



## BIOS Update Release Notes

**PRODUCTS: NUC10i7FN, NUC10i5FN, NUC10i3FN**

**FNCML357.0056.2022.0223.1614 Production BIOS**

### About This Release:

- Date: Feb 23, 2022
- ROM Image Checksum: 4704
- ME Firmware: 14.0.47.1558
- EC Firmware: 03.09.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1107
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
  
- Supported Flash Devices:

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:

m80a0660_000000ea
m94806ec_000000ec

### New Fixes/Features:

- Fixed issue where NUC failed (no boot) after several reboot attempts.
- Added functionality when pressing "F6" from BIOS Setup will exit MFG mode.
- Updated CPU Microcode (0xEC/0xEA) for IPU 2021.2
- Updated 2021.2 IPU BIOS change.
- Updated Self-Help feature.

**BIOS Version 0055 - FNCML357.0055.2021.1202.1748**

### About This Release:

- Date: Dec 02, 2021
- ROM Image Checksum: AA86370E
- ME Firmware: 14.0.47.1558
- EC Firmware: 03.09.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1107
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
  
- Supported Flash Devices:

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:

m80a0660_000000e8
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\*Other names and brands may be claimed as the property of others.

m94806ec\_000000ea

**New Fixes/Features:**

- Added Pop-Up warning message to User when transition BIOS is necessary.
- Fixed issue with FX System Verification Test.
- Fixed issue where system wakes on USB even with wake on USB S5 disabled.
- Fixed issued where unauthorized modification of UEFI variables could disable the protect mechanism of SMM.
- Fixed issue where BIOS could not update version FN0052 to FN0053 in headless mode.

**BIOS Version 0053 - FNCML357.0053.2021.0707.1420**

**About This Release:**

- Date: Jul 7, 2021
- ROM Image Checksum: dd32d385
- ME Firmware: 14.0.47.1558
- EC Firmware: 03.09.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
  
- Supported Flash Devices:
  - MACRONIX MX25L25673GM2I-08G 32MB
  
- Microcode Updates included in .BIN & CAP Files:
  - m80a0660\_000000e8
  - m94806ec\_000000ea

**New Fixes/Features:**

- **Fixed:** Cannot enable/disable "Fast Boot".
- **Fixed:** Issue where the Intel NUC won't boot if you set IGD Aperture size to 2048 and disable UEFI boot.
- **Updated:** Updated CPU Microcode to m80a0660\_000000e8 and m94806ec\_000000ea.
- **Updated:** BNBIO security.

**BIOS Version 0052 - FNCML357.0052.2021.0409.1144**

**About This Release:**

- Date: April 09, 2021
- ROM Image Checksum: 0xB99D
- ME Firmware: 14.0.47.1558
- EC Firmware: 03.09.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352

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

- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:  
MACRONIX MX25L25673GM2I-08G 32MB
- Microcode Updates included in .BIN & .CAP Files:  
M94806EC\_000000DE.pdb  
M80A0660\_000000E0.pdb

**New Fixes/Features:**

- Enabled Thunderbolt boot support after a "F7" BIOS update.
- Fixed issue regarding no display during POST when only using a Thunderbolt / Type-C to HDMI adapter.

**BIOS Version 0051 - FNCML357.0051.2021.0324.1859**

**About This Release:**

- Date: Mar 24, 2021
- ROM Image Checksum: 0x05BF
- ME Firmware: 14.0.47.1558
- EC Firmware: 03.09.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:  
MACRONIX MX25L25673GM2I-08G 32MB
- Microcode Updates included in .BIN & .CAP Files:  
M94806EC\_000000DE.pdb  
M80A0660\_000000E0.pdb

**New Fixes/Features:**

- Fixed issue recognizing a USB device on a Thunderbolt dock after rebooting.
- Fixed issue with audio codec default setup.
- Updated NTFS DXE driver when parsing NTFS file system partition.

