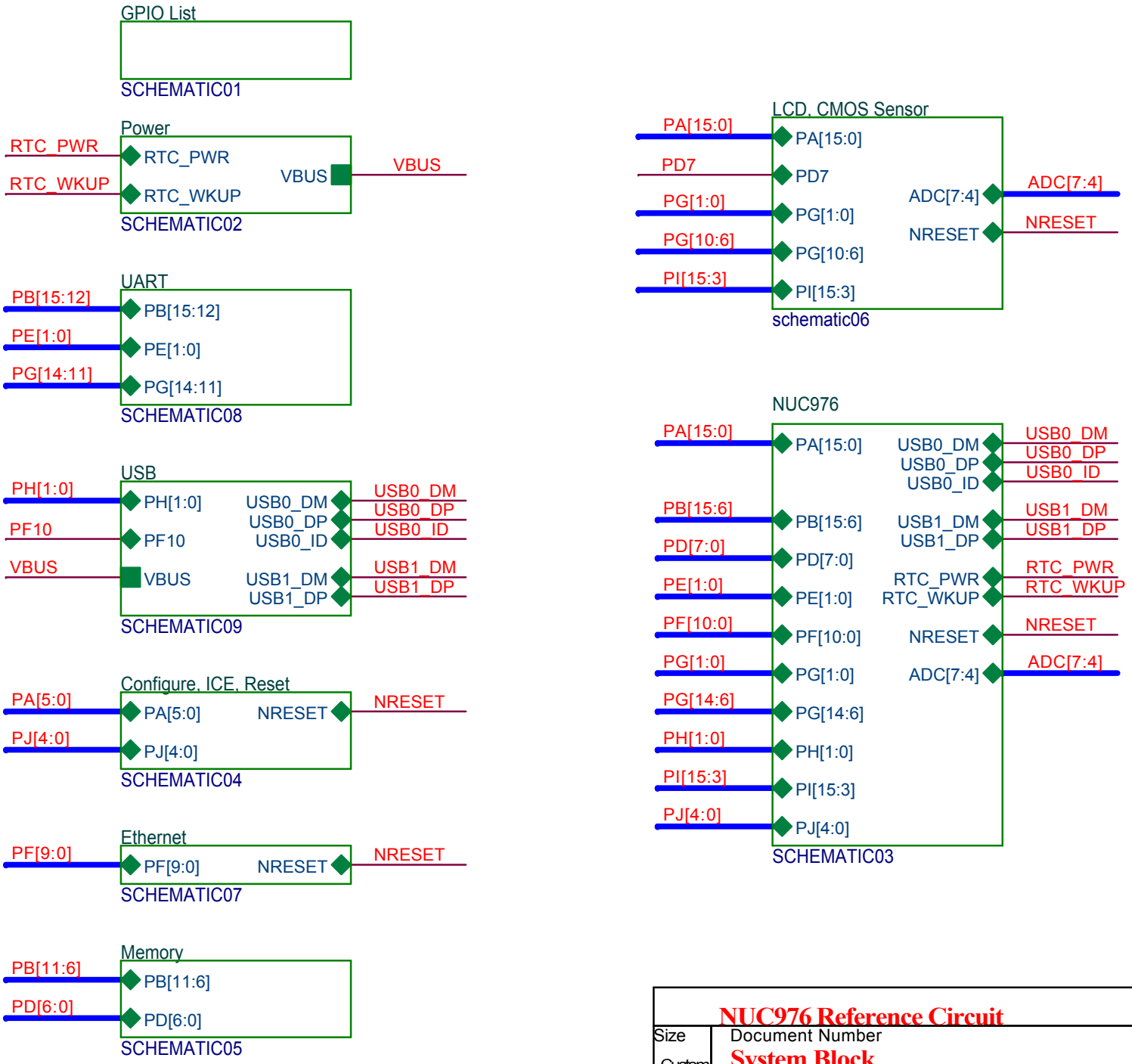

GPIO List
SCHEMATIC01
Power
RTC_PWR
RTC_WKUP
VBUS
SCHEMATIC02
UART
PB[15:12]
PE[1:0]
PG[14:11]
SCHEMATIC08
USB
PH[1:0]
PF10
VBUS
USB0_DM
USB0_DP
USB0_ID
USB1_DM
USB1_DP
SCHEMATIC09
Configure, ICE, Reset
PA[5:0]
PJ[4:0]
NRESET
SCHEMATIC04
Ethernet
PF[9:0]
NRESET
SCHEMATIC07
Memory
PB[11:6]
PD[6:0]
SCHEMATIC05
LCD, CMOS Sensor
PA[15:0]
PD7
PG[1:0]
PG[10:6]
PI[15:3]
ADC[7:4]
NRESET
schematic06
NUC976
PB[15:6]
PD[7:0]
PE[1:0]
PF[10:0]
PG[14:6]
PH[1:0]
PI[15:3]
PJ[4:0]
USB0_DM
USB0_DP
USB0_ID
USB1_DM
USB1_DP
RTC_PWR
RTC_WKUP
SCHEMATIC03
NUC976 Reference Circuit
Size
Custom
Document Number
System Block
Rev
1.0
Date:
Wednesday, April 06, 2016
Sheet
1
of
10

