TEST REPORT

LAB NO. : (5506)184-1790-R1
DATE : August 22, 2006

This report is amendment of (5506)184-1790 dated July 24, 2006

APPLICANT	:	**Xiamen EDI Technologies Co., Ltd.** N401, Weiye Building, China(Xiamen) Pioneering Park for Overseas Chinese Scholars, Xiamen 361009, P.R. China
CONTACT PERSON	:	Mr. Billy Wang/ Ms. Delar Zheng
DATE OF SUBMISSION	:	July 3, 2006
TEST PERIOD	:	July 3, 2006 to July 24, 2006
NO. OF WORKING DAY(S)	:	16
SAMPLE DESCRIPTION	:	EDI-T ©Battery-free LED Shake Light Model no.: FFDPW2CL Manufacturer: Xiamen EDI Technologies Co., Ltd. Country of origin: P.R. China

SUMMARY OF TEST RESULTS

TEST REQUESTED	PASS	FAIL	REMARK
Restriction of Hazardous Substances Directive (RoHS), 2002/95/EC	X		

REMARK
If there are questions or concerns on this report, please contact the following persons:

Technical enquiry — Dr. Lee Siu Ming
(852) 2494-4328
siuming.lee@hk.bureauveritas.com

General enquiry and invoicing — Ms. Edith Lee
(852) 2494-1224
edith.lee@hk.bureauveritas.com

BUREAU VERITAS HONG KONG LIMITED

PREPARED BY : Ed

DR. LEE SIU MING
FOR REGIONAL RoHS MANAGER

RW- 17540

Bureau Veritas Hong Kong Limited
Consumer Products Services Division
Kwai Chung Office
Unit 1210, 12/F., Vanta Industrial Centre,
21-33 Tai Lin Pai Road, Kwai Chung, N.T., Hong Kong.
Tel: (852) 2488 1222 Fax: (852) 2480 6666 www.cps.bureauveritas.com

TEST RESULT

Restriction of Hazardous Substances Directive (RoHS), 2002/95/EC

Test Item	Description	Location	Test Results (ppm)					Conclusion
			Pb	Hg	Cd	Cr VI	PBBs & PBDEs	
1	Transparent plastics + translucent white plastic + translucent green plastic	Torch case; Main body; Front part	ND	ND	ND	ND	ND	PASS
2	Transparent plastics + silvery coated black plastic + translucent blue plastic + light yellow plastic	Tripod base, band (Front part); Switch	ND	ND	ND	ND	ND	PASS
3	Silvery magnet	Ring (Main body)	ND	ND	ND	ND	NA	PASS
4	Silvery magnet	Switch	ND	ND	ND	ND	NA	PASS
5	Green coated coppery metal	Wire (Main body)	ND	ND	ND	ND	ND	PASS
6	Transparent green glass	Reed switch	ND	ND	ND	ND	ND	PASS
7	Golden/ silvery metal part	Reed switch	ND	ND	ND	ND	NA	PASS
8	Green plastic with black printing	Sleeve (Capacitor of front part)	ND	ND	ND	ND	ND	PASS
9	Capacitor body	Front part	ND	ND	ND	ND	ND	PASS
10	Silvery metal	Pin (Capacitor of front part)	ND	ND	ND	ND	NA	PASS
11	Black body	Diode (PCB)	>1500[f]	ND	ND	ND	ND*	EXEMPTED[d]
12	Silvery metal	Pin (Diode of PCB)	ND	ND	ND	ND	NA	PASS
13	Transparent body	LED	ND	ND	ND	ND	ND*	PASS
14	Silvery metal	Pin (LED)	ND	ND	ND	ND	NA	PASS
15	Green coated PCB	Torch	ND	ND	ND	ND	ND*	PASS
16	Silvery solder	PCB	ND	ND	ND	ND	NA	PASS
17	Silvery magnet	Main body	ND	ND	ND	ND	NA	PASS

For item 11:
[f]According to the directive 2005/717/EC and 2005/747/EC, the annex of 2002/95/EC was amended and Clause 7 is reiterated here "Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead), Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications, Lead in electronic ceramic parts (e.g. piezoelectronic devices)." The sample as received was claimed by the client to be high melting temperature type solder, therefore, this material containing the found heavy metals level should be exempted.

