# Test Report



| | |
|---|---|
| **Company Name shown on Report** | ZHEJIANG RECTRON ELECTRONIC CO.,LTD. |
| **Address** | NO.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 | Dice Wafer |
| Model No. | GPP Wafer |
| Material | Silicon |
| Sample Received Date | Jun. 5, 2026 |
| Testing Period | Jun. 5, 2026 to Jun. 15, 2026 |

| | |
|---|---|
| **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), Phthalates, Beryllium(Be), Antimony(Sb), Fluorine (F), Chlorine (Cl), Bromine (Br), Asbestos in the submitted sample(s). |
| **Test Method/Test Result(s)** | Please refer to the following page(s). |

Approved by Chen kaimin Date Jun. 15, 2026

Chen kaimin
Lab Manager



Hotline:400-6788-333 Complaint call:0755-33681700 www.cti-cert.com www.ctimall.com E-mail:info@cti-cert.com Complaint E-mail:complaint@cti-cert.com

# Test Report



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**Conclusion**

| Tested Item(s) | According to standard/directive | Result |
|---|---|---|
| Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs), Phthalates (DBP, BBP, DEHP, DIBP) | RoHS Directive 2011/65/EU with amendment (EU) 2015/863 | PASS |
| Beryllium(Be) | IEEE 1680.1-2018 4.1.4.1 | PASS |

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# Test Report



**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 |
| Beryllium(Be) | Refer to US EPA 3052:1996 & US EPA 6010D:2018 | ICP-OES |
| Antimony(Sb) | Refer to US EPA 3052:1996 & US EPA 6010D:2018 | ICP-OES |
| Fluorine (F) | EN 14582:2016 | IC |
| Chlorine (Cl) | EN 14582:2016 | IC |
| Bromine (Br) | EN 14582:2016 | IC |
| Phthalates | IEC 62321-8:2017 | GC-MS |
| Asbestos | ISO 22262-1:2012+NIOSH 9000:2015+NIOSH 9002:1994 | PLM+XRD |

**Test Result(s)**

| **Tested Item(s)** | **Result** | **MDL** | **Limit** |
|---|---|---|---|
| | **007** | | |
| Lead (Pb) | 20865 mg/kg* | 2 mg/kg | 1000 mg/kg |
| Cadmium (Cd) | N.D. | 2 mg/kg | 100 mg/kg |
| Mercury (Hg) | N.D. | 2 mg/kg | 1000 mg/kg |
| Hexavalent Chromium (Cr(VI)) | N.D. | 8 mg/kg | 1000 mg/kg |

# Test Report



| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 007 | | |
| **Polybrominated Biphenyls (PBBs)** | | | |
| Monobromobiphenyl | N.D. | 5 mg/kg | 1000 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 | Limit |
|---|---|---|---|
| | 007 | | |
| **Polybrominated Diphenyl Ethers (PBDEs)** | | | |
| Monobromodiphenyl ether | N.D. | 5 mg/kg | 1000 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



| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 007 | | |
| **Phthalates (DBP, BBP, DEHP, DIBP)** | | | |
| Dibutyl phthalate (DBP) CAS#:84-74-2 | N.D. | 50 mg/kg | 1000 mg/kg |
| Butyl benzyl phthalate (BBP) CAS#:85-68-7 | N.D. | 50 mg/kg | 1000 mg/kg |
| Di-(2-ethylhexyl) phthalate (DEHP) CAS#:117-81-7 | N.D. | 50 mg/kg | 1000 mg/kg |
| Diisobutyl phthalate (DIBP) CAS#:84-69-5 | N.D. | 50 mg/kg | 1000 mg/kg |

| Tested Item(s) | Result | MDL | Limit |
|---|---|---|---|
| | 007 | | |
| Beryllium (Be) | N.D. | 10 mg/kg | 1000 mg/kg |

| Tested Item(s) | Result | MDL |
|---|---|---|
| | 007 | |
| Antimony (Sb) | N.D. | 10 mg/kg |

| Tested Item(s) | Result | MDL |
|---|---|---|
| | 007 | |
| Fluorine (F) | N.D. | 10 mg/kg |
| Chlorine (Cl) | N.D. | 10 mg/kg |
| Bromine (Br) | N.D. | 10 mg/kg |

| Tested Item(s) | Result | MDL |
|---|---|---|
| | 007 | |
| **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 |

# Test Report



| Tested Item(s) | Result | MDL |
|---|---|---|
| | 007 | |
| **Phthalates** | | |
| Di-isononyl phthalate (DINP) CAS#:28553-12-0, 68515-48-0 | N.D. | 50 mg/kg |
| 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 |
| Diisopentyl phthalate (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 |
|---|---|---|
| | | 007 |
| 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 | 007 | Chip |

# Test Report



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

-MDL = Method Detection Limit

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

-mg/kg = ppm = parts per million

-1000 mg/kg = 0.1%

-*=According to the client's statement, the material of the sample(s) fall into exemption items 7(c)-I according to EU Directive 2011/65/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.

