Intermec Technologies Corporation

Models: IM10, IM10G

Tested to the following Specifications:

FCC 15.247:2010
FCC 15.207:2010

Report No. ITRM0211

Report Prepared By

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

EMC Test Report

NORTHWEST EMC

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Last Date of Test: December 14, 2010
Intermec Technologies Corporation
Models: IM10, IM10G

Emissions			
Test Description	**Specification**	**Test Method**	**Pass/Fail**
Carrier Frequency Separation	FCC 15.247:2010	ANSI C63.10:2009	**Pass**
Dwell Time	FCC 15.247:2010	ANSI C63.10:2009	**Pass**
Number of Hopping Frequencies	FCC 15.247:2010	ANSI C63.10:2009	**Pass**
Occupied Bandwidth	FCC 15.247:2010	ANSI C63.10:2009	**Pass**
Output Power	FCC 15.247:2010	ANSI C63.10:2009	**Pass**
Band Edge Compliance	FCC 15.247:2010	ANSI C63.10:2009	**Pass**
Spurious Conducted Emissions	FCC 15.247:2010	ANSI C63.10:2009	**Pass**
Spurious Radiated Emissions	FCC 15.247:2010	ANSI C63.10:2009	**Pass**
AC Powerline Conducted Emissions	FCC 15.207:2010	ANSI C63.10:2009	**Pass**

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

Test Facility

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

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

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

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada (Site filing #2834D-1).

Approved By:
Don Facteau, IS Manager

NVLAP Lab Code: 200630-0

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

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

Revision Number	Description	Date	Page Number
00	None		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

Accreditations and Authorizations

FCC

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

NVLAP

Northwest EMC, Inc. is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. NVLAP is administered by the National Institute of Standards and Technology (NIST), an agency of the U.S. Commerce Department. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.

Industry Canada

Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS-Gen, Issue 2 and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements. (*Site Filing Numbers - Hillsboro: 2834D-1, 2834D-2, Sultan: 2834C-1, Irvine: 2834B-1, 2834B-2, Brooklyn Park: 2834E-1)*

CAB

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

Australia/New Zealand

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

Accreditations and Authorizations

VCCI

Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. *(Registration Numbers. - Hillsboro: C-1071, R-1025, G-84, C-2687, T-1658, and R-2318, Irvine: R-1943, G-85, C-2766, and T-1659, Sultan: R-871, G-83, C-1784, and T-1511, Brooklyn Park: R-3125, G-86, G-141, C-3464, and T-1634).*

BSMI

Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement (US0017).

GOST

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

KCC

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

VIETNAM

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

SCOPE

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

Northwest EMC Locations

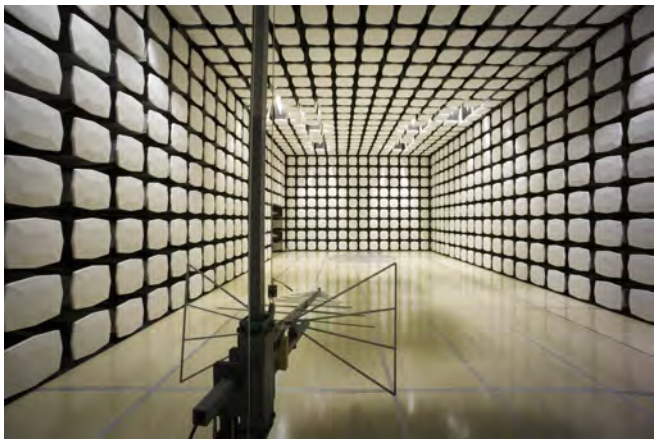
Oregon
Labs EV01-EV12
22975 NW Evergreen Pkwy
Suite 400
Hillsboro, OR 97124
(503) 844-4066

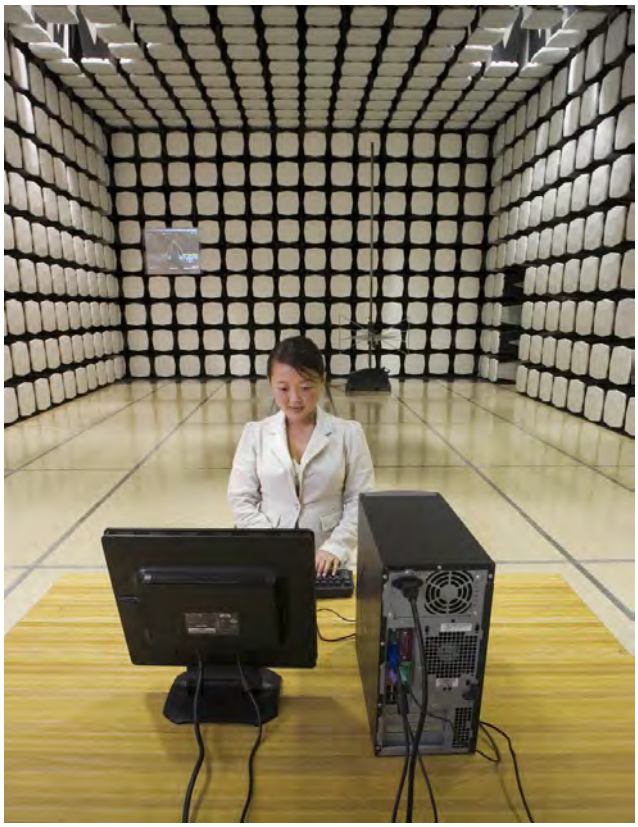
California
Labs OC01-OC13
41 Tesla
Irvine, CA 92618
(949) 861-8918

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

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

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





Party Requesting the Test

Company Name:	Intermec Technologies Corporation
Address:	550 Second St. SE
City, State, Zip:	Cedar Rapids, IA 52401-2023
Test Requested By:	Dave Fry
Models:	IM10, IM10G
First Date of Test:	December 7, 2010
Last Date of Test:	December 14, 2010
Receipt Date of Samples:	November 29, 2010
Equipment Design Stage:	Preproduction
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):

Frequency Hopping Spread Spectrum (FHSS) radio module operating with up to +36 dBm EIRP with two modulation types: EPC Gen 2 and 18000-6C. It is used as a RFID reader in the 902 – 928 MHz band. The IM10 and IM10G are electrically and mechanically identical except that the IM10G contains software switched filter circuits utilized only for Japan compliance.

Testing Objective:

To demonstrate compliance to FCC 15.247 requirements

CONFIGURATION 1 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10	309U1090209

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 2 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10	309U1090209
Huber Suhner Antenna	Huber Suhner	SPA 915/70/8/0/V	00111
Cable Assembly, RP TNC PLUG/N PLUG	Intermec	RP TNC PLUG/N PLUG	236-234-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/N PLUG	Yes	7.0m	No	RFID module	Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 3 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10	309U1090209
Kathrein 52010087 Antenna	Kathrein	52010087	E2D1610893
Cable Assembly, RP TNC PLUG/N PLUG	Intermec	RP TNC PLUG/N PLUG	236-234-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/N PLUG	Yes	7.0m	No	RFID module	Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 4 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10	309U1090209
NeWave 7ft. Dipole	NeWave	NSS-N7	20091116
Cable Assembly, RP TNC PLUG/RP TNC PLUG	Intermec	RP TNC PLUG/RP TNC PLUG	236-246-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/RP TNC PLUG	Yes	6.7m	No	RFID module	7ft. Dipole Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 5 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10	309U1090209
Kathrein 52010092 Near Field Antenna	Kathrein	52010092	G0D1400048
Cable Assembly, RP TNC PLUG/N PLUG	Intermec	RP TNC PLUG/N PLUG	236-234-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/N PLUG	Yes	7.0m	No	RFID module	Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 6 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10G	309U1090206
Kathrein 52010092 Near Field Antenna	Kathrein	52010092	G0D1400048
Cable Assembly, RP TNC PLUG/N PLUG	Intermec	RP TNC PLUG/N PLUG	236-234-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/N PLUG	Yes	7.0m	No	RFID module	Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 7 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10G	309U1090206
NeWave 7ft. Dipole	NeWave	NSS-N7	20091116
Cable Assembly, RP TNC PLUG/RP TNC PLUG	Intermec	RP TNC PLUG/RP TNC PLUG	236-246-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/RP TNC PLUG	Yes	6.7m	No	RFID module	7ft. Dipole Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 8 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10G	309U1090206
Huber Suhner Antenna	Huber Suhner	SPA 915/70/8/0/V	00111
Cable Assembly, RP TNC PLUG/N PLUG	Intermec	RP TNC PLUG/N PLUG	236-234-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/N PLUG	Yes	7.0m	No	RFID module	Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 9 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10G	309U1090206
Kathrein 52010087 Antenna	Kathrein	52010087	E2D1610893
Cable Assembly, RP TNC PLUG/N PLUG	Intermec	RP TNC PLUG/N PLUG	236-234-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/N PLUG	Yes	7.0m	No	RFID module	Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 10 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10	309U1090209
Huber Suhner Antenna	Huber Suhner	SPA 915/70/8/0/V	00111
Cable Assembly, RP TNC PLUG/N PLUG	Intermec	RP TNC PLUG/N PLUG	236-234-001

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Linear DC Power Supply	Topward	TPS-2000	TPD

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Cable Assembly, RP TNC PLUG/N PLUG	Yes	7.0m	No	RFID module	Antenna
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Power	No	1.0m	No	Linear DC Power Supply	AC Mains
DC Power	No	0.4m	No	Linear DC Power Supply	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 11 ITRM0211

Software/Firmware Running during test	
Description	**Version**
IF2Ctiapp	2.20.01

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RFID module	Intermec	IM10G	309U1090206

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
AC Adapter	Intermec	AE15	None

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Remote PC	Dell	Latitude D620	0001

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Lan Cable	No	1.8m	No	Remote PC	RFID module
AC Mains	No	1.8m	No	AC Adapter	AC Mains
DC Power	PA	1.9m	PA	AC Adapter	RFID module
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	12/7/2010	Output Power	Modified from delivered configuration.	Power was lowered with the provided procedure and the values saved to NVRAM. Modification authorized by Dave Fry, Intermec.	EUT remained at Northwest EMC following the test.
2	12/8/2010	Number of Hopping Frequencies	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	12/8/2010	Dwell Time	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	12/8/2010	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	12/8/2010	Carrier Frequency Separation	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	12/13/2010	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	12/13/2010	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
8	12/13/2010	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
9	12/14/2010	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

CARRIER FREQUENCY SEPARATION

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	6/1/2009	24
40GHz DC Block	Miteq	DCB4000	AMD	8/5/2010	13
Attenuator, 26db SMA	Fairview Microwave	18B5W-26	RFZ	11/17/2010	13
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	25

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The carrier frequency separation was measured between each of 3 hopping channels in the middle of the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

NORTHWEST EMC

CARRIER FREQUENCY SEPARATION

XMit 2010.11.03

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/08/10
Customer:	Intermec Technologies Corporation			**Temperature:**	23°C
Attendees:	none			**Humidity:**	38%
Project:	None			**Barometric Pres.:**	30.11 in
Tested by:	Rod Peloquin	**Power:**	12 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

COMMENTS

Hopping enabled with PRASK modulation

DEVIATIONS FROM TEST STANDARD

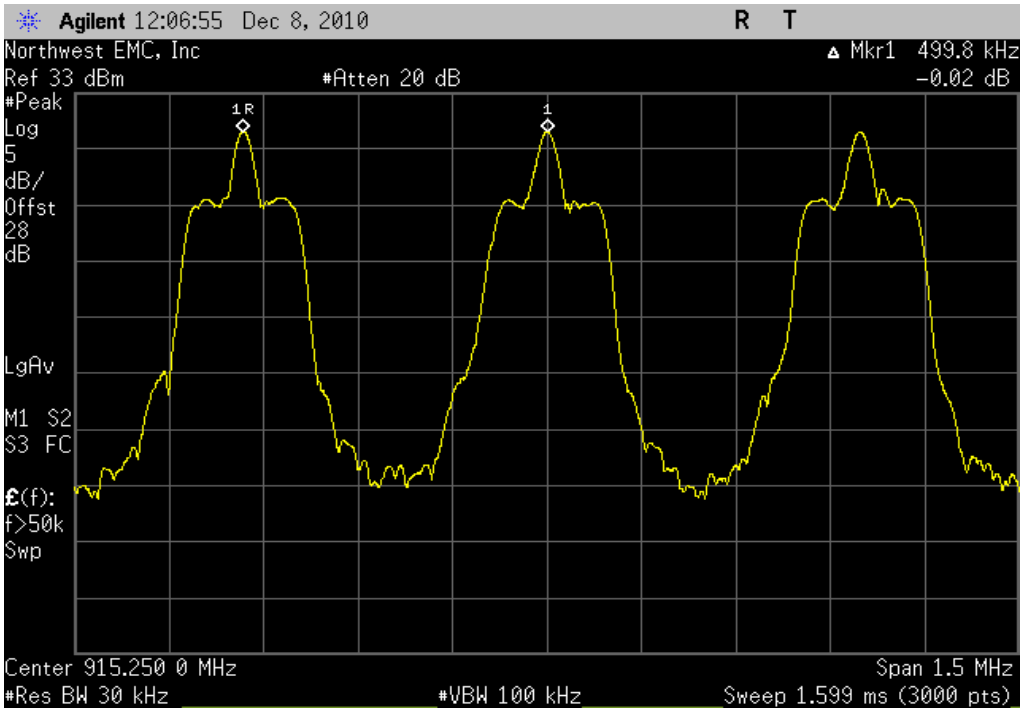
No Deviations

Configuration #	1	Signature

	Value	Limit	Results
CHANNEL SEPARATION	500 kHz	≥ 175 kHz	Pass

CARRIER FREQUENCY SEPARATION

CHANNEL SEPARATION					
Result:	Pass	**Value:**	500 kHz	**Limit:**	≥ 175 kHz



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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	6/1/2009	24
40GHz DC Block	Miteq	DCB4000	AMD	8/5/2010	13
Attenuator, 26db SMA	Fairview Microwave	18B5W-26	RFZ	11/17/2010	13
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	25

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The average dwell time per hopping channel was measured at one hopping channel in the middle of the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

NORTHWEST EMC

DWELL TIME

XMit 2010.11.03

EUT:	IM10			Work Order:	ITRM0211
Serial Number:	309U1090209			Date:	12/08/10
Customer:	Intermec Technologies Corporation			Temperature:	23°C
Attendees:	none			Humidity:	38%
Project:	None			Barometric Pres.:	30.11 in
Tested by:	Rod Peloquin	Power:	12 VDC	Job Site:	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

COMMENTS

Hopping enabled

DEVIATIONS FROM TEST STANDARD

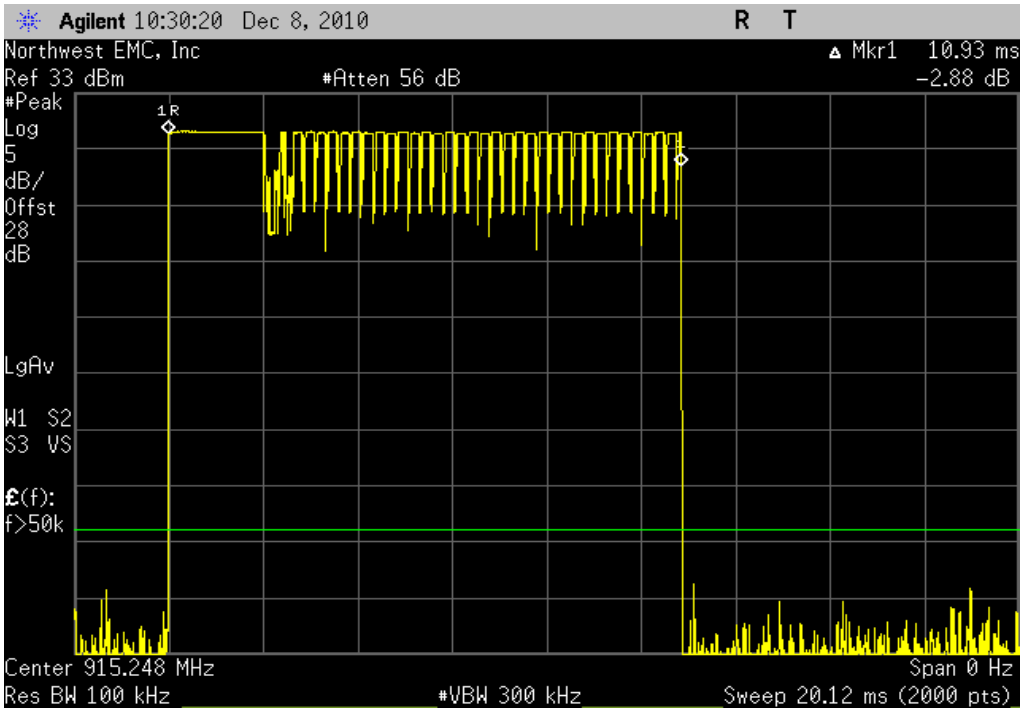
No Deviations

Configuration #	1	Signature

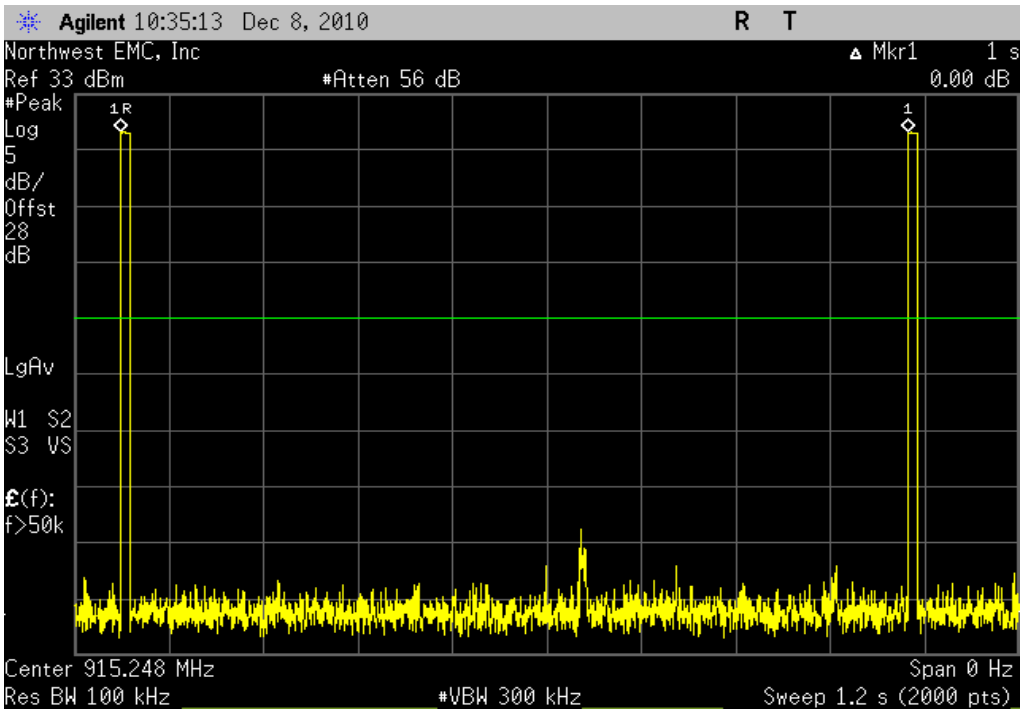
		Value	Limit	Results
Gen2 PRASK	**Dwell Time = 20 transmissions x 10.93 = .219 s in 20 second period**			
	Pulse Width	10.93 ms	.4 s in 20 s	.219 s
	Period	1 s	.4 s in 20 s	.219 s
	20 Second Period	20 pulses	.4 s in 20 s	.219 s
ISO 6BG2 OOK	**Dwell Time = 17 transmissions x 14.85 = .252 s in 20 second period**			
	Pulse Width	14.85 ms	.4 s in 20 s	.252 s
	Period	1.2 s	.4 s in 20 s	.252 s
	20 Second Period	17 pulses	.4 s in 20 s	.252 s

DWELL TIME

Gen2 PRASK, Pulse Width					
Result:	.219 s	**Value:**	10.93 ms	**Limit:**	.4 s in 20 s

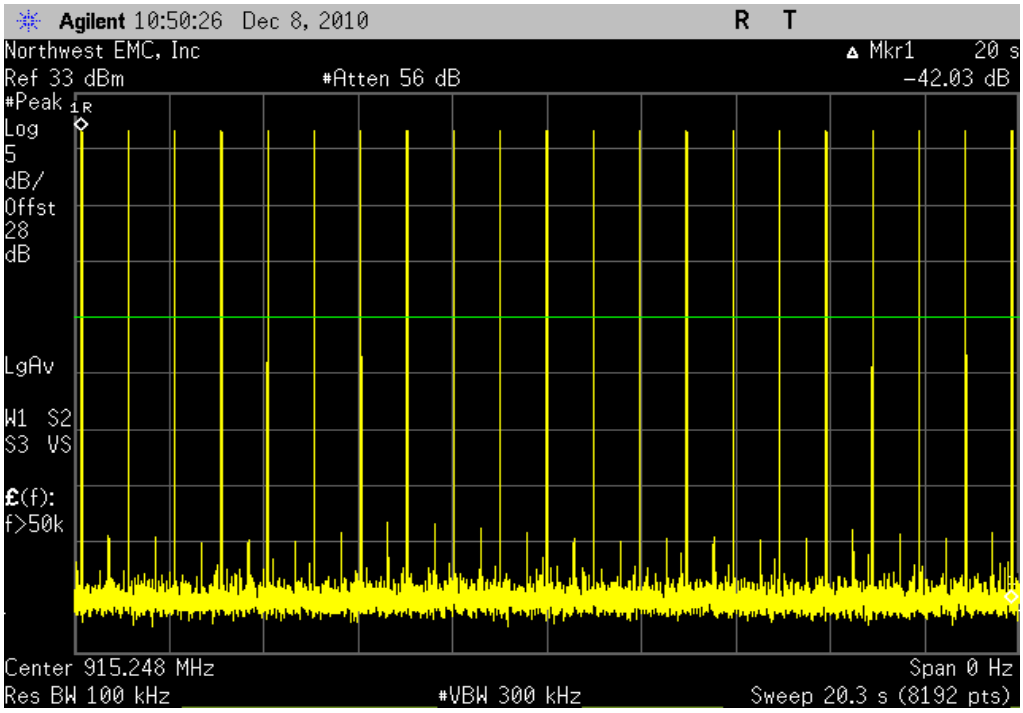


Gen2 PRASK, Period					
Result:	.219 s	**Value:**	1 s	**Limit:**	.4 s in 20 s

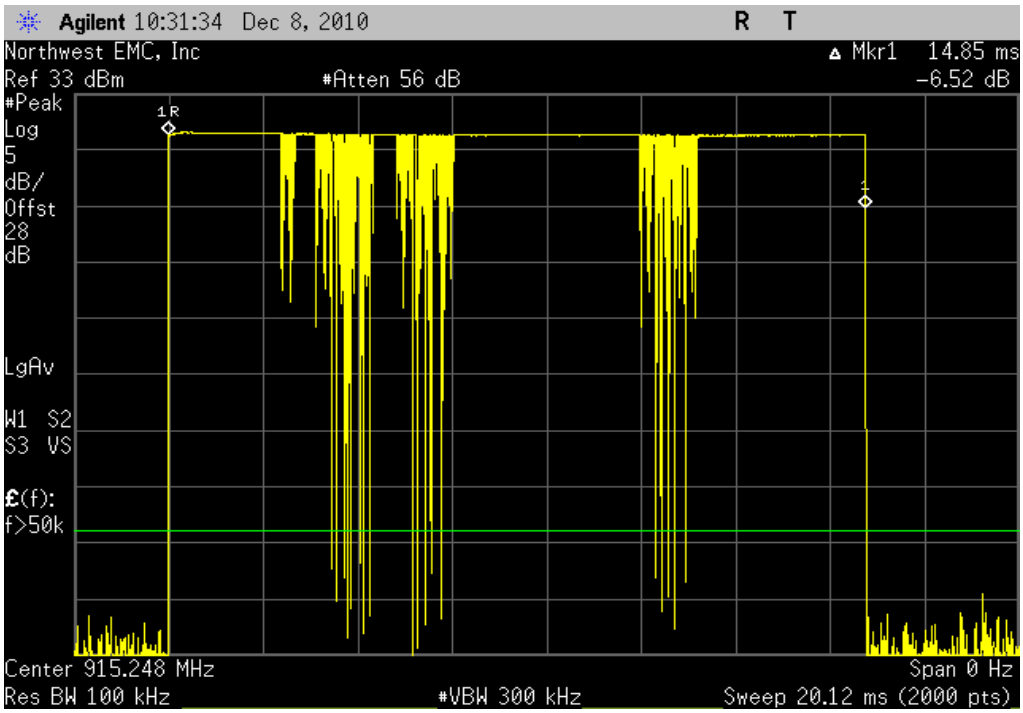


DWELL TIME

Gen2 PRASK, 20 Second Period					
Result:	.219 s	**Value:**	20 pulses	**Limit:**	.4 s in 20 s

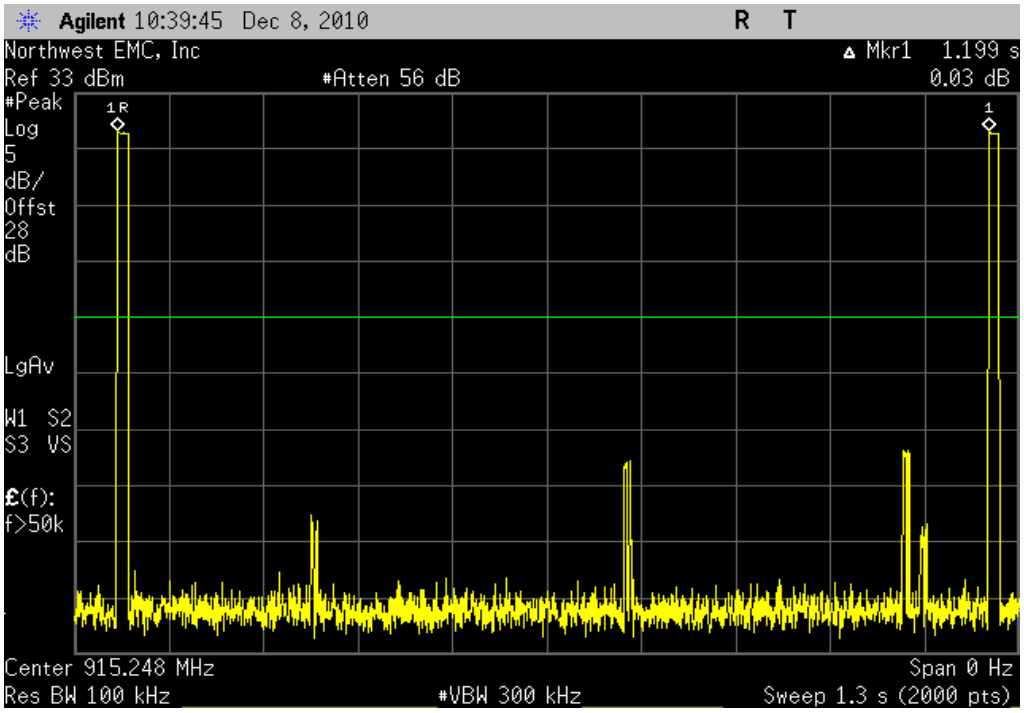


ISO 6BG2 OOK, Pulse Width					
Result:	.252 s	**Value:**	14.85 ms	**Limit:**	.4 s in 20 s

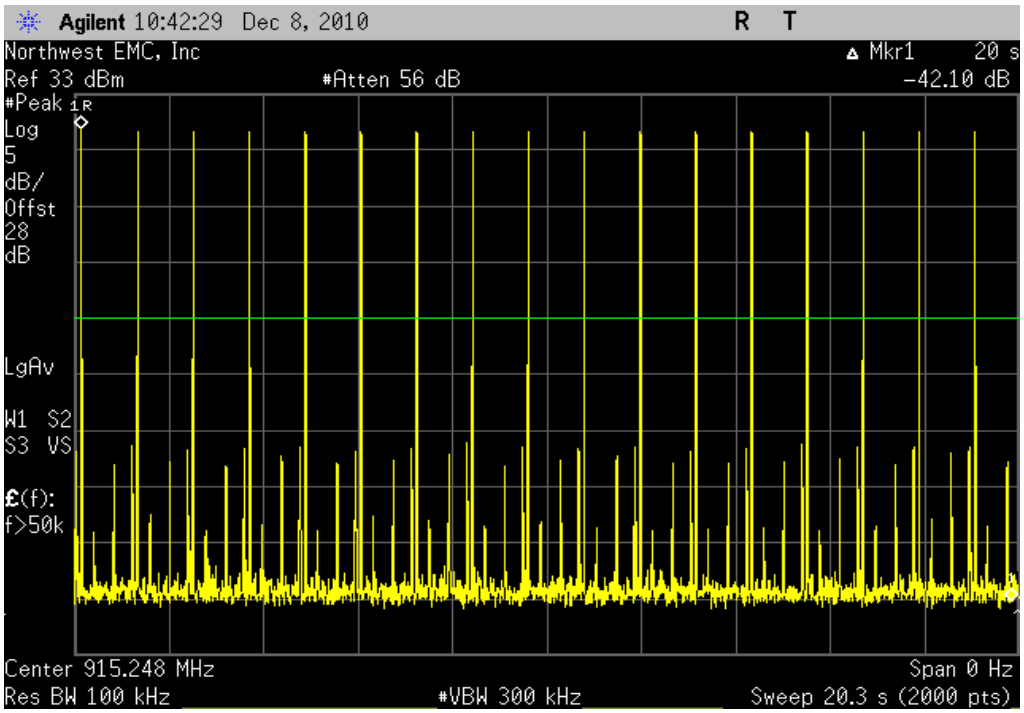


DWELL TIME

ISO 6BG2 OOK, Period					
Result:	.252 s	**Value:**	1.2 s	**Limit:**	.4 s in 20 s



ISO 6BG2 OOK, 20 Second Period					
Result:	.252 s	**Value:**	17 pulses	**Limit:**	.4 s in 20 s



NUMBER OF HOPPING FREQUENCIES

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	6/1/2009	24
40GHz DC Block	Miteq	DCB4000	AMD	8/5/2010	13
Attenuator, 26db SMA	Fairview Microwave	18B5W-26	RFZ	11/17/2010	13
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	25

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The number of hopping frequencies was measured across the authorized band. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The hopping function of the EUT was enabled.

NORTHWEST EMC

NUMBER OF HOPPING FREQUENCIES

XMit 2010.11.03

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/08/10
Customer:	Intermec Technologies Corporation			**Temperature:**	23°C
Attendees:	none			**Humidity:**	38%
Project:	None			**Barometric Pres.:**	30.11 in
Tested by:	Rod Peloquin	**Power:**	12 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

COMMENTS

Hopping enabled with PRASK modulation

DEVIATIONS FROM TEST STANDARD

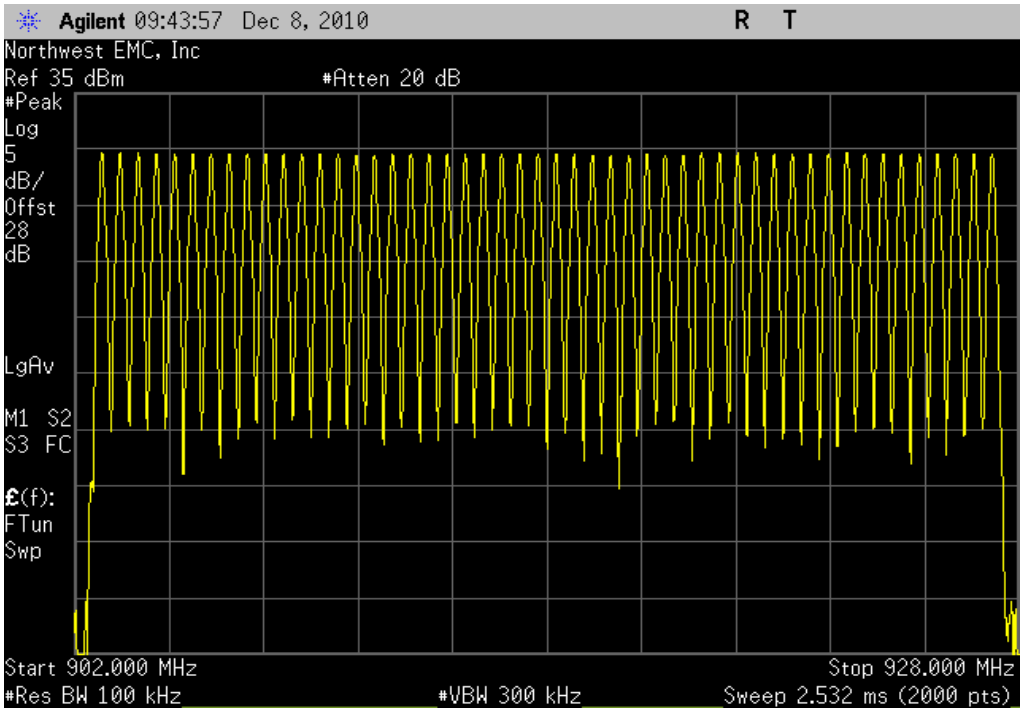
No Deviations

Configuration #	1	Signature

	Value	Limit	Results
NUMBER OF HOPPING FREQUENCIES	50	≥ 50	Pass

NUMBER OF HOPPING FREQUENCIES

NUMBER OF HOPPING FREQUENCIES					
Result:	Pass	**Value:**	50	**Limit:**	≥ 50



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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	6/1/2009	24
40GHz DC Block	Miteq	DCB4000	AMD	8/5/2010	13
Attenuator, 26db SMA	Fairview Microwave	18B5W-26	RFZ	11/17/2010	13
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	25

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

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 in each modulation type and in a no hop mode.

