

# ***EXHIBIT B***

## ***Test Report***

|                      |                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------|
| Report No.           | G2815481                                                                                    |
| FCC ID               | OR7GL2001                                                                                   |
| Specifications       | FCC Part 15, Class B                                                                        |
| Test Method          | ANSI C63.4 1992                                                                             |
| Applicant address    | 2FL., No. 101, Feenlian Street, Nei-Hu 114, Taipei, Taiwan                                  |
| Applicant            | GLOBLINK TECHNOLOGY INC.                                                                    |
| Items tested         | Wireless Keyboard                                                                           |
| Product name         | Free Board 3FX                                                                              |
| Model No.            | GL2001 (Sample # G28480)                                                                    |
| Frequency Range      | 26.96 – 27.28 MHz                                                                           |
| Results              | <b>Compliance</b> (As detailed within this report)                                          |
| Date                 | 08/03/2001 (month / day / year)(Sample received)<br>08/27/2001 (month / day / year)(Tested) |
| Prepared by          | Project Engineer<br>_____                                                                   |
| Authorized by        | V.General Manager<br>(Jacob Lin)<br>_____                                                   |
| Issue date           | (month / day / year)                                                                        |
| <b>Modifications</b> | <b>None</b>                                                                                 |
| Tested by            | Training Research Co., Ltd.                                                                 |
| Office at            | 2, Lane 194, Huan-Ho Street, Hsichih, Taipei Hsien 221, Taiwan                              |
| Open site at         | No. 15, Lane 530, Pa-Lian RD., Sec. 1, Hsichih City, Taipei Hsien, Taiwan, R.O.C.           |

**Conditions of issue :**

- (1) **This test report shall not be reproduced except in full, without written approval of TRC. And the test result contained within this report only relate to the sample submitted for testing.**
- (2) **This report must not be used by the client to claim product endorsement by NVLAP or any agency of U.S. Government.**

**NVLAP LAB CODE: 200174-0**

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## **Chapter 1 Introduction**

### **Description of EUT:**

This wireless keyboard with track ball use advanced transmission technology to allow comfortable use. However, occasionally outside sources may cause interference. The EUT power by two 1.5VDC batteries

\*This EUT has six channels (each with 16 ID):

- |               |               |
|---------------|---------------|
| 1. 26.985 MHz | 2. 27.010 MHz |
| 3. 27.035 MHz | 4. 27.210 MHz |
| 5. 27.235 MHz | 6. 27.260 MHz |

### **Test method:**

All measurements contained in this report were performed according to the techniques described in Measurement procedure ANSI C63.4 – 1992.

Pretest was found that the emission of operating mode is worse than standby mode. So, The final test is made at the operating mode.

While testing, the EUT was made to transmit continuously and adjusted at a position, which transmitted the maximum emission.

The test placement as the photographs showed is the worst case emission placed. (If the emission is close to the ambient, the resolution BW and view resolution will be reduced and the data will be recorded by detection of maximum hold peak mode.)

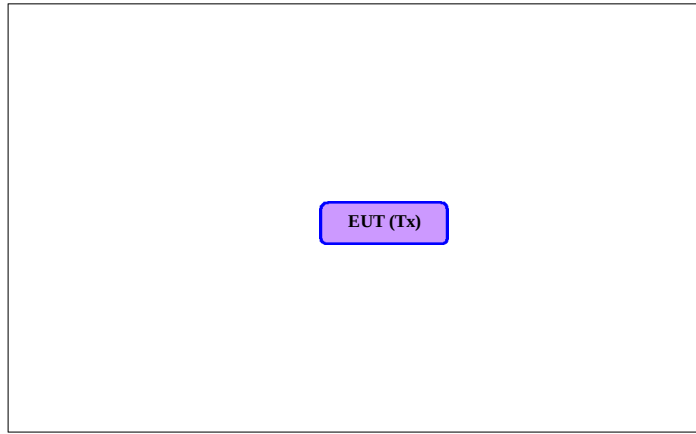
***The testing configuration of test setup is showing in the next page.***

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**Configuration of Test Setup**



**Connections:**

**EUT:**

Put two AAA size, 1.5V battery into the battery cell of EUT, powers the subject device. The EUT does not be connected with any product.

