

# Product Change Notification



## Change Notification # 2021043001H

### Special BIOS Update for PIP4x Turbo Mode Disabled as Default

Initial Release Date: 2021 April 30  
Last Revision Date: 2023 April 26  
Change Type: BIOS/Firmware Change  
Affected Product Family: PIP (Packaged Industrial PC)  
Reason for Change: BIOS Update to version 059  
Anticipated impact on Form, Fit and Function: Minor impact  
Anticipated impact on Quality or Reliability: Improved Quality and Reliability  
Customer contact: [info@mpl.ch](mailto:info@mpl.ch)

### Detailed Description of Change

The affected products receive a new BIOS release (version 059). See the 'BIOS Release Notes' section below for a detailed overview of the changes.

### Affected Products List

Sales Part#	MPL Manufacturing Part#	MPL Component Stock#	Replacement Part#
PIP4x	MED-10594-xxx	-	-

### PCN Revision History

Revision	Date	Description
A	2021-04-30	Initial Release – BIOS V052
B	2021-10-26	Reflect BIOS V053
C	2022-01-21	Reflect BIOS V054
D	2022-03-16	Reflect BIOS V055
E	2022-03-22	Reflect BIOS V056
F	2022-12-13	Reflect BIOS V057
G	2023-03-17	Reflect BIOS V058
H	2023-04-26	Reflect BIOS V059

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## BIOS Release Notes

**BIOS Version: 059**

### Information:

- **Build date:** 04/26/23 (mm/dd/yy)
- **BIOS No:** MEV-10140-005
- **Core BIOS:** American Megatrends® Aptio® V, 5.13, 1AUOK 048
- **VGA BIOS:** 1028
- **GOP Driver:** 9.0.1105
- **PXE Boot ROM:** Intel® Boot Agent CL v0.1.14
- **UEFI NIC Driver:** Intel® Gigabit 0.0.23
- **RAID Driver:** Intel® RST 17.5.0.4055
- **EC Firmware:** 017 (MEV-10142-001)

### Features & Fixes:

- Change BIOS settings & default values handling
  - BIOS settings are retained if CMOS battery is low or missing
  - Add support for loading BIOS default values via BIOS\_REC DIP switch
- Add ME firmware unconfiguration option

**BIOS Version: 058**

### Information:

- **Build date:** 03/17/23 (mm/dd/yy)
- **BIOS No:** MEV-10140-005
- **Core BIOS:** American Megatrends® Aptio® V, 5.13, 1AUOK 048
- **VGA BIOS:** 1028
- **GOP Driver:** 9.0.1105
- **PXE Boot ROM:** Intel® Boot Agent CL v0.1.14
- **UEFI NIC Driver:** Intel® Gigabit 0.0.23
- **RAID Driver:** Intel® RST 17.5.0.4055
- **EC Firmware:** 017 (MEV-10142-001)

### Features & Fixes:

- Fix wrong display of certain Product and Base IDs (MED-xxxxx-xxx) in BIOS setup and SMBIOS tables
- Update EC firmware
  - Improve boot time
  - Add support for reading CMOS battery voltage

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**BIOS Version: 057**

**Information:**

- **Build date:** 12/13/22 (mm/dd/yy)
- **BIOS No:** MEV-10140-005
- **Core BIOS:** American Megatrends® Aptio® V, 5.13, 1AUOK 048
- **VGA BIOS:** 1028
- **GOP Driver:** 9.0.1105
- **PXE Boot ROM:** Intel® Boot Agent CL v0.1.14
- **UEFI NIC Driver:** Intel® Gigabit 0.0.23
- **RAID Driver:** Intel® RST 17.5.0.4055
- **EC Firmware:** 016 (MEV-10142-001)

**Features & Fixes:**

- Add support for manually adding (and deleting) boot options
- Fix USB over-current pin configuration
- Limit C-state support to C9
- Fix system behavior with a large number of PCI-to-PCI bridges
- Fix GPIO configuration
- Update EC firmware
  - Add support for User LEDs

