

Intermec Technologies Corporation

Simultaneous Transmission - FCC Part 15.247

**Testing for Class II Permissive Change of FCC ID: EHABTS080 to authorize
co-location with FCC ID: EHA2610CF and EHASMC46**

**700C configured with three internal radio modules:
CDMA (FCC ID: EHAEM3420) or GSM (FCC ID: EHASMC46)
802.11b/g (FCC ID: EHA2610CF)
Bluetooth (FCC ID: EHABTS080)**

March 30, 2005

Report No. ITRM0073.2

Report Prepared By



www.nwemc.com

1-888-EMI-CERT

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EMC Test Report



22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test
Issue Date: March 30, 2005
Intermec Technologies Corporation

700C configured with three internal radio modules:

CDMA (FCC ID: EHAEM3420) or GSM (FCC ID: EHASMC46)
802.11b/g (FCC ID: EHA2610CF)
Bluetooth (FCC ID: EHABTS080)

| Specification | Emissions | | |
|--|-----------------|-------------------------------------|--------------------------|
| | Test Method | Pass | Fail |
| FCC 15.247(d) Spurious Radiated Emissions:2004 (Simultaneous Transmit) | ANSI C63.4:2003 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| |
|---|
| Modifications made to the product |
| See the Modifications section of this report |

Test Facility

- The measurement facility used to collect the data is located at:

Northwest EMC, Inc
22975 NW Evergreen Parkway, Suite 400
Hillsboro, OR 97124

Phone: (503) 844-4066 Fax: 844-3826

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada.

Approved By:

Don Facteau, IS Manager

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.

Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested, the specific description is noted in each of the individual sections of the test report supporting this certificate of test.

| Revision Number | Description | Date | Page Number |
|-----------------|-------------|------|-------------|
| 00 | None | | |

FCC: Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities, have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.



NVLAP: Northwest EMC, Inc. is recognized under the United States Department of Commerce, National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 89/336/EEC, ANSI C63.4, MIL-STD 461E, DO-160D and SAE J1113. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada. Accreditation has been granted to Northwest EMC, Inc. under Certificate Numbers: 200629-0, 200630-0, and 200676-0.



Industry Canada: Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS 212, Issue 1 (Provisional) and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements.



CAB: Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement



TÜV Product Service: Included in TÜV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TÜV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TÜV's current Listing of CARAT Laboratories available from TÜV. A certificate was issued to represent that this laboratory continues to meet TÜV's CARAT Program requirements. Certificate No. USA0401C



TÜV Rheinland: Authorized to carryout EMC tests by order and under supervision of TÜV Rheinland. This authorization is based on "Conditions for EMC-Subcontractors" of November 1992.



NEMKO: Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).



Technology International: Assessed in accordance with ISO Guide 25 defining the general international requirements for the competence of calibration and testing laboratories and with ITI assessment criteria LACO196. Based upon that assessment Interference Technology International, Ltd., has granted approval for specifications implementing the EU Directive on EMC (89/336/EEC and amendments). The scope of the approval was provided on a Schedule of Assessment supplied with the certificate and is available upon request.



Australia/New Zealand: The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body. (NVLAP)



VCCI: Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (*Registration Nos. - Evergreen: C-1071 and R-1025, Trails End: C-1877 and R-1760, Sultan: R-871, C-1784 and R-1761*)



BSMI: Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement. License No.SL2-IN-E-1017.



GOST: Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification



SCOPE

For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/scope.asp>

What is measurement uncertainty?

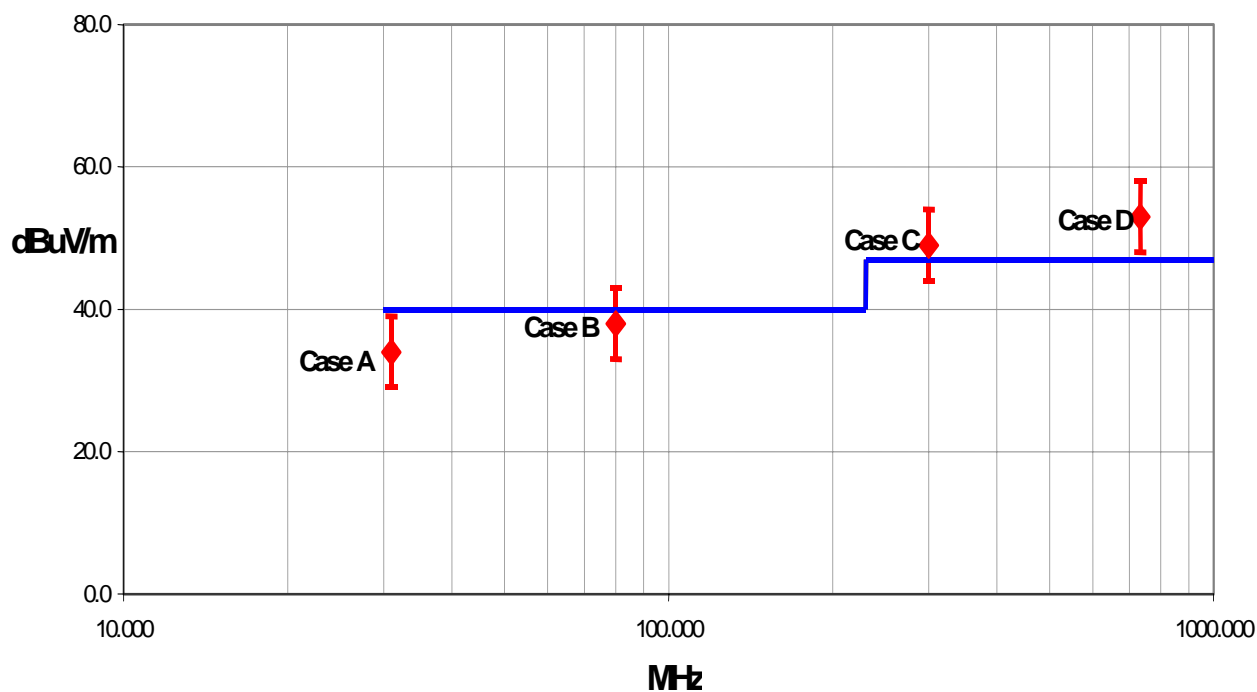
When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. The following statement of measurement uncertainty is used to reflect the accuracy of the measured result as compared with its “true” value. In the case of transient tests (ESD, EFT, Surge, Voltage Dips and Interruptions), the test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements.

The following documents were the basis for determining the uncertainty levels of our measurements:

- “ISO Guide to the Expression of Uncertainty in Measurements”, October 1993
- “NIS81: The Treatment of Uncertainty in EMC Measurements”, May 1994
- “IEC CISPR 16-3 A1 f1 Ed.1: Radio-interference measurements and statistical techniques”, December 2000

How might measurement uncertainty be applied to test results?

If the diamond marks the measured value for the test and the vertical bars bracket the range of + and – measurement uncertainty, then test results can be interpreted from the diagram below.



Test Result Scenarios:

Case A: Product complies.

Case B: Product conditionally complies. It is not possible to say with 95% confidence that the product complies.

Case C: Product conditionally does not comply. It is not possible to say with 95% confidence that the product does not comply.

Case D: Product does not comply.

Radiated Emissions ≤ 1 GHz

Value (dB)

| Test Distance | Probability Distribution | Biconical Antenna | | Log Periodic Antenna | | Dipole Antenna | |
|---|--------------------------|-------------------|------------------|----------------------|------------------|------------------|------------------|
| | | 3m | 10m | 3m | 10m | 3m | 10m |
| Combined standard uncertainty $u_c(y)$ | normal | + 1.86 - 1.88 | + 1.82 - 1.87 | + 2.23 - 1.41 | + 1.29 - 1.26 | + 1.31 - 1.27 | + 1.25 - 1.25 |
| Expanded uncertainty U (level of confidence $\approx 95\%$) | normal (k=2) | + 3.72 - 3.77 | + 3.64 - 3.73 | + 4.46 - 2.81 | + 2.59 - 2.52 | + 2.61 - 2.55 | + 2.49 - 2.49 |

Radiated Emissions > 1 GHz

Value (dB)

| Test Distance | Probability Distribution | Without High Pass Filter | | With High Pass Filter | |
|---|--------------------------|--------------------------|------------------|-----------------------|------------------|
| | | 3m | 10m | 3m | 10m |
| Combined standard uncertainty $u_c(y)$ | normal | + 1.29 - 1.25 | + 1.29 - 1.25 | + 1.38 - 1.35 | + 1.38 - 1.35 |
| Expanded uncertainty U (level of confidence $\approx 95\%$) | normal (k=2) | + 2.57 - 2.51 | + 2.57 - 2.51 | + 2.76 - 2.70 | + 2.76 - 2.70 |

Conducted Emissions

| Test Distance | Probability Distribution | Value (+/- dB) |
|---|--------------------------|----------------|
| Combined standard uncertainty $u_c(y)$ | normal | 1.48 |
| Expanded uncertainty U (level of confidence $\approx 95\%$) | normal (k = 2) | 2.97 |

Radiated Immunity

| Test Distance | Probability Distribution | Value (+/- dB) |
|---|--------------------------|----------------|
| Combined standard uncertainty $u_c(y)$ | normal | 1.05 |
| Expanded uncertainty U (level of confidence $\approx 95\%$) | normal (k = 2) | 2.11 |

Conducted Immunity

| Test Distance | Probability Distribution | Value (+/- dB) |
|---|--------------------------|----------------|
| Combined standard uncertainty $u_c(y)$ | normal | 1.05 |
| Expanded uncertainty U (level of confidence $\approx 95\%$) | normal (k = 2) | 2.10 |

Legend

$u_c(y)$ = square root of the sum of squares of the individual standard uncertainties

U = combined standard uncertainty multiplied by the coverage factor: k . This defines an interval about the measured result that will encompass the true value with a confidence level of approximately 95%. If a higher level of confidence is required, then $k=3$ (CL of 99.7%) can be used. Please note that with a coverage factor of one, $u_c(y)$ yields a confidence level of only 68%.

**California****Orange County Facility**

41 Tesla Ave.
Irvine, CA 92618
(888) 364-2378
FAX (503) 844-3826

**Oregon****Evergreen Facility**

22975 NW Evergreen Pkwy.,
Suite 400
Hillsboro, OR 97124
(503) 844-4066
FAX (503) 844-3826

**Oregon****Trails End Facility**

30475 NE Trails End Lane
Newberg, OR 97132
(503) 844-4066
FAX (503) 537-0735

**Washington****Sultan Facility**

14128 339th Ave. SE
Sultan, WA 98294
(888) 364-2378
FAX (360) 793-2536

Party Requesting the Test

| | |
|---------------------------------|--|
| Company Name: | Intermec Technologies Corporation |
| Address: | 550 Second St. SE |
| City, State, Zip: | Cedar Rapids, IA 52401-2023 |
| Test Requested By: | Scott Holub |
| Model: | 700C configured with three internal radio modules: CDMA (FCC ID: EHAEM3420) or GSM (FCC ID: EHASMC46) 802.11b/g (FCC ID: EHA2610CF) Bluetooth (FCC ID: EHABTS080) |
| First Date of Test: | 2-2-2005 |
| Last Date of Test: | 3-16-2005 |
| Receipt Date of Samples: | 2-2-2005 |
| Equipment Design Stage: | Production |
| Equipment Condition: | No visual damage. |

Information Provided by the Party Requesting the Test

| | |
|----------------------------|-----------------------------------|
| Clocks/Oscillators: | Not provided at the time of test. |
| I/O Ports: | Serial |

Functional Description of the EUT (Equipment Under Test):

Intermec's Handheld Computer, Model 700C was configured with three co-located radios. The 700C contained a CDMA radio (FCC ID: EHAEM3420) or GSM radio (FCC ID: EHASMC46), an 802.11(b)/(g) radio (FCC ID: EHA2610CF), and a Bluetooth radio (FCC ID: EHABTS080). The CDMA and GSM radios are never installed in the same 700C.

Client Justification for EUT Selection:

Not Provided

Client Justification for Test Selection:

This test demonstrated compliance with FCC Part 15.247 emissions limits while the co-located radios were transmitting simultaneously. Each radio transmits through its own antenna. This report will be used as part of a Class II Permissive Change to authorize the co-location of the 802.11b/g radio and GSM radio with the Bluetooth radio.

EUT Photo

| Equipment modifications | | | | | |
|-------------------------|-----------------------------|--------------------------|---|----------------------------------|--------------------------------|
| Item | Test | Date | Modification | Note | Disposition of EUT |
| 1 | Spurious Radiated Emissions | 02/02/2005 to 03/16/2005 | No EMI suppression devices were added or modified during this test. | Same configuration as delivered. | EUT remained at Northwest EMC. |

Justification

Intermec's Handheld Computer, Model 700C was configured with three co-located radios. The 700C contained a CDMA radio (FCC ID: EHAEM3420), an 802.11(b)/(g) radio (FCC ID: EHA2610CF), and a Bluetooth radio (FCC ID: EHABTS080). This test demonstrated compliance with FCC Part 15.247 emissions limits while the co-located radios were transmitting simultaneously. Each radio transmits through its own antenna.

All possible combinations of harmonic emissions from the CDMA, 802.11(b)/(g), and Bluetooth radios were compared numerically. It was determined that there were no possible coincidental harmonics below 1 GHz. All the radios were configured for simultaneous transmission at the channels specified below.

Channels in Specified Band Investigated:

| | |
|-------------------------|-------------------|
| 802.11(b): | 1, 11 |
| CDMA (Cellular): | 54, 55, 395, 467 |
| CDMA (PCS): | 1, 35, 1153 |
| Bluetooth: | 5, 11, 62, 68, 79 |

Operating Modes Investigated:**Bluetooth Radio in PW40 with 700C in cradle:**

| |
|---|
| Simultaneous transmission of Bluetooth Channel 11, 802.11(b) Channel 1, & CDMA PCS Channel 1 |
| Simultaneous transmission of Bluetooth Channel 11, 802.11(b) Channel 1, & CDMA PCS Channel 1153 |
| Simultaneous transmission of Bluetooth Channel 68, 802.11(b) Channel 11, & CDMA PCS Channel 35 |
| Simultaneous transmission of Bluetooth Channel 62, 802.11(b) Channel 11, & CDMA PCS Channel 1153 |
| Simultaneous transmission of Bluetooth Channel 11, 802.11(b) Channel 1, & CDMA Cellular Channel 467 |
| Simultaneous transmission of Bluetooth Channel 5, 802.11(b) Channel 1, & CDMA Cellular Channel 395 |
| Simultaneous transmission of Bluetooth Channel 79, 802.11(b) Channel 11, & CDMA Cellular Channel 55 |
| Simultaneous transmission of Bluetooth Channel 79, 802.11(b) Channel 11, & CDMA Cellular Channel 54 |

Antennas Investigated:

| | |
|-------------------|---|
| 802.11(b): | Folded Monopole internal to 700C, P/N 805-608-104 |
| CDMA: | Tri-band Antenna external to 700C, P/N 805-624-001 |
| Bluetooth: | Chip antenna integral to Bluetooth module inside 700C |

Data Rates Investigated:

| |
|---------|
| Maximum |
|---------|

Power Input Settings Investigated:

| |
|-----------------|
| 120 VAC, 60 Hz. |
|-----------------|

Frequency Range Investigated

| | | | |
|------------------------|-------|-----------------------|--------|
| Start Frequency | 1 GHz | Stop Frequency | 25 GHz |
|------------------------|-------|-----------------------|--------|

Software\Firmware Applied During Test

| | | | |
|---|--|----------------|---------------------------|
| Exercise software | FCC Tests Blue Test Test Utility | Version | Unknown Unknown 0.4 |
| Description | | | |
| This system was tested using special test software to exercise the functions of the device during the testing such as channels, power, and modulation during simultaneous transmission. | | | |

EUT and Peripherals

| Description | Manufacturer | Model/Part Number | Serial Number |
|--------------------|-----------------------------------|--------------------------|----------------------|
| Handheld Computer | Intermec Technologies Corporation | 700C | 13790400011 |
| AC Adapter | Elpac Power Systems | FW1812 | 011025 |

Cables

| Cable Type | Shield | Length (m) | Ferrite | Connection 1 | Connection 2 |
|---|---------------|-------------------|----------------|---------------------|---------------------|
| DC Leads | PA | 1.3 | PA | Handheld Computer | AC Adapter |
| AC Power | No | 2.0 | No | AC Adapter | AC Mains |
| PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown. | | | | | |

Measurement Equipment

| Description | Manufacturer | Model | Identifier | Last Cal | Interval |
|---------------------------|---------------------|----------------------|-------------------|-----------------|-----------------|
| Antenna, Horn | EMCO | 3160-09 | AHG | NCR | NA |
| Pre-Amplifier | Miteq | JSD4-18002600-26-8P | APU | 10/08/2003 | 24 mo |
| Antenna, Biconilog | EMCO | 3141 | AXE | 12/03/2003 | 24 mo |
| Pre-Amplifier | Amplifier Research | LN1000A | APS | 02/05/2004 | 13 mo |
| Antenna, Horn | EMCO | 3115 | AHC | 09/07/2004 | 12 mo |
| Pre-Amplifier | Miteq | AMF-4D-005180-24-10P | APJ | 01/05/2004 | 13 mo |
| High Pass Filter | Micro-Tronics | HPM50111 | HFO | 04/13/2004 | 13 mo |
| Attenuator | | 2082-6148-20 | ATE | 02/03/2004 | 13 mo |
| Quasi-Peak Adapter | Hewlett-Packard | 85650A | AQF | 12/02/2004 | 13 mo |
| Spectrum Analyzer | Hewlett-Packard | 8566B | AAL | 12/02/2004 | 13 mo |
| Spectrum Analyzer Display | Hewlett Packard | 85662A | AALD | 12/02/2004 | 13 mo |
| Spectrum Analyzer | Tektronix | 2784 | AAO | 01/02/2005 | 12 mo |
| Antenna, Horn | EMCO | 3160-08 | AHK | NCR | NA |
| Pre-Amplifier | Miteq | AMF-4D-005180-24-10P | APC | 10/08/2003 | 15 mo |

Test Description

Requirement: Per 15.247(d), the field strength of any spurious emissions or modulation products that fall in a restricted band, as defined in 47 CFR 15.205, is measured. The peak level must comply with the limits specified in 47 CFR 15.35(b). The average level (taken with a 10Hz VBW) must comply with the limits specified in 15.209.