PIN	FUNCTION
PA0	LCD_DATA0/PwrOnSet_0
PA1	LCD_DATA1/PwrOnSet_1
PA2	LCD_DATA2/PwrOnSet_2
PA3	LCD_DATA3/PwrOnSet_3
PA4	LCD_DATA4/PwrOnSet_4
PA5	LCD_DATA5/PwrOnSet_5
PA6	LCD_DATA6
PA7	LCD_DATA7
PA8	LCD_DATA8
PA9	LCD_DATA9
PA10	LCD_DATA10
PA11	LCD_DATA11
PA12	LCD_DATA12
PA13	LCD_DATA13
PA14	LCD_DATA14
PA15	LCD_DATA15

PIN	FUNCTION
ADC4	TP_YM
ADC5	TP_YP
ADC6	TP_XM
ADC7	TP_XP

PIN	FUNCTION
PB2	TBD
PB3	TBD
PB6	SPIO_SS0
PB7	SPIO_CLK
PB8	SPIO_DO(DATA0)
PB9	SPIO_DI(DATA1)
PB10	SPIO_DATA2
PB11	SPIO_DATA3
PB12	UART10_TXD
PB13	UART10_RXD
PB14	UART10_RTS
PB15	UART10_CTS

PIN	FUNCTION
PD0	SD0_CMD
PD1	SD0_CLK
PD2	SD0_DATA0
PD3	SD0_DATA1
PD4	SD0_DATA2
PD5	SD0_DATA3
PD6	SD0_NCD
PD7	LCD_LCS

PIN	FUNCTION
PE0	UART0_TXD
PE1	UART0_RXD

PIN	FUNCTION
PF0	RMII0_MDC
PF1	RMII0_MDIO
PF2	RMII0_TXD0
PF3	RMII0_TXD1
PF4	RMII0_TXEN
PF5	RMII0_REFCLK
PF6	RMII0_RXD0
PF7	RMII0_RXD1
PF8	RMII0_CRSDV
PF9	RMII0_RXERR
PF10	USB_PWREN

PIN	FUNCTION
PG0	I2C0_SCL
PG1	I2C0_SDA
PG6	LCD_CLK
PG7	LCD_HSYNC
PG8	LCD_VSYNC
PG9	LCD_DEN
PG10	LCD_BLEN
PG11	UART6_TXD
PG12	UART6_RXD
PG13	UART6_RTS
PG14	UART6_CTS

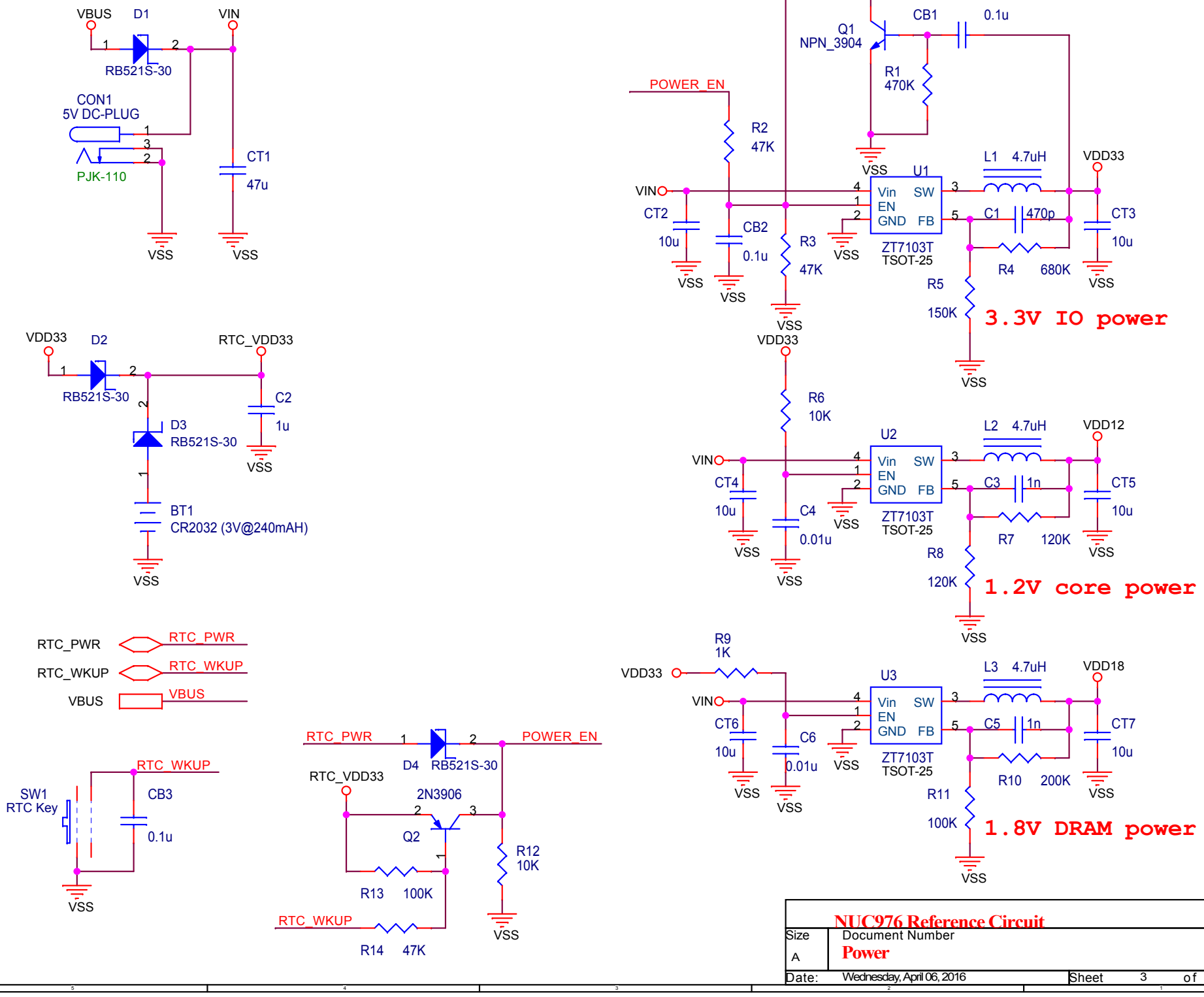
PIN	FUNCTION
PH0	USB0_VBUSVLD
PH1	USB_OVC

