



# Intel® Firmware Engine – Intel Atom® processor E3900

Intel® Firmware Engine Platform Support for Intel Atom® processor E3900 (formerly Apollo Lake)

Platform Release 1.0.0 – Designed for Intel® Firmware Engine 4.0

March 6, 2018

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## FILE LIST

"ReleaseNote\_Intel\_Atom(R)\_processor\_E3900\_1.0.pdf"

This File. The release notes for the Intel Atom® processor E3900 platform (formerly Apollo Lake) install package. Note that Intel® Firmware Engine 4.0 must be installed first.

"IntelFirmwareEngineATOME3900Setup\_1\_0.exe"

Windows install package for Intel® Firmware Engine Intel Atom® processor E3900 platform.

"IntelFirmwareEngineATOME3900Setup\_1\_0.bin"

Linux install package for Intel® Firmware Engine Intel Atom® processor E3900 platform.

## INSTALL INSTRUCTIONS

### Windows\*

1. Install Intel® Firmware Engine Release 4.0 ([Intel® Firmware Engine\\_R4.0\(Windows\).zip](#)) if it is not currently installed. Follow the getting started steps in the Intel® Firmware Engine quick start guide ([Quick start guide\\_eng.pdf](#)).
2. Right click on the "IntelFirmwareEngineATOME3900Setup\_1\_0.exe" file and select "Run as Administrator" then follow the dialogues to finish the install.

### Linux\*

1. Install Intel® Firmware Engine Release 4.0 ([Intel® Firmware Engine\\_R4.0\(Linux\).zip](#)) if it is not currently installed. Follow the getting started steps in the Intel® Firmware Engine quick start guide ([Quick start guide\\_eng.pdf](#))
2. Open a command Terminal in the directory where downloaded program file (.bin) is located.
3. Change the .bin file properties to include 'execute' and grant required permissions using the following command:  
'`sudo chmod 777 ./ IntelFirmwareEngineATOME3900Setup_1_0.bin`'
4. To install, type:  
'`sudo ./ IntelFirmwareEngineATOME3900Setup_1_0.bin`'
5. Follow the installer click-through menus to complete installation

After installation, open Intel® Firmware Engine 4.0 and select 'New Project ...' from the File dialogue. Under 'Source project', verify 'Intel Atom(R) processor E3900 platform' appears as option in the drop-down box

## NEW FEATURES AND CHANGES

1. Installer Repository updated for Intel® Firmware Engine Release 4.0
2. Platform is aligned to UDK2017
3. Apollo Lake Platform Release 1.0.0 now support Linux(Ubuntu Linux 16.04.02 LTS X64)
4. Secure Capsule Update and Recovery solution is supported
5. Microcode patch is supported
6. Improvements to GPIO table configurations including GPIO multiplex, GPIO reserved pin, GPIO attribute transferred by Connector component, etc.
7. Multiple language support
8. Support Apollo Lake Rev-D board with product CPU (Intel Atom® processor E3900)
9. Support HardwareDevices userextension to filter modules from different platforms
10. Fix CVE-2017-5703

## ADDITIONAL NOTES

This platform package installs the following:

1. Intel Atom® processor E3900 Platform (formerly Apollo Lake) repository for Intel® Firmware Engine 4.0.

2. One read-only project named 'Intel\_Atom(R)\_E3900\_processor\_platform' installed in the Intel® Firmware Engine 4.0.

## KNOWN LIMITATIONS

1. Images with certain combinations of Debug|Log|Release will fail to boot after flashing. The issue can be worked around by creating a new project with expected debug and logging setting
2. Certain add-in in WIFI Network adapters may not initialize properly and fail to connect to networks in Windows 10.
3. S3 may not work properly in Windows 10
4. Only single Microcode update from the GUI allowed. Multiple microcode update is not supported and CPU MSR will not change accordingly in this case.
5. Setting FvMain to uncompressed may cause overflow issues
6. Verb Table Binary update doesn't work
7. Stress tests may not be reliably completed
8. SD Card Hot Plug may fail to recognize the new card
9. Thermal Sensor feature including Thermal Trip points may not function normally if set
10. The flash size calculation of "total/used size" is not correct, and flash descriptor is not functional.
11. The GPIO attributes are configured to come from OC BIM file by default. If end users expect the initial values come from SOC INF or platform profile, PcdPlatformGpioTable UserModified flag need to change to "false" in OC BIM file
12. GFX Aperture size 128MB configuration could cause some peripheral devices stop working in OS. 256MB & 512MB configurations are good.
13. Flash range lock protection is not available. Firmware uses BIOS writing protection technology to protect flash image.

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

[END OF RELEASE NOTES]