

**TEST REPORT****IEC 60945****Maritime navigation and radiocommunication equipment and systems –
General requirements – Methods of testing and required test results**

Report No.....:	T140729D03-RL
Date of Issue.....:	Oct. 09, 2014
Total number of pages.....:	40
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Location.....:	No.8, Jiucengling, Xinhua Dist., Tainan City 712, Taiwan (R.O.C.)
Test Place.....:	6 F, No.605, Zhongshan Rd., Xinhua Dist., Tainan City 712, Taiwan (R.O.C.)
Applicant.....:	AXIOMTEK CO., LTD.
Address.....:	8F., No.4, Lane 235, Baoqiao Road, Xindian District, New Taipei City 231, Taiwan (R.O.C.)
Manufacturer.....:	AXIOMTEK CO., LTD.
Address.....:	8F., No.4, Lane 235, Baoqiao Road, Xindian District, New Taipei City 231, Taiwan (R.O.C.)
Standards.....:	IEC 60945 : 2002+Corr.1:2008, clause 5.2.2, 5.2.3, 7.1, 7.2, 8.1, 8.2, 8.3, 8.4, 8.7 and 12.1.2 IACS E10 NO.9 and 10 IEC 60068-2-1 : 2007 IEC 60068-2-2 : 2007 IEC 60068-2-6 : 2007 IEC 60068-2-30 : 2005
Test procedure.....:	Standard
Non-standard test method.....:	N/A
Type of test equipment	tBOX
Trade mark.....:	AXIOMTEK
Model/Type designation.....:	tBOX330-870-FL
Rating.....:	I/P : 24Vdc, 2.5A
Declaration: CCS represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (NML) of R.O.C., or National Institute of Standards and Technology (NIST) of U.S.A. CCS's reports apply only to the specific samples tested under conditions. It is manufacture's res-ponsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components.CCS shall have no liability for any declarations, inferences or generalizations drawn by the client or others from CCS issued reports. CCS's reports must not be used by the client to claim product endorsement by the authorities or any agency of the Government. This report is the confidential property of the client. As a mutual protection to the clients, the public and CCS-self, extracts from the test report shall not be reproduced except in full with CCS's authorized written approval.	
Tested by:	Reviewed by:
Kasim Fan <i>Kasim Fan</i>	Amber Liao <i>Amber Liao</i>



Test item particulars:	
Protection against ingress of water.....	IPX0
Mass of equipment.(Kg).....	Approx. 5.4 Kg
Testing :	
Date of receipt of test item	Oct. 09, 2014
Date(s) of performance of tests	Oct. 09, 2014 to Oct. 09, 2014
Possible test case verdicts:	
-Test case does not apply to the test object.	N(.A.)
-Test object does meet the requirement.	P(ass)
-Test object does not meet the requirement.	F(ail)
General Remarks:	
The test results presented in this report relate only to the object tested.	
This report shall not be reproduced, except in full, without the written approval of the testing laboratory.	
"(see Enclosure #) refers to additional information appended to the report.	
"(see appended table)" refers to a table appended to the report.	
Comments:	
Sample Number: D14072903-0101.	
Note(s) :	
<i>The modifications made on relevant pages are marked in this style.</i>	



Revision History

Rev.	Issue Date	Report Number	Revisions	Effect Page	Revised By
00	Sep. 23, 2014	T140729D03-RL	Original report	N/A	Amber Liao
01	Oct. 09, 2014	T140729D03-RL	1. Modify product name to tBOX	6	Amber Liao

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**Table of Testing Summary Results**

Item	Description	Test Standard	Verdict
1.1	VISUAL INSPECTION	IEC 60945, clause 8.1	Passed
1.2	EXTREME POWER SUPPLY	IEC 60945, clause 5.2.2, 7.1	Passed
1.3	EXCESSIVE CONDITIONS	IEC 60945, clause 5.2.3, 7.2	Passed
1.4	PROTECTION AGAINST ACCIDENTAL ACCESS TO DANGEROUS VOLTAGES	IEC 60945, clause 12.1.2	Passed
2.1	DRY HEAT TEST	IEC 60945, clause 8.2 IEC 60068-2-2	Passed
2.2	DAMP HEAT TEST	IEC 60945, clause 8.3 IEC 60068-2-30	Passed
2.3	LOW TEMPERATURE TEST	IEC 60945, clause 8.4 IEC 60068-2-1	Passed
2.4	VIBRATION TEST	IEC 60945, clause 8.7 IEC 60068-2-6	Passed
2.5	INSULATION RESISTANCE TEST	IACS E10 NO.9	Passed
2.6	HIGH VOLTAGE TEST	IACS E10 NO.10	Passed



1 CHARACTERISTIC TEST

1.1. VISUAL INSPECTION

Product	tBOX
Model/Type designation	tBOX330-870-FL
CCS sample number:	D14072903-0101

1.1.1. INSPECTION REQUIREMENT

The visual inspection shall be carried out to ensure that the equipment is of sound construction and, so far as can be ascertained, meets its specified requirements.

1.1.2. INSPECTION REQUIREMENT

The inspection procedure was in accordance with IEC 60945 clause 8.1.

1.1.3. INSPECTION RESULT

PASSED

1.1.4. EUT PHOTO



Model: tBOX330-870-FL



Model: tBOX330-870-FL



Model: tBOX330-870-FL



Model: tBOX330-870-FL



1.2. Extreme power supply

1.2.1. TEST REQUIREMENT

Rated voltage= 24VDC= U_n

Exposures, each with a duration of 15 minutes, are performed at the following supply voltages:

$U_1 = U_n + 30\% = 31.2 \text{ VDC}$

$U_2 = U_n - 10\% = 21.6 \text{ VDC}$

The test specimens are observed during the exposures, and a functional test is performed at the end of each exposure.

An additional power supply variations test is performed as part of the functional test during the low temperature and the dry heat test profiles.

1.2.2. TEST INSTRUMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Digital Multimeter	FLUKE	15B	18060325	10.15.2014
Thermo Recorder	T&D	TR-73U	E00947	08.14.2015
Programmable DC Power Supply	Chroma	62024P-600-8	62024PD00131	N.C.R

1.2.3. TEST PROCEDURE

The test procedure was in accordance with IEC 60945 clause 4.3.1, 5.2.2 and 7.1



1.2.4. TEST RESULTS

Temperature	26.3°C	Humidity	36.0% RH
Pressure	1007.9 mbar	Tested By	Kasim Fan
TEST RESULTS		PASSED	

NO.	Input Voltage (Un)	Test Voltage		Test time	Result /Observation
1	24VDC	+30% Un	31.2VDC	15 min.	Normal operation
2	24VDC	-10%Un	21.6VDC	15 min.	Normal operation

1.2.5. TEST PHOTO



Supply variations Test(Test Voltage:31.2VDC)



1.3.Excessive conditions

1.3.1. TEST REQUIREMENT

a) Power Supply Misconnection Test

- The test specimens are subjected to an input from a power supply of reversed polarity for a period of 5 minutes.
- After completion of the test and reset of the protection of the test specimens, if required, the power supply shall be connected normally and a performance check shall be carried.

b) Excessive Current Test

- Short circuit the Positive and Negative input after the fuse in the EUT.

c) Excessive Voltage Test

- Excessive voltage is greater than that specified in 5.2.2. Protection shall be provided against such excesses at an appropriate level chosen by the manufacturer.

