BIOS Release Notes Form

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	X11DPU
Product Name	XIIDPO
Release Version	3.8b
Release Date	03/17/2023
Build Date	01/06/2023
Previous Version	3.8a
Update Category	Critical
Dependencies	None
Important Notes	None
Enhancements	1.[Enhancements] Change BIOS revision to 3.8b. 2.[Enhancements] Update AMI label 5.14_PurleyCrb_0ACLA058 for RC0626.P01 IPU 2023.1 (1). For INTEL-SA-00717 Security Advisory to address CVE-2022-32231 (7.5, High) / CVE-2022-26343 (8.2, High) security issues. 3.[Enhancements] Update token RC_VERSION_VALUE setting to 626.P01. 4.[Enhancements] Updated Cascade Lake-SP CPU PV microcode for IPU 2023.1.
New features	None
Fixes	

3.8a (10/28/2022)

- 1.[Enhancements] Update AMI label 5.14_PurleyCrb_0ACLA057 for RC0623.D09 2022.3 IPU. (1) For INTEL-TA-00610 Security Advisory to address CVE-2022-26845 (8.7 High), CVE-2022-27497(8.6 High), CVE-2022-29893 (8.1 High), CVE-2021-33159 (7.4 High), CVE-2022-29466(7.3 High), CVE-2022-29515(6.0 Medium) (2) For INTEL-TA-00688 Security Advisory to address CVE-2022-26006 (8.2 High), CVE-2022-21198(7.9 High)
- 2.[Enhancements] Update token RC_VERSION_VALUE setting to 623.D09.
- 3.[Enhancements] Update Intel DCPM UEFI driver to 1.0.0.3536.
- 4.[Fixes] Fix OA2 key injection issue.

3.8(08/19/2022)

- 1.[Enhancements] Update AMI label 5.14_PurleyCrb_0ACLA056 for RC0622.D07 2022.2 IPU.
- 2.[Enhancements] Updated Skylake-SP/Cascade Lake-SP CPU PC microcode for IPU 2022.1.
- 3.[Enhancements] Update token RC_VERSION_VALUE setting to 622.D07. Update token PRICESSO_0_UCODE_VERSION
- setting to 02006E05. Update token FW SPS VERSION setting to 4.1.4.804.
- 4.[Enhancements] Fix show wrong DIMM location in event log page.
- 5.[Enhancements] Modify String naming from SMCI to Supermicro.
- 6.[Enhancements] Remove "Vendor Keys" in security page.
- 7.[Enhancements] Modify the allocated buffer from EfiBootServicesData to EfiRuntimeServicesData.
- 8.[Enhancements] Disable MROM1 device since product doesn't use Intel IE function.
- 9.[Enhancements] Update DBX file to fix Secure Boot Bypass issue.
- 10.[Enhancements] Update VROC SATA/sSATA EFI driver to VROC PreOS v7.8.0.1012 to address 1. Data Loss Exposure Due
- to RAID 5 TRIM Support. Document #737276. 2. INTEL-TA-00692. CVE-2022-29919(7.8 High), CVE-2022-30338(6.7 Medium),
- CVE-2022-29508(6.3 Medium), CVE-2022-25976(5.5 Medium)

3.7(06/15/2022)

- 1 [Enhancements] Change BIOS revision to 3.7.
- 2 [Enhancements] Update VROC SATA/sSATA legacy driver to VROC PreOS v6.3.5.1003 Hot Fix to fix 10TB or higher volume
- drive issue.
- 3 [Enhancements] Update AEP uEFI driver to 01.00.00.3534 for IPU2022.2.
- 4 [Enhancements] Update AMI label 5.14_PurleyCrb_OACLA055 for RC0618.D03 2022.1 IPU. (1). For INTEL-SA-00601 Security
- Advisory to address CVE-2021-0154(8.2, High), CVE-2021-0153(8.2, High), CVE-2021-33123(8.2, High), CVE-2021-0190(8.2,
- High), CVE-2021-33122(7.9, High), CVE-2021-33060(7.8, High), CVE-2021-0189(7.5, High), CVE-2021-33124(7.5, High), CVE-
- 2021-33103(7.5, High), CVE-2021-0159(7.4, High), CVE-2021-0188(5.3, Medium) and CVE-2021-0155(4.4, Medium) security
- issues. (2). For INTEL-SA-00615 Security Advisory to address CVE-2022-21123(6.1, Medium), CVE-2022-21127(5.6, Medium),
- CVE-2022-21125(5.5, Medium) and CVE-2022-21166(5.5, Medium) security issues. (3). For INTEL-SA-00616 Security Advisory
- to address CVE-2021-21131(3.3, Low) and CVE-2021-21136(2.7, Low) security issues.
- 5 [Enhancements] Updated Skylake-SP/Cascade Lake-SP CPU PC microcode for IPU 2022.1. (1). For INTEL-SA-00601 Security
- Advisory to address CVE-2021-0154(8.2, High), CVE-2021-0153(8.2, High), CVE-2021-33123(8.2, High), CVE-2021-0190(8.2,

