EMC TEST REPORT

Report Number	: **68/760.9.204.01**	Date of Issue:	17 Nov 2009

Model	: **PC-91008**
Product Type	: Notebook
Applicant	: Wanlida Group Co., Ltd.
Address	: No. 618 Jiahe Road, Wanlida Industry Zone,
	Xiamen Fujian, China 361006
Production Facility	: Wanlida Group Co., Ltd.
Address	: Wanlida Industry Zone, Nanjing, Fujian, China 363601

Test Result	: ■ **Positive** ☐ **Negative**
Total pages including Appendices	: 16

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2 Details about the Test Laboratory

Details about the Test Laboratory

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3 Description of the Equipment Under Test

Description of the Equipment Under Test

Product:	Notebook
Model no.:	PC-91008
Serial number:	NIL
Options and accessories:	NIL
Rating:	DC 12V 3A, 36W AC Adaptor: Model: MPA-12030 Input: 100-240V ~ 50/60Hz 1A MAX Output: +12V DC 3A
Antenna:	Integral antenna inside enclosure of EUT, NOT accessible by end user Antenna Gain: 1dBi
RF Transmission Frequency:	2400-2483.5MHz
Description of the EUT:	NIL

Auxiliary Equipment and Cable Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
LCD monitor	Lenovo	9227-AE1	V1TDB38
Keyboard	Lenovo	SK-8825 (L)	02553778
Mouse	Lenovo	MO28UOL	4418011108
Headphone	Ouyun	OH601	----
USB flash drive	Kingston	Data Traveller	----
SD card	Kingston	SD4/4GBFE	----
VGA cable	Lenovo	Shield	140cm
AC Power cable	Lenovo	Unshield	180cm

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4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart B	PART 15 - RADIO FREQUENCY DEVICES Subpart B - Unintentional Radiators

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5 Summary of Test Results

Technical Requirements				
FCC Part 15 Subpart C				
Test Condition	Pages	Test Result		
		Pass	Fail	N/A
15.107 Conducted Emission AC Power Port	8	☒	☐	☐
15.109 Spurious radiated emissions	12	☒	☐	☐

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6 General Remarks

Remarks
This submittal(s) (test report) is intended for FCC ID: SMFPC91008 filing to comply with Section 15.107, 15.109 of the FCC Part 15, Subpart B Rules.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

☐ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

☐ - **Does not** fulfill the general approval requirements.

Sample Received Date: 02 Nov 2009

Testing Start Date: 04 Nov 2009

Testing End Date: 12 Nov 2009

- Jiangsu TÜV Product Service Ltd. – Shenzhen Branch -

Reviewed by:

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Prepared by:

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7 Technical Requirement

7.1 Conducted Emission

Test Method

1 The EUT was placed on a table, which is 0.8m above ground plane
2 The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3 Maximum procedure was performed to ensure EUT compliance
4 A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions from both sides of AC line

Test Mode
Run Test Program
-The test program BIT.exe exercises all the drive and ports of the EUT, and displaying scrolling H on the screen.

Limit

Frequency MHz	QP Limit dBµV	AV Limit dBµV
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

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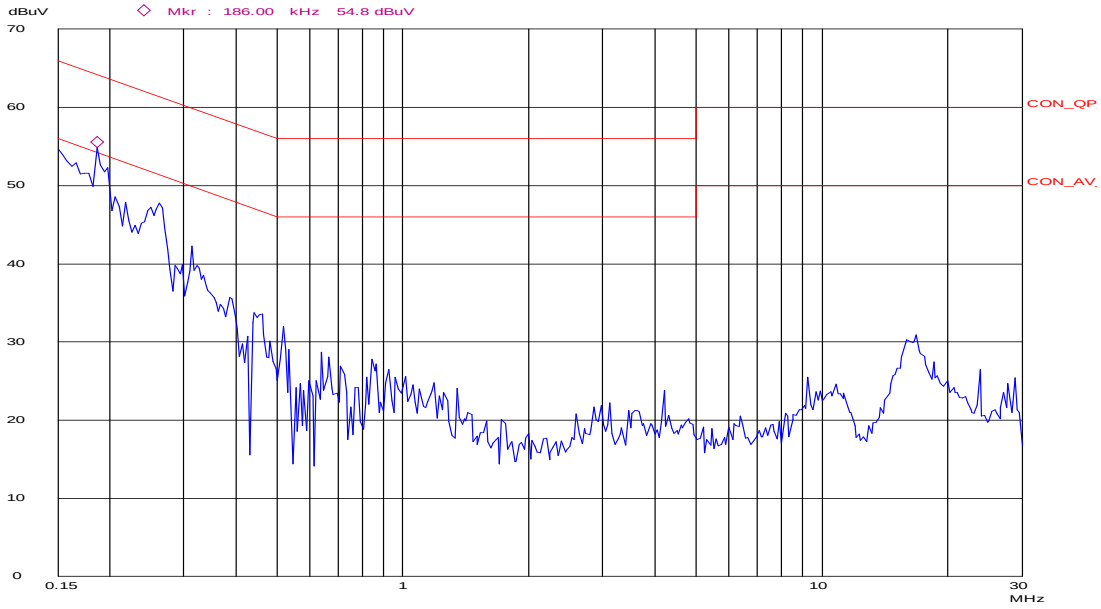
Conducted Emission

