

28 May 2021

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Subject: MiX 450C-4G (US) Cover Letter

In accordance with §2.1043 “**Changes in certificated equipment**”, we hereby apply for a new FCC ID for this device. As the characteristics required to be reported are not changed, the abbreviated procedure of §2.933 “**Change in identification of equipment**” is used.

Original identification used on equipment: FCC ID for the MiX 45MC-4G is “2AFMS-45MC4G”.

Date of Grant: 11/21/2018

Description of the original equipment:

The **MiX 45MC-4G** is a fleet product. It consists mainly of an on-board computer, a LTE CAT M1 modem, a GNSS, an accelerometer, Low Energy Bluetooth, I/O, 2 x CAN, 2 x RS232, 4 x positive drives and 434 / 915 MHz Short Range Device (SRD).

How the equipment bearing the modified identification differs from the original equipment?

The 434/915 MHz SRDs are not populated in the **MiX 450C-4G (US)** variant. The PCB stays the same. The circuitry stays the same, apart from that the SRD components and antenna that are not populated. As this variant has less features, this application is for an additional equipment authorisation (Grant) with a different FCC ID, namely: **2AFMS-450C4G**.

The original test results continued to be representative of and applicable to the MiX 450C-4G (US). In addition, the following tests have been conducted:

FCC FCC ID 2AFMS-450C4G Contains FCC ID: XPY2AGQN4NNN	FCC 47 CFR Part 15B: 2017	ANSI C63.10 (2014) Radiated Disturbance (delta test for MiX 450C-4G)	TÜV UK	21-Apr-21	Document 75951686-02 Issue 01
	FCC 47 CFR Part 15C: 2017	ANSI C63.10 (2014) Transmit - 915 MHz SRD	TÜV UK	19-Apr-21	Document 75942815-02 Issue 04
	FCC 47 CFR Part 1.1310: 2017	RF Exposure Levels as described in the ICNIRP and FCC CFR 47 § 1.1310 OET65:97 Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields IEEE C95.3:2002 IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields with Respect to Human Exposure to Such Fields, 100 kHz - 300 kHz	TÜV UK	15-Apr-21	Document 75942815-04 Issue 03

	FCC 47 CFR Parts 15, 24 and 27: 2017	FCC 47 CFR Parts 15, 24 and 27 Radiated Spurious Emissions (Simultaneous transmission): 2017 ANSI C63.10 (2013) 6 dB Bandwidth, Max Conducted Output Power, Spurious Radiated Emissions, Restricted and Authorised Band Edges, Power Spectral Density [BLE] KDB 558074 D01 v03 r05 ANSI C63.26: 2015 IEEE/ANSI Standard for Compliance Testing of Transmitters Used in Licensed Radio Services	TÜV UK	19-Apr-21	Document 75942815-03 Issue 04
European Union Radio Equipment Directive (RED) 2014/53/EU	Article 3.2 Radio	ETSI EN 301 908-1: V11.1.1 (2016-07) covering LTE CAT M1 FDD Bands 5 and 28. 4.2.2 Radiated Emissions (UE)	TUV UK	15-Apr-21	Document 75946608-03 Issue 04
		ETSI EN 300 328 : V2.1.1 (2016-11) Bluetooth Spurious Emissions	TUV UK	22-Apr-21	Document 75951686-05 Issue 01

See below photographs as required by §2.1033(b)(7) or (c)(12) showing the exterior appearance of the equipment, including the operating controls available to the user and the identification label:



Figure 1: Top View of the MiX 450C-4G Enclosure



Figure 2: Front View of the MiX 450C-4G Enclosure





Figure 3: Rear View of the MiX 450C-4G Enclosure




Figure 4: Bottom View of the MiX 450C-4G Enclosure (interim label)

MiX 450C-4G (US)

SERIAL NUMBER

 5 6 1 2 3 4 5 6


PART NUMBER

 U0091MT

IMEI NUMBER

 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5

BLUETOOTH MAC ADDRESS 00-01-02-1A-2B-3C

V1 MM WW/YYYY

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 (1) this device may not cause harmful interference, and
 (2) this device must accept any interference received, including interference that may cause undesired operation.



FCC ID: 2AFMS-450C4G
 Contains FCC ID: XPY2AGQN4NNN
 Contains ISED: 8595A-2AGQN4NNN
10.5 – 32VDC; 4.5A (max)

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Figure 5: Picture of the MiX 450C-4G label with new FCC ID

We remain at your disposal for any clarifications that may become necessary.

Sincerely,



Certification Manager: TC Bothma