**BIOS Version: 056**

**Information:**

- **Build date:** 03/16/22 (mm/dd/yy)
- **BIOS No:** MEV-10140-005
- **Core BIOS:** American Megatrends® Aptio® V, 5.13, 1AUOK 048
- **VGA BIOS:** 1028
- **GOP Driver:** 9.0.1105
- **PXE Boot ROM:** Intel® Boot Agent CL v0.1.14
- **UEFI NIC Driver:** Intel® Gigabit 0.0.23
- **RAID Driver:** Intel® RST 17.5.0.4055
- **EC Firmware:** 015 (MEV-10142-001)

**Features & Fixes:**

- Change RTC default value for year to build year
- Update EC firmware
  - Improve power failure behavior

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**BIOS Version: 055**

**Information:**

- **Build date:** 03/16/22 (mm/dd/yy)
- **BIOS No:** MEV-10140-005
- **Core BIOS:** American Megatrends® Aptio® V, 5.13, 1AUOK 048
- **VGA BIOS:** 1028
- **GOP Driver:** 9.0.1105
- **PXE Boot ROM:** Intel® Boot Agent CL v0.1.14
- **UEFI NIC Driver:** Intel® Gigabit 0.0.23
- **RAID Driver:** Intel® RST 17.5.0.4055
- **EC Firmware:** 013 (MEV-10142-001)

**Features & Fixes:**

- Expand support for hardware-dependent BIOS configuration
- Update EC firmware
  - Improve emergency power down behavior

**BIOS Version: 054**

**Information:**

- **Build date:** 01/21/22 (mm/dd/yy)
- **BIOS No:** MEV-10140-005
- **Core BIOS:** American Megatrends® Aptio® V, 5.13, 1AUOK 048
- **VGA BIOS:** 1028
- **GOP Driver:** 9.0.1105
- **PXE Boot ROM:** Intel® Boot Agent CL v0.1.14
- **UEFI NIC Driver:** Intel® Gigabit 0.0.23
- **RAID Driver:** Intel® RST 17.5.0.4055
- **EC Firmware:** 012 (MEV-10142-001)

**Features & Fixes:**

- Add support for hardware-dependent BIOS configuration
- Update EC firmware
  - Improve Smart Battery handling
  - Add support for hardware-dependent BIOS configuration
  - Add support for MEC1703-XY
  - Add support for additional BIOS call

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**BIOS Version: 053**

**Information:**

- **Build date:** 10/26/21 (mm/dd/yy)
- **BIOS No:** MEV-10140-005
- **Core BIOS:** American Megatrends® Aptio® V, 5.13, 1AUOK 048
- **VGA BIOS:** 1028
- **GOP Driver:** 9.0.1105
- **PXE Boot ROM:** Intel® Boot Agent CL v0.1.14
- **UEFI NIC Driver:** Intel® Gigabit 0.0.23
- **RAID Driver:** Intel® RST 17.5.0.4055
- **EC Firmware:** 010 (MEV-10142-001)

**Features & Fixes:**

- Display board information in BIOS setup
- Add board information in SMBIOS data
- Enable Exar Watchdog device
- Update Secure Boot keys
- Various minor bugfixes & enhancements

**BIOS Version: 052**

**Information:**

- **Build date:** 04320/21 (mm/dd/yy)
- **BIOS No:** MEV-10140-005
- **Core BIOS:** American Megatrends® Aptio® V, 5.13, 1AUOK 048
- **VGA BIOS:** 1028
- **GOP Driver:** 9.0.1105
- **PXE Boot ROM:** Intel® Boot Agent CL v0.1.14
- **UEFI NIC Driver:** Intel® Gigabit 0.0.23
- **RAID Driver:** Intel® RST 17.5.0.4055
- **EC Firmware:** 010 (MEV-10142-001)

**Features & Fixes:**

- Special BIOS version based on Standard BIOS version 052 (MEV-10140-001)
- BIOS setup default value for Turbo Mode is Disabled (instead of Enabled)

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