PIN	FUNCTION
PI3	VCAP_CLKO
PI4	VCAP_PCLK
PI5	VCAP_HSYNC
PI6	VCAP_VSYNC
PI7	VCAP_PWDN
PI8	VCAP_DATA0
PI9	VCAP_DATA1
PI10	VCAP_DATA2
PI11	VCAP_DATA3
PI12	VCAP_DATA4
PI13	VCAP_DATA5
PI14	VCAP_DATA6
PI15	VCAP_DATA7

PIN	FUNCTION
PJ0	JTAG_TCK
PJ1	JTAG_TMS
PJ2	JTAG_TDI
PJ3	JTAG_TDO
PJ4	JTAG_NTRST

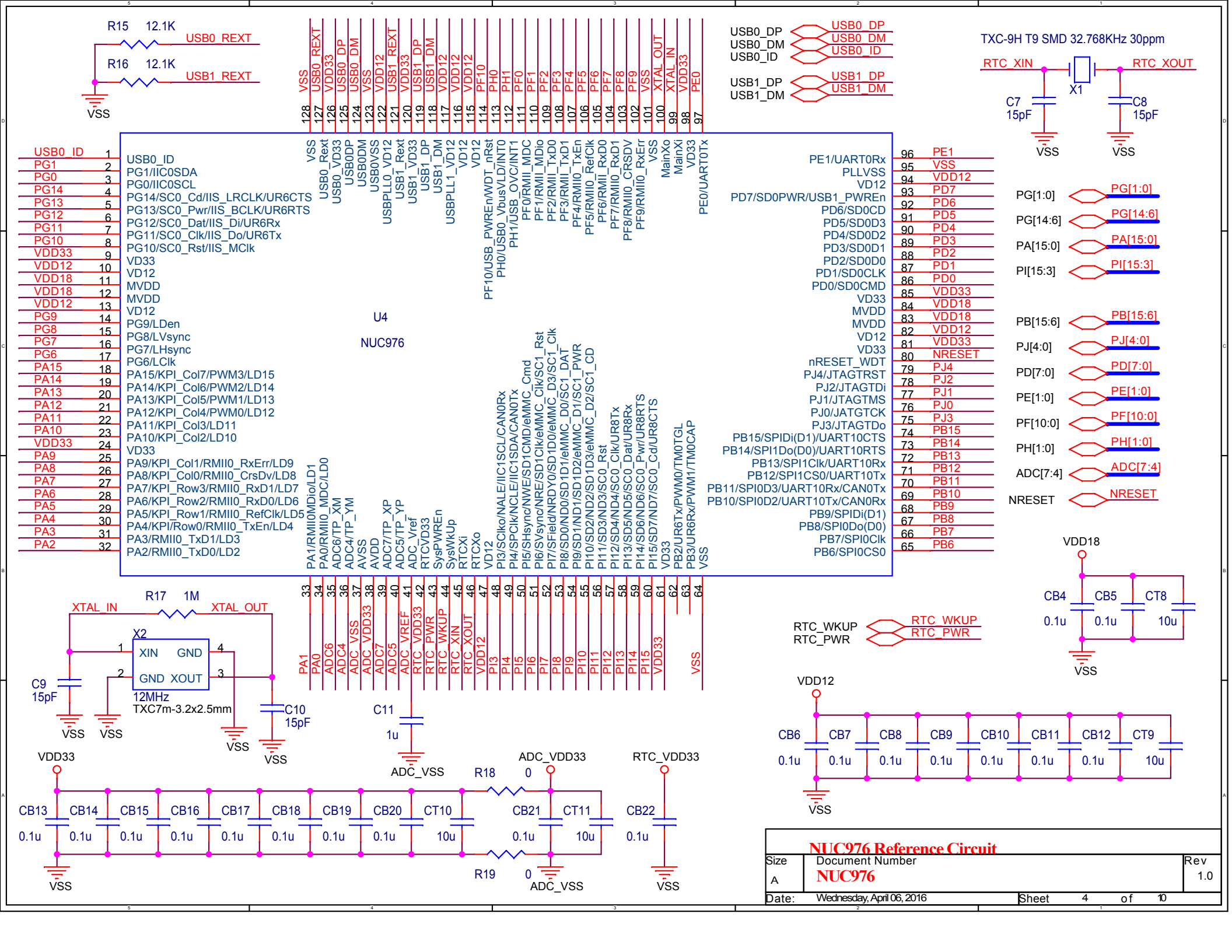
NUC976 Reference Circuit

Size	Document Number	Rev
A	GPIO List	1.0
Date:	Wednesday, April 06, 2016	Sheet 2 of 10



