BIOS Release Notes Form

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Product Name	X11DPL-I
Release Version	3.8a
Release Date	10/28/2022
Previous Version	3.5
Update Category	Recommended
Dependencies	IPMI firmware 3.77.02
Important Notes	None
Enhancements	 Updated Skylake-SP/Cascade Lake-SP CPU PV microcode. Updated AMI label 5.14_PurleyCrb_0ACLA056 for RC0622.D07 2022.2 IPU. Updated the token RC_VERSION_VALUE setting to 622.D07. Modified string naming from SMCI to Supermicro. Removed "Vendor Keys" in security page. [SMIHandlerSecurityFix] Refined SMM buffer validation in SmmSmbiosELogInitFuncs. Allocated runtime buffer to trigger ELog SMI in DxeSmmRedirFuncs. Updated BIOS ACM 1.7.54, SINIT ACM 1.7.55 PW for IPU2022.1 to address Updated VROC SATA/sSATA legacy driver to VROC PreOS v6.3.5.1003. Rolled back SATA/sSATA EFI driver to VROC PreOS v7.6.0.1012. Modified the allocated buffer from EfiBootServicesData to EfiRuntimeServicesData. Updated AMI label 5.14_PurleyCrb_0ACLA057 for RC0623.D09 2022.3 IPU.

	12. Updated Intel DCPM UEFI driver to 1.0.0.3536.
New features	None
Fixes	 Enabled ISCSI_SUPPORT on Purley generation. Fixed the OA2 key injection issue. Fixed incorrectly shown DIMM location in Event Log page. Used Hot Fix to fix 10TB or higher volume drive issue.

3.5 (05/24/2021)

- Update RC 612.D02 for INTEL-SA-00463 Security Advisory to address CVE-2020-12357(7.5, High), CVE-2020-8670(7.5, High), CVE-2020-8700(7.5, High), CVE-2020-12359(7.1, High), CVE-2020-12358(6.7, Medium), CVE-2020-12360(5.6, Medium), CVE-2020-24486(5.5, Medium) and CVE-2020-0589(3.8, Low) security issues.
- [Enhancements] Update BIOS ACM 1.7.43, SINIT ACM 1.7.4A PW for INTEL-SA-00463
 Security Advisory to address CVE-2020-12357(7.5, High), CVE-2020-8670(7.5, High), CVE 2020-8700(7.5, High), CVE-2020-12359(7.1, High), CVE-2020-12358(6.7, Medium), CVE 2020-12360(5.6, Medium), CVE-2020-24486(5.5, Medium) and CVE-2020-0589(3.8, Low) security issues.
- 3. [Enhancements] Updated Skylake-SP/Cascade Lake-SP CPU PV microcode for INTEL-SA-00464 Security Advisory to address CVE-2020-24511(5.6, Medium) and CVE-2020-24512(2.8, Low) security issues.
- 4. [Enhancements] Updated Intel Server Platform Services for Purley Refresh Server Platforms 4.1.4.505.
- 5. [Enhancements] Support IPMI UEFI PXE boot to all LAN port feature.
- 6. [Enhancements] Sync IPv6 status detection rule with BMC to make sure IPv6 status is the same in BIOS and BMC web.
- 7. [Enhancements] Update SATA/sSATA EFI driver to VROC PreOS v7.5.0.1152.
- 8. [Enhancements] This system cannot boot into PXE with DVD installed.
- 9. [Enhancements] Updated Intel Server Platform Services for Purley Refresh Server Platforms HF 4 PLR 4.1.4.450
- 10. [Enhancements] Support IPv6 HTTP Boot function.
- 11. [Enhancements] Correct typo in "PCIe PLL SSC" setup item help string.
- 12. [Enhancements] Update AEP FW to FW 1.2.0.5446, uEFI driver to 3515 for IPU2021.1.
- 13. [Enhancements] Remove intel lan memory 4G limit if boot mode is not legacy.
- 14. [Fixes] Fix "Configuration Address Source" always show "DHCP" in IPMI IPv6 page.
- 15. [Fixes] Fixed UEFI OS boot option name shows incorrectly in BIOS setup.

