



中国认可  
国际互认  
检测  
TESTING  
CNAS L7728

# Test report

Report No.: JCBG(M) 20241023001

Sample name: HD Traffic Unit

☆ Sample model: iDC-TCV900-HI

Entrust unit: Hangzhou Hikvision Digital  
Technology Co., Ltd.

Test categories: Entrust test

Conclusion: Qualified

Hangzhou TDT Technologies Co., Ltd.





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Name of testing unit: Hangzhou TDT Technologies Co., Ltd.

Address: East Zone, 2/F., Room 104, West Zone, Building 4, Room 101&201, Building 3,  
No.12, Binwen Road, Xixing Street, Binjiang District, Hangzhou, Zhejiang, China

Postal Code: 310051

Contact number: 0571-88316350

Complaint number: 0571-88317620-8023

Website: [www.tdtest.cn](http://www.tdtest.cn)



## Revision history

| Date       | Revised version | Description           | Author |
|------------|-----------------|-----------------------|--------|
| 2024.10.25 | V1.0            | First draft completed | Qi Jin |

DIS



|                  |                                                                                                                           |                |                                                                             |
|------------------|---------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------|
| Sample name      | HD Traffic Unit                                                                                                           | Model          | iDS-TCV900-HI                                                               |
| Derive name      | HD Traffic Unit                                                                                                           | Derive Model   | Please refer to the note for details                                        |
| Applicant        | Hangzhou Hikvision Digital Technology Co., Ltd.                                                                           | Address        | No. 555, Qianmo Road, Binjiang District, Hangzhou, Zhejiang Province, China |
| Manufacturer     | Hangzhou Hikvision Digital Technology Co., Ltd.                                                                           | Address        | No. 555, Qianmo Road, Binjiang District, Hangzhou, Zhejiang Province, China |
| Test categories  | Entrusted test                                                                                                            | Date received  | October 23, 2024                                                            |
| Samples quantity | 1pcs                                                                                                                      | Samples number | EUT-1: 241023010<br>(the internal number of TDT Technologies Co., Ltd.)     |
| Test site        | Laboratory of Hangzhou<br>TDT Technologies Co., Ltd.                                                                      | Test date      | 2024.10.23~2024.10.24                                                       |
|                  |                                                                                                                           | Issue date     | 2024.10.25                                                                  |
| Test basis       | IEC 60068-2-27-2008 IEC 60068-2-64-2019                                                                                   |                |                                                                             |
| Test items       | Random Vibration Test、Random vibration Test(packaging)、<br>Impact Test、Impact Test (packaging)                            |                |                                                                             |
| Test conclusion  | Check whether the appearance and performance of the sample are normal after undergoing random vibration and impact tests. |                |                                                                             |

Approver: Ning Zhang  
(General manager)

Ning Zhang

Checker: Liang Wu  
(Lab director)

Liang Wu Qi Jin

Writer: Qi Jin  
(Writer)





## Equipment of testing

| NO | Equipment name                      | Model      | Equipment serial number | Calibration date |
|----|-------------------------------------|------------|-------------------------|------------------|
| 1  | 1#Electric vibration testing system | DC-2200-26 | 01140603                | 2025.02.18       |
| 2  | 2#Electric vibration testing system | DC-2200-26 | 180207                  | 2025.02.18       |
| 3  | 30#Sensors                          | 2107CM     | 23051887                | 2025.07.15       |
| 4  | 19#Sensors                          | EA-YD-103  | 16337                   | 2024.12.11       |

## Experimental environmental conditions:

Ambient Temperature : 21.5℃ ~23.2℃    Environment humidity : 47%RH~51%RH

Environment at atmospheric Pressure : 100.1kPa~100.3kPa

## Distribution of samples

## EUT-1:

Random Vibration Test、Random vibration Test(packaging)、

Impact Test、Impact Test (packaging)

## Sample description:

The packaging is not powered on, and the bare machine is powered on throughout the entire process.



Note.