Configuration: Intermec's Handheld Computer, Model 700C was configured with three co-located radios. The 700C contained a CDMA radio (FCC ID: EHAEM3420), an 802.11(b)/(g) radio (FCC ID: EHA2610CF), and a Bluetooth radio (FCC ID: EHABTS080). This test demonstrated compliance with FCC Part 15.247 emissions limits while the co-located radios were transmitting simultaneously. Each radio transmits through its own antenna.

Simultaneous Transmission: For co-located radios, it is necessary to measure the field strength of spurious emissions, while co-located radios are transmitting simultaneously. The following is an excerpt from the FCC/TCB training Q & A, October 2002, Day 2, Question 7:


Assuming that the radios do not share an antenna, only radiated tests for simultaneous transmission is required. If the radios share an antenna, antenna conducted measurements would also be required. Only one set of worst case simultaneous transmission data is going to be requested to be submitted at this time. The test engineer should indicate the worst case condition and provide justification as to why the worst case condition was chosen. The grantee should be reminded that even if the FCC requests one set of data, they are responsible for compliance for all modes of simultaneous transmission.


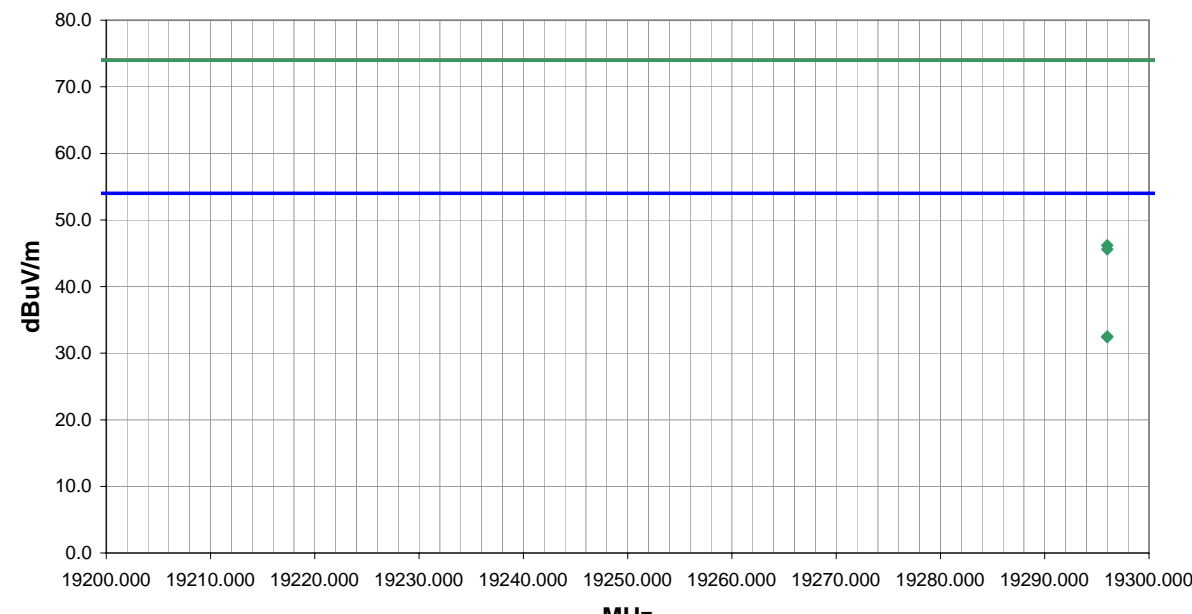
All possible combinations of harmonic emissions from the CDMA, 802.11(b), and Bluetooth radios were compared numerically. It was determined that there were no possible coincidental harmonics below 1 GHz. The frequency range from 1 GHz to 25 GHz was investigated for channel combinations that would produce coincidental harmonics. Compliance with the restricted band at 2483.5 – 2500 MHz was also measured.


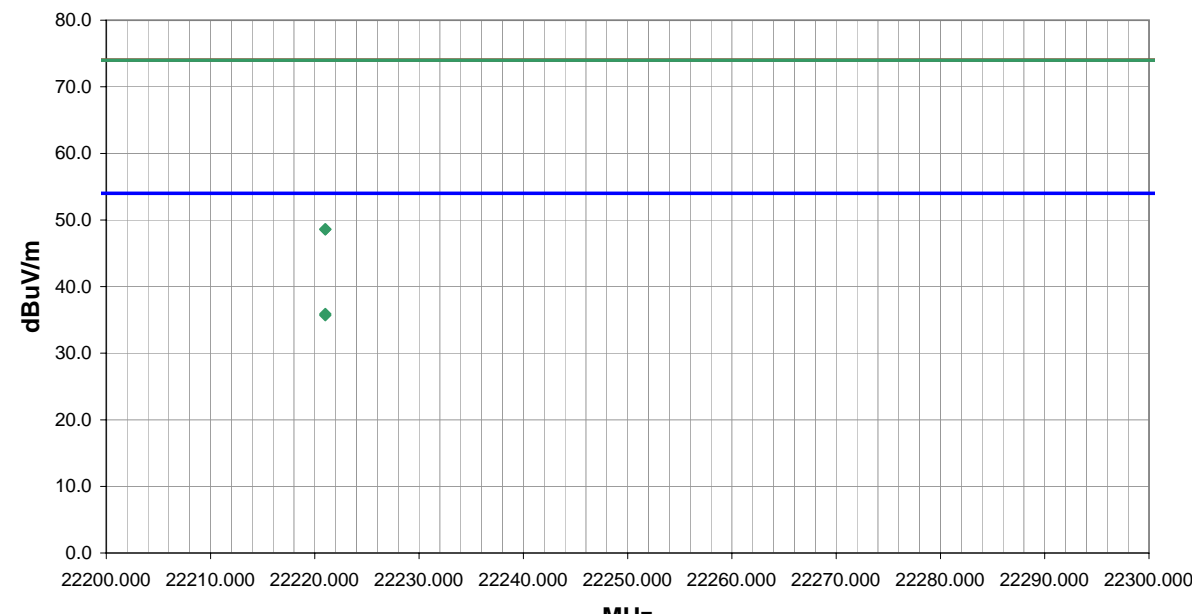
All the radios were configured for simultaneous transmission at the channels specified in the previous pages. The highest gain antennas to be used with the radios were tested. The spectrum was scanned throughout the specified range. While scanning, emissions from the radios were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antennas in three orthogonal axes, and adjusting the measurement antenna height and polarization (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.


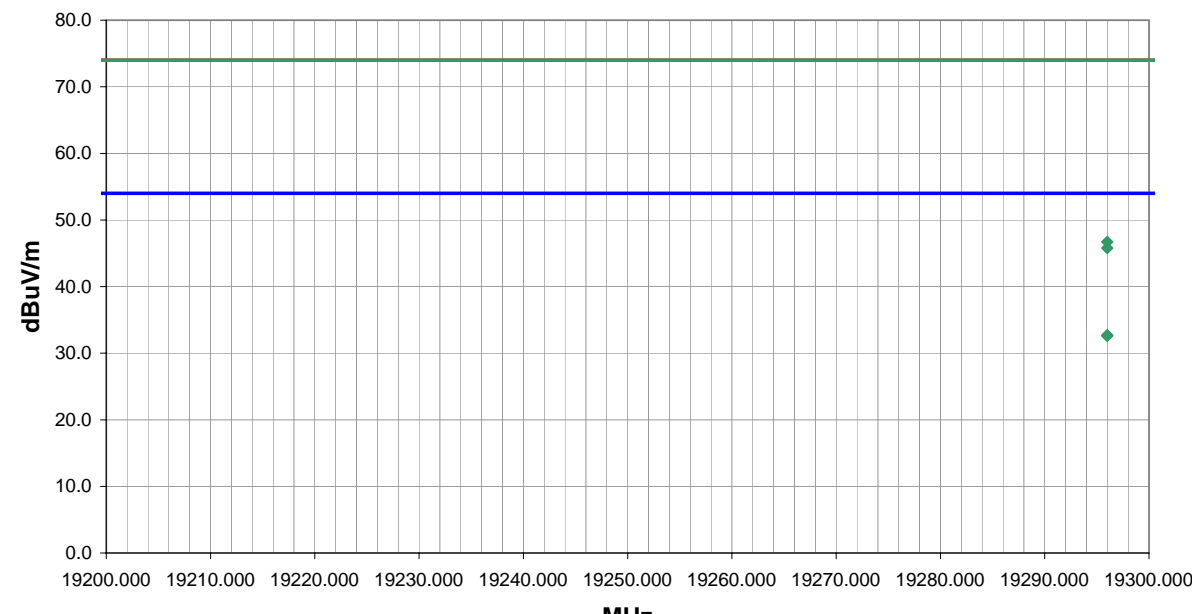
| Bandwidths Used for Measurements | | | |
|---|-----------------|-----------------------|--------------------|
| Frequency Range (MHz) | Peak Data (kHz) | Quasi-Peak Data (kHz) | Average Data (kHz) |
| Above 1000 | 1000.0 | N/A | 1000.0 |
| <i>Measurements were made using the bandwidths and detectors specified. No video filter was used.</i> | | | |


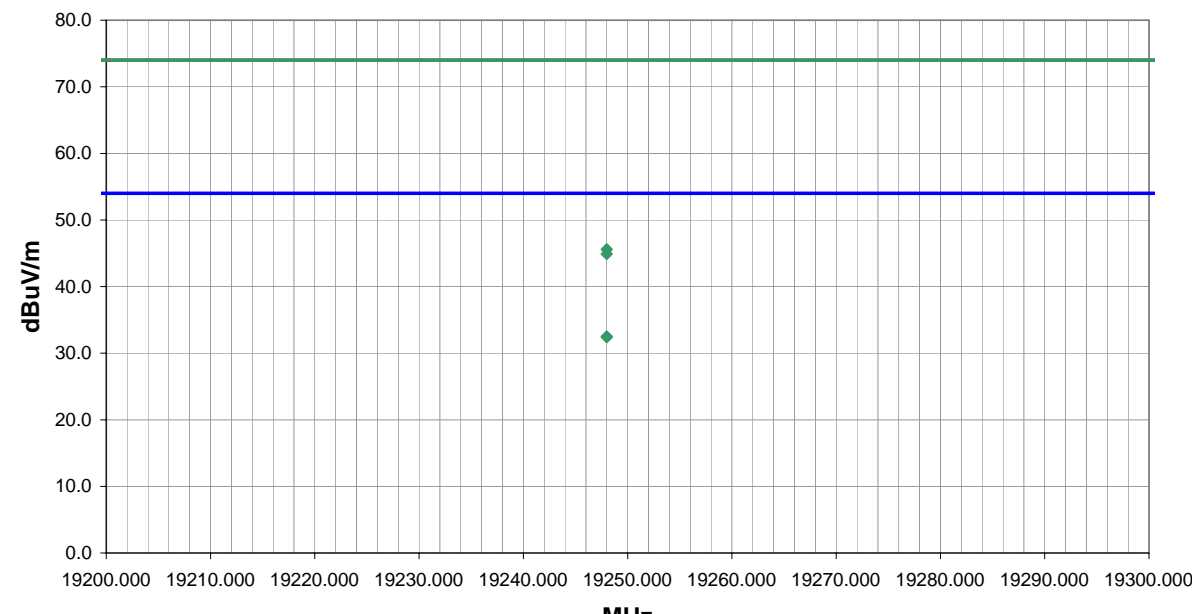
Completed by:




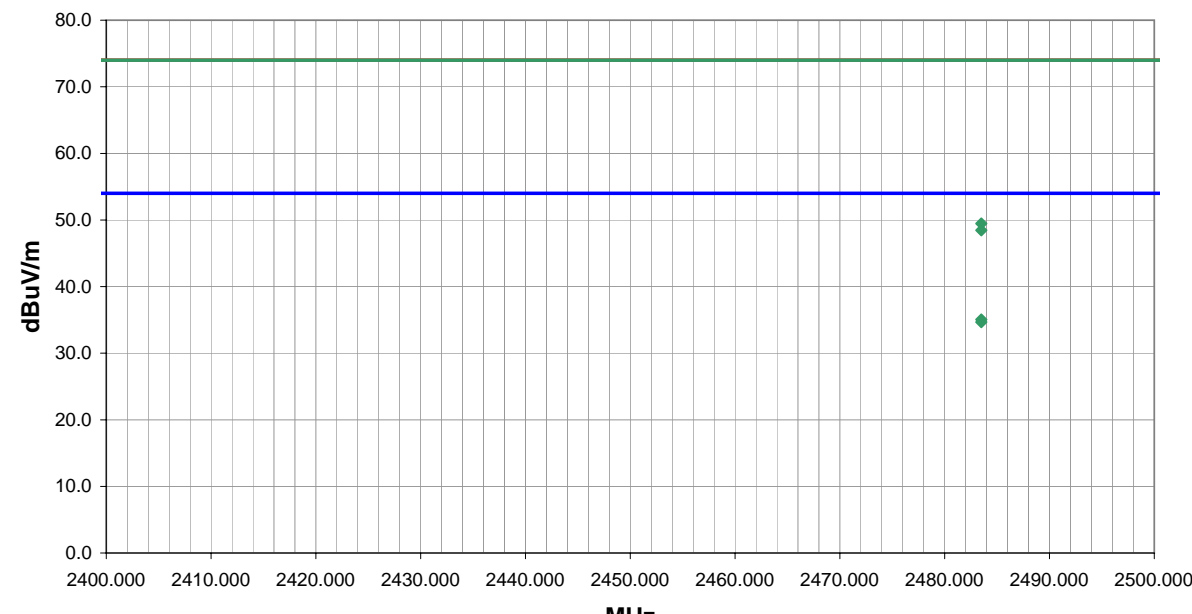
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI A2.13 | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|---------------------------|-------------------|---------------------------|-------------|----------|--------------------------|-----------------|--------------------|------------------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 02/02/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 70 | | | | | | | | | |
| Attendees: None | | | Humidity: 38% | | | | | | | | | |
| Cust. Ref. No.: N/A | | | Barometric Pressure: 30.15 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 11, CDMA 1153 (PCS) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 30 | | | | | | | |
| Other | | | | | | | | | | | | |
|  | | | | | Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 19296.000 | 24.5 | 8.0 | 360.0 | 1.0 | 3.0 | 0.0 | V-High Horr | AV | 0.0 | 32.5 | 54.0 | -21.5 |
| 19296.000 | 24.4 | 8.0 | -1.0 | 1.0 | 3.0 | 0.0 | I-High Horr | AV | 0.0 | 32.4 | 54.0 | -21.6 |
| 19296.000 | 38.2 | 8.0 | 360.0 | 1.0 | 3.0 | 0.0 | V-High Horr | PK | 0.0 | 46.2 | 74.0 | -27.8 |
| 19296.000 | 37.6 | 8.0 | -1.0 | 1.0 | 3.0 | 0.0 | I-High Horr | PK | 0.0 | 45.6 | 74.0 | -28.4 |


