

# LVD Test Report

**Application No.** : TB12124517

**Applicant** :

**Equipment Under Test (EUT)**

**EUT Name** : Bluetooth Headphone

**Model No.** : H1

**Serial No.** : H2

**Brand Name** : XSOUND

**Receipt Date** : 2012-12-11

**Test Date** : 2012-12-11 to 2012-12-14

**Issue Date** : 2012-12-14

**Standards** : EN 60950-1:2006+A12: 2011  
Safety of Information technology equipment

This report shows that the product technically complies with the Council LVD Directive 2006/95/EC requirements.

**Report by** : *Eric Zhang*

**Checked by** : *Paul Luo*

**Approved by** : *Jing Zhang*



This test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

EN 60950-1:2006+A12: 2011  
Safety of Information technology equipment  
Part 1: General requirements

Testing laboratory-----: Shenzhen Toby Technology Co., Ltd.

Address-----: 10/F., A Block, Jiada R & D Bldg., No.5 Songpingshan Road,  
Science & Technology Park, Nanshan District, Shenzhen, China

Testing location-----: Shenzhen Toby Technology Co., Ltd.

Applicant-----:

Address-----:

Standard-----: EN 60950-1:2006+A12: 2011

Test result-----: Compliance with the requirements.

Procedure deviation-----: N.A.

Non-standard test method---: N.A.

Trademark-----: XSOUND

Type of test object-----: Bluetooth Headphone

Models/Type reference-----: H1

Rating-----: DC5.0V 500mA

Factory-----:

Address-----:

**Possible test case verdicts:**

Test case does not apply to the object-----:N

Test object does meet the requirement -----: P

Test object does not meet the requirement-----: F

**General product information:**

Unless otherwise specified, test are carried out in a draught-proof room at  $(25 \pm 5) ^\circ\text{C}$ .

**General remarks:**

- 1." (see remark #) " refers to a remark appended to the report.
2. Throughout this report a point is used as the decimal separator.
3. The test results presented in this report relate only to the object tested.
4. All models are the same except model name and sharp.
5. This report shall not be reproduced except in full without the written approval of the Shenzhen TOBY.
6. If client has any objection to the testing results, please advise us within 15 working days after publish, otherwise claims will not be accepted.

## Artwork of Marking Label

Bluetooth Headphone

MODEL: H1

Rating: DC5.0V 500mA




**Shenzhen YiYun Electronics Co., Ltd.**

Made In China

EN 60950-1:2006+A12: 2011			
CL.	Requirement of the test	Result--Remark	Verdict
1	GENERAL		P
1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950 or relevant component standard	Components comply with the requirements of this standard or relevant IEC/EN component standard. see appended table 1.5.1	P
1.5.2	Evaluation and testing of components	Components, which are certified to IEC and/or national standards, are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
1.5.3	Thermal controls		N
1.5.4	Transformers	Supplied SELV by USB	N
1.5.5	Interconnecting cables		N
1.5.6	Capacitors bridging insulation		N
1.5.7	Resistors bridging insulation		N
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N
1.5.8	Components in equipment for IT power systems		N
1.5.9	Surge suppressors	No surge suppressor used.	N
1.5.9.1	General		N
1.5.9.2	Protection of VDRs		N
1.5.9.3	Bridging of functional insulation by a VDR		N
1.5.9.4	Bridging of basic insulation by a VDR		N
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N
1.6	Power interface		N
1.6.1	AC power distribution systems	Supplied SELV by USB	N

EN 60950-1:2006+A12: 2011			
CL.	Requirement of the test	Result--Remark	Verdict
1.6.2	Input current	DC5V, 500mA	P
1.6.3	Voltage limit of hand-held equipment	Portable equipment	N
1.6.4	Neutral conductor		N

1.7	Marking and instructions		P
1.7.1	Power rating	See below	P
	Rated voltage(s) or voltage range(s) (V) :	DC 5V	P
	Symbol for nature of supply, for d.c. only :	See the marking	P
	Rated frequency or rated frequency range (Hz) :	DC input only	N
	Rated current (mA or A) :	500 mA	P
	Manufacturer's name or trade-mark or identification mark :	See the marking	P
	Model identification or type reference :	See the marking	P
	Symbol for Class II equipment only :	Class III equipment	N
	Other markings and symbols :	<div> <div>Symbol</div>  </div>	P
1.7.2	Safety instructions and marking		P
1.7.2.1	General		P
1.7.2.2	Disconnect devices	No such devices used	N
1.7.2.3	Overcurrent protective device	No such devices used	N
1.7.2.4	IT power distribution systems		N
1.7.2.5	Operator access with a tool		N
1.7.2.6	Ozone		N
1.7.3	Short duty cycles	Continuous operation	N
1.7.4	Supply voltage adjustment :		N
	Methods and means of adjustment; reference to installation instructions :		—
1.7.5	Power outlets on the equipment :	No Power outlets	N
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) :	No fuse used	N
1.7.7	Wiring terminals		N
1.7.7.1	Protective earthing and bonding terminals :		N
1.7.7.2	Terminals for a.c. mains supply conductors		N

