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No.: HM157842

Applicant: Newsoft International Ltd.

23/F., Ocean Bldg., 80 Shanghai Street, Jordan, KLN.,

Hong Kong

**Description of Samples:** Model name: MyiPad-01PB (S. Remote)

> Brand name: MyiPad

Model no.: MyiPad-01PB-S FCC ID: UVY06102

**Date Samples Received:** 2006-12-05

**Date Tested:** 2006-12-19

**Investigation Requested:** FCC Part 15 Regulations-Subpart C

The submitted product **COMPLIED** with the requirements of Conclusions:

Federal Communications Commission [FCC] Regulations Part 15. The tests were performed in accordance with the standards described above and on Section 2.2 in this Test

Report.

Remarks: For additional models details, see page 5.

> TSANG Chi Ho, Steven, EMD For and on behalf of

The Hong Kong Standards and Testing Centre Ltd.



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The Hong Kong Standards and Testing Centre Ltd.

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong
Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: www.hkstc.org E-mail: hkstc@hkstc.org



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## 1.0 General Details

## 1.1 Test Laboratory

The Hong Kong Standards and Testing Centre Ltd. EMC Laboratory 10 Dai Wang Street, Taipo Industrial Estate New Territories, Hong Kong

# 1.2 Applicant Details Applicant

Newsoft International Ltd. 23/F., Ocean Bldg., 80 Shanghai Street, Jordan, KLN., Hong Kong

#### Manufacturer

Innovation Sound Technology Co., Ltd. Building 2nd, Industrial Area Of Huaide, Cuihai, Fengtang Road, Fuyong Town, Shengzhen, China



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## 1.3 Equipment Under Test [EUT] Description of Sample

Model Name: MyiPad-01PB (S. Remote)

Manufacturer: Innovation Sound Technology Co., Ltd.

Brand Name: MyiPad

Model Number: MyiPad-01PB-S

Additional Model Name: MyiPad-01PB (T. Remote)

Additional Model Number: MyiPad-01PB-T

Rating: 3Vd.c. ("AAA" size battery x 2)

#### 1.3.1 Description of EUT Operation

The Equipment Under Test (EUT) is a Newsoft International Ltd., MyiPad-01PB (S. Remote), The student remote obtains power from two 1.5V AA batteries. The heart of the student remote is the MCU, which obtains inputs from the keyboard and produces outputs to the LCD display. The device makes use of an NRF24RF chip antenna to communicate with the receiver in the 2.4GHz band, and is also capable in emitting and receiving in 100 different channels. The transmitting frequency is regulated by a crystal oscillator. There is no external ground connection, nor is there any protruding antenna assembly.

The operation is achieved by receiving and transmitting signals to and from the receiver in the 2.4GHz band. It also provides appropriate response to the user on the LCD display when user input occurs via the keypad.

#### 1.4 Date of Order

2006-12-05

#### 1.5 Submitted Sample(s):

3 Samples

#### 1.6 Test Duration

2006-12-19

#### 1.7 Country of Origin

China



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## 2.0 Technical Details

## 2.1 Investigations Requested

Perform Electromagnetic Interference measurements in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15: 2006 Regulations and ANSI C63.4:2003 for FCC Certification.

## 2.2 Test Standards and Results Summary Tables

EMISSION Results Summary								
Test Condition	Test Requirement	Test Method	Class /	T	est Resu	ılt		
			Severity	Pass	Fail	N/A		
Field Strength of Fundamental & Harmonics Emissions	FCC 47CFR 15.249	ANSI C63.4:2003	N/A					
Radiated Emissions	FCC 47CFR 15.209	ANSI C63.4:2003	N/A					
Conducted Emissions on AC, 0.15MHz to 30MHz	FCC 47CFR 15.207	ANSI C63.4:2003	N/A					

