FCC Part 15B
Measurement and Test Report

For

3Q TECHNOLOGY LIMITED

3/F Jonsim Place, 228 Queen's Road East Wanchai, Hong Kong

FCC ID: RON-LC0901D

Test Rule(s):	FCC Part 15 Subpart B
Product Description:	Tablet PC
Tested Model:	LC0901D
Report No.:	STR13098175I-2
Tested Date:	2013-09-12 to 2013-10-17
Issued Date:	2013-10-17
Tested By:	Lebron Wang / Engineer
Reviewed By:	Lahm Peng / EMC Manager
Approved & Authorized By:	Jandy so / PSQ Manager

Prepared By:

Shenzhen SEM.Test Technology Co., Ltd.
1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road,
Bao'an District, Shenzhen, P.R.C (518101)
Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: www.semtest.com.cn

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	3Q TECHNOLOGY LIMITED
Address of applicant:	3/F Jonsim Place, 228 Queen's Road East Wanchai, Hong Kong
Manufacturer:	Shenzhen Next Generation Communication Co.,Ltd
Address of manufacturer:	501.,Bldg.1 Block A,Internet Industrial Zone,Bao Yuan Road,Baoan Dist., Shenzhen

General Description of EUT	
Product Name:	Tablet PC
Trade Name:	3Q
Model No.:	LC0901D
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	Battery: 3.7V Charging: USB 5V
Rated Current:	/
Rated Power:	/
Power Adapter Model:	YN12W-0500200UZ
Lowest Internal Frequency:	32.768kHz
Highest Internal Frequency:	1.5GHz
Classification of ITE:	Class B

1.2 Test Standards

The following report is prepared on behalf of the 3Q TECHNOLOGY LIMITED in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart B, and section 15.205, 15.107, and 15.109 rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

1.4 Test Facility

- **FCC – Registration No.: 934118**
  Shenzhen SEM.Test Technology Co., Ltd. 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 and the Registration is 934118.

- **Industry Canada (IC) Registration No.: 11464A**
  The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

1.5 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List:

Test Mode	Description	Remark
TM1	Charging & Playing & HDMI	Connect to Adapter, Earphone, Display(LCD TV)
TM2	Downloading	Connect to PC

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
Adapter Cable	1.2	Unshielded	With Core

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook Computer	Lenovo	20007	EB12648265
LCD TV	DELL	IN1920C	Q40G18N-700-1BZA

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	1.5	Unshielded	Without Core
Earphone Cable	1.5	Unshielded	Without Core
HDMI Cable	1.5	Unshielded	Without Core

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 15.107 (a)	Conducted Emissions	Compliant
§ 15.109 (a)	Radiated Emissions	Compliant