3.4 (3/11/2020)

- 1. Change BIOS version to 3.4
- 2. Updated Skylake-SP/Cascade Lake-SP CPU PV microcode from 20200918_NDA Release to address Intel-TA-00381: CVE-2020-8696 (2.5 Low) and MD_Clear Errata, MOB Speedpath and IRR Restore with RS Throttle (ITR #2).
- Update 5.14_PurleyCrb_OACLA052_BETA for RC update and 2020.2 IPU PV to addresses Intel-TA-00358: CVE-2020-0587 (6.7 Medium), CVE-2020-0591 (6.7 Medium), CVE-2020-0592 (3 Low),
 - Intel-TA-00390: CVE-2020-0593 (4.7 Medium), CVE-2020-8738 (7.5 High), CVE-2020-8739 (4.6 Medium), CVE-2020-8740 (6.7 Medium), CVE-2020-8764 (8.7 High); INTEL-TA-00391: CVE-2020-8752(9.4, Critical), CVE-2020-8753(8.2, Critical), CVE-2020-12297(8.2, Critical), CVE-2020-8745(7.3, Critical), CVE-2020-8705(7.1, Critical), CVE-2020-12303(7.0, Critical), CVE-2020-8757(6.3, Medium), CVE-2020-8756(6.3, Medium), CVE-2020-

8760(6.0, Medium), CVE-2020-8754(5.3, Medium), CVE-2020-8747(4.8, Medium), CVE-2020-12356(4.4, Medium), CVE-2020-8746(4.3, Medium), CVE-2020-8749(4.2, Medium). INTEL-SA-00358: CVE-2020-0590(7.7, High), CVE-2020-0587(6.7, Medium), CVE-2020-0591(6.7, Medium), CVE-2020-0593(4.7, Medium), CVE-2020-0588(3.8, Low), CVE-2020-0592(3.0, Low). INTEL-TA-00391: CVE-2020-8744(7.2, High), CVE-2020-8705(7.1, High), CVE-2020-8755(4.6, Medium). AMI SA50080 and AMI SA50081: CVE-2020-0570(7.6, High), CVE-2020-0571(5.5, Medium) and CVE-2020-8675(7.1, High). AMI SA-50085: CVE-2020-10713 (8.2, High), AMI SA-50084: CVE-2020-10255 (9, High)

- 4. Updated SPS 4.1.4.423 to address Intel-TA-00391: CVE-2020-8755 (4.6 Medium) CVE-2020-8705 (7.1 High)
- 5. Update BIOS ACM 1.7.41, SINIT ACM 1.7.49 PW to addresses Intel-TA-00358: CVE-2020-0588 (3.8 Low) and CVE-2020-0590. (7.7 High)
- Update SATA/sSATA RAID OPROM/EFI driver to VROC PreOS v6.3.0.1005 PV
- 7. Update AEP FW to FW 1.2.0.5444 to match IPU2020.2.
- 8. Enable token "IPMI_FORCE_BOOT_UEFI_SHELL" to support to shell by ipmi change boot order command.
- 9. Move all LANs to the top of boot priority when IPMI force PXE.
- 10. Add inband flash status event log to IPMI MEL.
- 11. [ALL] enhancement "Redfish Managers. Network Protocol" SSDP catalog
- 12. [ENGINEERING] Default disable SSDP
- 13. [ENGINEERING] enhancement block more invalid input for Configuration Web
- 14. [ENGINEERING] enhancement Visa Security Sensitive parameters improvme
- 15. AOC NIC Temp sensor reading shows n/a
- 16. Invalid NVMe Temp critical warning SELs when hot inserted NVMe
- 17. [ENGINEERING] enhance Sync SW team SELs severity and description

3.3 (21/2/2020)

