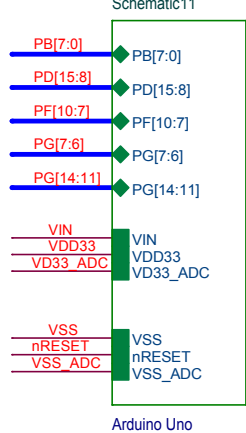
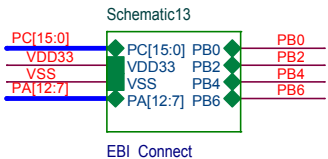
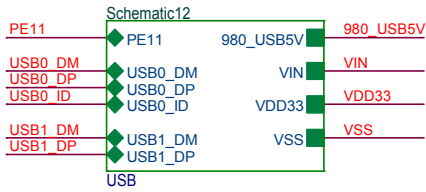
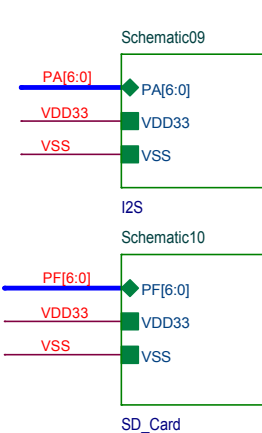


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| Title                    |                            | NK-980IOT |         |
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| A                        | Block Diagram              | 1.0       |         |
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| PIN  | FUNCTION                 | PIN  | FUNCTION                            | PIN  | FUNCTION   | PIN  | FUNCTION             | PIN  | FUNCTION     | PIN  | FUNCTION                 | PIN  | FUNCTION                                   |
|------|--------------------------|------|-------------------------------------|------|------------|------|----------------------|------|--------------|------|--------------------------|------|--|
| PA0  | I2C0_SDA                 | PB0  | ADC_AIN[0]                          | PC0  | EBI_DATA0  | PD2  | QSPI0_SS0            | PE0  | RMII0_RXERR  | PF0  | SD1_CMD<br>eMMC1_CMD     | PG0  | CFG[0]                                     |
| PA1  | I2C0_SCL                 | PB1  | ADC_AIN[1]<br>UART9_TXD             | PC1  | EBI_DATA1  | PD3  | QSPI0_CLK            | PE1  | RMII0_CRSDV  | PF1  | SD1_CLK<br>eMMC1_CLK     | PG1  | CFG[1]                                     |
