

TEST REPORT
For

ITONE DIGITAL (SHENZHEN) CO., LTD.

EBOOK

Model No.: BK7019, ER701

FCC ID: YWCER701

Prepared for : IZONE DIGITAL (SHENZHEN) CO., LTD.
Address : B3, NO.3, 2nd Row, Xinfu Industrial Zone, Xinqiao, Shajing,
Bao'an District, Shenzhen, China

Prepared by : SHENZHEN EMTEK CO., LTD.
Address : Bldg 69, Majialong Industry Zone,
Nanshan District, Shenzhen, Guangdong, China

Tel: (0755) 26954280
Fax: (0755) 26954282

Report Number : ES110808023F
Date of Test : July 05, 2011 to July 08, 2011
Date of Report : August 8, 2011

TABLE OF CONTENT

Test Report Description	Page
1. SUMMARY OF TEST RESULT	4
2. GENERAL INFORMATION.....	5
2.1. DESCRIPTION OF DEVICE (EUT)	5
2.2. DESCRIPTION OF SUPPORT DEVICE.....	5
2.3. DESCRIPTION OF TEST FACILITY	6
2.4. MEASUREMENT UNCERTAINTY	6
3. MEASURING DEVICE AND TEST EQUIPMENT	7
3.1. FOR POWER LINE CONDUCTED EMISSION MEASUREMENT	7
3.2. FOR RADIATED EMISSION MEASUREMENT(3M CHAMBER)	7
4. POWER LINE CONDUCTED EMISSION MEASUREMENT	8
4.1. BLOCK DIAGRAM OF TEST SETUP	8
4.2. MEASURING STANDARD.....	8
4.3. POWER LINE CONDUCTED EMISSION LIMITS (CLASS B)	8
4.4. EUT CONFIGURATION ON MEASUREMENT	8
4.5. OPERATING CONDITION OF EUT	8
4.6. TEST PROCEDURE.....	9
4.7. MEASURING RESULTS	9
5. RADIATED EMISSION MEASUREMENT.....	10
5.1. BLOCK DIAGRAM OF TEST SETUP	10
5.2. MEASURING STANDARD.....	10
5.3. RADIATED EMISSION LIMITS (CLASS B).....	11
5.4. EUT CONFIGURATION ON MEASUREMENT	11
5.5. OPERATING CONDITION OF EUT	11
5.6. TEST PROCEDURE.....	11
5.7. MEASURING RESULTS	12
6. PHOTOGRAPHS.....	13
6.1. PHOTOS OF CONDUCTED EMISSION MEASUREMENT	13
6.2. PHOTOS OF RADIATION EMISSION MEASUREMENT.....	14
APPENDIX I (2 Pages)	
APPENDIX II (6 Pages)	
APPENDIX III (Photos of EUT) (4 Pages)	

TEST REPORT DESCRIPTION

Applicant : ITONE DIGITAL (SHENZHEN) CO., LTD.
Manufacturer : ITONE DIGITAL (SHENZHEN) CO., LTD.
EUT : EBOOK
Model No. : BK7019, ER701
FCC ID : YWCER701
Power Supply : DC 3.7V from Li-ion Battery and DC 5V from USB Port

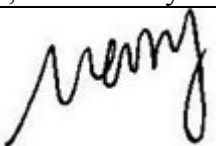
Measurement Procedure Used:


FCC Rules and Regulations Part 15 Subpart B Class B October 2009 &
FCC / ANSI C63.4-2009


The device described above is tested by SHENZHEN EMTEK CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and SHENZHEN EMTEK CO., LTD. is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of SHENZHEN EMTEK CO., LTD.

Date of Test : July 05, 2011 to July 08, 2011

Prepared by : 
(Engineer)

Reviewer : 
(Quality Manager)

Approved & Authorized Signer : 
(Manager)

1. SUMMARY OF TEST RESULT

EMISSION		
Description of Test Item	Standard & Limits	Results
Conducted Disturbance at Mains Terminals	FCC Part 15, Subpart B, Class B ANSI C63.4: 2009	Pass
Radiated Disturbance	FCC Part 15, Subpart B, Class B ANSI C63.4: 2009	Pass
Note: N/A is an abbreviation for Not Applicable.		

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT	:	EBOOK
Model Number	:	BK7019, ER701 (Note: The Models are the same, except their model name are different, we take BK7019 for test.)
Test Voltage	:	DC 3.7V from Li-ion Battery and DC 5V from USB Port
Applicant	:	ITONE DIGITAL (SHENZHEN) CO., LTD.
Address	:	B3, NO.3, 2nd Row, Xinfu Industrial Zone, Xinqiao, Shajing, Bao'an District, Shenzhen, China
Manufacturer	:	ITONE DIGITAL (SHENZHEN) CO., LTD.
Address	:	B3, NO.3, 2nd Row, Xinfu Industrial Zone, Xinqiao, Shajing, Bao'an District, Shenzhen, China
Date of Received	:	July 05, 2011
Date of Test	:	July 05, 2011 to July 08, 2011

2.2. Description of Support Device

PC	:	Manufacturer: LENOVO M/N: 9702 S/N: L3C4410 CE, FCC: DOC
LCD Monitor	:	Manufacturer: LENOVO M/N: 9227-AE6 S/N: 4M0293084302824 CE, FCC: DOC
Keyboard	:	Manufacturer: LENOVO M/N: KU-0225 S/N: 0585494 CE, FCC: DOC
Mouse	:	Manufacturer: LENOVO M/N: MO28UOL S/N: 44G7862 068 CE, FCC: DOC

2.3. Description of Test Facility

Site Description

EMC Lab. : Accredited by CNAS, 2010.10.29
The certificate is valid until 2013.10.28
The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2005)
The Certificate Registration Number is L2291.

Accredited by TUV Rheinland Shenzhen 2010.5.25
The Laboratory has been assessed according to the requirements ISO/IEC 17025.

Accredited by FCC, October 28, 2010
The Certificate Registration Number is 406365.

Accredited by Industry Canada, March 5, 2010
The Certificate Registration Number is 46405-4480.