TEST RESULT

Restriction of Hazardous Substances Directive (RoHS), 2002/95/EC

Remark:

1. NA = Not Applicable;
   ND = Not Detected, below the detection limit (See Note 1& 2);
   < = less than; > = greater than; ppm = mg/kg
2. Test results marked with * are determined by wet chemistry. Others are screened by XRF.
3. For XRF screening, the reported Chromium VI result is determined as total chromium, and Polybrominated Biphenyls (PBBs) and Polybrominated Diphenyl Ethers (PBDEs) results are determined as total bromine.
4. For Chromium VI of a metal composite sample by wet chemistry, each individual metal component was tested.
5. Only selected example(s) is/ are indicated on the above photograph(s)

Note:

1. Detection limits (in ppm) of XRF for regulated substances in various matrices.

Elements	Plastics	Metals	Electronics
Lead (Pb)	100	200	200
Mercury (Hg)	100	200	200
Cadmium (Cd)	50	50	50
Chromium (Cr)	100	200	200
Bromine (Br)	200	NA	200

2. Detection limits of Wet Chemistry for the six regulated substances.

Elements	Detection Limit (ppm)
Lead (Pb)	10
Mercury (Hg)	10
Cadmium (Cd)	10
Chromium VI (CrVI)	10
Polybrominated Biphenyls (PBBs): *Bromobiphenyls* *Dibromobiphenyls* *Tribromobiphenyls* *Tetrabromobiphenyls* *Pentabromobiphenyls* *Hexabromobiphenyls* *Heptabromobiphenyls* *Octabromobiphenyls* *Nonabromobiphenyls* *Decabromobiphenyl*	50 (each)
Polybrominated Diphenyl Ethers (PBDEs): *Bromodiphenyl ethers* *Dibromodiphenyl ethers* *Tribromodiphenyl ethers* *Tetrabromodiphenyl ethers* *Pentabromodiphenyl ethers* *Hexabromodiphenyl ethers* *Heptabromodiphenyl ethers* *Octabromodiphenyl ethers* *Nonabromodiphenyl ethers* *Decabromodiphenyl ether*	50 (each)

TEST RESULT

Restriction of Hazardous Substances Directive (RoHS), 2002/95/EC

3. Limit of Restriction of Hazardous Substances Directive (RoHS), 2005/618/EC:

Elements	RoHS' Limit (ppm)
Lead (Pb)	1000
Mercury (Hg)	1000
Cadmium (Cd)	100
Chromium VI (CrVI)	1000
Polybrominated Biphenyls (PBBs)	1000
Polybrominated Diphenyl Ethers (PBDEs)	1000

Test Method:

1) XRF Screening - IEC 62321, Ed. 1 (TC 111 Working Group 3) : Procedures for the determination of levels of regulated substances in electrotechnical products (Chapter 6) or;
2) Wet Chemistry Tests – With reference to IEC 62321, Ed. 1 (TC 111 Working Group 3) : Procedures for the determination of levels of regulated substances in electrotechnical products:
   i. Lead (Pb) and Cadmium (Cd): The sample is comminuted and digested with acid mixtures. Pb/ Cd contents are determined with ICP-AES technique. (Chapter 12, 13 & 14)
   ii. Mercury (Hg): The sample is comminuted and digested with acid mixtures. Hg content is determined with ICP-AES, ICP-MS or AAS-VGA technique. (Chapter 11)
   iii. Chromium (VI) (Cr VI):
      a. Metal: With reference to BS EN ISO 3613: 2001 with Incorporating Corrigendum No.1, "Chromate conversion coatings on zinc, cadmium, aluminium-zinc alloys and zinc-aluminium alloys - Test methods"
      b. Plastics & Electronics: The sample is comminuted and digested with alkaline mixtures. Chromium VI content is determined with UV-VIS spectroscopic technique. (Chapter 10)
   iv. PBBs and PBDEs: The sample is first scanned by infra red (IR) spectroscopy and appropriate solvent is used for extraction. The content of PBBs and PBDEs are determined by GC-MS. (Chapter 7)

END