High), CVE-2021-33122(7.9, High), CVE-2021-33060(7.8, High), CVE-2021-0189(7.5, High), CVE-2021-33124(7.5, High), CVE-

2021-33103(7.5, High), CVE-2021-0159(7.4, High), CVE-2021-0188(5.3, Medium) and CVE-2021-0155(4.4, Medium) security

issues. (2). For INTEL-SA-00615 Security Advisory to address CVE-2022-21123(6.1, Medium), CVE-2022-21127(5.6, Medium),

CVE-2022-21125(5.5, Medium) and CVE-2022-21166(5.5, Medium) security issues. (3). For INTEL-SA-00616 Security Advisory

to address CVE-2021-21131(3.3, Low) and CVE-2021-21136(2.7, Low) security issues.

6 [Enhancements] Update BIOS ACM 1.7.54, SINIT ACM 1.7.55 PW for IPU2022.1 to address

7 [Enhancements] Updated Intel Server Platform Services for Purley Refresh Server Platforms IPU2022.1 4.1.4.700

3.6(01/10/2022)

- 1.[Enhancements] Change BIOS revision to 3.6.
- 2.[Enhancements] Update SATA/sSATA EFI driver to VROC PreOS v7.7.0.1054.
- 3.[Enhancements] Update AEP uEFI driver to 1.0.0.3531 for IPU2021.2.
- 4.[Enhancements] Update AMI label 5.14_PurleyCrb_0ACLA054 for RC0616.D08 2021.2 IPU. For INTEL-SA-00527 Security Advisory to address CVE-2021-0103(8.2, High), CVE-2021-0114(7.9, High), CVE-2021-0115(7.9, High), CVE-2021-0116(7.9, High), CVE-2021-0117(7.9, High), CVE-2021-0118(7.9, High), CVE-2021-0099(7.8, High), CVE-2021-0156(7.5, High), CVE-2021-0111(7.2, High), CVE-2021-0107(7.2, High), CVE-2021-0125(6.7, Medium), CVE-2021-0124(6.3, Medium), CVE-2021-0119(5.8, Medium), CVE-2021-0092(4.7, Medium), CVE-2021-0091(3.2, Low) and CVE-2021-0093(2.4, Low) security issues.
- 5.[Enhancements] Updated Intel Server Platform Services for Purley Refresh Server Platforms IPU2021.2 HF1 4.1.4.654.

6.[Enhancements] Update BIOS ACM 1.7.51, SINIT ACM 1.7.51 PW. For INTEL-SA-00527 Security Advisory to address CVE-2021-0103(8.2, High), CVE-2021-0114(7.9, High), CVE-2021-0115(7.9, High), CVE-2021-0116(7.9, High), CVE-2021-0117(7.9, High), CVE-2021-0118(7.9, High), CVE-2021-0099(7.8, High), CVE-2021-0156(7.5, High), CVE-2021-0111(7.2, High), CVE-2021-0107(7.2, High), CVE-2021-0125(6.7, Medium), CVE-2021-0124(6.3, Medium), CVE-2021-0119(5.8, Medium), CVE-2021-0092(4.7, Medium), CVE-2021-0091(3.2, Low) and CVE-2021-0093(2.4, Low) security issues.

7.[Enhancements] Updated Skylake-SP/Cascade Lake-SP CPU PV microcode. Updated Skylake-SP H0/M0/U0 stepping CPU PV microcode MB750654_02006C0A. Update Cascade Lake-SP B0 stepping CPU PV microcode MBF50656_0400320A. Update Cascade Lake-SP B1 stepping CPU PV microcode MBF50657_0500320A. For INTEL-SA-00532 Security Advisory to address CVE-2021-0127(5.6, Medium) security issue. For INTEL-SA-00365 Security Advisory to address CVE-2020-8673(4.7, Medium) security issue.

3.5a(08/21/2021)

- 1.[Enhancements] Update SATA/sSATA EFI driver to VROC PreOS v7.6.0.1012.
- 1.[Fixes] Fix "Configuration Address Source" show "DHCP" in the setup menu.
- 2.[Fixes] Fix IPMI page disappear when AOC-URN2-i4GXS is on the bord.
- 3.[Fixes] Fixed system keep rebooting when install 3 AOC-STG-i4S on MB issue.

3.5(05/31/2021)

1.[Enhancements] 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.

