



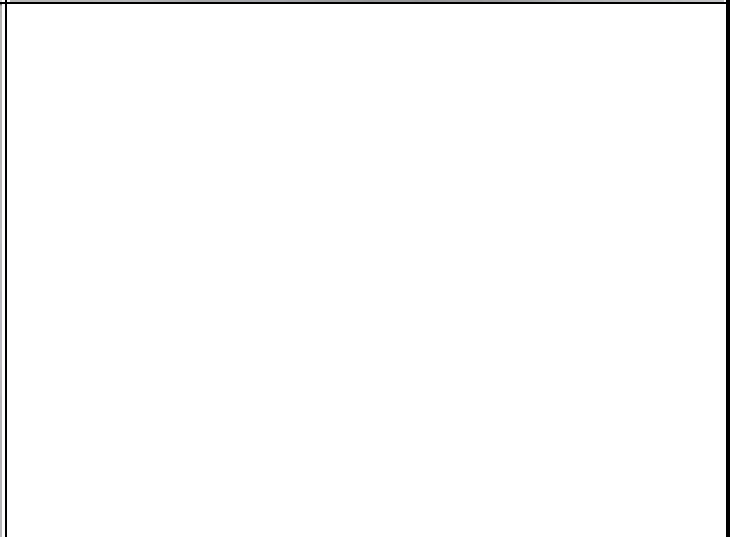
威達電股份有限公司
ICP Electronics, Inc.

DRPC-100-CV-OLED-R10 Vibration & Shock Test Report

Product No.	Model No.
N646	DRPC-100-CV-OLED-R10
Result decide	PASS

	APPROVED	CHECK	PREPARED
BY	Mars Jiang	Mars Jiang	Tom Lo
DATE	2013/4/10	2013/4/10	2013/4/10

	CUSTOMER APPROVED
BY	iEi
DATE	





1 Vibration Test

Objective

1. Operating (Random Mode)

The purpose of the vibration test is to determine mechanical weakness or performance degradation of an equipment or component when transported or carry vibration and to use this information, in conjunction with the relevant specifications, to decide whether the equipment or component, herein after referred to as DUT, is acceptable or not. It may be used in some cases to determine the structural integrity of the DUT and study its dynamic behavior.

2. Non-operating (Sine Mode)

The purpose of the special transport vibration test is to determine the protective ability of packaging materials which cushion, enclose and protect the finished products to withstand transportation stresses during shipment and handling.

Test Procedure

Non-operating Mode: (Package mode)

1. Inspect the DUT to establish function pretest criteria and physical condition before test.
2. Mount the velocity transducers of the accelerometer on the surface of the DUT and take a picture.
3. Mount the DUT on the vibration equipment table.
4. Expose the DUT to the test level and duration as determined from the table1.
5. Inspect the DUT and compare it to pretest data and physical condition, if anything physical issue or malfunction during testing should under recorded & reported.
6. Change DUT to other surface total six surfaces and every test end must check physical and when test end, power on to check the system with "passmark burn-in test 6.0" application with DUT IO port and function and do appearance inspection.
7. Repeat steps 1~6 for each axis.

