



# riscv-boom SonicBOOM L1 Data Cache timing discrepancy

MITRE

NVD

CVE.ORG

JSON API

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## Summary

|                 |                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------|
| CVE             | CVE-2025-8774                                                                                                              |
| State           | PUBLISHED                                                                                                                  |
| Assigner        | VulDB                                                                                                                      |
| Source Priority | CVE Program / NVD first with legacy fallback                                                                               |
| Published       | 2025-08-09 21:15:25 UTC                                                                                                    |
| Updated         | 2026-04-29 01:00:01 UTC                                                                                                    |
| Description     | A vulnerability has been found in riscv-boom SonicBOOM up to 2.2.3 and classified as problematic. Affected by this vulnera |

## Risk And Classification

Primary CVSS: v4.0 1.1 LOW from cna@vulldb.com

CVSS:4.0/AV:L/AC:H/AT:N/PR:L/UI:N/VC:L/VI:N/VA:N/SC:N/SI:N/SA:N/E:P/CR:X/IR:X/AR:X/MAV:X/MAC:X/MAT:X/MPR:X/MUI:X/MVC:X/MVI:X/MVA:X/MSX/MSI:X/MSA:X/S:X/AU:X/R:X/V:X/RE:X/U:X

Problem Types: CWE-203 | CWE-208 | CWE-208 Observable Timing Discrepancy | CWE-203 Information Exposure Through Discrepancy

| Version | Source         | Type      | Score | Severity | Vector                                                                                                                                                                       |
|---------|----------------|-----------|-------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.0     | cna@vulldb.com | Secondary | 1.1   | LOW      | CVSS:4.0/AV:L/AC:H/AT:N/PR:L/UI:N/VC:L/VI:N/VA:N/SC:N/SI:N/SA:N/E:P/CR:X/IR:X/AR:X/MAV:X/MAC:X/MAT:X/MPR:X/MUI:X/MVC:X/MVI:X/MVA:X/MSX/MSI:X/MSA:X/S:X/AU:X/R:X/V:X/RE:X/U:X |
| 4.0     | CNA            | DECLARED  | 2     | LOW      | CVSS:4.0/AV:L/AC:H/AT:N/PR:L/UI:N/VC:L/VI:N/VA:N/SC:N/SI:N/SA:N/E:P/CR:X/IR:X/AR:X/MAV:X/MAC:X/MAT:X/MPR:X/MUI:X/MVC:X/MVI:X/MVA:X/MSX/MSI:X/MSA:X/S:X/AU:X/R:X/V:X/RE:X/U:X |
| 3.1     | nvd@nist.gov   | Primary   | 4.7   | MEDIUM   | CVSS:3.1/AV:L/AC:H/PR:L/UI:N/S:U/C:H/I:N/A:N                                                                                                                                 |
| 3.1     | cna@vulldb.com | Secondary | 2.5   | LOW      | CVSS:3.1/AV:L/AC:H/PR:L/UI:N/S:U/C:L/I:N/A:N                                                                                                                                 |
| 3.1     | CNA            | DECLARED  | 2.5   | LOW      | CVSS:3.1/AV:L/AC:H/PR:L/UI:N/S:U/C:L/I:N/A:N/E:P/RL:X/RC:R                                                                                                                   |
| 3.0     | CNA            | DECLARED  | 2.5   | LOW      | CVSS:3.0/AV:L/AC:H/PR:L/UI:N/S:U/C:L/I:N/A:N/E:P/RL:X/RC:R                                                                                                                   |
| 2.0     | cna@vulldb.com | Secondary | 1     | LOW      | AV:L/AC:H/Au:S/C:P/I:N/A:N                                                                                                                                                   |
| 2.0     | CNA            | DECLARED  | 1     | LOW      | AV:L/AC:H/Au:S/C:P/I:N/A:N/E:POC/RL:ND/RC:UR                                                                                                                                 |

## CVSS v4.0 Breakdown

Attack Vector

Local

Attack Complexity

High

Attack Requirements

None

Privileges Required

Low

User Interaction

None

Confidentiality

Low

Integrity

None

Availability

None

Sub Conf.

None

Sub Integrity

None

Sub Availability

None

CVSS:4.0/AV:L/AC:H/AT:N/PR:L/UI:N/VC:L/VI:N/VA:N/SC:N/SI:N/SA:N/E:P/CR:X/IR:X/AR:X/MAV:X/MAC:X/MAT:X/MPR:X/MUI:X/MVC:X/MVI:X/MVA:X/MSX:MSI:X/MSA:X/S:X/AU:X/R:X/V:X/RE:X/U:X

CVSS v3.1 Breakdown

Attack Vector

Local

Attack Complexity

High

Privileges Required

Low

User Interaction

None

Scope

Unchanged

Confidentiality

High

Integrity

None

Availability

None

CVSS:3.1/AV:L/AC:H/PR:L/UI:N/S:U/C:H/I:N/A:N

CVSS v3.0 Breakdown

Attack Vector

Attack Vector

Local

Attack Complexity

High

Privileges Required

Low

User Interaction

None

Scope

Unchanged

Confidentiality

Low

Integrity

None

Availability

None

CVSS:3.0/AV:L/AC:H/PR:L/UI:N/S:U/C:L/I:N/A:N/E:P/RL:X/RC:R

#### NVD Known Affected Configurations (CPE 2.3)

| Type        | Vendor    | Product    | Version | Update | Edition | Language |
|-------------|-----------|------------|---------|--------|---------|----------|
| Application | Boom-core | Riscv-boom | All     | All    | All     | All      |

#### Vendor Declared Affected Products

| Source | Vendor     | Product   | Version        | Platforms     |
|--------|------------|-----------|----------------|---------------|
| CNA    | Riscv-boom | SonicBOOM | affected 2.2.0 | Not specified |
| CNA    | Riscv-boom | SonicBOOM | affected 2.2.1 | Not specified |
| CNA    | Riscv-boom | SonicBOOM | affected 2.2.2 | Not specified |
| CNA    | Riscv-boom | SonicBOOM | affected 2.2.3 | Not specified |

#### References

| Reference                                                  | Source                               | Link                         | Tags                 |
|------------------------------------------------------------|--------------------------------------|------------------------------|----------------------|
| vuldb.com                                                  | cna@vuldb.com                        | <a href="#">vuldb.com</a>    | Permissions Required |
| vuldb.com                                                  | cna@vuldb.com                        | <a href="#">vuldb.com</a>    | Third Party Advisory |
| vuldb.com                                                  | cna@vuldb.com                        | <a href="#">vuldb.com</a>    | Third Party Advisory |
| github.com/fizz-is-on-the-way/vuls_cpu/tree/master/MSHRush | 134c704f-9b21-4f2e-91b3-4a467353bcc0 | <a href="#">github.com</a>   | Broken Link          |
| CVE Program record                                         | CVE.ORG                              | <a href="#">www.cve.org</a>  | canonical            |
| NVD vulnerability detail                                   | NVD                                  | <a href="#">nvd.nist.gov</a> | canonical, analysis  |

#### Vendor Comments And Credit

CNA: lcyf-fizz (VulDB User) (en)

| Additional Advisory Data |                          |                         |
|--------------------------|--------------------------|-------------------------|
| Source                   | Time                     | Event                   |
| CNA                      | 2025-08-08T00:00:00.000Z | Advisory disclosed      |
| CNA                      | 2025-08-08T02:00:00.000Z | VulDB entry created     |
| CNA                      | 2025-08-08T22:29:13.000Z | VulDB entry last update |

There are currently no legacy QID mappings associated with this CVE.

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