N/A: not applicable

3. Conducted Emissions

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

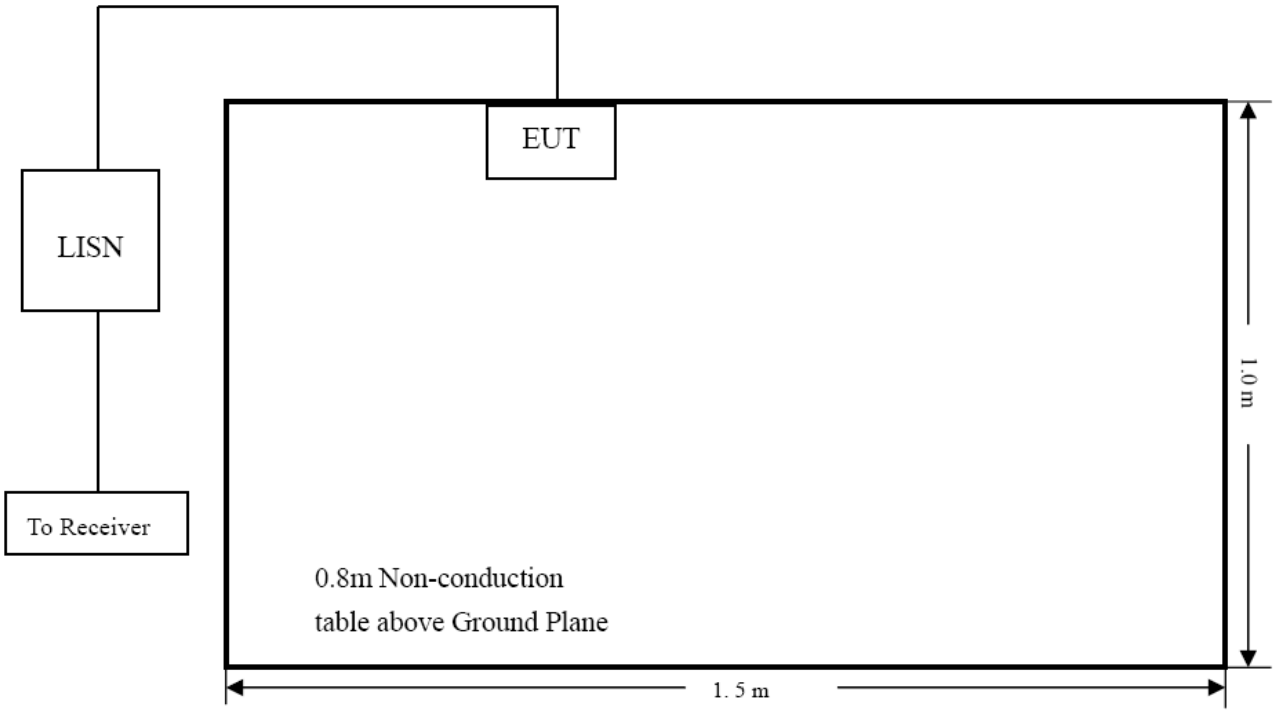
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2013-05-07	2014-05-06
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2013-05-07	2014-05-06
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2013-05-07	2014-05-06

3.3 Test Procedure

Test is conducting under the description of ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	52%
ATM Pressure:	1011 mbar

3.6 Summary of Test Results/Plots

According to the data in section 3.7, the EUT complied with the FCC Part 15.107(a) Conducted margin for a Class B device, with the *worst* margin reading of:

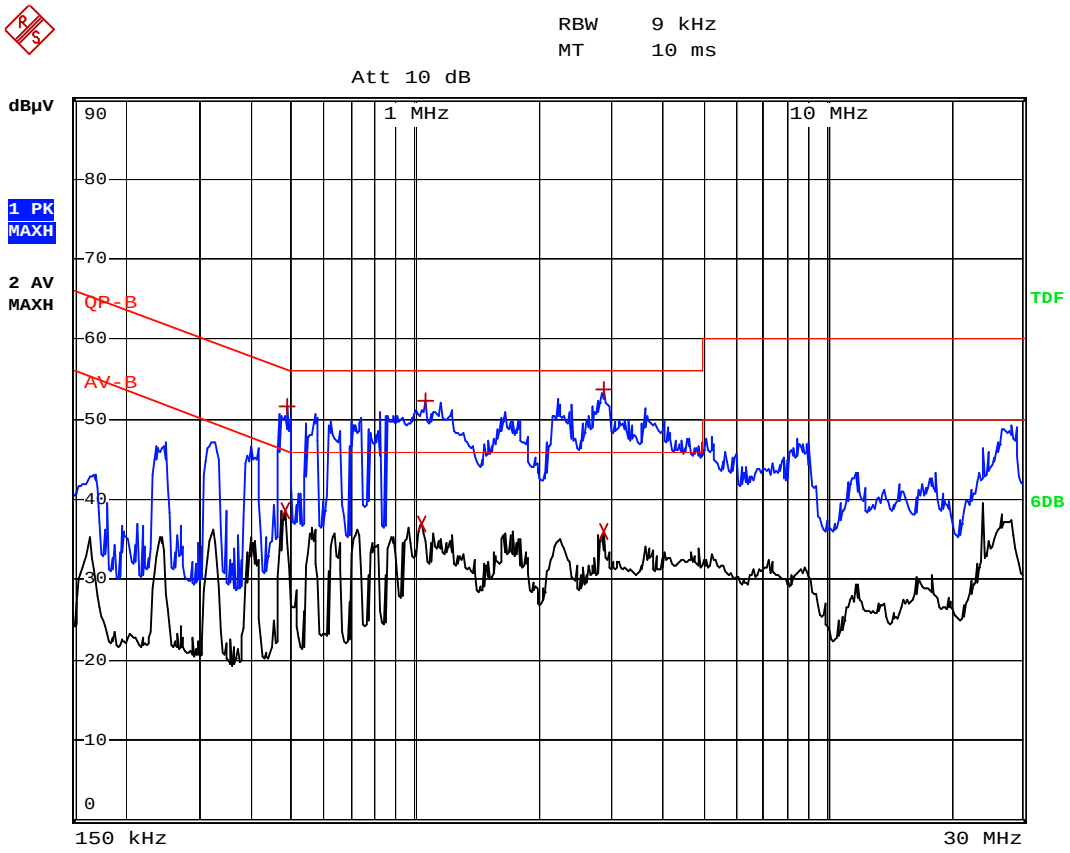
-1.09 dB at **2.394 MHz** in the **Neutral**, **Peak** detector, 0.15-30MHz