EN 60950-1:2006+A12: 2011			
CL.	Requirement of the test	Result--Remark	Verdict
1.7.7.3	Terminals for d.c. mains supply conductors		N
1.7.8	Controls and indicators	Controls and indicators don't affect the safety.	N
1.7.8.1	Identification, location and marking :		N
1.7.8.2	Colours :		N
1.7.8.3	Symbols according to IEC 60417:		N
1.7.8.4	Markings using figures :		N
1.7.9	Isolation of multiple power sources :		N
1.7.10	Thermostats and other regulating devices :	No such devices used	N
1.7.11	Durability	Compliance is checked by inspection and by rubbing the marking by hand for 15s with a piece of cloth soaked with water and again for 15s with a piece of cloth soaked with petroleum spirit. After this test, the marking shall be legible; it shall not be possible to remove marking plates easily and they shall show no curling.	P
1.7.12	Removable parts	No such parts	N
1.7.13	Replaceable batteries :	Irreplaceable batteries	N
	Language(s) :		—
1.7.14	Equipment for restricted access locations:	EUT is not considered for exclusive usage in restricted access locations.	N

2	PROTECTION FROM HAZARDS		P
2.1	Protection from electric shock and energy hazards		N
2.1.1	Protection in operator access areas	Class III equipment	N
2.1.1.1	Access to energized parts		N
	Test by inspection :		N
	Test with test finger (Figure 2A) :		N
	Test with test pin (Figure 2B) :		N
	Test with test probe (Figure 2C) :		N
2.1.1.2	Battery compartments		N
2.1.1.3	Access to ELV wiring	No ELV circuits.	N

## EN 60950-1:2006+A12: 2011

CL.	Requirement of the test	Result--Remark	Verdict
	Working voltage (V <sub>peak</sub> or V <sub>rms</sub> ); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring		N
2.1.1.5	Energy hazards:		N
2.1.1.6	Manual controls		N
2.1.1.7	Discharge of capacitors in equipment		N
	Measured voltage (V); time-constant (s) :		—
2.1.1.8	Energy hazards – d.c. mains supply		N
	a) Capacitor connected to the d.c. mains supply :		N
	b) Internal battery connected to the d.c. mains supply :		N
2.1.1.9	Audio amplifiers :	No such devices used.	N
2.1.2	Protection in service access areas		N
2.1.3	Protection in restricted access locations		N

2.2	SELV circuits		P
2.2.1	General requirements		P
2.2.2	Voltages under normal conditions (V) :	DC 5V	P
2.2.3	Voltages under fault conditions (V) :		P
2.2.4	Connection of SELV circuits to other circuits :	No other circuits	N

2.3	TNV circuits		N
2.3.1	Limits	No TNV circuits	N
	Type of TNV circuits:		—
2.3.2	Separation from other circuits and from accessible parts		N
2.3.2.1	General requirements		N
2.3.2.2	Protection by basic insulation		N
2.3.2.3	Protection by earthing		N
2.3.2.4	Protection by other constructions :		N
2.3.3	Separation from hazardous voltages		N
	Insulation employed:		—
2.3.4	Connection of TNV circuits to other circuits		N



## EN 60950-1:2006+A12: 2011

CL.	Requirement of the test	Result--Remark	Verdict
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	Insulation employed:		—
2.3.5	Test for operating voltages generated externally		N
2.4	Limited current circuits		N
2.4.1	General requirements	No limited current circuits	N
2.4.2	Limit values		N
	Frequency (Hz) :		—
	Measured current (mA):		—
	Measured voltage (V):		—
	Measured circuit capacitance (nF or $\mu$ F) :		—
2.4.3	Connection of limited current circuits to other circuits		N

2.5	Limited power sources		N
	a) Inherently limited output		N
	b) Impedance limited output		N
	c) Regulating network limited output under normal operating and single fault condition		N
	d) Overcurrent protective device limited output		N
	Max. output voltage (V), max. output current (A), max. apparent power (VA):		—
	Current rating of overcurrent protective device (A)		—

2.6	Provisions for earthing and bonding		N
2.6.1	Protective earthing	Class III equipment	N
2.6.2	Functional earthing		N
2.6.3	Protective earthing and protective bonding conductors		N
2.6.3.1	General		N
2.6.3.2	Size of protective earthing conductors		N
	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG:		—
2.6.3.3	Size of protective bonding conductors		N
	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG:		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance ( $\Omega$ ), voltage drop (V), test current (A), duration (min):		N

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CL.	Requirement of the test	Result--Remark	Verdict
2.6.3.5	Colour of insulation:		N
2.6.4	Terminals		N
2.6.4.1	General		N
2.6.4.2	Protective earthing and bonding terminals		N
	Rated current (A), type, nominal thread diameter (mm) :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N
2.6.5	Integrity of protective earthing		N
2.6.5.1	Interconnection of equipment		N
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N
2.6.5.3	Disconnection of protective earth		N
2.6.5.4	Parts that can be removed by an operator		N
2.6.5.5	Parts removed during servicing		N
2.6.5.6	Corrosion resistance		N
2.6.5.7	Screws for protective bonding		N
2.6.5.8	Reliance on telecommunication network or cable distribution system		N

2.7	Overcurrent and earth fault protection in primary circuits		N
2.7.1	Basic requirements	Class III equipment	N
	Instructions when protection relies on building installation		N
2.7.2	Faults not simulated in 5.3.7		N
2.7.3	Short-circuit backup protection		N
2.7.4	Number and location of protective devices :		N
2.7.5	Protection by several devices	No such device	N
2.7.6	Warning to service personnel:		N

2.8	Safety interlocks		N
2.8.1	General principles	No Safety interlocks	N
2.8.2	Protection requirements		N
2.8.3	Inadvertent reactivation		N
2.8.4	Fail-safe operation		N

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CL.	Requirement of the test	Result--Remark	Verdict
2.8.5	Moving parts		N
2.8.6	Overriding		N
2.8.7	Switches and relays		N
2.8.7.1	Contact gaps (mm) :		N
2.8.7.2	Overload test		N
2.8.7.3	Endurance test		N
2.8.7.4	Electric strength test		N
2.8.8	Mechanical actuators		N
2.9	Electrical insulation		P
2.9.1	Properties of insulating materials		P
2.9.2	Humidity conditioning		P
	Relative humidity (%), temperature (°C) :	93%, 25°C	—
2.9.3	Grade of insulation	Functional insulation	P
2.9.4	Separation from hazardous voltages		N
	Method(s) used :		—