Name of Firm : SHENZHEN EMTEK CO., LTD.
Site Location : Bldg 69, Majialong Industry Zone,
Nanshan District, Shenzhen, Guangdong, China

2.4. Measurement Uncertainty

Conducted Emission Uncertainty : 2.8dB

Radiated Emission Uncertainty : 3.3dB (3m Chamber)

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Power Line Conducted Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100162	May 29, 2011	1 Year
2.	L.I.S.N.	Rohde & Schwarz	ENV216	3560.6550.12	May 29, 2011	1 Year
3.	50Ω Coaxial Switch	Anritsu	MP59B	6100214550	N/A	N/A
4.	Voltage Probe	Rohde & Schwarz	TK9416	N/A	May 29, 2011	1 Year
5.	I.S.N	Rohde & Schwarz	ENY22	1109.9508.02	May 29, 2011	1 Year

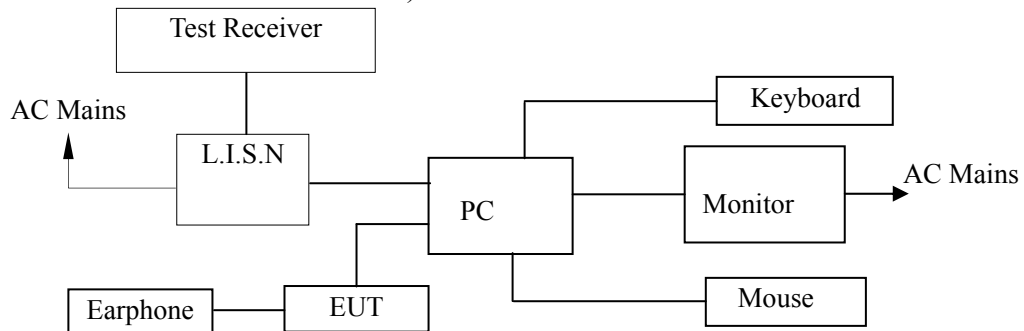
3.2. For Radiated Emission Measurement(3m Chamber)

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	May 29, 2011	1 Year
2.	Pre-Amplifier	HP	8447D	2944A07999	May 29, 2011	1 Year
3.	Bilog Antenna	Schwarzbeck	VULB9163	142	May 29, 2011	1 Year
4.	Loop Antenna	ARA	PLA-1030/B	1029	May 29, 2011	1 Year
5.	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170399	May 29, 2011	1 Year
6.	Horn Antenna	Schwarzbeck	BBHA 9120	D143	May 29, 2011	1 Year
7.	Cable	Schwarzbeck	AK9513	ACRX1	May 29, 2011	1 Year
8.	Cable	Rosenberger	N/A	FP2RX2	May 29, 2011	1 Year
9.	Cable	Schwarzbeck	AK9513	CRPX1	May 29, 2011	1 Year
10.	Cable	Schwarzbeck	AK9513	CRRX2	May 29, 2011	1 Year

4. POWER LINE CONDUCTED EMISSION MEASUREMENT

4.1. Block Diagram of Test Setup

During test, communication taking place between the EUT and the host computer (upload files from the PC into the EUT).



(EUT: EBOOK)

4.2. Measuring Standard

FCC Part 15, Subpart B, Class B ANSI C63.4: 2009

4.3. Power Line Conducted Emission Limits (Class B)

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0
NOTE1-The lower limit shall apply at the transition frequencies. NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

4.4. EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet FCC requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

EUT : EBOOK
Model Number : BK7019

4.5. Operating Condition of EUT

4.5.1. Setup the EUT as shown on Section 4.1.

4.5.2. Turn on the power of all equipments.

4.5.3. Let the EUT work in measuring mode (Connect to PC) and measure it.

4.6. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to PC, and then PC connect to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the FCC regulations during conducted emission measurement. The bandwidth of the field strength meter (R&S Test Receiver ESCS30) is set at 9kHz in 150kHz~30MHz and 200Hz in 9kHz~150kHz. The frequency range from 150kHz to 30MHz is investigated. All the scanning waveform is put in Appendix I.

4.7. Measuring Results

PASS.

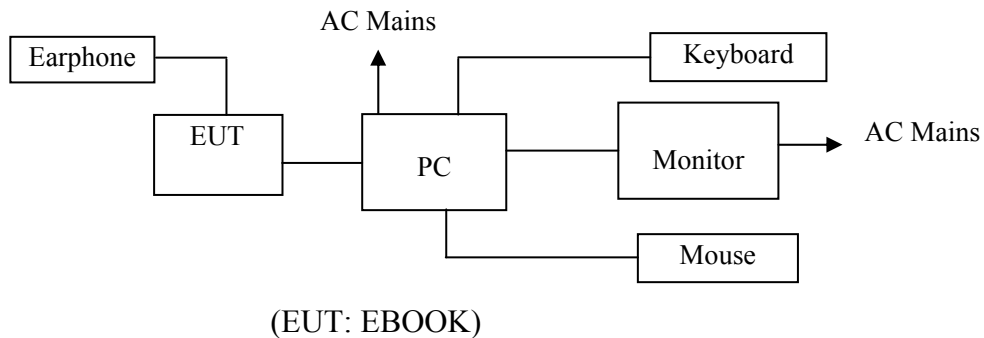
Please refer to Appendix I.

5. RADIATED EMISSION MEASUREMENT

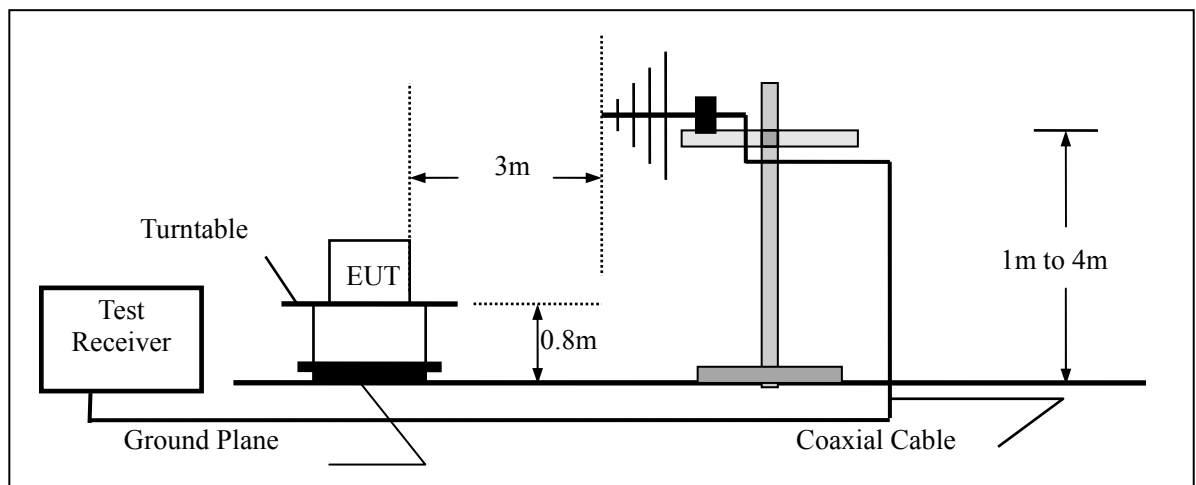
5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators

During test, communication taking place between the EUT and the host computer (upload files from the PC into the EUT).



