

CPST

Test Report

No. C220325039001-1

Date: Mar 30, 2022

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Applicant: Compucase Enterprise Co., Ltd.

Applicant address: No.225, Lane 54, Sec.2 An-Ho Rd., Tainan City, Taiwan, R.O.C.

The following samples were submitted and identified on behalf of the clients as

Sample Name: DC cooling fan
Model: TC1225L9RGB
Model/Type reference: TC1225L16RGB /TC1225L20RGB/TC1225L20RGBP(SHARK Blades RGB PWM)/TC1225L9RGBP(SHARK Disc RGB PWM)/SHARK Disc RGB Fan
CPST Internal Reference No.: C220325039
Sample Received Date: Mar 25, 2022
Test Period: Mar 25, 2022 to Mar 30, 2022
Test Method: Please refer to next page(s).
Test Result: Please refer to next page(s).

Signed for and on behalf of
Euronex (Dongguan) Consumer Products Testing Service Co., Ltd



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400 111 6218

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CONCLUSION :

<u>TESTED SAMPLES</u>	<u>TEST ITEM</u>	<u>RESULT</u>
DC cooling fan	1.RoHS Directive 2011/65/EU Annex II amending Annex (EU)2015/863	
	— Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDEs Content	PASS
	—Di-(2-ethylhexyl) phthalate(DEHP), Benzylbutyl phthalate(BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate(DIBP) Content	PASS

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2. Test Item Description And Photo List

Sample No.	Description	Photograph
001	Black plastic	
002	Silvery metal	
003	Black soft plastic (wire jacket)	
004	Silvery metal (wire core)	
005	Black soft plastic	
006	Transparent plastic	
007	Black plastic	
008	Silvery metal	
009	Silvery solder	
010	Black plastic	
011	Silvery metal	
012	Black soft plastic (wire jacket)	

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Sample No.	Description	Photograph
013	Silvery plastic with black printing (label)	
014	Black soft plastic	
015	Transparent double-sided glue	
016	Black plastic	
017	White plastic	
018	White plastic	
019	Grey transparent plastic	
020	White body	
021	Brown body	
022	Black body	
023	Black body with white printing	
024	Black PCB	
025	Silvery solder	

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Sample No.	Description	Photograph
026	Grey magnet	
027	Silvery metal	
028	Silvery metal	
029	Black body	
030	Brown body	
031	Black body	
032	Black body	
033	Green PCB	
034	Silvery solder	
035	Black plastic	
036	Coppery metal	
037	Coppery metal	
038	Silvery metal	
039	White soft plastic	
040	Transparent plastic	
041	White plastic	

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Sample No.	Description	Photograph
042	Black plastic	
043	Silvery metal	
044	Silvery metal	
045	Black plastic	
046	Black soft plastic (wire jacket)	
047	Black plastic	
048	Silvery metal	
049	Black plastic	
050	Silvery metal	

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3. Test Results

3.1 Screening test for the specified hazardous substances of RoHS for the selected materials of the submitted sample:

- Heavy Metal (Cadmium, Chromium, Mercury, Lead) Content Test
- Bromine Content Test

According to IEC 62321-3-1:2013, and Quantification analyzed with Energy Dispersive X-ray Fluorescence Spectrometers.

Sample No.	Total Cadmium	Total Lead	Total Mercury	Total Chromium	Total Bromine
Sample 001	BL	BL	BL	BL	BL
Sample 002	BL	BL	BL	BL	N.A.
Sample 003	BL	BL	BL	BL	BL
Sample 004	BL	BL	BL	BL	N.A.
Sample 005	BL	BL	BL	BL	BL
Sample 006	BL	BL	BL	BL	BL
Sample 007	BL	BL	BL	BL	BL
Sample 008	BL	BL	BL	BL	N.A.
Sample 009	BL	BL	BL	BL	N.A.
Sample 010	BL	BL	BL	BL	BL
Sample 011	BL	BL	BL	BL	N.A.
Sample 012	BL	BL	BL	BL	BL
Sample 013	BL	BL	BL	BL	BL
Sample 014	BL	BL	BL	BL	BL
Sample 015	BL	BL	BL	BL	BL
Sample 016	BL	BL	BL	BL	BL
Sample 017	BL	BL	BL	BL	BL
Sample 018	BL	BL	BL	BL	BL
Sample 019	BL	BL	BL	BL	BL
Sample 020	BL	BL	BL	BL	BL
Sample 021	BL	BL	BL	BL	BL
Sample 022	BL	BL	BL	BL	BL
Sample 023	BL	BL	BL	BL	BL
Sample 024	BL	BL	BL	BL	Inconclusive [^]
Sample 025	BL	BL	BL	BL	N.A.
Sample 026	BL	BL	BL	BL	BL

