



Pony Testing International Group

CERTIFICATE

Of Conformity
EC Council Directive 2014/30/EU
Electromagnetic Compatibility

Report No.: MZDMX4WA76623724a

Applicant : VisionsTEK Inc.

Address : Rm.6D10, 6F, No.5, Sec.5, Xin Yi Rd, Xin Yi District, Taipei 110, Taiwan

Sample Name : Battery

M/N : BP-VT-321B0UF10340S

Standards : EN61000-6-3: 2007+A1:2011
EN61000-6-1:2007

The certificate of conformity is based on an evaluation of a sample of the above-mentioned product. Technical report and documentation are at the applicant's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of council Directive 2014/30/EU, referred to as the EMC. The applicant of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.



Approved By:

Date: Aug 18, 2015

The CE Marking may only be used if all relevant and effective EC Directive are complied with.



www.ponytest.com

Hotline 400-819-5688

BeijingLab: (010) 82618116	ChangchunLab: (0431) 85150908	ShanghaiLab: (021) 64851999	ShenzhenLab: (0755) 26050909
QingdaoLab: (0532) 88706866	DalianLab: (0411) 84650820	NingboLab: (0574) 87736499	GuangzhouLab: (020) 89224510
TianjinLab: (022) 27360730	ZhengzhouLab: (0371) 69350670	HangzhouLab: (0571) 87219096	WuhanLab: (027) 83997127



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 1 of 18

Applicant: VisionsTEK Inc.

Address: Rm.6D10, 6F, No.5, Sec.5, Xin Yi Rd, Xin Yi District, Taipei 110, Taiwan

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Name: Battery

Sample Model: BP-VT-321B0UF10340S

Sample Received Date: Aug 10, 2015

Testing Period: Aug 10, 2015 to Aug 18, 2015

Testing Item: EMC

Testing Method: EN61000-6-3: 2007+A1:2011
 EN61000-6-1:2007(EN61000-4-2:2009,
 EN61000-4-3:2006+A1:2009+A2:2010)

Testing Result: Please refer to next page(s)

Edited by: Wu Li Hua

Checked by:

Approved by:



www.ponytest.com

☎Hotline 400-819-5688

BeijingLab: (010) 82618116 ChangchunLab: (0431) 85150908 ShanghaiLab: (021) 64851999 ShenzhenLab: (0755) 26050909
 QingdaoLab: (0532) 88706866 DalianLab: (0411) 84650820 NingboLab: (0574) 87736499 GuangzhouLab: (020) 89224310
 TianjinLab: (022) 27360730 ZhengzhouLab: (0371) 69350670 HangzhouLab: (0571) 87219096 WuhanLab: (027) 83997127



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 2 of 18

1. GENERAL INFORMATION

Applicant: VisionsTEK Inc.
 Product: Battery
 Model No.: BP-VT-321B0UF10340S
 Power Supply: DC 7.4V

2. Test Procedure Used

EMI:EN61000-6-3:2007+A1:2011

EMS:EN61000-6-1:2007 (EN61000-4-2: 2009, EN61000-4-3:2006+A1: 2009+A2:2010)

3. Test Summary

Test Items	Standards	Status
Power line conducted emission test	EN61000-6-3:2007+A1:2011	N/A
Radiated emission test	EN61000-6-3:2007+A1:2011	Complied
Harmonic Current Emission Test	EN61000-3-2:2006+A1:2009+ A2:2009	N/A
Voltage fluctuations & flicker test	EN 61000-3-3:2013	N/A
Electrostatic discharge Test	EN61000-4-2: 2009	Complied
RF Field strength susceptibility Test	EN61000-4-3: 2006+A1:2008+A2:2010	Complied
Electrical fast transient/Burst Test	EN61000-4-4: 2012	N/A
Surge Test	EN61000-4-5: 2006	N/A
Injected currents susceptibility test	EN61000-4-6: 2014	N/A
Magnetic field immunity test	EN61000-4-8: 2010	N/A
Voltage dips and interruptions test	EN61000-4-11: 2004	N/A

4. Test Facility

Test Firm : ACCURATE TECHNOLOGY CO.,LTD

Address : F1,Bldg.A,Changyuan New Material Port Keyuan Rd.,
 Science&Industry Park, Nanshan ShenZhen,P.R.China

Tel : 0755-26503290/0755-26507022 Fax : 0755-26503396

5. Test Uncertainty

Radiated Emission Uncertainty = $\pm 4.26\text{dB}$

www.ponytest.com ☎Hotline 400-819-5688



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 3 of 18

6. Test Instrument Used

No.	Equipment	Manufacturer	Model No.	S/N	Cal .Date	Next Cal .Date
1	ESD TESTER	HAEFELY	PESD1610	H401552	2014.11.21	2015.11.20
2	MAGNETIC FIELD TESTER	HAEFELY	MABP-VT-321B0 UF10340S00	150577	2014.11.21	2015.11.20
3	5kVA AC POWER SOURCE	CALIFORNIA INSTRUMENTS	5001ix-400	55692	2014.11.21	2015.11.20
4	HARMONICS/FLICKER TEST ANALYZER	CALIFORNIA INSTRUMENTS	PACS-1	72254	2014.11.21	2015.11.20
5	50Ω COAXIAL SWITCH	ANRITSU	MP59B	6200283933	2014.11.21	2015.11.20
6	CONICAL HOUSING	ATC	N/A	N/A	N/A	N/A
7	VOLTAGE PROBE	SCHWARZBECK	TK9416	N/A	2014.11.21	2015.11.20
8	RF CURRENT PROBE	ROHDE & SCHWARZ	EZ-17	100048	2014.11.21	2015.11.20
9	BILOG ANTENNA	SCHWARZBECK	VULB9163	194	2014.11.21	2015.11.20
10	SPECTRUM ANALYZER	ANRITSU	MS2651B	N/A	2014.11.21	2015.11.20
11	PRE-AMPLIFIER	AGILENT	8447D	294A10619	2014.11.21	2015.11.20
12	RF COAXIAL CABLE(844 CHAMBER)	SCHWARZBECK	N-5m	NO.1	2014.11.21	2015.11.20
13	THERMO-HYGROMETER	OREGON SCIENTIFIC	JB913R	GZ-WS004	2014.11.21	2015.11.20
14	1# SHIELDING ROOM	CHANGZHOU ZHONGYU	843	N/A	N/A	N/A
15	2# SHIELDING ROOM	CHANGZHOU ZHONGYU	843	N/A	N/A	N/A
16	3m Semi-ANECHOIC	CHANGZHOU	844	N/A	N/A	N/A

www.ponytest.com

☎Hotline 400-819-5688



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 4 of 18

No.	Equipment	Manufacturer	Model No.	S/N	Cal .Date	Next Cal .Date
	CHAMBER	ZHONGYU				
17	ANTENNA/TURNTABLE CONTROLLER	INNCO	CO2000	CO2000/077/ 7301203/L	N/A	N/A
18	101 LCR METER	YANGZHI	YD2810B	20101170	2014.11.21	2015.11.20
19	RF COAXIAL CABLE(844 CHAMBER)	NTGS8017	N-1m	NO.6	2014.11.21	2015.11.20
20	RF COAXIAL CABLE(844 CHAMBER)	NTGS8017	N-1m	NO.7	2014.11.21	2015.11.20
21	AUDIO GENERATOR	GW	GAG-809	EG835424	N/A	N/A
22	THERMO-HYGROMETER	OREGON SCIENTIFIC	JB913R	GZ-WS002	2014.11.21	2015.11.20
23	EMCPRO SYSTEM (IMMUNITY TESTER)	THERMO	PRO-BASE	0403271	2014.11.21	2015.11.20
24	CAPACITIVE CLAMP(EFT)	THERMO	PRO-CCL	0403272	2014.11.21	2015.11.20
25	COUPLER DECOUPLER FOR TELECOM LINES	THERMO	CM-TEL-CD	0403273	2014.11.21	2015.11.20
26	L.I.S.N.	ROHDE& SCHWARZ	ESH3-Z5	100305	2014.11.21	2015.11.20
27	EMI TEST RECEIVER	ROHDE& SCHWARZ	ESPI-3	100396/003	2014.11.21	2015.11.20
28	SIGNAL GENERATOR	ROHDE& SCHWARZ	SML01	101161	2014.11.21	2015.11.20
29	EMI TEST RECEIVER	ROHDE& SCHWARZ	ESPI-3	101526/003	2014.11.21	2015.11.20
30	SPECTRUM ANALYZER	AGILENT	E7405A	MY45115511	2014.11.21	2015.11.20
31	L.I.S.N.	SCHWARZBECK	NSLK8126	8126431	2014.11.21	2015.11.20
32	PULSE LIMITER (FOR ESPI3)	ROHDE& SCHWARZ	ESH3-Z2	100815	2014.11.21	2015.11.20
33	PRE-AMPLIFIER	ROHDE& SCHWARZ	CBLU1183540-01	3791	2014.11.21	2015.11.20

www.ponytest.com

Hotline 400-819-5688

PONY 谱尼测试
Pony Testing International Group

BeijingLab: (010) 82618116

QingdaoLab: (0532) 88706866

TianjinLab: (022) 27360730

ChangchunLab: (0431) 85150908

DalianLab: (0411) 84650820

ZhengzhouLab: (0371) 69350670

ShanghaiLab: (021) 64851999

NingboLab: (0574) 87736499

HangzhouLab: (0571) 87219096

ShenzhenLab: (0755) 26050909

GuangzhouLab: (020) 89224310

WuhanLab: (027) 83997127



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 5 of 18

No.	Equipment	Manufacturer	Model No.	S/N	Cal .Date	Next Cal .Date
34	50Ω COAXIAL SWITCH	ANRITSU	MP59B	6200506474	2014.11.21	2015.11.20
35	BILOG ANTENNA	SCHWARZBECK	VULB9163	9163-323	2014.11.21	2015.11.20
36	HORN ANTENNA	SCHWARZBECK	BBHA9120D	9120D-655	2014.11.21	2015.11.20
37	HORN ANTENNA	SCHWARZBECK	BBHA9170	9170-359	N/A	N/A
38	LOOP ANTENNA	SCHWARZBECK	FMZB1516	1516131	2014.11.21	2015.11.20
39	ULTRA COMPACT SIMULATOR	EM TEST	UCS 500 N5	V0928104968	2014.11.21	2015.11.20
40	CAPACITIVE CLAMP	EM TEST	HFK	0509-34	2014.11.21	2015.11.20
41	Transformer	EM TEST	V4780S2	0109-44	N/A	N/A
42	Conducted Immunity Test System	FRANKONIA	CIT-10	126B1121	2014.11.21	2015.11.20
43	CDN	FRANKONIA	CDN-M2/3	A3027020	2014.11.21	2015.11.20
44	EM Injection Clamp	FCC	F-203I-23mm	091824	2014.11.21	2015.11.20
45	LISN	AFJ	LS16C	16010946249	2014.11.21	2015.11.20
46	CLICK METER	AFJ	CL55C	55040947164	2014.11.21	2015.11.20



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

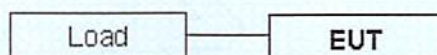
Page 6 of 18

7. Test Method and Test Result

7.1 RADIATED EMISSION TEST

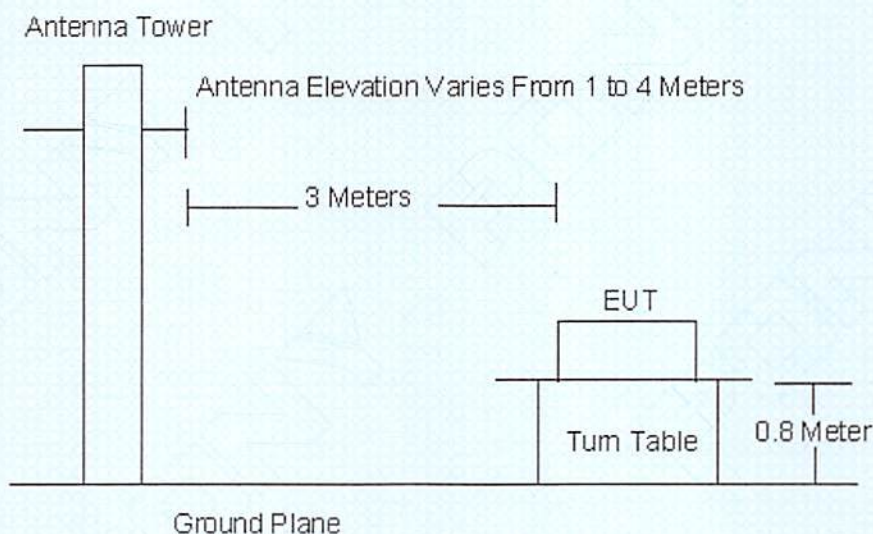
7.1.1 Block Diagram of Test Setup

7.1.1.1 Block Diagram of EUT Test Setup



(EUT: Battery)

7.1.1.2 Anechoic Chamber Setup Diagram



(EUT: Battery)

7.1.2 Test Standard

EN61000-6-3:2007+A1:2011

7.1.3 Radiated Emission Limit

Frequency MHz	Distance (Meter/s)	Field Strengths Limits dB(μV)/m
30 ~ 230	3	40.0
230 ~ 1000	3	47.0

Remark: (1) Emission level (dB (μV)/m) = 20 log Emission level (μV/m)

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance refers to the distance in meters between the measuring instrument, antenna and the closed point of any part of the device or system.



