

P/N : NK-N9H30

SCHEMATIC01

GPIO List

SCHEMATIC02

ADC0

ADC0

VDD5
RTC_VDD33
VDD33
VDD18
VDD12
VSS

VDD5
RTC_VDD33
VDD33
VDD18
VDD12
VSS

Power

SCHEMATIC03

PA[15:0]
PB[2:0]
PB[15:4]
PC[14:0]
PD[15:0]
PE[15:0]
PF[14:0]
PG[14:0]
PH[15:0]
PI[15:0]
PJ[4:0]
ADC0
ADC[7:3]
RESET
USB0_ID
USB0_DP
USB0_DM
USB1_DP
USB1_DM

RTC_VDD33
VDD33
VDD18
VDD12
VSS

RTC_VDD33
VDD33
VDD18
VDD12
VSS

N9H30F61IEC

SCHEMATIC04

PA[9:0]
PB[5:4]
PE[1:0]
PE[15:14]
PF10
PH2
PJ[4:0]
RESET

VDD33
VDD12
VSS

VDD33
VDD12
VSS

Setting, ICE, RS-232_0, Key

SCHEMATIC05

PB[11:6]
PC[14:0]
PD[6:0]

VDD33
VSS

VDD33
VSS

Memory

SCHEMATIC06

PG[1:0]
PG[14:10]

VDD5
VDD33
VSS

VDD5
VDD33
VSS

I2S, I2C_0, RS-485_6

SCHEMATIC07

PB[1:0]
PB[15:12]
PE[13:12]
PF[14:11]
PH[15:4]
PI[2:1]

VDD5
VDD33
VSS

VDD5
VDD33
VSS

RS-232_2

SCHEMATIC08

PA[15:0]
PB2
PD[15:7]
PG[1:0]
PG[9:4]
PH3
ADC[7:3]

VDD5
VDD33
VSS

VDD5
VDD33
VSS

LCD

SCHEMATIC09

PG[3:2]
PI0
PI[15:3]

