Intermec Technologies Corporation

802UIAG

June 03, 2005

Report No. ITRM0066

Report Prepared By

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

EMC Test Report

NORTHWEST EMC

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Issue Date: June 03, 2005
Intermec Technologies Corporation
Model: 802UIAG

Emissions			
Specification	**Test Method**	**Pass**	**Fail**
FCC 15.207 AC Powerline Conducted Emissions:2004	ANSI C63.4:2003	☒	☐
FCC 15.209(a) Radiated Emissions:2005-04	ANSI C63.4:2003	☒	☐
FCC 15.407(a)(1)-(3) Emission Bandwidth:2005-04	ANSI C63.4:2003	☒	☐
FCC 15.407(a)(1)-(3) Peak Transmit Power:2005-04	ANSI C63.4:2003	☒	☐
FCC 15.407(a)(1)-(3) Power Spectral Density:2005-04	ANSI C63.4:2003	☒	☐
FCC 15.407(a)(6) Peak Excursion of Mod. Envelope:2005-04	ANSI C63.4:2003	☒	☐
FCC 15.407(b)(1)-(6) Spurious Radiated Emissions:2005-04	ANSI C63.4:2003	☒	☐
FCC 15.407(g) Frequency Stability:2005-04	FCC Part 2.1055:2004	☒	☐

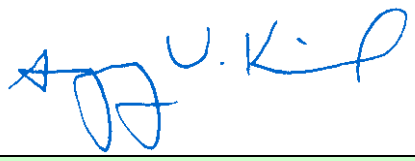
Modifications made to the product

See the Modifications section of this report

Test Facility

- The measurement facility used to collect the data is located at:
  Northwest EMC, Inc.; 22975 NW Evergreen Parkway, Suite 400; Hillsboro, OR 97124
  Phone: (503) 844-4066 Fax: 844-3826
  This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada.

Approved By:



Greg Kiemel, Director of Engineering

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		

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

200629-0
200630-0
200676-0

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

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

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

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

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

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

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

VCCI: Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. *(Registration Numbers. - Hillsboro: C-1071 and R-1025, Irvine: C-2094 and R-1943, Newberg: C-1877 and R-1760, Sultan: R-871, C-1784 and R-1761).*

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

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

SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/scope.asp

What is measurement uncertainty?

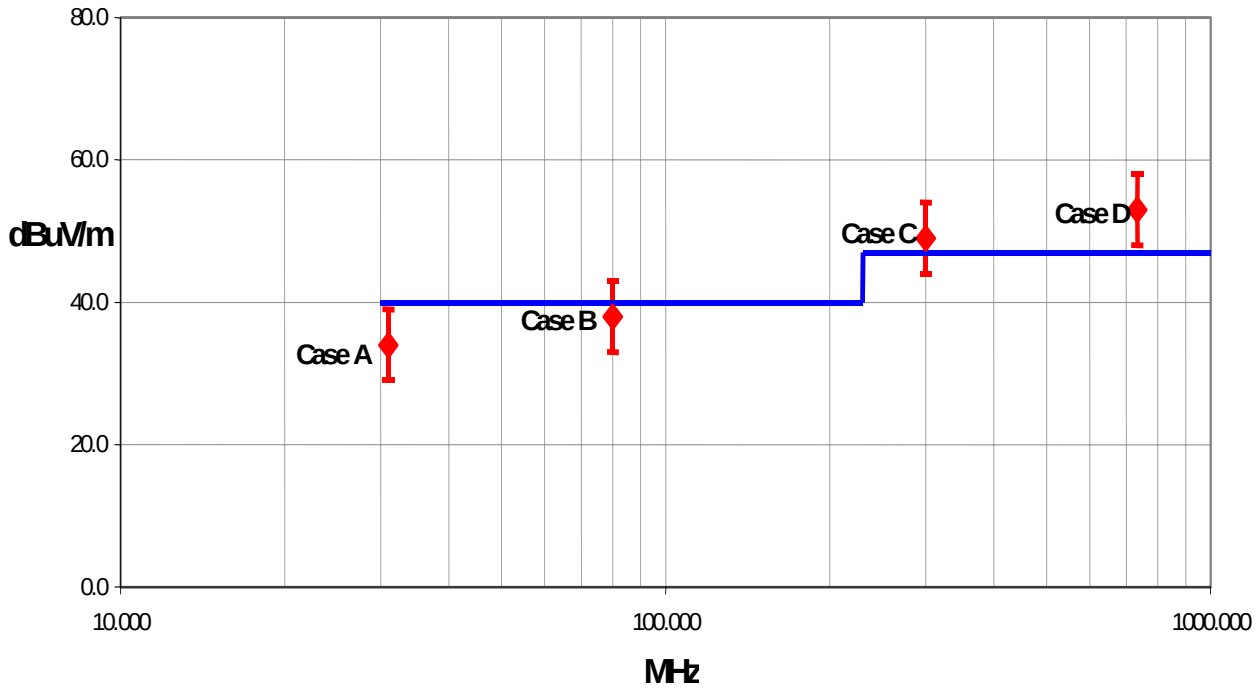
When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. The following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

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

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

How might measurement uncertainty be applied to test results?

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



Test Result Scenarios:
Case A: Product complies.
Case B: Product conditionally complies. It is not possible to say with 95% confidence that the product complies.
Case C: Product conditionally does not comply. It is not possible to say with 95% confidence that the product does not comply.
Case D: Product does not comply.

Radiated Emissions ≤ 1 GHz		Value (dB)					
	Probability Distribution	Biconical Antenna		Log Periodic Antenna		Dipole Antenna	
Test Distance		3m	10m	3m	10m	3m	10m
Combined standard uncertainty $u_c(y)$	normal	+ 1.86 - 1.88	+ 1.82 - 1.87	+ 2.23 - 1.41	+ 1.29 - 1.26	+ 1.31 - 1.27	+ 1.25 - 1.25
Expanded uncertainty ***U*** (level of confidence ≈ 95%)	normal (k=2)	+ 3.72 - 3.77	+ 3.64 - 3.73	+ 4.46 -2.81	+ 2.59 - 2.52	+ 2.61 - 2.55	+ 2.49 - 2.49

Radiated Emissions > 1 GHz	Value (dB)		
	Probability Distribution	Without High Pass Filter	With High Pass Filter
Combined standard uncertainty $u_c(y)$	normal	+ 1.29 - 1.25	+ 1.38 - 1.35
Expanded uncertainty ***U*** (level of confidence ≈ 95%)	normal (k=2)	+ 2.57 - 2.51	+ 2.76 - -2.70

Conducted Emissions		
	Probability Distribution	Value (+/- dB)
Combined standard uncertainty ***uc(y)***	normal	1.48
Expanded uncertainty ***U*** (level of confidence ≈ 95 %)	normal (k = 2)	2.97

Radiated Immunity		
	Probability Distribution	Value (+/- dB)
Combined standard uncertainty ***uc(y)***	normal	1.05
Expanded uncertainty ***U*** (level of confidence ≈ 95 %)	normal (k = 2)	2.11

Conducted Immunity		
	Probability Distribution	Value (+/- dB)
Combined standard uncertainty ***uc(y)***	normal	1.05
Expanded uncertainty ***U*** (level of confidence ≈ 95 %)	normal (k = 2)	2.10

Legend

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

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

California

Orange County Facility

Labs OC01 – OC13

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

Oregon

Evergreen Facility

Labs EV01 – EV10

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

Oregon

Trails End Facility

Labs TE01 – TE03

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

Washington

Sultan Facility

Labs SU01 – SU07

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

Party Requesting the Test	
Company Name:	Intermec Technologies Corporation
Address:	550 Second St. SE
City, State, Zip:	Cedar Rapids, IA 52401-2023
Test Requested By:	Scott Holub
Model:	802UIAG
First Date of Test:	3-08-2005
Last Date of Test:	5-02-2005
Receipt Date of Samples:	3-07-2005
Equipment Design Stage:	Production
Equipment Condition:	No visual damage.

Information Provided by the Party Requesting the Test

Clocks/Oscillators:	Not provided.
I/O Ports:	Not Provided.

Functional Description of the EUT (Equipment Under Test):
802.11(a)/(b)/(g) radio in CK60 hand-held computer.

Client Justification for EUT Selection:
Not Provided

Client Justification for Test Selection:
Testing was performed to demonstrate compliance with the FCC Part 15E rules for an intentional radiator. This test also demonstrated compliance with FCC Part 15.407 emissions limits while the co-located radios were transmitting simultaneously. Testing was performed with the EUT collocated with an Intermec Technologies, Bluetooth enabled PB42 Printer. Each radio transmits through its own antenna.

EUT Photo

Equipment modifications					
Item	Test	Date	Modification	Note	Disposition of EUT
1	Spurious Radiated Emissions	03/29/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
2	AC Powerline Conducted Emissions	03/29/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
3	Emissions Bandwidth	04/15/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
4	Conducted Spurious Emissions of transmitter and receiver	04/19/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
5	Frequency Stability	04/21/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
6	Peak Transmit Power	05/02/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
7	Peak Power Spectral Density	05/02/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
8	Peak Excursion of the Modulation Envelope	05/02/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.

Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:
Ch 36 (5180 MHz)
Ch 40 (5200 MHz)
Ch 48 (5240 MHz)
Ch 52 (5260 MHz)
Ch 60 (5300 MHz)
Ch 64 (5320 MHz)
Ch 149 (5745 MHz)
Ch 155 (5775 MHz)
Ch 161 (5805 MHz)

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
6 Mbps (802.11a)
36 Mbps (802.11a)
54 Mbps (802.11a)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC/60Hz

Software\Firmware Applied During Test			
Exercise software	cTxRx Win CE	**Version**	0.1.2.1
Description			
The system was tested using special software developed to test all functions of the device during the test.			

EUT and Peripherals			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT- 802.11(a)/(b)/(g) radio	Intermec Technologies Corporation	802UIAG	Unknown
AC Adapter	Intermec Technologies Corporation	851-061-002	3335175
Host Device	Intermec Technologies Corporation	CK61	33390400265

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
AC Power	No	2.0	No	AC Power Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Tektronix	2784	AAO	01/02/2005	12 mo

Test Description

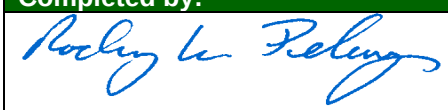
Requirements: Per 15.403(c), "…the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier. Determination of the emissions bandwidth is based on the use of measurement instrumentation employing a peak detector function with an instrument resolutions bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement. " .

Configuration: FCC Public Notice DA 02-2138 was followed. The transmit frequency was set to the lowest, a medium, and the highest channels in each band. The transmit power was set to its default maximum. The lowest, a medium, and the highest data rates were measured. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

The spectrum analyzer settings were as follows:

- Span = approximately 1.5 to 2 times the emission bandwidth, centered on the transmit channel.
- RBW = Approx. 1% of the emission bandwidth (B). This was an iterative process where an exact match of 1% may not be achieved. The largest value of RBW that came close to 1% of the emission bandwidth was used.
- A peak detector was used.
- The marker-delta function was then used to measure 26 dB emission bandwidth.

Completed by:



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

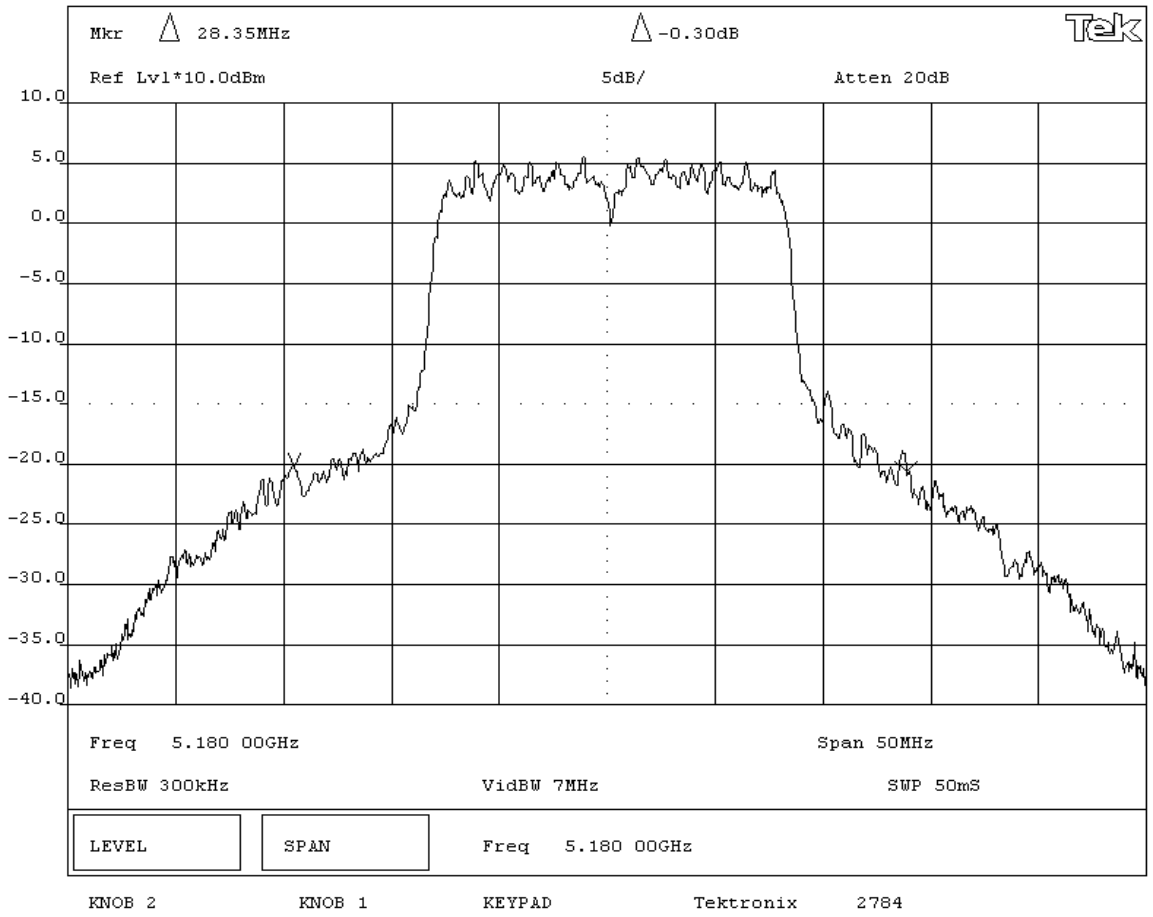
RESULTS	BANDWIDTH
Pass	28.35 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

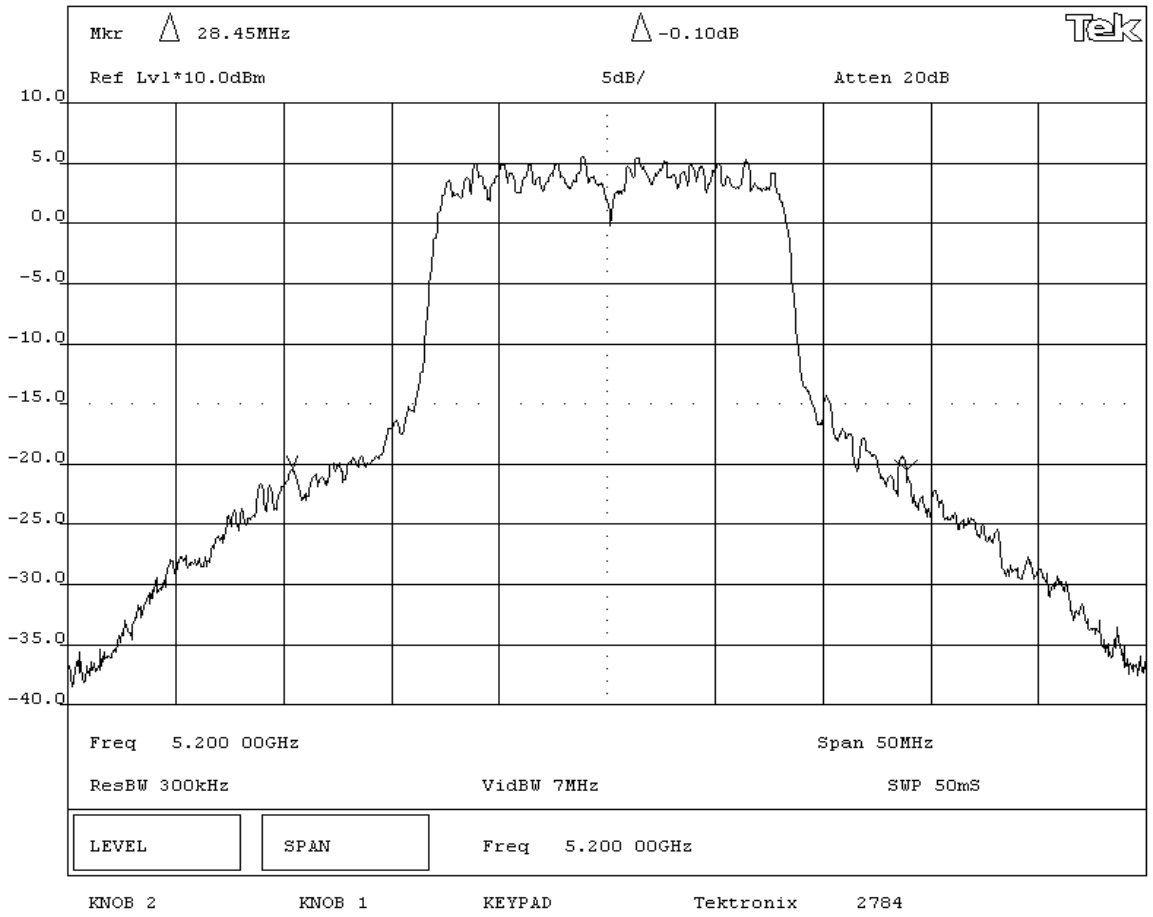
RESULTS	BANDWIDTH
Pass	28.45 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

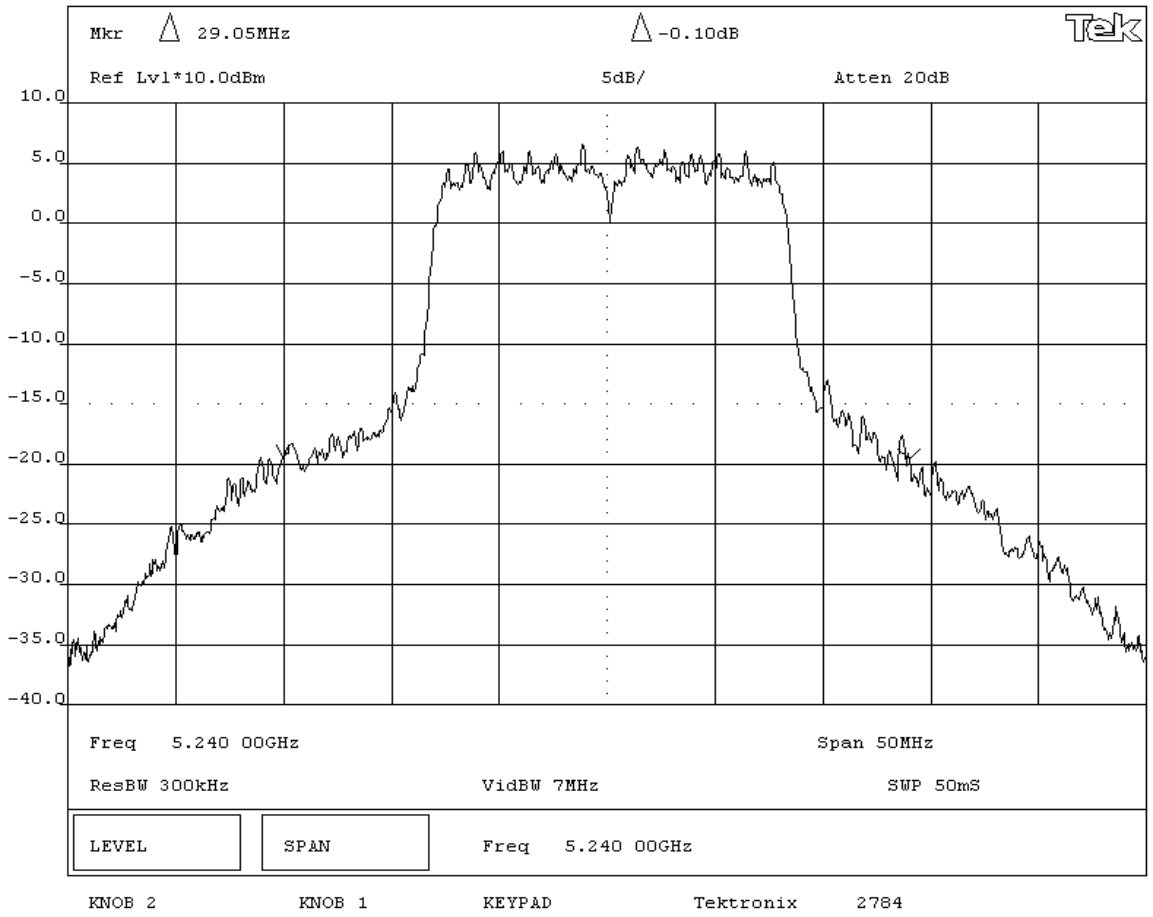
RESULTS	BANDWIDTH
Pass	29.0 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

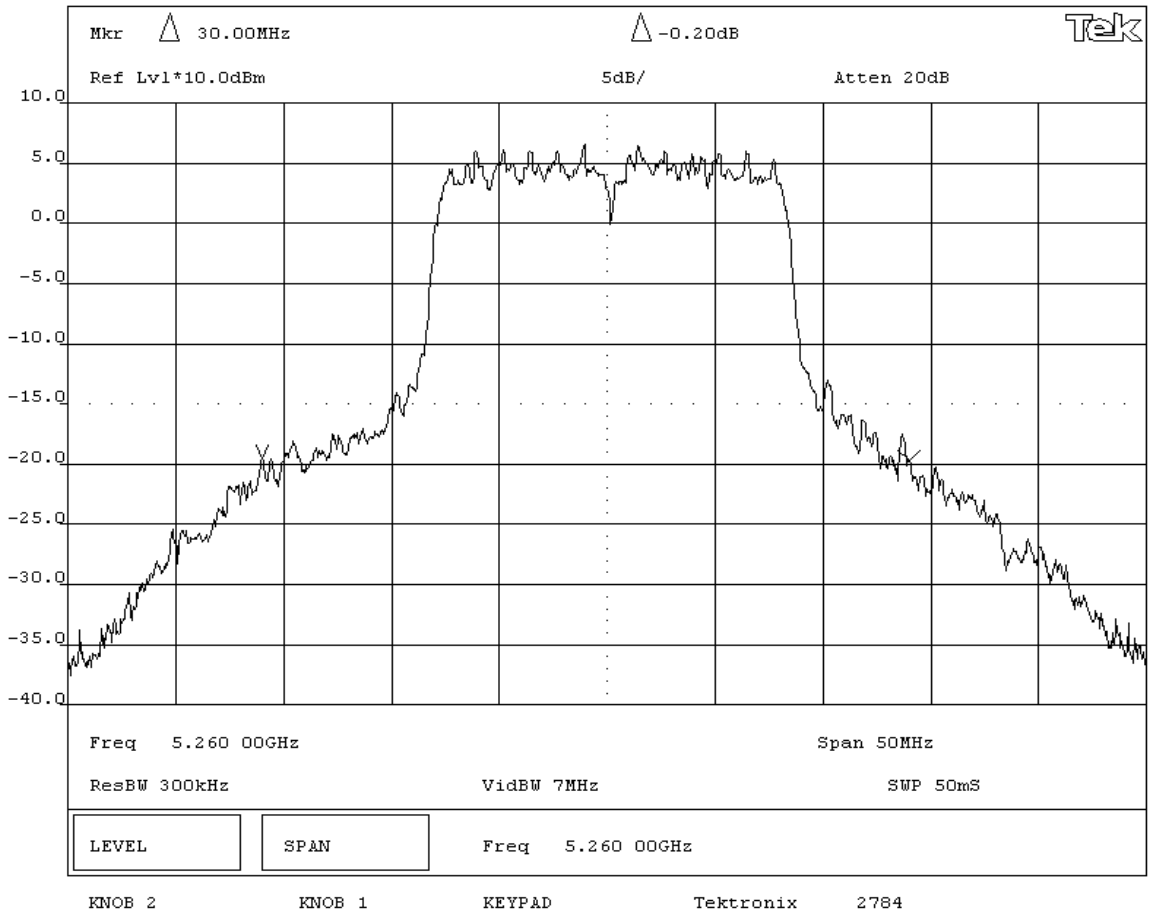
RESULTS	BANDWIDTH
Pass	30.0 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

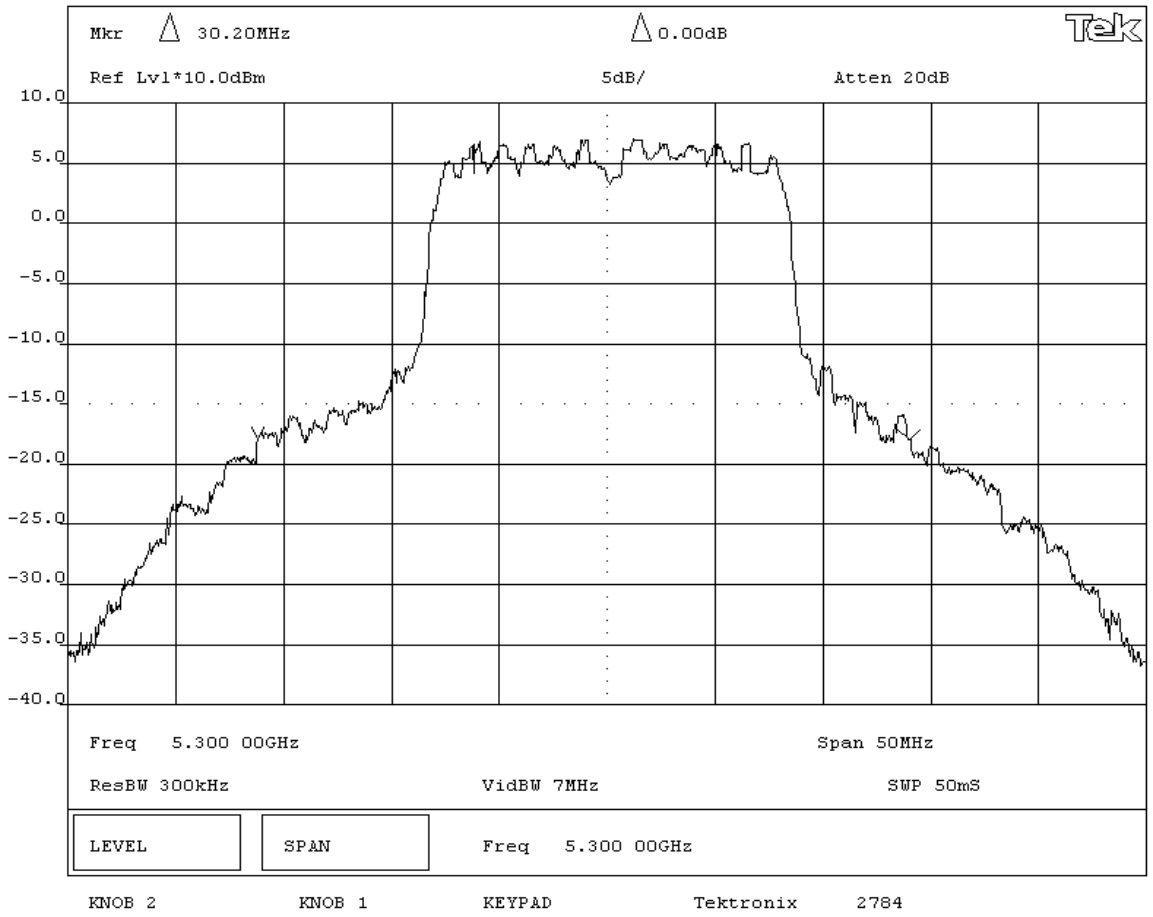
RESULTS	BANDWIDTH
Pass	30.2 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

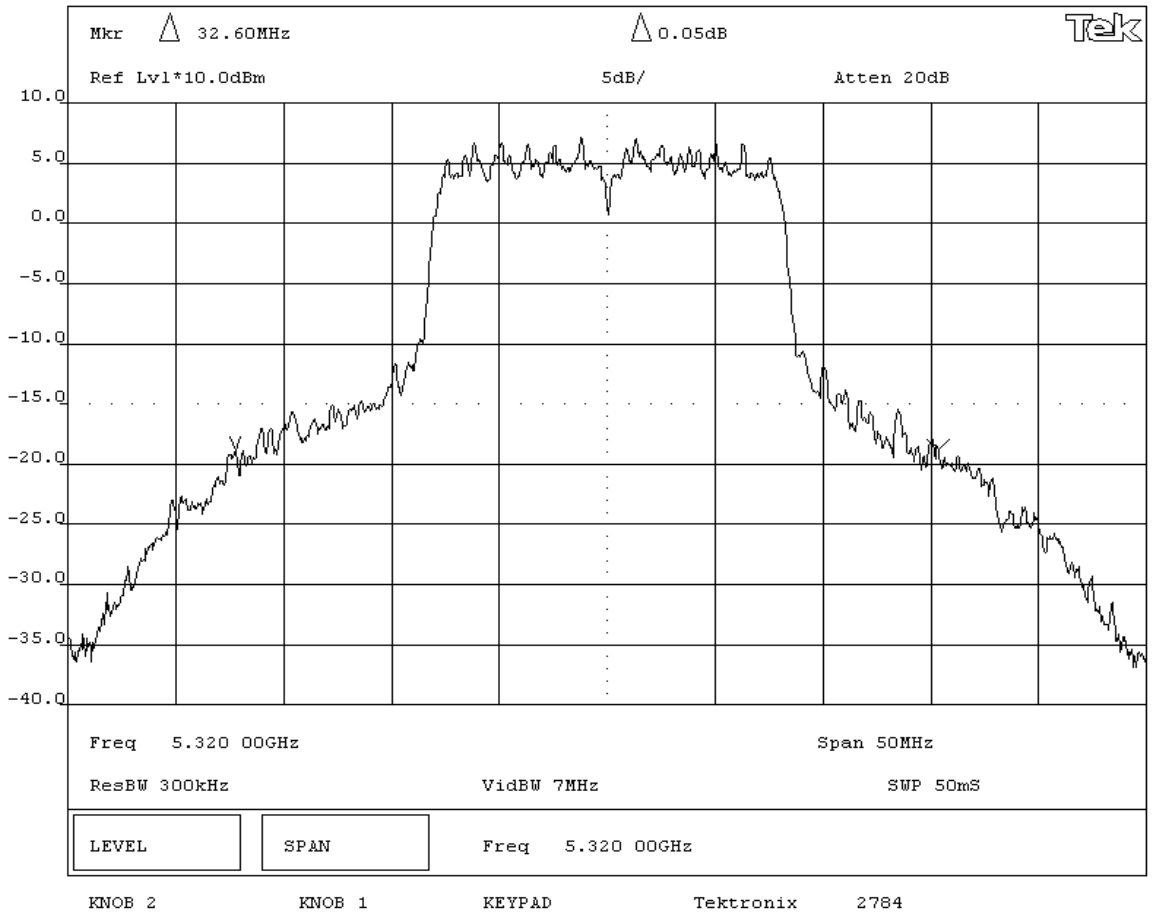
RESULTS	BANDWIDTH
Pass	32.6 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

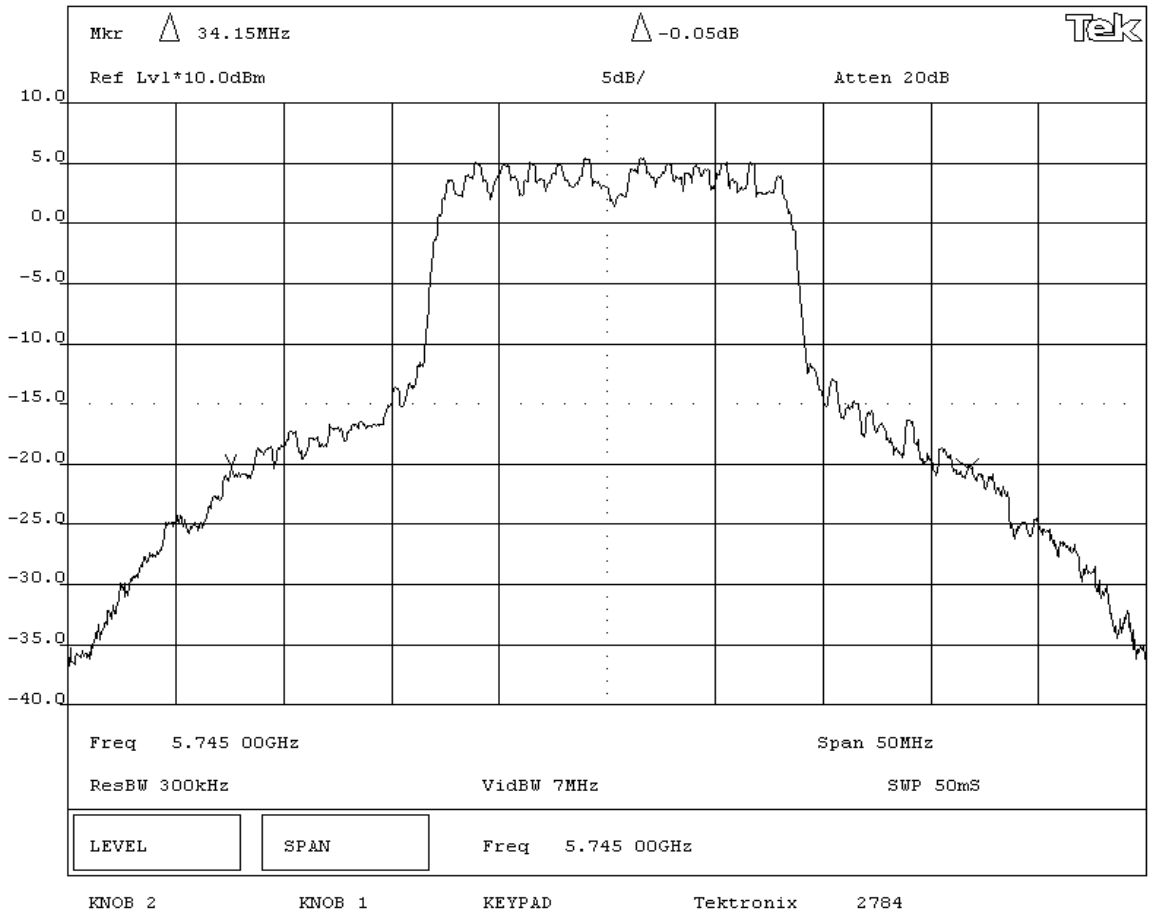
RESULTS	BANDWIDTH
Pass	34.15 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

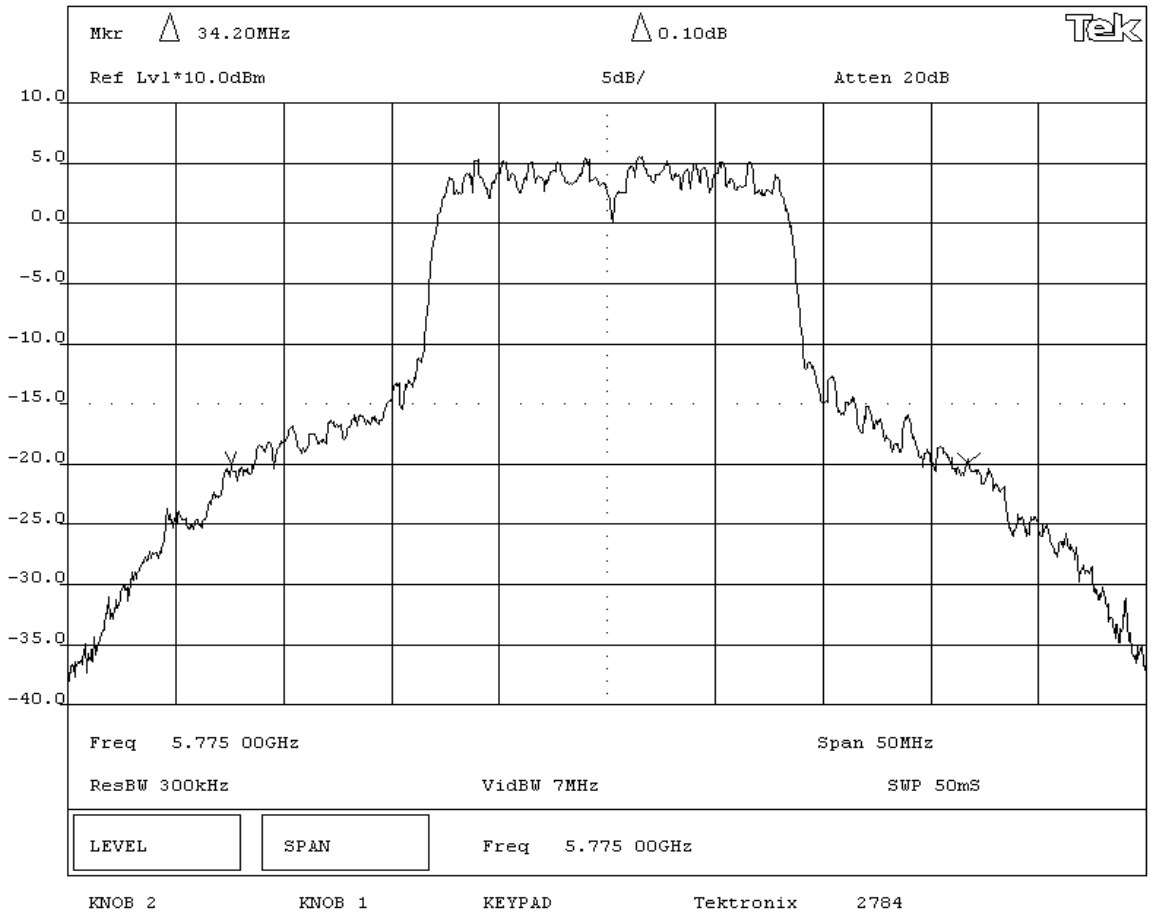
RESULTS	BANDWIDTH
Pass	34.2 MHz

SIGNATURE

Tested By: Rodney Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

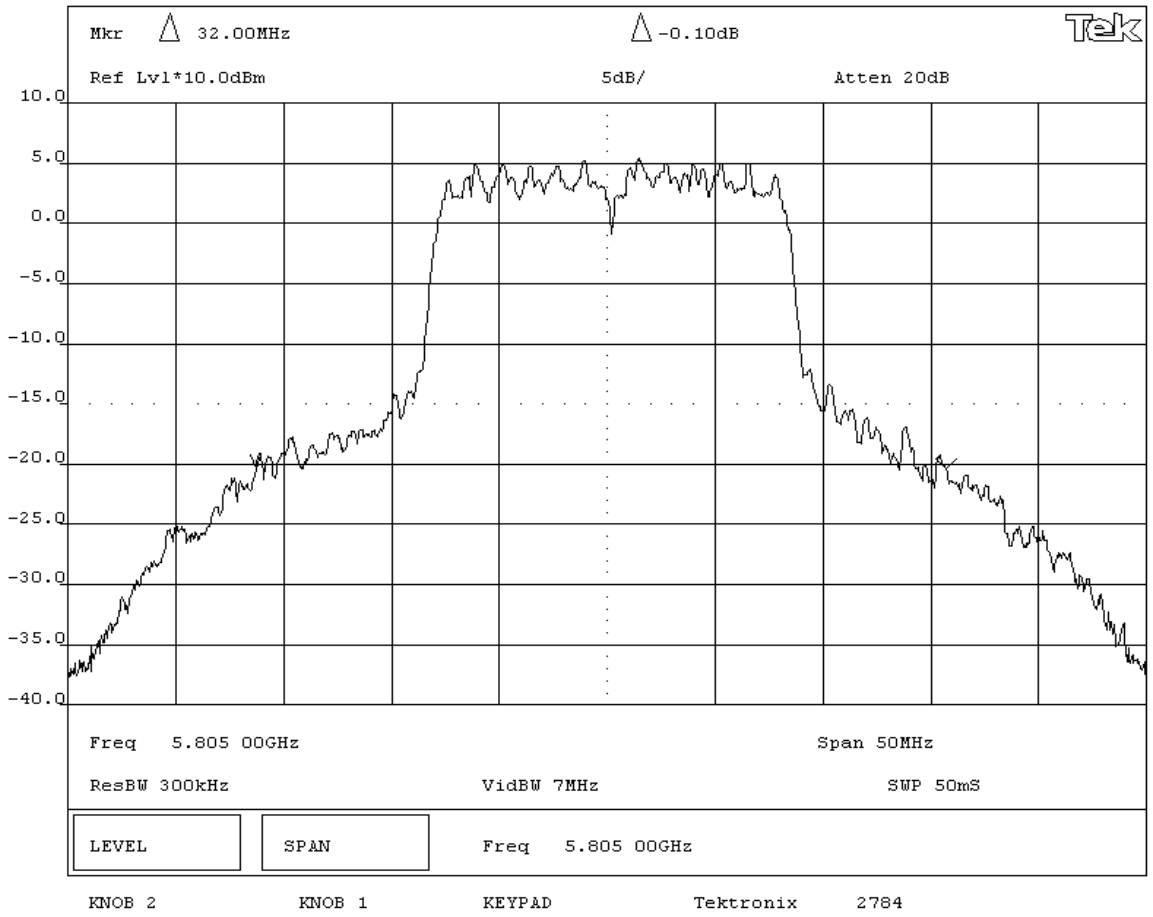
RESULTS	BANDWIDTH
Pass	32.0 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

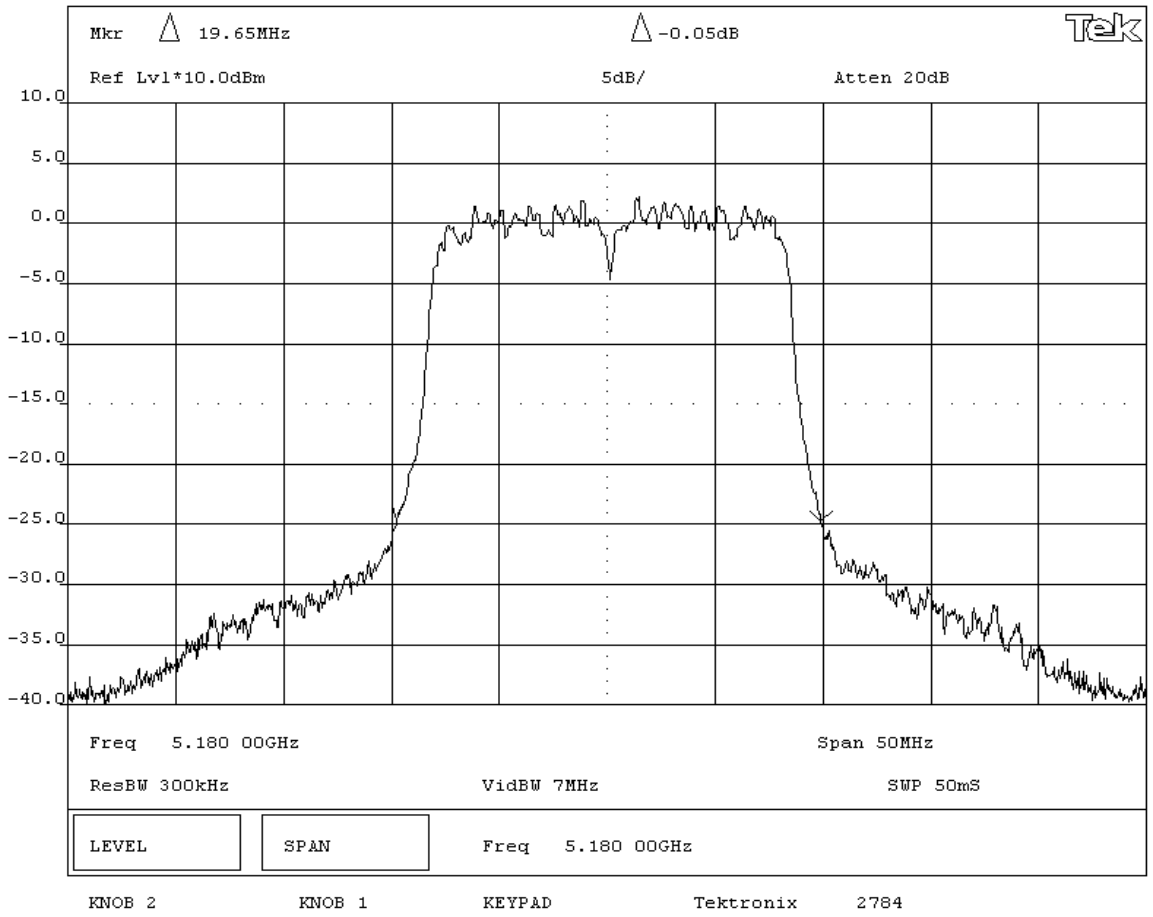
RESULTS	BANDWIDTH
Pass	19.65 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

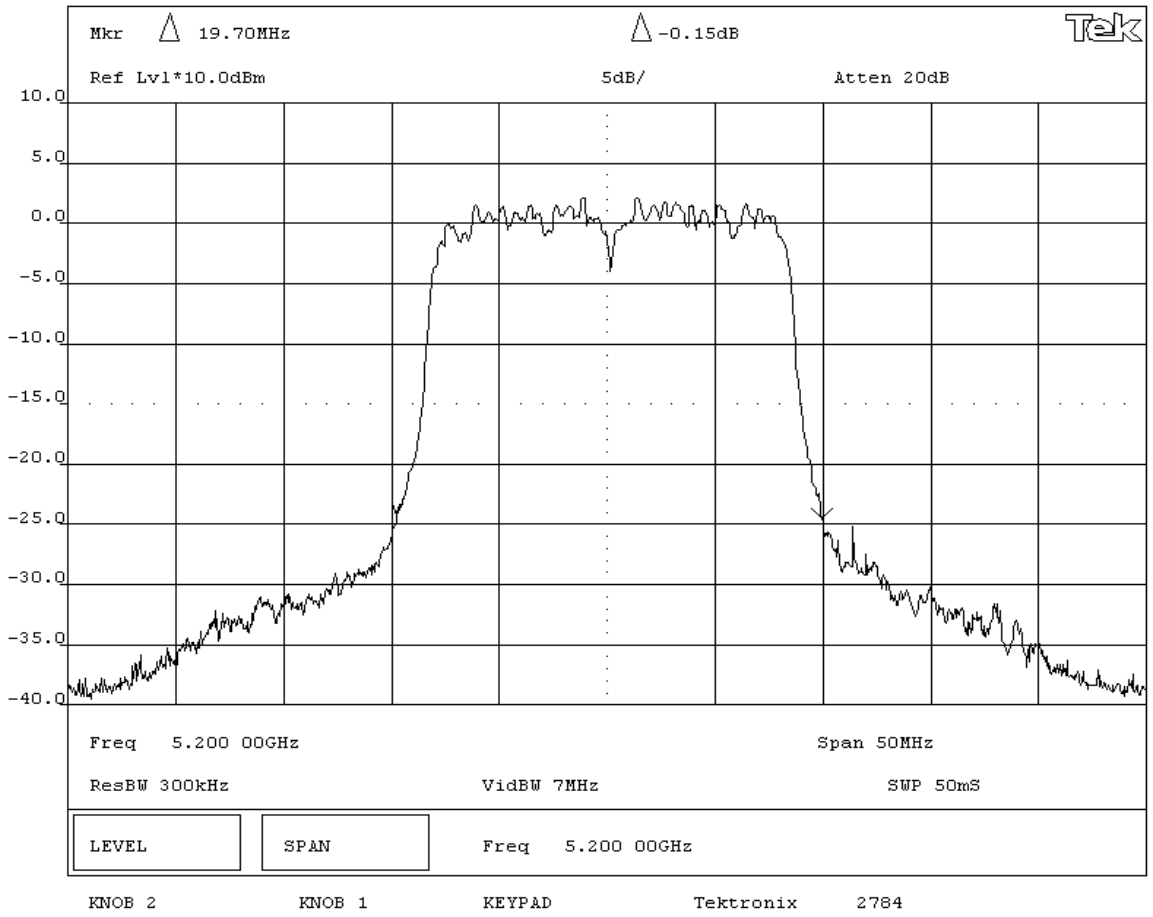
RESULTS	BANDWIDTH
Pass	19.7 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

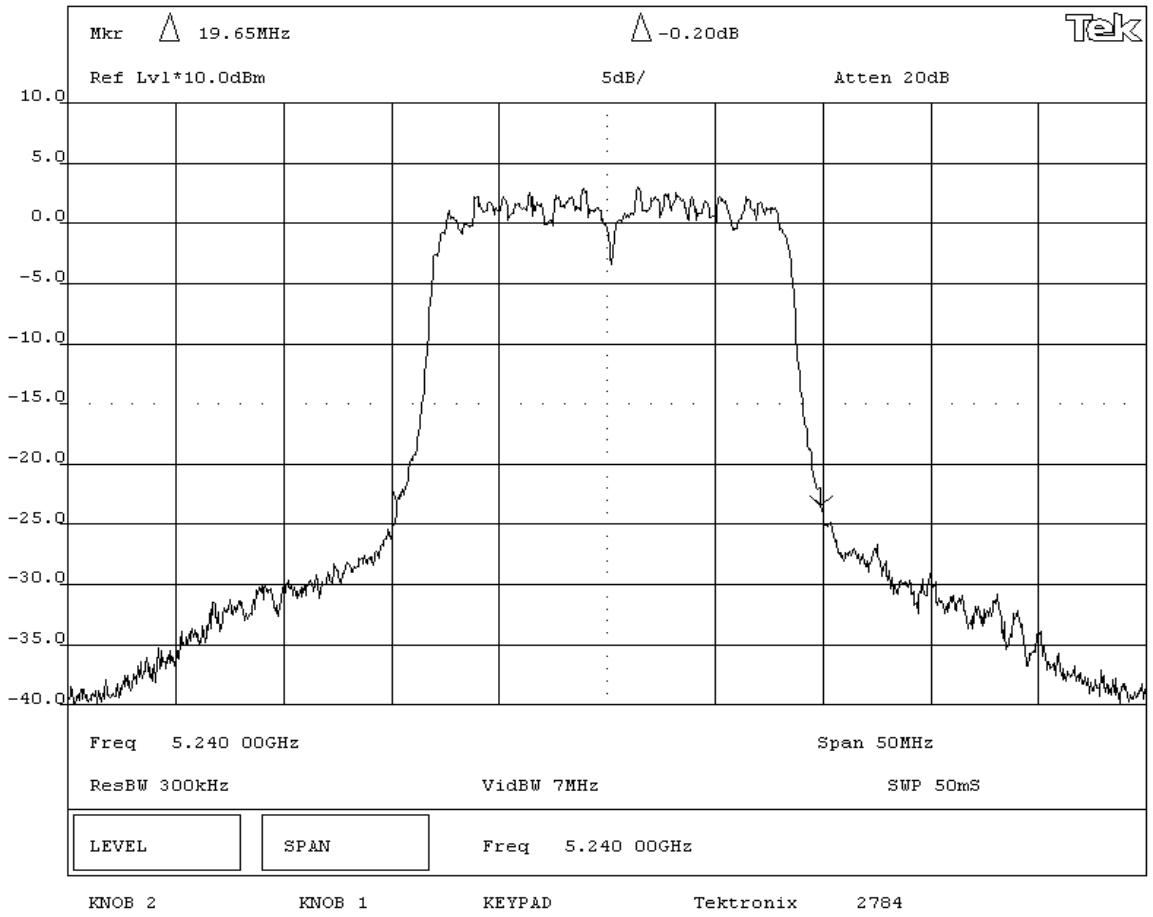
RESULTS	BANDWIDTH
Pass	19.65 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

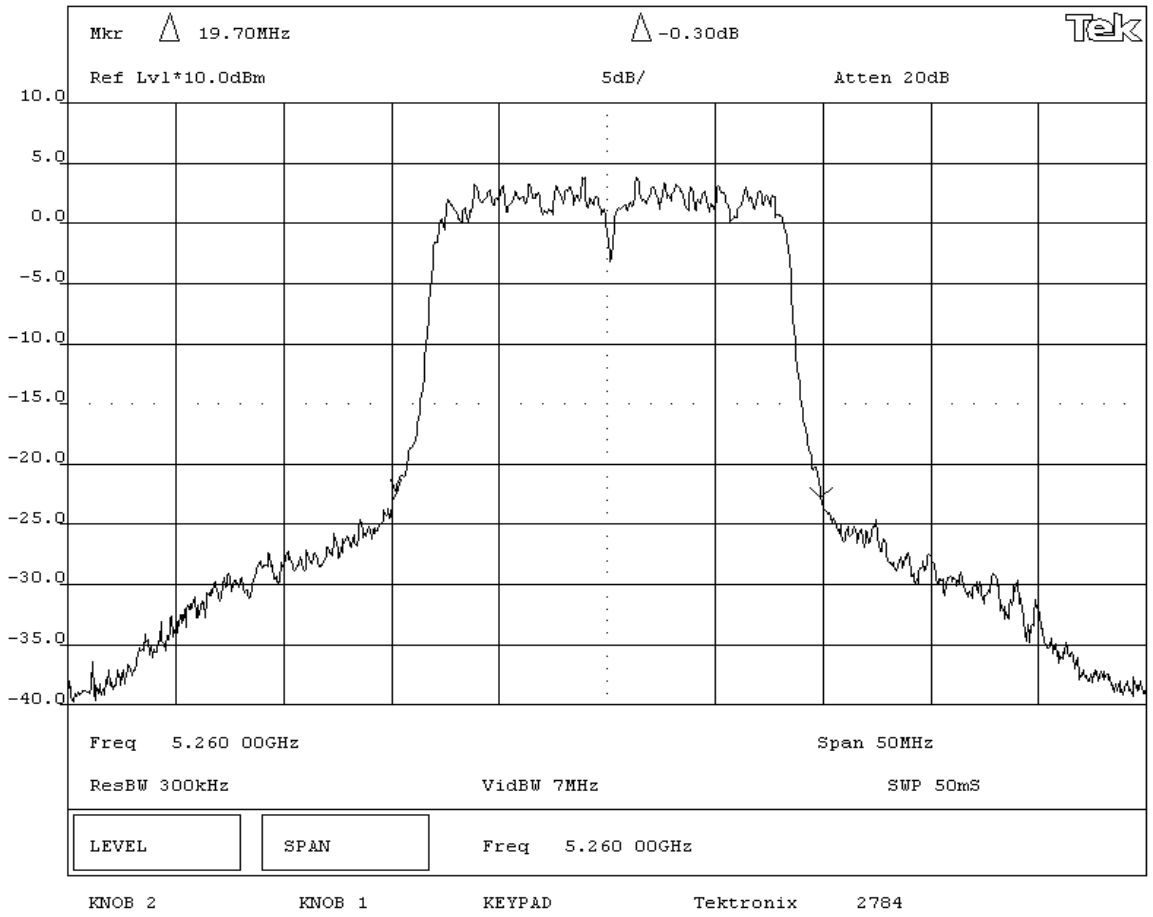
RESULTS	BANDWIDTH
Pass	19.7 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

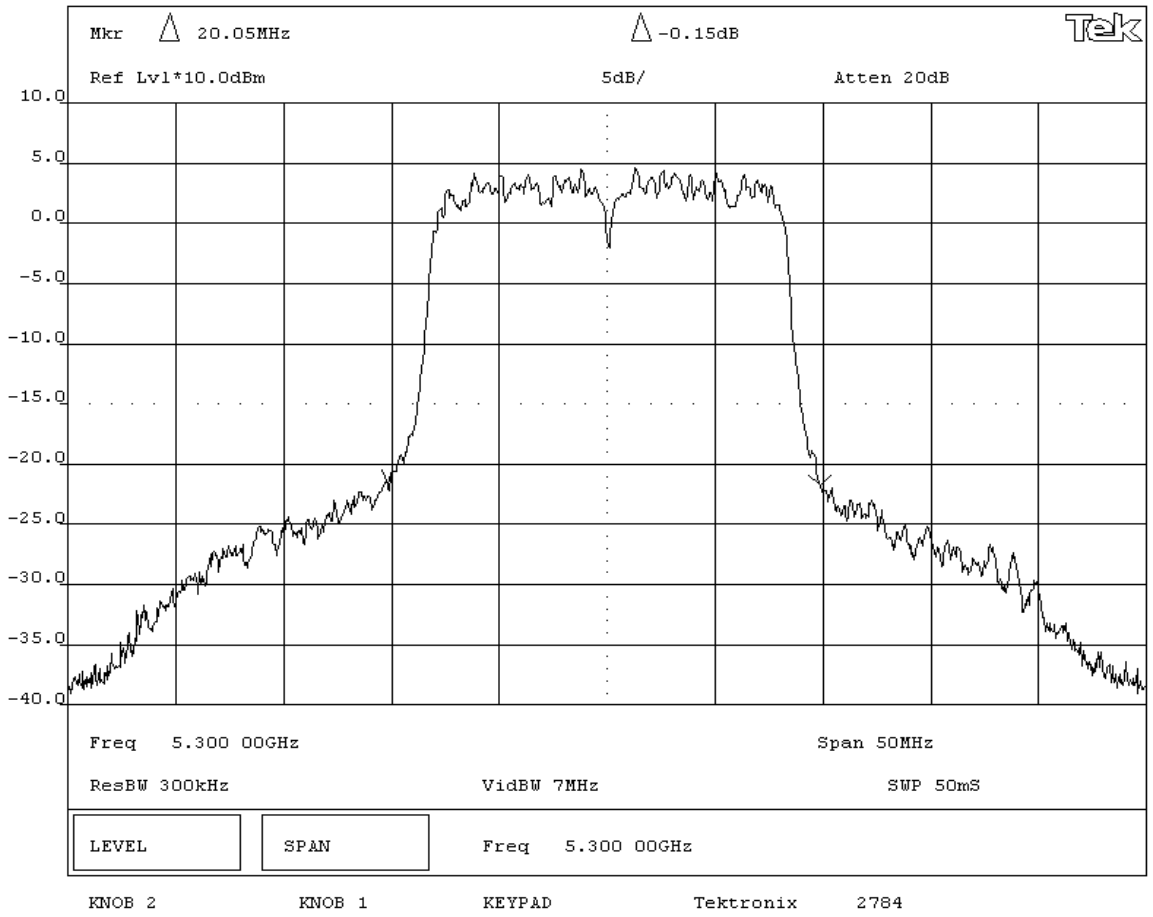
RESULTS	BANDWIDTH
Pass	20.05 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

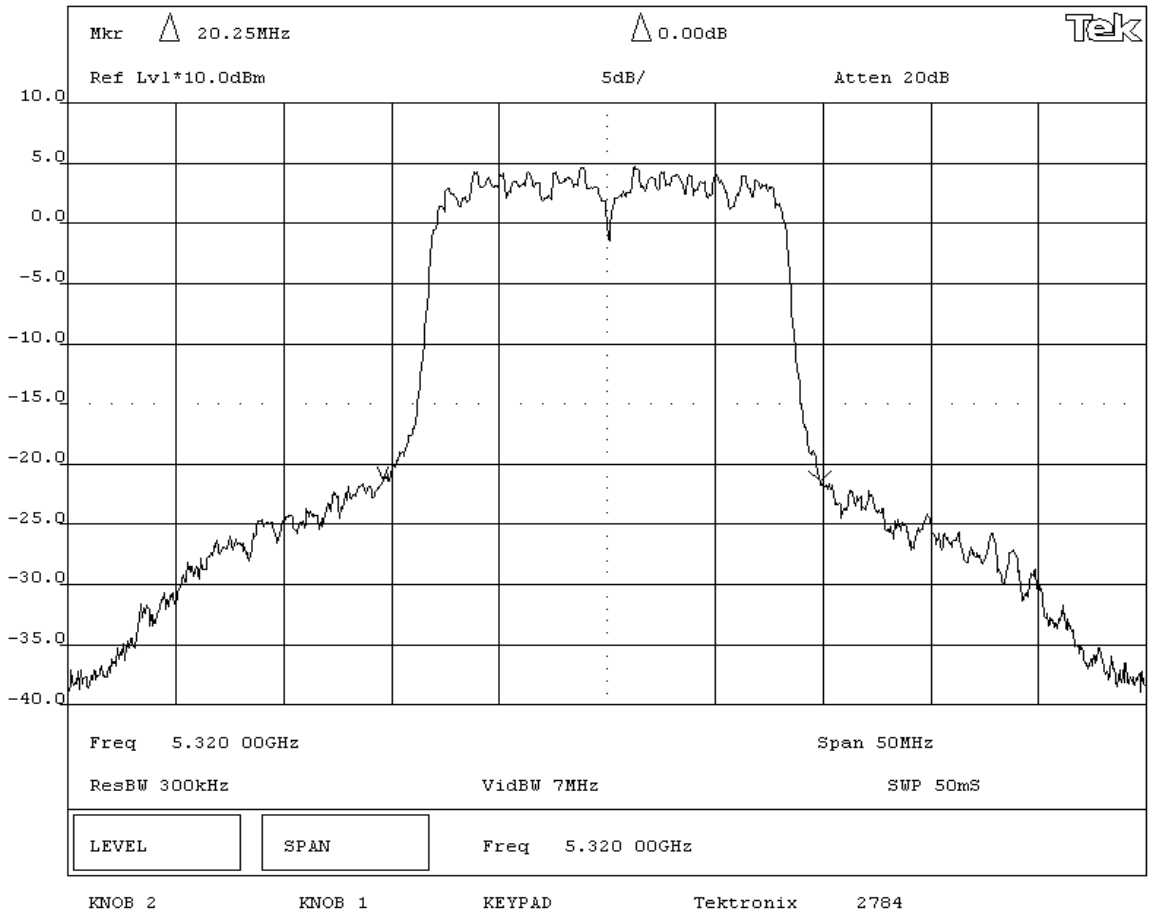
RESULTS	BANDWIDTH
Pass	20.25 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

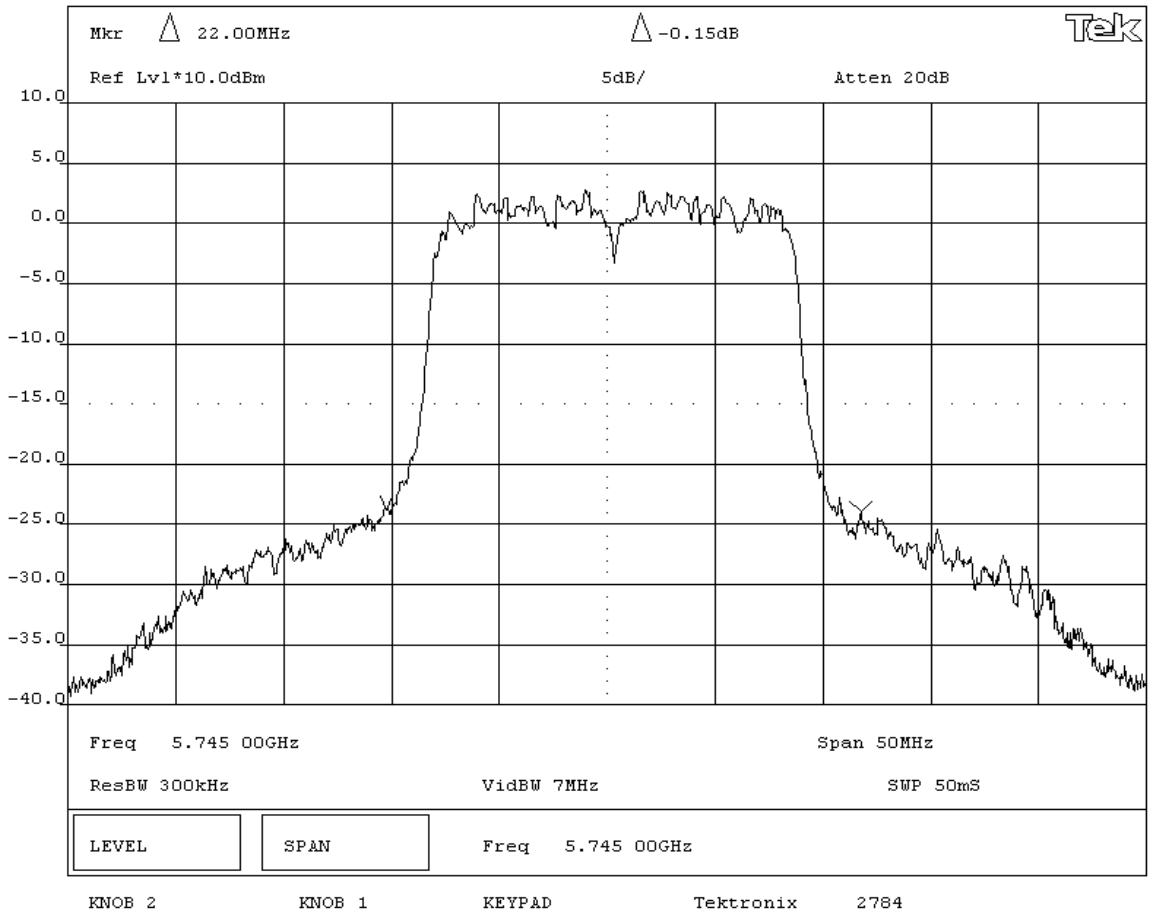
RESULTS	BANDWIDTH
Pass	22.0 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

