

# BIOS Release Notes Form

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<b>Product Name</b>	<b>X11SPi-TF</b>
<b>Release Version</b>	<b>3.9</b>
<b>Release Date</b>	<b>3/15/2023</b>
<b>Build Date</b>	<b>3/15/2023</b>
<b>Previous Version</b>	<b>3.8a</b>
<b>Update Category</b>	<b>Recommended</b>
<b>Dependencies</b>	<b>None</b>
<b>Important Notes</b>	<b>None</b>
<b>Enhancements</b>	<ol style="list-style-type: none"><li>1. Changed BIOS revision to 3.9.</li><li>2. Updated AMI label 5.14_PurleyCrb_0ACLA059 for RC0627.P11 IPU 2023.2 (1). For INTEL-SA-00807 Security Advisory to address CVE-2022-38087(4.1, Medium) and CVE-2022-33894(7.5, High) security issues.</li><li>3. Updated token RC_VERSION_VALUE setting to 627.P11.</li><li>4. Updated Cascade Lake-SP CPU PV microcode for IPU 2023.2.</li></ol>
<b>New features</b>	<b>N/A</b>
<b>Fixes</b>	<b>None</b>

## **Release Notes from Previous Release(s)**

### **3.8a (10/28/2022)**

1. Updated AMI label 5.14\_PurleyCrb\_0ACLA057 for RC0623.D09 2022.3 IPU.
2. Updated token RC\_VERSION\_VALUE setting to 623.D09.
3. Updated Intel DCPM UEFI driver to 1.0.0.3536.
4. Updated Skylake-SP/Cascade Lake-SP CPU PC microcode for IPU 2022.2.
5. Event log page displayed the incorrect DIMM location.
6. String name was changed from SMCI to Supermicro.
7. "Vendor Keys" has been removed from the security page.
8. a.) Improved SMM buffer validation in SmmSmbiosELogInitFuncs.c.  
b.) In DxeSmmRedirFuncs.c, a runtime buffer was allocated to trigger ELog SMI.
9. Updated BIOS ACM 1.7.54, SINIT ACM 1.7.55 PW for IPU2022.1 to address Intel-TA-00161: CVE-2021-0159 (7.8 High) CVE-2021-33123 (8.2 High) and CVE-2021-33124 (7.5 High).
10. Updated VROC SATA/sATA legacy driver to VROC PreOS v6.3.5.1003 Hot Fix to fix 10TB or higher volume drive issue.
11. Updated VROC SATA/sATA 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)
12. Allocated buffer was changed from EfiBootServicesData to EfiRuntimeServicesData.
13. Since the product does not use the Intel IE function, the MROM1 device has been disabled.
14. Updated DBX file to fix Secure Boot Bypass issue.
15. Fixed OA2 key injection issue.
16. IScsi SUPPORT has been enabled on the Purley generation.

### **3.6 (1/3/2022)**

1. Changed BIOS revision to 3.6.
2. Updated SATA/sATA EFI driver to VROC PreOS v7.7.0.1054.
3. Updated AEP uEFI driver to 1.0.0.3531 for IPU2021.2.
4. Updated AMI label 5.14\_PurleyCrb\_0ACLA054 for RC0616.D08 2021.2 IPU for INTEL-SA-00527 Security Advisory to address CVE-021-0103 (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-2021-119 (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. Updated Intel Server Platform Services for Purley Refresh Server Platforms IPU2021.2 HF1 4.1.4.654.
6. Updated 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. Updated Skylake-SP/Cascade Lake-SP CPU PV microcode for INTEL-SA-00532 Security Advisory to address CVE-2021-0127 (5.6, Medium) security issue and for INTEL-SA-00365 Security Advisory to address CVE-2020-8673 (4.7, Medium) security issue.

### **3.5 (5/18/2021)**

1. Updated RC 612.D02 and IPU 2021.1 PV 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. Updated BIOS ACM 1.7.43 and 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. 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. Updated Intel Server Platform Services for Purley Refresh Server Platforms 4.1.4.505.
5. Added support for IPMI UEFI PXE boot to all LAN ports feature.
6. Updated SATA/ssATA EFI driver to VROC PreOS v7.5.0.1152.
7. Enabled system to boot into PXE with DVD installed.
8. Added support for IPv6 HTTP Boot function.
9. Corrected typo in "PCIe PLL SSC" setup item help string.
10. Removed 4G limit of Intel LAN memory if boot mode is not legacy.
11. Updated AEP firmware to FW\_1.2.0.5446 and UEFI driver to 3515 for IPU2021.1.
12. Synced IPv6 status detection rule with BMC to make sure IPv6 status is the same in BIOS and BMC web.
13. Fixed problem of "Configuration Address Source" always showing "DHCP" on IPMI IPv6 page.
14. Corrected display of UEFI OS boot option name in BIOS setup.

### **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. Deleted repeated boot options which have the same description as the new description.
5. Added inband flash status event log to IPMI MEL.

