

SYSTEM AND METHOD FOR RAPID TEMPERATURE TRANSITIONS FOR DEVICES UNDER TEST

ABSTRACT

[0059] The present embodiment utilizes a test head coupled to each electronic device under test (hereinafter referred to as DUT) for maintaining the DUT at a desired temperature. The present embodiment allows for rapid transitions of temperatures in the test head from one temperature to another. This is achieved by advantageously mixing a hot fluid and a cold fluid to achieve a desired temperature and by continuously running this pre-mixed fluid into a fluid jacket of the test head. Thermal exchange occurs rapidly through the fluid jacket to the DUT, changing the temperature of the pre-mixed fluid. However, by running the pre-mixed fluid at a high low rate through the fluid jacket, the temperature of the fluid jacket is maintained closely to the desired temperature. Each test head further has a mixer valve for controlling the ratio of the mixing of the hot and cold fluid thereby changing the temperature of the pre-mix fluid. Rapid temperature changes may be achieved by controlling the mixer valve.

[0060] FIG. 1 accompanies the abstract.