

# Test Report

Verified Code:604746

Report No.:H202308280713-02EN-G2

Customer: ProTech CO., LTD.

Address: No. 18, Baoying Road, Dawang High-Tech District, Zhaoqing, Guangdong

Sample Name: SINORA HARD SHELL CASE

Sample Model: SIN-05542-20BK

Receive  
Sample Date: Sep.20,2023

Test Date: Sep.21,2023 ~ oct.11,2023

Reference  
Document: According to ISO 20653:2013 IP67

Test Result: Meet the requirement

Prepared by

Li Xingchang

Reviewed by

Zhang Huaming

Approved by

Yuan Zong

GRG METROLOGY &amp; TEST GROUP CO., LTD.

Issued Date: 2023/11/29

GRG METROLOGY &amp; TEST GROUP CO., LTD.

Address: No.163, Pingyun Road, West of Huangpu Avenue, Guangzhou, Guangdong, China

Tel: (+86) 400-602-0999 FAX: (+86) 020-38698685 Web: <http://www.grgtest.com>

H202308280713-02EN-G2



## Statement

1. The report is invalid without "special seal for inspection and testing"; some copies are invalid; The report is invalid if it is altered or missing; The report is invalid without the signature of the person who prepared, reviewed and approved it.
2. The sample information is provided by the client and responsible for its authenticity; The content of the report is only valid for the samples sent this time.
3. When there are reports in both Chinese and English, the Chinese version will prevail when the language problems are inconsistent.
4. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report.
5. This report H202308280713-02EN-G2 is the modification of the report H202308280713-02EN-G1 On the basis of the original report, modify the first page test basis from "ISO 20653:2013" to "ISO 20653:2013 IP67" to replace the report H202308280713-02EN-G1 The previous reports H202308280713-02EN and H202308280713-02EN-G1 are invalid.



## 1 IP6X

### 1.1 Test Condition

According to ISO 20653:2013.

1.1.1 Before the test: Check the appearance of sample.

1.1.2 Dustproof test:

1.1.2.1 Degrees of protection against access: use a metal probe with a diameter of 1.0mm to detect the shell of the tested product with a force of  $1N \pm 0.1N$ .

1.1.2.2 Degrees of protection against foreign objects: fix the tested product in the test box and carry out the test according to the items in Table 1-1.

1.1.3 After the test: Check the appearance of the sample.

**Table 1-1 Dustproof test conditions**

Test dust	Dosage of dust	Test time
Arizona powder	2kg/m <sup>3</sup>	6s blowing dust, 15min standing, this is a cycle, running 20 cycles

### 1.2 Sample Information

Sample information is shown in Table 1-2.

**Table 1-2 Sample Information**

Sample Name	Sample Model	Quantity	Test No.
SINORA HARD SHELL CASE	SIN-05542-20BK	1 pc	H202308280713-0002

### 1.3 Test Requirements

According to ISO 20653:2013.

The rigid test wire (diameter 1.0 mm) shall not penetrate, and dust shall not penetrate.



**1.4 Test Result**

The test result are shown in Table 1-3.

**Table 1-3 Test Result**

Test No.	Test Results	Conclusion
H202308280713-0002	The 1mm metal probe did not enter the sample shell, and no dust entered the inside of the subject after the test	Meet the requirement