1.3.2. TEST INSTRUMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Digital Multimeter	FLUKE	15B	18060325	10.15.2014
Thermo Recorder	T&D	TR-73U	E00947	08.14.2015
Programmable DC Power Supply	Chroma	62024P-600-8	62024PD00131	N.C.R
DC power source	T-Power	TK-15040D	206487	N.C.R

1.3.3. TEST PROCEDURE

The test procedure was in accordance with IEC 60945 clause 4.3.2, 5.2.3 and 7.2

1.3.4. TEST RESULTS

Temperature	26.3°C	Humidity	36.0% RH
Pressure	1007.9 mbar	Tested By	Kasim Fan
TEST RESULTS		PASSED	



NO.	Test Voltage (Un)	Test time	Result /Observation
Power Supply Misconnection Test :			
a	24VDC	5 min.	- The unit shut down when input from a power supply of reversed polarity. (The unit normal operation after power supply returned to the correct polarity.)
Excessive Current Test :			
b	24VDC	5 min.	- Fuse opened immediately, the unit shut down. (The unit normal operation after replacing a new fuse of the same rating.)
Excessive Voltage Test :			
c	32VDC → 42.6VDC	10 min.	- The unit shut down when input voltage is supplied at 42.6VDC. (The unit normal operated after supplied 24VDC voltage.)

No malfunction of the test specimens occurs during exposure.
During and after completion of the test, the function of the test specimens was OK.

1.3.5. TEST PHOTO



Power Supply Misconnection Test



Excessive Current Test



Excessive Voltage Test



1.4.DANGEROUS VOLTAGES TEST

1.4.1. TEST REQUIREMENT

For low-voltage equipment (rated voltages not exceeding 1000 V a.c. and 1500 V d.c.) the test finger shall be connected to a low-voltage supply (of not less than 40 V and not more than 50 V) in series with a suitable lamp connected between the access probe and the hazardous parts inside the enclosure.

1.4.2. TEST INSTRUMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Digital Multimeter	FLUKE	15B	18060325	10.15.2014
Thermo Recorder	T&D	TR-73U	E00947	08.14.2015
Test Finger	TESTING	--	TP12	08.19.2015
Handy push-pull Gauge	AL-GOL	NK-300	37496	03.24.2015
Programmable DC Power Supply	Chroma	62024P-600-8	62024PD00131	N.C.R

1.4.3. TEST PROCEDURE

The test procedure was in accordance with IEC 60945- clause 12.1.2.

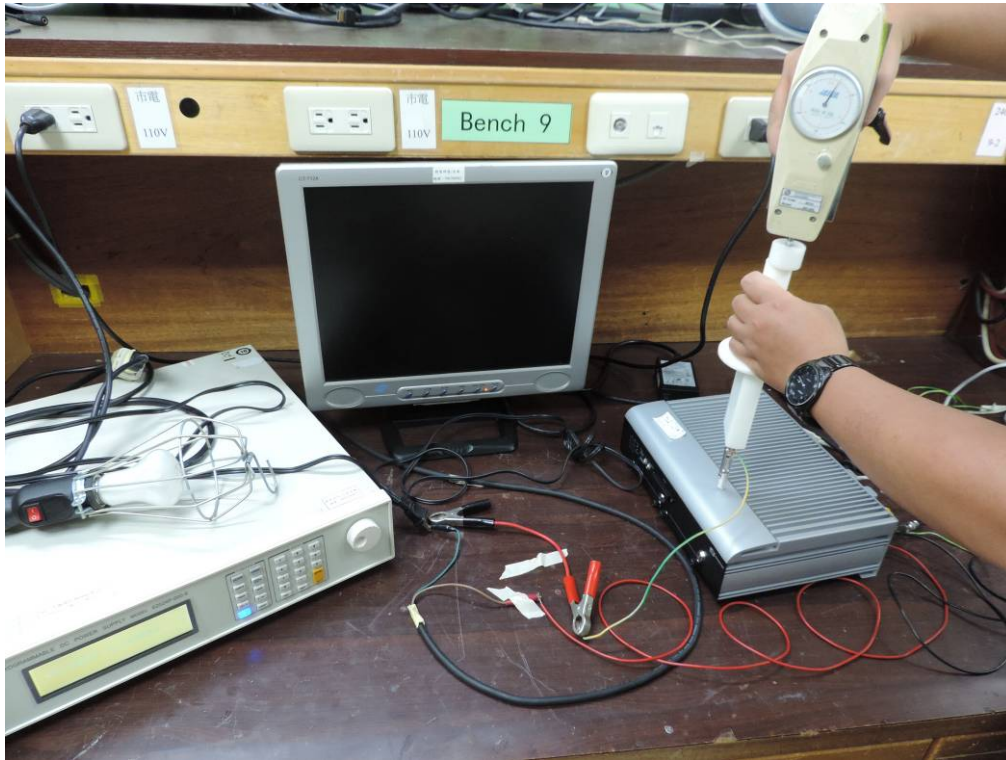
1.4.4. TEST RESULTS

Temperature	26.3°C	Humidity	36.0% RH
Pressure	1007.9mbar	Tested By	Kasim Fan
TEST RESULTS		PASSED	

For the low voltage test, the lamp shall not light.



1.4.5. TEST PHOTO



Dangerous voltages test



2 ENVIRONMENTAL TEST

2.1.DRY HEAT TEST

2.1.1. TEST REQUIREMENT

The EUT is placed in a chamber at normal room temperature and relative humidity. The EUT and if appropriate, any climatic control devices with which it is provided shall then be switched on. The temperature shall then be raised to and maintained at the maximum operating temperature specified with a maximum deviation of $\pm 3^{\circ}\text{C}$. At the end of a soak period of 10 h to 16 hours, the EUT shall be subjected to a performance test and check. The temperature of the chamber shall be maintained at the maximum operating temperature $\pm 3^{\circ}\text{C}$ during the whole performance test period. At the end of the test, the EUT shall be returned to normal environmental conditions.

2.1.2. TEST INSTRUMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Programmable DC Power Supply	Chroma	62024P-600-8	62024PD00131	N.C.R
Digital Multimeter	FLUKE	15B	18060325	10.15.2014
Thermo Recorder	T&D	TR-73U	E00947	08.14.2015
Temperature & Humidity Chamber	Terchy	MHG-120LF	921122	07.31.2015

2.1.3. TEST PROCEDURE

The test procedure was in accordance with IEC60068-2-2.

