

# ARM<sup>®</sup> Cortex<sup>®</sup>-M0 32-bit Microcontroller

## NuMicro<sup>®</sup> Family NUC230/NUC240 Series BSP Revision History

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#### Revision 3.01.002 (Released 2017-10-24)

- 1. Fixed PLL clock source selection bug in CLK\_SetCoreClock().
- 2. Fixed clear Receive Line Status interrupt flag bug in UART\_ClearIntFlag().
- 3. Modified to disable debug message when enabling semihost without NuLink connecting.
- 4. Added CAN\_SetRxMsgObjAndMsk() function.
- 5. Added CLK\_SysTickLongDelay() for long delay.
- 6. Added ADC\_MeasureVADD() sample code.

#### Revision 3.01.001 (Released 2015-08-18)

- 1. Fixed the clock selection bug in SCUART\_TxRx() sample code.
- 2. Fixed the reset handler from \_\_iar\_program\_start to Reset\_Handler.
- 3. Fixed the bug of clearing wrong enable bit in UART SelectLINMode() of UART driver.
- 4. Fixed CAN STATUS LEC Msk from 0x03 to 0x07.
- 5. Fixed SC\_UACTL\_UA\_MODE\_EN\_Msk define error from (3ul << SC\_UACTL\_UA\_MODE\_EN\_Pos) to (1ul << SC\_UACTL\_UA\_MODE\_EN\_Pos).
- 6. Fixed the wrong SC1 and SC2 clock source select shift position in MODULE constant definitions.
- 7. Fixed the wrong definition bug of PS2\_DISABLE\_OVERRIDE() and PS2\_ENABLE\_OVERRIDE().
- 8. Fixed the bug of PS2 Write() in PS2 driver.
- 9. Removed ReadDID() function from FMC driver as It is no longer supported.
- 10. Updated USB driver to improve reliability and compatibility.
- 11. Added NuEdu sample code.
- 12. Added INT 'MCUIRQ' and 'MCUIRQCR' bit field definitions.
- 13. Added CLK\_EnableSysTick() and CLK\_DisableSysTick() to control SysTick and select SysTick clock source.
- 14. Added SPI FIFO SIZE constant definition.
- 15. Added USB device sample code.
- 16. Improved USBD driver for adding more USB sample code.

#### **Revision 3.00.002** (Released 2015-05-11)

- 1. Fixed the wrong baud rate returned by SCUART\_SetLineConfig() in SCUART driver.
- 2. Fixed SCUART\_Open() of SCUART driver for wrong clock calculation and return value.
- 3. Fixed SC\_SET\_STOP\_BIT\_LEN define error.
- 4. Fixed the bug of ADC\_IS\_DATA\_OVERRUN() that the input parameter is channel number but channel bit mask.
- 5. Updated CAN clock setting in CAN\_Open() of CAN driver to comply with different system clocks.
- 6. Fixed the wrong return value bug of CLK SetCoreClock() in CLK driver.
- 7. Fixed CLK\_SetModuleClock() error for PWM clock selection in CLK driver.
- 8. Fixed the bug of CLK\_SysTickDelay() that COUNTFLAG may not be cleared in CLK driver.
- 9. Fixed the GPIO\_ENABLE\_DOUT\_MASK() and GPIO\_DISABLE\_DOUT\_MASK() implement inverse error in GPIO driver.
- 10. Fixed the close wrong I<sup>2</sup>C bug of I2C Close() in I<sup>2</sup>C driver.
- 11. Fixed API declare name from I2C\_SetClockBusFreq() to I2C\_SetBusClockFreq() in I<sup>2</sup>C driver.



- 12. Fixed the clear RS-485 address byte detection flag bug to clear one flag at one time in RS485\_HANDLE() of UART driver.
- 13. Added one more zero packet when BULK IN transfer is end by max packet size packet at last packet in VCOM sample code.
- 14. Fixed UA\_LIN\_CTL[4] bit field name as 'MUTE\_EN' not 'WAKE\_EN' in UART LIN CTL bit field definitions of header file.
- 15. Fixed the wrong mask definition of SC\_TRSR\_TX\_POINT\_F\_Msk and SC\_TRSR\_RX\_POINT\_F\_Msk in header file.
- 16. Fixed the wrong bit definition of WAKEUP EN in USB INTEN register of header file.
- 17. Fixed the channel 0 trigger disabled bug when channel 1~3 trigger enabled in PWM\_EnableADCTrigger() of PWM driver.
- 18. Fixed the bug that channel 0 trigger will be disabled when channel 1~3 trigger are enabled in PWM EnableADCTrigger() of PWM driver.
- 19. Fixed SCUART\_PARITY\_NONE/SCUART\_PARITY\_EVEN/SCUART\_PARITY\_ODD definition bug in SCUART driver.
- 20. Fixed four macro definitions of SPI driver to avoid affecting non-target SPI\_SS pin including SPI\_SET\_SS0\_HIGH() SPI\_SET\_SS1\_HIGH() SPI\_SET\_SS0\_LOW() SPI\_SET\_SS1\_LOW().
- 21. Fixed the clear flag bug to clear one flag at one time in UART\_ClearIntFlag(). It should be '(uart)->FSR = UART\_FSR\_RS485\_ADD\_DETF\_Msk' but '(uart)->FSR |= UART\_FSR\_RS485\_ADD\_DETF\_Msk'.
- 22. Fixed the clear wrong flag bug in UART\_RS485\_CLEAR\_ADDR\_FLAG().
- 23. Fixed UA\_LIN\_CTL[4] bit field name as 'MUTE\_EN' not 'WAKE\_EN' in UA\_LIN\_CTL constants definitions in UART driver.
- 24. Added SPI\_SET\_SS\_LEVEL() macro definition in SPI driver to allow user to set both SPI\_SS pins.
- 25. Added a lack macro SYS IS LVR RST() to SYS driver.

#### **Revision 3.00.001** (Released 2014-05-05)

- 1. Supported NUC230/NUC240
- 2. Supported latest NuMicro Family Driver API.
- 3. Supported register based and driver based sample code.
- 4. Added USB CCID Card Reader sample code

#### Revision 1.01.001 (Released 2013-07-25)

- 1. Supported NUC230 240 BN version.
- 2. Split driver samples into small one for easy reference.
- 3. Added readme file in root directory for quick reference for BSP directory and sample code.

#### **Revision 1.00.002** (Released 2012-11-09)

- 1. Fixed CAN, Smart Card, and GPIO driver bugs.
- 2. Modified the unlock function to do retry when fail to unlock.

#### **Revision 1.00.001** (Released 2012-08-04)

1. Initial Release.



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