

# 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

- 1.TITLE PAGE

2.EC HISTORY

3.CPU(1/16) : DDI/EDP

4.CPU(2/16) : MISC/JTAG

5.CPU(3/16) : DDR3L CHANNEL-A

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

18.CPU(16/16) : CFG/RESERVED

19.DDI-VGA CONVERTER

20.XDP CONNECTOR

21.RTC BATTERY

22.SPI FLASH

23.DDR3L SO DIMM CHANNEL-A (1/2)

24.DDR3L SO DIMM CHANNEL-A (2/2)

25.LCD CONNECTOR

26.EXT CRT INTERFACE

27.DISPLAY PORT CONNECTOR

28.SATA HDD CONN

29.USB POWER/CONN

30.GBE CLARKVILLE

31.GBE LAN SWITCH
- 32.GBE MAGNETICS

33.RJ45 CONNECTOR

34.PCIE NGFF CARD SLOT

35.MEDIA CARD CONTROLLER

36.MEDIA CARD INTERFACE

37.SMART CARD I/F

38.AUDIO ALC3232

39.AUDIO CONNECTOR

40.AUDIO JACK SENSE

41.AUDIO EXT MIC I/F

42.AUDIO SPEAKER

43.AUDIO BEEP

44.DOCKING CONNECTOR

45.MEC1633L(1/3)

46.MEC1633L(2/3)

47.MEC1633L(3/3)

48.KEYBOARD CONNECTOR

49.TOUCH PAD CONNECTOR

50.FAN CONNECTOR

51.G-SENSOR

52.TPM

53.EEPROM/SMBUS SW

54.THINK ENGINE(1/2)

55.THINK ENGINE(2/2)

56.DC-IN

57.BATTERY INPUT

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)

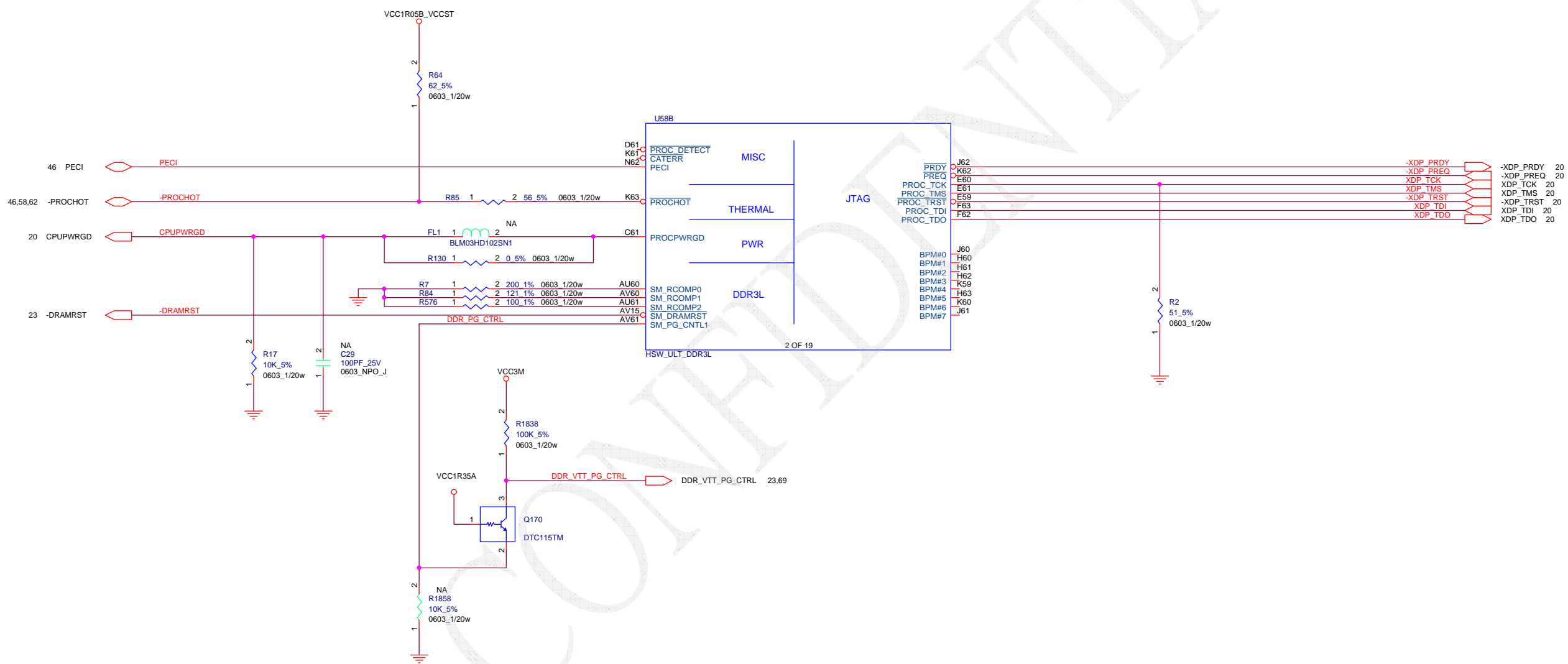
- VER.5.00 03/21/2013 APPLIED RG2SB\_SVT\_EC001-007
- VER.5.01 03/26/2013 APPLIED RG2SB\_SVT\_EC009
- VER.5.02 03/28/2013 APPLIED RG2SB\_SVT\_EC010
- VER.5.03 04/04/2013 APPLIED RG2SB\_SVT\_EC011
- VER.5.04 04/05/2013 APPLIED RG2SB\_SVT\_EC012-017
- VER.5.05 04/11/2013 APPLIED RG2SB\_SVT\_EC018

CONFIDENTIAL



Project Name : RG2 SB SVT		Title : EC HISTORY	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet :	2 of 77





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  
M\_A\_DQ9 AM62 SA\_DQ9  
M\_A\_DQ10 AP63 SA\_DQ10  
M\_A\_DQ11 AP62 SA\_DQ11  
M\_A\_DQ12 AM61 SA\_DQ12  
M\_A\_DQ13 AM60 SA\_DQ13  
M\_A\_DQ14 AP61 SA\_DQ14  
M\_A\_DQ15 AP60 SA\_DQ15  
M\_A\_DQ16 AP58 SA\_DQ16  
M\_A\_DQ17 AR58 SA\_DQ17  
M\_A\_DQ18 AM57 SA\_DQ18  
M\_A\_DQ19 AK57 SA\_DQ19  
M\_A\_DQ20 AL58 SA\_DQ20  
M\_A\_DQ21 AK58 SA\_DQ21  
M\_A\_DQ22 AR57 SA\_DQ22  
M\_A\_DQ23 AN57 SA\_DQ23  
M\_A\_DQ24 AP55 SA\_DQ24  
M\_A\_DQ25 AR55 SA\_DQ25  
M\_A\_DQ26 AM54 SA\_DQ26  
M\_A\_DQ27 AK54 SA\_DQ27  
M\_A\_DQ28 AL55 SA\_DQ28  
M\_A\_DQ29 AK55 SA\_DQ29  
M\_A\_DQ30 AR54 SA\_DQ30  
M\_A\_DQ31 AN54 SA\_DQ31  
M\_A\_DQ32 AY58 SA\_DQ32  
M\_A\_DQ33 AW58 SA\_DQ33  
M\_A\_DQ34 AY56 SA\_DQ34  
M\_A\_DQ35 AW56 SA\_DQ35  
M\_A\_DQ36 AV58 SA\_DQ36  
M\_A\_DQ37 AU58 SA\_DQ37  
M\_A\_DQ38 AV56 SA\_DQ38  
M\_A\_DQ39 AU56 SA\_DQ39  
M\_A\_DQ40 AY54 SA\_DQ40  
M\_A\_DQ41 AW54 SA\_DQ41  
M\_A\_DQ42 AY52 SA\_DQ42  
M\_A\_DQ43 AW52 SA\_DQ43  
M\_A\_DQ44 AV54 SA\_DQ44  
M\_A\_DQ45 AU54 SA\_DQ45  
M\_A\_DQ46 AV52 SA\_DQ46  
M\_A\_DQ47 AU52 SA\_DQ47  
M\_A\_DQ48 AK40 SA\_DQ48  
M\_A\_DQ49 AK42 SA\_DQ49  
M\_A\_DQ50 AM43 SA\_DQ50  
M\_A\_DQ51 AM45 SA\_DQ51  
M\_A\_DQ52 AK45 SA\_DQ52  
M\_A\_DQ53 AK43 SA\_DQ53  
M\_A\_DQ54 AM40 SA\_DQ54  
M\_A\_DQ55 AM42 SA\_DQ55  
M\_A\_DQ56 AM46 SA\_DQ56  
M\_A\_DQ57 AK46 SA\_DQ57  
M\_A\_DQ58 AM49 SA\_DQ58  
M\_A\_DQ59 AK49 SA\_DQ59  
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

3 OF 19

HSW\_ULT\_DDR3L

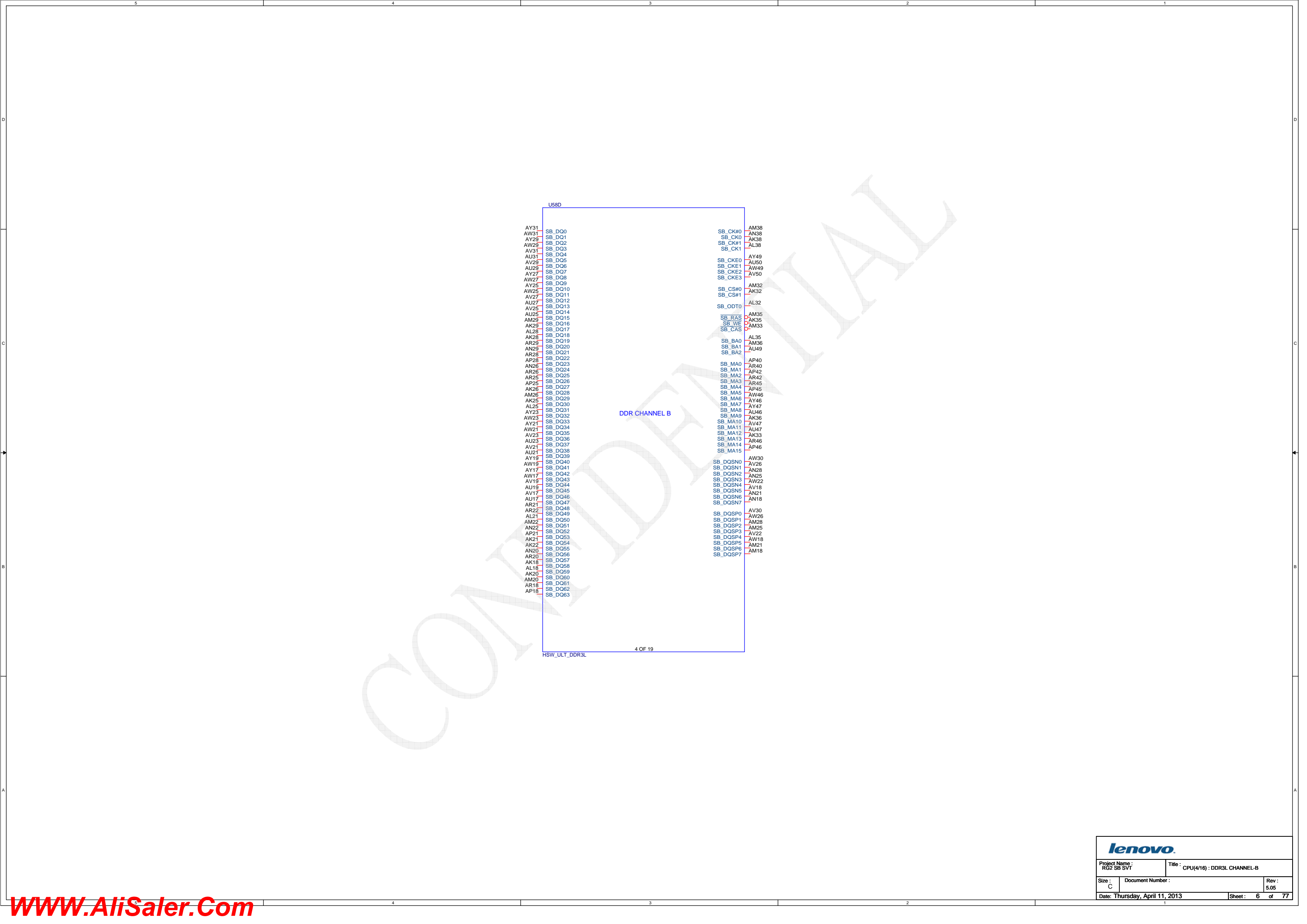
SA\_CLK#0 AU37 -M\_A\_DDRCLK0\_800M -M\_A\_DDRCLK0\_800M 23  
SA\_CLK#1 AV37 M\_A\_DDRCLK0\_800M M\_A\_DDRCLK0\_800M 23  
SA\_CLK#1 AW36 -M\_A\_DDRCLK1\_800M -M\_A\_DDRCLK1\_800M 23  
SA\_CLK#1 AY36 M\_A\_DDRCLK1\_800M M\_A\_DDRCLK1\_800M 23  
SA\_CKE0 AU43 M\_A\_CKE0 M\_A\_CKE0 23  
SA\_CKE1 AW43 M\_A\_CKE1 M\_A\_CKE1 23  
SA\_CKE2 AY42  
SA\_CKE3 AY43  
SA\_CS#0 AP33 -M\_A\_CS0 -M\_A\_CS0 23  
SA\_CS#1 AR32 -M\_A\_CS1 -M\_A\_CS1 23  
SA\_ODT0 AP32  
SA\_RAS AY34 -M\_A\_RAS -M\_A\_RAS 23  
SA\_WE AW34 -M\_A\_WE -M\_A\_WE 23  
SA\_CAS AU34 -M\_A\_CAS -M\_A\_CAS 23  
SA\_BA0 AU35 M\_A\_BS0 M\_A\_BS0 23  
SA\_BA1 AV35 M\_A\_BS1 M\_A\_BS1 23  
SA\_BA2 AY41 M\_A\_BS2 M\_A\_BS2 23  
SA\_MA0 AU36 M\_A\_A0  
SA\_MA1 AY37 M\_A\_A1  
SA\_MA2 AR38 M\_A\_A2  
SA\_MA3 AP36 M\_A\_A3  
SA\_MA4 AU39 M\_A\_A4  
SA\_MA5 AR36 M\_A\_A5  
SA\_MA6 AV40 M\_A\_A6  
SA\_MA7 AW39 M\_A\_A7  
SA\_MA8 AY39 M\_A\_A8  
SA\_MA9 AU40 M\_A\_A9  
SA\_MA10 AP35 M\_A\_A10  
SA\_MA11 AW41 M\_A\_A11  
SA\_MA12 AU41 M\_A\_A12  
SA\_MA13 AR35 M\_A\_A13  
SA\_MA14 AV42 M\_A\_A14  
SA\_MA15 AU42 M\_A\_A15  
SA\_DQS#0 AJ61 -M\_A\_DQS0 -M\_A\_DQS0  
SA\_DQS#1 AN62 -M\_A\_DQS1 -M\_A\_DQS1  
SA\_DQS#2 AM58 -M\_A\_DQS2 -M\_A\_DQS2  
SA\_DQS#3 AM55 -M\_A\_DQS3 -M\_A\_DQS3  
SA\_DQS#4 AV57 -M\_A\_DQS4 -M\_A\_DQS4  
SA\_DQS#5 AV53 -M\_A\_DQS5 -M\_A\_DQS5  
SA\_DQS#6 AL43 -M\_A\_DQS6 -M\_A\_DQS6  
SA\_DQS#7 AL48 -M\_A\_DQS7 -M\_A\_DQS7  
SA\_DQSP0 AJ62 M\_A\_DQS0  
SA\_DQSP1 AN61 M\_A\_DQS1  
SA\_DQSP2 AN58 M\_A\_DQS2  
SA\_DQSP3 AN55 M\_A\_DQS3  
SA\_DQSP4 AW57 M\_A\_DQS4  
SA\_DQSP5 AW53 M\_A\_DQS5  
SA\_DQSP6 AL42 M\_A\_DQS6  
SA\_DQSP7 AL49 M\_A\_DQS7  
AP49 DDR3\_VREF\_CA\_M3 23  
AR51 DDR3\_VREF\_DO\_SA\_M3 23  
AP51

M\_A\_A[15:0] 23

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

M\_A\_DQS[7:0] 23

lenovo



Project Name :  
RG2 SB SVT

Title :  
CPU(4/16) : DDR3L CHANNEL-B

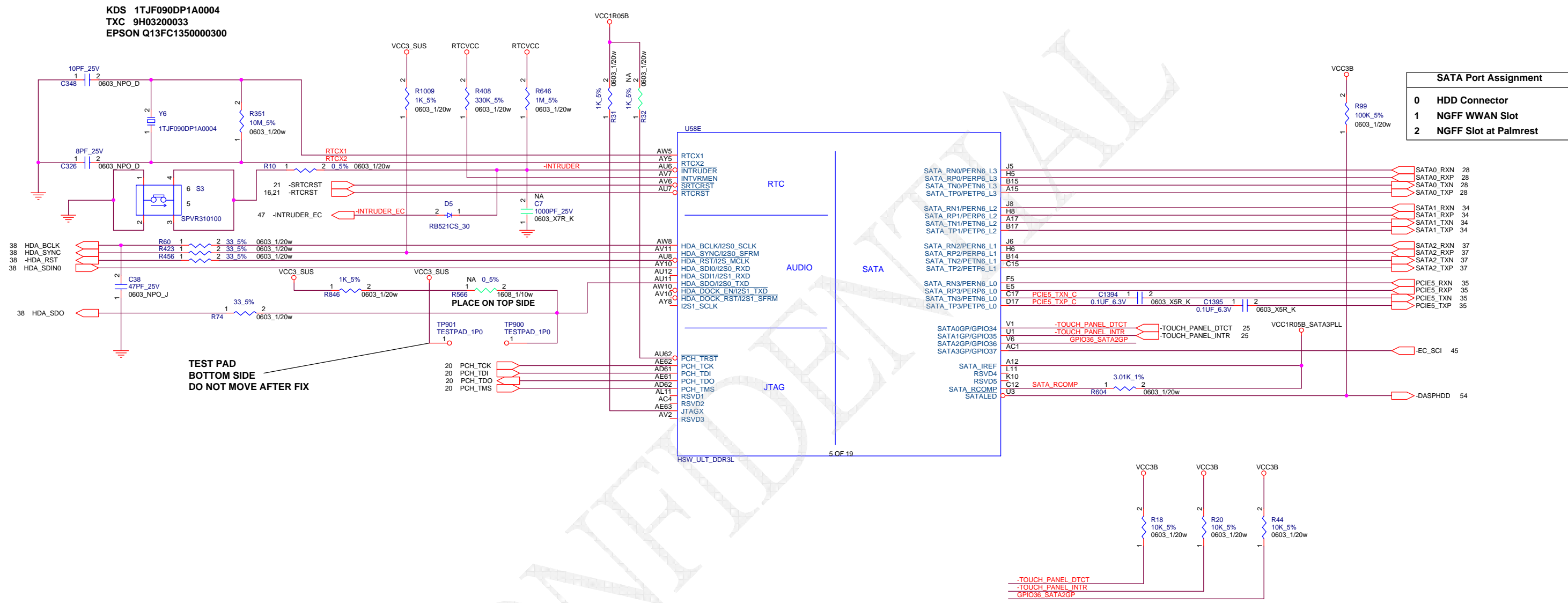
Size :  
C

Document Number :

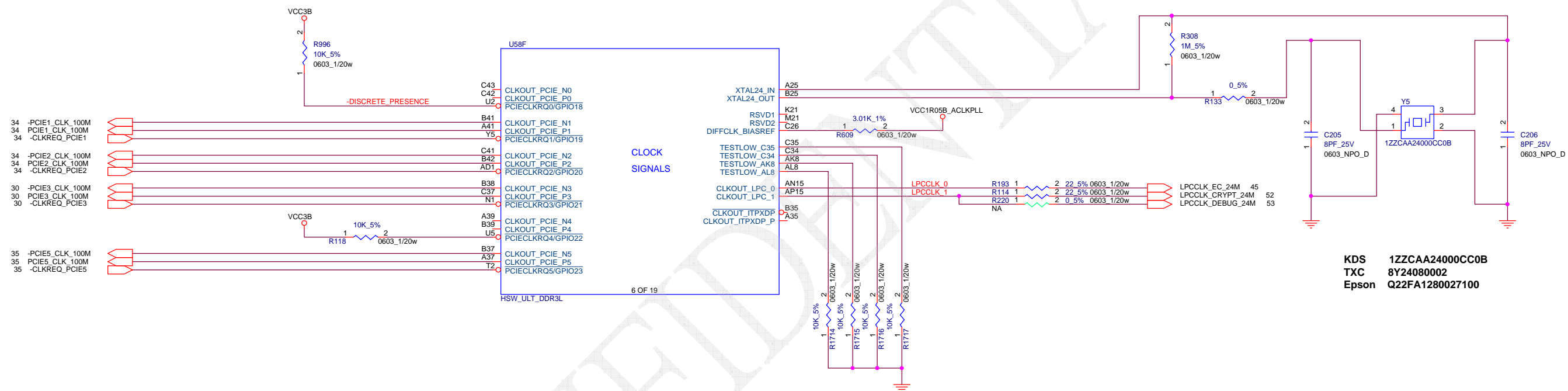
Rev :  
5.05

Date: Thursday, April 11, 2013

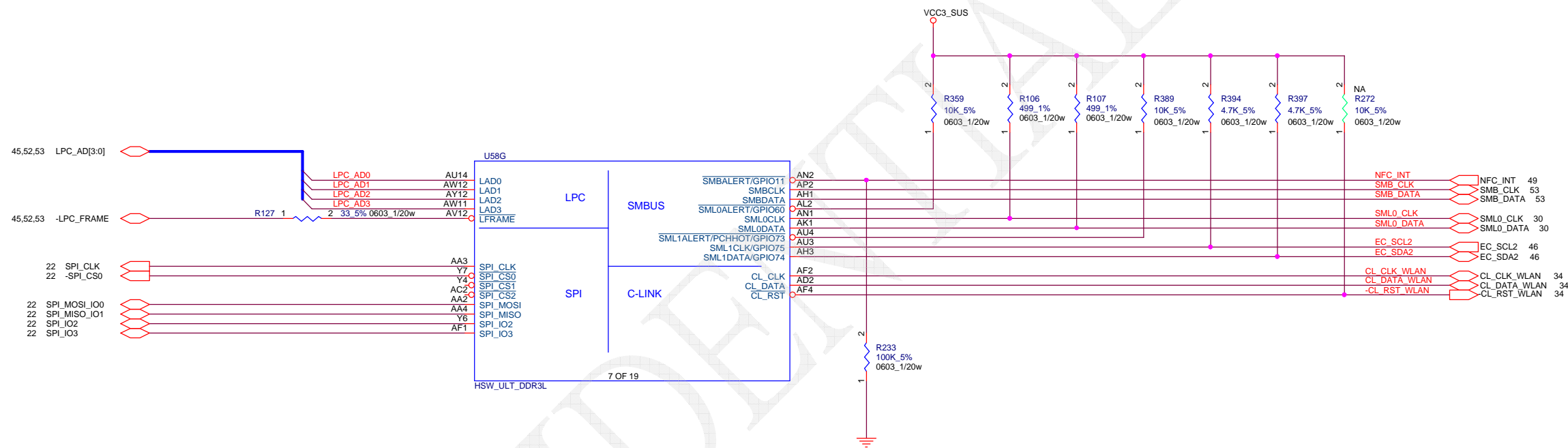
Sheet : 6 of 77

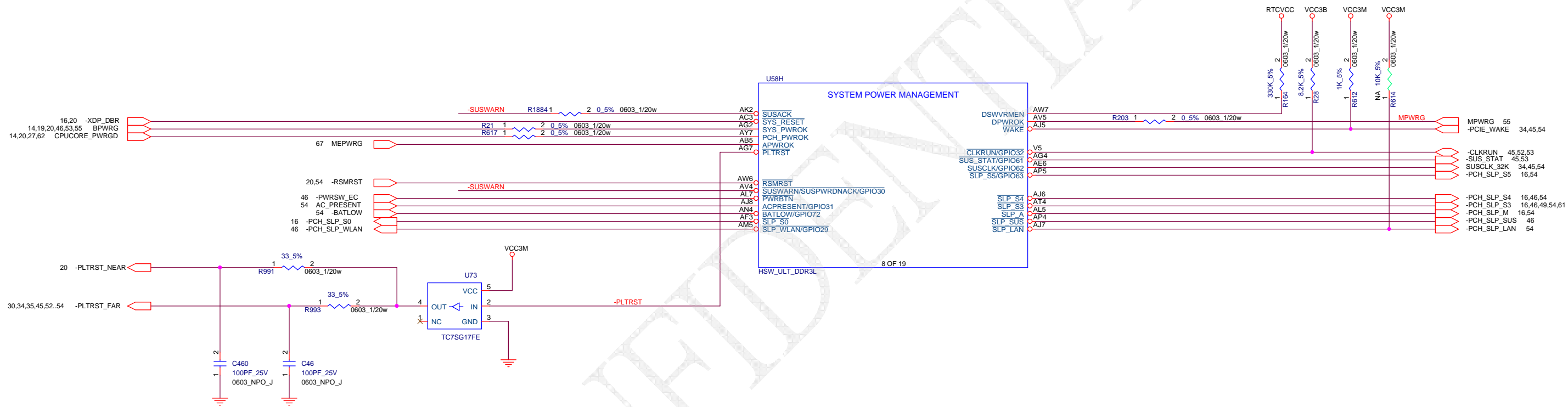




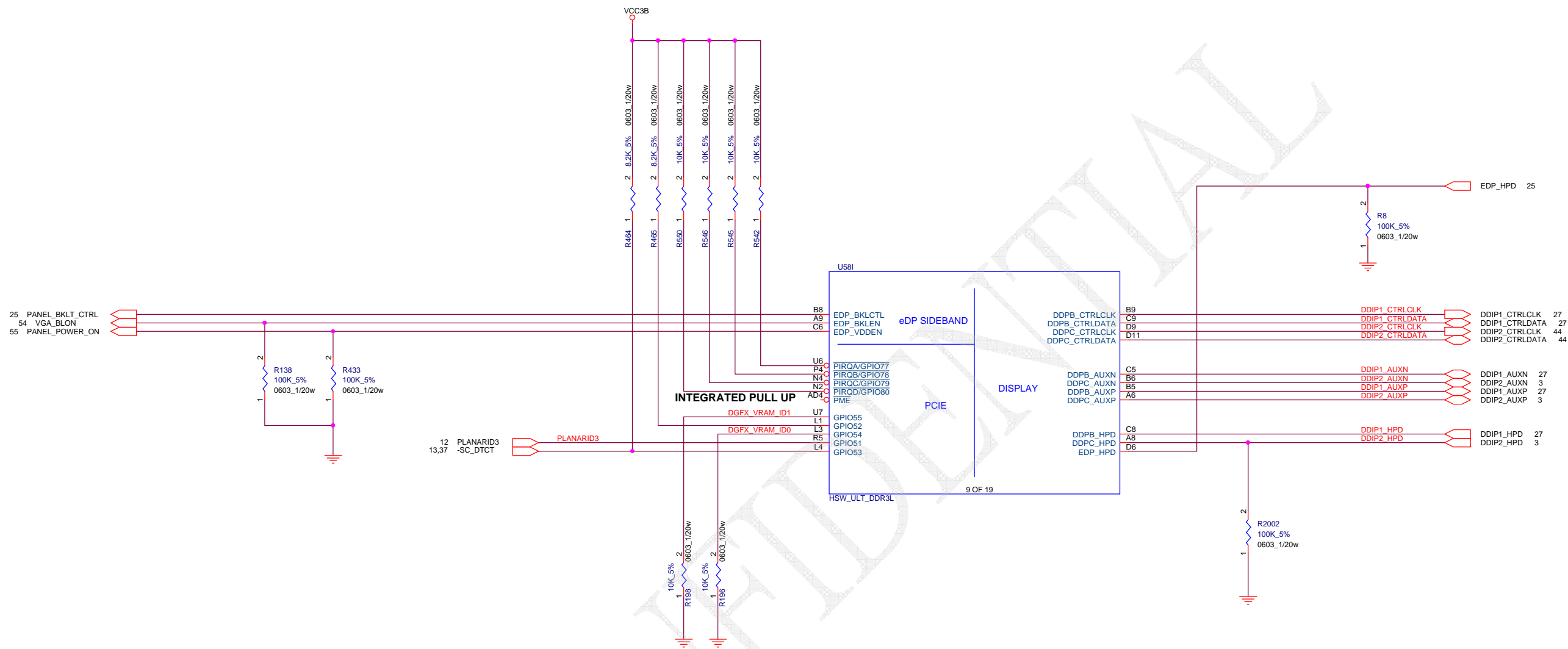








Project Name : RG2 SB SVT		Title : CPU(8/16) : SYSTEM PM	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 10 of 77	



