



卓時檢測
TIMEWAY TESTING LABORATORY



ISO/IEC17025 Accredited Lab.

Report No: FCC 1008209-02
File reference No: 2010-09-16

Applicant: Shenzhen Kinstone D&T Develop Co.,Ltd.

Product: Computer

Model No: KS-UMD070VF

Trademark: kinstone

Test Standards: FCC Part 15 Subpart B: 2008

Test result: It is herewith confirmed and found to comply with the requirements set up by ANSI C63.4&FCC Part 15 regulations for the evaluation of electromagnetic compatibility

Approved By

Jack Chung

Jack Chung

Manager

Dated: September 16, 2010

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO LTD

East 5/Block 4, Anhua Industrial Zone, No.8, Tairan Rd. Chegongmiao, FuTian District, Shenzhen, CHINA.

Tel (755) 83448688 Fax (755) 83442996



Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 899988

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 899988.

IC- Registration No.: IC5205A-01

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration IC No.: 5205A-01.

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1.0 General Details

1.1 Test Lab Details

Name : SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO LTD
Address: East 5/Block 4, Anhua Industrial Zone, No.8,Tairan Rd. CheGongMiao,
FuTian District,
Shenzhen, CHINA.
Telephone: (755) 83448688
Fax: (755) 83442996

1.2 Applicant Details

Applicant: Shenzhen Kinstone D&T Develop Co.,Ltd.
Address: 5/F A2 Building, XinJianXing Tech Industrial Park, Fengxin Rd.,
Guangming New Dist, Bao'an Dist.,Shenzhen ,China
Telephone: 0755-33699960
Fax: 0755-33699966

1.3 Description of EUT

Product: Computer
Manufacturer: Shenzhen Kinstone D&T Develop Co.,Ltd.
Brand Name: kinstone
Model Number: KS-UMD070VF
Additional Model KS-UMD070RA KS-UMD070RB KS-UMPC070RA
Number: KS-UMD102RA
KS-UMD102ZA KS-UMD102ZT KS-UMD070ZA
KS-UMPC102ZA KS-UMPC102ZT KS-UMPC070ZA
KS-UMD070FA KS-UMPC102FA KS-UMD070VK
KS-UMD070VM KS-UMD102VK KS-UMPC070VK
KS-UMPC102VK
Power Adapter Model: SFP0901500P, Input :100-240V~, 50/60Hz, Output: DC9V,
1500mA

1.4 Submitted Sample: 1 Sample

1.5 Test Duration: 2010-08-18 to 2010-09-16

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB
Radiated Emissions Uncertainty =4.7dB

1.7 Test Engineer

The sample tested by _____

Print Name: Terry Tong



2.0 List of Measurement Equipment

2.1 Conducted Emission Test

Name	Model No.	Serial No.	Manufacturer	Calibration Date	Calibration Cycle
EMI Test Receiver	ESH3	860905/006	RS	2010.4.26	1Year
Spectrum Analyzer	ESA-L1500A	US37451154	HP	2010.4.26	1Year
PULSE LIMITER	ESH3-Z2	100281	RS	2010.4.26	1Year
LISN	ESH3-Z5	100294	RS	2010.4.26	1Year
LISN	ESH3-Z5	100253	RS	2010.4.26	1Year
LISN	LS16C	10010947251	AFJ	2010-5-14	1Year
LISN (Three Phase)	NSLK 8126	8126453	Schwarebeck	2010-5-14	1Year

2.2 Radiated electromagnetic disturbance test

Name	Model No.	Serial No.	Manufacturer	Calibration Date	Calibration Cycle
EMI Test Receiver	ESVD	100008	RS	2010.4.26	1Year
Coaxial Switch	MP59B	M70585	ANRITSU	N/A	N/A
Spectrum Analyzer	8595E	3441A00893	HP	2010.4.26	1Year
Amplifier	8447D	2727A05017	HP	2010.4.26	1Year
Bilog Antenna	VULB9163	9163/340	Schwarebeck	2010.4.26	1Year
Horn Antenna	BBHA 9120D	9120D-631	Schwarebeck	2010.07.03	1Year

2.3 Auxiliary Equipment

Name	Model No.	Serial No.	Manufacturer	Calibration Date	Calibration Cycle
Mouse	OM860XC	HM0509	BIGCOW	Data cable of 1.5m length	FCC DOC
U-disk	U208	--	Netac	--	FCC DOC
Earphone	--	--	--	Data cable of 1.0m length	--
SD	--	--	Kingston	--	--
Transfer Box	FT100	--	Flytouch	--	--

2.4 Ferrite					
Ferrite	UF-90B	--	Shengci	--	--

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3.0 Technical Details

3.1 Investigations Requested

Perform Electromagnetic Interference [EMI] tests for FCC Requirement.

