

Intermec Technologies Corporation

Model: 1000CP01UO

Tested to the following Specifications:

**FCC 22H:2010
FCC 24E:2010**

Report No. INMC0651

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

Last Date of Test: December 8, 2010
Intermec Technologies Corporation
Model: 1000CP01UO

Emissions			
Test Description	Specification	Test Method	Pass/Fail
Out of Band Emissions	FCC 22H:2010	ANSI/TIA/EIA-603-C-2004	Pass
Out of Band Emissions	FCC 24E:2010	ANSI/TIA/EIA-603-C-2004	Pass
Effective Radiated Power (ERP)	FCC 22H:2010	ANSI/TIA/EIA-603-C-2004	Pass
Effective Radiated Power (EIRP)	FCC 24E:2010	ANSI/TIA/EIA-603-C-2004	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-1).

Approved By:

Don Facteau, IS 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



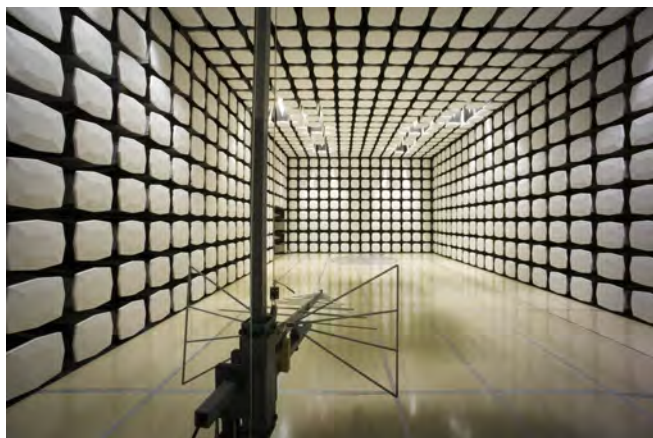
Oregon
Labs EV01-EV12
22975 NW Evergreen Pkwy
Suite 400
Hillsboro, OR 97124
(503) 844-4066

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
First Date of Test:	December 3, 2010
Last Date of Test:	December 8, 2010
Receipt Date of Samples:	December 2, 2010
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 computer with UMTS radio

Testing Objective:

To demonstrate compliance with the radiated power and spurious radiated emissions requirements of FCC 22H and 24E. The antenna port conducted measurements are documented in a separate report.

CONFIGURATION 1 INMC0651**EUT**

Description	Manufacturer	Model/Part Number	Serial Number
Handheld computer with UMTS radio	Intermec	1000CP01UO	24411047006

Peripherals in test setup boundary

Description	Manufacturer	Model/Part Number	Serial Number
AC Adapter	Intermec	AE39	14861000109
DEX Snap-on Adapter	Intermec	255-770-001	July 2010

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	12/3/2010	Out of Band Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	12/6/2010	Effective Radiated Power (EIRP)	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	12/8/2010	Effective Radiated Power (ERP)	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

Transmitting E-GPRS (Edge)
Transmitting GPRS (GMSK)
Transmitting UMTS HSPA
Transmitting WCDMA Rel99

CHANNELS TESTED

GSM Low = Ch. 128, 824.2 MHz
GSM Mid = Ch.190, 836.6 MHz
GSM High = Ch. 251, 848.8 MHz
UMTS Low = Ch.4132, 826.5 MHz
UMTS Mid = Ch. 4182, 837 MHz
UMTS High = Ch. 4233, 846.6 MHz

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency 30MHz Stop Frequency 26GHz

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
Universal Radio Communication Tester	Rhode & Schwarz	CMU200.2	121466	NCR	0
Universal Radio Communication Tester	Rhode & Schwarz	CMU200.10	BSU	NCR	0
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0
Cable	ESM Cable Corp.	KMKM-72	EVY	9/15/2010	13
Spectrum Analyzer	Agilent	E4440A	AAX	5/14/2010	12
Antenna, Horn	ETS	3160-08	AIA	NCR	0
EV12 Cables	N/A	Standard Gain Horn Cables	EVU	7/14/2010	13
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVH	7/14/2010	13
Antenna, Horn	ETS	3115	AIB	9/8/2010	24
EV12 Cables	N/A	Double Ridge Horn Cables	EVT	10/23/2009	13
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Antenna, Biconilog	EMCO	3141	AXG	2/15/2010	13
EV12 Cables	N/A	Bilog Cables	EVS	7/14/2010	13
Pre-Amplifier	Miteq	AM-1616-1000	AVM	7/14/2010	13
Antenna, Dipole	ETS	3121C-DB4	ADH	3/6/2009	24
Antenna, Horn	EMCO	3115	AHE	10/22/2009	24
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	24

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.

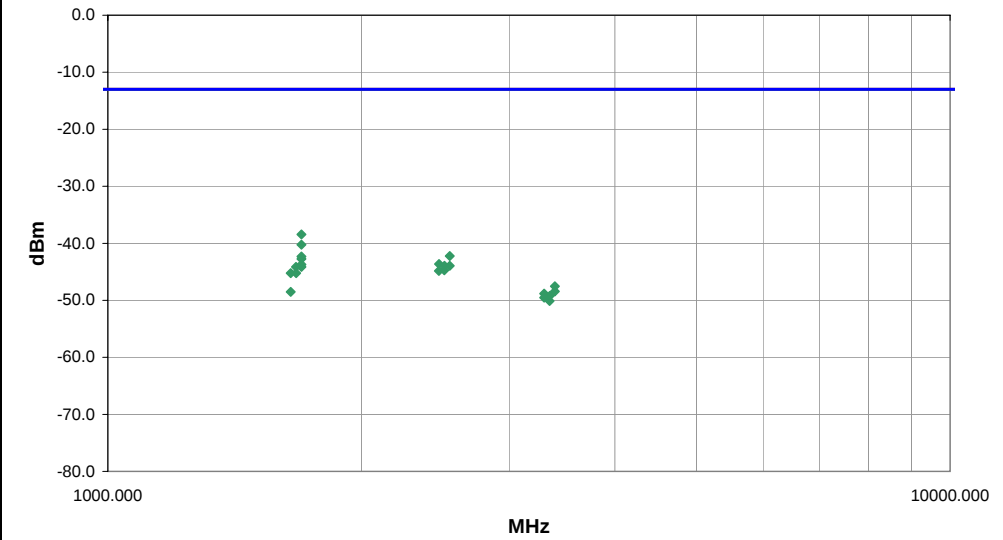
TEST DESCRIPTION

The highest gain antenna to be used with the EUT was tested for final measurements. 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. 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.

For licensed transmitters, the FCC references TIA/EIA-603 as the measurement procedure standard. TIA/EIA-603 Section 2.2.12 describes a method for measuring radiated spurious emissions that utilizes an antenna substitution method:

At an approved test site, the transmitter is placed on a remotely controlled turntable, and the measurement antenna is placed 3 meters from the transmitter. The turntable azimuth is varied to maximize the level of spurious emissions. The height of the measurement antenna is also varied from 1 to 4 meters. The amplitude and frequency of the highest emissions are noted. The transmitter is then replaced with a ½ wave dipole that is successively tuned to each of the highest spurious emissions for emissions below 1 GHz, and a horn antenna for emissions above 1 GHz. A signal generator is connected to the dipole (horn antenna for frequencies above 1 GHz), and its output is adjusted to match the level previously noted for each frequency. The output of the signal generator is recorded, and by factoring in the cable loss to the antenna and its gain; the power (dBm) into an ideal ½ wave dipole antenna is determined for each radiated spurious emission.