3.7 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

EUT: *Tablet PC*
Tested Model: *LC0901D*
Operating Condition: *TM1*
Comment: *AC 120V/60Hz; USB 5V*

Test Specification: *Line*

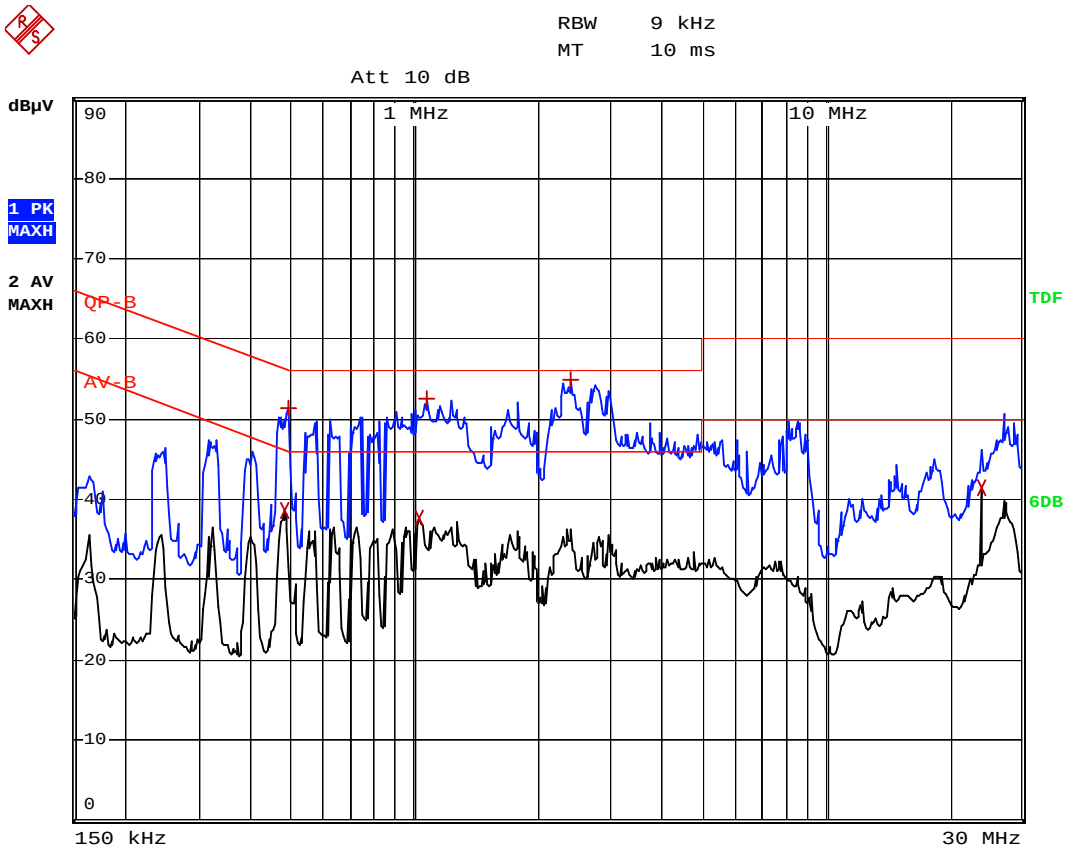


EDIT PEAK LIST (Prescan Results)

