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# FCC TEST REPORT

Under FCC 15 Subpart C, Paragraph 15.227

Prepared For:

# Viral Brands Ltd.

Units 5 & 11, Imex House, 6 Wadsworth Road, Perivale, Middlesex, UB6 7JJ, London, UK

FCC ID: WLWNG1007W

**EUT: Street Mouse Bullet Wireless** 

Model: NG1007W

July 31, 2008

Report Type: Original Report

Test Engineer: <u>Jacky Huang</u>

**Test Date:** July 9, 2008

**Review By:** 

Apollo Liu / Manager

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#### 1. General Information

#### 1. 1 Notes

The test results of this report relate exclusively to the test item specified in 1.5. The KMO Lab does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the KMO Lab.

#### 1. 2 Testing Laboratory

#### SinTek Laboratory Co., Ltd.

No.7, Xinshidai Induatrial, Guantian Village, Shiyan Town, Bao'an District, Shenzhen, Guangdong China...

Tel: +86 755 27608353 Fax: +86 755 27608359

Site on File with the Federal Communications Commission - United Sates

Registration Number: 963441

#### 1. 3 Details of Applicant

Name : Viral Brands Ltd.

Address : Units 5&11, Imex House, 6 Wadsworth Road, Perivale, Middlesex, UB6 7JJ, London, UK

Contact : Mr. Reuben / CEO Tel : + 44 (0) 20 8810 9002

Fax : N/A

#### 1. 4 Application Details

Date of Receipt of Application

Date of Receipt of Test Item

Date of Test

: July 9, 2008

: July 9~July 14, 2008

#### 1. 5 Test Item

Manufacturer : Lamax Group Co., Ltd.

Address : The 1<sup>st</sup> Block, No.1 Industrial Zone, Ma'anshan, Shajing Town, SZ

Brand Name : N/A

Model No. : NG1007W, NG1006W
Description : Street Mouse Bullet Wireless

#### **Additional Information**

Frequency : 27.045MHz
Number of Channels : 1
Power Supply : DC 3V
Operation Distance : 1.8 Meter
Resolution : N/A

#### 1. 6 Test Standards

#### FCC 15 Subpart C, Paragraph 15.227

Report #: KSZ2008062501J

Note: All radiated measurements were made in all three orthogonal planes. The values reported are the maximum values.

#### 2. Technical Test

#### 2. 1 Summary of Test Results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	PASS	Complies
FCC Part 15, Paragraph 15.207	Conducted Test	N/A	Owing to the DC operation of EUT, this test item is not performed.
FCC Part 15 Subpart C Paragraph 15.227 Limit	Field Strength of Fundamental	PASS	Complies.
FCC Part 15, Paragraph 15.209	Radiated Test	PASS	Complies.
Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).	Band Edge Test	PASS	The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209.

#### 2. 2 Antenna Requirement

#### A. Regulation

FCC section 15.203, An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of Part 15C. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

#### B. Result

The EUT no antenna connector for printed antenna. Therefore the EUT complies with Section 15.203 of the FCC rules.

#### 3. EUT Modifications

No modification by SinTek Laboratory Co., Ltd.

#### 4. Conducted Power Line Test

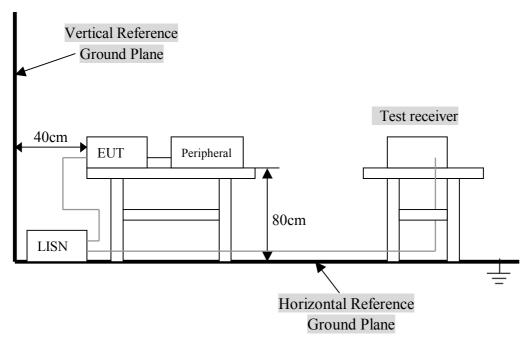
#### 4. 1 Test Equipment

Please refer to Section 9 this report.