For the purposes of preliminary measurements, the field strength of the spurious emissions can be measured and compared with a 3 meter limit. The 3 meter limit was calculated to be 82.5 dBuV/m at 3 meters. The final measurements must be made utilizing the substitution method described above

NORTHWEST		Out of Band Emissions - Part 22H		PSA 2008.07.21	
EMC				EMI 2008.1.9	
EUT: 1000CP01UO		Work Order: INMC0651			
Serial Number: 24411047006		Date: 12/03/10			
Customer: Intermec Technologies Corporation		Temperature: 22			
Attendees: none		Humidity: 38%			
Project: None		Barometric Pres.: 30.09			
Tested by: Travis Rychener		Power: 120VAC/60Hz		Job Site: EV12	
TEST SPECIFICATIONS		Test Method			
FCC 22H:2010		ANSI/TIA/EIA-603-C-2004			
TEST PARAMETERS					
Antenna Height(s) (m)		1 - 4		Test Distance (m)	
				3	
COMMENTS					
See comments on data sheet for additional information					
EUT OPERATING MODES					
Transmitting GPRS(GMSK) 4 Slot up, Cell Band					
DEVIATIONS FROM TEST STANDARD					
No deviations.					
Run #		1			
Configuration #		1			
Results		Pass			
Signature					
					
					
MHz					
dBm					
1000.00010000.000					
Freq (MHz)					
Azimuth (degrees)					
Height (meters)					
Polarity					
Detector					
EIRP (Watts)					
EIRP (dBm)					
Spec. Limit (dBm)					
Compared to Spec. (dB)					
Comments					
1697.620240.01.1V-HornPK1.44E-07-38.4-13.0-25.4High Channel, EUT On Side					
1697.603307.01.0H-HornPK9.49E-08-40.2-13.0-27.2High Channel, EUT Horizontal					
2546.17731.01.2H-HornPK5.99E-08-42.2-13.0-29.2High Channel, EUT Horizontal					
1697.62071.01.2V-HornPK5.85E-08-42.3-13.0-29.3High Channel, EUT Horizontal					
1697.590304.01.0H-HornPK5.33E-08-42.7-13.0-29.7High Channel, EUT On Side					
2473.27011.01.2H-HornPK4.34E-08-43.6-13.0-30.6Low Channel, EUT Horizontal					
1697.720112.01.1V-HornPK4.24E-08-43.7-13.0-30.7High Channel, EUT Vertical					
2509.99032.01.2H-HornPK4.05E-08-43.9-13.0-30.9Mid Channel, EUT Horizontal					
2546.180196.01.2V-HornPK4.05E-08-43.9-13.0-30.9High Channel, EUT On Side					
1672.697265.01.5V-HornPK3.86E-08-44.1-13.0-31.1Mid Channel, EUT On Side					
1697.74781.01.1H-HornPK3.86E-08-44.1-13.0-31.1High Channel, EUT Vertical					
2508.87335.01.2V-HornPK3.37E-08-44.7-13.0-31.7Mid Channel, EUT On Side					
2472.53041.01.2V-HornPK3.29E-08-44.8-13.0-31.8Low Channel, EUT On Side					
1648.64082.01.2V-HornPK3.00E-08-45.2-13.0-32.2Low Channel, EUT On Side					
1673.0604.01.2H-HornPK3.00E-08-45.2-13.0-32.2Mid Channel, EUT Horizontal					
3394.253160.01.2H-HornPK1.77E-08-47.5-13.0-34.5High Channel, EUT Horizontal					
3395.010157.01.5V-HornPK1.44E-08-48.4-13.0-35.4High Channel, EUT On Side					
1648.530208.01.2H-HornPK1.40E-08-48.5-13.0-35.5Low Channel, EUT Horizontal					
3296.920140.01.2V-HornPK1.31E-08-48.8-13.0-35.8Low Channel, EUT On Side					
3346.603154.01.2H-HornPK1.19E-08-49.2-13.0-36.2Mid Channel, EUT Horizontal					

EMC

Out of Band Emissions - Part 22H

EUT:	1000CP01UO	Work Order:	INMC0651
Serial Number:	24411047006	Date:	12/03/10
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	38%
Project:	None	Barometric Pres.:	30.09
Tested by:	Travis Rychener	Power:	120VAC/60Hz
		Job Site:	EV12

TEST SPECIFICATIONS

Test Method

FCC 22H:2010

ANSI/TIA/EIA-603-C-2004

TEST PARAMETERS

Antenna Height(s) (m)	1 - 4	Test Distance (m)	3
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COMMENTS

See comments on data sheet for additional information

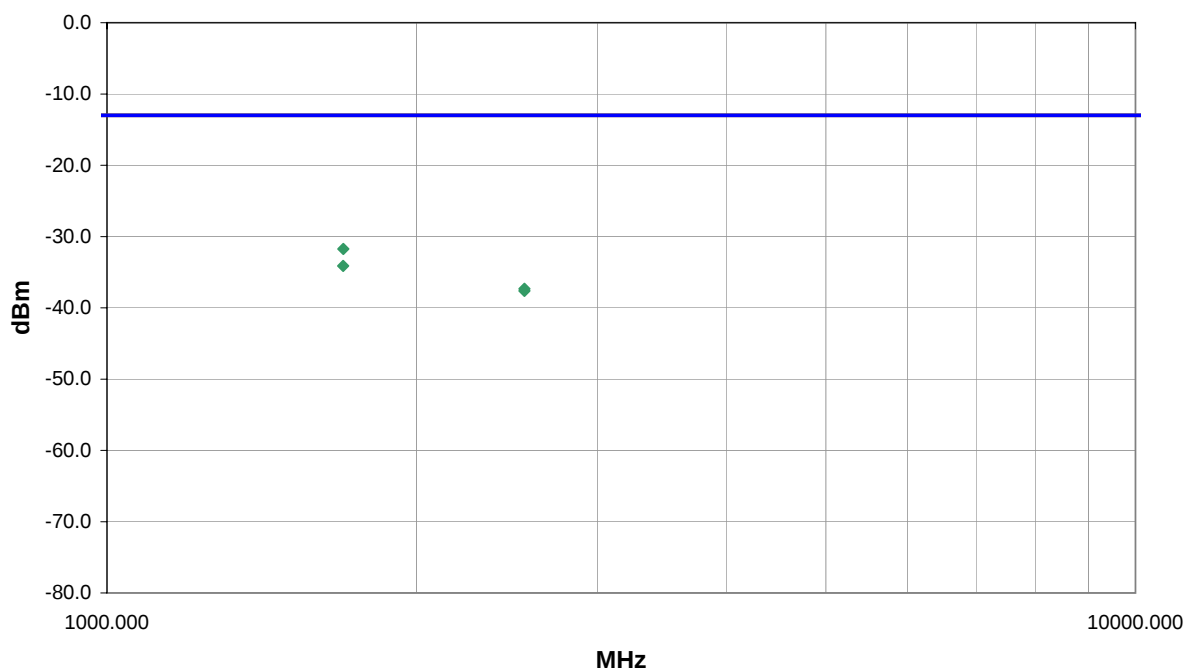
EUT OPERATING MODES

Transmitting E-GPRS(EDGE) 4 Slot up, Cell Band

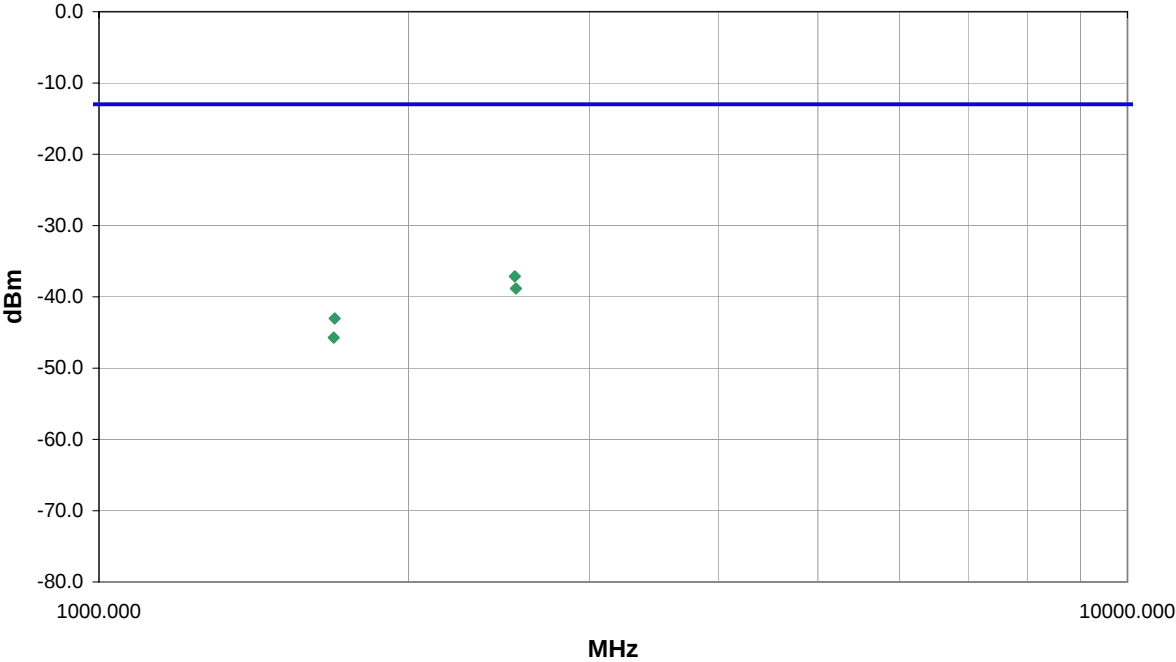
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	2	 Signature
Configuration #	1	
Results	Pass	



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1697.560			98.0	1.1			V-Horn	PK	6.72E-07	-31.7	-13.0	-18.7
1696.790			27.0	1.1			H-Horn	PK	3.86E-07	-34.1	-13.0	-21.1
2546.407			47.0	1.2			H-Horn	PK	1.85E-07	-37.3	-13.0	-24.3
2546.510			111.0	1.2			V-Horn	PK	1.73E-07	-37.6	-13.0	-24.6

