## Fujian Newland Auto-ID Tech Co.,Ltd.

Newland Science & Technology Park, No.1 Rujiang West Rd, Mawei, Fuzhou, P.R.China

Federal Communication Commission Equipment Authorization Division, Application Processing Branch 7435 Oakland Mills Road Columbia, MD 21046

<2019-06-10>

Attn: Office of Engineering and Technology Subject: Attestation Letter regarding UNII devices

FCC ID: SL9NLS-NFT10

Software security questions and answers per KDB 594280 D02 U-NII Device Security v01r03:

| S | Security v01r03:  |  |  |  |  |  |
|---|---|--|--|--|--|--|
|   | Software Security description – General Description   |  |  |  |  |  |
| 1 | Describe how any software/firmware update will be obtained, downloaded, and installed. Software   | We do not release the firmware on our website for downloading. Our   |  |  |  |  |
|   | that is accessed through manufacturer's website or device's management system, must describe the different levels of security.  | direct host manufacturer (OEM) can request the firmware from us and it will be made available via secure server.   |  |  |  |  |
| 2 | Describe all the radio frequency parameters that are modified by any software/firmware without any hardware changes. Are these parameters in some way limited, such that, it will not exceed the authorized parameters? | Radio frequency parameters are limited by US regulatory domain and country code to limit frequency and transmit power levels. These limits are stored in non-volatile memory by the module manufacturer at the time of production. They will not exceed the authorized values.   |  |  |  |  |
| 3 | Describe in detail the authentication protocols that are in place to ensure that the source of the software/firmware is legitimate. Describe in detail how the software is protected against modification               | The firmware is installed on each single module during manufacturing process. The correct firmware is verified and installed by the module manufacturer.  In addition, the firmware binary is encrypted using open SSL encryption and the firmware updates can only be stored in non-volatile memory when the firmware is authenticated.  The encryption key is known by the |  |  |  |  |

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|   |   | module manufacturer only.            |  |  |
| 4   | Describe in detail the verification protocols in    | The process to flash a new firmware  |  |  |
|   | place to ensure that installed software/firmware is | is using a secret key to decrypt the |  |  |
|   | legitimate  | firmware, only correct decrypted     |  |  |
|   |   | firmware is stored in non-volatile   |  |  |
|   |   | memory (see #3).                     |  |  |
| 5   | For a device that can be configured as a master     | The device ensures the compliance    |  |  |
|   | and client (with active or passive scanning),       | by checking the configured           |  |  |
|   | explain how the device ensures compliance for       | parameter and operation values       |  |  |
|   | each mode? In particular if the device acts as      | according to the regulatory domain   |  |  |
|   | master in some band of operation and client in      | and country code in each band.       |  |  |
|   | another; how is compliance ensured in each band     | The device configured as Client      |  |  |
|   | of operation?                                       | without radar detection capability   |  |  |
|   | Software Security description – Third-P             | arty Access Control                  |  |  |
| 1   | Explain if any third parties have the capability to | No, third parties don't have the     |  |  |
|   | operate a US sold device on any other regulatory    | capability to access and change      |  |  |
|   | domain, frequencies, or in any manner that is in    | radio parameters. US sold modules    |  |  |
|   | violation of the certification.                     | are factory configured to US.        |  |  |
| 2   | Describe, if the device permits third-party         | N/A                                  |  |  |
|   | 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.                                      |                                      |  |  |
| 3   | For Certified Transmitter modular devices,          | N/A                                  |  |  |
|   | describe how the module grantee ensures that        |                                      |  |  |
|   | host manufacturers 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 RF parameters are not           |                                      |  |  |
|   | modified outside the grant of authorization.        |                                      |  |  |
| Software Security description – USER CONFIGURATION GUID |   |                                      |  |  |
| 1   | Describe the user configurations permitted          | There is no user configuration GUI.  |  |  |
|   | through the UI. If different levels of access are   |                                      |  |  |
|   | permitted for professional installers, system       |                                      |  |  |
|   | · · · · · · · · · · · · · · · · · · ·               |                                      |  |  |

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|---|---|----------|--|-------------------------------------|--|--|--|
|   | integrators or end-users, describe the differences. |          |  |                                     |  |  |  |
|   | a.  |          | parameters are viewable and              | There is no user configuration GUI. |  |  |  |
|   |   | config   | gurable by different parties?            |                                     |  |  |  |
|   | b. What parameters are accessible or modifiable     |          |  | This device is not subject to       |  |  |  |
|   |   | to the   | professional installer?                  | professional installation           |  |  |  |
|   |   | i.       | Are the parameters in some way           |                                     |  |  |  |
|   |   |          | limited, so that the installers will not |                                     |  |  |  |
|   |   |          | enter parameters that exceed those       |                                     |  |  |  |
|   |   |          | authorized?                              |                                     |  |  |  |
|   |   | ii.      | What controls exist that the user        |                                     |  |  |  |
|   |   |          | cannot operate the device outside its    |                                     |  |  |  |
|   |   |          | authorization in the U.S.?               |                                     |  |  |  |
|   | c.  | What     | configuration options are available to   | The end user is not able to         |  |  |  |
|   |   |          | id-user?                                 | configure any parameters related to |  |  |  |
|   |   |          |  | the devices radio                   |  |  |  |
|   |   |          |  |                                     |  |  |  |
|   |   | i.       | Are the parameters in some way           | The parameters can only be          |  |  |  |
|   |   |          | limited, so that the installers will not | changed remotely within the limits  |  |  |  |
|   |   |          | enter parameters that exceed those       | of country code US.                 |  |  |  |
|   |   |          | authorized?                              |                                     |  |  |  |
|   |   | ii.      | What controls exist that the user        | The country code and regulatory     |  |  |  |
|   |   |          | cannot operate the device outside its    | domain control do limit all the     |  |  |  |
|   |   |          | authorization in the U.S.?               | parameters set                      |  |  |  |
|   | d.  | Is the   | country code factory set? Can it be      | The country code is factory set and |  |  |  |
|   | changed in the UI?                                  |          |  | is never changed by UI.             |  |  |  |
|   |   |          |  |                                     |  |  |  |
|   |   | i.       | If so, what controls exist to ensure     | The country code is factory set and |  |  |  |
|   |   |          | that the device can only operate         | is never changed by UI              |  |  |  |
|   |   |          | within its authorization in the U.S.?    |                                     |  |  |  |
|   | e.  | What     | are the default parameters when the      | At each boot up the country code    |  |  |  |
|   |   |          | e is restarted?                          | and the antenna gain are read from  |  |  |  |
|   |   |          |  | the non-volatile memory, those      |  |  |  |
|   |   |          |  | values are configured during        |  |  |  |
|   |   |          |  | production.                         |  |  |  |
| 2 | Ca  | n the ra | adio be configured in bridge or mesh     | Not supported                       |  |  |  |
|   | mode? If yes, an attestation may be required.       |          | yes, an attestation may be required.     |                                     |  |  |  |
|   |   |          | aformation is available in KDB           |                                     |  |  |  |
|   | Publication 594280 D02 U-NII Device Security        |          |  |                                     |  |  |  |
|   |   | 1r03.    | •  |                                     |  |  |  |
| 3 | Fo  | r a dev  | ice that can be configured as a master   | Not Supported                       |  |  |  |
|   |   |          | t (with active or passive scanning), if  |                                     |  |  |  |
|   |   |          |  | l .                                 |  |  |  |

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|   | 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   | The device does not support these |
|   | types of access points, such as point-to-point or  | modes/features.                   |
|   | 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,

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