**BIOS Version 0050 - FNCML357.0050.2021.0303.2146**

**About This Release:**

- Date: Mar 03, 2021
- ROM Image Checksum: 0x2E14
- ME Firmware: 14.0.47.1558
- EC Firmware: 03.09.00
- PMC Firmware: 140.1.01.1010

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

- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:
 

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:
 

M94806EC_000000DE.pdb
M80A0660_000000E0.pdb

**New Fixes/Features:**

- Updated Audio Codec software.
- Updated GBE (Gigabit Ethernet) to 0.8 and fixed incorrect SSID issue.
- Updated ME firmware to 14.0.47.1558

**Known Errata:**

- Due to the Intel® ME firmware update in BIOS version 0050, you can't downgrade to version 0047 or earlier.

<b>BIOS Version 0047 - FNCML357.0047.2020.1118.1629</b>
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**About This Release:**

- Date: Nov 18, 2020
- ROM Image Checksum: 0xC7CC
- ME Firmware: 14.0.45.1389
- EC Firmware: 03.09.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:
 

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:
 

M94806EC_000000DE.pdb
M80A0660_000000E0.pdb

**New Fixes/Features:**

- Updated the ME firmware to 14.0.45.1389
- Updated the EC firmware to 03.09.00
- Added Self-healing BIOS code.
- Fixed the issue where "New SOC I5 load line Fail".

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

- Fixed issue to control "RING LED" and "HDD LED" via WMI method.
- Updated BIOS code for security fixes.

**BIOS Version 0046 - FNCML357.0046.2020.0928.1457**

**About This Release:**

- Date: Sept 28, 2020
- ROM Image Checksum: 0xF2F8
- ME Firmware: 14.0.39.1339
- EC Firmware: 03.07.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
  
- Supported Flash Devices:  
MACRONIX MX25L25673GM2I-08G 32MB
  
- Microcode Updates included in .BIN & .CAP Files:  
M94806EC\_000000D6.pdb  
M80A0660\_000000CA.pdb

**New Fixes/Features:**

- Fixed issue updating BIOS using "F7" update method.

**BIOS Version 0045 - FNCML357.0045.2020.0817.1709**

**About This Release:**

- Date: Aug 17, 2020
- ROM Image Checksum: 0x2F4D
- ME Firmware: 14.0.39.1339
- EC Firmware: 03.07.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
  
- Supported Flash Devices:  
MACRONIX MX25L25673GM2I-08G 32MB
  
- Microcode Updates included in .BIN & .CAP Files:  
M94806EC\_000000D6.pdb  
M80A0660\_000000CA.pdb

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

**New Fixes/Features:**

- Updated ME Firmware to 14.0.39.1339
- Fixed issue with "iSetupCfg" log file.
- Fixed issue where failure to image by SCCM.
- Fixed issue with watchdog not clearing counter.
- Fixed issue where BIOS Self Recovery must be disabled if Failsafe Watchdog is disabled.

**Known Errata:**

- Due to the Intel® ME firmware update in BIOS version 0045, you can't downgrade to version 0044 or earlier.

<b>BIOS Version 0044 - FNCML357.0044.2020.0715.1813</b>
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**About This Release:**

- Date: July 15, 2020
- ROM Image Checksum: 0x704E
- ME Firmware: 14.0.34.1139
- EC Firmware: 03.07.00
- PMC Firmware: 140.1.01.1010
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
  
- Supported Flash Devices:

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:

M94806EC_000000CA.pdb
M80A0660_000000CA.pdb

**New Fixes/Features:**

- Fixed issue with Thunderbolt boot default need to change from Enable to Disable to speed up BIOS POST time.
- Fixed issue with incorrect BIOS Setup Temperature display.
- Fixed issue affecting BIOS Optane settings not allowing for OS boot.
- Updated BIOS code for security fixes and improvements.
- Fixed issue PXE boot error display message.
- Fixed issue to disable TPM/PTT at BIOS level.
- Fixed issue to install Windows 10 SCCM.
- Updated ME Firmware version to 14.0.34.1139
- Updated TBT boot default from enable to disable.
- Fixed "iSetupCfg" map string error.
- Updated BIOS and EC Firmware to improve RTC\_Reset functionality.
- Fixed "iSetupcfg" token dump issue, setup items and password check item issue.
- Fixed issue when BIOS detected no memory and prompt a warning message, BIOS will disable WDT to prevent from reset.

