ROHS SCREENING ANALYSIS REPORT NUMBER : TWNC00102801

APPLICANT: CACTUS TECHNOLOGIES LTD DATE : JAN 08, 2009
SUITE C 15/F CAPITAL TRADE CENTER
62 TSUN YIP STREET KWUN TONG
KOWLOON HONG KONG

SAMPLE DESCRIPTION:
ONE (1) GROUP OF SUBMITTED SAMPLES SAID TO BE :

SAMPLE DESCRIPTION	:	1.8 INCHES SOLID STATE DISK (1)PRINTED PLASTIC STICKER (2)BLACK METAL COVER (3)CONNECTOR - BLACK PLASTIC SOCKET (4)CONNECTOR - COPPERY METAL PIN (5)PCBA (CONNECTOR WAS EXCLUDED) (6)SILVERY METAL SCREW ON PCBA (7)SILVERY METAL SCREW ON COVER
STYLE / ITEM NO.	:	KDxxxyz(I) (xxx CAN BE 0~9 OR BLANK TO INDICATE THE DIFFERENT CAPACITY, y CAN BE M OR G TO INDICATE THE UNIT OF CAPACITY, M: MEGABYTE, G: GIGABYTE, z CAN BE R OR F TO INDICATE THE DISK TYPE AS REMOVABLE OR FIXED)
SERIES NO.	:	-303A
COUNTRY OF ORIGIN	:	R.O.C.
DATE SAMPLE RECEIVED	:	DEC 30, 2008
DATE TEST STARTED	:	DEC 31, 2008

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TEST CONDUCTED:
AS REQUESTED BY THE APPLICANT, FOR DETAILS PLEASE REFER TO ATTACHED PAGES.
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CONCLUSION:

TESTED SAMPLES	STANDARD	RESULT
SCREENING COMPONENTS OF SUBMITTED SAMPLES	WITH REFERENCE TO TEST METHOD OF IEC 62321 - 111/54/CDV CHAPTER 6, SCREENING BY XRF SPECTROSCOPY AND CHEMICAL CONFIRMATION TEST FOR ROHS DIRECTIVE (2002/95/EC)	PASS

REMARK:
AS REQUESTED BY THE APPLICANT, ONLY COMPONENTS SHOWN IN THIS REPORT WERE SCREENED BY XRF SPECTROSCOPY FOR 2002/95/EC. OTHER COMPONENTS WERE NOT SCREENED IN THIS REPORT.
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AUTHORIZED BY:
ON BEHALF OF INTERTEK TESTING SERVICES
TAIWAN LIMITED

INTERTEK TESTING SERVICES TAIWAN LTD.

K. Y. LIANG
DIRECTOR

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TEST CONDUCTED

THE RoHS SCREENING ANALYSIS IS PERFORMED BY AN ED-XRF (ENERGY DISPERSIVE X-RAY FLUORESCENCE) ANALYZER. THE ANALYZER DETERMINES THE CHEMISTRY OF A SCREENED COMPONENT BY MEASURING THE SPECTRUM OF CHARACTERISTIC X-RAY EMITTED BY DIFFERENT ELEMENTS IN THE SAMPLE, WHICH SUBJECTED TO X-RAY RADIATION. IN THE WAY THE ANALYZER IS ABLE TO DETERMINE WHICH ELEMENT IN THE PERIODIC SYSTEM THAT IS PRESENT IN SCREENED COMPONENTS.

DETERMINATION OF TOTAL VALUE OF REGULATED SUBSTANCES IN ELECTROTECHNICAL PRODUCTS, ELEMENTS OF CADMIUM (Cd), LEAD (Pb), MERCURY (Hg), CHROMIUM (Cr) AND BROMINE (Br) CONTENT WERE MEASURED BY XRF SPECTROSCOPY FOR RoHS RESTRICTED SUBSTANCES. THE ANALYZER IS THEREFORE UNABLE TO DETERMINE IF IT IS PBB, PBDE, Cr(VI) OR NON RESTRICTED BROMINE AND CHROMIUM SUBSTANCES IN THE SAMPLE.

(Ⅰ) TEST RESULT SUMMARY:

SCREENED COMPONENT	XRF RESULT			CHEMICAL CONFIRMATION RESULT (ppm)
	ELEMENT	SCREENED RESULT (ppm)	CONCLUSION	
(1)(#1)	Cd	ND	PASS	NOT TESTED
	Pb	ND	PASS	
	Hg	ND	PASS	
	Cr	ND	PASS	
	Br	ND	PASS	
(2)(#2)	Cd	ND	PASS	NOT TESTED
	Pb	ND	PASS	
	Hg	ND	PASS	
	Cr	ND	PASS	
	Br	NA	NA	
(3)(#2)	Cd	ND	PASS	NOT TESTED
	Pb	ND	PASS	
	Hg	ND	PASS	
	Cr	ND	PASS	
	Br	ND	PASS	
(4)(#2)	Cd	ND	PASS	NOT TESTED
	Pb	ND	PASS	
	Hg	ND	PASS	
	Cr	ND	PASS	
	Br	NA	NA	