VDD33
VSS

VDD33
VSS

CMOS Sensor, I2C_1, CAN_0

SCHEMATIC10

PF[9:0]
PH1

PHY_DVDD33
PHY_AVDD33
VDD33
VSS

PHY_DVDD33
PHY_AVDD33
VDD33
VSS

RMII_0_PF

SCHEMATIC11

PE[11:2]
PH1

PHY_DVDD33
PHY_AVDD33
VSS

PHY_DVDD33
PHY_AVDD33
VSS

RMII_1_PE

SCHEMATIC12

PH0
USB0_ID
USB0_DP
USB0_DM
USB1_DP
USB1_DM

VDD5
VDD33
VSS

VDD5
VDD33
VSS

USB

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Title

NuMaker-HMI-N9H30

Size

A

Document Number

System Block

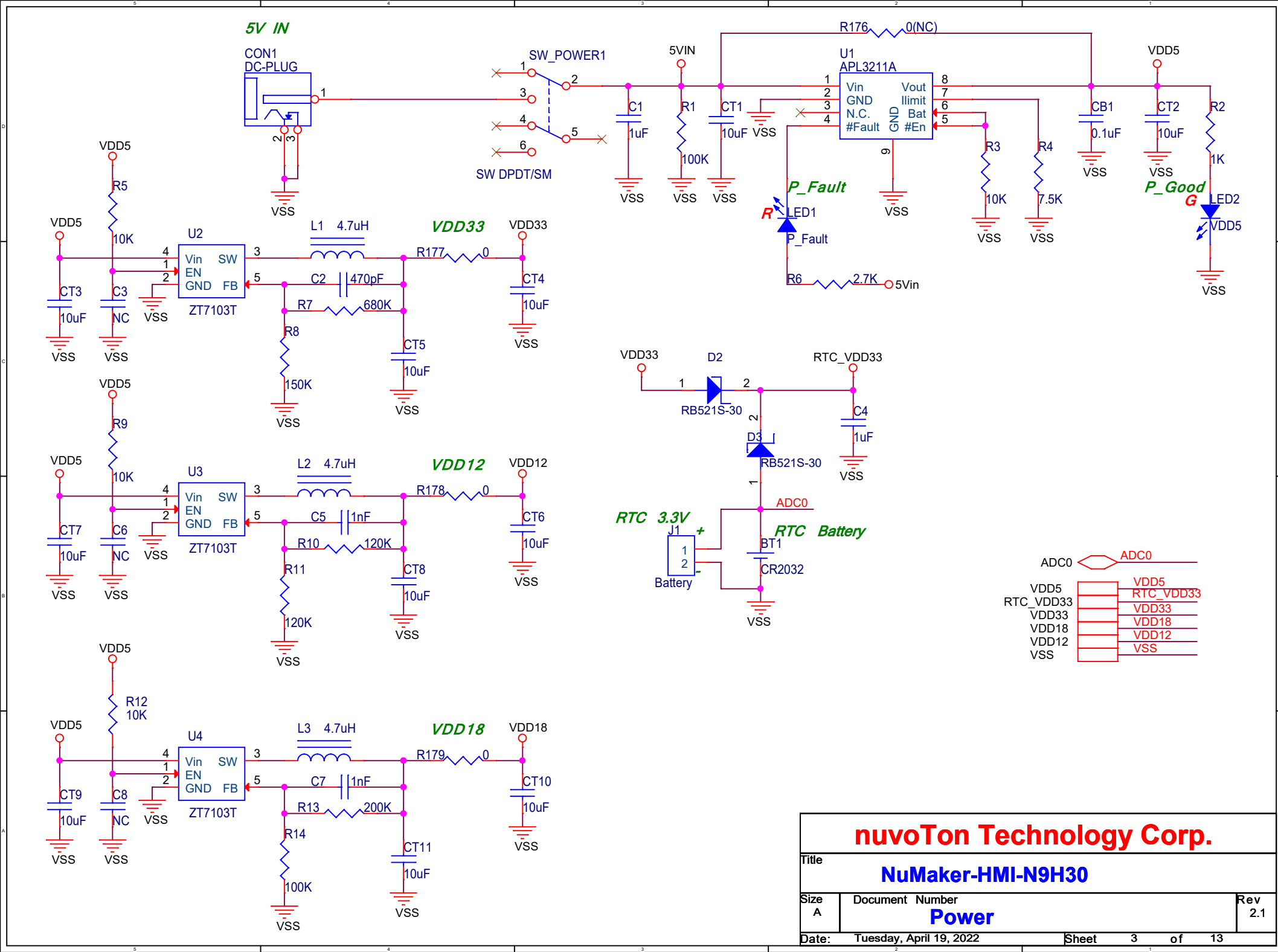
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PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION		
PA0	LCD_DATA0 PwrOnSet0	PB0	RS232_5_TXD	PC0	NAND_D0	PD0	SD0_CMD	PE0	RS232_0_TXD	PF0	RMII0_MDC	PG0	I2S_I2C0_SCL LCD_I2C0_SCL	PH0	USB0_VBUSVLD	PI0	VCAP_PwDN	PJ0	JTAG_TCK
PA1	LCD_DATA1 PwrOnSet1	PB1	RS232_5_RXD	PC1	NAND_D1	PD1	SD0_CLK	PE1	RS232_0_RXD	PF1	RMII0_MDIO	PG1	I2S_I2C0_SDA LCD_I2C0_SDA	PH1	RMII_RST	PI1	RS232_7_TXD	PJ1	JTAG_TMS
PA2	LCD_DATA2 PwrOnSet2	PB2	LCD_PWM	PC2	NAND_D2	PD2	SD0_DATA0	PE2	RMII1_MDC	PF2	RMII0_TXD0	PG2	VCAP_I2C1_SCL	PH2	Indicator_LED	PI2	RS232_7_RXD	PJ2	JTAG_TDI
PA3	LCD_DATA3 PwrOnSet3	PB3	Buzzer	PC3	NAND_D3	PD3	SD0_DATA1	PE3	RMII1_MDIO	PF3	RMII0_TXD1	PG3	VCAP_I2C1_SDA	PH3	LCD_BLEN	PI3	CAN0_RXD VCAP_CLKO	PJ3	JTAG_TDO
PA4	LCD_DATA4 PwrOnSet4	PB4	KEY_Col0	PC4	NAND_D4	PD4	SD0_DATA2	PE4	RMII1_TXD0	PF4	RMII0_TXEN	PG4	LCD_RST	PH4	RS232_1_TXD	PI4	CAN0_TXD VCAP_PCLK	PJ4	JTAG_NTRST
PA5	LCD_DATA5 PwrOnSet5	PB5	KEY_Col1	PC5	NAND_D5	PD5	SD0_DATA3	PE5	RMII1_TXD1	PF5	RMII0_REFCLK	PG5	TOUCH_INT	PH5	RS232_1_RXD	PI5	VCAP_HSYNC	<div>PIN</div> <div>FUNCTION</div>	
PA6	LCD_DATA6 PwrOnSet6	PB6	SPI0_SS0	PC6	NAND_D6	PD6	SD0_CD	PE6	RMII1_TXEN	PF6	RMII0_RXD0	PG6	LCD_CLK	PH6	RS232_1_RTS	PI6	VCAP_VSYNC	ADC0	BAT_LVD
PA7	LCD_DATA7 PwrOnSet7	PB7	SPI0_CLK	PC7	NAND_D7	PD7	LCD_CS	PE7	RMII1_REFCLK	PF7	RMII0_RXD1	PG7	LCD_HSYNC	PH7	RS232_1_CTS	PI7	VCAP_nRST	ADC1	
PA8	LCD_DATA8 PwrOnSet8	PB8	SPI0_DO (DATA0)	PC8	NAND_CS0	PD8	LCD_DATA16	PE8	RMII1_RXD0	PF8	RMII0_CRSDV	PG8	LCD_VSYNC	PH8	RS232_4_TXD	PI8	VCAP_DATA0	ADC2	
PA9	LCD_DATA9 PwrOnSet9	PB9	SPI0_DI (DATA1)	PC9	NAND_ALE	PD9	LCD_DATA17	PE9	RMII1_RXD1	PF9	RMII0_RXERR	PG9	LCD_DEN	PH9	RS232_4_RXD	PI9	VCAP_DATA1	ADC3	VSENSE
PA10	LCD_DATA10	PB10	SPI0_DATA2	PC10	NAND_CLE	PD10	LCD_DATA18	PE10	RMII1_CRSDV	PF10	KEY_Row0	PG10	I2S_MCLK	PH10	RS232_4_RTS	PI10	VCAP_DATA2	ADC4	TP_YM
PA11	LCD_DATA11	PB11	SPI0_DATA3	PC11	NAND_nWE	PD11	LCD_DATA19	PE11	RMII1_RXERR	PF11	RS232_2_TXD	PG11	I2S_DO RS485_6_TXD	PH11	RS232_4_CTS	PI11	VCAP_DATA3	ADC5	TP_YP
PA12	LCD_DATA12	PB12	RS232_10_TXD	PC12	NAND_nRE	PD12	LCD_DATA20	PE12	RS232_3_TXD	PF12	RS232_2_RXD	PG12	I2S_DI RS485_6_RXD	PH12	RS232_8_TXD	PI12	VCAP_DATA4	ADC6	TP_XM
PA13	LCD_DATA13	PB13	RS232_10_RXD	PC13	NAND_RDY0	PD13	LCD_DATA21	PE13	RS232_3_RXD	PF13	RS232_2_RTS	PG13	I2S_BCLK RS485_6_ENB	PH13	RS232_8_RXD	PI13	VCAP_DATA5	ADC7	TP_XP
PA14	LCD_DATA14	PB14	RS232_10_RTS	PC14	NAND_nWP	PD14	LCD_DATA22	PE14	KEY_Row2	PF14	RS232_2_CTS	PG14	I2S_LRCK	PH14	RS232_8_RTS	PI14	VCAP_DATA6		
PA15	LCD_DATA15	PB15	RS232_10_CTS			PD15	LCD_DATA23	PE15	KEY_Row1					PH15	RS232_8_CTS	PI15	VCAP_DATA7		



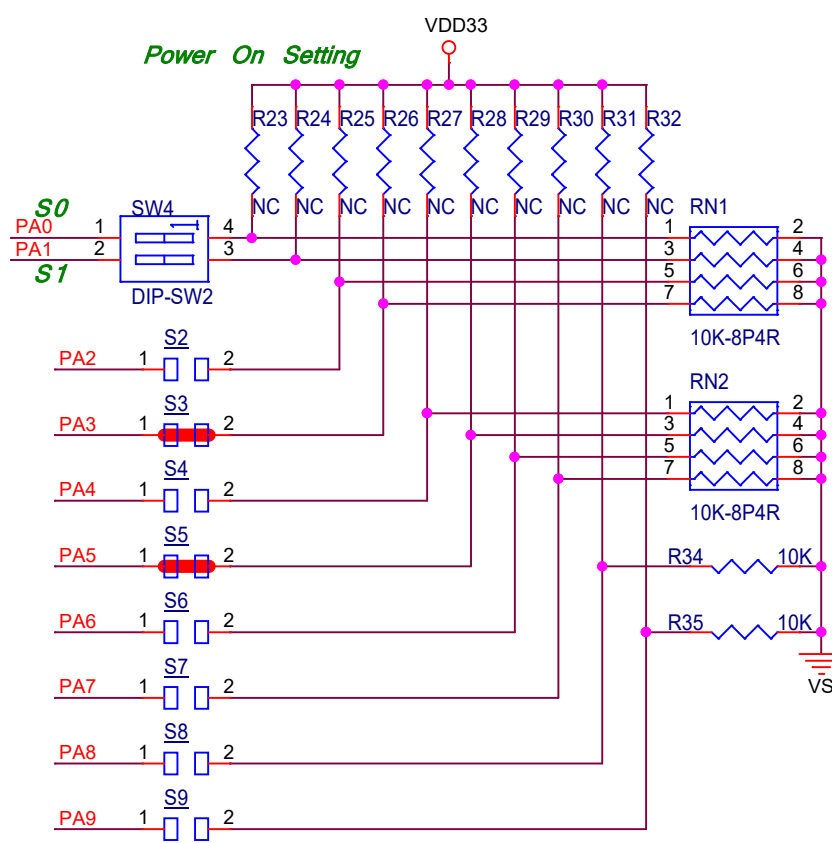
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S0 (A1)	S1 (A0)	Boot
ON	ON	USB
ON	OFF	eMMC
OFF	ON	NAND
OFF	OFF	SPI