NORTHWEST		PSA 2008.07.21								
EMI 2008.1.9										
EMC		Out of Band Emissions - Part 22H								
EUT: 1000CP01UO		Work Order: INMC0651								
Serial Number: 24411047006		Date: 12/03/10								
Customer: Intermec Technologies Corporation		Temperature: 22								
Attendees: none		Humidity: 38%								
Project: None		Barometric Pres.: 30.09								
Tested by: Travis Rychener		Power: 120VAC/60Hz								
		Job Site: EV12								
TEST SPECIFICATIONS		Test Method								
FCC 22H:2010		ANSI/TIA/EIA-603-C-2004								
TEST PARAMETERS										
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3							
COMMENTS										
See comments on data sheet for additional information										
EUT OPERATING MODES										
Transmitting WCDMA Rel99, Cell Band										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #	3	 Signature								
Configuration #	1									
Results	Pass									
										
Freq (MHz)		Azimuth (degrees)	Height (meters)		Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
2536.759		90.0	1.2		V-Horn	PK	1.94E-07	-37.1	-13.0	-24.1
2543.212		209.0	1.2		V-Horn	PK	1.31E-07	-38.8	-13.0	-25.8
1694.732		92.0	1.0		V-Horn	PK	4.98E-08	-43.0	-13.0	-30.0
1691.305		24.0	1.0		H-Horn	PK	2.67E-08	-45.7	-13.0	-32.7

EMC

Out of Band Emissions - Part 22H

EUT:	1000CP01UO	Work Order:	INMC0651
Serial Number:	24411047006	Date:	12/03/10
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	38%
Project:	None	Barometric Pres.:	30.09
Tested by:	Travis Rychener	Power:	120VAC/60Hz
		Job Site:	EV12

TEST SPECIFICATIONS

Test Method

FCC 22H:2010

ANSI/TIA/EIA-603-C-2004

TEST PARAMETERS

Antenna Height(s) (m)	1 - 4	Test Distance (m)	3
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COMMENTS

See comments on data sheet for additional information

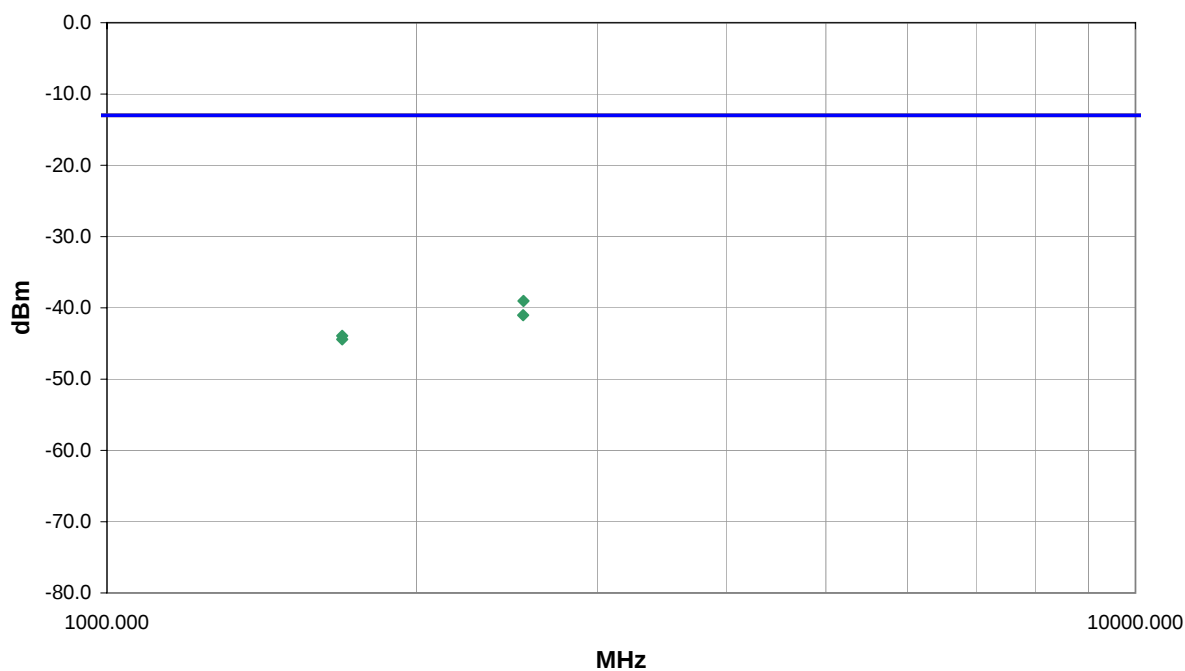
EUT OPERATING MODES

Transmitting UMTS HSPA, Cell Band

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	4	Signature 
Configuration #	1	
Results	Pass	



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
2540.245			76.0	1.2			V-Horn	PK	1.25E-07	-39.0	-13.0	-26.0
2538.912			212.0	1.0			H-Horn	PK	7.89E-08	-41.0	-13.0	-28.0
1693.379			85.0	1.0			H-Horn	PK	4.05E-08	-43.9	-13.0	-30.9
1693.212			227.0	1.0			V-Horn	PK	3.61E-08	-44.4	-13.0	-31.4

Effective Radiated Power (ERP)

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

Transmitting E-GPRS (Edge)
 Transmitting GPRS (GMSK)
 Transmitting UMTS HSPA
 Transmitting WCDMA Rel99

CHANNELS TESTED

GSM Low = Ch. 128, 824.2 MHz
 GSM Mid = Ch.190, 836.6 MHz
 GSM High = Ch. 251, 848.8 MHz
 UMTS Low = Ch.4132, 826.5 MHz
 UMTS Mid = Ch. 4182, 837 MHz
 UMTS High = Ch. 4233, 846.6 MHz

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency	824 MHz	Stop Frequency	849 MHz
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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
Universal Radio Communication Test	Rhode & Schwarz	CMU200.2	121466	NCR	0
Universal Radio Communication Test	Rhode & Schwarz	CMU200.10	BSU	NCR	0
Spectrum Analyzer	Agilent	E4446A	AAQ	1/6/2010	12
Antenna, Biconilog	EMCO	3141	AXE	1/14/2010	13
EV01 Cables	N/A	Bilog Cables	EVA	7/9/2010	13
Antenna, Dipole	ETS	3121C-DB4	ADH	3/6/2009	24
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Power Amplifier (FOR REFERENCE ONLY)	Hewlett-Packard	83017A	APL	NCR	0
Signal Generator	Agilent	E8257D	TGX	12/10/2008	24

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

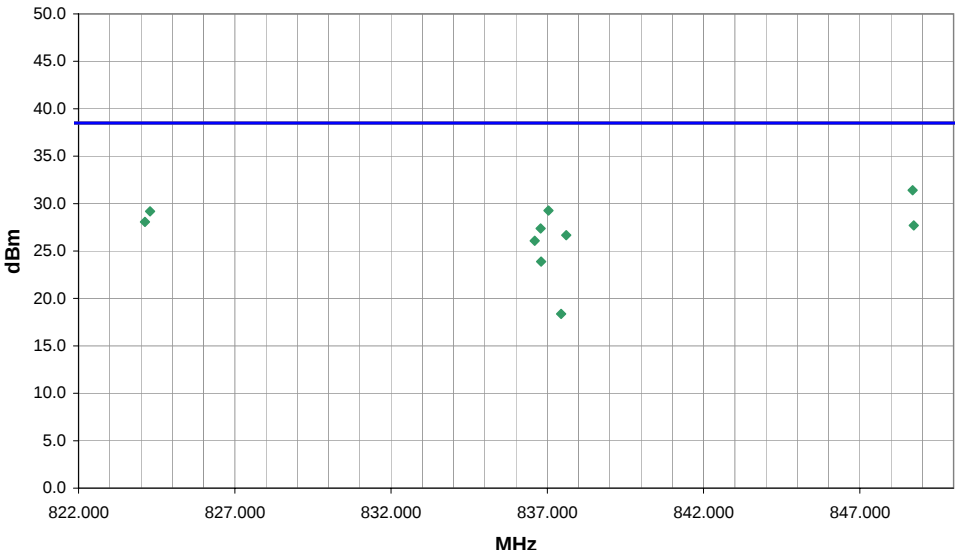
Measurements were made using the bandwidths and detectors specified. No video filter was used.

