

Test Report

EN 50155: 2007

(Clause 12.2.11 Vibration, shock and bump test)

Product : **Ethernet Switching Hub**

Trade Name : Korenix

Model Number : JetNet 2006-M12; JetNet 2006-RJ

Prepared for

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Remark:

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The test results in the report only to the tested sample.

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Statement of Compliance

Applicant: Korenix Technology Co., Ltd.
Manufacturer: Korenix Technology Co., Ltd.
Product: Ethernet Switching Hub
Model No.: JetNet 2006-M12; JetNet 2006-RJ
Tested Power Supply: DC 24V
Date of Final Test: Sep. 23, 2011
Revision of Report: Rev. 00

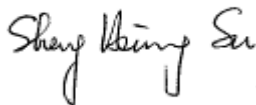

Measurement Procedures and Standards Used :

- EN 50155: 2007 for Clause 12.2.11
 IEC / EN 61373: 1999



The device described above was tested by Taiway Testing Laboratory and witness by Interocean EMC Technology Corporation to determine the performance is compliance with the Environmental requirement of above standards. Data & Report were consolidated by Interocean EMC Technology Corporation. The results contained in this report are subject to the test sample only.

Report Issued : 2011/09/30

Taiway Testing Laboratory:

Project Engineer :  Reviewed : 
Sheng Hsiung Su Wan Yi Wang

Interocean EMC Technology Corp.:

Witness Engineer :  Approved : 
Gimmy Tsai Benson Tsai

1 General Information

1.1 Ordering Product Information

- Product** : Ethernet Switching Hub
- Model Number** : JetNet 2006-M12; JetNet 2006-RJ
- Applicant** : **Korenix Technology Co., Ltd.**
FI 2, No.188, Bao-ciao Rd., Shing Tien City, Taipei 23145, Taiwan
- Manufacturer** : **Korenix Technology Co., Ltd.**
FI 2, No.188, Bao-ciao Rd., Shing Tien City, Taipei 23145, Taiwan
- Power Supply** : DC 24V
- Date of Test** : Sep. 22 ~ 23, 2011
- Additional Description** : 1) The test models are “**JetNet 2006-M12; JetNet 2006-RJ**” and included in this report.
- 2) All models have identical electrical design and construction. The difference for all models include in this report, please see details as below:

Model No.	Type of Connector
JetNet 2006-M12	M12
JetNet 2006-RJ	RJ45

- 3) The more product information please refers to the user's manual.

1.2 Summary of Test Results

Report Clause	Phenomenon	EN 50155 Reference Clause(s)	Reference standard	Result
2	Vibration Test	12.2.11	IEC / EN 61373	Applicable
3	Increased Vibration Test	12.2.11	IEC / EN 61373	Applicable
4	Shock Test	12.2.11	IEC / EN 61373	Applicable

2 Vibration Test (Operating)

2.1.1 Instrument

Instrument	Manufacturer	Model	Serial No.
U-D vibration machine	N/A	TA240D-208/CSTA.	N/A
Control System	VTS	CONTROLLER	N/A
Accelerometer	DYTRAN	3055A2	N/A

2.1.2 Test ambience

Temperature: $27 \pm 3^{\circ}\text{C}$

Humidity: $50\% \pm 5\%$ (RH)

2.1.3 Test Requirement

Reference to EN 50155 section 12.2.11

Frequency: 5Hz to 150Hz

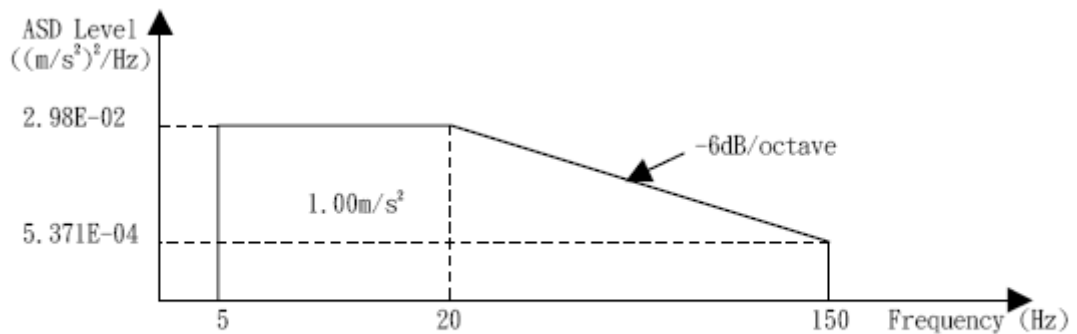
G_{rms} value: Vertical (Z-Axis) 1.00m/s^2

Transverse (Y-Axis) 0.70m/s^2

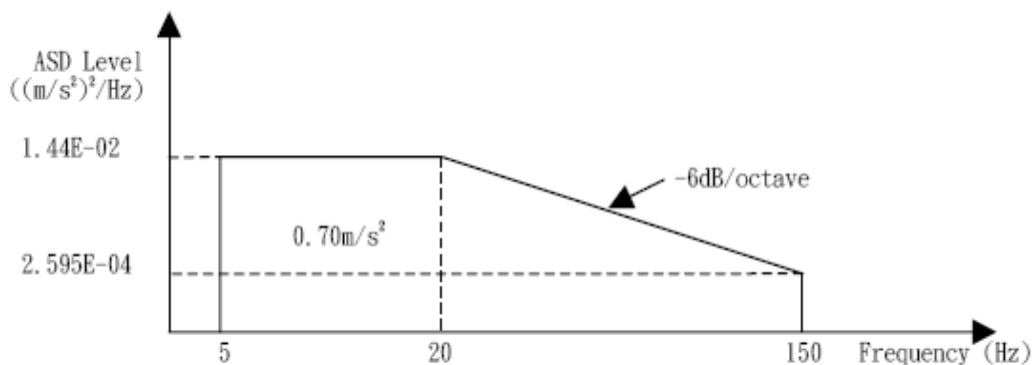
Longitudinal (X-Axis) 0.70m/s^2

Duration: 10 min/axis ◦

Power Spectrum Density shown as follow:



PSD of Vertical (Z) Axis



PSD of Longitudinal (X) Axis and Transverse (Y) Axis

2.1.4 Test Procedures

Reference to IEC / EN 61373

2.1.5 Test Result

PASS.

1. Test configurations are shown in Fig.1~Fig.3.
2. The testing data are shown in Fig.4~Fig.6.
3. Test specimen was visually inspected after test. No external physical damage was noted.
4. The function of specimen was normal during and after the vibration test.



