

Application for FCC Certification
On behalf of
Hangzhou Wistar Mechanical & Electric Technology
Co.,Ltd.

Emitter

Model No.: WSRE SERIES

Serial No.: E2009051104

FCC ID : XFCWISTAR-EMITTER

Prepared For : Hangzhou Wistar Mechanical & Electric Technology
Co.,Ltd.
Building 4. No.3. Xiyuan Road 7th, Westlake
Technology Garden Hangzhou, China

Prepared By : Audix Technology (Shanghai) Co., Ltd.
3 F 34 Bldg 680 Guiping Rd.,
Caohejing Hi-Tech Park,
Shanghai 200233, China

Tel : +86-21-64955500

Fax : +86-21-64955491

Report No. : ACI-F09038
Date of Test : May 11 - 15, 2009
Date of Report : May 19, 2009

TABLE OF CONTENTS

	Page
1 SUMMARY OF STANDARDS AND RESULTS.....	4
1.1 Description of Standards and Results.....	4
2 GENERAL INFORMATION.....	5
2.1 Description of Equipment Under Test.....	5
2.2 Description of Test Facility	5
2.3 Measurement Uncertainty	5
3 RADIATED EMISSION TEST.....	6
3.1 Test Equipment.....	6
3.2 Block Diagram of Test Setup	6
3.3 Radiated Emission Limit	7
3.4 Test Configuration.....	7
3.5 Operating Condition of EUT	7
3.6 Test Procedures	8
3.7 Test Results	9
4 FUNDAMENTAL AND SPURIOUS EMISSIONS TEST	19
4.1 Test Equipment.....	19
4.2 Block Diagram of Test Setup	19
4.3 Fundamental and Spurious Emission Limit	19
4.4 Test Configuration.....	19
4.5 Operating Condition of EUT	20
4.6 Test Procedures	20
4.7 Test Results	21
5 BANDWIDTH MEASUREMENT.....	25
5.1 Test Equipment.....	25
5.2 Bandwidth Limit.....	25
5.3 Test Results	25
6 OPERATION DESCRIPTION	26
7 DEVIATION TO TEST SPECIFICATIONS	27
APPENDIX I PLOT OF THE PULSE TRAIN.....	28
APPENDIX II PLOT OF THE OCCUPIED BANDWIDTH	31

TEST REPORT FOR FCC CERTIFICATION

Applicant : Hangzhou Wistar Mechanical & Electric Technology Co.,Ltd.
Manufacturer : Hangzhou Wistar Mechanical & Electric Technology Co.,Ltd..
EUT Description : Emitter
(A) Model No. : WSRE SERIES
(B) Serial No. : E2009051104
(C) Power Supply : DC 12V (A23S Battery)
(D) Crystal Frequency : 433.92MHz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008
AND ANSI C63.4:2003*

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits radiated emission.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT (M/N: WSRE SERIES; S/N: E2009051104), which was tested in 3m anechoic chamber on May 11 - 15, 2009 to be technically compliant with the FCC official limits also.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report contains data that are not covered by the NVLAP accreditation.

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

Date of Test : May 11 - 15, 2009 Date of Report : May 19, 2009

Producer : Zeno Gu
ZENO GU / Assistant

Review : Dio Yang
DIO YANG / Supervisor

AUDIX[®] For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory : Sammy Chen
Authorized Signature EMC SAMMY CHEN / Assistant Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Description / Test Item	Test Standard	Meets Limit	Results
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003	15.209	Pass
Fundamental and Spurious	FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003	15.231 (b)	Pass
Bandwidth	FCC RULES AND REGULATIONS PART 15 SUBPART C OCTOBER 2008 AND ANSI C63.4:2003	15.231 (c)	Pass

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description : Emitter

Type of EUT : Production Pre-product Pro-type

Model No. : WSRE SERIES

Serial No. : E2009051104

Working Frequency : 433.92MHz

Applicant : Hangzhou Wistar Mechanical & Electric Technology Co.,Ltd.
Building 4. No.3. Xiyuan Road 7th, Westlake
Technology Garden Hangzhou, China

Manufacturer : Hangzhou Wistar Mechanical & Electric Technology Co.,Ltd.
Building 4. No.3. Xiyuan Road 7th, Westlake
Technology Garden Hangzhou, China

2.2 Description of Test Facility

Site Description (Semi-Anechoic Chamber) : Sept. 17, 1998 file on
July 26, 2006 Renewed
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd.,
Caohejing Hi-Tech Park,
Shanghai 200233, China

FCC registration Number : 91789

Accredited by NVLAP, Lab Code : 200371-0

2.3 Measurement Uncertainty

Radiated Emission Expanded Uncertainty : U = 3.02dB

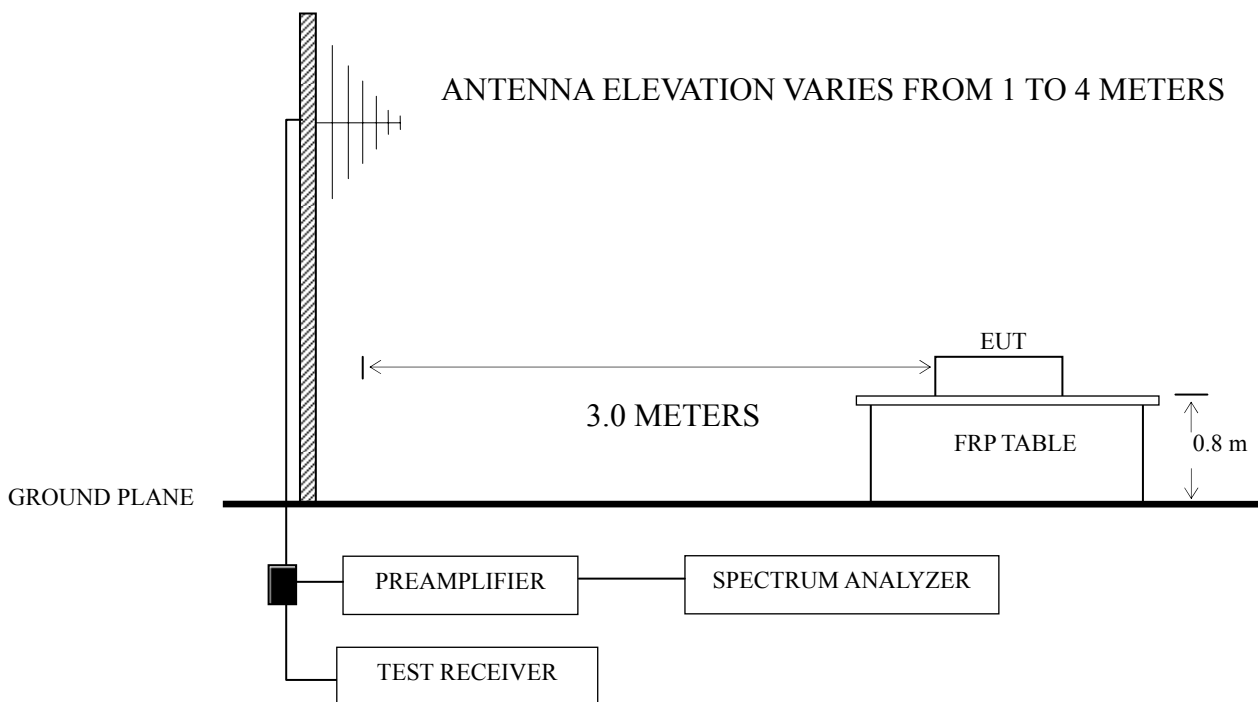
3 RADIATED EMISSION TEST

3.1 Test Equipment

The following test equipments are used during the radiated emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESVS10	832699/004	Apr 02, 2009	Apr 02, 2010
2.	Preamplifier	HP	8447D	2944A06849	Mar 18, 2009	Sep 19, 2009
3.	Preamplifier	HP	8449B	3008A00864	May 19, 2008	May 19, 2009
4.	Bilog Antenna	TESEQ	CBL6112D	23193	May 14, 2008	May 14, 2010
5.	Horn Antenna	EMCO	3115	9607-4878	Apr 24, 2009	Apr 24, 2010
6.	Spectrum Analyzer	Agilent	E7405A	MY45106600	May 19, 2008	May 19, 2009
7.	50Ω Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2009	Sep 19, 2009
8.	Software	Audix	E3	SET00200 9912M295-2	-	-

3.2 Block Diagram of Test Setup



■ : 50 ohm Coaxial Switch

3.3 Radiated Emission Limit

Frequency (MHz)	Distance (m)	Field strength limits ($\mu\text{V/m}$)	
		($\mu\text{V/m}$)	dB ($\mu\text{V/m}$)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

NOTE 1 - Emission Level dB ($\mu\text{V/m}$) = 20 lg Emission Level ($\mu\text{V/m}$)
 NOTE 2 - The tighter limit applies at the band edges.
 NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz.
 NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT

3.4 Test Configuration

The EUT was installed as show on Sec. 3.2 in radiated emission test to meet FCC requirement and operating in a manner, which tend to maximize emission level in a normal application.

3.5 Operating Condition of EUT

- 3.5.1 Setup the EUT as shown in Sec. 3.2.
- 3.5.2 Press one of the buttons and make it transmit continuously. Then test it one by one.
- 3.5.3 Set the EUT on the test modes, and then test.

3.6 Test Procedures

The EUT was placed on a FRP turntable that is 0.8 meter above ground. The FRP turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Broadband antenna (Calibrated Bilog Antenna or Horn Antenna) was used as receiving antenna. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.4:2003 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESVS10 was set at 120 kHz below 1GHz and The Spectrum Agilent E7405A was set at 1MHz above 1GHz.

The frequency range from 30 MHz to 4339.2MHz (Up to 10th harmonics from fundamental frequency) was checked for all test modes.

The test modes are as follows:

Up Lying	Up Side	Up Stand
Stop Lying	Stop Side	Stop Stand
Down Lying	Down Side	Down Stand

The test modes were done on radiated disturbance test.

Please refer to Sec.3.7.

3.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Test Mode	Data Page
Up Lying	P10
Up Side	P11
Up Stand	P12
Stop Lying	P13
Stop Side	P14
Stop Stand	P15
Down Lying	P16
Down Side	P17
Down Stand	P18

NOTE 1 – Level = Read Level + Antenna Factor + Cable Loss (<1GHz)

NOTE 2 – Level = Read Level + Antenna Factor + Cable Loss

- Preamp Factor (>1GHz)

NOTE 3 –The emission levels which not reported are too low against the official limit.

NOTE 4 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 5 –All reading are Quasi-Peak values below or equal to 1GHz and Peak values above 1GHz. For measurements above 1 GHz, the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60%RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Up Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	34.85	2.80	15.15	--	1.02	16.17	18.97	40	21.03	QP
	121.18	3.84	11.34	--	1.89	13.23	17.07	43.5	26.43	
	247.28	6.39	11.77	--	2.76	14.53	20.92	46	25.08	
	363.68	5.73	14.67	--	3.47	18.14	23.87	46	22.13	
	526.64	7.83	17.70	--	4.18	21.88	29.71	46	16.29	
	717.73	5.47	19.88	--	4.98	24.86	30.33	46	15.67	
	1024.000	50.35	22.57	37.63	6.73	-8.33	42.02	74	31.98	PK
	1123.000	46.38	23.27	37.36	6.95	-7.14	39.24	74	34.76	
	1268.000	51.31	24.23	37.02	7.41	-5.38	45.93	74	28.07	
	1329.000	54.29	24.74	36.88	7.66	-4.48	49.81	74	24.19	
	1686.000	53.27	26.61	36.19	8.99	-0.59	52.68	74	21.32	
1811.000	51.50	26.94	35.99	9.40	0.35	51.85	74	22.15		
Vertical	30.97	3.46	17.55	--	0.97	18.52	21.98	40	18.02	QP
	99.84	5.34	10.11	--	1.67	11.78	17.12	43.5	26.38	
	130.88	4.06	11.32	--	1.98	13.30	17.36	43.5	26.14	
	256.98	4.19	12.60	--	2.82	15.42	19.61	46	26.39	
	363.68	6.01	14.67	--	3.47	18.14	24.15	46	21.85	
	482.99	3.98	17.23	--	4.01	21.24	25.22	46	20.78	
	1014.000	58.45	22.49	37.66	6.73	-8.44	50.01	74	23.99	PK
	1290.000	49.46	24.45	36.96	7.50	-5.01	44.45	74	29.55	
	1401.000	48.23	25.20	36.72	8.01	-3.51	44.72	74	29.28	
	1623.000	48.10	26.45	36.30	8.78	-1.07	47.03	74	26.97	
	1811.000	47.91	26.94	35.99	9.40	0.35	48.26	74	25.74	
1890.000	47.38	27.45	35.86	9.65	1.24	48.62	74	25.38		

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60%RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Up Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	30.97	3.14	17.55	--	0.97	18.52	21.66	40	18.34	QP
	43.58	5.29	10.69	--	1.11	11.80	17.09	40	22.91	
	99.84	5.26	10.11	--	1.67	11.78	17.04	43.5	26.46	
	256.01	3.35	12.60	--	2.82	15.42	18.77	46	27.23	
	363.68	5.48	14.67	--	3.47	18.14	23.62	46	22.38	
	613.94	4.18	19.04	--	4.58	23.62	27.80	46	18.20	
	1014.000	55.92	22.49	37.66	6.73	-8.44	47.48	74	26.52	PK
	1099.000	48.79	23.08	37.42	6.89	-7.45	41.34	74	32.66	
	1165.000	49.87	23.51	37.26	7.01	-6.74	43.13	74	30.87	
	1334.000	48.94	24.78	36.87	7.75	-4.34	44.60	74	29.40	
	1506.000	45.02	25.84	36.51	8.43	-2.24	42.78	74	31.22	
1678.000	44.04	26.59	36.20	8.92	-0.69	43.35	74	30.65		
Vertical	31.94	3.52	16.90	--	0.99	17.89	21.41	40	18.59	QP
	99.84	4.26	10.11	--	1.67	11.78	16.04	43.5	27.46	
	247.28	6.81	11.77	--	2.76	14.53	21.34	46	24.66	
	426.73	4.18	16.50	--	3.79	20.29	24.47	46	21.53	
	672.14	5.55	18.94	--	4.78	23.72	29.27	46	16.73	
	812.79	4.38	20.40	--	5.48	25.88	30.26	46	15.74	
	1005.000	54.73	22.43	37.68	6.70	-8.55	46.18	74	27.82	PK
	1182.000	53.63	23.62	37.22	7.04	-6.56	47.07	74	26.93	
	1260.000	52.99	24.19	37.03	7.41	-5.43	47.56	74	26.44	
	1512.000	52.08	25.88	36.51	8.43	-2.20	49.88	74	24.12	
	1707.000	49.15	26.67	36.16	9.07	-0.42	48.73	74	25.27	
1891.000	50.96	27.45	35.86	9.65	1.24	52.20	74	21.80		

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60%RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Up Stand

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	31.94	3.75	16.90	--	0.99	17.89	21.64	40	18.36	QP
	126.03	3.92	11.48	--	1.94	13.42	17.34	43.5	26.16	
	256.98	6.56	12.60	--	2.82	15.42	21.98	46	24.02	
	480.08	6.24	17.20	--	3.99	21.19	27.43	46	18.57	
	526.64	7.22	17.70	--	4.18	21.88	29.10	46	16.90	
	911.73	4.61	20.65	--	5.78	26.43	31.04	46	14.96	
	1014.000	52.09	22.49	37.66	6.73	-8.44	43.65	74	30.35	PK
	1183.000	53.05	23.62	37.22	7.04	-6.56	46.49	74	27.51	
	1263.000	49.97	24.23	37.02	7.41	-5.38	44.59	74	29.41	
	1334.000	44.33	24.78	36.87	7.75	-4.34	39.99	74	34.01	
	1499.000	50.32	25.80	36.53	8.43	-2.30	48.02	74	25.98	
1969.000	49.64	27.91	35.74	9.81	1.98	51.62	74	22.38		
Vertical	30.97	2.97	17.55	--	0.97	18.52	21.49	40	18.51	QP
	99.84	4.78	10.11	--	1.67	11.78	16.56	43.5	26.94	
	128.94	3.89	11.42	--	1.97	13.39	17.28	43.5	26.22	
	256.98	3.86	12.60	--	2.82	15.42	19.28	46	26.72	
	363.68	5.16	14.67	--	3.47	18.14	23.30	46	22.70	
	615.88	4.36	19.07	--	4.58	23.65	28.01	46	17.99	
	1005.000	59.76	22.43	37.68	6.70	-8.55	51.21	74	22.79	PK
	1179.000	57.57	23.59	37.22	7.04	-6.59	50.98	74	23.02	
	1342.000	56.47	24.82	36.85	7.75	-4.28	52.19	74	21.81	
	1497.000	54.19	25.80	36.53	8.43	-2.30	51.89	74	22.11	
	1600.000	47.08	26.40	36.34	8.71	-1.23	45.85	74	28.15	
1827.000	47.87	27.03	35.96	9.40	0.47	48.34	74	25.66		