Hangzhou Hikvision Digital Technology Co., Ltd. products:

HD Traffic Unit,

model:iDS-TCV900-HI,iDS-TCV900-HIP,iDS-TCV900-HE,iDS-TCE900-H,iDS-TCV900-HIX,  
iDS-TCV900-HX,iDS-TCV900-HIP/1140/TH,iDS-TCV900-BI,iDS-TCV900-BE,iDS-TCV500-HI,  
iDS-TCV500-HIP,iDS-TCV500-HE,iDS-TCE500-H,iDS-TCV500-HIX,iDS-TCV500-HX,  
iDS-TCV500-BI,iDS-TCV500-BE,iDS-TCVC00-HI,iDS-TCVC00-HIP,iDS-TCVC00-HE,  
iDS-TCEC00-H,iDS-TCVC00-HIX,iDS-TCVC00-HX,iDS-TCVG00-HI,iDS-TCVG00-HIP,iDS-TCVG00-HE,  
iDS-TCEG00-H,iDS-TCVG00-HIX,iDS-TCVG00-HX,iDS-TCVG00-FI,iDS-TCVK00-HI,  
iDS-TCVK00-HIP,iDS-TCVK00-HE,iDS-TCEK00-H,iDS-TCVK00-HIX,iDS-TCVK00-HX,  
iDS-TCVK00-FI,iDS-TCSC00-HI,iDS-TCSC00-H,iDS-TCSC00-HX,iDS-TCSG00-HI,  
iDS-TCSG00-H,iDS-TCSG00-HX,iDS-TCSK00-HI,iDS-TCSK00-H,iDS-TCS900-HI,  
iDS-TCS900-H,iDS-TCSK00-HX,iDS-TCS900-HX,iDS-TCS800-HI,iDS-TCS800-H,  
iDS-TCS400-HI,iDS-TCS400-H,iDS-TCS800-HX,iDS-TCS400-HX Except for the sensor, the structure  
and function of the product are completely identical, with only model differences. Considering the different  
sales channels in the market, the above models are distinguished. This is to clarify.

The  
photos of  
samples







Photo of samples layouts



EUT-1 X axis fixed photo Random vibration Test(packaging)



EUT-1 Y-axis layouts photo Random vibration Test(packaging)





EUT-1 Z-axis layouts photo Random vibration Test(packaging)



