







OLED Display Forecast 2015-2025: The Rise Of Plastic And Flexible Displays

LED displays are thinner, lighter, and offer better color performances compared to backlit liquid crystal displays (LCD). OLED displays are already mass produced for mobile phones and OLEDs will continue gaining market share against LCD technology.

To Read Complete Report with Toc: http://www.marketresearchreports.biz/analysis/241484

The next evolution is plastic and flexible displays. IDTechEx expects the first flagship phone with a flexible display to ship in 2017. Based on this scenario, the market for plastic and flexible AMOLED displays will rise to \$16bn by 2020.

The rise of plastic and flexible displays will be accompanied by a shift from glass substrates to plastic substrates such as polyimide. However, glass-based displays will remain an important technology, especially in TV applications where scale-up and cost reduction are still big challenges. Flat and curved OLED TVs were recently launched by Samsung and LG to critical acclaim. However, manufacturers are hedging their bets by investing in LCD backlights enhanced with quantum dots. These so-called "quantum dot LCD" TVs will be positioned as a cheaper upgrade from existing sets. Nevertheless, the market for OLED TV panels will experience steady growth over the next decade, with a projected 25% CAGR.

Click Here To Download Detail Report: http://www.marketresearchreports.biz/sample/sample/241484

Based on a deep understanding of the technology roadmap and the existing bottlenecks, IDTechEx has forecasted the OLED display market in eight segments:

Mobile phone displays
Tablet and notebook displays
TV panels
Automotive and aerospace
Wearable electronics
Industrial and professional displays
Microdisplays
Other applications

DTechEx has been tracking printed, organic, and flexible electronics since 2001. This report gives a unique perspective on the OLED display market, leveraging the full expertise of our analysts and the direct interviews with companies in the value chain.

Table of Contents

1. INTRODUCTION

- 1.1. An industry transitioning from LCD manufacturing
- 1.2. Why flexible displays?
- 1.2.1. The need to differentiate
- 1.2.2. Enabling future form factors
- 1.3. Technology Roadmap: components needed for a flexible OLED display
- 1.4. Technology roadmap: OLED televisions

2. OLED STRATEGIES BY DISPLAY MANUFACTURERS

- 2.1. Samsung Display (SDC)
- 2.1.1. Novaled acquisition
- 2.1.2. A3 plant
- 2.1.3. OLED TV
- 2.1.4. Tablet displays
- 2.2. LG Display (LGD)

- 2.3. BOE
- 2.4. AU Optronics (AUO)
- 2.5. Shenzhen China Star Optoelectronics Technology (CSOT)
- 2.6. Visionox
- 2.7. Sony
- 2.8. Panasonic
- 2.9. Japan Display Inc (JDI)
- 2.10. Sharp
- 2.11. Toshiba

For More latest Reports Under ICT Market Research Reports Category:

http://www.marketresearchreports.biz/category/96

3. PROGRESS IN PRINTED OLED DISPLAYS

- 3.1. Printed TFT backplanes
- 3.1.1. Why print TFTs?
- 3.1.2. Japan leading the R&D in printed TFTs

- 3.2. Growing availability of printable OLED materials
- 3.2.1. Polymer OLED from Cambridge Display Technology (Sumitomo)
- 3.2.2. Solution processed small molecules
- 3.3. Inkjet Printed OLED
- 3.3.1. Printing vs. vapour deposition
- 3.3.2. Panasonic
- 3.3.3. Sony
- 3.3.4. BOE
- 3.3.5. AU Optronics
- 3.3.6. Kateeva

4. MARKET SEGMENTATION FOR OLED DISPLAYS

- 4.1. Mobile displays
- 4.2. Computers: Tablets and Notebooks
- 4.3. TV and monitors
- 4.3.1. LGD taking the lead
- 4.3.2. Competing technologies

- 4.4. Wearable electronics
- 4.5. Automotive and Aerospace
- 4.6. Industrial and professional displays
- 4.7. Microdisplays
- 4.8. Others

5. MARKET FORECAST

- 5.1. Definition of OLED display technologies
- 5.1.1. AMOLED rigid glass
- 5.1.2. AMOLED rigid plastic
- 5.1.3. AMOLED flexible
- **5.1.4. PMOLED**
- 5.1.5. Segmented
- 5.1.6. Microdisplays
- 5.2. Revenue forecast by market segment
- 5.3. Shipment forecast by market segment
- 5.4. Revenue forecast by technology

- 5.5. Shipment forecast by technology
- 5.6. Details by market segment
- 5.6.1. Mobile phones
- 5.6.2. Tablets/Notebooks
- 5.6.3. TV and monitors
- 5.6.4. Wearable devices
- 5.6.5. Automotive and aerospace
- 5.6.6. Industrial/Professional displays
- 5.6.7. Microdisplays
- 5.6.8. Others
- 5.7. Additional figures
- 5.7.1. Compound annual growth rate
- 5.7.2. Market share for each segment
- 5.7.3. Revenue forecast for Plastic and Flexible OLED displays