| PA2  | I2S_LRCK                 | PB2  | ADC_AIN[2]                          | PC2  | EBI_DATA2  | PD4  | QSPI0_DO             | PE2  | RMII0_RXD1   | PF2  | SD1_DATA0<br>eMMC1_DATA0 | PG3  | CFG[3]                                     |
| PA3  | I2S_BCLK                 | PB3  | ADC_AIN[3]<br>UART9_RXD             | PC3  | EBI_DATA3  | PD5  | QSPI0_DI             | PE3  | RMII0_RXD0   | PF3  | SD1_DATA1<br>eMMC1_DATA1 | PG5  | CFG[5]                                     |
| PA4  | I2S_DI                   | PB4  | I2C1_SCL<br>ADC_AIN[4]<br>UART7_RXD | PC4  | EBI_DATA4  | PD6  | QSPI0_D2             | PE4  | RMII0_REFCLK | PF4  | SD1_DATA2<br>eMMC1_DATA2 | PG6  | UART5_RXD<br>PWM10                         |
| PA5  | I2S_DO                   |      |                                     | PC5  | EBI_DATA5  | PD7  | QSPI0_D3             | PE5  | RMII0_TXEN   | PF5  | SD1_DATA3<br>eMMC1_DATA3 | PG7  | UART5_TXD<br>PWM11                         |
| PA6  | I2S_MCLK                 | PB5  | I2C2_SCL<br>ADC_AIN[5]              | PC6  | EBI_DATA6  | PD8  | SPI0_SS0             | PE6  | RMII0_TXD1   | PF6  | SD1_nCD                  | PG8  | CFG[8]                                     |
| PA7  | EBI_nWE                  | PB6  | I2C1_SDA<br>ADC_AIN[6]<br>UART7_TXD | PC7  | EBI_DATA7  | PD9  | SPI0_CLK             | PE7  | RMII0_TXD0   | PF7  | PWM02                    | PG9  | CFG[9]                                     |