EUT-1 X-axis layouts photo Random Vibration Test





EUT-1 Y-axis layouts photo Random Vibration Test

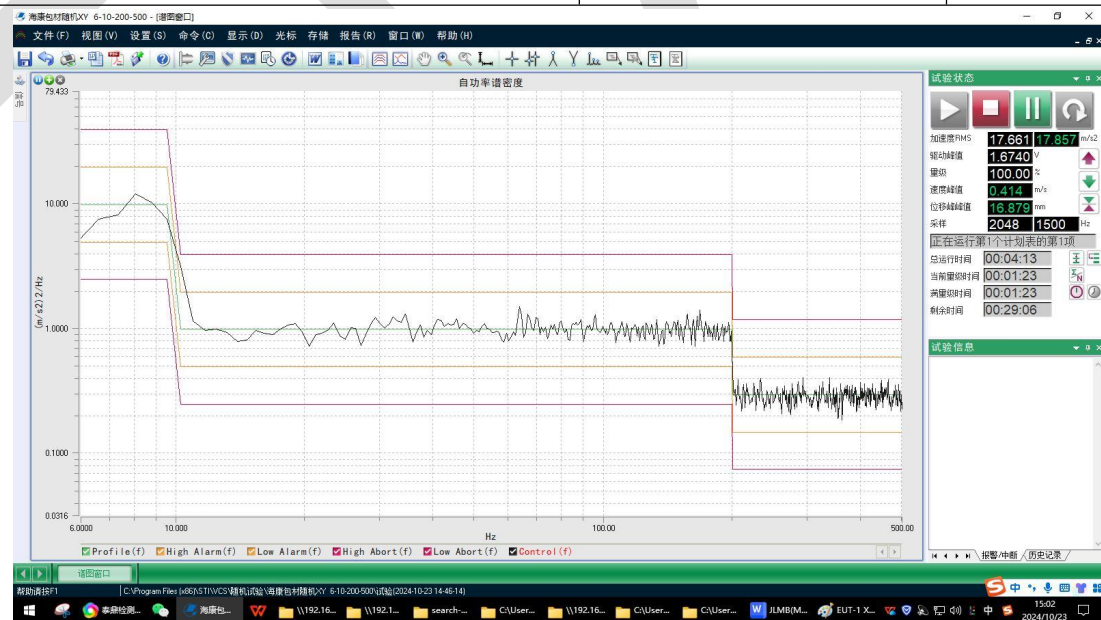


EUT-1 Z-axis layouts photo Random Vibration Test

**Random vibration Test(packaging)Test results**

| Technical requirements                |                                          |                                       |                              | Test results                                                                                                                                                                            | Determine |
|---------------------------------------|------------------------------------------|---------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Sample status: packaging              |                                          |                                       |                              | <div>The appearance, structure, and function of the initial test sample are normal.</div> <div>The appearance, structure, and function of the final inspection sample are normal.</div> | qualified |
| Frequency<br>(Hz)                     | ASD<br>(m <sup>2</sup> /s <sup>3</sup> ) | Effective<br>value(m/s <sup>2</sup> ) | axial/Testing time           |                                                                                                                                                                                         |           |
| 6                                     | 10                                       | 17.8                                  | X-axis/30min<br>Y-axis/30min |                                                                                                                                                                                         |           |
| 10                                    | 10                                       |                                       |                              |                                                                                                                                                                                         |           |
| 10                                    | 1                                        |                                       |                              |                                                                                                                                                                                         |           |
| 200                                   | 1                                        |                                       |                              |                                                                                                                                                                                         |           |
| 200                                   | 0.3                                      |                                       |                              |                                                                                                                                                                                         |           |
| 500                                   | 0.3                                      |                                       |                              |                                                                                                                                                                                         |           |
| 6                                     | 13                                       | 30.5                                  | Z-axis/30min                 |                                                                                                                                                                                         |           |
| 10                                    | 13                                       |                                       |                              |                                                                                                                                                                                         |           |
| 10                                    | 3                                        |                                       |                              |                                                                                                                                                                                         |           |
| 200                                   | 3                                        |                                       |                              |                                                                                                                                                                                         |           |
| 200                                   | 1                                        |                                       |                              |                                                                                                                                                                                         |           |
| 500                                   | 1                                        |                                       |                              |                                                                                                                                                                                         |           |
| Power supply situation:Not powered on |                                          |                                       |                              |                                                                                                                                                                                         |           |

