

Reliability Testing on the Printed Circuit Board of Mobile Phone using Infrared Thermography

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Abstract

In this paper, reliability testing using infrared thermography is performed to investigate the failure and abnormal symptom of mobile phone in operation. As roles of the presented work, IR system for the analysis of PCB reliability was set-up to be applied as nondestructive testing method. From IR thermographic images obtained, following results are reviewed. First, prior confirmation and forecast for trouble points by intensive control for the IR thermal profile. Secondly, available aging test with long time under real temperature, Thirdly, by making database for past results, it was possible the history control and worth for comparison data. Also, using IR thermographic images detected already, audits for mixed board are analyzed under several operational signals. From this work, it was assumed that IR testing is capable of saving the test time and increasing the test accuracy by diverse customized functions.

Keywords: Reliability Testing, Infrared(IR) Thermography, Nondestructive Testing(NDT), Mobile Phone, Thermal Profile