NUC976 Reference Circuit

Size	Document Number	Rev
A	Power	1.0
Date: Wednesday, April 06, 2016	Sheet 3 of 10	



NUC976 Reference Circuit

Size	Document Number	Rev
A	NUC976	1.0
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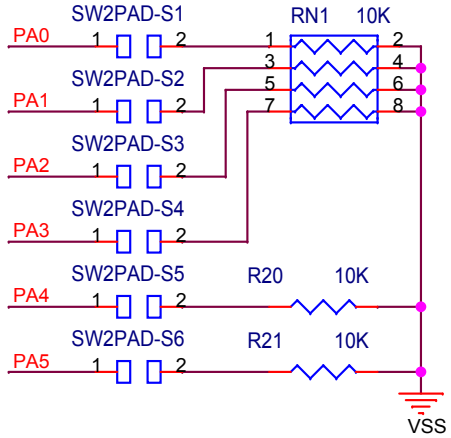
Power On Setting



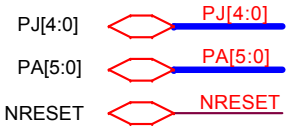
S2	S1	Bootting from
ON	ON	USB.
ON	OFF	eMMC Flash.
OFF	ON	NAND Flash.
OFF	OFF	SPI Flash.

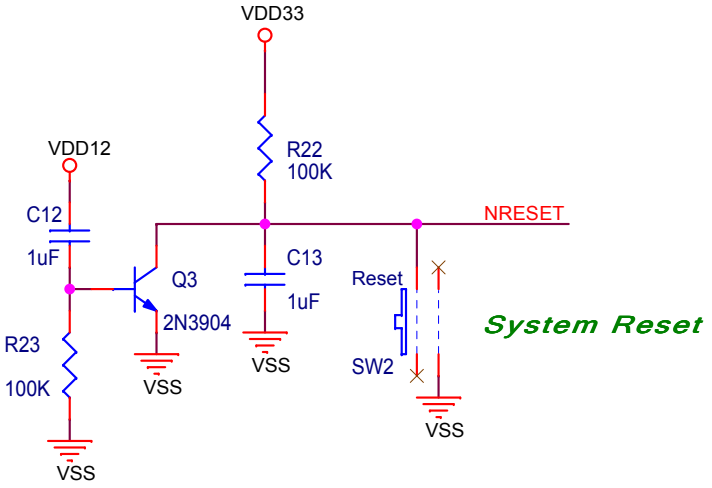
S3	System Clock from
ON	12MHz crystal.
OFF	UPLL output.

S4	Watch Dog Setting
ON	OFF after power on.
OFF	ON after power on.

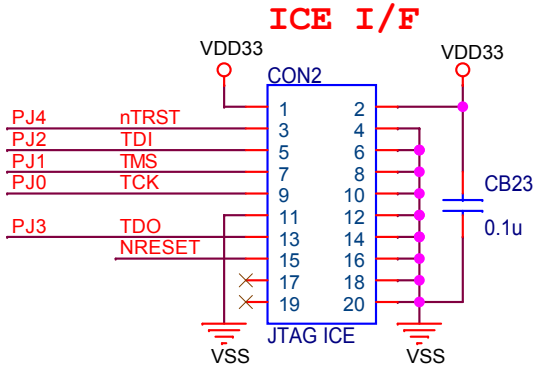
S5	Setting PJ[4:0]
ON	As GPIO pin.
OFF	As JTAG interface.

S6	UART Debug Message
ON	Output turn ON.
OFF	Output turn OFF.



