# **BIOS Release Notes Form**

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Product Name	X11SCM-(LN8)F
Release Version	2.1
Release Date	7/5/2023
<b>Build Date</b>	7/5/2023
<b>Previous Version</b>	2.0
Update Category	Recommended
Dependencies	None
Important Notes	None
Enhancements	<ol> <li>Updated Microcode 906EA to 0xf4 and 906ED to 0xfa per IPU 2023.3 Processor Advisory INTEL-TA-00828 to address CVE-2022-40982 (6.5 Medium).</li> <li>Updated SPS_E3_05.01.04.913.0 and RC per IPU 2023.3 Processor Advisory.</li> <li>Updated RC per IPU 2023.3 Processor Advisory.</li> </ol>
New features	N/A
Fixes	<ol> <li>Ported code for supporting ofid check.</li> <li>Corrected SUM_BIOS_OEM_FID_SUPPORT configure to SMC_OEMFID_SUPPORT.</li> </ol>

#### 2.0 (2/18/2023)

- 1. Updated 906ED Microcode to 0xF4 for IPU 2022.3.
- 2. Modified Smbios eModule for Security update.
- 3. Modified CmosManager, ACHI, FlashSmi, HddSecurity, NVME, NVRAM, LegacySerialRedirection, OemActivation, Recovery, SecureFlash, TcgStorageSecurity, Smbios for Security update.
- 4. Modified SmmSmbiosElogInitFuncs.c for security update.
- 5. Updated Reference Code for Intel 2023.1 IPU.
- 6. Updated SPS FW to SPS\_E3\_05.01.04.804 for IPU 2023.1.
- 7. Changed BIOS version to 2.0.
- 8. Enabled Flash SMI support for the project.

## 1.9 (9/16/2022)

- 1. According to new rule, changed setup string "SMCI" to "Supermicro."
- 2. Updated DBX revocation packages released on UEFI.org on 08/15/2022 to fix Secure Boot Bypass issue.
- 3. Integration for IPU 2022.3 Reference Code IPU PV.
- 4. Updated SPS FW to SPS E3 05.01.04.700.0 for IPU 2022.3.
- 5. Changed BIOS version to 1.9.
- 6. Updated 906ED Microcode to 0xF4 for IPU 2022.3.
- 7. Fixed resign fail when request sign.

## 1.8 (5/23/2022)

- 1. Changed BIOS version to 1.8.
- 2. Synced up 5.13 1AURF RC7.0.58.50 054(189.B09).
- 3. Updated Microcode M22906EA\_000000F0(U-0 Stepping) and M22906ED\_00000F0(R-0 Stepping) for INTEL-TA-00615 to address CVE-2022-21166(5.5 High), CVE-2022-21123(6.1 High), CVE-2022-21127(5.6 High), for INTEL-TA-00617 to address CVE-2022-21151(5.3 High), for INTEL-TA-00614 to address CVE-2022-0005(4.9 High).
- 4. Updated Intel SINIT ACM to 1.10.1. For INTEL-TA-00601 to address CVE-2021-33123 (8.2 High), CVE-2021-33124 (7.5 High) security issues.
- 5. Supported IPMI UEFI PXE boot to all LAN port feature.
- 6. Updated SPS FW to SPS E3 05.01.04.600.0 for IPU 2022.2.
- 7. Added SmcNetworkOpRomFlag for projects which don't contain onboard LAN to dynamically enable Uefi of slot which is connect to NIC when HttpBoot is set through SUM.

# 1.6 (5/28/2021)

- 1. Changed BIOS version to 1.6.
- 2. Updated SPS FW to SPS\_E3\_05.01.04.303 for INTEL-TA-00459 Security Advisory to address CVE-2020-24509 (6.7, Medium) IPU 2021.1.
- 3. Copied the BIOS binary and rename to meet the unique name format.
- 4. Updated Microcode M02906EB\_000000EA (B-0 Stepping), M22906EC\_000000EA (P-0 Stepping) and M22906ED\_000000EA (R-0 Stepping) for Intel 20211IPU.

