


TEST REPORT

<p>DT&C Co., Ltd. 42, Yurim-ro, 154Beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea Tel : 031-321-2664, Fax : 031-321-0220</p>	<p>Report No : DRCKREL1512-0227 Pages : (1) / (14) page</p>	
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1. Customer

- Name : KUN HUNG ELECTRIC CO., LTD
- Address : 183, Hancheon-ro, Dongdaemun-gu, Seoul, Korea

2. Use of Report : Validation

3. Product Name (Model / Serial No.) : Safety Door Switch (KSD-AB Series / N/A)

4. Date of Test : December 21, 2015

5. Test Method Used : KS C IEC 60068 - 2 - 6 : 2015 Vibration

KS C IEC 60068 - 2 - 27 : 2010 Shock

6. Testing Environment

- Temperature : (25 ± 3) °C • Humidity : (40 ± 5) % R.H.

7. Test Result : Refer to the attached document

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
 This Test Report cannot be reproduced, except in full.
 This laboratory is not accredited for the test results marked *

<p>Affirmation</p>	<p>Tested by Name : ChangHyun Jung (Signature)</p>	<p>Technical Manager Name : JaeHan Jung (Signature)</p>
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The above testing certificate is the accredited test result by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.

2015. 12. 23.

DT&C Co., Ltd.
 Accredited by KOLAS, Republic of KOREA

TEST RESULT

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TEST RESULT

1. Overview

As requested by the applicant, this test was conducted on test sample according to the test specification presented by the applicant.

2. Product

2.1. Description

- (1) Applicant : KUN HUNG ELECTRIC CO., LTD
- (2) Manufacturer : KUN HUNG ELECTRIC CO., LTD
- (3) Product : Safety Door Switch
- (4) Model : KSD-AB Series
- (5) Serial No. : N/A

2.2. Photograph



[Photo 1. Safety Door Switch]

TEST RESULT

3. Test condition & Test result

- p-p : peak to peak

3.1. Vibration test

<Table 1. Product information>

Applicant	KUN HUNG ELECTRIC CO., LTD	Date	December 21, 2015
Product	Safety Door Switch	Standard	KS C IEC 60068 - 2 - 6 : 2015
Model	KSD-AB Series	Serial No.	N/A

(1) Test conditions

- 1) Test type : Sine vibration
- 2) Frequency and amplitude

<Table 2. Frequency and amplitude>

Frequency (Hz)	Amplitude (p-p)
(10 ~ 55)	1.5 mm

- 3) Sweep rate : 1 oct/min
- 4) Test cycle : 10 cycle
- 5) Test time : Each axis about 50 min, total 2 h 30 min
- 6) Test direction : Longitudinal (X-axis), Transverse (Y-axis), Vertical (Z-axis)
- 7) Sample check : Before the test, after the test visual check (applicant check)
- 8) Sample condition : ① Unpackaged ② Non - operation
- 9) Sample quantity : 1 EA