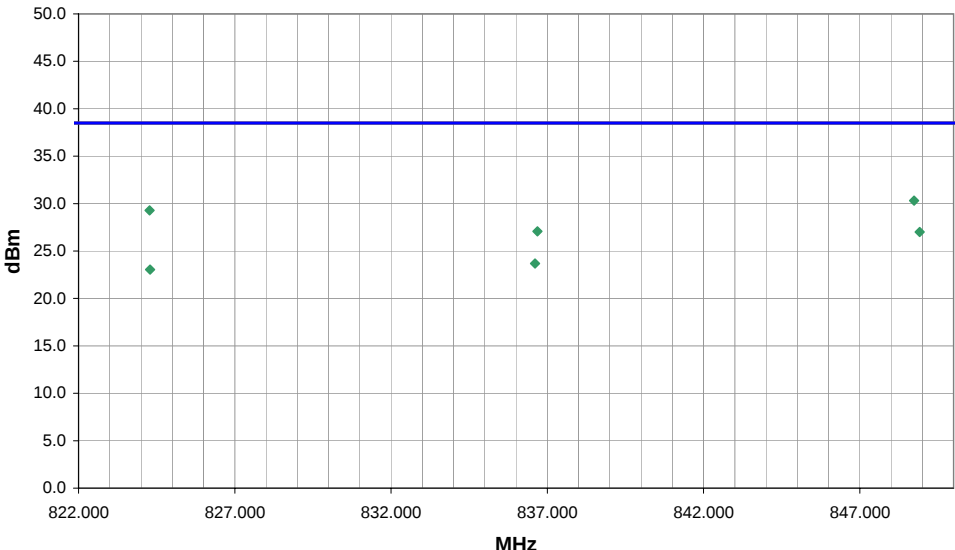
MEASUREMENT UNCERTAINTY

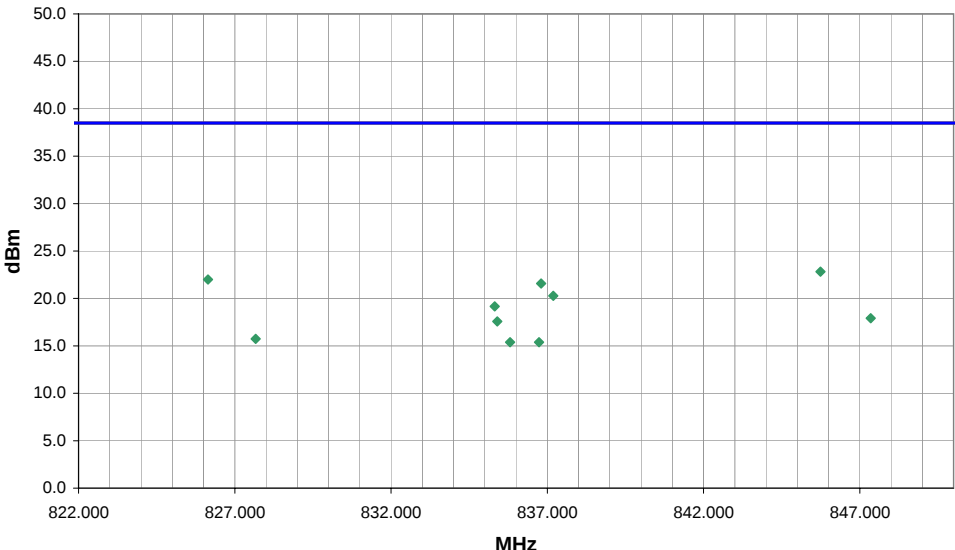
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR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

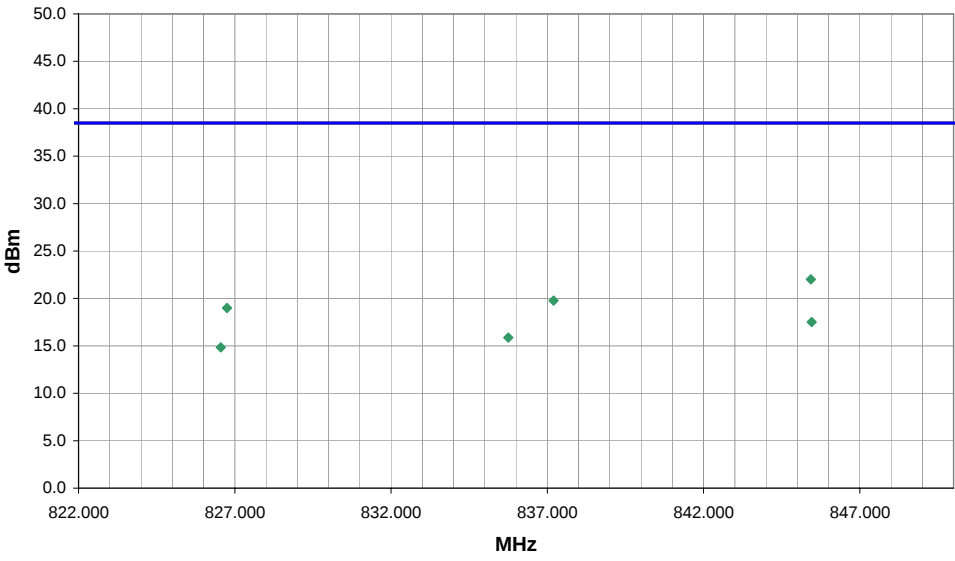
TEST DESCRIPTION

The fundamental emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height (1-4 meters) and polarization. The amplitude and frequency of the highest emission were noted. The EUT was then replaced with a ½ wave dipole that was successively tuned to the highest emission. A signal generator was connected to the dipole, and its output was adjusted to match the level previously noted for each frequency. The output of the signal generator was recorded. The signal generator, amplifier, and cable were then connected to an analyzer and the power output was recorded. By factoring in the dipole antenna gain (dBi), the effective radiated power for the maximum fundamental emission was determined.

NORTHWEST		Effective Radiated Power (ERP)		PSA 2008.07.21 EMI 2008.1.9						
EMC										
EUT: 1000CP01UO		Work Order: INMC0651								
Serial Number: 24411047006		Date: 12/08/10								
Customer: Intermec Technologies Corporation		Temperature: 22								
Attendees: none		Humidity: 38%								
Project: None		Barometric Pres.: 1002.3								
Tested by: Travis Rychener		Power: 120VAC/60Hz		Job Site: EV01						
TEST SPECIFICATIONS		Test Method								
FCC 22H:2010		ANSI/TIA/EIA-603-C-2004								
TEST PARAMETERS										
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3						
COMMENTS										
EUT OPERATING MODES										
Transmitting GPRS(GMSK) 1 Slot up, Cell Band										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #	5									
Configuration #	1									
Results	Pass									
										
Freq (MHz)		Azimuth (degrees)	Height (meters)	Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
848.687		316.0	1.0	H-Bilog	PK	1.39E+00	31.4	38.5	-7.1	High Channel EUT Horizontal
837.037		131.0	1.0	H-Bilog	PK	8.45E-01	29.3	38.5	-9.2	Mid Channel EUT Horizontal
824.290		318.0	1.0	H-Bilog	PK	8.30E-01	29.2	38.5	-9.3	Low Channel EUT Horizontal
824.123		305.0	1.2	V-Bilog	PK	6.41E-01	28.1	38.5	-10.4	Low Channel EUT Vertical
848.727		255.0	1.0	V-Bilog	PK	5.90E-01	27.7	38.5	-10.8	High Channel EUT Vertical
836.787		151.0	2.0	V-Bilog	PK	5.47E-01	27.4	38.5	-11.1	Mid Channel EUT Vertical
837.603		167.0	1.0	H-Bilog	PK	4.65E-01	26.7	38.5	-11.8	Mid Channel EUT Vertical
836.597		170.0	1.8	V-Bilog	PK	4.06E-01	26.1	38.5	-12.4	Mid Channel EUT On Side
836.803		58.0	1.9	V-Bilog	PK	2.44E-01	23.9	38.5	-14.6	Mid Channel EUT Horizontal
837.443		350.0	1.0	H-Bilog	PK	6.87E-02	18.4	38.5	-20.1	Mid Channel EUT On Side

NORTHWEST		Effective Radiated Power (ERP)		PSA 2008.07.21 EMI 2008.1.9						
EMC										
EUT: 1000CP01UO		Work Order: INMC0651								
Serial Number: 24411047006		Date: 12/08/10								
Customer: Intermec Technologies Corporation		Temperature: 22								
Attendees: none		Humidity: 38%								
Project: None		Barometric Pres.: 1002.3								
Tested by: Travis Rychener		Power: 120VAC/60Hz		Job Site: EV01						
TEST SPECIFICATIONS		Test Method								
FCC 22H:2010		ANSI/TIA/EIA-603-C-2004								
TEST PARAMETERS										
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3						
COMMENTS										
EUT OPERATING MODES										
Transmitting E-GPRS(Edge) 1 Slot up, Cell Band										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #	6									
Configuration #	1									
Results	Pass									
										
