



2120 Constitution Avenue
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HED-W131 User's Manual

Revision	Revised by	Description	Date
A	Bryan DeMaster	Initial Release	8/4/2016
B	Bryan DeMaster	Added antennas to approved list	8/15/2016



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1 Overview

The HED-W131 is targeted for integration into different host products. The HED-W131 is a single modular approval based on u-Blox ELLA-W131 module and is approved for use in a WiFi b/g/n configuration only. While hardware exists for Bluetooth functionality, additional testing and certification would be required prior to using this feature in a host product. The HED-W131 module is FCC and IC approved. Refer to u-Blox ELLA-W131 datasheet and system integration manual for additional technical information.

2 FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

In accordance with 47 CFR 15.19, the end product into which this module is integrated shall bear the above statement in a conspicuous location on the device. When the end-product is so small or for such use that it is not practical to place the above statement on it, the information shall be placed in a prominent location in the instruction manual or other document.

Any changes or modifications not expressly approved by HED could void the user's authority to operate the equipment. The internal / external antenna(s) used for this module must provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC's multi-transmitter policy.

The outside of final products containing the HED-W131 module must display in a user accessible area a label referring to the enclosed module. If the end-product will be installed in locations where the end-user is not able to see the FCC ID, it shall also be included in the end-product manual. The exterior label can use wording such as the following:

"Contains Transmitter Module FCC ID: (ABC)-(###)" or "Contains FCC ID: (ABC)-(###)", where (ABC) is the FCC Grantee Code and (###) is the Unique Product Identifier decided by the grant owner.



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3 IC Compliance

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The outside of final products containing the HED-W131 module must display in a user accessible area a label referring to the enclosed module. If the end-product will be installed in locations where the end-user is not able to see the IC ID, it shall also be included in the end-product manual. The exterior label can use wording such as the following:

“Contains Transmitter Module IC: (XYZ)-(###)” or “Contains IC: (XYZ)-(###)”, where (XYZ) is the Industry Canada Company Number and (###) is the Unique Product Identifier decided by the grant owner.

4 Approved Antennas List

The HED-W131 has been tested and approved for use with the antennas listed in the tables below.

Internal Antennas:

Manufacturer	Manufacturer P/N	Description
Johanson Technology	2450AT45A100E	2.45GHz High Gain SMD Chip Antenna

External Antennas:

Manufacturer	Manufacturer P/N	Description
Linx Technologies	ANT-2.4-CW-RCT-RP	2.45GHz 1/2-Wave External Antenna
Taoglas	MA600.A.ABC.007	3-in-1 Combination GNSS/Cellular/WiFi

Schematic design and PCB layout should be implemented similar to the HED-W131 test board configuration. Contact HED for additional details.

Other antennas may be acceptable under a Class 1 Permissive Change assuming they are of the same type and equal or lesser gain compared to those approved in the tables above. If these conditions cannot be met, additional testing and a Class 2 Permissive Change may be required.



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5 Software Configuration and Control

As the end-product must comply with the requirements addressed by the OET KDB 594280, the host product integrating the HED-W131 must comply as well. Please refer to the topics that must be addressed as reference in OET KDB 594280 D01 and D02. The integrator of the product must ensure these requirements are fulfilled and be able to present documentation showing compliance, upon request.