Conducted Disturbance

EUT: M/N:PC-91008
Op Cond: Run test pragram
Test Spec: L
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBµV	QP Test result dBµV	QP Limit dBµV	Margin dB
0.150	9.8	37.0	46.8	66	19.2
0.187	9.8	38.7	48.5	64.2	15.7
0.263	9.8	34.0	43.8	61.3	17.5

Frequency MHz	Cable Loss dB	Reading dBµV	AV Test result dBµV	AV Limit dBµV	Margin dB
0.150	9.8	9.3	19.1	56	36.9
0.187	9.8	21.3	31.1	54.2	23.1
0.263	9.8	17.6	27.4	51.3	23.9

Remark: Test Result= Reading + Cable Loss

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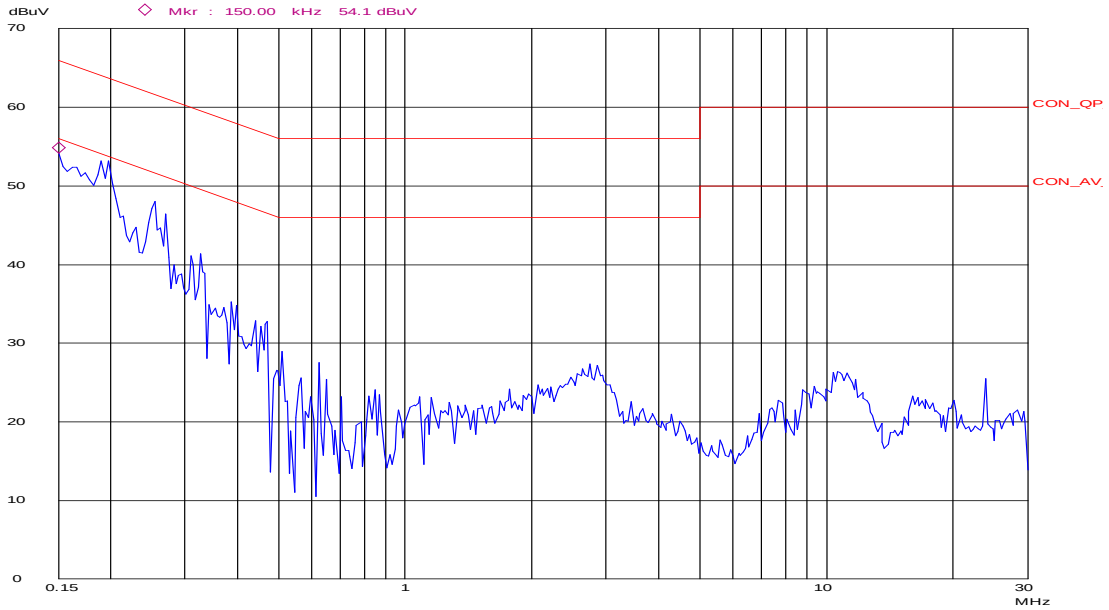
Conducted Emission

Conducted Disturbance

EUT: M/N:PC-91008
Op Cond: Run test program
Test Spec: N
Comment: AC 120V/60Hz



Frequency MHz	Cable Loss dB	Reading dBµV	QP Test result dBµV	QP Limit dBµV	Margin dB
0.150	9.8	37.0	46.8	66	19.2
0.194	9.8	37.7	47.5	63.9	16.4
0.258	9.8	33.7	43.5	61.5	18

Frequency MHz	Cable Loss dB	Reading dBµV	AV Test result dBµV	AV Limit dBµV	Margin dB
0.150	9.8	8.5	18.3	56	37.7
0.194	9.8	23.2	33.0	53.9	20.9
0.258	9.8	16.4	26.2	51.5	25.3

Remark: Test Result= Reading + Cable Loss

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Test Equipment List

Conducted Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESCS30	100003	Dec 23 2009
AMN	Rohde & Schwarz	ESH3-Z5	100229	Dec 23 2009
AMN	Rohde & Schwarz	ENV216	100042	Dec 23 2009

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7.2 Radiated emissions

Test Method

1 The EUT is placed on a turntable, which is 0.8m above ground plane.
2 The turntable shall be rotated for 360 degrees to determine the position of maximum emission level
3 EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4 Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5 Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

Test Mode
Run Test Program
-The test program BIT.exe exercises all the drive and ports of the EUT, and displaying scrolling H on the screen.

