



TEST REPORT

SUBJECT Seismic Resistance Test

TESTED BY TÜV SÜD Certification and Testing (China) Co., Ltd
Shanghai Branch Testing Center

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No.1951, Building 16, Duhui Road, Minhang District
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TESTED FOR SAIPWELL ELECTRIC CO., LTD
No.19, Building 176 Yanyun Road Marineconomic Development Demonstration
District 325700 Wenzhou, Zhejiang PEOPLE'S REPUBLIC OF CHINA

SAMPLE RECEIVING 19-Jan-2026

TEST PERIOD 27-Jan-2026

Prepared By

02-Feb-2026
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Authorized By

02-Feb-2026
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1 Sample Information

Sample Name	Switchgear Cabinet
Sample Model	KT802060
Sample Quantity	1 Set
Gross Wight	100kg
Sample Size	L600 x W800 x H2000mm

Sample Picture:

		
Picture 1	Picture 2	Picture 3

Sample check before test:

Sample No.	Check Results
1#	Product Inspection: - No damage was observed on the product before test.

2 Seismic Resistance Test

Equipment of Test:

Equipment	Manufacturer	Equipment No.	Cal. Date	Cal. Due Date
ES-5 Vibration Table	/	720-652	19-Jun-2025	18-Jun-2026
PCB Accelerometer	/	HJ-2018-17, HJ-2018-18	08-Sep-2025	07-Sep-2026
Laser Displacement Sensor	/	720-895	15-Nov-2025	14-Nov-2027

Lab Environmental Conditions:

Ambient Temperature: 22°C.
Relative Humidity: 53%RH.

Test Methods/Specification:

Test methods/specification: According to Zone 4 requirement of 5.4.1 "Earthquake Test Methods" in GR-63-CORE 2017 NEBS™ requirements: Physical Protection. Through the test, we can ascertain the resonant frequency; examine strength and stiffness of the main frame; verify integrality of the sample. The maximum deflection at the top of sample should not exceed 75mm during the test. During the test, the appearance of the sample shall be intact.

Sine sweep test:

Frequency range (Hz)	Acceleration (g)
1~50	0.2
- Test axis: X, Y, Z - Sweep rate: 1Oct/min - Record resonant frequencies.	

Seismic test:

Frequency range was 0.3Hz~50Hz, damping ratio was 2%. The duration of each history was 32S. The acceleration waveforms of the measuring point should be recorded. After test of each axis, check the integrity of the sample. The Values of RRS as below:

Required Response Spectrum of Seismic

No.	Frequency(Hz)	Acceleration (g)
1	0.3	0.2
2	0.6	2.0
3	2.0	5.0
4	5.0	5.0
5	15.0	1.6
6	50.0	1.6

Test Setup:

The operational sample was mounted on the vibration table by means of a fixture. A measuring accelerometer was arranged along the direction of vibration at the top of test sample to measure vibration response, and a measuring laser displacement sensor was placed near the top of the sample to measure the deflection at the top of the sample relative to its base.

**Test Result:**

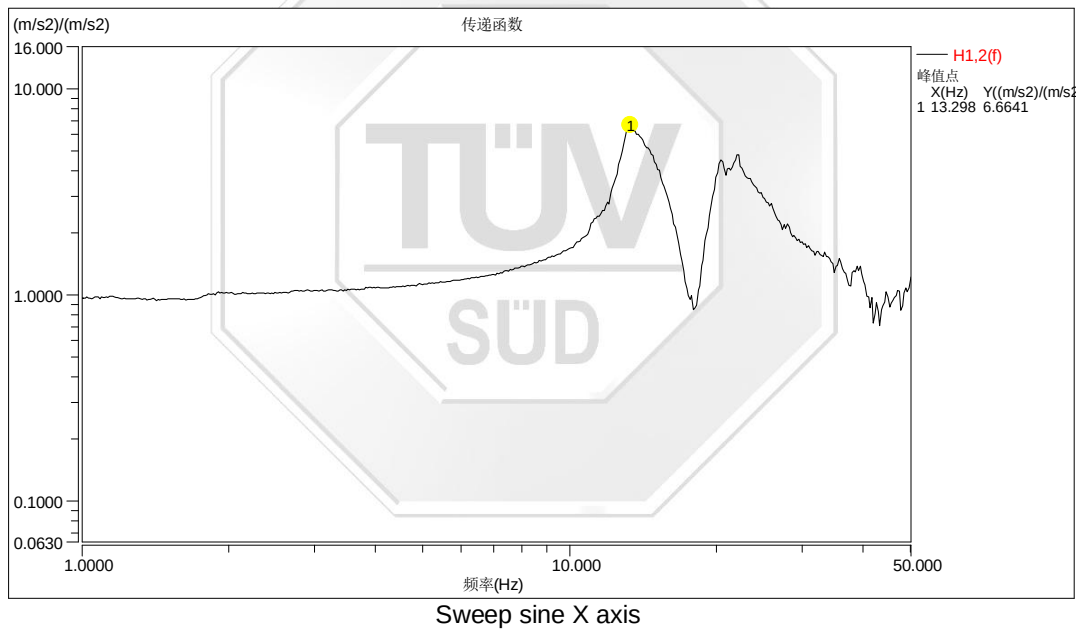
S/N.	Test Result
1#	Product Inspection: - After test , no damage on the sample and the physical remained intact. - The maximum deflection along side to side axis is 36.3 mm; along front to back axis is 30.2 mm. The maximum deflection at the top of the sample accords with the requirement of less than 75mm in test criteria. The data as below.