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	Functional insulation and product passed Electric strength test	N
2.10.1.1	Frequency :		N
2.10.1.2	Pollution degrees :	Pollution degree 2	N
2.10.1.3	Reduced values for functional insulation	Refer to 2.10.1	N
2.10.1.4	Intervening unconnected conductive parts		N
2.10.1.5	Insulation with varying dimensions	No transformer used	N
2.10.1.6	Special separation requirements	No TNV	N
2.10.1.7	Insulation in circuits generating starting pulses		N
2.10.2	Determination of working voltage	Supplied SELV by USB	N
2.10.2.1	General		N
2.10.2.2	RMS working voltage		N
2.10.2.3	Peak working voltage		N
2.10.3	Clearances		N

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CL.	Requirement of the test	Result--Remark	Verdict
2.10.3.1	General		N
2.10.3.2	Mains transient voltages		N
	a) AC mains supply :		N
	b) Earthed d.c. mains supplies :		N
	c) Unearthed d.c. mains supplies :		N
	d) Battery operation :		N
2.10.3.3	Clearances in primary circuits		N
2.10.3.4	Clearances in secondary circuits		N
2.10.3.5	Clearances in circuits having starting pulses		N
2.10.3.6	Transients from a.c. mains supply :		N
2.10.3.7	Transients from d.c. mains supply :		N
2.10.3.8	Transients from telecommunication networks and cable distribution systems :		N
2.10.4	Creepage distances		N
2.10.4.1	General		N
2.10.4.2	Material group and comparative tracking index		N
2.10.4.3	Minimum creepage distances		N
2.10.5	Solid insulation		N
2.10.5.1	General		N
2.10.5.2	Distances through insulation		N
2.10.5.3	Insulating compound as solid insulation		N
2.10.5.4	Semiconductor devices		N
2.10.5.5.	Cemented joints		N
2.10.5.6	Thin sheet material – General		N
2.10.5.7	Separable thin sheet material		N
	Number of layers (pcs)		N
2.10.5.8	Non-separable thin sheet material		N
2.10.5.9	Thin sheet material – standard test procedure		N
	Electric strength test		N
2.10.5.10	Thin sheet material – alternative test procedure		N
	Electric strength test		N
2.10.5.11	Insulation in wound components		N

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CL.	Requirement of the test	Result--Remark	Verdict
2.10.5.12	Wire in wound components		N
	Working voltage		N
	a) Basic insulation not under stress		N
	b) Basic, supplementary, reinforced insulation		N
	c) Compliance with Annex U		N
	Two wires in contact inside wound component; angle between 45° and 90°		N
2.10.5.13	Wire with solvent-based enamel in wound components		N
	Electric strength test		N
	Routine test		N
2.10.5.14	Additional insulation in wound components		N
	Working voltage		N
	- Basic insulation not under stress		N
	- Supplementary, reinforced insulation		N
2.10.6	Construction of printed boards		N
2.10.6.1	Uncoated printed boards		N
2.10.6.2	Coated printed boards		N
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N
2.10.6.4	Insulation between conductors on different layers of a printed board		N
	Distance through insulation		N
	Number of insulation layers (pcs)		N
2.10.7	Component external terminations		N
2.10.8	Tests on coated printed boards and coated components		N
2.10.8.1	Sample preparation and preliminary inspection		N
2.10.8.2	Thermal conditioning		N
2.10.8.3	Electric strength test		N
2.10.8.4	Abrasion resistance test		N
2.10.9	Thermal cycling		N
2.10.10	Test for Pollution Degree 1 environment and insulating compound	Pollution Degree 2	N
2.10.11	Tests for semiconductor devices and cemented joints		N

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CL.	Requirement of the test	Result--Remark	Verdict

2.10.12	Enclosed and sealed parts		N
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3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	The cross-sectional area of internal wire is adequate for the current they are intended to carry	P
3.1.2	Protection against mechanical damage	Don't contact with burrs, no hazard to internal wire	P
3.1.3	Securing of internal wiring		P
3.1.4	Insulation of conductors		N
3.1.5	Beads and ceramic insulators	No bead and ceramic insulator	N
3.1.6	Screws for electrical contact pressure	No such screw used	N
3.1.7	Insulating materials in electrical connections		N
3.1.8	Self-tapping and spaced thread screws		N
3.1.9	Termination of conductors		N
	10 N pull test		N
3.1.10	Sleeving on wiring		N

3.2	Connection to a mains supply		N
3.2.1	Means of connection	USB terminal connect DC voltage only	N
3.2.1.1	Connection to an a.c. mains supply		N
3.2.1.2	Connection to a d.c. mains supply		N
3.2.2	Multiple supply connections		N
3.2.3	Permanently connected equipment		N
	Number of conductors, diameter of cable and conduits (mm) :		—
3.2.4	Appliance inlets		N
3.2.5	Power supply cords		N
3.2.5.1	AC power supply cords		N
	Type :		—
	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG :		—
3.2.5.2	DC power supply cords		N