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60%RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Stop Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark	
Horizontal	30.97	3.14	17.55	--	0.97	18.52	21.66	40	18.34	QP	
	101.78	5.14	10.39	--	1.69	12.08	17.22	43.5	26.28		
	204.60	3.49	8.57	--	2.50	11.07	14.56	43.5	28.94		
	428.67	2.68	16.47	--	3.79	20.26	22.94	46	23.06		
	587.75	1.77	18.68	--	4.46	23.14	24.91	46	21.09		
	806.00	3.26	20.22	--	5.45	25.67	28.93	46	17.07		
	Horizontal	1170.000	50.35	23.54	37.25	7.04	-6.67	43.68	74	30.32	PK
		1499.000	51.14	25.80	36.53	8.43	-2.30	48.84	74	25.16	
		1733.000	42.99	26.74	36.11	9.15	-0.22	42.77	74	31.23	
		1811.000	49.45	26.94	35.99	9.40	0.35	49.80	74	24.20	
		1891.000	48.47	27.45	35.86	9.65	1.24	49.71	74	24.29	
Vertical	1969.000	49.45	27.91	35.74	9.81	1.98	51.43	74	22.57	PK	
	30.97	2.97	17.55	--	0.97	18.52	21.49	40	18.51		QP
	110.51	3.88	11.20	--	1.78	12.98	16.86	43.5	26.64		
	205.57	2.28	8.55	--	2.50	11.05	13.33	43.5	30.17		
	306.45	3.00	13.05	--	3.14	16.19	19.19	46	26.81		
	648.86	3.12	18.95	--	4.69	23.64	26.76	46	19.24		
	825.40	3.09	20.50	--	5.51	26.01	29.10	46	16.90		
	1001.000	52.38	22.40	37.70	6.70	-8.60	43.78	74	30.22		
	1181.000	47.23	23.62	37.22	7.04	-6.56	40.67	74	33.33		
	1276.000	50.18	24.32	37.00	7.50	-5.18	45.00	74	29.00		
	1522.000	45.24	25.96	36.49	8.50	-2.03	43.21	74	30.79		
1733.000	44.39	26.74	36.11	9.15	-0.22	44.17	74	29.83			
1811.000	47.87	26.94	35.99	9.40	0.35	48.22	74	25.78			

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60%RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Stop Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	33.88	4.08	15.77	--	1.01	16.78	20.86	40	19.14	QP
	101.78	4.94	10.39	--	1.69	12.08	17.02	43.5	26.48	
	216.24	2.46	7.92	--	2.57	10.49	12.95	46	33.05	
	388.90	2.48	15.25	--	3.62	18.87	21.35	46	24.65	
	587.75	2.19	18.68	--	4.46	23.14	25.33	46	20.67	
	810.85	3.05	20.35	--	5.48	25.83	28.88	46	17.12	
	1007.000	56.81	22.46	37.68	6.70	-8.52	48.29	74	25.71	PK
	1171.000	50.29	23.56	37.24	7.04	-6.64	43.65	74	30.35	
	1277.000	49.79	24.32	36.99	7.50	-5.17	44.62	74	29.38	
	1331.000	51.45	24.74	36.88	7.66	-4.48	46.97	74	27.03	
1515.000	49.38	25.92	36.50	8.43	-2.15	47.23	74	26.77		
1754.000	49.47	26.80	36.07	9.24	-0.03	49.44	74	24.56		
Vertical	31.94	5.25	16.90	--	0.99	17.89	23.14	40	16.86	QP
	96.93	6.38	9.70	--	1.66	11.36	17.74	43.5	25.76	
	126.03	4.02	11.48	--	1.94	13.42	17.44	43.5	26.06	
	255.04	4.13	12.50	--	2.80	15.30	19.43	46	26.57	
	415.09	3.77	16.53	--	3.74	20.27	24.04	46	21.96	
	672.14	5.23	18.94	--	4.78	23.72	28.95	46	17.05	
	1004.000	55.68	22.43	37.69	6.70	-8.56	47.12	74	26.88	PK
	1181.000	55.02	23.62	37.22	7.04	-6.56	48.46	74	25.54	
	1339.000	50.48	24.78	36.86	7.75	-4.33	46.15	74	27.85	
	1500.000	54.60	25.80	36.53	8.43	-2.30	52.30	74	21.70	
1606.000	48.30	26.42	36.33	8.71	-1.20	47.10	74	26.90		
1890.000	52.50	27.45	35.86	9.65	1.24	53.74	74	20.26		

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60%RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Stop Stand

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	30.97	3.53	17.55	--	0.97	18.52	22.05	40	17.95	QP
	99.84	5.86	10.11	--	1.67	11.78	17.64	43.5	25.86	
	126.03	4.50	11.48	--	1.94	13.42	17.92	43.5	25.58	
	254.07	3.64	12.38	--	2.80	15.18	18.82	46	27.18	
	363.68	5.69	14.67	--	3.47	18.14	23.83	46	22.17	
	480.08	7.40	17.20	--	3.99	21.19	28.59	46	17.41	
	1089.000	49.79	23.02	37.46	6.89	-7.55	42.24	74	31.76	PK
	1175.000	51.76	23.56	37.23	7.04	-6.63	45.13	74	28.87	
	1268.000	44.47	24.23	37.02	7.41	-5.38	39.09	74	34.91	
	1418.000	45.22	25.31	36.69	8.09	-3.29	41.93	74	32.07	
	1621.000	42.69	26.45	36.31	8.78	-1.08	41.61	74	32.39	
1732.000	46.26	26.74	36.12	9.15	-0.23	46.03	74	27.97		
Vertical	30.97	3.60	17.55	--	0.97	18.52	22.12	40	17.88	QP
	104.69	5.11	10.75	--	1.72	12.47	17.58	43.5	25.92	
	208.48	4.95	8.26	--	2.52	10.78	15.73	43.5	27.77	
	352.04	3.71	14.52	--	3.41	17.93	21.64	46	24.36	
	480.08	5.63	17.20	--	3.99	21.19	26.82	46	19.18	
	672.14	5.99	18.94	--	4.78	23.72	29.71	46	16.29	
	1012.000	53.29	22.49	37.67	6.73	-8.45	44.84	74	29.16	PK
	1183.000	48.76	23.62	37.22	7.04	-6.56	42.20	74	31.80	
	1255.000	48.68	24.14	37.04	7.33	-5.57	43.11	74	30.89	
	1335.000	47.29	24.78	36.87	7.75	-4.34	42.95	74	31.05	
	1521.000	45.18	25.96	36.49	8.50	-2.03	43.15	74	30.85	
1655.000	41.45	26.54	36.25	8.92	-0.79	40.66	74	33.34		

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60%RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Down Lying

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	30.97	3.63	17.55	--	0.97	18.52	22.15	40	17.85	QP
	104.69	5.11	10.75	--	1.72	12.47	17.58	43.5	25.92	
	223.03	6.00	8.65	--	2.62	11.27	17.27	46	28.73	
	363.68	5.93	14.67	--	3.47	18.14	24.07	46	21.93	
	615.88	4.51	19.07	--	4.58	23.65	28.16	46	17.84	
	827.34	4.54	20.50	--	5.51	26.01	30.55	46	15.45	
	1003.000	53.54	22.43	37.69	6.70	-8.56	44.98	74	29.02	PK
	1170.000	53.35	23.54	37.25	7.04	-6.67	46.68	74	27.32	
	1296.000	45.50	24.49	36.95	7.58	-4.88	40.62	74	33.38	
	1392.000	47.40	25.16	36.75	8.01	-3.58	43.82	74	30.18	
1633.000	46.21	26.49	36.28	8.85	-0.94	45.27	74	28.73		
1763.000	45.77	26.81	36.06	9.24	-0.01	45.76	74	28.24		
Vertical	30.97	3.28	17.55	--	0.97	18.52	21.80	40	18.20	QP
	109.54	4.59	11.16	--	1.78	12.94	17.53	43.5	25.97	
	264.74	4.29	12.55	--	2.87	15.42	19.71	46	26.29	
	363.68	6.07	14.67	--	3.47	18.14	24.21	46	21.79	
	672.14	5.99	18.94	--	4.78	23.72	29.71	46	16.29	
	817.64	3.69	20.45	--	5.48	25.93	29.62	46	16.38	
	1097.000	45.70	23.08	37.43	6.89	-7.46	38.24	74	35.76	PK
	1276.000	51.18	24.32	37.00	7.50	-5.18	46.00	74	28.00	
	1418.000	44.86	25.31	36.69	8.09	-3.29	41.57	74	32.43	
	1627.000	46.42	26.47	36.30	8.78	-1.05	45.37	74	28.63	
1733.000	45.39	26.74	36.11	9.15	-0.22	45.17	74	28.83		
1811.000	48.87	26.94	35.99	9.40	0.35	49.22	74	24.78		

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60%RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Down Side

Polarization	Frequency (MHz)	Read Level dB (μV)	Antenna Factor (dB/m)	Preamplifier Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	30.97	2.27	17.55	--	0.97	18.52	20.79	40	19.21	QP
	104.69	3.84	10.75	--	1.72	12.47	16.31	43.5	27.19	
	133.79	3.77	11.10	--	1.99	13.09	16.86	43.5	26.64	
	261.83	3.23	12.73	--	2.84	15.57	18.80	46	27.20	
	363.68	5.30	14.67	--	3.47	18.14	23.44	46	22.56	
	526.64	6.45	17.70	--	4.18	21.88	28.33	46	17.67	
	1080.000	48.42	22.95	37.47	6.85	-7.67	40.75	74	33.25	PK
	1245.000	48.74	24.06	37.07	7.33	-5.68	43.06	74	30.94	
	1331.000	50.45	24.74	36.88	7.66	-4.48	45.97	74	28.03	
	1418.000	46.84	25.31	36.69	8.09	-3.29	43.55	74	30.45	
1515.000	48.38	25.92	36.50	8.43	-2.15	46.23	74	27.77		
1654.000	47.24	26.54	36.25	8.85	-0.86	46.38	74	27.62		
Vertical	31.94	3.31	16.90	--	0.99	17.89	21.20	40	18.80	QP
	99.84	4.87	10.11	--	1.67	11.78	16.65	43.5	26.85	
	191.99	4.99	8.35	--	2.42	10.77	15.76	43.5	27.74	
	363.68	5.29	14.67	--	3.47	18.14	23.43	46	22.57	
	479.11	4.85	17.20	--	3.99	21.19	26.04	46	19.96	
	584.84	3.55	18.65	--	4.46	23.11	26.66	46	19.34	
	1004.000	52.68	22.43	37.69	6.70	-8.56	44.12	74	29.88	PK
	1162.000	50.24	23.51	37.27	7.01	-6.75	43.49	74	30.51	
	1310.000	44.38	24.58	36.92	7.58	-4.76	39.62	74	34.38	
	1356.000	44.88	24.90	36.82	7.84	-4.08	40.80	74	33.20	
1606.000	45.30	26.42	36.33	8.71	-1.20	44.10	74	29.90		
1750.000	43.66	26.78	36.08	9.15	-0.15	43.51	74	30.49		

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60% RH

Serial No. : E2009051104 Date of Test : May 13, 2009

Test Mode : Down Stand

Polarization	Frequency (MHz)	Read Level dB (μ V)	Antenna Factor (dB/m)	Preamp Factor (dB)	Cable Loss (dB)	Factor (dB/m)	Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)	Remark
Horizontal	30.97	2.80	17.55	--	0.97	18.52	21.32	40	18.68	QP
	105.66	2.40	10.82	--	1.73	12.55	14.95	43.5	28.55	
	229.82	3.25	9.60	--	2.66	12.26	15.51	46	30.49	
	414.12	1.70	16.50	--	3.74	20.24	21.94	46	24.06	
	569.32	2.01	18.45	--	4.40	22.85	24.86	46	21.14	
	806.00	2.79	20.22	--	5.45	25.67	28.46	46	17.54	
	1089.000	51.79	23.02	37.46	6.89	-7.55	44.24	74	29.76	PK
	1340.000	44.63	24.82	36.85	7.75	-4.28	40.35	74	33.65	
	1497.000	45.22	25.80	36.53	8.43	-2.30	42.92	74	31.08	
	1654.000	49.49	26.54	36.25	8.85	-0.86	48.63	74	25.37	
	1764.000	44.75	26.81	36.06	9.24	-0.01	44.74	74	29.26	
1890.000	44.98	27.45	35.86	9.65	1.24	46.22	74	27.78		
Vertical	32.91	3.31	16.30	--	1.00	17.30	20.61	40	19.39	QP
	93.05	4.09	9.20	--	1.63	10.83	14.92	43.5	28.58	
	140.58	2.91	10.54	--	2.05	12.59	15.50	43.5	28.00	
	240.49	3.44	11.01	--	2.73	13.74	17.18	46	28.82	
	398.60	2.87	15.80	--	3.67	19.47	22.34	46	23.66	
	627.52	3.24	19.10	--	4.61	23.71	26.95	46	19.05	
	1012.000	55.29	22.49	37.67	6.73	-8.45	46.84	74	27.16	PK
	1096.000	47.45	23.08	37.43	6.89	-7.46	39.99	74	34.01	
	1183.000	50.76	23.62	37.22	7.04	-6.56	44.20	74	29.80	
	1274.000	50.54	24.32	37.00	7.41	-5.27	45.27	74	28.73	
	1459.000	44.00	25.56	36.61	8.26	-2.79	41.21	74	32.79	
1723.000	43.74	26.72	36.12	9.07	-0.33	43.41	74	30.59		

TEST ENGINEER: DIO YANG

4 FUNDAMENTAL AND SPURIOUS EMISSIONS TEST

4.1 Test Equipment

The following test equipments are used during the fundamental and spurious emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Preamplifier	HP	8447D	2944A06849	Mar 18, 2009	Sep 19, 2009
2.	Preamplifier	HP	8449B	3008A00864	May 19, 2008	May 19, 2009
3.	Bilog Antenna	TESEQ	CBL6112D	23193	May 14, 2008	May 14, 2010
4.	Horn Antenna	EMCO	3115	9607-4878	Apr 24, 2009	Apr 24, 2010
5.	Test Receiver	R&S	ESVS10	832699/004	Apr 02, 2009	Apr 02, 2010
6.	Spectrum Analyzer	Agilent	E7405A	MY45106600	May 19, 2008	May 19, 2009

4.2 Block Diagram of Test Setup

Same as Sec 3.2

4.3 Fundamental and Spurious Emission Limit

Frequency (MHz)	Distance (m)	Field strength limits of fundamental	Field strength limits of spurious emissions
		($\mu\text{V/m}$)	($\mu\text{V/m}$)
260 ~ 470	3	3750-12500*	375-1250*
NOTE 1 - Emission Level dB ($\mu\text{V/m}$) = 20 lg Emission Level ($\mu\text{V/m}$) NOTE 2 - The tighter limit applies at the band edges. NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system. NOTE 4 - "*" means linear interpolation. NOTE 5 - The fundamental frequency of the EUT is 433.92MHz, Emission Level dB ($\mu\text{V/m}$)=20lg(41.6667*433.92-7083.3333)= 80.55 dB ($\mu\text{V/m}$) and the limit of the Harmonic is 60.55dB ($\mu\text{V/m}$).			