TABLE

GPIO15	ME CRYPTO STRAP
HIGH	WITH CONFIDENTIALITY
LOW	NO CONFIDENTIALITY

TABLE

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

TABLE

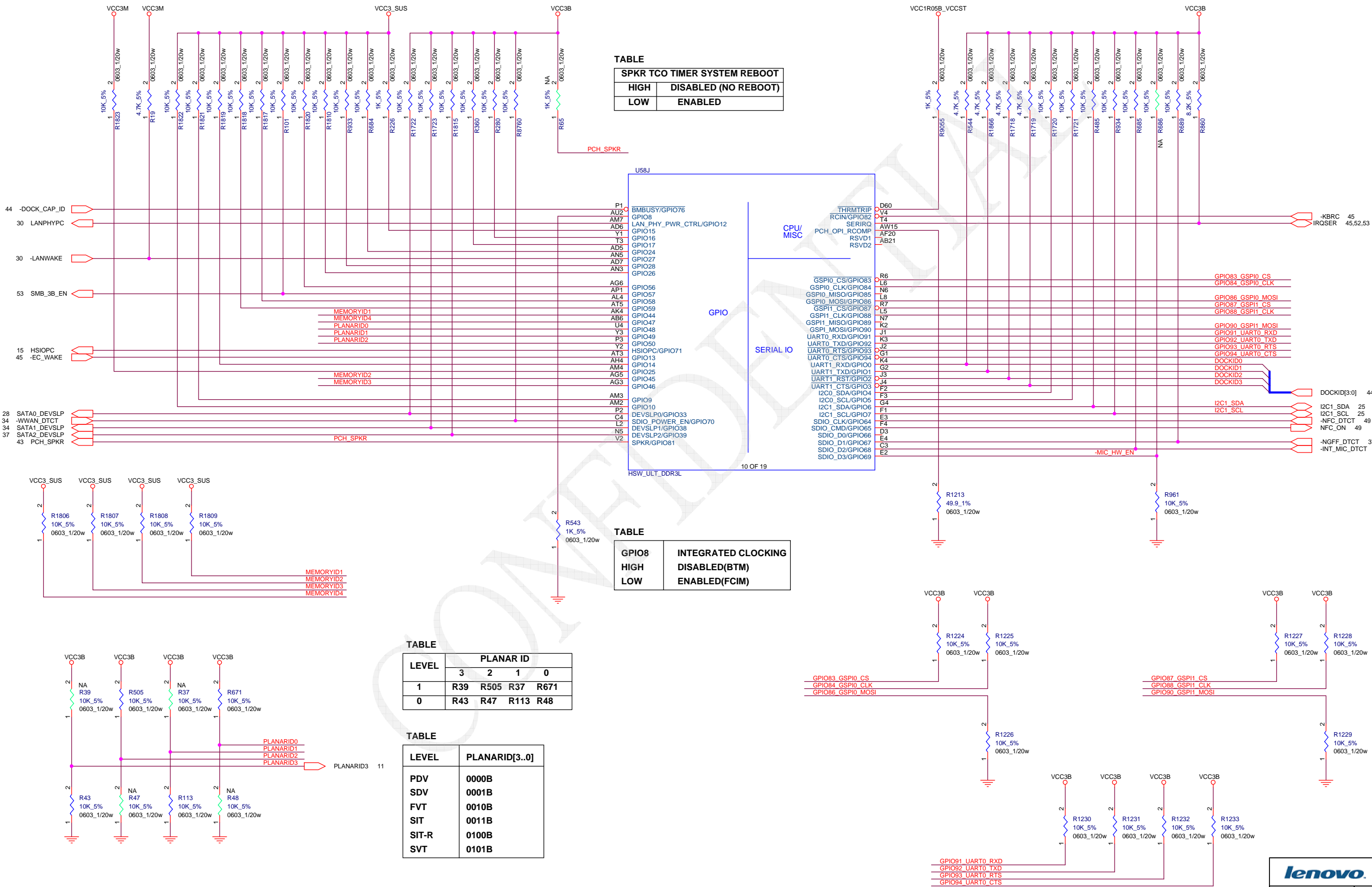
GPIO8	INTEGRATED CLOCKING
HIGH	DISABLED(BTM)
LOW	ENABLED(FCIM)

TABLE

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

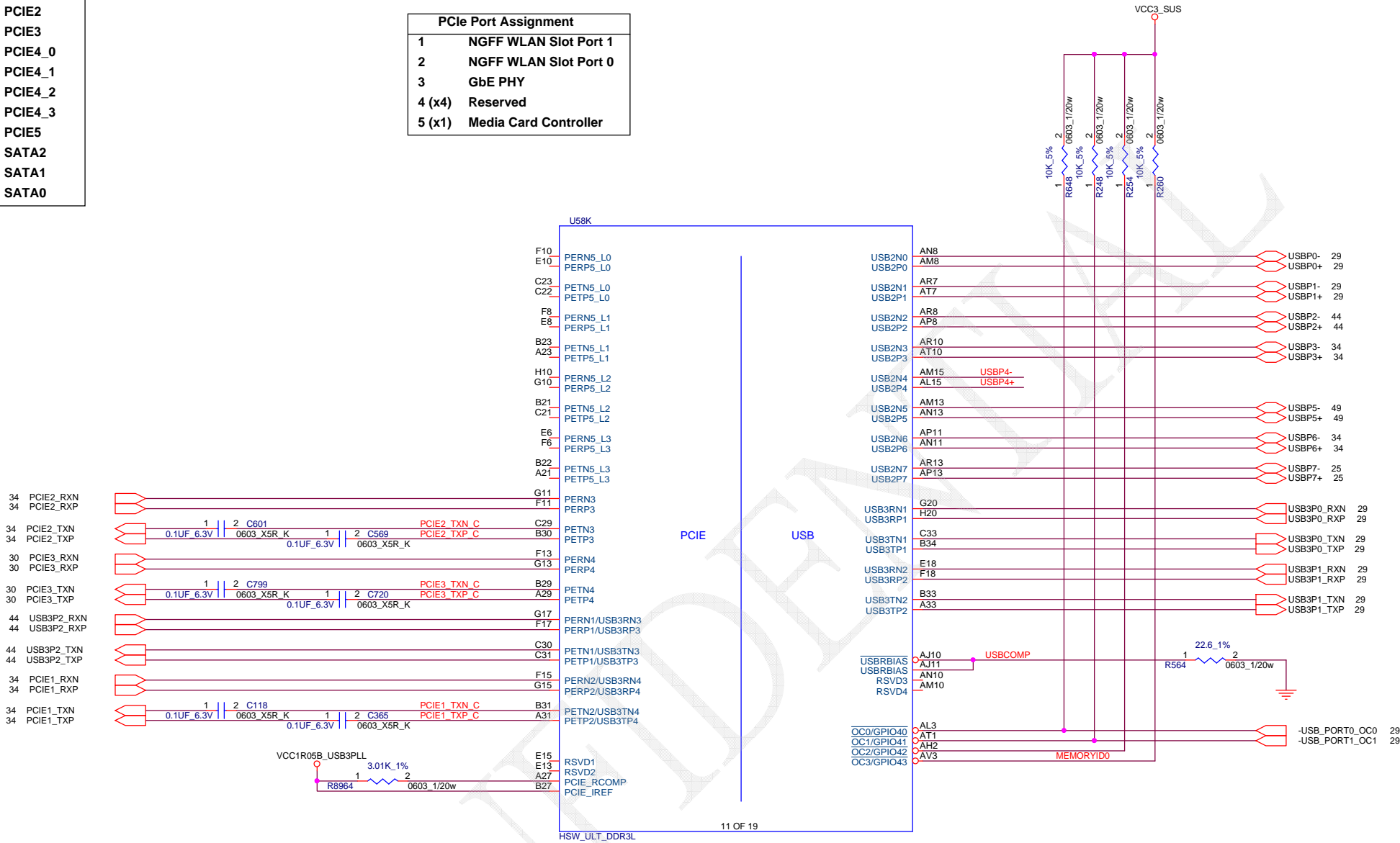
TABLE

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



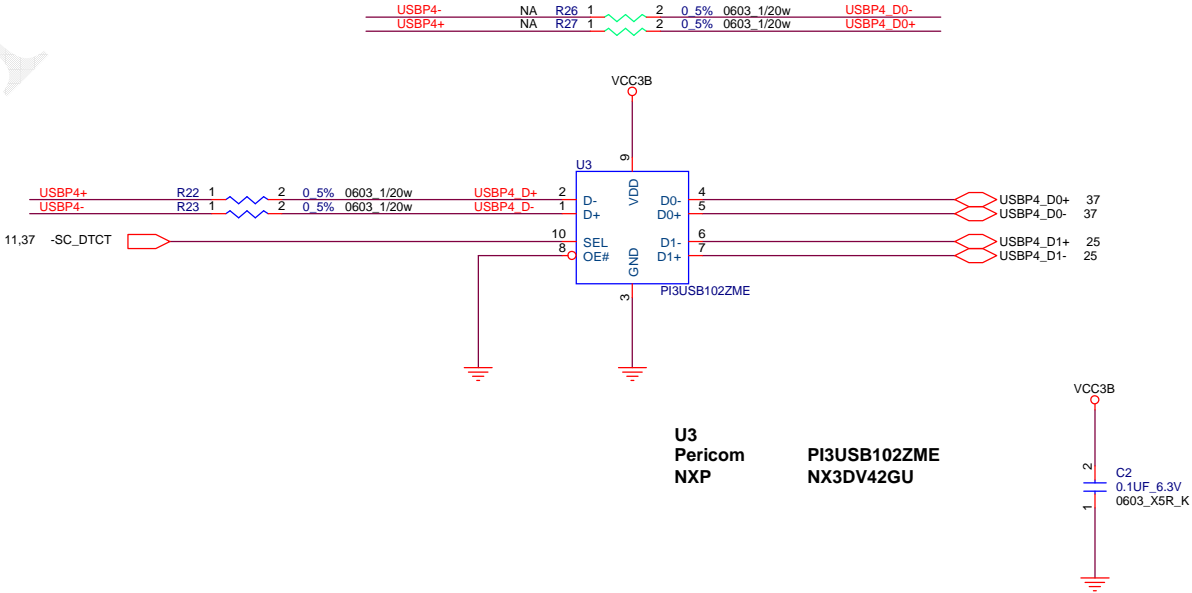
Flexible I/O Configuration			
I/O	High Speed Signals	Configuration	Net Name
Port 1	USB3 1	USB3 1	USB3P0
Port 2	USB3 2	USB3 2	USB3P1
Port 3	PCIE 1/USB3 3	USB3 3	USB3P2
Port 4	PCIE 2/USB3 4	PCIE 2	PCIE1
Port 5	PCIE 3	PCIE 3	PCIE2
Port 6	PCIE 4	PCIE 4	PCIE3
Port 7	PCIE 5 L0	PCIE 5 L0	PCIE4_0
Port 8	PCIE 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



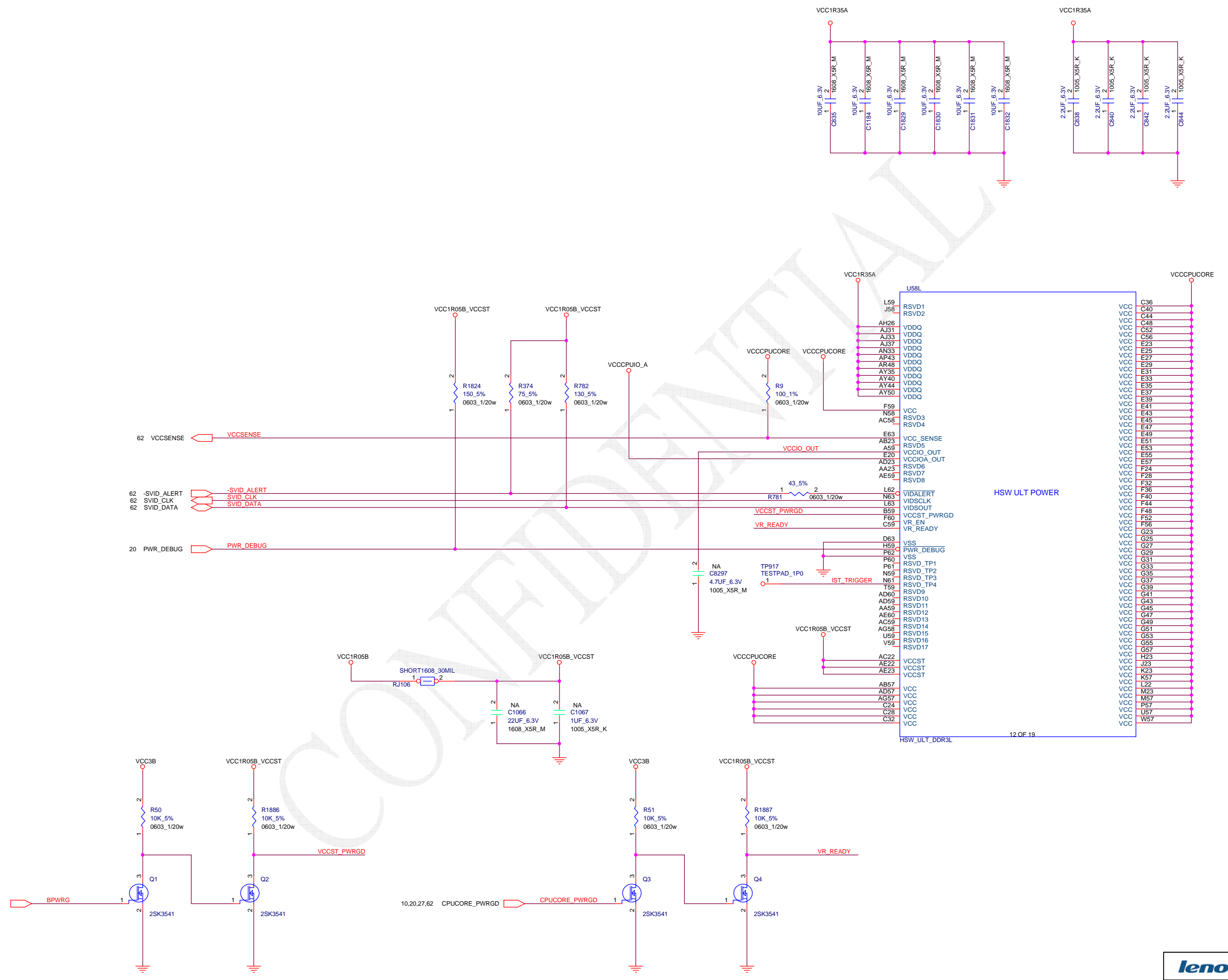
USB Port Assignment	
0	USB 3.0 System Port (AOU)
1	USB 3.0 System Port (Debug)
2	USB 3.0 Docking
3	NGFF WWAN Slot
4	Smart Card Slot or Touch Panel
5	Fingerprint Reader
6	NGFF WLAN Slot
7	USB Camera

USB 3.0 Port Assignment	
0	USB 3.0 System Port (AOU)
1	USB 3.0 System Port (Debug)
2	USB 3.0 Docking

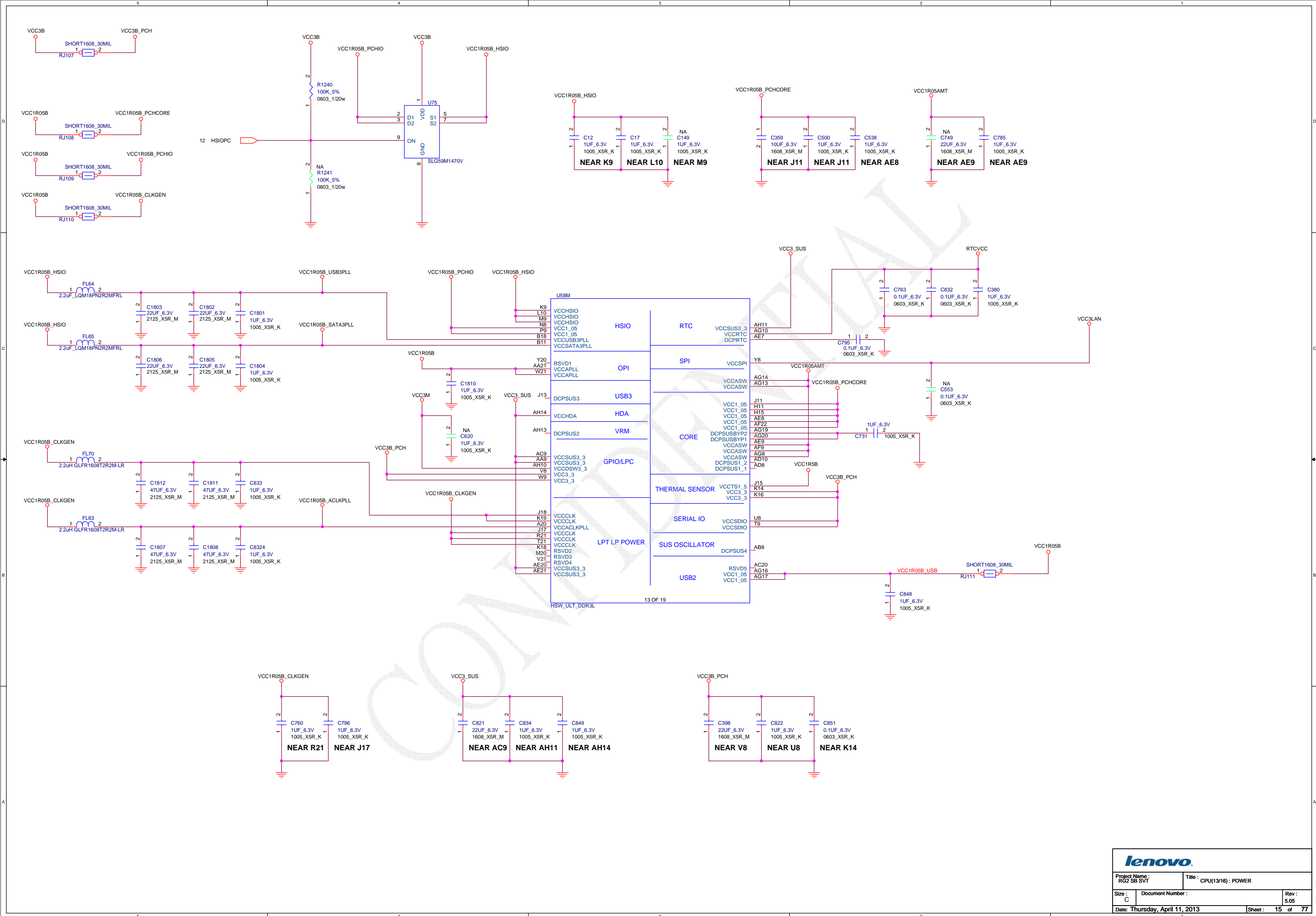


Device Selection	
0	Smart Card Slot
1	Touch Panel



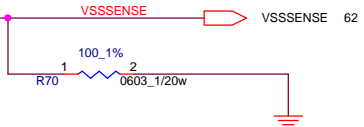
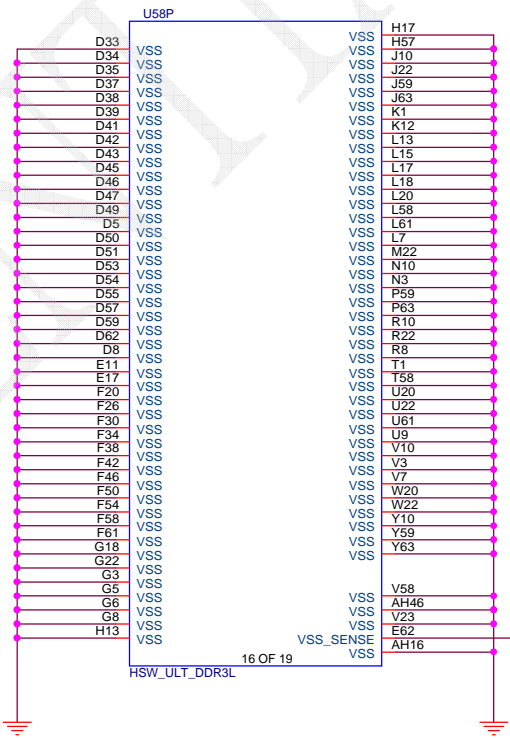
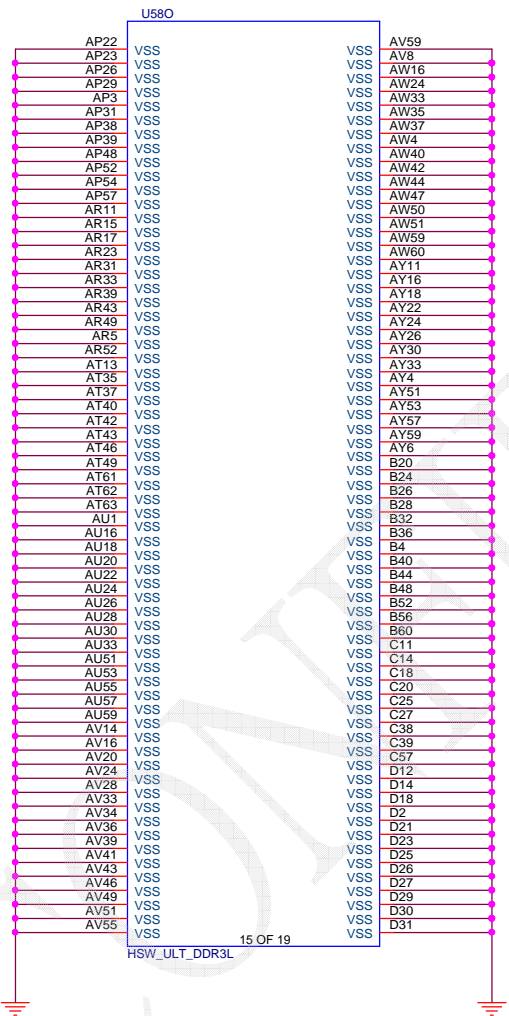
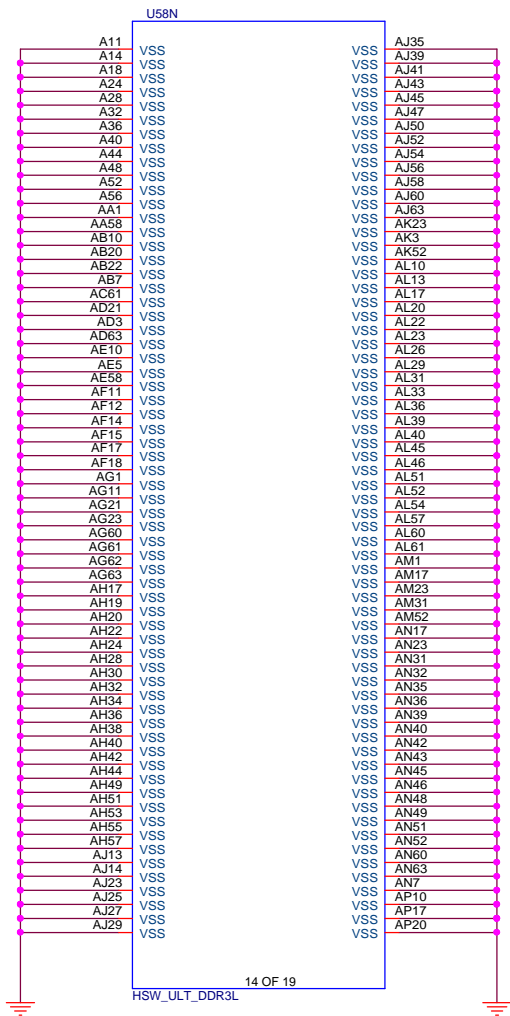
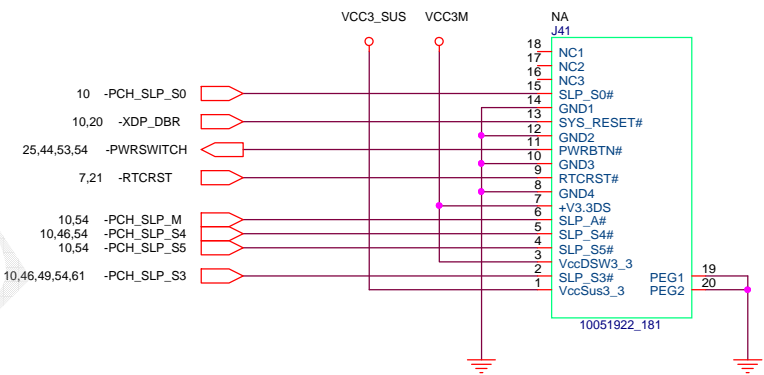


Project Name : RG2 SB SVT		Title : CPU(12/16) : POWER	
Size : C	Document Number :		Rev : 5.05
Date : Thursday, April 11, 2013		Sheet : 14 of 77	

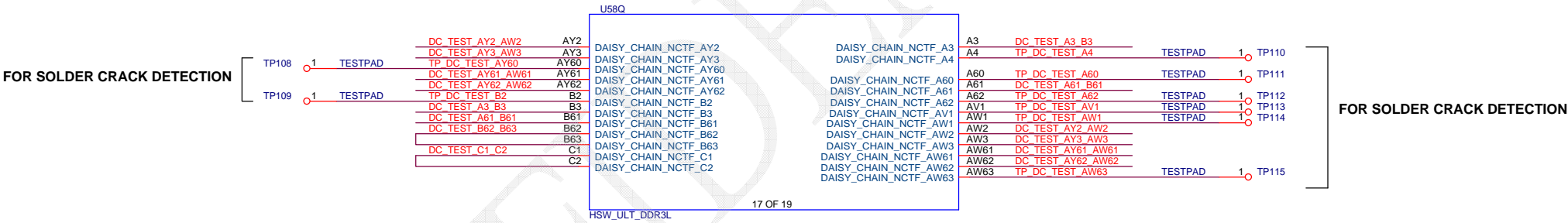




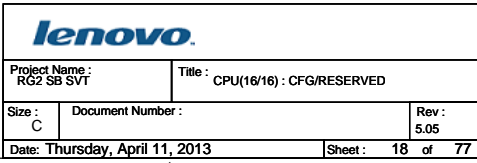
APS/PETS Interface



Project Name : RG2 SB SVT		Title : CPU(14/16) : GND	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 16 of 77	



<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>





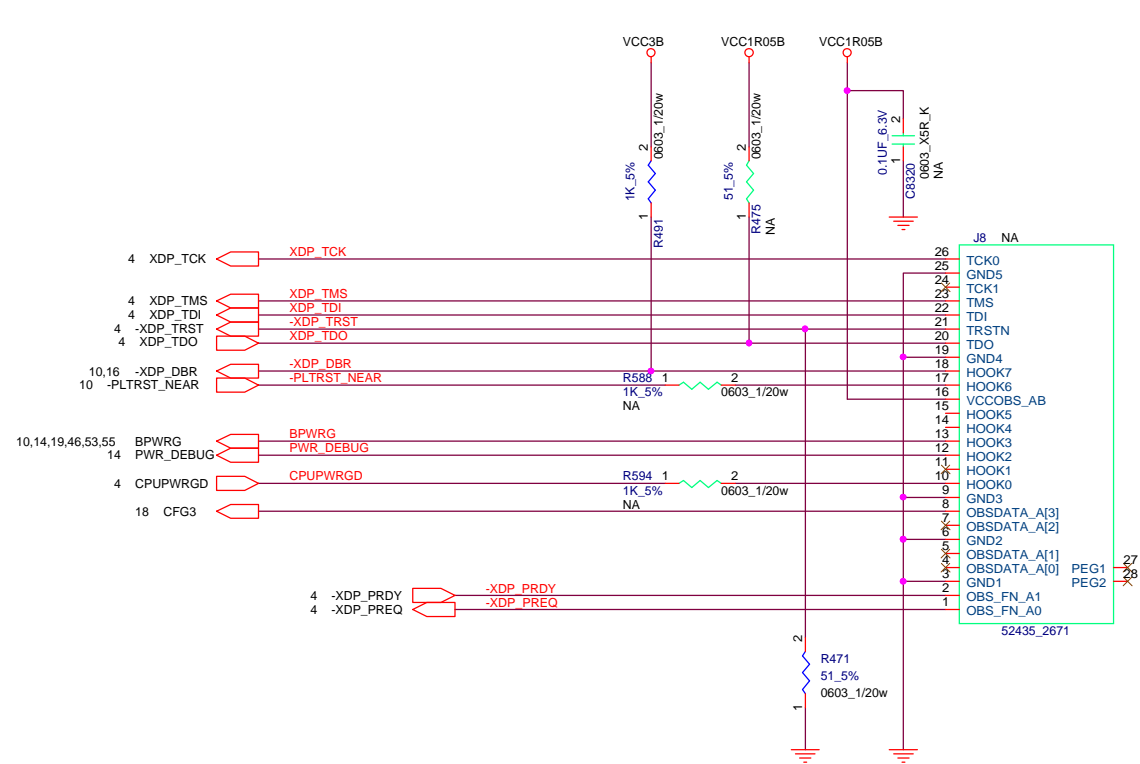


TABLE NOTE: J8 "ASM" FOR PDV ONLY.

