

# **BIOS Update Release Notes**

# PRODUCTS: NUC5i5MYBE, NUC5i5MYHE (Standard BIOS)

BIOS Version 0054 - MYBDWi5v.86A.0054.2019.0520.1531

## About This Release:

- Date: May 20, 2019
- ROM Image Checksum: 0x812E
- ME Firmware: 10.0.56.3002
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- 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.
- Changed the chassis enclosure type to 0x23.

## BIOS Version 0051 - MYBDWi5v.86A.0051.2019.0409.1419

## About This Release:

- Date: April 9, 2019
- ME Firmware: 10.0.56.3002
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- 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.

## BIOS Version 0050 - MYBDWi5v.86A.0050.2019.0221.1315

- Date: February 21, 2019
- ME Firmware: 10.0.56.3002

<sup>\*</sup>Other names and brands may be claimed as the property of others.

- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- 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

- 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 0049 - MYBDWi5v.86A.0049.2018.1107.1046

## About This Release:

- Date: November 7, 2018
- ME Firmware: 10.0.56.3002
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- 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.
- Added Setup item Auto USB provisioning for Intel AMT, With default Set to enabled.

## BIOS Version 0048 - MYBDWi5v.86A.0048.2018.0709.2009

- Date: July 9, 2018
- ME Firmware: 10.0.56.3002
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- 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

<sup>\*</sup>Other names and brands may be claimed as the property of others.

- LAN Option ROM: 1.5.55
- Visual BIOS: 2.2.23

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

## BIOS Version 0047 - MYBDWi5v.86A.0047.2018.0601.1552

## About This Release:

- Date: June 1, 2018
- ME Firmware: 10.0.56.3002
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- Integrated Graphics
  - o Option ROM: Build 1039
  - o 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 0044 - MYBDWi5v.86A.0044.2018.0303.1558

## About This Release:

- Date: March 3, 2018
- ME Firmware: 10.0.56.3002
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- Integrated Graphics
  - o Option ROM: Build 1039
  - o 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)
- Fixed issue where wrong an incorrect IRQ triggered AMT SOL.

## BIOS Version 0040 - MYBDWi5v.86A.0040.2017.1130.1223

- Date: November 30, 2017
- ME Firmware: 10.0.56.3002
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007

<sup>\*</sup>Other names and brands may be claimed as the property of others.

- Integrated Graphics:
  - o Option ROM: Build 1039 o 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

- Updated Management Engine Firmware to version: 10.0.56.3002 (Security Advisory-00086).
- 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 0040.

## BIOS Update 0039 - MYBDWi5v.86A.0039.2017.1016.1545

## About This Release:

- Date: Date: October 16, 2017
- ME Firmware: 10.0.55.3000
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- 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.
- Due to a security enhancement, it will not be possible to go to any BIOS earlier than BIOS 0038.

# BIOS Version 0038 - MYBDWi5v.86A.0038.2017.0726.1622

- Date: Date: Jun 26, 2017
- ME Firmware: 10.0.55.3000
- Memory Reference Code: Based on 2.9.0
- MEBx Code: Based on 10.0.0.0007
- Integrated Graphics
  - o Option ROM: Build 1039
  - o 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

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

## BIOS Version 0035 - MYBDWi5v.86A.0035.2017.0506.1649

#### About This Release:

- Date: May 6, 2017
- ME Firmware: 10.0.55.3000
- EC Firmware: NA
- MEBx Code: Based on 10.0.0.0007
- Integrated Graphics
  - o Option ROM: Build 1039
  - o 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 Intel® Management Engine firmware to version 10.0.55.3000.