**1.5 Test Photos**

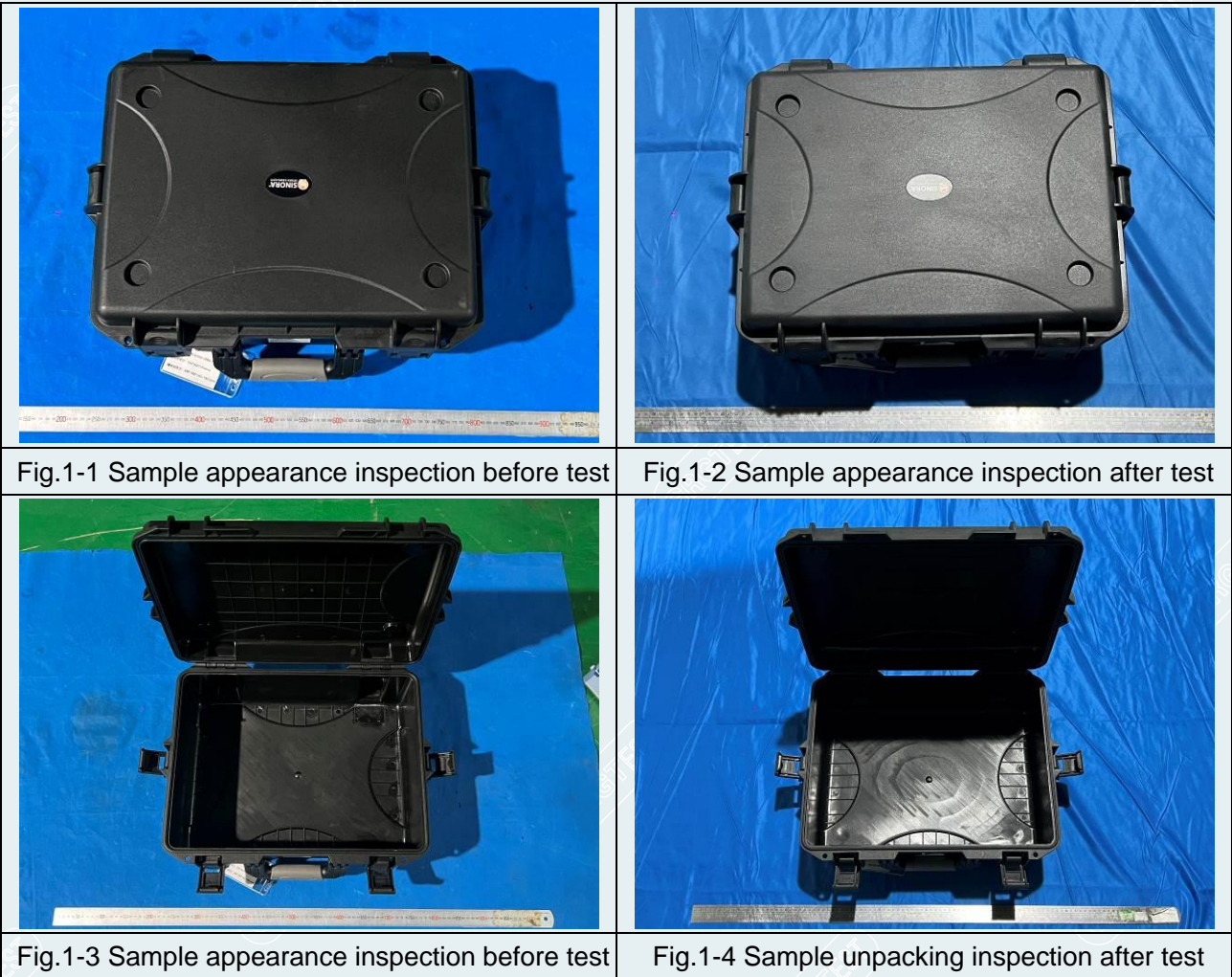


Fig.1-1 Sample appearance inspection before test

Fig.1-2 Sample appearance inspection after test

Fig.1-3 Sample appearance inspection before test

Fig.1-4 Sample unpacking inspection after test



Fig.1-5 Metal probe inspection before test

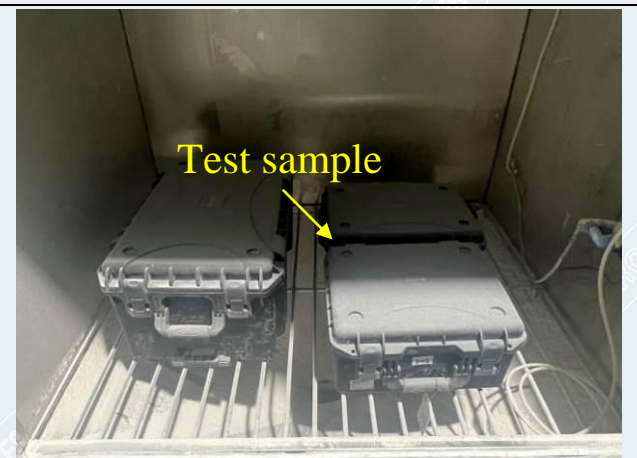


Fig.1-6 Test sample placement

----- The following blanks -----

## 2 IPX7

### 2.1 Test Condition

According to ISO 20653:2013.

2.1.1 Before the test: Check the appearance of sample.

2.1.2 Waterproof test: Fix the sample in the dipping tank and test according to the conditions listed in Table 2-1.

2.1.3 After the test: Check the appearance of the sample.

**Table 2-1 Waterproof test conditions**

Distance between the highest point of the box body and the water surface	Test time
1000mm	Soak 30min

### 2.2 Sample Information

Sample information is shown in Table 2-2.

**Table 2-2 Sample Information**

Sample Name	Sample Model	Quantity	Test No.
SINORA HARD SHELL CASE	SIN-05542-20BK	1 pc	H202308280713-0002

### 2.3 Test Requirements

According to ISO 20653:2013.

Water shall not penetrate in a quantity causing harmful effects or impair performance if the enclosure is immersed in water tempo-rarily under specified pressure and time conditions.

### 2.4 Test Result

The test result are shown in Table 2-3.



**Table 2-3 Test Result**

Test No.	Test Results	Conclusion
H202308280713-0002	There is no water in the sample after the test	Meet the requirement

**2.5 Test Photos**



Fig.2-1 Sample appearance inspection before test



Fig.2-2 Sample appearance inspection after test



Fig.2-3 Sample unpacking inspection before test



Fig.2-4 Sample unpacking inspection after test



	<p style="text-align: center;">/</p>
<p style="text-align: center;">Fig.2-5 Test sample placement</p>	<p style="text-align: center;">/</p>

### 3 Test Instrument & Equipment

List of instruments for testing equipment					
No.	Testing item	Equipment	Type	Serial No.	Calibration valid date
1	Dustproof test (IP6X)	Dust test chamber	GT1321	GT20170703001	2023-01-07~2024-01-06
		IP4X test sonde	CX-T4D	CX1807237	2023-03-23~2024-03-22
2	Waterproof test (IPX7)	Water tank	/	/	/
		Steel rule	0~1000mm	2482515	2023-03-22~2024-03-21

----- End of Report -----