

How to update CTOUCH OPS BIOS with the Intel Whiskey Lake-U series CPU?

This document describes step by step how to update the BIOS from your CTOUCH OPS with the Intel Whiskey Lake-U series (8th Gen Intel CPU). After the update, your CTOUCH OPS is ready to install Windows 11.

This document is part of a zip file and comes with a BIOS file. The mentioned BIOS file is **only** for the following CTOUCH OPS-es:

- CTOUCH OPS with Intel i3-8145U CPU
 - Serial number starting with:
 - I3C811N
- CTOUCH OPS with Intel i5-8265U CPU
 - Serial numbers starting with:
 - I5C801N
 - I5C811N

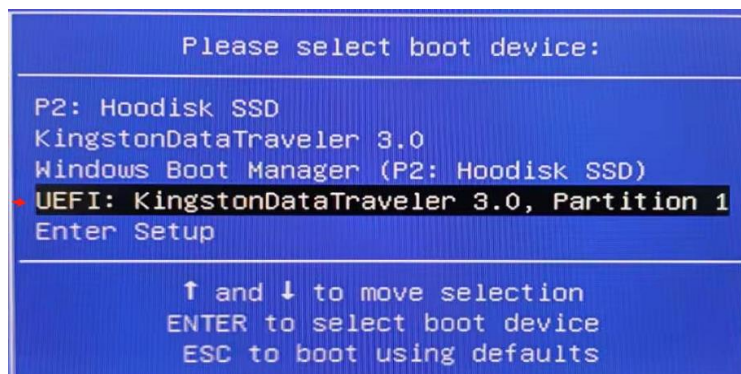
IMPORTANT: By using any other BIOS file or by using the Whiskey Lake-U series BIOS file on a different OPS as described above, you might damage the OPS. Damaging the BIOS of the OPS is not covered by warranty and thus at own risk!

1. Prepare a USB Memory stick (8GB or bigger) by formatting it in FAT32.
2. Extract the compressed CTOUCH OPS W11 BIOS 8th Gen Intel_20210824.zip file to the USB memory stick. The unzipped files should all be in the root of the USB Memory Stick (see below screenshot).

← → ↕ USB DISK (D:)

	Name	Date modified	Type	Size
★ Quick access				
This PC				
USB DISK (D:)				
EFI				
Network				
	EFI	25/08/2021 07:43	File folder	
	AfuEfix64.efi	16/10/2017 12:51	EFI File	502 KB
	fparts.txt	11/07/2018 17:22	TXT File	14 KB
	HW64P000.bin	24/08/2021 11:21	BIN File	16.384 KB
	NBIOS.NSH	25/08/2021 06:00	NSH File	1 KB
	startup.nsh	25/08/2021 07:44	NSH File	1 KB

3. Connect the prepared USB memory stick to the CTOUCH OPS together with a keyboard.
4. Press power button to start the CTOUCH OPS and press F11 key on the keyboard to enter BIOS boot sequence menu.



5. Select the UEFI USB memory stick to boot.
6. OPS will automatically run the startup.nsh script to update the BIOS (just wait a few seconds before it starts).

```

EFI Shell version 2.70 [5.12]
Current running mode 1.1.2
Device mapping table
fs0 :HardDisk - Alias hd9c65535a2 blk0
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x2,0xFFFF,0x0)/HD(2,GPT,4963C8D
055,0xFA000,0x32000)
fs1 :Removable HardDisk - Alias hd6r0b blk1
      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x11,0x0)/HD(1,MBR,0x005AD460,0x8
blk0 :HardDisk - Alias hd9c65535a2 fs0
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x2,0xFFFF,0x0)/HD(2,GPT,4963C8D
055,0xFA000,0x32000)
blk1 :Removable HardDisk - Alias hd6r0b fs1
      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x11,0x0)/HD(1,MBR,0x005AD460,0x8
blk2 :HardDisk - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x2,0xFFFF,0x0)/HD(1,GPT,B364EB72
12E,0x800,0xF9800)
blk3 :HardDisk - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x2,0xFFFF,0x0)/HD(3,GPT,7EE8A767
A15,0x12C000,0x8000)
blk4 :HardDisk - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x2,0xFFFF,0x0)/HD(4,GPT,A68BBFA6
DB8,0x134000,0x1DBBF000)
blk5 :BlockDevice - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x2,0xFFFF,0x0)
blk6 :Removable BlockDevice - Alias (null)
      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x11,0x0)

Press ESC in 2 seconds to skip startup.nsh, any other key to continue. _

