

FCC TEST REPORT

For

Tablet

Model Number: T9020

FCC ID: Q34T9020

Report Number : WT138002976

Test Laboratory	:	Shenzhen Academy of Metrology and Quality Inspection National Digital Electronic Product Testing Center
Site Location	:	No.4 Tongfa Road, Xili Town, Nanshan District, Shenzhen, Guangdong, China
Tel	:	0086-755-86928965
Fax	:	0086-755-86009898-31396
Web	:	www.smq.com.cn

TEST REPORT DECLARATION

Applicant : Star Computer Group Inc.
Address : 2175 NW 115th Avenue, Miami Fl. 33172 - United States
Manufacturer : Shenzhen Skyworth Wireless Technology Limited
Address : Unit3A01, Block A Skyworth Building, Gaoxin Ave.1.S.,
Nanshan District, Shenzhen, China.
EUT Description : Tablet
Model No : T9020
Trade mark : ARGOM TECH
Serial Number : --
FCC ID : Q34T9020

Test Standards:

FCC Part 15 Subpart B 15.107, 15.109 (2012) ANSI C63.4:2003

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Project Engineer:	 (Liu Zheng)	Date:	<u>Oct.22.2013</u>
Checked by:	 (Yang Dong Ping)	Date:	<u>Oct.22.2013</u>
Approved by:	 (Lin Bin)	Date:	<u>Oct.22.2013</u>

TABLE OF CONTENTS

TEST REPORT DECLARATION.....	2
1. TEST RESULTS SUMMARY.....	4
2. GENERAL INFORMATION.....	5
2.1. Report information.....	5
2.2. Laboratory Accreditation and Relationship to Customer	5
2.3. Measurement Uncertainty.....	5
3. PRODUCT DESCRIPTION.....	6
3.1. EUT Description	6
3.2. Block Diagram of EUT Configuration	6
3.3. Operating Condition of EUT	7
3.4. Support Equipment List.....	7
3.5. Test Conditions.....	7
3.6. Modifications	7
4. TEST EQUIPMENT USED.....	8
4.1. Test Equipment Used to Measure Conducted Disturbance.....	8
4.2. Test Equipment Used to Measure Radiated Disturbance.....	8
5. CONDUCTED DISTURBANCE TEST	9
5.1. Test Standard and Limit.....	9
5.2. Test Procedure	9
5.3. Test Arrangement	9
5.4. Test Data	9
6. RADIATION DISTURBANCE TEST.....	12
6.1. Test Standard and Limit.....	12
6.2. Test Procedure	12
6.3. Test Arrangement	12
6.4. Test Data	12

1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	FCC Rules	Test Results
Conducted Disturbance	15.107	Pass
Radiation Emission	15.109	Pass

Remark: "N/A" means "Not applicable."

2. GENERAL INFORMATION

2.1. Report information

- 2.1.1. This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.
- 2.1.2. The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.
- 2.1.3. Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at Bldg. of Metrology & Quality Inspection, Longzhu Road, Nanshan District, Shenzhen, Guangdong, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Committee for Laboratories (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is L0579.

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number are 446246 806614 994606(semi anechoic chamber).

The Laboratory is registered to perform emission tests with Industry Canada (IC), and the registration number is IC4174.

TUV Rhineland accredits the Laboratory for conformance to IEC and EN standards, the registration number is E2024086Z02.

