



RF EXPOSURE REPORT

FCC Per 47 CFR 2.1093(d)

Report Reference No......: **TRE1306014304 R/C:77515**

FCC ID.....: **2AAMSMJ97XXX**

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Date of issue.....: July 18, 2013

Testing Laboratory Name: **Shenzhen Huatongwei International Inspection Co., Ltd**

Address.....: Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China

Applicant's name.....: **SHENZHEN NST INDUSTRY AND TRADE CO.,LTD**

Address.....: 2/F,Bldg B,HongMen Technical Garden II,Jihua Road,.Buji Town,Longgang District,Shenzhen P.R.China

Test specification:

Standard: **FCC Per 47 CFR 2.1093(d)**

TRF Originator.....: Shenzhen Huatongwei International Inspection CO., Ltd

Master TRF.....: Dated 2006-06

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Test item description: Tablet PC

Trade Mark: **ULTRATAB™**

Manufacturer: **HK YITOA TECHNOLOGY CO., LIMITED**

Model/Type reference.....: MJ97XXX

Listed Models: MX70XXX, MX78XXX, MX80XXX, MJ90XXX, M70XXX, MJ10XXX, MG11XXX, MG13XXX, CMXXXX, M78XXX, M80XXX, M80XXX, M90XXX, M97XXX, M11XXX, M10XXX

Operation Frequency.....: Bluetooth: From 2402MHz to 2480MHz
 WLAN: From 2412MHz to 2462MHz

Modulation Type.....: Bluetooth: GFSK, π/4 DQPSK, 8DPSK
 WLAN: CCK, OFDM

Rating: DC 5.0V

Result.....: **Positive**

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Applicant : **SHENZHEN NST INDUSTRY AND TRADE CO.,LTD**

Address : 2/F,Bldg B,HongMen Technical Garden II,Jihua Road,.Buji
Town,Longgang District,Shenzhen P.R.China

Manufacturer : **HK YITOA TECHNOLOGY CO., LIMITED**

Address : UNIT 04, 7/F BRIGHT WAY TOWER NO 33 MONG KOK
RD KL

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. SUMMARY

1.1. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - supplied by the lab

○	Power Cable	Length (m) :	/
		Shield :	/
		Detachable :	/
○	Multimeter	Manufacturer :	/
		Model No. :	/

● AC Adapter

MODEL:JY-05200

INPUT:100-240V~50/60Hz 0.3A Max

OUTPUT: 5.0V DC 2.0A

Power Cable: 120cm

◇ Shielded ◆ Unshielded

1.2. NOTE

1. The EUT is Table PC with WLAN and Bluetooth function,The functions of the EUT listed as below:

	Test Standards	Reference Report
WLAN 802.11b/g/n	FCC Part 15 Subpart C	TRE1306014301
Bluetooth	FCC Part 15 Subpart C	TRE1306014302
USB Port	FCC Part 15 Subpart B	TRE1306014303
MPE REPORT	FCC Per 47 CFR 2.1093(d)	TRE1306014304

2. The frequency bands used in this EUT are listed as follows:

Frequency Band(MHz)	2400-2483.5	5150-5350	5470-5725	5725-5850
802.11b	√	—	—	—
802.11g	√	—	—	—
802.11n(20MHz)	√	—	—	—
802.11n(40MHz)	√	—	—	—
Bluetooth	√	—	—	—

3. The EUT incorporates a SISO function,Physically,the EUT provides one completed transmitter and one completed receiver.

Modulation Mode	TX Function
802.11b	1TX
802.11g	1TX
802.11n (20MHz)	1TX
802.11n (40MHz)	1TX
Bluetooth	1TX

2. TEST ENVIRONMENT

2.1. Address of the test laboratory

Shenzhen Huatongwei International Inspection Co., Ltd
Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Phone: 86-755-26715686 Fax: 86-755-26748089

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 (2009) and CISPR Publication 22.

2.2. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 950-1050mbar

2.3. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test Items	Measurement Uncertainty	Notes
Transmitter power conducted	0.57 dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

3. Method of measurement

3.1. Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §RSS-102, Devices that have a radiating element normally operating at separation distances greater than 20 cm between the user and the device shall undergo an RF exposure evaluation. SAR evaluation may be performed in lieu of an RF exposure evaluation for devices operating below 6 GHz with a separation distance of greater than 20 cm between the user and the device.

According to §1.1310,KDB447498 and §2.1093 RF exposure is required.