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Sample No.	Total Cadmium	Total Lead	Total Mercury	Total Chromium	Total Bromine
Sample 027	BL	BL	BL	BL	N.A.
Sample 028	BL	BL	BL	Inconclusive [^]	N.A.
Sample 029	BL	BL	BL	BL	BL
Sample 030	BL	BL	BL	BL	BL
Sample 031	BL	BL	BL	BL	BL
Sample 032	BL	BL	BL	BL	BL
Sample 033	BL	BL	BL	BL	Inconclusive [^]
Sample 034	BL	BL	BL	BL	N.A.
Sample 035	BL	BL	BL	BL	BL
Sample 036	BL	BL	BL	BL	N.A.
Sample 037	BL	BL	BL	BL	N.A.
Sample 038	BL	BL	BL	BL	N.A.
Sample 039	BL	BL	BL	BL	BL
Sample 040	BL	BL	BL	BL	BL
Sample 041	BL	BL	BL	BL	BL
Sample 042	BL	BL	BL	BL	BL
Sample 043	BL	BL	BL	BL	N.A.
Sample 044	BL	BL	BL	BL	N.A.
Sample 045	BL	BL	BL	BL	BL
Sample 046	BL	BL	BL	BL	BL
Sample 047	BL	BL	BL	BL	BL
Sample 048	BL	BL	BL	BL	N.A.
Sample 049	BL	BL	BL	BL	BL
Sample 050	BL	BL	BL	BL	N.A.

Note:

1. All Concentrations express in “mg/kg” (milligram per kilogram), mg/kg ~ ppm
2. “OL” denotes “over limit”
3. “BL” denotes “below limit”
4. “N.A.” denotes “Not Applicable”
5. “Inconclusive” denotes result is intermediate between “OL” and “BL”
6. “[^]”denotes the screening result was inconclusive(X) or over limit (OL), thus further confirmation test was conducted, results are listed in 3.2 and 3.3.

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XRF screening limits for different materials:

Materials	Concentration (mg/kg)				
	Cd	Cr	Pb	Hg	Br
Metal	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	N.A.
Polymers	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (300-3\sigma) < X$
Composite material	$BL \leq (50-3\sigma) < X < (150+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$	$BL \leq (250-3\sigma) < X$

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3.2 Test for Heavy Metals

– Lead, Cadmium, Hexavalent Chromium and Mercury Tests according to IEC 62321-4:2013+A1:2017 & IEC 62321-5:2013 & IEC 62321-7-1:2015 & IEC 62321-7-2:2017, Analysis was conducted by ICP-OES, UV-VIS.

Element	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Mercury [mg/kg]	Hexavalent Chromium [$\mu\text{g}/\text{cm}^2$]	Hexavalent Chromium [mg/kg]
Detection Limit	5	5	5	0.10	5
Limit	100	1000	1000	0.10	1000
Sample 028	/	/	/	N.D.	/

Note:

1. All Concentrations express in "mg/kg"(milligram per kilogram), mg/kg ~ ppm.
2. "N.D." = "Not Detected".
3. Boiling-water-extraction:
 - Negative = Absence of Cr(VI) coating / surface layer: the detected concentration in boiling-water-extraction solution is less than 0.10 μg with 1 cm^2 sample surface area.
 - Positive = Presence of Cr(VI) coating / surface layer: the detected concentration in boiling-water-extraction solution is greater than 0.13 μg with 1 cm^2 sample surface area.
 - Inconclusive = the detected concentration in boiling-water-extraction solution is greater than 0.10 μg and less than 0.13 μg with 1 cm^2 sample surface area.
4. Positive = result be regarded as not comply with RoHS requirement
Negative = result be regarded as comply with RoHS requirement
5. "-" =Not regulated

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3.3 Test for Flame retardants

– Test Method: With reference to IEC 62321-6:2015, extracted by toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS). [Reporting Limit: 5mg/kg]

