

Intermec Technologies Corporation

**1000CP01UO
1000CP02UO
1001CP01UO**

Tested to the following Specifications:

**FCC 15.407:2011
FCC 15.209:2011
802.11a/n Portion**

Report No. INMC0661.2

Report Prepared By



www.nwemc.com
1-888-EMI-CERT

© 2011 Northwest EMC, Inc

EMC Test Report



22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Last Date of Test: January 24, 2011
Intermec Technologies Corporation
Models: 1000CP01UO, 1000CP02UO, 1001CP01UO

Emissions			
Test Description	Specification	Test Method	Pass/Fail
Spurious Radiated Emissions	FCC 15.407:2011	ANSI C63.10:2009	Pass
Spurious Radiated Emissions	FCC 15.209:2011	ANSI C63.10:2009	Pass

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 (Site filing #2834D-2).

Approved By:

Tim O'Shea, Operations Manager



NVLAP Lab Code: 200630-0

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		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.



Accreditations and Authorizations

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 accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. NVLAP is administered by the National Institute of Standards and Technology (NIST), an agency of the U.S. Commerce Department. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. 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.

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-Gen, Issue 2 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. (*Site Filing Numbers - Hillsboro: 2834D-1, 2834D-2, Sultan: 2834C-1, Irvine: 2834B-1, 2834B-2, Brooklyn Park: 2834E-1*)

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.

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).



Accreditations and Authorizations

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 Numbers. - Hillsboro: C-1071, R-1025, G-84, C-2687, T-1658, and R-2318, Irvine: R-1943, G-85, C-2766, and T-1659, Sultan: R-871, G-83, C-1784, and T-1511, Brooklyn Park: R-3125, G-86, G-141, C-3464, and T-1634.*)

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 (US0017).

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

KCC

Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (*Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157, Brooklyn Park: US0175*)

VIETNAM

Vietnam MIC has approved Northwest EMC as an accredited test lab. Per Decision No. 194/QD-QLCL (dated December 15, 2009), Northwest EMC test reports can be used for Vietnam approval submissions.

SCOPE

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

<http://www.nwemc.com/accreditations/>



Northwest EMC Locations



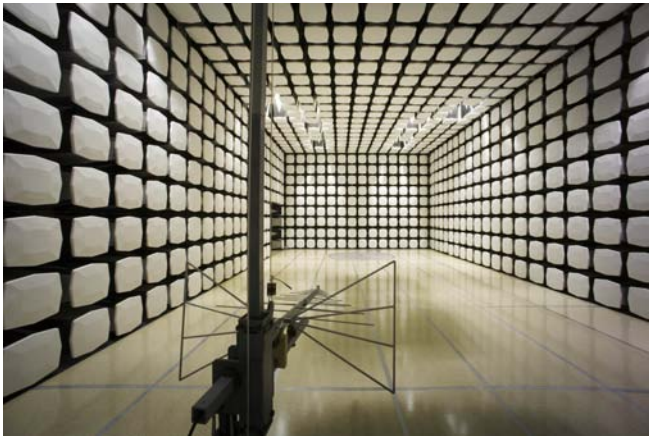
Oregon
Labs EV01-EV12
22975 NW Evergreen Pkwy
Suite 400
Hillsboro, OR 97124
(503) 844-4066

California
Labs OC01-OC13
41 Tesla
Irvine, CA 92618
(949) 861-8918

Minnesota
Labs MN01-MN08
9349 W Broadway Ave.
Brooklyn Park,
MN 55445
(763) 425-2281

Washington
Labs SU01-SU07
14128 339th Ave. SE
Sultan, WA 98294
(360) 793-8675

New York
Labs WA01-WA04
4939 Jordan Rd.
Elbridge, NY 13060
(315) 685-0796



Party Requesting the Test

Company Name:	Intermec Technologies Corporation
Address:	6001 36th Avenue West
City, State, Zip:	Everett, WA 98203-1264
Test Requested By:	Wayne Rieger
Model:	1000CP01UO, 1000CP02UO, 1001CP01UO
First Date of Test:	January 24, 2011
Last Date of Test:	January 24, 2011
Receipt Date of Samples:	January 10, 2011
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):

Handheld computers containing the Intermec Model RC12 radio module. The module is an 802.11a/b/g/n – Bluetooth radio.

The handheld computers also contain a UMTS radio module.

Testing Objective:

To demonstrate compliance with FCC 15.407 spurious radiated emissions requirements for the 802.11a/n portion of the radio. The RC12 radio module has been previously tested in a stand-alone configuration using a higher gain antenna of the same type. This testing in the Models 100CP01UO, 1000CP02UO, and 1001CP01UO handheld computers was done for an additional assurance of compliance. .

CONFIGURATION 1 INMC0661

Software/Firmware Running during test	
Description	Version
Windows Mobile	6.5
Regulatory Test Tool	RTT_1.01.00.0014

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Handheld Computer, A1	Intermec Technologies Corp	1000CP01UO	24411047041

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Power Supply	Intermec Technologies Corp	AE39	02061000875
USB SNAPON	Intermec Technologies Corp	225-773-001	HDIP D-SUB, A3
Battery Pack	Intermec Technologies Corp	1000AB01	16961002196

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power	No	1.8m	No	Power Supply	AC Mains
DC Leads	No	1.8m	Yes	SNAPON	Power Supply
Serial/USB	Yes	0.5	Yes	SNAPON	Unterminated

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

CONFIGURATION 2 INMC0661

Software/Firmware Running during test	
Description	Version
Windows Mobile	6.5
Regulatory Test Tool	RTT_1.01.00.0014

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Handheld Computer, B1	Intermec Technologies Corp	1000CP02UO	24411047146

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Power Supply	Intermec Technologies Corp	AE39	02061000875
USB SNAPON	Intermec Technologies Corp	225-773-001	HDIP D-SUB, A3
Battery Pack	Intermec Technologies Corp	1000AB01	16961002196

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power	No	1.8m	No	Power Supply	AC Mains
DC Leads	No	1.8m	Yes	SNAPON	Power Supply
Serial/USB	Yes	0.5	Yes	SNAPON	Unterminated

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

CONFIGURATION 3 INMC0661**Software/Firmware Running during test**

Description	Version
Windows Mobile	6.5
Regulatory Test Tool	RTT_1.01.00.0014

EUT

Description	Manufacturer	Model/Part Number	Serial Number
Handheld Computer, C1	Intermec Technologies Corp	1001CP01UO	25411047063

Peripherals in test setup boundary

Description	Manufacturer	Model/Part Number	Serial Number
Power Supply	Intermec Technologies Corp	AE39	02061000875
USB SNAPON	Intermec Technologies Corp	225-773-001	HDIP D-SUB, A3
Battery Pack	Intermec Technologies Corp	1000AB01	16961002196
Battery Pack	Intermec Technologies Corp	1001AB01	16661001916

