





TEST REPORT EN 60529: 1991+ A1: 2000 +A2: 2013 (IP code: IP65) Normal International Standard --- SAFETY--- Degrees Of Protection Provided By Enclosures (IP Code)	
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Testing location	: As above
Applicant	: Chainway Information Technology Co., Ltd.
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Manufactory	: Chainway Information Technology Co.,Ltd.
Address	: 9F, 2 Building, 2 Phase, Gaoxingqi Idustrail Park, Liuxian 1St Rd, Bao'an, Shenzhen, Guangdong, China
Standard	: EN 60529: 1991 + A1: 2000 +A2: 2013
Test procedure	: Type Test
Procedure deviation	: N.A.
Non-standard test method	: N.A.
This test report is specially limited to the above client company and product model only. It may not be duplicated without prior written consent of SEM.Test.	
Type of test object	: Mobile Data Terminal
Trademark	: CHANWAY
Model/type reference	: C6000
Rating	: IP65



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1 - GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

The Chainway Information Technology Co., Ltd. Product, models C6000 referred to in this report are Mobile Data Terminal.

1.2 Objective

The following Declaration of Conformity of LED Full Color Tube Light product is prepared on behalf of Guangzhou Charming Lighting Co., Ltd. in accordance with EN 60529: 1991+ A1: 2000 +A2: 2013, Degrees of protection provided by enclosures (IP code). The objective of the manufacturer is to demonstrate compliance with EN 60529: 1991+ A1: 2000 +A2: 2013. Currently, EN 60529: 1991+ A1: 2000 +A2: 2013 references seventeen tests to be performed.

They are as follows:

2-DUST TEST FOR CHARACTERISTIC NUMERALS

3-TEST FOR PROTECTION AGAINST WATER

Data has been collected, reduced, and analyzed within this report in accordance with EN 60529: 1991+ A1: 2000 +A2: 2013. In order to demonstrate compliance, the manufacturer or a contracted laboratory makes measurements and takes the necessary steps to ensure that the equipment complies with the appropriate technical standards.

1.3 Related Submittal(s)/Grant(s)

No Related Submittals

1.4 Test Methodology

All measurements contained in this report were conducted with EN 60529: 1991+ A1: 2000 +A2: 2013, Degrees of protection provided by enclosures (IP code). All measurement was performed at SEM. Test.



1.5 Test Equipment List

Instrument Type	Model	Manufacturer	Instrument I.D	Cal. Last Date	Cal. Due Date
Dust protection tester	SC-500	Gongwen	SEMS-0085	2016.10.22	2017.10.21
Oscillating tube appliance	DMS-E01	damsion	SEMS-0086	2016.10.22	2017.10.21
Steel Ruler	3m	Hongxin Company Taiwan	SEMS-0075	2016.10.22	2017.10.21
Humidity/Temperature Datalogger	CTH-608	Shenzhen UYIGAO	SEMS-0071	2016.10.22	2017.10.21
Temperature recorder	34970A	Agilent	SEMS-0001	2016.10.22	2017.10.21
Gas-pressure meter	DPH-101	LONGTUO	SEMS-0090	2016.10.22	2017.10.21

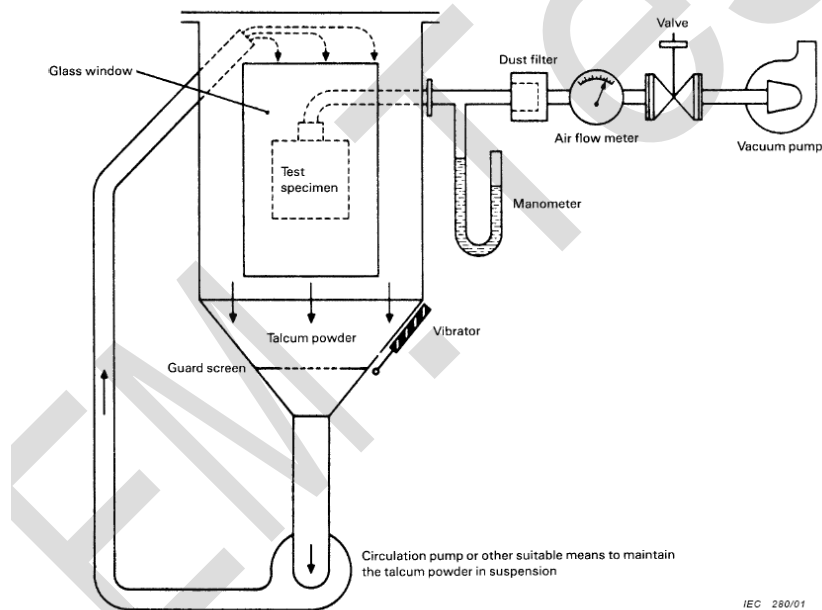
1.6 Equipment Under Test (EUT)