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

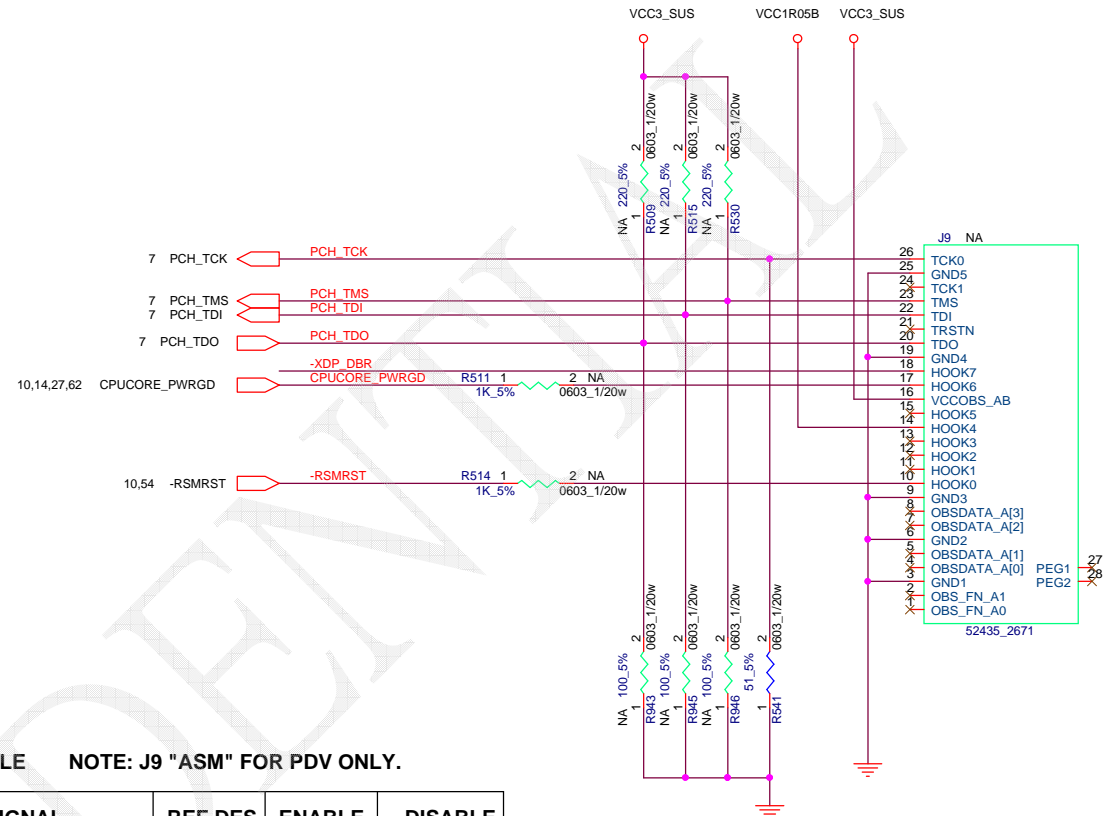
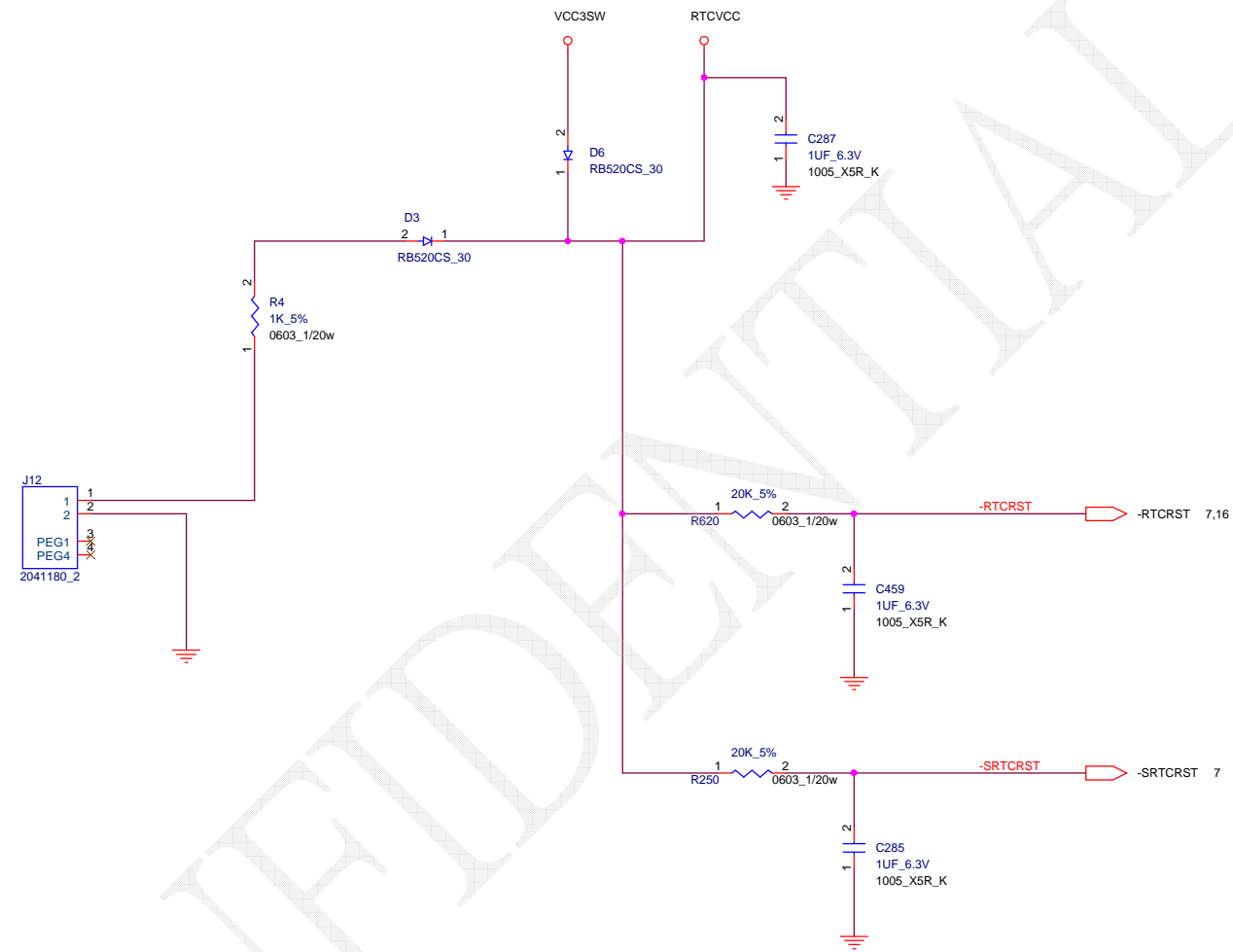


TABLE NOTE: J9 "ASM" FOR PDV ONLY.

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

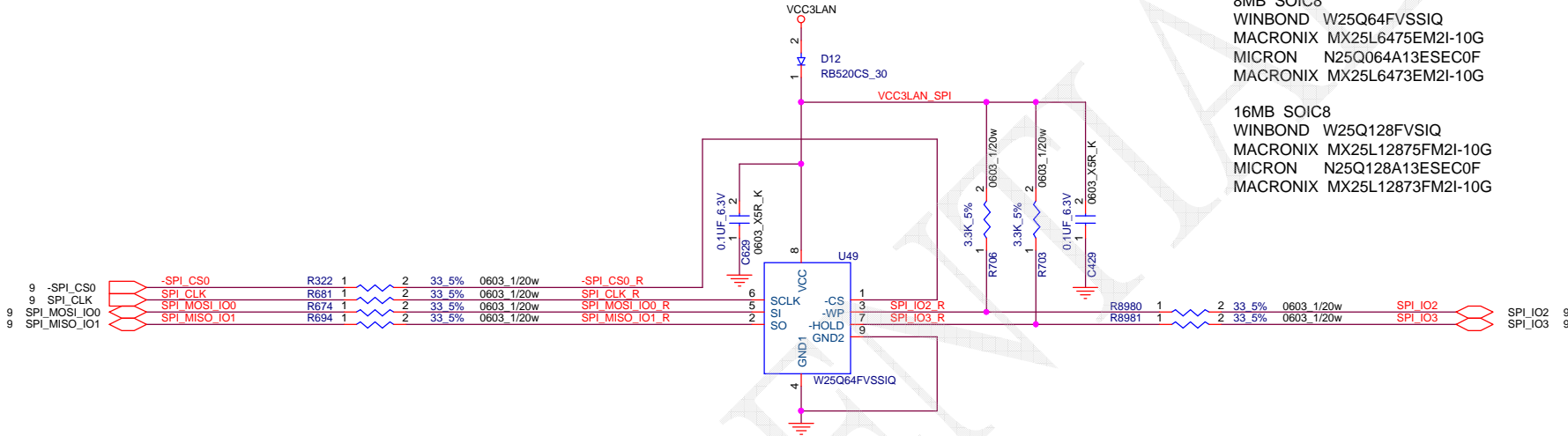
SPI	Wolverine-1 (Corporate)	Rogue-2 with Dock (Corporate)	Rogue-2 w/o Dock (Consumer)
U49	16MB	16MB	8MB



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



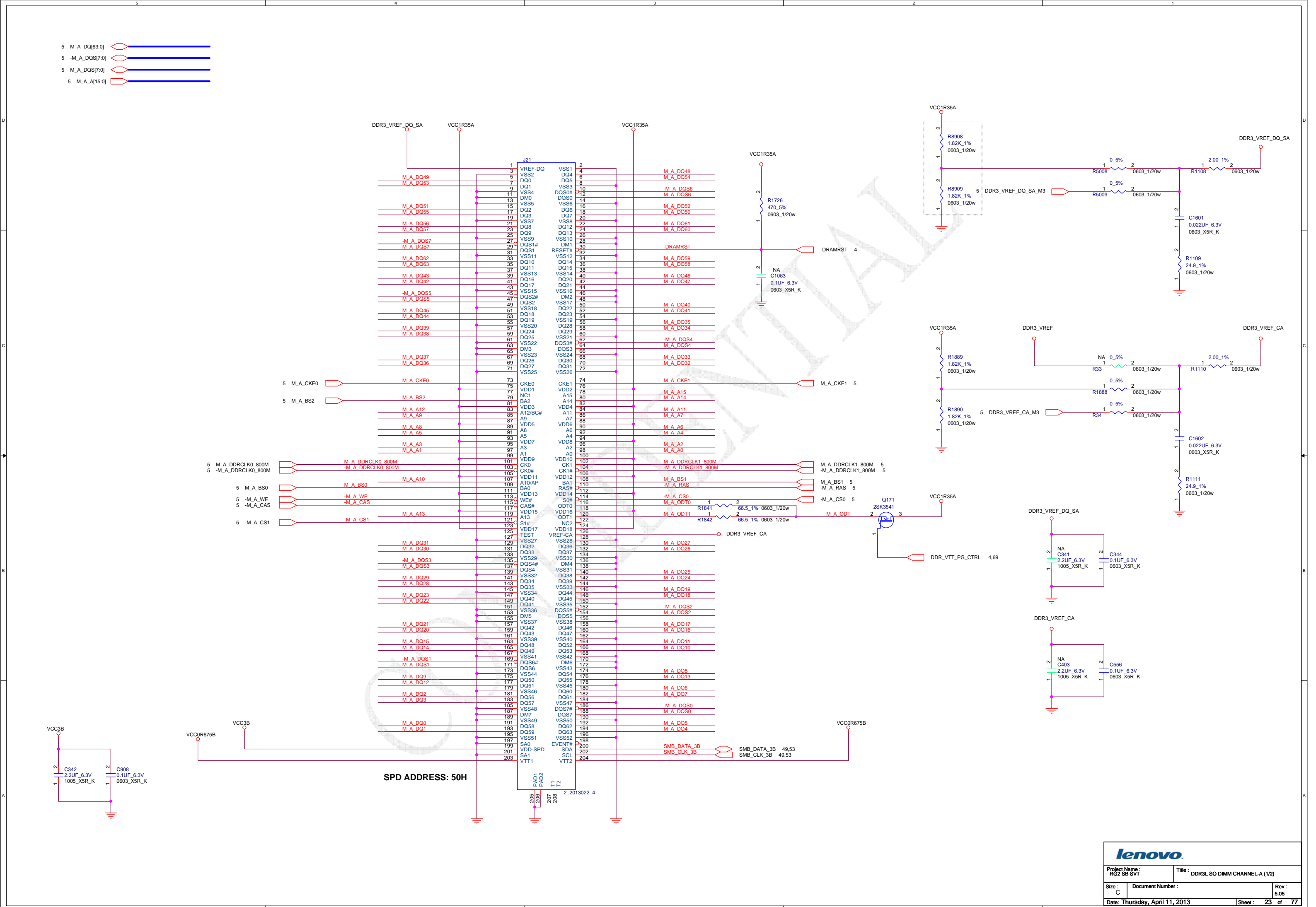
TABLE

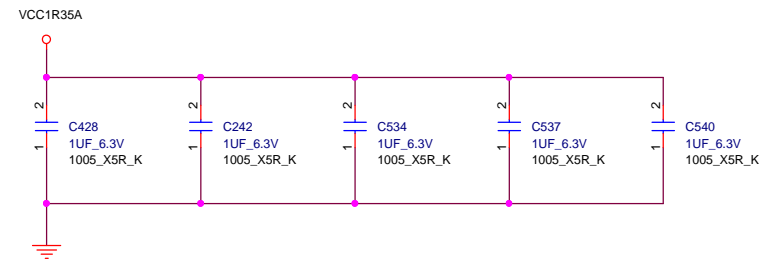
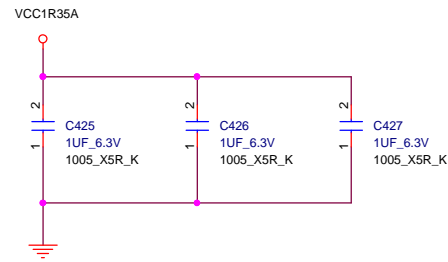
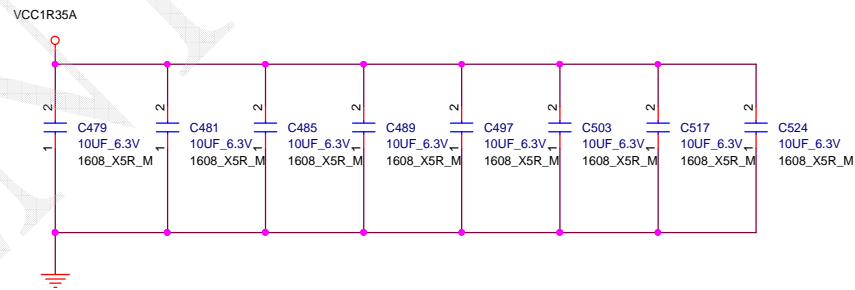
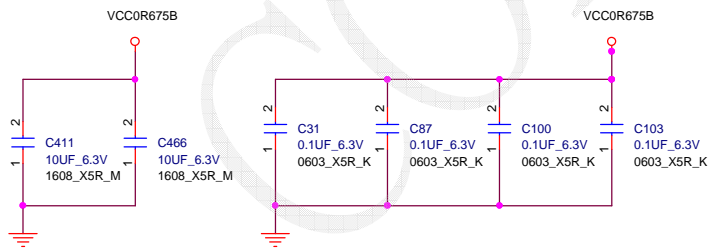
SF100 PIN HEADER INTERFACE (TOP VIEW)							
1	VCC	D12.1	GND	GND	2		
3	CS#	R322.2	R681.2	CLK	4		
5	MISO	R694.2	R674.2	MOSI	6		
7	(KEY)	N/A	N/A	(RESET)	8		

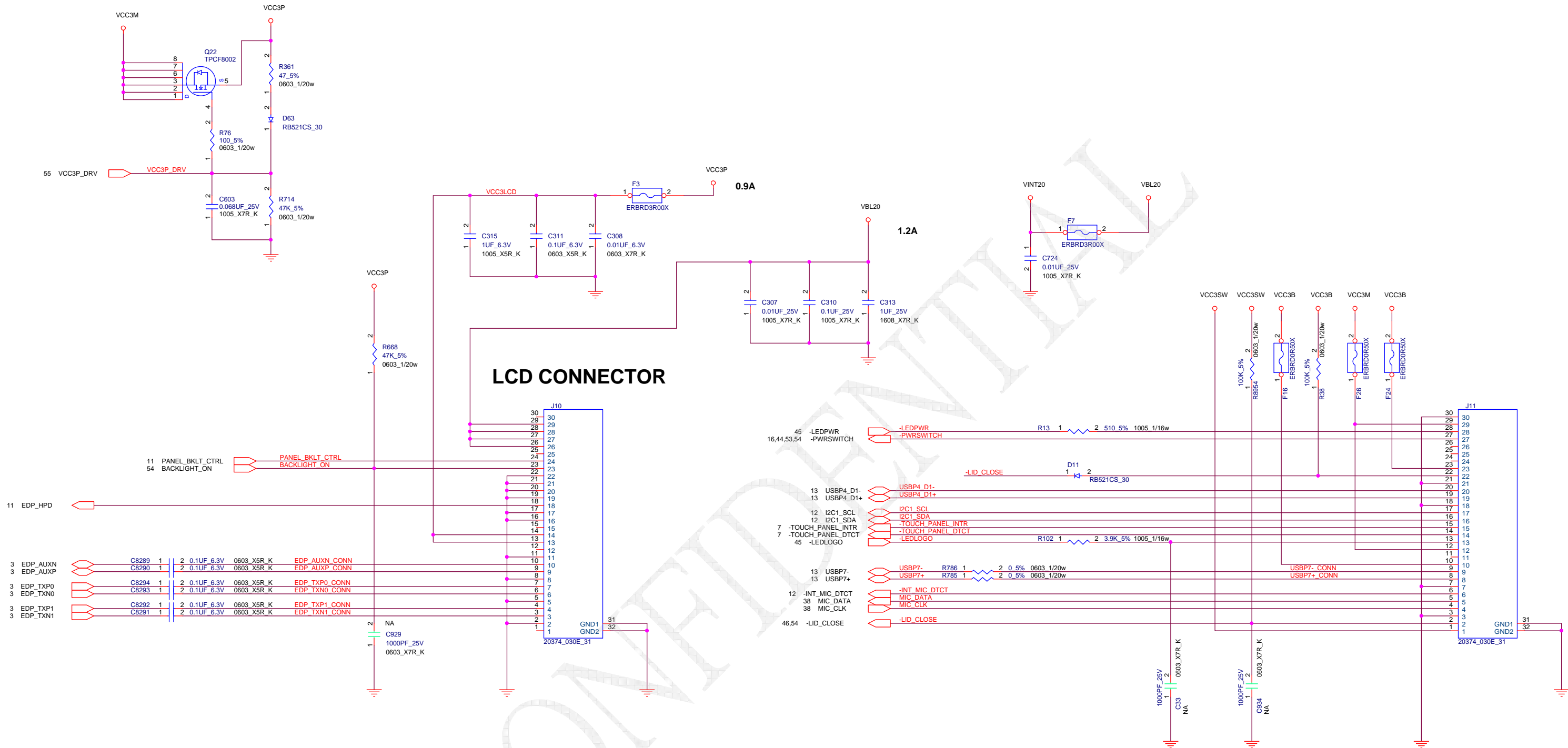


Project Name : RG2 SB SVT		Title : SPI FLASH	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 22 of 77	





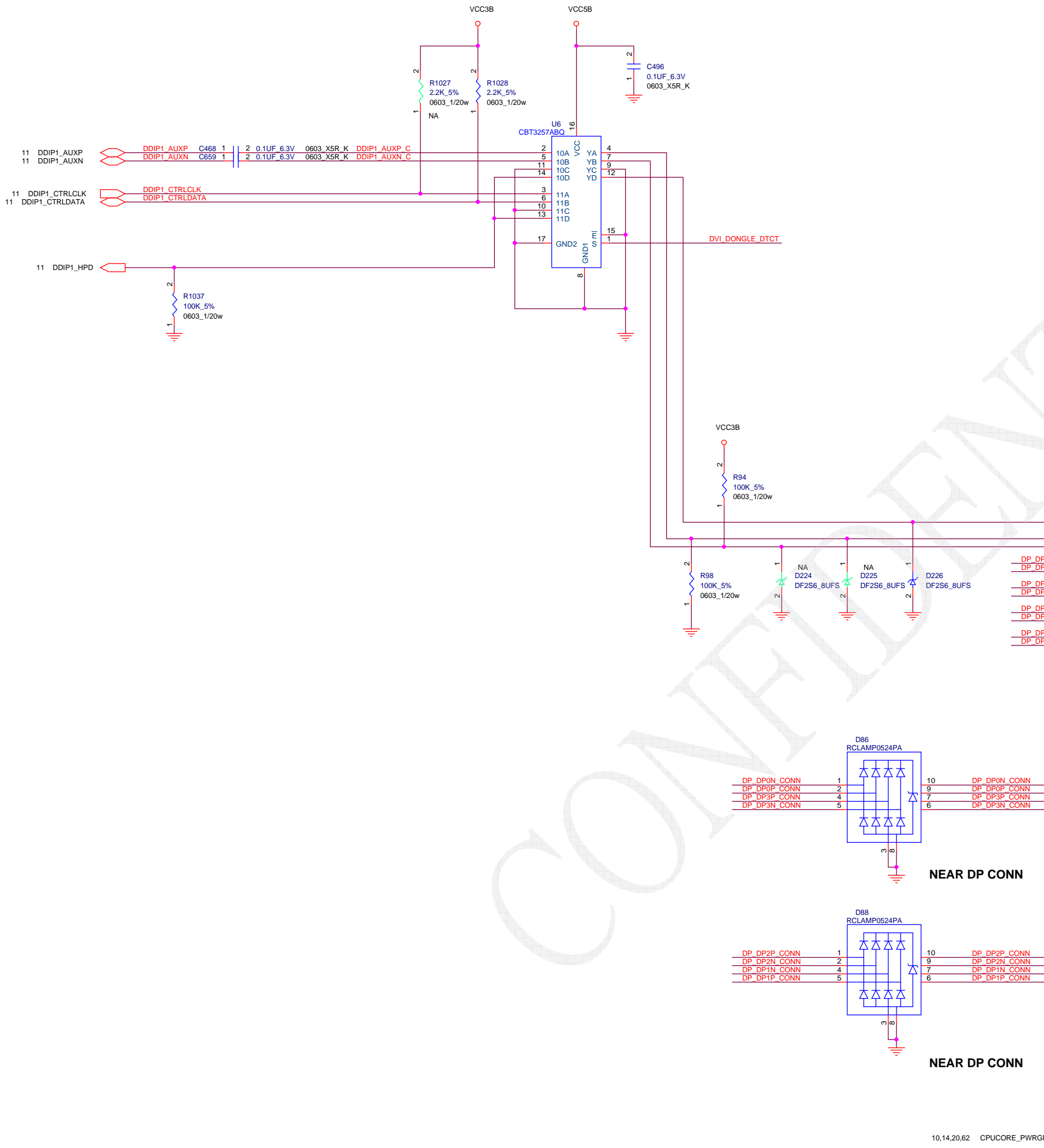






FOR SYSTEM DP NEAR DP CONN

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



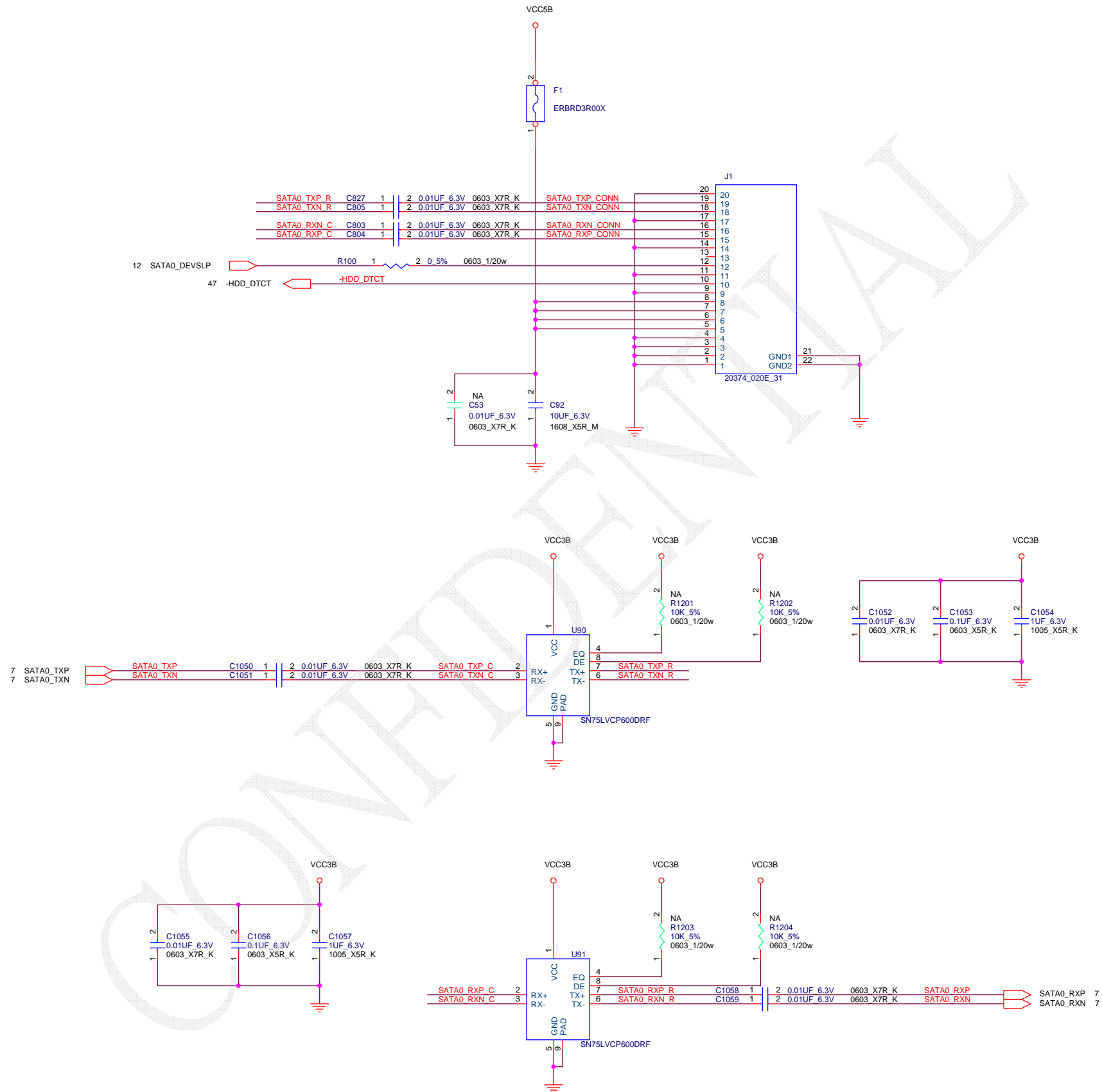
DP CONN

NEAR DP CONN

NEAR DP CONN

NEAR DP CONN





Project Name : RG2 SB SVT		Title : SATA HDD CONN	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 28	of 77