NORTHWEST EMC

OCCUPIED BANDWIDTH

XMit 2010.11.03

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/08/10
Customer:	Intermec Technologies Corporation			**Temperature:**	23°C
Attendees:	none			**Humidity:**	38%
Project:	None			**Barometric Pres.:**	30.11 in
Tested by:	Rod Peloquin	**Power:**	12 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

COMMENTS

None

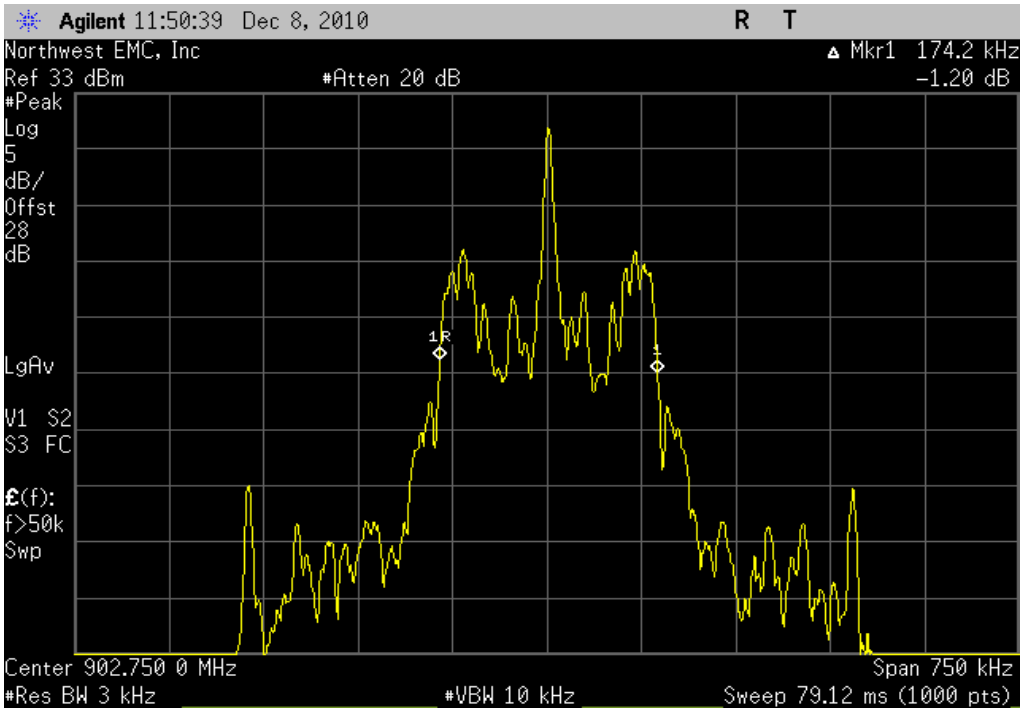
DEVIATIONS FROM TEST STANDARD

No Deviations

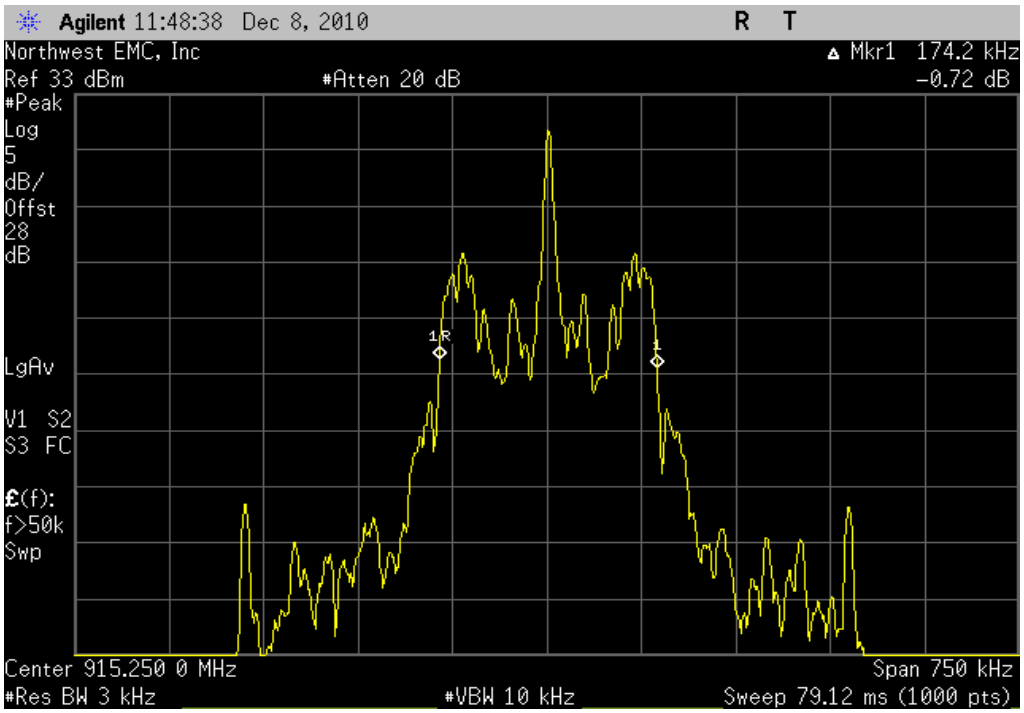
Configuration #	1	Signature

		Value	Limit	Results
Gen2 PRASK				
	Low Channel	174 kHz	≤ 250 kHz	Pass
	Mid Channel	174 kHz	≤ 250 kHz	Pass
	High Channel	175 kHz	≤ 250 kHz	Pass
ISO 6BG2 OOK				
	Low Channel	78.5 kHz	≤ 250 kHz	Pass
	Mid Channel	78.6 kHz	≤ 250 kHz	Pass
	High Channel	81.1 kHz	≤ 250 kHz	Pass

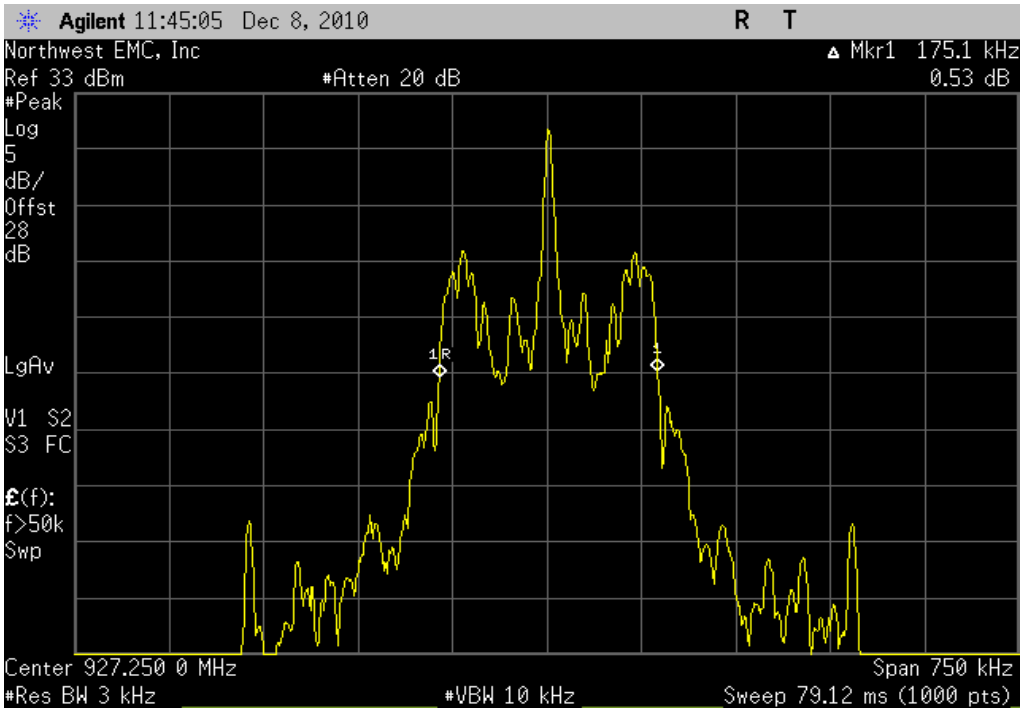
Gen2 PRASK, Low Channel					
Result:	Pass	**Value:**	174 kHz	**Limit:**	≤ 250 kHz



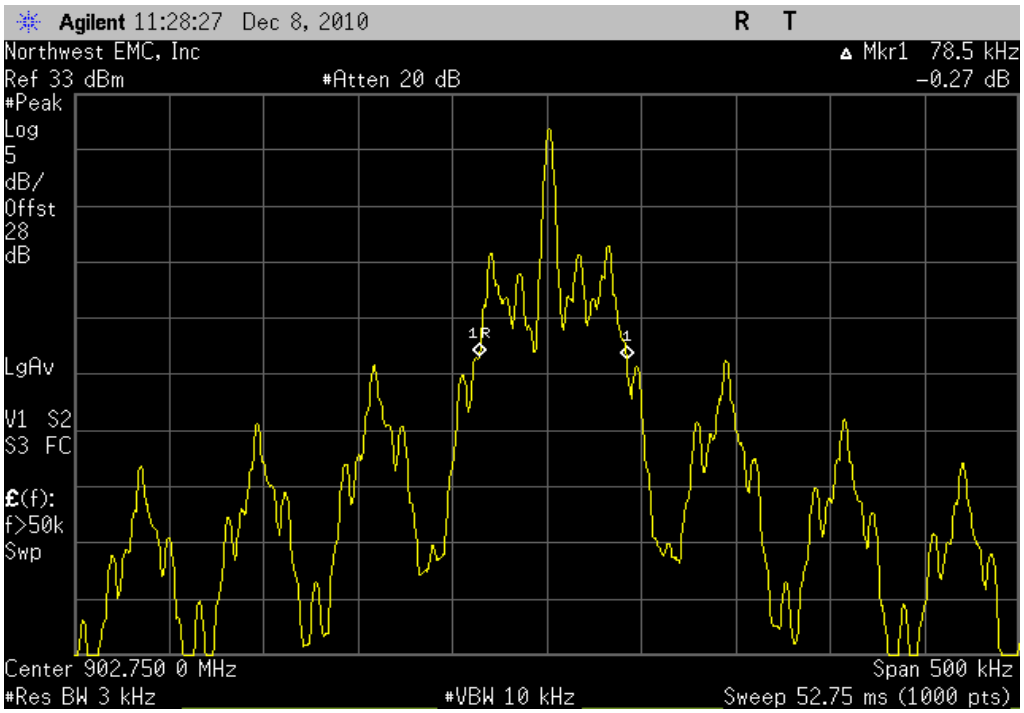
Gen2 PRASK, Mid Channel					
Result:	Pass	**Value:**	174 kHz	**Limit:**	≤ 250 kHz



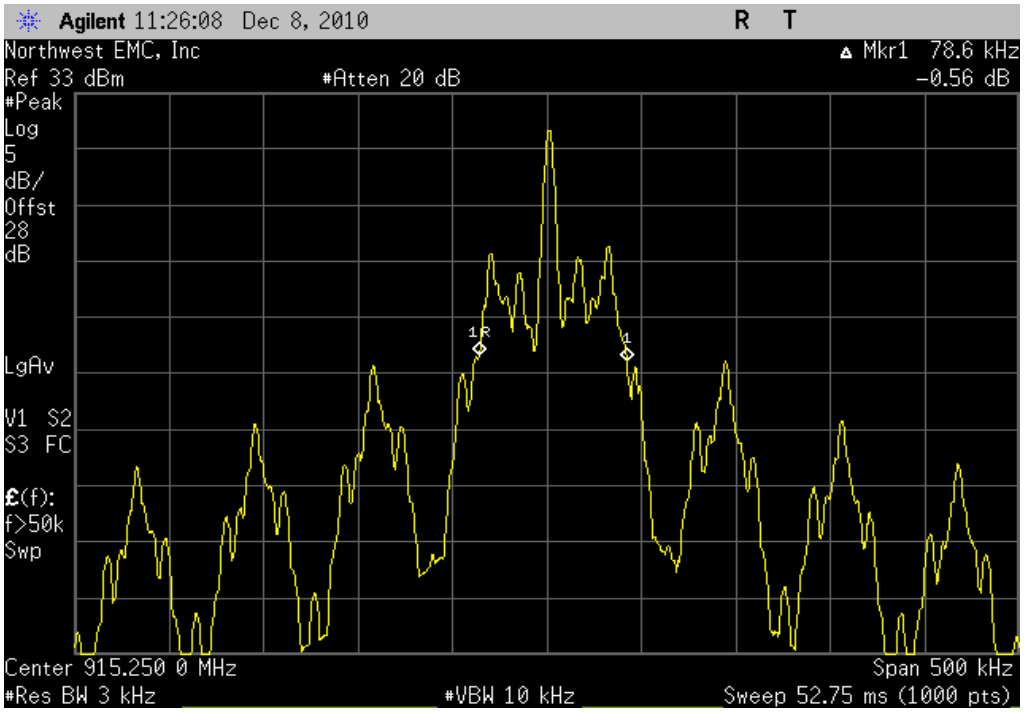
Gen2 PRASK, High Channel					
Result:	Pass	**Value:**	175 kHz	**Limit:**	≤ 250 kHz



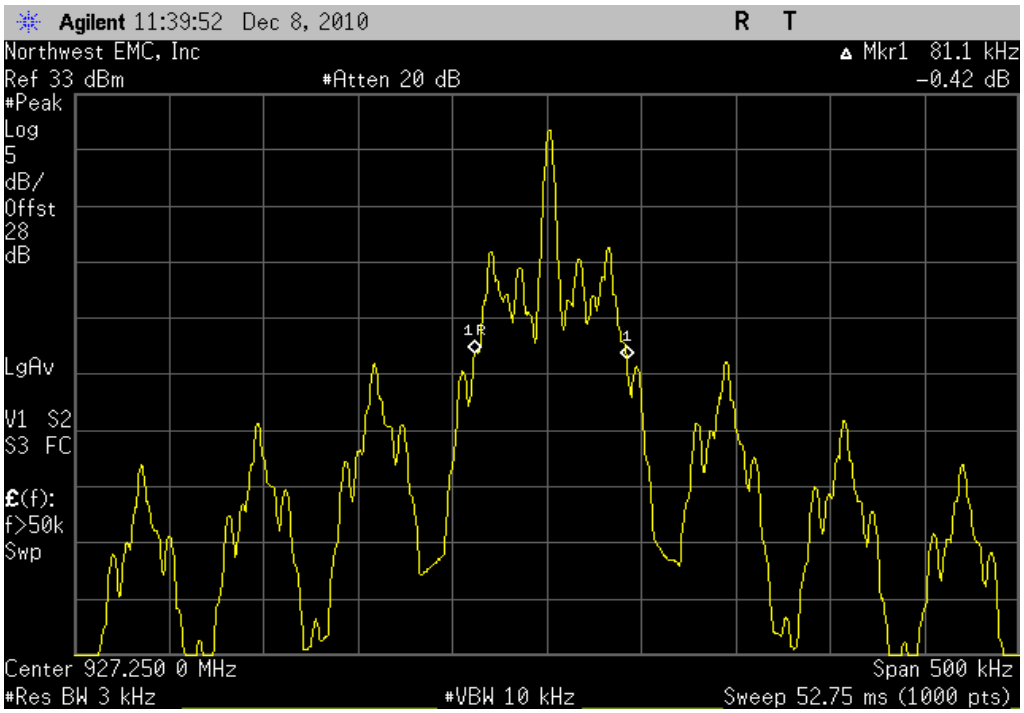
ISO 6BG2 OOK, Low Channel					
Result:	Pass	**Value:**	78.5 kHz	**Limit:**	≤ 250 kHz



ISO 6BG2 OOK, Mid Channel					
Result:	Pass	**Value:**	78.6 kHz	**Limit:**	≤ 250 kHz



ISO 6BG2 OOK, High Channel					
Result:	Pass	**Value:**	81.1 kHz	**Limit:**	≤ 250 kHz



OUTPUT POWER - IM10G

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	6/1/2009	24
Attenuator, 26db SMA	Fairview Microwave	18B5W-26	RFZ	11/17/2010	13
40GHz DC Block	Miteq	DCB4000	AMD	8/5/2010	13
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	25

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The peak output power 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 a spectrum analyzer. The EUT was transmitting at its maximum data rate in a no hop mode.

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

NORTHWEST EMC

OUTPUT POWER - IM10G

XMit 2010.11.03

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/13/10
Customer:	Intermec Technologies Corporation			**Temperature:**	23°C
Attendees:	none			**Humidity:**	38%
Project:	None			**Barometric Pres.:**	30.11 in
Tested by:	Rod Peloquin	**Power:**	12 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

COMMENTS

Hopping disabled

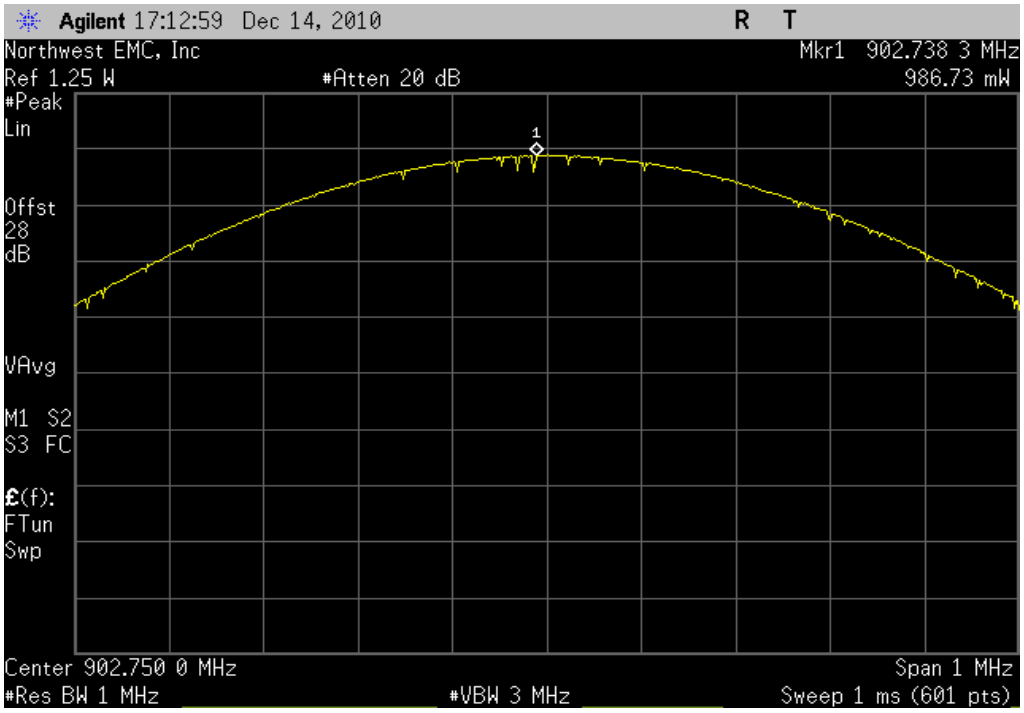
DEVIATIONS FROM TEST STANDARD

No Deviations

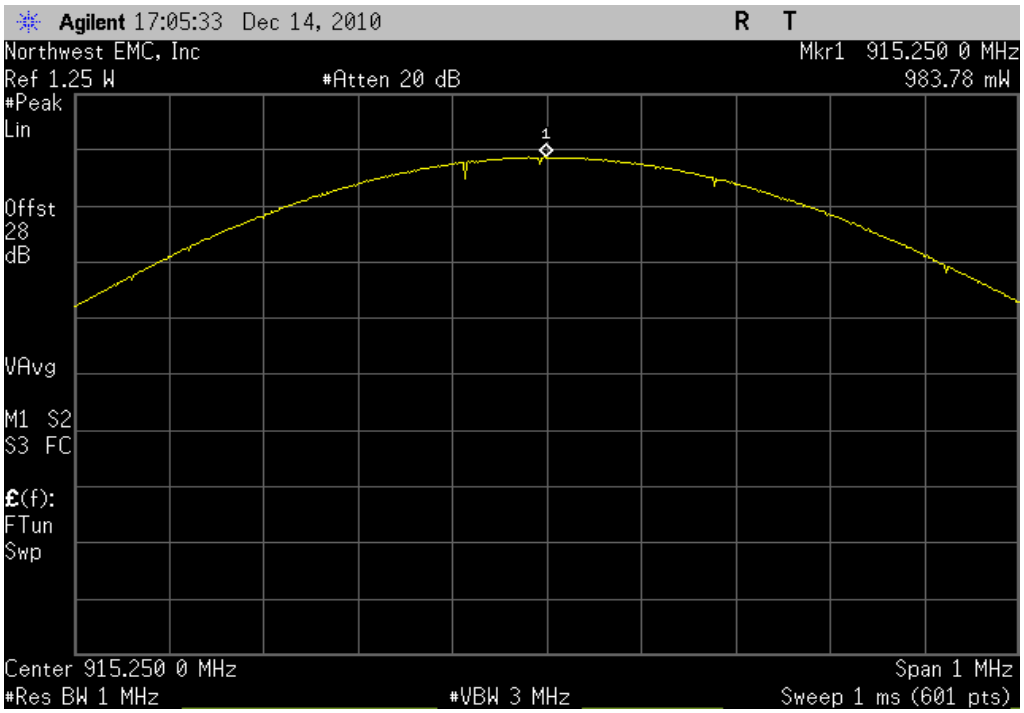
Configuration #	11	Signature

		Value	Limit	Results
Gen2 Reader Mode (PRASK)				
	Tx Port 2			
	Low Channel, Ch. 5, 902.75 MHz	987 mW	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	984 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	984 mW	1 W	Pass

Gen2 Reader Mode (PRASK), Tx Port 2, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	987 mW	**Limit:**	1 W

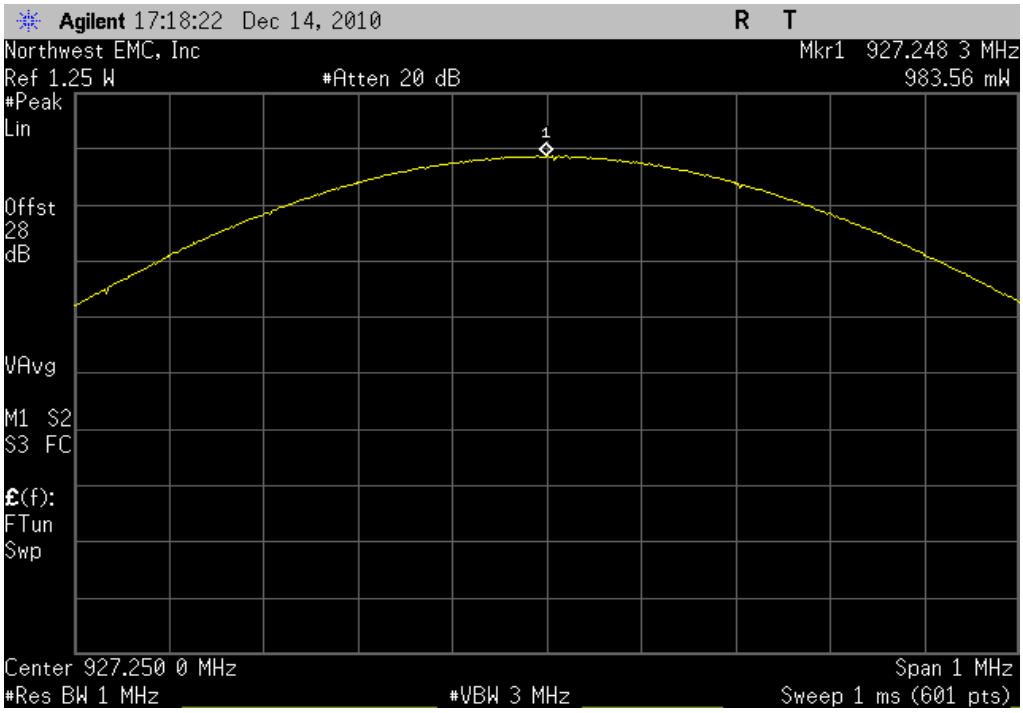


Gen2 Reader Mode (PRASK), Tx Port 2, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	984 mW	**Limit:**	1 W



OUTPUT POWER - IM10G

Gen2 Reader Mode (PRASK), Tx Port 2, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	984 mW	**Limit:**	1 W



OUTPUT POWER - IM10

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	6/1/2009	24
40GHz DC Block	Miteq	DCB4000	AMD	8/5/2010	13
Attenuator, 26db SMA	Fairview Microwave	18B5W-26	RFZ	11/17/2010	13
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	25

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The peak output power 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 a spectrum analyzer. The EUT was transmitting at its maximum data rate in a no hop mode.

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

EMC

OUTPUT POWER - IM10

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/07/10
Customer:	Intermec Technologies Corporation			**Temperature:**	23°C
Attendees:	none			**Humidity:**	38%
Project:	None			**Barometric Pres.:**	30.11 in
Tested by:	Rod Peloquin	**Power:**	12 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

COMMENTS

Adjusted power and saved to NVRAM

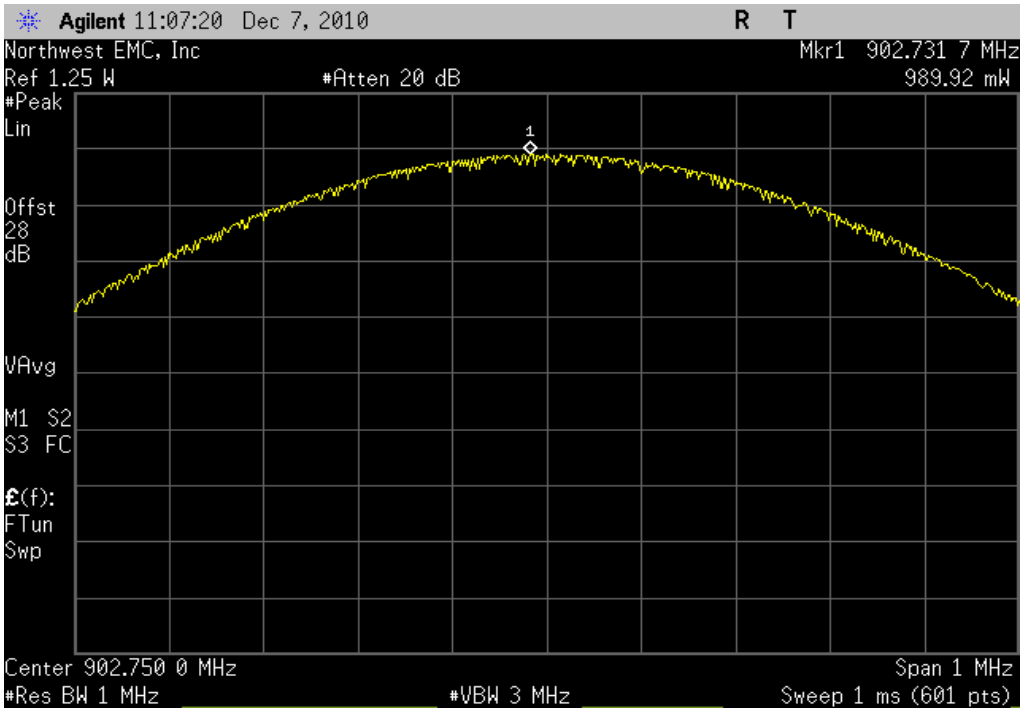
DEVIATIONS FROM TEST STANDARD

No Deviations

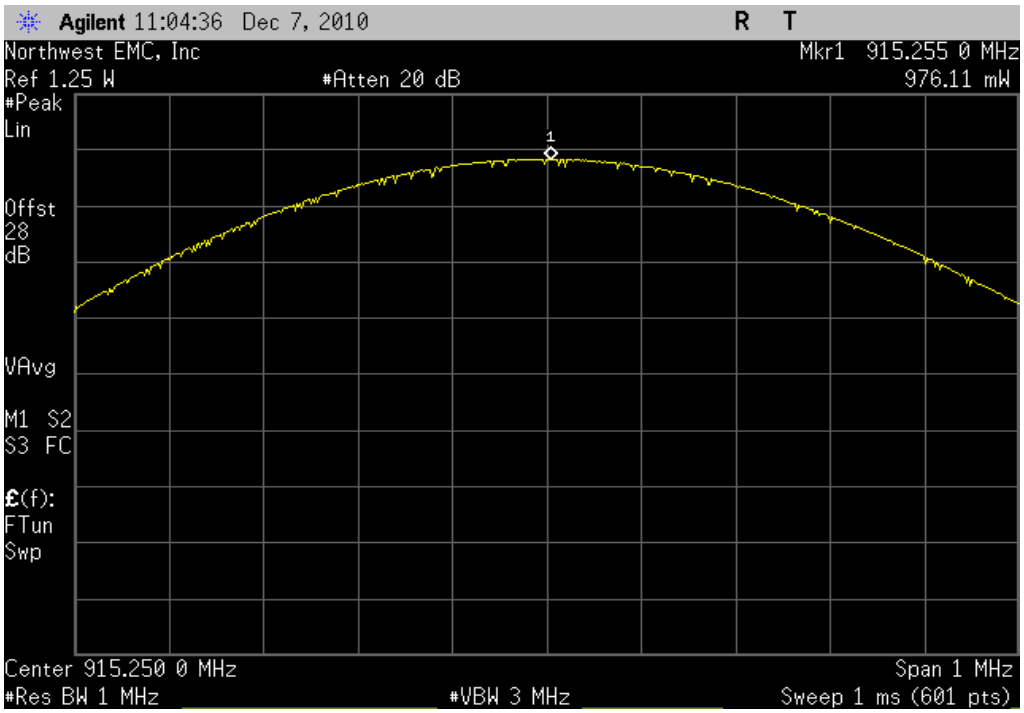
Configuration #	**1**	*Signature*

		Value	Limit	Results
Gen2 Reader Mode (PRASK)				
	Tx Port 1			
	Low Channel, Ch. 5, 902.75 MHz	990 mW	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	976 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	985 mW	1 W	Pass
	Tx Port 2			
	Low Channel, Ch. 5, 902.75 MHz	1.00 W	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	991 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	1.00 W	1 W	Pass
	Tx Port 3			
	Low Channel, Ch. 5, 902.75 MHz	991 mW	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	973 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	979 mW	1 W	Pass
	Tx Port 4			
	Low Channel, Ch. 5, 902.75 MHz	997 mW	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	985 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	1.00 W	1 W	Pass
IS06BG2 Reader Mode (OOK)				
	Tx Port 1			
	Low Channel, Ch. 5, 902.75 MHz	987 mW	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	956 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	955 mW	1 W	Pass
	Tx Port 2			
	Low Channel, Ch. 5, 902.75 MHz	1.00 W	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	968 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	975 mW	1 W	Pass
	Tx Port 3			
	Low Channel, Ch. 5, 902.75 MHz	977 mW	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	946 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	944 mW	1 W	Pass
	Tx Port 4			
	Low Channel, Ch. 5, 902.75 MHz	996 mW	1 W	Pass
	Mid Channel, Ch. 30, 915.25 MHz	967 mW	1 W	Pass
	High Channel, Ch. 54, 927.25 MHz	976 mW	1 W	Pass

Gen2 Reader Mode (PRASK), Tx Port 1, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	990 mW	**Limit:**	1 W

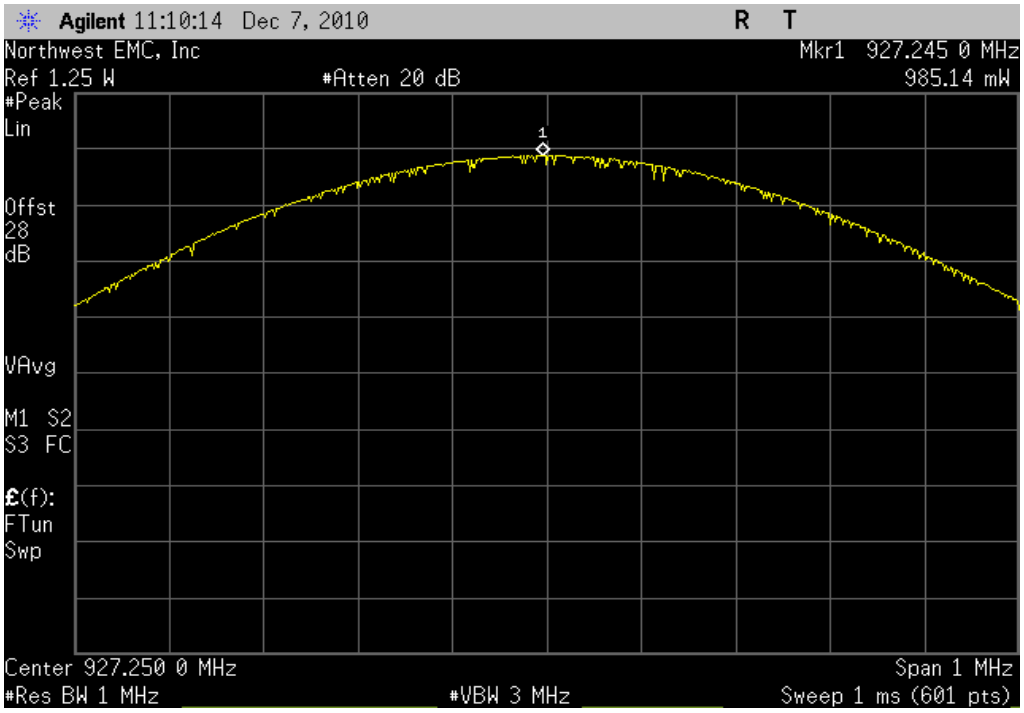


Gen2 Reader Mode (PRASK), Tx Port 1, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	976 mW	**Limit:**	1 W

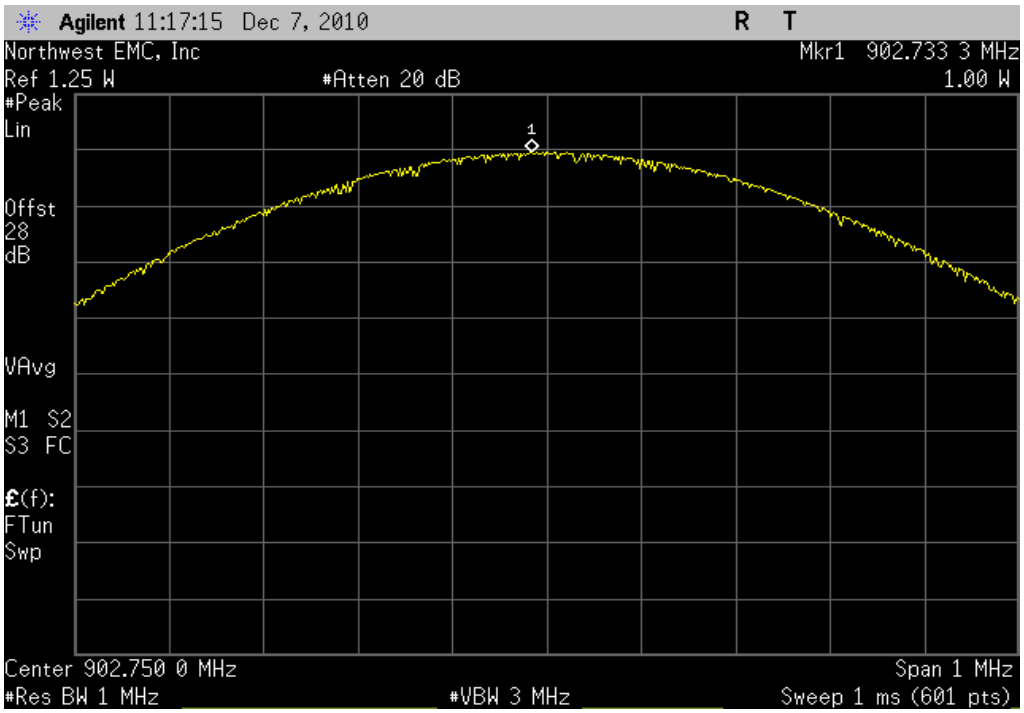


OUTPUT POWER - IM10

Gen2 Reader Mode (PRASK), Tx Port 1, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	985 mW	**Limit:**	1 W

