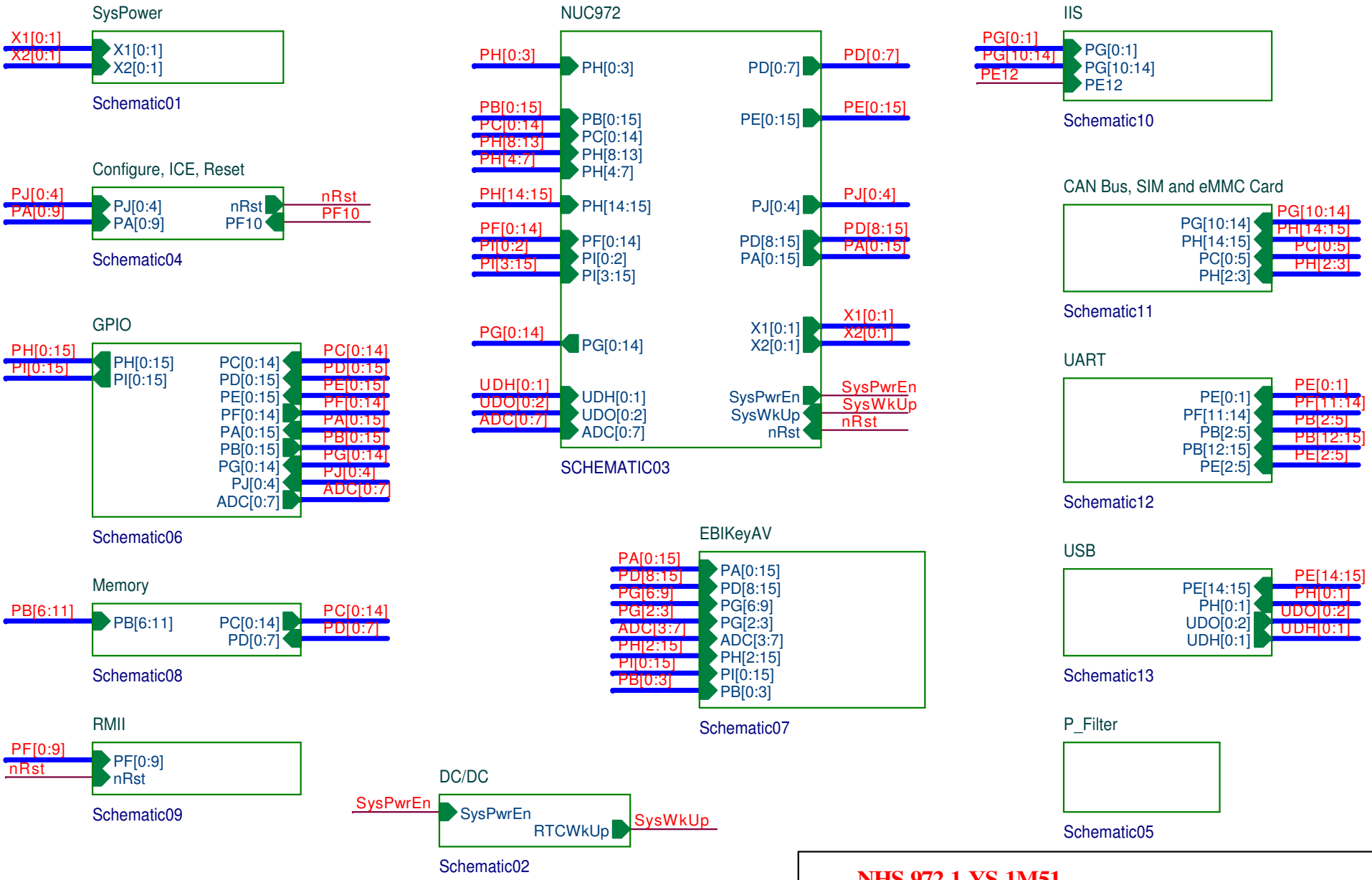
SysPower
X1[0:1]
X2[0:1]
X1[0:1]
X2[0:1]
Schematic01
Configure, ICE, Reset
PJ[0:4]
PA[0:9]
PJ[0:4]
PA[0:9]
nRst
PF10
nRst
PF10
Schematic04
GPIO
PH[0:15]
PI[0:15]
PH[0:15]
PI[0:15]
PC[0:14]
PD[0:15]
PE[0:15]
PF[0:14]
PA[0:15]
PB[0:15]
PG[0:14]
PJ[0:4]
ADC[0:7]
PC[0:14]
PD[0:15]
PE[0:15]
PF[0:14]
PA[0:15]
PB[0:15]
PG[0:14]
PJ[0:4]
ADC[0:7]
Schematic06
Memory
PB[6:11]
PB[6:11]
PC[0:14]
PD[0:7]
PC[0:14]
PD[0:7]
Schematic08
RMII
PF[0:9]
nRst
PF[0:9]
nRst
Schematic09
NUC972
PH[0:3]
PB[0:15]
PC[0:14]
PH[8:13]
PH[4:7]
PH[14:15]
PF[0:14]
PI[0:2]
PI[3:15]
PG[0:14]
UDH[0:1]
UDO[0:2]
ADC[0:7]
PH[0:3]
PB[0:15]
PC[0:14]
PH[8:13]
PH[4:7]
PH[14:15]
PF[0:14]
PI[0:2]
PI[3:15]
PG[0:14]
UDH[0:1]
UDO[0:2]
ADC[0:7]
PD[0:7]
PE[0:15]
PJ[0:4]
PD[8:15]
PA[0:15]
X1[0:1]
X2[0:1]
SysPwrEn
SysWkUp
nRst
PD[0:7]
PE[0:15]
PJ[0:4]
PD[8:15]
PA[0:15]
X1[0:1]
X2[0:1]
SysPwrEn
SysWkUp
nRst
SCHEMATIC03
EBIKeyAV
PA[0:15]
PD[8:15]
PG[6:9]
PG[2:3]
ADC[3:7]
PH[2:15]
PI[0:15]
PB[0:3]
PA[0:15]
PD[8:15]
PG[6:9]
PG[2:3]
ADC[3:7]
PH[2:15]
PI[0:15]
PB[0:3]
Schematic07
DC/DC
SysPwrEn
SysPwrEn
RTCWkUp
SysWkUp
Schematic02
IIS
PG[0:1]
PG[10:14]
PE12
PG[0:1]
PG[10:14]
PE12
Schematic10
CAN Bus, SIM and eMMC Card
PG[10:14]
PH[14:15]
PC[0:5]
PH[2:3]
PG[10:14]
PH[14:15]
PC[0:5]
PH[2:3]
Schematic11
UART
PE[0:1]
PF[11:14]
PB[2:5]
PB[12:15]
PE[2:5]
PE[0:1]
PF[11:14]
PB[2:5]
PB[12:15]
PE[2:5]
Schematic12
USB
PE[14:15]
PH[0:1]
UDO[0:2]
UDH[0:1]
PE[14:15]
PH[0:1]
UDO[0:2]
UDH[0:1]
Schematic13
P_Filter
Schematic05
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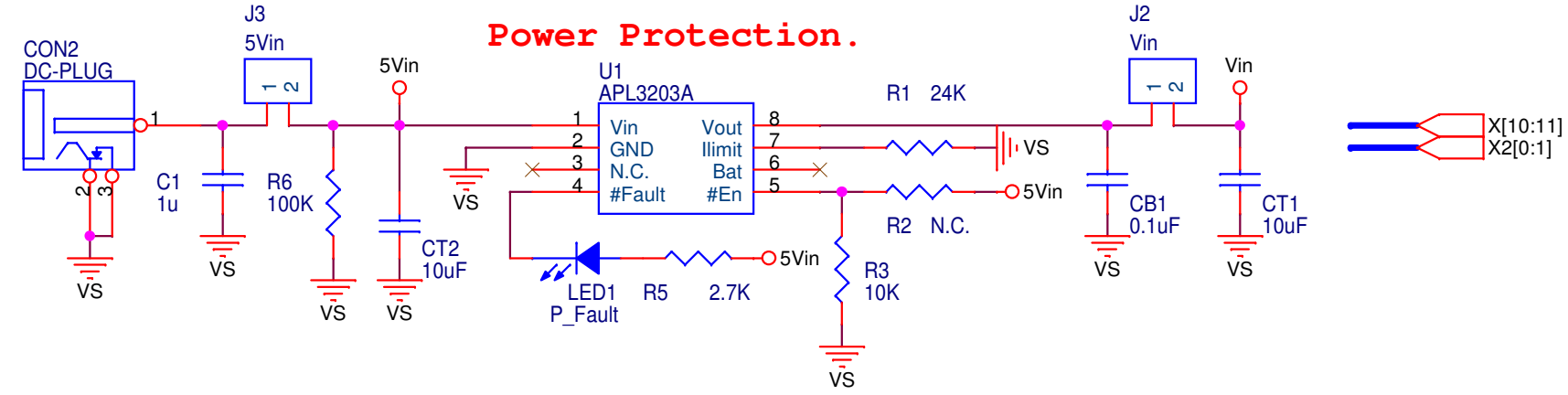
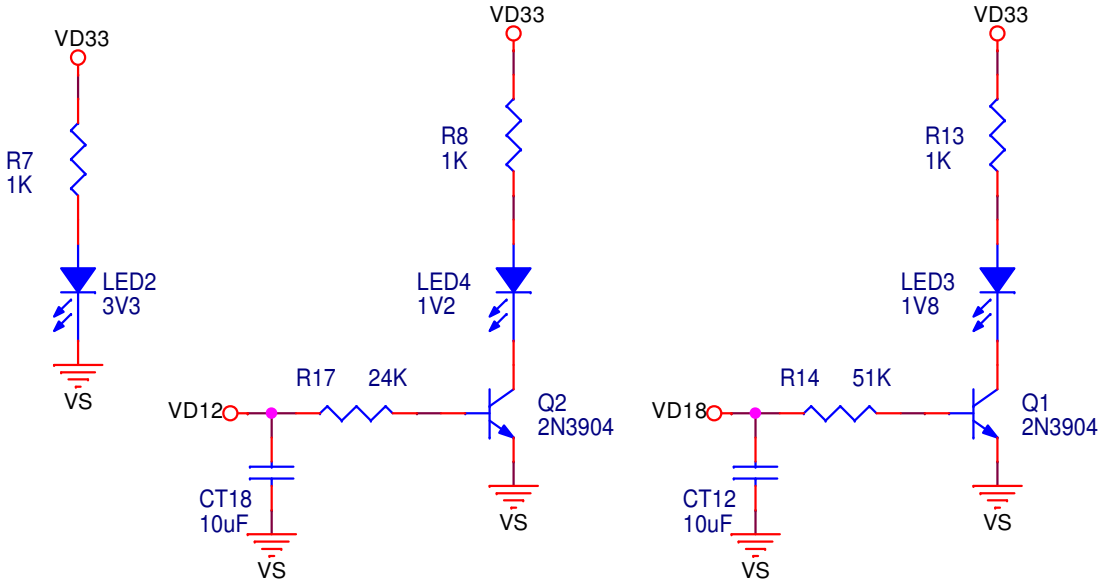
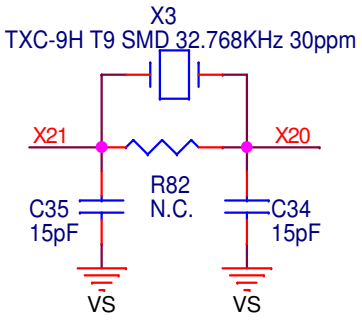
Power Protection.

