Precor, Inc. XTV-9TM

June 01, 2007

Report No. PRCR0082

Report Prepared By



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

© 2007 Northwest EMC, Inc



22975 NW Evergreen Parkway Suite 400 Hillsboro, Oregon 97124

Certificate of Test

Issue Date: June 01, 2007 Precor, Inc. Model: XTV-9TM

Emissions					
Test Description	Specification	Test Method	Pass	Fail	
Conducted Emissions	FCC 15.207:2006 Class B	ANSI C63.4:2003	\boxtimes		
Field Strength of Fundamental	FCC 15.249:2006	ANSI C63.4:2003	\boxtimes		
Radiated Spurious Emissions	FCC 15.249:2006	ANSI C63.4:2003	\boxtimes		

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

Test Facility

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

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

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

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

Approved By:

Ethan Schoonover, Sultan Lab Manager

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

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

Revision History

Revision 05/05/03

Revision Number	Description	Date	Page Number
00	None		

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



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



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



TÜV Product Service: Included in TUV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TUV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TUV's current Listing of CARAT Laboratories, available from TUV. A certificate was issued to represent that this laboratory continues to meet TUV's CARAT Program requirements. Certificate No. USA0604C.



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



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



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



VCCI: Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (Registration Numbers. - Hillsboro: C-1071, R-1025, C-2687, T-289, and R-2318, Irvine: R-1943, C-2766, and T-298, Sultan: R-871, C-1784, and T-294).



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



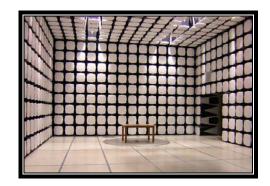
GOST: Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from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



SCOPE

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





California – Orange County Facility Labs OC01 – OC13

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





Oregon – Evergreen Facility Labs EV01 – EV11

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





Washington – Sultan Facility Labs SU01 – SU07

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

Product Description

Rev 11/17/06

Party Requesting the Test

Company Name:	Precor, Inc.
Address:	PO Box 7202
City, State, Zip:	Woodinville, WA 98072-4002
Test Requested By:	Eric Anderson
Model:	XTV-9TM
First Date of Test:	January 2, 2007
Last Date of Test:	May 16, 2007
Receipt Date of Samples:	January 2, 2007
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):	
Cardio Theater Transmitter	

Testing Objective:	
These tests were selected to satisfy the EMC requirements requested by the client.	

Configurations

Revision 9/21/05

CONFIGURATION 1 PRCR0057

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Cardio Theater Transmitter	Precor, Inc.	XTV-9TM	3961012206003

Peripherals in test setup boundary						
Description	Manufacturer	Model/Part Number	Serial Number			
DVD Player	Unknown	VXM-2200	Unknown			
Antenna	Unknown	Unknown	Unknown			
AC Adapter	Linearity Electronics	LAD6019AB5	A21060700002010F			

Cables						
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2	
Audio (x2)	No	1.4m	Yes	DVD Player	EUT Audio Inputs 1	
Audio (x2)	No	1.4m	No	EUT Audio Inputs 2	Unterminated	
Audio (x2)	No	1.4m	No	EUT Audio Inputs 3	Unterminated	
Audio (x2)	No	1.4m	No	EUT Audio Inputs 4	Unterminated	
AC	No	2.0m	No	EUT	AC Mains	
Antenna	Yes	1.0m	Yes	EUT	Antenna	
DC	No	2.0m	No	DVD Player	AC Adapter	
AC	No	1.8m	No	AC Adapter	AC Mains	
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.						

CONFIGURATION 1 PRCR0082

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
Cardio Theater Transmitter	Precor, Inc.	XTV-9TM	3961012206003

Peripherals in test setup boundary						
Description Manufacturer Model/Part Number Serial Number						
Power Supply	Brunelle Instruments	1030	289364			
Antenna	Precor, Inc.	9TM Antenna	N/A			

Cables						
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2	
Coax	Yes	1m	No	EUT	Antenna	
AC Power	Yes	1.8m	No	AC Power	EUT	
AC Power	Yes	1.8m	No	AC Power	Power Supply	
DC Leads	No	.7m	No	Power Supply	Radio	
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.						

Revision 4/28/03

Equipment modifications							
Item	Date	Test	Modification	Note	Disposition of EUT		
1	1/2/2007	Field Strength of Fundamental	Modified from delivered configuration. Initial or No Modification	Returned ferrite on antenna cable to correct location as determined to be needed for digital emissions. Modification done by Rod Peloquin.	EUT remained at Northwest EMC following the test.		
2	1/2/2007	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.		
3	5/16/2007	Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.		

