Intermec Technologies Corporation

Test Report

Model 2610CF Radio Module in Models 700C or CN2/CN2NI Handheld Computers

March 17, 2005

Report No. ITRM0057

Report Prepared By:

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

NORTHWEST EMC

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Issue Date: February 5, 2005

Intermec Technologies Corporation

Model 2610CF Radio Module in Models 700C or CN2/CN2NI Handheld Computers

Emissions			
Specification	**Test Method**	**Pass**	**Fail**
FCC 15.247(a) Occupied Bandwidth:2004	ANSI C63.4:2003	☒	☐
FCC 15.247(b) Output Power:2004	ANSI C63.4:2003	☒	☐
FCC 15.247(d) Band Edge Compliance:2004	ANSI C63.4:2003	☒	☐
FCC 15.247(d) Spurious Conducted Emissions:2004	ANSI C63.4:2003	☒	☐
FCC 15.247(d) Spurious Radiated Emissions:2004	ANSI C63.4:2003	☒	☐
FCC 15.247(e) Power Spectral Density:2004	ANSI C63.4:2003	☒	☐
FCC 15.207 AC Power Line Conducted Emissions: 2004	ANSI C63.4:2003	☒	☐

Modifications made to the product

See the Modifications section of this report

Test Facility

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

Northwest EMC, Inc.
22975 NW Evergreen Parkway, Suite 400; Hillsboro, OR 97124
Phone: (503) 844-4066
Fax: 844-3826

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

Approved By:

Don Facteau, IS Manager

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

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

Revision Number	Description	Date	Page Number
00	None		

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, 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 Nos. - 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?

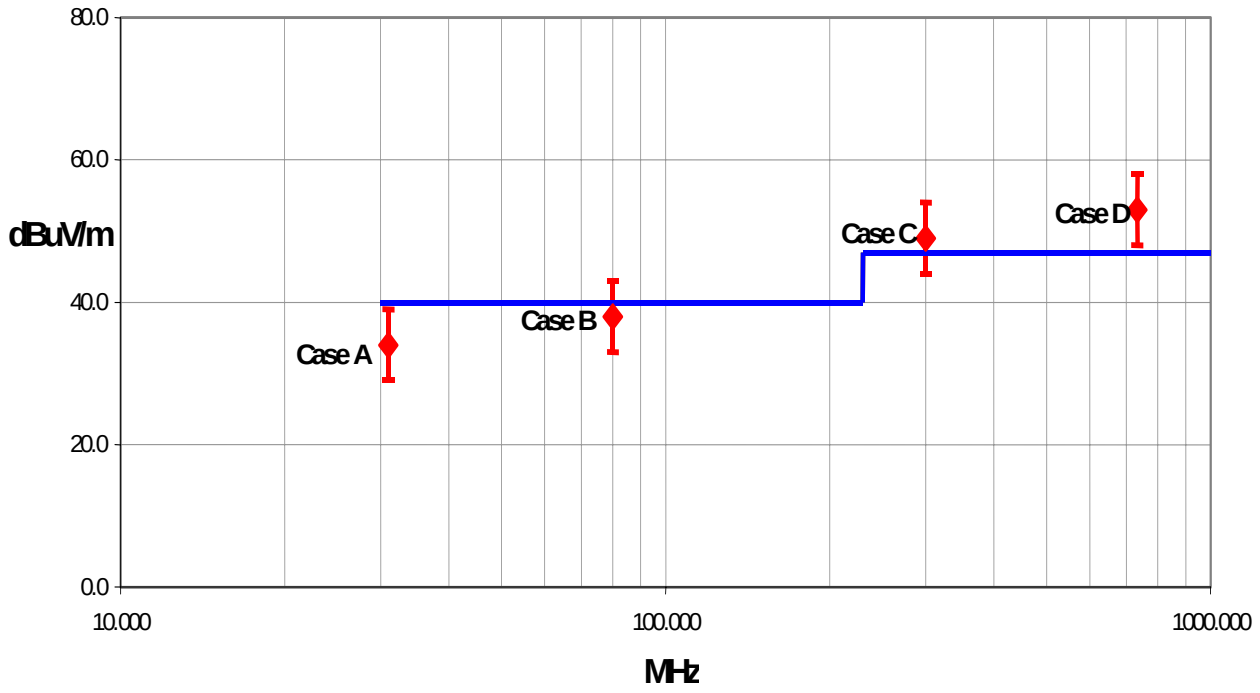
When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. The following 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:	Model 2610CF 802.11(b)/(g) in 700C or CN2/CN2NI
First Date of Test:	January 24, 2005
Last Date of Test:	March 16, 2005
Receipt Date of Samples:	January 24, 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(b)/(g) radio in 700C and CN2/CN2NI hand held scanners

Client Justification for EUT Selection:
Not Provided

Client Justification for Test Selection:
Not Provided

Equipment modifications					
Item	Test	Date	Modification	Note	Disposition of EUT
1	Occupied Bandwidth	01/24/2005	No EMI suppression devices were added or modified during this test.	Same configuration as delivered.	EUT remained at Northwest EMC.
2	Spurious Radiated Emissions	01/25, 01/29, 01/30, 03/11, 03/16/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
3	AC Powerline Conducted Emissions	01/31/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
4	Spurious Conducted Emissions	03/08/2005	No EMI suppression devices were added or modified during this test.	Same configuration as in previous test.	EUT remained at Northwest EMC.
5	Band Edge Compliance	03/08/2005	No EMI suppression devices were added or modified during this test.	Using spurious radiated unit, not the direct connect unit.	EUT remained at Northwest EMC.
6	Output Power	03/09/2005	No EMI suppression devices were added or modified during this test.	Using spurious radiated unit, not the direct connect unit.	EUT remained at Northwest EMC.
7	Power Spectral Density	03/11/2005	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:
Low
Mid
High

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
1 Mbps (802.11b)
5.5 Mbps (802.11b)
11 Mbps (802.11b)
6 Mbps (802.11g)
36 Mbps (802.11g)
54 Mbps (802.11g)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC, 60 Hz.

Other Settings Investigated:
802.11(b)
802.11(g)

Software\Firmware Applied During Test			
Exercise software	Test Utility	**Version**	0.4
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**
Host Device	Intermec Technologies Corporation	700	00490500002
EUT- 802.11(b)/(g) radio	Intermec Technologies Corporation	2610CF	TCKRNA-453387442
AC Adapter	Intermec Technologies Corporation	FW1812	011025

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.					

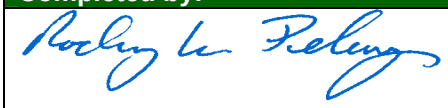
Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Tektronix	2784	AAO	01/02/2005	12 mo

Test Description

Requirement: Per 47 CFR 15.247(a)(2), the 6 dB bandwidth of a direct sequence channel must be at least 500kHz. The measurement is made with the spectrum analyzer's resolution bandwidth set to 100kHz, and the video bandwidth set to greater than or equal to the resolution bandwidth.

Configuration: The occupied bandwidth was measured with the EUT set to low, medium, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation.

Completed by:



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

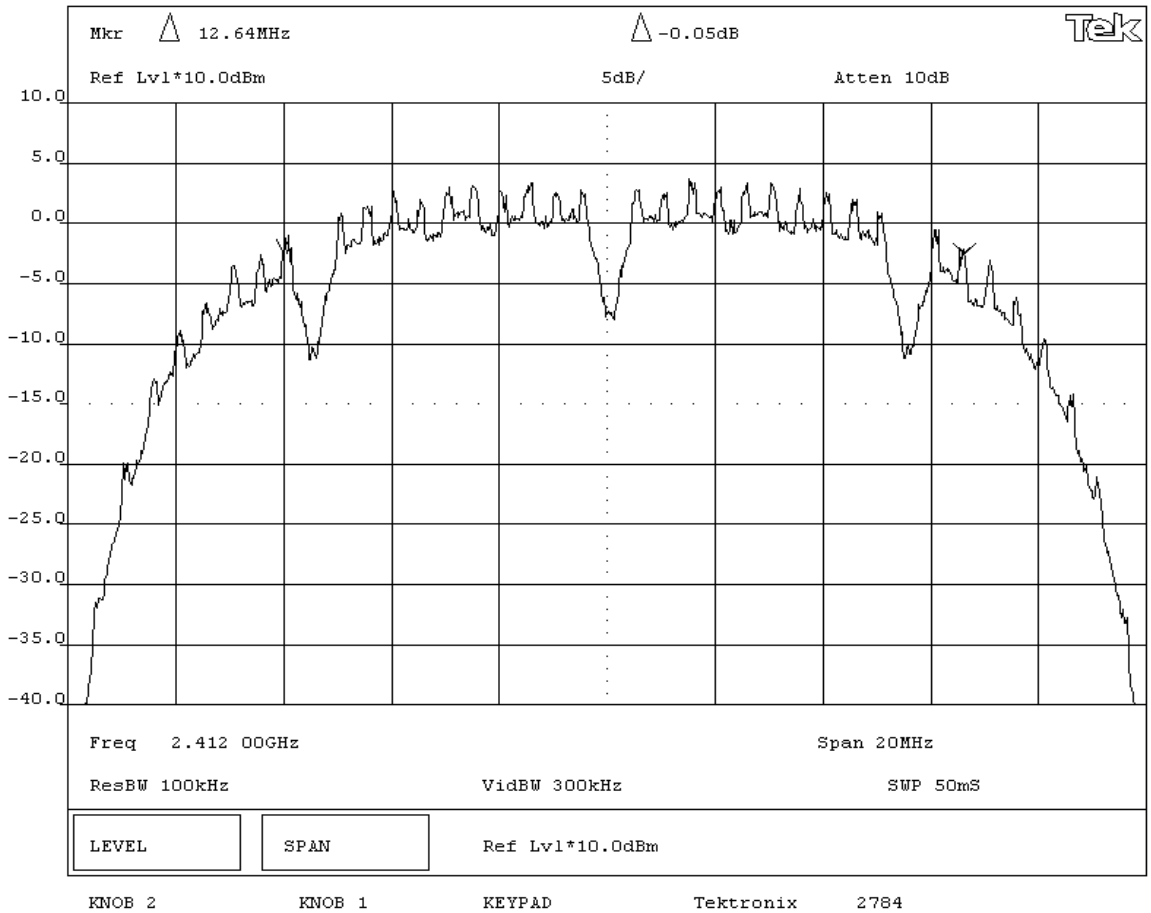
RESULTS	BANDWIDTH
Pass	12.64 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Low Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

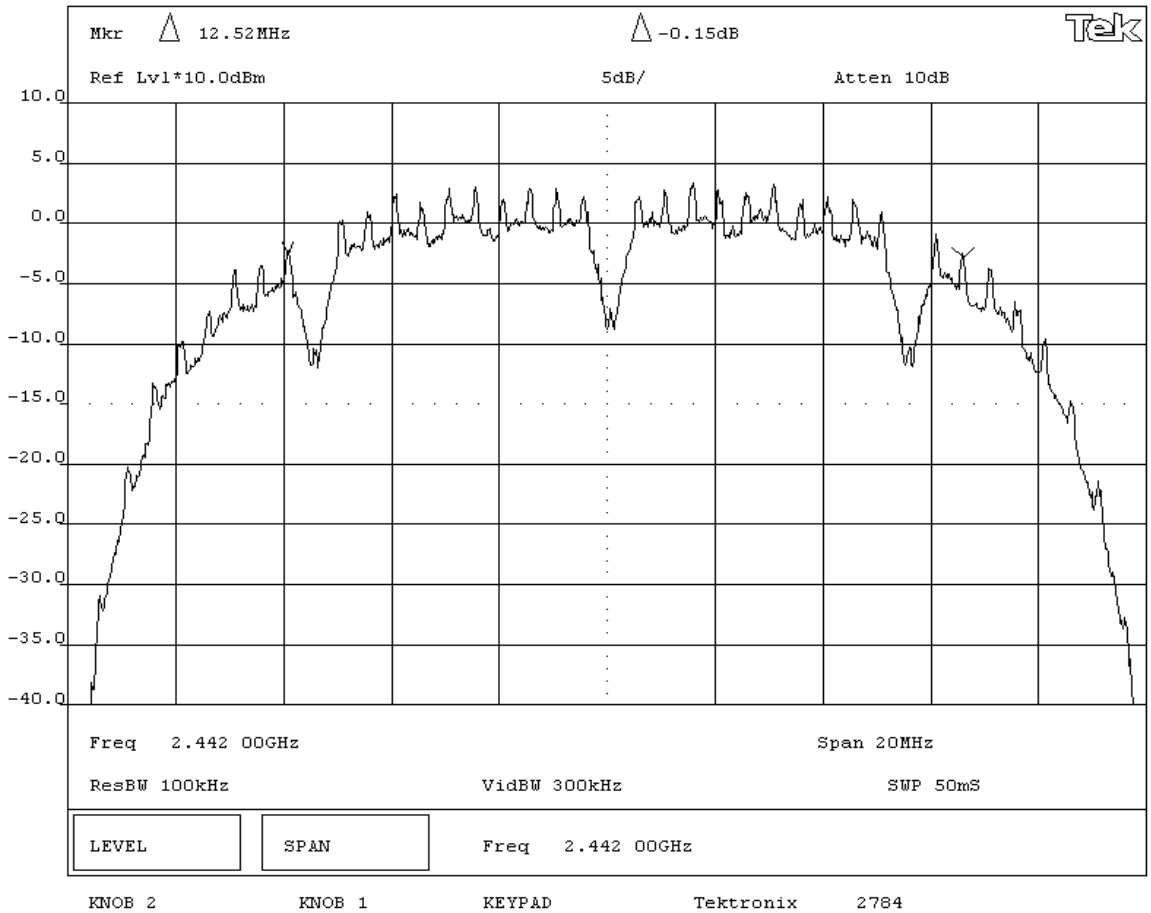
RESULTS	BANDWIDTH
Pass	12.52 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Mid Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

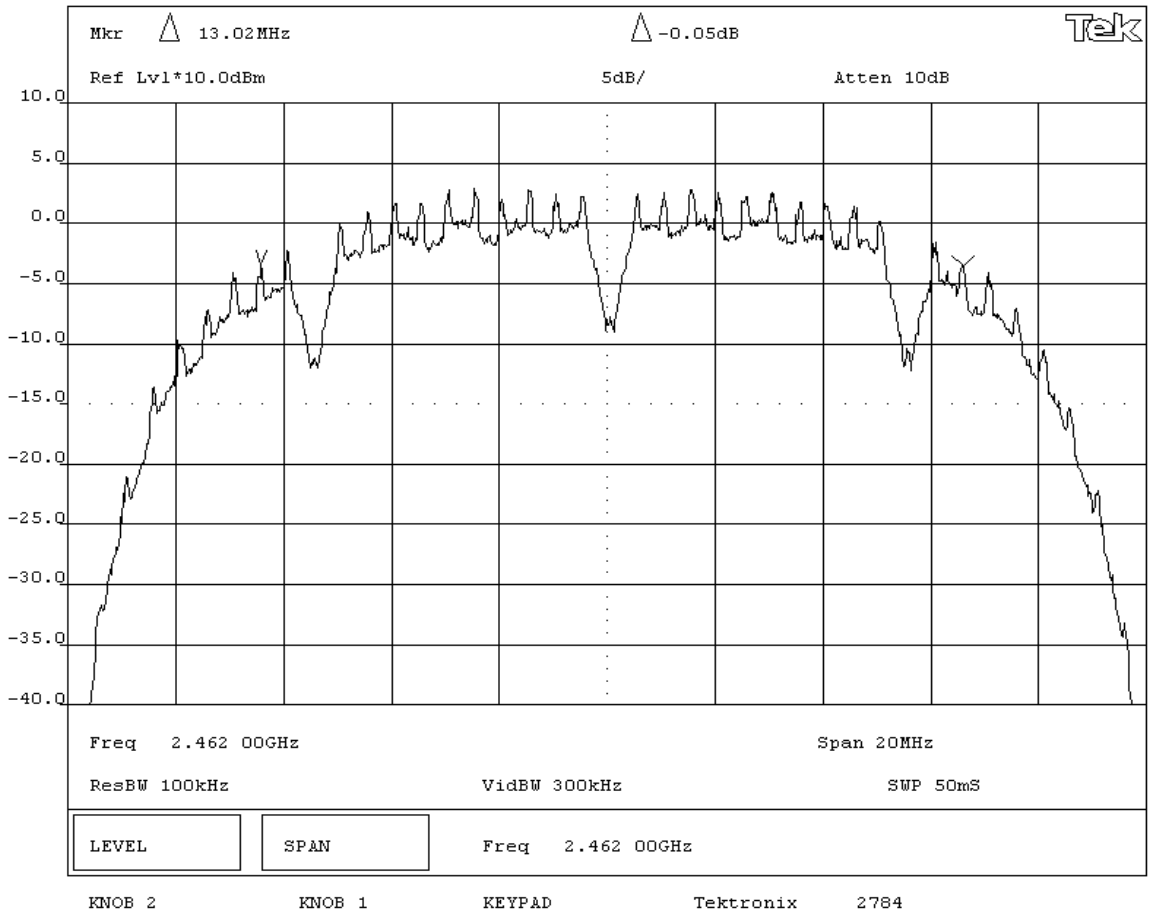
RESULTS	BANDWIDTH
Pass	13.02 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - High Channel - 802.11(b) 1 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

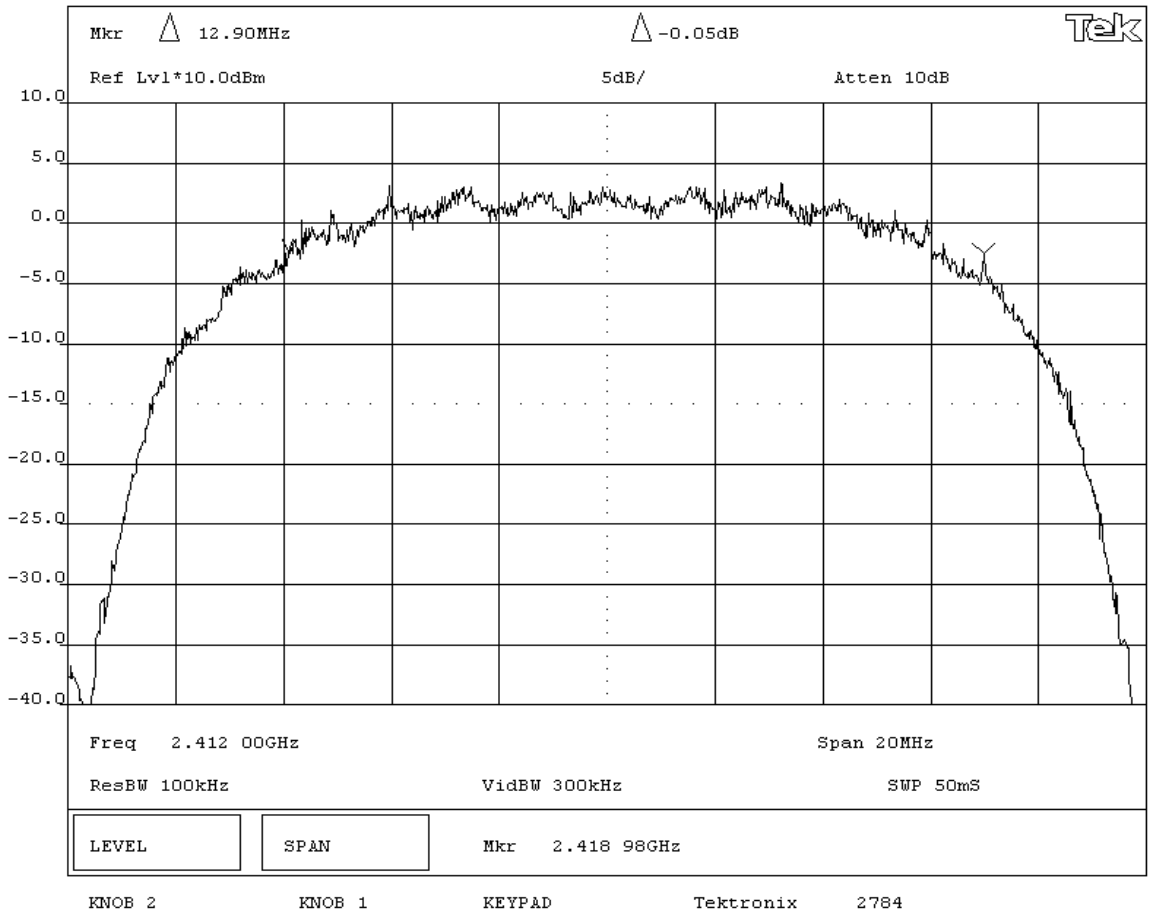
RESULTS	BANDWIDTH
Pass	12.9 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Low Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

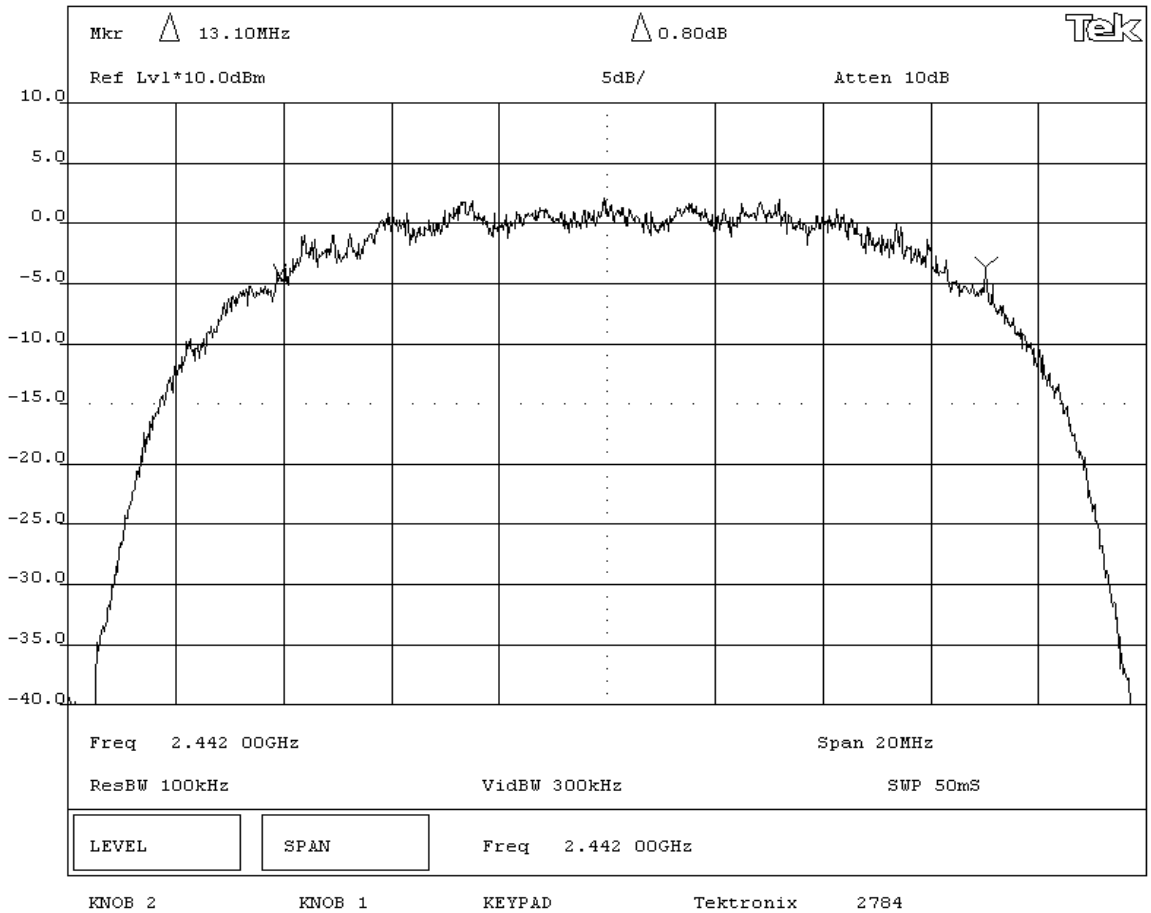
RESULTS	BANDWIDTH
Pass	13.1 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Mid Channel - 802.11(b) 5.5 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

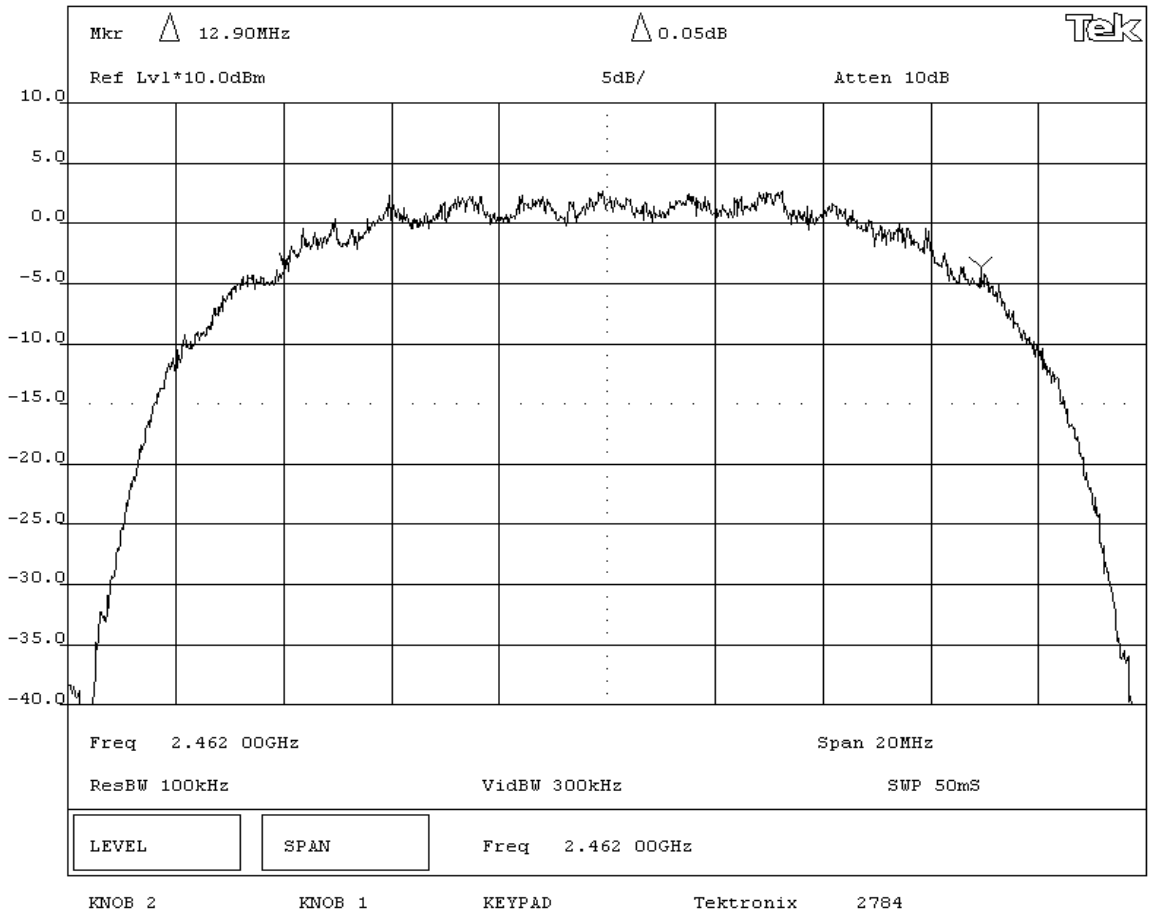
RESULTS	BANDWIDTH
Pass	12.9 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - High Channel - 802.11(b) 5.5 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

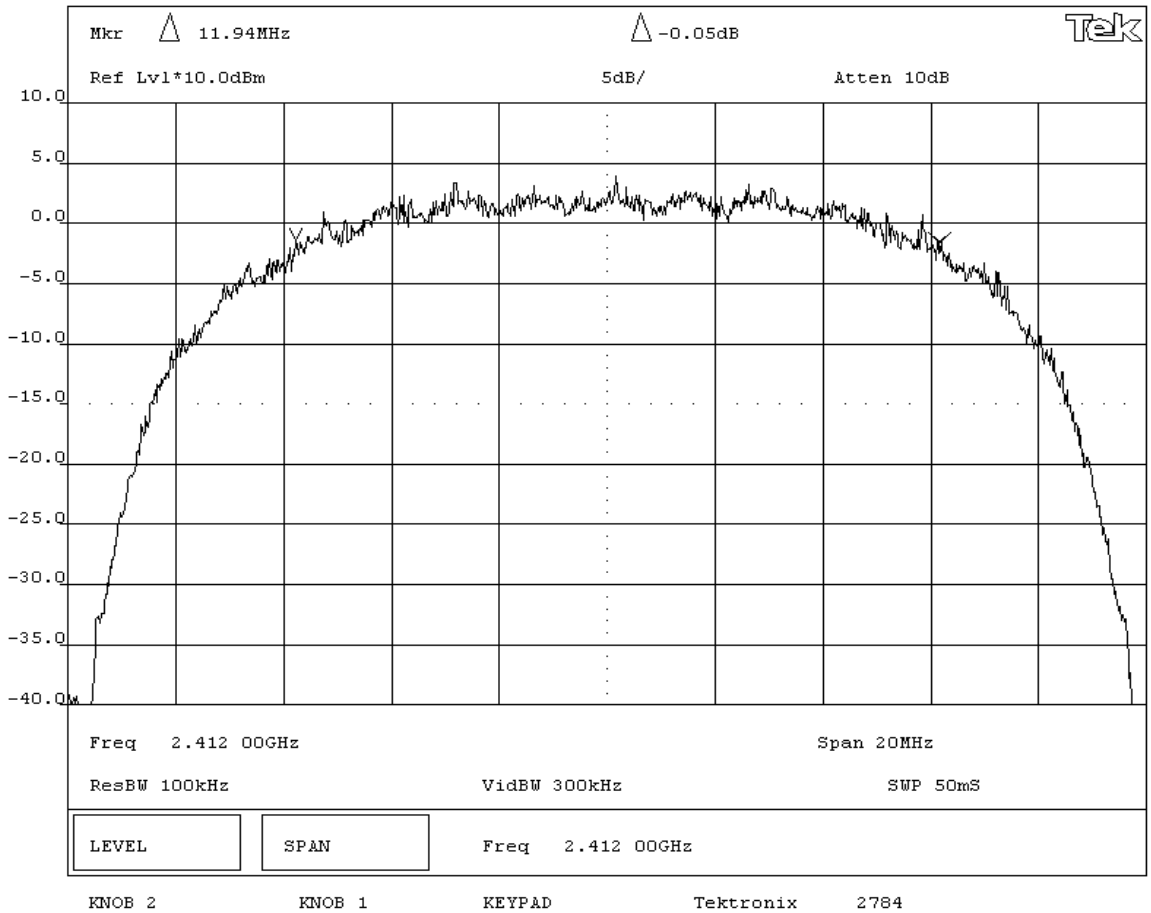
RESULTS	BANDWIDTH
Pass	11.94 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Low Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

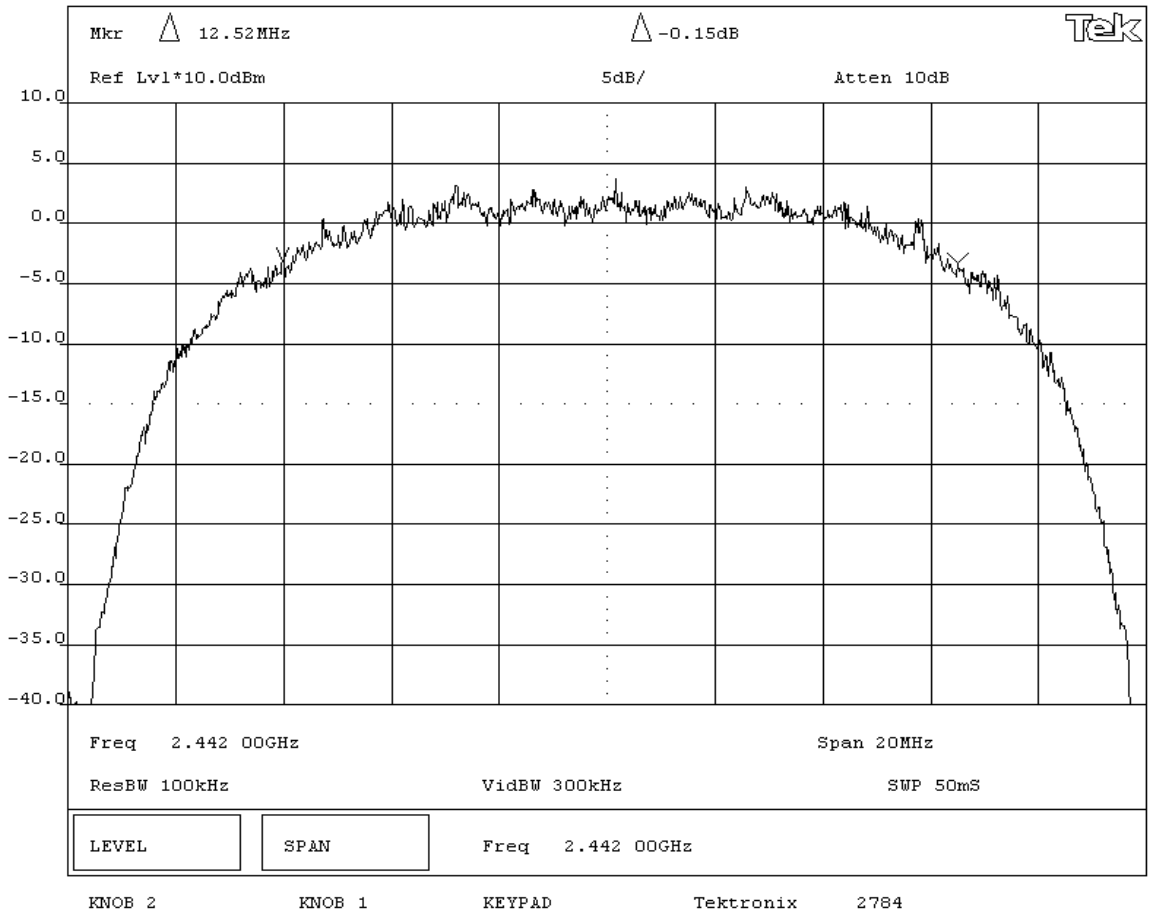
RESULTS	BANDWIDTH
Pass	12.52 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Mid Channel - 802.11(b) 11 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

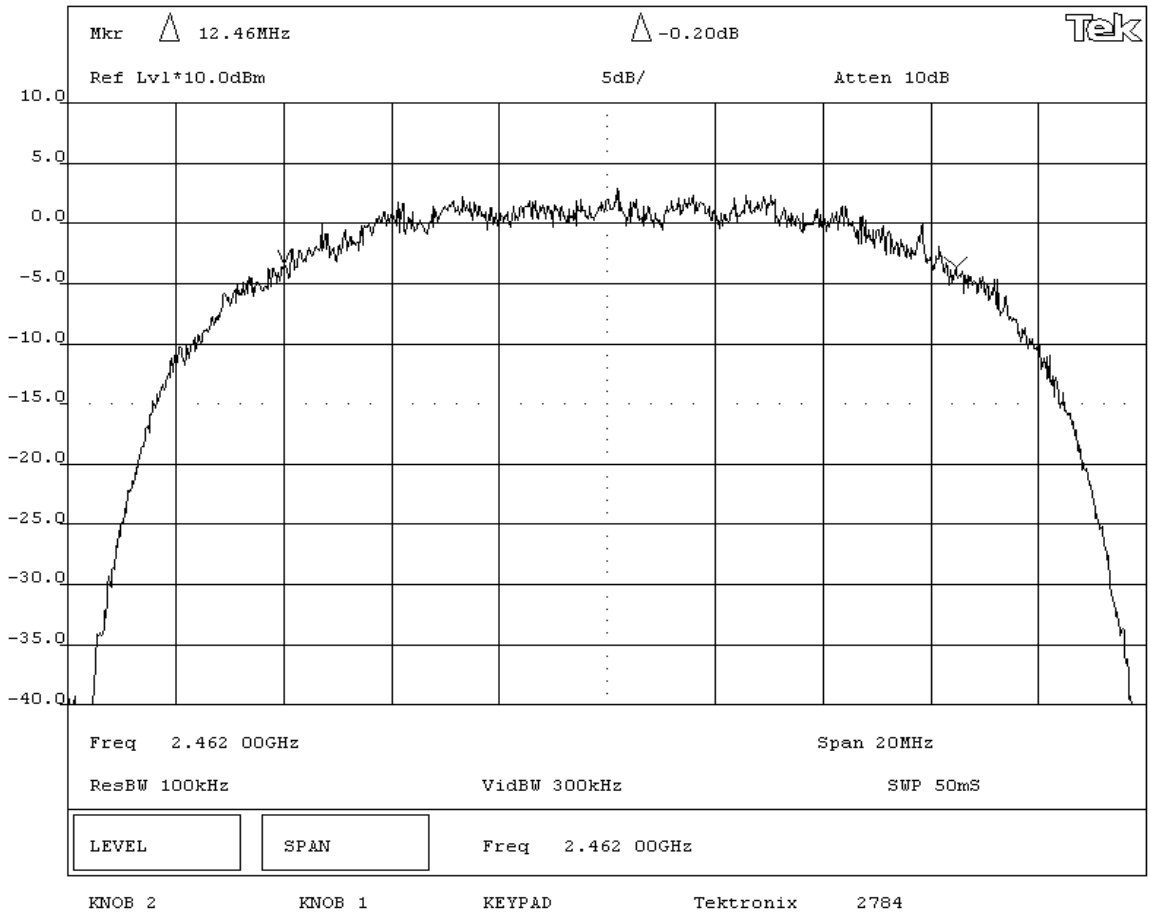
RESULTS	BANDWIDTH
Pass	12.46 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - High Channel - 802.11(b) 11 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

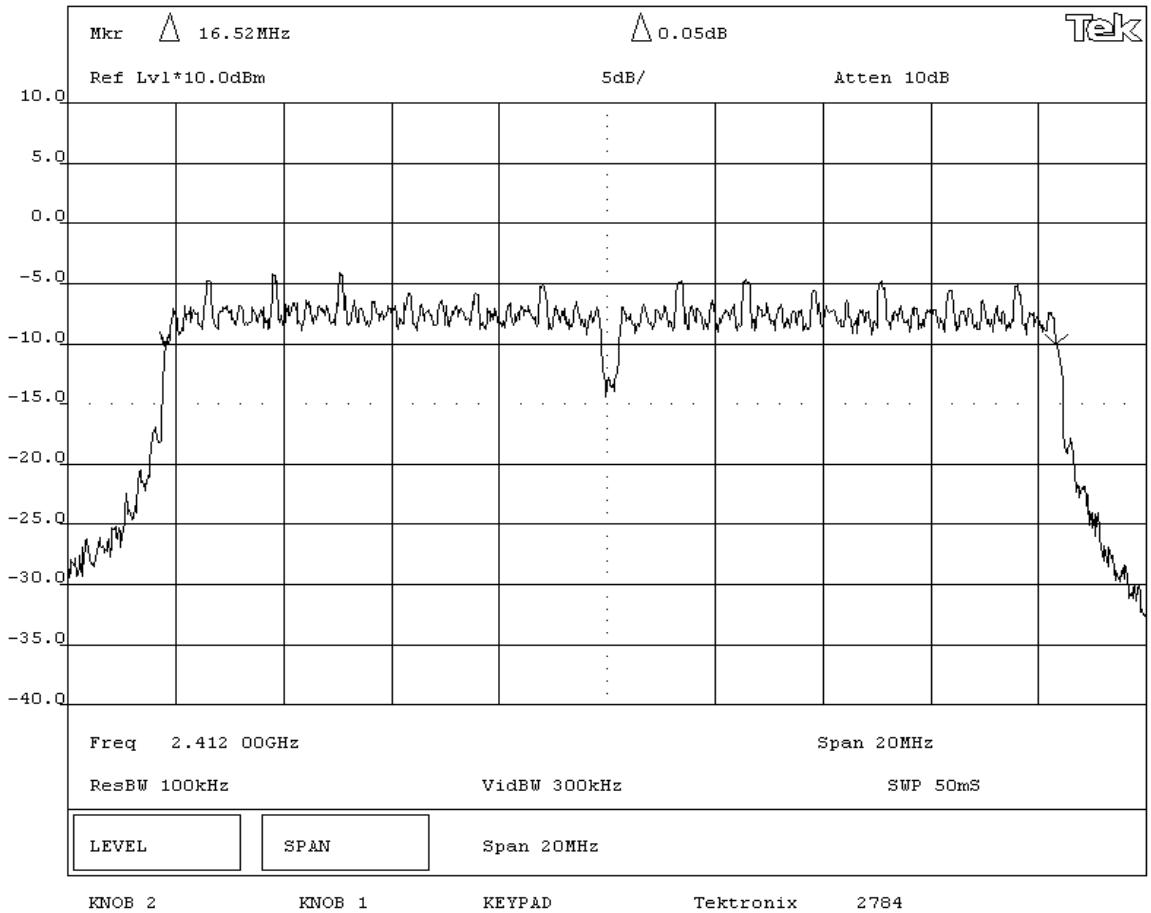
RESULTS	BANDWIDTH
Pass	16.52 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Low Channel - 802.11(g) 6 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

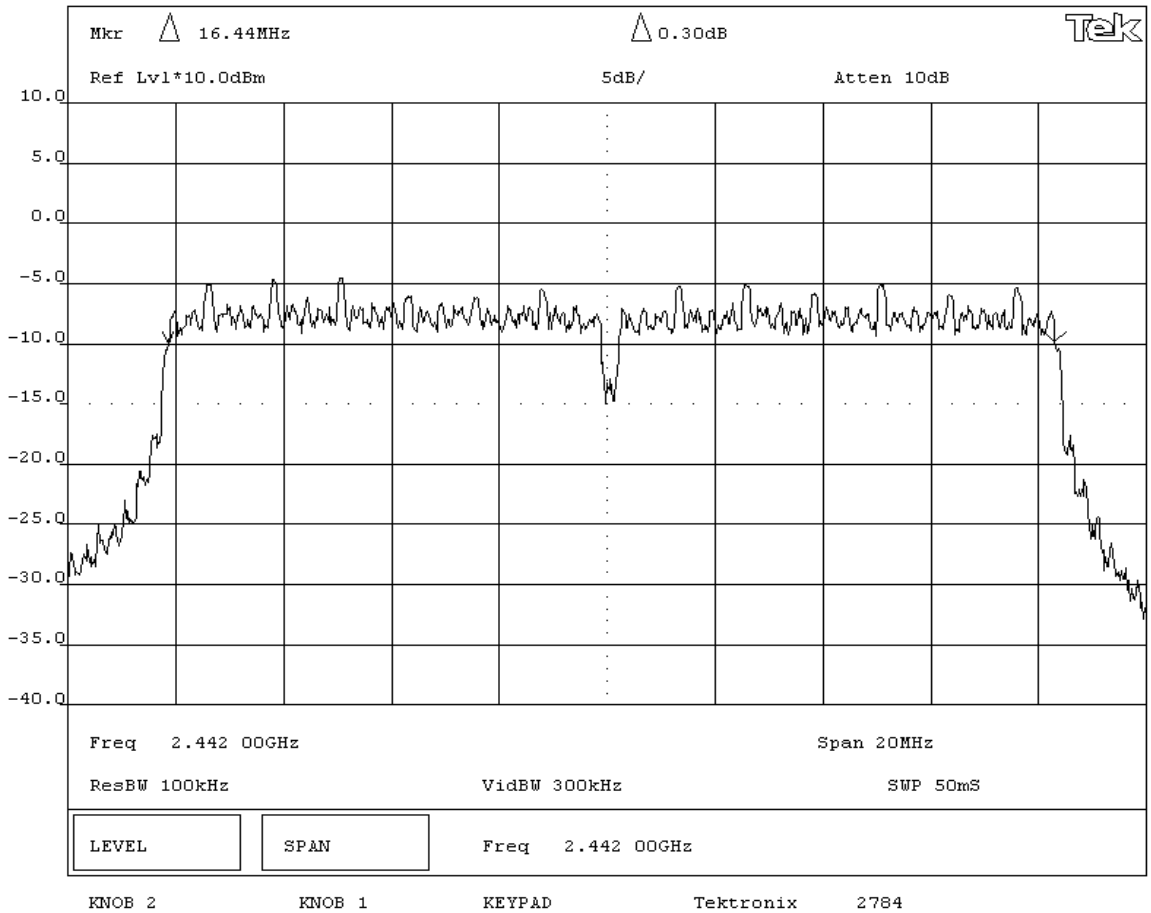
RESULTS	BANDWIDTH
Pass	16.44 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Mid Channel - 802.11(g) 6 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

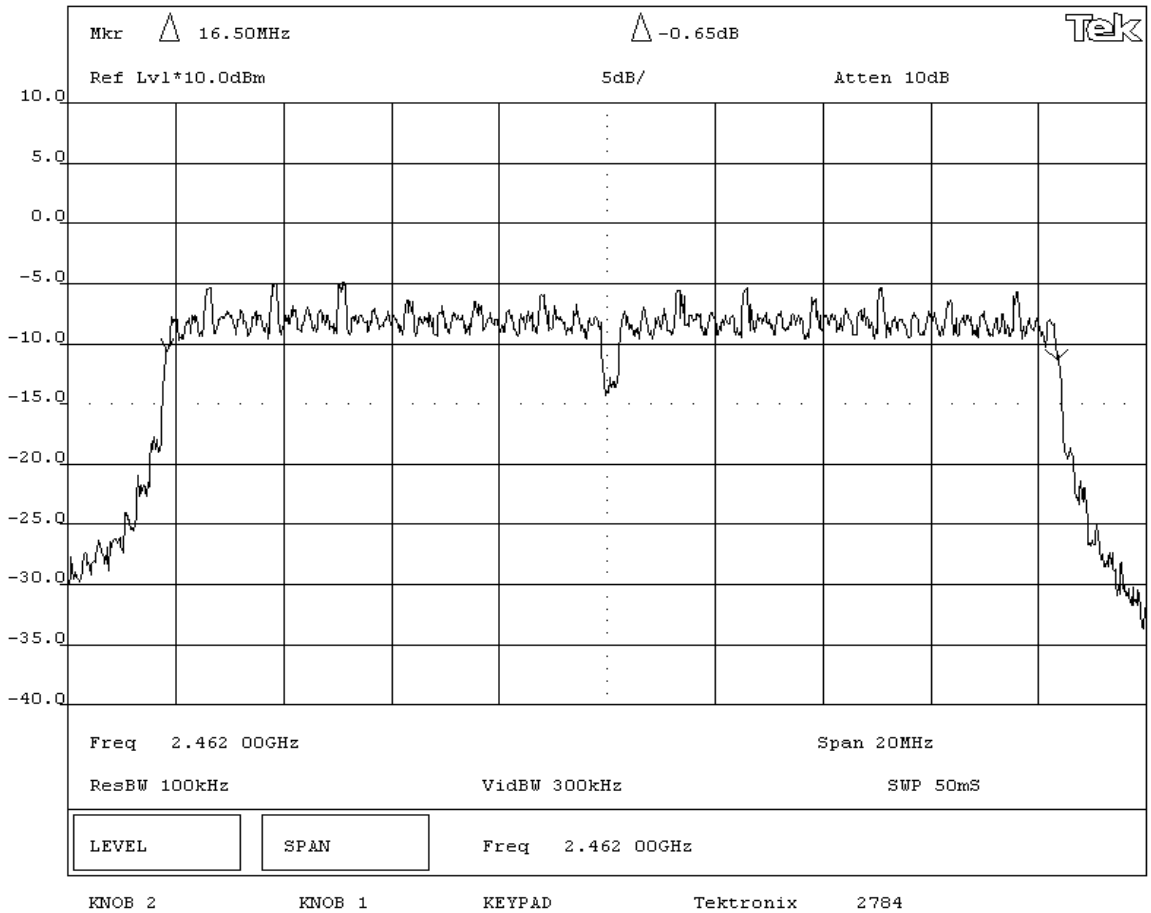
RESULTS	BANDWIDTH
Pass	16.5 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - High Channel - 802.11(g) 6 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

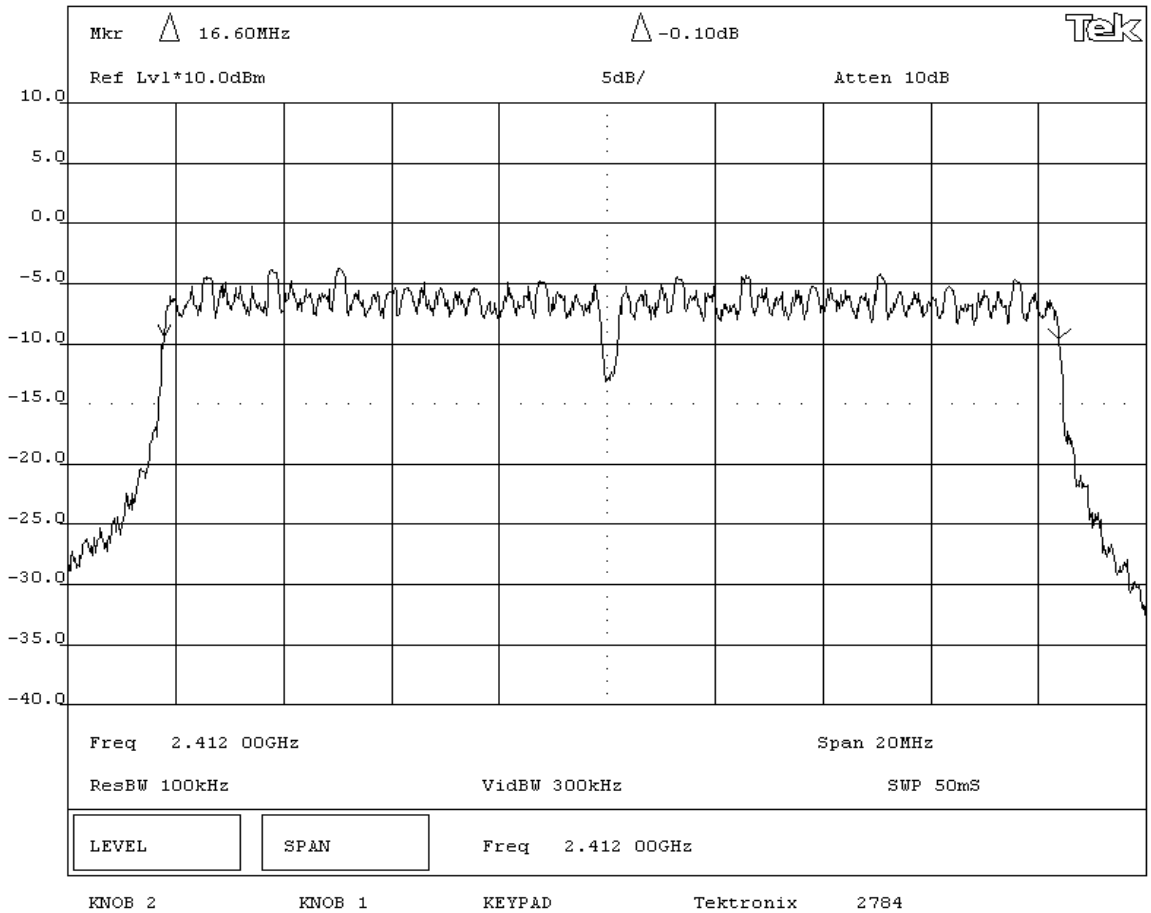
RESULTS	BANDWIDTH
Pass	16.6 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Low Channel - 802.11(g) 36 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

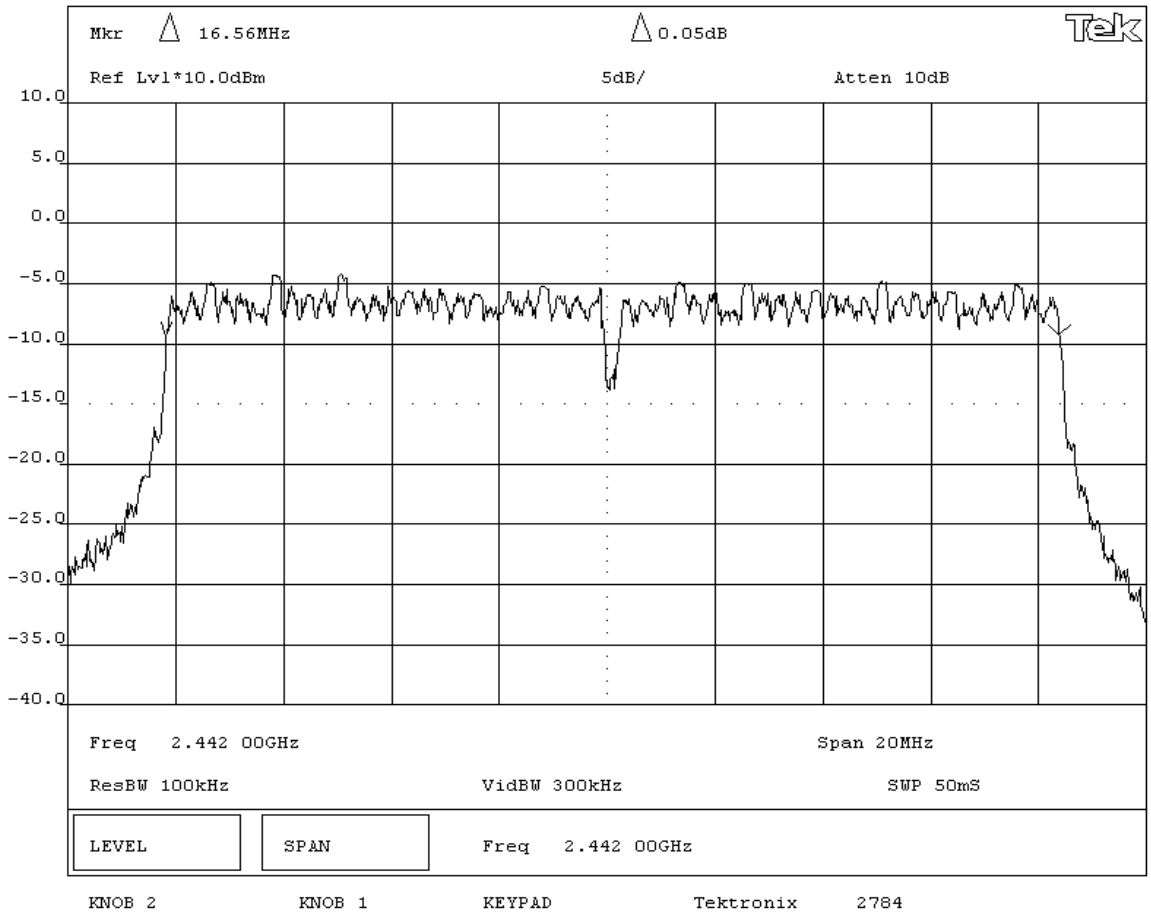
RESULTS	BANDWIDTH
Pass	16.56 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Mid Channel - 802.11(g) 36 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

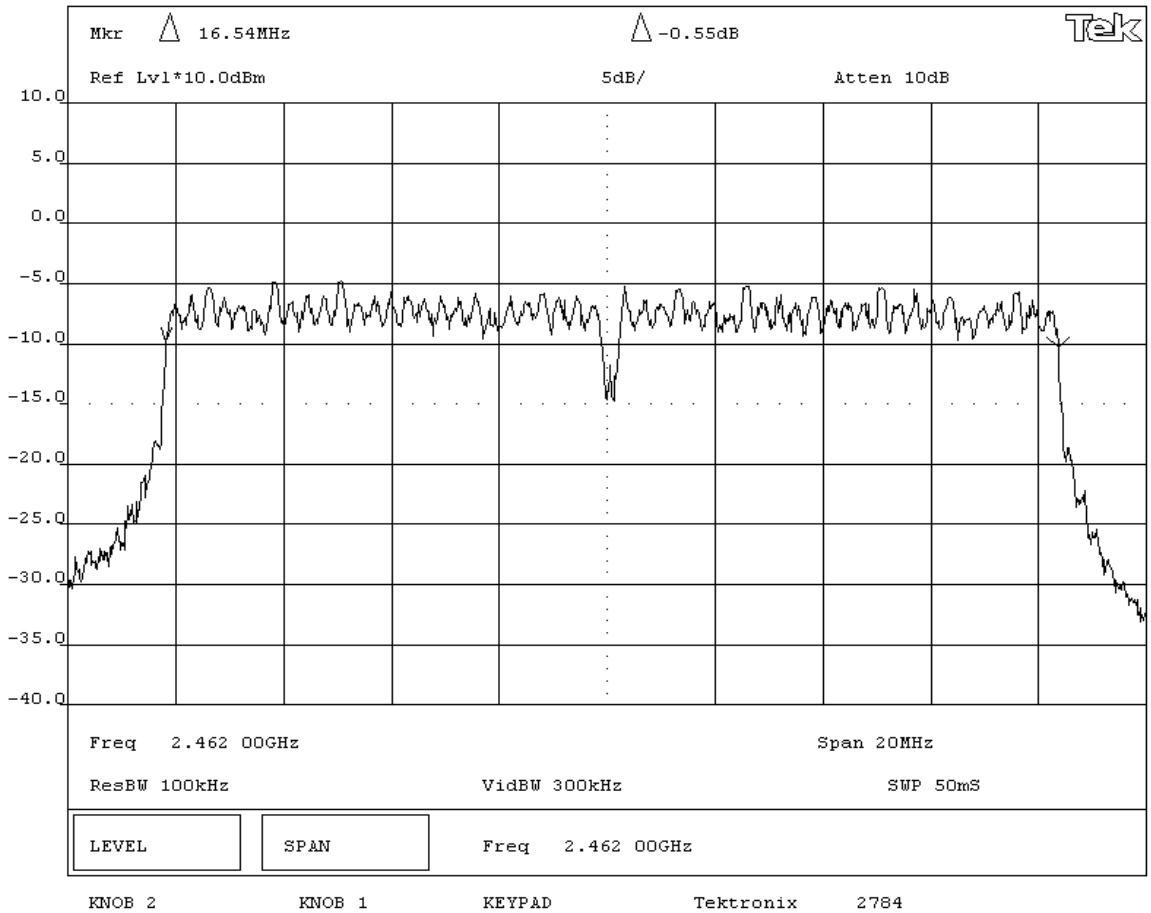
RESULTS	BANDWIDTH
Pass	16.54 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - High Channel - 802.11(g) 36 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

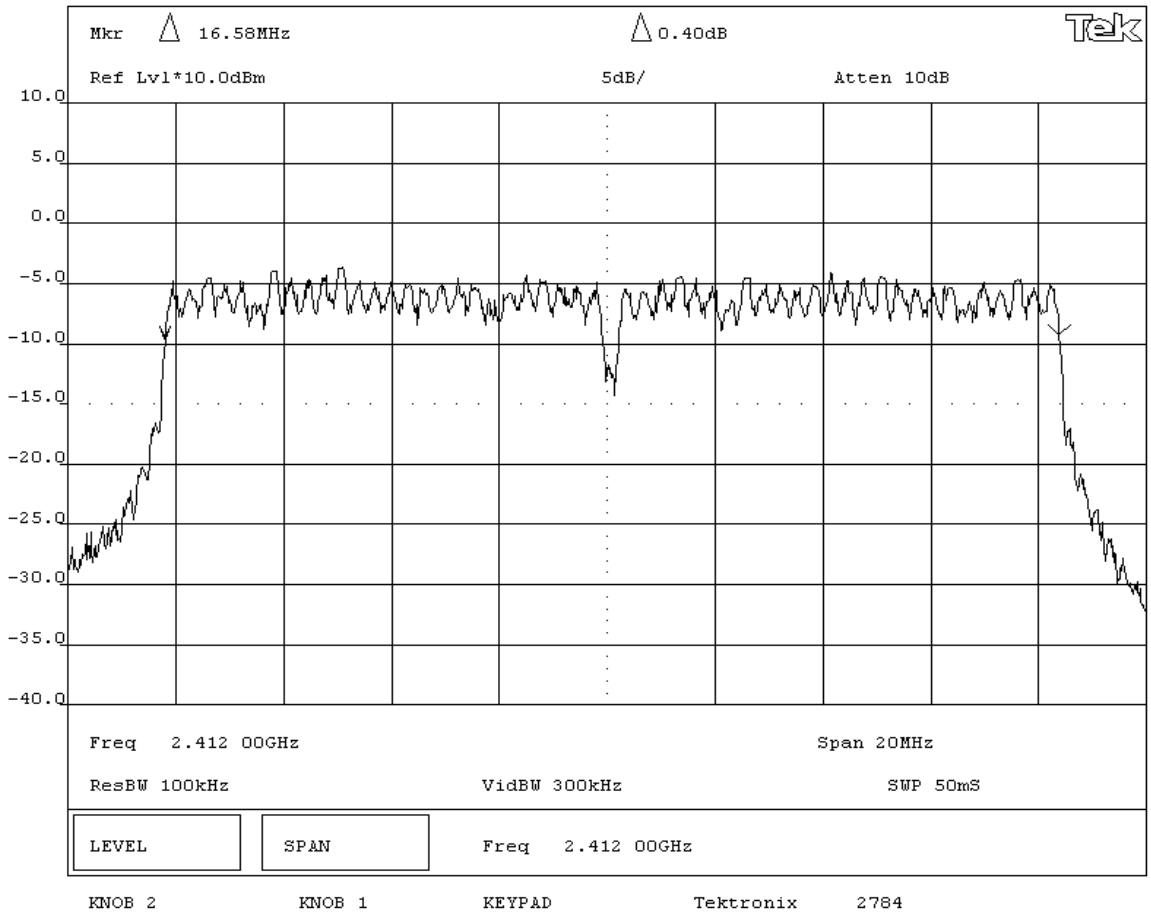
RESULTS	BANDWIDTH
Pass	16.58 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Low Channel - 802.11(g) 54 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

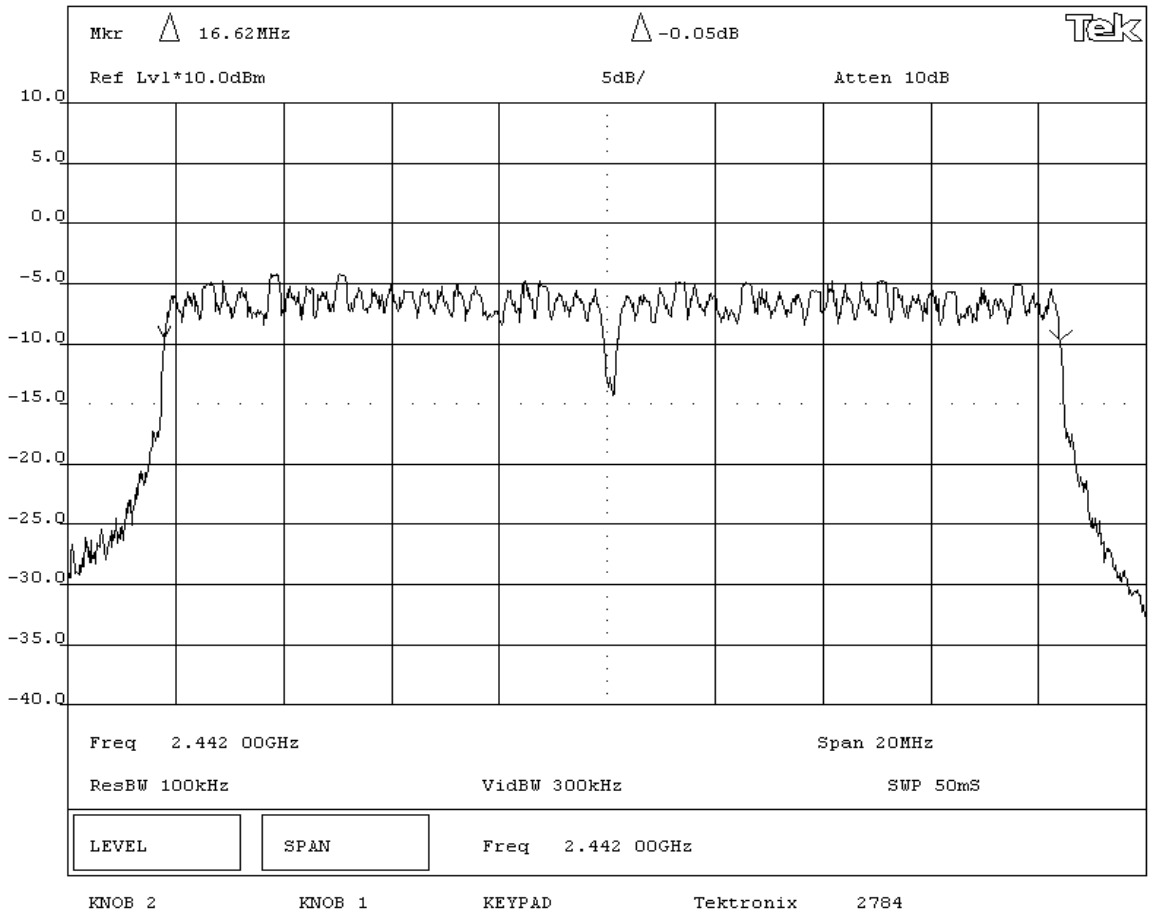
RESULTS	BANDWIDTH
Pass	16.62 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - Mid Channel - 802.11(g) 54 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	802.11(b)/(g) radio in 700C			Work Order:	ITRM0057
Serial Number:	TCKRNA-453387442			Date:	01/24/05
Customer:	INTERMEC Technologies			Temperature:	22°C
Attendees:	None	Tested by:	Rod Peloquin	Humidity:	39%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(a)(2)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

The minimum 6dB bandwidth is 500KHz

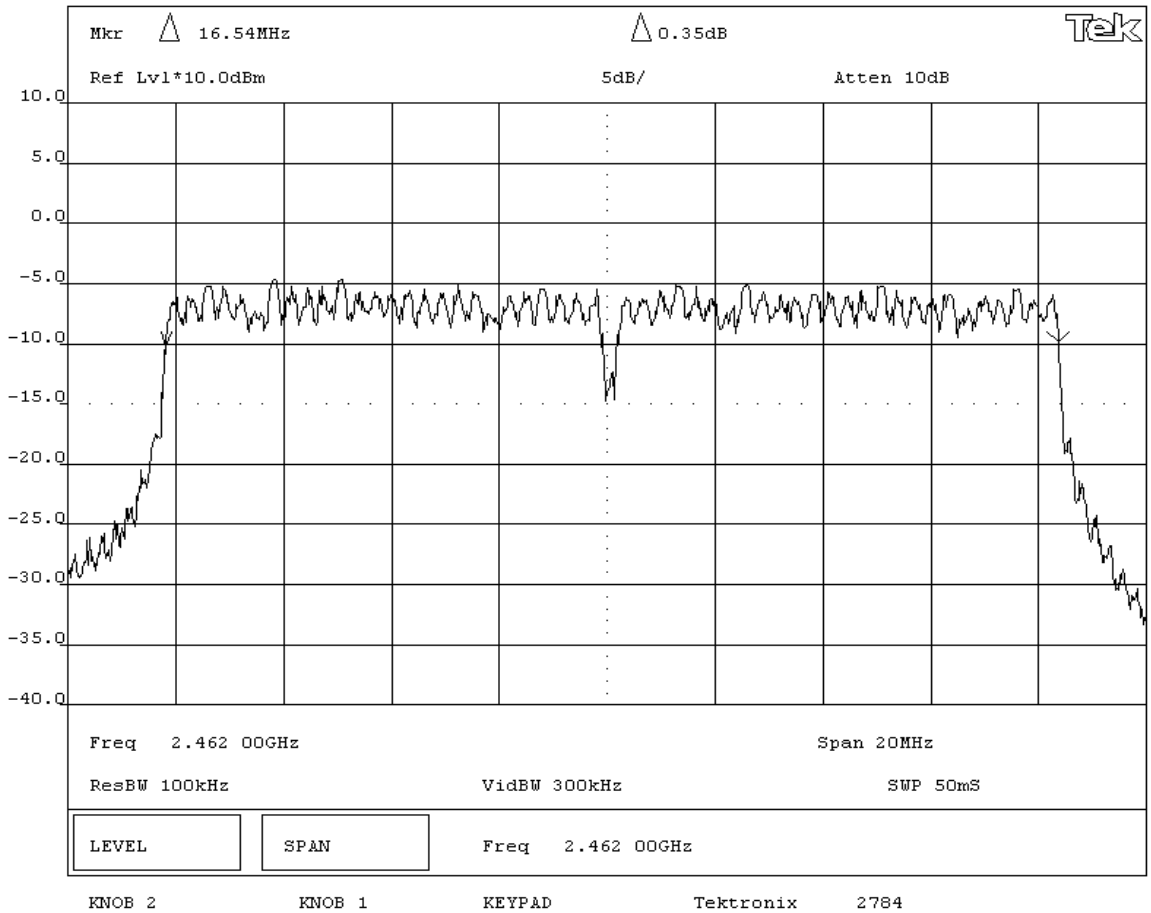
RESULTS	BANDWIDTH
Pass	16.54 MHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Occupied Bandwidth - High Channel - 802.11(g) 54 Mbit



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:
Low
Mid
High

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
1 Mbps (802.11b)
11 Mbps (802.11b)
6 Mbps (802.11g)
36 Mbps (802.11g)
54 Mbps (802.11g)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC, 60 Hz.