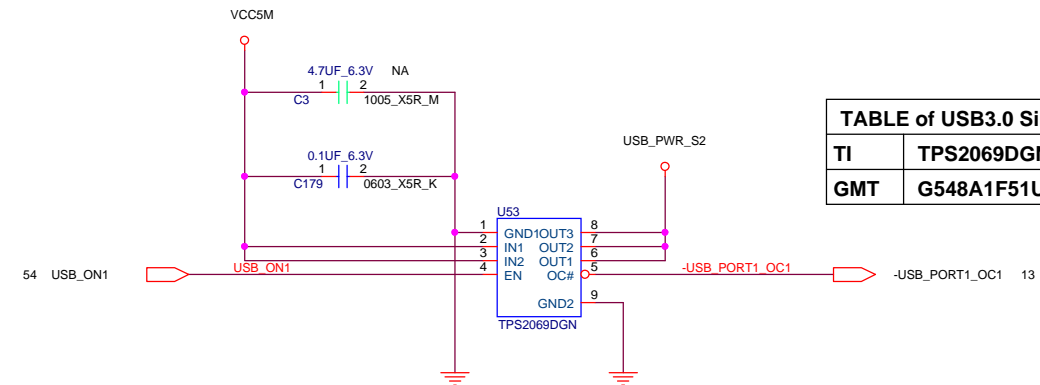
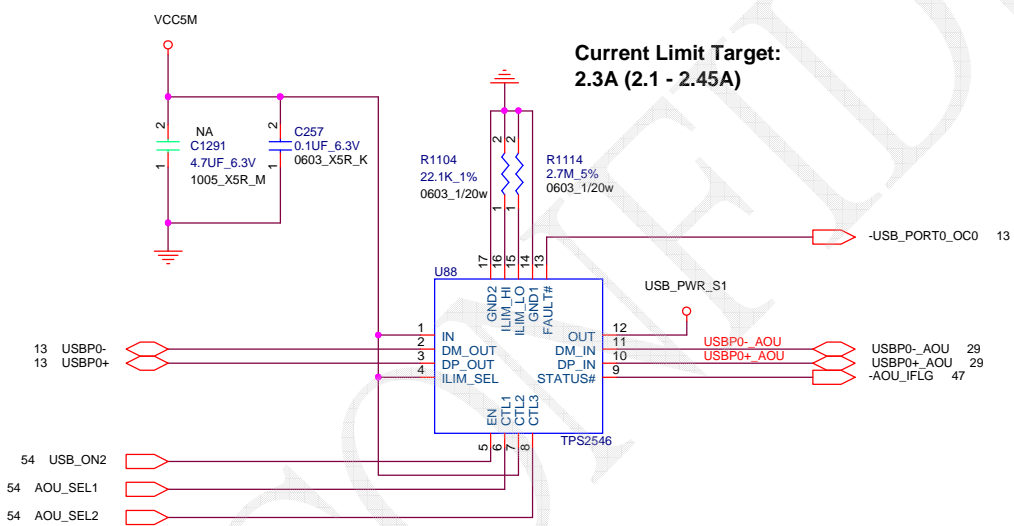
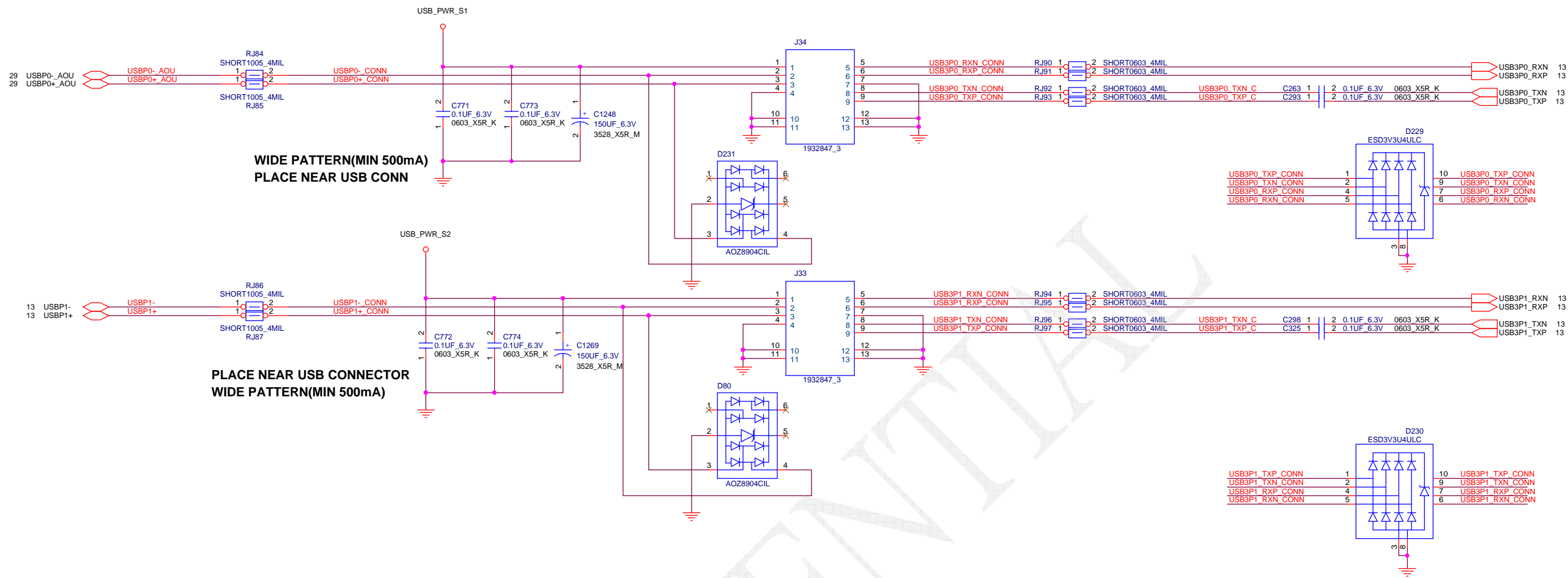
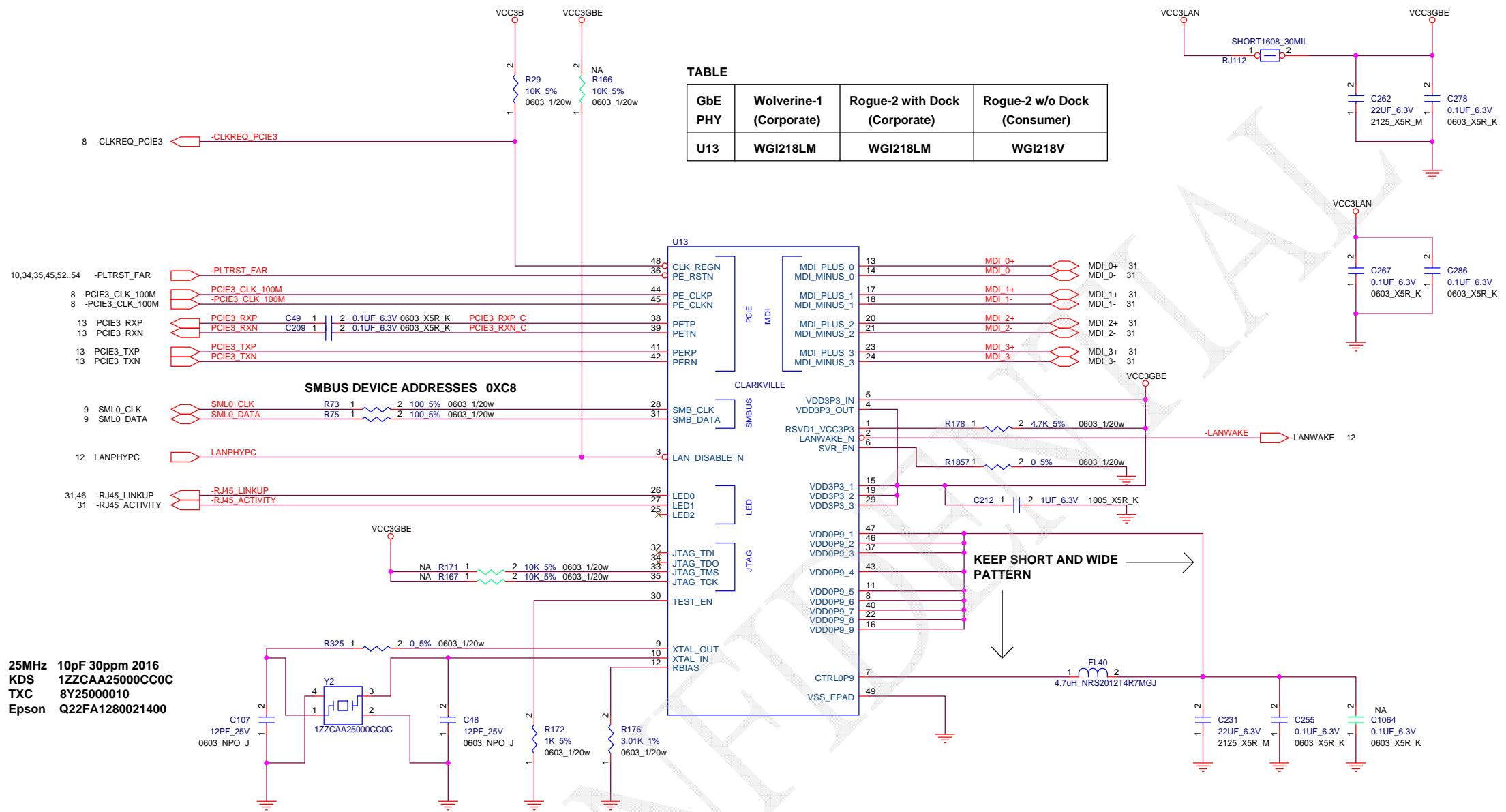


TABLE of USB3.0 Single	
TI	TPS2069DGN
GMT	G548A1F51U



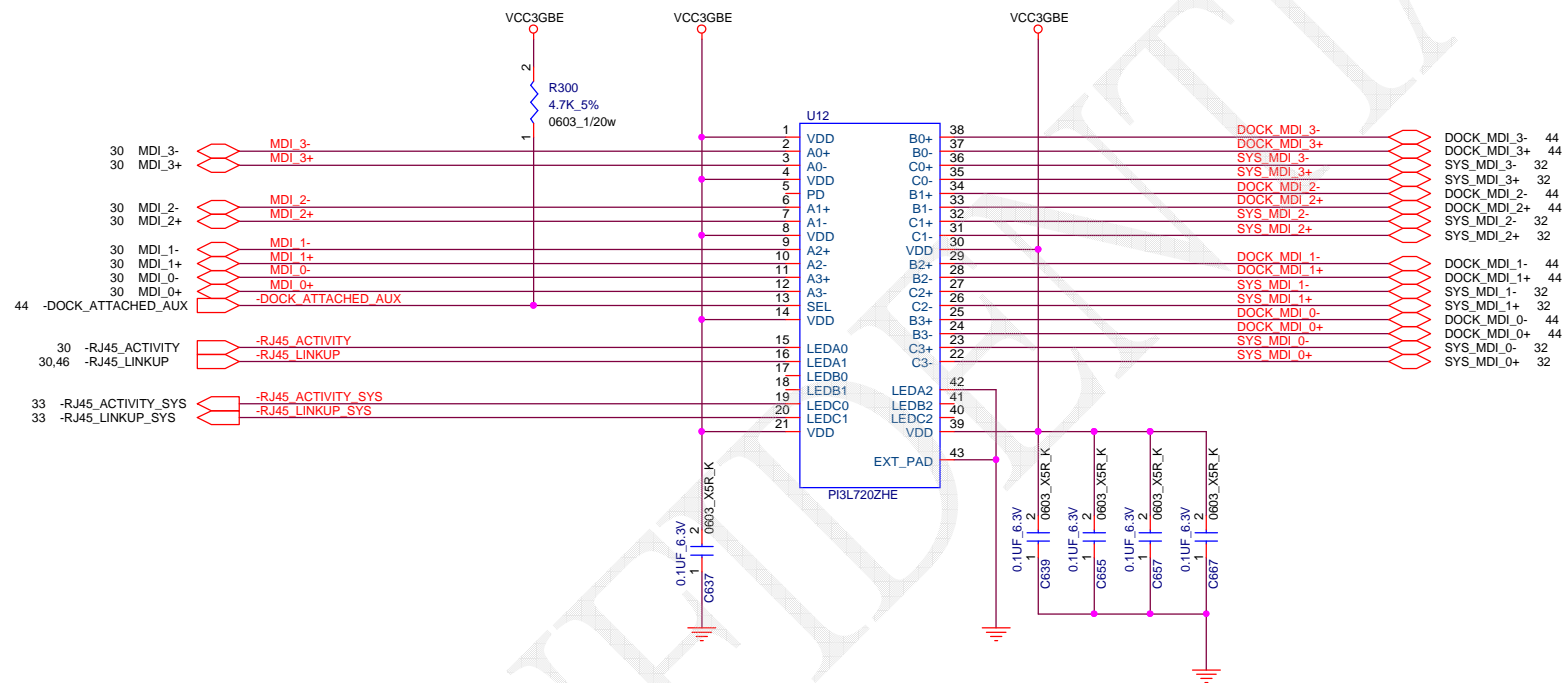


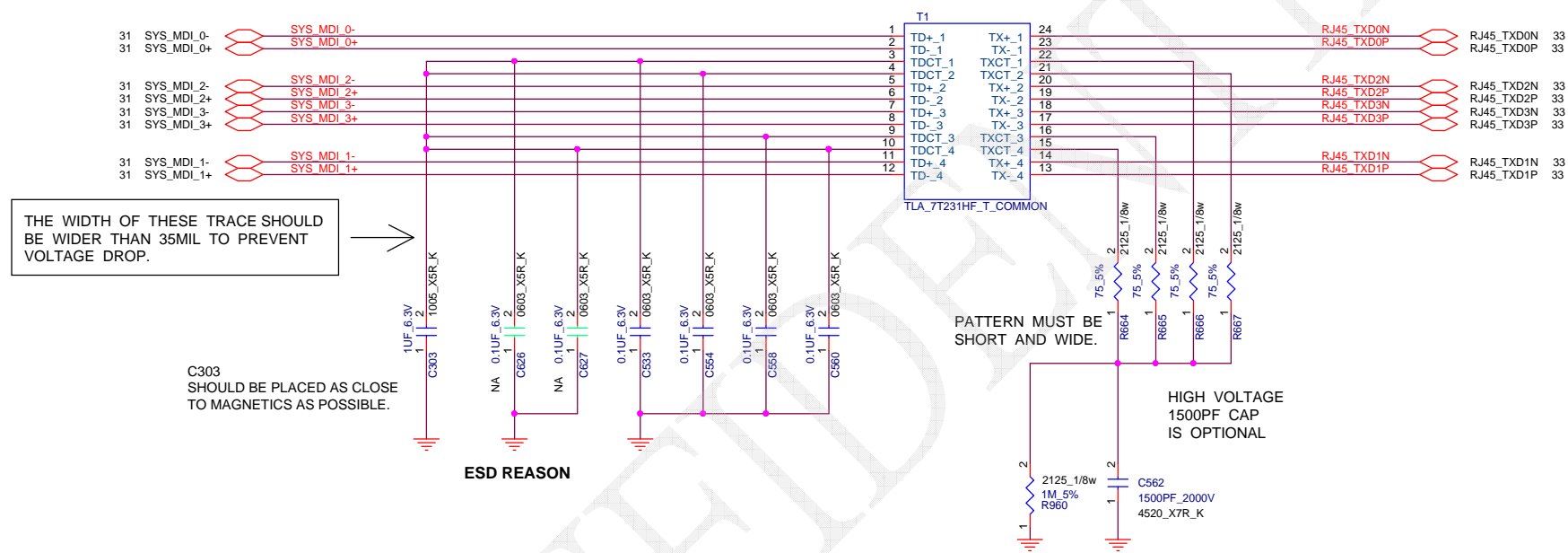
TABLE

GbE PHY	Wolverine-1 (Corporate)	Rogue-2 with Dock (Corporate)	Rogue-2 w/o Dock (Consumer)
U13	WGI218LM	WGI218LM	WGI218V

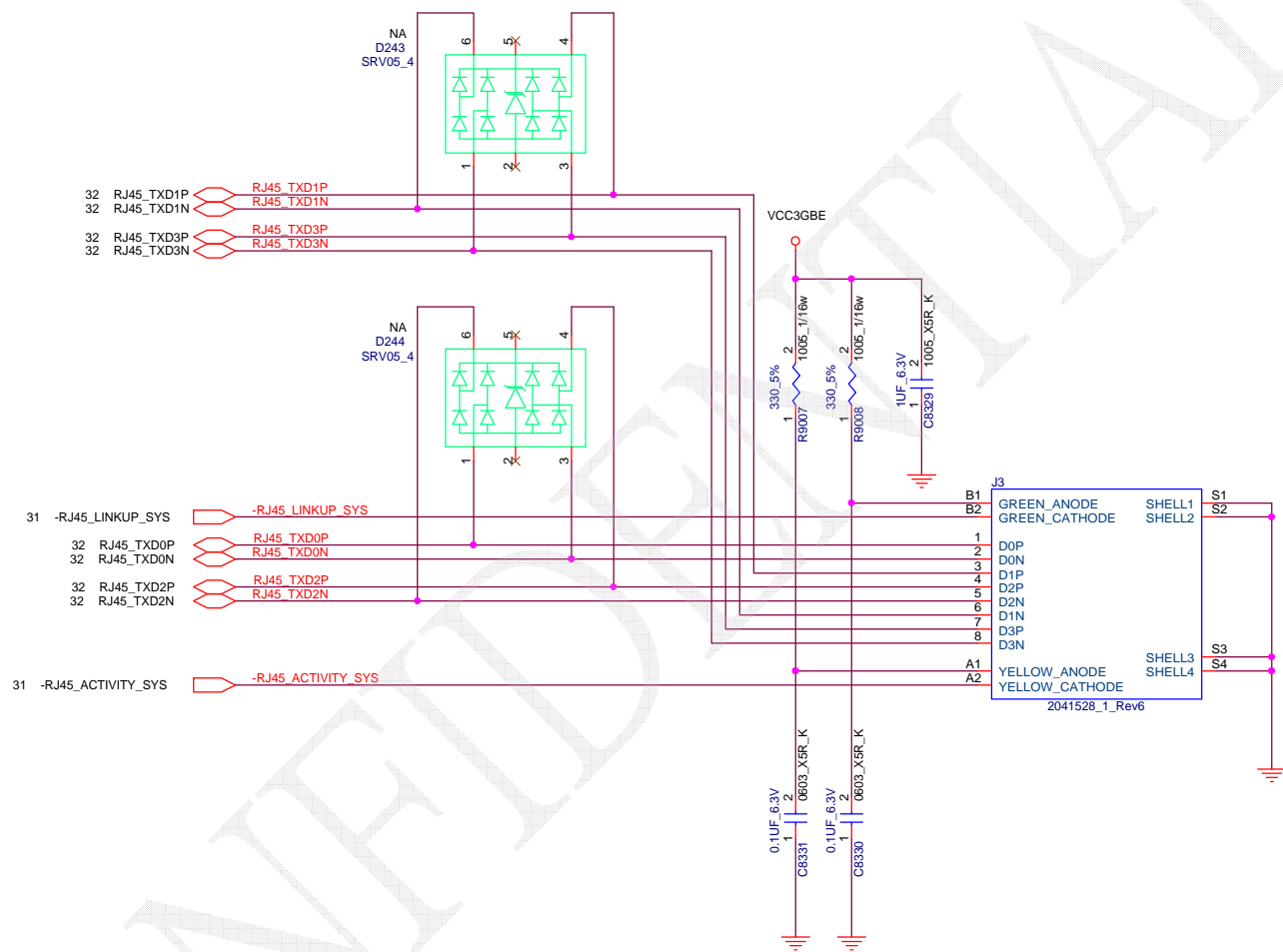
KEEP SHORT AND WIDE PATTERN

25MHz 10pF 30ppm 2016  
KDS 1ZZCAA25000CC0C  
TXC 8Y25000010  
Epson Q22FA1280021400





Project Name : RG2 SB SVT		Title : GBE MAGNETICS	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 32 of 77	



Project Name :  
RG2 SB SVT

Title :  
RJ45 CONNECTOR

Size :  
C

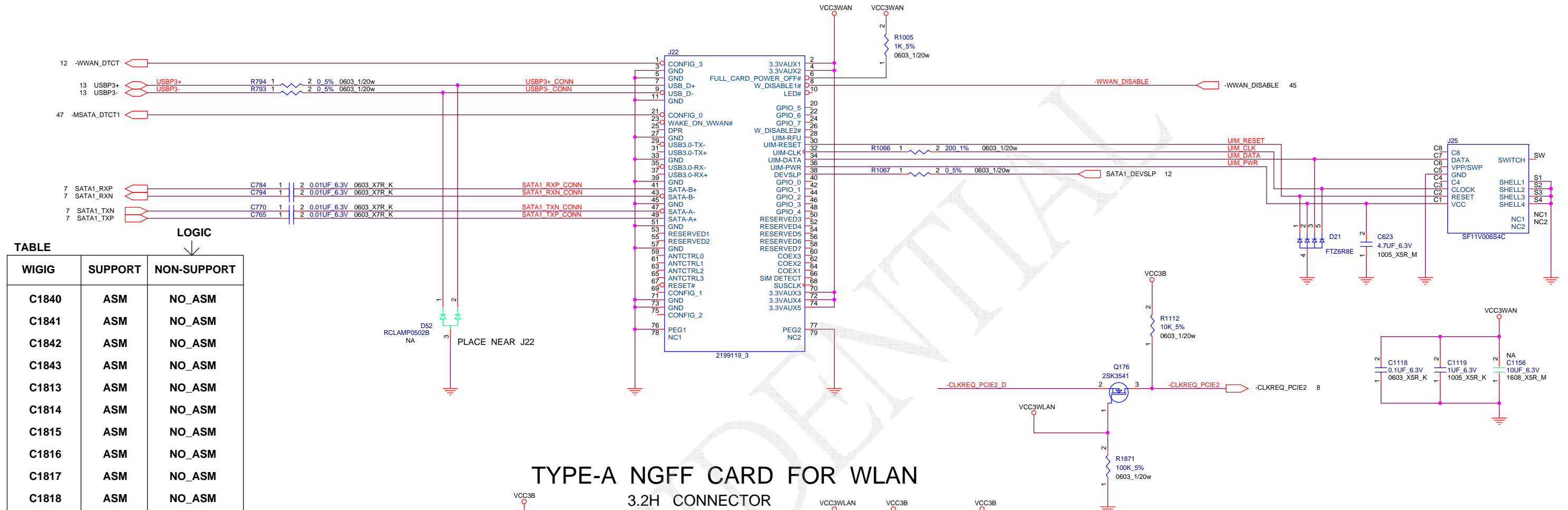
Document Number :

