

**ARM<sup>®</sup> Cortex<sup>®</sup>-M  
32-bit Microcontroller**

**NuMicro<sup>™</sup> Family  
NUC123 Series BSP  
Revision History**

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**Revision 3.00.003** (Released 2015-07-02)

1. Fix lost parentheses for PDMA\_IS\_CH\_BUSY() of PDMA driver.
2. Fix API declare name from I2C\_SetClockBusFreq() to I2C\_SetBusClockFreq() in I2C driver.
3. Fix bug of PWM\_ConfigOutputChannel() for duty is 0 in PWM driver.
4. Fix clear flag bug to clear one flag in one time in UART\_ClearIntFlag() in UART driver.
5. Fix clear RS-485 address byte detection flag bug to clear one flag in one time in RS485\_HANDLE() of UART\_RS485\_Slave sample code.
6. Fix clear RS-485 address byte detection flag bug to clear one flag in one time in UART\_RS485\_CLEAR\_ADDR\_FLAG() of UART driver.
7. Fix clear Time-out flag method bug in I2C\_ClearTimeoutFlag() of I2C driver.
8. Fix CLK\_SysTickDelay() bug of CLK driver, COUNTFLAG(SysTick\_CTRL[16]) may not be cleared after write SysTick\_VAL.
9. Fix CLKSEL0 setting bug in CLK\_SetCoreClock() of CLK driver.
10. Fix GPIO\_ENABLE\_DOUT\_MASK() and GPIO\_DISABLE\_DOUT\_MASK(). Their define are inversed in GPIO driver.
11. Fix I2C\_Close implementation error in I2C driver.
12. Fix Multi-Function constant definitions error of PB.2, PB.5, PC.0, PC.3 in SYS driver.
13. Fix PWM\_EnableADCTrigger () and PWM\_EnablePDMA() implementation error in PWM driver.
14. Fix SYS\_IS\_SYSTEM\_RST() bug, it is 'SYS\_RSTSRC\_RSTS\_SYS\_Msk' not 'SYS\_RSTSRC\_RSTS\_MCU\_Msk' in SYS driver.
15. Fix UART RTS LEVEL TRIGGER active level definition bug in UART driver.
16. Fix UART transmit data bug in UART\_TEST\_HANDLE() of UART\_TxRx\_Function sample code.
17. Modify to support NUC123xxxAEx.
18. modify HCLK clock setting bug in CLK\_SetCoreClock() of CLK driver.
19. Remove ADC\_ADCHER\_PRESEL\_INT\_TEMPERATURE\_SENDO definition;
20. Remove an extra ')' for GPIO\_ENABLE\_DOUT\_MASK().
21. Replace USBD\_SetStall() with USBD\_SET\_EP\_STALL().
22. Revise FMC\_Erase() ISPPF flag clear.
23. Revise the following four macro definitions to avoid affecting another SPI\_SS pin.  
SPI\_SET\_SS0\_HIGH() SPI\_SET\_SS1\_HIGH() SPI\_SET\_SS0\_LOW()  
SPI\_SET\_SS1\_LOW()
24. Add 144MHz PLL setting (HXT source) definition to CLK driver.
25. Add a lack macro, SYS\_IS\_LVR\_RST().
26. Add a lost ')' for GPIO\_DISABLE\_DOUT\_MASK().
27. Add constant define 'CLK\_CLKSEL0\_STCLK\_S\_HCLK' in CLKSEL0 constant definitions for CLK\_EnableSysTick() function to select HCLK as sysTick clock source.
28. Add default hard fault handler in retarget.c
29. Add Hard\_Fault\_Sample sample code for hard fault handler demo.
30. Add lacked 'PUBWEAK HardFault\_Handler' to startup\_NUC123.s
31. Add new function to control systick and select systick clock source, CLK\_EnableSysTick() and CLK\_DisableSysTick() of CLK driver.
32. Add new function to control systick and select systick clock source, CLK\_EnableSysTick() and CLK\_DisableSysTick().
33. Add nonblocking printf implement and use predefine compiler option to enable/disable it in retarget.c
34. Add one more zero packet when BULK IN transfer is end by max packet size packet at last packet in USBD\_VCOM sample code.

35. Add SPI\_SET\_SS\_LEVEL() macro definition. This macro allows user to set both SPI\_SS pins.
36. Add SPI\_SlaveDualIOMode sample code to demonstrate SPI dual IO mode.
37. Add UART FIFO size constants definitions in UART driver.
38. Add UART\_Wakeup sample code to demonstrate UART wakeup function.
39. Add USBD\_Audio\_HID\_Transfer sample code to support HID Transfer + Audio composite device.

#### Revision 3.00.002 (Released 2014-10-17)

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1. add USBD\_Audio\_HID\_NAU8822
2. USBD\_Audio\_HID\_NAU8822, Fix length of "UNIT ID 5: Feature Unit"
3. USBD\_Audio\_HID\_NAU8822, Modify the MIC gain to maximum.
4. USBD\_Audio\_HID\_NAU8822, Modify to support keyboard and media key
5. USBD\_Audio\_HID\_NAU8822, Modify I/O configure to support NuEdu-NUC123
6. USBD\_VCOM, Modify VID to B002 to match CDC inf driver
7. USBD\_VCOM, Modify for win8 certification
8. Modify to support UAC+HID
9. I2C, Modify PLL CLock to 72M
10. Fix FMC\_Erase

#### Revision 3.00.001 (Released 2014-07-30)

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1. Update to support new driver API

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