Test Equipment

KING DESIGN Inc.
KD-9363-EM-1000F2K-50N250



Test Software

Passmark Burn-In Test Program V6.0

Test Location

ICP Reliability & Environment Lab

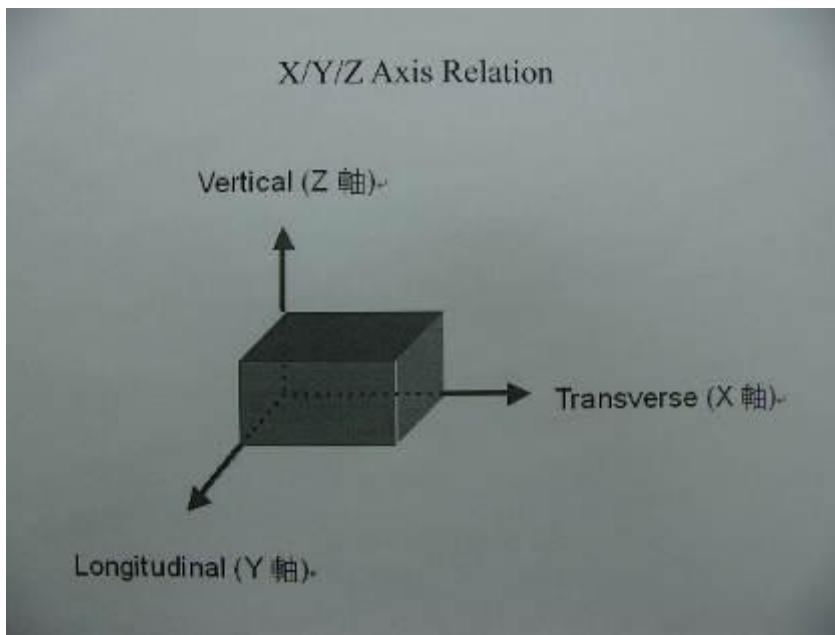


Test Specifications

Non Operating Sine Mode IEC-60068-2-06
Axis: 3 axes / Vertical / Transverse / Longitudinal. 0.003in. p-p, 10-55Hz, 0.003in 9.8m/s² 1g peak, 55-500Hz Swept Sine, 3 Swept per axis. 60 min/axis

Table1

Setting 3 axes G_{rms} view by DUT used mode.



Test Criteria :

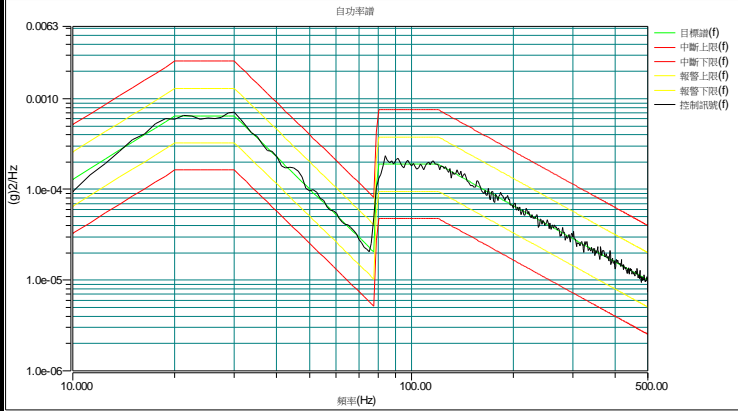
1. Follow MIL-STD-810F 514.5C-1
2. A minimum of 1 DUT must be test.
3. During and after the vibration test, all DUT must be pass diagnostic test.
4. Functional check: The DUT will undergo Burn-in testing the HDD, CD-ROM, FDD and others.
 Physical check: The DUT will be thoroughly inspected inside and outside for any sign of damage, looseness or loose of components.

Test Result

Non Operating Sine Mode	Function Test	Physical Check
	System	System
X-Axis Result	PASS	PASS
Y-Axis Result	PASS	
Z-Axis Result	PASS	



