# FCC ID: X4USPC Exhibit 11 Rev.2: Attestation Statement - Limited Split Modular

The Limited Split Modular transmitters consist of several components:

- An RF front-end, transmitter circuit soldered on the host mother board close to the antenna.
- A microcontroller (MCU) soldered on the mother board hosting the software that controls the radio operation via serial communications.
- An antenna coupled with a screw or soldered directly to a pad on mother board
- A DC/DC converter/Regulator soldered on the mother board ensuring that max voltage does not exceed 3.3Vdc.

The X4USPC Limited Split Modular transmitter is not intended for marketing and distribution as a stand alone module. The components of the Limited Split Modular transmitter are permanently affixed to a mother board of the host device. The host device and the Limited Split Modular transmitter are produced and installed by the same manufacturer and only by that manufacturer.

The Limited Split Modular transmitter has been tested installed in a host device similar to the platform intended for use. The software subroutines in the controlling element (microprocessor) associated with controlling the RF Front-end element are identical to the software subroutines used to pass the Test Firm's FCC 13.231 tests. See attached Test Report for compliance with FCC 15.231.

The following demonstrate that by complying with the requirements of 15.212 or by alternative means, the Limited Split Modular transmitter meets all the applicable part 15 requirements under the operating conditions in which the transmitter will be used:

#### 15.212 (a)(1):

- (i) Split Modular is excluded from (a) (1) (i)
- (ii) Buffered modulation/data input Modulation/Data inputs are not available to the end user. The Data rate is fixed by firmware and by the crystal oscillator on the MCU. Excessive data rates or over-modulation cannot be applied because the firmware memory on the MCU that controls these parameters is read/write protected.
- (iii) Power supply regulation: The device operates from two AA batteries or a single 3.0 volt Lithium battery providing voltage in the range 1.9 3.2Vdc. A DC to DC converter/Regulator regulates the power supply to 3.3Vdc. Regulated power supply is applied to the entire circuit including the RF front-end and the MCU.
- (iv) Antenna the antenna is permanently and internally attached to the mother board via screw and/or solder. There is no access to modify or replace the antenna.
- (v) Split Modular is excluded from (a) (1) (v) The Limited Split Modular cannot be tested in stand alone configuration.
- (vi) Label A label referring to the enclosed Limited Split Modular will be affixed to the outside of the host device.
- (vii) Complying with specific rules The Limited Split Modular has been tested for complies with part 15 and specifically with 15.231 and 15B class A. The user manual provides instructions accordingly.

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(viii) RF Exposure – the Part 15.231 transmitter, transmits infrequently for very short periods of time (emission is present for less than 20mS), is very low power, (only 2.5dBm), and located more than 20cm from the user's body. Therefore, SAR testing is not needed.

### 15.212 (a)(2) – Additional requirements:

(i) Shielding –a solid ground plane on the bottom layer of the RF front-end circuit serves as shield. The Limited Split modular's shielding is not depended on the host device – the enclosure (housing) of the host device is made of plastic and does not provide any shielding. The DUT used by the Test firm was hosted in a similar enclosure/host device and passed all spurious emission tests.

Signaling amplitude: Only logic level (3.3V) signals on the communications interface between the MCU and the RF Front-end.

- (ii) Control information is not exchanged between the MCU and the RF Front-end. When in stand-by mode, the RF Front-end only needs a "startup" signal of 200uSec.
- (iii) The sections of the Limited Split Modular were tested in a host device identical to the platform intended for use.
- (iv) Only the transmitter control element and the RF front-end approved can operate together. Both elements are permanently soldered on the mother board of the host device and cannot be replaced by the user. The firmware in the control element is read/write protected memory.

### 15.212 (b) The full compliance of the end product is always ensured due to the following:

- 1. The RF Front-end circuit is permanently soldered on the mother board close to the antenna and cannot be replaced by the user.
- 2. The radio transmitter module has an on board SAW oscillator at a nominal frequency of 434MHz. Therefore, the carrier frequency cannot be modified.
- 3. The unique antenna is coupled with a screw or solder directly to a pad on mother board very close to the RF Front-end. The antenna is also permanently inserted into a plastic panel of the enclosure and cannot be removed without breaking the antenna or the panel. Once the circuit is in the enclosure, there is no access to the antenna and it cannot be replaced by the user of the system.
- 4. The MCU is soldered on the mother board and cannot be replaced.
- 5. The data rate and contents of the transmitted command packet is determined by the firmware (software) in the MCU. The non-volatile (FLASH) memory containing the firmware in the MCU is read/write protected by the manufacturer so it cannot be accessed by the user for any unauthorized modifications.

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