- Updated Intel BIOS ACM & SINIT ACM to 1.8.0. For INTEL-TA-00463 to address CVE-2020-12357 (7.5 High), CVE-2020-8670 (7.5 High) and CVE-2020-12360 (5.6 Medium) security issues.
- 6. Added x-ami for "PCI AER Support" and "Memory Corrected Error Enabling" setup items.

## 1.5 (10/5/2020)

- 1. Changed the BIOS version to 1.5.
- 2. Added "SMC\_PATCH\_SECUREFLASH\_UNMAPPED\_REGION" patch to fix failure of BIOS flash with module SecureFlash\_23.
- 3. Added inband flash status event log to IPMI MEL.
- 4. Added Hotkey Message Enable/Disable function.
- 5. Updated SPS firmware to SPS\_E3\_05.01.04.208.0 for INTEL-TA-00391 Security Advisory to address CVE-2020-8744 (7.2, High) and CVE-2020-8755 (4.6, Medium) security issues.
- Updated microcodes M22906EA\_000000DE (U-0 Stepping), M02906EB\_000000DD\_000000DE (B-0 Stepping), M22906EC\_000000DE (P-0 Stepping), and M22906ED\_000000DE (R-0 Stepping) for Intel IPU 2020.2.
- 7. Updated Intel IPU 2020.2 RC 7.0.58.47 for Mehlow Refresh Server Platform Service Version.
- 8. Removed the FWSTS SMBIOS table.
- 9. Enhanced SMCI HDD Security feature.
- 10. Reduced Rowhammer susceptibility for AMI-SA50084 DDR4 Rowhammer vulnerability to address CVE-2020-10255 (9.0, high) security issue.
- 11. Fixed problem of BIOS setup menu showing "Unknown" when plugging in the InnoDisk memory and boot up into BIOS setup menu.

#### 1.4 (5/26/2020)

- 1. Changed the BIOS version to 1.4.
- 2. Enhanced the OEM FID feature to support UUID.
- 3. Implemented IPU 2020.1 update to SPS firmware to SPS E3 05.01.04.113.0.
- 4. Added SMCI HDD Security feature.
- 5. Updated microcodes M22906EA\_000000D6 (U-0 Stepping), M02906EB\_000000D6 (B-0 Stepping), M22906EC\_000000D6 (P-0 Stepping), and M22906ED\_000000D6 (R-0 Stepping) for INTEL-SA-00320 Security Advisory to address CVE-2020-0543 (6.5, High) security issue, and microcodes M22906EA\_00000D6 (U-0 Stepping), M02906EB\_000000D6 (B-0 Stepping), M22906EC\_000000D6 (P-0 Stepping), and M22906ED\_00000D6 (R-0 Stepping) for INTEL-SA-00329 Security Advisory to address CVE-2020-0548 (2.8, Low) and CVE-2020-0549 (6.5, Medium) security issues.
- 6. Set the OverclockingLock flag to enabled by default for SGX test.
- 7. Added support for InnoDisk memory.
- 8. Updated Intel RSTe RAID Option ROM/UEFI Driver to 6.3.0.1005.
- 9. Fixed inability to change the serial port IO resource.
- 10. Fixed failure of Secure Erase password and problem of BIOS returning "EFI\_Device\_Error" with SED: Seagate ST1000NX0353.