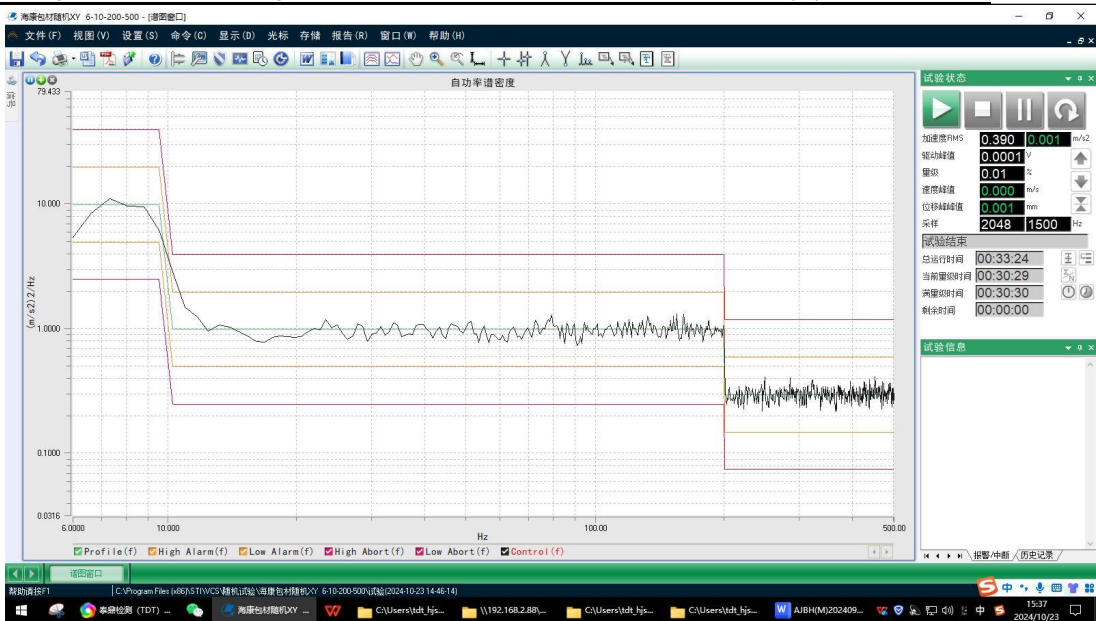
Test curve



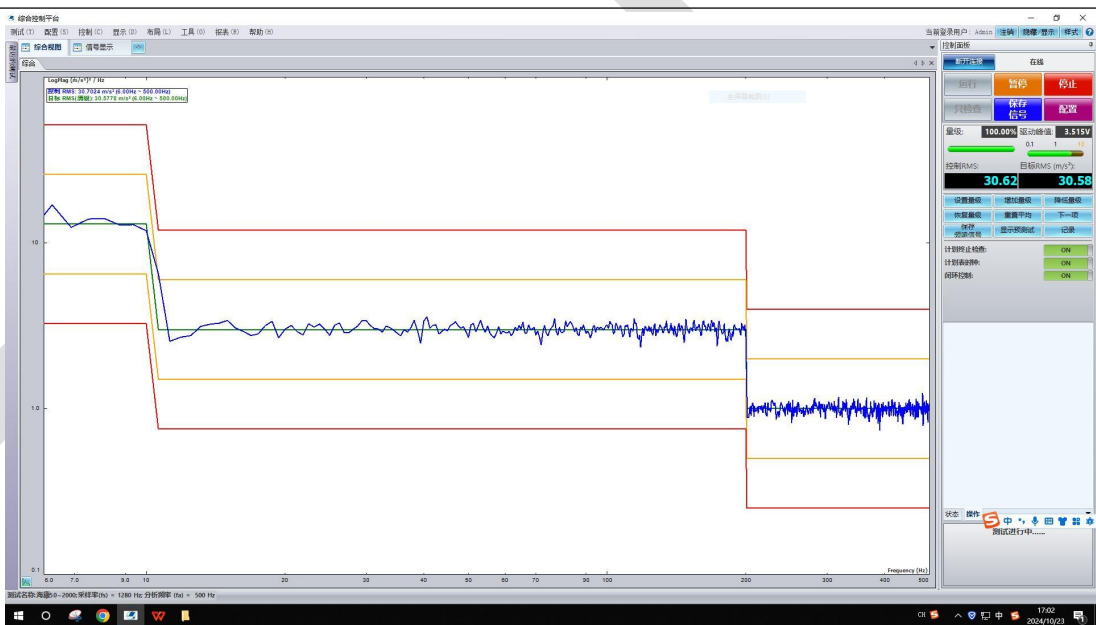
EUT-1 X-axis Random vibration Test(packaging) start curve



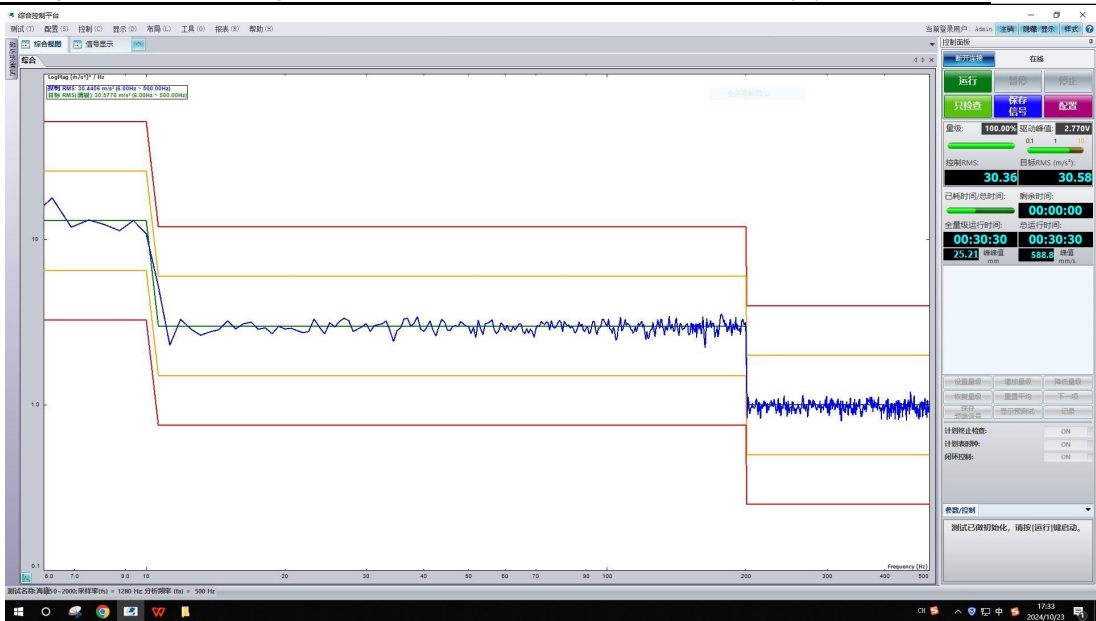
Test curve



EUT-1 X-axis Random vibration Test(packaging) end curve



EUT-1 Z-axis Random vibration Test(packaging)



EUT-1 Z-axis Random vibration Test(packaging)