TEST RESULT

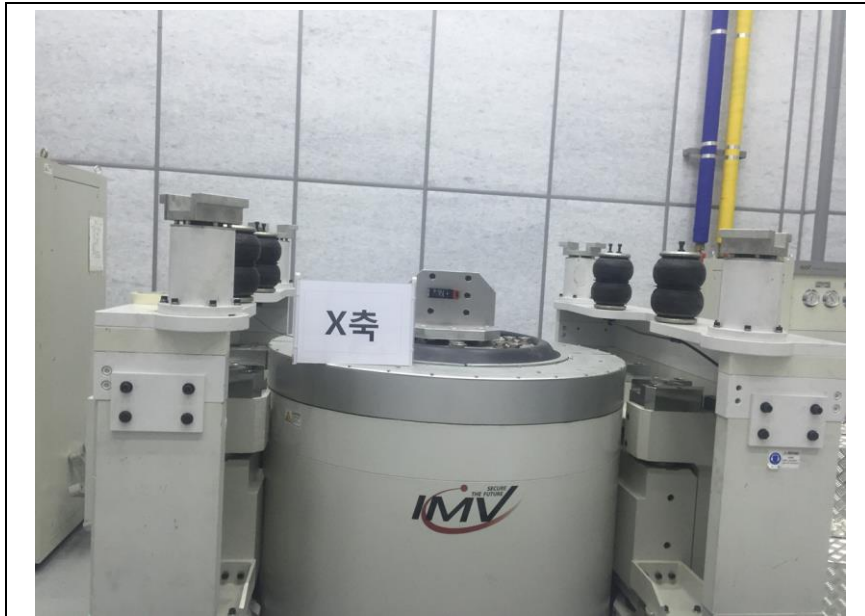
(2) List of used equipment

< Table 3. List of used equipment >

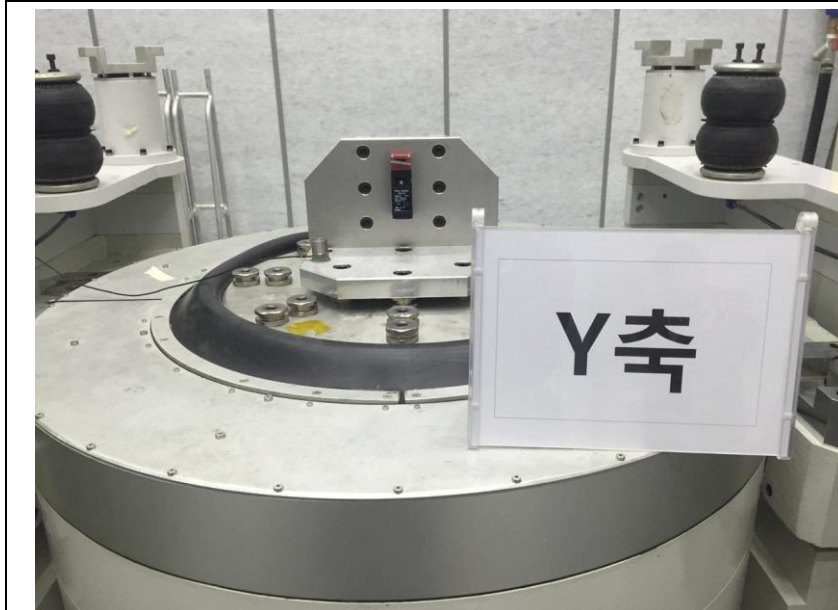
Description	Model / Manufacturer	Serial number	The next scheduled calibration date	Calibration laboratory
Vibration tester	K125-HB15 / IMV	14101469	March 02, 2016	SICT
Accelerometer	VP-301 / IMV	0121	February 23, 2016	KRISS
Hygrometer	PC-5000TRH-2 / SATO	-	February 27, 2016	HCT

TEST RESULT

(3) Test photograph



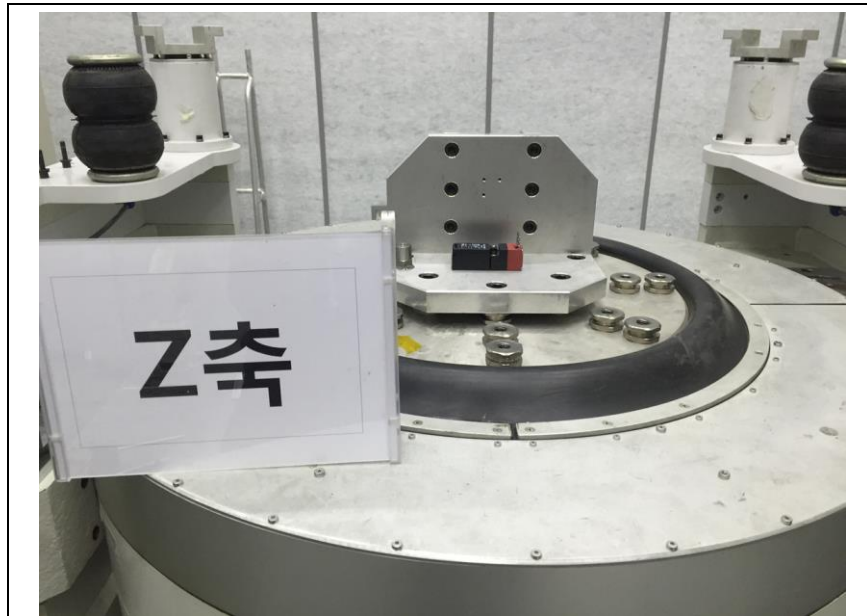
a. Longitudinal (X-axis direction)



b. Transverse (Y-axis direction)