### 1.3 (1/28/2020)

- 1. Changed the BIOS version to 1.3.
- Updated BiosAcm to 1.7.1 (20191213) and SinitAcm to 1.7.8 (20191220) for INTEL-SA-00240 to address CVE-2019-0151 (7.5, High) and CVE-2019-0152 (8.2, High), for INTEL-SA-00220 to address CVE-2018-0123 (8.2, High) and CVE-2019-0124 (8.2, High), and INTEL-SA-00164 to address CVE-2019-0184 (6.0, Medium).
- 3. Added solution for problem of systems with LPDDR3 2133 MT/s DRAMs failing during boot.
- 4. Corrected the "DeepSx Power Policies" item string.
- 5. Updated RC to Mehlow Refresh PV version 7.0.58.44.
- 6. Displayed the "SGX Launch Control Policy" items in the BIOS setup menu.
- 7. Added SMC HDD Security feature.
- 8. Updated Microcodes M22906EA\_000000D2 (U-0 Stepping), M02906EB\_000000D2 (B-0 Stepping), M22906EC\_000000D2 (P-0 Stepping), and M22906ED\_000000D2 (R-0 Stepping) for INTEL-SA-00320 Security Advisory to address CVE-2020-0543 (6.5, High) security issue and for INTEL-SA-00329 Security Advisory to address CVE-2020-0548 (2.8, Low) and CVE-2020-0549 (6.5, Medium) security issue.
- 9. Updated flag for skipping password prompt window.
- 10. Updated SPS firmware to SPS E3 05.01.04.104.0.
- 11. Fixed inability of BIOS to load default when plugging in M.2.
- 12. Added support for erasing NVMe Opal device (like Samsung 970 EVO model MZ-V7E250) without setting admin password.

# 1.2 (10/22/2019)

- 1. Changed BIOS version to 1.2.
- 2. Added support for BMC AUX revision displaying.
- 3. Disabled the MCTP for buggy BMC workaround.
- 4. Updated Microcode M22906EA\_000000C6 (U-0 Stepping), M02906EB\_000000C6 (B-0 Stepping), Microcode M22906EC\_000000C6 (P-0 Stepping), and M22906ED\_000000C6 (R-0 Stepping) for INTEL-SA-00270 Security Advisory to address CVE-2019-11135 (6.5, Medium) security issue.
- 5. Updated the SINIT ACM to version 1.7.3 for INTEL-SA-00220 Security Advisory to address CVE-2018-0123 (8.2, High) and CVE-2019-0124 (8.2, High) security issues.
- 6. Updated SPS firmware to SPS\_E3\_05.01.03.094.0.
- 7. Updated the Intel PMC firmware to 300.2.11.1022.
- 8. Updated the AMI TSE to 2.20.1276.
- 9. Updated RC to Mehlow Refresh PV version 7.0.58.43 for INTEL-SA-00260 Security Advisory to address CVE-2019-0154 (6.5, Medium) security issue.
- 10. Updated NVRAM NVMe HddSecurity SmmConfidentialMemModule and TcgStorageSecurity to INTEL-SA-00254 request version for INTEL-SA-00254 Security Advisory to address CVE-2019-0185 (6.0, Midium) security issue.

#### 1.0b (5/17/2019)

- 1. Updated BIOS revision to 1.0b.
- 2. Updated RC to version 7.0.58.41.
- 3. Updated Coffee Lake-S R-O stepping CPU microcode M22906ED\_000000B4.
- 4. Updated MCU (906EA-U0 + 906EB-B0 + 906EC-P0) for INTEL-SA-00233 Security Advisory to address CVE-2018-12126, CVE-2018-12127, and CVE-2018-12130.