Note: N/A - Not Applicable



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#### 3.0 Test Results

#### 3.1 Emission

#### 3.1.1 Radiated Emissions

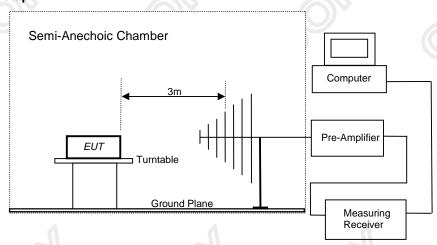
Test Requirement: FCC 47CFR 15.249
Test Method: ANSI C63.4:2003
Test Date: 2006-12-19
Mode of Operation: Tx mode

#### **Test Method:**

The sample was placed 0.8m above the ground plane of semi-anechoic Chamber\*. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

\*: Semi-anechoic chamber located on the G/F of HKSTC with a metal ground plane filed with the FCC pursuant to section 2.948 of the FCC rules, with Registration Number: 607756.

#### **Test Setup:**





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## Limits for Field Strength of Fundamental & Harmonics Emissions [FCC 47CFR 15.249]:

Frequency Range of Fundamental	Field Strength of Fundamental Emission	Field Strength of Harmonics Emission
[MHz]	[microvolts/meter]	[microvolts/meter]
902-928	50,000 [Average]	500 [Average]
2400-2483.5	50,000 [Average]	500 [Average]

## Results of Transmit Mode (Channel 80): Pass

	Field Strength of Fundamental Emissions Peak Value						
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field	
	Level @3m	Factor	Strength	Strength		Polarity	
MHz	dBµV/m	dBμV/m	dBµV/m	μV/m	μV/m		
2410.0	31.8	30.9	62.7	1,364.6	50,000	Vertical	
* 4820.0					500	Vertical	
7230.0					500	Vertical	
9640.0					500	Vertical	
12050.0					500	Vertical	
14460.0	~	No Emission	on Detected		500	Vertical	
16870.0					500	Vertical	
* 19280.0	500					Vertical	
21690.0			500	Vertical			
24100.0					500	Vertical	

#### Remarks:

\*: Denotes restricted band of operation.

Measurements were made using a peak detector. Any emission less than 1000 MHz and falling within the restricted bands of FCC Rules Part 15 Section 15.205 and the limits of FCC Rules Part 15 Section 15.209 were applied.

Calculated measurement uncertainty : 30MHz to 1GHz ±4.1dB 1GHz to 18GHz ±4.4dB



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## Limits for Field Strength of Fundamental & Harmonics Emissions [FCC 47CFR 15.249]:

Frequency Range of Fundamental	Field Strength of Fundamental Emission	Field Strength of Harmonics Emission
[MHz]	[microvolts/meter]	[microvolts/meter]
902-928	50,000 [Average]	500 [Average]
2400-2483.5	50,000 [Average]	500 [Average]

## Results of Transmit Mode (40 Channel): Pass

	Field Strength of Fundamental Emissions Peak Value						
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field	
	Level @3m	Factor	Strength	Strength		Polarity	
MHz	dBµV/m	dΒμV/m	dBµV/m	μV/m	μV/m	-	
2430.5	34.3	30.9	65.2	1,819.7	50,000	Vertical	
* 4861.0					500	Vertical	
* 7291.5					500	Vertical	
9722.0	1				500	Vertical	
* 12152.5					500	Vertical	
14583.0		No Emission	on Detected		500	Vertical	
17013.5					500	Vertical	
* 19444.0	1				500	Vertical	
* 21874.5			500	Vertical			
24305.0					500	Vertical	

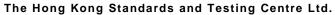
#### Remarks:

Denotes restricted band of operation.

Measurements were made using a peak detector. Any emission less than 1000 MHz and falling within the restricted bands of FCC Rules Part 15 Section 15.205 and the limits of FCC Rules Part 15 Section 15.209 were applied.

