



5/22/2014

Federal Communications Commission
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

Request for Certification

Company name: Xirrus, Inc.
FCC ID: SK6-XI-AC867
FCC Part 15 Certification

Dear Sir or Madam,

Pursuant to 47 CFR 2.907 and 15.212(b) Xirrus, Inc. hereby requests certification of model: XI-AC867 as a limited modular device.

The device complies with the Section 15.212(a)(1) modular rules only when installation is limited to the following hosts: Xirrus XR series arrays.

The modular device and the host are manufactured by Xirrus. This gives Xirrus complete control of the end product. Therefore full compliance of the end product is always ensured.

An itemized list documenting compliance with the modular approval requirements in the Section 15.212 rules is presented in the following pages.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter Krebill".

Name: Peter Krebill / Agency Certification Engineer
Xirrus, INC.
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15.212 Modular transmitters.

(a)(1) Single modular transmitters must meet the following requirements to obtain a modular transmitter approval.

(i) The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements.

Xirrus: Shields are installed on the top and bottom side of the modules PCB. The shields cover all of the circuitry. This requirement is met by the module.

(ii) The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with part 15 requirements under conditions of excessive data rates or over-modulation.

Xirrus: The module uses a PCIE bus for data input. The input data-rate is fixed, and cannot be over-modulated. This requirement is met by the module.

(iii) The modular transmitter must have its own power supply regulation.

Xirrus: The module uses onboard switching regulators for power control. This requirement is met by the module.

(iv) The modular transmitter must comply with the antenna and transmission system requirements of §§ 15.203, 15.204(b) and 15.204(c). The antenna must either be permanently attached or employ a “unique” antenna coupler (at all connections between the module and the antenna, including the cable). The “professional installation” provision of § 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.

Xirrus The antennas are permanently soldered to the module. This requirement is met by the module.

(v) The modular transmitter must be tested in a stand-alone configuration, *i.e.*, the module must not be inside another device during testing for compliance with part 15 requirements. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in § 15.207. AC or DC power lines and data input/output lines connected to the module must not contain ferrites, unless they will be marketed with the module (see § 15.27(a)). The length of these lines shall be the length typical of actual use or, if that length is unknown, at least 10 centimeters to insure that there is no coupling between the case of the module and supporting equipment. Any accessories, peripherals, or support equipment connected to the module during testing shall be unmodified and commercially available (see § 15.31(i)).

Xirrus: The module was connected to a bare motherboard via a PCIE connector during testing. This requirement is met by the module.

(vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.



Xirrus: The FCC ID is displayed on a permanently affixed label. This requirement is met by the module.

(A) If using a permanently affixed label, the modular transmitter must be labeled with its own FCC identification number, and, if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: “Contains Transmitter Module FCC ID: XYZMODEL1” or “Contains FCC ID: XYZMODEL1.” Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization.

Xirrus: The module will be installed in Xirrus host arrays. The labelling on the outside of the arrays will display “Contains FCC ID: SK6-XI-ACXXX”. This requirement is met by the module only when installation is limited to the following hosts: Xirrus XR series arrays.

(B) If the modular transmitter uses an electronic display of the FCC identification number, the information must be readily accessible and visible on the modular transmitter or on the device in which it is installed. If the module is installed inside another device, then the outside of the device into which the module is installed must display a label referring to the enclosed module. This exterior label can use wording such as the following: “Contains FCC certified transmitter module(s).” Any similar wording that expresses the same meaning may be used. The user manual must include instructions on how to access the electronic display. A copy of these instructions must be included in the application for equipment authorization.

(vii) The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization.

Xirrus: The modules will only be installed in Xirrus host arrays. This requirement is met by the module.

(viii) The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.

Xirrus: The modules will only be installed in Xirrus XR series host arrays. The arrays are installed as mobile or fixed devices. The MPE of the modules complies with the FCC RF exposure requirements. This requirement is met by the module. only when installation is limited to the following hosts: Xirrus XR series arrays.