Rev :  
5.05

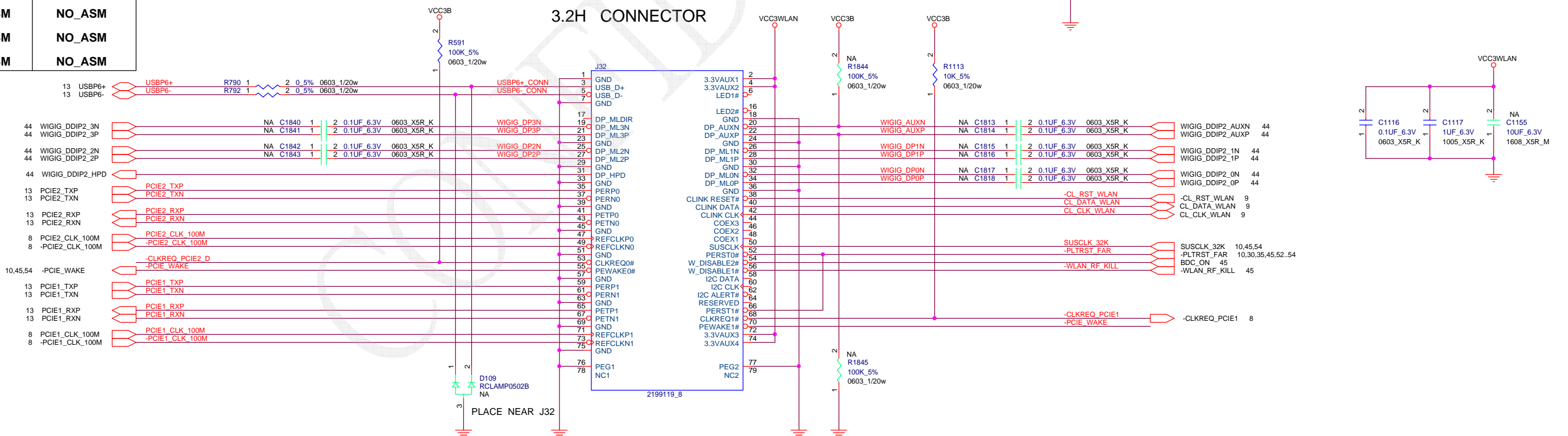
Date: Thursday, April 11, 2013

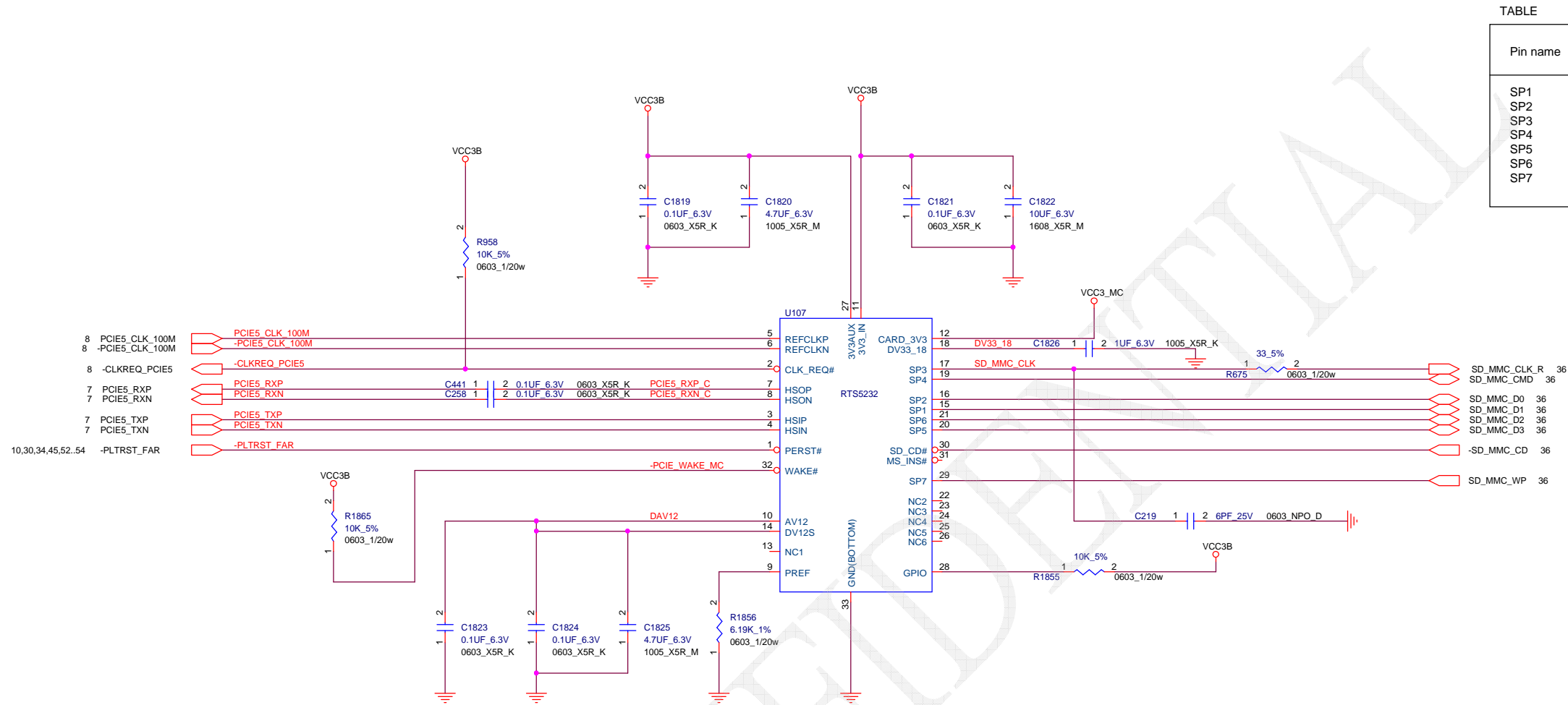
Sheet : 33 of 77

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

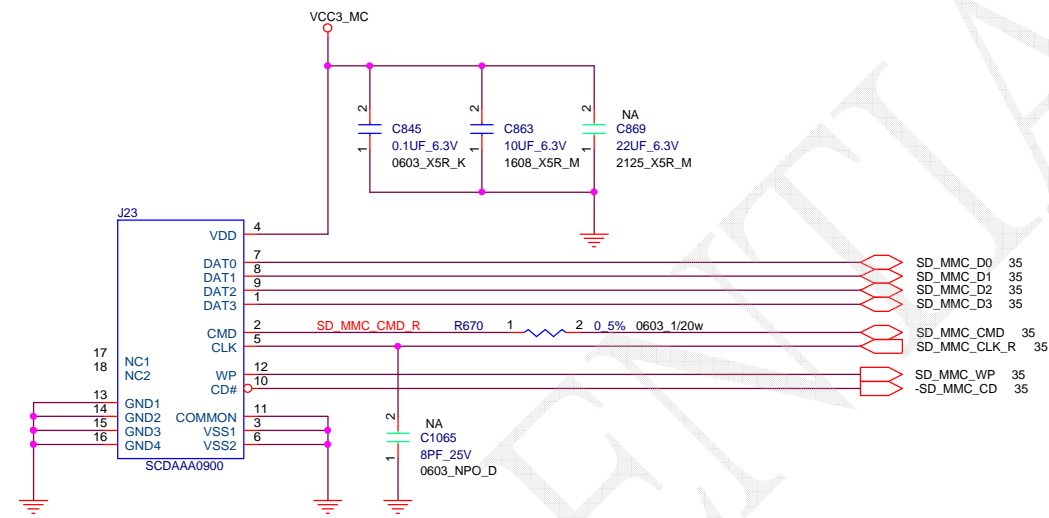
Size :  
C

Document Number :

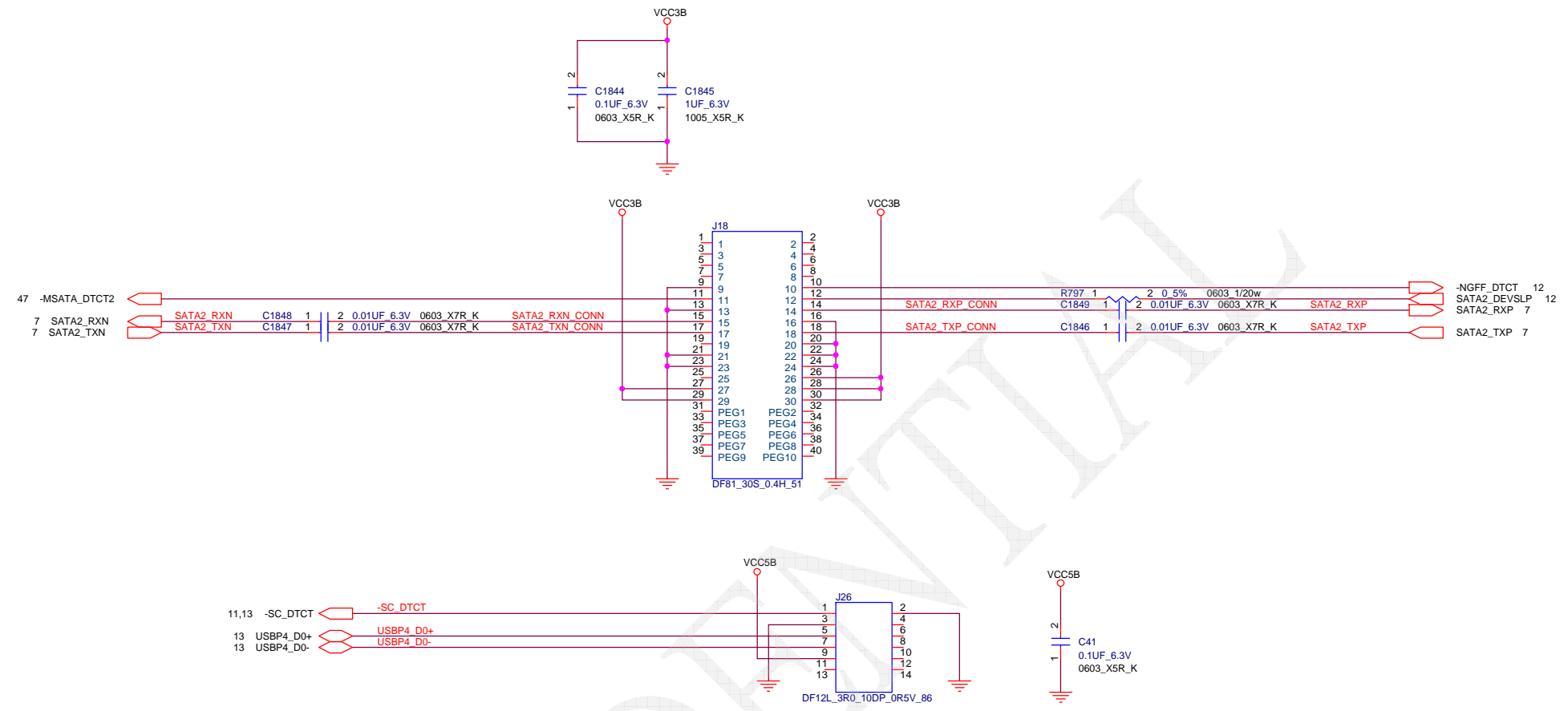
Rev :  
5.05

Date: Thursday, April 11, 2013

Sheet : 35 of 77







TABLE

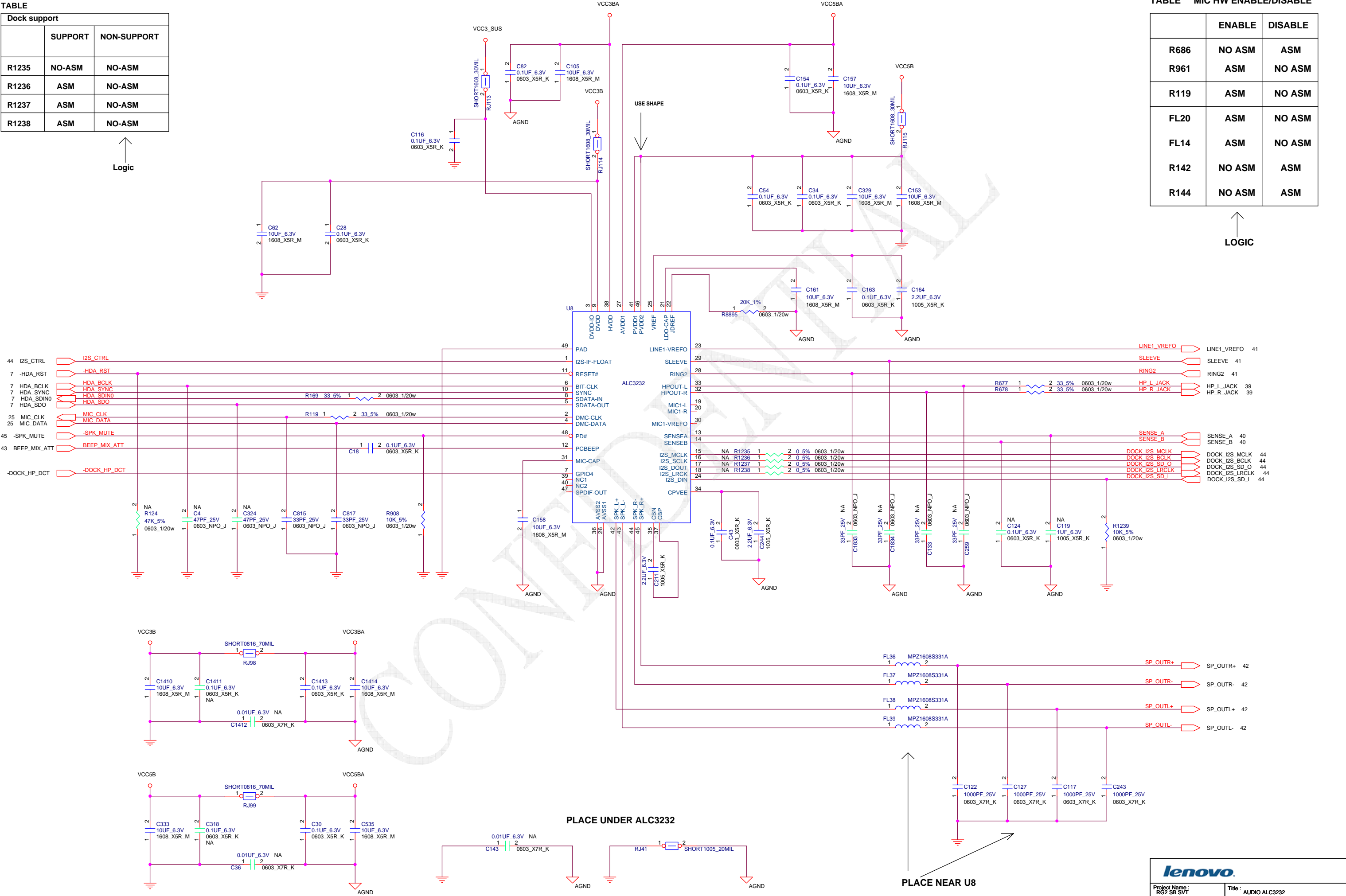
Dock support		
	SUPPORT	NON-SUPPORT
R1235	NO-ASM	NO-ASM
R1236	ASM	NO-ASM
R1237	ASM	NO-ASM
R1238	ASM	NO-ASM

