

# ARM® Cortex®-M4 32-bit Microcontroller

## NuMicro™ Family NUC505 Series BSP Revision History

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#### Revision 3.05.000 (Released 2024-12-30)

- 1. Upgraded CMSIS from V4.5.0 to V6.1.0.
- 2. Renamed SYS\_PowerDownConsumption sample to SYS\_PowerDown\_MinCurrent.
- 3. Added .uvprojx project file for Keil5.
- 4. Removed .uvproj project file for Keil4.
- 5. Minor changes for sample code.
- 6. Minor bug fix.

#### Revision 3.04.000 (Released 2020-09-18)

- 1. Added Apache-2.0 license declaration into BSP.
- 2. Supported to play way with 8-bit sample.
- 3. Minor changes for sample code.
- 4. Minor bug fix.

### Revision 3.03.001 (Released 2019-11-07)

- 1. Added ISP sample codes.
- 2. Minor changes for sample code.
- 3. Minor bug fix.

#### 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.
- 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 I<sup>2</sup>S 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)

- 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 USBD 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)

First release version.



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