



EMC TEST REPORT

Application No.: SHEMO10050055001
Applicant: Hanwang Technology Co.,Ltd.
FCC ID: XQIWR61005

Equipment Under Test (EUT):

NOTE: The following sample(s) submitted was/were identified on behalf of the client as

EUT Name: WISereader
Brand Name: Hanvon
Model No: N618
Standards: FCC PART 15: 2009
Date of Receipt: May 16, 2010
Date of Test: May 16, 2010 to Oct 15, 2010
Date of Issue: Oct 15, 2010

Test Result :	PASS*
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* In the configuration tested, the EUT complied with the standards specified above.

Tino Pan
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SGS-CSTC(Shanghai) Co., Ltd.

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2 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission 30MHz-1000MHz	CFR 47 Part 15.109	ANSI C63.4: 2003	Class B	PASS
Conducted Emission 150KHz-30MHz	CFR 47 Part 15.107	ANSI C63.4: 2003	Class B	PASS



3 Contents

	Page
1 COVER PAGE	1
2 TEST SUMMARY	2
3 CONTENTS.....	3
4 GENERAL INFORMATION	4
4.1 CLIENT INFORMATION	4
4.2 GENERAL DESCRIPTION OF E.U.T.	4
4.3 DETAILS OF E.U.T.	4
4.4 DESCRIPTION OF SUPPORT UNITS	4
4.5 STANDARDS APPLICABLE FOR TESTING.....	4
4.6 TEST LOCATION.....	4
4.7 TEST FACILITY	5
4.8 MEASUREMENT UNCERTAINTY	5
5 EQUIPMENT USED DURING TEST	6
6 EMISSION TEST RESULTS	7
6.1 RADIATED EMISSIONS	7
6.1.1 <i>E.U.T. Operation</i>	7
6.1.2 <i>Test setup:</i>	7
6.2 CONDUCTED EMISSIONS	10
6.2.1 <i>E.U.T. Operation</i>	10
6.2.2 <i>Test Result and Measurement Data</i>	10



4 General Information

4.1 Client Information

Applicant: Hanwang Technology Co.,Ltd.
 Address of Applicant: 3rd Floor,Building 5,No.8 Dongbeiwang West Road,
 Haidian District,Beijing,China
 Manufacturer: Hanwang Technology Co.,Ltd.
 Address of Manufacturer: 3rd Floor,Building 5,No.8 Dongbeiwang West Road,
 Haidian District,Beijing,China

4.2 General Description of E.U.T.

EUT Name: WISereader
 Brand Name: Hanvon
 Model No: N618

4.3 Details of E.U.T.

Power Supply: 5V DC 500mA

4.4 Description of Support Units

Name	Model No.	Remark
ThinkCentre	6137	PC
Lenovo	LZ850A60684	Display

4.5 Standards Applicable for Testing

The standards used were CFR 47 Part 15B, ANSI C63.4: 2003

Table 1 : Tests Carried Out

Standard	Status
FCC Part 15 Subpart B Radiated Emission	√
FCC Part 15 Subpart B Conducted Emission	√

× Indicates that the test is not applicable
 √ Indicates that the test is applicable

4.6 Test Location

All tests were performed at:
 SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
 No.588 West Jindu Road, Songjiang District, Shanghai, China. 201612.
 Tel: +86 21 6191 5666 Fax: +86 21 6191 5655



4.7 Test Facility

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. Date of expiry: 2011-07-29.

- **FCC – Registration No.: 402683**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683, Expiry Date: 2012-03-17.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A. Expiry Date: 2011-09-29.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3172 and C-3514 respectively. Date of Registration: 2009-11-30. Date of Expiry: 2012-03-17.

4.8 Measurement Uncertainty

According to CISPR 16-4-2.