| PA8  | EBI_nRE                  |      |                                     | PC8  | EBI_DATA8  | PD10 | SPI0_DO<br>UART6_TXD | PE8  | RMII0_MDIO   | PF8  | PWM03                    | PG11 | JTAG0_TDO<br>SPI1_SS0<br>PWM10             |
| PA9  | EBI_nCS0                 | PB7  | I2C2_SDA<br>ADC_AIN[7]              | PC9  | EBI_DATA9  | PD11 | SPI0_DI<br>UART6_RXD | PE9  | RMII0_MDC    | PF9  | UART1_RXD<br>PWM10       | PG12 | JTAG0_TCK<br>SPI1_CLK<br>PWM11             |
| PA10 | EBI_ADDR10<br>(LCD_RS)   | PB8  | LED_Y                               | PC10 | EBI_DATA10 | PD12 | UART4_TXD<br>PWM00   | PE10 | Key1         | PF10 | UART1_TXD<br>PWM11       | PG13 | JTAG0_TMS<br>SPI1_DO<br>PWM12<br>UART5_RXD |
| PA11 | EBI_ADDR9<br>(LCD_RESET) | PB13 | LED_R                               | PC11 | EBI_DATA11 | PD13 | UART4_RXD<br>PWM01   | PE11 | USB0_VBUSVLD | PF11 | UART0_RXD                |      | PG14                                       |
| PA12 | EBI_ADDR8<br>(LCD_BL)    |      |                                     | PC12 | EBI_DATA12 | PD14 | I2C3_SCL<br>PWM02    | PE12 | Key2         | PF12 | UART0_TXD                | PG15 | JTAG0_NTRST<br>LED_G                       |
