



# Test Report

Report No. A2240315771101008

Page 1 of 9

**Company Name** ZHEJIANG RECTRON ELECTRONIC CO.,LTD.**shown on Report****Address** 28# LIZHENG ROAD, HUIMIN DISTRICT,JIASHAN COUNTY, JIAXING CITY,ZHEJIANG PROVINCE, CHINA/111# CHENGGONG ROAD, HUIMIN DISTRICT,JIASHAN COUNTY, JIAXING CITY,ZHEJIANG PROVINCE, CHINA

**The following sample(s) and sample information was/were submitted and identified by/on the behalf of the applicant**

Sample Name	HF Molding
Material	Epoxy
Sample Received Date	Jun. 11, 2024
Testing Period	Jun. 11, 2024 to Jun. 18, 2024

**Test Requested** As specified by client, to test Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Antimony(Sb), Fluorine (F), Chlorine (Cl), Bromine (Br), Phthalates , Asbestos in the submitted sample(s).

**Test Method/Test Result(s)** Please refer to the following page(s).



Approved by

*Chen Kaimin*

Chen Kaimin

Approved Signatory

*Jason Zhang*

Jason Zhang

Approved Signatory

No. R748861269

Date: 19/2024

Inspection &amp; Testing Services

Centre Testing International Pinbiao(Shanghai) Co., Ltd.

No.1351, Wanfang Road, Minhang District, Shanghai, China

# Test Report

Report No. A2240315771101008

Page 2 of 9

## Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013	ICP-OES
Mercury (Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES
Hexavalent Chromium (Cr(VI))	IEC 62321-7-2:2017 and/or determination of Total Chromium by IEC 62321-5:2013	UV-Vis/ICP-OES
Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015	GC-MS
Phthalates (DBP, BBP, DEHP, DIBP)	IEC 62321-8:2017	GC-MS
Antimony (Sb)	Refer to US EPA 3052:1996 & US EPA 6010D:2018*	ICP-OES
Fluorine (F)	Refer to EN 14582:2016	IC
Chlorine (Cl)	Refer to EN 14582:2016	IC
Bromine (Br)	Refer to EN 14582:2016	IC
Phthalates(BBP,DMEP,DEHP,DBP,DNHP/DHEXP,DPP/DPENP,DIBP,DIDP,DINP,DIPP,DNOP,NIPP)	Refer to EN 14372:2004(E)*	GC-MS
Asbestos	ISO 22262-1:2012+NIOSH 9000:2015+NIOSH 9002:1994	PLM+XRD

## Test Result(s)

Tested Item(s)	Result	MDL
	008	
Lead (Pb)	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	2 mg/kg
Mercury (Hg)	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	N.D.	8 mg/kg

# Test Report

Report No. A2240315771101008

Page 3 of 9

Tested Item(s)	Result	MDL
	008	
Polybrominated Biphenyls (PBBs)		
Monobromobiphenyl	N.D.	5 mg/kg
Dibromobiphenyl	N.D.	5 mg/kg
Tribromobiphenyl	N.D.	5 mg/kg
Tetrabromobiphenyl	N.D.	5 mg/kg
Pentabromobiphenyl	N.D.	5 mg/kg
Hexabromobiphenyl	N.D.	5 mg/kg
Heptabromobiphenyl	N.D.	5 mg/kg
Octabromobiphenyl	N.D.	5 mg/kg
Nonabromobiphenyl	N.D.	5 mg/kg
Decabromobiphenyl	N.D.	5 mg/kg

Tested Item(s)	Result	MDL
	008	
Polybrominated Diphenyl Ethers (PBDEs)		
Monobromodiphenyl ether	N.D.	5 mg/kg
Dibromodiphenyl ether	N.D.	5 mg/kg
Tribromodiphenyl ether	N.D.	5 mg/kg
Tetrabromodiphenyl ether	N.D.	5 mg/kg
Pentabromodiphenyl ether	N.D.	5 mg/kg
Hexabromodiphenyl ether	N.D.	5 mg/kg
Heptabromodiphenyl ether	N.D.	5 mg/kg
Octabromodiphenyl ether	N.D.	5 mg/kg
Nonabromodiphenyl ether	N.D.	5 mg/kg
Decabromodiphenyl ether	N.D.	5 mg/kg