Testing personnel: Ying Li Chao

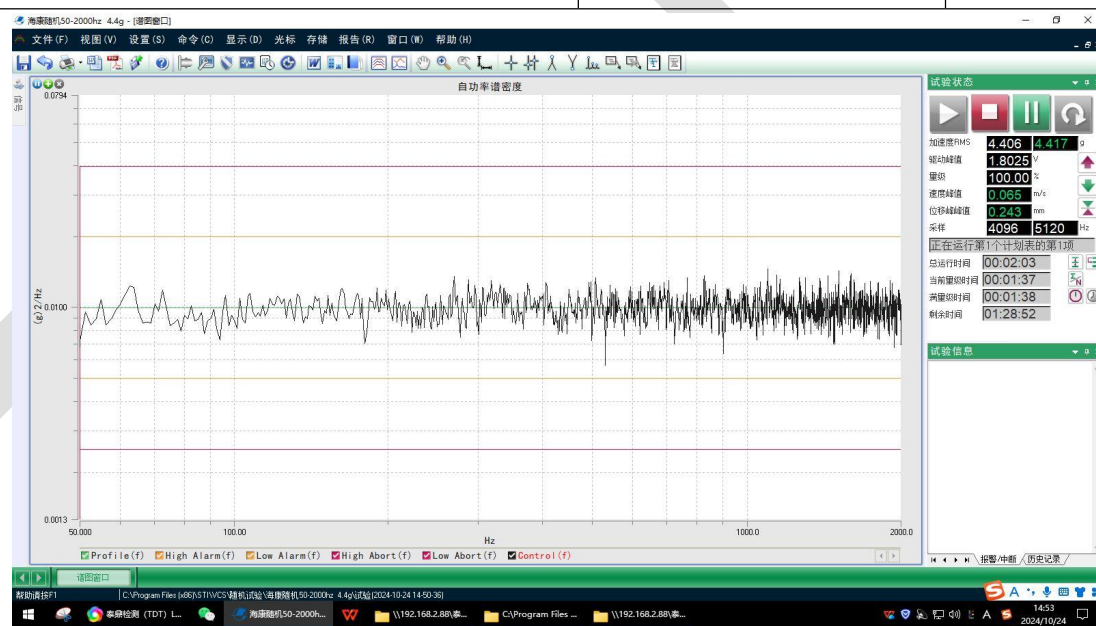




## Random Vibration Test Test results

| Technical requirements          |  |  |  | Test results                                                                       | Determine |                             |                        |                              |
|---------------------------------|--|--|--|------------------------------------------------------------------------------------|-----------|-----------------------------|------------------------|------------------------------|
| Sample status: bare pager       |  |  |  | The appearance, structure, and function of the initial test sample are normal.     | qualified |                             |                        |                              |
|                                 |  |  |  | Frequency<br>(Hz)                                                                  |           | PSD<br>(g <sup>2</sup> /Hz) | Effective value<br>(g) | axial/Testing time           |
|                                 |  |  |  | 50                                                                                 |           | 0.01                        | 4.4                    | X-axis/90min                 |
|                                 |  |  |  | 2000                                                                               |           | 0.01                        |                        | Y-axis/90min<br>Z-axis/90min |
| Power supply situation:Power on |  |  |  | The appearance, structure, and function of the final inspection sample are normal. |           |                             |                        |                              |