S2 (A2)	Clock
O	12MHz
X	UPLL

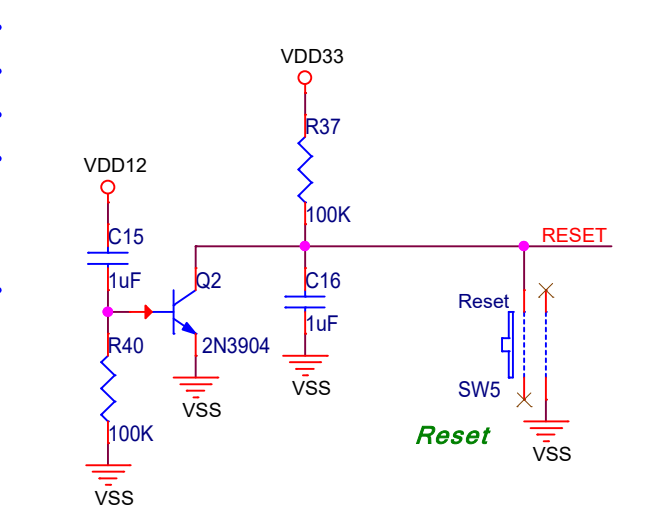
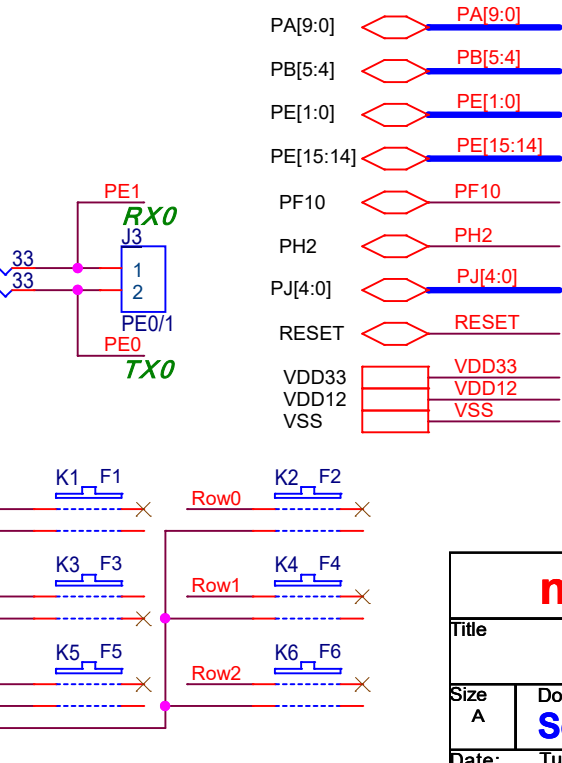
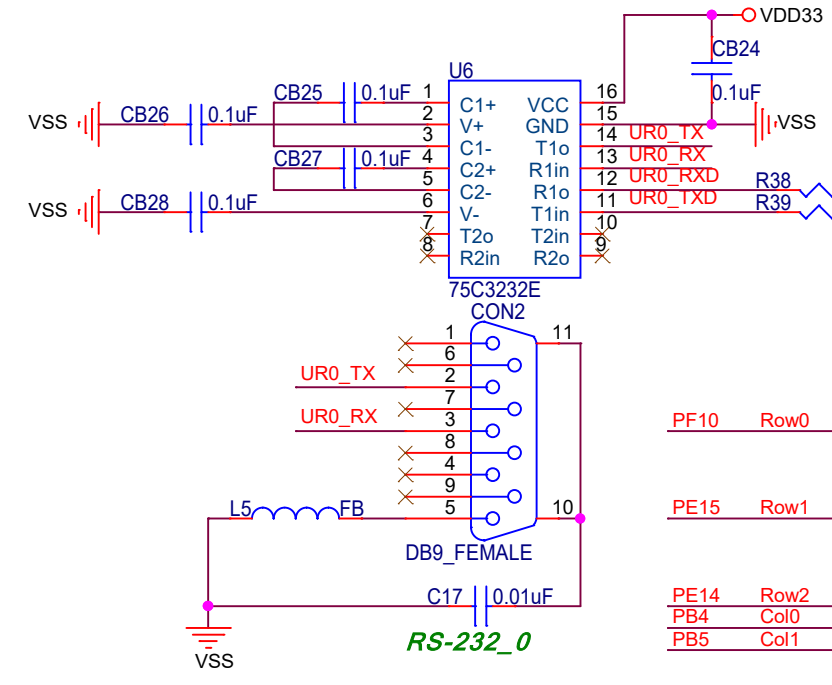
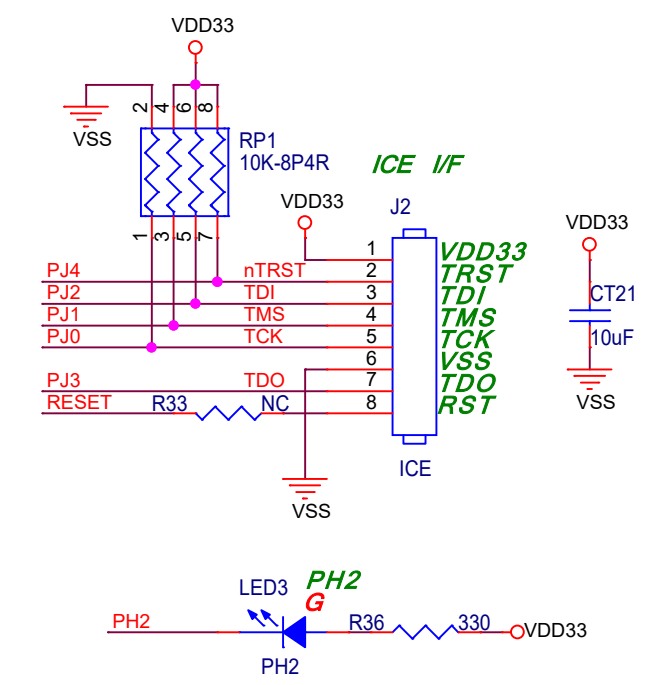
S3 (A3)	Watch Dog
O	OFF
X	ON

