

LG Electronics USA, Inc.

Date: July 26, 2023

SOFTWARE SECURITY REQUIREMENTS FOR U-NII DEVICES (594280 D02 U-NII Device Security 1.3, 11/12/15)

Company Name: LG Electronics USA, Inc.

FCC ID: BEJVCUEB-N

Product Name: Silverbox RADIO ASM-RECEIVER

SOFTWARE SECURITY DESCRIPTION	
General Description	
Q.	1. Describe how any software/firmware updates for elements that can affect the device's RF parameters will be obtained, downloaded, validated and installed. For software that is accessed through manufacturer's website or device's management system, describe the different levels of security as appropriate.
A.	Any software/firmware that affect device's RF parameters are a part of system software. The system software is encrypted before distribution and downloaded, validated and updated. There are no way to update only for RF parameters.
Q.	2. Describe the RF parameters that are modified by any software/firmware without any hardware changes. Are these parameters in some way limited such that any other software/firmware changes will not allow the device to exceed the authorized RF characteristics?
A.	All RF parameters are hard-coded and validated before published. There are no way to change any RF parameters excepted for System software update.
Q.	3. Describe in detail the authentication protocols that are in place to ensure that the source of the RF-related software/firmware is valid. Describe in detail how the RF-related software is protected against modification.
A.	RF-related software/firmware are included in a system software and encrypted, validated before update. If there are any modification after distribution, the software validation will be failed and rejected to update.
Q.	4. Describe in detail any encryption methods used to support the use of legitimate RF-related software/firmware.
A.	AES encryption algorithm is used to support legitimate software/firmware.
Q.	5. For a device that can be configured as a master 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?
A.	Only Master mode allowed, all compliance parameters are hard-coded and validated before distribution.

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Third-Party Access Control
1. Explain if any third parties have the capability to operate a U.S.-sold device on any other regulatory domain, frequencies, or in any manner that may allow the device to operate in violation of the device's authorization if activated in the U.S.
Any third parties have no access capability and no way to change parameters for the RF operation
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.
Device does not permit any third-party software or firmware installation.
3. For Certified Transmitter modular devices, 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.
Host driver fully controls and manages the transmitter module's RF parameters and no way to change them from outside of the device except for the authorized system software updated.

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SOFTWARE CONFIGURATION DESCRIPTION

USER- CONFIGURATION GUIDE

Q.	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.
A.	No difference access level are permitted for any user.. Only the SSID and Password could be configured through the UI.
Q.	a. What parameters are viewable and configurable by different parties? ⁹
A.	SSID, Password
Q.	b. What parameters are accessible or modifiable by the professional installer or system integrators?
A.	SSID, Password
Q.	(1) Are the parameters in some way limited, so that the installers will not enter parameters that exceed those authorized?
A.	No limit.
Q.	(2) What controls exist that the user cannot operate the device outside its authorization in the U.S.?
A.	No outside control method to operate the device. The UI is the only control method.
Q.	c. What parameters are accessible or modifiable by the end-user?
A.	SSID, Password
Q.	(1) Are the parameters in some way limited, so that the user or installers will not enter parameters that exceed those authorized?
A.	No limit.
Q.	(2) What controls exist so that the user cannot operate the device outside its authorization in the U.S.?
A.	No outside control method to operate the device. The UI is the only control method.
Q.	d. Is the country code factory set? Can it be changed in the UI?
A.	The country code factory is set. Cannot change it in the UI.
Q.	(1) If it can be changed, what controls exist to ensure that the device can only operate within its authorization in the U.S.?
A.	The country code factory is set. Cannot change it in the UI.
Q.	e. What are the default parameters when the device is restarted?
A.	Same as previous setting.

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Q.	2. Can the radio be configured in bridge or mesh mode? If yes, an attestation may be required. Further information is available in KDB Publication 905462 D02.
A.	No. This device cannot be configured in a bridge or mesh mode.
Q.	3. For a device that can be configured as a master 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?
A.	Only the SSID and Password can be changed through the UI. RF parameters are hard-coded and cannot be changed.
Q.	4. For a device that can be configured as different 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.
A.	The antenna configuration is hard-coded and used with same configuration for any mode. No control method exist to change it.

Signature



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