IPMI Firmware / BIOS Release Notes Form

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Product Name	X11DPG-QT
Release Version	3.2 for X11DPG9.A18_32MB and X11DPG9.A18
Release Date	10/18/2019
Previous Version	3.1
Update Category	Critical
Dependencies	None
Important Notes	None
Enhancements	1. Updated Skylake-SP CPU microcode for INTEL-SA-00271 Security
	Advisory to address CVE-2019-11139 (5.8, Medium) security issue.
	2. Updated Cascade Lake-SP CPU microcode for INTEL-SA-00270
	Security Advisory to address CVE-2019-11135 (6.5, Medium) security
	issue.
	3. Updated AMI label 5.14_PurleyCrb_0ACLA049 for BKC WW36 and
	INTEL-SA-00280 to address CVE-2019-11136 (7.5, High) and CVE-2019-
	11137 (7.5, High) security issues.
	4. Updated BIOS ACM 1.7.3 and SINIT ACM 1.7.45 PW from BKC
	WW36 for INTEL-SA-00240 Security Advisory to address CVE-2019-
	0151 (7.5, High) and CVE-2019-0152 (8.2, High) security issues.
	5. Updated SPS_E5_04.01.04.339.0 from BKC WW36 for INTEL-SA-
	00241 Security Advisory to address CVE security issues.

	6. Updated SATA/sSATA RAID OPROM/EFI driver to VROC PreOS
	v6.2.0.1034 PV.
	7. Updated the behavior for the feature that updates SMBIOS Type 1
	and 3 with FRU0.
	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. Displayed CPU Flex Ratio-related setup items when the CPU on
	system supports IntelR Speed Select technology "Performance
	Profile" feature.
	10. Added Redfish/SUM Secure Boot feature and updated OOB for
	secure boot and reserve Key.
	11. Added support for keeping Linux MOK keys database.
	12. Added setup item to control 16Gb based Single Die Package
	DIMM tRFC optimization.
	13. Implemented dynamic change for Secure Boot Mode default
	value.
	14. Changed "Secure Boot Mode" to ReadOnly attribute.
	15. Added support for firmware version information.
	16. Disabled ADDDC/SDDC and set PPR as hPPR.
New features	N/A
	Removed Intel Virtualization Technology override when set to
	extreme performance.
	2. Fixed problem of key details showing "Security Violation" after
	loading Factory secure boot keys.
Fixes	3. Fixed failure of the default boot order of UEFI groups to sync when
	"Boot mode" is under UEFI mode.
	4. Fixed problem of two OS (Redhat & Ubuntu) boot devices
	appearing in boot order.
	5. Fixed failure of OPROM control item if CSM is disabled.

- 6. Fixed inability of onboard VGA to report correct monitor EDID data when secure boot is enabled.
- 7. Fixed inability to identify duplicate boot options with more than one of the same M.2 AHCI interface devices.
- 8. Fixed inability of InBand Update BIOS in Linux OS to preserve Linux secureboot keys.
- Fixed problem of onboard LAN speed dropping from GEN3 to GEN2 during AC on/off testing.

Release Notes from Previous Release(s)

3.1 (05/23/2019)

- 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. Corrected hot-plug memory resource assignment of Thunderbolt 2.0 device.
- 9. Set ADDDC to enabled by default.
- 10. 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.
- 11. Fixed problem of "?[1;31;40m" showing on POST screen when EFI driver is "Unhealthy".
- 12. Fixed inability to change IPv6 address or IPv6 Router1 IP address.
- 13. Fixed malfunction of workaround for GPU P2P low bandwidth.

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 (03/05/2019)

- 1. Added support for Purley Refresh platform.
- 2. Updated CPU microcodes from SRV_P_270.
- 3. Updated SINIT ACM 1.7.2 PW from BKC WW06 2019.
- 4. Updated SPS E5 04.01.04.251.0 from Intel VIP Kit #130885.
- 5. Added support for Linux built-in utility efibootmgr.
- 6. Updated IPv6 router-related setup item string.

- 7. Reduced redundant reboot for offboard VGA switching.
- 8. Set NVDIMM ADR timeout to 600us.
- 9. Enabled support for Thunderbolt 2.0.
- 10. 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.
- 11. Modified UEFI network description to IPv4/IPv6 to follow Industry Standard.
- 12. Patched problem of system hanging at 0x94 when plugging in Nvidia Tesla T4 card.
- 13. Fixed inability of "Network Stack"-related items to get/change via SUM OOB method.

