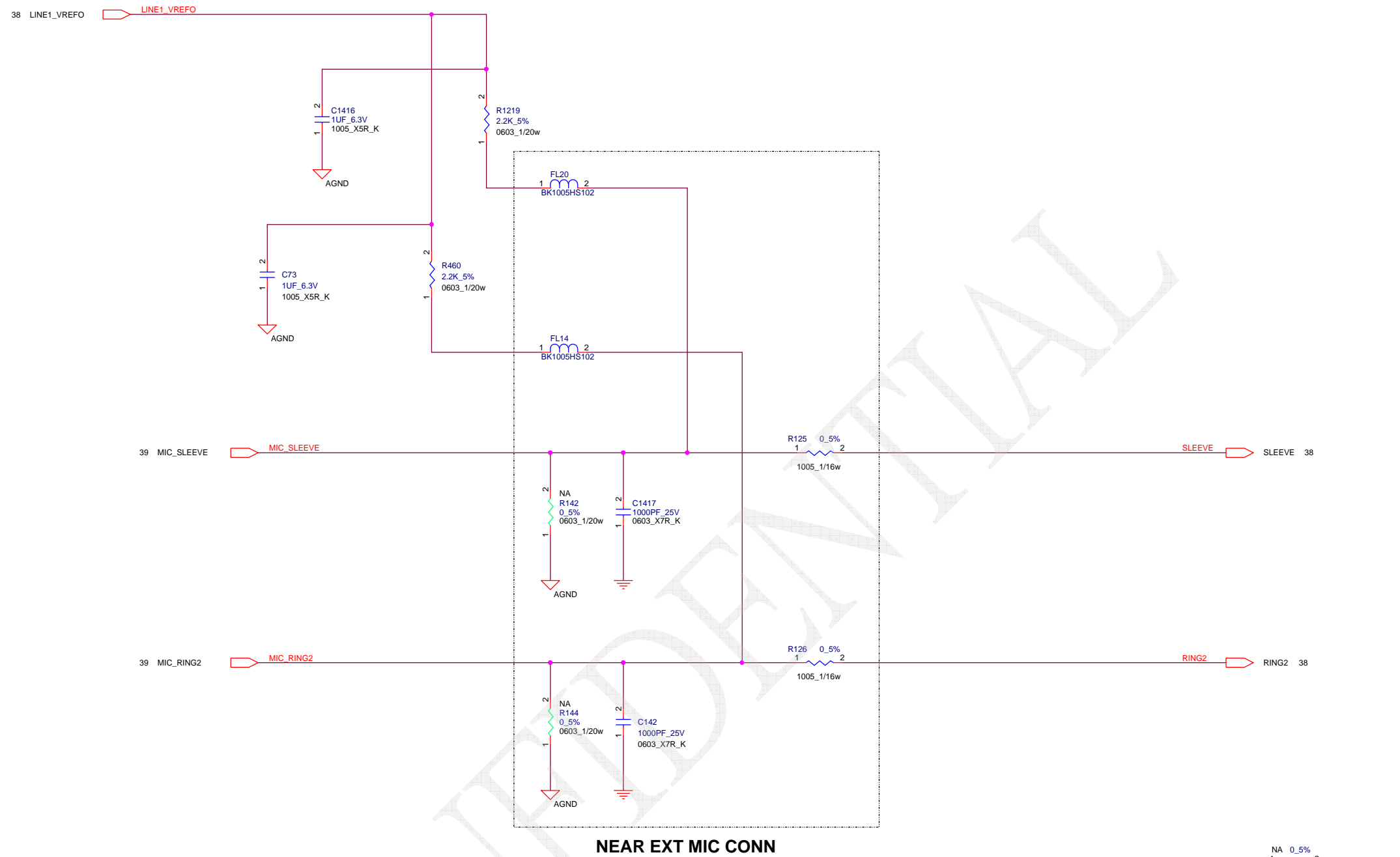
↑  
LOGIC

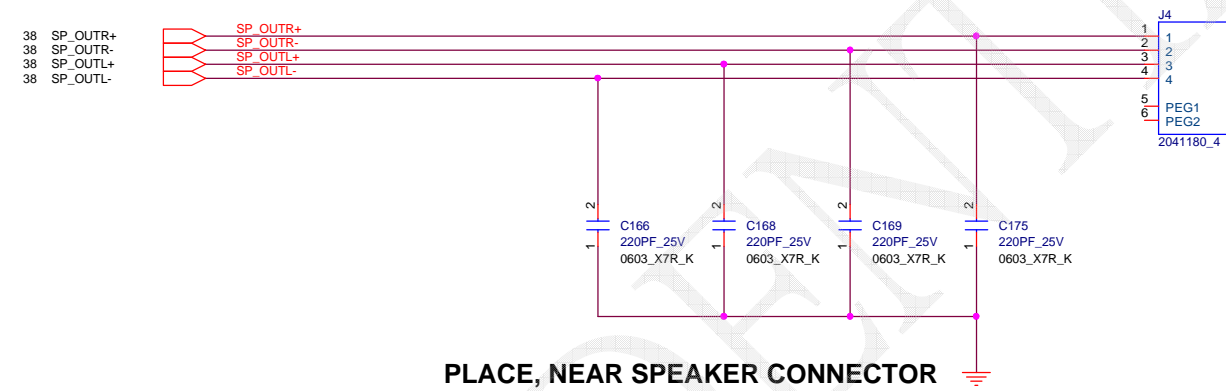
TABLE DOCKING MIC HW ENABLE/DISABLE

	ENABLE	DISABLE
R951	ASM	NO_ASM
R290	ASM	NO_ASM
R46	ASM	NO_ASM
Q5	ASM	NO_ASM
R52	ASM	NO_ASM
Q6	ASM	NO_ASM

↑  
LOGIC







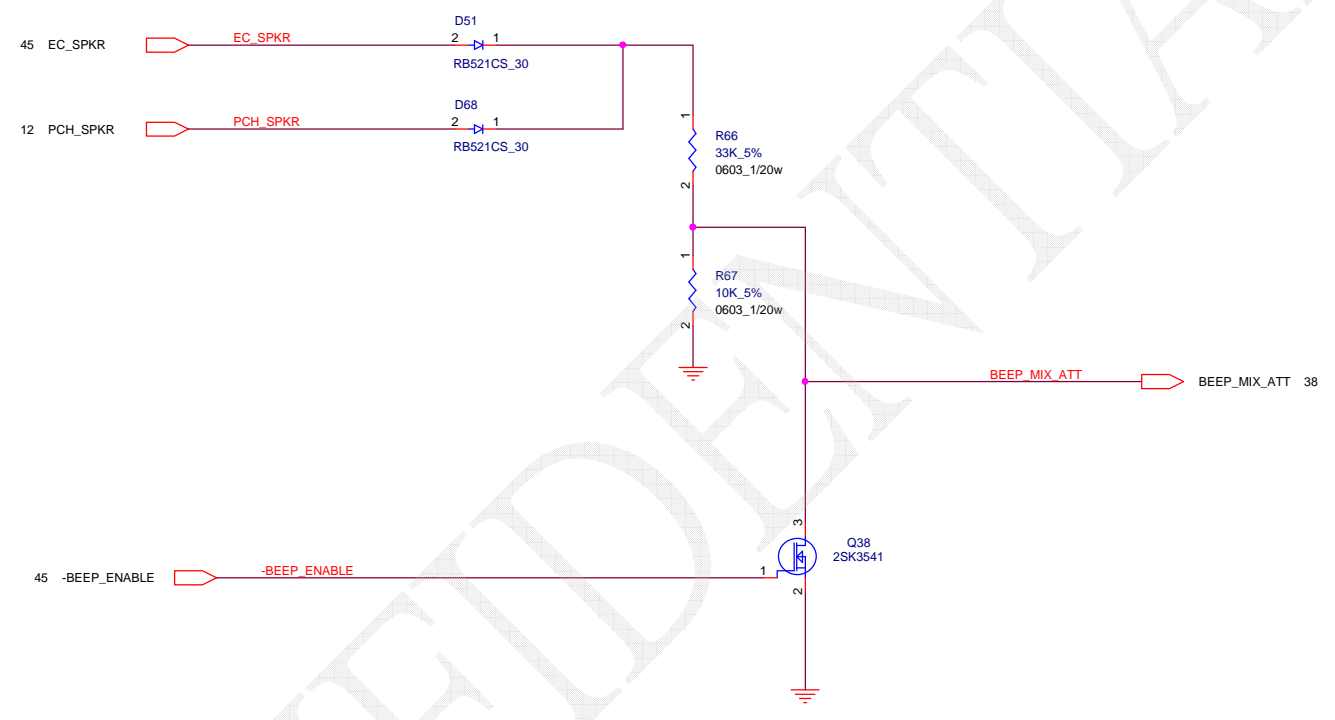
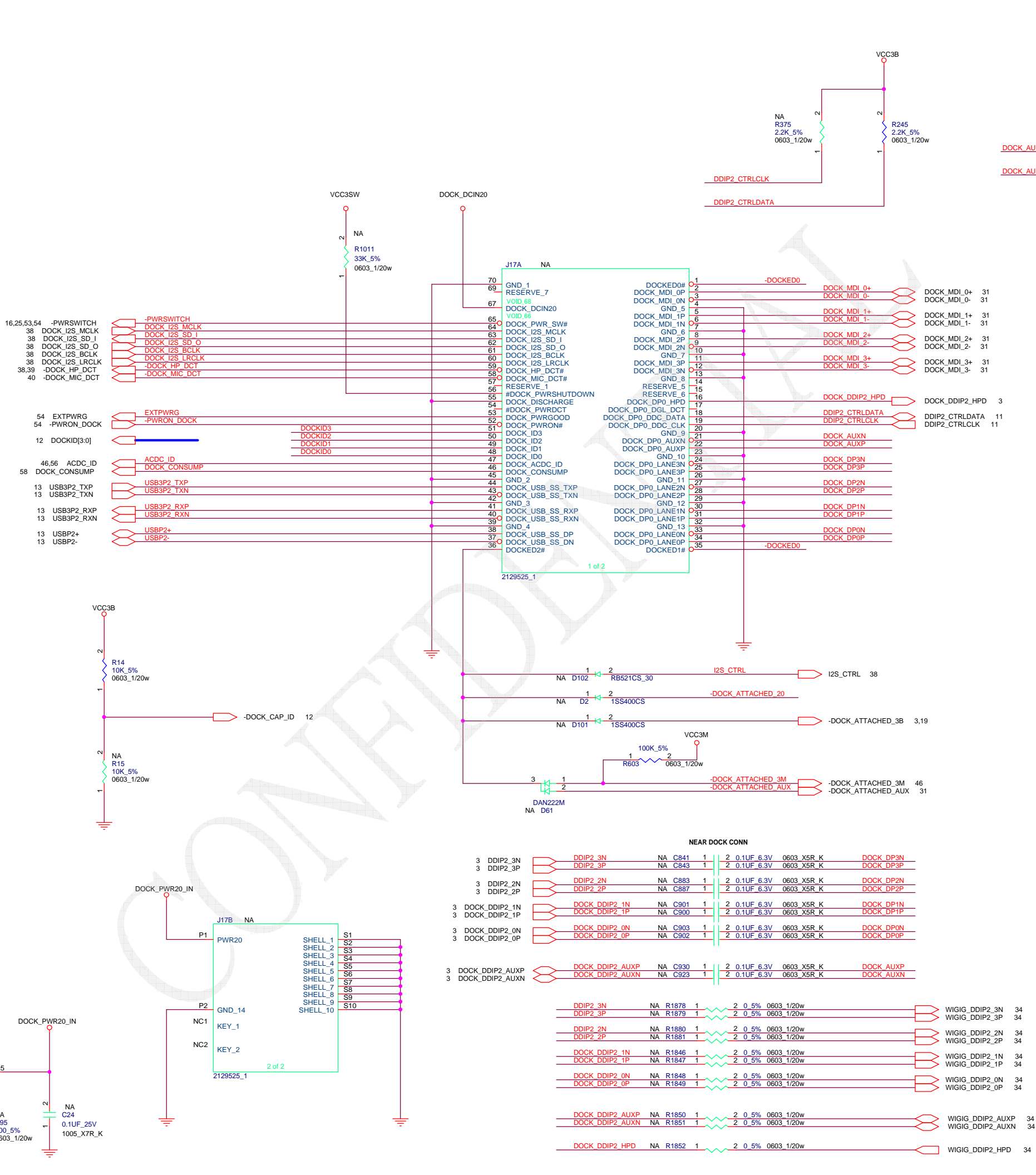
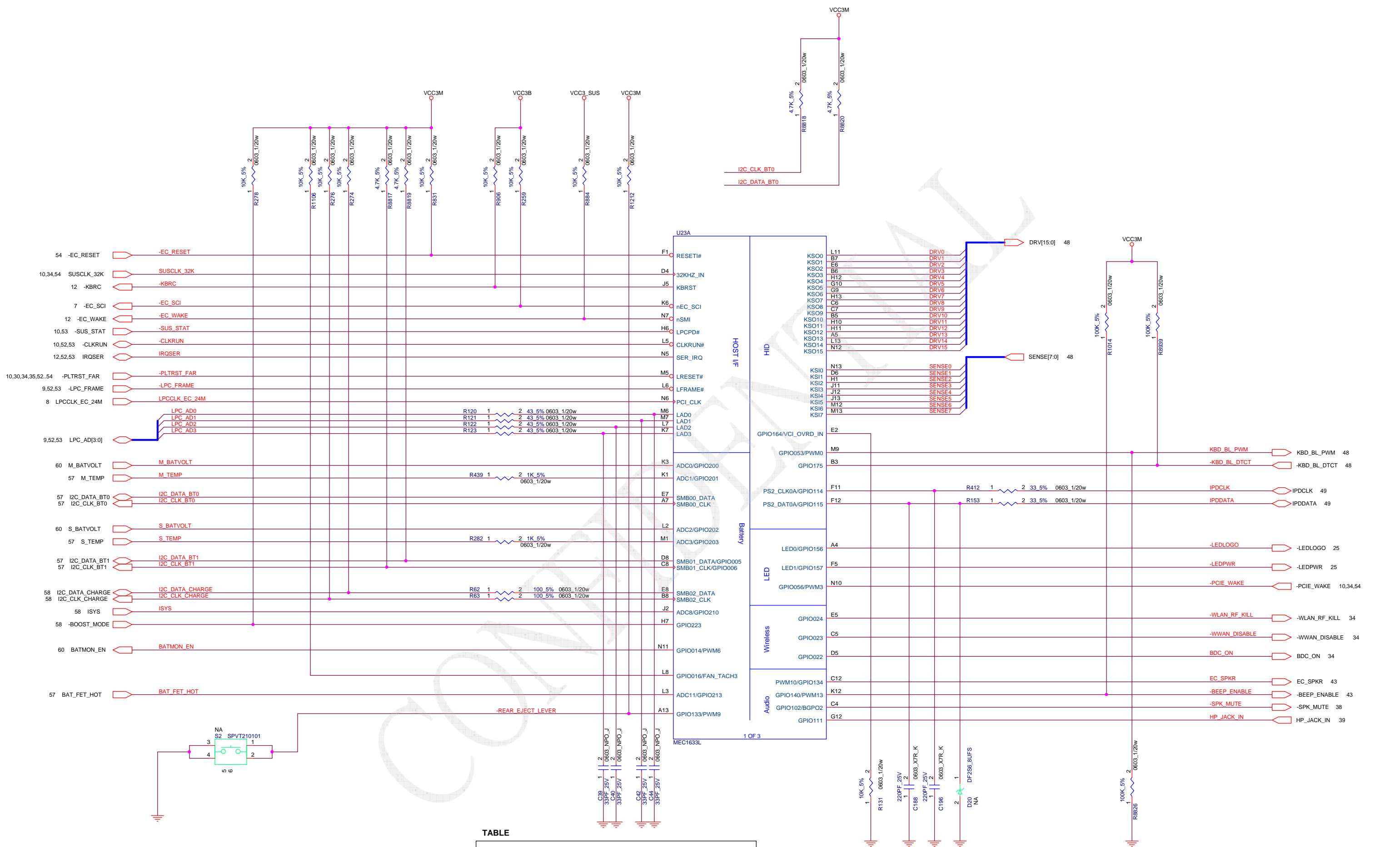