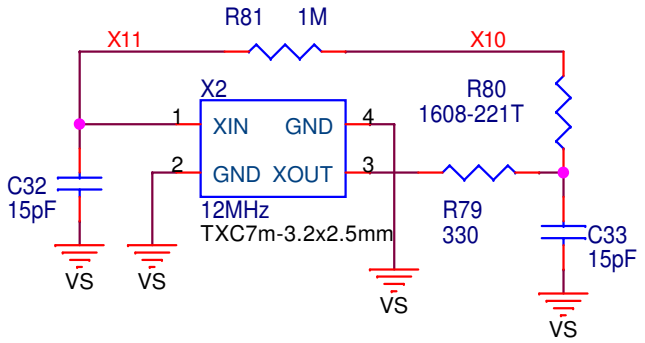




RTC Crystal



System Main Crystal



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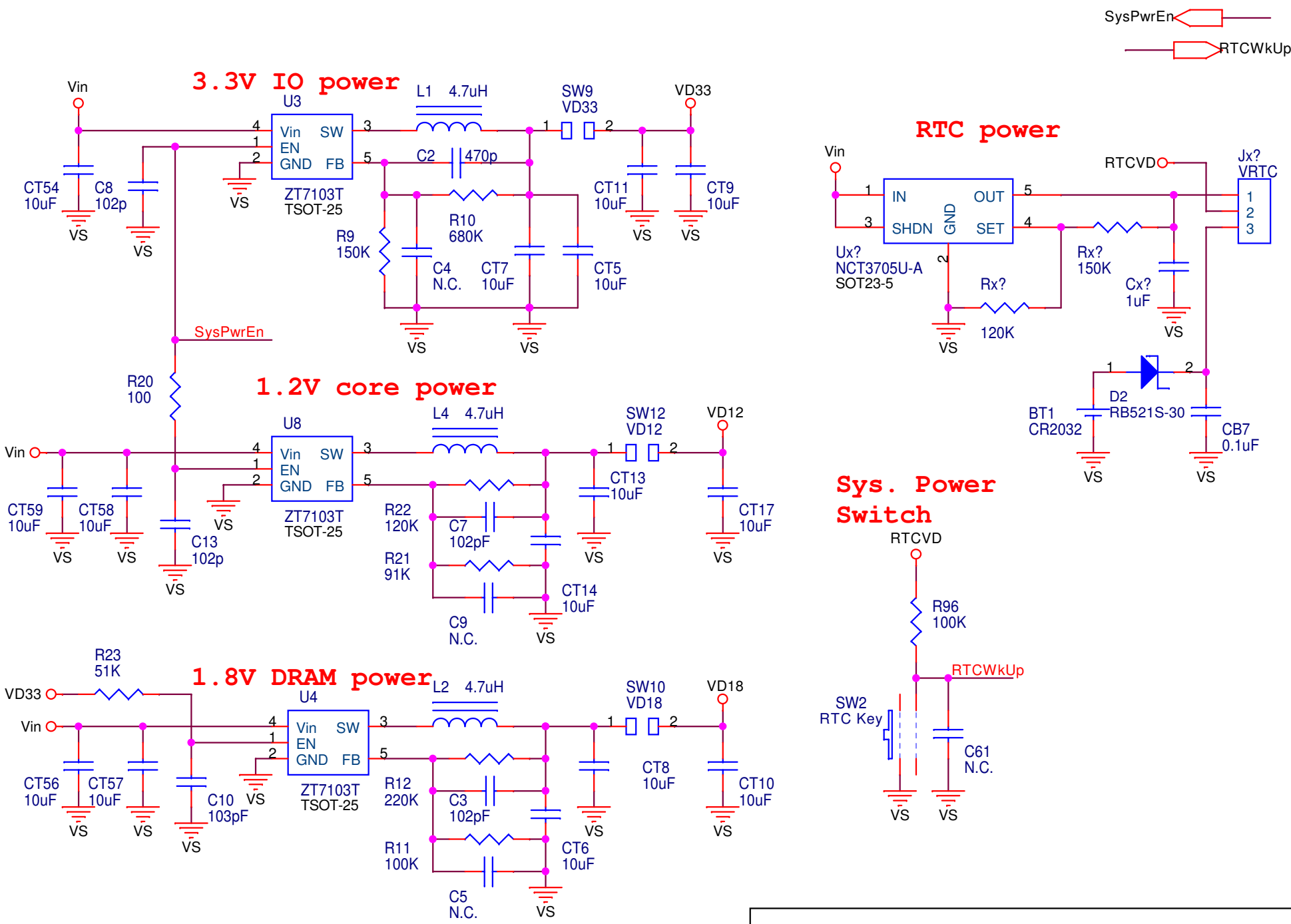

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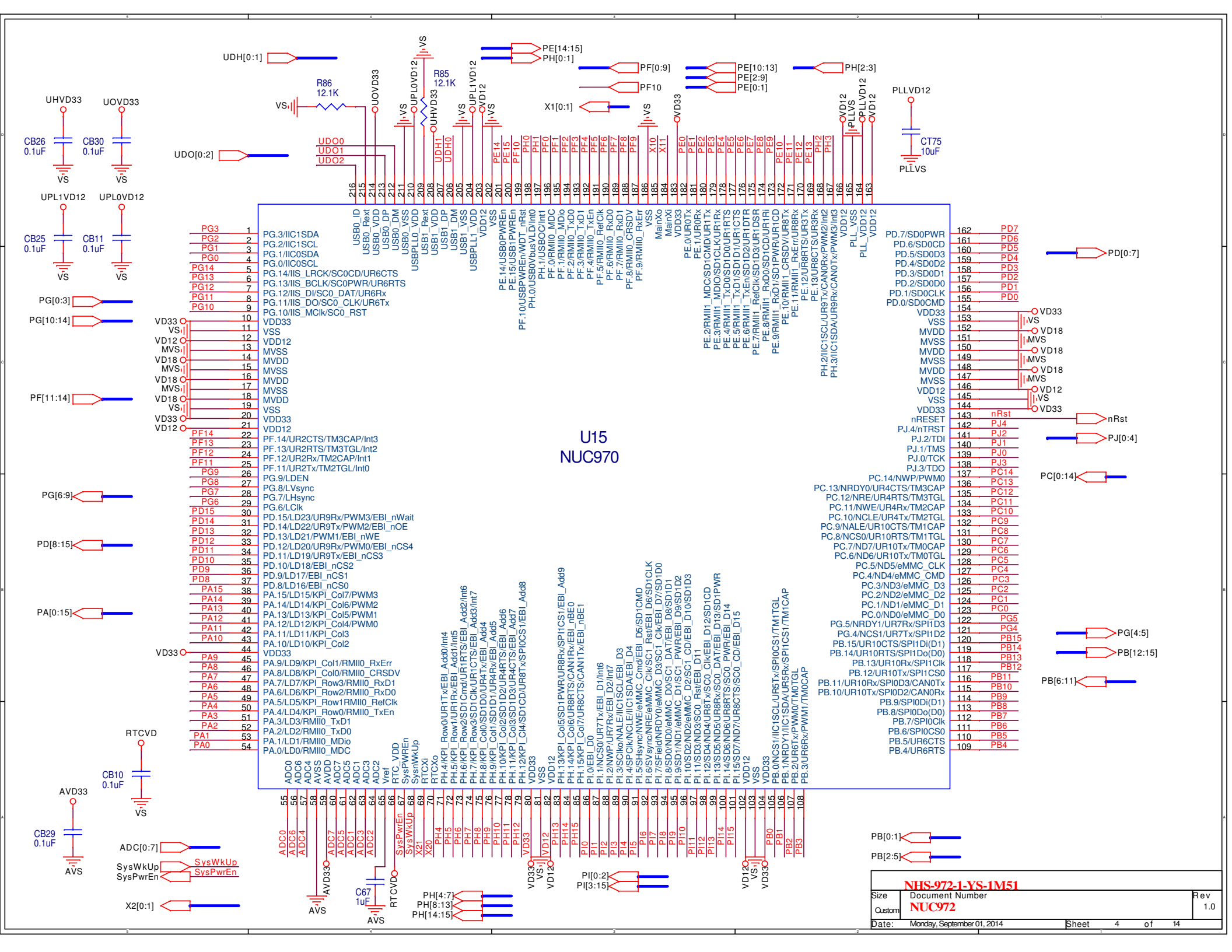
Date: Wednesday, September 03, 2014	Sheet 3 of 14	


