



## BIOS Update Release Notes

### PRODUCTS: NUC5i3MYBE, NUC5i3MYHE (Standard BIOS)

**BIOS Version 0055 - MYBDWi30.86A.0055.2019.0520.1542**

#### About This Release:

- Date: May 20, 2019
- ROM Image Checksum: 0x4886
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23
- Supported Flash Devices:

WinBond	W25Q64FV	8MB
MACRONIX	MX25L6406EM2I	8MB
- Microcode Updates included in .ROM File:  
MC0306D4\_0000002D.mcb

#### New Fixes/Features:

- Updated CPU microcode to version MC0306D4\_0000002D.mcb
- Modified the chassis enclosure type to 0x23.

**BIOS Version 0054 - MYBDWi30.86A.0054.2019.0409.1458**

#### About This Release:

- Date: April 9, 2019
- ROM Image Checksum: 0xA969
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics:
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23
- Supported Flash Devices:

WinBond	W25Q64FV	8MB
MACRONIX	MX25L6406EM2I	8MB
- Microcode Updates included in .ROM File:  
MC0306D4\_0000002B.mcb

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**New Fixes/Features:**

- Updated BIOS code for security fixes.

**BIOS Version 0053 - MYBDWi30.86A.0053.2019.0220.1732**

**About This Release:**

- Date: February 20, 2019
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Updated BIOS code for security fixes.
- Updated setting for "Boot Network Devices Last" item to allow user to modify IPv4/IPv6 priority when "Boot Network Devices Last" is enabled.

**BIOS Version 0052 - MYBDWi30.86A.0052.2018.1106.1151**

**About This Release:**

- Date: November 6, 2018
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Fixed issue where system hangs during POST when Western Digital 1TB MyPassport external USB drive is connected.
- Added Setup item **Power Button Menu Beeps**, with default set to enabled.

**BIOS Version 0051 - MYBDWi30.86A.0051.2018.0709.2044**

**About This Release:**

- Date: Date: July 9, 2018
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics:
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033

- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Updated CPU Microcode (Security Advisory-00115)
- Removed Intel® Ready Mode Technology code/items in BIOS for Intel security fix.

**BIOS Version 0050 - MYBDWi30.86A.0050.2018.0601.1418**

**About This Release:**

- Date: June 01, 2018
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Security enhancements.
- Updated CPU Microcode (Security Advisory-00115)
- Set the GPIO 10 to high when the GPIO table initializes. After the initialization, there's a 200ms delay, then the GPIO 10 goes to low.

**BIOS Version 0048 - MYBDWi30.86A.0048.2018.0303.1629**

**About This Release:**

- Date: March 3, 2018
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Updated CPU Microcode (Security Advisory-00088)

**BIOS Version 0045 - MYBDWi30.86A.0045.2017.1219.2100**

**About This Release:**

\*Other names and brands may be claimed as the property of others.

- Date: Date: December 19, 2017
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

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<b>BIOS Version 0044 - MYBDWi30.86A.0044.2017.1130.1251</b>
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**About This Release:**

- Date: Date: November 30, 2017
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics:
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Added a new BIOS option within the "Power" tab, which allows USB power during reboot. The default state is disabled.
- Due to a security enhancement, it will not be possible to go to any BIOS earlier than BIOS 0044.

<b>BIOS Version 0043 - MYBDWi30.86A.0043.2017.1016.1739</b>
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**About This Release:**

- Date: Date: October 16, 2017
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Security enhancements.
- Added the setup option "Allow UEFI Third Party Driver loaded" and set the default state to disabled.

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- Due to security enhancements, it will not be possible to go to any BIOS earlier than BIOS 0043.

**BIOS Version 0042 - MYBDWi30.86A.0042.2017.0810.1354**

**About This Release:**

- Date: Date: Aug 10, 2017
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Added S.M.A.R.T item and functionality.