TABLE		LOGIC	
ID	DOCKING SUPPORT	WIGIG SUPPORT	NON-SUPPORT
J17	ASM	NO ASM	NO ASM
R375	ASM	NO ASM	NO ASM
R245	ASM	ASM	ASM
R1011	ASM	NO ASM	NO ASM
D2	ASM	NO ASM	NO ASM
D101	ASM	NO ASM	NO ASM
R603	ASM	ASM	ASM
D61	ASM	NO ASM	NO ASM
D102	ASM	NO ASM	NO ASM
C24	ASM	NO ASM	NO ASM
Q85	ASM	NO ASM	NO ASM
R95	ASM	NO ASM	NO ASM
R731	ASM	NO ASM	NO ASM
R657	ASM	NO ASM	NO ASM
C841	ASM	NO ASM	NO ASM
C843	ASM	NO ASM	NO ASM
C883	ASM	NO ASM	NO ASM
C887	ASM	NO ASM	NO ASM
C901	ASM	NO ASM	NO ASM
C900	ASM	NO ASM	NO ASM
C903	ASM	NO ASM	NO ASM
C902	ASM	NO ASM	NO ASM
C930	ASM	NO ASM	NO ASM
C923	ASM	NO ASM	NO ASM
R35	ASM	NO ASM	NO ASM
R36	ASM	NO ASM	NO ASM
R14	NO_ASM	ASM	ASM
R15	ASM	NO_ASM	NO_ASM
R1878	NO_ASM	ASM	NO ASM
R1879	NO_ASM	ASM	NO ASM
R1880	NO_ASM	ASM	NO ASM
R1881	NO_ASM	ASM	NO ASM
R1846	NO_ASM	ASM	NO ASM
R1847	NO_ASM	ASM	NO ASM
R1848	NO_ASM	ASM	NO ASM
R1849	NO_ASM	ASM	NO ASM
R1850	NO_ASM	ASM	NO ASM
R1851	NO_ASM	ASM	NO ASM
R1852	NO_ASM	ASM	NO ASM







Swappable Rear Battery			
	Wolverine-1 (Support)	Rogue-2 with Dock (Non-Support)	Rogue-2 w/o Dock (Non-Support)
S2	ASM	ASM	NO-ASM

