



Federal Communications Commission  
Washington, D.C. 20554

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## Small Entity Compliance Guide

### Part 15 Unlicensed Transmitter Modules

DA 08-314

ET Docket No. 03-201

**This Guide is prepared in accordance with the requirements of Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996. It is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—to comply with the new rule/s adopted in the above-referenced FCC rulemaking docket. This Guide is not intended to replace the rule/s and, therefore, final authority rests solely with the rule/s. Although we have attempted to cover all parts of the rule/s that might be especially important to small entities, the coverage may not be exhaustive. As a result, in any civil or administrative action against a small entity for a violation of a rule or rules, the content of the Small Entity Compliance Guide may be considered only as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. This Guide may not apply in a particular situation based upon the circumstances, and the FCC retains the discretion to adopt approaches on a case-by-case basis that may differ from this Guide, where appropriate. Any decisions regarding a particular small entity will be based on the statute and regulations. Interested parties are free to file comments regarding this Guide and the appropriateness of its application to a particular situation; the FCC will consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The FCC may decide to revise this Guide without public notice to reflect changes in the FCC’s approach to implementing a rule, or to clarify or update text. Direct your comments and recommendations, or calls for further assistance, to the FCC’s Consumer Center:**

**1-888-CALL-FCC (1-888-225-5322)**

**TTY: 1-888-TELL-FCC (1-888-835-5322)**

**[fccinfo@fcc.gov](mailto:fccinfo@fcc.gov)**

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## **Part 15 Transmitter Module Compliance Requirements**

### **1. Objectives of the Proceeding**

The Second Report and Order in this proceeding codified the Commission's eight requirements for approval of modular transmitters to ensure that all equipment manufacturers are provided with adequate notice of them. These requirements were previously specified in a public notice rather than in the Commission's rules. The Second Report and Order also adopted specific requirements for the approval of transmitter modules that are split into sections. Previously, a transmitter could be approved as a module only if it is a self-contained unit.

Certification of a transmitter as a module is an option for manufacturers that can eliminate the need to certify the same transmitter multiple times when it is used in different devices. However, if a manufacturer does not wish to certify a transmitter as a module, it may choose to separately certify each different type of device into which the transmitter is installed. The requirements for obtaining approval for a transmitter as a module are described in more detail in Sections 6 and 7.

### **2. General Information**

Unlicensed transmitters may be certified for operation under the requirements of Part 15 of the FCC rules (Part 15 transmitters). Examples of Part 15 transmitters include cordless telephones, remote utility meter readers, and wireless local area networking equipment. Part 15 transmitters must be certified by the FCC or a designated Telecommunication Certification Body (TCB) before they can be imported into or marketed within the United States.

### **3. What is a transmitter module?**

A module generally consists of a completely self-contained transmitter that is missing only an input signal and power source to make it functional. A module is designed to be incorporated into another device, such as a personal computer, personal digital assistant (PDA) or utility meter.

### **4. What is the advantage of a transmitter module?**

Once a transmitter is approved as a module, it may be incorporated into a number of host devices that have been separately authorized. The completed product generally is not subject to requirements for further certification. Therefore, transmitter modules save manufacturers the time and any related expenses that would be incurred if a new equipment authorization were needed for the same transmitter when it is installed in a new device.

## **5. What is a split transmitter module?**

A new class of “split” modular devices is now under development. These transmitters consist of two basic components: the “radio front end” or radio elements and the “firmware” or hardware on which the software that controls the radio operation resides. The separation of modular devices into these components will provide manufacturers the flexibility to design a larger variety of modular systems by mixing and matching individual components.

## **6. What are the approval requirements for a self-contained transmitter module?**

Parties that wish to obtain approval for a self-contained transmitter module must submit an application for certification to the FCC or a designated TCB. The application must show that the module complies with the eight requirements summarized below. Specifically, the module must:

- 1) have its own radio-frequency shielding
- 2) have buffered modulation/data inputs to ensure that the device will comply with the Part 15 requirements with any type of input signal
- 3) contain power supply regulation
- 4) contain a permanently attached antenna or a unique antenna connector
- 5) be tested in a stand-alone configuration
- 6) be labeled with its own FCC ID
- 7) comply with any specific rules applicable to the transmitter
- 8) comply with RF safety requirements

Please refer to 47 C.F.R. § 15.212 for more detailed information on the transmitter module approval requirements and 47 C.F.R. § 2.901, *et. seq.* for information on the equipment certification procedures.

## **7. What are the approval requirements for a split transmitter module?**

Split transmitter modules must comply with the requirements for self-contained modules listed above, excluding requirements 1) and 5). In addition, split transmitter modules must comply with the four requirements summarized below:

- 1) only the radio-frequency section of the module must be shielded
- 2) the two sections of the module may exchange data and control information
- 3) the sections of a split module must be tested together in a representative device
- 4) they must contain measures such as security codes to ensure that only sections of a module that have been approved together will function together in a host device

TCBs will not be permitted to certify split transmitter modules until the FCC has more experience with them and can properly advise TCBs on how to apply the applicable rules. Please refer to 47 C.F.R. § 15.212 for detailed information on the transmitter module

approval requirements and 47 C.F.R. § 2.901, *et. seq.* for information on the equipment certification procedures.

### **8. What if a transmitter module does not comply with all of the approval requirements?**

The FCC may grant a "limited modular approval" for a transmitter that does not comply with all of the requirements for modular certification, if the manufacturer can demonstrate by alternative means in the certification application that the equipment will comply with the Part 15 rules. For example, manufacturers have flexibility with respect to requirements such as module shielding, buffered modulation/data inputs and power supply regulation, because compliance with these requirements may not be necessary in specific module installations. The manufacturer must demonstrate that it will retain control over the final installation of the device such that compliance of the end product is assured. A limited modular approval is subject to conditions such as: the device(s) into which the module can be installed; a requirement for professional installation; the antenna separation distance from persons; or, the locations where it may be used (*e.g.*, outdoor only).

### **9. What if I have questions on the transmitter module rules?**

The FCC maintains a web based system that is used to submit inquiries to its Laboratory, as well as to search for previous rule interpretations and frequently asked questions. This system, called the OET Knowledge DataBase (KDB), can be accessed at [www.fcc.gov/labhelp](http://www.fcc.gov/labhelp).

### **10. Where can I find documents about the transmitter module certification rules?**

FCC order adopting modular transmitter rules:

*Second Report and Order* in ET Docket No. 03-201, FCC 07-56, released April 23, 2007  
[FCC-07-56A1.doc](#) [FCC-07-56A1.pdf](#) [FCC-07-56A1.txt](#)

Equipment authorization information:

[www.fcc.gov/oet/ea/](http://www.fcc.gov/oet/ea/)