Report No. A221031773710101

Company Name: SHENZHEN JDB TECH. CO. LTD.
Address: ROOM 1105-1108, NO.2 BUILDING, EST MALL BUSINESS CENTER,
NO.698 CHANGBANG ROAD, XIACHENG DISTRICT, 310004,
HANGZHOU, CHINA

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

- Sample Name: 样品 1
- Material: pcb
- Sample Received Date: Aug. 9, 2021
- Testing Period: Aug. 9, 2021-Aug. 17, 2021

Test Requested:

<table>
<thead>
<tr>
<th>No.</th>
<th>Test Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Coefficient of Linear Thermal Expansion</td>
</tr>
</tbody>
</table>

Test Result(s): Please see the following pages.

Approved by: Annie Lang
Date: Aug. 17, 2021

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao’an 70 District, Shenzhen, Guangdong, China
Test Report

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Tested Sample(s)

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Name</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2210317737101001</td>
<td>样品 1</td>
<td>pcb</td>
</tr>
</tbody>
</table>

Sample Photo(s)

Sample Photo A2210317737101001
Test Item: Coefficient of Linear Thermal Expansion

1. Test Equipment

<table>
<thead>
<tr>
<th>Equipment Name</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Mechanical Analysis(TMA)</td>
<td>Q400EM</td>
</tr>
</tbody>
</table>

2. Environmental Conditions

Temperature: 22.5°C; Humidity: 49%RH

3. Test Standard: IPC-TM-650 2.4.24C

4. Test Condition

(1) Preconditioning: Sample(s) is(are) preconditioned by baking for 2h at 105°C, then cooled to room temperature in a desiccator.

(2) Test condition: Heat from 30°C to 270°C at a rate of 10°C/ min in N₂.

5. Test Result(s)

<table>
<thead>
<tr>
<th>Test Sample</th>
<th>Coefficient of Linear Thermal Expansion (ppm/°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2210317737101001</td>
<td>50°C–120°C: 45.76  170°C–260°C: 248.3</td>
</tr>
</tbody>
</table>
Test curve

Remark: The testing data and result(s) in this report is(are) just for scientific research, education, internal quality control and product development etc.

Statement:
1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. Company Name and Address shown on Report, 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. Without written approval of CTI, this report can’t be reproduced except in full;
5. 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 ***