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Power	No	1.8m	No	Power Supply	AC Mains
DC Leads	No	1.8m	Yes	SNAPON	Power Supply
Serial/USB	Yes	0.5	Yes	SNAPON	Unterminated

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

Equipment modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	1/24/2011	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Continuous Tx. 802.11a, Ch.64, 6Mbps
Continuous Tx. 802.11n, Ch.64, MCSO
Continuous Tx. 802.11a, Ch.36, 6Mbps
Continuous Tx. 802.11a, Ch.36, MCSO
Continuous Tx. 802.11a, Ch.100, 6Mbps

MODE USED FOR FINAL DATA

Continuous Tx. 802.11

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	40 GHz
-----------------	--------	----------------	--------

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation
--

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4407B	AAU	7/14/2010	24
High Pass Filter	Micro-Tronics	HPM50112	HGA	10/8/2010	13
5.725-5.875 Notch Filter	Micro-Tronics	BRC50705	HGJ	9/29/2010	13
5.47-5.725 Notch Filter	Micro-Tronics	BRC50704	HGI	9/29/2010	13
5.25 GHz Notch Filter	K&L Microwave	8N50-5250/X200-0/0	HFK	4/2/2010	13
OC Cable	ESM Cable Corp.	KMKM-72	OCV	11/3/2009	16
Cable	ESM Cable Corp.	KMKM-72	EVY	11/3/2009	16
EV12 Cables	N/A	Standard Gain Horn Cables	EVU	7/14/2010	13
EV12 Cables	N/A	Double Ridge Horn Cables	EVT	11/22/2010	13
EV12 Cables	N/A	Bilog Cables	EVS	7/14/2010	13
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	AVR	6/22/2010	13
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	12/15/2010	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVI	7/14/2010	13
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVH	7/14/2010	13
Pre-Amplifier	Miteq	AMF-3D00100800-32-13P	AVF	7/14/2010	13
Pre-Amplifier	Miteq	AM-1616-1000	AVM	7/14/2010	13
Antenna, Horn	ETS Lindgren	3160-10	AIW	NCR	0
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0
Antenna, Horn	ETS	3160-08	AIA	NCR	0
Antenna, Horn	ETS	3160.07	AHZ	9/8/2010	24
Antenna, Horn	ETS	3115	AIB	9/8/2010	24
Antenna, Biconilog	EMCO	3141	AXG	2/15/2010	13
Spectrum Analyzer	Agilent	E4440A	AAX	5/14/2010	12

MEASUREMENT BANDWIDTHS

	Frequency Range	Peak Data	Quasi-Peak Data	Average Data
	(MHz)	(kHz)	(kHz)	(kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. The measurement uncertainty estimation is available upon request.

TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT were tested. The EUT was configured for the lowest, a middle, and the highest transmit frequency in each operational band. For each configuration, the spectrum was scanned throughout the specified range. Measurements were made to satisfy the three requirements of 47 CFR 15.407: Field strength under 1GHz, Restricted Bands of 47 CFR 15.205, and EIRP of 47 CFR 15.407. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.10:2009). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

The amplitude and frequency of the highest emissions were noted. The EUT was then replaced with a ½ wave dipole that was successively tuned to each of the highest spurious emissions. A signal generator was connected to the dipole (horn antenna for frequencies above 1GHz), and its output was adjusted to match the level previously noted for each frequency. The output of the signal generator was recorded, and by factoring in the cable loss to the dipole antenna (or horn) and its gain (dBi); the effective radiated power for each radiated spurious emission was determined.

EMC SPURIOUS RADIATED EMISSIONS

PSA 2008.07.21
EMI 2008.1.9

EUT: 1000CP01UO	Work Order: INMC0661
Serial Number: 24411047041	Date: 01/24/11
Customer: Intermec Technologies Corporation	Temperature: 22.4 °C
Attendees: none	Humidity: 37%
Project: None	Barometric Pres.: 1021.8 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003 DA 02-2138:2002

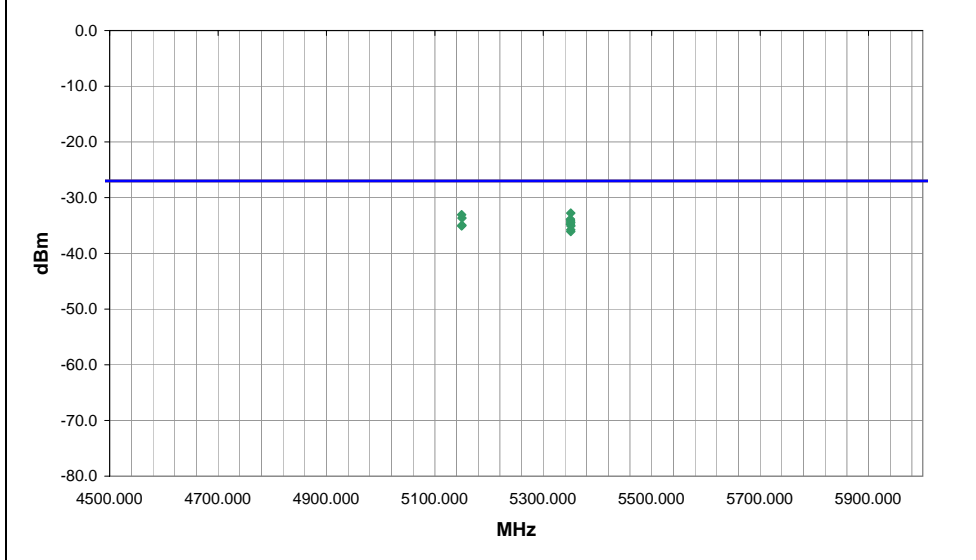
TEST PARAMETERS	
Antenna Height(s) (m)	1 - 2
Test Distance (m)	1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES
Continuous Tx.

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	15	
Configuration #	1	
Results	Pass	



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
5350.657	131.0	1.1	V-Horn	PK	5.28E-07	-32.8	-27.0	-5.8	802.11n, Ch.64, MCS0, EUT vertical
5149.492	120.0	1.1	V-Horn	PK	4.93E-07	-33.1	-27.0	-6.1	802.11n, Ch.36, MCS0, EUT vertical
5149.912	122.0	1.1	V-Horn	PK	4.29E-07	-33.7	-27.0	-6.7	802.11a, Ch.36, 6Mbps, EUT vertical
5350.047	69.0	1.1	H-Horn	PK	4.10E-07	-33.9	-27.0	-6.9	802.11n, Ch.64, MCS0, EUT on side.
5350.395	96.0	1.3	H-Horn	PK	3.83E-07	-34.2	-27.0	-7.2	802.11a, Ch.64, 6Mbps, EUT on side.
5350.698	130.0	1.1	V-Horn	PK	3.57E-07	-34.5	-27.0	-7.5	802.11a, Ch.64, 6Mbps, EUT vertical
5350.105	195.0	1.2	V-Horn	PK	3.33E-07	-34.8	-27.0	-7.8	802.11a, Ch.64, 6Mbps, EUT on side.
5149.960	86.0	1.1	H-Horn	PK	3.18E-07	-35.0	-27.0	-8.0	802.11a, Ch.36, 6Mbps, EUT on side.
5149.275	86.0	1.1	H-Horn	PK	3.11E-07	-35.1	-27.0	-8.1	802.11n, Ch.36, MCS0, EUT on side.
5350.812	101.0	1.1	H-Horn	PK	3.11E-07	-35.1	-27.0	-8.1	802.11a, Ch.64, 6Mbps, EUT vertical
5350.585	241.0	1.1	V-Horn	PK	2.65E-07	-35.8	-27.0	-8.8	802.11a, Ch.64, 6Mbps, EUT horizontal
5350.507	255.0	1.1	H-Horn	PK	2.47E-07	-36.1	-27.0	-9.1	802.11a, Ch.64, 6Mbps, EUT horizontal