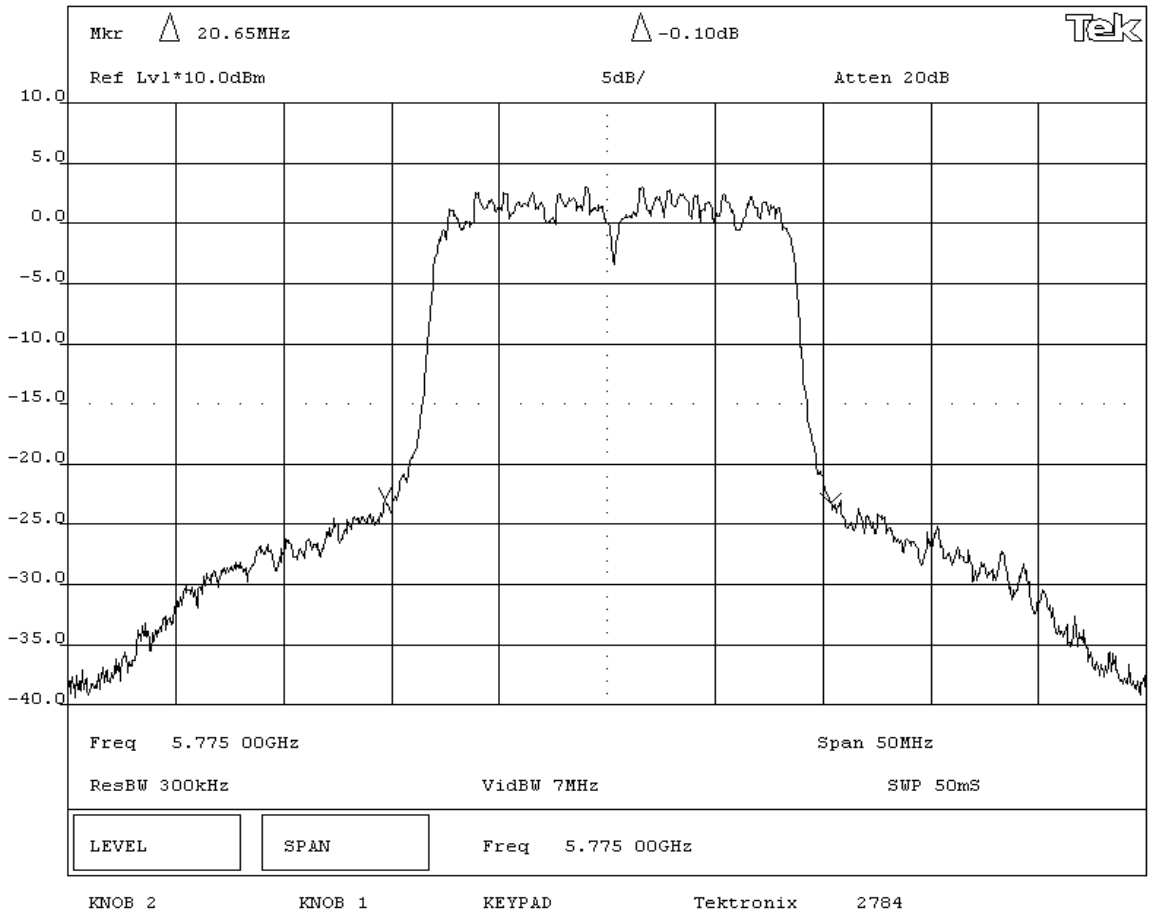
RESULTS	BANDWIDTH
Pass	20.65 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

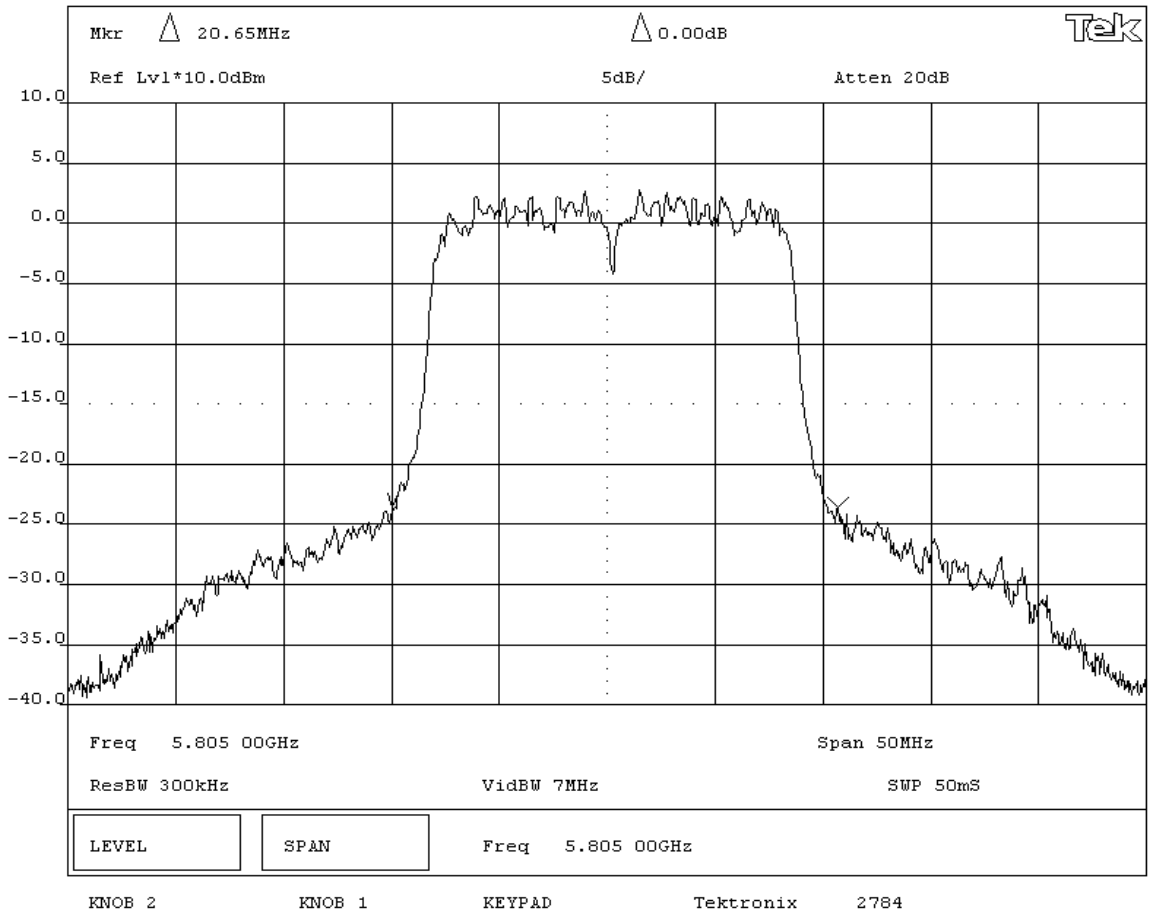
RESULTS	BANDWIDTH
Pass	20.65 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

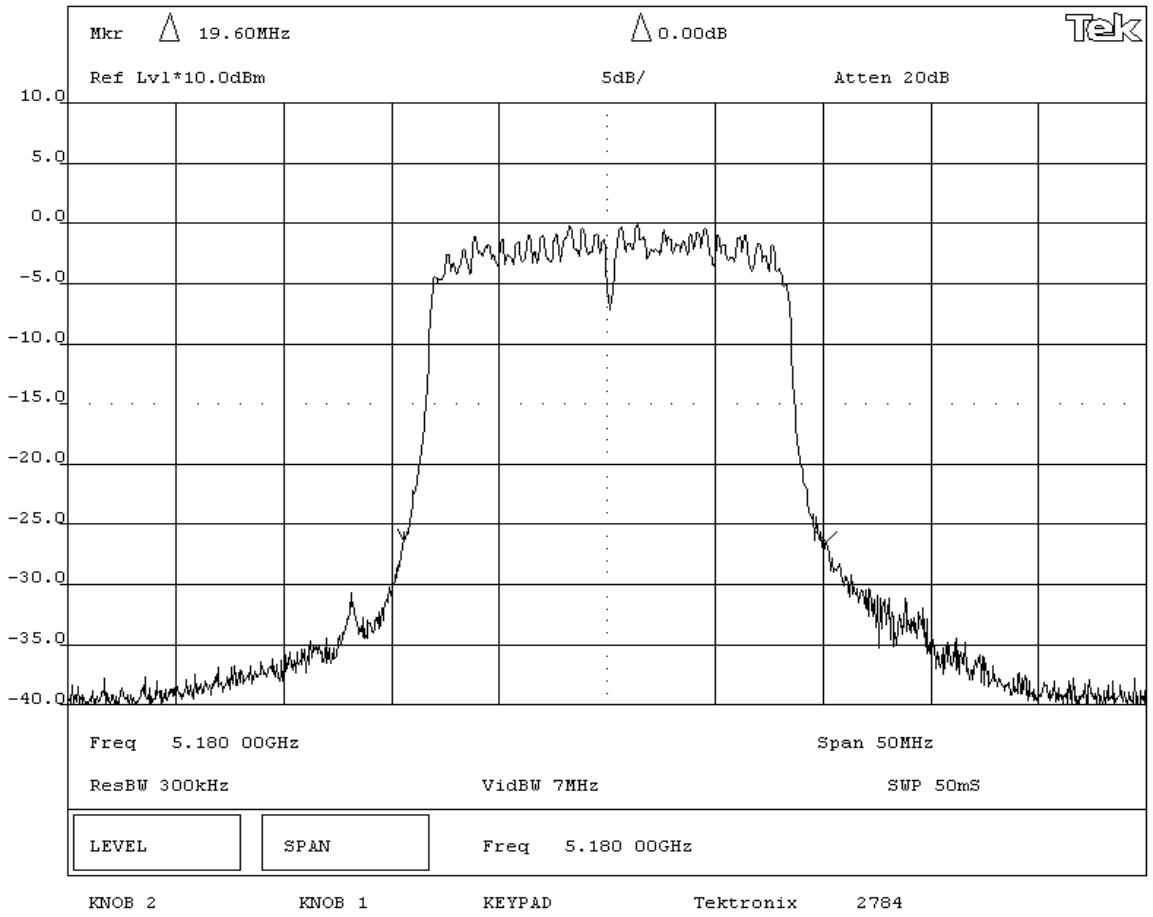
RESULTS	BANDWIDTH
Pass	19.6 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

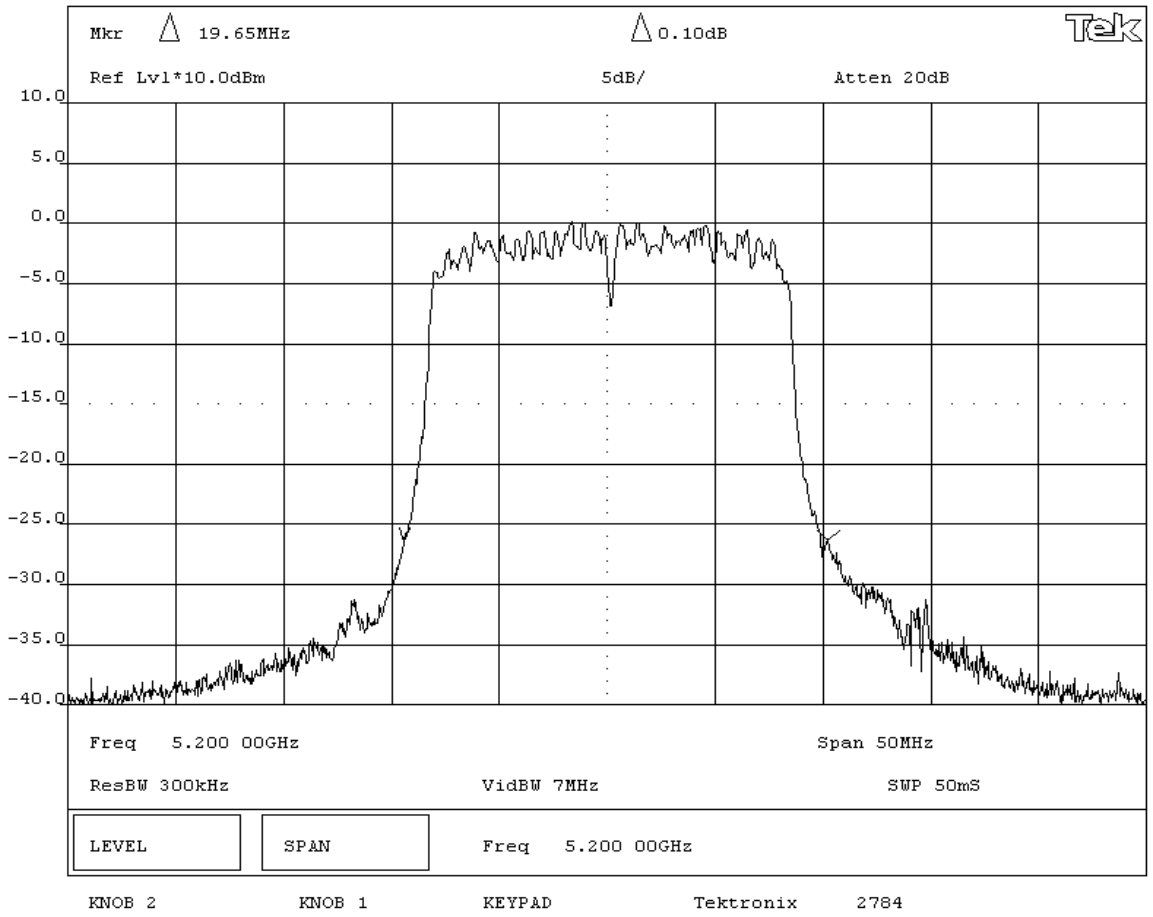
RESULTS	BANDWIDTH
Pass	19.65 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

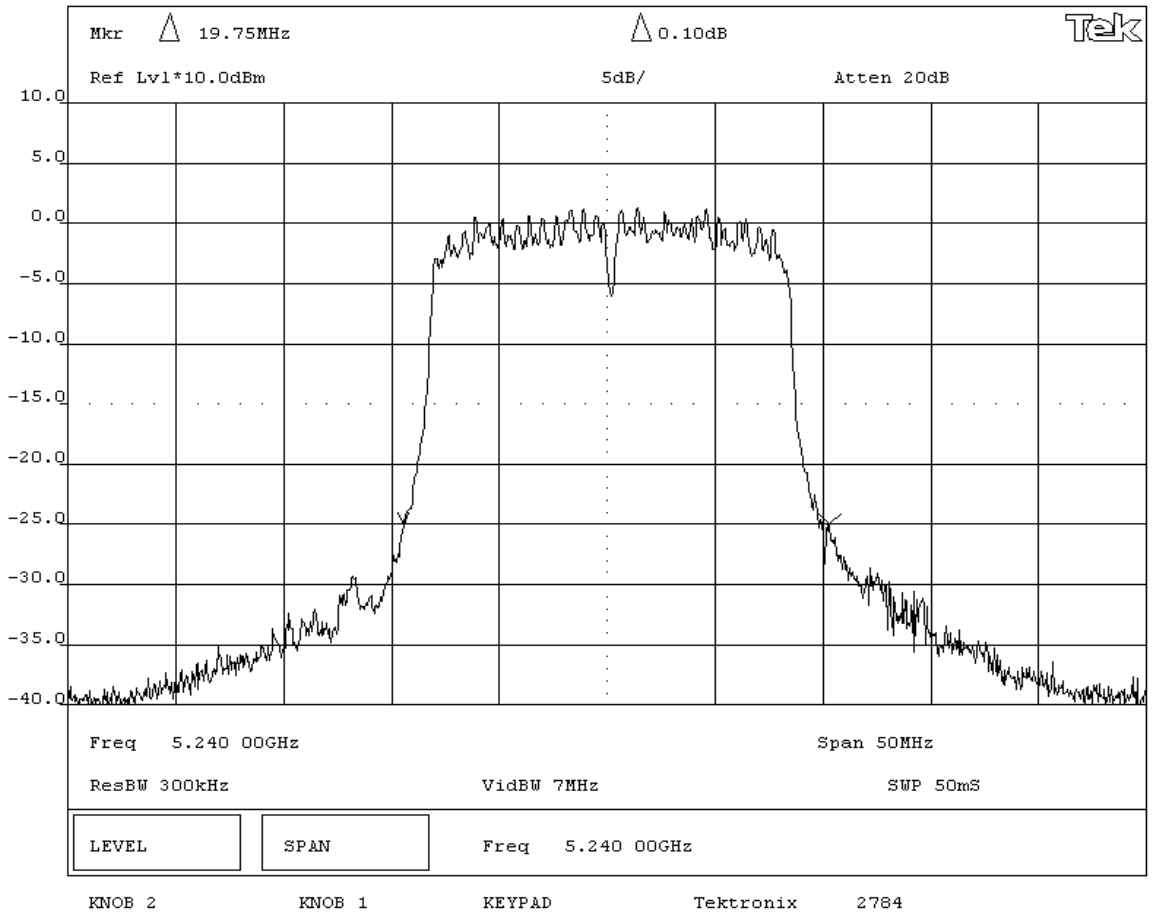
RESULTS	BANDWIDTH
Pass	19.75 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

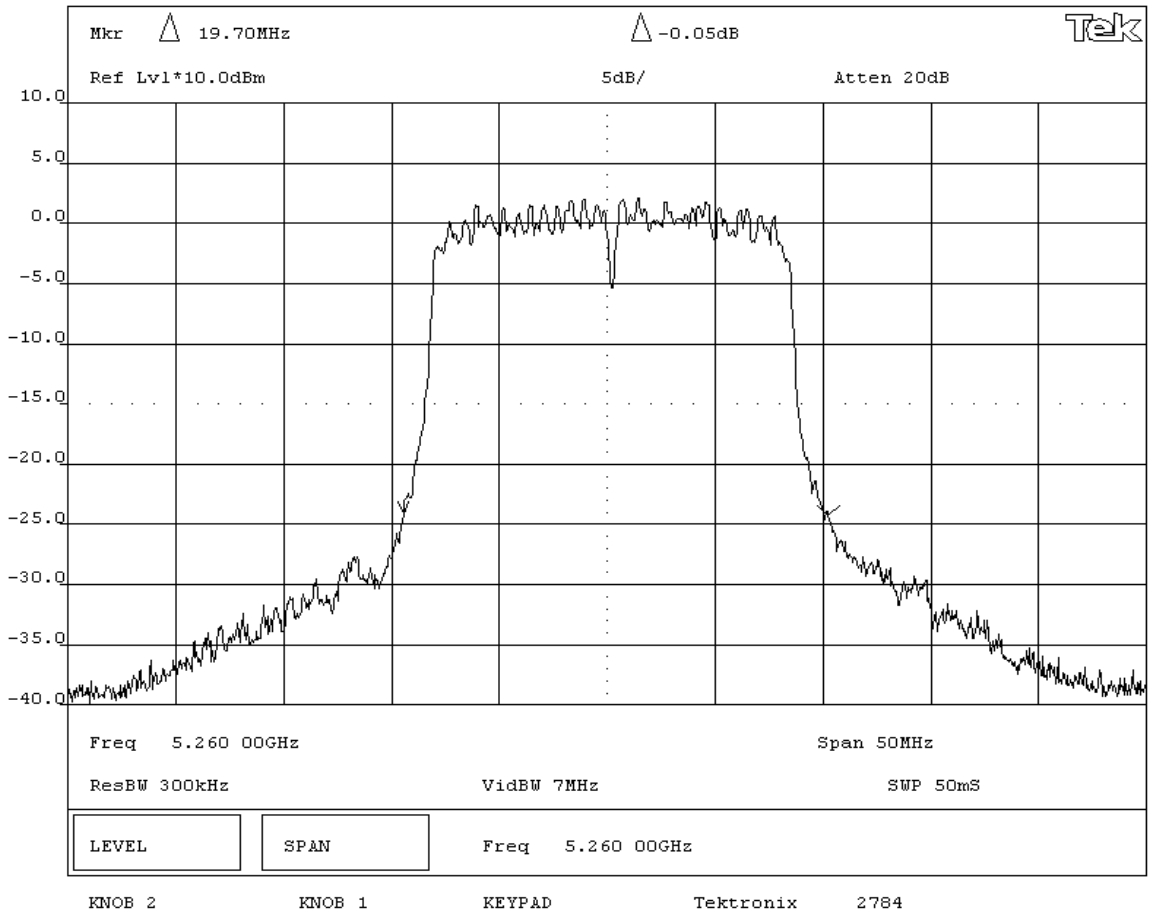
RESULTS	BANDWIDTH
Pass	19.7 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

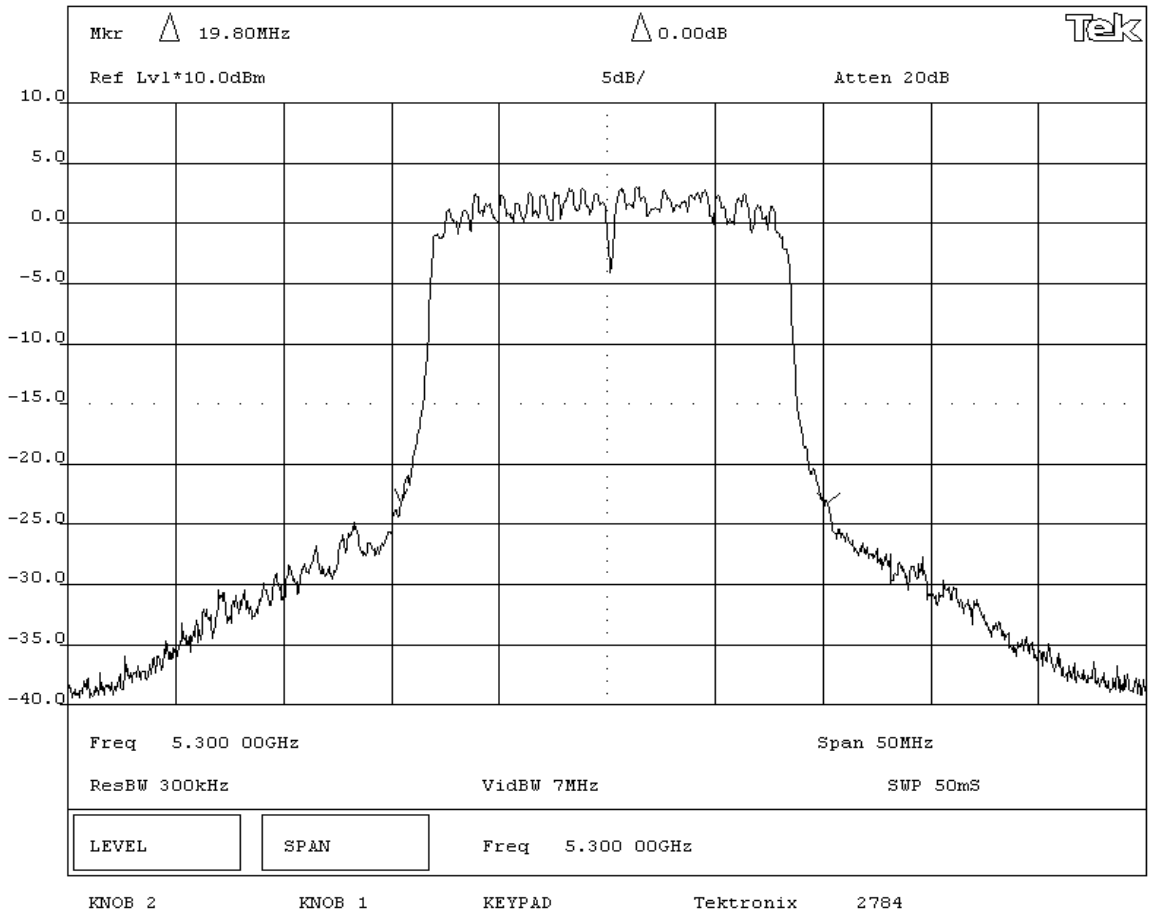
RESULTS	BANDWIDTH
Pass	19.8 MHz

SIGNATURE

Tested By: Rodney Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

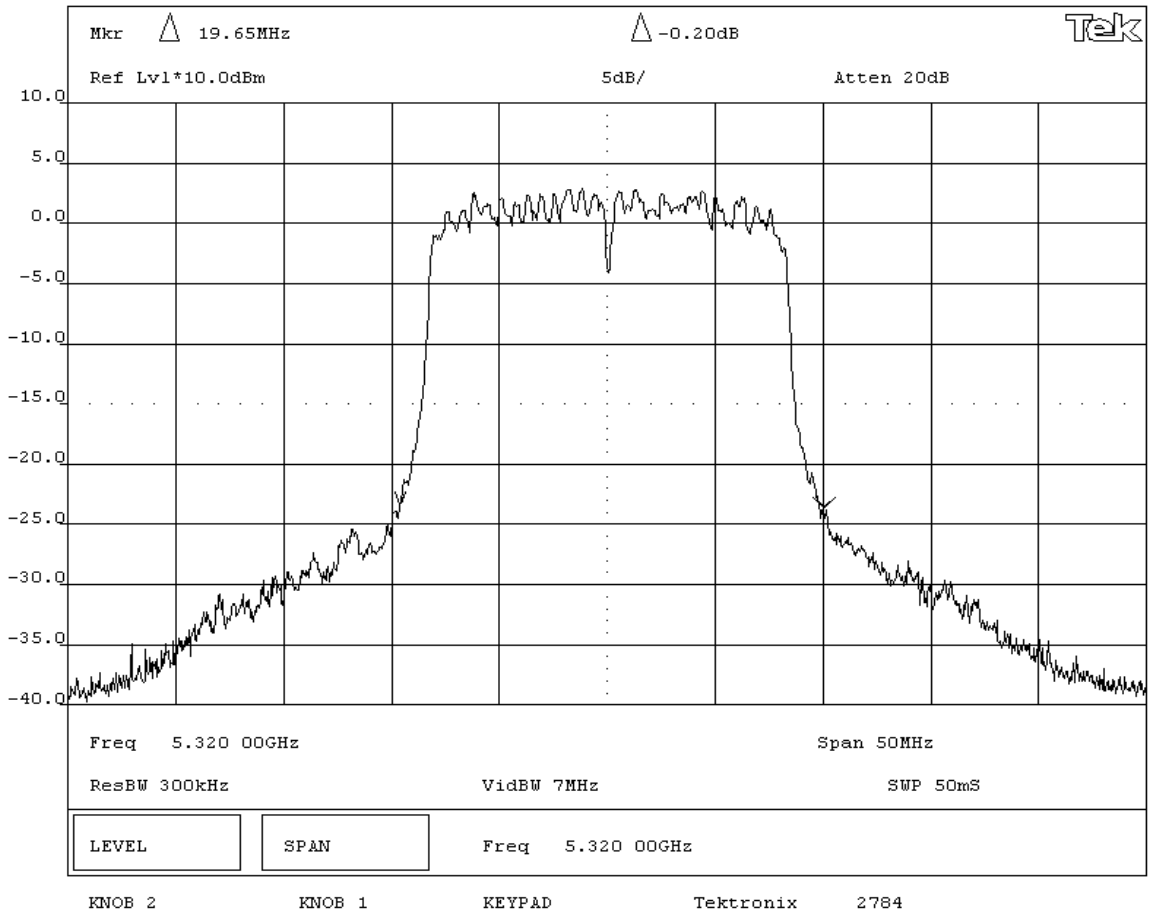
RESULTS	BANDWIDTH
Pass	19.65 MHz

SIGNATURE

Tested By: Rodney La Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

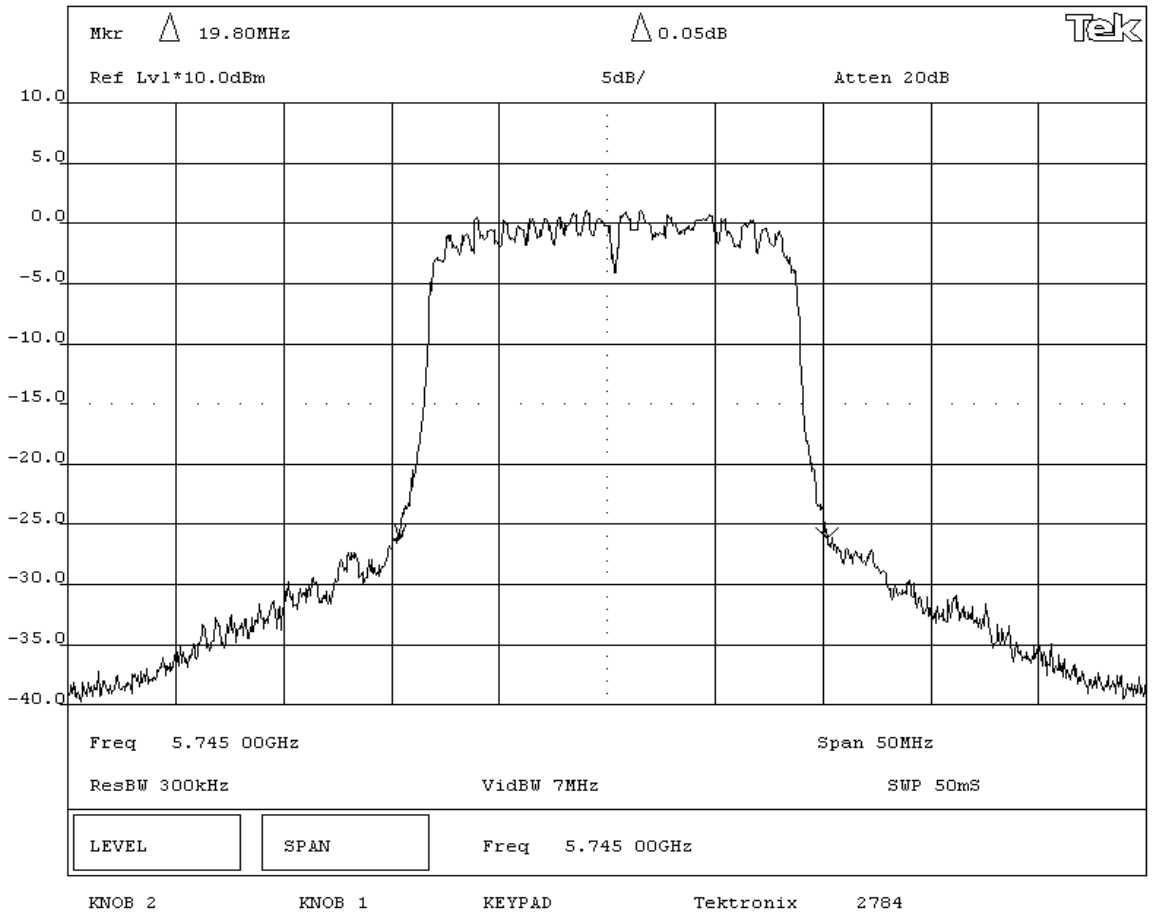
RESULTS	BANDWIDTH
Pass	19.8 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Low Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

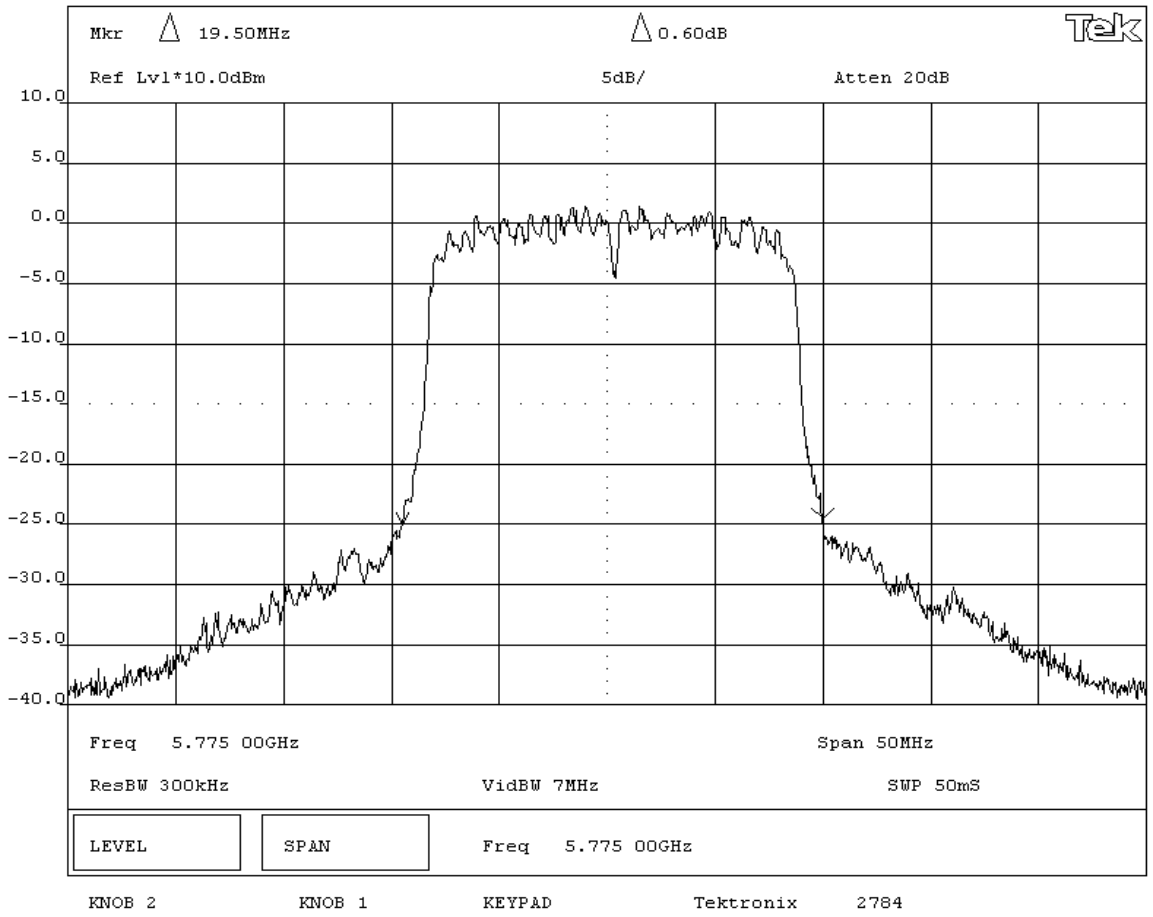
RESULTS	BANDWIDTH
Pass	19.5 MHz

SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - Mid Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Emission Bandwidth

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/15/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in CK61 Hand Held Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The emission bandwidth shall be determined by measuring the 26 dB bandwidth of the modulated carrier using measurment instrumentation employing a peak detector and a RBW approximately equal to 1% of the emission bandwidth.

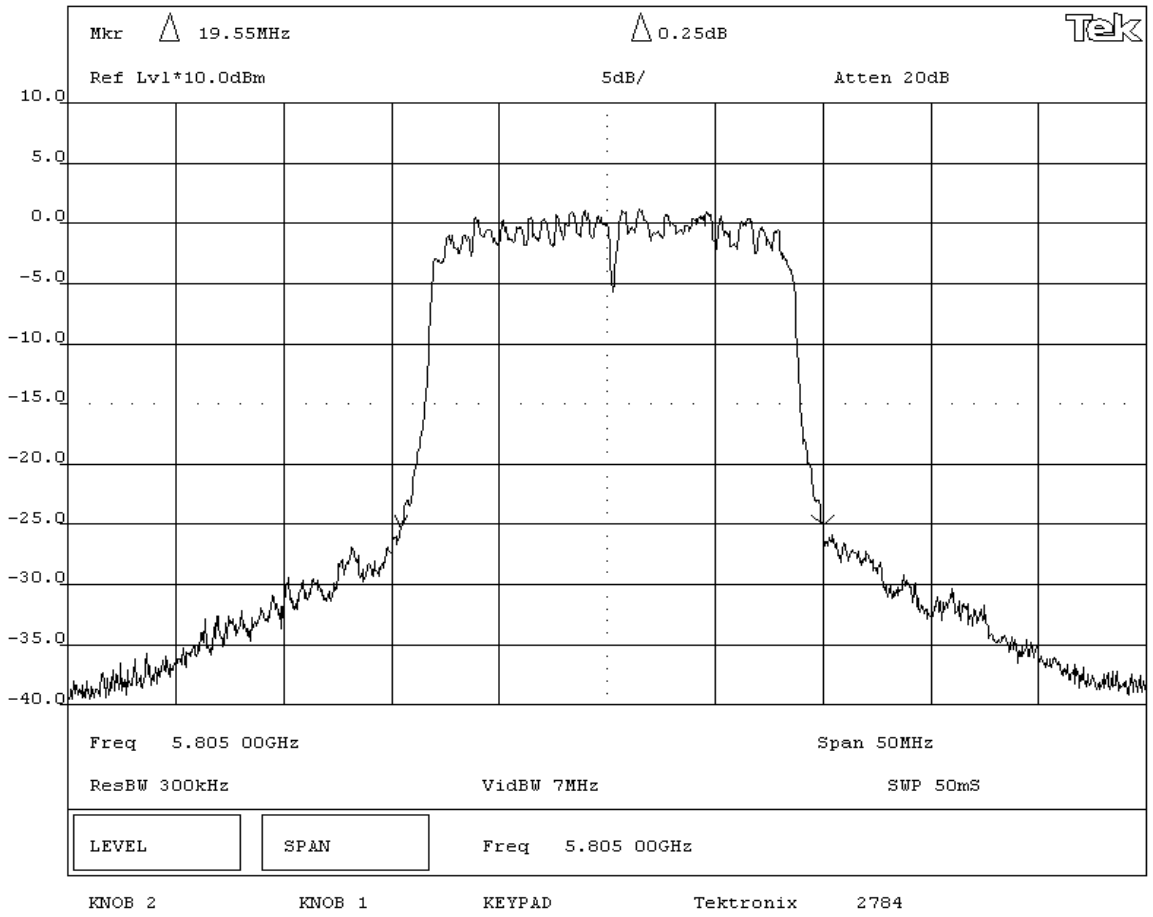
RESULTS	BANDWIDTH
Pass	19.55 MHz

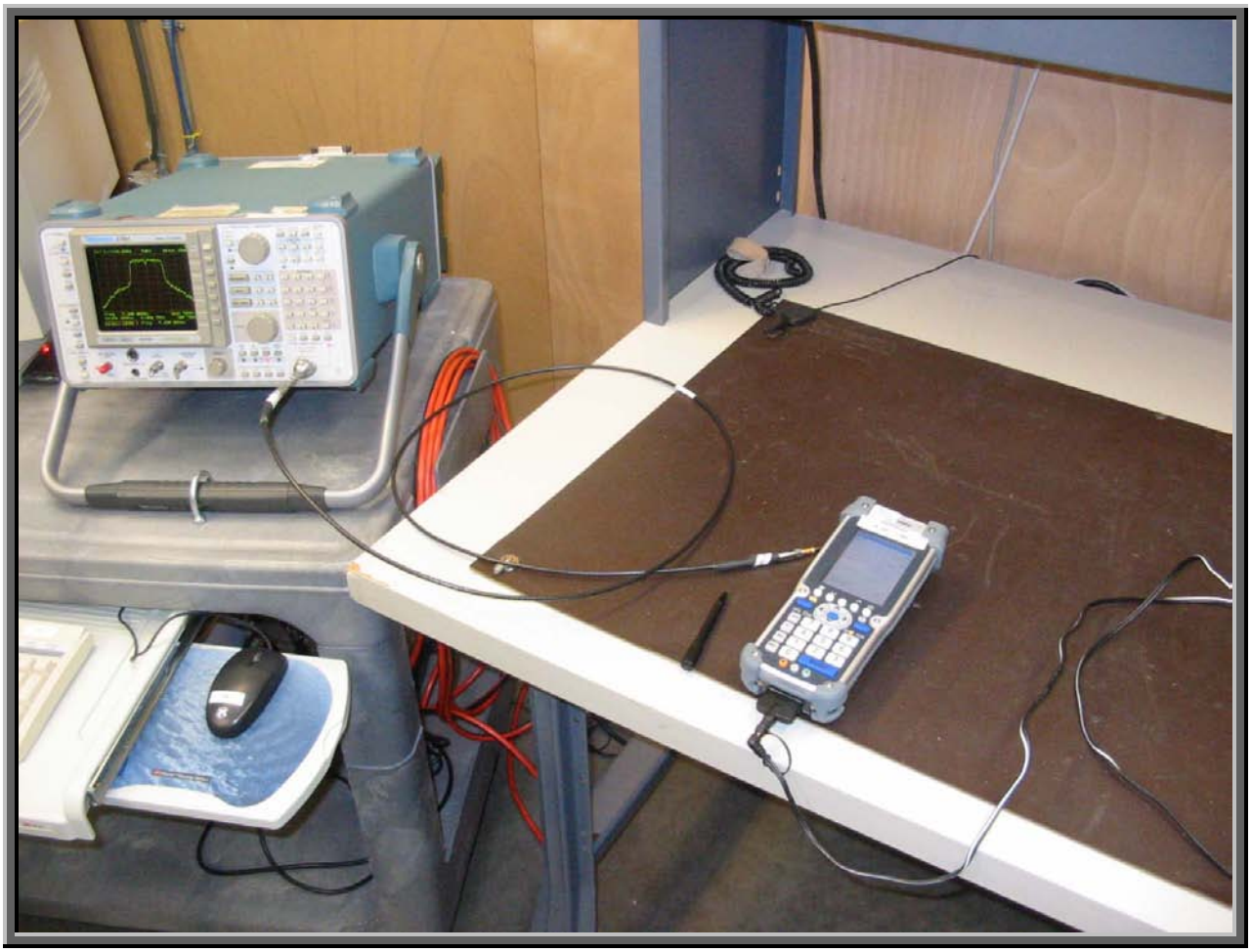
SIGNATURE

Tested By: Rodney Le Peloquin

DESCRIPTION OF TEST

Emission Bandwidth - High Channel - 5.725 to 5.825 GHz Band





Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:
Ch 36 (5180 MHz)
Ch 40 (5200 MHz)
Ch 48 (5240 MHz)
Ch 52 (5260 MHz)
Ch 60 (5300 MHz)
Ch 64 (5320 MHz)
Ch 149 (5745 MHz)
Ch 155 (5775 MHz)
Ch 161 (5805 MHz)

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
6 Mbps (802.11a)
36 Mbps (802.11a)
54 Mbps (802.11a)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC/60Hz

Software\Firmware Applied During Test			
Exercise software	cTxRx Win CE	**Version**	0.1.2.1
Description			
The system was tested using special software developed to test all functions of the device during the test.			

EUT and Peripherals			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT- 802.11(a)/(b)/(g) radio	Intermec Technologies Corporation	802UIAG	Unknown
AC Adapter	Intermec Technologies Corporation	851-061-002	3335175
Host Device	Intermec Technologies Corporation	CK61	33390400265

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
AC Power	No	2.0	No	AC Power Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Signal Generator	Hewlett Packard	8341B	TGN	02/07/2005	13 mo
Power Meter	Hewlett Packard	E4418A	SPA	07/23/2004	24 mo
Power Sensor	Hewlett-Packard	8481H	SPB	07/23/2004	24 mo
RF Detector	RLC Electronics	CR-133-R	ZZA	NCR	NA
Oscilloscope	Tektronix	TDS 3052	TOF	12/02/2004	13 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	04/08/2005	13 mo

Test Description

Requirements: Per FCC 15.403(n), the maximum conducted output power is "the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode."

Per 15.407(a), the power limits are:

(1) "For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain up to 23 dBi without any corresponding reduction in the transmitter peak output power or peak power spectral density. For fixed, point-to-point U-NII transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in peak transmitter power and peak power spectral density for each 1 dB of antenna gain in excess of 23 dBi would be required. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional

applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations. NOTE: The Commission strongly recommends that parties employing U-NII devices to provide critical communications services should determine if there are any nearby Government radar systems that could affect their operation.

(4) The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement conforming to the above definitions for the emission in question."

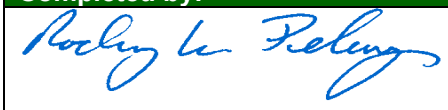
Configuration: FCC Public Notice DA 02-2138 was followed. The transmit frequency was set to the lowest, a medium, and the highest channels in each band. The transmit power was set to its default maximum. The lowest, a medium, and the highest data rates were measured. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input. The amplitude accuracy of the spectrum analyzer was further enhanced by calibrating the setup using the power meter and synthesized signal generator.

Prior to measuring peak transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring Peak Transmit Power. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report. The transmission pulse duration (T) was measured across a constant amplitude pulse using an RF detector diode and an oscilloscope. The scope photos precede the power measurement data.

Method #1 found in FCC Public Notice DA02-2138 was used because the analyzer sweep time was less than or equal to T.

The spectrum analyzer settings were as follows:

- The span was set to encompass entire emission bandwidth (B), centered on the transmit channel.
- The RBW = 1 MHz, VBW >= 3 MHz
- Sample detector mode because the bin width (span / number of spectral points) < 0.5 RBW.
- Trace average 100 traces in power averaging mode (not video averaging).
- Power was integrated across "B", by using the channel power function of the analyzer.

Completed by:


NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

COMMENTS

The output of the RF detector diode is negative polarity.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Public Notice DA 02-2138 allows averaging across the transmission pulse duration (T) - even if it is longer than 30/B (where B = 26 dB emission bandwidth of the signal). The value of T is required to determine the method of measuring Peak Transmit Power.

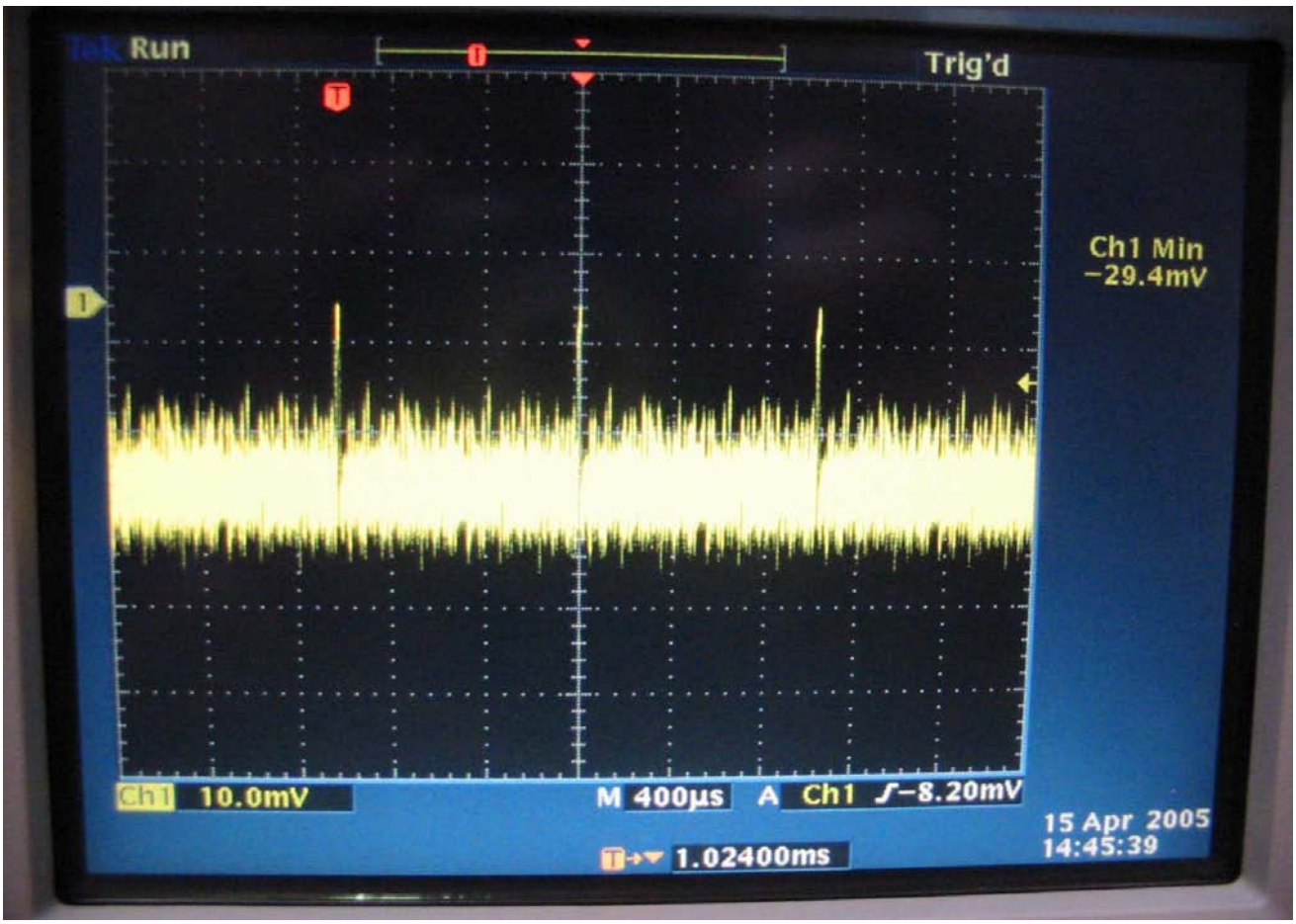
RESULTS	Value of T
Pass	1.02 mS

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Transmission Pulse Duration (T)



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

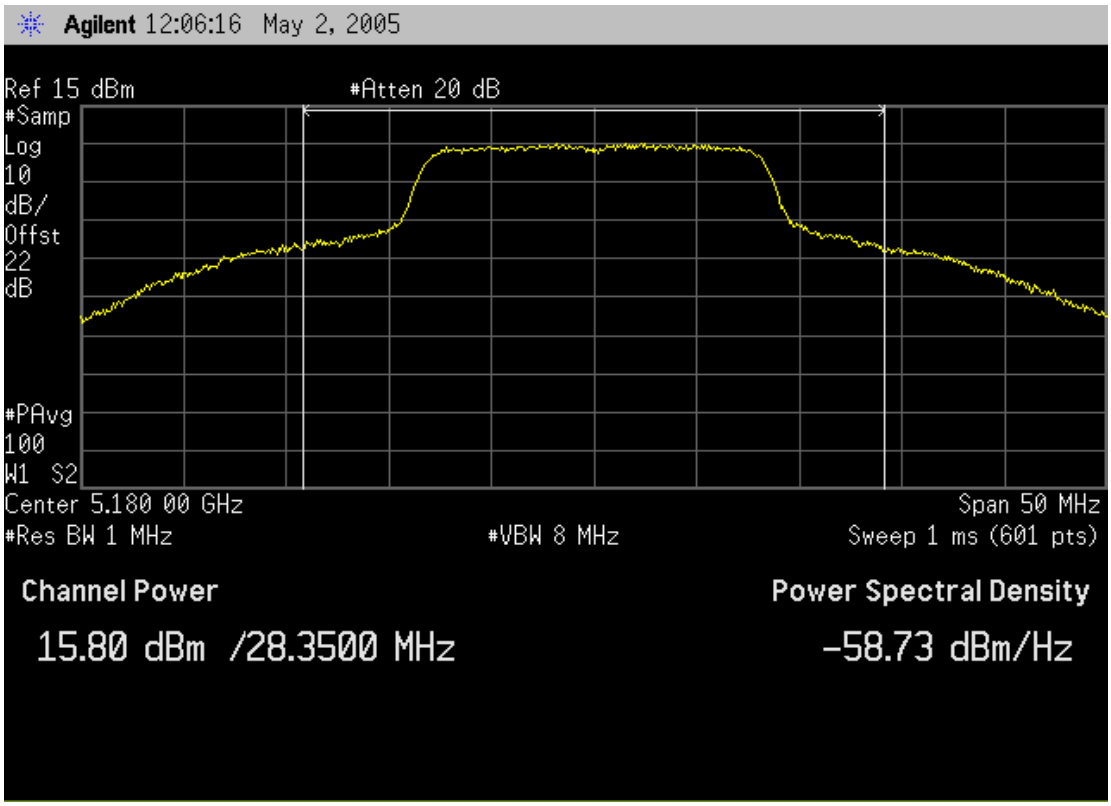
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5180	28.35	18.53	17	4	17.00	15.80	-1.20



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

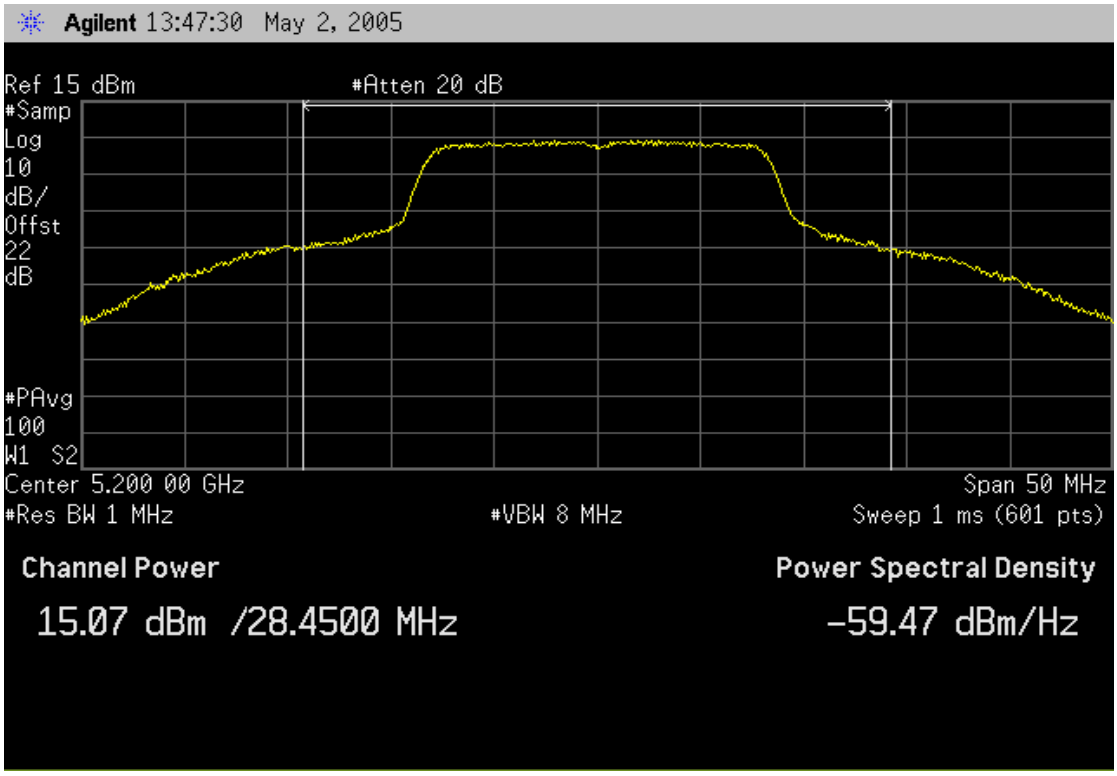
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5200	28.45	18.54	17	4	17.00	15.07	-1.93



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

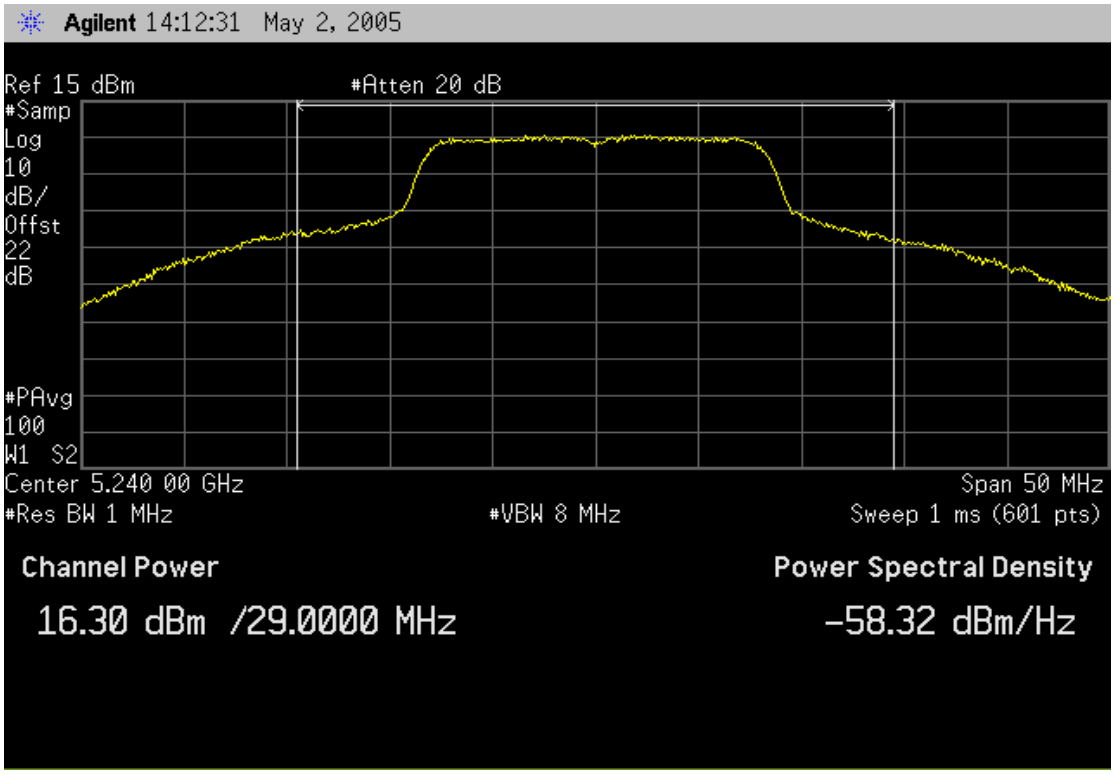
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5240	29	18.62	17	4	17.00	16.30	-0.70



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

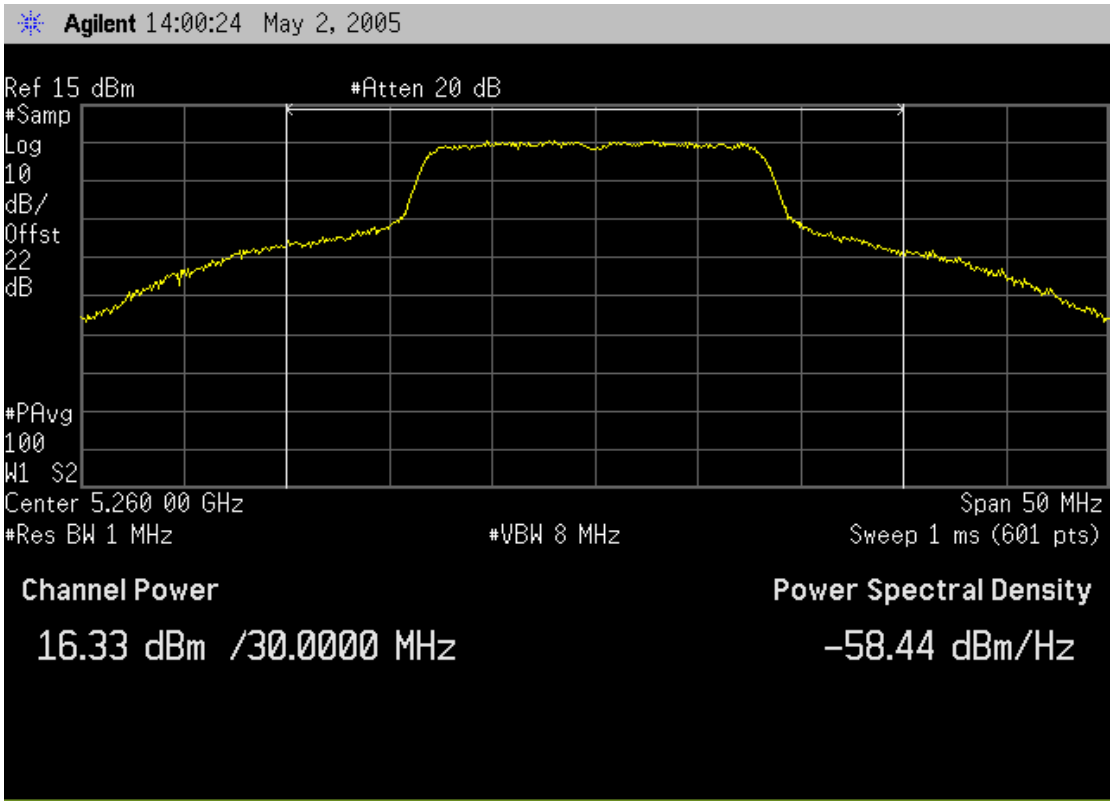
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5260	30	25.77	24	4	24.00	16.33	-7.67



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5300	30.2	25.80	24	4	24.00	16.81	-7.19

NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

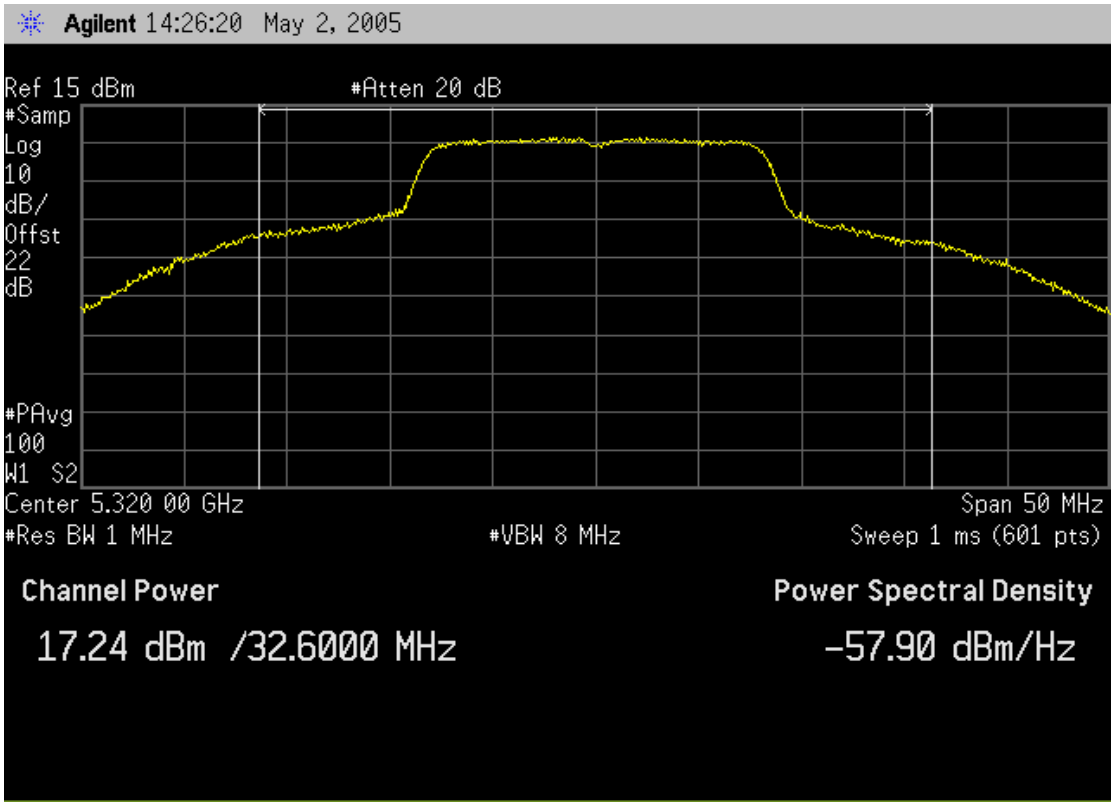
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5320	32.6	26.13	24	4	24.00	17.24	-6.76



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

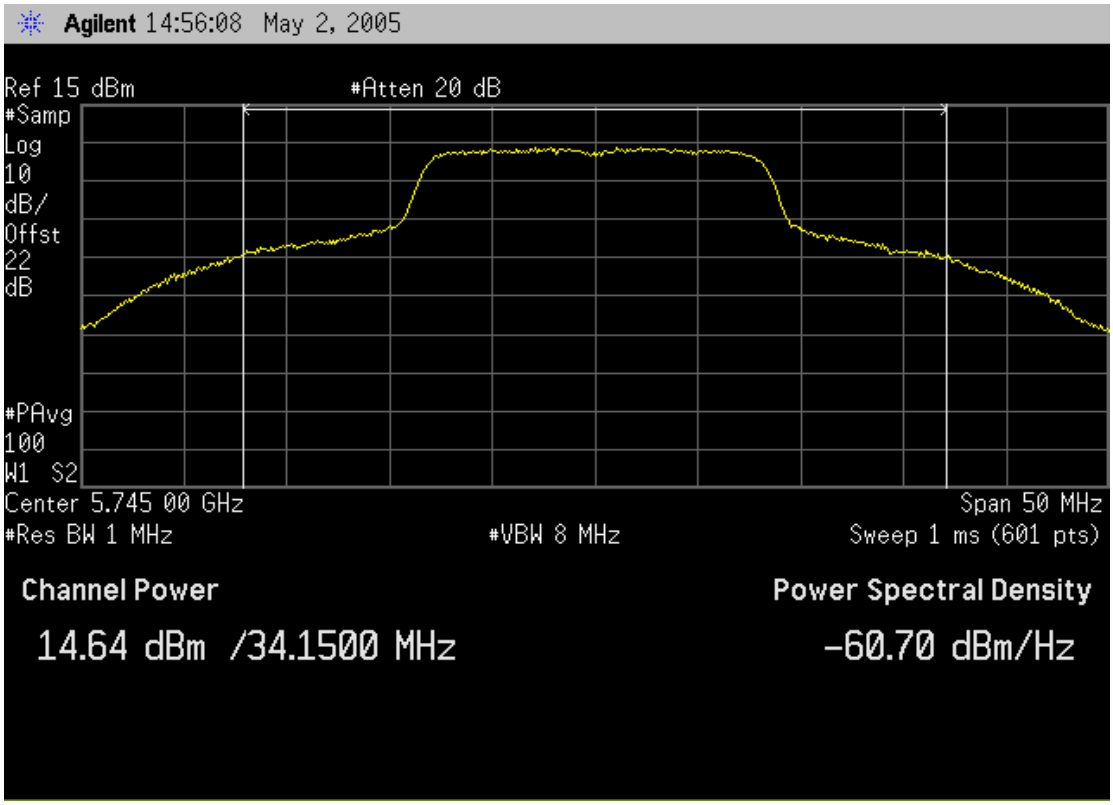
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5745	34.15	32.33	30	4	30.00	14.64	-15.36



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

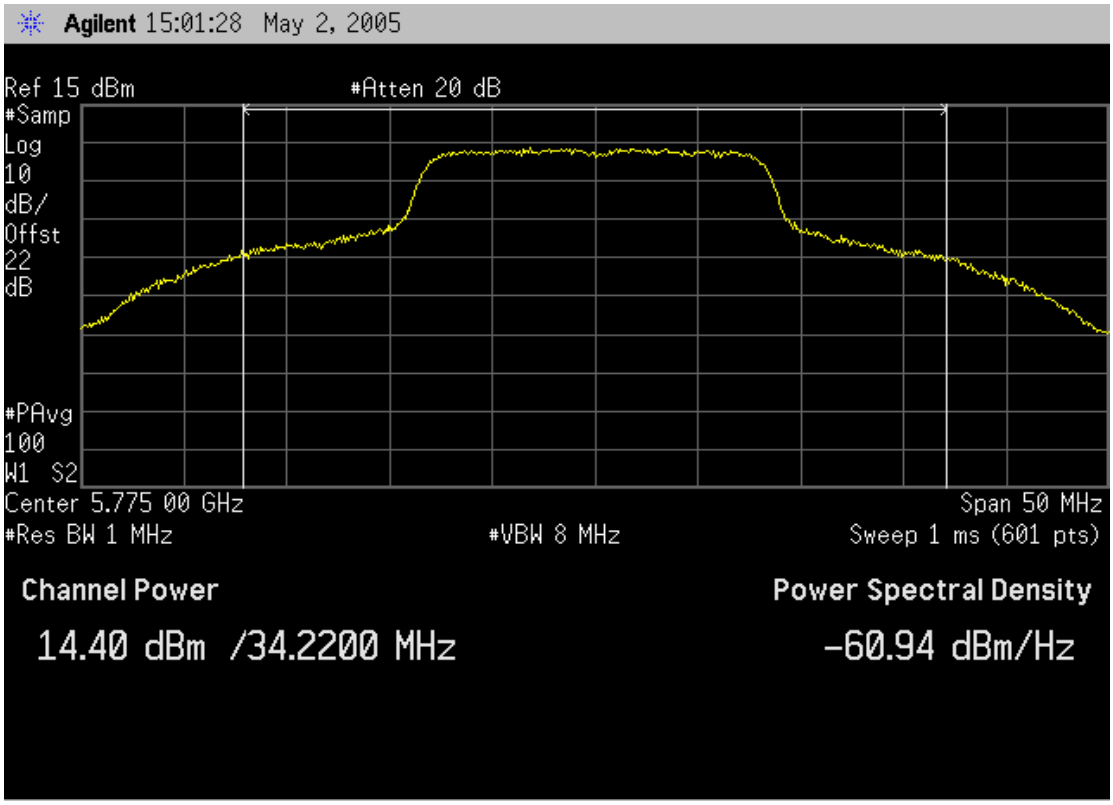
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5775	34.2	32.34	30	4	30.00	14.40	-15.60