OET Bulletin 65 Supplement C [June 2001]: Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields

3.2. Limit

According to KDB447498 D01 General RF Exposure Guidance v05r01 Appendix A:SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and ≤ 50 mm, Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

3.3. RF Exposure

TEST RESULTS

From the peak EUT RF output power and power drift from Tune-up Procedure provide by manufacturer as following states:

802.11b					
Channel Number	Frequency (MHz)	Power Drift	Channel Number	Frequency (MHz)	Power Drift
1	2412	9.5dBm±0.5dB	7	2442	9.5dBm±0.5dB
2	2417	9.5dBm±0.5dB	8	2447	9.5dBm±0.5dB
3	2422	9.5dBm±0.5dB	9	2452	9.5dBm±0.5dB
4	2427	9.5dBm±0.5dB	10	2457	9.5dBm±0.5dB
5	2432	9.5dBm±0.5dB	11	2462	9.5dBm±0.5dB
6	2437	9.5dBm±0.5dB			
802.11g					
1	2412	9.5dBm±0.5dB	7	2442	9.5dBm±0.5dB
2	2417	9.5dBm±0.5dB	8	2447	9.5dBm±0.5dB
3	2422	9.5dBm±0.5dB	9	2452	9.5dBm±0.5dB
4	2427	9.5dBm±0.5dB	10	2457	9.5dBm±0.5dB
5	2432	9.5dBm±0.5dB	11	2462	9.5dBm±0.5dB
6	2437	9.5dBm±0.5dB			
802.11n(20MHz)					
1	2412	9.0dBm-1.0dB/ 9.0dBm+0.5dB	7	2442	9.0dBm-1.0dB/ 9.0dBm+0.5dB
2	2417	9.0dBm-1.0dB/ 9.0dBm+0.5dB	8	2447	9.0dBm-1.0dB/ 9.0dBm+0.5dB
3	2422	9.0dBm-1.0dB/ 9.0dBm+0.5dB	9	2452	9.0dBm-1.0dB/ 9.0dBm+0.5dB
4	2427	9.0dBm-1.0dB/ 9.0dBm+0.5dB	10	2457	9.0dBm-1.0dB/ 9.0dBm+0.5dB
5	2432	9.0dBm-1.0dB/ 9.0dBm+0.5dB	11	2462	9.0dBm-1.0dB/ 9.0dBm+0.5dB
6	2437	9.0dBm-1.0dB/ 9.0dBm+0.5dB			
802.11n(40MHz)					
3	2422	8.5dBm±0.5dB	7	2442	8.5dBm±0.5dB
4	2427	8.5dBm±0.5dB	8	2447	8.5dBm±0.5dB
5	2432	8.5dBm±0.5dB	9	2452	8.5dBm±0.5dB
6	2437	8.5dBm±0.5dB			

For Bluetooth the Power Drift at 5dBm±2dB.

The antenna of Bluetooth and WLAN are the same,so WLAN and Bluetooth can not synchronization transmit.

For 802.11b @ WLAN

Test Frequency (MHz)	Output Power (dBm)	Output Power including Power Drift (dBm)	Output Power including Power Drift (mW)	SAR Test Exclusion Threshold (mW)	Verdict
2412	9.72	10.00	10.00	10.00	PASS
2437	9.57	10.00	10.00	10.00	PASS
2462	9.57	10.00	10.00	10.00	PASS

For 802.11g @ WLAN

Test Frequency (MHz)	Output Power (dBm)	Output Power including Power Drift (dBm)	Output Power including Power Drift (mW)	SAR Test Exclusion Threshold (mW)	Verdict
2412	9.39	10.00	10.00	10.00	PASS
2437	9.57	10.00	10.00	10.00	PASS
2462	9.25	10.00	10.00	10.00	PASS

For 802.11n(20MHz) @ WLAN

Test Frequency (MHz)	Output Power (dBm)	Output Power including Power Drift (dBm)	Output Power including Power Drift (mW)	SAR Test Exclusion Threshold (mW)	Verdict
2412	8.12	9.50	8.92	10.00	PASS
2437	9.10	9.50	8.92	10.00	PASS
2462	9.50	9.50	8.92	10.00	PASS

For 802.11n(40MHz) @ WLAN

Test Frequency (MHz)	Output Power (dBm)	Output Power including Power Drift (dBm)	Output Power including Power Drift (mW)	SAR Test Exclusion Threshold (mW)	Verdict
2422	8.34	9.00	7.94	10.00	PASS
2437	8.17	9.00	7.94	10.00	PASS
2452	8.62	9.00	7.94	10.00	PASS

For GFSK @ Bluetooth

Test Frequency (MHz)	Output Power (dBm)	Output Power including Power Drift (dBm)	Output Power including Power Drift (mW)	SAR Test Exclusion Threshold (mW)	Verdict
2402	4.10	7.00	5.01	10.00	PASS
2441	5.31	7.00	5.01	10.00	PASS
2480	6.20	7.00	5.01	10.00	PASS

For 8DPSK @ Bluetooth

Test Frequency (MHz)	Output Power (dBm)	Output Power including Power Drift (dBm)	Output Power including Power Drift (mW)	SAR Test Exclusion Threshold (mW)	Verdict
2402	3.47	7.00	5.01	10.00	PASS
2441	4.69	7.00	5.01	10.00	PASS
2480	5.59	7.00	5.01	10.00	PASS

For $\pi/4$ DQPSK@ Bluetooth

Test Frequency (MHz)	Output Power (dBm)	Output Power including Power Drift (dBm)	Output Power including Power Drift (mW)	SAR Test Exclusion Threshold (mW)	Verdict
2402	3.33	7.00	5.01	10.00	PASS
2441	4.49	7.00	5.01	10.00	PASS
2480	5.42	7.00	5.01	10.00	PASS

4. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v05r01.

.....**End of Report**.....