2.1.4. TEST RESULTS

Temperature	24.8°C	Humidity	43.1% RH
Pressure	1002.6 mbar	Tested By	Kasim Fan
TEST RESULTS		PASSED	

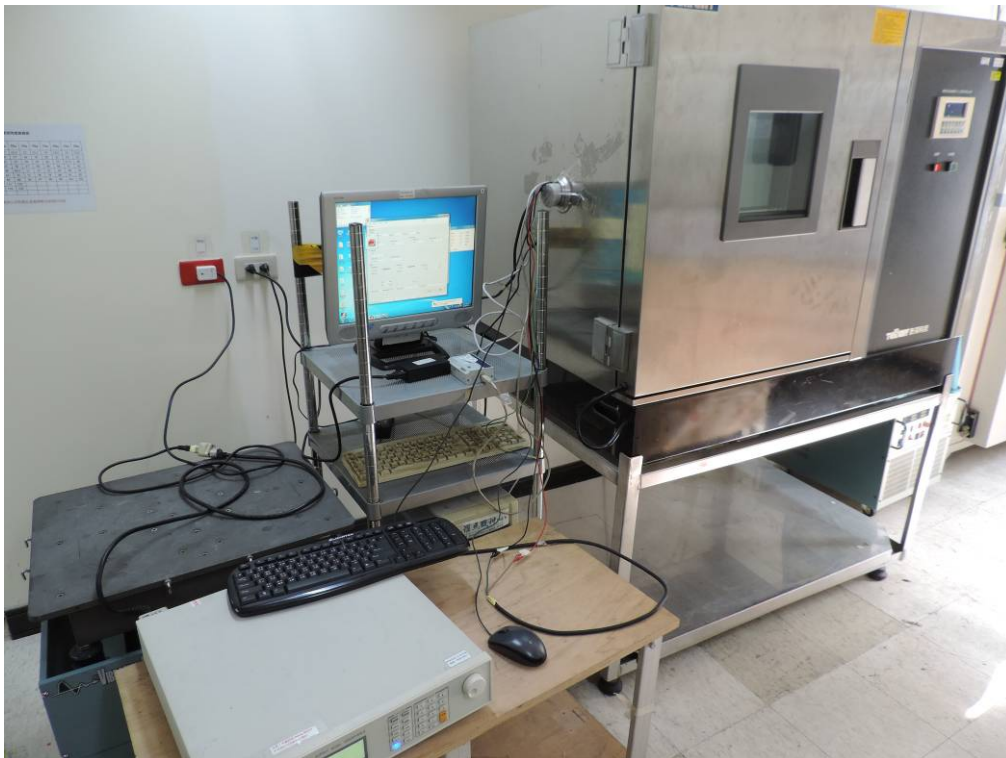


Condition	Temperature °C	Duration	Observation
Operating	55 °C	16 Hours	No Deviation

2.1.5. TEST PHOTO



Test condition : Operating



Test configuration of the functional test after recovery



2.2.DAMP HEAT TEST

2.2.1. TEST REQUIREMENT

The EUT shall be placed in a chamber at normal room temperature and relative humidity. The temperature shall then be raised to $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, and the relative humidity raised to $93\% \pm 3\%$ over a period of $3\text{ h} \pm 0,5\text{ h}$. These conditions shall be maintained for a period of 10 h to 16 h.

Any climatic control devices provided in the EUT may be switched on at the conclusion of this period. The EUT shall be switched on 30 min later, or after such period as agreed by the manufacturer, and shall be kept operational for at least 2 h during which period the EUT shall be subjected to a performance check as specified in the relevant equipment standard. The temperature and relative humidity of the chamber shall be maintained as specified the whole test period. At the end of the test period and with the EUT still in the chamber, the chamber shall brought to room temperature in not less than 1 h. At the end of the test the EUT shall be returned to normal environmental conditions.

2.2.2. TEST INSTRUMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Programmable DC Power Supply	Chroma	62024P-600-8	62024PD00131	N.C.R
Digital Multimeter	FLUKE	15B	18060325	10.15.2014
Thermo Recorder	T&D	TR-73U	E00947	08.14.2015
Temperature & Humidity Chamber	Terchy	MHG-120LF	921122	07.31.2015

2.2.3. TEST PROCEDURE

The test procedure was in accordance with IEC 60068-2-30.

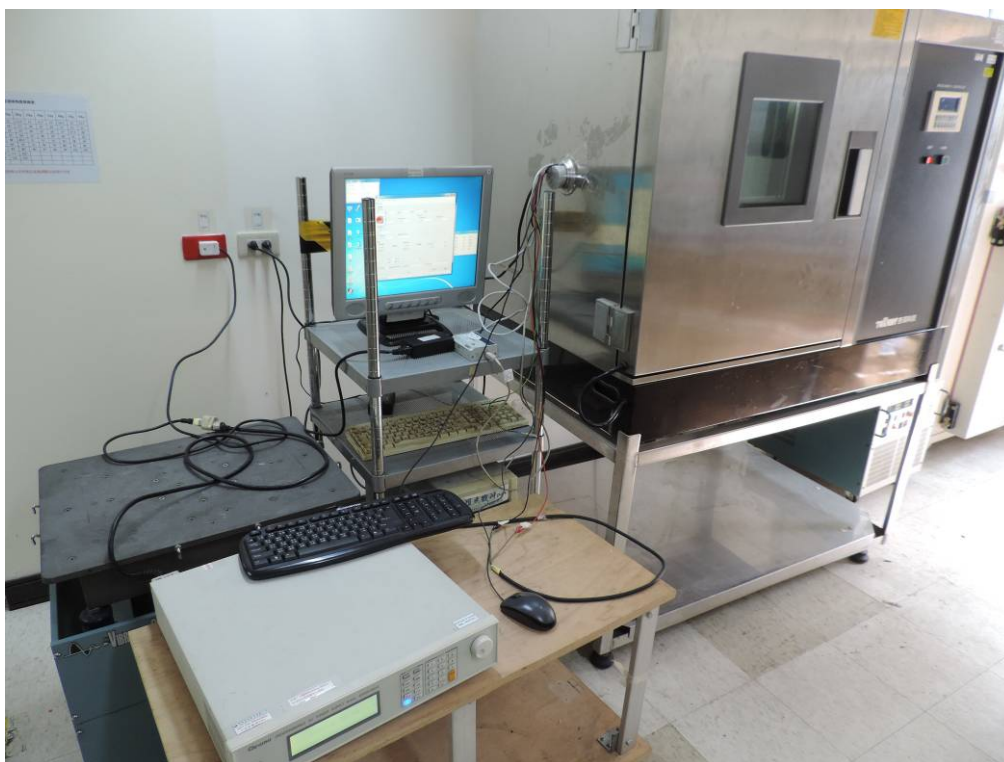
2.2.4. TEST RESULTS

Temperature	25.6°C	Humidity	52.2% RH
Pressure	1005.7 mbar	Tested By	Kasim Fan
TEST RESULTS		PASSED	



Temperature	Humidity	Duration	Observation
40°C	93%	16 Hours	No Deviation

2.2.5. TEST PHOTO



Test configuration of the functional test after recovery



2.3. LOW TEMPERATURE TEST

2.3.1. TEST REQUIREMENT

The EUT shall be placed in a chamber at normal room temperature and relative humidity. The temperature shall then be reduced to, and maintained at $-15^{\circ}\text{C} \pm 3^{\circ}\text{C}$, for a period of 10 h to 16h. Any climatic control devices provided in the EUT may be switched on at the conclusion of this period. The EUT shall be switched on 30 min later, or after such period as agreed by the manufacturer, and shall be kept operational for at least 2 h during which period the EUT shall be subjected to a performance check test and check as specified in the relevant equipment standard. The requirements of the performance test and check shall be met.