#### 4. 2 Test Procedure

The EUT was tested according to ANSI C63.4 - 2001. The frequency spectrum from  $\underline{0.45}$  MHz to  $\underline{30}$  MHz was investigated. The LISN used was 50 ohm / 50 uHenry as specified by section 5.1 OF ANSI C63.4 - 2001. cables and peripherals were moved to find the maximum emission levels for each frequency.

#### 4. 3 Test Setup



For the actual test configuration, Please refer to the related items - Photos of Testing.

**4. 4 Configuration of The EUT**The EUT was configured according to ANSI C63.4-2003. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

### A. EUT

DEVICE	MANUFACTURER	MODEL #	FCC ID
Street Mouse Stealth,	Lamax Group Co., Ltd.	NG1007W	WLWNG1007W
Bullet Wireless	Lamax Group Co., Ltd.	NG1007 W	WEWING1007W

#### **B.** Internal Devices

DEVICE	MANUFACTURER	MODEL #	FCCID / DoC
N/A			

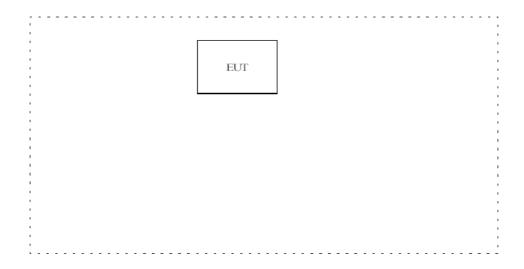
#### C. Peripherals

Device	Manufacturer	Model # Serial #	FCC ID/ DoC	Cable
Printer	НР	HP930C	DoC	1.5m unshielded power cord 1.2m unshielded data cable.
Modem	GVC	N/A	DoC	1.5m unshielded power cord 1.2m unshielded data cable.
Notebook	DELL	PP10L	DoC	1.5m unshielded power cord
PC	DELL	2400n	DoC	1.5m unshielded power cord

#### 4. 5 EUT Operating Condition

Operating condition is according to ANSI C63.4 - 2001.

- A. Setup the EUT and simulators as shown on follow.
- B. Enable RF signal and confirm EUT active.
- C. Modulate output capacity of EUT up to specification.



#### 4. 6 Conducted Power Line Emission Limits

FCC Part 15 Paragraph 15.207 (dBuV)						
FREQUENCY CLASS A CLASS B RANGE (MHz) QP/AV QP/AV						
0.15 - 0.5	0.15 – 0.5 79/66 66-56/56-46					
0.5 – 5.0 73/60 56/46						
5.0 - 30	73/60	60/50				

**NOTE**: In the above table, the tighter limit applies at the band edges.

#### 4. 7 Conducted Power Line Test Result

The frequency spectrum from  $\underline{0.15}$  MHz to  $\underline{30}$  MHz was investigated. All readings are quasi -peak values with a resolution bandwidth of  $\underline{9}$  KHz.

Temperature : 26 °C
 Humidity : 53 % RH

· Result : N/A

	EN55022 Class B						
Frequency (MHz)	Emission QP	n (dBuV) AV	LINE/ NEUTRAL	Limit QP	(dBuV) AV	Margi QP	n (dB) AV
NF			LINE				
NF			NEUTRAL				
NF			LINE				
NF			NEUTRAL				
NF			LINE				
NF			NEUTRAL				

Note: NF = No Significant Peak was Found.

#### Remarks:

- 1.Uncertainty in conducted emission measured is <+/ -2dB.
- 2.QP and AV are abbreviations of quasi-peak and average individually.
- 3. The emission levels of other frequencies were very low against the limit.
- 4. The Quasi-peak emission level also meets average limit and measurement with the average detector is unnecessary.
- 5.Margin Value= Emission Level Limit Value.

