

2016 Recap & 2017 Outlook for Flexible Displays

<https://marketpublishers.com/r/2629ECC37A7EN.html>

Date: March 2017

Pages: 33

Price: US\$ 4,237.00 (Single User License)

ID: 2629ECC37A7EN

Abstracts

Flexible AMOLED (Active-matrix Organic Light-emitting Diode) displays have drawn market attention as Apple's next-generation iPhone is reportedly to feature a flexible AMOLED display. Flexible display technologies include flexible AMOLED, flexible LCD (Liquid Crystal Display), and flexible e-paper. Each flexible display technology has different limitations and thus the development of their key components has also varied, leading to variant outcomes in terms of the application and development of each flexible display technology. This report will analyze the flexible display technologies and their key components to outline the future of flexible displays.

Contents

1. COMMERCIALIZATION OF FLEXIBLE DISPLAYS

1.1 Definition of Flexible Displays

1.1.1 Diversity of Flexible Display Technologies

1.2 Flexible LCD Commercialization Stagnates without Mass Production

1.2.1 Low Interest in Flexible LCD Development due to Technological Challenges and Vendors' Withdrawal from Market

1.2.2 Continued Engagement by Japanese Academic Institutes

1.3 Mobile Phones and Wearables with Flexible AMOLED Displays

1.3.1 SDI and LGD are Two Flexible AMOLED Display Suppliers

1.3.2 Curved and Odd-shaped Panels as Major Selling Points

1.4 Flexible PMOLED Displays to Enter Mass Production

1.5 Flexible e-Paper Ready for Mass Production but More Applications Needed

1.5.1 E Ink Leads in Commercialization of Flexible e-Paper Display

1.5.2 Existing Applications in Advertising Billboards and e-Tag

1.5.3 Wearable Market Gaining More Spotlight

2. TRENDS OF KEY FLEXIBLE DISPLAY TECHNOLOGIES

2.1 Flexible Display Technology Development Indicators

2.2 Flexible TFT

2.2.1 Plastic OTFT and LTPS Already Enter Mass Production

2.2.2 Plastic Oxide TFT Backplanes Still Best Choice for Flexible Displays

2.3 Flexible Substrate

2.3.1 Vendors' Attitude towards Stainless Steel and Ultra-thin Glass Displays Have been Passive

2.3.2 PI Substrates as Temporary Mainstream with Improvement in Cost Reduction and Transparency Needed

2.3.3 Enhanced PI Substrates and Composite Materials as Main Focuses of Flexible Substrate Development

2.4 Process Technology

2.4.1 Massive Engagement in S2S Process

2.4.2 R2R Process, Important but not Urgent

2.5 Others

2.5.1 Laboratories Complete Research on Flexible Color Filters

2.5.2 New Cell Gap Solution to Accelerate Curved LCD Development

3. CONCLUSIONS

3.1 Lack of Market Potential Impedes Flexible LCD Commercialization

3.2 Manufacturing Process and Material Optimization as Key Factors in Flexible AMOLED Development

3.3 Trends towards Large-sized and Color E-paper

3.4 Technology/Materials for Large Displays Have Higher Investment Value

Appendix

Glossary of Terms

List of Companies

List Of Tables

LIST OF TABLES

Table 1 Comparison of Flexible Display Technologies

Table 2 Structure and Key Development Trends of Flexible Displays

Table 3 Comparison of TFT Technologies

Table 4 Types of Flexible Substrates

List Of Figures

LIST OF FIGURES

Figure 1 Pilot Production of Flexible LCDs by Tohoku University in 2016

Figure 2 Devices with Flexible AMOLED Displays

Figure 3 Application of Curved and Odd-shaped Panels in Cars

Figure 4 Flexible PMOLED Displays by Pioneer and WiseChip

Figure 5 Flexible e-Paper Displays Demonstrated by E Ink and KDI

Figure 6 Flexible E-paper Displays for Advertising Billboards

Figure 7 Fundamental Requirements for Flexible Substrates

Figure 8 Transparency of PI Substrates Needs Improvement

Figure 9 S2S Process

Figure 10 Bonding and De-bonding of S2S Process

Figure 11 R2R Process for LCD Module

Figure 12 Flexible Color Filter Demonstrated by ITRI in 2016

Figure 13 Merck's Cell Gap Supporting Material for Flexible Displays

I would like to order

Product name: 2016 Recap & 2017 Outlook for Flexible Displays

Product link: <https://marketpublishers.com/r/2629ECC37A7EN.html>

Price: US\$ 4,237.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/2629ECC37A7EN.html>