

# ARM® Cortex®-M23 32-bit Microcontroller

# NuMicro<sup>®</sup> Family M2354 Series BSP Revision History

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#### Revision 3.00.005 (Released 2023-09-04)

- Fix hash buffer size and ghash input buffer in Library/CryptoAccelerator/gcm\_alt.c and gcm\_alt.h.
- 2. Add ECC\_X2, ECC\_Y2 zero initital in Library/StdDriver/src/crypto.c
- 3. Update CMake files.
- 4. Add a long test pattern for GCM.
- 5. Fix gcm\_alt buffer overwrite.
- 6. Fix I2C EEPROM failed at IAR/GCC.
- 7. Fix potential errors in I2C Master for 10-bit mode.
- 8. Fix UI2C\_Master\_10bit, UI2C\_Wakeup\_Slave failed at Keil/IAR/GCC.
- 9. Fix UI2C\_EEPROM, UI2C\_MultiBytes\_Master failed at GCC.
- 10. Fix ACMP and FMC sample code issue.
- 11. Update multi-function pins for NuMaker board in USBD\_Mass\_Storage\_SD.
- 12. Add stack limitation check by MSPLIM.
- 13. Add hardware accelerator for mbedtls library.
- 14. Add FreeRTOS/Blinky and FreeRTOS/Blinky\_ns sample code main\_full() demo.
- 15. Fix FMC\_ExeInSRAM IAR/GCC sample code not run in SRAM issue.
- 16. Modify I2C\_Master sample code to support 10bit mode by compiler option.
- 17. Change the verification conditions for read and write operations in I2C\_Master to check each address group.
- 18. Add FreeRTOS TicklessIdle sample code.
- 19. Modify VendorName of Nu DFU.inf
- 20. Fix ACMP VBG and DAC source setting. Modify the input to ACMP1\_P0 (PA10)
- 21. Update SYS PowerDown MinCurrent sample code.
- 22. Update SPI\_Loopback sample code.
- 23. Update Windows driver of USBD\_Printer\_And\_HID\_Transfer sample code.
- 24. Add FreeRTOS sample code GCC project.
- 25. Fix USBH MassStorage IAR project hardfault issue.
- 26. Modify SYS\_UnLockReg() time-out handler.

### Revision 3.00.004 (Released 2022-12-07)

- 1. Fix message buffer alignment for DMA and ECC Interrupt in CRYPTO\_ECC\_SM2 sample code.
- 2. Fix NuMaker/Audio sample code PlaySin target build error.
- 3. Fix ft command error in SDH FATFS sample code.
- 4. Update LED pins of TrustZone sample code for NuMaker board.
- 5. USBD VCOM sample code: Call UART FIFO size from uart.h.
- 6. Add pin different descriptions and relative document.
- 7. Fix prng start with preload in I2C GCMode Slave sample code.
- 8. Correct the wrong comments of dac.h macro in Library/StdDriver/inc/dac.h.
- 9. Remove printf for PowerDown in USBD sample code.
- 10. Fix return in main() cause hardfault issue.
- 11. Update Wifi module and LED pins of SecureOTADemo sample code for NuMaker and NuMaker-IOT board.
- 12. Update Wifi module and LED pins of SecureOTABankRemapDemo sample code for NuMaker and NuMaker-IOT board.
- 13. Fix RSA driver allocates not enough memory for MADDR6 in SCAP with non-CRT mode.
- 14. Update ThirdParty/FreeRTOS to v10.4.6.
- 15. Fix SYS\_SetPowerRegulator() return value type in Library/StdDriver/inc/sys.h, sys.c and uart.c.



- 16. Fix tag check of AES CCM sample code and add CMake.
- 17. Update crypto driver for SM2 and Update SM2, SM3 sample code. To support CMake.
- 18. Fix ECC\_GenerateSecretZ\_KS writing key to key store in Library/StdDriver/inc/crypto.h and crypto.c.
- 19. Revise infinite loop timeout handler.

#### **Revision 3.00.003** (Released 2022-03-07)

- 1. Fix UART TX FIFO control issue in USBD VCOM sample code.
- 2. Fix debug information option of IAR compiler of TrustZone template sample code.
- 3. I2C pins enable schmitt trigger and add I2C hangup/recover flow in I2C and USCI\_I2C sample code.
- 4. Update auto trim to use HW boundary function in USBD sample code.
- 5. Update CRYPTO\_AES\_GCM sample code to support DMA cascade mode and fix Tag calculation.
- 6. Fix display flicker issue in lcdlib.c.
- 7. Add timer init code in CRYPTO\_ECC\_Demo sample code.
- 8. Add XOM protect mechanism to prevent illegal region configuration in fmc.h and fmc.c.
- 9. Add BME680 sensor data displayed on LCD at NuMakerIoT board.
- 10. Update MFP configure of SDH\_FATFS sample code by Numaker board.
- 11. Fix USBD\_Mass\_Storage\_CDROM crash on Linux.
- 12. Modify USBD\_HID polling interval bInterval to 10.
- 13. Fix an external hub driver bug in UsbHostLib/src\_core/hub.c
- 14. Add prebuild binary of mbedOS6 for AWS IoT Cloud connection.
- 15. Add WiFi, LoRa Master/Slave sample code for NuMakerIoT board.
- 16. Add I/O control in SYS DPD/SPDMode Wakeup sample code to prevent I/O floating.
- 17. Add timeout handler for infinite loop.
- 18. Modify LCD StdDriver, LCDLib and BME680\_and\_LCD sample code to meet LCDView tool.

## Revision 3.00.002 (Released 2020-12-10)

- 1. Fix data access fail issue in USBD\_Mass\_Storage\_CDROM sample code.
- 2. Fix CLK\_SetModuleClock function parameter description for LCDCP\_MOSupport segment LCD driver, demo.
- 3. Revise LCD sample codes for VLCD source from internal charge pump.
- 4. Add emWin v5.48k.3 lib and samples.
- 5. Add UART and USCI(UART) deglitch function bit field definition.
- 6. Add Crypto AES CCM and GCM sample code.
- 7. Remove PCLKDIV setting to fix QSPI, SPI, SPII2S and USCI SPI sample code.

#### Revision 3.00.001 (Released 2020-09-22)

1. Initial Release.



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