foster+freeman
FORENSIC SCIENCE INNOVATION

Vale Park, 2 Vale Link, Evesham WR11 1TD, UK
info@fosterfreeman.com +44(0)1386768050

2024/11/21

Federal Communications Commission
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

Subject: Application for Class 2 Permissive Change for FCC ID: 2BHQFVSCRFID

Dear Sir/Madam,

We, **Foster & Freeman Limited**, hereby submit this application for a Class 2 Permissive Change for our device with FCC ID: **2BHQFVSCRFID**. The purpose of this submission is to notify the FCC of modifications made to the originally certified device and to ensure that it remains compliant with the applicable FCC rules and regulations.

The following changes have been made to the device:

Change 1 – Replaced antenna with new design

The antenna supplied with the ACS product - ACM1552U-Y3 USB NFC Reader Module with Detachable Antenna Board has a detachable antenna PCB which includes the capacitor tuning network, damping resistors and PCB trace antenna, it connects to the 'driver' board via a 5-way pico-blade ribbon cable. A replacement antenna, also containing the capacitor tuning network, damping resistors and PCB trace antenna has been designed and is connected in place of the original supplied antenna from ACS. These modifications have been carefully tested and verified to ensure continued compliance with FCC regulations. The changes do not affect the fundamental technology or the operational characteristics of the device, and they do not alter the original certified parameters beyond the acceptable limits defined by the FCC.

Change 2 – Housing

The antenna is securely enclosed within the device base, which is designed to be accessed only by trained service personnel using standard tools such as screwdrivers. For devices in the field, if the RFID reader becomes non-functional, two servicing options are available: a trained engineer can be dispatched to service the unit on-site or a replacement base, preassembled with the necessary components, can be shipped to the end user for straightforward replacement. The end user is not required to and is not intended to access or manipulate the electronics surrounding the antenna. This ensures that the internal electronics remain secure and compliant with FCC rules while simplifying maintenance and service operations.

To support this application, we have included the following documentation:

1. Updated Test Reports demonstrating compliance with FCC rules post-modification
2. Revised Block Diagram highlighting the changes
3. Detailed Operational Description noting the modifications
4. Updated Schematics
5. Photos of the unmodified vs modified device
6. Updated Label and Location Information
7. Confidentiality Request Letter
8. Antenna Information, if the antenna has been modified
9. RF Exposure Information

The manual has not changed as the driver board is completely unaffected, therefore commands and interfaces are identical to the original unmodified unit.

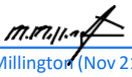
We trust that the provided documentation will facilitate the review and approval process of this Class 2 Permissive Change. Should you have any questions or require further information, please do not hesitate to contact us at martin.millington@fosterfreeman.com.

Thank you for your attention to this matter.

Sincerely,

Martin Millington,

Head of Research & Development
Foster & Freeman Limited
Vale Park, 2 Vale Link
Evesham WR11 1TD, UK
info@fosterfreeman.com
+44(0)1386768050

Signature: 
Martin Millington (Nov 21, 2024 13:35 GMT)

01 - VSC90 - Class_2_Permissive_Change_Cover_Letter_rev2

Final Audit Report 2024-11-21

Created:	2024-11-21
By:	Alessandro Giusto (alessandro.giusto@fosterfreeman.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAPPagi3ZyO-BMNjmYVUwx4P-5BMfY5vdd

"01 - VSC90 - Class_2_Permissive_Change_Cover_Letter_rev2" History

Document created by Alessandro Giusto (alessandro.giusto@fosterfreeman.com)
2024-11-21 - 12:36:20 PM GMT

Document emailed to Martin Millington (Martin.Millington@fosterfreeman.com) for signature
2024-11-21 - 12:36:24 PM GMT

Email viewed by Martin Millington (Martin.Millington@fosterfreeman.com)
2024-11-21 - 1:34:52 PM GMT

Document e-signed by Martin Millington (Martin.Millington@fosterfreeman.com)
Signature Date: 2024-11-21 - 1:35:54 PM GMT - Time Source: server

Agreement completed.
2024-11-21 - 1:35:54 PM GMT