

# Regulatory Module Integration Instructions

The Wi-Fi CAT (Connected Appliance Transceiver) Module has been granted modular approval for mobile applications. OEM integrators for host products may use the module in their final products without additional FCC / IC (Industry Canada) certification if they meet the following conditions. Otherwise, additional FCC / IC approvals must be obtained.

- The host product with the module installed must be evaluated for simultaneous transmission requirements.
- The user's manual for the host product must clearly indicate the operating requirements and conditions that must be observed to ensure compliance with current FCC / IC RF exposure guidelines.
- To comply with FCC / IC regulations limiting both maximum RF output power and human exposure to RF radiation, use this module only with the included onboard antenna.

- A label must be affixed to the outside of the host product with the following statements:

Product Name: Wi-Fi/Bluetooth Combo Solder-down Module

Contains FCCID: **ZKJ-WCATE001**

Contains IC: **10229A-WCATE001**

This module is intended for OEM integrators only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module:

KDB 996369 D03 OEM Manual v01 rule sections:

## 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

Changes or modifications to the module could void the user's authority to operate the module. The host product operating conditions must be such that there is a minimum separation distance of 20 cm between the antenna and nearby persons.

## 2.4 Limited module procedures

Not applicable.

## 2.5 Trace antenna designs

Not applicable.

## 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

The following antennas have been certified for use with this module; antennas of the same type with equal or lower gain may also be used with this module.

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

Antenna Specification	Antenna type: Chip Antenna Antenna Peak Gain: 2.0 dBi
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Use of other antenna types or the same type of antenna with higher gain than listed above must be performed additional testing and appropriate permissive change approval.

## 2.8 Label and compliance information

The end product must be labeled in a visible area with the following: "Contains FCC ID: ZKJ-WCATE001". 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.

## 2.11 Note EMI Considerations

The host manufacture is recommended to use D04 Module Integration Guide recommending as "best practice" RF design engineering testing and evaluation in case non-linear interactions generate additional non-compliant limits due to module placement to host components or properties.

## 2.12 How to make changes

This module is stand-alone modular. If the end product will involve the Multiple simultaneously transmitting condition or different operational conditions for a stand-alone modular transmitter in a host, host manufacturer have to consult with module manufacturer for the installation method in end system.

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.

## Device Classifications

Since host devices vary widely with design features and configurations module integrators shall follow the guidelines below regarding device classification and simultaneous transmission, and seek guidance from their preferred regulatory test lab to determine how regulatory guidelines will impact the device compliance. Proactive management of the regulatory process will minimize unexpected schedule delays and costs due to unplanned testing activities.

The module integrator must determine the minimum distance required between their host device and the user's body. The FCC provides device classification definitions to assist in making the correct determination. Note that these classifications are guidelines only; strict adherence to a device classification may not satisfy the regulatory requirement as near-body device design details may vary widely. Your preferred test lab will be able to assist in determining the appropriate device category for your host product and if a KDB or PBA must be submitted to the FCC.

Note, the module you are using has been granted modular approval for mobile applications. Portable applications may require further RF exposure (SAR) evaluations. It is also likely that the host / module combination will need to undergo testing for FCC Part 15 regardless of the device classification. Your preferred test lab will be able to assist in determining the exact tests which are required on the host / module combination.

## FCC Definitions

**Portable:** (§2.1093) — A portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is / are within 20 centimeters of the body of the user.

**Mobile:** (§2.1091) (b) — A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. Per §2.1091d(d)(4) In some cases (for example, modular or desktop transmitters), the potential conditions of use of a device may not allow easy classification of that device as either Mobile or Portable. In these cases, applicants are responsible for determining minimum distances for compliance for the intended use and installation of the device based on evaluation of either specific absorption rate (SAR), field strength, or power density, whichever is most appropriate.

## Simultaneous Transmission Evaluation

This module has **not** been evaluated or approved for simultaneous transmission as it is impossible to determine the exact multi-transmission scenario that a host manufacturer may choose. Any simultaneous transmission condition established through module integration into a host product **must** be evaluated per the requirements in KDB447498D01(8) and KDB616217D01,D03 (for laptop, notebook, netbook, and tablet applications).

These requirements include, but are not limited to:

- Transmitters and modules certified for mobile or portable exposure conditions can be incorporated in mobile host devices without further testing or certification when:
  - The closest separation among all simultaneous transmitting antennas is  $\geq 20$  cm,

Or

- Antenna separation distance and MPE compliance requirements for **ALL** simultaneous transmitting antennas have been specified in the application filing of at least one of the certified transmitters within the host device. In addition, when transmitters certified for portable use are incorporated in a mobile host device, the antenna(s) must be  $\geq 5$  cm from all other simultaneous transmitting antennas.
- All antennas in the final product must be at least 20 cm from users and nearby persons.

# OEM Instruction Manual Content

Consistent with §2.909(a), the following text must be included within the user's manual or operator instruction guide for the final commercial product (*OEM-specific content is displayed in **italics**.*)

## **Operating Requirements and Conditions:**

The design of (*Product Name*) complies with U.S. Federal Communications Commission (FCC) guidelines respecting safety levels of radio frequency (RF) exposure for Mobile devices.

Note: In the case where the Host / Module combination has been re-certified the FCCID shall appear in the product manual as follows:

FCCID: (*Include Standalone FCC ID*)

## **Mobile Device RF Exposure Statement (If Applicable):**

RF Exposure - This device is only authorized for use in a mobile application. At least 20 cm of separation distance between the transmitting antenna device and the user's body must be maintained at all times.

## **Caution Statement for Modifications:**

CAUTION: Any changes or modifications not expressly approved by GE Appliance could void the user's authority to operate the equipment.

## **FCC Part 15 Statement (Only Include if FCC Part 15 is Required on the End Product):**

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. (*OEM must follow Part 15 guidelines (§15.105 and §15.19) to determine additional statements required in this section for their device class*)

Note 2: 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.

This device complies with Industry Canada's license-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.

## Information

Le présent appareil est conforme aux CNR d'Industrie Canada applicable 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.

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation du débit d'absorption spécifique (DAS).