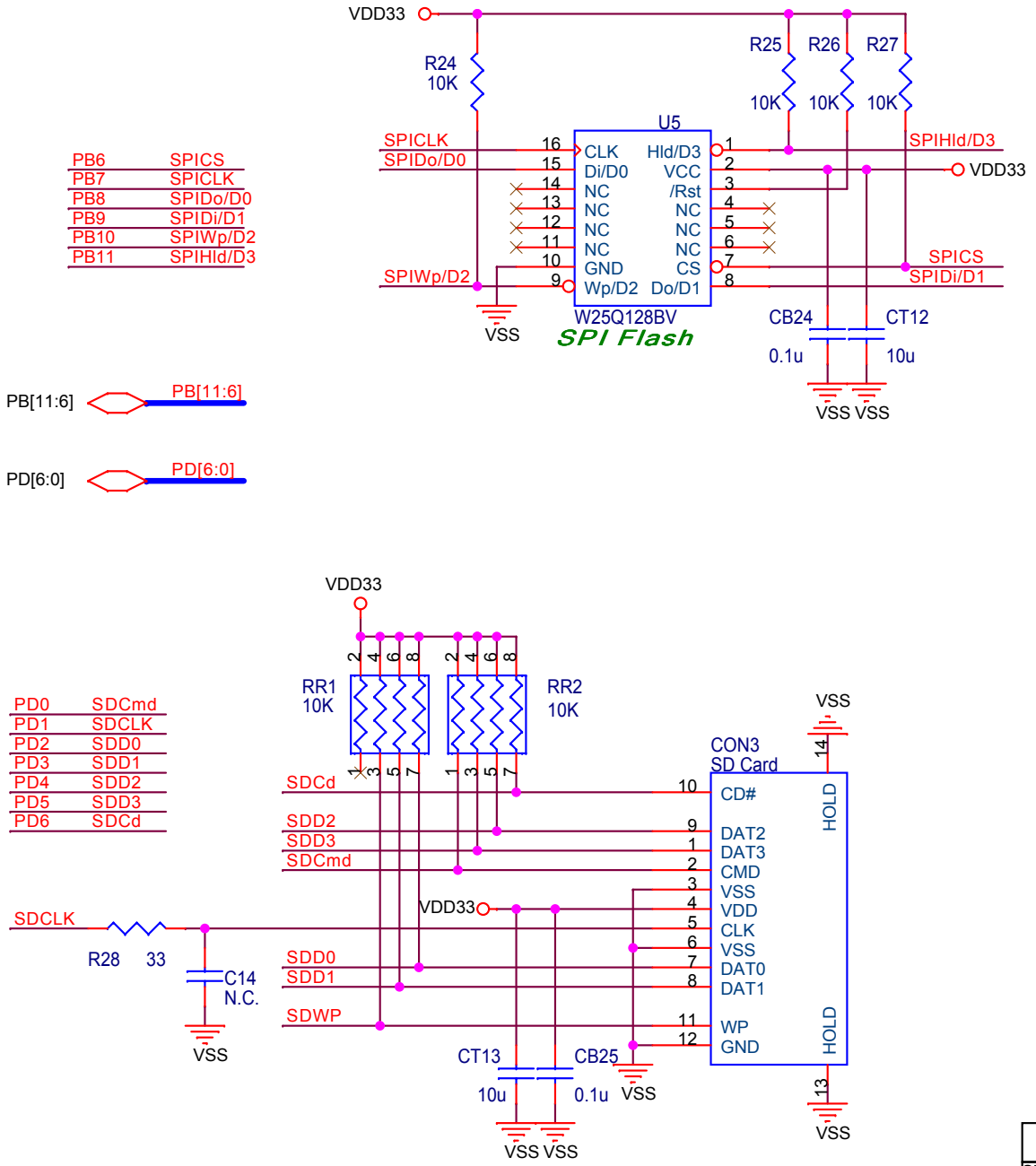


ICE I/F



NUC976 Reference Circuit

Size	Document Number	Rev
A	Configure, ICE, Reset	1.0
Date:	Wednesday, April 06, 2016	Sheet 5 of 10



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Size	Document Number	Rev
A	**Memory**	1.0
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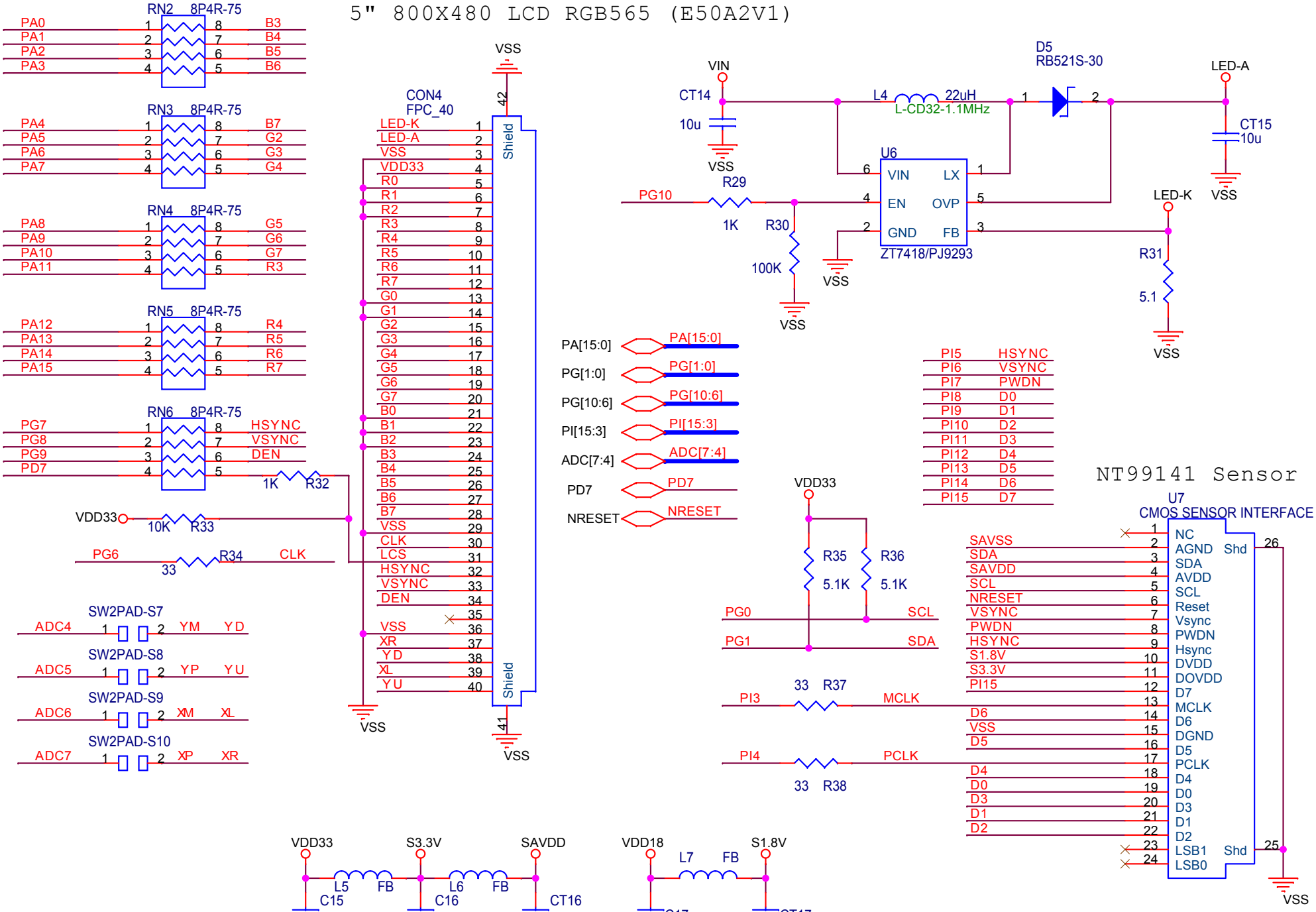
5" 800X480 LCD RGB565 (E50A2V1)



