

# **BIOS Update Release Notes**

# PRODUCTS: D54250WYB, D54250WYK, D54250WYKH, D34010WYB, D34010WYK, D34010WYKH (Standard BIOS)

#### BIOS Version 0049 - WYLPT10H.86A.0049.2018.0718.2208

## About This Release:

- Date: July 18, 2018
- ME Firmware: 9.5.40.1892
- Memory Reference Code: Based on 1.9.1
- Integrated Graphics
  - Option ROM: Build 2180 PC 14.34
  - UEFI Driver: 5.0.1037
- SATA RAID Option ROM: 12.7.0.1936
- SATA non-RAID Option ROM: 12.7.0.1936
- AHCI Code: Based on 4.6.3 AhciSrc 022
- LAN Option ROM: v1543 PXE 2.1 Build 092
- Visual BIOS: 2.2.23

## New Fixes/Features:

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

# BIOS Version 0048 - WYLPT10H.86A.0048.2018.0606.1248

#### About This Release:

- Date: June 6, 2018
- ME Firmware: 9.5.40.1892
- Memory Reference Code: Based on 1.9.1
- Integrated Graphics
  - o Option ROM: Build 2180 PC 14.34
  - o UEFI Driver: 5.0.1037
- SATA RAID Option ROM: 12.7.0.1936
- SATA non-RAID Option ROM: 12.7.0.1936
- AHCI Code: Based on 4.6.3 AhciSrc 022
- LAN Option ROM: v1543 PXE 2.1 Build 092
- Visual BIOS: 2.2.23

#### New Fixes/Features:

• Security enhancements.

# BIOS Version 0047 - WYLPT10H.86A.0047.2018.0303.1725

#### About This Release:

- Date: March 3, 2018
- ME Firmware: 9.5.40.1892
- Memory Reference Code: Based on 1.9.1
- Integrated Graphics

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

- o Option ROM: Build 2180 PC 14.34
- o UEFI Driver: 5.0.1037
- SATA RAID Option ROM: 12.7.0.1936
- SATA non-RAID Option ROM: 12.7.0.1936
- AHCI Code: Based on 4.6.3 AhciSrc 022
- LAN Option ROM: v1543 PXE 2.1 Build 092
- Visual BIOS: 2.2.23

#### New Fixes/Features:

• Updated CPU Microcode (Security Advisory-00088)

## BIOS Version 0045 - WYLPT10H.86A.0045.2017.0302.2108

#### About This Release:

- Date: March 2, 2017
- ME Firmware: 9.5.40.1892
- Memory Reference Code: Based on 1.9.1
- Integrated Graphics
  - o Option ROM: Build 2180 PC 14.34
  - o UEFI Driver: 5.0.1037
- SATA RAID Option ROM: 12.7.0.1936
- SATA non-RAID Option ROM: 12.7.0.1936
- AHCI Code: Based on 4.6.3 AhciSrc 022
- LAN Option ROM: v1543 PXE 2.1 Build 092
- Visual BIOS: 2.2.23

## New Fixes/Features:

• Security Enhancements.

# BIOS Version 0044 - WYLPT10H.86A.0044.2016.1214.1710

#### About This Release:

- Date: December 14, 2016
- ME Firmware: 9.5.40.1892
- Memory Reference Code: Based on 1.9.1
- Integrated Graphics
  - o Option ROM: Build 2180 PC 14.34
  - o UEFI Driver: 5.0.1037
- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- Haswell EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.23

# New Fixes/Features:

- Security Enhancements.
- Updated the UEfiNetworkStack.

# BIOS Versions 0043 - WYLPT10H.86A.0043.2016.1116.1449

#### About This Release:

- Date: November 16, 2016
- ME Firmware: 9.5.40.1892
- Memory Reference Code: Based on 1.9.1
- Integrated Graphics
  - o Option ROM: Build 2180 PC 14.34

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

- o UEFI Driver: 5.0.1037
- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- Haswell EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.23

## New Fixes/Features:

Added function with Programmable Custom Solution Header.

## BIOS Version 0042 - WYLPT10H.86A.0042.2016.0704.1441

## About This Release:

- Date: July 04, 2016
- ME Firmware: 9.5.40.1892
- Memory Reference Code: Based on 1.9.1
- Integrated Graphics
  - o Option ROM: Build 2180 PC 14.34
  - o UEFI Driver: 5.0.1037
- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- Haswell EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.20

# New Fixes/Features:

- Enhanced Secure boot and PXE security.
- Improved the BIOS update process by disabling the keyboard and power button during the flash/recovery process when using the power button recovery.
- Fixed an issue where the NUC can't wake up from S3 by pressing the power button in Linux.
- Fixed issue where the CIR remote controller would still power on the NUC when CIR was disabled.

