What is Claimed is:

1. A substrate imaging ~~apparatus~~ device comprising:

a housing;

a rotary holding unit accommodated in the housing and configured to hold and rotate ~~that holds and rotates~~ a substrate;

a first imaging unit accommodated in the housing and configured to image a front surface of the substrate held by the rotating holding unit;

a second imaging unit accommodated in the housing and configured to image a peripheral portion of the front surface and an end face of the substrate held by the rotary holding unit; and

a drive unit configured to drive the rotary holding unit, the drive unit being configured to move the rotary holding unit linearly between a first position and a second position within the housing,

wherein:

the first imaging unit includes a first camera, and a first mirror member inclined with respect to a horizontal direction,

the first camera is configured to image the front surface of the substrate via the first mirror member while the drive unit is moving the rotary holding unit between the first position and the second position,

the second imaging unit includes a second camera, a second mirror member having a reflecting surface inclined with respect to a rotation axis of the rotary holding unit, and a third mirror member inclined with respect to the

horizontal direction and configured to reflect at least a reflected light coming from the second mirror member,

the second camera is configured to image the peripheral portion of the front surface and the end face of the substrate based on a light coming via the reflecting surface and the third mirror member and light coming via the third mirror member not via the reflecting surface, when the rotary holding unit is holding the substrate and is positioned in the second position~~a mirror member having a reflecting surface that opposes an end face of the substrate and a peripheral portion of a back surface of the substrate held by the rotary holding unit, the reflecting surface being inclined with respect to a rotation axis of the rotary holding unit; and~~

~~a camera having an imaging device that receives both first light and second light through a lens, the first light coming from a peripheral portion of a front surface of the substrate held by the rotary holding unit, and the second light being a reflected light of second light which comes from the end face of the substrate held by the rotary holding unit and is reflected by the reflecting surface~~.

2. The substrate imaging device as claimed in claim 1, further comprising a third imaging unit accommodated in the housing and configured to image a back surface of the substrate held by the rotating holding unit.

3. The substrate imaging device as claimed in claim 1, further comprising a third imaging unit accommodated in the housing,

wherein the third imaging unit includes a third camera, and a fourth mirror member inclined with respect to the horizontal direction, and

wherein the third camera is configured to image a back surface of the substrate via the fourth mirror member, when the rotary holding unit is holding the substrate and is positioned in the second position.

4. A substrate imaging method that uses a substrate imaging device,

the substrate imaging device comprising a housing, a rotary holding unit accommodated in the housing and configured to hold and rotate a substrate, a first imaging unit and a second imaging unit accommodated in the housing, and a driving unit configured to move the rotary holding unit, wherein the first imaging unit includes a first camera, and a first mirror member inclined with respect to a horizontal direction, and the second imaging unit includes a second camera, a second mirror member having a reflecting surface inclined with respect to a rotation axis of the rotary holding unit, and a third mirror member inclined with respect to the horizontal direction and configured to reflect at least a reflected light coming from the second mirror member,

said substrate imaging method including the steps of:

imaging the front surface of the substrate via the first mirror member by means of the first camera, when the rotary holding unit is holding the substrate and the drive unit is moving the rotary holding unit between the first position and the second position; and

imaging the peripheral portion of the front surface and the end face of the substrate based on a light coming via the reflecting surface and the third mirror

member and a light coming via the third mirror member not via the reflecting surface, when the rotary holding unit is holding the substrate and is positioned in the second position.

5. The substrate imaging method as claimed in claim 4, wherein the substrate imaging device further comprises a third imaging unit accommodated in the housing,

said substrate imaging method further includes a step of imaging a back surface of the substrate held by the rotating holding unit by means of the third imaging unit.

6. The substrate imaging method as claimed in claim 4,

wherein the substrate imaging device further comprises a third imaging unit accommodated in the housing,

wherein the third imaging unit includes a third camera, and a fourth mirror member inclined with respect to the horizontal direction, and

said substrate imaging method further includes a step of imaging a back surface of the substrate held by the rotating holding unit by means of the third camera via the fourth mirror member, when the rotary holding unit holds the substrate and is positioned in the second position.

~~2. The substrate imaging apparatus according to claim 1, wherein the reflecting surface is a curved surface that is recessed away from the end face of the substrate held by the rotary holding unit.~~

~~3. The substrate imaging apparatus according to claim 1 or 2, further comprising a focus adjusting lens disposed in an optical path of the second light extending from the reflecting surface to the lens in order to adjust an image forming position, at which a image of the end face of the substrate is formed, onto the imaging device.~~

~~4. The substrate imaging apparatus according to anyone of claims 1 to 3, further comprising an illuminating unit including a light source and a light diffusing member that diffuses light from the light source toward a first direction perpendicular to an optical axis of the light from the light source in order to generate diffused light,~~

~~wherein the illuminating unit irradiates the peripheral portion of the front surface of the substrate held by the rotary holding unit with the diffused light, and irradiates the reflecting surface of the mirror member with the diffused light in order to allow the diffused light reflected by the mirror member to fall on the end face of the substrate held by the rotary holding unit.~~

~~5. The substrate imaging apparatus according to claim 4, wherein the illuminating unit further includes:~~

~~a light scattering member that scatters the light from the light source to generate scattered light; and~~

~~a cylindrical lens that allows the scattered light from the light scattering member to pass through the light diffusing member, the cylindrical lens being convex toward the light diffusing member,~~

~~wherein the cylindrical lens diffuses light coming into the cylindrical lens toward a second direction perpendicular to an optical axis of the light emitted from the light source and perpendicular to the first direction.~~