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Size	Document Number	Rev
A	LCD, CMOS sensor	1.0
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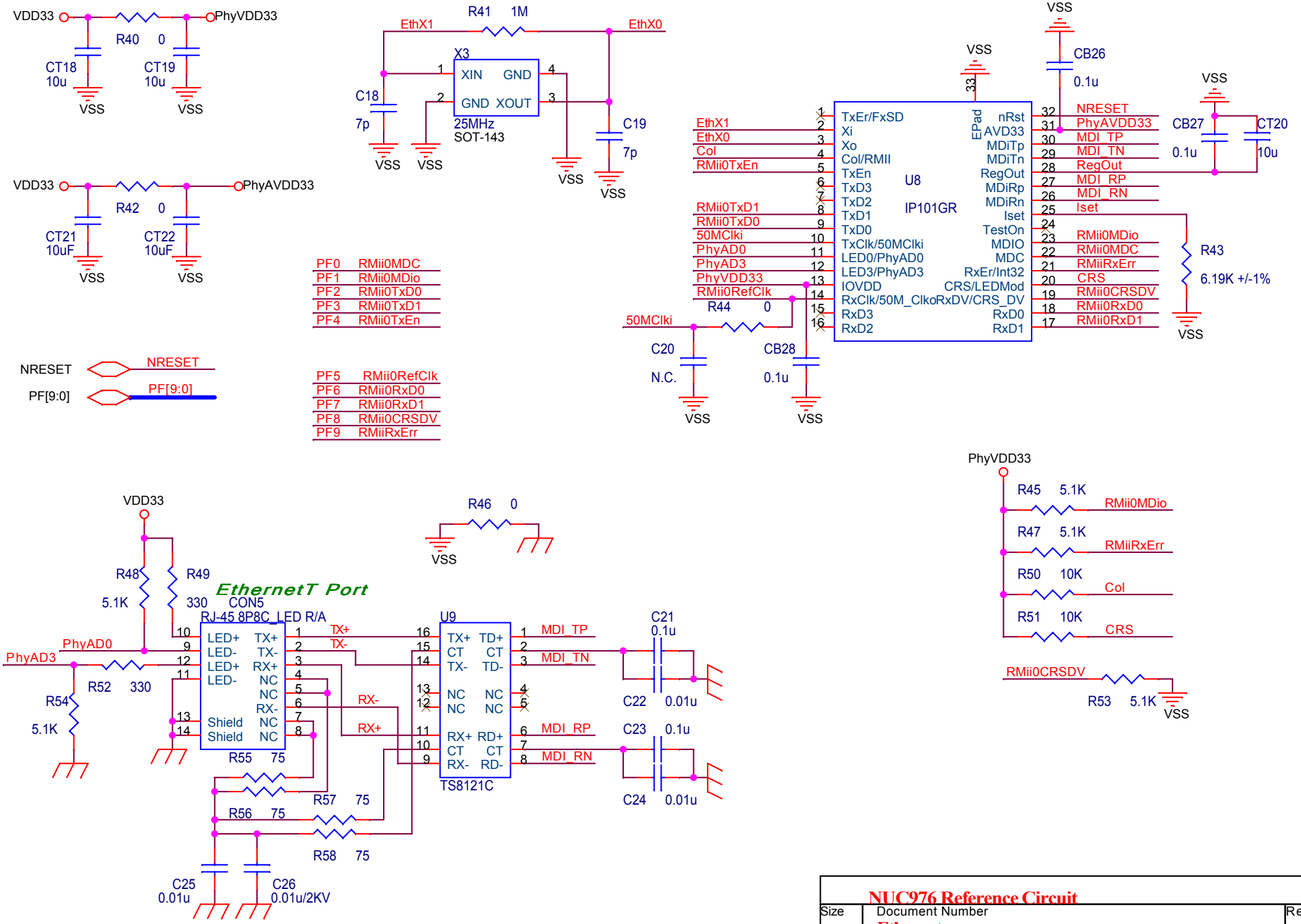
VDD33
PhyVDD33
R40 0
CT18 10u
CT19 10u
VSS
R41 1M
EthX1
EthX0
X3
XIN GND
GND XOUT
25MHz
SOT-143
C18 7p
C19 7p
VDD33
PhyAVDD33
R42 0
CT21 10uF
CT22 10uF
PF0 RMii0MDC
PF1 RMii0MDio
PF2 RMii0TxD0
PF3 RMii0TxD1
PF4 RMii0TxEn
NRESET
PF[9:0]
PF5 RMii0RefClk
PF6 RMii0RxD0
PF7 RMii0RxD1
PF8 RMii0CRSDV
PF9 RMiiRxErr
U8
IP101GR
TxEr/FxSD
Xi
Xo
Col/RMII
TxEn
TxD3
TxD2
TxD1
TxD0
TxClk/50MClki
LED0/PhyAD0
LED3/PhyAD3
IOVDD