TEST RESULT

<Continue>



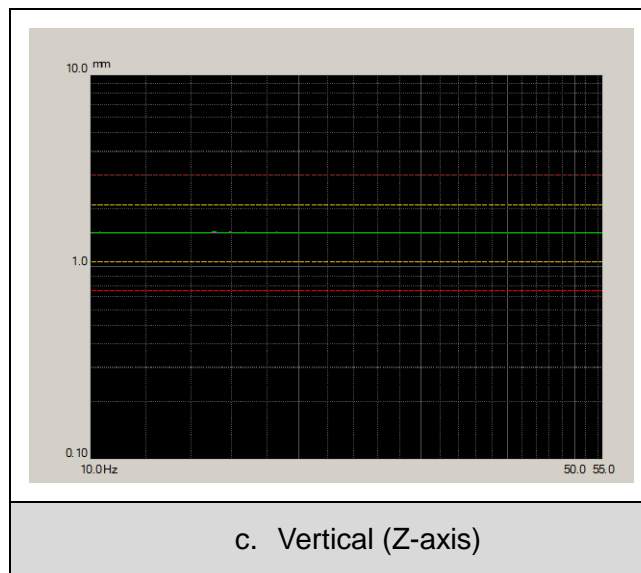
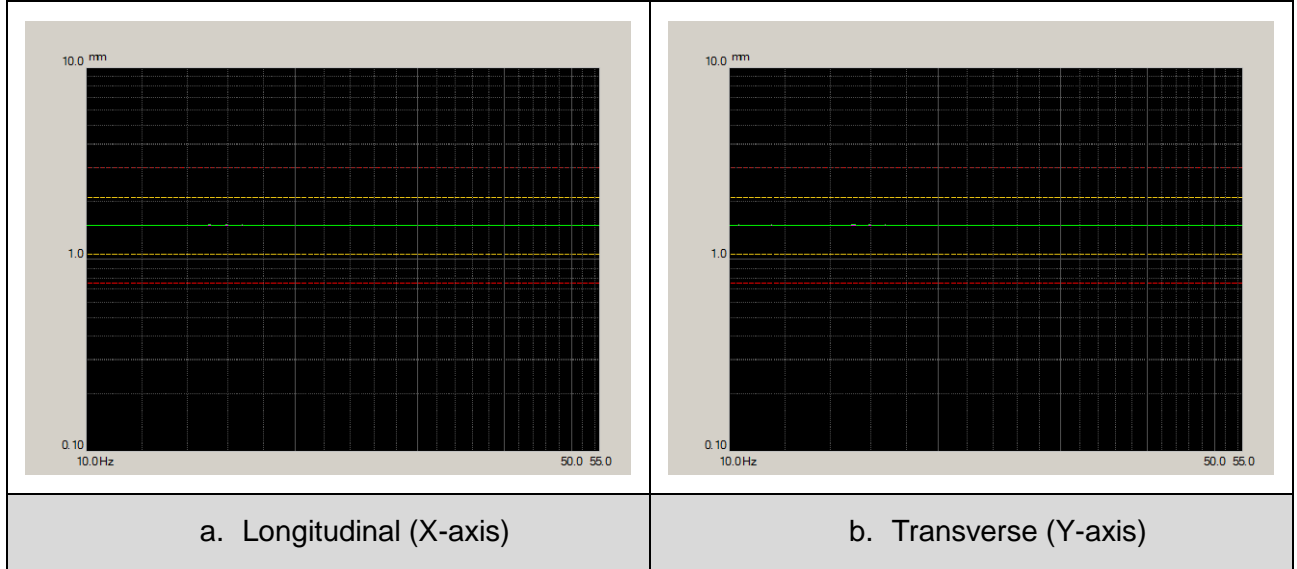
c. Vertical (Z-axis direction)

[Photo 2. Test photograph]

TEST RESULT

(4) Test result

1) Test profile



[Photo 3. Test profile]

TEST RESULT

2) Check the product

<Table 4. Check the product list>

Division	Check list	Test result
Visual	- Mechanical damage such as deformation, crack, separating, loosening of screw, etc.	No abnormal was found

TEST RESULT

3.2. Shock test

<Table 5. Product information>

Applicant	KUN HUNG ELECTRIC CO., LTD	Date	December 21, 2015
Product	Safety Door Switch	Standard	KS C IEC 60068 - 2 - 27 : 2010
Model	KSD-AB Series	Serial No.	N/A