2.3.2. TEST INSTRUMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Programmable DC Power Supply	Chroma	62024P-600-8	62024PD00131	N.C.R
Digital Multimeter	FLUKE	15B	18060325	10.15.2014
Thermo Recorder	T&D	TR-73U	E00947	08.14.2015
Temperature & Humidity Chamber	Terchy	MHG-120LF	921122	07.31.2015

2.3.3. TEST PROCEDURE

The test procedure was in accordance with IEC60068-2-1.

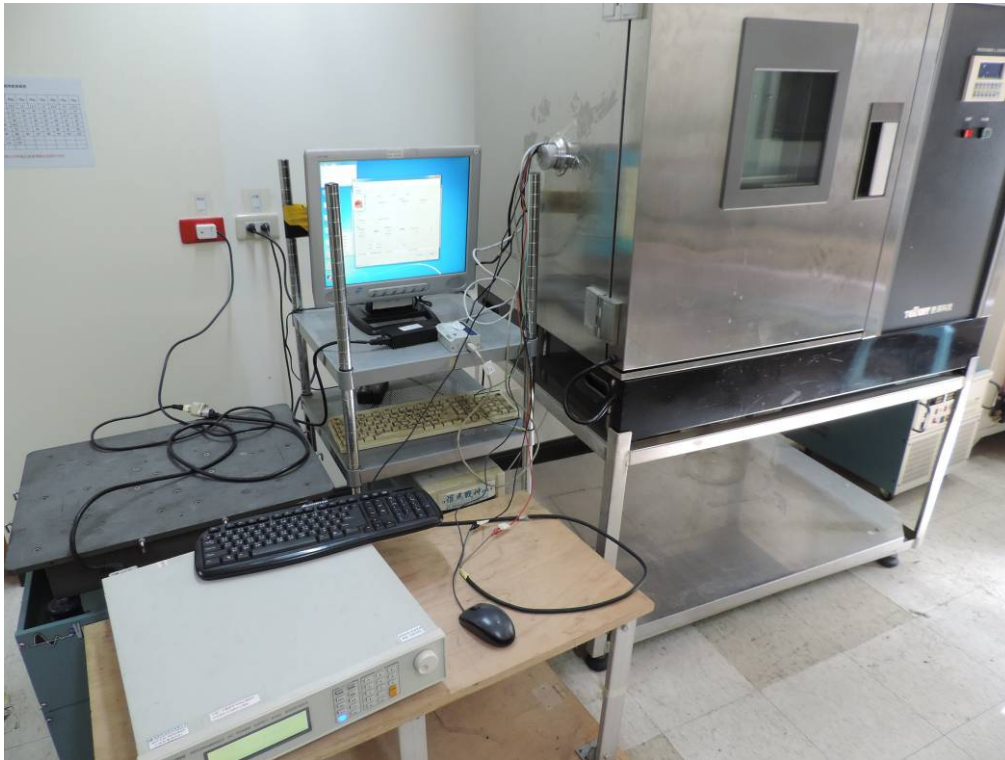
2.3.4. TEST RESULTS

Temperature	26.2°C	Humidity	48.2% RH
Pressure	1004.5 mbar	Tested By	Kasim Fan
TEST RESULTS		PASSED	

Condition	Temperature	Duration	Observation
Non-operating	-15°C	16 Hours	No Deviation



2.3.5. TEST PHOTO



Test configuration of the functional test after recovery



2.4. VIBRATION TEST (Sinusoidal)

2.4.1. TEST REQUIREMENT

The EUT, complete with any shock and vibration absorbers with which it is provided, shall be fastened to the vibration table by its normal means of support and in its normal attitude. The EUT may be resiliently suspended to compensate for weight not capable of being withstood by the vibration table. Provision may be made to reduce or nullify any adverse effect on EUT performance which might be caused by the presence of an electromagnetic field due to the vibration unit. The EUT shall be subjected to sinusoidal vertical vibration at all frequencies between: – 2 Hz to 5 Hz and up to 13,2 Hz with an excursion of $\pm 1 \text{ mm} \pm 10 \%$ (7 m/s² maximum acceleration at 13,2 Hz); – above 13,2 Hz and up to 100 Hz with a constant maximum acceleration of 7 m/s².

The frequency sweep rate shall be 0.5 octaves/min in order to allow the detection of resonances in any part of the EUT as mounted. A resonance search shall be carried out throughout the test. During the resonance search the EUT shall be externally observed, by unaided visual and aural means, for obvious signs of any resonances of components or sub-assemblies that may affect the integrity of the EUT. Such observations shall be recorded in the test report. If any resonance, as measured by a sensor fixed to the outside of the EUT at the location where obvious signs of resonance have been observed, has a magnitude ratio ≥ 5 measured relative to the surface where the EUT is fastened, the EUT shall be subjected to a vibration endurance test at each resonant frequency at the vibration level specified in the test with a duration of 2 h. When resonant frequencies with magnitude ratios ≥ 5 are harmonically related, only the fundamental frequency shall be tested. If no resonance with a magnitude ratio ≥ 5 occurs, the endurance test shall be carried out at one single observed frequency. If no resonance occurred, the endurance test shall be carried out at a frequency of 30 Hz. Performance check(s) shall be carried out at least once during each endurance test period, and once before the end of each endurance test period. The procedure shall be repeated with vibration in each of two mutually perpendicular directions in the horizontal plane. The requirements of the performance check shall be met.

**2.4.2. TEST INSTRUMENT**

Instrument Name	Manufacturer	Model	Serial No	Calibration Date	Validity Date
Electrodynamics Type Vibration Tester	Vibration Source Technology CO., LTD	VS-300-40	4000	06, 30, 2014	06, 29, 2015
Accelerometer	PCB	J352C34	153390		

2.4.3. TEST PROCEDURE

The test procedure was in accordance with IEC 60068-2-6:2007

2.4.4. TEST RESULTS

Temperature	26.7°C	Humidity	53.4% RH
Pressure	1001.5 mbar	Tested By	Yong Cing Chen
TEST RESULTS		PASSED	

- After recovery, this performance check at normal room temperature.