RxClk/50M_Clko
RxD3
RxD2
EPad
nRst
AVD33
MDITp
MDITn
RegOut
MDIRp
MDIRn
Iset
TestOn
MDIO
MDC
RxEr/Int32
CRS/LEDMod
RxDV/CRS_DV
RxD0
RxD1
CB26 0.1u
CB27 0.1u
CT20 10u
R43 6.19K +/-1%
R44 0
50MClki
C20 N.C.
CB28 0.1u
R46 0
EthernetT Port
CON5
RJ-45 8P8C_LED R/A
R48 5.1K
R49 330
R52 330
R54 5.1K
R55 75
R56 75
R57 75
R58 75
C25 0.01u
C26 0.01u/2KV
U9
TS8121C
C21 0.1u
C22 0.01u
C23 0.1u
C24 0.01u
R45 5.1K
R47 5.1K
R50 10K
R51 10K
R53 5.1K
RMii0CRSDV
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Size A
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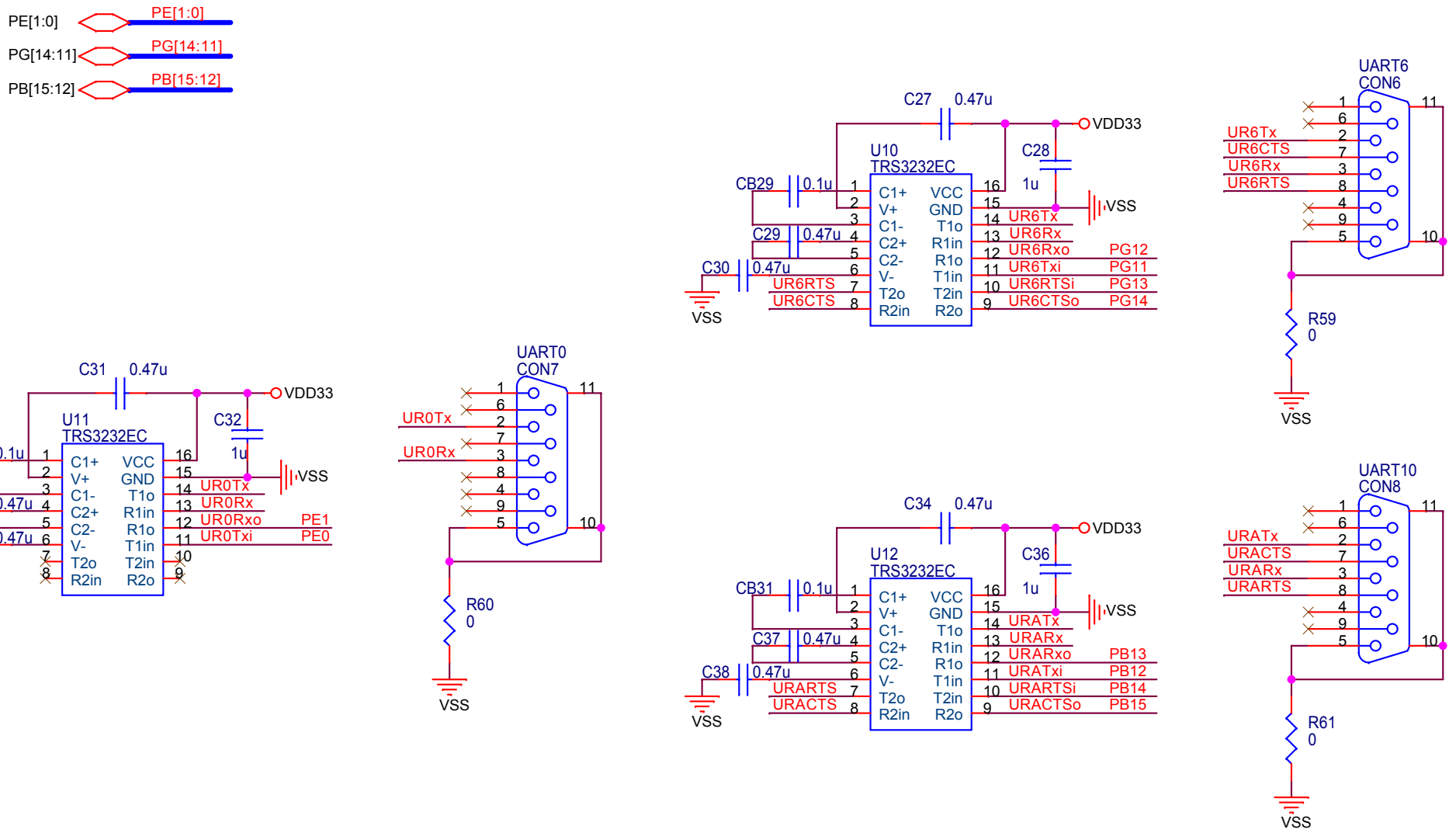

