

## Mini LED Backlit Displays to Bring in Business and Give OLEDs a Run for Their Money, Says TrendForce

2019-05-08 [Max Chen](#)

According to the newest [2019 Mini LED and HDR High-End Display Market Report](#) by [LEDinside](#), a division of [TrendForce](#), after 3 years of mini LED backlight technology development, mini LEDs will finally make an official appearance on displays in 2019 and compete directly with OLEDs. Apple, with eyes set on the advantages of mini LED technology for a while, is also eager to strike collaborations with suppliers in Taiwan and Japan to introduce this technology into desktop displays, notebooks and tablets.

TrendForce explains that, in comparing the two, Mini LEDs possess a local dimming function with a contrast effect similar to that of OLED displays. On some product lines, costs for mini LED backlit displays may even be lower than their OLED counterparts. For traditional LCD panel manufacturers, this translates into an opportunity to re-upgrade product specs and a chance to compete with OLED technology.

### “Costs ” to Become the Key to Backlit Mini LED Mass Production Feasibility

Since mini LED backlight technology only differs from traditional ones in its greater usage of mini LED chips, panel manufacturers only have to redesign driver ICs, select substrates and reinvest in a few equipment, such as those used in surface-mounting and equipment inspection. The availability of existing panel production lines for use allow panel manufacturers to undergo a painless, hassle-free upgrade.

In contrast, the increased usage of LEDs will certainly raise costs for traditional LCD panels. Finding a way to lower costs and narrow the gap between mini LED backlit display and traditional LCD costs will be the key to mini LED backlight prevalence.

From a supply chain standpoint, Taiwan panel manufacturers are lagging behind in OLED panel production capacity, and are thus the most motivated to develop mini LED backlight technology solutions. AUO and Innolux joined hands with their respective LED subsidiaries in development: AUO with Lextar, and Innolux with AOT, Epileds and other companies as main collaborators. Through these partnerships, they hope to keep intact the competitive edge their LCD products previously possessed. Furthermore, Taiwanese LED giant Epistar, who focuses on advanced displays and backlight applications, is providing products custom made for customers and also possesses the ability to modify its own facilities.

China's vendors have also been actively developing micro LED and mini LED technologies. Sanan, for example, has established the first epitaxial wafer and chip production lines for micro LEDs in 1Q19, and has already finished developing a micro LED product that uses 20-micrometer chips. Sanan has joined forces with Samsung, becoming Samsung's go-to supplier for mini LEDs. Chinese panel supplier BOE has also declared news of forming a joint venture with American company Rohinni for the purpose of producing micro and mini LEDs solutions for display backlight sources; their main aim is to ramp up transfer speed, precision and yield of LEDs to substrates and create cost-competitive products.

### About TrendForce

TrendForce is a global provider of the latest development, insight, and analysis of the technology industry. Having served businesses for over a decade, the company has built up a strong base membership base of 435,000

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