↑  
LOGIC

R258: 750\_1% for New AC Adapter

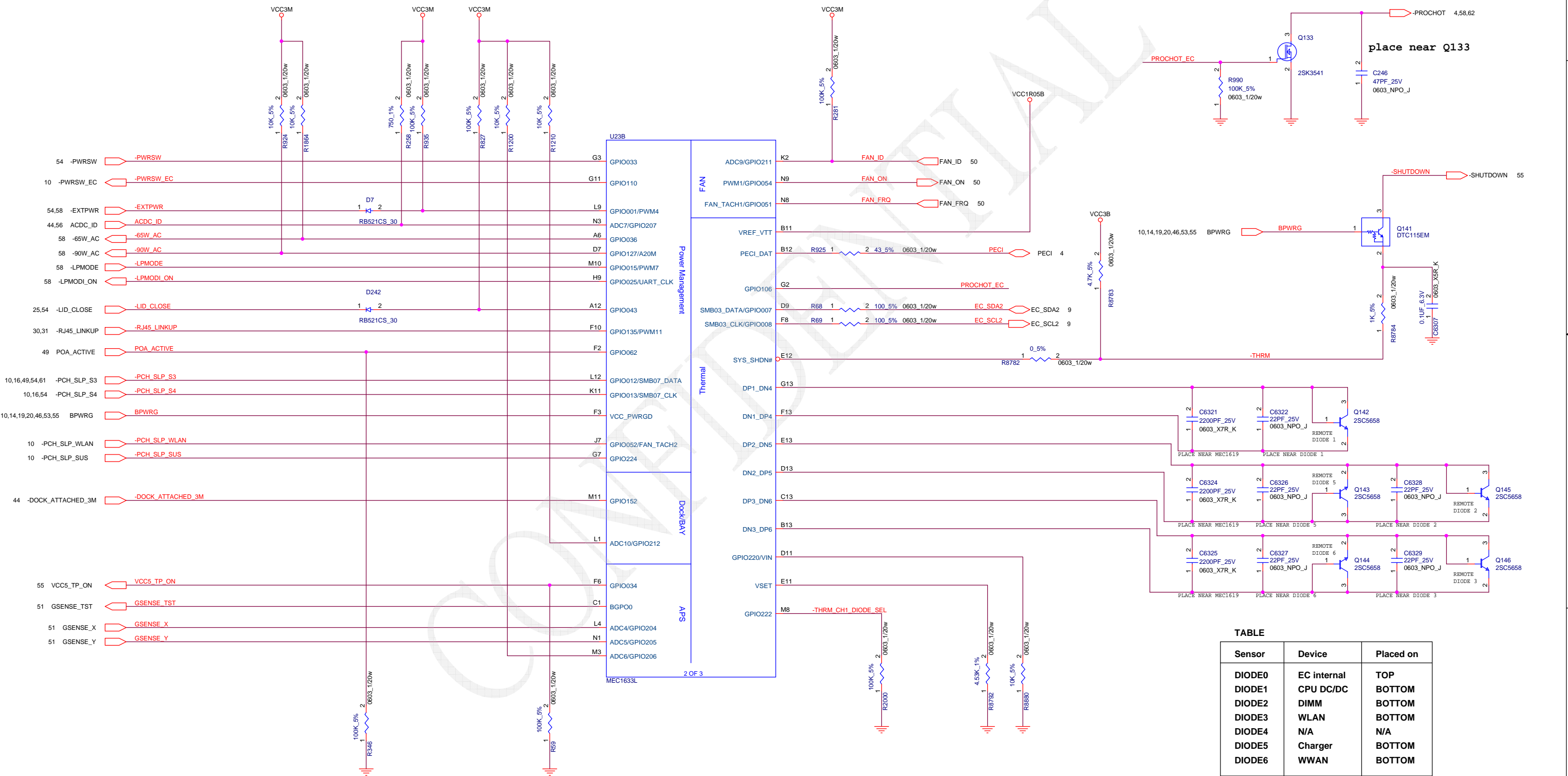
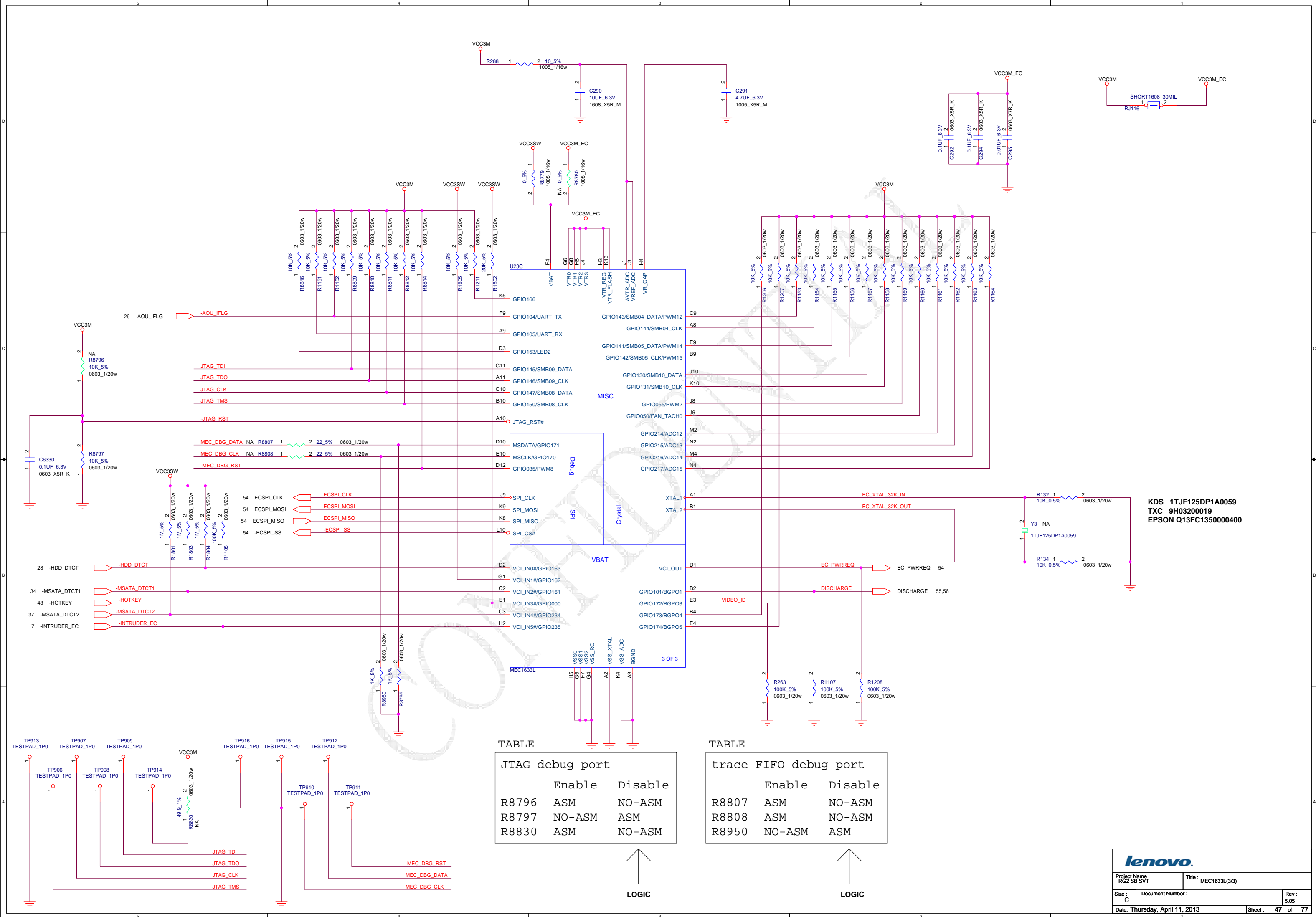
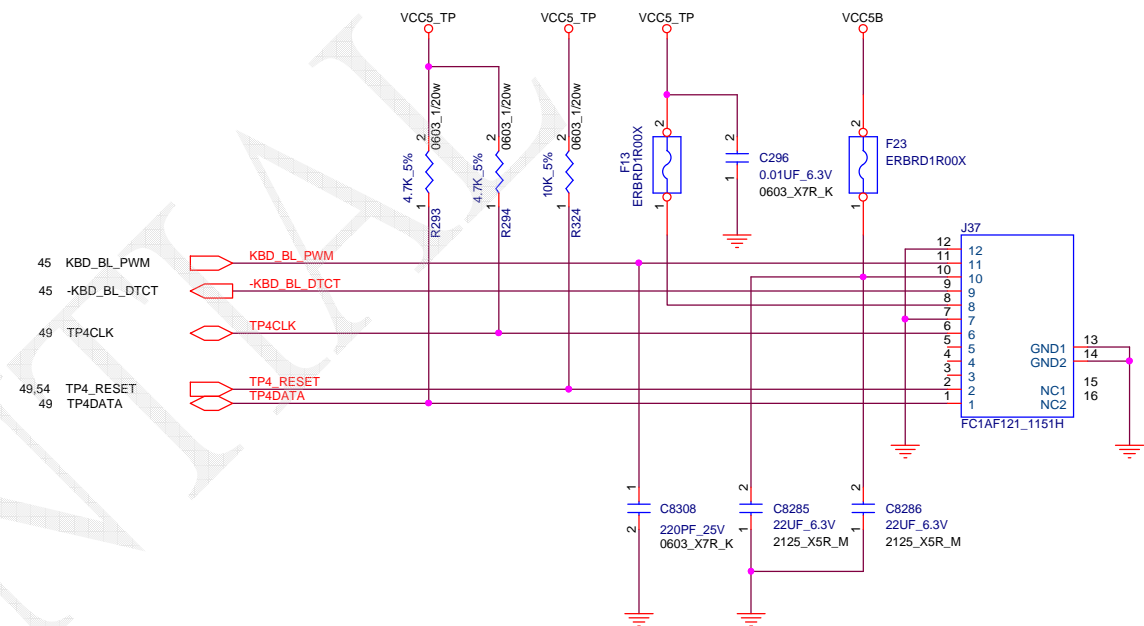
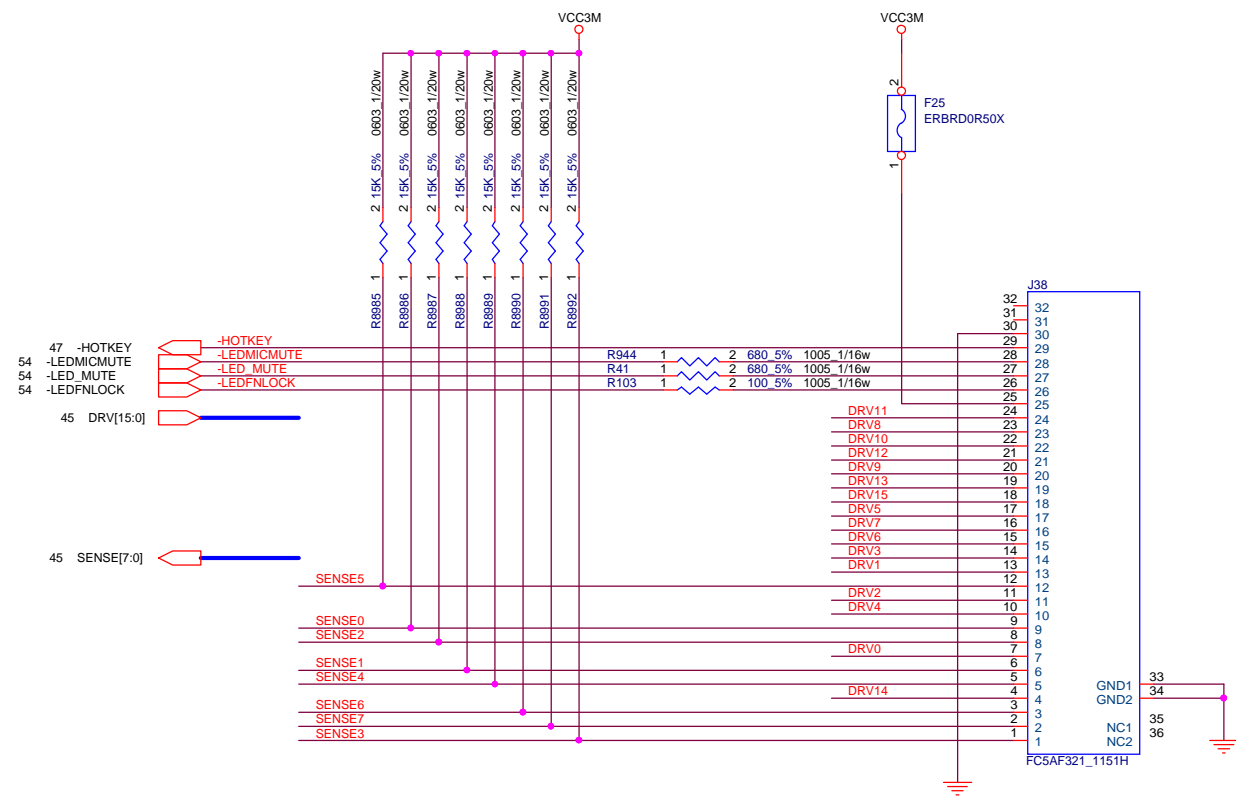
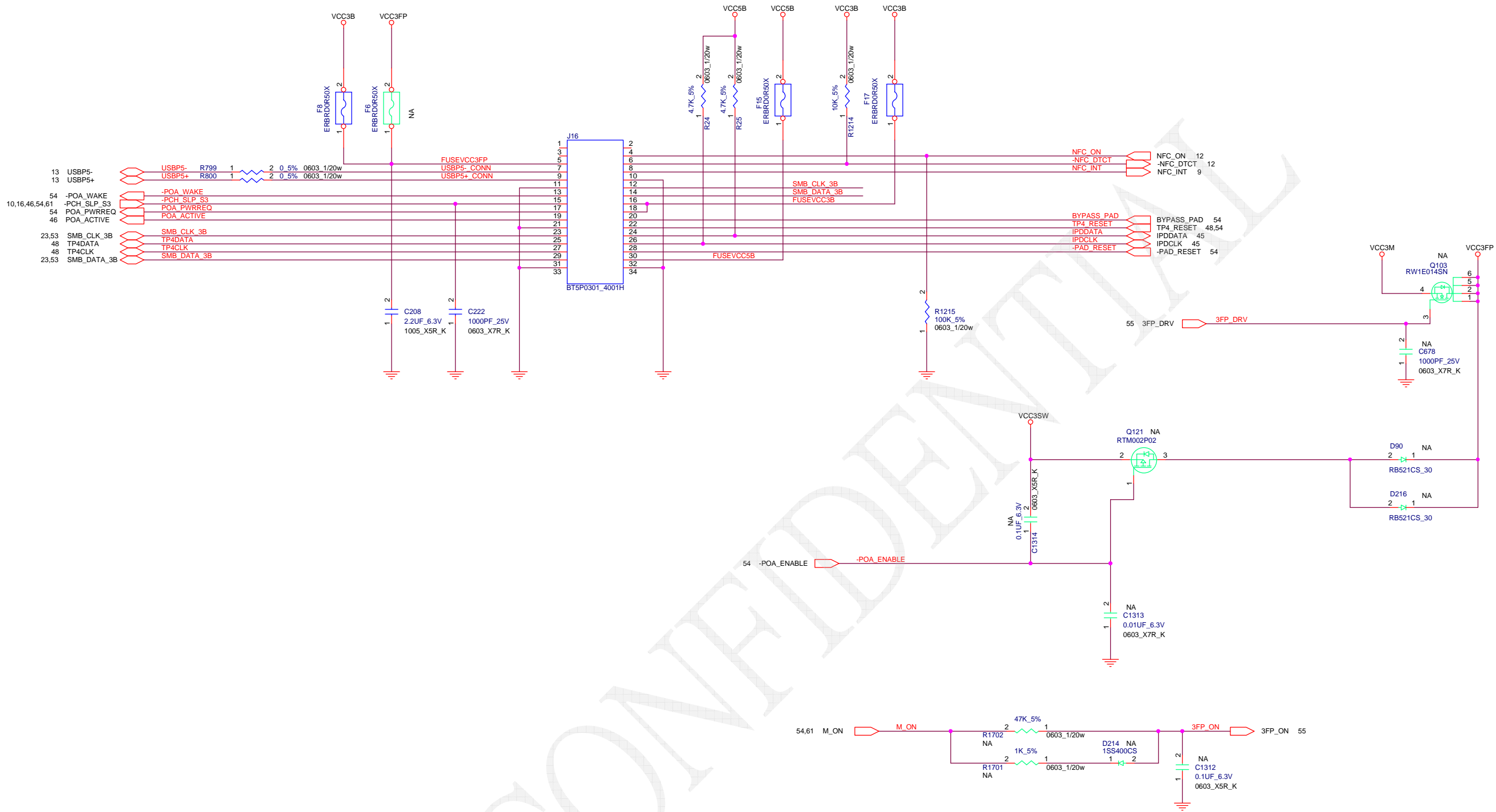


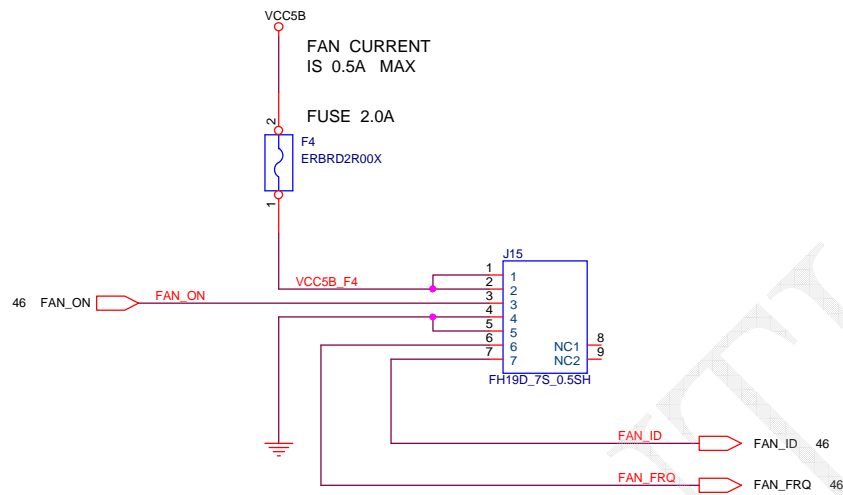
TABLE		
Sensor	Device	Placed on
DIODE0	EC internal	TOP
DIODE1	CPU DC/DC	BOTTOM
DIODE2	DIMM	BOTTOM
DIODE3	WLAN	BOTTOM
DIODE4	N/A	N/A
DIODE5	Charger	BOTTOM
DIODE6	WWAN	BOTTOM