EMC SPURIOUS RADIATED EMISSIONS

PSA 2008.07.21
EMI 2008.1.9

EUT: 1000CP01UO	Work Order: INMC0661
Serial Number: 24411047041	Date: 01/24/11
Customer: Intermec Technologies Corporation	Temperature: 22.4 °C
Attendees: none	Humidity: 37%
Project: None	Barometric Pres.: 1021.8 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.209:2010	ANSI C63.10:2009

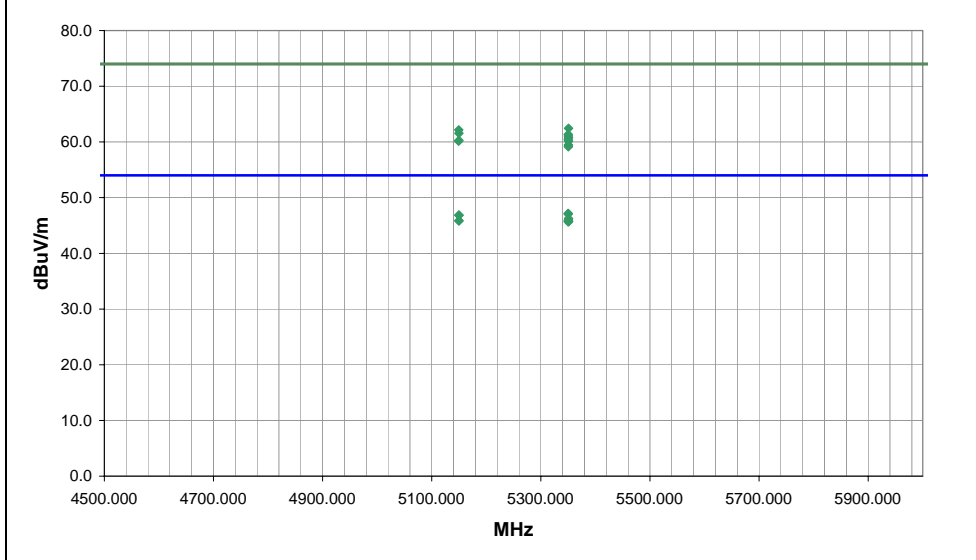
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 2	Test Distance (m)	1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES
Continuous Tx.

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	15	
Configuration #	1	
Results	Pass	



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
5350.000	20.0	36.7	130.0	1.1	1.0	0.0	V-Horn	AV	-9.5	47.2	54.0	-6.8	802.11a, Ch.64, 6Mbps, EUT vertical
5350.068	19.9	36.7	131.0	1.1	1.0	0.0	V-Horn	AV	-9.5	47.1	54.0	-6.9	802.11n, Ch.64, MCSO, EUT vertical
5149.895	20.1	36.3	120.0	1.1	1.0	0.0	V-Horn	AV	-9.5	46.9	54.0	-7.1	802.11n, Ch.36, MCSO, EUT vertical
5149.952	20.1	36.3	122.0	1.1	1.0	0.0	V-Horn	AV	-9.5	46.9	54.0	-7.1	802.11a, Ch.36, 6Mbps, EUT vertical
5350.635	19.1	36.7	69.0	1.1	1.0	0.0	H-Horn	AV	-9.5	46.3	54.0	-7.7	802.11n, Ch.64, MCSO, EUT on side.
5350.300	18.8	36.7	96.0	1.3	1.0	0.0	H-Horn	AV	-9.5	46.0	54.0	-8.0	802.11a, Ch.64, 6Mbps, EUT on side.
5149.825	19.1	36.3	86.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.9	54.0	-8.1	802.11n, Ch.36, MCSO, EUT on side.
5149.990	19.1	36.3	86.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.9	54.0	-8.1	802.11a, Ch.36, 6Mbps, EUT on side.
5350.302	18.7	36.7	255.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.9	54.0	-8.1	802.11a, Ch.64, 6Mbps, EUT horizontal
5350.626	18.6	36.7	241.0	1.1	1.0	0.0	V-Horn	AV	-9.5	45.8	54.0	-8.2	802.11a, Ch.64, 6Mbps, EUT horizontal
5350.632	18.6	36.7	101.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.8	54.0	-8.2	802.11a, Ch.64, 6Mbps, EUT vertical
5350.400	18.5	36.7	195.0	1.2	1.0	0.0	V-Horn	AV	-9.5	45.7	54.0	-8.3	802.11a, Ch.64, 6Mbps, EUT on side.
5350.657	35.3	36.7	131.0	1.1	1.0	0.0	V-Horn	PK	-9.5	62.5	74.0	-11.5	802.11n, Ch.64, MCSO, EUT vertical
5149.492	35.4	36.3	120.0	1.1	1.0	0.0	V-Horn	PK	-9.5	62.2	74.0	-11.8	802.11n, Ch.36, MCSO, EUT vertical
5149.912	34.8	36.3	122.0	1.1	1.0	0.0	V-Horn	PK	-9.5	61.6	74.0	-12.4	802.11a, Ch.36, 6Mbps, EUT vertical
5350.047	34.2	36.7	69.0	1.1	1.0	0.0	H-Horn	PK	-9.5	61.4	74.0	-12.6	802.11n, Ch.64, MCSO, EUT on side.
5350.395	33.9	36.7	96.0	1.3	1.0	0.0	H-Horn	PK	-9.5	61.1	74.0	-12.9	802.11a, Ch.64, 6Mbps, EUT on side.
5350.698	33.6	36.7	130.0	1.1	1.0	0.0	V-Horn	PK	-9.5	60.8	74.0	-13.2	802.11a, Ch.64, 6Mbps, EUT vertical
5350.105	33.3	36.7	195.0	1.2	1.0	0.0	V-Horn	PK	-9.5	60.5	74.0	-13.5	802.11a, Ch.64, 6Mbps, EUT on side.
5149.960	33.5	36.3	86.0	1.1	1.0	0.0	H-Horn	PK	-9.5	60.3	74.0	-13.7	802.11a, Ch.36, 6Mbps, EUT on side.
5149.275	33.4	36.3	86.0	1.1	1.0	0.0	H-Horn	PK	-9.5	60.2	74.0	-13.8	802.11n, Ch.36, MCSO, EUT on side.
5350.812	33.0	36.7	101.0	1.1	1.0	0.0	H-Horn	PK	-9.5	60.2	74.0	-13.8	802.11a, Ch.64, 6Mbps, EUT vertical
5350.585	32.3	36.7	241.0	1.1	1.0	0.0	V-Horn	PK	-9.5	59.5	74.0	-14.5	802.11a, Ch.64, 6Mbps, EUT horizontal
5350.507	32.0	36.7	255.0	1.1	1.0	0.0	H-Horn	PK	-9.5	59.2	74.0	-14.8	802.11a, Ch.64, 6Mbps, EUT horizontal

