

January 27, 2024

The information provided in this document applies to the following Intel Wireless Adapter Modules

FCC ID: **PD9BE201D2** IC: **1000M – BE201D2** 

## **Software Security Description**

- KDB 594280 D02v01r03 Section II
- RSS 248 (section 11 a, b, & c)

# **General Description**

| 1. Describe how any software/firmware update will     | There is no downloadable software provided by the       |
|-------------------------------------------------------|---------------------------------------------------------|
| be obtained, downloaded, and installed. Software      | manufacturer that can modify critical radio transmitter |
| that is accessed through manufacturer's website or    | parameters. All critical parameters are programmed in   |
| device's management system, must describe the         | OTP memory at the factory and cannot be modified or     |
| different levels of security as appropriate.          | overridden by third parties.                            |
|                                                       |                                                         |
| 2. Describe the rf parameters that are modified by    | There are no rf parameters that can be modified. All rf |
| any software/firmware without any hardware            | parameters are programmed in OTP memory at the          |
| changes. Are these parameters in some way             | factory and cannot be modified or overridden by third   |
| limited, such that, it will not exceed the authorized | parties.                                                |
| RF characteristics?                                   |                                                         |
| 3. Describe in detail the authentication protocols    | The firmware is programmed at the factory and cannot    |
| that are in place to ensure that the source of the RF | be modified by third parties.                           |
| related software/firmware is legitimate. Describe in  |                                                         |
| detail how the software is protected against          |                                                         |
| modification.                                         |                                                         |
| 4. Describe in detail any encryption methods used     | The firmware is programmed at the factory and cannot    |
| to support the use of legitimate RF                   | be modified by third parties therefore no encryption is |
| relatedsoftware/firmware.                             | necessary.                                              |
|                                                       |                                                         |
| 5. For a device that can be configured as a master    | This is a client module only.                           |
| and client (with active or passive scanning), explain |                                                         |
| how the device ensures compliance for each            |                                                         |
| mode? In particular if the device acts as master in   |                                                         |
| some band of operation and client in another; how     |                                                         |
| is compliance ensured in each band of operation?      |                                                         |
|                                                       |                                                         |
|                                                       |                                                         |



## **Third-Party Access Control**

| 1. Explain if any third parties have the capability to operate a US sold device on any other regulatory domain, frequencies, or in violation of the device's authorization if activated in the U.S                                                                                                                                                                                                                                                                                                                                          | Third parties do not the capability to operate in any manner that is violation of the certification in the U.S.                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2.Describe, if the device permits third-party software or firmware installation, what mechanisms are provided by the manufacturer to permit integration of such functions while ensuring that the RF parameters of the device cannot be operated outside its authorization for operation in the U.S. In the description include what controls and/or agreements are in place with providers of third-party functionality to ensure the devices' underlying RF parameters are unchanged and how the manufacturer verifies the functionality. | factory and cannot be reprogrammed or re-flashed by third parties.                                                                                                                                                                                                                                        |
| 3. For Certified Transmitter modular devices, describe how the module grantee ensures that hosts manufactures fully comply with these software security requirements for U-NII devices. If the module is controlled through driver software loaded in the host, describe how the drivers are controlled and managed such that the modular transmitter parameters are not modified outside the grant of authorization.                                                                                                                       | There are no rf parameters that can be modified. All rf parameters are programmed in OTP memory at the factory and cannot be modified or overridden by third parties. The module is not controlled by driver software on the host and cannot override critical rf parameters stored in module OTP memory. |



## SOFTWARE CONFIGURATION DESCRIPTION - KDB 594280 D02v01r02 Section III

### **USER CONFIGURATION GUIDE**

| 1. Describe the user configurations permitted through the UI. If different levels of access are permitted for professional installers, system integrators or end-users, describe the differences. | No UI provided.                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) What parameters are viewable and configurable by different parties?                                                                                                                            | None                                                                                                                                                                                                             |
| b) What parameters are accessible or<br>modifiable to the professional installer or system<br>integrator?                                                                                         | None                                                                                                                                                                                                             |
| i) Are the parameters in some way limited, so<br>that the installers will not enter parameters that<br>exceed those authorized?                                                                   | The module micro-code reads the parameters from the module OTP memory. These parameters cannot be modified or overridden by sw drivers.                                                                          |
| ii) What controls exist that the user cannot operate the device outside its authorization in the U.S.?                                                                                            | Default mode is always FCC compliant. Other country modes cannot be activated without receiving three independent country codes from different APs, otherwise remains in FCC default mode (always FCC compliant) |
| c) What parameters are accessible or modifiable by the end-user?                                                                                                                                  | None                                                                                                                                                                                                             |
| i) Are the parameters in some way limited, so that                                                                                                                                                | The module micro-code reads the parameters from the                                                                                                                                                              |
| the installers will not enter parameters that exceed those authorized?                                                                                                                            | module OTP memory. These parameters cannot be modified or overridden by sw drivers.                                                                                                                              |
| ii) What controls exist that the user cannot operate the device outside its authorization in the U.S.?                                                                                            | Default mode is always FCC compliant. Other country modes cannot be activated without receiving three independent country codes from different APs, otherwise remains in FCC default mode (always FCC compliant) |
| d) Is the country code factory set? Can it be changed in the UI?                                                                                                                                  | Default country code is set in the factory and no UI is provided for modification.                                                                                                                               |
| i) If it can be changed, what controls exist to ensure that the device can only operate within its authorization in the U.S.?                                                                     |                                                                                                                                                                                                                  |
| e) What are the default parameters when the device is restarted?                                                                                                                                  | Always FCC compliant                                                                                                                                                                                             |

| <b>2.</b> Can the radio be configured in bridge or mesh  | No                                  |
|----------------------------------------------------------|-------------------------------------|
| mode? If yes, an attestation may be required.            |                                     |
| Further information is available in KDB Publication      |                                     |
| 905462 D02.                                              |                                     |
| 9                                                        | This is a client device.            |
| and client (with active or passive scanning), if this is |                                     |
| user configurable, describe what controls exist,         |                                     |
| within the UI, to ensure compliance for each mode.       |                                     |
| If the device acts as a master in some bands and         |                                     |
| client in others, how is this configured to ensure       |                                     |
| compliance?                                              |                                     |
| 4. For a device that can be configured as different      | This device is not an access point. |
| types of access points, such as point-to-point or        |                                     |
| point-to- multipoint, and use different types of         |                                     |
| antennas, describe what controls exist to ensure         |                                     |
| compliance with applicable limits and the proper         |                                     |
| antenna is used for each mode of operation. (See         |                                     |
| Section 15.407(a))                                       |                                     |

Sincerely,

Benjamin LAVENANT Regulatory Engineer Intel Corporation

benjamin.lavenant@intel.com