



TEST REPORT



中国认可
国际互认
检测
TESTING
CNAS L10844

Report No.:AZT24061107C-E0

Date of issue: June 20, 2024

Page 1 of 10

Applicant : SHANGHAI MEISONGBEI ELECTRONICS CO.,LTD.
Address : No.3891 Jinxiu Road, Pudong New District, Shanghai, China
Manufacturer : SHANGHAI MEISONGBEI ELECTRONICS CO.,LTD.
Address : No.3891 Jinxiu Road, Pudong New District, Shanghai, China

Report on the submitted samples said to be:

Sample Name : Inductor
Trade Mark : MEISONGBEI
Tested model : HI Series, HIP Series, MXAL Series, SNR Series, SPQ Series
Date of Sample Received : June 11, 2024
Testing Period : June 11, 2024 ~ June 20, 2024
Results : Please refer to next page(s).

TEST REQUEST

CONCLUSION

According to the customer's request, based on the performed tests on submitted sample, the result of Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs, PBDEs, Dibutyl Phthalate (DBP), Benzyl butyl Phthalate (BBP), Bis(2-ethylhexyl) Phthalate (DEHP), Diisobutyl phthalate (DIBP) content comply with the limit as set of RoHS Directive 2011/65/EU Annex II amending Directive (EU)2015/863.

Pass

Signed for and on behalf of AZT

Jack Zhong



Shenzhen AZT Technology Co., Ltd.

No.502, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Tel: 0755-23501189; E-mail: azt-ep@azt-tech.com; Http: www.azt-tech.com



TEST REPORT

Report No.:AZT24061107C-E0

Date of issue: June 20, 2024

Page 2 of 10

Test Item Description And Photo List

No.	Tested Part(s)	The photo of the sample
1	Black magnet	
2	Copper metal coil	
3	Inductor	
4	Inductor	
5	Inductor	
6	Inductor	
7	Black glue	
8	Silvery soldering tin	



Shenzhen AZT Technology Co., Ltd.

No.502, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Tel: 0755-23501189; E-mail: azt-ep@azt-tech.com; Http: www.azt-tech.com



TEST REPORT

Report No.:AZT24061107C-E0

Date of issue: June 20, 2024

Page 3 of 10

Results:

A. RoHS Directive 2011/65/EU Annex II amending Directive (EU)2015/863 on XRF

Test method: With reference to IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF)

No.	Tested Part(s)	Results					
		Cd	Pb	Hg	Cr▼	Br▼	
						PBBs	PBDEs
1	Black magnet	BL	BL	BL	BL	/	/
2	Copper metal coil	BL	BL	BL	BL	/	/
3	Inductor	BL	BL	BL	X	/	/
4	Inductor	BL	BL	BL	X	/	/
5	Inductor	BL	BL	BL	BL	/	/
6	Inductor	BL	BL	BL	BL	/	/
7	Black glue	BL	BL	BL	BL	BL	BL
8	Silvery soldering tin	BL	BL	BL	BL	/	/

Note:

- Results were obtained by XRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013.

XRF screening limits for different materials:

Element	Unit	Non-metal	Metal	Composite Material
Cd	mg/kg	BL≤70-3σ<X <130+3σ≤OL	BL≤70-3σ<X <130+3σ≤OL	BL≤50-3σ<X <150+3σ≤OL
Pb	mg/kg	BL≤700-3σ<X <1300+3σ≤OL	BL≤700-3σ<X <1300+3σ≤OL	BL≤500-3σ<X <1500+3σ≤OL
Hg	mg/kg	BL≤700-3σ<X <1300+3σ≤OL	BL≤700-3σ<X <1300+3σ≤OL	BL≤500-3σ<X <1500+3σ≤OL
Cr	mg/kg	BL≤700-3σ<X	BL≤700-3σ<X	BL≤500-3σ<X
Br	mg/kg	BL≤300-3σ<X	--	BL≤250-3σ<X

Note:

- BL = Below Limit
 OL = Over Limit
 X = Inconclusive

- The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
- The maximum permissible limit is quoted from the RoHS Directive 2011/65/EU Annex II amending Directive (EU)2015/863.
- ▼=For restricted substances PBBs and PBDEs, the results show the total Br content; The restricted substance was Cr (VI), and the results showed the total Cr content.



Shenzhen AZT Technology Co., Ltd.

