

**WHAT IS CLAIMED IS:**

1. A tape mounter comprising:

a ring frame holding table configured to hold a ring frame;

a wafer holding table configured to hold a wafer within an opening of the ring frame;

an affixing unit configured to affix a circular tape to an upper surface of the ring frame held on the ring frame holding table and an upper surface of the wafer held on the wafer holding table;

a sensor including a light emitting unit configured to emit measurement light to a measurement point in a region in which the tape is to be affixed on the upper surface of the ring frame and a light receiving unit configured to receive reflected light reflected at the measurement point;

a setting section configured to set a reference value for a received light amount received by the light receiving unit;~~and~~

a determining section configured to determine that the tape is affixed to the measurement point when the received light amount received by the light receiving unit is smaller than the reference value, and determine that the tape is not affixed to the measurement point

when the received light amount received by the light receiving unit is equal to or more than the reference value; and

a storage section configured to store a value of the received light amount when the light receiving unit receives reflected light formed by reflecting the measurement light by the upper surface of the ring frame, wherein

the setting section sets the value stored in the storage section as the reference value.

~~2. The tape mounter according to claim 1, further comprising:~~

~~a storage section configured to store a value of the received light amount when the light receiving unit receives reflected light formed by reflecting the measurement light by the upper surface of the ring frame, wherein~~

~~the setting section sets the value stored in the storage section as the reference value.~~

23. The tape mounter according to claim 1, wherein

the sensor includes

the light emitting unit configured to emit the measurement light to the measurement point from an obliquely upward direction with respect to the upper

surface of the ring frame,

a retroreflective plate disposed at a position symmetric to the light emitting unit with respect to the measurement point and configured to reflect the measurement light reflected at the measurement point to the measurement point, and

the light receiving unit configured to receive, in a vicinity of the light emitting unit, reflected light formed by further reflecting, at the measurement point, the reflected light reflected by the retroreflective plate.

~~4. The tape mounter according to claim 2, wherein  
the sensor includes~~

~~the light emitting unit configured to emit  
the measurement light to the measurement point from an  
obliquely upward direction with respect to the upper  
surface of the ring frame,~~

~~the retroreflective plate disposed at a  
position symmetric to the light emitting unit with  
respect to the measurement point and configured to  
reflect the measurement light reflected at the  
measurement point to the measurement point, and~~

~~the light receiving unit configured to  
receive, in a vicinity of the light emitting unit,~~

~~reflected light formed by further reflecting, at the measurement point, the reflected light reflected by the retroreflective plate.~~

35. The tape mounter according to claim 1, wherein the sensor includes

the light emitting unit configured to emit the measurement light to the measurement point from an obliquely upward direction with respect to the upper surface of the ring frame, and

the light receiving unit disposed at a position symmetric to the light emitting unit with respect to the measurement point and configured to receive the reflected light reflected at the measurement point.

~~6. The tape mounter according to claim 2, wherein~~  
~~the sensor includes~~  
~~the light emitting unit configured to emit~~  
~~the measurement light to the measurement point from an~~  
~~obliquely upward direction with respect to the upper~~  
~~surface of the ring frame, and~~  
~~the light receiving unit disposed at a~~  
~~position symmetric to the light emitting unit with~~  
~~respect to the measurement point and configured to~~  
~~receive the reflected light reflected at the measurement~~

| `point.`