EN 60950-1:2006+A12: 2011			
CL.	Requirement of the test	Result--Remark	Verdict
3.2.6	Cord anchorages and strain relief		N
	Mass of equipment (kg), pull (N) :		—
	Longitudinal displacement (mm) :		—
3.2.7	Protection against mechanical damage		N
3.2.8	Cord guards		N
	Diameter or minor dimension D (mm); test mass (g) :		—
	Radius of curvature of cord (mm):		—
3.2.9	Supply wiring space		N
3.3	Wiring terminals for connection of external conductors		N
3.3.1	Wiring terminals	No such wiring terminals used	N
3.3.2	Connection of non-detachable power supply cords		N
3.3.3	Screw terminals		N
3.3.4	Conductor sizes to be connected		N
	Rated current (A), cord/cable type, cross-sectional area (mm <sup>2</sup> ):		—
3.3.5	Wiring terminal sizes		N
	Rated current (A), type, nominal thread diameter (mm) :		—
3.3.6	Wiring terminal design		N
3.3.7	Grouping of wiring terminals		N
3.3.8	Stranded wire		N
3.4	Disconnection from the mains supply		N
3.4.1	General requirement		N
3.4.2	Disconnect devices		N
3.4.3	Permanently connected equipment	No permanently connected equipment	N
3.4.4	Parts which remain energized	No energy hazard.	N
3.4.5	Switches in flexible cords		N
3.4.6	Number of poles - single-phase and d.c. equipment		N
3.4.7	Number of poles - three-phase equipment		N
3.4.8	Switches as disconnect devices		N

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CL.	Requirement of the test	Result--Remark	Verdict
3.4.9	Plugs as disconnect devices		N
3.4.10	Interconnected equipment		N
3.4.11	Multiple power sources		N
3.5	Interconnection of equipment		N
3.5.1	General requirements		N
3.5.2	Types of interconnection circuits :		N
3.5.3	ELV circuits as interconnection circuits		N
3.5.4	Data ports for additional equipment		N
4	PHYSICAL REQUIREMENTS		P
4.1	Stability		N
	Angle of 10°	Based on construction, the test was deemed not necessary.	N
	Test force (N) :		N
4.2	Mechanical strength		P
4.2.1	General	Based on construction, the test was deemed not necessary.	P
4.2.2	Steady force test, 10 N		P
4.2.3	Steady force test, 30 N		P
4.2.4	Steady force test, 250 N	250N applied to outer enclosure. No energy or other hazards.	P
4.2.5	Impact test		N
	Fall test		N
	Swing test		N
4.2.6	Drop test; height (mm) :	1000	P
4.2.7	Stress relief test		N
4.2.8	Cathode ray tubes	No such device within EUT	N
	Picture tube separately certified :		N
4.2.9	High pressure lamps	No such device within EUT	N
4.2.10	Wall or ceiling mounted equipment; force (N) :	No such equipment type	N



## EN 60950-1:2006+A12: 2011

CL.	Requirement of the test	Result--Remark	Verdict
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4.3	Design and construction		P
4.3.1	Edges and corners	The outer surface of the EUT is smooth	P
4.3.2	Handles and manual controls; force (N):	No such device within EUT	N
4.3.3	Adjustable controls		N
4.3.4	Securing of parts		N
4.3.5	Connection by plugs and sockets	No such connections	N
4.3.6	Direct plug-in equipment	No direct plug-in equipment	N
	Torque :		—
	Compliance with the relevant mains plug standard :		N
4.3.7	Heating elements in earthed equipment	No heating elements used	N
4.3.8	Batteries	3.7V , 185mAh	P
	- Overcharging of a rechargeable battery	Battery has been passed UL certificate	N
	- Unintentional charging of a non-rechargeable battery		N
	- Reverse charging of a rechargeable battery		N
	- Excessive discharging rate for any battery		N
4.3.9	Oil and grease	No such materials within EUT	N
4.3.10	Dust, powders, liquids and gases	The EUT does not produce such things, or use such things	N
4.3.11	Containers for liquids or gases		N
4.3.12	Flammable liquids :	No such materials	N
	Quantity of liquid (l) :		N
	Flash point (°C) :		N
4.3.13	Radiation		P
4.3.13.1	General		P
4.3.13.2	Ionizing radiation		N
	Measured radiation (pA/kg) :		—
	Measured high-voltage (kV) :		—
	Measured focus voltage (kV) :		—
	CRT markings :		—

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CL.	Requirement of the test	Result--Remark	Verdict

4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N
	Part, property, retention after test, flammability classification :		N
4.3.13.4	Human exposure to ultraviolet (UV) radiation :		N
4.3.13.5	Laser (including LEDs)		P
	Laser class :	Class 1	—
4.3.13.6	Other types :		N

4.4	Protection against hazardous moving parts		N
4.4.1	General	No hazardous moving parts	N
4.4.2	Protection in operator access areas :		N
4.4.3	Protection in restricted access locations :		N
4.4.4	Protection in service access areas		N

4.5	Thermal requirements		P
4.5.1	General		P
4.5.2	Temperature tests	see appended table 4.5	P
	Normal load condition per Annex L :		—
4.5.3	Temperature limits for materials	see appended table 4.5	P
4.5.4	Touch temperature limits	see appended table 4.5	P
4.5.5	Resistance to abnormal heat :		N

4.6	Openings in enclosures		N
4.6.1	Top and side openings	No such openings	N
	Dimensions (mm) :		—
4.6.2	Bottoms of fire enclosures		N
	Construction of the bottom, dimensions (mm) :		—
4.6.3	Doors or covers in fire enclosures		N
4.6.4	Openings in transportable equipment		N
4.6.4.1	Constructional design measures		N
	Dimensions (mm) :		—
4.6.4.2	Evaluation measures for larger openings		N

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CL.	Requirement of the test	Result--Remark	Verdict
4.6.4.3	Use of metallized parts		N
4.6.5	Adhesives for constructional purposes		P
	Conditioning temperature (°C), time (weeks):		—

