



User Guide	MODEL NO	DLWPH11M		
	DWG NO			
	REVISION	A1	DATE	2025-03-14

Revision History Agenda

Date	Version	Agenda	Engineer
2025/03/14	A1	Initial Doc.	Billy



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For FCC**FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

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.

RF Exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Per KDB 996369 D03 v01r01 OEM Manual section 2.2 to 2.12, this module is intended for OEM integrators under the following conditions:

2.2 List of applicable FCC rules

This module has been tested for compliance to FCC Part 15 Subpart C (15.247).

2.3 Summarize the specific operational use conditions

The module is tested for standalone mobile RF exposure use condition. Any other usage conditions such as co-location with other transmitter(s) will need a separate reassessment through a class II permissive change application or new certification.

2.4 Limited module procedures

Not applicable, this device is a single modular approval and meets FCC 47 CFR 15.212 requirement.

2.5 Trace antenna designs

Not applicable. This module has its own antenna, and does not need a host's printed board micro strip trace antenna, etc.

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2.6 RF exposure considerations

This equipment complies with FCC mobile radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. A separate SAR/Power Density evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

2.7 Antennas

This module has been approved to operate with the antenna types listed below, with the maximum permissible gain indicated.

No.	Manufacturer	Model No.	Antenna Type	Peak Gain(dBi)	Freq. Range(GHz)
1	ARISTOTLE	PFA-25JP266-79W-260	PIFA	6.44	2412-2462
2	ARISTOTLE	PFA-LTE02-T1000J1080	Dipole	2.28	2412-2462

IMPORTANT: The final host product must have an integral antenna which is not removable by the end-user.

2.8 Label and compliance information

Label of the end product:

The final end product must be labeled in a visible area with the following: "Contains FCC ID: 2BKAFDLWPH11M". The grantee's FCC ID can be used only when all FCC compliance requirements are met

2.9 Information on test modes and additional testing requirements

This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) class II permissive change re-evaluation or new certification.

2.10 Additional testing, Part 15 Subpart B disclaimer

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if

applicable. As long as all conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

IMPORTANT NOTE: In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

Manual Information To the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

OEM/Host manufacturer responsibilities



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OEM/Host manufacturers are ultimately responsible for the compliance of the Host and Module. The final product must be reassessed against all the essential requirements of the FCC rule such as FCC Part 15 Subpart B before it can be placed on the US market. This includes reassessing the transmitter module for compliance with the Radio and EMF essential requirements of the FCC rules. This module must not be incorporated into any other device or system without retesting for compliance as multi-radio and combined equipment.

For ISED

Innovation, Science and Economic Development Canada(ISED) Compliance Statement

This device complies with ISED's licence-exempt RSSs. 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'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation Exposure Statement:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20 cm entre le radiateur et votre corps.

This device is intended only for OEM integrators under the following conditions: (For module device use)

- 1) The antenna must be installed and operated with greater than 20cm between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna. As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes: (Pour utilisation de dispositif module)

- 1) L'antenne doit être installée et exploitée avec plus de 20 cm entre l'antenne et les utilisateurs, et
- 2) Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne. Tant que les 2 conditions ci-dessus sont remplies, des essais supplémentaires sur l'émetteur ne seront pas nécessaires. Toutefois, l'intégrateur OEM est toujours responsable des essais sur son produit final pour toutes exigences de conformité supplémentaires requis pour ce module installé.

IMPORTANT NOTE: In the event that these conditions cannot be met (for example certain laptop configurations or colocation with another transmitter), then the Canada authorization is no longer considered valid and the IC ID cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate Canada authorization.

IMPORTANTENOTE

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Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines co-localisation avec un autre émetteur), l'autorisation du Canada n'est plus considérée comme valide et l'ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed and operated with greater than 20cm between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains IC: IC: 32937-DLWPH11M".

Étiquetage du produit final

Ce module émetteur est uniquement autorisé à être utilisé dans un appareil où l'antenne peut être installée de manière à ce que 20 cm puissent être maintenus entre l'antenne et les utilisateurs. Le produit final doit être étiqueté dans une zone visible avec les informations suivantes: "Contient le module d'émission IC: 32937-DLWPH11M".

Manual Information To the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir à l'utilisateur final des informations concernant la procédure d'installation ou de suppression de ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.

Le manuel de l'utilisateur final doit inclure toutes les informations / avertissements réglementaires requis, comme indiqué dans ce manuel.

This radio transmitter [IC: 32937-DLWPH11M] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [IC: 32937-DLWPH11M] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur

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1.Overview

1.1 DLWPH11M Introduction

DLWPH11M is a module board that supports WiFi connectivity and can connect to a computer via USB. This type of device is typically used in wireless communication applications, such as remote data transmission, IoT (Internet of Things) devices, embedded systems, and more.

