

## Security Bulletin

# Supermicro - BIOS Vulnerabilities, July 2024

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## List of changes

Version	Date	Description
0.1	2025/01/09	Initial Eviden version
0.2	2025/02/06	TLP changed for CLEAR

## Executive summary

An arbitrary memory write and SMM callout vulnerabilities were discovered in Supermicro X11DPG-HGX2, X11PDG-QT, X11PDG-OT, X11PDG-SN, Supermicro X11DPH-T, X11DPH-Tq, X11DPH-Tq, and X11DPH-i motherboards with BIOS firmware before 4.4.

## Vulnerability Info

CVE No.	CVSS Score	Type of Vulnerability
<a href="#">CVE-2024-36432</a>	7.5	<a href="#">CWE-1246</a> Improper Write Handling in Limited-write Non-Volatile Memories
<a href="#">CVE-2024-36433</a>	7.5	<a href="#">CWE-119</a> Improper Restriction of Operations within the Bounds of a Memory Buffer
<a href="#">CVE-2024-36434</a>	7.5	<a href="#">CWE-119</a> Improper Restriction of Operations within the Bounds of a Memory Buffer

Eviden is liaising closely with its suppliers and investigating the exact nature of these vulnerabilities to provide validated remediation.

## Affected products

Products	Fixed version	Status	Comments
Supermicro x11dpg-qt	Affected	Unpatched	N/A

Although Eviden tries to provide accurate and complete information, Eviden shall not be liable if the above table is incomplete or erroneous. During its vulnerability analysis process, the information in this document is subject to change without notice to reflect new results of this analysis.

The tables below provide the Technical State to apply to implement the fixes on Eviden products.

Note: The first row provides the currently recommended combination of firmware. The detail per vulnerability is given below.

TS (technical state) with no number indicates that a new technical state fixing the vulnerabilities is scheduled.

TBD (to be defined) indicates that a new technical state fixing the vulnerabilities is under study.

Unpatched means that the vulnerability is presumably present, but there is no plan to provide a fix. This can be investigated on demand.

## List of HPC products

Products	Fixed version	Status
BullSequana X400-E5	Unpatched	Affected

## Recommendations

Eviden recommends applying its Technical States upgrade on its servers as soon as they are made available.

## Available Vendor Patches

No validated patch is available at the time. Eviden is working with its suppliers to distribute updates as soon as possible.

Technical States links for Eviden servers are reminded in the table below.

Product	Technical State link
Bull Sequana X400-E5	<a href="https://support.bull.com/ols/product/platforms/hw-extremcomp/sequana/x400/dl/pkgf/pkgx400e5">https://support.bull.com/ols/product/platforms/hw-extremcomp/sequana/x400/dl/pkgf/pkgx400e5</a>

## Available Workarounds

No workaround is available.

## Available Mitigations

No mitigation identified.

## Available Exploits/PoC

Eviden is not aware of any exploitation of the reported vulnerabilities.

## References

1. [https://www.supermicro.com/en/support/security\\_BIOS\\_Jul\\_2024](https://www.supermicro.com/en/support/security_BIOS_Jul_2024)
2. [https://www.supermicro.com/en/support/security\\_center#%21advisories](https://www.supermicro.com/en/support/security_center#%21advisories)
3. [https://www.supermicro.com/zh\\_tw/support/security\\_BIOS\\_Jul\\_2024](https://www.supermicro.com/zh_tw/support/security_BIOS_Jul_2024)
- 4.

## Glossary of terms

Term	Description
Mitigation	Refers to a setting, common configuration, or general best-practice, existing in a default state that could reduce the severity of exploitation of a vulnerability
Neutralization	The neutralization phase is the decision-making process during which the risk posed by an incident is evaluated.
PoC	Proof of Concept
Remediation	The remediation phase ends with the delivering of a qualified solution/update fixing the vulnerability without regression.
TI	Threat Intelligence
TLP	Traffic Light Protocol (TLP) FIRST Standards Definitions and Usage Guidance — Version 2.0. <a href="https://www.first.org/tlp/">https://www.first.org/tlp/</a>
Workaround	Refers to a setting or configuration change that does not correct the underlying vulnerability but would help block known attack vectors before you apply the update

## About this document

Eviden continuously monitors the security of its products. This Security Bulletin is shared under the constraints of the FIRST Traffic Light Protocol version 2.0 (TLP) to bring the attention of owners of the potentially affected Eviden products. Eviden recommends that all product owners determine whether the described situation is applicable to their individual case and take appropriate action.

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The information in this document is subject to change without notice. The version of this document will be incremented according to the changes:

- Neutralization security bulletins are numbered 0.x
- Privately disclosed Remediation security bulletins are numbered 1.x
- Publicly disclosed Remediation security bulletins are numbered 2.x

Updated versions of this document can be found on:

- <https://support.bull.com/ols/product/security/psirt>

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