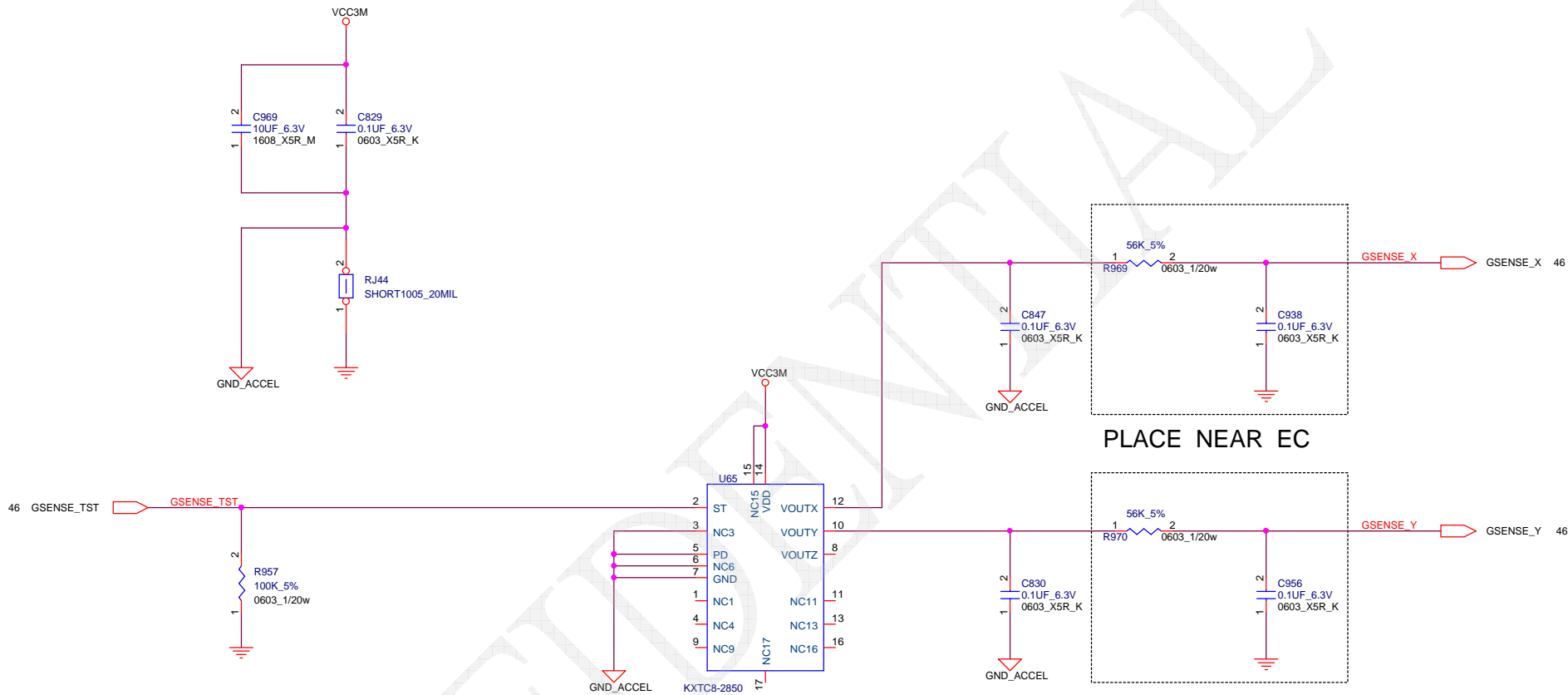


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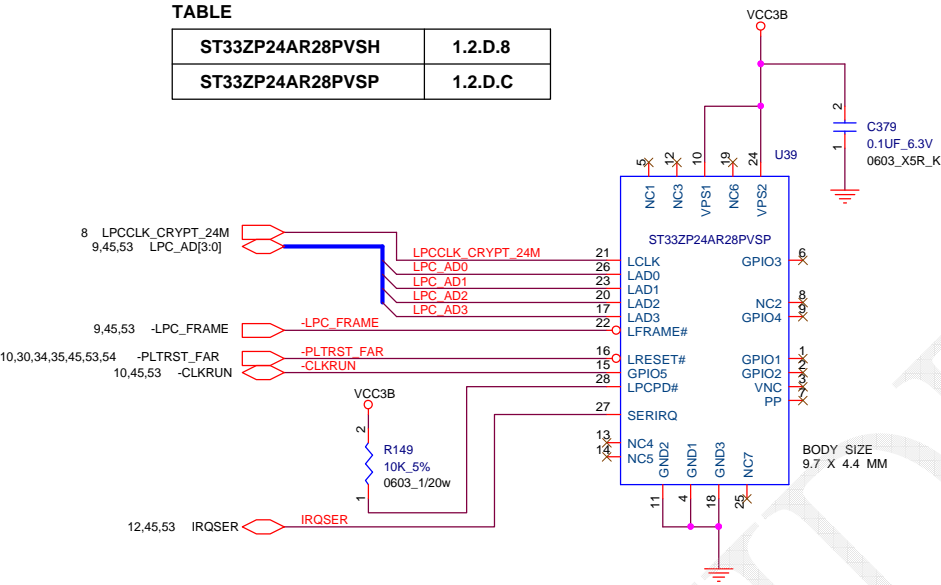
TABLE

	LIS34AL KXTC8-2850	NO ACC.
R957	ASM	ASM
U65	ASM	NO_ASM
C829 C969	ASM 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



TABLE

ST33ZP24AR28PVSH	1.2.D.8
ST33ZP24AR28PVSP	1.2.D.C

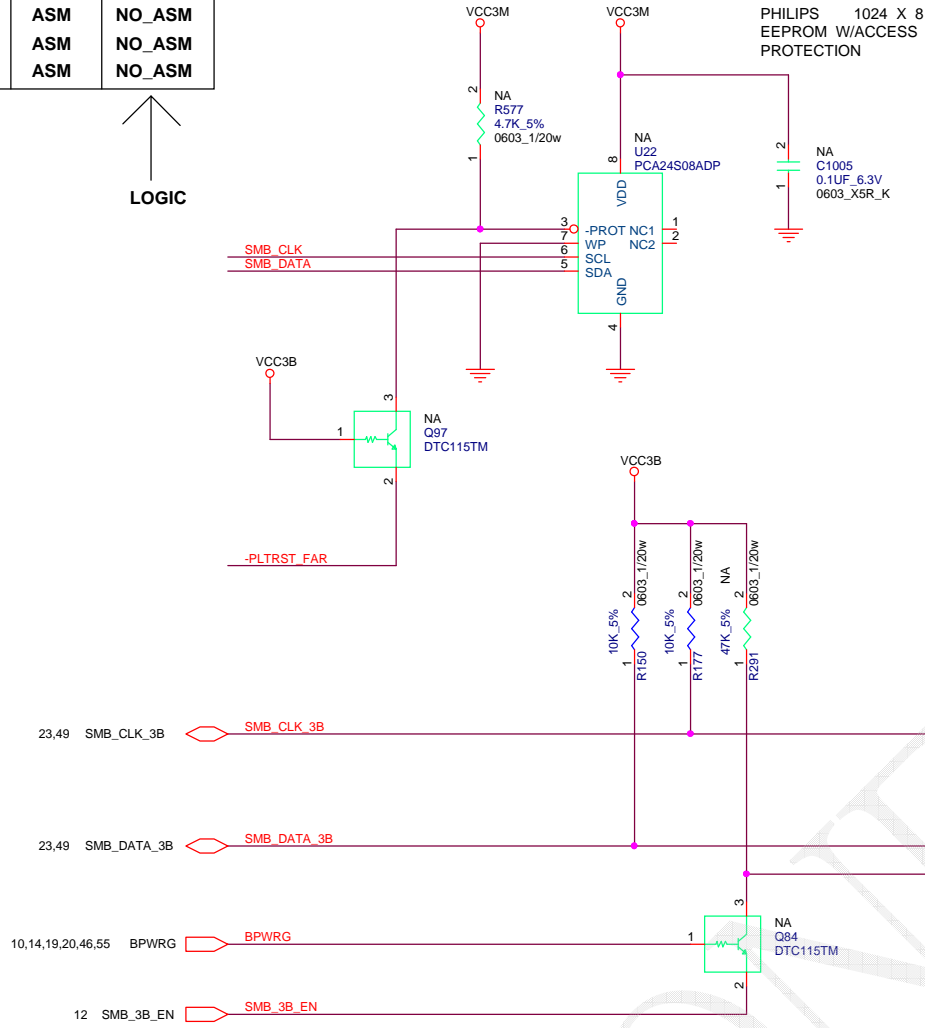




TABLE

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

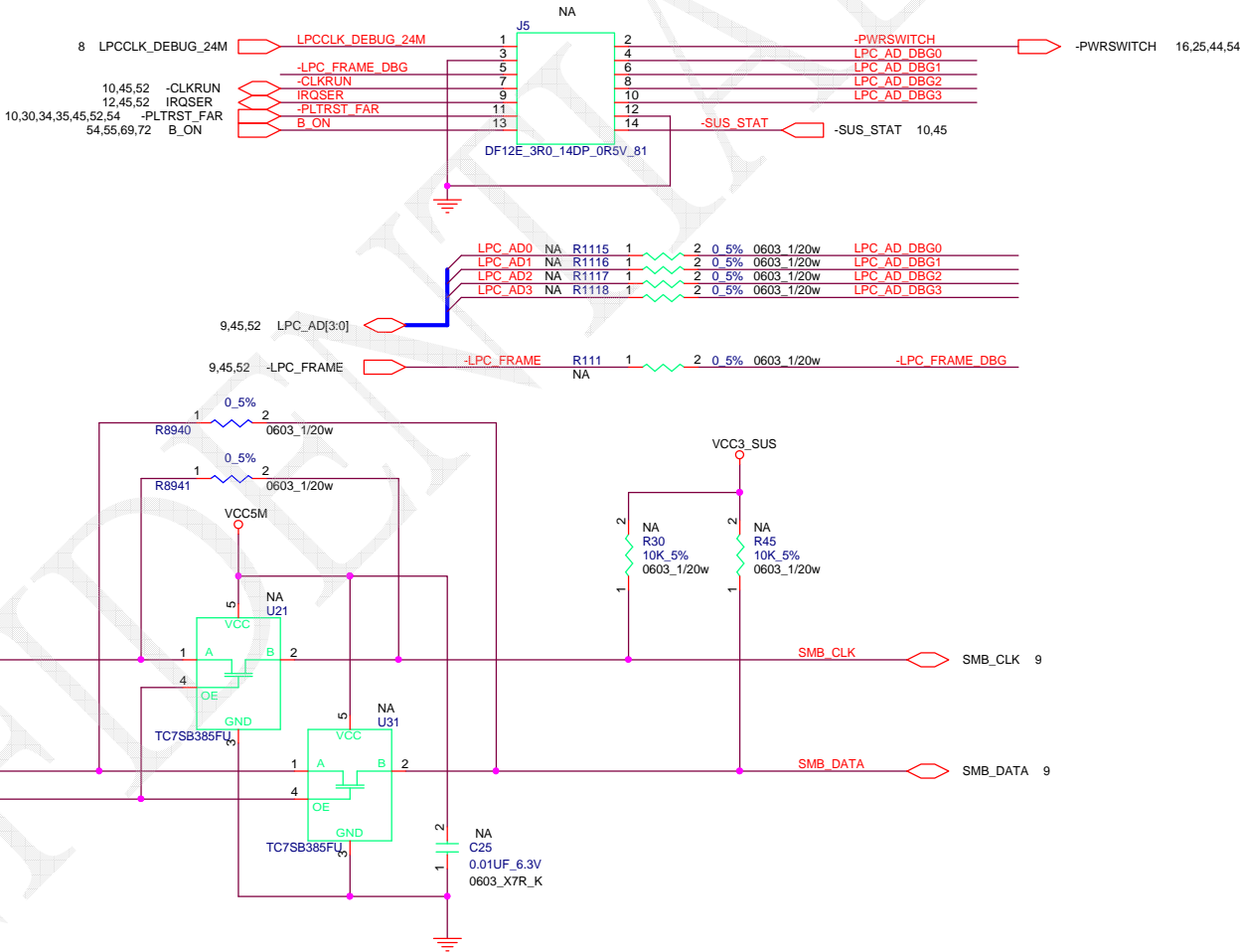
LOGIC



TABLE

REF DES	ENABLE	DISABLE
J5	ASM	NO_ASM
R1115	ASM	NO_ASM
R1116	ASM	NO_ASM
R1117	ASM	NO_ASM
R1118	ASM	NO_ASM
R111	ASM	NO_ASM
R220	ASM	NO_ASM

