



<b>TEST REPORT</b> <b>IEC 60950-1:2005 (2nd Edition) and/or EN 60950-1:2006</b> <b>Information technology equipment - Safety -</b> <b>Part 1: General requirements</b>	
Report Reference No. ....	<AL102026-01>
Projected by (+ signature).....	Frank Su 
Approved by (+ signature).....	Allan Yu 
Date of issue .....	April 15, 2014
Total number of pages.....	Total 8 pages
Testing Laboratory .....	AUDIX Technology Corporation
Address .....	7Fl., No.8, Lane 120, Nei-Hu Rd., Sec.1, Taipei, Taiwan. R.O.C.
Applicant's name .....	NUUO Inc.
Address .....	B1, No.207-1, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan
Manufacturer .....	Same as applicant
Address .....	
Standard .....	<input checked="" type="checkbox"/> IEC 60950-1:2005 (2nd Edition) + Am1:2009 and/or <input checked="" type="checkbox"/> EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011
Test procedure .....	Low Voltage Directive
Non-standard test method.....	N/A
Test item Description .....	Storage server
Trade Mark .....	NUUO
Model/type reference .....	NS-8xx0, NVS-8xx0 (xx can be 00,02,04,06,08,10,12,14,16) NS-8xx5, NVS-8xx5 (xx can be 00,02,04,06,08,10,12,14,16)
Ratings .....	Input: 100-240Vac, 3.5-1.5A, 60-50Hz

Summary of Testing:		
Tests performed (name of test and test clause):		Testing location / Comments
1.6.2	Input current	All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.
4.5.2	Temperature tests	
5.3	Abnormal operating and fault conditions	

## Copy of Marking Plate -

# Storage Server

Model (型號): **NS-8065**

Input (輸入): AC 100V~240V, 3.5A~1.5A, 60-50Hz

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions. (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



製造商: NUUO Inc.  
B1, No.207-1, Sec. 3, Beixin Rd., Xindian Dist.,  
New Taipei City 231, Taiwan

Made in Taiwan 台灣製造

# Storage Server

Model (型號): **NVS-8065**

Input (輸入): AC 100V~240V, 3.5A~1.5A, 60-50Hz

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions. (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



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**Test item Particulars:**

Equipment mobility.....:  movable       hand-held       transportable  
 stationary       for building-in       direct plug-in

Connection to the mains .....:  pluggable equipment       type A       type B  
 permanent connection  
 detachable power supply cord  
 non-detachable power supply cord  
 not directly connected to the mains

Operating condition.....:  continuous  
 rated operating / resting time:

Access location .....:  operator accessible  
 restricted access location

Over voltage category .....:  OVC I     OVC II     OVC III     OVC IV  
 other: not directly connected to the mains

Mains supply tolerance (%):  $\pm 10\%$

Tested for IT power systems .....:  Yes       No

IT testing, phase-phase voltage (V) : N/A

Class of equipment .....:  Class I     Class II     Class III     Not classified

Considered current rating (A) .....: N/A

Pollution degree .....:  PD 1     PD 2     PD 3

IP protection class .....: IPX0

Altitude during operation (m) .....: 2000

Altitude of test laboratory (m) .....: < 2000

Mass of equipment (kg) .....: 12.5kg

**Possible test case verdicts:**

- test case does not apply to the test object .: N/A
- test object does meet the requirement .....: P (Pass)
- test object does not meet the requirement .: F (Fail)

**Testing:**

Date of receipt of test item .....: 2013-12-30

Date(s) of performance of test .....: 2013-12-30, 2014-01-28

**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 Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

"(see Annex #)" refers to an annex appended to the report.

Throughout this report a point is used as the decimal separator.

This test report includes the following documents:

Attached with:

Annex A: Photos

Annex B: List of used measuring instruments

This test report can be copied only in whole. Permission from the test laboratory is required if the test report is copied in part.

The test results presented in this report relate only to the item(s) tested.

**Name and address of production-sites (Factories):**

SUMMIT AUTOMATION CO., LTD.

LIANDA INDUSTRIAL PARK, LUDU TOWN, TAICANG, JIANGSU, 215412, CHINA

**GENERAL PRODUCT INFORMATION:****Description of change(s):**

1. Add a HDD control board.

2. Add models name: NS-8xx5, NVS-8xx5 (xx can be 00,02,04,06,08,10,12,14,16), same as original model, just model different.

**Technical Considerations**

- This HDD control board used for when the tray without HDD, it will cutoff HDD power.

**Additional Information**

N/A

**History of amendments and modifications:**

Ref. No. AL102026, dated November 29, 2013 (original report).