2.4.5. TEST PHOTO

See below photo.

Test 1 : Resonance-point detecting test

FIG.1.1 : X Axis direction mounted.



FIG.1.2 : X Axis direction mounted.



FIG.1.3 : X Axis direction mounted.



FIG.1.4 : X Axis direction mounted.





FIG.2.1 : X Axis Test screen.

Level: 100 % Profile Peak: 0.15852m/s² Control Peak: 0.15973m/s²
Frequency: 2.00145 Hz Sweep Rate: 0.5 Oct/Min Sweep Type: Logarithmic
Total Elapsed Time:00:22:42 Remaining Time: 00:00:00
Data was saved as a file at time: 2014-9-10 PM 05:05:02

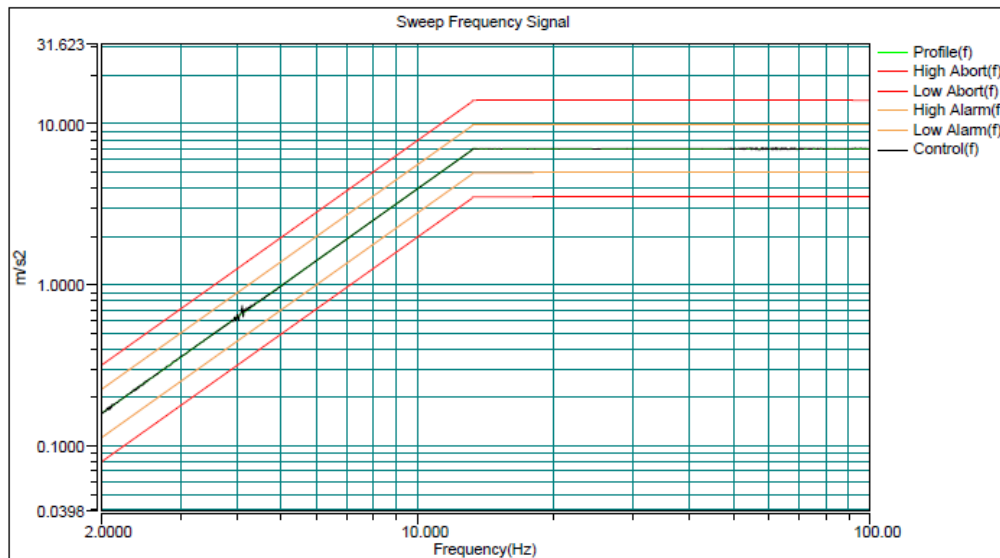


FIG.2.2 : X Axis Test screen.

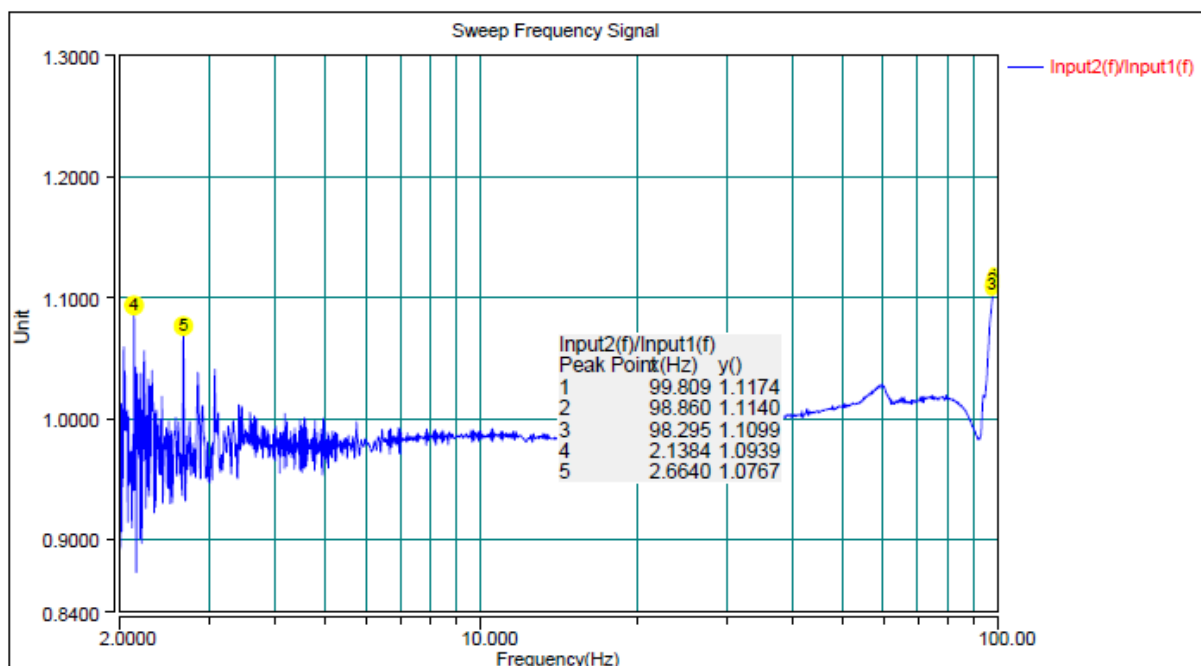


FIG.3.1 : Y Axis direction mounted.



FIG.3.2 : Y Axis direction mounted.



FIG.3.3 : Y Axis direction mounted.



FIG.3.4 : Y Axis direction mounted.





FIG.4.1 : Y Axis Test screen.

Level: 100 % Profile Peak: 0.15791m/s^2 Control Peak: 0.15944m/s^2
Frequency: 2.00145 Hz Sweep Rate: 0.5 Oct/Min Sweep Type: Logarithmic
Total Elapsed Time:00:22:42 Remaining Time: 00:00:00
Data was saved as a file at time: 2014-9-10 PM 03:00:05

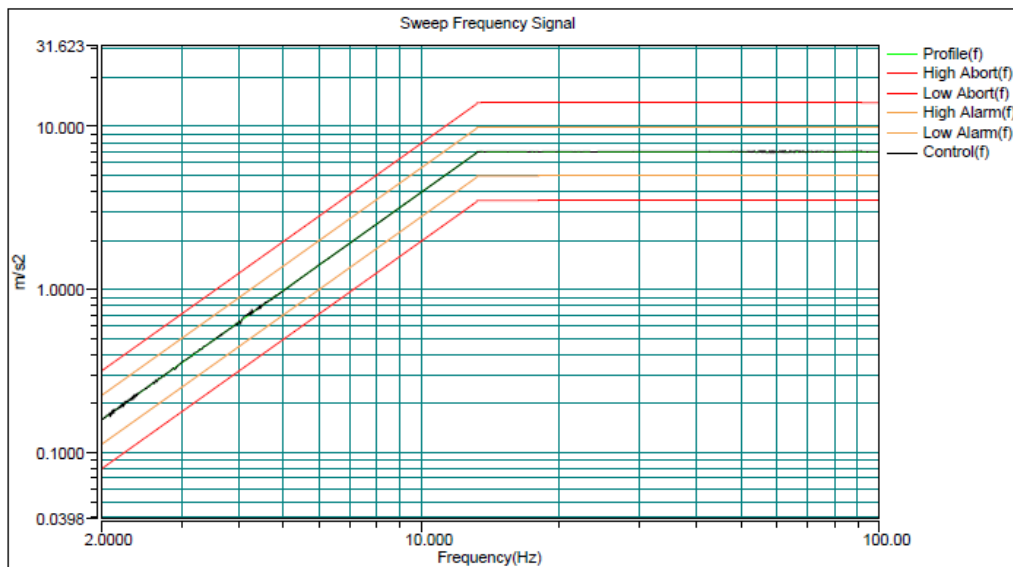


FIG.4.2 : Y Axis Test screen.