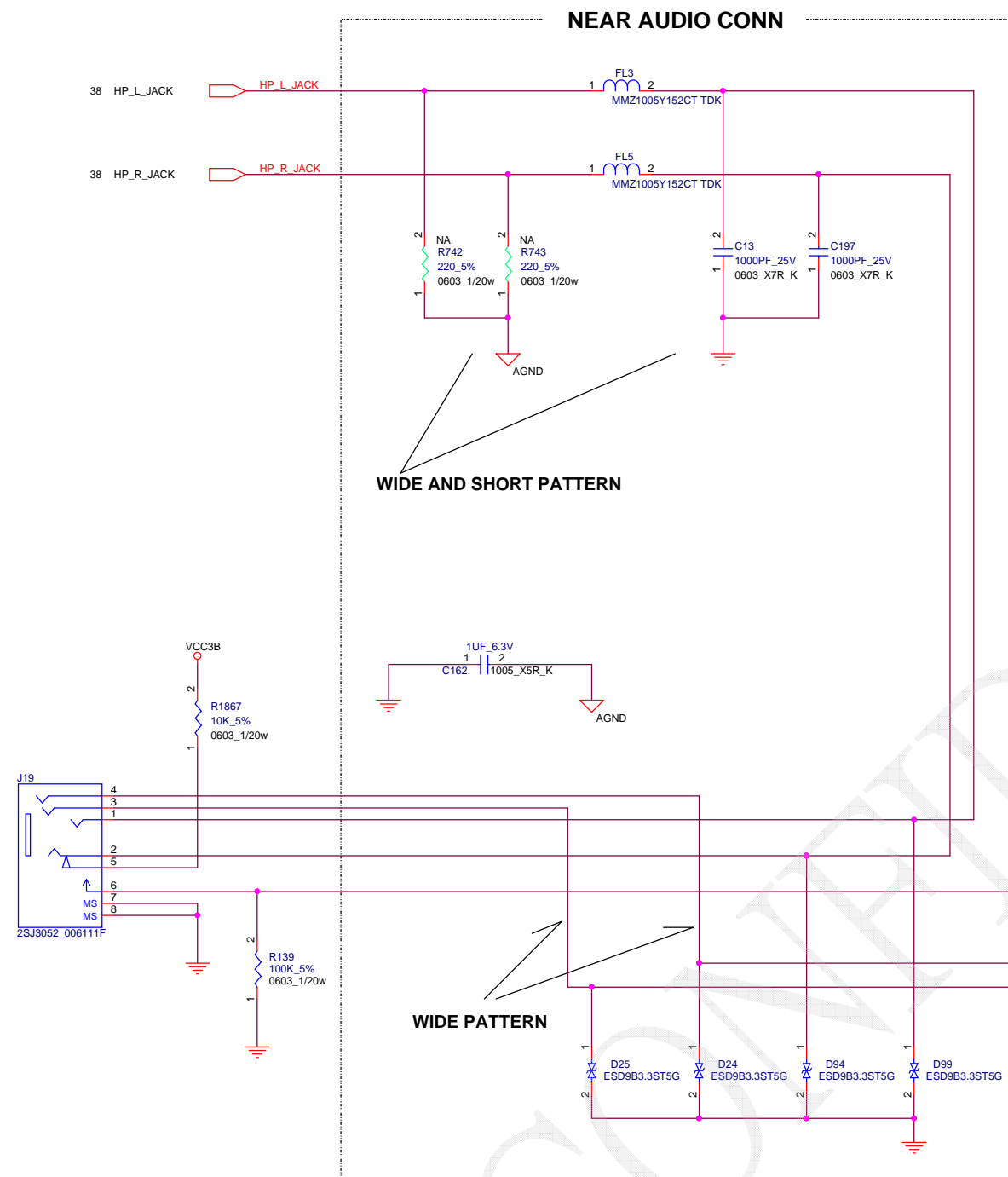
Logic

TABLE MIC HW ENABLE/DISABLE

	ENABLE	DISABLE
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

LOGIC

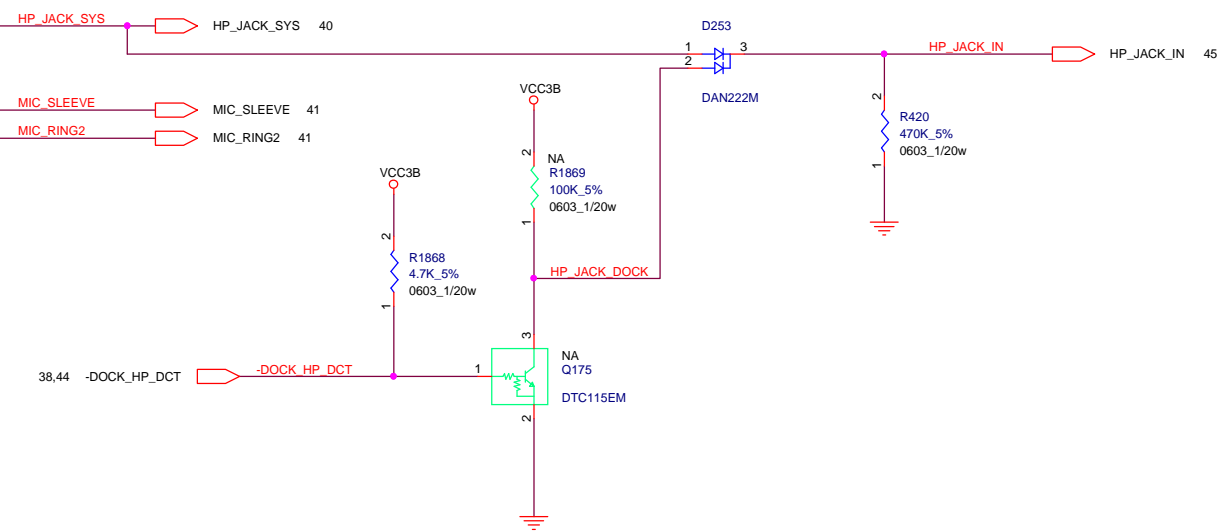




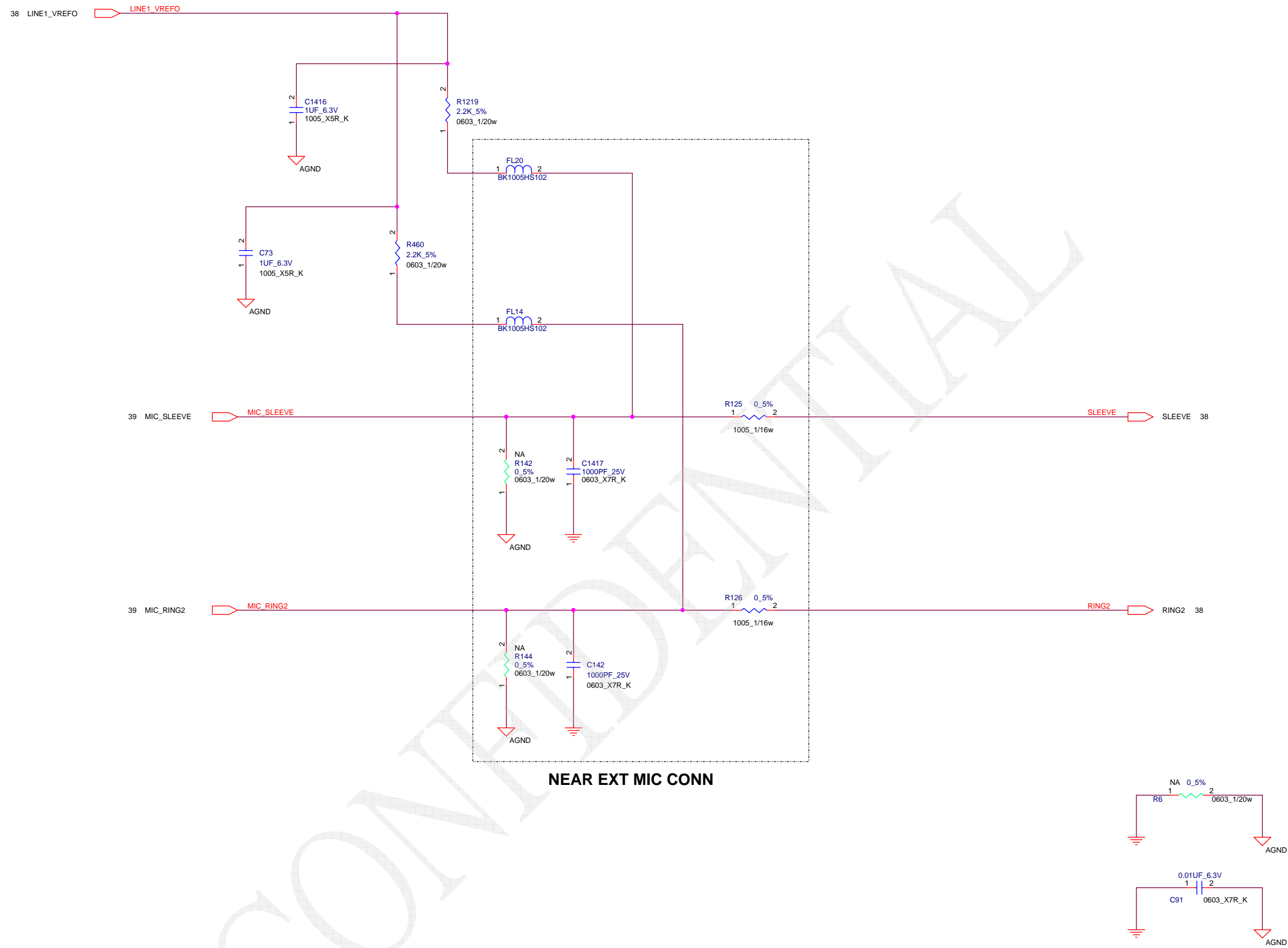
TABLE

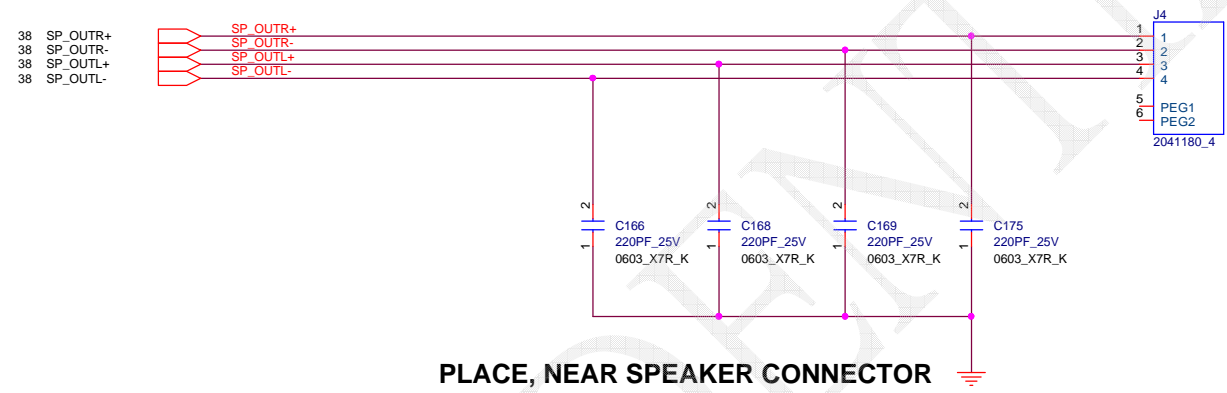
DOCKING	SUPPORT	NON-SUPPORT
R1869	ASM	NO_ASM
Q175	ASM	NO_ASM

↑  
LOGIC

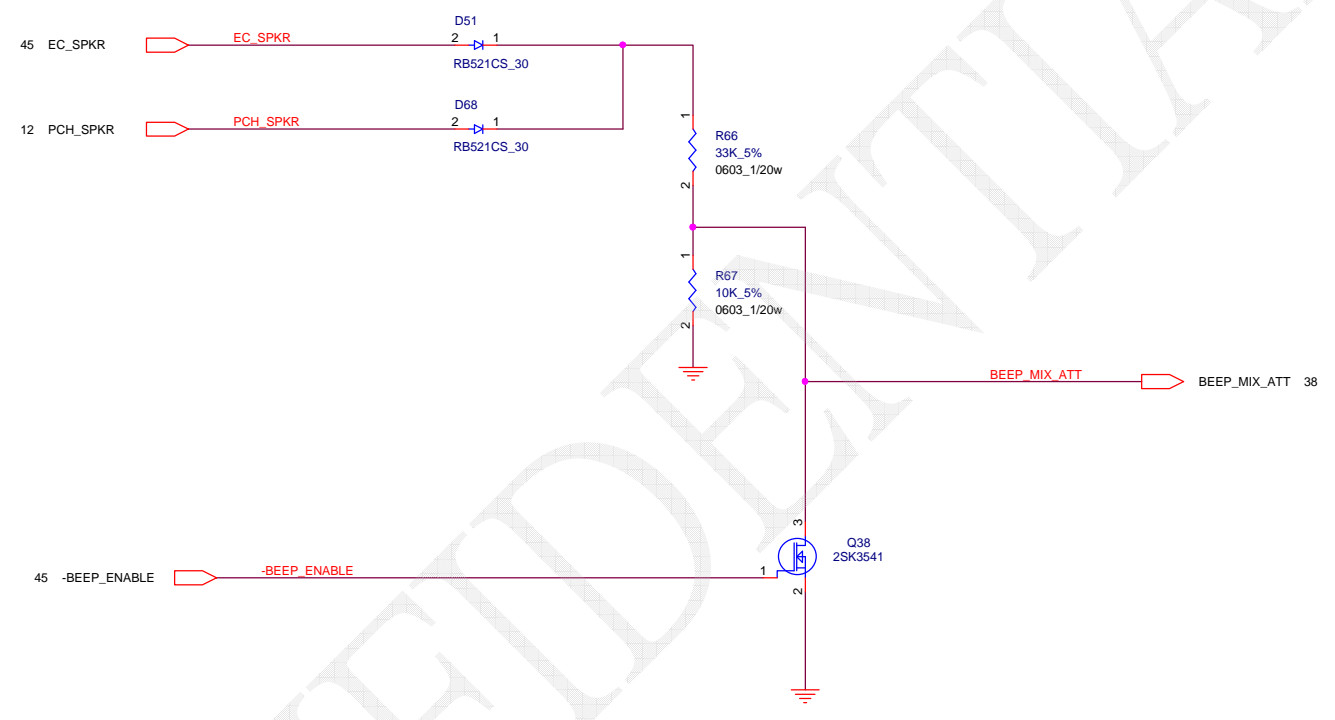






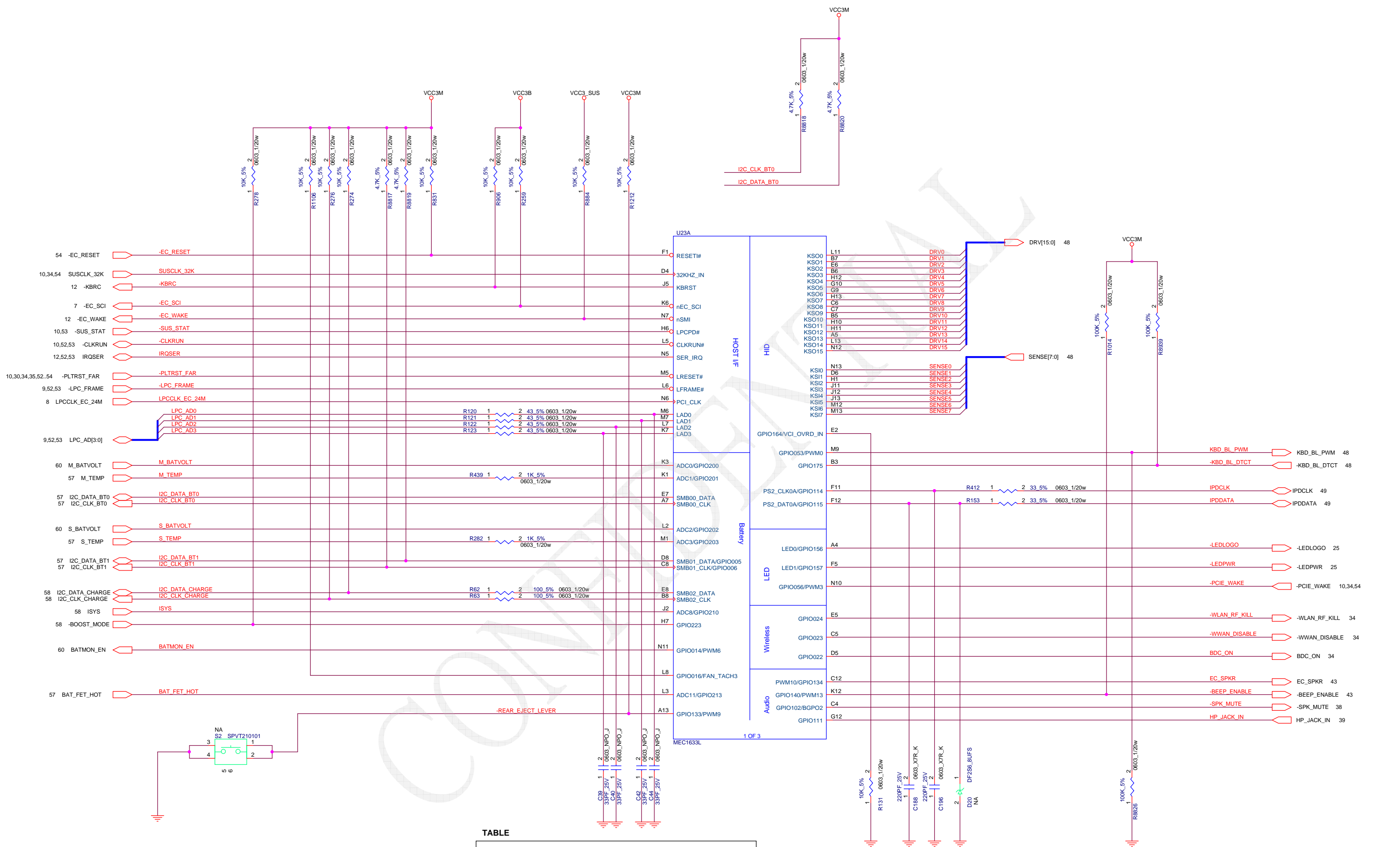


Project Name : RG2 SB SVT		Title : AUDIO SPEAKER	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet :	42 of 77









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

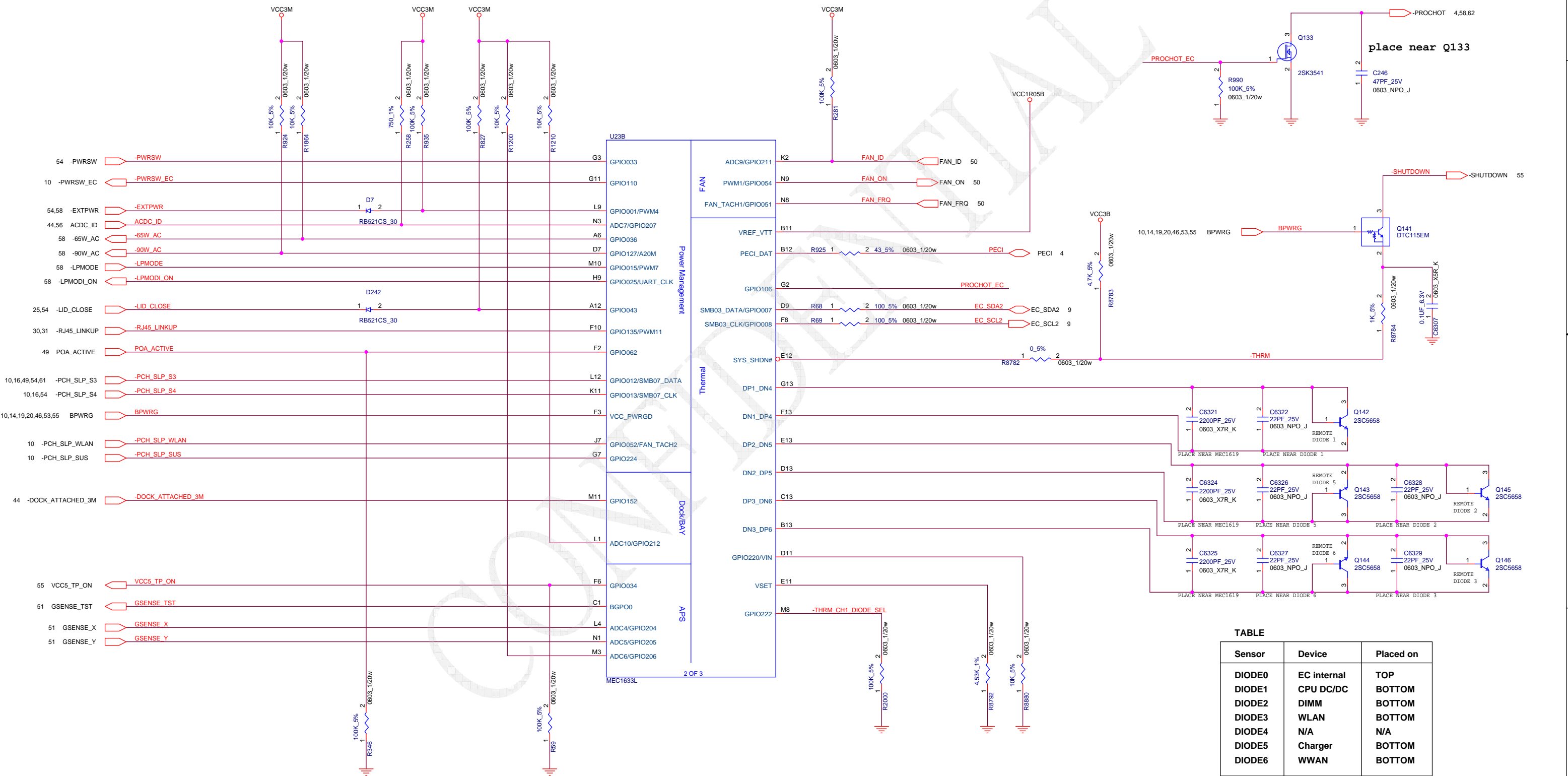
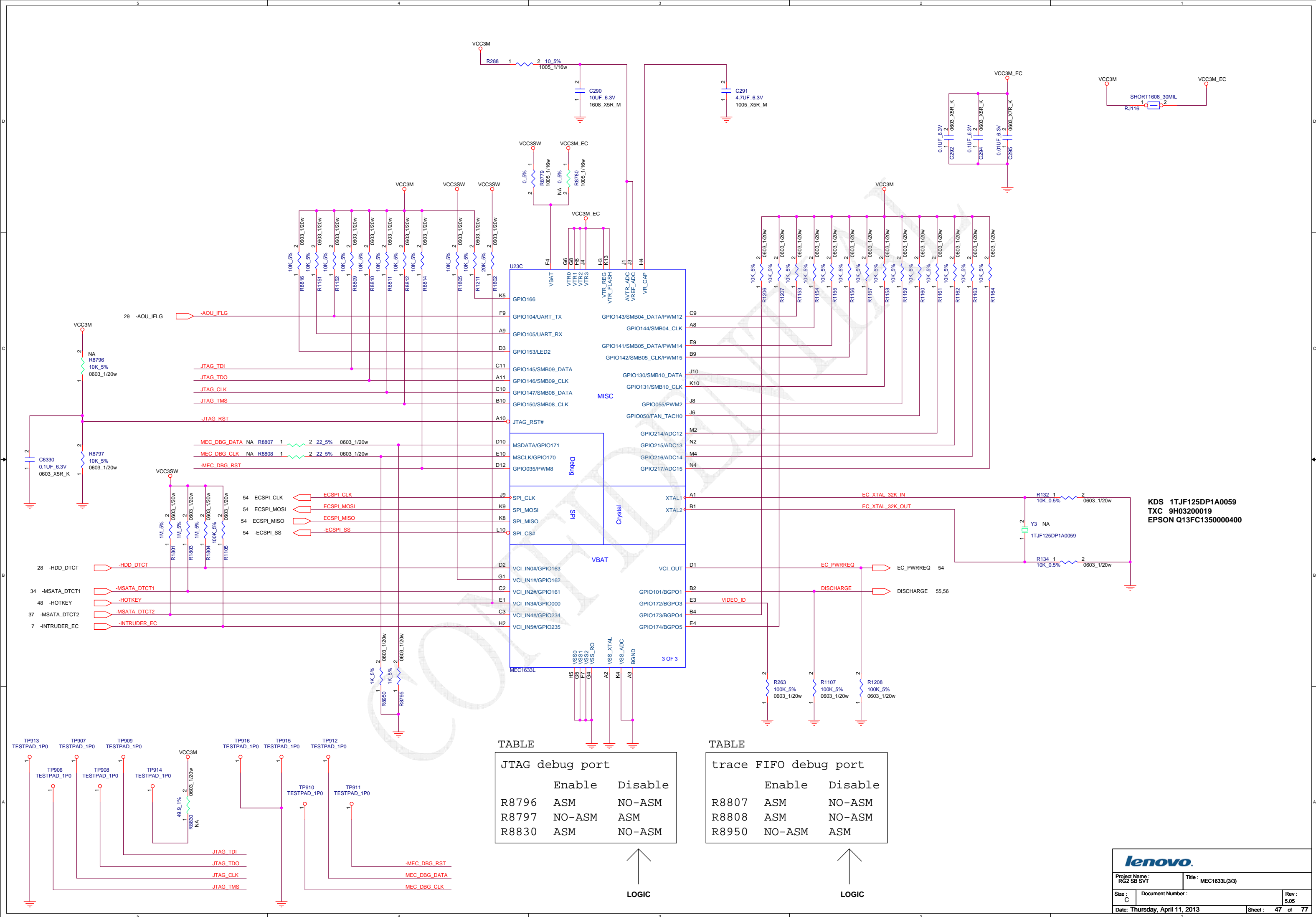
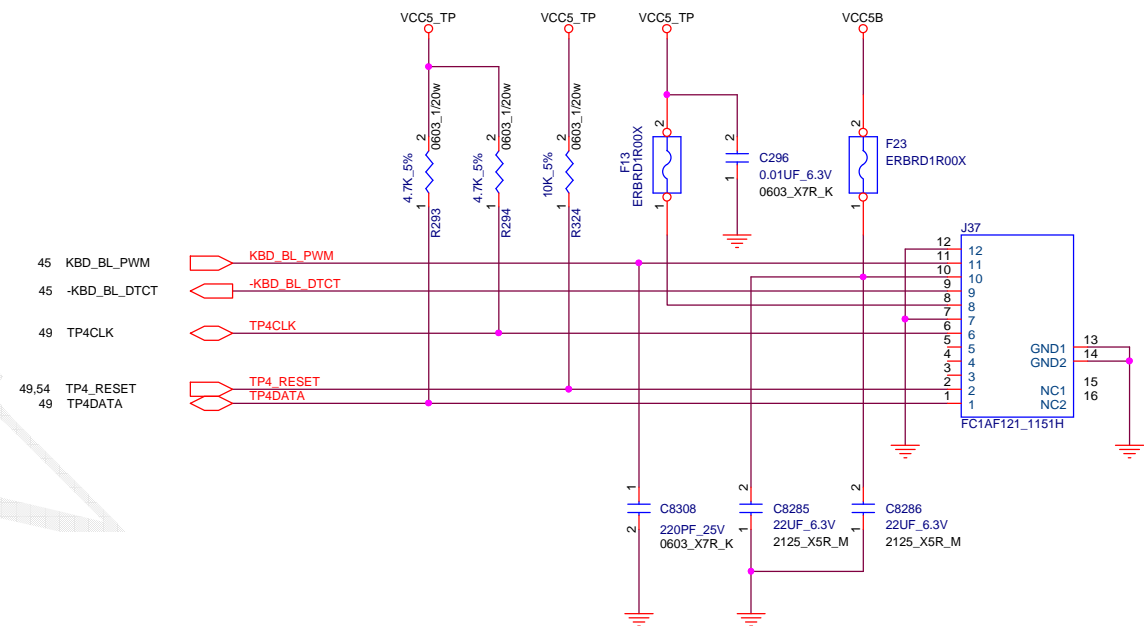
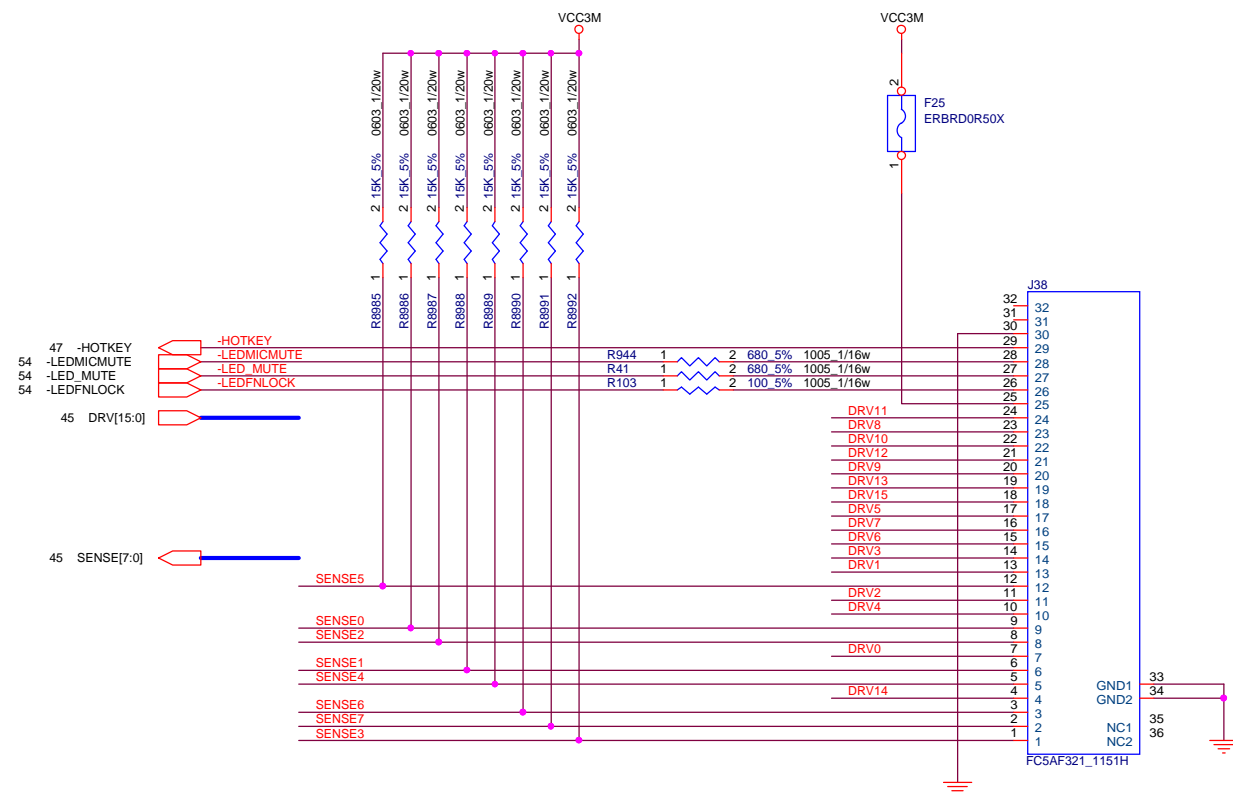
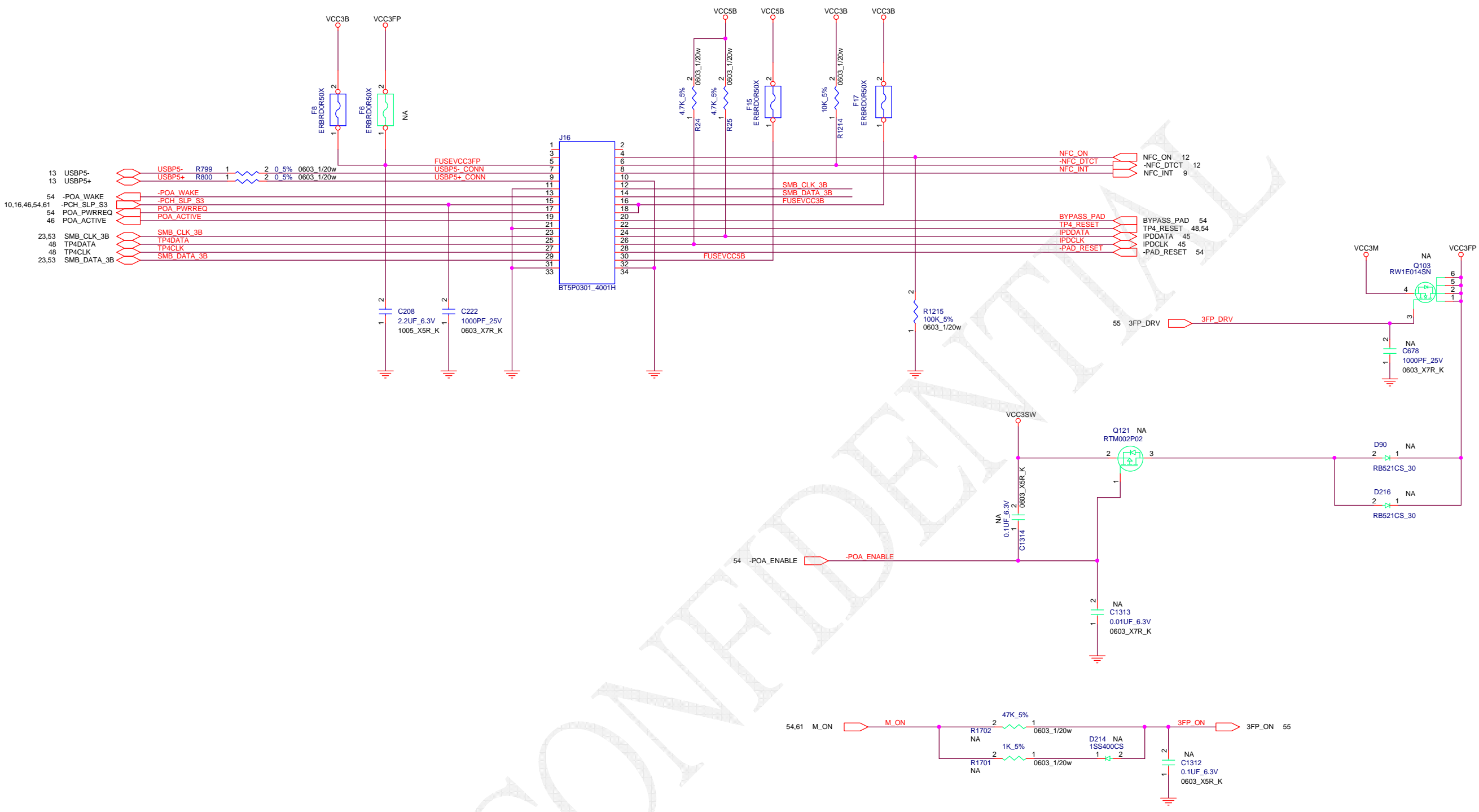


TABLE		
Sensor	Device	Placed on
DIODE0	EC internal	TOP
DIODE1	CPU DC/DC	BOTTOM
DIODE2	DIMM	BOTTOM
DIODE3	WLAN	BOTTOM
DIODE4	N/A	N/A
DIODE5	Charger	BOTTOM
DIODE6	WWAN	BOTTOM