EUT: 1000CP01UO	Work Order: INMC0661
Serial Number: 24411047041	Date: 01/24/11
Customer: Intermec Technologies Corporation	Temperature: 22.4 °C
Attendees: none	Humidity: 37%
Project: None	Barometric Pres.: 1021.8 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003 DA 02-2138:2002

TEST PARAMETERS	
Antenna Height(s) (m) 1 - 2	Test Distance (m) 1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES

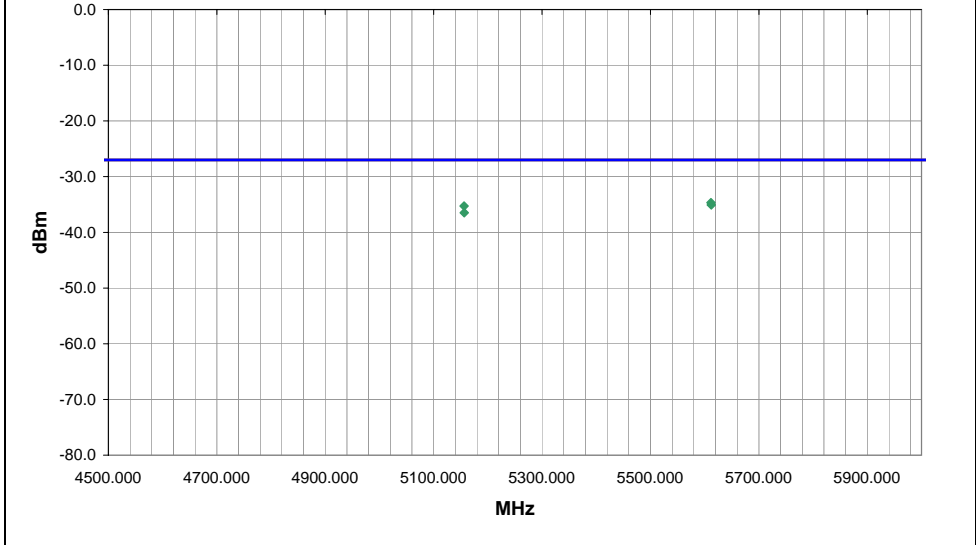
Continuous Tx.

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	15
Configuration #	1
Results	Pass

Signature 



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
5611.667	137.0	1.1	V-Horn	PK	3.41E-07	-34.7	-27.0	-7.7	802.11a, Ch.36, 6Mbps, EUT vertical
5612.183	99.0	1.1	H-Horn	PK	3.11E-07	-35.1	-27.0	-8.1	802.11a, Ch.36, 6Mbps, EUT on side.
5156.190	120.0	1.2	V-Horn	PK	2.97E-07	-35.3	-27.0	-8.3	802.11a, Ch.100, 6Mbps, EUT vertical
5156.570	99.0	1.1	H-Horn	PK	2.25E-07	-36.5	-27.0	-9.5	802.11a, Ch.100, 6Mbps, EUT on side.

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Continuous Tx. 802.11a, Ch.64, 6Mbps
 Continuous Tx. 802.11n, Ch.64, MCSO
 Continuous Tx. 802.11a, Ch.36, 6Mbps
 Continuous Tx. 802.11a, Ch.36, MCSO
 Continuous Tx. 802.11a, Ch.100, 6Mbps

MODE USED FOR FINAL DATA

Continuous Tx. 802.11

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 40 GHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4407B	AAU	7/14/2010	24
High Pass Filter	Micro-Tronics	HPM50112	HGA	10/8/2010	13
5.725-5.875 Notch Filter	Micro-Tronics	BRC50705	HGJ	9/29/2010	13
5.47-5.725 Notch Filter	Micro-Tronics	BRC50704	HGI	9/29/2010	13
5.25 GHz Notch Filter	K&L Microwave	8N50-5250/X200-0/0	HFK	4/2/2010	13
OC Cable	ESM Cable Corp.	KMKM-72	OCV	11/3/2009	16
Cable	ESM Cable Corp.	KMKM-72	EVY	11/3/2009	16
EV12 Cables	N/A	Standard Gain Horn Cables	EVU	7/14/2010	13
EV12 Cables	N/A	Double Ridge Horn Cables	EVT	11/22/2010	13
EV12 Cables	N/A	Bilog Cables	EVS	7/14/2010	13
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	AVR	6/22/2010	13
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	12/15/2010	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVI	7/14/2010	13
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVH	7/14/2010	13
Pre-Amplifier	Miteq	AMF-3D00100800-32-13P	AVF	7/14/2010	13
Pre-Amplifier	Miteq	AM-1616-1000	AVM	7/14/2010	13
Antenna, Horn	ETS Lindgren	3160-10	AIW	NCR	0
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0
Antenna, Horn	ETS	3160-08	AIA	NCR	0
Antenna, Horn	ETS	3160.07	AHZ	9/8/2010	24
Antenna, Horn	ETS	3115	AIB	9/8/2010	24
Antenna, Biconilog	EMCO	3141	AXG	2/15/2010	13
Spectrum Analyzer	Agilent	E4440A	AAX	5/14/2010	12

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. The measurement uncertainty estimation is available upon request.

TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT were tested. The EUT was configured for the lowest, a middle, and the highest transmit frequency in each operational band. For each configuration, the spectrum was scanned throughout the specified range. Measurements were made to satisfy the three requirements of 47 CFR 15.407: Field strength under 1GHz, Restricted Bands of 47 CFR 15.205, and EIRP of 47 CFR 15.407. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.10:2009). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

The amplitude and frequency of the highest emissions were noted. The EUT was then replaced with a ½ wave dipole that was successively tuned to each of the highest spurious emissions. A signal generator was connected to the dipole (horn antenna for frequencies above 1GHz), and its output was adjusted to match the level previously noted for each frequency. The output of the signal generator was recorded, and by factoring in the cable loss to the dipole antenna (or horn) and its gain (dBi); the effective radiated power for each radiated spurious emission was determined.