Through USB, it can directly communicate with a computer, which could be used for data transfer, configuration management, or other control functions."

Wi-Fi supports 2.4 GHz (802.11b, 802.11g, 802.11n).

1.2Package Contents

Product Name	Part Number	Description
LILY-W131-00B-01	WSSMODULE159-R00	Host-based Wi-Fi modules
USB typeA to C	W76310160028-R00	TYPE C SOCKET

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1.3 DLWPH11M Board

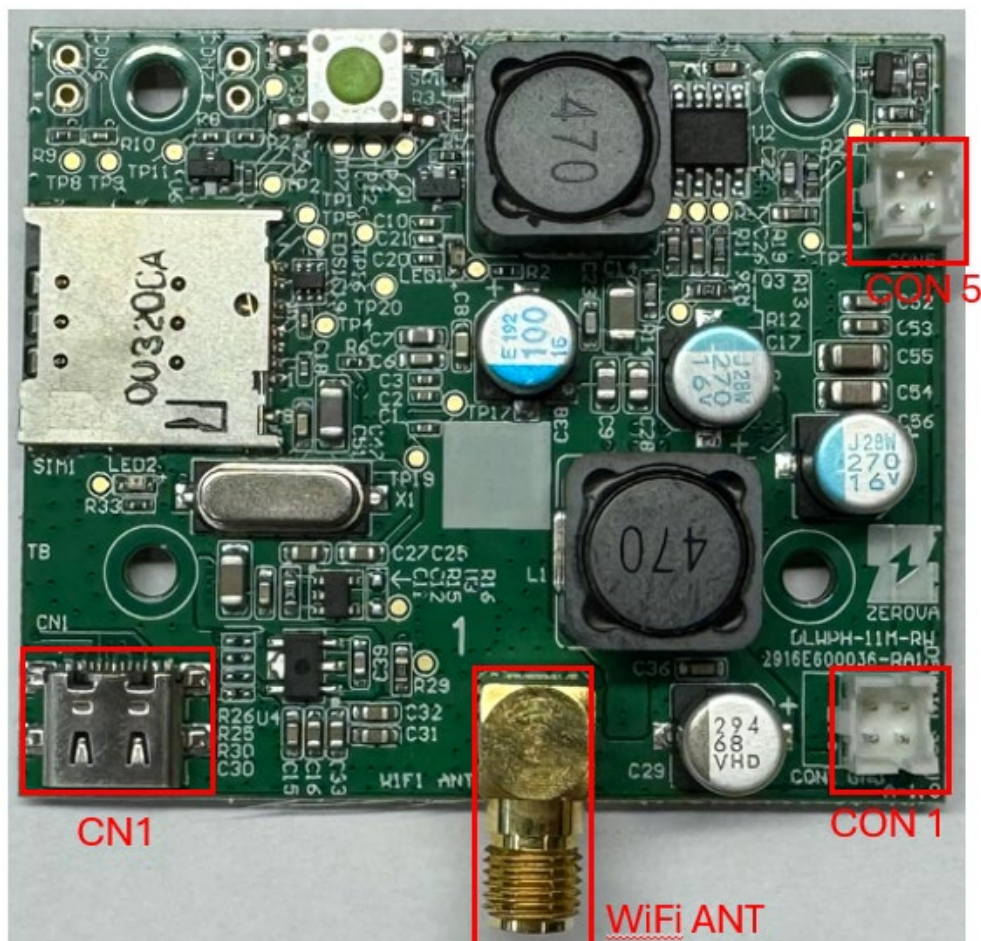


Figure1. Top view of DLWPH11M Board



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- CN1 : USB Type-C input connector. Primarily provides USB signals and 5V voltage
- WiFi ANT : SMA Male connector let RF signal out path ,you could connect with RF cable.
- CON5 : P24V & D5V_IN power reset pin
- CON1 : P24V or D5V_IN DC input.This is the power supply to WiFi module.

