US 20220353995A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0353995 A1**

Tsuboi et al. (43) **Pub. Date: Nov. 3, 2022**

(54) **PRINTED CIRCUIT BOARD AND ELECTRONIC DEVICE**

(71) Applicant: **CANON KABUSHIKI KAISHA**, Tokyo (JP)

(72) Inventors: **Noritake Tsuboi**, Yokohama-shi (JP); **Tomohisa Ishigami**, Kawasaki-shi (JP)

(21) Appl. No.: **17/810,917**

(22) Filed: **Jul. 6, 2022**

Related U.S. Application Data

(62) Division of application No. 16/821,550, filed on Mar. 17, 2020, now Pat. No. 11,412,616.

(30) **Foreign Application Priority Data**

Mar. 26, 2019 (JP) 2019-059246
Feb. 27, 2020 (JP) 2020-032327

Publication Classification

(51) **Int. Cl.**

H05K 1/18	(2006.01)
H05K 1/11	(2006.01)
H04N 5/225	(2006.01)

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

CPC ***H05K 1/181*** (2013.01); ***H05K 1/111*** (2013.01); ***H04N 5/2252*** (2013.01); *H05K 2201/10015* (2013.01); *H05K 2201/1003* (2013.01); *H04N 5/2253* (2013.01); *H05K 2201/10636* (2013.01); *H05K 2201/10651* (2013.01); *H05K 2201/099* (2013.01); *H04N 5/2254* (2013.01); *H05K 2201/10522* (2013.01)

(57) **ABSTRACT**

A printed circuit board includes a first chip component, a second chip component, and a printed wiring board. The first chip component and the second chip component each has a length L2 in the longitudinal direction. A relationship of $0.894 \leq L2/L1 \leq 1.120$ is satisfied, where L1 represents a length of the first opening in the longitudinal direction. A relationship of $0.894 \leq L2/4 \leq 1.120$ is satisfied, where length L4 represents a length of the second opening in the longitudinal direction. A relationship of $0.183 \leq L_{OA}/L_{iA} \leq 50.309$ is satisfied, where L_{iA} represents a length of the first land in the longitudinal direction, and L_{OA} represents a thickness of solder on an end surface of the first electrode. A relationship of $0.183 \leq L_{OB}/L_{iB} \leq 0.309$ is satisfied, where L_{iB} represents a length of the second land in the longitudinal direction, and L_{OB} represents a thickness of solder on an end surface of the second electrode.