

TEST REPORT
For

Americhip, Inc

Digital Media Player

Model No.: AMC-43-00

FCC ID: WN7AMC-43-00

Prepared for : Americhip, Inc
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Report Number : ES111108026F
Date of Test : November 08, 2011 to November 22, 2011
Date of Report : November 23, 2011

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TEST REPORT DESCRIPTION

Applicant : Americhip, Inc
Manufacturer : Americhip, Inc
Trademark : Americhip
EUT : Digital Media Player
Model No. : AMC-43-00
FCC ID : WN7AMC-43-00
Power Supply : Adapter: Input: 100-240V~50/60Hz max.0.6A, Output: DC12V, 1.5A

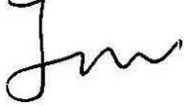
Measurement Procedure Used:


FCC Rules and Regulations Part 15 Subpart B Class B & 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 : November 08, 2011 to November 22, 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	:	Digital Media Player
Model Number	:	AMC-43-00
Test Voltage	:	AC 120V
Applicant	:	Americhip, Inc
Address	:	Room 212, Block 2, NANHAI E COOL No.6 Xing Hua Road, Shekou, Shenzhen, 518067 China.
Manufacturer	:	Americhip, Inc
Address	:	Room 212, Block 2, NANHAI E COOL No.6 Xing Hua Road, Shekou, Shenzhen, 518067 China.
Date of Received	:	November 08, 2011
Date of Test	:	November 08, 2011 to November 22, 2011

2.2. Description of Support Device

PC	:	Manufacturer: LENOVO M/N: 9702 S/N: L3C4410 CE, FCC: DOC Power cord : Unshielded, Detachable, 1.5m
LCD Monitor	:	Manufacturer: LENOVO M/N: 9227-AE6 S/N: 4M0293084302824 CE, FCC: DOC Power cord : Unshielded, Detachable, 1.5m Data Cable: Unshielded, Detachable, 2.0m
LED Monitor	:	Manufacturer: PHILIPS M/N: 224EL2 S/N: DLAA1111431625 CE, FCC: DOC Power cord : Unshielded, Detachable, 1.5m Data Cable: Unshielded, Detachable, 2.0m
Keyboard	:	Manufacturer: LENOVO M/N: KU-0225 S/N: 0585494 CE, FCC: DOC Data Cable: Unshielded, Undetachable, 2.0m
Mouse	:	Manufacturer: LENOVO M/N: MO28UOL S/N: 44G7862 068 CE, FCC: DOC Data Cable: Unshielded, Undetachable, 2.0m
Printer	:	Manufacturer: HP M/N: C89520 S/N: CN25S182N6 CE, FCC: DOC USB Cable : Unshielded, Detachable, 1.8m Power cord : Unshielded, Detachable, 1.8m

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

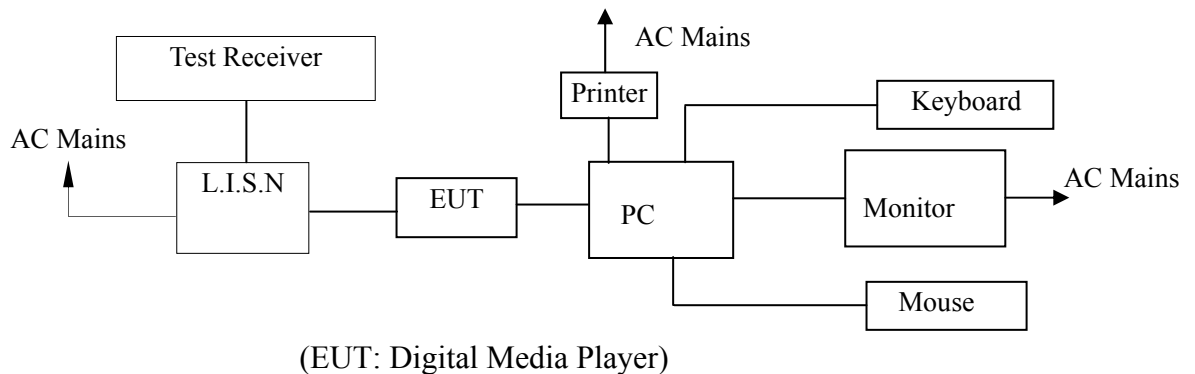
3.2. For Radiated Emission Measurement(3m Chamber)

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, continuous communication was taking place between the EUT and the host computer by a batch file loop that constantly uploads- and deletes a video file of 50MByte from the PC into the EUT without interruption.



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 (dB μ V)	
	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 : Digital Media Player
Model Number : AMC-43-00

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, SD Card Play) 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.

