

# 2025 Small OLED Display Annual Report

Chief Analyst  
**Dr. Choong Hoon YI**

Senior Analyst  
**Dr. Chang Ho NOH**

Analyst  
**Jun Ho KIM**

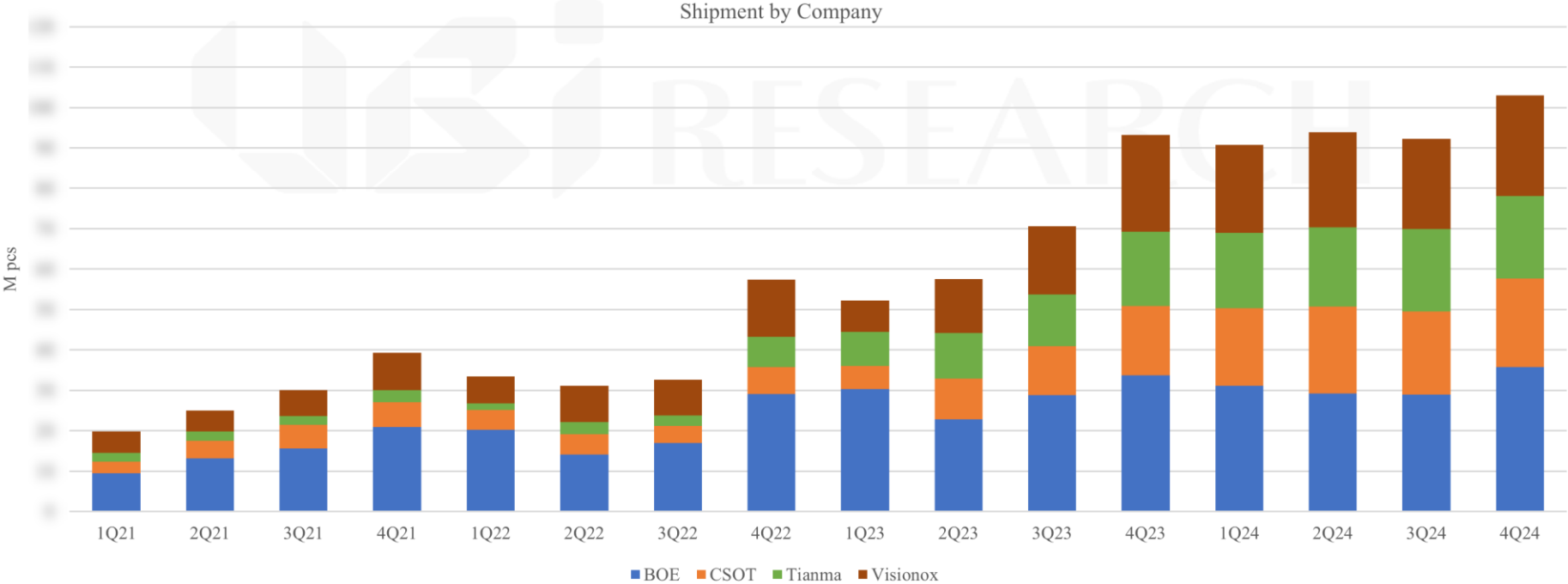
<b>1. Key Summary -----</b>	<b>4</b>	<b>5. Analysis of the Development Trends of Small OLED -----</b>	<b>60</b>
		5.1 Slim model release	
		5.2 Foldable phone	
		5.3 Expanding the use of color filter on encapsulation technology	
		5.4 Developing OLEDs for entry-level XR on a glass backplane	
<b>2. Analysis of OLED Industry Issues-----</b>	<b>6</b>	<b>6. Analysis of OLED Line Status by Company-----</b>	<b>77</b>
2.1 iPhone 17 panel suppliers expected in 2025		6.1 Samsung Display	
2.2 Shipments increase for low- and mid-range smartphones		6.2 LG Display	
2.3 OLED shipments for smartphones increase in China		6.3 BOE	
		6.4 TCL CSOT	
		6.5 EverDisplay Optronics	
		6.6 Tianma	
		6.7 Visionox	
<b>3. Product Trends in OLED Applications -----</b>	<b>12</b>	<b>7. Small OLED Production Capacity Analysis and Forecast -----</b>	<b>92</b>
3.1 Smartwatches		7.1 Total mass production capacity analysis and Investment timing analysis	
3.2 Smartphones		7.2 Mass production capacity forecast	
3.3 Foldable Phone		7.3 Mass production capa forecast by company	
		7.4 Mass production capacity forecast by generation	
		7.5 Mass production capacity forecast by substrate	
		7.6 Mass production capacity forecast by country	
<b>4. Analysis of OLED Business and Product Trends by Company-</b>	<b>34</b>		
4.1 Samsung Display			
4.2 LG Display			
4.3 BOE			
4.4 TCL CSOT			
4.5 Tianma			
4.6 Visionox			