EMC SPURIOUS RADIATED EMISSIONS

PSA 2008.07.21
EMI 2008.1.9

EUT: 1000CP02UO	Work Order: INMC0661
Serial Number: 24411047146	Date: 01/24/11
Customer: Intermec Technologies Corporation	Temperature: 22.2 °C
Attendees: none	Humidity: 38%
Project: None	Barometric Pres.: 1024.0 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.407:2011	ANSI C63.10:2009

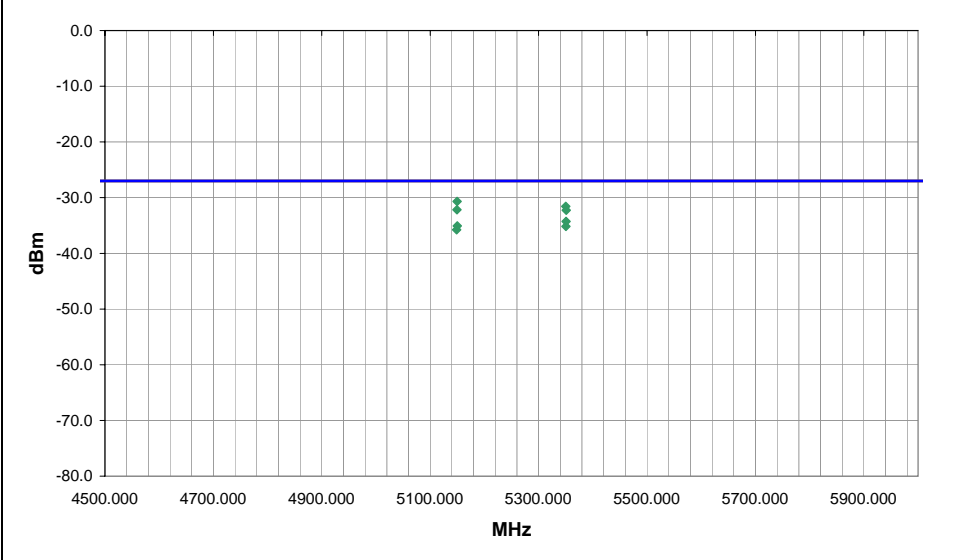
TEST PARAMETERS	
Antenna Height(s) (m)	1 - 2
Test Distance (m)	1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES
Continuous Tx.

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	17	
Configuration #	2	
Results	Pass	



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
5149.753	119.0	1.2	V-Horn	PK	8.57E-07	-30.7	-27.0	-3.7	802.11n, Ch.36, MCSO, EUT vertical
5350.082	126.0	1.2	V-Horn	PK	6.96E-07	-31.6	-27.0	-4.6	802.11n, Ch.64, MCSO, EUT vertical
5149.407	121.0	1.1	V-Horn	PK	6.07E-07	-32.2	-27.0	-5.2	802.11a, Ch.36, 6Mbps, EUT vertical
5350.803	125.0	1.2	V-Horn	PK	5.93E-07	-32.3	-27.0	-5.3	802.11n, Ch.64, 6Mbps, EUT vertical
5350.646	59.0	1.1	H-Horn	PK	3.74E-07	-34.3	-27.0	-7.3	802.11n, Ch.64, MCSO, EUT on side
5149.828	79.0	1.0	H-Horn	PK	3.11E-07	-35.1	-27.0	-8.1	802.11n, Ch.36, MCSO, EUT on side
5350.368	61.0	1.1	H-Horn	PK	3.04E-07	-35.2	-27.0	-8.2	802.11a, Ch.64, 6Mbps, EUT on side
5148.787	81.0	1.1	H-Horn	PK	2.65E-07	-35.8	-27.0	-8.8	802.11a, Ch.36, 6Mbps, EUT on side

EUT: 1000CP02UO	Work Order: INMC0661
Serial Number: 24411047146	Date: 01/24/11
Customer: Intermecc Technologies Corporation	Temperature: 22.2 °C
Attendees: none	Humidity: 38%
Project: None	Barometric Pres.: 1024.0 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.209:2010	ANSI C63.10:2009

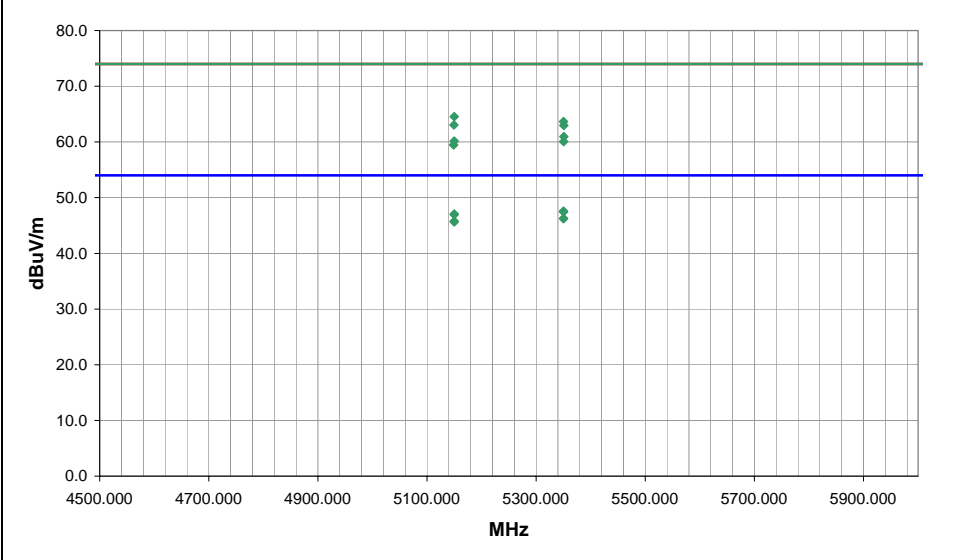
TEST PARAMETERS	
Antenna Height(s) (m) 1 - 2	Test Distance (m) 1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES
Continuous Tx.