U15
NUC970
R86
12.1K
R85
12.1K
UHVD33
UOVD33
UPL1VD12
UPL0VD12
PLLVD12
CB26
0.1uF
CB30
0.1uF
CB25
0.1uF
CB11
0.1uF
CT75
10uF
CB10
0.1uF
CB29
0.1uF
C67
1uF
VS
AVS
PLLVS
UDH[0:1]
UDO[0:2]
UDO0
UDO1
UDO2
X1[0:1]
X2[0:1]
PE[14:15]
PH[0:1]
PF[0:9]
PF10
PE[10:13]
PE[2:9]
PE[0:1]
PH[2:3]
PG[0:3]
PG[10:14]
PF[11:14]
PG[6:9]
PD[8:15]
PA[0:15]
PD[0:7]
PC[0:14]
PG[4:5]
PB[12:15]
PB[6:11]
PB[0:1]
PB[2:5]
PH[4:7]
PH[8:13]
PH[14:15]
PI[0:2]
PI[3:15]
ADC[0:7]
SysWkUp
SysPwrEn
nRst
PJ[0:4]
PG3 PG2 PG1 PG0 PG14 PG13 PG12 PG11 PG10
PG.3/IIC1SDA
PG.2/IIC1SCL
PG.1/IIC0SDA
PG.0/IIC0SCL
PG.14/IIS_LRCK/SC0CD/UR6CTS
PG.13/IIS_BCLK/SC0PWR/UR6RTS
PG.12/IIS_DI/SC0_DAT/UR6Rx
PG.11/IIS_DO/SC0_CLK/UR6Tx
PG.10/IIS_MClk/SC0_RST
PF14 PF13 PF12 PF11
PF.14/UR2CTS/TM3CAP/Int3
PF.13/UR2RTS/TM3TGL/Int2
PF.12/UR2Rx/TM2CAP/Int1
PF.11/UR2Tx/TM2TGL/Int0
PG9 PG8 PG7 PG6
PG.9/LDEN
PG.8/LVsync
PG.7/LHsync
PG.6/LClk
PD15 PD14 PD13 PD12 PD11 PD10 PD9 PD8
PD.15/LD23/UR9Rx/PWM3/EBI_nWait
PD.14/LD22/UR9Tx/PWM2/EBI_nOE
PD.13/LD21/PWM1/EBI_nWE
PD.12/LD20/UR9Rx/PWM0/EBI_nCS4
PD.11/LD19/UR9Tx/EBI_nCS3
PD.10/LD18/EBI_nCS2
PD.9/LD17/EBI_nCS1
PD.8/LD16/EBI_nCS0
PA15 PA14 PA13 PA12 PA11 PA10
PA.15/LD15/KPI_Col7/PWM3
PA.14/LD14/KPI_Col6/PWM2
PA.13/LD13/KPI_Col5/PWM1
PA.12/LD12/KPI_Col4/PWM0
PA.11/LD11/KPI_Col3
PA.10/LD10/KPI_Col2
PA9 PA8 PA7 PA6 PA5 PA4 PA3 PA2 PA1 PA0
PA.9/LD9/KPI_Col1/RMII0_RxErr
PA.8/LD8/KPI_Col0/RMII0_CRSDV
PA.7/LD7/KPI_Row3/RMII0_RxD1
PA.6/LD6/KPI_Row2/RMII0_RxD0
PA.5/LD5/KPI_Row1RMII0_RefClk
PA.4/LD4/KPI_Row0/RMII0_TxEn
PA.3/LD3/RMII0_TxD1
PA.2/LD2/RMII0_TxD0
PA.1/LD1/RMII0_MDio
PA.0/LD0/RMII0_MDC
PD7 PD6 PD5 PD4 PD3 PD2 PD1 PD0
PD.7/SD0PWR
PD.6/SD0CD
PD.5/SD0D3
PD.4/SD0D2
PD.3/SD0D1
PD.2/SD0D0
PD.1/SD0CLK
PD.0/SD0CMD
PC14 PC13 PC12 PC11 PC10 PC9 PC8 PC7 PC6 PC5 PC4 PC3 PC2 PC1 PC0
PC.14/NWP/PWM0
PC.13/NRDY0/UR4CTS/TM3CAP
PC.12/NRE/UR4RTS/TM3TGL
PC.11/NWE/UR4Rx/TM2CAP
PC.10/NCLE/UR4Tx/TM2TGL
PC.9/NALE/UR10CTS/TM1CAP
PC.8/NCS0/UR10RTS/TM1TGL
PC.7/ND7/UR10Tx/TM0CAP
PC.6/ND6/UR10Tx/TM0TGL
PC.5/ND5/eMMC_CLK
PC.4/ND4/eMMC_CMD
PC.3/ND3/eMMC_D3
PC.2/ND2/eMMC_D2
PC.1/ND1/eMMC_D1
PC.0/ND0/eMMC_D0
PG5 PG4 PB15 PB14 PB13 PB12 PB11 PB10 PB9 PB8 PB7 PB6 PB5 PB4
PG.5/NRDY1/UR7Rx/SPI1D3
PG.4/NCS1/UR7Tx/SPI1D2
PB.15/UR10CTS/SPI1Di(D1)
PB.14/UR10RTS/SPI1Do(D0)
PB.13/UR10Rx/SPI1Clk
PB.12/UR10Tx/SPI1CS0
PB.11/UR10Rx/SPI0D3/CAN0Tx
PB.10/UR10Tx/SPI0D2/CAN0Rx
PB.9/SPI0Di(D1)
PB.8/SPI0Do(D0)
PB.7/SPI0Clk
PB.6/SPI0CS0
PB.5/UR6CTS
PB.4/UR6RTS
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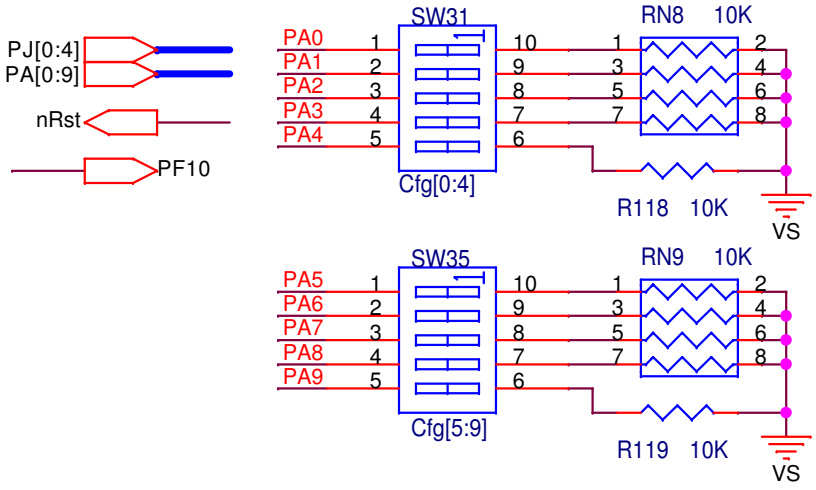
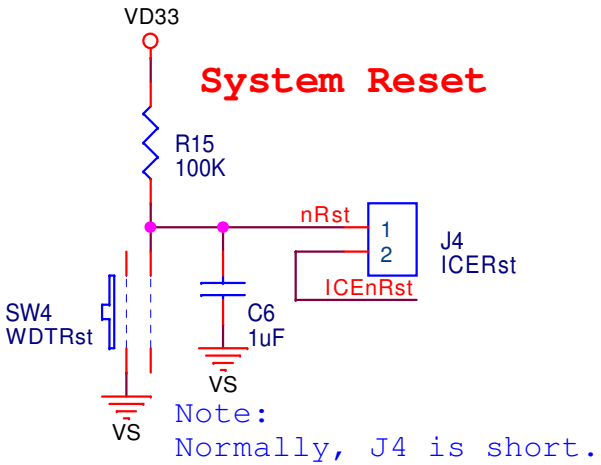
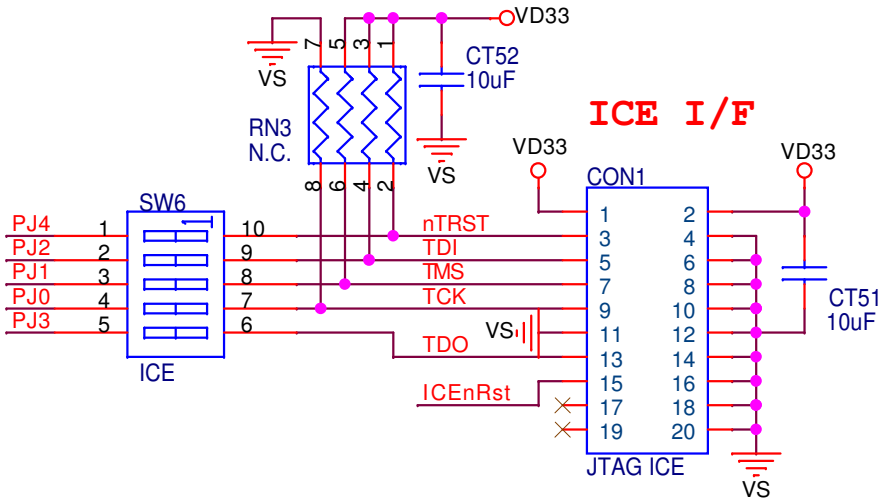



```
Cfg1:0] =
00 : Boot from USB.
01 : Boor from eMMC.
10 : Boot from NANA Flash.
11 : Boot from SPI Flash.

Cfg2 =
0 : System clock is from 12 MHz crystal.
1 : System clock is from UPLL output.

Cfg3 =
0 : WDT is OFF after power-on.
1 : WDT is ON after power-on.

Cfg4 =
0 : Pin PJ[4:0] used as GPIO pin.
1 : Pin PJ[4:0] used as JTAG interface.
```

```
Cfg5 =
0 : UART 0 debug message output ON.
1 : UART 0 debug message output OFF.

Cfg[7:6] =
00 : NAND Flash page size is 2KB.
01 : NAND Flash page size is 4KB.
10 : NAND Flash page size is 8KB.
11 : Ignore Power-On Setting.

Cfg[9:8] =
00 : NAND Flash ECC type is BCH T12.
01 : NAND Flash ECC type is BCH T15.
10 : NAND Flash ECC type is BCH T24.
11 : Ignore Power-On Setting.
```





