Date: 22 January 2021

USER MANUAL | FCC ID: 2AD9E-BTM

JL Audio QCC5124 Module
FCC ID: 2AD9E-BTM
IC: 25930-BTM

FCC Part 15 Compliance Statement
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.

JL Audio, Model Number, FCC ID: 2AD9E-BTM is seeking modular approval. The radio meets the requirements for modular approval as detailed in FCC 15.247. Compliance to each of the requirements is described below:

1. "The modular transmitter must have its own RF shielding." The radio portion of the module is contained in its own RF shielding. The shielding is installed at the factory. Please see the Internal Photos exhibit.

2. "The modular transmitter must have buffered modulation/data inputs." The EUT has buffered data inputs to insure compliance with Part 15 requirements under conditions of excessive data rates or over-modulation. Please see the Schematics exhibit.

3. "The modular transmitter must have its own power supply regulation." The EUT has its own power supply regulation to insure compliance with Part 15 requirements regardless of the quality or level of external DC supplying the module from the host unit. Please see Schematics exhibit. Also, the technical report exhibit contains AC power line conducted emissions data taken with the EUT powered from a linear power supply that contains no EMC suppression components.

4. "The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c)." The EUT meets the FCC antenna requirements. Please see Antenna information exhibit and internal photos exhibit.

5. "The modular transmitter must be tested in a stand-alone configuration." The EUT was tested in a stand-alone configuration. The module was greater than 10 cm from the host device. Please see test setup photos exhibit and technical report exhibit.

6. "The modular transmitter must be labeled with its own FCC ID number." The EUT is labeled with its own FCC ID number. Please see FCC ID label & location exhibit. If the FCC ID number will not be visible when the module is installed inside a host device, another label with the FCC ID will be applied to the exterior of the host device.

7. "The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements." The EUT is compliant with

all applicable FCC rules. Detail instructions for maintaining compliance are given in the User Manual.

8. "The modular transmitter must comply with any applicable RF exposure requirements." The EUT is compliant with all applicable RF exposure requirements. Please see RF Exposure Exhibit.

Changes to the Device
Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Device Antenna
Module shall be used with one of the following pre-certified antennas:
Yageo, ANTX100P001B24003, 4.4dBi, Trace
Yageo, ANTX100P112B24553, 2.2dBi, Patch
Yageo, ANTX100P011B24003, 2.2dBi, Trace

Attachment of any higher-gain antenna or other-patterned antenna is not permitted. Increases in the shielded length of the antenna which do not increase its gain or change its emission pattern are permitted. Modification of the module to install an antenna not approved for use voids the user's authority to operate the equipment.

Co-Location
This device and its antenna must not be co-located or operated in conjunction with another transmitter or antenna.

Digital Device Integration
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.

Integration of this product into an end-device with various host modules will require re-testing for Digital Device emissions compliance, as data lines from the module are connectable to host devices. Compliance should be feasible and any failures in compliance will require adjustments to the *host* device to resolve. Even when the host device does not have any oscillators or logic on board which would independently trigger Digital Device requirements, digital device testing for the *product* will be necessary due to those parts on the module.

Integration Instructions - Availability to Host Manufacturers
This module is intended for use in products designed in whole or in part by JL Audio (JLA), and is not approved for use in third party hosts. As such, JLA retains responsibility for ensuring compliance with intentional and unintentional radiator requirements.

Host product design shall comply with best design practices, especially with respect to grounding and routing of digital lines, to minimize unintentional emissions.

Antenna Placement Instructions
Antenna shall be separated from the user by a minimum distance of 20cm, such that the operation separation distance shall exceed the test separation distance. Any additional spacing serves to minimize the user's exposure to RF emissions, and will increase the Bluetooth link quality between the source and sink devices when the device is paired.

End Product Labeling
The end product (Host + Module) must be labeled with the following:
Contains FCC ID: 2AD9E-BTM

The Part 15 statement printed within this manual should also be included in the Product's manual, after the device passes Part 15B unintentional radiator testing as indicated previously.

IC Notes
The HVIN and ISED Certification Number are printed in the silkscreen on the back of the module.
HVIN Hardware Version Identification Number / Model Number: BTM
FVIN Firmware Version Identification Number: v 1.0
ISED Certification Number IC: 25930-BTM
PMN Product Marketing Name: Product is not for resale, known internally as the JL QCC5124 Module

IC Statements / Déclarations IC
This device complies with Industry Canada's license-exempt RSS standards. Operation is subject to the following conditions:

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

The end product must be labeled clearly with the following:
Contains IC: 25930-BTM

The IC license-exempt statement provided above should be included in the end-product manual in both English and French.
The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Heath Canada's website www.hc-sc.gc.ca/rpb.

IC Statements / Déclarations IC

Cet appareil est conforme aux normes RSS sans licence d'Industrie Canada. Son fonctionnement est soumis aux conditions suivantes:

1) Cet appareil ne doit pas provoquer d'interférences, et
2) Cet appareil doit accepter toutes les interférences reçues, y compris les interférences pouvant entraîner un fonctionnement indésirable.

Le produit final doit être clairement étiqueté avec les éléments suivants:

Contient IC: 25930-BTM

La déclaration d'exemption de licence IC fournie ci-dessus doit être incluse dans le manuel du produit final en anglais et en français.

L'installateur de cet équipement radio doit s'assurer que l'antenne est située ou pointée de manière à ne pas émettre de champ RF au-delà des limites de Santé Canada pour la population générale; consultez le Code de sécurité 6, disponible sur le site Web de Santé Canada www.hc-sc.gc.ca/rpb.