TEST REPORT

element	**CTK Co., Ltd.** (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, 449-100, Korea Tel: +82-31-339-9970 Fax: +82-31-624-9501	REPORT No.: CTK-2025-00407 Page (1) / (14) pages	

1.	**Applicant**	
	◦ Name :	Hanwha Vision Co., Ltd
	◦ Address :	6 Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
	◦ Date of Receipt :	Feb. 20, 2023
2.	**Manufacturer**	
	◦ Name :	Hanwha Vision Co., Ltd
3.	**Use of Report :**	For submission to customer
4.	**Test sample / Model :**	NETWORK CAMERA / TNV-C7013RC
5.	**Date(s) of test :**	Feb 20, 2023 to Mar 30, 2023
6.	**Test Standard (Method) used :**	IEC 62262:2002+AMD1:2021
7.	**Testing Environment :**	Temperature: (25 ±10) ℃, Humidity: (50 ±25) % R.H. Pressure: (96 ±10) kPa
8.	**Test Results :**	Refer to the test results
9.	**Location of Test :**	☒ Permanent Testing Lab ☐ On Site Testing (5 Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si,)

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This report cannot be reproduced or copied without the written consent of CTK.

Affirmation	Tested by HyungUk Jeon (Signature)	Technical Manager HoHyun Lee (Signature)

Remark. This report is not related to KOLAS accreditation and relevant regulation.

Feb. 14, 2025

CTK Co., Ltd.

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1. Testing laboratory

1.1 Testing laboratory information

Lab. Name	CTK Co., Ltd.
Representative	Young Joseph Seungwon
Address	113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do Republic of Korea
Tel.	+82-31-339-9970
Fax.	+82-31-624-9501
E-Mail	all.youngin@element.com
Website	www.elementkorea.kr

1.2 Testing laboratory accreditation status

Country	Classification	Accreditation Number	Logo
International	KOLAS	TESTING NO. KT119	KOREA LABORATORY ACCREDITATION SCHEME KOLAS TESTING NO. KT119

2. Product description and equipment information

2.1 Product description

Product Name	Model Name	Quantity	Comment
NETWORK CAMERA	TNV-C7013RC	1 EA	-

2.2 Equipment information

Testing equipment	Model Name	Manufacturer	Manufacturing Number	Calibration Due date
Vertical Hammer Tester	Vertical Hammer	Kingpo	0190605A01002	
Vertical Hammer	20J	Kingpo	TX028-3	
Steel measuring meter	5.5 m	KOMELON	225851	2022.11.11

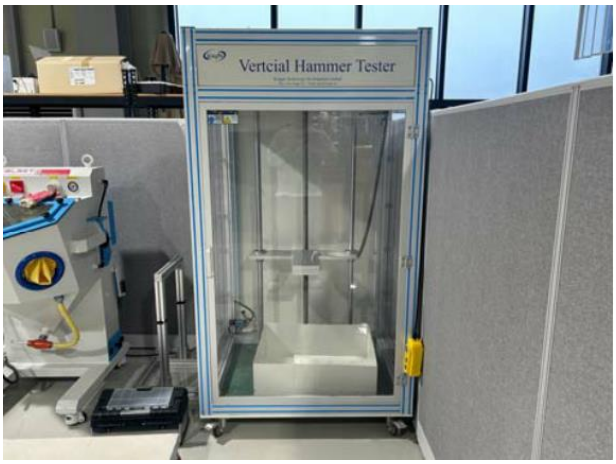
2.3 Pre-test product images

2.3.1 Test sample #1

2.4 Testing equipment images

2.4.1 Test equipment (1)

Vertical Hammer



Vertical Hammer Tester

Steel measuring meter

3. Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)

3.1 Test date and environmental conditions

3.1.1 Test date: Feb 20, 2023 to Mar 30, 2023

3.1.2 Measured Environmental Conditions

Item	Temperature (℃)	Humidity (% R.H.)	Pressure (kPa)
Measurement	25.3	42.2	101.1

