



Powering Business Worldwide

Eaton

Cooper Industries (Electrical) Inc.

74 – 1833 Coast Meridian Road

Port Coquitlam BC Canada V3C6G5

Date: November 8, 2022

Timco Engineering, Inc.

849 NW State Road 45

P.O. Box 370

Newberry, Florida 32669

Re: Requesting the Transmitter Modular Approval of FCC ID: IA9XPD2400A

To Whom It May Concern:

Cooper Industries Inc, in accordance with FCC Part 15, hereby summarized that transmitter module characteristic for requesting the transmitter modular approval.

Transmitter Module Characteristics

Item	Requirements	EUT
1	The modular transmitter must have its own RF shielding. This is intended to ensure that the module does not have to rely upon the shielding provided by the device into which it is installed in order for all modular transmitter emissions to comply with Part 15 limits. It is also intended to prevent coupling between the RF circuitry of the module and any wires or circuits in the device into which the module is installed. Such coupling may result in non-compliant operation.	The modular transmitter has its own RF shield and does not rely upon shielding provided by the device into which it is installed.
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.	Data rate and modulation are controlled by a CPU on the modular transmitter. Data rate and modulation cannot be exceeded by applying excessive voltages to the transmitters' inputs.
3	The modular transmitter must have its own power supply regulation. This is intended to ensure that the module will comply with Part 15 requirements regardless of the design of the power supplying circuitry in the device into which the module is installed.	The modular transmitter has its own power supply regulation.
4	The modular transmitter must comply with the antenna requirements of Section 15.203 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	The module has a female MCX connector. The antenna will never be mounted directly to the transmitter module but

	antenna, including the cable). Any antenna used with the module must be approved with the module, either at the time of initial authorization or through a Class II permissive change. The “professional installation” provision of Section 15.203 may not be applied to modules.	rather to a connector on a host controller system.
5	The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing. This is intended to demonstrate that the module is capable of complying with Part 15 emission limits regardless of the device into which it is eventually installed. 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 length typical of actual use or, if that length is unknown, at least 10 centimeters to ensure 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 or commercially available (see Section 15.31(i)).	The transmitter module requires a host to operate. The module has been tested while connected to a host emulation system but not combined with it. The host will supply power to the transmitter module. The transmitter module will be shipped and marketed with a host controller. Together the transmitter and host system comply with the AC line conducted requirements in Section 15.207
6	The modular transmitter must be labeled with its own FCC ID number, and, if the FCC ID 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: YZMODEL1” 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.	The module has its own label. The host system will have another label that states: “CONTAINS FCC ID: IA9XPD2400A”
7	The modular transmitter must comply with any specific rule or operating requirements applicable	The host system description has been

	to the 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. For example, there are very strict operational and timing requirements that must be met before a transmitter is authorized for operation under Section 15.231. For instance, data transmission is prohibited, except for operation under Section 15.231(e), in which case there are separate field strength level and timing requirements. Compliance with these requirements must be assured	created and provides adequate instructions required to integrate the module into the system and operate it within applicable rules.
8	The modular transmitter must comply with any applicable RF exposure requirements. For example, FCC Rules in Sections 2.1091, 2.1093 and specific Sections of Part 15, including 15.319(i), 15.407(f), 15.253(f) and 15.255(g), require that Unlicensed PCS, UNII and millimeter wave devices perform routine environmental evaluation for RF Exposure to demonstrate compliance. In addition, spread spectrum transmitters operating under Section 15.247 are required to address RF Exposure compliance in accordance with Section 15.247(b)(4). Modular transmitters approved under other Sections of Part 15, when necessary, may also need to address certain RF Exposure concerns, typically by providing specific installation and operating instructions for users, installers and other interested parties to ensure compliance.	The transmitter has been tested with a system that closely emulates its intended host and passed 15.247.

Sincerely,



Patrick Ho

Business Manager

Mobile Wireless & Embedded Power

Email: patrickho@eaton.com

Telephone: +1 (604) 472 4718

On behalf of: Cooper Industries (Electrical) Inc