

26-May-2014

Federal Communications Commission

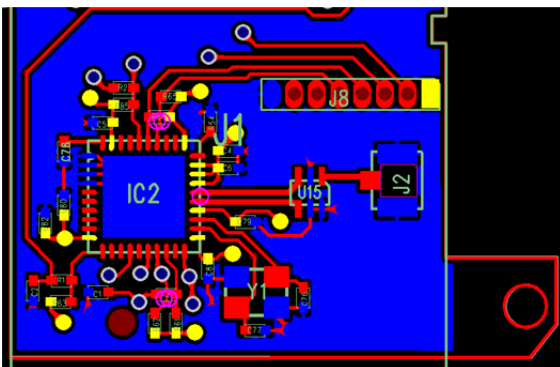
Authorization and Evaluation Division

SAVOX COMMUNICATIONS OY AB - FCC ID: TUFWPTT - JOB #: 792UC14

Cover letter explaining the Limited Modular Approval (LMA) considerations.

WPTT does not rely upon shielding to maintain transmitter emissions in compliance with part 15 limits. WPTT is not intended to be sold as a module to third parties. WPTT is designed in such a way that we can apply only for LMA. It is intended to be used in a host manufactured by Savox Communications. The host is unintentional transmitter for which we have a report showing compliance to 15.109 class B. The final installation of the WPTT inside the host will be always done by Savox Communications following controlled engineering and manufacturing drawings to ensure compliance with Part 15B. WPTT cannot be used by the end user outside the host because Savox uses proprietary firmware and documentation. Savox does not provide any information or help intended to help end user to use WPTT in any other way than the way it is used in the host. The module and the host are designed in such a way that the RF coupling with surrounding components is minimized. Wireless ptt card (WPTT) is 4 layers PCB with separate uninterrupted power and ground planes. PCB buildup is following:

- 1 Split routing and ground plane
- 2 power plane
- 3 ground plane
- 4 split ground, routing, and components

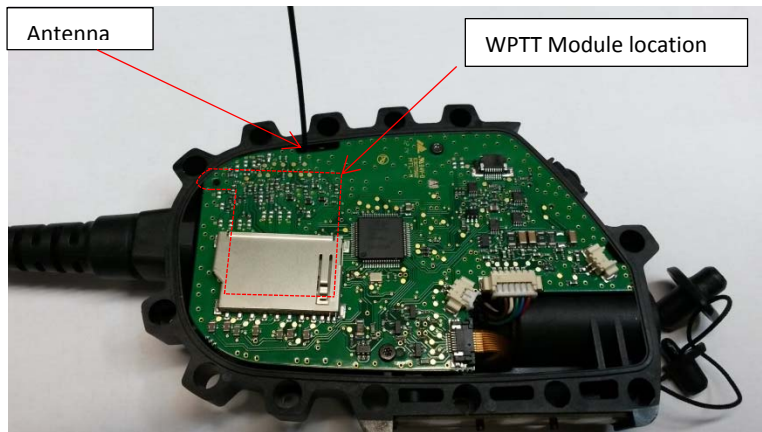


RF trances are all located in layer 4 being the top and are having ground plane on all three sides ( left, right, bottom) – see the picture of below of layer 4 with the components. The ground layer below the transmission line and the connector will protect the board from possible RF coupling with the objects on the main host PCB below it. On top of the card is located a cover made of plastic (see the last picture in this document). WPTT module itself does not have antenna. Module has 50 ohm transmission line and micro coaxial cable to external antenna. Antenna is dipole mounted 90 degree

angle compared to PCBs and in offset compared to PCB. Antenna is not in parallel with PCB ground planes. Due to antenna structure and mounting position, PCBs (main PCB or WPTT module) has negligible effect on antenna performance.

See the Picture1 below without the module inserted

**Picture 1**



And with the module inserted in the SD card slot.

**Picture 2**



Picture3 demonstrates that the cover of the doe not introduce additional wires in proximity of the module and the antenna

**Picture 3**



Module was tested without surrounding mechanical parts and additional PCBs as they absorb RF energy. We tested the module stand alone as it can be seen in report 254779B part of JOB #: 792UC14 .This test setup represents the highest transmit levels which cannot be elevated when the module is installed inside this specific host model" Savox XG C-C-1".

Sincerely,

Dimitar Apostolov

Senior Engineer at Savox Communications Ltd