## Test Report

Report No. A2240315771101008

Page 4 of 9

Tested Item(s)	Result	MDL
	008	
Phthalates (DBP, BBP, DEHP, DIBP)		
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg

Tested Item(s)	Result	MDL
	008	
Antimony (Sb)	N.D.	10 mg/kg

Tested Item(s)	Result	MDL
	008	
Fluorine (F)	N.D.	10 mg/kg
Chlorine (Cl)	121 mg/kg	10 mg/kg
Bromine (Br)	N.D.	10 mg/kg

Tested Item(s)	Result	MDL
	008	
Phthalates		
Dibutyl phthalate (DBP) CAS#:84-74-2	N.D.	50 mg/kg
Butyl benzyl phthalate (BBP) CAS#:85-68-7	N.D.	50 mg/kg
Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7	N.D.	50 mg/kg
Di-n-octyl phthalate (DNOP) CAS#:117-84-0	N.D.	50 mg/kg
Di-isononyl phthalate (DINP) CAS#:28553-12-0,68515-48-0	N.D.	50 mg/kg

## Test Report

Report No. A2240315771101008

Page 5 of 9

Tested Item(s)	Result	MDL
	008	
Phthalates		
Di-iso-decyl phthalate (DIDP) CAS#:26761-40-0,68515-49-1	N.D.	50 mg/kg
Diisobutyl phthalate (DIBP) CAS#:84-69-5	N.D.	50 mg/kg
Dipentyl phthalate (DPP/DPENP) CAS#:131-18-0	N.D.	50 mg/kg
Di-n-hexyl phthalate (DNHP/DHEXP) CAS#:84-75-3	N.D.	50 mg/kg
Bis(2-methoxyethyl) phthalate (DMEP) CAS#:117-82-8	N.D.	50 mg/kg
Diisopentylphthalate (DIPP) CAS#:605-50-5	N.D.	50 mg/kg
N-Pentyl-isopentyl phthalate (NIPP) CAS#:776297-69-9	N.D.	100 mg/kg

Material Category	Substances/CAS Numbers	Results
		008
Asbestos (CAS 1332-21-4)	Chrysotile/12001-29-5	N.A.D.
	Crocidolite/12001-28-4	N.A.D.
	Amosite /12172-73-5	N.A.D.
	Tremolite Asbestos/ 77536-68-6	N.A.D.
	Actinolite Asbestos /77536-66-4	N.A.D.
	Anthophyllite Asbestos/77536-67-5	N.A.D.

## Sample/Part Description

No.	CTI Sample ID	Description
1	008	Dark grey solid

# Test Report

Report No. A2240315771101008

Page 6 of 9

**Remark:** The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury, Antimony.

-MDL = Method Detection Limit

-N.D. = Not Detected (<MDL)

-mg/kg = ppm = parts per million

-N.A.D.= No Asbestos Detected(<Limit of detection)

**Note:** “\*” indicates the method(s) is (are) not in CNAS accreditation scope.

## Explanation (Asbestos)

-The limit of detection of this method is defined as the detection and identification of one fibre or fibre bundle in the amount of sample examined. With appropriate matrix reduction procedures that are tailored to the nature of the sample, the limit of detection can be significantly lower than 0.1%.

-The estimated concentration(s) of the asbestos varieties detected in ranges is/are as follows: Trace (<0.1%), 0.1%~5%, 5%~50%, and 50%~100%.

-Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarized light microscopy. These materials often contain milled asbestos with too small fibre diameter and length to be detected.

-X-ray diffraction analysis cannot discriminate the particle shape in analytical sample and detects not only asbestos of fibrous form but also non-fibrous minerals related to asbestos such as serpentine minerals and/or amphibole minerals if they coexist.

-CTI Asbestos Testing Center has established strict quality assurance and supervision procedures in accordance with international standard. And the laboratory participates in the AIMS\* every year (three times per year) to confirm our proficiency.

