

TEST REPORT

1. **Report Number** KCTL16-YRS0148
2. **Applicant**
 - Name Hanwha Techwin Co.,Ltd
 - Address 1204, Changwon-daero, Seongsan-gu, Changwon-si, Gyeongsangnam-do, Korea
 - Date of Receipt May 10, 2016
3. **Manufacturer**
 - Name Hanwha Techwin Co.,Ltd
 - Address 1204, Changwon-daero, Seongsan-gu, Changwon-si, Gyeongsangnam-do, Korea
4. **Use of Report** For Quality management
5. **Test item description**
 - Product Name Network Camera
 - Model Name QND-7030R* (N:NTSC/ P:PAL)
6. **Test method used** IEC 62262 and IEC 60068-2-75
7. **Date of Test** May 12, 2016
8. **Environment**
 - Temperature (15 ~ 35) °C
 - Relative Humidity (25 ~ 75) % R.H
 - Air pressure (86 ~ 106) kPa
9. **Test Results** See of the test result

※ This test results apply only to the test sample supplied by applicant and do not guarantee the whole product quality. This test report shall not be reproduced except in full, without the written approval by the KCTL Inc.

Affirmation	Tested by	Technical Manager
	Name : Kyung Hoon, Ahn (Signature)	Name : Jae-Kyu, Lee (Signature)

May. 13. 2016

KCTL INC.

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1. Test Laboratory

1.1 General

Name of Test Laboratory	KCTL INC.
Address	52-20, Sinjeong-ro 41 beon-gil, Giheung-gu, Yongin-si, Gyeonggi-do 446-599, Korea
TEL	82 31-326-6700
FAX	82 505-299-8311
Home page	www.kctl.co.kr

1.2 Certificate of Designated Testing Laboratory

Mark.	Registration No.
NRRA	KR0040
KOLAS	No. KT231
IEC(CB-Scheme)	TL512
TUV-SUD	CARAT 15 08 93040 001
VCCI Council	R-3327, C-3706, T-1849, G-198
DSP Research, Inc.	G039
FCC	Test Firm Registration No. 687132
INDUSTRY CANADA	Company Address Code: 8035A

2. Specification

Division	Specification
Function	Network Camera
Etc.	-

- Basic model: QND-7030R* (* N:NTSC / P:PAL)
- Serise model: QND-7020R*, QND-7010R*, QND-6010R*, QND-6020R*, QND-6030R* (* N:NTSC / P:PAL)
- The basic model and series models are identical Hardware (Window, Enclosure)
- The model QND-7030R* (* N:NTSC / P:PAL) was conducted tests representatively.

2.2 Product Photograph

[Front]



[Rear]



3. Test Method and Result

3.1 IK08 Impacts Test

1) Test Equipment

Number	Instrument description	Model Number	Manufacturer	Due Cal
1	20J IMPACT ELEMENT	N/A	CERTIS	2016-12-05
2	Measuring Tape	3.5 m	Komelon	2018-07-07
3	ELECTRONIC BALANCE	DB-150	CAS	2016-10-02
4	Pendulum Hammer	N/A	N/A	N/A

2) Reference Documents

IEC 62262 and IEC 60068-2-75

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

3) Test Performed

Degree of protection provided by enclosure for external impacts IK08

4) Test Conditions

According to standard IEC 62262 and IEC 60068-2-75

The verification of IK08 has been done positioning the enclosure on a rigid support.

5 impacts have been applied on each surface in sight with the enclosure.

For the test used Pendulum Hammer

IK08 (Characteristics of impact test):

Energy: 5 Joule

Mass: 1.7 kg

High Δh : 300 mm

5) Drop Zones:

The areas that were focused upon for this impact test are as follows:



6) Test Results:

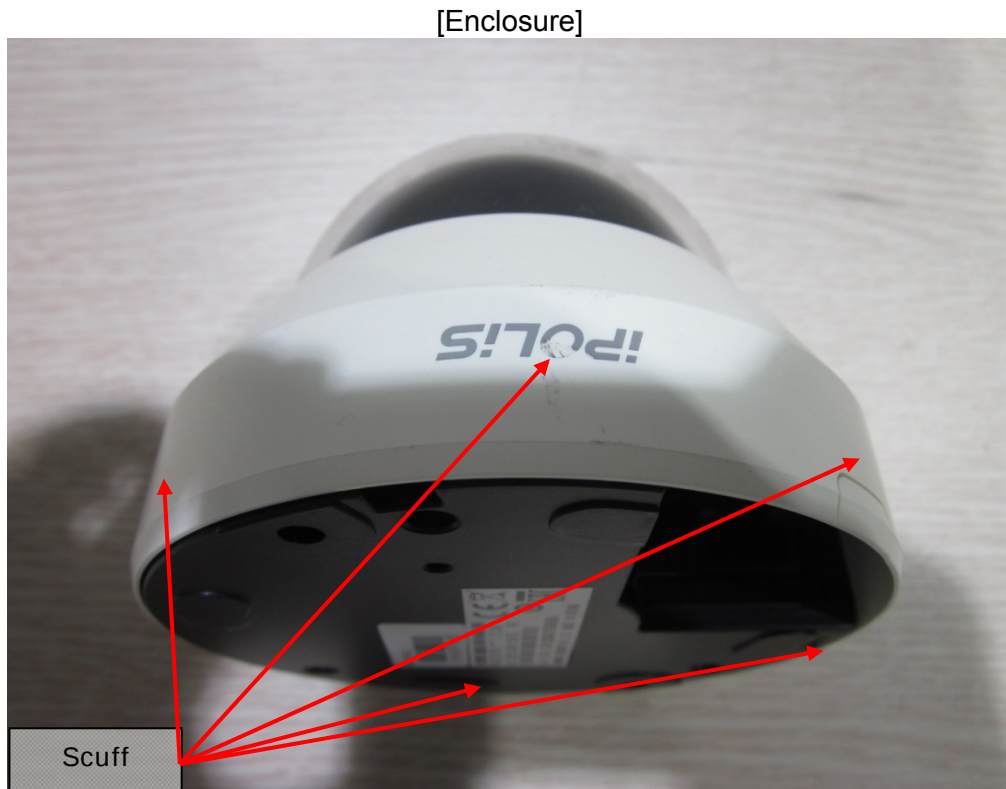
Drop Zone: Window		
Drop #	Orientation / Results	Pass / Fail
Drop 1	Vertical drop onto center of Window. Scuff	Pass
Drop 2	Normal to surface of side Window. Scuff	Pass
Drop 3	Normal to surface of side Window, about 90° circumferentially from previous drop. Scuff	Pass
Drop 4	Normal to surface of side Window, about 90° circumferentially from previous drop. Scuff	Pass
Drop 5	Normal to surface of side Window, about 90° circumferentially from previous drop. Scuff	Pass

Drop Zone: Enclosure		
Drop #	Orientation / Results	Pass / Fail
Drop 1	Normal to surface of enclosure. Scuff	Pass
Drop 2	Normal to surface of enclosure, about 90° circumferentially from previous drop. Scuff	Pass
Drop 3	Normal to surface of enclosure, about 90° circumferentially from previous drop. Scuff	Pass
Drop 4	Normal to surface of enclosure, about 90° circumferentially from previous drop. Scuff	Pass
Drop 5	Normal to surface of enclosure, about 90° circumferentially from previous drop. Scuff	Pass

-Conclusion:

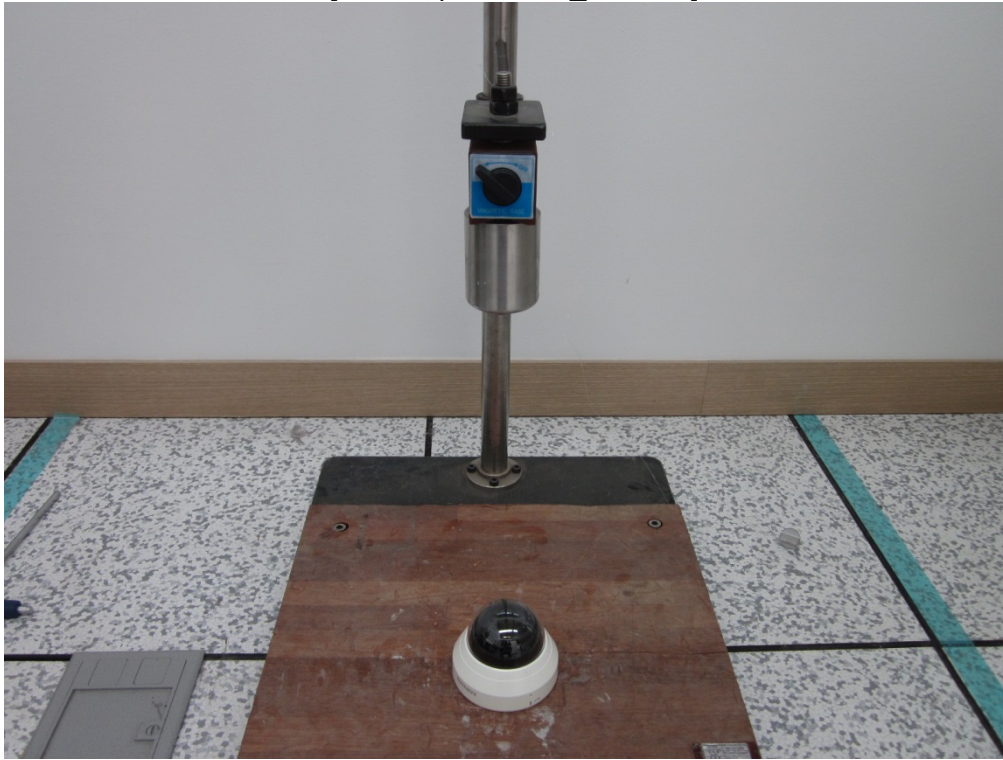
After testing according to the procedure set forth by IEC 62262, model QND-7030R* (* N:NTSC / P:PAL) was found to meet the criteria required for an IK08 specification

7) Photograph (After test)



8) TEST Photograph

[IK08 Impacts Test_Window]



[IK08 Impacts Test_Enclosure]