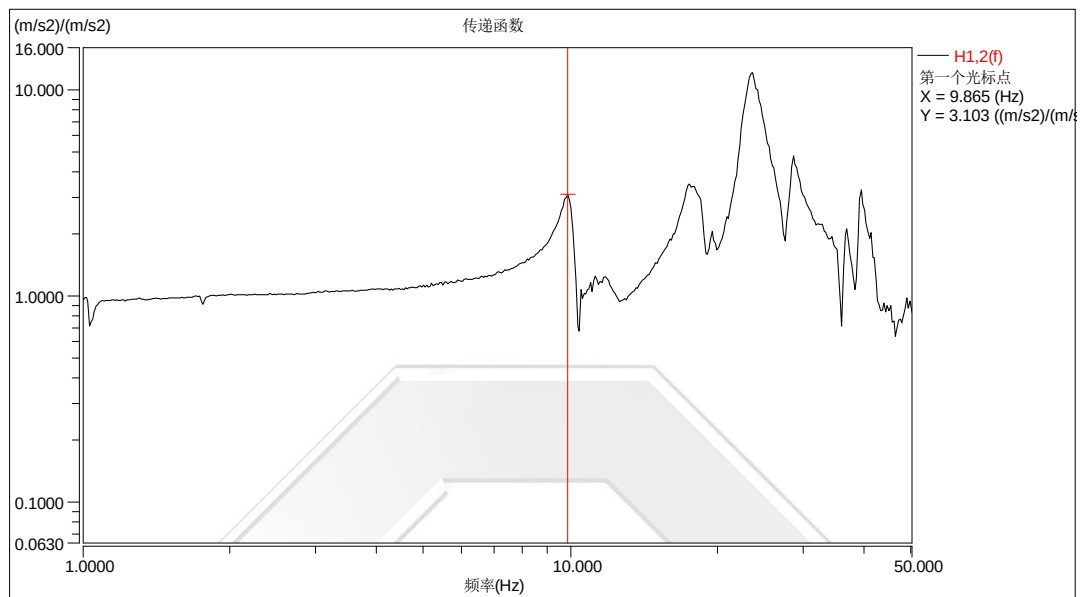
Axis	Sine sweep resonant frequency
X	13.3Hz
Y	9.9Hz
Z	24.0Hz

