



US 20240213268A1

(19) **United States**

(12) **Patent Application Publication**  
**SHIN**

(10) **Pub. No.: US 2024/0213268 A1**

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

(54) **CHIP ON FILM PACKAGE AND DISPLAY APPARATUS INCLUDING THE SAME**

*H01L 33/48* (2006.01)

*H01L 33/62* (2006.01)

(71) Applicant: **SAMSUNG ELECTRONICS CO., LTD.**, SUWON-SI (KR)

(52) **U.S. Cl.**  
CPC ..... *H01L 27/124* (2013.01); *H01L 25/0753* (2013.01); *H01L 25/167* (2013.01); *H01L 33/486* (2013.01); *H01L 33/62* (2013.01)

(72) Inventor: **Na Rae SHIN**, Suwon-si (KR)

(21) Appl. No.: **18/490,063**

(22) Filed: **Oct. 19, 2023**

(30) **Foreign Application Priority Data**

Dec. 22, 2022 (KR) ..... 10-2022-0181412

**Publication Classification**

(51) **Int. Cl.**  
*H01L 27/12* (2006.01)  
*H01L 25/075* (2006.01)  
*H01L 25/16* (2006.01)

(57) **ABSTRACT**

There is provided a chip on film package. The chip on film package includes a film substrate including an upper layer extending in first and second directions opposite to each other and a lower layer facing the upper layer, and having a cutting line formed thereon, first and second semiconductor chips disposed on the upper layer within an area of the cutting line, first and second connection wirings connected to the first and second semiconductor chips and extending toward the first and second directions, respectively, and a test pad connected to at least one of the first and second connection wirings and disposed on the lower layer, within the area of the cutting line.