3.2 Test Standards

FCC Part 15 Subpart B: 2008

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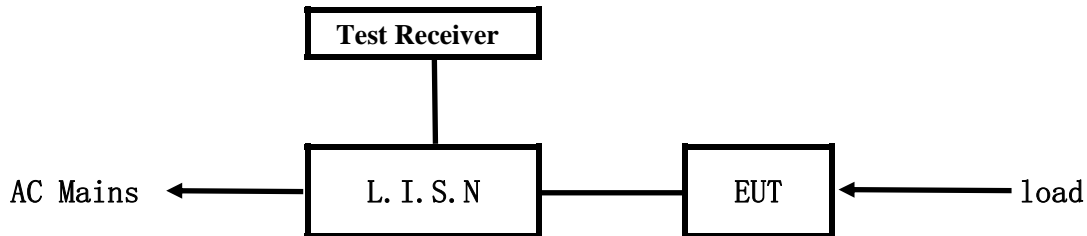
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4.0 Conducted Power line Test

4.1 Schematics of the test



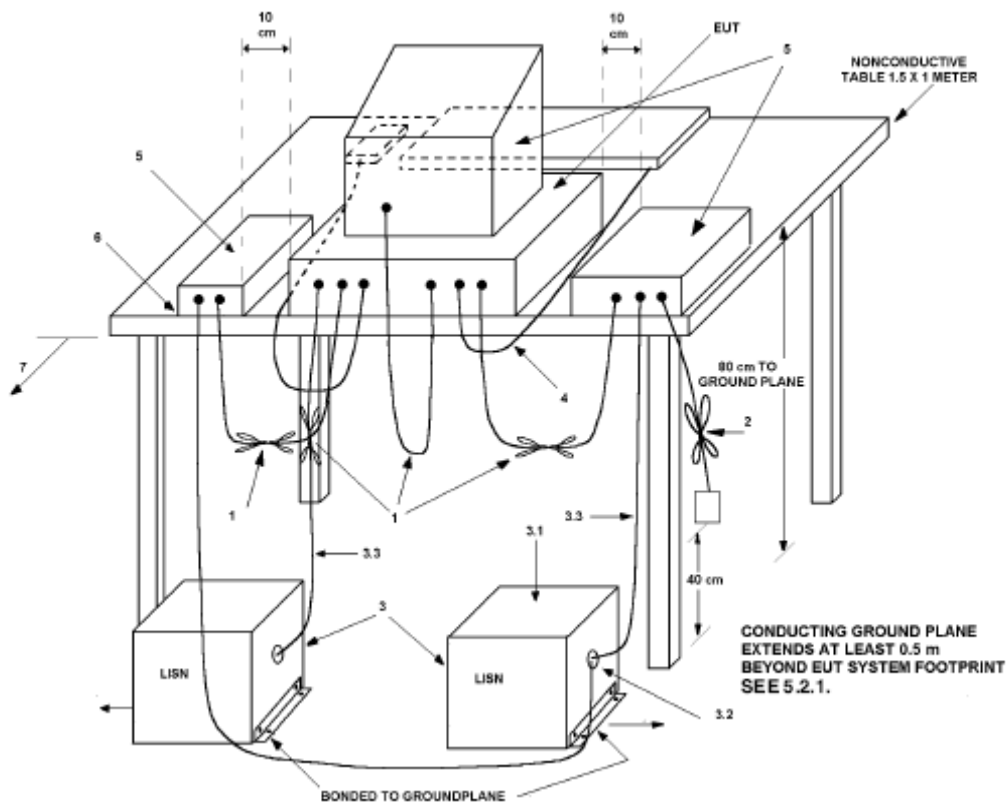
EUT: Equipment Under Test

4.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.4-2003. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.4-2003. Cables and peripherals were moved to find the maximum emission levels for each frequency.

Actual Working Voltage and Frequency: 120V~, 60Hz

Block diagram of Test setup



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4.3 Power line conducted Emission Limit

Frequency(MHz)	Class A Limits dB(μ V)		Class B Limits dB(μ V)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ~ 0.50	79.00	66.00	66.00~56.00*	56.00~46.00*
0.50 ~ 5.00	73.00	60.00	56.00	46.00
5.00 ~ 30.00	73.00	60.00	60.00	50.00

- Notes: 1. *decreasing linearly with logarithm of frequency.
2. The tighter limit shall apply at the transition frequencies