Fig. 1: Vibration Test in X-Axis



Fig. 2: Vibration Test in Y-Axis



Fig. 3: Vibration Test in Z-Axis

Fig. 4:

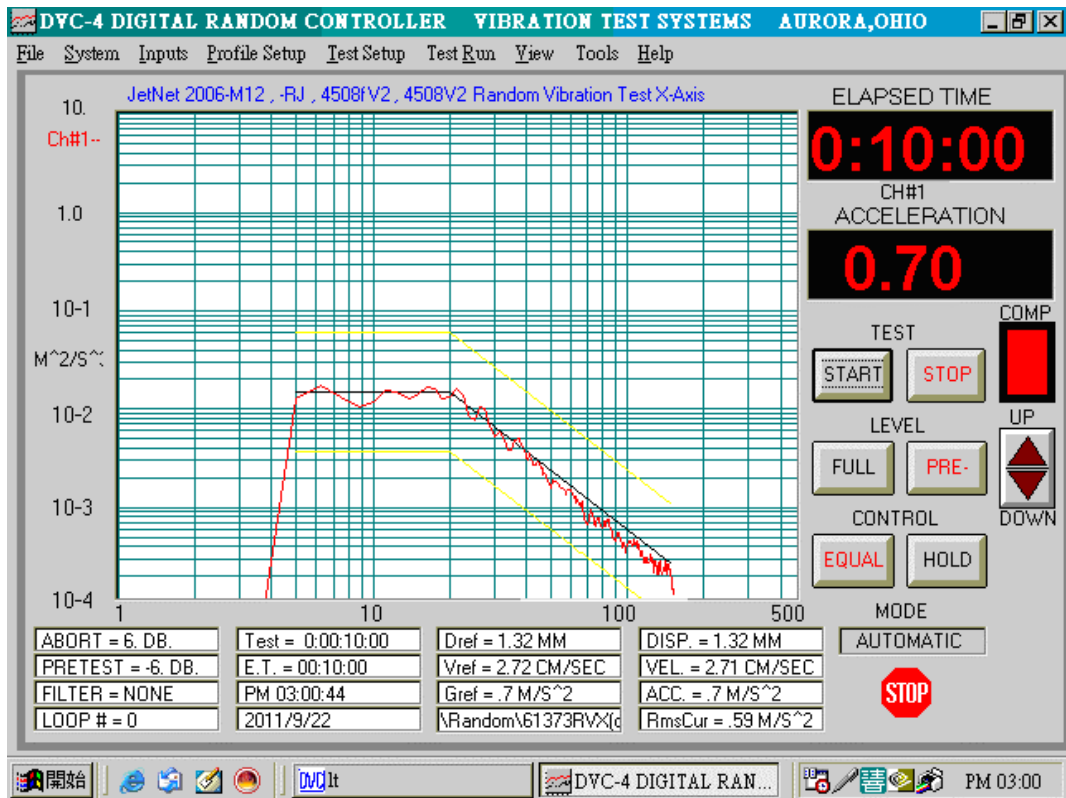


Fig. 5:

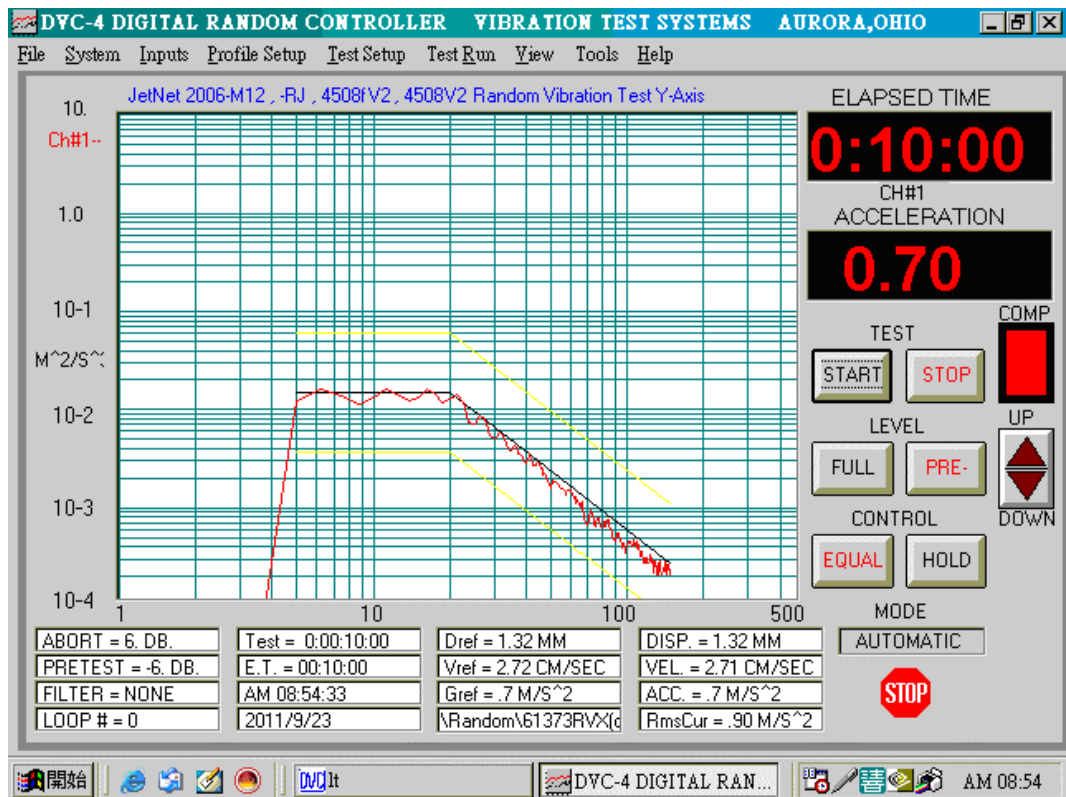
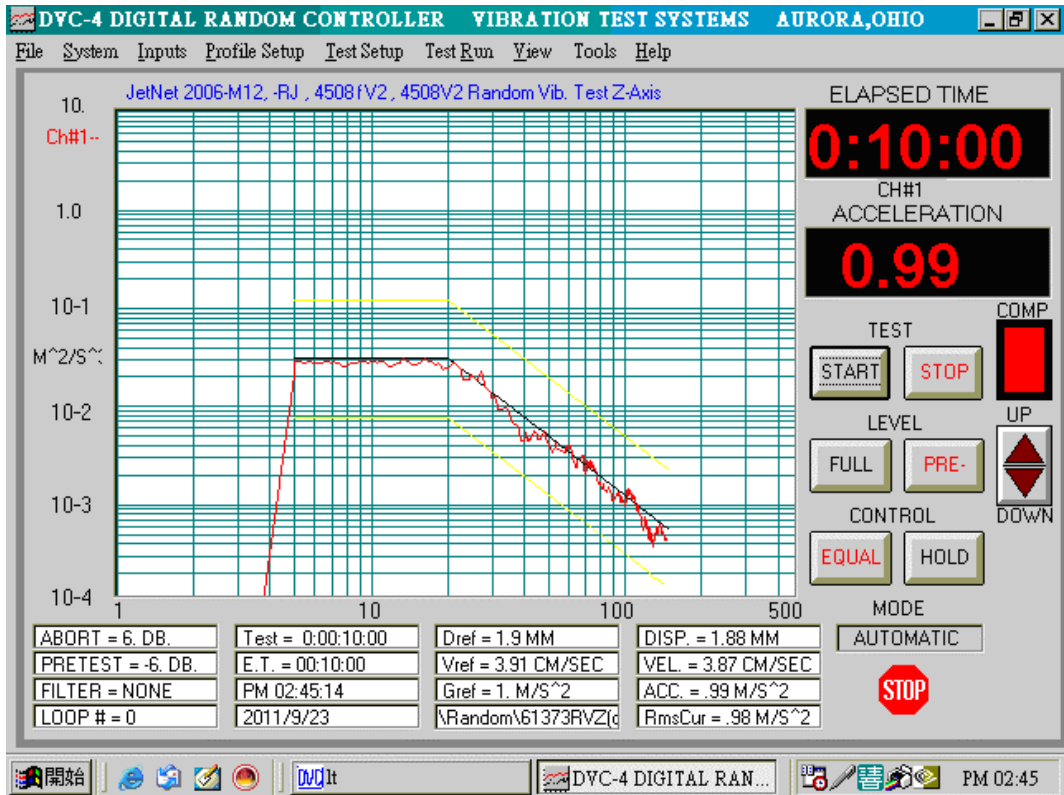