**BIOS Version 0041 - MYBDWi30.86A.0041.2017.0116.2158**

**About This Release:**

- Date: Date: January 16, 2017
- ME Firmware: 10.0.47.1006
- EC Firmware: NA
- Memory Reference Code: Based on 2.9.0
- MEBx Code: NA
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033
- SATA RAID Option ROM: 14.5.0.2241
- SATA non-RAID Option ROM: 14.5.0.2241
- AHCI Code: Based on 09
- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

**New Fixes/Features:**

- Security Enhancements

**BIOS Version 0040 - MYBDWi30.86A.0040.2016.1124.1654**

**About This Release:**

- Date: November 24, 2016
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.23
- RST RAID: v14.5.0.2241
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033

**New Fixes/Features:**

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- Security Enhancements.
- Open SSL Q4 security enhancement.

**BIOS Version 0038 - MYBDWi30.86A.0038.2016.0913.1446**

**About This Release:**

- Date: September 13, 2016
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.23
- RST RAID: v14.5.0.2241
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033

**New Fixes/Features:**

- Security Enhancements.
- Updated BootScriptHide module to BootScriptHide\_02.
- Changed the SATA DevSleep setting from Enabled to Disabled.
- Updated Visual BIOS to version 2.2.23.
  - o Fixed missing voltages in Cooling Page.
  - o Fixed inactive Home Page 3 and Performance links on NUC theme.
  - o Added support for loading data from file for platform (e.g. EDID, Secure Boot, etc).
  - o Fixed issue where unsupported keys could be entered in password.
  - o Fixed hang when using keyboard to configure a drop down control.
  - o Added support for legacy boot options to Visual Boot Manager.
  - o Added support for booting to multiple partitions on the same device from Visual Boot Manager.
  - o Added support to Visual Boot Manager for booting to operating systems that do not support EFI default boot path.

**MYBDWi30.86A.0036.2016.0420.1451 Development BIOS**

**About This Release:**

- Date: April 20, 2016
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.20
- RST RAID: v14.5.0.2241
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033

**New Fixes/Features:**

- Improved BIOS update function by disabling keyboard and power button during the flash/recovery process.
- Changed the Power button menu and F4 recovery:
  - o Removed G3 power button recovery
  - o Increased the key press detection to 3.51 sec

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- o Added BIOS ID information prompt and now allow the cancellation of the recovery process if the ESC key is pressed within 20 seconds of the recovery process.
  - o Added recovery progress information
- Improved Power Button Menu:
  - o When the [ESC] key is pressed in the power button recovery menu, the BIOS turns on the SPI lock by GPIO, which globally resets the system for normal POST.
  - o Checks for a Password "F4" in power button menu if either user or supervisor password is set.
  - o Fixed an issue where the power button override invoked the power button menu in the next boot.
  - o Removed the jumper recovery message, "Please turn off power and reinstall the BIOS Security Jumper in Normal (1-2) or Lockdown (2-3) position".
  - o Added message, "If BIOS Recovery was invoked by BIOS security jumper," before "restore the BIOS Security Jumper in Normal (1-2) or Lockdown (2-3) position".
- Added NVRAM preserved variables "DmiData", "UUID" and "OA3Data".
- Hid "NFC" setup item.
- Fixed an issue where Pin12: DirectApp Launch didn't work.
- Changed the default pin8 as SMBAlert and grayed out.
- Changed the default pins 13-16 to I2C.
- Changed the default high speed custom solutions header item: Added pin7 option to GPIO35 and grayed out.
- Changed the default high speed customer solutions header item: Added pin8 option to GPIO38 and grayed out.
- Removed the NFC connection from the GPIO options.
- Fixed an issue where Linux couldn't see the GPIO controller.
- Update Visual BIOS to 2.2.20 from 2.2.17.
- Hotfix to remove download driver and automatic BIOS update feature.

