

Smartphone & Tablet Display Cost Model

Part of the Display Manufacturing, Technology & Components Service Area Coverage
Covers all smartphone and tablet LCD module and cell costs

“ The substrate size and fab utilization rate becomes more prominent factors in determining the gap in manufacturing costs. ”

Jimmy Kim
PhD., Principal Analyst

Smartphone & Tablet Display Cost Model

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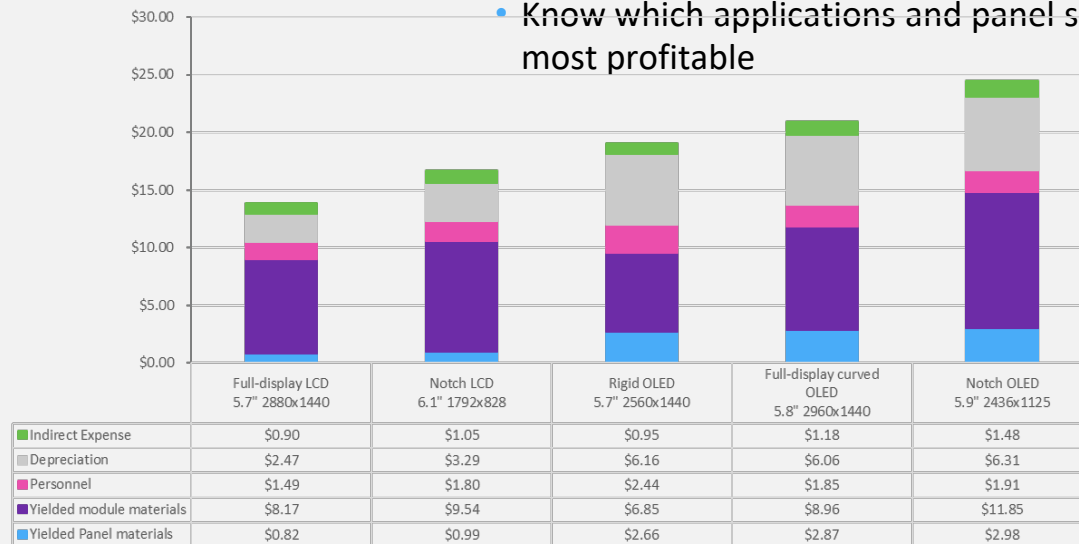
HOW OMDIA HELPS YOU

- Learn the latest panel costs and profit margin trends
- Understand which fab generation is better for lowering panel costs
- Know the estimated panel cost forecasts for buyers
- Find typical first-tier panel costs and component breakdowns
- Know which applications and panel sizes are most profitable

KEY QUESTIONS ADDRESSED

- What will become of manufacturing cost for different backplane such as LTPS and oxide?
- What is the cost gap between TFT LCD and OLED?
- What is the effect of design factors such as full-display and notch on the manufacturing cost?

Full display and notch display costs



Source: Omdia

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Full display and notch display costs in Q4'19

Smartphone & Tablet Display Cost Model: Our Expert Analysts



Jimmy Kim
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OLED Material Cost/ Backlight



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Principal Analyst
Display Optical Film

Market Tracker

Smartphone & Tablet Display Cost Model

Generate forecasts based on various data and assumptions. Standard selections are also prepared in the model, showing many typical smartphone and tablet panel sizes. These typical selections are easy to work with, allowing users to change starting conditions that affect panel costs.

Parameters like component costs, panel prices, panel yield, and fab utilization can also be changed to reflect the user's real panel conditions. Other attractive points covered include technology (a-Si, LTPS, or oxide) differentiation, mask step number change, and specification changes for polarizers and driver ICs.