Software\Firmware Applied During Test			
Exercise software	Test Utility	**Version**	0.4
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(b)/(g) radio	Intermec Technologies Corporation	2610CF	TCKRNA-453387442
AC Adapter	Intermec Technologies Corporation	FW1812	011025
Host Device	Intermec Technologies Corporation	700C	00490500002

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**
Power Meter	Hewlett Packard	E4418A	SPA	07/23/2004	24 mo
Power Sensor	Hewlett-Packard	8481H	SPB	07/23/2004	24 mo
Signal Generator	Hewlett Packard	8341B	TGN	01/23/2004	13 mo
Oscilloscope	Tektronix	TDS 3052	TOF	12/02/2004	13 mo
RF Detector	RLC Electronics	CR-133-R	ZZA	NCR	NA

Test Description

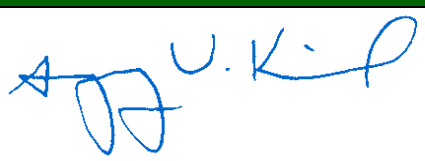
Requirement: Per 47 CFR 15.247(b)(3), the maximum peak output power must not exceed 1 Watt.

Configuration: The peak output power was measured with the EUT set to low, medium, and high transmit frequencies. The EUT was transmitting at its maximum output power. The data rate of the radio was varied to determine the level that produced the highest output power.

The measurement was made using a direct connection between the RF output of the EUT and a RF detector diode. The DC output of the diode was measured with the oscilloscope. The signal generator, tuned to the transmit frequency, was then substituted for the EUT. The CW output of the signal generator was adjusted until the DC output of the RF detector diode match the peak level produced when connected to the EUT. To further reduce measurement error, the power meter and sensor were then used to measure the output power level of the signal generator.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36dBm.

Completed by:



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	Scott Holub	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(b)(3)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, at maximum output power. 802.11(b) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak conducted output power does not exceed 1 Watt

RESULTS	AMPLITUDE
Pass	48.9 mW

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Output Power - Low, Mid, & High Channels

Data Rate = 1 Mbit

Frequency (MHz)	Power (mW)
2412	48.9
2442	37.8
2462	35.0

Data Rate = 11 Mbit

Frequency (MHz)	Power (mW)
2412	48.9
2442	38.6
2462	35.2

NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	Scott Holub	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	47 CFR 15.247(b)(3)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, at maximum output power. 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak conducted output power does not exceed 1 Watt

RESULTS	AMPLITUDE
Pass	60.0 mW

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Output Power - Low, Mid, & High Channels

Data Rate = 6 Mbit

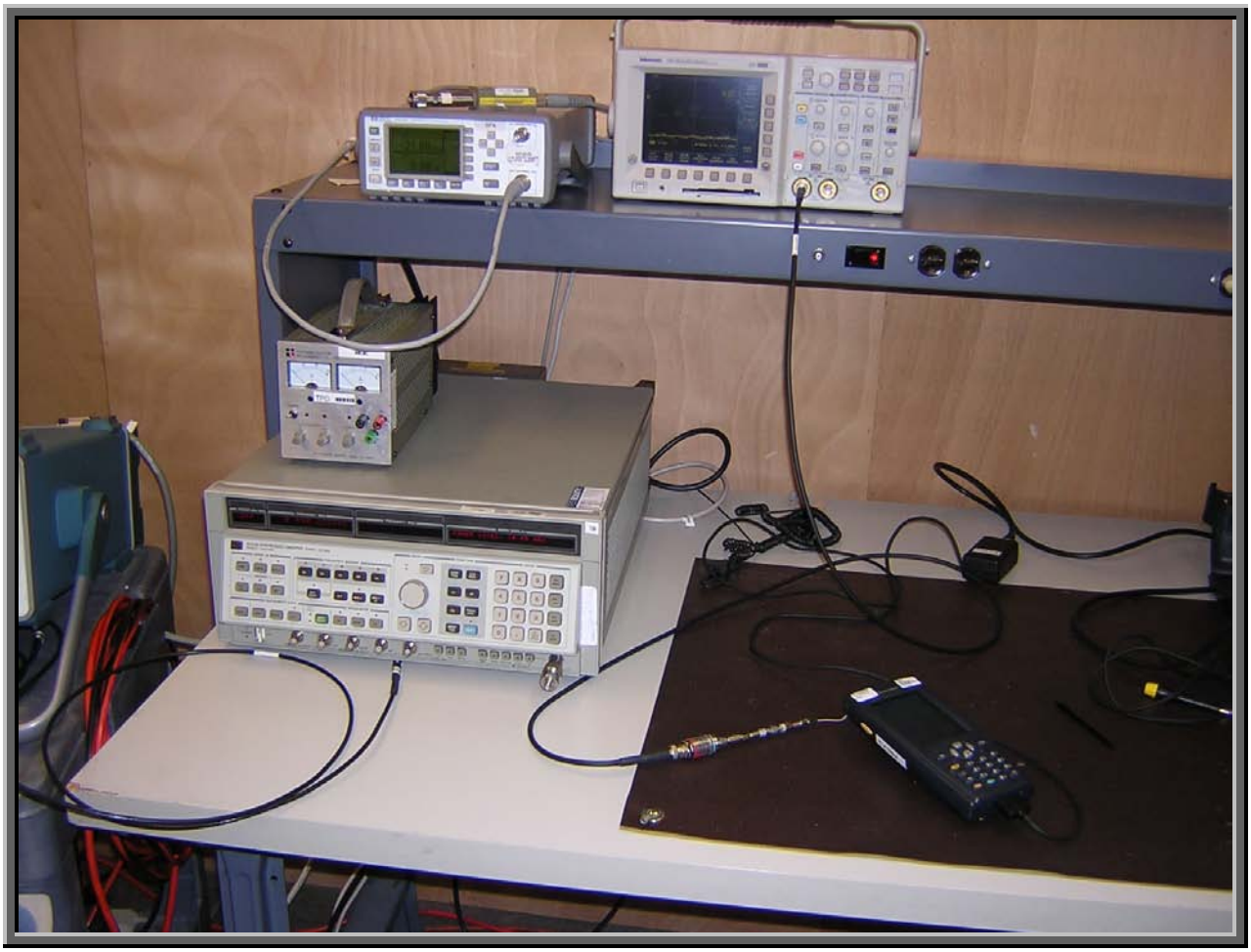
Frequency (MHz)	Power (mW)
2412	43.5
2442	42.4
2462	40.4

Data Rate = 36 Mbit

Frequency (MHz)	Power (mW)
2412	60.0
2442	49.8
2462	46.5

Data Rate = 54 Mbit

Frequency (MHz)	Power (mW)
2412	42.1
2442	34.8
2462	31.1



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:
Low
High

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
1 Mbps (802.11b)
11 Mbps (802.11b)
6 Mbps (802.11g)
36 Mbps (802.11g)
54 Mbps (802.11g)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC, 60 Hz.

Other Settings Investigated:
802.11(b)
802.11(g)

Software\Firmware Applied During Test			
Exercise software	Test Utility	**Version**	0.4
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**
Host Device	Intermec Technologies Corporation	700C	00490500002
EUT- 802.11(b)/(g) radio	Intermec Technologies Corporation	2610CF	TCKRNA-453387442
AC Adapter	Intermec Technologies Corporation	FW1812	011025

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.					

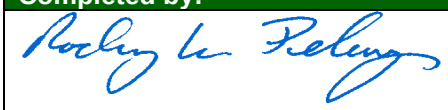
Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Tektronix	2784	AAO	01/02/2005	12 mo

Test Description

Requirement: Per 47 CFR 15.247(d), in any 100 kHz bandwidth outside the authorized band, the maximum level of radio frequency power must be at least 20dB down from the highest emission level within the authorized band. The measurement is made with the spectrum analyzer's resolution bandwidth set to 100 kHz, and the video bandwidth set to greater than or equal to the resolution bandwidth.

Configuration: The spurious RF conducted emissions at the edges of the authorized band were measured with the EUT set to low and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. The channels closest to the band edges were selected. The spectrum was scanned across each band edge from 25 MHz below the band edge to 25 MHz above the band edge.

Completed by:



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

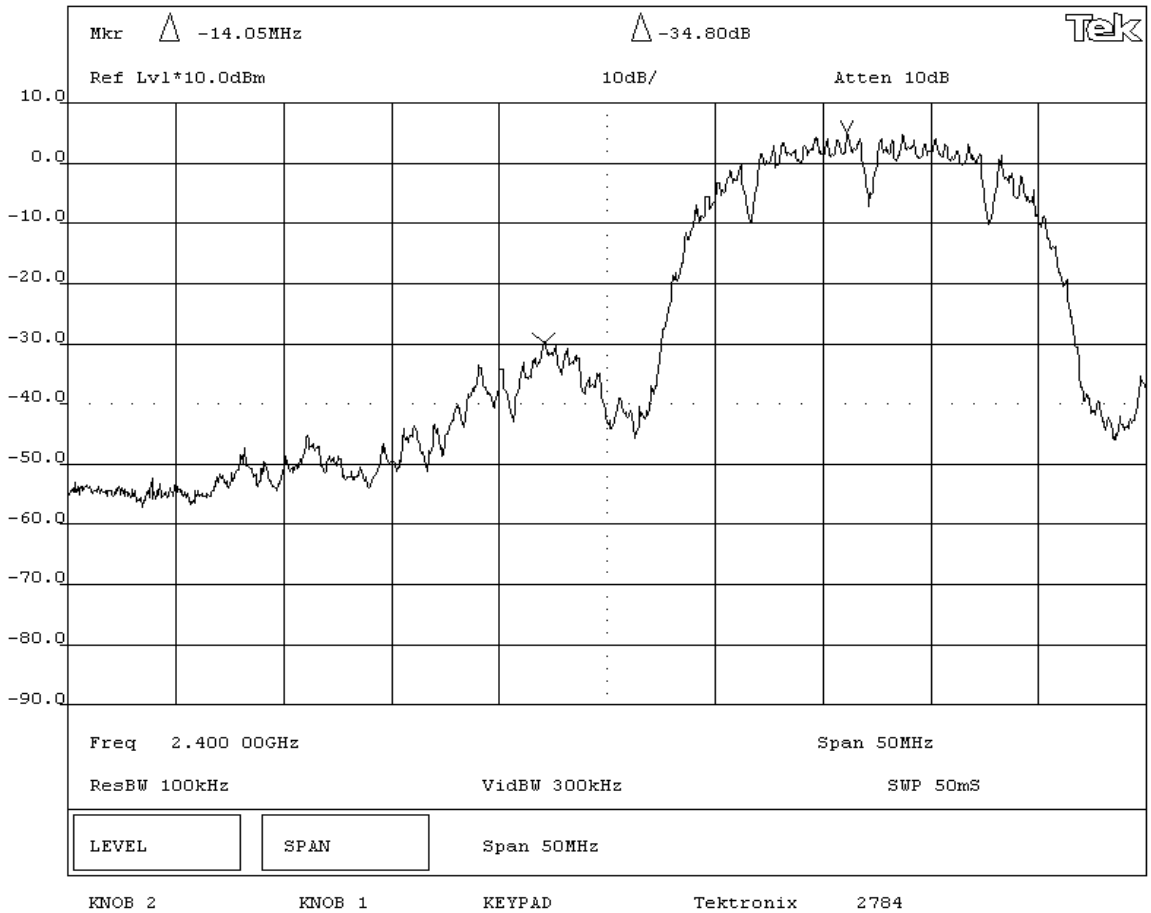
RESULTS	AMPLITUDE
Pass	-34.8 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - Low Channel - 802.11(b) 1 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

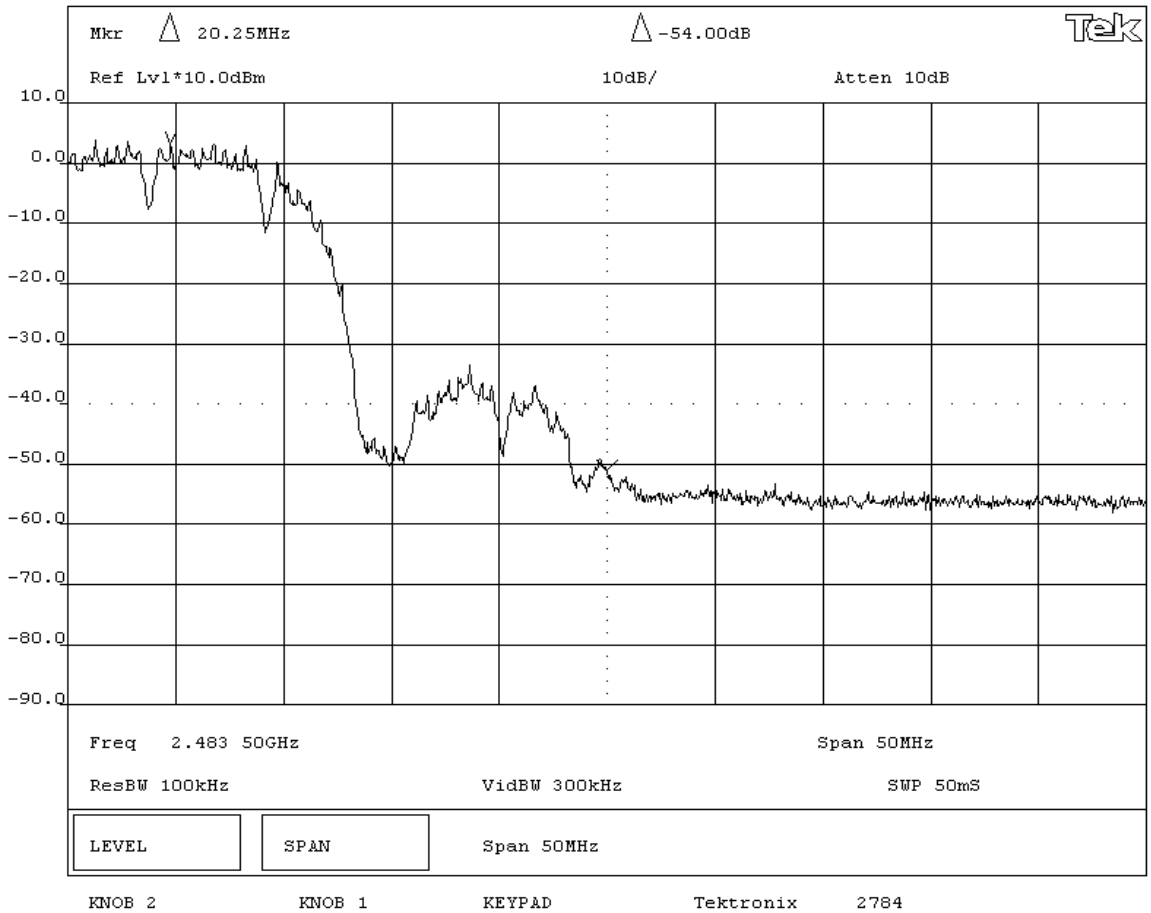
RESULTS	AMPLITUDE
Pass	-54.0 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - High Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

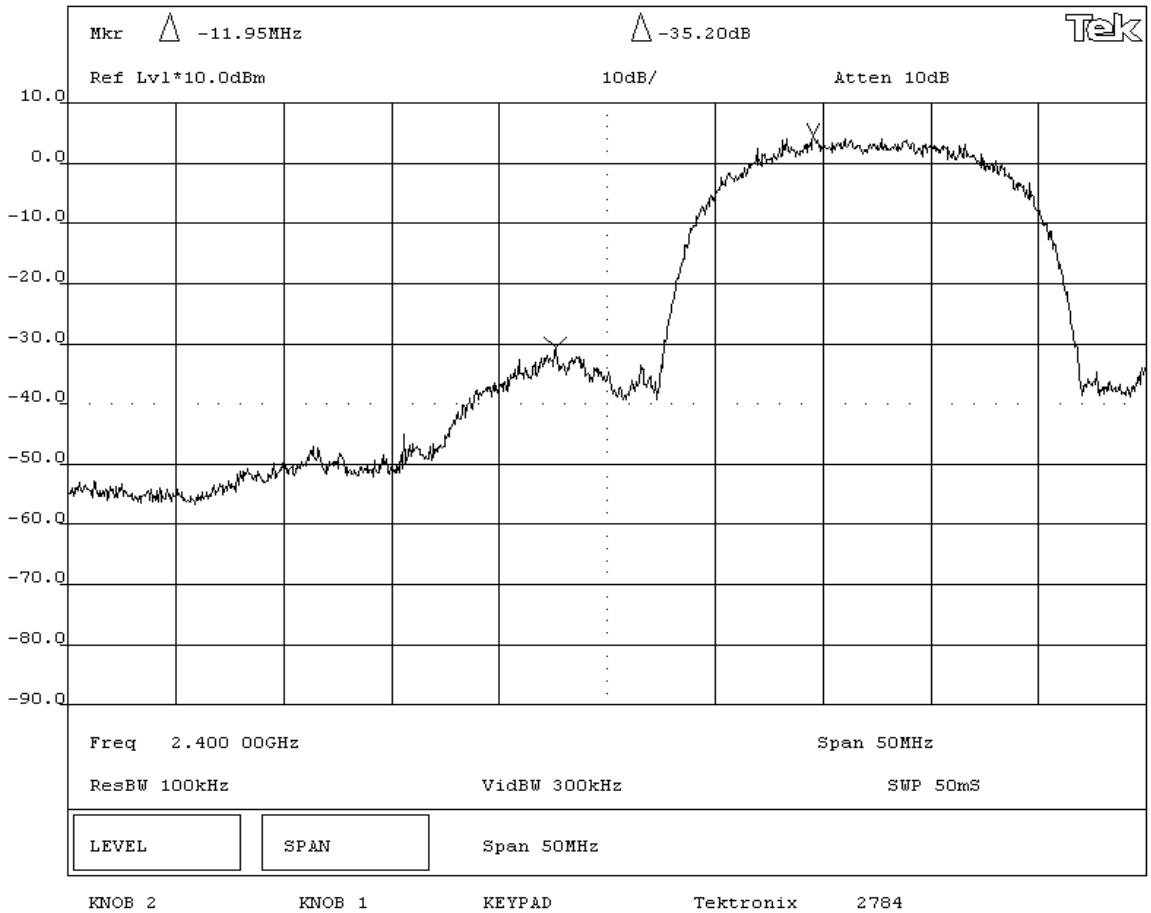
RESULTS	AMPLITUDE
Pass	-35.2 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - Low Channel - 802.11(b) 11 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

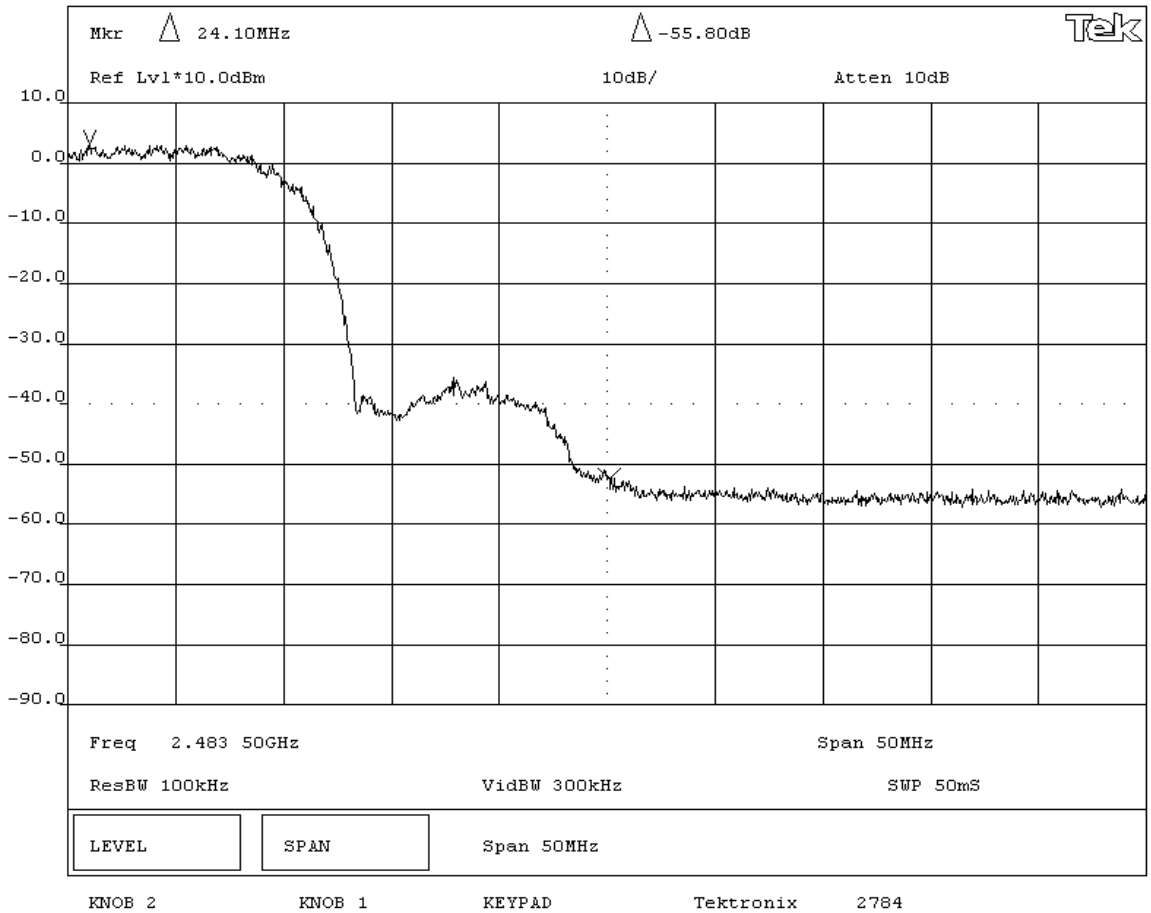
RESULTS	AMPLITUDE
Pass	-55.8 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - High Channel - 802.11(b) 11 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

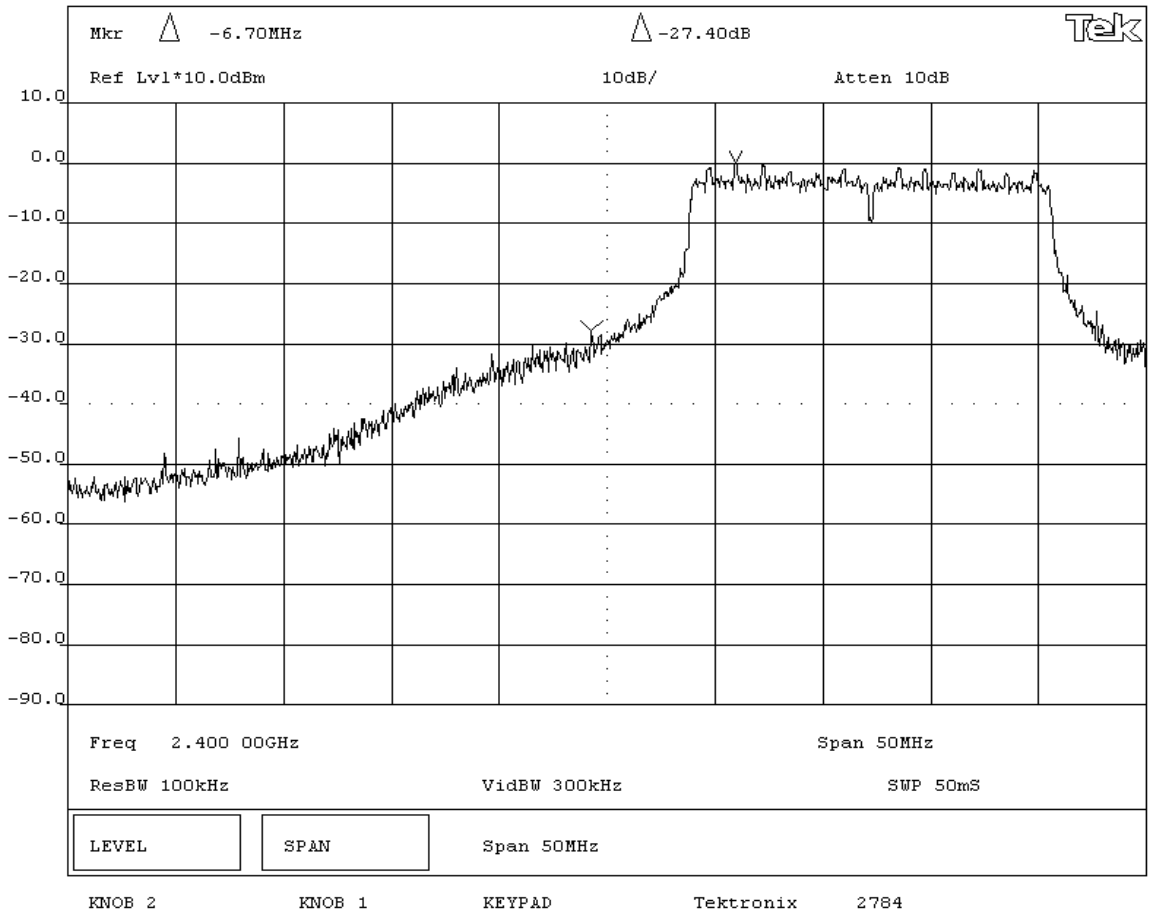
RESULTS	AMPLITUDE
Pass	-27.4 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - Low Channel - 802.11(g) 6 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

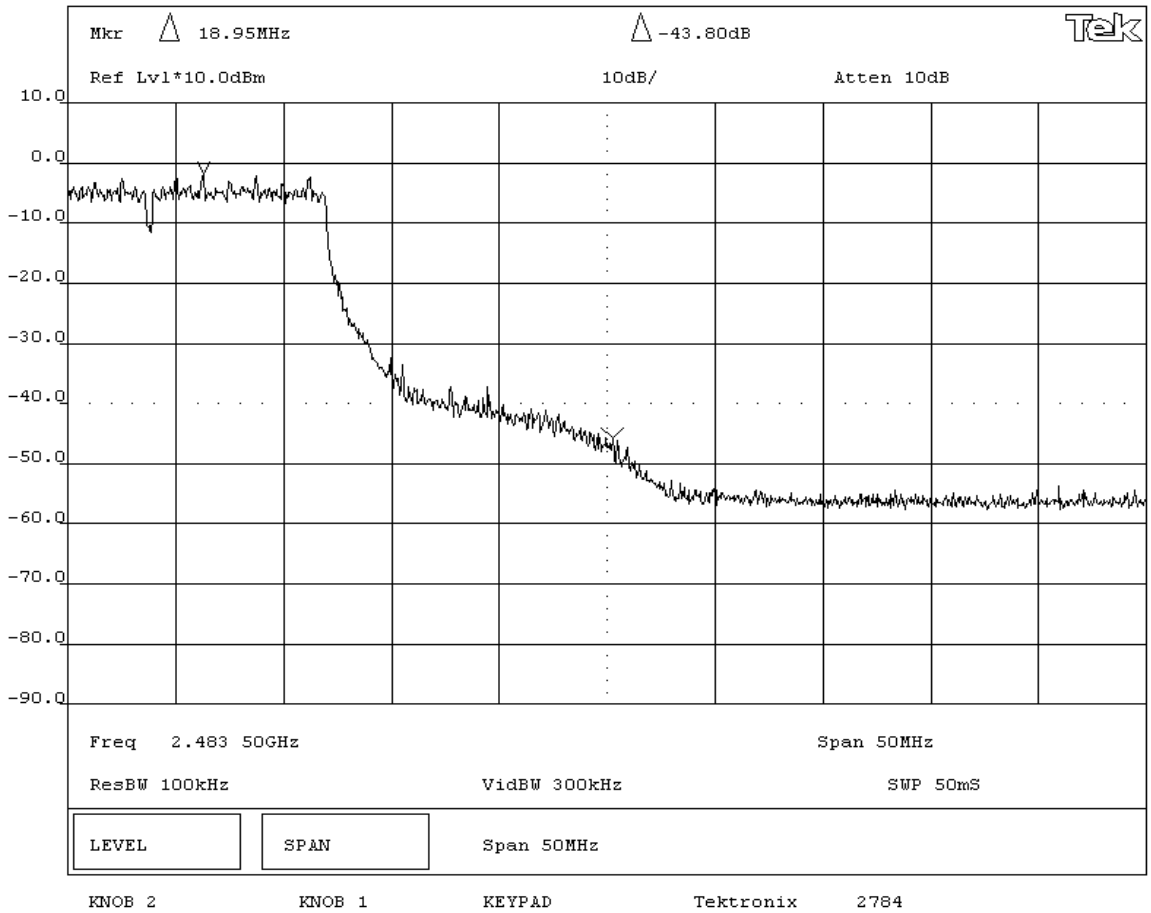
RESULTS	AMPLITUDE
Pass	-43.8 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - High Channel - 802.11(g) 6 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

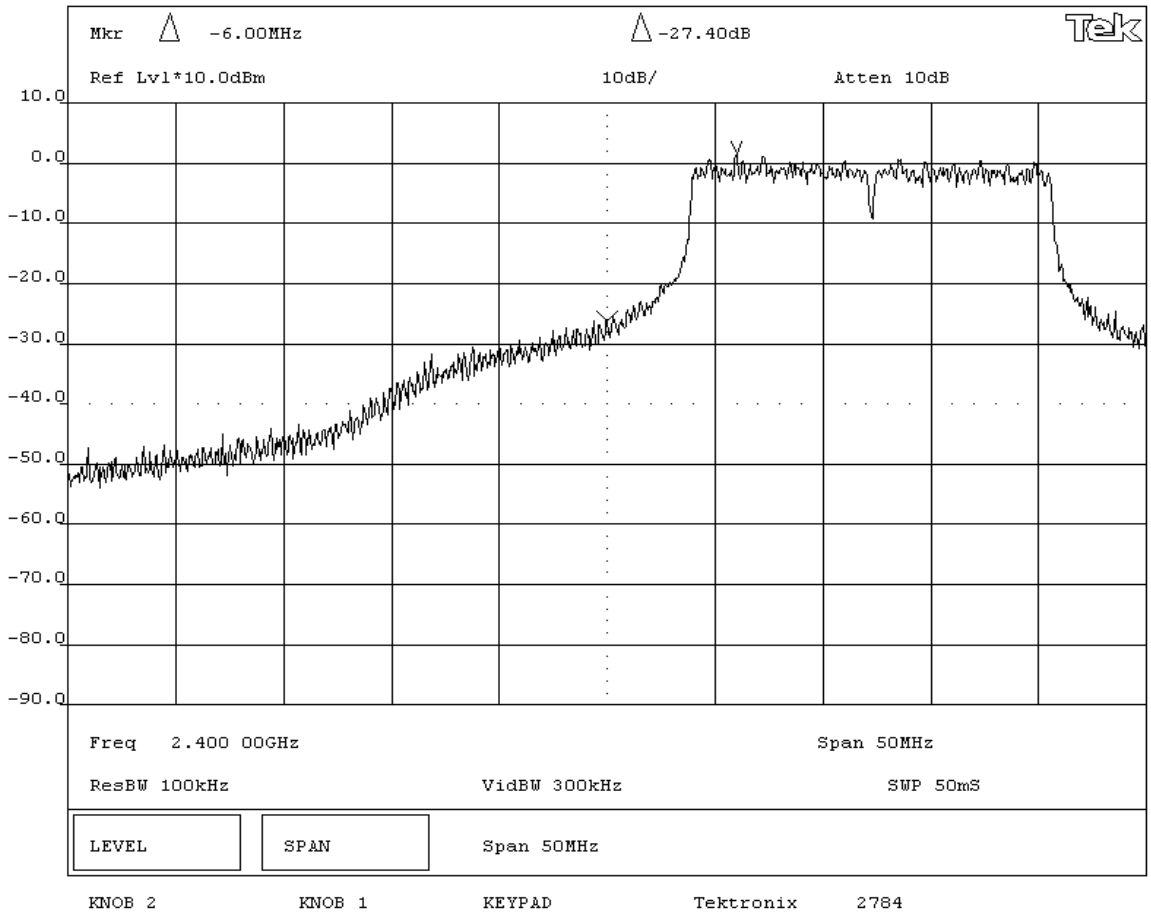
RESULTS	AMPLITUDE
Pass	-27.4 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - Low Channel - 802.11(g) 36 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

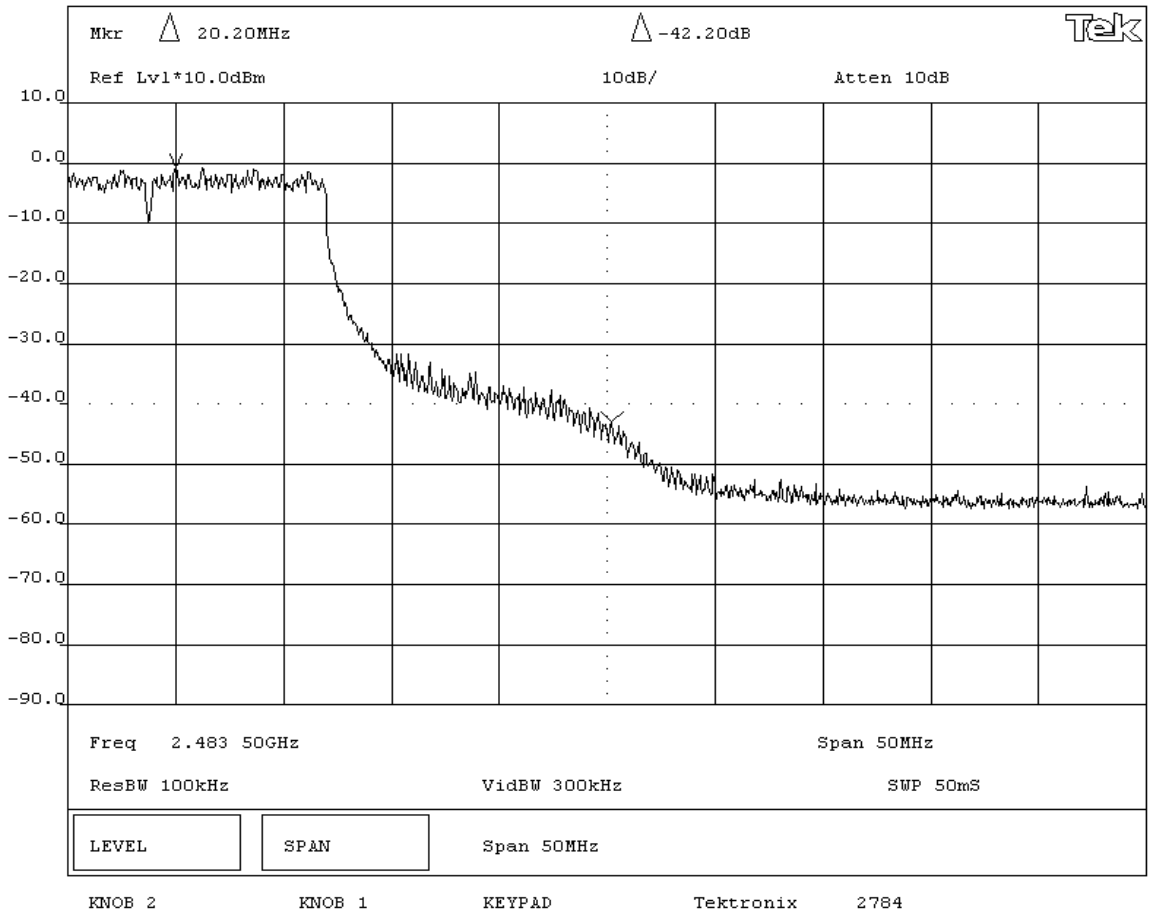
RESULTS	AMPLITUDE
Pass	-42.2 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - High Channel - 802.11(g) 36 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

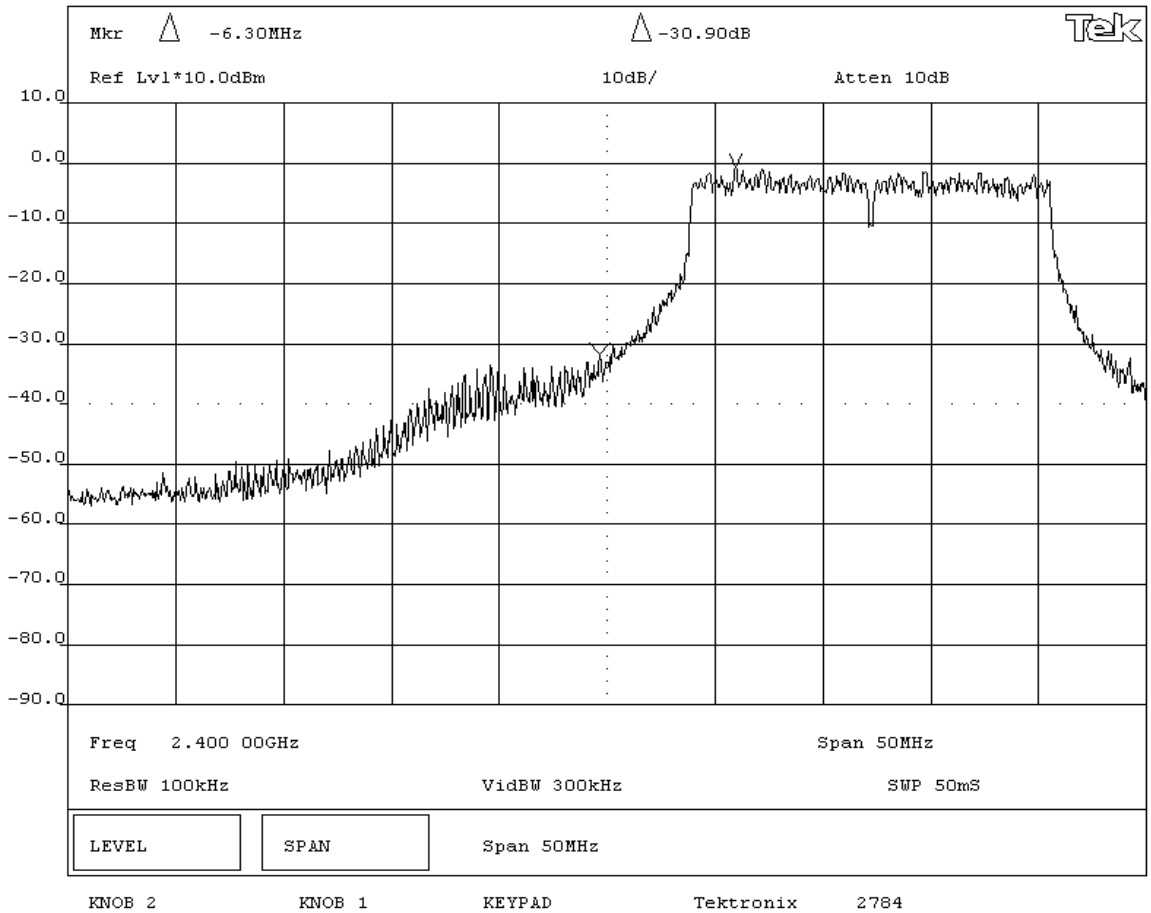
RESULTS	AMPLITUDE
Pass	-30.9 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - Low Channel - 802.11(g) 54 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42%
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission at the edge of the authorized band is 20 dB down from the fundamental.

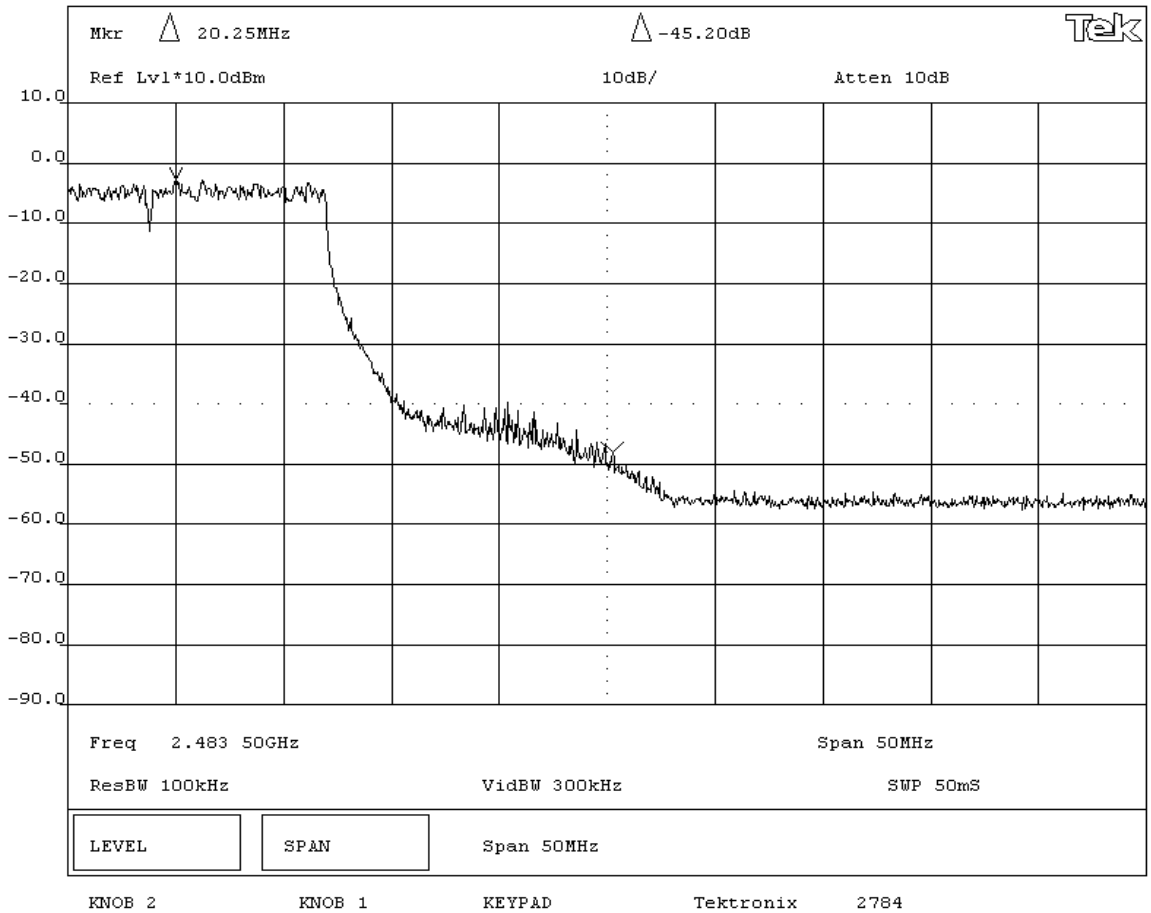
RESULTS	AMPLITUDE
Pass	-45.2 dB

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Band Edge Compliance - High Channel - 802.11(g) 54 Mbit



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:
Low
Mid
High

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
1 Mbps (802.11b)
5.5 Mbps (802.11b)
11 Mbps (802.11b)
6 Mbps (802.11g)
36 Mbps (802.11g)
54 Mbps (802.11g)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC, 60 Hz.

Frequency Range Investigated			
Start Frequency	30 MHz	**Stop Frequency**	26 GHz

Software\Firmware Applied During Test			
Exercise software	Test Utility	**Version**	0.4
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(b)/(g) radio	Intermec Technologies Corporation	2610CF	TCKRNA-453387442
Host Device	Intermec Technologies Corporation	700C	00490500002
AC Adapter	Intermec Technologies Corporation	FW1812	011025

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.					

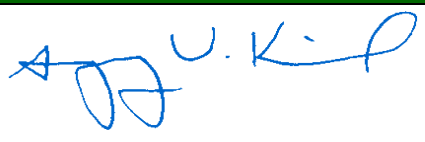
Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Tektronix	2784	AAO	01/02/2005	12 mo

Test Description

Requirement: Per 47 CFR 15.247(d), in any 100 kHz bandwidth outside the authorized band, the maximum level of radio frequency power must be at least 20dB down from the highest emission level within the authorized band. The measurement is made with the spectrum analyzer's resolution bandwidth set to 100 kHz, and the video bandwidth set to greater than or equal to the resolution bandwidth.

Configuration: The spurious RF conducted emissions were measured with the EUT set to low, medium, and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

Completed by:



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

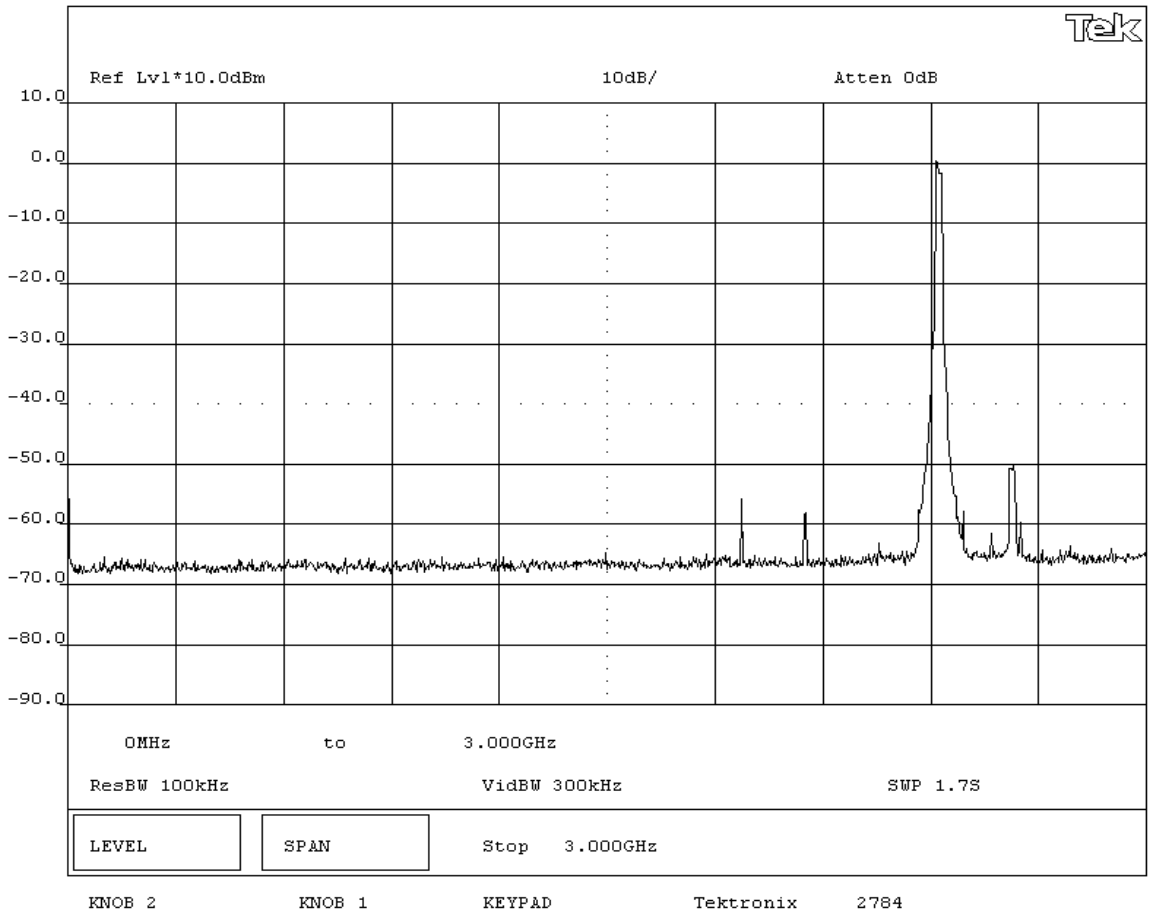
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Low Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

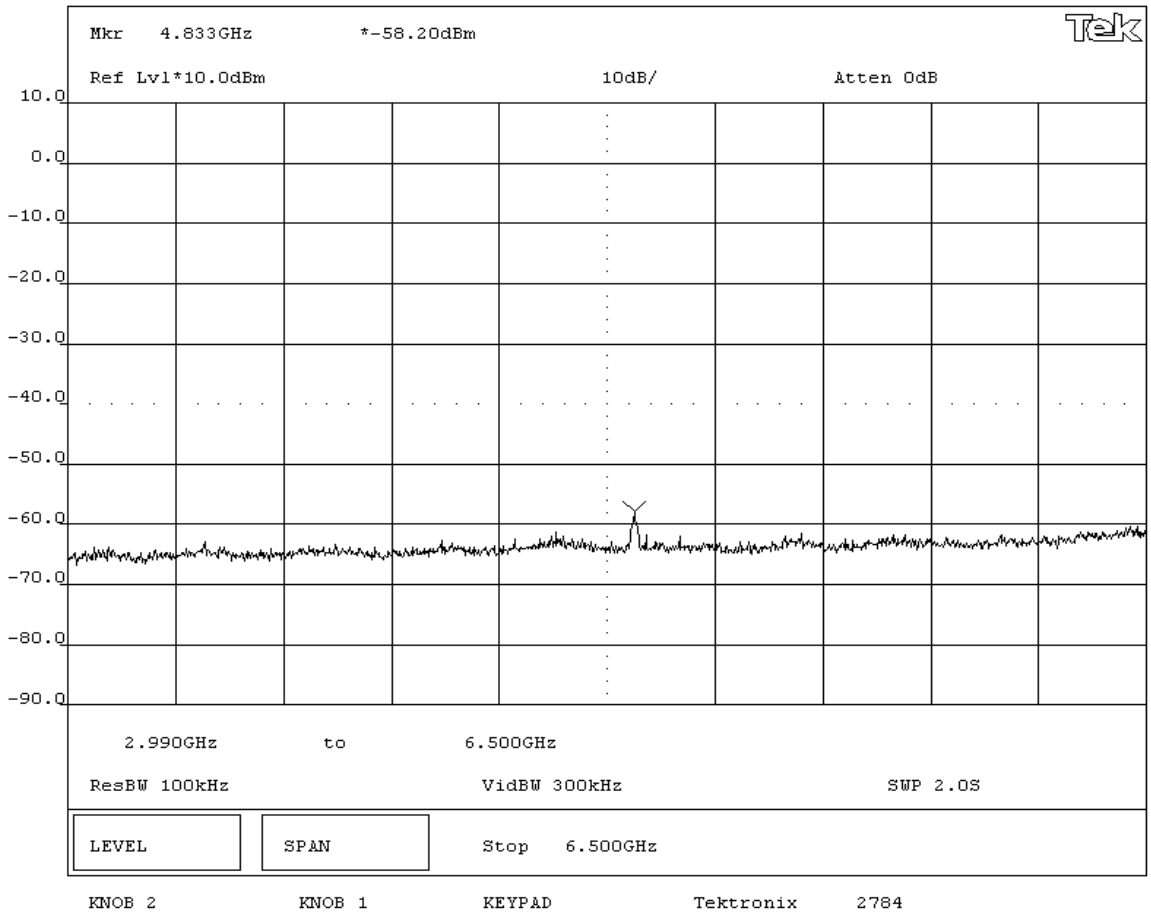
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Low Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

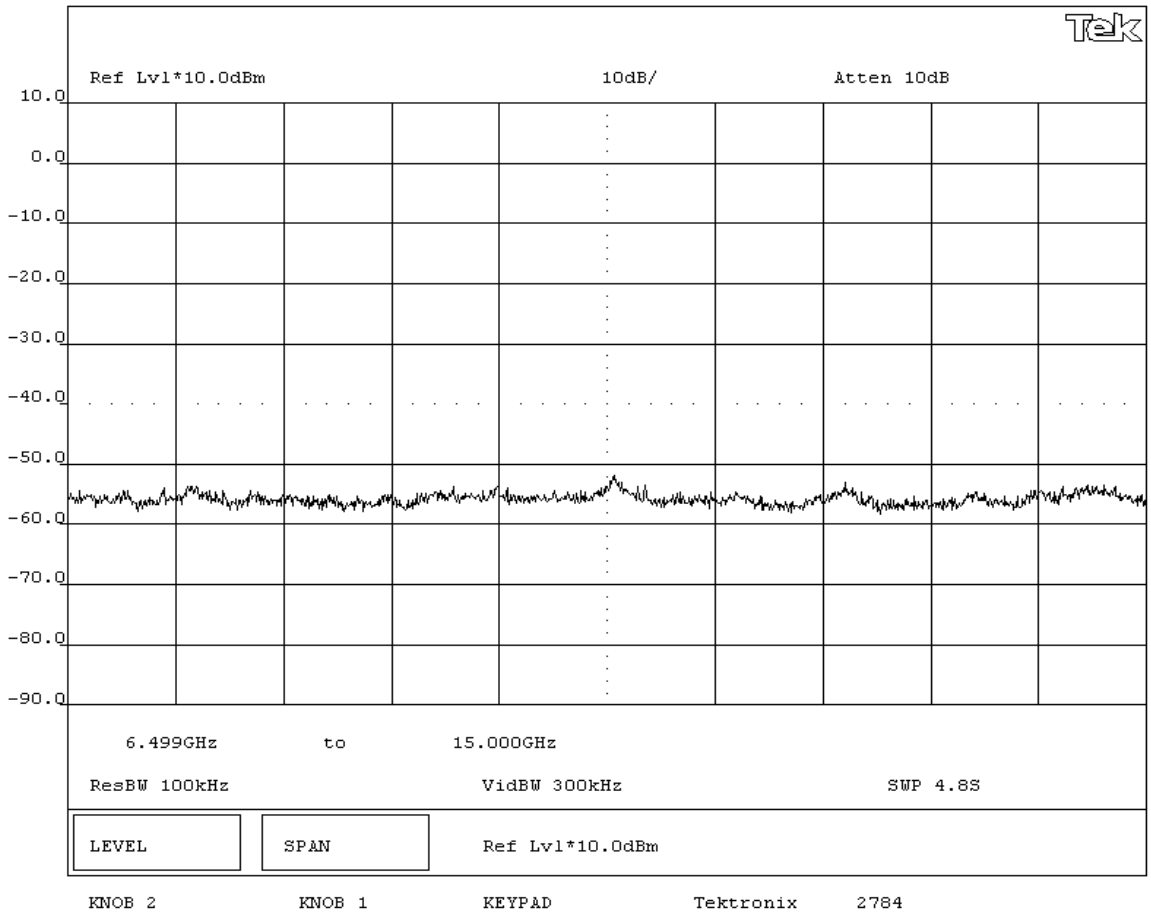
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Low Channel - 802.11(g) 6 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

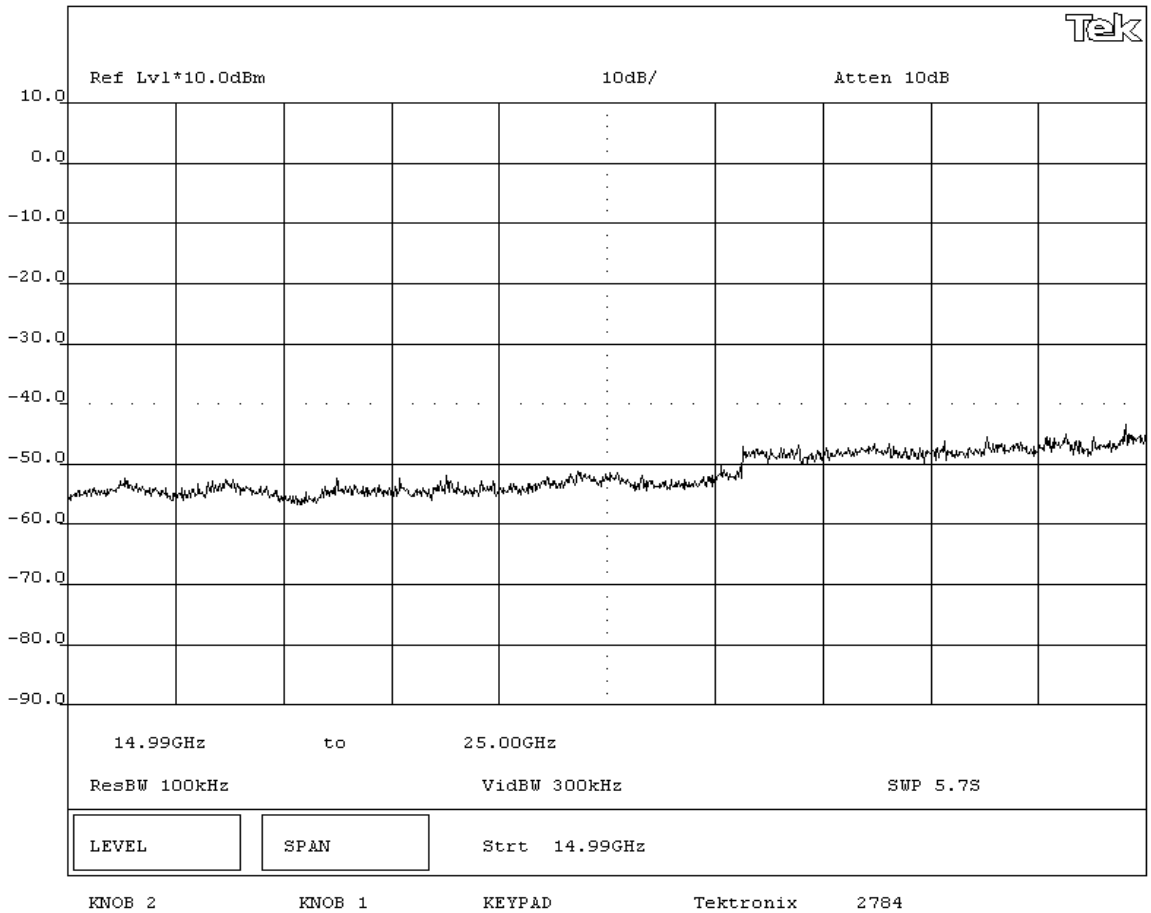
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - Low Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

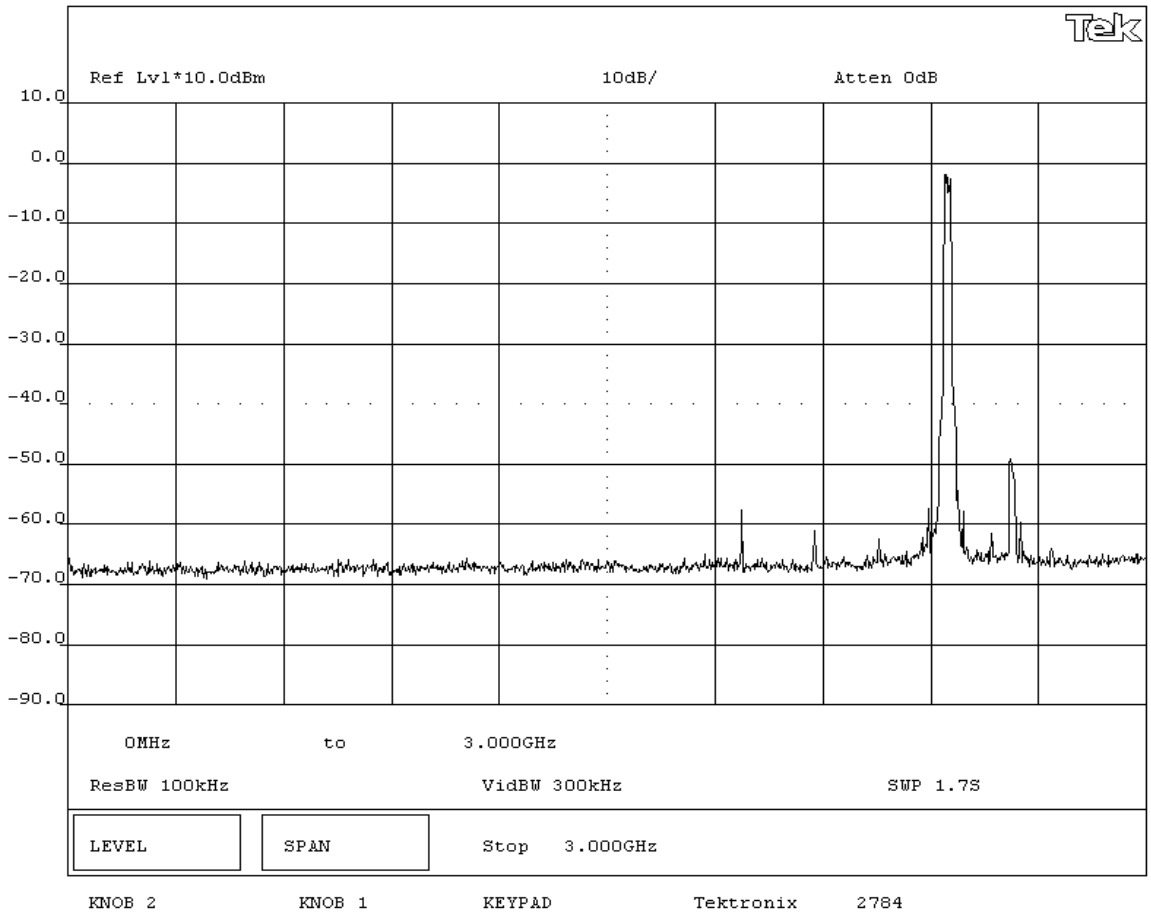
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Mid Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

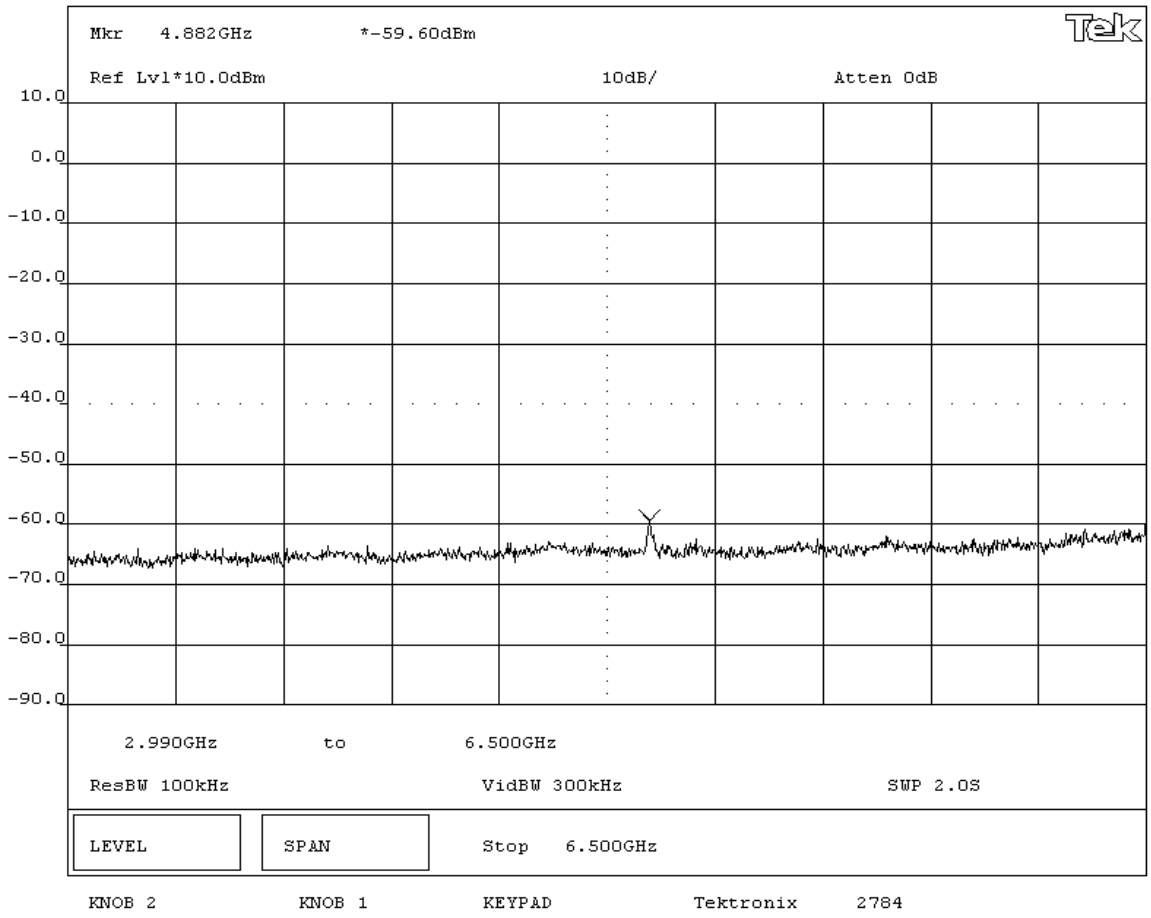
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Mid Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

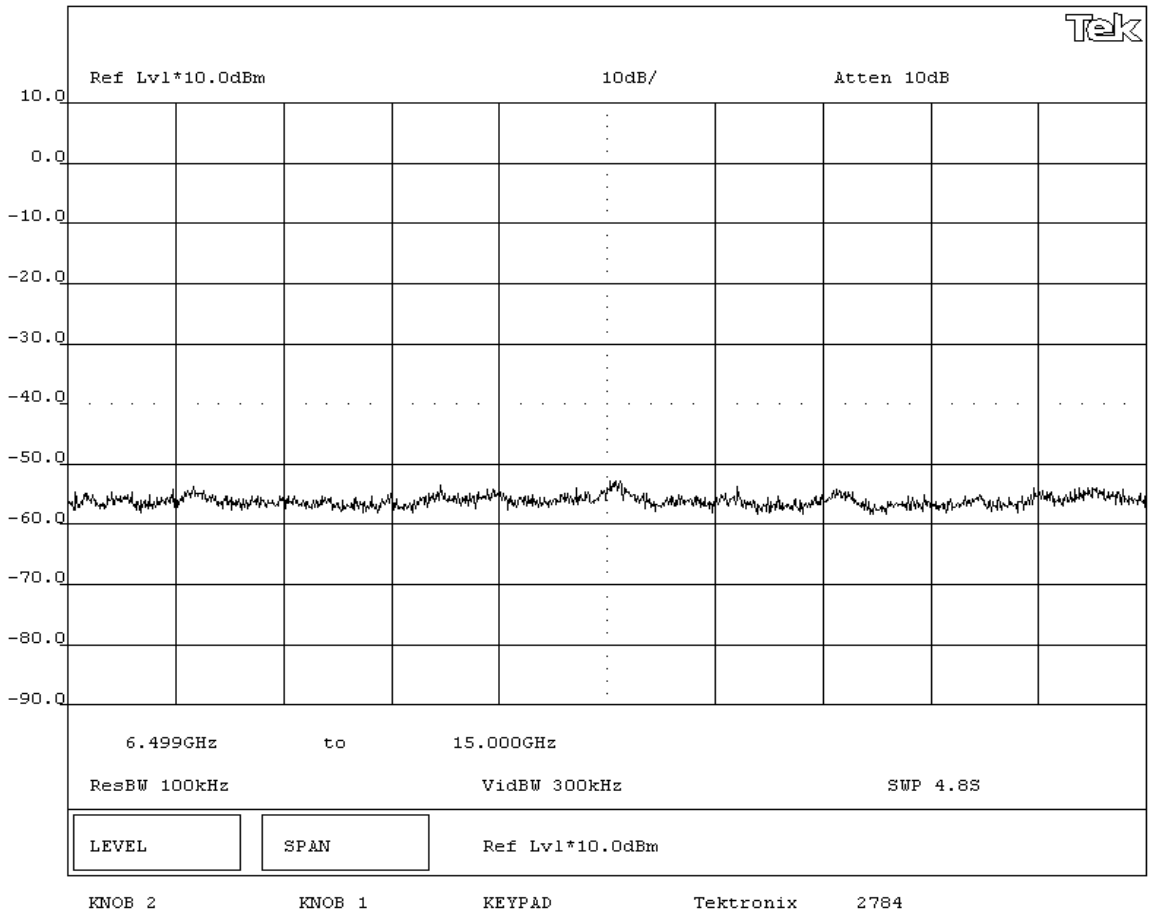
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Mid Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

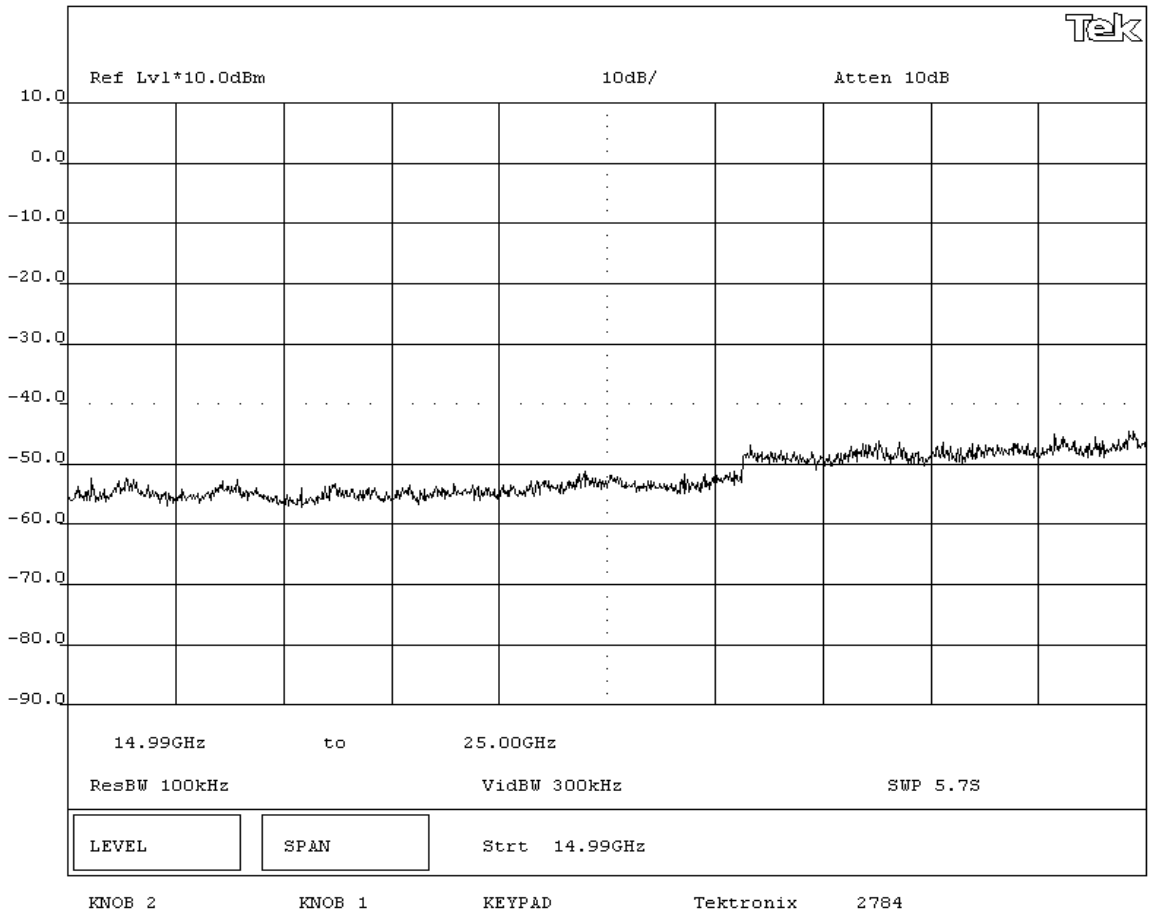
Pass

SIGNATURE

Tested By: A.J. U. Kiel

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - Mid Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