Fig. 6:



3 Increased Vibration test

3.1.1 Instrument

Instrument	Manufacturer	Model	Serial No.
U-D vibration machine	N/A	TA240D-208/CSTA.	N/A
Control System	VTS	CONTROLLER	N/A
Accelerometer	DYTRAN	3055A2	N/A

3.1.2 Test ambience

Temperature: $27.3 \pm 3^{\circ}\text{C}$

Humidity: $50\% \pm 5\%$ (RH)

3.1.3 Test Requirement

Reference to EN 50155 section 12.2.11

Frequency: 5Hz to 150Hz

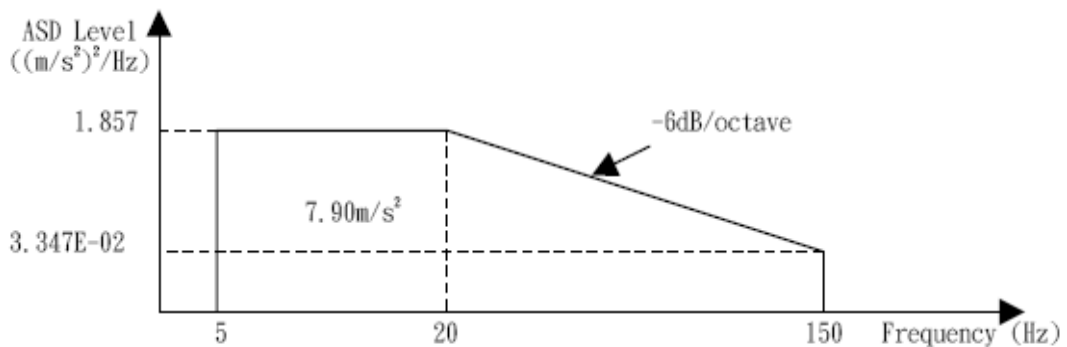
G_{rms} value: Vertical (Z-Axis) 7.90m/s^2

Transverse (Y-Axis) 5.50m/s^2

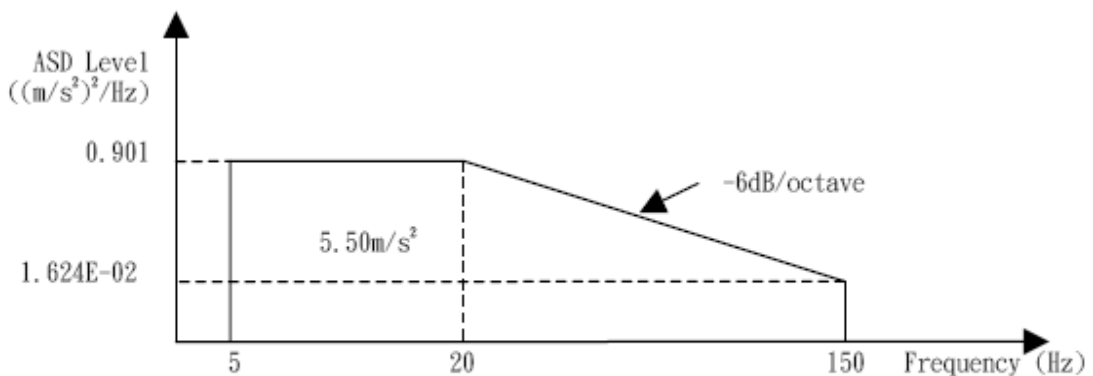
Longitudinal (X-Axis) 5.50m/s^2

Duration: 5 hours/axis ◦

Power Spectrum Density shown as follow:



PSD of Vertical (Z) Axis



PSD of Longitudinal (X) Axis and Transverse (Y) Axis

3.1.4 Test Procedures

Reference to IEC / EN 61373

3.1.5 Test Result

PASS.

1. Test configurations are shown in Fig.1~Fig.3.
2. The testing data are shown in Fig.4~Fig.6.
3. Test specimen was visually inspected after test. No external physical damage was noted.
4. The function of specimen was normal after the increased vibration test.