4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame		P
	Method 1, selection and application of components wiring and materials	Fire enclosure is provided	P
	Method 2, application of all of simulated fault condition tests		N
4.7.2	Conditions for a fire enclosure		P
4.7.2.1	Parts requiring a fire enclosure		P
4.7.2.2	Parts not requiring a fire enclosure		N
4.7.3	Materials		P
4.7.3.1	General		P
4.7.3.2	Materials for fire enclosures		P
4.7.3.3	Materials for components and other parts outside fire enclosures		P
4.7.3.4	Materials for components and other parts inside fire enclosures		P
4.7.3.5	Materials for air filter assemblies	No such materials within the EUT	N
4.7.3.6	Materials used in high-voltage components	No such materials within the EUT	N

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		N
5.1.1	General		N
5.1.2	Configuration of equipment under test (EUT)		N
5.1.2.1	Single connection to an a.c. mains supply		N
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N
5.1.3	Test circuit		N
5.1.4	Application of measuring instrument		N
5.1.5	Test procedure		N

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CL.	Requirement of the test	Result--Remark	Verdict
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5.1.6	Test measurements		N
	Supply voltage (V) :		—
	Measured touch current (mA) :		—
	Max. allowed touch current (mA) :		—
	Measured protective conductor current (mA) :		—
	Max. allowed protective conductor current (mA):		—
5.1.7	Equipment with touch current exceeding 3,5 mA		N
5.1.7.1	General :		N
5.1.7.2	Simultaneous multiple connections to the supply		N
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N
	Supply voltage (V) :		—
	Measured touch current (mA) :		—
	Max. allowed touch current (mA) :		—
5.1.8.2	Summation of touch currents from telecommunication networks		N
	a) EUT with earthed telecommunication ports :		N
	b) EUT whose telecommunication ports have no reference to protective earth		N

5.2	Electric strength		P
5.2.1	General		P
5.2.2	Test procedure		P

5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	Powered by SELV voltage	N
5.3.2	Motors	No motor	N
5.3.3	Transformers	No transformer	N
5.3.4	Functional insulation:	DC input and enclosure have passed DC500V Electric strength test	P
5.3.5	Electromechanical components	No such device	N

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CL.	Requirement of the test	Result--Remark	Verdict
5.3.6	Audio amplifiers in ITE:	No such device	N
5.3.7	Simulation of faults		N
5.3.8	Unattended equipment	No thermostats temperature limiters and thermal Cut-Outs.	N
5.3.9	Compliance criteria for abnormal operating and fault conditions		P
5.3.9.1	During the tests		P
5.3.9.2	After the tests		P

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N
6.1.1	Protection from hazardous voltages		N
6.1.2	Separation of the telecommunication network from earth		N
6.1.2.1	Requirements		N
	Supply voltage (V) :		—
	Current in the test circuit (mA) :		—
6.1.2.2	Exclusions :		N

6.2	Protection of equipment users from overvoltages on telecommunication networks		N
6.2.1	Separation requirements		N
6.2.2	Electric strength test procedure		N
6.2.2.1	Impulse test		N
6.2.2.2	Steady-state test		N
6.2.2.3	Compliance criteria		N

6.3	Protection of the telecommunication wiring system from overheating		N
	Max. output current (A) :		—
	Current limiting method :		—

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N
7.1	General		N
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the		N

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CL.	Requirement of the test	Result--Remark	Verdict
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	equipment		
7.3	Protection of equipment users from overvoltages on the cable distribution system		N
7.4	Insulation between primary circuits and cable distribution systems		N
7.4.1	General		N
7.4.2	Voltage surge test		N
7.4.3	Impulse test		N

A	Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N
A.1.1	Samples, material:		—
	Wall thickness (mm):		—
A.1.2	Conditioning of samples; temperature (°C) :		N
A.1.3	Mounting of samples :		N
A.1.4	Test flame (see IEC 60695-11-3)		N
	Flame A, B, C or D :		—
A.1.5	Test procedure		N
A.1.6	Compliance criteria		N
	Sample 1 burning time (s):		—
	Sample 2 burning time (s):		—
	Sample 3 burning time (s):		—
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N
A.2.1	Samples, material:		—
	Wall thickness (mm):		—
A.2.2	Conditioning of samples; temperature (°C) :		N
A.2.3	Mounting of samples :		N
A.2.4	Test flame (see IEC 60695-11-4)		N
	Flame A, B or C :		—
A.2.5	Test procedure		N
A.2.6	Compliance criteria		N
	Sample 1 burning time (s):		—

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CL.	Requirement of the test	Result--Remark	Verdict
	Sample 2 burning time (s):		—
	Sample 3 burning time (s):		—
A.2.7	Alternative test acc. To IEC 60695-11-5, cl. 5 and 9		N
	Sample 1 burning time (s):		—
	Sample 2 burning time (s):		—
	Sample 3 burning time (s):		—
A.3	Hot flaming oil test (see 4.6.2)		N
A.3.1	Mounting of samples		N
A.3.2	Test procedure		N
A.3.3	Compliance criterion		N
B	Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N
B.1	General requirements		N
	Position :		—
	Manufacturer :		—
	Type :		—
	Rated values :		—
B.2	Test conditions		N
B.3	Maximum temperatures		N
B.4	Running overload test		N
B.5	Locked-rotor overload test		N
	Test duration (days) :		—
	Electric strength test: test voltage (V) :		—
B.6	Running overload test for d.c. motors in secondary circuits		N
B.6.1	General		N
B.6.2	Test procedure		N
B.6.3	Alternative test procedure		N
B.6.4	Electric strength test; test voltage (V) :		N
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N
B.7.1	General		N
B.7.2	Test procedure		N