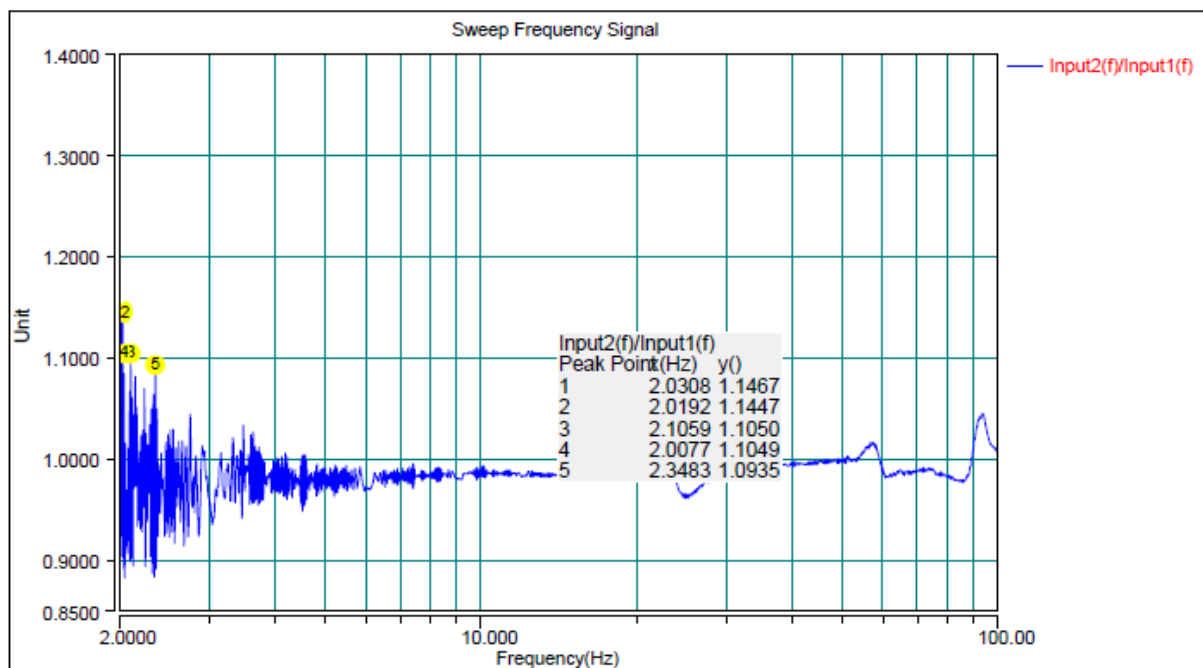


FIG.5.1 : Z Axis direction mounted.



FIG.5.2 : Z Axis direction mounted.



FIG.5.3 : Z Axis direction mounted.



FIG.5.4 : Z Axis direction mounted.





FIG.6.1 : Z Axis Test screen.

Level: 100 % Profile Peak: 0.15791m/s^2 Control Peak: 0.15492m/s^2
Frequency: 2.00145 Hz Sweep Rate: 0.5 Oct/Min Sweep Type: Logarithmic
Total Elapsed Time:00:22:41 Remaining Time: 00:00:00
Data was saved as a file at time: 2014-9-10 PM 02:03:36

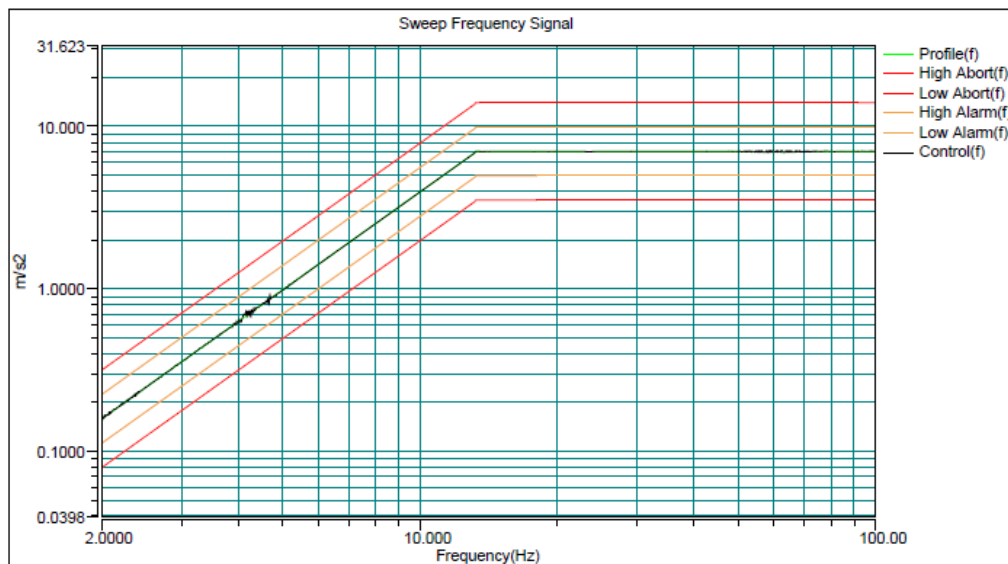
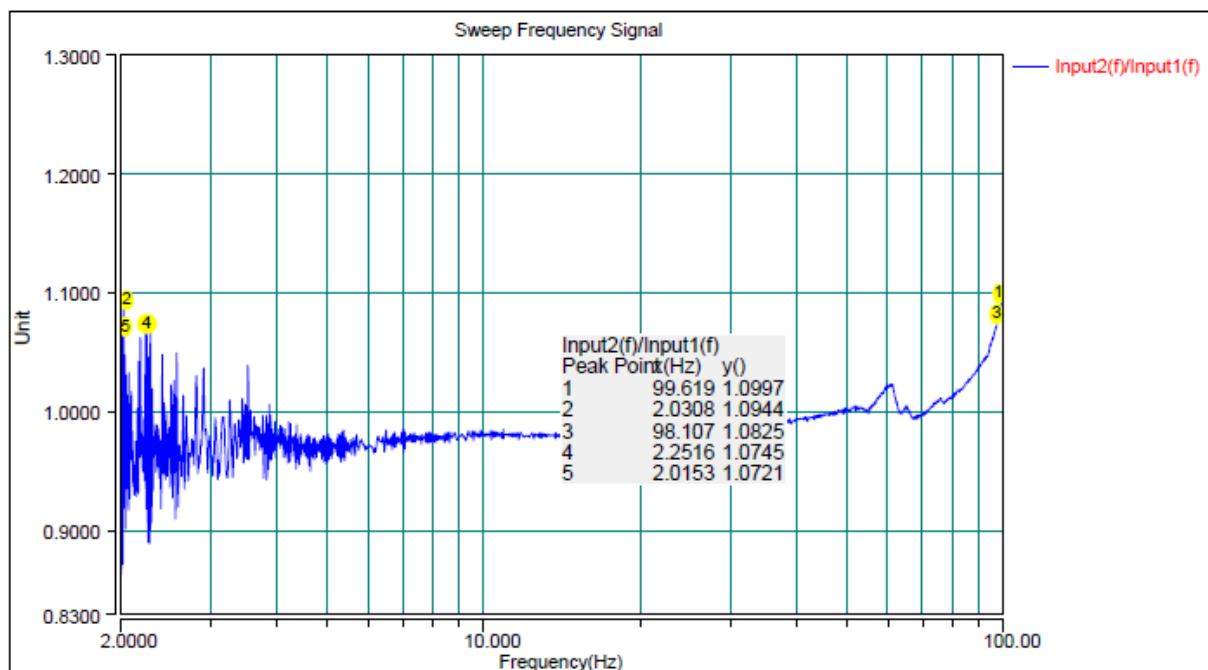