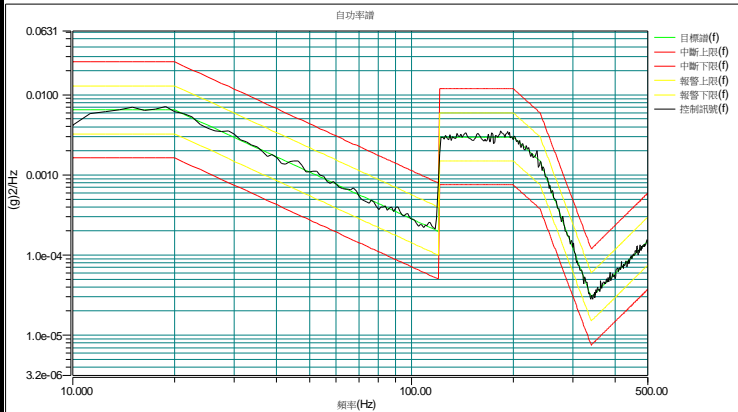
Transverse- non-Operating



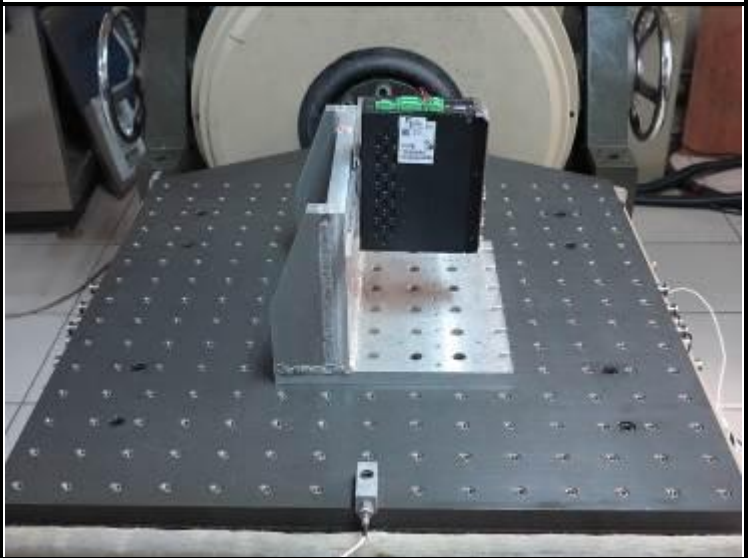
Transverse- Photo



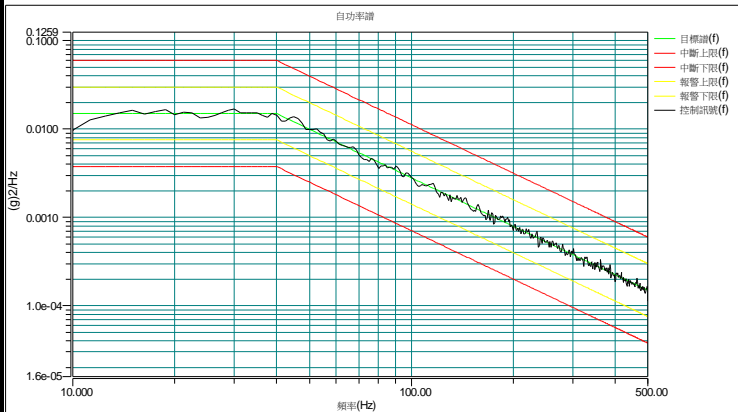
Longitudinal- non-Operating



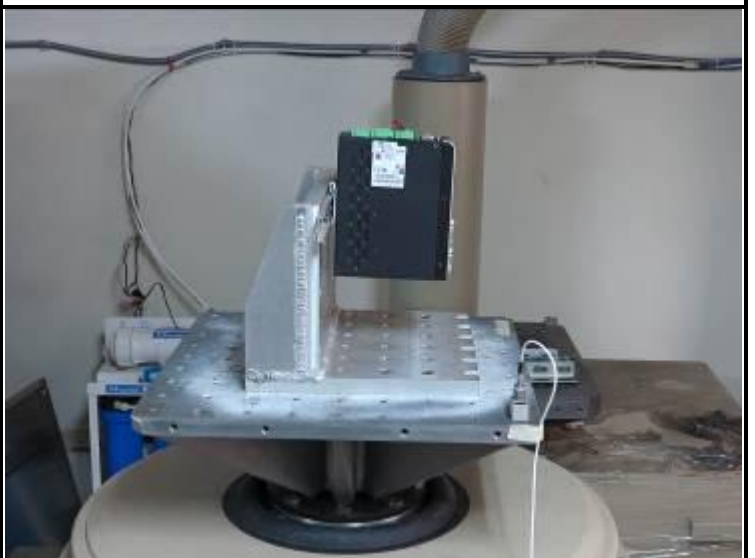
Longitudinal - Photo



Vertical- non-Operating

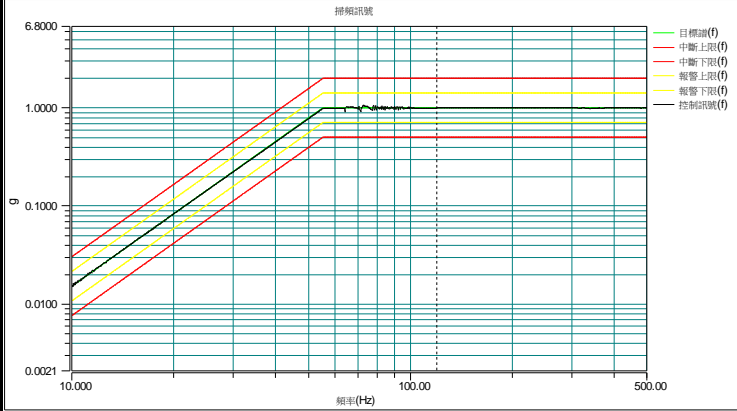


Vertical- Photo

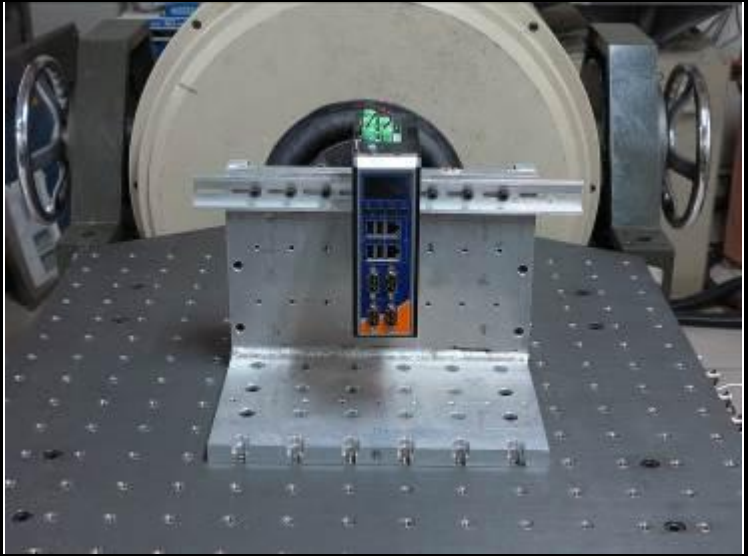




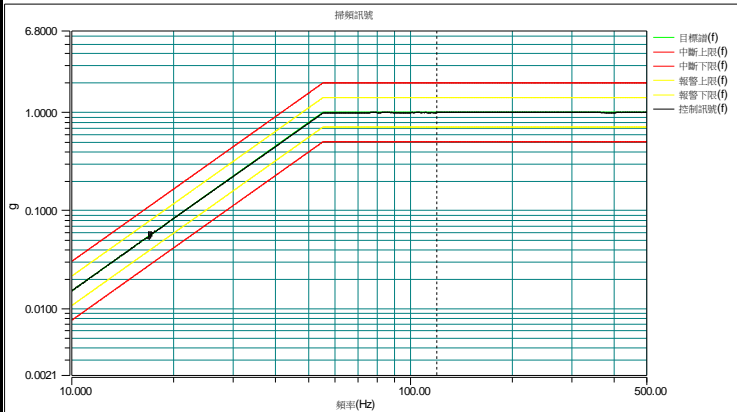
Transverse- non-Operating



Transverse- Photo



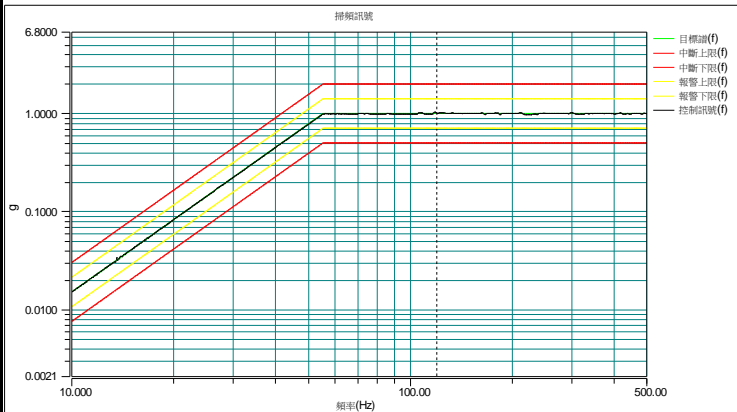
Longitudinal- non-Operating



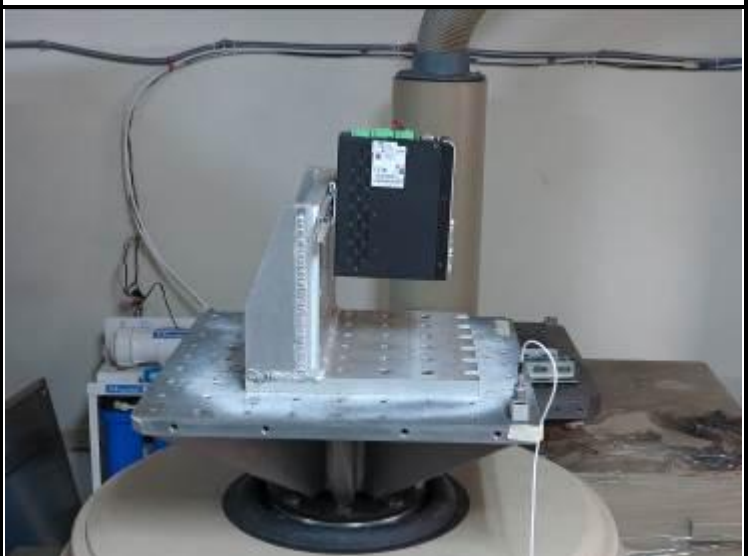
Longitudinal - Photo



Vertical- non-Operating



Vertical- Photo





2 Shock Test

Objective

The shock test is performed to ensure that material can withstand the relatively infrequent, non-repetitive shocks or transient vibration encountered in handling, transportation and service environments.

Test Procedure

No-operating