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

***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.

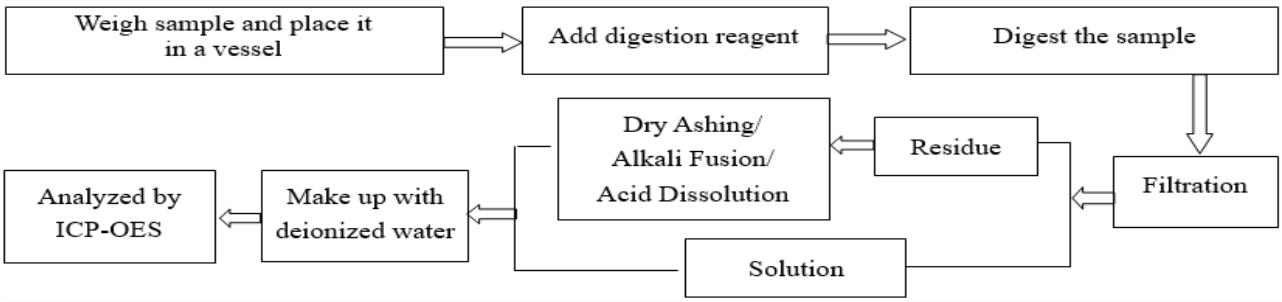
-X-ray diffraction analysis cannot discriminate the particle shape in analytical sample and detects not only asbestos of fibrous form but also non-fibrous minerals related to asbestos such as serpentine minerals and/or amphibole minerals if they coexist.

-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.

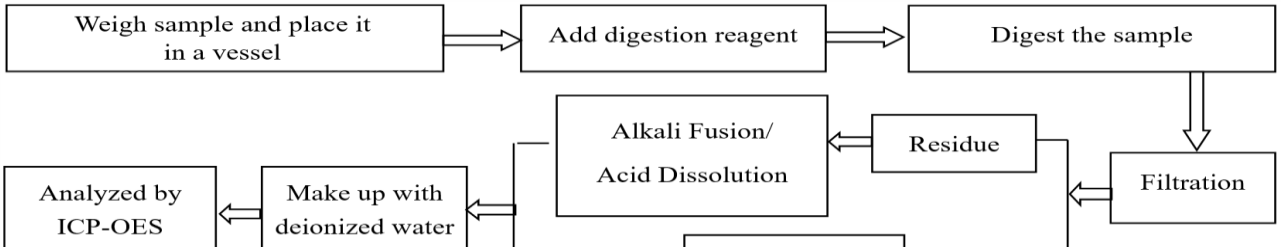
*The Asbestos in Materials Scheme (AIMS) is an international inter-laboratory testing scheme, and it is managed by the Health and Safety Laboratory (HSL) which on behalf of the Health and Safety Executive (HSE) of UK.

**Test Process**

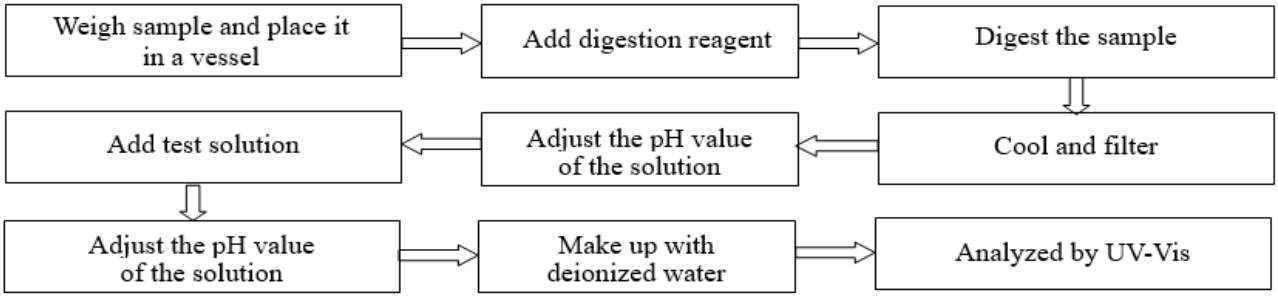
**1. Lead (Pb), Cadmium (Cd), Chromium(Cr)**



