

# TEST REPORT

 <b>CTK Co., Ltd.</b> <small>The Power Leader of Global Regulatory Certification</small>	<b>CTK Co., Ltd.</b> (Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-shi Gyeonggi-do KOREA, REPUBLIC OF Tel: +82-31-339-9970 Fax: +82-31-624-9501	REPORT No.: <b>CTK-2018-03281</b> Page (1) / (14) pages	
---	--	---	--

## 1. Applicant

- Name.....: Hanwha Techwin Co., Ltd.
- Address .....: Hanwha Techwin R&D center, 6 Pangyo-ro 319Beon-gil,  
Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
- Date of Receipt.....: 2018-09-12

## 2. Manufacturer

- Name .....: Kevis Co., Ltd
- Address .....: 17, Gosan-ro 148beon-gil, Gunpo-si, Gyeonggi-do, Republic of  
Korea

3. Use of Report.....: Quality control

4. Test sample / Model.....: THERMAL POSITIONING CAMERA / TNU-4041T



5. Date(s) of test .....: 2018-10-11

6. Test Standard (Method) used ....: KS C IEC 62262: 2005

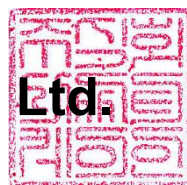
7. Testing Environment .....: Temperature : (25.0 ± 10.0) °C, Humidity : (50 ± 25) %R.H.  
Air Pressure: (96.0 ± 10.0) kPa

8. Results .....: Reference test results

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.  
This report shall not be reproduced except in full without the written approval of CTK

Approval	Tested by: WonHyeon Choi  (Signature)	Technical Manager: YenHwang Jung  (Signature)
----------	---	---

**CTK Co., Ltd.**

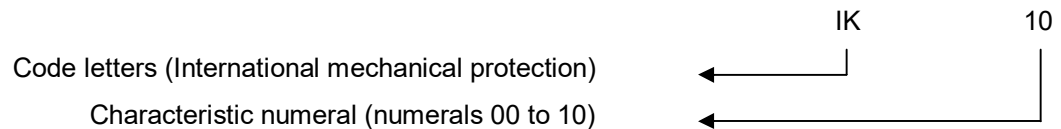


2018-10-19

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

### 1.1 Test standard: KS C IEC 62262: 2005

### 1.2 Arrangement of the IK code



### 1.3 Vertical Hammer

#### 1.3.1 Test equipment

Equipment	Model	Manufacturer	Serial
Vertical Hammer	20J	Kingpo	TX028-3


#### 1.3.2 Test condition

IK code	Impact Energy (J)	Equivalent mass (kg)	Drop height (mm ± 1%)	Application
00	Non-protected	-	-	<input type="checkbox"/>
01	0.14	0.25	56	<input type="checkbox"/>
02	0.20	0.25	80	<input type="checkbox"/>
03	0.35	0.25	140	<input type="checkbox"/>
04	0.50	0.25	200	<input type="checkbox"/>
05	0.70	0.25	280	<input type="checkbox"/>
06	1.00	0.25	400	<input type="checkbox"/>
07	2.00	0.50	400	<input type="checkbox"/>
08	5.00	1.70	300	<input type="checkbox"/>
09	10.00	5.00	200	<input type="checkbox"/>
10	20.00	5.00	400	<input checked="" type="checkbox"/>

- Impact times: five times for each of the exposed surface. (Do not impact more than 3 times in the same spot)

#### 1.3.3 Check Item

- External protection Enclosure damage check (except accessories not related to outer protection function)

 <b>CTK Co., Ltd.</b> <small>The Prime Leader of Global Regulatory Certification</small>	<b>CTK Co., Ltd.</b> (Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-shi Gyeonggi-do KOREA, REPUBLIC OF Tel: +82-31-339-9970 Fax: +82-31-624-9501	<b>REPORT No.:</b> <b>CTK-2018-03281</b> Page (3) / (14) pages	
---	--	--	--

### 1.3.4 Test Result

Item	Contents	Result
External protection Enclosure	No damage	Pass
<b>Comment</b>  Some scratches were generated on the outside of the product.		

### Model description

Basic Model .....	TNU-4041T
Series model .....	TNU-4051T
Model differences .....	Use of the same external shape and materials (case, finishing material, PCB, cable, etc.), differences in electronic parts inside the product, difference in appearance color.