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CL.	Requirement of the test	Result--Remark	Verdict
B.7.3	Alternative test procedure		N
B.7.4	Electric strength test; test voltage (V) :		N
B.8	Test for motors with capacitors		N
B.9	Test for three-phase motors		N
B.10	Test for series motors		N
	Operating voltage (V) :		—

C	Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N
	Position :		—
	Manufacturer :		—
	Type :		—
	Rated values :		—
	Method of protection:		—
C.1	Overload test		N
C.2	Insulation		N
	Protection from displacement of windings:		N
D	Annex D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		N
D.1	Measuring instrument		N
D.2	Alternative measuring instrument		N

E	Annex E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N
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F	Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		N
G	Annex G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N
G.1	Clearances		N
G.1.1	General		N
G.1.2	Summary of the procedure for determining minimum clearances		N
G.2	Determination of mains transient voltage (V)		N
G.2.1	AC mains supply :		N
G.2.2	Earthed d.c. mains supplies :		N



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CL.	Requirement of the test	Result--Remark	Verdict
G.2.3	Unearthed d.c. mains supplies :		N
G.2.4	Battery operation :		N
G.3	Determination of telecommunication network transient voltage (V) :		N
G.4	Determination of required withstand voltage (V)		N
G.4.1	Mains transients and internal repetitive peaks :		N
G.4.2	Transients from telecommunication networks :		N
G.4.3	Combination of transients		N
G.4.4	Transients from cable distribution systems		N
G.5	Measurement of transient voltages (V)		N
	a) Transients from a mains supply		N
	For an a.c. mains supply		N
	For a d.c. mains supply		N
	b) Transients from a telecommunication network		N
G.6	Determination of minimum clearances :		N
H	Annex H, IONIZING RADIATION (see 4.3.13)		N
J	Annex J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N
	Metal(s) used.....:		--
K	Annex K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N
K.1	Making and breaking capacity	No thermal controls	N
K.2	Thermostat reliability; operating voltage (V) :		N
K.3	Thermostat endurance test; operating voltage (V) :		N
K.4	Temperature limiter endurance; operating voltage (V) :		N
K.5	Thermal cut-out reliability		N
K.6	Stability of operation		N
L	Annex L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		N
L.1	Typewriters		N

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CL.	Requirement of the test	Result--Remark	Verdict
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L.2	Adding machines and cash registers		N
L.3	Erasers		N
L.4	Pencil sharpeners		N
L.5	Duplicators and copy machines		N
L.6	Motor-operated files		N
L.7	Other business equipment		N

M	Annex M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N
M.1	Introduction		N
M.2	Method A		N
M.3	Method B		N
M.3.1	Ringing signal		N
M.3.1.1	Frequency (Hz) :		—
M.3.1.2	Voltage (V) :		—
M.3.1.3	Cadence; time (s), voltage (V) :		—
M.3.1.4	Single fault current (mA) :		—
M.3.2	Tripping device and monitoring voltage :		N
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N
M.3.2.2	Tripping device		N
M.3.2.3	Monitoring voltage (V) :		N

N	Annex N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N
N.1	ITU-T impulse test generators		N
N.2	IEC 60065 impulse test generator		N

P	Annex P, NORMATIVE REFERENCES		—
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Q	Annex Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N
	a) Preferred climatic categories :		N
	b) Maximum continuous voltage :		N
	c) Pulse current :		N

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CL.	Requirement of the test	Result--Remark	Verdict
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R	Annex R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N
R.2	Reduced clearances (see 2.10.3)		N

S	Annex S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N
S.1	Test equipment		N
S.2	Test procedure		N
S.3	Examples of waveforms during impulse testing		N

T	Annex T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N
		See separate test report	—
U	Annex U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N
		See separate test report	—
V	Annex V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		N
V.1	Introduction		N
V.2	TN power distribution systems		N

W	Annex W, SUMMATION OF TOUCH CURRENTS		N
W.1	Touch current from electronic circuits		N
W.1.1	Floating circuits		N
W.1.2	Earthed circuits		N
W.2	Interconnection of several equipments		N
W.2.1	Isolation		N
W.2.2	Common return, isolated from earth		N
W.2.3	Common return, connected to protective earth		N

X	Annex X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N
X.1	Determination of maximum input current		N
X.2	Overload test procedure		N

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CL.	Requirement of the test	Result--Remark	Verdict

Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N
Y.1	Test apparatus :		N
Y.2	Mounting of test samples :		N
Y.3	Carbon-arc light-exposure apparatus :		N
Y.4	Xenon-arc light exposure apparatus :		N

Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		N
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AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N
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BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—
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CL.	Requirement of the test	Result--Remark	Verdict
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1.5.1	Table: list of critical components			P
Part no.	Manufacturer/trademark	Type/mode	Technical data	Certified mark
PCB	Various	Various	V-1 or better, 105°C	UL
Internal wire	Various	Various	Min. 80°C, 300Vac	UL
Battery	SYNERGY SCIENTECH CORP	AHB 3P2128	185mAh, 3.7V	UL (MH26626)
Enclosure	Various	Various	V-1, Min. 60°C	UL

4.5	TABLE: Thermal requirements		P
	Supply Condition.....:	DC 5.0 V	—
	Ambient T1 (°C) .....	25.2	—
	Ambient T2 (°C) .....	25.1	—
Maximum measured temperature T of part/at::		T (°C)	Allowed Tmax (°C)
Internal wire		29.2	80
Enclosure outside near speaker		28.1	60
ON/OFF Switch		27.2	60
Sponge next to ears in normal use		26.6	60
Battery		35.8	55
PCB		28.7	105