3.0a (12/21/2018)

- 1. Updated 5.14_PurleyCrb_OACLA031_BETA for Purley Skylake platform, BKC 2018 WW36.
- 2. Added support for Monitor Mwait feature.
- 3. Fixed inability of VMD status to load default if loading default by AFU.
- 4. Added support for SMC HttpBoot.
- 5. Fine tuned function code of "Install Windows 7 USB Support" setup item.
- 6. Removed support for S3 due to SPS ME limitation.
- 7. Removed support for Thunderbolt.
- 8. Skipped downgrade of BIOS to 2.x when using next generation CPU.
- 9. Added support for NVMe auto detection with SMC NVMe add-on card on slot 2/4/6/8/9/10.
- 10. Added support for Purley Refresh platform.
- 11. Updated SATA RAID OPROM/EFI driver to RSTe PreOS v6.0.0.1024.
- 12. Set PCIe correctable and uncorrectable (non-fatal) error report to disabled by default.
- 13. Set RFC4122 encoding to only be enabled for build time produced by IPMI 1.29 or newer.
- 14. Updated CPU microcode SRV_P_262 for Skylake-SP H0/M0/U0 CPUs.
- 15. Disabled unused SPS ME "CUPS IIO" and "Volumetric Airflow" sensor.
- 16. Fixed problem of BIOS always retrying boot when Re-Try Boot is Disabled.
- 17. Fixed malfunction of support for LEGACY to EFI.
- 18. Fixed failure of always turbo in new Linux kernel 7.x.
- 19. Fixed problem of system hanging and falling into a dead loop when setting enabled CPU core number to 1 in always turbo mode.
- 20. Fixed problem of CPU core numbers and maximum turbo ratio not matching in always turbo mode.
- 21. Fixed problem of setup item "Quiet Boot" staying enabled after flashing BIOS with "Quiet Boot" disabled.

2.1 (7/20/2018)

- 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. Added support for SATA FLR.
- 9. Fixed problem of SUM GetSataInfo showing incorrect "Configuration Type" when setting "Configure sSATA as" to "AHCI" or "RAID" on sSATA controller.
- 10. Fixed problem of Ctrl + Alt + Del causing system to hang after flashing BIOS.
- 11. Fixed problem of system hanging when installing Linux OS after COM1 & COM2 IO/IRQ exchange.

- 12. Fixed failure of WDT function.
- 13. Added workaround for low GPU P2P bandwidth.

2.0b (4/18/2018)

- 1. Updated CPU microcode to address 'Spectre' variant 2 (CVE 2017-5715) security issue.
- 2. Enabled IERR crash dump function.
- 3. Added setup item "SmcBusMasterEn" for enabling Parent bridge of the devices in the qSmcPciForceEnableBusMasterList.
- 4. Updated 5.12 PurleyCrb 0ACFD085Beta for Purley Skylake platform PLR 4, BKC WW02.
- 5. Displayed setup item "ACS Control" to Enable/Disable PCIe Access Control Services Extended Capability, with Enabled as default.
- 6. Changed BIOS revision to 2.0b.
- 7. Added support for M/B 1.10A with 32MB BIOS chip.
- 8. Implemented SMC OOB TPM Provisioning via IPMI Feature for customized provisioning table.
- 9. Changed RC default setting to upgrade POST Memory correctable error to uncorrectable error and map out the channel.
- 10. Fixed problem of yellow marked device appearing in Windows device manager after S3 resumes.
- 11. Corrected the "Save Changes" setup option string in "Save & Exit" menu.
- 12. Disabled SNC once NVDIMM is present in system.
- 13. Fixed problem of system hanging during BIOS flashing if Watch Dog function is enabled.
- 14. Fixed problem of TPM 2.0 PS NV Index not being write-protected even if customized provisioning table indicates that it must be write-protected when using "SMC OOB TPM Provisioning via IPMI feature".
- 15. Fixed problem of system rebooting endlessly when equipping dTPM module.
- 16. Fixed problem of DMI being cleared when running SUM LoadDefaultBiosCfg.
- 17. Fixed problem of some platforms hanging up at POST code 0xB2 when equipping dTPM module.
- 18. Fixed inability of BIOS to boot into OS with Intel P3608 PCIe NVMe drive installed.
- 19. Disabled CPU2 IIO PCIe root port ACPI hot plug function.
- 20. Fixed issue with IPMI force boot.
- 21. Fixed issue of all commands requesting to be persistent.
- 22. Fixed malfunction of "SMBIOS Preservation" Disabled.
- 23. Fixed problem of SMC skipping first boot option in UEFI mode when retrying boot.
- 24. Fixed problem of the endpoint PCIe device having error bits in PCI Status or Device Status register.
- 25. Fixed inability to set memory policy.
- 26. Fixed inability to reset the system under DOS by pressing "Ctrl-Alt-Del" on USB keyboard when "Port 60/64 Emulation" is disabled.
- 27. Fixed failure of BIOS ECO ATT test case 306.
- 28. Fixed inability of some CPUs to display correct microcode revision under BIOS setup menu.
- 29. Fixed failure of SATA HSIO register setting test.