<b>8. Annual OLED Market Performance Analysis -----</b>	<b>110</b>	<b>10. OLED Supply and Demand Analysis for Smartphones -----</b>	<b>212</b>
8.1 Overall performance analysis of small OLED		10.1 OLED supply and demand for smartphones by year	
8.2 Performance analysis by small OLED companies		10.2 Quarterly OLED supply and demand for smartphones	
8.3 OLED performance by application			
8.4 OLED performance by substrate		<b>11. OLED Market Forecast -----</b>	<b>215</b>
8.5 OLED performance by country		11.1 Overall market outlook	
8.6 Performance for smartphones and foldable phones		11.2 Market outlook by panel maker	
8.7 OLED performance for smartphones by company		11.3 Market outlook by application	
8.8 Performance analysis by OLED substrate for smartphones		11.4 Market outlook by country	
8.9 OLED performance for smartphones by size			
8.10 OLED performance for watches			
<b>9. Quarterly OLED Performance Analysis -----</b>	<b>150</b>		
9.1 Overall performance			
9.2 Performance by company			
9.3 Performance by application			
9.4 Performance for smartphones and foldable phones			
9.5 Performance for watches			
9.6 Performance by substrate			
9.7 Performance by country			

# 2. Analysis of OLED Industry Issues

## 2.3 OLED shipments for smartphones increase in China

- Chinese panel makers' shipments for smartphones have been growing rapidly since 2021.
- Chinese panel makers are mainly supplying domestic panels to Chinese set makers such as Huawei, Xiaomi, Oppo, Vivo, and others, with BOE expanding its supply chain by supplying panels for Apple's iPhone 12-16 series, including the base model and iPhone16e.
- BOE, TCL CSOT, Tianma, and Visionox shipped 114 million OLEDs for smartphones in 2021, followed by 154 million in 2022, \*\*\* million in 2023, and approximately \*\*\* million in 2024.

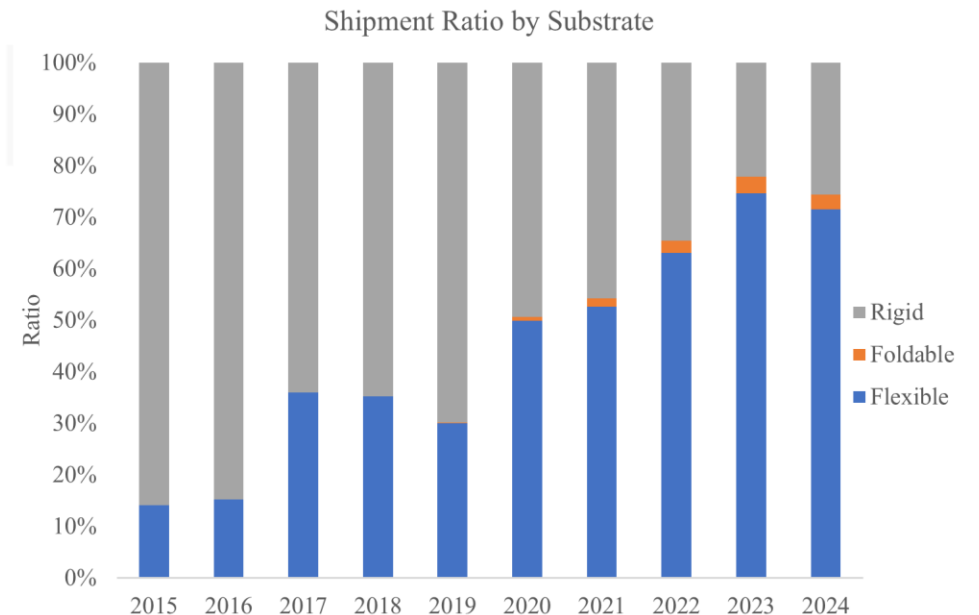
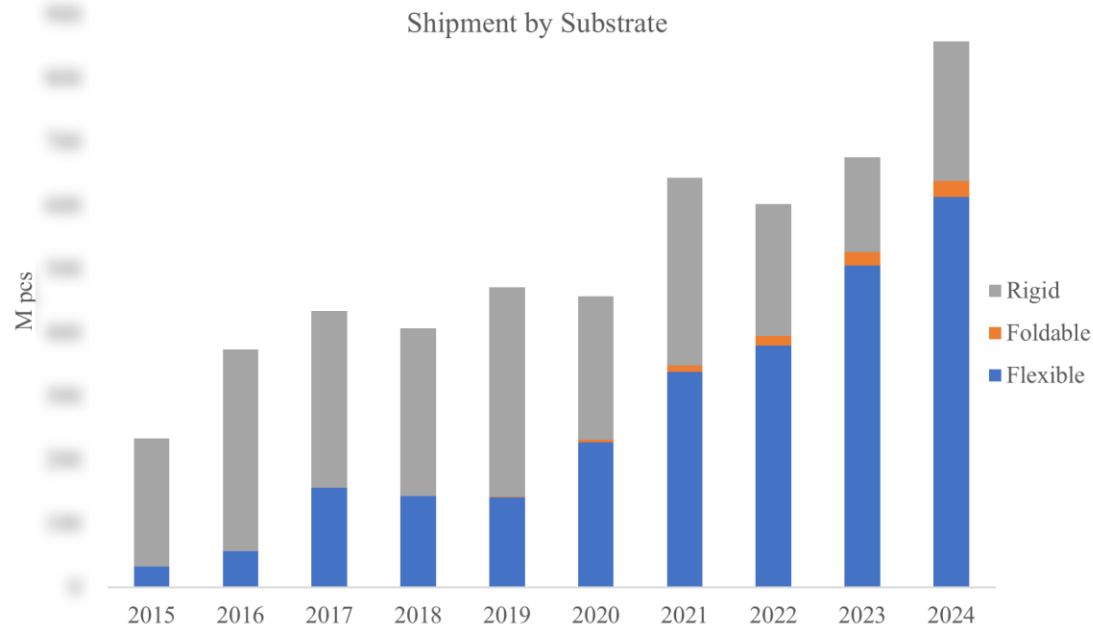


