

**ARM® Cortex®-M**  
**32-bit Microcontroller**

**NuMicro® Family**  
**M031 Series CMSIS BSP**  
**Revision History**

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### Revision 3.05.000 (Released 2022-03-18)

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1. BLE supported GCC and IAR toolchain.
2. Removed emWin samples and library.
3. Minor changes for sample code.
4. Minor bug fix.

### Revision 3.04.000 (Released 2021-12-28)

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1. Supported BLE for M031BT/M032BT.
2. Added I2C\_SMBus\_Master and I2C\_SMBus\_Slave samples.
3. Added Sample codes for FreeRTOS V2020.12.
4. Added ISP\_MSC sample.
5. Added Cache invalidation for FMC Write related functions.
6. Added new API for TIMER.
7. Updated I<sup>2</sup>C driver to check STOP bit when I<sup>2</sup>C transmission completed.
8. Updated HID samples polling interval to 10.
9. Updated samples to avoid infinite loop.
10. Fixed the missing UART6/UART7 in UART\_Open function.
11. Minor changes for sample code.
12. Minor bug fix.

### Revision 3.03.000 (Released 2020-09-14)

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1. Added Apache-2.0 license declaration into BSP.
2. Added fmc\_ap\_main.uvproj Keil project in FMC\_IAP sample.
3. Updated preferences.ini for Eclipse V1.01.016 or later.
4. FMC\_IAP sample uses hardware reset instead of software reset.
5. Fixed HIRC trim setting in USBDAudio\_NAU8822\_Headset, USBDAudio\_NAU8822\_Microphone, and USBDAudio\_NAU8822\_Speaker samples.
6. Fixed I<sup>2</sup>C wakeup done flag checking fail issue.
7. Minor changes for sample code.
8. Minor bug fix.

### Revision 3.02.000 (Released 2019-10-4)

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1. Supported GPIOE, GPIOG, GPIOH, UART3/4/5/6/7, USCI-1, BPWM, QSPI and RTC for new M031 part numbers.
2. Removed I2C\_Master\_PDMA, I2C\_PDMA, I2C\_Slave\_PDMA and USBDAudio\_NAU8822 samples.
3. Added ISP related samples.
4. Added BPWM, QSPI and RTC related samples.
5. Added emWin sample codes and library.
6. Updated I2C\_PDMA\_TRX, USCI\_SPI\_PDMA\_LoopTest, USCI\_I2C\_Loopback\_10bit, USCI\_I2C\_Loopback, FMC\_CRC32, FMC\_ExecInSRAM, FMC\_MultiBoot, FMC\_MultiWordProgram, FMC\_ReadAllOne, USBDAudio\_NAU8822\_HeadSet, USBDAudio\_NAU8822\_Microphone and USBDAudio\_NAU8822\_Speaker samples.
7. Minor changes for sample code.
8. Minor bug fix.

### Revision 3.01.000 (Released 2019-04-12)

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1. Added USBDAudio\_NAU8822 sample for UAC class.

2. Removed I2C\_Double\_Buffer\_Slave sample.
3. Updated default stack size from 1KB to 512B.
4. Updated definition from SYS\_xx\_ADC\_xx to SYS\_xx\_ADC0\_xx.
5. Updated samples for M031EB0AE, M031FB0AE and M031TB0AE.
6. Minor changes for sample code.
7. Minor bug fix.

**Revision 3.00.000** (Released 2018-06-29)

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1. Preliminary release version.

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