

9 U.S. FCC Statement

Integration instructions for host product manufacturers according to KDB 996369 D03 OEM Manual v01:

1. List of applicable FCC rules

FCC Part 15 Subpart C 15.247 & 15.209

2. Specific operational use conditions

The module is a module with WiFi and BR,EDR,BLE function.

- Operation Frequency: WiFi 2412 ~2462 MHz;BT: 2402 ~ 2480 MHz
- Number of Channel:WiFi:12 ;BT: 40
- Modulation:WiFi:DSSS/OFDM ;BT:GFSK/ /4-DQPSK/8DPSK
- Type: PCB Antenna
- Gain: 3.96 dBi Max.

The module can be used for IoT applications with a maximum 3.96 dBi antenna. The host manufacturer installing this module into their product must ensure that the final composite product complies with the FCC requirements by a technical assessment or evaluation to the FCC rules, including the transmitter operation. The host manufacturer 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 shown in this manual.

3. Limited module procedures

Not applicable. The module is a single module and complies with the requirement of FCC Part 15.212.

4. Trace antenna designs

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

5. RF exposure considerations

The module must be installed in the host equipment such that at least 20cm is maintained between the antenna and users' body; and if RF exposure statement or module layout is changed, then the host product manufacturer required to take responsibility of the module through a change in FCC ID or new application. The FCC ID of the module cannot be used on the final product. In these circumstances, the host manufacturer will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

6. Antennas

Antenna Specification are as follows:

- Type: PCB Antenna
- Gain: 3.96 dBi
- Type: Ipex Antenna
- Gain: 2.33 dBi

This device is intended only for host manufacturers under the following conditions:

- The transmitter module may not be co-located with any other transmitter or antenna.

- The module shall be only used with the external antenna(s) that has been originally tested and certified with this module.
- The antenna must be either permanently attached or employ a 'unique' antenna coupler.

As long as the conditions above are met, further transmitter test will not be required. However, the host manufacturer is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

7. Label and compliance information

Host product manufacturers need to provide a physical or e-label stating "Contains FCC ID: 2AC7Z-ESPPICOMINI" with their finished product.

8. Information on test modes and additional testing requirements

- Operation Frequency: WiFi 2412 ~2462 MHz; BT: 2402 ~ 2480 MHz
- Number of Channel: WiFi: 12 ; BT: 40
- Modulation: WiFi: DSSS/OFDM ; BT: GFSK / 4-DQPSK/8DPSK

Host manufacturer must perform test of radiated & conducted emission and spurious emission, etc., according to the actual test modes for a stand-alone modular transmitter in a host, as well as for multiple simultaneously transmitting modules or other transmitters in a host product. Only when all the test results of test modes comply with FCC requirements, then the end product can be sold legally.

9. Additional testing, Part 15 Subpart B compliant

The modular transmitter is only FCC authorized for FCC Part 15 Subpart C 15.247 & 15.209 and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. If the grantee markets their product as being Part 15 Subpart B compliant (when it also contains unintentional-radiator digital circuitry), then the grantee shall provide a notice stating that the final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

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 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Caution:

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

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. The antennas 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.

OEM Integration Instructions

This device is intended only for OEM integrators under the following conditions:

- The transmitter module may not be co-located with any other transmitter or antenna.
- The module shall be only used with the external antenna(s) that has been originally tested and certified with this module.

As long as the 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 (for example, digital device emissions, PC peripheral requirements, etc.).

Validity of Using the Module Certification

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization for this module in combination with the host equipment is no longer considered valid and the FCC ID of the module 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.

End Product Labeling

The final end product must be labeled in a visible area with the following: "Contains Transmitter Module FCC ID: 2AC7Z-ESPPICOMINI".