# 3. Product Trends in OLED Applications

## 3.3 Foldable Phone

### ■ Analyzing foldable phone launch trends

- In 2024, foldable phones shipped \*\*\* million units, up \*\*\*% from \*\*\* million units in 2023. Their share of all smartphones was 2.9%, down from 3.2% in the previous year. The relative share of higher-priced foldable phones declined, driven by the rise of rigid OLED panels in low- and mid-priced phones.
- Samsung Display shipped \*\*\* million OLEDs for foldable phones in 2024, down \*\*\*% from \*\*\* million in 2023. China shipped \*\*\* million foldable phones in 2024, up \*\*\*% from \*\*\* million in the previous year. BOE's OLED shipments for foldable phones were around \*\*\* million units.



# 4. Analysis of OLED Business and Product Trends by Company

## 4.3 BOE

- BOE is aiming to increase its share in premium smartphones by expanding the application of tandem OLEDs for smartphones.
- BOE first supplied tandem OLEDs to Honor's Magic 6 RSR Porsche smartphone in the first half of 2024, and tandem panels to Huawei's Mate 70 RS Ultimate smartphone in the second half of the year.
- Huawei is also considering including tandem OLEDs in its premium smartphones, the Mate 80 Pro+ and Mate 80 Pro, which will be unveiled in the second half of 2025.
- BOE is producing tandem OLEDs for smartphones at its Chengdu B7 and will also produce OLEDs for smartphones at B16, its 8.6-generation OLED line.
- BOE's strategy is to apply LTPO and tandem OLED in smartphones to secure its relatively scarce technology capabilities and then expand its applications to IT and automotive panels in the future.

Key specs of smartphones with BOE's tandem OLED.

Model	Honor	Huawei
	Magic6 RSR Porsche	Mate 70 RS Ultimate
Display Size	6.8"	6.9"
Resolution	2800 x 1280	2832 x 1316
Peak Brightness	5,000 nits	3,500 nits
High Brightness Mode	1,800 nits	1,800 nits
Frame Rate	~ 120 Hz	~ 120 Hz
TFT	LTPO	LTPO

