

Title of the Invention:**LASER COMPRESSION BONDING DEVICE AND METHOD FOR SEMICONDUCTOR
CHIP**

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ABSTRACT

A laser compression bonding device and method for a semiconductor chip are proposed. The device includes a conveyor
10 unit (100) that transports a semiconductor chip and a substrate,
and a bonding head (200) that includes a bonding tool (210) for
applying a pressure to the chip and substrate, a laser beam
generator (220) for emitting a laser beam, a thermal imaging camera
(230) for measuring temperatures of the surfaces of semiconductor
15 chip and substrate, and a compression unit (240) for controlling a
pressure applied by the bonding tool (210) and a position thereof,
wherein the compression unit (240) includes a mount (241) on which
the bonding tool (210) is detachably mounted, and a servo motor
(242) and a load cell (243) that apply a pressure to the mount (241)
20 or control a position thereof. The servo motor (242) is controlled
with two values for pressure application and positioning.

[FIG. 1]

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