S4 (A4)	PJ[4:0]
O	GPIO
X	JTAG

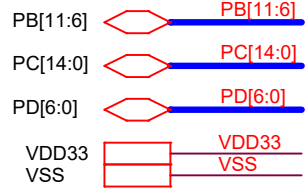
S5 (A5)	UART0 Message
O	ON
X	OFF

S7 (A7)	S6 (A6)	NAND Page Size
O	O	2KB
O	X	4KB
X	O	8KB
X	X	None

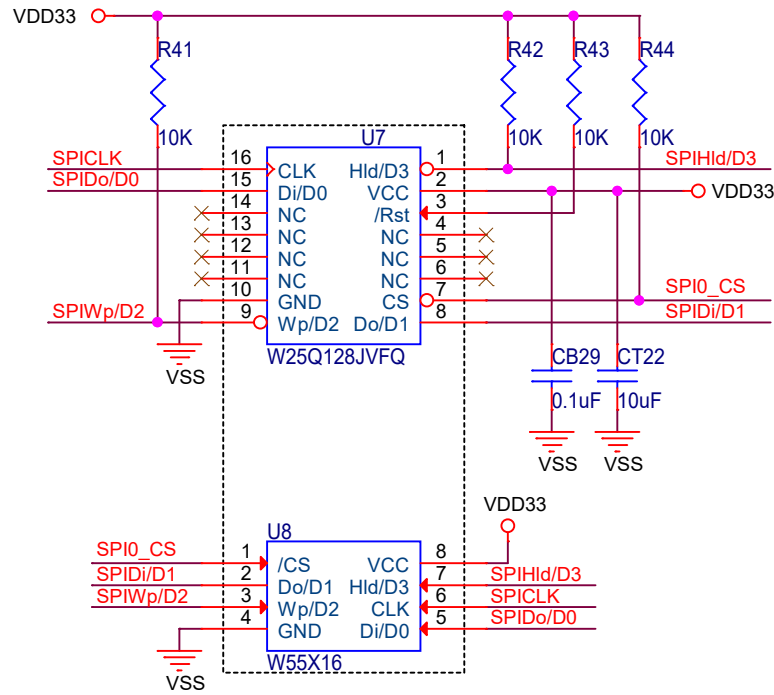
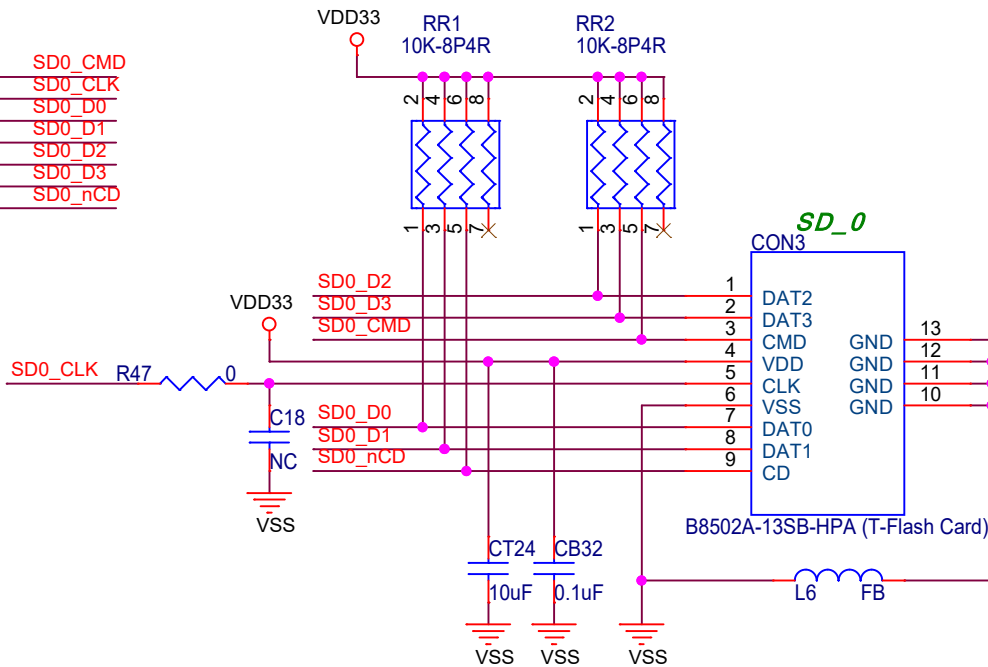
S9 (A9)	S8 (A8)	NAND ECC
O	O	T12
O	X	T15
X	O	T24
X	X	None



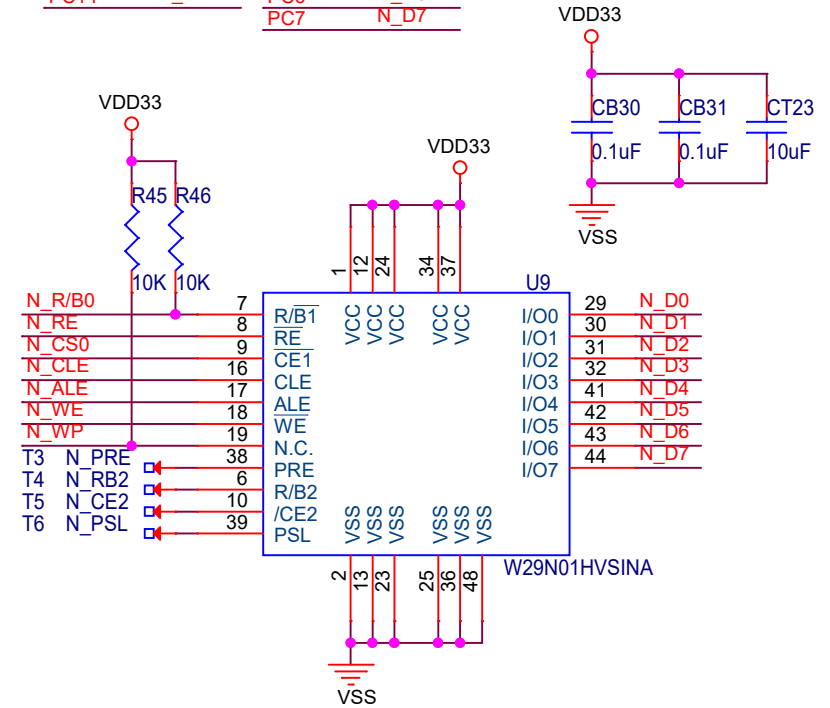
PB6	SPI0_CS
PB7	SPICLK
PB8	SPIDo/D0
PB9	SPIDi/D1
PB10	SPIWp/D2
PB11	SPIHid/D3



