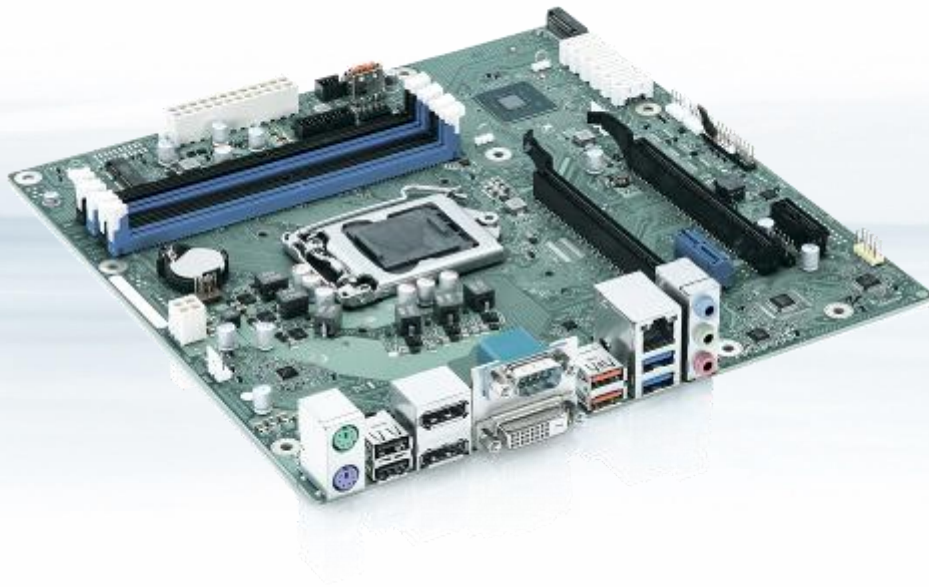


CoffeeLake Extended Lifecycle

BIOS Release Document



- ▶ D3642-B
- ▶ D3643-H
- ▶ D3644-B
- ▶ D3654-B
- ▶ D3664-B
- ▶ D3674-B

POSSIBILITIES START HERE



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Revision History:

Date	BIOS Version	Notes
02.09.2020	R1.25.0	Added new BIOS version (R1.25.0). New document due to consolidation of D354x-B/H and D36x4-B (STX, ThinMiniITX).

1. General Notes

- ▶ AMI Aptio V5.0.0.13

1.1 Released OS Versions

- ▶ MS Windows 10 (64bit)

1.2 BIOS Update Options

EFI Flash Update

Use ZIP-files for EFI-based BIOS Update

Copy content of the BIOS ZIP to any FAT32 formatted USB drive/stick. The files should be visible in following directories:

- EfiFlash.efi -> /EFI/FUJITSU
- Flash update files (e.g. .UPD) in root directory of USB stick.

Boot the system and choose “FUJITSU Update Utility” in F12 boot menu.

Please see the BIOS-Flash-Tools documentation for more information:

ftp://ftp.kontron.com/Services/Software_Tools/BIOS-Flash-Tools/

Windows Flash Update

Use Dxxx-xyz.DFI.\$xe for Windows-based BIOS update

→ Rename file to *.exe after download and run exe-file from MS Windows

Auto BIOS Update

With Auto BIOS Update it is possible to check a Fujitsu server automatically to see if there is a new BIOS version for the system. For the update, no operating system or external storage medium is required. This feature must be enabled in BIOS Setup first.

For details on the Auto BIOS Update function please see the BIOS manual.

BIOS Recovery

Please see the BIOS-Flash-Tools documentation for more information:

ftp://ftp.kontron.com/Services/Software_Tools/BIOS-Flash-Tools/

Additional information

If you have any problems after a BIOS flash please try if “Load Optimized Default Values” (F3) in BIOS setup solves the problem.

1.3 FTP BIOS Folder

The released BIOS version is available here:

D3642-B:

ftp://ftp.kontron.com/Products/Motherboards/ExtendedLifeCycle/D3642-B_D3644-B/BIOS_D364x-B/BIOS_D3642-B/

D3643-H:

ftp://ftp.kontron.com/Products/Motherboards/ExtendedLifeCycle/D3643-H/BIOS_D3643-H/

D3644-B:

ftp://ftp.kontron.com/Products/Motherboards/ExtendedLifeCycle/D3642-B_D3644-B/BIOS_D364x-B/BIOS_D3644-B/

D3654-B:

ftp://ftp.kontron.com/Products/Motherboards/ExtendedLifeCycle/D3654-B_Mini-STX/BIOS_D3654-B/

D3664-B:

ftp://ftp.kontron.com/Products/Motherboards/ExtendedLifeCycle/D3664-B_Mini-STX/BIOS_D3664-B/

D3674-B:

ftp://ftp.kontron.com/Products/Motherboards/ExtendedLifeCycle/D3674-B_ThinMini-ITX/BIOS_D3674-B/

1.4 Modify BIOS Setup Settings and Defaults (Tool BIOSSET)

BIOS settings can be modified by the Windows and Linux tool BIOSSET (Modify BIOS Setup Settings and Defaults). See BIOSSET tool help (parameter -h) for further details.