Test Item	Result [mg/kg]		RoHS Requirement [mg/kg]	
	Sample 024	Sample 033		
PBBs	Monobromobiphenyl	< 5	< 5	Sum of PBBs < 1000
	Dibromobiphenyl	< 5	< 5	
	Tribromobiphenyl	< 5	< 5	
	Tetrabromobiphenyl	< 5	< 5	
	Pentabromobiphenyl	< 5	< 5	
	Hexabromobiphenyl	< 5	< 5	
	Heptabromobiphenyl	< 5	< 5	
	Octabromobiphenyl	< 5	< 5	
	Nonabromobiphenyl	< 5	< 5	
	Decabromobiphenyl	< 5	< 5	
	Sum of PBBs	< 5	< 5	
PBDEs	Monobromodiphenyl Ether	< 5	< 5	Sum of PBDEs < 1000
	Dibromodiphenyl Ether	< 5	< 5	
	Tribromodiphenyl Ether	< 5	< 5	
	Tetrabromodiphenyl Ether	< 5	< 5	
	Pentabromodiphenyl Ether	< 5	< 5	
	Hexabromodiphenyl Ether	< 5	< 5	
	Heptabromodiphenyl Ether	< 5	< 5	
	Octabromodiphenyl Ether	< 5	< 5	
	Nonabromodiphenyl Ether	< 5	< 5	
	Decabromodiphenyl Ether	< 5	< 5	
	Sum of PBDEs	< 5	< 5	

Note:

1. All Concentrations express in “mg/kg” (milligram per kilogram), mg/kg ~ ppm.
2. “<” denotes less than

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3.4 Di-(2-ethylhexyl) phthalate(DEHP), Benzylbutyl phthalate(BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP) Content—RoHS Directive 2011/65/EU Annex II amending Annex (EU)2017/2102

Test method: With reference to IEC 62321-8:2017; Analysis was conducted by GC-MS.

Element	Di-(2-ethylhexyl) phthalate (DEHP) [mg/kg]	Benzylbutyl phthalate (BBP) [mg/kg]	Dibutyl phthalate (DBP) [mg/kg]	Diisobutyl phthalate(DIBP) [mg/kg]
Detection Limit	50	50	50	50
Limit	1000	1000	1000	1000
Sample 001	N.D.	N.D.	N.D.	N.D.
Sample 003	110	N.D.	N.D.	N.D.
Sample 005	N.D.	N.D.	N.D.	N.D.
Sample 006	N.D.	N.D.	N.D.	N.D.
Sample 007	N.D.	N.D.	N.D.	N.D.
Sample 010	N.D.	N.D.	N.D.	N.D.
Sample 012	N.D.	N.D.	N.D.	N.D.
Sample 013	N.D.	N.D.	N.D.	N.D.
Sample 014	N.D.	N.D.	N.D.	N.D.
Sample 015	N.D.	N.D.	N.D.	N.D.
Sample 016	N.D.	N.D.	N.D.	N.D.
Sample 017	N.D.	N.D.	N.D.	N.D.
Sample 018	N.D.	N.D.	N.D.	N.D.
Sample 019	N.D.	N.D.	N.D.	N.D.
Sample 020	N.D.	N.D.	N.D.	N.D.
Sample 021	N.D.	N.D.	N.D.	N.D.
Sample 022	N.D.	N.D.	N.D.	N.D.
Sample 023	N.D.	N.D.	N.D.	N.D.
Sample 024	N.D.	N.D.	N.D.	N.D.
Sample 026	N.D.	N.D.	N.D.	N.D.
Sample 029	N.D.	N.D.	N.D.	N.D.
Sample 030	N.D.	N.D.	N.D.	N.D.
Sample 031	N.D.	N.D.	N.D.	N.D.
Sample 032	N.D.	N.D.	N.D.	N.D.
Sample 033	N.D.	N.D.	N.D.	N.D.
Sample 035	N.D.	N.D.	N.D.	N.D.
Sample 039	N.D.	N.D.	N.D.	N.D.
Sample 040	N.D.	N.D.	N.D.	N.D.
Sample 041	N.D.	N.D.	N.D.	N.D.

