

TEST REPORT

**CTK Co., Ltd.**

5 Dongbu-ro, 221beon-gil, Cheoin-gu, Yongin-si
Gyeonggi-do, Republic of Korea
Tel: +82-31-339-9970
Fax: +82-31-624-9501

REPORT No.:
CTK-2025-02982
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1. Applicant

- Name : Hanwha Vision Co., Ltd.
- Address : 6, Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si,
Gyeonggi-do, 13488 Republic of Korea
- Date of Receipt : Sep. 08, 2025

2. Manufacturer

- Name : Hanwha Vision Co., Ltd.

3. Use of Report :

For submission to customer

4. Test sample / Model :

REMOTE HEAD CAMERA / XNB-A8004B

5. Date(s) of test :

Sep. 12, 2025

6. Test Standard (Method) used :

IEC 60529:1989 +A1:1999+A2:2013

7. Testing Environment :

Temperature: (25 ±10) °C, 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
(113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, 449-100,
Republic of Korea)

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.

Approval	Tested by	Technical Manager
	Name: HyungUk Jeon (Signature) 	Name: HoHyun Lee (Signature) 

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

Oct. 29, 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	5 Dongbu-ro, 221beon-gil, 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	

2. Product description and equipment information

2.1 Product description

Product Name	Model Name	Quantity	Comment
REMOTE HEAD CAMERA	XNB-A8004B	1 EA	—

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2.2 Equipment information

Testing equipment	Model Name	Manufacturer	Manufacturing Number	Next Cal. Date
Push Pull Gage	FB30K	Imada	83805	Jan. 16, 2026
Test Rod Probe Ø2.5	TRP-01	ED&D	S1-J14	May. 16, 2027



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2.3 Pre-test product images

2.3.1 Test sample #1



Top



Bottom



Front



Rear



Left side



Right side

2.4 Testing equipment images

2.4.1 Test equipment (1)



Push Pull Gage



Test Rod Probe Ø2.5



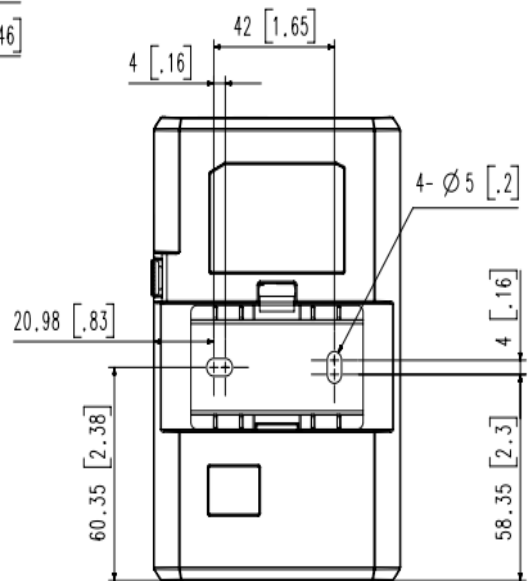
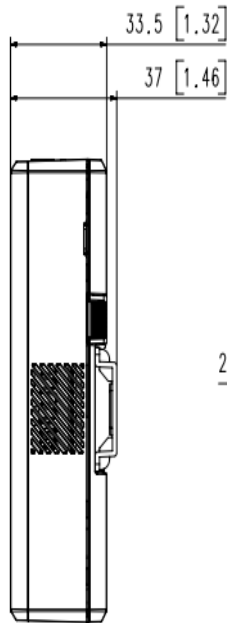
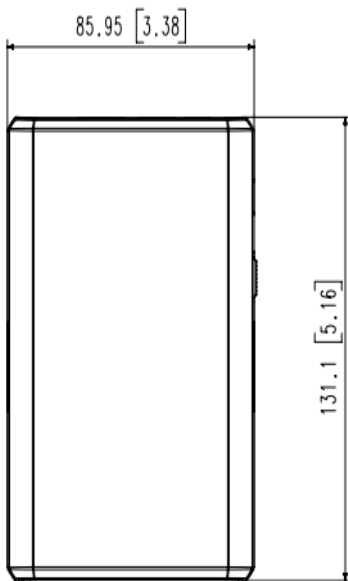
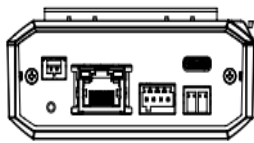
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2.5 Product appearance

Enclosure dimensions [unit : mm]



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3. Degrees of protection provided by enclosures (IP code)

3.1 Test date and environmental conditions

3.1.1 Test date: Sep. 12, 2025

3.1.2 Measured Environmental Conditions

Item	Temperature (°C)	Humidity (% R.H.)	Pressure (kPa)
Measurement	24.8	45.1	89.9

3.2 Test conditions and methods

3.2.1 Test standard: IEC 60529:1989+A1:1999+A2:2013

3.2.2 Arrangement of the IP code

	IP	3	X
Code letters (International protection)	←		
First characteristic numeral (numerals 0 to 6, for letter X)	←	←	
Second characteristic numeral (numerals 0 to 8, for letter X)	←		←

3.2.2.1 Degree of protection against access to hazardous parts indicated by the first characteristic numeral

First characteristic numeral	Degree of protection	Application
3	Protected against access to hazardous parts with a tool. The access probe of 2.5 mmØ, shall not penetrate. Test force: 3 N ± 10 %	☒

NOTE In the case of the first characteristic numerals 3, 4, 5 and 6, protection against access to hazardous parts is satisfied if adequate clearance is kept. The adequate clearance should be specified by the relevant product committee in accordance with 12.3.

Due to the simultaneous requirement specified in table 2, the definition “shall not penetrate” is given in table 1.

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3.2.2.2 Degree of protection against solid foreign objects indicated by the first characteristic numeral

First characteristic numeral	Degree of protection	Application
3	Protected against solid foreign objects of 2.5 mmØ and greater. The object probe, sphere of 2.5 mmØ, shall not penetrate at all ¹⁾ . Test force: 3 N ± 10 %	☒
¹⁾ The full diameter of the object probe shall not pass through an opening of the enclosure. Due to the simultaneous requirement specified in table 2, the definition “shall not penetrate” is given in table 1.		



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3.3 Testing images

3.3.1 Evidence of test setting (1)





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3.3.2 Evidence of test setting (2)



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3.4 Test result**3.4.1 Test result table**

IP code	Evaluation Criteria	Test Results
IP 3X	No ingress of Probe	It was confirmed that the test probe made direct contact with the internal electrode at all terminals, including the audio terminal and DC input terminal.

- End -