Clause	Requirement – Test	Result – Remark	Verdict
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1.6	Power interface		P
1.6.1	AC power distribution systems	TN power system	N/A
1.6.2	Input current	See appended table 1.6.2	P
1.6.3	Voltage limit of hand-held equipment	The rated voltage of hand-held equipment shall not exceed 250V.	P
1.6.4	Neutral conductor	In approved PSU	P

4.5	Thermal requirements		P
4.5.1	General	See appended table 1.5.1.	P
4.5.2	Temperature tests	Same as above.	P
	Normal load condition per Annex L .....	According to the instruction for use.	—
4.5.3	Temperature limits for materials	See appended table 1.5.1.	P
4.5.4	Touch temperature limits	Same as above.	P
4.5.5	Resistance to abnormal heat .....	Refer to approved PSU.	P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	There are dc fans motor and secondary supplied hard disk in the equipment. Approved components are used. No excessive temperatures occur when fan motor is stalled. (see appended table 5.3)	P
5.3.3	Transformers	Refer to approved PSU.	P
5.3.4	Functional insulation .....	Complies with a) and c).	P
5.3.5	Electromechanical components	No electromechanical components in secondary circuits.	N/A
5.3.6	Audio amplifiers in ITE .....	No audio amplifiers in the equipment.	N/A
5.3.7	Simulation of faults	Used approved PSU and see appended table 5.3	P
5.3.8	Unattended equipment	No thermostats, temperature limiters or thermal cut-outs.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	(see appended table 5.3)	P
5.3.9.1	During the tests	No fire or molten metal occurred and no deformation of enclosure during the tests.	P
5.3.9.2	After the tests	No reduction of clearance and creepage distances. Electric strength test is made on basic, supplementary and reinforced insulation.	P

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V)	I (A)	I rated (A)	P (W)	Fuse #	I fuse (A)	Condition/status	
90V	0.86	--	77.5	F1	0.86	Maximum normal load / 50Hz	
90V	0.86	--	77.5	F1	0.86	Maximum normal load / 60Hz	
100V	0.76	3.5	76.6	F1	0.76	Maximum normal load / 50Hz	
100V	0.76	3.5	76.6	F1	0.76	Maximum normal load / 60Hz	
240V	0.38	1.5	75.0	F1	0.38	Maximum normal load / 50Hz	
240V	0.38	1.5	75.0	F1	0.38	Maximum normal load / 60Hz	
264V	0.37	--	74.2	F1	0.37	Maximum normal load / 50Hz	
264V	0.37	--	74.2	F1	0.37	Maximum normal load / 60Hz	

Supplementary information: The test result include fixture board just for reference only.

