

Addendum to FCC Module Integration Instructions

Model ESP32-S3-STEADI | FCC ID: 2BX2Q-ESPS3-STD1

Grantee	Steady Systems
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Original module	Espressif Systems (Shanghai) Co., Ltd. ESP32-S3-MINI-1, FCC ID 2AC7Z-ESPS3MINI1, granted 2022-02-28
Application	Change in identification, 47 CFR 2.933(b); FCC ID requested: 2BX2Q-ESPS3-STD1

Purpose

This addendum supplements the module integration instructions issued by Espressif Systems (Shanghai) Co., Ltd. for the ESP32-S3-MINI-1 under FCC ID 2AC7Z-ESPS3MINI1 (the “original instructions”). Steady Systems is applying for FCC ID 2BX2Q-ESPS3-STD1 for the same module by change in identification under 47 CFR 2.933(b). The module is electrically and mechanically identical to the ESP32-S3-MINI-1 as originally authorized. This addendum takes effect when the grant for FCC ID 2BX2Q-ESPS3-STD1 issues, at which point all conditions of the original grant apply.

Upon grant, the original instructions apply to the ESP32-S3-STEADI in full, with the substitutions and replacements listed below. Where this addendum and the original instructions differ, this addendum governs.

Substitutions

Item	Original instructions	Applies as
Grantee	Espressif Systems (Shanghai) Co., Ltd.	Steady Systems
Model	ESP32-S3-MINI-1	ESP32-S3-STEADI
FCC ID	2AC7Z-ESPS3MINI1	2BX2Q-ESPS3-STD1
ISED / IC content	IC certification number and ISED statements	Not applicable; removed in full

The substitutions apply to the module identification only. The ESP32-S3-MINI-1U variant with an external antenna connector is not part of this application.

Summary of KDB 996369 D03 items

The following table records how each required item applies to the ESP32-S3-STEADI. Items not replaced here are unchanged from the original instructions.

KDB 996369 D03 item	Application to ESP32-S3-STEADI
2.2 Applicable FCC rules	Unchanged. 47 CFR 15.247; host subject to Part 15 Subpart B.

2.3 Operational use conditions	Unchanged. BLE 2402 to 2480 MHz at 0.0107 W and Wi-Fi 2412 to 2462 MHz at 0.3365 W, conducted. Wi-Fi limited to channels 1 through 11.
2.4 Limited module procedures	Not applicable. Single modular transmitter, same as the original grant.
2.5 Trace antenna designs	Not applicable. Antenna is integrated on the module.
2.6 RF exposure considerations	Unchanged. Mobile use only, minimum 20 cm separation. Portable configurations require separate approval.
2.7 Antennas	Unchanged. Integrated PCB antenna, 4.54 dBi peak gain (Report No. FA1N0918).
2.8 Label and compliance information	Replaced in full by the section below. Physical labels only; no electronic labeling.
2.9 Test modes and additional testing	Unchanged. Test mode support available from Steadi Systems.
2.10 Part 15 Subpart B disclaimer	Unchanged.

Replacement Section 2.8

Module label. Each ESP32-S3-STEADI module shall bear a permanently affixed physical label, applied to the metal shield outside the antenna area, reading:

Model: ESP32-S3-STEADI FCC ID: 2BX2Q-ESPS3-STD1

The label shall be constructed as follows:

Property	Specification
Label stock	White polyester (PET) film, 2 mil (0.05 mm), with 1 mil matte laminate over the printed face, rated for continuous service across the module operating range of -40 to 85 °C
Adhesive	Permanent pressure-sensitive back adhesive suitable for the stainless-steel shield surface, applied after reflow soldering
Printing	Black print on white stock, protected by the matte laminate against abrasion and solvent wiping, 600 dpi or finer so that small text stays sharp
Size	12.0 mm by 12.0 mm, within the 13.55 mm shield area below the antenna keep-out, with a minimum 0.5 mm quiet zone between the printed artwork and the trim edge
Text	Grantee logo, model designation ESP32-S3-STEADI, and FCC ID 2BX2Q-ESPS3-STD1 on a single unbroken line, legible without magnification as required by 47 CFR 2.925(a)(1)
Location	Centered on the module shield, clear of the antenna region at the top edge of the module and not overhanging any module edge

The label shall not cover or extend over the PCB antenna region at the top edge of the module, shall not overhang any module edge, and shall be applied after reflow soldering. Any existing marking on the module that identifies FCC ID 2AC7Z-ESPS3MINI1 shall be covered or removed so that only FCC ID 2BX2Q-ESPS3-STD1 is visible. The label is permanently affixed within the meaning of 47 CFR 2.925(d): it is not readily detachable, and it remains legible and intact for the expected lifetime of the equipment under normal handling, cleaning with isopropyl alcohol, and abrasion.

Host product label. When the module is installed in a host and its label is not visible from the outside, the host shall carry a permanently affixed label, in a location visible to the end user, reading:

Contains FCC ID: 2BX2Q-ESPS3-STD1

Equivalent wording such as “Contains transmitter module FCC ID: 2BX2Q-ESPS3-STD1” is acceptable. The host label shall be legible without magnification and shall follow 47 CFR 2.925 and FCC KDB 784748 D01. The host label shall also be a physical label, constructed so that it is permanently affixed and remains legible for the life of the product. Polyester or polycarbonate stock with a permanent acrylic adhesive, or direct printing or engraving on the enclosure, is acceptable. Electronic labeling is not used under this identification.

Compliance statement. The host shall display the following statement required by 47 CFR 15.19(a)(3) on the product label. If the host is too small for the statement to be legible, it may be placed in the user manual, as permitted by 47 CFR 15.19(a)(5).

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.

User manual statements. The host user manual shall include the statement required by 47 CFR 15.21:

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

Where the host is a Class B digital device, the user manual shall also include the statement required by 47 CFR 15.105(b):

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.

An example of each label, together with its dimensions, material, adhesive and print method, and a drawing or photograph showing its location, is provided in the label exhibit of the application for equipment authorization, as required by 47 CFR 2.925(d) and 15.212(a)(1)(vi)(A).

The user manual shall include the RF exposure statement given in Section 2.6. The host manufacturer shall not provide the end user with instructions on how to install or remove the module or how to change its RF parameters.

This module is authorized for use in the United States only. It does not hold ISED Canada certification under this identification, and no IC number shall be marked on the module or the host.