## Updated Visual BIOS to version 2.2.20. Fixes include:

- Hotfix to remove download driver and automatic BIOS update feature.
- Hotfix to remove performance page accessibility from Atom-based NUC products.

# BIOS Version 0041 - WYLPT10H.86A.0041.2015.0720.1108

## About This Release:

- Date: July 20, 2015
- ME Firmware: 9.5.40.1892
- Integrated Graphics
  - o Option ROM: Build 2180 PC 14.34
  - o UEFI Driver: 5.0.1037
- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.17

- 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.

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

- 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 system does not boot to USB flash drive when Boot USB Devices First is enabled.
- Fixed issue where S4 stress test fails in Windows 7 EFI mode.
- Fixed issue where infrared remote does not wake the system.

# BIOS Version 0040 - WYLPT10H.86A.0040.2015.0612.1400

#### About This Release:

- Date: June 12, 2015
- ME Firmware: 9.5.40.1892
- Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.16

# New Fixes/Features:

- Added S3 module for security enhancement.
- Fixed issue where xHCI Mode isn't set to "Smart Auto" as default after updating BIOS.

#### BIOS Version 0038 - WYLPT10H.86A.0038.2015.0410.1634

## About This Release:

- Date: April 13, 2015
- ME Firmware: 9.5.40.1892
- Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.16

## New Fixes/Features:

- Fixed issue where system with Linux Ubuntu\* cannot resume from sleep.
- Fixed issue where USB 3.0 devices are not recognized at boot.
- Added xHCI Mode setting to USB Configuration page in 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.

# BIOS Version 0037 - WYLPT10H.86A.0037.2015.0324.2147

# About This Release:

- Date: March 24, 2015
- ME Firmware: 9.5.40.1892
- Integrated Graphics

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

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.15

# New Fixes/Features:

- Added BIOS options on the Secondary Power Settings page to enable or disable Wake from S3 via CIR and Wake from S4 and S5 via CIR.
- Added BIOS option on the Legacy Device Config page to select the CIR Remote Controller Type.
- Updated processor support.

# BIOS Version 0035 - WYLPT10H.86A.0035.2015.0126.1814

## About This Release:

• Date: January 26, 2015

• ME Firmware: 9.5.40.1892

• Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.15

- Add Setup option "Suppress Alert Messages At Boot.
- Set "IGD Minimum Memory" to 64 MB as default.
- Fixed issue where CIR remote still wakes the NUC when CIR is disabled in BIOS.
- Updated Intel® Visual BIOS to version 2.2.15. Fixes include:
  - 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.)
  - 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.
  - o Fixed password input so that only A-Z, a-z, and 0-9 characters are accepted.
  - o Fixed issue in screenshot function that caused final bitmap to be tinted blue.
  - o Fixed issue in double-click boot feature that did not allow BIOS to boot to the correct device.
  - o Fixed issue graphical error in dropdown box.
  - o Fixed hang on NUC Home Page 1 and Cooling Page when temp or voltage form contained no questions.
  - o Added variable check to determine whether or not to perform OS check before starting Visual Boot Manager.
  - o Fixed logic that caused beta opt-in request to keep popping up.
  - o Fixed various GUI issues.
  - o Fixed missing temperatures and voltages in cooling performance monitor.

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

o Fixed variable flags for OsIndications and BootNext to conform to strict UEFI 2.4 requirements.

# BIOS Version 0033 - WYLPT10H.86A.0033.2014.1201.0940

## About This Release:

- Date: December 1, 2014
- ME Firmware: 9.5.40.1892
- Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.8

## New Fixes/Features:

• Fixed issue where Intel® Integrator Toolkit and OA3 fail.

# BIOS Version 0032 - WYLPT10H.86A.0032.2014.1119.1552

#### About This Release:

- Date: November 19, 2014
- ME Firmware: 9.5.40.1892
- Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.8

## New Fixes/Features:

- Fixed UQI of "C9/C10 C-State" and "OS ACPI C2 Report".
- Added support for Windows Recovery Environment (Windows RE) by pressing the F5 function key.

#### BIOS Version 0030 - WYLPT10H.86A.0030.2014.0919.1139

## About This Release:

- Date: September 19, 2014
- ME Firmware: 9.5.40.1892
- Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.8

# New Fixes/Features:

• Updated Intel® ME Firmware to version 9.5.40.1892.