No.502, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Tel: 0755-23501189; E-mail: azt-ep@azt-tech.com; Http: www.azt-tech.com



TEST REPORT

Report No.:AZT24061107C-E0

Date of issue: June 20, 2024

Page 4 of 10

RoHS Restricted Substances	Maximum Concentration Value (mg/kg) (by weight in homogenous materials)
Cadmium (Cd)	100
Lead (Pb)	1000
Mercury (Hg)	1000
Hexavalent Chromium (Cr(VI))	1000
Polybrominated biphenyls (PBBs)	1000
Polybrominated diphenyl ethers (PBDEs)	1000
Dibutyl Phthalate (DBP)	1000
Benzyl butyl Phthalate (BBP)	1000
Bis(2-ethylhexyl) Phthalate (DEHP)	1000
Diisobutyl Phthalate (DIBP)	1000

Disclaimers:

This XRF Screening report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes.

The result 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.



Shenzhen AZT Technology Co., Ltd.

No.502, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Tel: 0755-23501189; E-mail: azt-ep@azt-tech.com; Http: www.azt-tech.com



TEST REPORT

Report No.:AZT24061107C-E0

Date of issue: June 20, 2024

Page 5 of 10

B. RoHS Directive 2011/65/EU Annex II amending Directive (EU)2015/863 - Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs, PBDEs, DBP, BBP, DEHP, DIBP content.

Test method:

Lead & Cadmium Content:

With reference to IEC 62321-5:2013, analysis was performed by Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES).

Mercury Content:

With reference to IEC 62321-4:2013+AMD1:2017 CSV, analysis was performed by Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES).

Hexavalent Chromium Content:

With reference to IEC 62321-7-1:2015& IEC 62321-7-2:2017, analysis was performed by UV-visible spectrophotometer (UV-Vis).

PBBs & PBDEs Content:

With reference to IEC 62321-6:2015, analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

DBP, BBP, DEHP, DIBP Content:

With reference to IEC 62321-8:2017, analysis was performed by gas chromatographic-mass spectrometer (GC-MS).

1) The test results of Hexavalent Chromium (Cr (VI))(metal)

Test Item	Unit	MDL	Results		Limit
			3	4	
Hexavalent Chromium (Cr(VI))▼	µg/cm ²	0.10	Negative	Negative	--

Note:

- MDL = Method Detection Limit
- LOQ = Limit of Quantification, The LOQ of Hexavalent chromium is 0.10 µg/cm²
- mg/kg = ppm
- N.D.=Not Detected (<MDL or LOQ)
- ▼ = a. The sample is positive for Cr (VI) if the Cr (VI) concentration is greater than 0.13µg/cm². The sample coating is considered to contain Cr (VI).
b. The sample is negative for Cr (VI) if Cr (VI) is N.D. (concentration less than 0.10µg/cm²). The sample coating is considered a non- Cr (VI) based coating.
c. The result between 0.10µg/cm² and 0.13µg/cm² is considered to be inconclusive, unavoidable coating variations may influence the determination.
- Positive = result be regarded as not comply with RoHS requirement
- Negative = result be regarded as comply with RoHS requirement





TEST REPORT

Report No.:AZT24061107C-E0

Date of issue: June 20, 2024

Page 6 of 10

2) The test results of DBP, BBP, DEHP & DIBP

Test Items	CAS No.	Unit	MDL	Results	Limit
				7	
Dibutyl Phthalate (DBP)	84-74-2	mg/kg	50	N.D.	1000
Benzyl butyl Phthalate (BBP)	85-68-7	mg/kg	50	N.D.	1000
Bis(2-ethylhexyl) Phthalate (DEHP)	117-81-7	mg/kg	50	N.D.	1000
Diisobutyl Phthalate (DIBP)	84-69-5	mg/kg	50	N.D.	1000

Remark:

- mg/kg = ppm
- N.D. = Not detected
- MDL= Method detected limited
- The samples were mixed for phthalic acid test
- Tested part(s) was/were specified by client
- Flow chart appendix is included
- Photo appendix is included



Shenzhen AZT Technology Co., Ltd.

No.502, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Tel: 0755-23501189; E-mail: azt-ep@azt-tech.com; Http: www.azt-tech.com



