

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0215155 A1 **TSUNEKAWA**

Jun. 27, 2024 (43) **Pub. Date:**

(54) ASSEMBLY SHEET AND METHOD FOR PRODUCING ASSEMBLY SHEET

(71) Applicant: NITTO DENKO CORPORATION,

Osaka (JP)

(72) Inventor: Makoto TSUNEKAWA, Osaka (JP)

(73) Assignee: NITTO DENKO CORPORATION,

Osaka (JP)

18/557,020 (21) Appl. No.:

(22) PCT Filed: Jan. 26, 2022

PCT/JP2022/002939 (86) PCT No.:

§ 371 (c)(1),

(2) Date: Oct. 24, 2023

(30)Foreign Application Priority Data

(JP) 2021-074403 Apr. 26, 2021

Publication Classification

(51) Int. Cl. H05K 1/02 (2006.01)H05K 1/05 (2006.01)H05K 3/00 (2006.01) H05K 3/10 (2006.01)

(52) U.S. Cl. H05K 1/0296 (2013.01); H05K 1/053 CPC (2013.01); H05K 3/0044 (2013.01); H05K

3/10 (2013.01); H05K 2203/0228 (2013.01)

(57)**ABSTRACT**

An assembly sheet includes a wiring circuit board, a frame, and a reinforcement portion. The wiring circuit board has a support layer, a base insulating layer, and a conductive pattern. The frame supports the wiring circuit board. The reinforcement portion is disposed on the frame and reinforces the frame. The reinforcement portion has a first layer made of a metal and a second layer made of a metal.

First direction

