Arm® Cortex®-M0

32-bit Microcontroller

NUC121/NUC125 Series CMSIS BSP Revision History

For additional information or questions, please contact: Nuvoton Technology Corporation.

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Revision 3.01.006 (Released 2020-05-21)

- ■ IAR startup_NUC121.s

  1. Fixed build issue with IAR V7.5.

- ■ Standard driver

  1. UART driver

     ● Updated UART_DisableInt, UART_EnableInt: Removed NVIC IRQ control.

- ■ Sample code

  1. New sample code: USCI_SPI_SlaveModeINT.

  2. Updated all UART sample codes: Added NVIC IRQ control.

  3. Fixed I2C_PDMA_TRX: Unused __ALIGNED macro.

  4. Fixed PDMA, PDMA_Scatter_Gather: Missing word alignment.

  5. Fixed USBD_MassStorage_CDROM: Removed 2KB file size limit.

  6. Fixed all USBD VCOM sample codes: Potential UART Tx FIFO overflow issue.

  7. Fixed USBD_VCOM_DaulPort: Wrong baudrate issue.

Revision 3.01.005 (Released 2020-09-14)

- ■ Added Apache-2.0 license declaration.

- ■ Standard driver

  1. retarget.c

     ● Fixed _write, SendChar_ToUART: '\r' issue.

     ● Fixed SendChar: Uninitialized pointer.

  2. SPI driver

     ● New API: SPI_DISABLE_TX_RX_PDMA, SPI_TRIGGER_TX_RX_PDMA.

  3. TIMER driver

     ● New API: TIMER_SET_OPMODE.

  4. UART driver

     ● New API: UART_PDMA_DISABLE, UART_PDMA_ENABLE

- ■ Sample code

  1. Improved I2C_Wakeup_Slave: Wakeup robustness.

  2. Fixed USBD_VCOM_DualPort: Only one VCOM port in Linux.

  3. Fixed USCI_UART_TxRx_Function, all UART samples: '\r' issue.

Revision 3.01.004 (Released 2019-10-02)

- ■ Standard driver

  1. TIMER driver

     ● Fixed TIMER_Open: Return value.

2. USCI_SPI driver
   - Fixed USPI_SET_SS_HIGH: Implementation.

- Sample code
  1. New sample code: I2C_PDMA_TRX, ISP_DFU, ISP_I2C, ISP_RS485, ISP_SPI.
  2. Improved FMC_ExeInSRAM: Add IAR and GCC projects.
  3. Fixed UART_TxRx_Function: Data lost.

Revision 3.01.003 (Released 2019-06-19)

- Standard driver
  1. I2C driver
     - Added error handling for new transfer.
  2. TIMER driver
     - Fixed TIMER_GetModuleClock: Correct PCLK.
  3. USBD driver
     - Fixed potential issue.

- Sample code
  1. New sample code: ISP samples.
  2. Updated USBD_Audio_NAU8822, USBD_Audio_HID_NAU8822: Clear FIFO before play / record.
  3. Fixed TIMER_Delay: Correct PCLK.
  4. Fixed all USBD samples: Potential issue.

Revision 3.01.002 (Released 2018-12-28)

- CMSIS
  1. Upgraded to v5.1.1.

- Standard driver
  1. CLK driver
     - Updated CLK_PowerDown: Require HIRC / MIRC auto trim disabled.
  2. PDMA driver
     - Improved PDMA_Open: Support multiple open.

- Sample code
  1. Updated all samples: Keil projects use "NULink Debugger" instead of "Nuvoton Nu-Link Debugger".
  2. Fixed all samples: Semihost build failure with GCC toolchain 7-2018-q2.
  3. Fixed I2S_PDMA_PlayRecord: Race condition.