1. During 10 shocks per 3 axes (X, Y, Z) 18 faces each DUT has to withstand the standard to do Half-Sine Wave shock test.
2. The DUT will be installed on shock table in such a way that the shock input is transmitted directly to it. The DUT will be fixture using a predetermined torque value,
3. Place accelerometers on the shock-sensitive components (i.e. HDD, RAM...) in order to measure the response acceleration.
4. Inspect the DUT and compare it to pretest data and physical condition, if anything physical issue or malfunction during testing should under recorded & reported.
5. When test end, power on to check the system with "passmark burn-in test 6.0" application with DUT IO port and function and do appearance inspection.

Test Equipment

KING DESIGN Inc.

KD-9363-EM-1000F2K-50N250





Test Software

Passmark Burn-In Test Program V6.0

Test Location

ICP Reliability & Environment Lab.

Test Specifications

1. Reference IEC68-2-27 Testing Procedures
2. Operating Shock Half-Sine Wave Shock
Acceleration 5 G: Pulse Duration: 11ms: 100 shocks per axis: Vertical / Transverse / Longitudinal.
3. Non-Operation Shock Half-Sine Wave Shock
Acceleration 15 G: Pulse Duration: 11ms: 100 shocks per axis: Vertical / Transverse / Longitudinal.

Test Criteria

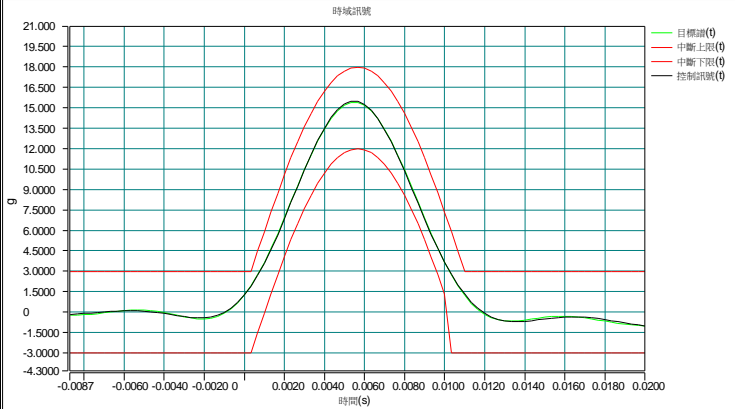
1. A minimum of 1 DUT must be test.
2. After non operation half-sine wave shock test, all DUT should pass the Burn-in test which DUT should without any functional and mechanical malfunction.
Diagnostic:
 3. Functional check: The DUT will under go Burn-in testing the HDD, CD-ROM, FDD and main board.
 4. Physical check: The DUT will be thoroughly inspected inside and outside for any sign of damage, looseness or loose of components.

Test Result

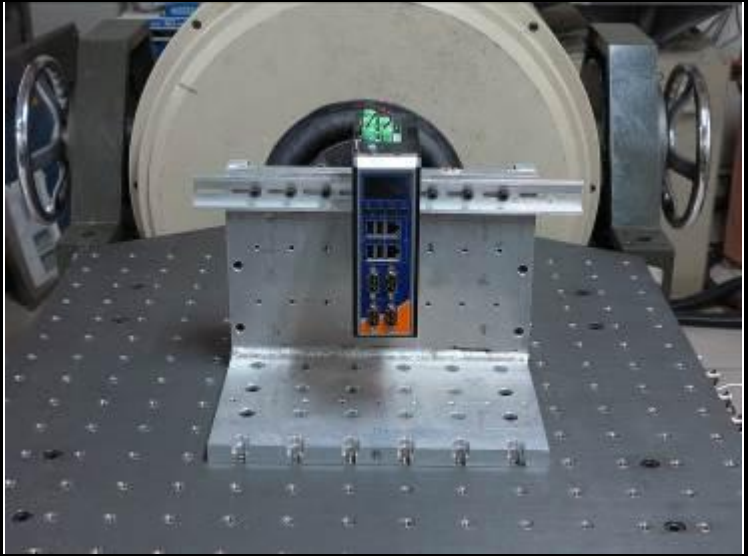
Non Operation Half-Sine Shock Test		
System	Function Test	Physical Check
X-Axis Result	PASS	PASS
Y-Axis Result	PASS	
Z-Axis Result	PASS	