LOGIC

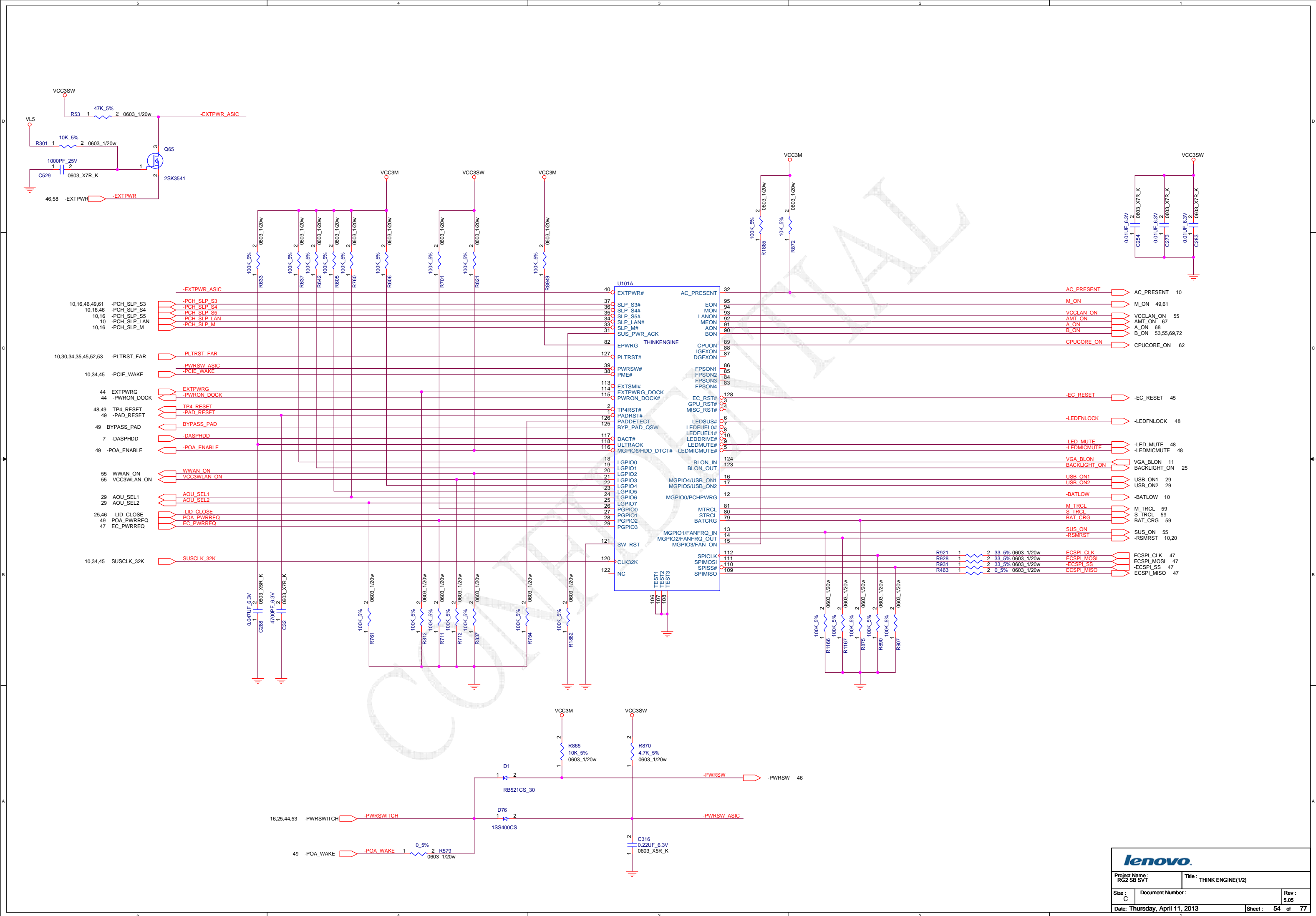


TABLE

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

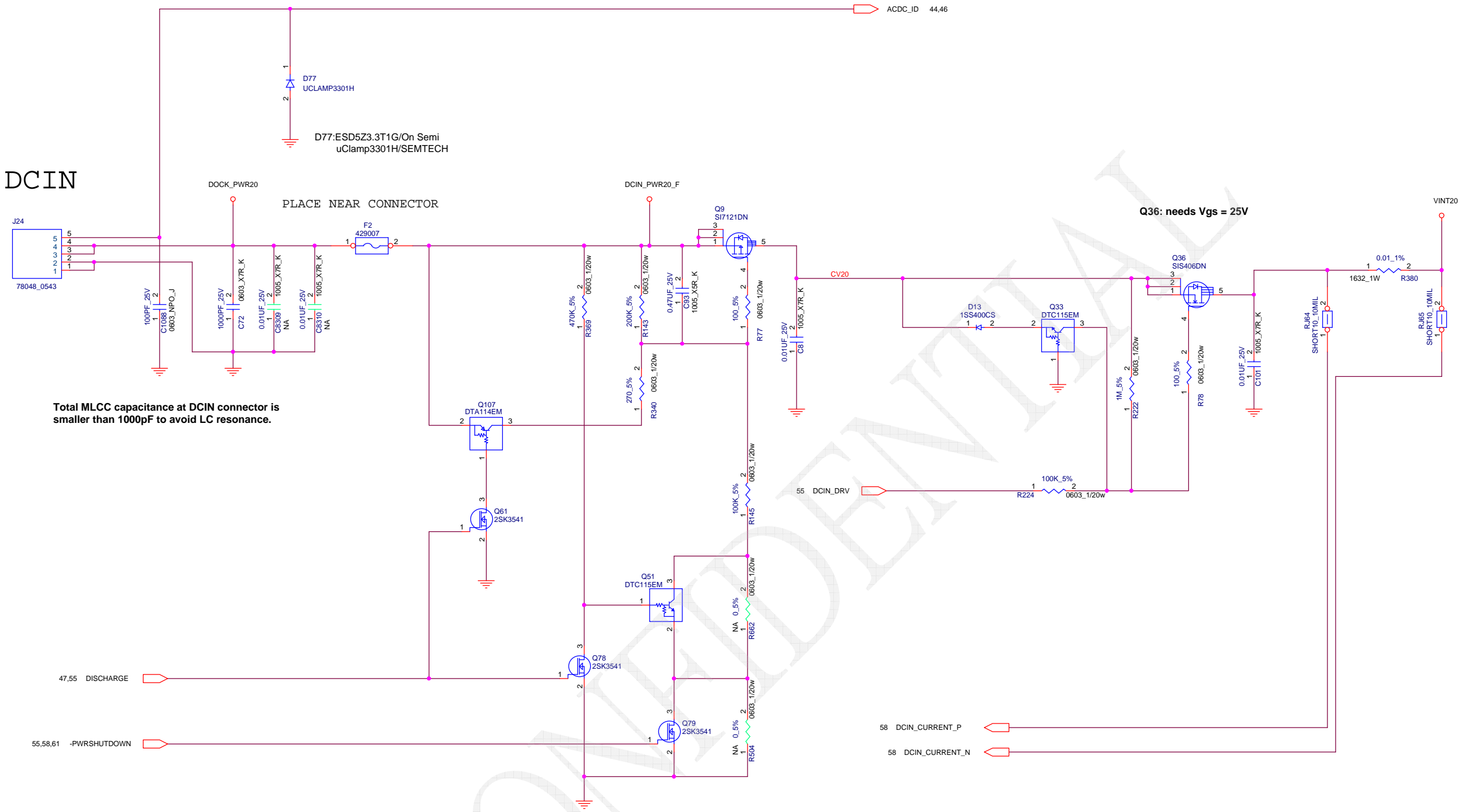
LOGIC







DCIN

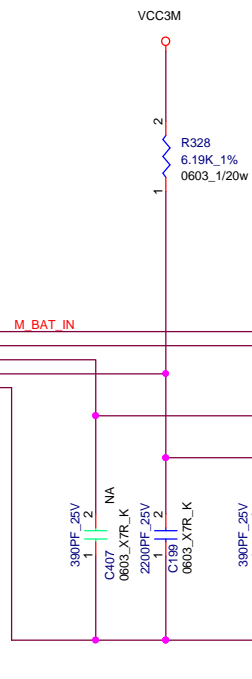
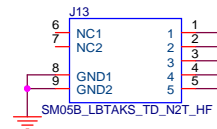


Total MLCC capacitance at DCIN connector is smaller than 1000pF to avoid LC resonance.

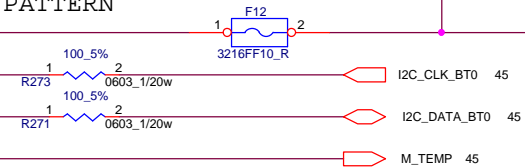
TABLE		
PEAK SHIFT	YES	NO
R662	NO-ASM	ASM
R369	ASM	NO-ASM
Q78	ASM	NO-ASM
Q51	ASM	NO-ASM

↑  
LOGIC

MAIN BAT CONN

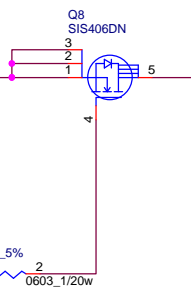


WIDE PATTERN



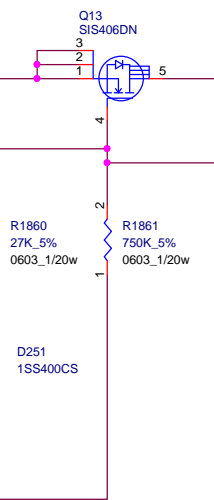
M-BAT-PWR

Q8: needs Vgs = 25V

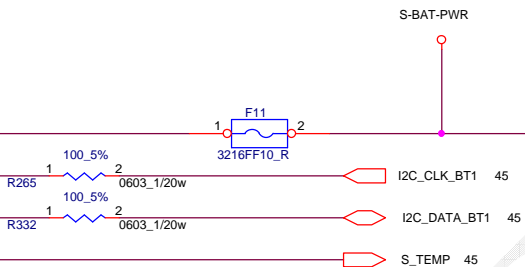
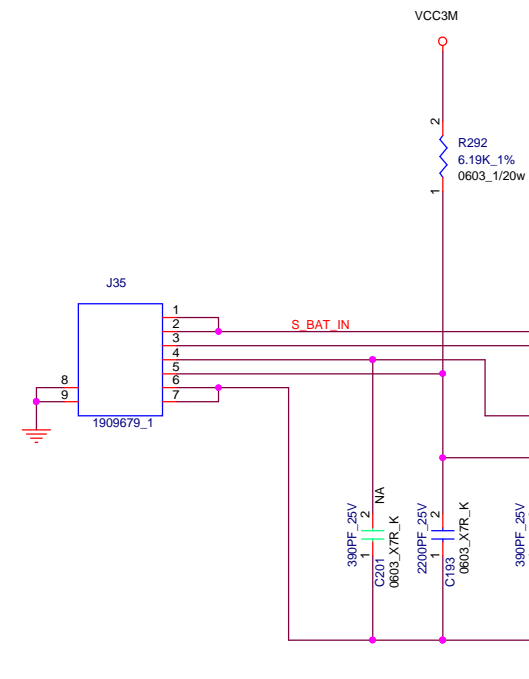


BAT-PWR12

Q13: needs Vgs = 25V

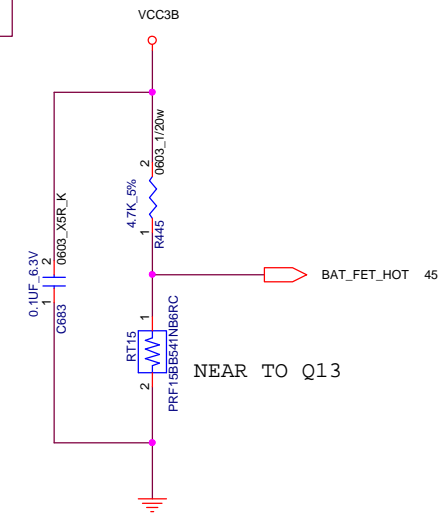
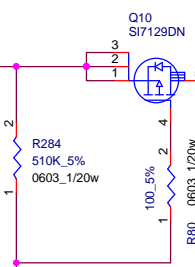
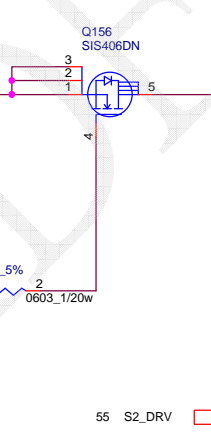