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests		P
test voltage applied between:		test voltage (V) a.c. / d.c.	breakdown Yes / No
Input port and enclosure		AC 500	No

## EUT Photos

Photo 1 View of EUT



Photo 2 Internal of EUT

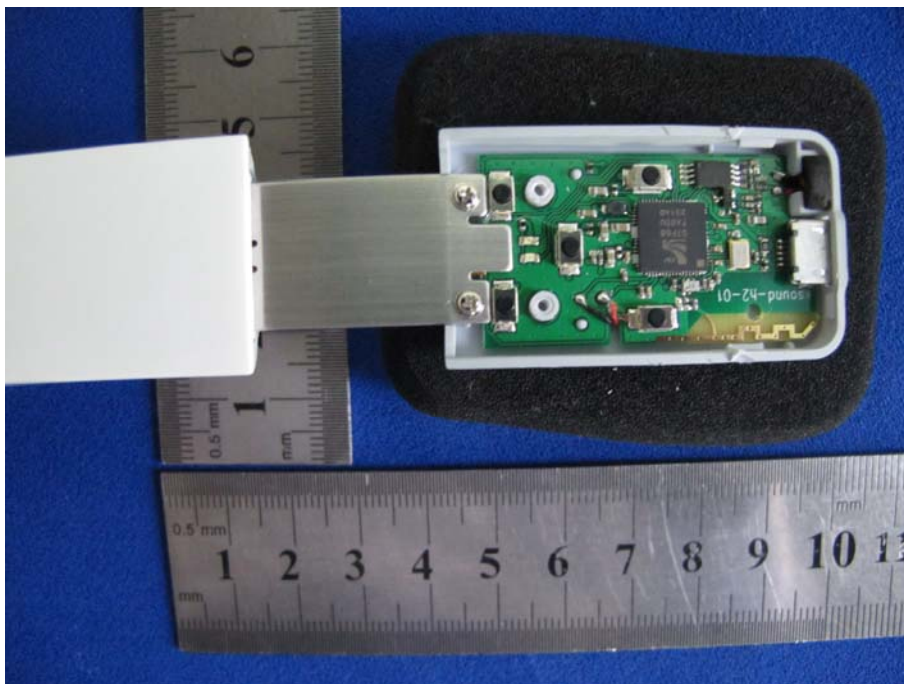




