



US006894899B2

(12) **United States Patent**
Wu et al.

(10) **Patent No.:** **US 6,894,899 B2**
(45) **Date of Patent:** **May 17, 2005**

(54) **INTEGRATED FLUID COOLING SYSTEM FOR ELECTRONIC COMPONENTS**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 3 days.

(21) Appl. No.: **10/290,610**

(22) Filed: **Nov. 7, 2002**

(65) **Prior Publication Data**

US 2004/0052049 A1 Mar. 18, 2004

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/243,413, filed on Sep. 13, 2002, now abandoned.

(51) **Int. Cl.**⁷ **H05K 7/20**

(52) **U.S. Cl.** **361/699**; 165/80.4; 165/185; 361/703; 361/701

(58) **Field of Search** 165/80.2–80.4, 165/185, 104.22, 104.26, 104.33–104.36; 257/706–707, 712–716; 361/687–689, 696–703, 715, 717–718, 722

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(57) **ABSTRACT**

An improved cooling system designed for electronic components such as a central processing unit of a computer with an integrated unit comprising a radiation housing, an absorption housing having a coolant store unit, an absorption layer between the coolant store unit and the electronic component and a circulation generation unit which causes a coolant to flow from the coolant store unit to the absorption layer and back to the coolant store unit through a conduit.

17 Claims, 7 Drawing Sheets

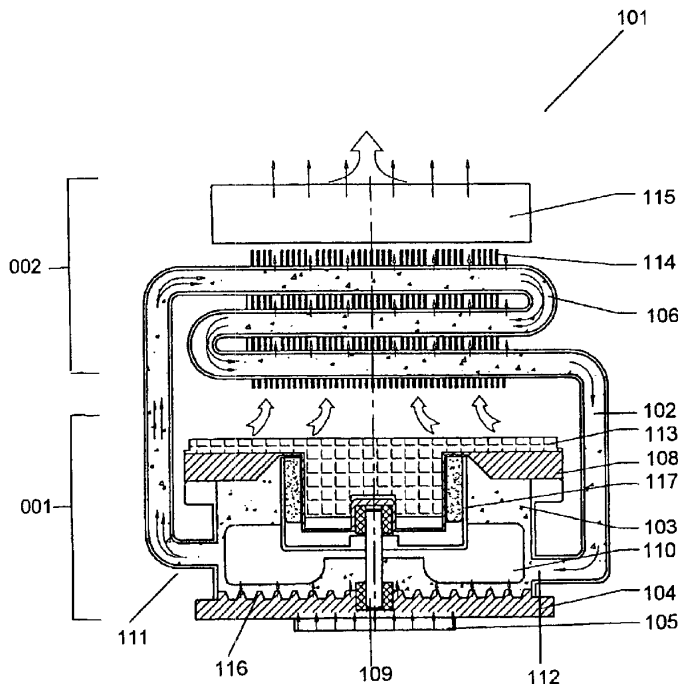


FIG. 1

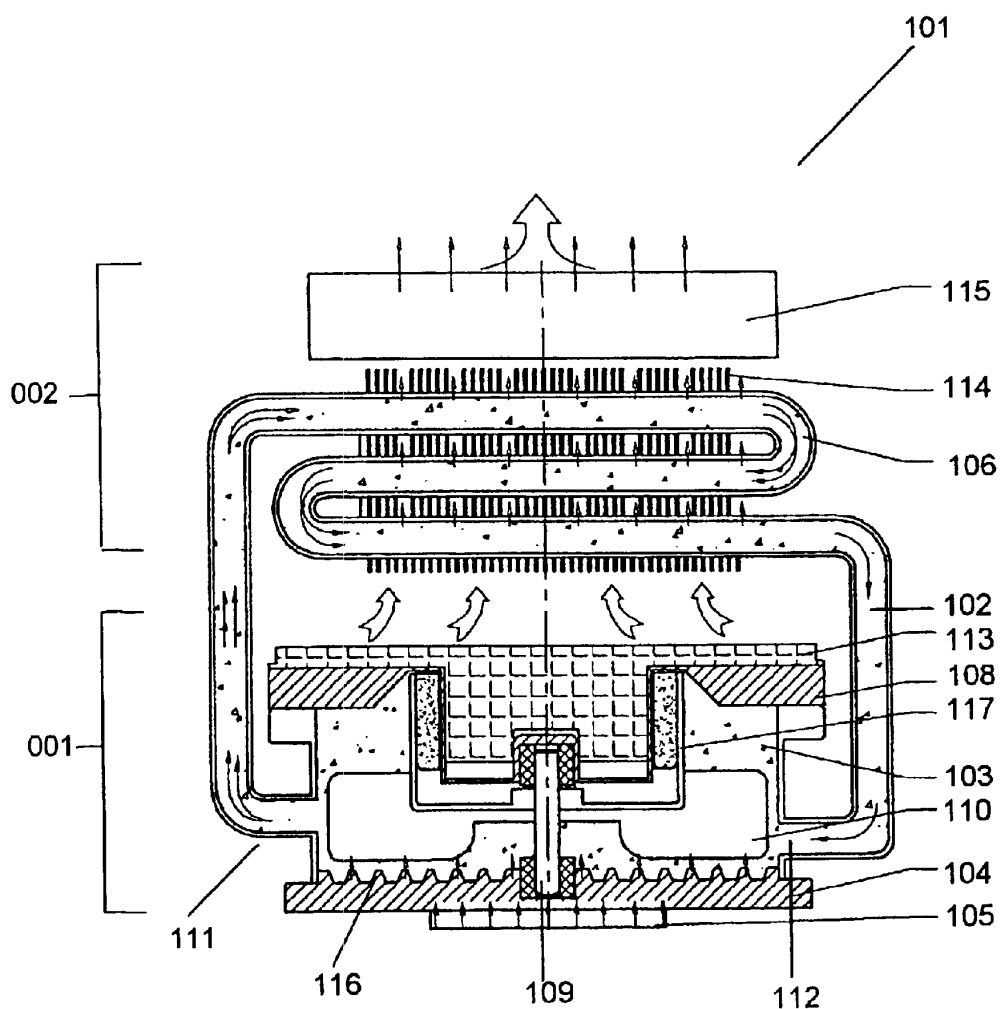


FIG. 2

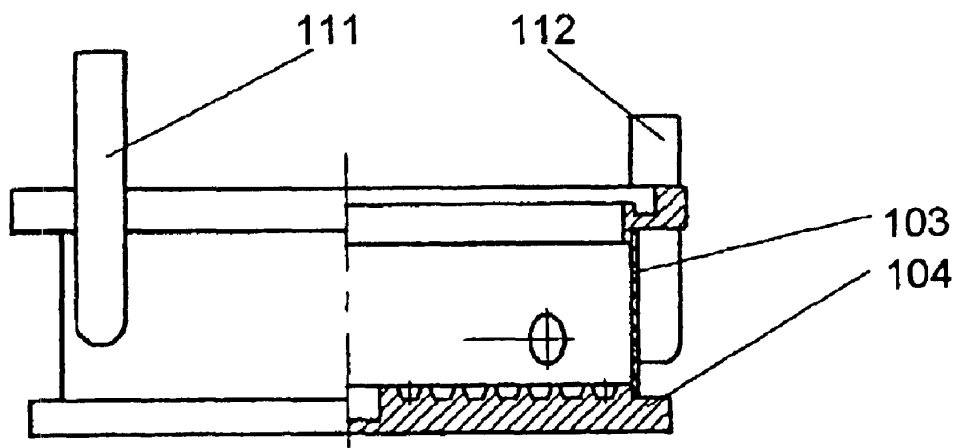


FIG. 3

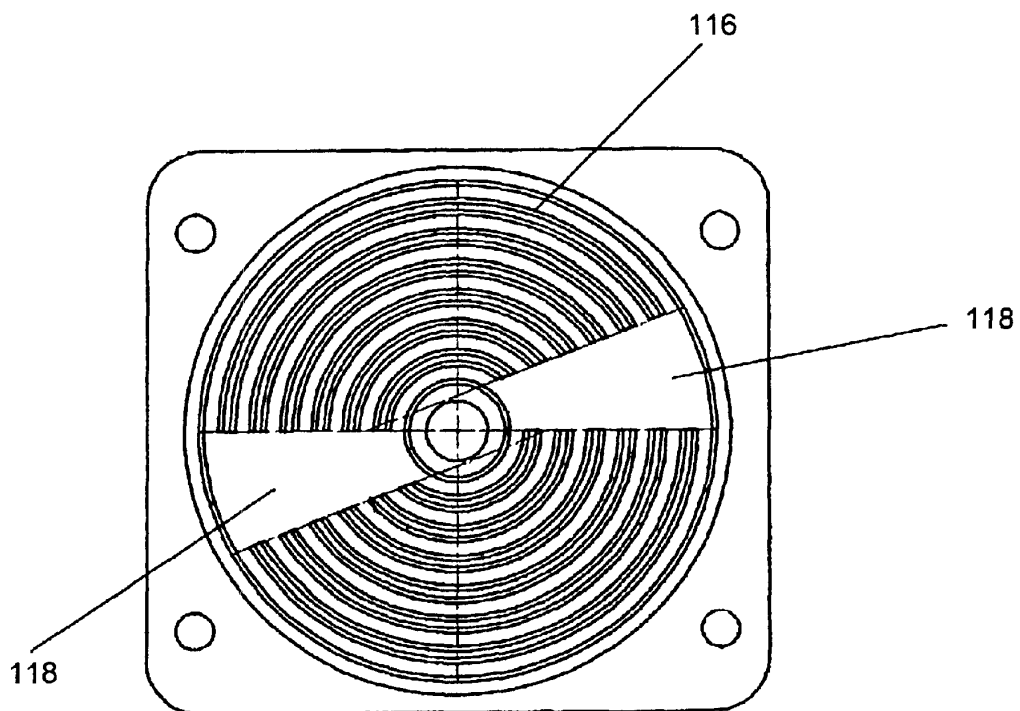
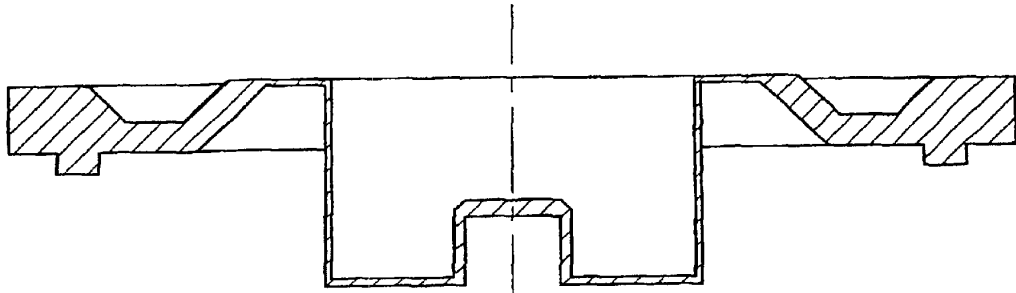


FIG. 4



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