PD0	SD0_CMD
PD1	SD0_CLK
PD2	SD0_D0
PD3	SD0_D1
PD4	SD0_D2
PD5	SD0_D3
PD6	SD0_nCD

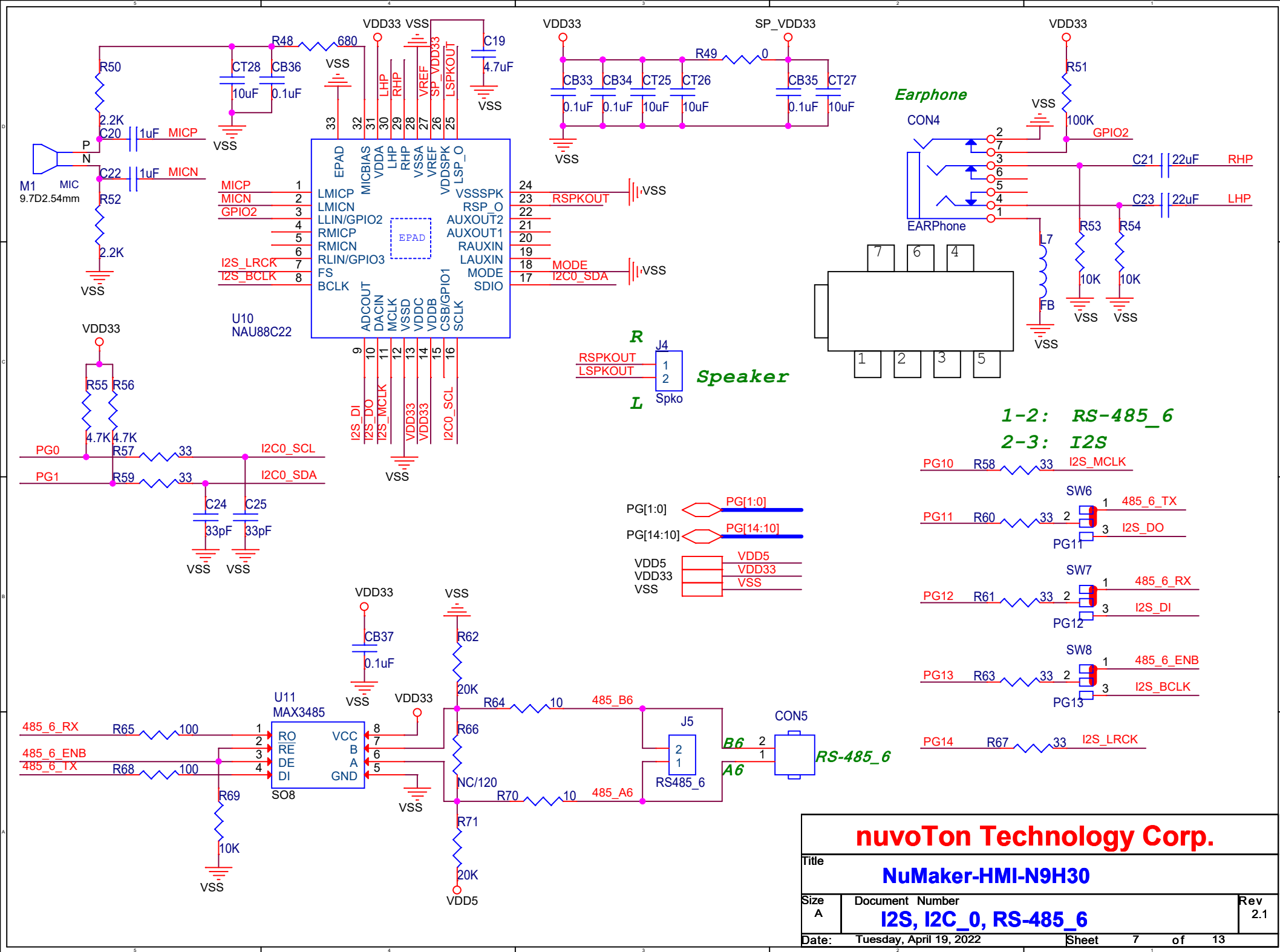


PC8	N_CS0	PC0	N_D0
PC9	N_ALE	PC1	N_D1
PC10	N_CLE	PC2	N_D2
PC11	N_WE	PC3	N_D3
PC12	N_RE	PC4	N_D4
PC13	N_R/B0	PC5	N_D5
PC14	N_WP	PC6	N_D6
		PC7	N_D7

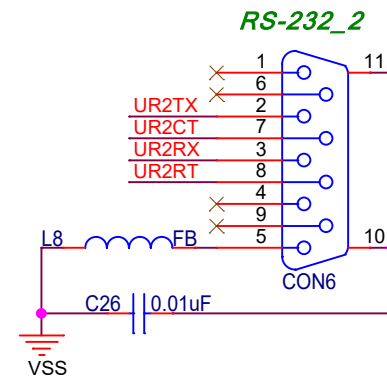
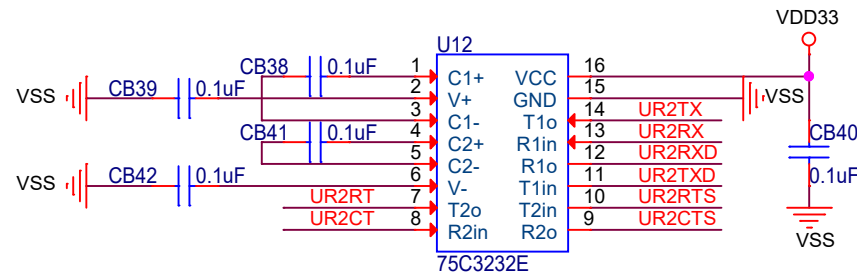
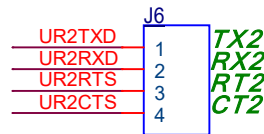


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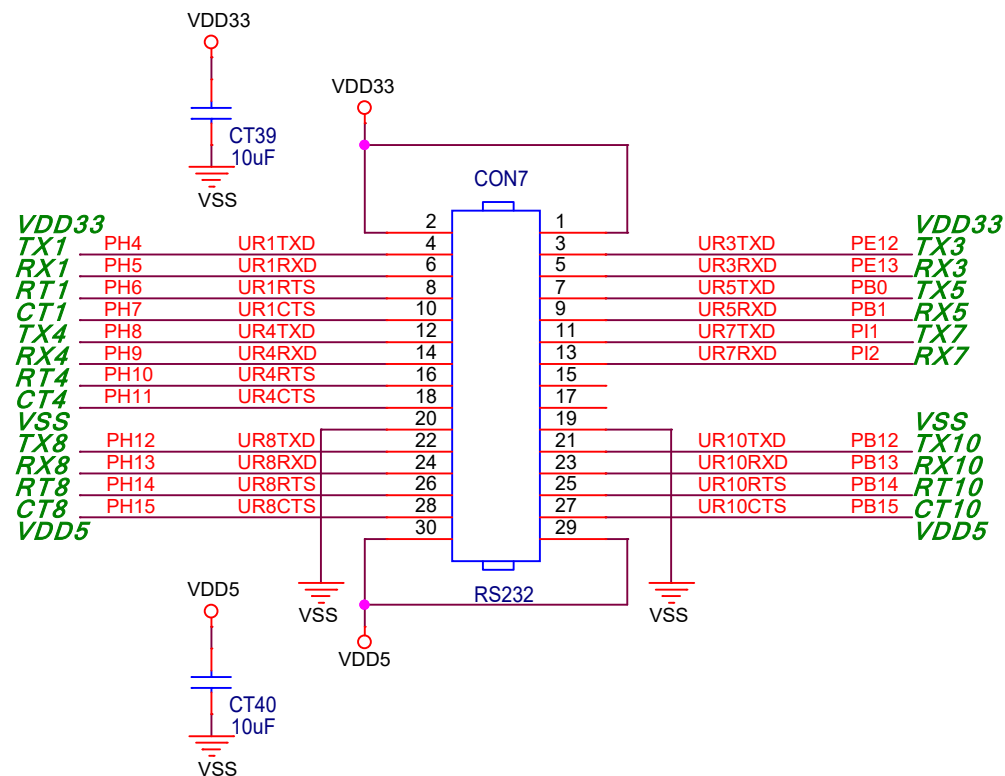


PF11 UR2TXD
PF12 UR2RXD
PF13 UR2RTS
PF14 UR2CTS



PB[1:0] PB[1:0]
PB[15:12] PB[15:12]
PE[13:12] PE[13:12]
PF[14:11] PF[14:11]
PH[15:4] PH[15:4]
PI[2:1] PI[2:1]

VDD5
VDD33
VSS

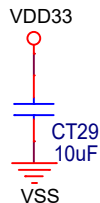
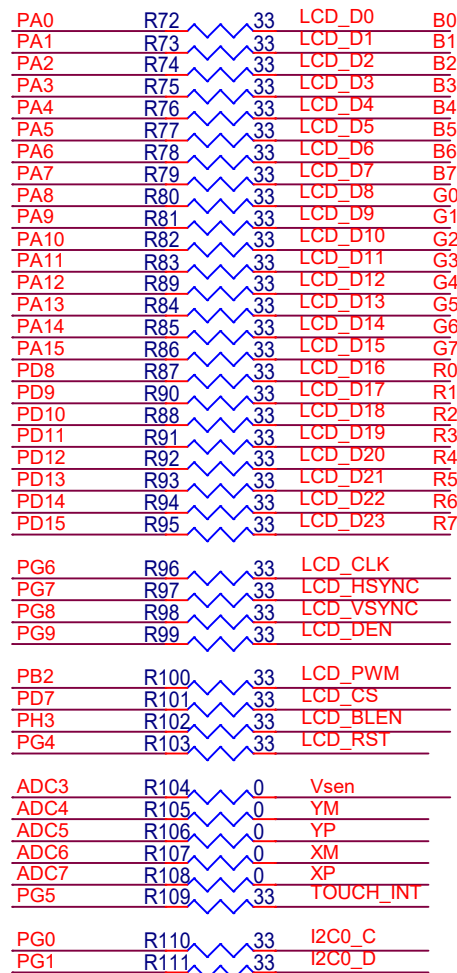