# BIOS Version 0028 - WYLPT10H.86A.0028.2014.0814.1906

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

# About This Release:

- Date: August 14, 2014
- ME Firmware: 9.5.13.1706
- Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.8

## New Fixes/Features:

- Updated Visual BIOS to version 2.2.8. Fixes include:
  - o Fixed issue where Default BIOS Start Page would not show properly when selecting home pages.
  - o Fixed hang when saving file using screenshot feature.
  - o Fixed erroneous notification text when file save feature failed.
  - o Fixed issue that caused startup hang when Default Start Page was set to Main Page.
  - o Re-architected HTTP client in Visual BIOS to support network behind an HTTP proxy (i.e. corporate firewall) and handle network instability issues.
  - o Updated performance pages to support simplified needs of NUC products going forward.
  - o Fixed issue on settings page where NUC Atom theme was not an available option.
  - o Fixed issue where default theme was not NUC theme if theme could not be determined.
  - o Fixed issue where driver download feature could not be used after closing the modal and re-entering the modal.
  - o Fixed issue where add-in config forms were unable to post changes to the setup browser.
  - o Fixed issue with touch input that ignored the first touch state upon starting the application.
- Fixed issue with BIOS password lengths.
- Fixed issue where master password cannot be cleared.
- Added feature to disable Watchdog Timer after entering and incorrect password three times.
- Added feature to disable Watchdog Timer when pressing Power Button to shut down.
- Modified options of Intel Ready Mode Technology and S3 state in Visual BIOS.
- Fixed issue where BIOS setup does not display the event log of "CMOS Battery Failure".
- Fixed issue where Product name shows ERROR when BIOS security jumper removed.

# BIOS Version 0027 - WYLPT10H.86A.0027.2014.0710.1904

## About This Release:

- Date: July 10, 2014
- ME Firmware: 9.5.13.1706
- Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

• LAN Option ROM: v1543 PXE 2.1 Build 092

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

- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.4

## New Fixes/Features:

- Updated processor support.
- Fixed issue where certain mini-PCIe devices are not detected.
- Fixed issue where infrared remotes do not power on the system with OpenElec\*.
- Added support for Intel® Ready Mode Technology.

# BIOS Version 0026 - WYLPT10H.86A.0026.2014.0514.1714

## About This Release:

- Date: May 14, 2014
- ME Firmware: 9.5.13.1706
- Integrated Graphics

Option ROM: Build 2180 PC 14.34

UEFI Driver: 5.0.1037

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1037
- Visual BIOS: 2.2.4

#### New Fixes/Features:

- Fixed issue where pressing F2 to access BIOS does not work when connected to certain 4K monitor.
- Updated Integrated Graphics:
  - o Option ROM: Build 2180 PC 14.34
  - o UEFI Driver: 5.0.1037
- Fixed issue where Intel wireless adapters lose connectivity.
- Fixed issue where system restarts instead of shutting down with Linux.

# BIOS Version 0025 - WYLPT10H.86A.0025.2014.0303.1008

## About This Release:

- Date: March 4, 2014
- ME Firmware: 9.5.13.1706
- Integrated Graphics

Option ROM: Build 2179 PC 14.34

UEFI Driver: 5.0.1036

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1036
- Visual BIOS: 2.2.4

- Improved EFI variable protection for Setup variable.
- Fixed issue where UEFI operating system fails to install.
- Updated Visual BIOS to version 2.2.4. Fixes include:
  - o Fixed mapping issue for CPU Fan on NUC theme.
  - o Added support for PSU Output Voltage to Performance Monitor.
  - o Fixed video graphics display failure when display device did not support  $1024 \times 768$  resolution.

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

- o Fixed video corruption that sometimes occurred when entering Visual Boot Manager.
- o Fixed cooling labels becoming selectable on Home Page for NUC theme.
- o Fixed issue where F9 and Load Defaults could be used when admin password was set and User Access Level was not Full Access.
- o Fixed issue where F10 and Save Changes were available when admin password was set and User Access Level was not Full Access.
- o Added support for Enable Countdown Timer and Countdown Timer value in Visual Boot Manager.
- o Fixed missing voltages in Cooling Page.
- o Fixed inactive Home Page 3 and Performance links.
- 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.
- Added support to Visual Boot Manager for booting to operating systems that do not support EFI default boot path.
- o Revised Visual Boot Manager (VBM) GUI to support more descriptive icons.
- o Added Network BIOS Update feature.
- o Also added auto update feature that can be enabled or disabled in the Visual BIOS settings section.
- o Added Driver Download feature.
- o Added Intel® Visual Boot Manager feature (requires additional launcher application).
- Updated message when no bootable device is found.