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

Modulated signal, TX Low channel 903.590MHz

Modulated signal, TX Mid channel 914.620MHz

Modulated signal, TX High channel 926.170MHz

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INV	ESTIGATED		
Start Frequency	30MHz	Stop Frequency	12500MHz

CLOCKS AND OSCILLATORS

Not provided

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
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	12/29/2006	13
Antenna, Horn	EMCO	3115	AHC	8/24/2006	12
Pre-Amplifier	Miteq	AM-1616-1000	AOL	12/29/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Spectrum Analyzer	Agilent	E4443A	AAS	12/7/2006	13

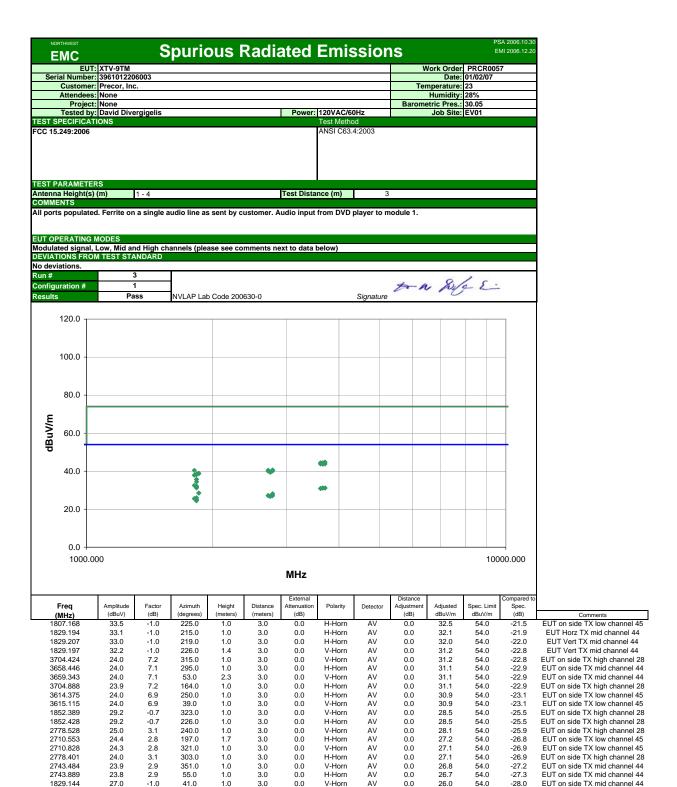
MEASUREMENT BANDWIDTHS								
Fre	equency Range	Peak Data	Quasi-Peak Data	Average Data				
	(MHz)	(kHz)	(kHz)	(kHz)				
	0.01 - 0.15	1.0	0.2	0.2				
	0.15 - 30.0	10.0	9.0	9.0				
	30.0 - 1000	100.0	120.0	120.0				
	Above 1000	1000.0	N/A	1000.0				
Measure	ements were made us	sing the bandwidths and detec	ctors specified. No video filte	r was used.				

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

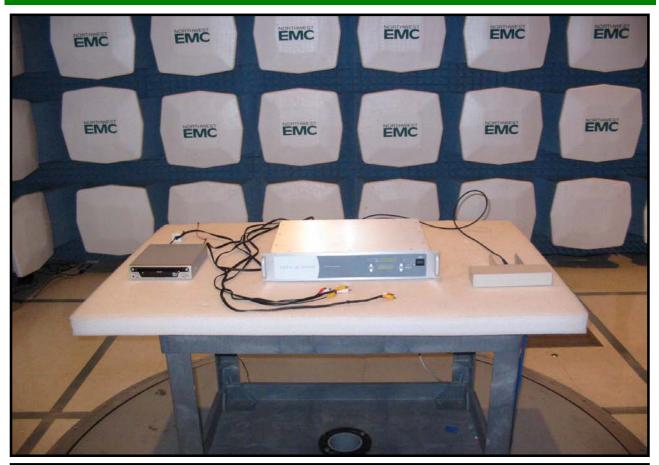
The antennas to be used with the EUT were tested. The EUT was transmitting and receiving while set at the lowest channel, a middle channel, and the highest channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.