## BIOS Version 0034 - MYBDWi5v.86A.0034.2017.0116.2148

#### About This Release:

- Date: January 16, 2017
- ME Firmware: 10.0.47.1006
- EC Firmware: NA
- MEBx Code: Based on 10.0.0.0007
- Integrated Graphics
  - o Option ROM: Build 1039
  - o 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 0033 - MYBDWi5v.86A.0033.2016.1124.2006

- Date: November 24, 2016
- ME Firmware: 10.0.47.1006
- TXT ACM revision: 1.2
- RST RAID: v14.5.0.2241
- iSCSI boot ROM : v3.0.34
- Visual BIOS: 2.2.23
- PXE ROM : 1.5.55
- Integrated Graphics

<sup>\*</sup>Other names and brands may be claimed as the property of others.

Option ROM: Build 1039 UEFI Driver: 5.5.1033

#### New Fixes/Features:

• Security Enhancements.

## BIOS Version - MYBDWi5v.86A.0032.2016.1109.1838

## About This Release:

• Date: November 9, 2016

• ME Firmware: 10.0.47.1006

• TXT ACM revision: 1.2

• RST RAID: v14.5.0.2241

• iSCSI boot ROM : v3.0.34

• Visual BIOS: 2.2.23

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1039 UEFI Driver: 5.5.1033

## New Fixes/Features:

• Security Enhancements.

## BIOS Version 0031 - MYBDWi5v.86A.0031.2016.0913.1113

## About This Release:

• Date: September 13, 2016

• ME Firmware: 10.0.47.1006

• TXT ACM revision: 1.2

• RST RAID: v14.5.0.2241

• iSCSI boot ROM: v3.0.34

• Visual BIOS: 2.2.23

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1039 UEFI Driver: 5.5.1033

- 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.

<sup>\*</sup>Other names and brands may be claimed as the property of others.

## About This Release:

• Date: May 27, 2016

• ME Firmware: 10.0.47.1006

• TXT ACM revision: 1.2

• RST RAID: v14.5.0.2241

• iSCSI boot ROM: v3.0.34

• Visual BIOS: 2.2.20

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1039 UEFI Driver: 5.5.1033

## New Fixes/Features:

- Added Windows firmware update function.
- Fixed an issue where the NUC can't wake up from S3 by pressing the power button in Linux.

## BIOS Version 0029 - MYBDWi5v.86A.0029.2016.0422.1803

#### About This Release:

• Date: April 22, 2016

• ME Firmware: 10.0.47.1006

• TXT ACM revision: 1.2

• RST RAID: v14.5.0.2241

• iSCSI boot ROM : v3.0.34

• Visual BIOS: 2.2.20

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1039 UEFI Driver: 5.5.1033

- 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
  - o Added BIOS ID information prompt and allow customer cancel the recovery if hit ESC by 20 second.
  - o Added recovery progress information
- Added NVRAM preserved variables "DmiData", "UUID" and "OA3Data".
- Hid "NFC" setup item.
- 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".

<sup>\*</sup>Other names and brands may be claimed as the property of others.

- 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".
- 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.

#### BIOS Version 0028 - MYBDWi5v.86A.0028.2016.0303.1830

# About This Release:

• Date: March 3, 2016

• ME Firmware: 10.0.47.1006

• TXT ACM revision: 1.2

• RST RAID: v14.5.0.2241

iSCSI boot ROM: v3.0.34

• Visual BIOS: 2.2.17

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1039 UEFI Driver: 5.5.1033

## New Fixes/Features:

- Fixed issue where Single Max Turbo Rate option could be set when User Access is set to View Only.
- Fixed issue where Toshiba x2 NVME THNSNN256GSX7 SSD would not boot.
- Fixed issue with PXE security and secure boot.

## BIOS Version 0027 - MYBDWi5v.86A.0027.2015.1207.1917

## About This Release:

• Date: December 7, 2015

• ME Firmware: 10.0.47.1006

• TXT ACM revision: 1.2

• RST RAID: v14.5.0.2241

• iSCSI boot ROM : v3.0.34

• Visual BIOS: 2.2.17

• PXE ROM: 1.5.55

• Integrated Graphics

Option ROM: Build 1039 UEFI Driver: 5.5.1033

- Updated Intel® ME firmware to version 10.0.47.1006.
- Fixed issue where Windows installation fails with PXE.
- Fixed issue with headless AMT KVM.