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(Ⅰ) TEST RESULT SUMMARY:

SCREENED COMPONENT	XRF RESULT			CHEMICAL CONFIRMATION RESULT (ppm)
	ELEMENT	SCREENED RESULT (ppm)	CONCLUSION	
(5)(#3)	Cd	--	--	Cd: ND Pb: 14 Hg: ND Cr^{6+}: ND PBBs: ND PBDEs: ND
	Pb	--	--	
	Hg	--	--	
	Cr	--	--	
	Br	--	--	
(6)(#2)	Cd	ND	PASS	NOT TESTED
	Pb	ND	PASS	
	Hg	ND	PASS	
	Cr	ND	PASS	
	Br	NA	NA	
(7)(#2)	Cd	ND	PASS	NOT TESTED
	Pb	ND	PASS	
	Hg	ND	PASS	
	Cr	ND	PASS	
	Br	NA	NA	

REMARKS: ppm = PARTS PER MILLION = mg/kg
ND = NOT DETECTED AND PASS, THE SCREENED SAMPLE IS FOUND TO BE UNDER DETECTION LIMIT OF TABLE Ⅲ.
PASS = THE SCREENED COMPOENT IS FOUND TO BE PASS AND BELOW THE LOWER SCREENING THRESHOLD LIMIT OF TABLE Ⅱ.
NA = NOT APPLICABLE
#1 = RESULTS WERE TRANSFERRED FROM REPORT NO. TWNC00102798 DATED JAN 08, 2009.
#2 = RESULTS WERE TRANSFERRED FROM REPORT NO. TWNC00102799 DATED JAN 08, 2009.
#3 = SAMPLES WERE GROUND AND RANDOMLY SELECTED FOR TEST

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(Ⅱ) XRF SCREENING LIMITS IN mg/kg FOR REGULATED ELEMENTS IN VARIOUS MATRIES.

ELEMENT	POLYMER MATERIALS	METALLIC MATERIALS	COMPOSITE MATERIALS
Cd	P ≤ 70 < X < 130 ≤ F	P ≤ 70 < X < 130 ≤ F	P ≤ 70 < X < 150 ≤ F
Pb	P ≤ 700 < X < 1300 ≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500 < X < 1500 ≤ F
Hg	P ≤ 700 < X < 1300 ≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500 < X < 1500 ≤ F
Cr	P ≤ 700 < X	P ≤ 700 < X	P ≤ 500 < X
Br	P ≤ 300 < X	NOT APPLICABLE	P ≤ 250 < X

P = PASS
X = INCONCLUSIVE RESULT
F = FAIL
mg/kg = MILLIGRAM PER KILOGRAM = ppm

(Ⅲ) ESTIMATED DETECTION LIMITS IN mg/kg FOR REGULATED ELEMENTS IN VARIOUS MATRICES.

ELEMENT	POLYMER MATERIALS	METALLIC MATERIALS	COMPOSITE MATERIALS
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	NOT APPLICABLE	200

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(Ⅳ) TEST METHOD

TESTING ITEM	TESTING METHOD	REPORTING LIMIT
CADMIUM (Cd) CONTENT	WITH REFERENCE TO IEC 62321-111/54/CDV IN CLAUES 11/12/13, BY MICROWAVE DIGESTION UNTIL THE TESTED SAMPLES ARE TOTALLY DISSOLVED AND DETERMINED BY ICP-OES	2 ppm
LEAD (Pb) CONTENT	WITH REFERENCE TO IEC 62321-111/54/CDV IN CLAUES 11/12/13, BY MICROWAVE DIGESTION UNTIL THE TESTED SAMPLES ARE TOTALLY DISSOLVED AND DETERMINED BY ICP-OES	2 ppm
MERCURY (Hg) CONTENT	WITH REFERENCE TO IEC 62321-111/54/CDV IN CLAUES 10, BY MICROWAVE DIGESTION UNTIL THE TESTED SAMPLES ARE TOTALLY DISSOLVED AND DETERMINED BY ICP-OES	2 ppm
CHROMIUM VI (Cr^{6+}) CONTENT	WITH REFERENCE TO IEC 62321-111/54/CDV IN CLAUES 9, BY ALKALINE DIGESTION AND DETERMINED BY UV-VIS SPECTROPHOTOMETER	1 ppm
POLYBROMINATED BIPHENYLS (PBBs)	WITH REFERENCE TO IEC 62321-111/54/CDV IN CLAUES 7, BY SOLVENT EXTRACTION AND DETERMINED BY GC-MSD AND FURTHER HPLC CONFIRMATION WHEN NECESSARY	5 ppm
POLYBROMINATED DIPHENYL ETHERS (PBDEs)	WITH REFERENCE TO IEC 62321-111/54/CDV IN ANNEX A, BY SOLVENT EXTRACTION AND DETERMINED BY GC-MSD AND FURTHER HPLC CONFIRMATION WHEN NECESSARY	5 ppm

REMARKS : REPORTING LIMIT = QUANTITATION LIMIT OF ANALYTE IN SAMPLE
WITH REFERENCE TO 111/54/CDV VERSION 2006-05-05, THE METHOD IS STILL UNDER DEVELOPMENT BY IEC TC/111 WG3 AND IS ADOPTED ONLY UPON CLIENT'S REQUEST.