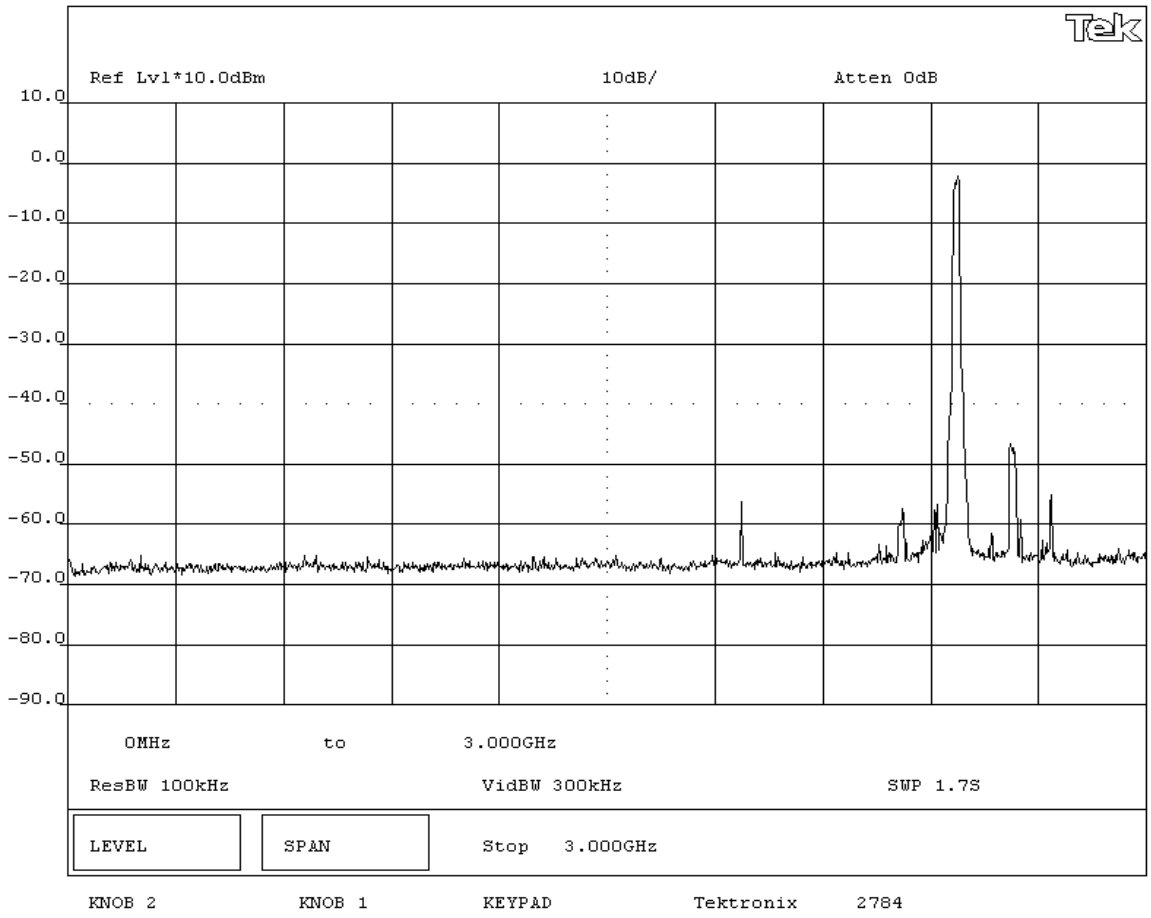
Pass

SIGNATURE

Tested By: A.J. U. Kiel

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - High Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

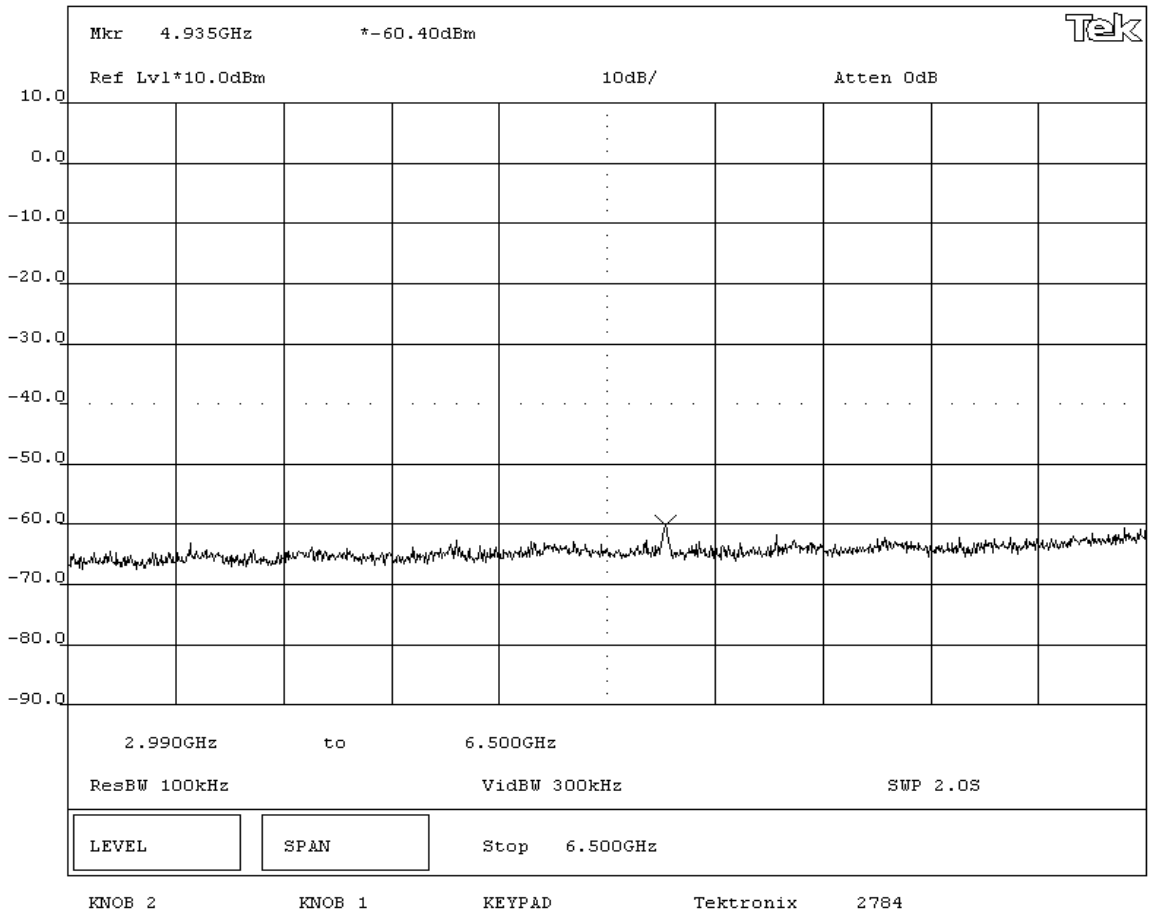
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - High Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

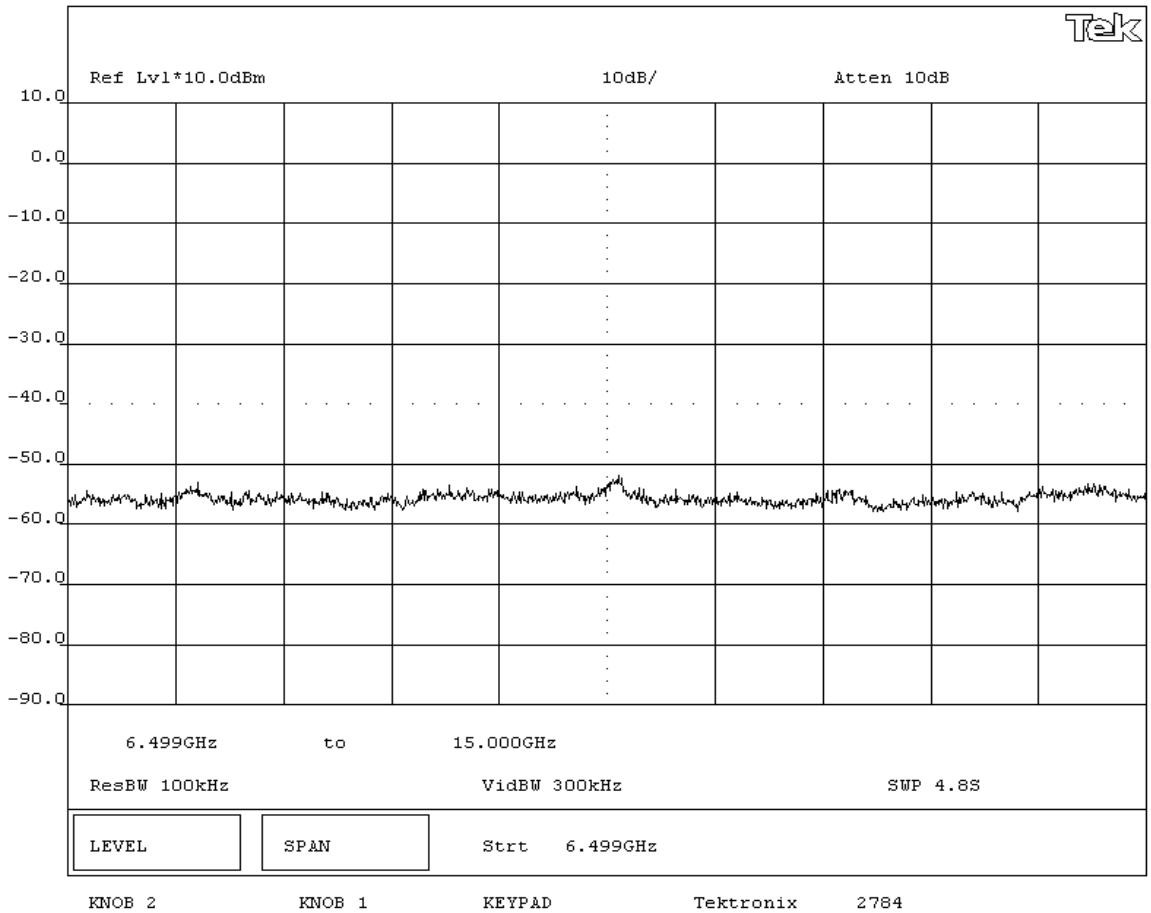
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - High Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

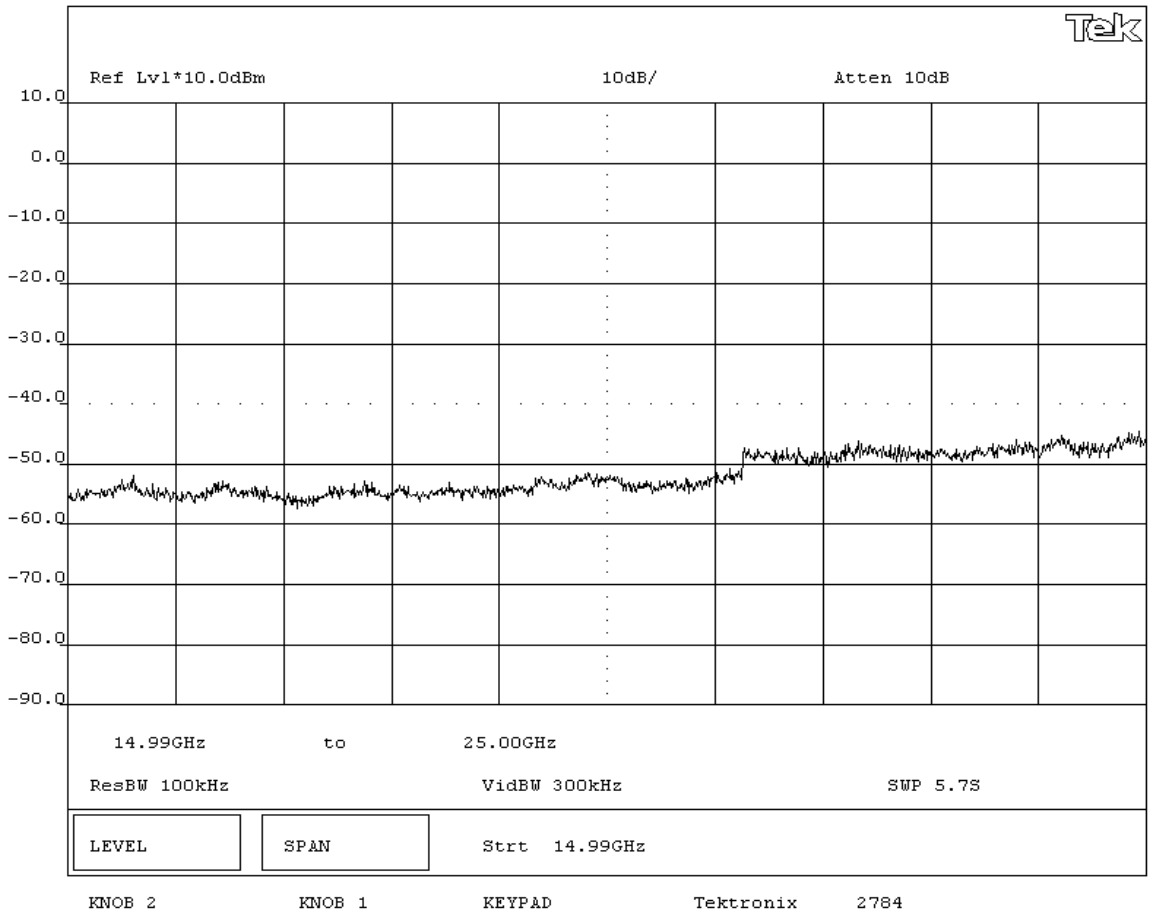
Pass

SIGNATURE

Tested By: A.J. U. Kiel

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - High Channel - 802.11(g) 6 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

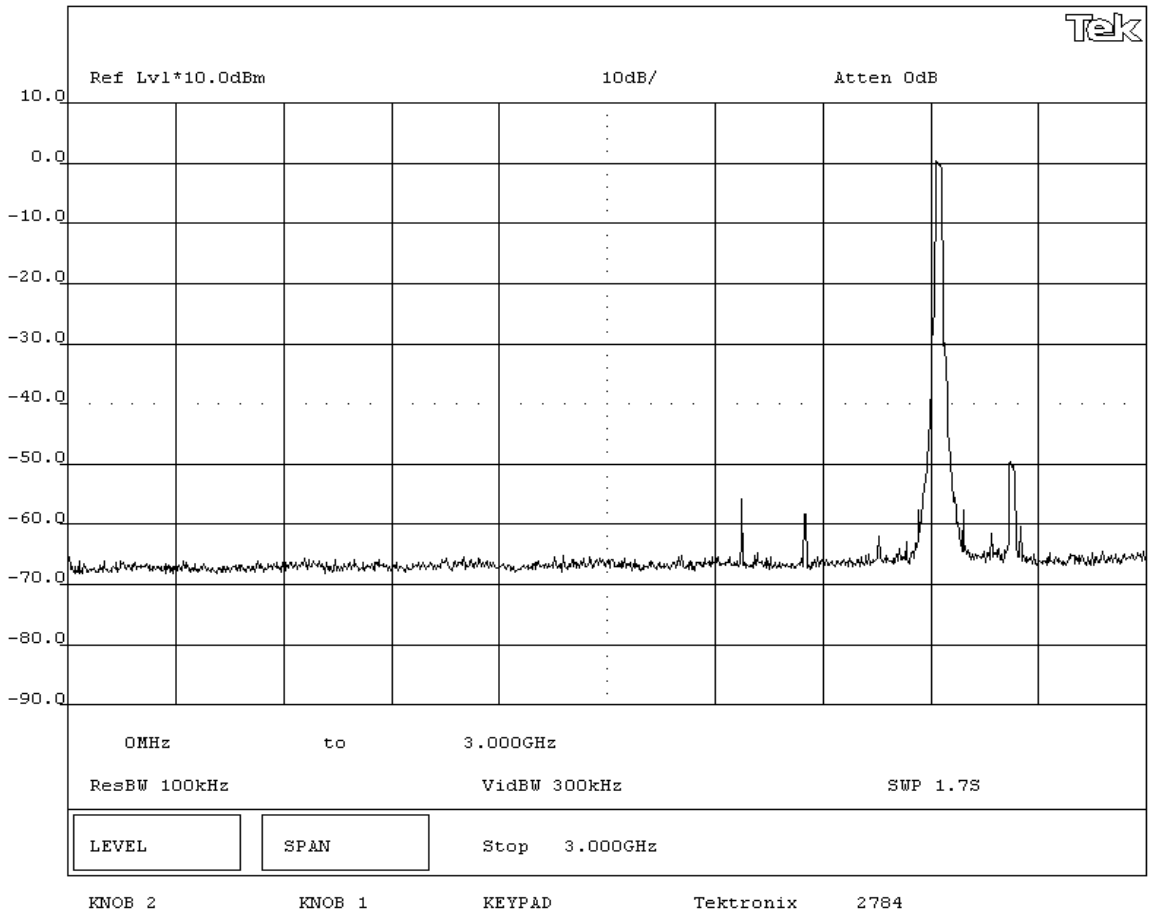
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Low Channel - 802.11(g) 36 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

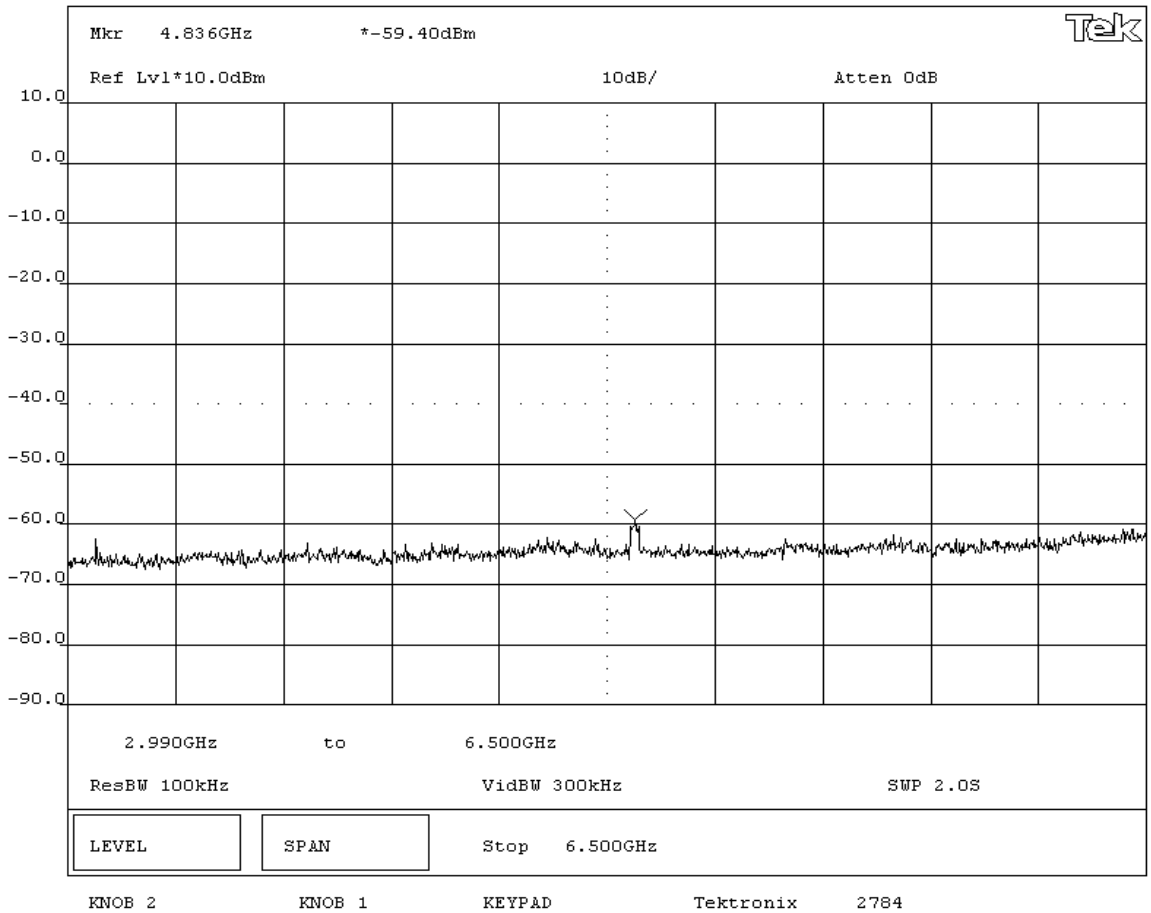
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Low Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

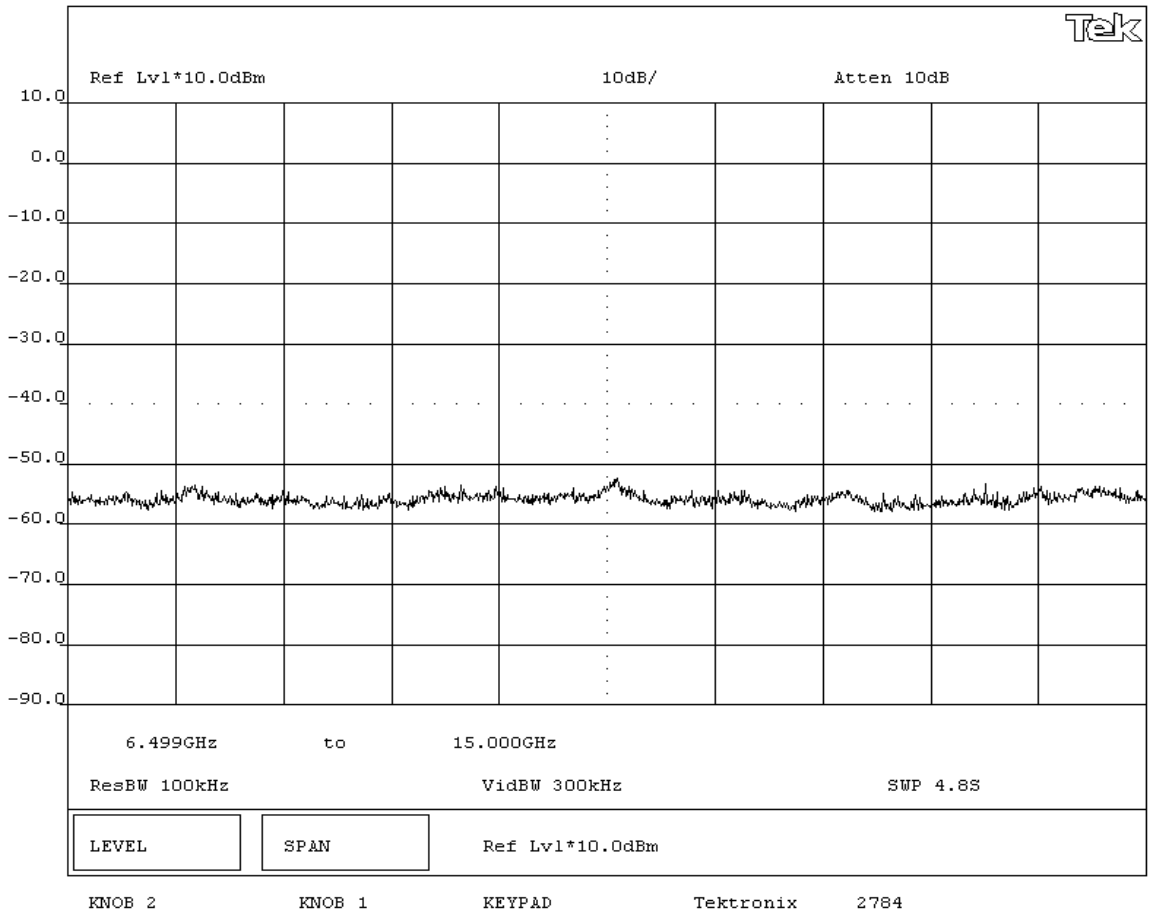
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Low Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

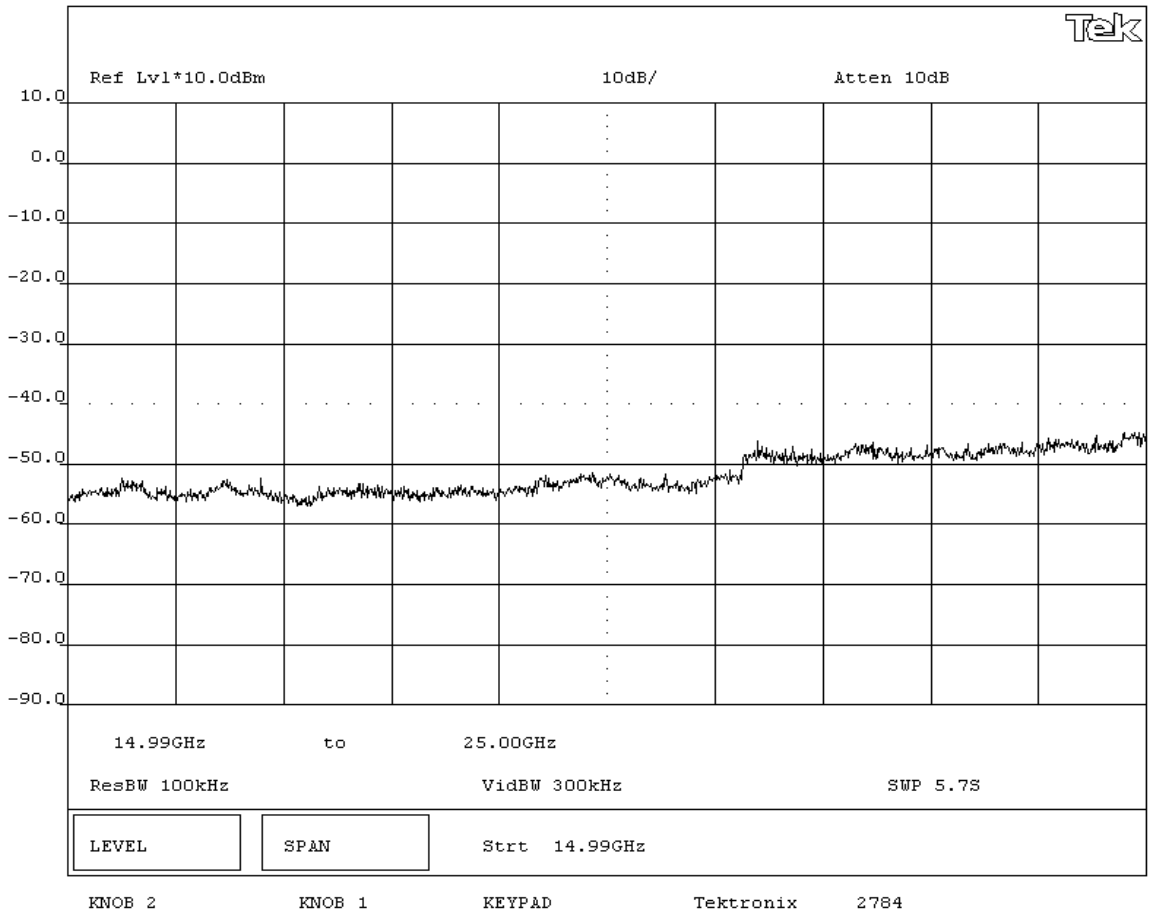
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - Low Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

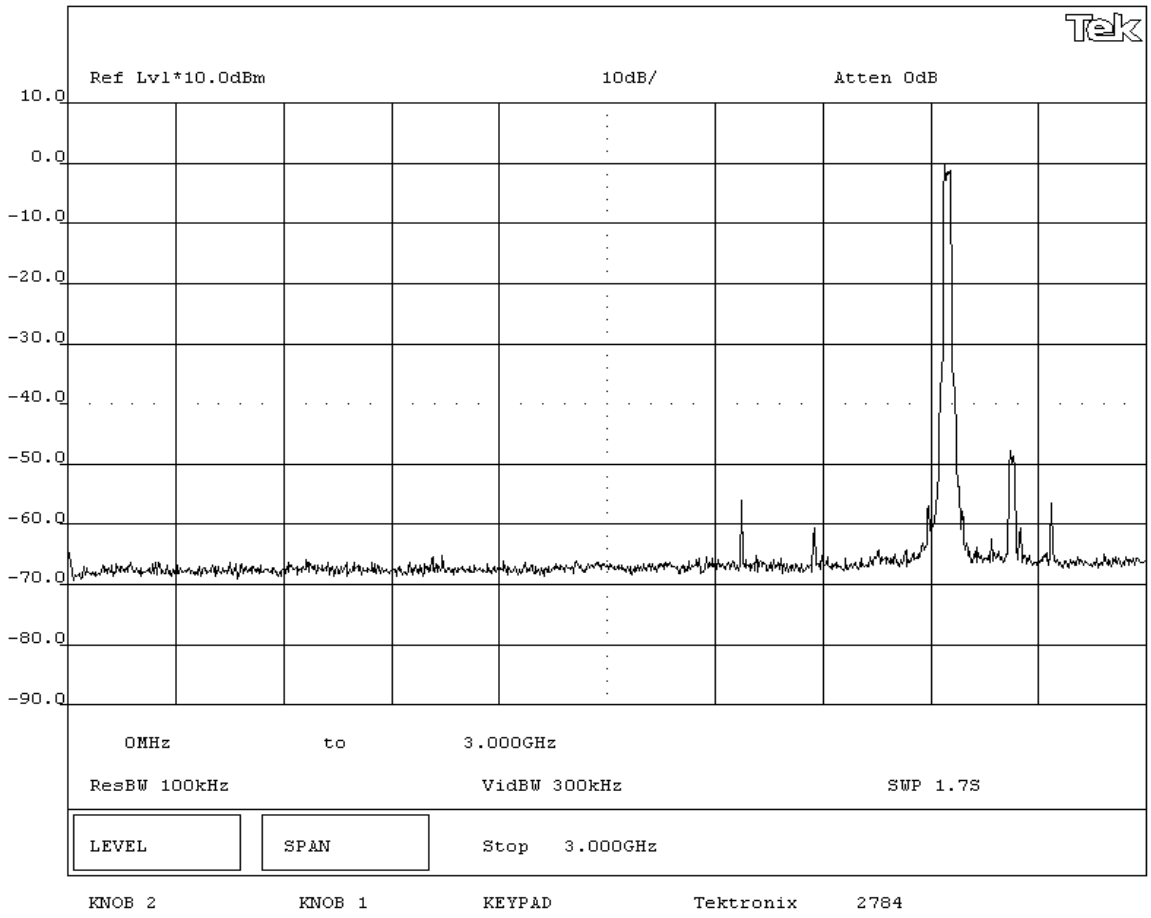
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Mid Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

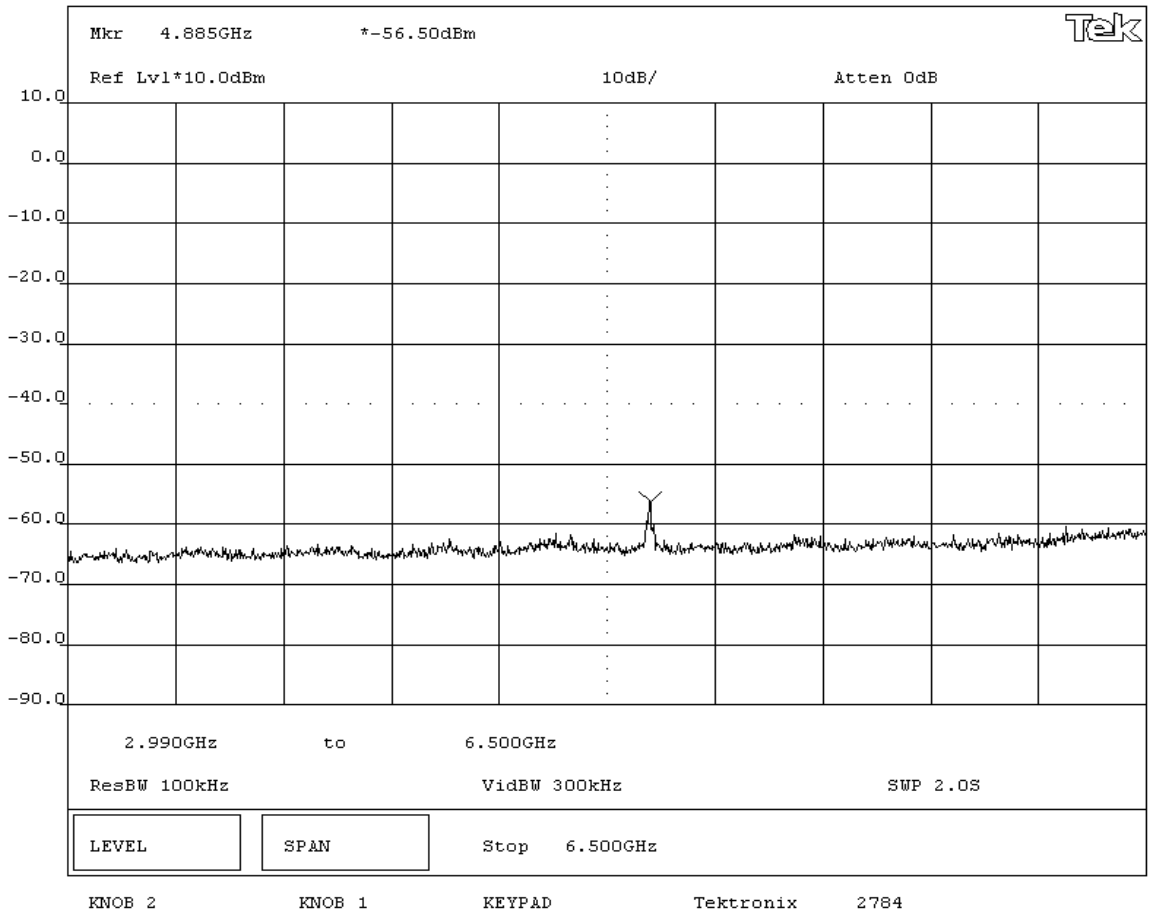
Pass

SIGNATURE

Tested By: A.J. U. Kiel

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Mid Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

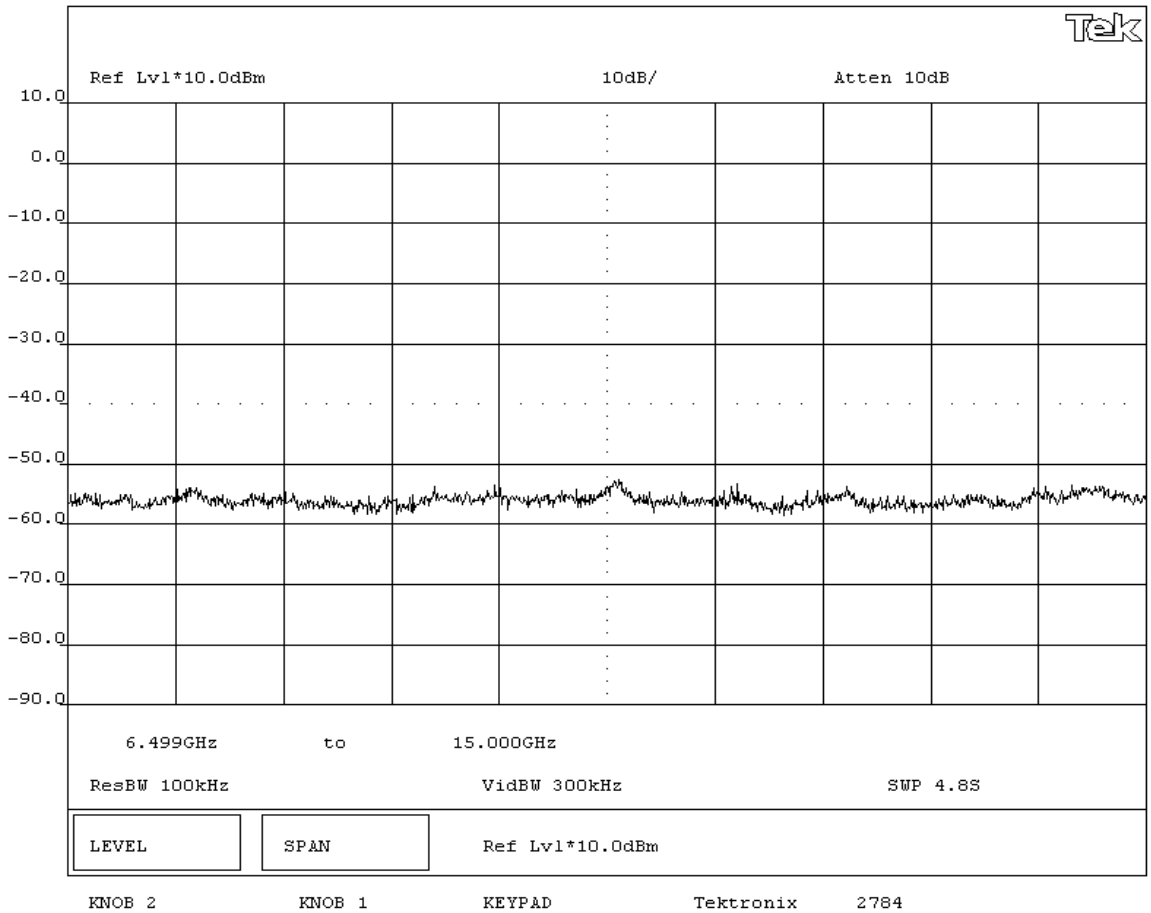
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Mid Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

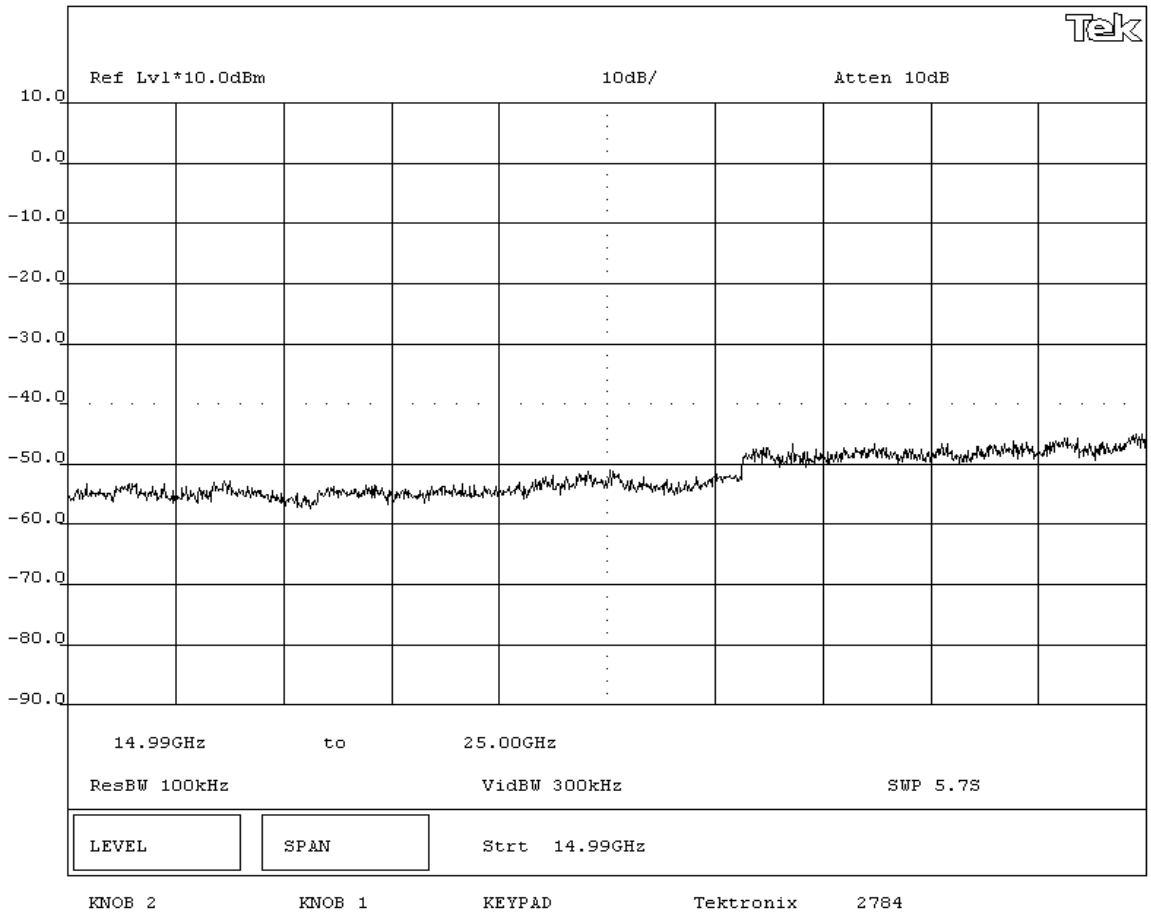
Pass

SIGNATURE

Tested By: A.J. U. Kiel

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - Mid Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

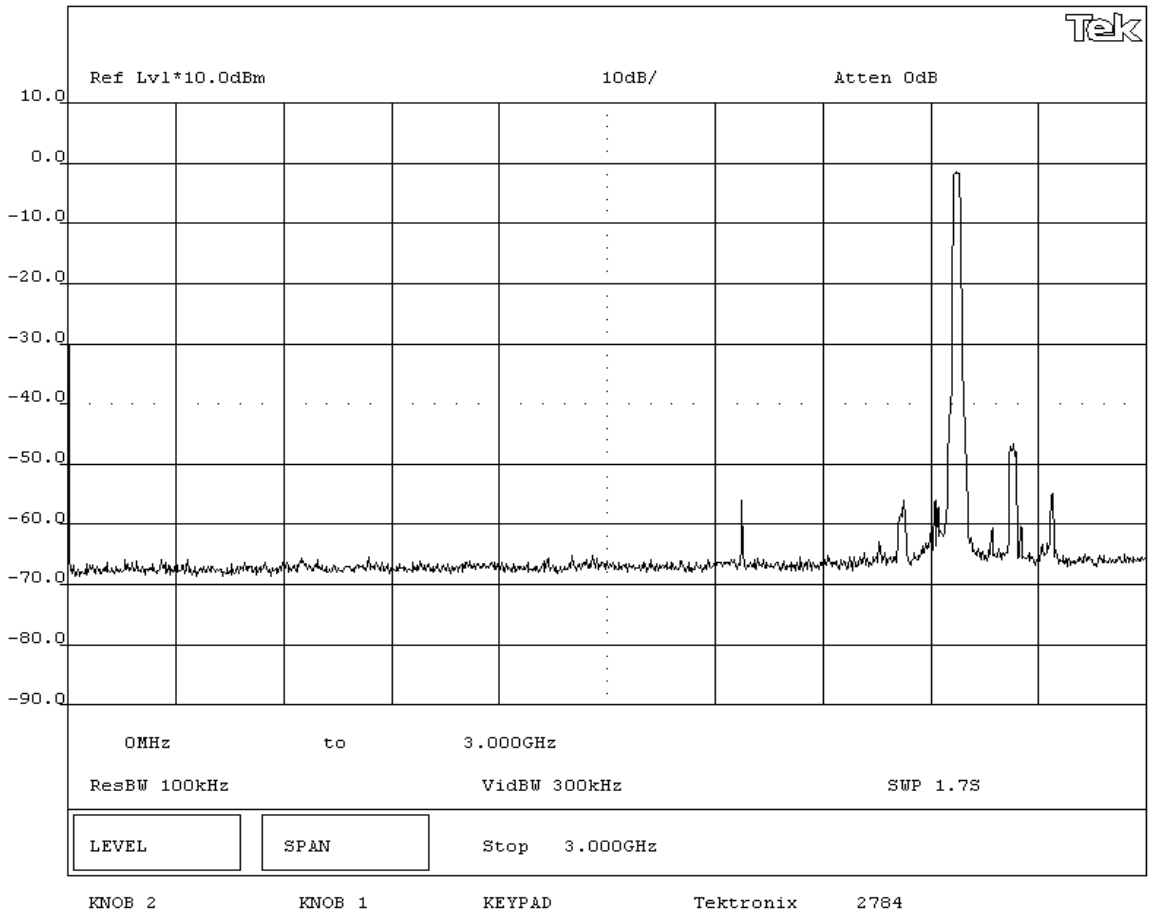
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - High Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

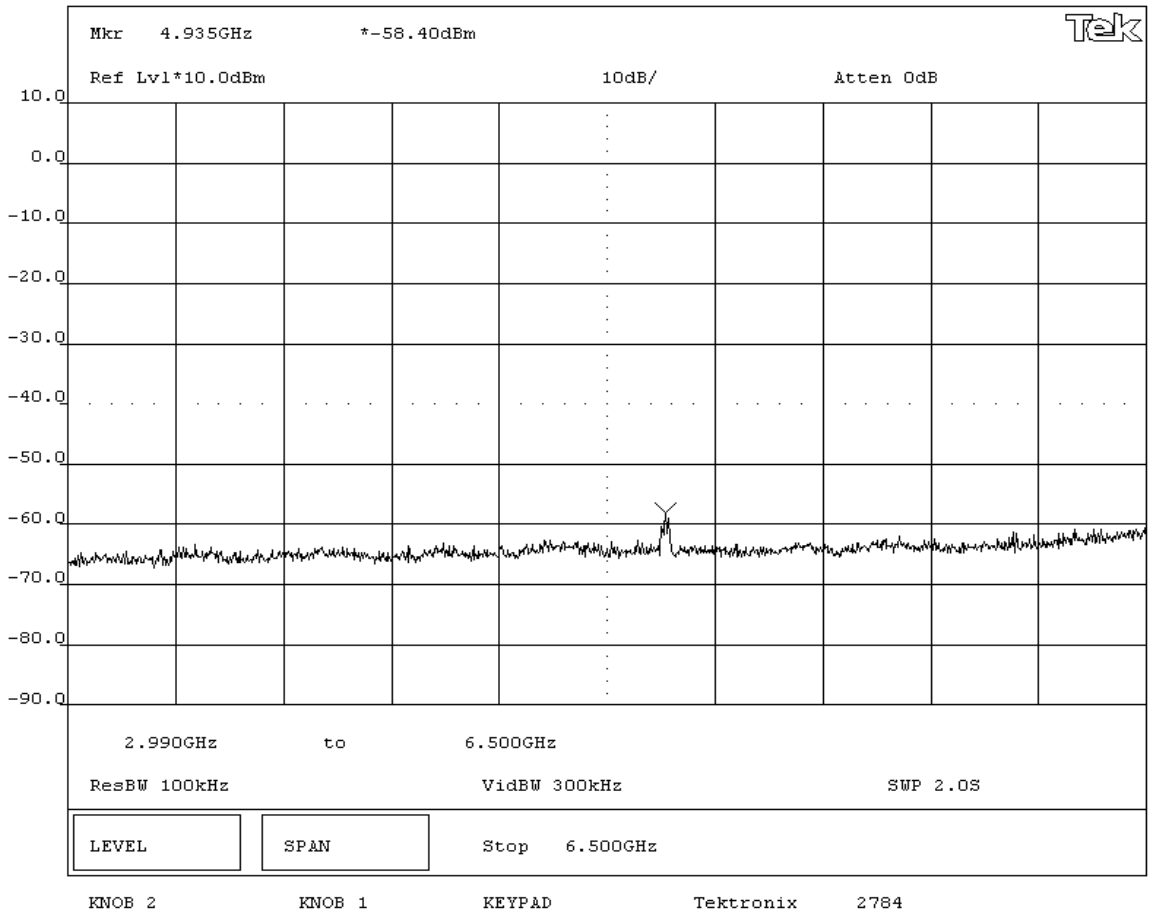
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - High Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

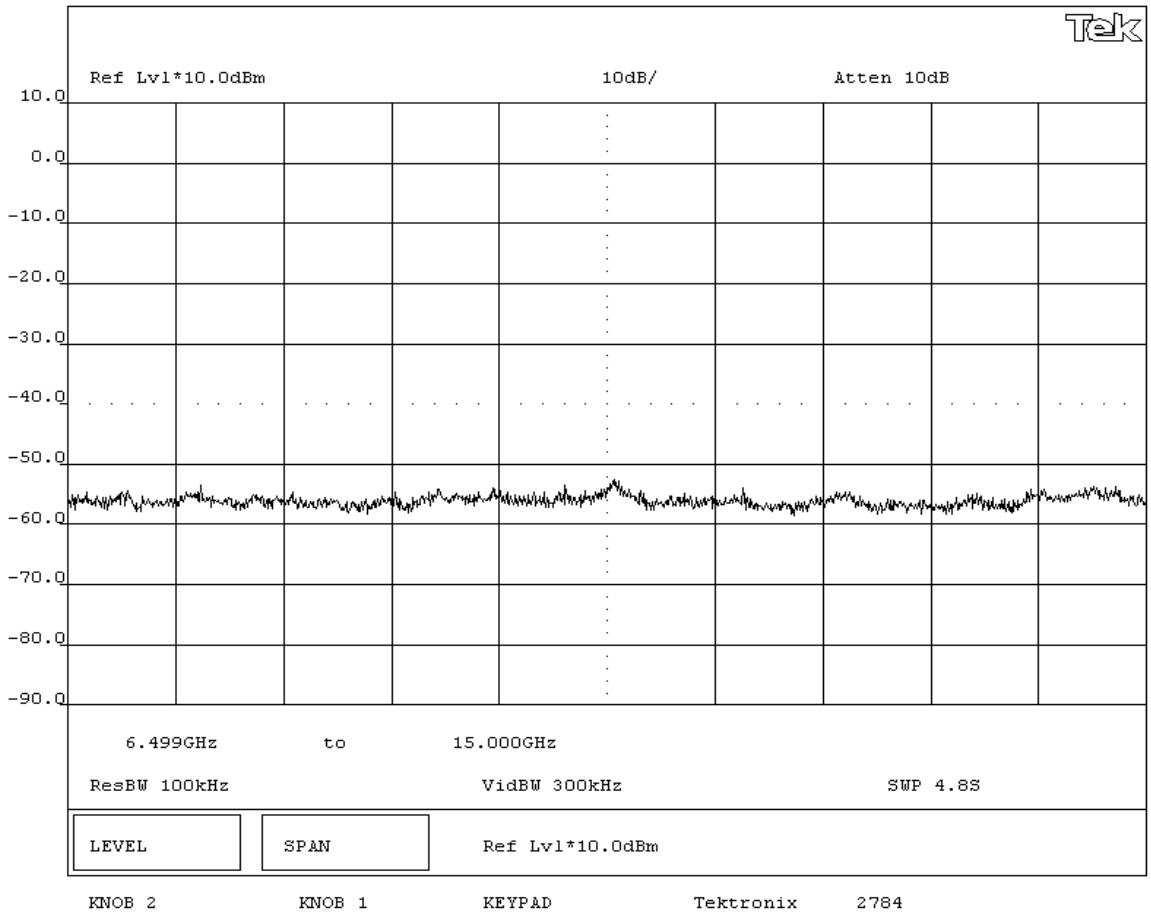
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - High Channel - 802.11(g) 36 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

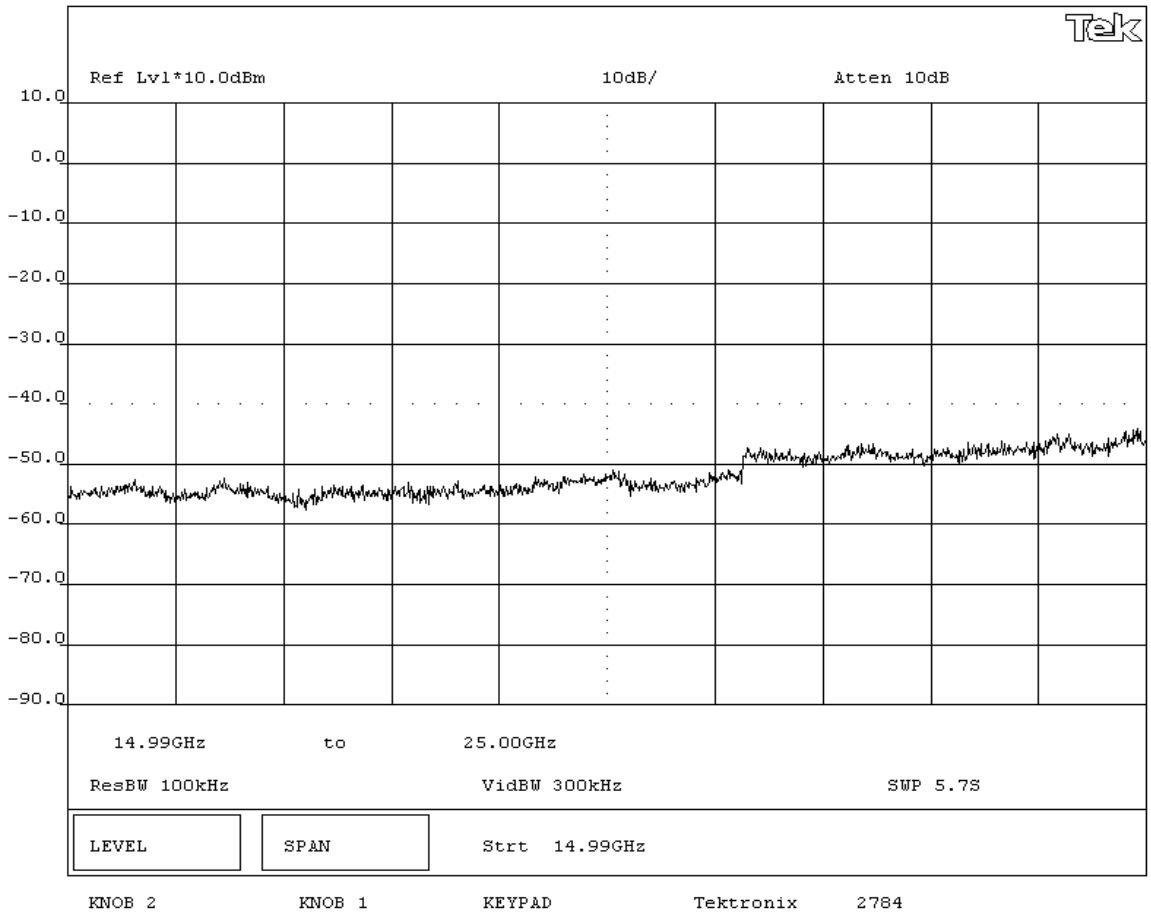
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - High Channel - 802.11(g) 36 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

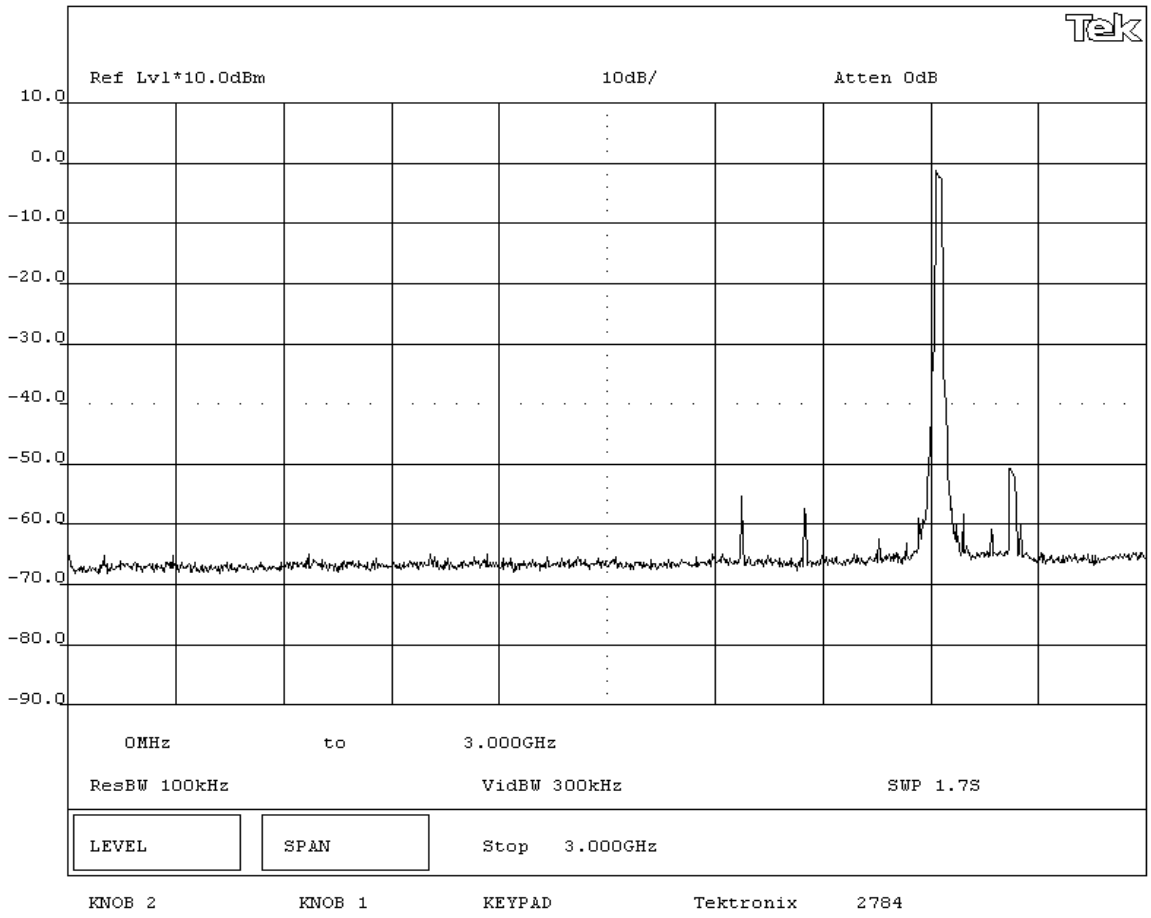
Pass

SIGNATURE

Tested By: A.J. U. Kiel

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Low Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

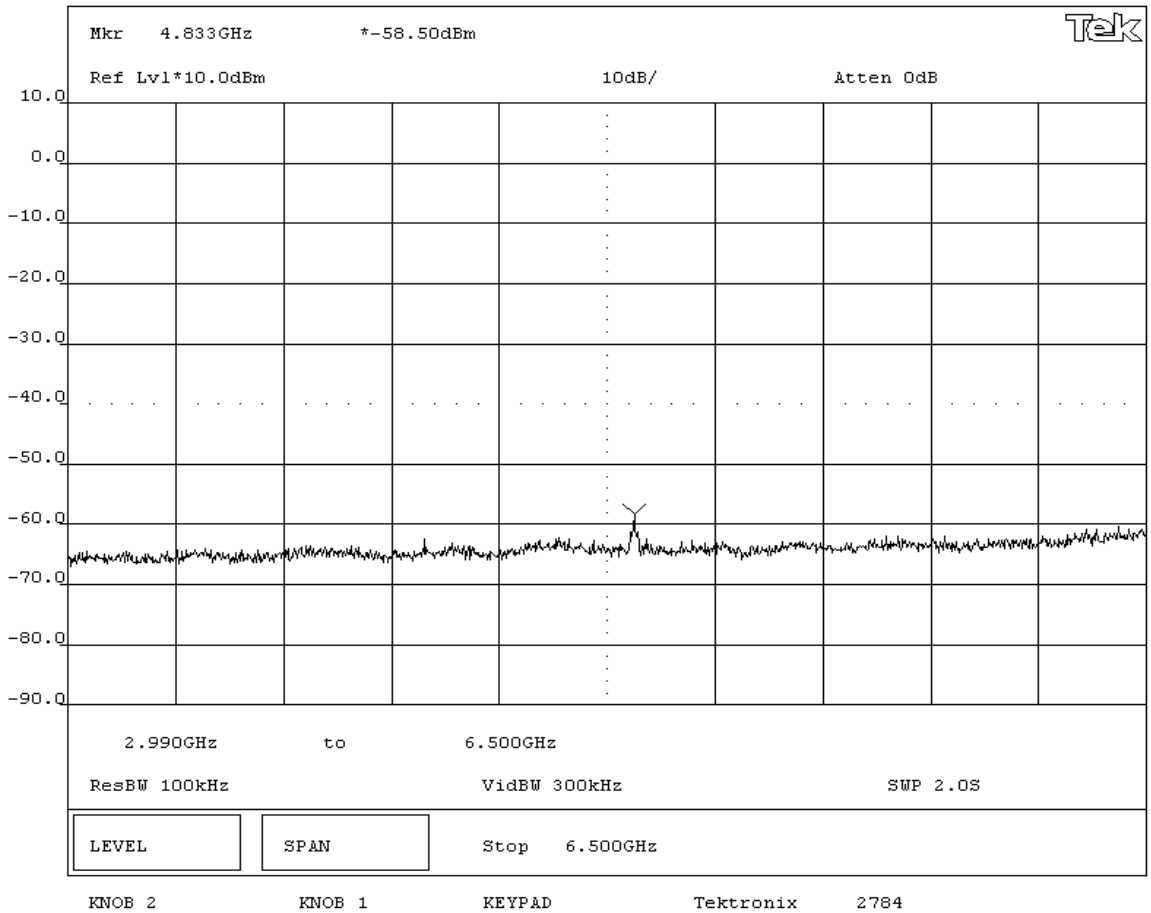
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Low Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

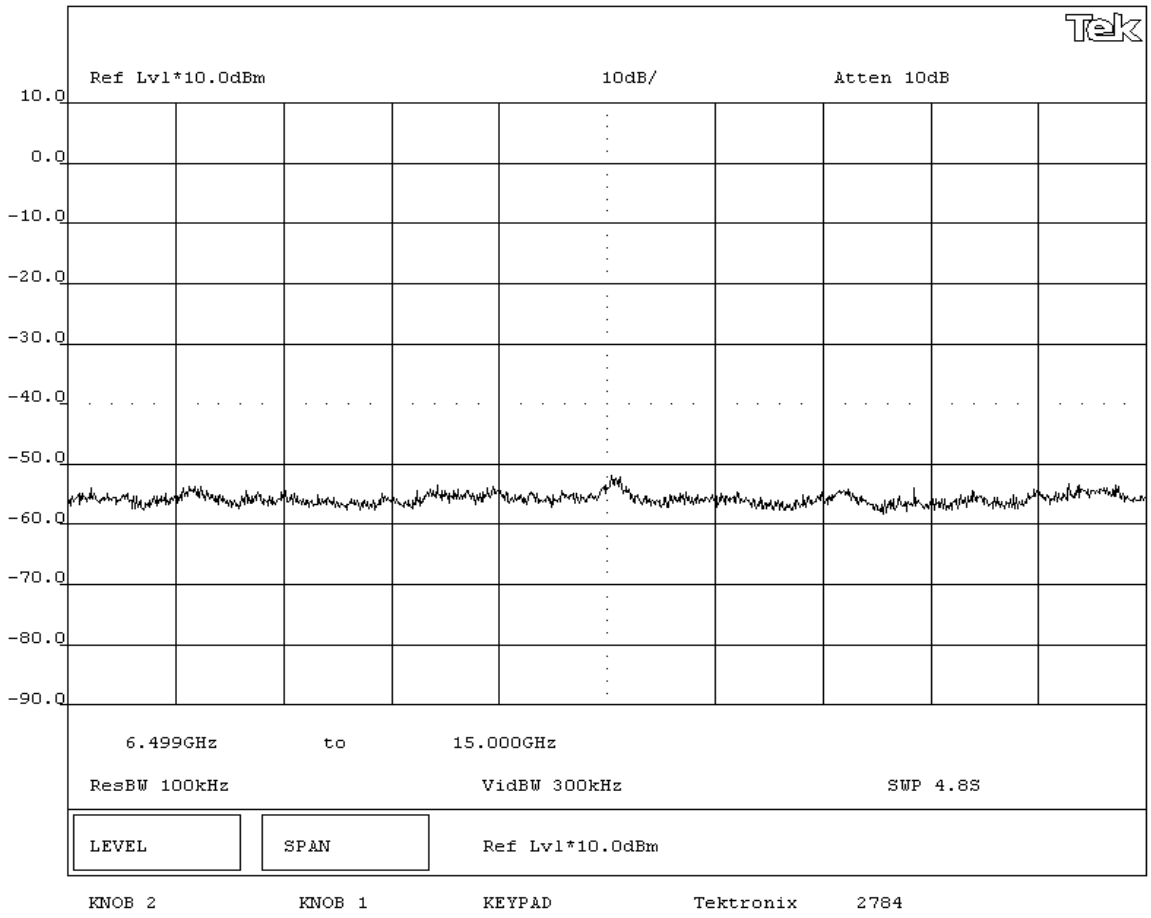
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Low Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

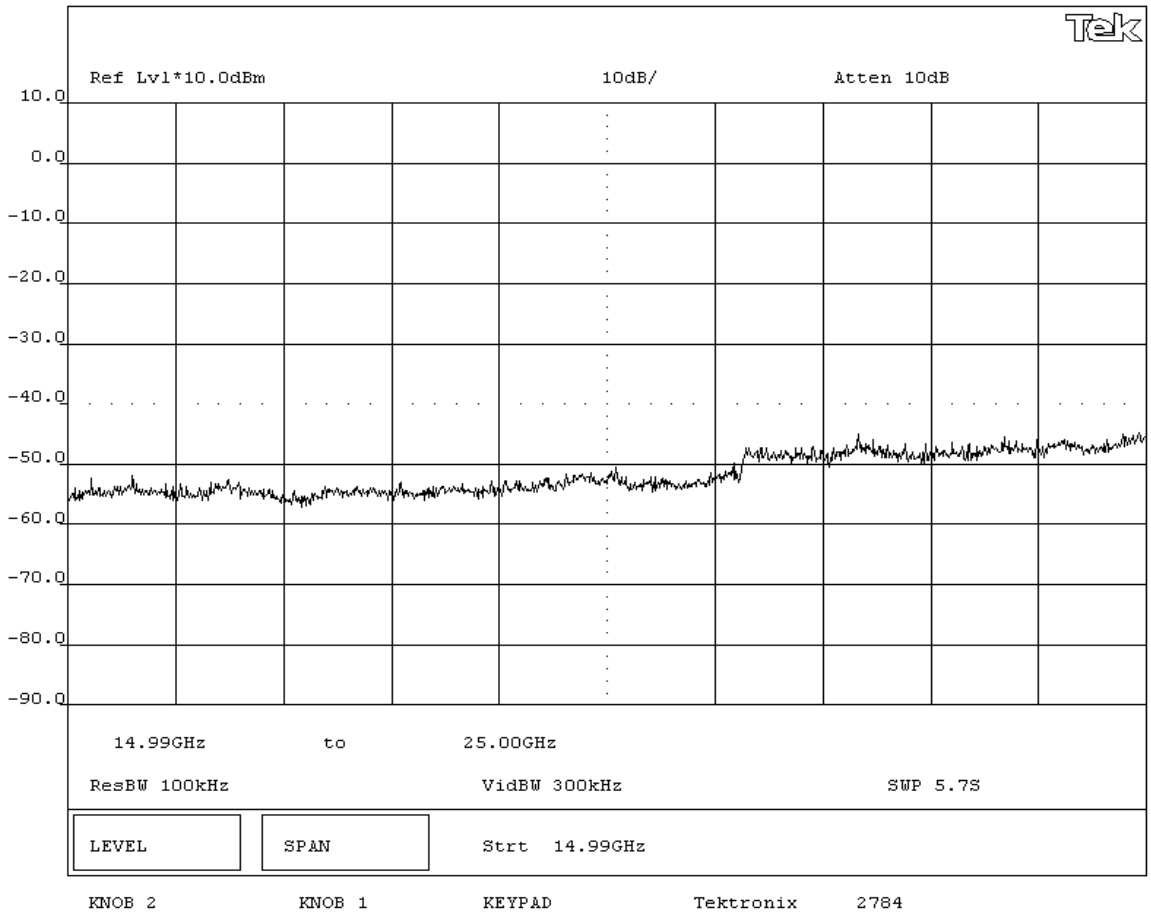
Pass

SIGNATURE

Tested By: A.U.Kiel

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz-25GHz - Low Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

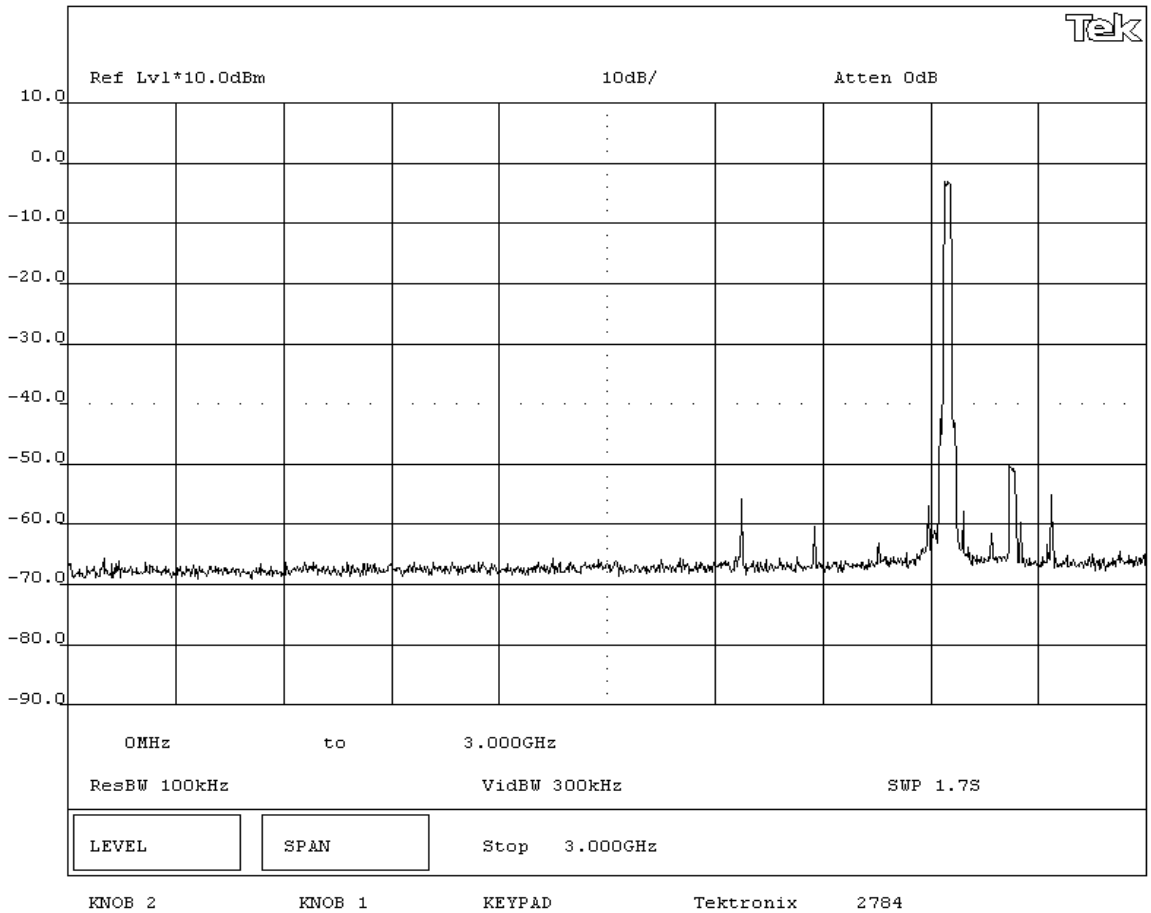
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Mid Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