Freq (MHz)		Azimuth (degrees)	Height (meters)	Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
848.733		321.0	1.0	H-Bilog	PK	1.08E+00	30.3	38.5	-8.2	High Channel EUT Horizontal
824.273		321.0	1.0	H-Bilog	PK	8.49E-01	29.3	38.5	-9.2	Low Channel EUT Horizontal
836.683		94.0	1.0	H-Bilog	PK	5.09E-01	27.1	38.5	-11.4	Mid Channel EUT Horizontal
848.917		89.0	1.1	V-Bilog	PK	5.02E-01	27.0	38.5	-11.5	High Channel EUT Vertical
836.607		160.0	1.2	V-Bilog	PK	2.33E-01	23.7	38.5	-14.8	Mid Channel EUT Vertical
824.287		140.0	1.1	V-Bilog	PK	2.01E-01	23.0	38.5	-15.5	Low Channel EUT Vertical

NORTHWEST		Effective Radiated Power (ERP)		PSA 2008.07.21 EMI 2008.1.9						
EMC										
EUT: 1000CP01UO				Work Order: INMC0651						
Serial Number: 24411047006				Date: 12/08/10						
Customer: Intermec Technologies Corporation				Temperature: 22						
Attendees: none				Humidity: 38%						
Project: None				Barometric Pres.: 1002.3						
Tested by: Travis Rychener		Power: 120VAC/60Hz		Job Site: EV01						
TEST SPECIFICATIONS				Test Method						
FCC 22H:2010				ANSI/TIA/EIA-603-C-2004						
TEST PARAMETERS										
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3						
COMMENTS										
EUT OPERATING MODES										
Transmitting WCDMA Rel99, Cell Band										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #		7		 Signature						
Configuration #		1								
Results		Pass								
										
Freq (MHz)		Azimuth (degrees)	Height (meters)	Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
845.742		294.0	1.0	H-Bilog	PK	1.91E-01	22.8	38.5	-15.7	High Channel EUT Horizontal
826.142		298.0	1.0	H-Bilog	PK	1.58E-01	22.0	38.5	-16.5	Low Channel EUT Horizontal
836.800		324.0	1.0	H-Bilog	PK	1.44E-01	21.6	38.5	-16.9	Mid Channel EUT Horizontal
837.192		324.0	1.0	H-Bilog	PK	1.06E-01	20.3	38.5	-18.2	Mid Channel EUT On Side
835.317		103.0	1.0	H-Bilog	PK	8.26E-02	19.2	38.5	-19.3	Mid Channel EUT Vertical
847.350		79.0	1.2	V-Bilog	PK	6.18E-02	17.9	38.5	-20.6	High Channel EUT Vertical
835.400		225.0	1.1	V-Bilog	PK	5.73E-02	17.6	38.5	-20.9	Mid Channel EUT Vertical
827.667		85.0	1.2	V-Bilog	PK	3.75E-02	15.7	38.5	-22.8	Low Channel EUT Vertical
835.808		348.0	1.3	V-Bilog	PK	3.45E-02	15.4	38.5	-23.1	Mid Channel EUT Horizontal
836.733		246.0	1.3	V-Bilog	PK	3.45E-02	15.4	38.5	-23.1	Mid Channel EUT On Side

NORTHWEST		Effective Radiated Power (ERP)		PSA 2008.07.21 EMI 2008.1.9						
EMC										
EUT: 1000CP01UO		Work Order: INMC0651								
Serial Number: 24411047006		Date: 12/08/10								
Customer: Intermec Technologies Corporation		Temperature: 22								
Attendees: none		Humidity: 38%								
Project: None		Barometric Pres.: 1002.3								
Tested by: Travis Rychener		Power: 120VAC/60Hz		Job Site: EV01						
TEST SPECIFICATIONS		Test Method								
FCC 22H:2010		ANSI/TIA/EIA-603-C-2004								
TEST PARAMETERS										
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3						
COMMENTS										
EUT OPERATING MODES										
Transmitting UMTS HSPA, Cell Band										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #	8	 Signature								
Configuration #	1									
Results	Pass									
										
Freq (MHz)		Azimuth (degrees)	Height (meters)	Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
845.433		292.0	1.0	H-Bilog	PK	1.59E-01	22.0	38.5	-16.5	High Channel EUT Horizontal
837.200		292.0	1.0	H-Bilog	PK	9.48E-02	19.8	38.5	-18.7	Mid Channel EUT Horizontal
826.750		299.0	1.1	H-Bilog	PK	7.93E-02	19.0	38.5	-19.5	High Channel EUT Horizontal
845.458		146.0	1.2	V-Bilog	PK	5.63E-02	17.5	38.5	-21.0	High Channel EUT Vertical
835.750		153.0	1.1	V-Bilog	PK	3.87E-02	15.9	38.5	-22.6	Mid Channel EUT Vertical
826.550		157.0	1.2	V-Bilog	PK	3.05E-02	14.8	38.5	-23.7	Low Channel EUT Vertical

Out of Band Emissions - Part 24E

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

Transmitting E-GPRS (Edge), PCS Band
Transmitting GPRS (GMSK), PCS Band
Transmitting UMTS HSPA PCS Band
Transmitting WCDMA Rel99, PCS Band

CHANNELS TESTED

GSM Low = Ch. 512, 1850.2 MHz
GSM Mid = Ch. 661, 1880 MHz
GSM High = Ch. 810, 1909.8 MHz
UMTS Low = Ch. 9262, 1852.4 MHz
UMTS Mid = Ch. 9400, 1880 MHz
UMTS High = Ch. 9538, 1907.6 MHz

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency	30MHz	Stop Frequency	26GHz
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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
Universal Radio Communication Test	Rhode & Schwarz	CMU200.2	121466	NCR	0
Universal Radio Communication Test	Rhode & Schwarz	CMU200.10	BSU	NCR	0
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0
Cable	ESM Cable Corp.	KMKM-72	EVY	9/15/2010	13
Spectrum Analyzer	Agilent	E4440A	AAX	5/14/2010	12
Antenna, Horn	ETS	3160-08	AIA	NCR	0
EV12 Cables	N/A	Standard Gain Horn Cables	EVU	7/14/2010	13
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVH	7/14/2010	13
Antenna, Horn	ETS	3115	AIB	9/8/2010	24
EV12 Cables	N/A	Double Ridge Horn Cables	EVT	11/22/2010	13
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Antenna, Biconilog	EMCO	3141	AXG	2/15/2010	13
EV12 Cables	N/A	Bilog Cables	EVS	7/14/2010	13
Pre-Amplifier	Miteq	AM-1616-1000	AVM	7/14/2010	13
Antenna, Dipole	ETS	3121C-DB4	ADH	3/6/2009	24
Antenna, Horn	EMCO	3115	AHE	10/22/2009	24
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	24

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.

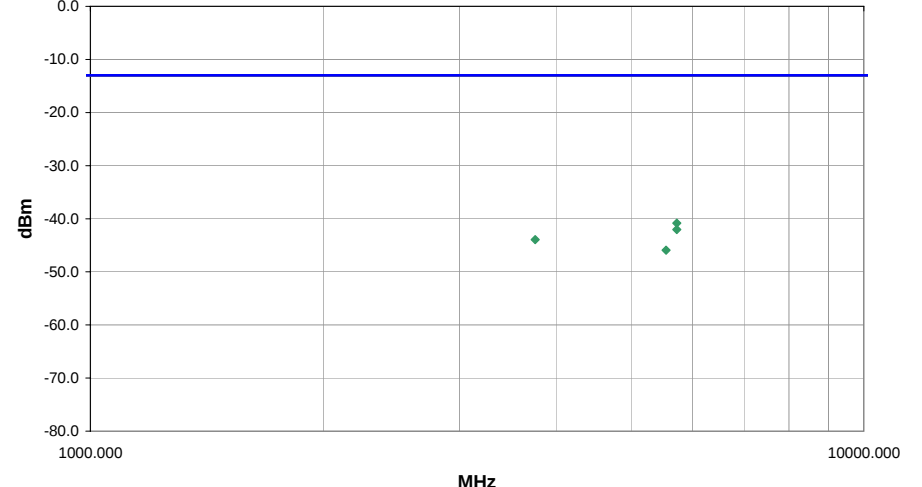
TEST DESCRIPTION

The highest gain antenna to be used with the EUT was tested for final measurements. 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. 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 axes, 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.