- 2.[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] Update AEP FW to FW 1.2.0.5446, uEFI driver to 3515 for IPU2021.1.
- 6.[Enhancements] Sync IPv6 status detection rule with BMC to make sure IPv6 status is the same in BIOS and BMC web.

3.4a(03/19/2021)

- 1. Enabled system to boot into PXE with DVD installed.
- 2. Fixed problem of onboard NVMe1 and NVMe2 items disappearing when AOC-URN2-i4GXS is in the system.

3.4(10/30/2020)

- 1. Updated AMI label 5.14_PurleyCrb_0ACLA052_BETA for RC update and IPU 2020.2 PV to address Intel-TA-00358: CVE-2020-0587 (6.7, Medium), CVE-2020-0591 (6.7, Medium), and 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), and 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), and 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), and CVE-2020-0592 (3.0, Low); Intel-TA-00391: CVE-2020-8744 (7.2, High), CVE-2020-8705 (7.1, High), and 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); and AMI SA-50084: CVE-2020-10255 (9, High) security issues.
- 2. Added force next boot to UEFI Shell via IPMI support.
- 3. Added function to move all LANs to the top of boot priority when IPMI forces PXE.
- 4. Fixed problem of EFI version of PassMark MemTest86 hanging when SMCI Redfish Host Interface is not supported in IPMI firmware.

3.3a(07/21/2020)

- 1. Deleted repeated boot options which have the same description as the new description.
- 2. Added inband flash status event log to IPMI MEL.
- 3. Corrected "Station MAC Address" display order when "Configuration Address Source" is set to "Static".
- 4. Updated Skylake-SP microcode 6906 and Cascade Lake-SP microcode 2F01 for IPU2020.1.
- 5. Updated SATA/sSATA RAID OPROM/EFI driver to VROC PreOS v6.3.0.1005 PV.
- 6. Fixed inability of 6240R and some refresh 4 serial CPU frequencies to reach the maximum when enabling MWAIT.
- 7. Fixed failure of Secure Erase Password and problem of BIOS returning "EFI_Device_Error" with SED: Seagate ST1000NX0353.
- 8. Corrected firmware revision in BIOS Setup.

9. Fixed problem of system hanging at 0xB2 with some NVMe devices.

3.3(02/21/2020)

- 1. Patched problem of system hanging at 94 with new NVidia RTX 6000/8000.
- 2. Enabled saving memory CE location into PPR variable at runtime even if memory correctable error reporting is disabled.
- 3. Added sighting CLX28 workaround and downgraded patrol scrub UC to CE.
- 4. Added SMC HDD Security feature.
- 5. Updated AMI label 5.14 PurleyCrb OACLA050 beta for IPU2020.1 PV.
- 6. Updated SPS_E5_04.01.04.381 from IPU 2020.1 PV.
- 7. Updated BIOS ACM 1.7.40 and SINIT ACM 1.7.48 PW.
- 8. Added setup item "HDD word prompt Control" to control "Hard-Drive word Check" for enabling/disabling HDD word prompt window during POST.
- 9. Updated Skylake-SP/Cascade Lake-SP CPU microcode for Intel-SA-00329 (CVE2020-0548 2.8 Low and CVE2020-0549 6.5 Medium), Intel-SA-00288 (CVE2019-11157 5.3 Medium), and Intel-SA-00317 (CVE2019-14607 7.9 High).
- 10. Fixed mismatch of Secure Boot Mode value.
- 11. Removed requirement to use Admin password for erasing TCG device.
- 12. Fixed problem of two CentOS boot items occurring in boot order if CentOS is installed in RAID 1 system.

3.2 (10/16/2019)

- 1. Updated AMI label 5.14_PurleyCrb_OACLA049_BETA for BKC WW36 IPU 2019.2 and AMI security update SA50072.
- 2. Updated SINIT/BIOS ACM from BKC WW36 IPU 2019.2 to address CVE-2019-0151 and CVE-2019-0152.
- 3. Updated SPS_E5_04.01.04.339.0 from BKC WW36 IPU 2019.2 to address PSIRT-TA-201905-011.
- 4. Updated Cascade Lake-SP CPU microcode and Skylake-SP microcode.
- Displayed Setup item "ARI Support".
- 6. Added setup item to control 16Gb based Single Die Package DIMM tRFC optimization.
- 7. Disabled ADDDC/SDDC and set PPR as hPPR.
- 8. Added Enhanced PPR function and set disabled as default.
- 9. Removed PXE option for "OnBoard LanX Option ROM" when "Boot mode select" is UEFI.
- 10. Corrected display of the IPMI AUX revision.

