

# LSPFN13WLAN Instruction Manual

Installation and Use of Transceiver Module



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## 1 Module Installation

1. Ensure pads/pins are clean on host PCB and module.
2. Place module onto host PCB.
- 3-5. Solder numbered regions in order.
6. Connect antenna of correct type and gain as specified in "Module Use."

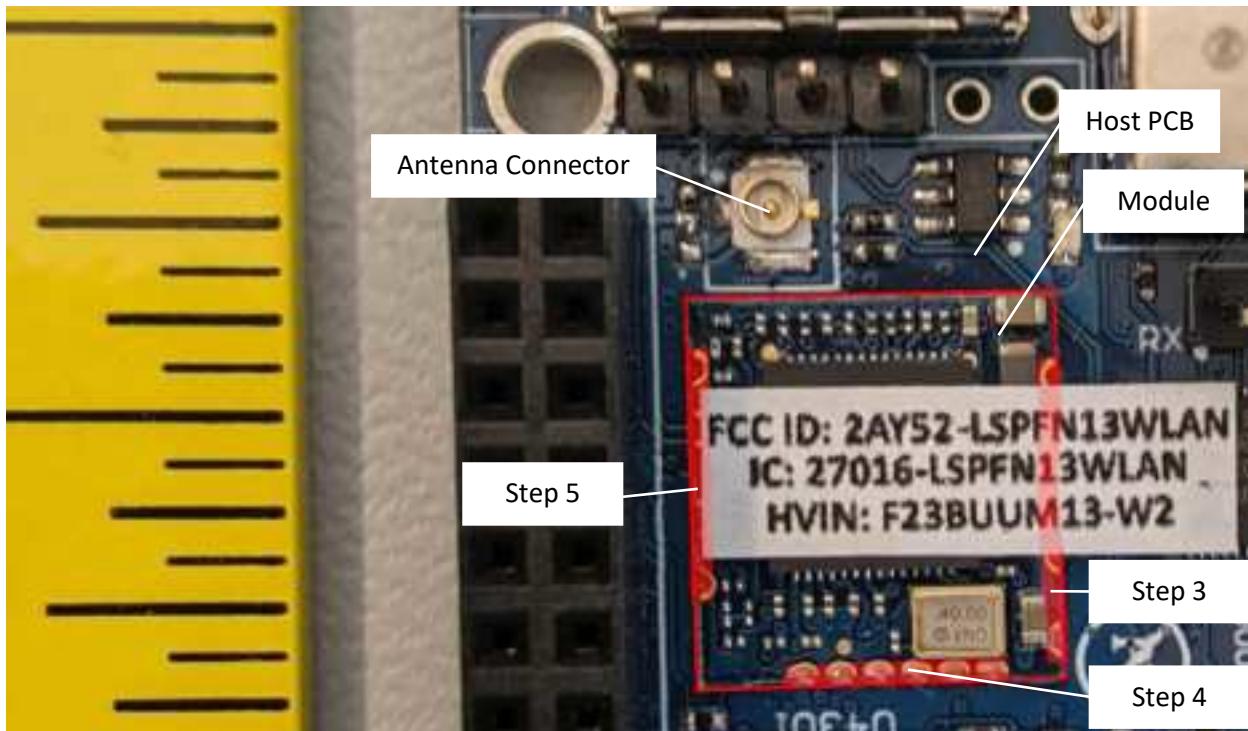


Figure 1 – Diagram of Module Installation

## 2 Module Use

### 2.1 Host Integration Requirements

This radio transmitter, FCC ID: 2AY52-LSPFN13WLAN, IC: 27016-LSPFN13WLAN, has been approved by the FCC and 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.

- External omni-directional dipole antenna: 2.8 dBi peak gain

This module complies with FCC RF exposure limits for an uncontrolled environment exclusively in fixed host products providing  $\geq 20$  cm separation between the antenna and nearby persons.

All host products must be visibly labeled “Contains FCC ID: 2AY52-LSPFN13WLAN” and “Contains IC: 27016-LSPFN13WLAN” to inform end users.

The onboard Bluetooth transceiver must be disabled in all host products, and no means of enabling Bluetooth functionality shall be provided.

Any changes or modifications not expressly approved by Coulomb, Inc. (DBA Lumin) could void the user's authority to operate the equipment.

*Cet émetteur radio, FCC ID: 2AY52-LSPFN13WLAN, IC: 27016-LSPFN13WLAN, a été approuvé par la FCC et Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous, avec le gain maximal autorisé indiqué. Les types d'antennes non inclus dans cette liste qui ont un gain supérieur au gain maximum indiqué pour tout type répertorié sont strictement interdits pour l'utilisation avec cet appareil.*

- *Antenne dipôle omnidirectionnelle externe: gain de crête de 2,8 dBi*

*Ce module est conforme aux limites d'exposition RF de la FCC pour un environnement non contrôlé exclusivement dans les produits hôtes fixes offrant une séparation  $\geq 20$  cm entre l'antenne et les personnes à proximité.*

*Tous les produits hôtes doivent être clairement étiquetés «Contains FCC ID: 2AY52-LSPFN13WLAN» et «Contains IC: 27016-LSPFN13WLAN» pour informer les utilisateurs finaux.*

*L'émetteur-récepteur Bluetooth intégré doit être désactivé dans tous les produits hôtes et aucun moyen d'activer la fonctionnalité Bluetooth ne doit être fourni.*

*Tout changement ou modification non expressément approuvé par Coulomb, Inc. (DBA Lumin) pourrait annuler le droit de l'utilisateur à utiliser l'équipement.*



## 2.2 Regulatory Statement

This device complies with Part 15 of the FCC rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

*L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme à la partie 15 des règles de la FCC et aux CNR d'Innovation, Sciences et Développement économique 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;*
2. *L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

Note: 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.