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(54) Title: INFRARED SCREENING AND INSPECTION SYSTEM

(57) Abstract

In general, the spatial resolution and repeatability of results using infrared detectors for examining printed circuit cards has been so poor that the devices have failed to achieve commercial success. These problems are overcome by a system including an isothermal enclosure (1) for receiving a card (33) to be tested, an infrared camera (94) in the chamber (32) defined by the enclosure (1), sensors (109, 110) for monitoring the temperature of the card (33) and ambient temperature conditions in the chamber (32) to derive signals indicative of the temperatures, and a computer (96) connected to the camera (94) and to the sensors (109, 110) for examining all signals to produce a three-dimensional image of the sample (33), variations in the image from sample to sample being indicative of an anomaly in a sample.