|      |                          |      |                                     | PC13 | EBI_DATA13 |      |                      |      |              |      |                          |      |  |
|      |                          |      |                                     | PC14 | EBI_DATA14 |      |                      |      |              |      |                          |      |  |
|      |                          |      |                                     | PC15 | EBI_DATA15 |      |                      |      |              |      |                          |      |  |



|          |    |
|----------|----|
| USB0_ID  | 1  |
| PA0      | 2  |
| PA1      | 3  |
| PA2      | 4  |
| PA3      | 5  |
| PA4      | 6  |
| PA5      | 7  |
| PA6      | 8  |
| VD33     | 9  |
| VD12     | 10 |
| VD18     | 11 |
| VD19     | 12 |
| VD12     | 13 |
| PA7      | 14 |
| PA8      | 15 |
| PA9      | 16 |
| PA10     | 17 |
| PA11     | 18 |
| PA12     | 19 |
| VD33     | 20 |
| PG9      | 21 |
| PG8      | 22 |
| PG7      | 23 |
| PG6      | 24 |
| PG5      | 25 |
| PG3      | 26 |
| PG1      | 27 |
| PG0      | 28 |
| PB0      | 29 |
| PB6      | 30 |
| PB4      | 31 |
| VSS_ADC  | 32 |
| VD33_ADC | 33 |
| PB7      | 34 |
| PB5      | 35 |
| PB1      | 36 |
| PB3      | 37 |
| PB2      | 38 |
| VD33_RTC | 39 |
| 32K_IN   | 40 |
| 32K_OUT  | 41 |
| PB8      | 42 |
| VD12     | 43 |
| PC0      | 44 |
| PC1      | 45 |