5.1.2. Block diagram of test setup (In chamber)



5.2. Measuring Standard

FCC Part 15, Subpart B, Class B ANSI C63.4: 2009

5.3. Radiated Emission Limits (Class B)

Frequency MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

Frequency (GHz)	Distance (Meters)	Field Strengths Limit	
		Average ($\text{dB}\mu\text{V/m}$)	Peak ($\text{dB}\mu\text{V/m}$)
1~6	3	53.9	73.9

- Remark:
- (1) Emission level ($\text{dB}\mu\text{V}$) = $20 \log$ Emission level $\mu\text{V/m}$
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

5.4. EUT Configuration on Measurement

The FCC Class B regulations test method must be used to find the maximum emission during radiated emission measurement.

EUT : EBOOK
Model Number : BK7019

5.5. Operating Condition of EUT

5.5.1. Setup the EUT as shown on Section 5.1.

5.5.2. Turn on the power of all equipments.

5.5.3. Let the EUT work in measuring mode (Video Playing(SD Card, memory), Connect to PC) and measure it.

5.6. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) and horn antenna are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the Receiver (ESU26) is set at 120kHz.
The worst scanning curves are attached in Appendix II.

5.7.Measuring Results

PASS.

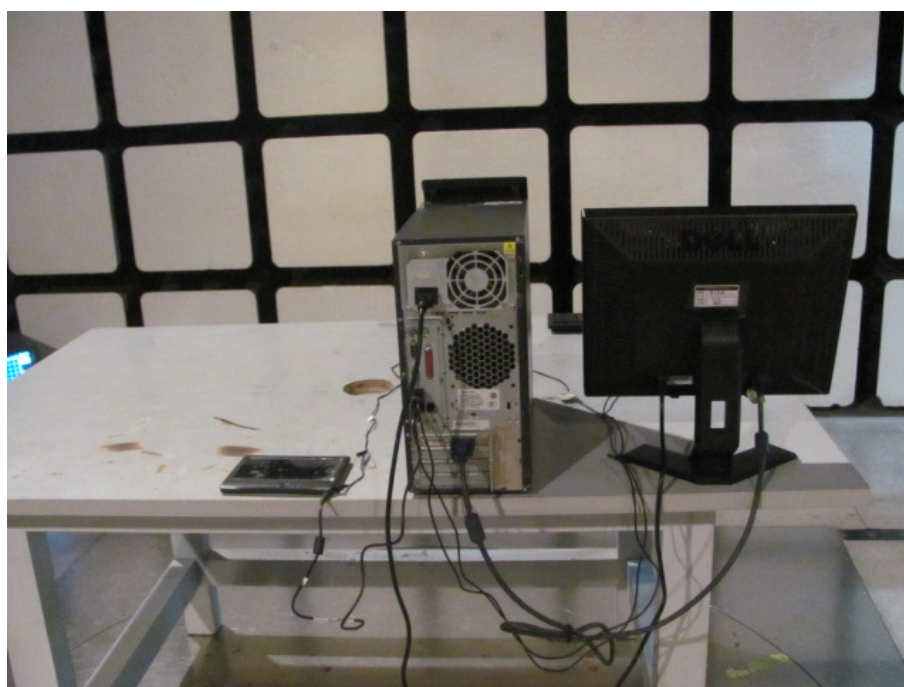
The frequency range from 30MHz to 6GHz is investigated.
Please refer to Appendix II.

6. PHOTOGRAPHS

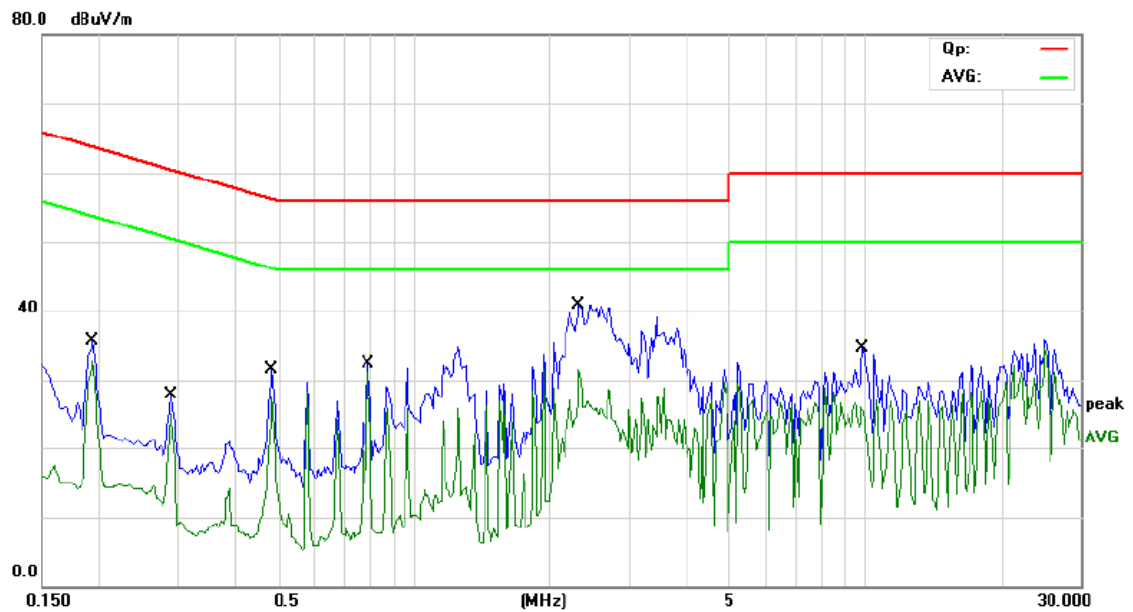
6.1.Photos of Conducted Emission Measurement