4.4 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

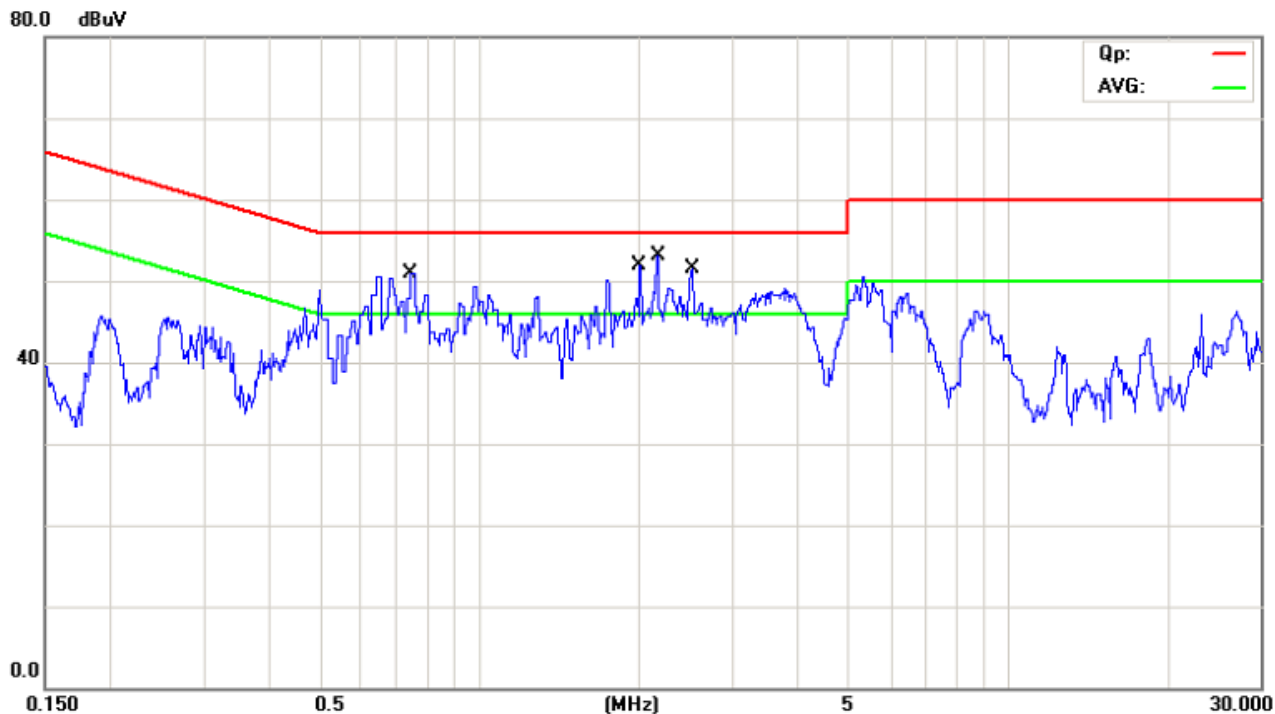


A Conducted Emission on Line Terminal of the power line (150kHz to 30MHz)

EUT set Condition: Keep WIFI Transmitting, Read USB,SD card and Running EMC test software and Ping network

Results: Pass

Please refer to following diagram for individual