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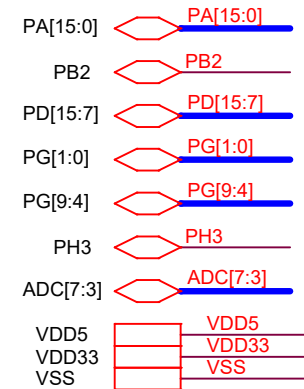
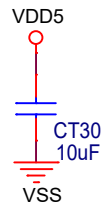
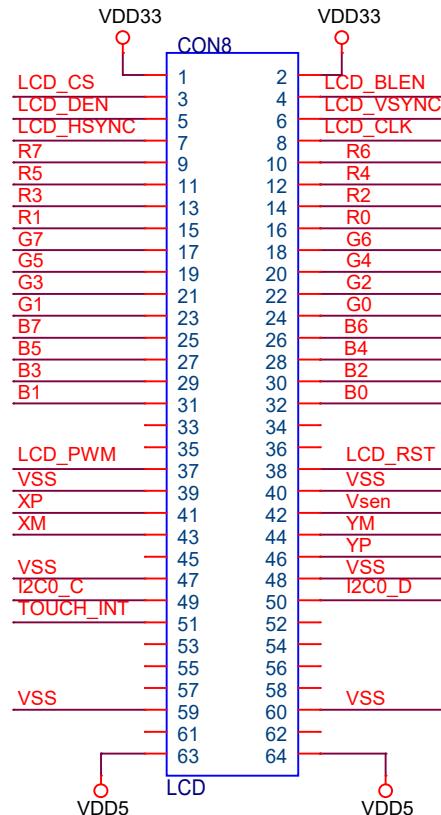
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RS-232_2 Rev 2.1

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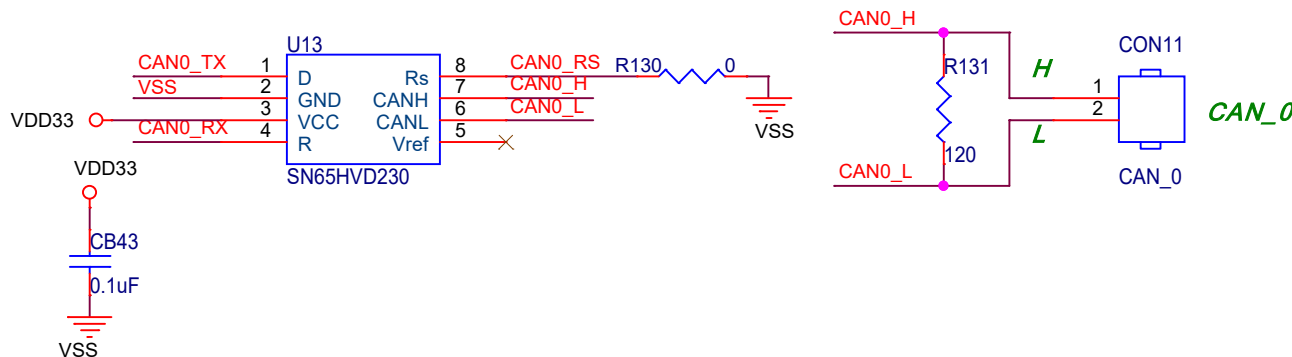
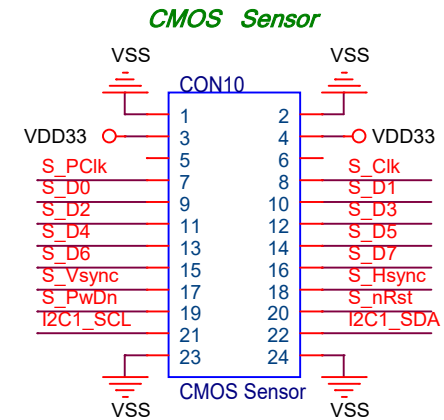
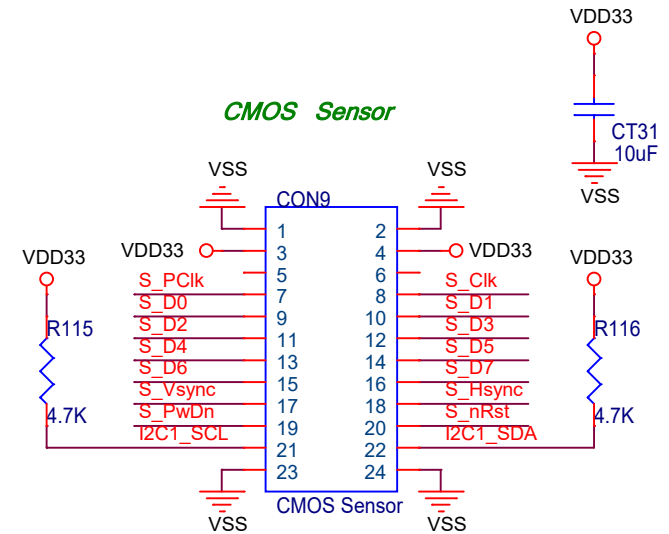
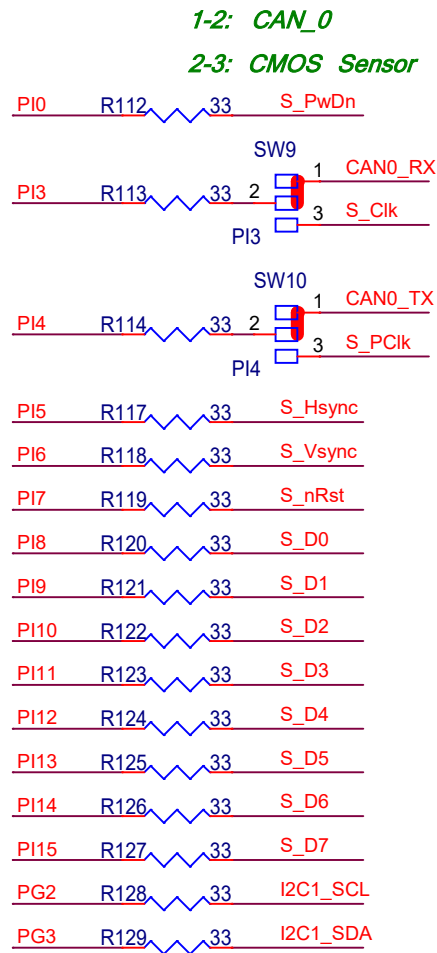
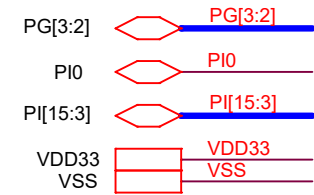