Description	Model	Manufacturer	Safety Class	Brand Name	Cert.
Mobile Data Terminal	C6000	Chainway Information Technology Co.,Ltd.	Class III	N.A.	DOC

2 - Dust test for characteristic numerals 6 (CLAUSE13.4)

2.1 Method

The enclosure under test is supported in its normal operating position inside the dust chamber, but is not connected to a vacuum pump, powder circulation pump of the dust chamber suitable to maintain the talcum powder in suspension in a closed test, the talcum powder pass through a square-meshed sieve the nominal wire diameter of which is $50\mu\text{m}$ and the nominal width of a gap between wire $75\mu\text{m}$, the amount of talcum powder to be used is 2kg per cubic metre of the test chamber volume. the test shall be continued for a period of 8 h, the dust chamber as following figure:



NOTE See IEC 60068-2-68, figure 2 valid for La2 only.

Figure 2 – Test device to verify protection against dust (dust chamber)

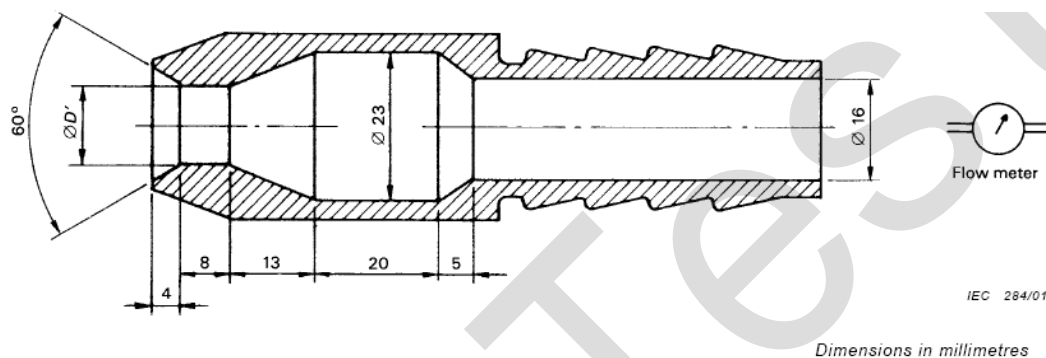
2.2 Results

No deposit of dust was observable inside the sample after the IP6X test. The protection was satisfactory, Sample had passed the test.

3 - Test for protection against water for characteristic numerals 5 (Clause 14.2.5)

3.1 Method

The test is made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle as follows:



$D' = 6,3$ for the test of 14.2.5 (second characteristic numeral 5)
 $D' = 12,5$ for the test of 14.2.6 (second characteristic numeral 6)

Figure 6 – Test device to verify protection against water jets (hose nozzle)

The conditions to be observed are as follows:

- internal diameter of the nozzle: 6.3mm; -delivery rate:12.5l/min \pm 5%;
- water pressure: to be adjusted to achieve the specified delivery rate;
- core of the substantial stream: circle of approximately 40mm diameter at 2.5m distance from nozzle;
- test duration per square metre of enclosure surface area likely to be sprayed: 1min;
- minimum test duration: 3min; -distance from nozzle to enclosure surface: between 2.5m and 3m.

3.2 Results

There was no water entered the sample after IPX5 test, the protection was satisfactory, Sample had passed the test.

4 – EUT PHOTOGRAPHS





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