- Updated SPS 5.1.03.62 for INTEL-SA-00213 Security Advisory to address CVE-2019-0089, CVE-2019-0090, CVE-2019-0086, CVE-2019-0091, CVE-2019-0092, CVE-2019-0093, CVE-2019-0094, CVE-2019-0096, CVE-2019-0097, CVE-2019-0098, and CVE-2019-0099.
- 6. Updated Intel RSTe RAID Option ROM/UEFI driver to 6.1.0.1017.
- 7. Updated USB and Fastboot module.
- 8. Enhanced the solution for the error/warning message from dmidecode after a modification by AMIDE.
- Displayed the CPU's PL1 & PL2 items of Advanced -> CPU Configuration page on the BIOS setup menu.
- 10. Renamed "AC Loss Policy Depend on" to "Restore on AC Power Loss".
- 11. Prevented random inability to flash OA License Keys.
- 12. Added Driver Health setup item.
- 13. Added driver health warning message.
- 14. Updated SMBIOS type 11 OEM string size to 50 bytes.
- 15. Updated IPv4 and IPv6 setup item strings.
- 16. Hid the item "Always Turbo Mode" after setting the "Turbo Mode" to disabled in Advanced/CPU Configuration page.
- 17. Added code for consistent device name support.
- 18. Added support for Linux built-in utility efibootmgr.
- 19. Added setting of system default Power Limit 2 to 150W when using 8 Core CPU.
- 20. Set OptionRom and boot mode selection to EFI while CSM is disabled.
- 21. Changed UEFI LAN Boot option name format.
- 22. Displayed setup item "BME DMA Mitigation" on the Advanced -> PCIe/PCI/PnP Configuration page.
- 23. Fixed problem of DIMM location of ECC error showing "NO DIMM INFO" in Event log when Multi-Bit ECC error occurs.
- 24. Fixed problem of "?[1;31;40m" showing on POST screen when EFI driver is "Unhealthy".
- 25. Fixed problem of the status of BMC VGA showing as enabled in SMBIOS Type 41 when JPG1 is disabled (on 2-3).
- 26. Fixed problem of onboard video showing output when JPG1 disabled.
- 27. Updated "Restore Optimized Defaults" string for Mehlow Server template.
- 28. Modified UEFI network description to IPv4/IPv6 to follow Industry Standard.
- 29. Fixed failure of workaround for BIOS flash with 156 bytes PubKey (Error: "Secure Flash Rom Verify Fail").
- 30. Fixed problem of the system hanging in CP: 0xF4 when the system recovery occurs in BIOS with TPM module.
- 31. Fixed problem of the value of Power Limit 2 displaying as 0 in setup menu when setup menu is set to 0 (AUTO).
- 32. Fixed problem of system hanging when disabling LAN1.

#### 1.0a (12/18/2018)

- 1. Updated BIOS revision to 1.0a.
- 2. Updated Intel Reference Code to version 7.0.48.21.
- 3. Updated CPU MCUs (906EA, U0 + 906EB, B0 + 906EC, and P0).
- 4. Hid LAN OPROM Control items besides LAN#1 when LAN#1 OPROM is set to iSCSI.
- 5. Added Early Video messages when BIOS is in recovery mode.
- 6. Added "ACPI T-States" setup item.

- 7. Displayed "AERON" and "MCEON" strings during POST when "PCI AER Support" or "Memory Corrected Error" is enabled.
- 8. Hid "ECC Support" item.
- 9. Set the default of "Memory Corrected Error Enabling" to disabled.
- 10. Updated the Intel BIOS ACM version to 1.5.0 and SINIT ACM to 1.6.0.
- 11. Added "SMC SMBIOS Measurement" feature for PCR#1 measurement and enabled "Measure\_Smbios\_Tables".
- 12. Updated RAID option ROM and UEFI driver to 5.5.1028.
- 13. Added "MCEON" and "AERON" POST strings for SOL console when items are enabled.
- 14. Enhanced JPG1 function for running SUM with JPG1 2-3.
- 15. Added support for RFC4122 UUID format feature so that RFC4122 encoding from build time is produced by IPMICFG 1.29 tool or newer version.
- 16. Added SATA Frozen function.
- 17. Fixed inability of Boot Option of UEFI Application Boot Priorities to load default via Afu tool with command "/N".
- 18. Changed "Sata Interrupt Selection" default value to MSI.
- 19. Fixed problem of the status of Chassis Intru clearing in every single boot.
- 20. Fixed problem of serial port UID order not following COM port order after BIOS update.
- 21. Fixed problem of PCR#1 value changing during Legacy boot with TPM 2.0 when Measure\_Smbios\_Tables is disabled.
- 22. Fixed problem of the system hanging up at b2h when all add-on devices are needed to use IO resource.
- 23. Fixed problem of the system having an exception while entering BIOS Setup with NVMe M2\*1 + SATA M2\*1.
- 24. Fixed problem of InBand receiving incorrect OEM FID size.