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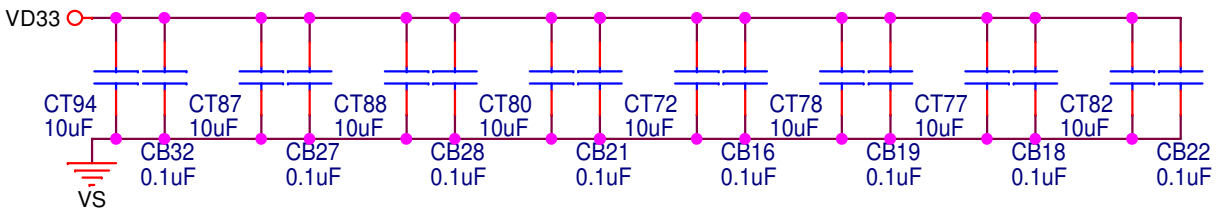

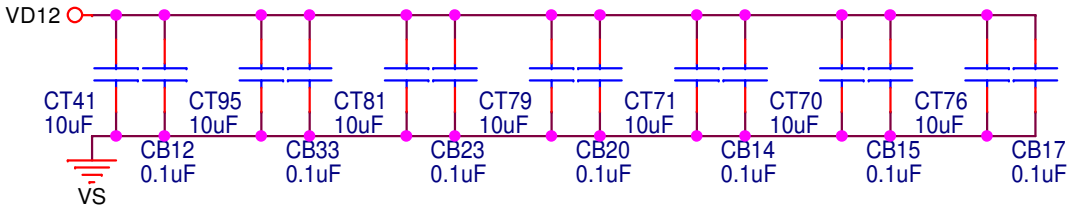

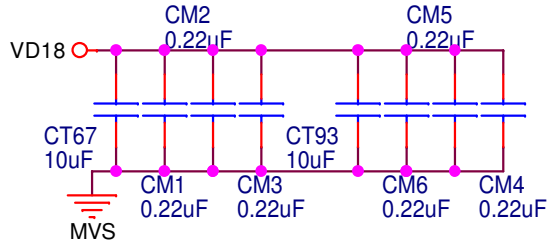

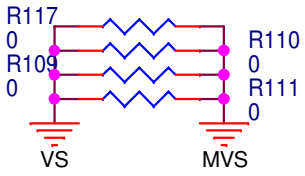

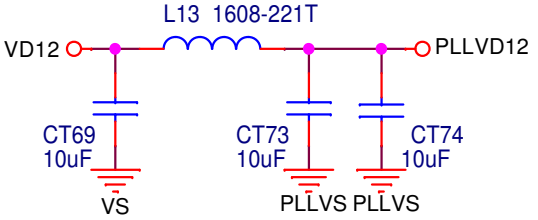

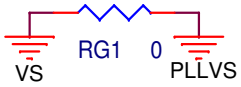

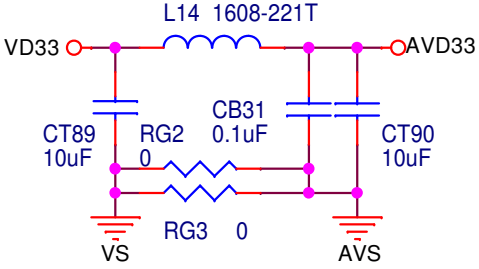

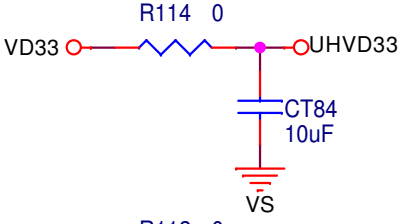

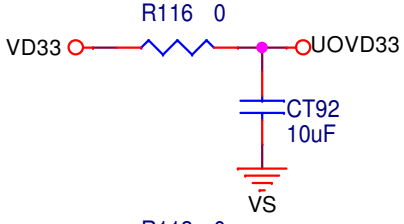

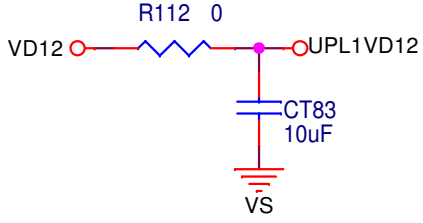

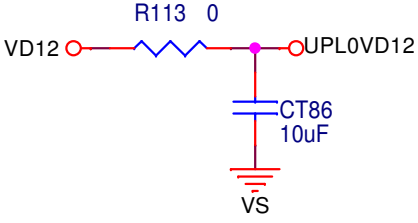

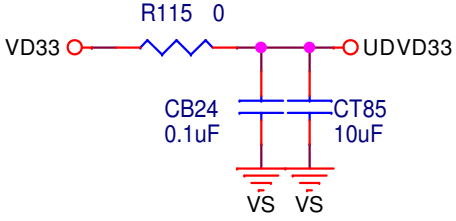

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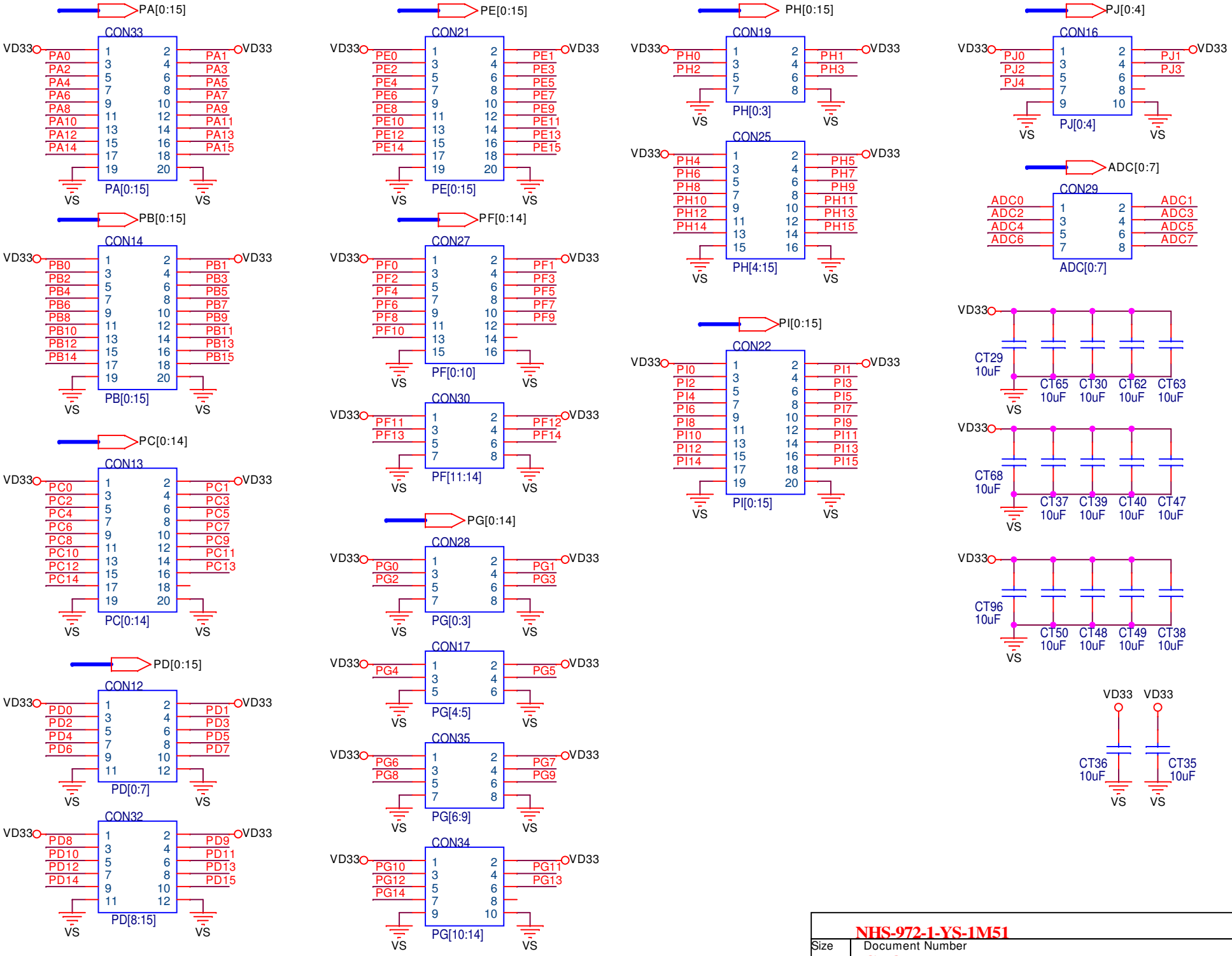