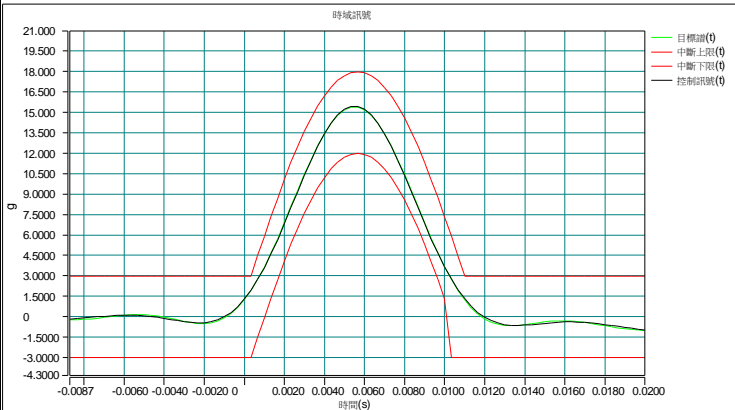
Transverse- non-Operating



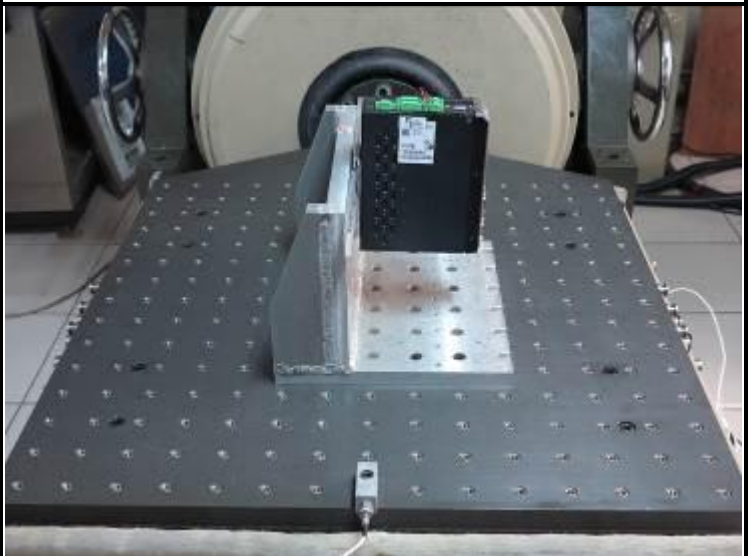
Transverse- Photo



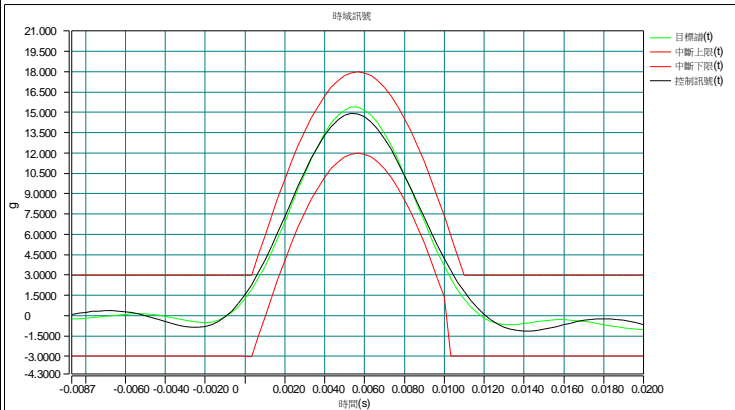
Longitudinal- non-Operating



Longitudinal - Photo



Vertical- non-Operating



Vertical- Photo

