

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

**NuMicro<sup>®</sup> Family**  
**NUC131 Series BSP**  
**Revision History**

*The information described in this document is the exclusive intellectual property of Nuvoton Technology Corporation and shall not be reproduced without permission from Nuvoton.*

*Nuvoton is providing this document only for reference purposes of NuMicro microcontroller based system design. Nuvoton assumes no responsibility for errors or omissions.*

*All data and specifications are subject to change without notice.*

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

[www.nuvoton.com](http://www.nuvoton.com)

**Revision 3.00.003 (Released 2017-10-24)**


---

1. Fixed CLK\_SysTickDelay() bug.
2. Fixed UA\_LIN\_CTL[4] bit field name is "MUTE\_EN" not "WAKE\_EN" in UA\_LIN\_CTL constants definitions.
3. Fixed bug of PWM\_MASK\_OUTPUT() that mask function can't be disabled.
4. Fixed bug for return value error of PWM\_ConfigOutputChannel()/BPWM\_ConfigOutputChannel().
5. Fixed UART\_SelectLINMode() clear enable bit setting bug.
6. Fixed PLL clock source selection bug in CLK\_SetCoreClock().
7. Fixed clear Receive Line Status interrupt flag bug in UART\_ClearIntFlag().
8. Fixed u32idmask for Standard ID issue in CAN\_SetRxMsgObjAndMsk() function.
9. Modified to disable debug message when enabling semihost without NuLink connection.
10. Added ADC\_MeasureAVDD sample code
11. Added new function to control systick and select systick clock source, CLK\_EnableSysTick() and CLK\_DisableSysTick()
12. Added CLK\_SysTickLongDelay() for long delay
13. Added CAN\_SetRxMsgObjAndMsk() function declaration.

**Revision 3.00.002 (Released 2015-01-16)**


---

1. Fixed PWM driver bug for output low when duty is 100%
2. Fixed BPWM driver bug for output low when duty is 100%
3. Fixed CLK driver bug in CLK\_SetCoreClock():
4. Fixed CLK driver constant definitions error of (B)PWM0/1\_MODULE clock source selection.
5. Fixed GPIO\_ENABLE\_DOUT\_MASK() and GPIO\_DISABLE\_DOUT\_MASK() bug of GPIO driver.
6. Fixed PWM driver bug of PWM\_MASK\_OUTPUT() to remove redundant parenthesis.
7. Fixed BPWM driver bug of BPWM\_MASK\_OUTPUT() to remove redundant parenthesis.
8. Fixed UART driver clear flag bug in UART\_ClearIntFlag().
9. Fixed I2C driver module reset bug of I2C\_Close().
10. Fixed clear RS-485 address byte detection flag bug in UART\_RS485\_CLEAR\_ADDR\_FLAG() of UART driver.
11. Fixed SYS\_IS\_SYSTEM\_RST() bug, it is "SYS\_RSTSRC\_RSTS\_SYS\_Msk" but "SYS\_RSTSRC\_RSTS\_MCU\_Msk".
12. Fixed clear RS-485 address byte detection flag clear bug in RS485\_HANDLE() of UART\_RS485\_Slave sample code.
13. Fixed UART RS485 RTS active level to high level active in RS485\_9bitModeMaster() of UART RS485 Sample code.
14. Fixed NVIC\_EnableIRQ() to NVIC\_DisableIRQ() after CHIP wake-up in I2C\_Wakeup\_Slave sample code
15. Added PWM\_EnableLoadMode() and PWM\_DisableLoadMode() functions to PWM driver
16. Added PWM\_SetBrakePinSource() function to PWM driver
17. Added CLK\_GetPCLKFreq() function to CLK driver
18. Added new macro PWM\_SET\_DEADZONE\_CLK\_SRC() to PWM driver
19. Added new macro SYS\_IS\_LVR\_RST() to SYS driver.
20. Added non-blocking printf implementation and use predefine compiler option to enable/disable it.

**Revision 3.00.001** (Released 2014-06-12)

---

1. First Release

### **Important Notice**

**Nuvoton Products are neither intended nor warranted for usage in systems or equipment, any malfunction or failure of which may cause loss of human life, bodily injury or severe property damage. Such applications are deemed, "Insecure Usage".**

**Insecure usage includes, but is not limited to: equipment for surgical implementation, atomic energy control instruments, airplane or spaceship instruments, the control or operation of dynamic, brake or safety systems designed for vehicular use, traffic signal instruments, all types of safety devices, and other applications intended to support or sustain life.**

**All Insecure Usage shall be made at customer's risk, and in the event that third parties lay claims to Nuvoton as a result of customer's Insecure Usage, customer shall indemnify the damages and liabilities thus incurred by Nuvoton.**

---

*Please note that all data and specifications are subject to change without notice.  
All the trademarks of products and companies mentioned in this datasheet belong to their respective owners.*