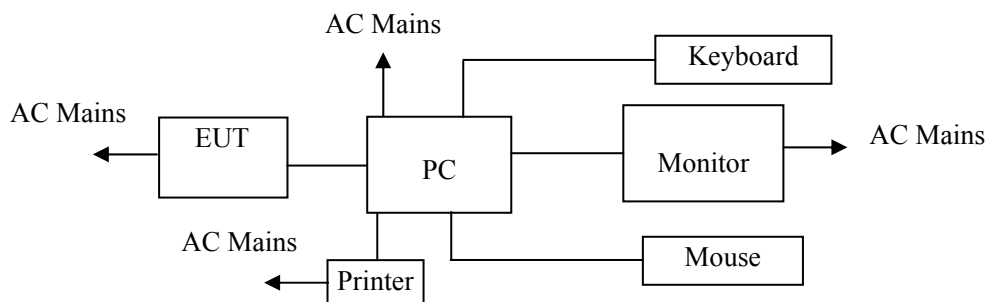
5. RADIATED EMISSION MEASUREMENT

5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators

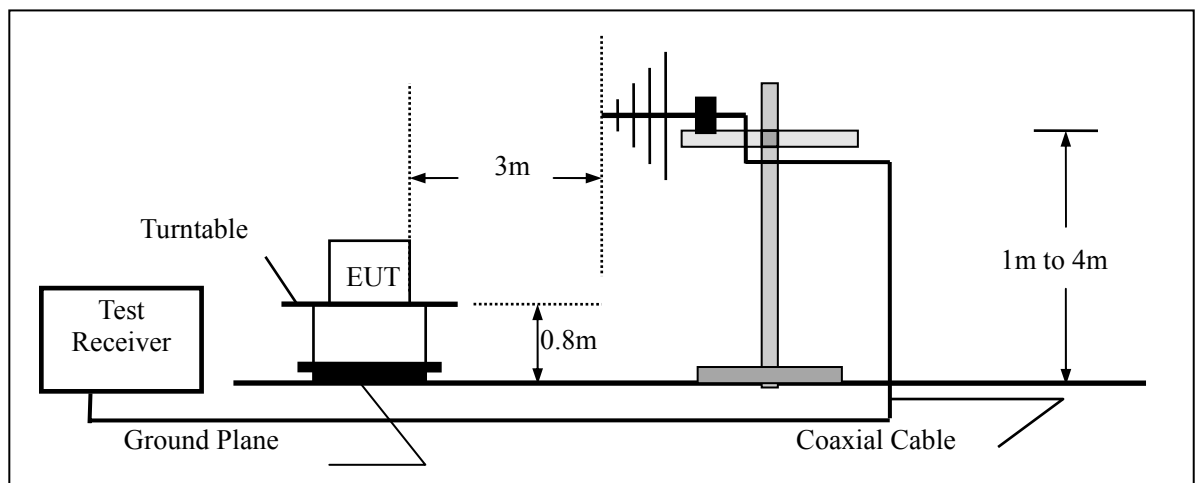
For Connect to PC:

During test, continuous communication was taking place between the EUT and the host computer by a batch file loop that constantly uploads- and deletes a video file of 50MByte from the PC into the EUT without interruption.



(EUT: Digital Media Player)

5.1.2. Block diagram of test setup (In chamber)



(EUT: Digital Media Player)

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	54	74

- 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 : Digital Media Player
Model Number : AMC-43-00

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 (Connect to PC, SD Card Play) 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.

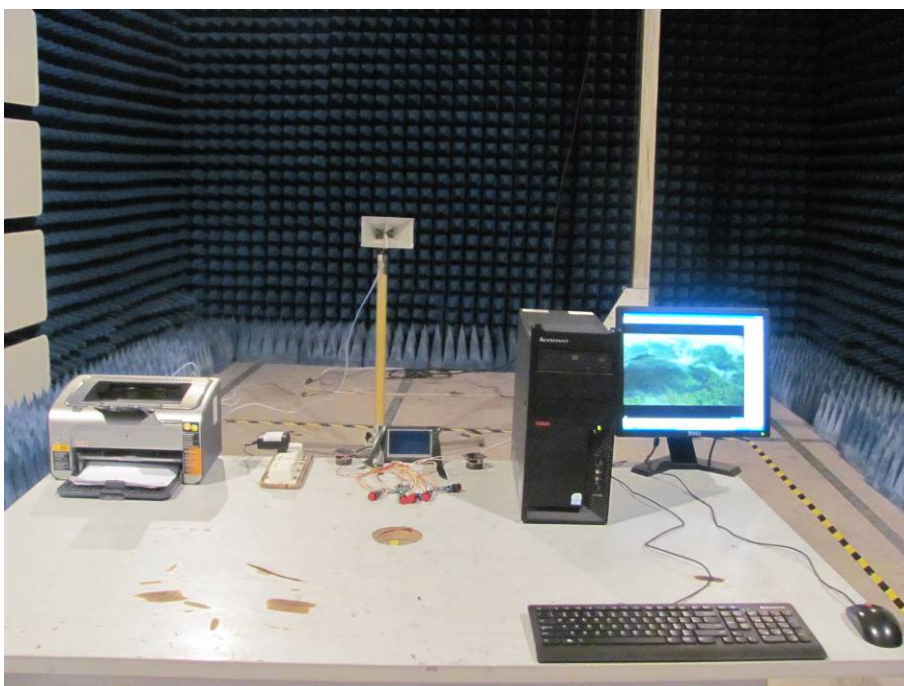
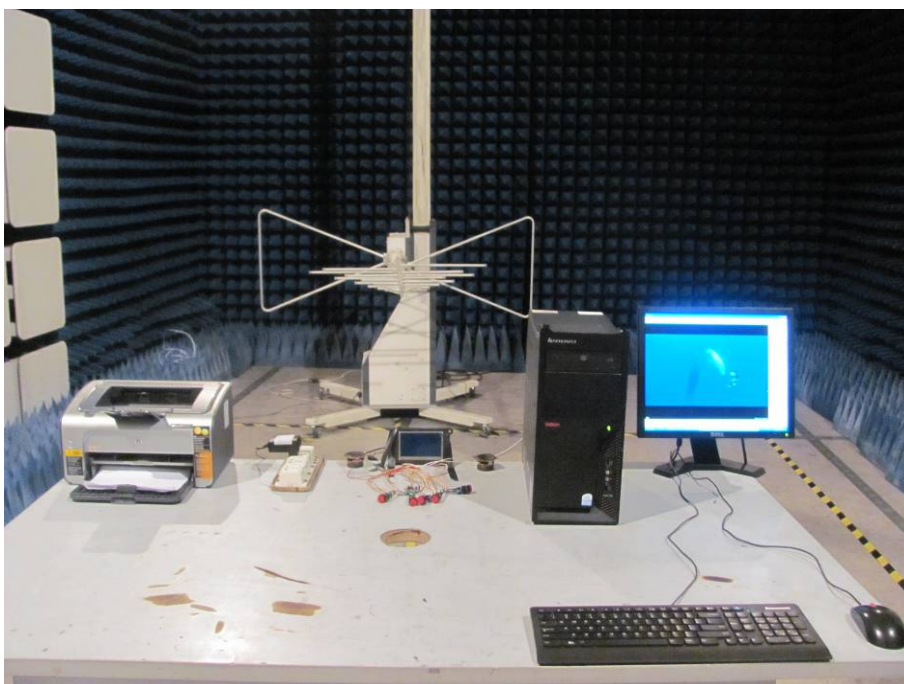
The frequency range from 30MHz to 6GHz is investigated.
Please refer to Appendix II.