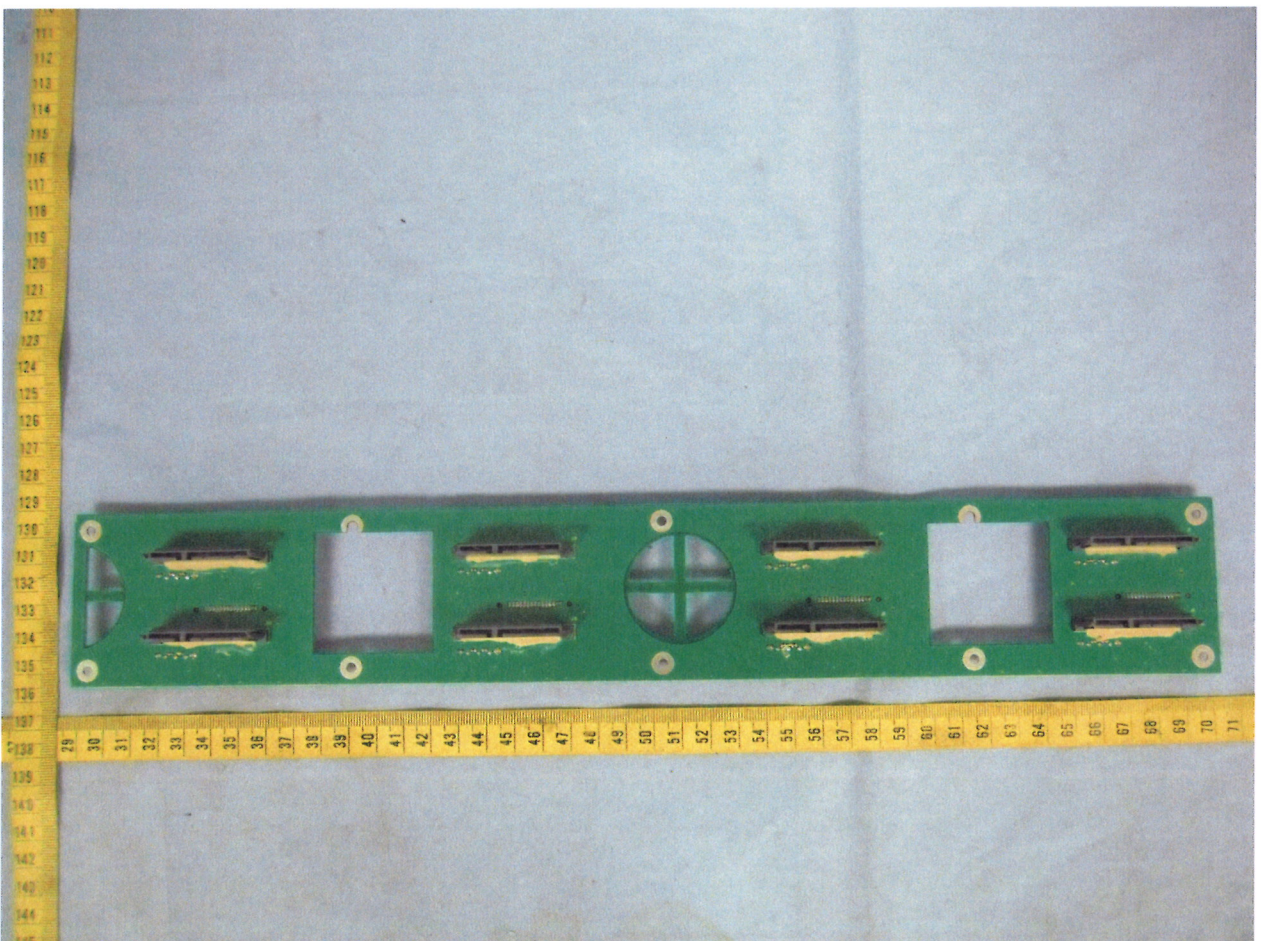
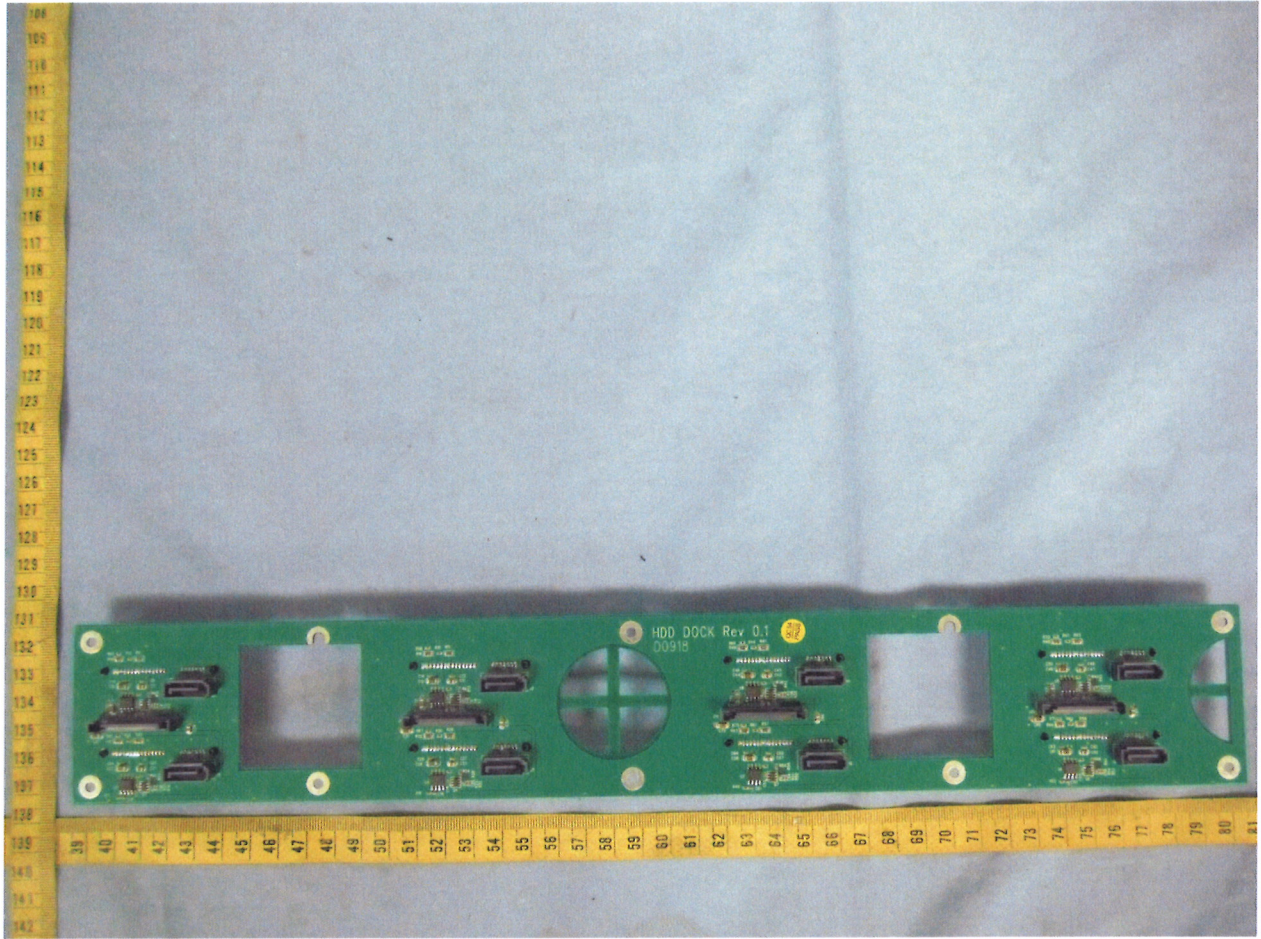
4.5	TABLE: Thermal requirements						P
	Supply voltage (V) :	90	264			—	
	Ambient T <sub>min</sub> (°C) :	--	--			—	
	Ambient T <sub>max</sub> (°C) :	--	--			—	
Maximum measured temperature T of part/at:		T (°C)			Allowed T <sub>max</sub> (°C)		
T1 coil (PSU)		67.7	66.3			110	
T3 coil (PSU)		61.4	59.8			110	
PCB near Q6 (PSU)		66.2	63.1			130	
PCB near D2 (PSU)		57.3	56.1			130	
PCB near U1		50.0	49.4			105	
PCB near U57		44.8	44.3			105	
Plastic enclosure inside near PSU		55.4	54.6			60	
Plastic enclosure outside near PSU		46.2	46.4			95	
Metal enclosure outside near PSU		43.3	42.9			70	
Ambient		40.0	40.0			--	
Supplementary information:							
Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	R <sub>2</sub> (Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
Supplementary information:							