Trace1:	QP-B
Trace2:	AV-B
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	482 kHz	38.56	-7.74
1 Max Peak	490 kHz	51.67	-4.49
2 Average	1.038 MHz	36.85	-9.14
1 Max Peak	1.058 MHz	52.23	-3.77
1 Max Peak	2.882 MHz	53.74	-2.25
2 Average	2.882 MHz	36.04	-9.95

Test Specification: *Neutral*



EDIT PEAK LIST (Prescan Results)

Trace1:	QP-B
Trace2:	AV-B
Trace3:	---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
2 Average	482 kHz	38.67	-7.62
1 Max Peak	494 kHz	51.39	-4.70
2 Average	1.03 MHz	37.69	-8.30
1 Max Peak	1.074 MHz	52.46	-3.53
1 Max Peak	2.394 MHz	54.90	-1.09
2 Average	23.982 MHz	41.47	-8.52

4. Radiated Emissions

4.1 Measurement Uncertainty

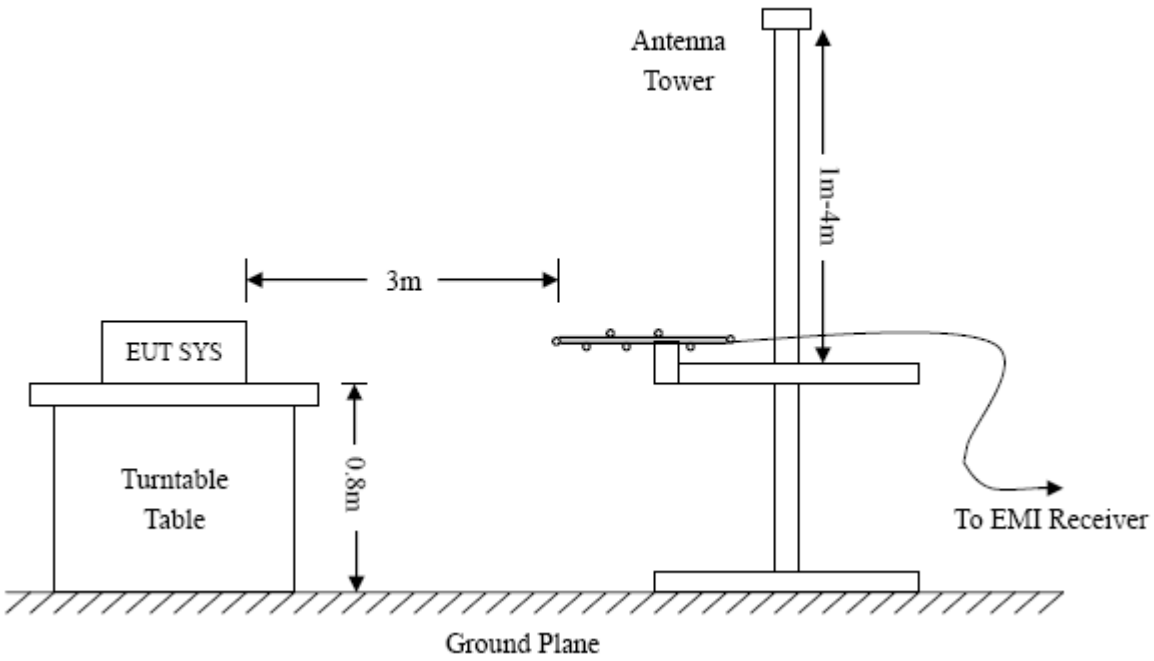
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2013-05-07	2014-05-06
EMI Test Receiver	R&S	ESVB	825471/005	2013-05-07	2014-05-06
Pre-amplifier	Agilent	8447F	3113A06717	2013-05-07	2014-05-06
Pre-amplifier	Compliance Direction	PAP-0118	24002	2013-05-07	2014-05-06
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2013-04-20	2014-04-19
Horn Antenna	ETS	3117	00086197	2013-04-20	2014-04-19
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2013-04-20	2014-04-19

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.109 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.