(1) Test Conditions

- 1) Test type : Half sine
- 2) Acceleration : 30 g
- 3) Duration : 18 ms
- 4) Test time : Each axis ± 3 times, total 18 times
- 5) Test direction : Longitudinal (X-axis), Transverse (Y-axis), Vertical (Z-axis)
- 6) Sample check : Before the test, after the test visual check (applicant check)
- 7) Sample condition : ① Unpackaged ② Non - operation
- 8) Sample quantity : 1 EA

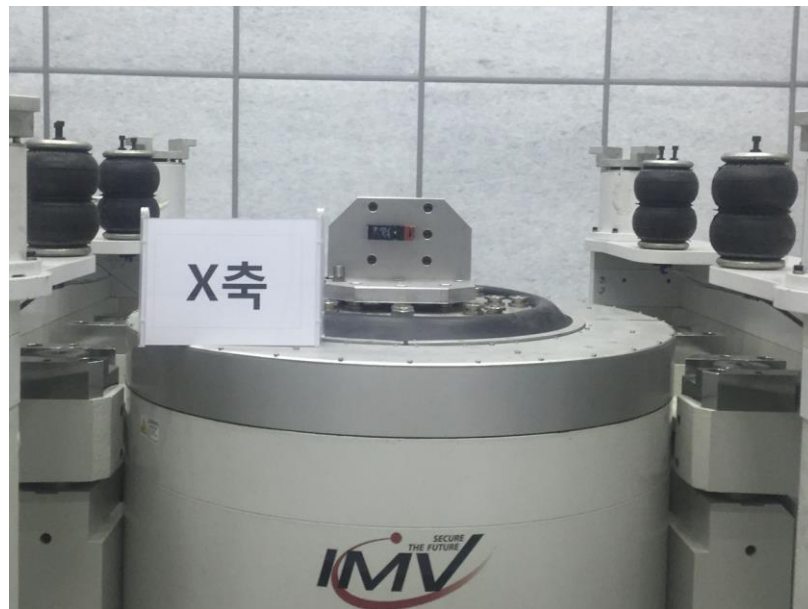
(2) List of used equipment

< Table 6. List of used equipment>

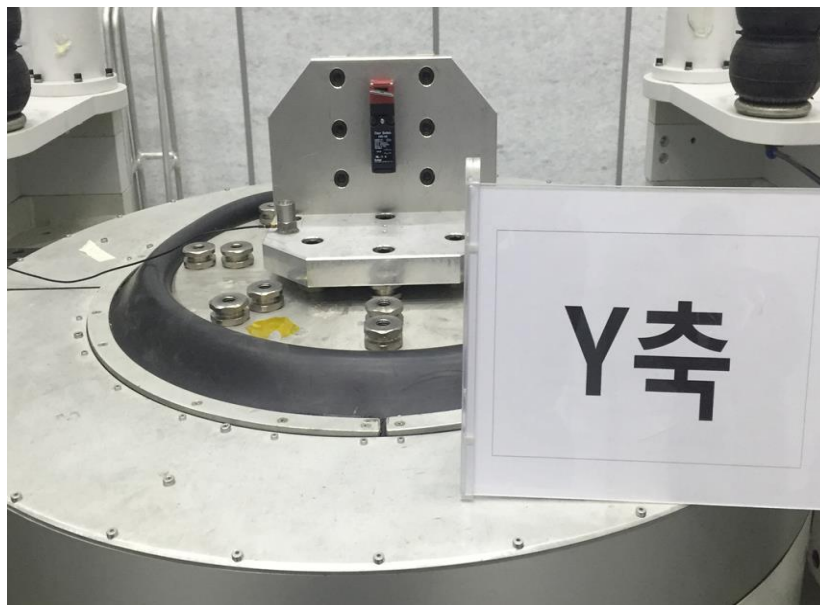
Description	Model / Manufacturer	Serial number	The next scheduled calibration date	Calibration laboratory
Vibration tester	K125-HB15 / IMV	14101469	March 02, 2016	SICT
Accelerometer	VP-301 / IMV	0121	February 23, 2016	KRISS
Hygrometer	PC-5000TRH-2 / SATO	-	February 27, 2016	HCT