Magic6 RSR Porsche Design



Mate 70 RS Ultimate



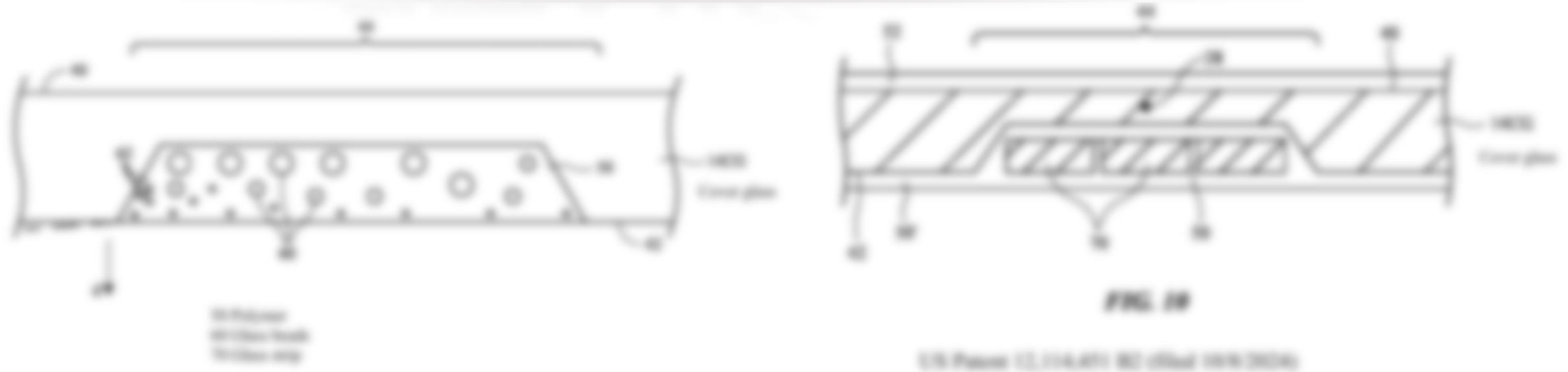
# 5. Analysis of the development trends of small OLED panels

