



US006914779B2

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

(10) **Patent No.:** US 6,914,779 B2
(45) **Date of Patent:** Jul. 5, 2005

(54) **CONTROLLING THERMAL, ACOUSTIC, AND/OR ELECTROMAGNETIC PROPERTIES OF A COMPUTING DEVICE**

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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 162 days.

(21) Appl. No.: **10/077,385**

(22) Filed: **Feb. 15, 2002**

(65) **Prior Publication Data**

US 2003/0156385 A1 Aug. 21, 2003

(51) **Int. Cl.**⁷ **H05K 7/20**

(52) **U.S. Cl.** **361/687**; 361/695; 361/724; 454/184; 700/304

(58) **Field of Search** 361/683, 686, 361/687, 690-695, 699, 700-707, 709-710, 720-729, 802, 803, 816, 818; 257/706-727; 174/15.1, 16.3, 252, 35 R; 454/184; 165/80.2, 80.3, 80.4, 121-122, 106, 106.33, 104, 106.32, 104.33, 185; 360/67 R, 91

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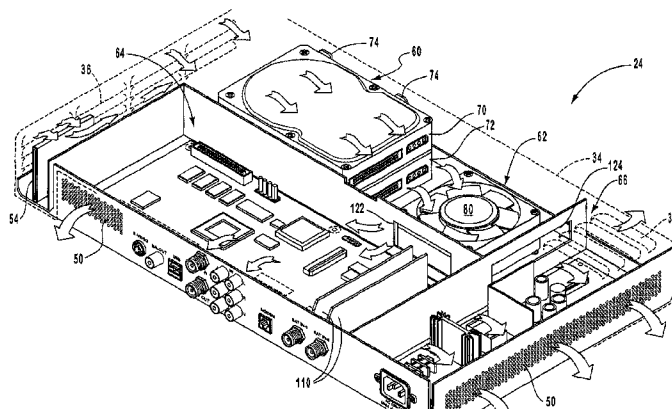
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(57) **ABSTRACT**

A computing device includes a housing with various electrical and/or mechanical components included therein. Disposed within the housing is a processor assembly that includes a fan. The fan is configured to draw air into the interior of the housing and force air heated by the internal components of the computing device from the interior of the housing. The fan has a diameter that is larger than the smallest dimension of the three orthogonal dimensions of the housing of the computing device and generates low levels of acoustic noise having a low frequency. Additionally, the processor assembly includes a support structure that supports the fan and reduces the effects of electromagnetic emissions generated by a processor of the processor assembly upon electrical devices adjacent to the computing device.

21 Claims, 6 Drawing Sheets



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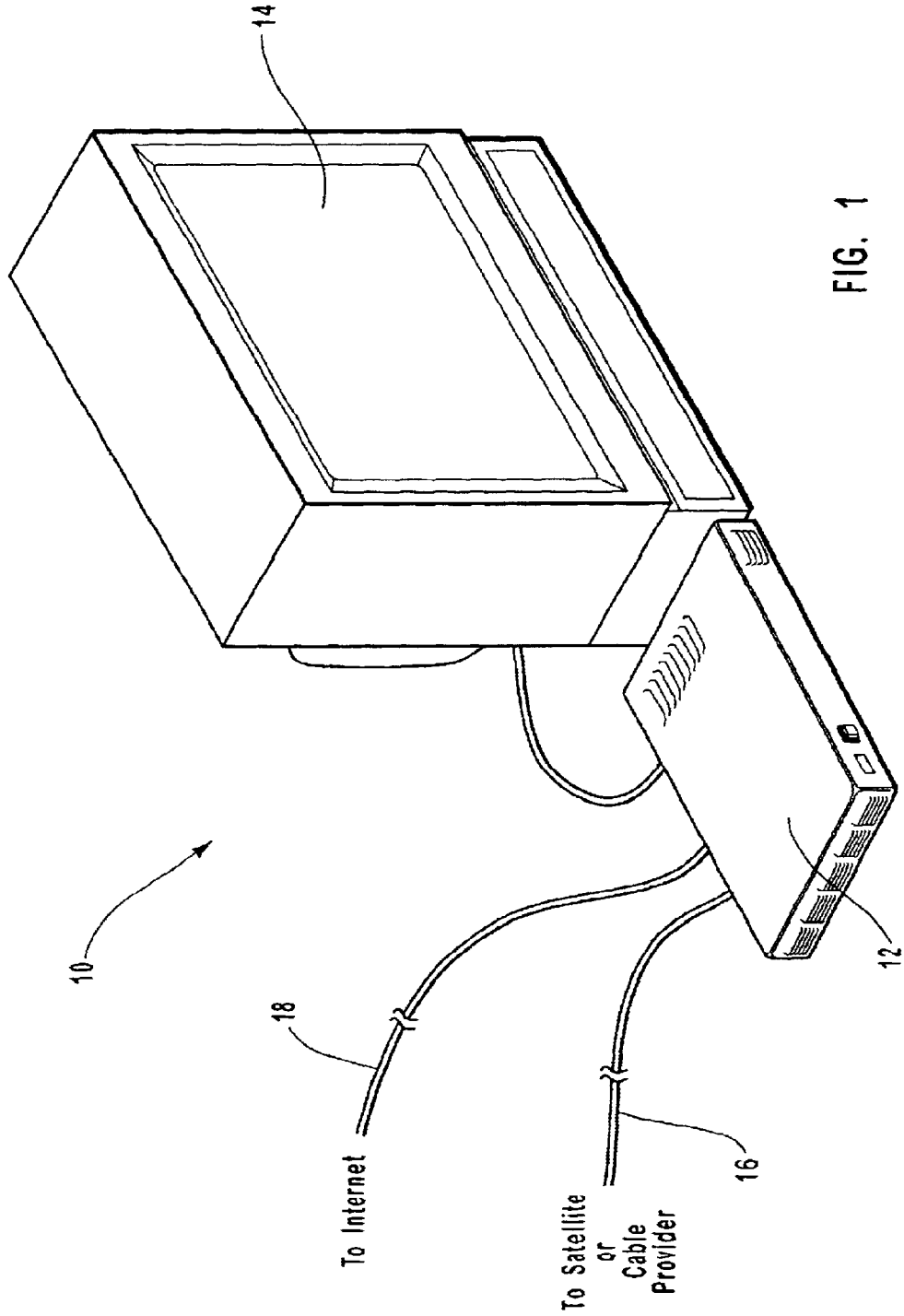


FIG. 1

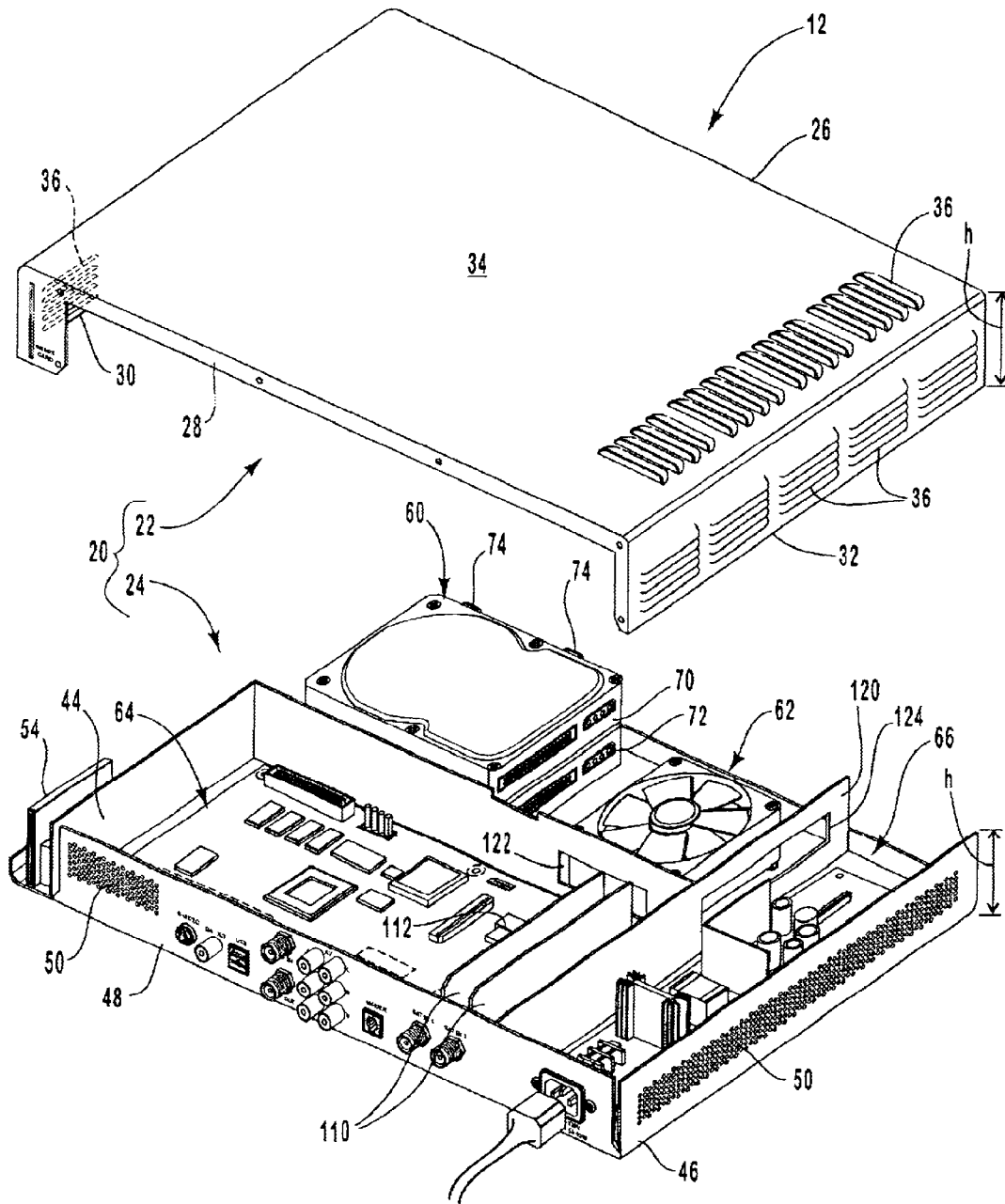


Fig. 2

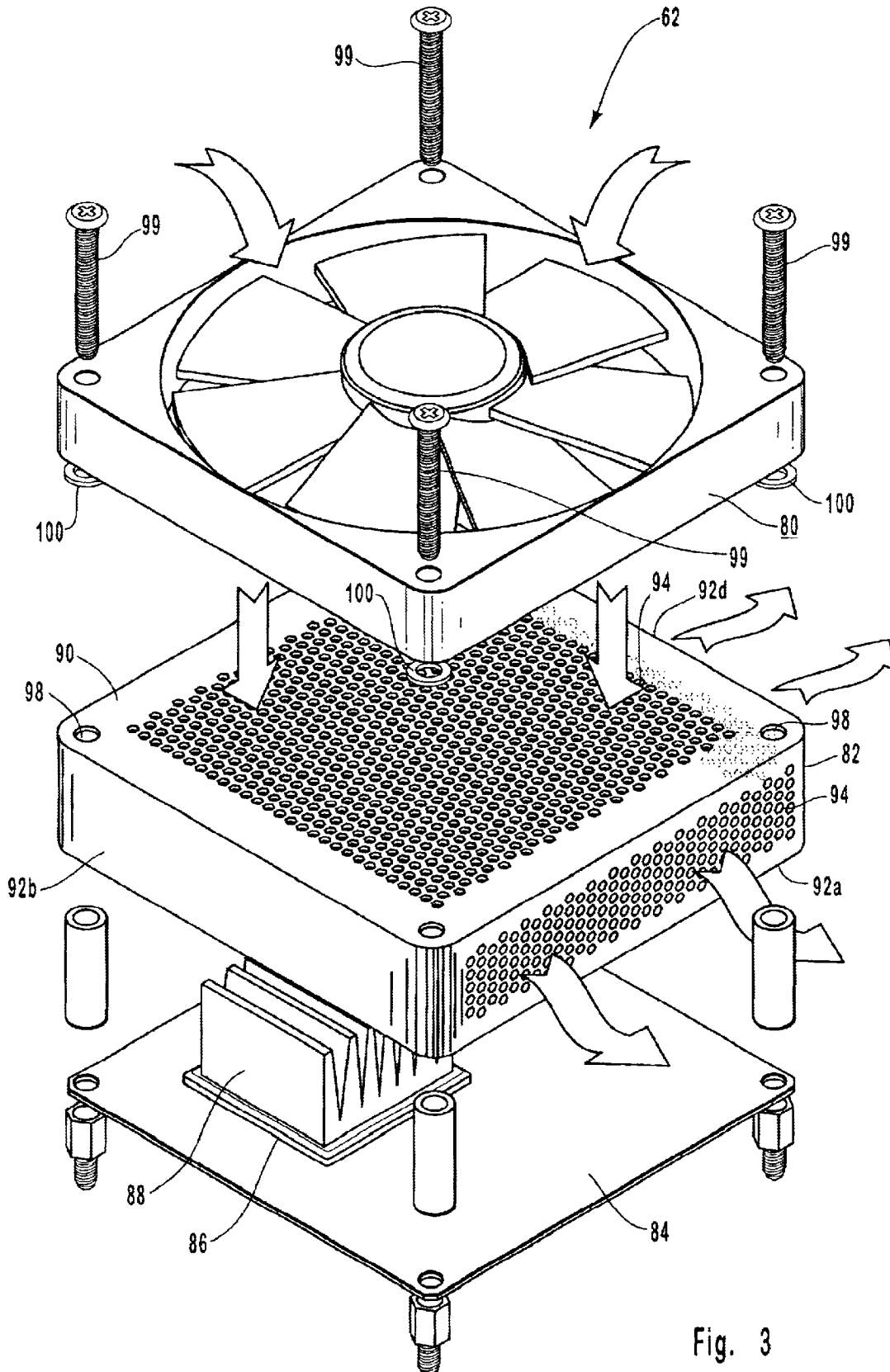


Fig. 3

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