

# Smartphone and Tablet Display Cost Model

Jimmy Kim, PhD., Principal Analyst

## ACTUALS AND FORECAST

### Frequency, Time Period

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

### Measures

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

## PRODUCTS COVERED

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

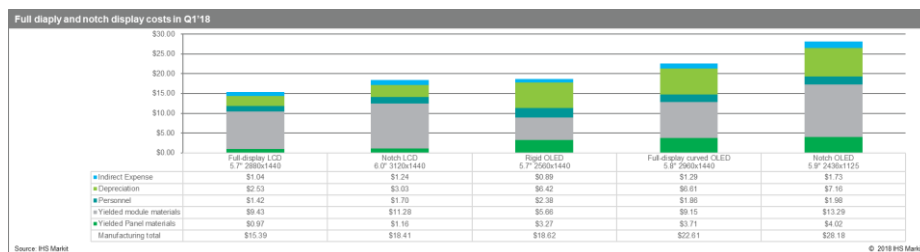
## COST DATA COVERED

- 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

The *Smartphone and Tablet Display Cost Model* covers all smartphone and tablet LCD module and cell costs. Subscribers will be able to better understand the panel cost structure and profitability of mainstream sizes using the model's Excel data tables.

Users can 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.



## Key Issues Addressed

- 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

## Applicable To

- Brand manufacturers/OEMs/ODMs
  - FPD and materials/components procurement division
- FPD Panel suppliers
  - Materials/components Procurement division
- Panel development division
- Investment Community
  - Fund managers / investors / analysts with interest in display companies

## LEAD ANALYST

### Jimmy Kim, PhD., Principal Analyst

Dr. Jimmy Kim joined IHS in November 2014, when IHS acquired DisplaySearch, a leader in primary research and forecasting on the global display market. At DisplaySearch, he served as a senior analyst in charge of display materials and LED analysis.

Before DisplaySearch, he spent three years on the marketing team at Samsung LED (currently Samsung Electronics), leading the display-related LED market team and creating marketing strategies for the company. Prior to Samsung LED, Dr. Kim spent five years at Samsung Electronics working on the R&D team for the LCD business. There, he led several R&D projects on new light sources for LCD backlights and new BLU structures.

He earned his Doctor of Philosophy from the School of Materials Science and Engineering at Seoul National University, Korea.

## CONTRIBUTING ANALYSTS

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## TECHNOLOGY SOLUTIONS FROM IHS MARKIT

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## Table of Contents

(panel sizes change in response to market trends)

### Smartphone LCD Panels

- 3.5" \_ 480x320
- 3.5" \_ 800x480
- 4.0" \_ 800x480
- 4.0" \_ 1136x640
- 4.3" \_ 800x480
- 4.3" \_ 960x540
- 4.3" \_ 1280x720
- 4.5" \_ 800x480
- 4.5" \_ 960x540
- 4.5" \_ 1280x720
- 4.5" \_ 1920x1080
- 4.7" \_ 800x480
- 4.7" \_ 960x540
- 4.7" \_ 1280x720
- 4.7" \_ 1334x750
- 4.7" \_ 1920x1080
- 5.0" \_ 800x480
- 5.0" \_ 854x480
- 5.0" \_ 960x540
- 5.0" \_ 1280x720
- 5.0" \_ 1920x1080
- 5.2" \_ 1920x1080
- 5.3" \_ 1280x720
- 5.4" \_ 1920x1080
- 5.5" \_ 1280x720
- 5.5" \_ 1920x1080
- 5.5" \_ 2560x1440
- 5.7" \_ 1280x720
- 5.7" \_ 1920x1080
- 5.7" \_ 2880x1440
- 6.0" \_ 1280x720
- 6.0" \_ 1920x1080
- 6.0" \_ 2560x1440
- 6.1" \_ 1280x720
- 6.1" \_ 1920x1080
- 6.3" \_ 1280x720
- 6.4" \_ 1920x1080
- 6.4" \_ 2560x1440
- 6.8" \_ 1920x1080

### 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

For more information [ihsmarket.com/technology](https://www.ihsmarket.com/technology)

## About IHS Markit

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