



# **Intel® Firmware Support Package (Intel® FSP) for 7<sup>th</sup> Generation Intel® Core™ Processor Code-Named KabyLake (KBL) Gold**

**Release Notes**

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***November 2017***



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## Revision History

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These are the main releases of Intel® Firmware Support Package (Intel® FSP) for 7<sup>th</sup> Generation Intel® Core™ Processor Code-Named KabyLake.

Date	Revision	Description
November 16, 2017	Gold	Gold Release for IOTG supported H SKU
March 24, 2017	Beta	Beta Release for IOTG supported H SKU
October 17, 2016	Alpha	Alpha Release for IOTG supported H SKU



## 1.0 Introduction

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This package contains required binary image(s) and collateral for the Intel® Firmware Support Package (Intel® FSP) for 7<sup>th</sup> Generation Intel® Core™ Processor code-named KabyLake H and Mobile Intel® Chipset sku.

Compliant with FSP 2.0 External Architecture Specification.

This document provides system requirements, installation instructions, issues and limitations, and legal information.

To learn more about this product, see:

- New and previously new features listed in [Section 2.0, New in This Release](#).
- Reference documentation listed in [Section 1.2, Related Documentation, Tools, and Packages](#).

The following table lists the relevant platform software components used during development and validation of this release.

**Table 1. Platform Software Component Information**

Component	Gold
Microcode Update (A0-stepping)	m22506E8_00000034
Microcode Update (B0-stepping)	m2A906E9_0000005E

## 1.1 Terminology

The following terms are used in this document.

**Table 2. Terminology**

Term	Description
API	Application Programming Interface
BSF	Binary Settings File
BCT	Binary Configuration Tool
CRB	Customer Reference Board
Intel® EDC	Intel® Embedded Design Center
Intel® FSP	Intel® Firmware Support Package



Term	Description
SoC	System on Chip

## 1.2 Related Documentation, Tools, and Packages

Table 3. Related Documentation, Tools, and Packages

Document	Location
<i>Intel® Firmware Support Package (Intel® FSP) for the KabyLake Platform Integration Guide</i>	Available in this release package
<i>Intel® Binary Configuration Tool for Intel® Firmware Support Package</i>	<a href="http://www.intel.com/fsp">www.intel.com/fsp</a>
<i>Intel® Firmware Support Package (Intel® FSP) External Architecture Specification (EAS) v2.0</i>	<a href="https://www.intel.com/content/dam/www/public/us/en/documents/technical-specifications/fsp-architecture-spec-v2.pdf">https://www.intel.com/content/dam/www/public/us/en/documents/technical-specifications/fsp-architecture-spec-v2.pdf</a>

## 1.3 Intended Audience

The intended audience is platform and system developers who intend to use an Intel® FSP-based boot loader for the firmware solution for their overall design based on the Intel® Core™ Processor code-named KabyLake. This group includes, but is not limited to, system BIOS developers, boot loader developers, and system integrators.

## 1.4 Customer Support

Intel offers support for this software at the API level only, defined in the Intel® FSP Integration Guide and reference manuals listed in [Section 1.2, Related Documentation, Tools, and Packages](#).

For technical support, please raise IPS (Intel® Premier Support) at <https://shnintelsf2crm.intel.myshn.net/home/home.jsp>



## **2.0 New in This Release**

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### **2.1 Gold Features**

- MRC Fastboot mode is supported.

### **2.2 Beta Features**

- S3 standby mode is supported.

### **2.3 Alpha Features**

- KabyLake Processor A0 stepping and Sunrise Point PCH D1 stepping
- DDR4 Memory Detection and Initialization
- MTRR Initialization on all CPU threads
- PCI Express, SATA, XHCI initialization
- Configuration options through Intel BCT tool



## **3.0**     *Fixed Issues*

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The following list contains the fixed issues in this release:

- MRC Fastboot option is enabled
- Resolved “empty” value shown on BCT Tool for Fsp.bsf
- Resolved typo in BCT Tool value
- Resolved duplicated PCD option with different setup



## **4.0**     ***Limitations***

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### **4.1**     **Current Release**

- None

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## **5.0**     *Known Issues*

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### **5.1**     **Current Release**

- None



## 6.0 Split FSP image into individual FSP-T/M/S component

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FSP 2.0 image can be split to 3 individual component using the SplitFspBin.py script in IntelFsp2Pkg\Tools and BCT tools.

### **Rebase address:**

Coreboot will rebase and relocate FSP binary dynamically so the base address is not hardcoded with the default base address and location. Once configure the FSP binary as XIP, Coreboot can decide where the binary will be placed in the CBFS and will take care of rebasing it during build.

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## **7.0**     ***Where to Find the Release***

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This package can be found at CDI

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## 8.0 Release Content

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This release contains:

- Intel® FSP Integration Guide
- Intel® FSP Binary
- Binary Settings File (BSF)
- Release Notes

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## 9.0 Hardware and Software Compatibility

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### 9.1 Supported Hardware

This Intel® Firmware Support Package (Intel® FSP) release is specifically targeted for 7<sup>th</sup> Generation Intel® Core™ Processor code-named KabyLake, KBL H and Mobile Intel® Chipset.

### 9.2 Supported Operating Systems

This release can be installed on either a Windows\* or a Linux\* system. However, the Intel® FSP binary itself can be used with any software development environment to generate a complete boot loader solution.

The software in this release has been validated on customer reference boards (CRBs) with the boot loader and operating systems listed in the following table.

**Table 4. Operating System/Boot Loader Support**

Product Family	Boot Loader	Operating System
7 <sup>th</sup> Generation Intel® Core™ Processor code-named KabyLake, KBL H and Mobile Intel® Chipset.	Coreboot* with the UEFI payload	Yocto Project* Windows 10 Core
7 <sup>th</sup> Generation Intel® Core™ Processor code-named KabyLake, KBL H and Mobile Intel® Chipset.	U-Boot payload	Yocto Project*



## 10.0 Configuration

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Intel® Binary Configuration Tool (BCT) for Intel® Firmware Support Package (Intel® FSP) is provided as a companion tool and is intended to be used to:

- Customize the Intel® FSP binary configuration options based on the Binary Settings File (BSF).

It is recommended to use the latest version of Intel® Binary Configuration Tool with this release.

See *Intel® Binary Configuration Tool User Guide* for the usage instructions. See [Section 1.2, Related Documentation, Tools, and Packages](#), for information on where to download the tool.

### 10.1 Rebasing

Please refer section 6.0.

### 10.2 Microcode

Use the latest microcode when integrating Intel® FSP. Any processor that does not have the correct microcode update loaded is considered to be operating out of specification. See the integration guide for more details regarding microcode loading.