



PH12ADI BIOS Release Notes

Revision No.	: D8520A06
Build Date	: October 24, 2024
Checksum	: 0x54226789
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1081
ME Version	: 16.1.30.2269
Reference Code Version	: 0C.E0.BD.20
CPU ID	: 90672/B0670/B0671
Microcode Version	: 0x32/0x0E/0x12B
Source Core Version	: 5.27_1AZJN_RC0C.E0.BD.20(4272.03)_019
CbNT(BtG+TXT)ACM	: 1.18.16

■ New Fixes / Features :

1. Update uCode for CPU ID M32B0671 with revision 0x12b.
2. Change Windows displayed COM port number from 3,4 to 1,2
3. Fix LVDS panel resolution cannot be changed
4. Fix issue that LVDS panel resolution is abnormal when boot into OS
5. Open output panel type setup item
6. Fix E420 SKU MJC CPU issue - Set BIOS PL=PL2=35W, PL4=50W

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520A05
Build Date	: MAR 11, 2024
Checksum	: 0x942A1ACF
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1081
ME Version	: 16.1.30.2269
Reference Code Version	: 0C.E0.BD.20
CPU ID	: 90672/B0670/B0671
Microcode Version	: 0x32/0x0E/0x11E
Source Core Version	: 5.27_1AZJN_RC0C.E0.BD.20(4272.03)_019
CbNT(BtG+TXT)ACM	: 1.18.16

■ New Fixes / Features :

1. Disable xDCI. (BTS #140)
2. Fix LVDS panel no display. (BTS #141)
3. Fix LVDS resolution incorrect. (BTS #142)
4. Change power limit for RaptorLake Reflash CPU. (BTS #144) (BTS #145)

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520X15
Build Date	: DEC 19, 2023
Checksum	: 0x942D1441
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1081
ME Version	: 16.1.30.2269
Reference Code Version	: 0C.E0.BD.20
CPU ID	: 90672/B0670/B0671
Microcode Version	: 0x32/0x0E/0x11E
Source Core Version	: 5.27_1AZJN_RC0C.E0.BD.20(4272.03)_019
CbNT(BtG+TXT)ACM	: 1.18.16

■ New Fixes / Features :

1. Update code base to support Reflash CPU

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520A03
Build Date	: JUL 20, 2023
Checksum	: 0x941A52C9
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.1.25.2101
Reference Code Version	: 00C.E0.9E.20
CPU ID	: 90672/B0670/B0671/B0672
Microcode Version	: 0x28/0x0E/0x113/0x28
Source Core Version	: 5.27_1AZJN_RC0C.E0.9E.20 (3492.04)_009
CbNT(BtG+TXT)ACM	: 1.18.13

■ New Fixes / Features :

1. Disable Evaluation message in Post screen. (BTS #138)
2. Remove unnecessary prompt message form BIOS flash package. (BTS #139)
3. Open output panel type setup item and change default to disabled.
4. Update LAN I219 GBE FW to v2.6

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520A02
Build Date	: JUN 30, 2023
Checksum	: 0x94170C68
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.1.25.2101
Reference Code Version	: 00C.E0.9E.20
CPU ID	: 90672/B0670/B0671/B0672
Microcode Version	: 0x28/0x0E/0x113/0x28
Source Core Version	: 5.27_1AZJN_RC0C.E0.9E.20 (3492.04)_009
CbNT(BtG+TXT)ACM	: 1.18.13

■ New Fixes / Features :

1. Fix OS Indication function failed. (BTS #134)
2. Enable MiAPI function. (BTS #137)

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520X14
Build Date	: JUN 07, 2023
Checksum	: 0x941C488F
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.1.25.2101
Reference Code Version	: 00C.E0.9E.20
CPU ID	: 90672/B0670/B0671/B0672
Microcode Version	: 0x28/0x0E/0x113/0x28
Source Core Version	: 5.27_1AZJN_RC0C.E0.9E.20(3492.04)_009
CbNT(BtG+TXT)ACM	: 1.18.13

■ New Fixes / Features :

1. Fix CB209NF WiFi card hang POST 0x91.

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520X13
Build Date	: JUN 01, 2023
Checksum	: 0x941EB9E3
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.1.25.2101
Reference Code Version	: 00C.E0.9E.20
CPU ID	: 90672/B0670/B0671/B0672
Microcode Version	: 0x28/0x0E/0x113/0x28
Source Core Version	: 5.27_1AZJN_RC0C.E0.9E.20(3492.04)_009
CbNT(BtG+TXT)ACM	: 1.18.13