4.4 Test Receiver Setup

Frequency :9kHz-30MHz	Frequency :30MHz-1GHz	Frequency :Above 1GHz
RBW=10KHz,	RBW=120KHz,	RBW=1MHz,
VBW =30KHz	VBW=300KHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = max hold
Detector function = peak	Detector function = peak, QP	Detector function = peak, AV

4.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading – Corr. Factor

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for a Class B device. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15.109(a) Limit

4.6 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	55 %
ATM Pressure:	1011 mbar

4.7 Summary of Test Results/Plots

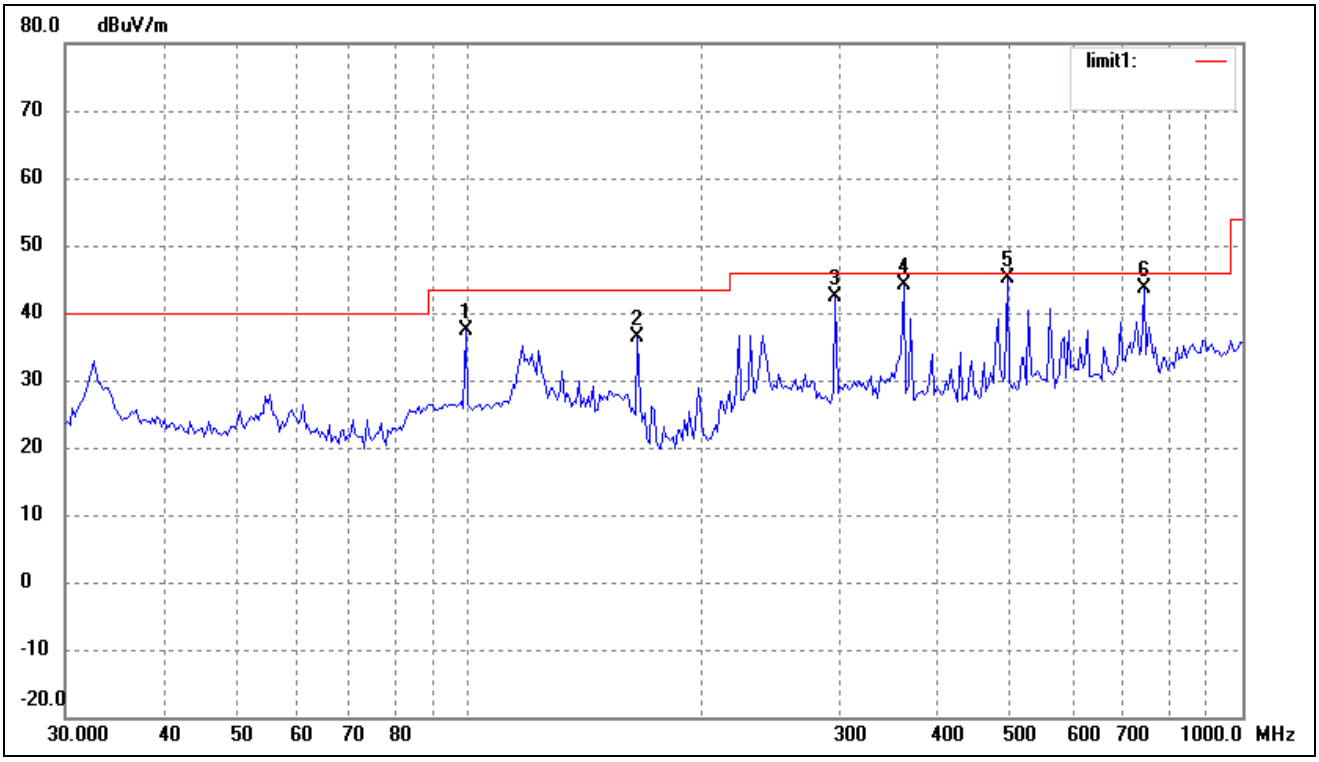
According to the data, the EUT complied with the FCC Part 15.109(a) rule, and had the worst margin of:

-0.84 dB at **495.9344 MHz** in the **Horizontal** polarization, **TM1** Mode, **9 kHz** to **6 GHz**, **3Meters**