6.2.Photos of Radiation Emission Measurement



APPENDIX I



Site site #1

Phase: **N**

Temperature: 22

Limit: (CE)FCC PART 15 class B_QP

Power: AC 120V/60Hz

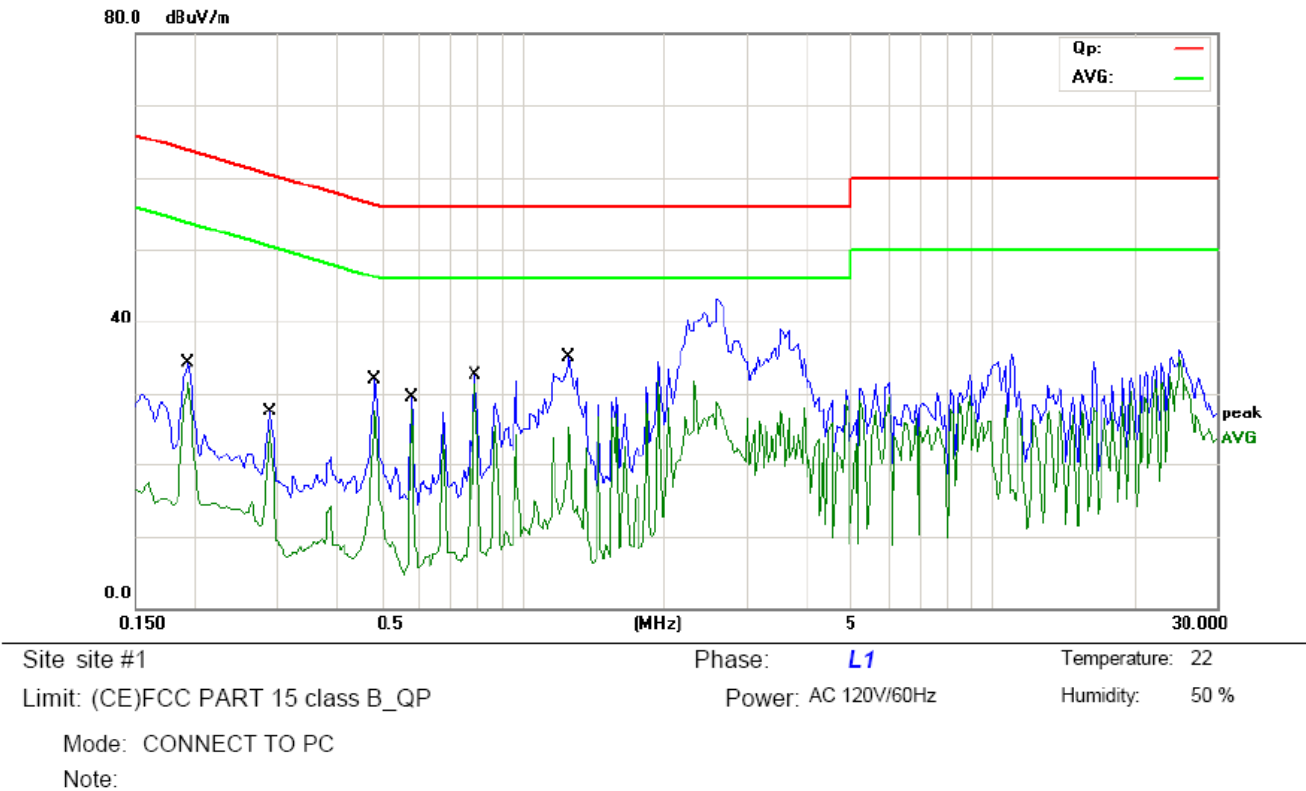
Humidity: 50 %

Mode: CONNECT TO PC

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		0.1950	35.69	0.00	35.69	63.82	-28.13	QP	
2		0.1950	32.70	0.00	32.70	53.82	-21.12	AVG	
3		0.2900	27.97	0.00	27.97	60.52	-32.55	QP	
4		0.2900	25.08	0.00	25.08	50.52	-25.44	AVG	
5		0.4850	31.45	0.00	31.45	56.25	-24.80	QP	
6		0.4850	27.70	0.00	27.70	46.25	-18.55	AVG	
7		0.7950	32.36	0.00	32.36	56.00	-23.64	QP	
8		0.7950	31.09	0.00	31.09	46.00	-14.91	AVG	
9		2.3300	40.92	0.00	40.92	56.00	-15.08	QP	
10	*	2.3300	31.51	0.00	31.51	46.00	-14.49	AVG	
11		9.9000	34.73	0.00	34.73	60.00	-25.27	QP	
12		9.9000	25.44	0.00	25.44	50.00	-24.56	AVG	

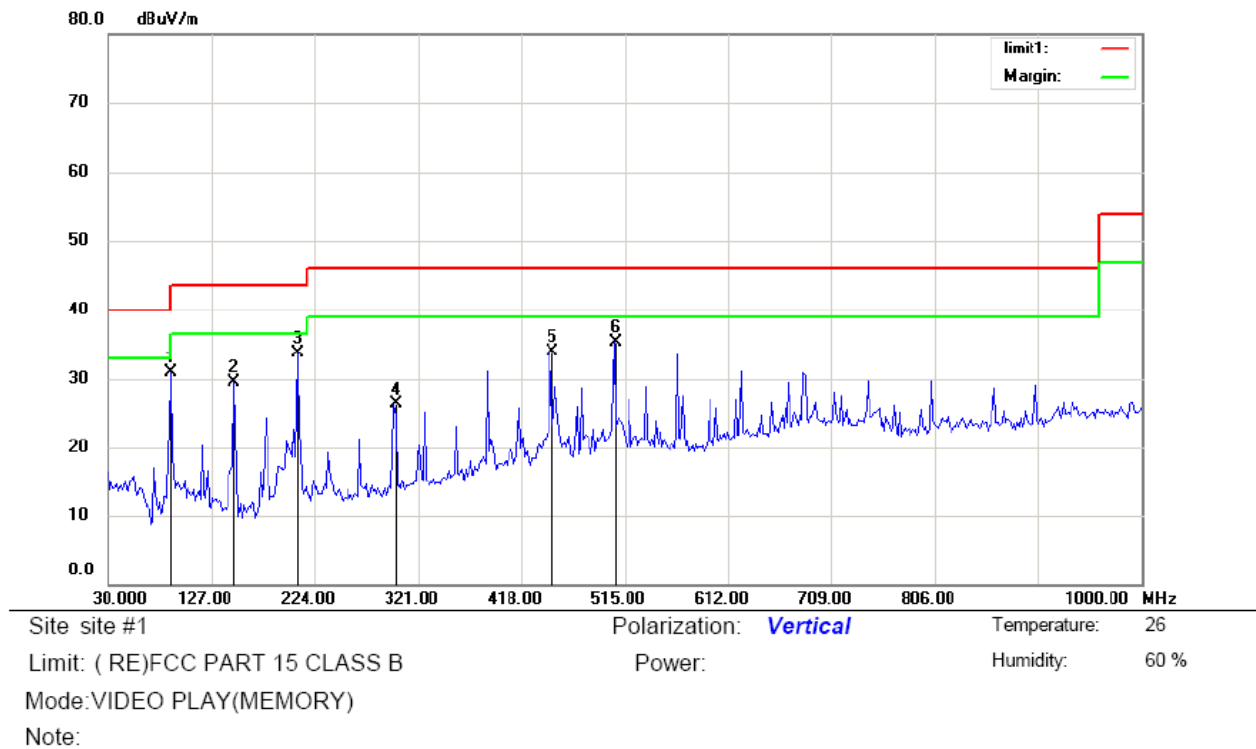
*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: LINDA