Test Item	Frequency Range	Measurement Uncertainty
Conducted Emission	150KHz – 30MHz	3.5dB
Radiated Emission	30MHz – 1000MHz	4.0dB

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



5 Equipment Used during Test

Radiated Emission

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due date
1	EMI test receiver	Rohde & Schwarz	ESU40	100109	2010-06-04	2011-06-03
2	Antenna	SCHWARZBECK	VULB9168	9168-313	2010-06-04	2011-06-03
3	Antenna	SCHWARZBECK	BBHA9120D	9120D-679	2010-06-04	2011-06-03
4	Controller	INNCO	CO200	474	/	/

Conducted Emission

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due date
1	EMI test receiver	Rohde & Schwarz	ESCS30	100086	2010-06-04	2011-06-03
2	Line impedance stabilization network	SCHWARZBECK	NSLK8127	8127-490	2010-07-30	2011-07-29



6 Emission Test Results

6.1 Radiated Emissions

Test Requirement:	CFR 47 Part 15.109
Test Method:	ANSI C63.4:2003
Test Date:	Aug 25, 2010
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m
Detector:	Peak for pre-scan (120kHz resolution bandwidth)
Result:	PASS

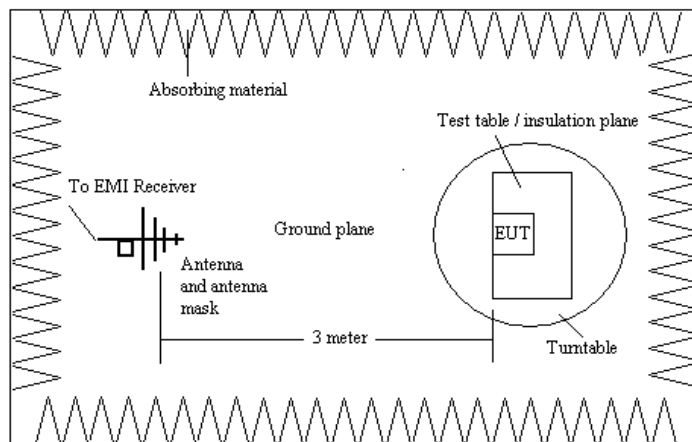
6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0°C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

EUT Operation: The EUT is in reading and playing mp3 mode connected with PC.

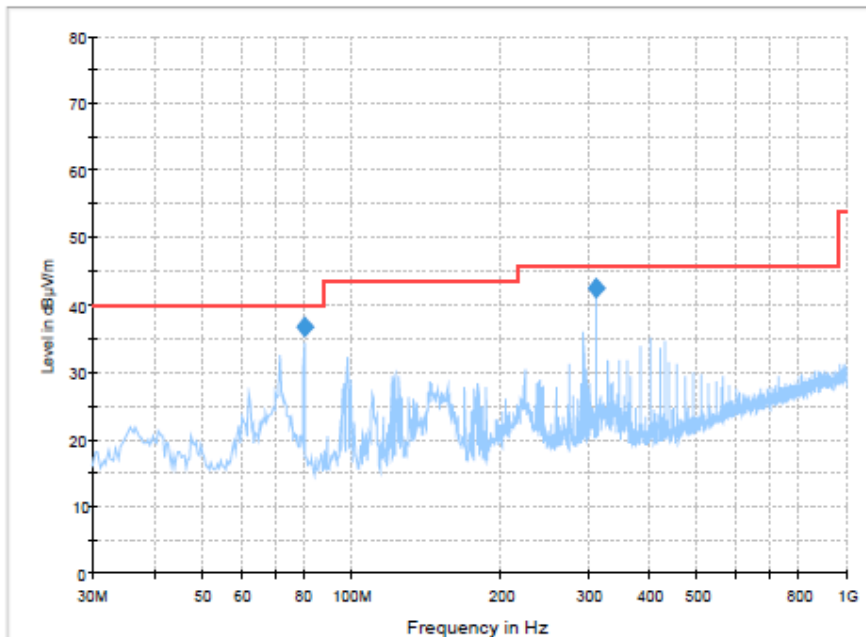
6.1.2 Test setup:





Note: Red limit line - Quasi-peak limit;
Blue plots - Peak detector scan plots.