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	17	Signature 
Configuration #	2	
Results	Pass	



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
5350.190	20.4	36.7	126.0	1.2	1.0	0.0	V-Horn	AV	-9.5	47.6	54.0	-6.4	802.11n, Ch.64, MCSO, EUT vertical
5350.005	20.3	36.7	125.0	1.2	1.0	0.0	V-Horn	AV	-9.5	47.5	54.0	-6.5	802.11a, Ch.64, 6Mbps, EUT vertical
5149.842	20.3	36.3	119.0	1.2	1.0	0.0	V-Horn	AV	-9.5	47.1	54.0	-6.9	802.11n, Ch.36, MCSO, EUT vertical
5149.880	20.2	36.3	121.0	1.1	1.0	0.0	V-Horn	AV	-9.5	47.0	54.0	-7.0	802.11a, Ch.36, 6Mbps, EUT vertical
5350.003	19.1	36.7	59.0	1.1	1.0	0.0	H-Horn	AV	-9.5	46.3	54.0	-7.7	802.11n, Ch.64, MCSO, EUT on side
5350.178	19.1	36.7	61.0	1.1	1.0	0.0	H-Horn	AV	-9.5	46.3	54.0	-7.7	802.11a, Ch.64, 6Mbps, EUT on side
5149.854	19.0	36.3	81.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.8	54.0	-8.2	802.11a, Ch.36, 6Mbps, EUT on side
5149.855	18.9	36.3	79.0	1.0	1.0	0.0	H-Horn	AV	-9.5	45.7	54.0	-8.3	802.11n, Ch.36, MCSO, EUT on side
5149.753	37.8	36.3	119.0	1.2	1.0	0.0	V-Horn	PK	-9.5	64.6	74.0	-9.4	802.11n, Ch.36, MCSO, EUT vertical
5350.082	36.5	36.7	126.0	1.2	1.0	0.0	V-Horn	PK	-9.5	63.7	74.0	-10.3	802.11n, Ch.64, MCSO, EUT vertical
5149.407	36.3	36.3	121.0	1.1	1.0	0.0	V-Horn	PK	-9.5	63.1	74.0	-10.9	802.11a, Ch.36, 6Mbps, EUT vertical
5350.803	35.8	36.7	125.0	1.2	1.0	0.0	V-Horn	PK	-9.5	63.0	74.0	-11.0	802.11a, Ch.64, 6Mbps, EUT vertical
5350.646	33.8	36.7	59.0	1.1	1.0	0.0	H-Horn	PK	-9.5	61.0	74.0	-13.0	802.11n, Ch.64, MCSO, EUT on side
5149.828	33.4	36.3	79.0	1.0	1.0	0.0	H-Horn	PK	-9.5	60.2	74.0	-13.8	802.11n, Ch.36, MCSO, EUT on side
5350.368	32.9	36.7	61.0	1.1	1.0	0.0	H-Horn	PK	-9.5	60.1	74.0	-13.9	802.11a, Ch.64, 6Mbps, EUT on side
5148.787	32.7	36.3	81.0	1.1	1.0	0.0	H-Horn	PK	-9.5	59.5	74.0	-14.5	802.11a, Ch.36, 6Mbps, EUT on side

EUT: 1000CP02UO	Work Order: INMC0661
Serial Number: 24411047146	Date: 01/24/11
Customer: Intermec Technologies Corporation	Temperature: 22.2 °C
Attendees: none	Humidity: 38%
Project: None	Barometric Pres.: 1024.0 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.407:2011	ANSI C63.10:2009

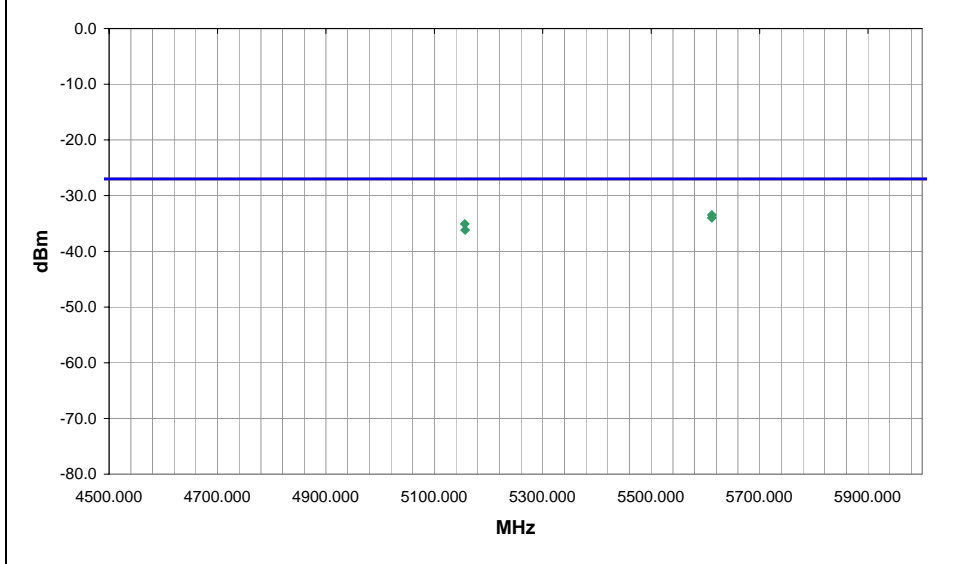
TEST PARAMETERS	
Antenna Height(s) (m) 1 - 2	Test Distance (m) 1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES
Continuous Tx.

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	17	Signature 
Configuration #	2	
Results	Pass	



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
5611.744	128.0	1.1	V-Horn	PK	4.50E-07	-33.5	-27.0	-6.5	802.11a, Ch.36, 6Mbps, EUT vertical
5611.897	71.0	1.2	H-Horn	PK	4.01E-07	-34.0	-27.0	-7.0	802.11a, Ch.36, 6Mbps, EUT on side
5156.047	133.0	1.2	V-Horn	PK	3.11E-07	-35.1	-27.0	-8.1	802.11a, Ch.100, 6Mbps, EUT vertical
5156.612	71.0	1.1	H-Horn	PK	2.41E-07	-36.2	-27.0	-9.2	802.11a, Ch.100, 6Mbps, EUT on side

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Continuous Tx. 802.11a, Ch.64, 6Mbps
Continuous Tx. 802.11n, Ch.64, MCSO
Continuous Tx. 802.11a, Ch.36, 6Mbps
Continuous Tx. 802.11a, Ch.36, MCSO
Continuous Tx. 802.11a, Ch.100, 6Mbps

MODE USED FOR FINAL DATA

Continuous Tx. 802.11

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	40 GHz
-----------------	--------	----------------	--------

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation
--

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4407B	AAU	7/14/2010	24
High Pass Filter	Micro-Tronics	HPM50112	HGA	10/8/2010	13
5.725-5.875 Notch Filter	Micro-Tronics	BRC50705	HGJ	9/29/2010	13
5.47-5.725 Notch Filter	Micro-Tronics	BRC50704	HGI	9/29/2010	13
5.25 GHz Notch Filter	K&L Microwave	8N50-5250/X200-0/0	HFK	4/2/2010	13
OC Cable	ESM Cable Corp.	KMKM-72	OCV	11/3/2009	16
Cable	ESM Cable Corp.	KMKM-72	EVY	11/3/2009	16
EV12 Cables	N/A	Standard Gain Horn Cables	EVU	7/14/2010	13
EV12 Cables	N/A	Double Ridge Horn Cables	EVT	11/22/2010	13
EV12 Cables	N/A	Bilog Cables	EVS	7/14/2010	13
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	AVR	6/22/2010	13
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	12/15/2010	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVI	7/14/2010	13
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVH	7/14/2010	13
Pre-Amplifier	Miteq	AMF-3D00100800-32-13P	AVF	7/14/2010	13
Pre-Amplifier	Miteq	AM-1616-1000	AVM	7/14/2010	13
Antenna, Horn	ETS Lindgren	3160-10	AIW	NCR	0
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0
Antenna, Horn	ETS	3160-08	AIA	NCR	0
Antenna, Horn	ETS	3160.07	AHZ	9/8/2010	24
Antenna, Horn	ETS	3115	AIB	9/8/2010	24
Antenna, Biconilog	EMCO	3141	AXG	2/15/2010	13
Spectrum Analyzer	Agilent	E4440A	AAX	5/14/2010	12

MEASUREMENT BANDWIDTHS

	Frequency Range	Peak Data	Quasi-Peak Data	Average Data
	(MHz)	(kHz)	(kHz)	(kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. The measurement uncertainty estimation is available upon request.