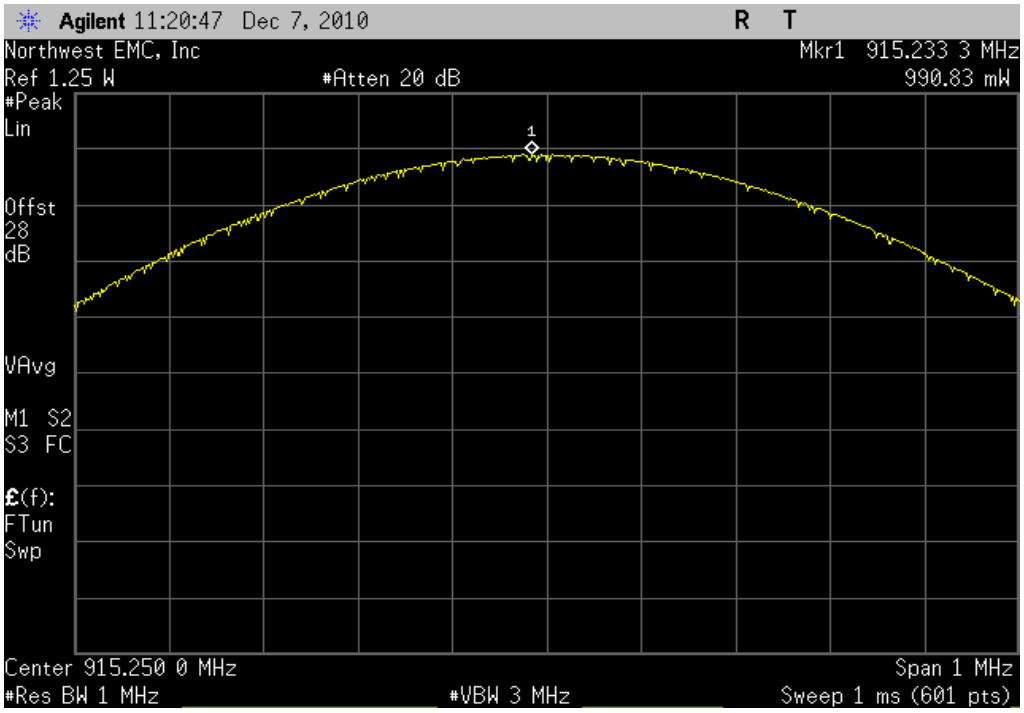


Gen2 Reader Mode (PRASK), Tx Port 2, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	1.00 W	**Limit:**	1 W

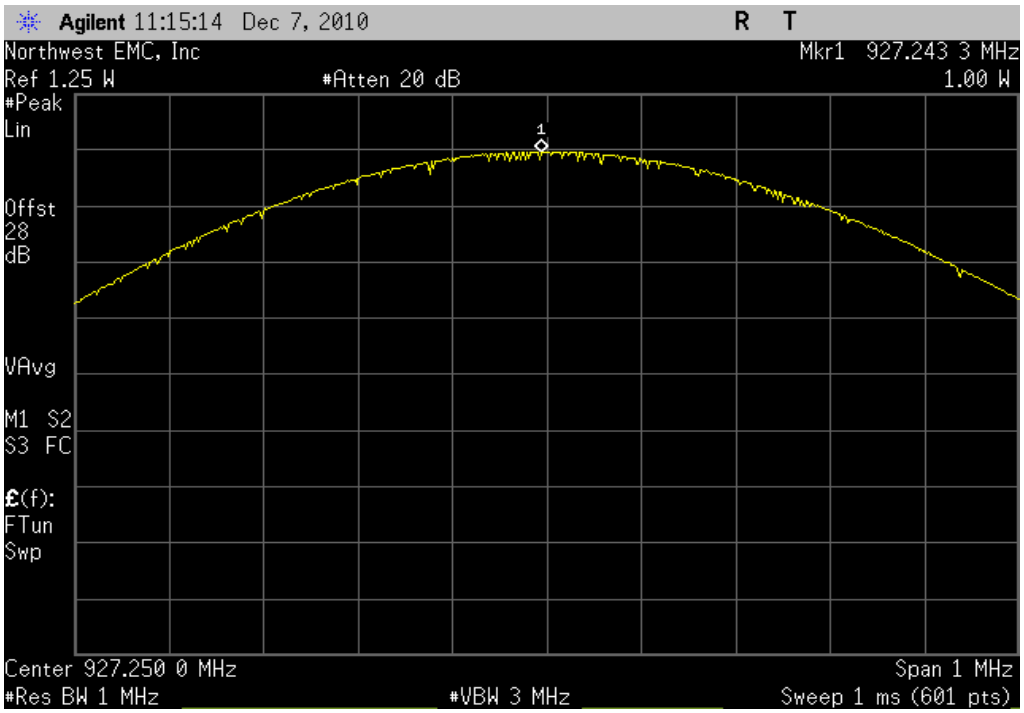


OUTPUT POWER - IM10

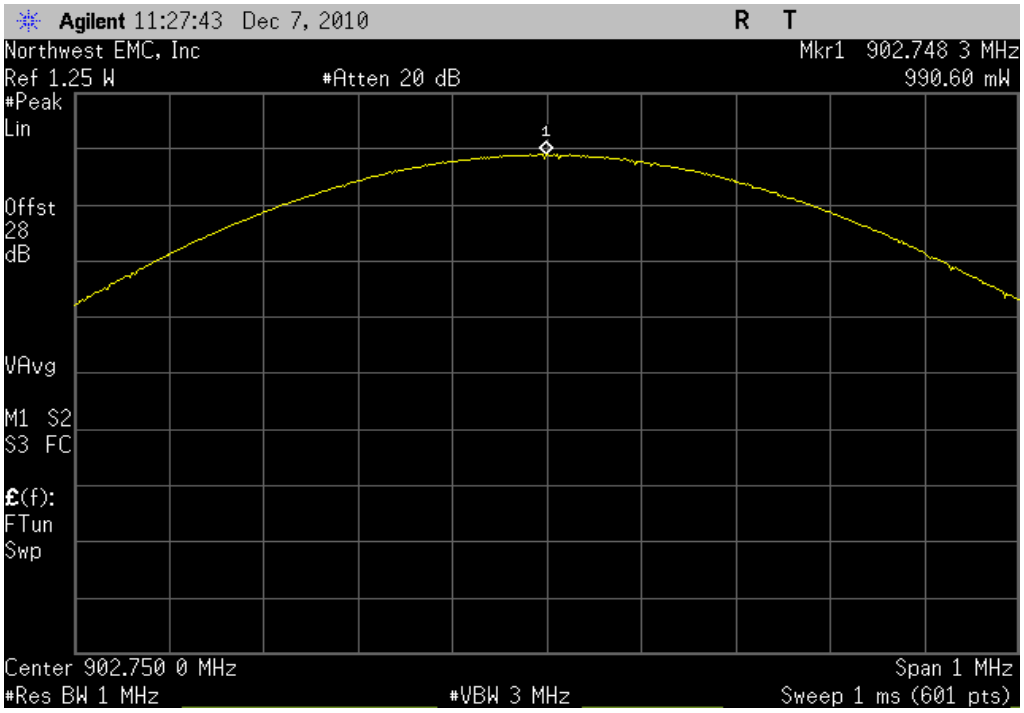
Gen2 Reader Mode (PRASK), Tx Port 2, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	991 mW	**Limit:**	1 W



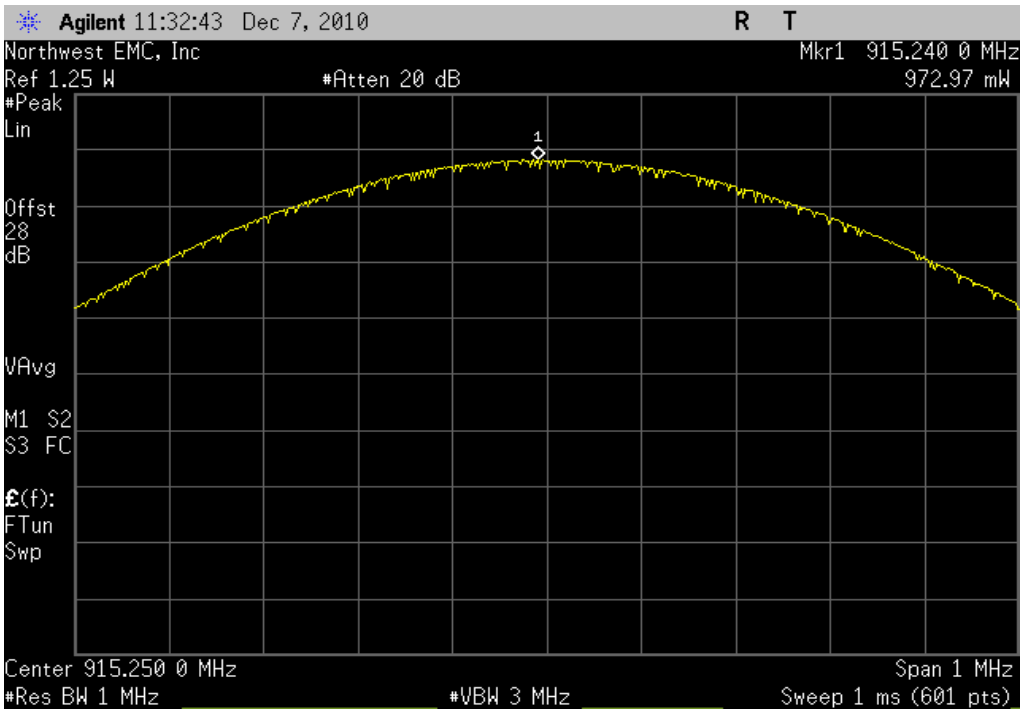
Gen2 Reader Mode (PRASK), Tx Port 2, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	1.00 W	**Limit:**	1 W



Gen2 Reader Mode (PRASK), Tx Port 3, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	991 mW	**Limit:**	1 W

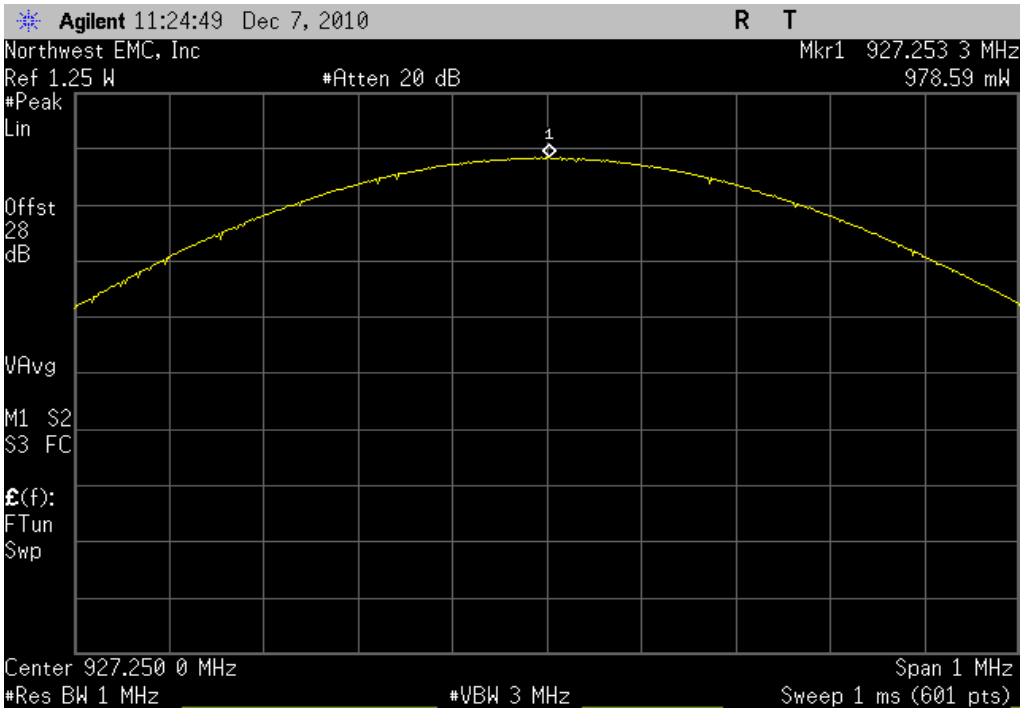


Gen2 Reader Mode (PRASK), Tx Port 3, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	973 mW	**Limit:**	1 W

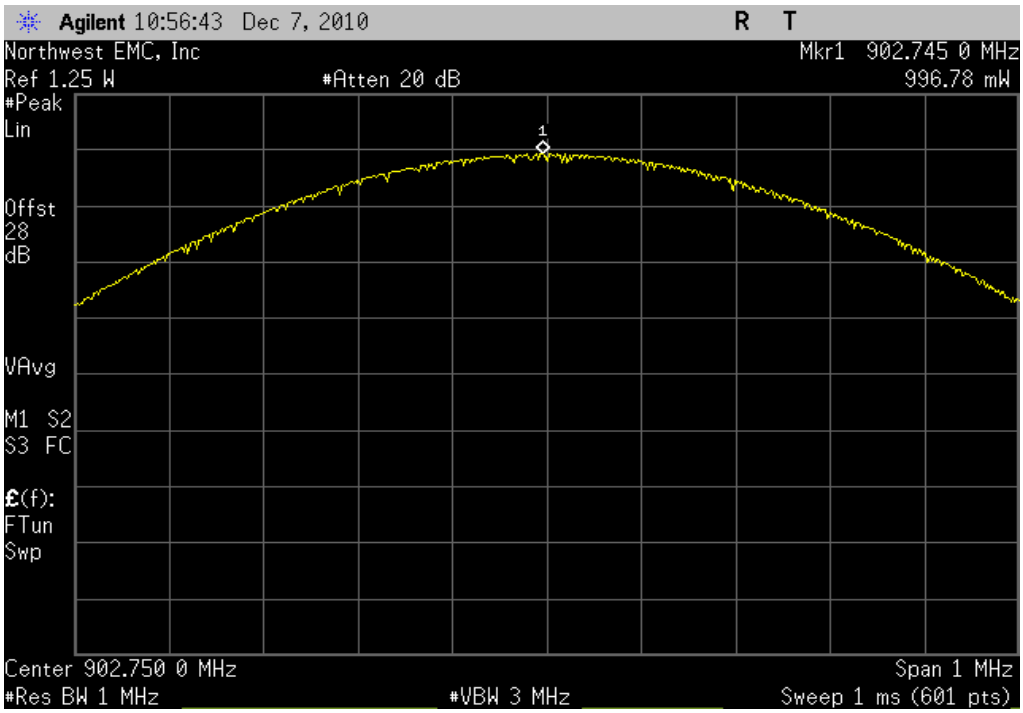


OUTPUT POWER - IM10

Gen2 Reader Mode (PRASK), Tx Port 3, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	979 mW	**Limit:**	1 W

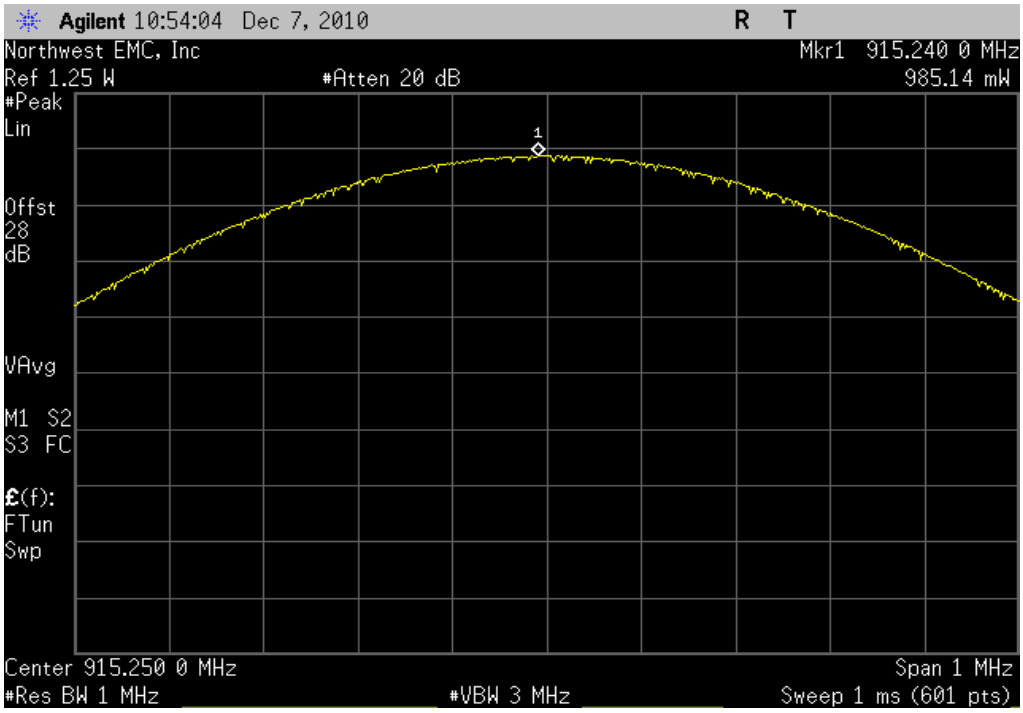


Gen2 Reader Mode (PRASK), Tx Port 4, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	997 mW	**Limit:**	1 W

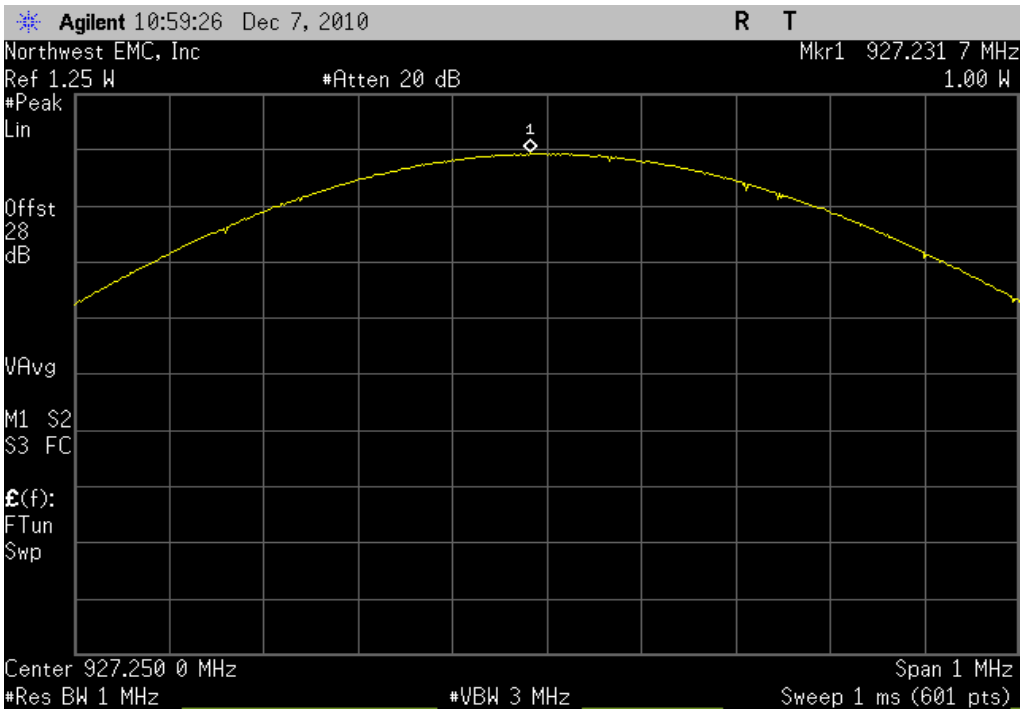


OUTPUT POWER - IM10

Gen2 Reader Mode (PRASK), Tx Port 4, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	985 mW	**Limit:**	1 W

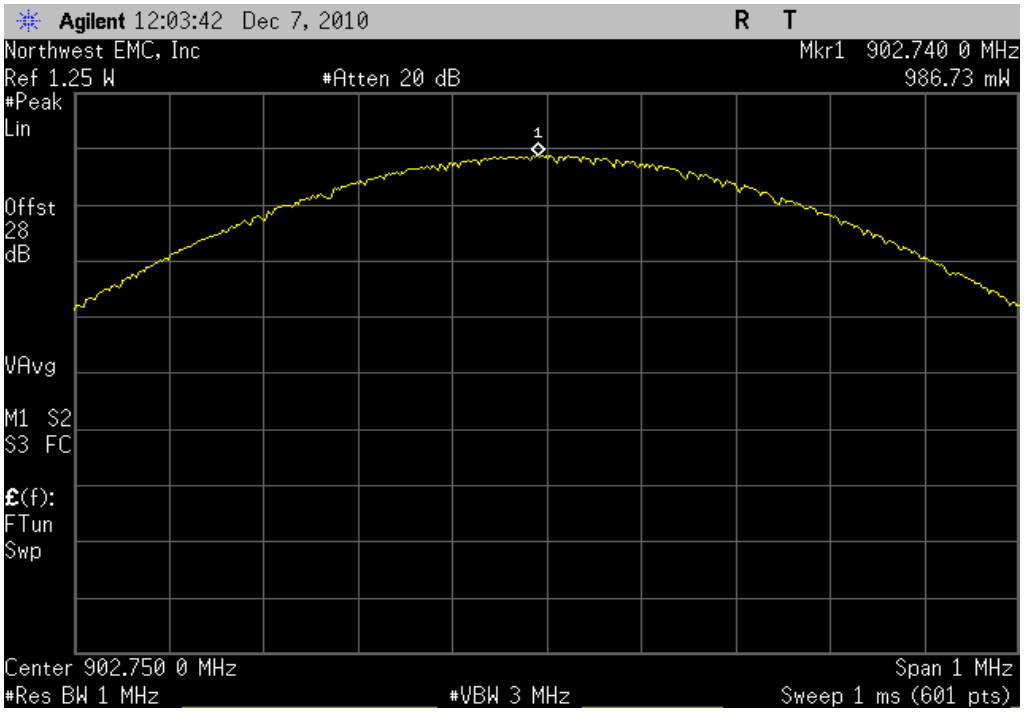


Gen2 Reader Mode (PRASK), Tx Port 4, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	1.00 W	**Limit:**	1 W

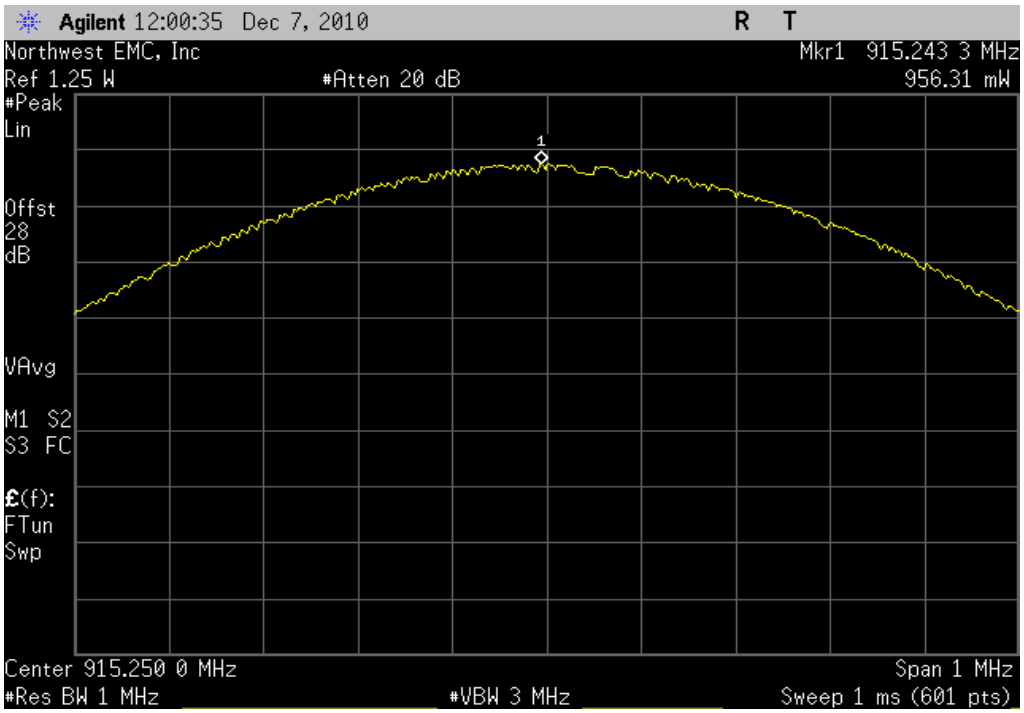


OUTPUT POWER - IM10

IS06BG2 Reader Mode (OOK), Tx Port 1, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	987 mW	**Limit:**	1 W

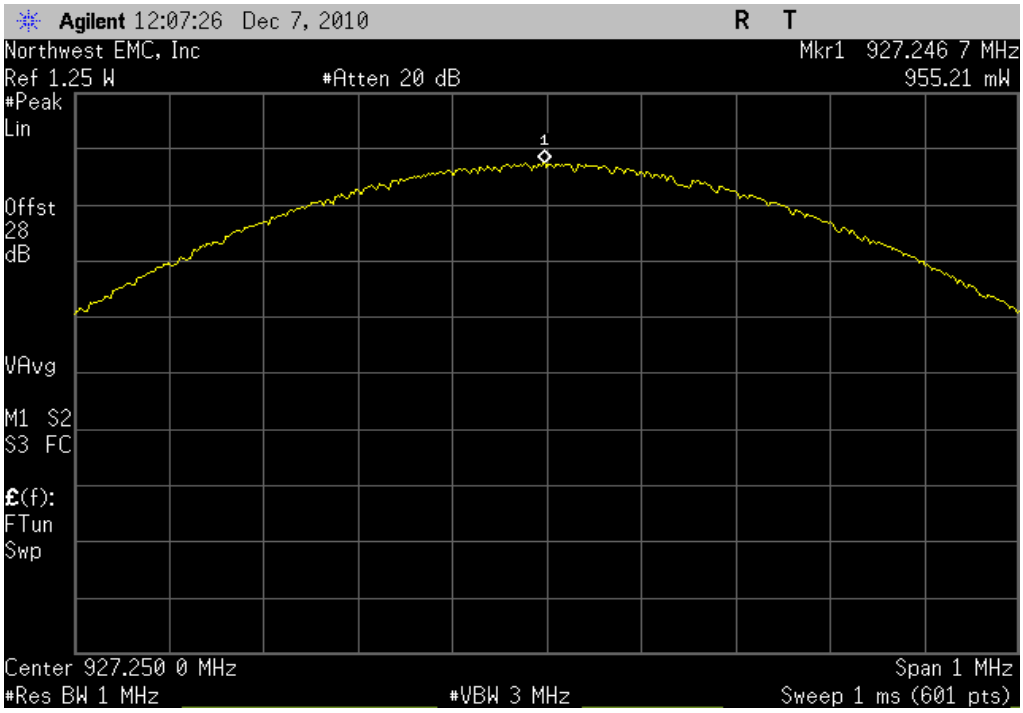


IS06BG2 Reader Mode (OOK), Tx Port 1, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	956 mW	**Limit:**	1 W

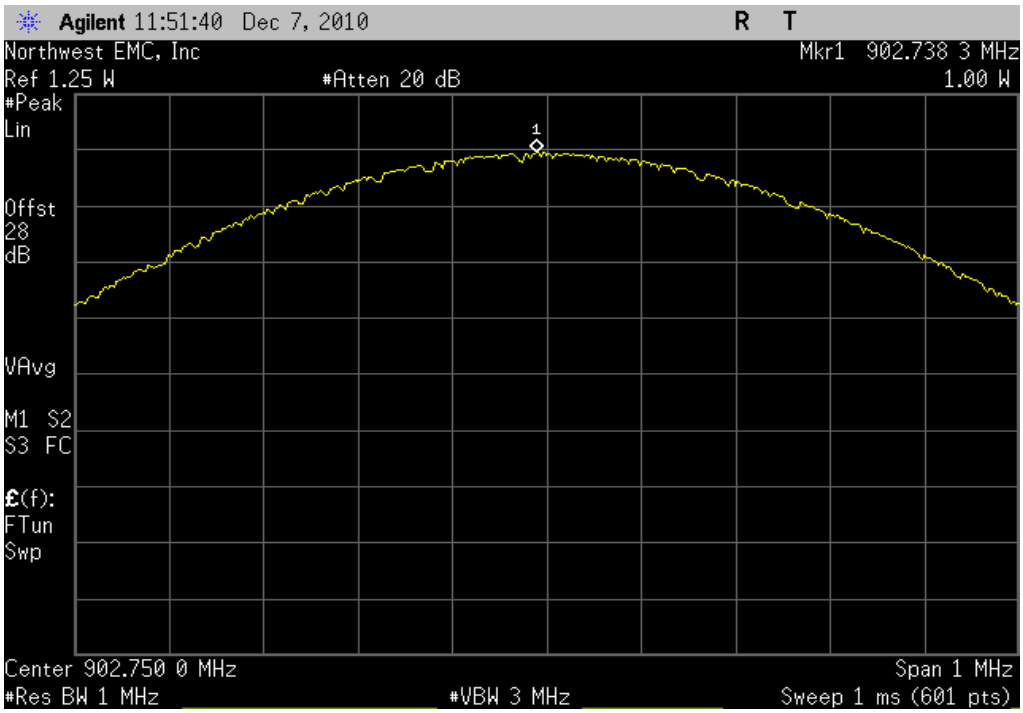


OUTPUT POWER - IM10

IS06BG2 Reader Mode (OOK), Tx Port 1, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	955 mW	**Limit:**	1 W

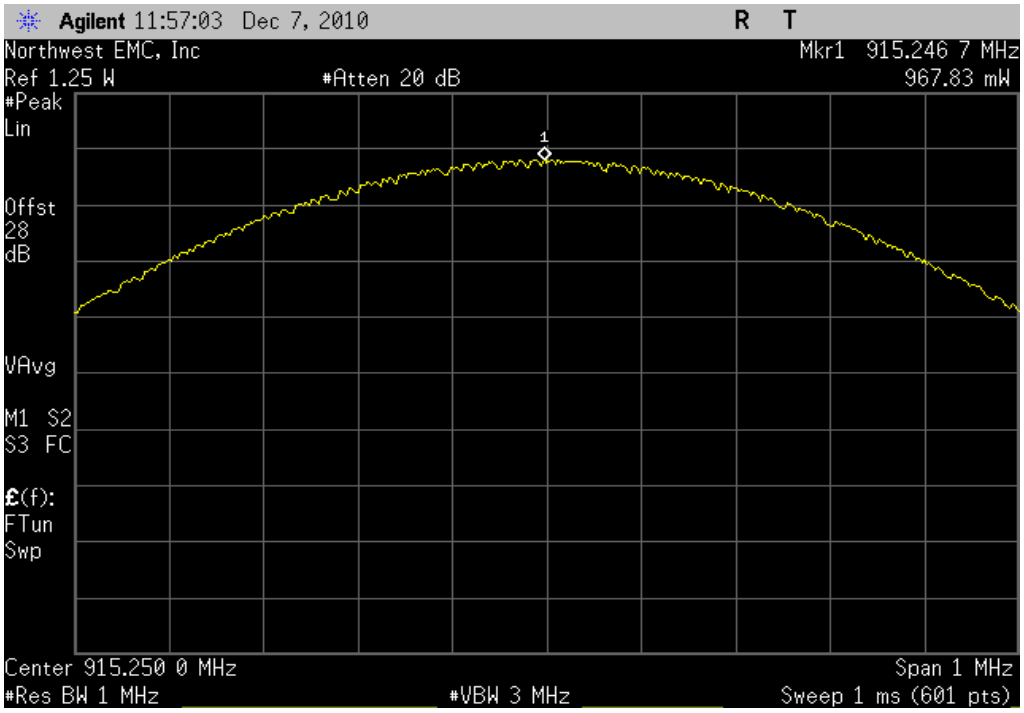


IS06BG2 Reader Mode (OOK), Tx Port 2, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	1.00 W	**Limit:**	1 W

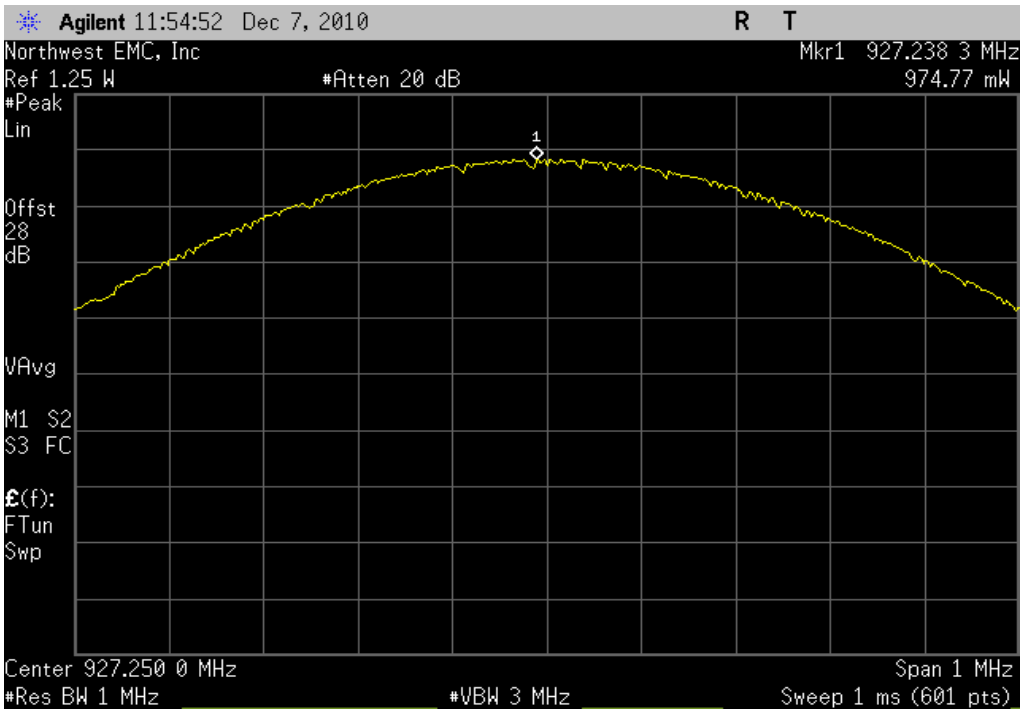


OUTPUT POWER - IM10

IS06BG2 Reader Mode (OOK), Tx Port 2, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	968 mW	**Limit:**	1 W