Fig. 1: Increased Vibration test in X-Axis



Fig. 2: Increased Vibration test in Y-Axis



Fig. 3: Increased Vibration test in Z-Axis

Fig. 4:

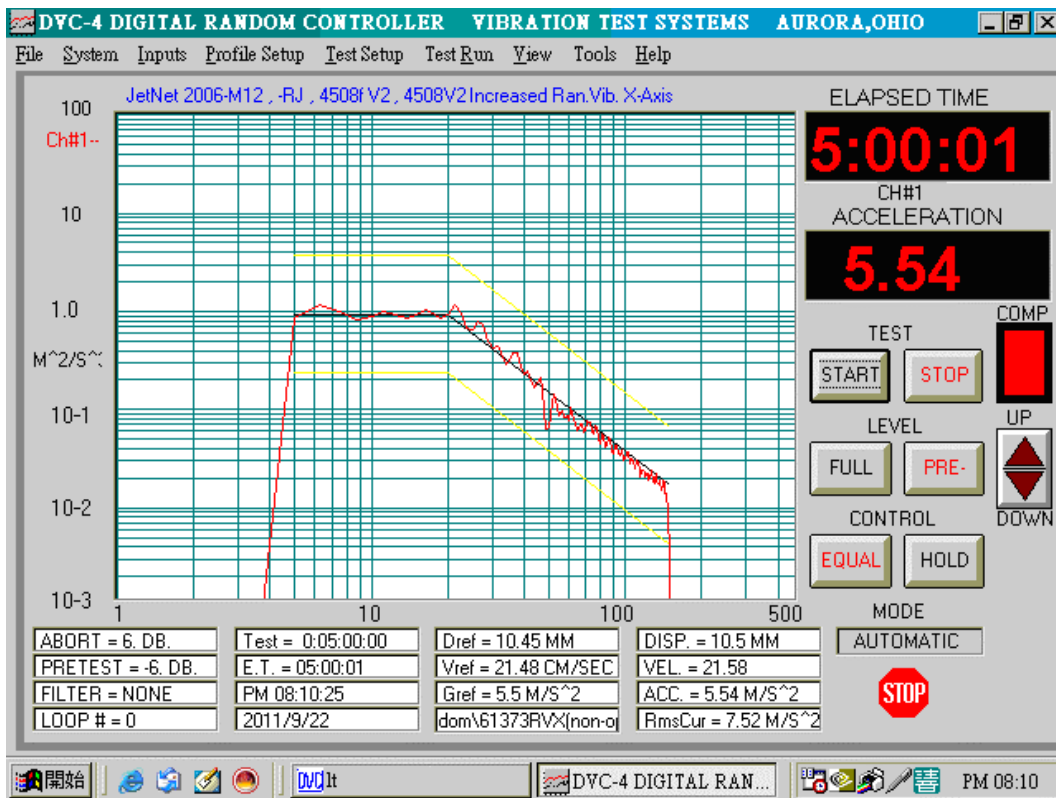


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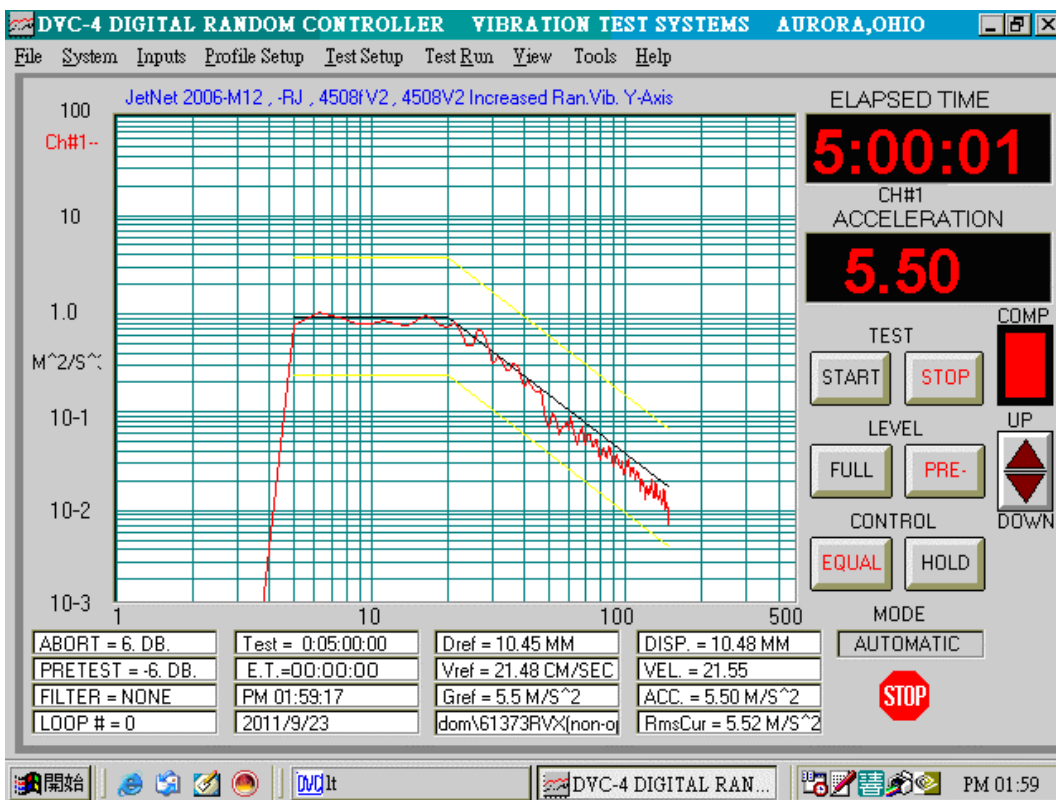
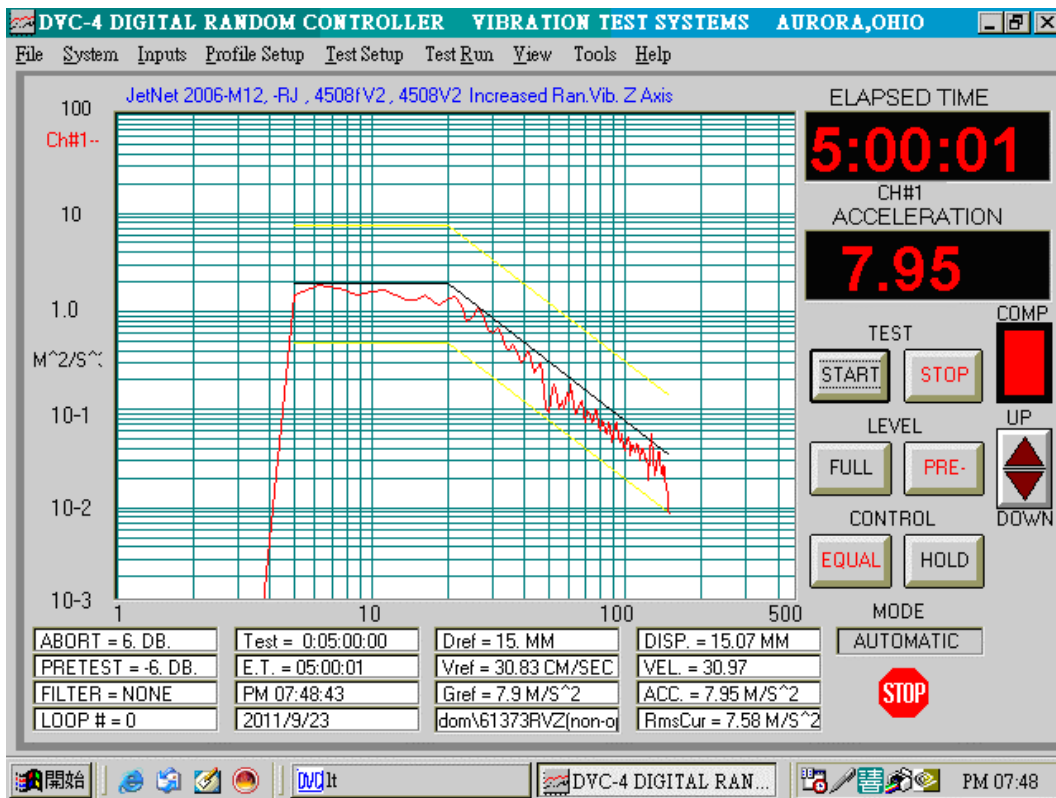