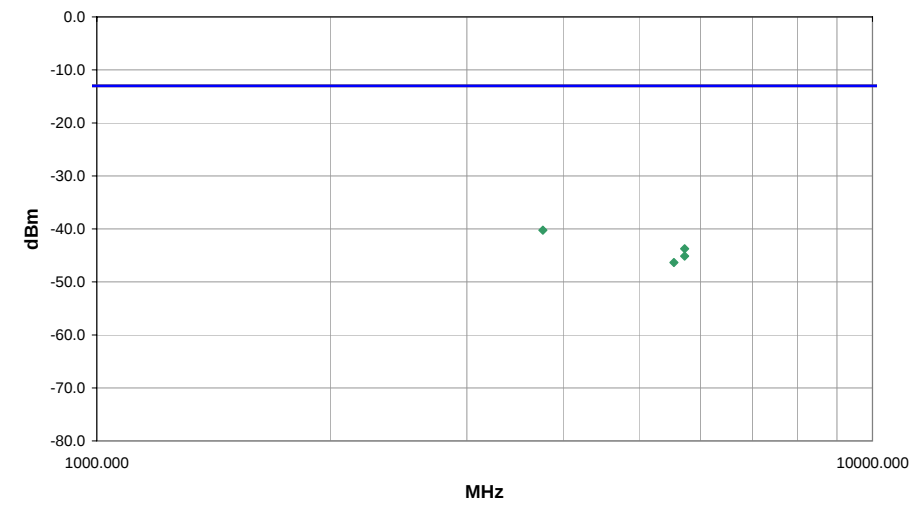
For licensed transmitters, the FCC references TIA/EIA-603 as the measurement procedure standard. TIA/EIA-603 Section 2.2.12 describes a method for measuring radiated spurious emissions that utilizes an antenna substitution method:

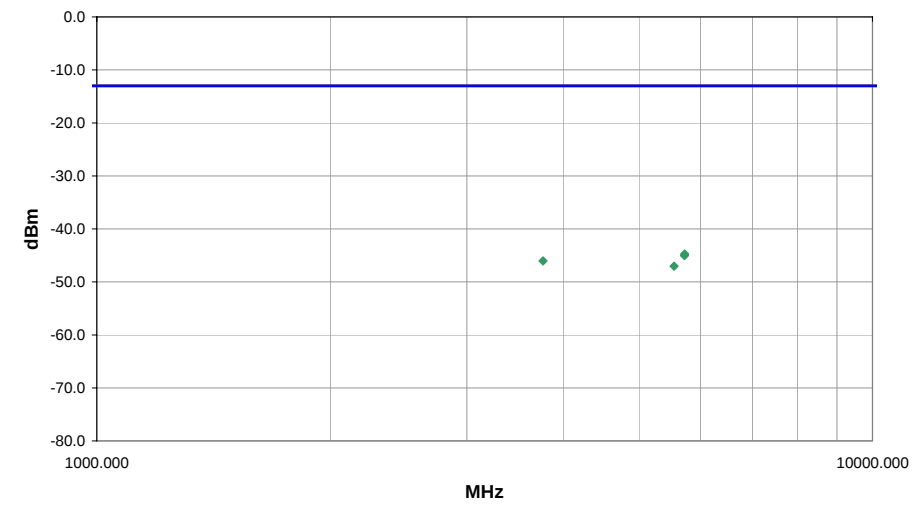
At an approved test site, the transmitter is placed on a remotely controlled turntable, and the measurement antenna is placed 3 meters from the transmitter. The turntable azimuth is varied to maximize the level of spurious emissions. The height of the measurement antenna is also varied from 1 to 4 meters. The amplitude and frequency of the highest emissions are noted. The transmitter is then replaced with a ½ wave dipole that is successively tuned to each of the highest spurious emissions for emissions below 1 GHz, and a horn antenna for emissions above 1 GHz. A signal generator is connected to the dipole (horn antenna for frequencies above 1 GHz), and its output is adjusted to match the level previously noted for each frequency. The output of the signal generator is recorded, and by factoring in the cable loss to the antenna and its gain; the power (dBm) into an ideal ½ wave dipole antenna is determined for each radiated spurious emission.

For the purposes of preliminary measurements, the field strength of the spurious emissions can be measured and compared with a 3 meter limit. The 3 meter limit was calculated to be 82.5 dBuV/m at 3 meters. The final measurements must be made utilizing the substitution method described above.

NORTHWEST		PSA 2008.07.21	
EMI		EMI 2008.1.9	
Out of Band Emissions - Part 24E			
EUT: 1000CP01UO		Work Order: INMC0651	
Serial Number: 24411047006		Date: 12/03/10	
Customer: Intermec Technologies Corporation		Temperature: 22	
Attendees: none		Humidity: 38%	
Project: None		Barometric Pres.: 30.09	
Tested by: Travis Rychener		Power: 120VAC/60Hz	
Job Site: EV12			
TEST SPECIFICATIONS			
FCC 24E:2010		Test Method	
		ANSI/TIA/EIA-603-C-2004	
TEST PARAMETERS			
Antenna Height(s) (m)		1 - 4	
Test Distance (m)		3	
COMMENTS			
See Comments on data sheet for additional information			
EUT OPERATING MODES			
Transmitting GPRS(GMSK) 4 Slot up, PCS Band			
DEVIATIONS FROM TEST STANDARD			
No deviations.			
Run #		6	
Configuration #		1	
Results		Pass	
Signature 			
			
MHz			
dBm			
Freq (MHz)			
Azimuth (degrees)			
Height (meters)			
Polarity			
Detector			
EIRP (Watts)			
EIRP (dBm)			
Spec. Limit (dBm)			
Compared to Spec. (dB)			
Comments			
5729.547			
5729.590			
3759.970			
5549.783			

E-GPRS(EDGE)High Channel, EUT On Side
E-GPRS(EDGE)High Channel, EUT Horizontal
E-GPRS(EDGE)Mid Channel, EUT Horizontal
E-GPRS(EDGE)Mid Channel, EUT On Side

NORTHWEST		PSA 2008.07.21								
EMI		EMI 2008.1.9								
Out of Band Emissions - Part 24E										
EUT: 1000CP01UO		Work Order: INMC0651								
Serial Number: 24411047006		Date: 12/03/10								
Customer: Intermec Technologies Corporation		Temperature: 22								
Attendees: none		Humidity: 38%								
Project: None		Barometric Pres.: 30.09								
Tested by: Travis Rychener		Power: 120VAC/60Hz								
		Job Site: EV12								
TEST SPECIFICATIONS		Test Method								
FCC 24E:2010		ANSI/TIA/EIA-603-C-2004								
TEST PARAMETERS										
Antenna Height(s) (m)		Test Distance (m)								
1 - 4		3								
COMMENTS										
See Comments on data sheet for additional information										
EUT OPERATING MODES										
Transmitting GPRS(GMSK) 4 Slot up, PCS Band										
DEVIATIONS FROM TEST STANDARD										
No deviations.										
Run #	7	Signature 								
Configuration #	1									
Results	Pass									
										
Freq (MHz)		Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
3758.683		328.0	1.3	H-Horn	PK	9.49E-08	-40.2	-13.0	-27.2	Rel99 Mid Channel, EUT Horizontal
5725.550		259.0	1.2	H-Horn	PK	4.24E-08	-43.7	-13.0	-30.7	Rel 99 High Channel, EUT Horizontal
5726.000		337.0	1.3	V-Horn	PK	3.07E-08	-45.1	-13.0	-32.1	Rel 99High Channel, EUT On Side
5547.317		239.0	1.0	V-Horn	PK	2.33E-08	-46.3	-13.0	-33.3	Rel 99Mid Channel, EUT On Side

