

Development of "SAN ACE MC" for CPU Cooling

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1. Introduction

The pace of advancement, and the scope of developments in the field of electronics in the recent years are nothing less than remarkable. In particular, improvements in both the speed and performance of microprocessors (hereafter abbreviated as CPU) which form the very heart of computers, are outstanding.

To give a recent example, as many as 5.5 million transistors are packed (into an area measuring some 2 cm square) on a high-speed microprocessor chip which operates at a clock frequency of some 200 MHz. As a result, this chip's power consumption approaches 30 Watts.

We have developed an CPU cooler, "SAN ACE MC", which cools down the CPU directly. We shall summarize the features, cooling performance, structure and installation method of "SAN ACE MC" in this report.

2. Background of Development

3. Features of "SAN ACE MC"

4. Cooling Performance

4.1 Thermal Resistance

4.2 Comparison with Conventional Cooling Devices

5. Structure

5.1 Cooling Structure

5.2 Motor Structure

6. Installation Method

6.1 Air Gap

6.2 Mounting Method

6.3 Effect of Adhesive Agents

7. Maintenance Capability

8. Fan Sensor

9. Conclusion



"SAN ACE MC"