

STM32Cube USB Host library potential issues

Overview

This security advisory pertains to potential issues of the *USB Host* library in the STM32Cube software. Such potential vulnerabilities affect the Audio and MTP Class drivers of the *USB Host* library.

Affected products

Product ⁽¹⁾	Version	Type	Note
STM32CubeF1	v1.8.7 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-
SM32CubeF2	v1.9.6 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-
STM32CubeF4	v1.28.3 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-
STM32CubeF7	v1.17.4 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-
STM32CubeG0	v1.6.3 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-
STM32CubeH7	v1.13.0 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-
STM32CubeH7RS	v1.3.0 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-
STM32CubeL4	v1.18.2 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-
STM32CubeMP13	v1.2.0 and earlier <i>Note:</i> Because the issue might not be fixed in the subsequent release, refer to the release notes ⁽²⁾ of the affected product to check if the issue was fixed.	Embedded software	-

- Some other STM32Cube expansion packages or function packages (X-CUBE, I-CUBE, STSW, FPs) could depend on the affected products and are not mentioned in this document. Check if the STM32Cube expansion packages or function packages that you use contain the affected products. If this is the case, refer to the package release note to check if the issue was fixed.
- Release notes are available in each downloaded package (on www.st.com product pages, on STMicroelectronics GitHub product pages, and via STM32CubeMX)

To know if an STM32 Cube firmware or if an STM32 X-CUBE firmware package is impacted, check the supported version of the *USB Host* software component:

File to read	Version with vulnerabilities	Version fixing the vulnerabilities
Release_Notes.html	3.5.4 and earlier	3.5.5 and later

The standalone *USB Host* library fixing the issues is available at: <https://github.com/STMicroelectronics/stm32-mw-usb-host/releases/tag/v3.5.5>

Description

The *USB Host* driver can be subject to:

- out-of-bound writes leading to memory corruption during USB audio enumeration, or during the audio descriptor parsing.
- out-of-bound reads during audio playback or frequency selection when audio streaming pointers are dereferenced without validation.
- memory corruption during PTP device info or property parsing, or during MTP initialization.
- out-of-bound writes when a malicious device provides a PTP object length greater than the USB Host fixed-size arrays without bounds checks.

Impact

Memory corruption in the *USB Host* can lead to a host crash or unstable behavior.

Remediation

Refer to [Affected products](#) to identify the fixed products. For products that are not fixed, reconfigure the affected package with the fixed *USB Host* library delivered via GitHub.

Credit

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Revision history

Date	Version	Changes
2-Jul-2026	1	Initial release

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