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

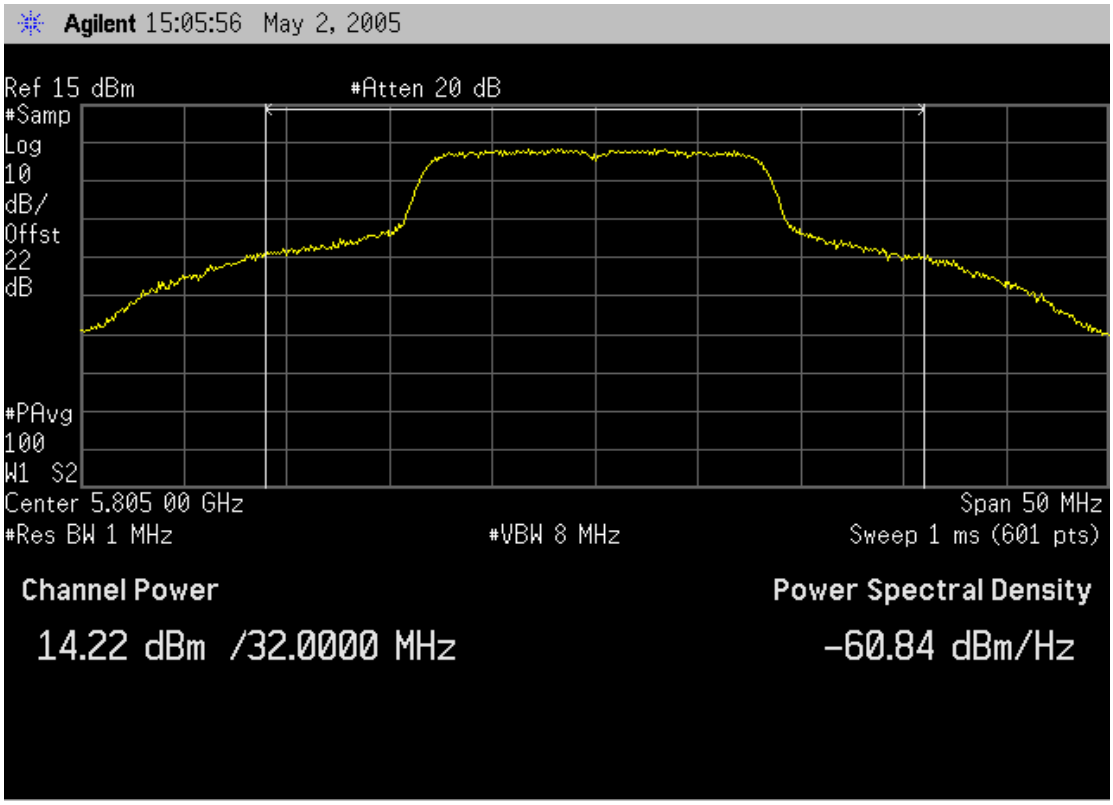
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5805	32	32.05	30	4	30.00	14.22	-15.78



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

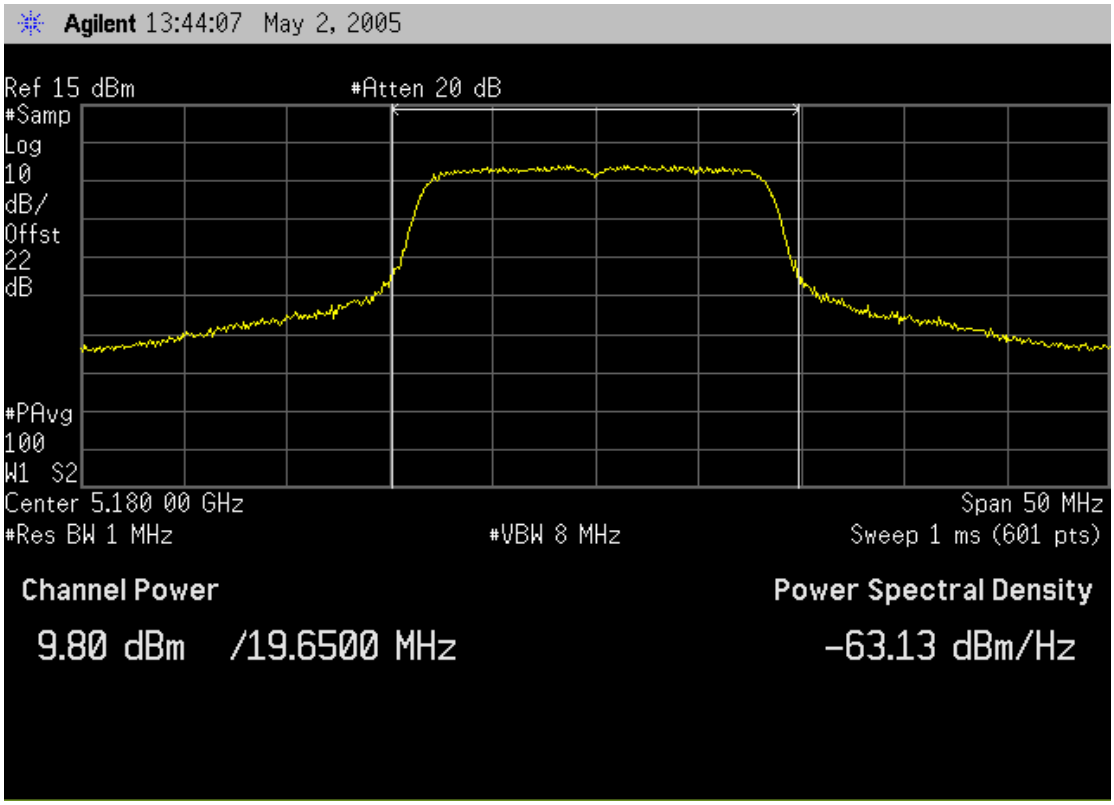
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5180	19.65	16.93	17	4	16.93	9.80	-7.13



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

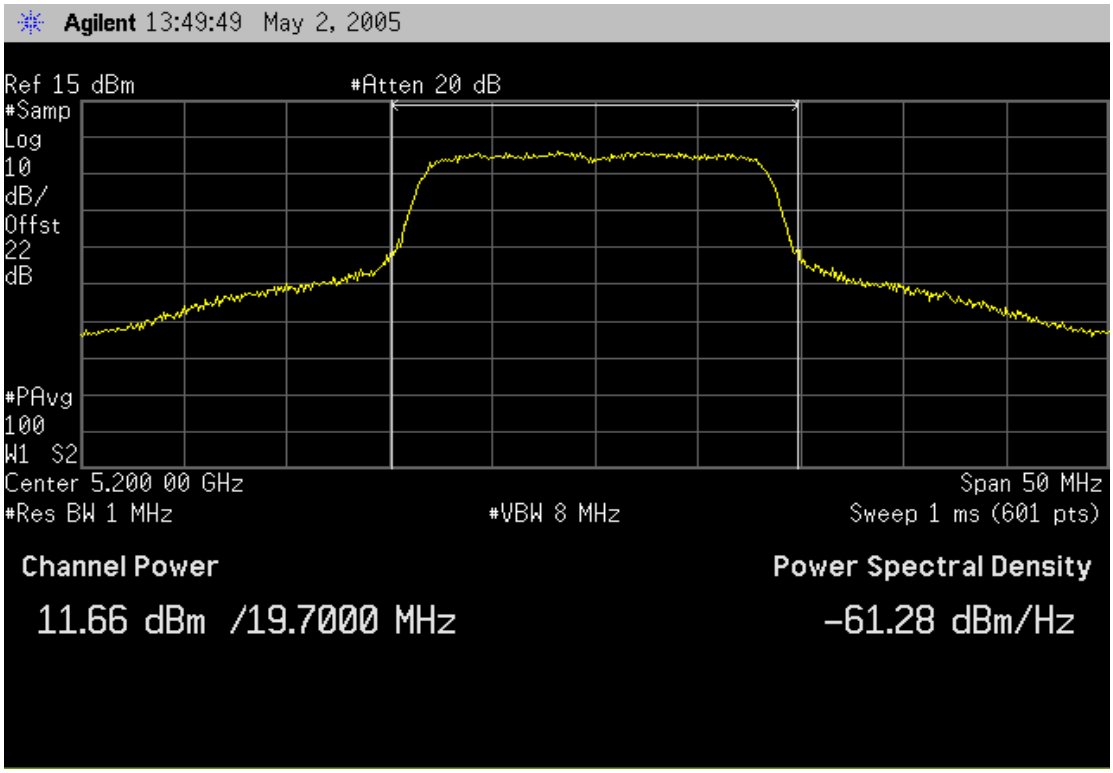
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5200	19.7	16.94	17	4	16.94	11.66	-5.28



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

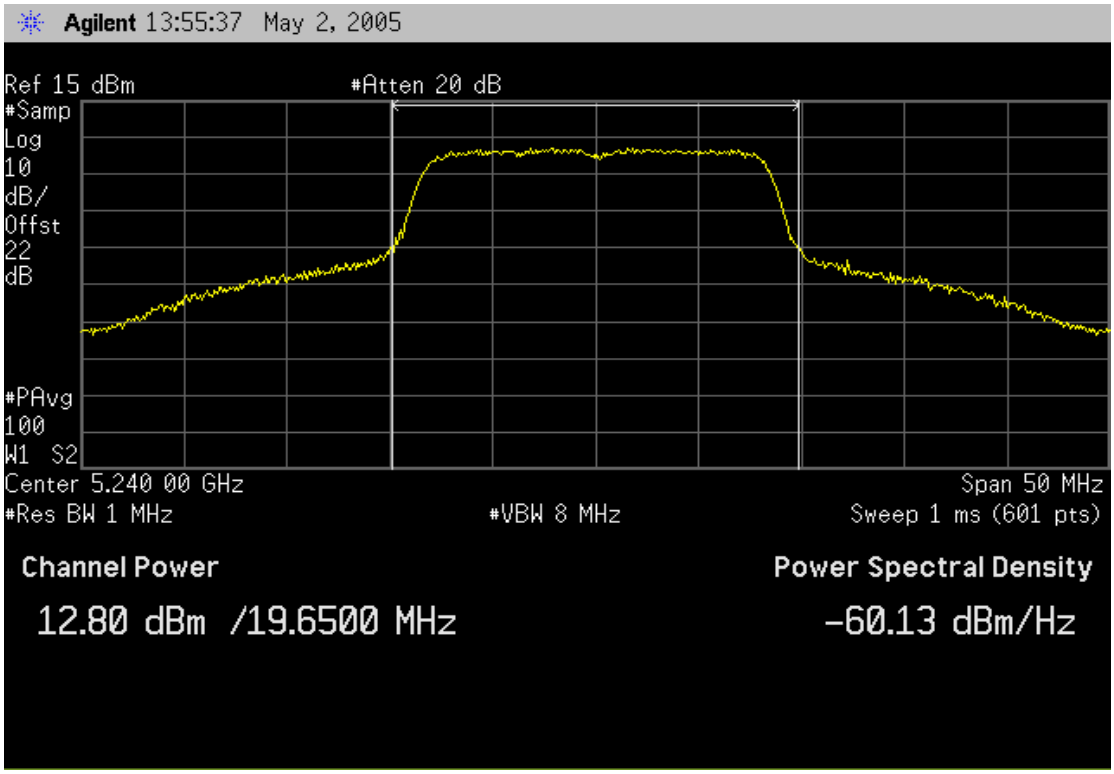
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5240	19.65	16.93	17	4	16.93	12.80	-4.13



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

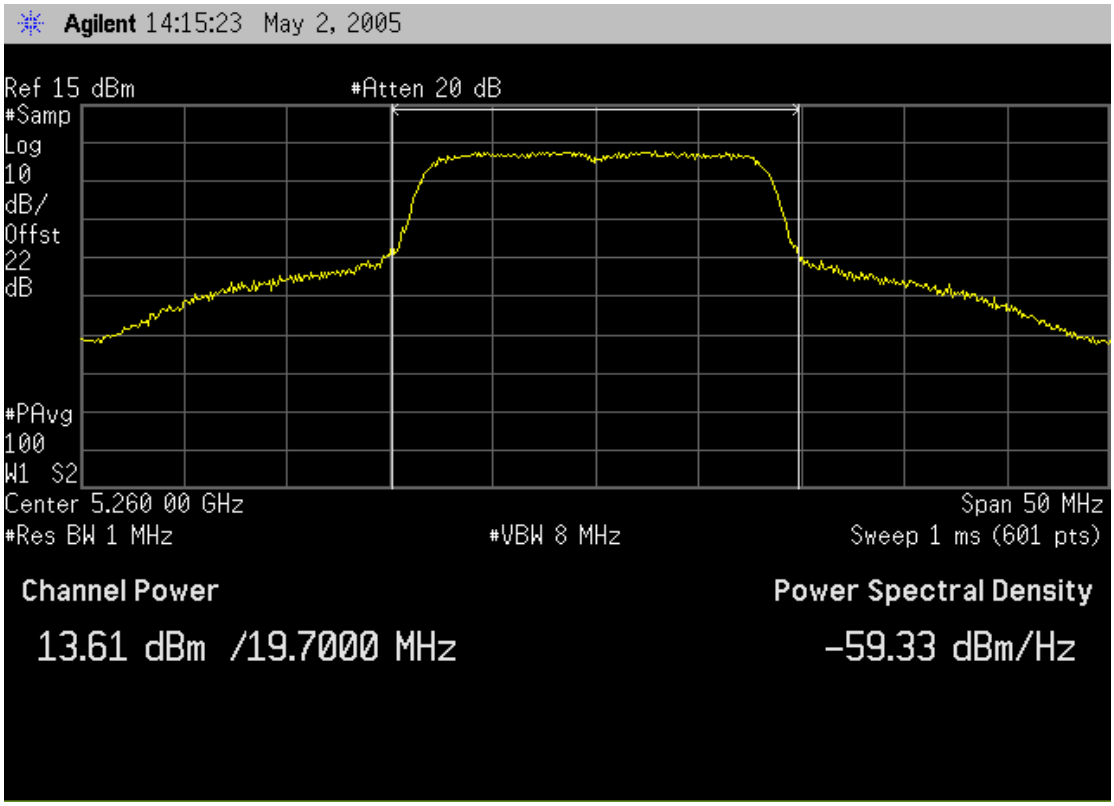
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5260	19.7	23.94	24	4	23.94	13.61	-10.33



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

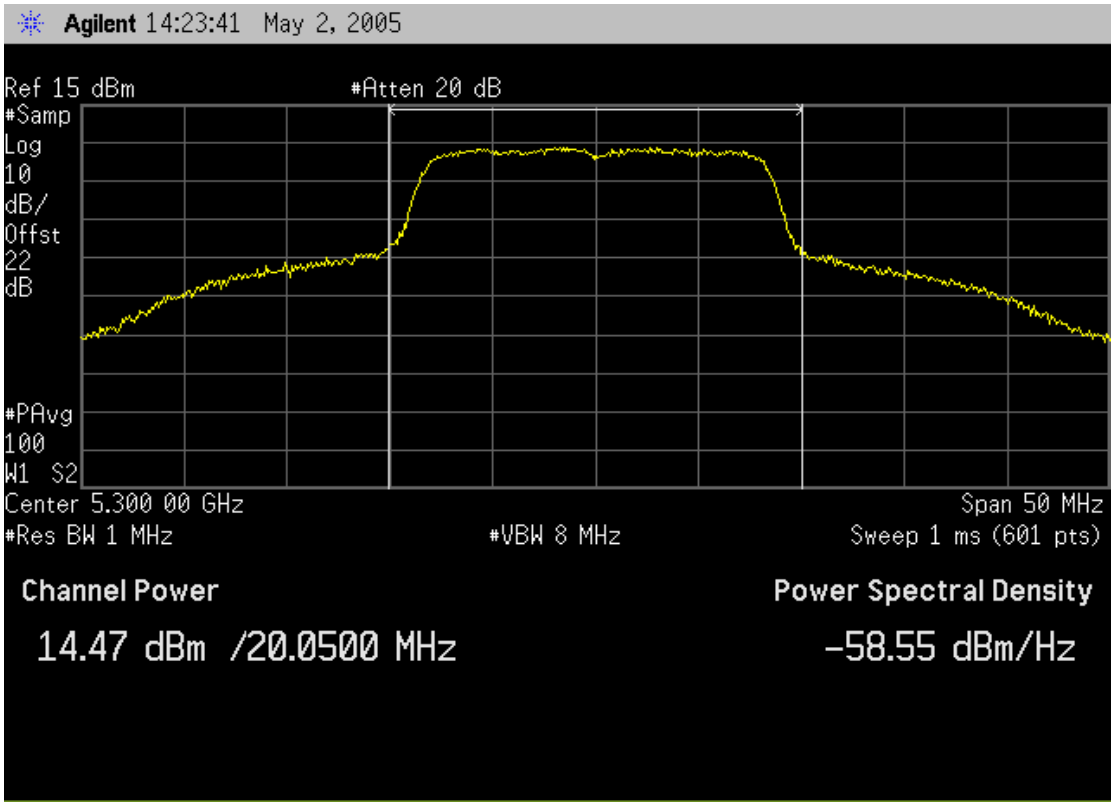
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5300	20.05	24.02	24	4	24.00	14.47	-9.53



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

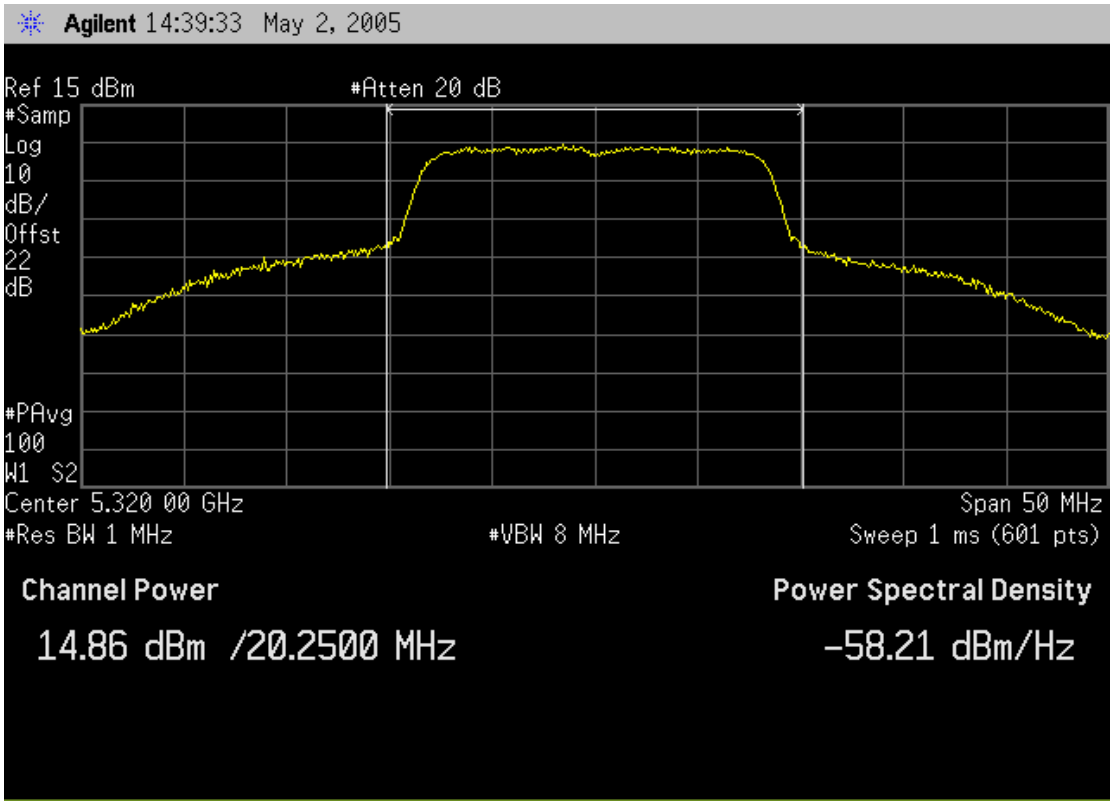
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5320	20.25	24.06	24	4	24.00	14.86	-9.14



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

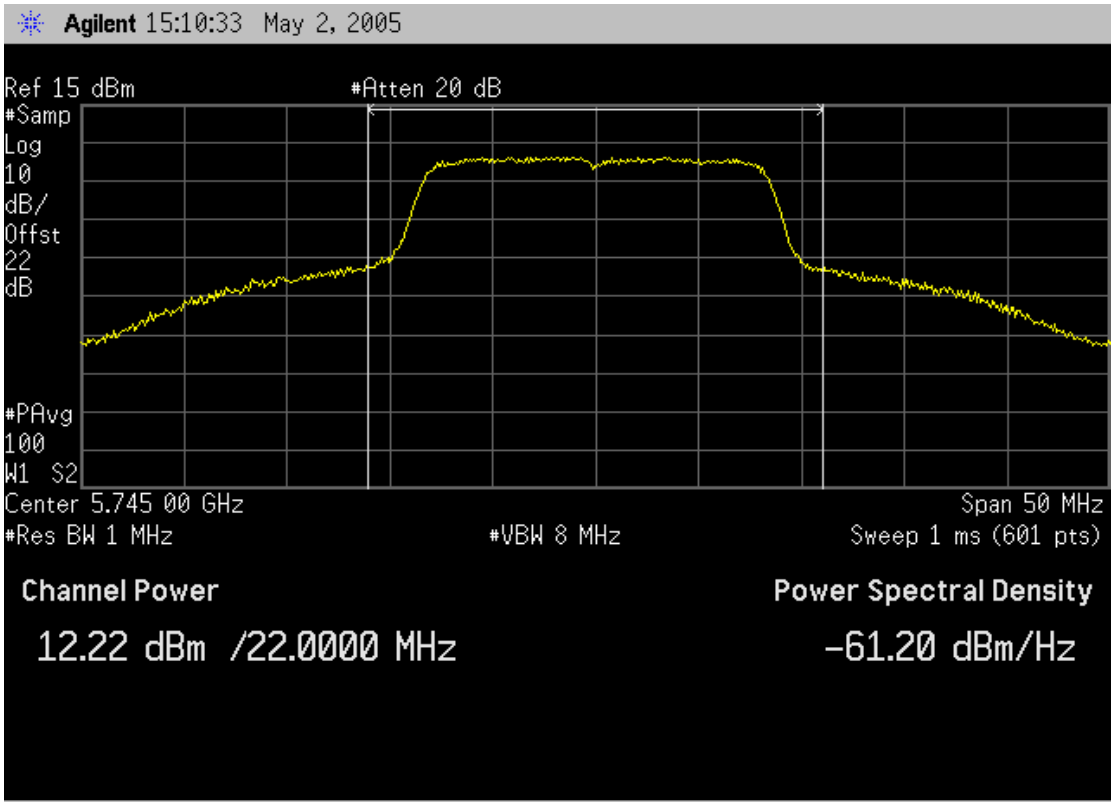
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5745	22	30.42	30	4	30.00	12.22	-17.78



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

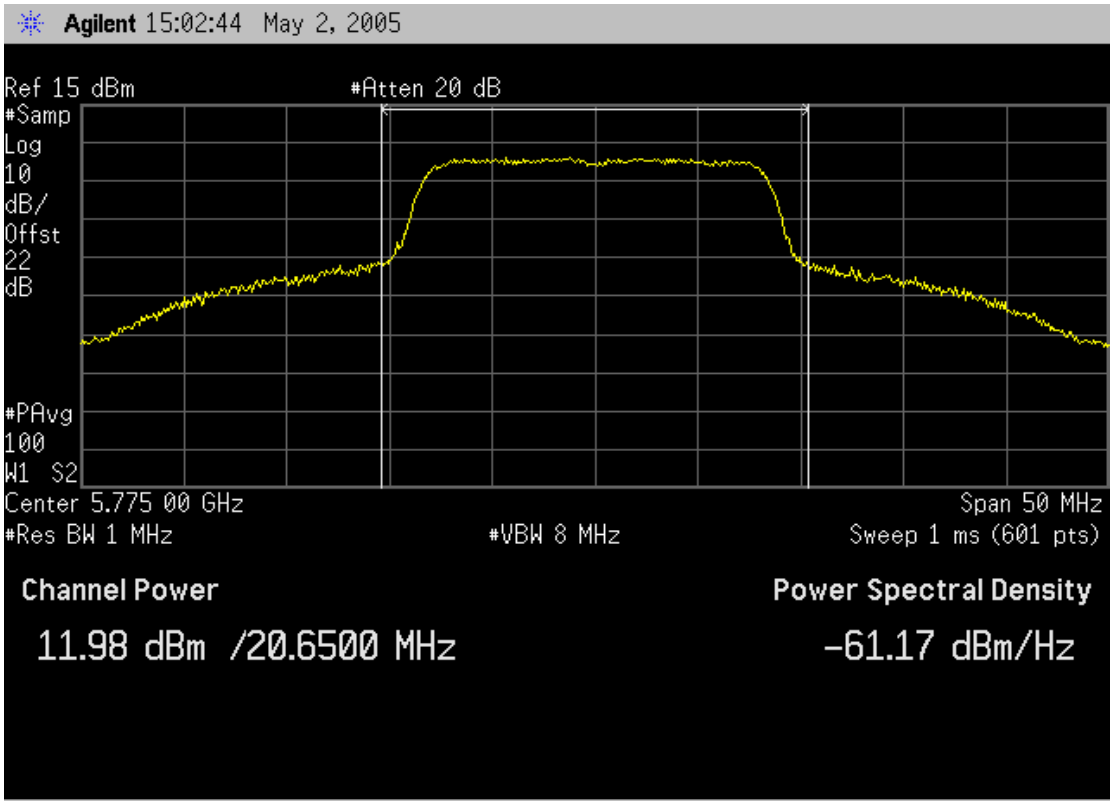
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5775	20.65	30.15	30	4	30.00	11.98	-18.02



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

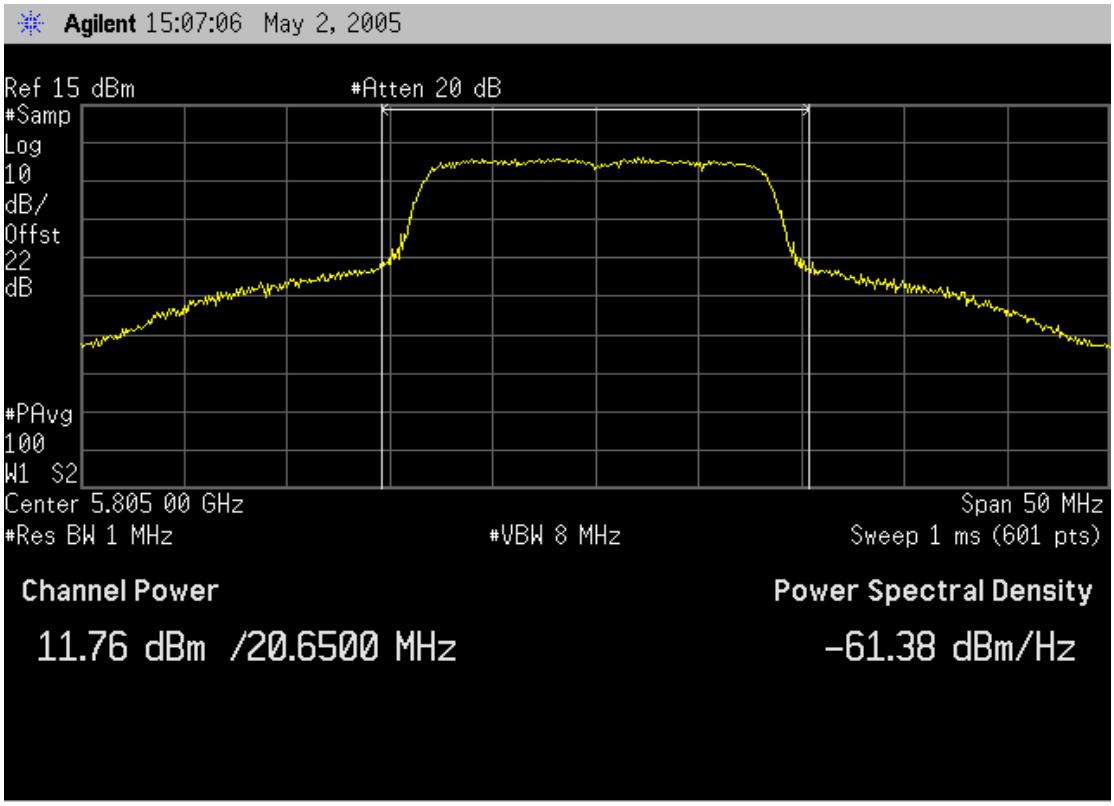
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5805	20.65	30.15	30	4	30.00	11.76	-18.24



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

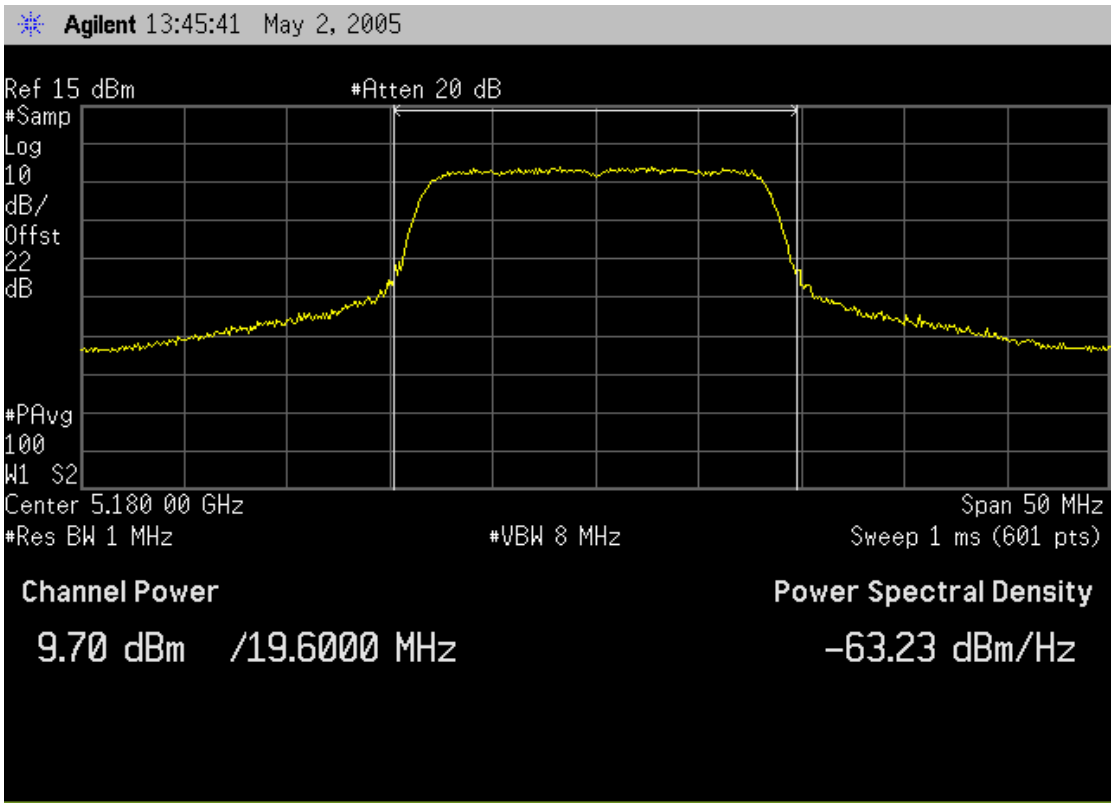
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5180	19.6	16.92	17	4	16.92	9.70	-7.22



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

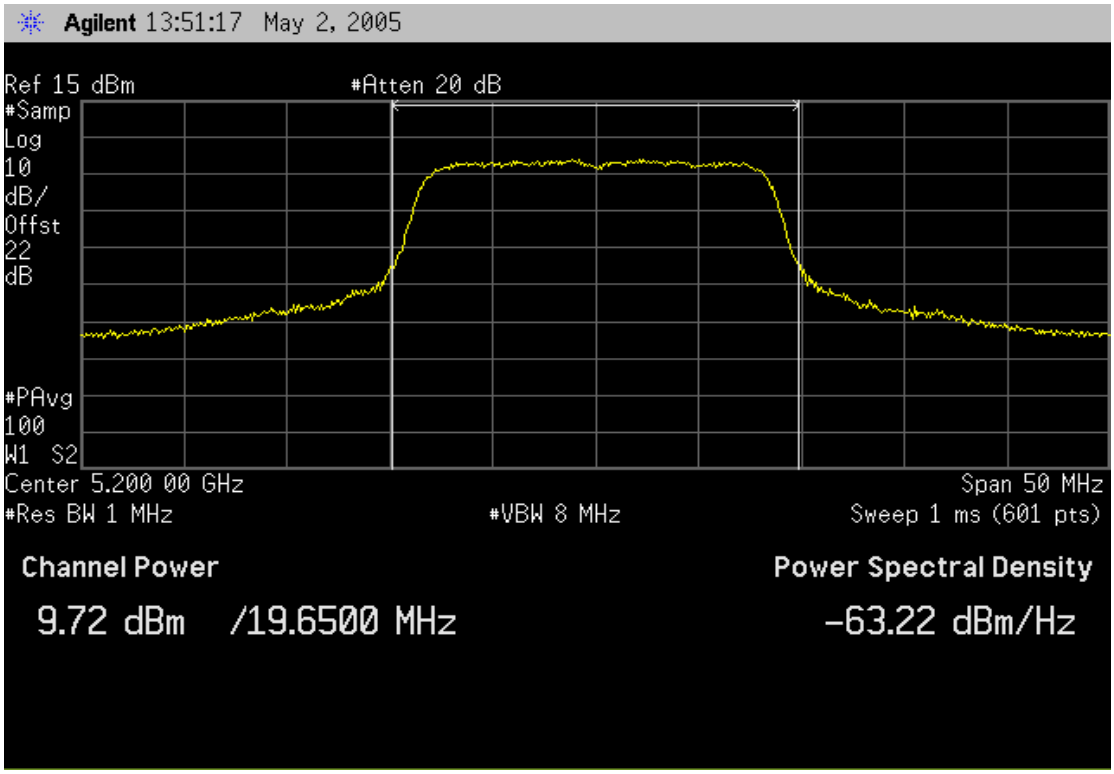
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5200	19.65	16.93	17	4	16.93	9.72	-7.21



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak transmit power shall not exceed the lesser of 50mW or 4dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

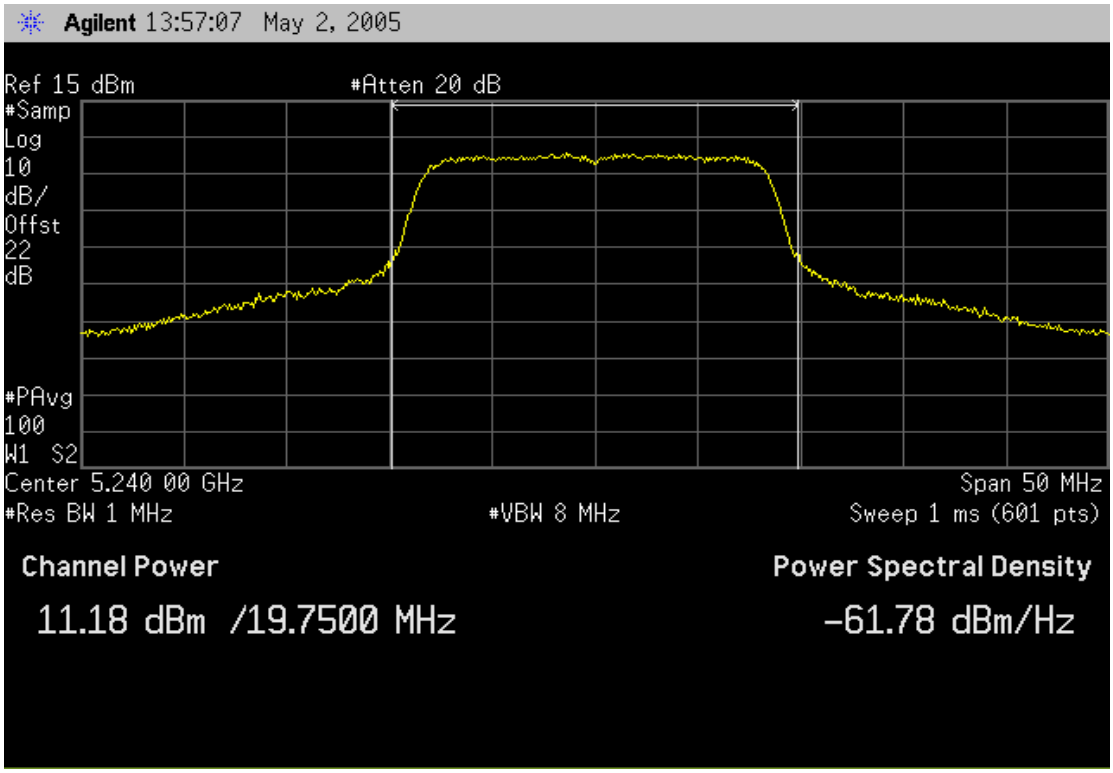
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5240	19.75	16.96	17	4	16.96	11.18	-5.78



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

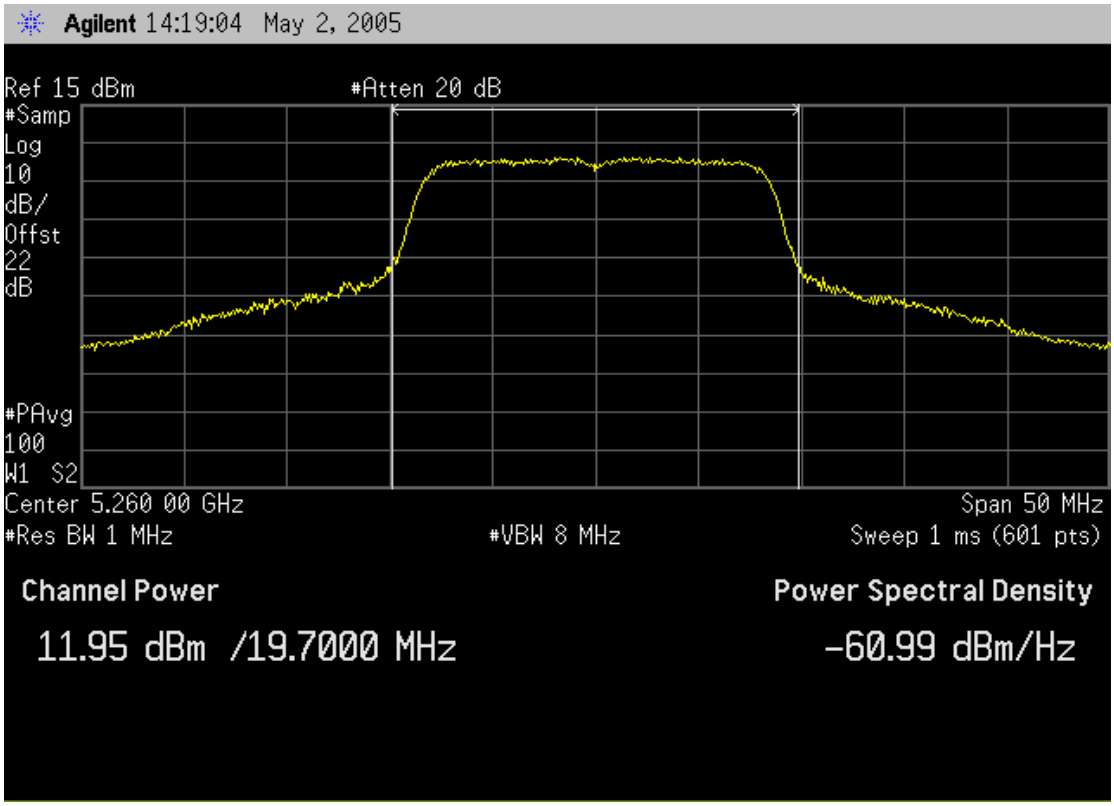
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5260	19.7	23.94	24	4	23.94	11.95	-11.99



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

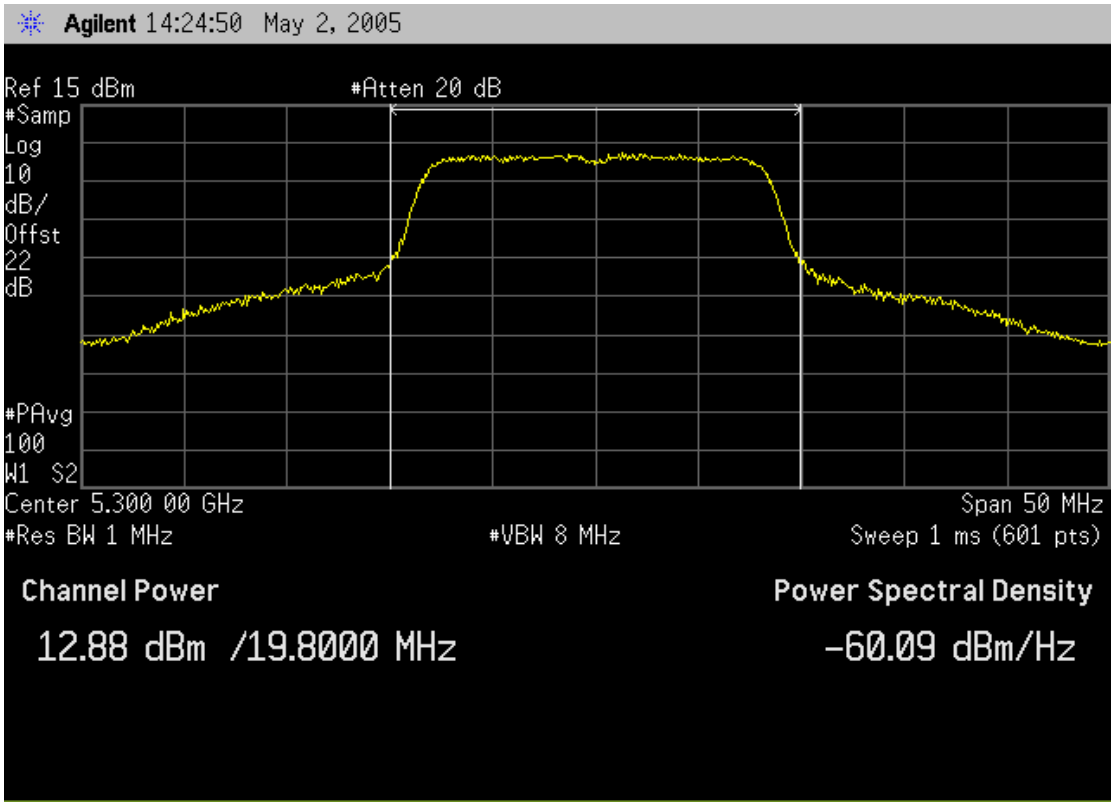
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5300	19.8	23.97	24	4	23.97	12.88	-11.09



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak transmit power shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

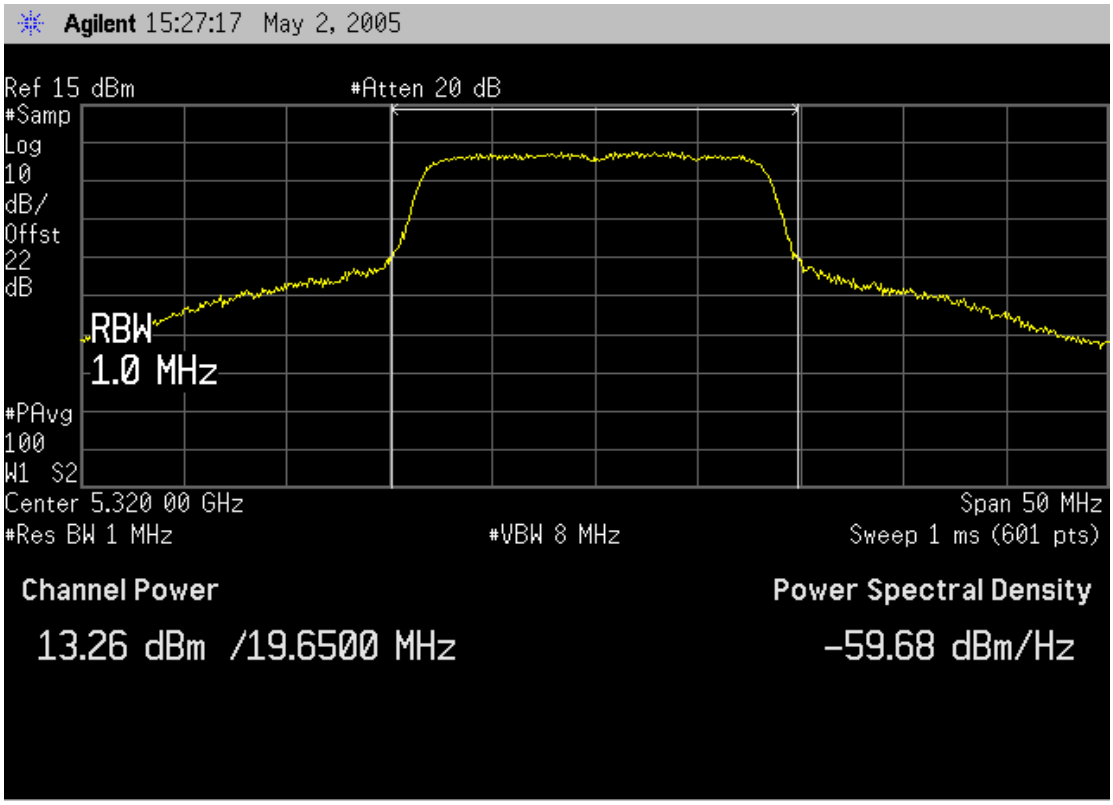
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5320	19.65	23.93	24	4	23.93	13.26	-10.67



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

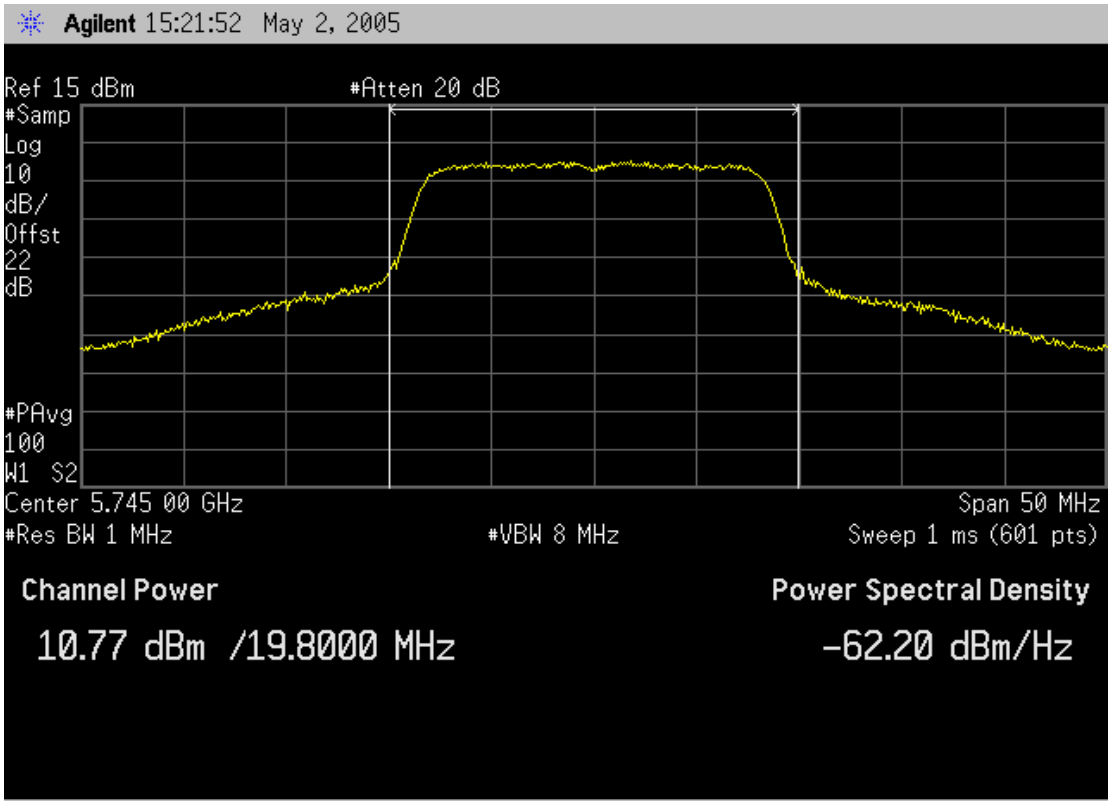
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Low Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5745	19.8	29.97	30	4	29.97	10.77	-19.20



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

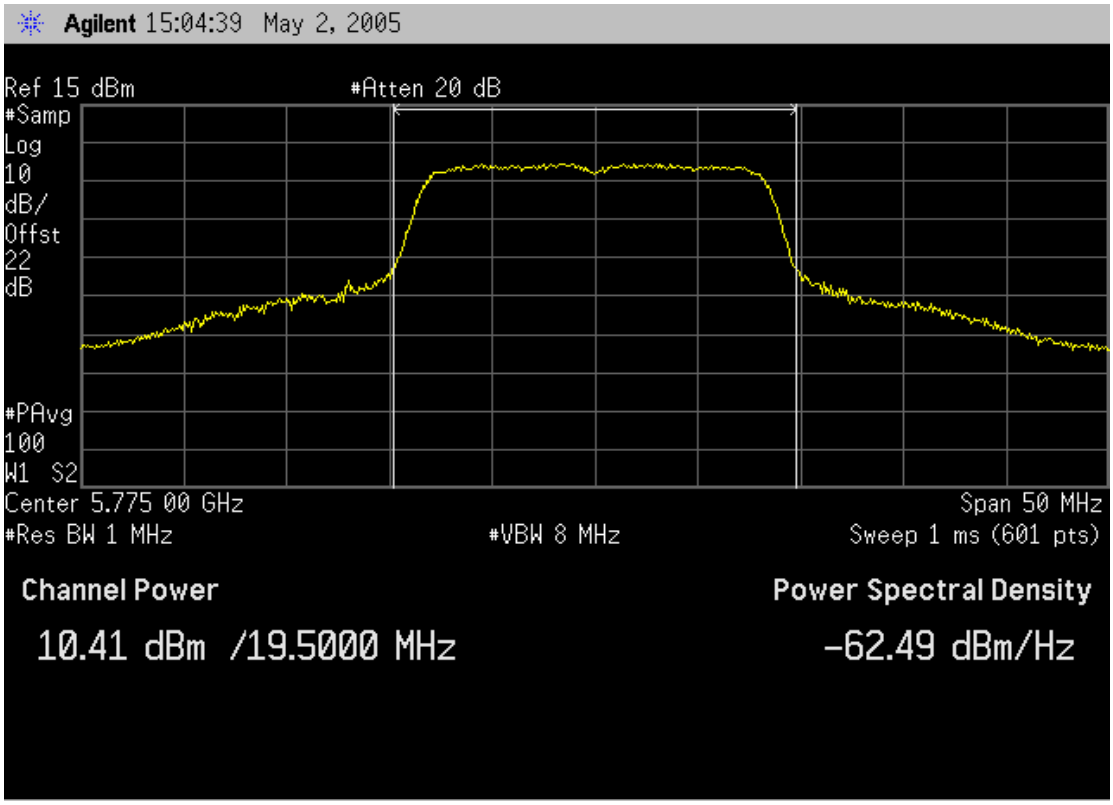
Tested By: _____

DESCRIPTION OF TEST

Peak Output Power - Mid Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5775	19.5	29.90	30	4	29.90	10.41	-19.49



NORTHWEST EMC

Peak Output Power

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2004

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak transmit power shall not exceed the lesser of 1 W or 17dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
If the antenna gain is greater than 6 dBi, the output must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

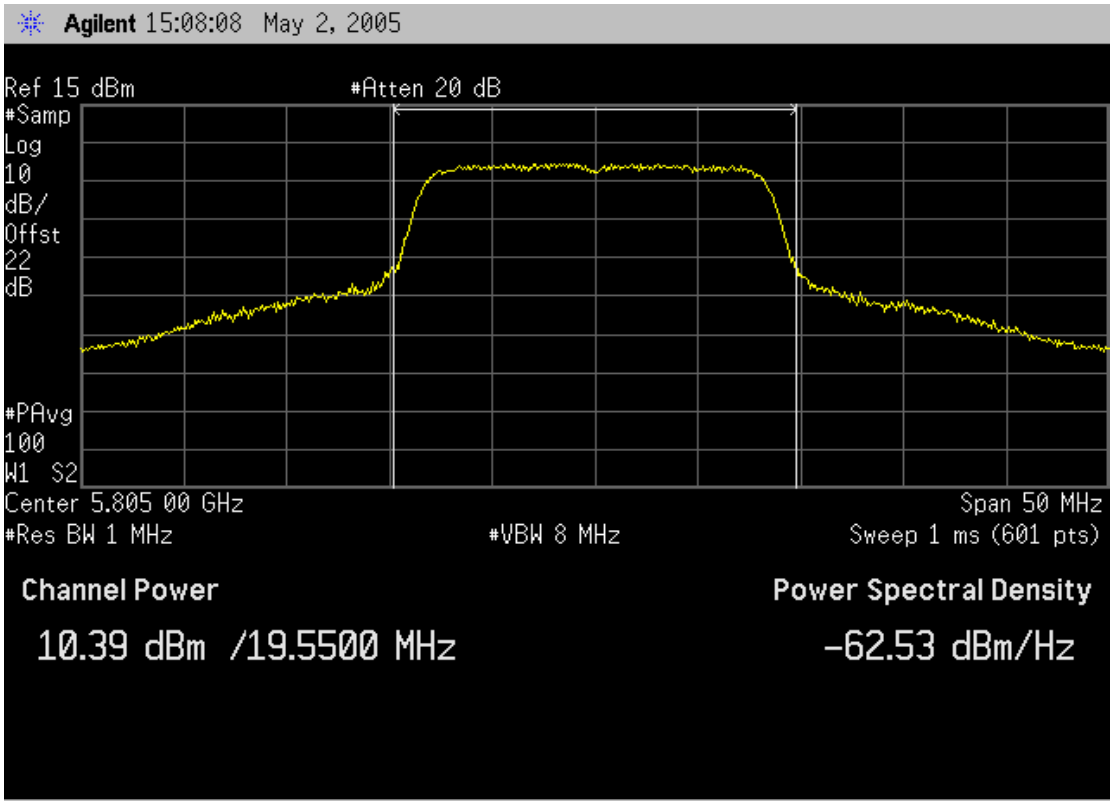
Tested By: _____

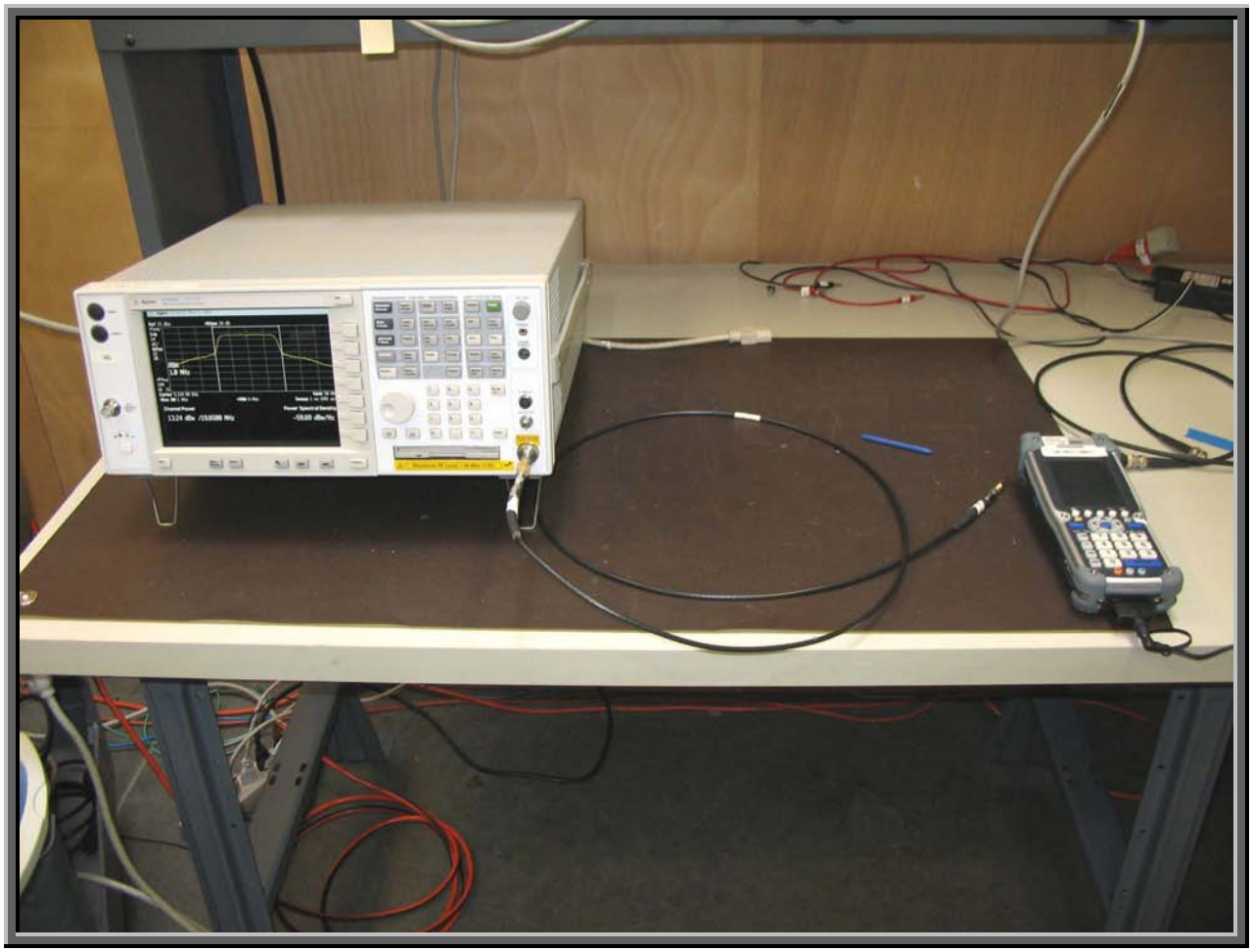
DESCRIPTION OF TEST

Peak Output Power - High Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	B (MHz)	B Limit (dBm)	Fixed Limit (dBm)	Antenna Gain (dBi)	Actual Limit (dBm)	Measured Power (dBm)	Margin (dB)
5805	19.55	29.91	30	4	29.91	10.39	-19.52





Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:
Ch 36 (5180 MHz)
Ch 40 (5200 MHz)
Ch 48 (5240 MHz)
Ch 52 (5260 MHz)
Ch 60 (5300 MHz)
Ch 64 (5320 MHz)
Ch 149 (5745 MHz)
Ch 155 (5775 MHz)
Ch 161 (5805 MHz)

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
6 Mbps (802.11a)
36 Mbps (802.11a)
54 Mbps (802.11a)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC/60Hz

Software\Firmware Applied During Test			
Exercise software	cTxRx Win CE	**Version**	0.1.2.1
Description			
The system was tested using special software developed to test all functions of the device during the test.			

EUT and Peripherals			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT- 802.11(a)/(b)/(g) radio	Intermec Technologies Corporation	802UIAG	Unknown
AC Adapter	Intermec Technologies Corporation	851-061-002	3335175
Host Device	Intermec Technologies Corporation	CK61	33390400265

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
AC Power	No	2.0	No	AC Power Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Signal Generator	Hewlett Packard	8341B	TGN	02/07/2005	13 mo
Power Meter	Hewlett Packard	E4418A	SPA	07/23/2004	24 mo
Power Sensor	Hewlett-Packard	8481H	SPB	07/23/2004	24 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	04/08/2005	13 mo

Test Description

Requirements: Per 15.403(m), "…The peak power spectral density is the maximum power spectral density, within the specified measurement bandwidth, within the U-NII device operating band."

Per 15.407(a)(5), "…Measurements are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less."

Per 15.407(a), the peak power spectral density limits are:

(1) "For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both

the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain up to 23 dBi without any corresponding reduction in the transmitter peak output power or peak power spectral density. For fixed, point-to-point U-NII transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in peak transmitter power and peak power spectral density for each 1 dB of antenna gain in excess of 23 dBi would be required. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations. NOTE: The Commission strongly recommends that parties employing U-NII devices to provide critical communications services should determine if there are any nearby Government radar systems that could affect their operation.

Configuration: FCC Public Notice DA 02-2138 was followed. The transmit frequency was set to the lowest, a medium, and the highest channels in each band. The transmit power was set to its default maximum. The lowest, a medium, and the highest data rates were measured. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input. The amplitude accuracy of the spectrum analyzer was further enhanced by calibrating the setup using the power meter and synthesized signal generator.

Prior to measuring peak power spectral density, the emission bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring peak power spectral density. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report. The transmission pulse duration (T) was measured across a constant amplitude pulse using an RF detector diode and an oscilloscope. The scope photos are found with the peak power measurement data elsewhere in this report.

Method #2 found in FCC Public Notice DA02-2138 was used because the analyzer sweep time was less than or equal to T.

The spectrum analyzer settings were as follows:

- The span was set to encompass entire emission bandwidth (B), centered on the transmit channel.
- RBW = 1 MHz, VBW >= 3 MHz because the emission bandwidth (B) is greater than 1 MHz
- Sample detector mode because the bin width (span / number of spectral points) < 0.5 RBW.
- Trace average 100 traces in power averaging mode (not video averaging).

The peak power spectral density (PPSD) was determined to be the highest level found across the emission in any 1 MHz band after 100 sweeps of power averaging (not video averaging).