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 7 of 18

7.1.4 EUT Configuration on Test

The EN61000-6-3: regulations test method must be used to find the maximum emission during radiated emission test.

7.1.4.1 Battery(EUT)

(A) Model No. : BP-VT-321B0UF10340S

(B) Applicant : VisionsTEK Inc.

7.1.5 Operating Condition of EUT

7.1.5.1 Setup the EUT and simulators as shown in Section 7.1.1.

7.1.5.2 Turn on the power of all equipments.

7.1.5.3 Let the EUT work in test mode and test it.

7.1.6 Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to EN61000-6-3 on radiated emission test.

The bandwidth setting on the field strength meter (R & S Test Receiver ESPI) is set at 120 KHz. The frequency range from 30 MHz to 1000 MHz is investigated. The test data are listed in the Section 7.1.7 and the scanning waveform are attached within APPENDIZ I.

7.1.7 Radiated Emission Test Result

PASS.

The frequency spectrum from 30 MHz to 1000 MHz is investigated.

Detailed information, please see 9 file.



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

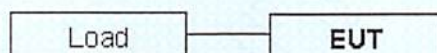
Date: Aug 18, 2015

Page 8 of 18

7.2 ELECTROSTATIC DISCHARGE TEST

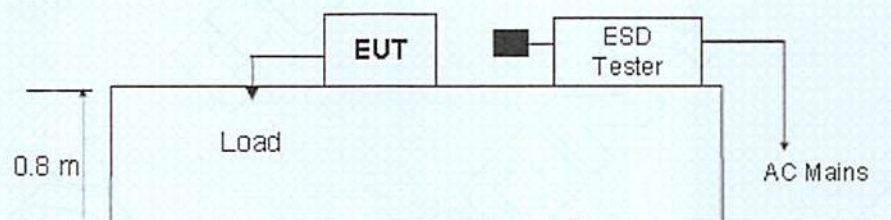
7.2.1 Block Diagram of Test Setup

7.2.1.1 Block Diagram of EUT Test Setup



(EUT: Battery)

7.2.1.2 Block Diagram of ESD Test Setup



Remark: ■ is Discharge Electrode

(EUT: Battery)

7.2.2 Test Standard

EN61000-6-1:2007 (EN61000-4-2: 2009)

7.2.3 Severity Levels and Performance Criterion

Severity Level 3 for Air Discharge at 8KV

Severity Level 2 for Contact Discharge at 4KV

7.2.3.1 Severity level

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1.	2	2
2.	4	4
3.	6	8
4.	8	15
X.	Special	Special

7.2.3.2 Performance criterion: B



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 9 of 18

7.2.4 EUT Configuration on Test

The configuration of EUT is listed in Section 7.1.4.

7.2.5 Operating Condition of EUT

7.2.5.1 Setup the EUT as shown in Section 7.2.1

7.2.5.2 Turn on the power of all equipments.

7.2.5.3 Let the EUT work in test mode (ON) and test it.

7.2.6 Test Procedure

7.2.6.1 Air Discharge:

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed.

7.2.6.2 Contact Discharge:

All the procedure shall be same as Section 7.2.6.1 except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

7.2.6.3 Indirect discharge for horizontal coupling plane

At least 20 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode's position is vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

7.2.6.4 Indirect discharge for vertical coupling plane

At least 20 single discharges shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

7.2.7 Test Results

PASS.



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 10 of 18

Electrostatic Discharge Test Results

EUT: Battery		Temperature: 25°C
M/N: BP-VT-321B0UF10340S		Humidity: 55%
Power Supply: DC 7.4V		Test Mode: ON
Air Discharge: $\pm 8\text{KV}$ For each point positive 10 times and negative 10 times discharge Contact Discharge: $\pm 4\text{KV}$		
Location	Kind A- Air Discharge C-Contact Discharge	Result
Slot	A	PASS
HCP	C	PASS
VCP	C	PASS
Remark: Discharge should be considered on Contact and Air and Horizontal Coupling Plane (HCP) and Vertical Coupling Plane (VCP).		Test Equipment: See Clause 6.