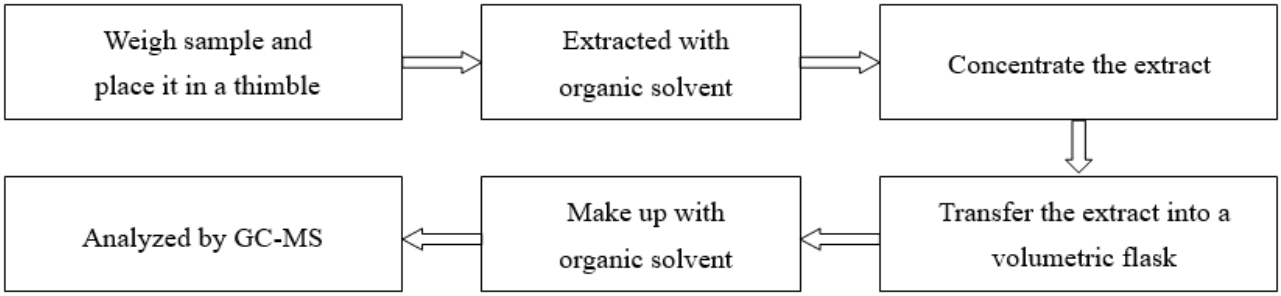

**2. Mercury (Hg)**



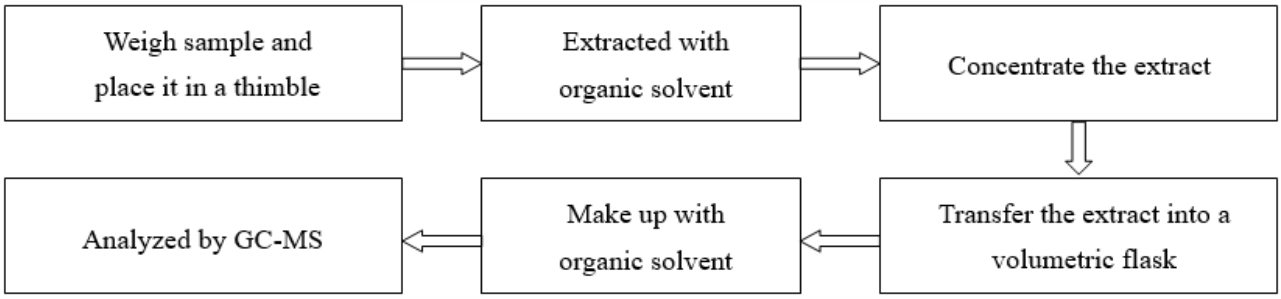

**3. Hexavalent Chromium (Cr(VI))**



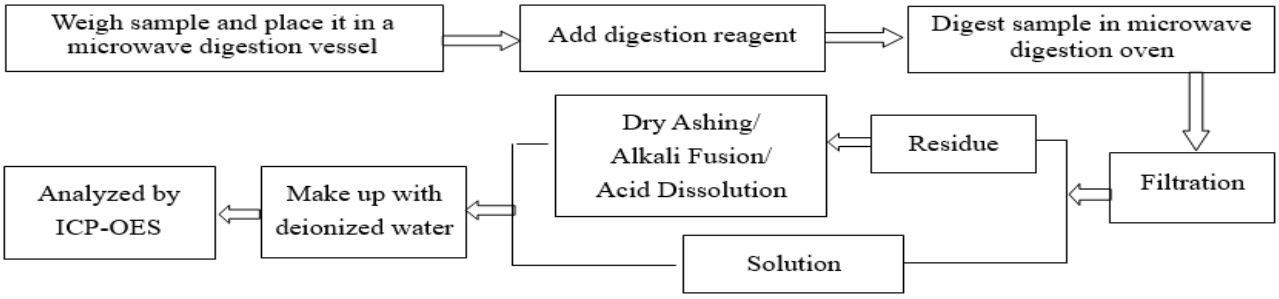

**4. Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs)**



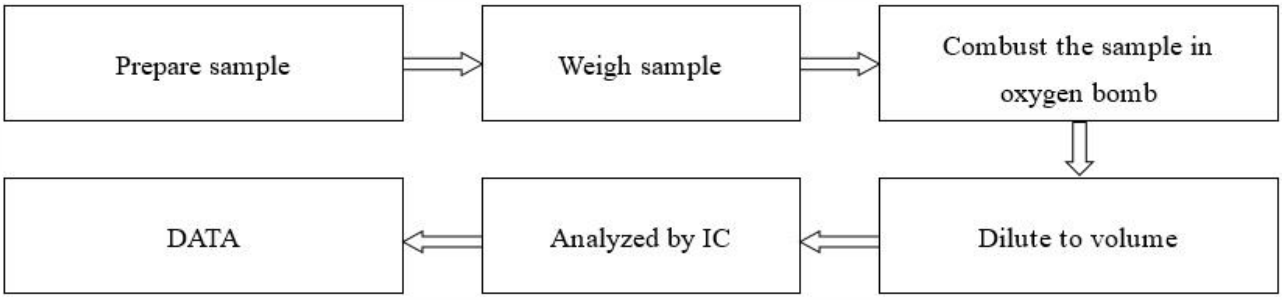
**5. Phthalates**




**6. Beryllium(Be), Antimony(Sb)**

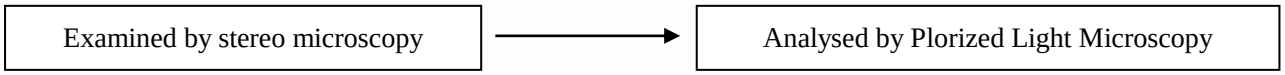



**7. Fluorine (F), Chlorine (Cl), Bromine (Br)**

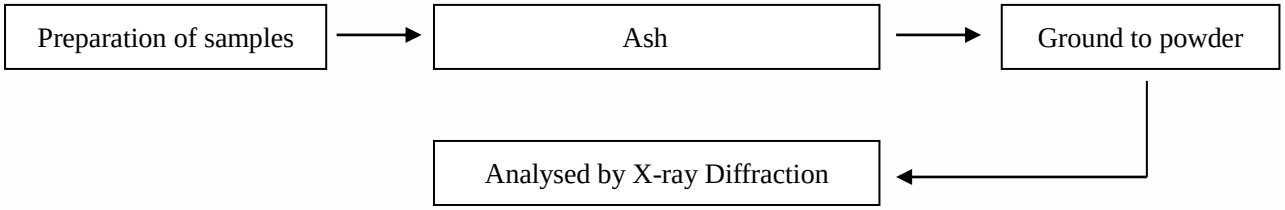



**8. Asbestos**

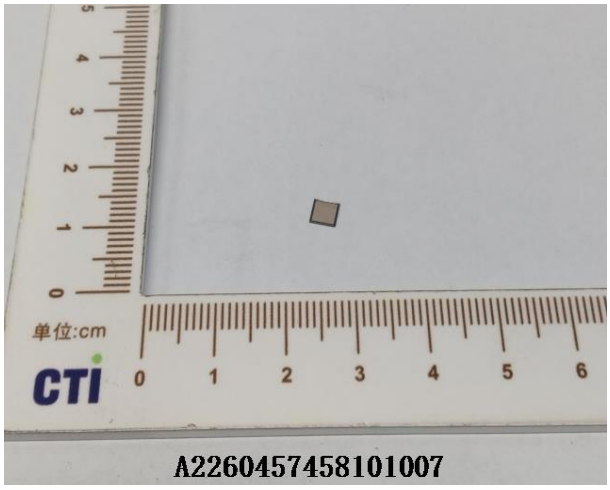
**PLM**




**XRD**



## 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;
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6. In case of any discrepancy between the English version and Chinese version of the 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/DBLS/DBS/DFN5x6EP/DFN0603/DFN0603-2L/
DFN1006/DFN1006-2/2L/DFN1006-3/3L/DFN1610/DFN2.6*2.6-10L/DFN2×2-3L/