VINT20



S-BAT-PWR

Q156: needs Vgs = 25V

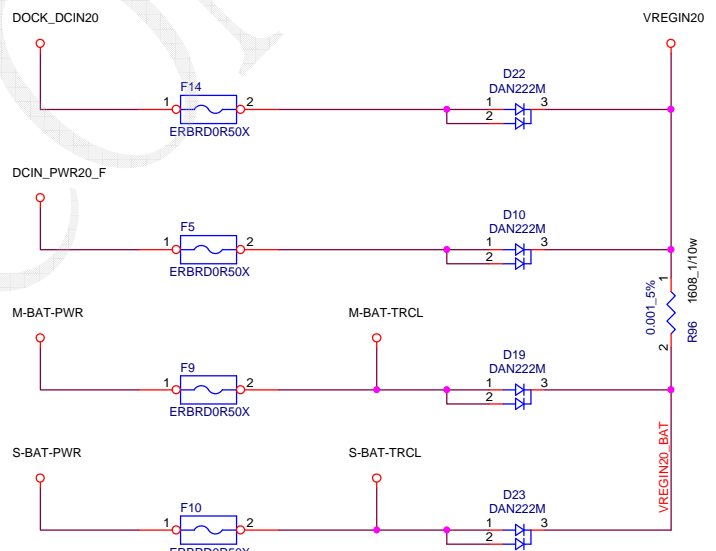


DOCK\_DCIN20

DCIN\_PWR20\_F

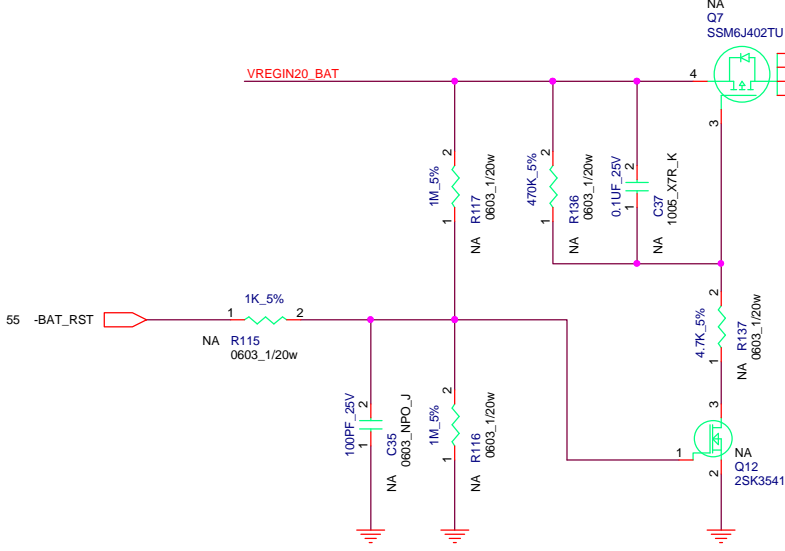
M-BAT-PWR

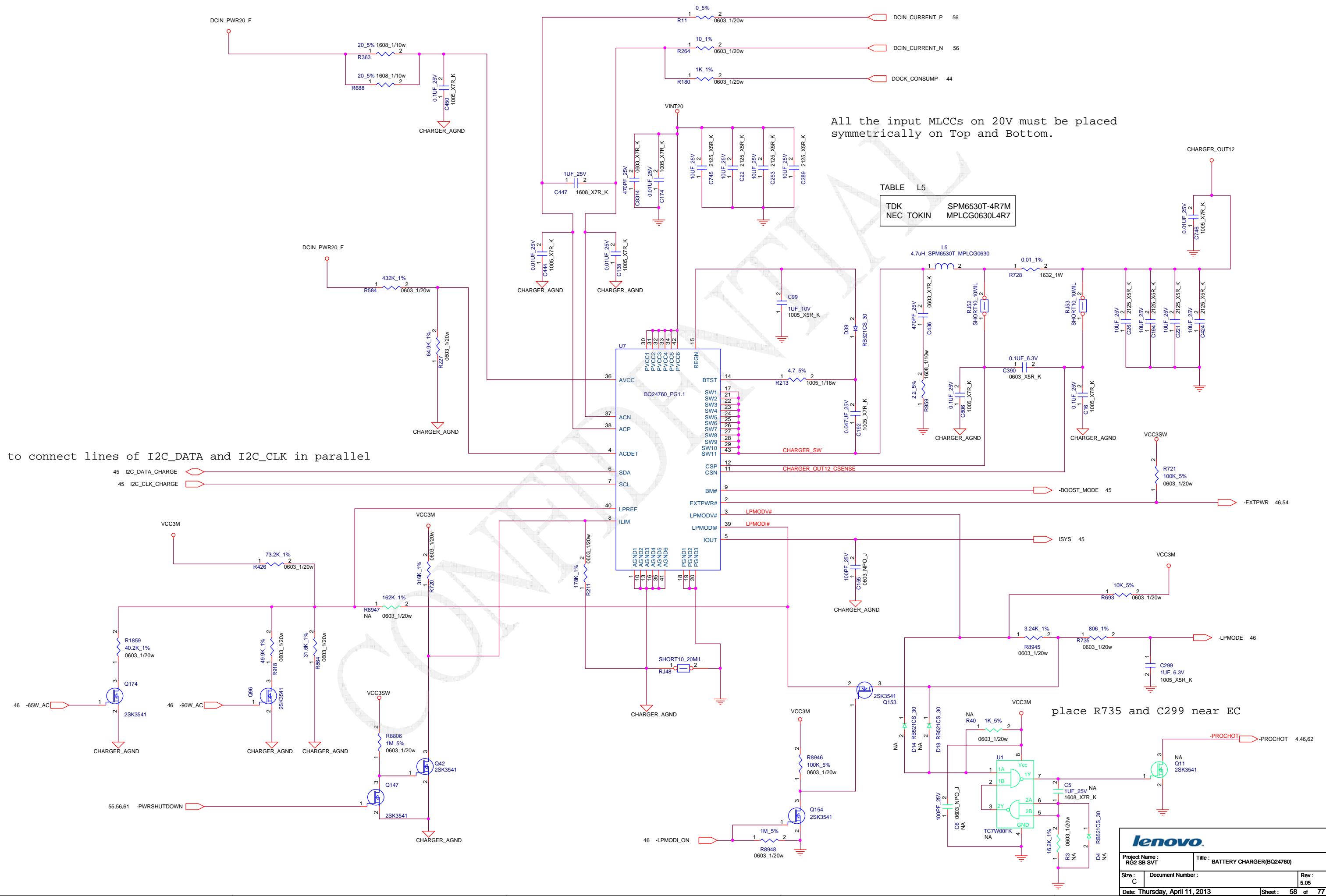
S-BAT-PWR

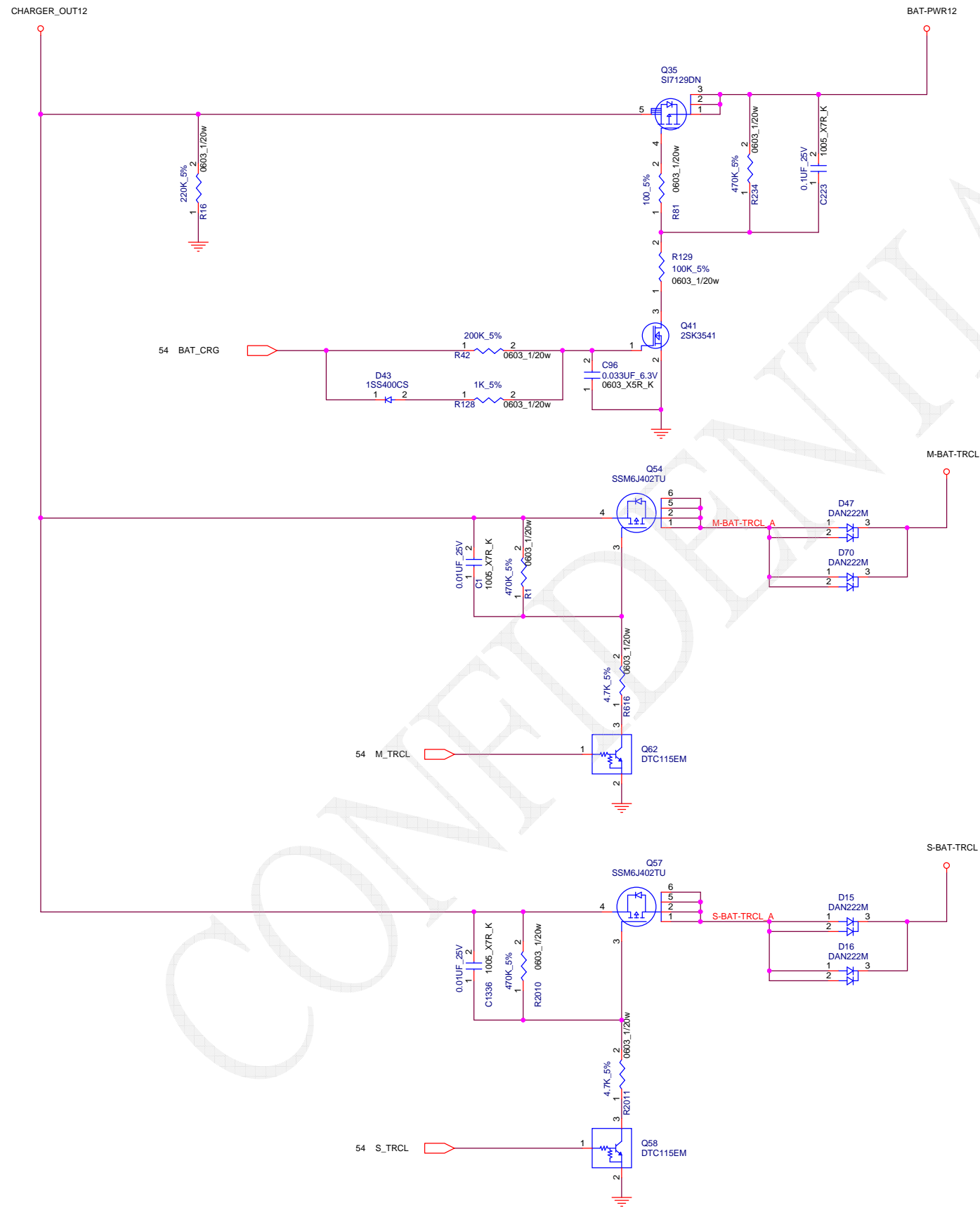


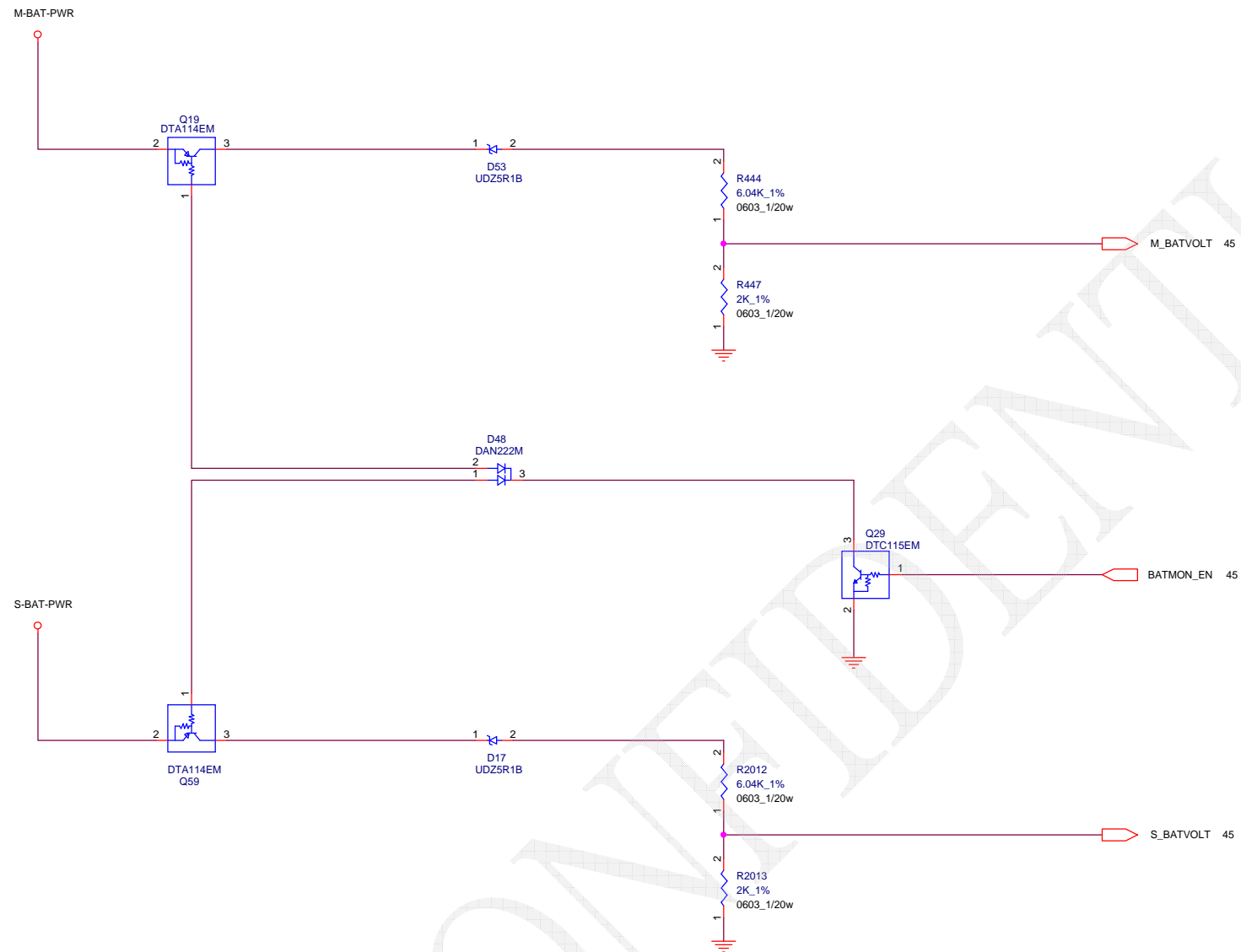
VREGIN20

-BAT\_RST





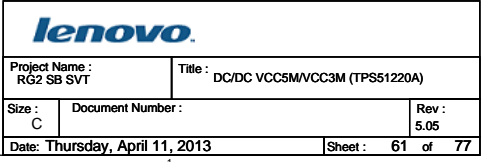






VL5                      VINT20

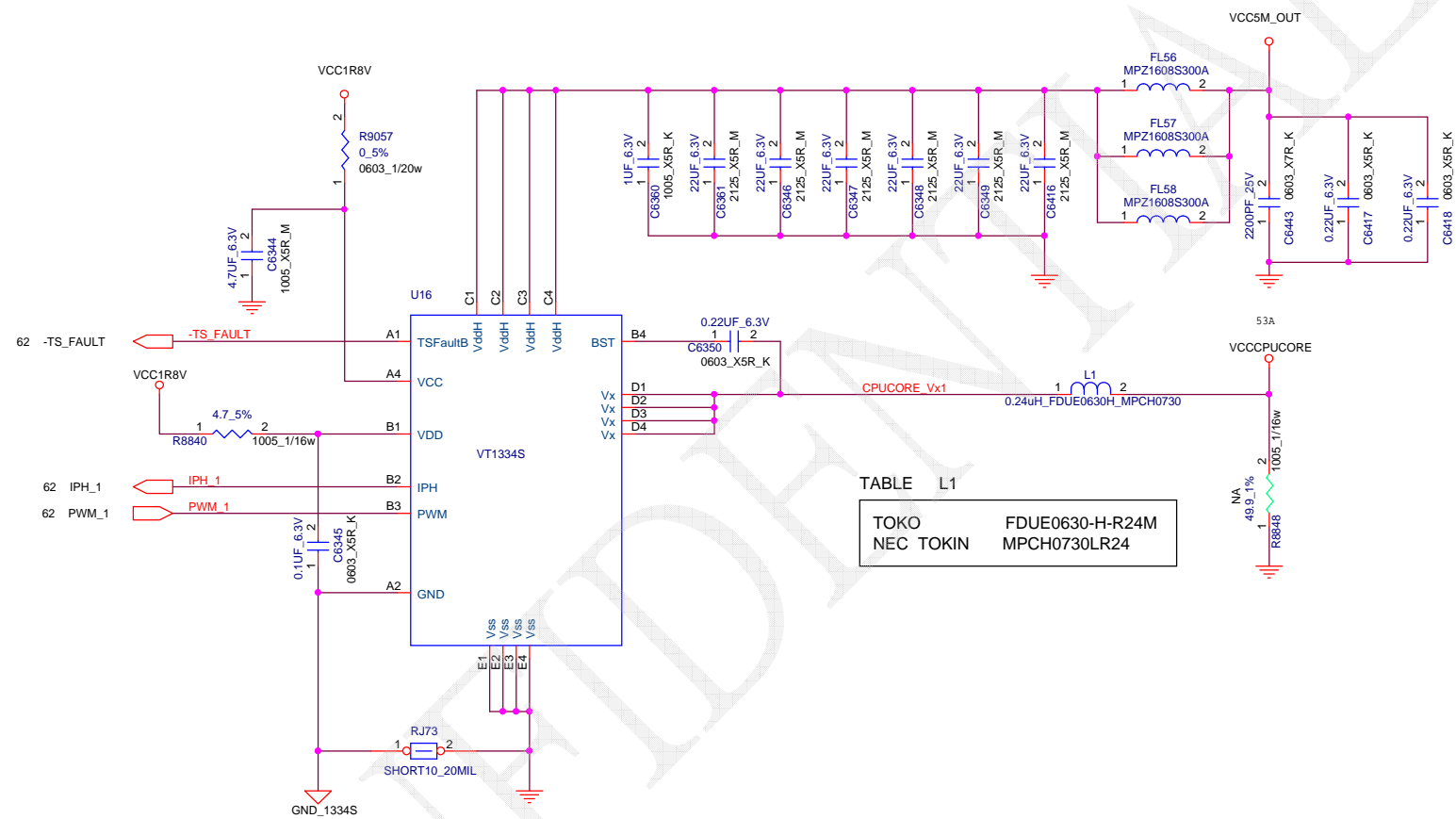
but MLCCs on 20V must  
only on Top and Bottom



TDK	MLP1608V2R2B
TOKO	MDT1608-CH2R2N