<b>BIOS Version - MYBDWi30.86A.0035.2016.0307.1939</b>
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**About This Release:**

- Date: March 07, 2016
- ME Firmware: 10.0.47.1006
- Memory Reference Code: Based on 2.9.0
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.17
- RST RAID: v14.5.0.2241
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033

**New Fixes/Features:**

- Fixed an issue where Toshiba x2 NVME THNSNN256GSX7 SSD would not boot.
- Added a Secure Boot and PXE security enhancement.

<b>BIOS Version 0034 - MYBDWi30.86A.0034.2015.1204.1150</b>
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**About This Release:**

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- Date: December 4, 2015
- ME Firmware: 10.0.47.1006
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.17
- RST RAID: v14.5.0.2241
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033

**New Fixes/Features:**

- Fixed issue where BIOS options can be changed by users with View Only access.
- Updated Intel® ME firmware to version 10.0.47.1006.

<b>BIOS Version 032 - MYBDWi30.86A.0032.2015.0907.1811</b>
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**About This Release:**

- Date: September 7, 2015
- ME Firmware: 10.0.45.1024
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.17
- RST RAID: v14.5.0.2241
- Integrated Graphics
  - Option ROM: Build 1039
  - UEFI Driver: 5.5.1033

**New Fixes/Features:**

- Added solution for TPM firmware update.
- Fixed issue where Bluetooth test items are not listed in HLK as default.
- Fixed issue where system does not wake up from S5 using USB devices when BIOS option for **Wake on LAN from S4/S5** is set to **Stay Off**.
- Fixed issue if Intel® Dynamic Power Technology is set to Off, the system can still enter into C7. Updated VBIOS to version 1039 and GOP to version 1033.
- Updated Intel® ME firmware to version 10.0.45.1024.
- Updated processor support.
- Updated legacy and UEFI RAID OPRM to version 14.5.0.2241.
- Fixed issue where USB mouse and keyboard do not work as expected in BIOS setup.
- Fixed issue where the Ctrl + I hot key to access RAID configuration does not work.
- Updated Visual BIOS to version. Fixes include:
  - o Refactored graphics resolution algorithm to find closest supported resolution to 1024x768. This should correct scaling issues with 4K monitors.
  - o Removed unused assets from Performance and Mainstream themes to reduce the overall size of Visual BIOS. Size savings should be around 300KB.
- Added "Fanless" as an option for Fan Control Mode.
- Added Windows Recovery feature via F5 hotkey.

<b>BIOS Version 0030 - MYBDWi30.86A.0030.2015.0609.1651</b>
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**About This Release:**

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- Date: June 9, 2015
- ME Firmware: 10.0.38.1000
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.16
- RST RAID: 13.5.0.2164
- Integrated Graphics
  - Option ROM: Build 1038
  - UEFI Driver: 5.5.1032

**New Fixes/Features:**

- Added customizable options in Intel® Integrator Toolkit on the Primary Power Settings menu.
- Fixed issue where SMBIOS system manufacturer and system model are incorrect in MSINFO32 and other applications.
- Fixed issue where flat panel is not displayed during security recovery/power button menu.
- Added NVMe information to the SATA page.
- Updated BIOS to hide Single Max Turbo Ratio if Intel® Turbo Boost Technology is disabled.
- Fixed issue where a user with limited access can still modify certain BIOS settings.
- Fixed issued where BIOS password prompts are not suppressed in Config Mode.
- Fixed SMBIOS Type 9 issue - the Current Usage always shows In Use when an M.2 device is not installed.
- Fixed issue where SMBIOS type 8 information is not correct.
- Removed SMBIOS type 25, 26, 27, 28, 29, 34, 35, 36, 39 data that affects 3rd party tools.
- Updated CRB to v28 for Intel security.