5.3	TABLE: Fault condition tests					N/A
	Ambient temperature (°C).....:					—
	Power source for EUT: Manufacturer, model/type, output rating.....:					—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Opening	Block	240V	4.47 hrs.	F1	0.38	Unit normal operated, no hazards, T1 coil= 69.1°C, T3 coil= 62.4°C, Ambient= 22.1°C
PSU Fan	Locked	240V	2.12 hrs.	F1	0.36	Unit normal operated, no hazards, T1 coil= 58.1°C, T3 coil= 50.9°C, Ambient= 21.7°C
DC Fan (for unit)	Locked	240V	1.62 hrs.	F1	0.39	Unit normal operated, no hazards, T1 coil= 53.4°C, T3 coil= 43.8°C, Ambient= 22.5°C
DC Fan (for HDD)	Locked	240V	1.20 hrs.	F1	0.39	Unit normal operated, no hazards, T1 coil= 47.4°C, T3 coil= 40.9°C, Ambient= 21.5°C
Supplementary information:						



# Annex A

## Photos





# Annex B

## Instruments list

### Instruments List

NO.	Device	Range (Cal. Point) / <State>	Brand	Model No.:	Next Cal. Date	Cal. Date	Last Cal. Date	Cal. House
A10	Digital Power Meter	<u>AC Volt(V)</u> : 30(30),300(100,120,150,240,300), 500(500)/<50/60Hz> <u>AC</u> <u>Current</u> : 0.2(0.1,0.2), 2(1,2), 20(5,10,19)/<50/60Hz> <u>Power</u> : 12-2400W<120V/50-60Hz> , 24-4800W<240V/50-60Hz>	IDRC	CP-320A	2014/9/16	2013/9/17	2012/9/27	Chroma
E17	Hybrid Recorder	<u>Temperature Linearly: J Type</u> : (10-300°C)<CH1-20>	Yokogawa	DR130	2015/3/10	2014/3/11	2013/3/14	E.T.C.
P03	AC Power Supply	<u>AC Volt(V)</u> : (90, 100, 240, 264)<47-63Hz> <u>AC Current(A)</u> : (1, 10, 20,30)<47-63Hz> <u>Frequency(Hz)</u> : (47, 50, 60, 63)<90V/264V>	All Power	APS-230	2014/11/28	2013/11/29	2012/11/28	E.T.C.
P06	AC Power Source	<u>AC Volt(V)</u> : (90, 100, 240, 264)<47-63Hz> <u>AC Current(A)</u> : (1, 10, 15)<47-60Hz> <u>Frequency(Hz)</u> : (47, 50, 60, 63)<90V/264V>	IDRC	CIF-3000E P	2014/7/30	2013/7/31	2012/8/8	Chroma
X02	LED Number Clock	<u>Time</u> <u>Deviation(Sec/Day)</u> :(+0.17)<32768 .0Hz> <u>Time</u> <u>Deviation(Sec/Mouth)</u> :(+5.18)<327 68.0Hz>	HoTai	A129	2014/9/24	2013/9/25	2012/10/1	Tai Yi