

## METHOD AND APPARATUS FOR PERFORATING PRINTED CIRCUIT BOARD

### ABSTRACT OF THE DISCLOSURE

A method and an apparatus for perforating a printed circuit board are provided so that the processing efficiency and the board densification can be improved. In test processing, a conductor layer 50i is irradiated with a pulsed laser beam 4a whose energy density is set at a value high enough to process the conductor layer 50i while emission 23a from a processed portion is monitored. Thus, the number of pulses of irradiation required for processing a window in the conductor layer 50i is obtained. An insulating layer 51i is irradiated with a pulsed laser beam 5a whose energy density is set at a value high enough to process the insulating layer 51i but low enough not to process a conductor layer 50i+1 under the insulating layer 51i. Thus, the number of pulses of irradiation required for processing a window in the insulating layer 51i is obtained. The conductor layer 50i is irradiated with the laser beam 4a the obtained number of pulses of irradiation, and the insulating layer 51i is irradiated with the laser beam 5a the obtained number of pulses of irradiation. Thus, a hole is processed in the printed circuit board.

**Figure 2**