

# **User Manual**

FCC ID of this product is as follows.

FCC ID: NZLEG-01-AC-00

For OEM integration only – device cannot be sold to general public. Therefore we will ask OEM to include the following statements required by FCC on the product and in the Installation manual Notice.

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# 2.2 List of Applicable Rules:

- 47 CFR Part 15B
- 47 CFR Part 15C
- RSS-247

# 2.3 Specific Operational Use Conditions:

Please perform the antenna design that followed the specifications of the antenna. The concrete contents of a check are the following three points.

- 1. It is the same type as the antenna type of antenna specifications. Confirm the same size as the Gerber file.
- 2. An antenna gain is lower than a gain given in antenna specifications. Measure the gain, and confirm the peak gain is less than the application value (1.4dBi)
- 3. The emission level is not getting worse. Measure the spurious, and confirm degradation of less than 3dB than spurious value of worst of report used for the application. However it is spurious defined below.

It is the responsibility of the module integrator to follow appropriate guidelines per KDB996369 D04 and this document for appropriate evaluation and spot checking.

# 2.4 Limited Module Procedures: Not applicable.

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# 2.5 Trace Antenna Design:

This layout is taken from the original approval for FCC ID: VPYLB1DX.



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#### The BOM for the feed into the antenna:

- (1) Murata module
- (2) 0 ohm resistor
- (3) 2.7nH inductor

Additional components are not populated. There is no copper flood underneath the antenna.

# 2.6 RF Exposure Considerations:

When installing it in a mobile equipment. Please describe the following warning to the manual.

This equipment complies with FCC and ISED Canada radiation exposure limits set forth for an uncontrolled environment and meets the FCC and ISED Canada radio frequency (RF) Exposure Guidelines. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.

Cet équipement est conforme aux limites d'exposition aux rayonnements de la FCC et d'ISDE Canada établies pour un environnement non contrôlé et répond aux lignes directrices de la FCC et d'ISDE Canada sur l'exposition aux radiofréquences (RF). Cet équipement doit être installé et utilisé en gardant le radiateur à au moins 20 cm ou plus du corps de la personne.

When installing it in a portable equipment. It is necessary to take a SAR test with your set mounting this module. Class II permissive change application is necessary using the SAR report.

Note)

Portable equipment : Equipment for which the spaces between human body and antenna are used within 20cm. Mobile equipment : Equipment used at position in which the spaces between human body and antenna exceeded 20cm

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**IMPORTANT NOTE:** In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC/ISED Canada authorization is no longer considered valid and the FCC/ISED Canada ID can not 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.

#### 2.7 Antenna:

The module transmitter, NZLEG-01-AC-00/4112A- EG01AC00, has been approved to operate with the following antenna types, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated are strictly prohibited for use with this device.

Type of Antenna	Max Gain of Antenna:	Frequency Range
PCB Trace	1.4dBi	2402-2480MHz

# 2.8 Label And Compliance Information:

**End Product Labeling** This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains FCC ID:XXXXXXXXX and IC: 4112A-xxxxxxxx". The grantee's FCC/ISED Canada ID can be used only when all FCC and ISED Canada compliance requirements are met.

#### 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.

For OEM integration only – device cannot be sold to general public. Therefore we will ask OEM to include the following statements required by FCC/IC on the product and in the Installation manual Please describe the following warning on the final product which contains this module.

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#### Contains Transmitter Module FCC ID: NZLEG-01-AC-00

Or

### Contains FCC ID: NZLEG-01-AC-00

Please describe the following warning to the manual.

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.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures. When the product is small, as for these words mentioned above, the posting to a manual is possible.

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

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; 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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### 2.9 Information on Test Modes and Additional Testing Requirements:

It is recommended that the host product manufacturer, installing the modular transmitter, perform investigative measurements to confirm the resulting composite system does not exceed the spurious emissions limits or band edge limits in accordance with KDB996369. The testing should check for emissions that may occur due to intermixing of emissions with the other transmitters, digital circuitry, or due to physical properties of the host product. This is especially important when integrating multiple modular transmitters where the certification is based on testing each in a stand-alone configuration. New host configurations, require Class II Permissive Change filing by the grantee

### 2.10 Additional Testing & Part 15 Subpart B Disclaimer:

The modular transmitter is only FCC and ISED Canada authorized for the specific rule parts listed on the grant, and the host product manufacturer is responsible for compliance to any other FCC and/or ISED Canada rules that apply to the host not covered by the modular transmitter grant of certification.

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