



04/27/2022

Telecommunication Certification Body
UL International (UK) Ltd.
Units 1-3, Horizon
Wade Road
Kingsland Business Park
Basingstoke
Hampshire
RG24 8AH
United Kingdom

Subject: Class 2 Permissive Change (C2PC) Request

FCC ID: 2A2CI-INF001-WF

To whom it may concern

In accordance with KDB 178919 D01 and FCC rule part §2.1043: Changes in Certified Equipment, InFarm Indoor Urban Farming GmbH hereby requests a class 2 permissive change to FCC ID: 2A2CI-INF001-WF as detailed below:

Change the certification to a Limited Modular Approval. The WiFi module is used only with Infarm host products and will not be sold on the open market.

The WiFi module (FCC ID: 2A2CI-INF001-WF) will be integrated together with cellular module (FCC ID: 2A2CI-INF001-CL) into host product 'Infarm Gateway'. These two modules can transmit simultaneously.

The Bluetooth BR operation and 2G cellular operation have been disabled by software.

The addition of ferrites to the DC supply cable when installing the module into the Infarm Gateway. Details are included in the confidential Operational Description document folder.

The Infarm Gateway uses two antenna types: Delock 12676, or MobileMark SMW-414. These antennas are of a similar design and operate over the WiFi and cellular bands. The highest gain antenna SMW-414 has been used with the Infarm Gateway for the following testing:

- 47CFR15.247 February 2017 (Ref ANSI C63.10:2013) Radio – Radiated spurious emissions and Band edge at radio module level for 2.4GHz wi-fi (b, g, n)
- 47CFR15.247 February 2017 (Ref ANSI C63.10:2013) Radio – Radiated spurious emissions and Band edge at radio module level for BLE

- 47CFR15.407 February 2017 (Ref ANSI C63.10:2013) Radio – Radiated spurious emissions and Band edge at radio module level for 5GHz wi-fi (a, n, ac)

- FCC Part 22
FCC Part 24
FCC Part 27 applies to 700MHz band also 47CFR15.247 and 47CFR15.407
February 2017 (Ref ANSI C63.10:2013)
Intermodulation tests on Gateway box + metal planes:
 - (1) 5GHz wi-fi + 3G (850MHz)
 - (2) 5GHz wi-fi + 3G (1900MHz)
 - (3) BLE + LTE B2 1900
 - (4) 2.4GHz wi-fi + LTE B4 1700MHz
 - (5) 5GHz wi-fi + LTE B5 850MHz
 - (6) BLE + LTE B5 850MHz
 - (7) 2.4GHz wi-fi + LTE B7 2600MHz
 - (8) 2.4GHz wi-fi + LTE B12 700MHz
 - (9) 5GHz wi-fi + LTE B12 700MHz
 - (10) BLE + LTE B12 700MHz

- RF exposure compliance has been evaluated in accordance with FCC Part 2.1091.

Yours faithfully,

Ibrahim Oguz Yildirim
R&D Compliance Engineer