Frequency (MHz)	Reading(dB μ V)				Limit (dB μ V)	
	Line		Neutral		Quasi-peak	Average
	Quasi-peak	Average	Quasi-peak	Average		
0.7458	41.72	32.82	--	--	56.00	46.00
1.9910	44.80	30.60	--	--	56.00	46.00
2.1455	44.66	31.86	--	--	56.00	46.00
2.5048	47.50	34.70	--	--	56.00	46.00

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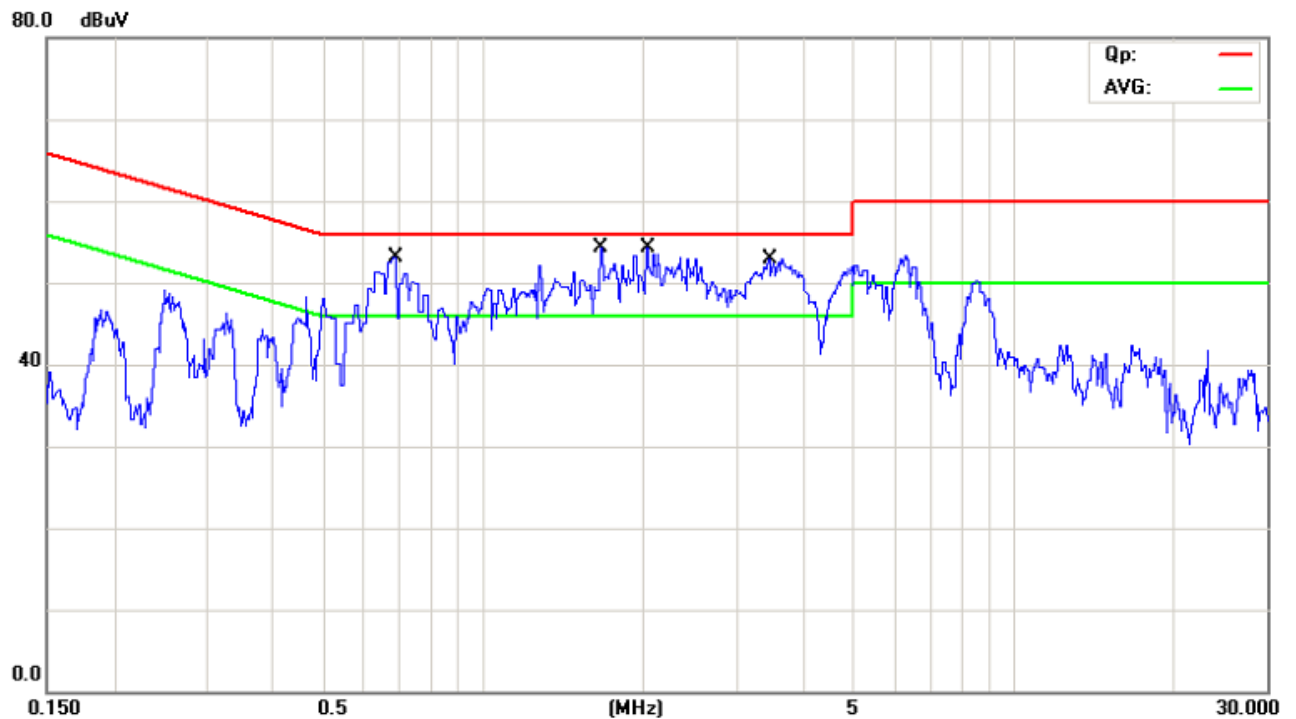


