CLAIMS

1. An electronic component handling apparatus that handles a DUT, the electronic component handling apparatus comprising:

a chamber that applies thermal stress to the DUT;

an acquiring device that acquires three-dimensional shape data of a DUT container having a plurality of accommodating portions capable of accommodating the DUT in a state where the DUT container is heated;

a first correcting device that calculates a first correction amount from the shape data and corrects the shape data based on the first correction amount;

an extracting device that extracts a height and/or a slope of a predetermined region corresponding to the DUT in the accommodation portion from the shape data corrected by the first correcting device; and

a determining device that determines an accommodation state of the DUT in the accommodation portion based on an extraction result of the extracting device, wherein

the first correction amount represents a movement amount and/or a rotation amount in a planar direction of the shape data with respect to an initial state of the DUT container set in advance.

2. The electronic component handling apparatus according to claim 1, wherein

the electronic component handling apparatus further comprises a second correction device that calculates a second correction amount from the shape data and corrects a relative positional relationship between a plurality of the predetermined regions based on the second correction amount, and

the second correction amount is a change amount of a relative positional relationship of the accommodation portion with respect to the initial state.

3. The electronic component handling apparatus according to claim 1 or claim 2, wherein

the DUT container is provided with a plurality of first reference points,

the initial state includes three-dimensional shape data of the DUT container at room temperature acquired by the acquiring device, and

the first correction device calculates the first correction amount based on the first reference point in the shape data and the first reference point in the initial state.

4. The electronic component handling apparatus according to any one of claims 1 to 3, wherein

the electronic component handling apparatus comprises a holding device that holds the DUT container,

the acquiring device acquires a specific position of a jig held by the holding device or a specific position of the holding device, and

the initial state includes a coordinate system set based on the specific position.

5. The electronic component handling apparatus according to claim 2, wherein

the DUT container is provided with a plurality of first reference points, and

the second correction device calculates the second correction amount based on the number of the accommodating portions and the first reference point of the shape data.

6. The electronic component handling apparatus according to claim 5, wherein

the electronic component handling apparatus further comprises:

a holding device that holds the DUT container; and

a setting device that sets the predetermined area;

the acquiring device acquires a specific position of a jig held by the holding device or a specific position of the holding device;

the second correcting device corrects a positional relationship between a plurality of the predetermined regions in a design data of the predetermined region; and

the setting device sets the predetermined region by applying the design data of the predetermined region corrected by the second correcting device to the shape data based on a coordinate system set from the specific position.

7. The electronic component handling apparatus according to any one of claims 1 to 6, wherein

the DUT container is provided with a plurality of second reference points corresponding to the plurality of accommodating portions, and

the electronic component handling apparatus further comprises setting device that sets the predetermined region with respect to the shape data based on the second reference points.

8. The electronic component handling apparatus according to any one of claims 1 to 7, wherein

the determining device determines that the DUT is not accommodated in the accommodating portion when the height of the predetermined area is less than a first threshold, determines that the DUT is accommodated in the accommodating portion when the height of the predetermined region is greater than a second threshold greater than the first threshold, determines that the DUT is tilted in the accommodating portion when the incline of the predetermined region is less than a third threshold, or greater than a fourth

threshold greater than the third threshold, and determines that the DUT is normally accommodated in the accommodating portion when the height of the predetermined region is greater than or equal to the first threshold, less than or equal to the second threshold, and the tilt of the predetermined region is greater than or equal to the third threshold, and less than or less than the fourth threshold.

9. The electronic component handling apparatus according to any one of claims 1 to 8, wherein

the DUT container has a plurality of concave pockets that receives the DUT and is a buffer plate disposed or accessible within the chamber.

10. An electronic component testing apparatus that tests a DUT, comprising:

a test head having a socket to which the DUT is electrically connected;

an electronic component handling apparatus according to any one of claims 1 to 9 that moves the DUT to press the DUT against the socket; and

a tester electrically connected to the test head.