



August 1, 2022.

**Subject: FCC Part 15C Class 2 Permissive Change for Clean Hands Safe Hands, LLC, Model GEN4 Sensor, FCC ID: 2AHQD-SENSOR4**

The purpose of this report is to file for a Class II permissive change for the following reasons:

In this update to the design changes were to two of the data line traces on the PCBA on the ZigBee circuits. The changes are as follows: Moved the SPI\_ATTN and FORCE\_WAKE signal lines off of PORTC.

Change List:

- |  |  |
|--|--|
| 1. XB_FORCE_WAKE<br>previously: U12-22 (PD13), J29-5 (test point), U205-1 (PC00)<br>new: U12-22 (PD13), J29-5 (test point), U205-17 (PA00) | 2. XP_SPI_ATTN<br>previously: U12-33 (PB13), J29-6 (test point), U205-2 (PC01)<br>new: U12-33 (PB13), J29-6 (test point), U205-16 (PB00) |
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Component Changes: modifications to the antenna balance network for the U205 Zigbee radio.

- |   |   |
|---|---|
| 1. C220<br>previously: DNP<br>new: 2.7pF Capacitor            | 4. C219<br>previously: 2.2nH Inductor<br>new: 2.7pF Capacitor |
| 2. L106<br>previously: 0 Ohm Resistor<br>new: 3.3nH Inductor  | 5. L107<br>previously: 0.3nH Inductor<br>new: 0 Ohm Resistor  |
| 3. C221<br>previously: 6.2nH Inductor<br>new: 0.9pF Capacitor |   |

Note that the component values on the schematic are placeholder values for the antenna networks with final component values coming from the BOM.

Due to the changes above, the equipment was re-evaluated for continued compliance with Part 15.247, 15.209 requirements. Based on the changes above the following test were performed:

- Intentional Radiated emissions Part 15.247(d)- ZigBee ONLY
- Radiated Spurious emissions Part 15.209- Overall Device

No other hardware changes have been made to the original product. No additional changes were made to the transmitter circuitry of the radio and the changes described in this filing result in the same RF characteristics as in the original filing. All other original test results continue to be representative of the equipment.

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There is no increase in the output power, no RF Exposure condition changed, and the device remains in the same equipment class. There are no other changes to the device that indicate a need for a new FCC ID.

The test report shows that the product continues to meet the applicable subpart for CFR 47, Part 15 Subpart C, 15.209, and 15.247.

See the test report and additional submittal exhibits for details. Best

Regards,

A handwritten signature in black ink, appearing to read "George Yang".

George Yang  
Agent for Clean Hands Safe Hands, LLC.

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