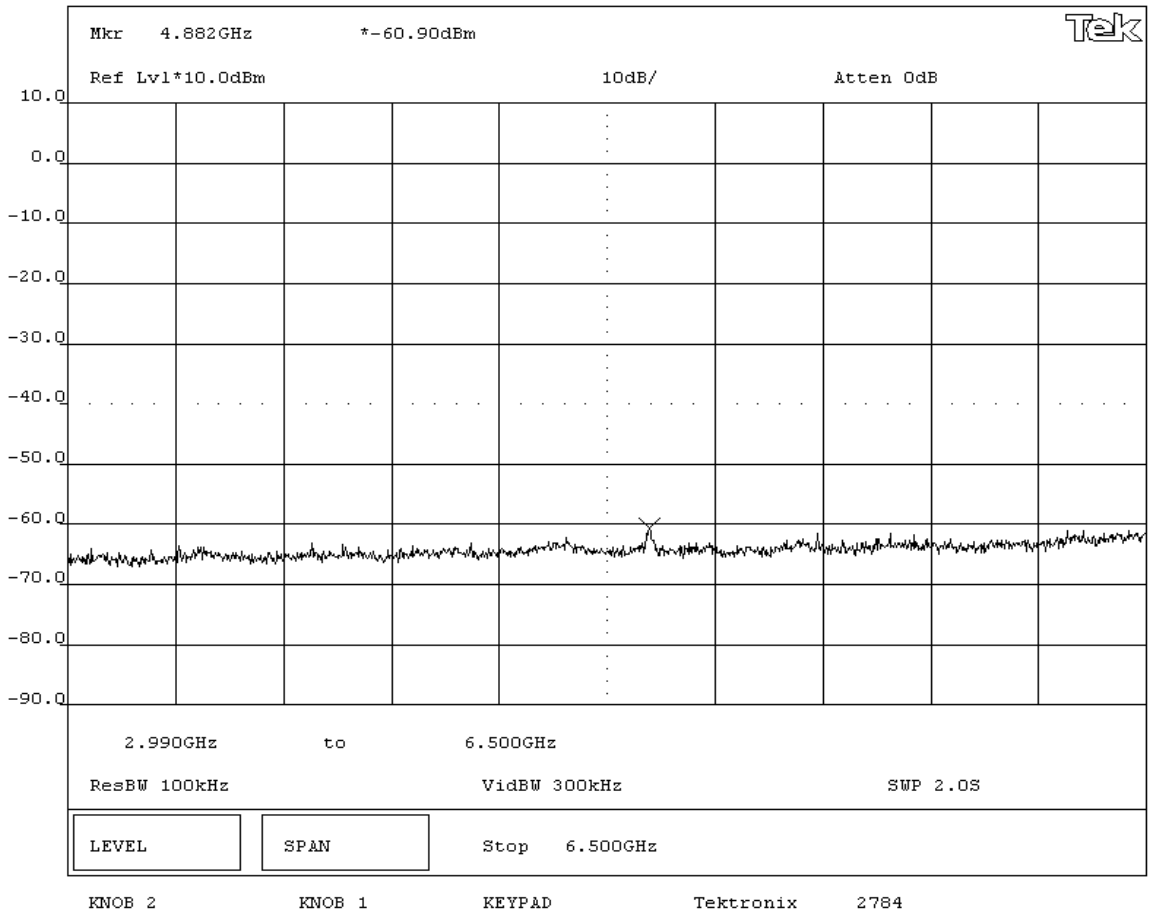
Pass

SIGNATURE

Tested By: U. Kiemel

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Mid Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

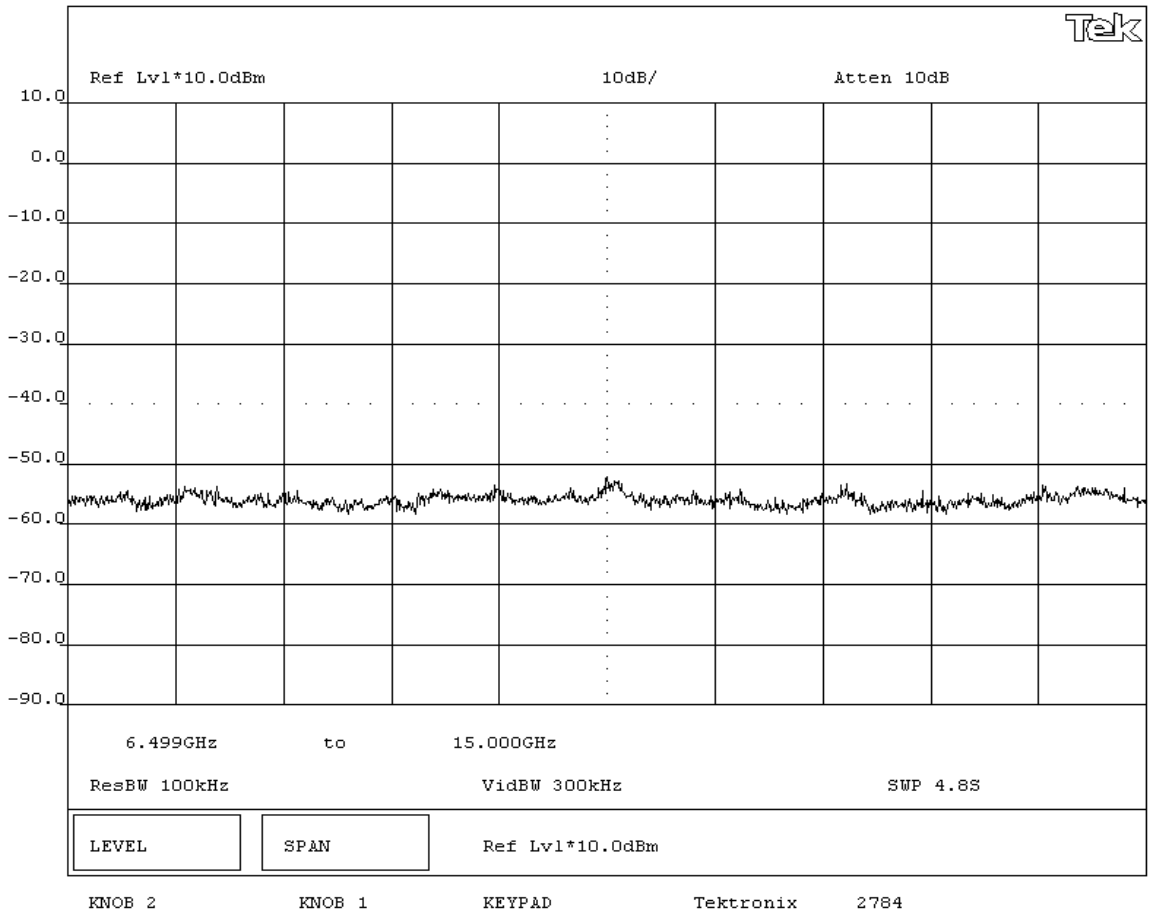
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Mid Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

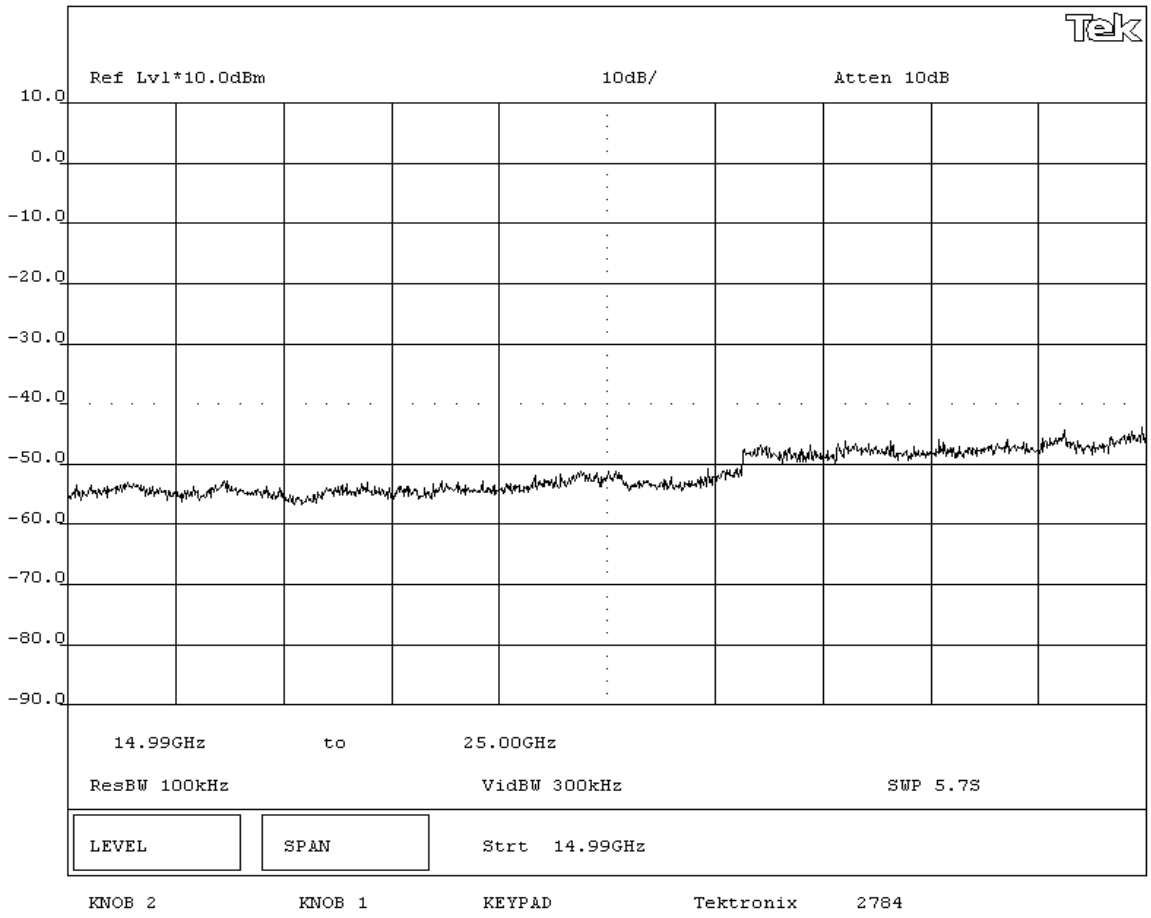
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz-25GHz - Mid Channel - 802.11(g) 54 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

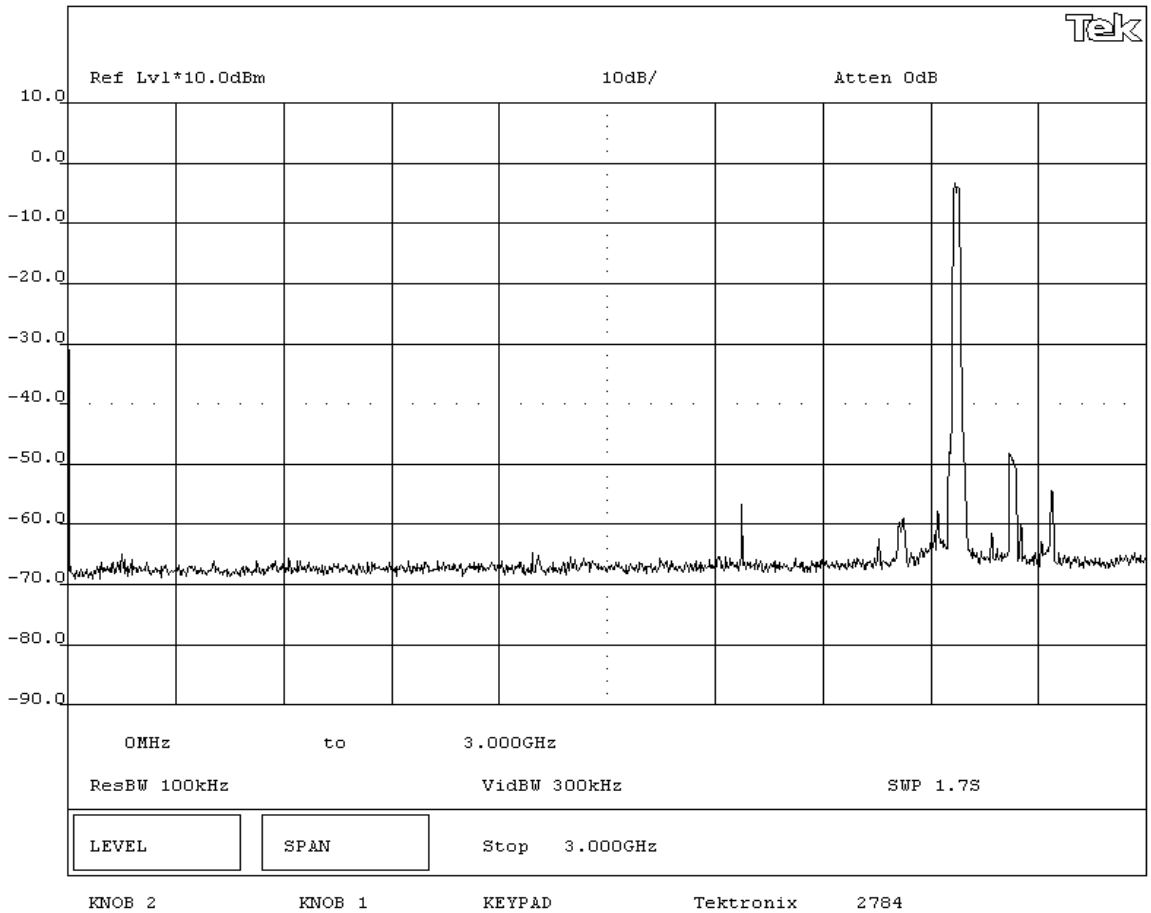
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - High Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

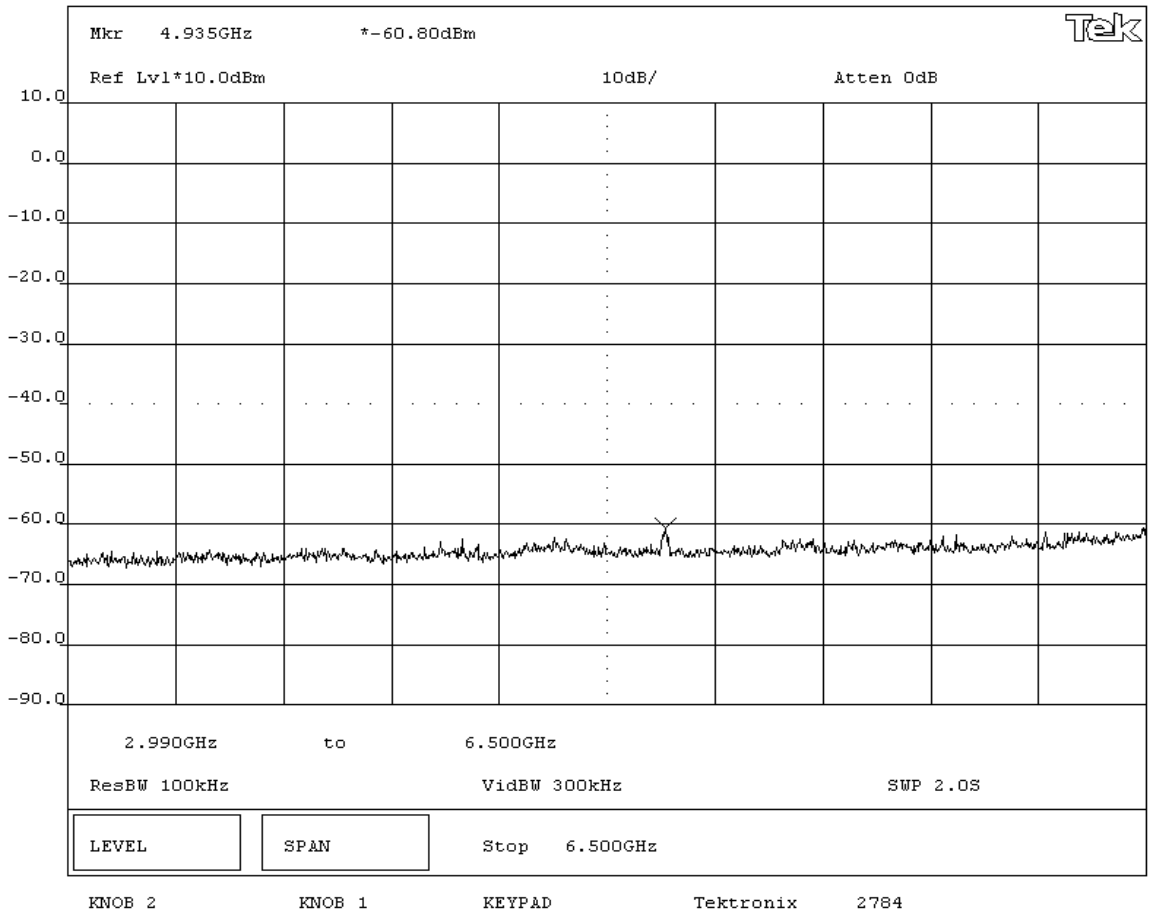
Pass

SIGNATURE

Tested By: A.U.K.

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - High Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

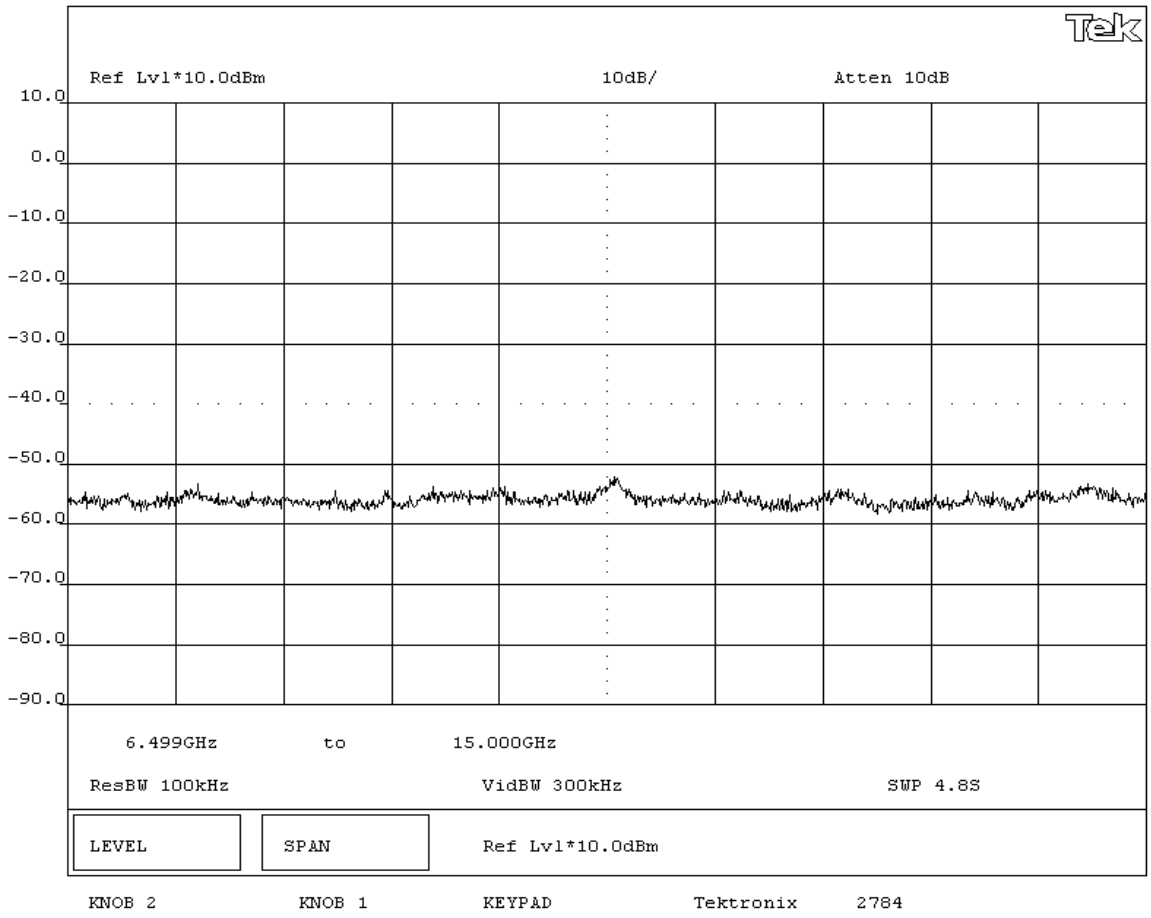
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - High Channel - 802.11(g) 54 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(g) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

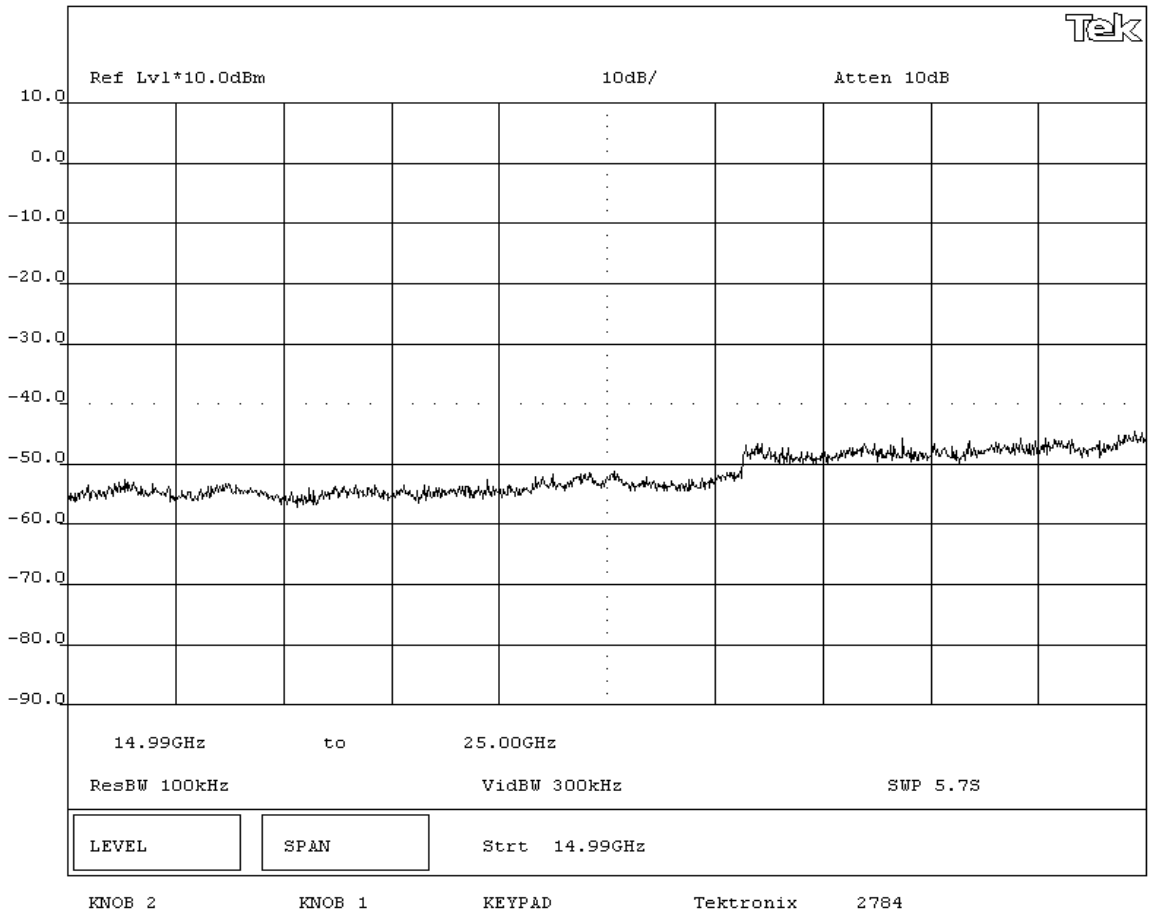
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz-25GHz - High Channel - 802.11(g) 54 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

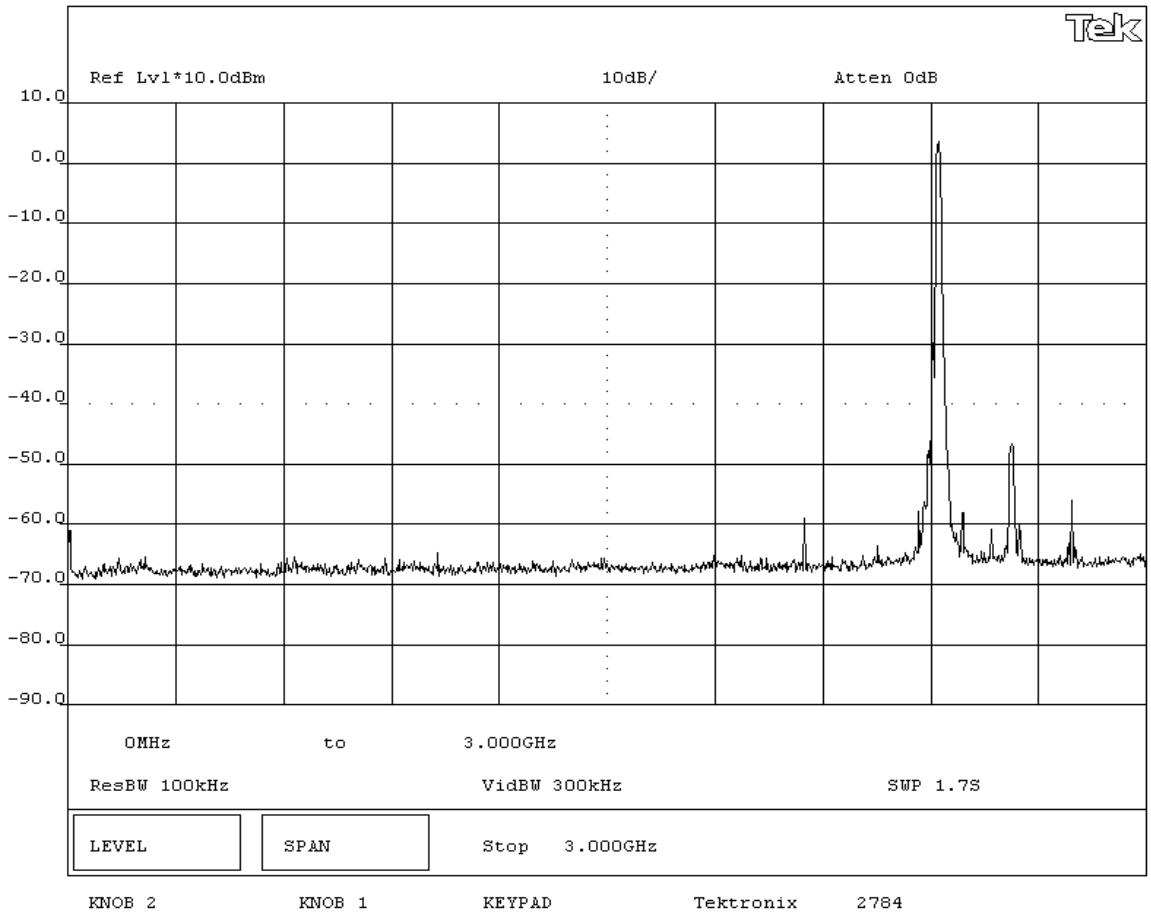
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Low Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

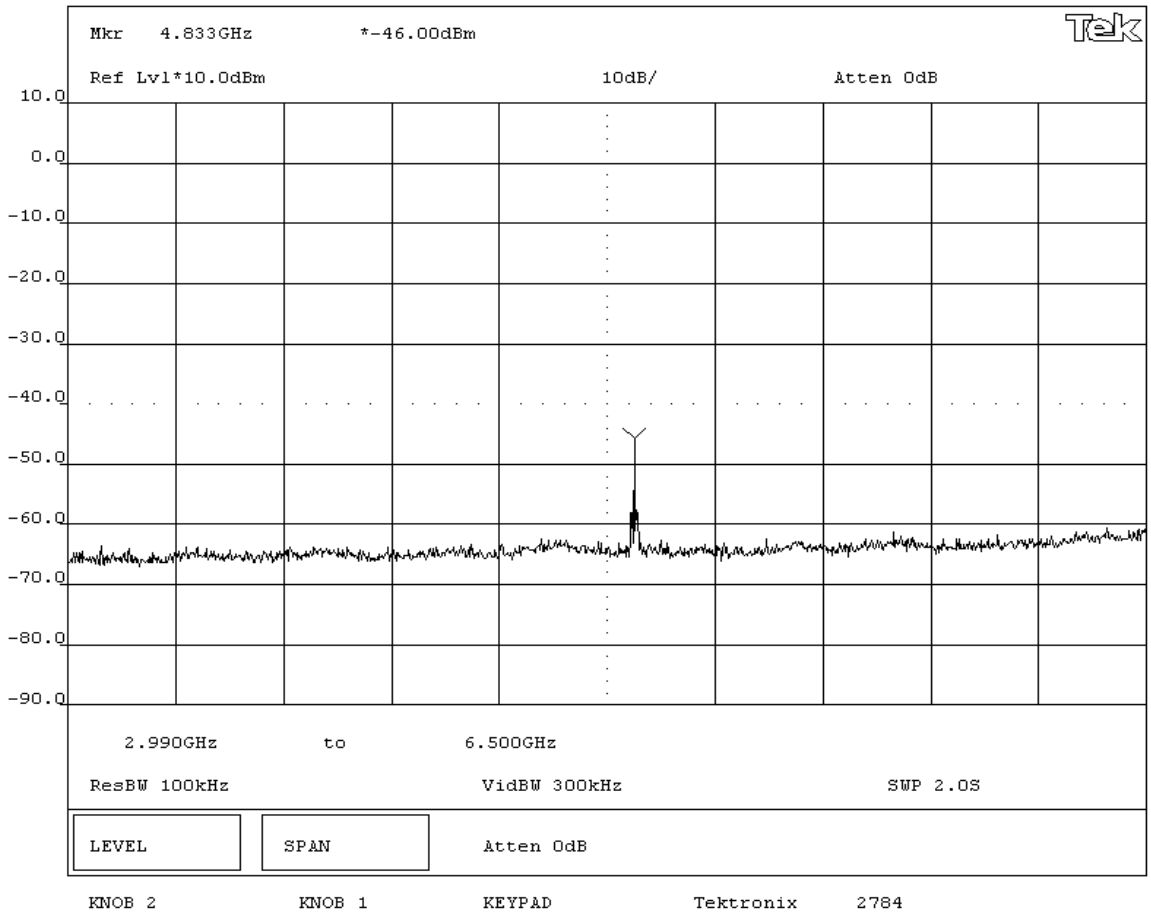
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Low Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

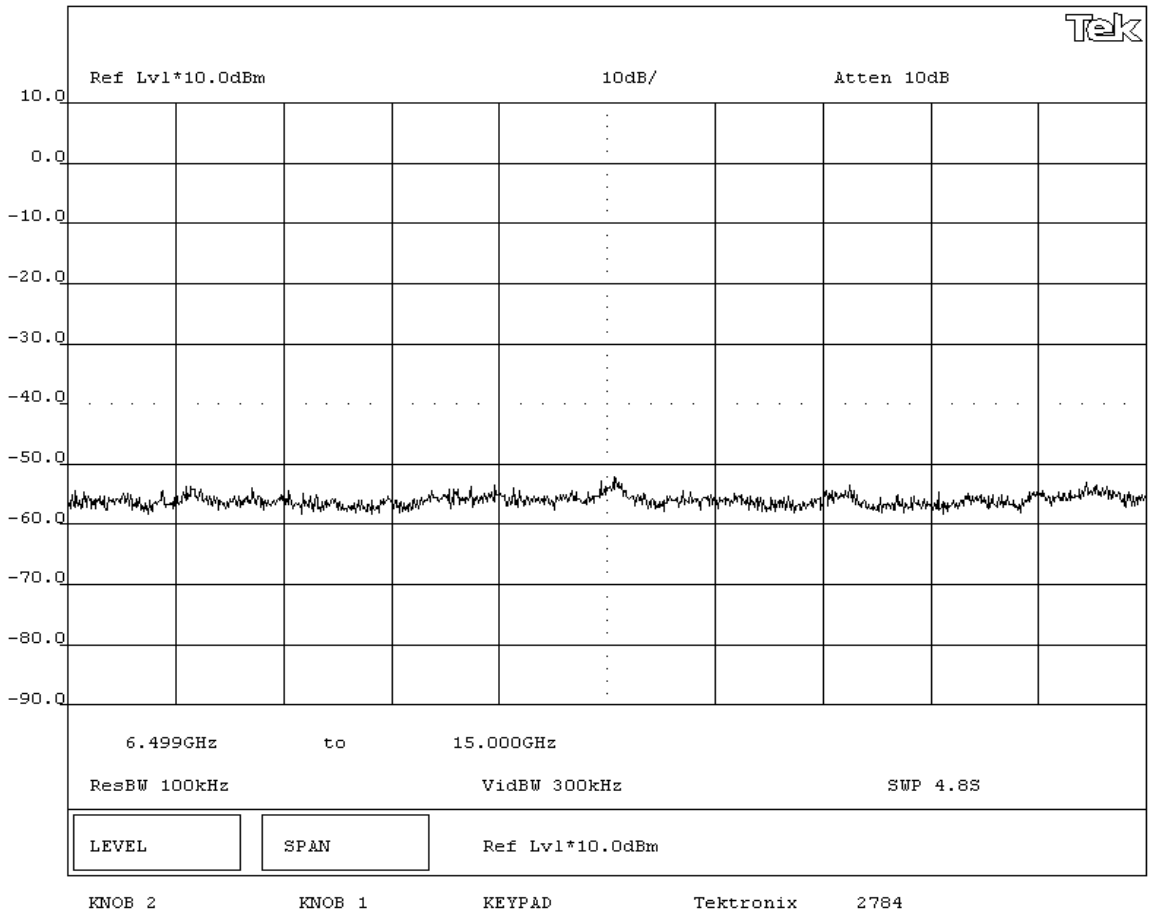
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Low Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

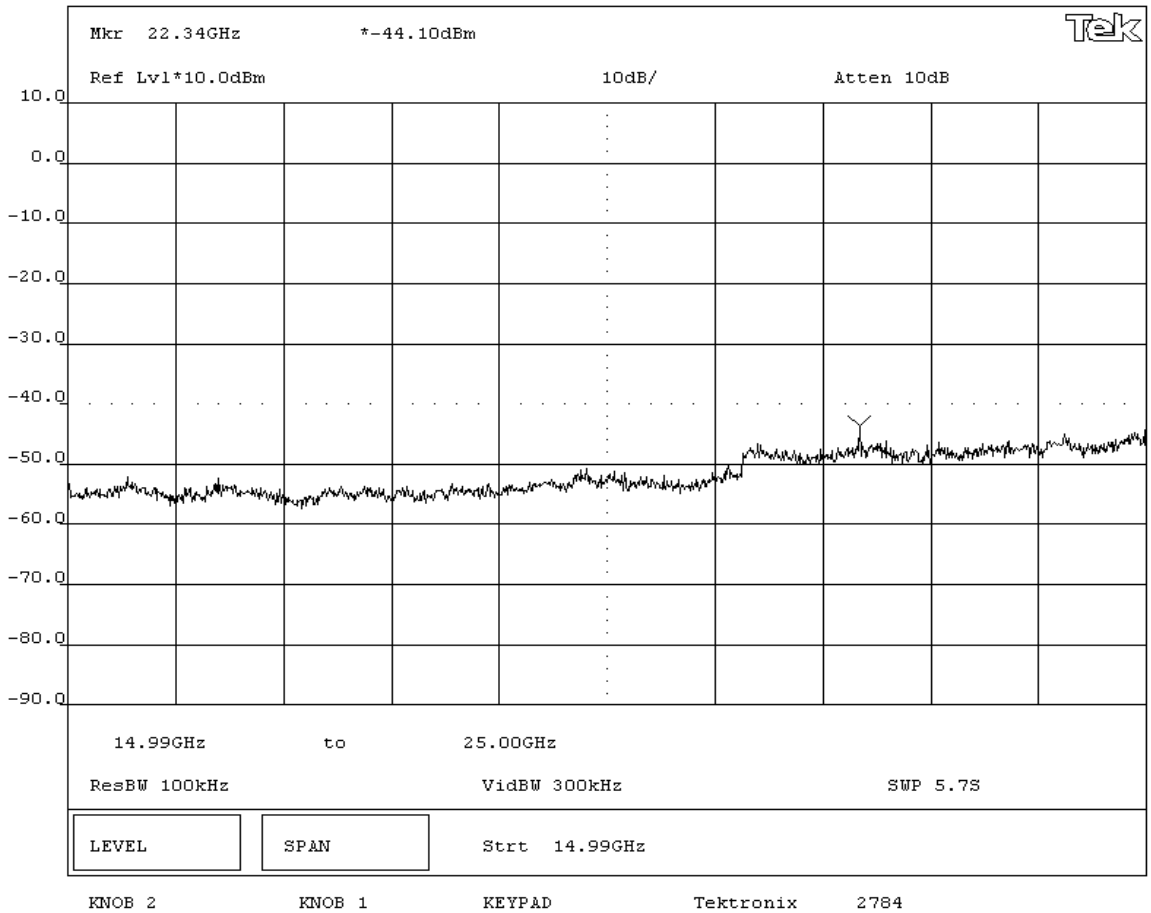
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - Low Channel - 802.11(b) 1 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

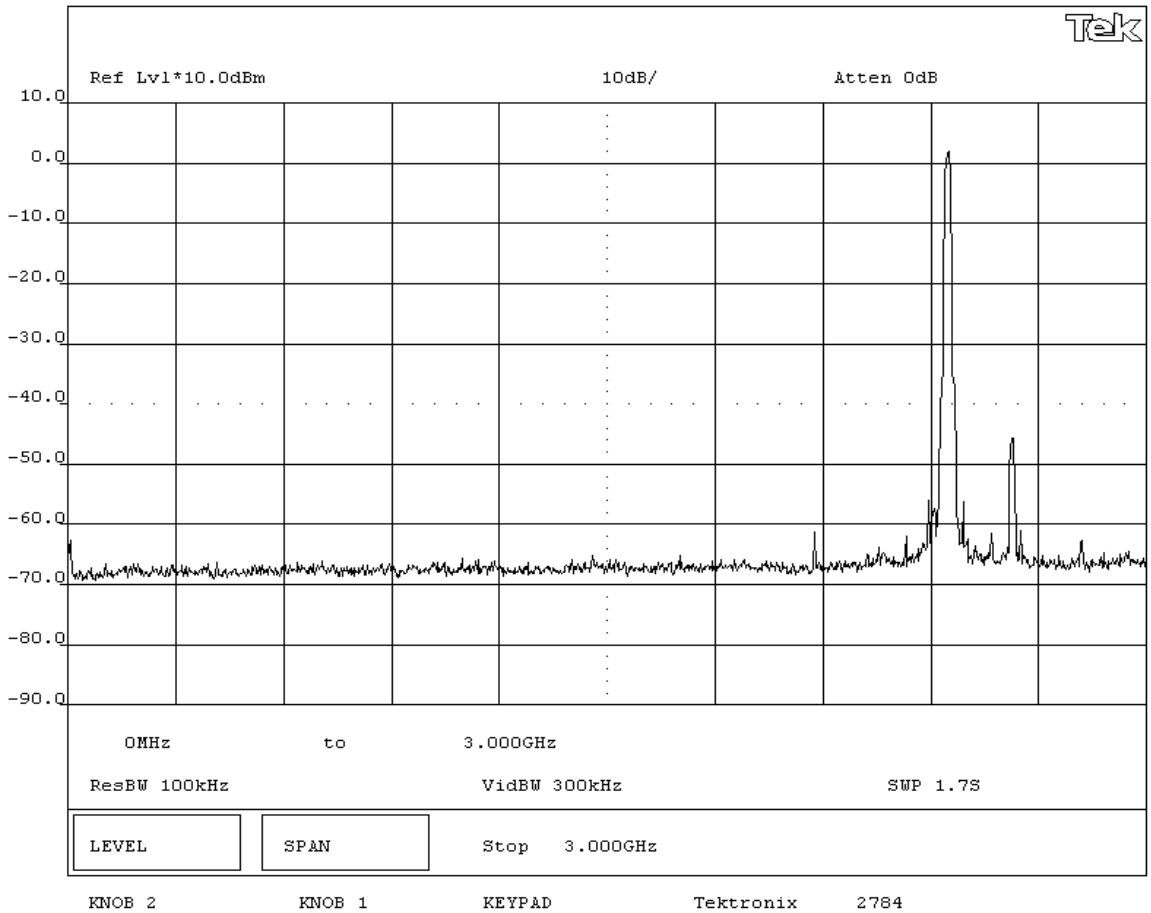
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Mid Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

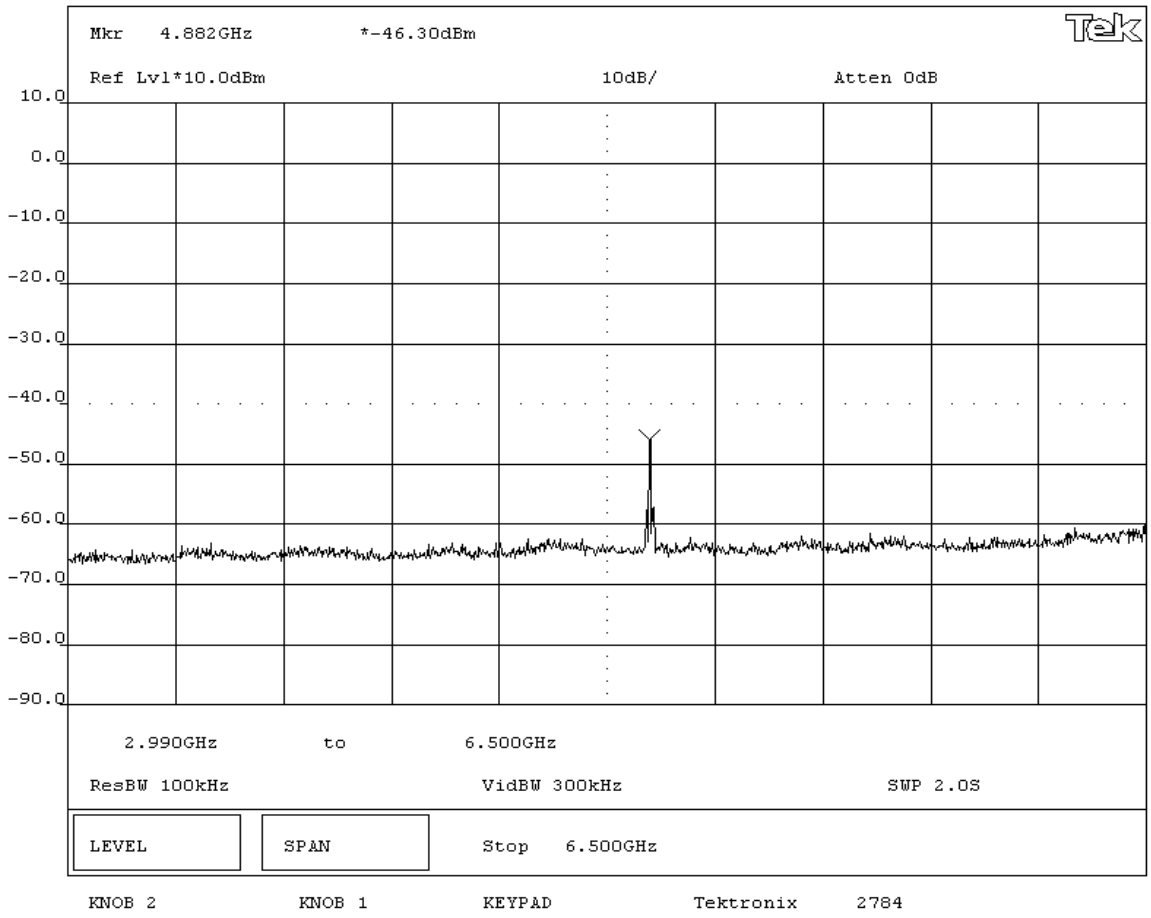
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Mid Channel - 802.11(b) 1 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

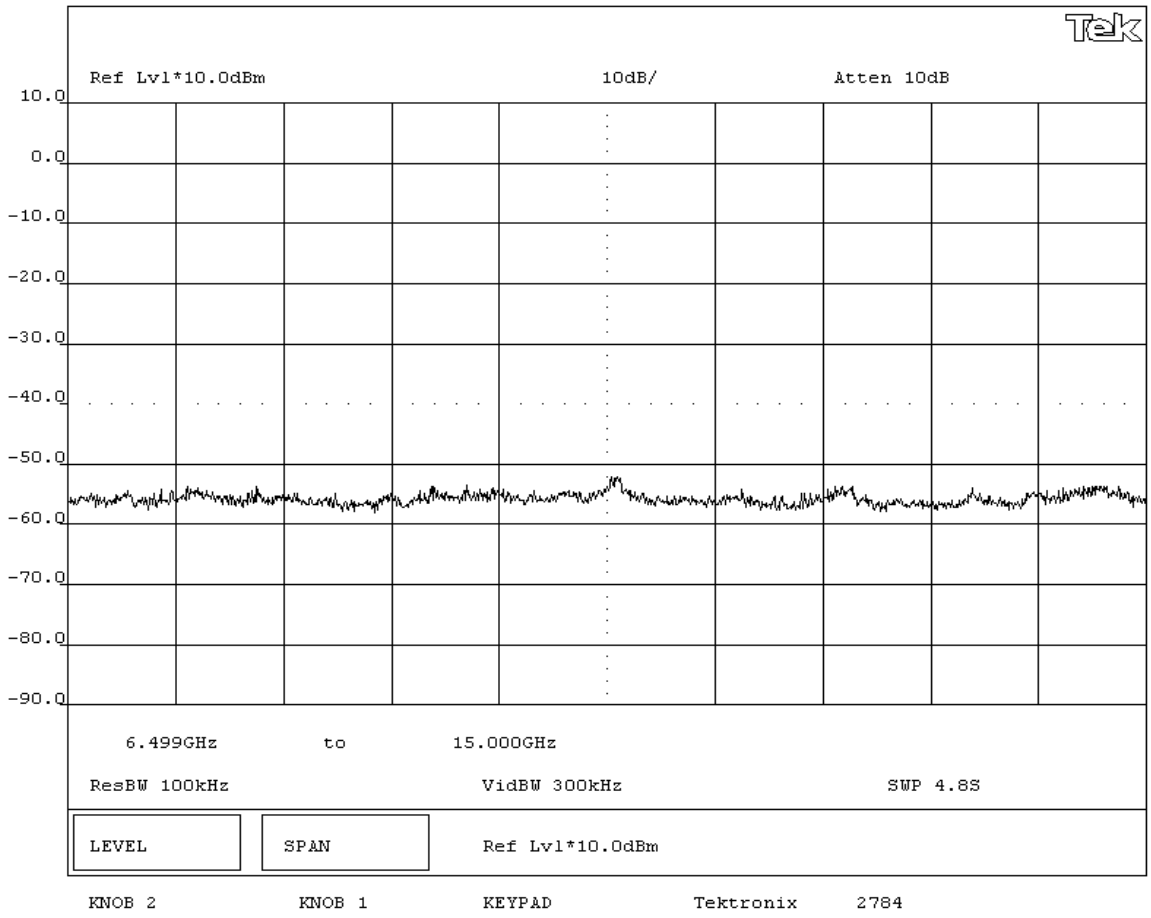
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Mid Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

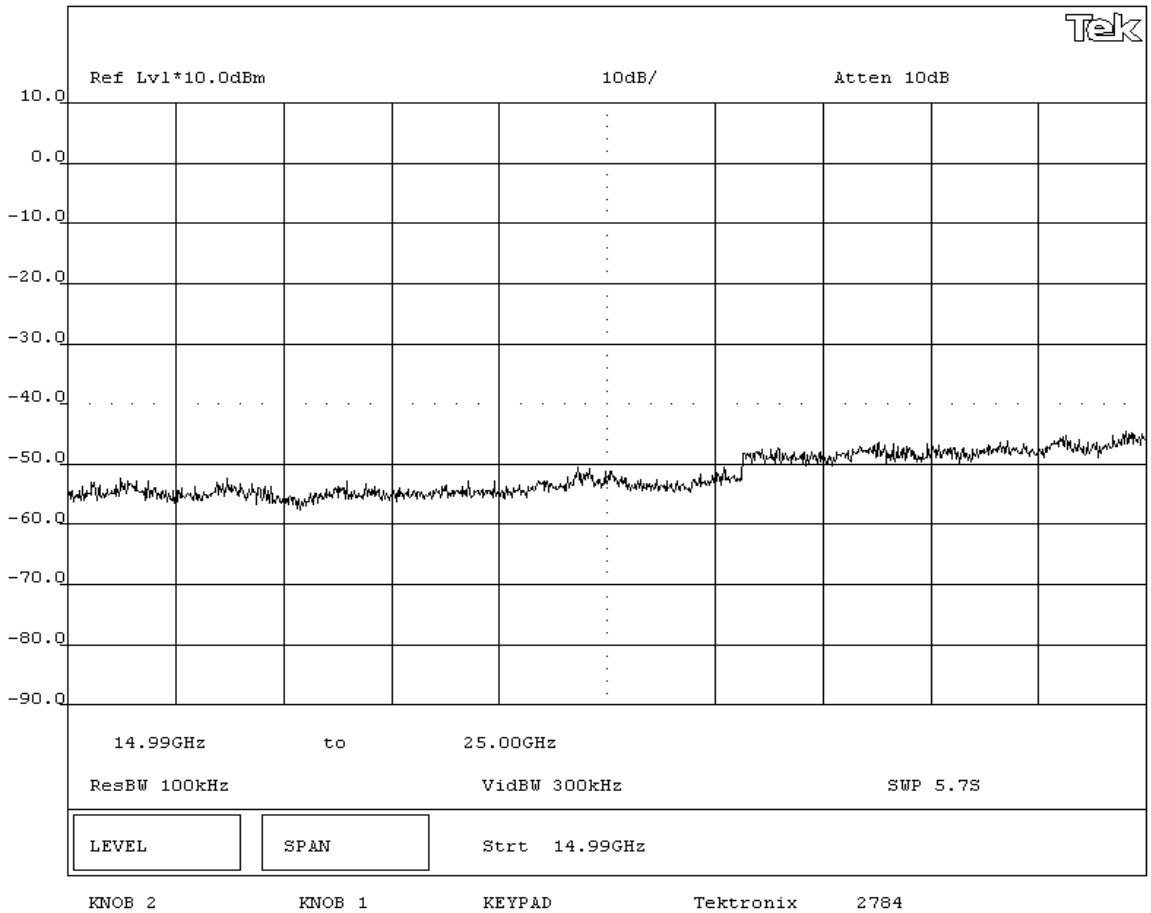
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - Mid Channel - 802.11(b) 1 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

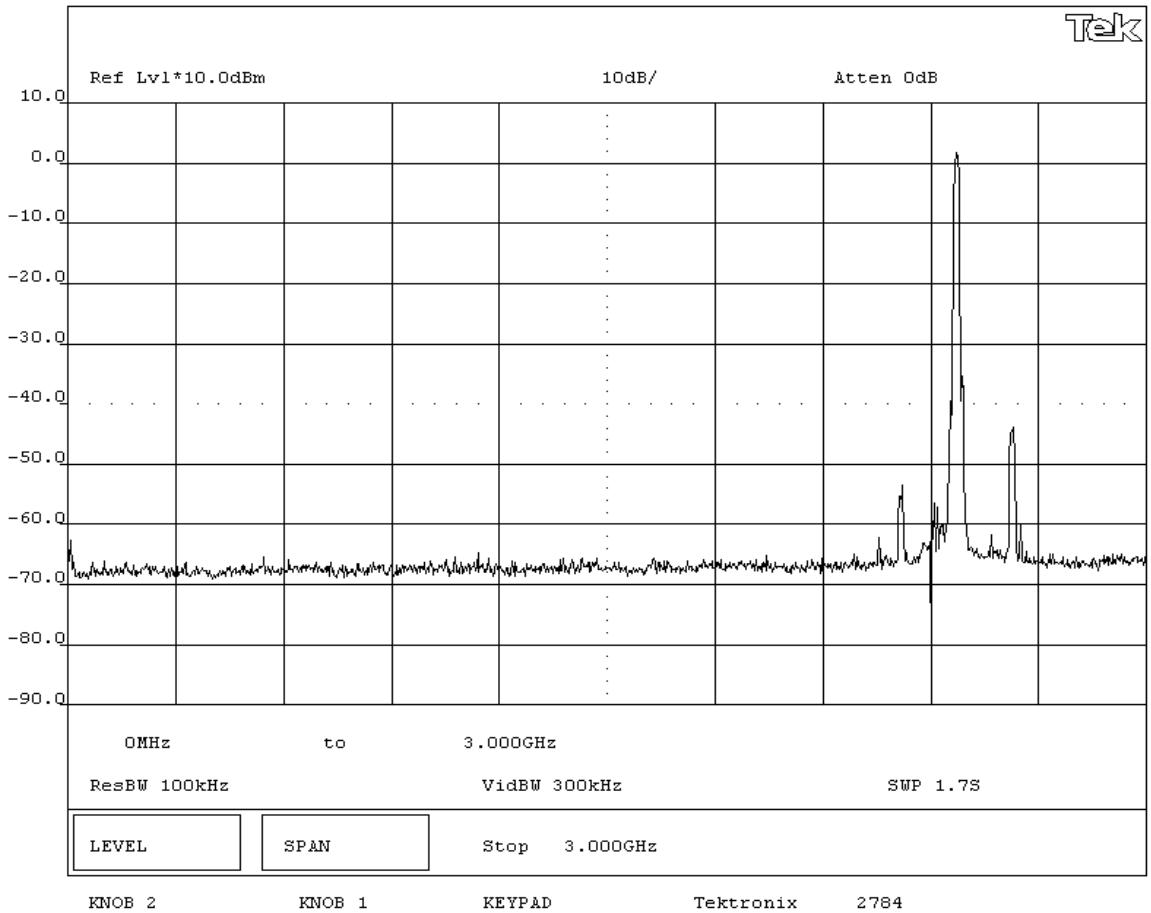
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - High Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

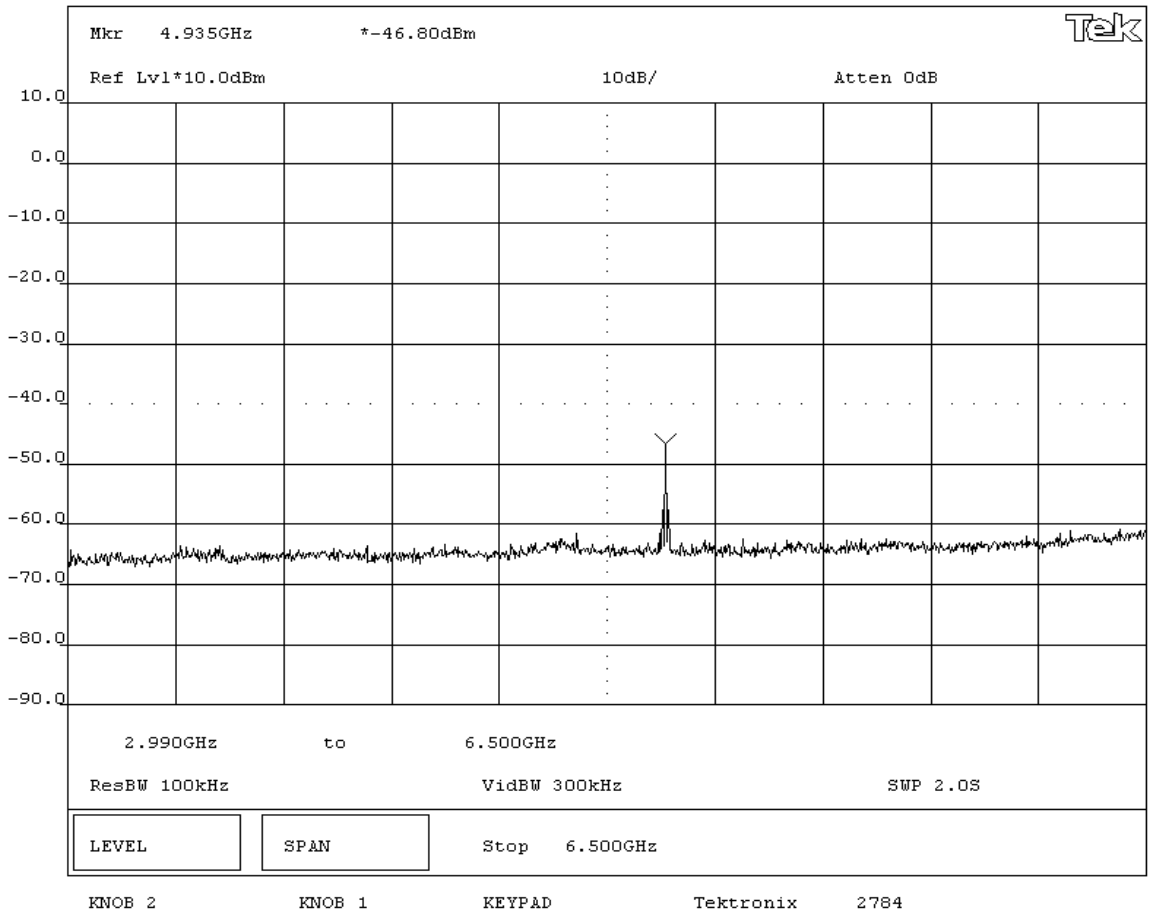
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - High Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

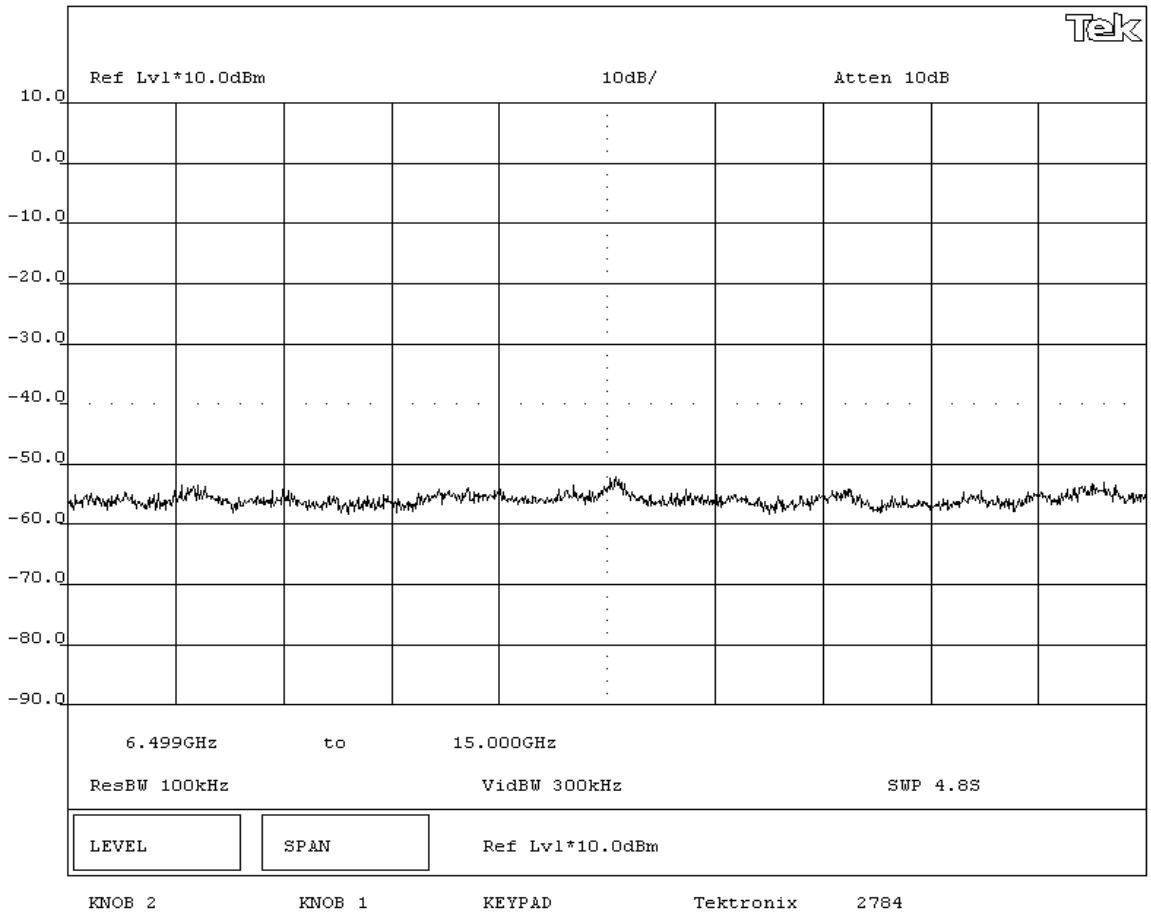
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - High Channel - 802.11(b) 1 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

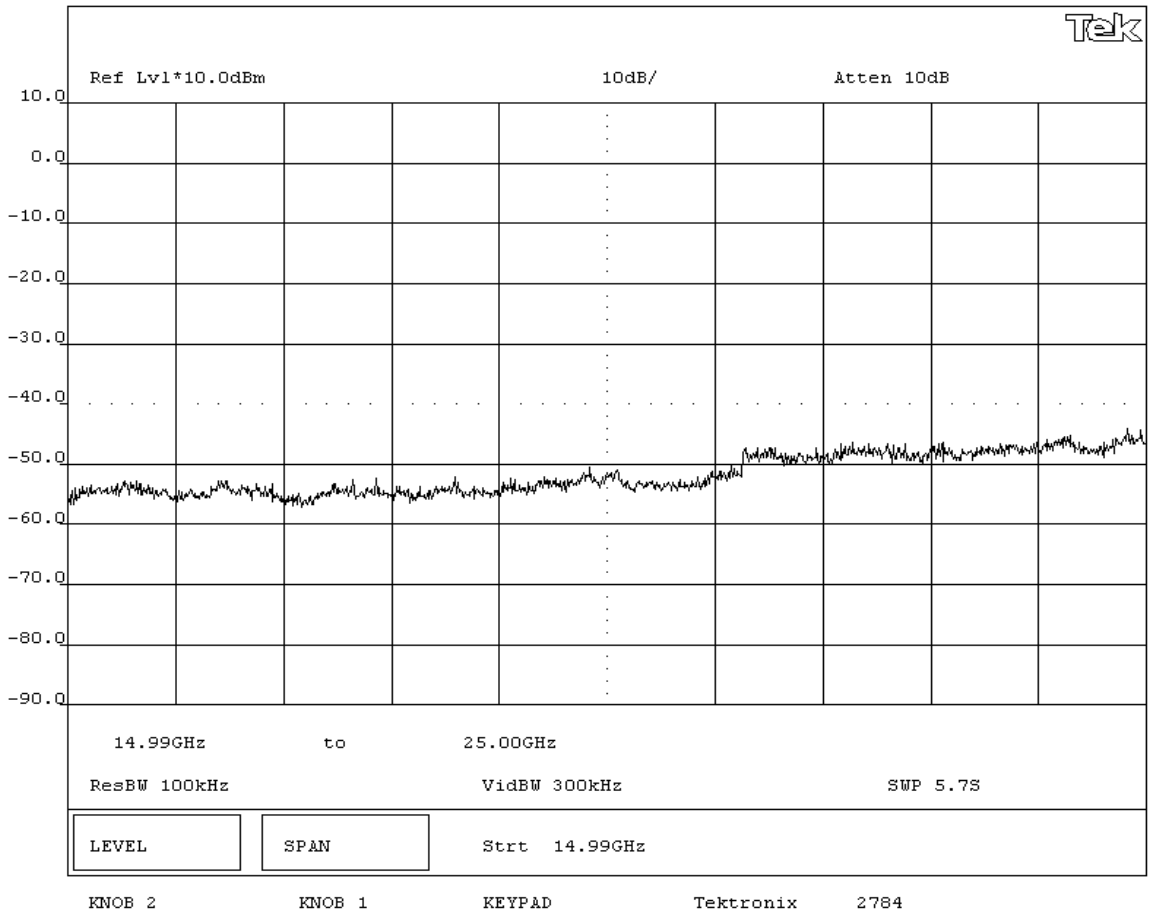
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - High Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

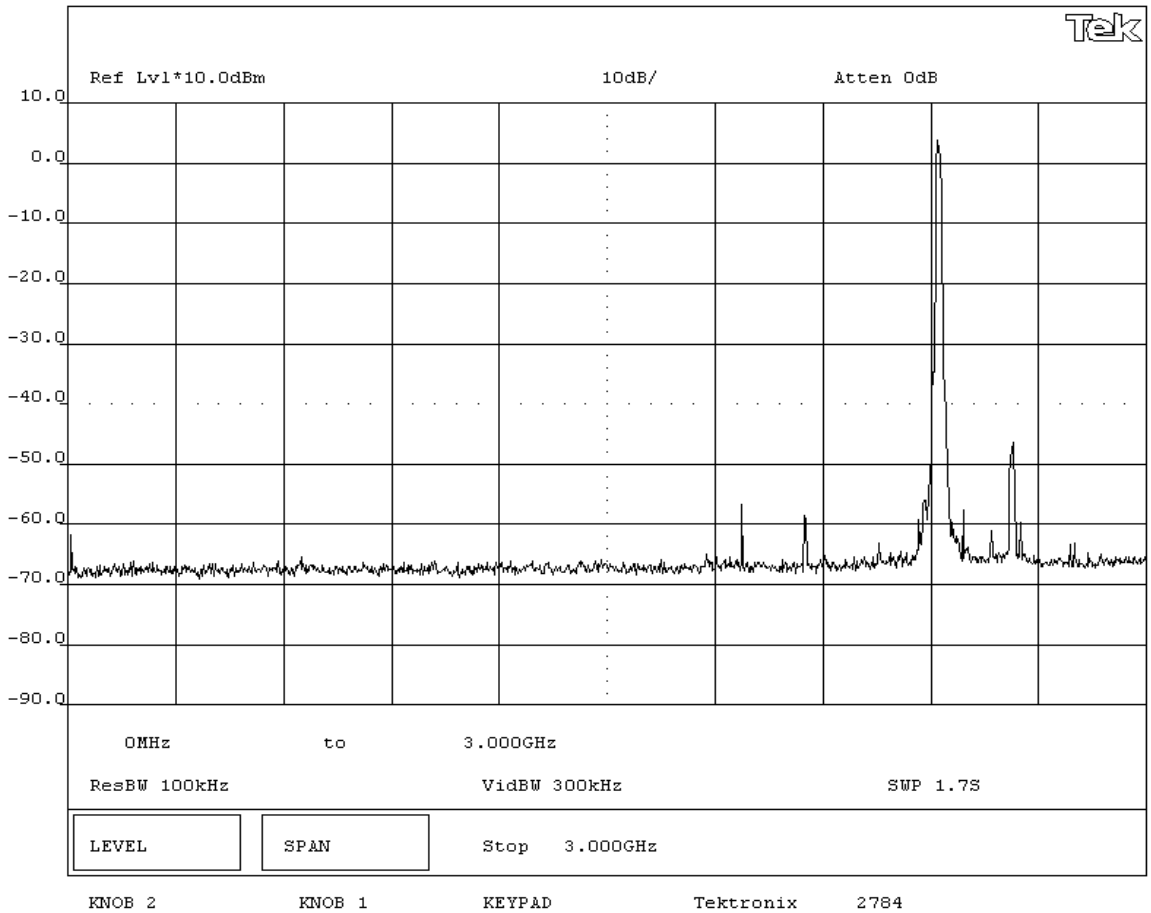
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Low Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