EUT on side TX low channel 45

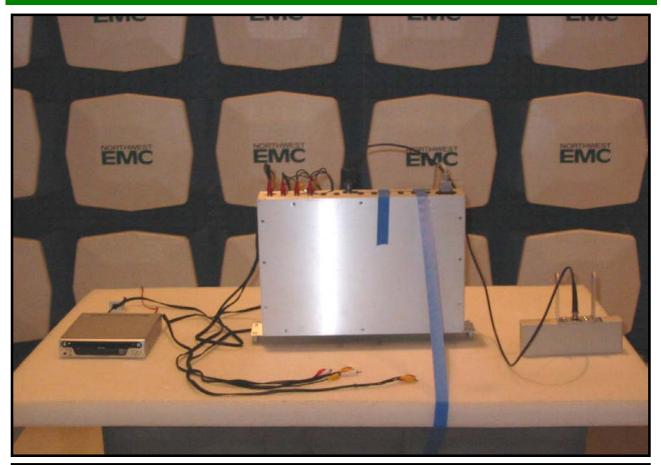
NORT	HWEST					٥.			٠.				7		.1		1			Ε.			a:a											06.10.30
FN	ИС					3	วเ	ır	IC)U	ક		7	<u>a</u> (16	Ц	e(9	Ξ	Ш	S	sio	n	S							ΕN	MI 20	06.12.20
		XTV-	отм			-																					Wo	rk O	rdor	. DI	200	005	7	
Seria	I Number:			600:	3																						***				/04/0		<u>-</u>	
	Customer:																									T	emp	erat		_				
Α	ttendees:	None	;																									umi						
	Project:																								Ва	aror		ic Pr						
	ested by:		Ashk	ann	ejha	ıd											F	Pov	ver:		VAC						J	Job S	Site:	E۷	01			
	ECIFICATI	ONS																			Me													
FCC 15.2																				ANS	SI Ce	3.4	:2003:											
	RAMETER			1 - 4	1											-	Too	4 D	iotos	200	(m)			2										
COMMEN	Height(s)	(111)		1 - 2	+											_	res	ט זפ	istar	ice	(111)			3										
EUT OPE Modulate DEVIATIO	POPULATED RATING N d signal, so DNS FROM	MODE:	S omme	nts i	for c	han			as	se	nt b	у с	ust	tom	ner.	Αι	ıdio	o in	put 1	from	n DV	Dр	layer to	o mo	dule	1.								
No deviat	tions.																																	
Run #			5																				Signatu		,	10		Λ	1	, ,	1	1	7	
Configura	ation #		1																						11	l	4	17	1	Ly	1	~		
Results			Pa	ss		١	١٧L	AP I	Lab	Со	de :	200	630	0-0									Signatu	re i	4	0	0	/		,				
dBuV/m	20.0						*																											
	20.0																																	
	890.00	n •	395.00	n n	O.	00.0	ነበሶ		905	5 04	20	,	310	, 0.00	1 0		011	, 5.0	$\cap \cap$	O,	, 20.0	ıΩΩ	925		1	02/	, 0.00	10	02	5.0	\cap	0	ر ۱ ۱۸۰	000
	890.00		95.00	00	90	JO.C	,00	,	900	5.00	,,,	•	, 10	7.00	J0		N	1H:	Z	94	20.0		923	.000				<i>,</i>	93		00	9.		
	eq Hz)	Ampl (dB			actor			imuth grees			leigh ieter			Dista (met			Atte	xtern enua (dB)	tion	Po	olarity		Detecto	r .	Dista Adjus (d	tmen	nt	Adjus dBuV			ec. L			npared to Spec. (dB)
929	.000	21			13.1			57.0			1.0			3.				10.0			Bilog		QP		0.			44.			46.0			-1.7
	.000	18			13.0			76.0			1.0			3.				10.0			Bilog		QP		0.			41.			46.0			-4.9
	.000	16			13.1			18.0			1.0			3.				10.0			Bilog		QP		0.			39.			46.0			-6.3
901	.000	16	5.5	1	13.0		27	78.0			1.1			3.	0		•	10.0)	H-	Bilog	9	QP		0.	0		39.	.5		46.0	J		-6.5