| PC2      | 46 |
| PC3      | 47 |
| PC4      | 48 |
| PC5      | 49 |
| PC6      | 50 |
| PC7      | 51 |
| PC8      | 52 |
| PC9      | 53 |
| PC10     | 54 |
| PC11     | 55 |
| PC12     | 56 |
| PC13     | 57 |
| PC14     | 58 |
| PC15     | 59 |
| VD33     | 60 |
| PD2      | 61 |
| PD3      | 62 |
| PD4      | 63 |
| VSS      | 64 |

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|          |    |
|----------|----|
| USB0_ID  | 1  |
| PA0      | 2  |
| PA1      | 3  |
| PA2      | 4  |
| PA3      | 5  |
| PA4      | 6  |
| PA5      | 7  |
| PA6      | 8  |
| VD33     | 9  |
| VD12     | 10 |
| VD18     | 11 |
| VD19     | 12 |
| VD12     | 13 |
| PA7      | 14 |
| PA8      | 15 |
| PA9      | 16 |
| PA10     | 17 |
| PA11     | 18 |
| PA12     | 19 |
| VD33     | 20 |
| PG9      | 21 |
| PG8      | 22 |
| PG7      | 23 |
| PG6      | 24 |
| PG5      | 25 |
| PG3      | 26 |
| PG1      | 27 |
| PG0      | 28 |
| PB0      | 29 |
| PB6      | 30 |
| PB4      | 31 |
| VSS_ADC  | 32 |
| VD33_ADC | 33 |
| PB7      | 34 |
| PB5      | 35 |
| PB1      | 36 |
| PB3      | 37 |
| PB2      | 38 |
| VD33_RTC | 39 |
| 32K_IN   | 40 |
| 32K_OUT  | 41 |
| PB8      | 42 |
| VD12     | 43 |
| PC0      | 44 |
| PC1      | 45 |
| PC2      | 46 |
| PC3      | 47 |
| PC4      | 48 |
| PC5      | 49 |
| PC6      | 50 |
| PC7      | 51 |
| PC8      | 52 |
