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A METHOD FOR DETECTING MISSING COMPONENTS AT ELECTRICAL
BOARD TEST USING OPTOELECTRONIC FIXTURE-MOUNTED
SENSORS

Abstract

Disclosed is a method and apparatus for determining the presence or
absence of a component on a printed circuit board. The method and
apparatus utilizes a photo-sensor and photo-detector that are positioned
5 within a predetermined non-contacting distance from the expected location
of a given component under test. The photo-emitter emits a controlled
amount of light energy on the expected location of the component under test
on the printed circuit board. The photo-sensor detects the amount of
reflection off the surface of the expected location of the component under
10 test. Because the amount of reflection differs between reflection off the
surface of the component under test and reflection off the surface of the bare
board, based on the reflection measurement, the component under test can
be classified as either present or absent at its expected location on the
printed circuit board.

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FIG. 4 ACCOMPANIES THIS ABSTRACT