Seismic test	Value
The Max acceleration	X axis :2.6g Y axis: 1.9g Z axis: 1.5g

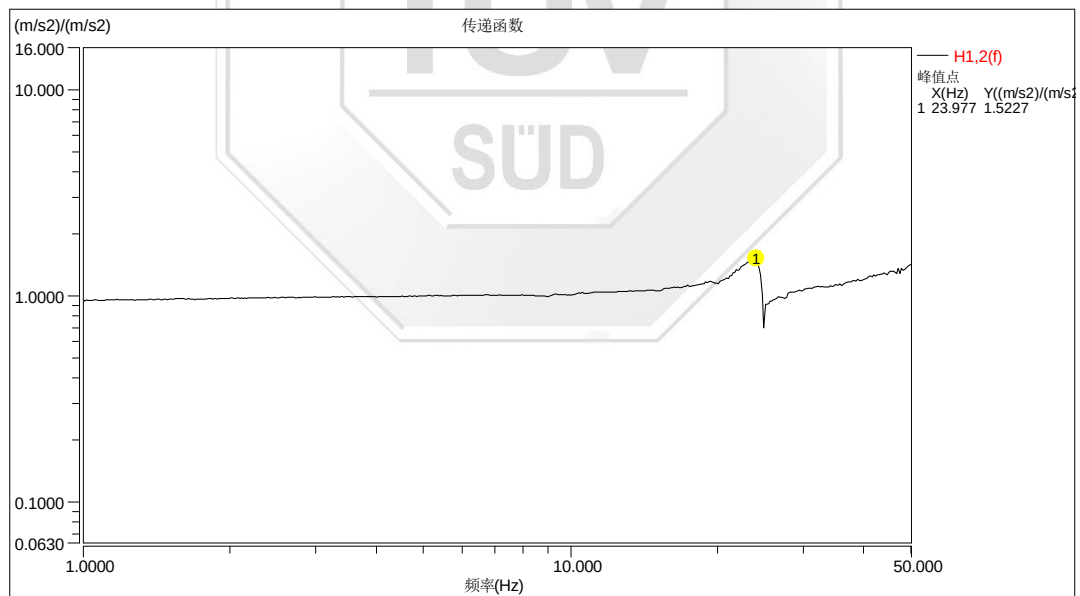
Sample pictures after test.

		N/A
Picture 1	Picture 2	Picture 3

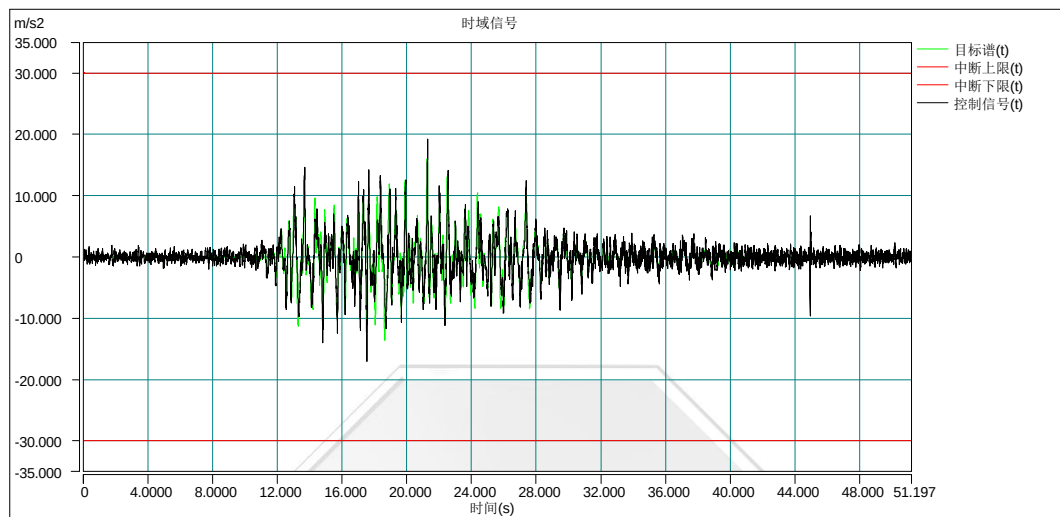
Actual Test Profile:



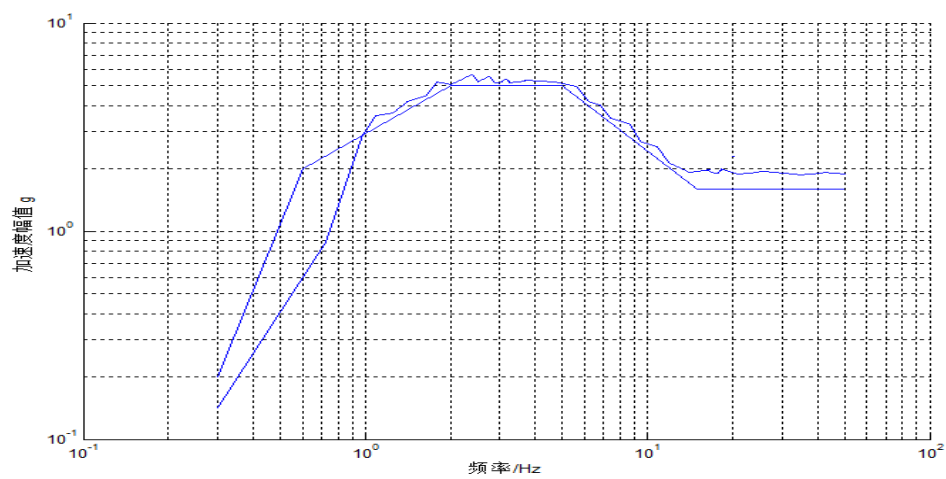
Sweep sine Y axis



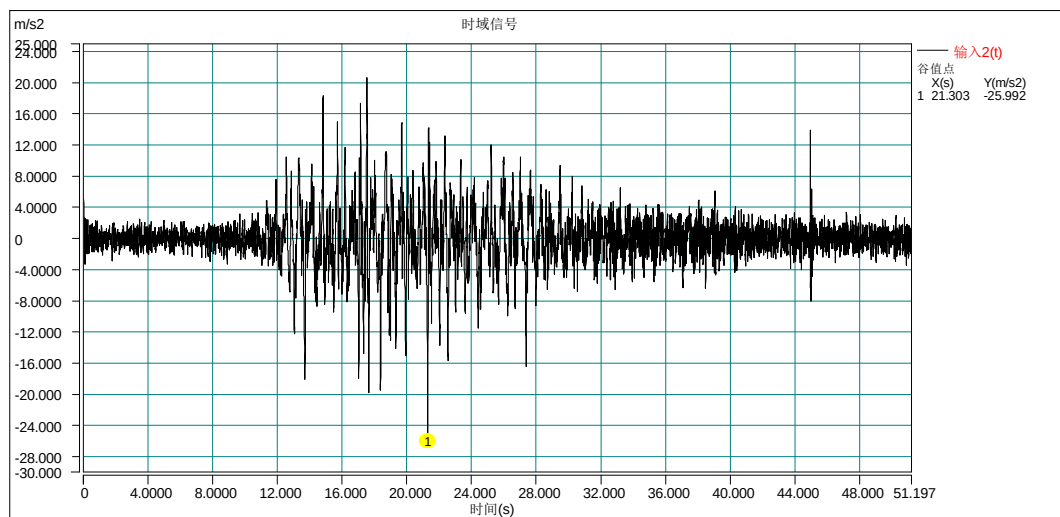
Sweep sine Z axis