FIG.6.2 : Z Axis Test screen.



Test 2 : Resonance-point detecting test

FIG.7.1 : X Axis direction mounted.



FIG.7.2 : X Axis direction mounted.



FIG.7.3 : X Axis direction mounted.



FIG.7.4 : X Axis direction mounted.





FIG.8 : X Axis Test screen.

Level: 100 % Profile Peak: 7.00000m/s² Control Peak: 7.00109m/s²
Frequency: 30.00000 Hz Sweep Rate: 0 Oct/Min Sweep Type: Logarithmic
Total Elapsed Time: 02:00:00 Remaining Time: 00:00:00
Data was saved as a file at time: 2014-9-10 PM 07:09:15

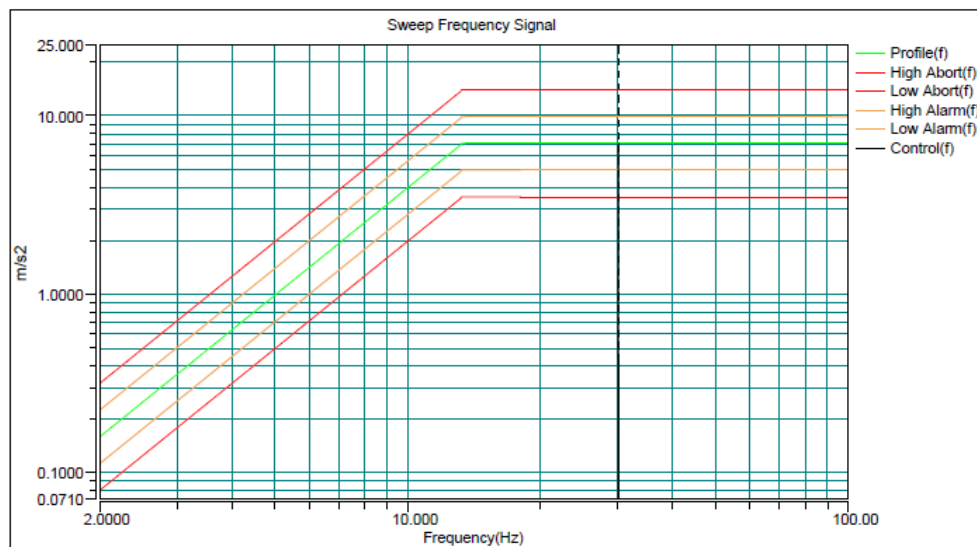




FIG.9.1 : Y Axis direction mounted.



FIG.9.2 : Y Axis direction mounted.



FIG.9.3 : Y Axis direction mounted.



FIG.9.4 : Y Axis direction mounted.





FIG.10 : Y Axis Test screen.

Level: 100 % Profile Peak: 7.00000m/s² Control Peak: 6.99456m/s²
Frequency: 30.00000 Hz Sweep Rate: 0 Oct/Min Sweep Type: Logarithmic
Total Elapsed Time:02:00:00 Remaining Time: 00:00:00
Data was saved as a file at time: 2014-9-11 AM 11:48:05

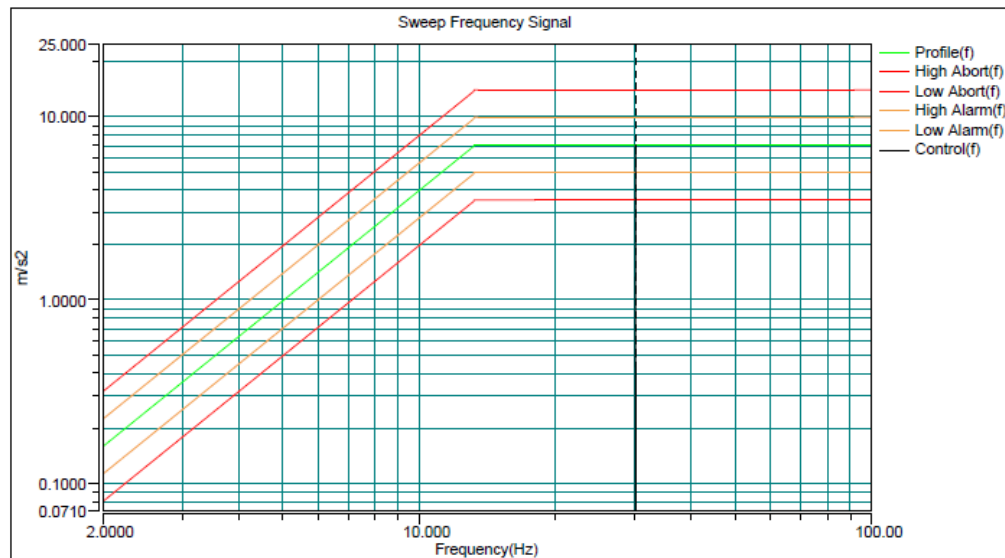




FIG.11.1 : Z Axis direction mounted.



FIG.11.2 : Z Axis direction mounted.



