

Information about the Applicant

Company Name	Intermec Technologies Corporation
Address	6001 36th Avenue West
City, State, Zip	Everett, WA 98203-9280
Requested By	Cheryl White
Job Number	INMC0086
Model	802MIG2 Radio
FCC ID	HN2802MIG2
Agent	Northwest EMC, Inc.
Approval Type	Certification
Equipment Type	802.11(b) and 802.11(g) Low Power Unlicensed Transmitter
Rule Part	15.247

Overview

Intermec's Model 802MIG2, mini PCI radio card, FCC ID: HN2802MIG2. It operates from 2412 – 2462 MHz (center frequency to center frequency), with a peak conducted output power of 11.6mW. The 802MIG2 is compliant with IEEE 802.11(b) and 802.11(g) specifications and is seeking modular approval as a mobile device.

The 802MIG2 utilizes only one antenna port for transmitting and both antenna ports for receiving. The highest gain of each type of antenna was tested, plus the lowest gain of all the antennas was tested.

Recommendation

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



Dean Ghizzone, President

September 7, 2003

Date

Findings and Resolution

Item	Confirm and provide a cover that ensures that all antennas in the application meet the unique connector requirements of 15.205. For example: Page 16, 19 of the Antenna Exhibit lists an "N(F)" Connector. Page 25, 26 only provides part number, not a type of connection. Page 38 refers to TNC Plug.
Resolution	Statement provided and added to Antenna Info exhibit
Item	Need RF Exposure Exhibit
Resolution	Received
Item	Need Attestation from client: Software controlled, user selectable frequency bands. The FCC does not permit transmitters that allow users to select operating frequencies that are allowed in other countries but not in the U.S.
Resolution	Satisfactory attestation statement received
Item	The typical frequency range and power listed in the Operational Description are not consistent with the application and cover letter. (See Page 7)
Resolution	Operational Description contained correct information, application and cover letter were corrected.
Item	The cover letter lists 11.6 mW, the manual has many typical values listed above and the application form which lists 54.1 mW. The manual page 18 lists it as <18dBm.
Resolution	Application and User Manual were revised with correct info.
Item	As specified by DA 00-1407: In order to obtain a modular transmitter approval, a cover letter requesting modular approval must be submitted and the numbered requirements identified below must be addressed in the application for equipment authorization.
Resolution	Cover letter provided.
Item	The User's Manual Section 2.2 for RF Exposure specifies a 2.5 cm or 1-inch distance. As a portable device this must specify a 20 cm spacing.
Resolution	Users Manual revised to note the correct spacing.
Item	The Operational Description specifies the following (Page 5) modulation: BPSK, QPSK, 16QAM, and 64QAM. The application (TCB410) specifies DSSS and BPSK. The Users Manual specifies DQPSK, DBPSK, CCK, 16 QAM, 64 QAM.
Resolution	Application and Users Manual were revised to show correct information
Item	The Operational Description specifies Channel 2 as 3417 MHz (Page 5), this appears to be a typo?
Resolution	Operational Description was revised to show correct information.
Item	The test report, spurious radiated emissions test description states 6, 11, 36, and 54 Mbit was tested, data is only provided for 6 and 11 Mbit (highest output power rates)
Resolution	Resolved.

Opinion

Specification Requirements	Description
15.247(b)(5)	RF Exposure

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

Discussion: The Applicant has submitted an RF Exposure exhibit demonstrating compliance.

Reference: RF Exposure Exhibit

Specification Requirements	Description
15.247(a)	Occupied 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: Technical Report

Specification Requirements	Description
15.247(b)(3)	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: Technical Report

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: Technical Report

Specification Requirements	Description
15.247; 15.205; 15.209	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: Technical Report

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: Technical Report

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. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in Section 15.207. To demonstrate compliance the equipment was configured to accept an AC adapter to power the EUT. The AC adapter used to power the EUT during the tests was unmodified and commercially available.

Reference: Technical Report

Specification Requirements	Description
15.247	Band Edge Compliance

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: Technical Report