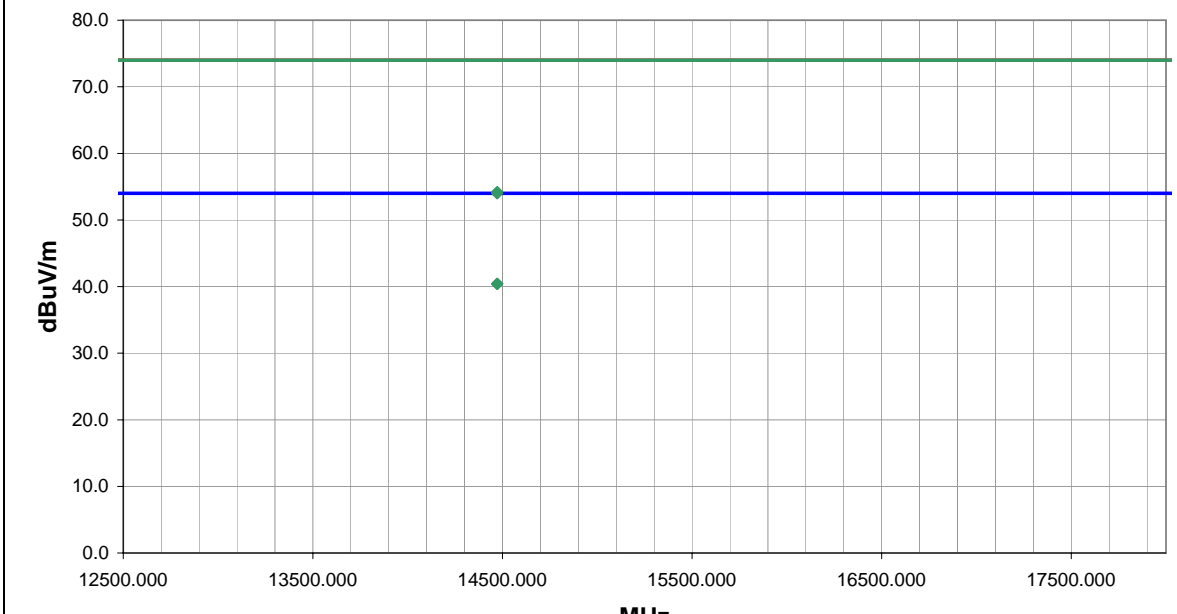
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI A2.13 | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|---------------------------|--|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 02/02/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 70 | | | | | | | | | |
| Attendees: None | | | Humidity: 38% | | | | | | | | | |
| Cust. Ref. No.: N/A | | | Barometric Pressure: 30.15 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 68, 802.11b 11, CDMA 35 (PCS) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 31 | | | | | | | |
| Other | | | | | | | | | | | | |
| | | | | |  Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 22221.000 | 26.9 | 9.0 | -1.0 | 1.0 | 3.0 | 0.0 V-High Horr | AV | AV | 0.0 | 35.9 | 54.0 | -18.1 |
| 22221.000 | 26.7 | 9.0 | 360.0 | 1.0 | 3.0 | 0.0 V-High Horr | AV | AV | 0.0 | 35.7 | 54.0 | -18.3 |
| 22221.000 | 39.6 | 9.0 | 360.0 | 1.0 | 3.0 | 0.0 V-High Horr | PK | PK | 0.0 | 48.6 | 74.0 | -25.4 |
| 22221.000 | 39.6 | 9.0 | -1.0 | 1.0 | 3.0 | 0.0 V-High Horr | PK | PK | 0.0 | 48.6 | 74.0 | -25.4 |


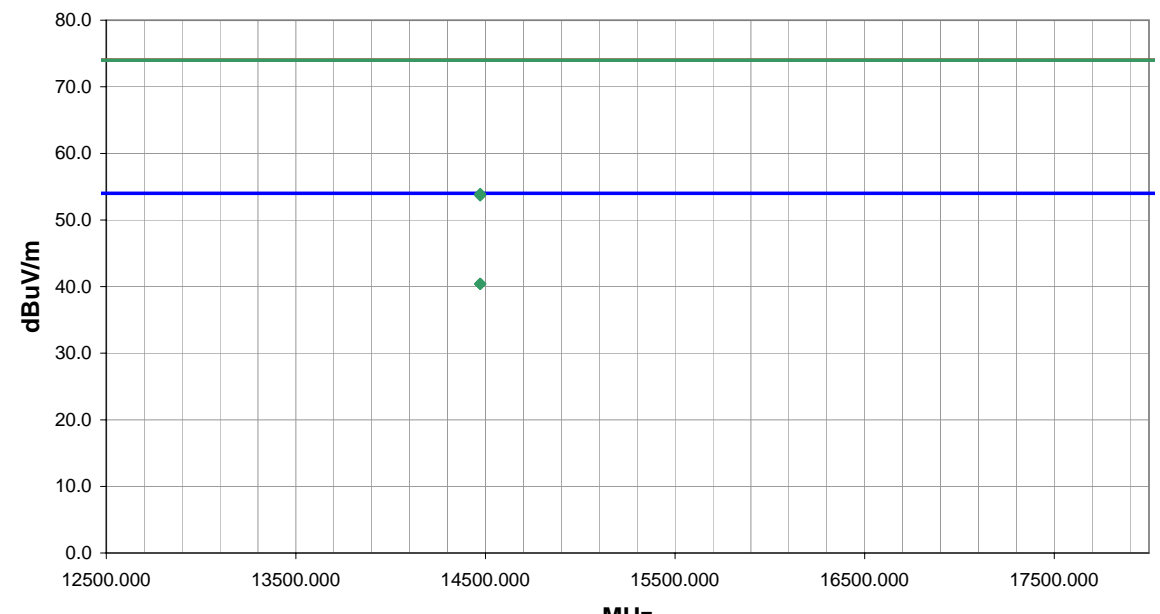
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI A2.13 | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|---------------------------|--|---------------------------|--------------|----------|--------------------------|-----------------|--------------------|------------------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 02/02/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 70 | | | | | | | | | |
| Attendees: None | | | Humidity: 38% | | | | | | | | | |
| Cust. Ref. No.: N/A | | | Barometric Pressure: 30.15 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, CDMA 467 (cellular) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 32 | | | | | | | |
| Other | | | | | | | | | | | | |
| | | | | |  Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 19296.000 | 24.7 | 8.0 | 360.0 | 1.0 | 3.0 | 0.0 | -I-High Horr | AV | 0.0 | 32.7 | 54.0 | -21.3 |
| 19296.000 | 24.6 | 8.0 | -1.0 | 1.0 | 3.0 | 0.0 | -I-High Horr | AV | 0.0 | 32.6 | 54.0 | -21.4 |
| 19296.000 | 38.7 | 8.0 | 360.0 | 1.0 | 3.0 | 0.0 | -I-High Horr | PK | 0.0 | 46.7 | 74.0 | -27.3 |
| 19296.000 | 37.8 | 8.0 | -1.0 | 1.0 | 3.0 | 0.0 | -I-High Horr | PK | 0.0 | 45.8 | 74.0 | -28.2 |


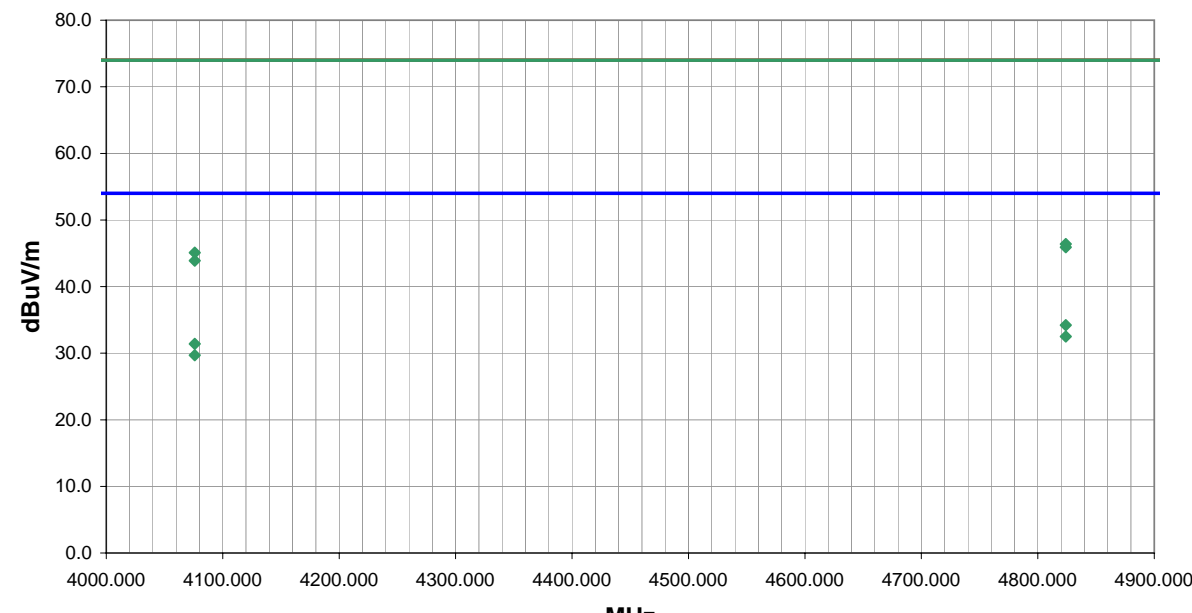
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | | | | | | | | | ACQ 2005.1.3 EMI A2.13 | | |
|--|------------------|-------------------------------|-------------------|-----------------|-------------------|---------------------------|-------------|----------|--------------------------|-----------------|--|---------------------------|--|--|
| EUT: 2601CF | | Work Order: ITRM0054 | | | | | | | | | | | | |
| Serial Number: Unknown | | Date: 02/02/05 | | | | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | Temperature: 70 | | | | | | | | | | | | |
| Attendees: None | | Humidity: 38% | | | | | | | | | | | | |
| Cust. Ref. No.: N/A | | Barometric Pressure: 30.15 | | | | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | Method: ANSI C63.4:2003 | | | | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | | |
| Bluetooth 5, 802.11b 1, CDMA 395 (cellular) on 700C | | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | | | | | |
| Pass | | | | | | | | | | | Run # | | | |
| | | | | | | | | | | | 33 | | | |
| Other | | | | | | | | | | | | | | |
| | | | | | | | | | | |  Tested By: | | | |
|  | | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | | |
| 19248.000 | 24.7 | 7.8 | -1.0 | 1.0 | 3.0 | 0.0 | I-High Horr | AV | 0.0 | 32.5 | 54.0 | -21.5 | | |
| 19248.000 | 24.6 | 7.8 | 360.0 | 1.0 | 3.0 | 0.0 | V-High Horr | AV | 0.0 | 32.4 | 54.0 | -21.6 | | |
| 19248.000 | 37.8 | 7.8 | 360.0 | 1.0 | 3.0 | 0.0 | V-High Horr | PK | 0.0 | 45.6 | 74.0 | -28.4 | | |
| 19248.000 | 37.1 | 7.8 | -1.0 | 1.0 | 3.0 | 0.0 | I-High Horr | PK | 0.0 | 44.9 | 74.0 | -29.1 | | |


| NORTHWEST EMC | | | | | | | | | | RADIATED EMISSIONS DATA SHEET | | | | ACQ 2005.1.3 EMI A2.13 | |
|--|---------------------|----------------|----------------------|--------------------|----------------------|---------------------------------|-------------|----------|--------------------------------|--------------------------------------|-----------------------|------------------------------|--|---------------------------|--|
| EUT: 2601CF | | | | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | | | | Date: 02/02/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | | | | Temperature: 70 | | | | | | | | | |
| Attendees: None | | | | | | Humidity: 38% | | | | | | | | | |
| Cust. Ref. No.: N/A | | | | | | Barometric Pressure: 30.15 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | | | Method: ANSI C63.4:2003 | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | | | |
| Bluetooth 79, 802.11b 11, CDMA 55 (cellular) on 700C | | | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | Run # | | | | | |
| Pass | | | | | | | | | | 34 | | | | | |
| | | | | | | | | | | | | | | | |
| Other | | | | | | Tested By: | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | | | |
| 22320.000 | 26.8 | 9.2 | -1.0 | 1.0 | 3.0 | 0.0 | I-High Horr | AV | 0.0 | 36.0 | 54.0 | -18.0 | | | |
| 22320.000 | 26.8 | 9.2 | 360.0 | 1.0 | 3.0 | 0.0 | V-High Horr | AV | 0.0 | 36.0 | 54.0 | -18.0 | | | |
| 19840.000 | 23.2 | 8.9 | 360.0 | 1.0 | 3.0 | 0.0 | I-High Horr | AV | 0.0 | 32.1 | 54.0 | -21.9 | | | |
| 19840.000 | 23.2 | 8.9 | -1.0 | 1.0 | 3.0 | 0.0 | V-High Horr | AV | 0.0 | 32.1 | 54.0 | -21.9 | | | |
| 22320.000 | 40.2 | 9.2 | 360.0 | 1.0 | 3.0 | 0.0 | V-High Horr | PK | 0.0 | 49.4 | 74.0 | -24.6 | | | |
| 22320.000 | 39.8 | 9.2 | -1.0 | 1.0 | 3.0 | 0.0 | I-High Horr | PK | 0.0 | 49.0 | 74.0 | -25.0 | | | |
| 19840.000 | 36.6 | 8.9 | 360.0 | 1.0 | 3.0 | 0.0 | I-High Horr | PK | 0.0 | 45.5 | 74.0 | -28.5 | | | |
| 19840.000 | 36.5 | 8.9 | -1.0 | 1.0 | 3.0 | 0.0 | V-High Horr | PK | 0.0 | 45.4 | 74.0 | -28.6 | | | |

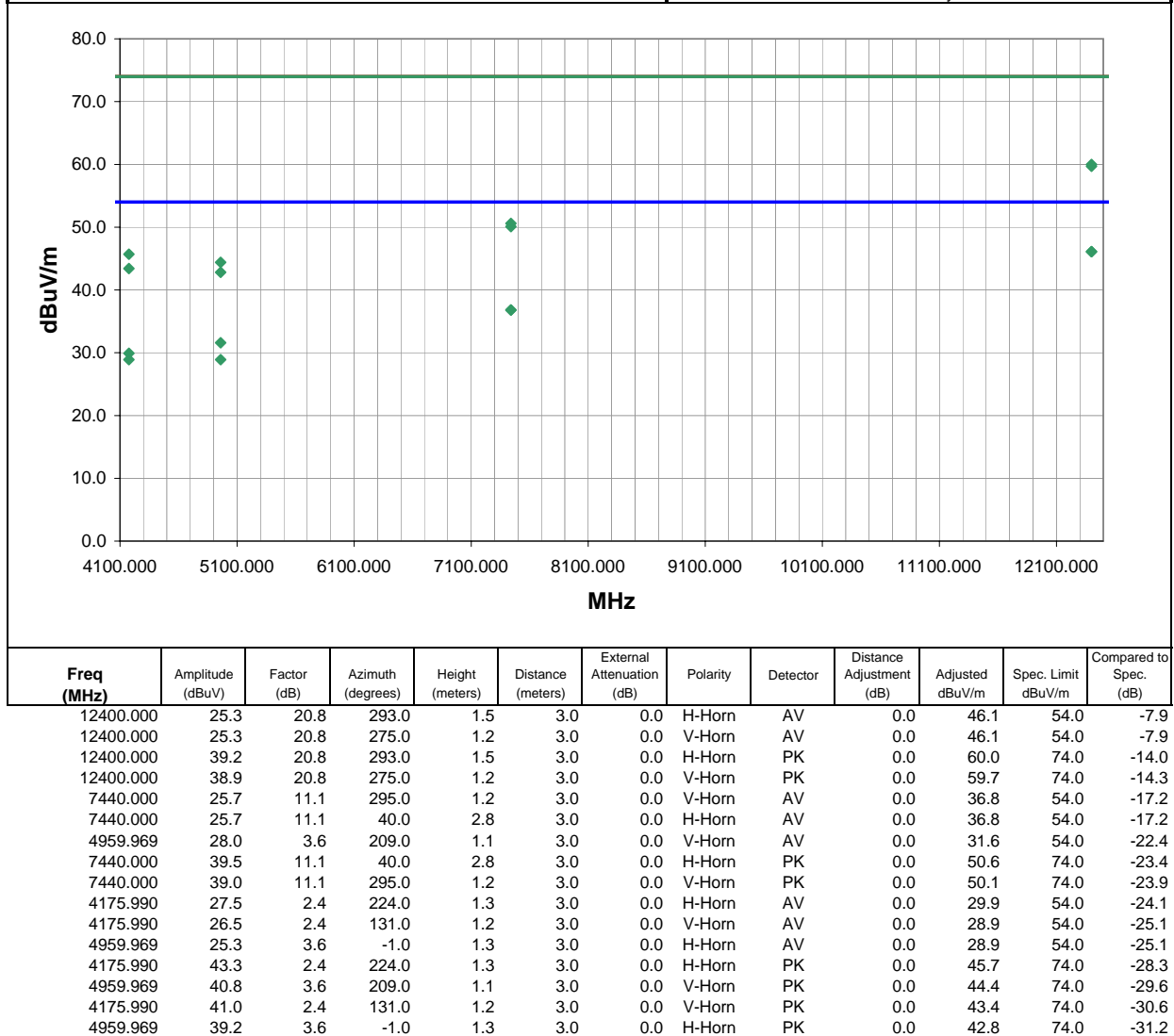
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI A2.13 | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|---------------------------|--|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 02/02/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 21 | | | | | | | | | |
| Attendees: None | | | Humidity: 38% | | | | | | | | | |
| Cust. Ref. No.: | | | Barometric Pressure: 30.47 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 62, 802.11b 11, CDMA 1153 (PCS) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 35 | | | | | | | |
| Other | | | | | | | | | | | | |
| | | | | |  Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 2483.500 | 12.6 | 32.0 | 165.0 | 1.2 | 1.0 | 0.0 | V-Horn | AV | -9.5 | 35.1 | 54.0 | -18.9 |
| 2483.500 | 12.2 | 32.0 | 327.0 | 1.2 | 1.0 | 0.0 | H-Horn | AV | -9.5 | 34.7 | 54.0 | -19.3 |
| 2483.500 | 27.0 | 32.0 | 165.0 | 1.2 | 1.0 | 0.0 | V-Horn | PK | -9.5 | 49.5 | 74.0 | -24.5 |
| 2483.500 | 26.0 | 32.0 | 327.0 | 1.2 | 1.0 | 0.0 | H-Horn | PK | -9.5 | 48.5 | 74.0 | -25.5 |