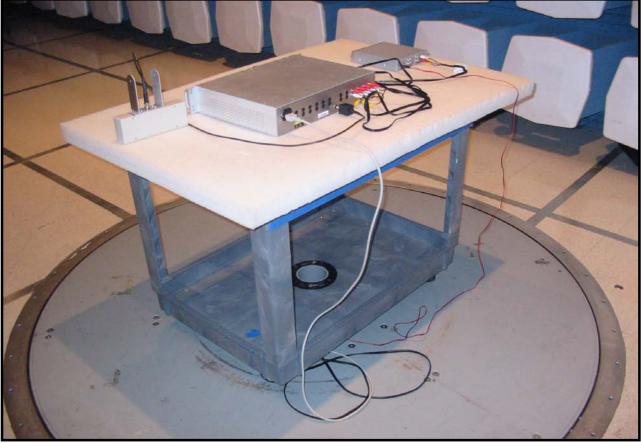
Spurious Radiated Emissions





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

Modulated signal, Low channel 903.59MHz Modulated signal, Low channel 914.62 MHz Modulated signal, Low channel 926.17 MHz

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED Start Frequency 903.59 MHz Stop Frequency 926.17 MHz

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	E4446A	AAT	12/7/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
EV01 cables c.g. h			EVA	12/29/2006	13

MEASUREMENT BANDWIDTHS							
	Frequency Range	Peak Data	Quasi-Peak Data	Average Data			
	(MHz)	(kHz)	(kHz)	(kHz)			
	0.01 - 0.15	1.0	0.2	0.2			
	0.15 - 30.0	10.0	9.0	9.0			
	30.0 - 1000	100.0	120.0	120.0			
	Above 1000	1000.0	N/A	1000.0			
	Measurements were made usin	g the bandwidths and det	ectors specified No video filte	r was used			

MEASUREMENT UNCERTAINTY

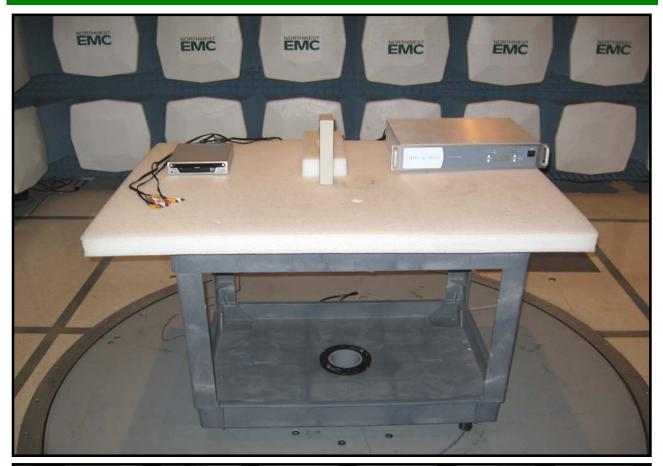
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was transmitting and/or receiving while set at the lowest channel, a middle channel, and the highest channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003).

NORTHWEST FIELD STRENGTH OF FUNDAMENTAL EMI 2006.12.20 **EMC** EUT: XTV-9TM Serial Number: 3961012206003 Work Order: PRCR0057 Date: 01/02/07 Customer: Precor, Inc. Temperature: 23 Attendees: None Humidity: 28% Project: None Barometric Pres.: 30.05 Tested by: Rod Peloquin TEST SPECIFICATIONS Power: 120VAC/60Hz Job Site: EV01 Test Method FCC 15.249:2006 ANSI C63.4:2003 TEST PARAMETERS Antenna Height(s) (m) 1 - 4 Test Distance (m) 3 COMMENTS All ports populated. Ferrite on a single audio line as sent by customer. Audio input from DVD player to module 1. EUT OPERATING MODES Modulated signal DEVIATIONS FROM TEST STANDARD No deviations. 2 Run# Configuration # 1 Results Pass NVLAP Lab Code 200630-0 Signature 110.0 90.0 70.0 dBuV/m 50.0 30.0 10.0 900 000 905.000 910.000 915.000 920.000 925.000 930,000 MHz