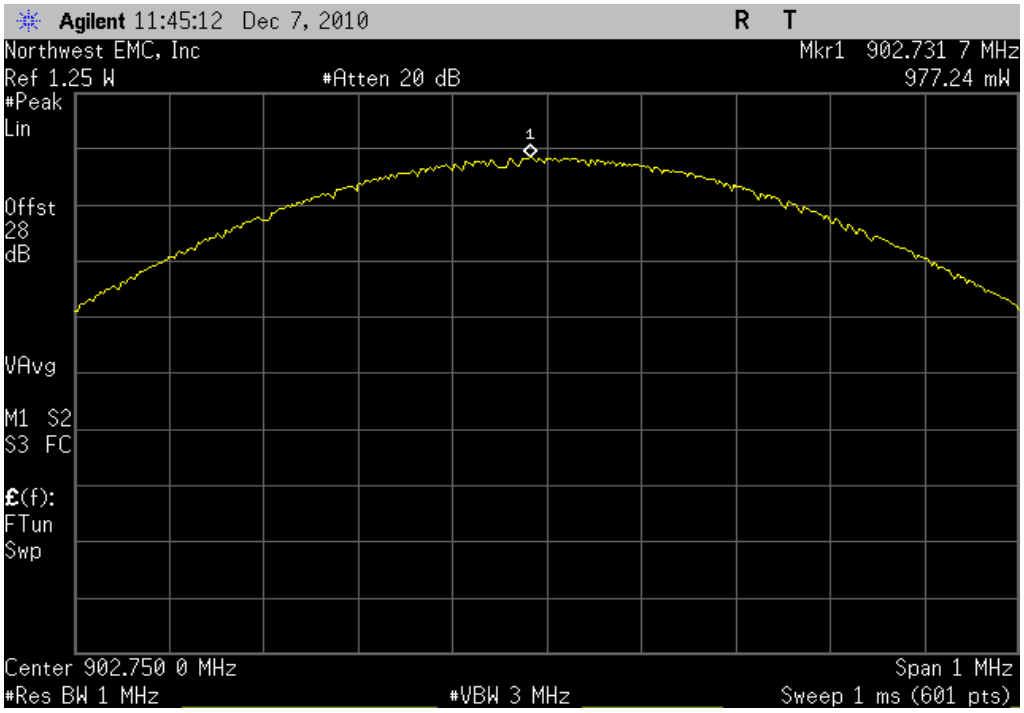


IS06BG2 Reader Mode (OOK), Tx Port 2, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	975 mW	**Limit:**	1 W

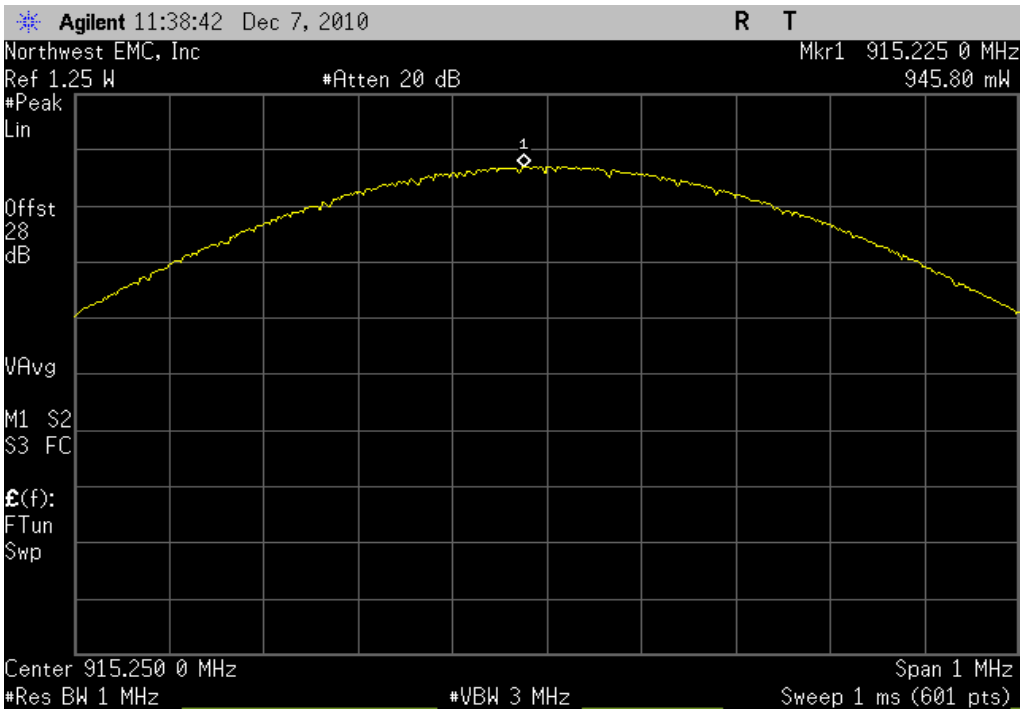


OUTPUT POWER - IM10

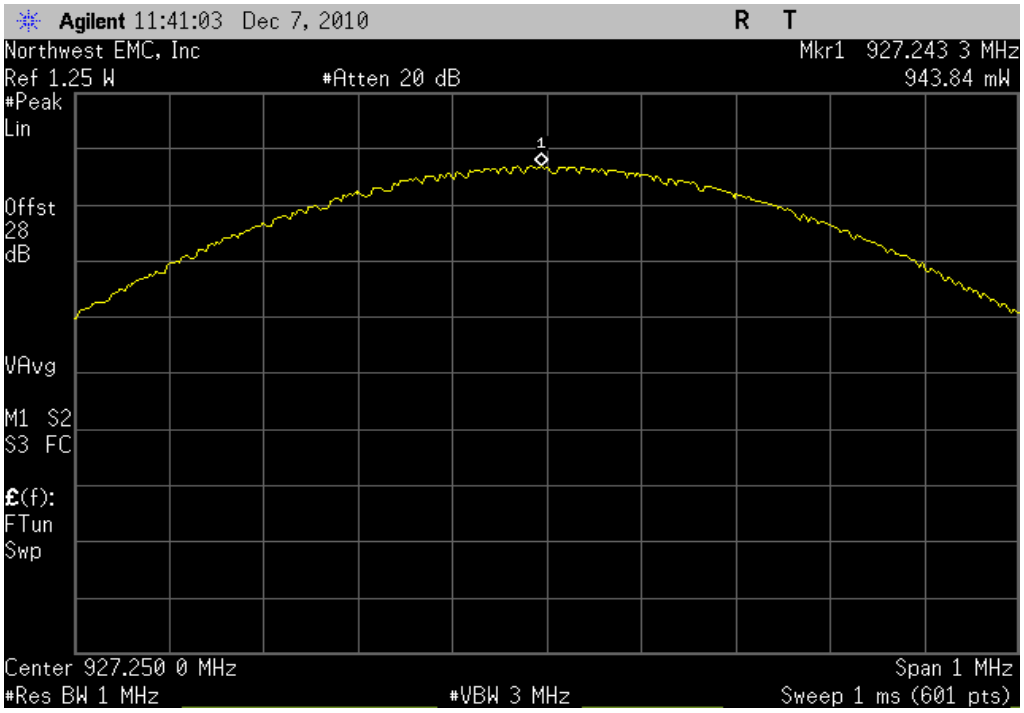
IS06BG2 Reader Mode (OOK), Tx Port 3, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	977 mW	**Limit:**	1 W



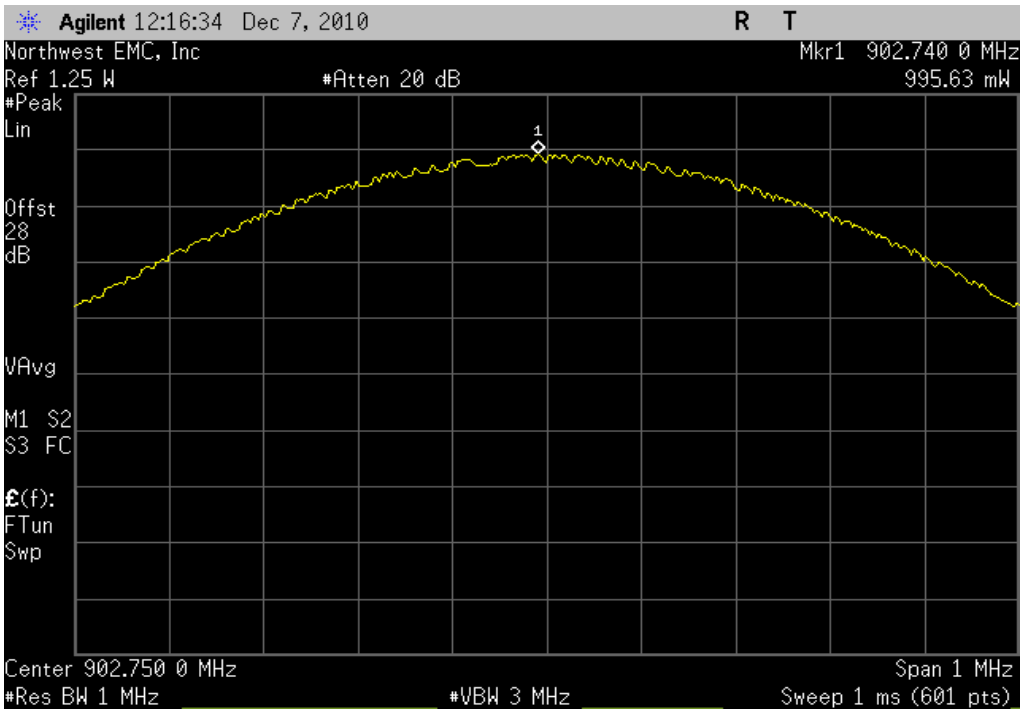
IS06BG2 Reader Mode (OOK), Tx Port 3, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	946 mW	**Limit:**	1 W



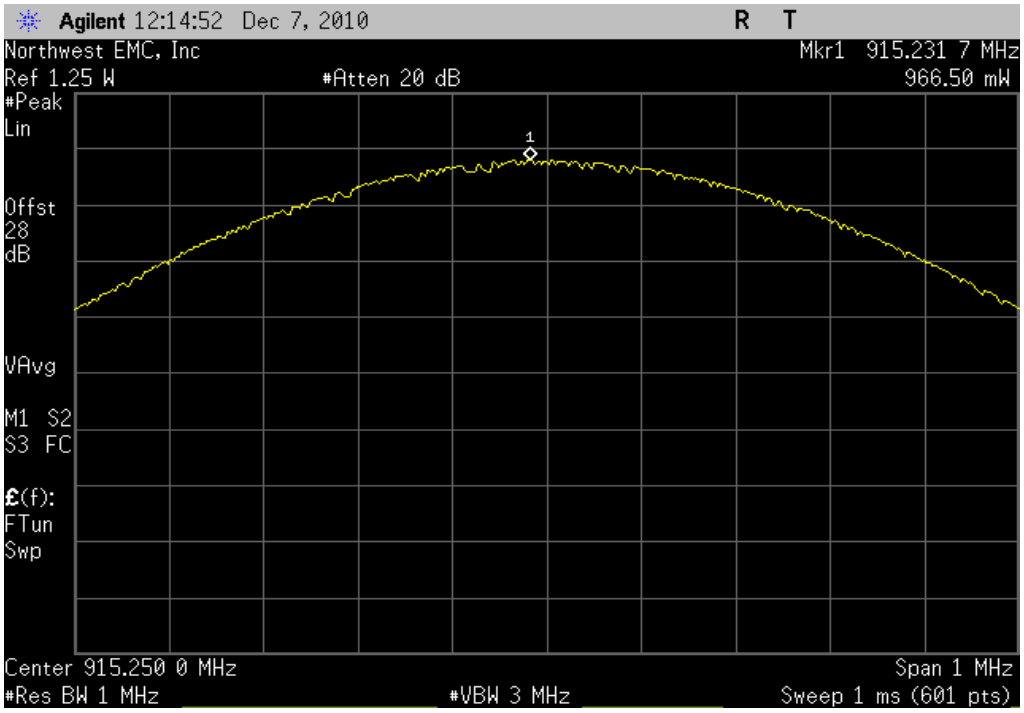
IS06BG2 Reader Mode (OOK), Tx Port 3, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	944 mW	**Limit:**	1 W



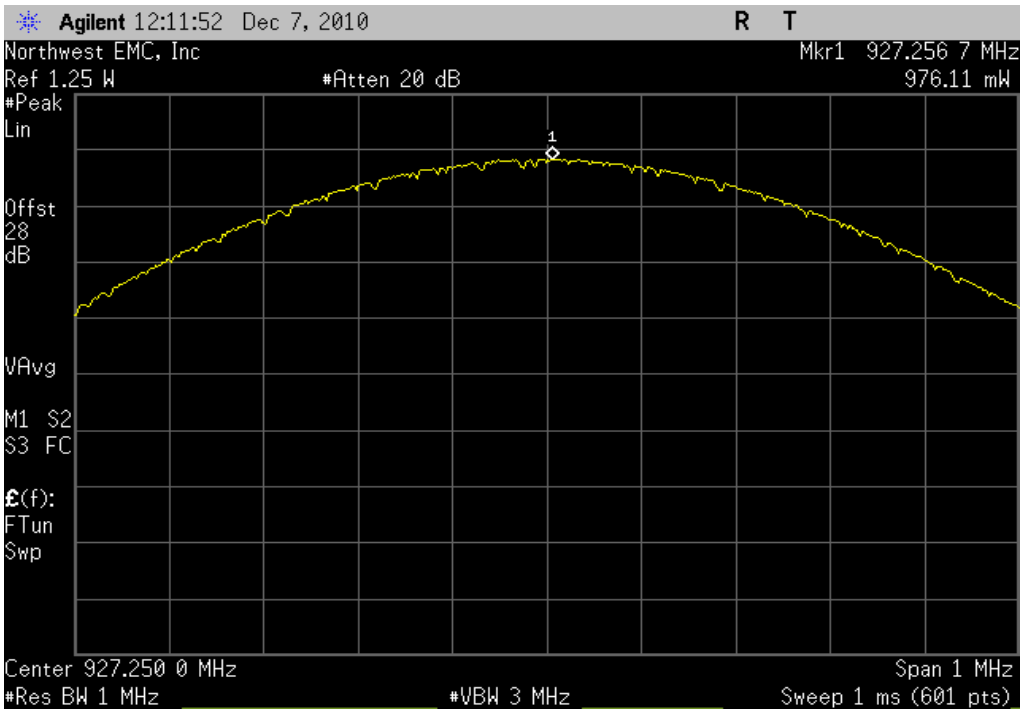
IS06BG2 Reader Mode (OOK), Tx Port 4, Low Channel, Ch. 5, 902.75 MHz					
Result:	Pass	**Value:**	996 mW	**Limit:**	1 W



IS06BG2 Reader Mode (OOK), Tx Port 4, Mid Channel, Ch. 30, 915.25 MHz					
Result:	Pass	**Value:**	967 mW	**Limit:**	1 W



IS06BG2 Reader Mode (OOK), Tx Port 4, High Channel, Ch. 54, 927.25 MHz					
Result:	Pass	**Value:**	976 mW	**Limit:**	1 W



BAND EDGE COMPLIANCE

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	6/1/2009	24
Attenuator, 26db SMA	Fairview Microwave	18B5W-26	RFZ	11/17/2010	13
40GHz DC Block	Miteq	DCB4000	AMD	8/5/2010	13
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	25

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

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 in a no hop mode. The channels closest to the band edges were selected. The spectrum was scanned across each band edge from 5 MHz below the band edge to 5 MHz above the band edge.

NORTHWEST EMC

BAND EDGE COMPLIANCE

XMit 2010.11.03

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/13/10
Customer:	Intermec Technologies Corporation			**Temperature:**	23°C
Attendees:	none			**Humidity:**	38%
Project:	None			**Barometric Pres.:**	30.11 in
Tested by:	Rod Peloquin	**Power:**	12 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

COMMENTS

Hopping disabled

DEVIATIONS FROM TEST STANDARD

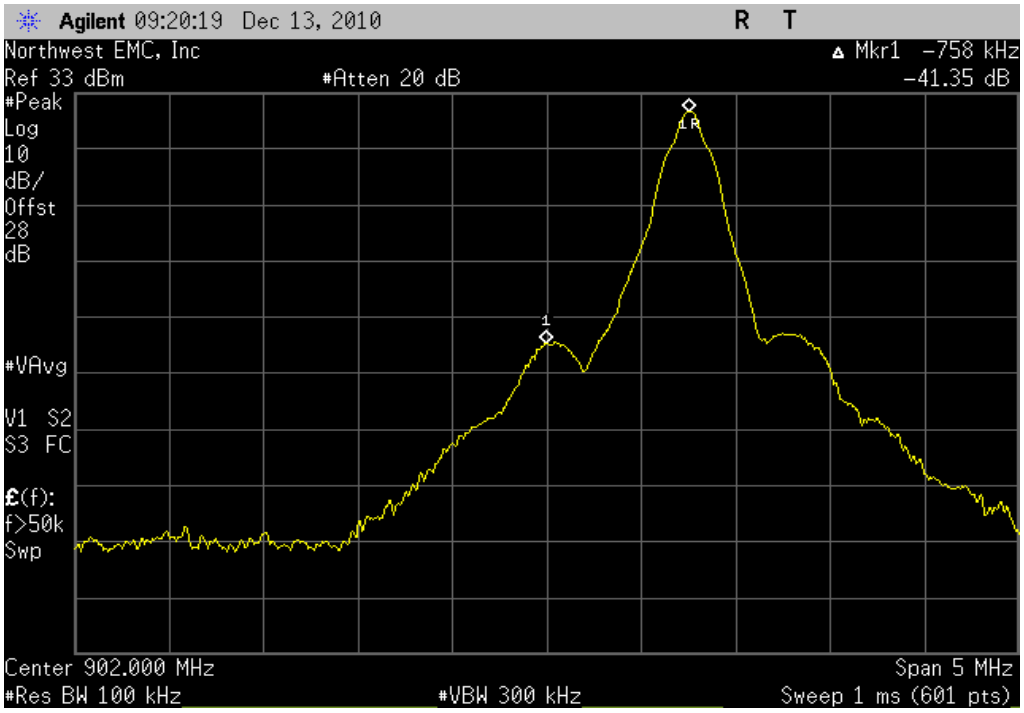
No deviations

Configuration #	1	Signature

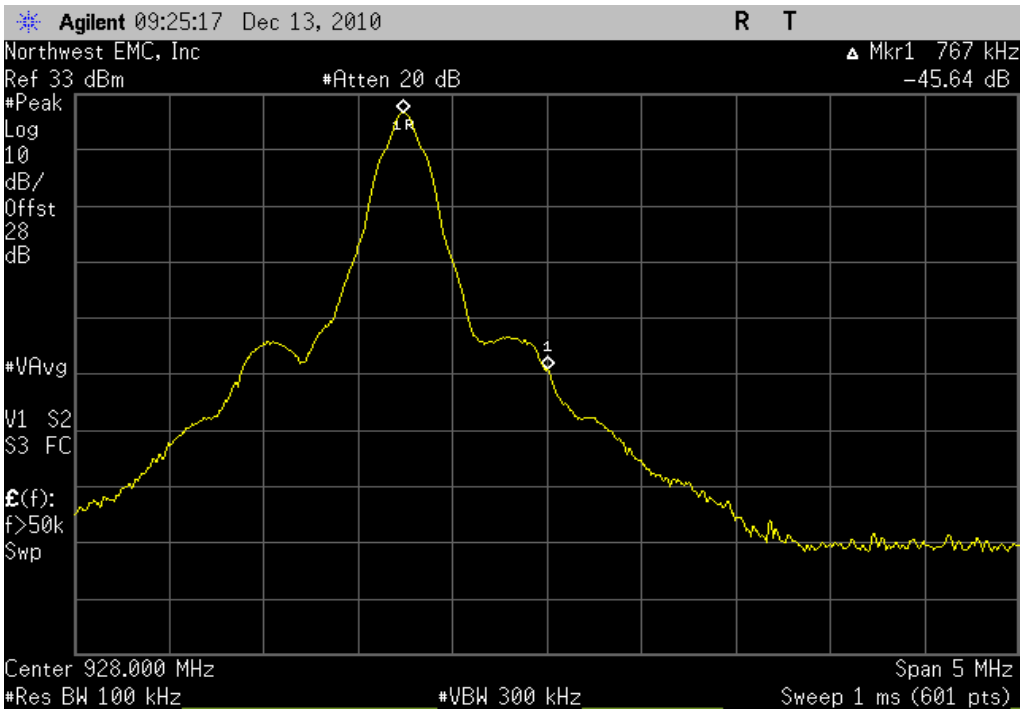
		Value	Limit	Results
Gen2 PRASK				
	Low Channel	- 41.4 dBc	≤ 20 dBc	Pass
	High Channel	-45.6 dBc	≤ 20 dBc	Pass
ISO 6BG2 OOK				
	Low Channel	-29.4 dBc	≤ 20 dBc	Pass
	High Channel	-30.7 dBc	≤ 20 dBc	Pass

BAND EDGE COMPLIANCE

Gen2 PRASK, Low Channel					
Result:	Pass	**Value:**	- 41.4 dBc	**Limit:**	≤ 20 dBc

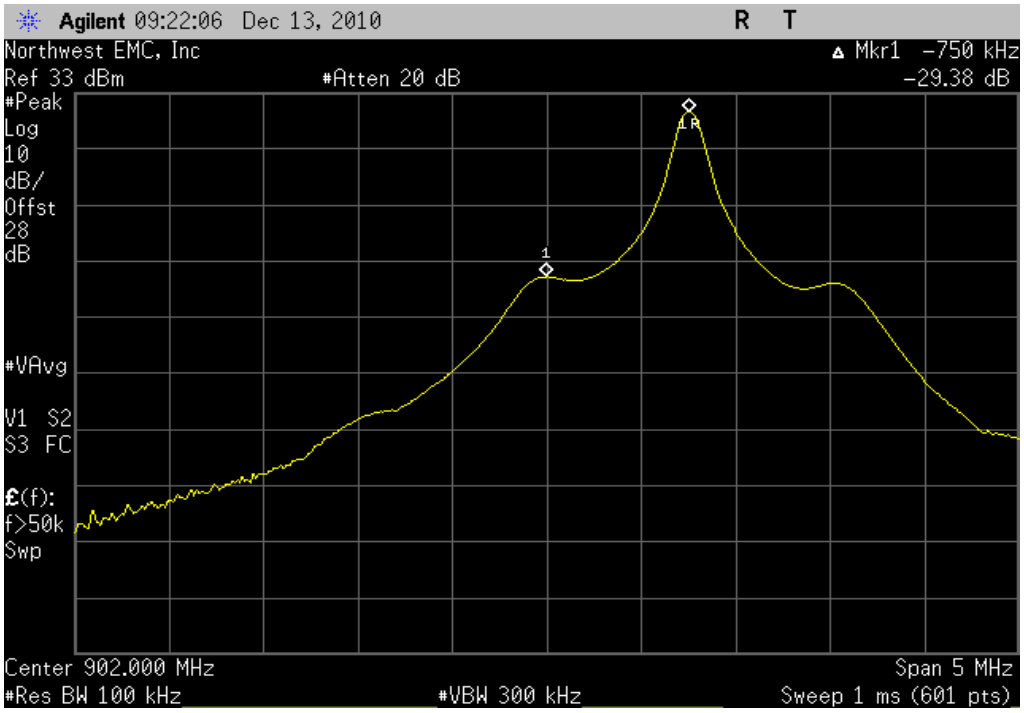


Gen2 PRASK, High Channel					
Result:	Pass	**Value:**	-45.6 dBc	**Limit:**	≤ 20 dBc

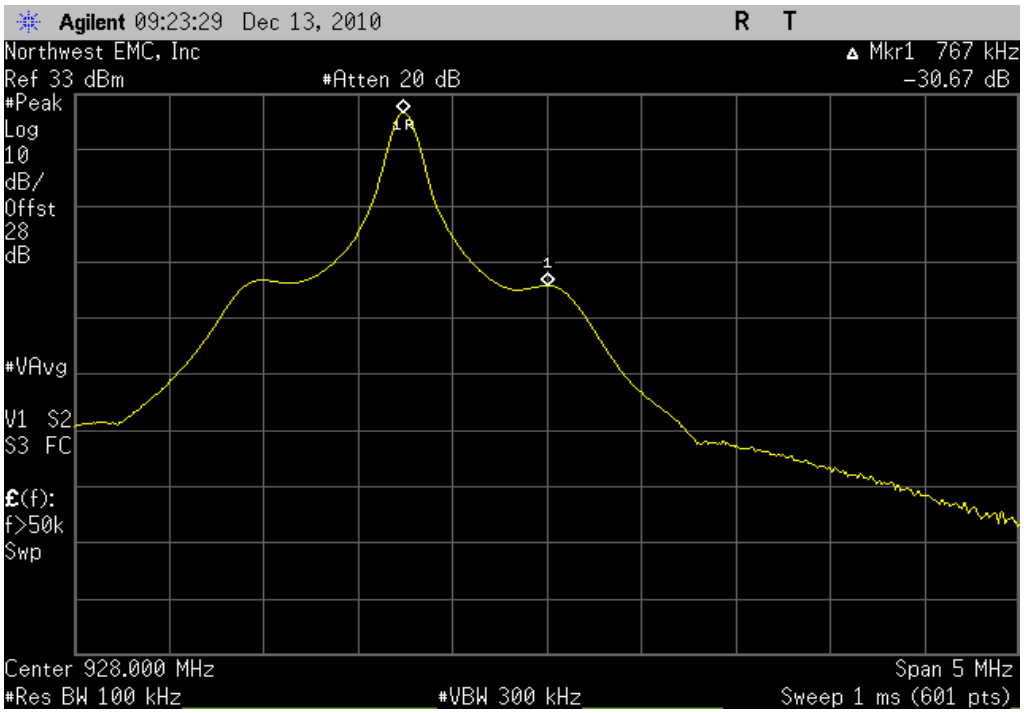


BAND EDGE COMPLIANCE

ISO 6BG2 OOK, Low Channel					
Result:	Pass	**Value:**	-29.4 dBc	**Limit:**	≤ 20 dBc



ISO 6BG2 OOK, High Channel					
Result:	Pass	**Value:**	-30.7 dBc	**Limit:**	≤ 20 dBc



SPURIOUS CONDUCTED EMISSIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AFD	6/1/2009	24
Attenuator, 26db SMA	Fairview Microwave	18B5W-26	RFZ	11/17/2010	13
40GHz DC Block	Miteq	DCB4000	AMD	8/5/2010	13
EV06 Direct Connect Cable	ESM Cable Corp.	TT	ECA	NCR	0
Attenuator, 6 dB, 'SMA'	N/A	93459 3330A-6	AUF	4/1/2010	13
Power Meter	Gigatronics	8651A	SPM	1/7/2010	13
Power Sensor	Gigatronics	80701A	SPL	1/7/2010	13
Signal Generator	Agilent	E8257D	TGX	12/10/2008	25

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

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 in a no hop mode. For each transmit frequency, the spectrum was scanned throughout the specified frequency.

NORTHWEST

EMC

SPURIOUS CONDUCTED EMISSIONS

XMit 2010.11.03

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/13/10
Customer:	Intermec Technologies Corporation			**Temperature:**	23°C
Attendees:	none			**Humidity:**	38%
Project:	None			**Barometric Pres.:**	30.11 in
Tested by:	Rod Peloquin	**Power:**	12 VDC	**Job Site:**	EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

COMMENTS

Hopping disabled

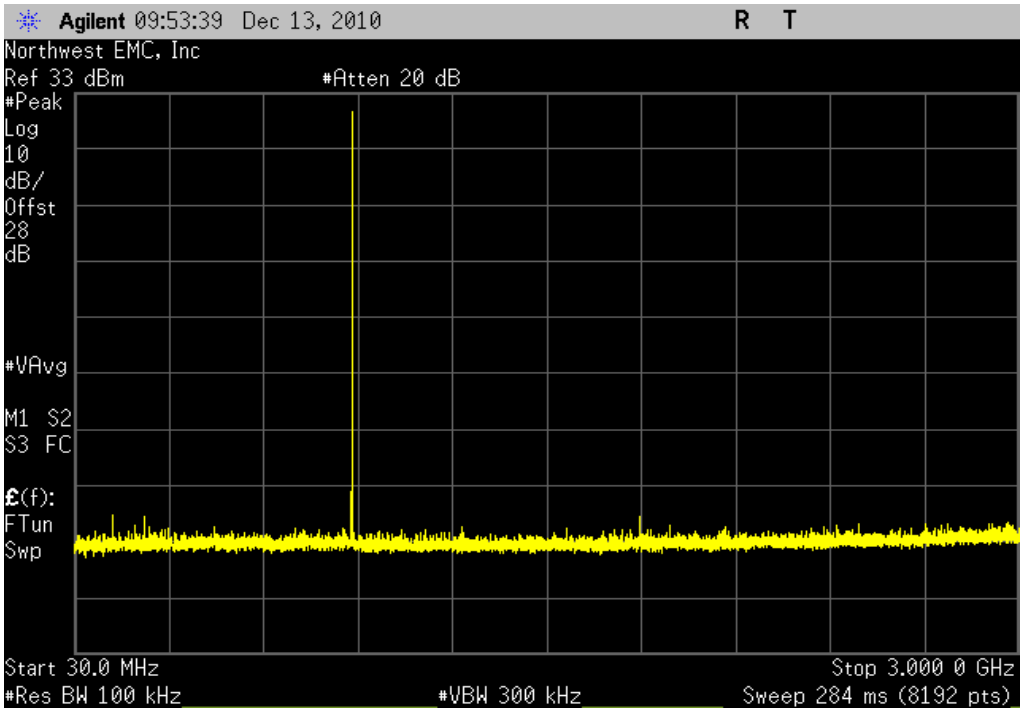
DEVIATIONS FROM TEST STANDARD

No Deviations

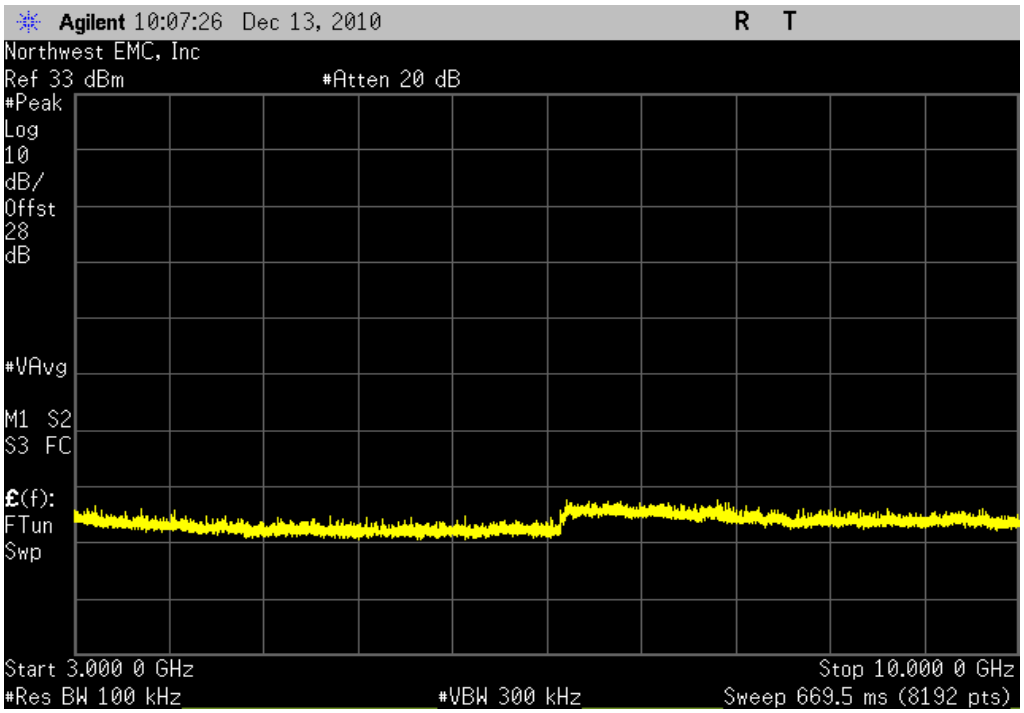
Configuration #	1	Signature

		Value	Limit	Results
Gen2 PRASK				
	Low Channel			
	0 - 3 GHz	< -50 dBc	≤ -20 dBc	Pass
	3 GHz - 10 GHz	< -50 dBc	≤ -20 dBc	Pass
	Mid Channel			
	0 - 3 GHz	< -50 dBc	≤ -20 dBc	Pass
	3 GHz - 10 GHz	< -50 dBc	≤ -20 dBc	Pass
	High Channel			
	0 - 3 GHz	< -50 dBc	≤ -20 dBc	Pass
	3 GHz - 10 GHz	< -50 dBc	≤ -20 dBc	Pass
ISO 6BG2 OOK				
	Low Channel			
	0 - 3 GHz	< -50 dBc	≤ -20 dBc	Pass
	3 GHz - 10 GHz	< -50 dBc	≤ -20 dBc	Pass
	Mid Channel			
	0 - 3 GHz	< -50 dBc	≤ -20 dBc	Pass
	3 GHz - 10 GHz	< -50 dBc	≤ -20 dBc	Pass
	High Channel			
	0 - 3 GHz	< -50 dBc	≤ -20 dBc	Pass
	3 GHz - 10 GHz	< -50 dBc	≤ -20 dBc	Pass

Gen2 PRASK, Low Channel, 0 - 3 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc

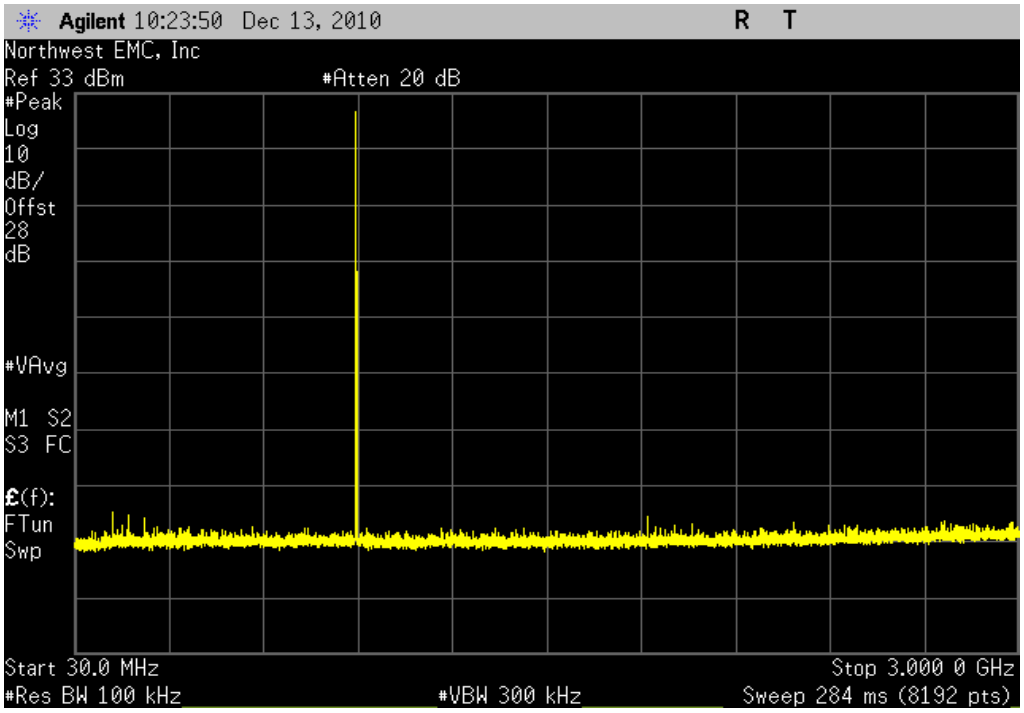


Gen2 PRASK, Low Channel, 3 GHz - 10 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc

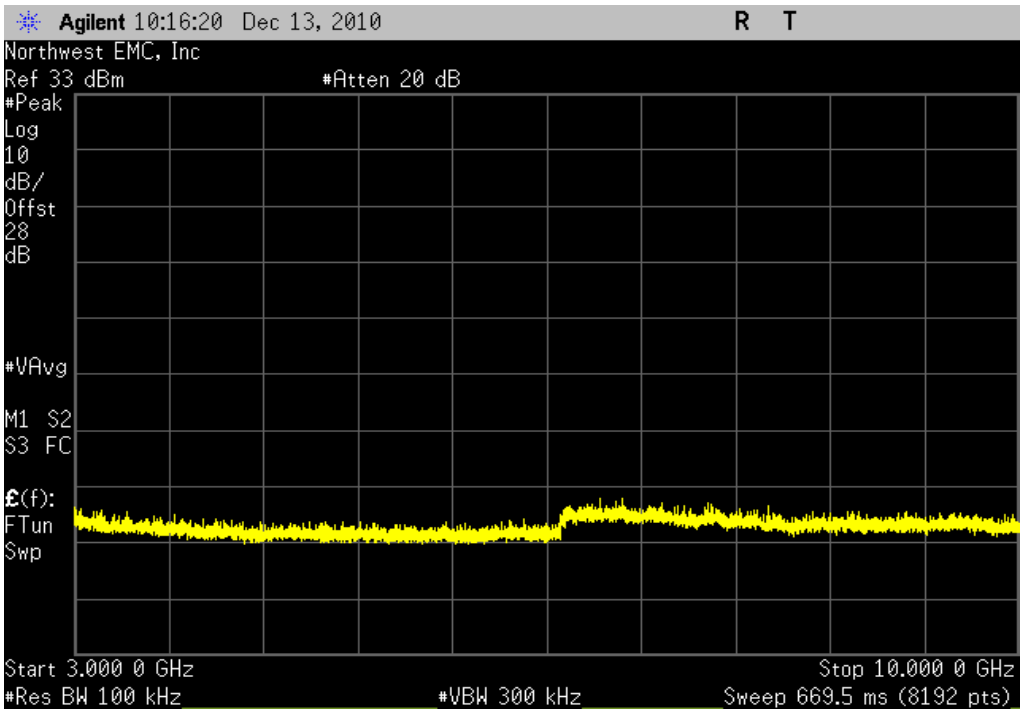


SPURIOUS CONDUCTED EMISSIONS

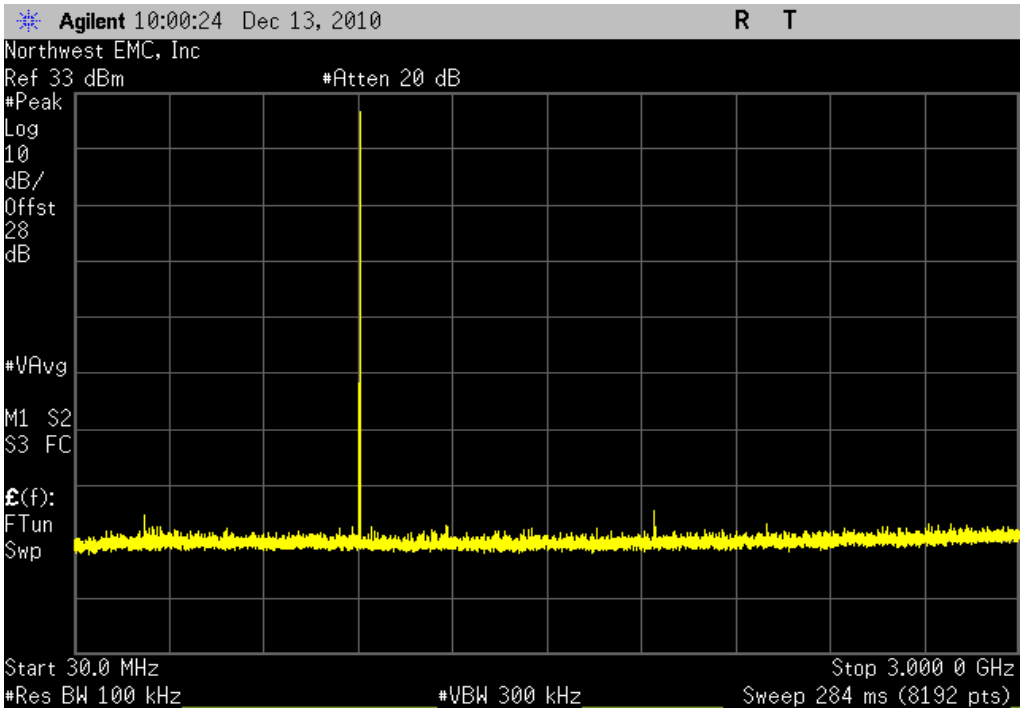
Gen2 PRASK, Mid Channel, 0 - 3 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



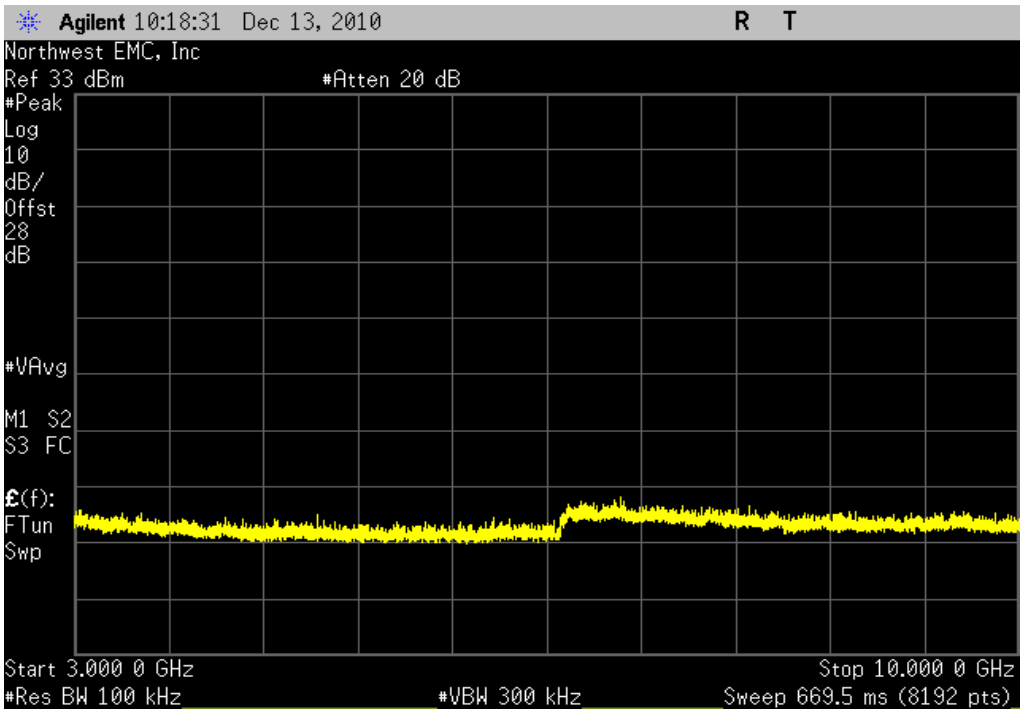
Gen2 PRASK, Mid Channel, 3 GHz - 10 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



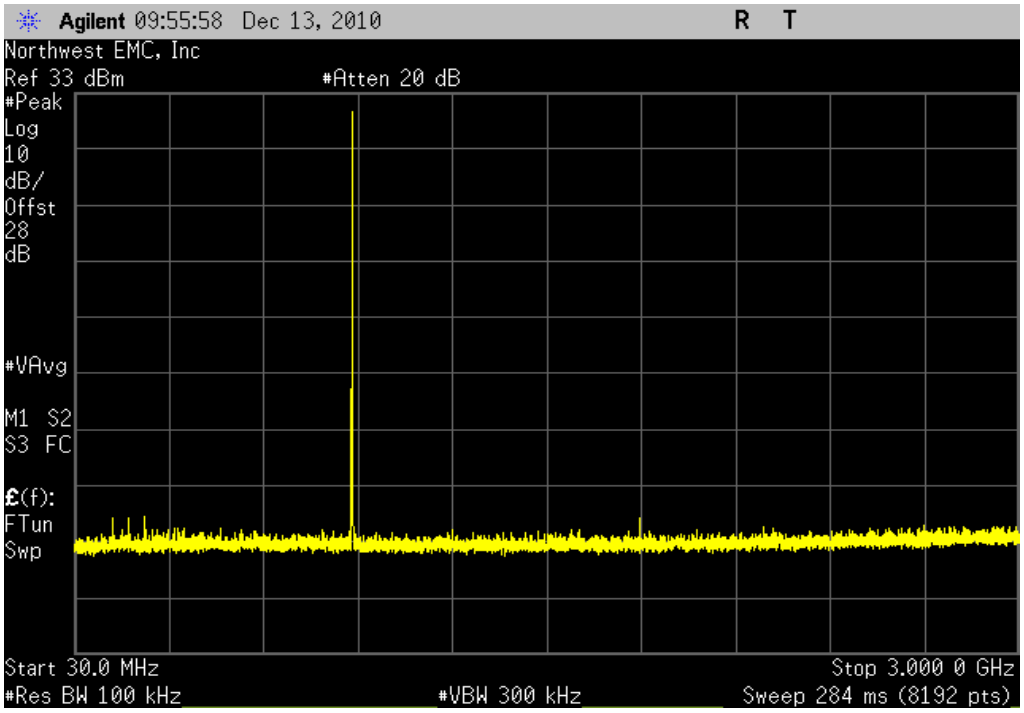
Gen2 PRASK, High Channel, 0 - 3 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



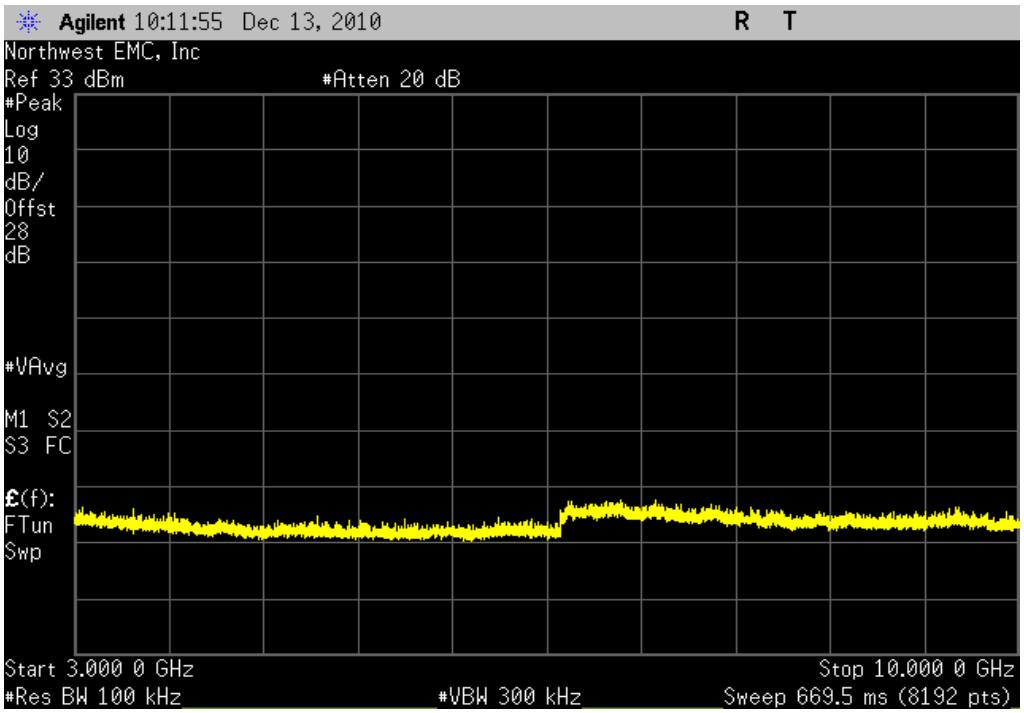
Gen2 PRASK, High Channel, 3 GHz - 10 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



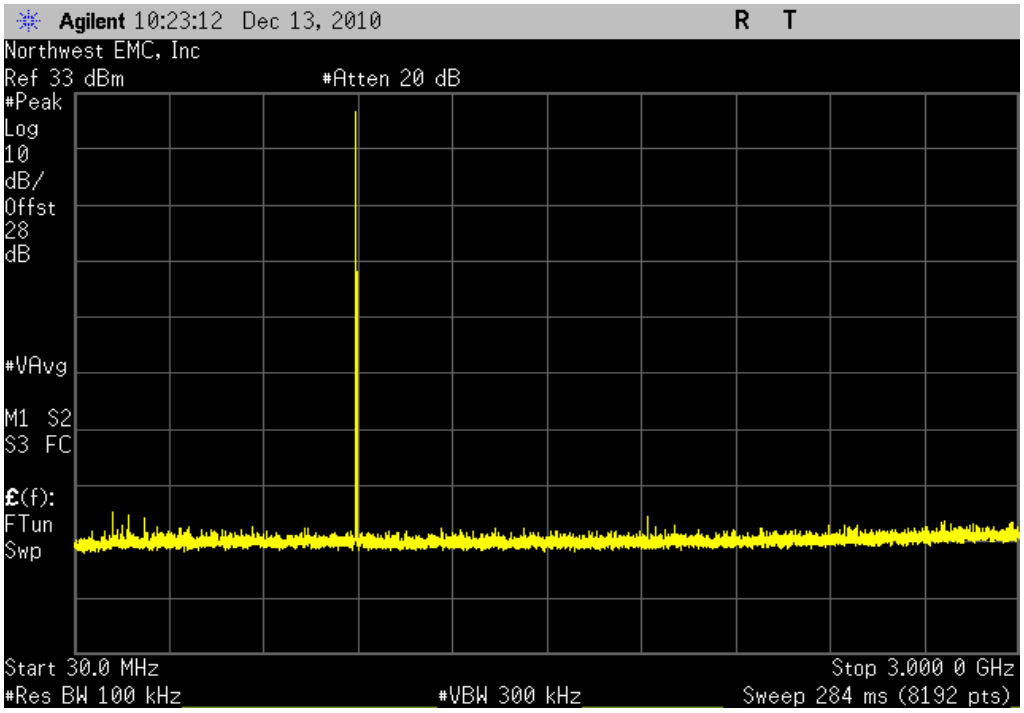
ISO 6BG2 OOK, Low Channel, 0 - 3 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



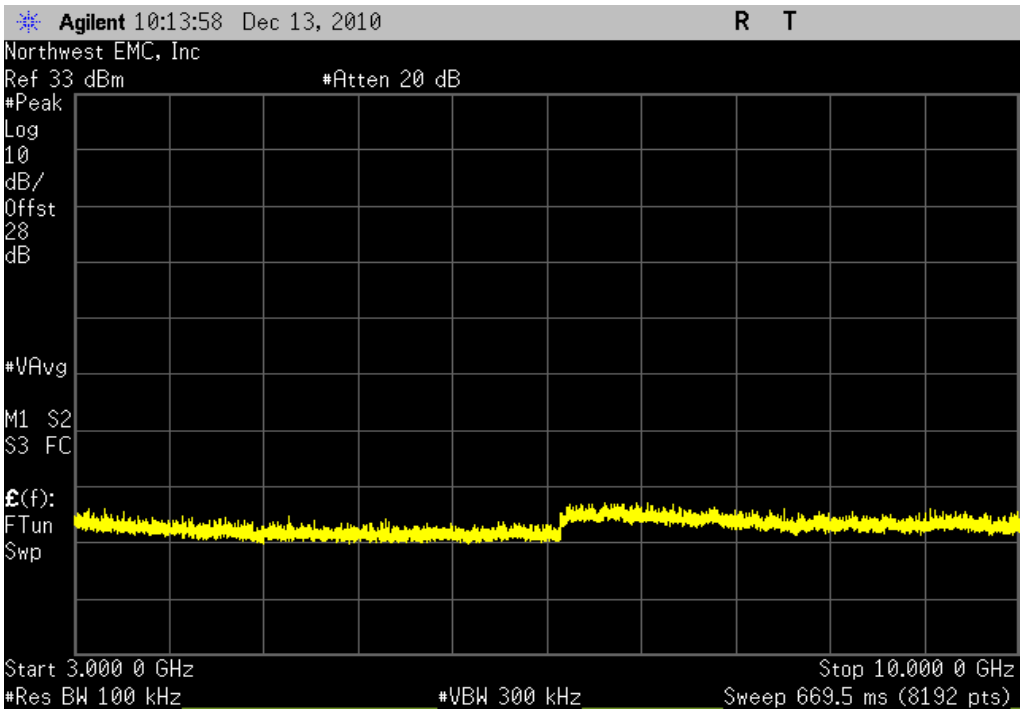
ISO 6BG2 OOK, Low Channel, 3 GHz - 10 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



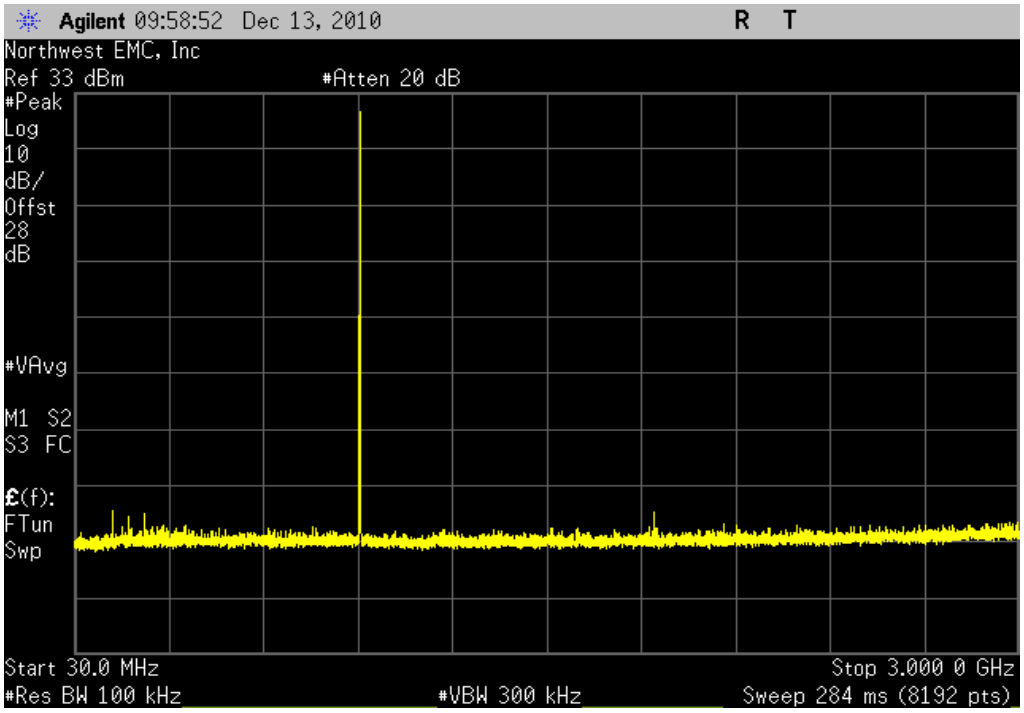
ISO 6BG2 OOK, Mid Channel, 0 - 3 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



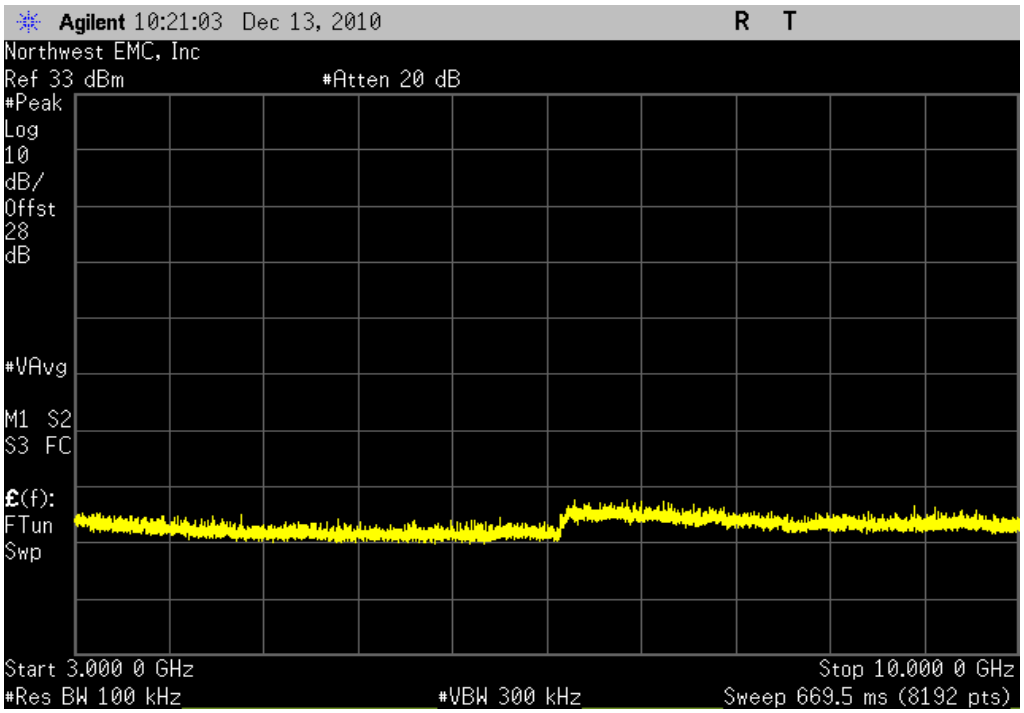
ISO 6BG2 OOK, Mid Channel, 3 GHz - 10 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



ISO 6BG2 OOK, High Channel, 0 - 3 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



ISO 6BG2 OOK, High Channel, 3 GHz - 10 GHz					
Result:	Pass	**Value:**	< -50 dBc	**Limit:**	≤ -20 dBc



SPURIOUS RADIATED EMISSIONS

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

MODES OF OPERATION
Continuous Tx Gen2 Reader mode (PRASK).
Continuous Tx ISO6BG2 Reader mode (OOK)

CONFIGURATIONS
ITRM0211 - 1
ITRM0211 - 2
ITRM0211 - 3
ITRM0211 - 4
ITRM0211 - 5
ITRM0211 - 6
ITRM0211 - 7
ITRM0211 - 8
ITRM0211 - 9

POWER SETTINGS INVESTIGATED
12 VDC

FREQUENCY RANGE INVESTIGATED			
Start Frequency	30 MHz	Stop Frequency	10 GHz

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4440A	AAX	5/14/2010	12
Spectrum Analyzer	Agilent	E4446A	AAQ	1/6/2010	12
Antenna, Biconilog	EMCO	3141	AXG	2/15/2010	13
EV12 Cables	N/A	Bilog Cables	EVS	7/14/2010	13
Pre-Amplifier	Miteq	AM-1616-1000	AVM	7/14/2010	13
Antenna, Horn	ETS	3115	AIB	9/8/2010	24
EV12 Cables	N/A	Double Ridge Horn Cables	EVT	11/22/2010	13
Pre-Amplifier	Miteq	AMF-3D00100800-32-13P	AVF	7/14/2010	13
Attenuator	Pasternack	PE7005-20	AUN	7/14/2010	13
High Pass Filter	Micro-Tronics	50108	HGF	1/18/2010	13
High Pass Filter	Micro-Tronics	50111	HGE	7/14/2010	13
.5-1 GHz Notch Filter	K&L Microwave	3TNF-500/1000-N/N	HFT	1/8/2010	13
Spectrum Analyzer	Agilent	E4446A	AAQ	1/6/2010	12
Pre-Amplifier	Miteq	AM-1616-1000	AOL	7/9/2010	13
Antenna, Biconilog	EMCO	3141	AXE	1/14/2010	13
EV01 Cables	N/A	Bilog Cables	EVA	7/9/2010	13
High Pass Filter 1.2 - 18 GHz	Micro-Tronics	HPM50108	HFV	7/9/2010	13
High Pass Filter	Micro-Tronics	HPM50111	HFO	7/9/2010	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	7/9/2010	13
Antenna, Horn	EMCO	3115	AHC	7/8/2010	24
EV01 Cables	N/A	Double Ridge Horn Cables	EVB	7/9/2010	13

MEASUREMENT BANDWIDTHS

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

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

MEASUREMENT UNCERTAINTY

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

TEST DESCRIPTION

The highest gain 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 C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/08/10
Customer:	Intermec Technologies Corporation	Temperature:	22.7 °C
Attendees:	none	Humidity:	38%
Project:	None	Barometric Pres.:	1013.7 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Huber Suhner antenna.

EUT OPERATING MODES

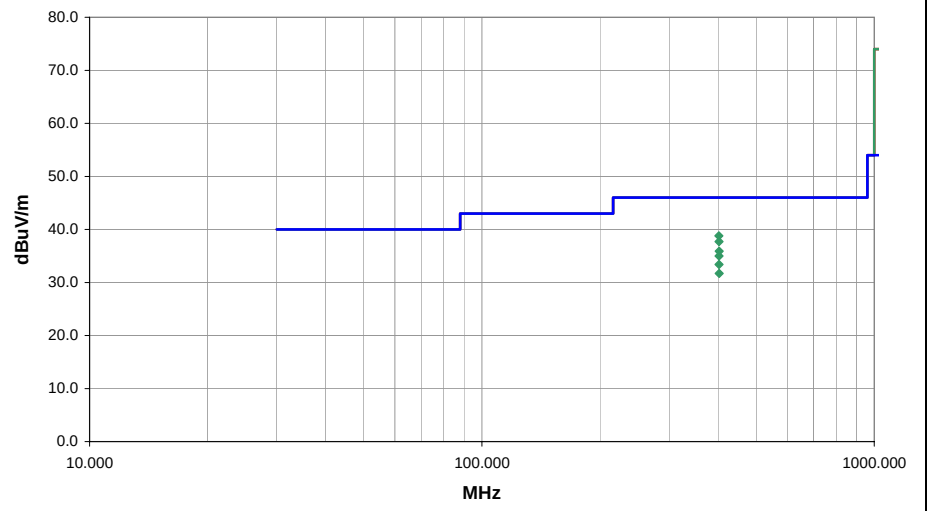
Continuous Tx ISO6BG2 Reader mode (OOK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	2
Results	Pass

Signature



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
401.764	34.5	4.3	319.0	1.0	3.0	0.0	H-Bilog	QP	0.0	38.8	46.0	-7.2	Board on side, antenna vertical. High channel.
402.201	33.4	4.3	297.0	1.0	3.0	0.0	H-Bilog	QP	0.0	37.7	46.0	-8.3	Board on side, antenna vertical. Mid channel.
402.463	31.6	4.3	104.0	1.0	3.0	0.0	H-Bilog	QP	0.0	35.9	46.0	-10.1	Board on side, antenna vertical. Low channel.
402.230	30.7	4.3	188.0	2.6	3.0	0.0	V-Bilog	QP	0.0	35.0	46.0	-11.0	Board on side, antenna vertical. High channel.
402.158	29.1	4.3	176.0	2.6	3.0	0.0	V-Bilog	QP	0.0	33.4	46.0	-12.6	Board on side, antenna vertical. Mid channel.
402.536	27.5	4.2	164.0	2.6	3.0	0.0	V-Bilog	QP	0.0	31.7	46.0	-14.3	Board on side, antenna vertical. Low channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/08/10
Customer:	Intermec Technologies Corporation	Temperature:	22.7 °C
Attendees:	none	Humidity:	38%
Project:	None	Barometric Pres.:	1013.7 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Huber Suhner antenna.

EUT OPERATING MODES

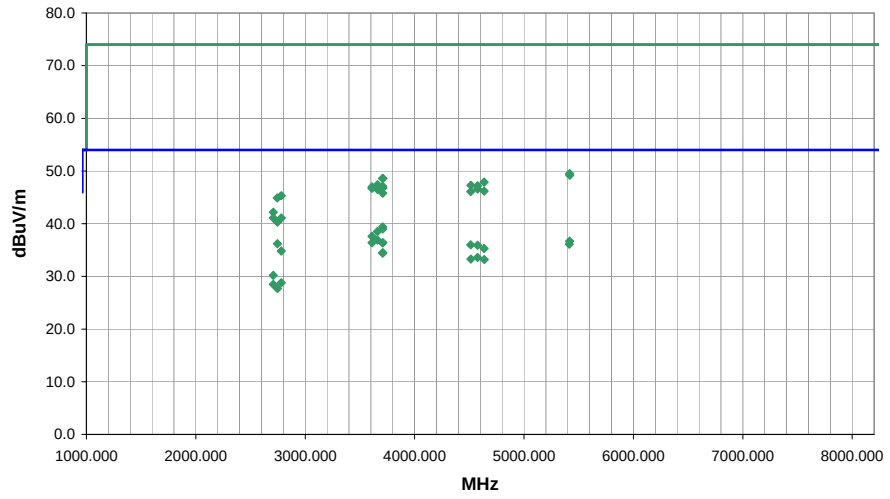
Continuous Tx ISO6BG2 Reader mode (OOK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	2
Configuration #	2
Results	Pass

Signature



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
3709.070	33.5	5.9	248.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.4	54.0	-14.6	Board on side, antenna vertical. High channel.
3709.105	33.1	5.9	169.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.0	54.0	-15.0	Board on side, antenna vertical. High channel.
3661.020	32.8	5.7	240.0	1.0	3.0	0.0	V-Horn	AV	0.0	38.5	54.0	-15.5	Board on side, antenna vertical. Mid channel.
3611.075	32.1	5.5	220.0	1.0	3.0	0.0	V-Horn	AV	0.0	37.6	54.0	-16.4	Board on side, antenna vertical. Low channel.
3661.040	31.2	5.7	180.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.9	54.0	-17.1	Board on side, antenna vertical. Mid channel.
5416.330	25.1	11.6	109.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.7	54.0	-17.3	Board on side, antenna vertical. Low channel.
3709.025	30.5	5.9	184.0	1.3	3.0	0.0	H-Horn	AV	0.0	36.4	54.0	-17.6	Board verrtical, antenna face up. High channel.
3709.060	30.5	5.9	231.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.4	54.0	-17.6	Board face up, antenna horizontal. High channel.
3611.140	30.9	5.5	164.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.4	54.0	-17.6	Board on side, antenna vertical. Low channel.
2745.660	35.1	1.1	5.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.2	54.0	-17.8	Board on side, antenna vertical. Mid channel.
5414.540	24.5	11.6	121.0	3.6	3.0	0.0	H-Horn	AV	0.0	36.1	54.0	-17.9	Board on side, antenna vertical. Low channel.
4513.710	28.1	7.9	58.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.0	54.0	-18.0	Board on side, antenna vertical. Low channel.
4576.125	27.7	8.2	247.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.9	54.0	-18.1	Board on side, antenna vertical. Mid channel.
4636.190	26.9	8.4	280.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.3	54.0	-18.7	Board on side, antenna vertical. High channel.
2781.785	33.5	1.3	360.0	1.2	3.0	0.0	V-Horn	AV	0.0	34.8	54.0	-19.2	Board on side, antenna vertical. High channel.
3708.965	28.6	5.9	111.0	1.4	3.0	0.0	V-Horn	AV	0.0	34.5	54.0	-19.5	Board verrtical, antenna face up. High channel.
3709.020	28.5	5.9	151.0	1.4	3.0	0.0	V-Horn	AV	0.0	34.4	54.0	-19.6	Board face up, antenna horizontal. High channel.
4576.265	25.4	8.2	18.0	1.9	3.0	0.0	H-Horn	AV	0.0	33.6	54.0	-20.4	Board on side, antenna vertical. Mid channel.
4513.825	25.4	7.9	253.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.3	54.0	-20.7	Board on side, antenna vertical. Low channel.
4636.580	24.8	8.4	266.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.2	54.0	-20.8	Board on side, antenna vertical. High channel.
2708.315	29.3	0.9	357.0	1.0	3.0	0.0	V-Horn	AV	0.0	30.2	54.0	-23.8	Board on side, antenna vertical. Low channel.
5417.240	38.0	11.5	109.0	1.0	3.0	0.0	V-Horn	PK	0.0	49.5	74.0	-24.5	Board on side, antenna vertical. Low channel.
5417.660	37.7	11.5	121.0	3.6	3.0	0.0	H-Horn	PK	0.0	49.2	74.0	-24.8	Board on side, antenna vertical. Low channel.
2781.640	27.5	1.3	0.0	2.0	3.0	0.0	H-Horn	AV	0.0	28.8	54.0	-25.2	Board on side, antenna vertical. High channel.
3709.020	42.7	5.9	248.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.6	74.0	-25.4	Board on side, antenna vertical. High channel.
3709.080	42.7	5.9	169.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.6	74.0	-25.4	Board on side, antenna vertical. High channel.
2708.158	27.7	0.8	325.0	2.3	3.0	0.0	H-Horn	AV	0.0	28.5	54.0	-25.5	Board on side, antenna vertical. Low channel.
4636.175	39.5	8.4	280.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.9	74.0	-26.1	Board on side, antenna vertical. High channel.
2745.545	26.6	1.1	269.0	1.0	3.0	0.0	H-Horn	AV	0.0	27.7	54.0	-26.3	Board on side, antenna vertical. Mid channel.
3661.280	41.7	5.7	240.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.4	74.0	-26.6	Board on side, antenna vertical. Mid channel.
4513.800	39.4	7.9	58.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.3	74.0	-26.7	Board on side, antenna vertical. Low channel.
4576.285	39.0	8.2	247.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.2	74.0	-26.8	Board on side, antenna vertical. Mid channel.
3709.025	41.2	5.9	231.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.1	74.0	-26.9	Board face up, antenna horizontal. High channel.
3611.095	41.5	5.5	220.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.0	74.0	-27.0	Board on side, antenna vertical. Low channel.
3709.015	40.9	5.9	184.0	1.3	3.0	0.0	H-Horn	PK	0.0	46.8	74.0	-27.2	Board verrtical, antenna face up. High channel.
3709.035	40.9	5.9	111.0	1.4	3.0	0.0	V-Horn	PK	0.0	46.8	74.0	-27.2	Board verrtical, antenna face up. High channel.
3611.050	41.2	5.5	164.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.7	74.0	-27.3	Board on side, antenna vertical. Low channel.
4576.120	38.4	8.2	18.0	1.9	3.0	0.0	H-Horn	PK	0.0	46.6	74.0	-27.4	Board on side, antenna vertical. Mid channel.
3661.305	40.8	5.7	180.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.5	74.0	-27.5	Board on side, antenna vertical. Mid channel.
4636.300	37.8	8.4	266.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.2	74.0	-27.8	Board on side, antenna vertical. High channel.
4513.500	38.2	7.9	253.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.1	74.0	-27.9	Board on side, antenna vertical. Low channel.
3709.120	39.9	5.9	151.0	1.4	3.0	0.0	V-Horn	PK	0.0	45.8	74.0	-28.2	Board face up, antenna horizontal. High channel.
2781.750	44.0	1.3	360.0	1.2	3.0	0.0	V-Horn	PK	0.0	45.3	74.0	-28.7	Board on side, antenna vertical. High channel.
2745.395	43.8	1.1	5.0	1.0	3.0	0.0	V-Horn	PK	0.0	44.9	74.0	-29.1	Board on side, antenna vertical. Mid channel.
2708.475	41.4	0.8	357.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.2	74.0	-31.8	Board on side, antenna vertical. Low channel.
2708.313	40.3	0.8	325.0	2.3	3.0	0.0	H-Horn	PK	0.0	41.1	74.0	-32.9	Board on side, antenna vertical. Low channel.
2781.615	39.8	1.3	0.0	2.0	3.0	0.0	H-Horn	PK	0.0	41.1	74.0	-32.9	Board on side, antenna vertical. High channel.
2746.755	39.2	1.1	269.0	1.0	3.0	0.0	H-Horn	PK	0.0	40.3	74.0	-33.7	Board on side, antenna vertical. Mid channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/08/10
Customer:	Intermec Technologies Corporation	Temperature:	20.7 °C
Attendees:	none	Humidity:	42%
Project:	None	Barometric Pres.:	1014.0 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Huber Suhner antenna.