24Bit LCD Interface RGB 888



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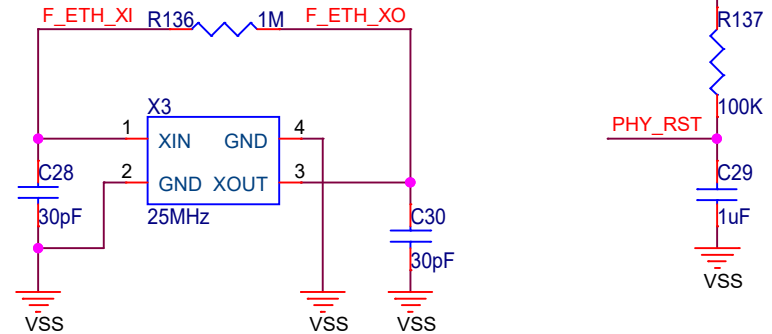
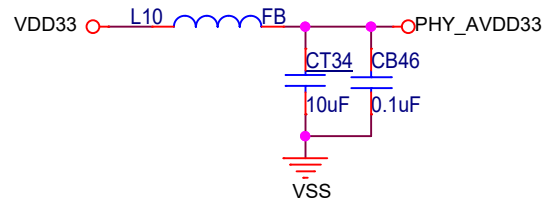
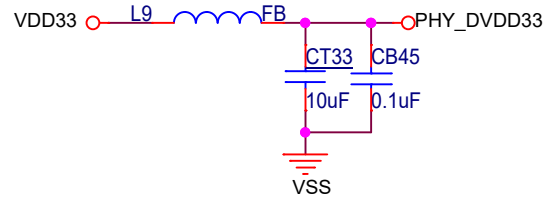
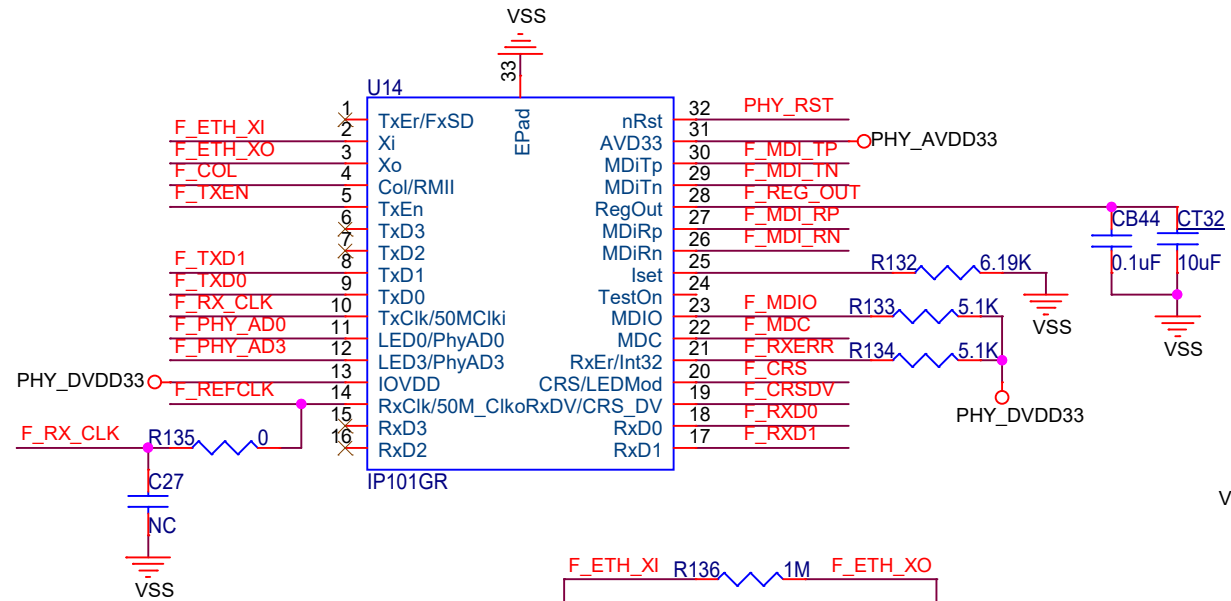
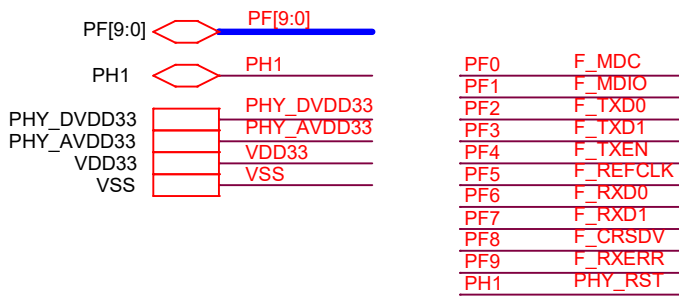
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CMOS Sensor, I2C_1, CAN_0

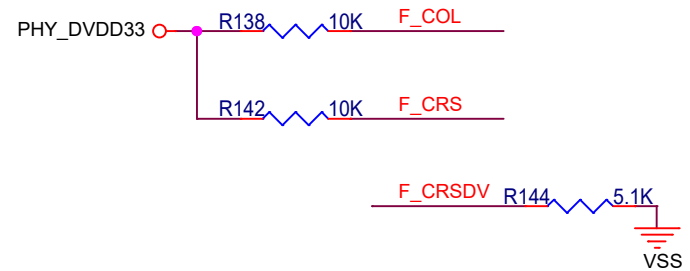
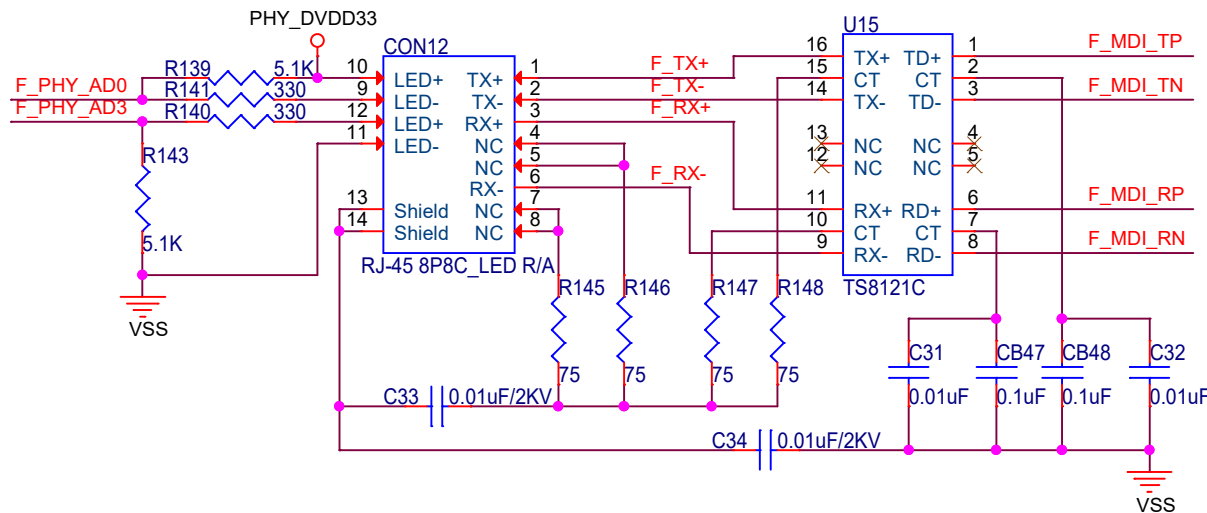
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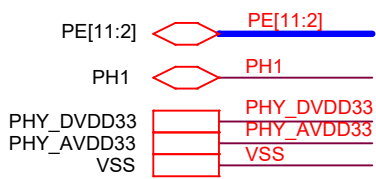