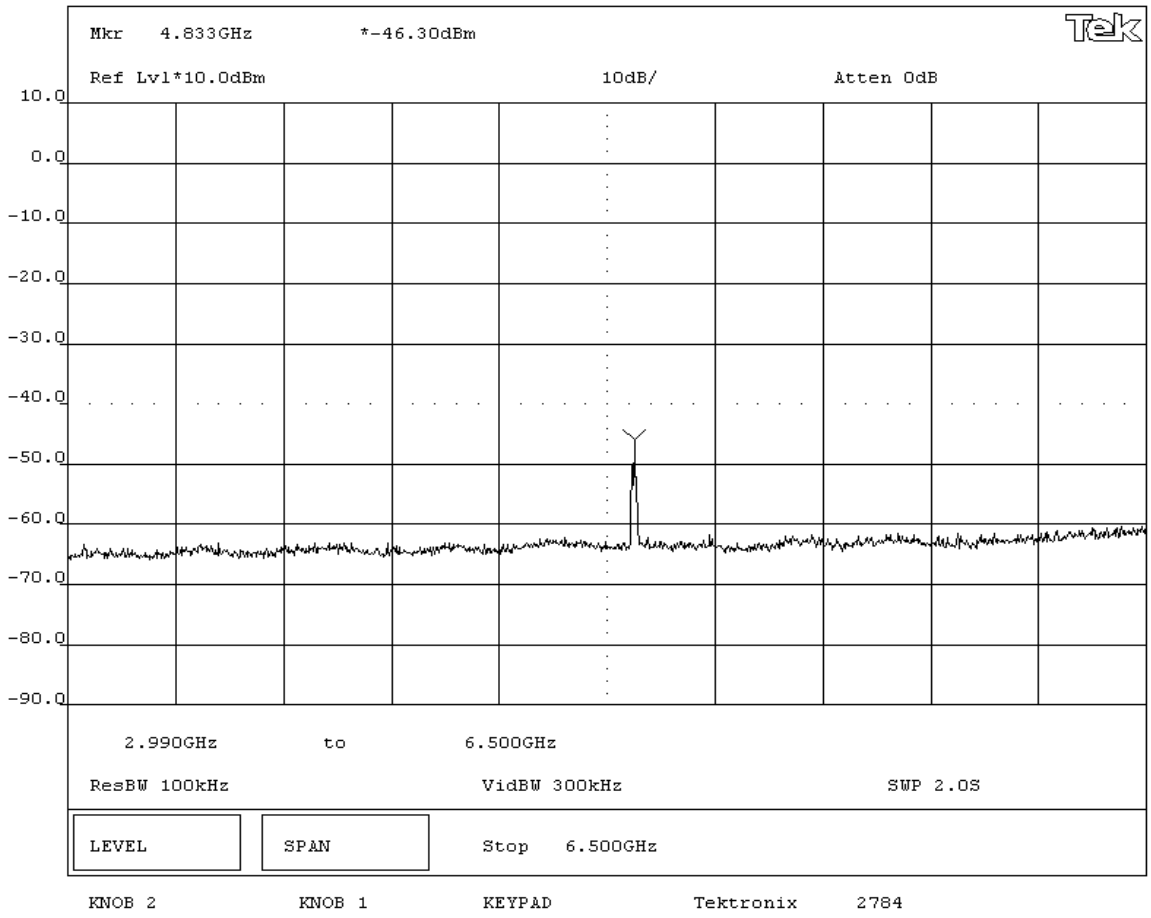
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Low Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

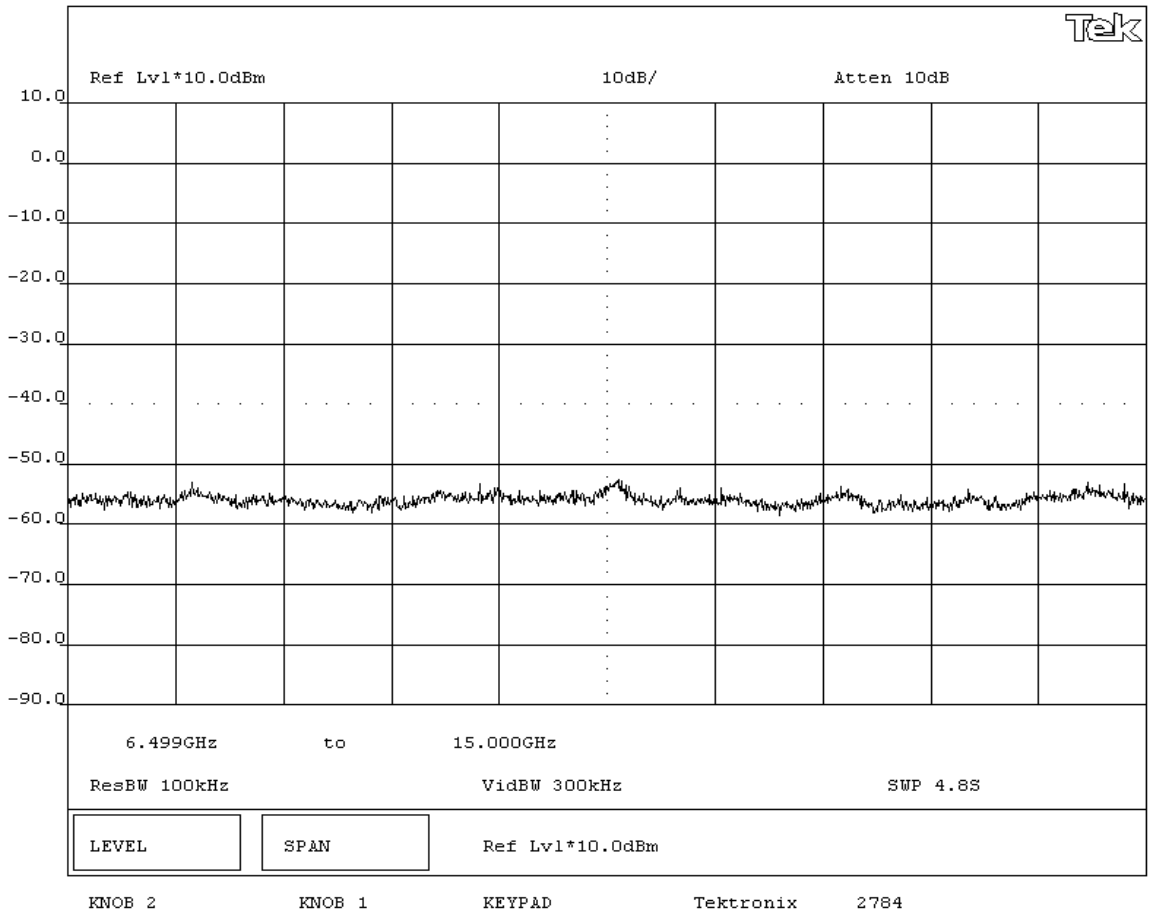
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Low Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

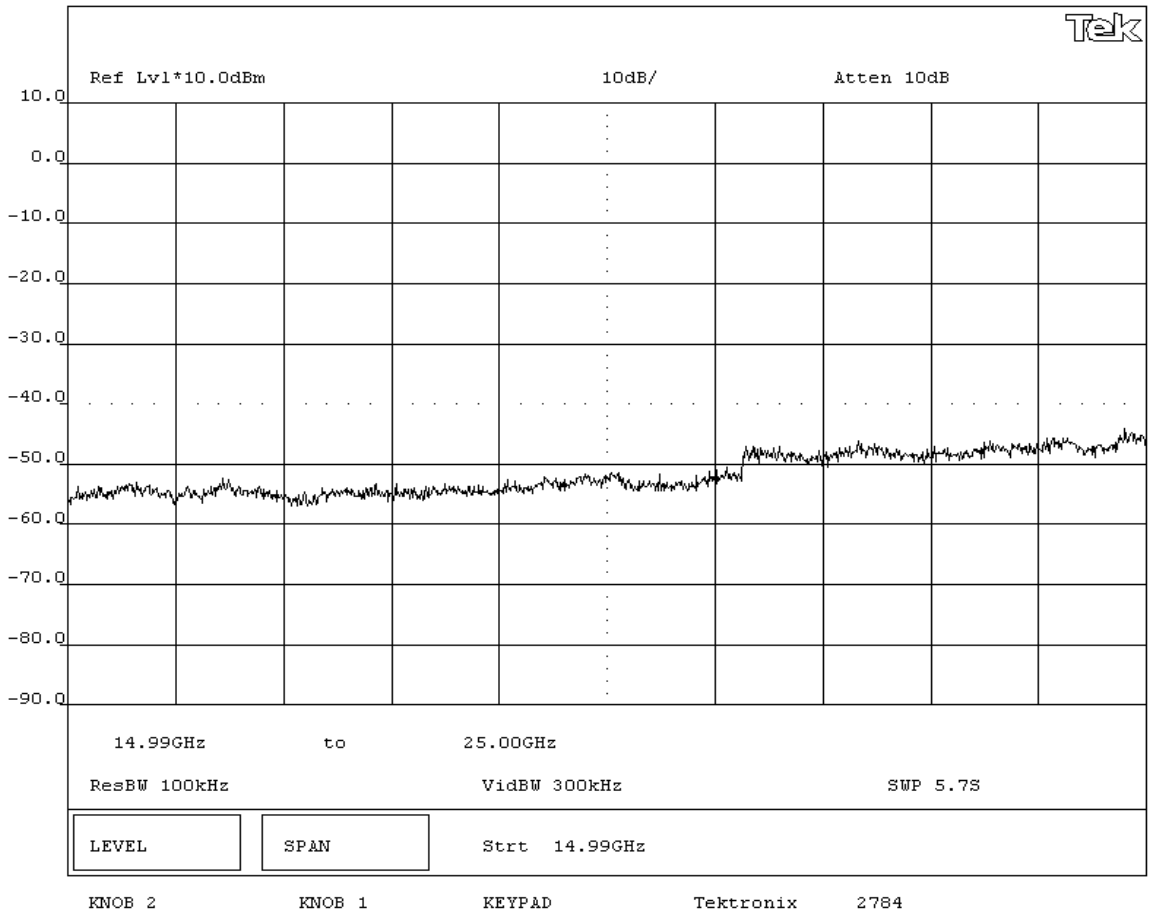
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz-25GHz - Low Channel - 802.11(b) 5.5 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

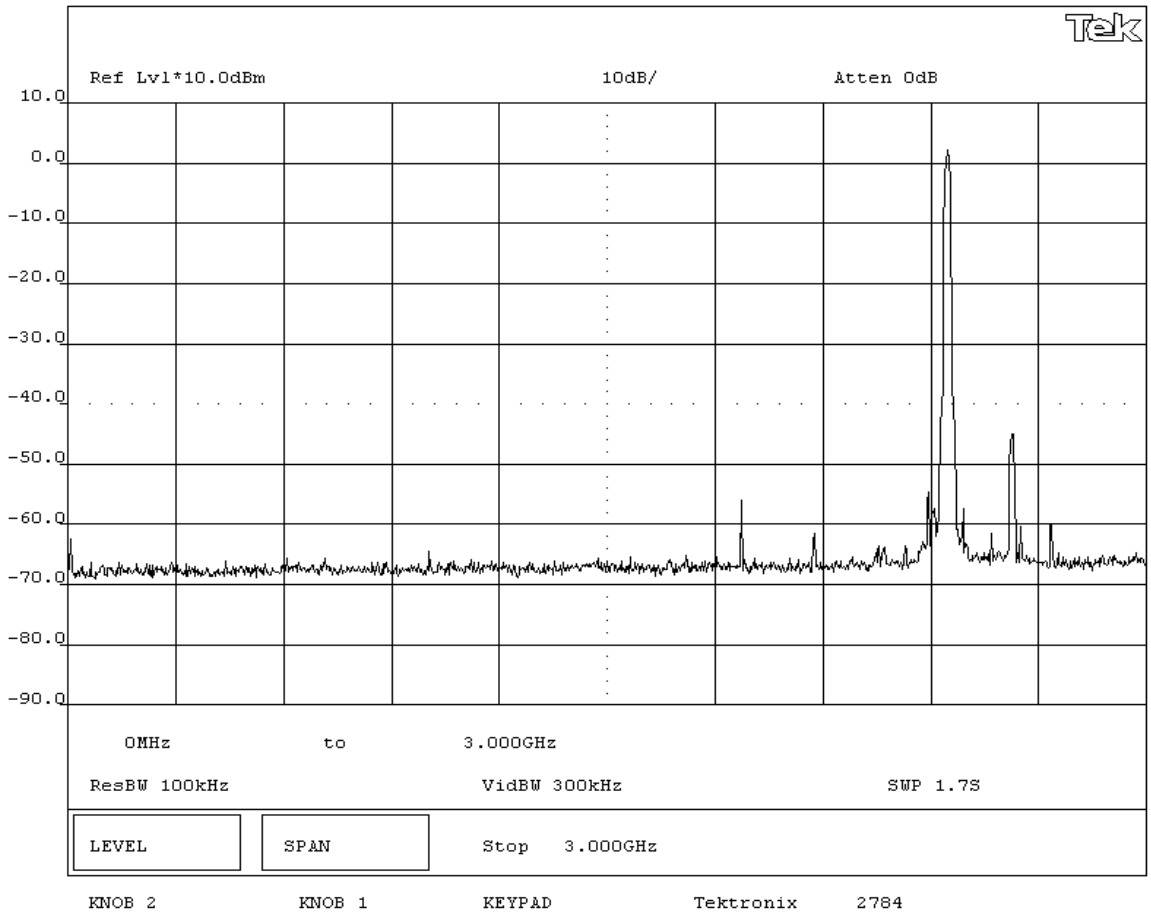
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Mid Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

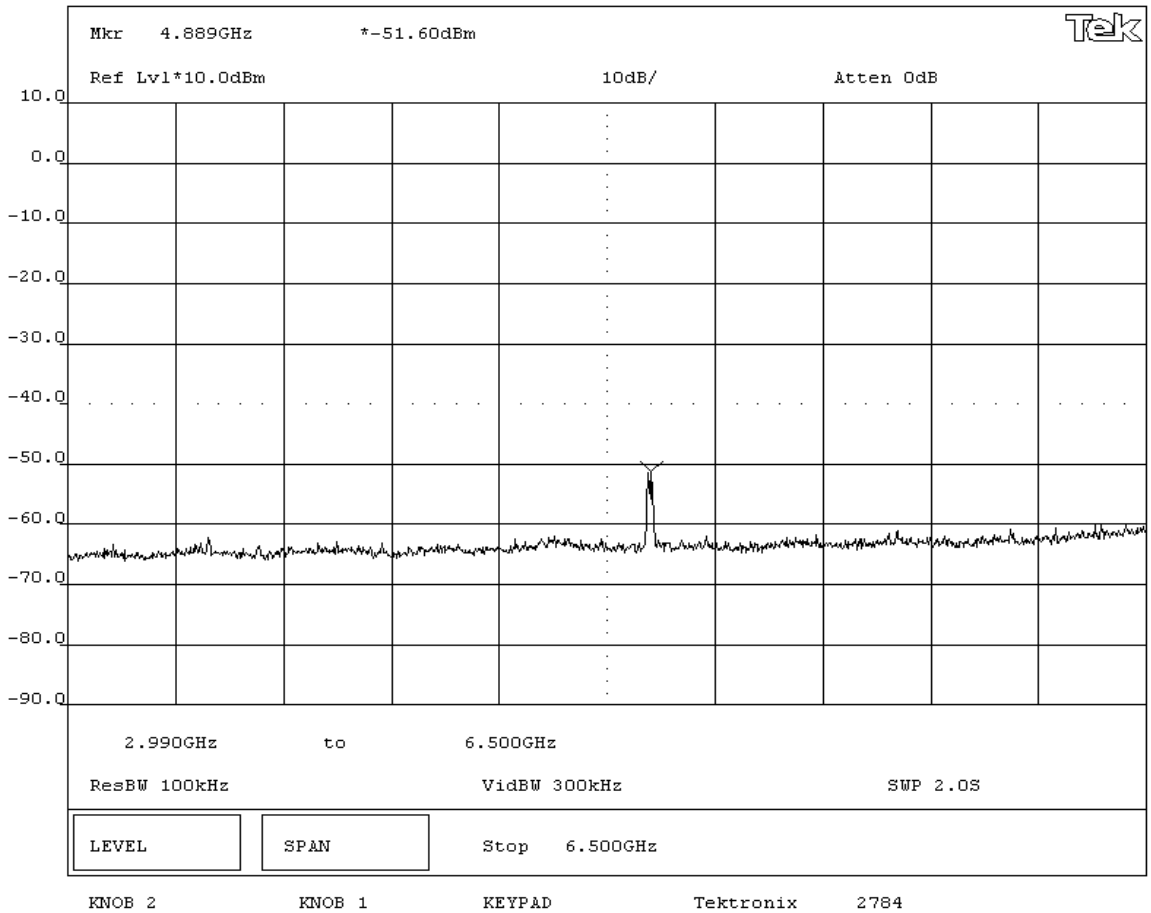
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Mid Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

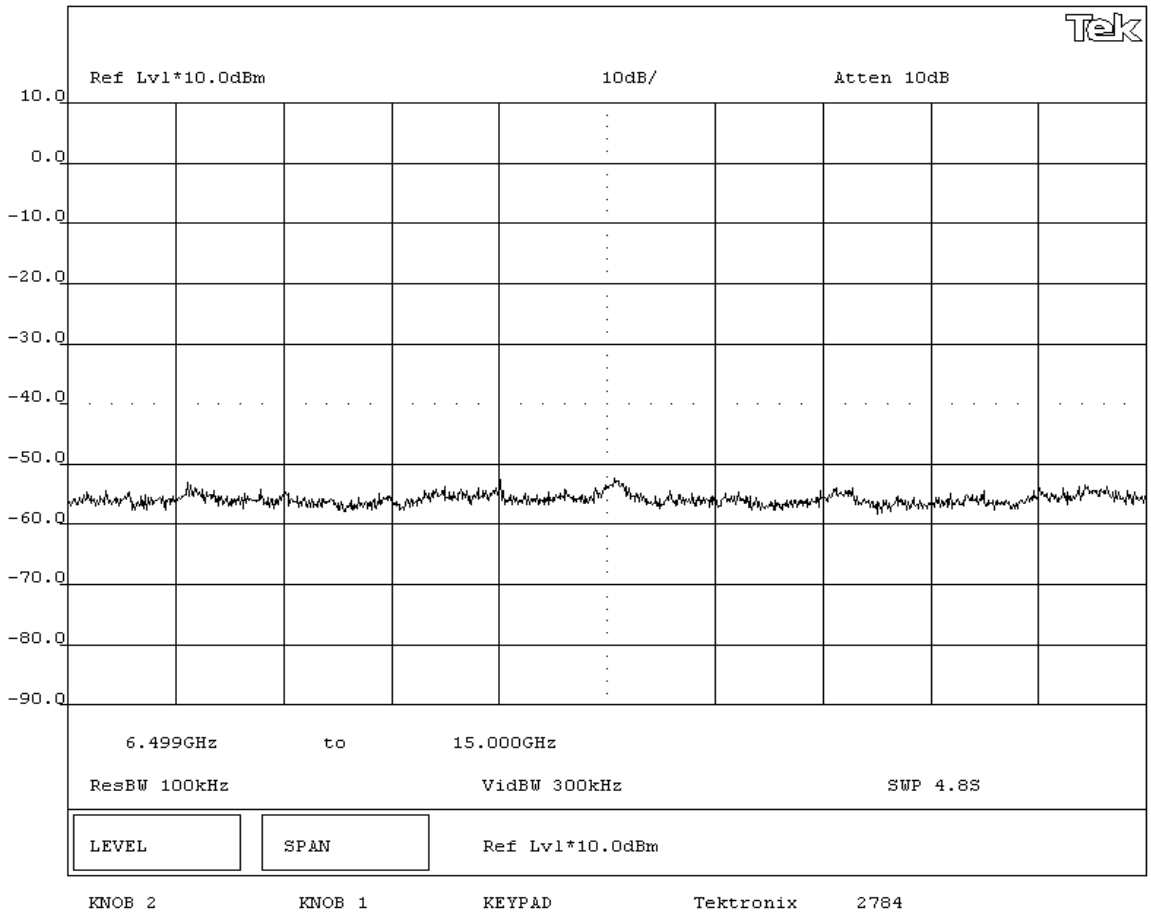
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Mid Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

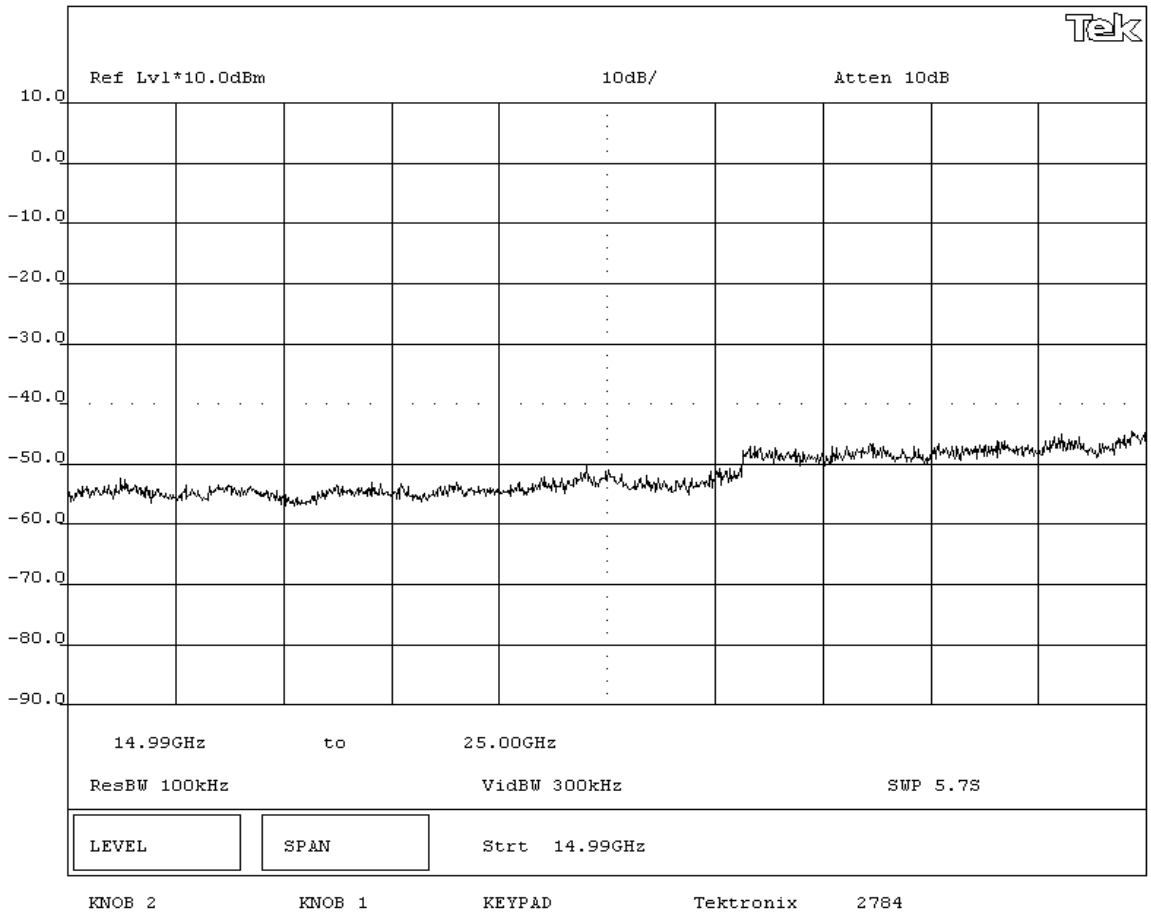
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz-25GHz - Mid Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

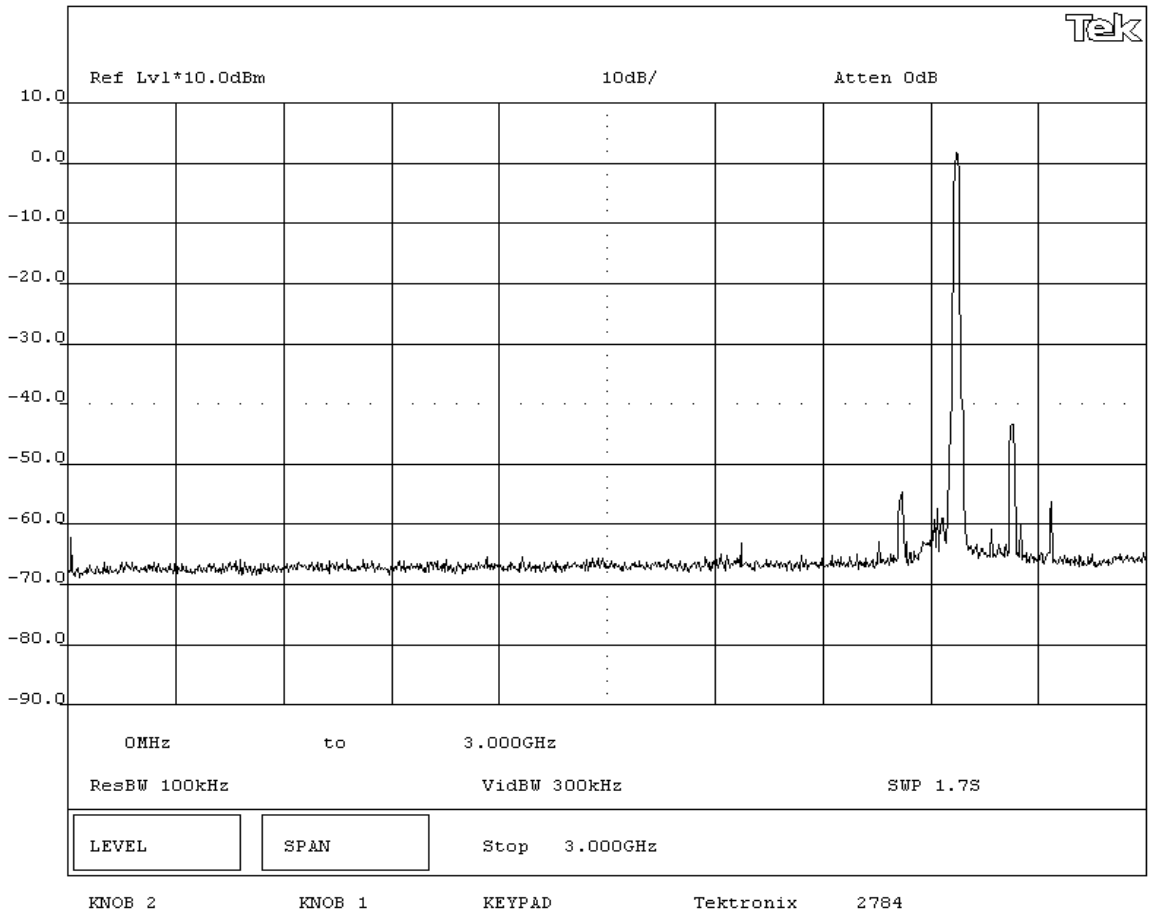
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - High Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

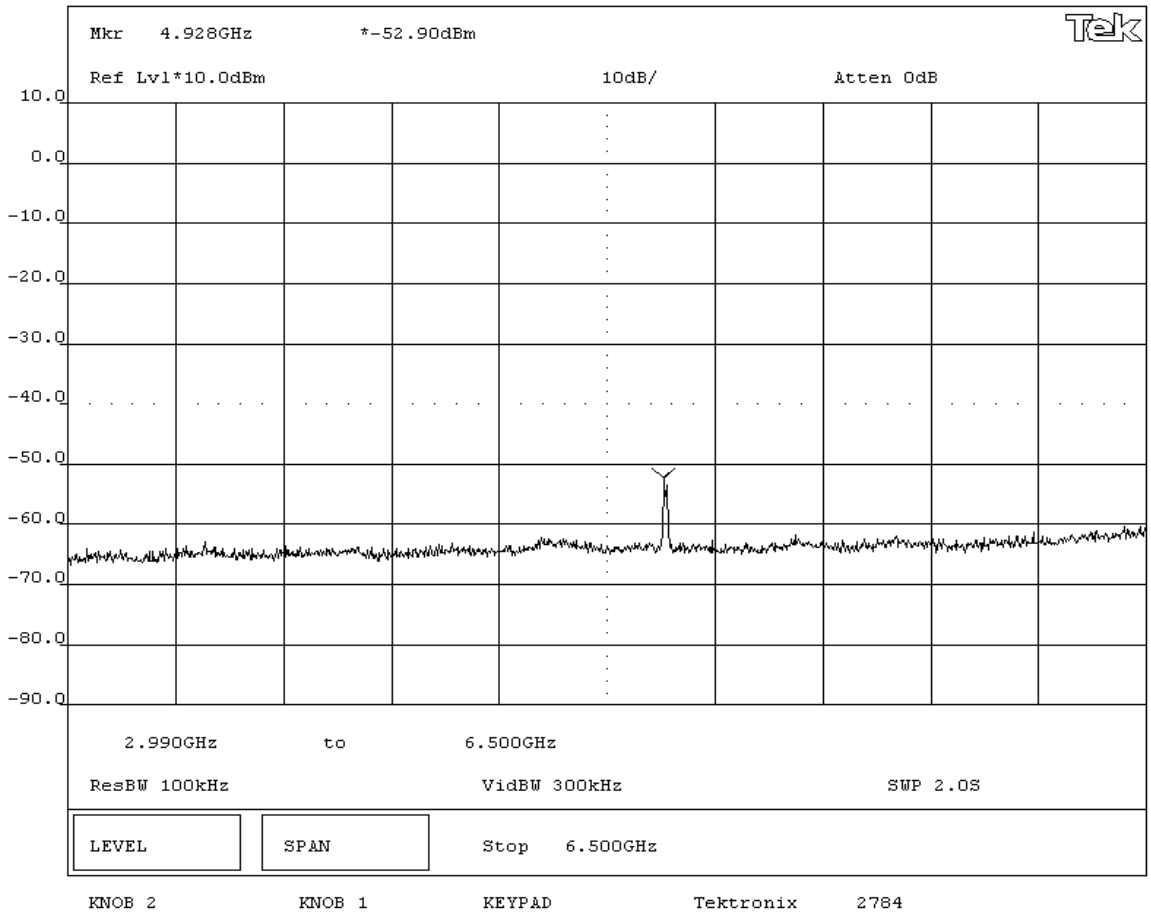
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - High Channel - 802.11(b) 5.5 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

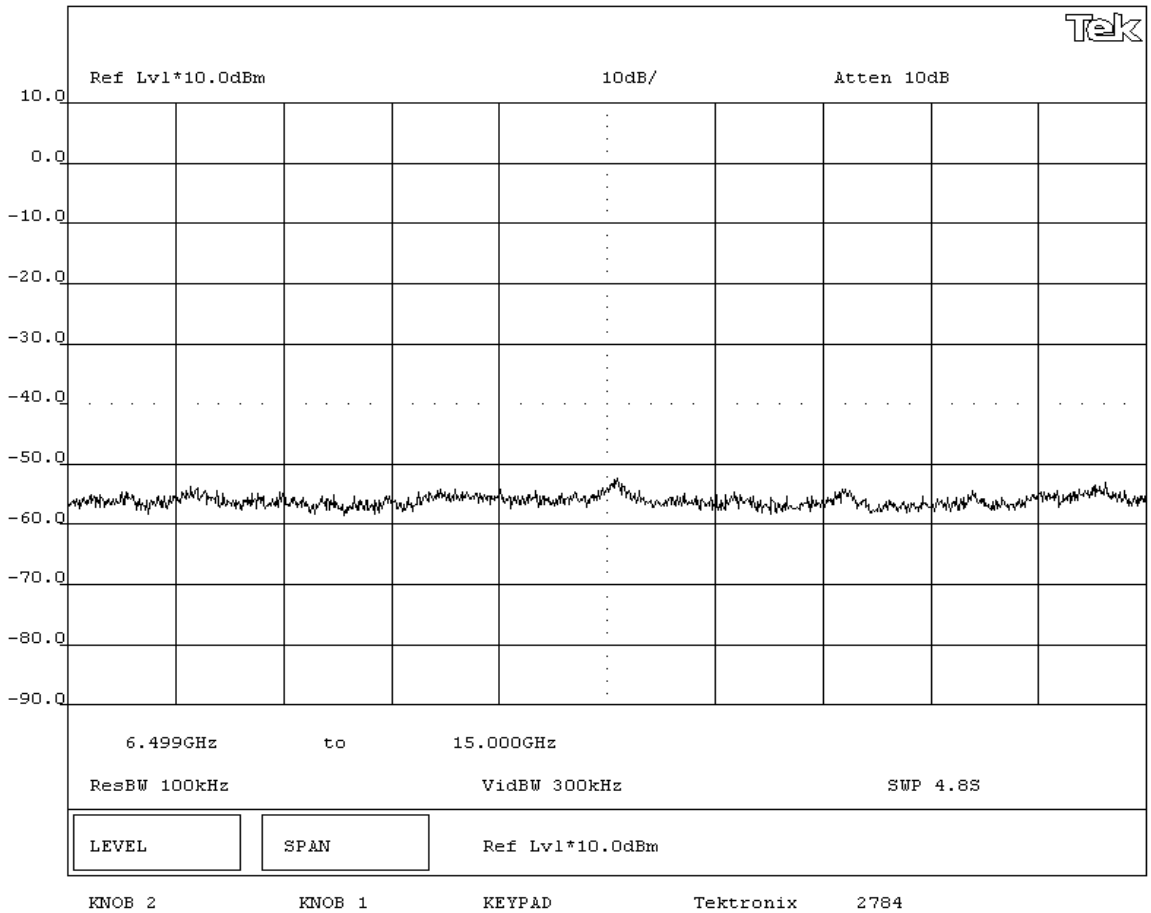
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - High Channel - 802.11(b) 5.5 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 5.5 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

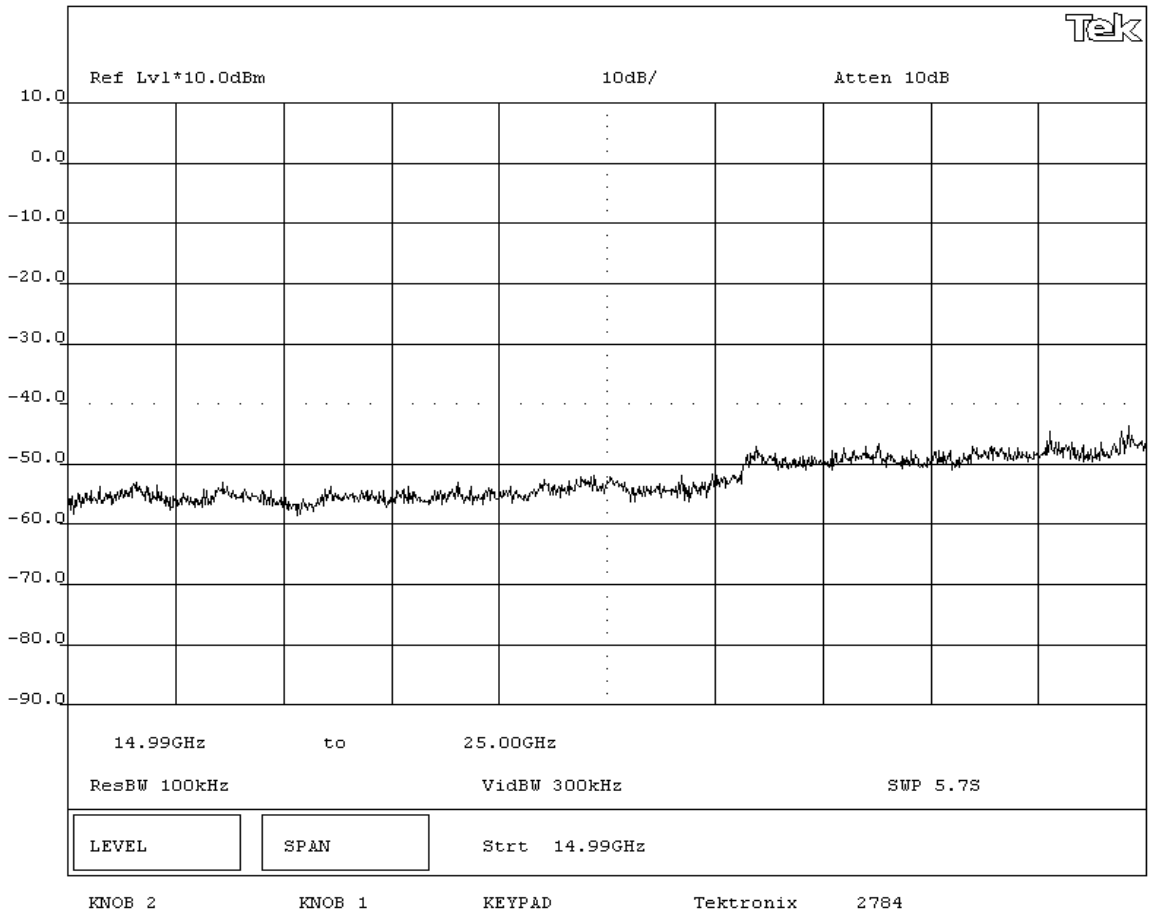
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz-25GHz - Mid Channel - 802.11(b) 5.5 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

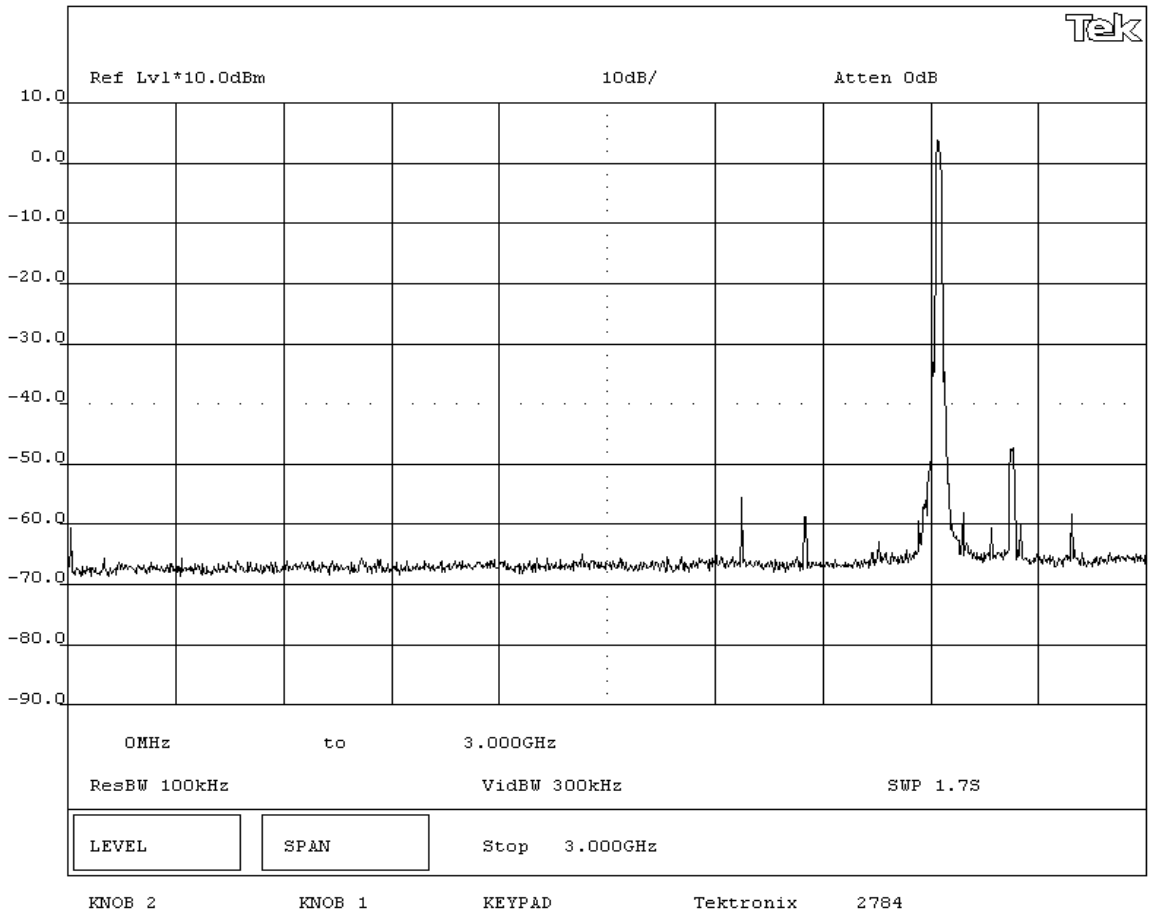
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Low Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

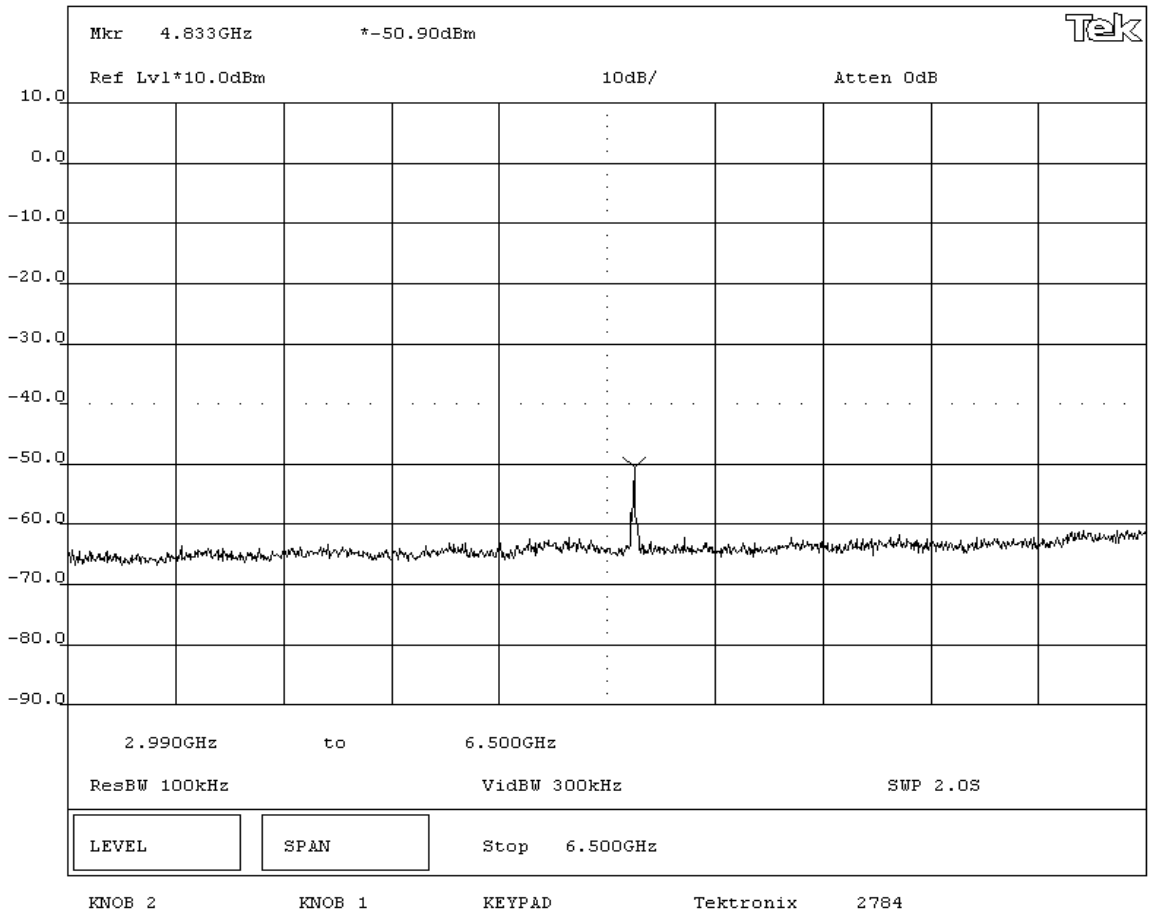
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Low Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

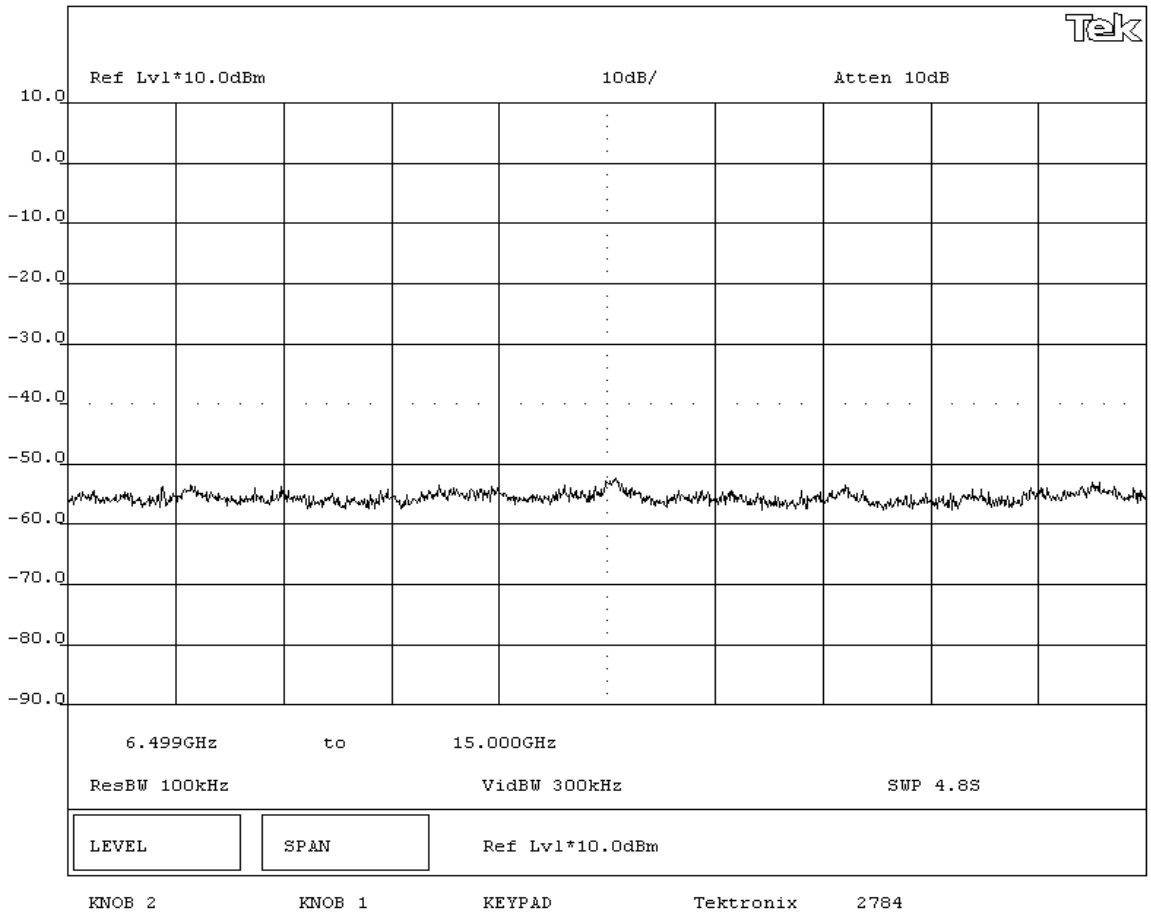
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Low Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

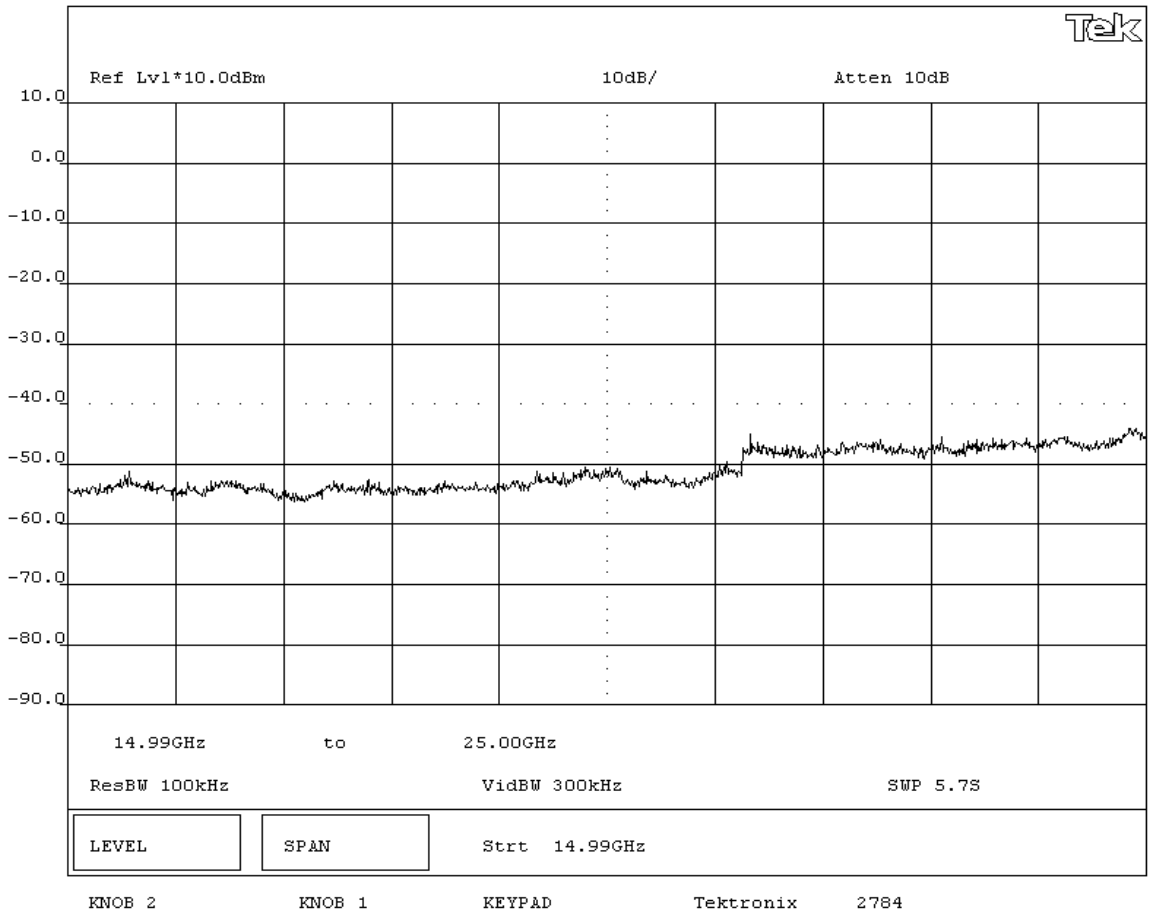
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - Low Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

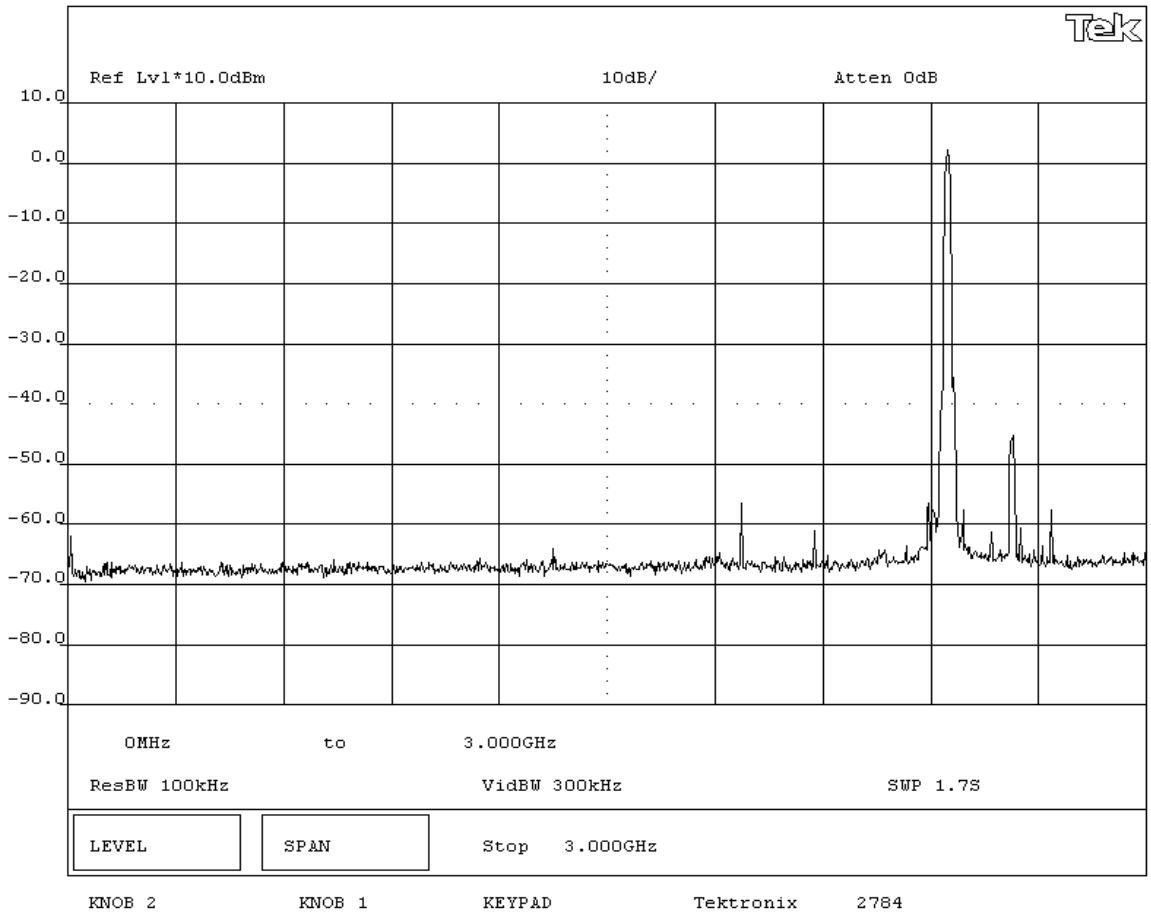
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - Mid Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

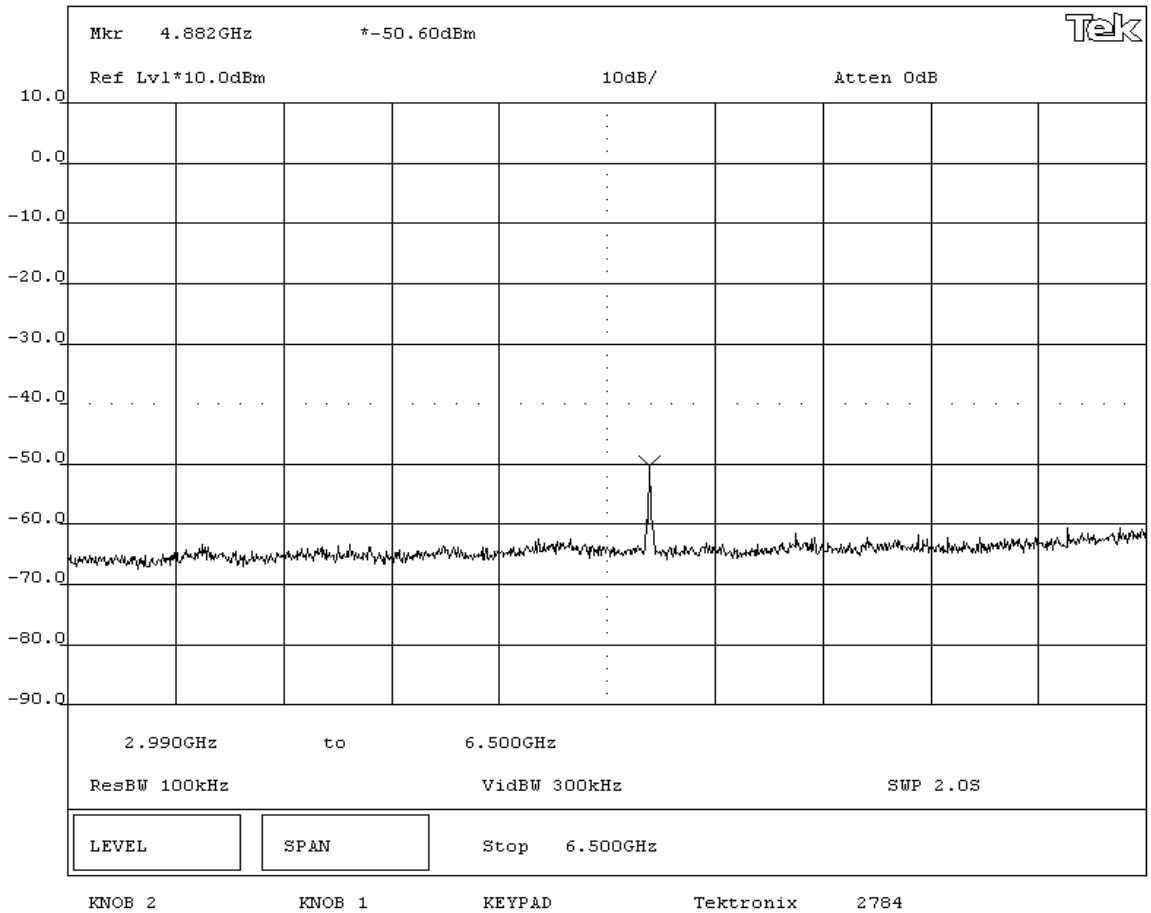
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - Mid Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

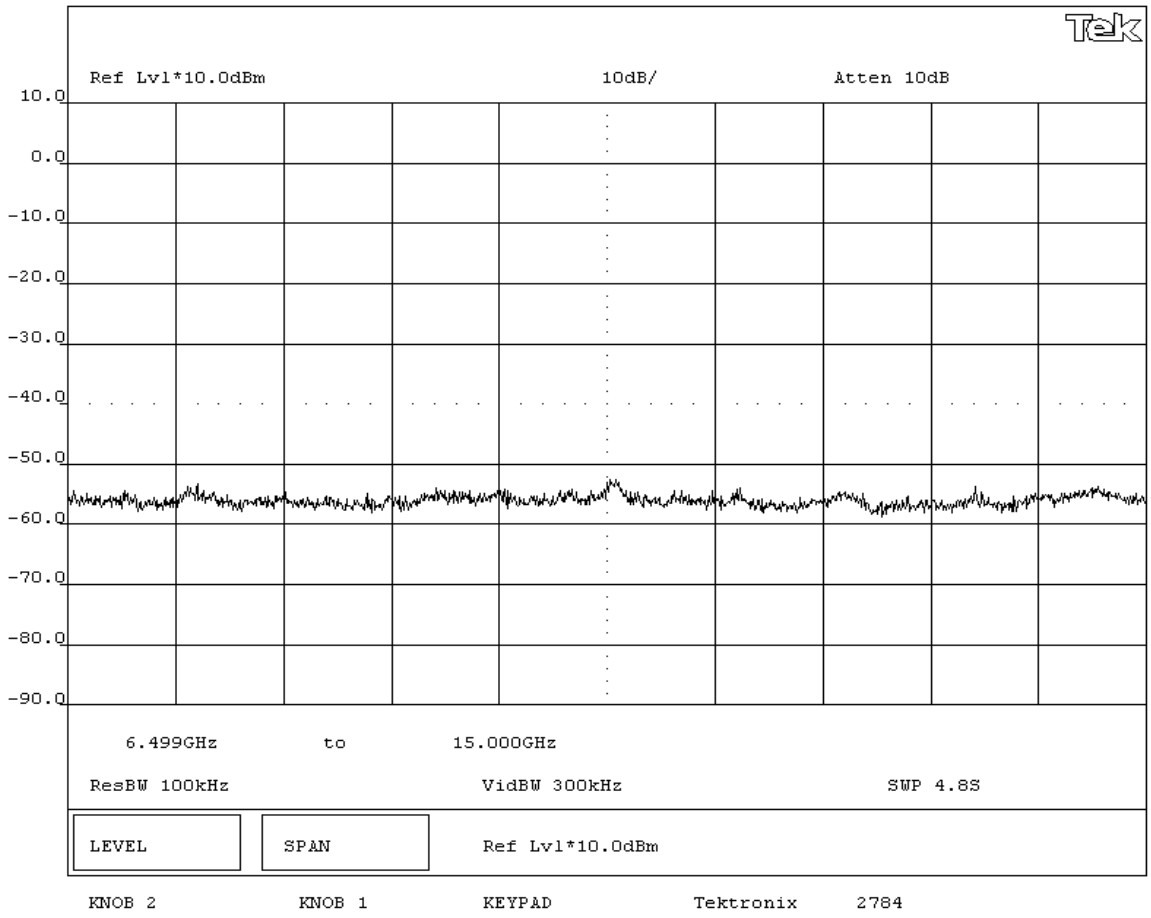
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - Mid Channel - 802.11(b) 11 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

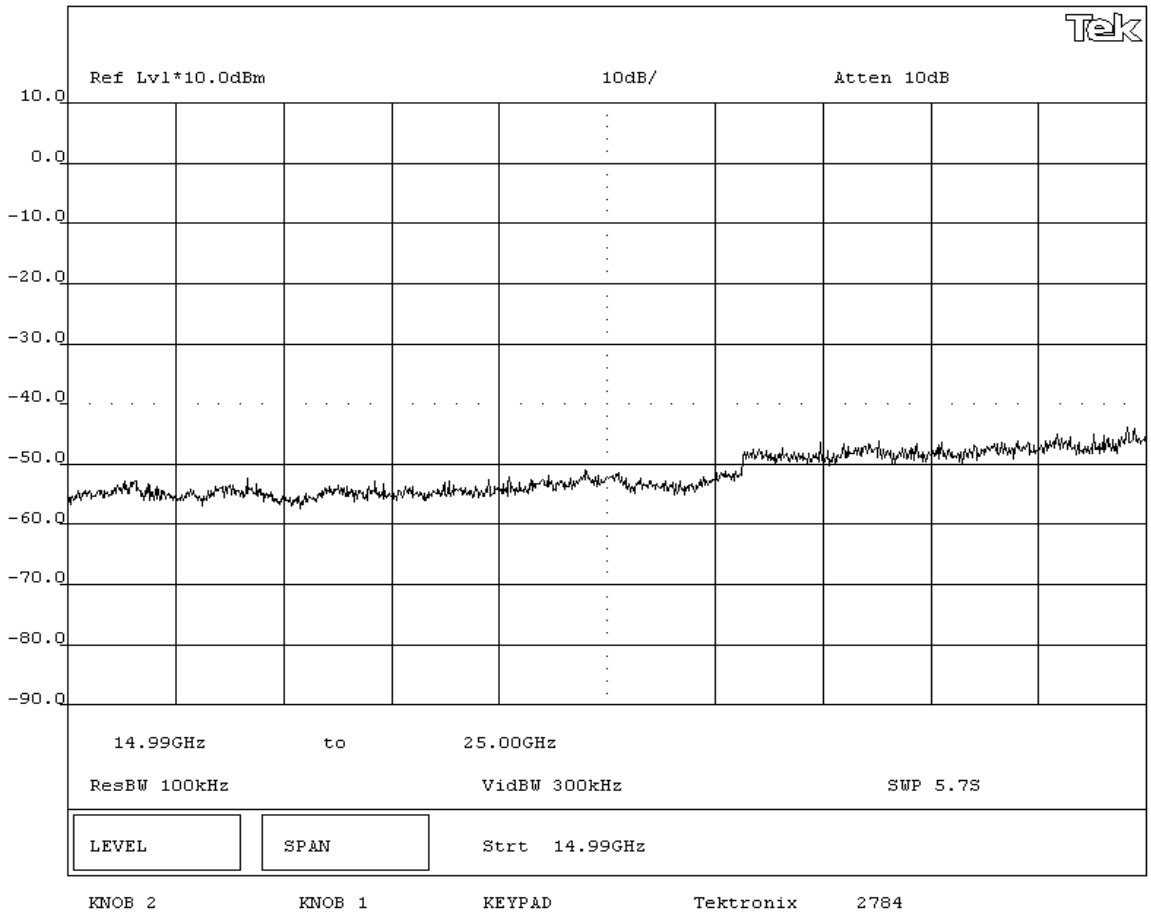
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - Mid Channel - 802.11(b) 11 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

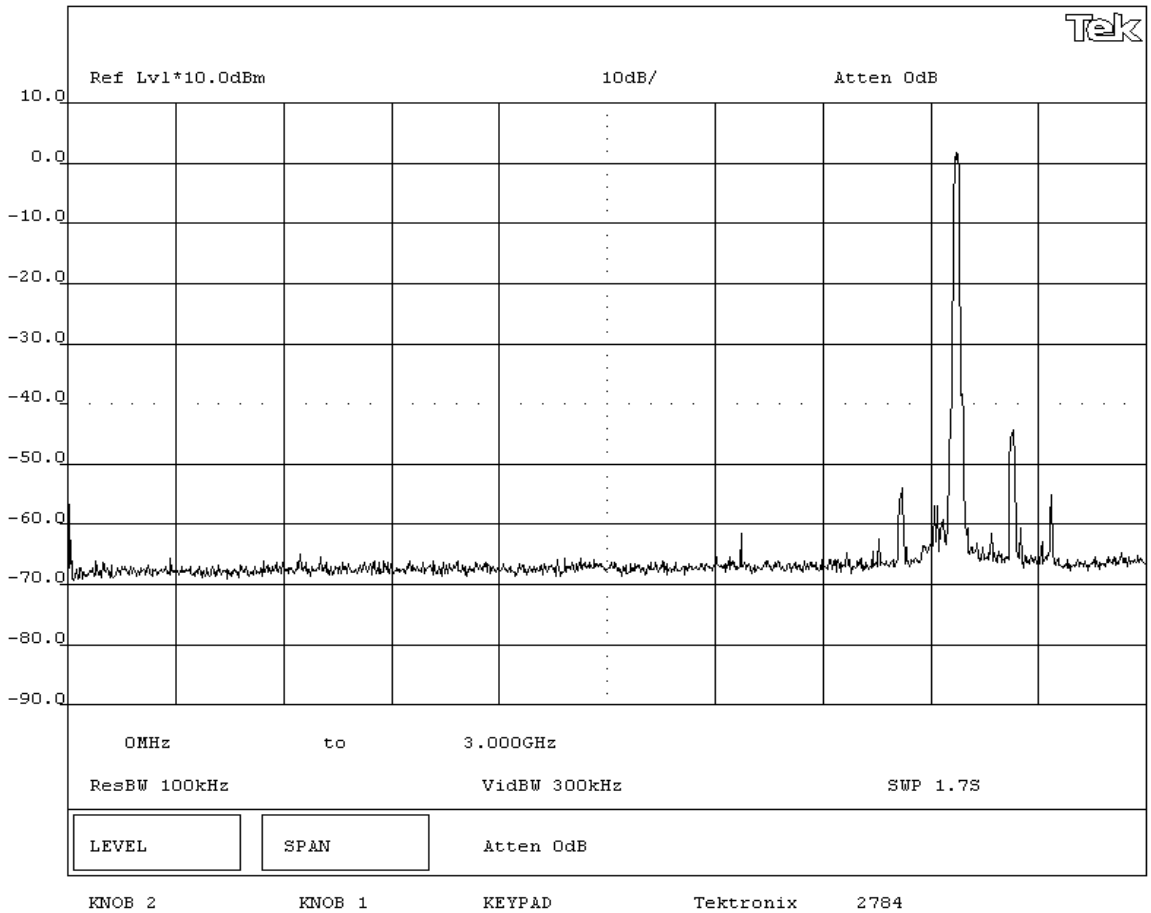
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 0MHz-3GHz - High Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

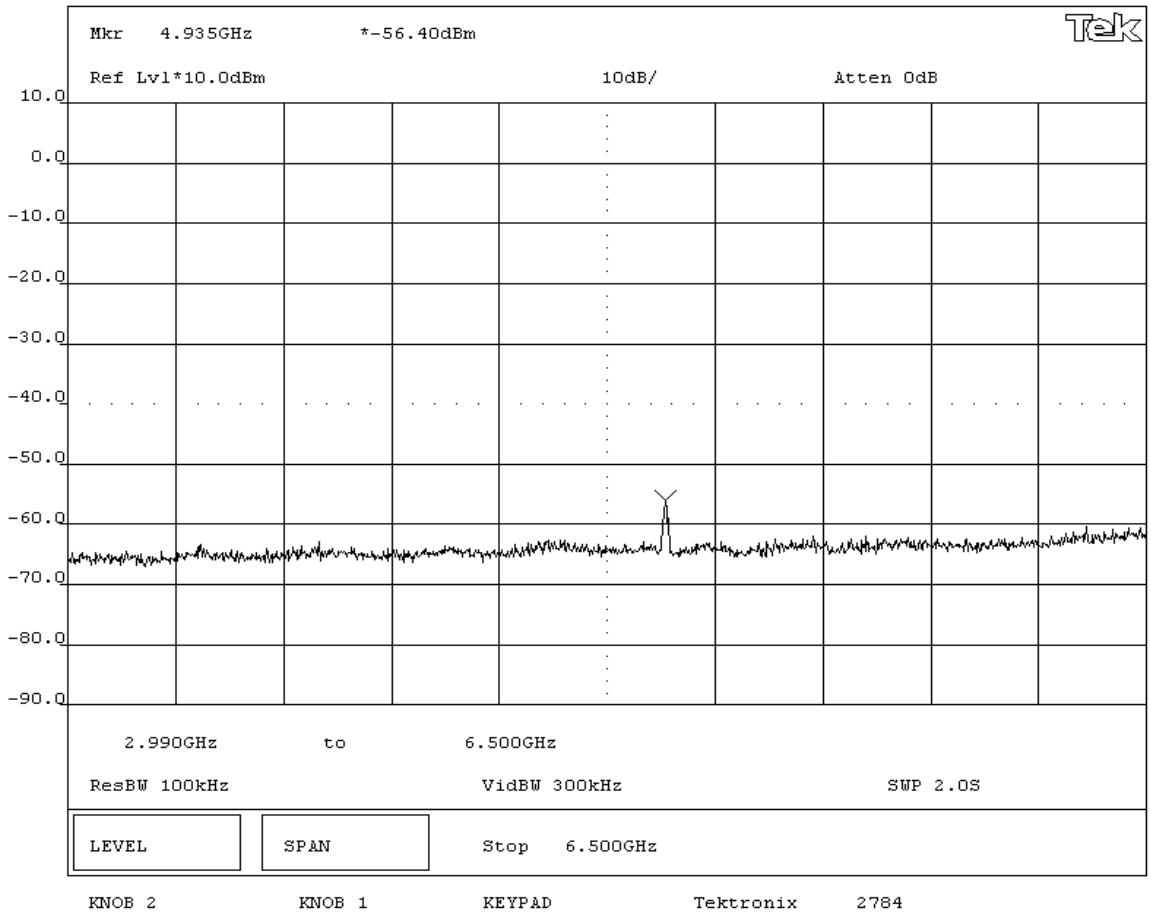
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 3GHz-6.5GHz - High Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

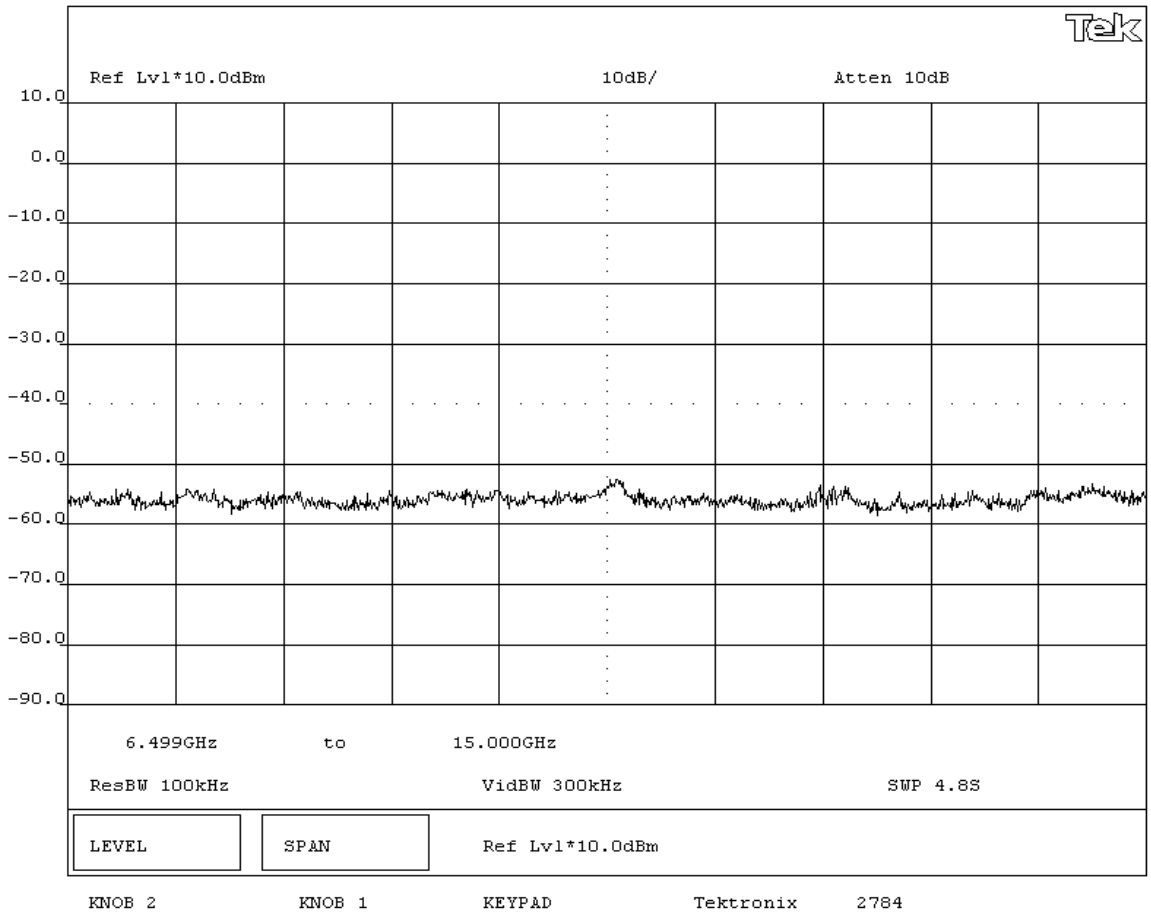
Pass

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 6.5GHz-15GHz - High Channel - 802.11(b) 11 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/08/05
Customer:	INTERMEC Technologies			Temperature:	21°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(d)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum level of any spurious emission outside of the authorized band is 20 dB down from the fundamental.

