

# Software security for UNII Devices

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To Whom It May Concern:

Product/Model/HVIN: CPAC-1054 (also known as CICU). (Module: "U-BLOX: ODIN-W2")

FCC ID: AVH-CPAC1054 (Contains: PVH0965)

IC ID: 10111A-CPAC1054 (Contains: 5325A-0965)

## SOFTWARE SECURITY REQUIREMENTS FOR U-NII DEVICES acc. to KDB 594280

SOFTWARE CONFIGURATION DESCRIPTION	
<u>General Description</u>	<i>The CPAC-1054 (CICU) unit is only used integrated in electric busses and vehicles for controlling the battery charging process.</i>
<u>1</u>	<p>Describe how any software/firmware updates for elements than 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.</p> <p><i>No setting of RF properties in the unit outside the legal can be made after factory installation. No professional installer or user or end-user can update or modify the RF properties of the unit.</i></p>
<u>2</u>	<p>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?</p> <p><i>Legally allowed RF channels are defined in the unit SW. Other channels cannot be used.</i></p>
<u>3</u>	<p>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.</p> <p><i>Unit RF-related SW is factory installed and can't be changed.</i></p>
<u>4</u>	<p>Describe in detail any encryption methods used to support the use of legitimate RF-related software/firmware.</p> <p><i>No encryption method is used at unit level.</i></p>

<u>5</u>	<p>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?</p> <p>N/A. The unit can only be used as <b>client</b> with approved SW.</p>
<u>Third-Party Access Control</u>	
<u>1</u>	<p>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.</p> <p>Not possible.</p>
<u>2</u>	<p>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.</p> <p>No third-party SW can be installed.</p>
<u>3</u>	<p>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.</p> <p>NA</p>

	SOFTWARE CONFIGURATION DESCRIPTION
<b>USER CONFIGURATION GUIDE</b>	
<u>1</u>	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.  The unit has no UI.
<u>1.a</u>	What parameters are viewable and configurable by different parties?  None
<u>1.b</u>	What parameters are accessible or modifiable by the professional installer or system integrators?  None.
<u>1.b(1)</u>	Are the parameters in some way limited, so that the installers will not enter parameters that exceed those authorized?  NA
<u>1.b(2)</u>	What controls exist that the user cannot operate the device outside its authorization in the U.S.?  See above.
<u>1.c</u>	What parameters are accessible or modifiable by the end-user?  None
<u>1.c(1)</u>	Are the parameters in some way limited, so that the user or installers will not enter parameters that exceed those authorized?  User or installer cannot enter any parameters.
<u>1.c(2)</u>	What controls exist so that the user cannot operate the device outside its authorization in the U.S.?  This is controlled by the factory installed unit SW/FW.
<u>1.d</u>	Is the country code factory set? Can it be changed in the UI?  The unit does not use county codes. The unit has no UI.
<u>1.d(1)</u>	If it can be changed, what controls exist to ensure that the device can only operate within its authorization in the U.S.?  NA
<u>1.e</u>	What are the default parameters when the device is restarted?  Factory set parameters including allowed channel list.



<u>2</u>	<p>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.</p> <p>No</p>
<u>3</u>	<p>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?</p> <p>The unit can only be configured as client.</p>
<u>4</u>	<p>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. (See Section 15.407(a))</p> <p>The unit can only be used as point-to-point for the specified application. Only the defined antenna can be used (included with the unit).</p>

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