- Fixed Energy Star Logo issue for "BXNUC10i5FNHCA" SKU.
- Removed RAM Disk from BIOS setup.
- Fixed "Strings of Tau" value to meet SPEC requirement.
- Fixed CMOS Time overflow issue when switching SSD between different systems.
- Updated BIOS setup to provide URL address and QR code availability leading to NUC support webpage.
- Updated BIOS Screen and Power Button Menu.

**Known Errata:**

- Due to the Intel® ME firmware update in BIOS version 0044, you can't downgrade to version 0039 or earlier.

**BIOS Version 0039 - FNCML357.0039.2020.0312.1734**

**About This Release:**

- Date: March 12, 2020
- ROM Image Checksum: 0xB98F
- ME Firmware: 14.0.31.1120
- EC Firmware: 03.04.00
- PMC Firmware: 140.1.01.1008
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:
 

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:
 

M94806EC_000000C6.mcb
M80A0660_000000C6.mcb

**New Fixes/Features:**

- ME Firmware updated to 14.0.31.1120.
- Fixed issue regarding SCE tool setup.

**BIOS Version 0038 - FNCML357.0038.2020.0131.1422**

**About This Release:**

- Date: January 31, 2020
- ROM Image Checksum: 0x43D7
- ME Firmware: 14.0.0.1061
- EC Firmware: 03.04.00
- PMC Firmware: 140.1.01.1004
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093

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

- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:
 

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:
 

M94806EC_000000C6.mcb
M80A0660_000000C6.mcb

**New Fixes/Features:**

- Fixed issue with BIOS fault tolerance failing after BIOS is re-signed.

<b>BIOS Version 0037 - FNCML357.0037.2019.1226.1738</b>
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**About This Release:**

- Date: December 26, 2019
- ROM Image Checksum: 0x7035
- ME Firmware: 14.0.0.1061
- EC Firmware: 03.04.00
- PMC Firmware: 140.1.01.1004
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:
 

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:
 

M94806EC_000000C6.mcb
M80A0660_000000C6.mcb

**New Fixes/Features:**

- Updated BIOS code for security fixes.
- Fixed HDD LED functionality issue.

<b>BIOS Version 0036 - FNCML357.0036.2019.1207.1504</b>
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**About This Release:**

- Date: December 07, 2019
- ROM Image Checksum: 0x27C0
- ME Firmware: 14.0.0.1061
- EC Firmware: 03.04.00
- PMC Firmware: 140.1.01.1004

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



- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:
 

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:
 

M94806EC_000000C6.mcb
M80A0660_000000C6.mcb

**New Fixes/Features:**

- Fixed issue with setup of SATA M.2 device.
- Updated BIOS code for security fixes.
- Added "2.7 Notification of LED App".
- Added multiple features to enhance LED capabilities.
- Added "SetupNvLock" for Frost Canyon.
- Fixed issue with ESA/F7.
- Fixed issue with PXE.
- Fixed NVMe recovery issue if TBT enabled.
- Fixed BIOS recovery issue.
- Updated BIOS code for SGX function.
- Fixed Cortana can't wake from Modern Standby issue.

<b>BIOS Version 0032 - FNCML357.0032.2019.1021.1624</b>
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**About This Release:**

- Date: October 21, 2019
- ROM Image Checksum: 0x1DE9
- ME Firmware: 14.0.0.1061
- EC Firmware: 03.04.00
- PMC Firmware: 140.1.01.1004
- Memory Reference Code: Based on RC9.0.14.30\_011
- Integrated Graphics:
  - Option ROM: 1021
  - UEFI Driver: 9.0.1093
- SATA RAID Option ROM: 17.8.0.4352
- AHCI Code: Based on AHCI\_20
- LAN Option ROM: 0.0.24
- Visual BIOS: Intel AptioV
- Supported Flash Devices:
 

MACRONIX	MX25L25673GM2I-08G	32MB
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- Microcode Updates included in .BIN & .CAP Files:
 

M94806EC_000000C6.mcb
M80A0660_000000C6.mcb

**New Fixes/Features:**

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

- Initial production BIOS release

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