4.4 Test Configuration

The EUT was installed as show on Sec. 3.2 in fundamental and spurious emission test to meet ANSI C63.4:2003 requirements and operating in a manner that tend to maximize emission level in a normal application.

4.5 Operating Condition of EUT

- 4.5.1 Setup the EUT as shown in Sec. 3.2.
- 4.5.2 Press one of the buttons and make it transmit continuously. Then test it one by one.
- 4.5.3 Set the EUT on the test modes, and then test.
- 4.5.4 The test modes are as follows:

Up Lying	Up Side	Up Stand
Stop Lying	Stop Side	Stop Stand
Down Lying	Down Side	Down Stand

4.6 Test Procedures

The EUT was placed on a FRP turntable that is 0.8 meter above ground. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Both horizontal and vertical polarization of the antenna was set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to FCC PART 15 Subpart C and ANSI C63.4:2003 requirements during fundamental and spurious emission test.

The bandwidth setting on Test Receiver ESVS10 is 120 kHz below 1000 MHz.

The bandwidth setting on Spectrum analyzer E7405A is 1 MHz above 1000 MHz.

The frequency range from 30 MHz to 4339.2 MHz (the tenth harmonic) was checked. The EUT rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission.

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the higher harmonic not reported below are too low against the FCC limit.

Test Mode	Direction	Data Page
Up	Lying	P22
	Side	
	Stand	
Stop	Lying	P23
	Side	
	Stand	
Down	Lying	P24
	Side	
	Stand	

NOTE 1 - All reading are Quasi-Peak values below or equal to 1GHz and Peak values above 1GHz.

NOTE 2 - Factor = Antenna Factor + Cable Loss (<1GHz)

NOTE 3 - Factor = Antenna Factor + Cable Loss - Preamp Factor (>1GHz)

NOTE 4 - Level = Read Level + Factor - Correction factor

NOTE 5 - Correction factor is calculated by averaging the sum of the pulse train.
Correction factor is measured as follows:

Turn on the EUT and set the spectrum to the fundamental frequency and set the span to 0 Hz to detect the pulse train. Adjust the sweep time to observe the pulse train and determine the number and width of the pulses, as well as the period of the train.

Mode	T	Pulse 1		Pulse 2		Formula	Correction Factor
		T ₁	n	T ₂	n		
Up	108.26ms	0.68ms	46	0.289ms	31	$ 20\lg[(T1*n+T2*n)/T] $	8.6 dB
Stop	108.56ms	0.68ms	39	0.289ms	39	$ 20\lg[(T1*n+T2*n)/T] $	9.2 dB
Down	108.70ms	0.68ms	43	0.289ms	35	$ 20\lg[(T1*n+T2*n)/T] $	8.8 dB

(See Appendix I)

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60% RH

Serial No. : E2009051104 Date of Test : May 14, 2008

Test Mode Up

Direction	Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Lying	Horizontal	433.920	47.91	19.25	8.60	58.56	80.55	21.99
		867.840	38.29	24.76	8.60	54.45	60.55	6.10
		1301.760	56.78	-8.21	8.60	39.97	60.55	20.58
		1735.680	55.42	-4.42	8.60	42.40	60.55	18.15
	Vertical	433.920	33.31	19.25	8.60	43.96	80.55	36.59
		867.840	24.69	24.76	8.60	40.85	60.55	19.70
		1301.760	49.32	-8.21	8.60	32.51	60.55	28.04
		1735.680	48.28	-4.42	8.60	35.26	60.55	25.29
Side	Horizontal	433.920	45.81	19.25	8.60	56.46	80.55	24.09
		867.840	37.09	24.76	8.60	53.25	60.55	7.30
		1301.760	56.71	-8.21	8.60	39.90	60.55	20.65
		1735.680	51.30	-4.42	8.60	38.28	60.55	22.27
	Vertical	433.920	43.61	19.25	8.60	54.26	80.55	26.29
		867.840	25.49	24.76	8.60	41.65	60.55	18.90
		1301.760	51.75	-8.21	8.60	34.94	60.55	25.61
		1735.680	47.51	-4.42	8.60	34.49	60.55	26.06
Stand	Horizontal	433.920	38.11	19.25	8.60	48.76	80.55	31.79
		867.840	26.39	24.76	8.60	42.55	60.55	18.00
		1301.760	47.64	-8.21	8.60	30.83	60.55	29.72
		1735.680	47.95	-4.42	8.60	34.93	60.55	25.62
	Vertical	433.920	45.61	19.25	8.60	56.26	80.55	24.29
		867.840	34.69	24.76	8.60	50.85	60.55	9.70
		1301.760	56.54	-8.21	8.60	39.73	60.55	20.82
		1735.680	50.22	-4.42	8.60	37.20	60.55	23.35

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60% RH

Serial No. : E2009051104 Date of Test : May 14, 2008

Test Mode Stop

Direction	Polarization	Frequency (MHz)	Read Level dB (μV)	Factor (dB/m)	Correction factor (dB)	Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Lying	Horizontal	433.920	47.51	19.25	9.20	57.56	80.55	22.99
		867.840	38.29	24.76	9.20	53.85	60.55	6.70
		1301.760	51.99	-8.21	9.20	34.58	60.55	25.97
		1735.680	50.99	-4.42	9.20	37.37	60.55	23.18
	Vertical	433.920	35.31	19.25	9.20	45.36	80.55	35.19
		867.840	26.79	24.76	9.20	42.35	60.55	18.20
		1301.760	46.39	-8.21	9.20	28.98	60.55	31.57
		1735.680	44.25	-4.42	9.20	30.63	60.55	29.92
Side	Horizontal	433.920	59.39	19.25	9.20	69.44	80.55	11.11
		867.840	31.61	24.76	9.20	47.17	60.55	13.38
		1301.760	53.44	-8.21	9.20	36.03	60.55	24.52
		1735.680	48.39	-4.42	9.20	34.77	60.55	25.78
	Vertical	433.920	52.21	19.25	9.20	62.26	80.55	18.29
		867.840	15.32	24.76	9.20	30.88	60.55	29.67
		1301.760	50.50	-8.21	9.20	33.09	60.55	27.46
		1735.680	47.95	-4.42	9.20	34.33	60.55	26.22
Stand	Horizontal	433.920	46.00	19.25	9.20	56.05	80.55	24.50
		867.840	32.10	24.76	9.20	47.66	60.55	12.89
		1301.760	46.95	-8.21	9.20	29.54	60.55	31.01
		1735.680	46.13	-4.42	9.20	32.51	60.55	28.04
	Vertical	433.920	46.40	19.25	9.20	56.45	80.55	24.10
		867.840	28.29	24.76	9.20	43.85	60.55	16.70
		1301.760	52.88	-8.21	9.20	35.47	60.55	25.08
		1735.680	50.40	-4.42	9.20	36.78	60.55	23.77

TEST ENGINEER: DIO YANG

EUT : Emitter Temperature : 22°C

Model No. : WSRE SERIES Humidity : 60% RH

Serial No. : E2009051104 Date of Test : May 14, 2008

Test Mode Down

Direction	Polarization	Frequency (MHz)	Read Level dB (μ V)	Factor (dB/m)	Correction factor (dB)	Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Lying	Horizontal	433.920	47.51	19.25	8.80	57.96	80.55	22.59
		867.840	37.60	24.76	8.80	53.56	60.55	6.99
		1301.760	58.27	-8.21	8.80	41.26	60.55	19.29
		1735.680	54.85	-4.42	8.80	41.63	60.55	18.92
	Vertical	433.920	34.71	19.25	8.80	45.16	80.55	35.39
		867.840	22.69	24.76	8.80	38.65	60.55	21.90
		1301.760	49.64	-8.21	8.80	32.63	60.55	27.92
		1735.680	49.38	-4.42	8.80	36.16	60.55	24.39
Side	Horizontal	433.920	44.54	19.25	8.80	54.99	80.55	25.56
		867.840	35.40	24.76	8.80	51.36	60.55	9.19
		1301.760	55.86	-8.21	8.80	38.85	60.55	21.70
		1735.680	51.67	-4.42	8.80	38.45	60.55	22.10
	Vertical	433.920	43.72	19.25	8.80	54.17	80.55	26.38
		867.840	26.61	24.76	8.80	42.57	60.55	17.98
		1301.760	50.77	-8.21	8.80	33.76	60.55	26.79
		1735.680	46.67	-4.42	8.80	33.45	60.55	27.10
Stand	Horizontal	433.920	39.10	19.25	8.80	49.55	80.55	31.00
		867.840	31.60	24.76	8.80	47.56	60.55	12.99
		1301.760	47.84	-8.21	8.80	30.83	60.55	29.72
		1735.680	46.03	-4.42	8.80	32.81	60.55	27.74
	Vertical	433.920	46.33	19.25	8.80	56.78	80.55	23.77
		867.840	35.94	24.76	8.80	51.90	60.55	8.65
		1301.760	56.12	-8.21	8.80	39.11	60.55	21.44
		1735.680	49.92	-4.42	8.80	36.70	60.55	23.85