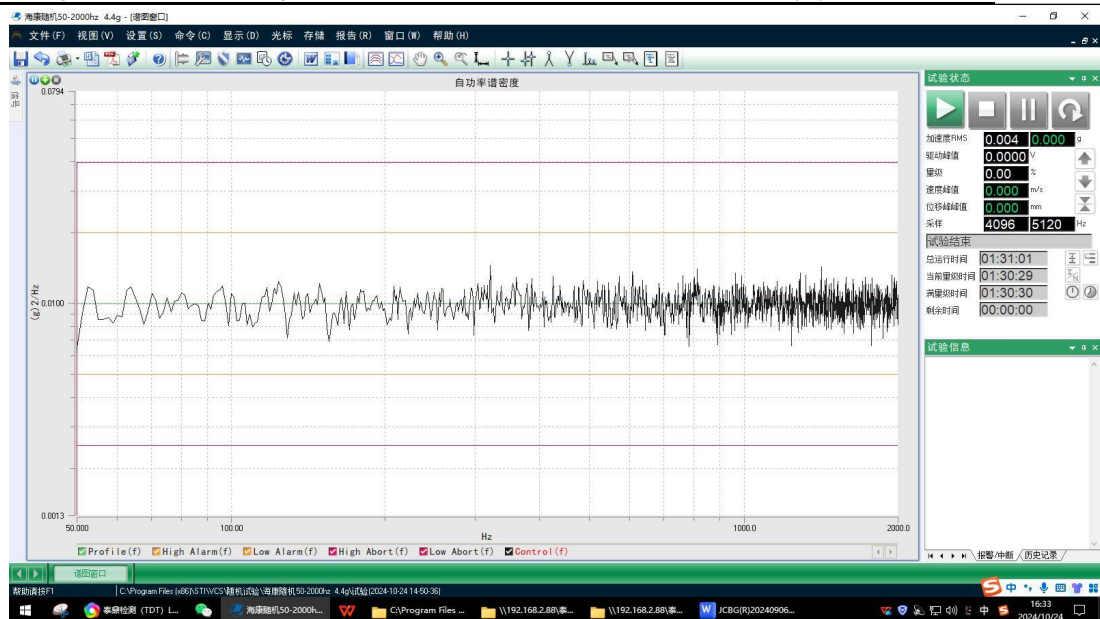
Test curve



EUT-1 X-axis Random vibration Test star curve



Test curve



EUT-1 X-axis Random vibration Test end curve

functional  
verification

X-axis Random vibration begins



X-axis Random vibration in progress



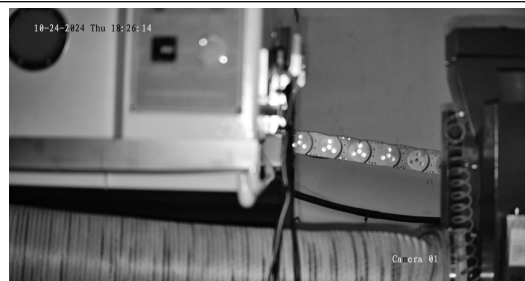
X-axis Random vibration ends



Y-axis Random vibration begins



Y-axis Random vibration in progress



Y-axis Random vibration ends



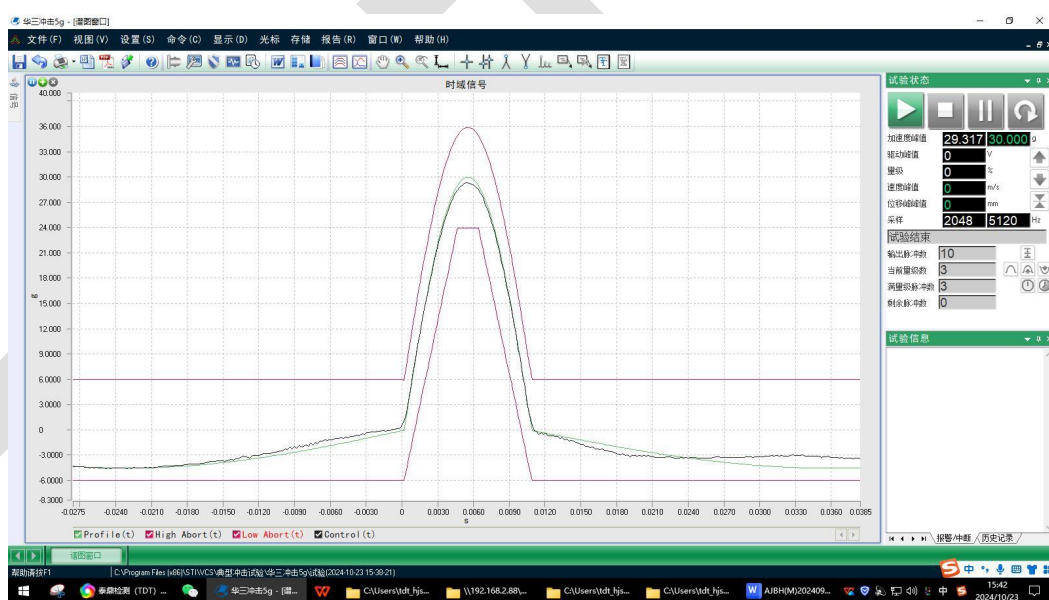
|                                 |                                                                                   |                                                                                    |
|---------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| functional<br>verification      |  |  |
|                                 | Z-axis Random vibration begins                                                    | Z-axis Random vibration in progress                                                |
|                                 |  | /                                                                                  |
|                                 | Z-axis Random vibration ends                                                      | /                                                                                  |
| Testing personnel: Ying Li Chao |                                                                                   |                                                                                    |