B Conducted Emission on Neutral Terminal of the power line (150kHz to 30MHz)

EUT set Condition: Keep WIFI Transmitting, Read USB,SD card and Running EMC test software and Ping network

Results: Pass

Please refer to following diagram for individual



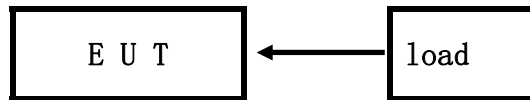
Frequency (MHz)	Reading(dB μ V)				Limit (dB μ V)	
	Live		Neutral		Quasi-peak	Average
	Quasi-peak	Average	Quasi-peak	Average		
0.6842	--	--	41.97	31.57	56.00	46.00
1.6590	--	--	45.66	30.25	56.00	46.00
2.0313	--	--	47.11	31.91	56.00	46.00
3.4272	--	--	47.37	28.17	56.00	46.00

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5.0 Radiated Disturbance Test

5.1 Schematics of the test

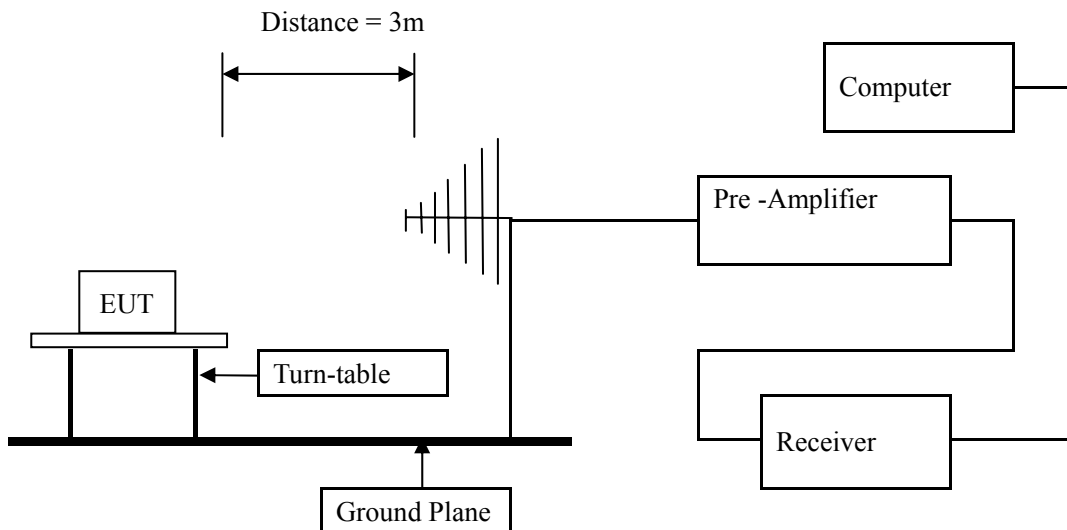


5.2 Test Method and test Procedure:

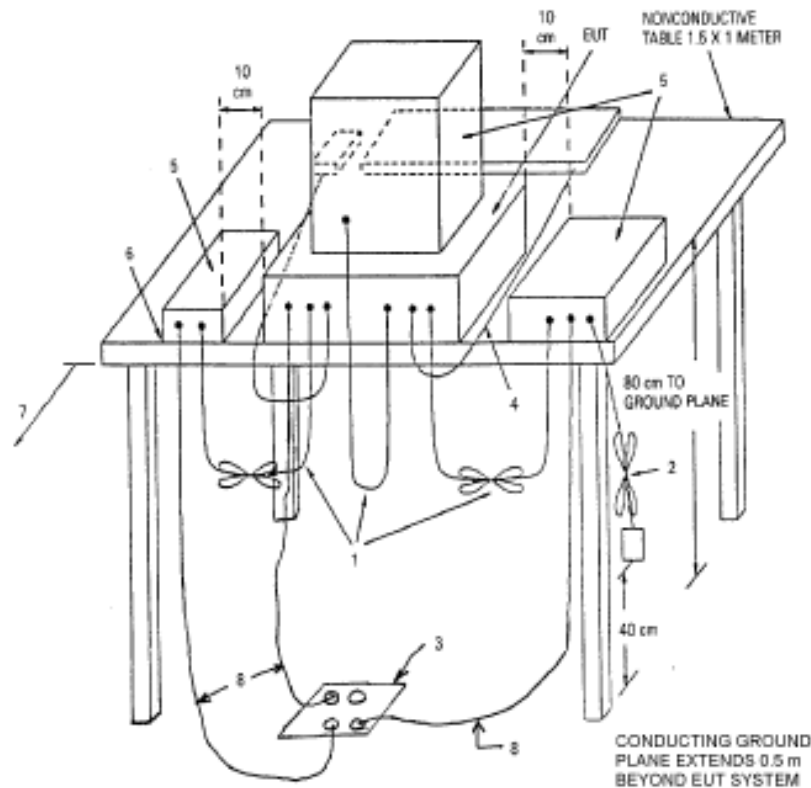
The EUT was tested according to ANSI C63.4 –2003, The frequency spectrum from 30MHz to 5GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK

Actual Working Voltage and Frequency: 120V~, 60Hz

Block diagram of Test setup



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5.3 Radiated Emission Limit

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
30-88	3	40.00
88-216	3	43.50
216-960	3	46.00
Above 960	3	54.00

Note: 1. The lower limit shall apply at the transition frequencies

2. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

5.4 Test result

The frequency spectrum from 30MHz to 8GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120KHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK. Measurements were made at 3 meters.

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Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep WIFI Transmitting, Read USB,SD card and Running EMC test software and Ping network

Results: Pass

Frequency (MHz)	Level@3m (dB μ V/m)	Antenna Polarity	Limit@3m (dB μ V/m)
127.00	37.04	H	43.50
177.925	39.81	H	43.50
226.425	40.11	H	46.00
296.750	42.82	H	46.00
376.775	42.97	H	46.00
427.700	42.64	H	46.00
107.600	40.04	V	43.50
127.000	39.76	V	43.50
153.675	40.08	V	43.50
177.925	39.18	V	43.50
226.425	39.86	V	46.00
325.850	40.83	V	46.00