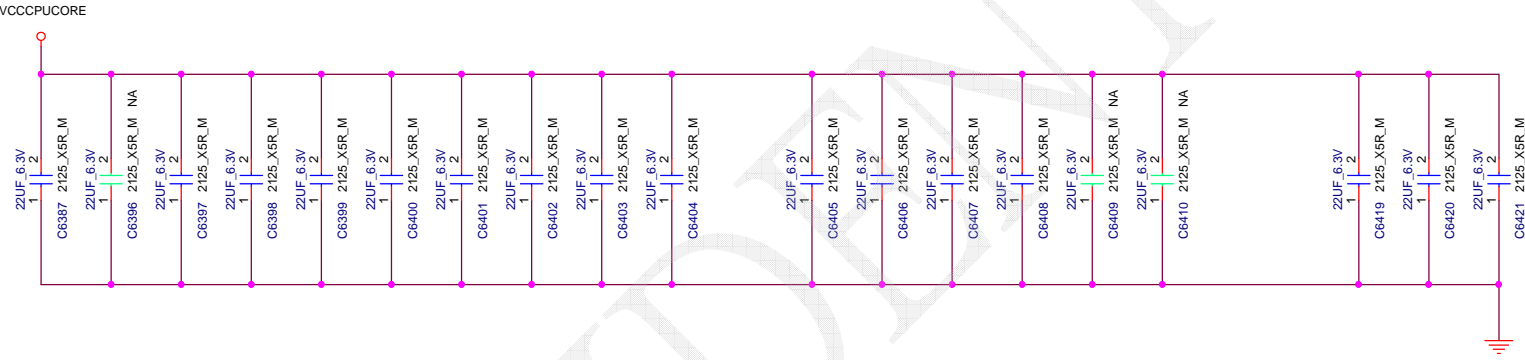
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Size : C	Document Number :		Rev 5.05
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16pcs 22uF for VCCCPUCORE

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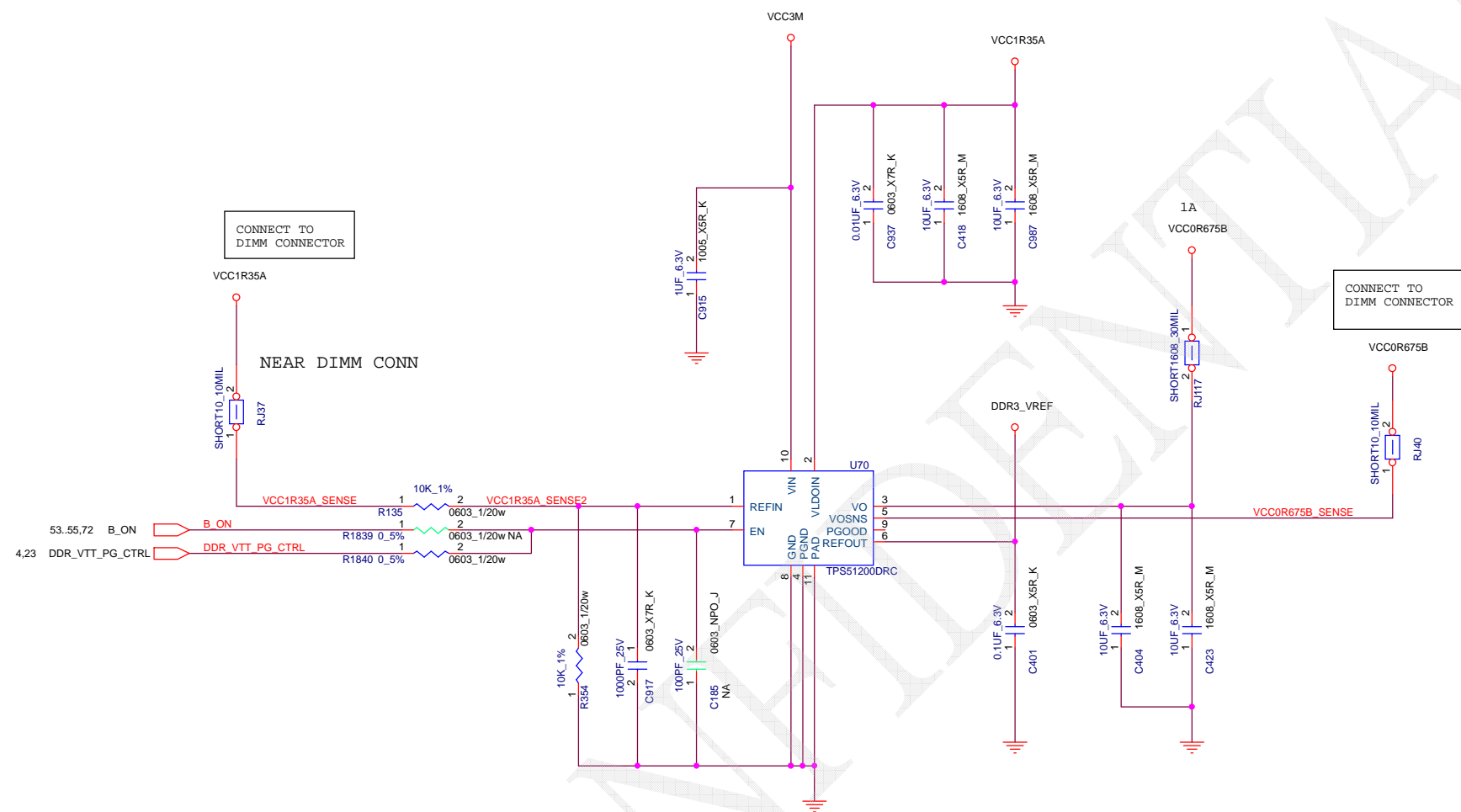


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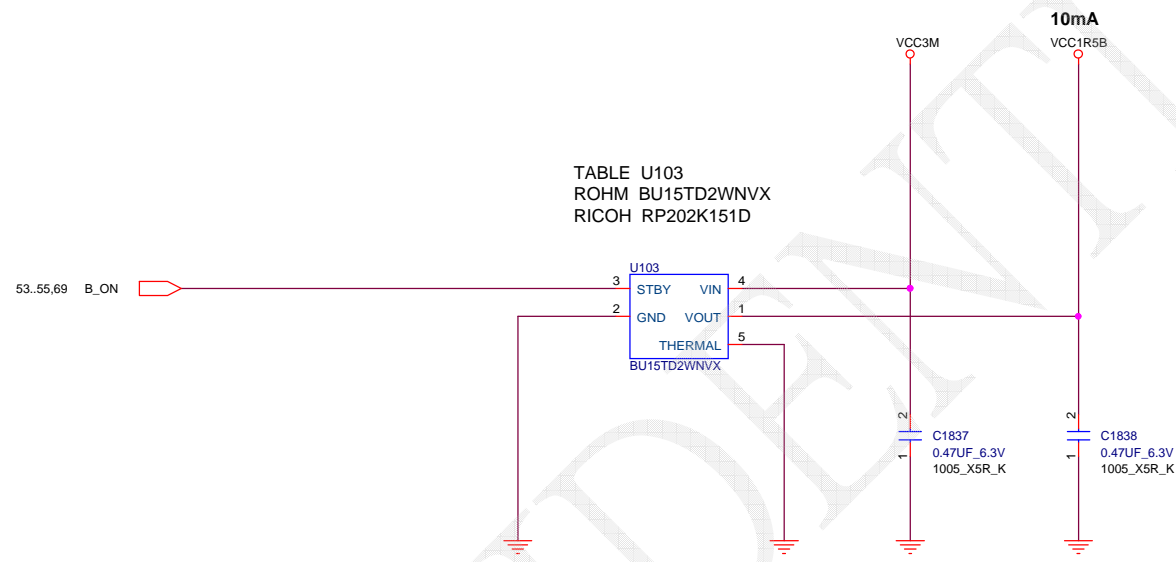
		
Project Name : RG2 SB SVT		Title : BLANK
Size : C	Document Number :	Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 70 of 77

