



<b>TEST REPORT</b> <b>EN 60529: 1991+ A1: 2000 +A2: 2013 (IP code: 67)</b> <b>Normal International Standard</b> <b>--- SAFETY---</b> <b>Degrees Of Protection Provided By Enclosures (IP Code)</b>	
Report reference No . . . . .	: STR17078104S
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Date of issue . . . . .	: July 10, 2017
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Testing location . . . . .	: As above
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Standard.....	: EN 60529: 1991 + A1: 2000 +A2: 2013
Test procedure . . . . .	: Type Test
Procedure deviation . . . . .	: N.A.
Non-standard test method . . . . .	: N.A.
<b>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.</b>	
Type of test object . . . . .	: Mobile Data Terminal
Trademark . . . . .	: CHAINWAY
Model/type reference . . . . .	: C70
Rating.....	: IP67



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## 1 - GENERAL INFORMATION

### 1.1 Product Description for Equipment under Test (EUT)

The Shenzhen Chainway Information Technology Co., Ltd product, model as C70 referred to in this report is a Mobile Data Terminal.

All tests on model C70.

### 1.2 Objective

The following Declaration of Conformity of a Mobile Data Terminal is prepared on behalf of Shenzhen Chainway Information Technology 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:

- DUST TEST FOR CHARACTERISTIC NUMERALS
- 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
Steel Ruler	YG-206	YANGGUANG	SEMS-0089	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
Timer	SW8019	SEWAN	SEMB-0050	2016.10.22	2017.10.21
Gas-pressure meter	DPH-101	LONGTUO	SEMS-0090	2016.10.22	2017.10.21

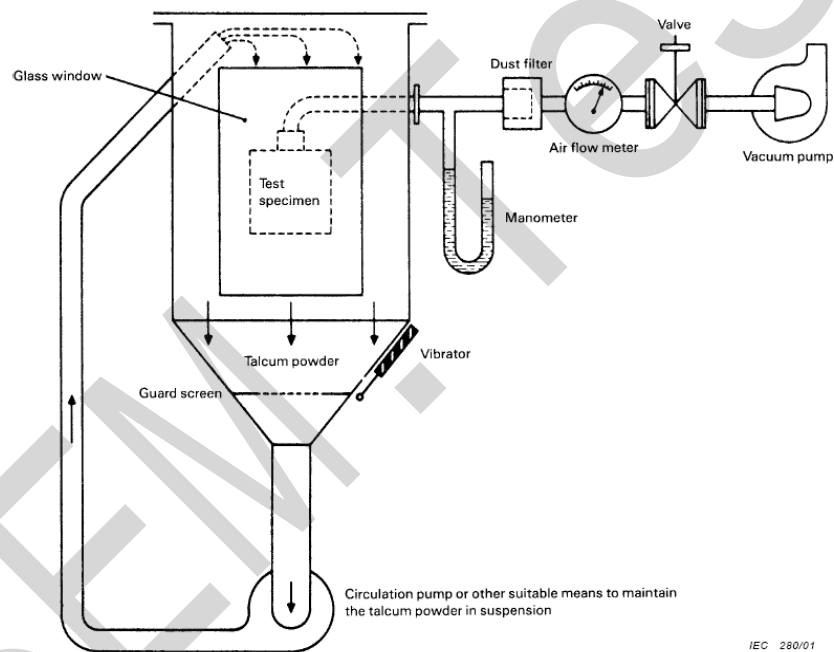
### 1.6 Equipment under Test (EUT)

Description	Model	Manufacturer	Safety Class	Brand Name	Cert.
Mobile Data Terminal	C70	Shenzhen Chainway Information Technology Co., Ltd.	N.A.	CHAINWAY	DOC

## 2 - Dust test for characteristic numerals 6 (CLAUSE13.4 and 13.6)

### 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  $2\text{kg}$  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:



IEC 280/01

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

The talcum powder has not accumulated in a quantity or location such that, as with any other kind of dust, it could interfere with the correct operation of the equipment or impair safety. After the IP6X test. The protection was satisfactory, Sample had passed the test



### **3 - Test for protection against water for characteristic numerals 7 (Clause 14.2.7)**

#### **3.1 Method**

The test is made by completely immersing the enclosure in water in its service position as specified by the manufacturer so that the following conditions are satisfied:

--- the lowest point of enclosure with a height less than 850mm is located 1000mm below the surface of the water

--- the highest point of enclosure with a height equal to or greater than 850mm is located 150mm below the surface of the water

--- the duration of the test is 30min.

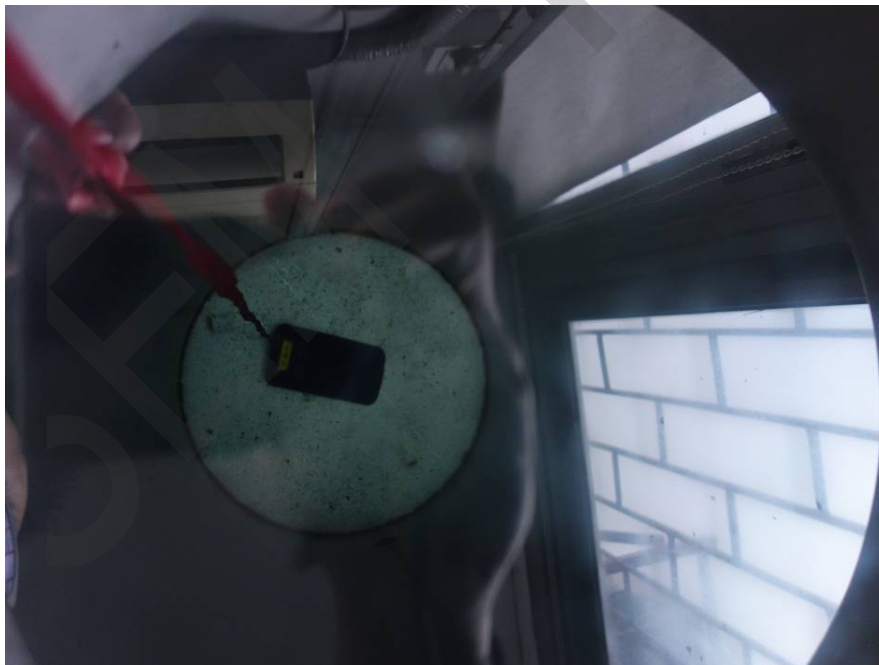
--- the water temperature does not differ from that of the equipment by more than 5K, however, a modified requirement may be specified in the relevant product standard if the tests are to be made when the equipment is energized and/or its parts in motion

#### **3.2 Results**

There was no water entered the sample after IPX7 test, the protection was satisfactory, Sample had passed the test

## 4 – EUT PHOTOGRAPHS





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