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Size: Custom	Document Number: GPIO	Rev: 1.0
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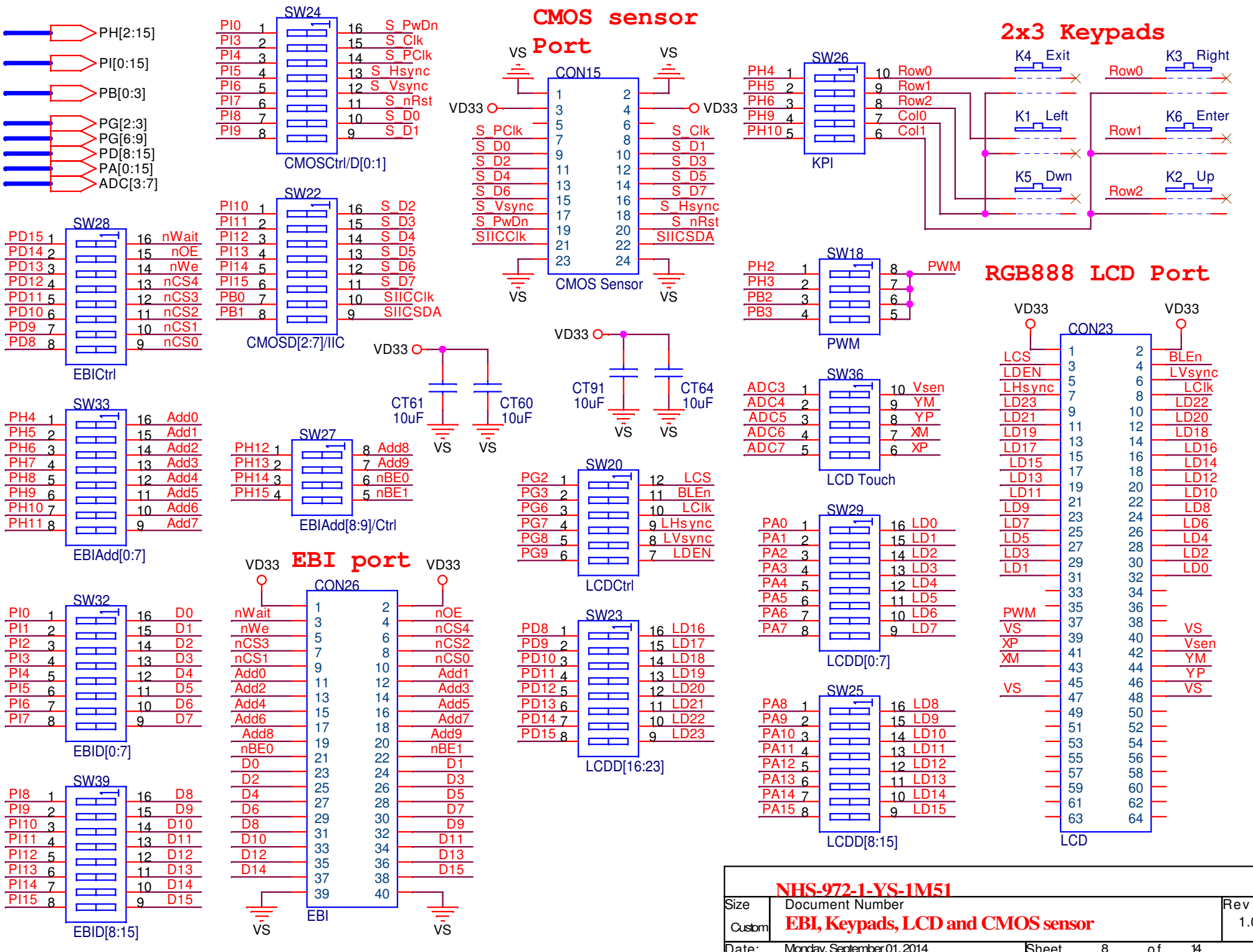
PH[2:15]
PI[0:15]
PB[0:3]
PG[2:3]
PG[6:9]
PD[8:15]
PA[0:15]
ADC[3:7]
SW24
PI0 1
PI3 2
PI4 3
PI5 4
PI6 5
PI7 6
PI8 7
PI9 8
16 S_PwDn
15 S_Clk
14 S_PClk
13 S_Hsync
12 S_Vsync
11 S_nRst
10 S_D0
9 S_D1
CMOSCtrl/D[0:1]
SW22
PI10 1
PI11 2
PI12 3
PI13 4
PI14 5
PI15 6
PB0 7
PB1 8
16 S_D2
15 S_D3
14 S_D4
13 S_D5
12 S_D6
11 S_D7
10 SIICClk
9 SIICSDA
CMOSD[2:7]/IIC
SW28
PD15 1
PD14 2
PD13 3
PD12 4
PD11 5
PD10 6
PD9 7
PD8 8
16 nWait
15 nOE
14 nWe
13 nCS4
12 nCS3
11 nCS2
10 nCS1
9 nCS0
EBICtrl
SW33
PH4 1
PH5 2
PH6 3
PH7 4
PH8 5
PH9 6
PH10 7
PH11 8
16 Add0
15 Add1
14 Add2
13 Add3
12 Add4
11 Add5
10 Add6
9 Add7
EBIAdd[0:7]
SW32
PI0 1
PI1 2
PI2 3
PI3 4
PI4 5
PI5 6
PI6 7
PI7 8
16 D0
15 D1
14 D2
13 D3
12 D4
11 D5
10 D6
9 D7
EBID[0:7]
SW39
PI8 1
PI9 2
PI10 3
PI11 4
PI12 5
PI13 6
PI14 7
PI15 8
16 D8
15 D9
14 D10
13 D11
12 D12
11 D13
10 D14
9 D15
EBID[8:15]
VD33
CT61
10uF
CT60
10uF
VS
SW27
PH12 1
PH13 2
PH14 3
PH15 4
8 Add8
7 Add9
6 nBE0
5 nBE1
EBIAdd[8:9]/Ctrl
EBI port
VD33
VD33
CON26
nWait 1
nWe 3
nCS3 5
nCS1 7
9
Add0 11
Add2 13
Add4 15
Add6 17
Add8 19
nBE0 21
D0 23
D2 25
D4 27
D6 29
D8 31
D10 33
D12 35
D14 37
39
2 nOE
4 nCS4
6 nCS2
8 nCS0
10 Add1
12 Add3
14 Add5
16 Add7
18 Add9
20 nBE1
22 D1
24 D3
26 D5
28 D7
30 D9
32 D11
34 D13
36 D15
38
40
EBI
VS
VS
CMOS sensor Port
VS
VS
CON15
VD33
VD33
1 2
3 4
5 6
7 8
9 10
11 12
13 14
15 16
17 18
19 20
21 22
23 24
S_PClk
S_D0
S_D2
S_D4
S_D6
S_Vsync
S_PwDn
SIICClk
S_Clk
S_D1
S_D3
S_D5
S_D7
S_Hsync
S_nRst
SIICSDA
CMOS Sensor
VS
VS
VD33
CT91
10uF
CT64
10uF
VS
VS
SW20
PG2 1
PG3 2
PG6 3
PG7 4
PG8 5
PG9 6
12 LCS
11 BLEn
10 LCIk
9 LHsync
8 LVsync
7 LDEN
LCDCtrl
SW23
PD8 1
PD9 2
PD10 3
PD11 4
PD12 5
PD13 6
PD14 7
PD15 8
16 LD16
15 LD17
14 LD18
13 LD19
12 LD20
11 LD21
10 LD22
9 LD23
LCDD[16:23]
2x3 Keypads
SW26
PH4 1
PH5 2
PH6 3
PH9 4
PH10 5
10 Row0
9 Row1
8 Row2
7 Col0
6 Col1
KPI
K4 Exit
K1 Left
K5 Dwn
K3 Right
K6 Enter
K2 Up
Row0
Row1
Row2
SW18
PH2 1
PH3 2
PB2 3
PB3 4
8 PWM
7
6
5
PWM
SW36
ADC3 1
ADC4 2
ADC5 3
ADC6 4
ADC7 5
10 Vsen
9 YM
8 YP
7 XM
6 XP
LCD Touch
SW29
PA0 1
PA1 2
PA2 3
PA3 4
PA4 5
PA5 6
PA6 7
PA7 8
16 LD0
15 LD1
14 LD2
13 LD3
12 LD4
11 LD5
10 LD6
9 LD7
LCDD[0:7]
SW25
PA8 1
PA9 2
PA10 3
PA11 4
PA12 5
PA13 6
PA14 7
PA15 8
16 LD8
15 LD9
14 LD10
13 LD11
12 LD12
11 LD13
10 LD14
9 LD15
LCDD[8:15]
RGB888 LCD Port
VD33
VD33
CON23
LCS 1
LDEN 3
LHsync 5
LD23 7
LD21 9
LD19 11
LD17 13
LD15 15
LD13 17
LD11 19
LD9 21
LD7 23
LD5 25
LD3 27
LD1 29
31
PWM 33
VS 35
XP 37
XM 39
41
VS 43
45
47
49
51
53
55
57
59
61
63
2 BLEn
4 LVsync
6 LCIk
8 LD22
10 LD20
12 LD18
14 LD16
16 LD14
18 LD12
20 LD10
22 LD8
24 LD6
26 LD4
28 LD2
30 LD0
32
34
36
38 VS
40 Vsen
42 YM
44 YP
46 VS
48
50
52
54
56
58
60
62
64
LCD
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Size
Custom
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EBI, Keypads, LCD and CMOS sensor
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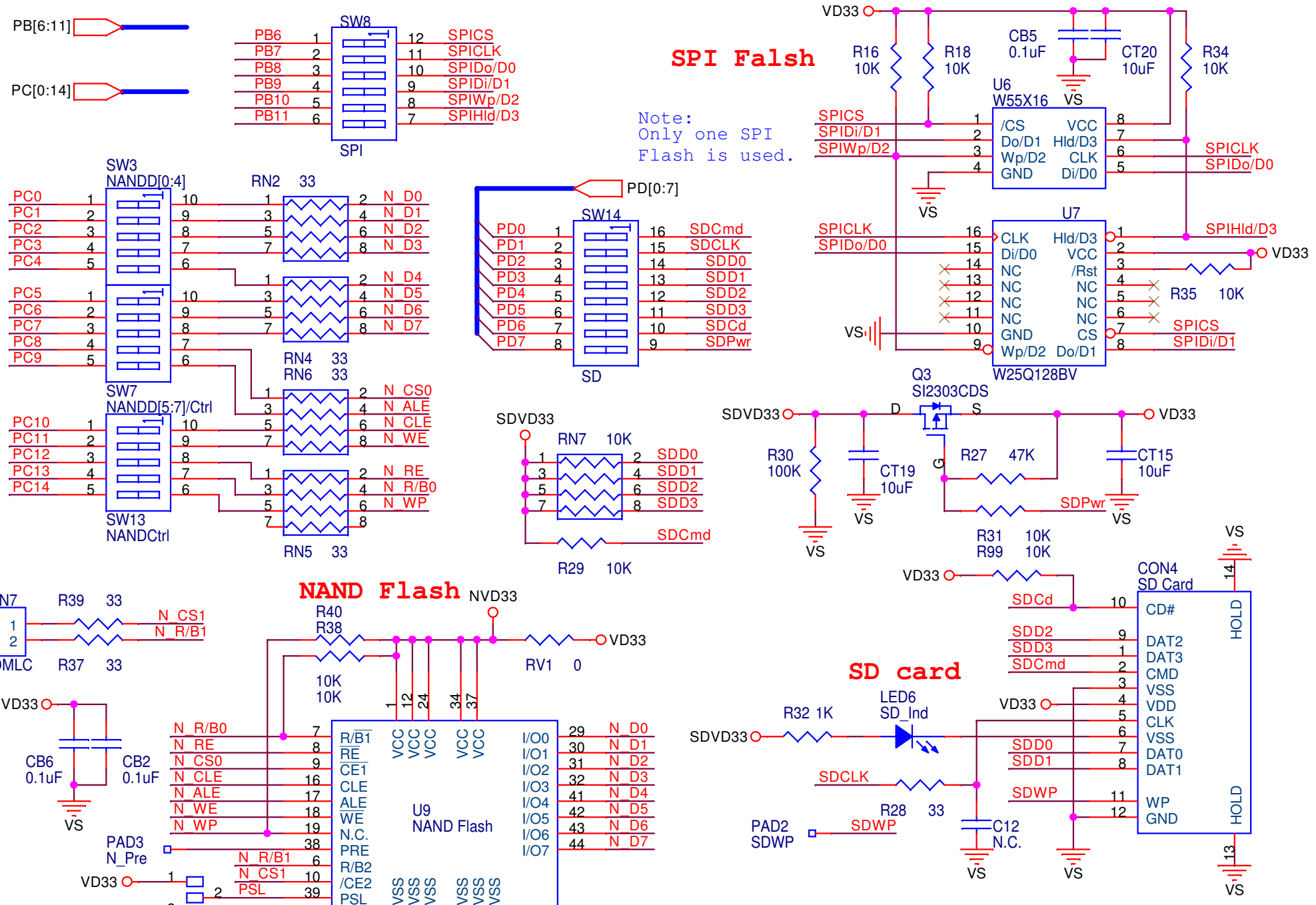
SPI Falsh
Note:
Only one SPI
Flash is used.
NAND Flash
SD card
PB[6:11]
PC[0:14]
SW8
SPI
SW3
NANDD[0:4]
SW7
NANDD[5:7]/Ctrl
SW13
NANDCtrl
RN2 33
RN4 33
RN6 33
RN5 33
PD[0:7]
SW14
SD
RN7 10K
R29 10K
SDVD33
VD33
R16 10K
R18 10K
CB5 0.1uF
CT20 10uF
R34 10K
U6
W55X16
U7
W25Q128BV
R35 10K
Q3
SI2303CDS
R30 100K
CT19 10uF
R27 47K
CT15 10uF
R31 10K
R99 10K
CON7
NANDMLC
R39 33
R37 33
R40
R38
10K
10K
RV1 0
NVD33
CB6 0.1uF
CB2 0.1uF
U9
NAND Flash
PAD3
N_Pre
SW5
PSL
R32 1K
LED6
SD_Ind
R28 33
C12
N.C.
PAD2
SDWP
CON4
SD Card
VS
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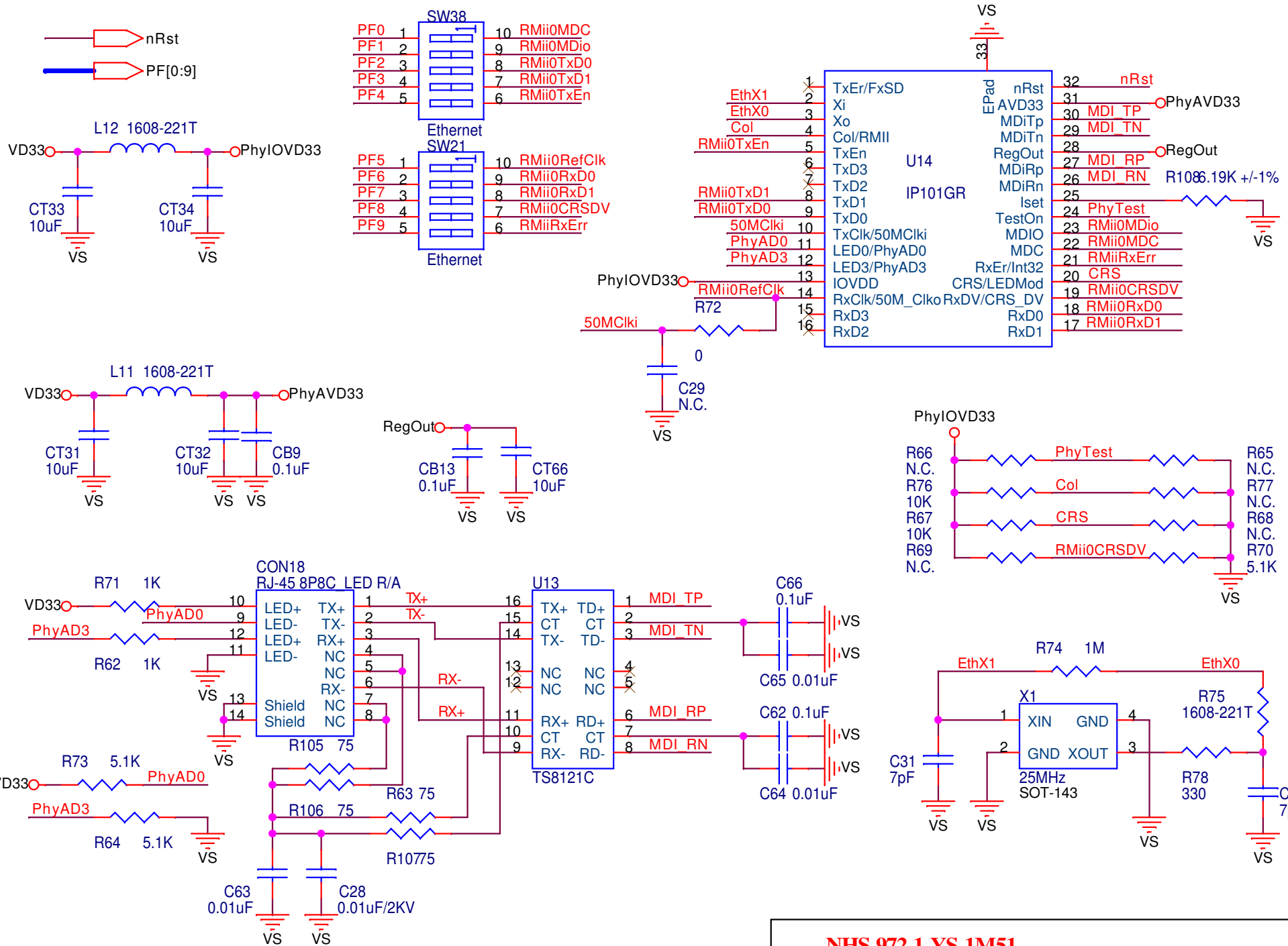