■ New Fixes / Features :

1. Add functions to fix BTS#131 DP no signal.

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520X12
Build Date	: MAY 25, 2023
Checksum	: 0x94511DB6
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.1.25.2101
Reference Code Version	: 00C.E0.9E.20
CPU ID	: 90672/B0670/B0671/B0672
Microcode Version	: 0x28/0x0E/0x113/0x28
Source Core Version	: 5.27_1AZJN_RC0C.E0.9E.20(3492.04)_009
CbNT(BtG+TXT)ACM	: 1.18.13

■ New Fixes / Features :

1. Update ME setup item to fix BTS#129 MB 12v reboot hang up.

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520X11
Build Date	: MAY 10, 2023
Checksum	: 0x9452B2BE
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.1.25.2101
Reference Code Version	: 00C.E0.9E.20
CPU ID	: 90672/B0670/B0671/B0672
Microcode Version	: 0x28/0x0E/0x113/0x28
Source Core Version	: 5.27_1AZJN_RC0C.E0.9E.20(3492.04)_009
CbNT(BtG+TXT)ACM	: 1.18.13

■ New Fixes / Features :

1. Update CPU power limit to support Raptor Lake CPU: i9-13900E(65W) & i7-13700E(65W).

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520X10
Build Date	: APR 28, 2023
Checksum	: 0x941C9723
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.1.25.2101
Reference Code Version	: 00C.E0.9E.20
CPU ID	: 90672/B0670/B0671/B0672
Microcode Version	: 0x28/0x0E/0x113/0x28
Source Core Version	: 5.27_1AZJN_RC0C.E0.9E.20(3492.04)_009
CbNT(BtG+TXT)ACM	: 1.18.13

■ New Fixes / Features :

1. Update source code to support Raptor Lake CPU
2. Fix issue that LVDS panel resolution is abnormal when boot into OS

■ Known Issues:

2. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520A01
Build Date	: NOV 1, 2022
Checksum	: 0x97E4B89E
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.0.15.1735
Reference Code Version	: 0C.E0.65.70
CPU ID	: 90672/90675
Microcode Version	: 0x1E/0x1E
Source Core Version	: 5.25_1AYIL_RC0C.E0.65.70(3125.00)_010
CbNT(BtG+TXT)ACM	: 1.18.9.0

■ New Fixes / Features :

1. Update A revision to be MP BIOS

■ Known Issues:

1. NA

■ Note

1. NA



PH12ADI BIOS Release Notes

Revision No.	: D8520X09
Build Date	: SEP 1, 2022
Checksum	: 0x97DF0A56
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.0.15.1735
Reference Code Version	: 0C.E0.65.70
CPU ID	: 90672/90675
Microcode Version	: 0x1E/0x1E
Source Core Version	: 5.25_1AYIL_RC0C.E0.65.70(3125.00)_010
CbNT(BtG+TXT)ACM	: 1.18.9.0

■ New Fixes / Features :

1. Fix bluetooth device can be ejected as a USB device with Ax201 card. (BTS #0116)
2. Fix LVDS panel type select function fail (BTS # 0121)
3. Fix USB port which extend from single USB2.0 Header:USB2_HR3 and USB3.0 header:USB3_HR1 has no over-current protect (BTS #0098)
4. Change ACPI table SIO device name form UAR3,4 to UAR1,2 (BTS #0120)
5. Fix Ubuntu has I2C1.TPL1 Fail and error in event log (BTS #0112)
6. Update CPU VR power delivery setting

■ Known Issues:

1. NA

■ Note

1. BIOS settings need update, please ensure to add /N to program NVRAM when updating BIOS



PH12ADI BIOS Release Notes

Revision No.	: D8520X08
Build Date	: JUN 8, 2022
Checksum	: 0x97E27384
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.0.15.1735
Reference Code Version	: 0C.E0.65.70
CPU ID	: 90672/90675
Microcode Version	: 0x1E/0x1E
Source Core Version	: 5.25_1AYIL_RC0C.E0.65.70(3125.00)_010
CbNT(BtG+TXT)ACM	: 1.18.9.0

■ New Fixes / Features :