\*The Asbestos in Materials Scheme (AIMS) is an international inter-laboratory testing scheme, and it is managed by the Health and Safety Laboratory (HSL) which on behalf of the Health and Safety Executive (HSE) of UK.

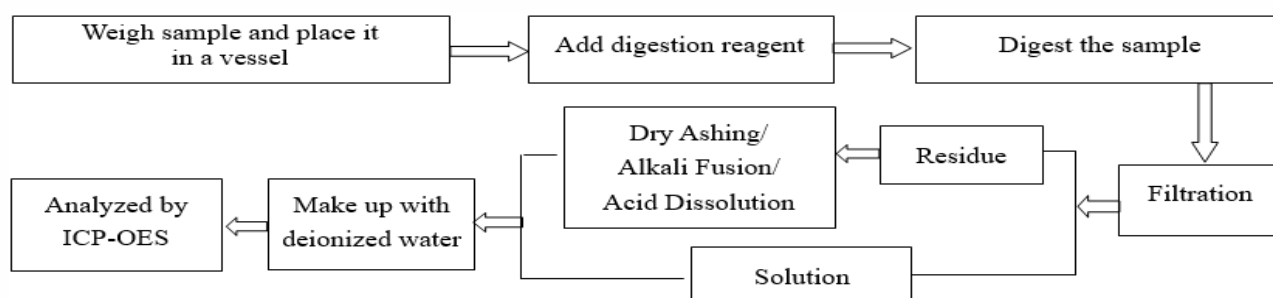
# Test Report

Report No. A2240315771101008

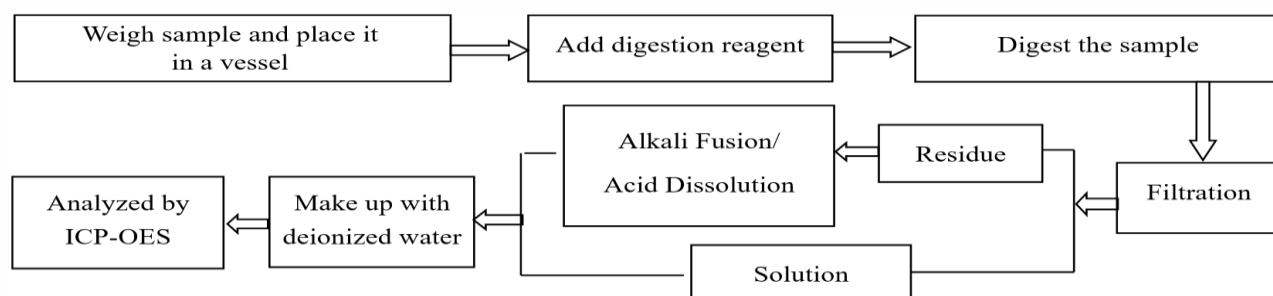
Page 7 of 9

## Test Process

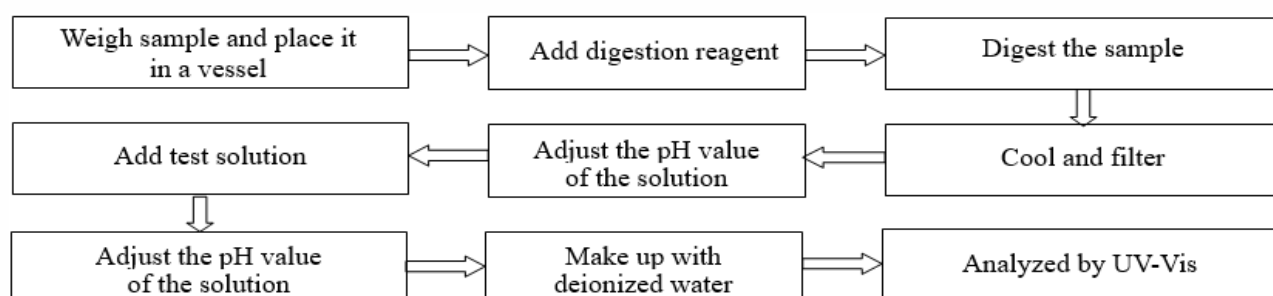
### 1. Lead (Pb), Cadmium (Cd), Chromium(Cr)