Plot of Radiated Emissions Test Data

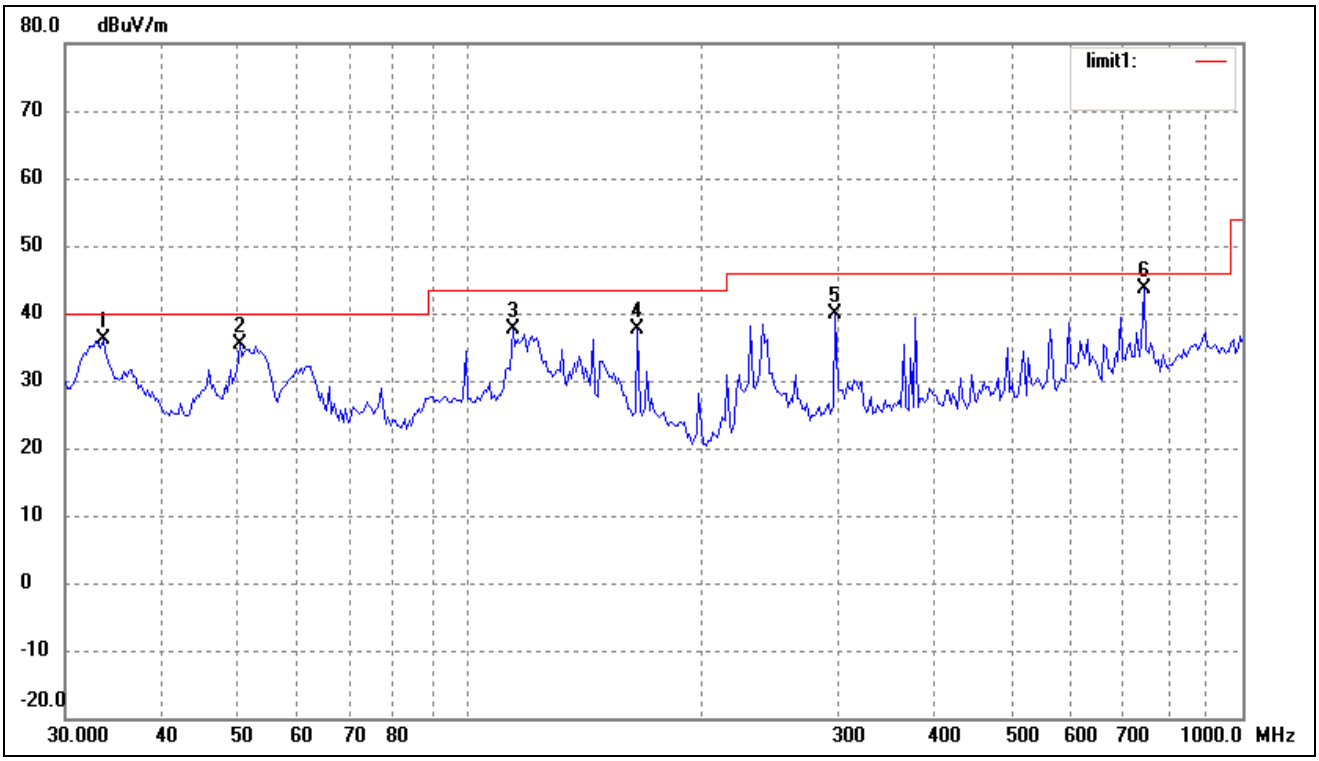
EUT: *Tablet PC*
Tested Model: *LC0901D*
Operating Condition: *TM1*
Comment: *AC 120V/60Hz; USB 5V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(。)	(cm)	
1	98.8326	30.95	6.55	37.50	43.50	-6.00	125	100	peak
2	164.9075	32.68	3.68	36.36	43.50	-7.14	165	100	peak
3	297.2241	32.37	10.04	42.41	46.00	-3.59	178	100	peak
4	364.2595	33.33	10.68	44.01	46.00	-1.99	185	100	peak
5	495.9344	33.12	12.04	45.16	46.00	-0.84	250	100	peak
6	744.8661	25.72	17.94	43.66	46.00	-2.34	102	100	peak