Frea												Compared to
1109	Amplitude	Factor	Azimuth	Height	Distance	Attenuation	Polarity	Detector	Adjustment	Adjusted	Spec. Limit	Spec.
(MHz)	(dBuV)	(dB)	(degrees)	(meters)	(meters)	(dB)			(dB)	dBuV/m	dBuV/m	(dB)
926.192	59.9	34.1	199.0	1.1	0.0	0.0	V-Bilog	PK	0.0	94.0	94.0	0.0
903.606	59.9	33.8	184.0	1.1	0.0	0.0	V-Bilog	PK	0.0	93.7	94.0	-0.3
914.612	59.3	33.9	189.0	1.1	0.0	0.0	V-Bilog	PK	0.0	93.2	94.0	-0.8
926.209	58.6	34.1	146.0	1.0	0.0	0.0	H-Bilog	PK	0.0	92.7	94.0	-1.3
903.608	58.8	33.8	146.0	1.0	0.0	0.0	H-Bilog	PK	0.0	92.6	94.0	-1.4
914.591	58.7	33.9	334.0	1.0	0.0	0.0	H-Bilog	PK	0.0	92.6	94.0	-1.4
	926.192 903.606 914.612 926.209 903.608	(MHz) (dBuV) 926.192 59.9 903.606 59.9 914.612 59.3 926.209 58.6 903.608 58.8	(MHz) (dBuV) (dB) 926.192 59.9 34.1 903.606 59.9 33.8 914.612 59.3 33.9 926.209 58.6 34.1 903.608 58.8 33.8	(MHz) (dBuV) (dB) (degrees) 926.192 59.9 34.1 199.0 903.606 59.9 33.8 184.0 914.612 59.3 33.9 189.0 926.209 58.6 34.1 146.0 903.608 58.8 33.8 146.0	(MHz) (dBuV) (dB) (degrees) (meters) 926.192 59.9 34.1 199.0 1.1 903.606 59.9 33.8 184.0 1.1 914.612 59.3 33.9 189.0 1.1 926.209 58.6 34.1 146.0 1.0 903.608 58.8 33.8 146.0 1.0	(MHz) (dBuV) (dB) (degrees) (meters) (meters) 926.192 59.9 34.1 199.0 1.1 0.0 903.606 59.9 33.8 184.0 1.1 0.0 914.612 59.3 33.9 189.0 1.1 0.0 926.209 58.6 34.1 146.0 1.0 0.0 903.608 58.8 33.8 146.0 1.0 0.0	(MHz) (dBuV) (dB) (degrees) (meters) (meters) (dB) 926.192 59.9 34.1 199.0 1.1 0.0 0.0 903.606 59.9 33.8 184.0 1.1 0.0 0.0 914.612 59.3 33.9 189.0 1.1 0.0 0.0 926.209 58.6 34.1 146.0 1.0 0.0 0.0 903.608 58.8 33.8 146.0 1.0 0.0 0.0	(MHz) (dBuV) (dB) (degrees) (meters) (meters) (dB) 926.192 59.9 34.1 199.0 1.1 0.0 0.0 V-Bilog 903.606 59.9 33.8 184.0 1.1 0.0 0.0 V-Bilog 914.612 59.3 33.9 189.0 1.1 0.0 0.0 V-Bilog 926.209 58.6 34.1 146.0 1.0 0.0 0.0 H-Bilog 903.608 58.8 33.8 146.0 1.0 0.0 0.0 H-Bilog	(MHz) (dBuV) (dB) (degrees) (meters) (meters) (dB) 926.192 59.9 34.1 199.0 1.1 0.0 0.0 V-Bilog PK 903.606 59.9 33.8 184.0 1.1 0.0 0.0 V-Bilog PK 914.612 59.3 33.9 189.0 1.1 0.0 0.0 V-Bilog PK 926.209 58.6 34.1 146.0 1.0 0.0 0.0 H-Bilog PK 903.608 58.8 33.8 146.0 1.0 0.0 0.0 H-Bilog PK	(MHz) (dBuV) (dB) (degrees) (meters) (meters) (dB) (dB) (dB) 926.192 59.9 34.1 199.0 1.1 0.0 0.0 V-Bilog PK 0.0 903.606 59.9 33.8 184.0 1.1 0.0 0.0 V-Bilog PK 0.0 914.612 59.3 33.9 189.0 1.1 0.0 0.0 V-Bilog PK 0.0 926.209 58.6 34.1 146.0 1.0 0.0 0.0 H-Bilog PK 0.0 903.608 58.8 33.8 146.0 1.0 0.0 0.0 H-Bilog PK 0.0	(MHz) (dBuV) (dB) (degrees) (meters) (dB) V-Bilog PK 0.0 94.0 926.192 59.9 34.1 199.0 1.1 0.0 0.0 V-Bilog PK 0.0 94.0 903.606 59.9 33.8 184.0 1.1 0.0 0.0 V-Bilog PK 0.0 93.7 914.612 59.3 33.9 189.0 1.1 0.0 0.0 V-Bilog PK 0.0 93.2 926.209 58.6 34.1 146.0 1.0 0.0 0.0 H-Bilog PK 0.0 92.7 903.608 58.8 33.8 146.0 1.0 0.0 0.0 H-Bilog PK 0.0 92.6	(MHz) (dBuV) (dB) (degrees) (meters) (meters) (dB) V-Bilog PK 0.0 94.0 94.0 926.192 59.9 34.1 199.0 1.1 0.0 0.0 V-Bilog PK 0.0 94.0 94.0 903.606 59.9 33.8 184.0 1.1 0.0 0.0 V-Bilog PK 0.0 93.7 94.0 914.612 59.3 33.9 189.0 1.1 0.0 0.0 V-Bilog PK 0.0 93.2 94.0 926.209 58.6 34.1 146.0 1.0 0.0 0.0 H-Bilog PK 0.0 92.7 94.0 903.608 58.8 33.8 146.0 1.0 0.0 0.0 H-Bilog PK 0.0 92.6 94.0