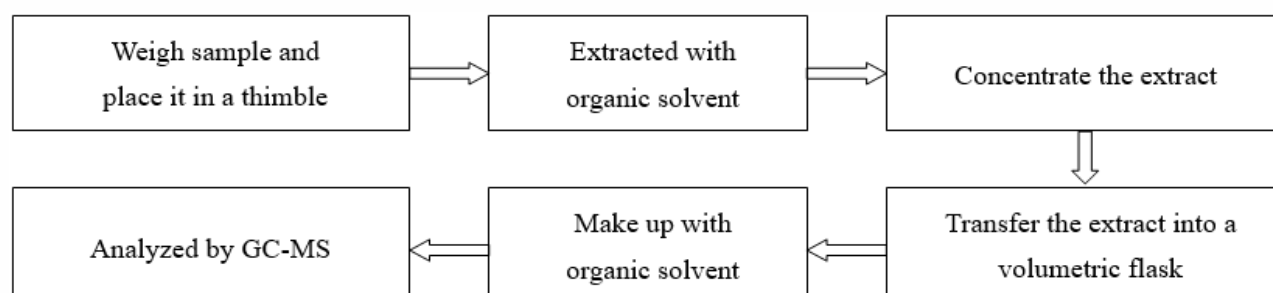
### 2. Mercury (Hg)