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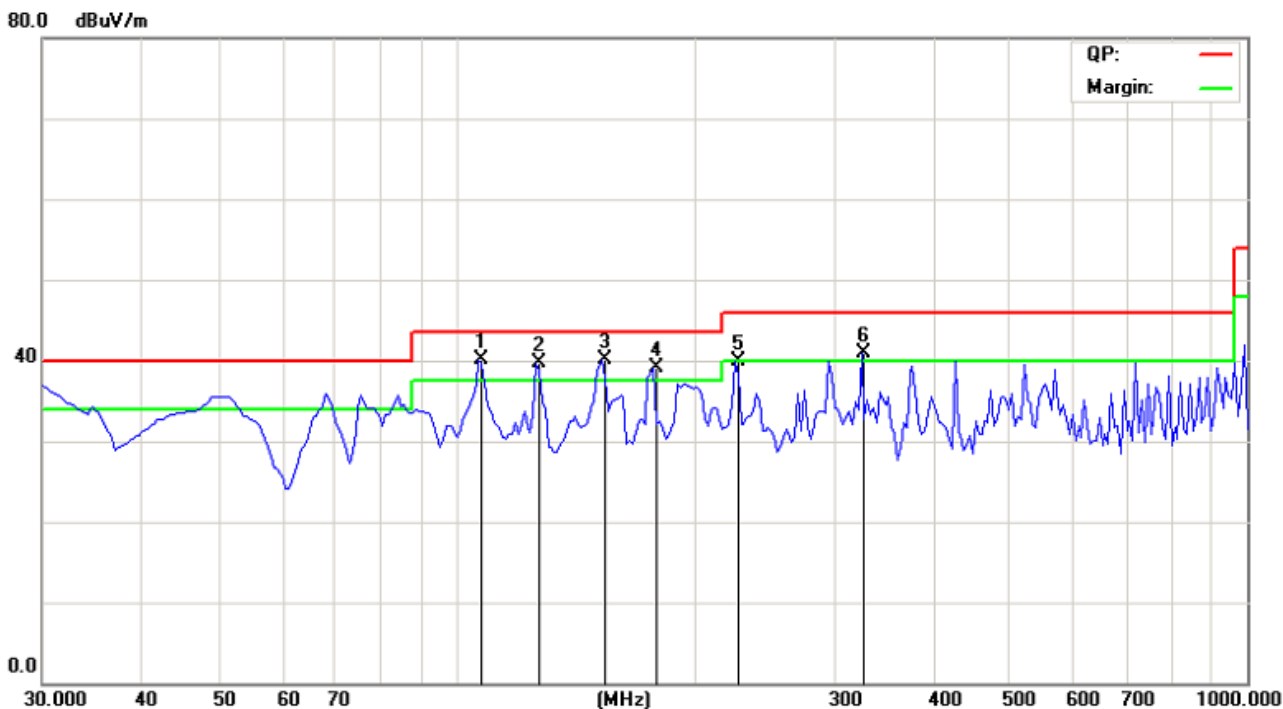
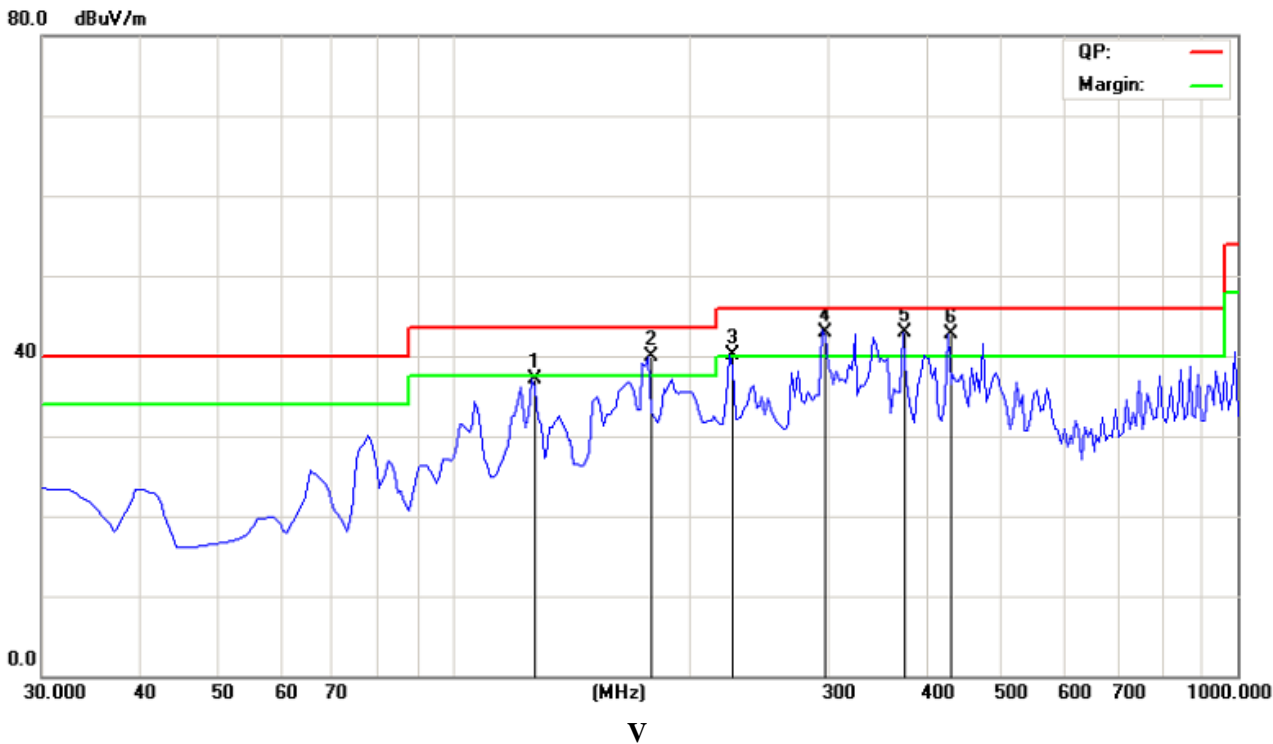
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TEST REPORT

Test Figure:

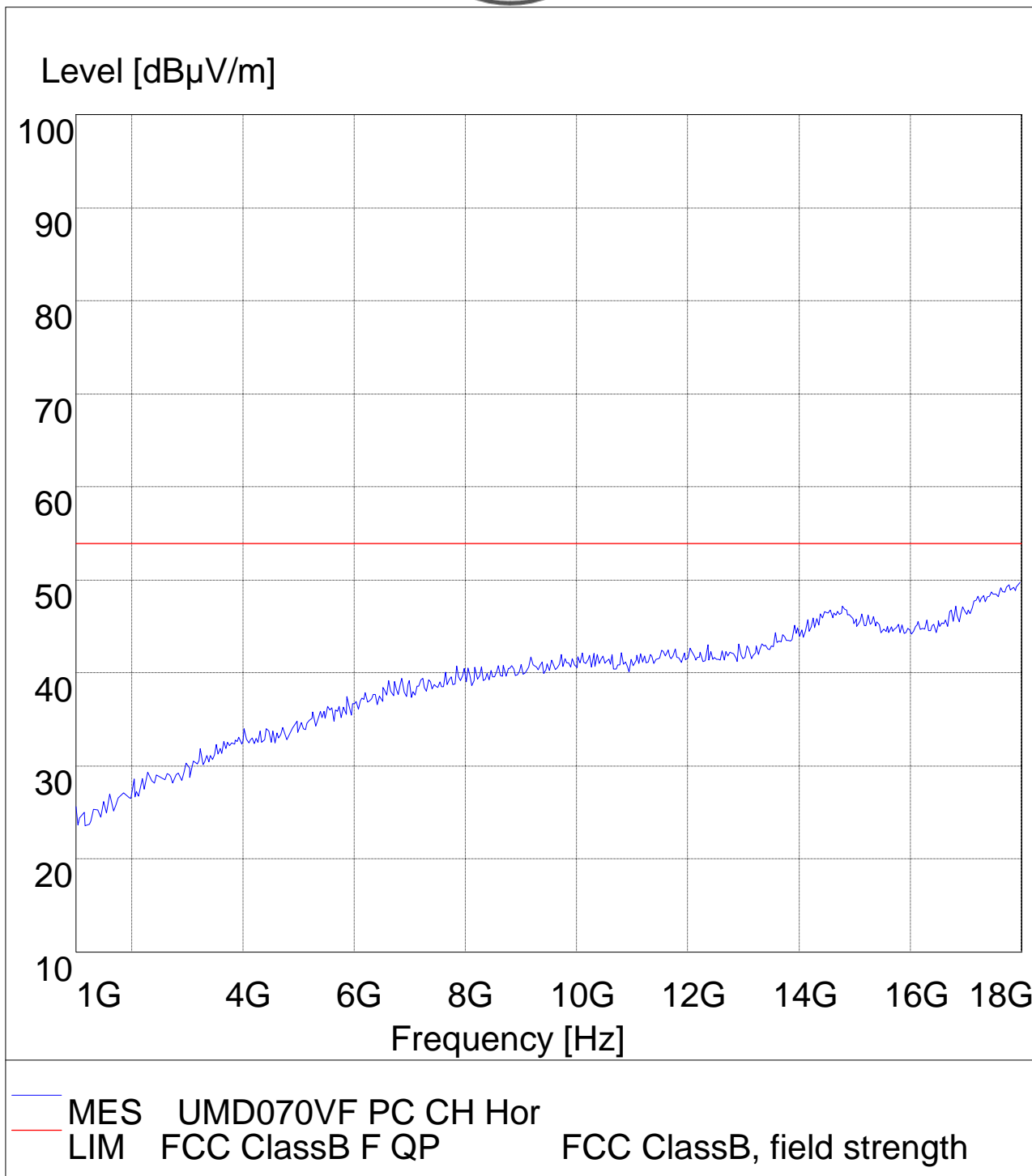
H



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Test Figure: Horizontal



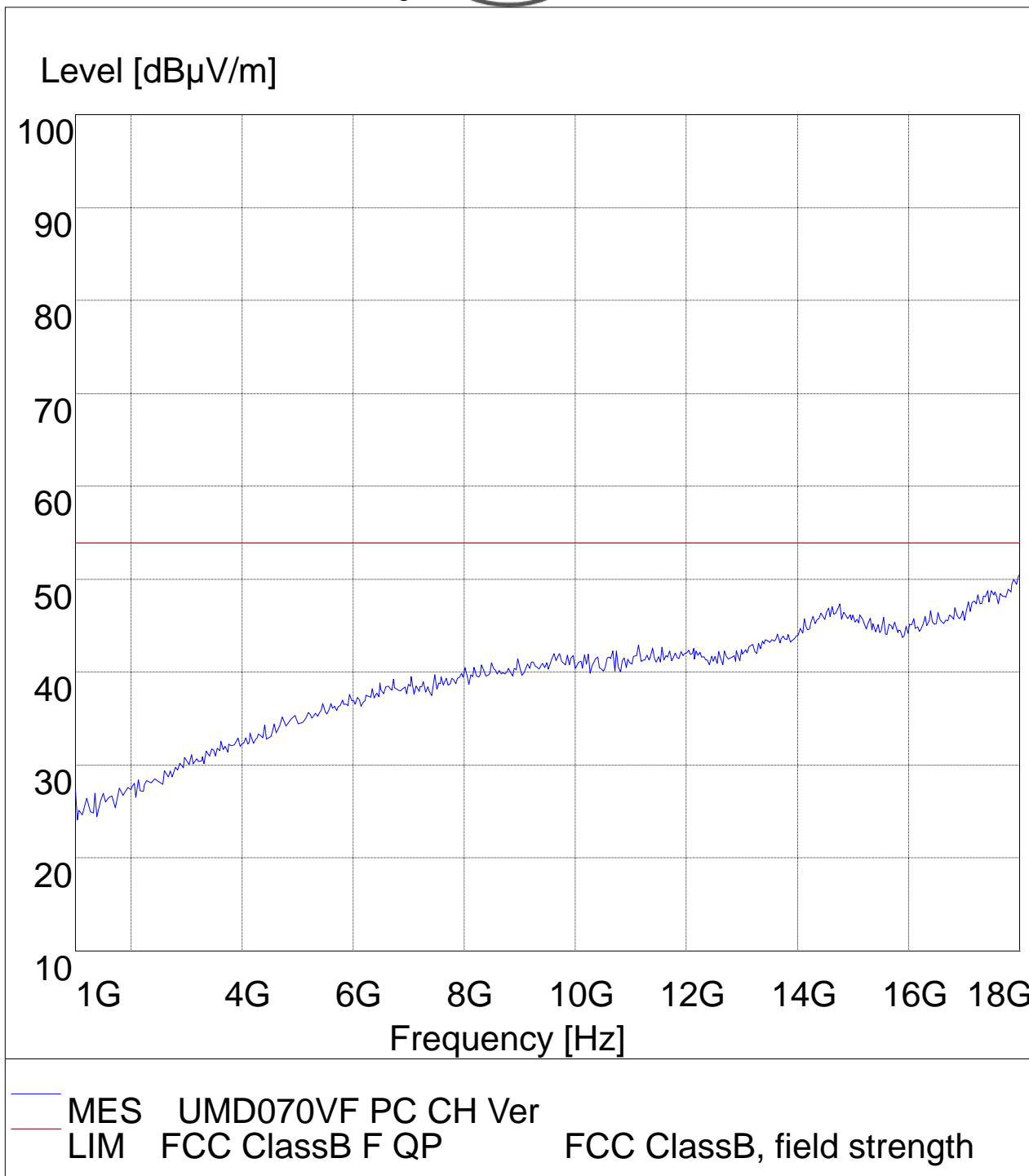
Note: PK scanning

Test Mode: Read USB,SD card and Running EMC test software and Ping network

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Test Figure: Vertical



Note: PK scanning

