



8devices

Gedimino g. 47, Kaunas, LT-44242

+37061444116

www.8devices.com

**November 11, 2011**

Federal Communications Commission  
Equipment Approval Services  
Post Office Box 358315  
Pittsburgh, Pennsylvania 15215-5315

Applicant: 8devices  
Gedimino 47, Kaunas,  
LT-44242, Lithuania

Equipment: Carambola Wi-Fi module FCC ID: Z9W-CM1

CFR Rules: Part 2 and 15.247 (Modular Transmitter)

Re: Modular transmitter approval

Gentlemen:

As required in CFR 47 15.212 regarding unlicensed modular transmitter approval, the following information has been addressed. The transmitter module is a complete RF transmitter containing its own reference oscillator, antenna etc. The connections available on the module are for power and data interface only. Below please find information, addressing each requirement from CFR 47 15.212.

Per CFR 47 15.212

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

(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)).

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

Jonas Sabaliauskas

Director

8devices

Sincerely,