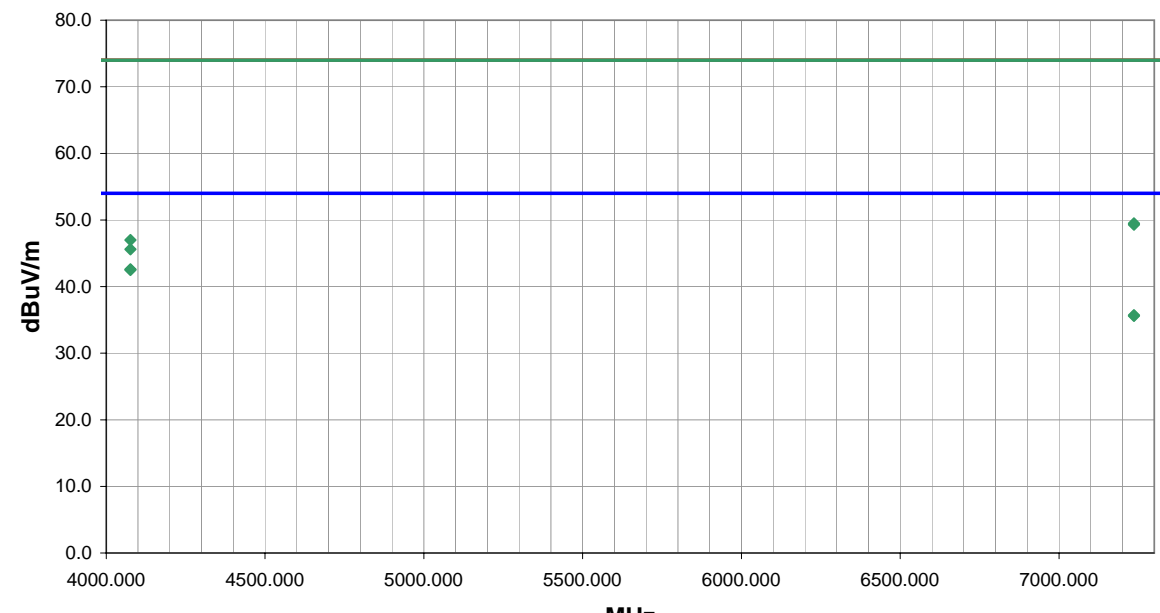
| | | | | | | | | | | | | |
|--|-------------------------|--------------------------------------|--------------------------|------------------------|--------------------------|--|-----------------|-----------------|---------------------------------|------------------------|---------------------------|-------------------------------|
| NORTHWEST | | RADIATED EMISSIONS DATA SHEET | | | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | |
| EMC | | | | | | | | | | | | |
| EUT: 2601CF | | Work Order: ITRM0054 | | | | | | | | | | |
| Serial Number: Unknown | | Date: 02/02/05 | | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | Temperature: 20 | | | | | | | | | | |
| Attendees: None | | Humidity: 35% | | | | | | | | | | |
| Cust. Ref. No.: | | Barometric Pressure: 30.38 | | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | Method: ANSI C63.4:2003 | | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, CDMA 1 (PCS) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | | Run # | | | | | | |
| Pass | | | | | | 36 | | | | | | |
| Other | | | | | | | | | | | | |
| | | | | | |  Tested By: | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 14472.000 | 26.6 | 13.8 | 26.0 | 2.9 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 40.4 | 54.0 | -13.6 |
| 14472.000 | 26.6 | 13.8 | 193.0 | 1.4 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 40.4 | 54.0 | -13.6 |
| 14472.000 | 40.4 | 13.8 | 193.0 | 1.4 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 54.2 | 74.0 | -19.8 |
| 14472.000 | 40.2 | 13.8 | 26.0 | 2.9 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 54.0 | 74.0 | -20.0 |


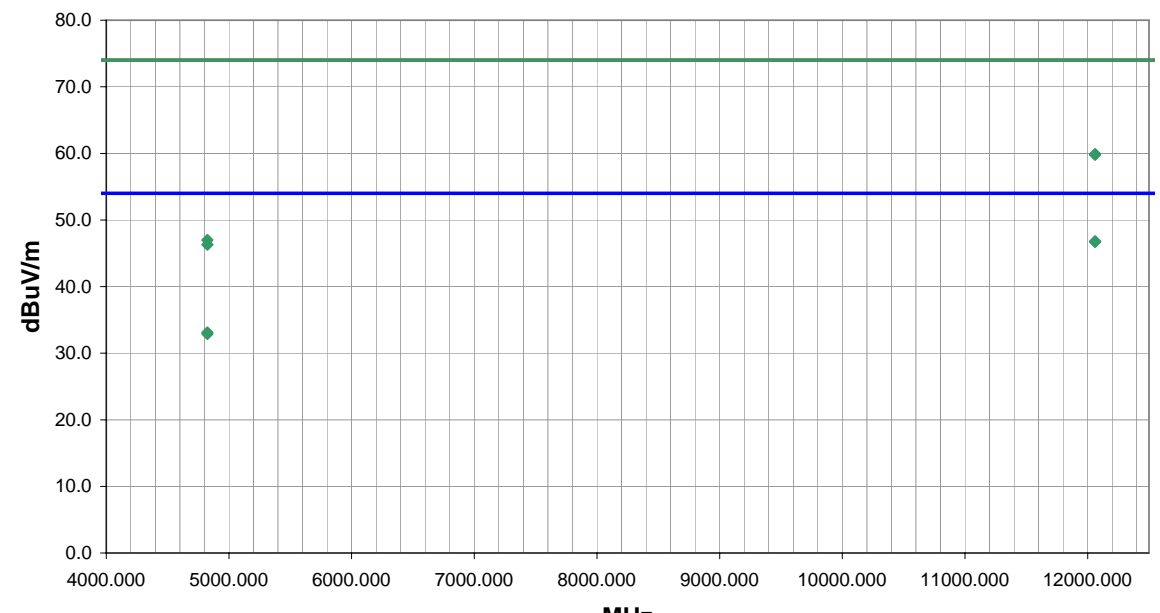
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|------------------------------|--|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 02/02/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 21 | | | | | | | | | |
| Attendees: None | | | Humidity: 38% | | | | | | | | | |
| Cust. Ref. No.: | | | Barometric Pressure: 30.47 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | Method: ANSI C63.4:2003 | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, CDMA 467 (cellular) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 37 | | | | | | | |
| Other | | | | | | | | | | | | |
| | | | | |  Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 14472.000 | 26.6 | 13.8 | 253.0 | 1.9 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 40.4 | 54.0 | -13.6 |
| 14472.000 | 26.6 | 13.8 | 278.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 40.4 | 54.0 | -13.6 |
| 14472.000 | 40.1 | 13.8 | 253.0 | 1.9 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 53.9 | 74.0 | -20.1 |
| 14472.000 | 39.9 | 13.8 | 278.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 53.7 | 74.0 | -20.3 |


| | | | | | | | | | | | | |
|--|---------------------|--------------------------------------|--|------------------------------|----------------------|---------------------------------|----------|----------|--------------------------------|--------------------|-----------------------|------------------------------|
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | | | |
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 02/02/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 22 | | | | | | | | | |
| Attendees: None | | | Humidity: 37% | | | | | | | | | |
| Cust. Ref. No.: | | | Barometric Pressure: 30.47 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, CDMA 467 (Cellular) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 38 | | | | | | | |
| | | | | | | | | | | | | |
| Other | | |  Tested By: _____ | | | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 4823.973 | 30.9 | 3.3 | 144.0 | 1.2 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 34.2 | 54.0 | -19.8 |
| 4823.973 | 29.2 | 3.3 | 209.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 32.5 | 54.0 | -21.5 |
| 4075.981 | 29.0 | 2.4 | 360.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 31.4 | 54.0 | -22.6 |
| 4075.981 | 27.3 | 2.4 | 125.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 29.7 | 54.0 | -24.3 |
| 4823.973 | 43.1 | 3.3 | 144.0 | 1.2 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 46.4 | 74.0 | -27.6 |
| 4823.973 | 42.6 | 3.3 | 209.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 45.9 | 74.0 | -28.1 |
| 4075.981 | 42.7 | 2.4 | 350.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 45.1 | 74.0 | -28.9 |
| 4075.981 | 41.5 | 2.4 | 125.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 43.9 | 74.0 | -30.1 |

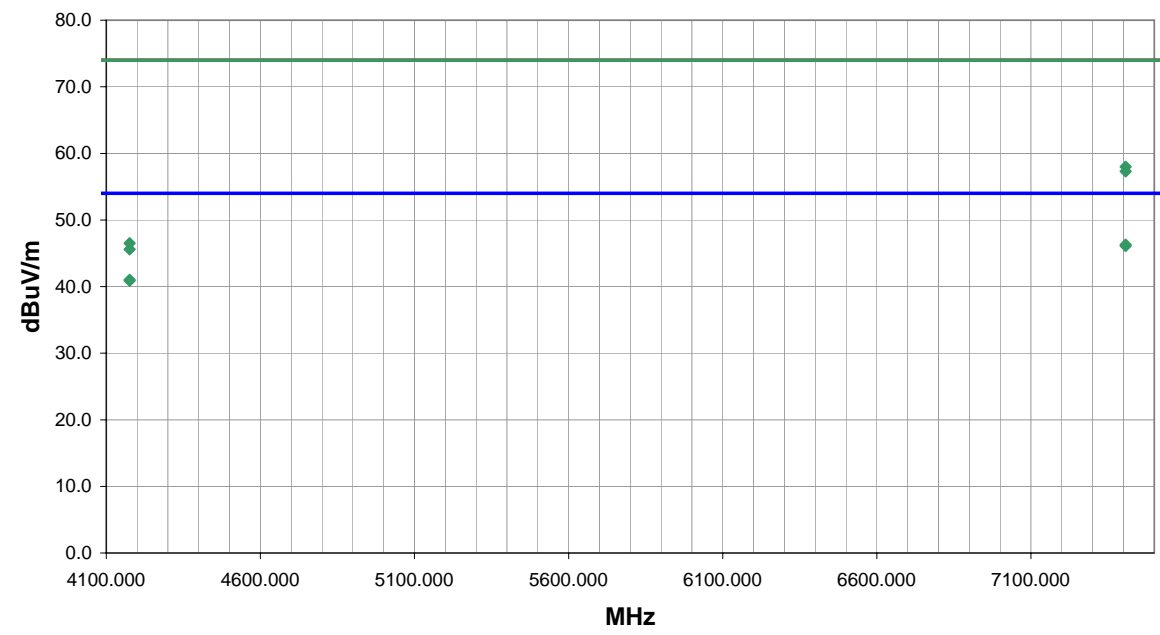
| | | | |
|--|--|--|----------------|
| NORTHWEST | | ACQ 2005.1.3 EMI 2005.1.3 | |
| EMC | | RADIATED EMISSIONS DATA SHEET | |
| EUT: 2601CF | | Work Order: ITRM0054 | |
| Serial Number: Unknown | | Date: 02/02/05 | |
| Customer: Intermec Technologies Corporation | | Temperature: 21 | |
| Attendees: None | | Humidity: 38% | |
| Cust. Ref. No.: | | Barometric Pressure: 30.47 | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | Job Site: EV01 |
| TEST SPECIFICATIONS | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | Method: ANSI C63.4:2003 | |
| SAMPLE CALCULATIONS | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | |
| COMMENTS | | | |
| | | | |
| EUT OPERATING MODES | | | |
| Bluetooth 79, 802.11b 11, CDMA 55 (Cellular) on 700C | | | |
| DEVIATIONS FROM TEST STANDARD | | | |
| No deviations. | | | |
| RESULTS | | | Run # |
| Pass | | | 39 |
| | | | |
| Other | |  Tested By: | |



| | | | | | | | | | | | | |
|--|---------------------|--------------------------------------|----------------------|--------------------|--|---------------------------------|----------|----------|--------------------------------|--------------------|-----------------------|------------------------------|
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | |
| EUT: 2601CF | | | | | Work Order: ITRM0054 | | | | | | | |
| Serial Number: Unknown | | | | | Date: 02/02/05 | | | | | | | |
| Customer: Intermec Technologies Corporation | | | | | Temperature: 21 | | | | | | | |
| Attendees: None | | | | | Humidity: 38% | | | | | | | |
| Cust. Ref. No.: | | | | | Barometric Pressure: 30.47 | | | | | | | |
| Tested by: Holly Ashkannejhad | | | | Power: 120VAC/60Hz | Job Site: EV01 | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | | Method: ANSI C63.4:2003 | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, CDMA 1 (PCS) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | | | Run # | | | | | |
| Pass | | | | | | | 40 | | | | | |
| | | | | | | | | | | | | |
| Other | | | | |  Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 4075.990 | 40.2 | 2.4 | 263.0 | 1.5 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 42.6 | 54.0 | -11.4 |
| 4075.990 | 40.1 | 2.4 | 250.0 | 1.5 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 42.5 | 54.0 | -11.5 |
| 7236.000 | 25.6 | 10.1 | 32.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 35.7 | 54.0 | -18.3 |
| 7236.000 | 25.5 | 10.1 | 253.0 | 1.5 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 35.6 | 54.0 | -18.4 |
| 7236.000 | 39.4 | 10.1 | 32.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 49.5 | 74.0 | -24.5 |
| 7236.000 | 39.2 | 10.1 | 253.0 | 1.5 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 49.3 | 74.0 | -24.7 |
| 4075.990 | 44.6 | 2.4 | 250.0 | 1.5 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 47.0 | 74.0 | -27.0 |
| 4075.990 | 43.2 | 2.4 | 263.0 | 1.5 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 45.6 | 74.0 | -28.4 |