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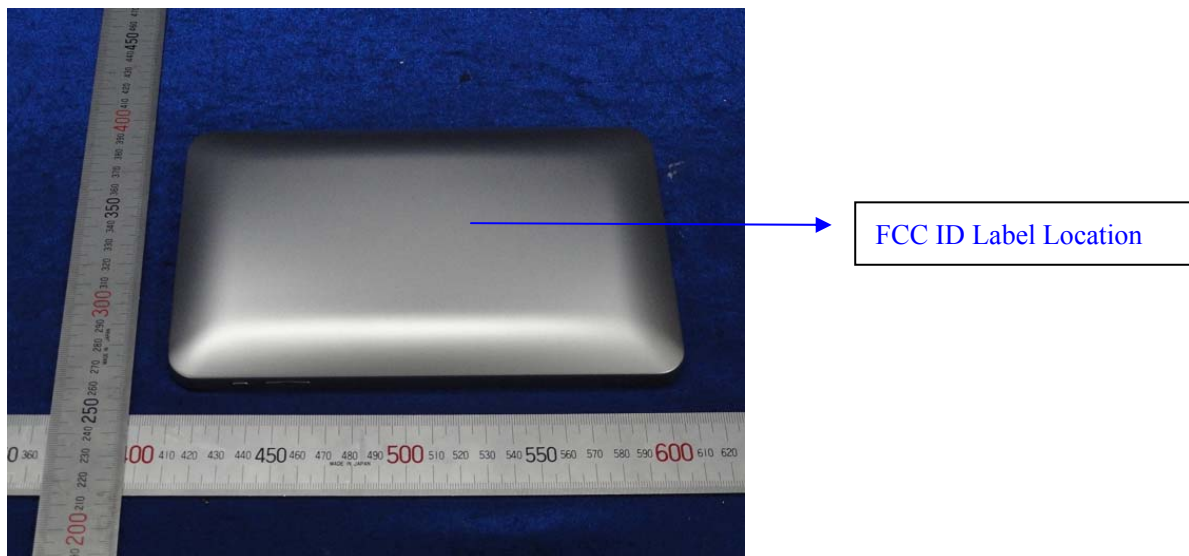
6.0 FCC ID Label

FCC ID: XXRUMD070VF

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



7.0 Photo of testing

7.1 Conducted test View--

Please refer to report EMC1008209-01

7.2 Radiated emission test view--

Please refer to report EMC1008209-01

-End of the report-

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