ROHS TEST REPORT

Report Reference No. ……:	CA1604024R 03001
Engineer (name + signature) ……:	Apple Hu
Approved by (name + signature) ……:	Joe Long
Date of issue ……:	2016-04-27
Testing Laboratory ……:	Dong Guan Anci Electronic Technology Co., Ltd
Address ……:	No. A222, Building A, Shifu Hardware Plaza, Changan Town, Dongguan City, Guangdong Pr., China.
Applicant's name ……:	Shenzhen Onlumi Technology Co., Limited
Address ……:	5F,21th,Chuangye Road, Shilong Community, Shiyan, Bao'an, Shenzhen, Guangdong, China
Manufacturer ……:	Same as applicant
Address ……:	Same as applicant
Test specification……:	
Test item description ……:	LED Pin Connector
Trade Mark ……:	Onlumi
Model/Type reference ……:	DPW-5M, DPW-5F, DPW-4M, DPW-4F, DPW-3M, DPW-3F, DPW-2M, DPW-2F, ADPW-5M, ADPW-5F, ADPW-4M, ADPW-4F, ADPW-3M, ADPW-3F, ADPW-2M, ADPW-2F, CDPW-5M, CDPW-5F, CDPW-4M, CDPW-4F, CDPW-3M, CDPW-3F, CDPW-2M, CDPW-2F
Test procedure ……:	Based on the performed tests on submitted sample(s), the results of Lead(Pb), Mercury(Hg), Cadmium (Cd), Hexavalent chromium(Cr6+), Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) , and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.
Test result ……:	Pass

The device described above was tested by Dong Guan Anci Electronic Technology Co., Ltd. (ANCI) to determine the maximum emission levels emanated from the device and severity levels of the device endure and its performance criterion. The measurement results are contained in this test report and ANCI assumes full responsibility for the accuracy and completeness of these measurements. This report shows the EUT is technically compliance with the above official standards.

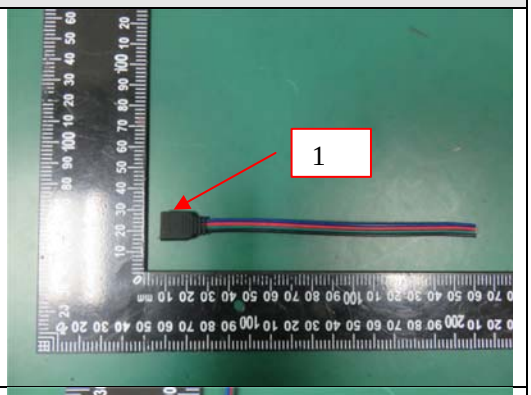
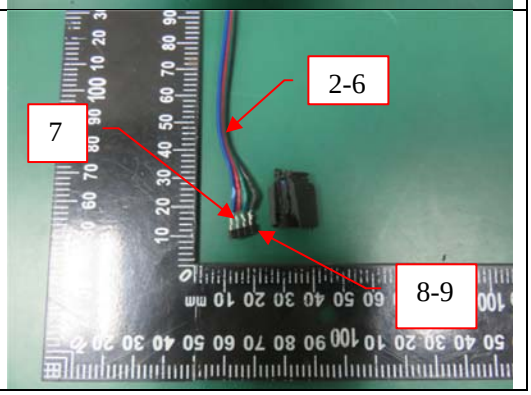
The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of ANCI, this report can't be reproduced except in full.

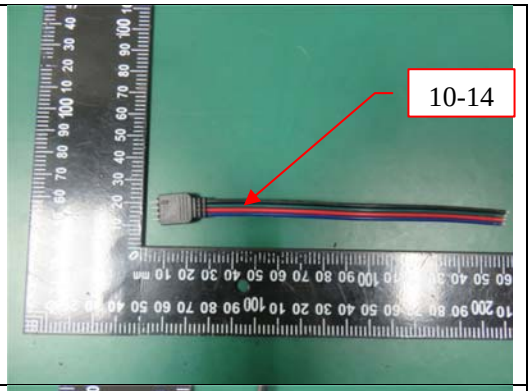
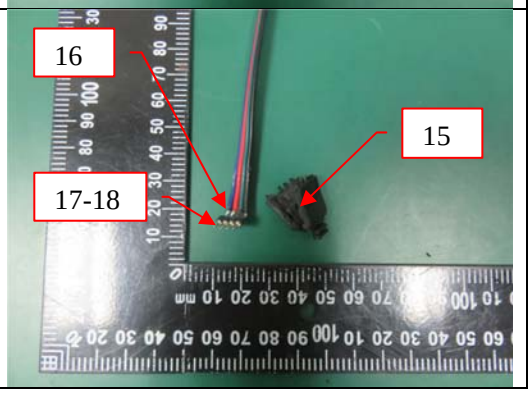
1. GENERAL INFORMATION

1.1 Product Information

- **The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of ANCI, this report can't be reproduced except in full.**
- **The following sample(s) and sample information was/were submitted and identified by/on the behalf of the client.**
- **All models used the same materials.**

