

Test Report

No: 10438962(2)

Date: 26-Dec-172

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JSB Tech Pte Ltd
100 Pasir Panjang Road #06-02 100 Pasir Panjang
Singapore 118518

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

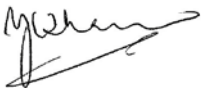
Sample Name : V-Flex Tin-alloy plated V7 FFC 32 pins 0.5 mm pitch & Gold-Plated Molex Connector
(Temperature Cycle Test: $-40^{\circ}\text{C}\pm 3^{\circ}\text{C}$ to $85^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 50% RH for 4000 cycles)

Sample Receiving Date : 14-Dec-17
Testing Period : 15-Dec-17 to 21-Dec-17

Test Requested : 1. Whisker Inspection
(Note: Inspection sample was underheat cycle (4000 cycles) Cable Ladder)

Test Result(s) : Please refer to next page(s).

Signed for and on behalf of
SGS Testing & Control Services Singapore Pte Ltd



Y.C. Tham
Laboratory Manager



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***Test Result(s):**

(1) Tin Whisker Inspection:

Test Equipment:

Name	Brand	Model	Serial No.
SEM (scanning electron microscope)	JEOL	JSM-6360LV	MP18310030

Lab Environmental Conditions:

Ambient temperature: (25 ± 3) °C

Ambient humidity: (55 ± 20) % R.H

Test Method/ Specification:

Test Method: Inspect for whisker formation on specimens using a scanning electron microscope (SEM).

Acceleration voltage : 10kV

Working Distance: 10 mm

***Test Result(s):**

Whisker Length								(unit: um)
FFC	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
#1	-	-	-	-	-	-	-	-
FFC	Pin 9	Pin 10	Pin 11	Pin 12	Pin 13	Pin 14	Pin 15	Pin 16
#1	-	-	-	-	-	-	-	-
FFC	Pin 17	Pin 18	Pin 19	Pin 20	Pin 21	Pin 22	Pin 23	Pin 24
#1	-	-	-	-	-	-	-	-
FFC	Pin 25	Pin 26	Pin 27	Pin 28	Pin 29	Pin 30	Pin 31	Pin 32
#1	-	-	-	-	-	-	-	-

Note: "-" means no whisker be found.

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***Test Result(s):**

Specimen:

Style/ Item No.: FFC
 Quantity: Total 1 pieces

Test Result:

<div style="text-align: right;">Check Item</div> <div style="text-align: left;">Style/Item No.</div>	Does whisker-like formation form on specimen?
FFC	No Whisker growth on the 32 pins

*** Tested by SGS lab (HAD0021/2017)**

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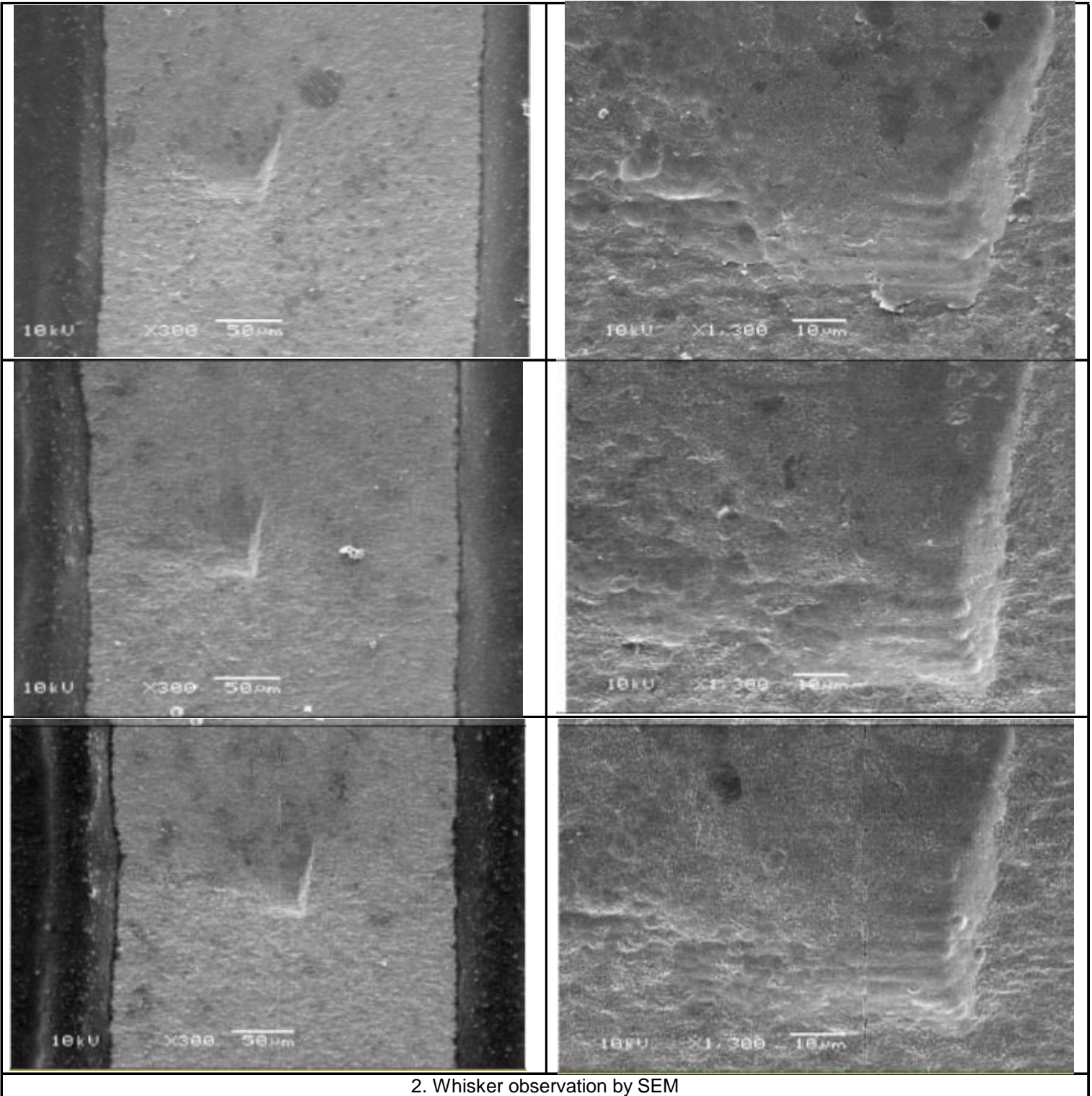
Test Photos:



1. Appearance of specimen

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Test Photos--Continued:



2. Whisker observation by SEM

End of Report

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