The tool is also described in our Manufacturing-Tools HowTo document:

ftp://ftp.kontron.com/Services/Software_Tools/Common-Mainboard-Tools/

1.5 What's about DOS support and where are the DOS tools?

Due to Intel's and Microsoft's decision, there is no "Legacy" OS support (CSM mode) implemented anymore. So only usage of UEFI operating systems is possible. We will provide the necessary tools and documentation for Windows and Linux.

Editcmos (DOS) -> Biosset (Windows and Linux)

EfiFlash.exe (DOS) -> Eflash.efi (EFI environment) or Dskflash/Deskflash (Windows/Linux)

SMCO, LVDS tool, OEMIdent are also available for Windows and Linux.

ftp://ftp.kontron.com/Services/Software_Tools/Common-Mainboard-Tools/

1.6 Note: Customer Service Release BIOS

Besides the released BIOS versions there may be additional BIOS versions

(Customer Service Release BIOS = CSR BIOS) that solve specific customer problems.

Please note: These versions are available via OEM FTP only and they are not pre-installed ex factory.

2. Previous BIOS releases

Since BIOS version R1.25.0 we have consolidated BIOS-Info document for D354x-B/H and D36x4-B (STX, ThinMiniITX). You can find the revision history for previous released BIOS versions within the "Previous_Versions" subfolder:

D364x-B/H:

ftp://ftp.kontron.com/Products/Motherboards/ExtendedLifeCycle/D3642-B_D3644-B/BIOS_D364x-B/BIOS_D3644-B/Previous_Versions/BIOS-Release-Documnt_Coffeelake-XLC_D364x-B_-H_R1.8.0.pdf

D36x4-B:

ftp://ftp.kontron.com/Products/Motherboards/ExtendedLifeCycle/D3674-B_ThinMini-ITX/BIOS_D3674-B/BIOS-Release-Documnt_Coffeelake-Mini-STX_ThinMini_D36x4_R1.23.0.pdf

3. BIOS R1.25.0 [new]

Changes vs. previous released BIOS

- ▶ Integrated fixes for “Ripple20” (INTEL-SA-00295)
- ▶ Updated CPU Microcode for CoffeeLake-S U-0 (0xD6) and for CoffeeLake-S R-0 (0xD6)
- ▶ Updated to Management Engine Firmware version 12.0.64.1551
- ▶ Info: LVDS backlight inverting is not working if set to OS controlled. Option therefore is greyed out now.
- ▶ Info: Replaced Fujitsu logos with Kontron logos.
 - Diagnostic screen logo (Quiet Boot = Disabled) removal takes immediate effect after BIOS update.
 - Silent boot logo will not be replaced during BIOS updates in field (logo preserve function). It just takes effect on newly produced or RMA processed motherboards. To activate the logo on “old” motherboards, you can use the Logo file from:
ftp://ftp.kontron.com/Services/Software_Tools/Miscellaneous/
 - [Kontron QuietBootBIOSLogo.zip](#)
- ▶ Info: BIOS Feature “Auto BIOS Update” not working with the Fujitsu default server address. The server infrastructure at Fujitsu does not contain data for Kontron Extended Lifecycle and Industrial motherboards anymore. Therefore, the address was removed. Kontron will not provide an update server. Custom TFTP server solutions are still possible.

Known Issues and Limitations:

- ▶ No legacy OS support (UEFI only due to Intel restrictions)!
- ▶ No beep code prior to Capsule Update.
- ▶ Default value for “Intel® Speed Shift Technology” (Hardware P-State control) had been changed to “Disabled” This will only take effect, if you load “Optimized Defaults” after BIOS update.
- ▶ [D3674-B1 only] In Linux a “ghost screen” is visible with a resolution of 1024x786 which mainly gets the “main” screen. You have to switch the main screen manually to the real connected monitors.
- ▶ Integrated Intel TPM is high sporadically disappearing after combined S3 / Reboot cycles.
- ▶ **BIOS downgrade to a version prior R1.6.0 (D3642, D3643, D3644) / R1.13.0 (D3654, D3664, D3674) is blocked due to security reasons and the support of 9th gen Intel CPUs!**



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