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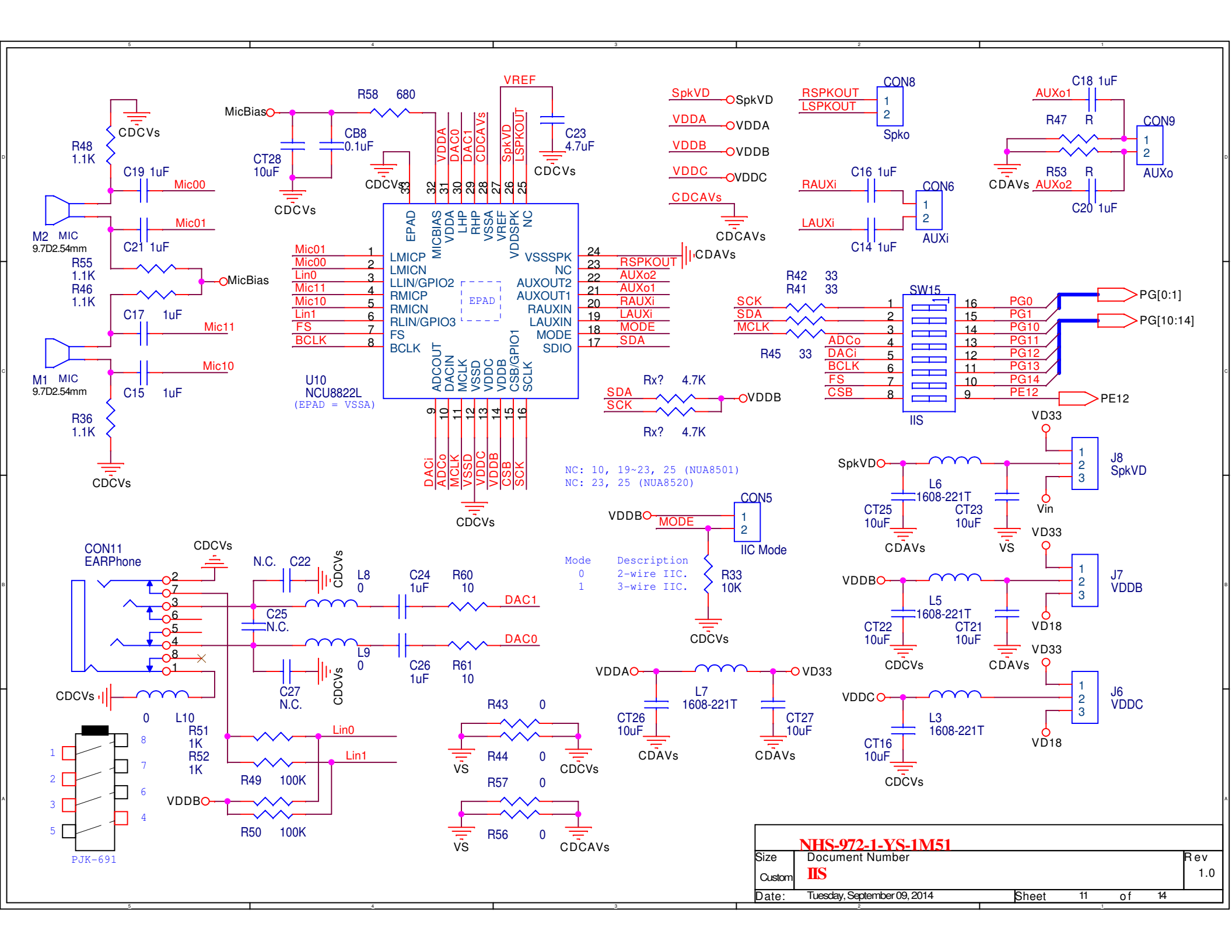