| PC9      | 53 |
| PC10     | 54 |
| PC11     | 55 |
| PC12     | 56 |
| PC13     | 57 |
| PC14     | 58 |
| PC15     | 59 |
| VD33     | 60 |
| PD2      | 61 |
| PD3      | 62 |
| PD4      | 63 |
| VSS      | 64 |

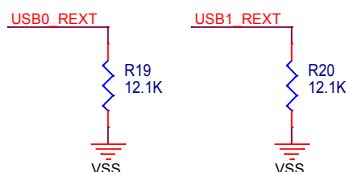
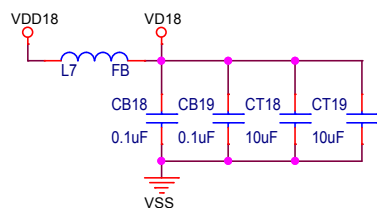
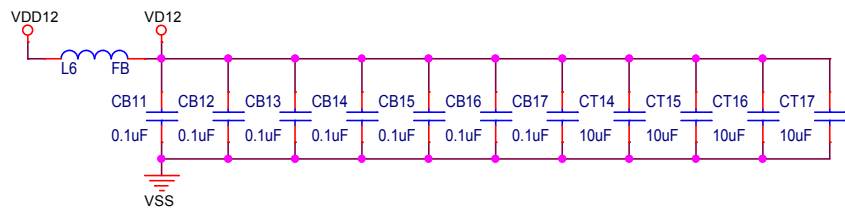
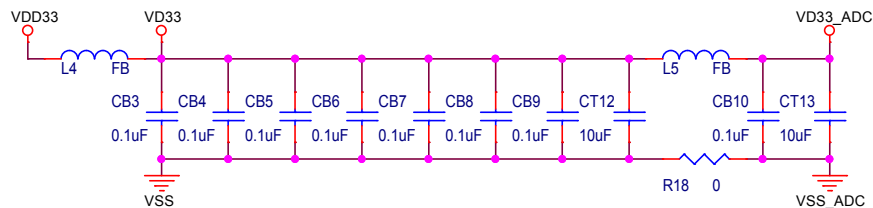
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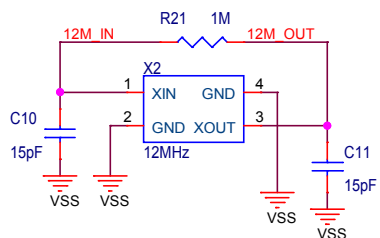
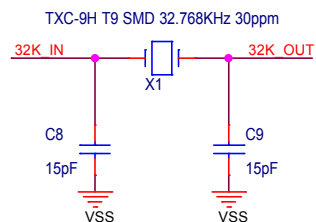
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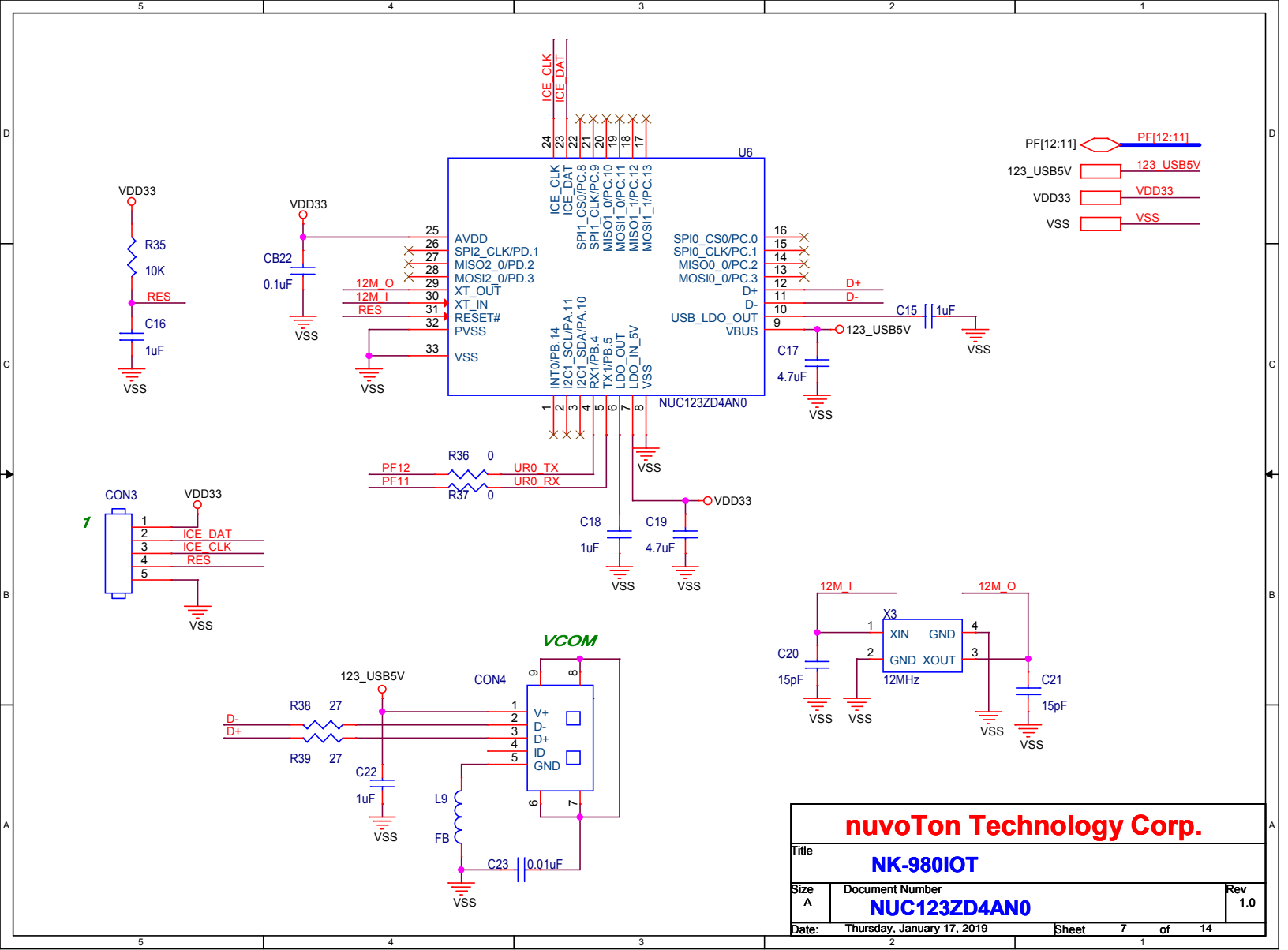
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| 32K_IN    | 32K_IN    |
| 32K_OUT   | 32K_OUT   |
| 12M_IN    | 12M_IN    |
| 12M_OUT   | 12M_OUT   |
| USB0_REXT | USB0_REXT |
| USB1_REXT | USB1_REXT |
| VD33_ADC  | VD33_ADC  |
| VDD33     | VDD33     |
| VD33      | VD33      |
| VDD18     | VDD18     |
| VD18      | VD18      |
| VDD12     | VDD12     |
| VD12      | VD12      |
| VSS_ADC   | VSS_ADC   |
| VSS       | VSS       |






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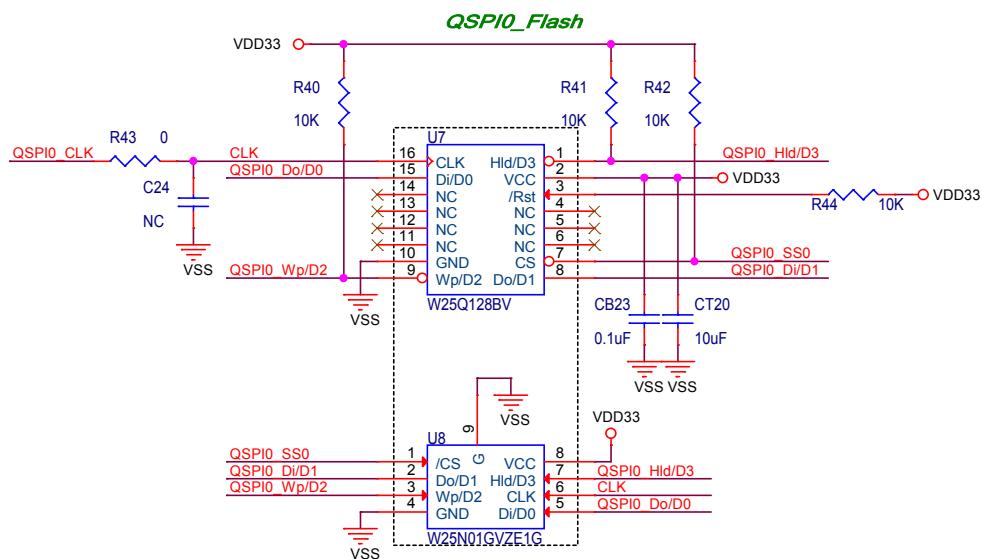
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| NK-980IOT    |                            |               |
| Size A       | Document Number            | Rev 1.0       |
| Power Filter |                            |               |