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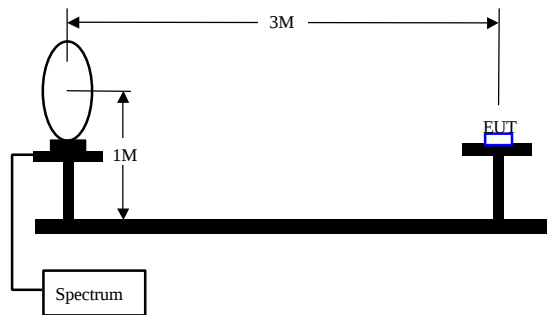
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Chapter 2 Peak Power Measurement (Frequency Band: 26.96 ~ 27.28)

Test Setup:

1. Test Setup:



2. Test Procedure:

- a. The EUT was setup in the anechoic chamber as shown above.
- b. The loop antenna was located upon its plane vertical, 3-meter distance from the EUT. The center of the loop is 1-meter above the ground plane.
- c. In order to find the maximum radiation, the EUT was rotated 360°. The measuring antenna was rotated about its axis at each azimuth about the EUT.

List of test Instrument :

| Instrument Name                                              | Model No. | Brand     | Serial No. | Calibration Date |           |
|--------------------------------------------------------------|-----------|-----------|------------|------------------|-----------|
|                                                              |           |           |            | Last time        | Next time |
| RECEIVER                                                     | SCR3502   | SCHAFFNER | 210        | 12/01/00         | 12/01/01  |
| Control Box                                                  | TWR95-4   | TRC       | C9001-2    | 12/01/00         | 12/01/01  |
| Active Loop Antenna                                          | 6502      | EMCO      | 2777       | 07/20/01         | 07/20/02  |
| Open test side (Antenna, Amplify, cable calibrated together) |           |           |            | 05/15/01         | 05/15/02  |

The level of confidence of 95% , the uncertainty of measurement of radiated emission is  $\pm 4.96$  dB .

Test Result : Appendix A

### Chapter 3 Radiated Emission Test

#### Test Condition and Setup:

**Pretest :** Prior to the final test ,the EUT is placed in an anechoic chamber, and scan from 30MHz to 1GHz. The devices rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission relative to the limit. This is done to ensure the radiation exactly emits from the EUT.

**Final test:** Final radiation measurements is made on a **3 – meter** open-field test site. The EUT's maximum emission of radiation is placed on a nonconductive table, which is 0.8m height, the top surface is 1.0 x 1.5 meter. All placement is according to ANSI C63.4 - 1992.

The emissions was examined from 30 MHz to 1000 MHz measured by receiver.

The whole range Antenna is used to measure frequency from 30 MHz to 1 GHz. The final test is used the receiver.

Measure more than six top marked frequencies generated from pretest by computer step by step at each frequency. The EUT is rotated 360 degrees, and antenna is raised and lowered from 1 to 4 meters to find the maximum emission levels. The antenna is used with both horizontal and vertical polarization.

Appropriated preamplifier, which is made by TRC is used for improving sensitivity and precautions is taken to avoid overloading. The spectrum analyzer' s 6dB bandwidth is set to 120 KHz, and the EUT is measured at quasi-peak mode.

If the emission is close to the frequency band of ambient, the tester will recheck the data and the corrected data will be written in the test data sheet. If the emission is just within the ambient, the data from shield room will be taken as the final data.

#### List of test Instrument :

| Instrument Name                                              | Model No. | Brand     | Serial No. | Calibration Date |           |
|--------------------------------------------------------------|-----------|-----------|------------|------------------|-----------|
|                                                              |           |           |            | Last time        | Next time |
| RECEIVER                                                     | SCR3502   | SCHAFFNER | 210        | 12/01/00         | 12/01/01  |
| Control Box                                                  | TWR95-4   | TRC       | C9001-2    | 12/01/00         | 12/01/01  |
| Antenna                                                      | VULB 9160 | M.E.      | 3063       | 06/26/01         | 06/23/02  |
| Open test side (Antenna, Amplify, cable calibrated together) |           |           |            | 05/15/01         | 05/15/02  |

The level of confidence of 95% , the uncertainty of measurement of radiated emission is  $\pm 4.96$  dB .

