| Northwest EMC | TCB Compliance Opinion | Rev. 9/15/03 |
|---|---|---|

| Information about the Applicant | |
|---|---|
| **Company Name** | Intermec Technologies Corporation |
| **Grantee** | Cheryl D. White |
| **Address** | 6001 36th Ave. W |
| **City, State, Zip** | Everett, WA 98203 |
| **Job Number** | ITRM0035 |
| **Model** | 900 MHz RFID Reader |
| **FCC ID** | HN2UAPRFID-900 |
| **Agent** | none |
| **Approval Type** | Class II Permissive Change |
| **Equipment Class** | DSS Part 15 Spread Spectrum Transmitter |
| **Rule Part** | 15.247 |

## Overview

The device is a previously certified frequency hopping spread spectrum radio operating in the band of 902 - 928 MHz under 15.247 of the rules. The original application and subsequent Class II permissive change were approved with 6 dBi panel antennas. The FCC grant specifies a 20 cm separation distance between the antennas and all persons. The grant also prohibits co-location and operating in conjunction with any other antenna or transmitter.

The purpose of this Class II permissive change is to add 3 more panel antennas for use with the radio. The new antennas are the same or lesser gain than the panel antennas already approved in the original application. Due to the same or reduced gain of these antennas (relative to the already approved antennas), radiated spurious emissions testing was deemed unnecessary by the applicant and not performed.

Although the original application contains conducted emissions data to CISPR 22 limits, conducted emissions data was also submitted with this Class II permissive change application to demonstrate compliance with the new 15.207 limits (FCC Part 15, Version April 23, 2004).

## Recommendation

All items have been resolved and completed to my satisfaction; therefore I recommend this application for approval.

## Signature

8/12/2004

Greg Kiemel, TCB Committee

| Opinions | |
|---|---|
| **Specification Requirements** | **Description** |
| **47 Cfr 2.1033(b)(4)** | Antenna Information |
| **Opinion** | The device meets the requirements of the rule. |
| **Discussion** | The client has provided the necessary exhibit. |
| **Reference** | Antenna Information.pdf, Test Report.pdf |

| Specification Requirements | Description |
|---|---|
| **47 Cfr 2.1033(b)(6)** | Measurement Report |
| **Opinion** | The device meets the requirements of the rule. |
| **Discussion** | The client has provided the necessary exhibit. |
| **Reference** | Test Report.pdf |

| Specification Requirements | Description |
|---|---|
| **47 Cfr 2.1033(b)(7)** | Antenna photos |
| **Opinion** | The device meets the requirements of the rule. |
| **Discussion** | The client has provided the necessary exhibit. |
| **Reference** | Antenna Information.pdf |

| Specification Requirements | Description |
|---|---|
| **Required Exhibit** | Test Setup Photo Exhibit |
| **Opinion** | The device does not meet the requirements of the rule. |
| **Discussion** | Although the new AC powerline conducted emissions test data was not accompanied by test setup photos, the original application contains test data and photos that demonstrate compliance with the new 15.207 requirements. |
| **Reference** | Original application for FCC ID: HN2UAPRFID-900, Test report 4 of 4.pdf, Setup Photo 4 of 4.pdf |

| Specification Requirements | Description |
|---|---|
| **47 Cfr 1.1307(b),2.1091,2.1093** | RF Exposure Hazard |
| **Opinion** | The device meets the requirements of the rule. |
| **Discussion** | The client has provided the necessary exhibit. The TCB has verified the MPE calculations |
| **Reference** | Test Report.pdf, Antenna Information.pdf, RF Exposure.pdf |

| Specification Requirements | Description |
|---|---|
| **47 Cfr 15.203** | Antenna Requirements |
| **Opinion** | The device meets the requirements of the rule. |
| **Discussion** | The client has provided the following attestation in their test report, “Intermec Technologies will now use a reverse polarity TNC connector. This connector satisfies all conditions outlined in 15.203. Field units that upgrade antennas will be sent to an Intermec Technologies service center and fitted with the reverse polarity TNC connector.” |
| **Reference** | Test Report.pdf |

| Specification Requirements | Description |
|---|---|
| **47 Cfr 15.207** | Power line Conducted emissions |
| **Opinion** | The device meets the requirements of the latest version of Part 15 of the FCC rules. |
| **Discussion** | The client has provided the necessary exhibit. The original application also contains test data and photos that demonstrate compliance with the new 15.207 requirements. |
| **Reference** | Test report.pdf. See also the original application for FCC ID: HN2UAPRFID-900, Test report 4 of 4.pdf, Setup Photo 4 of 4.pdf |