

ARM® Cortex®-M4
32-bit Microcontroller

NuMicro™ Family
NUC505 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

Revision 3.03.000 (Released 2018-11-26)

1. Added USBD_VCOM_And_HID sample code.
2. Added Eclipse project support.
3. Updated FreeRTOS from V7.4.0 to V10.0.0
4. Minor changes for sample code.
5. Minor bug fix.

Revision 3.02.000 (Released 2017-07-31)

1. Fixed CLK_DisablePLL() function implementation.
2. Fixed CLK_Idle() function implementation.
3. Fixed RTC_Open() implementation for Wakeup Key.
4. Fixed the last audio data not played in I2S_NAU8822_WAVPLAYER_SD, I2S_NAU8822_WAVPLAYER_USB, I2S_NAU8822_WAVRECORDER_SD, I2S_WAVPLAYER_SD, I2S_WAVPLAYER_USB and I2S_WAVRECORDER_SD samples.
5. Updated I²S engine clock source for accurate 8 kHz sampling rate in I2S_WAVPLAYER_SD, I2S_WAVPLAYER_USB and I2S_WAVRECORDER_SD samples.
6. Removed CLK_USBH_SRC_EXT definition.
7. Redefined HID_DEV_T structure.
8. Redefined TD_T structure.
9. Updated CMSIS to V4.5.0.
10. Updated RXCLKDLY register definition in SPIM IP.
11. Updated USBD_Audio_Microphone and USBD_Audio_Speaker sample codes.
12. Added Overlay sample in BootTemplate folder.
13. Added ISP sample code.
14. Added USBD_Audio_Headset sample code.
15. Added USBH_UAC_HID sample code.
16. Enhanced id3 tags parsing in I2S_MP3PLAYER_SD, I2S_MP3PLAYER_USB, I2S_NAU8822_MP3PLAYER_SD and I2S_NAU8822_MP3PLAYER_USB samples.
17. Supported UAC in UsbHostLib.
18. Supported Winbond SPI flash in SPIM_CheckIF, SPIM_DMA, SPIM_DMM, SPIM_IO and SPIM_SPIROM samples.
19. Supported digital microphone in I2S_InternalCODEC sample.
20. Minor changes for sample code.
21. Minor bug fix.

Revision 3.01.000 (Released 2016-02-24)

1. Supported NUC505YO13Y device selected by default in the Keil project file with the latest Nu_Link Keil driver.
2. Modified S_USBD_INFO_T structure definition for USB IF Test.
3. Fixed the AER Enable fail issue for each RTC API.
4. Modified macro PWM_ENABLE_OUTPUT_INVERTER(pwm, u32ChannelNum) to PWM_ENABLE_OUTPUT_INVERTER(pwm, u32ChannelMask).
5. Removed RXCLKDLY register definition in SPIM IP.
6. Removed TIMER_CAPTURE_FALLING_THEN_RISING_EDGE and TIMER_CAPTURE_RISING_THEN_FALLING_EDGE definitions and added TIMER_CAPTURE_FALLING_AND_RISING_EDGE definition.
7. Fixed the bug of USB transfer length equal to maximum packet size for the control endpoint in USB sample.

8. Fixed the incorrect reset delay period issue in WDT_Open() function.
9. Updated RSTSTS register offset from 0x10 to 0x20 for WDT.
10. Updated FATFS from R0.09b to R0.11a version and made sample code related modifications for this FATFS update.
11. Added LOWPWREN to USBD_PHYCTL[3] bit field for USB low power mode.
12. Added extra 8 SD clock cycles after CMD7 in SD_SelectCardType() and SD_Get_SD_info() function.
13. Added USBD_HID_Transfer, USBD_VCOM_SerialEmulator and USBD_Audio_Microphone sample code.
14. Added I2S_SetFIFO() to set TX and RX FIFO in one API.
15. Added CLK_STICK_SRC_EXT and CLK_STICK_SRC_HCLK definitions.
16. Added CLK_EnableSysTick() and CLK_DisableSysTick() functions to enable and disable system tick.
17. Minor changes for sample code.
18. Minor bug fix.

Revision 3.00.003 (Released 2015-03-19)

1. Supported eMMC in SD driver.
2. Redefined GPIO_T and GPIO_DB_T structures to unify the NuMicro™ calling style.
3. Redefined SPIM_Open() function to detect internal SPI interface automatically.
4. Renamed SYS_GPA_MFPH_PA9MFP_SPIM_SCLK to SYS_GPA_MFPH_PA9MFP_SPIM_CLK.
5. Renamed SYS_GP*_MFPH_P***MFP_TMR*_CNT_OUT to SYS_GP*_MFPH_P***MFP_TM*_CNT_OUT.
6. Renamed SYS_GP*_MFPH_P***MFP_TMR*_EXT to SYS_GP*_MFPH_P***MFP_TM*_EXT.
7. Renamed SYS_GPB_MFP*_PB*MFP_SPI*_SCLK to SYS_GPB_MFP*_PB*MFP_SPI*_CLK.
8. Renamed SYS_GPD_MFPL_PD4MFP_RIGHT_LINE_IN to SYS_GPD_MFPL_PD4MFP_RLINEIN.
9. Added SPIM_CheckIF sample.
10. Added SPIM_SetIF() function to change SPI interface.
11. Minor changes for sample code.
12. Minor bug fix.

Revision 3.00.002 (Released 2014-12-02)

1. Supported IAR project.
2. Removed Demo_CodeOnSPIFlash and Demo_CodeOnSRAM samples.
3. Renamed UPLL to PLL.
4. Renamed command code for SPIM Quad mode.
5. Renamed RTC_INIT_INIT_ACTIVE_Pos to RCT_INIT_ACTIVE_Pos and RCT_INIT_INIT_ACTIVE_Msk to RCT_INIT_ACTIVE_Msk.
6. Renamed I2S_ExternalCODEC sample to I2S_NAU8822.
7. Updated USBD register definition.
8. Minor changes for some bit field definitions.
9. Added BootTemplate, I2S_MP3PLAYER_SD, I2S_MP3PLAYER_USB, I2S_NAU8822_MP3PLAYER_SD, I2S_NAU8822_MP3PLAYER_USB, I2S_NAU8822_WAVPLAYER_SD, I2S_NAU8822_WAVPLAYER_USB, I2S_NAU8822_WAVRECORDER_SD, I2S_WAVPLAYER_SD, I2S_WAVPLAYER_USB, I2S_WAVRECORDER_SD and USBD_Mass_Storage_SD samples.
10. Minor changes for sample code.
11. Minor bug fix.

Revision 3.00.001 (Released 2014-10-09)

1. Removed NVIC_EnableIRQ() function call in I2S_Open() and SD_Open().
2. Removed Multi-function pin control in SD_Open().
3. Removed uCOS-II and uCOS-III samples.
4. Added Cortex-M4 BitBand and MPU sample codes.
5. Updated original USBH HID library with Nuvoton HID library with less footprint.
6. Redefined GPIO_T structure.
7. Renamed pin names.
8. Renamed MIC1/MIC2 to MIC0/MIC1.
9. Added SYS_PowerDownConsumption sample code.
10. Minor changes for sample code.
11. Minor bug fix.

Revision 3.00.000 (Released 2014-08-07)

1. First release version.

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.*