Horizontal:



Final Result 1

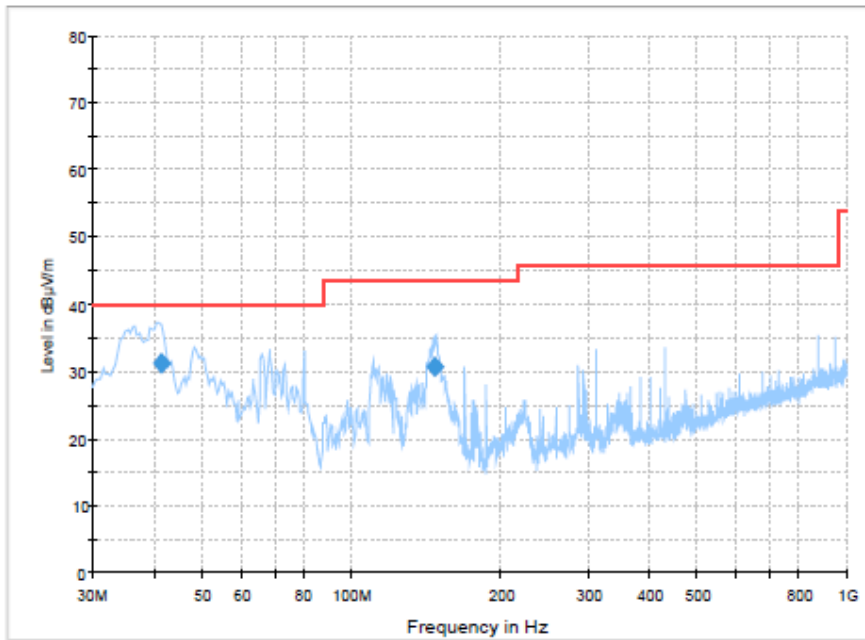
Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)
80.414080	36.6	1000.000	120.000	250.0	H	93.0	-13.3	3.40
312.708000	42.4	1000.000	120.000	100.0	H	107.0	-7.3	3.60

(continuation of the "Final Result 1" table from column 9 ...)

Frequency (MHz)	Limit (dBµV/m)	Comment
80.414080	40.00	
312.708000	46.00	



Vertical:



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)
41.255680	31.1	1000.000	120.000	112.0	V	233.0	-9.0	8.90
147.503200	30.7	1000.000	120.000	100.0	V	347.0	-8.3	12.80

(continuation of the "Final Result 1" table from column 9 ...)

Frequency (MHz)	Limit (dBµV/m)	Comment
41.255680	40.00	
147.503200	43.50	



6.2 Conducted Emissions

Test Requirement: CFR 47 part 15.107
 Test Method: ANSI C63.4:2003
 Test Date: Aug 26, 2010
 Frequency Range: 150kHz to 30MHz
 Limit:

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56 [*]	56 to 46 [*]
0.5-5	56	46
5-30	60	50

^{*} Decreases with the logarithm of the frequency.

Result: **PASS**

6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0°C Humidity: 48% RH Atmospheric Pressure: 1010 mbar

EUT Operation: The EUT is in reading and playing mp3 mode connected with PC.