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 11 of 18

7.3 RF FIELD STRENGTH SUSCEPTIBILITY TEST

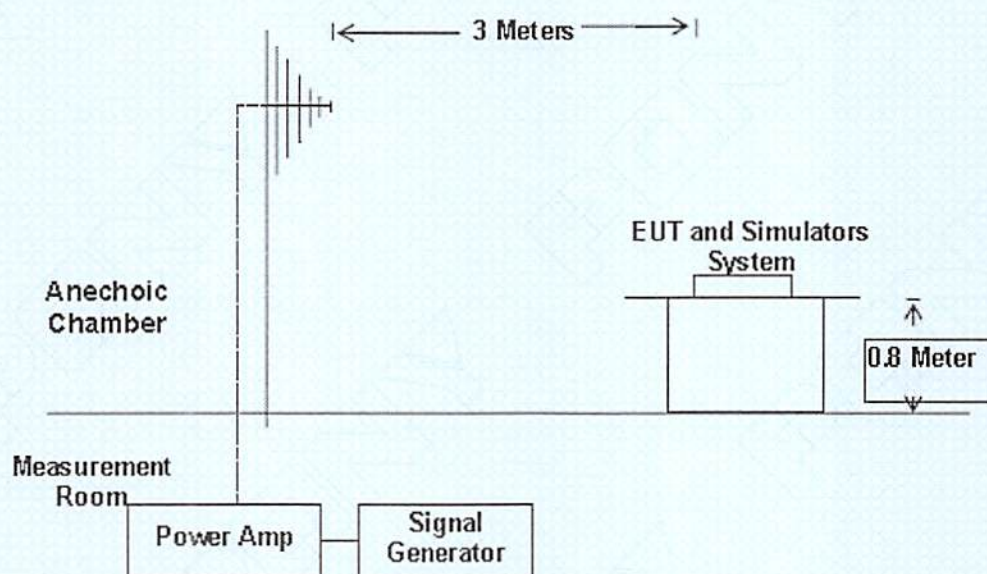
7.3.1 Block Diagram of Test Setup

7.3.1.1 Block Diagram of the EUT and the simulators



(EUT: Battery)

7.3.1.2 R/S Test Setup



(EUT: Battery)

7.3.2 Test Standard

EN61000-6-1: 2007(EN61000-4-3:2006+A1: 2008+A2:2010)



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 12 of 18

7.3.3 Severity Levels and Performance Criterion

7.3.3.1 Severity Level 2 at 3V / m, Severity level

Level	Field Strength V/m
1.	1
2.	3
3.	10
X.	Special

7.3.3.2 Performance criterion: A

7.3.4 EUT Configuration on Test

The configuration of EUT is listed in Section 7.1.4

7.3.5 Operating Condition of EUT

7.3.5.1. Setup the EUT as shown in Section 7.3.1

7.3.5.2 Turn on the power of all equipments.

7.3.5.3 Let the EUT work in test mode and test it.

7.3.6 Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The EUT is set 3 meters away from the transmitting antenna that is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna is set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD camera is used to monitor the EUT.

All the scanning conditions are as follows:

Condition of Test	Remarks
1. Fielded Strength	3 V/m (Severity Level 2)
2. Radiated Signal	Modulated
3. Scanning Frequency	80 - 1000 MHz
4. Sweeping time of radiated	0.0015 decade/s
5. Dwell Time	1 Sec.

7.3.7 Test Results

PASS.

Detailed information, Please refer to the following page.



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 13 of 18

RF Field Strength Susceptibility Test Results

EUT: Battery		Temperature: 25°C	
M/N: BP-VT-321B0UF10340S		Humidity: 55%	
Power Supply: DC 7.4V		Test Mode: ON	
Modulation: ☒ AM ☐ Pulse ☐ None 1 KHz 80%			
		Frequency Range: 80MHz to 1000 MHz	
Steps	#	/	%
	Horizontal		Vertical
Front	PASS		PASS
Right	PASS		PASS
Rear	PASS		PASS
Left	PASS		PASS
Test Equipment: See Clause 6.			

www.ponytest.com

☎Hotline 400-819-5688



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

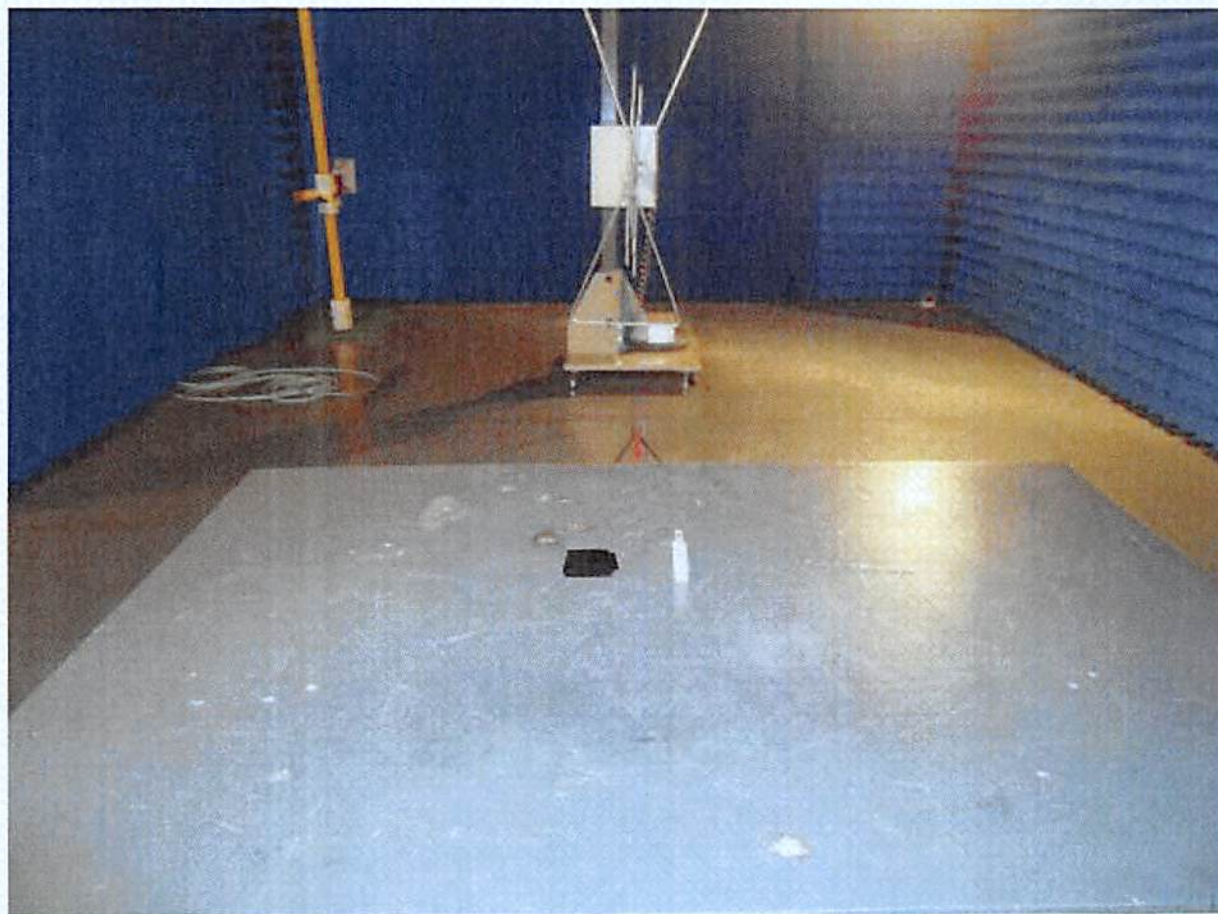
Date: Aug 18, 2015

Page 14 of 18

8. PHOTOGRAPHS OF TEST SETUP

8.1 Photo of Radiated Emission Test

Front View



www.ponytest.com

☎Hotline 400-819-5688

PONY 谱尼测试
Pony Testing International Group

BeijingLab: (010) 82618116	ChangchunLab: (0431) 85150908	ShanghaiLab: (021) 64851999	ShenzhenLab: (0755) 26050909
QingdaoLab: (0532) 88706866	DalianLab: (0411) 84650820	NingboLab: (0574) 87736499	GuangzhouLab: (020) 89224310
TianjinLab: (022) 27360730	ZhengzhouLab: (0371) 69350670	HangzhouLab: (0571) 87219096	WuhanLab: (027) 83997127