Measurement Uncertainty

2.3. Measurement Uncertainty

Conducted Emission

9kHz~30MHz 3.5dB

Radiated Emission

30MHz~1000MHz 4.5dB

1GHz~18GHz 4.6dB

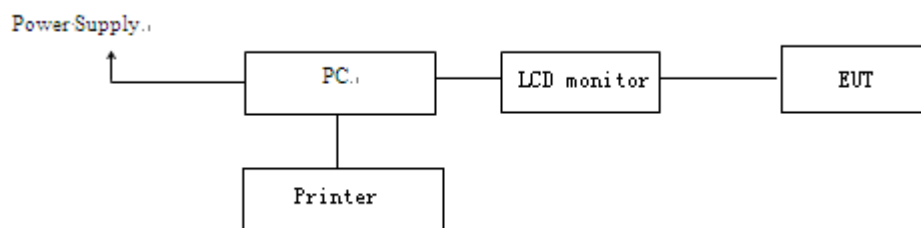
3. PRODUCT DESCRIPTION

3.1.EUT Description

Table 2 Specification of the Equipment under Test

Product Type:	T9020
Hardware Revision :	K71 REVO2
Software Revision :	Android
FCC-ID:	Q34T9020
Frequency:	Wifi:2412MHz-2462MHz;
Type(s) of Modulation:	802.11b: DSSS (DBPSK / DQPSK / CCK) 802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
Antenna Type:	Built in type
Operating voltage:	3.6V-4.2V

3.2.Block Diagram of EUT Configuration



Test mode 1

3.3.Operating Condition of EUT

Test mode 1: data transmitter with PC by USB port

3.4.Support Equipment List

Name	Model No	S/N	Manufacturer	FCC
Computer	9439	L3BDF2K	Lenovo	DOC
Keyboard (USB)	SK-8825 (L)	02553778	Lenovo	DOC
Mouse (USB)	MO28UOL	4418011108	Lenovo	DOC
Monitor	9227-AE1	V1TDB38	Lenovo	DOC
Printer	BJC-265SP	EVX81604	CANON	DOC
Adaptor for Printer	AD-300	---	CANON	DOC

3.5.Test Conditions

Date of test : Sept 29-Oct 9, 2013

Date of EUT Receive : Sept 28, 2013

Temperature: 23-24 °C

Relative Humidity: 53-56%

3.6.Modifications

No modification was made.

4. TEST EQUIPMENT USED

4.1. Test Equipment Used to Measure Conducted Disturbance

Table 2 Conducted Disturbance Test Equipment

No.	Equipment	Manufacturer	Model No.	LAST CALIB	Period
SB3319	EMI Test Receiver	R&S	ESCS30	Jan.21,2013	1 Year
SB4357	AMN	R&S	ENV216	Jan.21,2013	1 Year

4.2. Test Equipment Used to Measure Radiated Disturbance

Table 3 Radiated Disturbance Test Equipment

No.	Equipment	Manufacturer	Model No.	LAST CALIB	Period
SB3436	EMI Test Receiver	Rohde & Schwarz	ESI26	Jan.21,2013	1 Year
SB5472/02	Bilog Antenna	SCHWARZBECK	VULB9163	Jan.21,2013	1 Year
SB9422/16	Horn Antenna	Rohde & Schwarz	HF907	May.13.2013	1Year

5. CONDUCTED DISTURBANCE TEST

5.1. Test Standard and Limit

5.1.1. Test Standard

FCC Part 15: Section 15.107

5.1.2. Test Limit

Table 4 Conducted Disturbance Test Limit (Class B)

Frequency	Power Port limits (dB μ V)	
	Quasi-peak	Average
0.15MHz ~ 0.5MHz	66~56*	56~46*
0.5MHz ~ 5 MHz	56	46
5 MHz ~ 30MHz	60	50

* Decreasing linearly with logarithm of the frequency

5.2. Test Procedure

The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions form both sides of AC line. The bandwidth of EMI test receiver is set at 9kHz.

5.3. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

5.4. Test Data

The emissions don't show in below are too low against the limits, the test curves are shown in the next page.

Table 5 Conducted Disturbance Test Data at mains Port

Model No.: T9020								
Test mode: Connect to PC								
	Frequency (MHz)	Correction Factor (dB)	Quasi-Peak			Average		
			Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)
Line	0.171	9.7	28.6	38.3	64.9	14.5	24.2	54.9
	0.216	9.7	28.5	38.2	63.0	21.8	31.5	53.0
	0.261	9.7	25.7	35.4	61.4	18.2	27.9	51.4
	0.391	9.7	26.8	36.5	58.0	18.5	28.2	48.0
	2.254	9.9	21.1	31.0	56	14.6	24.5	46
	16.228	10.2	32.7	42.6	60	31.5	41.4	50
Neutral	0.171	9.7	33.3	43.0	64.9	19.1	28.8	54.9
	0.198	9.7	30.8	40.5	63.7	19.0	28.7	53.7
	0.214	9.7	34.2	43.9	63.0	26.8	36.5	53.0
	0.390	9.7	28.5	38.2	58.1	20.3	30.0	48.1
	3.869	9.9	22.1	32.0	56	15.5	25.4	46
	16.334	9.9	32.1	42.0	60	33.3	43.2	50

