

Applicant/Grantee	Carmanah Signs Inc.					
FCC ID:	2AIQM-214231					
Section 15.212 Modular Transmitters						
Request For Modular Approval						
	Requirements	EUT Conditions	Comply (Y/N)			
Single Modular Approval Requirements						
1	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.	Device is equipped with metal shielding to cover the RF section. Refer to external photos	Y			
2	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.	All inputs to the modules are buffered through logic or microprocessor inputs.	Y			
3	The modular transmitter must have its own power supply regulation.	Power is provided by a LDO built into the TI CC2520 chip. See block diagram.	Y			
4	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 <u>unique</u> antenna coupler (at all connections between the module and the antenna, including the cable). The <u>protection</u> of Section 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.	Device has a permanent, non-replaceable antenna.	Y			
5	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	Device was tested in stand-alone configuration on a carrier board.	Y			

	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 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 Section 15.31(i)).		
6	<p>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 Transmitted Module</p> <p>FCC ID: XY)MODEL1 or Contains</p> <p>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>(B) If the modular transmitter uses an</p>	<p>One proposed FCC ID label format is included in the filing. The label is to be placed on the module. Labeling instructions are also provided for integrators of the module in the Module Certification OEM Integrator's Manual.</p>	Y

	<p>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: <u>CoÝtaiÝs FCC ceÝtified tdaÝswitted wodule;ssJ. AÝy siÝwilaÝ lloÝddiÝg</u> 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>		
7	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.	Refer to Module Certification OEM Integrator's Manual.	Y
8	The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.	Transmitter meets MPE calculation of 47 CFR 1.1307 (b) (1). Refer to MPE section of the test reports.	Y