#### 5. Radiated Emission Test

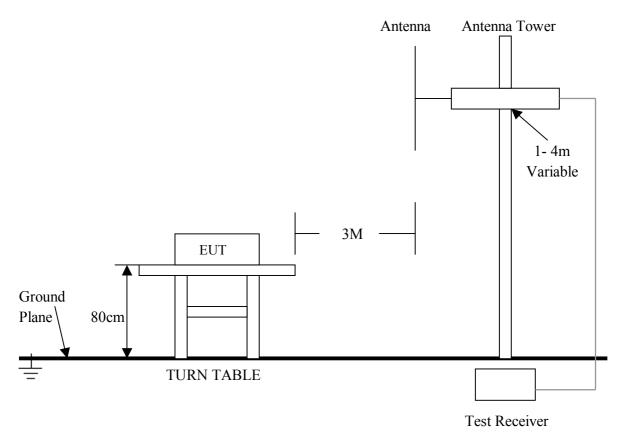
#### 5. 1 Test Equipment

Please refer to Section 9 this report.

#### 5. 2 Test Procedure

- 1. The EUT was tested according to ANSI C63.4 2003.
- The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high <u>0.8</u> m. All set up is according to ANSI C63.4-2003.
- 3. The frequency spectrum from  $\underline{30}$  MHz to  $\underline{1}$  GHz was investigated. All readings from  $\underline{30}$  MHz to  $\underline{1}$  GHz are quasi-peak values with a resolution bandwidth of  $\underline{120}$  KHz. All readings are above  $\underline{1}$  GHz, peak values with a resolution bandwidth of  $\underline{1}$  MHz. Measurements were made at  $\underline{3}$  meters.
- 4. The antenna high is varied from  $\underline{1}$  m to  $\underline{4}$  m high to find the maximum emission for each frequency.
- 5. Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- 6. The antenna polarization: Vertical polarization and Horizontal polarization.

#### 5. 3 Radiated Test Setup



For the actual test configuration, please refer to the related items - Photos of Testing.

#### 5. 4 Configuration of The EUT

Same as section 4.4 of this report

#### 5. 5 EUT Operating Condition

Same as section 4.5 of this report.

#### 5. 6 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below :

#### A. FCC Part 15 Subpart C Paragraph 15.227 Limit

Fundamental Frequency	Field Strength of Fundamental		
(MHz)	uV/m	dBuV/m	
26.96 – 27.28	10000	80.0	

Note:

- (1) RF Voltage (dBuV) = 20 log RF Voltage (uV)
- (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
- (3) The emission limit in this paragraph is based on measurement instrumentation employing an average detector. Measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

#### B. Frequencies in restricted band are complied to limit on Paragraph 15.209.

Frequency (MHz)	Distance (m)	Field Strength (dBuV/m)
30 - 88	3	40.0
88 - 216	3	43.5
216 - 960	3	46.0
Above 960	3	54.0

Note:

- (1) RF Voltage (dBuV) = 20 log RF Voltage (uV)
- (2) In the Above Table, the tighter limit applies at the band edges.
- (3) Distance refers to the distance in meters between the measuring instrument antenna and the

#### 5. 7 Radiated Emission Test Result

#### A. Fundamental Radiated Emission Data

Product : Street Mouse Stealth, Bullet Wireless Test Mode : CH1
Test Item : Fundamental Radiated Emission Data Temperature : 25 °C
Test Voltage : DC 3V (Power by Battery) Humidity : 50%RH

Test Result : PASS

CH1

Freq. (MHz)	Emission (dBuV/m)	HORIZ / VERT	Limits (dBuV/m)	Margin (dB)
27.045	48.16	HORIZ	80	-31.84
27.045	43.54	VERT	80	-36.46

Note:

- (1) All Readings are Peak value.
- (2) Emission Level = Reading Level + Probe Factor + Cable Loss.

(3) The average measurement was not performed when the peak measured data under the limit of average detection.