DFN2510/DFN2X2-6L/DFN3.3X3.3/DFN3x3/DFN4120-10L/DFN5x6/DFN5X6-8L/
DFNWB0.6*0.3/DI5/DO15/DO201AD/DO-213AB/DO218/DO218AB/
DO277/DO277A/DO34/DO35/DO41/DO41G/DPAK/ESOP-8/HR-MS/HVM/HVML/HVP/
ITO220/ITO220A/ITO220AC/KBL/KBP/KBPG/LL34/LL41/LMDS/LFPAK5X6/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/R30KH/R2/R3/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/RSBF/S35VB/S50VB/SBR/SC-75/SOT416/SKBPC/
SLDBS/SlimPAQ/SlimPAQ-1/SLMDS/SLPDS/SMA（DO214AC）/SMAF/SMA-S/
SMB（DO214AA）/SMBF/SMB-F/SMC（DO214AB）/
SMAHE-C/SMX/SOD123/SOD123F/SOD123F(L)/SOD123F(L)-1/SOD123FH/
SOD123FL/SOD123S/SOD123ST/SOD123FL-1/SOD323/SOD323F/SOD523/SOD523F/
SOD723/SOD80C/SOD882/SOD923/SOF2-4/SOP-8L/SOP-14/SOP-8/SOF2-4/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/TOLL-8L/TQFN16/TSOT23-5/TDFN2x2-6L/TSOT23-6L/
TSSOP14/TSSOP-8/TO126/TO126F/TO262/TO252-4L/TO-3P/UDFN-3L/ULBF/WBFBP-02C/WOM/WLCSP-10L/X3DFN2/MBF-T/UMBT/ABS/LBF

**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 A2260457458101007.