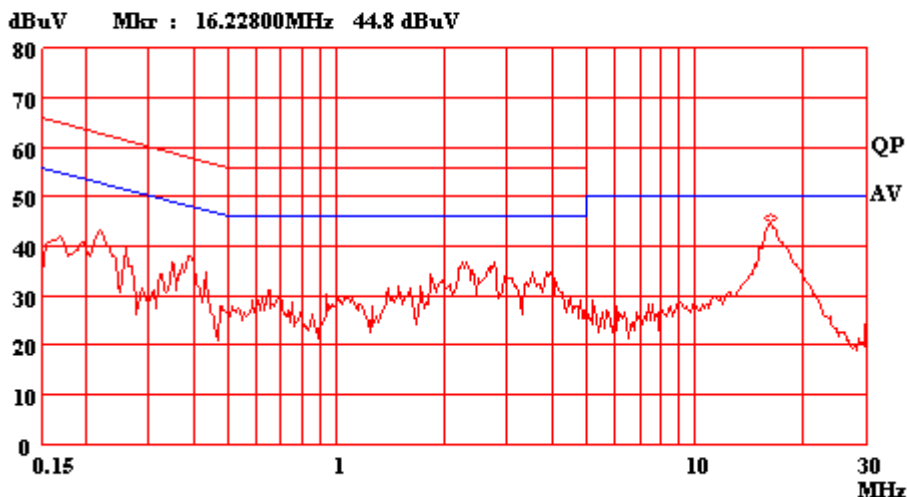
REMARKS: 1. Emission level(dBuV)=Read Value(dBuV) + Correction Factor(dB)

2. Correction Factor(dB) =LISN Factor (dB) + Cable Factor (dB)+Limiter Factor(dB)

3. The other emission levels were very low against the limit.

Conducted Disturbance

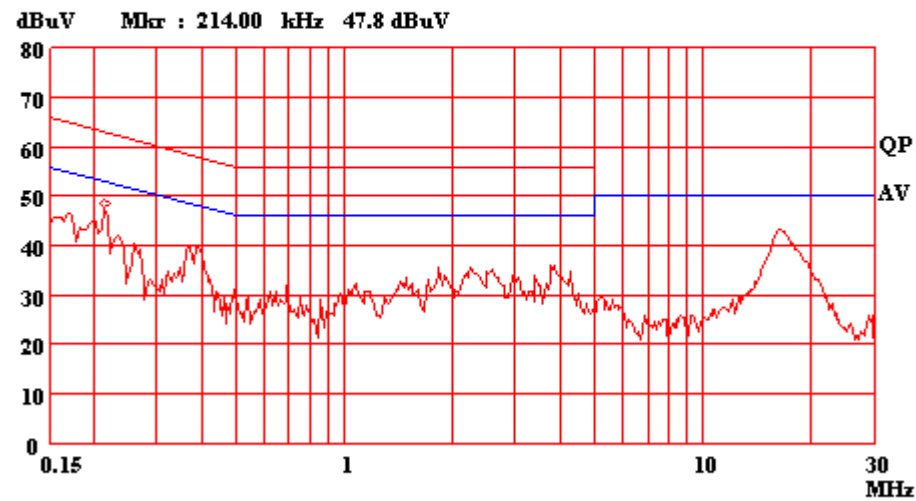
EUT: M/N:T9020
Op Cond: Connect to PC
Test Spec: L
Comment: AC 120V/60Hz



CURRENT FILE: D:\T9020\6069780\CE9020_L1.GRA.