### 3. Hexavalent Chromium (Cr(VI))



### 4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)

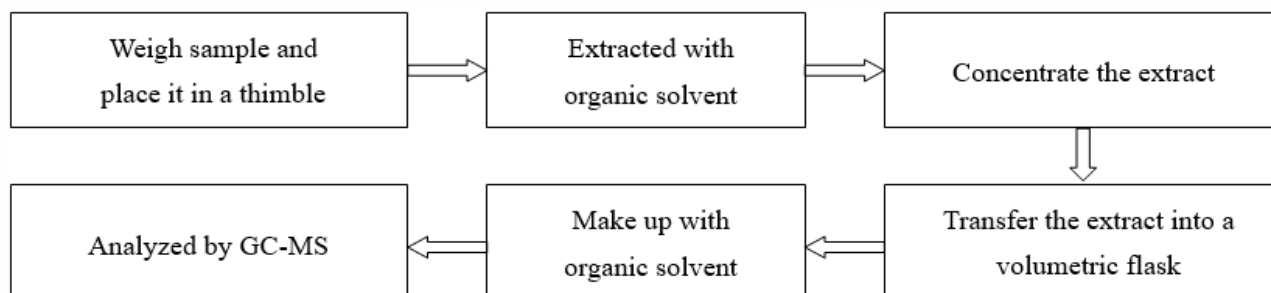


# Test Report

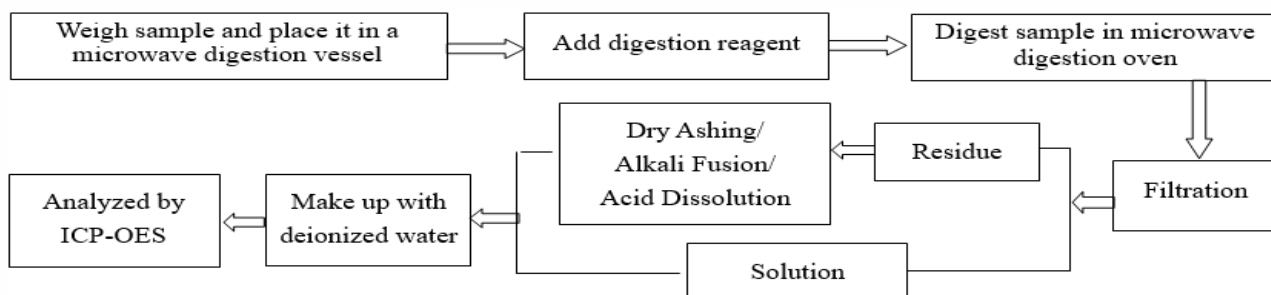
Report No. A2240315771101008

Page 8 of 9

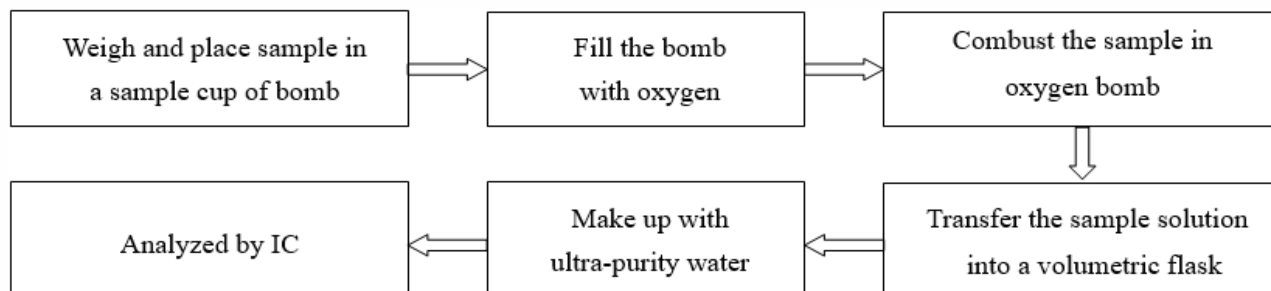
## 5. Phthalates



## 6. Antimony(Sb)

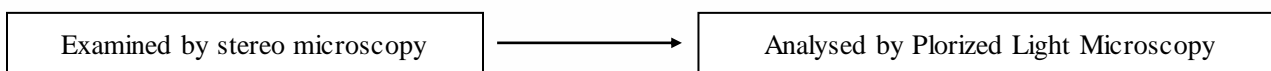


## 7. Fluorine (F), Chlorine (Cl), Bromine (Br)

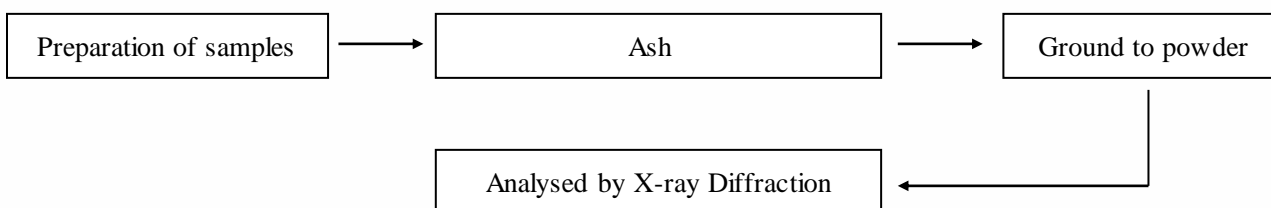


## 8. Asbestos

### PLM



### XRD



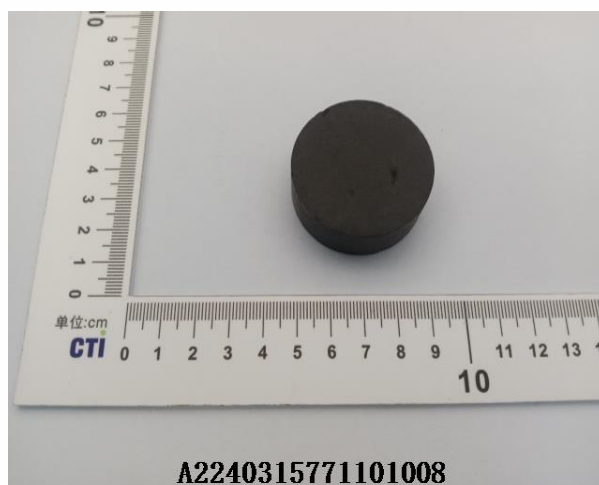


# Test Report

Report No. A2240315771101008

Page 9 of 9

## Photo(s) of the sample(s)



### Statement:

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019 / CNAS-GL015:2022;
5. Without written approval of CTI, this report can't be reproduced except in full;
6. In case of any discrepancy between the English version and Chinese version of the testing reports (if generated), the Chinese version shall prevail.