#### **B.** General Radiated Emission Data

Product : Street Mouse Stealth, Bullet Wireless Test Mode : Tx & Rx Test Item : General Radiated Emission Data Temperature : 25 °C Test Voltage : DC 3V (Power by Battery) Humidity : 50%RH

Test Result : PASS

CH1

CIII				
Freq. (MHz)	Emission (dBuV/m)	HORIZ / VERT	Limits (dBuV/m)	Margin (dB)
81.135	29.73	HORIZ	40.0	-10.27
81.135	30.28	VERT	40.0	-9.72
108.18	27.64	HORZ	43.5	-15.86
108.18	30.04	VERT	43.5	-13.46
162.27	31.42	HORZ	43.5	-12.08
162.27	30.84	VERT	43.5	-12.66

**Note:** (1) All Reading Levels below 1GHz are Quasi-Peak, above are peak and average value.

(2) Emission Level = Reading Level + Probe Factor + Cable Loss.

### 6. Band Edge

#### 6. 1 Test Equipment

Please refer to Section 9 this report.

#### 6. 3 Radiated Test Setup

Please refer to Section 5.3 this report.

#### 6. 4 Configuration of The EUT

Same as section 4.4 of this report

#### 6. 4 Configuration of The EUT

Same as section 4.4 of this report

#### 6. 5 EUT Operating Condition

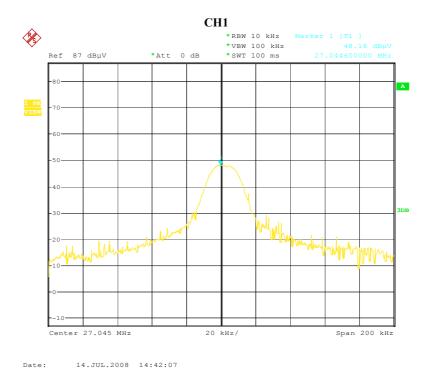
Same as section 4 . 5 of this report.

#### 6. 6 Band Edge Limit

Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### 6. 7 Band Edge Test Result

Test Result : PASS



Note:

- (1) The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209.
- (2) The average measurement was not performed when the peak measured data under the limit of average detection.

# 7. Photos of Testing

# 7. 1 EUT Test Photographs

Radiated emission test view



# 7. 2 EUT Detailed Photographs

# EUT top view

#### NG1007W



NG1006W



# EUT bottom view

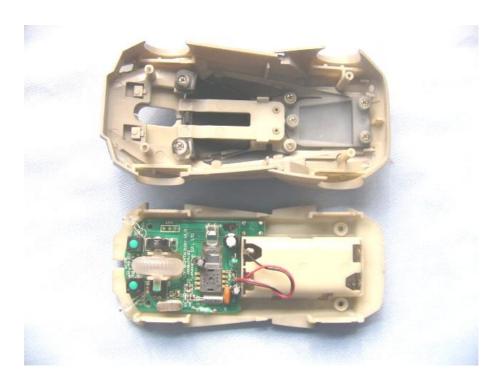
### NG1007W



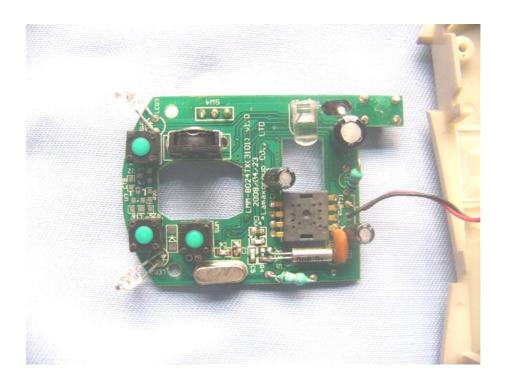
NG1006W



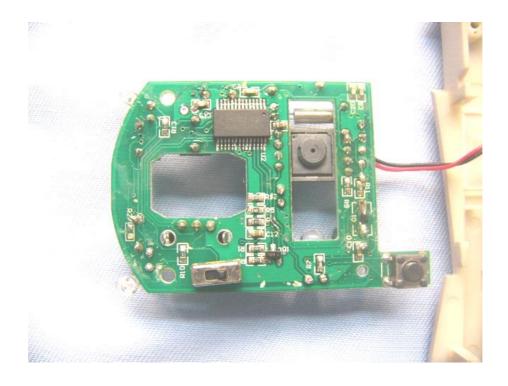
# EUT inside whole view



Main board component side



# Main board solder side



Report #: KSZ2008062501J

#### 8. FCC ID Label

#### FCC ID: WLWNG1007W

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The Label must not be a stick-on paper label. The Label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

