

Modular Approval Request

Applicant: Tap Acquisition, Inc. DBA TapDynamics

FCC ID: YUS348

September 12, 2011

To Whom It May Concern:

Pursuant to Section 15.212(a)(1) of the FCC rules, Tap Acquisition, Inc. DBA TapDynamics, request for single modular approval, compliance with the requirements are addressed below.

Single Modular Approval Requirements	Justification
(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.	Complies; all circuitry on TapDynamics Model 348 RF module pcb is covered by an RF 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.	Complies; Nordic 24LO1+ product specification version 1.0 states: "Internal FIFOs ensure a smooth data flow between the radio front end and the system's MCU."
(iii) The modular transmitter must have its own power supply regulation.	Complies; Product spec above states: On-chip voltage regulator. Power Amplifier and associated control circuitry on RF module is fed by Linear 3.3V regulator.
(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.	Complies; TapDynamics Model 348 RF module uses fixed Fractus omni-directional antenna

<p>(v) The modular transmitter must be tested in a stand-alone configuration, <i>i.e.</i>, 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)).</p>	<p>Complies; FCC testing performed on RF module carrier pcb without ferrites using typical length of DC feed wires.</p>
<p>(vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.</p> <p>(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.</p>	<p>Complies; Label indicating FCC ID fixed to module and larger label with full FCC text included with module, for affixing to end product. Instructions and explanation of FCC labeling requirements included in User’s manual.</p>

<p>(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.</p>	<p>Instructions and explanation of FCC labeling requirements included in User’s manual.</p>
<p>(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.</p>	<p>Complies; statement declaring the need for unintentional emissions compliance of final product given in User’s manual.</p>
<p>(vii i) The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.</p>	<p>Complies; verified by NRTL.</p>

Dated September 12, 2011

Sincerely, 

Gail M. Beckett
 Vice President, Tap Acquisition Inc., DBA TapDynamics