RESULTS

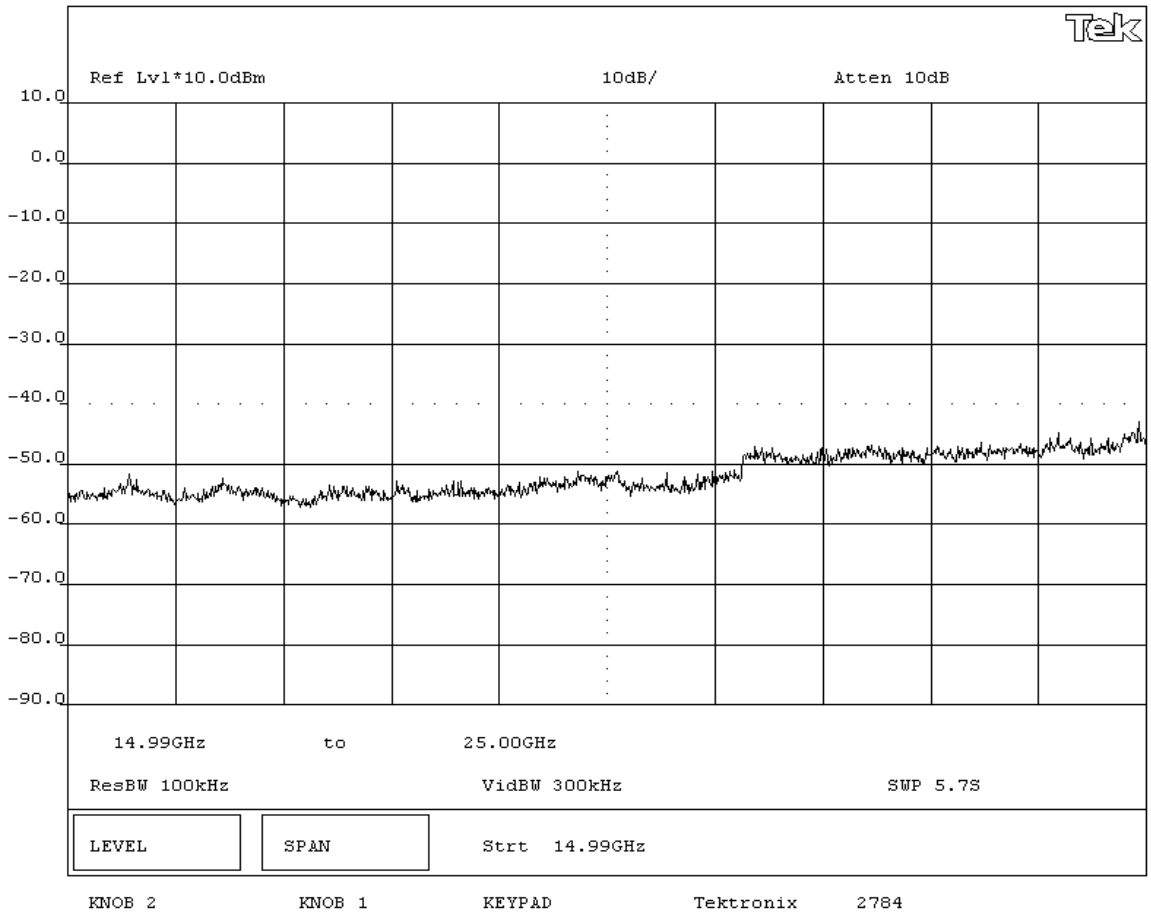
Pass

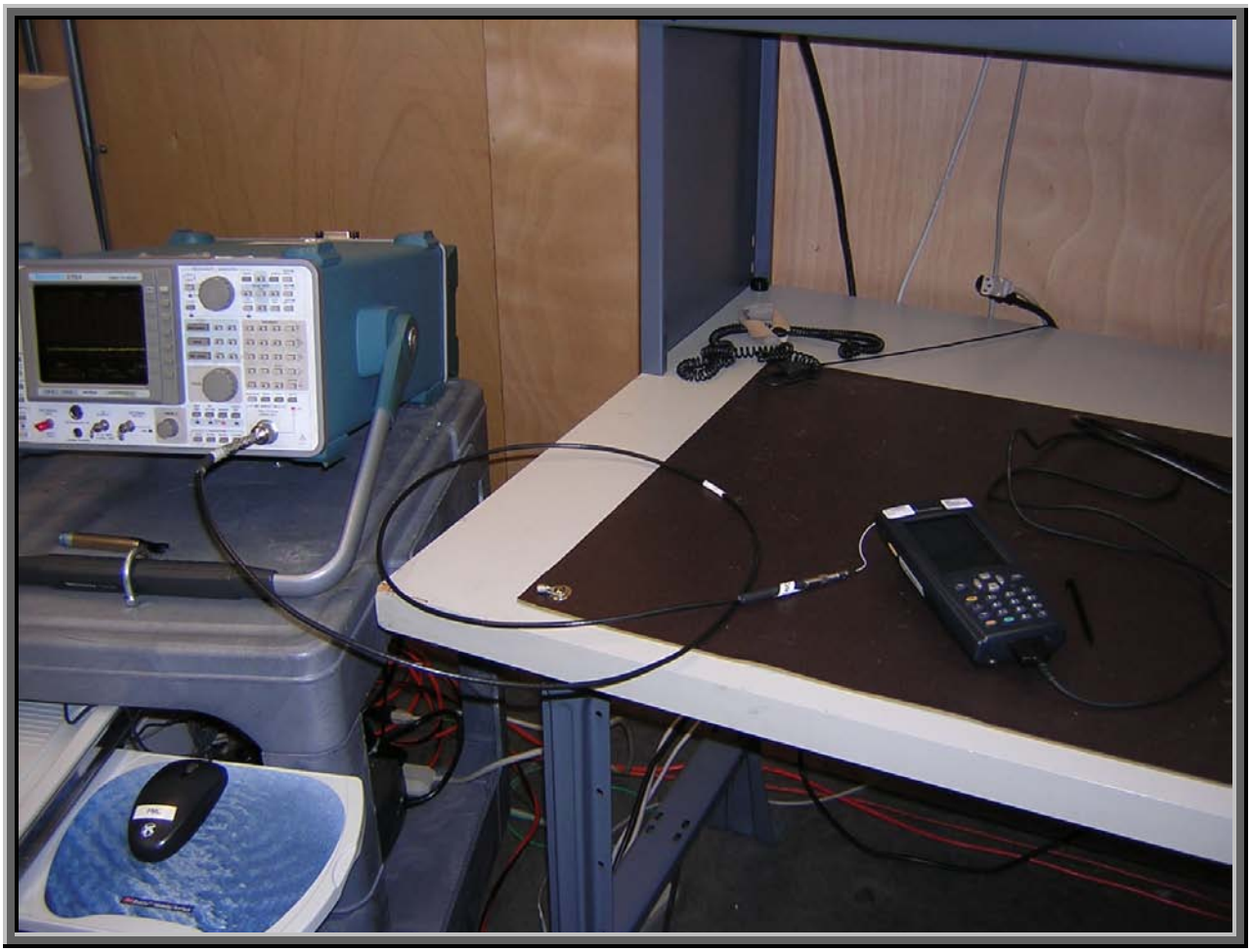
SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Antenna Conducted Spurious Emissions 15GHz - 25GHz - High Channel - 802.11(b) 11 Mbps





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:
Low
Mid
High

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
1 Mbps (802.11b)
11 Mbps (802.11b)
6 Mbps (802.11g)
36 Mbps (802.11g)
54 Mbps (802.11g)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC, 60 Hz.

Software\Firmware Applied During Test			
Exercise software	Test Utility	**Version**	0.4
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(b)/(g) radio	Intermec Technologies Corporation	2610CF	TCKRNA-453387442
AC Adapter	Intermec Technologies Corporation	FW1812	011025
Host Device	Intermec Technologies Corporation	700C	00490500002

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

Requirement: Per 47 CFR 15.247(e), the peak power spectral density conducted from the antenna port of a direct sequence transmitter must not be greater than +8 dBm in any 3 kHz band during any time interval of continuous transmission.

Configuration: The peak power spectral density measurements were measured with the EUT set to low, mid, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. Per the procedure outlined in FCC 97-114, the spectrum analyzer was used as follows:

> The emission peak(s) were located and zoom in on within the passband. The resolution bandwidth was set to 3 kHz, the video bandwidth was set to greater than or equal to the resolution bandwidth. The sweep speed was set equal to the span divided by 3 kHz (sweep = (SPAN/3 kHz)). For example, given a span of 1.5 MHz, the sweep should be 1.5 x 106 ÷ 3 x 103 = 500 seconds. External attenuation was used and added to the reading. The following FCC procedure was used for modifying the power spectral density measurements:

"If the spectrum line spacing cannot be resolved on the available spectrum analyzer, the noise density function on most modern conventional spectrum analyzers will directly measure the noise power density normalized to a 1 Hz noise power bandwidth. Add 34.8 dB for correction to 3 kHz."

Completed by:

NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

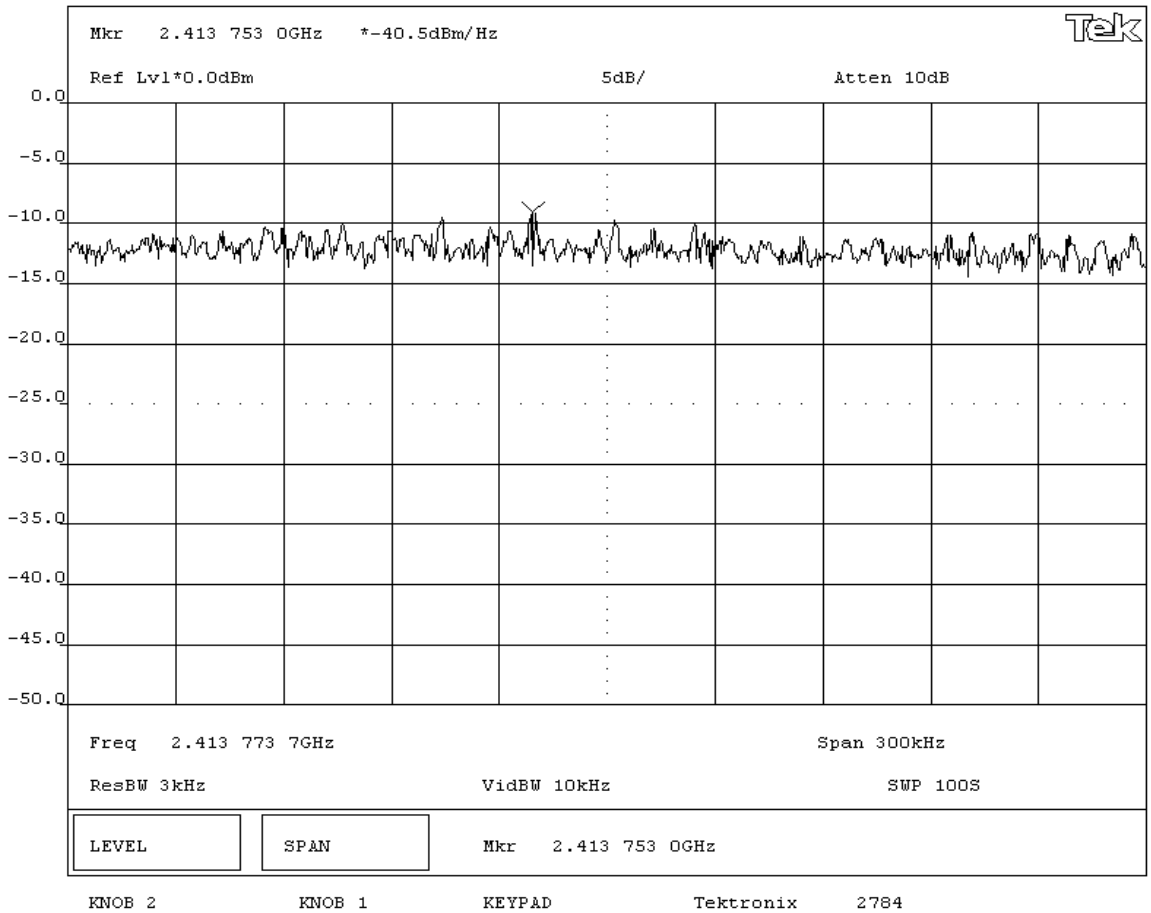
RESULTS	Amplitude
Pass	Power Spectral Density = -5.7 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Low Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

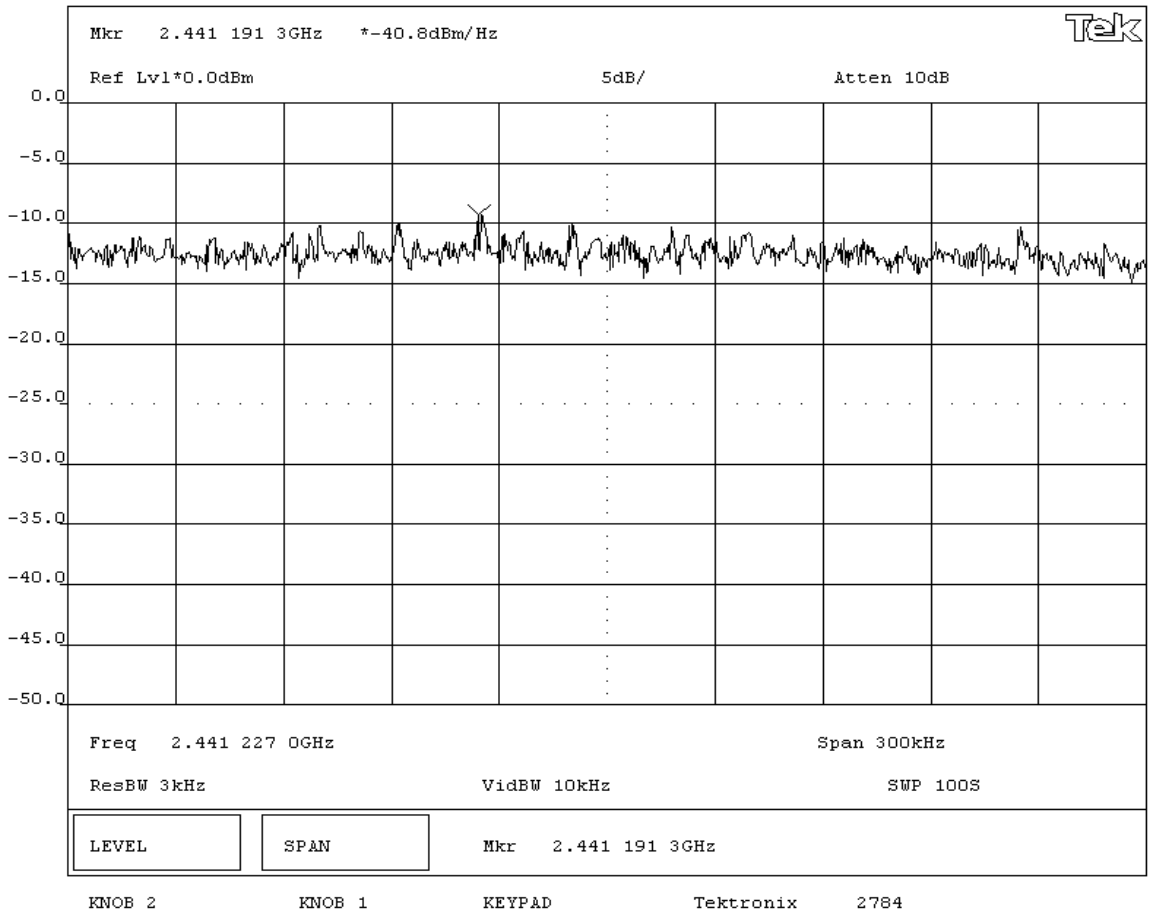
RESULTS	Amplitude
Pass	Power Spectral Density = -6.0 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Mid Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 1 Mbps data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

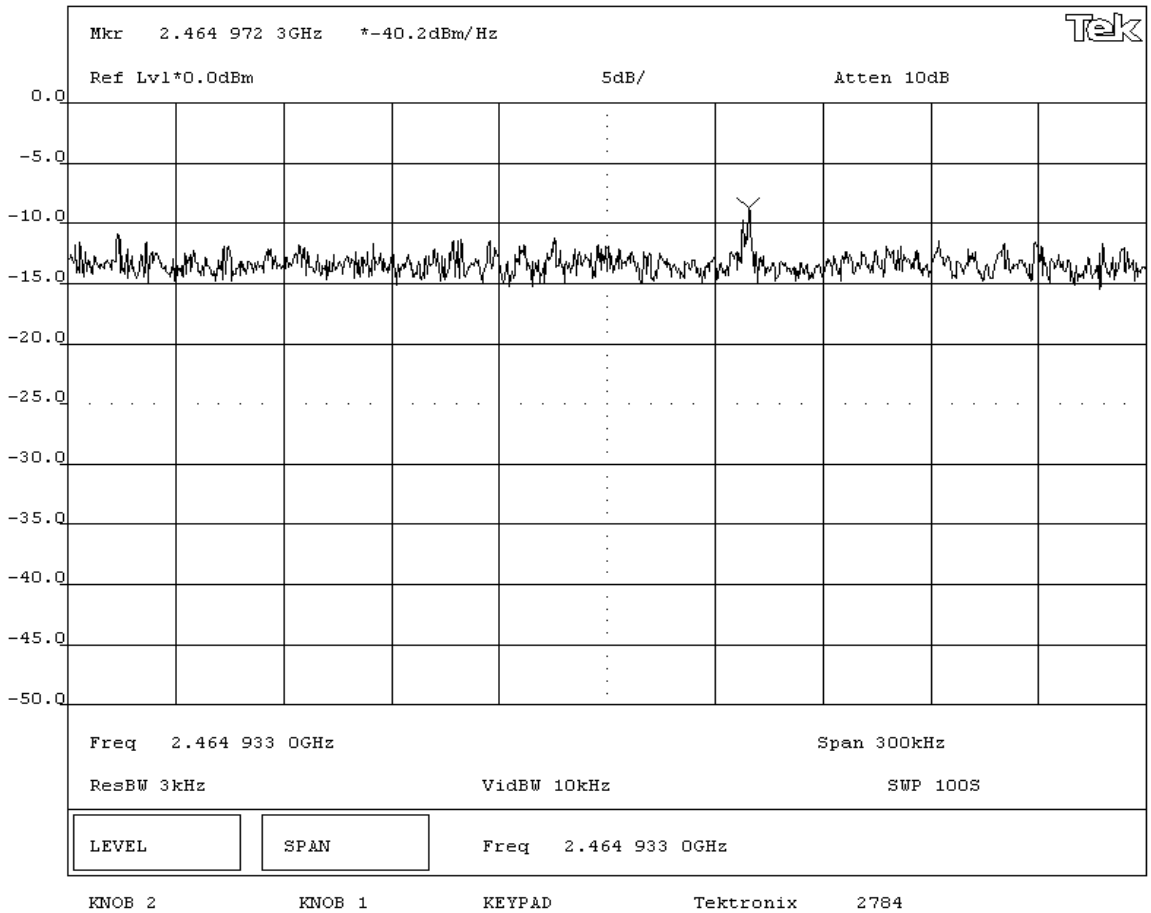
RESULTS	Amplitude
Pass	Power Spectral Density = -5.4 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - High Channel - 802.11(b) 1 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

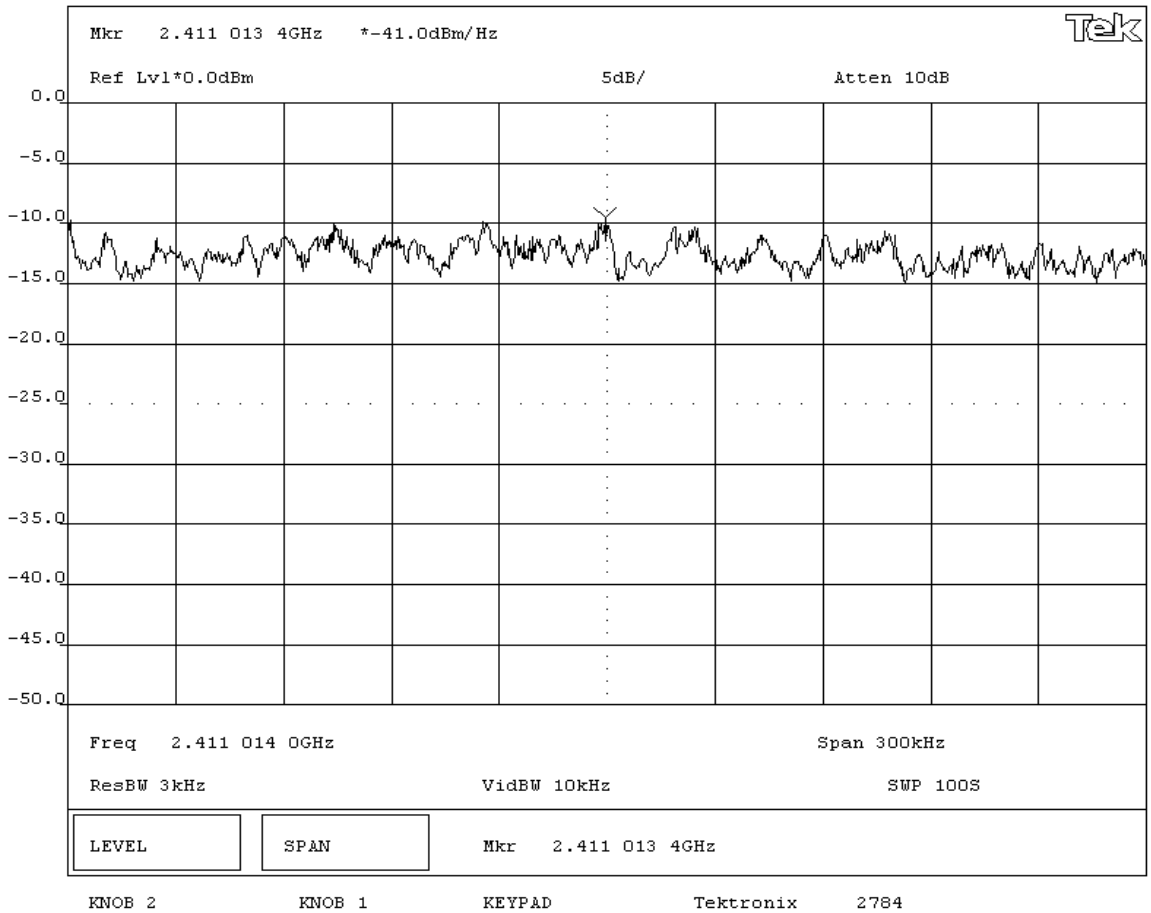
RESULTS	Amplitude
Pass	Power Spectral Density = -6.2 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Low Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

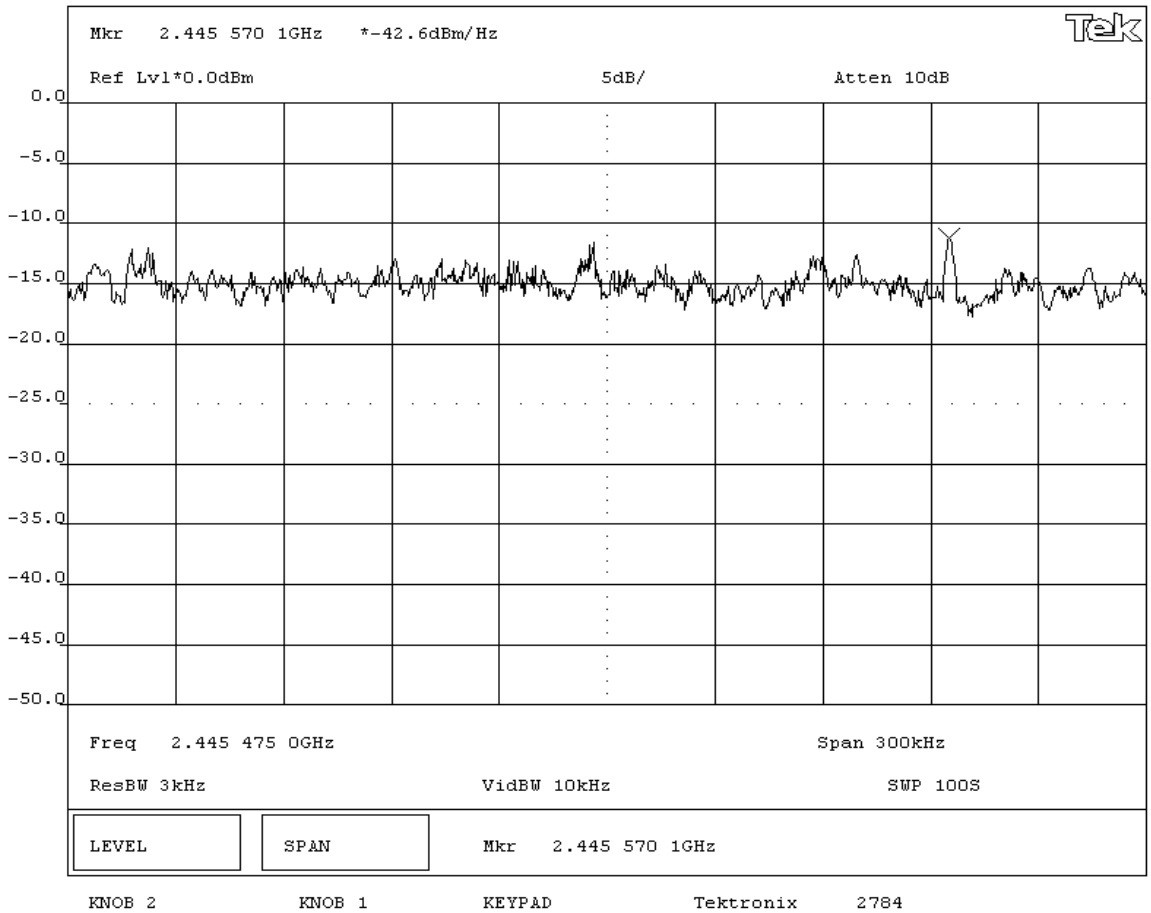
RESULTS	Amplitude
Pass	Power Spectral Density = -7.8 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Mid Channel - 802.11(b) 11 Mbps



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at maximum data rate, 802.11(b) modulation scheme

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

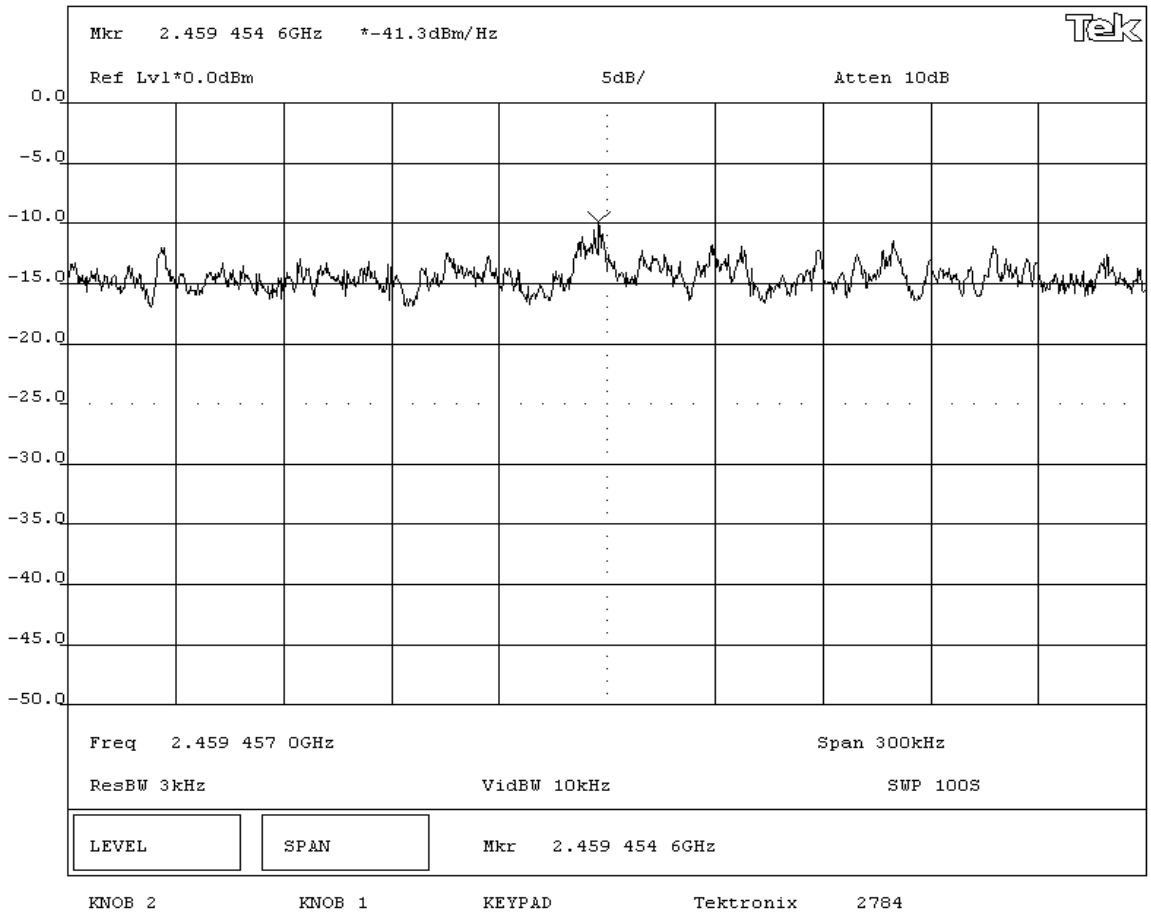
RESULTS	Amplitude
Pass	Power Spectral Density = -6.5 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - High Channel - 802.11(b) 11 Mbps



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

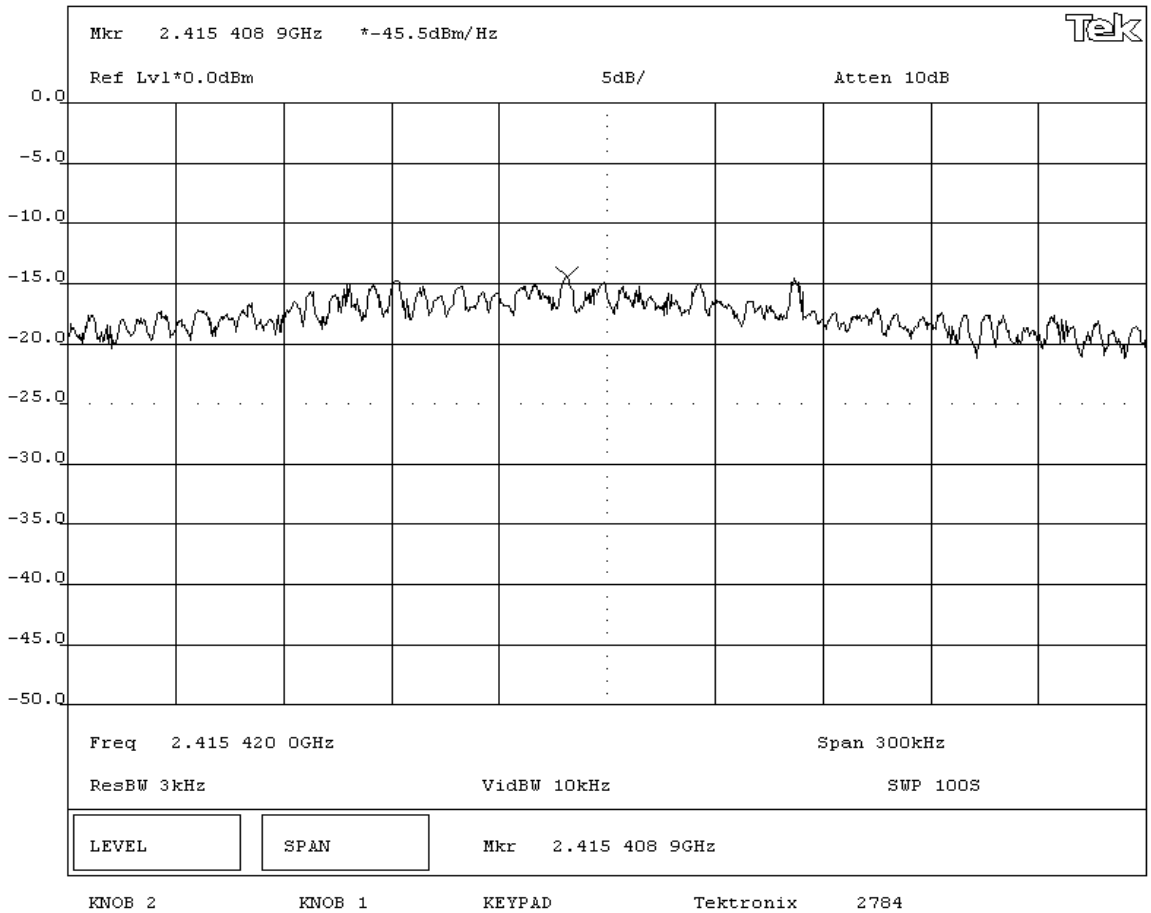
RESULTS	Amplitude
Pass	Power Spectral Density = -10.7 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Low Channel - 802.11(g) 6 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

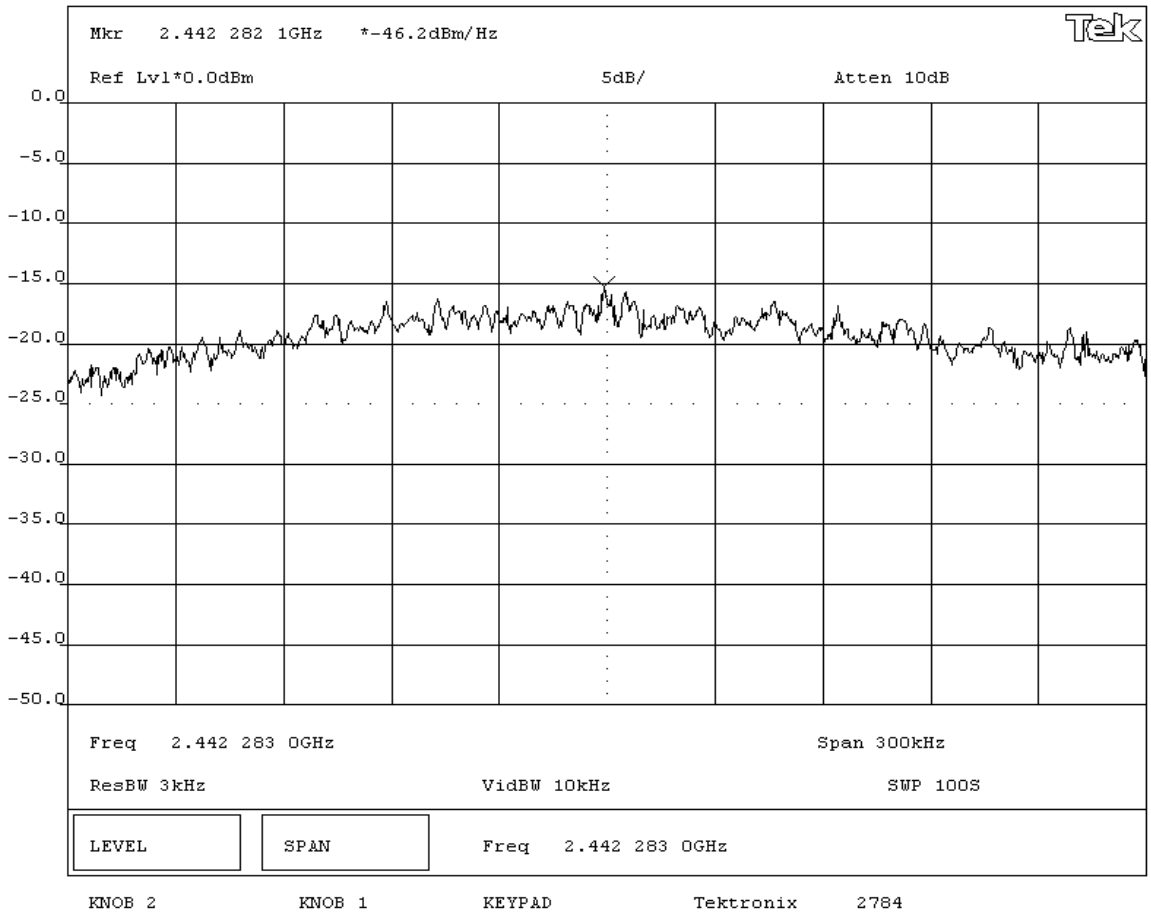
RESULTS	Amplitude
Pass	Power Spectral Density = -11.4 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density- Mid Channel - 802.11(g) 6 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 6 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

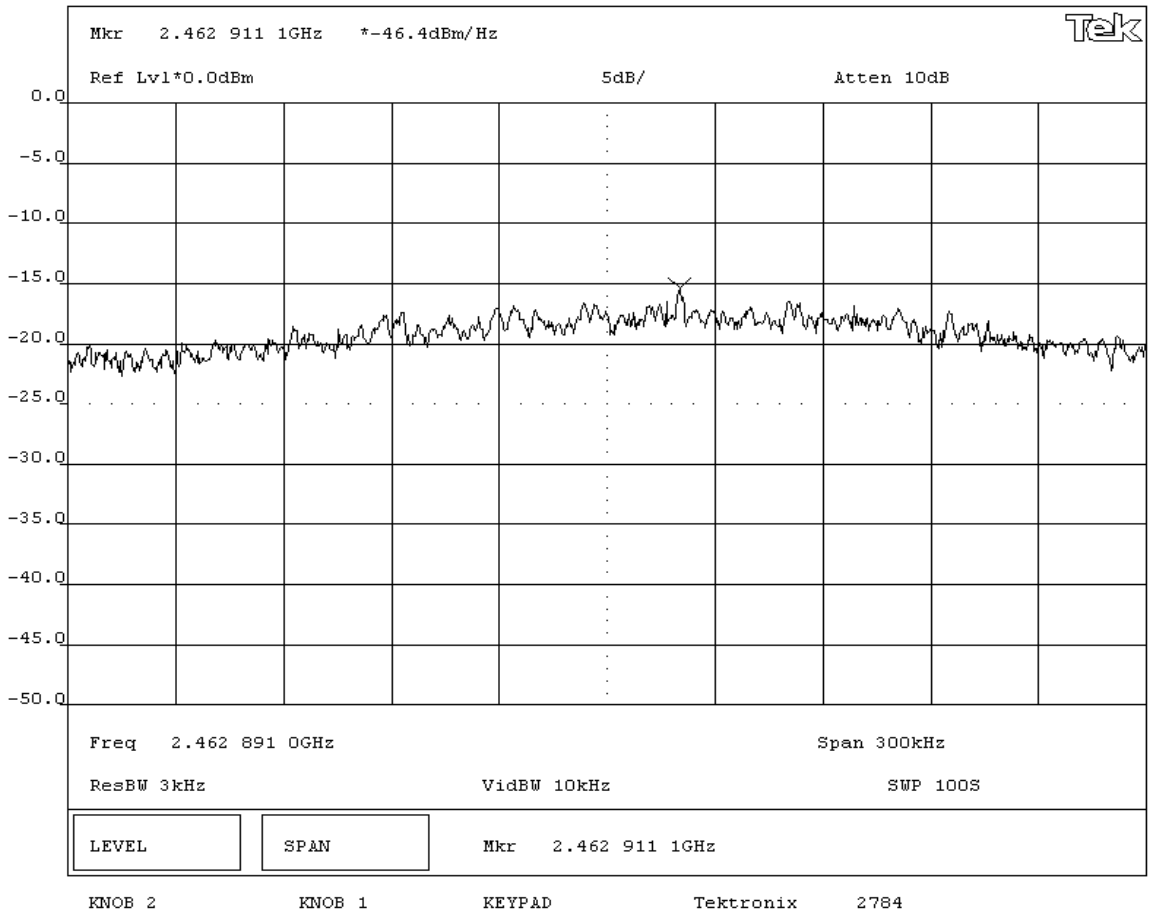
RESULTS	Amplitude
Pass	Power Spectral Density = -11.6 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - High Channel - 802.11(g) 6 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

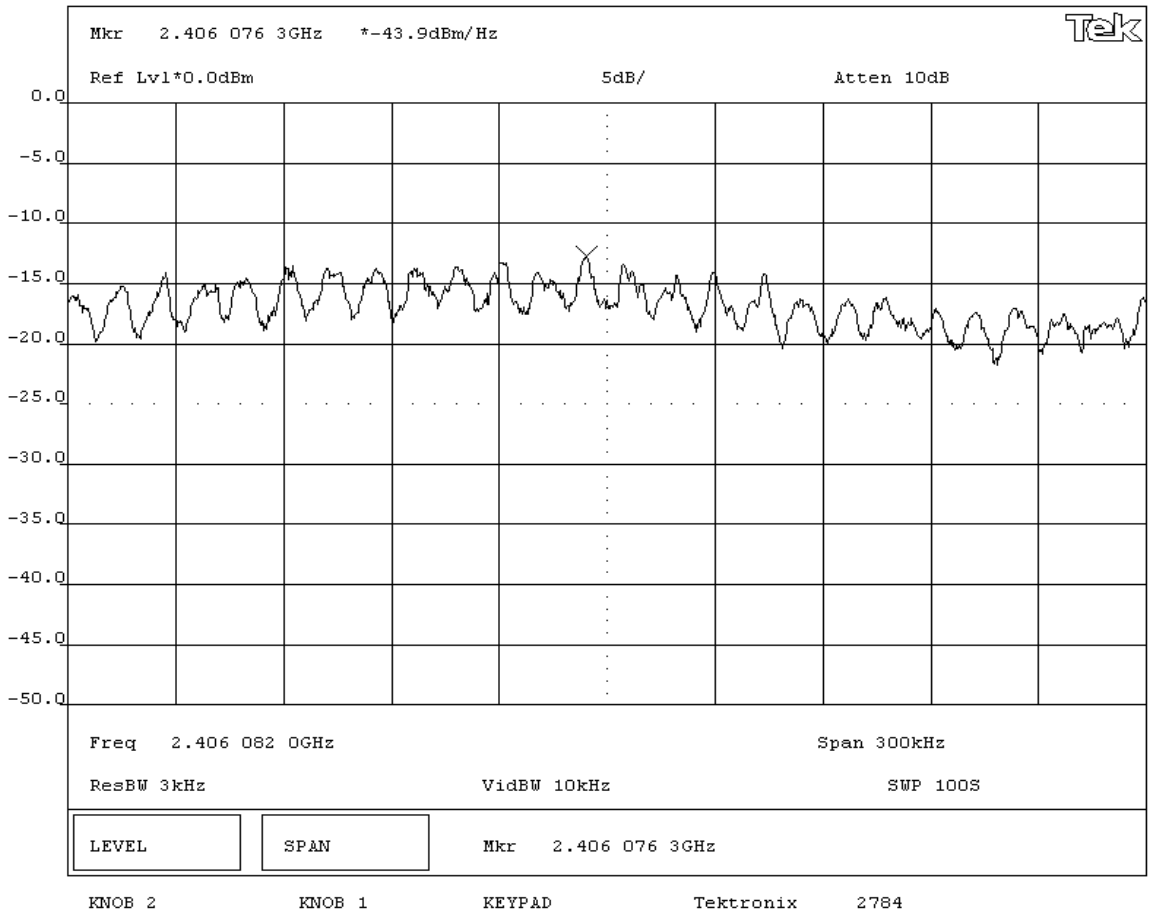
RESULTS	Amplitude
Pass	Power Spectral Density = -9.1 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Low Channel - 802.11(g) 36 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

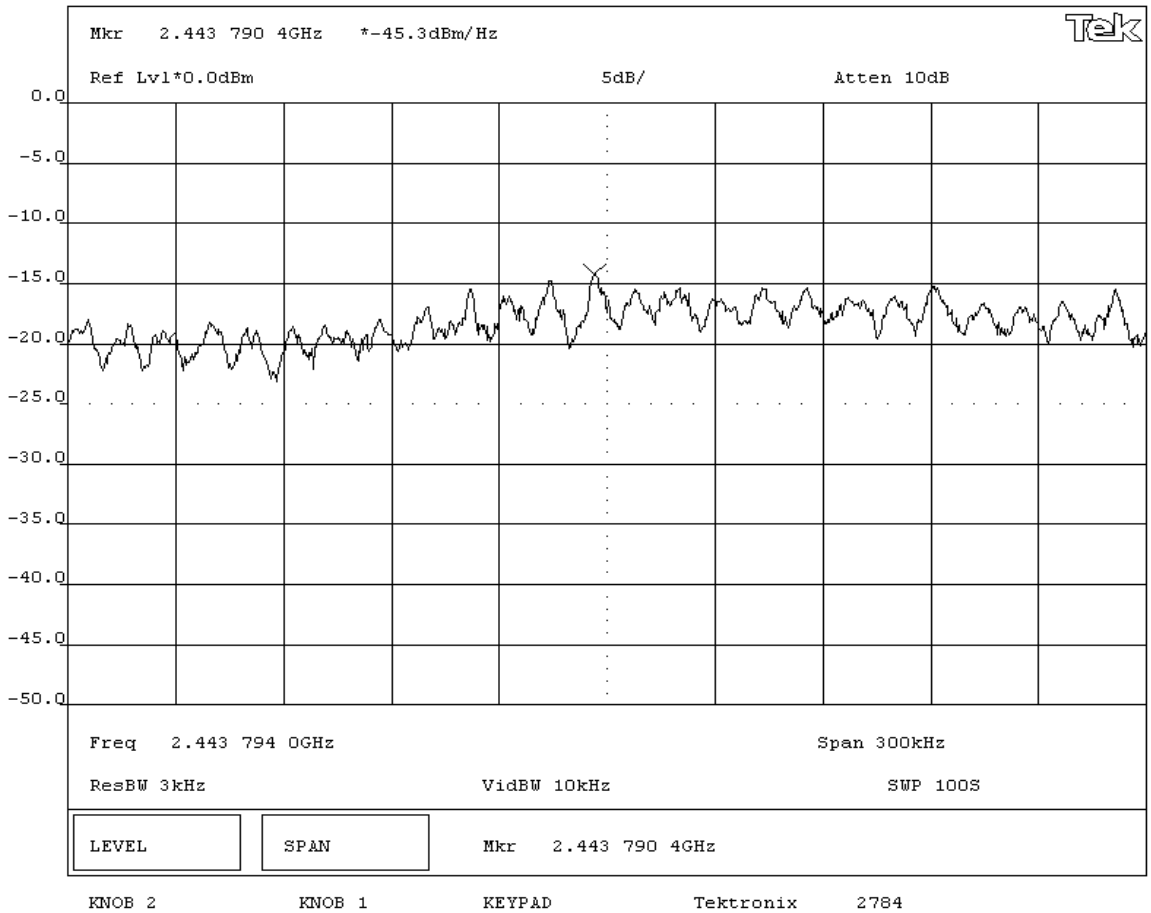
RESULTS	Amplitude
Pass	Power Spectral Density = -10.5 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Mid Channel - 802.11(g) 36 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at 36 Mbps data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

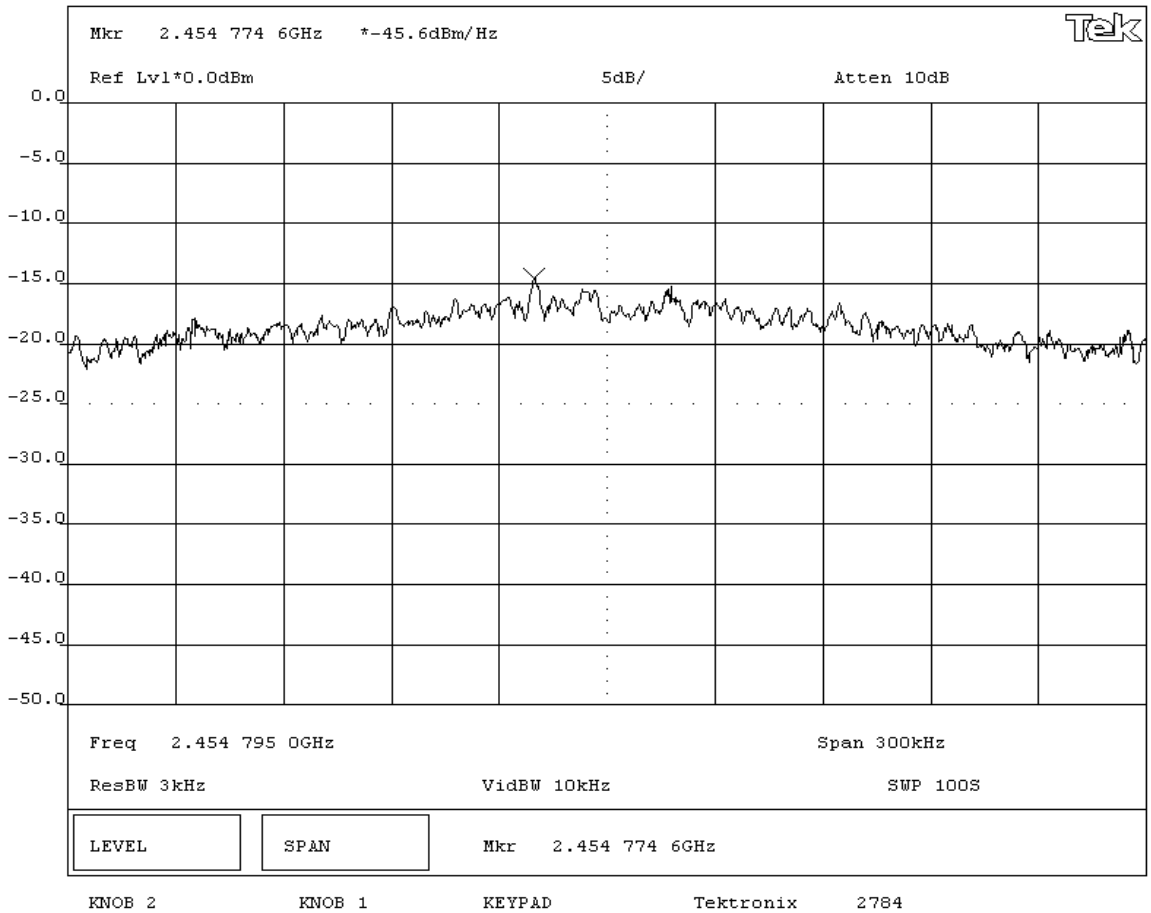
RESULTS	Amplitude
Pass	Power Spectral Density = -10.8 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - High Channel - 802.11(g) 36 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

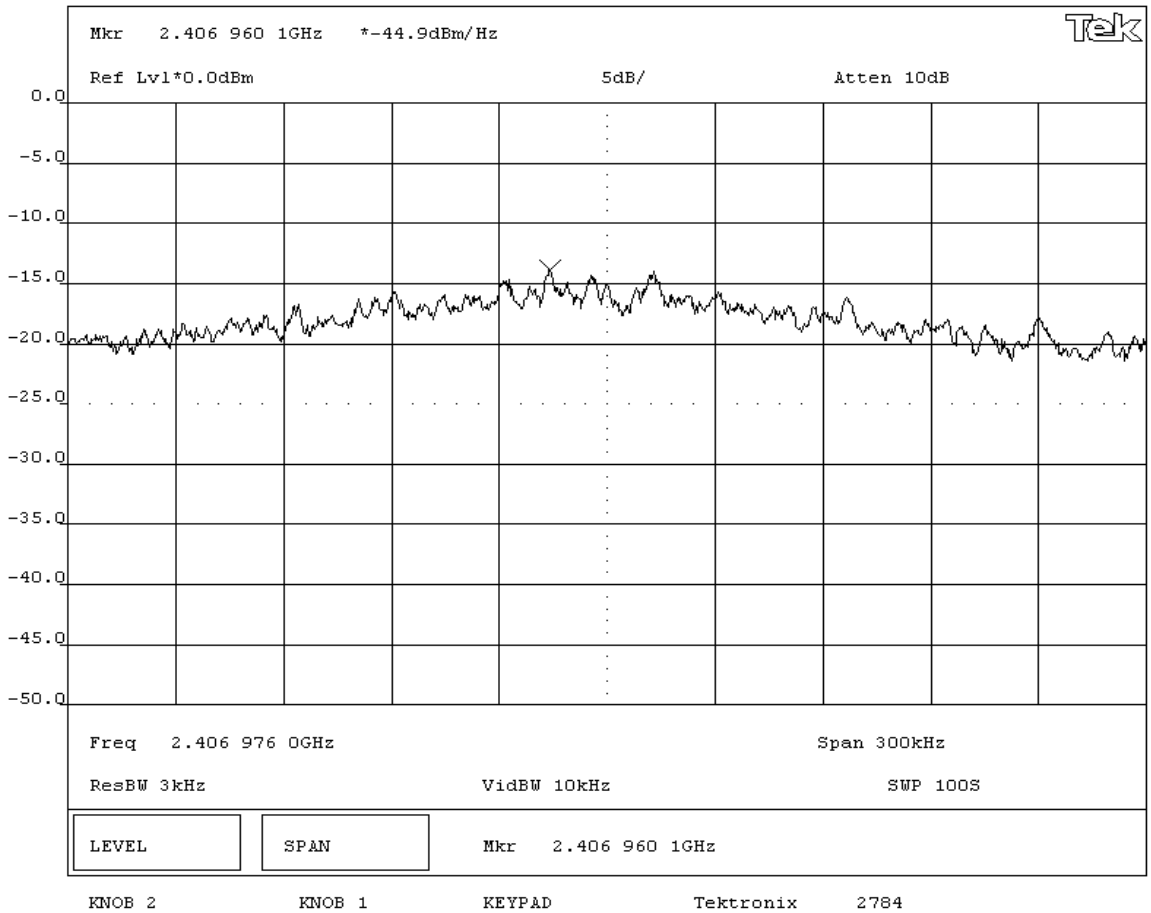
RESULTS	Amplitude
Pass	Power Spectral Density = -10.1 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Low Channel - 802.11(g) 54 Mbit



NORTHWEST
EMC

EMISSIONS DATA SHEET

Rev BETA
01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.
Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.
Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

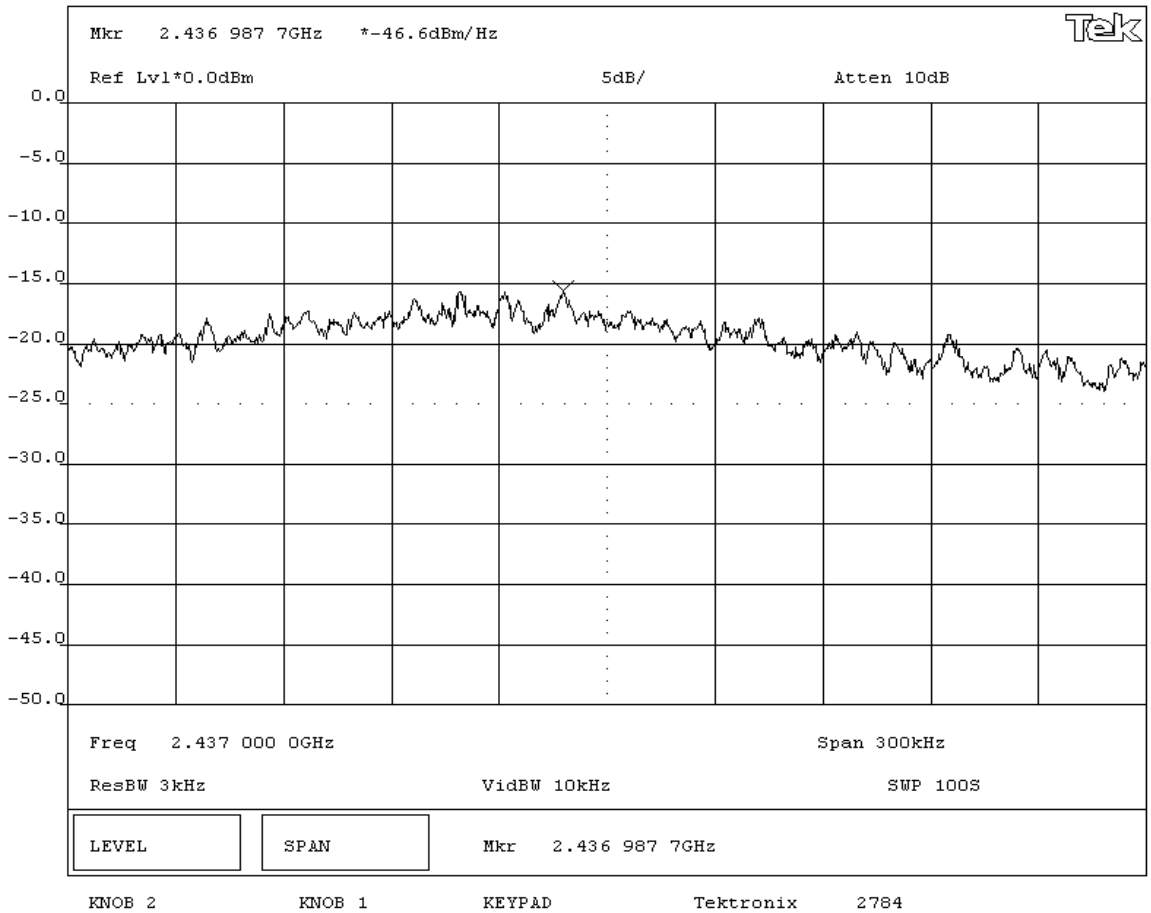
RESULTS	Amplitude
Pass	Power Spectral Density = -11.8 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - Mid Channel - 802.11(g) 54 Mbit



NORTHWEST EMC

EMISSIONS DATA SHEET

Rev BETA 01/30/01

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	TCKRNA-453387442			Date:	03/09/05
Customer:	INTERMEC Technologies			Temperature:	20°C
Attendees:	None	Tested by:	Greg Kiemel	Humidity:	42% RH
Customer Ref. No.:	N/A	Power:	120VAC/60Hz	Job Site:	EV06

TEST SPECIFICATIONS

Specification:	FCC Part 15.247(e)	Year:	2004	Method:	FCC 97-114, ANSI C63.4	Year:	2003

SAMPLE CALCULATIONS

Meter reading on spectrum analyzer is internally compensated for cable loss and external attenuation.

Power Spectral Density per 3kHz bandwidth = Power Spectral Density per 1 Hz bandwidth + Bandwidth Correction Factor.

Bandwidth Correction Factor = 10*log(3 kHz / 1 Hz) = 34.8 dB

COMMENTS

EUT OPERATING MODES

Modulated by PRBS at indicated data rate, 802.11(g) modulation scheme.

DEVIATIONS FROM TEST STANDARD

None

REQUIREMENTS

Maximum peak power spectral density conducted from a DSSS transmitter does not exceed 8 dBm in any 3 kHz band

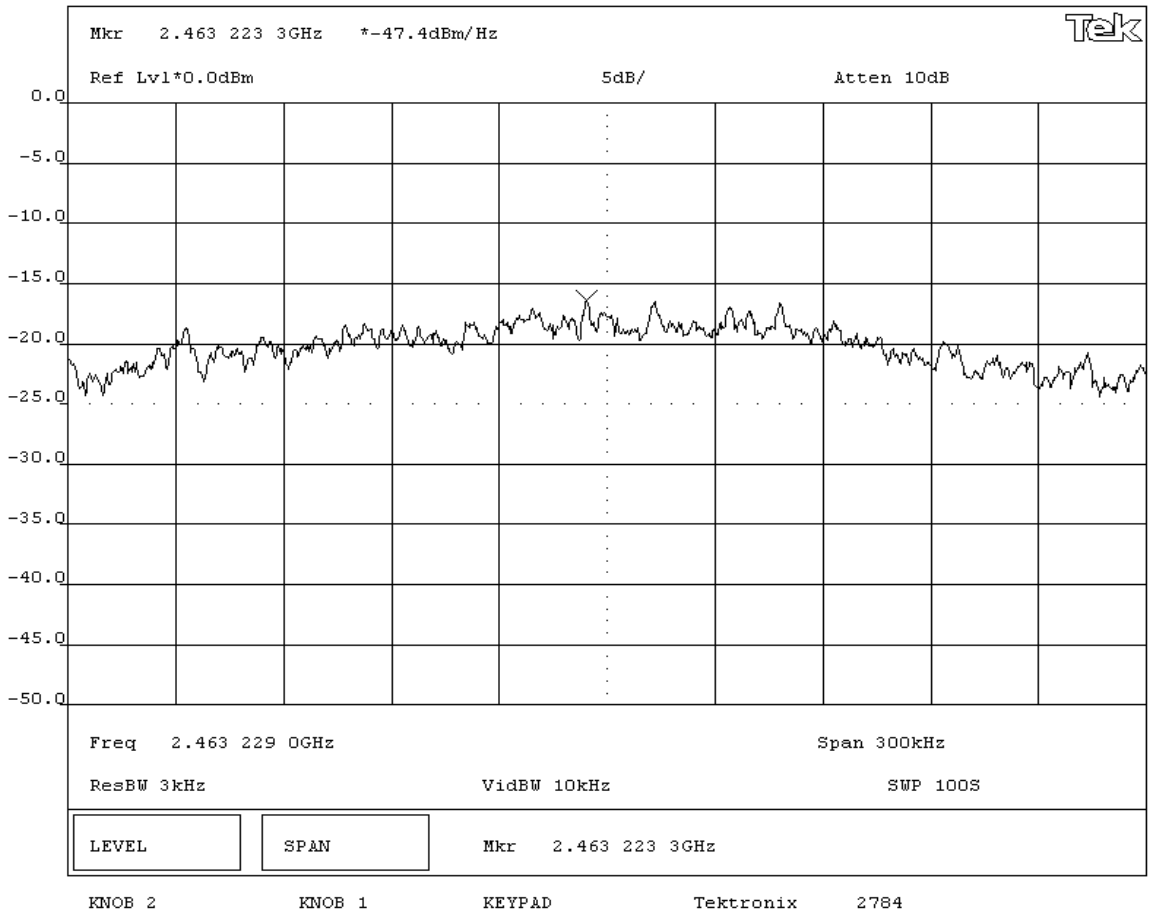
RESULTS	Amplitude
Pass	Power Spectral Density = -12.6 dBm / 3kHz

SIGNATURE

Tested By: _____

DESCRIPTION OF TEST

Power Spectral Density - High Channel - 802.11(g) 54 Mbit



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:
Low
Mid
High

Operating Modes Investigated:
Continuous transmit

Data Rates Investigated:
1 Mbps (802.11b)
5.5 Mbps (802.11b)
11 Mbps (802.11b)
6 Mbps (802.11g)
36 Mbps (802.11g)
54 Mbps (802.11g)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC, 60 Hz.
Battery

Other Settings Investigated:
802.11(b) in CN2NI
802.11(g) in CN2NI
802.11(b) in 700C
802.11(g) in 700C

Frequency Range Investigated			
Start Frequency	30 MHz	**Stop Frequency**	26 GHz

Software\Firmware Applied During Test			
Exercise software	Test Utility	**Version**	0.4
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(b)/(g) radio	Intermec Technologies Corporation	2610CF	TCKRNA-453387442
Host Device #1	Intermec Technologies Corporation	700C	18190400069
AC Adapter #1	Elpac Power Systems	FW1812	006042
Host Device #2	Intermec Technologies Corporation	CN2NI	Unknown (EMC 2)
Docking Station	Intermec Technologies Corporation	074248	177h0420033
AC Adapter #2	Elpac Power Systems	FW1805	027992

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	PA	1.9	No	Host Device #1	AC Adapter #1
AC Power	No	2.0	No	AC Adapter #1	AC Mains
USB	Yes	1.3	No	Docking Station	Unterminated
DC Leads	PA	1.9	No	Docking Station	AC Adapter #2
AC Power	No	2.0	No	AC Adapter #2	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

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

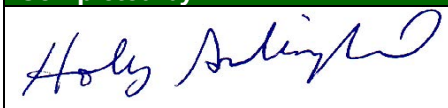
Test Description

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 highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. 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 the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (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 2005.1.3

EUT:	2610CF			Work Order:	ITRM0057
Serial Number:	18190400069			Date:	01/24/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	36%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

802.11(b) transmit mode, high channel, see comments for data rate.