#### Test Result : Pass (Appendix A)

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**Radiated Test Placement: (Photographs)**



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**Appendix A****Peak Power Test Result: (Horizontal)**

| Frequency | Reading Amplitude | Correction Factors | Corrected Amplitude | Limit  | Margin |
|-----------|-------------------|--------------------|---------------------|--------|--------|
| MHz       | dBμV              | dB/m               | dBμV/m              | dBμV/m | dB     |
| 27.035    | 61.80             | -8.30              | 53.50               | 80     | -26.50 |

**Radiated Emission Test Result: (Horizontal)**

Test Conditions:

Testing site : Temperature : 30 ° C Humidity : 70 % RH

| Frequency | Reading Amplitude | Ant. Height | Table  | Correction Factors | Corrected Amplitude | Class B Limit | Margin |
|-----------|-------------------|-------------|--------|--------------------|---------------------|---------------|--------|
| MHz       | dBμV              | m           | degree | dB/m               | dBμV/m              | dBμV/m        | dB     |
| 54.0800   | 41.32             | 4.00        | 81     | -4.69              | 36.63               | 40.00         | -3.37  |
| 162.1913  | 37.33             | 2.50        | 205    | -3.53              | 33.80               | 43.52         | -9.72  |
| 189.2150  | 46.29             | 1.01        | 203    | -4.70              | 41.59               | 43.52         | -1.93  |
| 216.2575  | 45.64             | 1.01        | 189    | -2.69              | 42.95               | 46.02         | -3.07  |
| 243.2888  | 40.13             | 1.01        | 194    | -2.03              | 38.10               | 46.02         | -7.92  |
| ***       |                   |             |        |                    |                     |               |        |

Note:

1. Margin = Amplitude – limit, *if margin is minus means under limit.*
2. Corrected Amplitude = Reading Amplitude – Correction Factors
3. Correction factor = Antenna factor + ( Cable Loss – Amplitude gain)  
(For example : 30MHz correction factor = 15.5 + (-15.26) = 0.24 dB/m)

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**Peak Power Test Result: (Vertical)**

| Frequency | Reading Amplitude | Correction Factors | Corrected Amplitude | Limit  | Margin |
|-----------|-------------------|--------------------|---------------------|--------|--------|
| MHz       | dBμV              | dB/m               | dBμV/m              | dBμV/m | dB     |
| 27.035    | 50.10             | -8.30              | 41.80               | 80     | -38.20 |

**Radiated Emission Test Result: (Vertical)**

Test Conditions:

Testing site : Temperature : 30 ° C Humidity : 70 % RH

| Frequency | Reading Amplitude | Ant. Height | Table  | Correction Factors | Corrected Amplitude | Class B Limit | Margin |
|-----------|-------------------|-------------|--------|--------------------|---------------------|---------------|--------|
| MHz       | dBμV              | m           | degree | dB/m               | dBμV/m              | dBμV/m        | dB     |
| 54.0800   | 42.46             | 1.00        | 1      | -4.69              | 37.77               | 40.00         | -2.23  |
| 243.2888  | 28.46             | 2.49        | 298    | -2.03              | 26.43               | 46.02         | -19.59 |
| ***       |                   |             |        |                    |                     |               |        |

Note:

1. Margin = Amplitude – limit, *if margin is minus means under limit.*
2. Corrected Amplitude = Reading Amplitude – Correction Factors
3. Correction factor = Antenna factor + ( Cable Loss – Amplitude gain)  
(For example : 30MHz correction factor = 15.5 + (-15.26) = 0.24 dB/m)

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## Appendix B

**Band Edge of Measurement: (Frequency Band: 26.96 ~ 27.28)**

Lower channel:



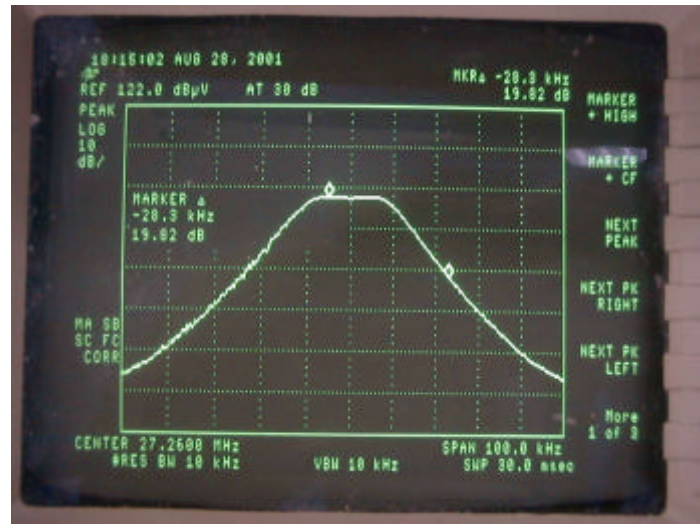
26.96MHz << Class B Limit.

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Upper channel:



27.28 MHz < < Class B Limit.

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