

Dear Sirs,

The following describes the limited modular compliance of R900GM. Below are stated the requirements and the way the requirements are achieved. An exception is with requirement (v).

(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.

The R900GM has two shields to prevent unintentional emissions of RF. The first shield covers the synthesizer and associated components. The second shield covers the RF amplifier and output filter section.

(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.

The R900GM is self contained and has no external inputs for data. The signal levels are controlled by the on board circuitry to prevent over-modulation.

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



The R900GM has an internal long life battery pack that maintains 3.6V for the life of the product. An associated super capacitor prevents transient drops in voltage due to a transmission of a packet.

(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.

The R900GM has an integrated antenna that is permanently attached.

(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)).

The R900GM does not fully comply with this requirement. The R900GM is tested in the specific host configuration to assure compliance with Part 15 requirements for the specific host device. Each host must meet the requirements of part 15.

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

(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.

(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.

The R900GM module is labeled on the silk screen with the required FCC ID number. The device label has a label that says “Contains FCC ID: “P2SNTR900GM”.

(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.



The R900GM operates without user intervention in a manner that does require special instructions to assure operation in compliance with Part 15. An installation guide and operation manual is provided to the customer for normal usage and operation.

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

(b) A limited modular approval may be granted for single or split modular transmitters that do not comply with all of the above requirements, *e.g.*, shielding, minimum signaling amplitude, buffered modulation/data inputs, or power supply regulation, if the manufacturer can demonstrate by alternative means in the application for equipment authorization that the modular transmitter meets all the applicable part 15 requirements under the operating conditions in which the transmitter will be used. Limited modular approval also may be granted in those instances where compliance with RF exposure rules is demonstrated only for particular product configurations. The applicant for certification must state how control of the end product into which the module will be installed will be maintained such that full compliance of the end product is always ensured.

The R900GM complies with any applicable RF exposure requirements in accordance to Part 15.247. A RF Exposure exhibit is provided in this filing.

The assembly of the module into the end product is under complete control of Neptune. The R900GM is tested in the specific end product configuration to assure compliance with Part 15 requirements for the specific product. Each end product is assembled using ISO standard procedures and documentation to maintain compliance.