

OLED Technology Report

OLEDs: From manufacturing to the marketplace

This report is a comprehensive guide to manufacturing, market opportunities and technology for OLED displays and lighting. Our industry experts provide a thorough assessment of OLED technology from many viewpoints:

- Market forecasts for OLED displays, OLED lighting and OLED materials
- In depth profiles of OLED materials, bill of materials and forecasted demand
- Opportunities and challenges of various manufacturing processes
- Regional highlights and activities
- Analysis of additional opportunities in OLED displays such touch, 3D, flexible and more

With this in-depth analysis, companies will be able to:

- Understand OLED opportunities with demand forecasts for displays and lighting
- Develop strategies for market growth and market entry with the comprehensive, end-to-end guide of the OLED industry and OLED manufacturing process.
- Learn about new OLED manufacturing processes to save cost and improve efficiency

Analysts



[Jennifer Colegrove](#)

United States
Vice President, Emerging Display Technologies

Focused on display technologies, including flexible, OLED and e-paper displays.



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Taiwan
Research Director

A specialist in TV electronics and the evolution of TVs related to media convergence.

Detailed Information

Data Covered

- Forecasts from 2011 to 2018 of display and lighting shipments, and market demand
- Worldwide market history data from 1999 to 2010
- OLED display shipments, revenue, area, and ASPs
- Regional activity coverage: Korea, Taiwan, China, Japan, US, Europe, and rest of world
- 100+ companies and universities related to OLED display and lighting
- OLED history, technology development, comparisons with LCDs, material positioning, and IP
- OLED operations: diode structure, creation of light, alternative structures, and display packaging
- Display performance: sunlight readability, touch screen, 3D display, and flexible and transparent OLED
- Display applications: small/medium PMOLED displays, small/medium AMOLED displays, TV, tablet, and micro-displays
- Lighting applications: general lighting, automobile lighting, and backlights for LCD displays
- Materials development: fluorescent small molecule material, phosphorescent small molecules, polymer materials, dendrimers, electrodes, enhanced extraction efficiency, substrates, and sealants and desiccants
- Drive electronics: segmented displays, passive matrix drive, active matrix backplanes (LTPS, Oxide TFT, a-Si TFT, and organic TFT), inverted AMOLED designs, gray scale control, and motion anomalies
- Manufacturing: passive matrix process flow, LTPS TFT processes, surface preparation,

electrode formation, deposition of small molecule organic material, polymer deposition, encapsulation, and factory design

- Capacity and cost analysis

Key Questions Answered

- What are the technology obstacles of OLED?
- What are the opportunities in the OLED industry for other companies?
- Who are the companies that are planning to enter the OLED industry?
- How will OLEDs impact applications markets?
- How will OLED investments pay off for industry participants and when?
- How will the technology change in terms of efficiency, external out-coupling and manufacturing?
- How will OLEDs overcome size hurdles?
- What will be the next major OLED technology breakthrough?
- How will AMOLED TFT backplane evolve?
- What alternative backplane architectures will evolve?
- How will current and planned fab capacity impact supply and pricing, and which materials suppliers will experience the greatest benefit?
- What are the key OLED industry players doing?

Subscription Package

Frequency: *One time*

Format: 

Outline

- OLED Structure and Mechanism
- OLED Display Applications and Market forecast
- Shipments, Revenue, Area, and ASPs
- Lighting Applications
- Materials Development
- Drive Electronics
- Manufacturing
- Capacity Analysis
- Cost Analysis: AMOLED vs. a Si and LTPS TFT LCDs

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