Conducted Disturbance

EUT: M/N:T9020
On Cond: Connect to PC
Test Spec: N
Comment: AC 120V/60Hz



6. RADIATION DISTURBANCE TEST

6.1. Test Standard and Limit

6.1.1. Test Standard

FCC Part 15: Section 15.109

6.1.2. Test Limit

Table 6 Radiation Disturbance Test Limit for FCC (Class B)

Frequency	Limit (dB μ V/m)
	Quasi-peak Level
30MHz~88MHz	40.0
88MHz~216MHz	43.5
216MHz~960MHz	46.0
>960MHz	54.0

* The lower limit shall apply at the transition frequency.

* The test distance is 3m.

6.2. Test Procedure

The EUT is placed on a turntable, which is 0.8 meter above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set **3 meters** away from the receiving antenna, which is mounted on an antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. Set RBW=100 kHz for $f < 1$ GHz; VBW \geq RBW; Detector function = peak; Set RBW = 1 MHz, VBW= 3MHz for $f > 1$ GHz for peak measurement.

6.3. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

6.4. Test Data

The emissions don't show in below are too low against the limits, the test curves are shown in the next page.

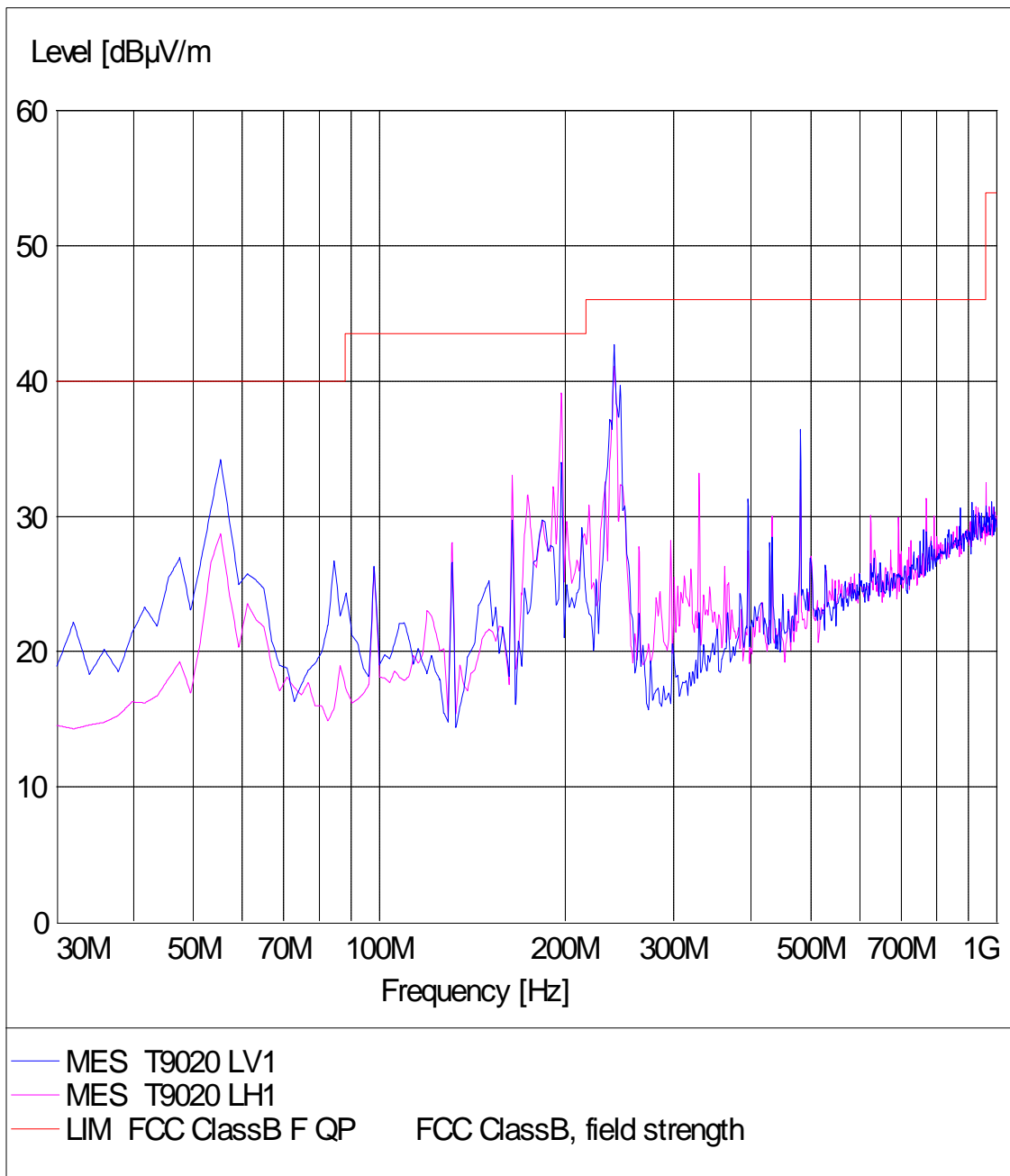
Table 7 Radiated Disturbance Test Data

Frequency MHz	Cable Loss +pre amp(dB)	Antenna Factor(d B)	Readings(d BμV/m)	Level(dBμ V/m)	Polarity(H/V)	Turntable Angle(de g)	Antenna Height(m)	Limits(dBμV/m)	Margin(d B)
55.270	0.8	13.0	18.4	32.2	V	0	1.0	40.0	7.8
84.428	0.9	8.5	17.3	26.7	V	360	1.0	40.0	13.3