Test Specification: *Vertical*

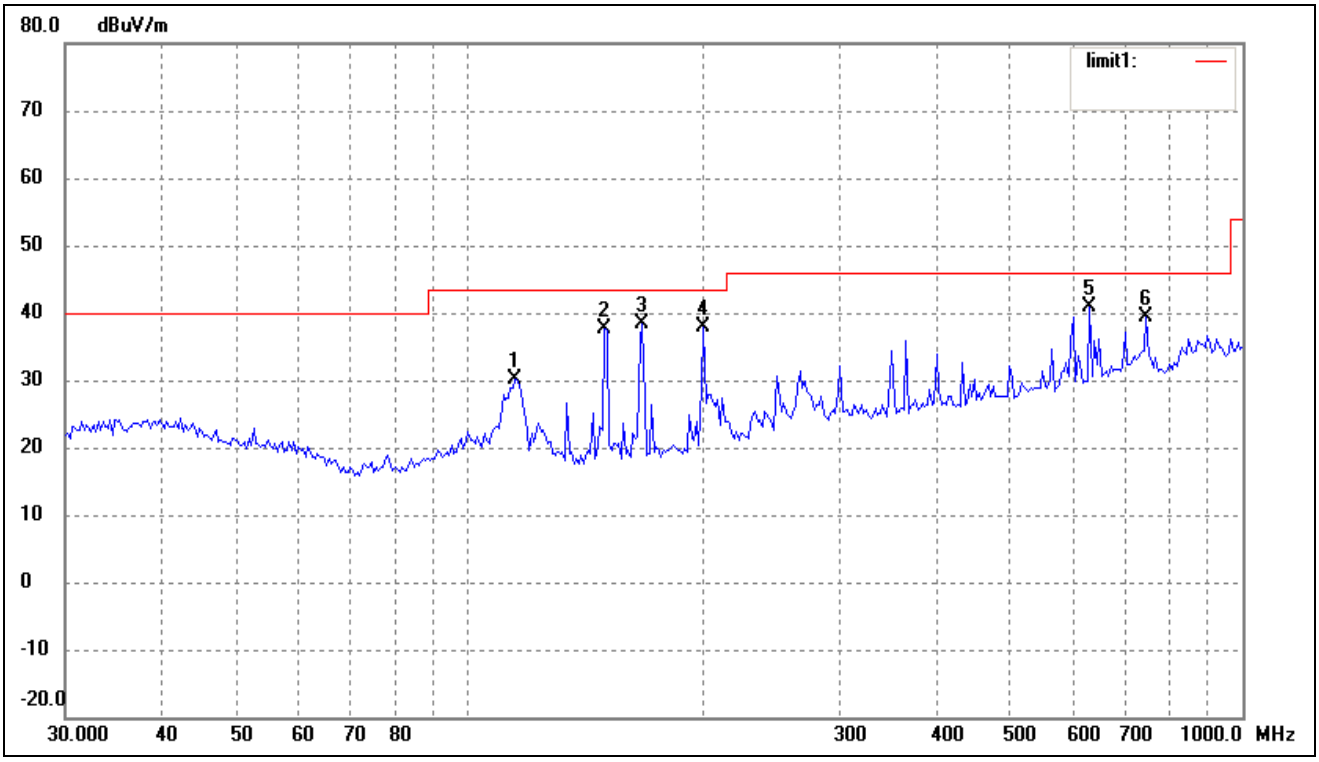


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(。)	(cm)	
1	33.5624	27.40	8.63	36.03	40.00	-3.97	165	100	peak
2	50.4089	28.92	6.57	35.49	40.00	-4.51	145	100	peak
3	113.7143	32.10	5.48	37.58	43.50	-5.92	125	100	peak
4	164.9075	34.01	3.68	37.69	43.50	-5.81	250	100	peak
5	297.2241	29.82	10.04	39.86	46.00	-6.14	105	100	peak
6	744.8661	25.59	17.94	43.53	46.00	-2.47	100	100	peak

