

ABSTRACT

Disclosed is an an inspection apparatus for a printed circuit board or the like for inspecting the shape of the soldered portion of a part mounted on the printed circuit board, and for judging whether the soldered portion is acceptable or not. In order to illuminate a printed circuit board undergoing inspection, there are provided three types of ring shaped light-emitting elements, which respectively generate red light, green light and blue light, arranged at positions to project this light, at angles of incidence that differ from one another, toward the surface of a body to be inspected. Light rays of the three primary colors emitted by these light-emitting elements have light-emission energy distributions with respect to wavelength that provide white light when these light rays are mixed, and the quantities of light emitted are adjusted in such a manner that white light is obtained. As a result, three-colored light images regarding the surface of the object under inspection can be detected, and it is possible to detect also peripheral information (part number, polarity, color code, various marks, etc.) essential in solder inspections.

The present invention discloses also a method of teaching with regard to the mounted position of a part, the type thereof, and a feature quantity of the mounted state, a method of setting an inspection zone on

This Sheet Has Been Replaced



- 61 -

THIS SHEET HAS BEEN
REPLACED

a printed circuit board, and a method of displaying the results of inspection, etc. These methods are performed prior to inspection of the printed circuit board in the inspecting apparatus.