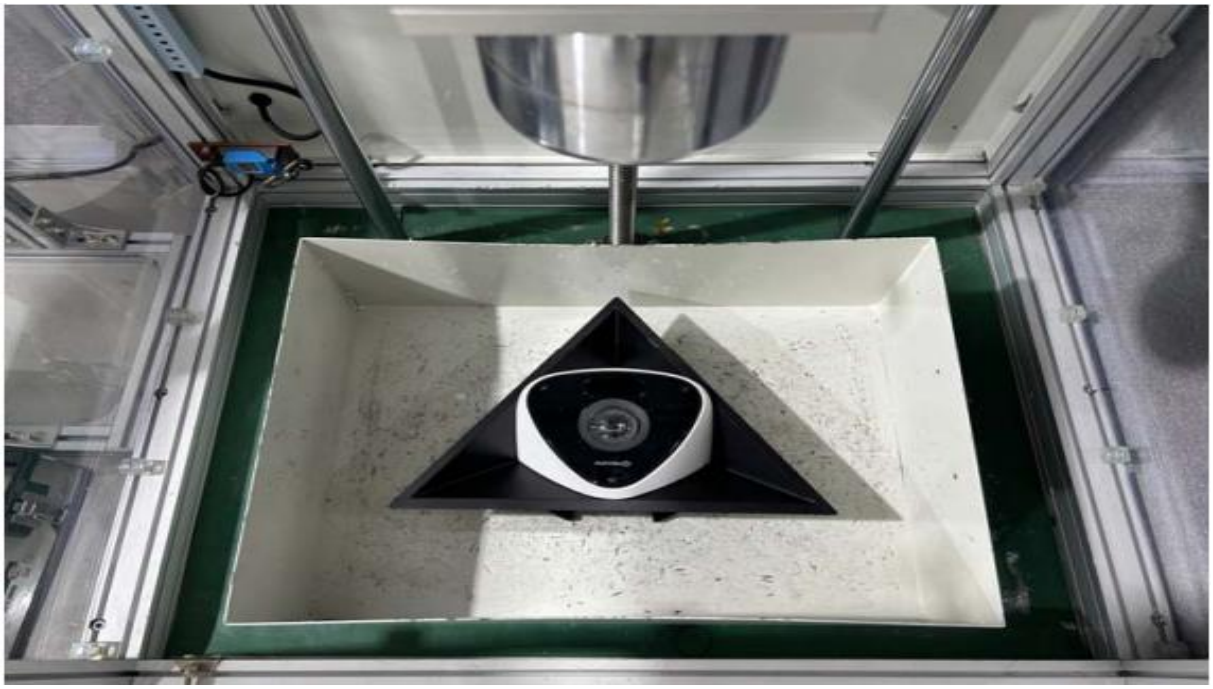
3.2 Test condition

3.2.1 Test standard: IEC 62262:2002+AMD1:2021

IK code	Impact Energy (J)	Equivalent mass (kg)	Drop height (mm ± 1%)	Application
00	Non-protected	-	-	☐
01	0.14	0.25	56	☐
02	0.20	0.25	80	☐
03	0.35	0.25	140	☐
04	0.50	0.25	200	☐
05	0.70	0.25	280	☐
06	1.00	0.25	400	☐
07	2.00	0.50	400	☐
08	5.00	1.70	300	☐
09	10.00	5.00	200	☐
10	20.00	5.00	400	☐
11	50.00	10.00	500	☒
- Impact times: five times for each of the exposed surface. (Do not impact more than 3 times in the same spot)				

3.3 Testing images

3.3.1 Evidence of test setting (1)



3.4 Test result

3.4.1 Test result table

Evaluation Criteria		Test Results	Remark
Visual Inspection	Post-test	Some scratches weregenerated on the outside of the product.	Nomal

※ **Refer to the product photos after the completion of testing in section 3.5.2**