TEST ENGINEER: DIO YANG

5 BANDWIDTH MEASUREMENT

5.1 Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY45106600	May 19, 2008	May 19, 2009
2.	Bilog Antenna	TESEQ	CBL6112D	23193	May 14, 2008	May 14, 2010
1.	Preamplifier	HP	8447D	2944A06849	Mar 18, 2009	Sep 19, 2009
3.	Software	Audix	E3	SET00200 9912M295-2	-	-

5.2 Bandwidth Limit

The bandwidth of the emission shall be no wider than 0.25% of the center frequency. Bandwidth is determined at the point 20dB down from the modulated carrier. Bandwidth Limit is:

$$\text{Limit} = 0.25\% \times 433.92(\text{MHz}) = 1.0848(\text{MHz})$$

The bandwidth of Spectrum Analyzer (M/N: E7405A) is 10kHz in the test.

5.3 Test Results

<PASS>

The bandwidth of the Fundament emission is:

For Up Test Mode:

$$\text{B.W.} = 434.155 - 433.768 = 0.387\text{MHz}$$

For Stop Test Mode:

$$\text{B.W.} = 434.144 - 433.753 = 0.391\text{MHz}$$

For Down Test Mode:

$$\text{B.W.} = 434.148 - 433.753 = 0.395\text{MHz}$$

(See Appendix II)

6 OPERATION DESCRIPTION

Motion sensor with RF remote (M/N: WSRE SERIES) employs a switch that will automatically deactivate the Controller within not more than 5 seconds of being released.

7 DEVIATION TO TEST SPECIFICATIONS

None.

APPENDIX I

PLOT OF THE PULSE TRAIN

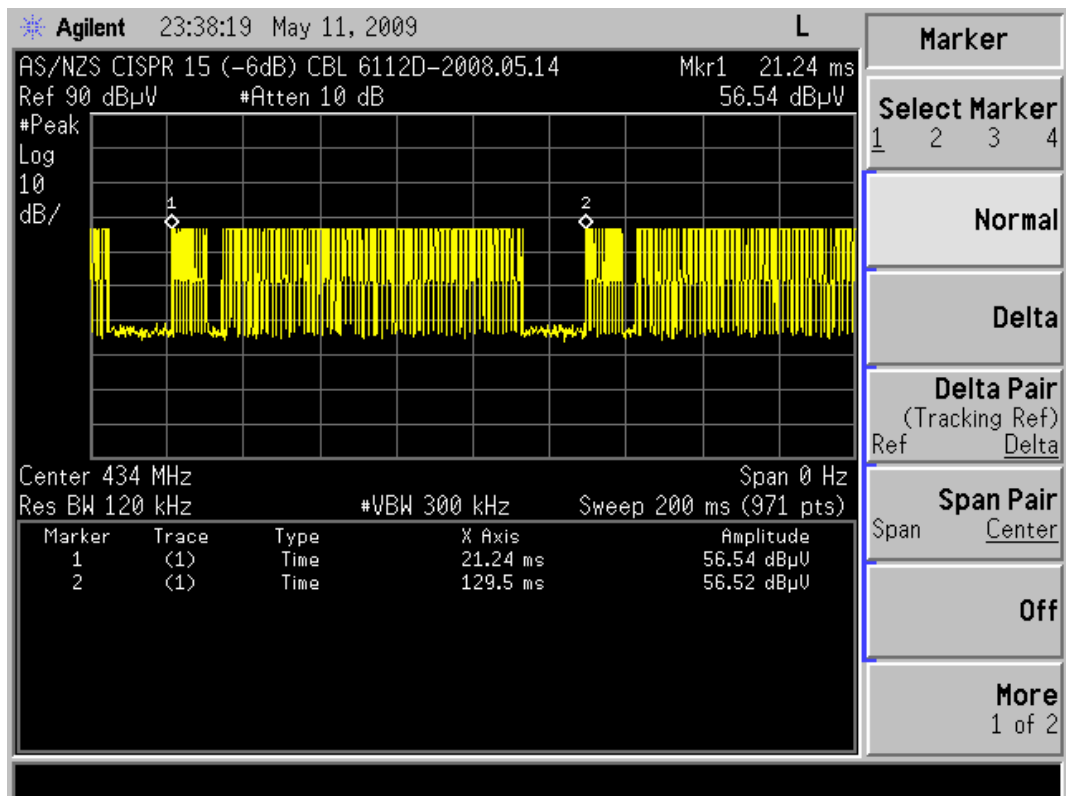


FIGURE 1 (TEST MODE: UP)

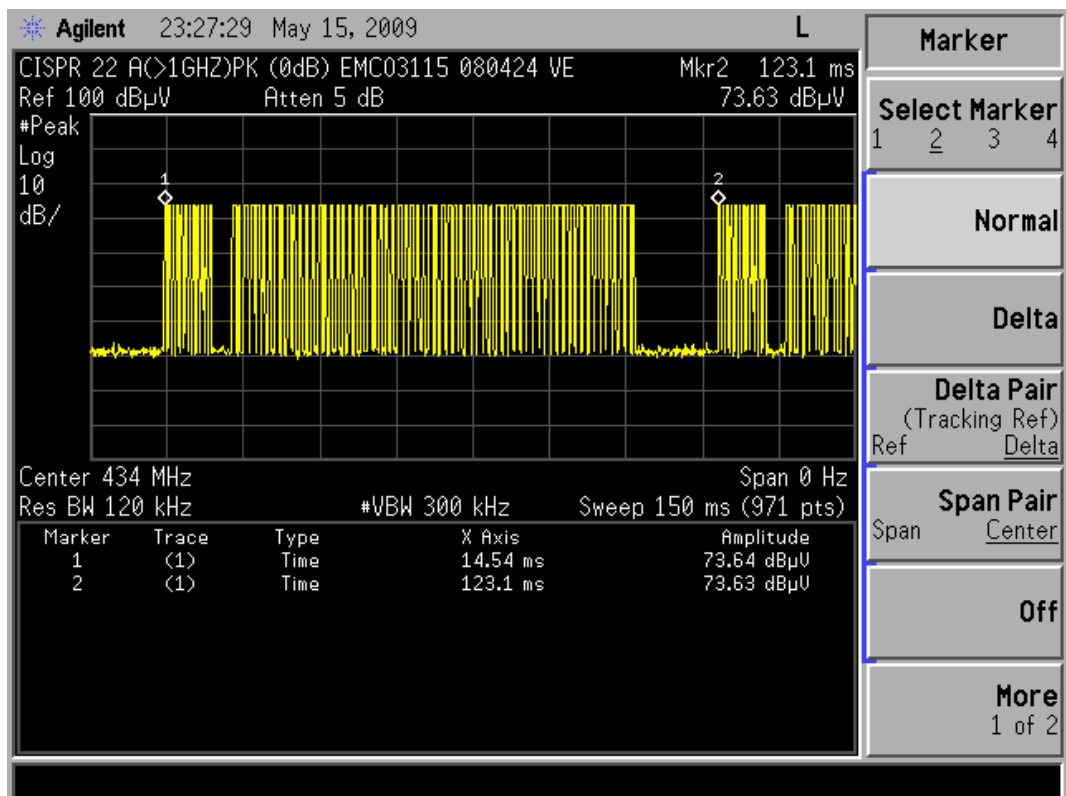


FIGURE 2 (TEST MODE: STOP)