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DISCLAIMERS:

THE NUMERICAL TEST DATA OF THIS XRF SCREENING REPORT IS FOR REFERNECE PURPOSES ONLY DUE TO THE DATA VARIATION INCURRED FROM VARIOUS FACTORS AS DESCRIBED IN NEXT PARAGRAPH. THE APPLICANT SHALL MAKE ITS/HIS/HER OWN JUDGEMENT AS TO WHETHER THE INFORMATION PROVIDED IN THIS XRF SCREENING REPORT IS SUFFICIENT FOR ITS/HIS/HER PURPOSES.

THE RESULTS SHOWN IN THIS XRF SCREENING REPORT WILL DIFFER BASED ON VARIOUS FACTORS, INCLUDING BUT NOT LIMITED TO, THE SAMPLE SIZE, THICKNESS, AREA, SURFACE FLATNESS, EQUIPMENT PARAMETERS AND MATRIX EFFECT (e.g. PLASTIC, RUBBER, METAL, GLASS, CERAMIC ETC.). FURTHER WET CHEMICAL PRE-TREATMENT WITH RELEVANT CHEMICAL EQUIPMENT ANALYSIS ARE REQUIRED TO OBTAIN QUANTITATIVE DATA.

(V) RoHS REQUIREMENT:

RESTRICTED SUBSTANCES	**LIMITS**
CADMIUM (Cd)	0.01% (100 ppm)
LEAD (Pb)	0.1% (1000 ppm)
MERCURY (Hg)	0.1% (1000 ppm)
CHROMIUM (VI) (Cr^{6+})	0.1% (1000 ppm)
POLYBROMINATED BIPHENYLS (PBBs)	0.1% (1000 ppm)
POLYBROMINATED DIPHENYL EHTERS (PBDEs)	0.1% (1000 ppm)

THE ABOVE LIMITS WERE QUOTED FROM 2002/95/EC AND AMENDMENT 2005/618/EC FOR HOMOGENEOUS MATERIAL.

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END OF REPORT

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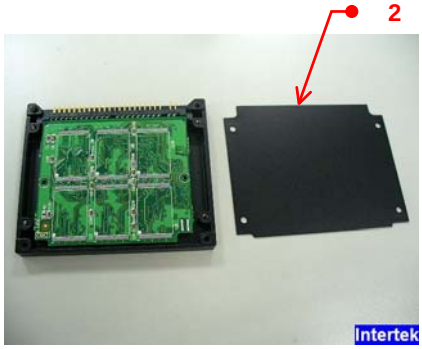
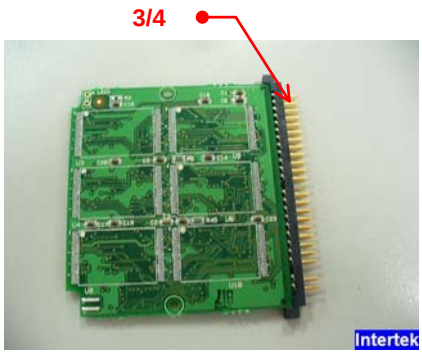
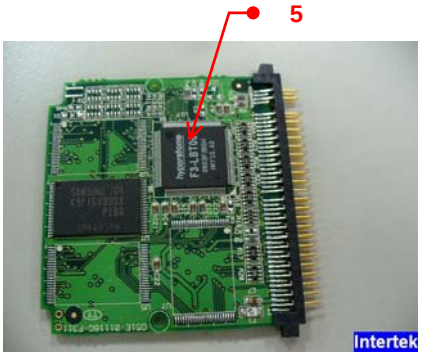
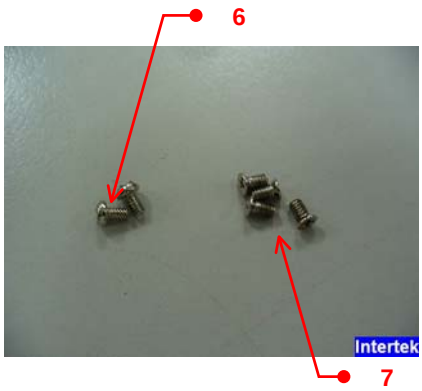
PHOTO









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