TEST REPORT

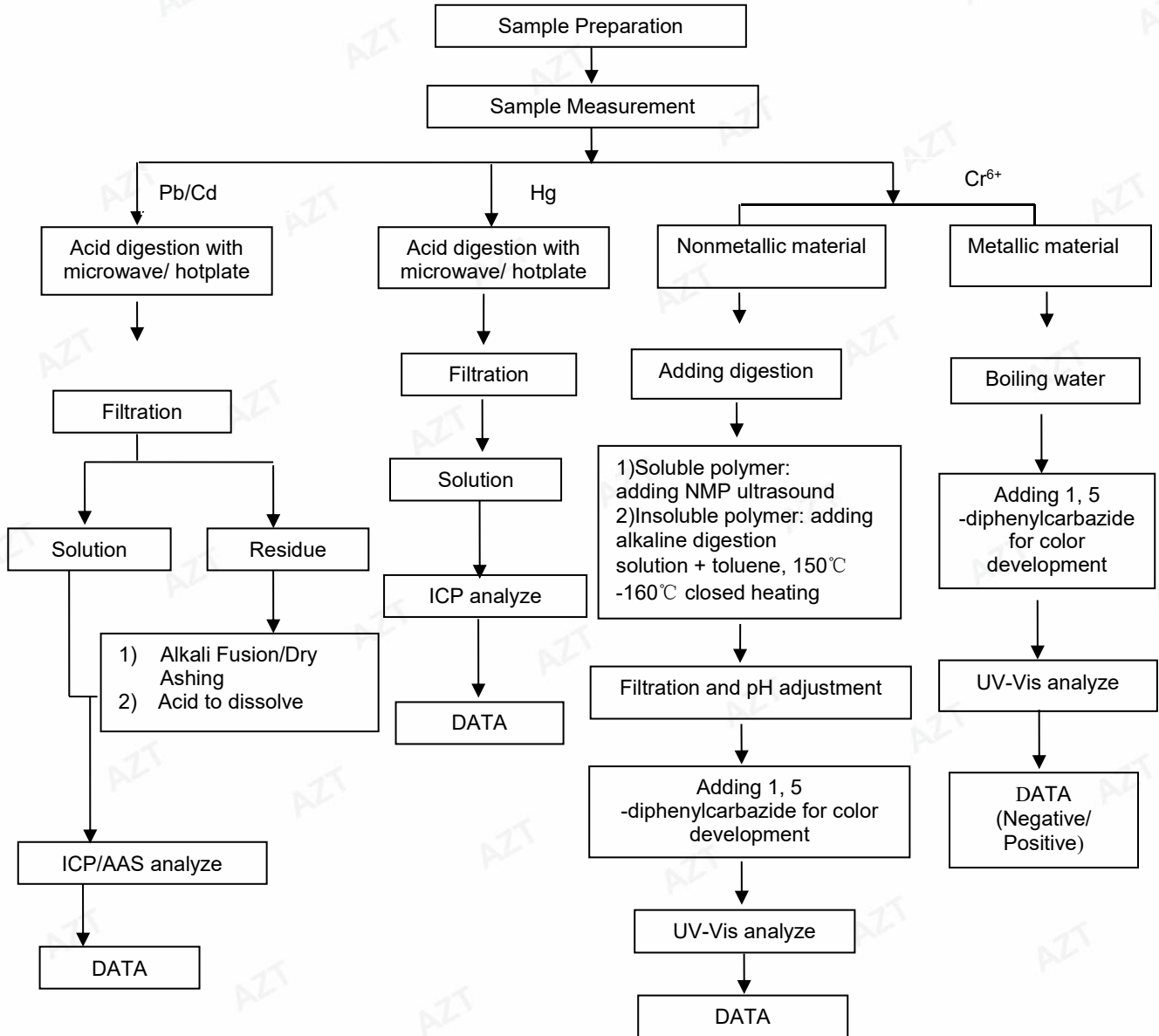
Report No.:AZT24061107C-E0

Date of issue: June 20, 2024

Page 7 of 10

Appendix

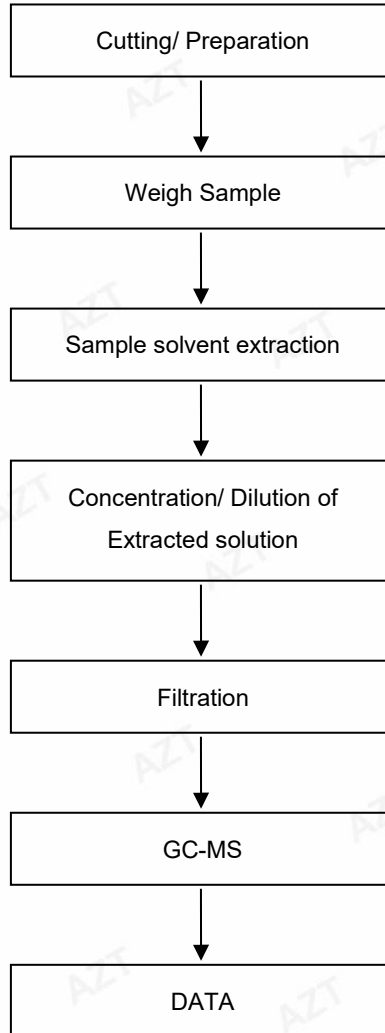
Pb/Cd/Hg/Cr⁶⁺ Testing Flow Chart





TEST REPORT

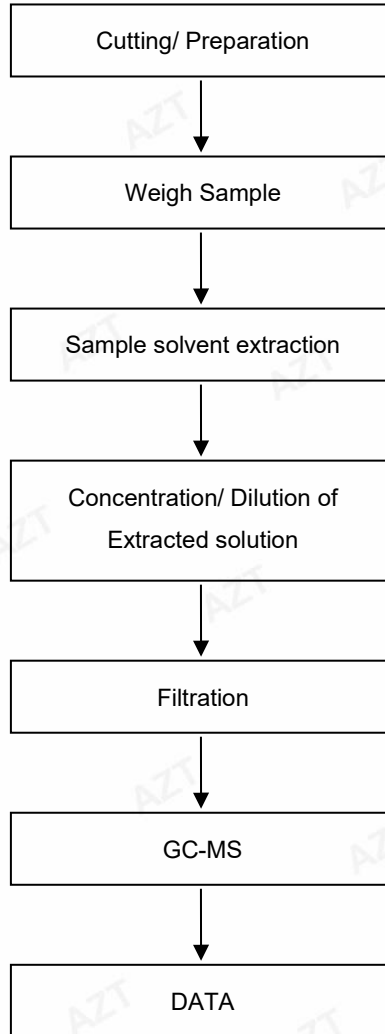
PBBs/PBDEs Testing Flow Chart



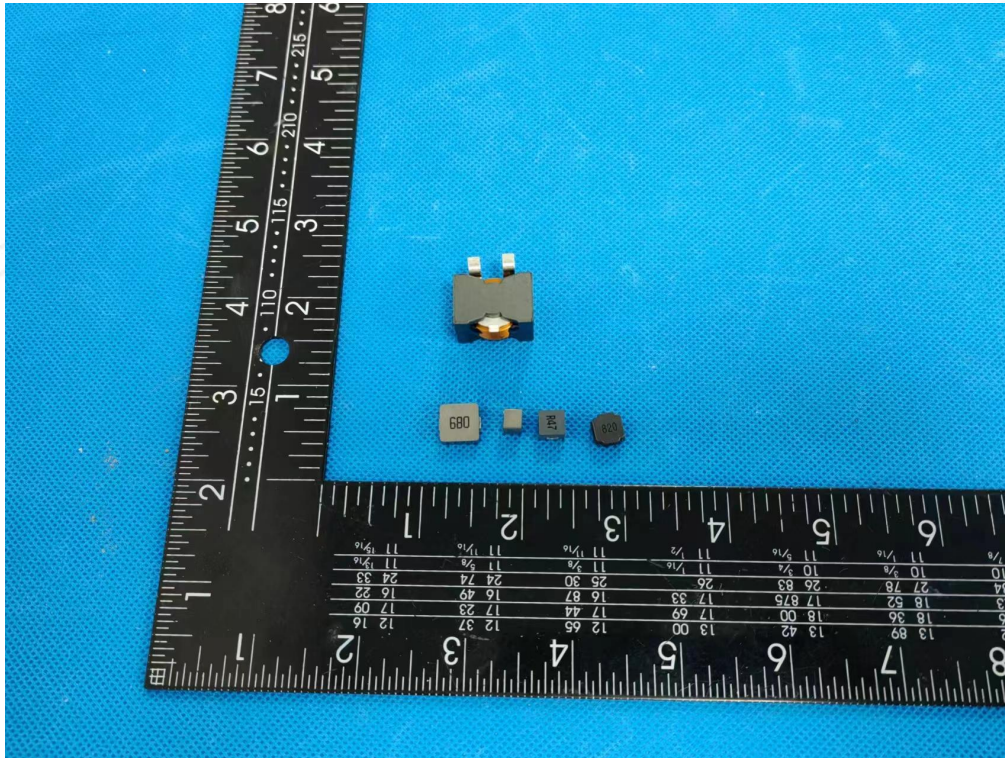


TEST REPORT

Phthalates Testing Flow Chart



The photo of the sample



AZT authenticate the photo on original report only

Statement:

1. This test report is invalid without the signature of the approver and the special seal of the company's report.
2. The copy of the test report is invalid if the "special seal for testing" or "Special Seal for testing" or the official seal of the testing unit is not re-stamped.
3. After the test report is altered, the test report is invalid.
4. If there is any objection to the test report, please submit written comments to the laboratory within 15 days from the date of receipt of the report.
5. This test is only responsible for samples provided by customers.
6. This report shall not be reproduced in whole or in part without the written authorization of the Company.
7. The laboratory is not responsible for sampling, all samples are provided by customers.
8. The test results in this test report are only related to the samples provided by the customer.

*** End of Report ***