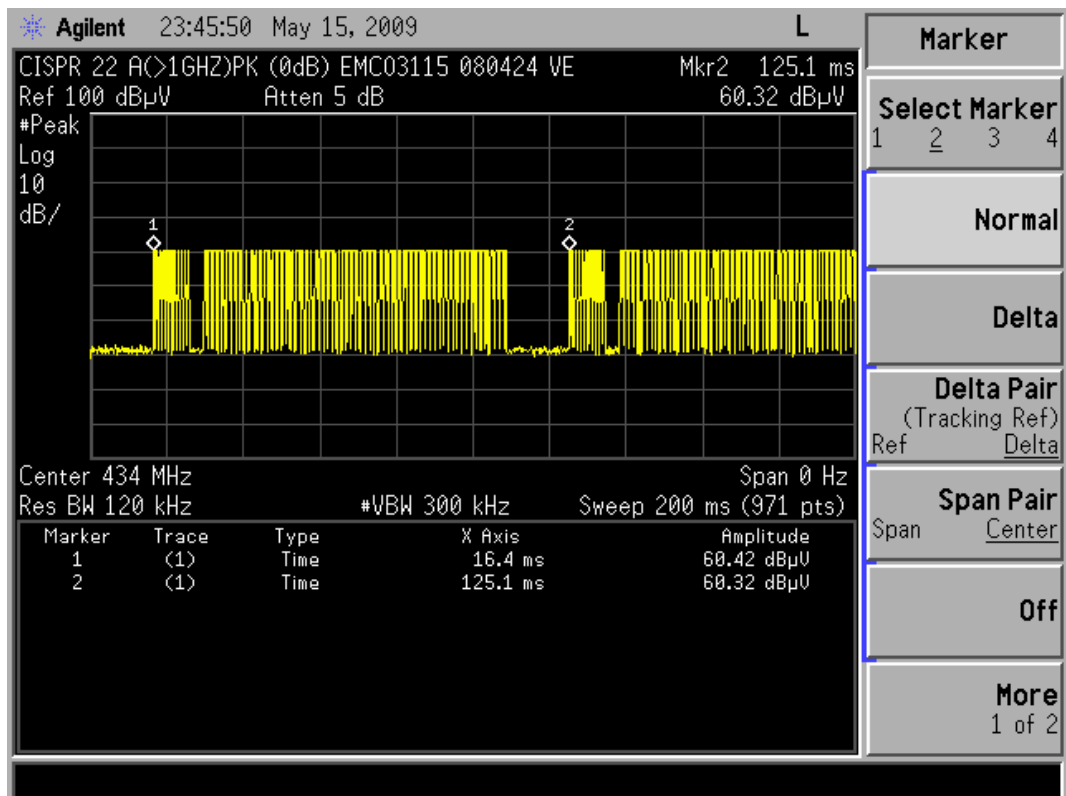


FIGURE 3 (TEST MODE: DOWN)

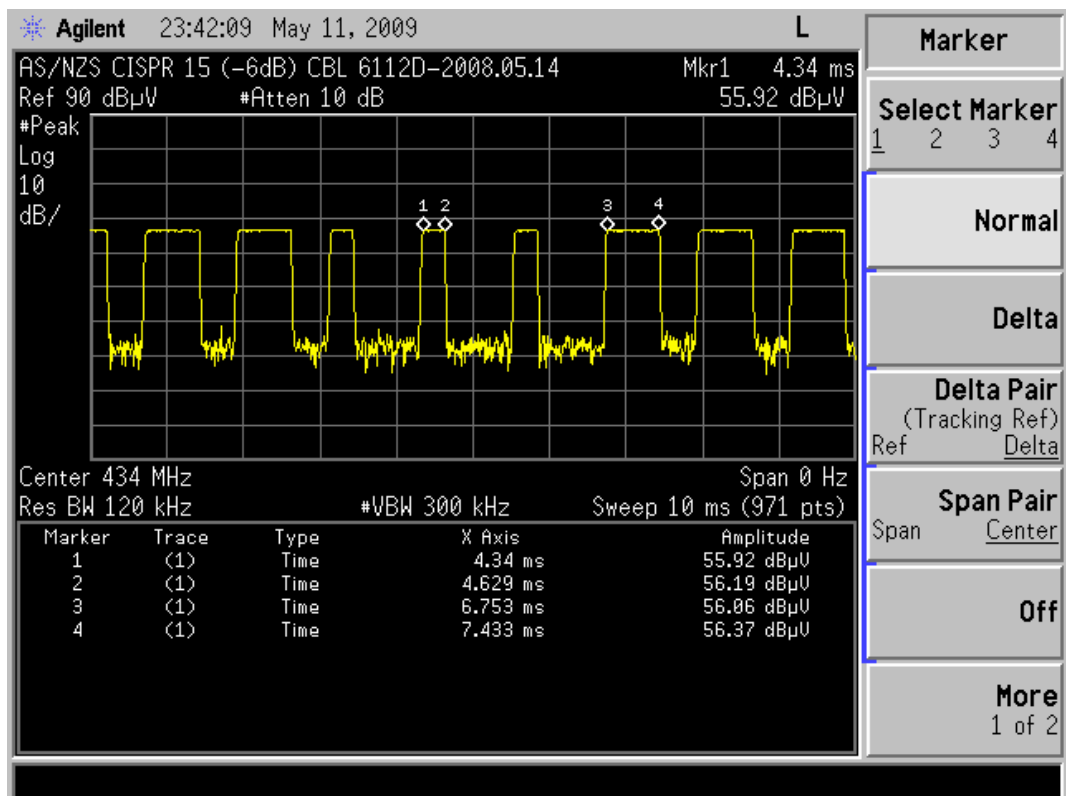


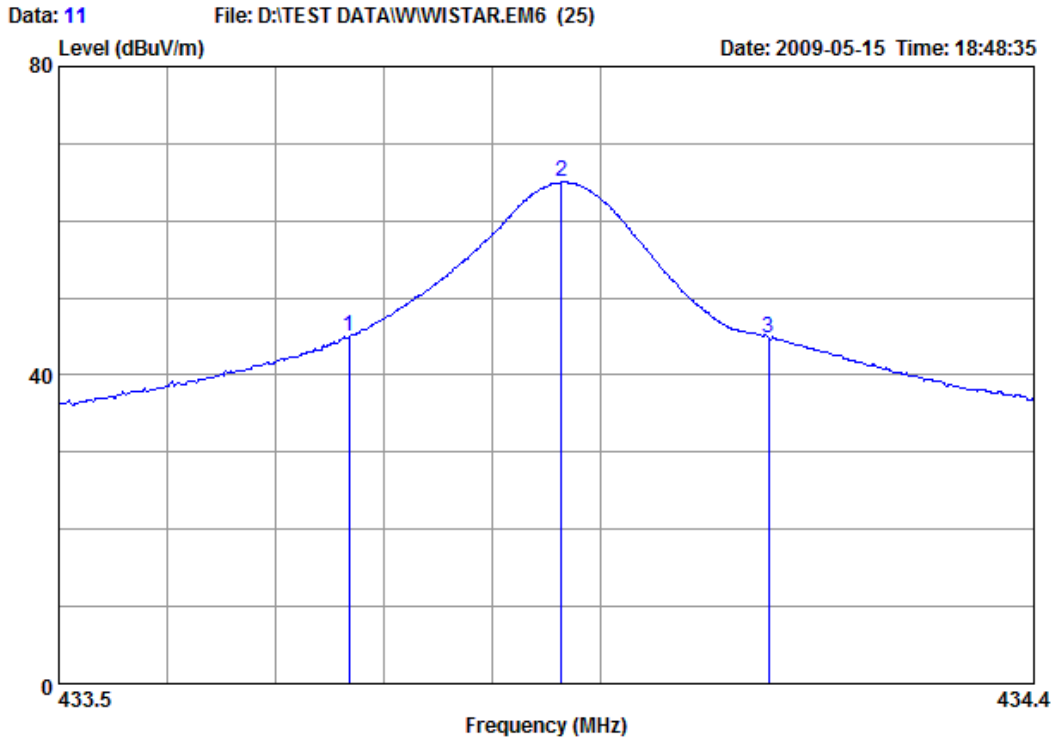
FIGURE 4 (TEST MODE: WIDTH OF PULSES)