EUT OPERATING MODES

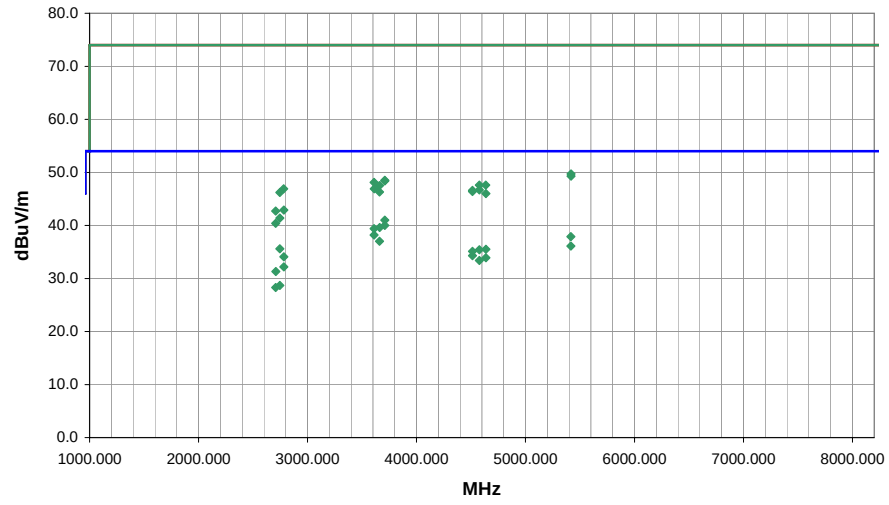
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	3
Configuration #	2
Results	Pass

Signature



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
3709.065	35.1	5.9	164.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.0	54.0	-13.0	Board on side, antenna vertical. High channel.
3709.105	34.1	5.9	243.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.0	54.0	-14.0	Board on side, antenna vertical. High channel.
3661.150	33.9	5.7	242.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.6	54.0	-14.4	Board on side, antenna vertical. Mid channel.
3611.075	33.9	5.5	242.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.4	54.0	-14.6	Board on side, antenna vertical. Low channel.
3611.075	32.7	5.5	171.0	1.0	3.0	0.0	H-Horn	AV	0.0	38.2	54.0	-15.8	Board on side, antenna vertical. Low channel.
5416.440	26.3	11.6	260.0	1.0	3.0	0.0	V-Horn	AV	0.0	37.9	54.0	-16.1	Board on side, antenna vertical. Low channel.
3661.015	31.3	5.7	179.0	1.0	3.0	0.0	H-Horn	AV	0.0	37.0	54.0	-17.0	Board on side, antenna vertical. Mid channel.
5416.280	24.5	11.6	156.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.1	54.0	-17.9	Board on side, antenna vertical. Low channel.
2745.700	34.5	1.1	360.0	1.3	3.0	0.0	V-Horn	AV	0.0	35.6	54.0	-18.4	Board on side, antenna vertical. Mid channel.
4636.340	27.1	8.4	285.0	1.4	3.0	0.0	V-Horn	AV	0.0	35.5	54.0	-18.5	Board on side, antenna vertical. High channel.
4576.340	27.2	8.2	241.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.4	54.0	-18.6	Board on side, antenna vertical. Mid channel.
4513.830	27.2	7.9	254.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.1	54.0	-18.9	Board on side, antenna vertical. Low channel.
4513.715	26.4	7.9	173.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.3	54.0	-19.7	Board on side, antenna vertical. Low channel.
2781.855	32.8	1.3	10.0	1.0	3.0	0.0	V-Horn	AV	0.0	34.1	54.0	-19.9	Board on side, antenna vertical. High channel.
4636.275	25.5	8.4	197.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.9	54.0	-20.1	Board on side, antenna vertical. High channel.
4576.150	25.2	8.2	236.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.4	54.0	-20.6	Board on side, antenna vertical. Mid channel.
2781.765	30.9	1.3	353.0	2.1	3.0	0.0	H-Horn	AV	0.0	32.2	54.0	-21.8	Board on side, antenna vertical. High channel.
2708.245	30.5	0.8	360.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.3	54.0	-22.7	Board on side, antenna vertical. Low channel.
5418.000	38.2	11.5	260.0	1.0	3.0	0.0	V-Horn	PK	0.0	49.7	74.0	-24.3	Board on side, antenna vertical. Low channel.
5417.215	37.8	11.5	156.0	1.0	3.0	0.0	H-Horn	PK	0.0	49.3	74.0	-24.7	Board on side, antenna vertical. Low channel.
2745.815	27.6	1.1	247.0	1.6	3.0	0.0	H-Horn	AV	0.0	28.7	54.0	-25.3	Board on side, antenna vertical. Mid channel.
3708.880	42.6	5.9	243.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.5	74.0	-25.5	Board on side, antenna vertical. High channel.
3709.165	42.5	5.9	164.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.4	74.0	-25.6	Board on side, antenna vertical. High channel.
2708.130	27.5	0.8	0.0	2.2	3.0	0.0	H-Horn	AV	0.0	28.3	54.0	-25.7	Board on side, antenna vertical. Low channel.
3611.010	42.6	5.5	242.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.1	74.0	-25.9	Board on side, antenna vertical. Low channel.
4576.075	39.4	8.2	241.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.6	74.0	-26.4	Board on side, antenna vertical. Mid channel.
4635.925	39.2	8.4	285.0	1.4	3.0	0.0	V-Horn	PK	0.0	47.6	74.0	-26.4	Board on side, antenna vertical. High channel.
3660.735	41.8	5.7	242.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.5	74.0	-26.5	Board on side, antenna vertical. Mid channel.
3611.190	41.4	5.5	171.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.9	74.0	-27.1	Board on side, antenna vertical. Low channel.
2781.055	45.6	1.3	10.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.9	74.0	-27.1	Board on side, antenna vertical. High channel.
4575.860	38.5	8.2	236.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.7	74.0	-27.3	Board on side, antenna vertical. Mid channel.
4514.110	38.7	7.9	254.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.6	74.0	-27.4	Board on side, antenna vertical. Low channel.
4513.895	38.5	7.9	173.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.4	74.0	-27.6	Board on side, antenna vertical. Low channel.
3661.075	40.6	5.7	179.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.3	74.0	-27.7	Board on side, antenna vertical. Mid channel.
2745.760	45.1	1.1	360.0	1.3	3.0	0.0	V-Horn	PK	0.0	46.2	74.0	-27.8	Board on side, antenna vertical. Mid channel.
4636.055	37.6	8.4	197.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.0	74.0	-28.0	Board on side, antenna vertical. High channel.
2781.670	41.6	1.3	353.0	2.1	3.0	0.0	H-Horn	PK	0.0	42.9	74.0	-31.1	Board on side, antenna vertical. High channel.
2708.095	41.9	0.8	360.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.7	74.0	-31.3	Board on side, antenna vertical. Low channel.
2745.590	40.3	1.1	247.0	1.6	3.0	0.0	H-Horn	PK	0.0	41.4	74.0	-32.6	Board on side, antenna vertical. Mid channel.
2707.755	39.6	0.8	0.0	2.2	3.0	0.0	H-Horn	PK	0.0	40.4	74.0	-33.6	Board on side, antenna vertical. Low channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/08/10
Customer:	Intermec Technologies Corporation	Temperature:	20.3 °C
Attendees:	none	Humidity:	43%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Huber Suhner antenna.

EUT OPERATING MODES

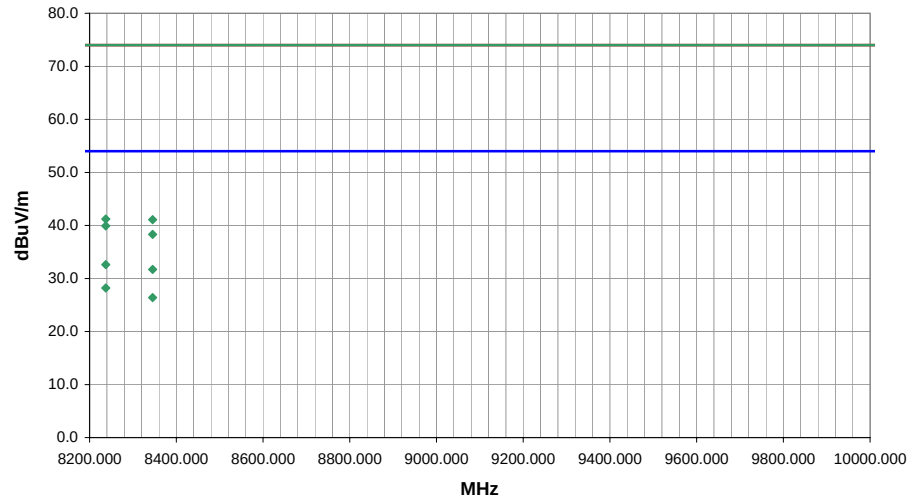
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	4
Configuration #	2
Results	Pass

Signature



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
8237.290	43.8	-11.2	278.0	1.0	3.0	0.0	V-Horn	AV	0.0	32.6	54.0	-21.4	Board on side, antenna vertical. Mid channel.
8345.315	42.7	-11.0	308.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.7	54.0	-22.3	Board on side, antenna vertical. High channel.
8237.305	39.4	-11.2	223.0	1.0	3.0	0.0	H-Horn	AV	0.0	28.2	54.0	-25.8	Board on side, antenna vertical. Mid channel.
8345.305	37.4	-11.0	209.0	1.0	3.0	0.0	H-Horn	AV	0.0	26.4	54.0	-27.6	Board on side, antenna vertical. High channel.
8237.140	52.4	-11.2	278.0	1.0	3.0	0.0	V-Horn	PK	0.0	41.2	74.0	-32.8	Board on side, antenna vertical. Mid channel.
8345.295	52.1	-11.0	308.0	1.0	3.0	0.0	V-Horn	PK	0.0	41.1	74.0	-32.9	Board on side, antenna vertical. High channel.
8237.410	51.1	-11.2	223.0	1.0	3.0	0.0	H-Horn	PK	0.0	39.9	74.0	-34.1	Board on side, antenna vertical. Mid channel.
8345.380	49.3	-11.0	209.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.3	74.0	-35.7	Board on side, antenna vertical. High channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/08/10
Customer:	Intermec Technologies Corporation	Temperature:	20.3 °C
Attendees:	none	Humidity:	43%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Huber Suhner antenna.

EUT OPERATING MODES

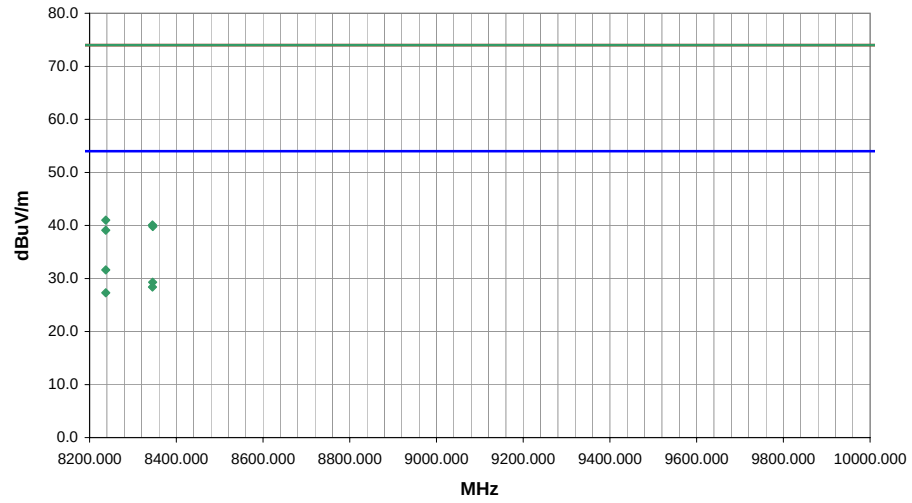
Continuous Tx ISO6BG2 Reader mode (OOK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	5
Configuration #	2
Results	Pass

Signature



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
8237.300	42.8	-11.2	289.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.6	54.0	-22.4	Board on side, antenna vertical. Mid channel.
8345.245	40.3	-11.0	298.0	1.0	3.0	0.0	V-Horn	AV	0.0	29.3	54.0	-24.7	Board on side, antenna vertical. High channel.
8345.200	39.4	-11.0	130.0	1.0	3.0	0.0	H-Horn	AV	0.0	28.4	54.0	-25.6	Board on side, antenna vertical. High channel.
8237.295	38.5	-11.2	199.0	1.0	3.0	0.0	H-Horn	AV	0.0	27.3	54.0	-26.7	Board on side, antenna vertical. Mid channel.
8237.300	52.2	-11.2	289.0	1.0	3.0	0.0	V-Horn	PK	0.0	41.0	74.0	-33.0	Board on side, antenna vertical. Mid channel.
8345.120	51.1	-11.0	130.0	1.0	3.0	0.0	H-Horn	PK	0.0	40.1	74.0	-33.9	Board on side, antenna vertical. High channel.
8345.675	50.8	-11.0	298.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.8	74.0	-34.2	Board on side, antenna vertical. High channel.
8237.300	50.3	-11.2	199.0	1.0	3.0	0.0	H-Horn	PK	0.0	39.1	74.0	-34.9	Board on side, antenna vertical. Mid channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/09/10
Customer:	Intermec Technologies Corporation	Temperature:	23.1 °C
Attendees:	none	Humidity:	40%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Kathrein 52010087 antenna.

EUT OPERATING MODES

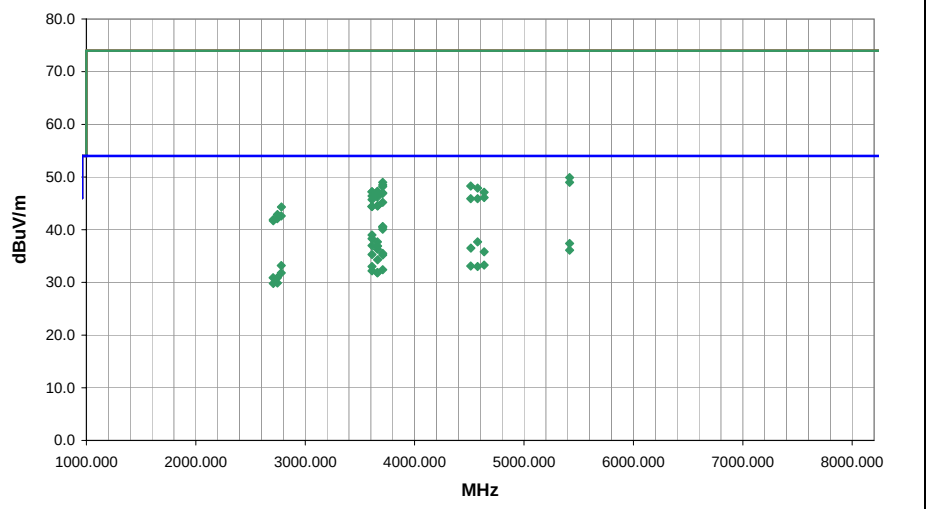
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	6
Configuration #	3
Results	Pass

Signature



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
3709.065	34.7	5.9	168.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.6	54.0	-13.4	Board on side, antenna vertical. High channel.
3709.085	34.6	5.9	170.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.5	54.0	-13.5	Board horizontal, antenna face up. High channel.
3709.095	34.2	5.9	294.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.1	54.0	-13.9	Board vertical, antenna horizontal. High channel.
3610.970	33.5	5.5	197.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.0	54.0	-15.0	Board on side, antenna vertical. Low channel.
3611.040	32.8	5.5	333.0	1.7	3.0	0.0	H-Horn	AV	0.0	38.3	54.0	-15.7	Board horizontal, antenna face up. Low channel.
3661.005	32.0	5.7	181.0	1.0	3.0	0.0	V-Horn	AV	0.0	37.7	54.0	-16.3	Board horizontal, antenna face up. Mid channel.
4576.280	29.5	8.2	249.0	1.0	3.0	0.0	V-Horn	AV	0.0	37.7	54.0	-16.3	Board on side, antenna vertical. Mid channel.
5416.490	25.9	11.5	98.0	1.0	3.0	0.0	V-Horn	AV	0.0	37.4	54.0	-16.6	Board on side, antenna vertical. Low channel.
3610.950	31.5	5.5	219.0	1.0	3.0	0.0	V-Horn	AV	0.0	37.0	54.0	-17.0	Board on side, antenna vertical. Low channel.
3661.115	31.2	5.7	166.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.9	54.0	-17.1	Board on side, antenna vertical. Mid channel.
4513.765	28.6	7.9	256.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.5	54.0	-17.5	Board on side, antenna vertical. Low channel.
3661.030	30.6	5.7	243.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.3	54.0	-17.7	Board on side, antenna vertical. Mid channel.
5416.190	24.5	11.6	249.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.1	54.0	-17.9	Board on side, antenna vertical. Low channel.
4636.230	27.4	8.4	235.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.8	54.0	-18.2	Board on side, antenna vertical. High channel.
3708.960	29.6	5.9	200.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.5	54.0	-18.5	Board horizontal, antenna face up. High channel.
3610.925	29.8	5.5	203.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.3	54.0	-18.7	Board horizontal, antenna face up. Low channel.
3709.090	29.3	5.9	114.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.2	54.0	-18.8	Board vertical, antenna horizontal. High channel.
3661.120	28.6	5.7	315.0	1.7	3.0	0.0	H-Horn	AV	0.0	34.3	54.0	-19.7	Board horizontal, antenna face up. Mid channel.
4636.405	24.9	8.4	268.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.3	54.0	-20.7	Board on side, antenna vertical. High channel.
2781.705	31.9	1.3	60.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.2	54.0	-20.8	Board on side, antenna vertical. High channel.
4513.705	25.2	7.9	11.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.1	54.0	-20.9	Board on side, antenna vertical. Low channel.
3611.045	27.5	5.5	104.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.0	54.0	-21.0	Board vertical, antenna horizontal. Low channel.
4576.050	24.8	8.2	16.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.0	54.0	-21.0	Board on side, antenna vertical. Mid channel.
3708.995	26.5	5.9	188.0	1.2	3.0	0.0	V-Horn	AV	0.0	32.4	54.0	-21.6	Board on side, antenna vertical. High channel.
3610.900	26.7	5.5	259.0	1.8	3.0	0.0	H-Horn	AV	0.0	32.2	54.0	-21.8	Board vertical, antenna horizontal. Low channel.
3661.020	26.2	5.7	112.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.9	54.0	-22.1	Board vertical, antenna horizontal. Mid channel.
3661.020	26.1	5.7	259.0	1.8	3.0	0.0	H-Horn	AV	0.0	31.8	54.0	-22.2	Board vertical, antenna horizontal. Mid channel.
2781.825	30.5	1.3	50.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.8	54.0	-22.2	Board on side, antenna vertical. High channel.
2706.445	30.0	0.9	66.0	1.0	3.0	0.0	V-Horn	AV	0.0	30.9	54.0	-23.1	Board on side, antenna vertical. Low channel.
2745.670	29.8	1.1	360.0	1.3	3.0	0.0	V-Horn	AV	0.0	30.9	54.0	-23.1	Board on side, antenna vertical. Mid channel.
5416.450	38.4	11.5	98.0	1.0	3.0	0.0	V-Horn	PK	0.0	49.9	74.0	-24.1	Board on side, antenna vertical. Low channel.
2745.710	28.8	1.1	57.0	1.0	3.0	0.0	H-Horn	AV	0.0	29.9	54.0	-24.1	Board on side, antenna vertical. Mid channel.
2708.265	28.9	0.9	43.0	1.0	3.0	0.0	H-Horn	AV	0.0	29.8	54.0	-24.2	Board on side, antenna vertical. Low channel.
3708.970	43.1	5.9	170.0	1.0	3.0	0.0	V-Horn	PK	0.0	49.0	74.0	-25.0	Board horizontal, antenna face up. High channel.
5417.410	37.5	11.5	249.0	1.0	3.0	0.0	H-Horn	PK	0.0	49.0	74.0	-25.0	Board on side, antenna vertical. Low channel.
3708.870	42.6	5.9	168.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.5	74.0	-25.5	Board on side, antenna vertical. High channel.
4513.685	40.4	7.9	256.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.3	74.0	-25.7	Board on side, antenna vertical. Low channel.
3708.985	42.3	5.9	294.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.2	74.0	-25.8	Board vertical, antenna horizontal. High channel.
4576.480	39.7	8.2	249.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.9	74.0	-26.1	Board on side, antenna vertical. Mid channel.
3661.010	41.6	5.7	181.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.3	74.0	-26.7	Board horizontal, antenna face up. Mid channel.
3660.930	41.5	5.7	166.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.2	74.0	-26.8	Board on side, antenna vertical. Mid channel.
3610.905	41.7	5.5	333.0	1.7	3.0	0.0	H-Horn	PK	0.0	47.2	74.0	-26.8	Board horizontal, antenna face up. Low channel.
3611.035	41.7	5.5	197.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.2	74.0	-26.8	Board on side, antenna vertical. Low channel.
4636.080	38.7	8.4	235.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.1	74.0	-26.9	Board on side, antenna vertical. High channel.
3708.750	41.1	5.9	200.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.0	74.0	-27.0	Board horizontal, antenna face up. High channel.
3661.225	41.2	5.7	243.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.9	74.0	-27.1	Board on side, antenna vertical. Mid channel.
3708.950	41.0	5.9	114.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.9	74.0	-27.1	Board vertical, antenna horizontal. High channel.
3611.270	40.9	5.5	219.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.4	74.0	-27.6	Board on side, antenna vertical. Low channel.
3660.950	40.5	5.7	315.0	1.7	3.0	0.0	H-Horn	PK	0.0	46.2	74.0	-27.8	Board horizontal, antenna face up. Mid channel.
4636.355	37.7	8.4	268.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.1	74.0	-27.9	Board on side, antenna vertical. High channel.
4513.490	38.0	7.9	11.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.9	74.0	-28.1	Board on side, antenna vertical. Low channel.
4575.550	37.7	8.2	16.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.9	74.0	-28.1	Board on side, antenna vertical. Mid channel.

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
3610.835	40.2	5.5	203.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.7	74.0	-28.3	Board horizontal, antenna face up. Low channel.
3708.955	39.3	5.9	188.0	1.2	3.0	0.0	V-Horn	PK	0.0	45.2	74.0	-28.8	Board on side, antenna vertical. High channel.
3661.100	38.9	5.7	112.0	1.0	3.0	0.0	V-Horn	PK	0.0	44.6	74.0	-29.4	Board vertical, antenna horizontal. Mid channel.
3661.350	38.8	5.7	259.0	1.8	3.0	0.0	H-Horn	PK	0.0	44.5	74.0	-29.5	Board vertical, antenna horizontal. Mid channel.
3609.745	38.9	5.5	259.0	1.8	3.0	0.0	H-Horn	PK	0.0	44.4	74.0	-29.6	Board vertical, antenna horizontal. Low channel.
3610.705	38.9	5.5	104.0	1.0	3.0	0.0	V-Horn	PK	0.0	44.4	74.0	-29.6	Board vertical, antenna horizontal. Low channel.
2782.515	43.0	1.3	60.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.3	74.0	-29.7	Board on side, antenna vertical. High channel.
2745.670	41.8	1.1	57.0	1.0	3.0	0.0	H-Horn	PK	0.0	42.9	74.0	-31.1	Board on side, antenna vertical. Mid channel.
2781.915	41.3	1.3	50.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.6	74.0	-31.4	Board on side, antenna vertical. High channel.
2745.520	41.0	1.1	360.0	1.3	3.0	0.0	V-Horn	PK	0.0	42.1	74.0	-31.9	Board on side, antenna vertical. Mid channel.
2708.575	41.1	0.8	66.0	1.0	3.0	0.0	V-Horn	PK	0.0	41.9	74.0	-32.1	Board on side, antenna vertical. Low channel.
2708.385	40.9	0.8	43.0	1.0	3.0	0.0	H-Horn	PK	0.0	41.7	74.0	-32.3	Board on side, antenna vertical. Low channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/09/10
Customer:	Intermec Technologies Corporation	Temperature:	23.1 °C
Attendees:	none	Humidity:	40%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Kathrein 52010087 antenna.

EUT OPERATING MODES

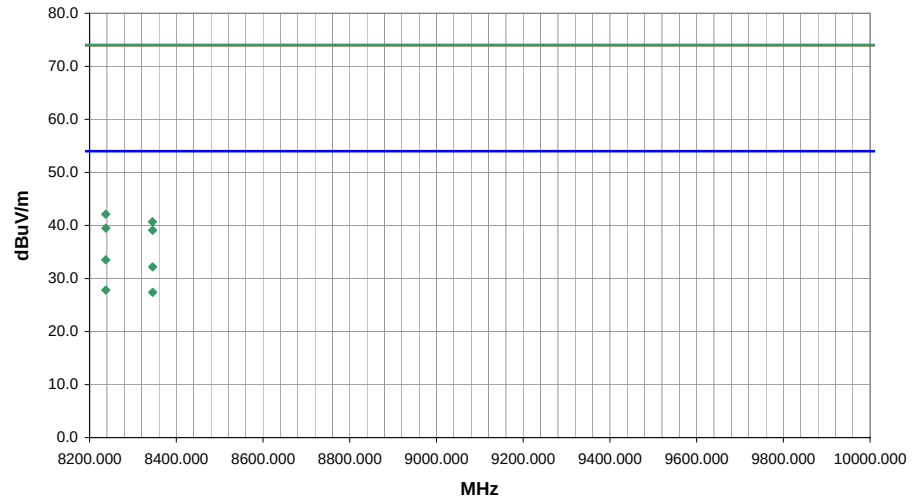
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	7
Configuration #	3
Results	Pass

Signature



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
8237.280	44.7	-11.2	244.0	1.0	0.0	0.0	V-Horn	AV	0.0	33.5	54.0	-20.5	Board on side, antenna vertical. Mid channel.
8345.320	43.2	-11.0	262.0	1.0	0.0	0.0	V-Horn	AV	0.0	32.2	54.0	-21.8	Board on side, antenna vertical. High channel.
8237.255	39.0	-11.2	262.0	1.0	0.0	0.0	H-Horn	AV	0.0	27.8	54.0	-26.2	Board on side, antenna vertical. Mid channel.
8345.290	38.4	-11.0	141.0	1.0	0.0	0.0	H-Horn	AV	0.0	27.4	54.0	-26.6	Board on side, antenna vertical. High channel.
8237.315	53.3	-11.2	244.0	1.0	0.0	0.0	V-Horn	PK	0.0	42.1	74.0	-31.9	Board on side, antenna vertical. Mid channel.
8345.090	51.7	-11.0	262.0	1.0	0.0	0.0	V-Horn	PK	0.0	40.7	74.0	-33.3	Board on side, antenna vertical. High channel.
8237.785	50.7	-11.2	262.0	1.0	0.0	0.0	H-Horn	PK	0.0	39.5	74.0	-34.5	Board on side, antenna vertical. Mid channel.
8345.210	50.1	-11.0	141.0	1.0	0.0	0.0	H-Horn	PK	0.0	39.1	74.0	-34.9	Board on side, antenna vertical. High channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10			Work Order:	ITRM0211
Serial Number:	309U1090209			Date:	12/09/10
Customer:	Intermec Technologies Corporation			Temperature:	23.1 °C
Attendees:	none			Humidity:	40%
Project:	None			Barometric Pres.:	1014.2 mb
Tested by:	Dan Haas	Power:	12 VDC	Job Site:	EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Kathrein 52010087 antenna. Board on side, antenna vertical.

EUT OPERATING MODES

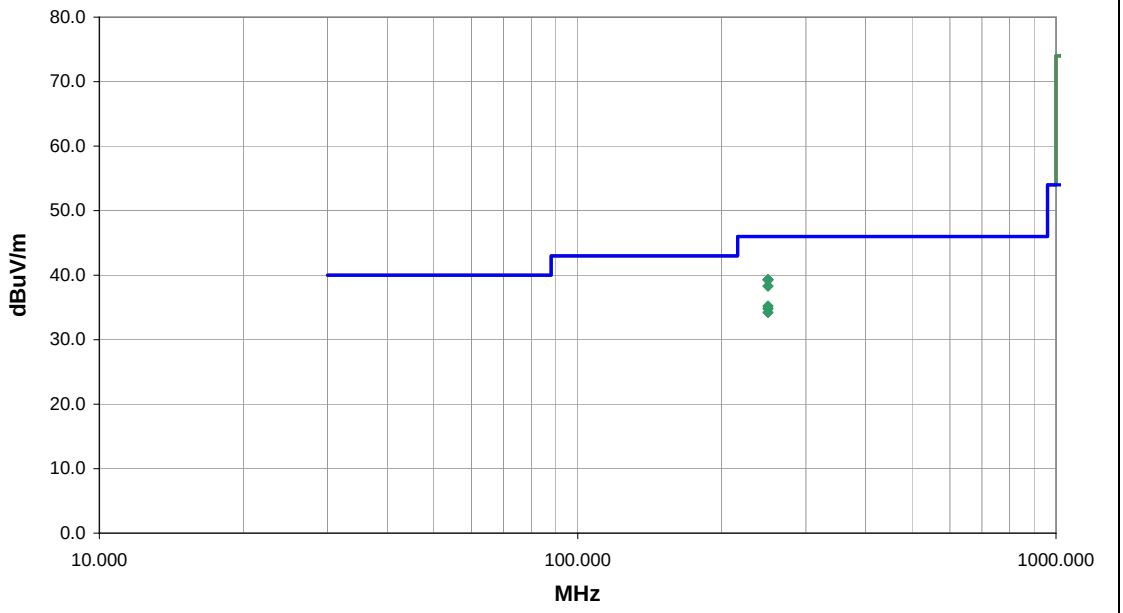
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	8
Configuration #	3
Results	Pass

Signature



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
250.003	40.0	-0.7	16.0	2.1	3.0	0.0	V-Bilog	QP	0.0	39.3	46.0	-6.7	Mid channel.
250.005	40.0	-0.7	360.0	1.5	3.0	0.0	V-Bilog	QP	0.0	39.3	46.0	-6.7	High channel.
250.006	39.0	-0.7	12.0	2.1	3.0	0.0	V-Bilog	QP	0.0	38.3	46.0	-7.7	Low channel.
250.002	35.9	-0.7	302.0	1.4	3.0	0.0	H-Bilog	QP	0.0	35.2	46.0	-10.8	Mid channel.
250.010	35.5	-0.7	48.0	1.0	3.0	0.0	H-Bilog	QP	0.0	34.8	46.0	-11.2	High channel.
250.007	34.9	-0.7	298.0	1.4	3.0	0.0	H-Bilog	QP	0.0	34.2	46.0	-11.8	Low channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/09/10
Customer:	Intermec Technologies Corporation	Temperature:	23.1 °C
Attendees:	none	Humidity:	40%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

NeWave 7ft. Dipole antenna.