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| NK-980IOT                        |                 |     |
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| Date: Thursday, January 17, 2019 |                 |     |
| Sheet 7 of 14                    |                 |     |

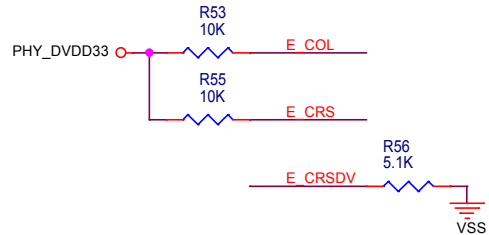
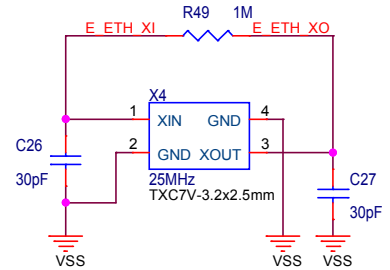
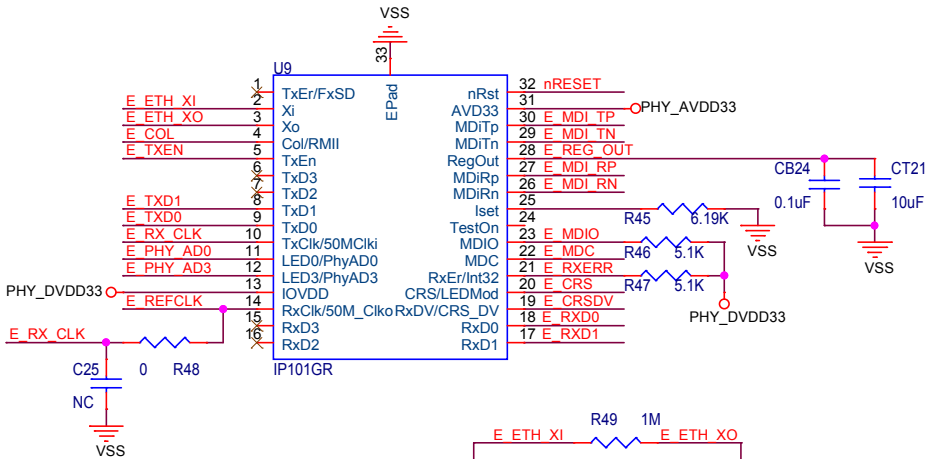
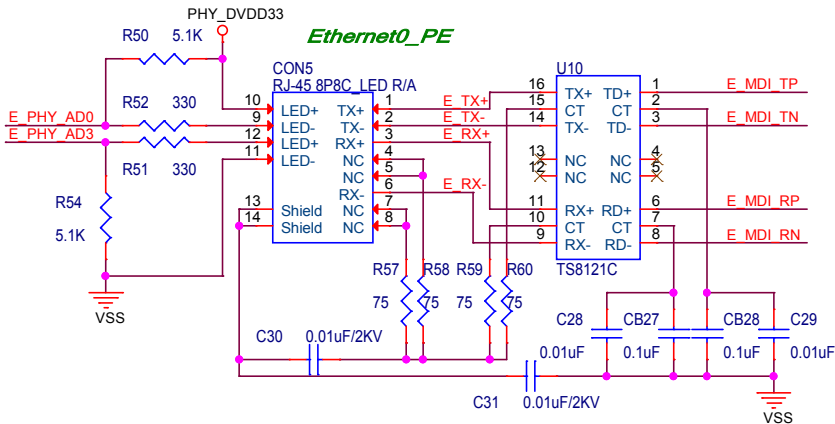
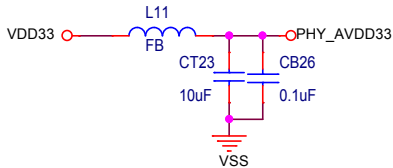
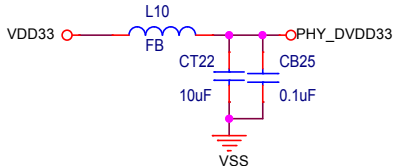
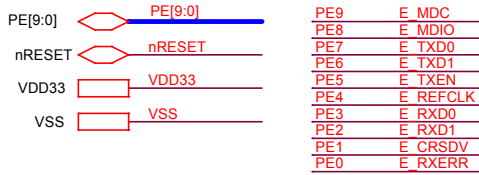
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 VDD33  VDD33  
 VSS  VSS  
 PD2 QSPI0\_SS0  
 PD3 QSPI0\_CLK  
 PD4 QSPI0\_Do/D0  
 PD5 QSPI0\_Di/D1  
 PD6 QSPI0\_Wp/D2  
 PD7 QSPI0\_Hld/D3



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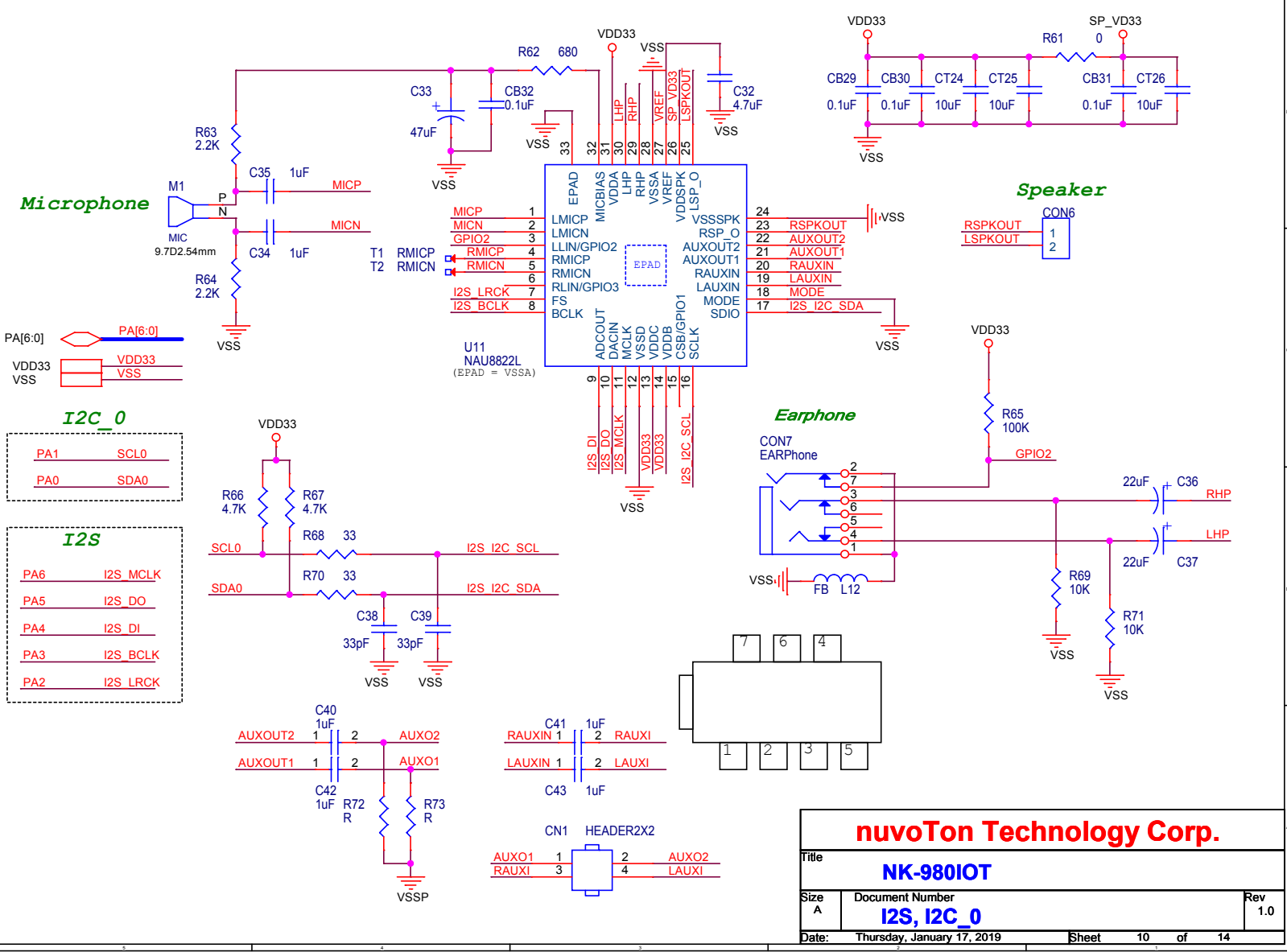
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| A         | RMII_PE                    | 1.0           |
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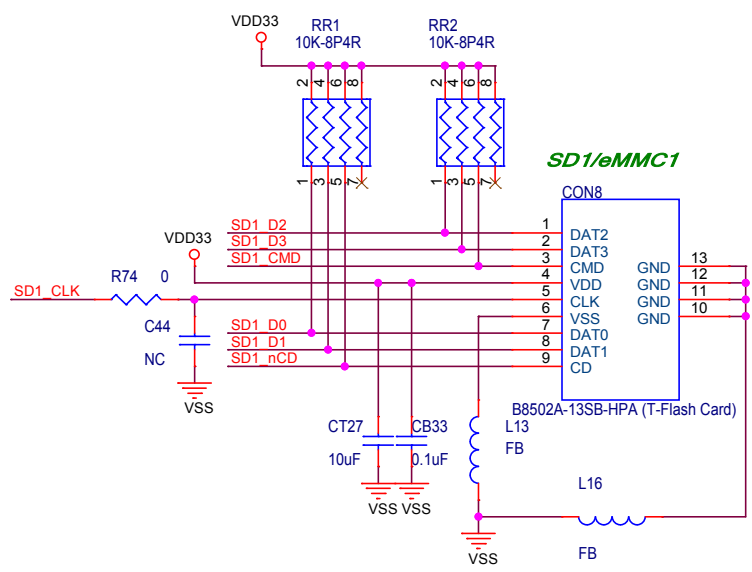


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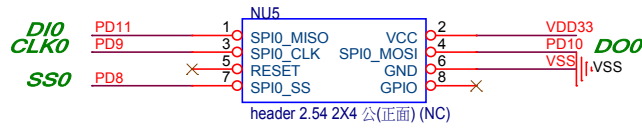
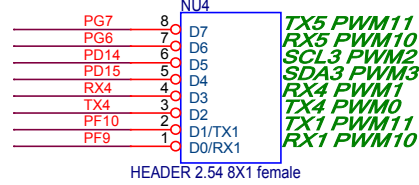
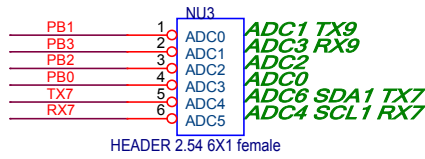
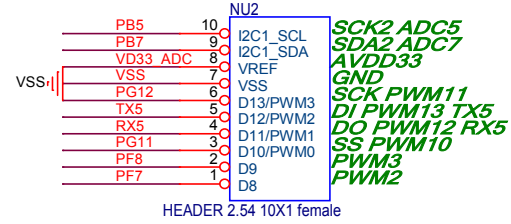
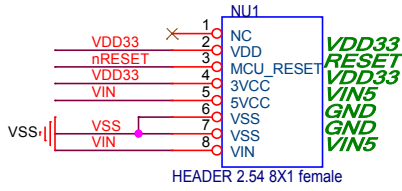