Pony Testing International Group

Test Report

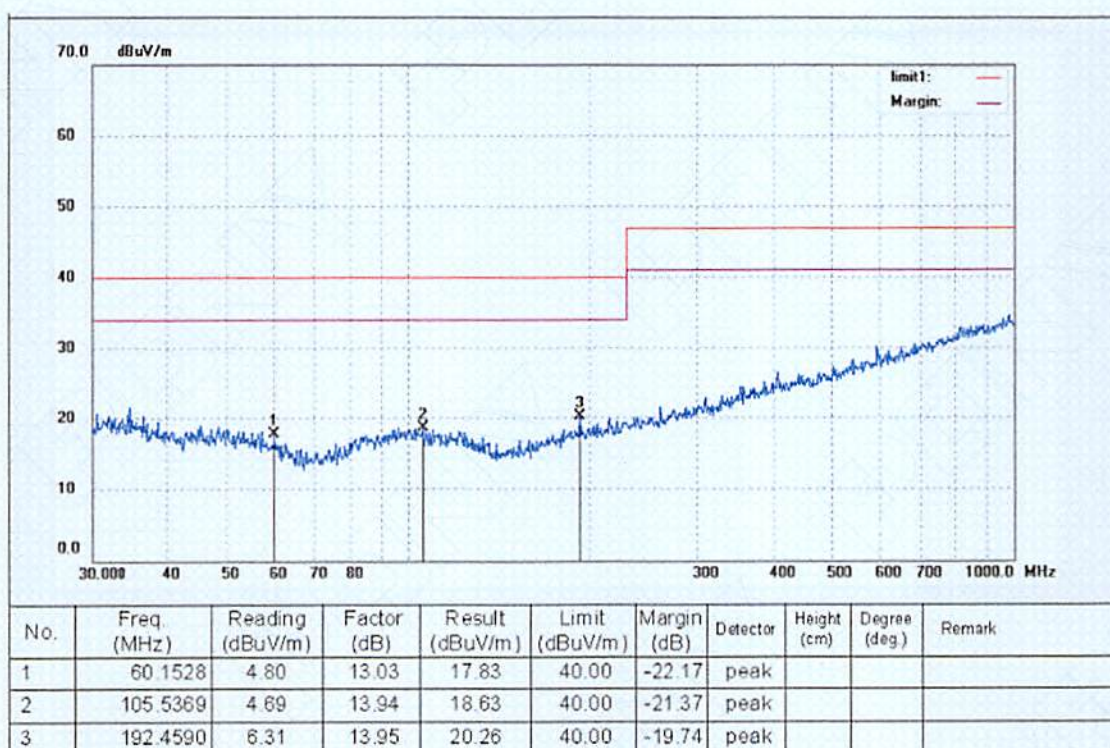
NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 15 of 18

9. Radiated Emission Test Data

EUT: Battery	Time : 2015/8/12
Limit: EN61000-6-3	Comment : 25°C/55%
MN: BP-VT-321B0UF10340S	Note : Hor





Pony Testing International Group

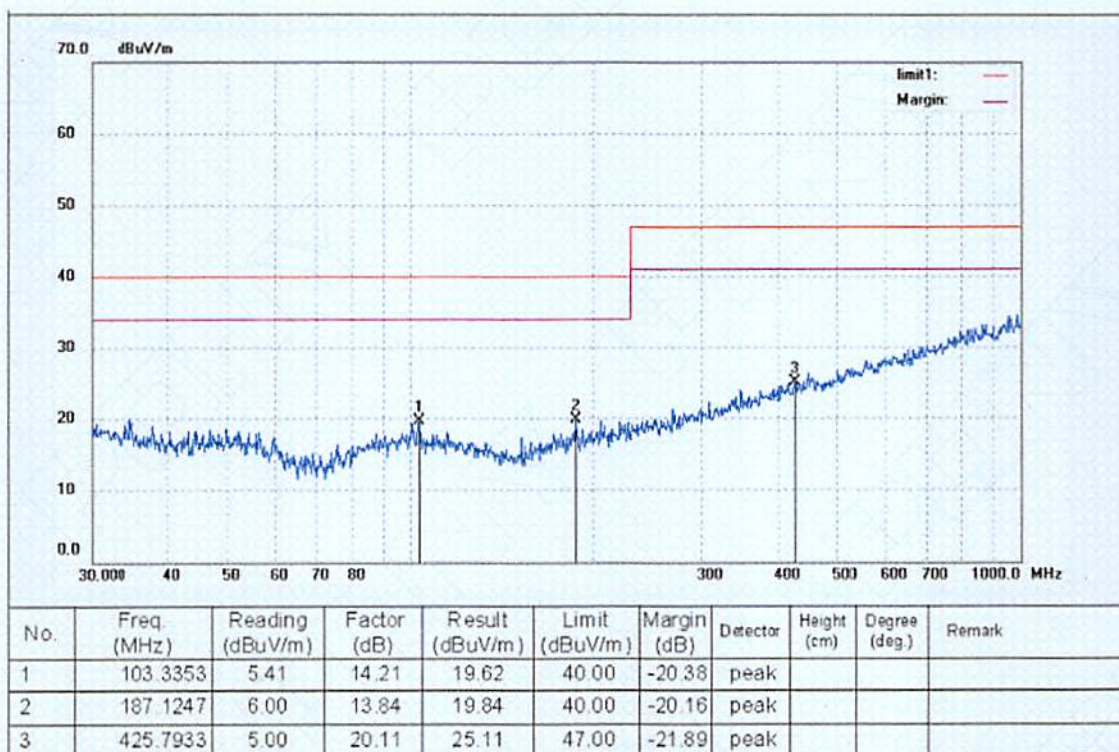
Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 16 of 18