Completed by:

NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/12/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

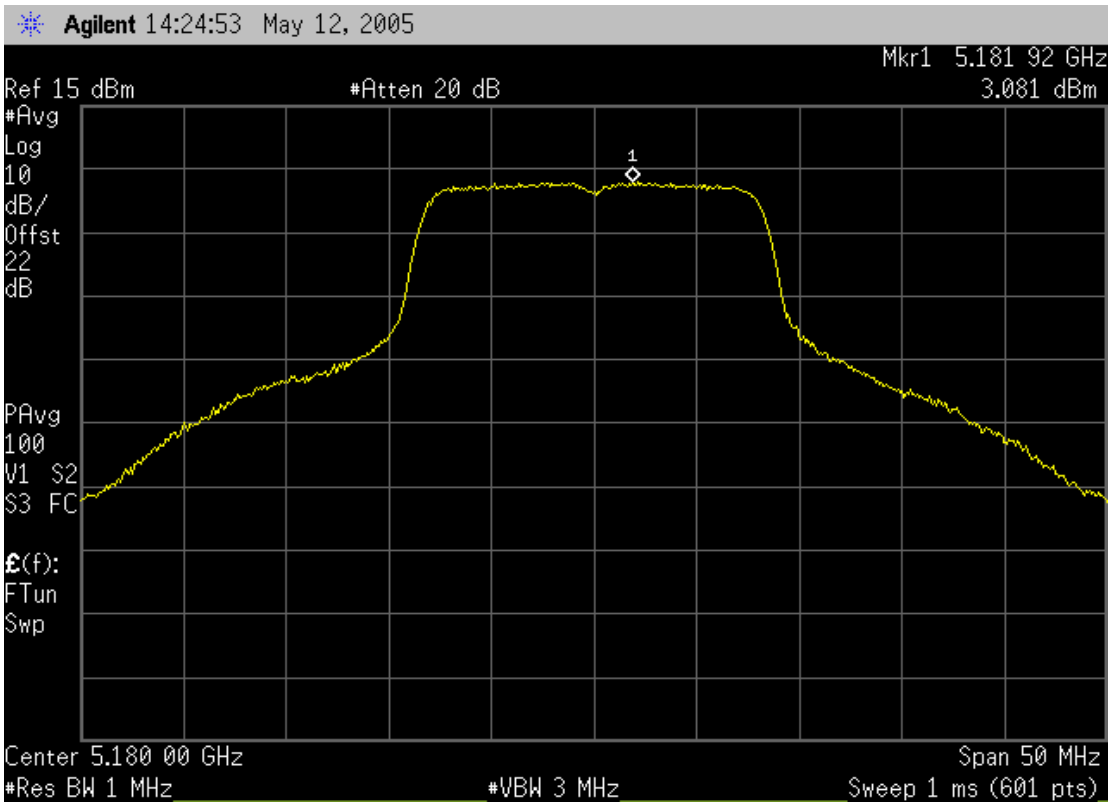
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5180	4	4.00	3.08	-0.92



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/12/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

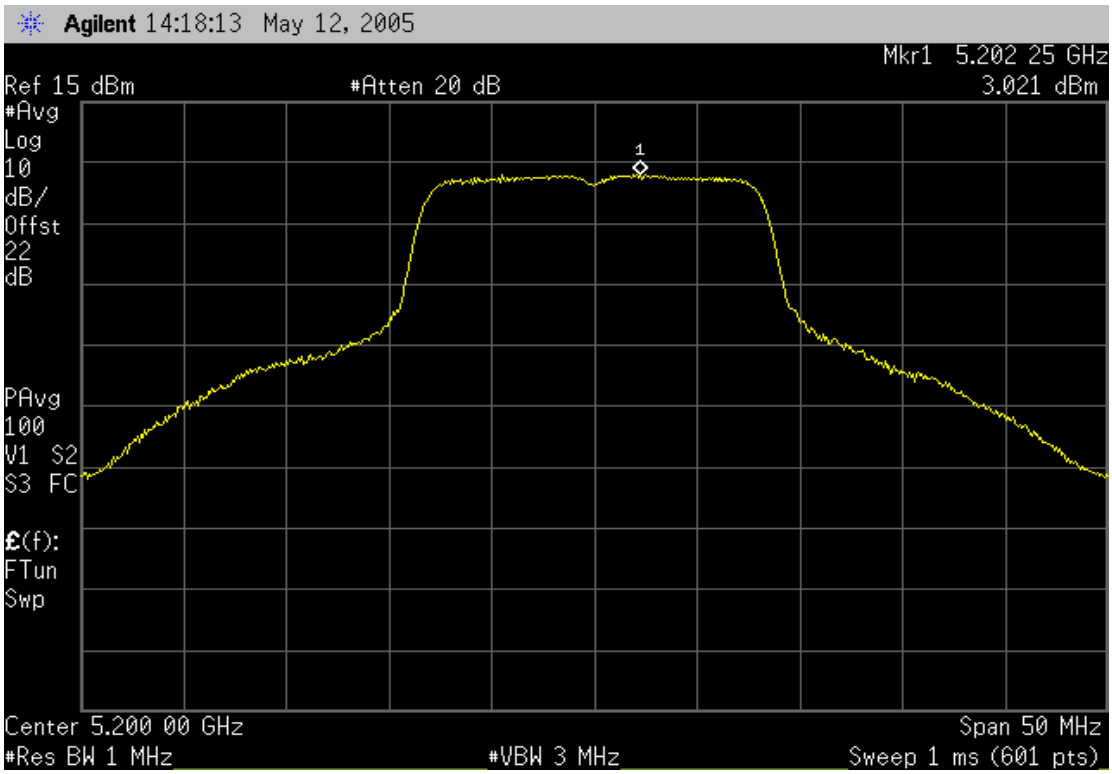
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5200	4	4.00	3.46	-0.54



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/12/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

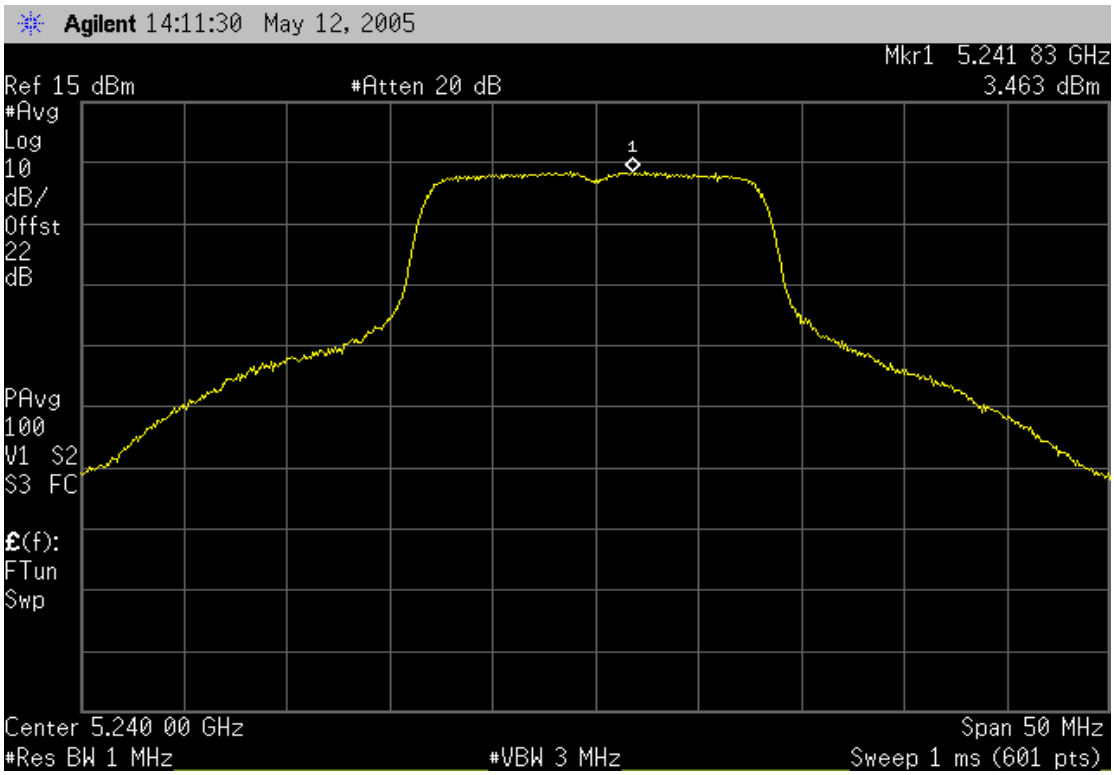
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5240	4	4.00	3.46	-0.54



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

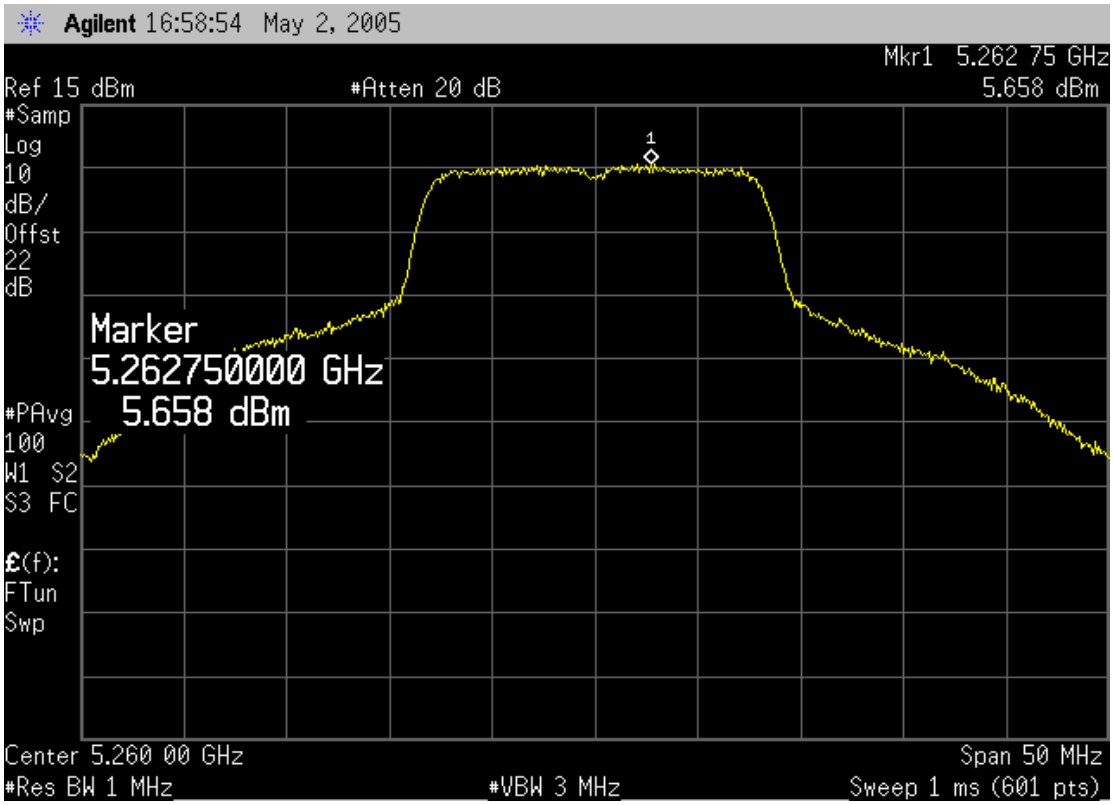
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5260	4	11.00	5.66	-5.34



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

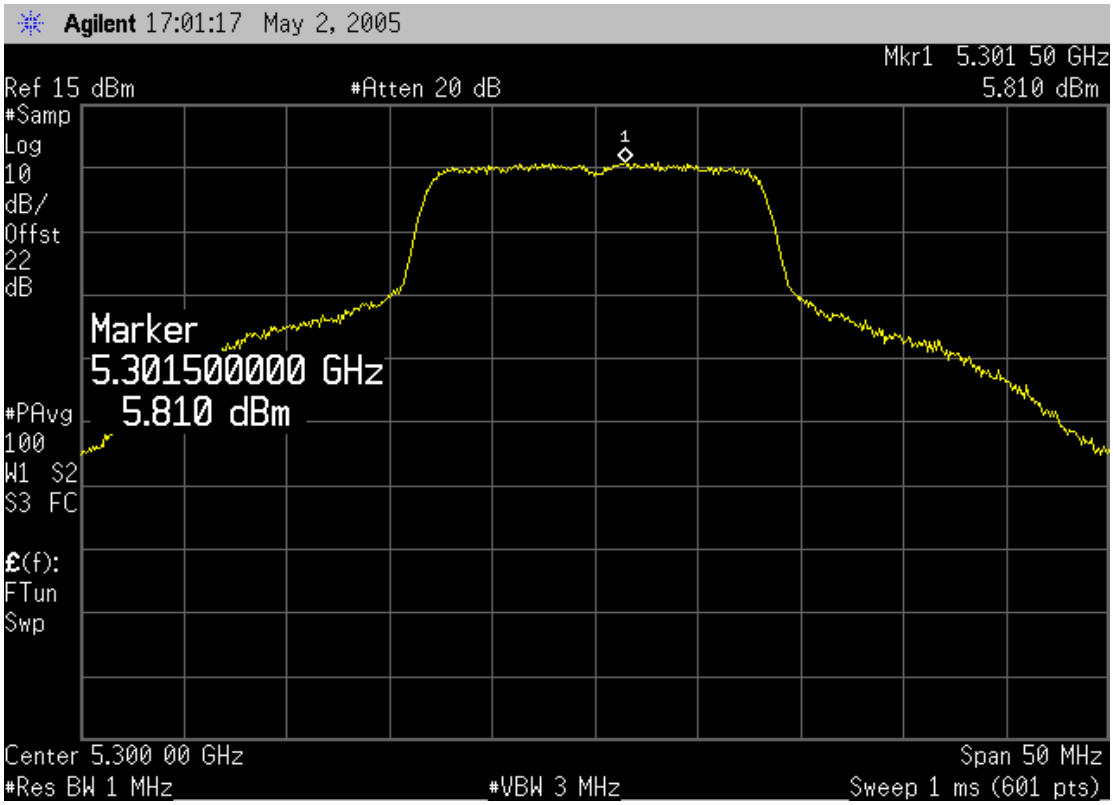
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5300	4	11.00	5.81	-5.19



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

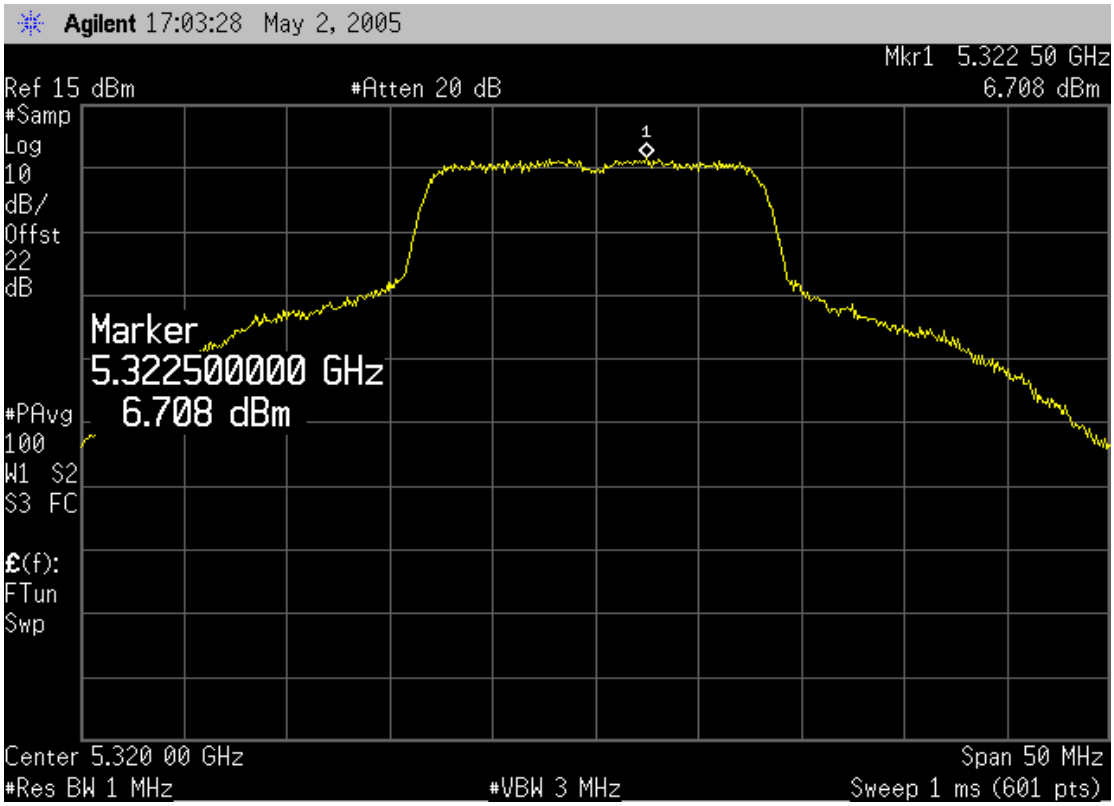
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5320	4	11.00	6.71	-4.29



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

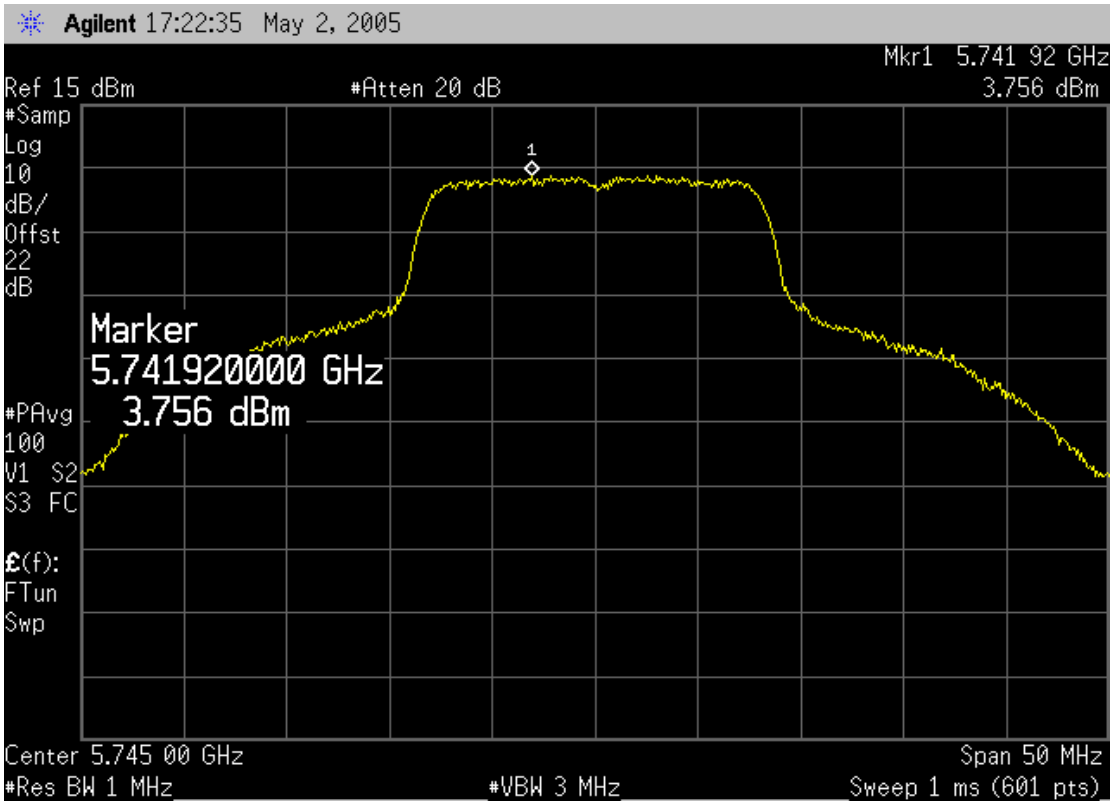
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5745	4	17.00	3.76	-13.24



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

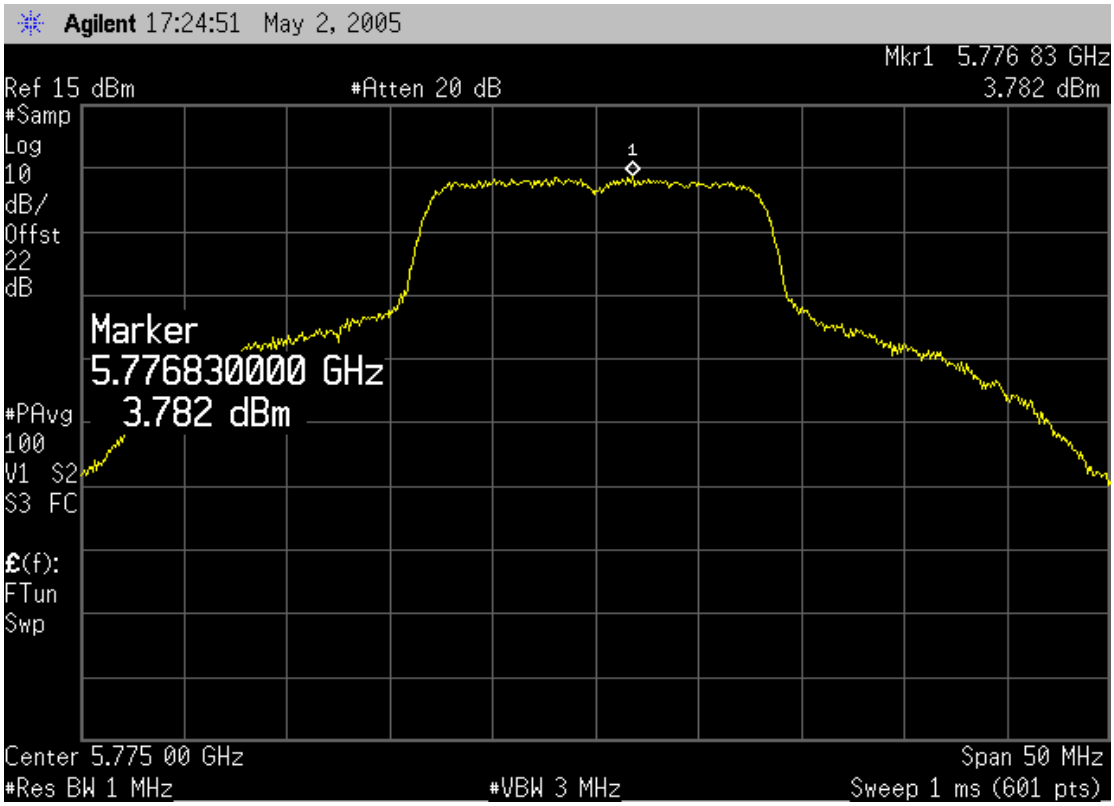
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5775	4	17.00	3.78	-13.22



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

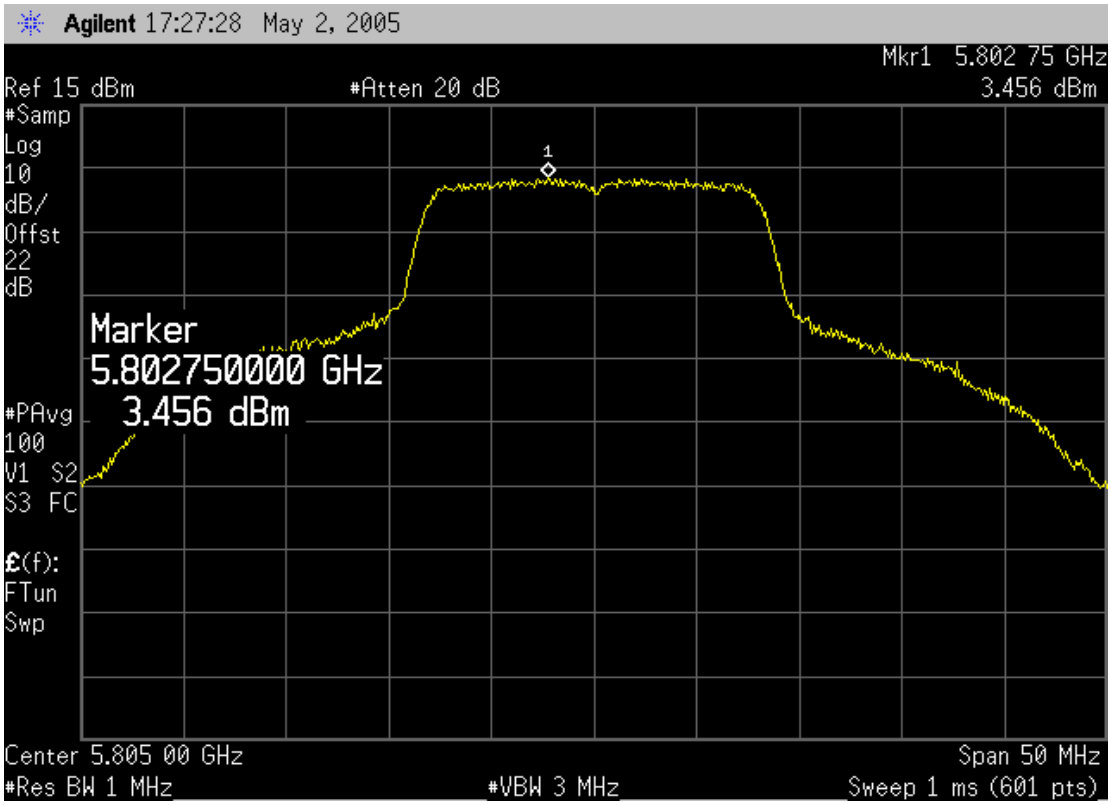
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 6 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5805	4	17.00	3.46	-13.54



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.

If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

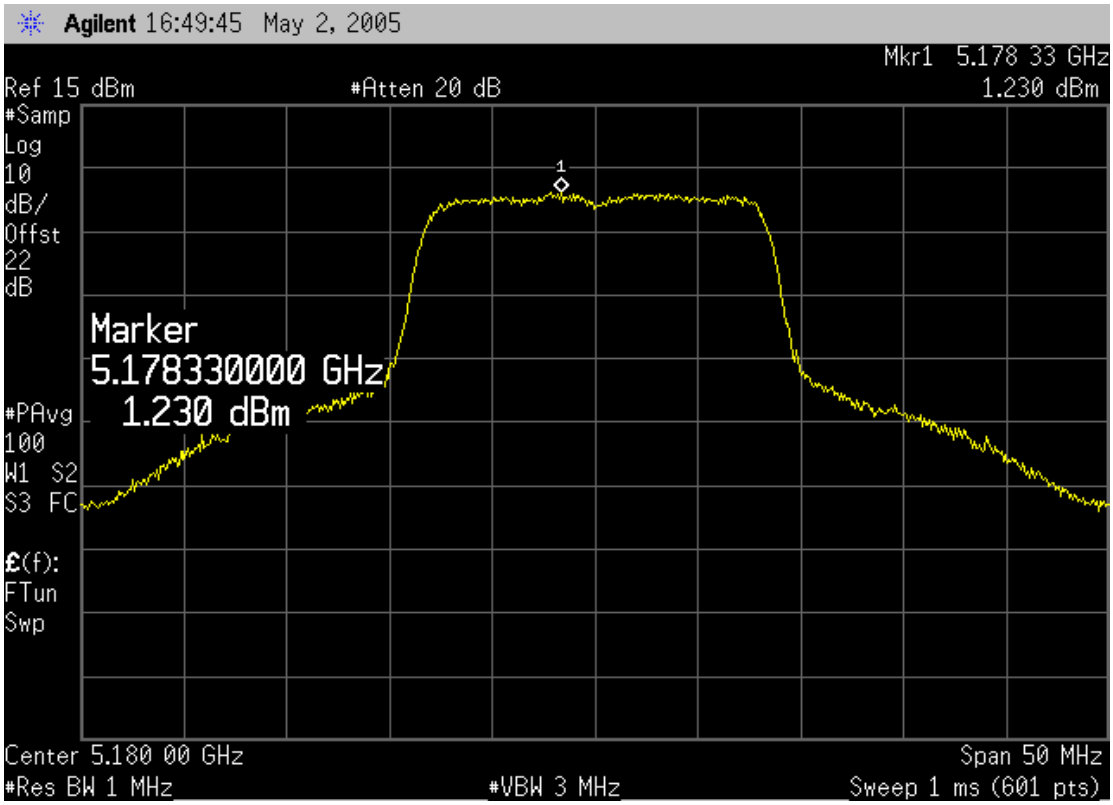
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5180	4	4.00	1.23	-2.77



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

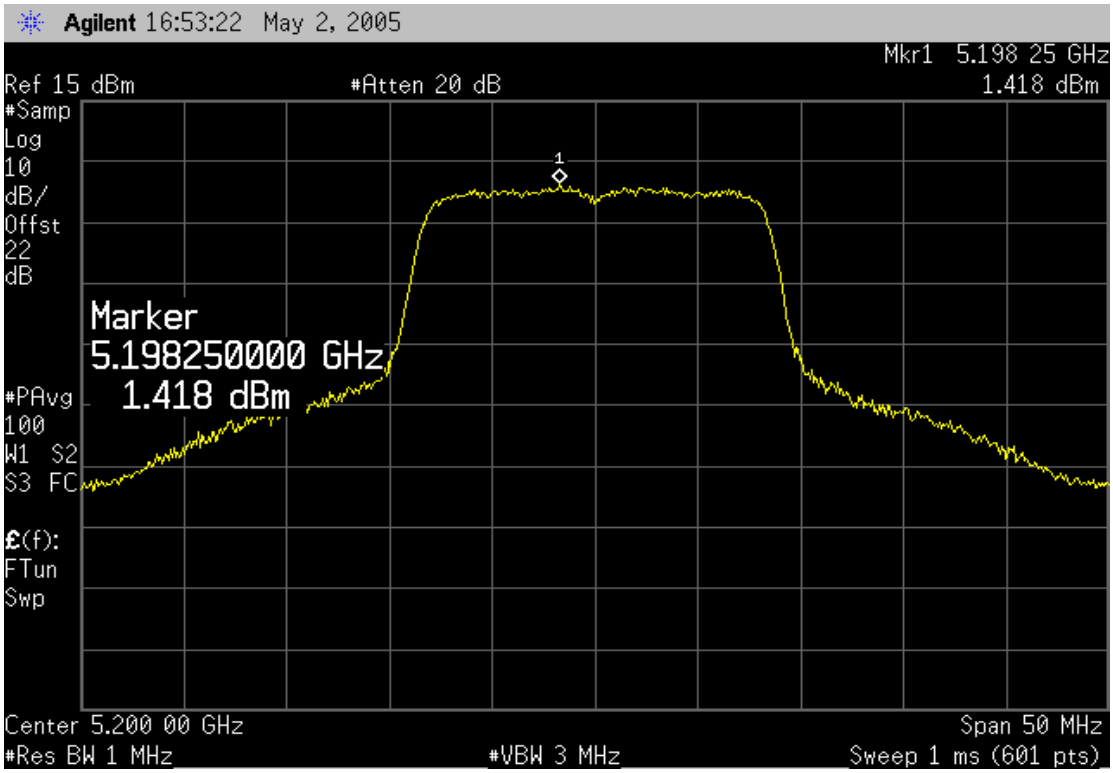
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5200	4	4.00	1.42	-2.58



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

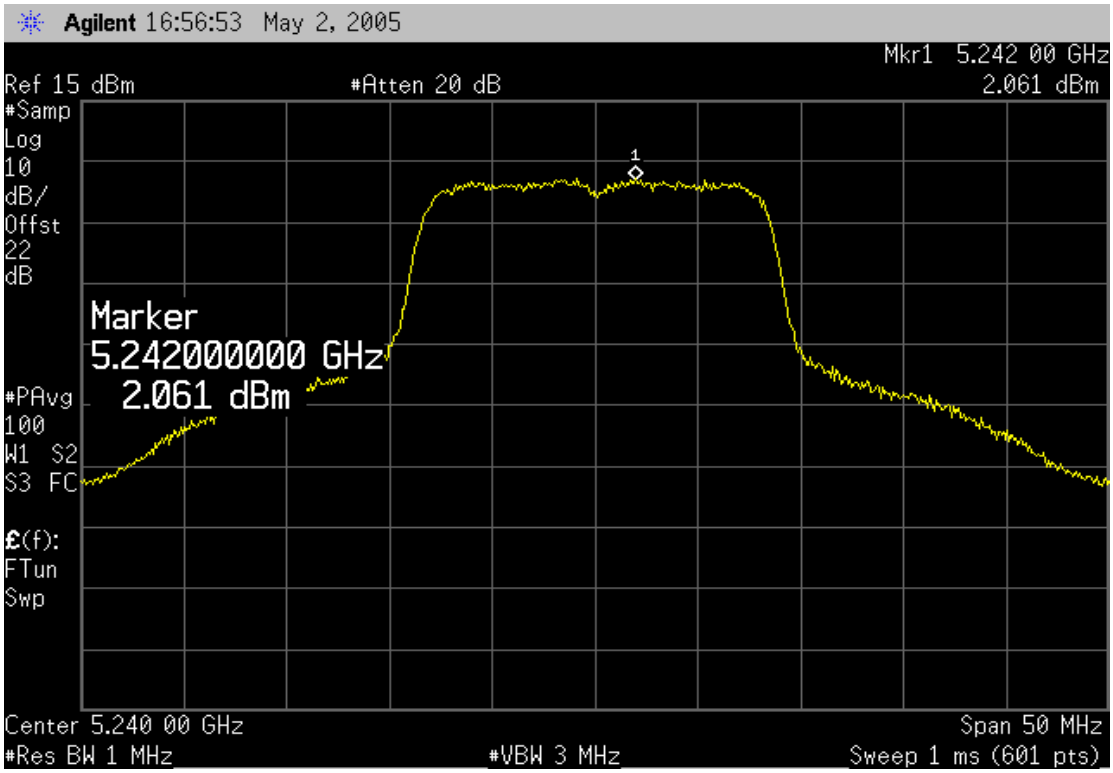
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5240	4	4.00	2.06	-1.94



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

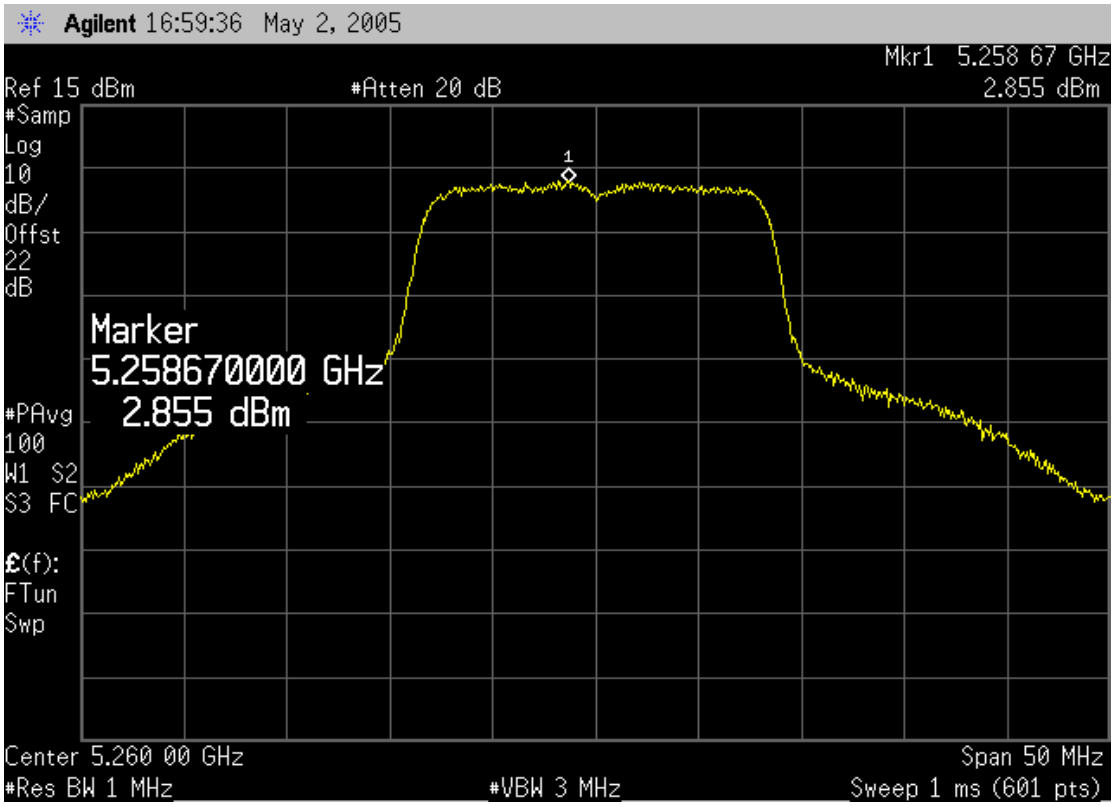
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5260	4	11.00	2.86	-8.15



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

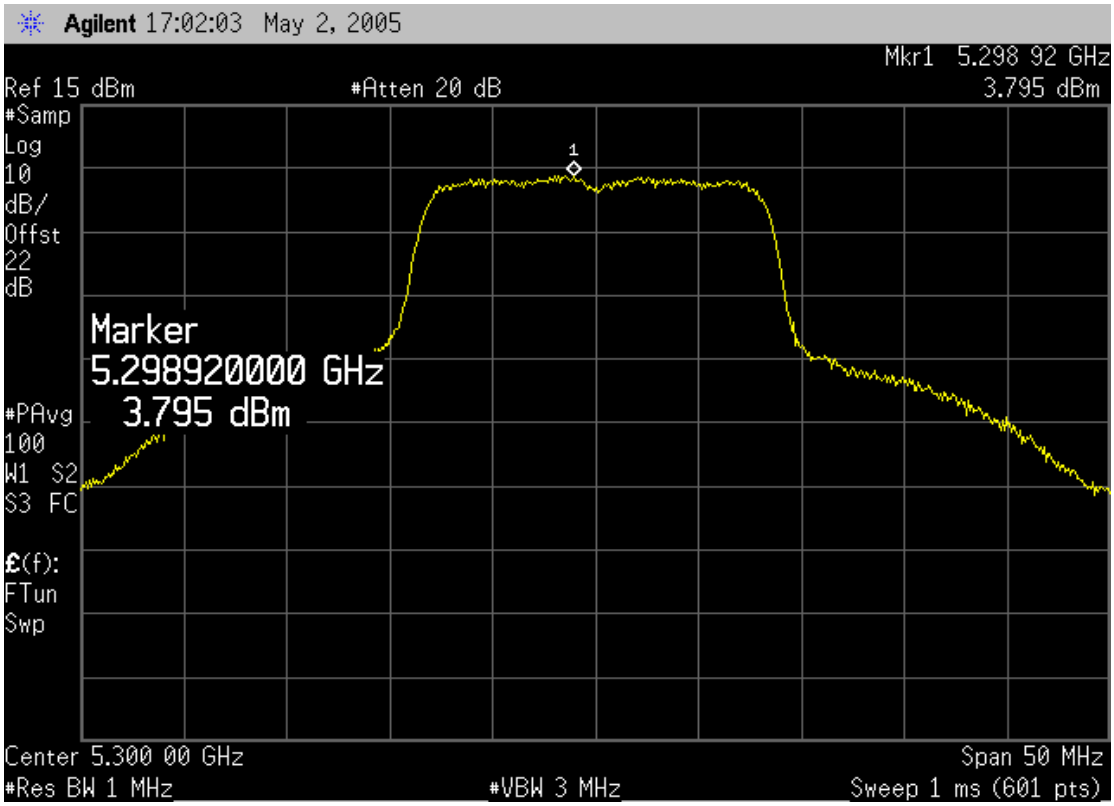
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5300	4	11.00	3.80	-7.21



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

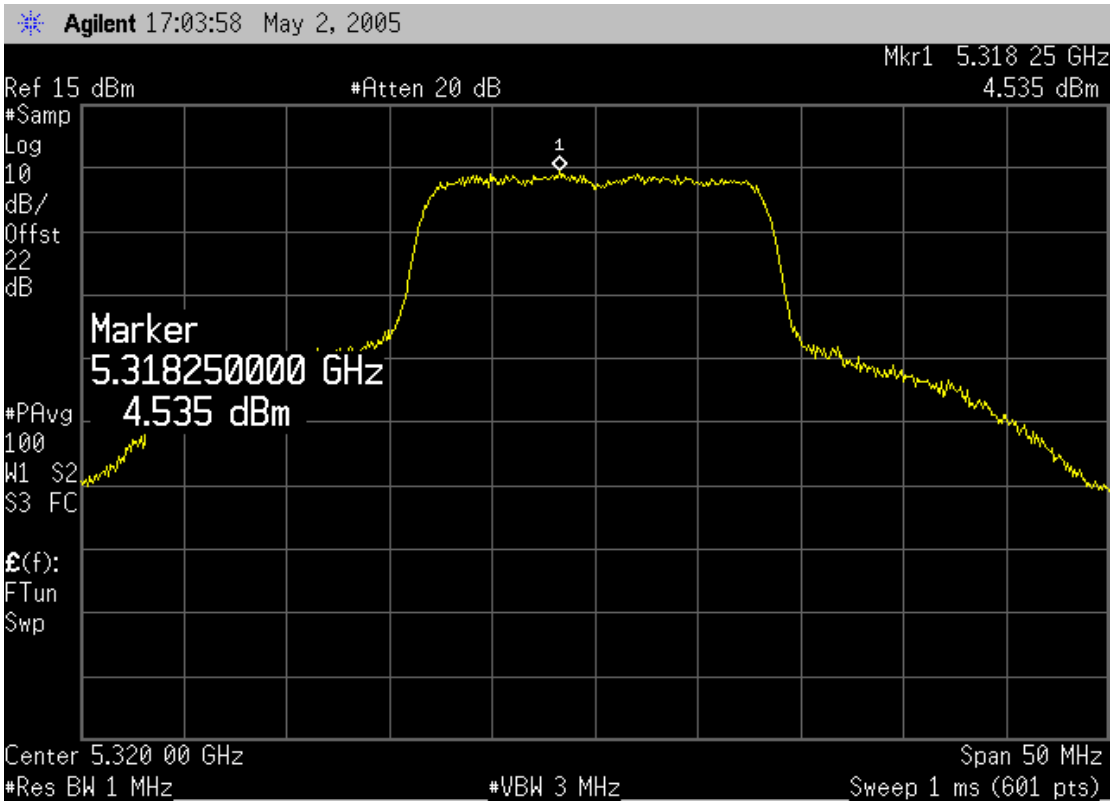
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5320	4	11.00	4.54	-6.47



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

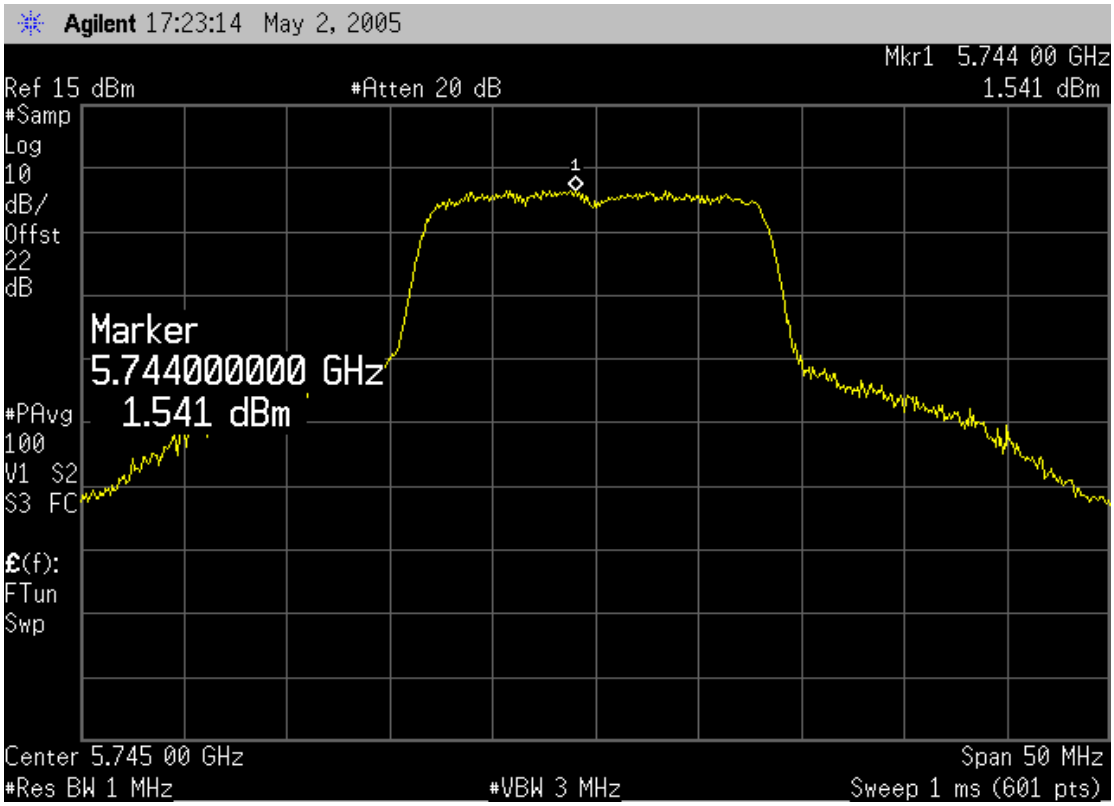
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5745	4	17.00	1.54	-15.46



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method: DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

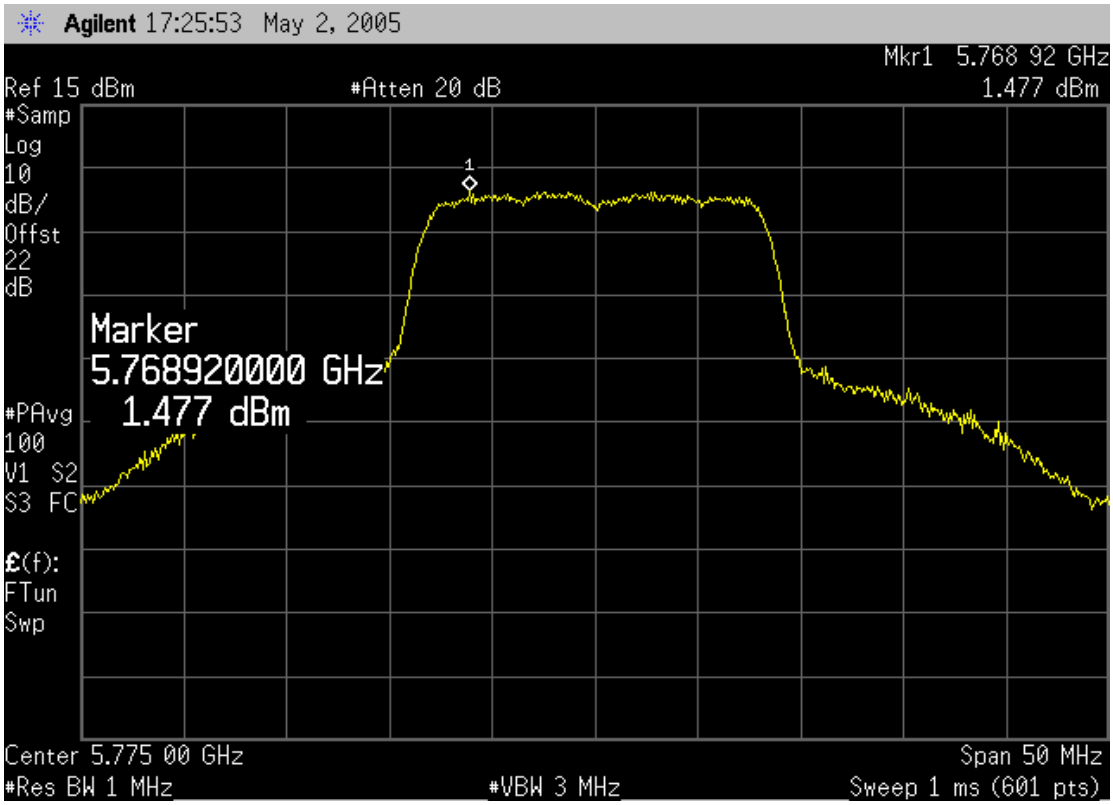
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5775	4	17.00	1.48	-15.52



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

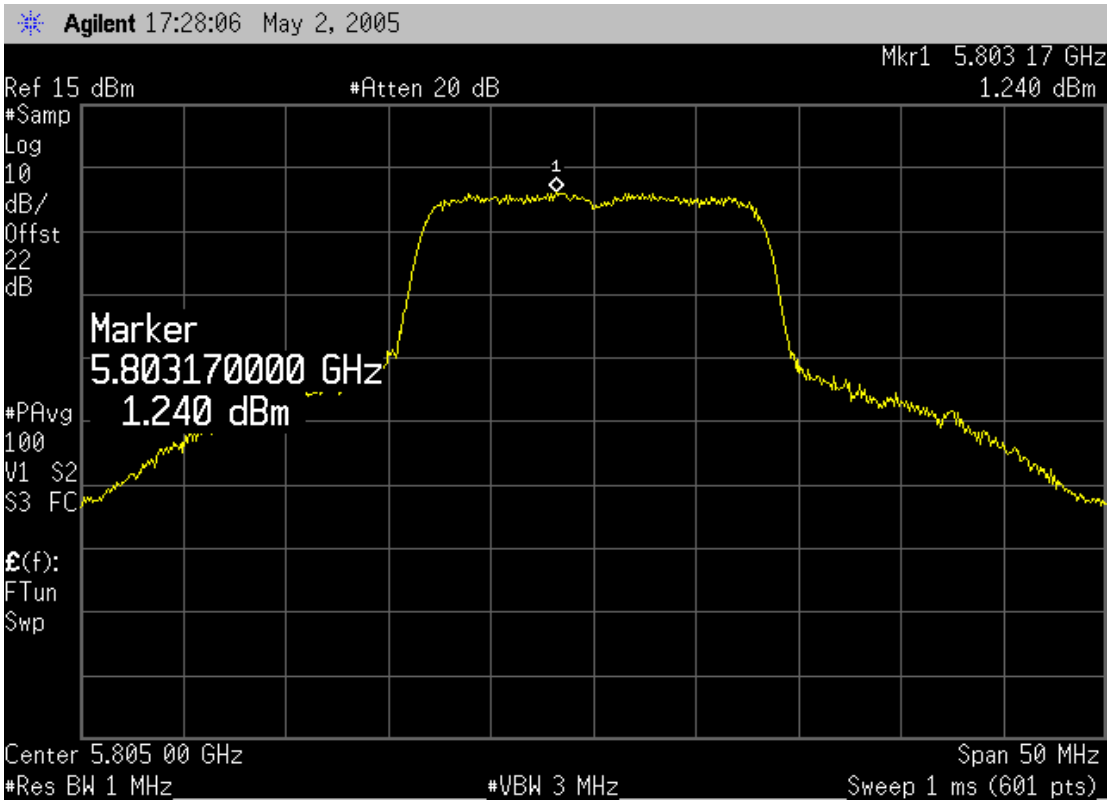
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 36 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5805	4	17.00	1.24	-15.76



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.

If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

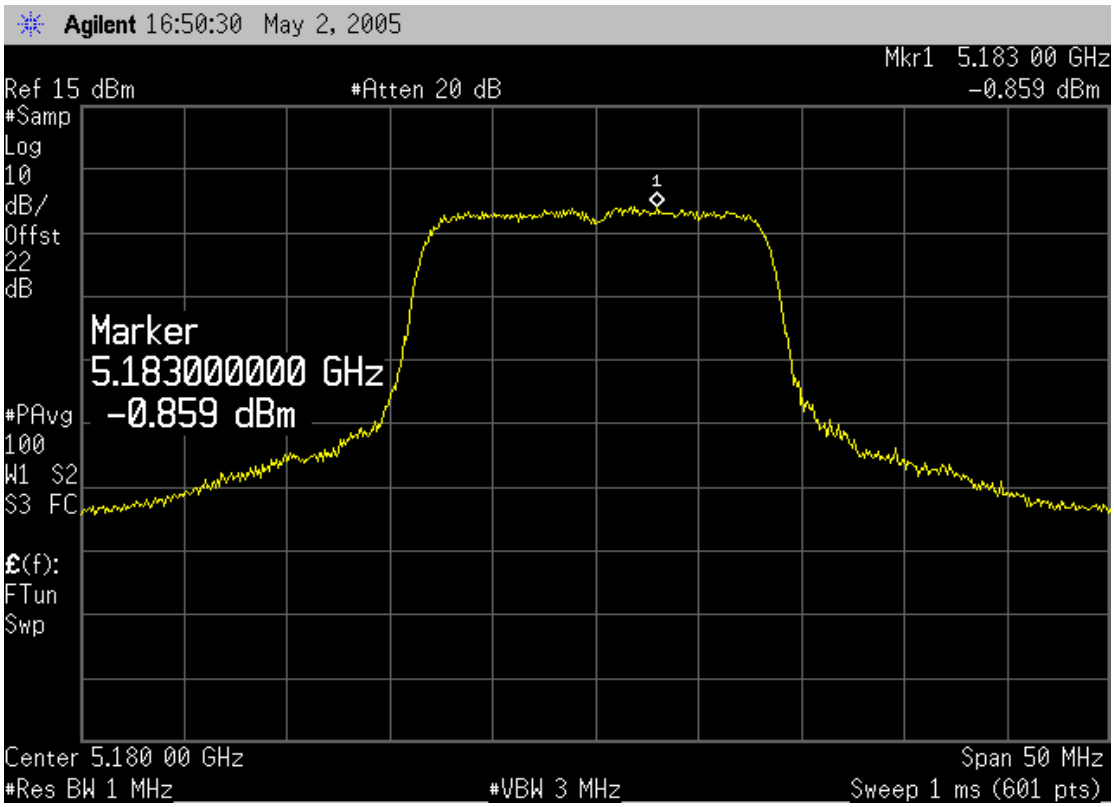
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5180	4	4.00	-0.86	-4.86



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

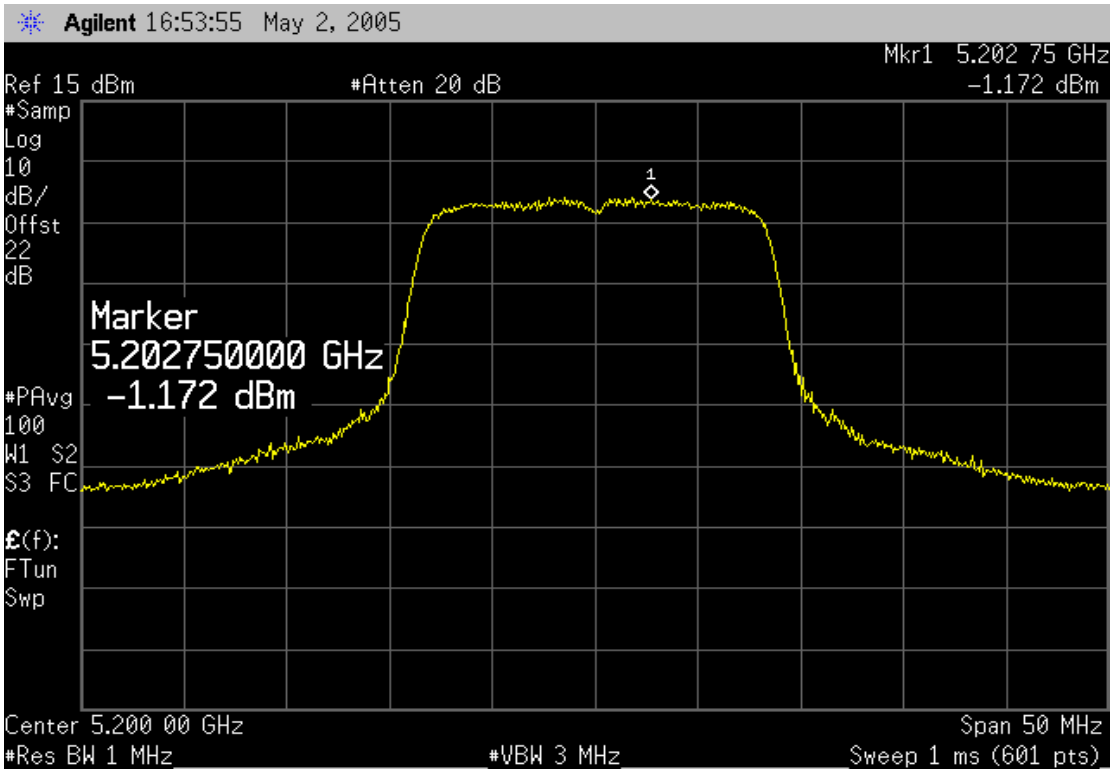
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5200	4	4.00	-1.17	-5.17



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.15 - 5.25 GHz band, the peak power spectral density shall not exceed 4dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

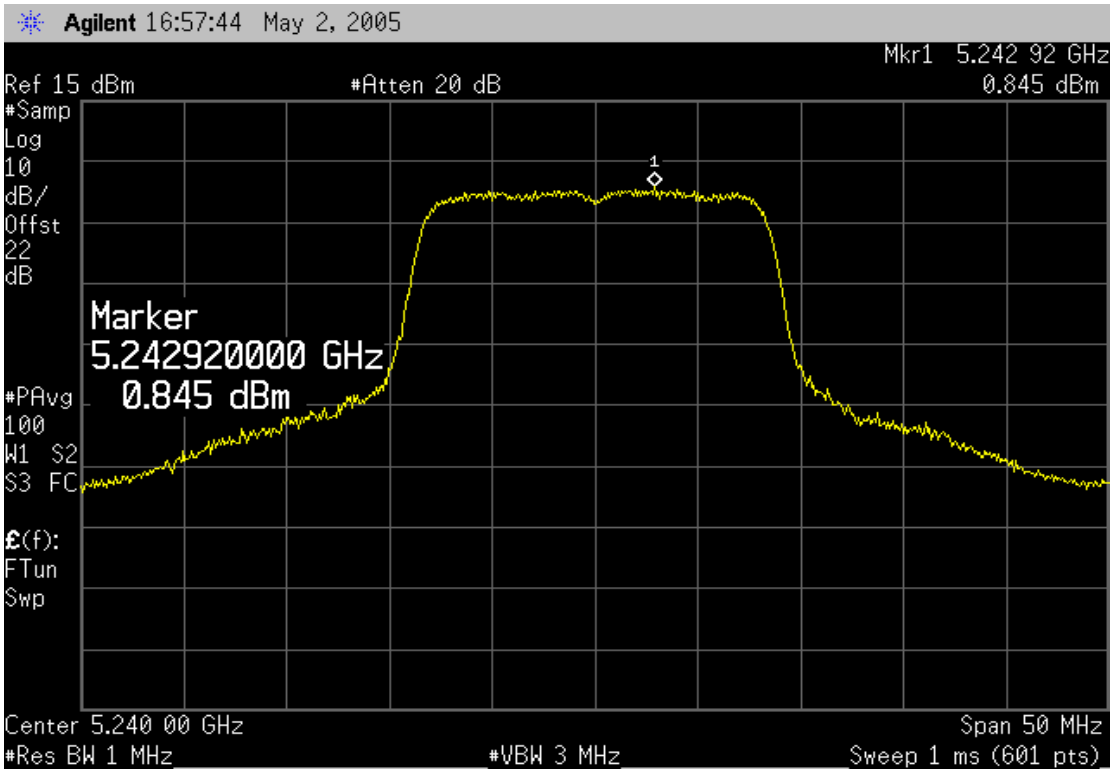
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.15 to 5.25 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5240	4	4.00	0.85	-3.16



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

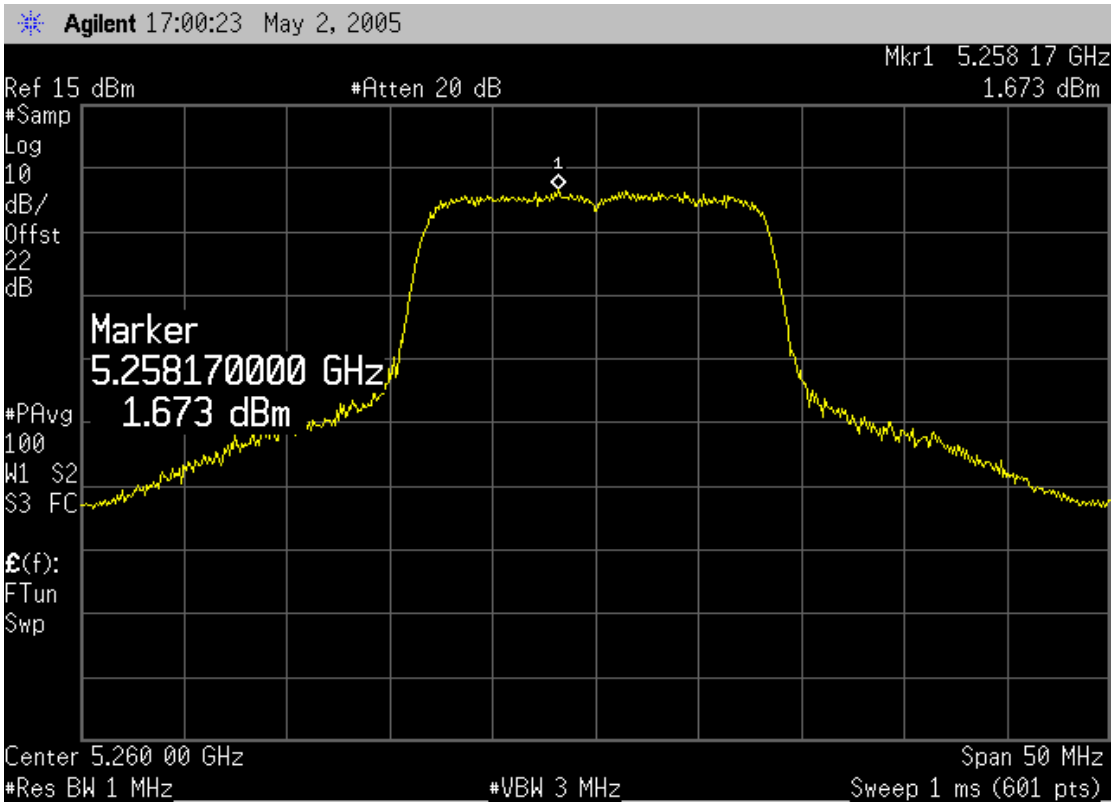
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5260	4	11.00	1.67	-9.33



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

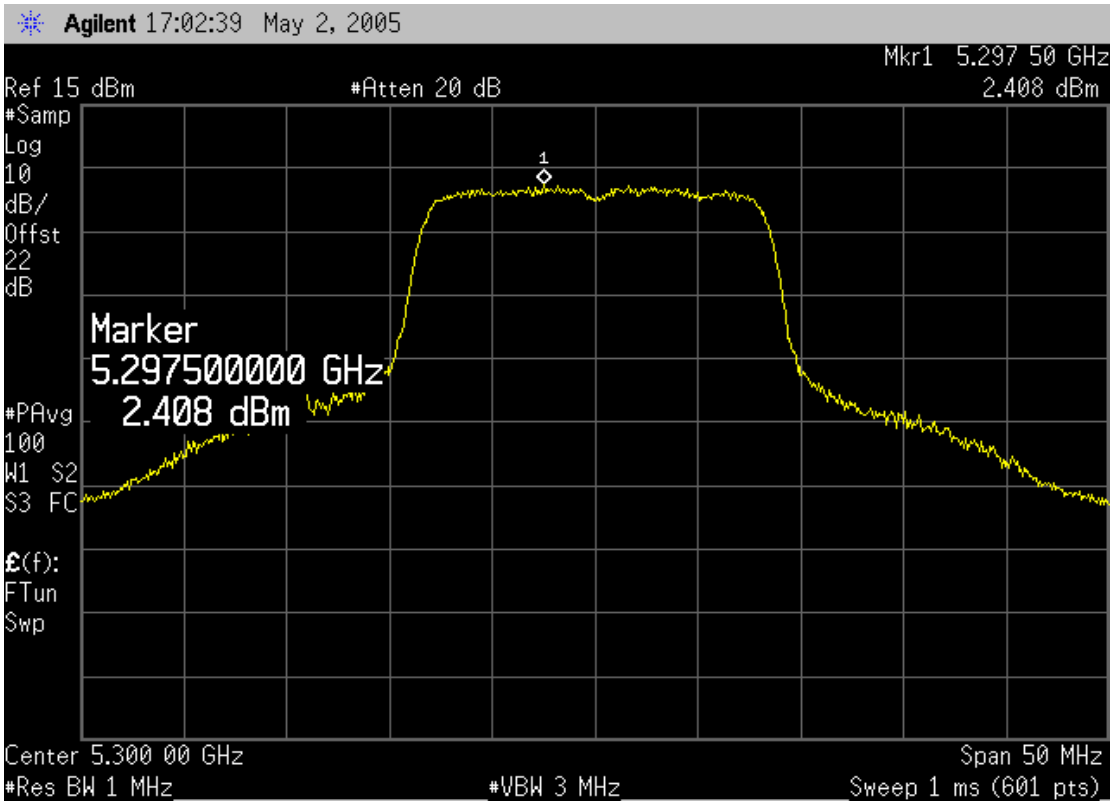
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5300	4	11.00	2.41	-8.59



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year: 2005-04	Method:	DA 02-2138, ANSI C63.4	Year: 2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.25 - 5.35 GHz band, the peak power spectral density shall not exceed 11dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

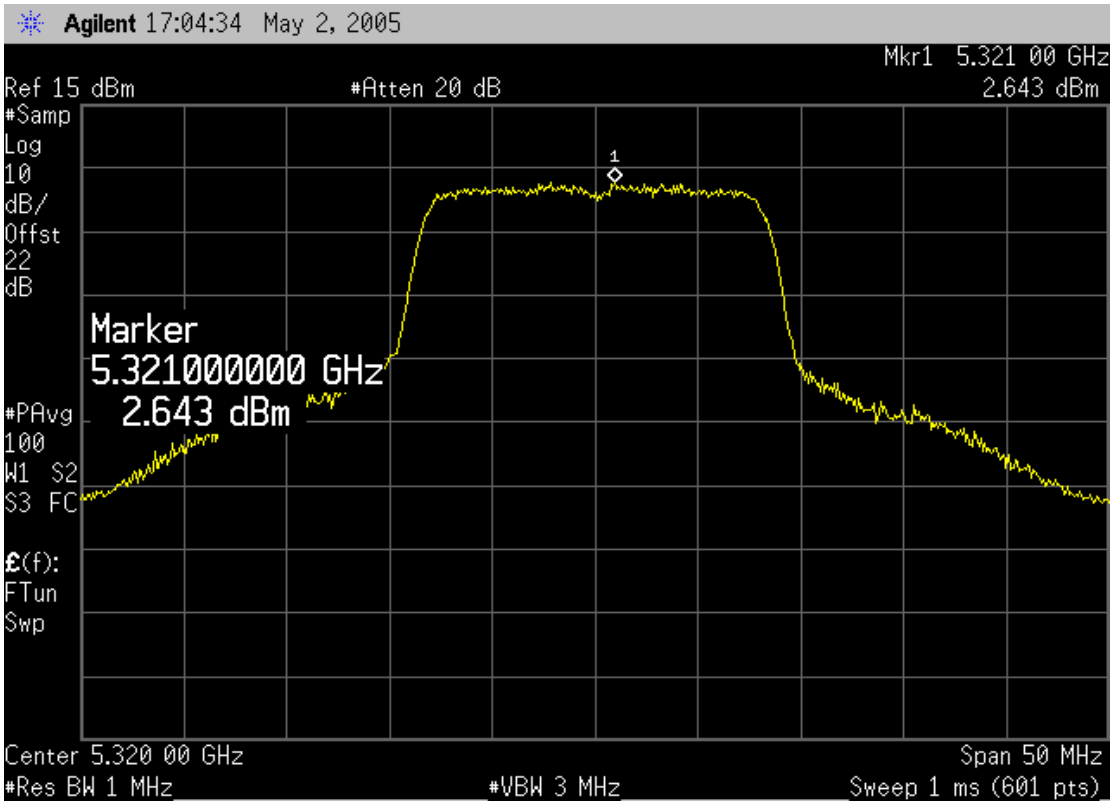
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.25 to 5.35 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5320	4	11.00	2.64	-8.36



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

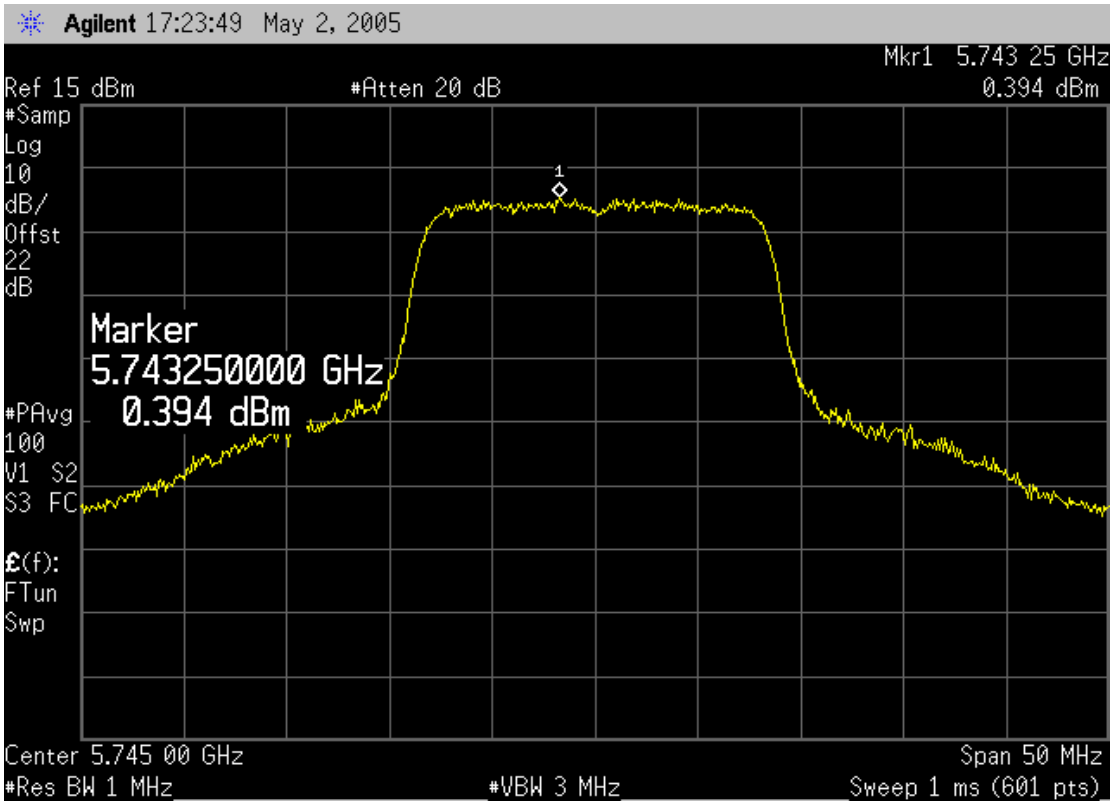
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Low Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5745	4	17.00	0.39	-16.61



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

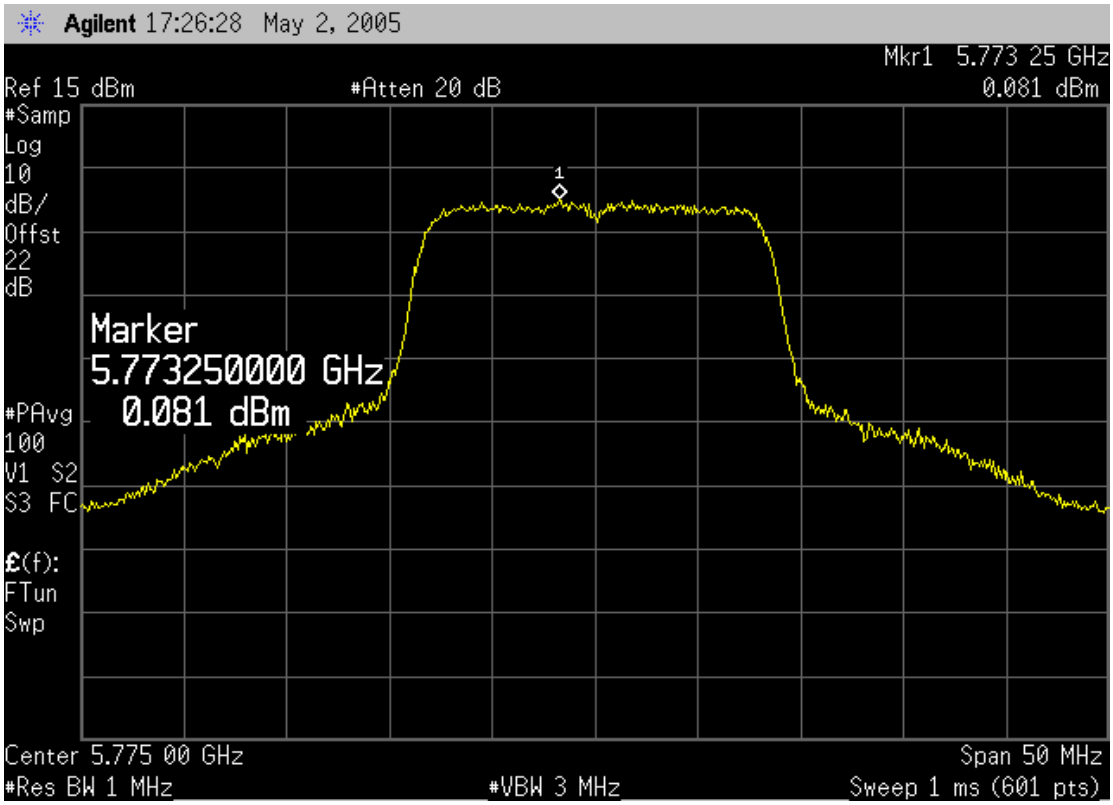
Tested By: _____

DESCRIPTION OF TEST

Peak Power Spectral Density - Mid Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5775	4	17.00	0.81	-16.19



NORTHWEST EMC

Peak Power Spectral Density

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(1)-(3)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

EIRP (peak) = Peak Power + Maximum Antenna Gain

COMMENTS

Tested in CK60 Computer. The transmission pulse duration (T) is 1.024 ms. The "OFF" time is less than 9 us.

