Intel(R) Firmware Support Package (Intel® FSP) for 4th Generation Intel® Core™ Processors with Mobile Intel® QM87 and HM86 Chipsets Release Notes

Release name: SHARKBAY_FSP_GOLD_002_04-JUN-2014
June 4, 2014

Copyright (c) 2014, Intel Corporation. This Intel® Firmware Support Package ("Software") is furnished under license and may only be used or copied in accordance with the terms of that license. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. The Software is subject to change without notice, and should not be construed as a commitment by Intel Corporation to market, license, sell or support any product or technology. Unless otherwise provided for in the license under which this Software is provided, the Software is provided AS IS, with no warranties of any kind, express or implied. Except as expressly permitted by the Software license, neither Intel Corporation nor its suppliers assumes any responsibility or liability for any errors or inaccuracies that may appear herein. Except as expressly permitted by the Software license, no part of the Software may be reproduced, stored in a retrieval system, transmitted in any form, or distributed by any means without the express written consent of Intel Corporation.

RELEASE NOTES CONTENTS

1. OVERVIEW
2. RELEASE INFORMATION
3. INTEGRATION NOTES
4. SUPPORTED FEATURES
5. FSP CONFIGURATION
6. LIMITATIONS
7. KNOWN ISSUES
8. CHANGE LOG

1. OVERVIEW

This package contains required binary image(s) and collateral for the Intel(R) Firmware Support Package (Intel® FSP) for 4th Generation Intel® Core™ Processors with Mobile Intel® QM87 and HM86 Chipsets.

2. RELEASE INFORMATION

This release has been integrated into a coreboot Proof of Concept (POC) bootloader and verified on the Lava Canyon and White Tip Mountain 1 Customer Reference Boards (CRBs).

3. INTEGRATION NOTES

Several header and source files are provided in the package to assist with integrating the FSP with the bootloader.

Please consult the Intel® FSP Integration Guide for further information.
4. SUPPORTED FEATURES

- 4th Generation Intel® Core™ Processors B0 and C0 stepping
- Mobile Intel® QM87 and HM86 Chipsets B0 stepping
- Memory Detection and Initialization
- Fast Boot support
- 8 GB Max Addressable Memory @ 1066/1333 MT/s
  - If only 1 DIMM is used, channel 0 must be used.
  - Both memory channels must be populated with DIMMs of same configuration.
- MTRR Initialization on all CPU threads
- PCI Express initialization
- SATA
- HD Audio
- USB 2.0 and 3.0 ports
- Configuration options through Intel BCT
- Rebase to a different base address through Intel BCT

5. FSP CONFIGURATION

When integrating with a bootloader the FSP should be placed at the same base address that it is configured to.

A Binary Configuration Tool for Intel® FSP is available as a companion tool and is intended to be used to:

- Change configuration options based on provided BSF and FSP.
- Rebase the FSP to a different Base Address.

Please refer the Binary Configuration Tool User's Guide for the usage instructions.

6. LIMITATIONS

7. KNOWN ISSUES

8. CHANGE LOG

Release SHARKBAY_FSP_GOLD_001_16-DEC-2013: (December 16, 2013)
  - First public release

Notes:
  * When XHCI is enabled, ECHI controllers are disabled to save power
  ** RMT is only enabled when Fastboot is disabled or during the first boot.
    To capture RMT debug messages, please enable debug serial output and set MRC debug level to "ALL" through BCT

Release SHARKBAY_FSP_GOLD_002_04-JUN-2014: (June 4, 2014)
  - Resolved an issue enabling graphics for Haswell ULT.
  - Resolved a resource allocation issue with the SATA controller in IDE mode.