APPENDIX II

PLOT OF THE OCCUPIED BANDWIDTH



Audix Technology (Shanghai) Co., Ltd.
3F #34Bldg. No.680 GuiPing Rd.,
CaoHeJing Hi-Tech Park,
Shanghai 200233, China
Tel:+86-21-64955500 Fax:+86-21-64955491
audixaci@audix.com



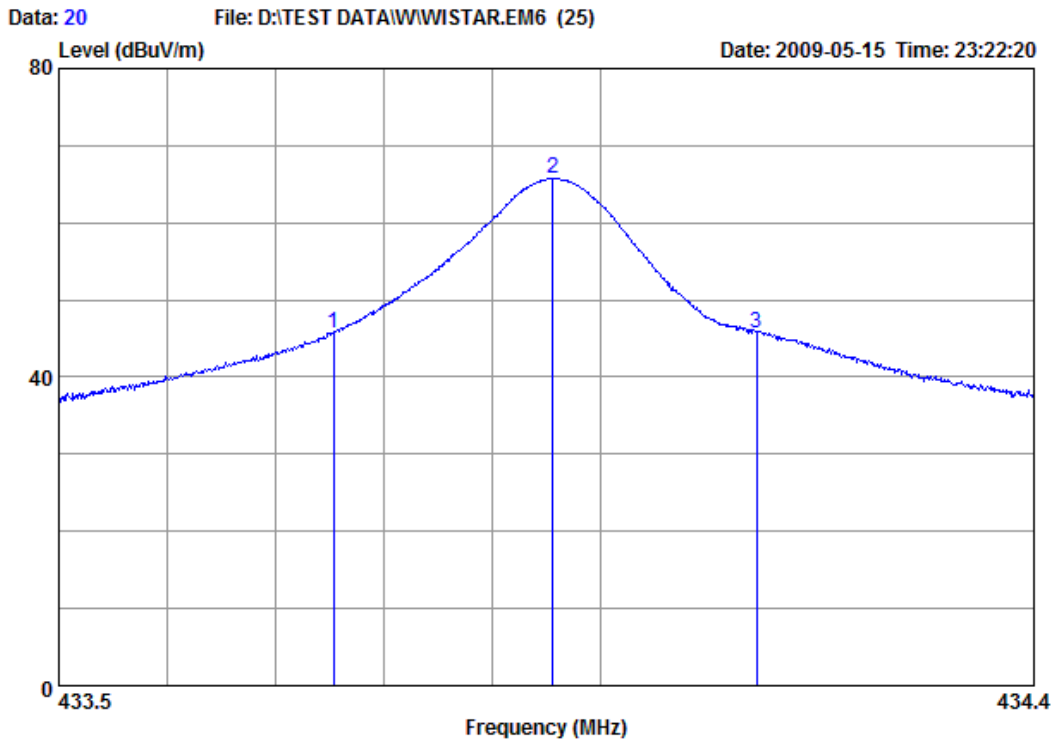
Site no : Audix ACI (3m Chamber) Data no. : 11
Dis. / Ant. : 3m /CBL 6112D-2008.05.14
Ant. pol. : HORIZONTAL
Env. / Ins. : 22'C 51% / E7405A Engineer : Dio
EUT : Emitter
M/N : WSRE SERIES
S/N : E2009051104
Power Rating: DC 12V
Test Mode : Up

Table with 5 columns: Freq. (MHz), Antenna Factor (dB/m), Cable Loss (dB), Reading (dBuV), Emission Level (dBuV/m). Contains 3 rows of data.

Remark: Emission Level= Antenna Factor + Cable Loss + Reading.



Audix Technology (Shanghai) Co., Ltd.
 3F #34Bldg. No.680 GuiPing Rd.,
 CaoHeJing Hi-Tech Park,
 Shanghai 200233, China
 Tel:+86-21-64955500 Fax:+86-21-64955491
 audixaci@audix.com



Site no	: Audix ACI (3m Chamber)	Data no.	: 20
Dis. / Ant.	: 3m /CBL 6112D-2008.05.14	Ant. pol.	: HORIZONTAL
Env. / Ins.	: 22'C 51% / E7405A	Engineer	: Dio
EUT	: Emitter		
M/N	: WSRE SERIES		
S/N	: E2009051104		
Power Rating:	DC 12V		
Test Mode	: Stop		

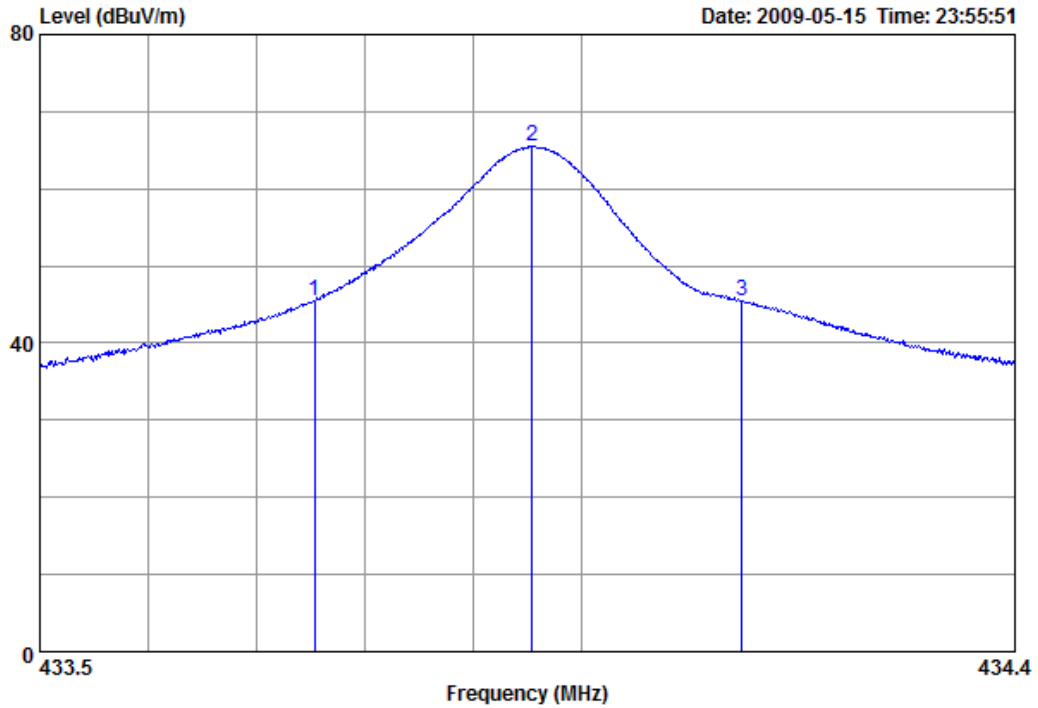
	Freq. (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)
1	433.753	16.97	2.28	55.19	45.60
2	433.956	16.97	2.28	75.31	65.72
3	434.144	16.97	2.28	55.28	45.69

Remark: Emission Level= Antenna Factor + Cable Loss + Reading.



Audix Technology (Shanghai) Co., Ltd.
 3F #34Bldg. No.680 GuiPing Rd.,
 CaoHeJing Hi-Tech Park,
 Shanghai 200233, China
 Tel:+86-21-64955500 Fax:+86-21-64955491
 audixaci@audix.com

Data: 24 File: D:\TEST DATA\W\WISTAR.EM6 (25)



Site no	: Audix ACI (3m Chamber)	Data no.	: 24
Dis. / Ant.	: 3m /CBL 6112D-2008.05.14	Ant. pol.	: HORIZONTAL
Env. / Ins.	: 22'C 51% / E7405A	Engineer	: Dio
EUT	: Emitter		
M/N	: WSRE SERIES		
S/N	: E2009051104		
Power Rating:	DC 12V		
Test Mode	: Down		

	Freq. (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)
1	433.753	16.97	2.28	54.96	45.37
2	433.954	16.97	2.28	75.03	65.44
3	434.148	16.97	2.28	54.94	45.35

Remark: Emission Level= Antenna Factor + Cable Loss + Reading.