

ABSTRACT

A laser processing device includes a height measurement unit configured to measure a vertical direction position of an irradiation point of a processing laser beam on an upper surface of a substrate; and a controller configured to control a vertical direction position of a light condensing unit based on the vertical direction position of the irradiation point while moving the irradiation point along multiple dividing target lines on the upper surface of the substrate. The height measurement unit includes a coaxial laser displacement meter and a separate-axis laser displacement meter. The controller controls the vertical direction position of the light condensing unit by using only any one of the coaxial laser displacement meter or the separate-axis laser displacement meter for each of the multiple dividing target lines while the substrate is processed with the processing laser beam and performs a switchover of a laser displacement meter for controlling the vertical direction position of the light condensing unit between the coaxial laser displacement meter and the separate-axis laser displacement meter.

FIG. 12