

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0237222 A1

Jul. 11, 2024 (43) Pub. Date:

(54) DRIVING CHIP ACCOMMODATING CIRCUIT BOARD AND DISPLAY DEVICE HAVING THE SAME

(71) Applicant: Samsung Display Co., LTD., Yongin-si

(72) Inventors: **HYEONJI KIM**, Yongin-si (KR); JUYEOP SEONG, Yongin-si (KR); HEE-KWON LEE, Yongin-si (KR)

(21) Appl. No.: 18/364,578

(22)Filed: Aug. 3, 2023

(30)Foreign Application Priority Data

Jan. 10, 2023 (KR) 10-2023-0003559

Publication Classification

(51) Int. Cl. H05K 1/18 (2006.01)H01L 25/18 (2006.01) H05K 1/02 (2006.01)H10K 59/90 (2006.01)

(52) U.S. Cl.

CPC H05K 1/189 (2013.01); H01L 25/18 (2013.01); H05K 1/0209 (2013.01); H05K 1/0218 (2013.01); H10K 59/90 (2023.02); H05K 2201/0715 (2013.01); H05K 2201/09036 (2013.01); H05K 2201/09063 (2013.01); H05K 2201/10128 (2013.01)

(57)ABSTRACT

A display device includes a display substrate including a display area, a pixel in the display area, a pad area adjacent to the display area, and a pad in the pad area, a driving chip on the display substrate, in the pad area, and a circuit board which is on the display substrate and electrically connected to the display substrate at the pad, the circuit board defining a groove of the circuit board and covering the driving chip at the groove.