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.1950	34.38	0.00	34.38	63.82	-29.44	QP	
2		0.1950	31.46	0.00	31.46	53.82	-22.36	AVG	
3		0.2900	27.59	0.00	27.59	60.52	-32.93	QP	
4		0.2900	24.92	0.00	24.92	50.52	-25.60	AVG	
5		0.4850	31.91	0.00	31.91	56.25	-24.34	QP	
6		0.4850	27.70	0.00	27.70	46.25	-18.55	AVG	
7		0.5800	29.57	0.00	29.57	56.00	-26.43	QP	
8		0.5800	27.92	0.00	27.92	46.00	-18.08	AVG	
9		0.7950	32.52	0.00	32.52	56.00	-23.48	QP	
10	*	0.7950	31.25	0.00	31.25	46.00	-14.75	AVG	
11		1.2600	35.12	0.00	35.12	56.00	-20.88	QP	
12		1.2600	25.21	0.00	25.21	46.00	-20.79	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: LINDA

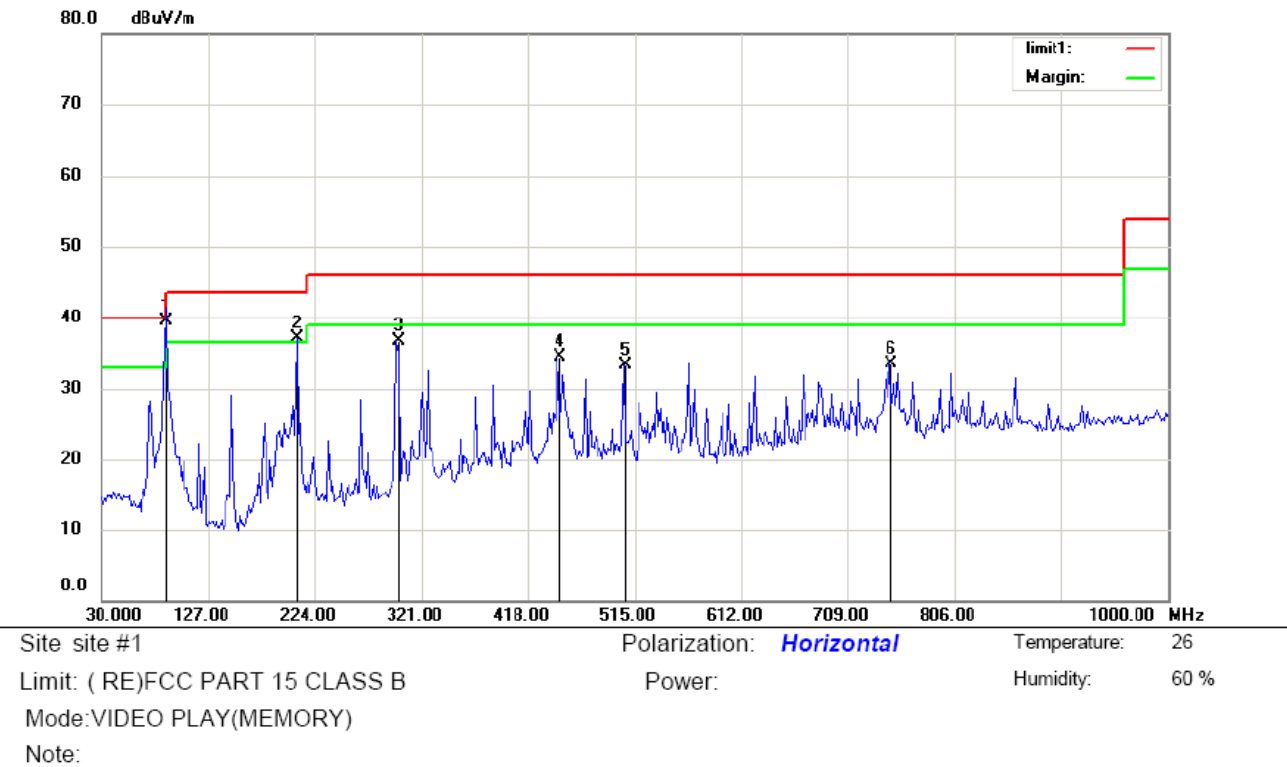
APPENDIX II



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		89.0705	18.75	12.14	30.89	43.50	-12.61	QP			
2		148.1410	20.49	8.99	29.48	43.50	-14.02	QP			
3	*	207.2114	21.12	12.65	33.77	43.50	-9.73	QP			
4		298.9263	12.42	13.84	26.26	46.00	-19.74	QP			
5		445.0481	15.64	18.18	33.82	46.00	-12.18	QP			
6		505.6731	16.30	18.94	35.24	46.00	-10.76	QP			

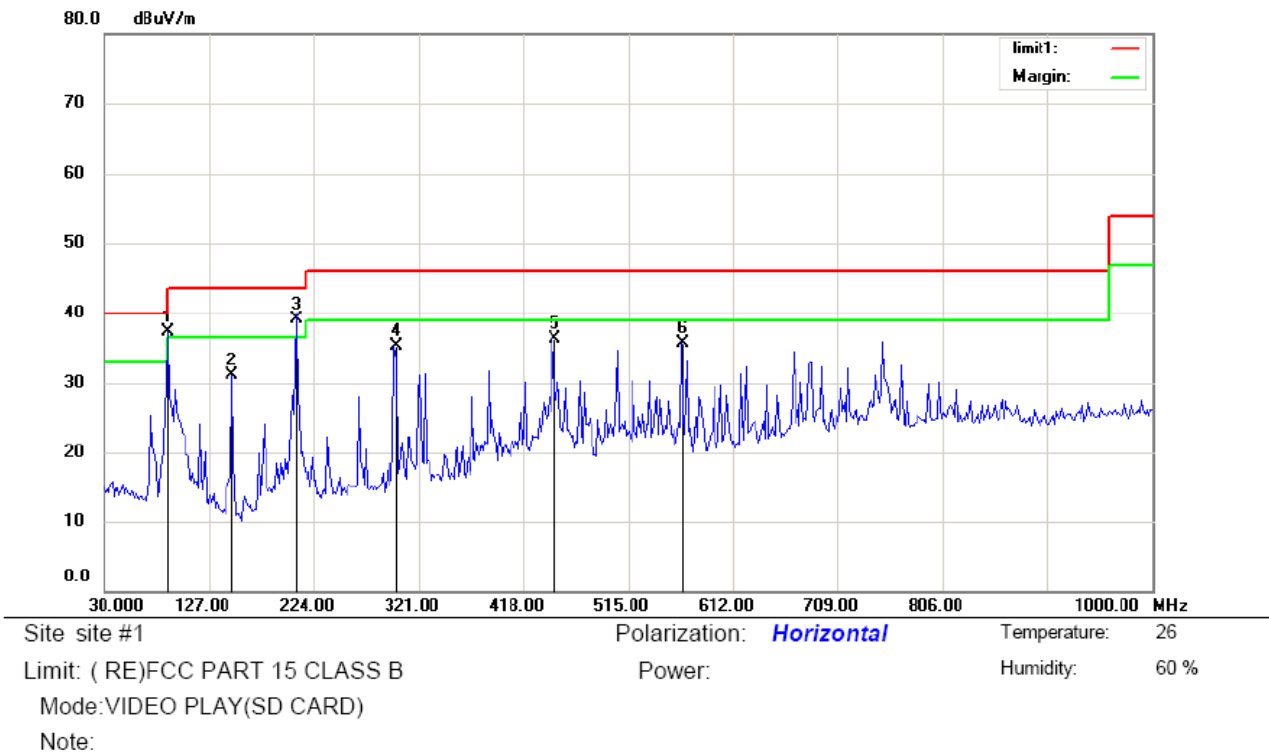
*:Maximum data x:Over limit !:over margin