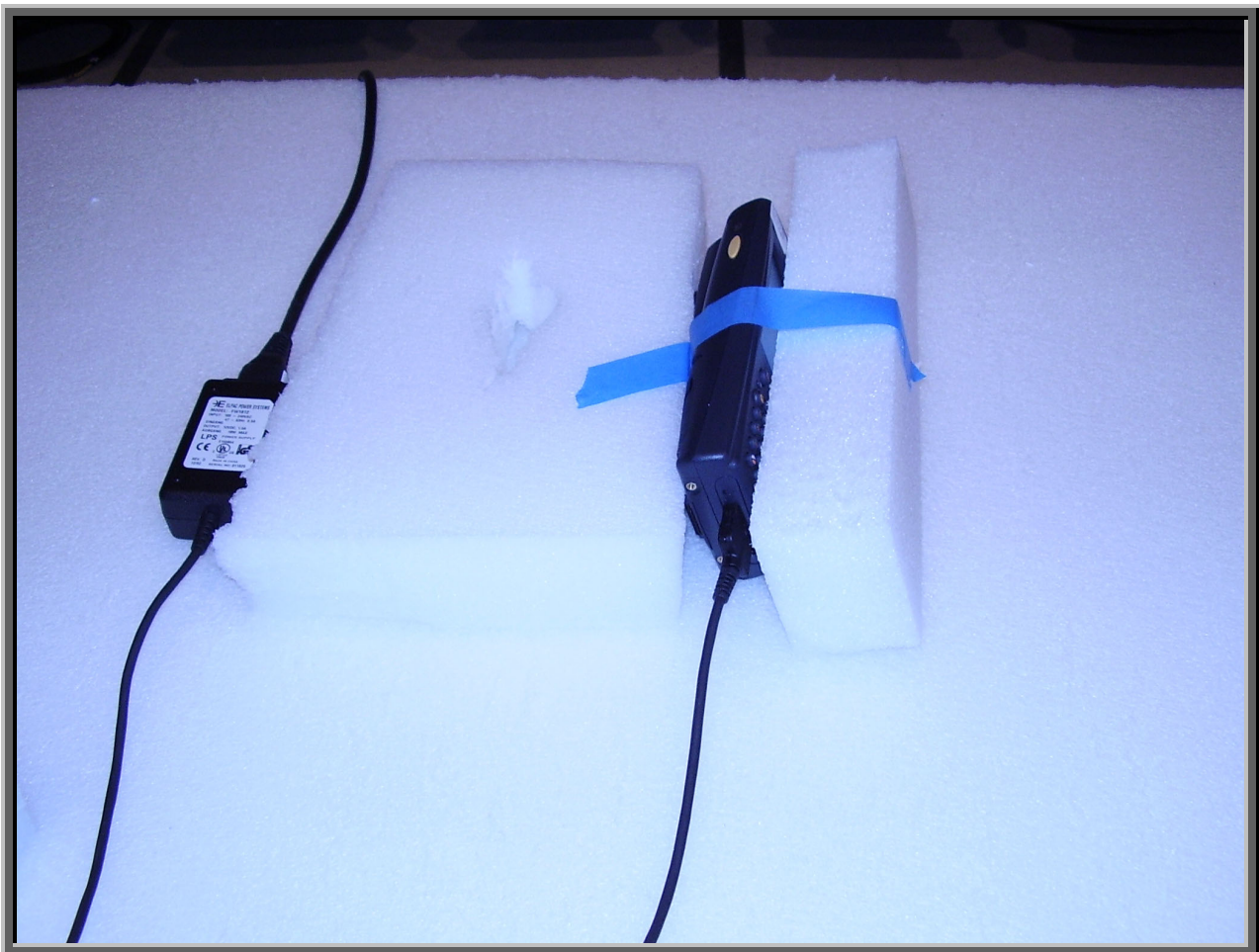
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|------------------------------|--|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 02/02/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 21 | | | | | | | | | |
| Attendees: None | | | Humidity: 38% | | | | | | | | | |
| Cust. Ref. No.: | | | Barometric Pressure: 30.47 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, CDMA 1153 (PCS) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 41 | | | | | | | |
| Other | | | | | | | | | | | | |
| | | | | |  Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 12060.000 | 26.6 | 20.2 | 145.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 46.8 | 54.0 | -7.2 |
| 12060.000 | 26.5 | 20.2 | 232.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 46.7 | 54.0 | -7.3 |
| 12060.000 | 39.7 | 20.2 | 232.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 59.9 | 74.0 | -14.1 |
| 12060.000 | 39.6 | 20.2 | 145.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 59.8 | 74.0 | -14.2 |
| 4823.940 | 29.8 | 3.3 | 204.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 33.1 | 54.0 | -20.9 |
| 4823.940 | 29.6 | 3.3 | 257.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 32.9 | 54.0 | -21.1 |
| 4823.940 | 43.7 | 3.3 | 204.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 47.0 | 74.0 | -27.0 |
| 4823.940 | 43.0 | 3.3 | 257.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 46.3 | 74.0 | -27.7 |

| | | | | | |
|--|--|--------------------------------------|--|------------------------------|--------------|
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI 2005.1.3 | |
| EUT: 2601CF | | | Work Order: ITRM0054 | | |
| Serial Number: Unknown | | | Date: 02/02/05 | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 21 | | |
| Attendees: None | | | Humidity: 38% | | |
| Cust. Ref. No.: | | | Barometric Pressure: 30.47 | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | |
| TEST SPECIFICATIONS | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | |
| SAMPLE CALCULATIONS | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | |
| COMMENTS | | | | | |
| | | | | | |
| EUT OPERATING MODES | | | | | |
| Bluetooth 68, 802.11b 11, CDMA 35 (PCS) on 700C | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | |
| No deviations. | | | | | |
| RESULTS | | | | | Run # |
| Pass | | | | | 42 |
| | | | | | |
| Other | | |  Tested By: _____ | | |



| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
|------------|------------------|-------------|-------------------|-----------------|-------------------|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|
| 7407.000 | 35.2 | 11.1 | 121.0 | 1.1 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 46.3 | 54.0 | -7.7 |
| 7407.000 | 35.0 | 11.1 | 212.0 | 1.6 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 46.1 | 54.0 | -7.9 |
| 4175.987 | 38.6 | 2.4 | 259.0 | 1.5 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 41.0 | 54.0 | -13.0 |
| 4175.987 | 38.5 | 2.4 | 300.0 | 1.1 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 40.9 | 54.0 | -13.1 |
| 7407.000 | 46.9 | 11.1 | 121.0 | 1.1 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 58.0 | 74.0 | -16.0 |
| 7407.000 | 46.2 | 11.1 | 212.0 | 1.6 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 57.3 | 74.0 | -16.7 |
| 4175.987 | 44.1 | 2.4 | 259.0 | 1.5 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 46.5 | 74.0 | -27.5 |
| 4175.987 | 43.2 | 2.4 | 300.0 | 1.1 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 45.6 | 74.0 | -28.4 |





Justification

Intermec's Handheld Computer, Model 700C was configured with three co-located radios. The 700C contained a GSM radio (FCC ID: EHASMC46), an 802.11(b)/(g) radio (FCC ID: EHA2610CF), and a Bluetooth radio (FCC ID: EHABTS080). This test demonstrated compliance with FCC Part 15.247 emissions limits while the co-located radios were transmitting simultaneously. Each radio transmits through its own antenna.

All possible combinations of harmonic emissions from the GSM, 802.11(b)/(g), and Bluetooth radios were compared numerically. It was determined that there were no possible coincidental harmonics below 1 GHz. All the radios were configured for simultaneous transmission at the channels specified below.

Channels in Specified Band Investigated:

| | |
|------------------------|--------------------|
| 802.11(b): | 1, 11 |
| GSM (Cellular): | 140, 141, 191, 202 |
| GSM (PCS): | 516, 606 |
| Bluetooth: | 2, 11, 67, 80 |

Operating Modes Investigated:**Bluetooth Radio in PW40 with 700C in cradle:**

| |
|---|
| Simultaneous transmission of Bluetooth Channel 11, 802.11(b) Channel 1, & GSM PCS Channel 516 |
| Simultaneous transmission of Bluetooth Channel 67, 802.11(b) Channel 11, & GSM PCS Channel 516 |
| Simultaneous transmission of Bluetooth Channel 2, 802.11(b) Channel 1, & GSM PCS Channel 606 |
| Simultaneous transmission of Bluetooth Channel 80, 802.11(b) Channel 11, & GSM PCS Channel 606 |
| Simultaneous transmission of Bluetooth Channel 11, 802.11(b) Channel 1, & GSM cellular Channel 202 |
| Simultaneous transmission of Bluetooth Channel 5, 802.11(b) Channel 1, & GSM cellular Channel 191 |
| Simultaneous transmission of Bluetooth Channel 79, 802.11(b) Channel 11, & GSM cellular Channel 141 |
| Simultaneous transmission of Bluetooth Channel 79, 802.11(b) Channel 11, & GSM cellular Channel 140 |

Antennas Investigated:

| | |
|-------------------|---|
| 802.11(b): | Folded Monopole internal to 700C, P/N 805-608-104 |
| GSM: | Tri-band Antenna external to 700C, P/N 805-624-001 |
| Bluetooth: | Chip antenna integral to Bluetooth module inside 700C |

Data Rates Investigated:

| |
|---------|
| Maximum |
|---------|

Power Input Settings Investigated:

| |
|-----------------|
| 120 VAC, 60 Hz. |
|-----------------|

Frequency Range Investigated

| | | | |
|------------------------|-------|-----------------------|--------|
| Start Frequency | 1 GHz | Stop Frequency | 25 GHz |
|------------------------|-------|-----------------------|--------|

Software\Firmware Applied During Test

| | | | |
|---|------------------------------------|----------------|---------------------------|
| Exercise software | Phone Blue Test Test Utility | Version | Unknown Unknown 0.4 |
| Description | | | |
| This system was tested using special test software to exercise the functions of the device during the testing such as channels, power, and modulation during simultaneous transmission. | | | |

EUT and Peripherals

| Description | Manufacturer | Model/Part Number | Serial Number |
|-----------------------------|-----------------------------------|--------------------------|----------------------|
| Handheld Computer | Intermec Technologies Corporation | 700C | 18190400041 |
| AC Adapter | Elpac Power Systems | FW1812 | 014868 |
| GSM Radio in 700C | Intermec Technologies Corporation | SMC46 | Unknown |
| Bluetooth Radio in 700C | Intermec Technologies Corporation | BTS080 | Unknown |
| 802.11(b)/(g) radio in 700C | Intermec Technologies Corporation | 2601CF | Unknown |

Remote Equipment Outside of Test Setup Boundary

| Description | Manufacturer | Model/Part Number | Serial Number |
|---|---------------------|--------------------------|----------------------|
| GSM/DCS/PCS MS Test Set | Hewlett Packard | 8922M | 3829U02903 |
| GSM/DCS/PCS RF Interface | Hewlett Packard | 83220E | 3842U05679 |
| Wireless Communications Test Set | Agilent | 8960 Series 10 E5515C | QB44051960 |
| Equipment isolated from the EUT so as not to contribute to the measurement result is considered to be outside the test setup boundary | | | |

Cables

| Cable Type | Shield | Length (m) | Ferrite | Connection 1 | Connection 2 |
|-------------------|---------------|-------------------|----------------|---------------------|---------------------|
| DC Leads | PA | 1.3 | PA | Handheld Computer | AC Adapter |
| AC Power | No | 2.0 | No | AC Adapter | AC Mains |

| Measurement Equipment | | | | | |
|---------------------------|--------------------|----------------------|------------|------------|----------|
| Description | Manufacturer | Model | Identifier | Last Cal | Interval |
| Antenna, Horn | EMCO | 3160-09 | AHG | NCR | NA |
| Pre-Amplifier | Miteq | JSD4-18002600-26-8P | APU | 10/08/2003 | 24 mo |
| Antenna, Biconilog | EMCO | 3141 | AXE | 12/03/2003 | 24 mo |
| Pre-Amplifier | Amplifier Research | LN1000A | APS | 02/05/2004 | 13 mo |
| Antenna, Horn | EMCO | 3115 | AHC | 09/07/2004 | 12 mo |
| Pre-Amplifier | Miteq | AMF-4D-005180-24-10P | APJ | 01/05/2004 | 13 mo |
| High Pass Filter | Micro-Tronics | HPM50111 | HFO | 04/13/2004 | 13 mo |
| Attenuator | | 2082-6148-20 | ATE | 02/03/2004 | 13 mo |
| Quasi-Peak Adapter | Hewlett-Packard | 85650A | AQF | 12/02/2004 | 13 mo |
| Spectrum Analyzer | Hewlett-Packard | 8566B | AAL | 12/02/2004 | 13 mo |
| Spectrum Analyzer Display | Hewlett Packard | 85662A | AALD | 12/02/2004 | 13 mo |
| Spectrum Analyzer | Tektronix | 2784 | AAO | 01/02/2005 | 12 mo |
| Antenna, Horn | EMCO | 3160-08 | AHK | NCR | NA |
| Pre-Amplifier | Miteq | AMF-4D-005180-24-10P | APC | 10/08/2003 | 15 mo |

Test Description

Requirement: Per 15.247(d), the field strength of any spurious emissions or modulation products that fall in a restricted band, as defined in 47 CFR 15.205, is measured. The peak level must comply with the limits specified in 47 CFR 15.35(b). The average level (taken with a 10Hz VBW) must comply with the limits specified in 15.209.

Configuration: Intermec's Handheld Computer, Model 700C was configured with three co-located radios. The 700C contained a GSM radio (FCC ID: EHASM46), an 802.11(b)/(g) radio (FCC ID: EHA2610CF), and a Bluetooth radio (FCC ID: EHABTS080). This test demonstrated compliance with FCC Part 15.247 emissions limits while the co-located radios were transmitting simultaneously. Each radio transmits through its own antenna.

Simultaneous Transmission: For co-located radios, it is necessary to measure the field strength of spurious emissions, while co-located radios are transmitting simultaneously. The following is an excerpt from the FCC/TCB training Q & A, October 2002, Day 2, Question 7:

Assuming that the radios do not share an antenna, only radiated tests for simultaneous transmission is required. If the radios share an antenna, antenna conducted measurements would also be required. Only one set of worst case simultaneous transmission data is going to be requested to be submitted at this time. The test engineer should indicate the worst case condition and provide justification as to why the worst case condition was chosen. The grantee should be reminded that even if the FCC requests one set of data, they are responsible for compliance for all modes of simultaneous transmission.

All possible combinations of harmonic emissions from the GSM, 802.11(b), and Bluetooth radios were compared numerically. It was determined that there were no possible coincidental harmonics below 1 GHz. The frequency range from 1 GHz to 25 GHz was investigated for channel combinations that would


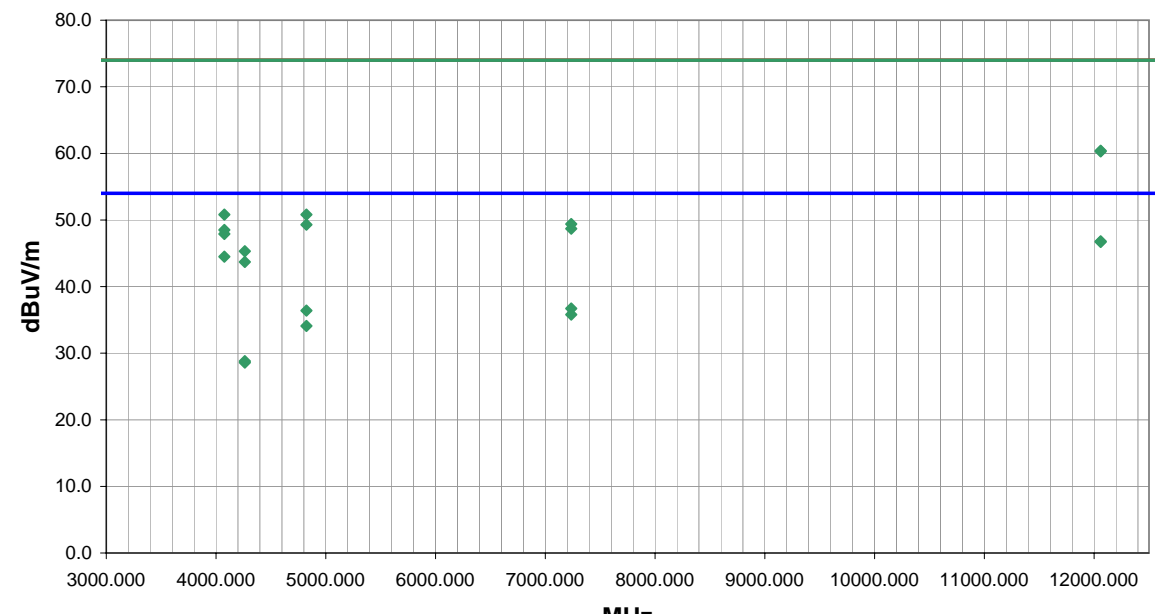
produce coincidental harmonics. Compliance with the restricted band at 2483.5 – 2500 MHz was also measured.