3.5 Post-test product images and hit area images

3.5.1 Check the hit area during the test

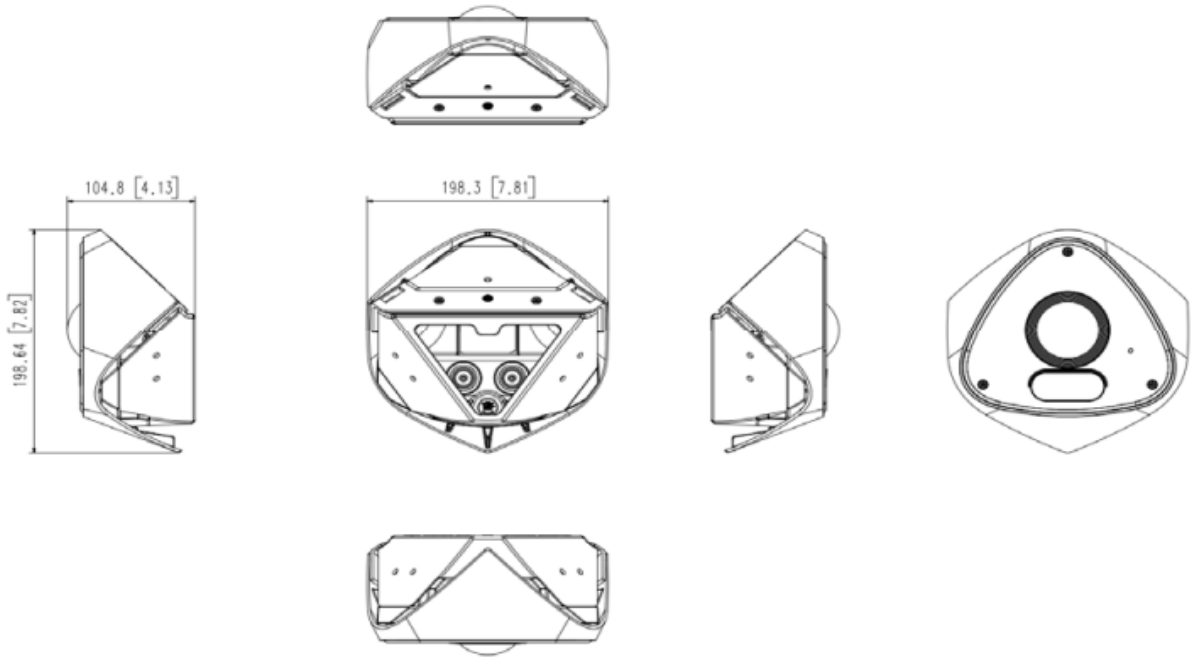
Check the hit area the test_1

Check the hit area the test_2

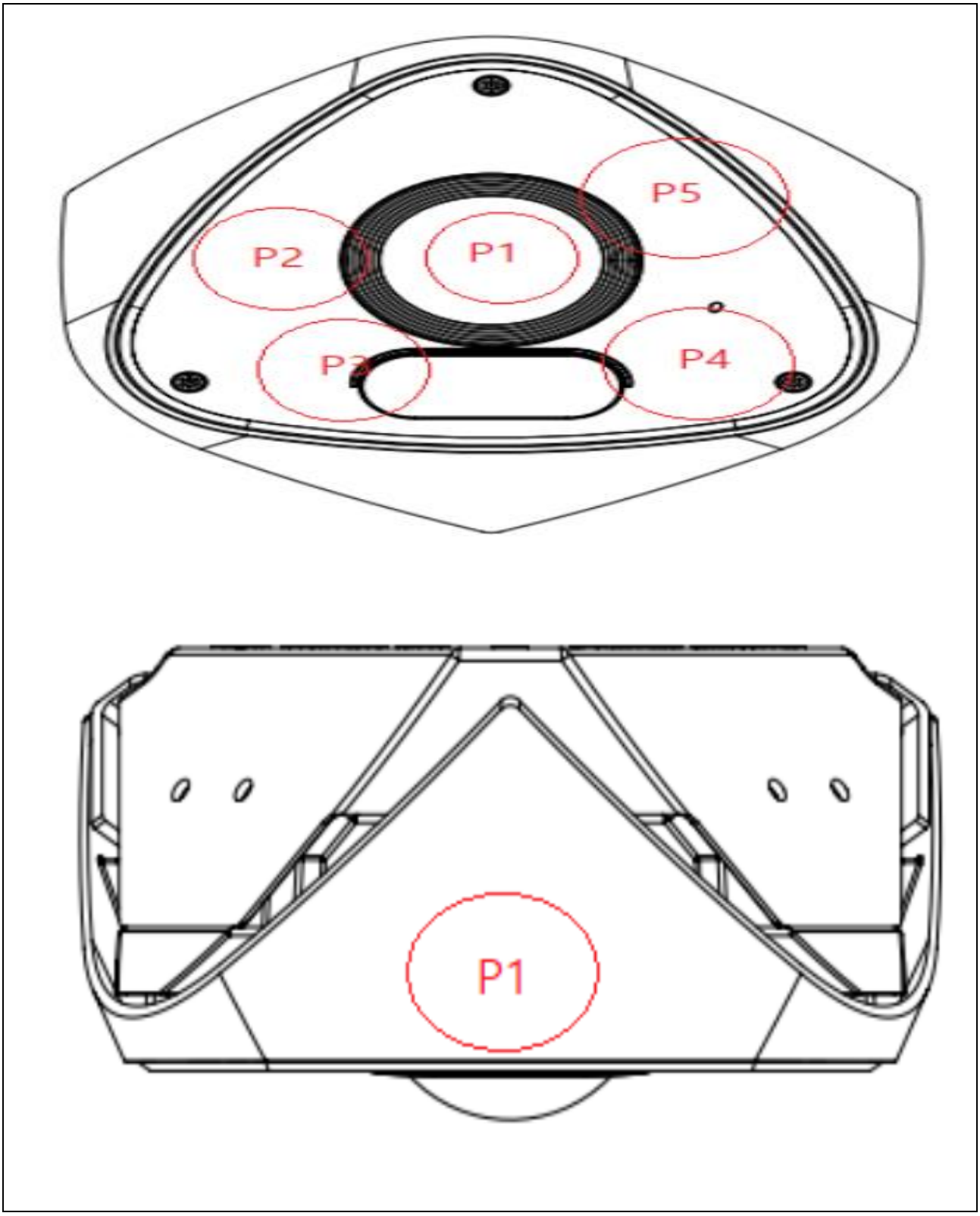