Operator: WOLF

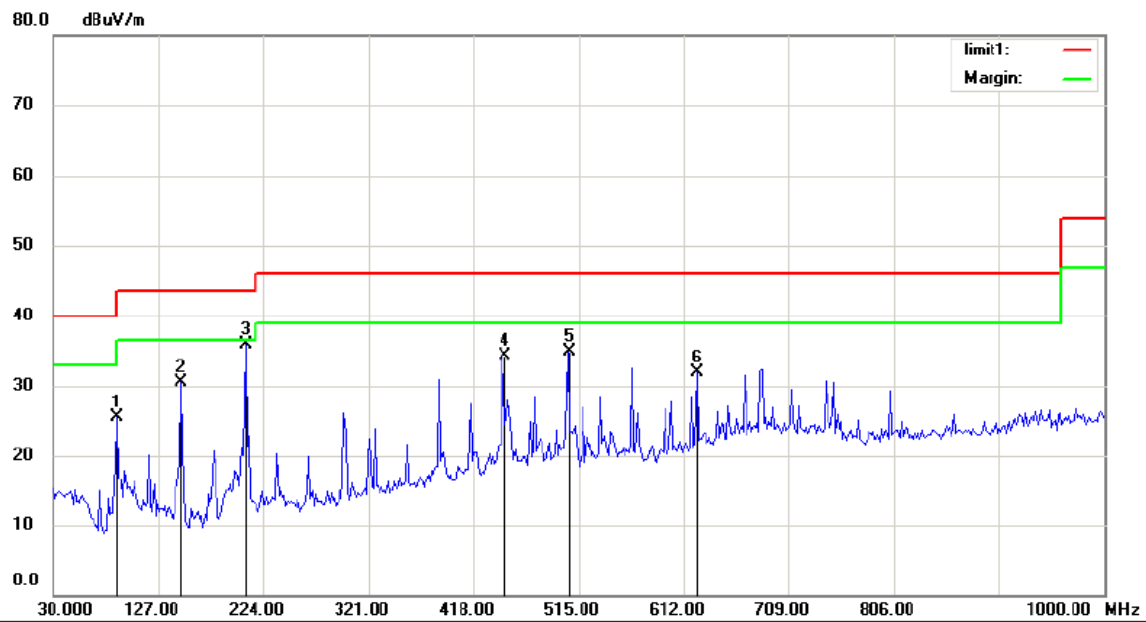


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	89.0705	27.40	12.14	39.54	43.50	-3.96	QP		
2	!	207.2114	25.58	11.60	37.18	43.50	-6.32	QP		
3		298.9263	22.72	13.89	36.61	46.00	-9.39	QP		
4		445.0481	15.96	18.64	34.60	46.00	-11.40	QP		
5		505.6731	14.40	18.94	33.34	46.00	-12.66	QP		
6		746.6186	10.59	22.97	33.56	46.00	-12.44	QP		

*:Maximum data x:Over limit !:over margin Operator: WOLF



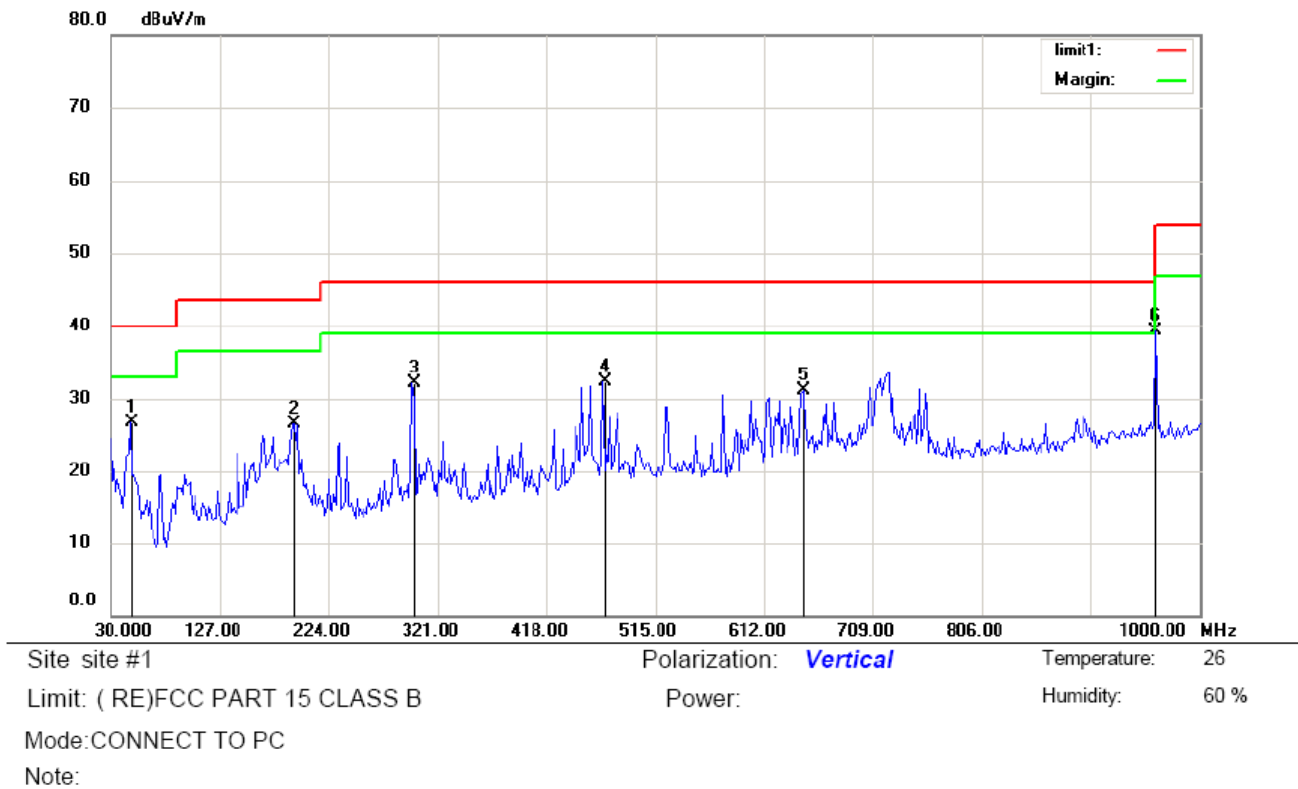
*:Maximum data x:Over limit !:over margin Operator: WOLF