DETAILS

Frequency: Time Period

- Quarterly
- One-year historical
- Five-years forecast

Measures

- Typical costs for first-tier panel makers (USD)

Region

- Typical costs from Korea/Japan/China/Taiwan

COVERAGE

Products Covered

- Smartphone LCD modules
- Smartphone LCD cells
- Tablet LCD modules
- Tablet LCD cells

Cost Data Covered

- Glass
- Target
- Chemical & indirect materials
- Color filter
- Polarizer
- Liquid crystal
- Cell others
- Panel thinning
- Driver IC
- Backlight
- PCBA, etc.
- Material & component total
- Yielded material & component total
- Indirect expense
- Labor cost
- Equipment depreciation by process (array, color filter, cell and module)
- Facility depreciation
- Manufacturing total cost
- Cash cost
- SG&A
- Sales total cost
- Fab operation
- Yield by process

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(panel sizes change in response to market trends)

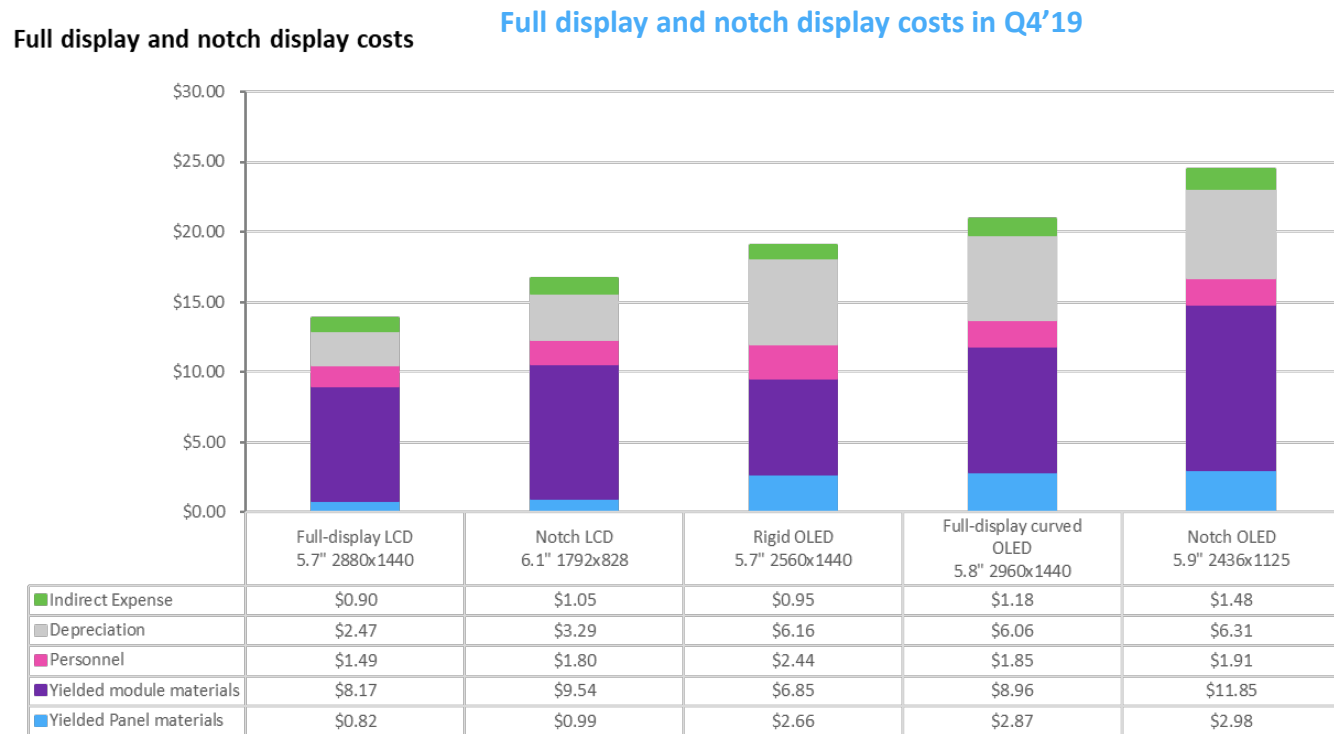
Smartphone LCD Panels

- 4.0" _800x480
- 4.0" _1136x640
- 4.7" _1280x720
- 4.7" _1334x750
- 5.0" _960x540
- 5.0" _1280x720
- 5.0" _1920x1080
- 5.2" _1920x1080
- 5.5" _1280x720
- 5.5" _1440x720
- 5.5" _1920x1080
- 5.5" _2560x1440
- 5.7" _1280x720
- 5.7" _1440x720
- 5.7" _1920x1080
- 5.7" _2160x1080
- 5.7" _2560x1440
- 5.7" _2880x1440
- 5.8" _2240x1080
- 6.0" _1280x720
- 6.0" _1440x720
- 6.0" _1920x1080
- 6.0" _2160x1080
- 6.0" _2560x1440
- 6.1" _1280x720
- 6.1" _1792x828
- 6.1" _1920x1080
- 6.2" _1520x720
- 6.2" _2280x1080
- 6.3" _1280x720
- 6.3" _2280x1080
- 6.3" _2340x1080
- 6.4" _1920x1080
- 6.4" _2340x1080
- 6.5" _2340x1080

Tablet LCD Panels

- 7.0" _800x480
- 7.0" _1280x800
- 7.0" _1920x1200
- 7.0" _1024x600
- 7.9" _1024x768
- 7.9" _2048x1536
- 8.0" _1280x800
- 8.0" _1920x1200
- 8.9" _2560x1600
- 9.7" _1024x768
- 9.7" _2048x1536
- 10.1" _1280x800
- 10.1" _1366x768
- 10.1" _1920x1200
- 10.1" _2560x1600
- 11.6" _1366x768
- 11.6" _1920x1080
- 11.6" _2560x1440
- 12.0" _2160x1440

OLED Display Cost Model




Source: Omdia

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- ✓ Know which applications and panel sizes are most profitable
- ✓ Understand which fab generation is better for lowering panel costs
