

# Touch Panel Cover Lens & CPI Report - 2019

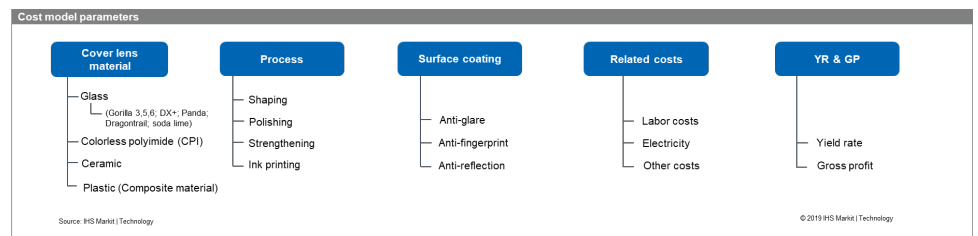
## Executive summary

This comprehensive report on the market and technology for touch panel cover lens contains extensively researched information on cover lens use across 25 applications, 7 types of materials, 4 shapes, 2 locations, and various sizes. Touching on various topics of significance to the industry, this annual report is a “must-read” for players in the cover lens value chain, including cover lens source suppliers, cover glass finishers, touch module makers, and device OEMs and ODMs; as well as company brands, market investors, and those seeking to understand or gain insight into the industry.

In the section on cover lens demand, the report provides five-year forecasts until 2023 of the market by application, type of material, shape, and location. Of the 25 cover lens applications tracked by the report, mobile phones constitute the single largest use of the material. Other important cover lens applications include tablets, automotive center stack displays, notebook PCs, screen-protector glass, and the unofficial repair market. The last is a new application market included for the first time in this year’s edition of the report, given the large number of consumers that bring the broken cover lens of their devices to the unofficial—i.e., unauthorized—market for repair, which typically changes less for services compared to repair work undertaken by brands, device makers, and lens suppliers.

In the cover lens forecast by type of material, the seven materials are soda lime, aluminosilicate, sapphire, ceramic, colorless polyimide (CPI), plastic, and composite material. In the market forecast pertaining to shape, the four shapes of 2D, 2.5D, 3D, and foldable are included. And in the market forecast by location, the two areas in a device where the cover lens is deployed are the front and rear locations.

An important part of the report is the section on cover lens cost modeling, featuring 28 cost models across the six most important applications: smartwatches, smartphones, tablet PCs, notebook PCs, all-in-one PCs, and automotive monitors. To break down costs, the model employs several cost parameters, as shown in the graphic below..



## Key findings of the report include the following:

- New cover lens materials, including ceramic, colorless polyimide, and composite, are increasingly available on the market even though the new materials have entirely different supply chains from that of glass, the traditional material of choice for the cover lens. Glass suppliers, meanwhile, continue to develop new material recipes and expand glass tank capacities.
- Cover glass finishers have the most important role in the supply chain, not only undertaking all the processing work required but also delivering the finished cover glass to brands.
- The market this year for 2.5D rear cover lens will show explosive growth by year-end compared to 2016 levels, thanks to the adoption of 2.5D glass by Apple for the rear cover of the iPhone X, with many Android brands having followed suit and copying Apple's example.

Indicative of its breadth and expansive coverage, the report also presents notable findings from research undertaken at length on these other subjects:

- Current trends in cover glass finishing, including 3D and 3.5D
- Evolution in cover lens materials, exemplified in rear covers, twice-chemically strengthened glass, cover lens for wearables, and composite materials
- Ongoing developments in cover lens surface coating, such as anti-glare, anti-fingerprint, and anti-microbial
- Development updates on the flexible form factor, including foldables, ultra-thins, and laminated
- Requirements of automotive cover lens, including those of the center stack display, of combined displays integrating the center stack with the instrument cluster, and of non-regular or free-form displays

In the final chapter, the report examines the cover glass supply chain, identifying the principal suppliers of both raw glass and cover glass, as well as suppliers of cover glass equipment based in China, where rapid developments are taking place in equipment utilized for key cover glass processes and for coating and surfacing.

*The [Touch Panel Cover Lens & CPI Report – 2019](#) from IHS Markit | Technology is offered in the [Displays](#) research service, under the [Touch & Interface](#) research category. Kimi Lin, senior analyst for touch and interface, is the author of the report.*

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