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		89.0705	13.43	12.14	25.57	43.50	-17.93	QP		
2		148.1410	21.58	8.99	30.57	43.50	-12.93	QP		
3	*	207.2114	23.17	12.65	35.82	43.50	-7.68	QP		
4		445.0481	16.16	18.18	34.34	46.00	-11.66	QP		
5		505.6731	16.03	18.94	34.97	46.00	-11.03	QP		
6		623.8141	10.66	21.34	32.00	46.00	-14.00	QP		

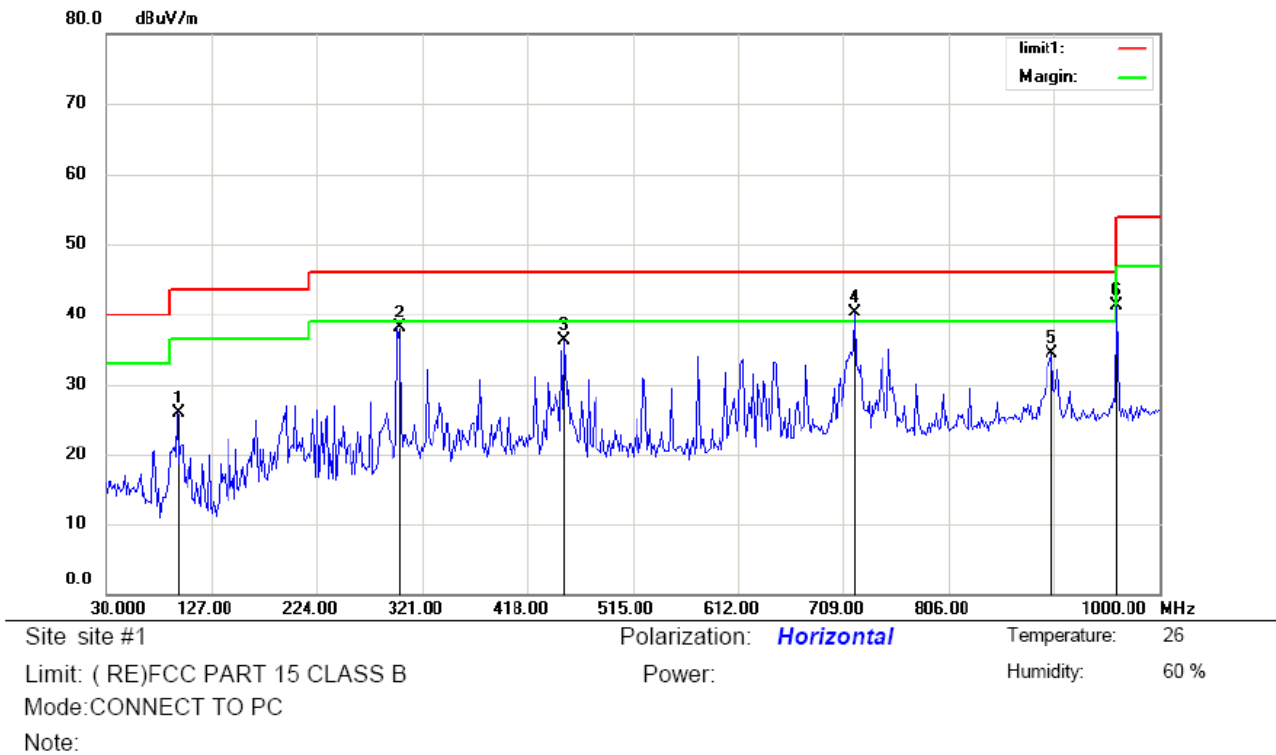
*:Maximum data x:Over limit !:over margin

Operator: WOLF



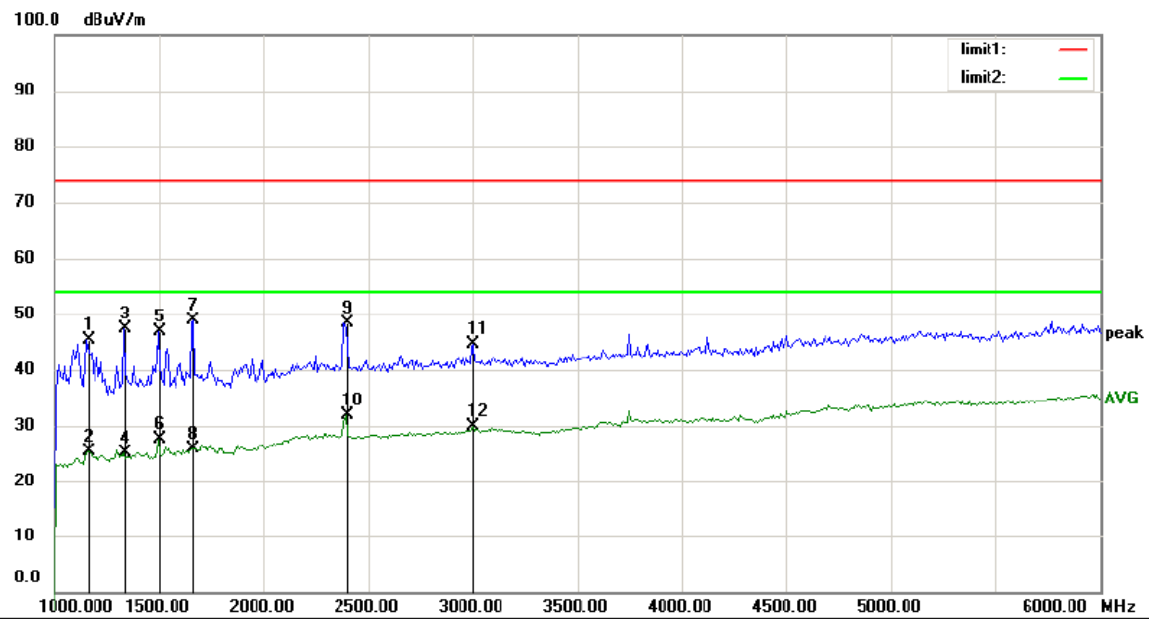
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	47.0994	12.65	13.97	26.62	40.00	-13.38	QP		
2		193.2211	13.22	13.23	26.45	43.50	-17.05	QP		
3		298.9263	18.26	13.84	32.10	46.00	-13.90	QP		
4		468.3654	13.99	18.24	32.23	46.00	-13.77	QP		
5		647.1314	8.87	22.15	31.02	46.00	-14.98	QP		
6		961.1378	14.66	24.64	39.30	53.90	-14.60	QP		