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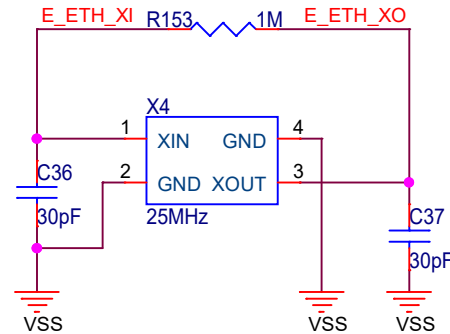
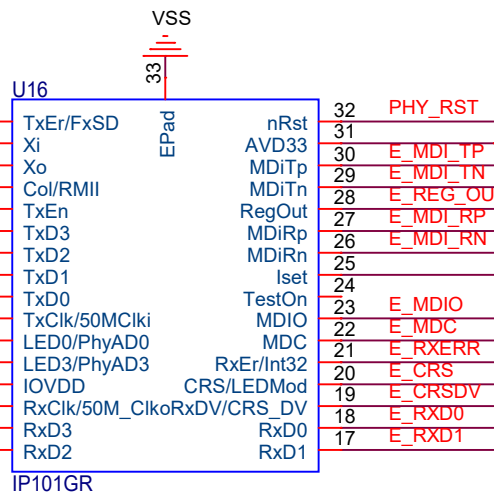
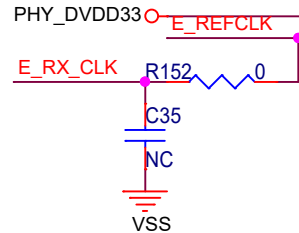
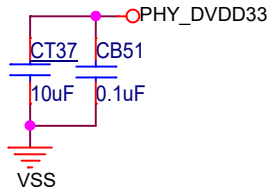


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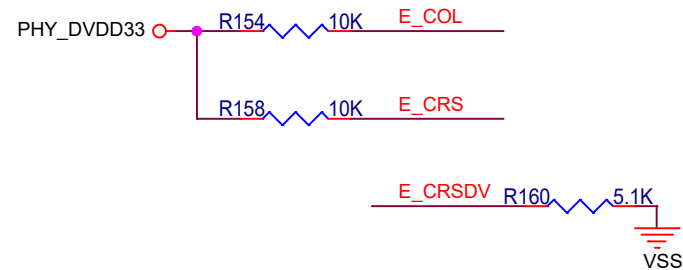
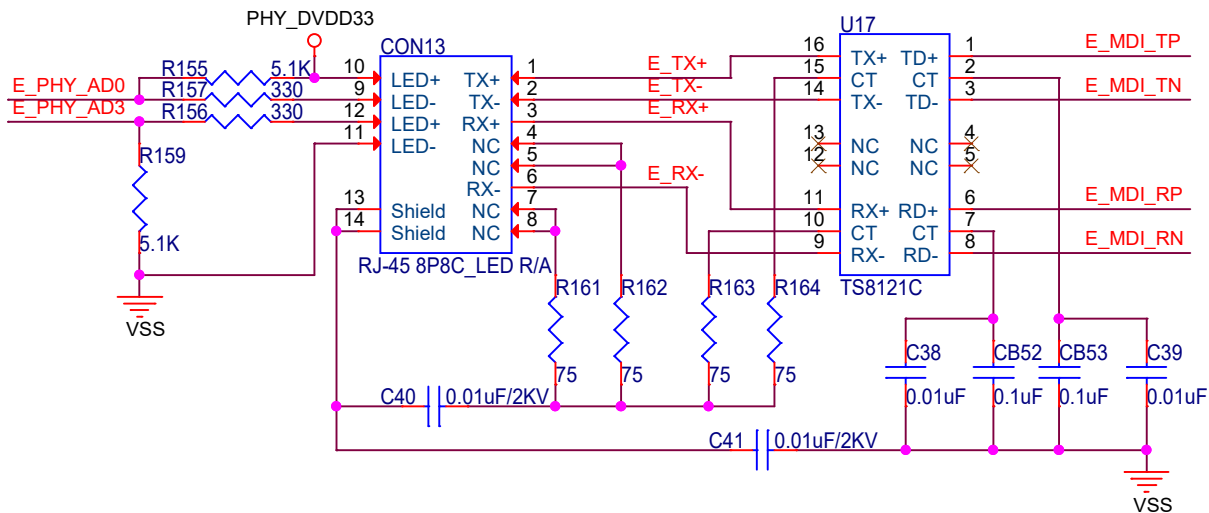
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PE2	E_MDC
PE3	E_MDIO
PE4	E_TXD0
PE5	E_TXD1
PE6	E_TXEN
PE7	E_REFCLK
PE8	E_RXD0
PE9	E_RXD1
PE10	E_CRSDV
PE11	E_RXERR
PH1	PHY_RST

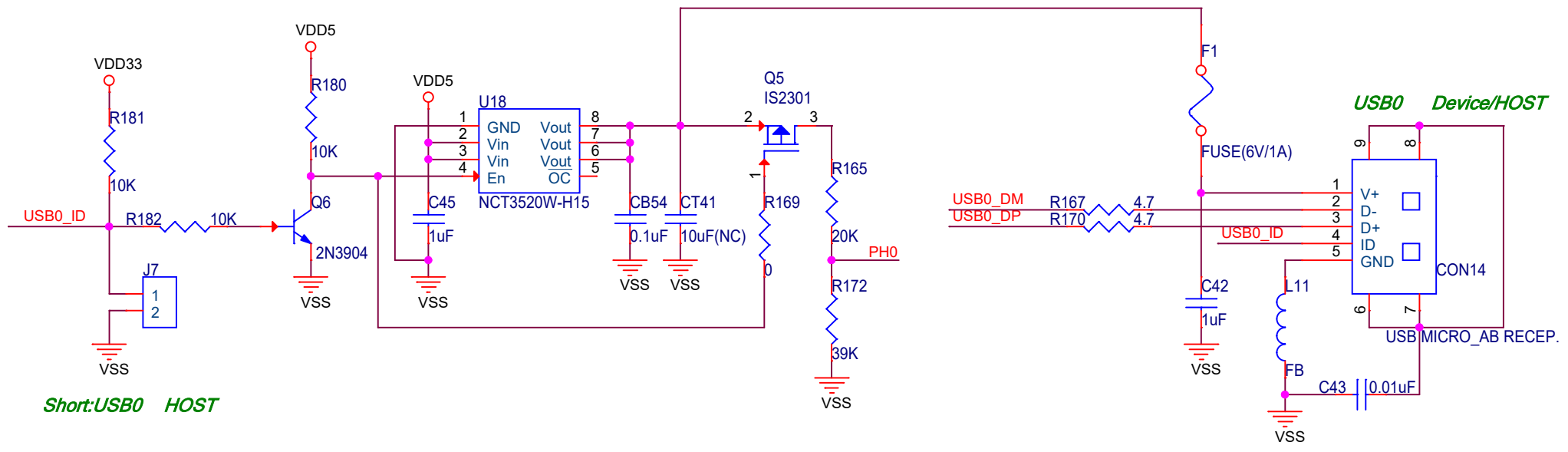











Ethernet1_PE



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- USB0_ID  USB0_ID
- USB0_DP  USB0_DP
- USB0_DM  USB0_DM
- USB1_DP  USB1_DP
- USB1_DM  USB1_DM
- PH0  PH0
- VDD5  VDD5
- VDD33  VDD33
- VSS  VSS