EUT OPERATING MODES

The transmission pulse duration is the same for all data rates and transmit channels.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

For the 5.725 - 5.825 GHz band, the peak power spectral density shall not exceed 17dBm in any 1 MHz band.
If the antenna gain is greater than 6 dBi, the peak power spectral density must be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Pass

SIGNATURE

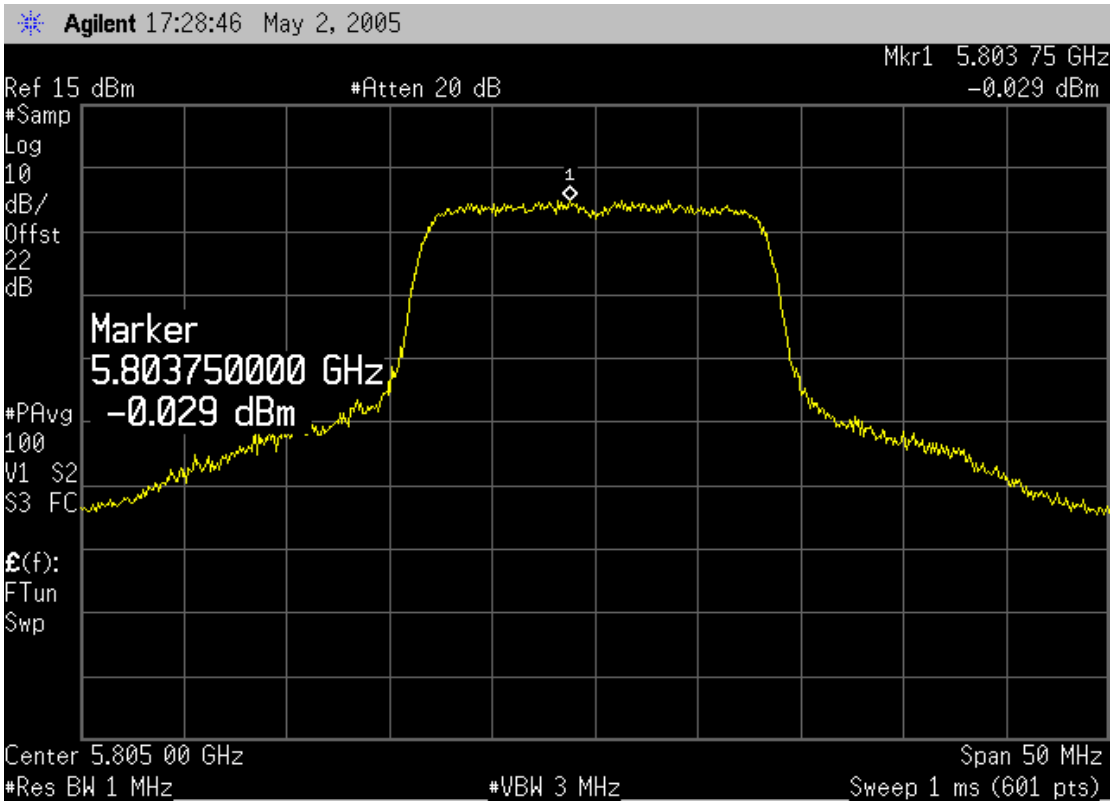
Tested By: _____

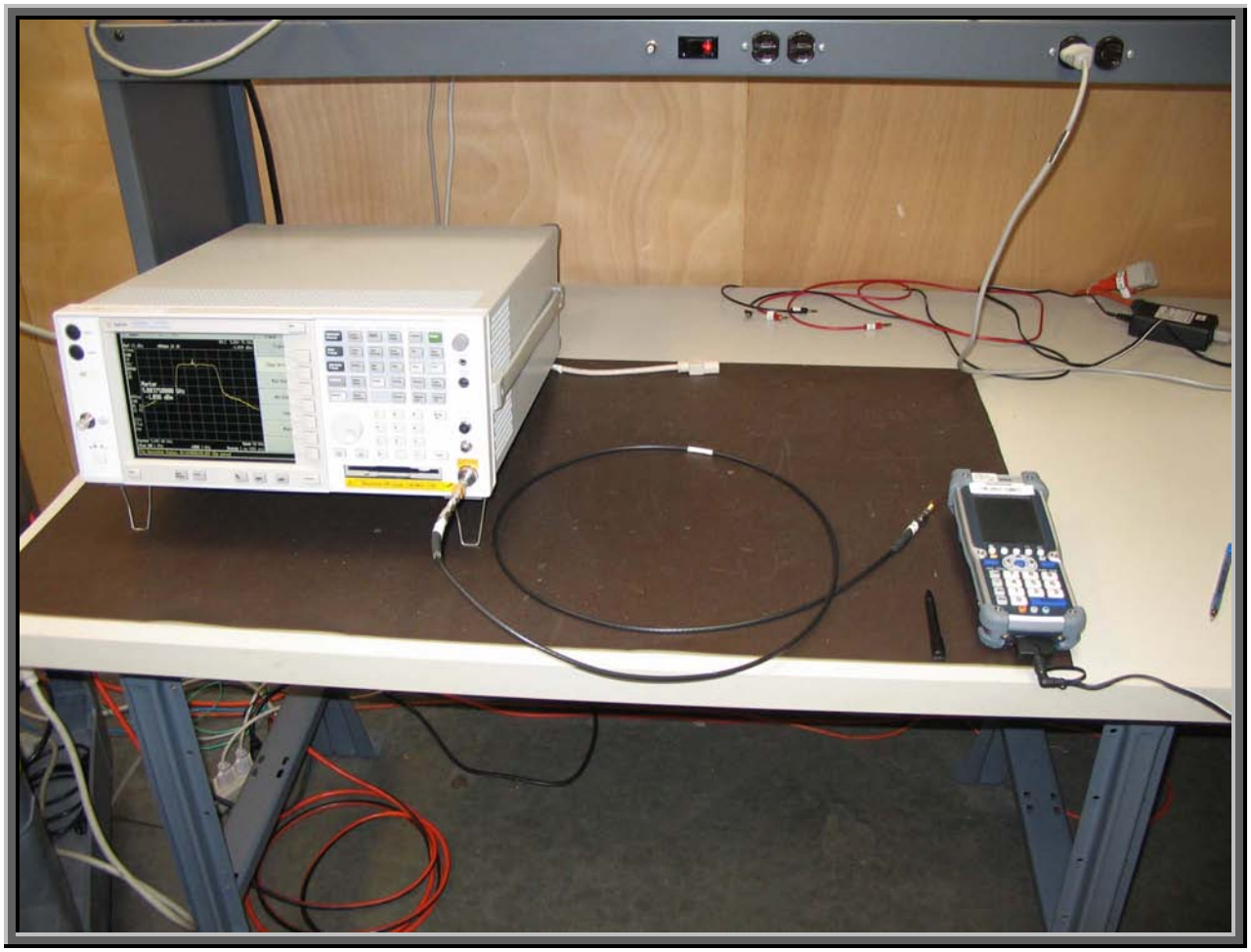
DESCRIPTION OF TEST

Peak Power Spectral Density - High Channel - 5.725 to 5.825 GHz Band

Tx Data Rate: 54 Mbit

Frequency (MHz)	Antenna Gain (dBi)	Limit (dBm)	Measured PPSD (dBm)	Margin (dB)
5805	4	17.00	-0.03	-17.03





Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:
Ch 36 (5180 MHz)
Ch 40 (5200 MHz)
Ch 48 (5240 MHz)
Ch 52 (5260 MHz)
Ch 60 (5300 MHz)
Ch 64 (5320 MHz)
Ch 149 (5745 MHz)
Ch 155 (5775 MHz)
Ch 161 (5805 MHz)

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
6 Mbps (802.11a)
36 Mbps (802.11a)
54 Mbps (802.11a)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC/60Hz

Software\Firmware Applied During Test			
Exercise software	cTxRx Win CE	**Version**	0.1.2.1
Description			
The system was tested using special software developed to test all functions of the device during the test.			

Peak Excursion of the Modulation Envelope

EUT and Peripherals			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT- 802.11(a)/(b)/(g) radio	Intermec Technologies Corporation	802UIAG	Unknown
AC Adapter	Intermec Technologies Corporation	851-061-002	3335175
Host Device	Intermec Technologies Corporation	CK61	33390400265

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
AC Power	No	2.0	No	AC Power Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Agilent	E4446A	AAQ	04/08/2005	13 mo

Test Description

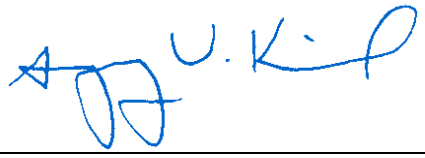
Requirements: Per 15.407(a)(6), "The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified in this paragraph) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less."

Configuration: FCC Public Notice DA 02-2138 was followed. The transmit frequency was set to the lowest, a medium, and the highest channels in each band. The transmit power was set to its default maximum. The lowest, a medium, and the highest data rates were measured. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

The spectrum analyzer settings were as follows:

- Span set to encompass the entire emission bandwidth (B), centered on the transmit channel.
- Using the marker delta function, the largest difference between the following two traces was measured:
  - 1st Trace: RBW = 1 MHz, VBW >= 3 MHz with peak detector and max-hold settings.
  - 2nd Trace: Use same settings as were used for peak conducted transmit power.

Completed by:



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

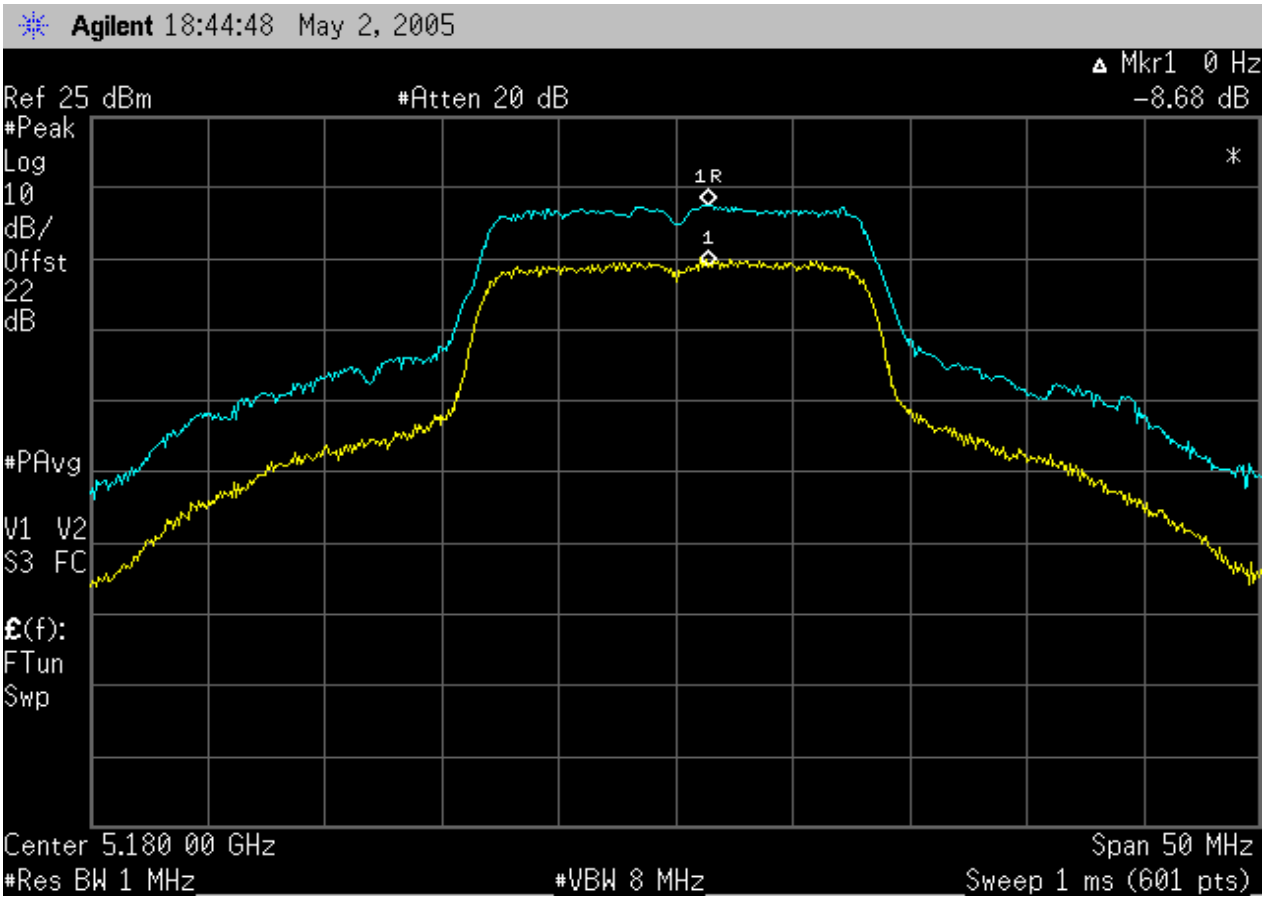
RESULTS	Peak Excursion
Pass	8.68 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

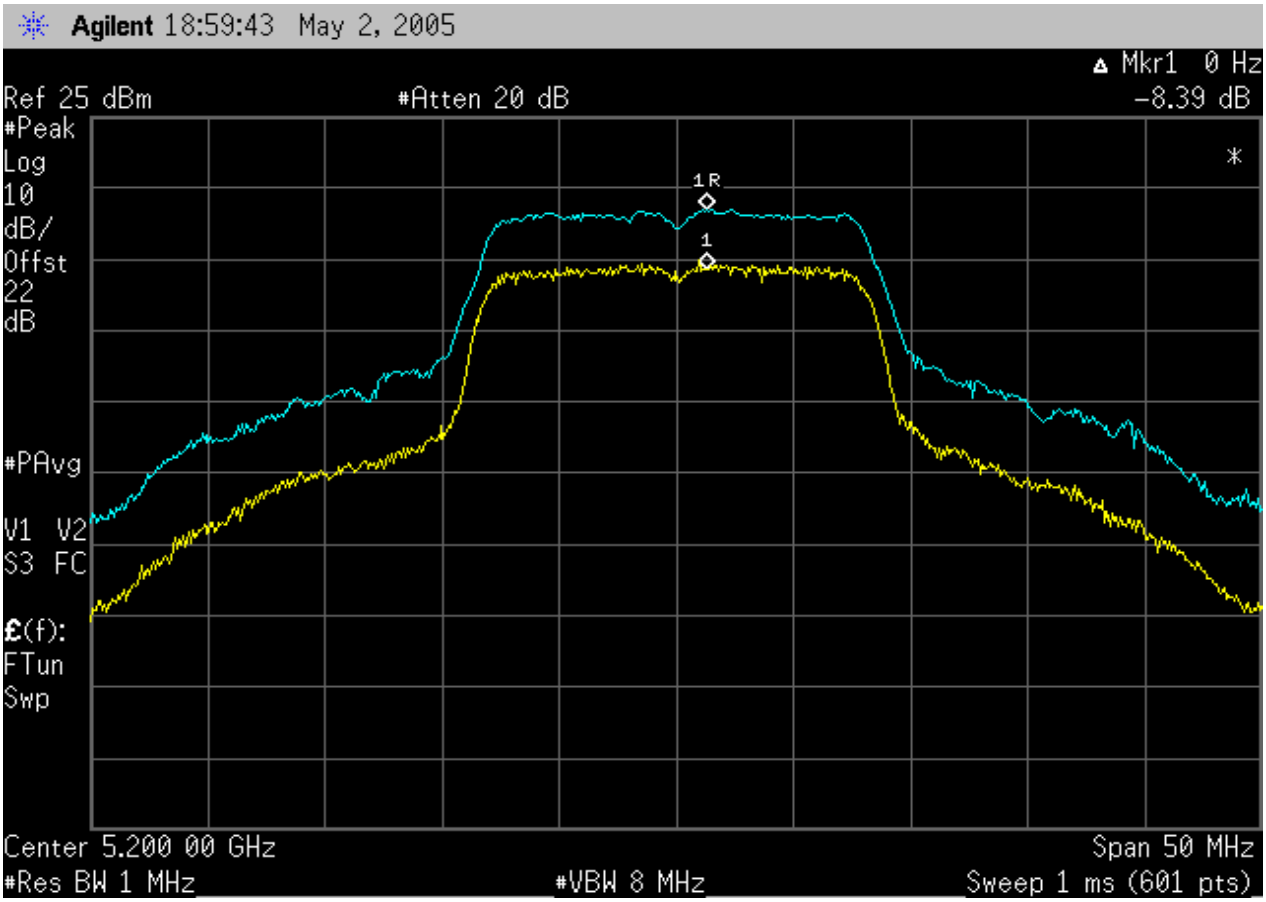
RESULTS	Peak Excursion
Pass	8.39 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

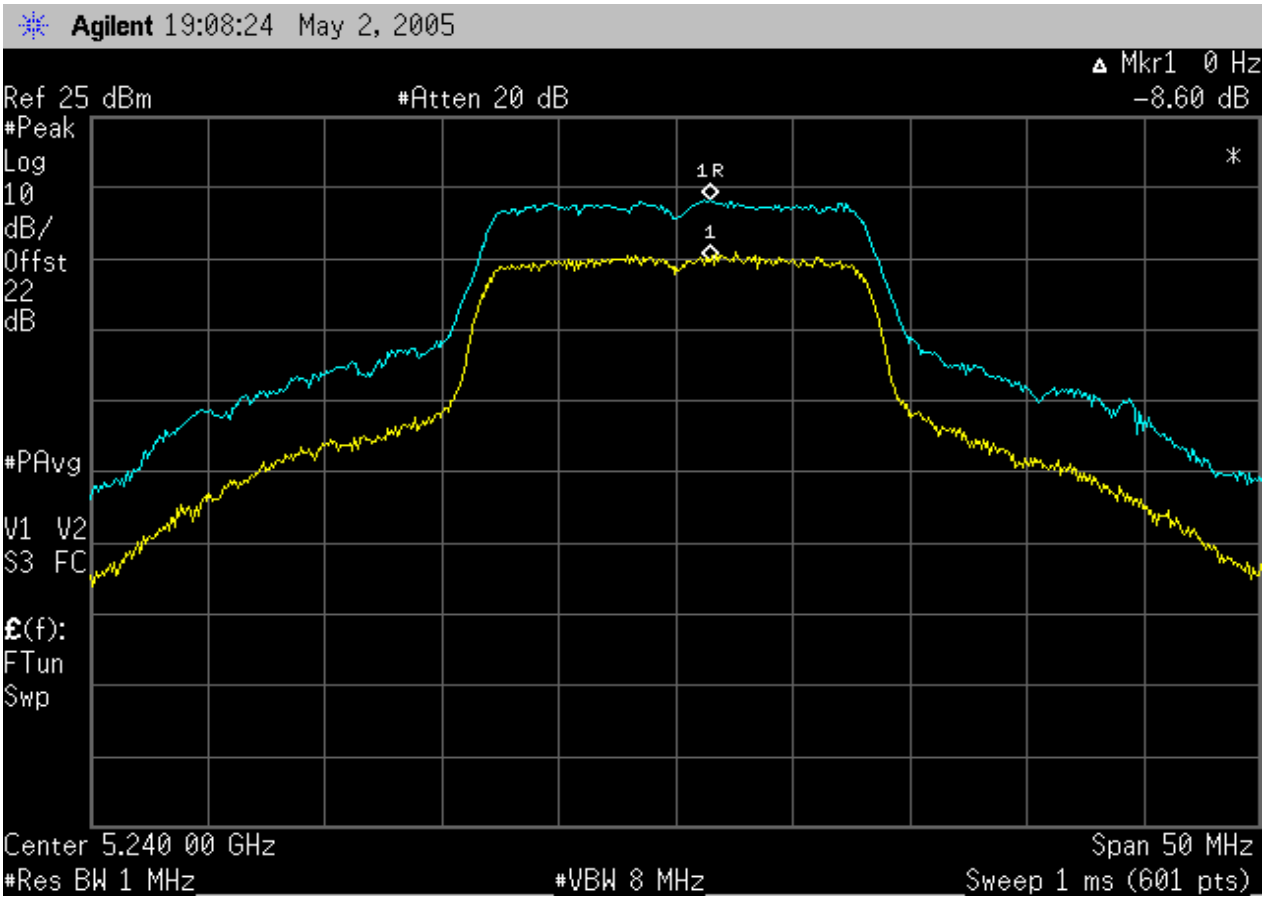
RESULTS	Peak Excursion
Pass	8.60 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

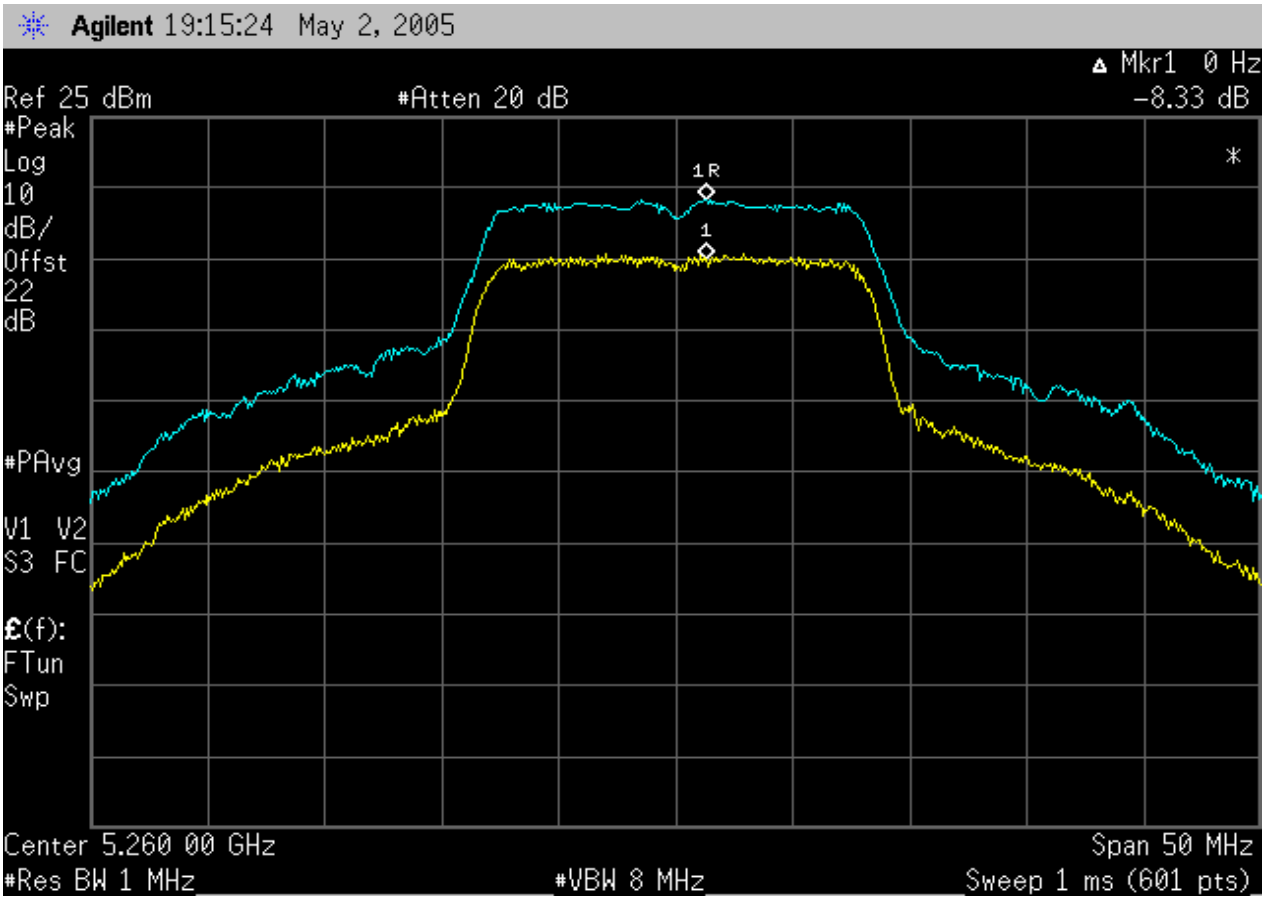
RESULTS	Peak Excursion
Pass	8.33 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

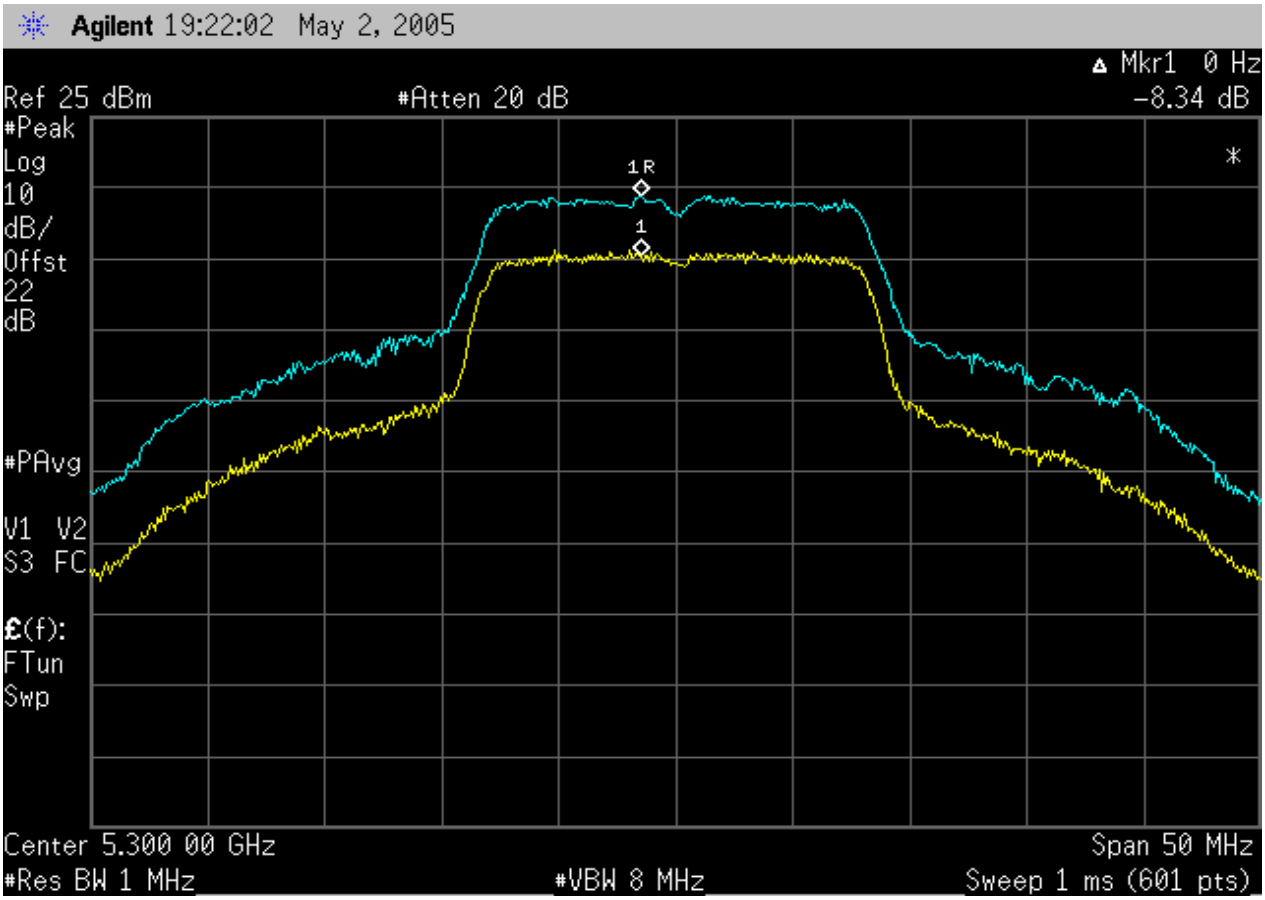
RESULTS	Peak Excursion
Pass	8.34 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

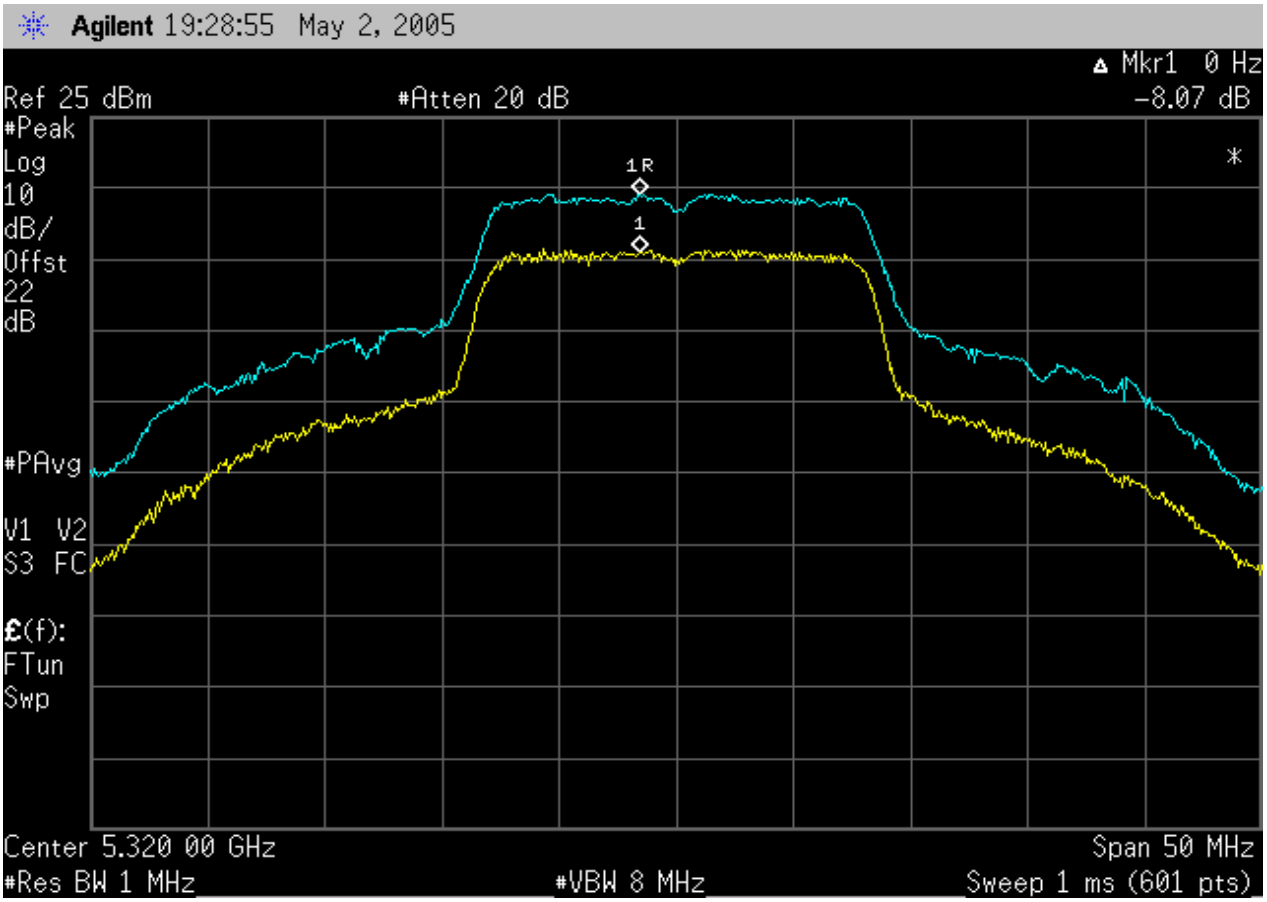
RESULTS	Peak Excursion
Pass	8.07 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

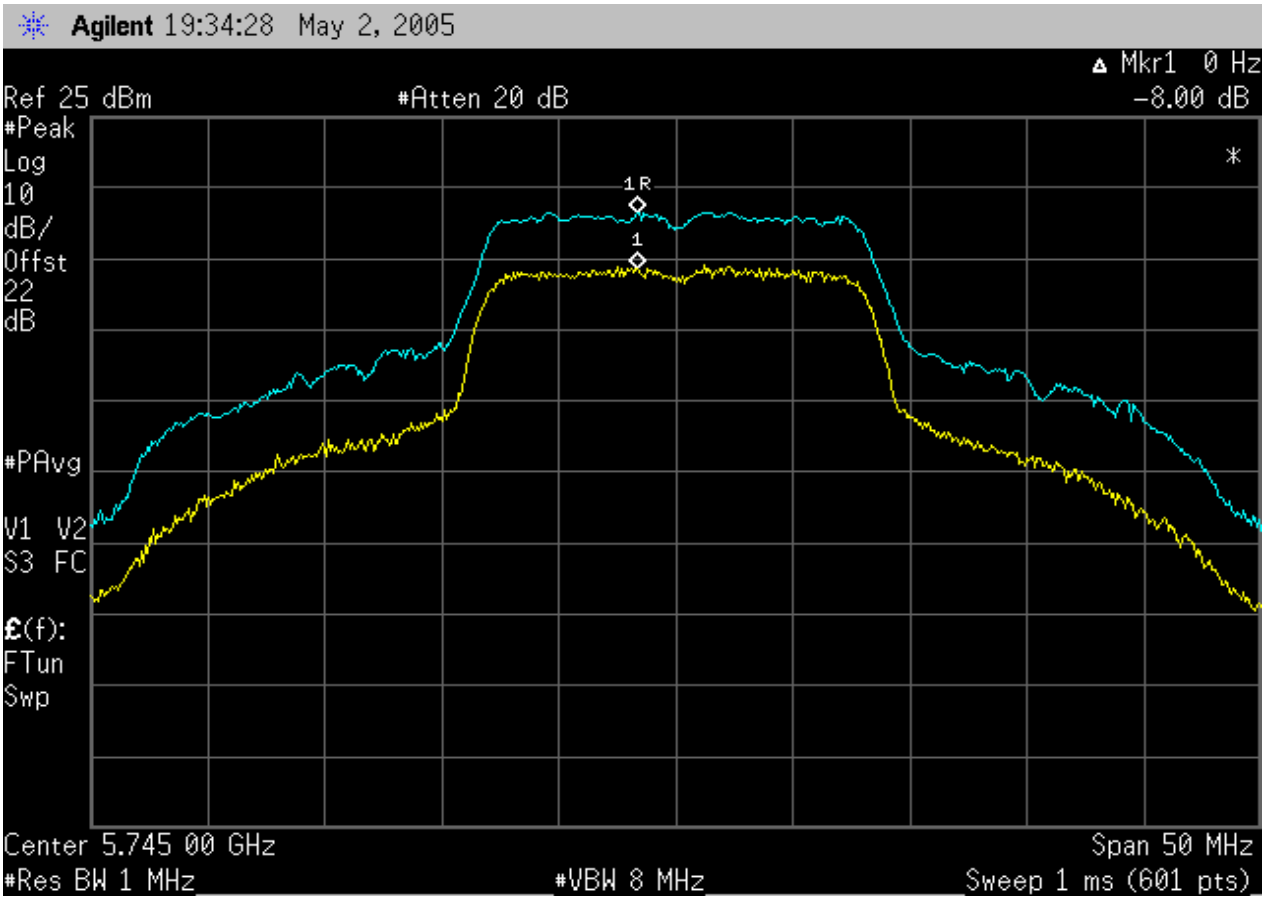
RESULTS	Peak Excursion
Pass	8.00 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

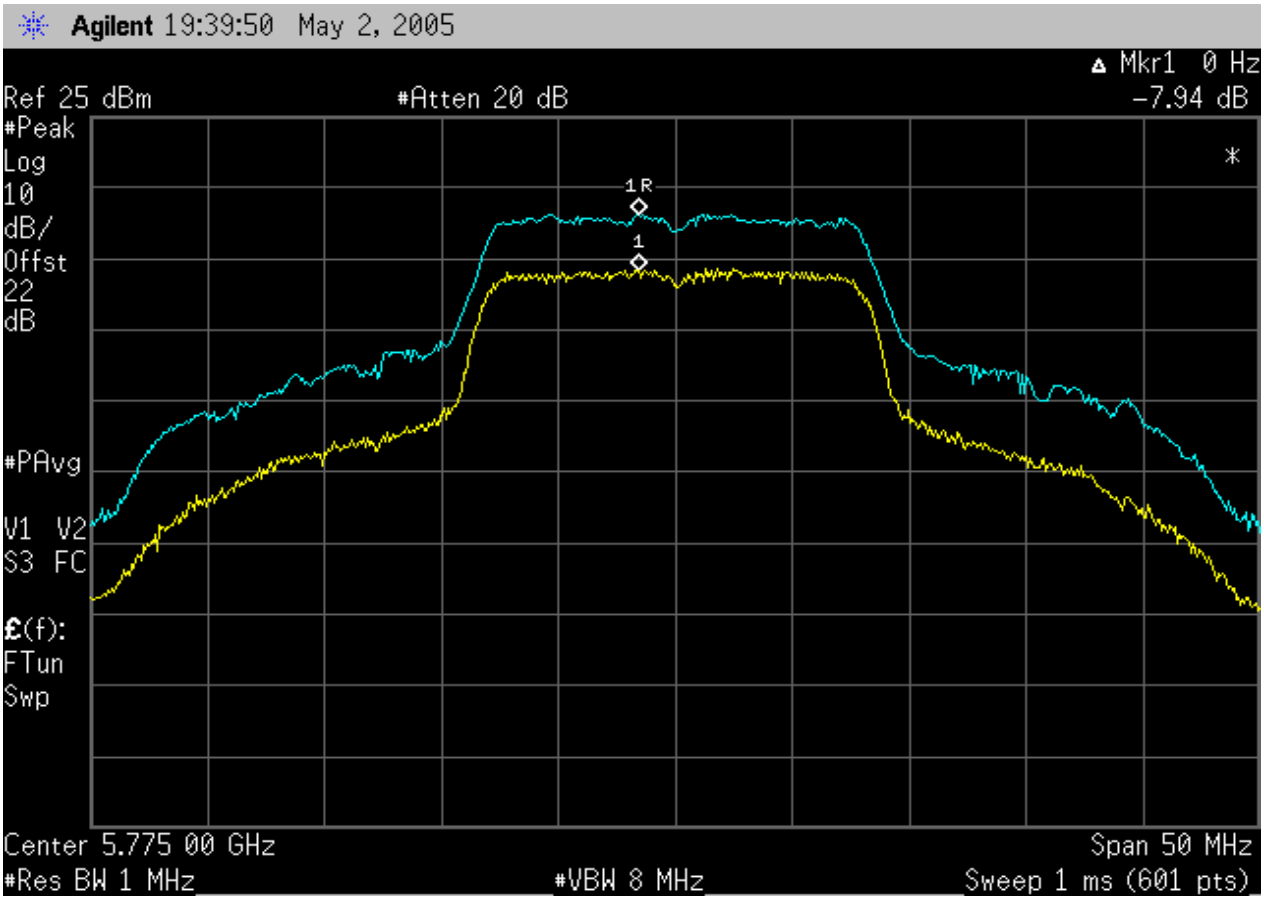
RESULTS	Peak Excursion
Pass	7.94 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 6 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

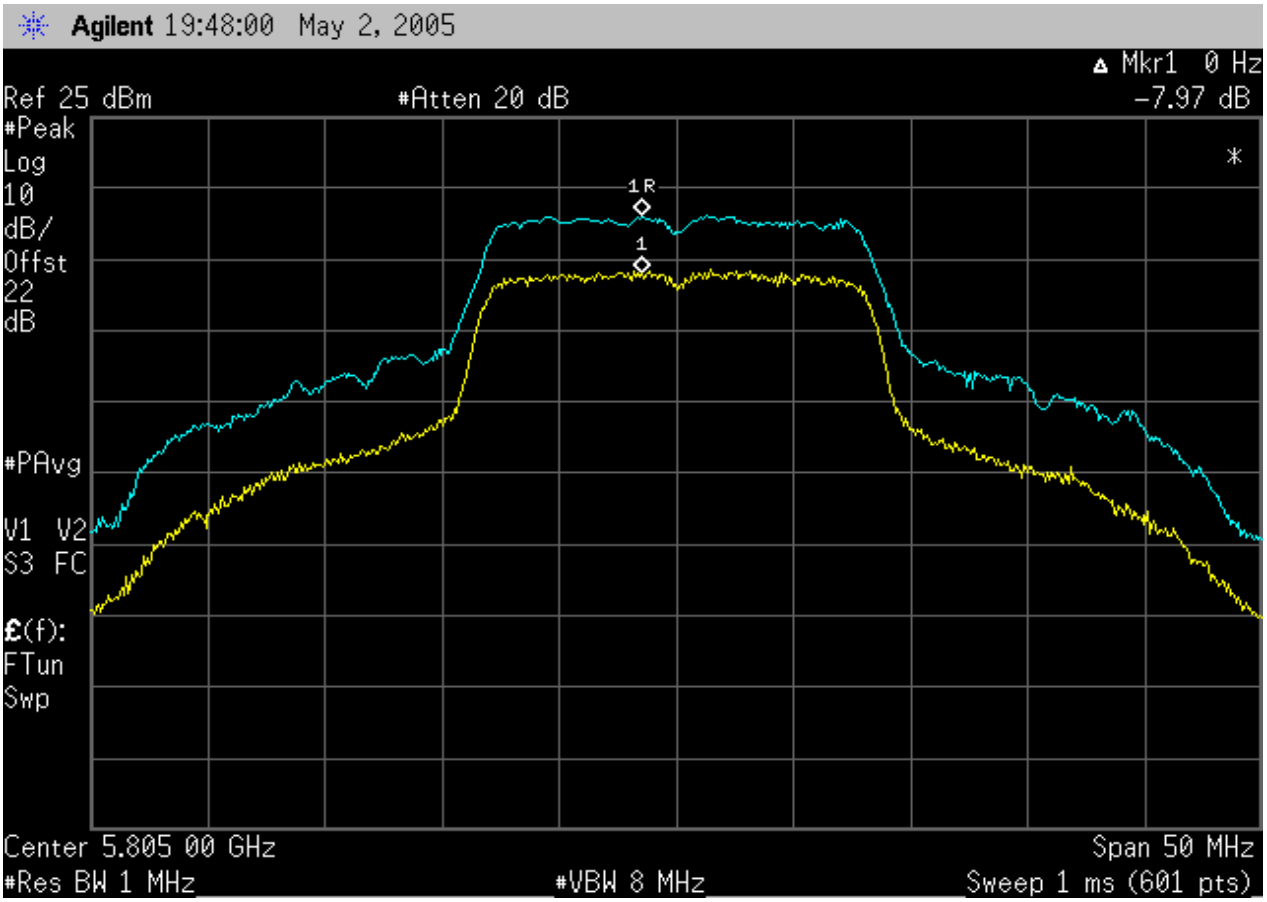
RESULTS	Peak Excursion
Pass	7.97 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

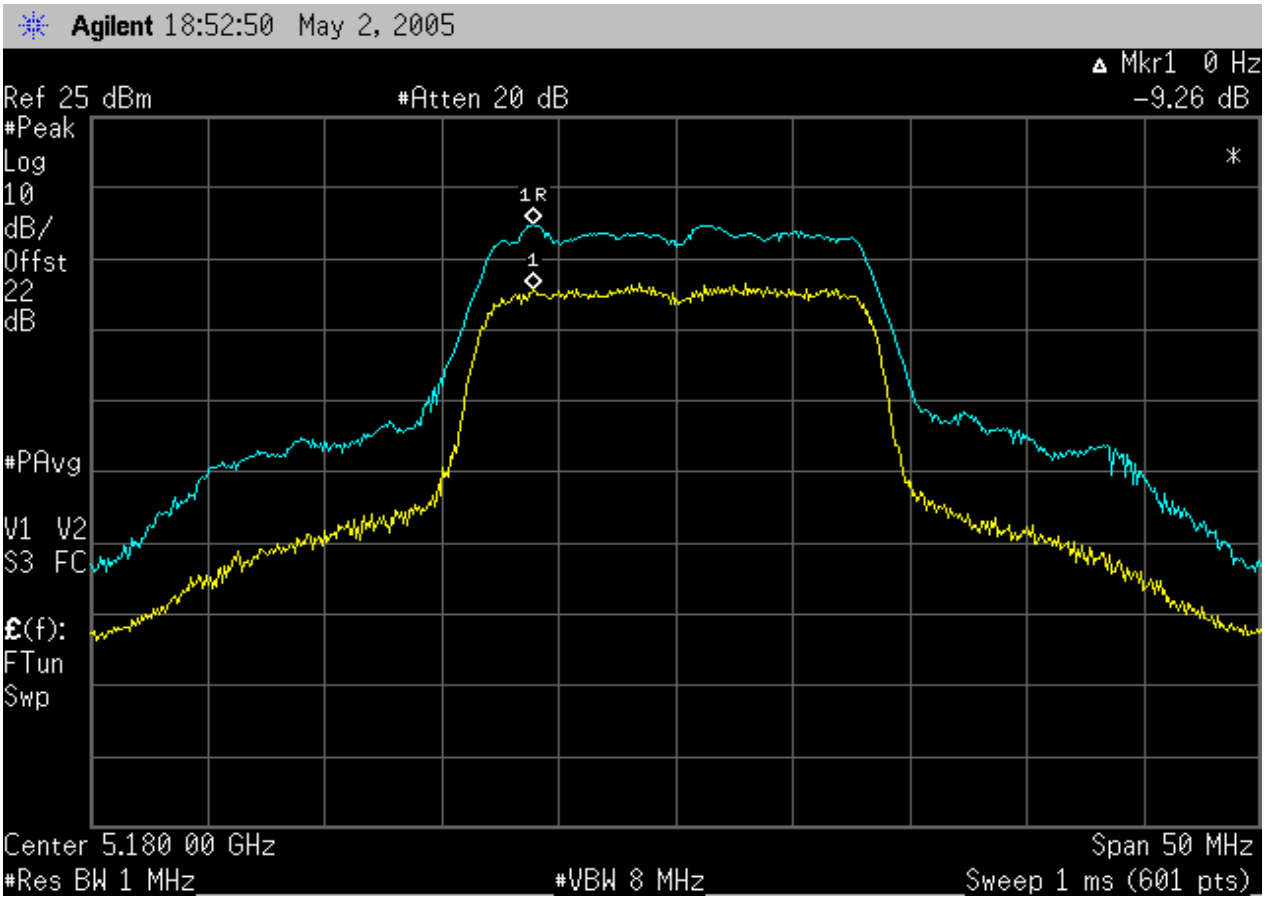
RESULTS	Peak Excursion
Pass	9.26 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

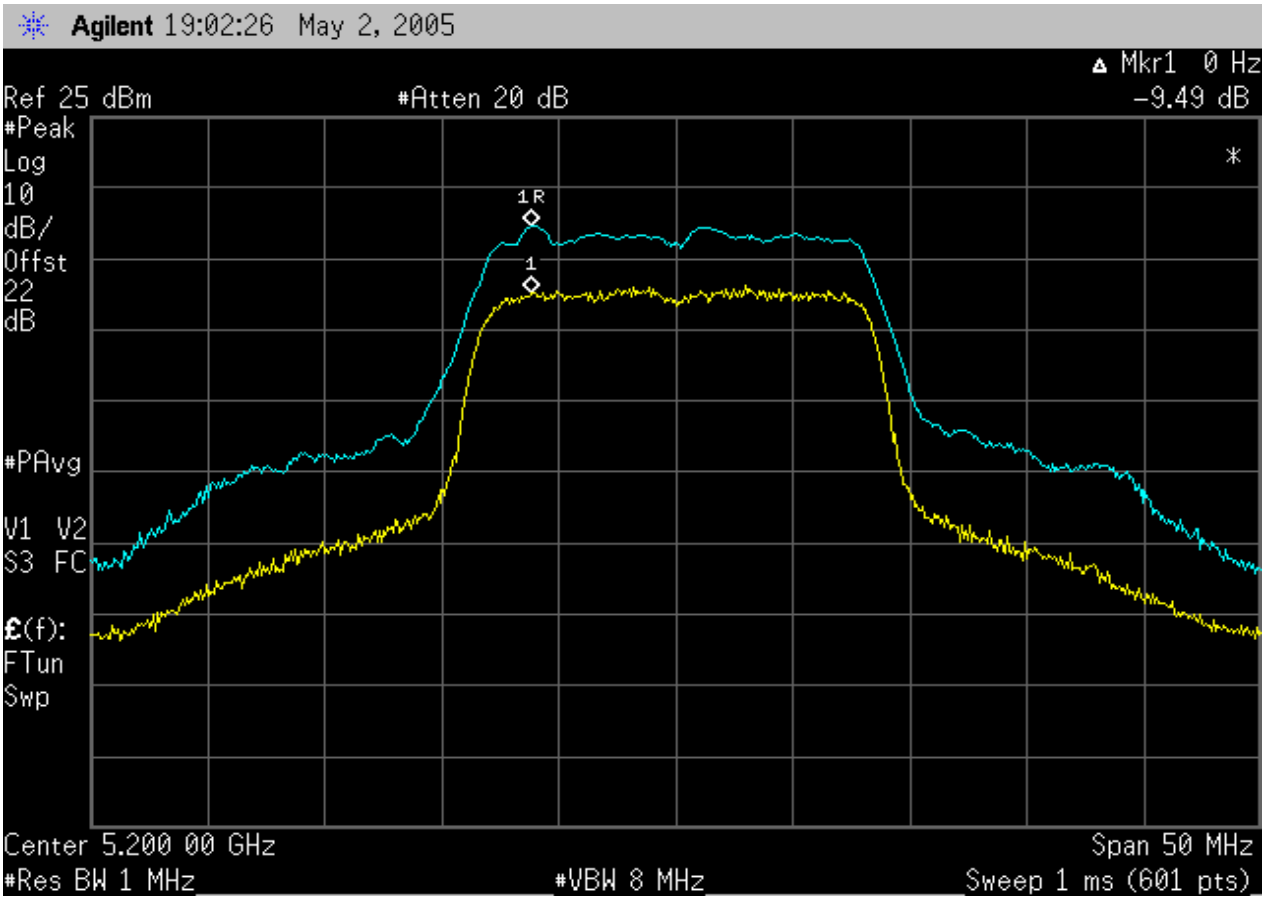
RESULTS	Peak Excursion
Pass	9.49 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

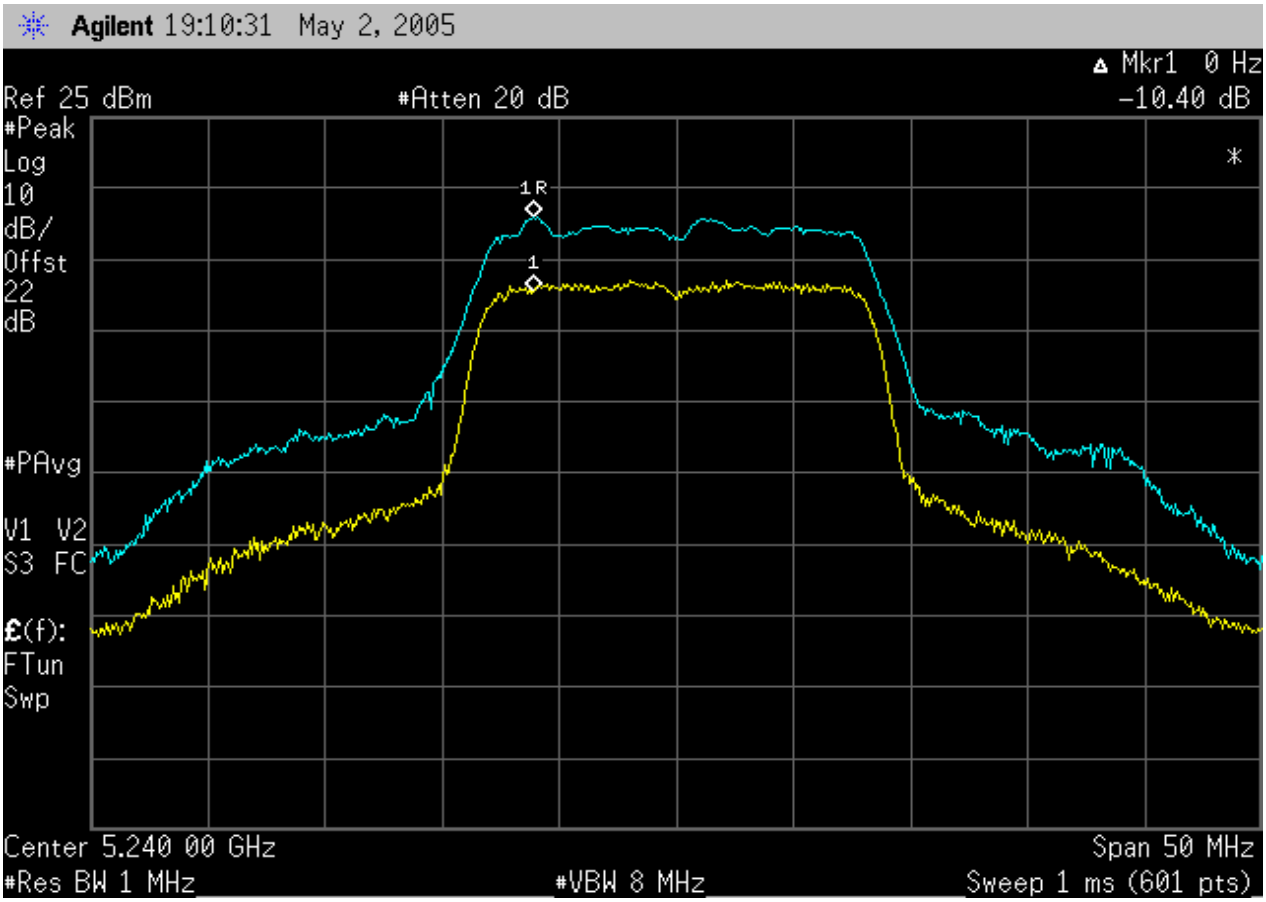
RESULTS	Peak Excursion
Pass	10.40 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

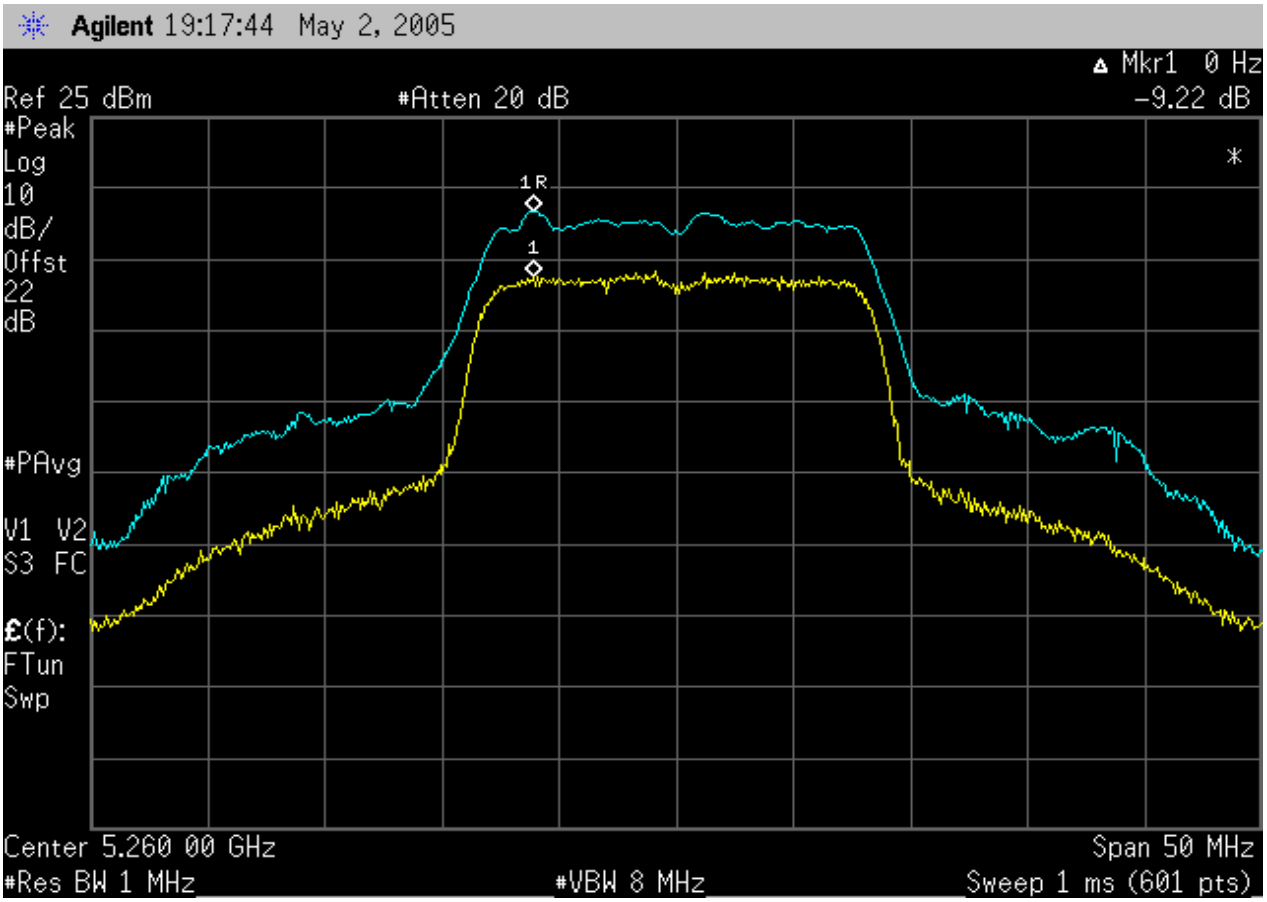
RESULTS	Peak Excursion
Pass	9.22 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

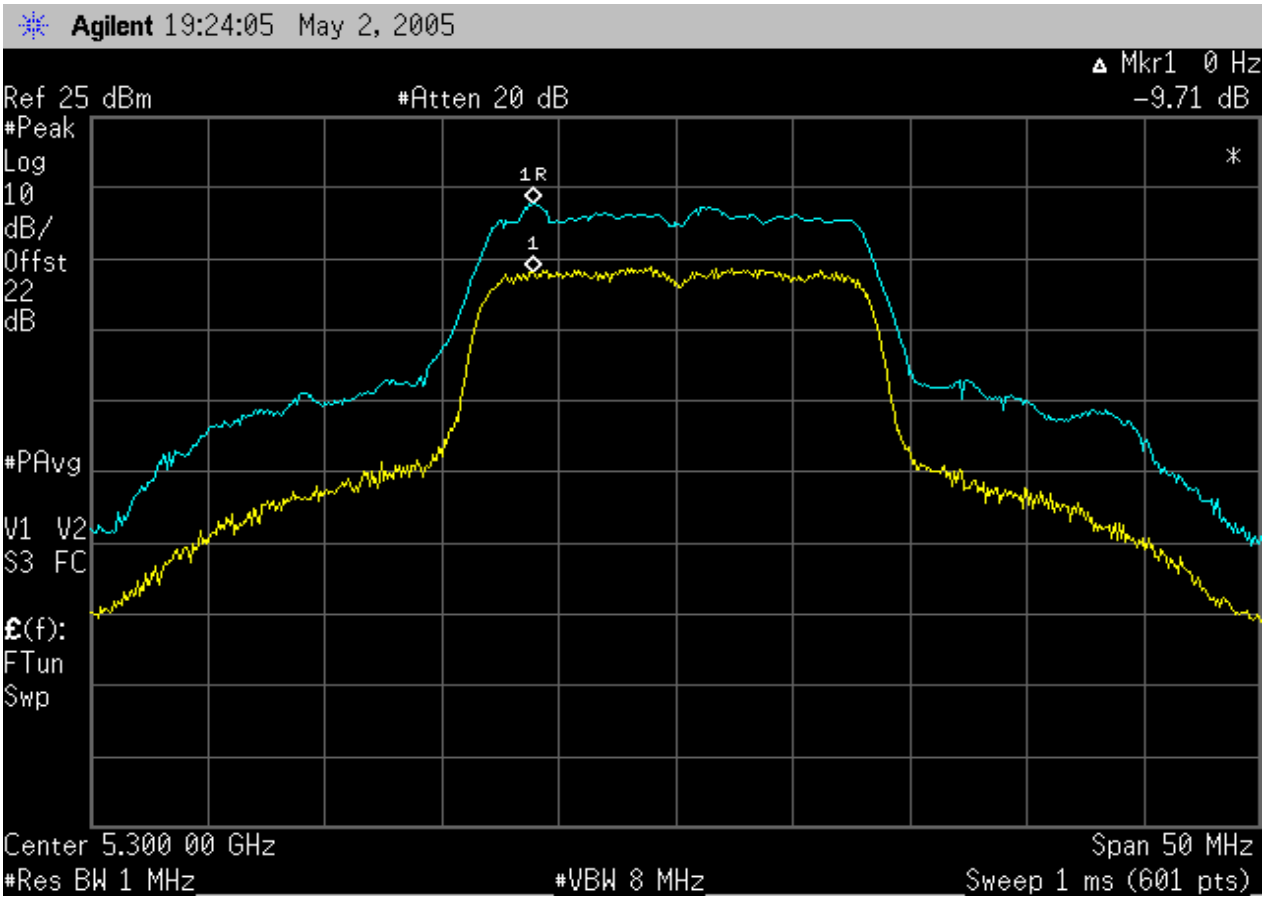
RESULTS	Peak Excursion
Pass	9.71 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