*:Maximum data x:Over limit !:over margin Operator: WOLF



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table
		MHz	Level	Factor	ment			Height	Degree
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree
							Detector		Comment
1		95.2885	12.67	13.15	25.82	43.50	-17.68	QP	
2		298.9263	24.14	13.89	38.03	46.00	-7.97	QP	
3		452.8205	17.78	18.48	36.26	46.00	-9.74	QP	
4	*	720.1923	17.33	22.88	40.21	46.00	-5.79	QP	
5		900.5128	10.98	23.56	34.54	46.00	-11.46	QP	
6		961.1378	16.69	24.64	41.33	53.90	-12.57	QP	

*:Maximum data x:Over limit !:over margin Operator: WOLF



Site site #1

Polarization: **Vertical**

Temperature: 26

Limit: (RE)FCC PART 15 CLASS B

Power:

Humidity: 60 %

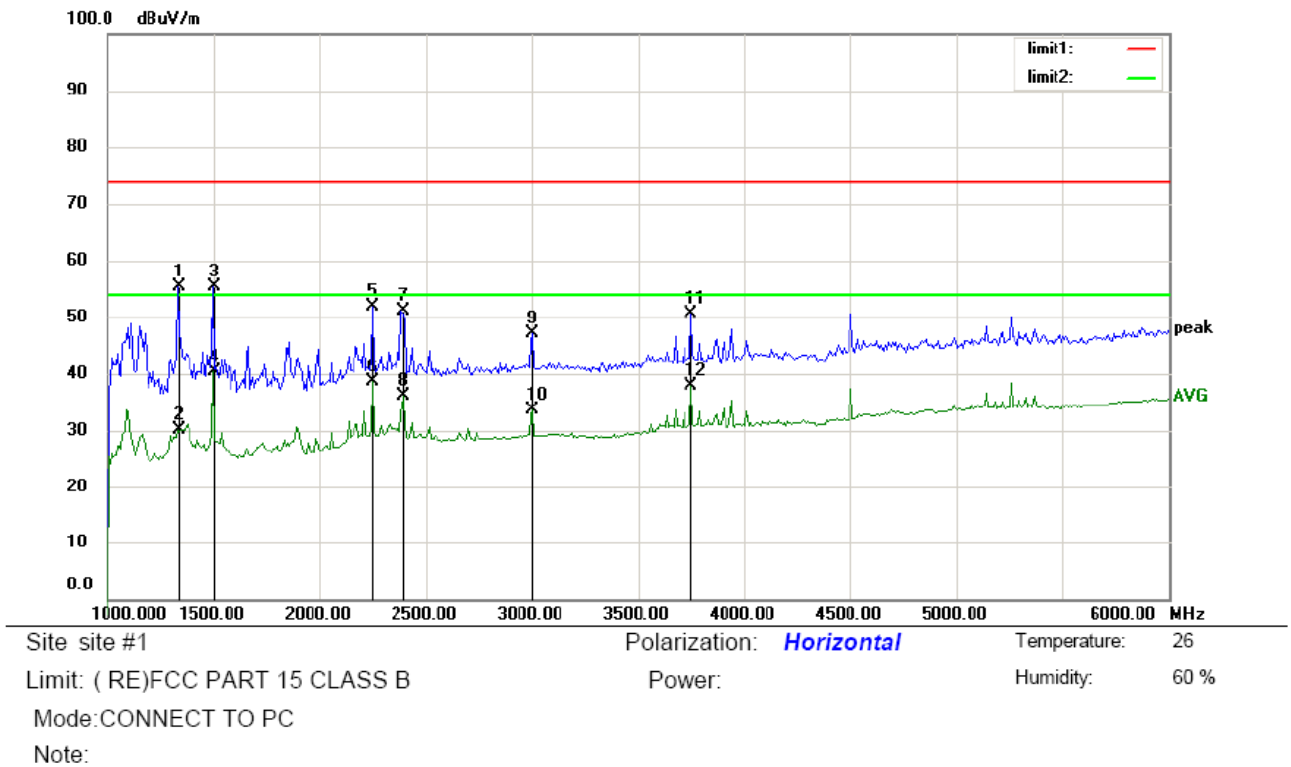
Mode:CONNECT TO PC

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		1160.256	58.51	-13.19	45.32	73.90	-28.58	peak		
2		1160.256	38.49	-13.19	25.30	53.90	-28.60	AVG		
3		1328.526	59.50	-12.23	47.27	73.90	-26.63	peak		
4		1328.526	37.31	-12.23	25.08	53.90	-28.82	AVG		
5		1496.795	59.09	-12.27	46.82	73.90	-27.08	peak		
6		1496.795	39.86	-12.27	27.59	53.90	-26.31	AVG		
7		1665.064	61.16	-12.28	48.88	73.90	-25.02	peak		
8		1665.064	38.24	-12.28	25.96	53.90	-27.94	AVG		
9		2394.231	56.96	-8.66	48.30	73.90	-25.60	peak		
10	*	2394.231	40.59	-8.66	31.93	53.90	-21.97	AVG		
11		3003.205	52.25	-7.58	44.67	73.90	-29.23	peak		
12		3003.205	37.34	-7.58	29.76	53.90	-24.14	AVG		

*:Maximum data x:Over limit !:over margin

Operator: WOLF



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		1328.526	67.56	-12.23	55.33	73.90	-18.57	peak		
2		1328.526	42.43	-12.23	30.20	53.90	-23.70	AVG		
3		1496.795	67.75	-12.27	55.48	73.90	-18.42	peak		
4	*	1496.795	52.63	-12.27	40.36	53.90	-13.54	AVG		
5		2250.000	60.56	-8.60	51.96	73.90	-21.94	peak		
6		2250.000	47.31	-8.60	38.71	53.90	-15.19	AVG		
7		2386.218	59.88	-8.66	51.22	73.90	-22.68	peak		
8		2386.218	44.68	-8.66	36.02	53.90	-17.88	AVG		
9		3003.205	54.69	-7.58	47.11	73.90	-26.79	peak		
10		3003.205	41.17	-7.58	33.59	53.90	-20.31	AVG		
11		3748.397	57.41	-6.72	50.69	73.90	-23.21	peak		
12		3748.397	44.60	-6.72	37.88	53.90	-16.02	AVG		

*:Maximum data x:Over limit l:over margin

Operator: WOLF

APPENDIX III (Photos of EUT)