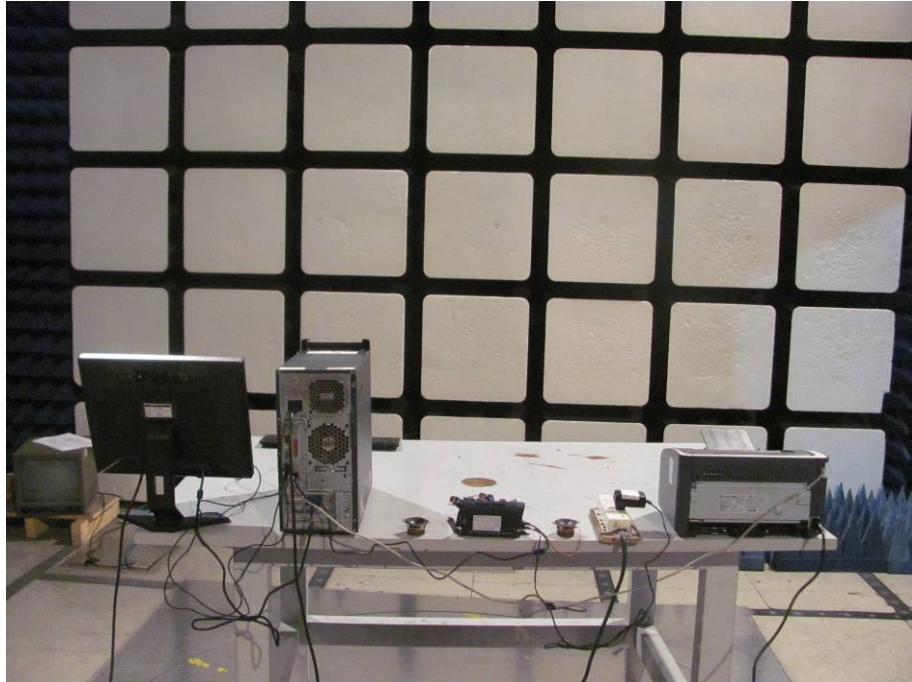
6. PHOTOGRAPHS

6.1.Photos of Conducted Emission Measurement

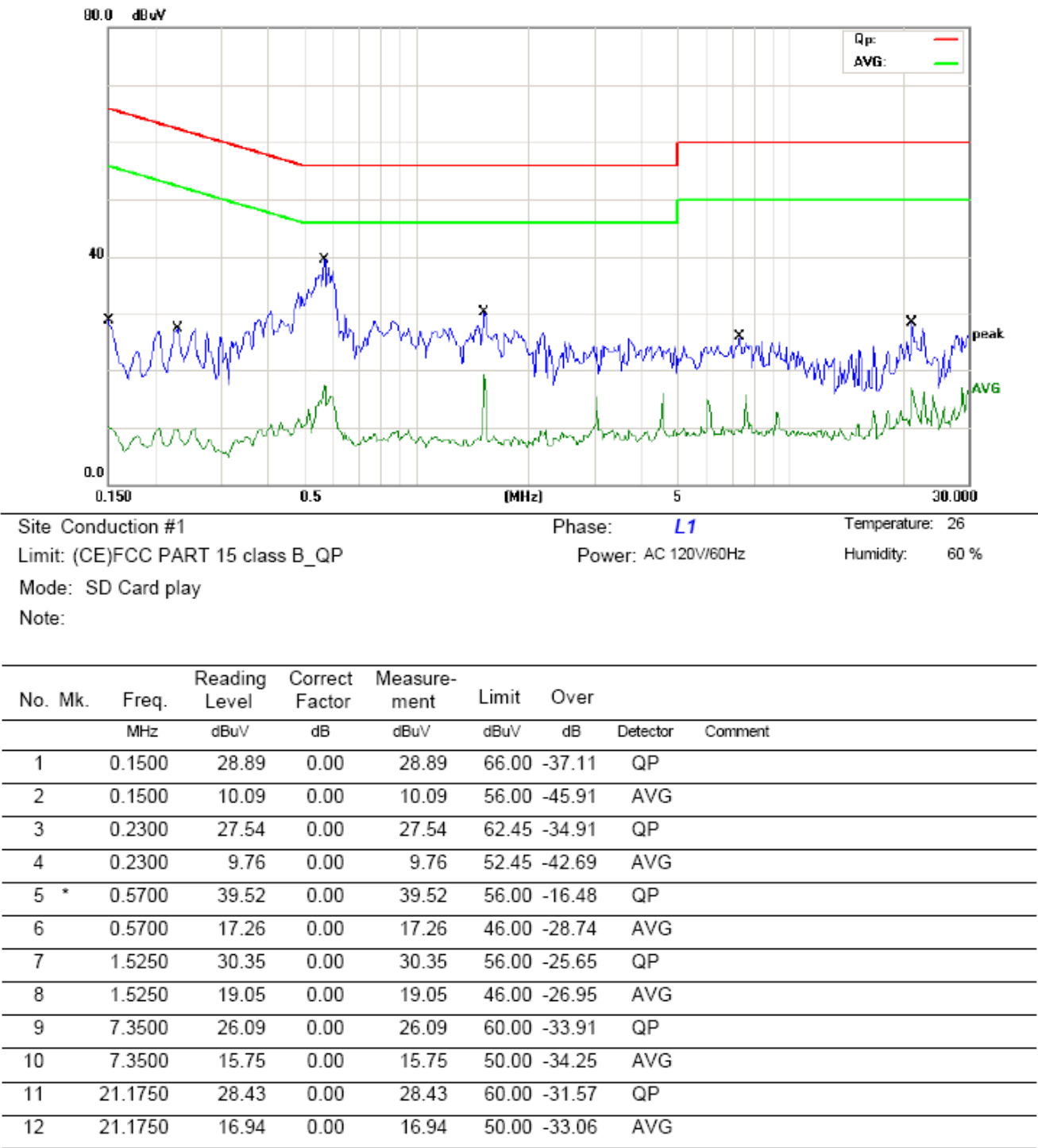


6.2.Photos of Radiation Emission Measurement

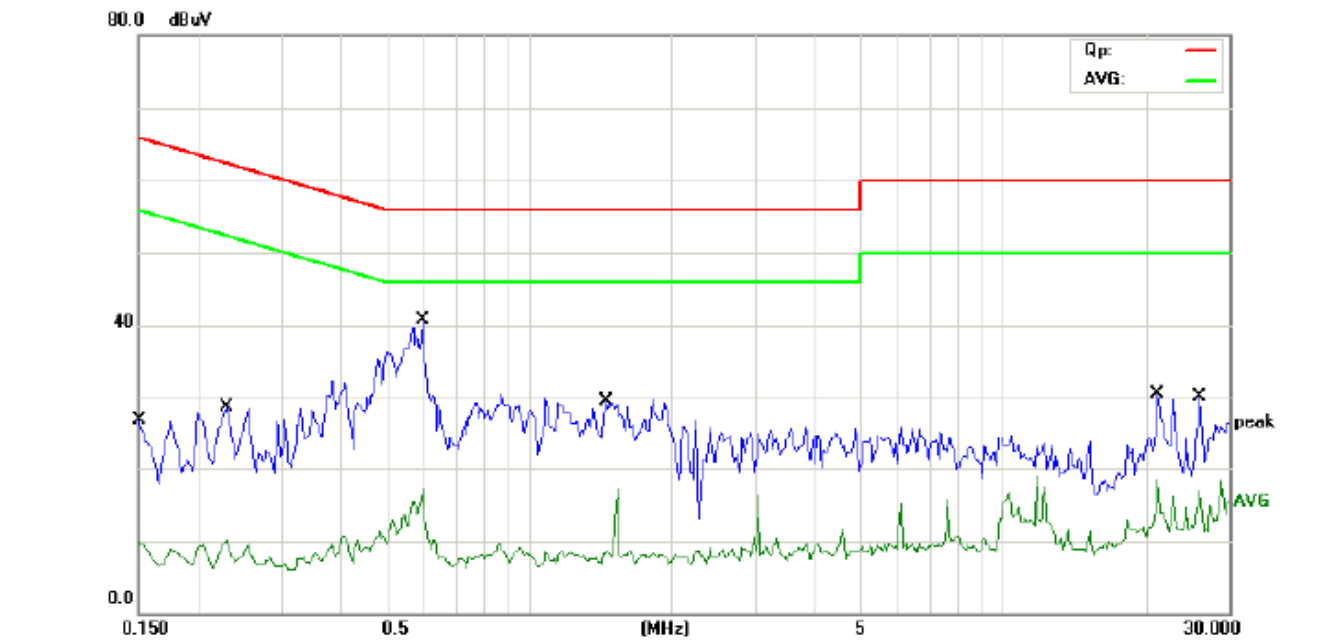




APPENDIX I



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



Site Conduction #1
Limit: (CE)FCC PART 15 class B_QP
Mode: SD Card play
Note:

Phase: **N**
Power: AC 120V/60Hz
Temperature: 26
Humidity: 60 %

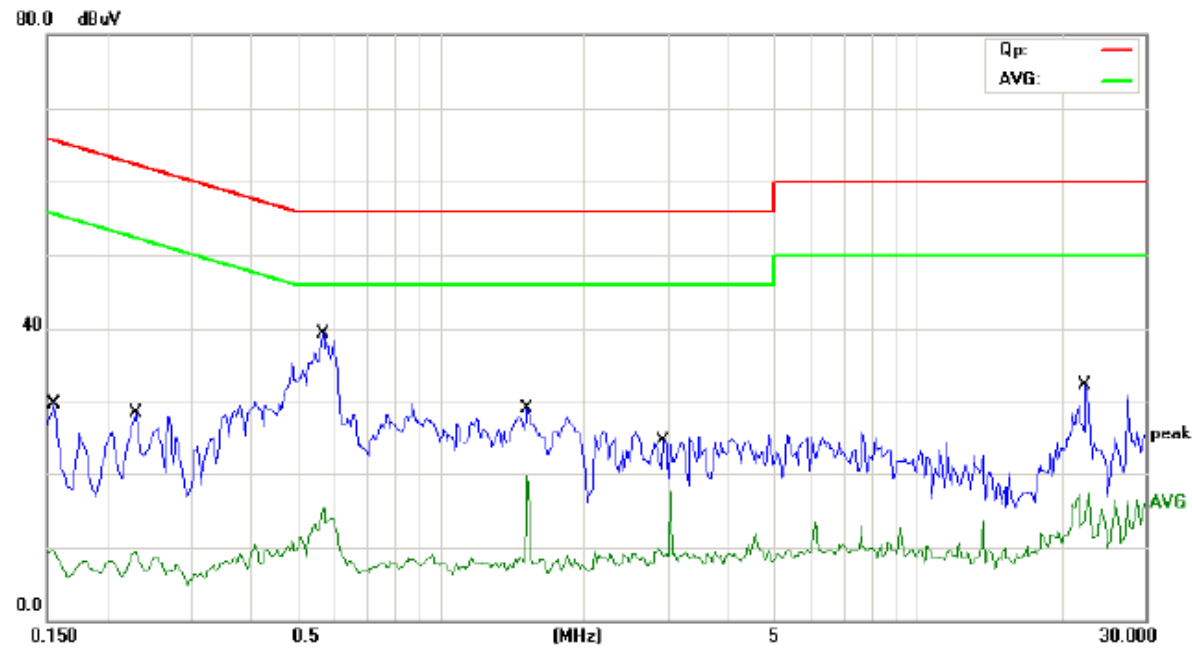
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		MHz	Level	Factor	ment			Detector	Comment
1		0.1500	26.99	0.00	26.99	66.00	-39.01	QP	
2		0.1500	9.87	0.00	9.87	56.00	-46.13	AVG	
3		0.2300	28.73	0.00	28.73	62.45	-33.72	QP	
4		0.2300	10.03	0.00	10.03	52.45	-42.42	AVG	
5	*	0.5950	40.74	0.00	40.74	56.00	-15.26	QP	
6		0.5950	17.16	0.00	17.16	46.00	-28.84	AVG	
7		1.4600	29.50	0.00	29.50	56.00	-26.50	QP	
8		1.4600	17.17	0.00	17.17	46.00	-28.83	AVG	
9		21.1750	30.50	0.00	30.50	60.00	-29.50	QP	
10		21.1750	18.56	0.00	18.56	50.00	-31.44	AVG	
11		26.0000	30.13	0.00	30.13	60.00	-29.87	QP	
12		26.0000	15.25	0.00	15.25	50.00	-34.75	AVG	

