

# (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2023/0232696 A1 YUG et al.

## Jul. 20, 2023 (43) **Pub. Date:**

### (54) DISPLAY APPARATUS AND METHOD OF MANUFACTURING THE SAME

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

(72) Inventors: **GEUNWOO YUG**, Yongin-si (KR); Myeongseok Jeong, Yongin-si (KR); Soobum Park, Yongin-si (KR);

Junghwa You, Yongin-si (KR); Ilyoung

Jeong, Yongin-si (KR)

(21) Appl. No.: 18/191,135

(22) Filed: Mar. 28, 2023

## Related U.S. Application Data

Continuation of application No. 17/073,726, filed on Oct. 19, 2020, now Pat. No. 11,637,270, which is a division of application No. 16/164,243, filed on Oct. 18, 2018, now Pat. No. 10,811,640.

#### (30)Foreign Application Priority Data Feb. 20, 2018 (KR) ..... 10-2018-0020010

#### **Publication Classification**

(51) Int. Cl. H10K 71/00 (2006.01)H10K 50/86 (2006.01)

H10K 59/12	(2006.01)
H10K 59/40	(2006.01)
H10K 71/80	(2006.01)
H10K 77/10	(2006.01)

(52) U.S. Cl. CPC ...... H10K 71/00 (2023.02); H10K 50/86 (2023.02); H10K 59/12 (2023.02); H10K 59/40 (2023.02); H10K 71/80 (2023.02); H10K 77/111 (2023.02); H10K 59/1201 (2023.02); H10K 71/851 (2023.02); H10K 2102/311 (2023.02)

#### (57)**ABSTRACT**

A method of manufacturing a display apparatus includes separating a mother substrate that includes a plurality of connected unit display apparatuses into a plurality of separated unit display apparatuses. Each separated unit display apparatus includes a display panel and at least one supporting unit attached below the display panel. The display panel includes a display substrate that has a pad area on which are disposed a plurality of pads and a thin film encapsulation layer on the display substrate. The method further includes consecutively cutting the display panel and the at least one supporting unit of each separated unit display apparatus along cutting lines in the pad area, where a first cut surface of the pad area of the display substrate and a second cut surface of the at least one supporting unit are respectively cut at different angles.

