

# ARM® Cortex®-M 32-bit Microcontroller

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

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#### Revision 3.01.002 (Released 2019-11-11)

- Added ISP Sample codes to bsp\SampleCode\ISP folder.
- 2. Supports GNU GCC.
- 3. Fixed PWM\_DisableCaptureInt of PWM driver.
- 4. Fixed CLK\_SetHCLK() bug of CLK driver.
- 5. Fixed CLK EnablePLL() wrong PLL default setting value of CLK driver.

#### **Revision 3.01.001** (Released 2016-06-22)

- 1. Fix wrong system clock settings in USB device sample codes.
- 2. Fixed u32PinMask parameter setting error in GPIO SetMode API.
- 3. Update CMSIS to v4.5.0.
- 4. Update USB device driver to improve compatibility.
- 5. Update USB Virtual COM port driver for WHQL certification.
- 6. Update I2C driver to add byte write API for I2C master.
- 7. Update retarget.c to support user defined hard fault handler.
- 8. Update Hard Fault Sample sample code for user defined hard fault handler.
- 9. Modify USBD\_VCOM\_SinglePort to support both UART0 or UART1.
- 10. Rename USBD\_VCOM sample code to USBD\_VCOM\_SinglePort sample code.
- 11. Remove hardware debounce sample code.
- 12. Add ADC MeasureAVDD sample code.
- 13. Add I2C MultiBytes Master and I2C SingleByte Master sample code.
- 14. Add GPIO\_SwDebounce sample code.
- 15. Add USBD\_VCOM\_DualPort sample code.
- 16. Add USBD VCOM and MassStorage sample code.
- 17. Add USBD VCOM and HID Keyboard sample code.
- 18. Add USBD Printer and HID Transfer sample code.
- 19. Add USBD\_Micro\_Printer sample code.
- 20. Add USBD\_HID\_Transfer\_and\_MSC sample code.
- 21. Add USBD HID MouseKeyboard sample code.
- 22. Add USBD HID Transfer and Keyboard sample code.

#### 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\_SENSO definetion;
- 20. Remove an extra ')' for GPIO ENABLE DOUT MASK().
- 21. Replace USBD\_SetStall() with USBD\_SET\_EP\_STALL().
- 22. Revise FMC\_Erase() ISPFF 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 EnableSvsTick() and CLK DisableSvsTick() 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 trasnfer 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)

- 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)

1. Update to support new driver API



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