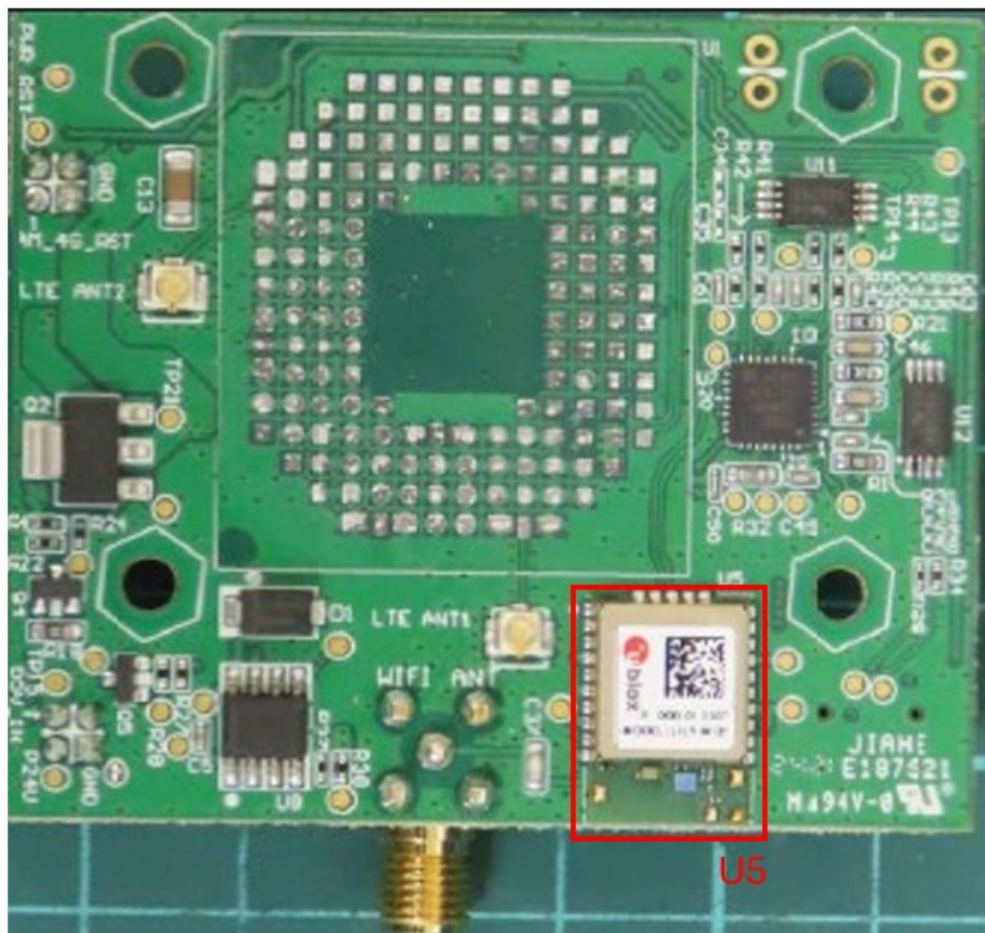


Figure2. Bottom view of DLWPH11M Board

- U5 : LILY-W131 WiFi module.



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2.Function verification

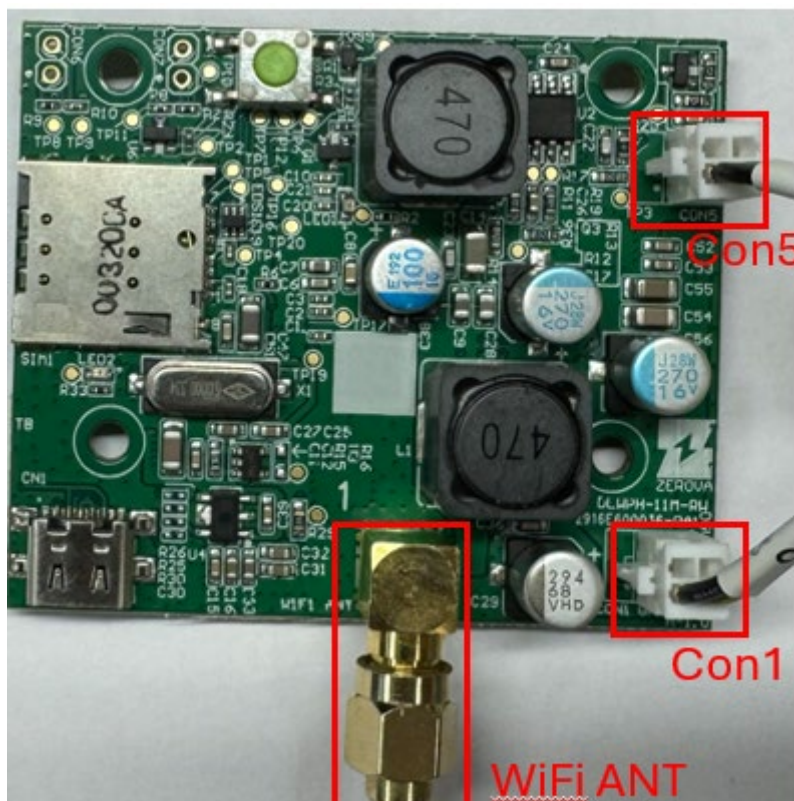
The hardware of DLWPH11M includes WiFi.You can test each Function separately

2.1 WiFi

This is a brief detail describing how to verify the Wi-Fi function of DLWPH11M

Step 1.

You need to confirm that the power connector Con1 is connected, and that Con5, the restart signal, and the WiFi ANT antenna are all properly connected.



Step 2.

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Connect the USB Cn1 and turn on the power.



Step 3.

Connect the other end of USB Cn1 (USB type A) to the CSU or a computer.