3.5.2 Post-test product images

3.6 Enclosure Dimensions or Impact point

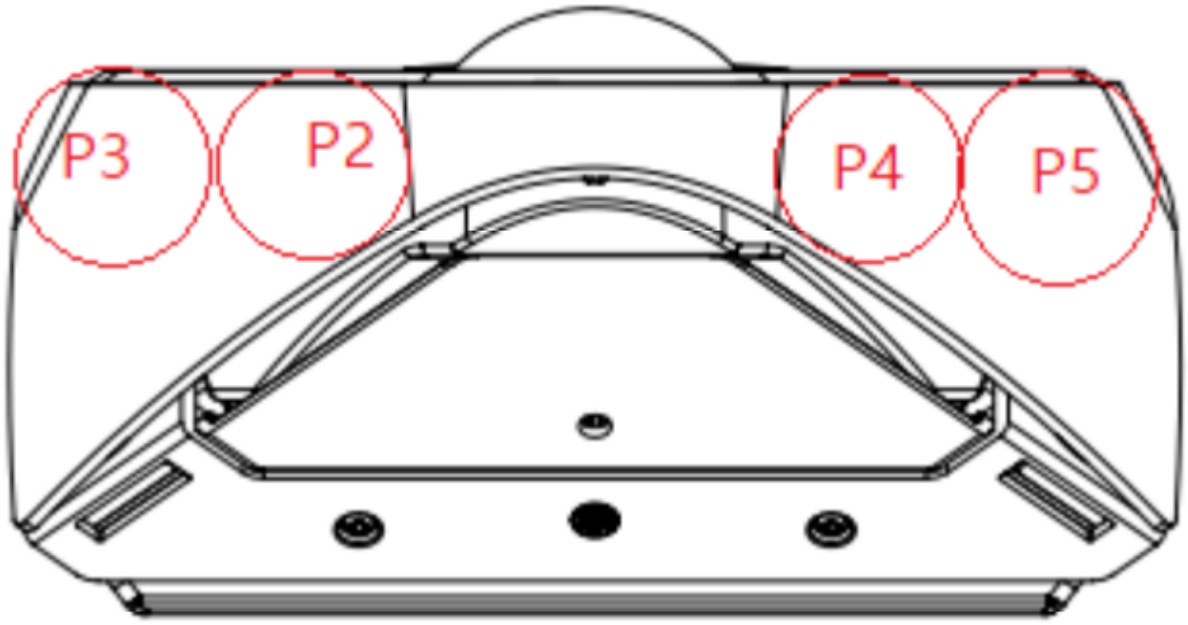
3.6.1 Enclosure Dimensions (Unit: mm)



3.6.2 Impact Point



3.6.3 Impact Point



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