4. Fixed TIMER_CaptureCounter: Array access overflow.

5. Fixed USBD VCOM samples: UART baud rate calculation.

6. Fixed USBD_VCOM_And_HID_Transfer: Buffer overflow.

Revision 3.01.001 (Released 2018-06-27)

- NuMicro.h

  1. New header file.

- NUC121.h

  1. Separated register declarations of each IP into distinct header files.

- Standard driver

  1. Fixed USBD driver: USB Control-In packet with the same size as endpoint limit.

- Sample code

  1. New sample code: USCI_I2C_Monitor.

  2. Improved PDMA_ScatterGather_PingPongBuffer: Add PDMA error handling.

  3. Improved UART_PDMA: Add UART error handling.

  4. Updated all samples: Add Eclipse projects for GCC toolchain.

  5. Updated CLK_ClockDetector, HIRC_Trim, UART_Wakeup_LXT, ADC samples: Set analog pins as input mode and disabled digital input function.

Revision 3.00.003 (Released 2017-12-13)

- NUC121.h

  1. Removed TIMER_CTL_TRGDAC_Pos, TIMER_CTL_TRGDAC_Msk.

- Standard driver

  1. I2C driver

     - Fixed I2C_ReadByteTwoRegs, I2C_ReadMultiBytesTwoRegs, I2C_WriteByteTwoRegs, I2C_WriteMultiBytesTwoRegs: High byte lost.

  2. SPI driver

     - Improved I2S_Open: I2S sample rate accuracy.

  3. TIMER driver

     - Replaced TIMER_TRG_TO_EADC with TIMER_TRG_TO_ADC.

  4. USBD driver

     - Replaced USBD_L1RESUME with USBD_STATE_L1RESUME.

     - Replaced USBD_L1SUSPEND with USBD_STATE_L1SUSPEND.

  5. USCI-I2C driver

     - Fixed UI2C_ReadByteTwoRegs, UI2C_ReadMultiBytesTwoRegs, UI2C_WriteByteTwoRegs, UI2C_WriteMultiBytesTwoRegs: High byte lost.

6. USCI-UART driver

- Fixed UUART_Open, UUART_SetLine_Config: Wrong baud rate.

Revision 3.00.002 (Released 2017-03-09)

- ■ NUC121.h

  1. New definition: BPWM0_IRQn, BPWM1_IRQn.

- ■ Standard driver

  1. BPWM driver

     - Fixed BPWM_ConfigOutputChannel: 100% duty issue.

  2. CLK driver

     - Replaced CLK_CLKSEL1_ADCSEL_HIRC_DIV2 with CLK_CLKSEL1_ADCSEL_HIRC.

     - Fixed definition: GPIOA_MODULE, GPIOB_MODULE, GPIOC_MODULE, GPIOD_MODULE, GPIOE_MODULE, GPIOF_MODULE.

  3. I2C driver

     - Removed I2C_CLEAR_WAKEUP_WR_STATUS.

  4. PWM driver

     - Fixed PWM_ConfigOutputChannel: 100% duty issue.

  5. SYS driver

     - New definition: SYS_GPF_MFPL_PF0MFP_XT1_OUT, SYS_GPF_MFPL_PF0MFP_X32_OUT, SYS_GPF_MFPL_PF1MFP_XT1_IN, SYS_GPF_MFPL_PF1MFP_X32_IN.

     - Replaced SYS_GPD_MFPL_PD3MFP_UART0_CTS with SYS_GPD_MFPL_PD3MFP_UART0_nCTS.

     - Replaced SYS_GPD_MFPL_PD3MFP_UART0_RTS with SYS_GPD_MFPL_PD3MFP_UART0_nRTS.

- ■ Sample code

  1. New sample code: LED_Toggle, UART_Wakeup_LXT.

  2. Updated all USBD samples: Reply USB 2.1 version only if SUPPORT_LPM defined.

  3. Fixed BPWM_DutySwitch: 100% duty issue.

  4. Fixed FMC_IAP: Wrong project setting.

  5. Fixed PWM_DutySwitch:100% duty issue.

  6. Fixed USBD_Audio_HID_NAU8822: PD11 issue.

  7. Fixed USCI_UART_TxRx_Function: Compilation error.

Revision 3.00.001 (Released 2016-10-07)

■ Primary release version.

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