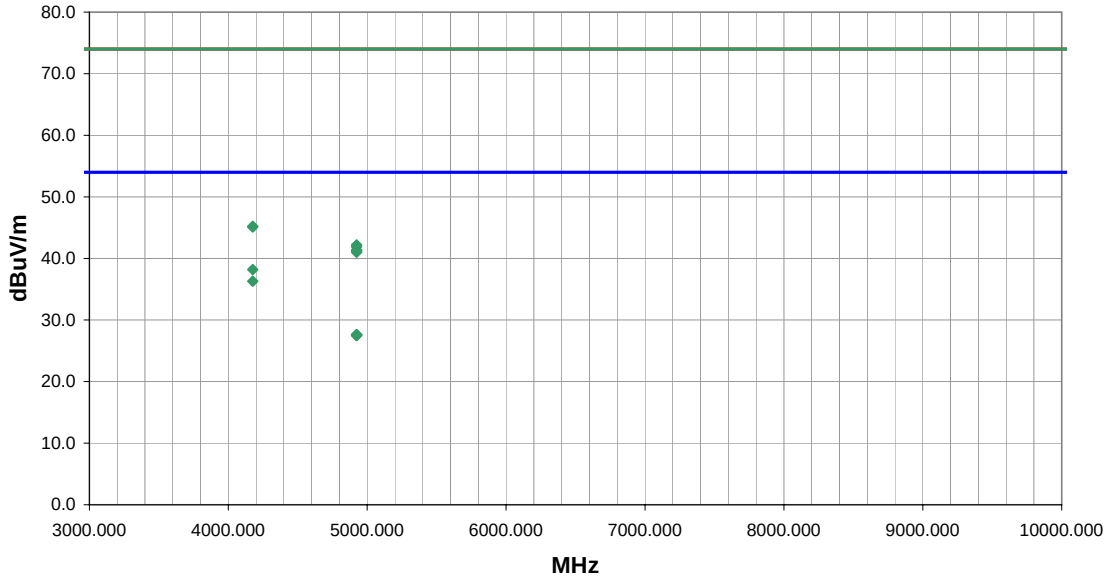
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	1

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)	Comments
4175.945	35.8	2.4	77.0	1.3	3.0	0.0	H-Horn	AV	0.0	38.2	54.0	-15.8	11Mbps
4175.945	33.9	2.4	26.0	1.1	3.0	0.0	V-Horn	AV	0.0	36.3	54.0	-17.7	11Mbps
4924.000	24.1	3.5	269.0	1.5	3.0	0.0	V-Horn	AV	0.0	27.6	54.0	-26.4	5.5Mbps
4924.000	24.1	3.5	263.0	1.2	3.0	0.0	V-Horn	AV	0.0	27.6	54.0	-26.4	11Mbps
4924.000	24.1	3.5	138.0	1.2	3.0	0.0	V-Horn	AV	0.0	27.6	54.0	-26.4	1Mbps
4924.000	24.1	3.5	290.0	1.3	3.0	0.0	H-Horn	AV	0.0	27.6	54.0	-26.4	1Mbps
4924.000	24.0	3.5	181.0	3.6	3.0	0.0	H-Horn	AV	0.0	27.5	54.0	-26.5	11Mbps
4924.000	24.0	3.5	5.0	1.3	3.0	0.0	H-Horn	AV	0.0	27.5	54.0	-26.5	5.5Mbps
4175.945	42.8	2.4	77.0	1.3	3.0	0.0	H-Horn	PK	0.0	45.2	74.0	-28.8	11Mbps
4175.945	42.7	2.4	26.0	1.1	3.0	0.0	V-Horn	PK	0.0	45.1	74.0	-28.9	11Mbps
4924.000	38.7	3.5	181.0	3.6	3.0	0.0	H-Horn	PK	0.0	42.2	74.0	-31.8	11Mbps
4924.000	38.4	3.5	269.0	1.5	3.0	0.0	V-Horn	PK	0.0	41.9	74.0	-32.1	5.5Mbps
4924.000	37.9	3.5	290.0	1.3	3.0	0.0	H-Horn	PK	0.0	41.4	74.0	-32.6	1Mbps
4924.000	37.7	3.5	138.0	1.2	3.0	0.0	V-Horn	PK	0.0	41.2	74.0	-32.8	1Mbps
4924.000	37.6	3.5	5.0	1.3	3.0	0.0	H-Horn	PK	0.0	41.1	74.0	-32.9	5.5Mbps
4924.000	37.5	3.5	263.0	1.2	3.0	0.0	V-Horn	PK	0.0	41.0	74.0	-33.0	11Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF			Work Order:	ITRM0057
Serial Number:	18190400069			Date:	01/24/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	36%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

802.11(b) transmit mode, mid channel, see comments for data rate

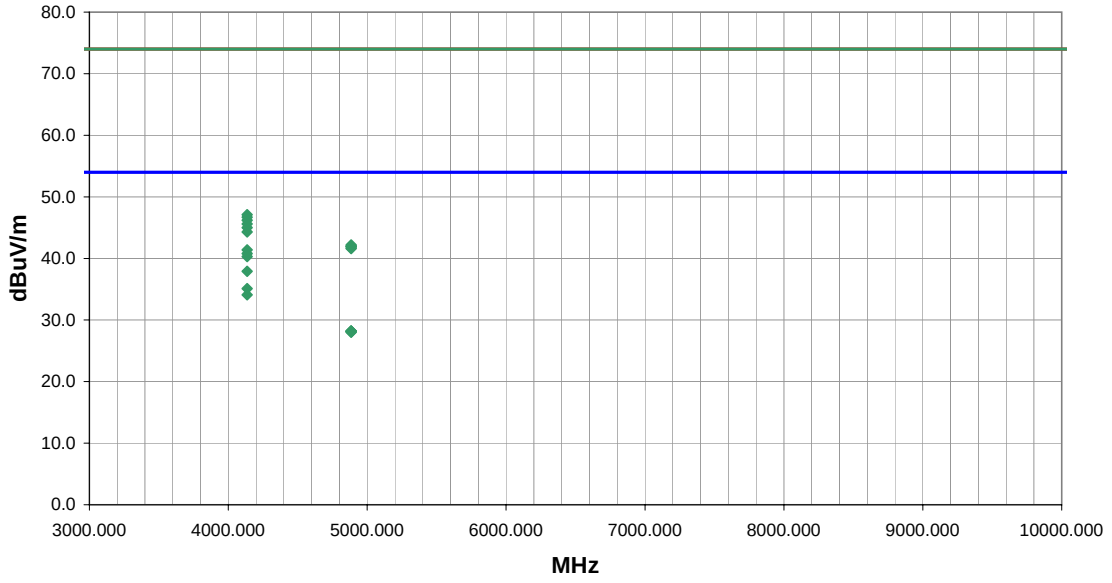
DEVIATIONS FROM TEST STANDARD

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)	Comments
4135.953	39.0	2.4	109.0	1.3	3.0	0.0	H-Horn	AV	0.0	41.4	54.0	-12.6	1Mbps
4135.953	38.4	2.4	90.0	1.1	3.0	0.0	V-Horn	AV	0.0	40.8	54.0	-13.2	1Mbps
4135.953	37.9	2.4	136.0	1.3	3.0	0.0	H-Horn	AV	0.0	40.3	54.0	-13.7	5.5Mbps
4135.953	35.5	2.4	81.0	1.2	3.0	0.0	V-Horn	AV	0.0	37.9	54.0	-16.1	11Mbps
4135.953	32.7	2.4	73.0	1.3	3.0	0.0	H-Horn	AV	0.0	35.1	54.0	-18.9	11Mbps
4135.953	31.7	2.4	114.0	1.2	3.0	0.0	V-Horn	AV	0.0	34.1	54.0	-19.9	5.5Mbps
4884.000	24.6	3.6	133.0	3.6	3.0	0.0	H-Horn	AV	0.0	28.2	54.0	-25.8	5.5Mbps
4884.000	24.6	3.6	75.0	1.2	3.0	0.0	V-Horn	AV	0.0	28.2	54.0	-25.8	11Mbps
4884.000	24.6	3.6	78.0	1.2	3.0	0.0	V-Horn	AV	0.0	28.2	54.0	-25.8	5.5Mbps
4884.000	24.6	3.6	223.0	2.1	3.0	0.0	V-Horn	AV	0.0	28.2	54.0	-25.8	1Mbps
4884.000	24.5	3.6	234.0	1.3	3.0	0.0	H-Horn	AV	0.0	28.1	54.0	-25.9	11Mbps
4884.000	24.4	3.6	346.0	2.6	3.0	0.0	H-Horn	AV	0.0	28.0	54.0	-26.0	1Mbps
4135.953	44.7	2.4	81.0	1.2	3.0	0.0	V-Horn	PK	0.0	47.1	74.0	-26.9	11Mbps
4135.953	44.3	2.4	109.0	1.3	3.0	0.0	H-Horn	PK	0.0	46.7	74.0	-27.3	1Mbps
4135.953	43.8	2.4	90.0	1.1	3.0	0.0	V-Horn	PK	0.0	46.2	74.0	-27.8	1Mbps
4135.953	43.2	2.4	136.0	1.3	3.0	0.0	H-Horn	PK	0.0	45.6	74.0	-28.4	5.5Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF			Work Order:	ITRM0057
Serial Number:	18190400069			Date:	01/24/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	36%
Cust. Ref. No.:				Barometric Pressure	30
Tested by:	Holly Ashkannejhad	Power:	120VAC, 60Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

802.11(b) transmit mode, low channel, see comments for channel

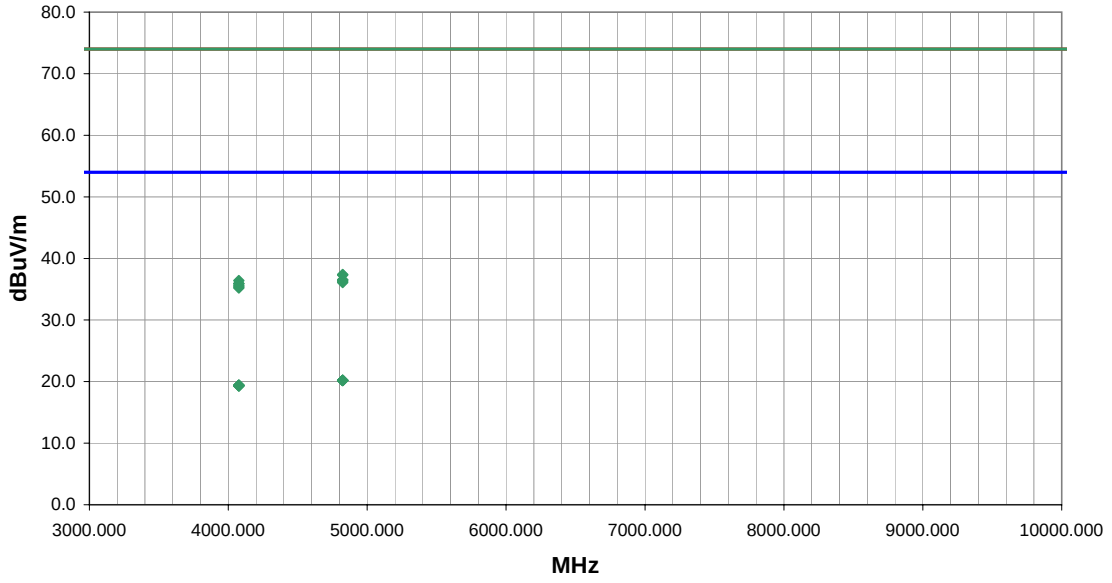
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	3

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)	Comments
4824.000	16.9	3.3	344.0	1.3	3.0	0.0	H-Horn	AV	0.0	20.2	54.0	-33.8	11Mbps
4824.000	16.9	3.3	139.0	1.3	3.0	0.0	H-Horn	AV	0.0	20.2	54.0	-33.8	5.5Mbps
4824.000	16.9	3.3	279.0	2.3	3.0	0.0	V-Horn	AV	0.0	20.2	54.0	-33.8	5.5Mbps
4824.000	16.9	3.3	167.0	1.8	3.0	0.0	V-Horn	AV	0.0	20.2	54.0	-33.8	1Mbps
4824.000	16.9	3.3	160.0	1.5	3.0	0.0	V-Horn	AV	0.0	20.2	54.0	-33.8	11Mbps
4824.000	16.9	3.3	245.0	2.0	3.0	0.0	H-Horn	AV	0.0	20.2	54.0	-33.8	1Mbps
4075.954	17.0	2.4	61.0	1.3	3.0	0.0	H-Horn	AV	0.0	19.4	54.0	-34.6	1Mbps
4075.954	17.0	2.4	283.0	1.3	3.0	0.0	H-Horn	AV	0.0	19.4	54.0	-34.6	5.5Mbps
4075.954	17.0	2.4	259.0	3.5	3.0	0.0	V-Horn	AV	0.0	19.4	54.0	-34.6	5.5Mbps
4075.954	16.9	2.4	52.0	1.3	3.0	0.0	H-Horn	AV	0.0	19.3	54.0	-34.7	11Mbps
4075.954	16.9	2.4	256.0	1.2	3.0	0.0	V-Horn	AV	0.0	19.3	54.0	-34.7	11Mbps
4075.954	16.9	2.4	298.0	1.8	3.0	0.0	V-Horn	AV	0.0	19.3	54.0	-34.7	1Mbps
4824.000	34.1	3.3	245.0	2.0	3.0	0.0	H-Horn	PK	0.0	37.4	74.0	-36.6	1Mbps
4824.000	34.0	3.3	344.0	1.3	3.0	0.0	H-Horn	PK	0.0	37.3	74.0	-36.7	11Mbps
4824.000	33.2	3.3	167.0	1.8	3.0	0.0	V-Horn	PK	0.0	36.5	74.0	-37.5	1Mbps
4824.000	33.2	3.3	160.0	1.5	3.0	0.0	V-Horn	PK	0.0	36.5	74.0	-37.5	11Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	EMC 2	Date:	01/29/05
Customer:	Intermec Technologies Corporation	Temperature:	19
Attendees:	none	Humidity:	41%
Cust. Ref. No.:		Barometric Pressure	30
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in CN2/CN2NI

EUT OPERATING MODES

Transmit, high channel, see comments for data rate

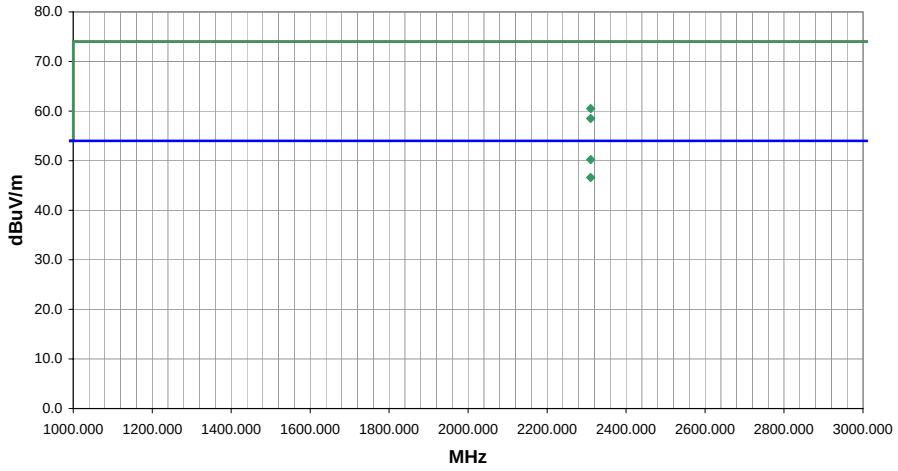
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	6

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
2310.574	32.9	-2.7	181.0	1.2	3.0	20.0	H-Horn	AV	0.0	50.2	54.0	-3.8	802.11(b) 1Mbps, CN2 standalone horizontal
2310.574	29.3	-2.7	183.0	1.9	3.0	20.0	H-Horn	AV	0.0	46.6	54.0	-7.4	802.11(b) 1Mbps, CN2 in dock
2310.574	43.2	-2.7	181.0	1.2	3.0	20.0	H-Horn	PK	0.0	60.5	74.0	-13.5	802.11(b) 1Mbps, CN2 standalone horizontal
2310.574	41.2	-2.7	183.0	1.9	3.0	20.0	H-Horn	PK	0.0	58.5	74.0	-15.5	802.11(b) 1Mbps, CN2 in dock

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	18190400069	Date:	01/29/05
Customer:	Intermec Technologies Corporation	Temperature:	20
Attendees:	none	Humidity:	39%
Cust. Ref. No.:		Barometric Pressure	30
Tested by:	Holly Ashkannejhad	Power: 120VAC, 60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

802.11(g) transmit mode, high channel, see comments for data rate.

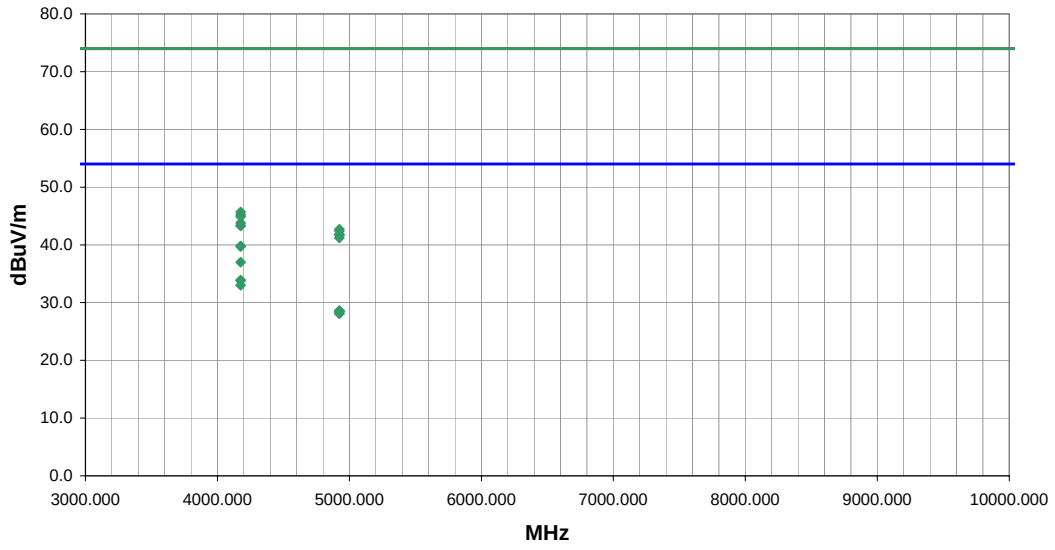
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	7

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)	Comments
4175.945	37.4	2.4	134.0	1.7	3.0	0.0	H-Horn	AV	0.0	39.8	54.0	-14.2	802.11(g) 36Mbps
4175.945	37.3	2.4	135.0	1.7	3.0	0.0	H-Horn	AV	0.0	39.7	54.0	-14.3	802.11(g) 54Mbps
4175.945	34.6	2.4	97.0	1.7	3.0	0.0	H-Horn	AV	0.0	37.0	54.0	-17.0	802.11(g) 6Mbps
4175.945	31.5	2.4	309.0	1.2	3.0	0.0	V-Horn	AV	0.0	33.9	54.0	-20.1	802.11(g) 36Mbps
4175.945	31.4	2.4	313.0	1.2	3.0	0.0	V-Horn	AV	0.0	33.8	54.0	-20.2	802.11(g) 54Mbps
4175.945	30.6	2.4	153.0	1.2	3.0	0.0	V-Horn	AV	0.0	33.0	54.0	-21.0	802.11(g) 6Mbps
4924.000	25.1	3.5	57.0	1.2	3.0	0.0	V-Horn	AV	0.0	28.6	54.0	-25.4	802.11(g) 6Mbps
4924.000	25.1	3.5	132.0	1.3	3.0	0.0	H-Horn	AV	0.0	28.6	54.0	-25.4	802.11(g) 6Mbps
4924.000	25.0	3.5	98.0	1.2	3.0	0.0	H-Horn	AV	0.0	28.5	54.0	-25.5	802.11(g) 54Mbps
4924.000	24.9	3.5	121.0	3.8	3.0	0.0	V-Horn	AV	0.0	28.4	54.0	-25.6	802.11(g) 54Mbps
4924.000	24.6	3.5	242.0	1.2	3.0	0.0	V-Horn	AV	0.0	28.1	54.0	-25.9	802.11(g) 36Mbps
4924.000	24.6	3.5	339.0	1.3	3.0	0.0	H-Horn	AV	0.0	28.1	54.0	-25.9	802.11(g) 36Mbps
4175.945	43.3	2.4	134.0	1.7	3.0	0.0	H-Horn	PK	0.0	45.7	74.0	-28.3	802.11(g) 36Mbps
4175.945	42.8	2.4	135.0	1.7	3.0	0.0	H-Horn	PK	0.0	45.2	74.0	-28.8	802.11(g) 54Mbps
4175.945	42.5	2.4	97.0	1.7	3.0	0.0	H-Horn	PK	0.0	44.9	74.0	-29.1	802.11(g) 6Mbps
4175.945	41.4	2.4	309.0	1.2	3.0	0.0	V-Horn	PK	0.0	43.8	74.0	-30.2	802.11(g) 36Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	18190400069	Date:	01/29/05
Customer:	Intermec Technologies Corporation	Temperature:	20
Attendees:	none	Humidity:	38%
Cust. Ref. No.:		Barometric Pressure	30
Tested by:	Holly Ashkannejhad	Power: 120VAC, 60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

802.11(g) transmit mode, mid channel, see comments for data rate

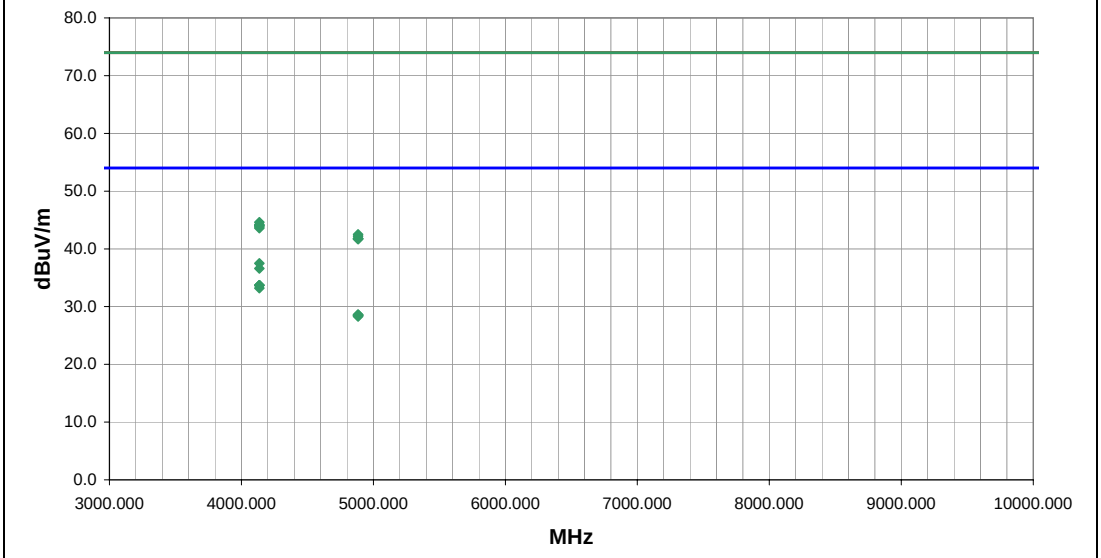
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	8

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)	Comments
4135.953	35.1	2.4	137.0	1.2	3.0	0.0	H-Horn	AV	0.0	37.5	54.0	-16.5	802.11(g) 54Mbps
4135.953	34.2	2.4	140.0	1.2	3.0	0.0	H-Horn	AV	0.0	36.6	54.0	-17.4	802.11(g) 36Mbps
4135.953	31.3	2.4	168.0	1.3	3.0	0.0	H-Horn	AV	0.0	33.7	54.0	-20.3	802.11(g) 6Mbps
4135.953	31.3	2.4	246.0	1.2	3.0	0.0	V-Horn	AV	0.0	33.7	54.0	-20.3	802.11(g) 6Mbps
4135.953	31.3	2.4	221.0	3.5	3.0	0.0	V-Horn	AV	0.0	33.7	54.0	-20.3	802.11(g) 36Mbps
4135.953	30.8	2.4	14.0	1.4	3.0	0.0	V-Horn	AV	0.0	33.2	54.0	-20.8	802.11(g) 54Mbps
4884.000	25.0	3.6	135.0	2.4	3.0	0.0	H-Horn	AV	0.0	28.6	54.0	-25.4	802.11(g) 54Mbps
4884.000	25.0	3.6	76.0	1.9	3.0	0.0	V-Horn	AV	0.0	28.6	54.0	-25.4	802.11(g) 54Mbps
4884.000	24.9	3.6	24.0	2.3	3.0	0.0	H-Horn	AV	0.0	28.5	54.0	-25.5	802.11(g) 6Mbps
4884.000	24.9	3.6	271.0	1.2	3.0	0.0	V-Horn	AV	0.0	28.5	54.0	-25.5	802.11(g) 6Mbps
4884.000	24.8	3.6	306.0	1.4	3.0	0.0	V-Horn	AV	0.0	28.4	54.0	-25.6	802.11(g) 36Mbps
4884.000	24.7	3.6	11.0	1.3	3.0	0.0	H-Horn	AV	0.0	28.3	54.0	-25.7	802.11(g) 36Mbps
4135.953	42.2	2.4	137.0	1.2	3.0	0.0	H-Horn	PK	0.0	44.6	74.0	-29.4	802.11(g) 54Mbps
4135.953	41.8	2.4	140.0	1.2	3.0	0.0	H-Horn	PK	0.0	44.2	74.0	-29.8	802.11(g) 36Mbps
4135.953	41.7	2.4	246.0	1.2	3.0	0.0	V-Horn	PK	0.0	44.1	74.0	-29.9	802.11(g) 6Mbps
4135.953	41.6	2.4	14.0	1.4	3.0	0.0	V-Horn	PK	0.0	44.0	74.0	-30.0	802.11(g) 54Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	18190400069	Date:	01/29/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30
Tested by:	Holly Ashkannejhad	Power: 120VAC, 60Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

802.11(g) transmit mode, low channel

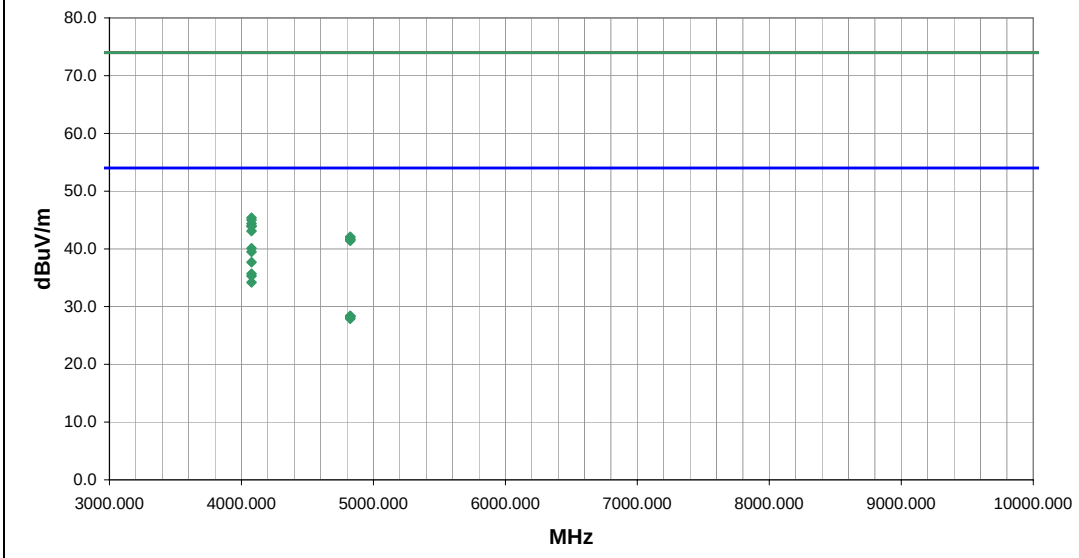
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	9

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)	Comments
4075.954	37.7	2.4	104.0	1.8	3.0	0.0	H-Horn	AV	0.0	40.1	54.0	-13.9	802.11(g) 36Mbps
4075.954	37.1	2.4	76.0	1.8	3.0	0.0	H-Horn	AV	0.0	39.5	54.0	-14.5	802.11(g) 6Mbps
4075.954	35.3	2.4	297.0	1.8	3.0	0.0	H-Horn	AV	0.0	37.7	54.0	-16.3	802.11(g) 54Mbps
4075.954	33.3	2.4	324.0	1.2	3.0	0.0	V-Horn	AV	0.0	35.7	54.0	-18.3	802.11(g) 36Mbps
4075.954	32.9	2.4	343.0	1.2	3.0	0.0	V-Horn	AV	0.0	35.3	54.0	-18.7	802.11(g) 54Mbps
4075.954	31.8	2.4	241.0	1.2	3.0	0.0	V-Horn	AV	0.0	34.2	54.0	-19.8	802.11(g) 6Mbps
4824.000	25.1	3.3	235.0	1.3	3.0	0.0	H-Horn	AV	0.0	28.4	54.0	-25.6	802.11(g) 6Mbps
4824.000	25.0	3.3	328.0	1.9	3.0	0.0	V-Horn	AV	0.0	28.3	54.0	-25.7	802.11(g) 54Mbps
4824.000	25.0	3.3	277.0	1.2	3.0	0.0	V-Horn	AV	0.0	28.3	54.0	-25.7	802.11(g) 6Mbps
4824.000	25.0	3.3	31.0	1.3	3.0	0.0	H-Horn	AV	0.0	28.3	54.0	-25.7	802.11(g) 54Mbps
4824.000	24.7	3.3	213.0	1.2	3.0	0.0	V-Horn	AV	0.0	28.0	54.0	-26.0	802.11(g) 36Mbps
4824.000	24.6	3.3	240.0	3.2	3.0	0.0	H-Horn	AV	0.0	27.9	54.0	-26.1	802.11(g) 36Mbps
4075.954	43.0	2.4	104.0	1.8	3.0	0.0	H-Horn	PK	0.0	45.4	74.0	-28.6	802.11(g) 36Mbps
4075.954	42.6	2.4	76.0	1.8	3.0	0.0	H-Horn	PK	0.0	45.0	74.0	-29.0	802.11(g) 6Mbps
4075.954	42.0	2.4	297.0	1.8	3.0	0.0	H-Horn	PK	0.0	44.4	74.0	-29.6	802.11(g) 54Mbps
4075.954	41.6	2.4	343.0	1.2	3.0	0.0	V-Horn	PK	0.0	44.0	74.0	-30.0	802.11(g) 54Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	EMC 2	Date:	01/30/05
Customer:	Intermec Technologies Corporation	Temperature:	18
Attendees:	None	Humidity:	43%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz, Battery	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in CN2/CN2NI

EUT OPERATING MODES

Transmit, mid channel, see comments for data rate and mode.

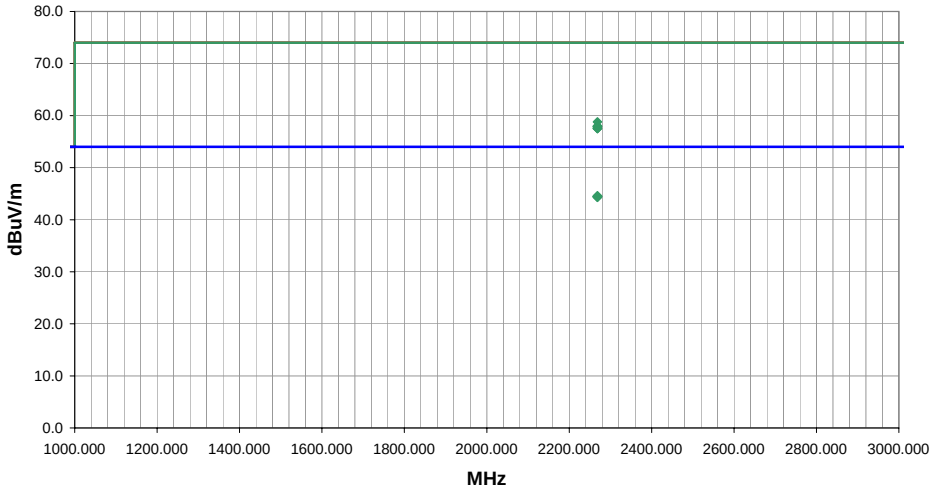
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	11

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
2268.501	27.4	-2.8	304.0	1.3	3.0	20.0	H-Horn	AV	0.0	44.6	54.0	-9.4	802.11(b) 11Mbps standalone
2268.501	27.3	-2.8	22.0	3.2	3.0	20.0	H-Horn	AV	0.0	44.5	54.0	-9.5	802.11(b) 1Mbps standalone
2268.501	27.3	-2.8	231.0	1.6	3.0	20.0	V-Horn	AV	0.0	44.5	54.0	-9.5	802.11(b) 1Mbps standalone
2268.501	27.3	-2.8	315.0	1.3	3.0	20.0	H-Horn	AV	0.0	44.5	54.0	-9.5	802.11(g) 6Mbps standalone
2268.501	27.2	-2.8	290.0	1.3	3.0	20.0	H-Horn	AV	0.0	44.4	54.0	-9.6	802.11(b) 11Mbps in docking station
2268.501	27.2	-2.8	113.0	1.2	3.0	20.0	V-Horn	AV	0.0	44.4	54.0	-9.6	802.11(b) 11Mbps in docking station
2268.501	27.2	-2.8	256.0	1.3	3.0	20.0	H-Horn	AV	0.0	44.4	54.0	-9.6	802.11(b) 5.5Mbps standalone
2268.501	27.2	-2.8	259.0	2.0	3.0	20.0	V-Horn	AV	0.0	44.4	54.0	-9.6	802.11(b) 5.5Mbps standalone
2268.501	27.2	-2.8	112.0	1.2	3.0	20.0	V-Horn	AV	0.0	44.4	54.0	-9.6	802.11(g) 6Mbps standalone
2268.501	27.1	-2.8	124.0	2.3	3.0	20.0	V-Horn	AV	0.0	44.3	54.0	-9.7	802.11(b) 11Mbps standalone
2268.501	41.6	-2.8	304.0	1.3	3.0	20.0	H-Horn	PK	0.0	58.8	74.0	-15.2	802.11(b) 11Mbps standalone
2268.501	40.8	-2.8	124.0	2.3	3.0	20.0	V-Horn	PK	0.0	58.0	74.0	-16.0	802.11(b) 11Mbps standalone
2268.501	40.8	-2.8	231.0	1.6	3.0	20.0	V-Horn	PK	0.0	58.0	74.0	-16.0	802.11(b) 1Mbps standalone
2268.501	40.7	-2.8	259.0	2.0	3.0	20.0	V-Horn	PK	0.0	57.9	74.0	-16.1	802.11(b) 5.5Mbps standalone
2268.501	40.7	-2.8	22.0	3.2	3.0	20.0	H-Horn	PK	0.0	57.9	74.0	-16.1	802.11(b) 1Mbps standalone
2268.501	40.6	-2.8	290.0	1.3	3.0	20.0	H-Horn	PK	0.0	57.8	74.0	-16.2	802.11(b) 11Mbps in docking station
2268.501	40.4	-2.8	256.0	1.3	3.0	20.0	H-Horn	PK	0.0	57.6	74.0	-16.4	802.11(b) 5.5Mbps standalone
2268.501	40.4	-2.8	315.0	1.3	3.0	20.0	H-Horn	PK	0.0	57.6	74.0	-16.4	802.11(g) 6Mbps standalone
2268.501	40.3	-2.8	113.0	1.2	3.0	20.0	V-Horn	PK	0.0	57.5	74.0	-16.5	802.11(b) 11Mbps in docking station
2268.501	40.3	-2.8	112.0	1.2	3.0	20.0	V-Horn	PK	0.0	57.5	74.0	-16.5	802.11(g) 6Mbps standalone

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	EMC 2	Date:	01/30/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	None	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30
Tested by:	Holly Ashkannejhad	Power: Battery	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in CN2/CN2NI

EUT OPERATING MODES

Transmit, high channel, see comments for data rate/ mode

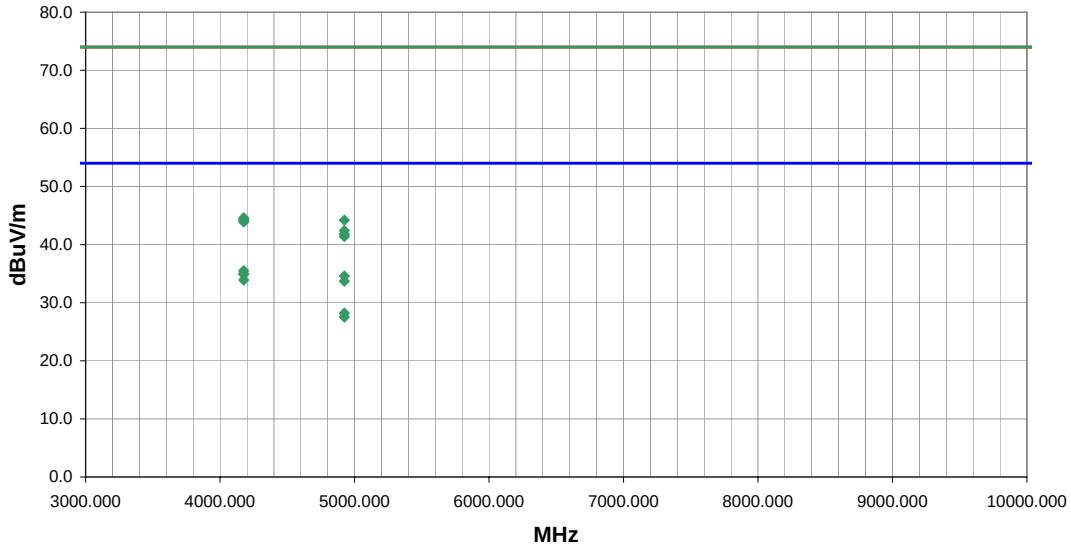
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	13

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)	Comments
4175.885	33.1	2.4	342.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.5	54.0	-18.5	802.11(g) 6Mbps
4175.885	32.6	2.4	360.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.0	54.0	-19.0	802.11(g) 6Mbps
4175.885	32.5	2.4	341.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.9	54.0	-19.1	802.11(b) 1Mbps
4923.865	31.1	3.5	358.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.6	54.0	-19.4	802.11(b) 1Mbps
4175.885	31.5	2.4	360.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.9	54.0	-20.1	802.11(b) 1Mbps
4923.865	30.2	3.5	302.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.7	54.0	-20.3	802.11(b) 1Mbps
4923.865	24.7	3.5	334.0	1.0	3.0	0.0	H-Horn	AV	0.0	28.2	54.0	-25.8	802.11(g) 6Mbps
4923.865	24.0	3.5	360.0	1.0	3.0	0.0	V-Horn	AV	0.0	27.5	54.0	-26.5	802.11(g) 6Mbps
4175.885	42.2	2.4	342.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.6	74.0	-29.4	802.11(g) 6Mbps
4175.885	41.9	2.4	341.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.3	74.0	-29.7	802.11(b) 1Mbps
4175.885	41.8	2.4	360.0	1.0	3.0	0.0	V-Horn	PK	0.0	44.2	74.0	-29.8	802.11(b) 1Mbps
4923.865	40.7	3.5	358.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.2	74.0	-29.8	802.11(b) 1Mbps
4175.885	41.5	2.4	360.0	1.0	3.0	0.0	V-Horn	PK	0.0	43.9	74.0	-30.1	802.11(g) 6Mbps
4923.865	38.9	3.5	302.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.4	74.0	-31.6	802.11(b) 1Mbps
4923.865	38.3	3.5	334.0	1.0	3.0	0.0	H-Horn	PK	0.0	41.8	74.0	-32.2	802.11(g) 6Mbps
4923.865	37.9	3.5	360.0	1.0	3.0	0.0	V-Horn	PK	0.0	41.4	74.0	-32.6	802.11(g) 6Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	EMC 2	Date:	01/30/05
Customer:	Intermec Technologies Corporation	Temperature:	19
Attendees:	None	Humidity:	41%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Holly Ashkannejhad	Power: Battery	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in CN2/CN2NI

EUT OPERATING MODES

Transmit, mid channel, see comments for data rate

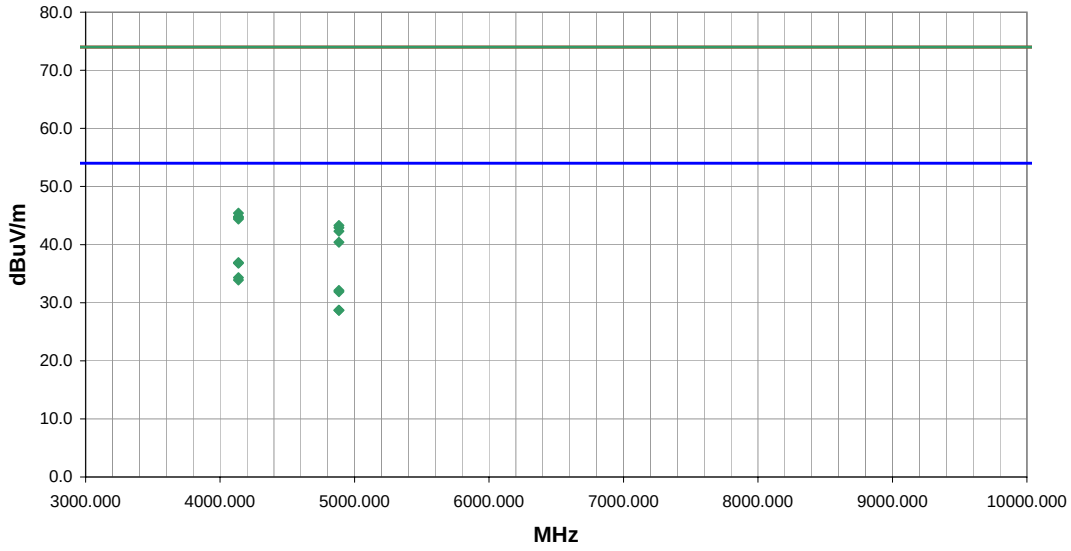
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	14

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)	Comments
4135.886	34.5	2.4	205.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.9	54.0	-17.1	802.11(g) 6Mbps
4135.886	34.4	2.4	170.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.8	54.0	-17.2	802.11(g) 6Mbps
4135.886	31.9	2.4	201.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.3	54.0	-19.7	802.11(b) 1Mbps
4135.886	31.5	2.4	154.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.9	54.0	-20.1	802.11(b) 1Mbps
4883.854	28.5	3.6	201.0	1.0	3.0	0.0	H-Horn	AV	0.0	32.1	54.0	-21.9	802.11(b) 1Mbps
4883.854	28.3	3.6	176.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.9	54.0	-22.1	802.11(b) 1Mbps
4883.854	25.1	3.6	263.0	1.0	3.0	0.0	H-Horn	AV	0.0	28.7	54.0	-25.3	802.11(g) 6Mbps
4883.854	25.1	3.6	212.0	1.0	3.0	0.0	V-Horn	AV	0.0	28.7	54.0	-25.3	802.11(g) 6Mbps
4135.886	43.0	2.4	205.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.4	74.0	-28.6	802.11(g) 6Mbps
4135.886	42.4	2.4	201.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.8	74.0	-29.2	802.11(b) 1Mbps
4135.886	42.2	2.4	154.0	1.0	3.0	0.0	V-Horn	PK	0.0	44.6	74.0	-29.4	802.11(b) 1Mbps
4135.886	42.0	2.4	170.0	1.0	3.0	0.0	V-Horn	PK	0.0	44.4	74.0	-29.6	802.11(g) 6Mbps
4883.854	39.7	3.6	176.0	1.0	3.0	0.0	V-Horn	PK	0.0	43.3	74.0	-30.7	802.11(b) 1Mbps
4883.854	39.3	3.6	201.0	1.0	3.0	0.0	H-Horn	PK	0.0	42.9	74.0	-31.1	802.11(b) 1Mbps
4883.854	38.7	3.6	263.0	1.0	3.0	0.0	H-Horn	PK	0.0	42.3	74.0	-31.7	802.11(g) 6Mbps
4883.854	36.8	3.6	212.0	1.0	3.0	0.0	V-Horn	PK	0.0	40.4	74.0	-33.6	802.11(g) 6Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	EMC 2	Date:	01/30/05
Customer:	Intermec Technologies Corporation	Temperature:	19
Attendees:	None	Humidity:	41%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Holly Ashkannejhad	Power: Battery	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in CN2/CN2NI

EUT OPERATING MODES

Transmit low channel, see comments for data rate

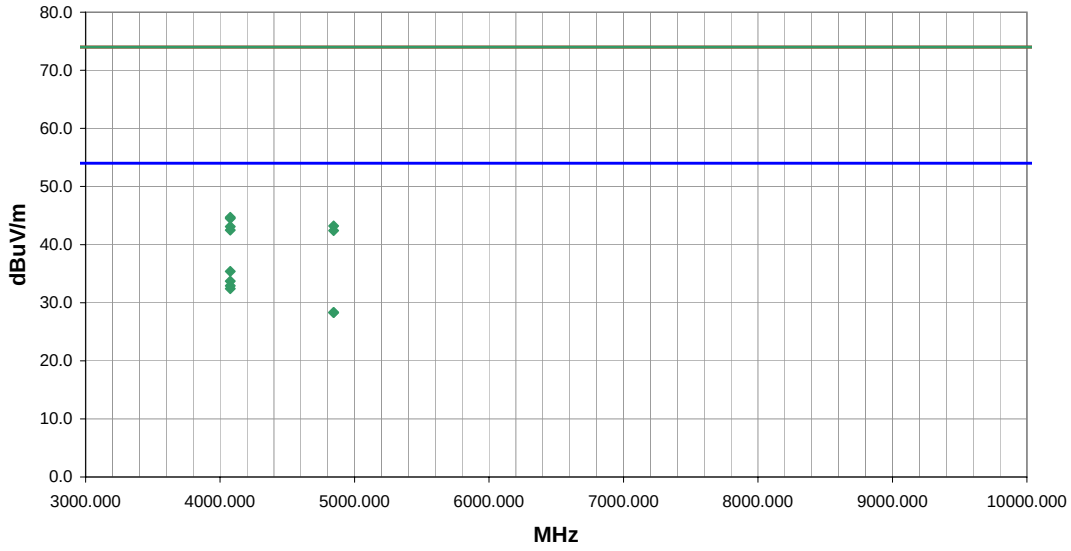
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	15

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)	Comments
4075.885	33.0	2.4	202.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.4	54.0	-18.6	802.11(b) 1Mbps
4075.885	31.3	2.4	199.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.7	54.0	-20.3	802.11(g) 6Mbps
4075.885	30.5	2.4	132.0	1.0	3.0	0.0	V-Horn	AV	0.0	32.9	54.0	-21.1	802.11(b) 1Mbps
4075.885	30.0	2.4	123.0	1.0	3.0	0.0	V-Horn	AV	0.0	32.4	54.0	-21.6	802.11(g) 6Mbps
4843.885	24.9	3.4	-1.0	1.0	3.0	0.0	V-Horn	AV	0.0	28.3	54.0	-25.7	802.11(b) 1Mbps
4843.885	24.9	3.4	-1.0	1.0	3.0	0.0	H-Horn	AV	0.0	28.3	54.0	-25.7	802.11(b) 1Mbps
4075.885	42.3	2.4	202.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.7	74.0	-29.3	802.11(b) 1Mbps
4075.885	42.1	2.4	199.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.5	74.0	-29.5	802.11(g) 6Mbps
4843.885	39.8	3.4	-1.0	1.0	3.0	0.0	V-Horn	PK	0.0	43.2	74.0	-30.8	802.11(b) 1Mbps
4075.885	40.7	2.4	132.0	1.0	3.0	0.0	V-Horn	PK	0.0	43.1	74.0	-30.9	802.11(b) 1Mbps
4075.885	40.1	2.4	123.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.5	74.0	-31.5	802.11(g) 6Mbps
4843.885	39.0	3.4	-1.0	1.0	3.0	0.0	H-Horn	PK	0.0	42.4	74.0	-31.6	802.11(b) 1Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0070
Serial Number:	18190400069	Date:	03/11/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	39%
Cust. Ref. No.:		Barometric Pressure	30.25
Tested by:	Dan Haas	Power: 120 VAC, 60 Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

High Channel (11), continuous TX, fully charged battery.

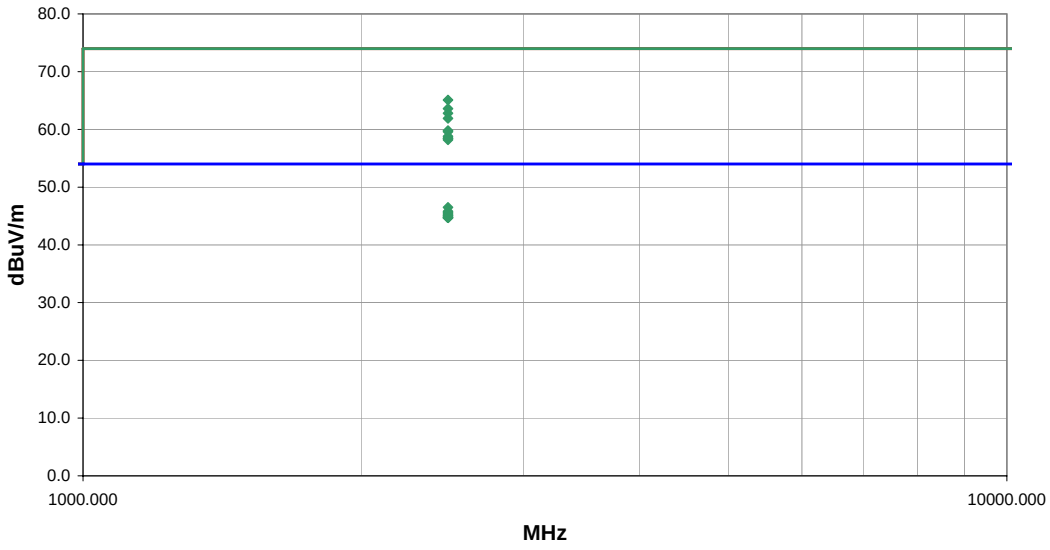
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	18

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
2483.500	28.7	-2.2	274.0	1.2	3.0	20.0	V-Horn	AV	0.0	46.5	54.0	-7.5	802.11(g), 36Mbps
2483.500	28.0	-2.2	299.0	1.3	3.0	20.0	H-Horn	AV	0.0	45.8	54.0	-8.2	802.11(g), 6Mbps
2483.500	27.8	-2.2	335.0	1.2	3.0	20.0	V-Horn	AV	0.0	45.6	54.0	-8.4	802.11(g), 6Mbps
2483.500	27.6	-2.2	331.0	1.1	3.0	20.0	V-Horn	AV	0.0	45.4	54.0	-8.6	802.11(g), 54Mbps
2483.500	27.4	-2.2	143.0	1.3	3.0	20.0	H-Horn	AV	0.0	45.2	54.0	-8.8	802.11(g), 36Mbps
2483.500	47.3	-2.2	274.0	1.2	3.0	20.0	V-Horn	PK	0.0	65.1	74.0	-8.9	802.11(g), 36Mbps
2483.500	27.2	-2.2	130.0	1.3	3.0	20.0	H-Horn	AV	0.0	45.0	54.0	-9.0	802.11(g), 54Mbps
2483.500	27.2	-2.2	10.0	1.2	3.0	20.0	V-Horn	AV	0.0	45.0	54.0	-9.0	802.11(b), 1Mbps
2483.500	26.9	-2.2	19.0	1.3	3.0	20.0	H-Horn	AV	0.0	44.7	54.0	-9.3	802.11(b), 11Mbps
2483.500	26.9	-2.2	29.0	1.2	3.0	20.0	V-Horn	AV	0.0	44.7	54.0	-9.3	802.11(b), 11Mbps
2483.500	26.9	-2.2	9.0	1.3	3.0	20.0	H-Horn	AV	0.0	44.7	54.0	-9.3	802.11(b), 1Mbps
2483.500	45.8	-2.2	299.0	1.3	3.0	20.0	H-Horn	PK	0.0	63.6	74.0	-10.4	802.11(g), 6Mbps
2483.500	45.0	-2.2	335.0	1.2	3.0	20.0	V-Horn	PK	0.0	62.8	74.0	-11.2	802.11(g), 6Mbps
2483.500	44.1	-2.2	143.0	1.3	3.0	20.0	H-Horn	PK	0.0	61.9	74.0	-12.1	802.11(g), 36Mbps
2483.500	42.0	-2.2	331.0	1.1	3.0	20.0	V-Horn	PK	0.0	59.8	74.0	-14.2	802.11(g), 54Mbps
2483.500	41.8	-2.2	130.0	1.3	3.0	20.0	H-Horn	PK	0.0	59.6	74.0	-14.4	802.11(g), 54Mbps
2483.500	41.0	-2.2	29.0	1.2	3.0	20.0	V-Horn	PK	0.0	58.8	74.0	-15.2	802.11(b), 11Mbps
2483.500	40.7	-2.2	9.0	1.3	3.0	20.0	H-Horn	PK	0.0	58.5	74.0	-15.5	802.11(b), 1Mbps
2483.500	40.6	-2.2	10.0	1.2	3.0	20.0	V-Horn	PK	0.0	58.4	74.0	-15.6	802.11(b), 1Mbps
2483.500	40.4	-2.2	19.0	1.3	3.0	20.0	H-Horn	PK	0.0	58.2	74.0	-15.8	802.11(b), 11Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0070
Serial Number:	18190400069	Date:	03/11/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	39%
Cust. Ref. No.:		Barometric Pressure	30.25
Tested by:	Dan Haas	Power: 120 VAC, 60 Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

High Channel (11), continuous TX, fully charged battery.

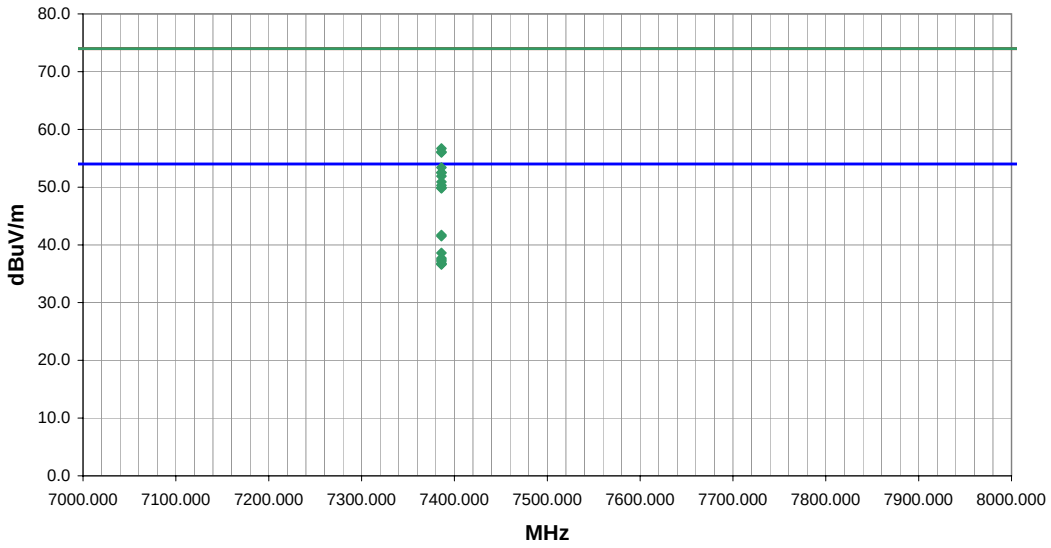
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	21

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
7386.000	39.1	10.8	347.0	1.5	3.0	0.0	V-Horn	AV	0.0	49.9	54.0	-4.1	802.11(b), 1Mbps
7386.000	30.9	10.8	224.0	1.4	3.0	0.0	H-Horn	AV	0.0	41.7	54.0	-12.3	802.11(b), 1Mbps
7386.000	30.7	10.8	347.0	1.5	3.0	0.0	V-Horn	AV	0.0	41.5	54.0	-12.5	802.11(b), 11Mbps
7386.000	27.8	10.8	203.0	1.5	3.0	0.0	V-Horn	AV	0.0	38.6	54.0	-15.4	802.11(g), 36Mbps
7386.000	26.9	10.8	229.0	1.1	3.0	0.0	H-Horn	AV	0.0	37.7	54.0	-16.3	802.11(g), 36Mbps
7386.000	26.6	10.8	265.0	1.5	3.0	0.0	V-Horn	AV	0.0	37.4	54.0	-16.6	802.11(g), 6Mbps
7386.000	26.4	10.8	219.0	1.2	3.0	0.0	H-Horn	AV	0.0	37.2	54.0	-16.8	802.11(g), 6Mbps
7386.000	26.0	10.8	39.0	1.3	3.0	0.0	H-Horn	AV	0.0	36.8	54.0	-17.2	802.11(b), 11Mbps
7386.000	25.9	10.8	232.0	1.2	3.0	0.0	V-Horn	AV	0.0	36.7	54.0	-17.3	802.11(g), 54Mbps
7386.000	45.9	10.8	203.0	1.5	3.0	0.0	V-Horn	PK	0.0	56.7	74.0	-17.3	802.11(g), 36Mbps
7386.000	25.8	10.8	202.0	1.3	3.0	0.0	H-Horn	AV	0.0	36.6	54.0	-17.4	802.11(g), 54Mbps
7386.000	45.3	10.8	347.0	1.5	3.0	0.0	V-Horn	PK	0.0	56.1	74.0	-17.9	802.11(b), 1Mbps
7386.000	45.2	10.8	265.0	1.5	3.0	0.0	V-Horn	PK	0.0	56.0	74.0	-18.0	802.11(g), 6Mbps
7386.000	42.6	10.8	229.0	1.1	3.0	0.0	H-Horn	PK	0.0	53.4	74.0	-20.6	802.11(g), 36Mbps
7386.000	41.7	10.8	347.0	1.5	3.0	0.0	V-Horn	PK	0.0	52.5	74.0	-21.5	802.11(b), 11Mbps
7386.000	41.7	10.8	224.0	1.4	3.0	0.0	H-Horn	PK	0.0	52.5	74.0	-21.5	802.11(b), 1Mbps
7386.000	41.1	10.8	219.0	1.2	3.0	0.0	H-Horn	PK	0.0	51.9	74.0	-22.1	802.11(g), 6Mbps
7386.000	40.1	10.8	232.0	1.2	3.0	0.0	V-Horn	PK	0.0	50.9	74.0	-23.1	802.11(g), 54Mbps
7386.000	39.5	10.8	202.0	1.3	3.0	0.0	H-Horn	PK	0.0	50.3	74.0	-23.7	802.11(g), 54Mbps
7386.000	39.0	10.8	39.0	1.3	3.0	0.0	H-Horn	PK	0.0	49.8	74.0	-24.2	802.11(b), 11Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0070
Serial Number:	18190400069	Date:	03/11/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	39%
Cust. Ref. No.:		Barometric Pressure	30.25
Tested by:	Dan Haas	Power: 120 VAC, 60 Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in 700C

EUT OPERATING MODES

Mid Channel (7), continuous TX, fully charged battery.

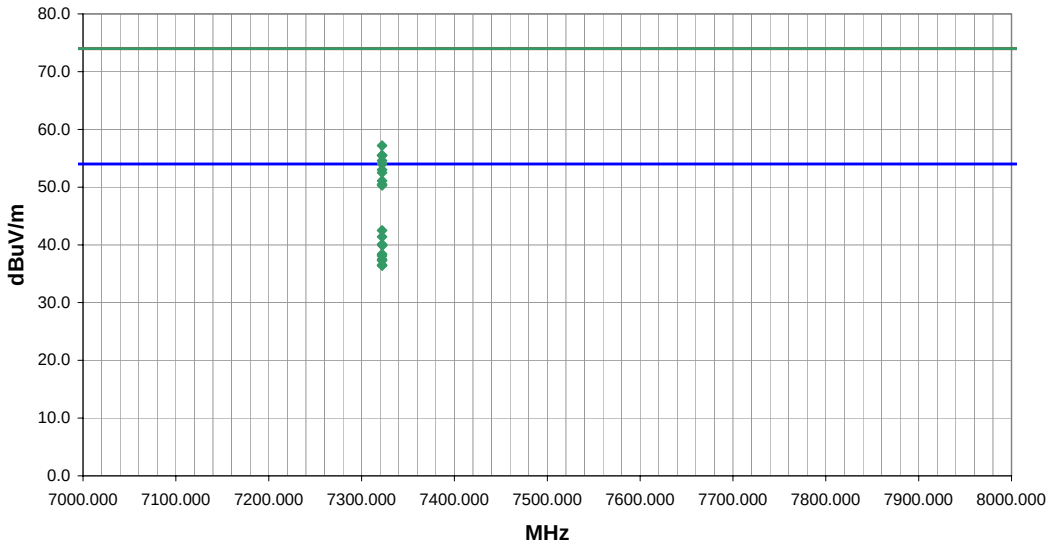
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	22

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
7322.000	32.0	10.5	135.0	1.2	3.0	0.0	V-Horn	AV	0.0	42.5	54.0	-11.5	802.11(b), 1Mbps
7322.000	30.9	10.5	27.0	1.2	3.0	0.0	V-Horn	AV	0.0	41.4	54.0	-12.6	802.11(b), 11Mbps
7322.000	29.6	10.5	150.0	1.2	3.0	0.0	V-Horn	AV	0.0	40.1	54.0	-13.9	802.11(g), 36Mbps
7322.400	29.4	10.5	141.0	1.3	3.0	0.0	H-Horn	AV	0.0	39.9	54.0	-14.1	802.11(b), 1Mbps
7322.000	27.9	10.5	206.0	1.3	3.0	0.0	H-Horn	AV	0.0	38.4	54.0	-15.6	802.11(b), 11Mbps
7322.000	27.6	10.5	141.0	1.1	3.0	0.0	H-Horn	AV	0.0	38.1	54.0	-15.9	802.11(g), 36Mbps
7322.000	27.0	10.5	131.0	1.2	3.0	0.0	V-Horn	AV	0.0	37.5	54.0	-16.5	802.11(g), 54Mbps
7322.000	26.8	10.5	223.0	1.2	3.0	0.0	V-Horn	AV	0.0	37.3	54.0	-16.7	802.11(g), 6Mbps
7322.000	46.7	10.5	150.0	1.2	3.0	0.0	V-Horn	PK	0.0	57.2	74.0	-16.8	802.11(g), 36Mbps
7322.000	26.0	10.5	145.0	1.1	3.0	0.0	H-Horn	AV	0.0	36.5	54.0	-17.5	802.11(g), 6Mbps
7322.000	25.9	10.5	232.0	1.6	3.0	0.0	H-Horn	AV	0.0	36.4	54.0	-17.6	802.11(g), 54Mbps
7322.000	45.0	10.5	141.0	1.1	3.0	0.0	H-Horn	PK	0.0	55.5	74.0	-18.5	802.11(g), 36Mbps
7322.000	45.0	10.5	131.0	1.2	3.0	0.0	V-Horn	PK	0.0	55.5	74.0	-18.5	802.11(g), 54Mbps
7322.000	44.1	10.5	145.0	1.1	3.0	0.0	H-Horn	PK	0.0	54.6	74.0	-19.4	802.11(g), 6Mbps
7322.000	43.5	10.5	223.0	1.2	3.0	0.0	V-Horn	PK	0.0	54.0	74.0	-20.0	802.11(g), 6Mbps
7322.000	42.5	10.5	27.0	1.2	3.0	0.0	V-Horn	PK	0.0	53.0	74.0	-21.0	802.11(b), 11Mbps
7322.000	42.0	10.5	135.0	1.2	3.0	0.0	V-Horn	PK	0.0	52.5	74.0	-21.5	802.11(b), 1Mbps
7322.000	40.6	10.5	206.0	1.3	3.0	0.0	H-Horn	PK	0.0	51.1	74.0	-22.9	802.11(b), 11Mbps
7322.000	40.0	10.5	232.0	1.6	3.0	0.0	H-Horn	PK	0.0	50.5	74.0	-23.5	802.11(g), 54Mbps
7322.000	39.8	10.5	141.0	1.3	3.0	0.0	H-Horn	PK	0.0	50.3	74.0	-23.7	802.11(b), 1Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI A2.13

EUT:	2610CF	Work Order:	ITRM0070
Serial Number:	EMC 2	Date:	03/16/05
Customer:	Intermec Technologies Corporation	Temperature:	23
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.06
Tested by:	Holly Ashkannejhad	Power: 120 VAC, 60 Hz	Job Site: EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in CN2/CN2NI

EUT OPERATING MODES

Transmitting 802.11, High Channel, see comments for mode/data rate.

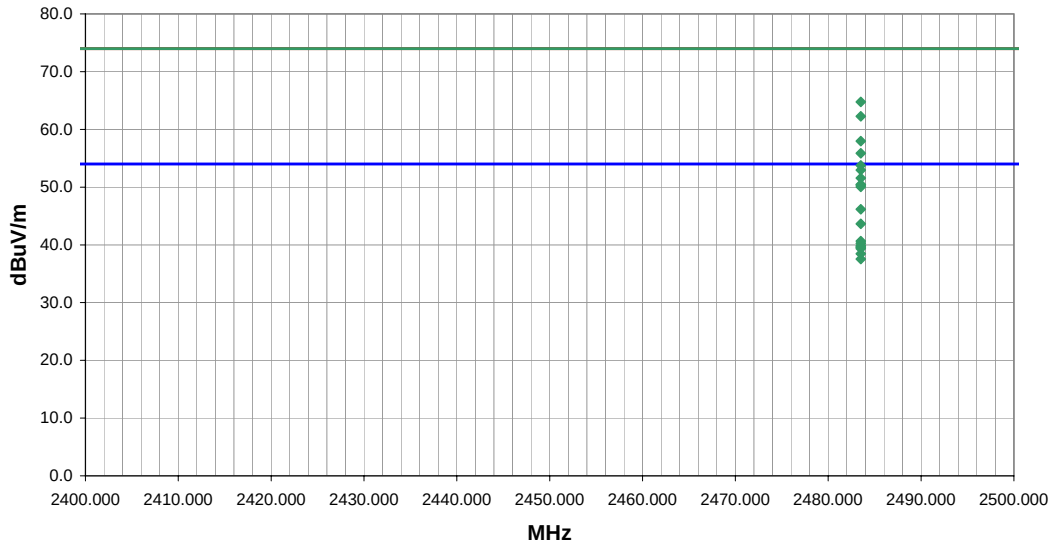
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	23

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
2483.500	25.3	30.4	350.0	1.1	1.0	0.0	V-Horn	AV	-9.5	46.2	54.0	-7.8	802.11(g) 36Mbps
2483.500	43.9	30.4	350.0	1.1	1.0	0.0	V-Horn	PK	-9.5	64.8	74.0	-9.2	802.11(g) 36Mbps
2483.500	22.8	30.4	47.0	1.1	1.0	0.0	H-Horn	AV	-9.5	43.7	54.0	-10.3	802.11(g) 36Mbps
2483.500	41.4	30.4	47.0	1.1	1.0	0.0	H-Horn	PK	-9.5	62.3	74.0	-11.7	802.11(g) 36Mbps
2483.500	19.8	30.4	347.0	1.1	1.0	0.0	V-Horn	AV	-9.5	40.7	54.0	-13.3	802.11(b) 1Mbps
2483.500	19.4	30.4	-1.0	1.0	1.0	0.0	V-Horn	AV	-9.5	40.3	54.0	-13.7	802.11(g) 54Mbps
2483.500	19.0	30.4	7.0	1.0	1.0	0.0	V-Horn	AV	-9.5	39.9	54.0	-14.1	802.11(b) 11Mbps
2483.500	18.8	30.4	206.0	1.0	1.0	0.0	H-Horn	AV	-9.5	39.7	54.0	-14.3	802.11(g) 54Mbps
2483.500	18.7	30.4	351.0	1.1	1.0	0.0	H-Horn	AV	-9.5	39.6	54.0	-14.4	802.11(b) 1Mbps
2483.500	18.5	30.4	355.0	1.2	1.0	0.0	V-Horn	AV	-9.5	39.4	54.0	-14.6	802.11(g) 6Mbps
2483.500	17.6	30.4	196.0	1.1	1.0	0.0	H-Horn	AV	-9.5	38.5	54.0	-15.5	802.11(b) 11Mbps
2483.500	37.1	30.4	-1.0	1.0	1.0	0.0	V-Horn	PK	-9.5	58.0	74.0	-16.0	802.11(g) 54Mbps
2483.500	16.7	30.4	42.0	1.1	1.0	0.0	H-Horn	AV	-9.5	37.6	54.0	-16.4	802.11(g) 6Mbps
2483.500	35.0	30.4	206.0	1.0	1.0	0.0	H-Horn	PK	-9.5	55.9	74.0	-18.1	802.11(g) 54Mbps
2483.500	32.9	30.4	355.0	1.2	1.0	0.0	V-Horn	PK	-9.5	53.8	74.0	-20.2	802.11(g) 6Mbps
2483.500	32.1	30.4	42.0	1.1	1.0	0.0	H-Horn	PK	-9.5	53.0	74.0	-21.0	802.11(g) 6Mbps
2483.500	30.7	30.4	7.0	1.0	1.0	0.0	V-Horn	PK	-9.5	51.6	74.0	-22.4	802.11(b) 11Mbps
2483.500	29.6	30.4	351.0	1.1	1.0	0.0	H-Horn	PK	-9.5	50.5	74.0	-23.5	802.11(b) 1Mbps
2483.500	29.5	30.4	347.0	1.1	1.0	0.0	V-Horn	PK	-9.5	50.4	74.0	-23.6	802.11(b) 1Mbps
2483.500	29.2	30.4	196.0	1.1	1.0	0.0	H-Horn	PK	-9.5	50.1	74.0	-23.9	802.11(b) 11Mbps

NORTHWEST EMC

RADIATED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF			Work Order:	ITRM0070
Serial Number:	EMC 2			Date:	03/16/05
Customer:	Intermec Technologies Corporation			Temperature:	23
Attendees:	none			Humidity:	36%
Cust. Ref. No.:				Barometric Pressure	30.06
Tested by:	Holly Ashkannejhad	Power:	120 VAC, 60 Hz	Job Site:	EV01

TEST SPECIFICATIONS

Specification:	FCC 15.247(d) Spurious Radiated Emissions:2004	Method:	ANSI C63.4:2003

SAMPLE CALCULATIONS

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

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

COMMENTS

Installed in CN2/CN2NI

EUT OPERATING MODES

Transmitting 802.11(g), 36Mbps, see comments for channel.