Limit

Frequency MHz	Field Strength uV/m	Field Strength dBµV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

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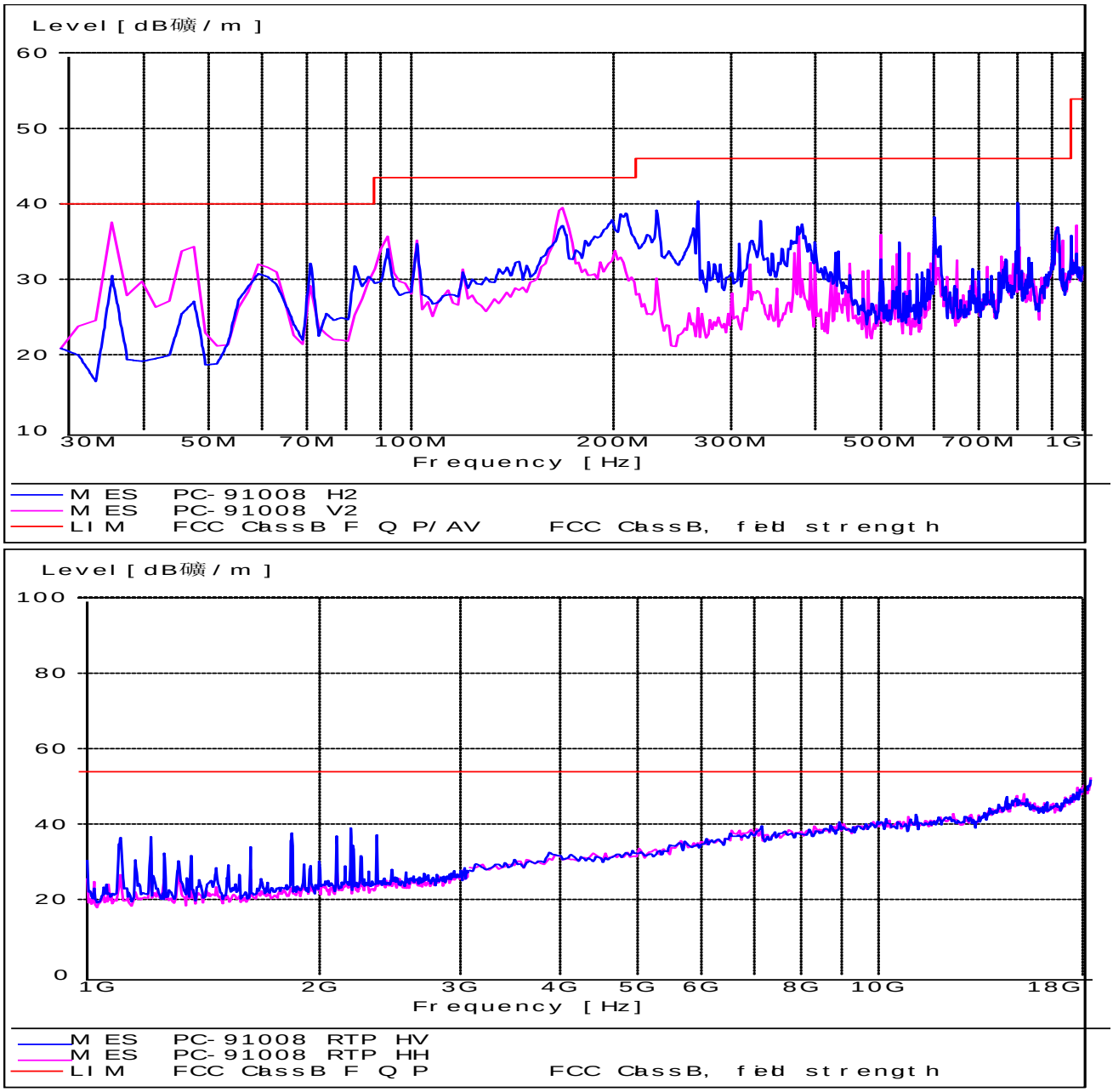
Radiated Emission



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Radiated Emission

Run Test Program mode Test Result

Frequency MHz	Cable Loss dB	Antenna Factor dB/m	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBµV/m	Detector	Result
208.837	2.4	10.1	26.2	38.7	Horizontal	43.5	QP	Pass
267.154	2.8	13.2	24.4	40.4	Horizontal	46.0	QP	Pass
168.016	2.2	10.6	24.4	37.2	Horizontal	43.5	QP	Pass
37.068	1.2	15.3	18.3	34.8	Vertical	40.0	QP	Pass
168.016	2.2	10.6	26.7	39.5	Vertical	43.5	QP	Pass
1162.371	4.1	25.1	10.3	39.5	Vertical	74.0	PK	Pass
1162.371	4.1	25.1	5.9	35.1	Vertical	54.0	AV	Pass
2137.688	5.3	28.5	6.7	40.5	Vertical	74.0	PK	Pass
2137.688	5.3	28.5	4.2	38.0	Vertical	54.0	AV	Pass

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Test Equipment List

Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESI26	838786/013	Dec 23 2009
Bilog Antenna	Chase	CBL6112B	2591	Dec 23 2009
Signal Generator	Rohde & Schwarz	SMR20	100047	Dec 23 2009
Antenna	Schwarzbeck	VUBA9117	115	Dec 23 2009
Horn Antenna	Rohde & Schwarz	HF906	100013	Dec 23 2009

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8 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty

Items		Extended Uncertainty
RE	Field strength (dBµV/m)	U=4.6dB; k=2(30MHz-1GHz)
CE	Disturbance Voltage (dBµV)	U=3.3dB; k=2

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