#### **Proposed Label Location on EUT**

EUT Bottom View/Proposed FCC ID Label Location



# 9. Test Equipment

The following test equipments were used during the radiated & conducted emission test:

Equipment/	Manufacturer	Model #	Serial No.	Date of Cal.	<b>Due Date</b>
Facilities					
Turntable	SinTek	N/A	N/A	NCR	NCR
Antenna Tower	SinTek	N/A	N/A	NCR	NCR
OATS	SinTek	N/A	N/A	Oct.09, 2007	Oct.09, 2010
EMI Test Receiver	Rohde & Schwarz	ESPI7	100013	July 9, 2008	July 9, 2009
Spectrum Analyzer	Rohde & Schwarz	FSP40	100273	Sep. 18, 2007	Sep. 18, 2008
Signal Generator	FLUKE	PM5418+Y/C	LO747012	Feb.10, 2008	Feb.10, 2009
Signal Generator	FLUKE	PM5418TX	LO738007	Feb.10, 2008	Feb.10, 2009
Loop Antenna	SCHWARZBECK	FMZB1516	113	Jan. 30, 2008	Jan. 30, 2009
Loop Antenna	Rohde & Schwarz	HFH2-Z2	872096/16	Jan. 30, 2008	Jan. 30, 2009
Trilog-Super Broadband	SCHWARZBECK	VULB9161	9161-4079	Sep.18, 2007	Sep.18, 2008
Antenna					
Trilog-Super Broadband	SCHWARZBECK	VULB9161	9161-4080	Sep.18, 2007	Sep.18, 2008
Antenna					
Broad-Band Horn	SCHWARZBECK	BBHA 9120D	9120D-564	Sep.18, 2007	Sep.18, 2008
Antenna					
Broad-Band Horn	SCHWARZBECK	BBHA 9120D	9120D-565	Sep.18, 2007	Sep.18, 2008
Antenna					
Ultra Broadband Antenna	Rohde & Schwarz	HL 562	100110	June.05, 2007	June.05, 2008
AMN	Rohde & Schwarz	ESH3-Z5	100196	Oct. 23,2007	Oct. 23, 2008
AMN	Rohde & Schwarz	ESH3-Z5	100197	Oct. 23,2007	Oct. 23, 2008
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	N/A	N/A	N/A
Absorbing Clamp	Rohde & Schwarz	MDS-21	N/A	Oct. 29,2007	Oct. 29,2008
KMO Shielded Room	KMO	KMO-001	N/A	N/A	N/A
Coaxial Cable with	SCHWARZBECK	AK9515H	95549	Sep.18, 2007	Sep.18, 2008
N-Connectors					
Power Meter	Rohde & Schwarz	NRVD	100041	Feb.10, 2008	Feb.10, 2009
Radio Communication	Rohde & Schwarz	CMS 54	846621/024	Feb.10, 2008	Feb.10, 2009
Test Set					
Modulation Analyzer	Hewlett-Packard	8901B	2303A00362	Feb.10, 2008	Feb.10, 2009
SOHO Telephone	IKE	2000-108C	N/A	Feb.10, 2008	Feb.10, 2009
Switching System					
Temperature	TABAI	PSL-4GTW	N/A	Feb.10, 2008	Feb.10, 2009
Chamber					
EMI Test Receiver	Rohde & Schwarz	ESPI7	100013	July 9, 2007	July 9, 2008
Spectrum Analyzer	Rohde & Schwarz	FSP40	100273	Sep. 18, 2007	Sep. 18, 2008
Signal Generator	FLUKE	PM5418+Y/C	LO747012	Feb.10, 2008	Feb.10, 2009