

Information about the Applicant

Company Name	Intermec Corp.
Address	6001 36 th Avenue West
City, State, Zip	Everett, WA 98203-9280
Requested By	Cheryl White
Job Number	INMC0036
Model	PC24-11-FC/R
FCC ID	HN2PC24-11
Agent	Applicant
Approval Type	Reference Northwest EMC Technical Report – General Information
Equipment Type	Reference Northwest EMC Technical Report – General Information
Rule Part	Reference Northwest EMC Technical Report – General Information

Overview

The application is for the PC24-11-FC/R radio module, which operates in the 2.4-2.4835 GHz band as a direct sequence spread spectrum transmitter under Section 15.247. This RF module is compliant with IEEE 802.11b specifications, and will be used only as a mobile transmitter. The radio is provided to Intermec Technologies Corporation by Agere Systems. Agere Systems has provided the information regarding the Theory of Operation, Schematics and Block Diagram for this certification application. Intermec's 802.11(b) Transmitter, FCC ID: HN2PC24-11 is seeking FCC authorization as a modular transmitter. The EUT meets the requirements for modular approval as detailed in FCC Public Notice DA00-1407. Compliance to each of the requirements is described in the letter included with this application package, Exhibit T.

General Comments

Item	The TCB 410, Application for Certification is incorrect, it states 0.032 W for output power, the test data shows 0.0374 W. A corrected application must be submitted.
Resolution	A corrected application has been provided.
Item	The FCC requires that the highest gain of each type of antenna, plus the lowest gain antenna overall must be tested for radiated spurious emissions. Several antennas were tested; Yagi, flat panel, corner reflector, omni, dipole, flag, and patch antennas. Please provide additional information demonstrating that each of the antennas listed is one of those "types" of antennas, or additional test data for the "types" of antennas not tested.
Resolution	Additional information has been provided, reference Exhibit G.

Item	To satisfy the modular approval requirements of item 6 in the FCC Public Notice DA 00-1407, a drawing or photo of the label used on the outside of the host device must be provided with the application. Excerpt from DA 00-1407: "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, <u>then the outside of the device into which the module is installed must also display a label referring to the enclosed module.</u> This exterior label can use wording such as the following: "Contains Transmitter Module FCC ID: XYZMODEL1" 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."
Resolution	Additional information has been provided, reference Exhibit A.
Item	The antenna information exhibit did not specifically address how the antenna connector requirements of 15.203 were met. (e.g. reverse polarity SMA connectors, etc.)
Resolution	Additional information has been provided, reference Exhibit V.
Item	The Operational Description stated a frequency range of 2412-2462 MHz, the applicant cover letter states 2400-2483 MHz, please correct the conflicting information.
Resolution	The applicant has provided further clarification, this is no longer an issue.
Item	The CE module states testing was performed in the 450 kHz – 30 MHz range, the data actually shows testing was conducted over the 150 kHz – 30 MHz range.
Resolution	The information has been corrected.
Item	Conducted emissions data states a CISPR 22 method, it should be tested using ANSI C63.4 methods.
Resolution	The information has been corrected.
Item	Conducted Emissions data states input power of 5 VDC, the module specifies the equipment is tested in a PC powered by 120 VAC/60 Hz.
Resolution	The information has been corrected.
Item	The CE module describes testing in a Host Laptop PC, the EUT and peripheral description and setup photos describes different equipment.
Resolution	The information has been corrected.
Item	The CE data includes redundant data, there is separate data sheets for peak and then QP and AV data, the peak data sheets are not required when the additional data is provided.
Resolution	The information has been corrected.

Opinion

Specification Requirements	Description
15.207	Conducted Emissions

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted test results in the form of a test report.

Reference: Exhibit L

Specification Requirements	Description
15.247(a)	Bandwidth

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted test results in the form of a test report.

Reference: Exhibit N

Specification Requirements	Description
15.247(b)	Power Output

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted test results in the form of a test report.

Reference: Exhibit Q

Specification Requirements	Description
15.247(c)	Spurious Emissions, Antenna Conducted

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted test results in the form of a test report.

Reference: Exhibit P

Specification Requirements	Description
15.247(c)	Spurious Emissions, Radiated Emissions

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted test results in the form of a test report.

Reference: Exhibit R

Specification Requirements	Description
15.247(d)	Power Spectral Density

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted test results in the form of a test report

Reference: Exhibit O

Specification Requirements	Description
15.247(b)(4)	RF Exposure

Opinion: The Equipment meets the intent specified by the requirements listed above.

Discussion: The Applicant has submitted MPE estimates demonstrating compliance.

Reference: Exhibit H