2. Test item description and photo list

Sample No.	Description	Photograph
1.	Black plastics	
2.	Black wire jacket	
3.	Red wire jacket	
4.	Green wire jacket	
5.	Blue wire jacket	
6.	Copper wire	
7.	Solder	
8.	Black plastics	
9.	Silvery metal part	

10.	Black wire jacket	
11.	Red wire jacket	
12.	Green wire jacket	
13.	Blue wire jacket	
14.	Copper wire	
15.	Black plastics	
16.	Solder	
17.	Black plastics	
18.	Silvery metal pin	

Test Conclusion

1. As specified by client, to screen Lead(Pb), Cadmium(Cd), Mercury(Hg), Chromium(Cr) and Bromine(Br) in the submitted sample(s) by XRF.
2. As specified by client, when screening results exceed the XRF screening limit in IEC62321: 2008 Edition 1.0, further use of chemical methods are required to test the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs) in the submitted samples.

2.1 TEST DATA REPORT

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 62321:2013, and Quantification analyzed with Energy Dispersive X-ray Fluorescence Spectrometers.

SampleNo.	Total Cadmium	Total Lead	Total Mercury	Total Chromium	Total Bromine
Sample1.	BL	BL	BL	BL	Inconclusive^
Sample2.	BL	BL	BL	BL	BL
Sample3.	BL	BL	BL	BL	BL
Sample4.	BL	BL	BL	BL	BL
Sample5.	BL	BL	BL	BL	BL
Sample6.	BL	BL	BL	BL	N.A.

Sample7.	BL	Inconclusive^	BL	BL	N.A.
Sample8.	BL	BL	BL	BL	BL
Sample9.	BL	BL	BL	BL	N.A.
Sample10.	BL		BL	BL	BL
Sample11.	BL	BL	BL	BL	BL
Sample12.	BL	BL	BL	BL	BL
Sample13.	BL	BL	BL	BL	BL
Sample14.	BL	BL	BL	BL	N.A.
Sample15.	BL	BL	BL	BL	Inconclusive^
Sample16.	BL	Inconclusive^	BL	BL	N.A.
Sample17.	BL	BL	BL	BL	BL
Sample18.	BL	BL	BL	BL	N.A.

NOTE:
Lead (Pb)
Cadmium (Cd)
Mercury (Hg)
Hexavalent Chromium (Cr^{6+})
Polybrominated Biphenyls (PBBs)
Polybrominated Diphenyl Ethers (PBDEs)

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"denotesresultisintermediatebetween"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 in 2.2 A and B.
7."φ"denotes as the information(the submitted sample is electronic ceramic part) provided by the client, when Lead in electronic ceramic parts is exempted from RoHS Directive (EU)2015/863 amending Annex II to Directive 2011/65/EU. Annex III. XRF screening limits for different materials:

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

Remark: 1.The screening results are only used for reference.

2. When conducting the test for PBBs & PBDEs, XRF was introduced to screen Br Exclusively; When conducting the test for Hexavalent Chromium, XRF was introduced to screen Chromium exclusively.

3. #1According to the client's statement, the material of the sample(s) fall intoexemption items 7(c)-I according to EU Directive (EU)2015/863 amending Annex II to Directive 2011/65/EU. and 2011/534/EU: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.
   #2According to the client's statement, the material of the sample(s) fall into exemption items 7(a) according to EU Directive (EU)2015/863 amending Annex II to Directive 2011/65/EU.and 2011/534/EU: Lead in high melting temperature type solders(i.e. lead-based alloys containing 85% by weight of more lead).

2.2 Test Method

A. Test for Heavy Metals

Lead, Cadmium, Hexavalent Chromium and Mercury Tests according to IEC62321-4:2013 &IEC62321-5:2013&IEC 62321-7:2015.

Element	**Total Cadmium** [mg/kg]	**Total Lead** [mg/kg]	**Total Mercury** [mg/kg]	**Hexavalent Chromium** [-]	**Hexavalent Chromium** [mg/kg]
Detection Limit	5	5	5	Δ	5
RoHS Requirements	**100**	**1000**	**1000**	**#**	**1000**
Sample 7	/	84 mg/kg	/	/	/
Sample 16	/	108 mg/kg	/	/	/

Note:

1. All Concentrations express in"mg/kg" (milligram per kilogram), mg/kg~ppm.
2. "N.D."="Not Detected".
3. Δ=Spot-Test:

   Negative=Absence of CrVI coating, Positive=Presence of CrVI coating; (The tested sample should be further verified by boiling-water-extraction method if the spot test result is negative or cannot be confirmed.)
   Boiling-water-extraction:

   Negative=Absence of CrVI coating
   Positive=Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02mg/kg with 50cm2 sample surface area.
   Storage conditions and production date of the tested sample are unavailable and thus results of Cr(VI) represent status of the sample at the time of testing
4. #=Positive indicates the presence of CrVI on the tested areas. Negative indicates the absence of CrVI on the tested areas.
5. "-"=Not regulated
6. *=Sample is copper alloy allow containing up to 4% lead by weight.