```

7. BIOS update will be step by step executed (will take less than 2 minutes).
IMPORTANT: Do not disconnect the power and/or remove USB memory stick during the update as that will damage the CTOUCH OPS and is not covered under warranty!

```

      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x11,0x0)/HD(1,MBR,0x00ECE1EA,0x800,0x1CD6800)
blk2 :HardDisk - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x1,0xFFFF,0x0)/HD(2,GPT,2E3DFAB3-0821-4576-9084-404964D1
DC19,0x32800,0x8000)
blk3 :HardDisk - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x1,0xFFFF,0x0)/HD(3,GPT,06C7BED8-510C-4FF3-AFF0-9C2A36FA
61D9,0x3A800,0xED472D8)
blk4 :HardDisk - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x1,0xFFFF,0x0)/HD(4,GPT,9A3F19C1-F8DD-4D08-BD0E-DC25993D
DB5E,0xED82000,0xF9800)
blk5 :BlockDevice - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x1,0xFFFF,0x0)
blk6 :Removable BlockDevice - Alias (null)
      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x11,0x0)

Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
startup.nsh> fs0:
startup.nsh> fs1:
startup.nsh> AfuEfix64.efi HM64P000.bin /p /b /n /x /r1 /r2 /r3
-----+-----
|               AMI Firmware Update Utility v5.09.04.1503               |
|          Copyright (C)2017 American Megatrends Inc. All Rights Reserved.          |
|-----+-----|
Reading flash ..... done
- ME Data Size checking . ok
- FFS checksums ..... ok
- Check RomLayout ..... Ok.
- Warning: System doesn't have Type-1 structure to preserve
- Warning: System doesn't have Type-2 structure to preserve
- Warning: System doesn't have Type-3 structure to preserve
Erasing Boot Block ..... 0x00598000 (6%)

```

8. The BIOS update is ready when all steps are stated as 'done' en the script ends in **fs1:\>_**

```

DB5E,0xED82000,0xF9800)
blk5 :BlockDevice - Alias (null)
      PciRoot(0x0)/Pci(0x17,0x0)/Sata(0x1,0xFFFF,0x0)
blk6 :Removable BlockDevice - Alias (null)
      PciRoot(0x0)/Pci(0x14,0x0)/USB(0x1,0x0)

Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
startup.nsh> fs0:
startup.nsh> fs1:
startup.nsh> AfuEfiX64.efi HW64P000.bin /p /b /n /x /r1 /r2 /r3
-----+-----
|               AMI Firmware Update Utility v5.09.04.1503               |
|      Copyright (C)2017 American Megatrends Inc. All Rights Reserved.      |
|-----+-----|
Reading flash ..... done
- ME Data Size checking . ok
- FFS checksums ..... ok
- Check RomLayout ..... Ok.
- Warning: System doesn't have Type-1 structure to preserve
- Warning: System doesn't have Type-2 structure to preserve
- Warning: System doesn't have Type-3 structure to preserve
Erasing Boot Block ..... done
Updating Boot Block ..... done
Verifying Boot Block ..... done
Erasing Main Block ..... done
Updating Main Block ..... done
Verifying Main Block ..... done
Erasing NVRAM Block ..... done
Updating NVRAM Block ..... done
Verifying NVRAM Block ..... done
fs1:\>_

```

9. Press Ctrl+Alt+Delete to reboot the CTOUCH OPS.

Note: If you want to check the BIOS version after the update, press 'DELETE' key on the keyboard while booting. When you enter the BIOS, check the [Build Date and Time]. This should be: 08/24/2021 17:16:32

```

American Megatrends
5.13
UEFI 2.7; PI 1.6
HW64P000 x64
08/24/2021 17:16:32
Administrator

```

10. Congrats, you are done!