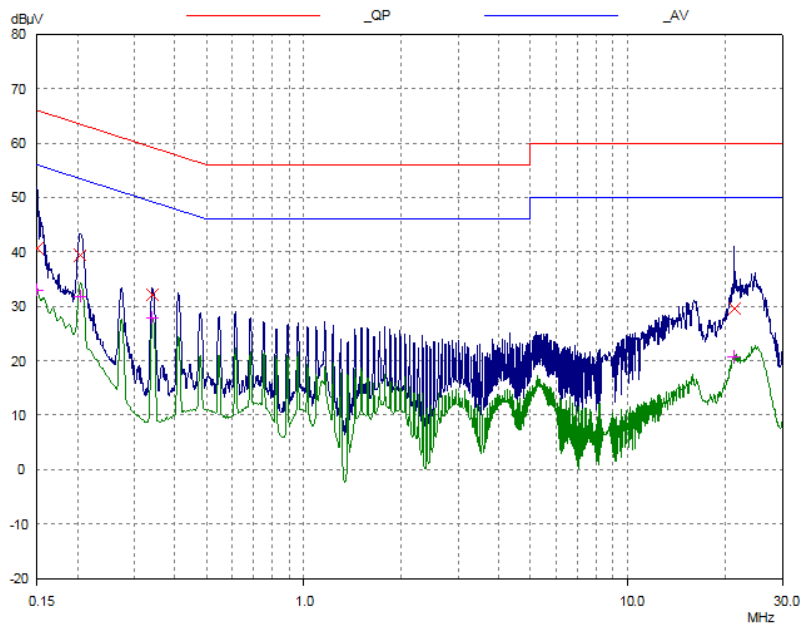
6.2.2 Test Result and Measurement Data

Note: Blue limit line - AV limit, Red limit line - Quasi-peak limit;

Blue plots - Peak detector scan plots, Green plots - AV detector scan plots.



L Line:



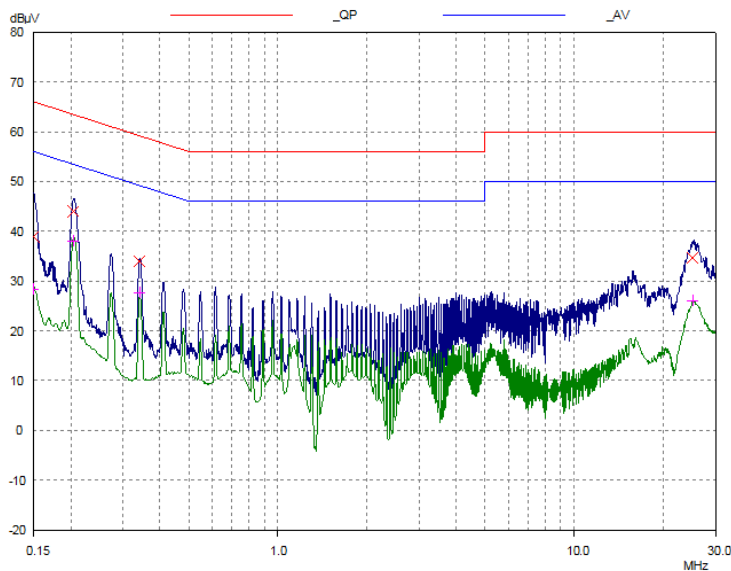
Final Measurement Results

Frequency MHz	QP Level dBµV	QP Limit dBµV	QP Delta dB
0.15	40.67	66.00	25.33
0.20397	39.32	63.45	24.13
0.34001	32.14	59.20	27.06
21.26321	29.63	60.00	30.37

Frequency MHz	AV Level dBµV	AV Limit dBµV	AV Delta dB
0.15	32.97	56.00	23.03
0.20397	31.86	53.45	21.59
0.34001	27.93	49.20	21.27
21.26321	20.74	50.00	29.26



N Line:



Final Measurement Results

Frequency MHz	QP Level dBµV	QP Limit dBµV	QP Delta dB
0.15	38.87	66.00	27.13
0.20397	43.96	63.45	19.49
0.34137	33.96	59.17	25.21
25.04442	34.67	60.00	25.33

Frequency MHz	AV Level dBµV	AV Limit dBµV	AV Delta dB
0.15	28.32	56.00	27.68
0.20397	37.94	53.45	15.51
0.34137	27.60	49.17	21.57
25.04442	26.13	50.00	23.87

End of Report