TEST DESCRIPTION

The highest gain antenna of each type to be used with the EUT were tested. The EUT was configured for the lowest, a middle, and the highest transmit frequency in each operational band. For each configuration, the spectrum was scanned throughout the specified range. Measurements were made to satisfy the three requirements of 47 CFR 15.407: Field strength under 1GHz, Restricted Bands of 47 CFR 15.205, and EIRP of 47 CFR 15.407. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.10:2009). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

The amplitude and frequency of the highest emissions were noted. The EUT was then replaced with a ½ wave dipole that was successively tuned to each of the highest spurious emissions. A signal generator was connected to the dipole (horn antenna for frequencies above 1GHz), and its output was adjusted to match the level previously noted for each frequency. The output of the signal generator was recorded, and by factoring in the cable loss to the dipole antenna (or horn) and its gain (dBi); the effective radiated power for each radiated spurious emission was determined.

EUT: 1001CP01UO	Work Order: INMC0661
Serial Number: 25411047063	Date: 01/24/11
Customer: Intermec Technologies Corporation	Temperature: 21.8 °C
Attendees: none	Humidity: 38%
Project: None	Barometric Pres.: 1024.6 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.407:2011	ANSI C63.10:2009

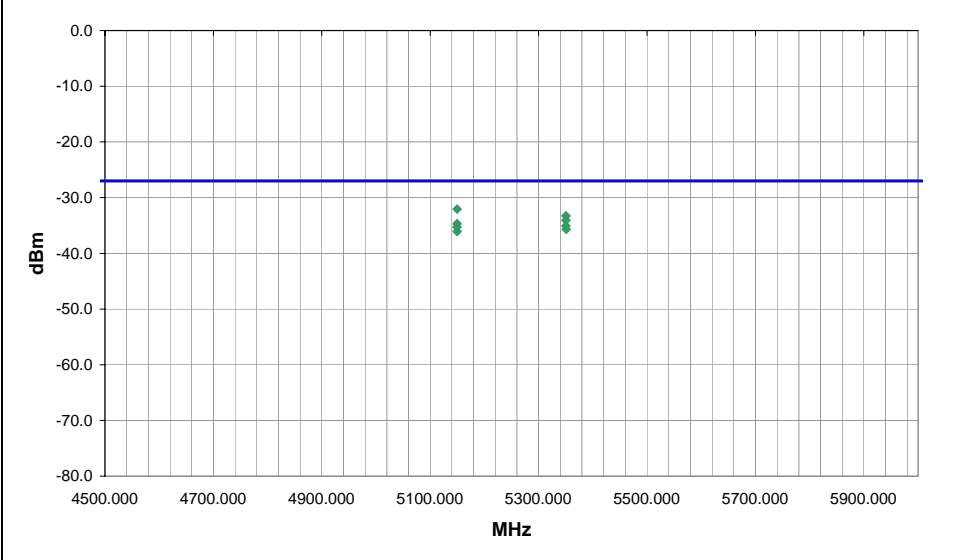
TEST PARAMETERS	
Antenna Height(s) (m) 1 - 2	Test Distance (m) 1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES
Continuous Tx.

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	18	Signature 
Configuration #	3	
Results	Pass	



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
5149.630	117.0	1.2	V-Horn	PK	6.21E-07	-32.1	-27.0	-5.1	802.11a, Ch.36, 6Mbps, EUT vertical
5350.376	124.0	1.1	V-Horn	PK	4.71E-07	-33.3	-27.0	-6.3	802.11n, Ch.64, MCSO, EUT vertical
5350.400	118.0	1.1	V-Horn	PK	3.92E-07	-34.1	-27.0	-7.1	802.11a, Ch.64, 6Mbps, EUT vertical
5149.692	110.0	1.2	V-Horn	PK	3.41E-07	-34.7	-27.0	-7.7	802.11n, Ch.36, MCSO, EUT vertical
5350.453	60.0	1.1	H-Horn	PK	3.11E-07	-35.1	-27.0	-8.1	802.11a, Ch.64, 6Mbps, EUT on side
5149.383	66.0	1.1	H-Horn	PK	2.97E-07	-35.3	-27.0	-8.3	802.11a, Ch.36, 6Mbps, EUT on side
5351.001	59.0	1.1	H-Horn	PK	2.71E-07	-35.7	-27.0	-8.7	802.11n, Ch.64, MCSO, EUT on side
5149.657	60.0	1.1	H-Horn	PK	2.47E-07	-36.1	-27.0	-9.1	802.11n, Ch.36, MCSO, EUT on side

EUT: 1001CP01UO	Work Order: INMC0661
Serial Number: 25411047063	Date: 01/24/11
Customer: Intermec Technologies Corporation	Temperature: 21.8 °C
Attendees: none	Humidity: 38%
Project: None	Barometric Pres.: 1024.6 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.209:2010	ANSI C63.10:2009

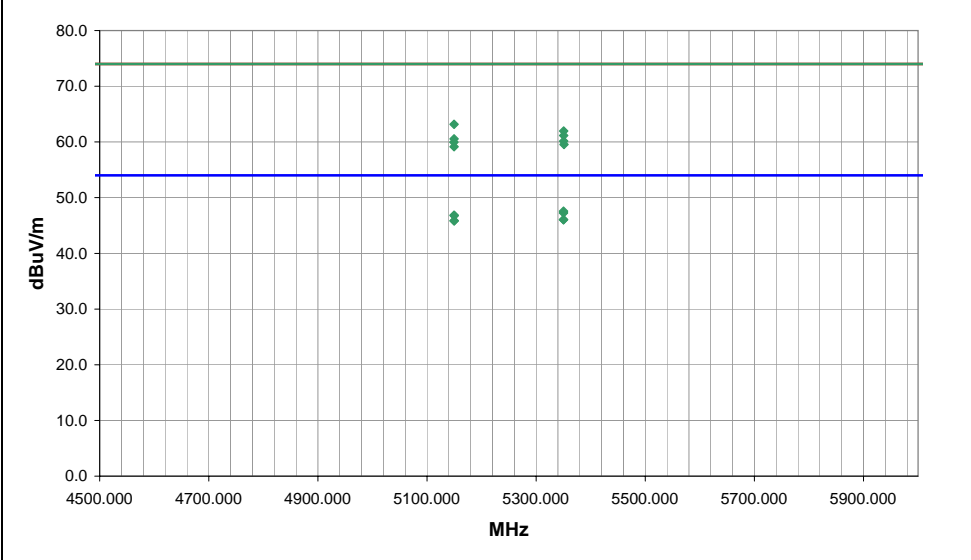
TEST PARAMETERS	
Antenna Height(s) (m) 1 - 2	Test Distance (m) 1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES
Continuous Tx.