\*\*\* End of Report \*\*\*

## Appendix

### Client Reference Information

0402/0603/1.5KE/A405/AKM/BDB/BR-10/BR-15W/BR-3/BR-6/BR-8/BKM/CSP/D2PAK/D3K/DB/BDB/DB  
LS/DBS/DFN5x6EP/DFN0603/DFN0603-2L/DFN1006/DFN1006-2/2L/DFN1006-3/3L/DFN1610/DFN2.6\*2.6  
-10L/DFN2x2-3L/DFN2510/DFN2X2-6L/DFN3.3X3.3/DFN3x3/DFN4120-10L/DFN5x6/DFN5X6-8L/DFNW  
B0.6\*0.3/DI5/DO15/DO201AD/DO-213AB/DO218/DO218AB/DO277/DO34/DO35/DO41/DO41G/DPAK/ES  
OP-8/HR-MS/HVM/HVML/HVP/ITO220/ITO220A/ITO220AC/KBL/KBP/KBPG/LL34/LL41/LMDS/MB-F/  
MBM/MDA/MDC/MDF/MDK/MDS/MDSJ/MELF/MICRO-MELF/MINI-MELF/MP-15/MP-15W/MP-25/  
MP-25W/MP-35/MP-35W/MP-40/MP-50/MP-50W/MSBM/MSBS/MSOP10/MT-35/MT-35W/  
PDFN5X6P/PPAK3x3/PPAK5X6/PQFN2X2/PDFN2X2/R1/R10000H/R12000H/R10KH/R12KH/  
R16KH/R2/R3/R30KH/R4/R5/R6/R7/R8KH/R9KH/RB-15/RBU/RBUH/RC-2/RS1/RS1L/  
RS10M/RS10MLS/RS15M/RS15MLS/RS1M/RS2/RS20M/RS20MLS/RS25M/RS25MLS/RS2L/RS2M/  
RS30M/RS35M/RS35TB/RS40M/RS485/RS4L/RS4M/RS50M/RS6/RS6L/RS60M/RS6M/  
RS-6MLS/RS8/RS8L/RS8M/S35VB/S50VB/SBR/SC-75/SOT416/SKBPC/SLDBS/SlimPAQ/SlimPAQ-1/SLM  
DS/SLPDS/SMA (DO214AC) /SMAF/SMA-S/SMB (DO214AA) /SMBF/SMB-F/SMC (DO214AB) /  
SMX/SOD123/SOD123F/SOD123F(L)/SOD123F(L)-1/SOD123FH/SOD123FL/SOD123S/SOD123ST/SOD12  
3FL-1/SOD323/SOD323F/SOD523/SOD523F/SOD723/SOD80C/SOD882/SOD923/SOF2-4/SOP-8L/SOP-14/  
SOP-8/SOT89/SOT143/SOT223/SOT223-2L/3L/SOT227/SOT23/SOT23-3L/SOT23-3S/SOT23-5/SOT236/  
SOT23-6/6L/SOT26/SOT323/SOT323FL/SC70/SOT346/SOT353/SOT363/SOT363-6L/SOT523/SOT563/  
SOT723/SOT883/SOT89/SOT89-3L/SSOD923 /SSOT-6L/Sub-SMA/TO126/TO263/TO220/TO220-3L/  
TO220A/TO220A-1/TO220AB/TO220AC/TO220C/TO220F/TO220FAC/TO247/TO247-3L/TO247S/TO251/  
TO252/TO252-5L/TO3P/TO92/TO92L/TO92S/TOLL9/TQFN16/TSOT23-5/TDFN2x2-6L/TSOT23-6L/  
TSSOP14/TSSOP-8/TO126/TO126F/TO262/TO252-4L/TO-3P/UDFN-3L/WBFBP-02C/WOM/WLCSP-10L/  
X3DFN2/ULBF

### Statement:

1. The Appendix Information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
2. The Appendix Information is/are the supplement(s) for the Report A2240315771101008.