B. Test for Flame retardants

Test Method: With reference to IEC62321-6:2015, 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 1	Sample 15	
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	MonobromodiphenylEther	＜5	＜5	Sum of PBDEs<1000
	DibromodiphenylEther	＜5	＜5	
	TribromodiphenylEther	＜5	＜5	
	TetrabromodiphenylEther	＜5	＜5	
	PentabromodiphenylEther	＜5	＜5	
	HexabromodiphenylEther	＜5	＜5	
	HeptabromodiphenylEther	＜5	＜5	
	OctabromodiphenylEther	＜5	＜5	
	NonabromodiphenylEther	＜5	＜5	
	DecabromodiphenylEther	＜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

3. EUT PHOTOS

Figure1.

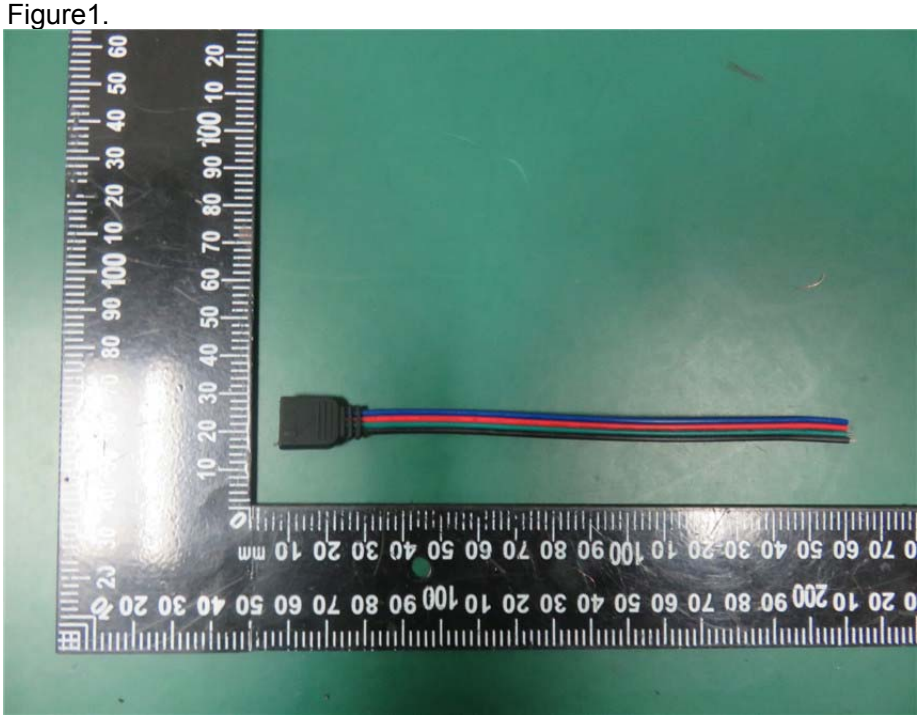
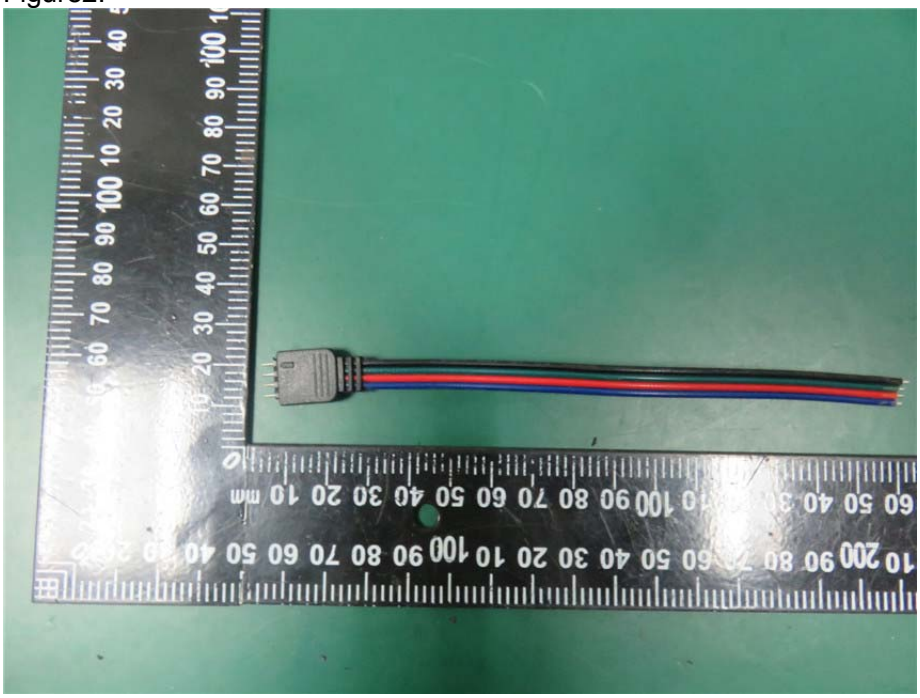


Figure2.



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