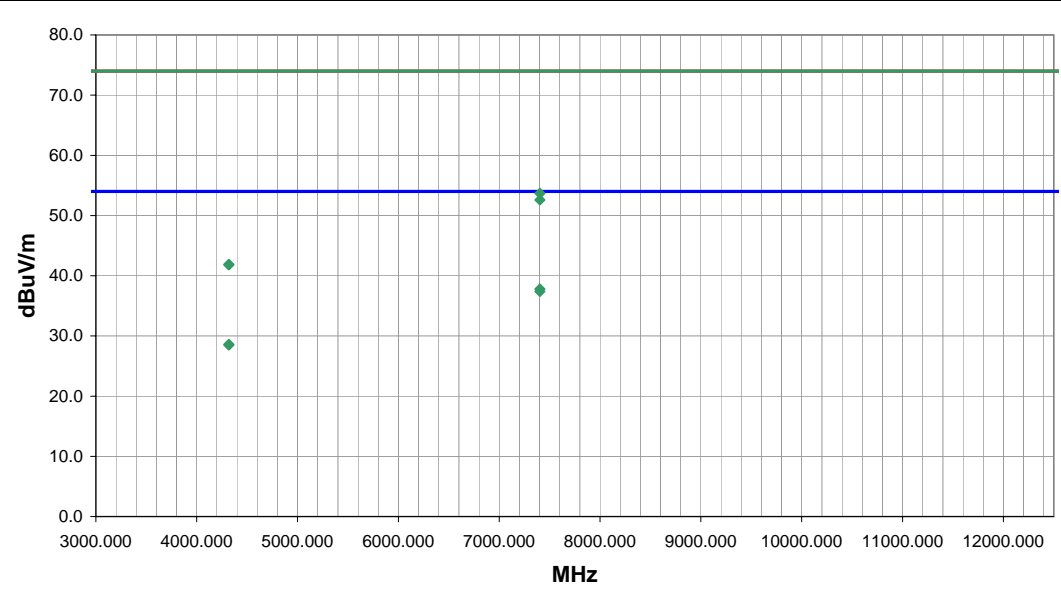
All the radios were configured for simultaneous transmission at the channels specified in the previous pages. The highest gain antennas to be used with the radios were tested. The spectrum was scanned throughout the specified range. While scanning, emissions from the radios were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antennas in three orthogonal axes, and adjusting the measurement antenna height and polarization (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

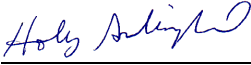
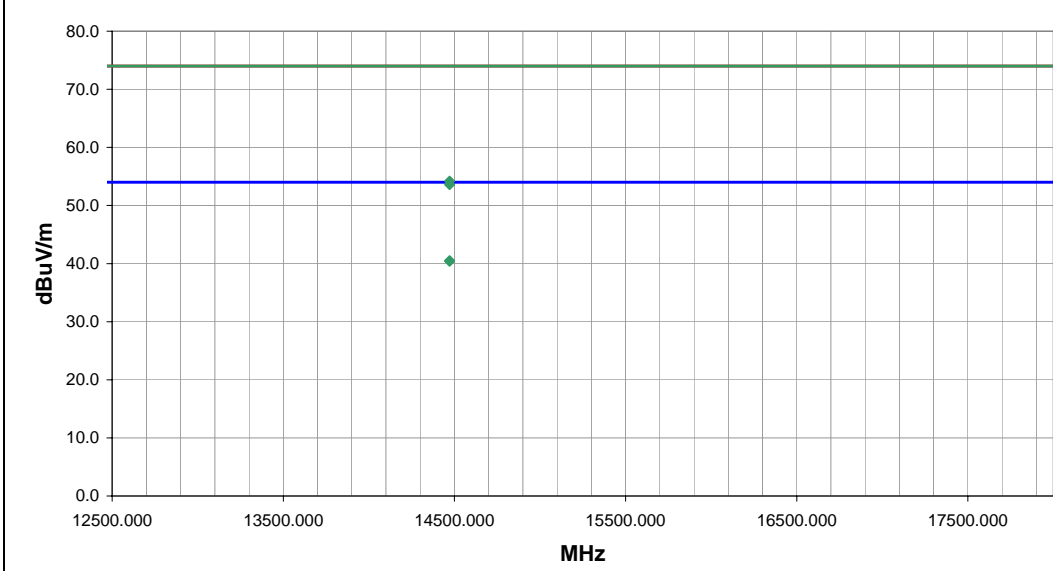
| Bandwidths Used for Measurements | | | |
|---|--------------------|--------------------------|-----------------------|
| Frequency Range (MHz) | Peak Data (kHz) | Quasi-Peak Data (kHz) | Average Data (kHz) |
| Above 1000 | 1000.0 | N/A | 1000.0 |
| <i>Measurements were made using the bandwidths and detectors specified. No video filter was used.</i> | | | |


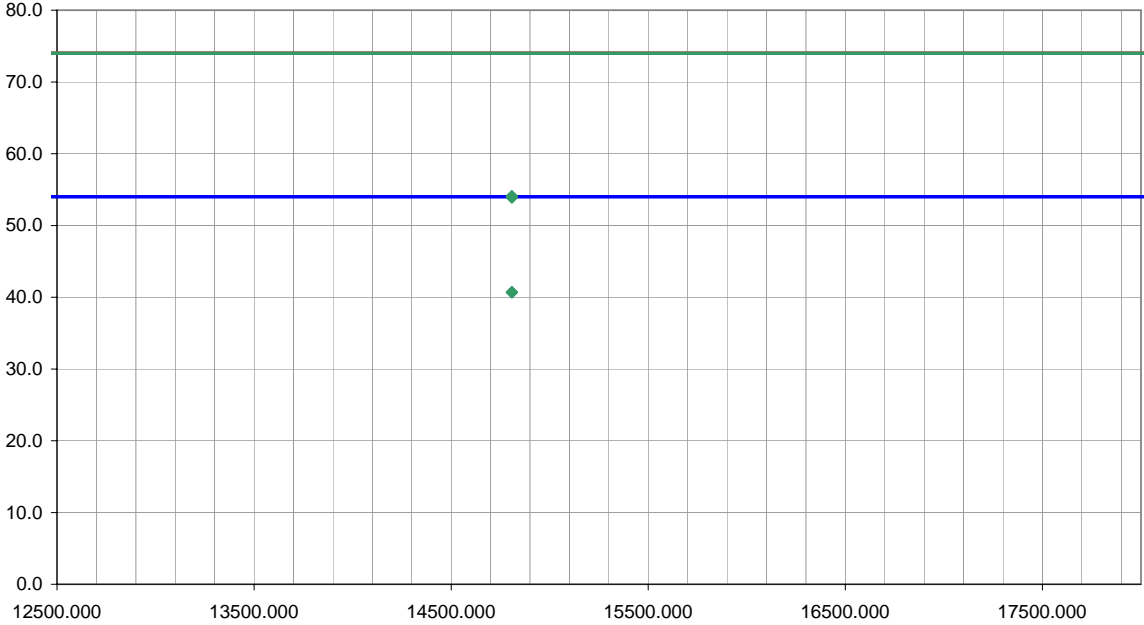
Completed by:


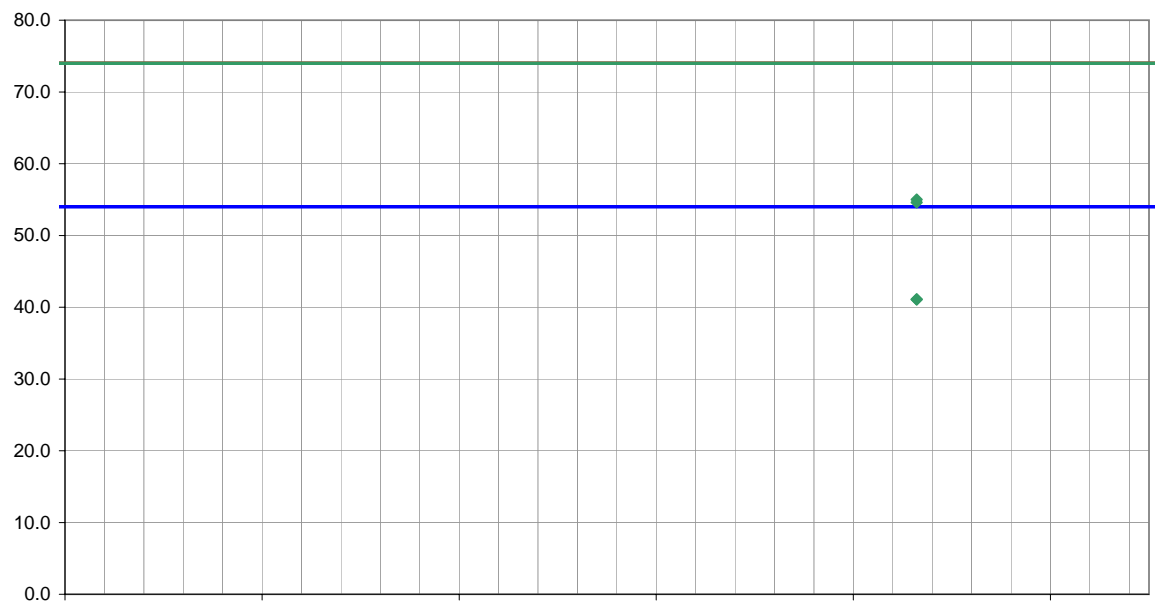



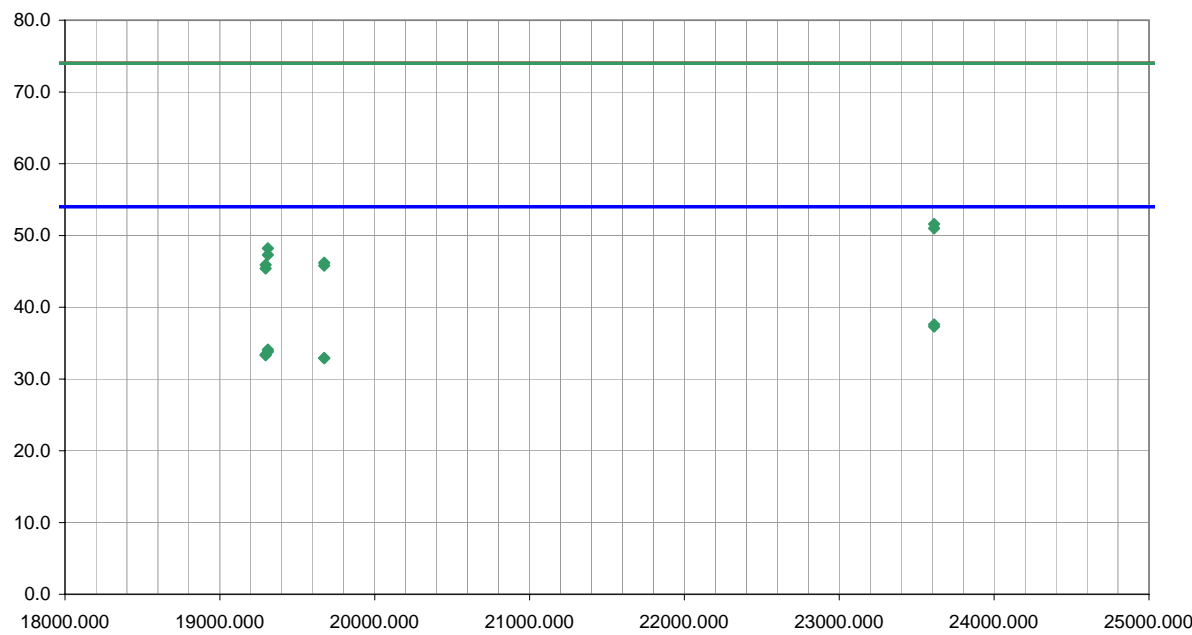
| | | | | | | | | | | | | |
|--|---------------------|--------------------------------------|----------------------|--------------------|--|---------------------------------|----------|----------|--------------------------------|--------------------|-----------------------|------------------------------|
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | |
| EUT: 2601CF | | | | | Work Order: ITRM0054 | | | | | | | |
| Serial Number: Unknown | | | | | Date: 02/07/05 | | | | | | | |
| Customer: Intermec Technologies Corporation | | | | | Temperature: 20 | | | | | | | |
| Attendees: None | | | | | Humidity: 34% | | | | | | | |
| Cust. Ref. No.: | | | | | Barometric Pressure: 30.24 | | | | | | | |
| Tested by: Holly Ashkannejhad | | | | Power: 120VAC/60Hz | Job Site: EV01 | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | | Method: ANSI C63.4:2003 | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, GSM 516 (PCS) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | | | Run # | | | | | |
| Pass | | | | | | | 75 | | | | | |
| | | | | | | | | | | | | |
| Other | | | | |  Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 4075.975 | 46.1 | 2.4 | 50.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 48.5 | 54.0 | -5.5 |
| 12060.000 | 26.6 | 20.2 | 186.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 46.8 | 54.0 | -7.2 |
| 12060.000 | 26.5 | 20.2 | 239.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 46.7 | 54.0 | -7.3 |
| 4075.975 | 42.1 | 2.4 | 47.0 | 1.3 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 44.5 | 54.0 | -9.5 |
| 12060.000 | 40.2 | 20.2 | 186.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 60.4 | 74.0 | -13.6 |
| 12060.000 | 40.1 | 20.2 | 239.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 60.3 | 74.0 | -13.7 |
| 7236.000 | 26.6 | 10.1 | 306.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 36.7 | 54.0 | -17.3 |
| 4824.000 | 33.1 | 3.3 | 344.0 | 1.2 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 36.4 | 54.0 | -17.6 |
| 7236.000 | 25.7 | 10.1 | 127.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 35.8 | 54.0 | -18.2 |
| 4824.000 | 30.8 | 3.3 | 116.0 | 1.5 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 34.1 | 54.0 | -19.9 |
| 4075.975 | 48.4 | 2.4 | 50.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 50.8 | 74.0 | -23.2 |
| 4824.000 | 47.5 | 3.3 | 344.0 | 1.2 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 50.8 | 74.0 | -23.2 |
| 7236.000 | 39.3 | 10.1 | 306.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 49.4 | 74.0 | -24.6 |
| 4824.000 | 46.0 | 3.3 | 116.0 | 1.5 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 49.3 | 74.0 | -24.7 |
| 4263.005 | 26.3 | 2.5 | 358.0 | 1.2 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 28.8 | 54.0 | -25.2 |
| 7236.000 | 38.6 | 10.1 | 127.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 48.7 | 74.0 | -25.3 |
| 4263.005 | 26.1 | 2.5 | 288.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 28.6 | 54.0 | -25.4 |
| 4075.975 | 45.5 | 2.4 | 47.0 | 1.3 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 47.9 | 74.0 | -26.1 |
| 4263.005 | 42.8 | 2.5 | 358.0 | 1.2 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 45.3 | 74.0 | -28.7 |
| 4263.005 | 41.2 | 2.5 | 288.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 43.7 | 74.0 | -30.3 |


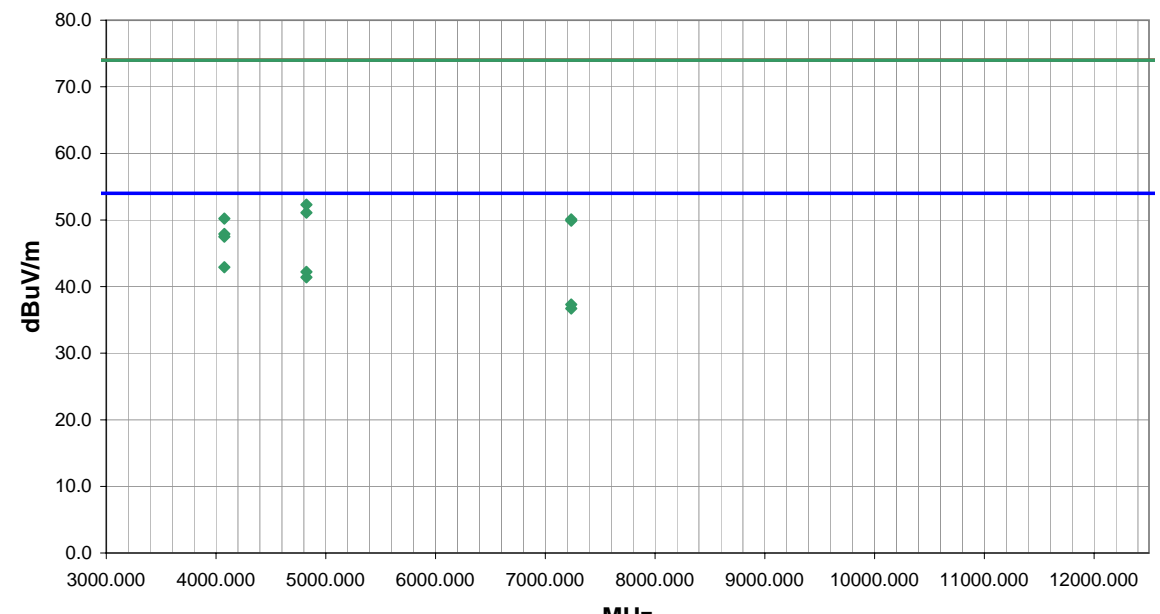
| NORTHWEST EMC | | | | | | | | | | ACQ 2005.1.3 EMI 2005.1.3 | | | |
|--|------------------|-------------|-------------------|-----------------|-------------------|----------------------------|----------|----------|--------------------------|------------------------------|--------------------|------------------------|---------------|
| RADIATED EMISSIONS DATA SHEET | | | | | | | | | | | | | |
| EUT: 2601CF | | | | | | Work Order: ITRM0054 | | | | | | | |
| Serial Number: Unknown | | | | | | Date: 02/07/05 | | | | | | | |
| Customer: Intermec Technologies Corporation | | | | | | Temperature: 20 | | | | | | | |
| Attendees: None | | | | | | Humidity: 35% | | | | | | | |
| Cust. Ref. No.: | | | | | | Barometric Pressure: 30.24 | | | | Job Site: EV01 | | | |
| Tested by: Holly Ashkannejhad | | | | | | Power: 120VAC/60Hz | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | | | | | | | Method: ANSI C63.4:2003 | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | |
| Bluetooth 67, 802.11b 11, GSM 516 (PCS) on 700C | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | | | Run # | |
| Pass | | | | | | | | | | | | 76 | |
| Other | | | | | | | | | | | | | |
| <div style="text-align: right;">  Tested By: </div> | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | Comments |
| 7403.952 | 26.7 | 11.1 | 280.0 | 1.4 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 37.8 | 54.0 | -16.2 | EUT vertical. |
| 7404.000 | 26.3 | 11.1 | 54.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 37.4 | 54.0 | -16.6 | EUT on side |
| 7404.000 | 42.6 | 11.1 | 280.0 | 1.4 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 53.7 | 74.0 | -20.3 | EUT vertical. |
| 7404.000 | 41.5 | 11.1 | 54.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 52.6 | 74.0 | -21.4 | EUT on side |
| 4319.007 | 26.1 | 2.5 | 194.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 28.6 | 54.0 | -25.4 | EUT vertical. |
| 4319.007 | 26.0 | 2.5 | 123.0 | 1.5 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 28.5 | 54.0 | -25.5 | EUT vertical. |
| 4319.007 | 39.4 | 2.5 | 194.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 41.9 | 74.0 | -32.1 | EUT vertical. |
| 4319.007 | 39.3 | 2.5 | 123.0 | 1.5 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 41.8 | 74.0 | -32.2 | EUT vertical. |


| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|------------------------------|--|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|----------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | | |
| Serial Number: Unknown | | | Date: 02/09/05 | | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 20 | | | | | | | | | | |
| Attendees: None | | | Humidity: 36% | | | | | | | | | | |
| Cust. Ref. No.: | | | Barometric Pressure: 30.14 | | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | | Power: 120VAC/60Hz | | | | | | | | | | |
| | | | Job Site: EV01 | | | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, GSM 516 (PCS) on 700C | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | | | | |
| Pass | | | | | Run # 77 | | | | | | | | |
| Other | | | | | | | | | | | | | |
| | | | | |  Tested By: | | | | | | | | |
|  | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | Comments |
| 14472.000 | 26.7 | 13.8 | 219.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 40.5 | 54.0 | -13.5 | EUT horizontal |
| 14472.000 | 26.6 | 13.8 | 230.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 40.4 | 54.0 | -13.6 | EUT horizontal |
| 14472.000 | 40.4 | 13.8 | 230.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 54.2 | 74.0 | -19.8 | EUT horizontal |
| 14472.000 | 39.8 | 13.8 | 219.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 53.6 | 74.0 | -20.4 | EUT horizontal |


