

Date: 24<sup>th</sup> April 2012

**Modular Approval Request Letter**

Subject: Modular Approval

FCC ID: CU9-6081-001

We T.W.S. S.r.l., hereby authorize EMCCert DR. RAŠEK GmbH to have our model -6081-001 approved under limited modular approval authorization. The application of this model is specific to mobile host equipment. The requirements regulated in Public Notice DA00-1407 have been fulfilled and clearly explained below.

(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 WiFi module is shielded, physical crystal is located externally from the shield.](#)

(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. 85

[The software driver provides to buffer the input data.](#)

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

[The main board \(the modular transmitter\) where the WIFI transmitter is installed, generate the regulation for the radio transmitter part.](#)

(iv) The modular transmitter must comply with the antenna and transmission system requirements of Sections 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 Section 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.

The system can use two antennas: internal antenna and external antenna.

The internal antenna uses a MHF connector that is considered as unique.

The external antenna connection is provided using a “SMA reverse connector”, so the user cannot connect an improper antenna. We also specify the antenna maximum gain.

The two antennas cannot work together. The WIFI transmitter has one antenna output and there is an antenna switch to commute between the two antennas.

The system doesn't use an external antenna power amplifier.

(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 Section 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 Section 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 centimetres 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 Section 15.31(i)).

We test the module in stand-alone configuration.

The system is powered in DC.

We verified the conducted emission on the DC line according 15.207.

(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 labelled 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.

We attach a label on the modular transmitter showing following:

“FCC ID: CU9-6081-001”.

On the external case of the unit that contain the modular transmitter, we attach a label showing following sentence:

“Contains Transmitter module FCC ID: CU9-6081-001”

(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 module fulfils the specific rules of the complete transmitter. All necessary instructions are provided in the user manual.

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

Please refers to the specific test report.

Company Name: T.W.S. S.r.l.

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