Plot of Radiated Emissions Test Data

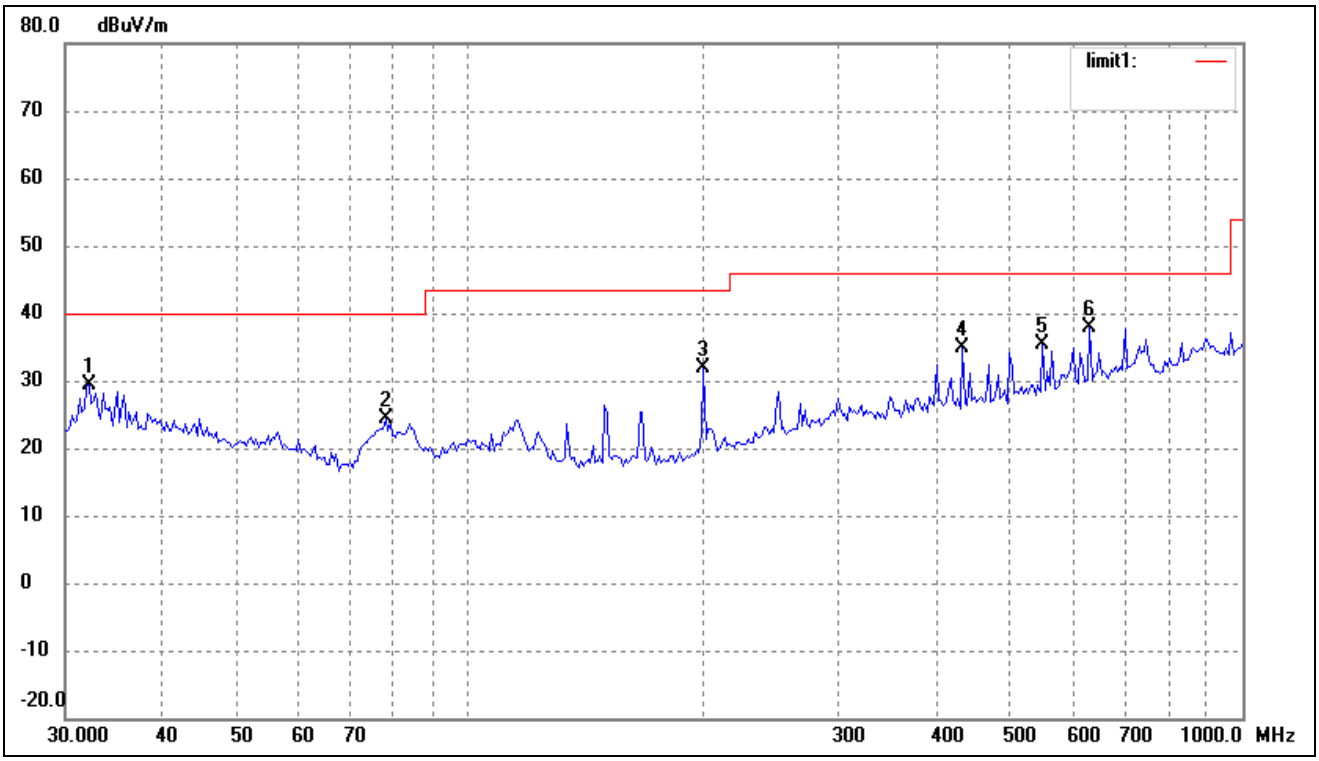
EUT: *Tablet PC*
Tested Model: *LC0901D*
Operating Condition: *TM2*
Comment: *AC 120V/60Hz; USB 5V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(∘)	(cm)	
1	114.5146	24.66	5.41	30.07	43.50	-13.43	125	100	peak
2	149.4857	34.20	3.55	37.75	43.50	-5.75	145	100	peak
3	167.2368	34.79	3.68	38.47	43.50	-5.03	102	100	peak
4	200.6881	33.27	4.69	37.96	43.50	-5.54	178	100	peak
5	633.9073	26.00	14.77	40.77	46.00	-5.23	185	100	peak
6	750.1083	21.48	17.78	39.26	46.00	-6.74	250	100	peak

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(。)	(cm)	
1	32.1795	20.93	8.41	29.34	40.00	-10.66	102	100	peak
2	77.8654	22.48	1.79	24.27	40.00	-15.73	115	100	peak
3	200.6881	27.14	4.69	31.83	43.50	-11.67	135	100	peak
4	434.0651	23.74	11.10	34.84	46.00	-11.16	155	100	peak
5	550.9480	22.04	13.26	35.30	46.00	-10.70	145	100	peak
6	633.9073	23.13	14.77	37.90	46.00	-8.10	180	100	peak

Note: Testing is carried out with frequency rang 9kHz to the 6GHz, which above 1GHz is close to the noise base even antenna close up to 1meter distance according the measurement of ANSI C63.4.
The measurements greater than 20dB below the limit from 9kHz to 30MHz and test data are not provided.

******* END OF REPORT *******