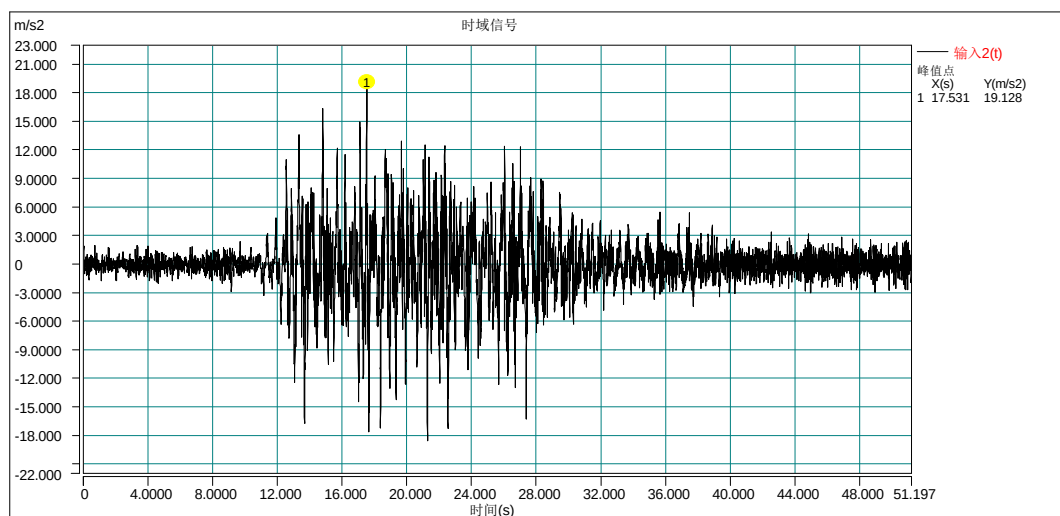
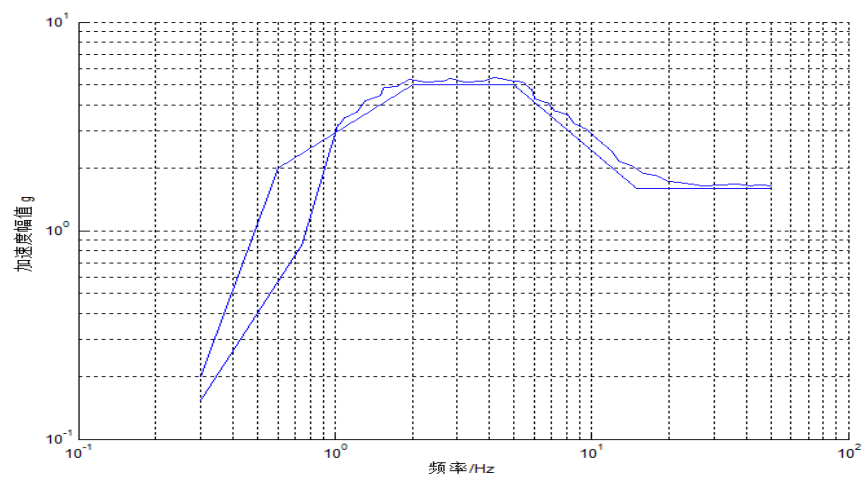
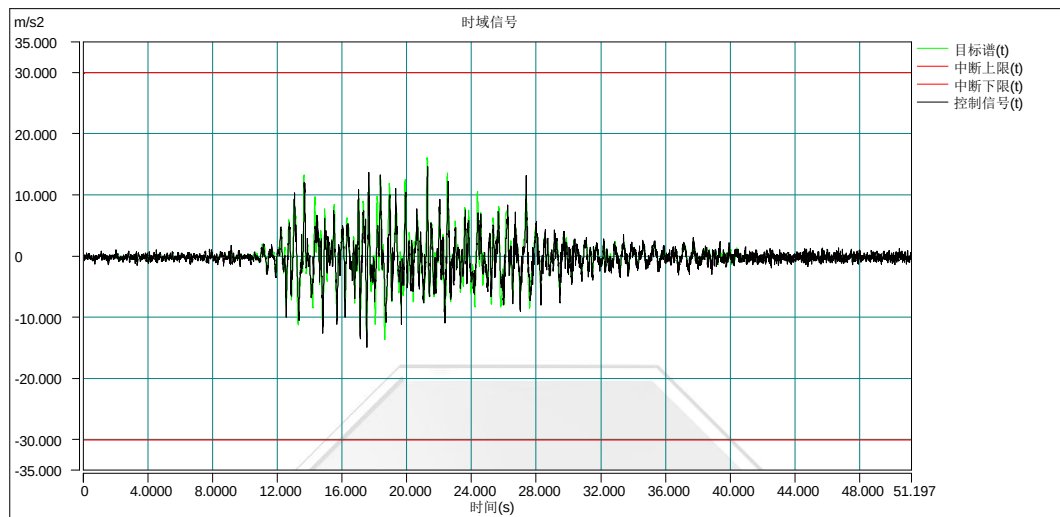
Acceleration Waveform X axis