TEST RESULT

(3) Test photograph



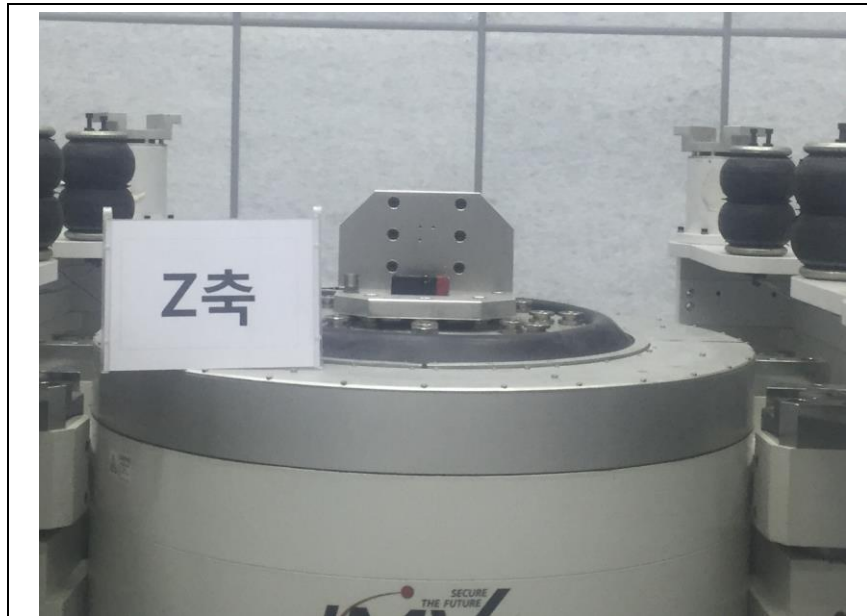
a. Longitudinal (X-axis direction)



b. Transverse (Y-axis direction)

TEST RESULT

<Continue>



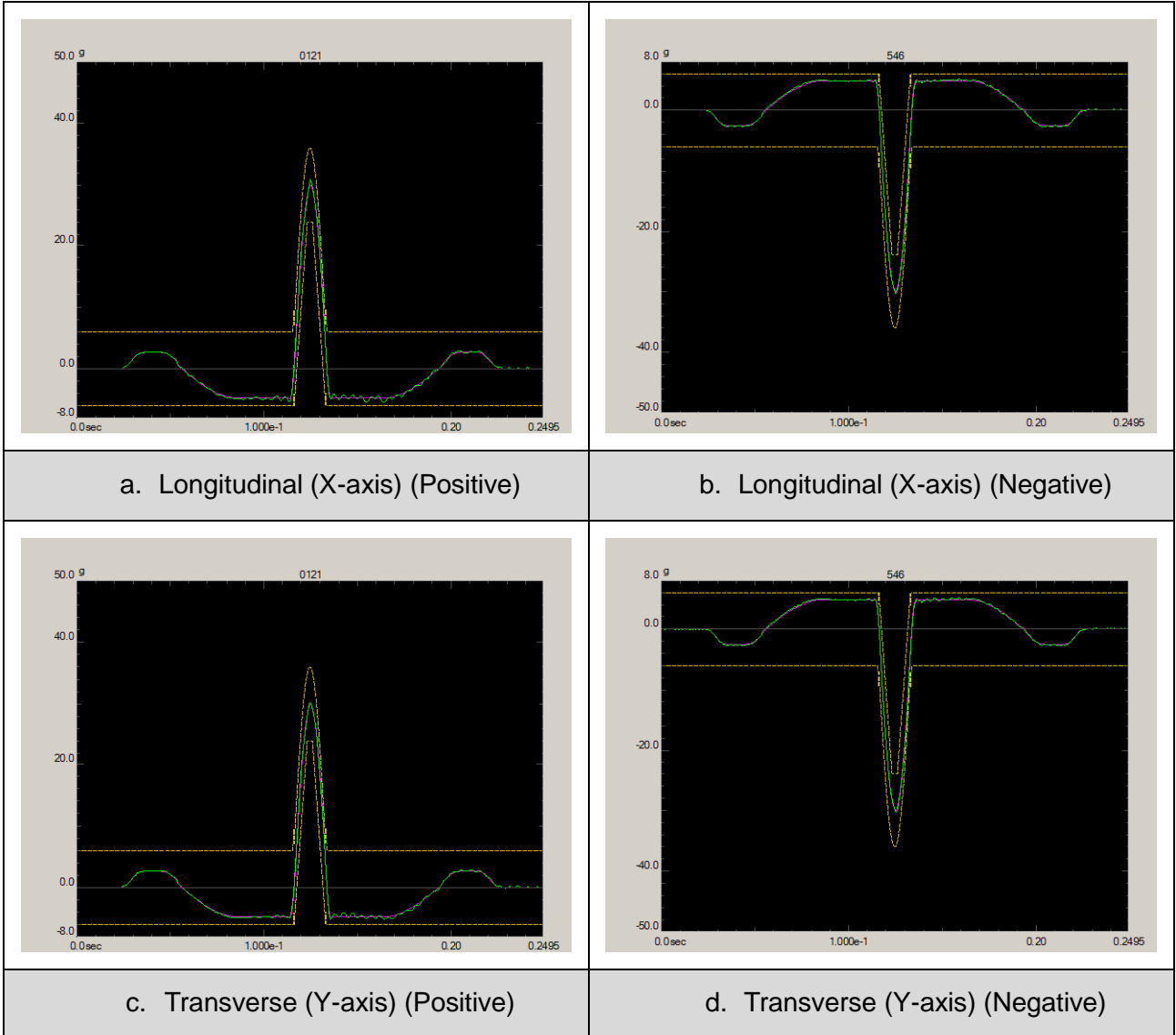
c. Vertical (Z-axis direction)