Fig. 6:



4 Shock Test

4.1.1 Instrument

Instrument	Manufacturer	Model	Serial No.
U-D vibration machine	N/A	TA240D-208/CSTA.	N/A
Control System	VTS	CONTROLLER	N/A
Accelerometer	DYTRAN	3055A2	N/A

4.1.2 Test ambience

Temperature: $27^{\circ}\text{C} \pm 3^{\circ}\text{C}$

Humidity: $50\% \pm 5\%$ (RH)

4.1.3 Test Requirement

Reference to EN 50155 section 12.2.11

Wave Form: Half Sine Wave

Acceleration Peak: Vertical (Z) 30m/s^2

Transverse (Y) 50m/s^2

Longitudinal (X) 50m/s^2

Duration: 30ms

Shock Times: 3 times for each direction, 6 directions, 18 times in total ◦

4.1.4 Test Procedures

Reference to EN 61373

4.1.5 Test Result

PASS.

1. Test configurations are shown in Fig.1~Fig.3.
2. The testing data are shown in Fig.4~Fig.9.
3. Test specimen was visually inspected after test. No external physical damage was noted.
4. The function of specimen was normal during and after the shock test.



Fig. 1: Shock Test in X-Axis



Fig. 2: Shock Test in Y-Axis



Fig. 3: Shock Test in Z-Axis

Fig. 4:

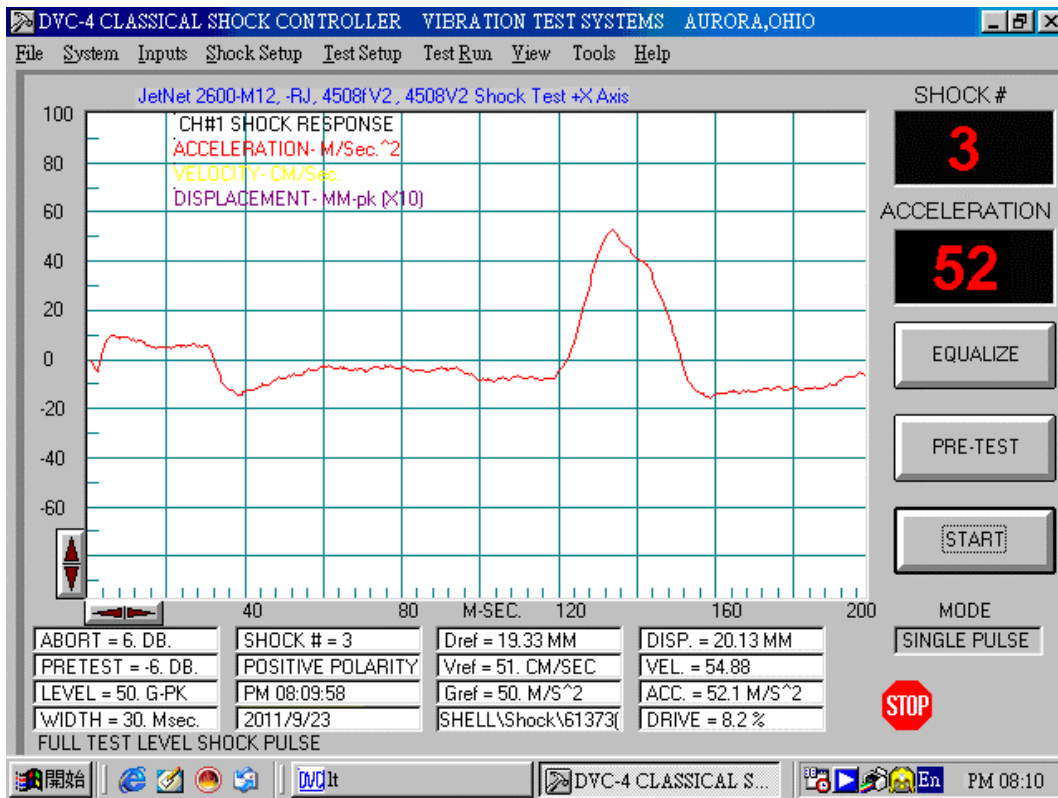


Fig. 5:

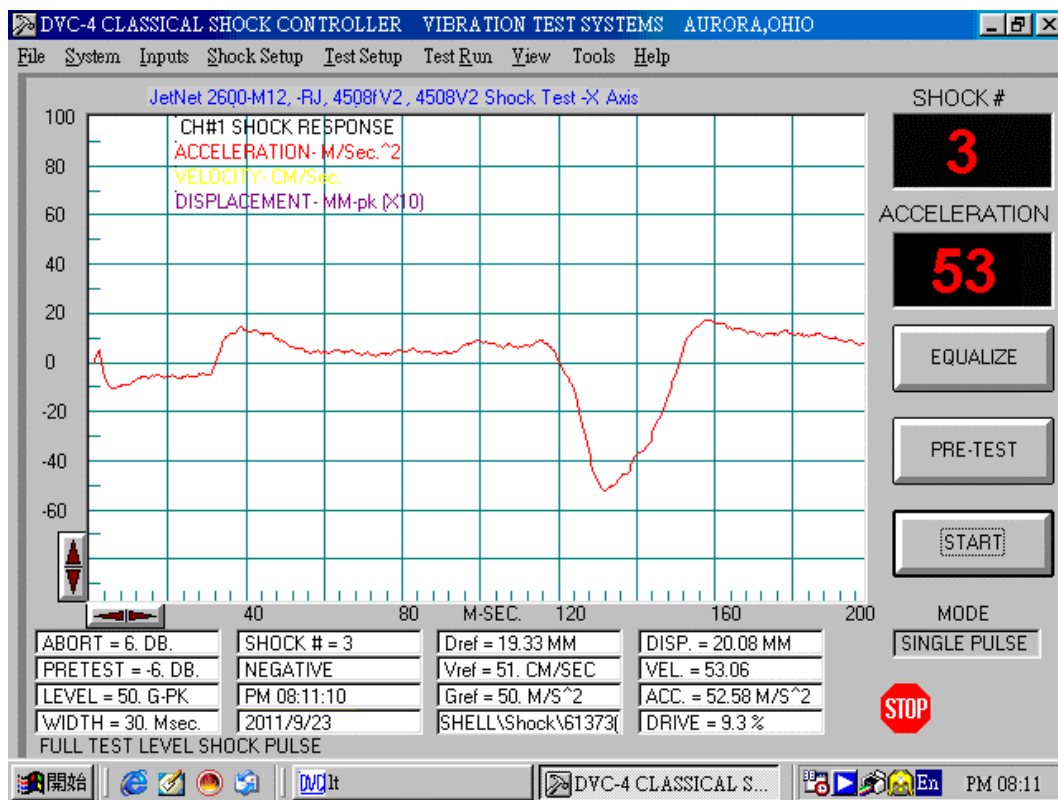


Fig. 6:

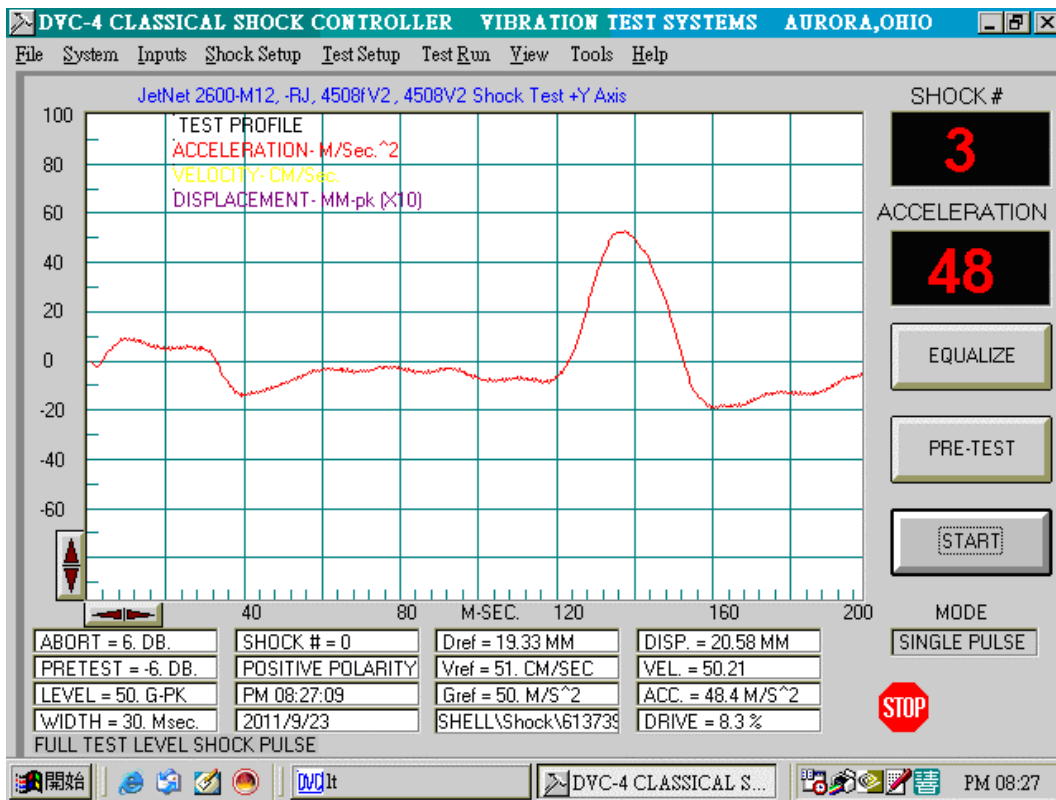


Fig. 7:

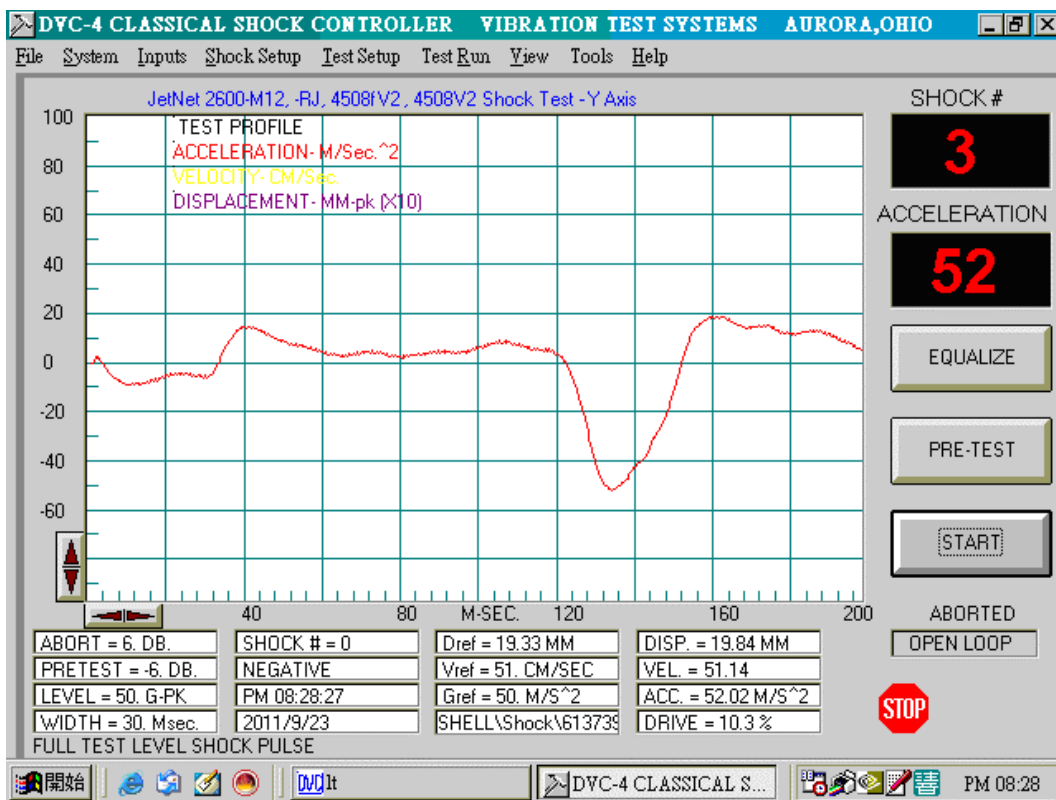


Fig. 8:

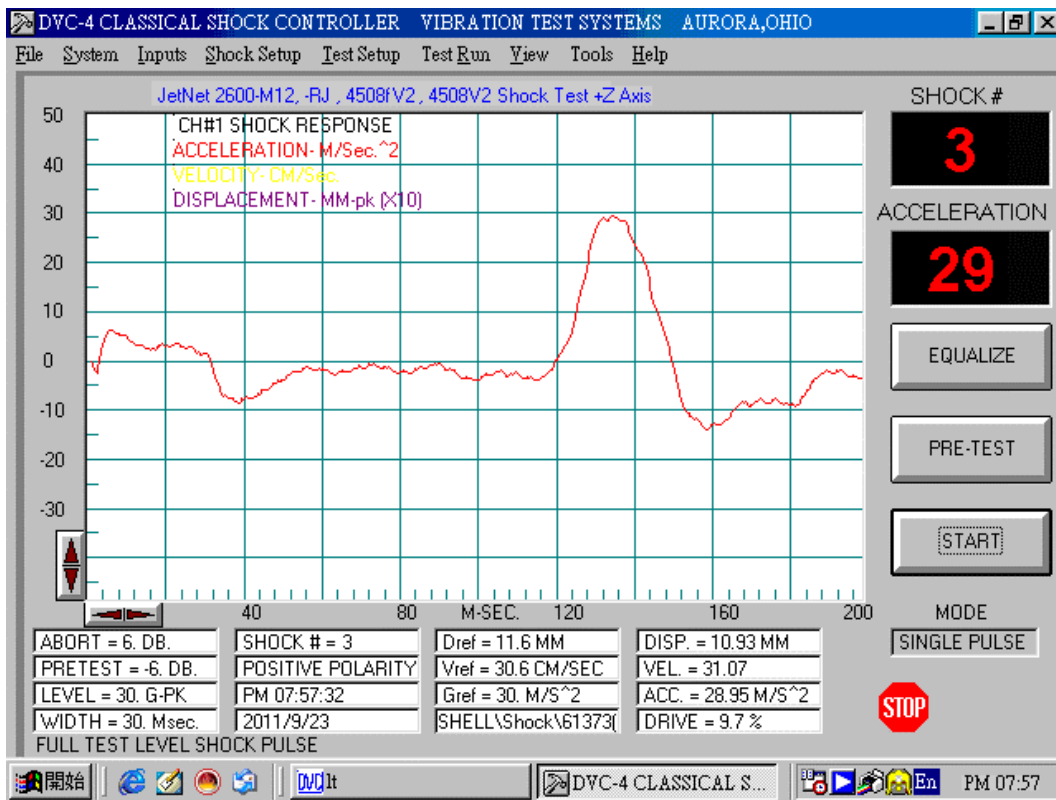
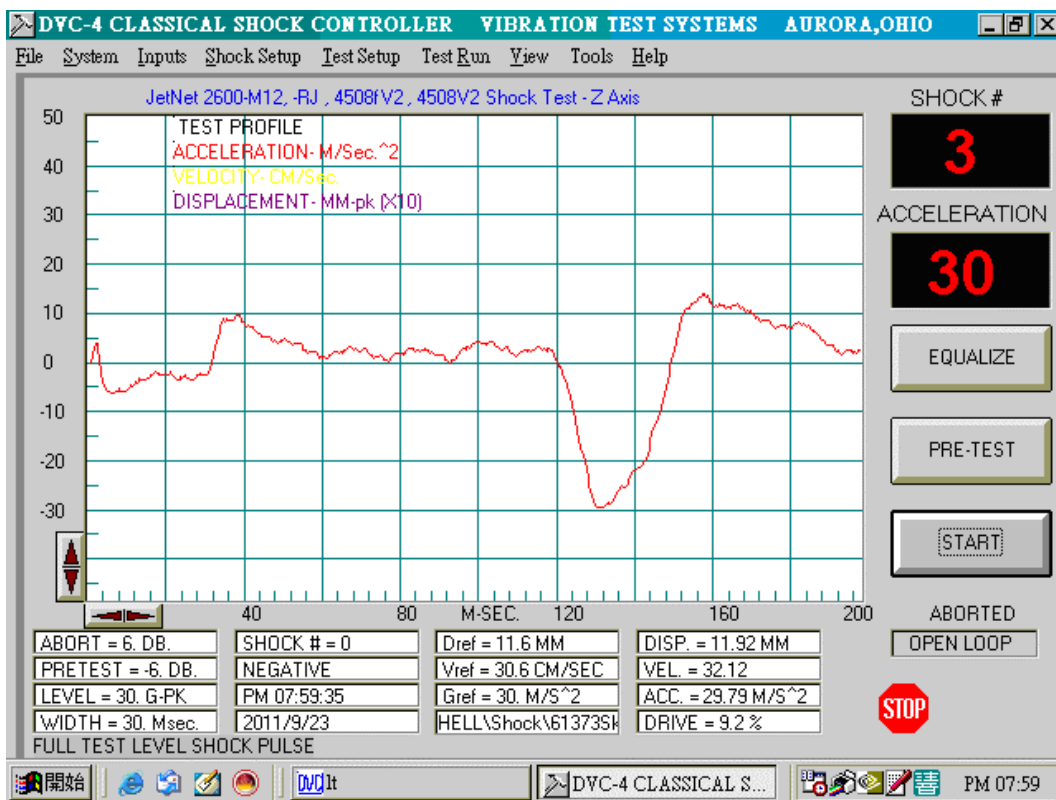
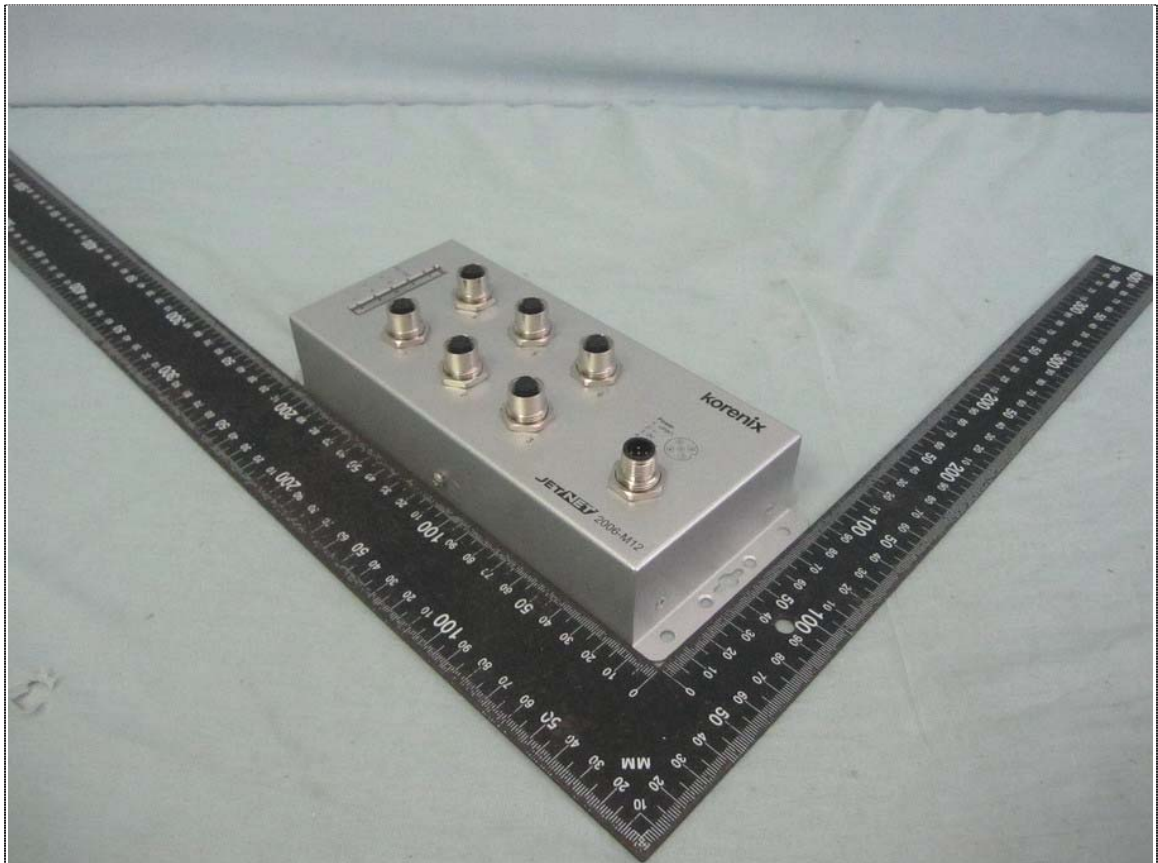