- ✓ Know the estimated panel cost forecasts for buyers
- ✓ Find typical first-tier panel costs and component breakdowns
- ✓ Latest OLED panel costs and profit margin trends

Related Content: Display Manufacturing, Technology & Components Service Area Coverage



Service Area Package: **Display Manufacturing, Technology & Components**

- OLED & LCD Supply Demand & Equipment Intelligence Service
- OLED & Flexible Display Intelligence Service
- Foldable Display Tech/ Market Report
- MicroLED Display Tech/ Market Report
- Mini LED Backlight Market Tracker
- Display Glass Market Tracker
- OLED Display Roadmap Tracker
- Display Driver IC Market Tracker
- OLED Materials Market Tracker
- Display Optical Film Market Tracker
- Large Area Display Cost Model
- Smartphone & Tablet Display Cost Model**
- OLED Display Cost Model
- Display Dynamics Viewpoint Service

About Omdia's Display Manufacturing, Technology & Components Research

Industry's most comprehensive coverage of the display supply chain focusing on upstream segments of panel and manufacturing technologies, equipment, as well as materials, components, and costs.

Our research team is based in Asia with extensive years of experience and have previously worked at FPD companies. Omdia's primary research approach is surveying display supply chain companies, creating unique and highly data oriented analysis.

Strong focus in the "connect the dots" between various parts of the FPD industry, upstream, downstream, and to consumer electronics. Omdia research team deep dives of the many niche markets and technologies that characterize the front end of display industry.

Related Content: Display and Consumer Devices Service Area Coverage

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Display Manufacturing, Technology & Components	Large Area Display & Supply Chain	Small & Medium Displays & Touch Interface	Consumer Electronics & Display Applications
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ABOUT OMDIA

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* The majority of Omdia technology research products and solutions were acquired by Informa in August 2019 and are now part of Omdia.