<sup>\*</sup>Other names and brands may be claimed as the property of others.

#### About This Release:

• Date: August 20, 2015

• ME Firmware: 10.0.45.1024

• TXT ACM revision: 1.2

• RST RAID: v14.5.0.2241

• iSCSI boot ROM : v3.0.34

• Visual BIOS: 2.2.17

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1039 UEFI Driver: 5.5.1033

- Updated BIOS security features.
- Fixed issue where external Bluetooth devices fail with Windows HLK testing.
- 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 10.0.45.1024.
- Updated processor support.
- Updated RAID Option ROM 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 2.2.17. 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.
- Fixed issue where flat panel is not displayed during security recovery/power button menu.
- Added NVMe information on the SATA page in BIOS Setup.
- Updated BIOS to hide Single Max Turbo Ratio if Intel Turbo Boot Technology is disabled.
- Fixed issue where a user with limited access can still modify certain BIOS settings.
- $\bullet$  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.
- Added "Fanless" as an option for Fan Control Mode.
- Added support for Windows Recovery Environment (Windows RE) by pressing the F5 function key.

<sup>\*</sup>Other names and brands may be claimed as the property of others.

#### BIOS Version 0024 - MYBDWi5v.86A.0024.2015.0504.1120

#### About This Release:

• Date: May 4, 2015

• ME Firmware: 10.0.38.1000

• TXT ACM revision: 1.2

• RST RAID: 13.5.0.2164

• iSCSI boot ROM : v3.0.34

• Visual BIOS: 2.2.16

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1038 UEFI Driver: 5.5.1032

## New Fixes/Features:

- 1. Added customizable options in Intel® Integrator Toolkit on the Primary Power Settings menu.
- 2. Fixed issue where SMBIOS system manufacturer and system model are incorrect in MSINFO32 and other applications.

## BIOS Version 0022 - MYBDWi5v.86A.0022.2015.0304.2224

## About This Release:

• Date: March 4, 2015

• ME Firmware: 10.0.38.1000

• TXT ACM revision: 1.2

• RST RAID: 13.5.0.2164

• iSCSI boot ROM: v3.0.34

• Visual BIOS: 2.2.16

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1038 UEFI Driver: 5.5.1032

- Added BIOS option on the USB Configuration page to enable or disable xHCI Mode.
- 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 Visual BIOS version to 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.)
- Updated Intel® ME firmware to version 10.0.38.1000.
- Fixed issue with enabling and disabling VT and VT-d.
- Improved SMBIOS information for Onboard Devices.
- Removed item PCI latency Timer from BIOS Setup.
- Changed BIOS setting name Graphics Max Multiplier to Graphics Turbo Ratio.

<sup>\*</sup>Other names and brands may be claimed as the property of others.

- 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".

## BIOS Version 0018 - MYBDWi5v.86A.0018.2015.0128.1212

## About This Release:

• Date: January 28, 2015

• ME Firmware: 10.0.30.1072

• TXT ACM revision: 1.2

• RST RAID: 13.5.0.2164

• iSCSI boot ROM : v3.0.34

• Visual BIOS: 2.2.14

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1035 UEFI Driver: 5.5.1031

#### New Fixes/Features:

- Changed IGD Minimum Memory default to 64MB
- Changed default year to 2015.
- Updated NFC behavior: when NFC is enabled in BIOS, GPIO Lockdown is disabled and greyed out.
- Fixed issue with null User Password.

# BIOS Version 0015 - MYBDWi5v.86A.0015.2015.0117.1008

## About This Release:

• Date: January 17, 2015

• ME Firmware: 10.0.30.1072

• TXT ACM revision: 1.2

• RST RAID: 13.5.0.2164

• iSCSI boot ROM : v3.0.34

• Visual BIOS: 2.2.14

• PXE ROM : 1.5.55

• Integrated Graphics

Option ROM: Build 1035 UEFI Driver: 5.5.1031

## New Fixes/Features:

• Initial production BIOS release

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