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Element	Di-(2-ethylhexyl) phthalate (DEHP) [mg/kg]	Benzylbutyl phthalate (BBP) [mg/kg]	Dibutyl phthalate (DBP) [mg/kg]	Diisobutyl phthalate(DIBP) [mg/kg]
Detection Limit	50	50	50	50
Limit	1000	1000	1000	1000
Sample 042	N.D.	N.D.	N.D.	N.D.
Sample 045	N.D.	N.D.	N.D.	N.D.
Sample 046	N.D.	N.D.	N.D.	N.D.
Sample 047	N.D.	N.D.	N.D.	N.D.
Sample 049	N.D.	N.D.	N.D.	N.D.

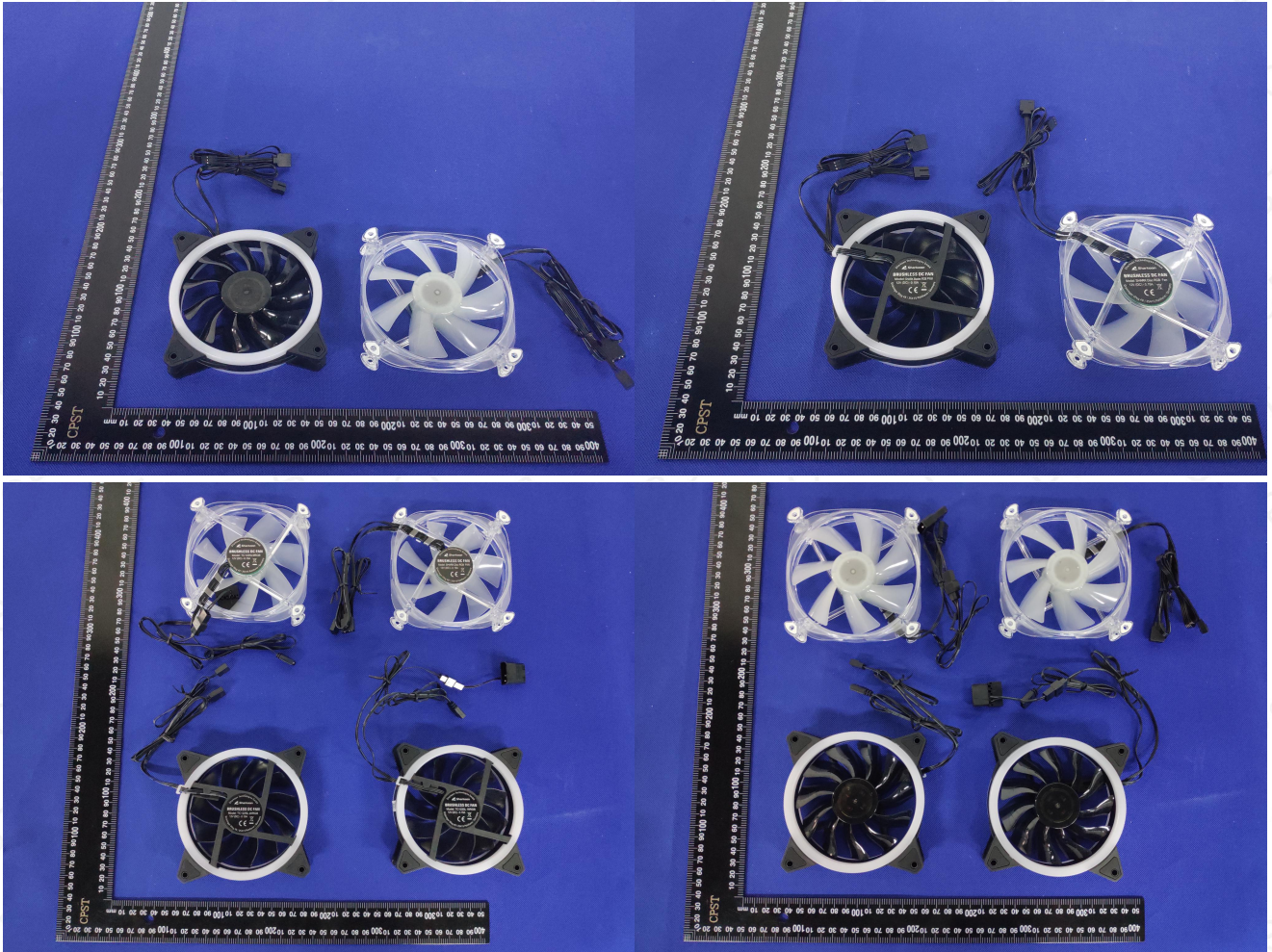
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Photo of the Submitted Sample



*** End of Report ***

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