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



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	27.35	0.00	27.35	66.00	-38.65	QP	
2		0.1500	9.63	0.00	9.63	56.00	-46.37	AVG	
3		0.2050	29.12	0.00	29.12	63.41	-34.29	QP	
4		0.2300	29.40	0.00	29.40	62.45	-33.05	QP	
5		0.2300	10.04	0.00	10.04	52.45	-42.41	AVG	
6	*	0.5700	41.65	0.00	41.65	56.00	-14.35	QP	
7		0.5700	17.21	0.00	17.21	46.00	-28.79	AVG	
8		1.4550	29.86	0.00	29.86	56.00	-26.14	QP	
9		1.4550	16.77	0.00	16.77	46.00	-29.23	AVG	
10		3.0400	25.97	0.00	25.97	56.00	-30.03	QP	
11		3.0400	17.02	0.00	17.02	46.00	-28.98	AVG	

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



Site Conduction #1

Limit: (CE)FCC PART 15 class B_QP

Mode: connect to pc

Note:

Phase: L1

Power: AC 120V/60Hz

Temperature: 26

Humidity: 60 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1550	29.73	0.00	29.73	65.73	-36.00	QP	
2		0.1550	9.46	0.00	9.46	55.73	-46.27	AVG	
3		0.2300	28.46	0.00	28.46	62.45	-33.99	QP	
4		0.2300	9.35	0.00	9.35	52.45	-43.10	AVG	
5	*	0.5700	39.21	0.00	39.21	56.00	-16.79	QP	
6		0.5700	15.24	0.00	15.24	46.00	-30.76	AVG	
7		1.5250	29.07	0.00	29.07	56.00	-26.93	QP	
8		1.5250	19.65	0.00	19.65	46.00	-26.35	AVG	
9		2.9463	24.67	0.00	24.67	56.00	-31.33	QP	
10		2.9463	17.65	0.00	17.65	46.00	-28.35	AVG	
11		22.5000	32.29	0.00	32.29	60.00	-27.71	QP	
12		22.5000	17.40	0.00	17.40	50.00	-32.60	AVG	

*:Maximum data

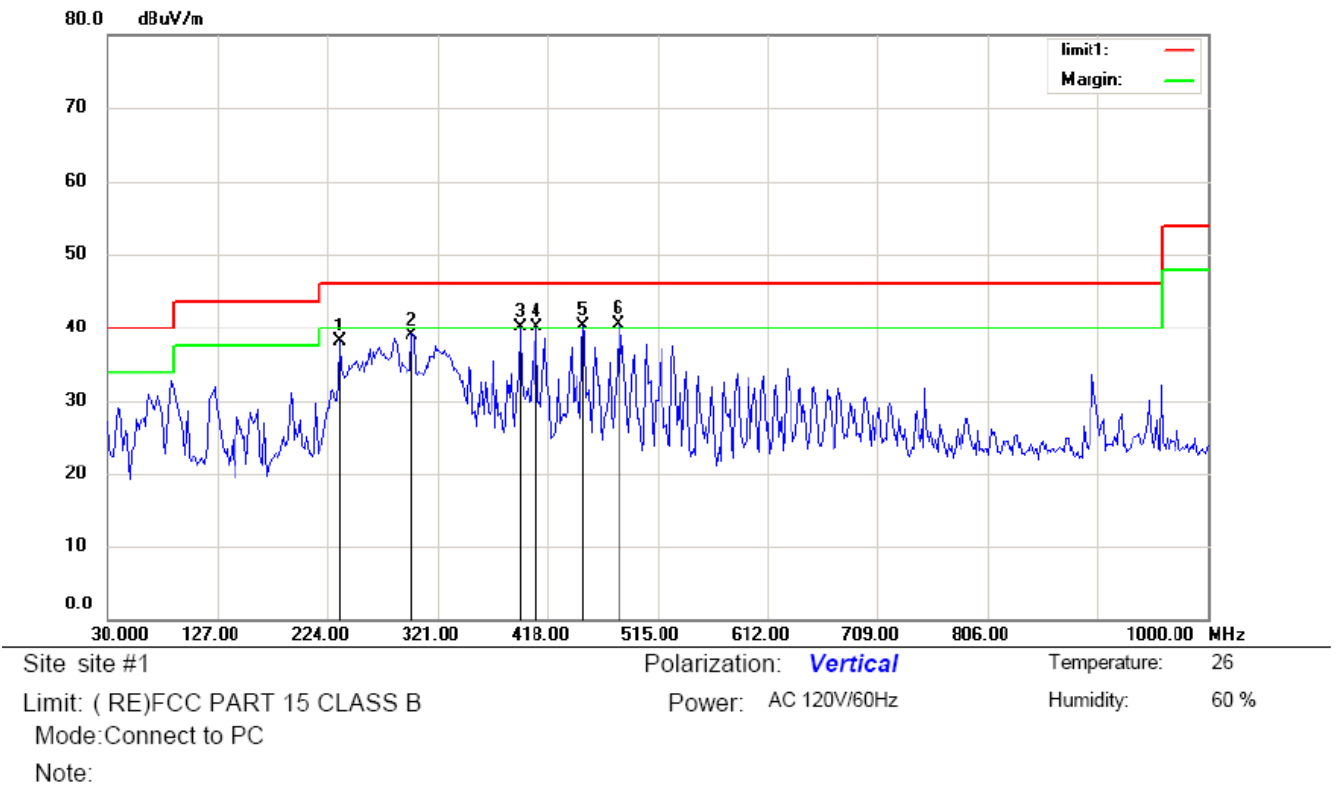
x:Over limit

!:over margin

Comment: Factor build in receiver.