[Photo 4. Test photograph]

TEST RESULT

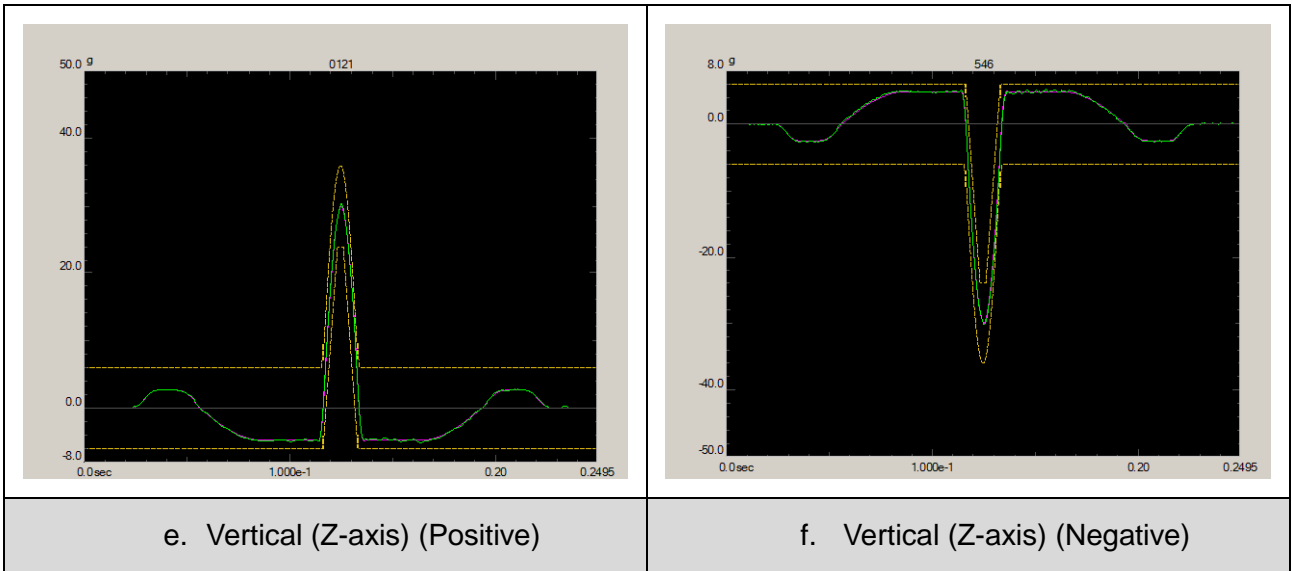
(4) Test result

1) Test profile



TEST RESULT

<Continue>



[Photo 5. Test profile]

2) Check the product

<Table 7. Check the product list>

Division	Check list	Test result
Visual	- Mechanical damage such as deformation, crack, separating, loosening of screw, etc.	No abnormal was found

- END -