30MHz to 1GHz ±4.1dB Calculated measurement uncertainty

1GHz to 18GHz ±4.4dB





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## Limits for Field Strength of Fundamental & Harmonics Emissions [FCC 47CFR 15.249]:

Frequency Range of Fundamental	Field Strength of Fundamental Emission	Field Strength of Harmonics Emission
[MHz]	[microvolts/meter]	[microvolts/meter]
902-928	50,000 [Average]	500 [Average]
2400-2483.5	50,000 [Average]	500 [Average]

## Results of Transmit Mode (1 Channel): Pass

	Field Strength of Fundamental Emissions Peak Value						
Frequency	Measured	Correction	Field	Field	Limit @3m	E-Field	
	Level @3m	Factor	Strength	Strength		Polarity	
MHz	dBµV/m	dΒμV/m	dBµV/m	μV/m	μV/m	-	
2451.3	33.1	31.0	64.1	1,603.2	50,000	Vertical	
* 4902.6					500	Vertical	
* 7353.9					500	Vertical	
9805.2	1				500	Vertical	
* 12256.5					500	Vertical	
14707.8		No Emission	on Detected		500	Vertical	
17159.1					500	Vertical	
* 19610.4					500	Vertical	
* 22061.7			500	Vertical			
24513.0					500	Vertical	

#### Remarks:

Denotes restricted band of operation.

Measurements were made using a peak detector. Any emission less than 1000 MHz and falling within the restricted bands of FCC Rules Part 15 Section 15.205 and the limits of FCC Rules Part 15 Section 15.209 were applied.

30MHz to 1GHz ±4.1dB Calculated measurement uncertainty :

1GHz to 18GHz ±4.4dB



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## Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:

Frequency Range [MHz]	Quasi-Peak Limits [μV/m]		
30-88	100		
88-216	150		
216-960	200		
Above960	500		

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

Radiated Emissions Peak								
Emission E-Field Level Limit Level @3m Limit								
Frequency	Frequency Polarity @3m @3m @3m @3m							
MHz $dB\mu V/m$ $dB\mu V/m$ $\mu V/m$ $\mu V/m$								
NO	NO EMISSION DETECTED WITHIN 20dB OF THE FCC LIMITS.							

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz ±4.1dB

1GHz to 18GHz ±4.4dB



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## 3.2 Conducted Emissions (0.15MHz to 30MHz)

Test Requirement: FCC 47CFR 15.207 Test Method: ANSI C63.4:2003

Test Date: N/A Mode of Operation: N/A

Results: N/A

There is no provision for operating the EUT from AC mains power, therefore, this test is not applicable.



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## 3.3 Frequency Range Measurement

Test Requirement: FCC 47 CFR 15.249
Test Method: ANSI C63.4:2003
Test Date: 2006-12-19
Mode of Operation: On mode

#### **Test Method:**

The bandwidth is measured at an amplitude level reduced from the reference level by a specified ratio. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

## Test Setup:

As Test Setup of clause 3.1.1 in this test report.



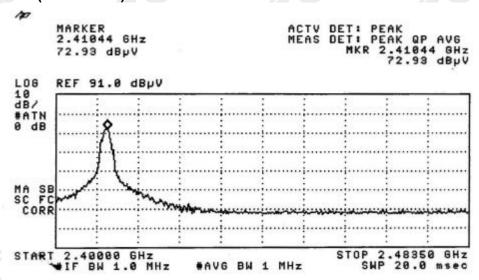
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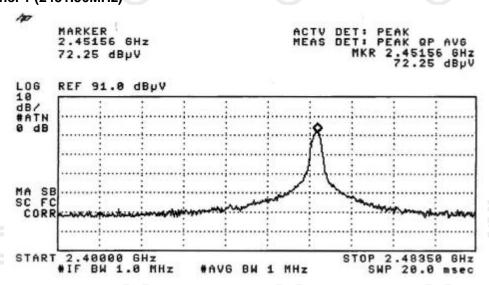
#### **Limits for Frequency Range Measurement:**