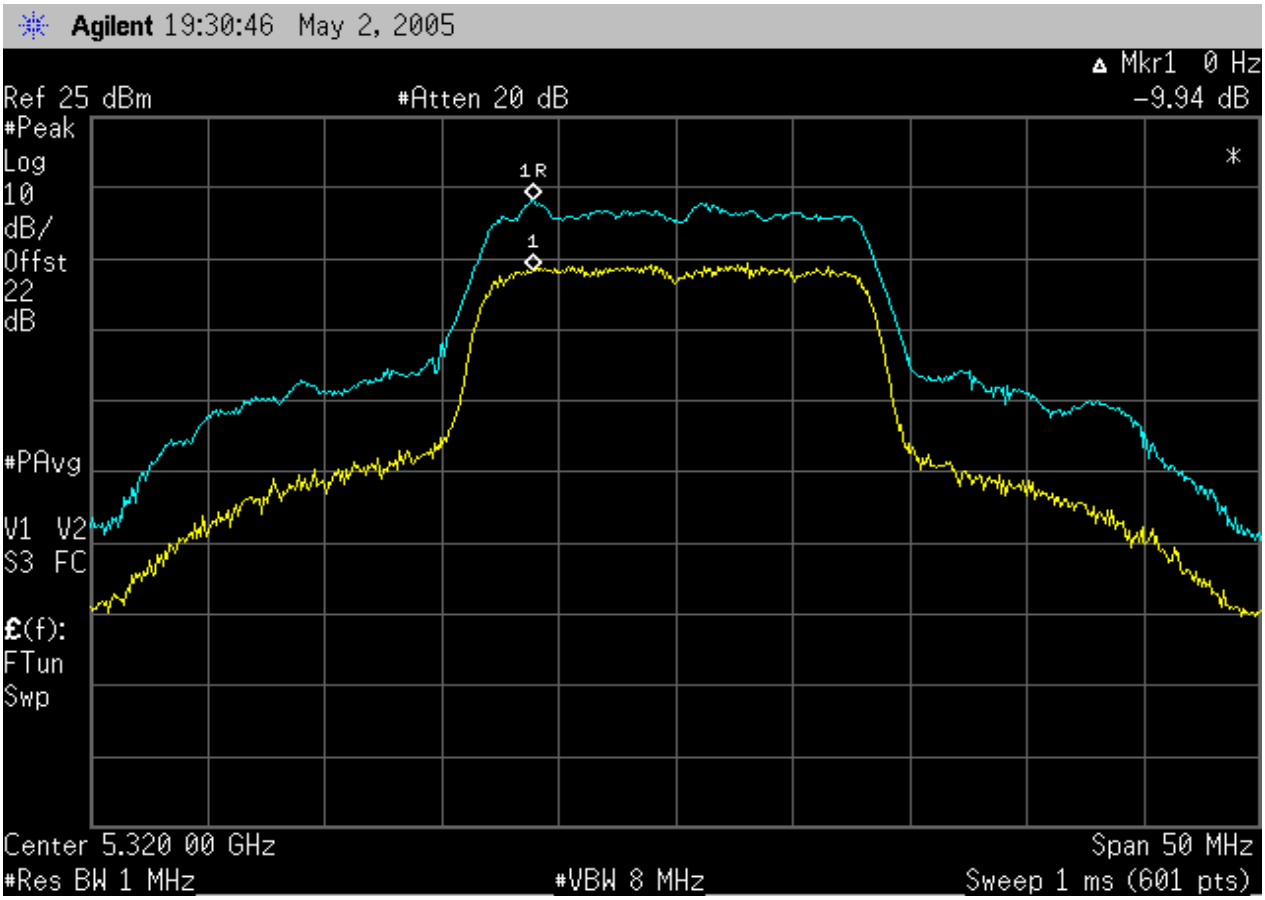
RESULTS	Peak Excursion
Pass	9.94 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

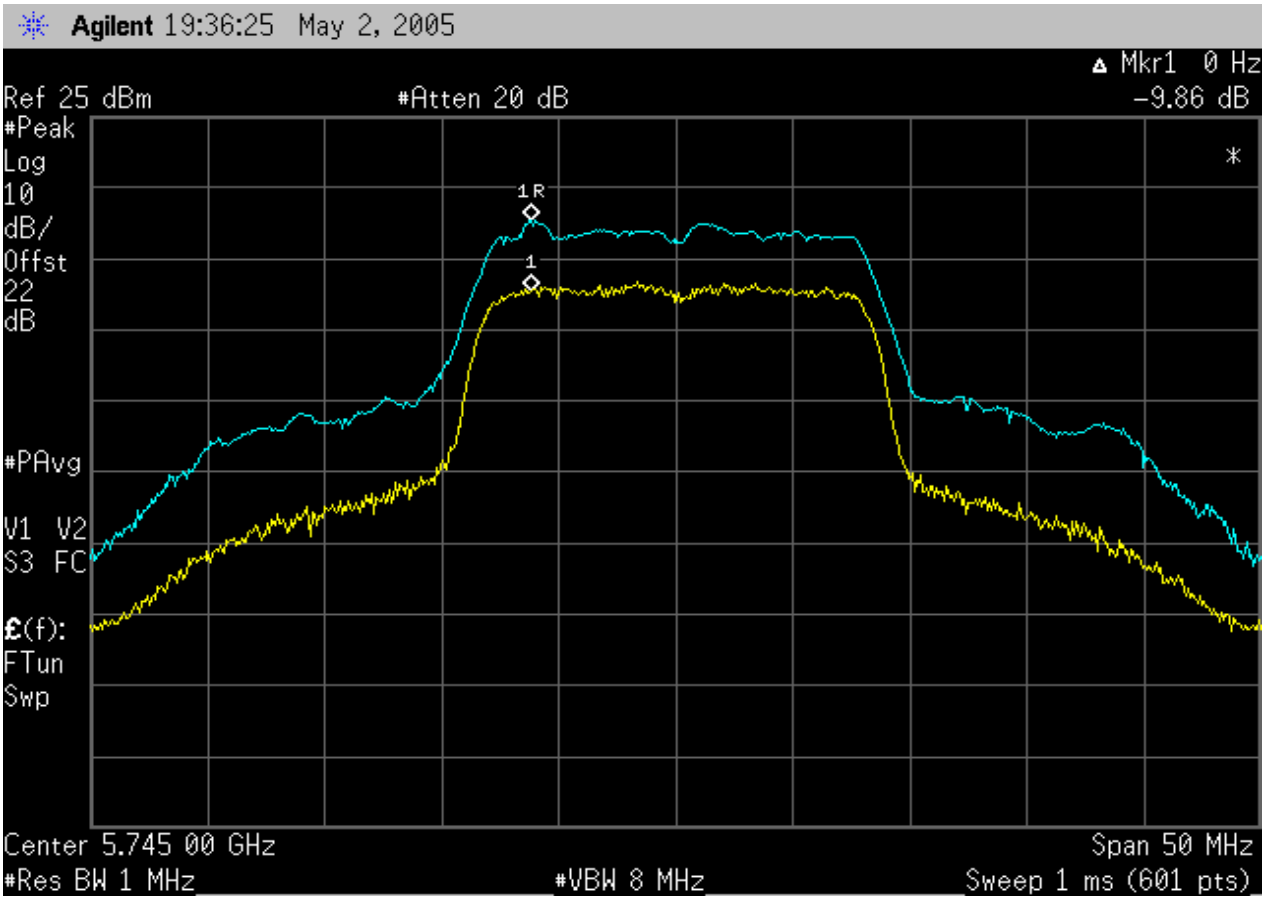
RESULTS	Peak Excursion
Pass	9.86 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

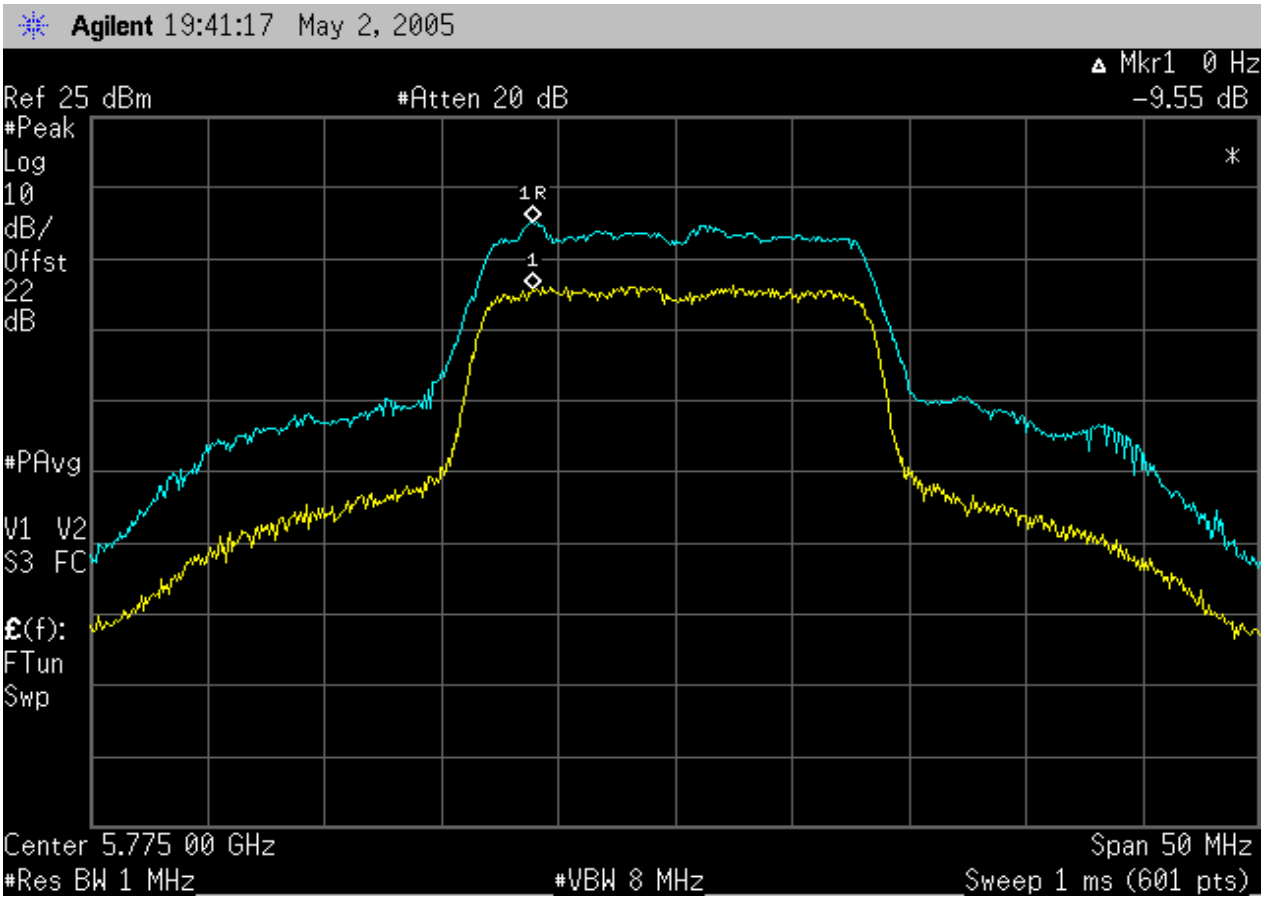
RESULTS	Peak Excursion
Pass	9.55 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 36 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

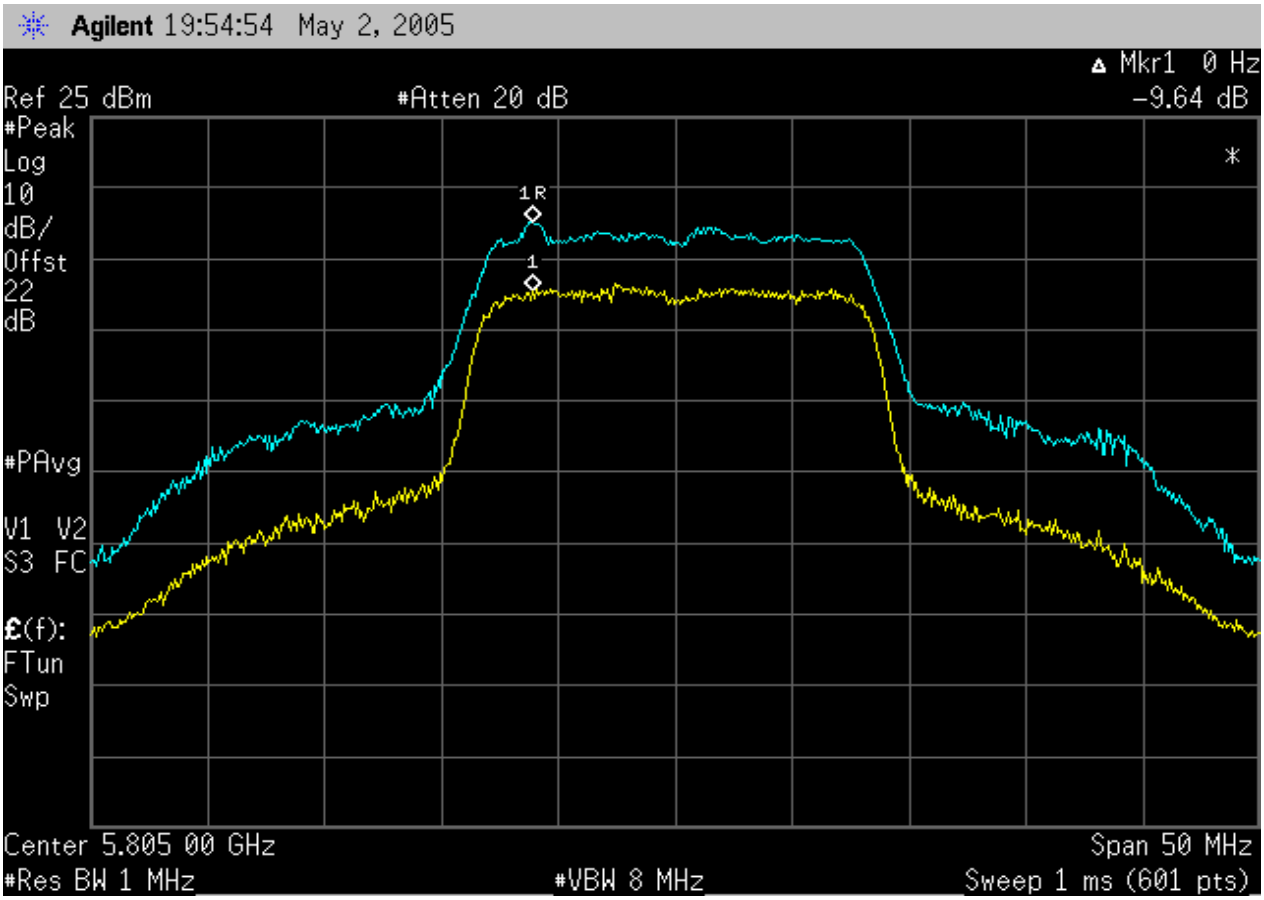
RESULTS	Peak Excursion
Pass	9.64 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

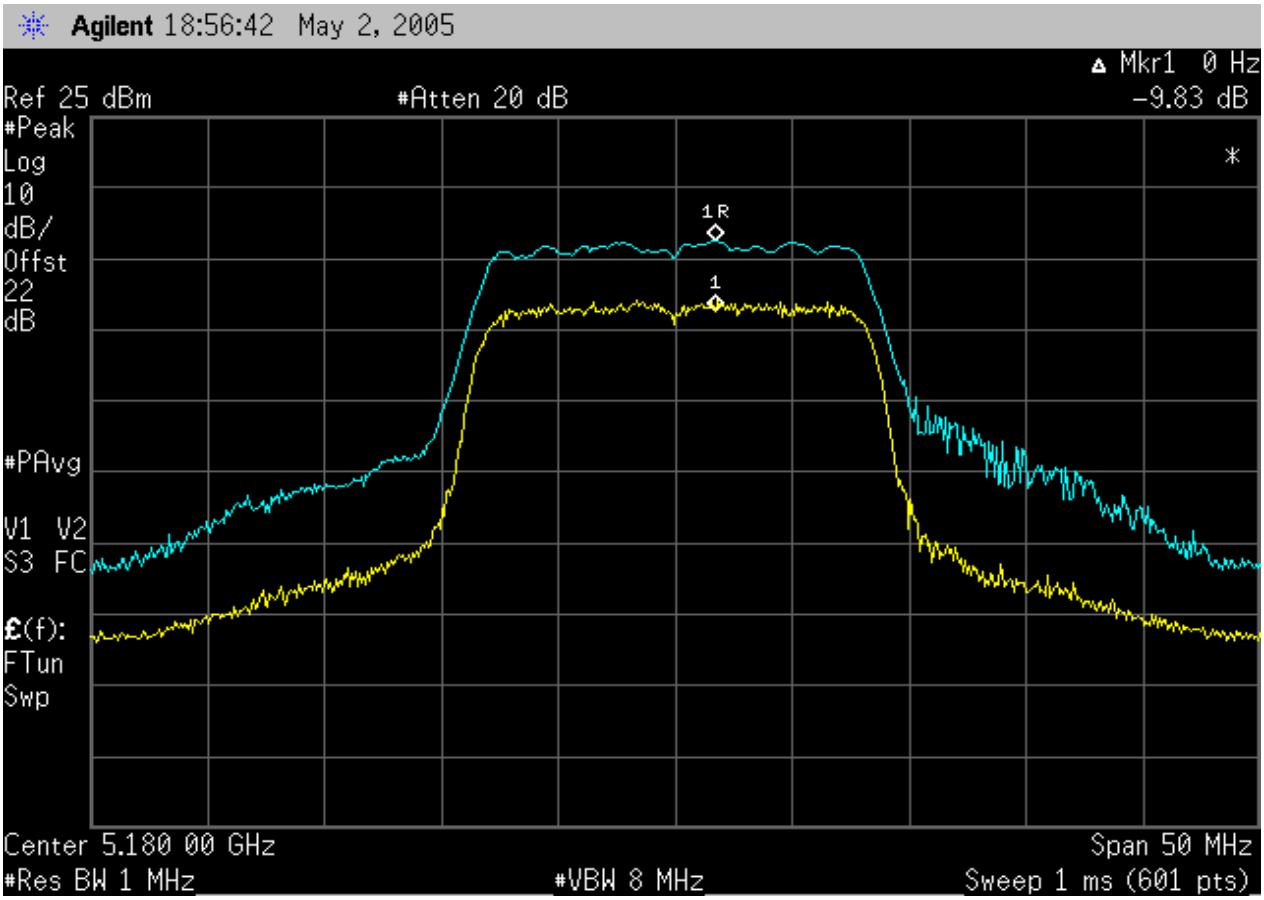
RESULTS	Peak Excursion
Pass	9.83 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

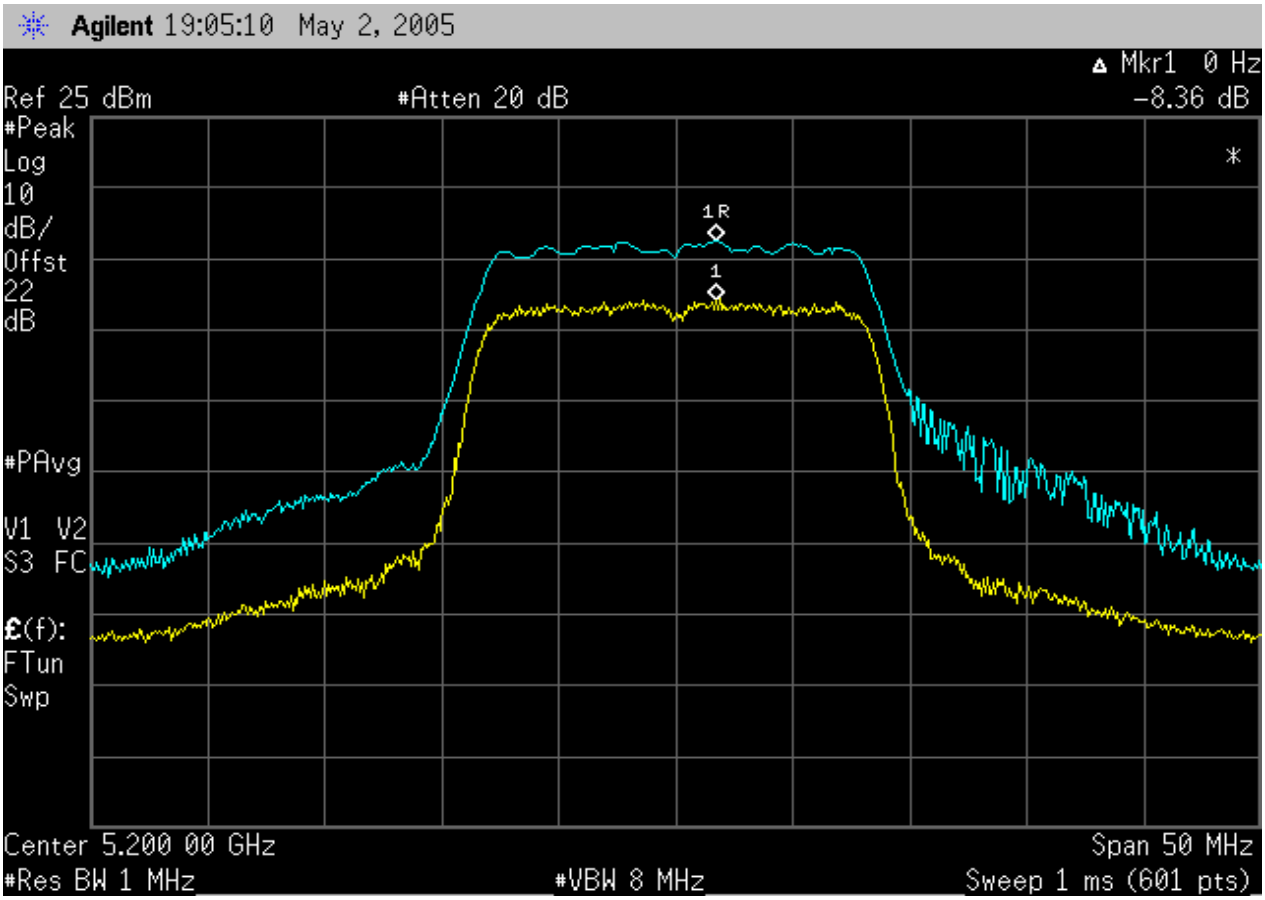
RESULTS	Peak Excursion
Pass	8.36 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

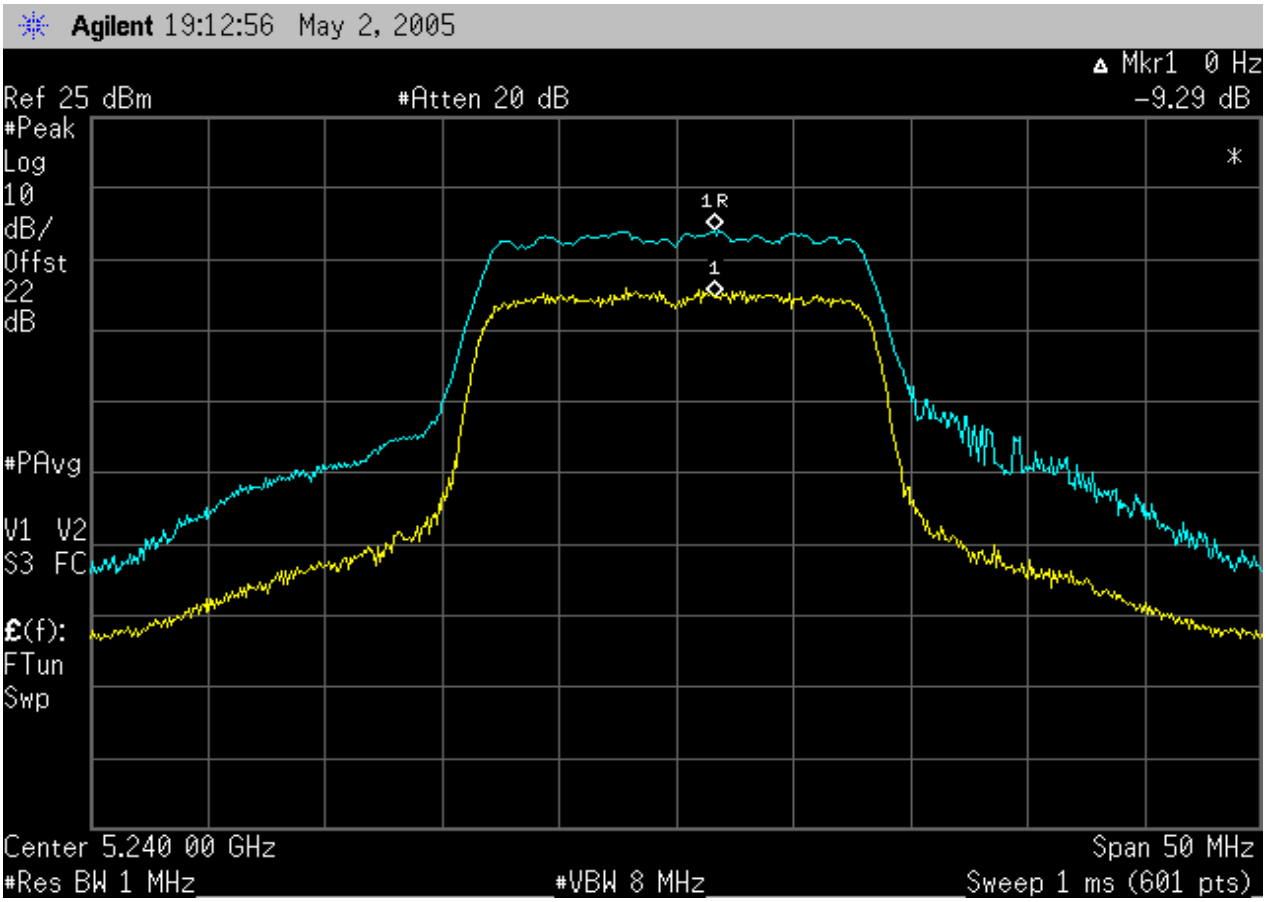
RESULTS	Peak Excursion
Pass	9.29 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.15 to 5.25 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

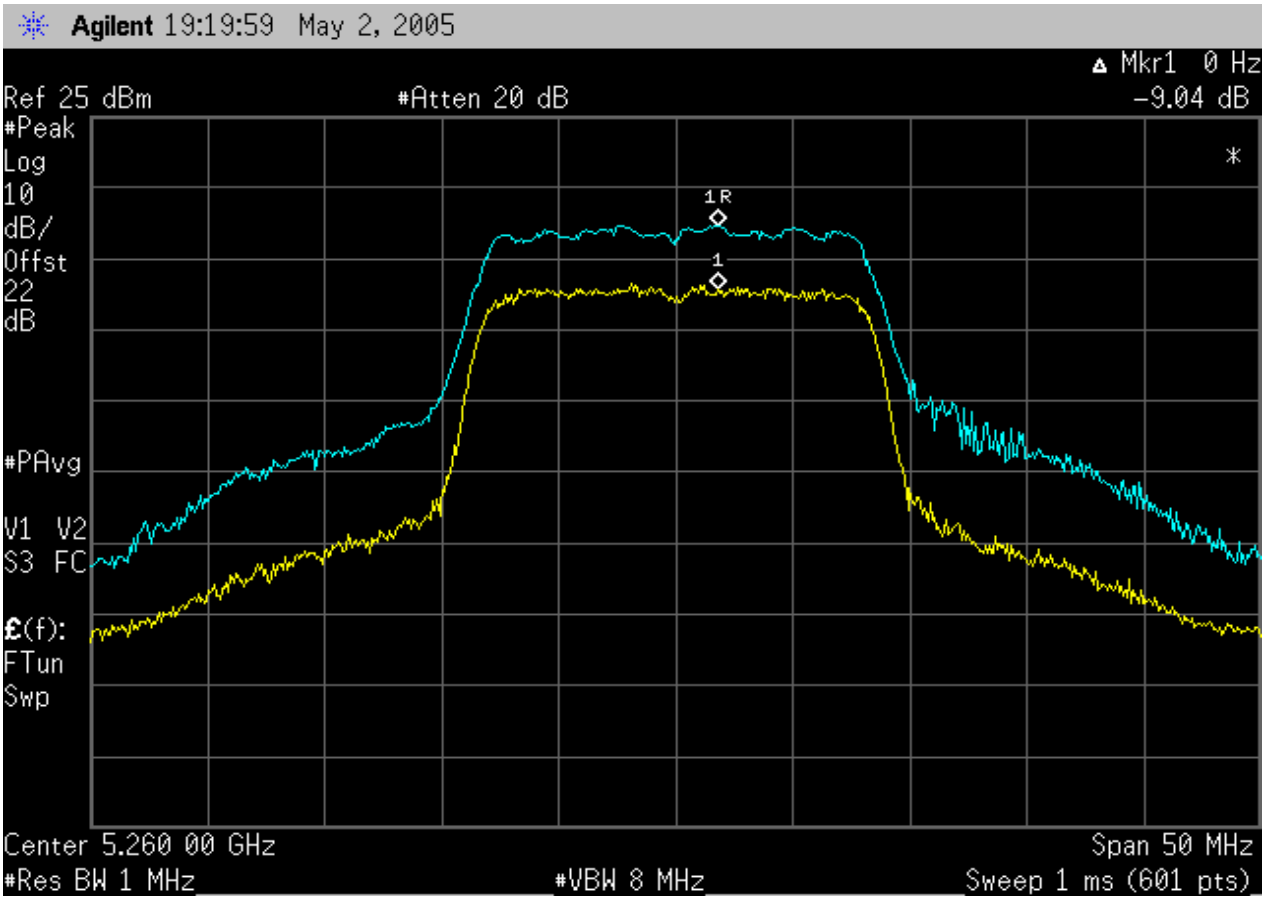
RESULTS	Peak Excursion
Pass	9.04 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

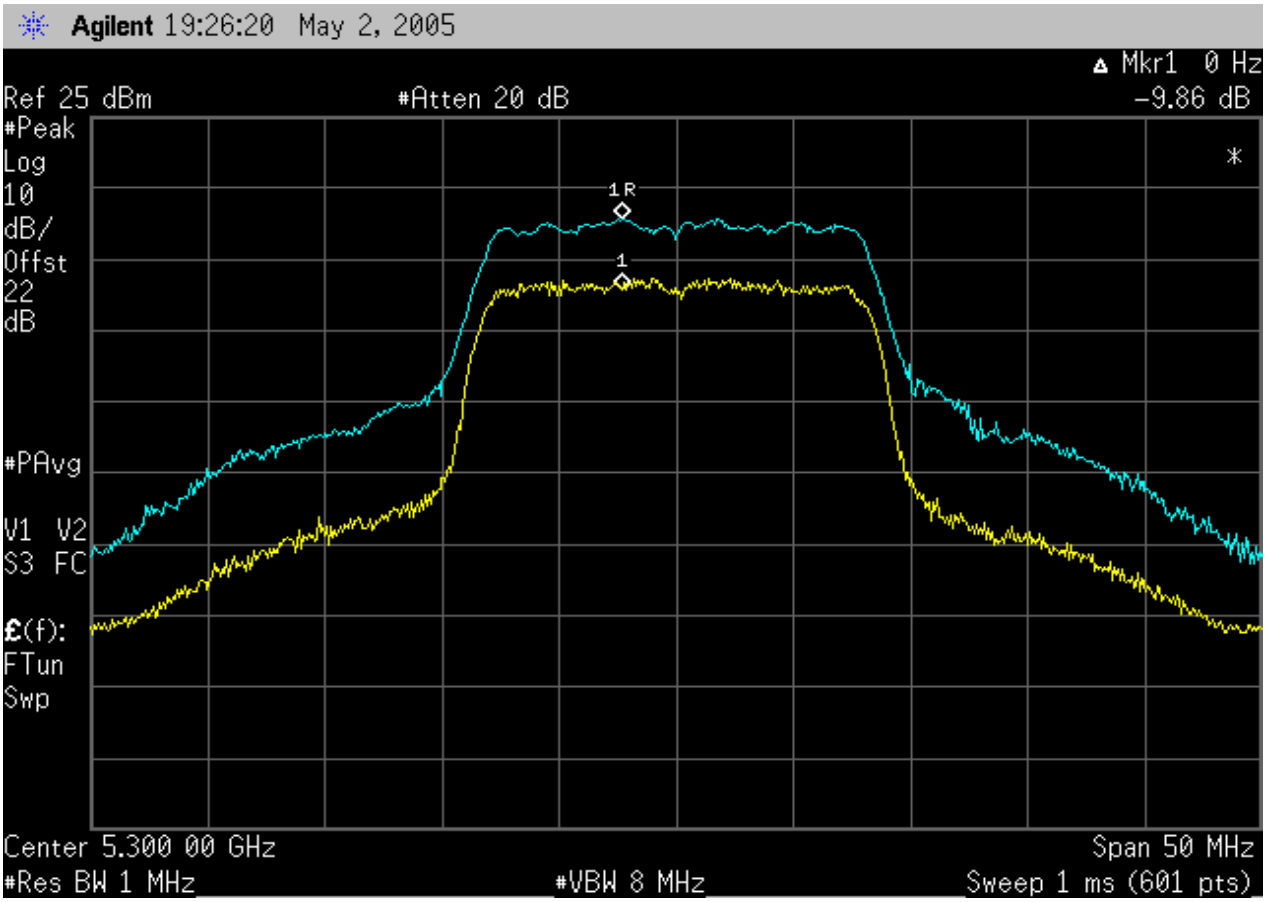
RESULTS	Peak Excursion
Pass	9.86 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

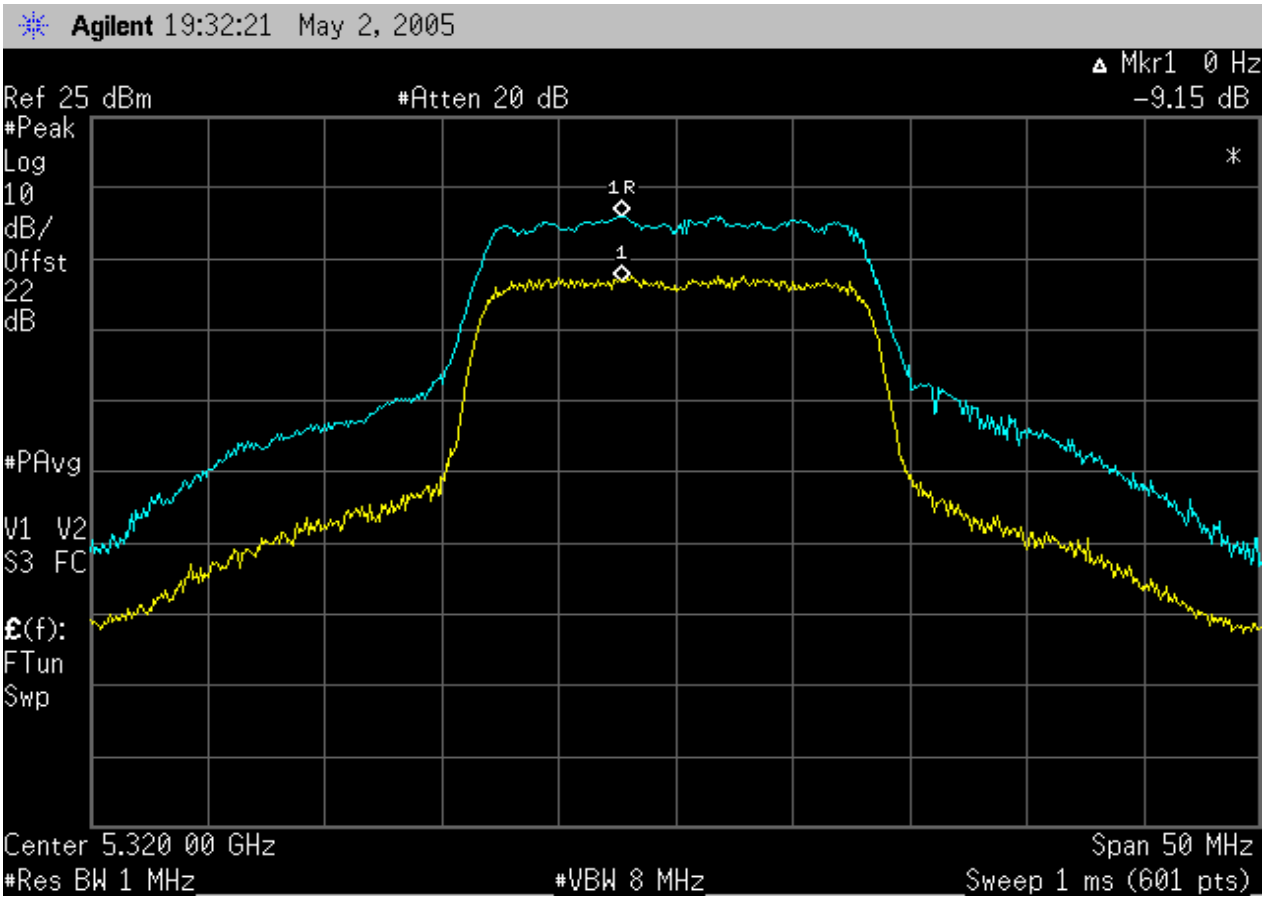
RESULTS	Peak Excursion
Pass	9.15 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.25 to 5.35 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

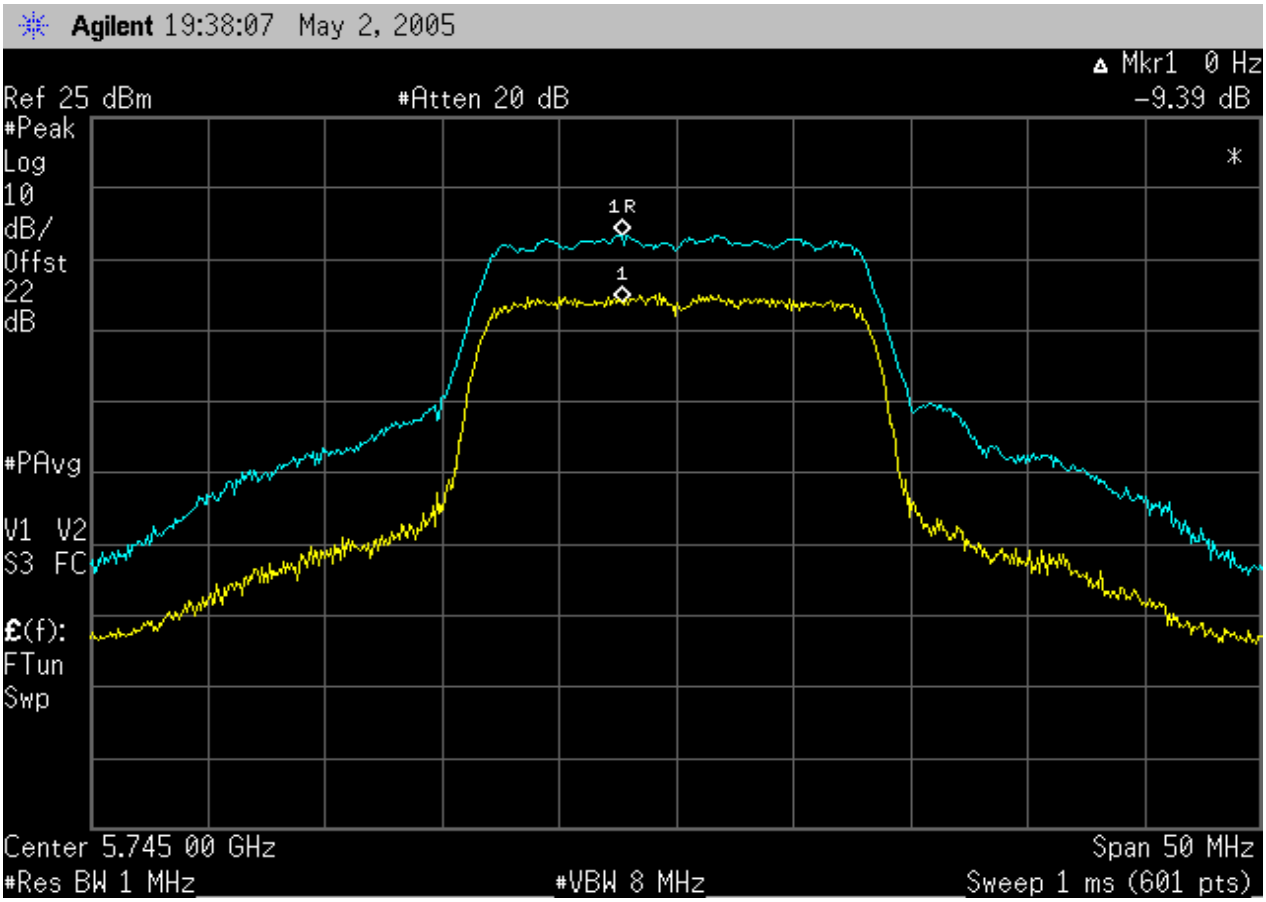
RESULTS	Peak Excursion
Pass	9.39 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Low Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

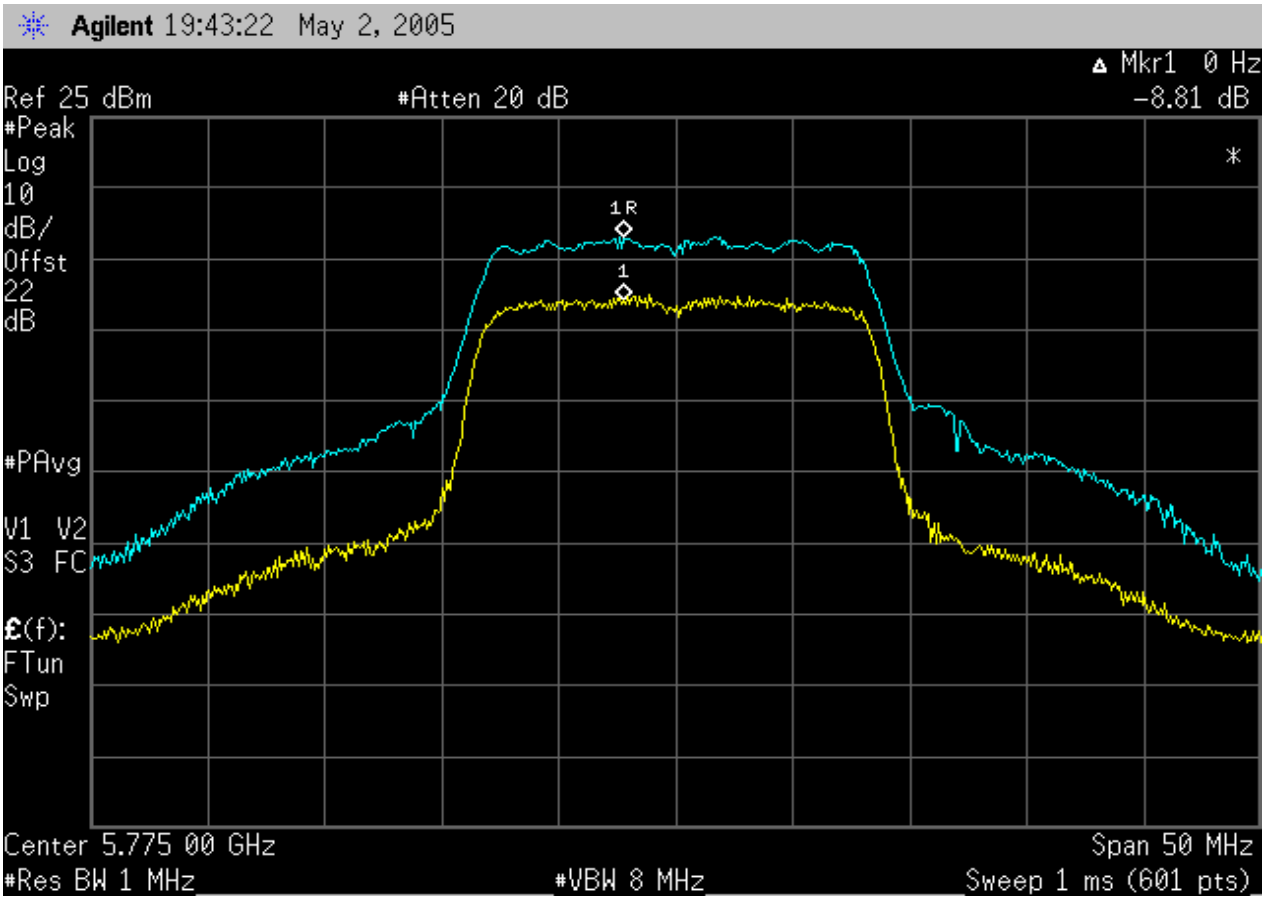
RESULTS	Peak Excursion
Pass	8.81 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - Mid Channel - 5.725 to 5.825 GHz Band



NORTHWEST EMC

Peak Excursion of the Modulation Envelope

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	05/02/05
Customer:	Intermec Corporation			Temperature:	22°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(a)(6)	Year:	2005-04	Method:	DA 02-2138, ANSI C63.4	Year:	2002, 2003

SAMPLE CALCULATIONS

COMMENTS

Tested in Ck60 Computer

EUT OPERATING MODES

Modulated at 54 Mbit. Maximum output power.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

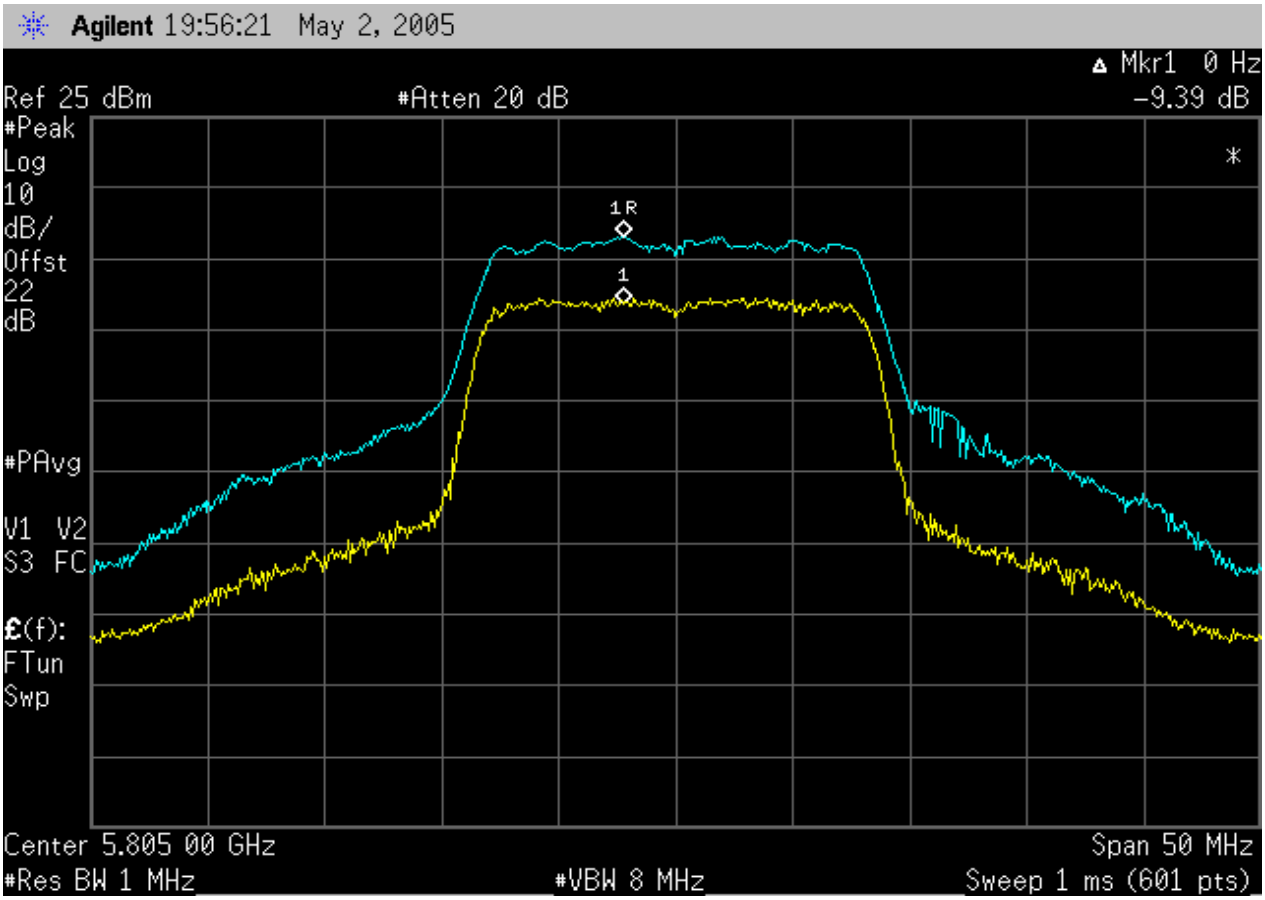
RESULTS	Peak Excursion
Pass	9.39 dB

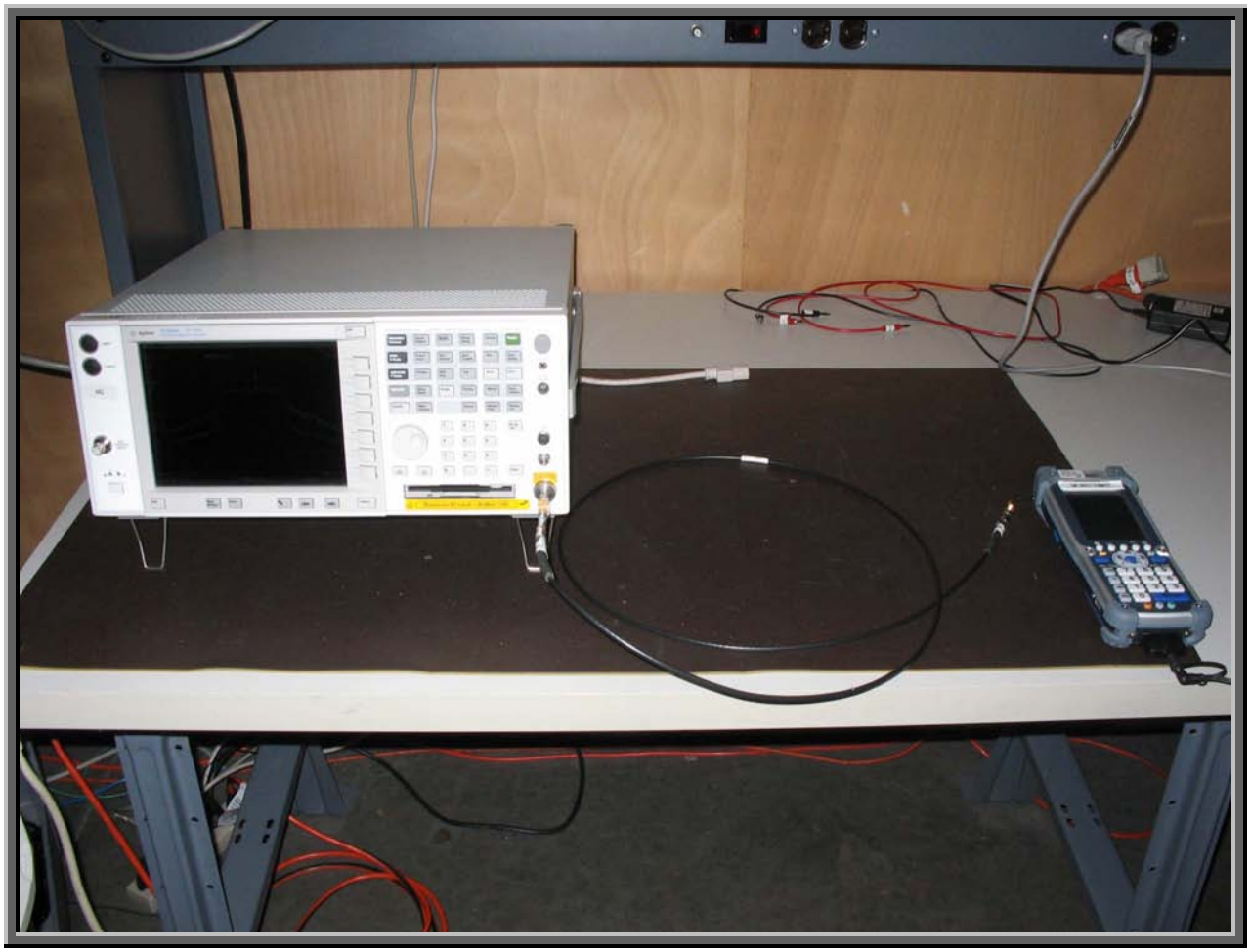
SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Peak Excursion of the Modulation Envelope - High Channel - 5.725 to 5.825 GHz Band





Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:
Channel 36 (5180MHz)
Channel 48 (5240MHz)
Channel 52 (5260MHz)
Channel 64 (5320MHz)
Channel 149 (5745MHz)
Channel 155 (5775MHz)
Channel 161 (5805MHz)

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
6Mbps
36Mbps
54Mbps

Power Input Settings Investigated:
120 VAC, 60 Hz.

Frequency Range Investigated			
Start Frequency	30 MHz	**Stop Frequency**	40 GHz

Software\Firmware Applied During Test			
Exercise software	cTxRx Win CE	**Version**	0.1.2.1
Description			
The system was tested using special software developed to test all functions of the device during the test.			

EUT and Peripherals			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT - 802.11 (a)/(b)/(g) radio module	Intermec Technologies Corporation	802UIAG	Unknown
Host Device - Handheld Computer	Intermec Technologies Corporation	CK61	33390400093
AC Power Adapter	Elpac Power Systems	FW1812	000168

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
AC Power	No	2.0	No	AC Power Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	12/02/2004	13 mo
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQF	12/02/2004	13 mo
Pre-Amplifier	Amplifier Research	LN1000A	APS	03/01/2005	13 mo
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APJ	01/05/2004	16 mo
Antenna, Biconilog	EMCO	3141	AXE	12/03/2003	24 mo
Antenna, Horn	EMCO	3115	AHC	09/07/2004	12 mo
Spectrum Analyzer	Tektronix	2784	AAO	01/02/2005	12 mo
Antenna, Horn	EMCO	3160-09	AHG	NCR	NA
Antenna, Horn	EMCO	3160-08	AHK	NCR	NA
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	02/15/2005	13 mo
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	02/17/2005	13 mo
5.25 GHz Notch Filter	K&L Microwave	8N50-5250/X200-0/0	HFK	04/01/2004	24 mo
5.8 GHz Notch Filter	Micro-Tronics	BRC50705	HFQ	03/09/2005	13 mo
7.5-9.5 GHZ Bandpass Filter	K&L Microwave	7ED20-8500/E2000-O/O	HFL	04/05/2004	24 mo
High Pass Filter	K&L Microwave	1WP01-15000/E6000-O/O	HFJ	04/05/2004	24 mo
Pre-Amplifier	Miteq	JS4-26004000-40-8P	APV	02/21/2005	13 mo
Pre-Amplifier	Miteq	JS4-26004000-50-5A	AON	02/21/2005	13 mo
Antenna, Horn	EMCO	3160-10	AHI	NCR	NA

Test Description

Requirements: Per 15.407(b), the undesirable emission limits are as follows:

Except as shown in paragraph (b)(6) of this section, the peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.
(3) For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an

EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.

(4) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Sec. 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in Sec. 15.207.

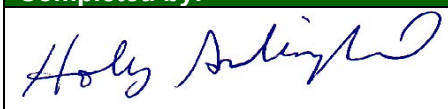
(6) The provisions of Sec. 15.205 apply to intentional radiators operating under this section.

(7) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency block edges as the design of the equipment permits.

Configuration: The only antenna to be used with the EUT was 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. In addition, measurements were made in the restricted bands to verify compliance. 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 C63.4:2003). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Bandwidths Used for Measurements			
Frequency Range (MHz)	**Peak Data (kHz)**	**Quasi-Peak Data (kHz)**	**Average Data (kHz)**
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.			

Completed by:



NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), Channel 149, see comments for data rate

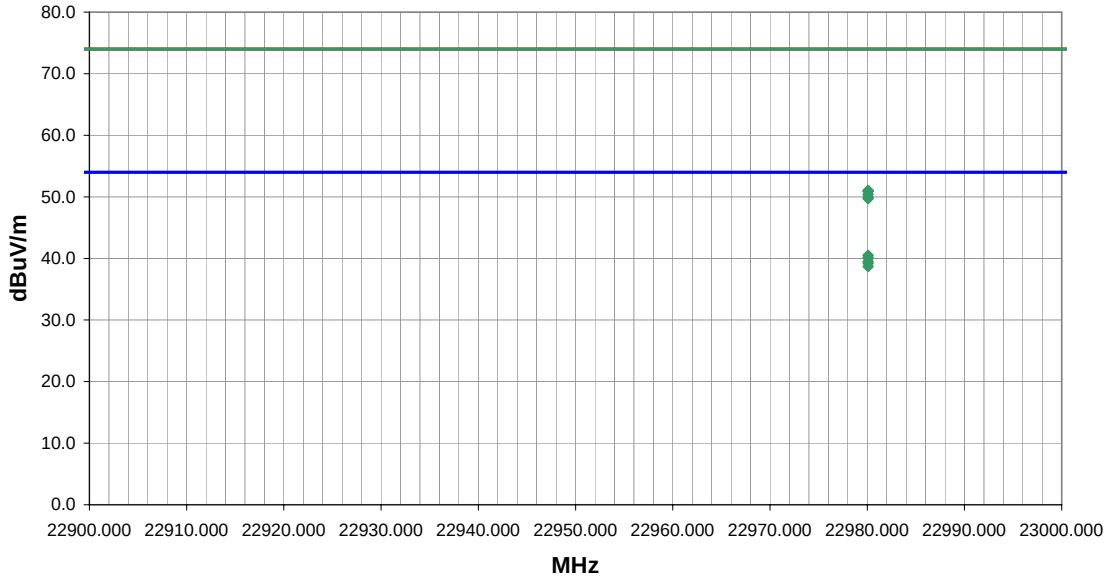
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	1

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
22980.090	30.1	10.4	187.0	1.1	3.0	0.0	-High Horr	AV	0.0	40.5	54.0	-13.5	6Mbps
22980.090	29.7	10.4	150.0	1.1	3.0	0.0	/-High Horr	AV	0.0	40.1	54.0	-13.9	36Mbps
22980.090	29.7	10.4	148.0	1.1	3.0	0.0	/-High Horr	AV	0.0	40.1	54.0	-13.9	54Mbps
22980.090	29.1	10.4	221.0	1.1	3.0	0.0	-High Horr	AV	0.0	39.5	54.0	-14.5	36Mbps
22980.090	28.8	10.4	222.0	1.1	3.0	0.0	-High Horr	AV	0.0	39.2	54.0	-14.8	54Mbps
22980.090	28.3	10.4	235.0	1.1	3.0	0.0	/-High Horr	AV	0.0	38.7	54.0	-15.3	6Mbps
22980.090	40.6	10.4	187.0	1.1	3.0	0.0	-High Horr	PK	0.0	51.0	74.0	-23.0	6Mbps
22980.090	40.6	10.4	150.0	1.1	3.0	0.0	/-High Horr	PK	0.0	51.0	74.0	-23.0	36Mbps
22980.090	40.5	10.4	221.0	1.1	3.0	0.0	-High Horr	PK	0.0	50.9	74.0	-23.1	36Mbps
22980.090	40.0	10.4	148.0	1.1	3.0	0.0	/-High Horr	PK	0.0	50.4	74.0	-23.6	54Mbps
22980.090	39.6	10.4	222.0	1.1	3.0	0.0	-High Horr	PK	0.0	50.0	74.0	-24.0	54Mbps
22980.090	39.3	10.4	235.0	1.1	3.0	0.0	/-High Horr	PK	0.0	49.7	74.0	-24.3	6Mbps

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), Channel 149, see comments for data rate

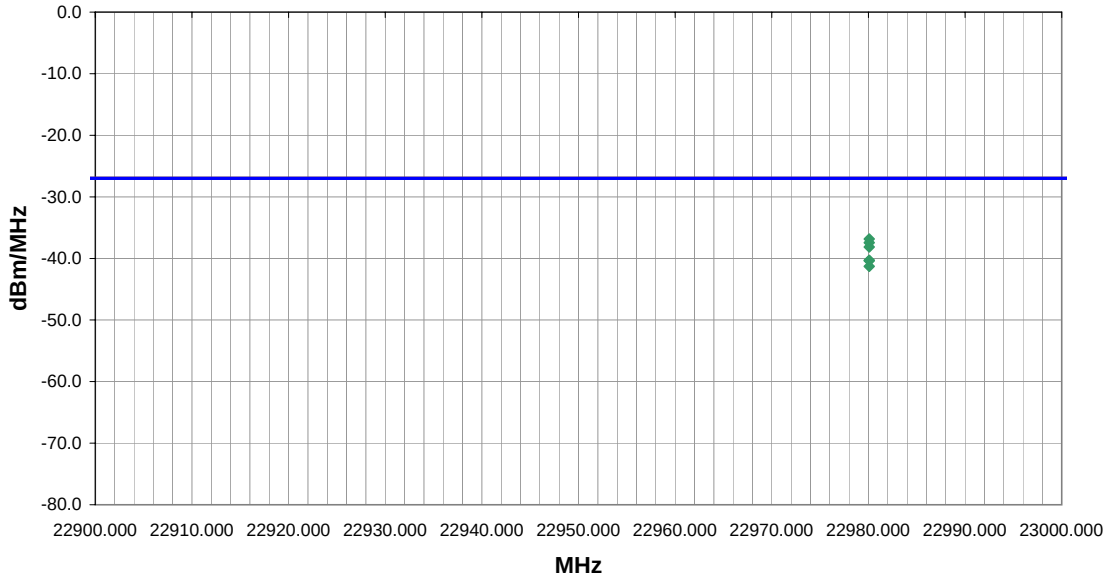
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	1

Other

Tested By: Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
22980.090			150.0	1.1			V-High Horr	PK	0.0000	-36.8	-27.0	-9.8	36Mbps
22980.090			148.0	1.1			V-High Horr	PK	0.0000	-37.4	-27.0	-10.4	54Mbps
22980.090			235.0	1.1			V-High Horr	PK	0.0000	-38.1	-27.0	-11.1	6Mbps
22980.090			187.0	1.1			H-High Horr	PK	0.0000	-40.3	-27.0	-13.3	6Mbps
22980.090			221.0	1.1			H-High Horr	PK	0.0000	-40.4	-27.0	-13.4	36Mbps
22980.090			222.0	1.1			H-High Horr	PK	0.0000	-41.3	-27.0	-14.3	54Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG	Work Order:	ITRM0066
Serial Number:		Date:	03/09/05
Customer:	Intermec Technologies Corporation	Temperature:	23
Attendees:	none	Humidity:	39%
Cust. Ref. No.:		Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power: 120VAC, 60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), 6Mbps, Channel 155

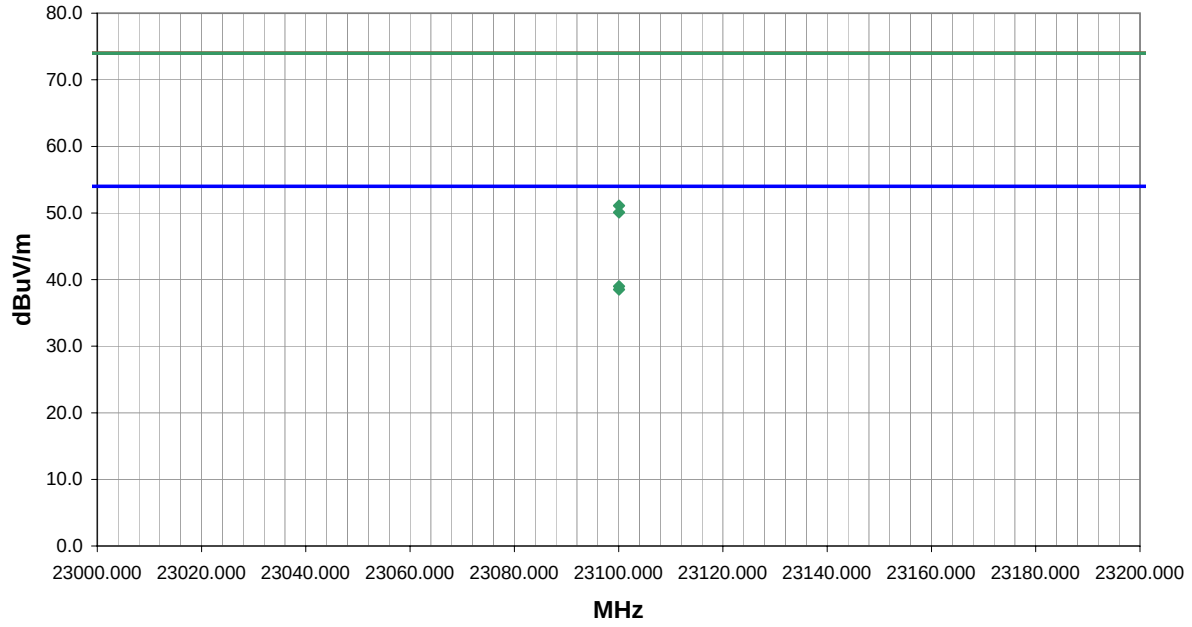
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	2

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)
23100.090	28.6	10.4	208.0	1.1	3.0	0.0	-High Horr	AV	0.0	39.0	54.0	-15.0
23100.090	28.1	10.4	149.0	1.1	3.0	0.0	√-High Horr	AV	0.0	38.5	54.0	-15.5
23100.090	40.7	10.4	208.0	1.1	3.0	0.0	-High Horr	PK	0.0	51.1	74.0	-22.9
23100.090	39.7	10.4	149.0	1.1	3.0	0.0	√-High Horr	PK	0.0	50.1	74.0	-23.9

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), 6Mbps, Channel 155

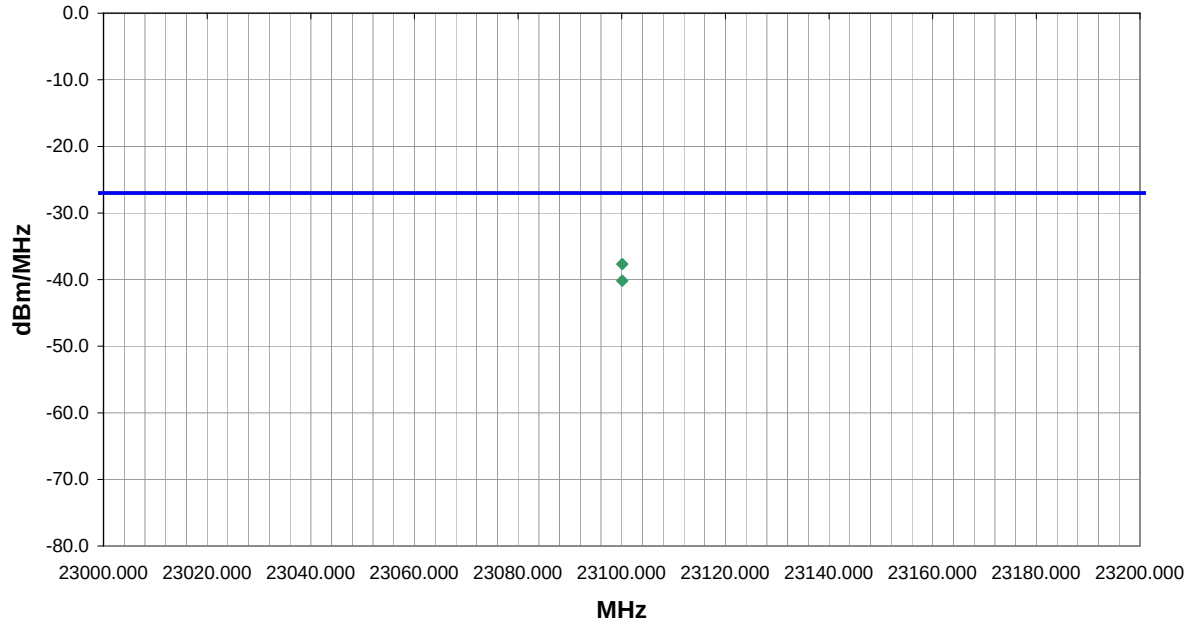
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	2

Other

Tested By: Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)
23100.090			149.0	1.1			V-High Horr	PK	0.0000	-37.7	-27.0	-10.7
23100.090			208.0	1.1			H-High Horr	PK	0.0000	-40.2	-27.0	-13.2

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), 6Mbps, see comments for channel

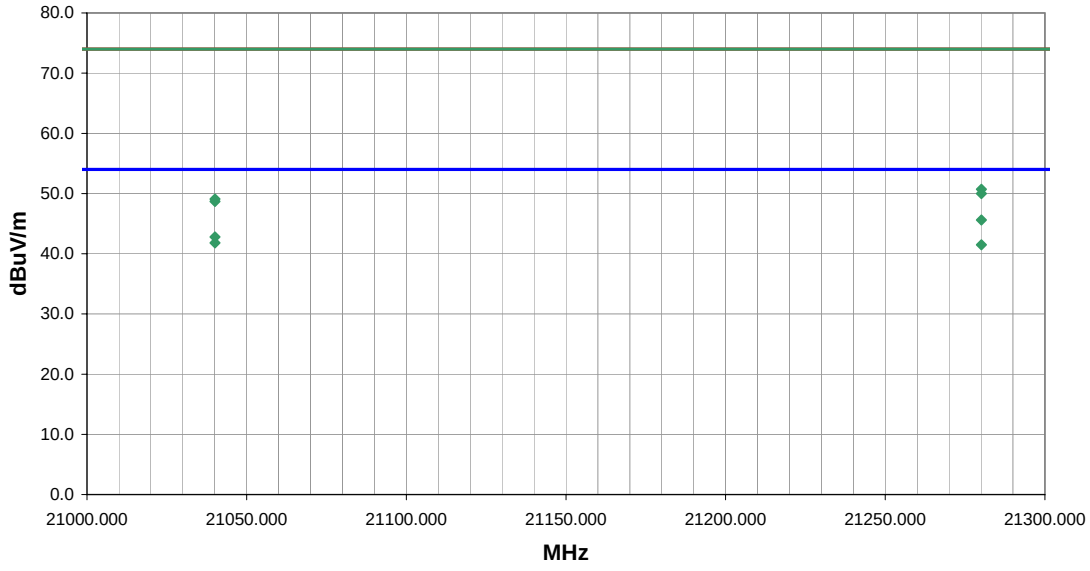
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	3

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
21280.090	37.0	8.6	173.0	1.1	3.0	0.0	H-High Horr	AV	0.0	45.6	54.0	-8.4	Channel 64
21040.080	34.2	8.6	194.0	1.1	3.0	0.0	V-High Horr	AV	0.0	42.8	54.0	-11.2	Channel 52
21040.080	33.2	8.6	172.0	1.1	3.0	0.0	H-High Horr	AV	0.0	41.8	54.0	-12.2	Channel 52
21280.090	32.9	8.6	163.0	1.1	3.0	0.0	V-High Horr	AV	0.0	41.5	54.0	-12.5	Channel 64
21280.090	42.1	8.6	173.0	1.1	3.0	0.0	H-High Horr	PK	0.0	50.7	74.0	-23.3	Channel 64
21280.090	41.4	8.6	163.0	1.1	3.0	0.0	V-High Horr	PK	0.0	50.0	74.0	-24.0	Channel 64
21040.080	40.5	8.6	194.0	1.1	3.0	0.0	V-High Horr	PK	0.0	49.1	74.0	-24.9	Channel 52
21040.080	40.1	8.6	172.0	1.1	3.0	0.0	H-High Horr	PK	0.0	48.7	74.0	-25.3	Channel 52

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), 6Mbps, see comments for channel

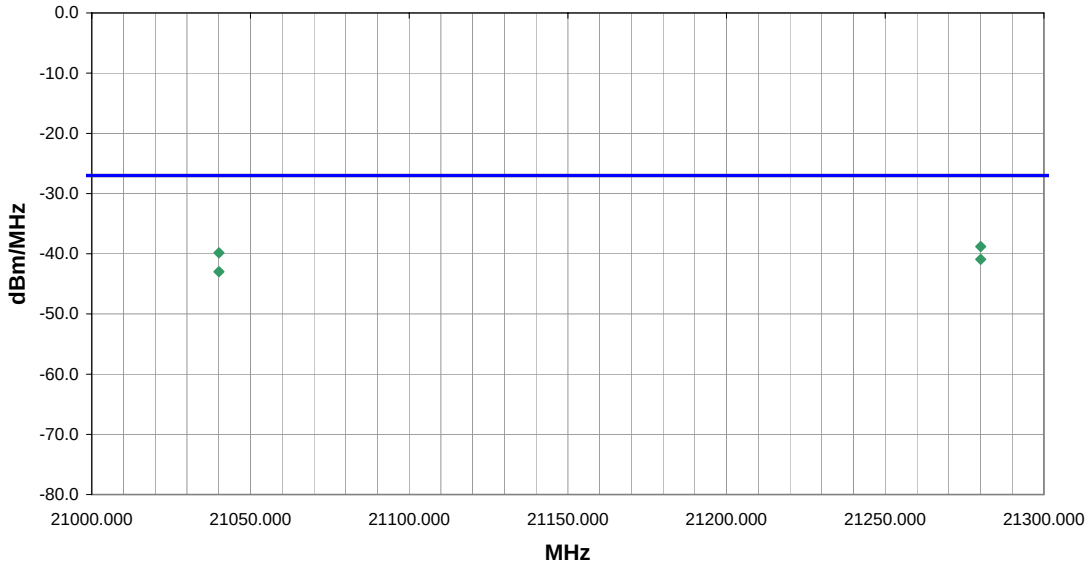
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	3

Other

Tested By:



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
21280.090			163.0	1.1			V-High Horr	PK	0.0000	-38.8	-27.0	-11.8	Channel 64
21040.080			194.0	1.1			V-High Horr	PK	0.0000	-39.8	-27.0	-12.8	Channel 52
21280.090			173.0	1.1			H-High Horr	PK	0.0000	-40.9	-27.0	-13.9	Channel 64
21040.080			172.0	1.1			H-High Horr	PK	0.0000	-43.0	-27.0	-16.0	Channel 52

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), 6Mbps, see comments for channel

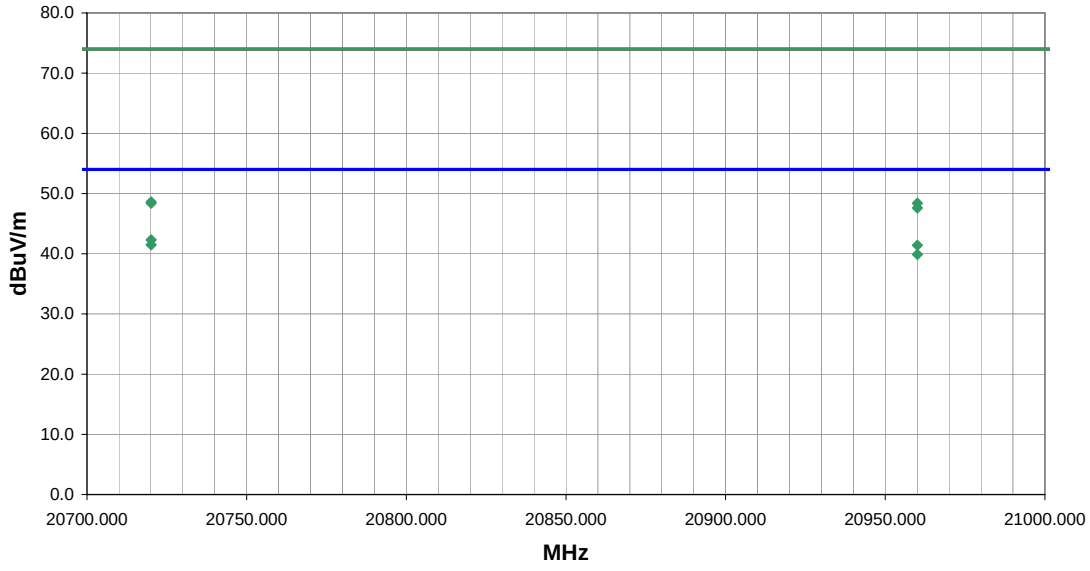
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	4

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
20720.080	33.5	8.8	148.0	1.1	3.0	0.0	V-High Horr	AV	0.0	42.3	54.0	-11.7	Channel 36
20720.080	32.7	8.8	104.0	1.1	3.0	0.0	H-High Horr	AV	0.0	41.5	54.0	-12.5	Channel 36
20960.080	32.8	8.6	169.0	1.1	3.0	0.0	V-High Horr	AV	0.0	41.4	54.0	-12.6	Channel 48
20960.080	31.3	8.6	241.0	1.0	3.0	0.0	H-High Horr	AV	0.0	39.9	54.0	-14.1	Channel 48
20720.080	39.8	8.8	104.0	1.1	3.0	0.0	H-High Horr	PK	0.0	48.6	74.0	-25.4	Channel 36
20720.080	39.6	8.8	148.0	1.1	3.0	0.0	V-High Horr	PK	0.0	48.4	74.0	-25.6	Channel 36
20960.080	39.8	8.6	169.0	1.1	3.0	0.0	V-High Horr	PK	0.0	48.4	74.0	-25.6	Channel 48
20960.080	39.0	8.6	241.0	1.0	3.0	0.0	H-High Horr	PK	0.0	47.6	74.0	-26.4	Channel 48

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), 6Mbps, see comments for channel

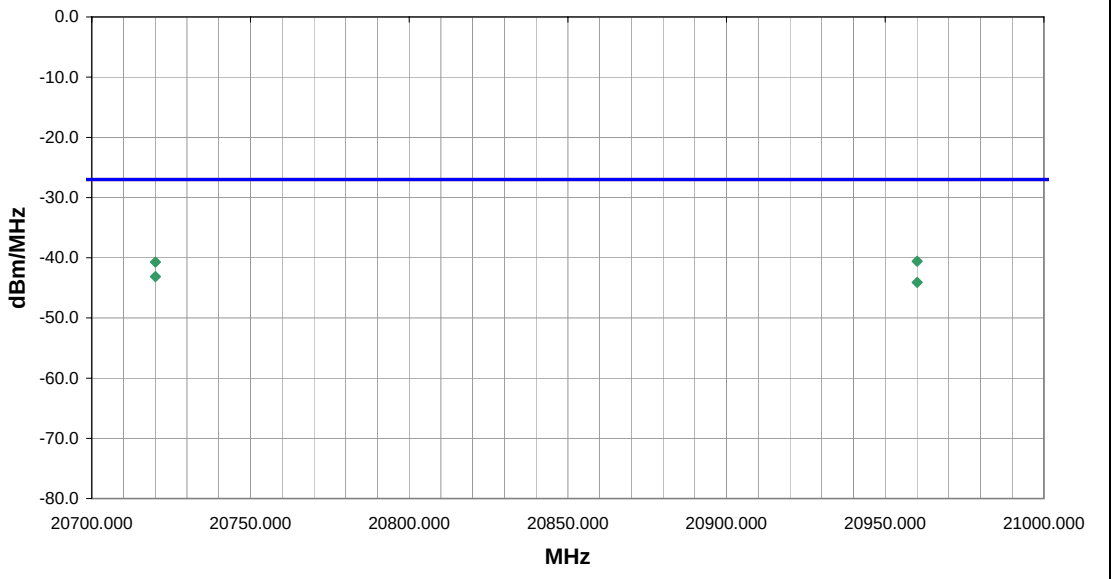
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	4

Other

Tested By:



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
20960.080			169.0	1.1			V-High Horr	PK	0.0000	-40.6	-27.0	-13.6	Channel 48
20720.080			148.0	1.1			V-High Horr	PK	0.0000	-40.7	-27.0	-13.7	Channel 36
20720.080			104.0	1.1			H-High Horr	PK	0.0000	-43.1	-27.0	-16.1	Channel 36
20960.080			241.0	1.0			H-High Horr	PK	0.0000	-44.1	-27.0	-17.1	Channel 48

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), Channel 36, see comments for data rate

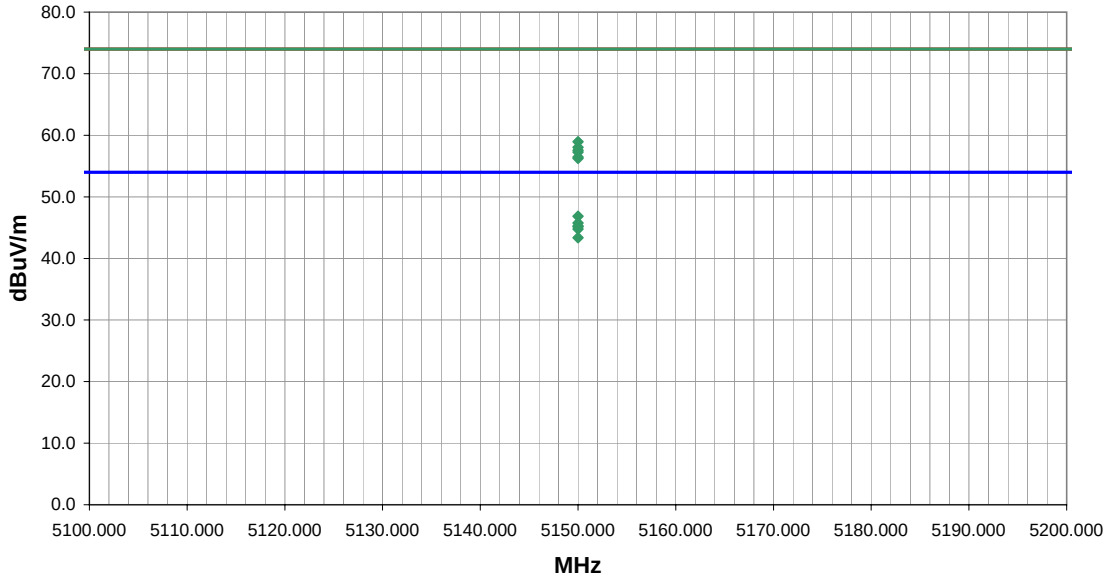
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	5

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
5150.000	20.1	36.3	232.0	1.2	1.0	0.0	V-Horn	AV	-9.5	46.9	54.0	-7.1	6Mbps
5150.000	19.0	36.3	262.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.8	54.0	-8.2	6Mbps
5150.000	18.5	36.3	177.0	1.2	1.0	0.0	V-Horn	AV	-9.5	45.3	54.0	-8.7	36Mbps
5150.000	18.4	36.3	189.0	1.1	1.0	0.0	V-Horn	AV	-9.5	45.2	54.0	-8.8	54Mbps
5150.000	18.0	36.3	230.0	1.1	1.0	0.0	H-Horn	AV	-9.5	44.8	54.0	-9.2	54Mbps
5150.000	16.6	36.3	158.0	1.1	1.0	0.0	H-Horn	AV	-9.5	43.4	54.0	-10.6	36Mbps
5150.000	32.2	36.3	232.0	1.2	1.0	0.0	V-Horn	PK	-9.5	59.0	74.0	-15.0	6Mbps
5150.000	31.3	36.3	262.0	1.1	1.0	0.0	H-Horn	PK	-9.5	58.1	74.0	-15.9	6Mbps
5150.000	30.8	36.3	189.0	1.1	1.0	0.0	V-Horn	PK	-9.5	57.6	74.0	-16.4	54Mbps
5150.000	30.5	36.3	177.0	1.2	1.0	0.0	V-Horn	PK	-9.5	57.3	74.0	-16.7	36Mbps
5150.000	29.7	36.3	230.0	1.1	1.0	0.0	H-Horn	PK	-9.5	56.5	74.0	-17.5	54Mbps
5150.000	29.5	36.3	158.0	1.1	1.0	0.0	H-Horn	PK	-9.5	56.3	74.0	-17.7	36Mbps

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), Channel 36, see comments for data rate

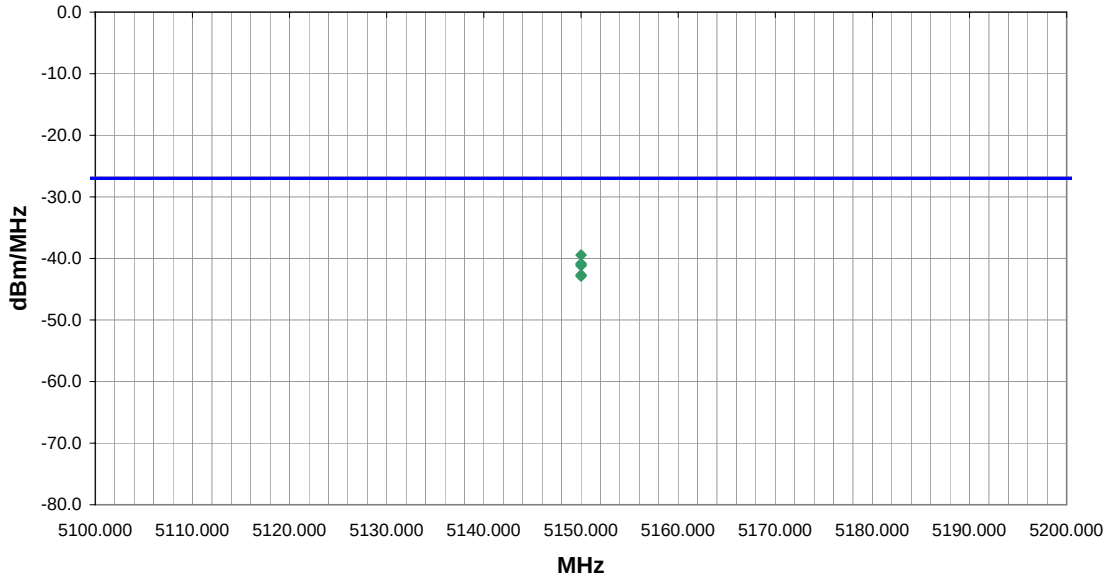
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	5

Other

Tested By: Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
5150.000			232.0	1.2			V-Horn	PK	0.0000	-39.4	-27.0	-12.4	6Mbps
5150.000			189.0	1.1			V-Horn	PK	0.0000	-40.8	-27.0	-13.8	54Mbps
5150.000			262.0	1.1			H-Horn	PK	0.0000	-41.1	-27.0	-14.1	6Mbps
5150.000			177.0	1.2			V-Horn	PK	0.0000	-41.1	-27.0	-14.1	36Mbps
5150.000			230.0	1.1			H-Horn	PK	0.0000	-42.7	-27.0	-15.7	54Mbps
5150.000			158.0	1.1			H-Horn	PK	0.0000	-42.9	-27.0	-15.9	36Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), Channel 64, see comments for data rate

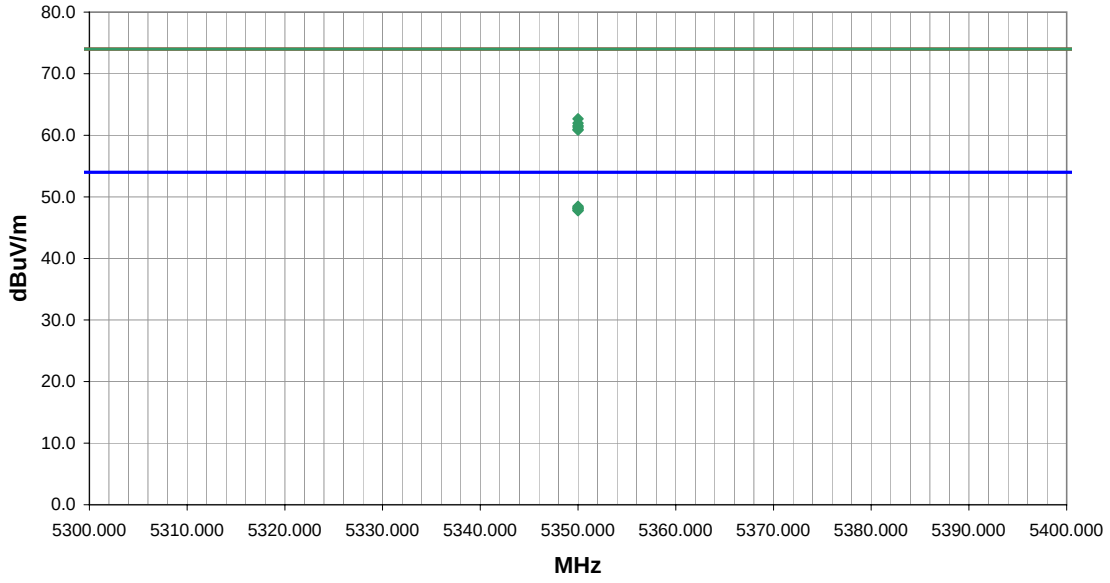
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	7

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
5350.000	21.4	36.6	245.0	1.1	1.0	0.0	V-Horn	AV	-9.5	48.5	54.0	-5.5	6Mbps
5350.000	21.2	36.6	132.0	1.0	1.0	0.0	H-Horn	AV	-9.5	48.3	54.0	-5.7	6Mbps
5350.000	21.1	36.6	210.0	1.0	1.0	0.0	V-Horn	AV	-9.5	48.2	54.0	-5.8	54Mbps
5350.000	21.0	36.6	247.0	1.1	1.0	0.0	V-Horn	AV	-9.5	48.1	54.0	-5.9	36Mbps
5350.000	20.8	36.6	116.0	1.0	1.0	0.0	H-Horn	AV	-9.5	47.9	54.0	-6.1	36Mbps
5350.000	20.7	36.6	136.0	1.0	1.0	0.0	H-Horn	AV	-9.5	47.8	54.0	-6.2	54Mbps
5350.000	35.6	36.6	245.0	1.1	1.0	0.0	V-Horn	PK	-9.5	62.7	74.0	-11.3	6Mbps
5350.000	34.9	36.6	210.0	1.0	1.0	0.0	V-Horn	PK	-9.5	62.0	74.0	-12.0	54Mbps
5350.000	34.5	36.6	247.0	1.1	1.0	0.0	V-Horn	PK	-9.5	61.6	74.0	-12.4	36Mbps
5350.000	34.3	36.6	132.0	1.0	1.0	0.0	H-Horn	PK	-9.5	61.4	74.0	-12.6	6Mbps
5350.000	33.9	36.6	136.0	1.0	1.0	0.0	H-Horn	PK	-9.5	61.0	74.0	-13.0	54Mbps
5350.000	33.8	36.6	116.0	1.0	1.0	0.0	H-Horn	PK	-9.5	60.9	74.0	-13.1	36Mbps

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/09/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	39%
Cust. Ref. No.:				Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), Channel 64, see comments for data rate

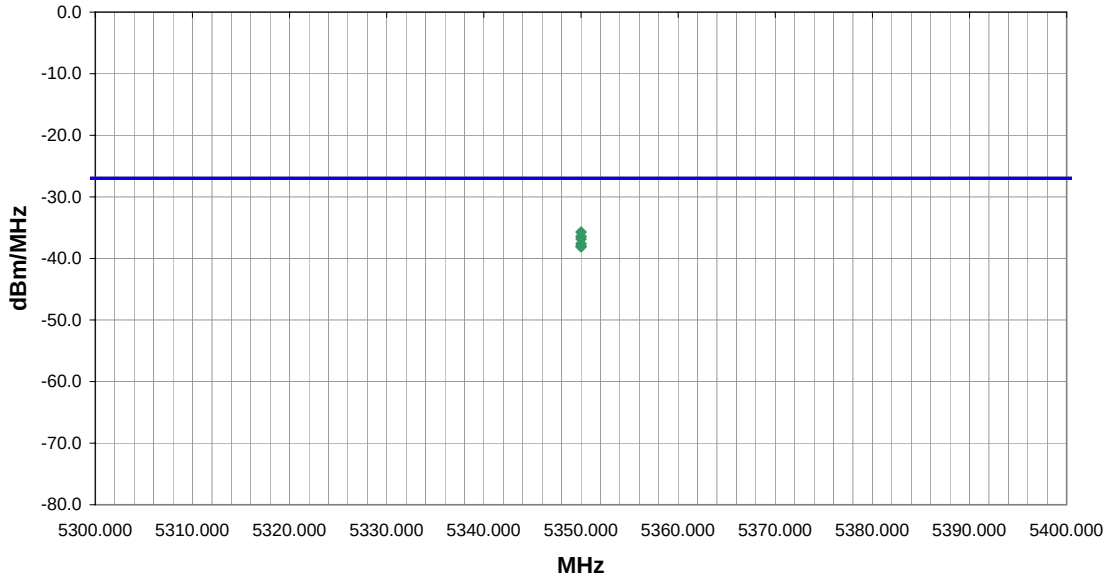
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	7

Other

Tested By: Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
5350.000			245.0	1.1			V-Horn	PK	0.0000	-35.7	-27.0	-8.7	6Mbps
5350.000			210.0	1.0			V-Horn	PK	0.0000	-36.4	-27.0	-9.4	54Mbps
5350.000			247.0	1.1			V-Horn	PK	0.0000	-36.8	-27.0	-9.8	36Mbps
5350.000			132.0	1.0			H-Horn	PK	0.0000	-37.6	-27.0	-10.6	6Mbps
5350.000			136.0	1.0			H-Horn	PK	0.0000	-38.0	-27.0	-11.0	54Mbps
5350.000			116.0	1.0			H-Horn	PK	0.0000	-38.1	-27.0	-11.1	36Mbps

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG	Work Order:	ITRM0066
Serial Number:		Date:	03/09/05
Customer:	Intermec Technologies Corporation	Temperature:	23
Attendees:	none	Humidity:	39%
Cust. Ref. No.:		Barometric Pressure	30.22
Tested by:	Holly Ashkannejhad	Power: 120VAC, 60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

Transmitting 802.11(a), see comments for data rate and channel

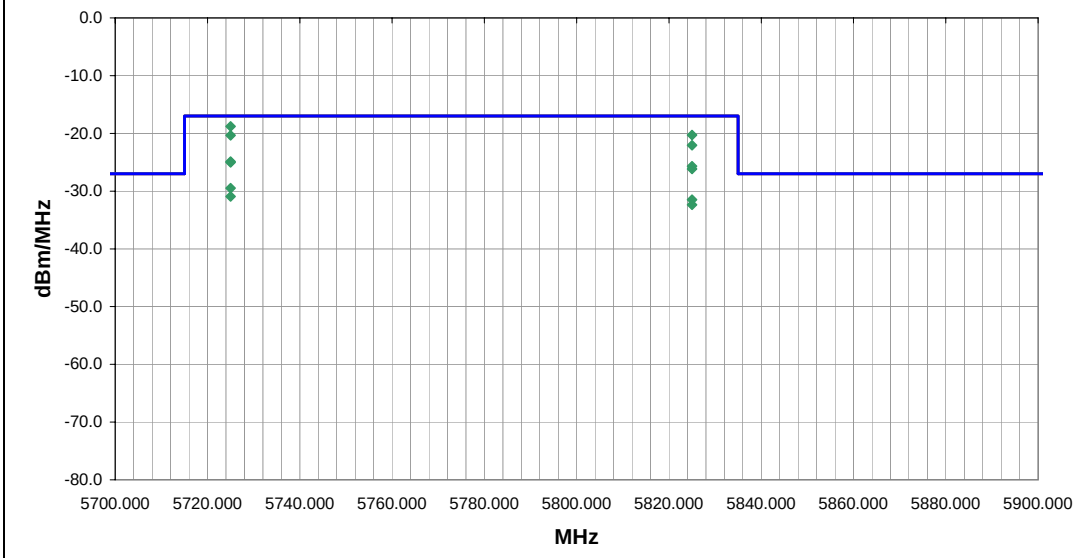
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	8

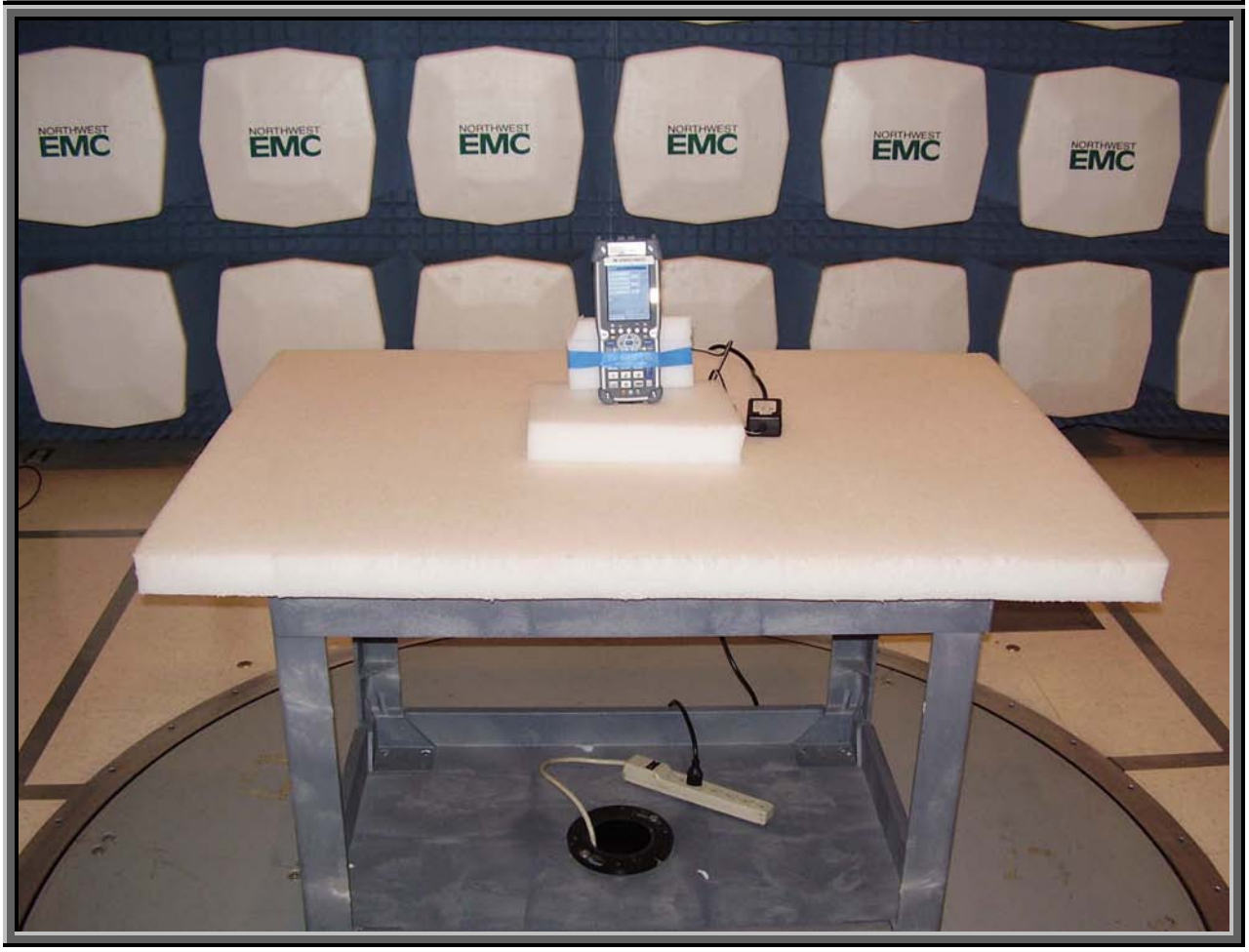
Other

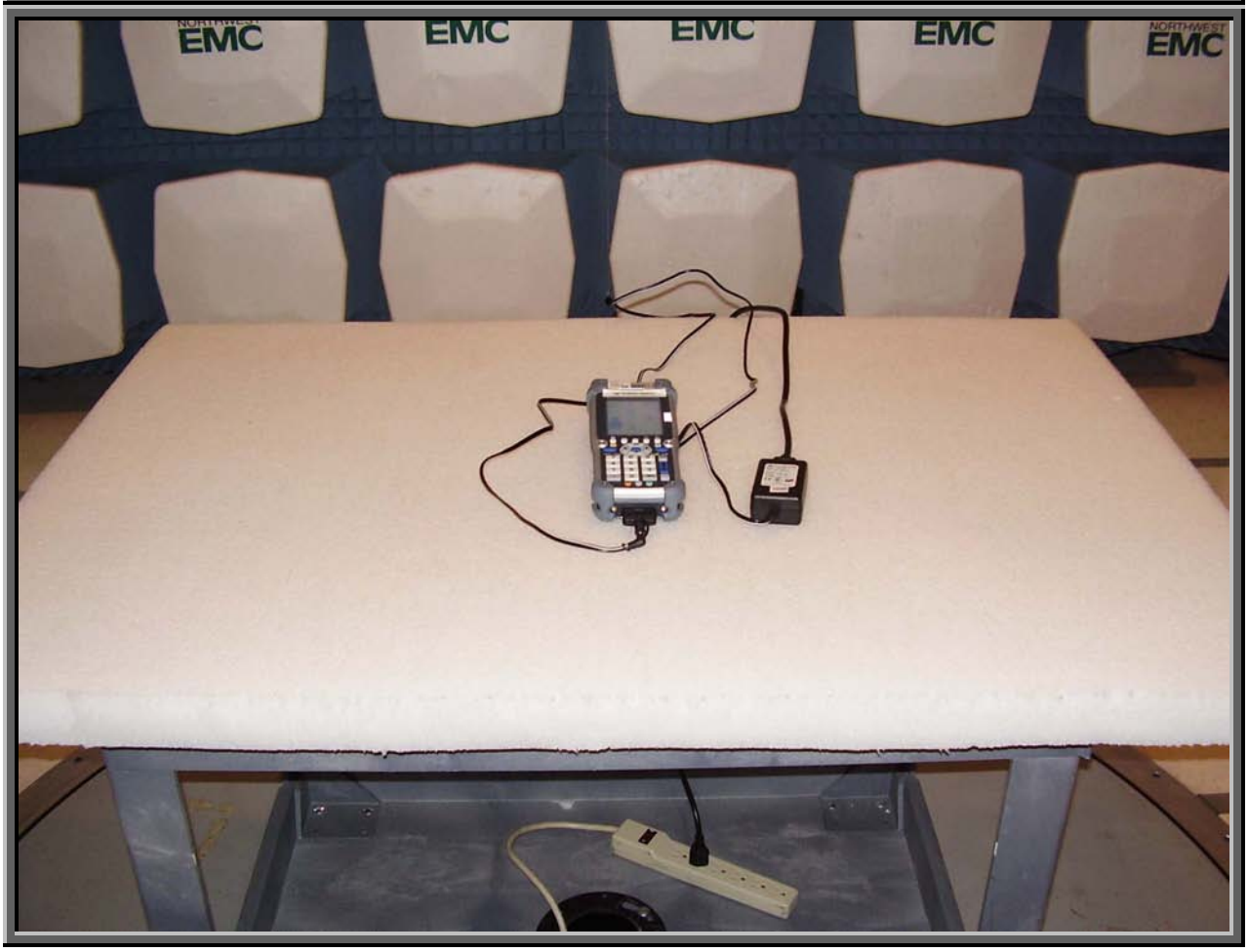
Tested By:



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector		EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
5725.000			212.0	1.0			V-Horn	PK		-18.8	-17.0	-1.8	Ch. 149, 6Mbps
5825.000			317.0	1.1			V-Horn	PK		-20.3	-17.0	-3.3	Ch. 161, 6Mbps
5725.000			110.0	1.1			H-Horn	PK		-20.3	-17.0	-3.3	Ch. 149, 6Mbps
5825.000			289.0	1.0			H-Horn	PK		-22.1	-17.0	-5.1	Ch. 161, 6Mbps
5725.000			321.0	1.1			V-Horn	PK		-24.9	-17.0	-7.9	Ch. 149, 36Mbps
5725.000			139.0	1.1			H-Horn	PK		-25.0	-17.0	-8.0	Ch. 149, 36Mbps
5825.000			318.0	1.1			V-Horn	PK		-25.7	-17.0	-8.7	Ch. 161, 36Mbps
5825.000			167.0	1.0			H-Horn	PK		-26.2	-17.0	-9.2	Ch. 161, 36Mbps
5725.000			321.0	1.1			V-Horn	PK		-29.5	-17.0	-12.5	Ch. 149, 54Mbps
5725.000			123.0	1.0			H-Horn	PK		-30.9	-17.0	-13.9	Ch. 149, 54Mbps
5825.000			-1.0	1.1			V-Horn	PK		-31.5	-17.0	-14.5	Ch. 161, 54Mbps
5825.000			225.0	1.1			H-Horn	PK		-32.4	-17.0	-15.4	Ch. 161, 54Mbps


NORTHWEST
EMC


NORTHWEST
EMC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Justification

The EUT is a 802.11(a)/(b)/(g) radio co-located with a previously certified radio installed inside Intermec's Handheld Computer, Model CK60 and Intermec's Bluetooth enabled printer, Model PB42. The CK60 contains the EUT, and a Bluetooth radio (FCC ID: HN2-BTM311). The PB42 contains a Bluetooth radio (FCCID: HN2-PB42). This test demonstrates compliance with FCC 15.407 emissions limits while the co-located radios are transmitting simultaneously. Each radio transmits through its own antenna.

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

Channels in Specified Band Investigated:	
802.11(a):	149, 64, 36
Bluetooth:	61, 54, 16, 17

Operating Modes Investigated:
Simultaneous transmission of 802.11(a) Channel 149 and Bluetooth Channel 61
Simultaneous transmission of 802.11(a) Channel 64 and Bluetooth Channel 54
Simultaneous transmission of 802.11(a) Channel 36 and Bluetooth Channel 16
Simultaneous transmission of 802.11(a) Channel 64 and Bluetooth Channel 17

Data Rates Investigated:
6 Mbps (802.11a)
Bluetooth default maximum

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC, 60 Hz.

Frequency Range Investigated			
Start Frequency	30 MHz	**Stop Frequency**	25 GHz

Software\Firmware Applied During Test			
Exercise software	cTxRx Win CE	**Version**	0.1.2.1
	CSR Bluetest		Unknown
Description			
The system was tested using special software developed to test all functions of the device during the test.			

EUT and Peripherals			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT - 802.11 a/b/g radio card	Intermec Technologies Corporation	802UIAG	Unknown
Host Device - Handheld Computer	Intermec Technologies Corporation	CK61	33390400093
Bluetooth enabled printer	Intermec Technologies Corporation	PB42	SAC001
AC Power Adapter	Intermec Technologies Corporation	073573-003	6079450
AC Power Adapter	Intermec Technologies Corporation	851-061-002	038962

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
AC Power	No	2.0	No	AC Power Adapter	AC Mains
DC Leads	No	1.8	Yes	Bluetooth enabled printer	AC Power Adapter
AC Power	No	2.0	No	Bluetooth enabled printer	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	12/02/2004	13 mo
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APJ	01/05/2004	16 mo
Antenna, Horn	EMCO	3115	AHC	09/07/2004	12 mo
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	02/17/2005	13 mo
Antenna, Horn	EMCO	3160-09	AHG	NCR	NA
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	02/15/2005	13 mo
Spectrum Analyzer	Tektronix	2784	AAO	01/02/2005	12 mo
Attenuator	Coaxicom	66702 5910-20	RBJ	02/25/2005	13 mo
High Pass Filter	Micro-Tronics	HPM50111	HFO	03/09/2005	13 mo

Test Description

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

Configuration: The EUT is a 802.11(a)/(b)/(g) radio co-located with a previously certified radio installed inside Intermec's Handheld Computer, Model CK60 and Intermec's Bluetooth enabled printer, Model PB42. The CK60 contains the EUT, and a Bluetooth radio (FCC ID: HN2-BTM311). The PB42 contains a Bluetooth radio (FCCID: HN2-PB42). This test demonstrates compliance with FCC 15.407 emissions limits while the co-located radios are transmitting simultaneously. Each radio transmits through its own antenna.

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

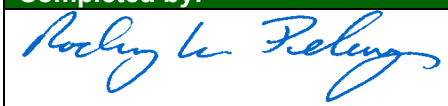
> **Assuming that the radios do not share an antenna, only radiated tests for simultaneous transmission is required. If the radios share an antenna, antenna conducted measurements would also be required. Only one set of worst case simultaneous transmission data is going to be requested to be submitted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

All possible combinations of harmonic emissions from the CDMA, 802.11(b), and Bluetooth radios were compared numerically. It was determined that there were no possible coincidental harmonics below 1 GHz. The frequency range from 1 GHZ to 26 GHz was investigated for channel combinations that would produce coincidental harmonics.

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

Bandwidths Used for Measurements			
Frequency Range (MHz)	**Peak Data (kHz)**	**Quasi-Peak Data (kHz)**	**Average Data (kHz)**
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.			

Completed by:



NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/21/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 149, Bluetooth Ch. 61 on CK60. Bluetooth Ch. 61 on PB42.

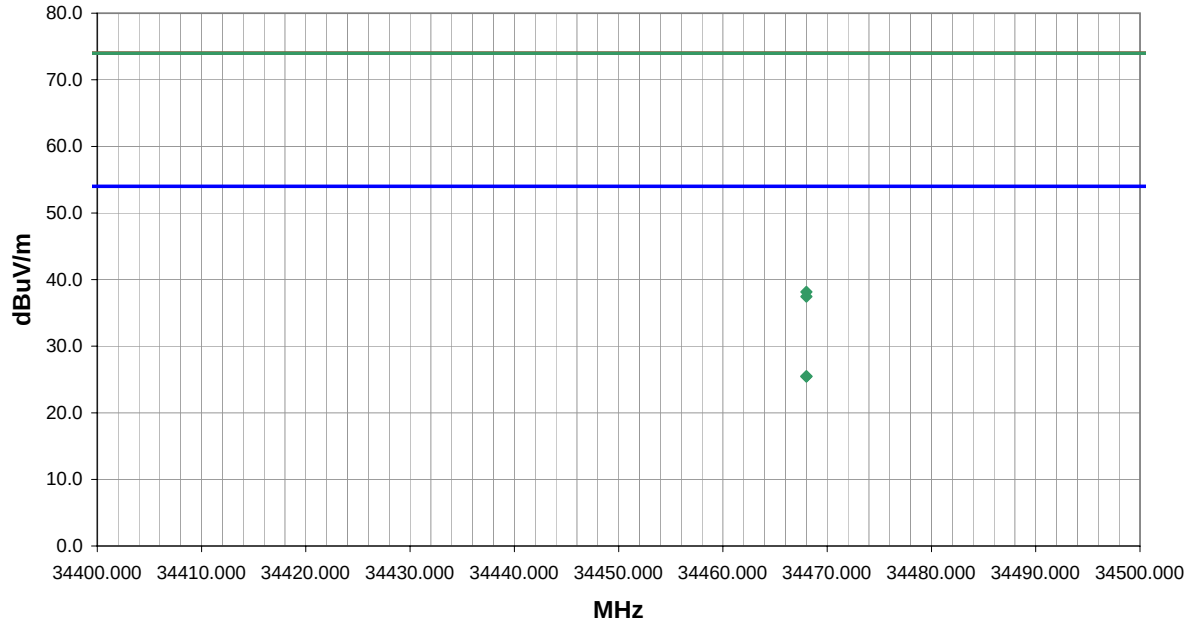
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	9

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)
34468.000	46.8	-11.8	360.0	1.0	1.0	0.0	1-High Horr	AV	-9.5	25.5	54.0	-28.5
34468.000	46.8	-11.8	-1.0	1.0	1.0	0.0	1-High Horr	AV	-9.5	25.5	54.0	-28.5
34468.000	59.5	-11.8	-1.0	1.0	1.0	0.0	1-High Horr	PK	-9.5	38.2	74.0	-35.8
34468.000	58.8	-11.8	360.0	1.0	1.0	0.0	1-High Horr	PK	-9.5	37.5	74.0	-36.5

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/21/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 149, Bluetooth Ch. 61 on CK60. Bluetooth Ch. 61 on PB42.

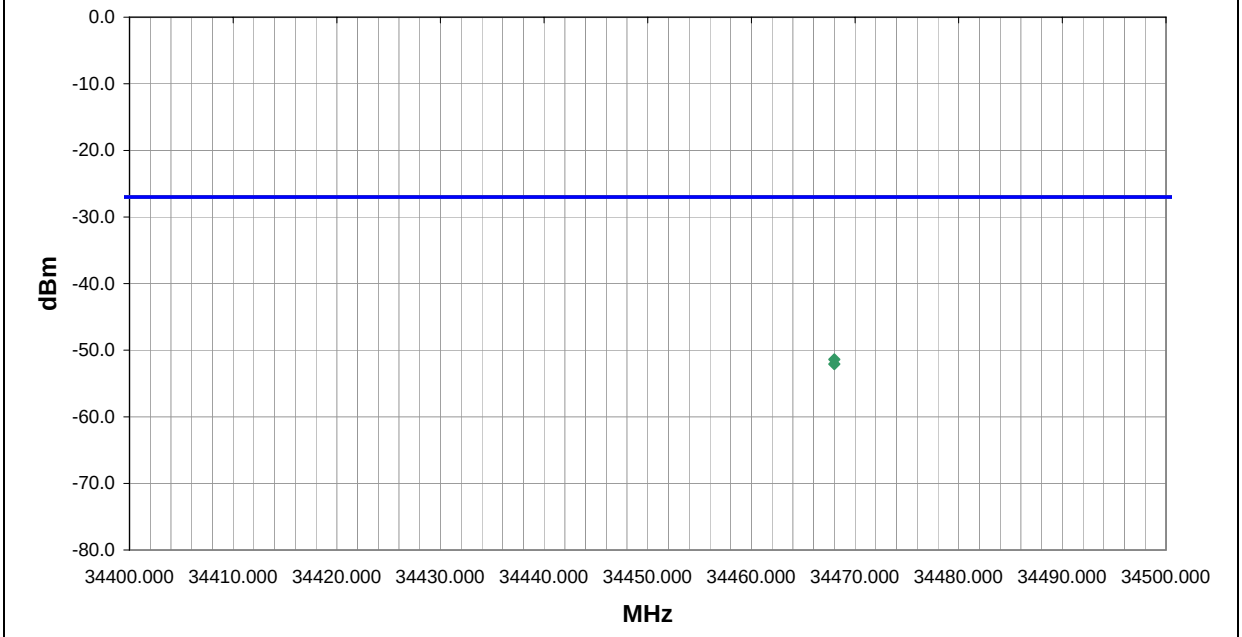
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	9

Other

Tested By: Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
34468.000			-1.0	1.0			H-High Horr	PK	0.0000	-51.4	-27.0	-24.4
34468.000			360.0	1.0			H-High Horr	PK	0.0000	-52.1	-27.0	-25.1

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/22/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 64, Bluetooth Ch. 54 on CK60. Bluetooth Ch. 54 on PB42.

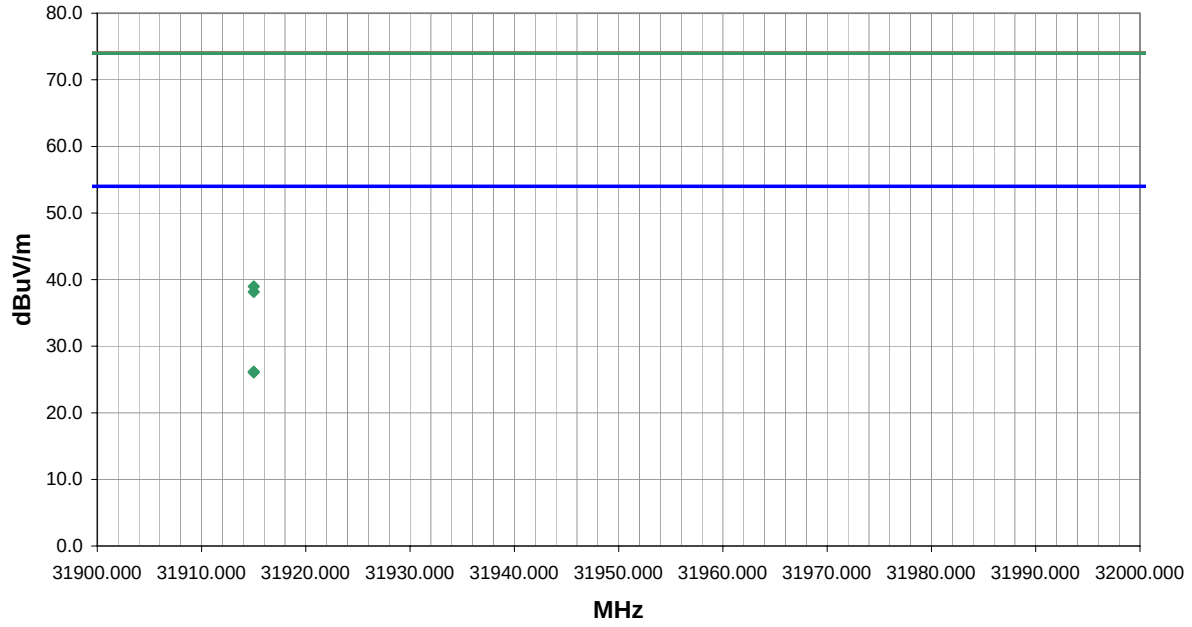
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	10

Other

Tested By: Holly Ashkannejhad



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)
31915.000	48.0	-12.3	360.0	1.0	1.0	0.0	V-High Horr	AV	-9.5	26.2	54.0	-27.8
31915.000	47.9	-12.3	-1.0	1.0	1.0	0.0	H-High Horr	AV	-9.5	26.1	54.0	-27.9
31915.000	60.8	-12.3	360.0	1.0	1.0	0.0	V-High Horr	PK	-9.5	39.0	74.0	-35.0
31915.000	60.0	-12.3	-1.0	1.0	1.0	0.0	H-High Horr	PK	-9.5	38.2	74.0	-35.8

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/22/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 64, Bluetooth Ch. 54 on CK60. Bluetooth Ch. 54 on PB42.

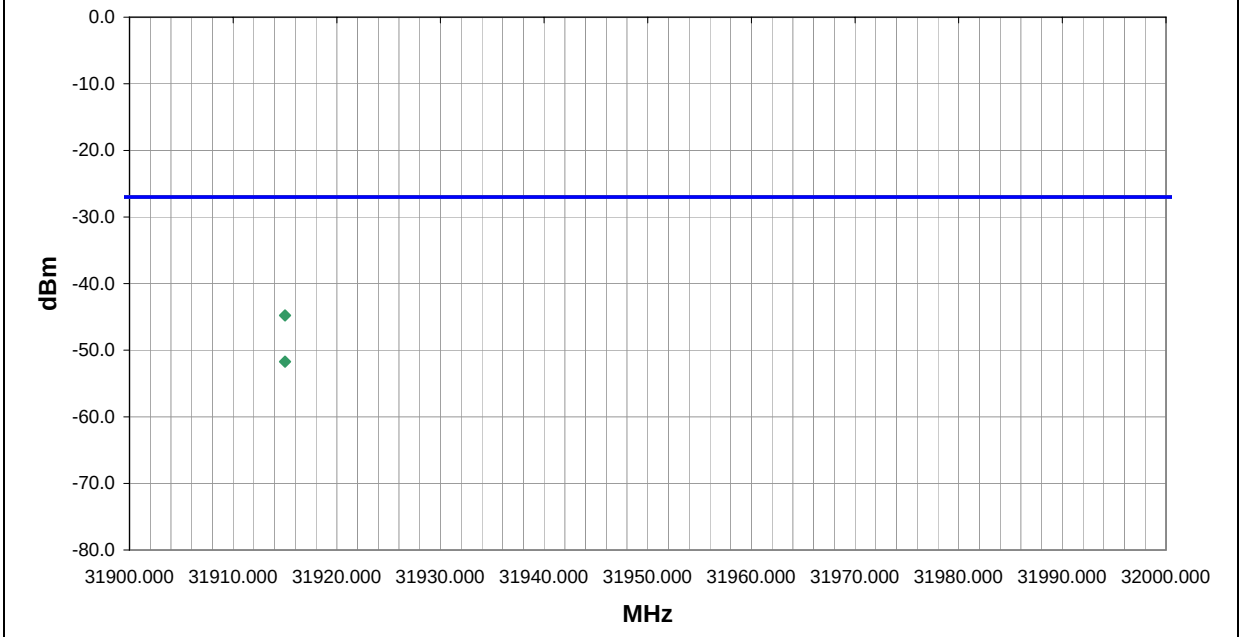
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	10

Other

Tested By: Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
31915.000			360.0	1.0			V-High Horr	PK	0.0000	-44.8	-27.0	-17.8
31915.000			-1.0	1.0			H-High Horr	PK	0.0000	-51.7	-27.0	-24.7

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/22/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 36, Bluetooth Ch. 16 on CK60. Bluetooth Ch. 16 on PB42.

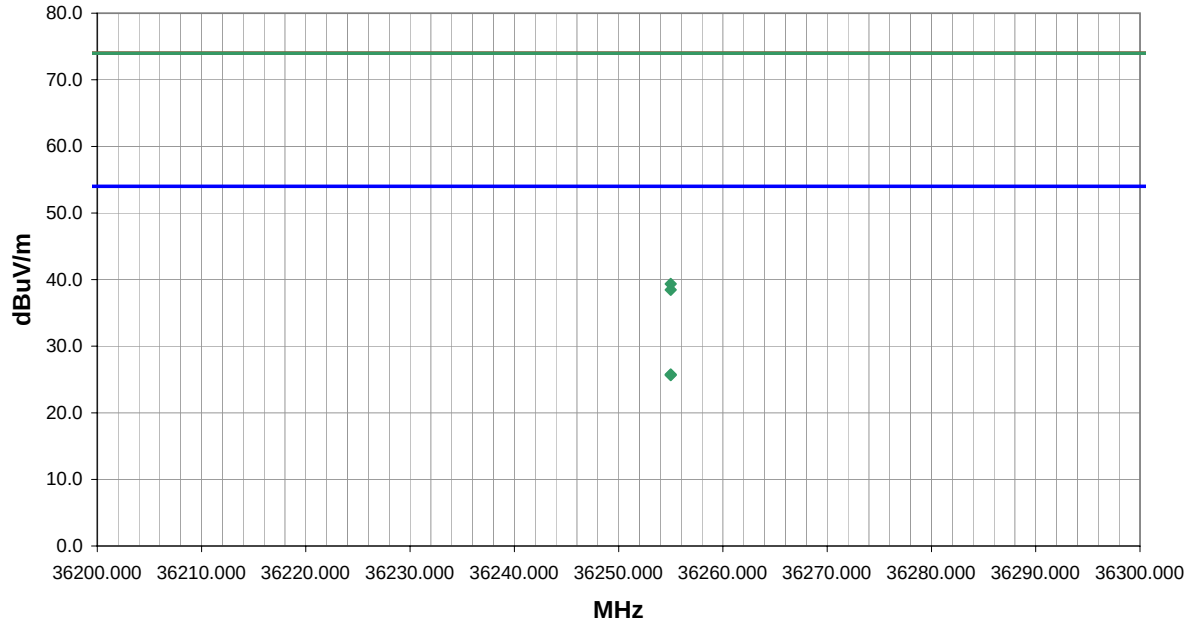
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	11

Other

Tested By: Holly Ashkannejhad



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)
36255.000	45.3	-10.0	-1.0	1.0	1.0	0.0	V-High Horr	AV	-9.5	25.8	54.0	-28.2
36255.000	45.2	-10.0	360.0	1.0	1.0	0.0	H-High Horr	AV	-9.5	25.7	54.0	-28.3
36255.000	58.9	-10.0	-1.0	1.0	1.0	0.0	V-High Horr	PK	-9.5	39.4	74.0	-34.6
36255.000	58.0	-10.0	360.0	1.0	1.0	0.0	H-High Horr	PK	-9.5	38.5	74.0	-35.5

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG	Work Order:	ITRM0066
Serial Number:		Date:	03/22/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	38%
Cust. Ref. No.:		Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power: 120VAC, 60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 64, Bluetooth Ch. 17 on CK60. Bluetooth Ch. 17 on PB42.

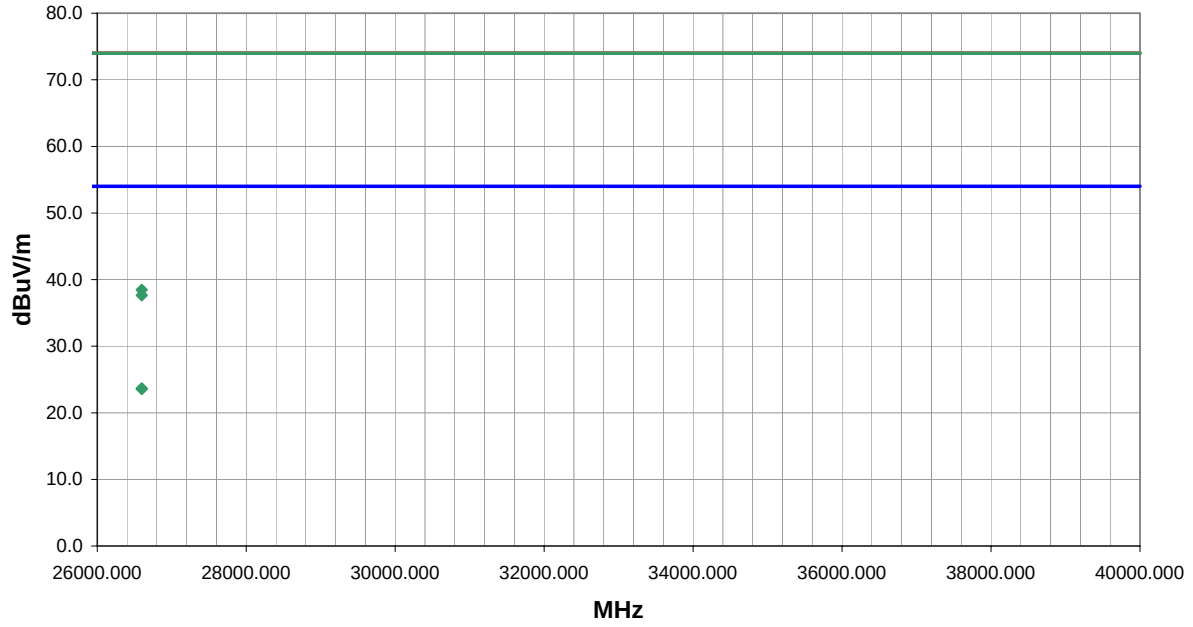
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	12

Other

Tested By: Holly Ashkannejhad



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)
26598.000	47.7	-14.5	-1.0	1.0	1.0	0.0	V-High Horr	AV	-9.5	23.7	54.0	-30.3
26598.000	47.6	-14.5	360.0	1.0	1.0	0.0	H-High Horr	AV	-9.5	23.6	54.0	-30.4
26598.000	62.5	-14.5	-1.0	1.0	1.0	0.0	V-High Horr	PK	-9.5	38.5	74.0	-35.5
26598.000	61.7	-14.5	360.0	1.0	1.0	0.0	H-High Horr	PK	-9.5	37.7	74.0	-36.3

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI A2.13

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/22/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 64, Bluetooth Ch. 17 on CK60. Bluetooth Ch. 17 on PB42.

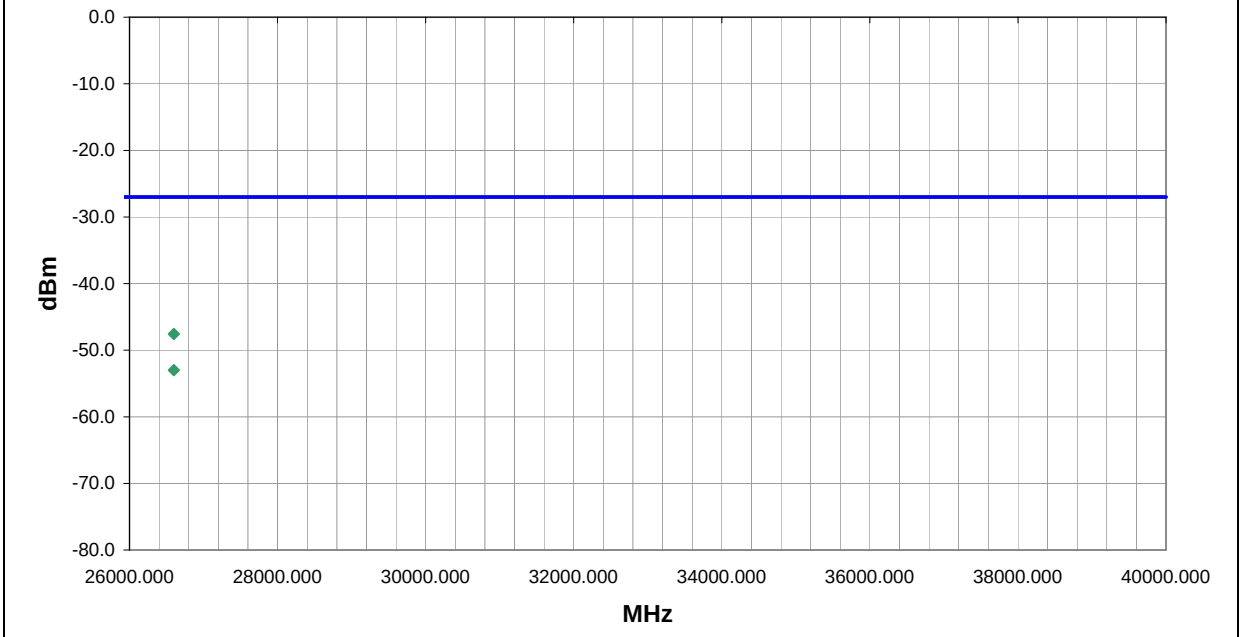
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	12

Other

Tested By: Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
26598.000			-1.0	1.0			V-High Horr	PK	0.0000	-47.6	-27.0	-20.6
26598.000			360.0	1.0			H-High Horr	PK	0.0000	-53.0	-27.0	-26.0

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	802UIAG	Work Order:	ITRM0066
Serial Number:		Date:	03/29/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	38%
Cust. Ref. No.:		Barometric Pressure	29.67
Tested by:	Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.209(a):2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 149, Bluetooth Ch. 61 on CK60. Bluetooth Ch. 61 on PB42.

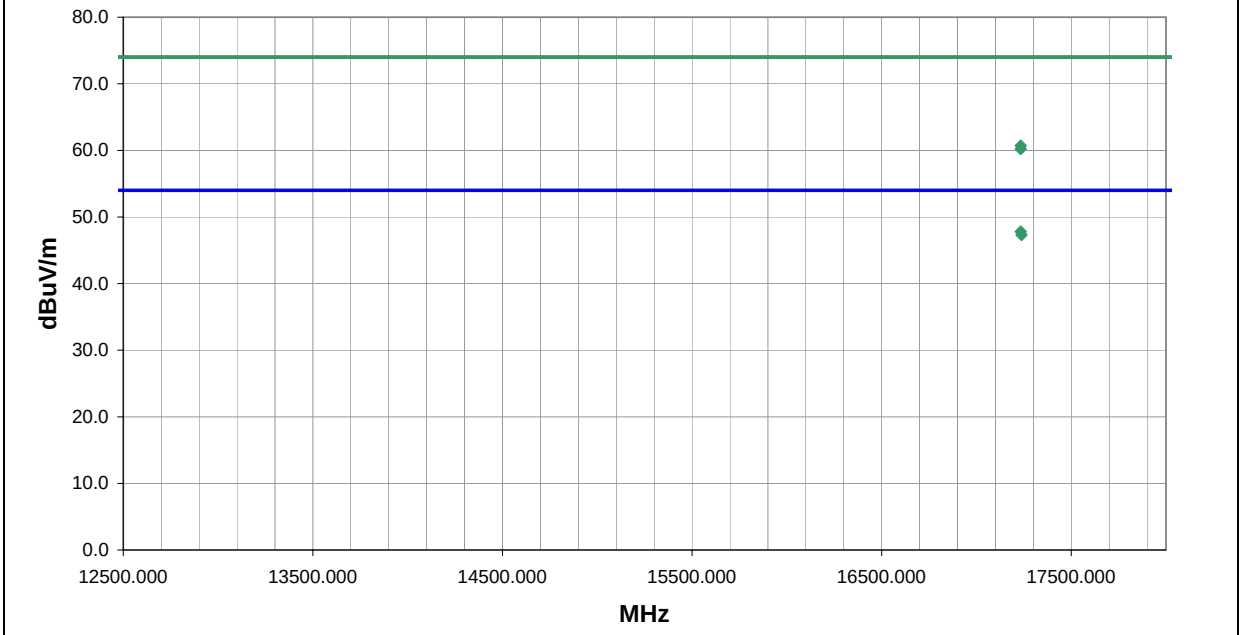
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	13

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)
17234.000	31.5	16.3	255.0	1.3	3.0	0.0	H-Horn	AV	0.0	47.8	54.0	-6.2
17237.960	31.0	16.3	150.0	1.2	3.0	0.0	V-Horn	AV	0.0	47.3	54.0	-6.7
17234.000	44.4	16.3	255.0	1.3	3.0	0.0	H-Horn	PK	0.0	60.7	74.0	-13.3
17234.000	43.9	16.3	150.0	1.2	3.0	0.0	V-Horn	PK	0.0	60.2	74.0	-13.8

NORTHWEST EMC

Apparent Power Data Sheet

ACQ 2005.1.3
EMI 2005.1.3

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/29/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.407(b)(1-6) Spurious Radiated Emissions:2005-04	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

Simultaneous transmit of radios in CK60 and radio in PB42 printer.

EUT OPERATING MODES

802.11(a) Ch. 149, Bluetooth Ch. 61 on CK60. Bluetooth Ch. 61 on PB42.

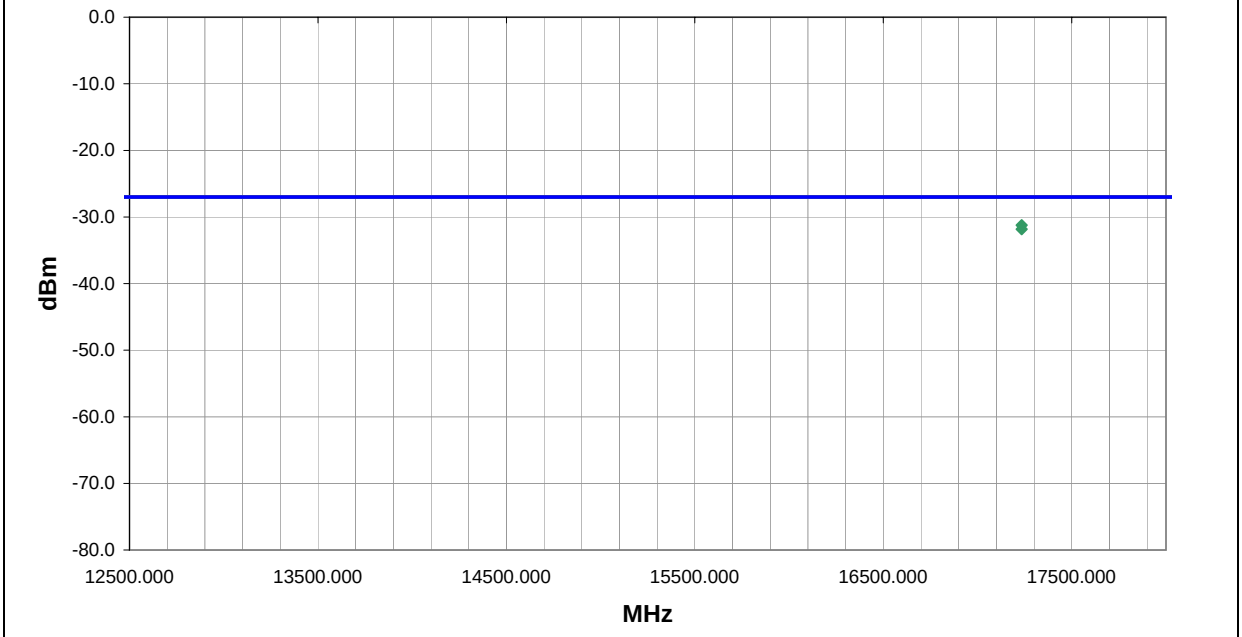
DEVIATIONS FROM TEST STANDARD

No deviations.

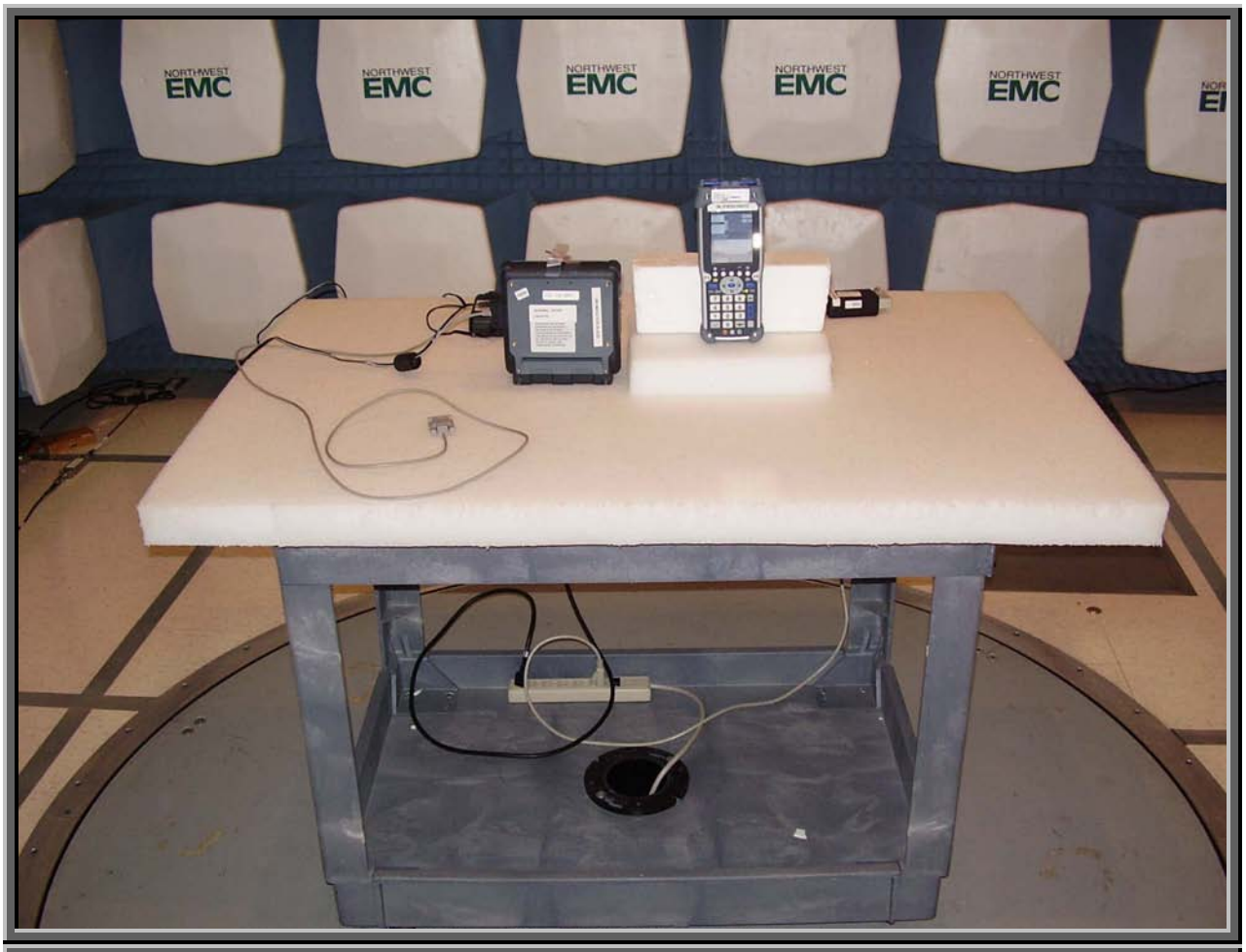
RESULTS	Run #
Pass	13

Other

Tested By:



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
17234.000			150.0	1.2			V-Horn	PK	0.0000	-31.2	-27.0	-4.2
17234.000			255.0	1.3			H-Horn	PK	0.0000	-31.8	-27.0	-4.8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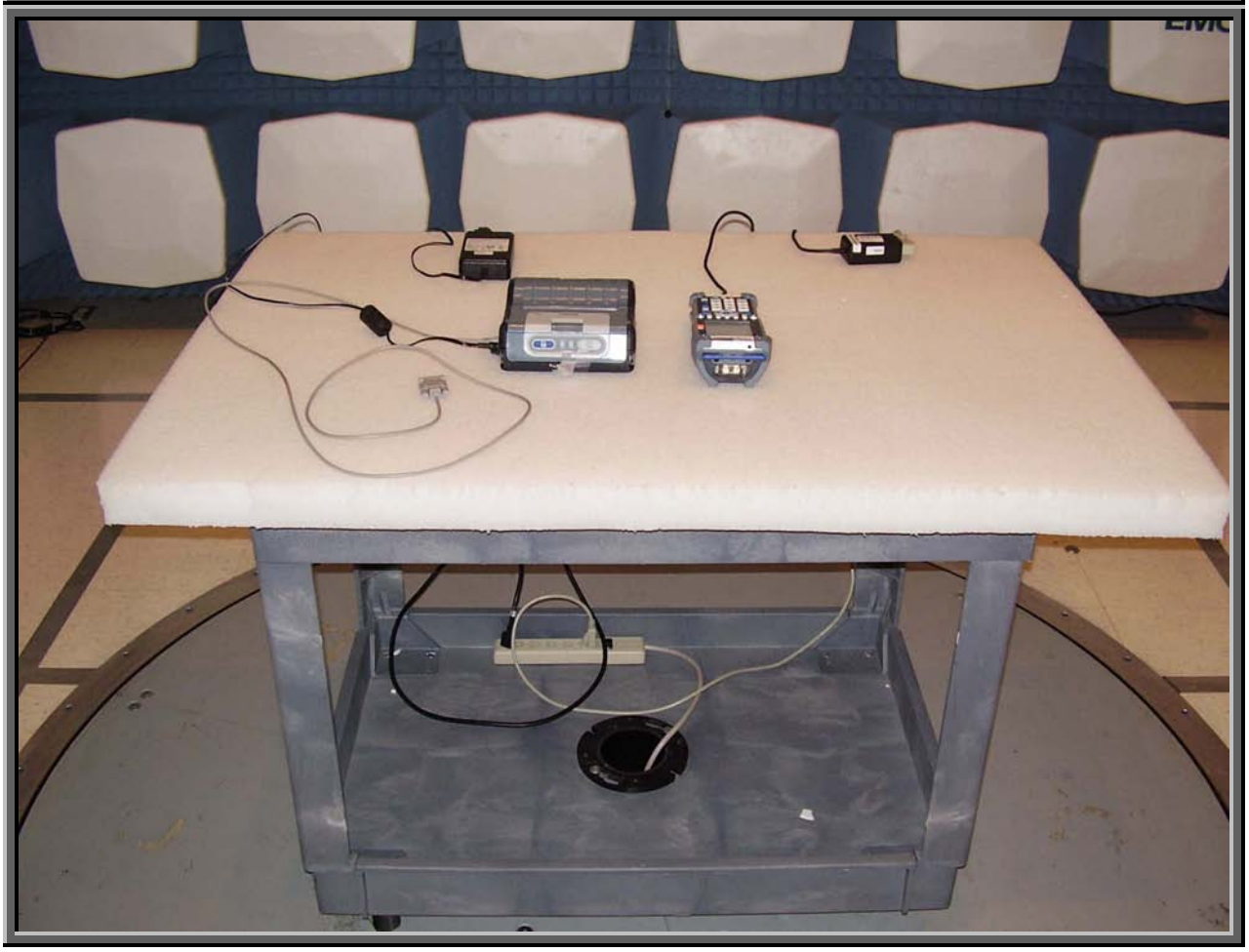

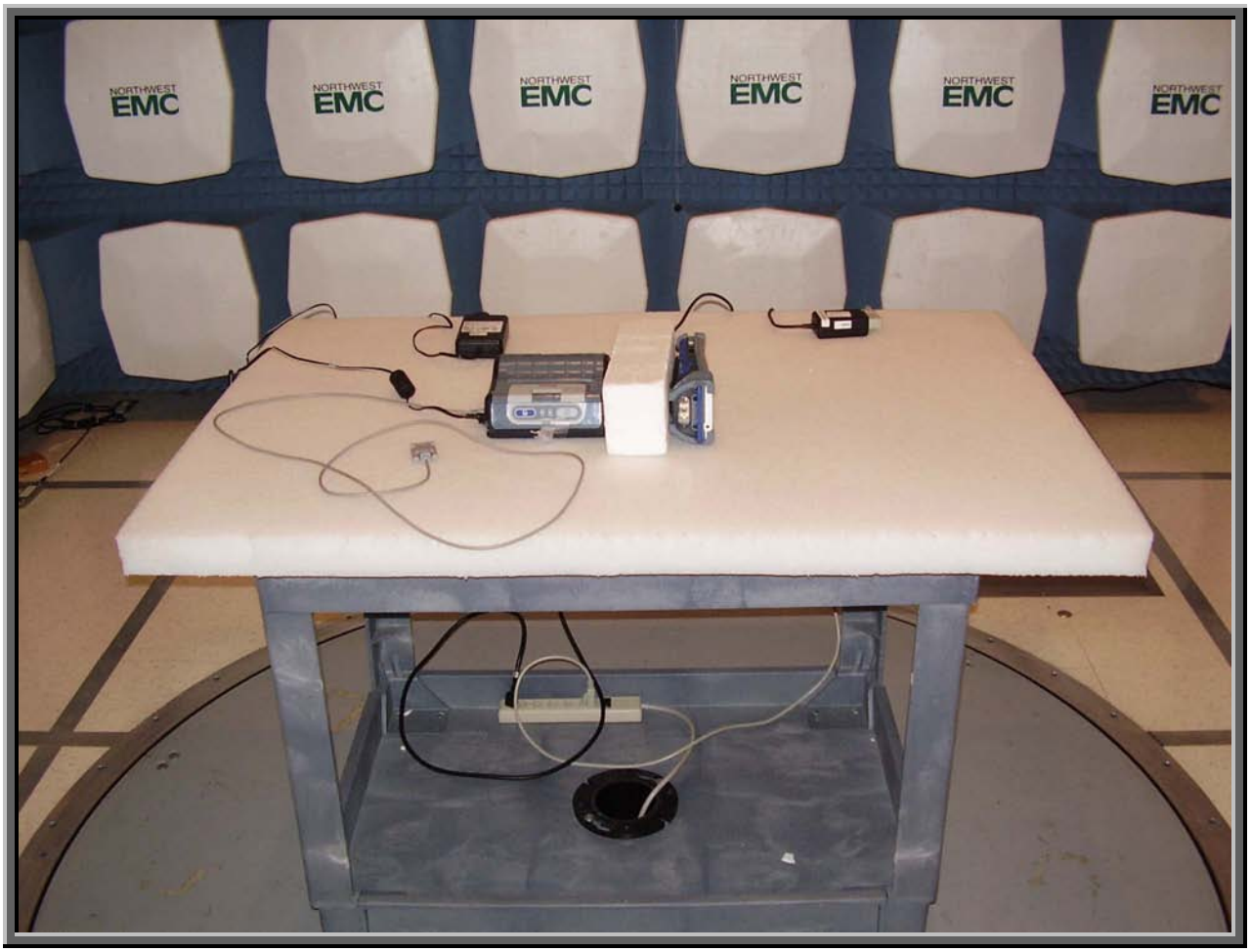
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Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:
Ch 36 (5180 MHz)
Ch 48 (5240 MHz)
Ch 52 (5260 MHz)
Ch 64 (5320 MHz)
Ch 149 (5745 MHz)
Ch 161 (5805 MHz)

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
6 Mbps (802.11a)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC/60Hz
7.8 Vdc nominal battery

Software\Firmware Applied During Test			
Exercise software	cTxRx Win CE	**Version**	0.1.2.1
Description			
The system was tested using special software developed to test all functions of the device during the test.			

EUT and Peripherals			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT- 802.11(a)/(b)/(g) radio	Intermec Technologies Corporation	802UIAG	Unknown
AC Adapter	Intermec Technologies Corporation	851-061-002	3335175
Host Device	Intermec Technologies Corporation	CK61	33390400265

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
AC Power	No	2.0	No	AC Power Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Tektronix	2784	AAO	01/02/2005	12 mo
Chamber, Temp./Humidity Chamber	Cincinnati Sub Zero (CSZ)	ZH-32-2-2-H/AC	TBA	09/07/2004	12 mo
Harmonic/Flicker Test System	Hewlett-Packard	6843A	THA	12/02/2004	13 mo
DC Power Supply	Topward	TPS-2000	TPD	NCR	NA
Multimeter	Tektronix	DMM912	MMH	12/02/2004	13 mo

Test Description

Requirements: Per 15.407(g), "Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual."

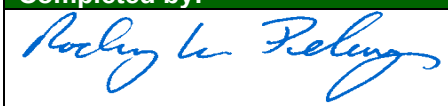
Configuration: 47 CFR 2.1055 was followed (also reference Ref Oct02 TCB Q&A rev2_clean1.doc emailed 12/09/02 to TCBs). The transmit frequency was set to the lowest, and the highest channels in each band. A direct connection was made between the RF output of the EUT and a spectrum analyzer. The spectrum analyzer had an internal precision frequency reference that far exceeded the frequency stability requirements of the EUT. Although the carrier was OFDM modulated, it was possible to zoom in and resolve the center frequency of the emission. An extremely accurate frequency measurement was made using a RBW and VBW = 1 kHz and a 5kHz SPAN.

Variations of Ambient Temperature: The EUT was placed inside a suitable temperature / humidity chamber to vary ambient temperature. Frequency stability was measured for variations of ambient temperature from –30 to +50 degrees C. Frequency measurements were made at the temperature extremes and at 10 degree C intervals. Sufficient time at each temperature interval was provided for the frequency determining circuitry to stabilize.

Variations of Supply Voltage: While powered from an AC adapter, frequency stability was measured for variations of primary supply voltage from 85 to 115 percent of the mains voltage.

The EUT can also be powered from a battery, so frequency stability was also measured for variations of DC supply voltage to the EUT. The primary DC supply voltage was reduced to the battery operating end point which was 7.0 Vdc.

Completed by:



NORTHWEST EMC

Frequency Stability

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/21/05
Customer:	INTERMEC Technologies Corporation			Temperature:	see below
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	see below	Job Site:	EV06 & EV09

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(g)	Year:	2005-04	Method:	47 CFR 2.1055	Year:	2004

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Transmitting mid band with no modulation (CW mode).

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Manufacturers of UNII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation specified in the users manual.

RESULTS	MINIMUM FREQUENCY STABILITY
Pass	3.25 ppm

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Frequency Stability - Low Channel - 5150 to 5250 MHz Band

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 120V, 60Hz)

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
-30	5180.00000	5180.006430	1.24	20
-20	5180.00000	5180.010330	1.99	20
-10	5180.00000	5180.009130	1.76	20
0	5180.00000	5180.006760	1.31	20
10	5180.00000	5179.997740	0.44	20
20	5180.00000	5179.992330	1.48	20
30	5180.00000	5179.984770	2.94	20
40	5180.00000	5179.983980	3.09	20
50	5180.00000	5179.983140	3.25	20

Frequency Stability with Variation of Primary Supply Voltage (Ambient Temperature = 21°C)

Voltage (VAC, 60Hz)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
138 (115%)	5180.00000	5179.987240	2.46	20
132 (110%)	5180.00000	5179.987250	2.46	20
126 (105%)	5180.00000	5179.987290	2.45	20
120 (100%)	5180.00000	5179.987460	2.42	20
114 (95%)	5180.00000	5179.987290	2.45	20
108 (90%)	5180.00000	5179.987280	2.46	20
102 (85%)	5180.00000	5179.987300	2.45	20

Frequency Stability with Variation of Vehicle Battery Voltage (Ambient Temperature = 21°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
8.4 (Max)	5180.00000	5179.987220	2.47	20
8.2 (105%)	5180.00000	5179.987240	2.46	20
7.8 (100%)	5180.00000	5179.987280	2.46	20
7.4 (95%)	5180.00000	5179.987300	2.45	20
7.0 (Min)	5180.00000	5179.987360	2.44	20

NORTHWEST EMC

Frequency Stability

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/21/05
Customer:	INTERMEC Technologies Corporation			Temperature:	see below
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	see below	Job Site:	EV06 & EV09

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(g)	Year:	2005-04	Method:	47 CFR 2.1055	Year:	2004

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Transmitting mid band with no modulation (CW mode).

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Manufacturers of UNII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation specified in the users manual.

RESULTS	MINIMUM FREQUENCY STABILITY
Pass	3.03 ppm

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Frequency Stability - High Channel - 5150 to 5250 MHz Band

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 120V, 60Hz)

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
-30	5240.00000	5240.007380	1.41	20
-20	5240.00000	5240.011020	2.10	20
-10	5240.00000	5240.009630	1.84	20
0	5240.00000	5240.006930	1.32	20
10	5240.00000	5239.997780	0.42	20
20	5240.00000	5239.992440	1.44	20
30	5240.00000	5239.984880	2.89	20
40	5240.00000	5239.984140	3.03	20
50	5240.00000	5239.987280	2.43	20

Frequency Stability with Variation of Primary Supply Voltage (Ambient Temperature = 21°C)

Voltage (VAC, 60Hz)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
138 (115%)	5240.00000	5239.987460	2.39	20
132 (110%)	5240.00000	5239.987460	2.39	20
126 (105%)	5240.00000	5239.987960	2.30	20
120 (100%)	5240.00000	5239.987780	2.33	20
114 (95%)	5240.00000	5239.987690	2.35	20
108 (90%)	5240.00000	5239.987690	2.35	20
102 (85%)	5240.00000	5239.987000	2.48	20

Frequency Stability with Variation of Vehicle Battery Voltage (Ambient Temperature = 21°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
8.4 (Max)	5240.00000	5239.987670	2.35	20
8.2 (105%)	5240.00000	5239.987670	2.35	20
7.8 (100%)	5240.00000	5239.987670	2.35	20
7.4 (95%)	5240.00000	5239.987650	2.36	20
7.0 (Min)	5240.00000	5239.987590	2.37	20

NORTHWEST EMC

Frequency Stability

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/21/05
Customer:	INTERMEC Technologies Corporation			Temperature:	see below
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	see below	Job Site:	EV06 & EV09

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(g)	Year:	2005-04	Method:	47 CFR 2.1055	Year:	2004

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Transmitting mid band with no modulation (CW mode).

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Manufacturers of UNII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation specified in the users manual.

RESULTS	MINIMUM FREQUENCY STABILITY
Pass	2.99 ppm

SIGNATURE

Tested By: Rodney Lee Peloquin

DESCRIPTION OF TEST

Frequency Stability - Low Channel - 5250 to 5350 MHz Band

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 120V, 60Hz)

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
-30	5260.00000	5260.007580	1.44	20
-20	5260.00000	5260.011230	2.13	20
-10	5260.00000	5260.009760	1.86	20
0	5260.00000	5260.006870	1.31	20
10	5260.00000	5259.997800	0.42	20
20	5260.00000	5259.992360	1.45	20
30	5260.00000	5259.985020	2.85	20
40	5260.00000	5259.984260	2.99	20
50	5260.00000	5259.987640	2.35	20

Frequency Stability with Variation of Primary Supply Voltage (Ambient Temperature = 21°C)

Voltage (VAC, 60Hz)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
138 (115%)	5260.00000	5259.987560	2.37	20
132 (110%)	5260.00000	5259.987560	2.37	20
126 (105%)	5260.00000	5259.987580	2.36	20
120 (100%)	5260.00000	5259.987580	2.36	20
114 (95%)	5260.00000	5259.987580	2.36	20
108 (90%)	5260.00000	5259.987580	2.36	20
102 (85%)	5260.00000	5259.987660	2.35	20

Frequency Stability with Variation of Vehicle Battery Voltage (Ambient Temperature = 21°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
8.4 (Max)	5260.00000	5259.987780	2.32	20
8.2 (105%)	5260.00000	5259.987000	2.47	20
7.8 (100%)	5260.00000	5259.987900	2.30	20
7.4 (95%)	5260.00000	5259.987930	2.29	20
7.0 (Min)	5260.00000	5259.987980	2.29	20

NORTHWEST EMC

Frequency Stability

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/21/05
Customer:	INTERMEC Technologies Corporation			Temperature:	see below
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	see below	Job Site:	EV06 & EV09

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(g)	Year:	2005-04	Method:	47 CFR 2.1055	Year:	2004

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Transmitting mid band with no modulation (CW mode).

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Manufacturers of UNII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation specified in the users manual.

RESULTS	MINIMUM FREQUENCY STABILITY
Pass	2.77 ppm

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Frequency Stability - High Channel - 5250 to 5350 MHz Band

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 120V, 60Hz)

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
-30	5320.00000	5320.007140	1.34	20
-20	5320.00000	5320.011610	2.18	20
-10	5320.00000	5320.010290	1.93	20
0	5320.00000	5320.007360	1.38	20
10	5320.00000	5319.998090	0.36	20
20	5320.00000	5319.992680	1.38	20
30	5320.00000	5319.985240	2.77	20
40	5320.00000	5319.988300	2.20	20
50	5320.00000	5319.988400	2.18	20

Frequency Stability with Variation of Primary Supply Voltage (Ambient Temperature = 21°C)

Voltage (VAC, 60Hz)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
138 (115%)	5320.00000	5319.987840	2.29	20
132 (110%)	5320.00000	5319.987840	2.29	20
126 (105%)	5320.00000	5319.987820	2.29	20
120 (100%)	5320.00000	5319.987810	2.29	20
114 (95%)	5320.00000	5319.987790	2.30	20
108 (90%)	5320.00000	5319.987770	2.30	20
102 (85%)	5320.00000	5319.987770	2.30	20

Frequency Stability with Variation of Vehicle Battery Voltage (Ambient Temperature = 21°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
8.4 (Max)	5320.00000	5319.988400	2.18	20
8.2 (105%)	5320.00000	5319.988380	2.18	20
7.8 (100%)	5320.00000	5319.988280	2.20	20
7.4 (95%)	5320.00000	5319.988320	2.20	20
7.0 (Min)	5320.00000	5319.988270	2.20	20

NORTHWEST EMC

Frequency Stability

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/21/05
Customer:	INTERMEC Technologies Corporation			Temperature:	see below
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	see below	Job Site:	EV06 & EV09

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(g)	Year:	2005-04	Method:	47 CFR 2.1055	Year:	2004

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Transmitting mid band with no modulation (CW mode).

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Manufacturers of UNII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation specified in the users manual.

RESULTS	MINIMUM FREQUENCY STABILITY
Pass	2.67 ppm

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Frequency Stability - Low Channel - 5725 to 5825 MHz Band

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 120V, 60Hz)

Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
-30	5745.00000	5745.011210	1.95	20
-20	5745.00000	5745.015360	2.67	20
-10	5745.00000	5745.013850	2.41	20
0	5745.00000	5745.010460	1.82	20
10	5745.00000	5745.000760	0.13	20
20	5745.00000	5744.994730	0.92	20
30	5745.00000	5744.987060	2.25	20
40	5745.00000	5744.985990	2.44	20
50	5745.00000	5744.986700	2.32	20

Frequency Stability with Variation of Primary Supply Voltage (Ambient Temperature = 21°C)

Voltage (VAC, 60Hz)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
138 (115%)	5745.00000	5744.989510	1.83	20
132 (110%)	5745.00000	5744.989510	1.83	20
126 (105%)	5745.00000	5744.989510	1.83	20
120 (100%)	5745.00000	5744.989580	1.81	20
114 (95%)	5745.00000	5744.989660	1.80	20
108 (90%)	5745.00000	5744.989720	1.79	20
102 (85%)	5745.00000	5744.989940	1.75	20

Frequency Stability with Variation of Vehicle Battery Voltage (Ambient Temperature = 21°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
8.4 (Max)	5745.00000	5744.990400	1.67	20
8.2 (105%)	5745.00000	5744.990480	1.66	20
7.8 (100%)	5745.00000	5744.990540	1.65	20
7.4 (95%)	5745.00000	5744.990650	1.63	20
7.0 (Min)	5745.00000	5744.990800	1.60	20

NORTHWEST EMC

Frequency Stability

Rev BETA 01/30/01

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:	Unknown			Date:	04/21/05
Customer:	INTERMEC Technologies Corporation			Temperature:	see below
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	38% RH
Customer Ref. No.:	N/A	Power:	see below	Job Site:	EV06 & EV09

TEST SPECIFICATIONS

Specification:	47 CFR 15.407(g)	Year: 2005-04	Method: 47 CFR 2.1055	Year:	2004

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Transmitting mid band with no modulation (CW mode).

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Manufacturers of UNII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation specified in the users manual.

RESULTS	MINIMUM FREQUENCY STABILITY
Pass	2.74 ppm

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Frequency Stability - High Channel - 5725 to 5825 MHz Band

Frequency Stability with Variation of Ambient Temperature (Primary Supply = 120V, 60Hz)

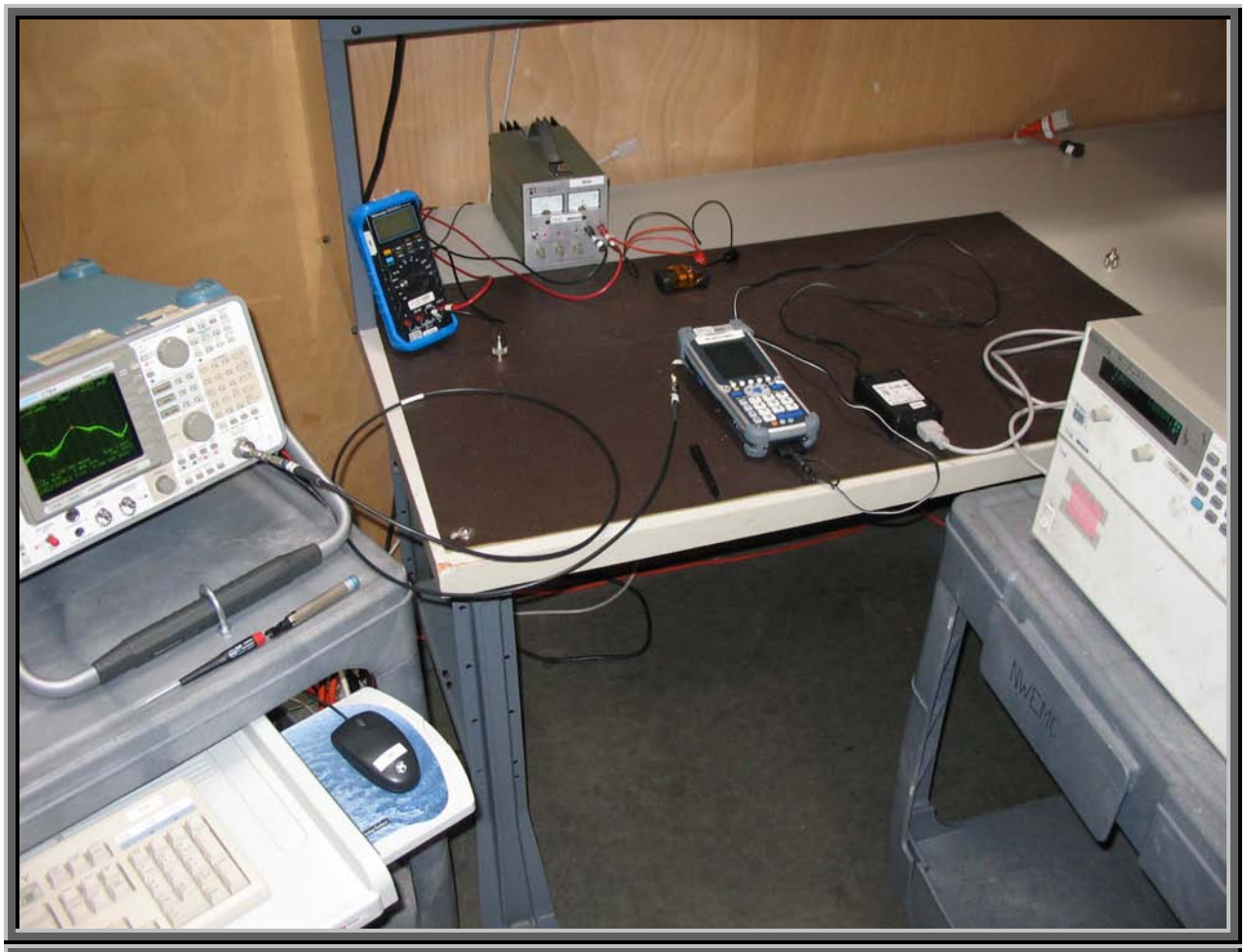
Temp (°C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
-30	5805.00000	5805.011780	2.03	20
-20	5805.00000	5805.015900	2.74	20
-10	5805.00000	5805.013620	2.35	20
0	5805.00000	5805.011340	1.95	20
10	5805.00000	5805.001020	0.18	20
20	5805.00000	5804.995080	0.85	20
30	5805.00000	5804.987260	2.19	20
40	5805.00000	5804.986090	2.40	20
50	5805.00000	5804.987420	2.17	20

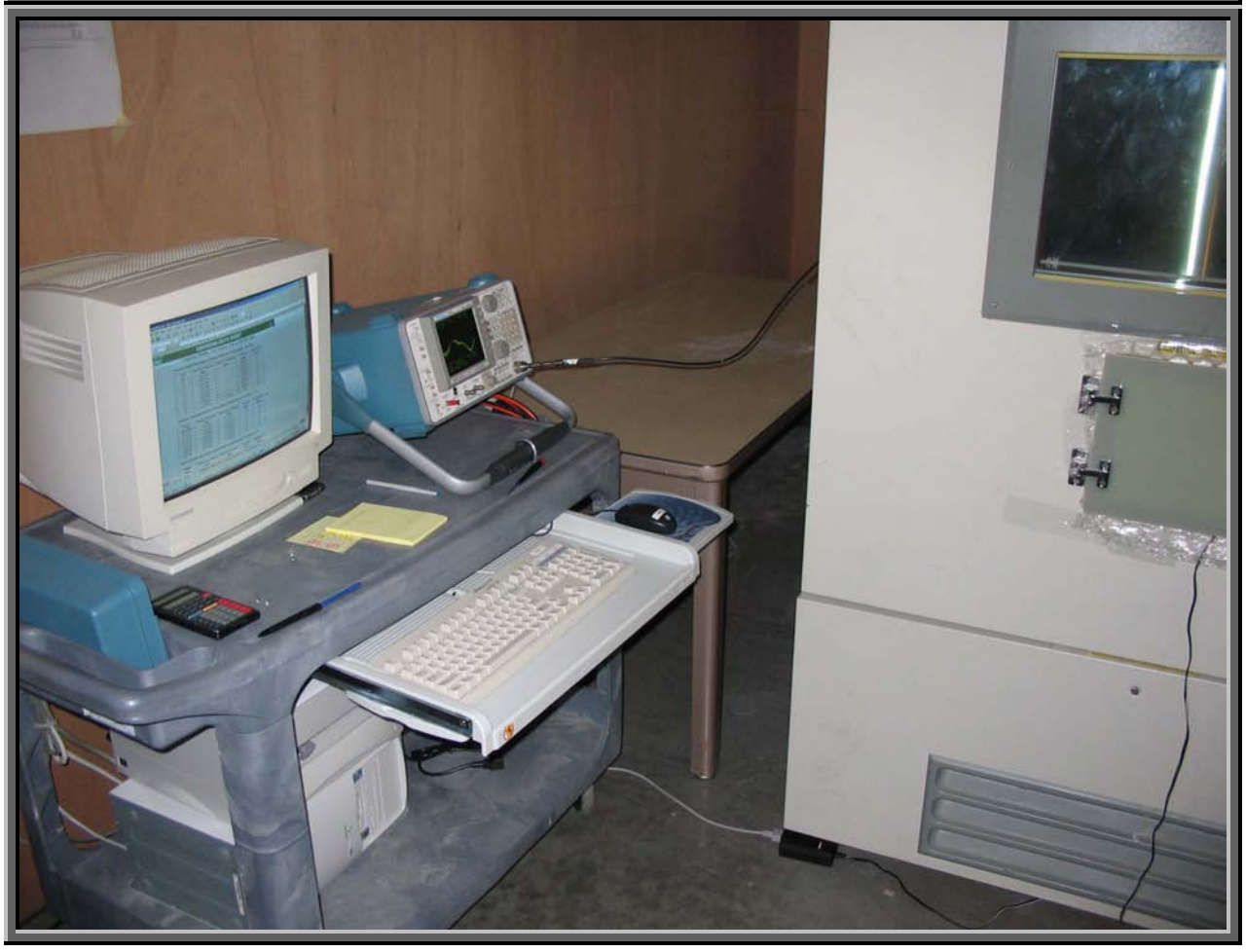
Frequency Stability with Variation of Primary Supply Voltage (Ambient Temperature = 21°C)

Voltage (VAC, 60Hz)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
138 (115%)	5805.00000	5804.989880	1.74	20
132 (110%)	5805.00000	5804.989680	1.78	20
126 (105%)	5805.00000	5804.989600	1.79	20
120 (100%)	5805.00000	5804.989560	1.80	20
114 (95%)	5805.00000	5804.989450	1.82	20
108 (90%)	5805.00000	5804.989380	1.83	20
102 (85%)	5805.00000	5804.989340	1.84	20

Frequency Stability with Variation of Vehicle Battery Voltage (Ambient Temperature = 21°C)

Voltage (VDC)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Tolerance (ppm)	Specification (ppm)
8.4 (Max)	5805.00000	5804.991280	1.50	20
8.2 (105%)	5805.00000	5804.991420	1.48	20
7.8 (100%)	5805.00000	5804.991660	1.44	20
7.4 (95%)	5805.00000	5804.991160	1.52	20
7.0 (Min)	5805.00000	5804.991060	1.54	20





Justification

The individuals and/or the organization requesting the test provided the modes, configurations and settings available to evaluate. While scanning the radiated emissions, all of the EUT parameters listed below were investigated. This includes, but may not be limited to, antennas, tuned transmit frequency ranges, operating modes, and data rates.

Channels in Specified Band Investigated:
Mid channel, Channel 41, 5.15-5.25GHz band (low band)
Mid channel, Channel 58, 5.25-5.35GHz band (mid band)
Mid channel, Channel 153, 5.725-5.825GHz band (high band)

Operating Modes Investigated:
Transmitting 802.11(a)

Data Rates Investigated:
802.11(a) 6Mbps

Output Power Setting(s) Investigated:
Maximum

Power Input Settings Investigated:
120VAC, 60Hz

Software\Firmware Applied During Test			
Exercise software	CTxRx WIN CE	**Version**	0.1.2.1
Description			
The system was tested using special software developed to test all functions of the device during the test.			

EUT and Peripherals			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
802.11(b)/(g)/(a) radio	Intermec Technologies Corporation	802UIAG	Unknown
Handheld Computer	Intermec Technologies Corporation	CK61	33390400093
AC Power Adapter	Elpac Power Systems	FW1812	038962

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
AC Power	No	2.0	No	AC Power Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

AC Powerline Conducted Emissions

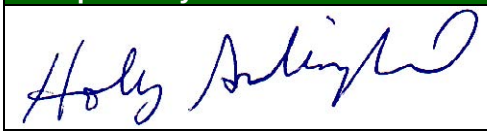
Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
LISN	Solar	9252-50-R-24-BNC	LIP	12/29/2004	13 mo
High Pass Filter	TTE	H97-100k-50-720B	HFC	12/29/2004	13 mo
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQF	12/02/2004	13 mo
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	12/02/2004	13 mo
Spectrum Analyzer Display	Hewlett Packard	85662A	AALD	12/02/2004	13 mo

Test Description

Requirement: Per 47 15.207(d), if the EUT is connected to the AC power line indirectly, obtaining its power from another device that is connected to the AC power line, then it should be tested to demonstrate compliance with the conducted limits of 15.207.

Configuration: The EUT will be powered from a device that could be connected to the AC power line. Therefore, the measurements were made on the device used to power the EUT. The AC power line conducted emissions were measured with the EUT operating at the middle channel of each operational band. The EUT was transmitting at the data rate with the worst emissions. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.4-1992.

Completed by:



NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/29/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.207 AC Powerline Conducted Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

802.11(a) 6Mbps, Channel 41 (mid channel, low band)

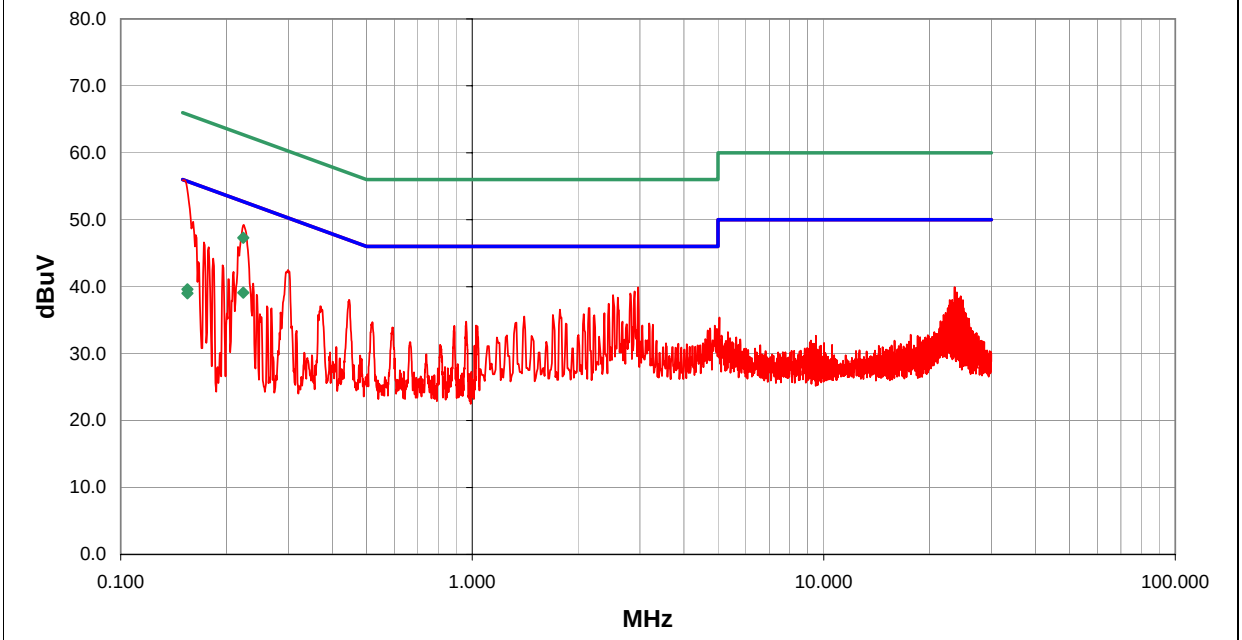
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	1

Other

Tested By: Holly Ashkannejhad



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.223	19.1			0.0	0.0	20.0		AV		39.1	52.7	-13.6
0.223	27.3			0.0	0.0	20.0		QP		47.3	62.7	-15.4
0.155	19.0			0.0	0.0	20.0		AV		39.0	55.7	-16.7
0.155	19.6			0.0	0.0	20.0		QP		39.6	65.7	-26.1
0.150	35.8			0.0	0.1	20.0				55.9	56.0	-0.1
0.224	29.1			0.0	0.1	20.0				49.2	52.7	-3.4
2.966	19.4			0.0	0.5	20.0				39.9	46.0	-6.1
2.896	18.8			0.0	0.5	20.0				39.3	46.0	-6.7
2.816	18.5			0.0	0.5	20.0				39.0	46.0	-7.0
2.516	18.3			0.0	0.5	20.0				38.8	46.0	-7.2
2.596	17.9			0.0	0.5	20.0				38.4	46.0	-7.6
0.299	22.4			0.0	0.1	20.0				42.5	50.3	-7.8
0.173	26.5			0.0	0.1	20.0				46.6	54.8	-8.2
2.446	17.0			0.0	0.4	20.0				37.4	46.0	-8.6
0.178	25.8			0.0	0.1	20.0				45.9	54.6	-8.7
0.446	17.8			0.0	0.2	20.0				38.0	46.9	-8.9
2.156	16.4			0.0	0.4	20.0				36.8	46.0	-9.2
1.775	16.2			0.0	0.4	20.0				36.6	46.0	-9.4
2.376	15.6			0.0	0.4	20.0				36.0	46.0	-10.0

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/29/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.207 AC Powerline Conducted Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

802.11(a) 6Mbps, Channel 41 (mid channel, low band)

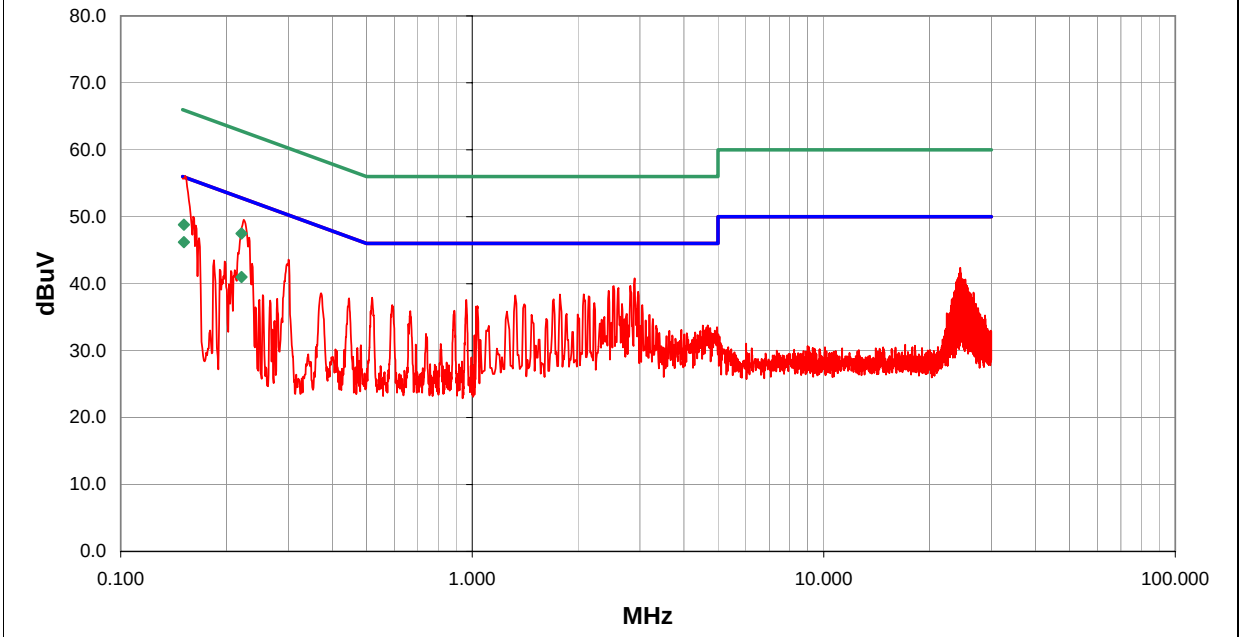
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	2

Other

Tested By: Holly Ashkannejhad



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.151	26.2			0.0	0.0	20.0		AV		46.2	55.9	-9.7
0.221	21.0			0.0	0.0	20.0		AV		41.0	52.8	-11.8
0.221	27.5			0.0	0.0	20.0		QP		47.5	62.8	-15.3
0.151	28.8			0.0	0.0	20.0		QP		48.8	65.9	-17.1
0.224	29.4			0.0	0.1	20.0				49.5	52.7	-3.1
2.896	20.3			0.0	0.5	20.0				40.8	46.0	-5.2
0.161	29.9			0.0	0.1	20.0				50.0	55.4	-5.4
2.816	19.2			0.0	0.5	20.0				39.7	46.0	-6.3
2.526	19.2			0.0	0.5	20.0				39.7	46.0	-6.3
0.164	28.6			0.0	0.1	20.0				48.7	55.3	-6.6
0.300	23.5			0.0	0.1	20.0				43.6	50.2	-6.6
2.606	18.9			0.0	0.5	20.0				39.4	46.0	-6.6
2.446	18.5			0.0	0.4	20.0				38.9	46.0	-7.1
2.966	18.3			0.0	0.5	20.0				38.8	46.0	-7.2
2.076	18.0			0.0	0.4	20.0				38.4	46.0	-7.6
24.456	20.9			0.0	1.5	20.0				42.4	50.0	-7.6
1.775	18.0			0.0	0.4	20.0				38.4	46.0	-7.6
1.325	17.9			0.0	0.3	20.0				38.2	46.0	-7.8
2.146	17.7			0.0	0.4	20.0				38.1	46.0	-7.9

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	802UIAG	Work Order:	ITRM0066
Serial Number:		Date:	03/29/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	38%
Cust. Ref. No.:		Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.207 AC Powerline Conducted Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

802.11(a) 6Mbps, Channel 58 (mid channel, mid band)

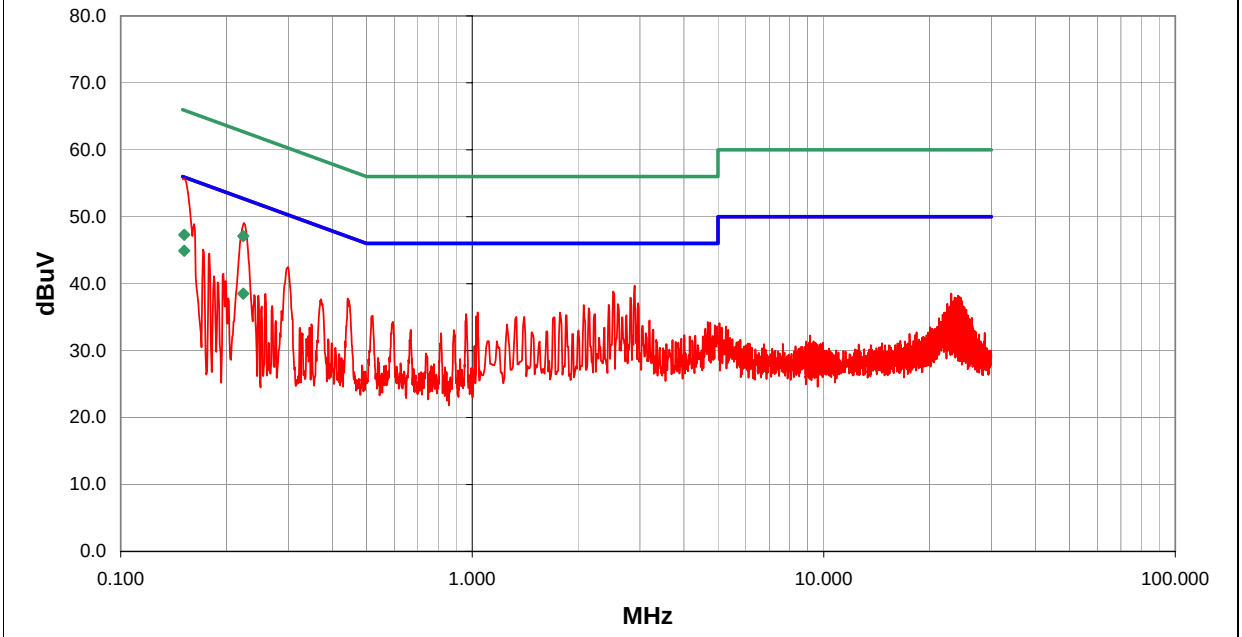
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	3

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.152	24.9			0.0	0.0	20.0		AV		44.9	55.9	-11.0
0.223	18.5			0.0	0.0	20.0		AV		38.5	52.7	-14.2
0.223	27.1			0.0	0.0	20.0		QP		47.1	62.7	-15.6
0.152	27.3			0.0	0.0	20.0		QP		47.3	65.9	-18.6
0.151	35.6			0.0	0.1	20.0				55.7	56.0	-0.3
0.225	28.9			0.0	0.1	20.0				49.0	52.6	-3.6
2.896	19.2			0.0	0.5	20.0				39.7	46.0	-6.3
2.516	18.4			0.0	0.5	20.0				38.9	46.0	-7.1
0.299	22.4			0.0	0.1	20.0				42.5	50.3	-7.8
2.826	17.4			0.0	0.5	20.0				37.9	46.0	-8.1
2.966	16.6			0.0	0.5	20.0				37.1	46.0	-8.9
2.596	16.5			0.0	0.5	20.0				37.0	46.0	-9.0
2.446	16.4			0.0	0.4	20.0				36.8	46.0	-9.2
2.076	16.4			0.0	0.4	20.0				36.8	46.0	-9.2
0.443	17.6			0.0	0.2	20.0				37.8	47.0	-9.2
2.146	15.9			0.0	0.4	20.0				36.3	46.0	-9.7
0.172	25.0			0.0	0.1	20.0				45.1	54.9	-9.8
0.179	24.4			0.0	0.1	20.0				44.5	54.5	-10.0
1.036	15.4			0.0	0.3	20.0				35.7	46.0	-10.3

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	802UIAG	Work Order:	ITRM0066
Serial Number:		Date:	03/29/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	38%
Cust. Ref. No.:		Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.207 AC Powerline Conducted Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

802.11(a) 6Mbps, Channel 58 (mid channel, mid band)

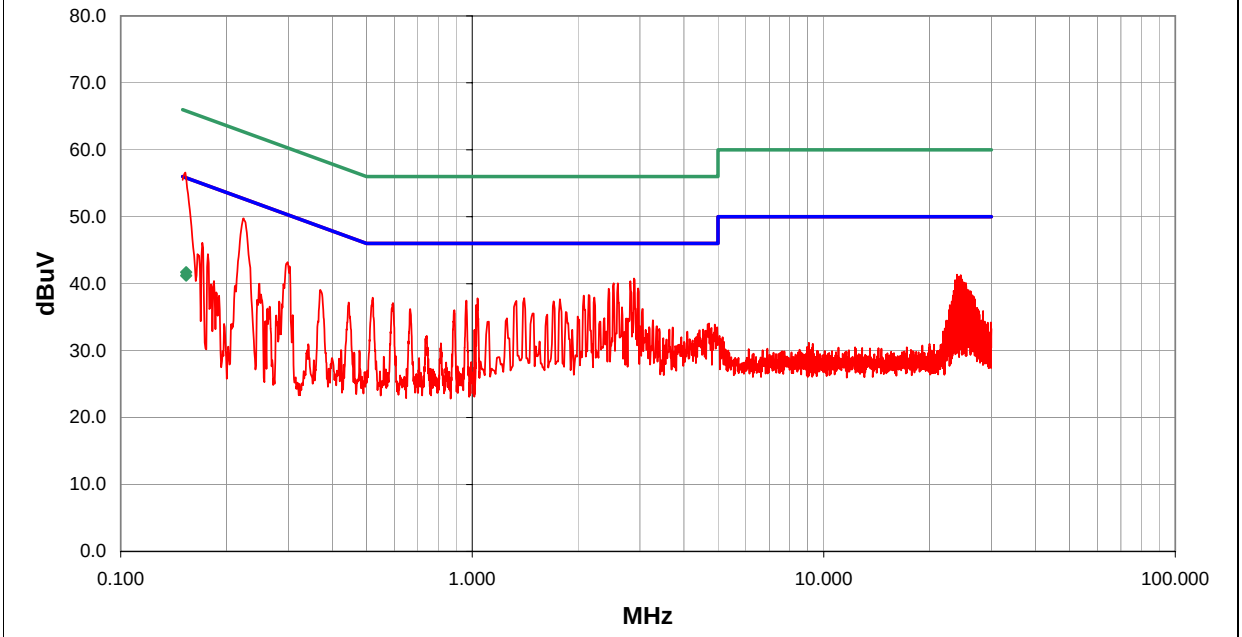
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	4

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.153	21.2			0.0	0.0	20.0		AV		41.2	55.8	-14.6
0.153	21.7			0.0	0.0	20.0		QP		41.7	65.8	-24.1
0.224	29.6			0.0	0.1	20.0				49.7	52.7	-2.9
2.886	20.3			0.0	0.5	20.0				40.8	46.0	-5.2
2.816	19.9			0.0	0.5	20.0				40.4	46.0	-5.6
2.596	19.6			0.0	0.5	20.0				40.1	46.0	-5.9
2.526	19.6			0.0	0.5	20.0				40.1	46.0	-5.9
2.966	18.8			0.0	0.5	20.0				39.3	46.0	-6.7
2.446	18.8			0.0	0.4	20.0				39.2	46.0	-6.8
0.299	23.1			0.0	0.1	20.0				43.2	50.3	-7.1
2.146	17.9			0.0	0.4	20.0				38.3	46.0	-7.7
2.076	17.8			0.0	0.4	20.0				38.2	46.0	-7.8
2.226	17.5			0.0	0.4	20.0				37.9	46.0	-8.1
0.521	17.7			0.0	0.2	20.0				37.9	46.0	-8.1
1.405	17.5			0.0	0.3	20.0				37.8	46.0	-8.2
1.036	17.5			0.0	0.3	20.0				37.8	46.0	-8.2
1.775	17.3			0.0	0.4	20.0				37.7	46.0	-8.3
0.962	17.2			0.0	0.3	20.0				37.5	46.0	-8.5
1.335	17.1			0.0	0.3	20.0				37.4	46.0	-8.6

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	802UIAG			Work Order:	ITRM0066
Serial Number:				Date:	03/29/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	38%
Cust. Ref. No.:				Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.207 AC Powerline Conducted Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

802.11(a) 6Mbps, Channel 153, (mid channel, high band)

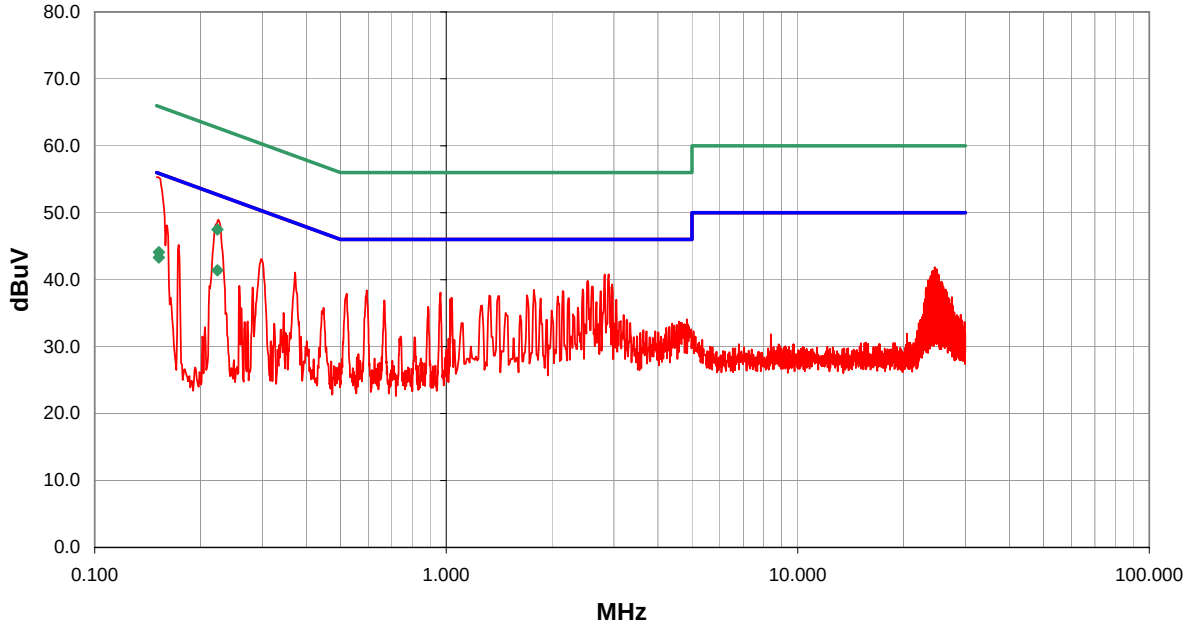
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	5

Other

Tested By:



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.223	21.4			0.0	0.0	20.0		AV		41.4	52.7	-11.3
0.152	23.3			0.0	0.0	20.0		AV		43.3	55.9	-12.6
0.223	27.5			0.0	0.0	20.0		QP		47.5	62.7	-15.2
0.152	24.1			0.0	0.0	20.0		QP		44.1	65.9	-21.8
0.150	35.2			0.0	0.1	20.0				55.3	56.0	-0.7
0.225	28.8			0.0	0.1	20.0				48.9	52.6	-3.7
2.896	20.3			0.0	0.5	20.0				40.8	46.0	-5.2
2.826	20.3			0.0	0.5	20.0				40.8	46.0	-5.2
2.526	19.4			0.0	0.5	20.0				39.9	46.0	-6.1
2.966	18.8			0.0	0.5	20.0				39.3	46.0	-6.7
2.616	18.5			0.0	0.5	20.0				39.0	46.0	-7.0
0.298	23.0			0.0	0.1	20.0				43.1	50.3	-7.2
0.160	28.0			0.0	0.1	20.0				48.1	55.5	-7.4
0.371	20.9			0.0	0.2	20.0				41.1	48.5	-7.4
2.446	18.1			0.0	0.4	20.0				38.5	46.0	-7.5
1.775	18.1			0.0	0.4	20.0				38.5	46.0	-7.5
0.594	18.2			0.0	0.2	20.0				38.4	46.0	-7.6
2.146	17.9			0.0	0.4	20.0				38.3	46.0	-7.7
2.756	17.8			0.0	0.5	20.0				38.3	46.0	-7.7

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	802UIAG	Work Order:	ITRM0066
Serial Number:		Date:	03/29/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	38%
Cust. Ref. No.:		Barometric Pressure	29.67
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.207 AC Powerline Conducted Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

COMMENTS

EUT OPERATING MODES

802.11(a) 6Mbps, Channel 153, (mid channel, high band)

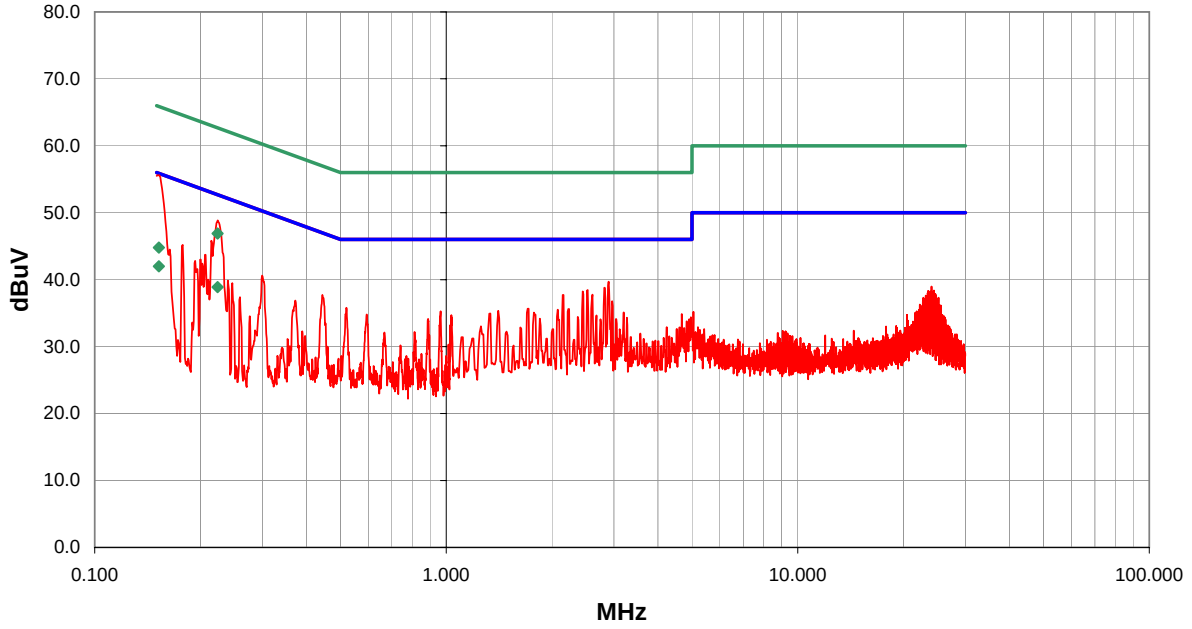
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	6

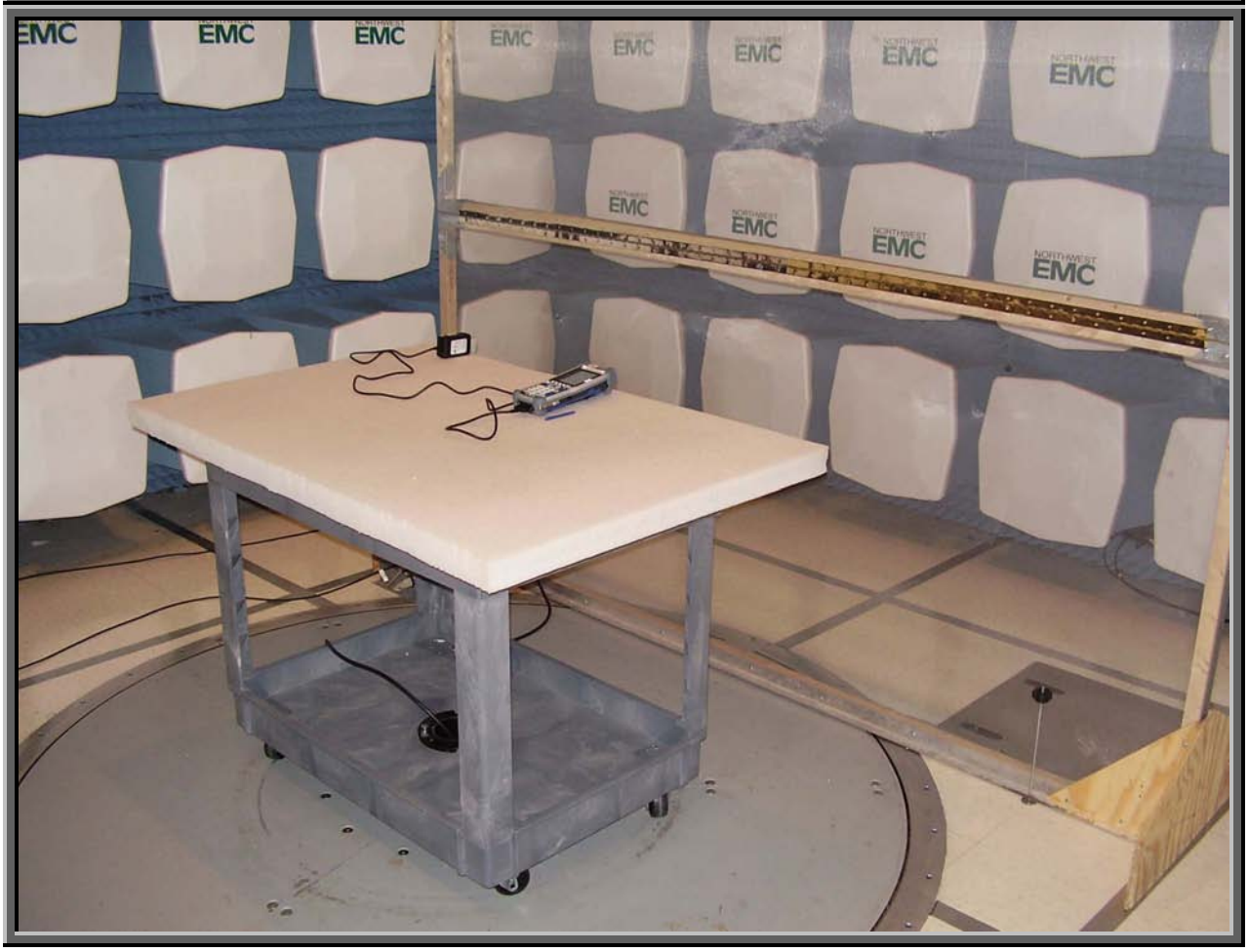
Other

Tested By: Holly Ashkannejhad



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.224	18.9			0.0	0.0	20.0		AV		38.9	52.7	-13.8
0.152	22.0			0.0	0.0	20.0		AV		42.0	55.9	-13.9
0.224	26.9			0.0	0.0	20.0		QP		46.9	62.7	-15.8
0.152	24.8			0.0	0.0	20.0		QP		44.8	65.9	-21.1
0.151	35.5			0.0	0.1	20.0				55.6	56.0	-0.4
0.224	28.7			0.0	0.1	20.0				48.8	52.7	-3.8
2.896	19.2			0.0	0.5	20.0				39.7	46.0	-6.3
0.215	25.7			0.0	0.1	20.0				45.8	53.0	-7.2
2.826	18.3			0.0	0.5	20.0				38.8	46.0	-7.2
2.526	18.0			0.0	0.5	20.0				38.5	46.0	-7.5
2.446	17.8			0.0	0.4	20.0				38.2	46.0	-7.8
2.606	17.3			0.0	0.5	20.0				37.8	46.0	-8.2
2.156	17.3			0.0	0.4	20.0				37.7	46.0	-8.3
2.966	16.3			0.0	0.5	20.0				36.8	46.0	-9.2
0.444	17.5			0.0	0.2	20.0				37.7	47.0	-9.3
0.178	25.1			0.0	0.1	20.0				45.2	54.6	-9.4
0.207	23.6			0.0	0.1	20.0				43.7	53.3	-9.6
0.299	20.5			0.0	0.1	20.0				40.6	50.3	-9.7
0.520	15.6			0.0	0.2	20.0				35.8	46.0	-10.2


EMC


EMC


NORTHWEST
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