Photo 3 Internal of EUT

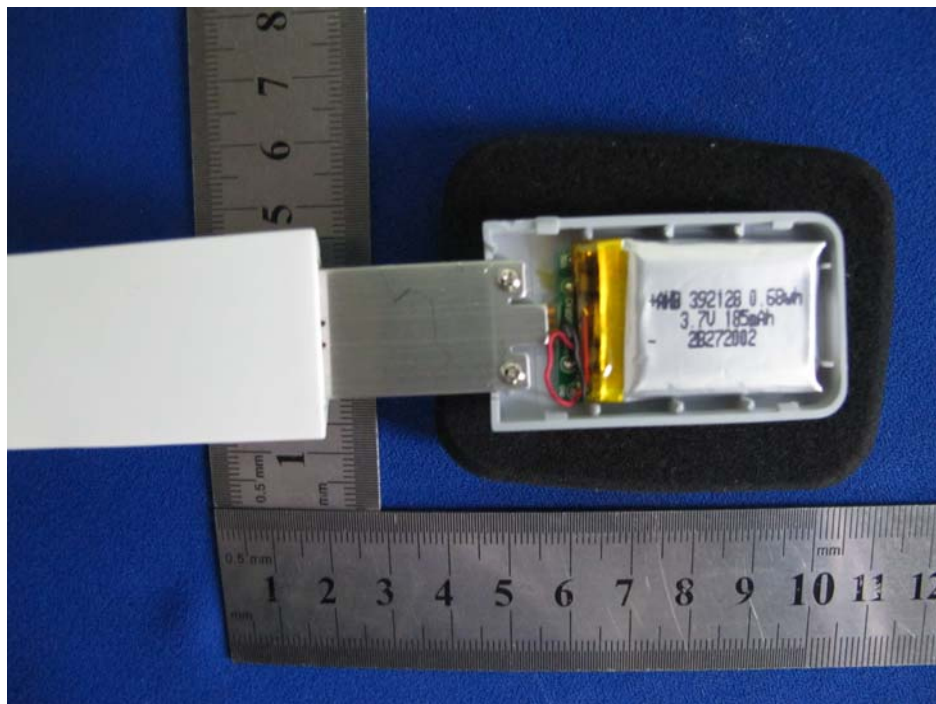


Photo 4 PCB

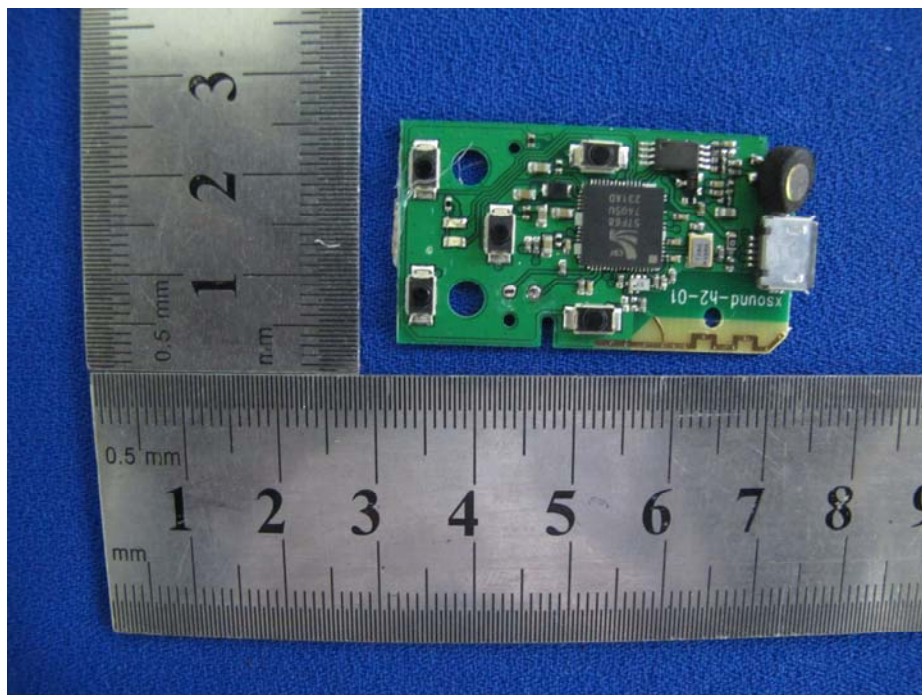
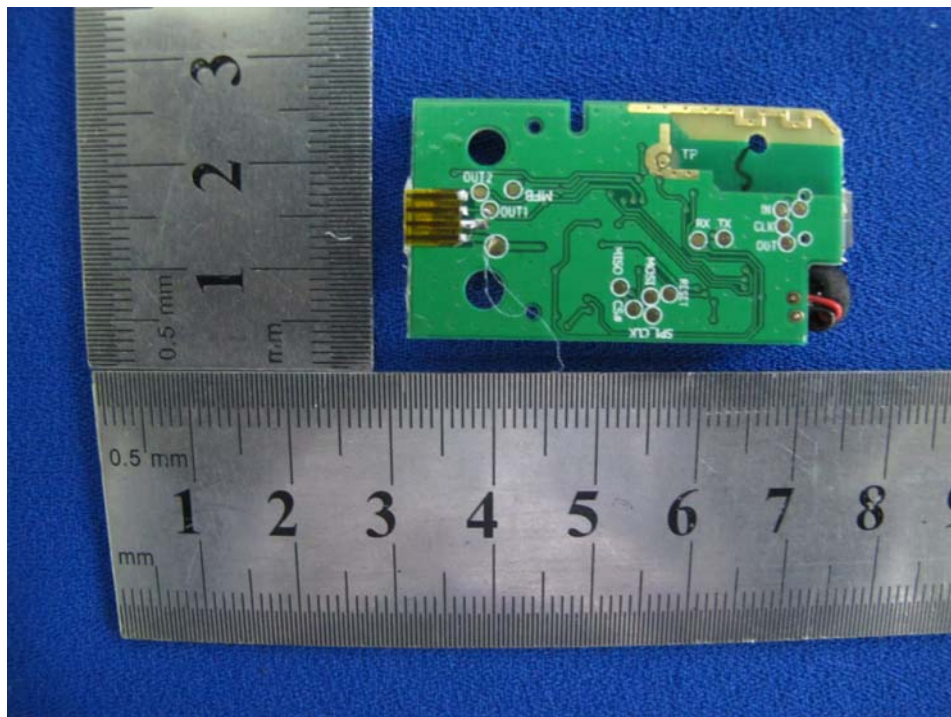


Photo 5 PCB



### Photo 6 Battery

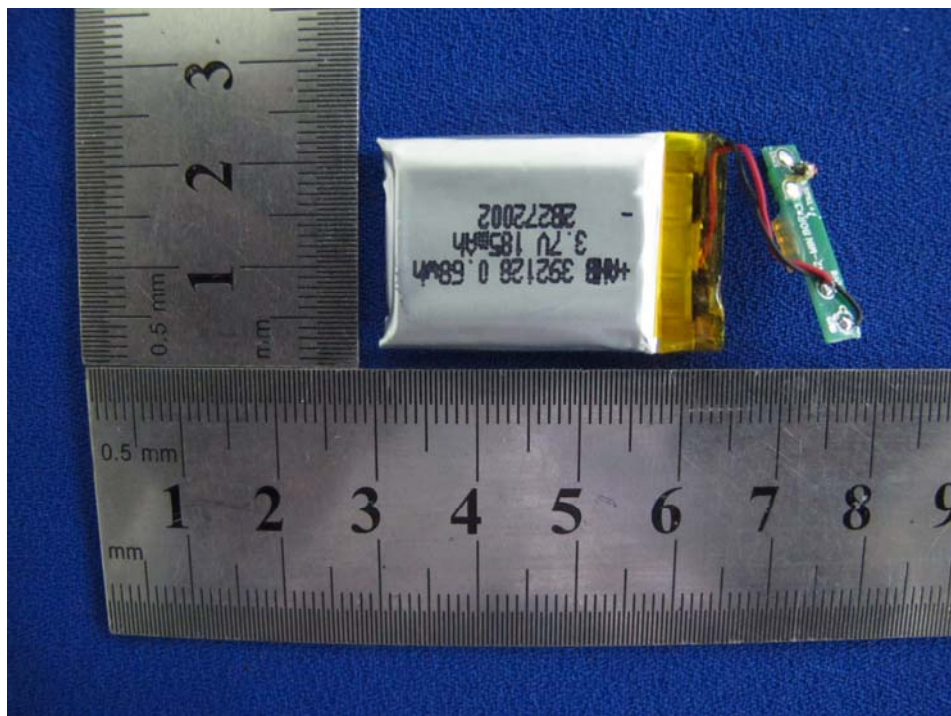




Photo 7 Battery



END OF REPORT