- 1. Changed BIOS version to 3.3.
- Updated Skylake-SP/Cascade Lake-SP CPU microcode for Intel-SA-00329 (CVE2020-0548 2.8 Low, CVE2020-0549 6.5 Medium), Intel-SA-00288 (CVE2019-11157 5.3 Medium), Intel-SA-00317 (CVE2019-14607 7.9 High)
- 3. Updated AMI label 5.14 PurleyCrb 0ACLA050 beta for IPU2020.1 PV.
- 4. Updated SPS E5 04.01.04.381 from IPU 2020.1 PV
- 5. Updated BIOS ACM 1.7.40, SINIT ACM 1.7.48 PW
- 6. Patched system hang at 94 with NVIDIA new RTX 6000/8000
- 7. Saved memory ce location into PPR variable at runtime even if memory correctable error reporting is disabled.
- 8. Added setup item "HDD password prompt Control" to control "Hard-Drive Password Check" enable/disable HDD password prompt window during POST.
- 9. Added SMC HDD Security feature.
- 10. Added RedFish functions Support
- 11. Fixed system keep reset under ATTO Fiber network card legacy OPROM user menu issue.
- 12. Fixed Secure Boot Mode value mismatch.
- 13. Fixed there is no need to use Admin password for erasing TCG device.
- **14.** [Fixes] Fix two CentOS boot items in boot order if CentOS installed in RAID 1 system.

3.2 (12/2/2019)

- **1.** Changed BIOS version to 3.2.
- **2.** Updated AMI label 5.14_PurleyCrb_0ACLA049_BETA for BKC WW36 IPU 2019.2 and AMI security update SA50072.
- **3.** Updated SINIT/BIOS ACM from BKC WW36 IPU 2019.2 address CVE-2019-0151 and CVE-2019-0152.
- **4.** Updated SPS_E5_04.01.04.339.0 from BKC WW36 IPU 2019.2 adress PSIRT-TA-201905-011.
- **5.** Updated Cascade Lake-SP CPU microcode and Skylake-SP microcode.
- **6.** Updated Cascade Lake-SP A0 stepping CPU microcode.
- 7. Updated SATA/sSATA RAID OPROM/EFI driver to VROC PreOS v6.2.0.1034 PC.
- **8.** Exposed Setup item "ARI Support".
- 9. Updated 16Gb based Single Die Package DIMM tRFC optimization to control by setup.
- 10. Updated Secure Boot Key for fixing the error message of PK key.
- 11. Added back erase NVDIMM routine.
- **12.** Updated VBIOS and Vga EFI Driver to 1.10.
- **13.** Enhanced F12 hot key PXE boot feature.
- **14.** Updated the behavior for the feature that update SMBIOS Type 1 and 3 with Fru0.
- **15.** Added Redfish/SUM Secure Boot feature, update OOB for secure boot and reserve Key.
- **16.** Disabled ADDDC/SDDC and set PPR as hPPR by Intel's suggestion for memory error.
- **17.** Added sighting CLX28 workaround, downgrade patrol scrub UC to CE.

3.1 (5/21/2019)

- Updated Skylake-SP/Cascade Lake-SP CPU microcode.
- 2. Updated Intel BKCWW16 2019 PV PLR1.
- 3. Updated SPS E5 04.01.04.296.0 from BKC WW16 2019.
- 4. Updated EIP467272 for AMI SA50069, SA50070.
- 5. Set SDDC Plus One or SDDC as Disabled by default.
- Updated SATA/sSATA RAID OPROM/EFI driver to VROC PreOS v6.1.0.1017.
- 7. Set Leakey bucket to decrease one memory correctable error count within 2.15 minutes and threshold 512.
- 8. Set ADDDC Sparing to enable by default.
- 9. Fixed problem of system halting or rebooting at POST code 0xB2 or 0x92 when total GPT partition number is more than 256 and RSD is enabled.

3.0b (3/4/2019)

- 1. Added support for Purley Refresh platform.
- 2. Updated SPS to 4.1.04.256 (4.1.02.174 or above) for INTEL-SA-00185 Security Advisory RC to 576.D20 (549.D13 or above) for INTEL-SA-00192 Security Advisory.
- 3. Updated CPU microcode for Skylake-SP H0/M0/U0 stepping CPUs.
- 4. Added support for Monitor Mwait feature.
- Set BMC MAC Address to UUID for system without onboard LAN1 or with onboard LAN1 disabled.