NORTHWEST		PSA 2008.07.21																																																																							
EMI		EMI 2008.1.9																																																																							
Out of Band Emissions - Part 24E																																																																									
EUT: 1000CP01UO		Work Order: INMC0651																																																																							
Serial Number: 24411047006		Date: 12/03/10																																																																							
Customer: Intermec Technologies Corporation		Temperature: 22																																																																							
Attendees: none		Humidity: 38%																																																																							
Project: None		Barometric Pres.: 30.09																																																																							
Tested by: Travis Rychener		Power: 120VAC/60Hz																																																																							
Job Site: EV12																																																																									
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FCC 24E:2010		ANSI/TIA/EIA-603-C-2004																																																																							
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Results		Pass																																																																							
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<table><thead><tr><th>Freq (MHz)</th><th></th><th></th><th>Azimuth (degrees)</th><th>Height (meters)</th><th></th><th></th><th>Polarity</th><th>Detector</th><th>EIRP (Watts)</th><th>EIRP (dBm)</th><th>Spec. Limit (dBm)</th><th>Compared to Spec. (dB)</th><th>Comments</th></tr></thead><tbody><tr><td>5726.300</td><td></td><td></td><td>4.0</td><td>1.2</td><td></td><td></td><td>V-Horn</td><td>PK</td><td>3.37E-08</td><td>-44.7</td><td>-13.0</td><td>-31.7</td><td>UMTS HSPA High Channel, EUT On Side</td></tr><tr><td>5724.467</td><td></td><td></td><td>137.0</td><td>1.6</td><td></td><td></td><td>H-Horn</td><td>PK</td><td>3.14E-08</td><td>-45.0</td><td>-13.0</td><td>-32.0</td><td>UMTS HSPA High Channel, EUT Horizontal</td></tr><tr><td>3759.983</td><td></td><td></td><td>339.0</td><td>1.3</td><td></td><td></td><td>H-Horn</td><td>PK</td><td>2.50E-08</td><td>-46.0</td><td>-13.0</td><td>-33.0</td><td>UMTS HSPA High Channel, EUT Horizontal</td></tr><tr><td>5548.200</td><td></td><td></td><td>333.0</td><td>1.0</td><td></td><td></td><td>V-Horn</td><td>PK</td><td>1.98E-08</td><td>-47.0</td><td>-13.0</td><td>-34.0</td><td>UMTS HSPA High Channel, EUT Horizontal</td></tr></tbody></table>				Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments	5726.300			4.0	1.2			V-Horn	PK	3.37E-08	-44.7	-13.0	-31.7	UMTS HSPA High Channel, EUT On Side	5724.467			137.0	1.6			H-Horn	PK	3.14E-08	-45.0	-13.0	-32.0	UMTS HSPA High Channel, EUT Horizontal	3759.983			339.0	1.3			H-Horn	PK	2.50E-08	-46.0	-13.0	-33.0	UMTS HSPA High Channel, EUT Horizontal	5548.200			333.0	1.0			V-Horn	PK	1.98E-08	-47.0	-13.0	-34.0	UMTS HSPA High Channel, EUT Horizontal
Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments																																																												
5726.300			4.0	1.2			V-Horn	PK	3.37E-08	-44.7	-13.0	-31.7	UMTS HSPA High Channel, EUT On Side																																																												
5724.467			137.0	1.6			H-Horn	PK	3.14E-08	-45.0	-13.0	-32.0	UMTS HSPA High Channel, EUT Horizontal																																																												
3759.983			339.0	1.3			H-Horn	PK	2.50E-08	-46.0	-13.0	-33.0	UMTS HSPA High Channel, EUT Horizontal																																																												
5548.200			333.0	1.0			V-Horn	PK	1.98E-08	-47.0	-13.0	-34.0	UMTS HSPA High Channel, EUT Horizontal																																																												

Effective Radiated Power (EIRP)

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

Transmitting E-GPRS (Edge), PCS Band
Transmitting GPRS (GMSK), PCS Band
Transmitting UMTS HSPA PCS Band
Transmitting WCDMA Rel99, PCS Band

CHANNELS TESTED

GSM Low = Ch. 512, 1850.2 MHz
GSM Mid = Ch. 661, 1880 MHz
GSM High = Ch. 810, 1909.8 MHz
UMTS Low = Ch. 9262, 1852.4 MHz
UMTS Mid = Ch. 9400, 1880 MHz
UMTS High = Ch. 9538, 1907.6 MHz

POWER SETTINGS INVESTIGATED

120VAC/60Hz

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
Universal Radio Communication Tester	Rhode & Schwarz	CMU200.2	121466	NCR	0
Universal Radio Communication Tester	Rhode & Schwarz	CMU200.10	BSU	NCR	0
Spectrum Analyzer	Agilent	E4446A	AAQ	1/6/2010	12
Attenuator	S.M. Electronics	SA18N5W-06	AWP	2/15/2010	13
Antenna, Horn	EMCO	3115	AHC	7/8/2010	24
EV01 Cables	N/A	Double Ridge Horn Cables	EVB	7/9/2010	13
Antenna, Horn	EMCO	3115	AHE	10/22/2009	24
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	24

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.

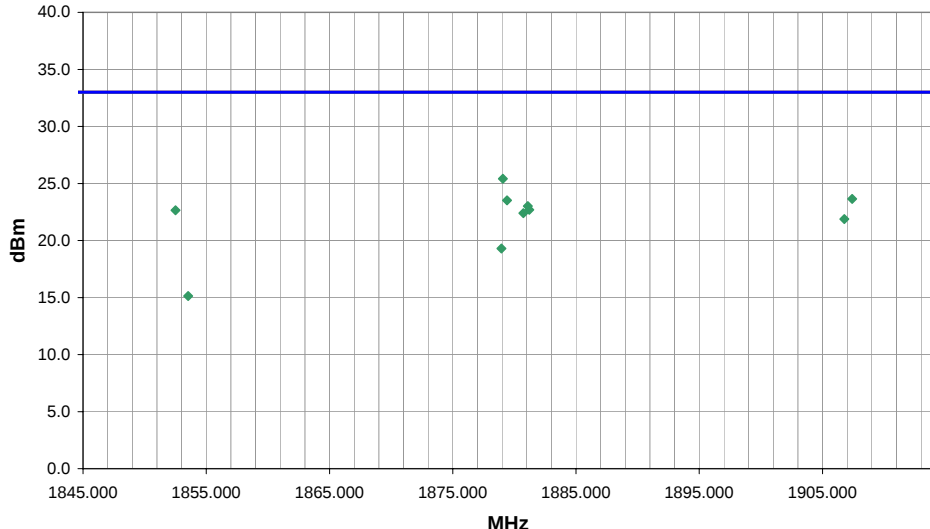
MEASUREMENT UNCERTAINTY

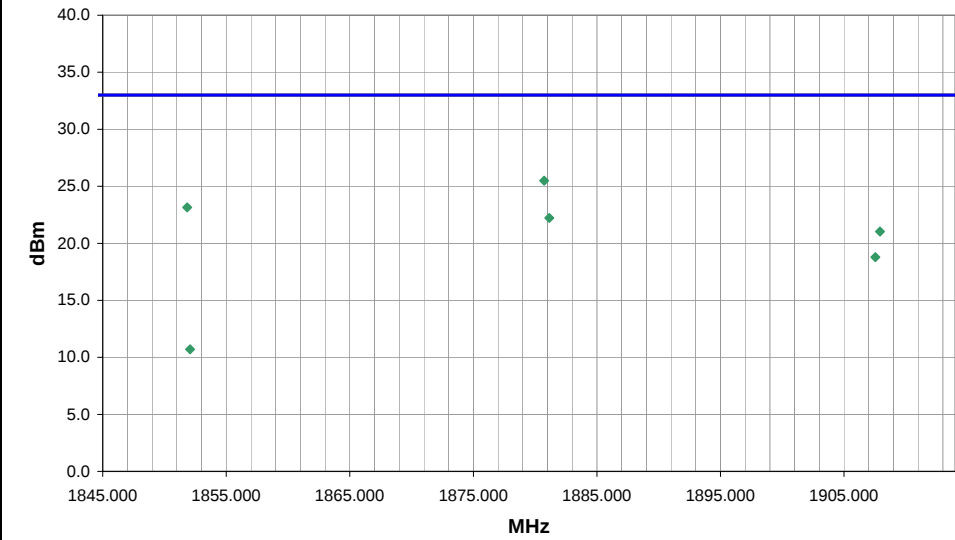
A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR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