1. Support LVDS panel type select function. (BTS #0073)
2. Hide S5 RTC wake Dynamic Time item and disable all user right. (BTS #0066)
3. Change setup COM port number from 3,4 to 1,2 (BTS #0074)
4. Revise "F4" function key to "Save & Reset" in BIOS setup menu. (BTS # 0080)
5. Fix HW Monitor for Voltage test fail (BTS # 0107)
6. Fix setup CPU and system fan speed reversed display (BTS #0110)
7. Remove unused devices (BTS #0111)
8. Fine tune CPU VR setting

■ Known Issues:

1. NA

■ Note

1. BIOS settings need update, please ensure to add /N to program NVRAM when updating BIOS



PH12ADI BIOS Release Notes

Revision No.	: D8520X07
Build Date	: MAY 5, 2022
Checksum	: 0x97E692D2
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1075
ME Version	: 16.0.15.1735
Reference Code Version	: 0C.E0.65.70
CPU ID	: 90672/90675
Microcode Version	: 0x1E/0x1E
Source Core Version	: 5.25_1AYIL_RC0C.E0.65.70(3125.00)_010
CbNT(BtG+TXT)ACM	: 1.18.9.0

■ New Fixes / Features :

1. Modify hardware monitor alert POST warning string from "DIMM temperature" to "DIMM VR temperature" (BTS #0093)
2. Update BIOS setup spec version R0.02 (BTS #0066)
3. Change SMBIOS data to FV_SMBIOS to prevent SN & UUID can't be saved after RTC battery lost
4. Fix "Discard Changes and Reset" function same as "Save Changes and Reset". (BTS # 0087)
5. Support AIO brightness button (BTS # 0089)
6. Update M860/M6070 fan curve
7. Fix R0B Power LED doesn't light in S0 (BTS #0072)
8. Modify RS232/RS-422/RS-485 switch menu (BTS #0029)
9. Update DMI string (BTS #0071)
10. Remove PS8625 setting (BTS #0083)
11. Fix some USB 3.0 port cannot safely remove USB device (BTS #0088)
12. Update code base

■ Known Issues:

1. NA

■ Note

1. BIOS settings need update, please ensure to add /N to program NVRAM when updating BIOS



PH12ADI BIOS Release Notes

Revision No.	: D8520X06
Build Date	: MAR 10, 2022
Checksum	: 0x9B674C62
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1069
ME Version	: 16.0.0.1435v3
Reference Code Version	: 0C.E0.5D.30
CPU ID	: 90672/90674
Microcode Version	: 0x18/0x219
Source Core Version	: 5.24_1AYIL_RC0C.E0.5D.30(2501.00)_006
CbNT(BtG+TXT)ACM	: 1.18.5

■ New Fixes / Features :

1. Modify R0B GPIO and set CH7513 default 1920x1080 panel resolution
2. Fix HDMI eye diagram fail at 4096x2160 resolution (BTS #0053)
3. Fix buzzer no function (BTS #0063)
4. Fix BIOS can't list fTPM device (BTS # 0065)
5. Support R5 RTC wake feature (BTS # 0068)
6. Support In-BIOS flash
7. Support hardware monitor alert function (BTS #0064)
8. Support M860/M6070 fan curve
9. Support BIOS Recovery
10. Support BIOS Internal Reboot Test
11. Support Chassis intrusion

■ Known Issues:

1. NA

■ Note

1. BIOS settings need update, please ensure to add /N to program NVRAM when updating BIOS



PH12ADI BIOS Release Notes

Revision No.	: D8520X05
Build Date	: JAN 6, 2022
Checksum	: 0x9BD562E1
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1069
ME Version	: 16.0.0.1435v3
Reference Code Version	: 0C.E0.4F.10
CPU ID	: 90672/90674
Microcode Version	: 0x18/0x219
Source Core Version	: 5.24_1AYIL_RC0C.E0.4F.10(2355.00)_004
CbNT(BtG+TXT)ACM	: 1.18.1

■ New Fixes / Features :

1. Fix MiAPI watchdog cannot reboot system (BTS #0037)
2. Fix S3 resume fail (BTS #0025)
3. Implement fan curve table
4. Fix 1. All USB ports except M2E USB2.0 High speed fail. 2. all USB ports drop fail (BTS #0001)
5. Modify BIOS setup layout
6. Fix PCIe x4 slot devices hang (BTS #0023)
7. Fix i219 WOL from S3/S4/S5 fail (BTS #0011)
8. Fix RS485 mode fail (BTS #0029)
9. Removed unknown devices (BTS #0047)
10. Fix setup system temperature display incorrect (BTS #0010)
11. Add VMD control item (BTS #0004)