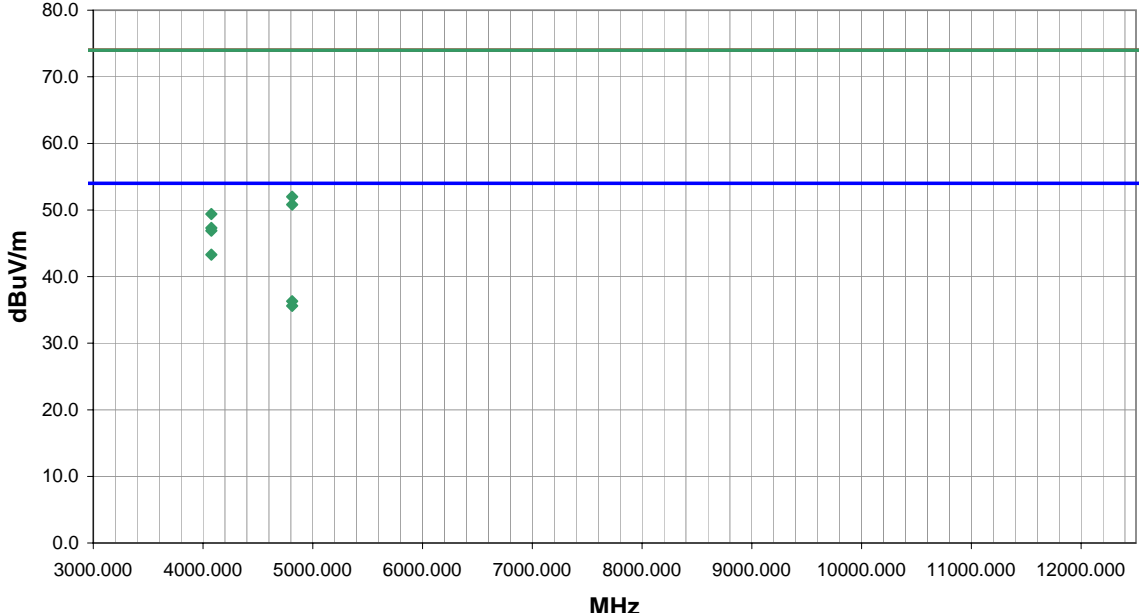
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | | | | | | | | | ACQ 2005.1.3 EMI 2005.1.3 | |
|--|------------------|-------------------------------|-------------------|-----------------|-------------------|---------------------------|----------|----------|--------------------------|-----------------|--------------------|--|--|
| EUT: 2601CF | | Work Order: ITRM0054 | | | | | | | | | | | |
| Serial Number: Unknown | | Date: 02/09/05 | | | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | Temperature: 20 | | | | | | | | | | | |
| Attendees: None | | Humidity: 36% | | | | | | | | | | | |
| Cust. Ref. No.: | | Barometric Pressure: 30.14 | | | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | Method: ANSI C63.4:2003 | | | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | |
| Bluetooth 67, 802.11b 11, GSM 516 (PCS) on 700C | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | | | Run # | |
| Pass | | | | | | | | | | | | 79 | |
| Other | | | | | | | | | | | | | |
| | | | | | | | | | | | |  Tested By: | |
|  | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | |
| 14808.000 | 26.7 | 14.0 | 31.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 40.7 | 54.0 | -13.3 | |
| 14808.000 | 26.7 | 14.0 | 105.0 | 4.0 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 40.7 | 54.0 | -13.3 | |
| 14808.000 | 40.1 | 14.0 | 105.0 | 4.0 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 54.1 | 74.0 | -19.9 | |
| 14808.000 | 39.9 | 14.0 | 31.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 53.9 | 74.0 | -20.1 | |


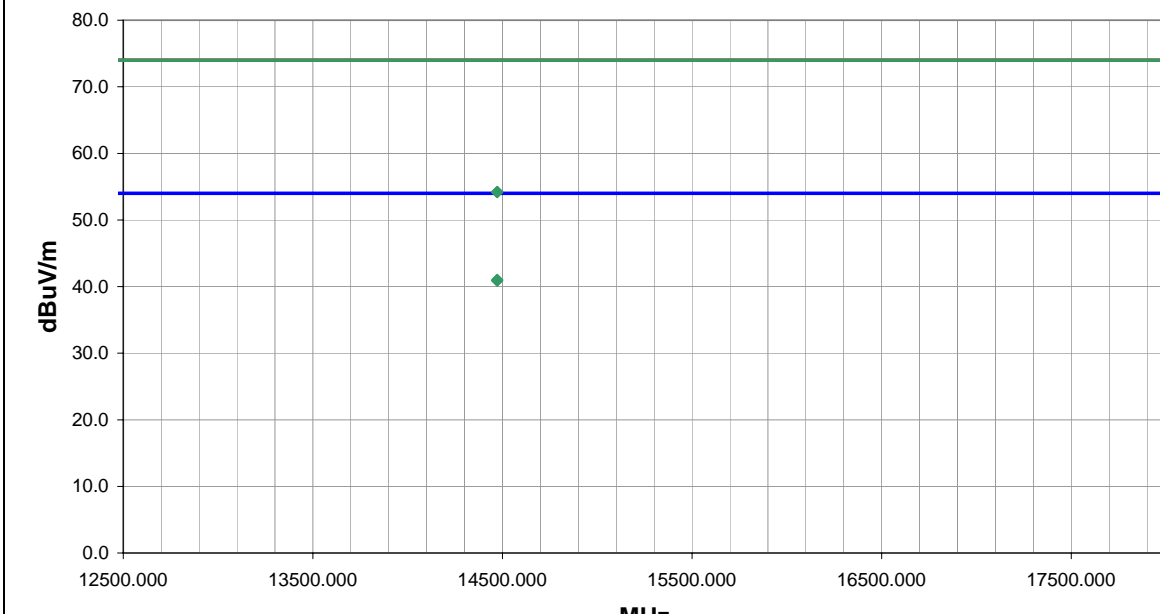
| NORTHWEST EMC | | | | | | | | | | ACQ 2005.1.3 EMI 2005.1.3 | | | |
|--|------------------|-------------|-------------------|-----------------|----------------------------|---------------------------|----------|----------|--------------------------|------------------------------|--------------------|------------------------|--|
| RADIATED EMISSIONS DATA SHEET | | | | | | | | | | | | | |
| EUT: 2601CF | | | | | Work Order: ITRM0054 | | | | | | | | |
| Serial Number: Unknown | | | | | Date: 02/09/05 | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | | | Temperature: 20 | | | | | | | | |
| Attendees: None | | | | | Humidity: 33% | | | | | | | | |
| Cust. Ref. No.: | | | | | Barometric Pressure: 30.14 | | | | | | | | |
| Tested by: Holly Ashkannejhad | | | | | Power: 120VAC/60Hz | | | | | Job Site: EV01 | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | | Method: ANSI C63.4:2003 | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | |
| Bluetooth 2, 802.11b 1, GSM 606 (PCS) on 700C | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | | | | |
| Pass | | | | | | | | | | | | Run # | |
| | | | | | | | | | | | | 80 | |
| Other | | | | | | | | | | | | | |
| <div style="text-align: right;">  Tested By: </div> | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | |
| 16821.000 | 26.2 | 14.9 | 279.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 41.1 | 54.0 | -12.9 | |
| 16821.000 | 26.2 | 14.9 | 160.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 41.1 | 54.0 | -12.9 | |
| 16821.000 | 40.1 | 14.9 | 279.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 55.0 | 74.0 | -19.0 | |
| 16821.000 | 39.7 | 14.9 | 160.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 54.6 | 74.0 | -19.4 | |


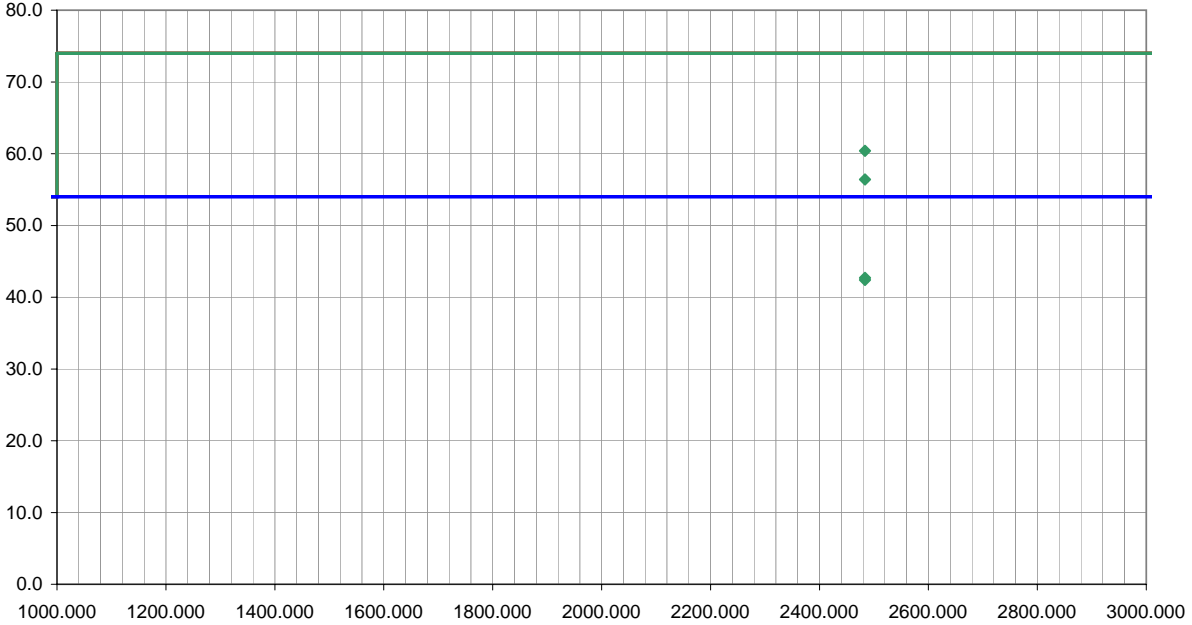
| NORTHWEST EMC | | | | | | | | | | ACQ 2005.1.3 EMI A2.13 | | | |
|--|------------------|-------------|-------------------|-----------------|----------------------------|---------------------------|-------------|----------|--------------------------|--|--------------------|------------------------|--|
| RADIATED EMISSIONS DATA SHEET | | | | | | | | | | | | | |
| EUT: 2601CF | | | | | Work Order: ITRM0054 | | | | | | | | |
| Serial Number: Unknown | | | | | Date: 02/09/05 | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | | | Temperature: 20 | | | | | | | | |
| Attendees: None | | | | | Humidity: 34% | | | | | | | | |
| Cust. Ref. No.: | | | | | Barometric Pressure: 30.24 | | | | | | | | |
| Tested by: Holly Ashkannejhad | | | | | Power: 120VAC/60Hz | | | | | Job Site: EV01 | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | | Method: ANSI C63.4:2003 | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, GSM 516 (PCS) on 700C | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | Run # | | | |
| Pass | | | | | | | | | | 81 | | | |
| Other | | | | | | | | | |  Tested By: | | | |
|  | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | |
| 23612.000 | 27.3 | 10.3 | 239.0 | 1.1 | 3.0 | 0.0 | V-High Horr | AV | 0.0 | 37.6 | 54.0 | -16.4 | |
| 23612.000 | 27.0 | 10.3 | 281.0 | 1.1 | 3.0 | 0.0 | I-High Horr | AV | 0.0 | 37.3 | 54.0 | -16.7 | |
| 19310.000 | 26.1 | 8.0 | 84.0 | 1.1 | 3.0 | 0.0 | I-High Horr | AV | 0.0 | 34.1 | 54.0 | -19.9 | |
| 19310.000 | 25.8 | 8.0 | 306.0 | 1.1 | 3.0 | 0.0 | V-High Horr | AV | 0.0 | 33.8 | 54.0 | -20.2 | |
| 19296.000 | 25.4 | 8.0 | -1.0 | 1.0 | 3.0 | 0.0 | I-High Horr | AV | 0.0 | 33.4 | 54.0 | -20.6 | |
| 19296.000 | 25.3 | 8.0 | 360.0 | 1.0 | 3.0 | 0.0 | V-High Horr | AV | 0.0 | 33.3 | 54.0 | -20.7 | |
| 19674.000 | 24.3 | 8.6 | 299.0 | 1.1 | 3.0 | 0.0 | I-High Horr | AV | 0.0 | 32.9 | 54.0 | -21.1 | |
| 19674.000 | 24.3 | 8.6 | 245.0 | 1.1 | 3.0 | 0.0 | V-High Horr | AV | 0.0 | 32.9 | 54.0 | -21.1 | |
| 23612.000 | 41.3 | 10.3 | 239.0 | 1.1 | 3.0 | 0.0 | V-High Horr | PK | 0.0 | 51.6 | 74.0 | -22.4 | |
| 23612.000 | 40.7 | 10.3 | 281.0 | 1.1 | 3.0 | 0.0 | I-High Horr | PK | 0.0 | 51.0 | 74.0 | -23.0 | |
| 19310.000 | 40.2 | 8.0 | 84.0 | 1.1 | 3.0 | 0.0 | I-High Horr | PK | 0.0 | 48.2 | 74.0 | -25.8 | |
| 19310.000 | 39.3 | 8.0 | 306.0 | 1.1 | 3.0 | 0.0 | V-High Horr | PK | 0.0 | 47.3 | 74.0 | -26.7 | |
| 19674.000 | 37.6 | 8.6 | 299.0 | 1.1 | 3.0 | 0.0 | I-High Horr | PK | 0.0 | 46.2 | 74.0 | -27.8 | |
| 19296.000 | 37.9 | 8.0 | 360.0 | 1.0 | 3.0 | 0.0 | V-High Horr | PK | 0.0 | 45.9 | 74.0 | -28.1 | |
| 19674.000 | 37.2 | 8.6 | 245.0 | 1.1 | 3.0 | 0.0 | V-High Horr | PK | 0.0 | 45.8 | 74.0 | -28.2 | |
| 19296.000 | 37.4 | 8.0 | -1.0 | 1.0 | 3.0 | 0.0 | I-High Horr | PK | 0.0 | 45.4 | 74.0 | -28.6 | |