## 5.2 Foldable phone

### Apple

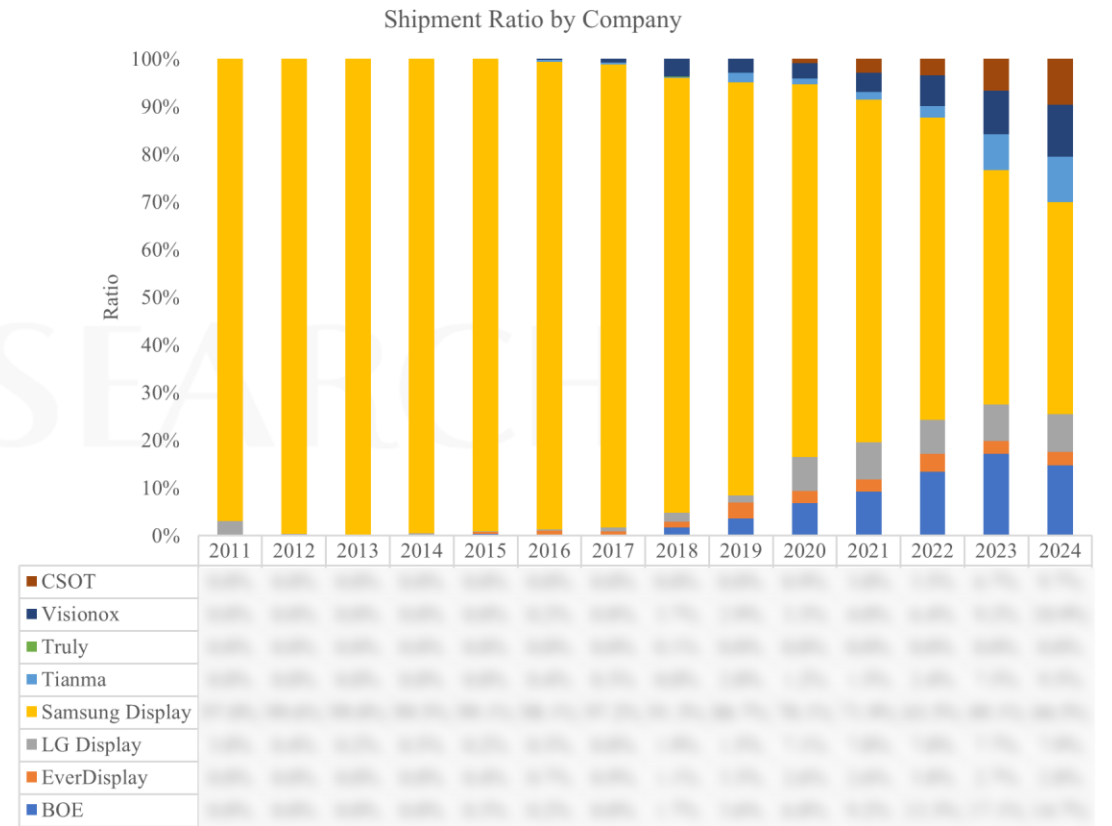
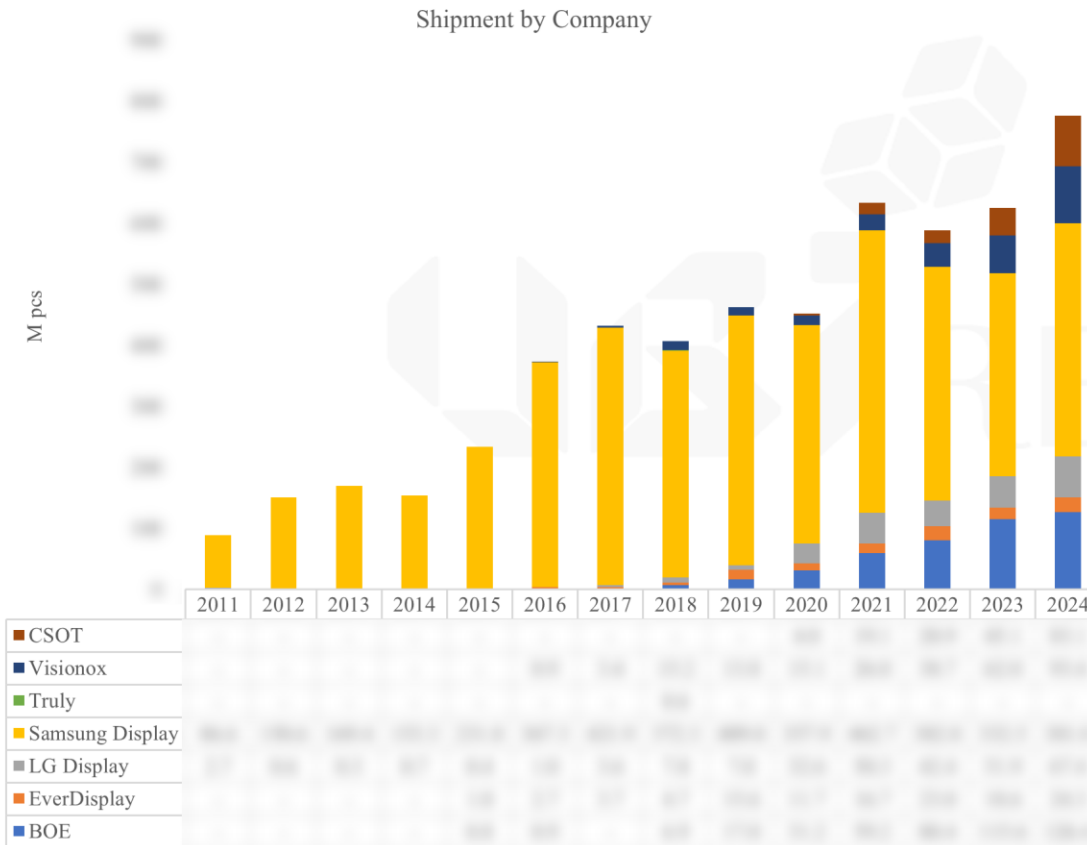
- Apple's recently issued foldable display patent (\*\*\*) discloses a method of forming a strip shape in the folded portion of a UTG and filling the strip with a polymer resin dispersed with glass beads of various diameters.
- The number of strips in the folding part can be composed of a plurality of strips, and the polymer resin dispersed with glass beads can relieve inward compression stress to improve bending durability and wrinkles. The diameter of the glass beads is 200 nm or less, and the difference in refractive index between the polymer and the glass is less than 0.05 to prevent light scattering due to the difference in refractive index.
- Corning and South Korea's Yutiai are developing related technologies, and the key is to develop resins that have nearly the same optical properties as glass, while ensuring flexibility and adhesion reliability.

Apple's key patent case for UTGs for foldable phones



# 8. Annual OLED Market Performance Analysis

## 8.7 OLED performance for smartphones by company



© 2025 UBI Research

© 2025 UBI Research



# 11. OLED Market Forecast

## 11.2 Market outlook by panel maker

■ Sales forecasting

(US\$ million)

Company	Application	2025	2026	2027	2028	2029
BOE						
CSOT						
EDO						
JDI						
LG Display						
Samsung Display						
Tianma						
Visionox						
Total						