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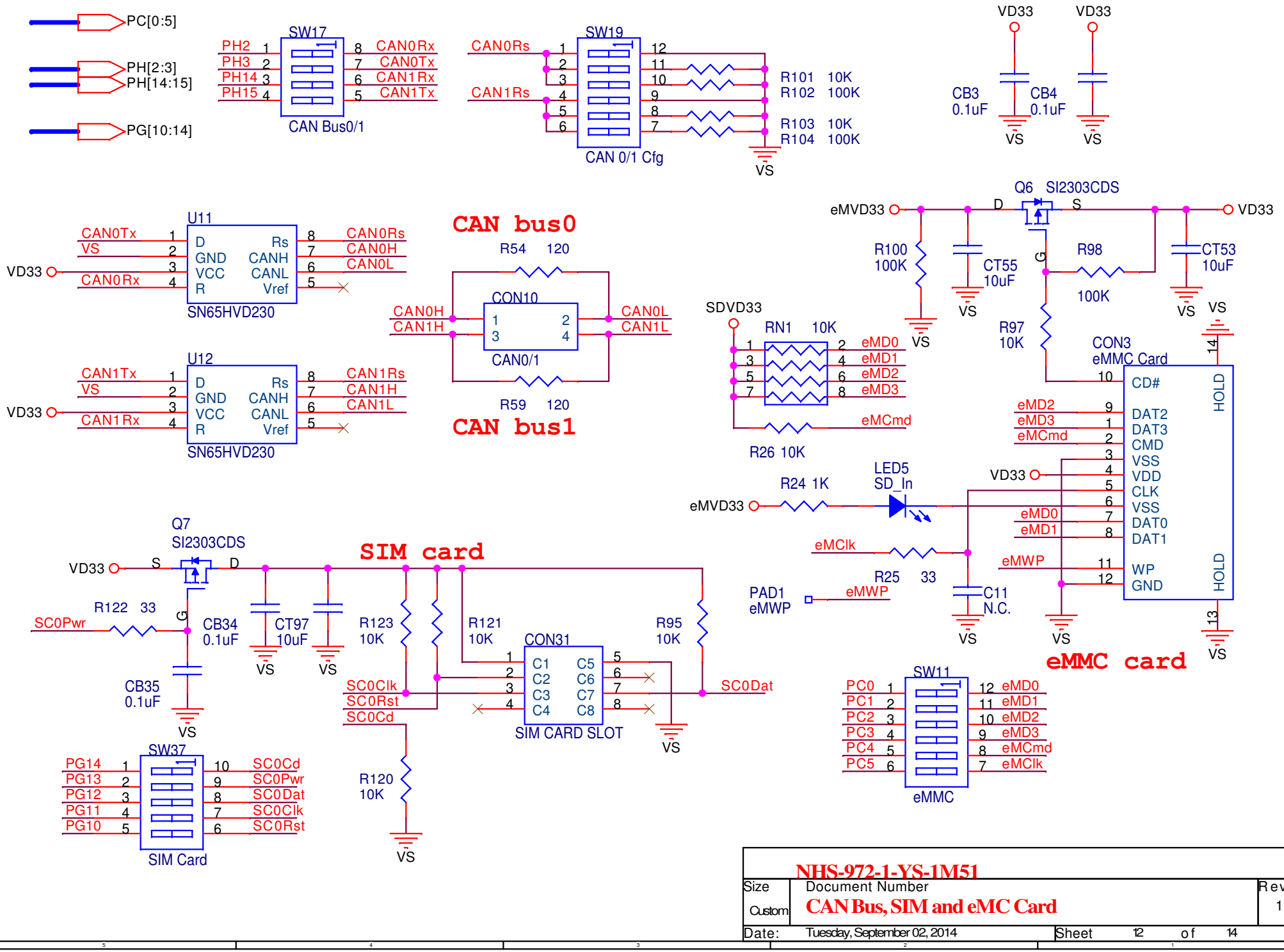