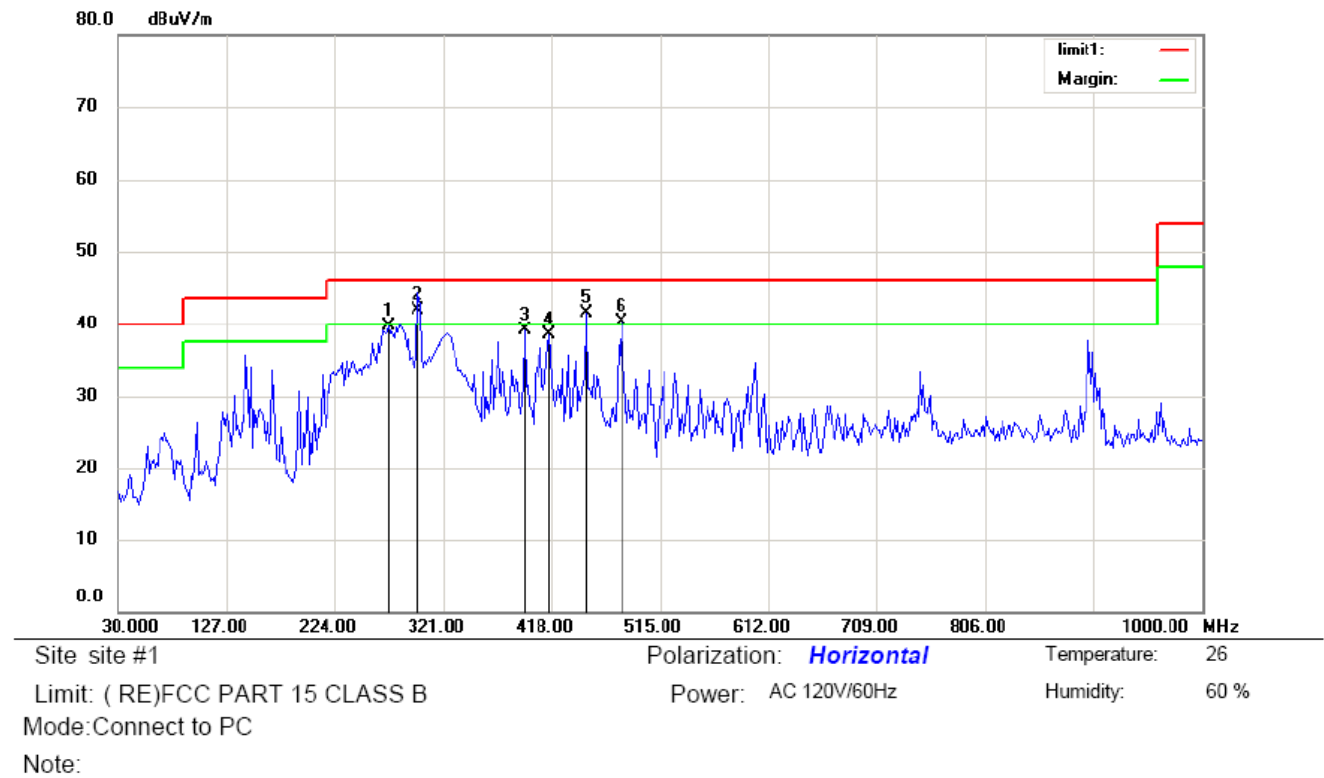
Operator:

APPENDIX II



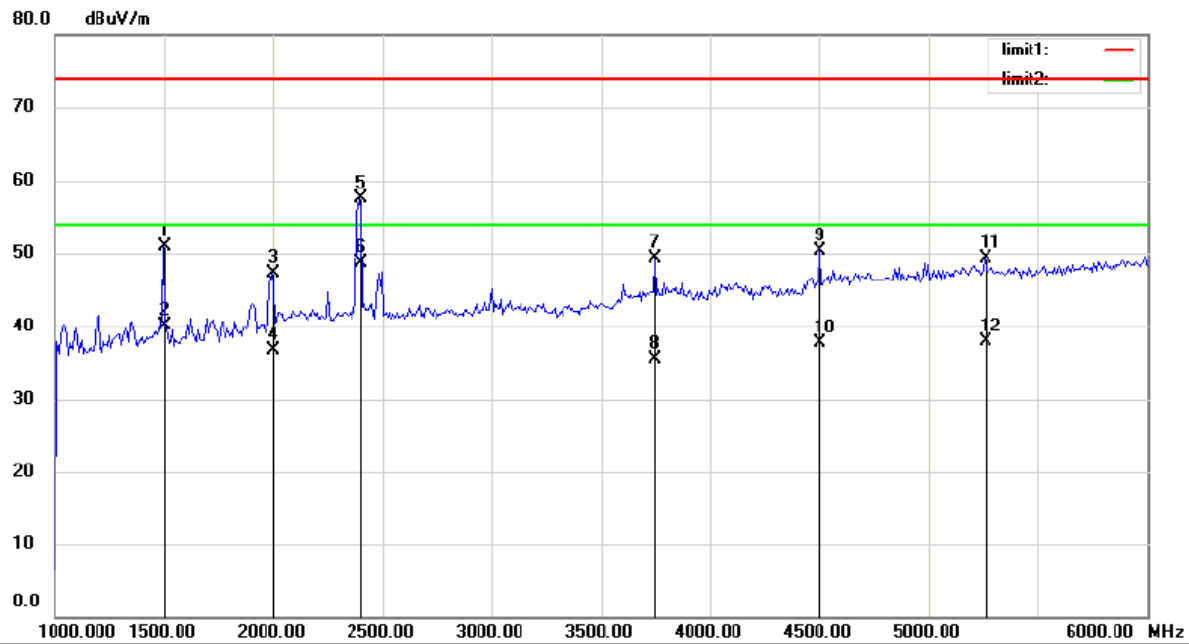
No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		235.1923	24.74	13.45	38.19	46.00	-7.81	QP		
2		298.9262	25.16	13.84	39.00	46.00	-7.00	QP		
3	!	393.7500	23.29	16.90	40.19	46.00	-5.81	QP		
4	!	407.7403	22.85	17.20	40.05	46.00	-5.95	QP		
5	!	449.7115	21.34	18.88	40.22	46.00	-5.78	QP		
6	*	480.8012	22.01	18.45	40.46	46.00	-5.54	QP		

