

(12) United States Design Patent (10) Patent No.: US D484,468 S Lee (45) Date of Patent: ** Dec. 30, 2003

- (54) RADIATOR FOR A HEAT GENERATING COMPONENTS IN ELECTRONIC EQUIPMENT
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- (**) Term: 14 Years

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(57) CLAIM

I claim the ornamental design for a radiator for a heat generating components in electronic equipment, as shown and described.

DESCRIPTION

(21) Appl. No.: 29/177,543

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- (52) U.S. Cl. D13/179
- (58) Field of Search D13/179; 174/15.1, 174/16.3; 165/80.3, 80.4, 121, 122, 125, 131, 140, 146, 185; 257/670, 675, 676, 706, 707, 712, 718, 719, 720, 721, 722; 361/695, 697, 699, 702, 704, 709, 514

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,724,901 A *	2/1988	Munekawa 165/104.21
5,555,931 A *	9/1996	Lee et al 165/122
5,647,430 A *	7/1997	Tajima 165/104.33
6,360,814 B1 *	3/2002	Tanaka et al 165/104.33
6,390,183 B2 *	5/2002	Aoyagi et al 165/146
6,591,898 B1 *	7/2003	Chu et al 165/80.4

* cited by examiner

FIG. 1 is a perspective view of a radiator for a heat generating components in electronic equipment according to the present invention.

FIG. 2 is a front view of the radiator according to the present invention.

FIG. **3** is a rear view of the radiator according to the present invention.

FIG. 4 is a left side view of the radiator according to the present invention.

FIG. 5 is a right side view of the radiator according to the present invention.

FIG. 6 is a top plan view of the radiator according to the present invention.

FIG. 7 is a bottom plan view of the radiator according to the present invention; and,

FIG. 8 is a perspective view illustrating use of the radiator according to the present invention.

The broken lines in the FIG. 8 drawing view indicate environmental elements for illustrative purposes only and form no part of the claimed design.

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1 Claim, 6 Drawing Sheets



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FIG. 2







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FIG. 4







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FIG. 6

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