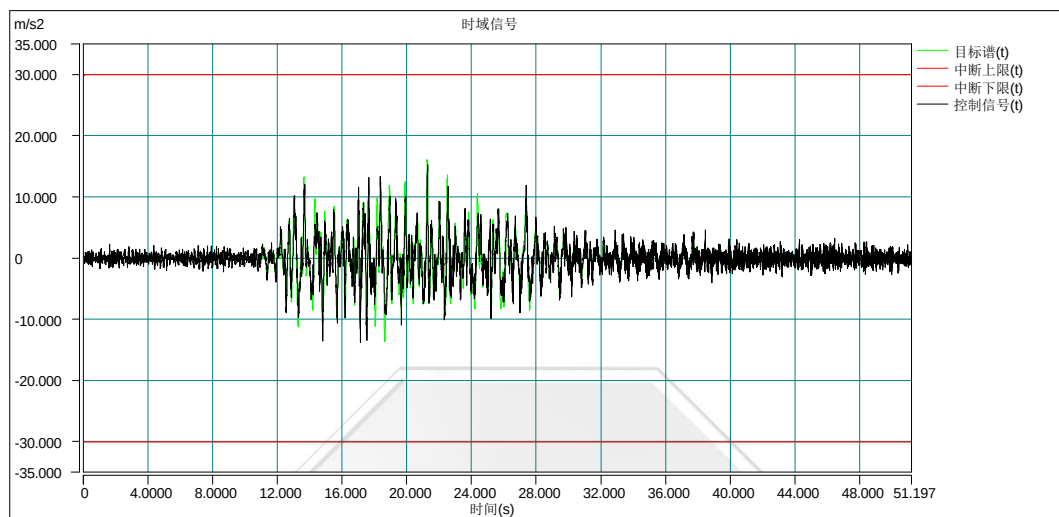


TRS Curve X axis

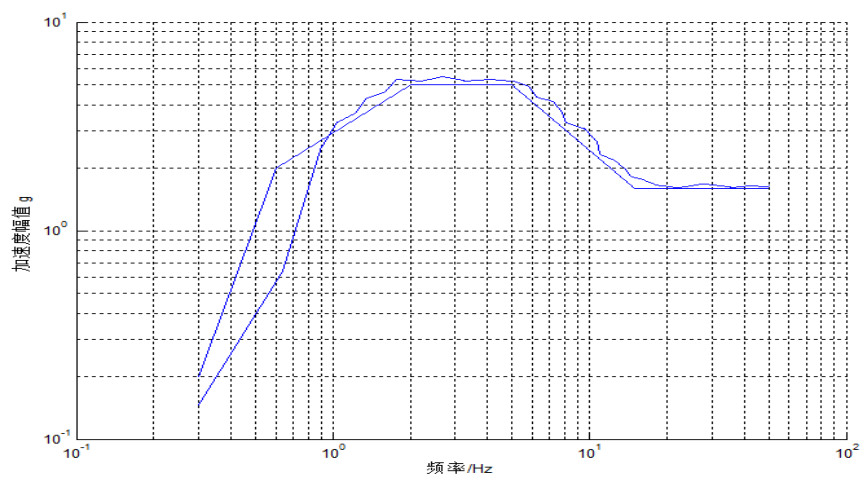


Acceleration Waveform along X Axis At the top of Framework

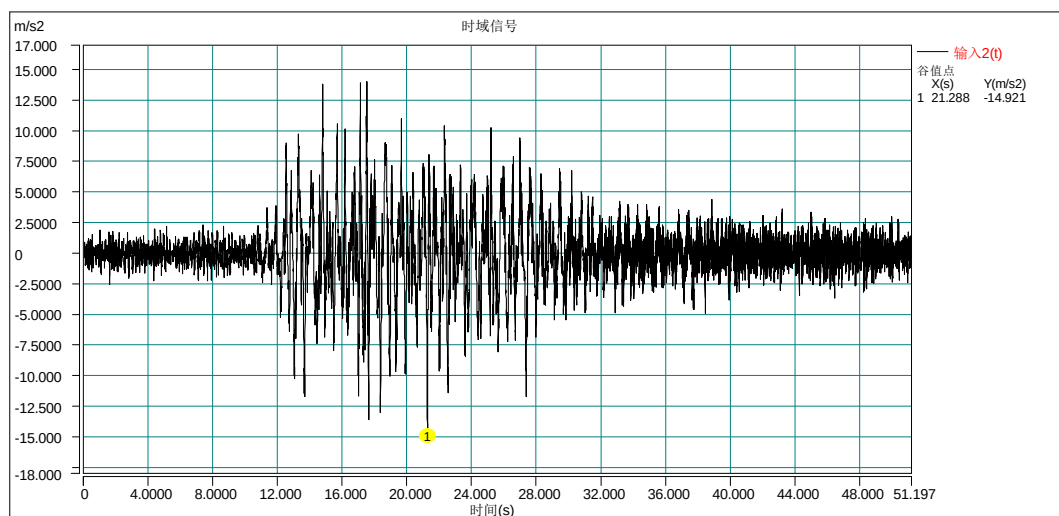




Acceleration Waveform Z axis



TRS Curve Z axis



Acceleration Waveform along Z Axis At the top of Framework

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