

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0369512 A1 Kitamura et al.

Nov. 17, 2022 (43) **Pub. Date:**

(54) ELECTRONIC APPARATUS, COOLING DEVICE, AND METHOD FOR MANUFACTURING COOLING DEVICE

(71) Applicant: LENOVO (SINGAPORE) PTE. LTD.,

Singapore (SG)

(72) Inventors: Masahiro Kitamura, Yokohama (JP);

Akinori Uchino, Yokohama (JP); Shusaku Tomizawa, Yokohama (JP)

(73) Assignee: LENOVO (SINGAPORE) PTE. LTD.,

Singapore (SG)

- Appl. No.: 17/656,908
- (22)Filed: Mar. 29, 2022
- (30)Foreign Application Priority Data

May 12, 2021 (JP) 202180965

Publication Classification

(51) Int. Cl. H05K 7/20 (2006.01)G06F 1/20

(2006.01)U.S. Cl. CPC H05K 7/20336 (2013.01); H05K 7/2039

(2013.01); G06F 1/203 (2013.01) (57)ABSTRACT

An electronic apparatus includes: a chassis; a heat generating element provided in the chassis; and a cooling device that has a cooling fin, a heat pipe connecting the cooling fin and the heat generating element, and a pressing assembly pressing the heat pipe against the heat generating element, and is provided in the chassis. The heat pipe has: a heat absorbing section that absorbs heat generated by the heat generating element; and a thin plate section having a thickness which is smaller than that of the heat absorbing section. The pressing assembly has: a base assembly relatively fixed to the chassis; and a bridge section that is provided integrally with the base assembly and placed on a surface of the thin plate section in such a manner as to extend over the heat pipe in a width direction.