EUT: Battery	Time : 2015/8/12
Limit: EN61000-6-3	Comment : 25°C/55%
MN: BP-VT-321B0UF10340S	Note : Ver



www.ponytest.com

☎Hotline 400-819-5688

PONY 谱尼测试
Pony Testing International Group

BeijingLab: (010) 82618116
QingdaoLab: (0532) 88706866
TianjinLab: (022) 27360730

ChangchunLab: (0431) 85150908
DalianLab: (0411) 84650820
ZhengzhouLab: (0371) 69350670

ShanghaiLab: (021) 64851999
NingboLab: (0574) 87736499
HangzhouLab: (0571) 87219096

ShenzhenLab: (0755) 26050909
GuangzhouLab: (020) 89224310
WuhanLab: (027) 83997127



Pony Testing International Group

Test Report

NO.: MZDMX4WA76623724a

Date: Aug 18, 2015

Page 17 of 18

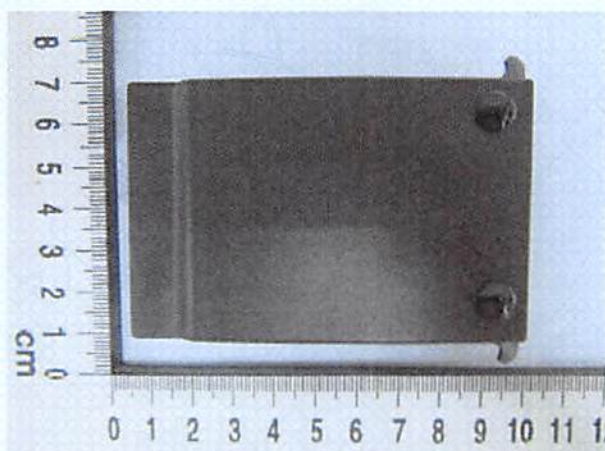
10. Photographs of the EUT

Sample number and photos: A76623724

General Appearance of EUT (M/N: BP-VT-321B0UF10340S)



General Appearance of EUT (M/N: BP-VT-321B0UF10340S)



www.ponytest.com

Hotline 400-819-5688

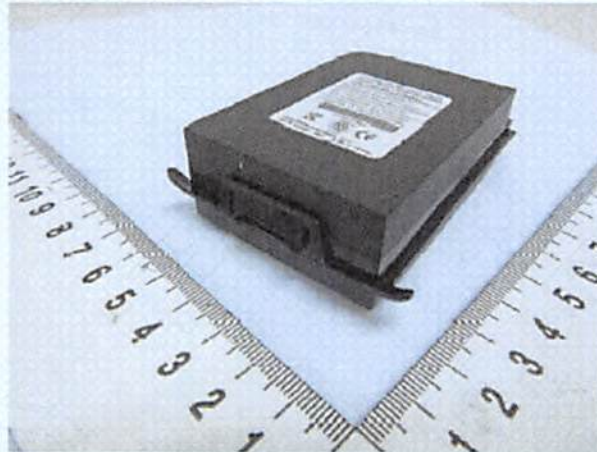
Test Report

NO.: MZDMX4WA76623724a

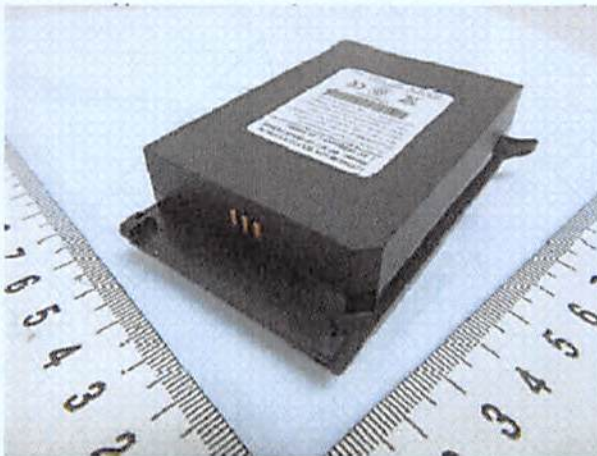
Date: Aug 18, 2015

Page 18 of 18

General Appearance of EUT (M/N: BP-VT-321B0UF10340S)



General Appearance of EUT (M/N: BP-VT-321B0UF10340S)



Authenticate the photo on original report only

*** End of Report***

www.ponytest.com

☎Hotline 400-819-5688