■ Known Issues:

1. Buzzer has no sound.

■ Note

1. BIOS settings need update, please ensure to add /N to program NVRAM when updating BIOS



PH12ADI BIOS Release Notes

Revision No.	: D8520X04
Build Date	: DEC 16, 2021
Checksum	: 0x9C05AD9E
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1069
ME Version	: 16.0.0.1435v3
Reference Code Version	: 0C.E0.4F.10
CPU ID	: 90672/90674
Microcode Version	: 0x0F/0x219
Source Core Version	: 5.24_1AYIL_RC0C.E0.4F.10(2355.00)_004
CbNT(BtG+TXT)ACM	: 1.18.1

■ New Fixes / Features :

1. Change code base to IOTG
2. Fix cannot record voice by audio jack (BTS #0021)
3. Fix audio output priority setting incorrect (BTS #0025)
4. Enable eSPI dual and quad mode
5. Fix CPU PECI temperature incorrect
6. Enable Native PCIe support
7. Hidden WOL from DeepSx setup item (BTS #0018)

■ Known Issues:

1. C0 stepping CPU causes system cannot power on after Windows reboot, remove AC then can power on again
2. Can boot to Windows with M.2 CPU PCIe x4 device but still have several issue
3. Buzzer has no sound.
4. S3 resuming performs an unexpected system reboot

■ Note

1. BIOS settings need update, please ensure to add /N to program NVRAM when updating BIOS



PH12ADI BIOS Release Notes

Revision No.	: D8520X03
Build Date	: NOV 12, 2021
Checksum	: 0x9F84C671
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1069
ME Version	: 16.0.0.1435V3.1
Reference Code Version	: 0C.00.5B.10(2397.00)
CPU ID	: 90670/90671/90672/90674
Microcode Version	: 0x19/0x1A/0x12/0x219
Source Core Version	: 5.24_1AXFE_RC0C.00.5B.10(2397.00)_029
CBnT(BtG+TXT)ACM	: 1.18.1

■ New Fixes / Features :

1. Fix BSOD when install VGA driver with LVDS on
2. Default enable LVDS
3. Remove HID Event Filter Driver
4. Fix HDMI has no sound
5. Fix RS232 loopback test failed
6. Fix MiAPI has no function

■ Known Issues:

1. Cannot boot to Windows with M.2 CPU PCIe x4 device
2. Buzzer has no sound.
3. S3 resuming performs an unexpected system reboot

■ Note

1. BIOS settings need update, please ensure to add /N to program NVRAM when updating BIOS



PH12ADI BIOS Release Notes

Revision No.	: D8520X02
Build Date	: NOV 05, 2021
Checksum	: 0x9F84965A
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 17.0.1069
ME Version	: 16.0.0.1435V3.1
Reference Code Version	: 0C.00.5B.10(2397.00)
CPU ID	: 90670/90671/90672/90674
Microcode Version	: 0x19/0x1A/0x12/0x219
Source Core Version	: 5.24_1AXFE_RC0C.00.5B.10(2397.00)_029
CBnT(BtG+TXT)ACM	: 1.18.1

■ New Fixes / Features :

1. Update code base
2. Fix corporate binary hang 23h
3. Default enable fTPM
4. Fix I219 yellow band
5. Fix HDMI no display
6. Update GPIO table
7. Default disable LVDS by setup item
8. Enable EC region to support CRB booting

■ Known Issues:

1. Once LVDS display enables, BSOD occurs if install VGA driver.

■ Note

1. For R0A reworked QXHH PCH
2. To enable LVDS, please change Setup/Chipset/SA configuration/Graphics configurations/LCD control/Active LFP from “no eDP” to “eDP-Port A”



PH12ADI BIOS Release Notes

Revision No.	: D8520X01
Build Date	: SEP 13, 2021
Checksum	: 0x9F9DA7E4
PCH	: Intel 600 Series
LAN Chip	: Intel I225 & Intel I219
GOP Version	: 9.0.1098
ME Version	: 14.0.30.1002
Reference Code Version	: 9.0.25.10
CPU ID	: A0651/A0653/A0654
Microcode Version	: 0xC2/0xBE/0xC2
Source Core Version	: 5.17_1AWDV_RC9.0.25.10_024

■ New Fixes / Features :

1. Initial Bring up BIOS

■ Known Issues:

1. N/A

■ Note

1. NA