6. Corrected "Station MAC Address" display order when "Configuration Address Source" is set to "Static".
7. Updated SATA/sSATA RAID OPROM/EFI driver to VROC PreOS v6.3.0.1005 PV.
8. Fixed problem of EFI version of PassMark MemTest86 hanging when SMCI Redfish Host Interface is not supported in IPMI firmware.
9. Fixed inability of 6240R and some refresh 4 serial CPU frequencies to reach maximum when enabling Mwait.
10. Fixed failure of Secure Erase - Password and problem of BIOS returning "EFI\_Device\_Error" with SED: Seagate ST1000NX0353.
11. Corrected BMC firmware revision in BIOS Setup.
12. Fixed problem of system hanging at 0xB2 with some NVMe devices.

### **3.3 (2/21/2020)**

1. Updated AMI label 5.14\_PurleyCrb\_OACLA050 beta for IPU2020.1 PV.
2. Updated SPS\_E5\_04.01.04.381 from IPU 2020.1 PV.
3. Updated BIOS ACM 1.7.40 and SINIT ACM 1.7.48 PW.
4. Patched problem of system hanging at 94 with new NVidia RTX 6000/8000.
5. Enabled saving memory CE location into PPR variable at runtime even if memory correctable error reporting is disabled.
6. Added sighting CLX28 workaround and downgraded patrol scrub UC to CE.
7. Added setup item "HDD password prompt Control" to control "Hard-Drive Password Check" for enabling/disabling HDD password prompt window during POST.
8. 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).
9. Added SMC HDD Security feature.
10. Added support for SMCI USB Remote Network Driver Interface and SMCI USB Universal Network Device Interface, and for Redfish module to get Processor, Memory, and PCIe information.
11. Fixed issue of system resetting under ATTO Fiber network card user menu during BIOS POST.
12. Fixed mismatch of Secure Boot Mode value.
13. Removed requirement to use Admin password for erasing TCG device.
14. Fixed problem of two CentOS boot items occurring in boot order if CentOS is installed in RAID 1 system.

### **3.2 (10/17/2019)**

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.
5. Displayed Setup item "ARI Support".
6. Added setup item to control 16Gb based Single Die Package DIMM tRFC optimization.
7. Updated Secure Boot Key to fix the error message of PK key.
8. Patched inability of system to boot via onboard LAN2 after IPMI forces PXE boot when there is an OS behind LSI-3108 RAID card.
9. Added back erase NVDIMM routine.
10. Updated VBIOS and VGA EFI Driver to 1.10.

11. Enhanced F12 hot key PXE boot feature.
12. Updated the behavior for the feature that updates SMBIOS Type 1 and 3 with FRUO.
13. Disabled ADDDC/SDDC and set PPR as hPPR.
14. Added Enhanced PPR function and set disabled as default.
15. Removed PXE option for "OnBoard LanX Option ROM" when "Boot mode select" is UEFI.
16. Corrected display of the IPMI AUX revision.
17. Changed OOB download and Upload Bios Configuration sequence.
18. Fixed problem of two OS (Redhat & Ubuntu) boot devices appearing in boot order.
19. Fixed failure of OPROM control item if CSM is disabled.

### **3.0b (3/4/2019)**

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. Added support for RFC4122 UUID format feature to set RFC4122 encoding from build time produced by IPMICFG 1.29 tool or newer.
6. Updated CPU microcodes from SRV\_P\_270.
7. Disabled unused SPS ME "CUPS IIO" and "Volumetric Airflow" sensor.
8. Added 2933 to memory POR.
9. Implemented SMBIOS type 161 for multi-chip ultra riser card.
10. Added support for Linux built-in utility efibootmgr.
11. Updated valid range of IPMI setup item VLAN ID to 1-4094.
12. Added driver health warning message.
13. Set NVDIMM ADR timeout to 600us.
14. 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.
15. Fixed problem of setup item "Quiet Boot" staying enabled after flashing BIOS with "Quiet Boot" disabled.
16. Fixed incorrect PBF high frequency core number when Hyper-Threading is disabled.
17. Added workaround for failure of BIOS flash with 156 bytes PubKey (Error: "Secure Flash Rom Verify Fail").
18. Modified UEFI network description to IPv4/IPv6 to follow Industry Standard.
19. Patched problem of system hanging at 0x94 when plugging in Nvidia Tesla T4 card.

### **2.1 (6/14/2018)**

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

11. Fixed failure of WDT function.

**2.0b (2/26/2018)**

1. Updated CPU microcode to address 'Spectre' variant 2 (CVE 2017-5715) security issue.
2. Added setup item "SmcBusMasterEn" for enabling Parent bridge of the devices in the gSmcPciForceEnableBusMasterList.
3. Updated Purley RC 151.R03.
4. Displayed setup item "ACS Control" to Enable/Disable PCIe Access Control Services Extended Capability, with Enabled as default.
5. Changed RC default setting to upgrade POST Memory correctable error to uncorrectable error and map out the channel.
6. Fixed problem of DMI being cleared when running SUM LoadDefaultBiosCfg.
7. Disabled CPU2 IIO PCIe root port ACPI hot plug function.
8. Fixed issue with IPMI force boot.
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.