3.1a (07/19/2019)

- 1. Updated Skylake-SP/Cascade Lake-SP CPU microcode.
- 2. Updated SPS_E5_04.01.04.323 from BKC WW26 2019.
- 3. Updated Intel BKCWW26 2019 PV PLR2.
- 4. Enhanced F12 hot key PXE boot feature.
- 5. Updated Secure Boot Key to fix the error message of PK key.
- 6. Updated the behavior for the feature that updates SMBIOS Type 1 and 3 with FRUO.
- 7. Patched inability of system to boot via onboard LAN2 after IPMI forces PXE boot when there is an OS behind LSI-3108 RAID card.
- 8. Added back erase NVDIMM routine.
- 9. Removed Intel Virtualization Technology override when set to extreme performance.
- 10. Fixed problem of two OS (Redhat & Ubuntu) boot devices appearing in boot order.
- 11. Fixed failure of OPROM control item if CSM is disabled.

3.1 (04/29/2019)

- 1. 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 to disabled by default.
- 6. Updated SATA/sSATA RAID OPROM/EFI driver to VROC PreOS v6.1.0.1017.
- 7. Set Leaky Bucket that can decrease one memory correctable error count within 2.15 minutes with threshold 512.
- 8. 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.
- 9. Fixed inability to change IPv6 address or IPv6 Router1 IP address.

3.0c (03/27/2019)

- 1. Added support for Purley Refresh platform.
- 2. Enhanced BIOS setup menu to auto-switch the Option ROM's value and hide the unexpected value when boot mode changes.
- 3. Updated to SPS 4.0.04.381 or above for INTEL-SA-00213 Security Advisory.
- 4. Fixed problem of UUID showing IPMI MAC incorrectly after disabling onboard LAN chip.
- 5. Temporarily fixed error for SKX (CLX) 4114 CPU memory training with Micron (18ASF2G72PDZ-2G6E1) RDIMM.
- 6. Fixed failure to boot into VMware OS when set to Maximum Performance even if Monitor/MWAIT is enabled.

3.0b (03/04/2019)

- 1. Added support for Purley Refresh platform.
- 2. Added support for Linux built-in utility efibootmar.
- 3. Updated valid range of IPMI setup item VLAN ID to 1-4094.
- 4. Set NVDIMM ADR timeout to 600us.
- 5. Added driver health warning message.
- 6. Updated to SPS 4.1.02.174 or above for INTEL-SA-00185 Security Advisory and RC 549.D13 or above for INTEL-SA-00192 Security Advisory.
- 7. Modified UEFI network description to IPv4/IPv6 to follow Industry Standard.
- 8. Patched problem of system hanging at 0x94 when plugging in Nvidia Tesla T4 card.

3.0a (12/21/2018)

- 1. Added support for Purley Refresh platform.
- 2. Updated SATA RAID OPROM/EFI driver to RSTe PreOS v6.0.0.1024.
- 3. Set BMC MAC address to UUID for system without onboard LAN1 or with onboard LAN1 disabled.
- 4. Set PCIe correctable and uncorrectable (non-fatal) error report to disabled by default.
- 5. Set RFC4122 encoding to only be enabled for build time produced by IPMI 1.29 or newer.
- 6. Updated CPU microcode SRV_P_262 for Skylake-SP H0/M0/U0 CPUs.
- 7. Disabled unused SPS ME "CUPS IIO" and "Volumetric Airflow" sensor.
- 8. Added 2933 to memory POR.
- 9. Added support for SATA FLR.
- 10. Added support for Monitor Mwait feature.
- 11. Disabled "tRWSR Relaxation" by default.
- 12. Fixed problem of setup item "Quiet Boot" staying enabled after flashing BIOS with "Quiet Boot" disabled.
- 13. Added workaround for GPU P2P low bandwidth.
- 14. Fixed malfunction of disabling Watch Dog while flashing BIOS under OS.

- 15. Corrected standard NVDIMM ADR time.
- 16. Fixed failure of CPU PBF (Prioritized Base Frequency).

2.1b (10/16/2018)

- 1. Added SATA FLR support.
- 2. Added support for Monitor Mwait feature.
- 3. Updated SPS 4.0.4.393.
- 4. Updated CPU microcode SRV $_P253$ for Skylake-SP H0/M0/U0 stepping CPUs.
- 5. Updated SATA RAID OPROM/EFI driver to RSTe PreOS v5.5.0.1028.
- 6. Updated BIOS ACM 1.3.9 and SINIT ACM 1.3.6.
- 7. Changed Onboard LAN SMBIOS table from type 9 to type 41.
- 8. Fixed problem of BIOS always retrying boot when Re-Try Boot is Disabled.
- 9. Fixed malfunction of LEGACY to EFI support.