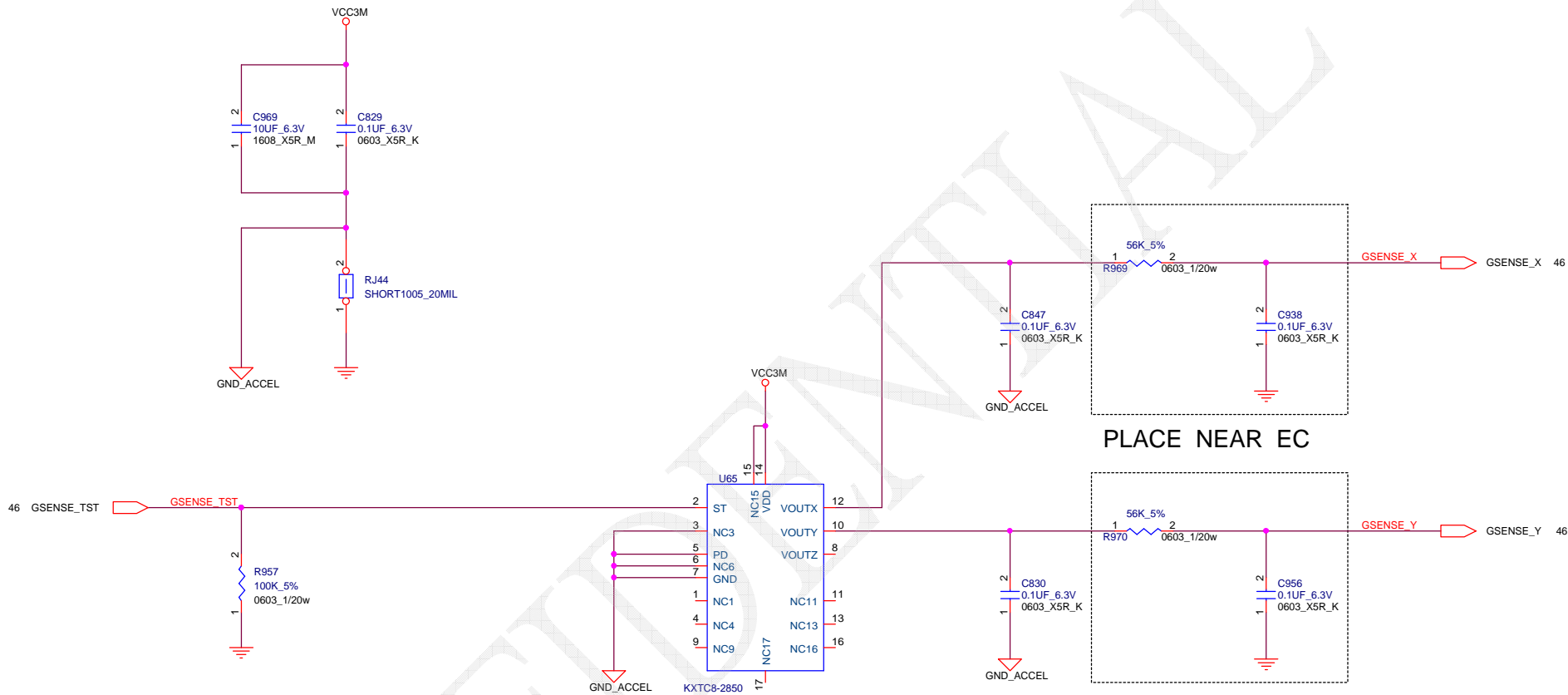






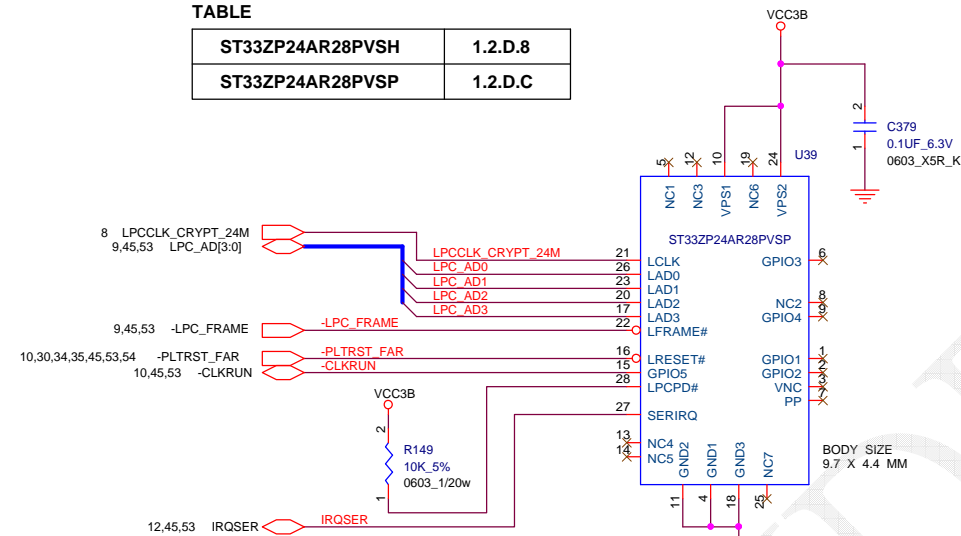
TABLE

	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



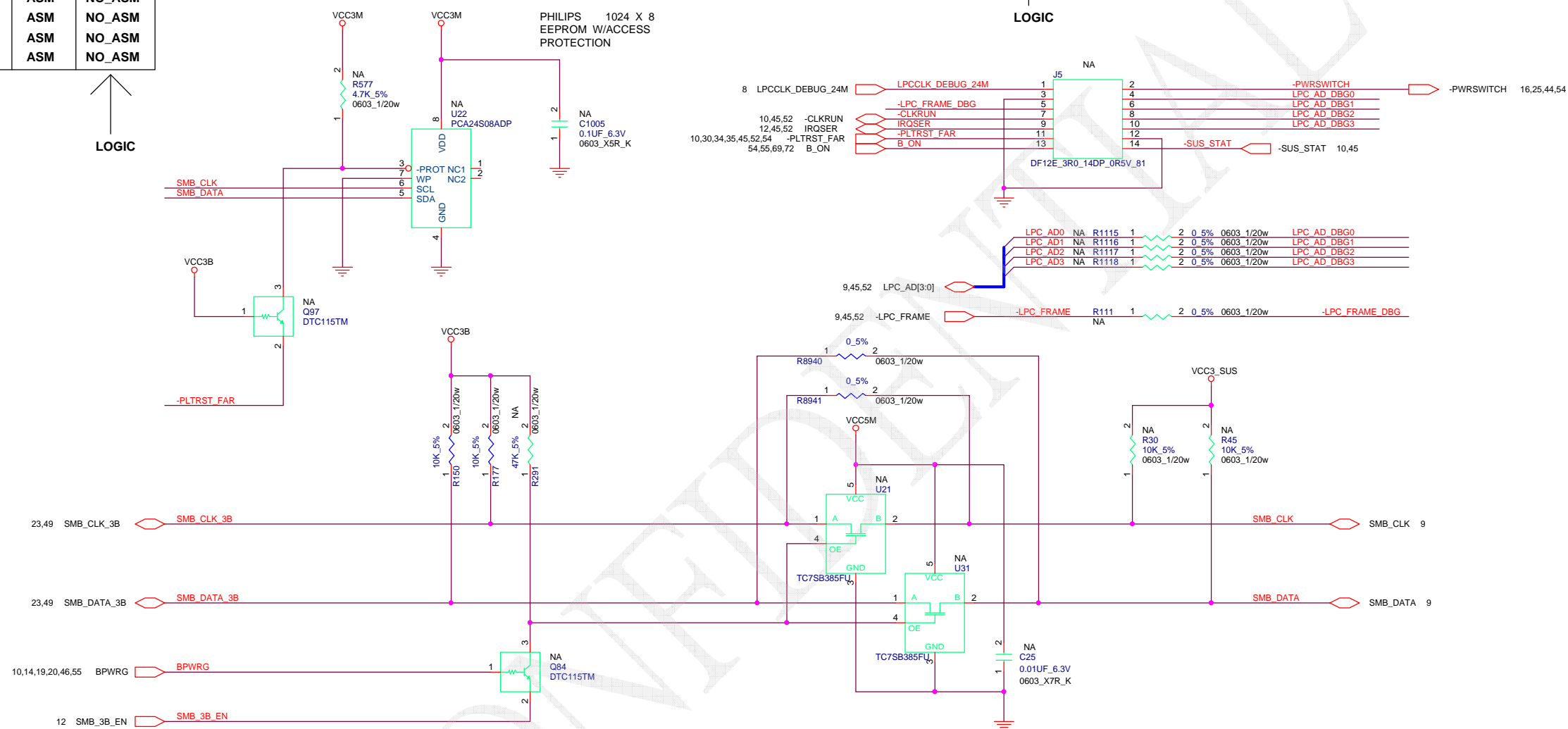
Project Name : RG2 SB SVT		Title : TPM	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 52 of 77	



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

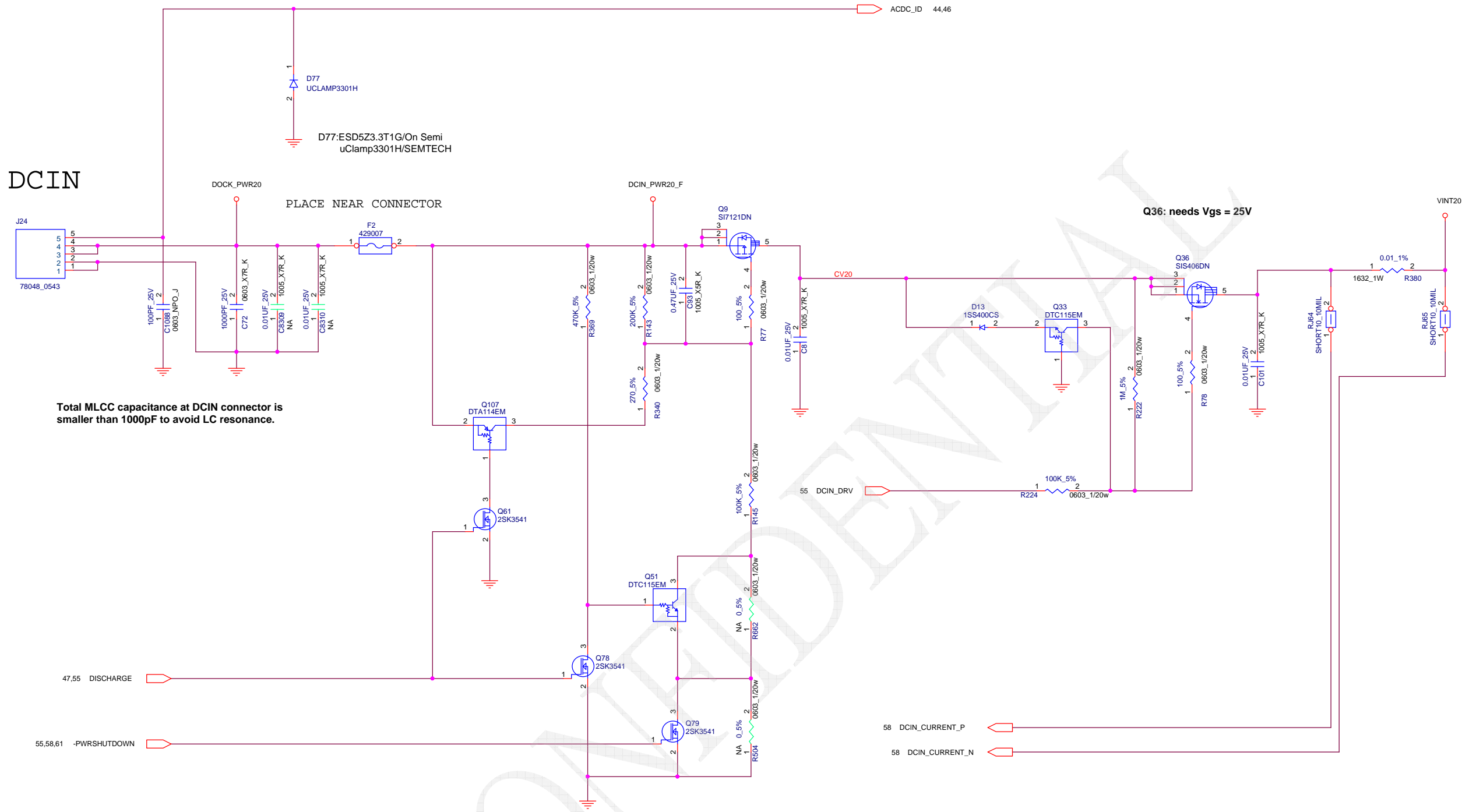
TABLE

E2PROM	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





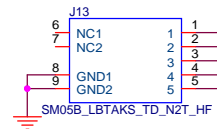


TABLE

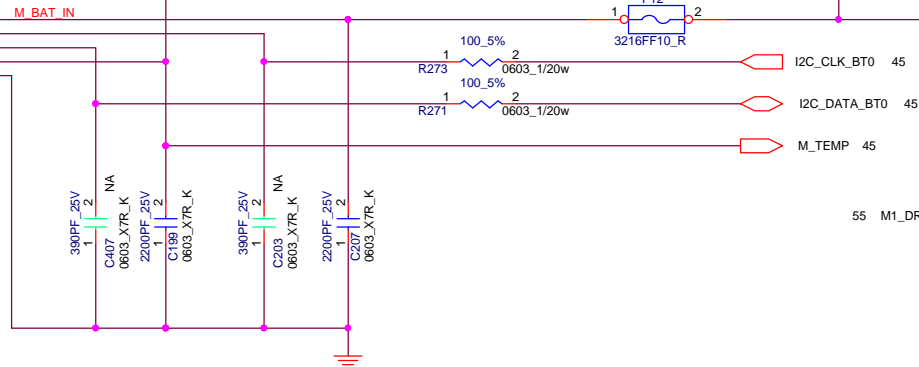
PEAK SHIFT	YES	NO
R662	NO-ASM	ASM
R369	ASM	NO-ASM
Q78	ASM	NO-ASM
Q51	ASM	NO-ASM

↑  
LOGIC

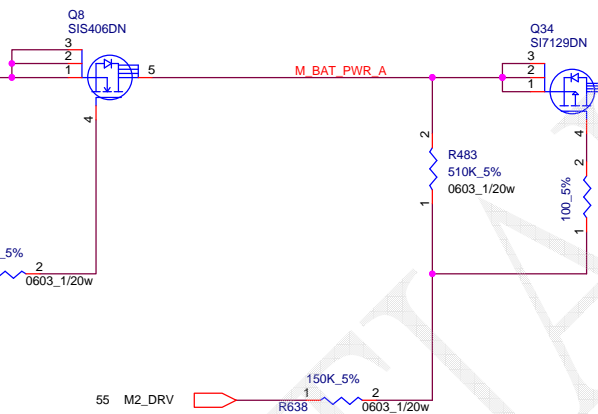
MAIN BAT CONN



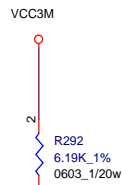
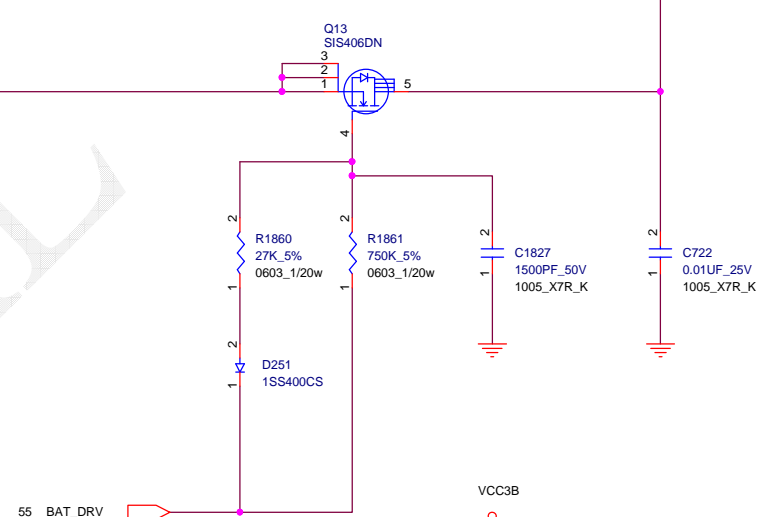
WIDE PATTERN



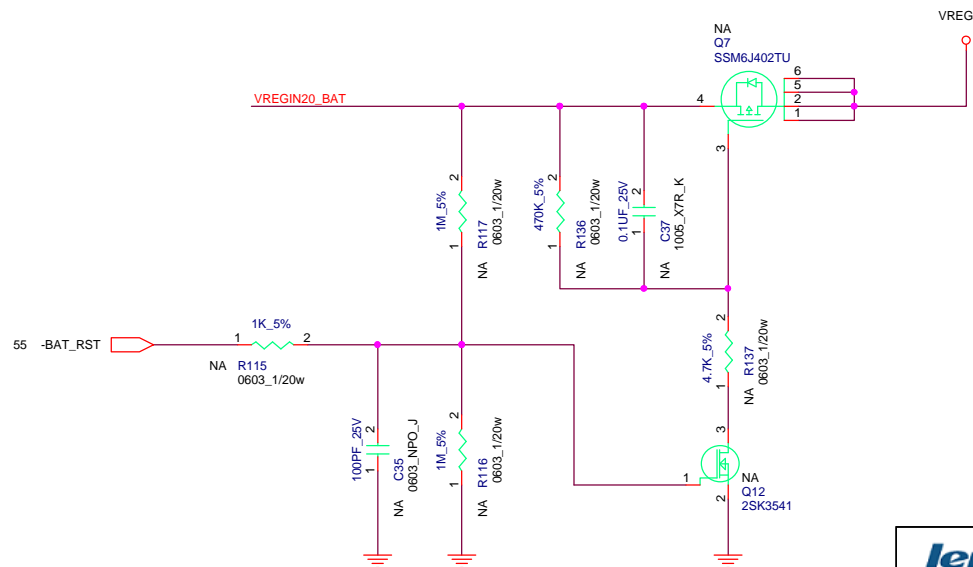
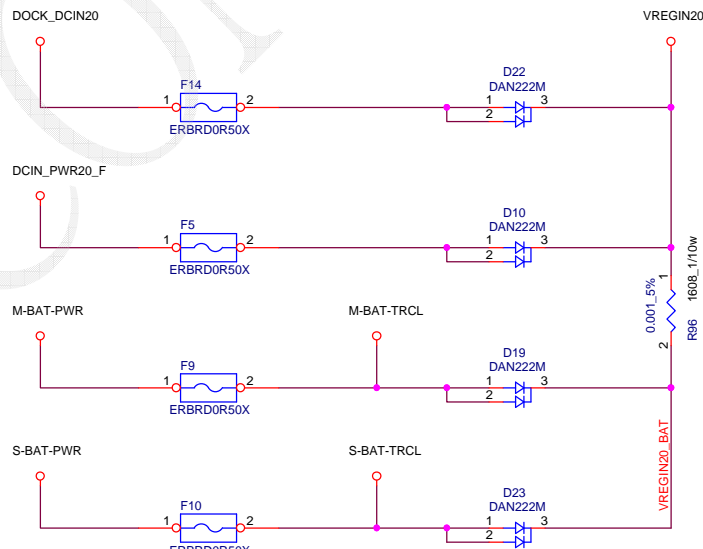
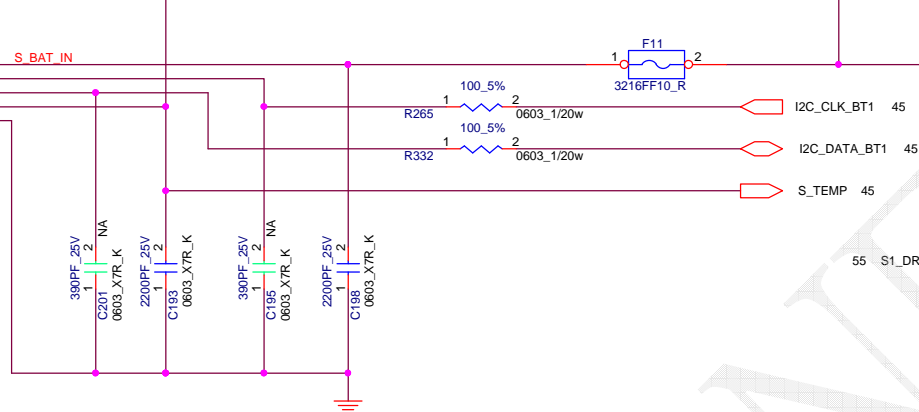
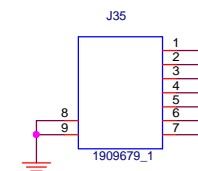
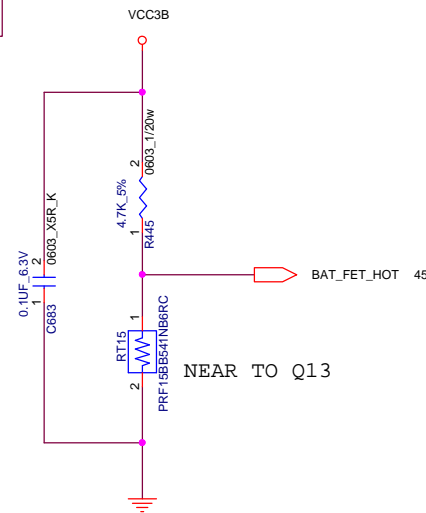
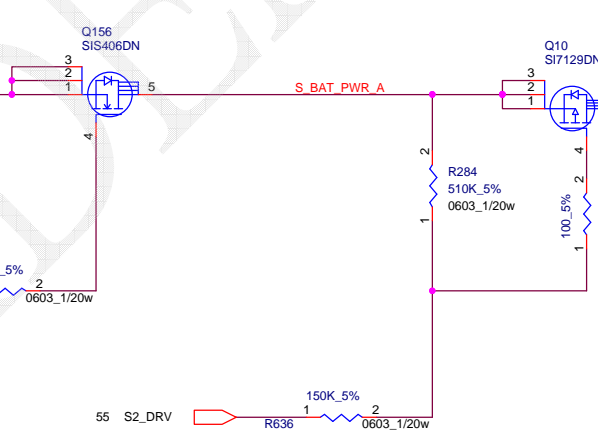
Q8: needs Vgs = 25V



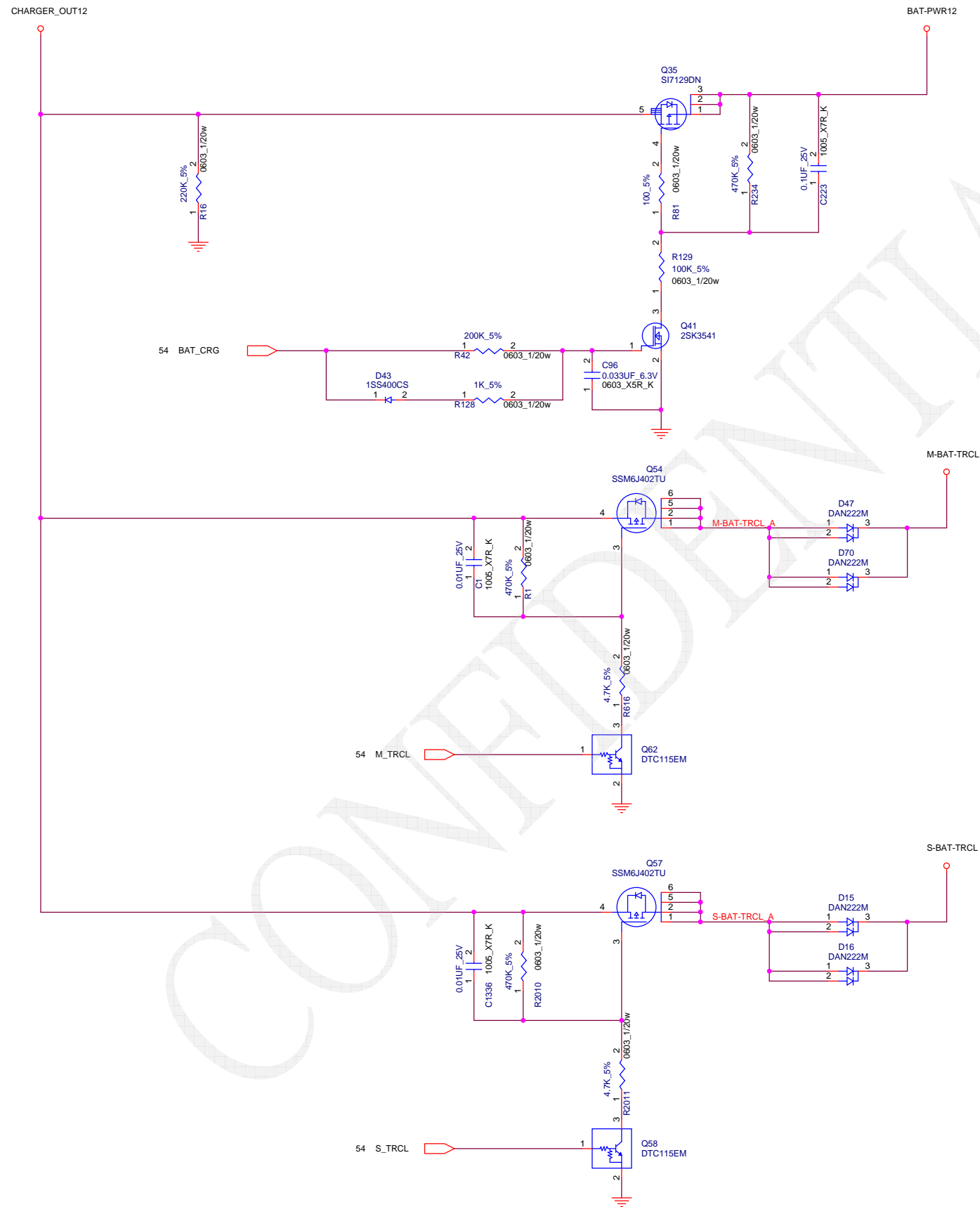
Q13: needs Vgs = 25V

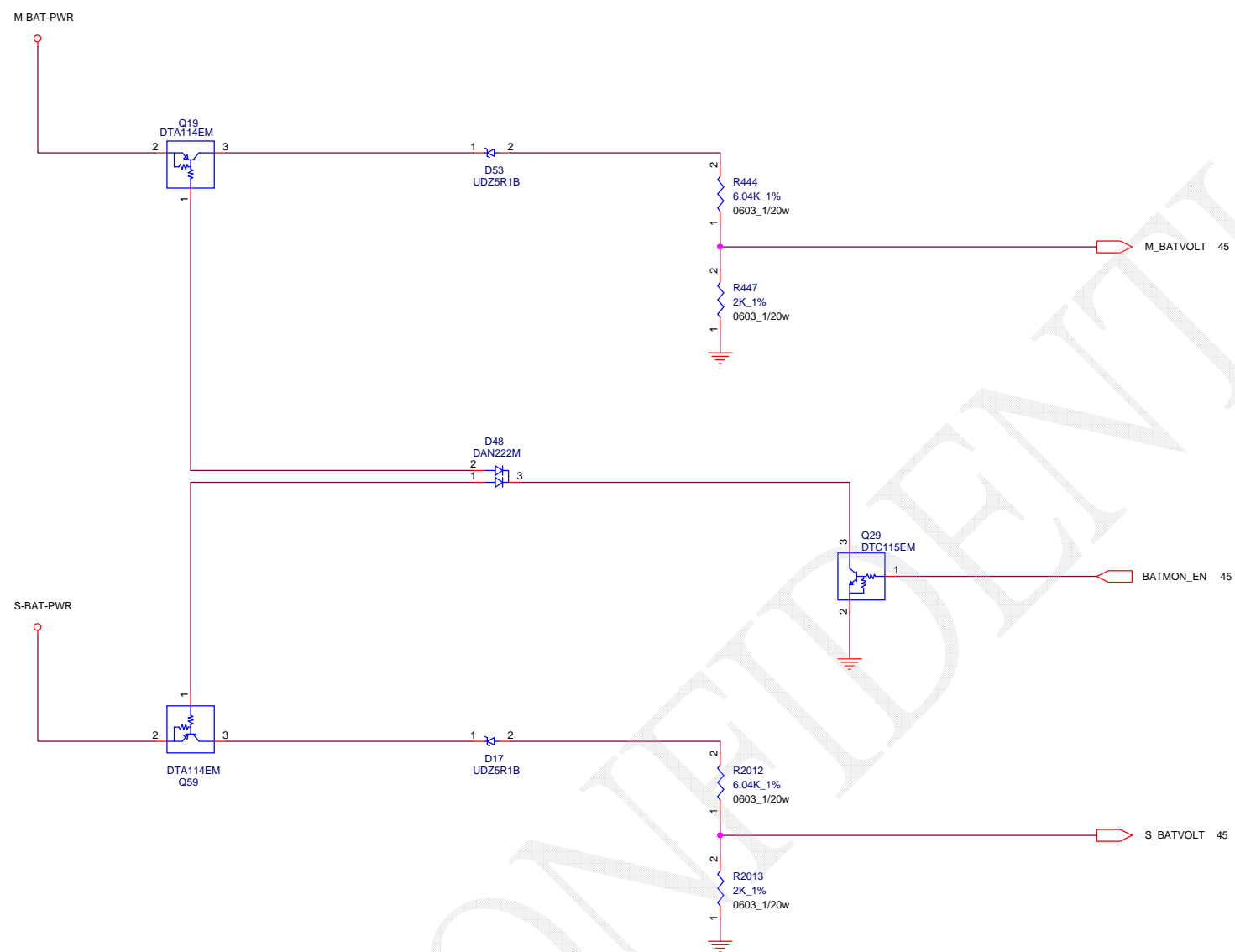


Q156: needs Vgs = 25V









Project Name :  
RG2 SB SVT

Title :  
BATTERY MONITOR

Size :  
C

Document Number :