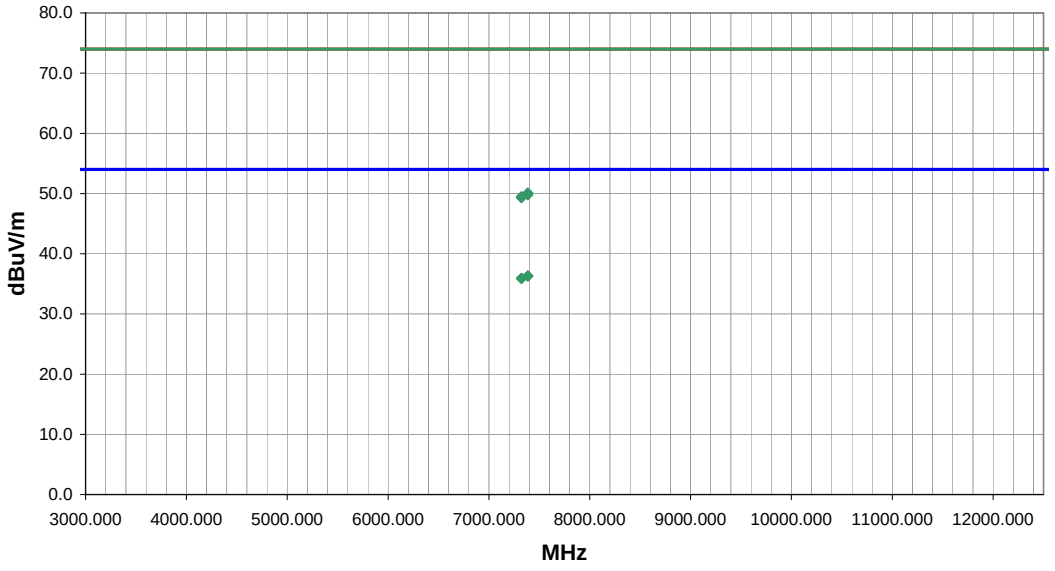
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Run #
Pass	24

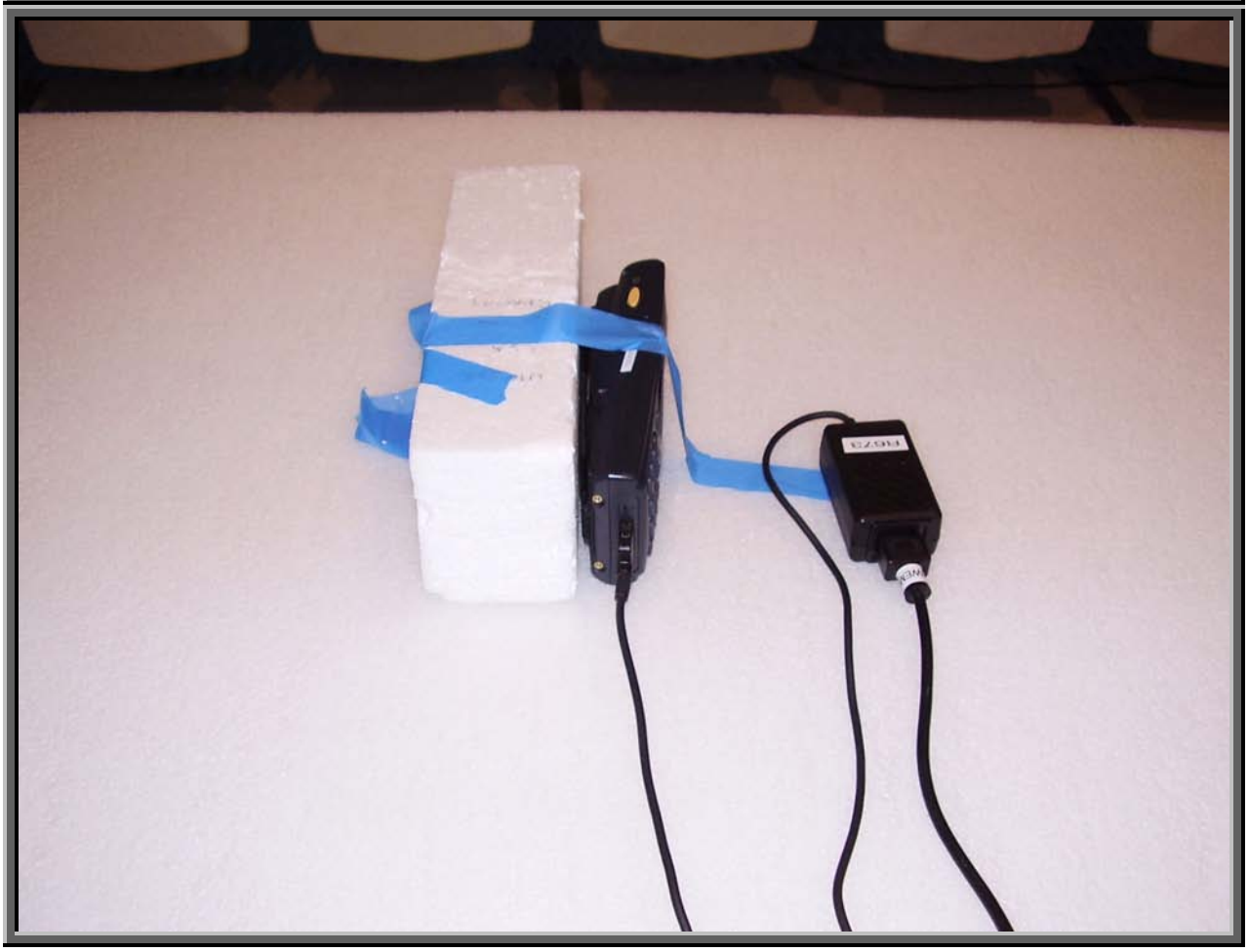
Other

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
7386.000	25.5	10.8	83.0	1.3	3.0	0.0	H-Horn	AV	0.0	36.3	54.0	-17.7	High channel
7386.000	25.5	10.8	25.0	2.2	3.0	0.0	V-Horn	AV	0.0	36.3	54.0	-17.7	High channel
7322.000	25.4	10.5	185.0	1.3	3.0	0.0	H-Horn	AV	0.0	35.9	54.0	-18.1	Mid channel
7322.000	25.4	10.5	135.0	1.2	3.0	0.0	V-Horn	AV	0.0	35.9	54.0	-18.1	Mid channel
7386.000	39.3	10.8	25.0	2.2	3.0	0.0	V-Horn	PK	0.0	50.1	74.0	-23.9	High channel
7386.000	39.0	10.8	83.0	1.3	3.0	0.0	H-Horn	PK	0.0	49.8	74.0	-24.2	High channel
7322.000	39.0	10.5	185.0	1.3	3.0	0.0	H-Horn	PK	0.0	49.5	74.0	-24.5	Mid channel
7322.000	38.8	10.5	135.0	1.2	3.0	0.0	V-Horn	PK	0.0	49.3	74.0	-24.7	Mid channel


R673


R673


Intermec


Intermec
CN2
F1
F2
SCAN
ENTER


Intermec
CN2


Intermec
CN2

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:
Low
Mid
High

Operating Modes Investigated:
Continuous transmit

Configurations Tests:
In host CN2/CN2NI handheld scanner
In host 700C handheld computer

Data Rates Investigated:
11 Mbps (802.11b)

Output Power Setting(s) Investigated:
Maximum default

Power Input Settings Investigated:
120 VAC, 60 Hz.

Software\Firmware Applied During Test			
Exercise software	Test Utility	**Version**	0.4
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(b)/(g) radio	Intermec Technologies Corporation	2610CF	Unknown
EUT- 802.11(b)/(g) radio	Intermec Technologies Corporation	2610CF	Unknown
AC Adapter	Intermec Technologies Corporation	FW1812	011025
AC Adapter	Intermec Technologies Corporation	FW1805	27992
CN2 USB Dock	Intermec Technologies Corporation	074248	177h042 0033
Host Device	Intermec Technologies Corporation	700C	00490500002
Host Device	Intermec Technologies Corporation	CN2/CN2NI	34300400342

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Leads	Yes	1.9	PA	AC Power Adapter	Host Device
DC Leads	Yes	1.9	PA	AC Power Adapter	CN2 USB Dock
AC Power	No	2.0	No	AC Power Adapter	AC Mains
AC Power	No	2.0	No	AC Power Adapter	AC Mains
USB	Yes	2.0	No	CN2 USB Dock	Unterminated
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

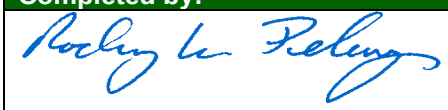
Measurement Equipment					
Description	**Manufacturer**	**Model**	**Identifier**	**Last Cal**	**Interval**
Spectrum Analyzer	Hewlett-Packard	8566B	AAL	12/02/2004	13 mo
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQF	12/02/2004	13 mo
High Pass Filter	TTE	H97-100k-50-720B	HFC	12/29/2004	13 mo
LISN	Solar	9252-50-R-24-BNC	LIP	12/29/2004	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 lowest, the highest, and a middle channel in the operational band. The EUT was transmitting at its maximum data rate. For each mode, the spectrum was scanned from 150 kHz to 30 MHz. The test setup and procedures were in accordance with ANSI C63.4-2003.

Completed by:



NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host CN2/CN2NI handheld scanner

EUT OPERATING MODES

802.11(b) transmit mode, low channel, 11Mbps.

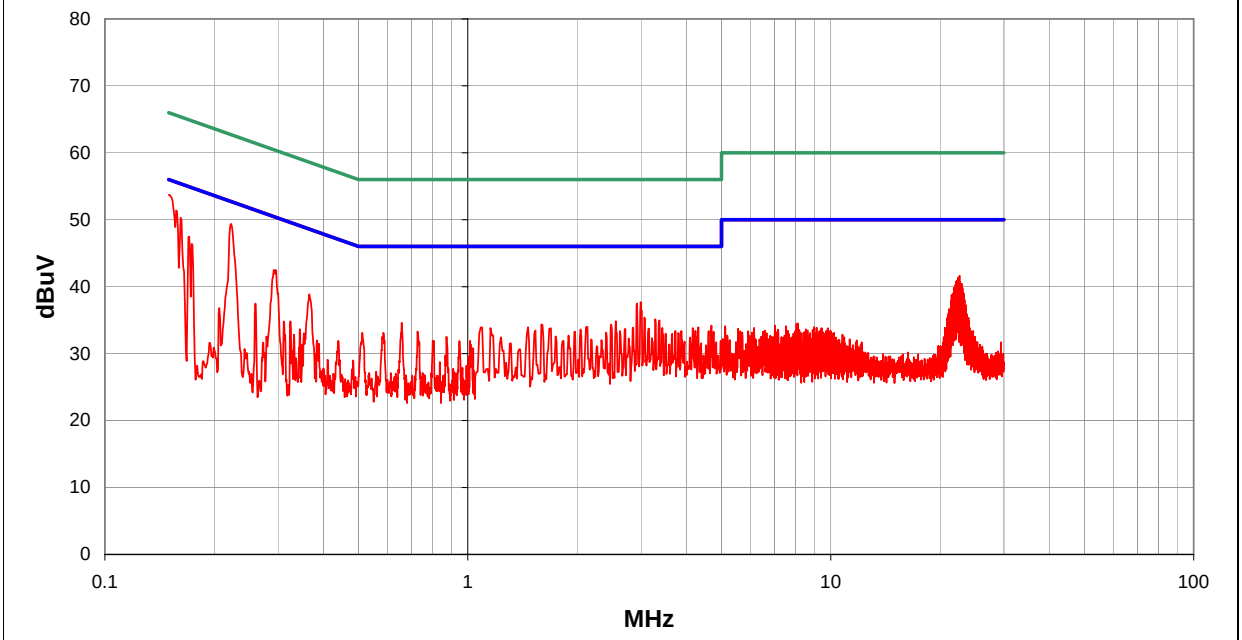
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	1

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)
0.150	33.6			0.0	0.1	20.0				53.7	56.0	-2.3
0.223	29.2			0.0	0.1	20.0				49.3	52.7	-3.4
0.157	31.3			0.0	0.1	20.0				51.4	55.6	-4.2
0.162	30.2			0.0	0.1	20.0				50.3	55.4	-5.1
0.171	27.4			0.0	0.1	20.0				47.5	54.9	-7.4
0.292	22.4			0.0	0.1	20.0				42.5	50.5	-7.9
2.996	17.2			0.0	0.5	20.0				37.7	46.0	-8.3
22.641	20.2			0.0	1.4	20.0				41.6	50.0	-8.4
0.173	26.3			0.0	0.1	20.0				46.4	54.8	-8.4
2.926	17.0			0.0	0.5	20.0				37.5	46.0	-8.5
22.487	20.0			0.0	1.4	20.0				41.4	50.0	-8.6
22.564	19.8			0.0	1.4	20.0				41.2	50.0	-8.8
22.432	19.8			0.0	1.4	20.0				41.2	50.0	-8.8
22.278	19.5			0.0	1.4	20.0				40.9	50.0	-9.1
22.344	19.4			0.0	1.4	20.0				40.8	50.0	-9.2
22.201	19.4			0.0	1.4	20.0				40.8	50.0	-9.2
22.707	19.3			0.0	1.4	20.0				40.7	50.0	-9.3
22.124	19.3			0.0	1.4	20.0				40.7	50.0	-9.3
22.784	19.1			0.0	1.4	20.0				40.5	50.0	-9.5

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host CN2/CN2NI handheld scanner

EUT OPERATING MODES

802.11(b) transmit mode, low channel, 11Mbps.

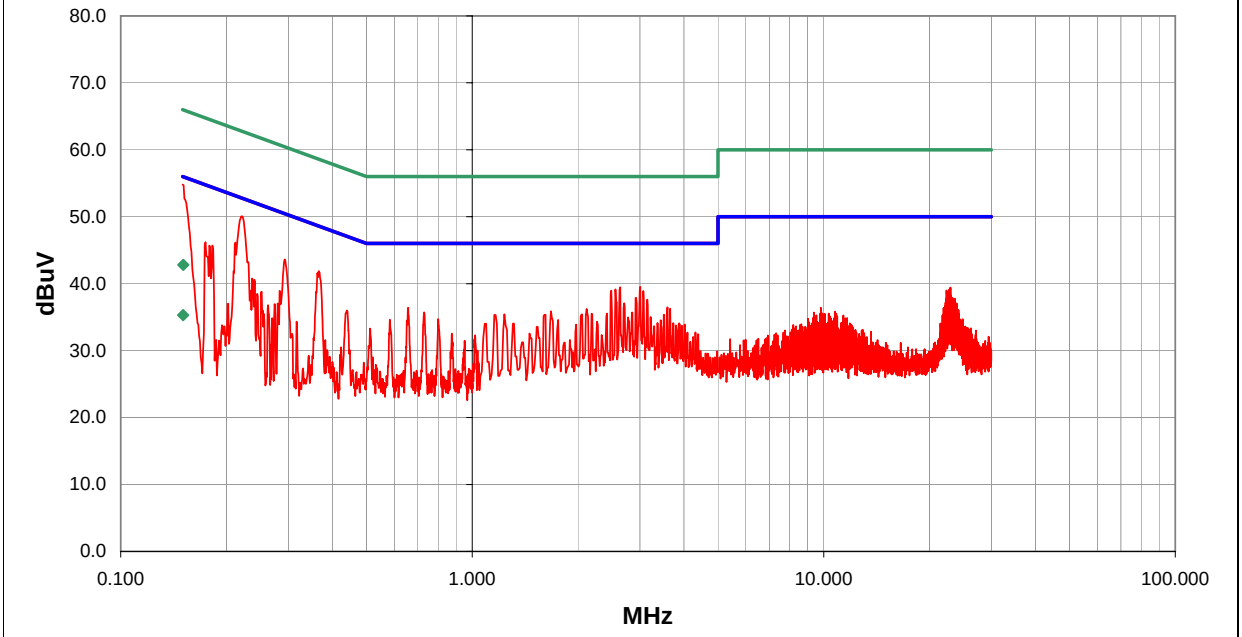
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	2

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)
0.151	15.3			0.0	0.0	20.0		AV		35.3	56.0	-20.7
0.151	22.8			0.0	0.0	20.0		QP		42.8	66.0	-23.2
0.150	34.7			0.0	0.1	20.0				54.8	56.0	-1.2
0.222	29.9			0.0	0.1	20.0				50.0	52.7	-2.7
3.006	19.0			0.0	0.5	20.0				39.5	46.0	-6.5
2.636	19.0			0.0	0.5	20.0				39.5	46.0	-6.5
0.366	21.7			0.0	0.2	20.0				41.9	48.6	-6.7
0.293	23.5			0.0	0.1	20.0				43.6	50.4	-6.8
2.556	18.7			0.0	0.5	20.0				39.2	46.0	-6.8
2.486	18.5			0.0	0.4	20.0				38.9	46.0	-7.1
3.066	18.4			0.0	0.5	20.0				38.9	46.0	-7.1
2.926	17.4			0.0	0.5	20.0				37.9	46.0	-8.1
3.146	17.1			0.0	0.5	20.0				37.6	46.0	-8.4
0.174	26.1			0.0	0.1	20.0				46.2	54.8	-8.6
0.182	25.6			0.0	0.1	20.0				45.7	54.4	-8.7
0.179	25.6			0.0	0.1	20.0				45.7	54.5	-8.8
2.706	16.6			0.0	0.5	20.0				37.1	46.0	-8.9
3.596	15.9			0.0	0.6	20.0				36.5	46.0	-9.5
0.657	16.2			0.0	0.2	20.0				36.4	46.0	-9.6

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF			Work Order:	ITRM0057
Serial Number:	Unknown			Date:	01/31/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	36%
Cust. Ref. No.:				Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host CN2/CN2NI handheld scanner

EUT OPERATING MODES

802.11(b) transmit mode, mid channel, 11Mbps.

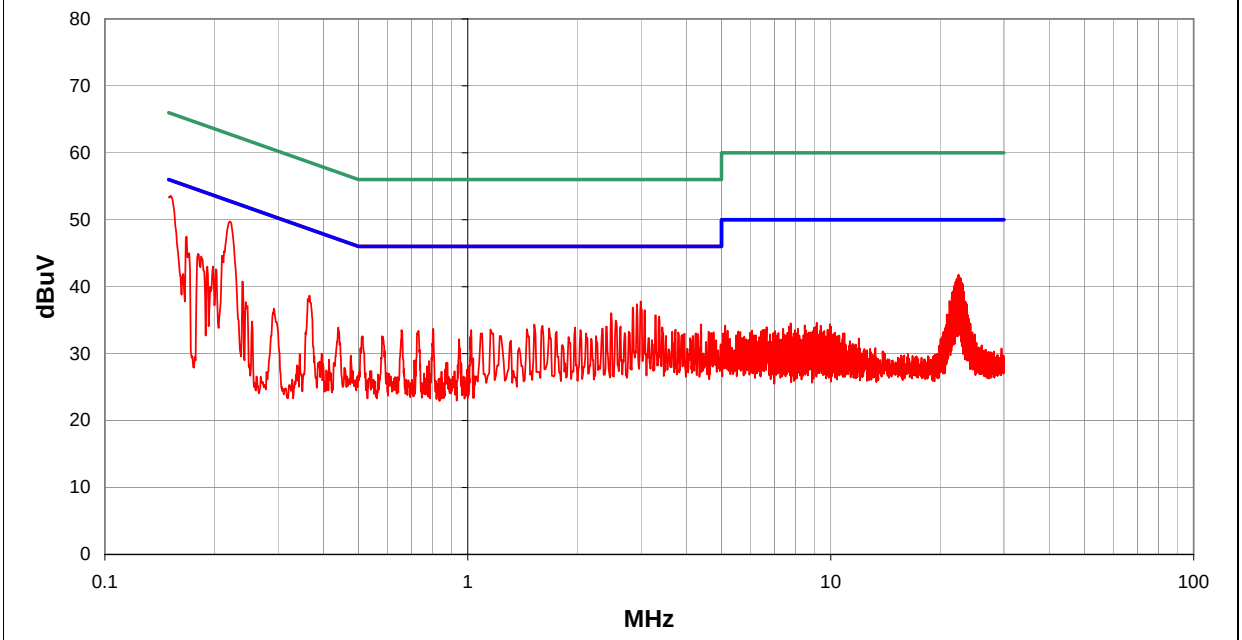
DEVIATIONS FROM TEST STANDARD

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	33.5			0.0	0.1	20.0				53.6	55.9	-2.3
0.221	29.6			0.0	0.1	20.0				49.7	52.8	-3.0
0.168	27.4			0.0	0.1	20.0				47.5	55.1	-7.6
22.509	20.4			0.0	1.4	20.0				41.8	50.0	-8.2
2.996	17.3			0.0	0.5	20.0				37.8	46.0	-8.2
22.421	20.2			0.0	1.4	20.0				41.6	50.0	-8.4
22.652	20.0			0.0	1.4	20.0				41.4	50.0	-8.6
2.926	16.9			0.0	0.5	20.0				37.4	46.0	-8.6
22.366	19.9			0.0	1.4	20.0				41.3	50.0	-8.7
22.861	19.8			0.0	1.4	20.0				41.2	50.0	-8.8
22.575	19.8			0.0	1.4	20.0				41.2	50.0	-8.8
22.212	19.7			0.0	1.4	20.0				41.1	50.0	-8.9
22.729	19.6			0.0	1.4	20.0				41.0	50.0	-9.0
22.289	19.5			0.0	1.4	20.0				40.9	50.0	-9.1
2.846	16.4			0.0	0.5	20.0				36.9	46.0	-9.1
22.806	19.4			0.0	1.4	20.0				40.8	50.0	-9.2
22.058	19.3			0.0	1.4	20.0				40.7	50.0	-9.3
22.938	19.2			0.0	1.4	20.0				40.6	50.0	-9.4
22.146	19.2			0.0	1.4	20.0				40.6	50.0	-9.4

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host CN2/CN2NI handheld scanner

EUT OPERATING MODES

802.11(b) transmit mode, mid channel, 11Mbps.

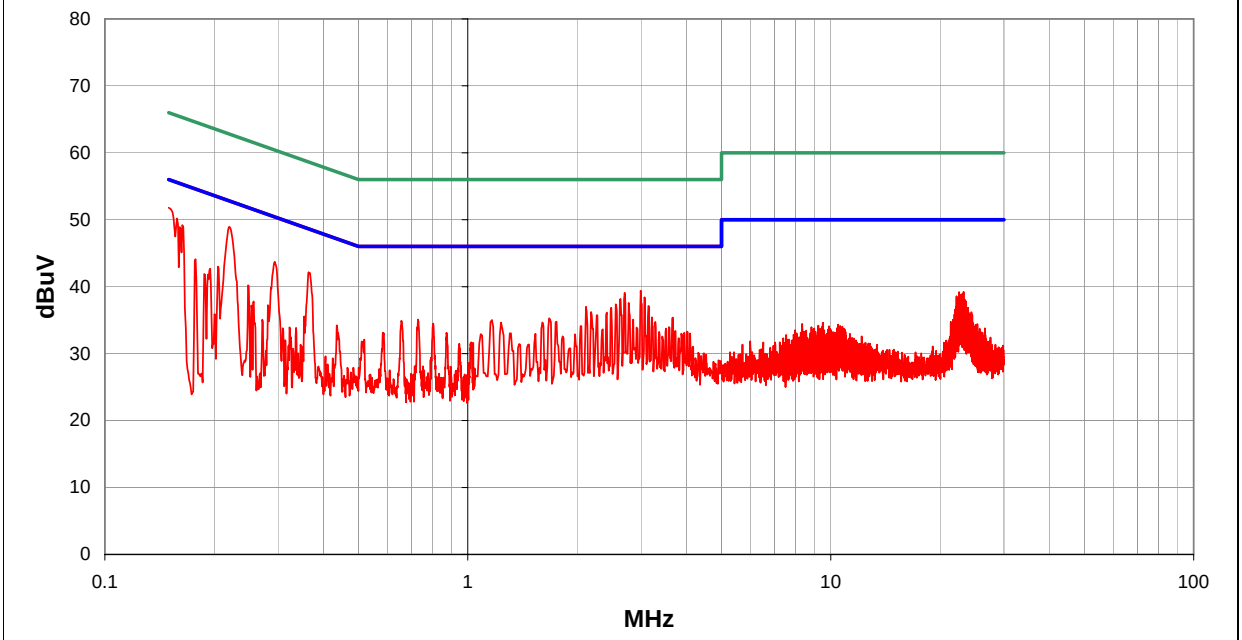
DEVIATIONS FROM TEST STANDARD

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)
0.220	28.8			0.0	0.1	20.0				48.9	52.8	-3.9
0.150	31.7			0.0	0.1	20.0				51.8	56.0	-4.2
0.158	30.1			0.0	0.1	20.0				50.2	55.6	-5.4
0.164	29.1			0.0	0.1	20.0				49.2	55.3	-6.1
0.364	22.0			0.0	0.2	20.0				42.2	48.6	-6.5
0.161	28.8			0.0	0.1	20.0				48.9	55.4	-6.5
2.996	18.9			0.0	0.5	20.0				39.4	46.0	-6.6
0.294	23.6			0.0	0.1	20.0				43.7	50.4	-6.7
2.706	18.6			0.0	0.5	20.0				39.1	46.0	-6.9
3.066	17.9			0.0	0.5	20.0				38.4	46.0	-7.6
2.636	17.7			0.0	0.5	20.0				38.2	46.0	-7.8
2.776	17.1			0.0	0.5	20.0				37.6	46.0	-8.4
2.556	16.9			0.0	0.5	20.0				37.4	46.0	-8.6
3.146	16.6			0.0	0.5	20.0				37.1	46.0	-8.9
2.116	16.6			0.0	0.4	20.0				37.0	46.0	-9.0
2.486	16.4			0.0	0.4	20.0				36.8	46.0	-9.2
2.186	15.8			0.0	0.4	20.0				36.2	46.0	-9.8
2.416	15.7			0.0	0.4	20.0				36.1	46.0	-9.9
2.276	15.3			0.0	0.4	20.0				35.7	46.0	-10.3

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host CN2/CN2NI handheld scanner

EUT OPERATING MODES

802.11(b) transmit mode, high channel, 11Mbps.

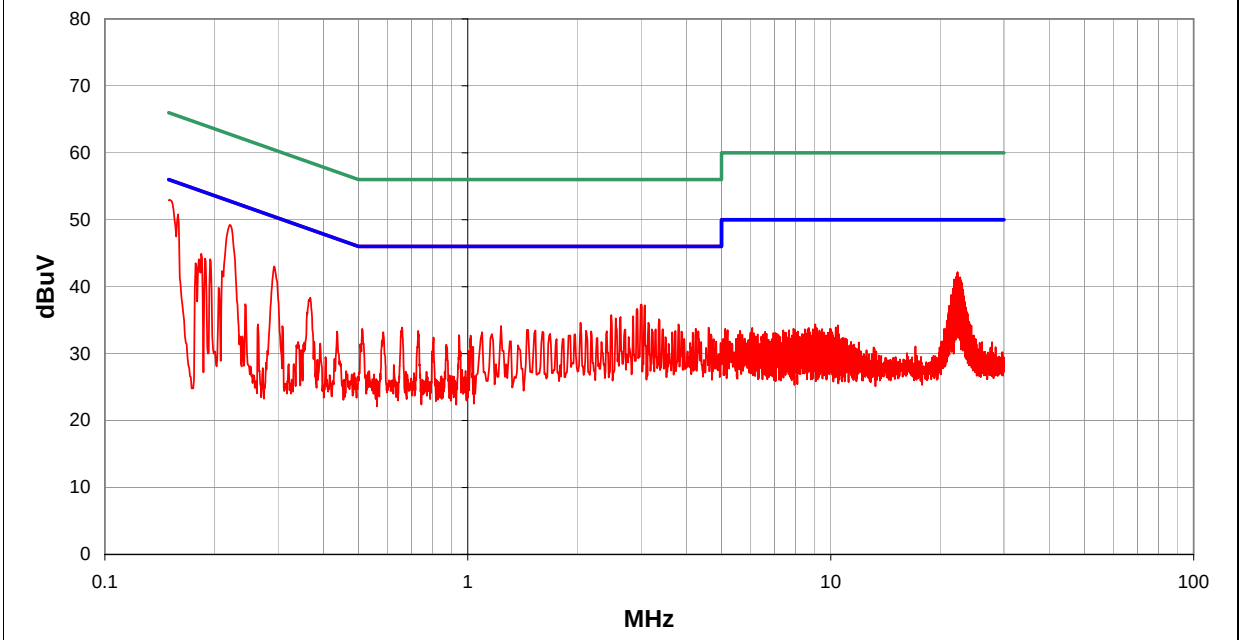
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	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)
0.151	32.9			0.0	0.1	20.0				53.0	56.0	-3.0
0.221	29.1			0.0	0.1	20.0				49.2	52.8	-3.5
0.159	30.7			0.0	0.1	20.0				50.8	55.5	-4.7
0.293	22.9			0.0	0.1	20.0				43.0	50.4	-7.4
22.355	20.8			0.0	1.4	20.0				42.2	50.0	-7.8
22.289	20.5			0.0	1.4	20.0				41.9	50.0	-8.1
22.443	20.2			0.0	1.4	20.0				41.6	50.0	-8.4
22.212	20.2			0.0	1.4	20.0				41.6	50.0	-8.4
22.729	20.0			0.0	1.4	20.0				41.4	50.0	-8.6
3.006	16.8			0.0	0.5	20.0				37.3	46.0	-8.7
22.146	19.9			0.0	1.4	20.0				41.3	50.0	-8.7
3.076	16.7			0.0	0.5	20.0				37.2	46.0	-8.8
22.652	19.8			0.0	1.4	20.0				41.2	50.0	-8.8
22.014	19.7			0.0	1.4	20.0				41.1	50.0	-8.9
21.849	19.7			0.0	1.4	20.0				41.1	50.0	-8.9
22.806	19.6			0.0	1.4	20.0				41.0	50.0	-9.0
22.509	19.6			0.0	1.4	20.0				41.0	50.0	-9.0
22.872	19.3			0.0	1.4	20.0				40.7	50.0	-9.3
22.586	19.3			0.0	1.4	20.0				40.7	50.0	-9.3

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host CN2/CN2NI handheld scanner

EUT OPERATING MODES

802.11(b) transmit mode, high channel, 11Mbps.

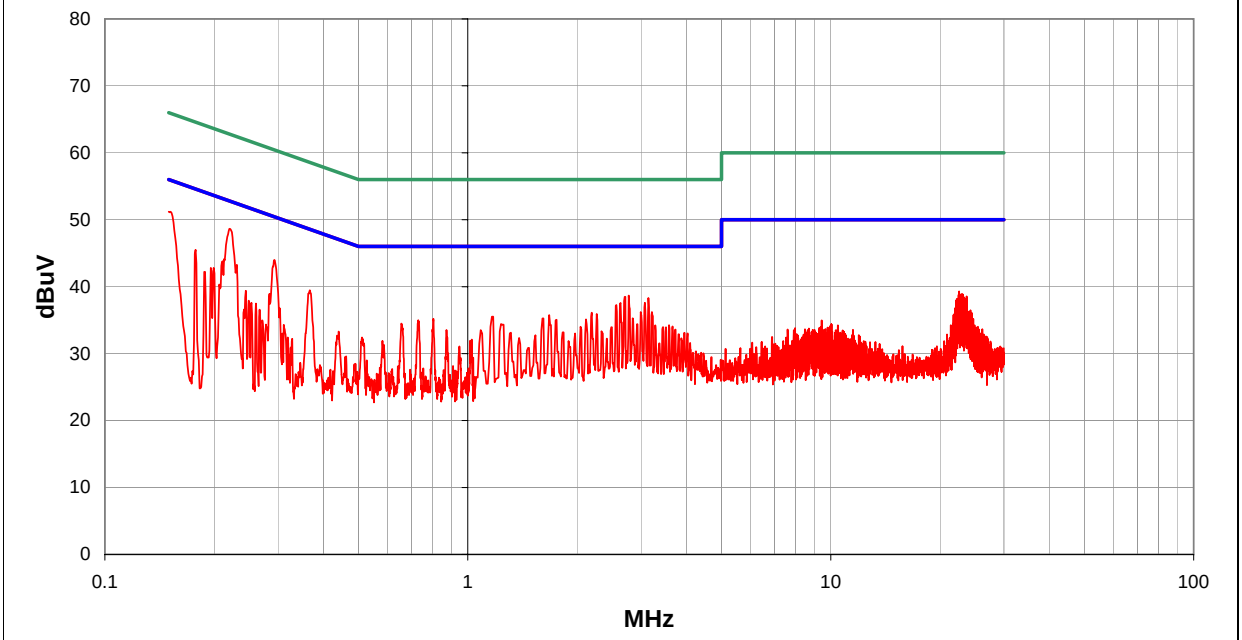
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	6

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)
0.221	28.5			0.0	0.1	20.0				48.6	52.8	-4.1
0.150	31.1			0.0	0.1	20.0				51.2	56.0	-4.8
0.293	23.9			0.0	0.1	20.0				44.0	50.4	-6.4
2.776	18.2			0.0	0.5	20.0				38.7	46.0	-7.3
2.716	18.0			0.0	0.5	20.0				38.5	46.0	-7.5
3.146	17.8			0.0	0.5	20.0				38.3	46.0	-7.7
3.076	17.1			0.0	0.5	20.0				37.6	46.0	-8.4
2.636	17.1			0.0	0.5	20.0				37.6	46.0	-8.4
2.566	16.8			0.0	0.5	20.0				37.3	46.0	-8.7
0.178	25.4			0.0	0.1	20.0				45.5	54.6	-9.1
0.367	19.3			0.0	0.2	20.0				39.5	48.6	-9.1
0.211	23.7			0.0	0.1	20.0				43.8	53.2	-9.3
3.216	15.7			0.0	0.5	20.0				36.2	46.0	-9.8
2.996	15.7			0.0	0.5	20.0				36.2	46.0	-9.8
2.196	15.7			0.0	0.4	20.0				36.1	46.0	-9.9
2.266	15.5			0.0	0.4	20.0				35.9	46.0	-10.1
1.675	15.4			0.0	0.4	20.0				35.8	46.0	-10.2
1.175	15.2			0.0	0.3	20.0				35.5	46.0	-10.5
22.586	17.9			0.0	1.4	20.0				39.3	50.0	-10.7

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host 700C handheld computer

EUT OPERATING MODES

802.11(b) transmit mode, low channel, 11Mbps.

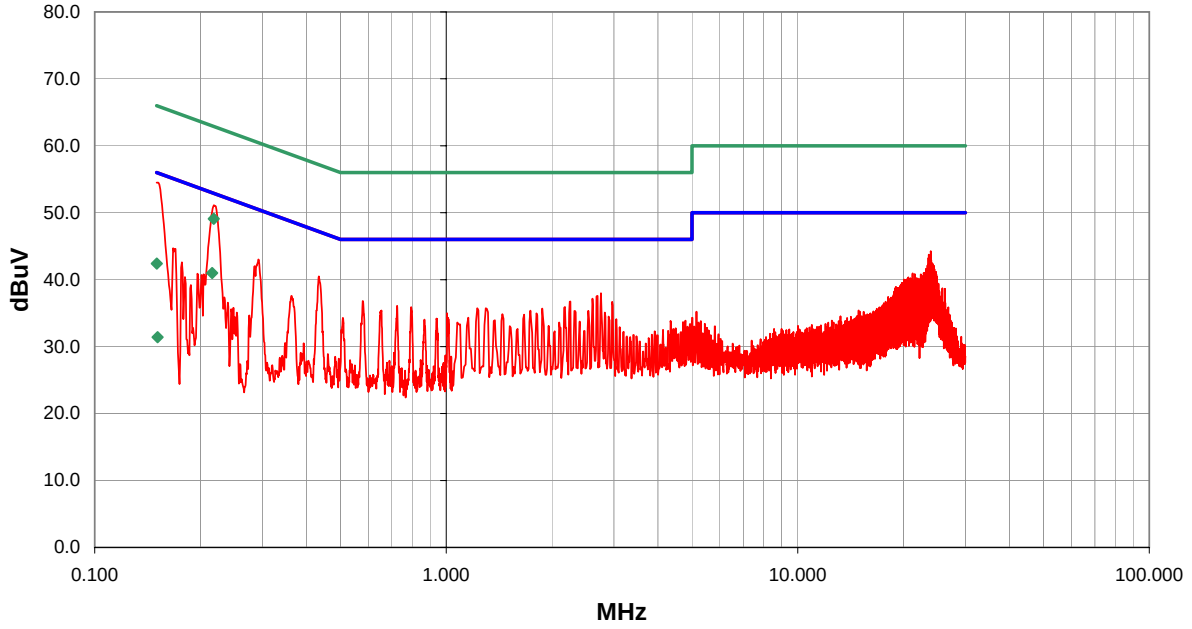
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	7

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)
0.216	21.0			0.0	0.0	20.0		AV		41.0	53.0	-12.0
0.218	29.1			0.0	0.0	20.0		QP		49.1	62.9	-13.8
0.150	22.4			0.0	0.0	20.0		QP		42.4	66.0	-23.6
0.151	11.4			0.0	0.0	20.0		AV		31.4	55.9	-24.5
0.150	34.4			0.0	0.1	20.0				54.5	56.0	-1.5
0.218	31.0			0.0	0.1	20.0				51.1	52.9	-1.7
23.895	22.8			0.0	1.5	20.0				44.3	50.0	-5.7
23.598	22.3			0.0	1.4	20.0				43.7	50.0	-6.3
0.434	20.3			0.0	0.2	20.0				40.5	47.2	-6.7
23.543	21.8			0.0	1.4	20.0				43.2	50.0	-6.8
23.972	21.5			0.0	1.5	20.0				43.0	50.0	-7.0
23.741	21.4			0.0	1.4	20.0				42.8	50.0	-7.2
0.292	22.9			0.0	0.1	20.0				43.0	50.5	-7.4
23.840	21.1			0.0	1.5	20.0				42.6	50.0	-7.4
24.126	21.0			0.0	1.5	20.0				42.5	50.0	-7.5
24.192	20.9			0.0	1.5	20.0				42.4	50.0	-7.6
23.466	20.8			0.0	1.4	20.0				42.2	50.0	-7.8
24.258	20.7			0.0	1.5	20.0				42.2	50.0	-7.8
24.060	20.7			0.0	1.5	20.0				42.2	50.0	-7.8

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host 700C handheld computer

EUT OPERATING MODES

802.11(b) transmit mode, low channel, 11Mbps.

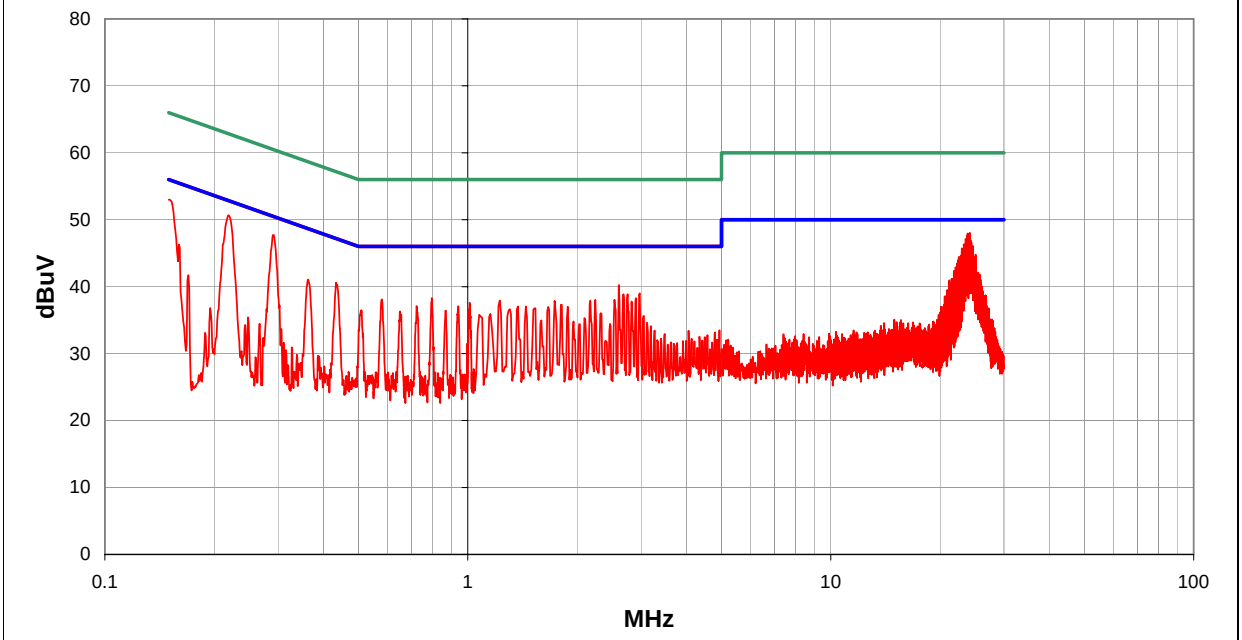
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	8

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)
24.192	26.5			0.0	1.5	20.0				48.0	50.0	-2.0
24.126	26.5			0.0	1.5	20.0				48.0	50.0	-2.0
23.840	26.5			0.0	1.5	20.0				48.0	50.0	-2.0
0.219	30.5			0.0	0.1	20.0				50.6	52.8	-2.2
23.752	26.2			0.0	1.5	20.0				47.7	50.0	-2.3
23.972	26.1			0.0	1.5	20.0				47.6	50.0	-2.4
24.060	25.8			0.0	1.5	20.0				47.3	50.0	-2.7
0.290	27.6			0.0	0.1	20.0				47.7	50.5	-2.8
23.532	25.7			0.0	1.4	20.0				47.1	50.0	-2.9
0.150	32.9			0.0	0.1	20.0				53.0	56.0	-3.0
24.280	25.5			0.0	1.5	20.0				47.0	50.0	-3.0
23.906	25.3			0.0	1.5	20.0				46.8	50.0	-3.2
24.346	25.2			0.0	1.5	20.0				46.7	50.0	-3.3
24.412	25.1			0.0	1.5	20.0				46.6	50.0	-3.4
23.686	24.9			0.0	1.4	20.0				46.3	50.0	-3.7
23.400	24.9			0.0	1.4	20.0				46.3	50.0	-3.7
23.268	24.9			0.0	1.4	20.0				46.3	50.0	-3.7
24.632	24.6			0.0	1.5	20.0				46.1	50.0	-3.9
23.609	24.5			0.0	1.4	20.0				45.9	50.0	-4.1

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host 700C handheld computer

EUT OPERATING MODES

802.11(b) transmit mode, mid channel, 11Mbps.

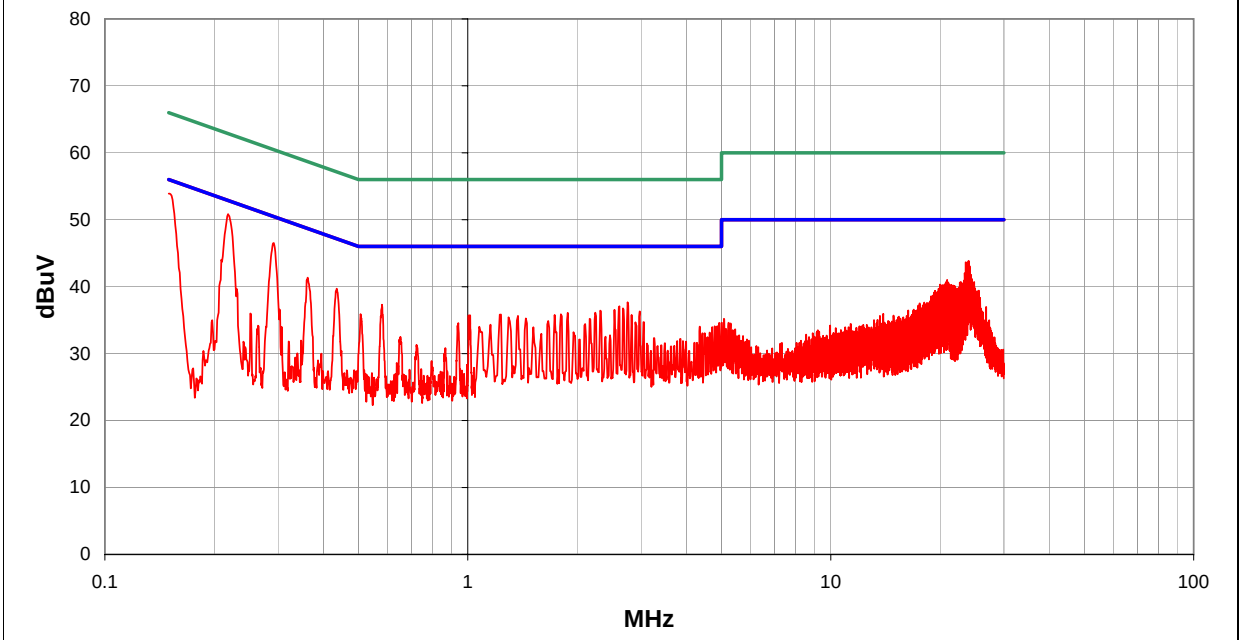
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	9

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)
0.218	30.7			0.0	0.1	20.0				50.8	52.9	-2.0
0.150	33.8			0.0	0.1	20.0				53.9	56.0	-2.1
0.291	26.4			0.0	0.1	20.0				46.5	50.5	-4.0
23.994	22.4			0.0	1.5	20.0				43.9	50.0	-6.1
23.840	22.2			0.0	1.5	20.0				43.7	50.0	-6.3
23.554	22.2			0.0	1.4	20.0				43.6	50.0	-6.4
24.060	21.7			0.0	1.5	20.0				43.2	50.0	-6.8
24.126	21.6			0.0	1.5	20.0				43.1	50.0	-6.9
23.697	21.6			0.0	1.4	20.0				43.0	50.0	-7.0
23.620	21.5			0.0	1.4	20.0				42.9	50.0	-7.1
23.906	21.4			0.0	1.5	20.0				42.9	50.0	-7.1
23.763	21.4			0.0	1.5	20.0				42.9	50.0	-7.1
0.362	21.2			0.0	0.2	20.0				41.4	48.7	-7.3
0.435	19.5			0.0	0.2	20.0				39.7	47.2	-7.5
23.400	20.6			0.0	1.4	20.0				42.0	50.0	-8.0
24.346	20.3			0.0	1.5	20.0				41.8	50.0	-8.2
2.756	17.2			0.0	0.5	20.0				37.7	46.0	-8.3
24.269	20.2			0.0	1.5	20.0				41.7	50.0	-8.3
23.477	20.2			0.0	1.4	20.0				41.6	50.0	-8.4

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF			Work Order:	ITRM0057
Serial Number:	Unknown			Date:	01/31/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	36%
Cust. Ref. No.:				Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host 700C handheld computer

EUT OPERATING MODES

802.11(b) transmit mode, mid channel, 11Mbps.

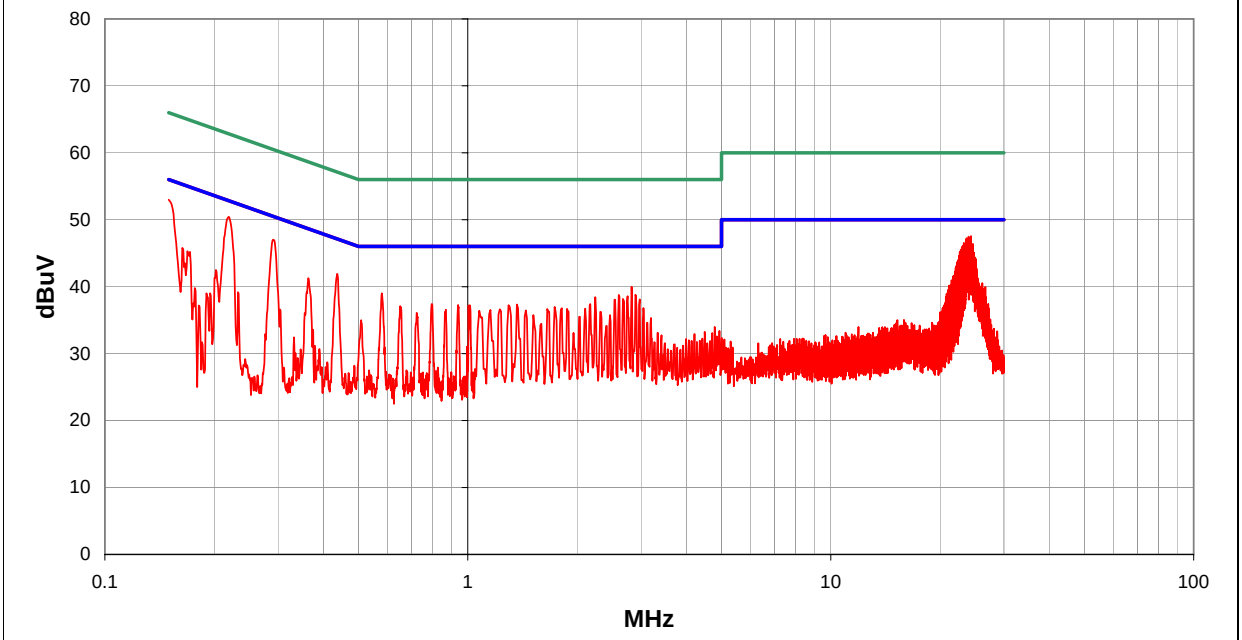
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	N	10

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)
0.219	30.3			0.0	0.1	20.0				50.4	52.8	-2.4
24.346	26.1			0.0	1.5	20.0				47.6	50.0	-2.4
23.994	26.0			0.0	1.5	20.0				47.5	50.0	-2.5
23.708	25.8			0.0	1.4	20.0				47.2	50.0	-2.8
23.620	25.7			0.0	1.4	20.0				47.1	50.0	-2.9
23.774	25.6			0.0	1.5	20.0				47.1	50.0	-2.9
0.150	32.9			0.0	0.1	20.0				53.0	56.0	-3.0
24.060	25.2			0.0	1.5	20.0				46.7	50.0	-3.3
23.906	25.1			0.0	1.5	20.0				46.6	50.0	-3.4
23.554	25.1			0.0	1.4	20.0				46.5	50.0	-3.5
23.268	25.1			0.0	1.4	20.0				46.5	50.0	-3.5
0.290	26.9			0.0	0.1	20.0				47.0	50.5	-3.5
23.488	25.0			0.0	1.4	20.0				46.4	50.0	-3.6
24.632	24.9			0.0	1.5	20.0				46.4	50.0	-3.6
23.334	24.9			0.0	1.4	20.0				46.3	50.0	-3.7
24.148	24.8			0.0	1.5	20.0				46.3	50.0	-3.7
23.114	24.7			0.0	1.4	20.0				46.1	50.0	-3.9
23.840	24.6			0.0	1.5	20.0				46.1	50.0	-3.9
23.202	24.6			0.0	1.4	20.0				46.0	50.0	-4.0

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF	Work Order:	ITRM0057
Serial Number:	Unknown	Date:	01/31/05
Customer:	Intermec Technologies Corporation	Temperature:	22
Attendees:	none	Humidity:	36%
Cust. Ref. No.:		Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host 700C handheld computer

EUT OPERATING MODES

802.11(b) transmit mode, high channel, 11Mbps.

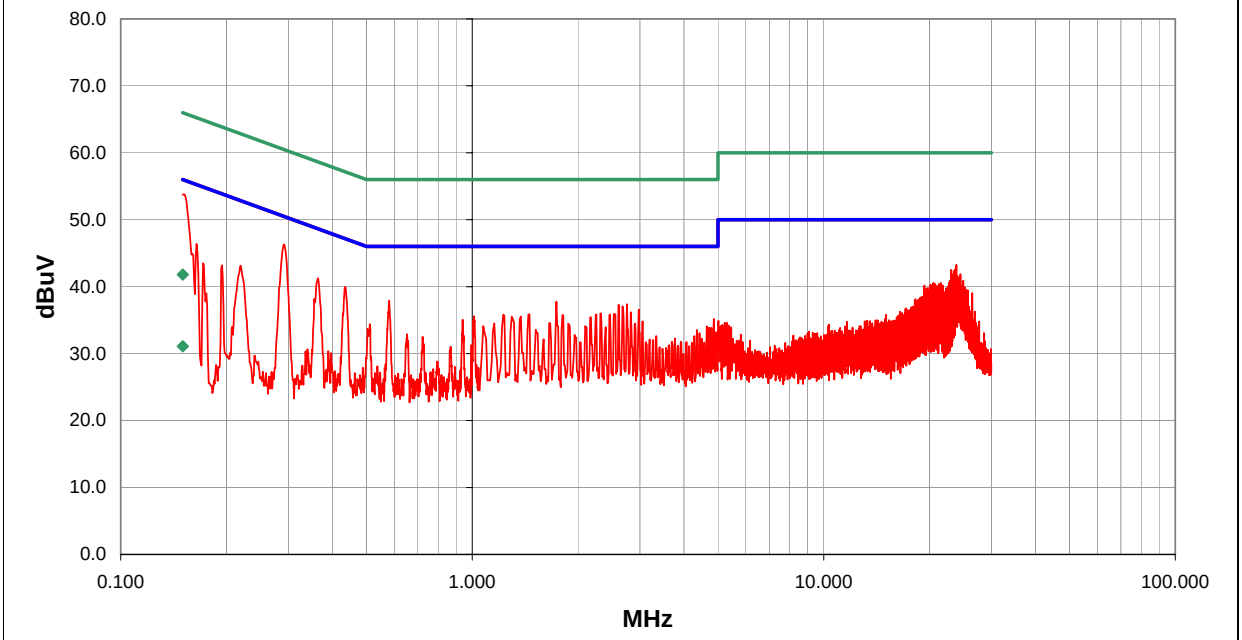
DEVIATIONS FROM TEST STANDARD

No deviations.

RESULTS	Line	Run #
Pass	L1	11

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)
0.150	21.8			0.0	0.0	20.0		QP		41.8	66.0	-24.2
0.150	11.1			0.0	0.0	20.0		AV		31.1	56.0	-24.9
0.151	33.7			0.0	0.1	20.0				53.8	56.0	-2.2
0.291	26.2			0.0	0.1	20.0				46.3	50.5	-4.2
23.840	21.8			0.0	1.5	20.0				43.3	50.0	-6.7
0.435	19.8			0.0	0.2	20.0				40.0	47.2	-7.2
0.364	21.1			0.0	0.2	20.0				41.3	48.6	-7.4
23.642	21.1			0.0	1.4	20.0				42.5	50.0	-7.5
23.048	21.1			0.0	1.4	20.0				42.5	50.0	-7.5
23.554	21.0			0.0	1.4	20.0				42.4	50.0	-7.6
23.708	20.7			0.0	1.4	20.0				42.1	50.0	-7.9
23.488	20.7			0.0	1.4	20.0				42.1	50.0	-7.9
23.114	20.5			0.0	1.4	20.0				41.9	50.0	-8.1
0.580	17.7			0.0	0.2	20.0				37.9	46.0	-8.1
24.478	20.4			0.0	1.5	20.0				41.9	50.0	-8.1
23.411	20.4			0.0	1.4	20.0				41.8	50.0	-8.2
1.735	17.4			0.0	0.4	20.0				37.8	46.0	-8.2
23.774	20.3			0.0	1.5	20.0				41.8	50.0	-8.2
23.356	20.2			0.0	1.4	20.0				41.6	50.0	-8.4

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

ACQ 2005.1.3
EMI 2005.1.3

EUT:	2610CF			Work Order:	ITRM0057
Serial Number:	Unknown			Date:	01/31/05
Customer:	Intermec Technologies Corporation			Temperature:	22
Attendees:	none			Humidity:	36%
Cust. Ref. No.:				Barometric Pressure	30.01
Tested by:	Rod Peloquin	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

In host 700C handheld computer

EUT OPERATING MODES

802.11(b) transmit mode, high channel, 11Mbps.

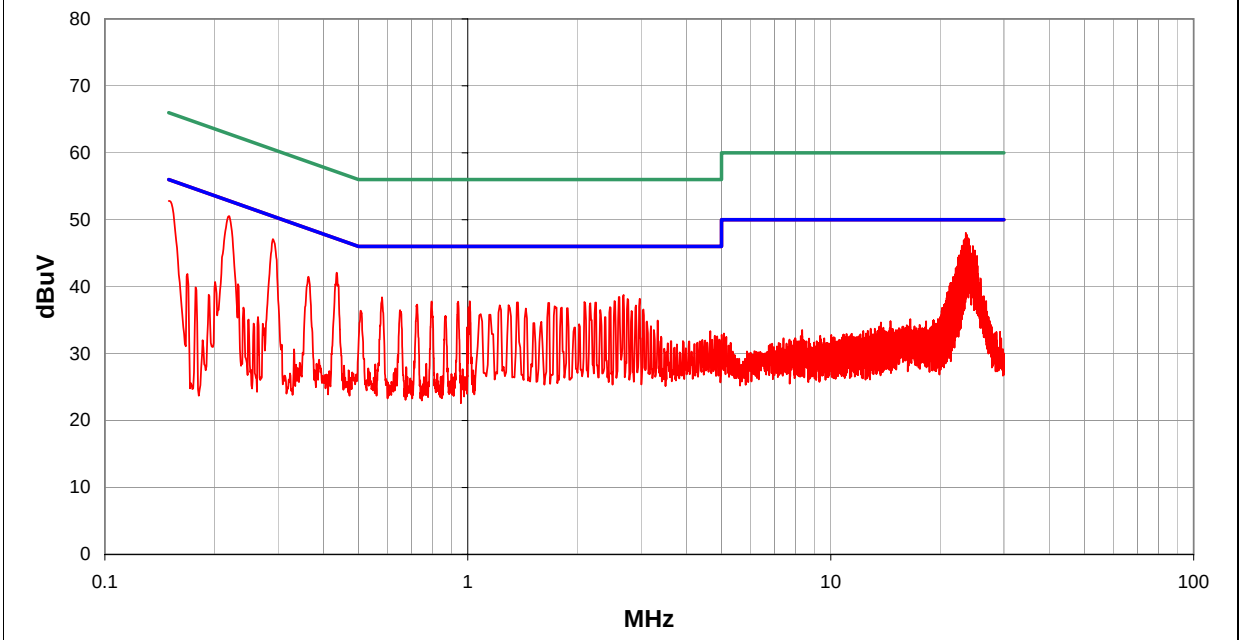
DEVIATIONS FROM TEST STANDARD

No deviations.

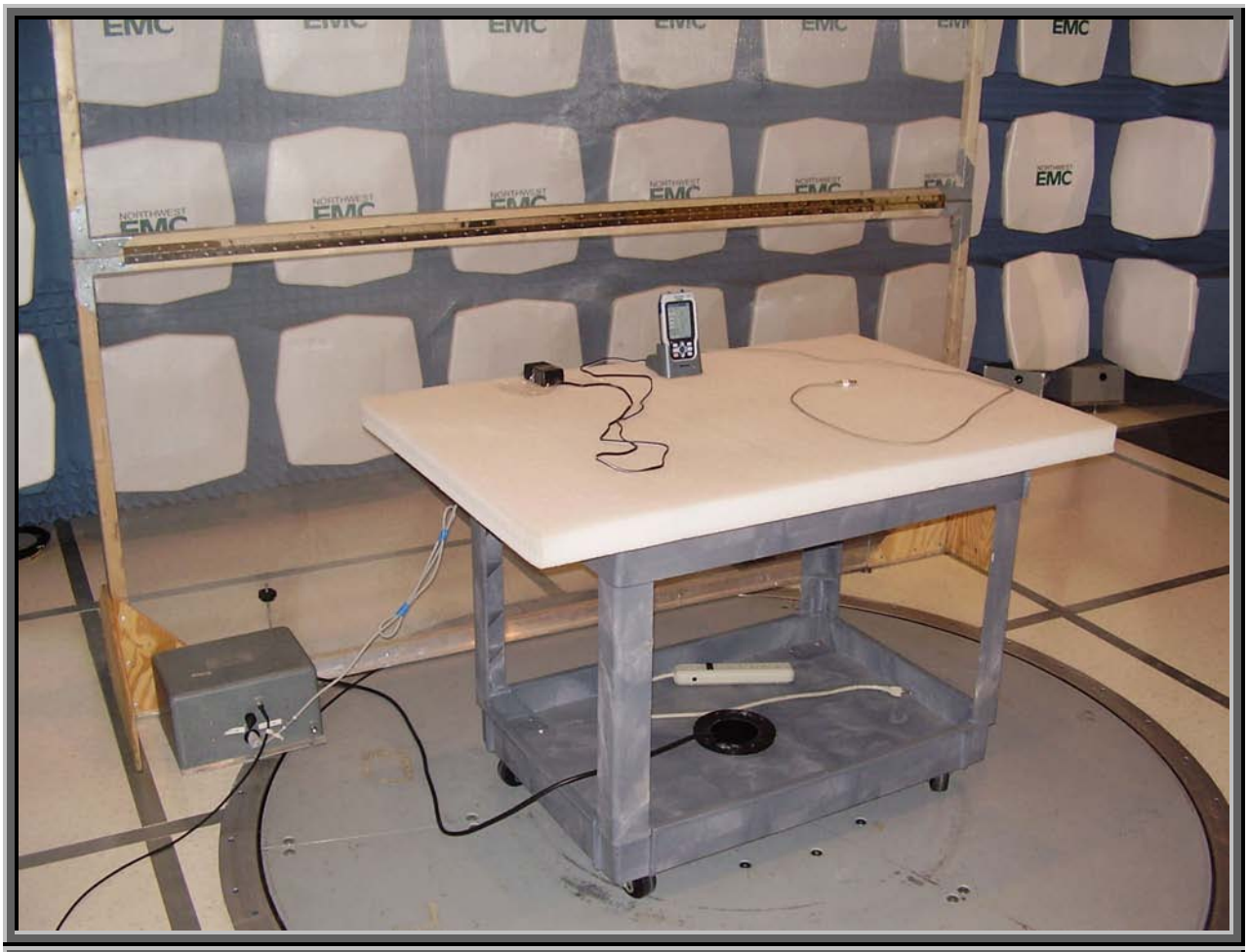
RESULTS	Line	Run #
Pass	N	12

Other

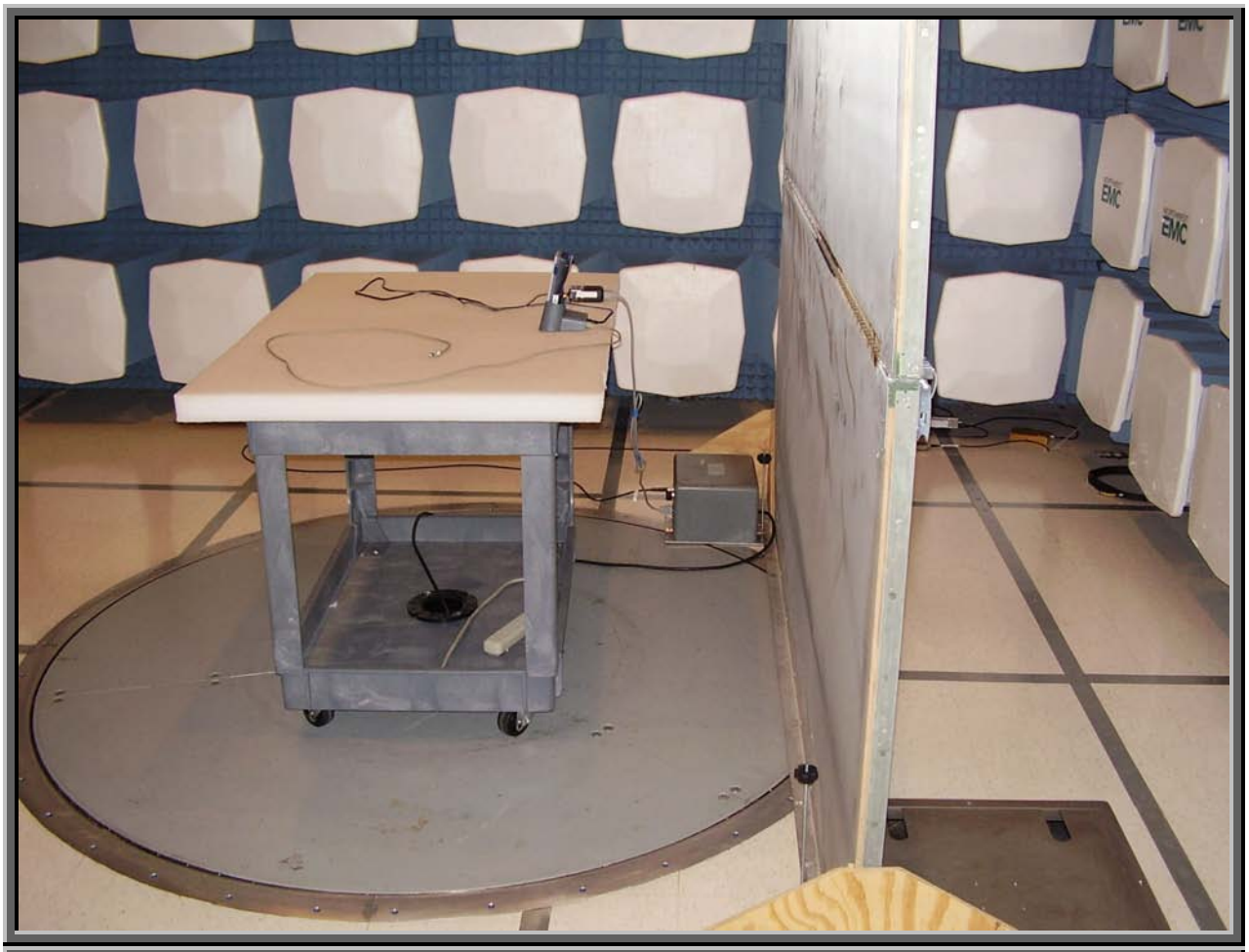
Tested By:

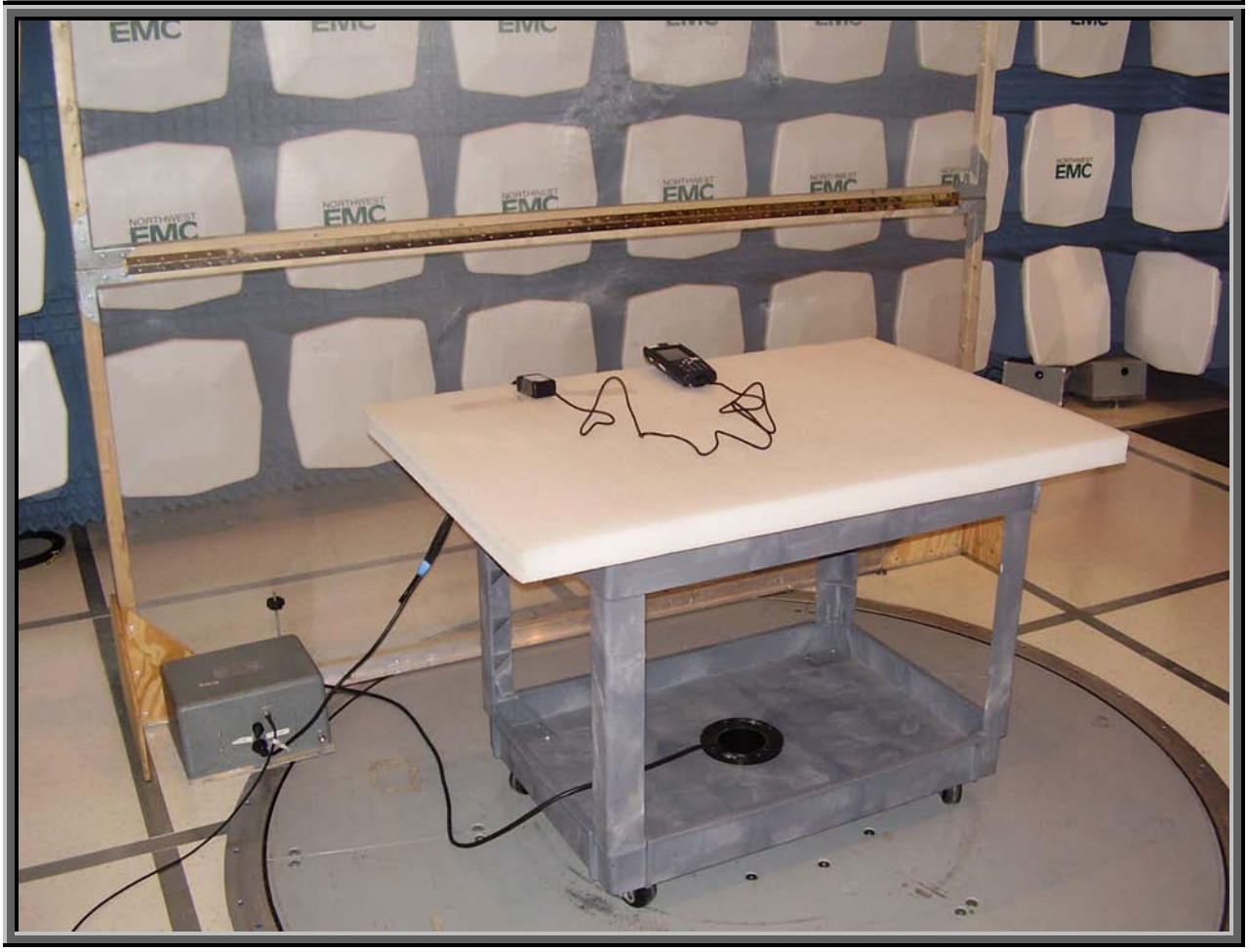


Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
23.554	26.6			0.0	1.4	20.0				48.0	50.0	-2.0
23.697	26.3			0.0	1.4	20.0				47.7	50.0	-2.3
0.220	30.4			0.0	0.1	20.0				50.5	52.8	-2.3
23.851	25.8			0.0	1.5	20.0				47.3	50.0	-2.7
23.994	25.7			0.0	1.5	20.0				47.2	50.0	-2.8
23.411	25.7			0.0	1.4	20.0				47.1	50.0	-2.9
23.642	25.6			0.0	1.4	20.0				47.0	50.0	-3.0
23.334	25.5			0.0	1.4	20.0				46.9	50.0	-3.1
23.257	25.5			0.0	1.4	20.0				46.9	50.0	-3.1
0.150	32.7			0.0	0.1	20.0				52.8	56.0	-3.2
0.290	27.0			0.0	0.1	20.0				47.1	50.5	-3.4
23.774	24.7			0.0	1.5	20.0				46.2	50.0	-3.8
23.048	24.7			0.0	1.4	20.0				46.1	50.0	-3.9
24.632	24.6			0.0	1.5	20.0				46.1	50.0	-3.9
24.214	24.6			0.0	1.5	20.0				46.1	50.0	-3.9
24.137	24.6			0.0	1.5	20.0				46.1	50.0	-3.9
23.202	24.6			0.0	1.4	20.0				46.0	50.0	-4.0
22.971	24.6			0.0	1.4	20.0				46.0	50.0	-4.0
23.488	24.5			0.0	1.4	20.0				45.9	50.0	-4.1


EMC


NORTHWEST
EMC






EMC


EMC