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



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		272.5000	25.54	14.11	39.65	46.00	-6.35	QP		
2	*	298.9262	28.10	13.89	41.99	46.00	-4.01	QP		
3		393.7500	21.25	17.81	39.06	46.00	-6.94	QP		
4		415.5128	19.91	18.52	38.43	46.00	-7.57	QP		
5	!	449.7115	23.14	18.39	41.53	46.00	-4.47	QP		
6	!	480.8012	21.79	18.45	40.24	46.00	-5.76	QP		

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



Site site #1

Polarization: **Horizontal**

Temperature: 26

Limit: (RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 60 %

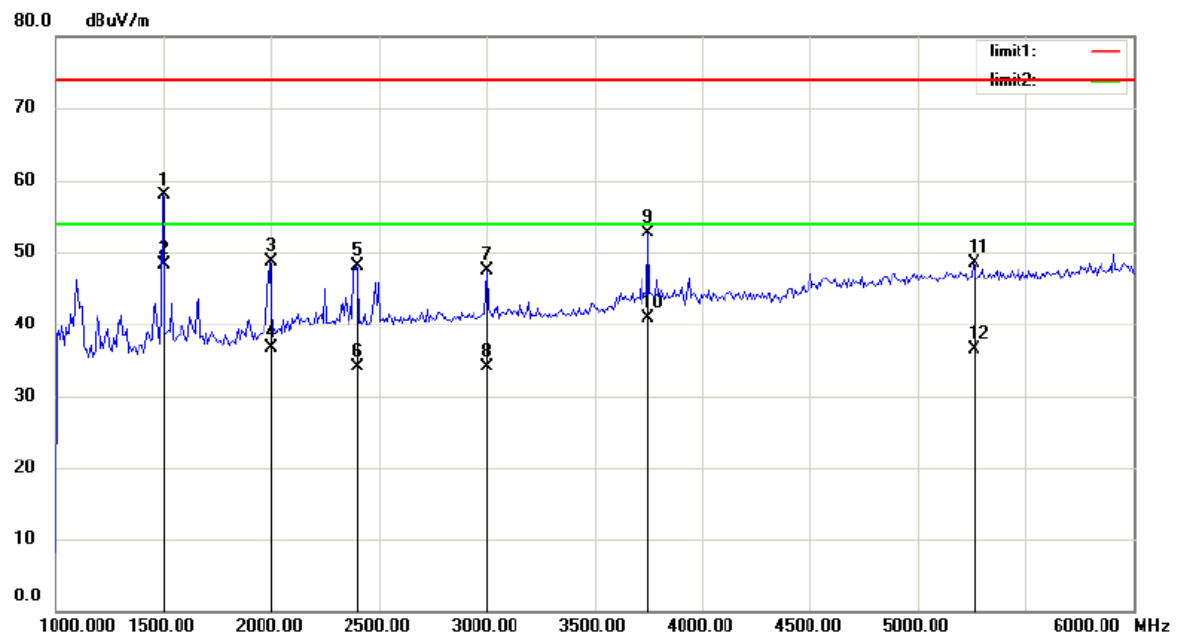
Mode: Connect to PC

Note:

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		1496.795	63.10	-12.27	50.83	74.00	-23.17	peak		
2		1496.795	52.30	-12.27	40.03	54.00	-13.97	AVG		
3		1993.590	58.09	-10.81	47.28	74.00	-26.72	peak		
4		1993.590	47.60	-10.81	36.79	54.00	-17.21	AVG		
5		2394.231	66.17	-8.66	57.51	74.00	-16.49	peak		
6	*	2394.231	57.30	-8.66	48.64	54.00	-5.36	AVG		
7		3748.397	55.98	-6.72	49.26	74.00	-24.74	peak		
8		3748.397	42.30	-6.72	35.58	54.00	-18.42	AVG		
9		4501.602	55.28	-5.05	50.23	74.00	-23.77	peak		
10		4501.602	42.80	-5.05	37.75	54.00	-16.25	AVG		
11		5254.808	53.36	-4.06	49.30	74.00	-24.70	peak		
12		5254.808	41.90	-4.06	37.84	54.00	-16.16	AVG		