EUT OPERATING MODES

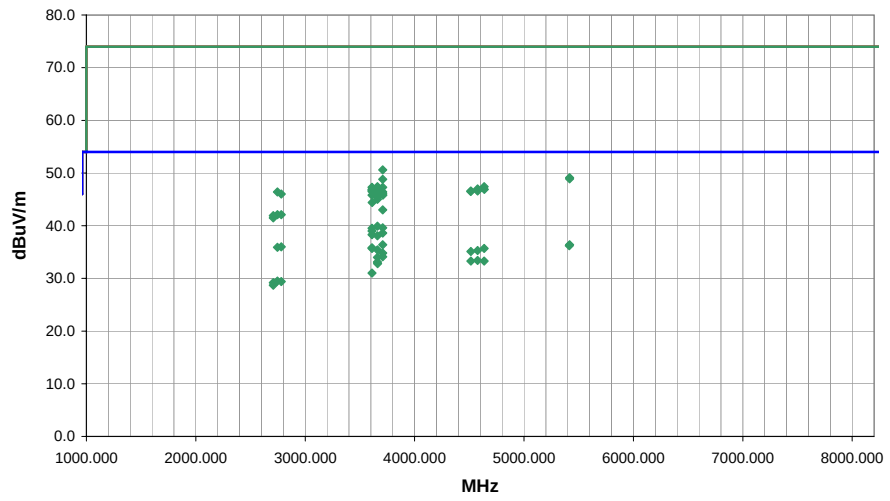
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	9
Configuration #	4
Results	Pass

Signature



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
3709.110	37.1	5.9	179.0	1.0	3.0	0.0	V-Horn	AV	0.0	43.0	54.0	-11.0	Board horizontal, antenna face up. High channel.
3660.985	34.2	5.7	180.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.9	54.0	-14.1	Board horizontal, antenna face up. Mid channel.
3709.140	33.7	5.9	242.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.6	54.0	-14.4	Board on side, antenna vertical. High channel.
3611.050	34.0	5.5	175.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.5	54.0	-14.5	Board horizontal, antenna face up. Low channel.
3610.950	33.5	5.5	132.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.0	54.0	-15.0	Board vertical, antenna horizontal. Low channel.
3709.120	32.7	5.9	172.0	1.0	3.0	0.0	H-Horn	AV	0.0	38.6	54.0	-15.4	Board on side, antenna vertical. High channel.
3611.075	32.8	5.5	176.0	1.0	3.0	0.0	H-Horn	AV	0.0	38.3	54.0	-15.7	Board on side, antenna vertical. Low channel.
3661.045	32.4	5.7	168.0	1.0	3.0	0.0	H-Horn	AV	0.0	38.1	54.0	-15.9	Board on side, antenna vertical. Mid channel.
3709.155	30.5	5.9	218.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.4	54.0	-17.6	Board vertical, antenna horizontal. High channel.
5416.465	24.8	11.6	278.0	2.5	3.0	0.0	V-Horn	AV	0.0	36.4	54.0	-17.6	Board horizontal, antenna face up. Low channel.
5413.515	24.6	11.6	256.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.2	54.0	-17.8	Board horizontal, antenna face up. Low channel.
2781.645	34.7	1.3	235.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.0	54.0	-18.0	Board horizontal, antenna face up. High channel.
2745.650	34.8	1.1	261.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.9	54.0	-18.1	Board horizontal, antenna face up. Mid channel.
3611.035	30.3	5.5	298.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.8	54.0	-18.2	Board vertical, antenna horizontal. Low channel.
3610.925	30.2	5.5	248.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.7	54.0	-18.3	Board on side, antenna vertical. Low channel.
4636.205	27.3	8.4	125.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.7	54.0	-18.3	Board horizontal, antenna face up. High channel.
3660.925	29.7	5.7	223.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.4	54.0	-18.6	Board on side, antenna vertical. Mid channel.
4576.310	27.1	8.2	137.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.3	54.0	-18.7	Board horizontal, antenna face up. Mid channel.
4513.835	27.2	7.9	193.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.1	54.0	-18.9	Board horizontal, antenna face up. Low channel.
3709.100	28.9	5.9	243.0	1.6	3.0	0.0	H-Horn	AV	0.0	34.8	54.0	-19.2	Board horizontal, antenna face up. High channel.
3708.960	28.2	5.9	279.0	1.6	3.0	0.0	H-Horn	AV	0.0	34.1	54.0	-19.9	Board vertical, antenna horizontal. High channel.
3661.015	28.3	5.7	274.0	1.6	3.0	0.0	H-Horn	AV	0.0	34.0	54.0	-20.0	Board horizontal, antenna face up. Mid channel.
4576.255	25.2	8.2	145.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.4	54.0	-20.6	Board horizontal, antenna face up. Mid channel.
4513.865	25.4	7.9	87.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.3	54.0	-20.7	Board horizontal, antenna face up. Low channel.
4636.345	24.9	8.4	251.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.3	54.0	-20.7	Board horizontal, antenna face up. High channel.
3661.060	27.4	5.7	293.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.1	54.0	-20.9	Board vertical, antenna horizontal. Mid channel.
3661.065	27.1	5.7	272.0	1.6	3.0	0.0	H-Horn	AV	0.0	32.8	54.0	-21.2	Board vertical, antenna horizontal. Mid channel.
3611.000	25.5	5.5	310.0	1.8	3.0	0.0	H-Horn	AV	0.0	31.0	54.0	-23.0	Board horizontal, antenna face up. Low channel.
3709.110	44.7	5.9	179.0	1.0	3.0	0.0	V-Horn	PK	0.0	50.6	74.0	-23.4	Board horizontal, antenna face up. High channel.
2745.625	28.4	1.1	9.0	1.0	3.0	0.0	V-Horn	AV	0.0	29.5	54.0	-24.5	Board horizontal, antenna face up. Mid channel.
2781.765	28.1	1.3	194.0	1.0	3.0	0.0	V-Horn	AV	0.0	29.4	54.0	-24.6	Board horizontal, antenna face up. High channel.
2708.170	28.3	0.9	134.0	1.0	3.0	0.0	H-Horn	AV	0.0	29.2	54.0	-24.8	Board horizontal, antenna face up. Low channel.
5416.690	37.6	11.5	278.0	2.5	3.0	0.0	V-Horn	PK	0.0	49.1	74.0	-24.9	Board horizontal, antenna face up. Low channel.
5417.020	37.4	11.5	256.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.9	74.0	-25.1	Board horizontal, antenna face up. Low channel.
3708.910	42.9	5.9	242.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.8	74.0	-25.2	Board on side, antenna vertical. High channel.
2708.310	27.8	0.9	16.0	1.0	3.0	0.0	V-Horn	AV	0.0	28.7	54.0	-25.3	Board horizontal, antenna face up. Low channel.
3660.870	41.7	5.7	180.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.4	74.0	-26.6	Board horizontal, antenna face up. Mid channel.
4636.260	39.0	8.4	125.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.4	74.0	-26.6	Board horizontal, antenna face up. High channel.
3708.810	41.4	5.9	172.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.3	74.0	-26.7	Board on side, antenna vertical. High channel.
3610.800	41.8	5.5	132.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.3	74.0	-26.7	Board vertical, antenna horizontal. Low channel.
3660.940	41.5	5.7	168.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.2	74.0	-26.8	Board on side, antenna vertical. Mid channel.
4576.365	38.8	8.2	137.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.0	74.0	-27.0	Board horizontal, antenna face up. Mid channel.
3611.235	41.4	5.5	175.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.9	74.0	-27.1	Board horizontal, antenna face up. Low channel.
4636.890	38.5	8.4	251.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.9	74.0	-27.1	Board horizontal, antenna face up. High channel.
3611.105	41.2	5.5	176.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.7	74.0	-27.3	Board on side, antenna vertical. Low channel.
4575.230	38.4	8.2	145.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.6	74.0	-27.4	Board horizontal, antenna face up. Mid channel.
4513.935	38.7	7.9	193.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.6	74.0	-27.4	Board horizontal, antenna face up. Low channel.
3610.920	41.0	5.5	298.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.5	74.0	-27.5	Board vertical, antenna horizontal. Low channel.
4513.105	38.6	7.9	87.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.5	74.0	-27.5	Board horizontal, antenna face up. Low channel.
3709.215	40.5	5.9	243.0	1.6	3.0	0.0	H-Horn	PK	0.0	46.4	74.0	-27.6	Board horizontal, antenna face up. High channel.
2745.840	45.3	1.1	261.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.4	74.0	-27.6	Board horizontal, antenna face up. Mid channel.
3660.810	40.6	5.7	223.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.3	74.0	-27.7	Board on side, antenna vertical. Mid channel.

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
3660.825	40.5	5.7	274.0	1.6	3.0	0.0	H-Horn	PK	0.0	46.2	74.0	-27.8	Board horizontal, antenna face up. Mid channel.
3709.125	40.2	5.9	218.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.1	74.0	-27.9	Board vertical, antenna horizontal. High channel.
2781.915	44.7	1.3	235.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.0	74.0	-28.0	Board horizontal, antenna face up. High channel.
3709.790	39.9	5.9	279.0	1.6	3.0	0.0	H-Horn	PK	0.0	45.8	74.0	-28.2	Board vertical, antenna horizontal. High channel.
3610.710	40.3	5.5	248.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.8	74.0	-28.2	Board on side, antenna vertical. Low channel.
3661.085	39.8	5.7	293.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.5	74.0	-28.5	Board vertical, antenna horizontal. Mid channel.
3660.560	39.3	5.7	272.0	1.6	3.0	0.0	H-Horn	PK	0.0	45.0	74.0	-29.0	Board vertical, antenna horizontal. Mid channel.
3611.470	38.9	5.5	310.0	1.8	3.0	0.0	H-Horn	PK	0.0	44.4	74.0	-29.6	Board horizontal, antenna face up. Low channel.
2745.860	41.0	1.1	9.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.1	74.0	-31.9	Board horizontal, antenna face up. Mid channel.
2781.675	40.8	1.3	194.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.1	74.0	-31.9	Board horizontal, antenna face up. High channel.
2708.355	41.1	0.8	134.0	1.0	3.0	0.0	H-Horn	PK	0.0	41.9	74.0	-32.1	Board horizontal, antenna face up. Low channel.
2708.335	40.7	0.8	16.0	1.0	3.0	0.0	V-Horn	PK	0.0	41.5	74.0	-32.5	Board horizontal, antenna face up. Low channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/09/10
Customer:	Intermec Technologies Corporation			**Temperature:**	23.1 °C
Attendees:	none			**Humidity:**	40%
Project:	None			**Barometric Pres.:**	1014.2 mb
Tested by:	Dan Haas	**Power:**	12 VDC	**Job Site:**	EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

NeWave 7ft. Dipole antenna.

EUT OPERATING MODES

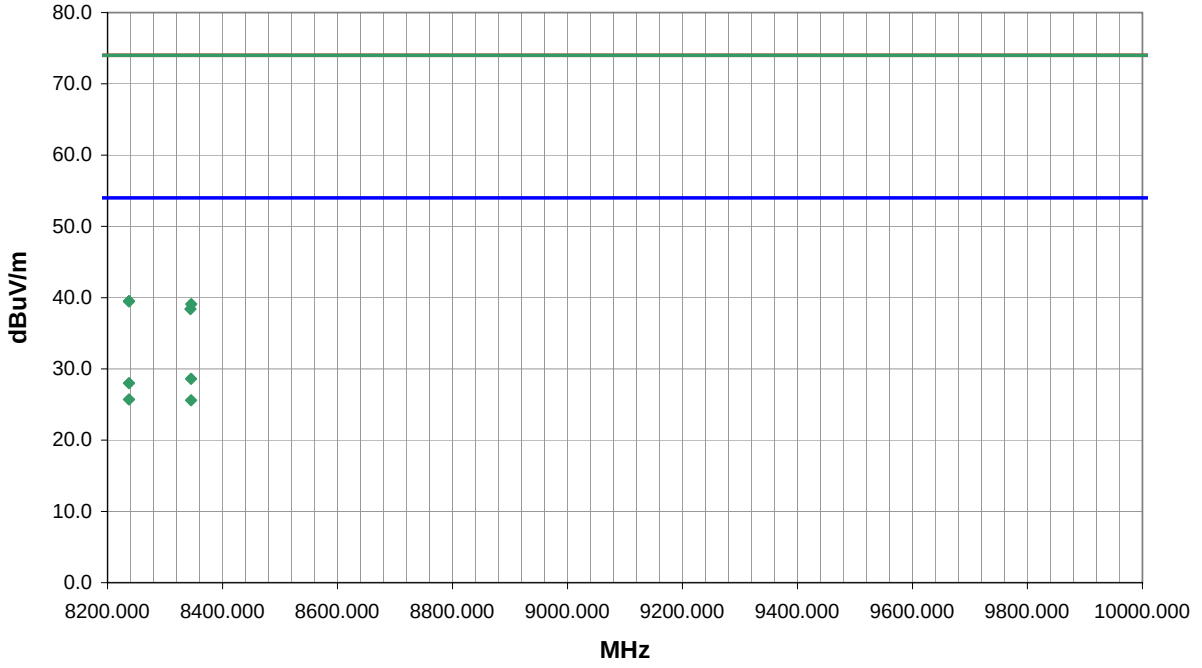
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	10
Configuration #	4
Results	Pass

Signature



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)
8345.255	39.6	-11.0	160.0	1.0	3.0	0.0	V-Horn	AV	0.0	28.6	54.0	-25.4
8237.310	39.2	-11.2	145.0	1.0	3.0	0.0	V-Horn	AV	0.0	28.0	54.0	-26.0
8237.285	36.9	-11.2	114.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.7	54.0	-28.3
8345.165	36.6	-11.0	296.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.6	54.0	-28.4
8237.290	50.7	-11.2	114.0	1.0	3.0	0.0	H-Horn	PK	0.0	39.5	74.0	-34.5
8237.425	50.7	-11.2	145.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.5	74.0	-34.5
8345.450	50.1	-11.0	160.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.1	74.0	-34.9
8344.245	49.4	-11.0	296.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.4	74.0	-35.6

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10	Work Order:	ITRM0211
Serial Number:	309U1090209	Date:	12/09/10
Customer:	Intermec Technologies Corporation	Temperature:	23.1 °C
Attendees:	none	Humidity:	40%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Dan Haas	Power: 12 VDC	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Kathrein 52010092 Near Field antenna.

EUT OPERATING MODES

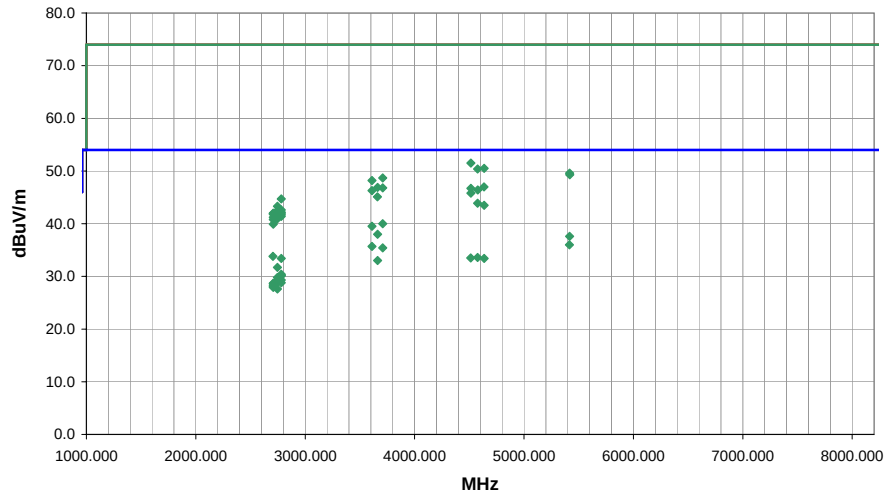
Continuous Tx Gen2 Reader mode (PRASK).

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	11
Configuration #	5
Results	Pass

Signature



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
4513.820	37.9	7.9	227.0	1.0	3.0	0.0	H-Horn	AV	0.0	45.8	54.0	-8.2	Board vertical, antenna horizontal. Low channel.
4576.285	35.7	8.2	230.0	1.0	3.0	0.0	H-Horn	AV	0.0	43.9	54.0	-10.1	Board vertical, antenna horizontal. Mid channel.
4636.230	35.1	8.4	233.0	1.0	3.0	0.0	H-Horn	AV	0.0	43.5	54.0	-10.5	Board vertical, antenna horizontal. High channel.
3709.145	34.1	5.9	304.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.0	54.0	-14.0	Board vertical, antenna horizontal. High channel.
3611.015	34.0	5.5	297.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.5	54.0	-14.5	Board vertical, antenna horizontal. Low channel.
3661.090	32.3	5.7	311.0	1.0	3.0	0.0	H-Horn	AV	0.0	38.0	54.0	-16.0	Board vertical, antenna horizontal. Mid channel.
5416.530	26.0	11.6	222.0	1.0	3.0	0.0	H-Horn	AV	0.0	37.6	54.0	-16.4	Board vertical, antenna horizontal. Low channel.
5415.590	24.4	11.6	172.0	2.5	3.0	0.0	V-Horn	AV	0.0	36.0	54.0	-18.0	Board vertical, antenna horizontal. Low channel.
3610.945	30.2	5.5	123.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.7	54.0	-18.3	Board vertical, antenna horizontal. Low channel.
3709.000	29.5	5.9	124.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.4	54.0	-18.6	Board vertical, antenna horizontal. High channel.
2706.015	32.9	0.9	97.0	1.7	3.0	0.0	H-Horn	AV	0.0	33.8	54.0	-20.2	Board vertical, antenna horizontal. Low channel.
4576.280	25.4	8.2	290.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.6	54.0	-20.4	Board vertical, antenna horizontal. Mid channel.
4513.665	25.6	7.9	224.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.5	54.0	-20.5	Board vertical, antenna horizontal. Low channel.
4636.340	25.0	8.4	63.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.4	54.0	-20.6	Board vertical, antenna horizontal. High channel.
2781.770	32.1	1.3	22.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.4	54.0	-20.6	Board on side, antenna vertical. High channel.
3661.095	27.3	5.7	124.0	1.0	3.0	0.0	V-Horn	AV	0.0	33.0	54.0	-21.0	Board vertical, antenna horizontal. Mid channel.
2745.650	30.6	1.1	10.0	1.0	3.0	0.0	H-Horn	AV	0.0	31.7	54.0	-22.3	Board on side, antenna vertical. Mid channel.
4513.750	43.6	7.9	227.0	1.0	3.0	0.0	H-Horn	PK	0.0	51.5	74.0	-22.5	Board vertical, antenna horizontal. Low channel.
4636.215	42.1	8.4	233.0	1.0	3.0	0.0	H-Horn	PK	0.0	50.5	74.0	-23.5	Board vertical, antenna horizontal. High channel.
2781.800	29.1	1.3	192.0	1.0	3.0	0.0	H-Horn	AV	0.0	30.4	54.0	-23.6	Board horizontal, antenna face up. High channel.
4576.205	42.2	8.2	230.0	1.0	3.0	0.0	H-Horn	PK	0.0	50.4	74.0	-23.6	Board vertical, antenna horizontal. Mid channel.
2781.790	28.9	1.3	79.0	1.0	3.0	0.0	V-Horn	AV	0.0	30.2	54.0	-23.8	Board horizontal, antenna face up. High channel.
2781.675	28.8	1.3	220.0	1.0	3.0	0.0	V-Horn	AV	0.0	30.1	54.0	-23.9	Board vertical, antenna horizontal. High channel.
2745.775	28.7	1.1	15.0	1.0	3.0	0.0	V-Horn	AV	0.0	29.8	54.0	-24.2	Board on side, antenna vertical. Mid channel.
5416.695	38.1	11.5	222.0	1.0	3.0	0.0	H-Horn	PK	0.0	49.6	74.0	-24.4	Board vertical, antenna horizontal. Low channel.
5417.930	37.8	11.5	172.0	2.5	3.0	0.0	V-Horn	PK	0.0	49.3	74.0	-24.7	Board vertical, antenna horizontal. Low channel.
2781.640	28.0	1.3	360.0	1.7	3.0	0.0	H-Horn	AV	0.0	29.3	54.0	-24.7	Board vertical, antenna horizontal. High channel.
2745.640	28.1	1.1	360.0	1.7	3.0	0.0	H-Horn	AV	0.0	29.2	54.0	-24.8	Board vertical, antenna horizontal. Mid channel.
2745.745	27.9	1.1	56.0	1.7	3.0	0.0	V-Horn	AV	0.0	29.0	54.0	-25.0	Board vertical, antenna horizontal. Mid channel.
2745.780	27.7	1.1	110.0	1.0	3.0	0.0	H-Horn	AV	0.0	28.8	54.0	-25.2	Board horizontal, antenna face up. Mid channel.
2781.750	27.5	1.3	19.0	1.0	3.0	0.0	V-Horn	AV	0.0	28.8	54.0	-25.2	Board on side, antenna vertical. High channel.
2708.160	27.9	0.8	217.0	1.0	3.0	0.0	H-Horn	AV	0.0	28.7	54.0	-25.3	Board horizontal, antenna face up. Low channel.
3709.010	42.8	5.9	304.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.7	74.0	-25.3	Board vertical, antenna horizontal. High channel.
2708.345	27.7	0.9	360.0	1.0	3.0	0.0	H-Horn	AV	0.0	28.6	54.0	-25.4	Board on side, antenna vertical. Low channel.
2708.365	27.5	0.8	23.0	1.7	3.0	0.0	V-Horn	AV	0.0	28.3	54.0	-25.7	Board vertical, antenna horizontal. Low channel.
3611.065	42.7	5.5	297.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.2	74.0	-25.8	Board vertical, antenna horizontal. Low channel.
2708.310	27.3	0.8	138.0	1.7	3.0	0.0	V-Horn	AV	0.0	28.1	54.0	-25.9	Board horizontal, antenna face up. Low channel.
2708.165	27.1	0.8	0.0	1.0	3.0	0.0	V-Horn	AV	0.0	27.9	54.0	-26.1	Board on side, antenna vertical. Low channel.
2745.735	26.5	1.1	50.0	1.7	3.0	0.0	V-Horn	AV	0.0	27.6	54.0	-26.4	Board horizontal, antenna face up. Mid channel.
4635.095	38.6	8.4	63.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.0	74.0	-27.0	Board vertical, antenna horizontal. High channel.
3661.350	41.2	5.7	311.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.9	74.0	-27.1	Board vertical, antenna horizontal. Mid channel.
3708.955	40.9	5.9	124.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.8	74.0	-27.2	Board vertical, antenna horizontal. High channel.
4513.720	38.8	7.9	224.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.7	74.0	-27.3	Board vertical, antenna horizontal. Low channel.
4576.650	38.2	8.2	290.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.4	74.0	-27.6	Board vertical, antenna horizontal. Mid channel.
3611.005	40.8	5.5	123.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.3	74.0	-27.7	Board vertical, antenna horizontal. Low channel.
3661.035	39.4	5.7	124.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.1	74.0	-28.9	Board vertical, antenna horizontal. Mid channel.
2781.995	43.4	1.3	22.0	1.0	3.0	0.0	H-Horn	PK	0.0	44.7	74.0	-29.3	Board on side, antenna vertical. High channel.
2745.720	42.2	1.1	10.0	1.0	3.0	0.0	H-Horn	PK	0.0	43.3	74.0	-30.7	Board on side, antenna vertical. Mid channel.
2781.725	41.3	1.3	192.0	1.0	3.0	0.0	H-Horn	PK	0.0	42.6	74.0	-31.4	Board horizontal, antenna face up. High channel.
2745.845	41.4	1.1	15.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.5	74.0	-31.5	Board on side, antenna vertical. Mid channel.
2781.785	40.9	1.3	220.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.2	74.0	-31.8	Board vertical, antenna horizontal. High channel.
2708.390	41.2	0.8	360.0	1.0	3.0	0.0	H-Horn	PK	0.0	42.0	74.0	-32.0	Board on side, antenna vertical. Low channel.

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
2780.760	40.7	1.3	79.0	1.0	3.0	0.0	V-Horn	PK	0.0	42.0	74.0	-32.0	Board horizontal, antenna face up. High channel.
2708.245	41.1	0.8	138.0	1.7	3.0	0.0	V-Horn	PK	0.0	41.9	74.0	-32.1	Board horizontal, antenna face up. Low channel.
2745.350	40.8	1.1	110.0	1.0	3.0	0.0	H-Horn	PK	0.0	41.9	74.0	-32.1	Board horizontal, antenna face up. Mid channel.
2708.155	41.0	0.8	23.0	1.7	3.0	0.0	V-Horn	PK	0.0	41.8	74.0	-32.2	Board vertical, antenna horizontal. Low channel.
2781.605	40.4	1.3	19.0	1.0	3.0	0.0	V-Horn	PK	0.0	41.7	74.0	-32.3	Board on side, antenna vertical. High channel.
2745.835	40.3	1.1	360.0	1.7	3.0	0.0	H-Horn	PK	0.0	41.4	74.0	-32.6	Board vertical, antenna horizontal. Mid channel.
2781.770	40.1	1.3	360.0	1.7	3.0	0.0	H-Horn	PK	0.0	41.4	74.0	-32.6	Board vertical, antenna horizontal. High channel.
2708.240	40.4	0.8	217.0	1.0	3.0	0.0	H-Horn	PK	0.0	41.2	74.0	-32.8	Board horizontal, antenna face up. Low channel.
2744.775	40.0	1.1	56.0	1.7	3.0	0.0	V-Horn	PK	0.0	41.1	74.0	-32.9	Board vertical, antenna horizontal. Mid channel.
2744.595	39.8	1.1	50.0	1.7	3.0	0.0	V-Horn	PK	0.0	40.9	74.0	-33.1	Board horizontal, antenna face up. Mid channel.
2707.975	40.0	0.8	0.0	1.0	3.0	0.0	V-Horn	PK	0.0	40.8	74.0	-33.2	Board on side, antenna vertical. Low channel.
2708.715	39.1	0.8	97.0	1.7	3.0	0.0	H-Horn	PK	0.0	39.9	74.0	-34.1	Board vertical, antenna horizontal. Low channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10			**Work Order:**	ITRM0211
Serial Number:	309U1090209			**Date:**	12/12/10
Customer:	Intermec Technologies Corporation			**Temperature:**	20.1 °C
Attendees:	none			**Humidity:**	51%
Project:	None			**Barometric Pres.:**	1017.0 mb
Tested by:	Dan Haas	**Power:**	12 VDC	**Job Site:**	EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

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

COMMENTS

Kathrein 52010092 Near Field antenna. Board vertical, antenna horizontal.

EUT OPERATING MODES

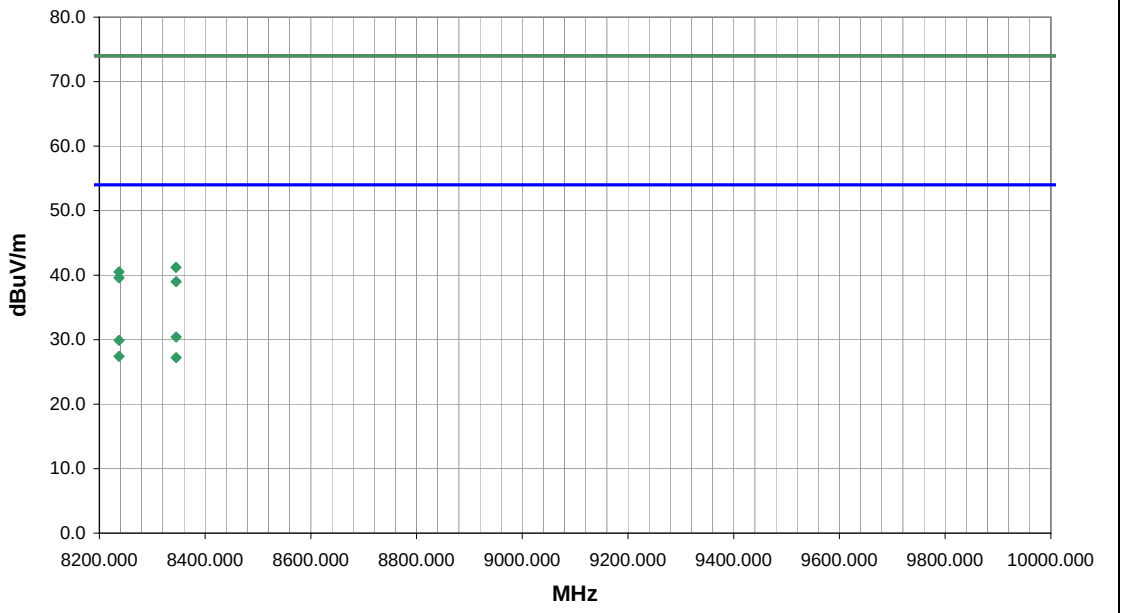
Continuous Tx Gen2 Reader mode (PRASK).

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	12
Configuration #	5
Results	Pass

Signature



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
8345.350	41.4	-11.0	293.0	1.0	3.0	0.0	H-Horn	AV	0.0	30.4	54.0	-23.6	High channel.
8237.305	41.1	-11.2	279.0	1.0	3.0	0.0	H-Horn	AV	0.0	29.9	54.0	-24.1	Mid channel.
8237.285	38.6	-11.2	277.0	1.0	3.0	0.0	V-Horn	AV	0.0	27.4	54.0	-26.6	Mid channel.
8345.240	38.2	-11.0	236.0	1.0	3.0	0.0	V-Horn	AV	0.0	27.2	54.0	-26.8	High channel.
8344.955	52.2	-11.0	293.0	1.0	3.0	0.0	H-Horn	PK	0.0	41.2	74.0	-32.8	High channel.
8237.215	51.7	-11.2	279.0	1.0	3.0	0.0	H-Horn	PK	0.0	40.5	74.0	-33.5	Mid channel.
8237.360	50.8	-11.2	277.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.6	74.0	-34.4	Mid channel.
8345.210	50.0	-11.0	236.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.0	74.0	-35.0	High channel.

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10G	Work Order:	ITRM0211
Serial Number:	309U1090206	Date:	12/13/10
Customer:	Intermec Technologies Corporation	Temperature:	23.1 °C
Attendees:	none	Humidity:	40%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Rod Peloquin	Power: 12 VDC	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

TEST PARAMETERS

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

COMMENTS

Kathrein 52010092 Near Field antenna.

EUT OPERATING MODES

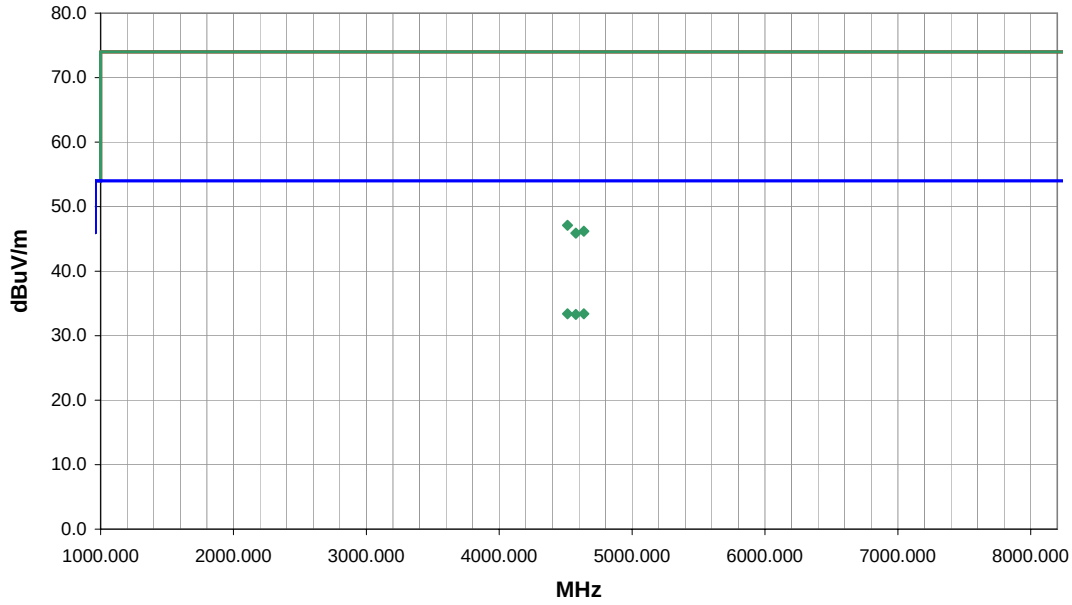
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	6
Results	Pass

Signature



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
4636.307	24.5	8.9	183.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.4	54.0	-20.6	High Channel
4513.552	24.9	8.5	18.0	1.2	3.0	0.0	H-Horn	AV	0.0	33.4	54.0	-20.6	Low Channel
4576.215	24.6	8.7	235.0	1.0	3.0	0.0	H-Horn	AV	0.0	33.3	54.0	-20.7	Mid Channel
4513.815	38.6	8.5	18.0	1.2	3.0	0.0	H-Horn	PK	0.0	47.1	74.0	-26.9	Low Channel
4636.625	37.3	8.9	183.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.2	74.0	-27.8	High Channel
4576.376	37.2	8.7	235.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.9	74.0	-28.1	Mid Channel

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10G	Work Order:	ITRM0211
Serial Number:	309U1090206	Date:	12/13/10
Customer:	Intermec Technologies Corporation	Temperature:	23.1 °C
Attendees:	none	Humidity:	40%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Rod Peloquin	Power: 12 VDC	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

TEST PARAMETERS

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

COMMENTS

NeWave 7ft. dipole antenna.

