





Test Report No.: TD990426C02	
Client	
Name :	Sun Zone Tek Co., Ltd.
Address :	No. 5, Lane 28, He Xing Rd., Taipei, Taiwan, R.O.C.
Test Item :	Anti- Vandale Keyboard SUZP186-MA25
Identification :	SUNZONE
Testing laboratory	
Name :	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Address :	No. 47, 14th Lin, Chiapao Tsuen, Linko Hsiang 244, Taipei Hsien, Taiwan, R.O.C.
Test specification	
Standard :	IEC60529 Edition 2.1 2001-02
Test Item:	IP 68
Test Result :	The test item passed.
Prepared By :	 Signature <u>David Lin</u> Engineer
	<u>May 11, 2010</u> Date
Approved By:	 Signature <u>Danny Lin</u> Senior Engineer
	<u>May 11, 2010</u> Date
Other Aspects:	
The completed test report includes the following documents: IEC60529 Edition 2.1 2001-02 Test report (7 pages)	
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TEST REPORT	
IEC60529 Edition 2.1 2001-02	
Report Reference No	TD990426C02
Compiled by	See cover sheet
Approved by	See cover sheet
Date of issue.....	May 11, 2010
Testing Laboratory	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Address	No. 19, Hwa Ya 2nd Rd, Kueishan Taoyuan, Taiwan, R.O.C.
Applicant's name	Sun Zone Tek Co., Ltd.
Address	No. 5, Lane 28, He Xing Rd., Taipei, Taiwan, R.O.C.
Test specification:	
Standard	IEC60529 Edition 2.1 2001-02
Test item description	Anti- Vandale Keyboard SUZP186-MA25
Trade Mark	SUNZone
Manufacturer	Sun Zone Tek Co., Ltd.
Model/Type reference.....	SUNZONE

**Tests performed (name of test and test clause):**

Test item <input checked="" type="checkbox"/> To tick the box		
<input type="checkbox"/>	12.2	Test for protection against access to hazardous parts by the first characteristic numeral (1,2,3,4,5,6) Test for protection against access to hazardous parts indicated by the additional letter (A(1),B(2),C(3),D(4,5,6))
<input type="checkbox"/>	13.2	Test for protection against solid foreign objects indicated by the first characteristic numeral (1,2,3,4)
<input type="checkbox"/>	13.5	Test for protection against solid foreign objects indicated by the first characteristic numeral (5)
<input checked="" type="checkbox"/>	13.6	Test for protection against solid foreign objects indicated by the first characteristic numeral (6)
<input type="checkbox"/>	14.2.1	Test for protection against water indicated by the second characteristic numeral (1)
<input type="checkbox"/>	14.2.2	Test for protection against water indicated by the second characteristic numeral (2)
<input type="checkbox"/>	14.2.3	Test for protection against water indicated by the second characteristic numeral (3)
<input type="checkbox"/>	14.2.4	Test for protection against water indicated by the second characteristic numeral (4)
<input type="checkbox"/>	14.2.5	Test for protection against water indicated by the second characteristic numeral (5)
<input type="checkbox"/>	14.2.6	Test for protection against water indicated by the second characteristic numeral (6)
<input type="checkbox"/>	14.2.7	Test for protection against water indicated by the second characteristic numeral (7)
<input checked="" type="checkbox"/>	14.2.8	Test for protection against water indicated by the second characteristic numeral (8)

**Testing**

Date of receipt of test item: April 26, 2010

Date (s) of performance of tests: April 26, 2010 to April 28, 2010

General remarks:

The test results presented in this report relate only to the object tested.

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Throughout this report a point is used as the decimal separator.

General product information:

- (1) The equipment is a Class III Keyboard.
- (2) Dimension of EUT: 208 by 127 by 21 mm.
- (3) Weight of EUT: 0.78 kg.
- (4) Sample quantity: 1 PCS.

Test condition:

Temperature: 25°C

Relative humidity: 60%

Air pressure: 950 mbar

The test samples were pre-production samples without serial number.



IEC60529 Edition 2.1 2001-02			
Clause	Requirement + Test	Result - Remark	Verdict

Test item: IEC 60529 Edition 2.1: 2001-02—IP6X

1. Test for protection against access to hazardous parts:

Test Method: **According to IEC 60529 Edition 2.1: 2001-02—IP6X**

The access probe (Test wire, 1.0mm diameter, and 100mm long) is pushed against or inserted through any openings of the enclosure with the force specified in Table 6 in IEC 60529 Edition 2.1: 2001-02.

Test force: 1N±10%

Test result:

- The access probe (Test wire, 1.0mm diameter, and 100mm long) does not penetrate and has adequate clearance from hazardous part.
- The access probe (Test wire, 1.0mm diameter, and 100mm long) was penetrates and does not has adequate clearance from hazardous part.

2. Test for protection against solid foreign objects:

Test Method: **According to IEC 60529 Edition 2.1: 2001-02—IP6X (Dust test)**

Enclosure category 1:

- (1) Enclosures where the normal working cycle of the equipment causes reductions in air pressure within the enclosure below that of the surrounding air.
 - The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa (20 mbar) on the manometer.
- (2) The total duration of test:
 - An extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2h.
 - With a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8h has elapsed.

Test result: After testing in accordance with appropriate requirements of IEC60529 13.4 and 13.6, no ingress of dust was found inside the enclosure and Keyboard normally operated..



IEC60529 Edition 2.1 2001-02			
Clause	Requirement + Test	Result - Remark	Verdict

Test item: IEC 60529 Edition 2.1: 2001-02—IPX8

Test for protection against water

Test method: **According to IEC 60529 Edition 2.1: 2001-02—IPX8**

Unless there is a relevant product standard, the test conditions are subject to agreement between manufacturer and user. (But they shall be more severe than those prescribed in 14.2.7 and they shall take account of the condition that the enclosure will be continuously immersed in actual use.)

Description:

Test result: After testing in accordance with appropriate requirements of IEC60529 14.1 and 14.2.8, no ingress of water was found inside the enclosure and Keyboard normally operated.

IEC60529 Edition 2.1 2001-02

Clause	Requirement + Test	Result - Remark	Verdict
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Photos:

