

# (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2024/0251594 A1 SHIN et al.

### Jul. 25, 2024 (43) **Pub. Date:**

## (54) DISPLAY DEVICE AND MANUFACTURING METHOD THEREOF

- (71) Applicant: Samsung Display Co., Ltd., Yongin-si
- Inventors: Beom-Soo SHIN, Yongin-si (KR); Suk Hoon KANG, Yongin-si (KR); Su Ji PARK, Yongin-si (KR); MINSEOK LEE, Yongin-si (KR); Sung Hwan HONG, Yongin-si (KR)
- Appl. No.: 18/515,496
- Filed: Nov. 21, 2023 (22)
- (30)Foreign Application Priority Data

Jan. 25, 2023 (KR) ...... 10-2023-0009632

## **Publication Classification**

(51) Int. Cl. H10K 50/86 (2006.01)H10K 50/854 (2006.01)H10K 59/38 (2006.01)

(52)U.S. Cl. CPC ....... H10K 50/865 (2023.02); H10K 50/854 (2023.02); H10K 59/38 (2023.02); H10K

59/122 (2023.02)

#### (57)ABSTRACT

One or more embodiments of the present disclosure provide a color conversion panel including a substrate, a bank on the substrate, defining openings, and including a light-blocking area including black pigment on an upper portion thereof, a concentration of the black pigment increasing in a direction away from the substrate, and a color conversion layer and a transmission layer respectively in the openings.