EUT OPERATING MODES

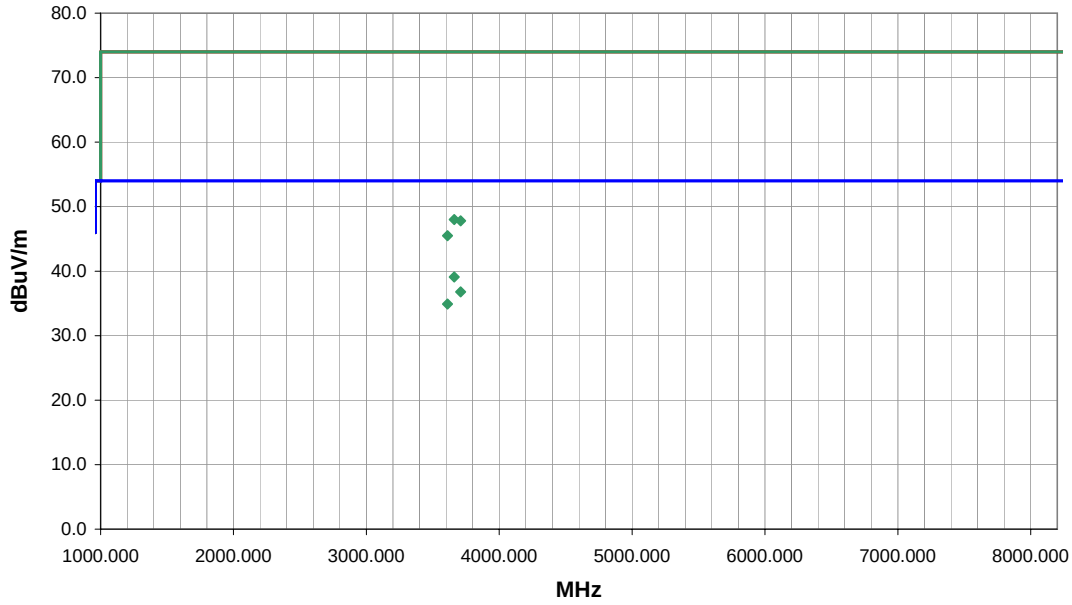
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	2
Configuration #	7
Results	Pass

Signature



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
3660.907	31.9	7.2	129.0	1.2	3.0	0.0	V-Horn	AV	0.0	39.1	54.0	-14.9	Mid Channel
3709.090	29.4	7.4	114.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.8	54.0	-17.2	High Channel
3610.917	28.0	6.9	140.0	1.2	3.0	0.0	V-Horn	AV	0.0	34.9	54.0	-19.1	Low Channel
3661.040	40.8	7.2	129.0	1.2	3.0	0.0	V-Horn	PK	0.0	48.0	74.0	-26.0	Mid Channel
3708.943	40.4	7.4	114.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.8	74.0	-26.2	High Channel
3610.990	38.6	6.9	140.0	1.2	3.0	0.0	V-Horn	PK	0.0	45.5	74.0	-28.5	Low Channel

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10G	Work Order:	ITRM0211
Serial Number:	309U1090206	Date:	12/13/10
Customer:	Intermec Technologies Corporation	Temperature:	23.1 °C
Attendees:	none	Humidity:	40%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Rod Peloquin	Power: 12 VDC	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

TEST PARAMETERS

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

COMMENTS

Huber Suhner antenna

EUT OPERATING MODES

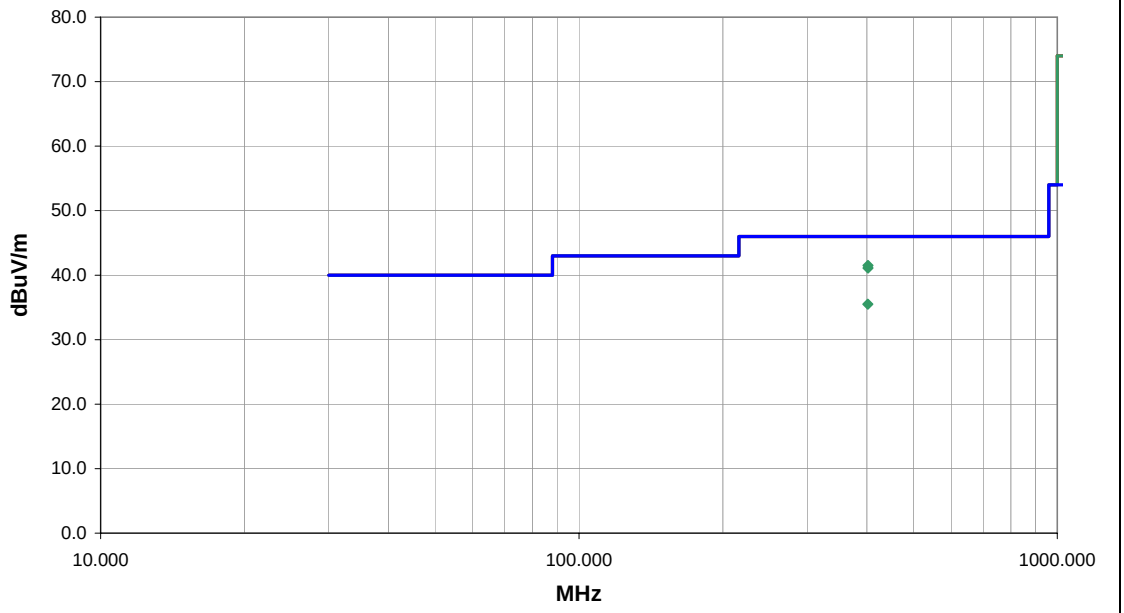
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	3
Configuration #	8
Results	Pass

Signature



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
401.972	37.5	4.0	205.0	1.0	3.0	0.0	H-Bilog	QP	0.0	41.5	46.0	-4.5	High Channel
401.907	37.1	4.0	205.0	1.0	3.0	0.0	H-Bilog	QP	0.0	41.1	46.0	-4.9	Mid Channel
401.843	31.5	4.0	268.0	1.0	3.0	0.0	H-Bilog	QP	0.0	35.5	46.0	-10.5	Low Channel

NORTHWEST EMC

SPURIOUS RADIATED EMISSIONS DATA SHEET

PSA 2008.07.21
EMI 2008.1.9

EUT:	IM10G	Work Order:	ITRM0211
Serial Number:	309U1090206	Date:	12/13/10
Customer:	Intermec Technologies Corporation	Temperature:	23.1 °C
Attendees:	none	Humidity:	40%
Project:	None	Barometric Pres.:	1014.2 mb
Tested by:	Rod Peloquin	Power: 12 VDC	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247:2010	ANSI C63.10:2009

TEST PARAMETERS

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

COMMENTS

Kathrein 52010087 antenna

EUT OPERATING MODES

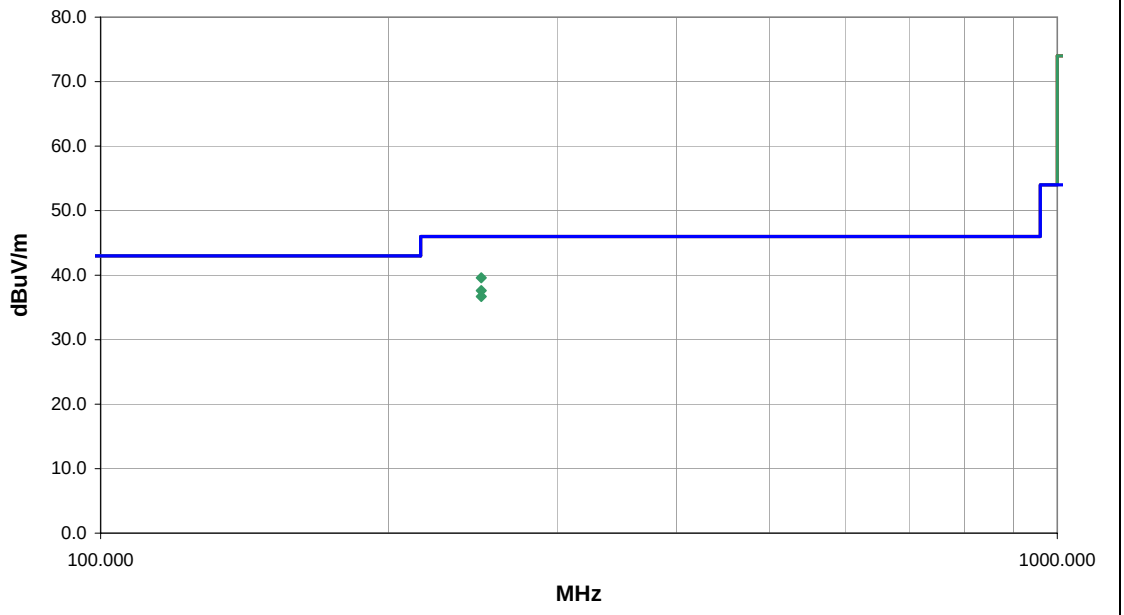
Continuous Tx Gen2 Reader mode (PRASK)

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	4
Configuration #	9
Results	Pass

Signature



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
249.999	40.4	-0.8	82.0	1.5	3.0	0.0	V-Bilog	QP	0.0	39.6	46.0	-6.4	High Channel
249.999	38.4	-0.8	82.0	1.5	3.0	0.0	V-Bilog	QP	0.0	37.6	46.0	-8.4	Mid Channel
250.000	37.5	-0.8	82.0	1.5	3.0	0.0	V-Bilog	QP	0.0	36.7	46.0	-9.3	Low Channel

AC POWERLINE CONDUCTED EMISSIONS

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

MODES OF OPERATION
Continuous Tx Gen2 Reader mode (PRASK), high channel
Continuous Tx Gen2 Reader mode (PRASK), mid channel
Continuous Tx Gen2 Reader mode (PRASK), low channel

POWER SETTINGS INVESTIGATED
120VAC/60Hz

CONFIGURATIONS INVESTIGATED
ITRM0211 - 10

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Receiver	Rohde & Schwarz	ESCI	ARE	4/29/2010	12 mo
Attenuator	Coaxicom	66702 2910-20	ATO	8/6/2010	13 mo
High Pass Filter	TTE	H97-100K-50-720B	HFX	2/16/2010	13 mo
LISN	Solar	9252-50-R-24-BNC	LIN	5/27/2010	12 mo
LISN	Solar	9252-50-R-24-BNC	LIR	3/2/2010	12 mo
EV07 Cables	N/A	Conducted Cables	EVG	6/21/2010	13 mo

MEASUREMENT BANDWIDTHS

	Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0
Measurements were made using the bandwidths and detectors specified. No video filter was used.				

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The EUT will be powered either directly or indirectly from the AC power line. Therefore, conducted emissions measurements were made on the AC input of the EUT, or on the AC input of 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 C63.10-2009.

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

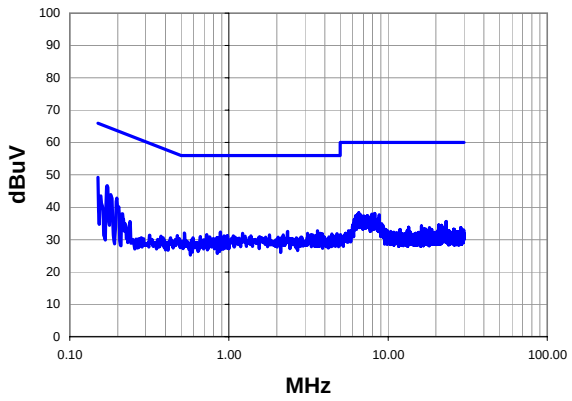
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	ITRM0211	**Date:**	12/14/10		
Project:	None	**Temperature:**	23.1 °C		
Job Site:	EV07	**Humidity:**	40.1		
Serial Number:	309U1090209	**Barometric Pres.:**	1014.2 mb	**Tested by:**	Rod Peloquin
EUT:	IM10				
Configuration:	10 - AC Conducted Emissions				
Customer:	Intermec Technologies Corporation				
Attendees:	none				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx Gen2 Reader mode (PRASK), low channel				
Deviations:	No deviations.				
Comments:	Huber Suhner antenna, Antenna Tx Port 2				

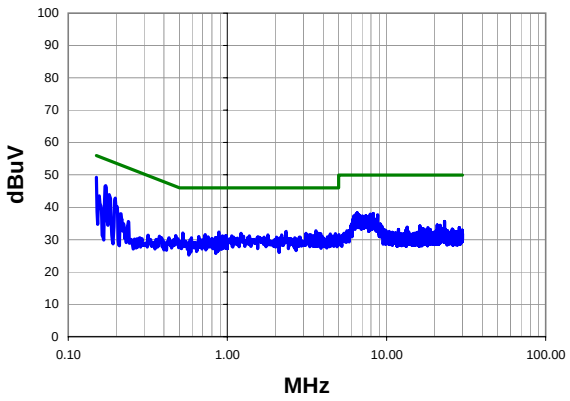
Test Specifications	**Test Method**
FCC 15.207:2010	ANSI C63.10:2009

Run #	8	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	29.1	20.2	49.3	66.0	-16.7
0.172	26.5	20.2	46.7	64.9	-18.2
0.181	23.8	20.2	44.0	64.5	-20.5
0.198	22.7	20.2	42.9	63.7	-20.9
6.540	18.0	20.3	38.3	60.0	-21.7
8.250	17.7	20.4	38.1	60.0	-21.9
0.157	23.4	20.2	43.6	65.6	-22.1
7.900	17.5	20.4	37.9	60.0	-22.1
6.450	17.6	20.3	37.9	60.0	-22.1
8.780	17.3	20.4	37.7	60.0	-22.3
6.730	17.2	20.4	37.6	60.0	-22.4
7.410	17.0	20.4	37.4	60.0	-22.6
6.240	17.1	20.3	37.4	60.0	-22.6
7.030	16.9	20.4	37.3	60.0	-22.7
7.120	16.8	20.4	37.2	60.0	-22.8
7.600	16.6	20.4	37.0	60.0	-23.0
3.608	12.5	20.2	32.7	56.0	-23.3
2.336	12.3	20.2	32.5	56.0	-23.5
7.830	16.0	20.4	36.4	60.0	-23.6
0.884	12.2	20.2	32.4	56.0	-23.6

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	29.1	20.2	49.3	56.0	-6.7
0.172	26.5	20.2	46.7	54.9	-8.2
0.181	23.8	20.2	44.0	54.5	-10.5
0.198	22.7	20.2	42.9	53.7	-10.9
6.540	18.0	20.3	38.3	50.0	-11.7
8.250	17.7	20.4	38.1	50.0	-11.9
0.157	23.4	20.2	43.6	55.6	-12.1
7.900	17.5	20.4	37.9	50.0	-12.1
6.450	17.6	20.3	37.9	50.0	-12.1
8.780	17.3	20.4	37.7	50.0	-12.3
6.730	17.2	20.4	37.6	50.0	-12.4
7.410	17.0	20.4	37.4	50.0	-12.6
6.240	17.1	20.3	37.4	50.0	-12.6
7.030	16.9	20.4	37.3	50.0	-12.7
7.120	16.8	20.4	37.2	50.0	-12.8
7.600	16.6	20.4	37.0	50.0	-13.0
3.608	12.5	20.2	32.7	46.0	-13.3
2.336	12.3	20.2	32.5	46.0	-13.5
7.830	16.0	20.4	36.4	50.0	-13.6
0.884	12.2	20.2	32.4	46.0	-13.6

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

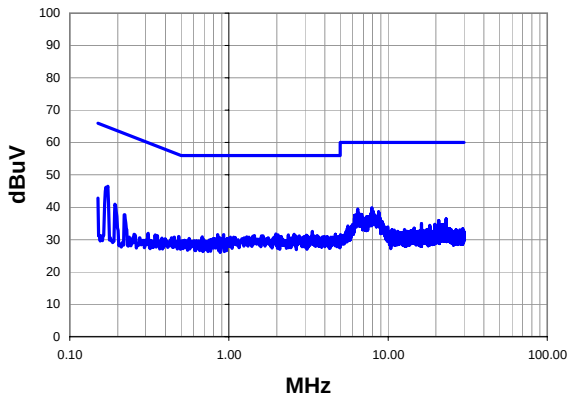
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	ITRM0211	**Date:**	12/14/10		
Project:	None	**Temperature:**	23.1 °C		
Job Site:	EV07	**Humidity:**	40.1		
Serial Number:	309U1090209	**Barometric Pres.:**	1014.2 mb	**Tested by:**	Rod Peloquin
EUT:	IM10				
Configuration:	10 - AC Conducted Emissions				
Customer:	Intermec Technologies Corporation				
Attendees:	none				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx Gen2 Reader mode (PRASK), low channel				
Deviations:	No deviations.				
Comments:	Huber Suhner antenna, Antenna Tx Port 2				

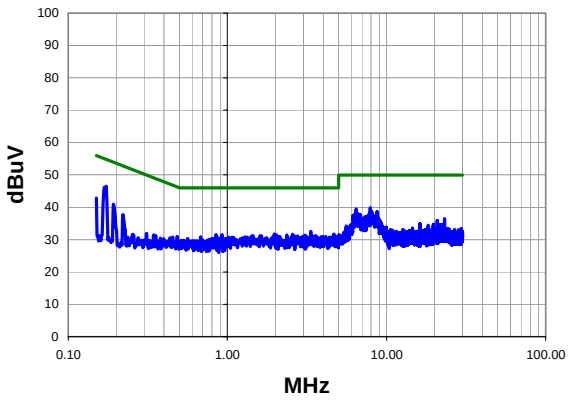
Test Specifications	**Test Method**
FCC 15.207:2010	ANSI C63.10:2009

Run #	9	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.174	26.3	20.2	46.5	64.8	-18.3
7.900	19.5	20.4	39.9	60.0	-20.1
6.440	19.2	20.3	39.5	60.0	-20.5
8.060	18.3	20.4	38.7	60.0	-21.3
8.720	18.2	20.4	38.6	60.0	-21.4
8.770	17.9	20.4	38.3	60.0	-21.7
7.780	17.6	20.4	38.0	60.0	-22.0
6.820	17.4	20.4	37.8	60.0	-22.2
6.270	17.4	20.3	37.7	60.0	-22.3
8.620	17.2	20.4	37.6	60.0	-22.4
6.160	17.2	20.3	37.5	60.0	-22.5
7.320	16.7	20.4	37.1	60.0	-22.9
0.193	20.8	20.2	41.0	63.9	-23.0
0.150	22.7	20.2	42.9	66.0	-23.1
8.850	16.4	20.4	36.8	60.0	-23.2
7.390	16.3	20.4	36.7	60.0	-23.3
7.010	16.2	20.4	36.6	60.0	-23.4
3.336	12.3	20.2	32.5	56.0	-23.5
23.130	15.3	21.1	36.4	60.0	-23.6
7.280	15.9	20.4	36.3	60.0	-23.7

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.174	26.3	20.2	46.5	54.8	-8.3
7.900	19.5	20.4	39.9	50.0	-10.1
6.440	19.2	20.3	39.5	50.0	-10.5
8.060	18.3	20.4	38.7	50.0	-11.3
8.720	18.2	20.4	38.6	50.0	-11.4
8.770	17.9	20.4	38.3	50.0	-11.7
7.780	17.6	20.4	38.0	50.0	-12.0
6.820	17.4	20.4	37.8	50.0	-12.2
6.270	17.4	20.3	37.7	50.0	-12.3
8.620	17.2	20.4	37.6	50.0	-12.4
6.160	17.2	20.3	37.5	50.0	-12.5
7.320	16.7	20.4	37.1	50.0	-12.9
0.193	20.8	20.2	41.0	53.9	-13.0
0.150	22.7	20.2	42.9	56.0	-13.1
8.850	16.4	20.4	36.8	50.0	-13.2
7.390	16.3	20.4	36.7	50.0	-13.3
7.010	16.2	20.4	36.6	50.0	-13.4
3.336	12.3	20.2	32.5	46.0	-13.5
23.130	15.3	21.1	36.4	50.0	-13.6
7.280	15.9	20.4	36.3	50.0	-13.7

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

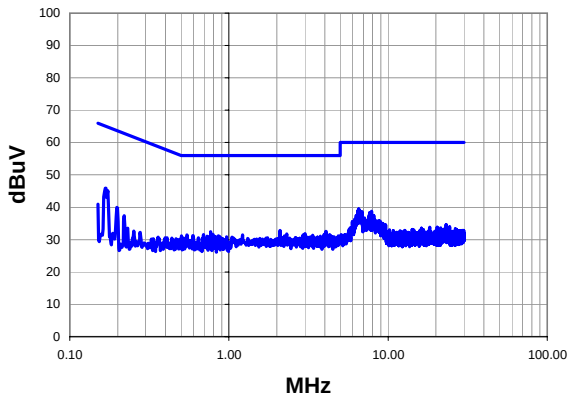
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	ITRM0211	**Date:**	12/14/10		
Project:	None	**Temperature:**	23.1 °C		
Job Site:	EV07	**Humidity:**	40.1		
Serial Number:	309U1090209	**Barometric Pres.:**	1014.2 mb	**Tested by:**	Rod Peloquin
EUT:	IM10				
Configuration:	10 - AC Conducted Emissions				
Customer:	Intermec Technologies Corporation				
Attendees:	none				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx Gen2 Reader mode (PRASK), mid channel				
Deviations:	No deviations.				
Comments:	Huber Suhner antenna, Antenna Tx Port 2				

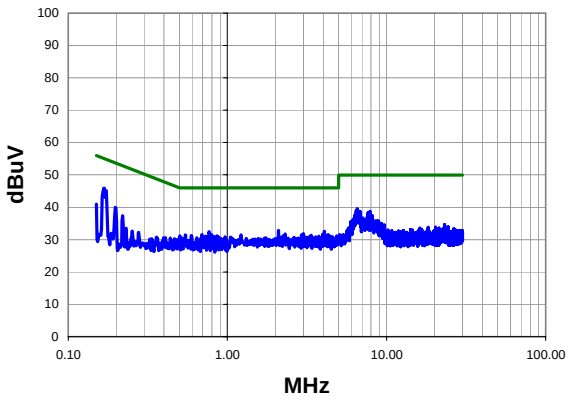
Test Specifications	**Test Method**
FCC 15.207:2010	ANSI C63.10:2009

Run #	10	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.167	25.7	20.2	45.9	65.1	-19.2
6.540	19.1	20.3	39.4	60.0	-20.6
6.440	18.7	20.3	39.0	60.0	-21.0
7.890	18.4	20.4	38.8	60.0	-21.2
6.700	18.4	20.4	38.8	60.0	-21.2
6.860	18.3	20.4	38.7	60.0	-21.3
7.660	17.9	20.4	38.3	60.0	-21.7
7.610	17.3	20.4	37.7	60.0	-22.3
8.130	17.0	20.4	37.4	60.0	-22.6
7.850	16.8	20.4	37.2	60.0	-22.8
7.700	16.6	20.4	37.0	60.0	-23.0
2.096	12.6	20.2	32.8	56.0	-23.2
7.120	16.3	20.4	36.7	60.0	-23.3
4.064	12.3	20.2	32.5	56.0	-23.5
0.767	12.3	20.2	32.5	56.0	-23.5
0.198	19.8	20.2	40.0	63.7	-23.8
8.770	15.5	20.4	35.9	60.0	-24.1
3.000	11.6	20.2	31.8	56.0	-24.2
8.910	15.3	20.4	35.7	60.0	-24.3
8.480	15.3	20.4	35.7	60.0	-24.3

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.167	25.7	20.2	45.9	55.1	-9.2
6.540	19.1	20.3	39.4	50.0	-10.6
6.440	18.7	20.3	39.0	50.0	-11.0
7.890	18.4	20.4	38.8	50.0	-11.2
6.700	18.4	20.4	38.8	50.0	-11.2
6.860	18.3	20.4	38.7	50.0	-11.3
7.660	17.9	20.4	38.3	50.0	-11.7
7.610	17.3	20.4	37.7	50.0	-12.3
8.130	17.0	20.4	37.4	50.0	-12.6
7.850	16.8	20.4	37.2	50.0	-12.8
7.700	16.6	20.4	37.0	50.0	-13.0
2.096	12.6	20.2	32.8	46.0	-13.2
7.120	16.3	20.4	36.7	50.0	-13.3
4.064	12.3	20.2	32.5	46.0	-13.5
0.767	12.3	20.2	32.5	46.0	-13.5
0.198	19.8	20.2	40.0	53.7	-13.8
8.770	15.5	20.4	35.9	50.0	-14.1
3.000	11.6	20.2	31.8	46.0	-14.2
8.910	15.3	20.4	35.7	50.0	-14.3
8.480	15.3	20.4	35.7	50.0	-14.3

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

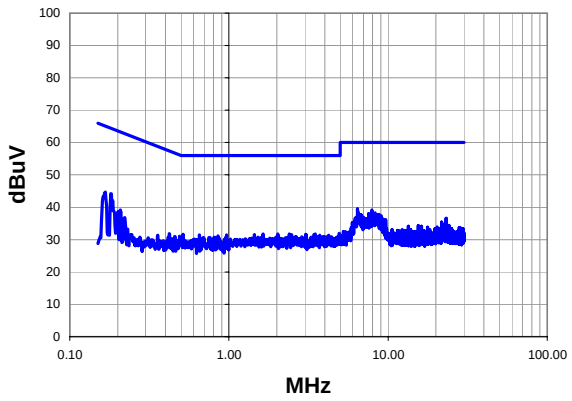
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	ITRM0211	**Date:**	12/14/10		
Project:	None	**Temperature:**	23.1 °C		
Job Site:	EV07	**Humidity:**	40.1		
Serial Number:	309U1090209	**Barometric Pres.:**	1014.2 mb	**Tested by:**	Rod Peloquin
EUT:	IM10				
Configuration:	10 - AC Conducted Emissions				
Customer:	Intermec Technologies Corporation				
Attendees:	none				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx Gen2 Reader mode (PRASK), mid channel				
Deviations:	No deviations.				
Comments:	Huber Suhner antenna, Antenna Tx Port 2				

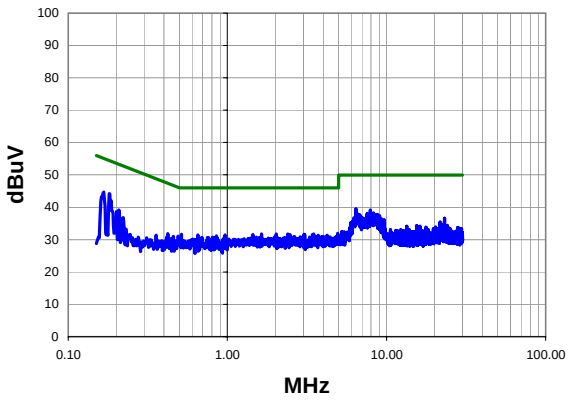
Test Specifications	**Test Method**
FCC 15.207:2010	ANSI C63.10:2009

Run #	11	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.181	24.1	20.2	44.3	64.5	-20.2
0.167	24.5	20.2	44.7	65.1	-20.4
6.420	19.2	20.3	39.5	60.0	-20.5
7.900	18.8	20.4	39.2	60.0	-20.8
8.270	17.9	20.4	38.3	60.0	-21.7
7.550	17.6	20.4	38.0	60.0	-22.0
8.780	17.4	20.4	37.8	60.0	-22.2
6.810	17.2	20.4	37.6	60.0	-22.4
9.040	17.0	20.4	37.4	60.0	-22.6
9.080	16.3	20.4	36.7	60.0	-23.3
7.010	16.3	20.4	36.7	60.0	-23.3
23.130	15.5	21.1	36.6	60.0	-23.4
9.280	16.0	20.4	36.4	60.0	-23.6
9.670	15.8	20.4	36.2	60.0	-23.8
4.936	11.7	20.3	32.0	56.0	-24.0
0.208	19.0	20.2	39.2	63.3	-24.1
2.032	11.6	20.2	31.8	56.0	-24.2
1.640	11.6	20.2	31.8	56.0	-24.2
3.488	11.5	20.2	31.7	56.0	-24.3
2.392	11.5	20.2	31.7	56.0	-24.3

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.181	24.1	20.2	44.3	54.5	-10.2
0.167	24.5	20.2	44.7	55.1	-10.4
6.420	19.2	20.3	39.5	50.0	-10.5
7.900	18.8	20.4	39.2	50.0	-10.8
8.270	17.9	20.4	38.3	50.0	-11.7
7.550	17.6	20.4	38.0	50.0	-12.0
8.780	17.4	20.4	37.8	50.0	-12.2
6.810	17.2	20.4	37.6	50.0	-12.4
9.040	17.0	20.4	37.4	50.0	-12.6
9.080	16.3	20.4	36.7	50.0	-13.3
7.010	16.3	20.4	36.7	50.0	-13.3
23.130	15.5	21.1	36.6	50.0	-13.4
9.280	16.0	20.4	36.4	50.0	-13.6
9.670	15.8	20.4	36.2	50.0	-13.8
4.936	11.7	20.3	32.0	46.0	-14.0
0.208	19.0	20.2	39.2	53.3	-14.1
2.032	11.6	20.2	31.8	46.0	-14.2
1.640	11.6	20.2	31.8	46.0	-14.2
3.488	11.5	20.2	31.7	46.0	-14.3
2.392	11.5	20.2	31.7	46.0	-14.3

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

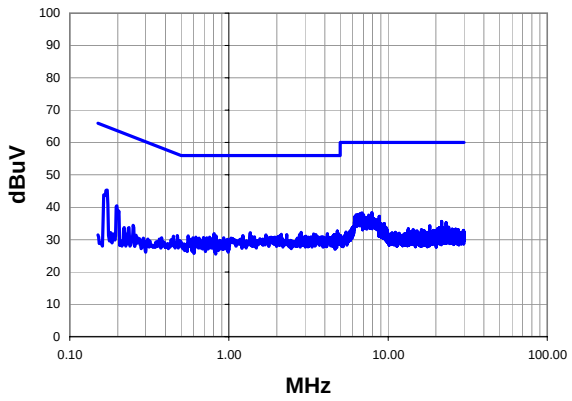
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	ITRM0211	**Date:**	12/14/10		
Project:	None	**Temperature:**	23.1 °C		
Job Site:	EV07	**Humidity:**	40.1		
Serial Number:	309U1090209	**Barometric Pres.:**	1014.2 mb	**Tested by:**	Rod Peloquin
EUT:	IM10				
Configuration:	10 - AC Conducted Emissions				
Customer:	Intermec Technologies Corporation				
Attendees:	none				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx Gen2 Reader mode (PRASK), high channel				
Deviations:	No deviations.				
Comments:	Huber Suhner antenna, Antenna Tx Port 2				

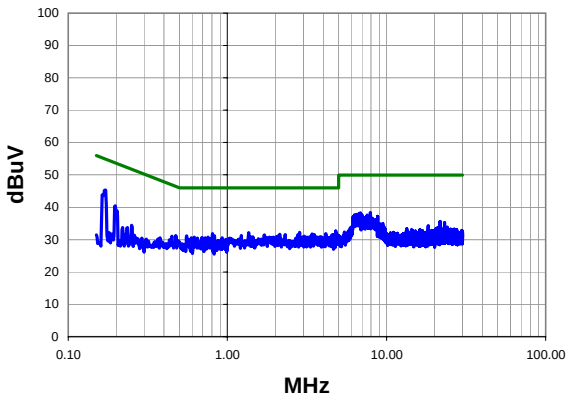
Test Specifications	**Test Method**
FCC 15.207:2010	ANSI C63.10:2009

Run #	12	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.170	25.1	20.2	45.3	64.9	-19.7
7.920	18.0	20.4	38.4	60.0	-21.6
6.840	17.9	20.4	38.3	60.0	-21.7
6.730	17.7	20.4	38.1	60.0	-21.9
6.580	17.5	20.3	37.8	60.0	-22.2
7.000	17.3	20.4	37.7	60.0	-22.3
6.290	17.4	20.3	37.7	60.0	-22.3
7.560	17.2	20.4	37.6	60.0	-22.4
8.800	16.8	20.4	37.2	60.0	-22.8
6.160	16.7	20.3	37.0	60.0	-23.0
7.980	16.4	20.4	36.8	60.0	-23.2
7.250	16.4	20.4	36.8	60.0	-23.2
0.198	20.3	20.2	40.5	63.7	-23.3
4.800	12.4	20.3	32.7	56.0	-23.3
2.848	12.0	20.2	32.2	56.0	-23.8
1.360	12.0	20.2	32.2	56.0	-23.8
4.856	11.7	20.3	32.0	56.0	-24.0
0.806	11.7	20.2	31.9	56.0	-24.1
4.152	11.6	20.2	31.8	56.0	-24.2
3.400	11.5	20.2	31.7	56.0	-24.3

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.170	25.1	20.2	45.3	54.9	-9.7
7.920	18.0	20.4	38.4	50.0	-11.6
6.840	17.9	20.4	38.3	50.0	-11.7
6.730	17.7	20.4	38.1	50.0	-11.9
6.580	17.5	20.3	37.8	50.0	-12.2
7.000	17.3	20.4	37.7	50.0	-12.3
6.290	17.4	20.3	37.7	50.0	-12.3
7.560	17.2	20.4	37.6	50.0	-12.4
8.800	16.8	20.4	37.2	50.0	-12.8
6.160	16.7	20.3	37.0	50.0	-13.0
7.980	16.4	20.4	36.8	50.0	-13.2
7.250	16.4	20.4	36.8	50.0	-13.2
0.198	20.3	20.2	40.5	53.7	-13.3
4.800	12.4	20.3	32.7	46.0	-13.3
2.848	12.0	20.2	32.2	46.0	-13.8
1.360	12.0	20.2	32.2	46.0	-13.8
4.856	11.7	20.3	32.0	46.0	-14.0
0.806	11.7	20.2	31.9	46.0	-14.1
4.152	11.6	20.2	31.8	46.0	-14.2
3.400	11.5	20.2	31.7	46.0	-14.3

NORTHWEST

EMC

AC POWERLINE CONDUCTED EMISSIONS

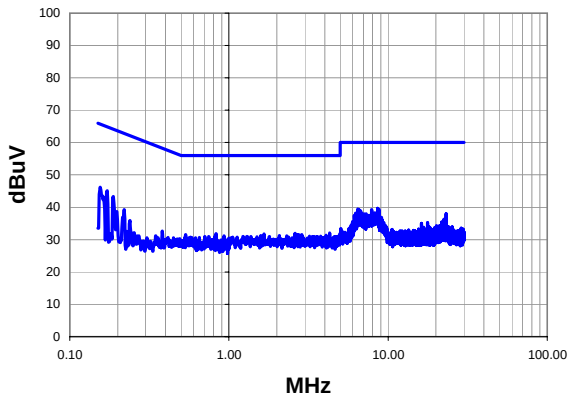
PSA-ESCI 2010.04.06
Version 2010.3.17

Work Order:	ITRM0211	**Date:**	12/14/10		
Project:	None	**Temperature:**	23.1 °C		
Job Site:	EV07	**Humidity:**	40.1		
Serial Number:	309U1090209	**Barometric Pres.:**	1014.2 mb	**Tested by:**	Rod Peloquin
EUT:	IM10				
Configuration:	10 - AC Conducted Emissions				
Customer:	Intermec Technologies Corporation				
Attendees:	none				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx Gen2 Reader mode (PRASK), high channel				
Deviations:	No deviations.				
Comments:	Huber Suhner antenna, Antenna Tx Port 2				

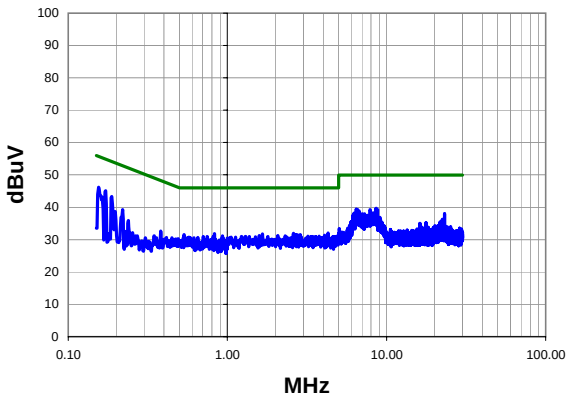
Test Specifications	**Test Method**
FCC 15.207:2010	ANSI C63.10:2009

Run #	13	**Line:**	Neutral	**Ext. Attenuation:**	20	**Results**	Pass

Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.155	26.0	20.2	46.2	65.7	-19.6
0.172	24.9	20.2	45.1	64.9	-19.8
8.600	19.3	20.4	39.7	60.0	-20.3
6.460	19.2	20.3	39.5	60.0	-20.5
8.780	18.9	20.4	39.3	60.0	-20.7
7.890	18.9	20.4	39.3	60.0	-20.7
0.187	23.2	20.2	43.4	64.2	-20.8
6.720	18.5	20.4	38.9	60.0	-21.1
8.260	17.9	20.4	38.3	60.0	-21.7
6.260	17.9	20.3	38.2	60.0	-21.8
8.120	17.7	20.4	38.1	60.0	-21.9
7.290	17.6	20.4	38.0	60.0	-22.0
7.030	17.6	20.4	38.0	60.0	-22.0
23.130	16.9	21.1	38.0	60.0	-22.0
7.590	17.1	20.4	37.5	60.0	-22.5
6.140	17.2	20.3	37.5	60.0	-22.5
9.070	16.5	20.4	36.9	60.0	-23.1
0.220	19.1	20.2	39.3	62.8	-23.6
22.460	15.2	21.1	36.3	60.0	-23.7
9.180	15.7	20.4	36.1	60.0	-23.9

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.155	26.0	20.2	46.2	55.7	-9.6
0.172	24.9	20.2	45.1	54.9	-9.8
8.600	19.3	20.4	39.7	50.0	-10.3
6.460	19.2	20.3	39.5	50.0	-10.5
8.780	18.9	20.4	39.3	50.0	-10.7
7.890	18.9	20.4	39.3	50.0	-10.7
0.187	23.2	20.2	43.4	54.2	-10.8
6.720	18.5	20.4	38.9	50.0	-11.1
8.260	17.9	20.4	38.3	50.0	-11.7
6.260	17.9	20.3	38.2	50.0	-11.8
8.120	17.7	20.4	38.1	50.0	-11.9
7.290	17.6	20.4	38.0	50.0	-12.0
7.030	17.6	20.4	38.0	50.0	-12.0
23.130	16.9	21.1	38.0	50.0	-12.0
7.590	17.1	20.4	37.5	50.0	-12.5
6.140	17.2	20.3	37.5	50.0	-12.5
9.070	16.5	20.4	36.9	50.0	-13.1
0.220	19.1	20.2	39.3	52.8	-13.6
22.460	15.2	21.1	36.3	50.0	-13.7
9.180	15.7	20.4	36.1	50.0	-13.9