### Manufacturer's name

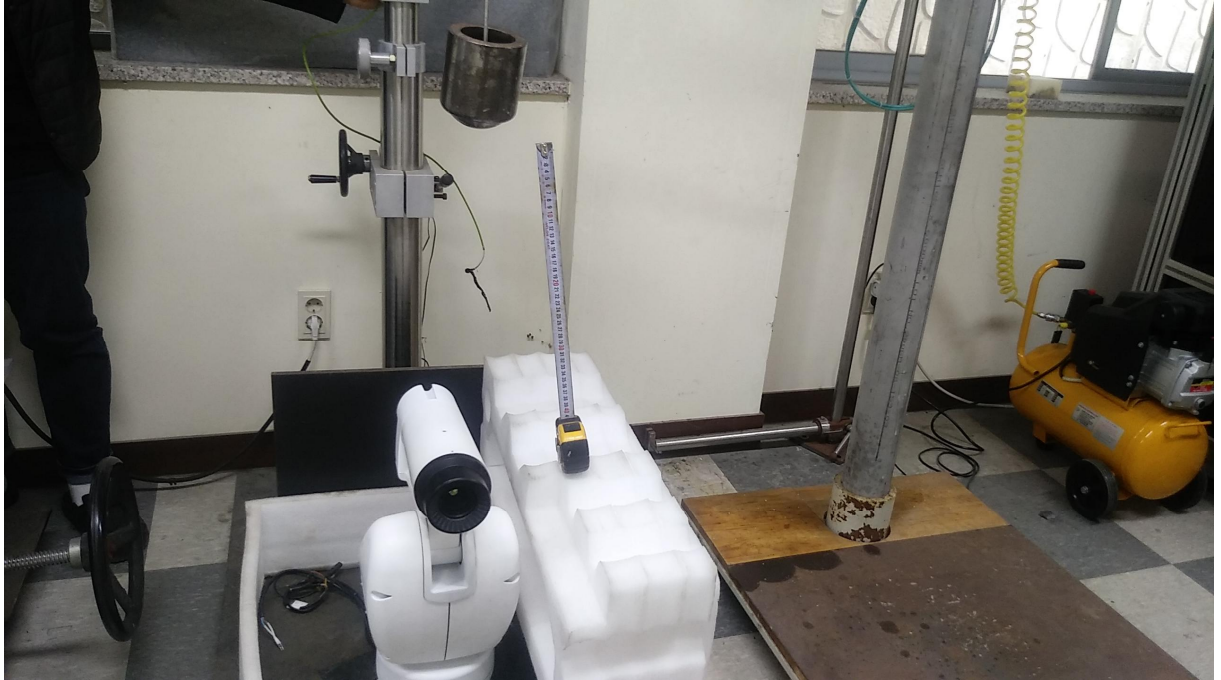
Name and address of factory (ies)	<ol style="list-style-type: none"> <li>1) HANWHA TECHWIN (TIANJIN) CO.,LTD. No.11 Weiliu Rd, Micro-Electronic Industrial Park, TEDA, Tianjin, 300385, People's Republic of China</li> <li>2) D-TECH CO.,LTD. 173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi-do, Korea (Suwon Industrial Complex)</li> <li>3) HANWHA TECHWIN SECURITY VIETNAM CO.,LTD Lot O-2, Que Vo Industrial Zone extended area, Nam Son commune, Bac Ninh city, Bac Ninh province, Vietnam</li> </ol>
--------------------------------------	---

## 2. Attachment


### 2.1 Products



## 2.2 Test photos



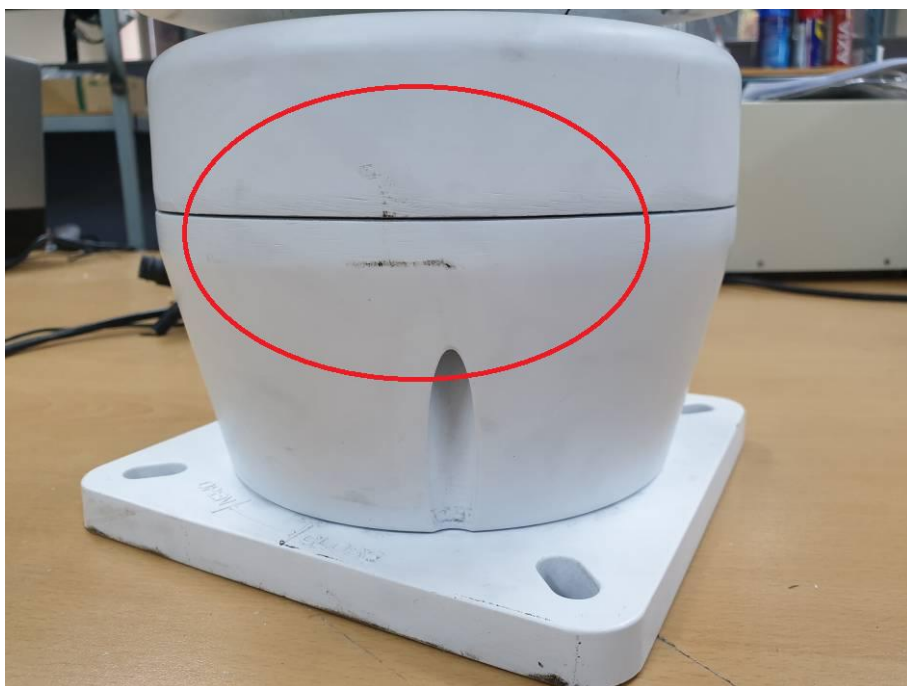


 <p><b>CTK Co., Ltd.</b> The Pioneer Leader of Global Regulatory Certification</p>	<p><b>CTK Co., Ltd.</b> (Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-shi Gyeonggi-do KOREA, REPUBLIC OF Tel: +82-31-339-9970 Fax: +82-31-624-9501</p>	<p>REPORT No.: CTK-2018-03281 Page (6) / (14) pages</p>	
---	---	---	--

## 2.3 Photos after test









**2.4 Enclosure Dimensions or Impact point (Unit: mm)**