# BIOS Version 0024 - WYLPT10H.86A.0024.2014.0210.1909

# About This Release:

- Date: February 10, 2014
- ME Firmware: 9.5.13.1706
- Integrated Graphics

Option ROM: Build 2179 PC 14.34

UEFI Driver: 5.0.1036

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1036
- Visual BIOS: 2.1.5

- Updated fan speed control module.
- Fixed issue that prevented booting and installing some operating systems, such as SteamOS\*.
- Fixed issue where Hard Disk Drive Password length did not match the specification.
- Fixed issue where system hangs if certain USB thumb drives are connected.

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

- Updated Integrated Graphics:
  - o Option ROM: Build 2179 PC 14.34
  - o UEFI Driver: 5.0.1036
- Updated Visual BIOS strings:
  - o Memory Information\Bank Locator modified to "Channel A/B slot 0"  $\,$
  - o Intel Dynamic Power Technology\If enabled, BIOS will report ACPI C2 State (mapped to processor C7 state).

# BIOS Version 0023 - WYLPT10H.86A.0023.2013.1224.0941

## About This Release:

- Date: December 24, 2013
- ME Firmware: 9.5.13.1706
- Integrated Graphics

Option ROM: Build 2177 PC 14.34

UEFI Driver: 5.0.1034

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1034
- Visual BIOS: 2.1.5

## New Fixes/Features:

- Fixed issue with random USB loss.
- Fixed issue where the Event count does not match the number of times the event occurred.
- Reduced POST time.
- Updated help information in Visual BIOS.
- Fixed issue where system won't boot to Linux Mint.

# BIOS Version 0022 - WYLPT10H.86A.0022.2013.1121.1757

# About This Release:

- Date: November 21, 2013
- ME Firmware: 9.5.13.1706
- Integrated Graphics

Option ROM: Build 2177 PC 14.34

UEFI Driver: 5.0.1034

- LAN Option ROM: v1543 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1034
- Visual BIOS: 2.1.5

- Added Hard Disk Boot Delay feature in SATA pane in Visual BIOS.
- Updated Visual BIOS version to 2.1.5. Fixes include:
  - o Fixed graphical error when toggling "eye" in Cooling section.
  - o Size reduction of Intel® bitmap on upper right corner.
  - o Fixed graphical error on shortcut menu with NUC theme.
  - o Updated display strings for Temp and Voltages on Cooling page.
  - o Fixed issue where home page left/right arrows did not hide correctly.
  - o Fixed graphical issue when theme switching in Visual BIOS.

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- o Added text to indicate that screenshots are saved in bitmap format.
- o Fixed cooling page graph colors.
- o Fixed checkboxes moving when modified.
- o Fixed graphical issue in hidden panes on Cooling page.
- o Removed performance page for THEME\_TYPE\_NUC\_ATOM (e.g. BYT products).
- Updated LAN PXE ROM version to 1.5.43.
- Fixed issue where certain 3TB external hard drive is not detected.
- Fixed PCH +5v value on Cooling page.
- Set Digital Microphone to disabled by default.

# BIOS Version 0021 - WYLPT10H.86A.0021.2013.1017.1606

# About This Release:

• Date: October 17, 2013

• ME Firmware: 9.5.13.1706

• Integrated Graphics

Option ROM: Build 2177 PC 14.34

UEFI Driver: 5.0.1034

- LAN Option ROM: v1504 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1034
- Visual BIOS: 2.1.2

#### New Fixes/Features:

- Fixed Fast Boot issue.
- Changed default values for Over-Temperature Threshold, Control Temperature (°C), All-On Temperature (°C).
- Fixed issues with Windows 8.1\* WHCK tests: Hardware Reserved Memory Test, Secure Boot Logo Test, and Secure Boot Manual Logo Test.

# BIOS Version 0018 - WYLPT10H.86A.0018.2013.0918.2135

## About This Release:

• Date: September 18, 2013

• ME Firmware: 9.5.13.1706

• Integrated Graphics

Option ROM: Build 2177 PC 14.34

UEFI Driver: 5.0.1034

- LAN Option ROM: v1504 PXE 2.1 Build 092
- SATA RAID Option ROM: 12.7.0.1936
- EFI driver (GOP): 5.0.1034
- Visual BIOS: 2.1.2

# New Fixes/Features:

• Initial production BIOS release

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