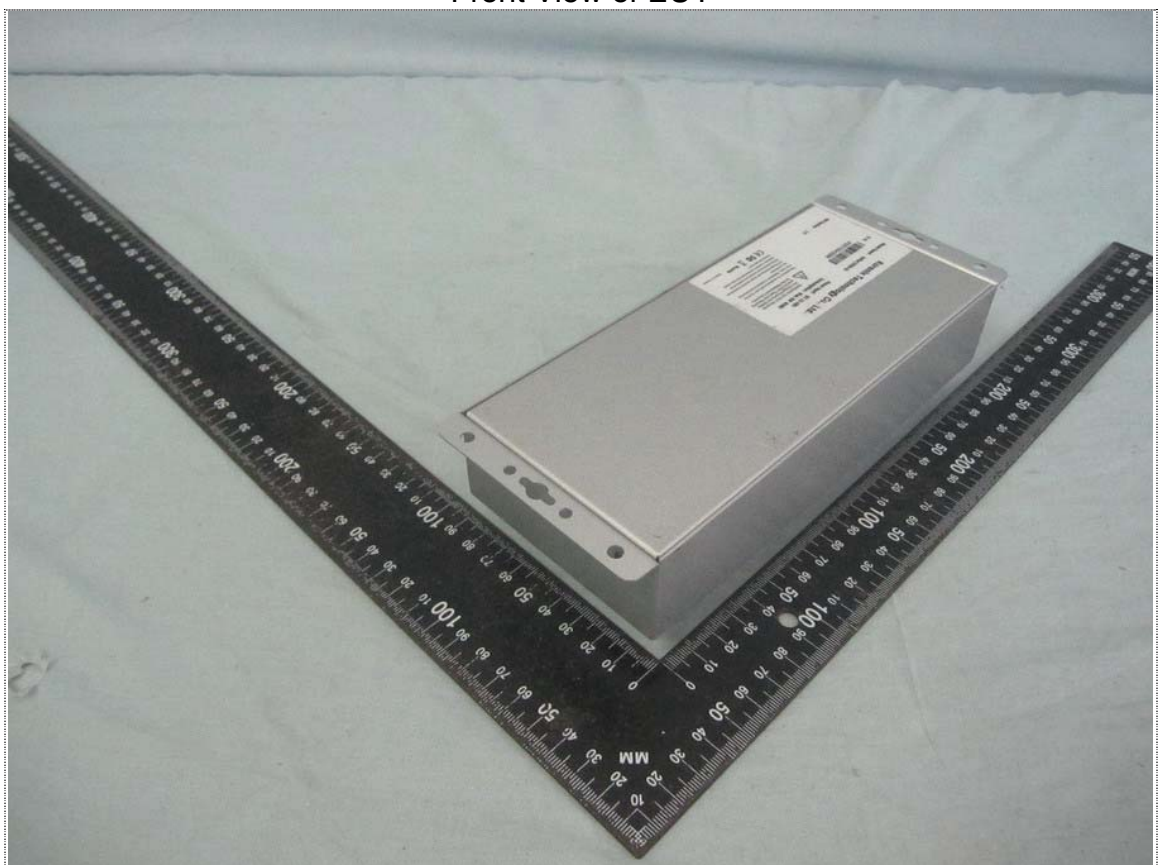
Fig. 9:



5 Photographs of EUT



Front View of EUT



Rear View of EUT