6. FLEXIBLE SUBSTRATES 6.1. Requirements

6.1.1. Key challenges of flexible substrates

- 6.1.2. Process temperature by substrate type
- 6.2. Benchmarking by material type
- 6.3. Company profiles
- 6.3.1. DuPont Teijin Films
- 6.3.2. ITRI
- 6.3.3. Samsung Ube Materials
- 6.3.4. Kolon Industries
- 6.3.5. Corning
- 6.3.6. AGC Asahi Glass

7. BACKPLANE TECHNOLOGY

- 7.1. Pixel circuit in Active Matrix backplanes
- 7.1.1. OLED displays are current driven
- 7.1.2. Amorphyx: replacing TFT with diodes
- 7.2. Semiconductor materials
- 7.2.1. Benchmarking of the main technologies
- 7.2.2. Organic TFT

- 7.2.3. Metal oxide TFT
- 7.3. Passive matrix OLED (PMOLED)
- 7.4. Company profiles
- 7.4.1. Plastic Logic
- 7.4.2. CBrite
- 7.4.3. Arizona State University
- 7.4.4. SmartKem
- 7.4.5. Polyera
- 7.4.6. Flexink
- 7.4.7. Merck (EMD Chemicals)
- 7.4.8. BASF

8. FRONTPLANE: OLED LAYERS

- 8.1. Role of each layer
- 8.2. Shadow mask vs. White OLED
- 8.2.1. Fine metal mask (FMM)
- 8.2.2. Yellow emitter with color filters

- 8.2.3. White OLED approach
- 8.3. Subpixel layouts
- 8.4. Table of suppliers
- 8.5. Suppliers in China
- 8.5.1. Beijing Aglaia Technology Development Co
- 8.5.2. Borun New Material Technology Co. (Borun Chemical Co)
- 8.5.3. Jilin Optical & Electronic Materials Co
- 8.5.4. Visionox
- 8.5.5. Xi'an Ruilian Modern Electronic Chemicals Co., Ltd
- 8.6. Suppliers in Europe
- 8.6.1. Heraeus
- 8.6.2. Merck
- 8.6.3. Novaled
- 8.6.4. Cynora
- 8.7. Suppliers in Japan
- 8.7.1. Hodogaya
- 8.7.2. Idemitsu Kosan

- 8.7.3. JNC (ex Chisso)
- 8.7.4. Konica Minolta
- 8.7.5. Mitsubishi Chemical Corporation
- 8.7.6. Mitsui Chemicals
- 8.7.7. Nippon Steel & Sumikin Chemical
- 8.7.8. Nissan Chemical Industries
- 8.7.9. Sumitomo Chemical
- 8.7.10. Toray Industries
- 8.8. Suppliers in Korea
- 8.8.1. Cheil Industries
- 8.8.2. Daejoo Electronic Materials Company
- 8.8.3. Doosan Corporation ElectroMaterials
- 8.8.4. Dow Chemical
- 8.8.5. Duksan Hi-Metal
- 8.8.6. LG Chem
- 8.8.7. Sun Fine Chemical Co (SFC)
- 8.9. Suppliers in Taiwan

- 8.9.1. E-Ray Optoelectronics
- 8.9.2. Luminescence Technology Co.
- 8.9.3. Nichem Fine Technology
- 8.10. Suppliers in USA
- 8.10.1. DuPont
- 8.10.2. Plextronics (Solvay)
- 8.10.3. Universal Display Corporation

Latest Reports: http://www.marketresearchreports.biz/latest

9. ITO REPLACEMENT: TRANSPARENT CONDUCTORS

- 9.1. Developed for touch, used in displays
- 9.2. A range of technologies available
- 9.3. Table of suppliers
- 9.4. Company profiles
- 9.4.1. Blue Nano
- 9.4.2. Cambrios

- 9.4.3. CNano
- 9.4.4. Canatu
- 9.4.5. NanoIntegris
- 9.4.6. Heraeus
- 9.4.7. Agfa

10. BARRIER FILM TECHNOLOGY

- 10.1. Why encapsulation is needed
- 10.1.1. Organic semiconductors are sensitive to air and moisture
- 10.1.2. Requirements for barrier films
- 10.1.3. Different ways barriers are implemented
- 10.1.4. Dyad concept
- 10.2. Different barrier technologies available
- 10.2.1. Pros and cons of each approach
- 10.2.2. List of technology suppliers
- 10.3. Vitex Technology (Samsung)
- 10.4. Flexible glass

10.5. Atomic Layer Deposition (ALD)

10.5.1. Beneq

10.5.2. Encapsulix







Contact US:

Office: United States

State Tower 90 State Street, Suite 700 Albany, NY 12207 United States

Toll Free: 866-997-4948

Tel: +1-518-618-1030

E: sales@marketresearchreports.biz

Blog: http://industry-research-reports.blogspot.com/