

The Global Market for Mini and Micro LEDs

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Abstracts

This report covers the market for Mini LEDs and Micro LEDs. The displays market is constantly advancing, with new technologies allowing for greatly improved brightness, HDR, and colour reproducibility. Recently, mini LED and micro LED have attracted major attention in the displays market and are being implemented in products by consumer electronics giants such as Samsung and Apple. The market is projected to explode in the next few years, taking a significant chunk of the displays market and pushing into wearables, Augmented Reality (AR) and smartphones.

The Mini LED market is expected to grow significantly in 2021 and the Micro LED market is now at early stages of commercialisation. Large electronics companies such as Samsung are producing LCD TVs featuring Mini LED backlights and are anticipating significant demand. Apple is planning to bring a Mini LED backlight iPad Pro to this market this year, and integrating into other product offerings.

Mini LED backlights are utilized in large-screen TVs, monitors, automotive and industrial applications. Improvements Mini LED offer over incumbent display technologies include:

High brightness.

High contrast ratio.

Low power consumption.

Higher efficiency.

Micro LED will start to gain market traction in 2021, with companies including Sony and AU Optronics Corp. planning to launch new consumer products this year. Micro LEDs

are targeted at direct view displays. Improvements they offer include:

high efficiency

high brightness-readable under sunshine (>10,000 nits)

high colour saturation

ultra-high resolution (>2000 dpi with Si backplane)

ultra-low power consumption

flexibility

quick response rate (on/off switching within nano-seconds).

long lifetime (>80,000 hours).

These properties make them attractive for application in very large TVs, AR/VR and automotive applications. Other applications include wearable/implantable optoelectronic devices, light communication/light interconnection, medical treatment, spatial imaging etc.

Report contents include:

Latest technology and supply chain information.

Industry trends and growth drivers.

Assessment of technology challenges.

Industry developments in the past 18 months.

Current and planned mini LED and micro LED products.

Analysis of markets and applications for mini LED and micro LEDs. Markets covered include TVs, AR and VR, smartphones, automotive, wearables and smartwatches, laptops, monitors and tablets, medical displays, flexible and

foldable displays and transparent displays.

Current market and forecasts for mini LED and micro LEDs, by revenues, units and applications.

Assessment of competitive landscape.

Profiles of 69 companies in the mini LED and micro LED market. Companies profiled include Aledia, ALLOS Semiconductors GmbH, AU Optronics Corporation, Foxconn Electronics, GI?, iBeam Materials, Inc., Innolux Corporation, Industrial Technology Research Institute (ITRI), Japan Display Inc. (JDI), Konka Group, LG Display Co., Ltd., MICLEDI Microdisplays, Mikro Mesa Technology Co., Ltd., Nichia Corporation, PlayNitride, Inc., Rohinni LLC, Samsung, San'an Optoelectronics Co., Ltd., Seoul Semiconductor/Seoul Viosys Co., Ltd., Sony, Vuzix Corporation. TCL Electronics, Tianma Microelectronics Co., Ltd., VueReal and more.

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