## Impact Test (packaging)Test results

| Testing items                                                                                                                                                                                                                              | technical requirement                                                                                                                                                   | detection result |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Sample status: packing<br>Impact waveform: Half sine wave<br>pulse width: 11ms<br>Impact acceleration: 30g<br>3 times in both positive and negative directions of the XYZ axis, 6 times in total<br>Power supply situation: Not powered on | The appearance, structure, and function of the initial test sample are normal.<br><br>The appearance, structure, and function of the final inspection sample are normal | qualified        |

test curve

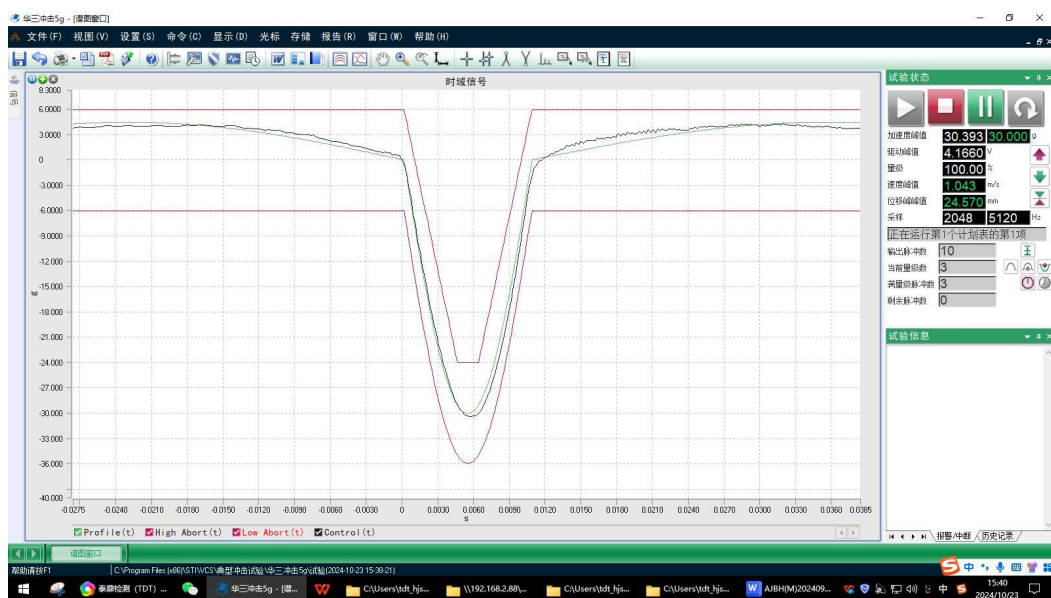


EUT-1 X-axis Impact test (packaging) star curv





test curve



EUT-1 X-axis Impact test (packaging) end curve

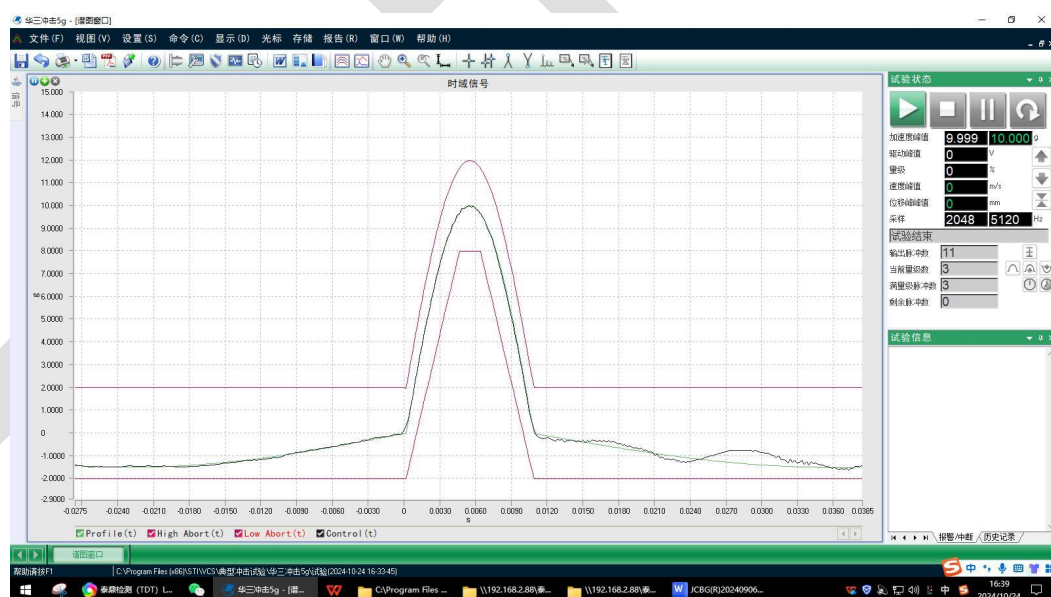
Testing personnel: Ying Li Chao



## Impact Test results

| Testing items                                                                                                                                                                                                                                                  | technical requirement                                                                                                                                                   | detection result |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Sample status: bare pager<br>Impact waveform: Half sine wave<br>Impact acceleration: 10g<br>pulse width: 11ms<br>Pulse interval: 10s<br>3 times in both positive and negative directions of the XYZ axis, 6 times in total<br>Power supply situation: Power on | The appearance, structure, and function of the initial test sample are normal.<br><br>The appearance, structure, and function of the final inspection sample are normal | qualified        |

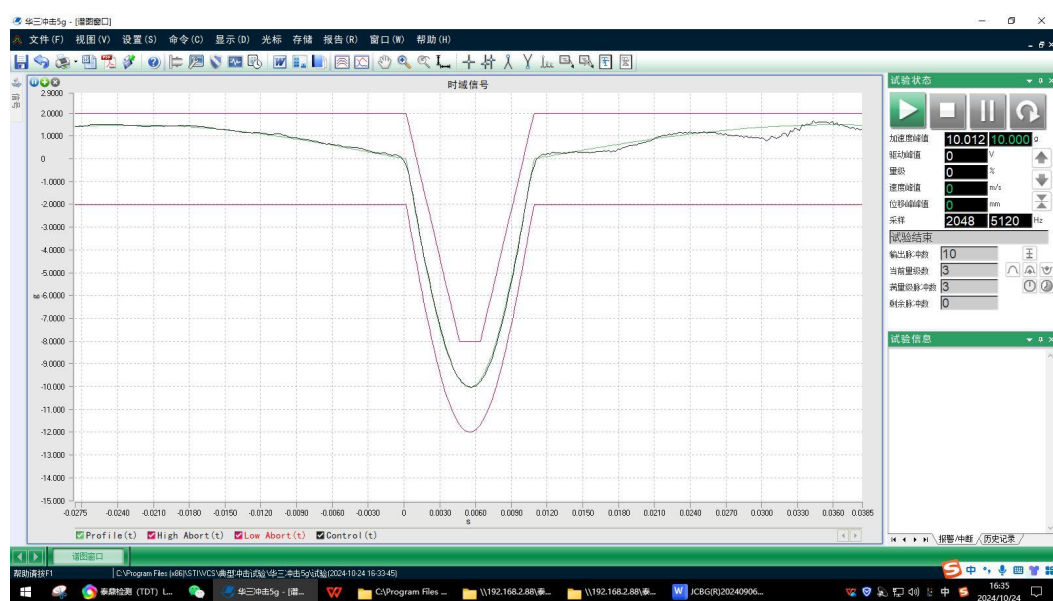
test curve



EUT-1 X-axis Impact Test star curve



test curve



EUT-1 X-axis Impact Test end curve

functional  
verification



X-axis impact test functional verification



Y-axis impact test functional verification



Z-axis impact test functional verification

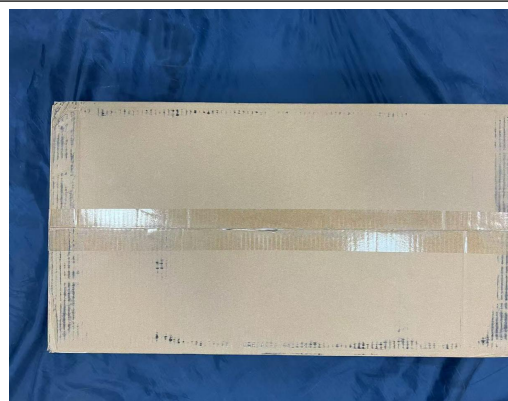
/

/

View photos



EUT-1 Front photo of packaging



EUT-1 Packaging back photo



View photos



EUT-1 Internal photos of packaging



EUT-1 Photos of internal components of packaging



EUT-1 Bare metal photos



EUT-1 Internal photos of bare metal



EUT-1 Bare metal photos



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/

Testing personnel: Ying Li Chao

-----End-----