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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0386487 A1**
(43) **Pub. Date:** **Dec. 1, 2022**(54) **FOLDABLE ELECTRONIC DEVICE***H04M 1/0216* (2013.01); *H04M 1/0268*
(2013.01); *H04M 1/0277* (2013.01)(71) Applicant: **Samsung Electronics Co., Ltd.**,
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(KR); **Wanjae JU**, Gyeonggi-do (KR)(21) Appl. No.: **17/885,027**(22) Filed: **Aug. 10, 2022****Related U.S. Application Data**(63) Continuation of application No. PCT/KR2021/
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1/1652 (2013.01); **H05K 5/0018** (2022.08);(57) **ABSTRACT**

A foldable electronic device is provided. The foldable electronic device includes a foldable housing including a first housing portion, a second housing portion, and a hinge structure connected with the first housing portion and the second housing portion, the foldable housing configured to be folded about a folding axis; a flexible display accommodated in the first housing portion and the second housing portion; a plurality of rigid printed circuit boards (RPCBs) including a first RPCB accommodated in the first housing portion and a second RPCB accommodated in the second housing portion; a first flexible printed circuit board (FPCB) configured to electronically connect with the first RPCB and the second RPCB, the first FPCB including a first flexible portion located through a designated area of the hinge structure, the first FPCB including a first rigid portion and a second rigid portion affixed to a part of the hinge structure; a second FPCB configured to electronically connect with the first RPCB and the second RPCB, the second FPCB including a second flexible portion located through the designated area of the hinge structure, the second FPCB including a third rigid portion and a fourth rigid portion affixed to a part of the hinge structure, wherein the second flexible portion of the second FPCB is spaced apart and substantially parallel from the first flexible portion of the first FPCB; and a bending-guide member attached to the first FPCB between the first rigid portion and the second rigid portion, and attached to the second FPCB between the third rigid portion and the fourth rigid portion such that the first flexible portion and the second flexible portion are held together.