164.128	1.5	8.7	19.5	29.7	V	0	1.0	43.5	13.8
197.17 4	1.7	10.6	20.7	33.0	V	360	1.0	43.5	10.5
239.939	1.9	11.2	29.4	42.5	V	0	1.0	46.0	3.5
480.982	2.6	16.1	16.7	35.4	V	360	1.0	46.0	10.6
55.104	0.8	13.0	14.9	28.7	H	0	2.0	40	11.3
164.128	1.5	8.7	21.8	32.0	H	360	1.0	43.5	11.5
197.434	1.7	10.6	26.2	38.5	H	0	2.0	43.5	5.0
239.204	1.8	11.2	27.9	40.9	H	360	2.0	46	5.1
329.358	2.2	13.3	16.7	32.2	H	0	1.0	46	13.8
480.196	2.6	16.1	13.0	31.7	H	360	2.0	46	14.3
PK									
1190.380	-41.0	24.4	58.1	41.5	H	0	1.0	74	28.5
1340.681	-40.7	24.3	62.8	46.4	H	360	1.0	74	23.6
1440.881	-40.8	25.1	58.7	43.0	H	0	1.0	74	27.0
1490.9 81	-40.8	25.1	64.2	48.5	H	360	1.0	74	21.5
1531.062	-40.6	25.1	58.7	43.2	H	0	1.0	74	26.8
1791.583	-40.5	26.7	59.1	45.3	H	360	1.0	74	24.7
1190.762	-41.0	24.4	56.0	39.4	V	0	1.0	74	30.6
1340.363	-40.7	24.3	58.7	42.3	V	360	1.0	74	27.7
1441.112	-40.8	25.1	63.4	47.7	V	0	1.0	74	22.3
1490.964	-40.8	25.1	56.0	40.3	V	360	1.0	74	29.7
1531.124	-40.6	25.1	55.4	39.9	V	0	1.0	74	30.1
1921.437	-40.4	26.9	51.7	38.2	V	360	1.0	74	31.8
1531.124	-40.6	25.1	50.9	35.4	V	0	1.0	74	14.6
1921.437	-40.4	26.9	46.2	32.7	V	360	1.0	74	17.3

Radiated Emission

SMQ NETC EMC Lab.3m Chamber

EUT Name: T9020
Operating Condition: Connect to PC
Antenna Position: Vertical & Horizontal
Comment:



Radiated Emission

SMQ NETC EMC Lab.3m Chamber

EUT Name: T9020
Operating Condition: Connect to PC
Antenna Position: Vertical & Horizontal
Comment:

