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Kuo et al.

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(54) **COOLING FAN WITH VARIABLE BLADE SURFACE AREA**

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See application file for complete search history.

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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 611 days.

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(51) **Int. Cl.**

(57) **ABSTRACT**

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G06F 7/20 (2006.01)
F04D 27/00 (2006.01)
G06F 1/20 (2006.01)

A fan module including a first fan, a second fan and an actuator is provided. The first fan has a first pivot portion and a plurality of first fan blades. Each first fan blade has a first blade face. The second fan has a second pivot portion and a plurality of second fan blades corresponding to the first fan blades. Each second fan blade has a second blade face. The second pivot portion is slidably disposed at a containing cavity of the first pivot portion. The actuator is adapted to drive the first fan to rotate. The first fan is adapted to drive the second fan to rotate. When the second pivot portion protrudes out of the containing cavity, a part of each of the second blade faces does not overlap with the corresponding first blade face along a direction perpendicular to the corresponding first blade face.

(52) **U.S. Cl.**

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(58) **Field of Classification Search**

CPC H05K 7/20136; F05D 2250/311;

9 Claims, 5 Drawing Sheets