Frequency Range	FCC Limits
[MHz]	[MHz]
2410-2468	within 2400-2483.5

## Channel 80 (2410.44MHz)



## Channel 1 (2451.56MHz)



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## Appendix A

## **List of Measurement Equipment**

#### **Radiated Emission**

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	
EM007	SPECTRUM ANALYZER	HEWLETT PACKARD	HP85660B	3144A21192	
EM008	SPECTRUM ANALYZER DISPLAY	HEWLETT PACKARD	HP85662A	3144A20514	
EM009	QUASI PEAK ADAPTOR	HEWLETT PACKARD	HP85650A	3303A01702	
EM010	RF PRESELECTOR	HEWLETT PACKARD	HP85685A	3221A01410	
EM011	ATTENUATOR/SWITCH	HEWLETT PACKARD	HP11713A	2508A10595	
EM012	PRE-AMPLIFIER	HEWLETT PACKARD	HP8449B	3008A00262	
EM020	HORN ANTENNA	ETS-Linggren	3115	4032	
EM022	LOOP ANTENNA	ETS-Linggren	6502	1189-2424	
EM072	SIGNAL GENERATOR	HEWLETT PACKARD	8640B	1948A11892	
EM083	OPEN AREA TEST SITE	HKSTC	N/A	N/A	
EM131	EMC ANALYZER	HEWLETT PACKARD	8595EM	3710A00155	
EM145	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESCS 30	830245/021	
EM195	ANTENNA POSITIONING MAST	ETS-Linggren	2075	2368	
EM196	MULTI-DEVICE CONTROLLER	ETS-Linggren	2090	1662	
EM215	MULTIDEVICE CONTROLER	ETS-Linggren	2090	00024676	
EM216	MINI MAST SYSTEM	ETS-Linggren	2075	00026842	
EM217	ELECTRIC POWERED TURNTABLE	ETS-Linggren	2088	00029144	
EM218	ANECHOIC CHAMBER	ETS-Linggren	FACT-3	<b>1</b> -	
EM219	BICONILOG ANTENNA	ETS-Linggren	3142C	00029071	
EM229	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESIB40	100248	

### **Line Conducted**

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.
EM078	VARIAC	SHANGHAI VOLTAGE	TDGC-3/0.5	N/A
EM081	SMALL SCREENED ROOM	MIKO INST HK	N/A	N/A
EM119	LISN	ROHDE & SCHWARZ	ESH3-Z5	0831.5518.52
EM127	ISOLATION TRANSFORMER 220 TO 300V	WING SUN	N/A	N/A
EM233	PULSE LIMITER	ROHDE & SCHWARZ	ESH3-Z2	100314
EM181	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESIB7	100072
EM154	SHIELDING ROOM	SIEMENA MATSUSHITA COMPONENTS	N/A	803-740-057-99A
M197	LISN	ETS-Linggren	4825/2	1193

#### Remarks:-

CM Corrective Maintenance N/A Not Applicable or Not Available

TBD To Be Determined



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## Appendix B

## **Photographs of EUT**

Front View of the product



Rear View of the product



**Inner Circuit Top View** 



**Inner Circuit Bottom View** 



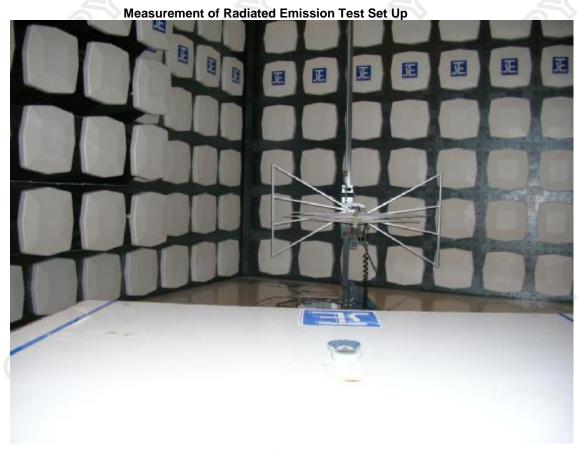
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## **Photographs of EUT**



\*\*\*\*\* End of Test Report \*\*\*\*\*