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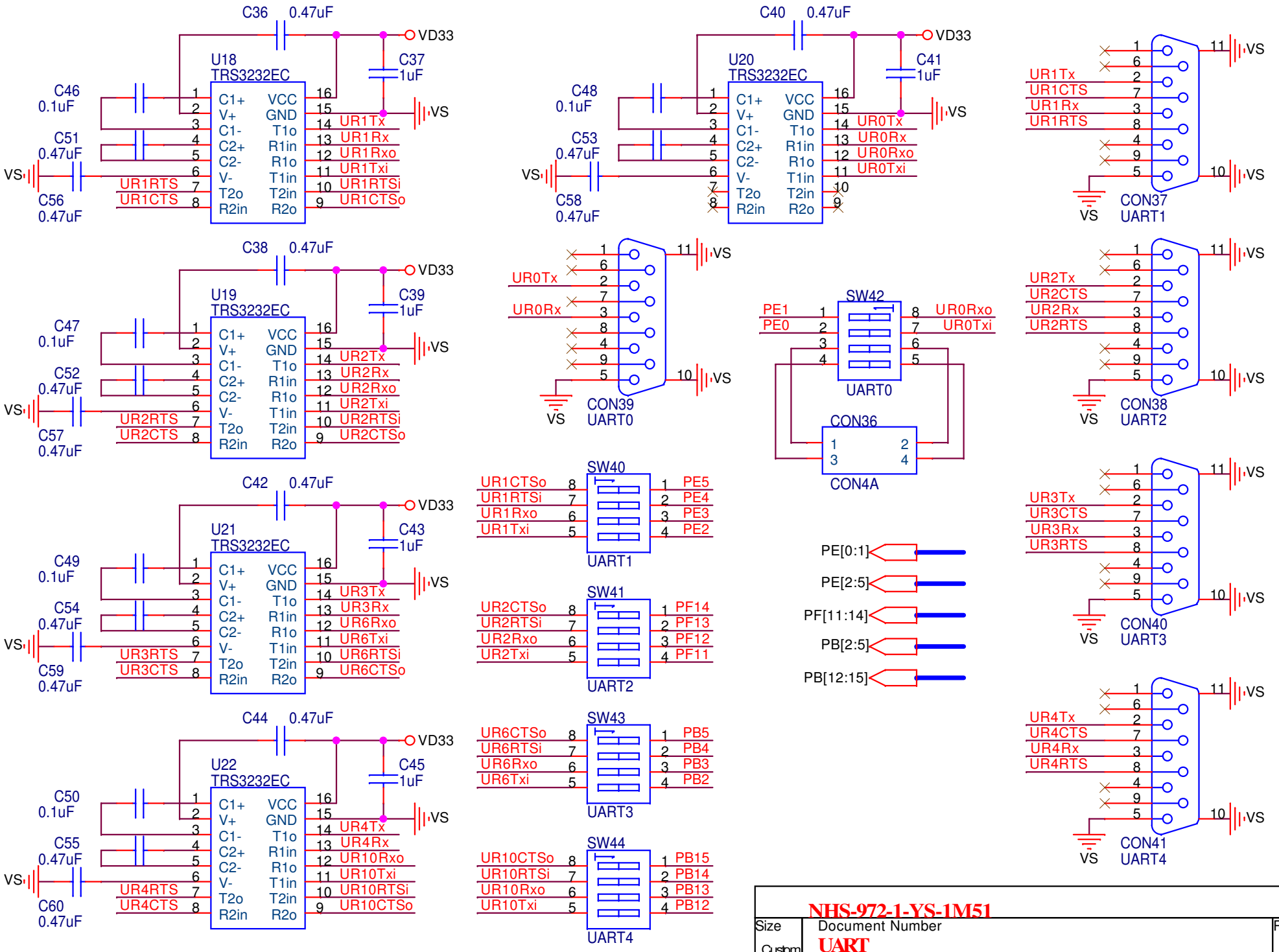
C36 0.47uF
VD33
U18
TRS3232EC
C37
1uF
C46
0.1uF
C51
0.47uF
C56
0.47uF
VS
C1+ VCC
V+ GND
C1- T1o
C2+ R1in
C2- R1o
V- T1in
T2o T2in
R2in R2o
UR1RTS
UR1CTS
UR1Tx
UR1Rx
UR1Rxo
UR1Txi
UR1RTSi
UR1CTSo
C38 0.47uF
U19
TRS3232EC
C39
1uF
C47
0.1uF
C52
0.47uF
C57
0.47uF
UR2RTS
UR2CTS
UR2Tx
UR2Rx
UR2Rxo
UR2Txi
UR2RTSi
UR2CTSo
C42 0.47uF
U21
TRS3232EC
C43
1uF
C49
0.1uF
C54
0.47uF
C59
0.47uF
UR3RTS
UR3CTS
UR3Tx
UR3Rx
UR6Rxo
UR6Txi
UR6RTSi
UR6CTSo
C44 0.47uF
U22
TRS3232EC
C45
1uF
C50
0.1uF
C55
0.47uF
C60
0.47uF
UR4RTS
UR4CTS
UR4Tx
UR4Rx
UR10Rxo
UR10Txi
UR10RTSi
UR10CTSo
C40 0.47uF
U20
TRS3232EC
C41
1uF
C48
0.1uF
C53
0.47uF
C58
0.47uF
UR0Tx
UR0Rx
UR0Rxo
UR0Txi
CON39
UART0
SW42
PE1
PE0
UART0
CON36
CON4A
SW40
UR1CTSo
UR1RTSi
UR1Rxo
UR1Txi
PE5
PE4
PE3
PE2
UART1
SW41
UR2CTSo
UR2RTSi
UR2Rxo
UR2Txi
PF14
PF13
PF12
PF11
UART2
SW43
UR6CTSo
UR6RTSi
UR6Rxo
UR6Txi
PB5
PB4
PB3
PB2
UART3
SW44
UR10CTSo
UR10RTSi
UR10Rxo
UR10Txi
PB15
PB14
PB13
PB12
UART4
PE[0:1]
PE[2:5]
PF[11:14]
PB[2:5]
PB[12:15]
CON37
UART1
CON38
UART2
CON40
UART3
CON41
UART4
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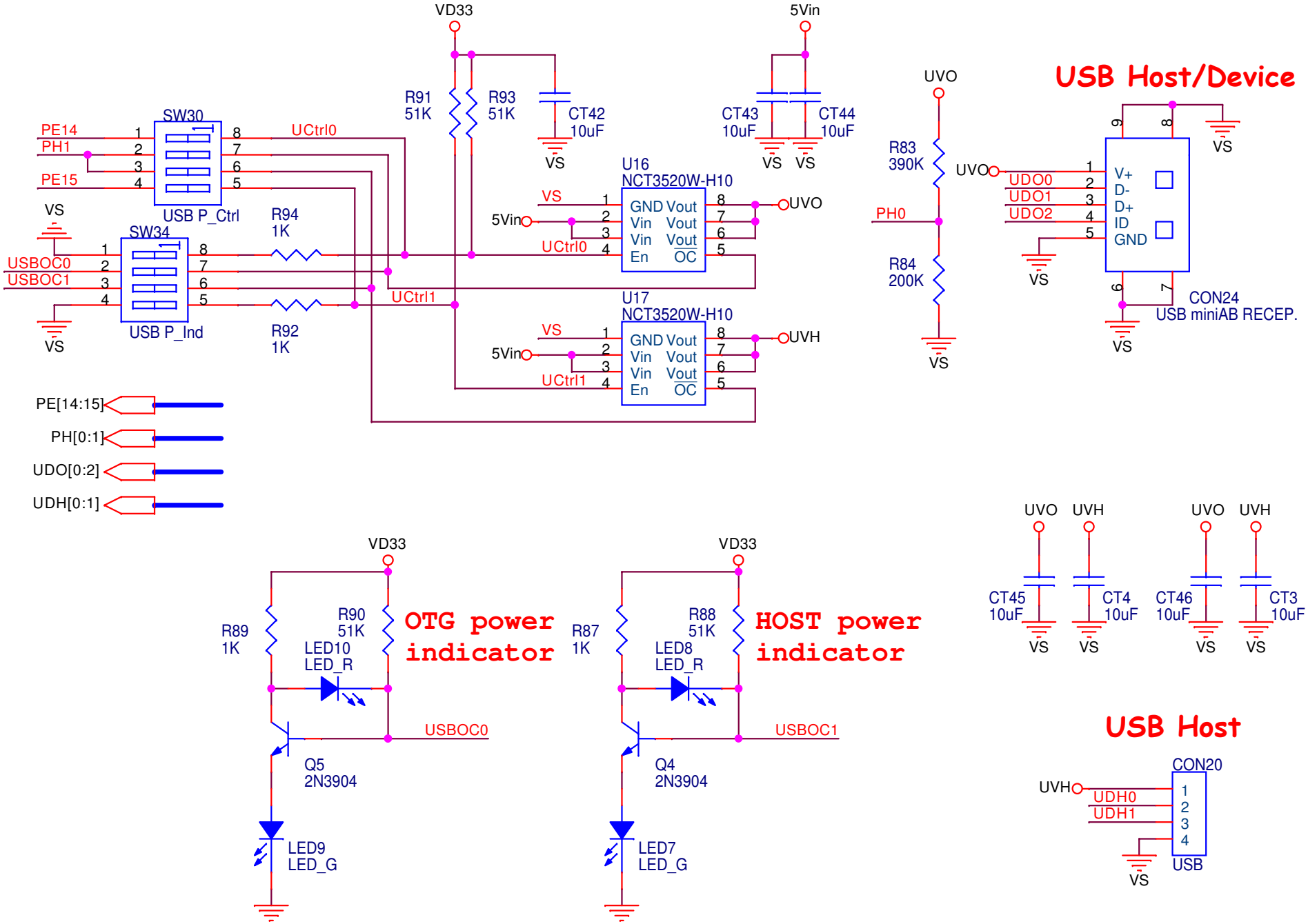

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