<b>BIOS Version 0028 - MYBDWi30.86A.0028.2015.0304.1957</b>
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**About This Release:**

- Date: March 4, 2015
- ME Firmware: 10.0.38.1000
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.16
- RST RAID: 13.5.0.2164
- Integrated Graphics
  - Option ROM: Build 1038
  - UEFI Driver: 5.5.1032

**New Fixes/Features:**

- Added xHCI Mode setting to USB Configuration page in BIOS.
- Updated processor support.
- Updated GOP to version 1032 and vBIOS to version 1038.
- Fixed issue with Power Sense and GPIO Lock Down default values when updating BIOS.
- Updated Intel® Visual BIOS to version 2.2.16. Fixes include:
  - o Fixed issue in Download Drivers feature where certain drivers were not visible if multiple attachments exist in the same record.
  - o Fixed issue in Download Drivers feature where incorrect drivers would display if product was not found in database.
  - o Fixed issue in Performance page that prevented additional workspaces from showing up (i.e. Memory Timings, etc.)

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- Updated Intel® ME firmware to version 10.0.38.1000.
- Removed item PCI latency Timer from BIOS Setup.
- Changed BIOS setting name Graphics Max Multiplier to Graphics Turbo Ratio.
- Fixed issue where USB S4/S5 power can't be hidden and disabled after Deep S4/S5 is set to Enabled.
- Fixed issue where the iSCSI driver does not accept "CHAP Name" to <iscsi> and "CHAP Secret" to 12 "1" or 12 "a".
- Modified NFC behavior: When NFC is enabled in BIOS, GPIO Lockdown is disabled and greyed out.
- Fixed issue with Wake on USB from S5.
- Fixed issue with Keyboard Ready Beep and Startup Sound.
- Fixed issue where NFC device shows an error in Device Manager.
- Fixed issue with [Can't use VCUST/ITK operation Near Field Communication item]
- Added additional pin functions for GPIO Lockdown.
- Fixed issue where system locks up if IGD Aperture Size is set to 2048MB or 4096MB.

<b>BIOS Version 0020 - MYBDWi30.86A.0020.2014.1219.1243</b>
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**About This Release:**

- Date: December 19, 2014
- ME Firmware: 10.0.30.1072
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.14
- RST RAID: 13.5.0.2164
- Integrated Graphics
  - Option ROM: Build 1035
  - UEFI Driver: 5.5.1031

**New Fixes/Features:**

- Updated Visual BIOS to version 2.2.14. Fixes include:
  - o Fixed touch monitors not working correctly when display adapter supports greater than 1024x768 resolution.
  - o Fixed AMT USB-R issue where absolute mouse position would not scale correctly in Visual BIOS.
- Added CPU Input Voltage and Power Sense setup items in BIOS.
- Fixed issue with SATA port hot plug capability.

<b>BIOS Version 0019 - MYBDWi30.86A.0019.2014.1217.1533</b>
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**About This Release:**

- Date: December 17 , 2014
- ME Firmware: 10.0.30.1072
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.13
- RST RAID: 13.5.0.2164
- Integrated Graphics
  - Option ROM: Build 1035
  - UEFI Driver: 5.5.1031

**New Fixes/Features:**

- Added "Aperture Size" and "LAN" setup items in BIOS.
- Fixed issue where system shuts down if LAN is disabled in BIOS.

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- Fixed issue where there is no display from DisplayPort 2 if system is booted to DOS via USB flash disk.
- Set default "EDID Data Source" to Flat Panel Display.
- Fixed issue where USB devices are not detected in the F10 Boot menu after enabling Fast Boot.

**BIOS Version 0017 - MYBDWi30.86A.0017.2014.1127.1854**

**About This Release:**

- Date: November 27, 2014
- ME Firmware: 10.0.30.1072
- PXE ROM version: 1.5.55
- Visual BIOS: 2.2.13
- RST RAID: 13.5.0.2164
- Integrated Graphics
  - Option ROM: Build 1035
  - UEFI Driver: 5.5.1031

**New Fixes/Features:**

- Initial production BIOS release

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