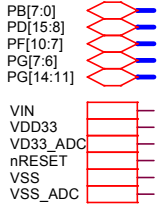
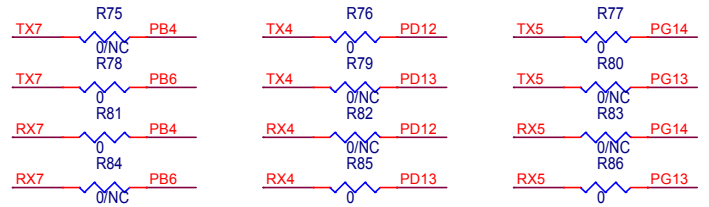
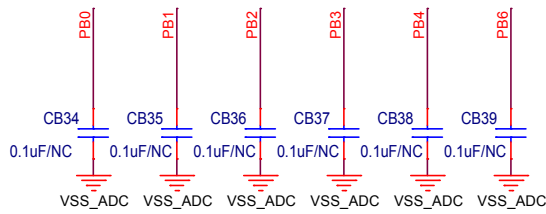
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PF[6:0]  PF[6:0]  
VSS  VSS  
VDD33  VDD33

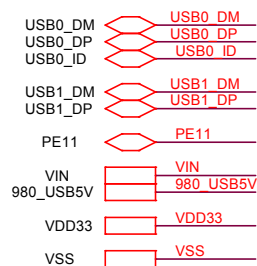
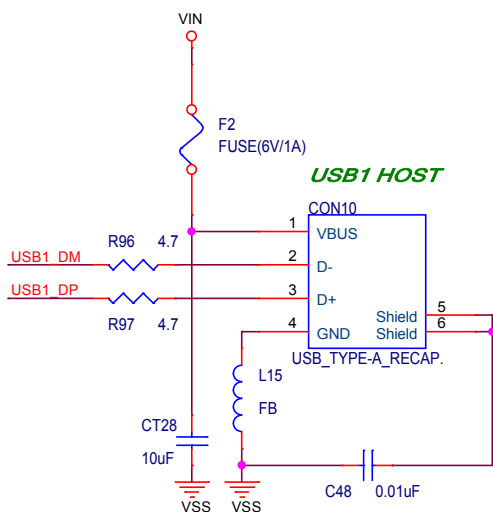
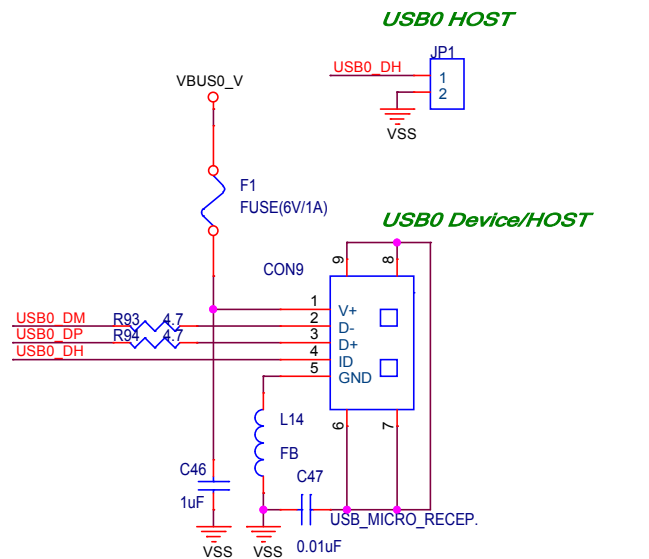
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PF1 SD1\_CLK  
PF2 SD1\_D0  
PF3 SD1\_D1  
PF4 SD1\_D2  
PF5 SD1\_D3  
PF6 SD1\_nCD



|                          |                            |                |
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| NK-980IOT                |                            |                |
| Size                     | Document Number            | Rev            |
| A                        | SD_Card                    | 1.0            |
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| Title                    |                            | NK-980IOT |          |
| Size                     | Document Number            | Rev       |          |
| A                        | Arduino Uno                | 1.0       |          |
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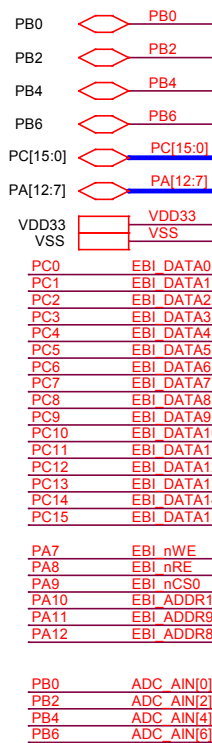
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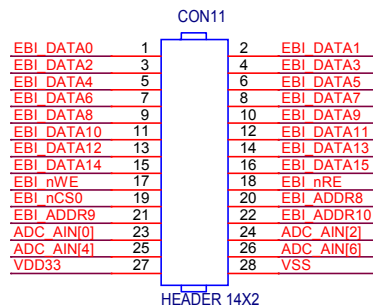
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