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	18	 Signature
Configuration #	3	
Results	Pass	



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
5350.170	20.4	36.7	124.0	1.1	1.0	0.0	V-Horn	AV	-9.5	47.6	54.0	-6.4	802.11n, Ch.64, MCSO, EUT vertical
5350.137	20.1	36.7	118.0	1.1	1.0	0.0	V-Horn	AV	-9.5	47.3	54.0	-6.7	802.11a, Ch.64, 6Mbps, EUT vertical
5149.646	20.1	36.3	117.0	1.2	1.0	0.0	V-Horn	AV	-9.5	46.9	54.0	-7.1	802.11a, Ch.36, 6Mbps, EUT vertical
5149.943	20.0	36.3	110.0	1.2	1.0	0.0	V-Horn	AV	-9.5	46.8	54.0	-7.2	802.11n, Ch.36, MCSO, EUT vertical
5350.178	18.9	36.7	59.0	1.1	1.0	0.0	H-Horn	AV	-9.5	46.1	54.0	-7.9	802.11n, Ch.64, MCSO, EUT on side
5350.193	18.9	36.7	60.0	1.1	1.0	0.0	H-Horn	AV	-9.5	46.1	54.0	-7.9	802.11a, Ch.64, 6Mbps, EUT on side
5149.668	19.1	36.3	66.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.9	54.0	-8.1	802.11a, Ch.36, 6Mbps, EUT on side
5149.887	19.1	36.3	60.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.9	54.0	-8.1	802.11n, Ch.36, MCSO, EUT on side
5149.630	36.4	36.3	117.0	1.2	1.0	0.0	V-Horn	PK	-9.5	63.2	74.0	-10.8	802.11a, Ch.36, 6Mbps, EUT vertical
5350.376	34.8	36.7	124.0	1.1	1.0	0.0	V-Horn	PK	-9.5	62.0	74.0	-12.0	802.11n, Ch.64, MCSO, EUT vertical
5350.400	34.0	36.7	118.0	1.1	1.0	0.0	V-Horn	PK	-9.5	61.2	74.0	-12.8	802.11a, Ch.64, 6Mbps, EUT vertical
5149.692	33.8	36.3	110.0	1.2	1.0	0.0	V-Horn	PK	-9.5	60.6	74.0	-13.4	802.11n, Ch.36, MCSO, EUT vertical
5350.453	33.0	36.7	60.0	1.1	1.0	0.0	H-Horn	PK	-9.5	60.2	74.0	-13.8	802.11a, Ch.64, 6Mbps, EUT on side
5149.383	33.2	36.3	66.0	1.1	1.0	0.0	H-Horn	PK	-9.5	60.0	74.0	-14.0	802.11a, Ch.36, 6Mbps, EUT on side
5351.001	32.4	36.7	59.0	1.1	1.0	0.0	H-Horn	PK	-9.5	59.6	74.0	-14.4	802.11n, Ch.64, MCSO, EUT on side
5149.657	32.4	36.3	60.0	1.1	1.0	0.0	H-Horn	PK	-9.5	59.2	74.0	-14.8	802.11n, Ch.36, MCSO, EUT on side

EUT: 1001CP01UO	Work Order: INMC0661
Serial Number: 25411047063	Date: 01/24/11
Customer: Intermec Technologies Corporation	Temperature: 21.8 °C
Attendees: none	Humidity: 38%
Project: None	Barometric Pres.: 1024.6 mb
Tested by: Dan Haas	Power: 120VAC/60Hz
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.407:2011	ANSI C63.10:2009

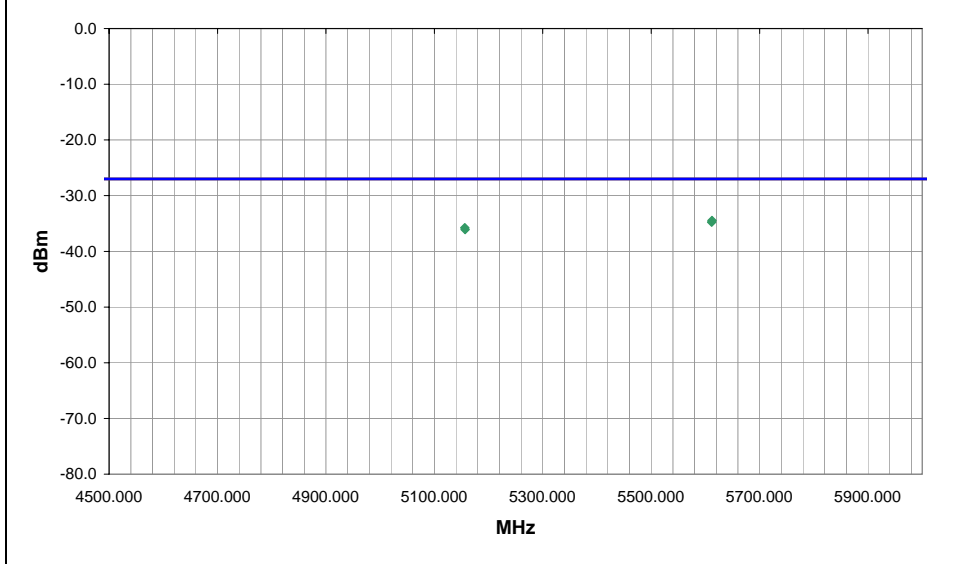
TEST PARAMETERS	
Antenna Height(s) (m) 1 - 2	Test Distance (m) 1

COMMENTS
See notes for Channel, data rate, and EUT orientation.

EUT OPERATING MODES
Continuous Tx.

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	18	Signature 
Configuration #	3	
Results	Pass	



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
5612.030	132.0	1.2	V-Horn	PK	3.57E-07	-34.5	-27.0	-7.5	802.11a, Ch.36, 6Mbps, EUT vertical
5611.534	60.0	1.2	H-Horn	PK	3.33E-07	-34.8	-27.0	-7.8	802.11a, Ch.36, 6Mbps, EUT on side
5156.243	60.0	1.2	H-Horn	PK	2.65E-07	-35.8	-27.0	-8.8	802.11a, Ch.100, 6Mbps, EUT on side
5156.604	115.0	1.2	V-Horn	PK	2.47E-07	-36.1	-27.0	-9.1	802.11a, Ch.100, 6Mbps, EUT vertical