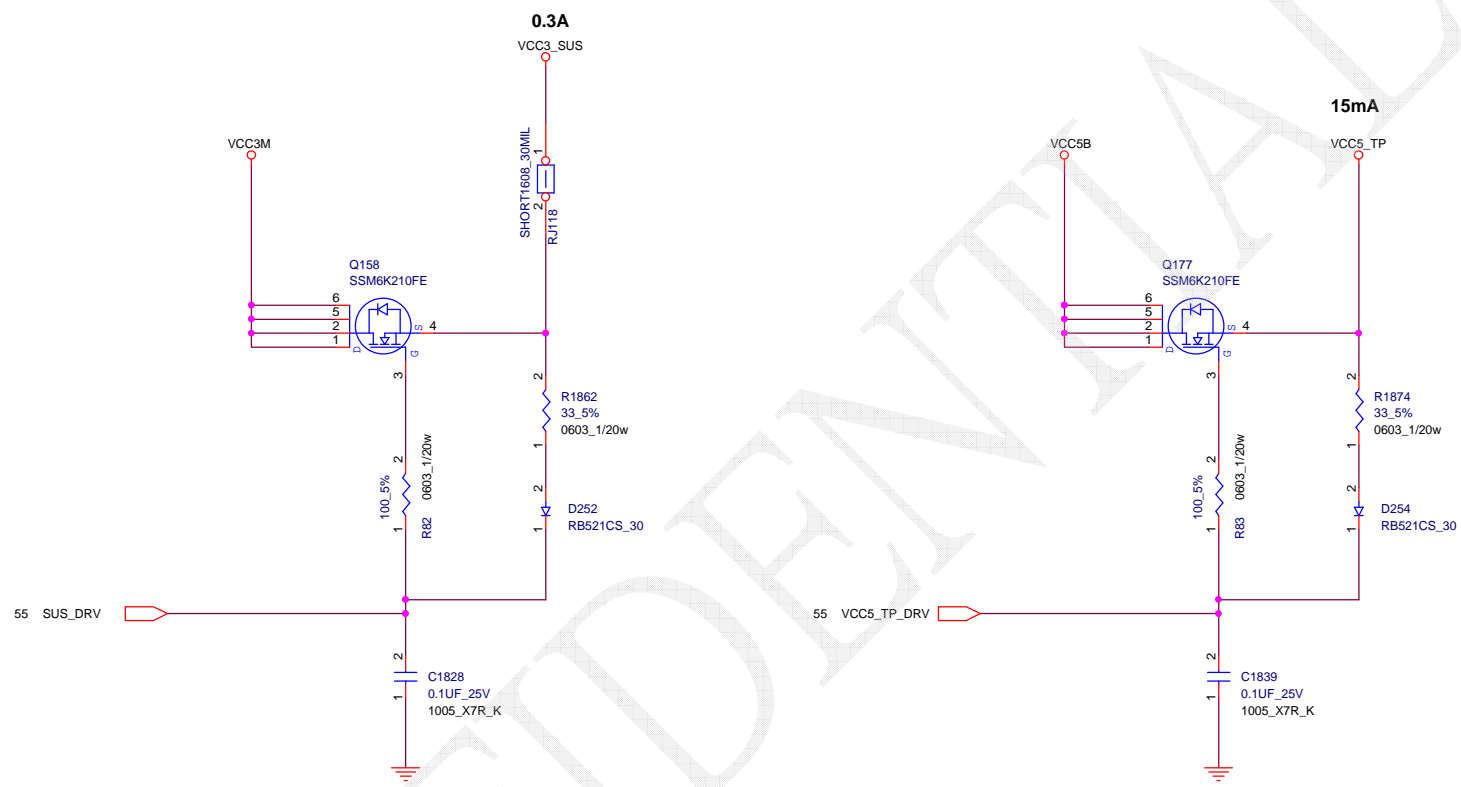
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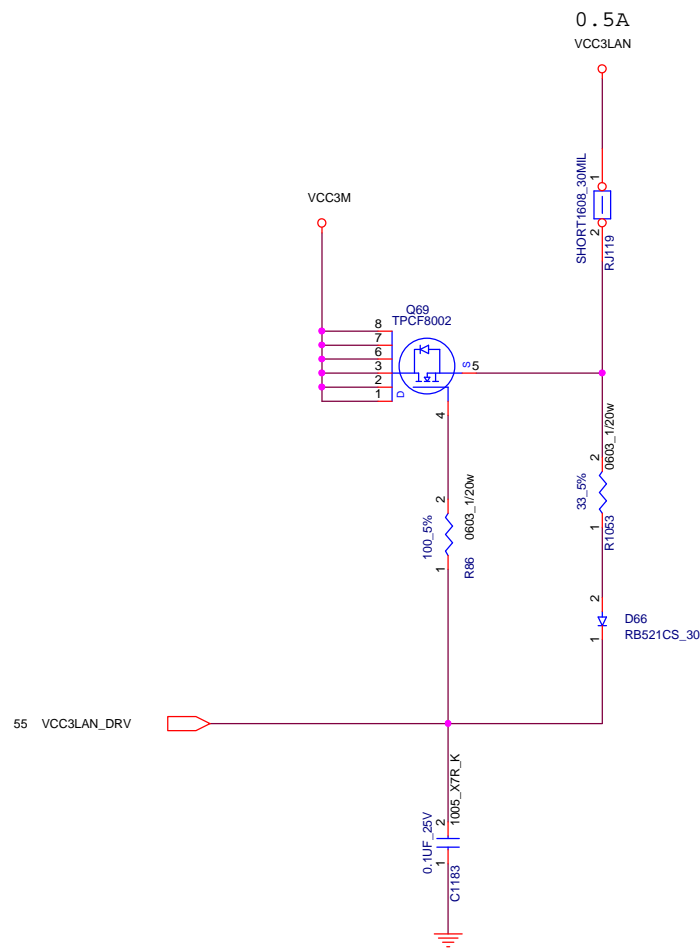
CONFIDENTIAL



Project Name : RG2 SB SVT		Title : BLANK	
Size : C	Document Number :		Rev : 5.05
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lenovo

Project Name :  
RG2 SB SVT

Title :  
LOAD SW LAN

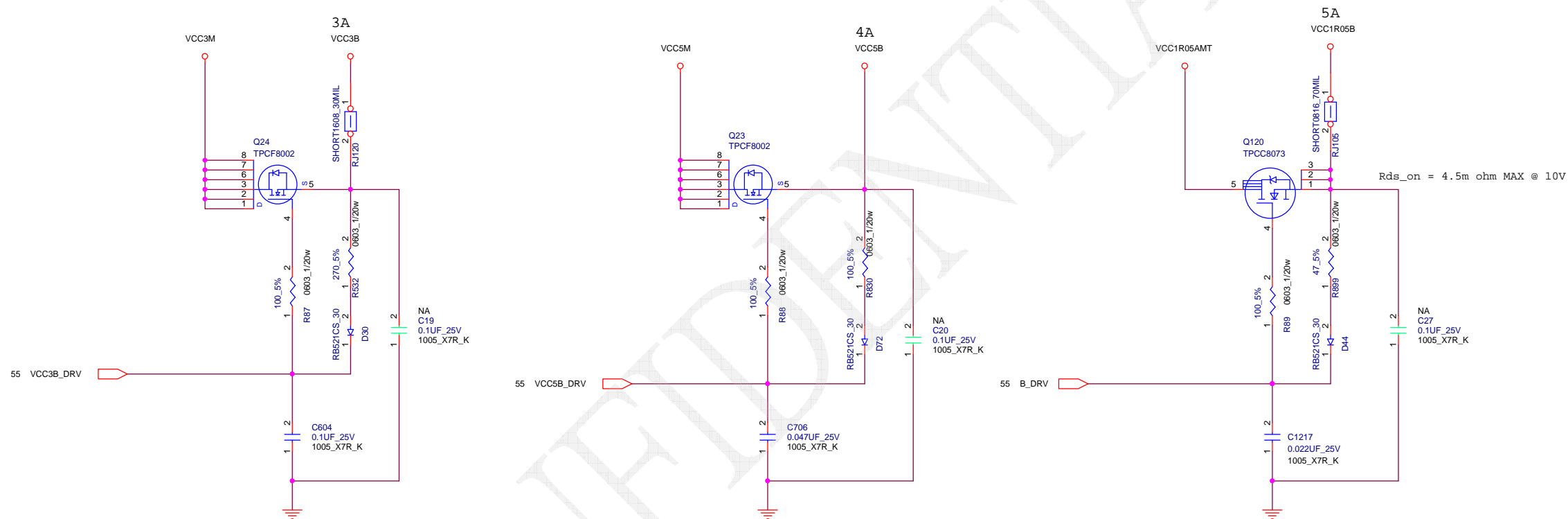
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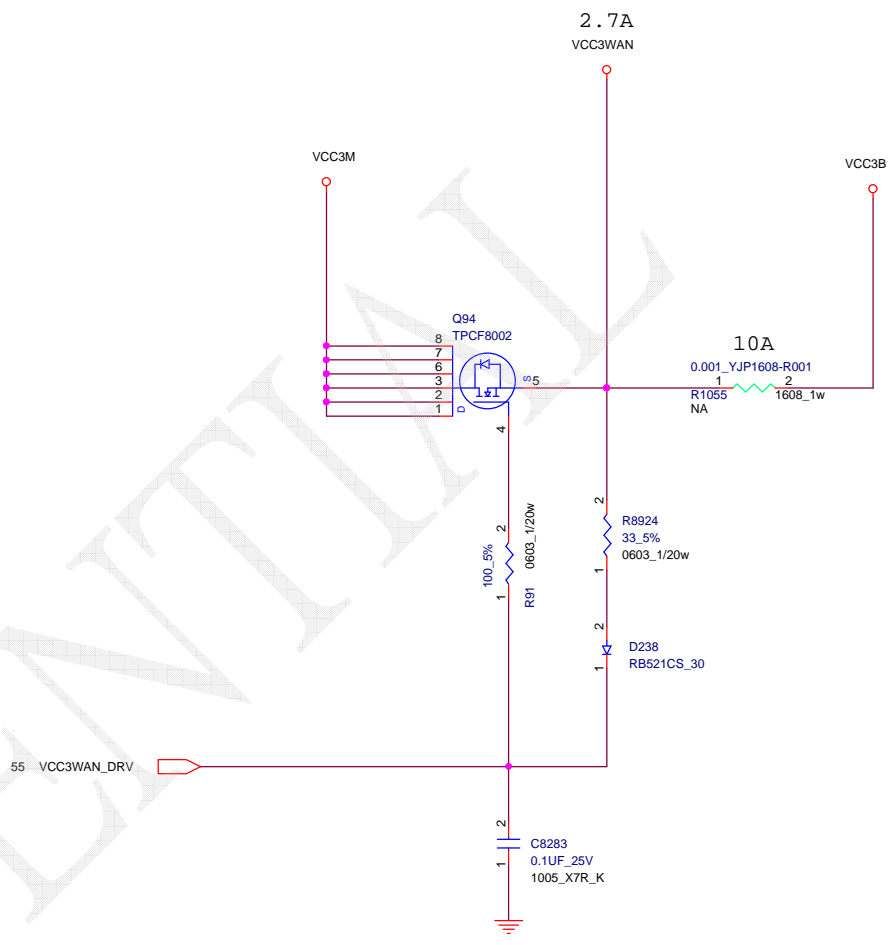
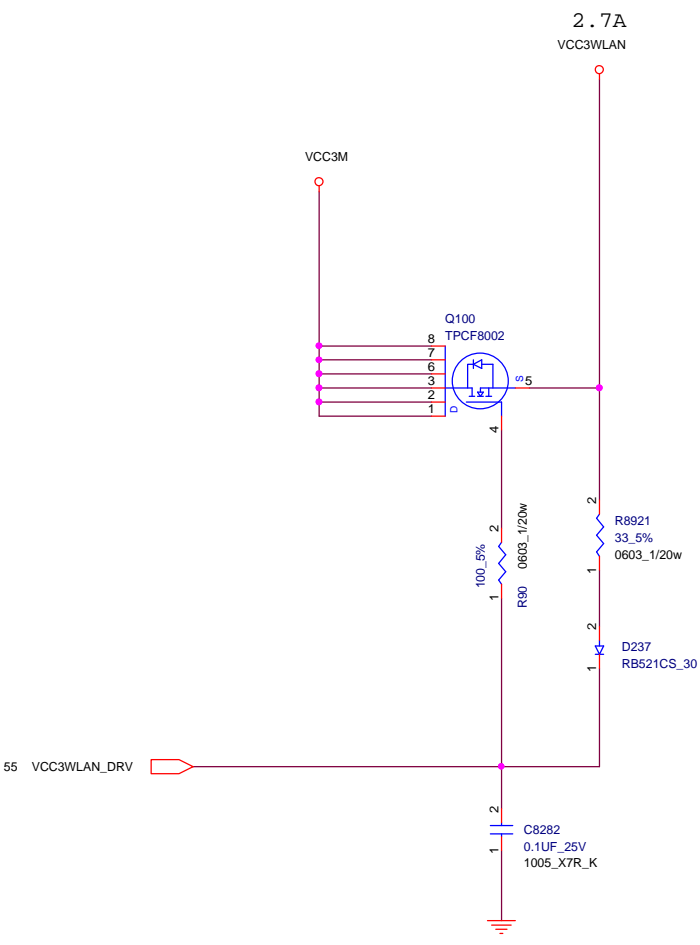
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Rev :  
5.05

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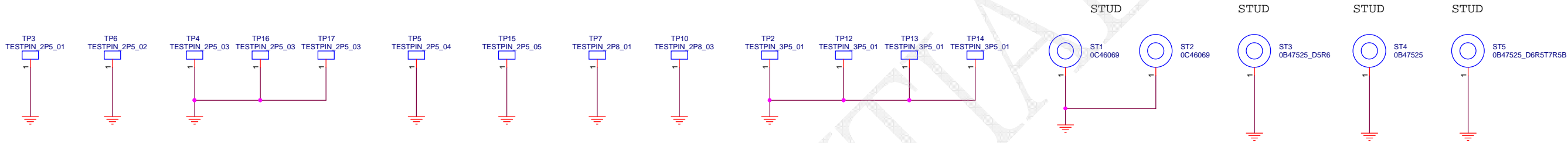
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R1055	NO-ASM	ASM
Q94	ASM	NO-ASM
R8924	ASM	NO-ASM
R8926	ASM	NO-ASM
C8283	ASM	NO-ASM
D238	ASM	NO-ASM

↑  
LOGIC

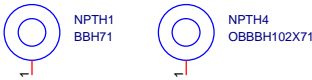


PTH FOR SCREW HOLE

Value	Hole Dia	Pad Dia		QTY
		TOP	BOTTOM	
TESTPIN_2P5_01	2.5	6.5	6.5	1
TESTPIN_2P5_02	2.5	6.5	8	1
TESTPIN_2P5_03	2.5	6.6	6.6	3
TESTPIN_2P5_04	2.5	6.5	5	1
TESTPIN_2P5_05	2.5	6.5	8x7.5	1
TESTPIN_2P8_01	2.8	6.5	6.5	1
TESTPIN_2P8_03	2.8	7	7.5	1
TESTPIN_3P5_01	3.5	7	6.5	4
0C46069	2.8	6.5	6.5	2
0B47525_D5R6	3.4	5.6		1
0B47525	3.4	6.6		1
0B47525_D6R5TB	3.4	6.5	6.5	1



NPTH



FID  
Board Area

FID  
Component Area