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

Transmitting on the High Channel.

Transmitting on the Mid Channel.

Transmitting on the Low Channel.

POWER SETTINGS INVESTIGATED

120V/60Hz

SAMPLE CALCULATIONS

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

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
LISN	Solar	9252-50-R-24-BNC	LIM	1/17/2007	13
LISN	Solar	9252-50-R-24-BNC	LIK	1/17/2007	13
SU07 cabkes a,g conducted			SUC	1/18/2007	13
emissions					
Attenuator	Pasternack		AUL	1/17/2007	13
High Pass Filter	TTE	H647-100k-50-718B	HFB	1/17/2007	13
Receiver	Rohde & Schwartz	ESCI	ARE	12/7/2006	13

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

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50 Ω .

11.1

11.2

-14.0

-14.1

46.0

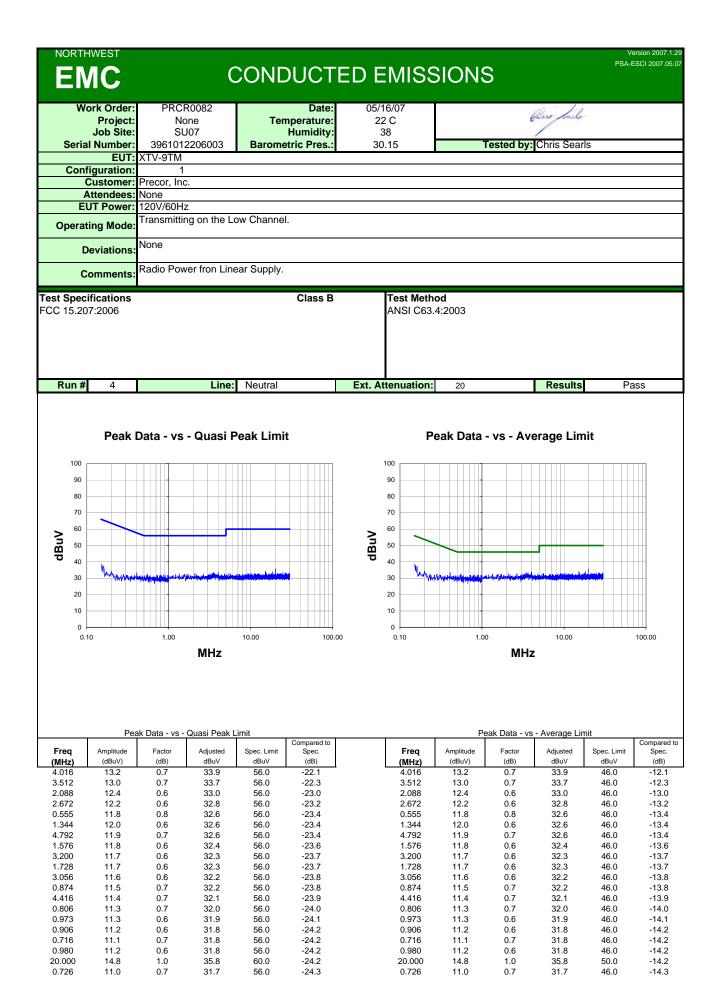
0.512

11.1

56.0

-24.0

-24.1



0.906

11.6

11.5

11.5

0.6

32.2

56.0

56.0

-23.8

1.080

0.906

3.216

11.6

11.5

11.5

0.6

32.2

46.0

46.0

-13.8

-13.9

-13.9

10.6

46.0

-14.6

56.0

0.835

10.9

10.9

46.0

-14.4

0.713

0.764

0.7

10.9

56.0

10.9

11.0

0.527

11.0

31.7

56.0

-24.4

31.7

46.0

-14.4

CONDUCTED EMISSIONS





CONDUCTED EMISSIONS



