



Research and Engineering Center

750 MONTE ROAD, BENTON HARBOR, MICHIGAN 49022-2600

January 20, 2015

Dear Application Examiner,

Whirlpool Corporation, would like to have your authorization for Module Approval specific to the device as described herein. The device is a Near Field Communication reader (RFID) for use in Whirlpool appliances. The model is XPNFC. The FCC ID is A5UXPNFC and the IC ID is 10248A-XPNFC. The requirements of FCC Code of Federal Regulations Title 47 Part 15.212 and Industry Canada's RSP-100 Issue 10 (11-2014) Section 7.3 have been met as shown below:

### FCC & IC Modular Approval Checklist:

| Modular approval requirement                                                                                                                                                                                                                                                          | Yes | No |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| (a) The radio elements must have the radio frequency circuitry shielded. Physical/discrete and tuning capacitors may be located external to the shield, but must be on the module assembly.                                                                                           | X   |    |
| Explanation: The radio elements are shielded, see the external photo.                                                                                                                                                                                                                 |     |    |
| (b) The module shall have buffered modulation/data input(s) (if such inputs are provided) to ensure that the module will comply with the requirements set out in the applicable RSS standard under conditions of excessive data rates or over-modulation.                             | X   |    |
| Explanation: The data inputs are buffered on the transceiver module by the Microprocessor IC or on the lines to the UART Radio Interface.                                                                                                                                             |     |    |
| (c) The module shall have its own power supply regulation on the module. This is to ensure that the module will comply with the requirements set out in the applicable standard regardless of the design of the power supplying circuitry in the host device which houses the module. | X   |    |
| Explanation: The module contains an internal voltage regulator on the 5Vdc input converting to 3.3 VDC for use by the radio circuit.                                                                                                                                                  |     |    |



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| (d) The module shall comply with the provisions for external power amplifiers and antennas detailed in FCC Part 15.203, 15.204(b) & 15.204(c) and RSS-Gen Issue 4. The equipment certification submission shall contain a detailed description of the configuration of all antennas that will be used with the module. | X          |           |
| Explanation: The modules meet the requirements and the description is in the operation description exhibit.                                                                                                                                                                                                            |            |           |
| <b>Modular approval requirement</b>                                                                                                                                                                                                                                                                                    | <b>Yes</b> | <b>No</b> |
| (e) The module shall be tested for compliance with the applicable standard in a stand-alone configuration, i.e. the module must not be inside another device during testing.                                                                                                                                           | X          |           |
| Explanation: The module was tested in a stand alone configuration.                                                                                                                                                                                                                                                     |            |           |
| (f) The module must be labeled with its own FCC ID number and shall comply with Industry Canada's Category I equipment labeling requirements.                                                                                                                                                                          | X          |           |
| Explanation: The module is labeled with FCC ID and IC numbers and comply with Industry Canada's Category I equipment labeling requirements, see the label drawing exhibits.<br>FCC ID: A5UXPNFC<br>IC: 10248A-XPNFC                                                                                                    |            |           |
| (g) The module shall comply with applicable FCC & Industry Canada RSS-102 exposure requirements, which are based on the intended use/configurations.                                                                                                                                                                   | X          |           |
| Explanation: The EUT is compliant with all RF exposure requirements.                                                                                                                                                                                                                                                   |            |           |
| (h) The host device and all the separately certified modules it contains jointly meet the RF exposure compliance requirements of RSS-102, if applicable.                                                                                                                                                               | X          |           |
| Explanation: The host device is compliant with all RF exposure requirements.                                                                                                                                                                                                                                           |            |           |
| (i) Is the modular device for an Industry Canada licensed exempt service?                                                                                                                                                                                                                                              | X          |           |
| Explanation: (as needed) This is an unlicensed device.                                                                                                                                                                                                                                                                 |            |           |
| (FCC - additional) 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                                                                                        | X          |           |



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| module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization. |  |  |
| Explanation: Instructions for use are included in the Users Guide                                                                      |  |  |

Please contact me if you have any further questions. Thank you for your attention to this matter.

Regards,

*Ray Russell*

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|----------------------------|------------------------------------------------------------------|
| Name of responsible person | Ray Russell – Engineering Manager                                |
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