Rev :  
5.05

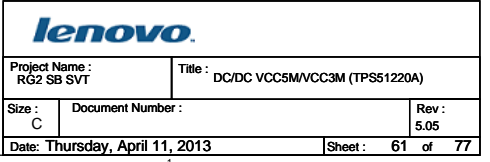
Date: Thursday, April 11, 2013

Sheet : 60 of 77



VL5                      VINT20

but MLCCs on 20V must  
only on Top and Bottom

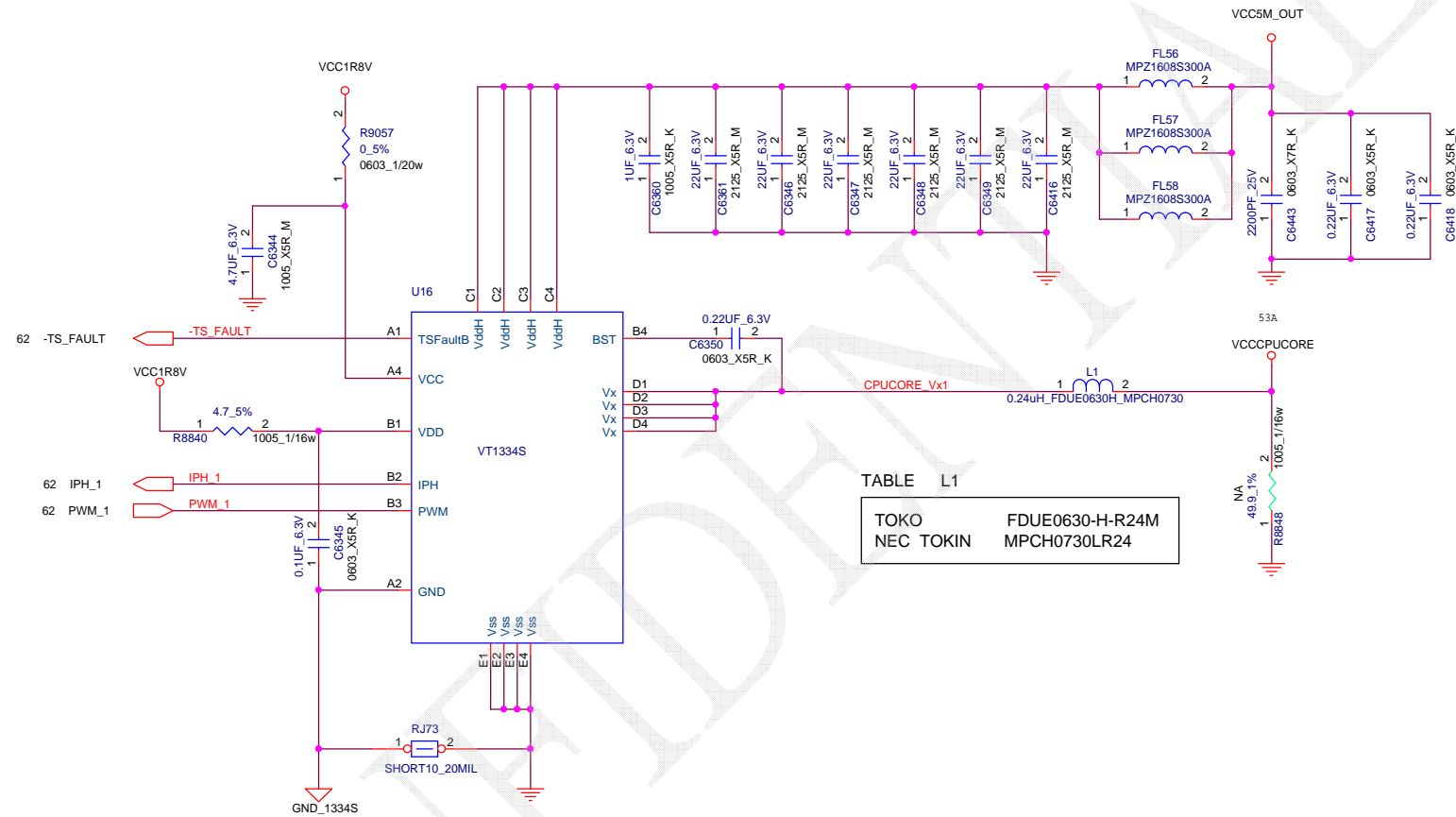


TDK	MLP1608V2R2B
TOKO	MDT1608-CH2R2N



Size : C	Document Number :	Rev : 5.05
-------------	-------------------	---------------

Date: Thursday, April 11, 2013	Sheet : 62 of 77
--------------------------------	------------------




Project Name : RG2 SB SVT Title : DC/DC VCCCPUCORE(VT1334S)

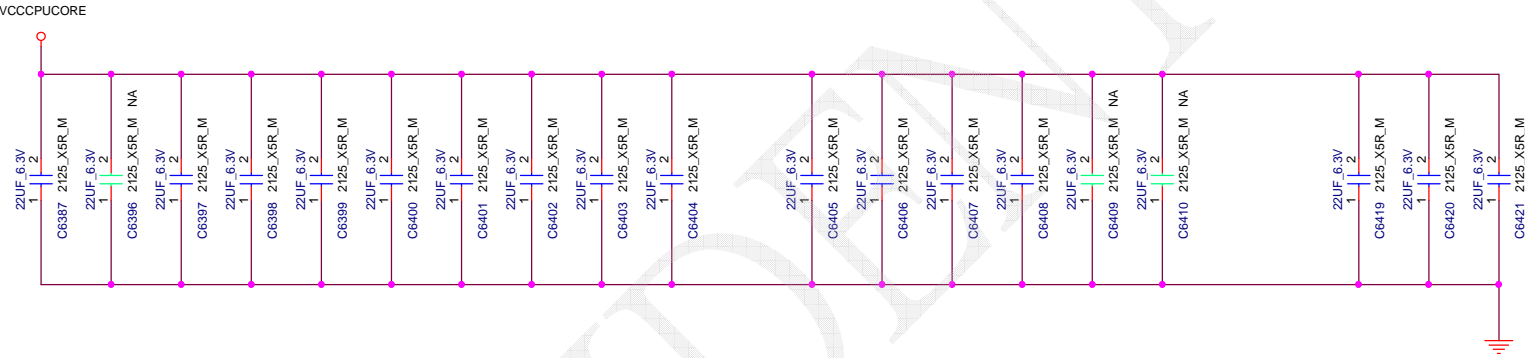
Size : C Document Number : Rev : 5.05

Date: Thursday, April 11, 2013 Sheet : 63 of 77

BLANK

CONFIDENTIAL

		
Project Name : RG2 SB SVT		Title : BLANK
Size : C	Document Number :	Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 64 of 77



16pcs 22uF for VCCCPUCORE

BLANK

CONFIDENTIAL

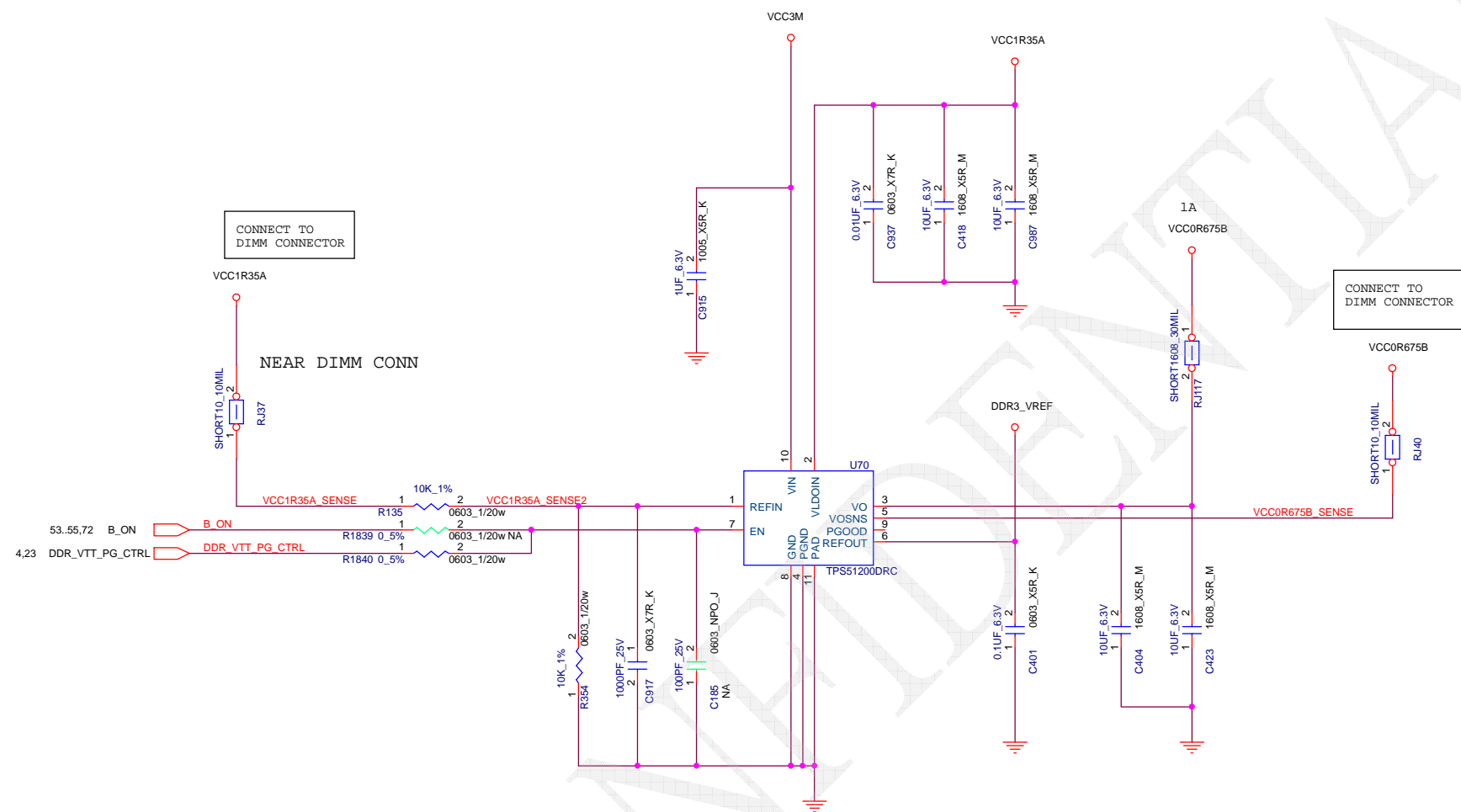


Project Name : RG2 SB SVT		Title : BLANK	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet :	66 of 77










BLANK

CONFIDENTIAL

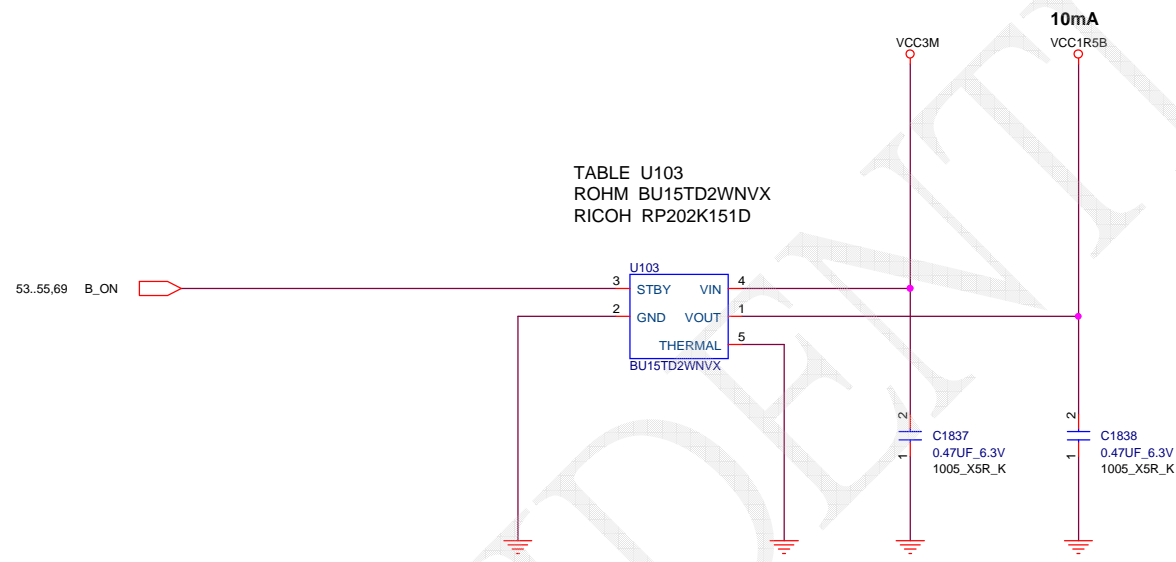
		
Project Name : RG2 SB SVT		Title : BLANK
Size : C	Document Number :	Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 70 of 77

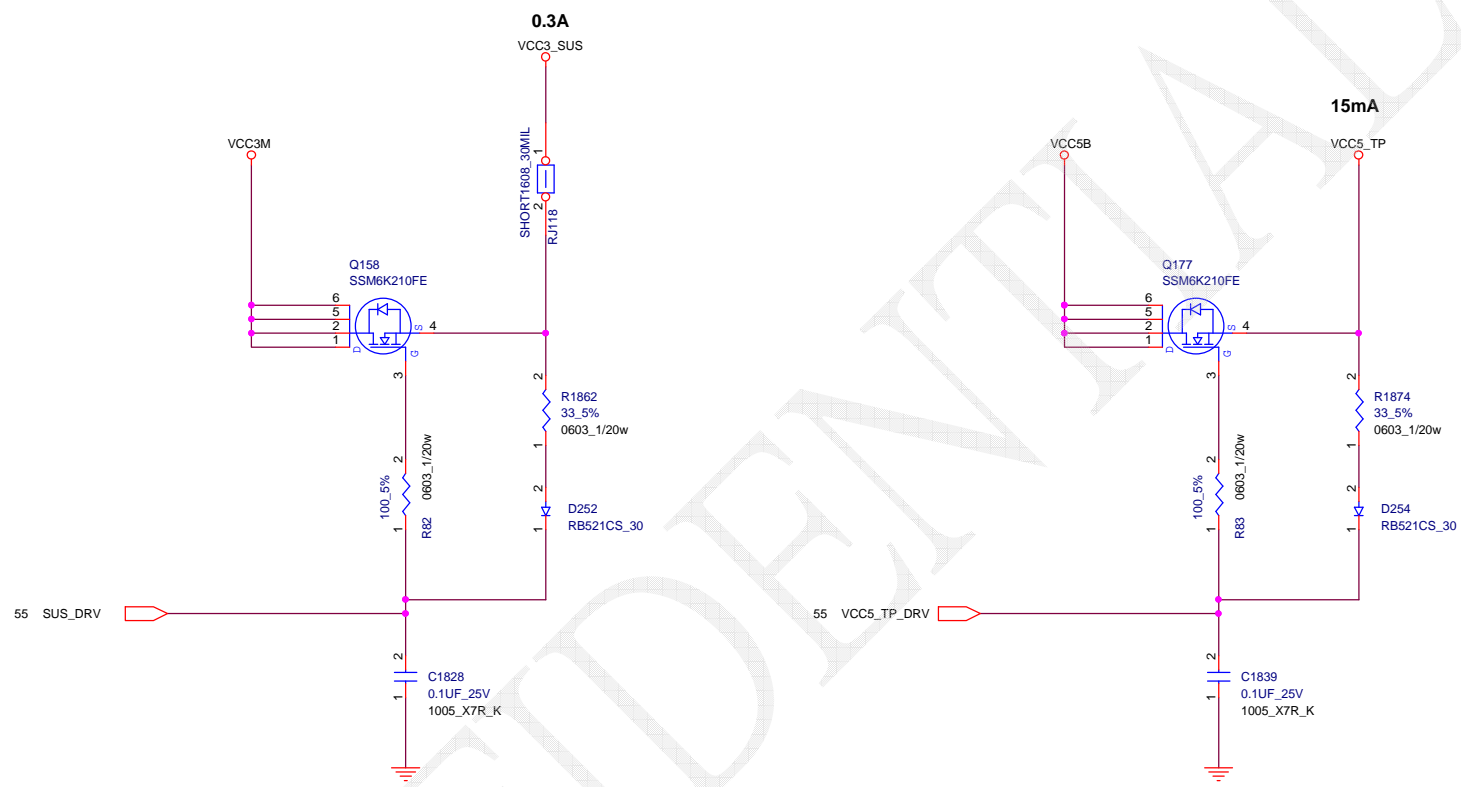
BLANK

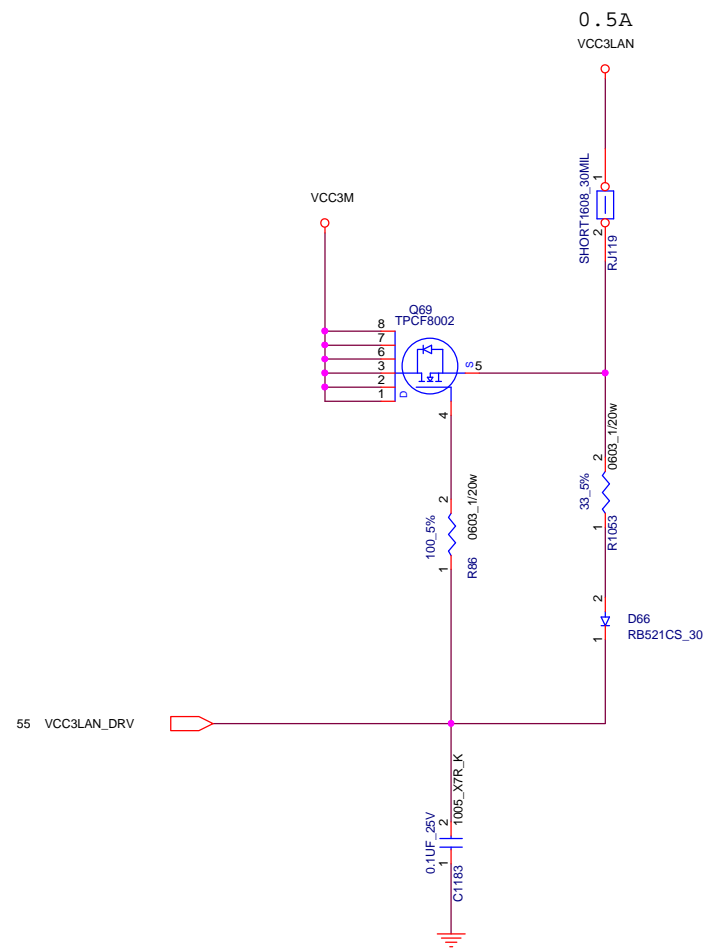
CONFIDENTIAL

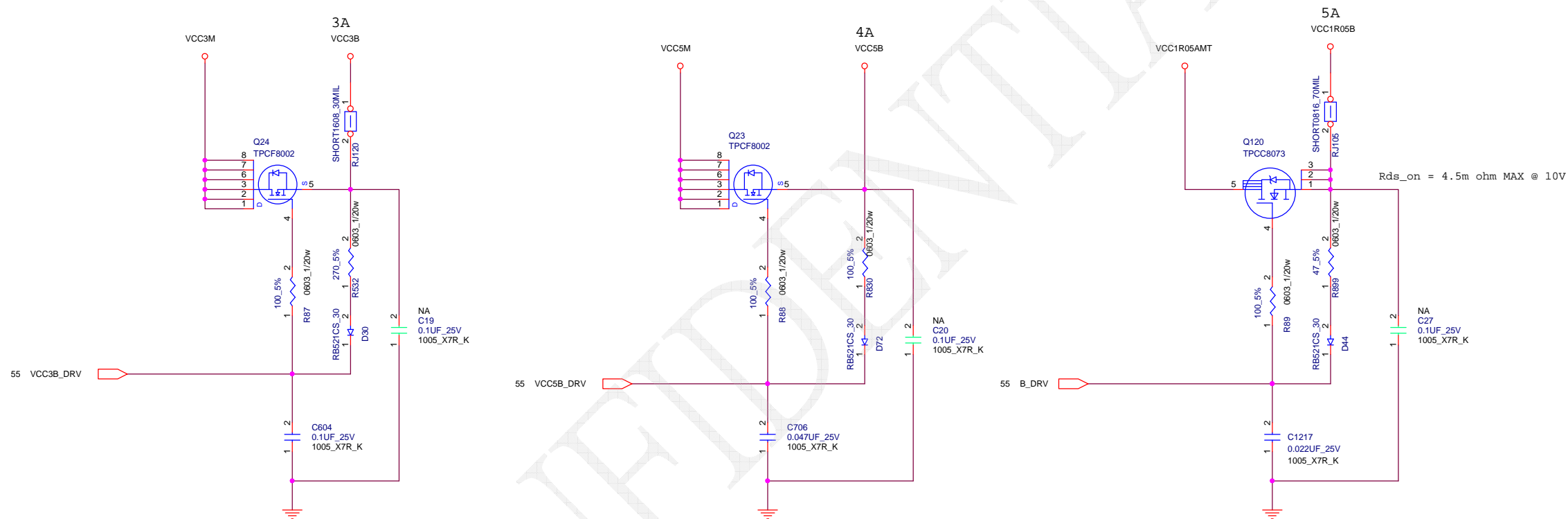


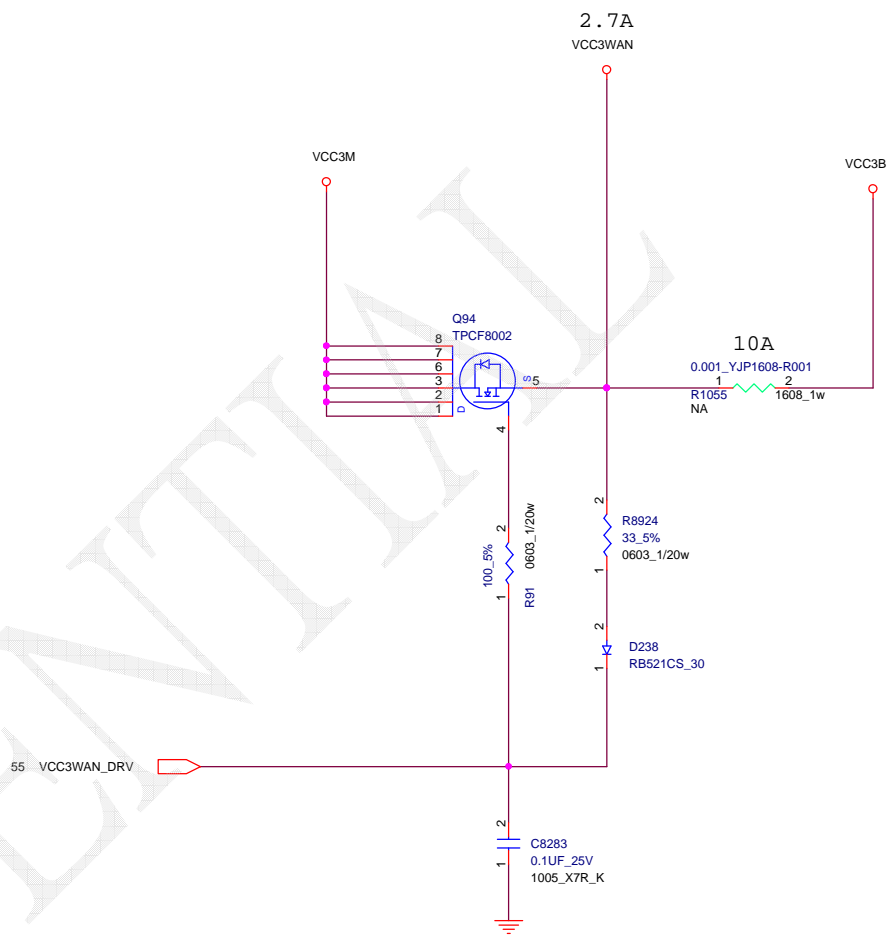
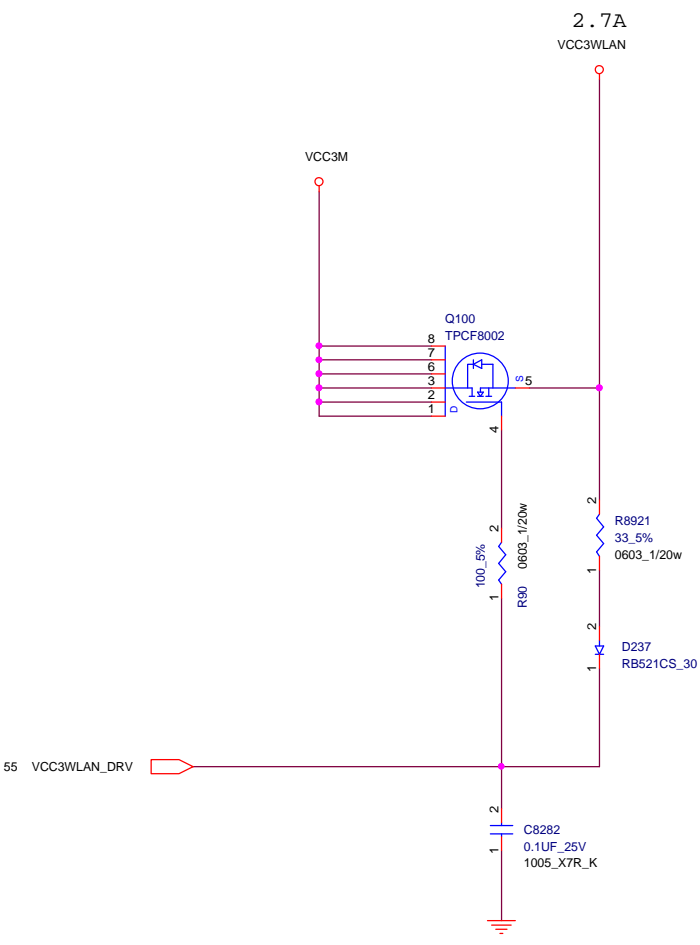
Project Name : RG2 SB SVT		Title : BLANK	
Size : C	Document Number :		Rev : 5.05
Date: Thursday, April 11, 2013		Sheet : 71 of 77	











TABLE

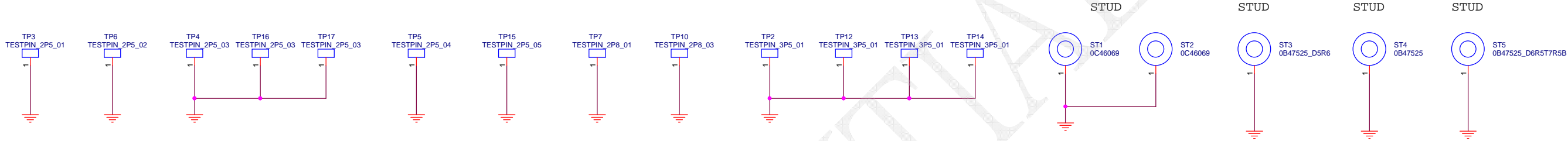
AOAC	YES	NO
R1055	NO-ASM	ASM
Q94	ASM	NO-ASM
R8924	ASM	NO-ASM
R8926	ASM	NO-ASM
C8283	ASM	NO-ASM
D238	ASM	NO-ASM

↑  
LOGIC

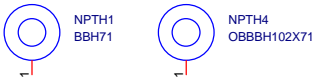


PTH FOR SCREW HOLE

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

- FD1

1 NC, NO CONNECT TO ANY.
- FD2

1 NC, NO CONNECT TO ANY.
- FD3

1 NC, NO CONNECT TO ANY.
- FD4

1 NC, NO CONNECT TO ANY.
- FD5

1 NC, NO CONNECT TO ANY.
- FD6

1 NC, NO CONNECT TO ANY.

FID  
Component Area

- CF1

1 NC, NO CONNECT TO ANY.
- CF2

1 NC, NO CONNECT TO ANY.
- CF3

1 NC, NO CONNECT TO ANY.
- CF4

1 NC, NO CONNECT TO ANY.
- CF5

1 NC, NO CONNECT TO ANY.
- CF6

1 NC, NO CONNECT TO ANY.
- CF7

1 NC, NO CONNECT TO ANY.
- CF8

1 NC, NO CONNECT TO ANY.
- CF9

1 NC, NO CONNECT TO ANY.
- CF10

1 NC, NO CONNECT TO ANY.
- CF11

1 NC, NO CONNECT TO ANY.
- CF12

1 NC, NO CONNECT TO ANY.
- CF13

1 NC, NO CONNECT TO ANY.
- CF14

1 NC, NO CONNECT TO ANY.
- CF15

1 NC, NO CONNECT TO ANY.
- CF16

1 NC, NO CONNECT TO ANY.
- CF17

1 NC, NO CONNECT TO ANY.
- CF18

1 NC, NO CONNECT TO ANY.
- CF19

1 NC, NO CONNECT TO ANY.
- CF20

1 NC, NO CONNECT TO ANY.
- CF21

1 NC, NO CONNECT TO ANY.
- CF22

1 NC, NO CONNECT TO ANY.
- CF27

1 NC, NO CONNECT TO ANY.
- CF28

1 NC, NO CONNECT TO ANY.