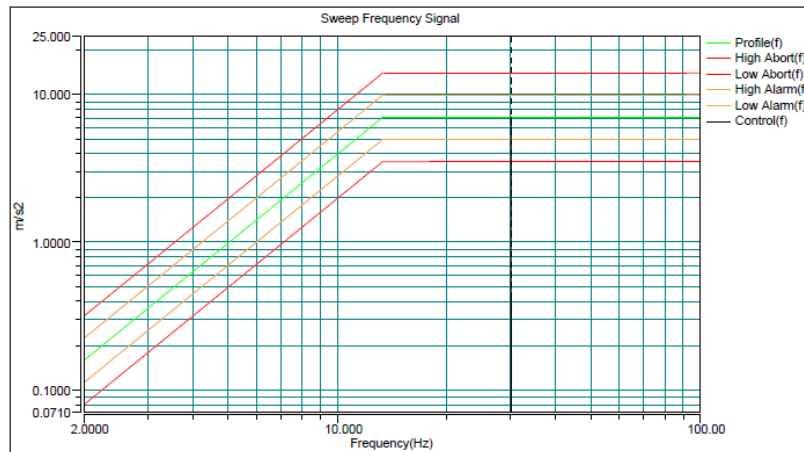
FIG.11.3 : Z Axis direction mounted.





FIG.12 : Z Axis Test screen.

Level: 100 % Profile Peak: 7.00000m/s² Control Peak: 6.99031m/s²
Frequency: 30.00000 Hz Sweep Rate: 0 Oct/Min Sweep Type: Logarithmic
Total Elapsed Time:02:00:00 Remaining Time: 00:00:00
Data was saved as a file at time: 2014-9-11 PM 01:55:27





2.5. Insulation Resistance

2.5.1. TEST REQUIREMENT

- For high voltage equipment, reference is made to UR E11.
- Insulation resistance test is to be carried out before and after: damp heat test, cold test, salt mist test and high voltage test;
- between all phases and earth; and where appropriate, between the phases.

Note: Certain components e.g. for EMC protection may be required to be disconnected for this test.

Rated supply voltage Un (V)	Test voltage Un (V)	Min. insulation resistance	
		before test M ohms	after test M ohms
Un ≤ 65	2 x Un min. 24V	10	1,0
Un > 65	500	100	10

2.5.2. TEST INSTRUMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
AC Withstand Voltage / Insulation Tester	EXTECH	7132	1340840	11.12.2014

2.5.3. TEST PROCEDURE

The test procedure was in accordance with IACS 10 NO. 9.

2.5.4. TEST RESULTS

Temperature	25.6°C	Humidity	52.2% RH
Pressure	1003.4 mbar	Tested By	Kasim Fan
TEST RESULTS		PASSED	



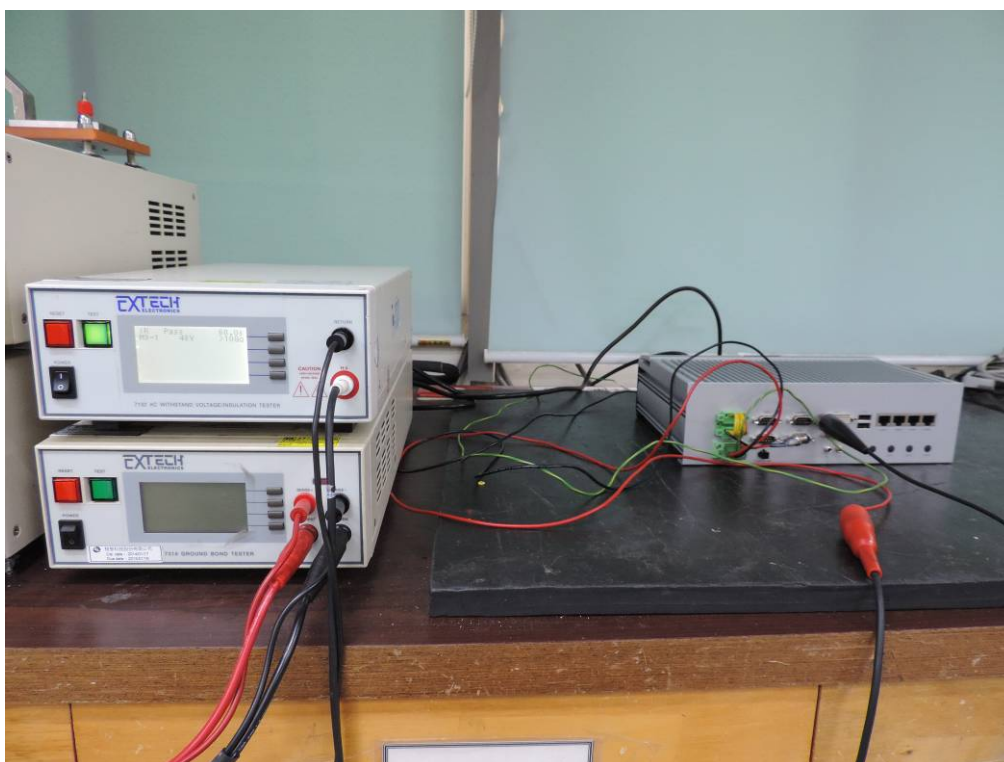
1. Insulation measurement Test (before high voltage test) :

Model	tBOX330-870-FL		
Insulation applied between / Test item:	Test voltage (V DC)	Test time (sec)	Resistance (Ω)
Power – Metal enclosure	48	60	10G Ω

2. Insulation measurement Test (after high voltage test) :

Model	tBOX330-870-FL		
Insulation applied between / Test item:	Test voltage (V DC)	Test time (sec)	Resistance (Ω)
Power – Metal enclosure	48	60	10G Ω

2.5.5. TEST PHOTO



Insulation measurement Test (before high voltage test)



Insulation measurement Test (after high voltage test)



2.6. High voltage

2.6.1. TEST REQUIREMENT

- For high voltage equipment, reference is made to UR E11.
- separate circuits are to be tested against each other and all circuits connected with each other tested against earth;
- printed circuits with electronic components may be removed during the test;
- period of application of the test voltage: 1 minute

Rated voltage Un (V)	Test voltage (A.C. voltage 50 or 60Hz) (V)
Up to 65	2 x Un + 500
66 to 250	1500
251 to 500	2000
501 to 690	2500

2.6.2. TEST INSTRUMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Electrical Safety Compliance Analyzer	EXTECH	7451	1990884	11.12.2014

2.6.3. TEST PROCEDURE

The test procedure was in accordance with IACS 10 NO. 10.

2.6.4. TEST RESULTS

Temperature	25.6°C	Humidity	52.2% RH
Pressure	1003.4 mbar	Tested By	Kasim Fan
TEST RESULTS		PASSED	

Model	tBOX330-870-FL			
Test voltage applied between / Test item: :	Test voltage (V DC)	Test time (sec)	Test current (uA)	Breakdown Yes / No



Power – Metal enclosure	775	60	0.2	No
Note : Test voltage : 548 Vac x 1.414 = 775 Vdc				

2.6.5. TEST PHOTO



Voltage withstand test