



April 15, 2010

AmericanTCB
6731 Whittier Avenue
McLean VA 22101

Attn: Director of Certification

Dear Sir or Madam

We, **Liberty Hardware Manufacturing Corporation** [140 Business Park Drive, Winston-Salem, NC 27107], are requesting Limited Modular Approval (LMA) on the **PTM 240C** and hereby declare that the **PTM 240C** will only be integrated into **Liberty Hardware Manufacturing Corporation** products. Therefore, **Liberty Hardware Manufacturing Corporation** will retain full control of final installation

No manual exists for this product since **Liberty Hardware Manufacturing Corporation** is the integrator. However, the following regulatory notices will be included in the end product manuals.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device contains FCC ID: **X98-PTM240C** / IC: **8907A-PTM240C**

CAUTION: Changes or modifications not expressly approved by **Liberty Hardware Manufacturing Corporation** could void the user's authority to operate the equipment.

In addition, the wording "Contains FCC ID: **X98-PTM240C** / IC: **8907A-PTM240C**" will be included on the label of the device in which the **PTM 240C** is installed.

Sincerely

A handwritten signature in black ink that reads "David M. Burke". The signature is fluid and cursive, with "David" on the top line and "M. Burke" on the bottom line.

David M. Burke
Associate Principal Engineer
313.792.4269
313.792.4325
dburke@masco-rd.com





April 29, 2010

AmericanTCB
6731 Whittier Avenue
McLean VA 22101

Attn: Director of Certification

RE: FCC ID: X98-PTM240C / IC: 8907A-PTM240C submittal as modular device

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 FCC Part 15 and Industry Canada 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 a ground plane and other grounding elements that are designed to provide adequate shielding; it was tested in a stand-alone configuration and the measurements confirmed the effectiveness of the ground plane shield. The modular transmitter complies with Part 15 emissions limits.

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 and Industry Canada requirements under conditions of excessive data rates or over-modulation.

The modular transmitter has buffered modulation/data 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 and Industry Canada 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 FCC Sections 15.203 and 15.204(c) and Industry Canada requirements. 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). 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 FCC Section 15.203 may not be applied to modules.

The modular transmitter has a permanently attached antenna.

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 FCC Part 15 and Industry Canada 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 FCC 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 FCC 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 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 or commercially available (see FCC Section 15.31(i)).

The modular transmitter was tested in a stand-alone configuration and complies with Part 15 emissions limits.

6. The modular transmitter must be labeled with its own FCC ID / IC number, and, if the FCC ID / IC 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 / IC: XXX-YYYY" or "Contains FCC ID: XYZMODEL1 / IC: XXX-YYYY." Any similar wording that expresses the same meaning may be used. The Applicant 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 modular transmitter is labeled with its own FCC ID number. Because the modular transmitter may be installed inside another device, rendering its own label invisible, we display the necessary text on the outside label of all finished products which use this module.

7. The modular transmitter must comply with any specific rule or operating requirements applicable 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 FCC Section 15.231 and Industry Canada specifications. For instance, data transmission is prohibited, except for operation under FCC Section 15.231(e), in which case there are separate field strength level and timing requirements. Compliance with these requirements must be assured.

The modular transmitter complies with all applicable operating requirements and the manufacturer of the module (EnOcean) provided adequate instructions in the user manual explaining the requirements. All end products which we will place the module in will have no ability to operate outside of the requirements.

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 FCC 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. Refer to Industry Canada RSS-GEN Section 7.1.1 and 7.1.2 for Industry Canada requirements.

The modular transmitter complies with applicable RF exposure requirements.



Sincerely,

A handwritten signature in black ink that reads "David M. Burke".

David M. Burke
Associate Principal Engineer
313.792.4269 (p)
313.792.4325 (f)
dburke@masco-rd.com