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

Operator: RJB

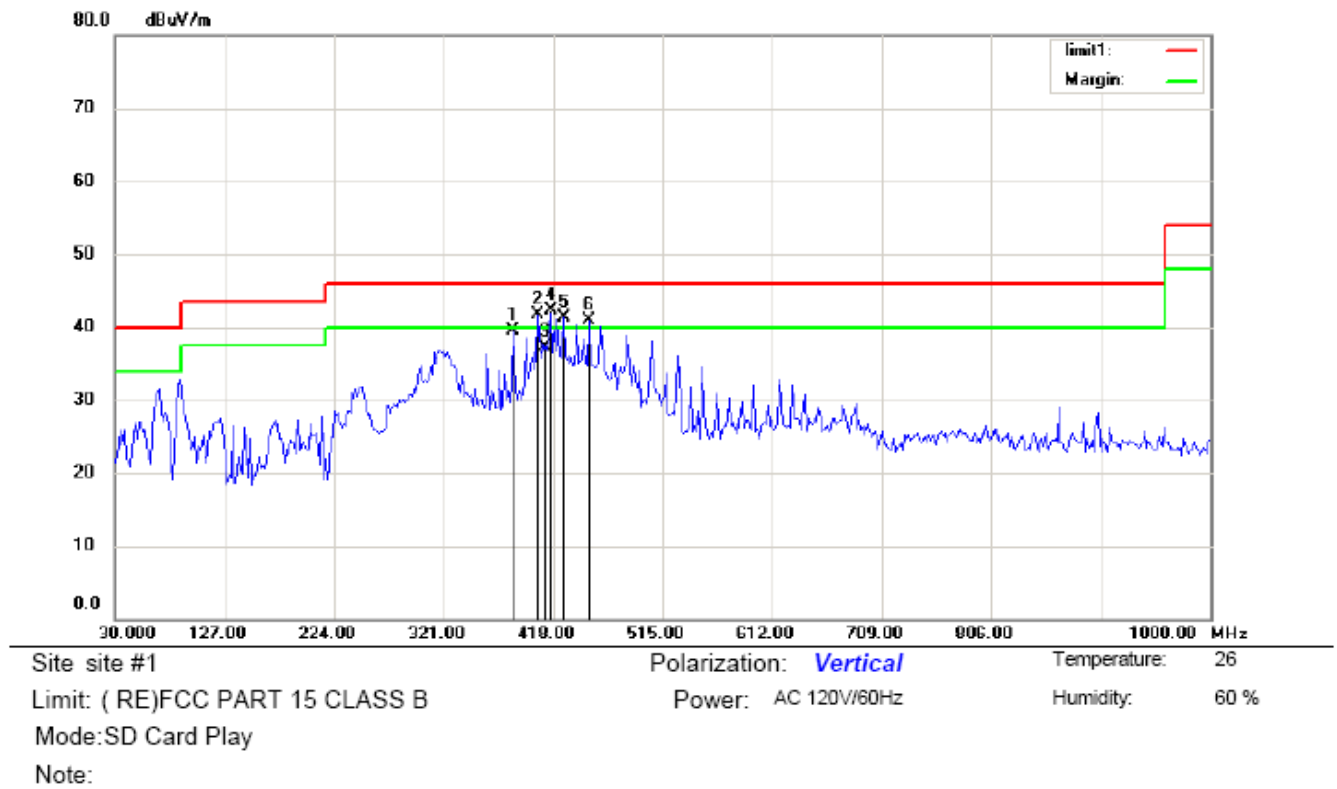


Site site #1 Polarization: **Vertical** Temperature: 26
 Limit: (RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 60 %
 Mode: Connect to PC
 Note:

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		1496.795	70.23	-12.27	57.96	74.00	-16.04	peak		
2	*	1496.795	60.50	-12.27	48.23	54.00	-5.77	AVG		
3		1993.590	59.51	-10.81	48.70	74.00	-25.30	peak		
4		1993.590	47.60	-10.81	36.79	54.00	-17.21	AVG		
5		2394.231	56.74	-8.66	48.08	74.00	-25.92	peak		
6		2394.231	42.80	-8.66	34.14	54.00	-19.86	AVG		
7		3003.205	55.10	-7.58	47.52	74.00	-26.48	peak		
8		3003.205	41.65	-7.58	34.07	54.00	-19.93	AVG		
9		3748.397	59.36	-6.72	52.64	74.00	-21.36	peak		
10		3748.397	47.60	-6.72	40.88	54.00	-13.12	AVG		
11		5254.808	52.58	-4.06	48.52	74.00	-25.48	peak		
12		5254.808	40.50	-4.06	36.44	54.00	-17.56	AVG		

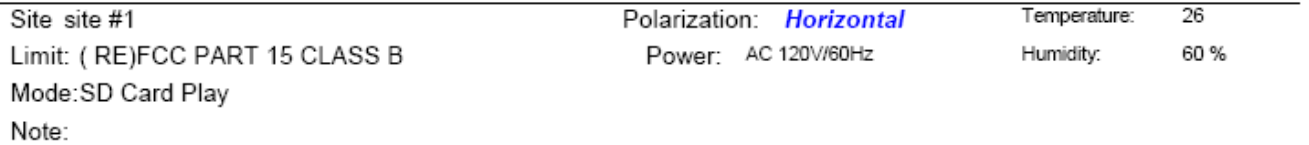
*:Maximum data x:Over limit !:over margin

Operator: RJB



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		382.8684	22.81	16.63	39.44	46.00	-6.56	QP		
2	!	404.6313	24.48	17.14	41.62	46.00	-4.38	QP		
3		410.8493	20.10	17.25	37.35	46.00	-8.65	QP		
4	*	415.5128	24.90	17.33	42.23	46.00	-3.77	QP		
5	!	427.9485	23.83	17.55	41.38	46.00	-4.62	QP		
6	!	449.7115	22.08	18.88	40.96	46.00	-5.04	QP		

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



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	!	149.6954	29.22	9.02	38.24	43.50	-5.26	QP			
2		168.3490	25.43	9.70	35.13	43.50	-8.37	QP			
3		224.3108	24.34	12.13	36.47	46.00	-9.53	QP			
4	!	298.9261	26.49	13.89	40.38	46.00	-5.62	QP			
5		393.7500	21.29	17.81	39.10	46.00	-6.90	QP			
6	*	404.6313	23.09	18.27	41.36	46.00	-4.64	QP			

Operator: RJB

APPENDIX III (Photos of EUT)