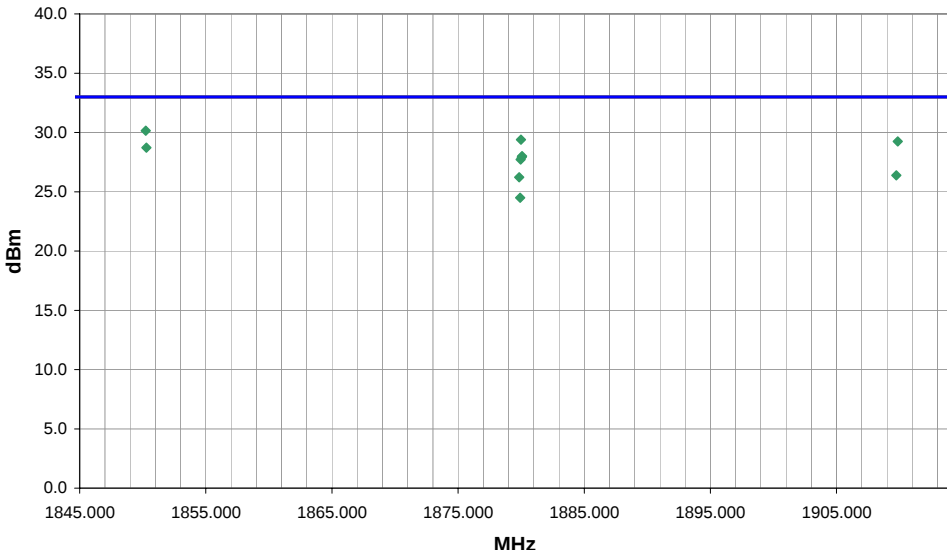
TEST DESCRIPTION

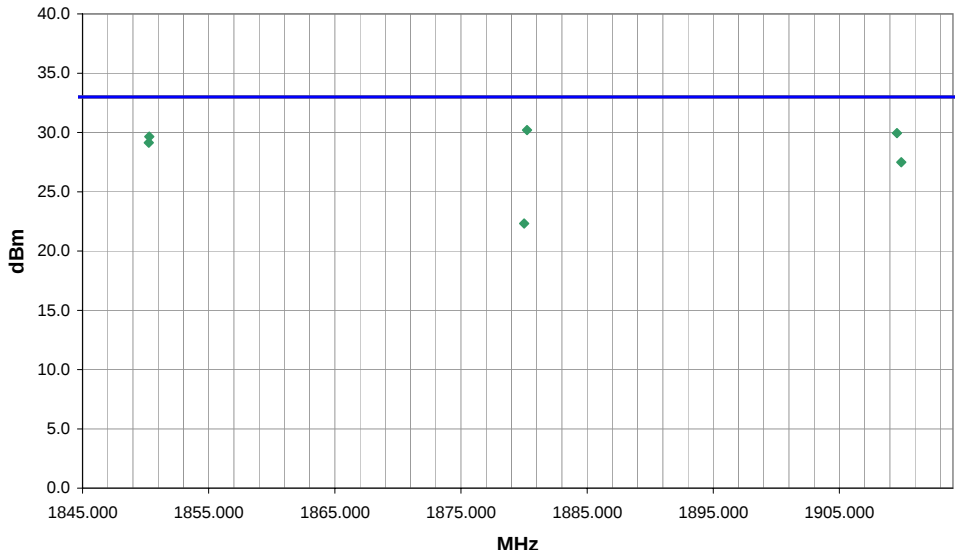
The fundamental emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height (1-4 meters) and polarization and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009)

The antennas to be used with the EUT were tested. The EUT was transmitting while set at the lowest channel, a middle channel, and the highest channel available. The amplitude and frequency were noted. The EUT was then replaced with a horn antenna. A signal generator was connected to the horn antenna 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 gain (dBi) of the horn antenna the effective radiated power for each emission was determined.

NORTHWEST		Effective Radiated Power (EIRP)		PSA 2008.07.21 EMI 2008.1.9								
EMC												
EUT: 1000CP01UO		Work Order: INMC0651										
Serial Number: 24411047006		Date: 12/06/10										
Customer: Intermec Technologies Corporation		Temperature: 22										
Attendees: none		Humidity: 38%										
Project: None		Barometric Pres.: 1002.3										
Tested by: Travis Rychener		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS		Test Method										
FCC 24E:2010		ANSI/TIA/EIA-603-C-2004										
TEST PARAMETERS												
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3								
COMMENTS												
EUT OPERATING MODES												
Transmitting WCDMA Rel99, PCS Band												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #	1		 Signature									
Configuration #	1											
Results	Pass											
												
Freq (MHz)			Azimuth (degrees)	Height (meters)		Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
1879.067			56.0	1.1		V-Horn	PK	3.48E-01	25.4	33.0	-7.6	Mid Channel, EUT On Side
1907.408			223.0	1.5		H-Horn	PK	2.31E-01	23.6	33.0	-9.4	High Channel, EUT Vertical
1879.408			131.0	1.1		V-Horn	PK	2.25E-01	23.5	33.0	-9.5	Mid Channel, EUT Horizontal
1881.092			293.0	1.2		V-Horn	PK	2.00E-01	23.0	33.0	-10.0	Mid Channel, EUT Vertical
1881.208			166.0	1.1		H-Horn	PK	1.86E-01	22.7	33.0	-10.3	Mid Channel, EUT Vertical
1852.500			212.0	1.4		H-Horn	PK	1.84E-01	22.7	33.0	-10.4	Low Channel, EUT Vertical
1880.725			211.0	1.1		H-Horn	PK	1.74E-01	22.4	33.0	-10.6	Mid Channel, EUT Horizontal
1906.775			100.0	1.2		V-Horn	PK	1.54E-01	21.9	33.0	-11.1	High Channel, EUT Horizontal
1878.942			85.0	1.1		H-Horn	PK	8.51E-02	19.3	33.0	-13.7	Mid Channel, EUT On Side
1853.525			247.0	3.0		V-Horn	PK	3.26E-02	15.1	33.0	-17.9	Low Channel, EUT Horizontal

NORTHWEST		Effective Radiated Power (EIRP)		PSA 2008.07.21 EMI 2008.1.9																																																																																												
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Project: None		Barometric Pres.: 1002.3																																																																																														
Tested by: Travis Rychener		Power: 120VAC/60Hz		Job Site: EV01																																																																																												
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Antenna Height(s) (m)		1 - 4		Test Distance (m) 3																																																																																												
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Run #		2		 Signature																																																																																												
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Results		Pass																																																																																														
																																																																																																
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Freq (MHz)			Azimuth (degrees)	Height (meters)		Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments																																																																																				
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1881.150			94.0	1.2		V-Horn	PK	1.67E-01	22.2	33.0	-10.8	Mid Channel, EUT Horizontal																																																																																				
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NORTHWEST		PSA 2008.07.21											
EMC		EMI 2008.1.9											
Effective Radiated Power (EIRP)													
EUT: 1000CP01UO		Work Order: INMC0651											
Serial Number: 24411047006		Date: 12/06/10											
Customer: Intermec Technologies Corporation		Temperature: 22											
Attendees: none		Humidity: 38%											
Project: None		Barometric Pres.: 1002.3											
Tested by: Travis Rychener		Power: 120VAC/60Hz	Job Site: EV01										
TEST SPECIFICATIONS		Test Method											
FCC 24E:2010		ANSI/TIA/EIA-603-C-2004											
TEST PARAMETERS													
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3										
COMMENTS													
EUT OPERATING MODES													
Transmitting GPRS (GMSK), PCS Band													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
Run #	3	 Signature											
Configuration #	1												
Results	Pass												
													
Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
1850.233			220.0	1.5			H-Horn	PK	1.04E+00	30.2	33.0	-2.9	High Channel, EUT Vertical
1879.977			223.0	1.2			H-Horn	PK	8.71E-01	29.4	33.0	-3.6	Mid Channel, EUT Vertical
1909.853			237.0	1.1			H-Horn	PK	8.40E-01	29.2	33.0	-3.8	High Channel, EUT Vertical
1850.287			80.0	1.2			V-Horn	PK	7.44E-01	28.7	33.0	-4.3	Low Channel, EUT On Side
1880.067			67.0	1.1			H-Horn	PK	6.31E-01	28.0	33.0	-5.0	Mid Channel, EUT Horizontal
1880.047			72.0	1.2			V-Horn	PK	6.19E-01	27.9	33.0	-5.1	Mid Channel, EUT On Side
1879.957			108.0	1.1			V-Horn	PK	5.91E-01	27.7	33.0	-5.3	Mid Channel, EUT Horizontal
1909.737			133.0	1.5			V-Horn	PK	4.35E-01	26.4	33.0	-6.6	High Channel, EUT On Side
1879.843			225.0	1.2			V-Horn	PK	4.19E-01	26.2	33.0	-6.8	Mid Channel, EUT Vertical
1879.923			172.0	1.0			H-Horn	PK	2.82E-01	24.5	33.0	-8.5	Mid Channel, EUT On Side

NORTHWEST		Effective Radiated Power (EIRP)		PSA 2008.07.21 EMI 2008.1.9								
EMC												
EUT:	1000CP01UO	Work Order:		INMC0651								
Serial Number:	24411047006	Date:		12/06/10								
Customer:	Intermec Technologies Corporation	Temperature:		22								
Attendees:	none	Humidity:		38%								
Project:	None	Barometric Pres.:		1002.3								
Tested by:	Travis Rychener	Power:	120VAC/60Hz	Job Site:	EV01							
TEST SPECIFICATIONS			Test Method									
FCC 24E:2010			ANSI/TIA/EIA-603-C-2004									
TEST PARAMETERS												
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3									
COMMENTS												
EUT OPERATING MODES												
Transmitting E-GPRS (Edge), PCS Band												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #	4	 Signature										
Configuration #	1											
Results	Pass											
												
Freq (MHz)			Azimuth (degrees)	Height (meters)		Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
1880.233			225.0	1.2		H-Horn	PK	1.05E+00	30.2	33.0	-2.8	Mid Channel, EUT Vertical
1909.557			219.0	1.1		H-Horn	PK	9.87E-01	29.9	33.0	-3.1	High Channel, EUT Vertical
1850.283			209.0	1.2		H-Horn	PK	9.23E-01	29.7	33.0	-3.4	Low Channel, EUT Vertical
1850.257			67.0	1.2		V-Horn	PK	8.18E-01	29.1	33.0	-3.9	Low Channel, EUT On Side
1909.903			88.0	1.1		V-Horn	PK	5.60E-01	27.5	33.0	-5.5	High Channel, EUT On Side
1880.010			192.0	1.1		V-Horn	PK	1.71E-01	22.3	33.0	-10.7	Mid Channel, EUT On Side