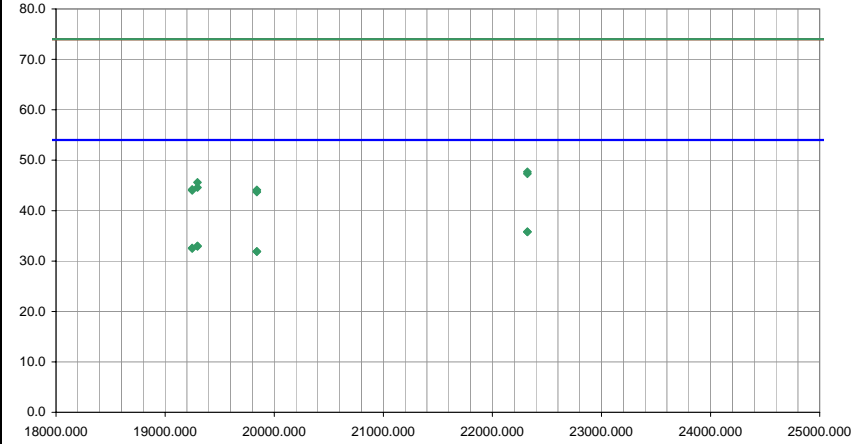
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|------------------------------|--|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 03/12/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 18 | | | | | | | | | |
| Attendees: None | | | Humidity: 36% | | | | | | | | | |
| Cust. Ref. No.: | | | Barometric Pressure: 30.01 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | Method: ANSI C63.4:2003 | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, GSM 202 (cellular) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 92 | | | | | | | |
| Other | | | | | | | | | | | | |
| | | | | |  Tested By: | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 4075.975 | 45.5 | 2.4 | 237.0 | 1.1 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 47.9 | 54.0 | -6.1 |
| 4075.975 | 40.5 | 2.4 | 268.0 | 1.3 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 42.9 | 54.0 | -11.1 |
| 4823.954 | 38.9 | 3.3 | 258.0 | 1.1 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 42.2 | 54.0 | -11.8 |
| 4823.954 | 38.1 | 3.3 | 288.0 | 1.6 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 41.4 | 54.0 | -12.6 |
| 7236.000 | 27.2 | 10.1 | 230.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 37.3 | 54.0 | -16.7 |
| 7236.000 | 26.6 | 10.1 | 232.0 | 1.6 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 36.7 | 54.0 | -17.3 |
| 4823.954 | 49.0 | 3.3 | 258.0 | 1.1 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 52.3 | 74.0 | -21.7 |
| 4823.954 | 47.8 | 3.3 | 288.0 | 1.6 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 51.1 | 74.0 | -22.9 |
| 4075.975 | 47.8 | 2.4 | 237.0 | 1.1 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 50.2 | 74.0 | -23.8 |
| 7236.000 | 40.0 | 10.1 | 230.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 50.1 | 74.0 | -23.9 |
| 7236.000 | 39.8 | 10.1 | 232.0 | 1.6 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 49.9 | 74.0 | -24.1 |
| 4075.975 | 45.1 | 2.4 | 268.0 | 1.3 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 47.5 | 74.0 | -26.5 |

| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | | | |
|--|------------------|-------------------------------|----------------------------|------------------------------|--|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|
| EUT: 2601CF | | | Work Order: ITRM0054 | | | | | | | | | |
| Serial Number: Unknown | | | Date: 03/12/05 | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | | Temperature: 18 | | | | | | | | | |
| Attendees: None | | | Humidity: 36% | | | | | | | | | |
| Cust. Ref. No.: | | | Barometric Pressure: 30.01 | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | Method: ANSI C63.4:2003 | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 79, 802.11b 11, GSM 141 (cellular) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | Run # | | | | | | | |
| Pass | | | | | 93 | | | | | | | |
| Other | | | | | | | | | | | | |
| | | | | |  Tested By: | | | | | | | |
| | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 7386.210 | 35.4 | 10.8 | 276.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 46.2 | 54.0 | -7.8 |
| 4175.967 | 42.2 | 2.4 | 233.0 | 1.1 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 44.6 | 54.0 | -9.4 |
| 7386.210 | 33.0 | 10.8 | 319.0 | 1.6 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 43.8 | 54.0 | -10.2 |
| 4175.967 | 33.3 | 2.4 | 276.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 35.7 | 54.0 | -18.3 |
| 7386.210 | 42.7 | 10.8 | 276.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 53.5 | 74.0 | -20.5 |
| 4959.963 | 29.5 | 3.6 | 86.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 33.1 | 54.0 | -20.9 |
| 4959.963 | 29.0 | 3.6 | 13.0 | 1.3 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 32.6 | 54.0 | -21.4 |
| 7386.210 | 41.3 | 10.8 | 319.0 | 1.6 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 52.1 | 74.0 | -21.9 |
| 4175.967 | 45.5 | 2.4 | 233.0 | 1.1 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 47.9 | 74.0 | -26.1 |
| 4959.963 | 44.1 | 3.6 | 86.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 47.7 | 74.0 | -26.3 |
| 4959.963 | 42.9 | 3.6 | 13.0 | 1.3 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 46.5 | 74.0 | -27.5 |
| 4175.967 | 42.4 | 2.4 | 276.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 44.8 | 74.0 | -29.2 |

| | | | | | | | | | | | | |
|--|---------------------|--------------------------------------|----------------------|--------------------|--|---------------------------------|----------|----------|--------------------------------|--------------------|-----------------------|------------------------------|
| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | | | ACQ 2005.1.3 EMI 2005.1.3 | | | | | | |
| EUT: 2601CF | | | | | Work Order: ITRM0054 | | | | | | | |
| Serial Number: Unknown | | | | | Date: 03/13/05 | | | | | | | |
| Customer: Intermec Technologies Corporation | | | | | Temperature: 18 | | | | | | | |
| Attendees: None | | | | | Humidity: 36% | | | | | | | |
| Cust. Ref. No.: | | | | | Barometric Pressure: 30.01 | | | | | | | |
| Tested by: Holly Ashkannejhad | | | | Power: 120VAC/60Hz | Job Site: EV01 | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | | | | Method: ANSI C63.4:2003 | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | |
| Bluetooth 5, 802.11b 1, GSM 191 (cellular) on 700C | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | | | |
| Pass | | | | | | Run # 98 | | | | | | |
| | | | | | | | | | | | | |
| Other | | | | |  Tested By: _____ | | | | | | | |
|  | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) |
| 4075.922 | 44.5 | 2.4 | 246.0 | 1.8 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 46.9 | 54.0 | -7.1 |
| 4075.922 | 40.9 | 2.4 | 279.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 43.3 | 54.0 | -10.7 |
| 4811.954 | 33.0 | 3.3 | 274.0 | 1.1 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 36.3 | 54.0 | -17.7 |
| 4811.954 | 32.3 | 3.3 | 113.0 | 1.1 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 35.6 | 54.0 | -18.4 |
| 4811.954 | 48.7 | 3.3 | 274.0 | 1.1 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 52.0 | 74.0 | -22.0 |
| 4811.954 | 47.5 | 3.3 | 113.0 | 1.1 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 50.8 | 74.0 | -23.2 |
| 4075.922 | 47.0 | 2.4 | 246.0 | 1.8 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 49.4 | 74.0 | -24.6 |
| 4075.922 | 44.9 | 2.4 | 279.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 47.3 | 74.0 | -26.7 |

| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | | | | | | | | | ACQ 2005.1.3 EMI 2005.1.3 | |
|--|------------------|-------------------------------|-------------------|-----------------|-------------------|---------------------------|----------|----------|--------------------------|-----------------|--------------------|--|--|
| EUT: 2601CF | | Work Order: ITRM0054 | | | | | | | | | | | |
| Serial Number: Unknown | | Date: 03/13/05 | | | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | Temperature: 18 | | | | | | | | | | | |
| Attendees: None | | Humidity: 36% | | | | | | | | | | | |
| Cust. Ref. No.: | | Barometric Pressure: 30.01 | | | | | | | | | | | |
| Tested by: Holly Ashkannejhad | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | Method: ANSI C63.4:2003 | | | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | |
| Bluetooth 11, 802.11b 1, GSM 202 (cellular) on 700C | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | | | Run # | |
| Pass | | | | | | | | | | | | 99 | |
| Other | | | | | | | | | | | | | |
| | | | | | | | | | | | |  Tested By: | |
|  | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | |
| 14472.000 | 26.7 | 14.3 | 318.0 | 1.3 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 41.0 | 54.0 | -13.0 | |
| 14472.000 | 26.6 | 14.3 | 109.0 | 1.2 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 40.9 | 54.0 | -13.1 | |
| 14472.000 | 39.9 | 14.3 | 318.0 | 1.3 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 54.2 | 74.0 | -19.8 | |
| 14472.000 | 39.9 | 14.3 | 109.0 | 1.2 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 54.2 | 74.0 | -19.8 | |

| NORTHWEST EMC | | RADIATED EMISSIONS DATA SHEET | | | | | | | | | | ACQ 2005.1.3 EMI A2.13 | |
|--|------------------|-------------------------------|-------------------|-----------------|-------------------|---------------------------|----------|----------|--------------------------|-----------------|--------------------|---------------------------|--|
| EUT: 2601CF | | Work Order: ITRM0054 | | | | | | | | | | | |
| Serial Number: Unknown | | Date: 03/16/05 | | | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | Temperature: 21 | | | | | | | | | | | |
| Attendees: None | | Humidity: 32% | | | | | | | | | | | |
| Cust. Ref. No.: | | Barometric Pressure: 30.12 | | | | | | | | | | | |
| Tested by: Greg Kiemel | | Power: 120VAC/60Hz | | Job Site: EV01 | | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | Method: ANSI C63.4:2003 | | | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | |
| Bluetooth 79, 802.11b 11, GSM 140 (cellular) on 700C | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | |
| RESULTS | | | | | | | | | | | | Run # | |
| Pass | | | | | | | | | | | | 111 | |
| Other | | | | | | | | | | | | | |
| <div style="text-align: right; margin-right: 50px;">  Tested By: </div> | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | |
| 2483.500 | 12.3 | 30.4 | 168.0 | 1.7 | 3.0 | 0.0 | H-Horn | AV | 0.0 | 42.7 | 54.0 | -11.3 | |
| 2483.500 | 12.0 | 30.4 | 130.0 | 1.6 | 3.0 | 0.0 | V-Horn | AV | 0.0 | 42.4 | 54.0 | -11.6 | |
| 2483.500 | 30.0 | 30.4 | 168.0 | 1.7 | 3.0 | 0.0 | H-Horn | PK | 0.0 | 60.4 | 74.0 | -13.6 | |
| 2483.500 | 26.0 | 30.4 | 130.0 | 1.6 | 3.0 | 0.0 | V-Horn | PK | 0.0 | 56.4 | 74.0 | -17.6 | |

| | | | | | | | | | | | | | | |
|--|------------------|--|-------------------|-----------------|-------------------|---------------------------|----------|----------|--------------------------|-----------------|--------------------|------------------------|----------|---|
| NORTHWEST | | EMI A2.13 | | | | | | | | | | | | |
| EMC | | RADIATED EMISSIONS DATA SHEET | | | | | | | | | | | | |
| EUT: 2601CF | | Work Order: ITRM0054 | | | | | | | | | | | | |
| Serial Number: Unknown | | Date: 03/16/05 | | | | | | | | | | | | |
| Customer: Intermec Technologies Corporation | | Temperature: 21 | | | | | | | | | | | | |
| Attendees: None | | Humidity: 32% | | | | | | | | | | | | |
| Cust. Ref. No.: | | Barometric Pressure: 30.12 | | | | | | | | | | | | |
| Tested by: Greg Kiemel | | Power: 120VAC/60Hz | | | | | | | | | | | | |
| Job Site: EV01 | | | | | | | | | | | | | | |
| TEST SPECIFICATIONS | | | | | | | | | | | | | | |
| Specification: FCC 15.247(d) Spurious Radiated Emissions:2004 | | Method: ANSI C63.4:2003 | | | | | | | | | | | | |
| SAMPLE CALCULATIONS | | | | | | | | | | | | | | |
| Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation | | | | | | | | | | | | | | |
| Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator | | | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| EUT OPERATING MODES | | | | | | | | | | | | | | |
| Simultaneous Transmission of 700C/GSMcellular/802.11b/Bluetooth) | | | | | | | | | | | | | | |
| DEVIATIONS FROM TEST STANDARD | | | | | | | | | | | | | | |
| No deviations. | | | | | | | | | | | | | | |
| RESULTS | | Run # | | | | | | | | | | | | |
| Pass | | 112 | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | |
| | | Tested By:  | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | |
| Freq (MHz) | Amplitude (dBuV) | Factor (dB) | Azimuth (degrees) | Height (meters) | Distance (meters) | External Attenuation (dB) | Polarity | Detector | Distance Adjustment (dB) | Adjusted dBuV/m | Spec. Limit dBuV/m | Compared to Spec. (dB) | Comments | |
| 22320.000 | 26.6 | 9.2 | 0.0 | 1.0 | 3.0 | 0.0 | -High | Horr | AV | 0.0 | 35.8 | 54.0 | -18.2 | Config. 3: Bluetooth Ch. 79, 802.11b Ch. 11, GSM Ch. 141. |
| 22320.000 | 26.6 | 9.2 | 0.0 | 1.0 | 3.0 | 0.0 | +High | Horr | AV | 0.0 | 35.8 | 54.0 | -18.2 | Config. 3: Bluetooth Ch. 79, 802.11b Ch. 11, GSM Ch. 141. |
| 19296.000 | 25.0 | 8.0 | 0.0 | 1.0 | 3.0 | 0.0 | +High | Horr | AV | 0.0 | 33.0 | 54.0 | -21.0 | Config. 1: Bluetooth Ch. 11, 802.11b Ch. 1, GSM Ch. 202. |
| 19296.000 | 24.9 | 8.0 | 0.0 | 1.0 | 3.0 | 0.0 | -High | Horr | AV | 0.0 | 32.9 | 54.0 | -21.1 | Config. 1: Bluetooth Ch. 11, 802.11b Ch. 1, GSM Ch. 202. |
| 19248.000 | 24.8 | 7.8 | 0.0 | 1.0 | 3.0 | 0.0 | -High | Horr | AV | 0.0 | 32.6 | 54.0 | -21.4 | Config. 2: Bluetooth Ch. 5, 802.11b Ch. 1, GSM Ch. 191. |
| 19248.000 | 24.7 | 7.8 | 0.0 | 1.0 | 3.0 | 0.0 | +High | Horr | AV | 0.0 | 32.5 | 54.0 | -21.5 | Config. 2: Bluetooth Ch. 5, 802.11b Ch. 1, GSM Ch. 191. |
| 19840.000 | 23.0 | 8.9 | 0.0 | 1.0 | 3.0 | 0.0 | +High | Horr | AV | 0.0 | 31.9 | 54.0 | -22.1 | Config. 3: Bluetooth Ch. 79, 802.11b Ch. 11, GSM Ch. 141. |
| 19840.000 | 23.0 | 8.9 | 0.0 | 1.0 | 3.0 | 0.0 | -High | Horr | AV | 0.0 | 31.9 | 54.0 | -22.1 | Config. 3: Bluetooth Ch. 79, 802.11b Ch. 11, GSM Ch. 141. |
| 22320.000 | 38.5 | 9.2 | 0.0 | 1.0 | 3.0 | 0.0 | -High | Horr | PK | 0.0 | 47.7 | 74.0 | -26.3 | Config. 3: Bluetooth Ch. 79, 802.11b Ch. 11, GSM Ch. 141. |
| 22320.000 | 38.1 | 9.2 | 0.0 | 1.0 | 3.0 | 0.0 | +High | Horr | PK | 0.0 | 47.3 | 74.0 | -26.7 | Config. 3: Bluetooth Ch. 79, 802.11b Ch. 11, GSM Ch. 141. |
| 19296.000 | 37.6 | 8.0 | 0.0 | 1.0 | 3.0 | 0.0 | +High | Horr | PK | 0.0 | 45.6 | 74.0 | -28.4 | Config. 1: Bluetooth Ch. 11, 802.11b Ch. 1, GSM Ch. 202. |
| 19296.000 | 36.6 | 8.0 | 0.0 | 1.0 | 3.0 | 0.0 | -High | Horr | PK | 0.0 | 44.6 | 74.0 | -29.4 | Config. 1: Bluetooth Ch. 11, 802.11b Ch. 1, GSM Ch. 202. |
| 19248.000 | 36.4 | 7.8 | 0.0 | 1.0 | 3.0 | 0.0 | -High | Horr | PK | 0.0 | 44.2 | 74.0 | -29.8 | Config. 2: Bluetooth Ch. 5, 802.11b Ch. 1, GSM Ch. 191. |
| 19840.000 | 35.2 | 8.9 | 0.0 | 1.0 | 3.0 | 0.0 | -High | Horr | PK | 0.0 | 44.1 | 74.0 | -29.9 | Config. 3: Bluetooth Ch. 79, 802.11b Ch. 11, GSM Ch. 141. |
| 19248.000 | 36.2 | 7.8 | 0.0 | 1.0 | 3.0 | 0.0 | +High | Horr | PK | 0.0 | 44.0 | 74.0 | -30.0 | Config. 2: Bluetooth Ch. 5, 802.11b Ch. 1, GSM Ch. 191. |
| 19840.000 | 34.8 | 8.9 | 0.0 | 1.0 | 3.0 | 0.0 | +High | Horr | PK | 0.0 | 43.7 | 74.0 | -30.3 | Config. 3: Bluetooth Ch. 79, 802.11b Ch. 11, GSM Ch. 141. |