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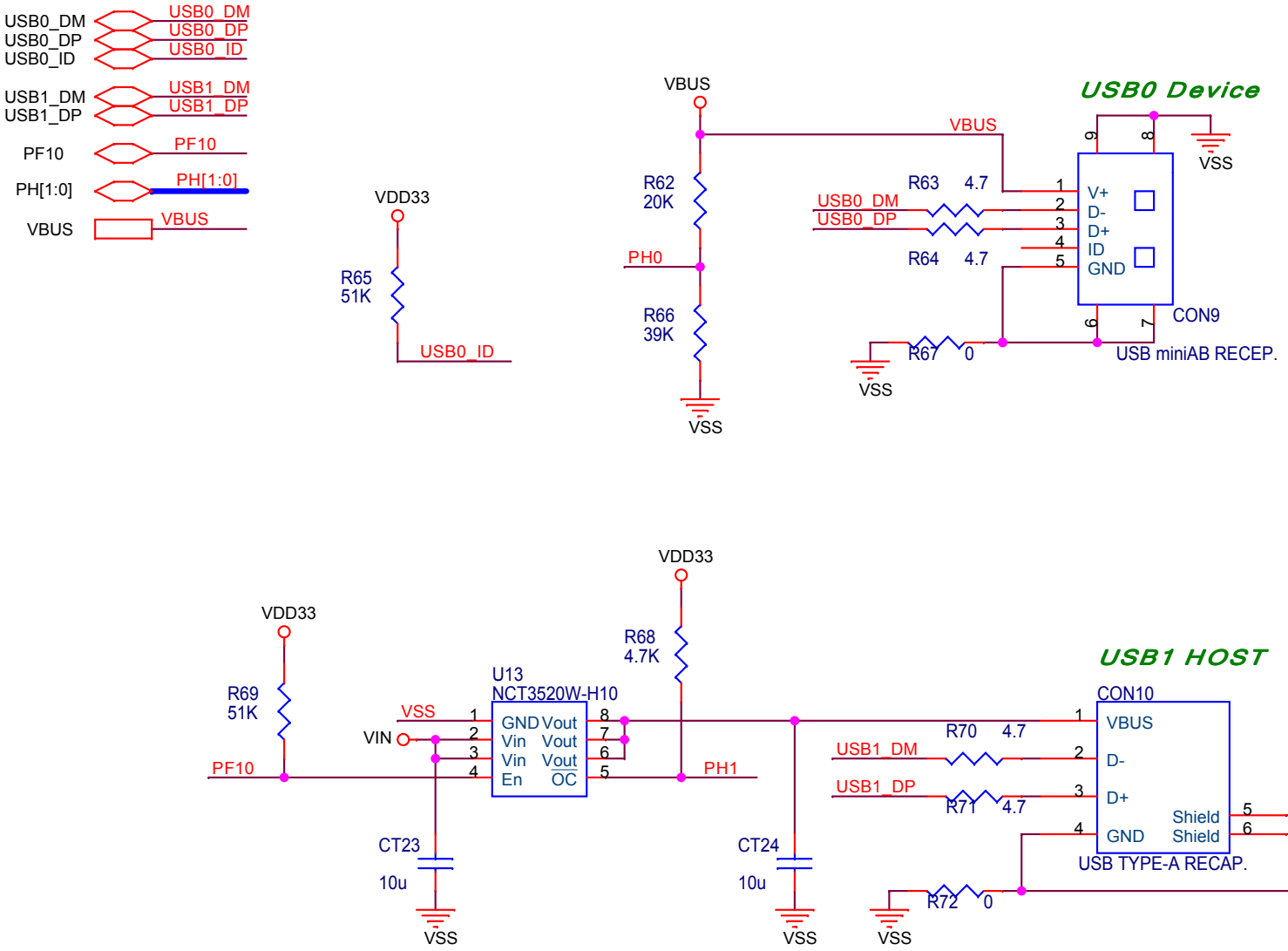
Size: A	Document Number: **UART**	Rev: 1.0
Date: Wednesday, April 06, 2016	Sheet 9 of 10	



NUC976 Reference Circuit		
Size: A	Document Number: USB	Rev: 1.0
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