- 6. Updated SATA RAID OPROM/EFI driver to RSTe PreOS v6.0.0.1024.
- 7. Set PCIe correctable and uncorrectable (non-fatal) error report to disabled by default.
- 8. Added support for RFC4122 UUID format feature to set RFC4122 encoding from build time produced by IPMICFG 1.29 tool or newer.
- 9. Updated CPU microcode SRV P 262 for Skylake-SP H0/M0/U0 CPUs.
- 10. Disabled unused SPS ME "CUPS IIO" and "Volumetric Airflow" sensor.
- 11. Added 2933 to memory POR.
- 12. Added support for Linux built-in utility efibootmgr.
- 13. Updated valid range of IPMI setup item VLAN ID to 1-4094.
- 14. Added driver health warning message.
- 15. Set NVDIMM ADR timeout to 600us...
- 16. Fixed malfunction of CPU PBF (Prioritized Base Frequency).
- 17. Fixed problem of setup item "Quiet Boot" staying enabled after flashing BIOS with "Quiet Boot" disabled.
- 18. Fixed incorrect PBF high frequency core number when Hyper-Threading is disabled.
- 19. Added workaround for failure of BIOS flash with 156 bytes PubKey (Error: "Secure Flash Rom Verify Fail").
- 20. Modified UEFI network description to IPv4/IPv6 to follow Industry Standard.
- 21. Patched problem of system hanging at 0x94 when plugging in Nvidia Tesla T4 card.

2.1 (6/15/2018)

- 1. Updated CPU microcode to address 'Spectre' derivatives (CVE-2018-3639 & CVE-2018-3640) security issue.
- 2. Changed BIOS version to 2.1.
- 3. Updated Purley RC 154.R13, SPS 4.0.04.340 and ACM 1.3.7, SINIT ACM 1.3.4.
- 4. Updated SATA RAID OPROM/EFI driver to RSTe PreOS v5.4.0.1039.
- 5. Added BIOS/ME downgrade check for SPS 4.0.4.340.
- 6. Added support for UEFI mode PXE boot of F12 hot key Net boot.
- 7. Added one event log to record that the event log is full.
- 8. Displayed PPR setup item.
- 9. Added support for SATA FLR.
- 10. Fixed problem of SUM GetSataInfo showing incorrect "Configuration Type" when setting "Configure sSATA as" to "AHCI" or "RAID" on sSATA controller.
- 11. Fixed problem of Ctrl + Alt + Del causing system to hang after flashing BIOS.
- 12. Fixed problem of system hanging when installing Linux OS after COM1 & COM2 IO/IRQ exchange.
- 13. Rolled back SVN_3413 to fix failure of WDT function.

2.0b (3/6/2018)

- 1. Updated CPU microcode SRV_B_216 for Skylake-SP H0/M0/U0 stepping CPUs to address 'Spectre' variant 2 (CVE 2017-5715) security issue.
- 2. Changed BIOS version to 2.0b.
- 3. Updated 5.12 PurleyCrb 0ACFD085Beta for Purley Skylake platform PLR 4, BKC WW02.
- 4. Displayed setup item "ACS Control" to Enable/Disable PCIe Access Control Services Extended Capability, with Enabled as default.
- 5. Updated BIOS ACM 1.3.5 and SINIT ACM 1.3.3.

- 6. Disabled CPU2 IIO PCIe root port ACPI hot plug function.
- 7. Fixed IPMI force boot issue.
- 8. Fixed malfunction of "SMBIOS Preservation" Disabled.
- 9. Fixed problem of SMC skipping first boot option in UEFI mode when retrying boot.
- 10. Fixed inability to reset the system under DOS by pressing "Ctrl-Alt-Del" on USB keyboard when "Port 60/64 Emulation" is disabled.
- 11. Fixed inability of some CPUs to display correct microcode revision under BIOS setup menu.
- 12. Hid unused items "Onboard NVME1\2 Option ROM" in BIOS setup menu.
- **13.** Fixed inability of IPMI Web to report correct information for customer PSU "GW-ERP1U450-2H".

2.0 (11/29/2017)

- 1. Changed BIOS revision to 2.0.
- 2. Updated SATA RAID OPROM/EFI driver to RSTe PreOS v5.3.0.1052.
- 3. Updated BIOS ACM 1.3.4.
- 4. Updated SPS to 4.0.4.294.
- 5. Updated CPU microcode SRV_P_214 for Skylake-EP H0/M0/U0 stepping CPUs.
- 6. Updated 5.12 PurleyCrb OACFD084 BETA for Purley Skylake platform PLR 3.1
- 7. Fixed problem of SNC being disabled once NVDIMM is present in system.
- 8. Fixed problem of DMI being cleared when SUM LoadDefaultBiosCfg is run.